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

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

From data-month October 2002, a new location program ISCloc has been used in operations. Also, the IASPEI standard seismic phase list has been adopted by the ISC (Storchak,D.A., J.Schweitzer, P.Bormann (2003) The IASPEI Standard Seismic Phase List, Seismological Research Letters 74, 6, 761-772).

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

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

The following example illustrates the changes :-

September 2002

```
        NEIC 01 18:45:41.7±1.7,21.70S×179.55W,h600km,mb4.6/6,
                Error ellipse: s-maj=75.5km s-min=25.7km az=151.0
         IDC 01 18:45:46.3±2.6,21.76S×179.70W,h627km±37km,mb3.5/4,
                mb1 3.7/4,mb1mx3.2/14,Error ellipse: s-maj=83.2km
                s-min=20.6km az=159.0
         ISC 01 18:45:43.1±2.7,22.3S±0.2×179.6W±0.3,h613km±42km,
                n22,σ1§15/21,mb4.4/9,1C,South of Fiji Islands
Code   Station Name        Δ°   AZ°    Phase ID          Time    Res
                                      Op       ISC      h  m  s   ISC
HBZ    Hicks Bay          15.41 186  eP        P       18 48 53.1 -1.7
URZ    Urewera            16.21 189   P        P       18 49 01.5 -0.9
MRZ    Mangatainoka R     18.81 192  eP        P       18 49 26.7  0.0
DIW    D'Urville Isla     19.30 195  eP        P       18 49 27.3 -3.9
CAW    Cannon Point       19.34 192  eP        P       18 49 31.7 +0.1
OTW    Orongorongo Tu     19.52 192  eP        P       18 49 33.0 -0.2
MOW    Moikau             19.61 192  eP        P       18 49 35.5 +1.5
THZ    Tophouse           20.46 196  eP        P       18 49 42.0 +0.2
KHZ    Kahutara           20.93 194   P        P       18 49 46.2 +0.2
ARMA   Armidale           27.03 246  eP        P       18 50 42.4 +2.3
       4.9nm,0.5s,mb4.4
CTA    Charters Tower     31.93 267⇑iP        P       18 51 22.3 +0.4
       13nm,0.5s,mb4.8
STKA   Stephens Creek     35.75 246  eP        P       18 51 55.3 +1.8
       3.1nm,0.4s,mb4.2
ASAR   Alice Springs      42.74 259   P        P       18 52 50.1 +0.3
       9.8nm,0.5s,mb4.6,baz=92,slow=8.2,SNR=47
ASAR                                  S        S       18 58 31.3 -0.1
       1.0nm,0.8s,baz=95,slow=15,SNR=5.7
ASPA   Alice Springs      42.74 259  eP        P       18 52 50.1 +0.2
WRA    Warramunga Arr     42.96 264   P        P       18 52 51.0 -0.7
       1.8nm,0.3s,mb4.0,baz=96,slow=7.8,SNR=93
WRA                                   S        S       18 58 33.0 -1.5
       0.3nm,0.9s,baz=99,slow=14,SNR=3.0
KAKA   Kakadu             46.64 273  eP        P       18 53 18.2 -1.8
       14nm,0.4s,mb4.8
FITZ   Fitzroy Crossi     51.39 264  eP        P       18 53 54.3 -0.7
       12nm,0.3s,mb4.8
MBWA   Marble Bar         56.08 259  eP        P       18 54 27.1 -0.7
       11nm,0.6s,mb4.2
CMAR   Chiang Mai Arr     89.35 290   P        P       18 57 38.1 +1.0
       1.3nm,0.8s,mb3.8,baz=135,slow=3.1,SNR=8.1
ARCES  ARCESS Array B    130.36 349  PKP       PKP     19 03 43.7 -0.5
       0.7nm,0.6s,baz=282,slow=4.2,SNR=3.5
FINES  FINESS Array B    137.02 342  PKP       PKP     19 03 57.3 +0.5
       3.7nm,1.1s,baz=158,slow=3.2,SNR=3.4
MLR    Muntele Rosu      148.85 324  PKPbc     PKP     19 04 22.7 +5.2
       0.2nm,0.7s,baz=1.2,slow=23,SNR=2.3
```

Epicentral Estimates

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

Observational Data

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

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

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

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

*NEIC **01** 00:02:58.3±0.3,40.41N×0.93W,h10^{km},ML2.6(LDG),MN2.2(MDD),Error ellipse: s-maj=4.6km s-min=3.4km az=134.0*

*MDD **01** 00:02:59.7±0.3,40.40N×0.91W,h11^{km},mbLg2.2/16,Error ellipse: s-maj=3.2km s-min=2.9km az=4.0,PRXIMO*

*CSEM **01** 00:02:59.0±0.1,40.46N×0.93W,h10^{km},ML2.4/11,Error ellipse: s-maj=1.7km s-min=1.1km az=117.0*

*LDG **01** 00:03:02.7±0.3,40.64N×0.75W,h2^{km},Ml2.6/6,Error ellipse: s-maj=5.6km s-min=4.3km az=48.0*

ISC 01 00:02:56.1±0.5,**40.47N**±0.02×**1.04W**±0.03,**h4**^{km}±4^{km},**n68**,σ**1^{s}36**/124,**1C-2D,Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMOS	**Mosqueruela**	**0.44**	**103**	⇑Pg	**Pg**	**00 03 06.1**	**+1.2**
	SNR=18						
EMOS				Lg		00 03 11.0	
	41nm,0.1s,SNR=7.3						
EMOS	**Mosqueruela**	**0.44**	**103**	Pg	**Pg**	**00 03 06.1**	**+1.2**
	7.9nm,0.2s,SNR=18						
EMOS				Lg		00 03 11.0	
	41nm,0.1s,SNR=7.3						
ERTA	**Horta de San J**	**1.15**	**64**	⇓Pg	**Pg**	**00 03 19.7**	**+0.7**
	16nm,0.4s,SNR=18						
ERTA				Lg		00 03 33.7	
	76nm,0.2s,SNR=5.6						
ERTA	**Horta de San J**	**1.15**	**64**	Pg	**Pg**	**00 03 19.7**	**+0.7**
	16nm,0.4s,SNR=18						
EBR	**Ebro Roquetas**	**1.22**	**73**	*e*PG	**Pg**	**00 03 21.0**	**+0.7**
EBR				*e*SG	**Sg**	**00 03 37.0**	**+0.4**
ESAC	**San Caprasio**	**1.32**	**19**	Pn	**Pn**	**00 03 23.4**	**+2.0**
	2.6nm,0.1s,SNR=7.9						
ESAC				Pg	**Pg**	**00 03 24.5**	**+2.0**
	15nm,0.1s,SNR=36						
ESAC				Lg		00 03 41.8	
	35nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**1.32**	**19**	Pn	**Pn**	**00 03 23.4**	**+2.1**
	2.6nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**1.32**	**19**	Pg	**Pg**	**00 03 24.5**	**+2.0**
	15nm,0.1s,SNR=36						
EPOB	**Poblet**	**1.83**	**60**	Pn	**Pn**	**00 03 29.4**	**+0.8**
	0.2nm,0.0s,SNR=7.9						
EPOB				Pg	**Pg**	**00 03 31.4**	**-1.2**
	3.6nm,0.2s,SNR=7.9						
EPOB				Lg		00 03 54.3	
	6.9nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**1.83**	**60**	Pn	**Pn**	**00 03 29.4**	**+0.8**
	0.2nm,0.0s,SNR=7.9						
EPOB	**Poblet**	**1.83**	**60**	Pg	**Pg**	**00 03 31.4**	**-1.2**
	3.6nm,0.2s,SNR=7.9						
EBEN	**Beniarda**	**1.87**	**160**	Pn	**Pn**	**00 03 30.1**	**+0.9**
	SNR=4.0						
EBEN				Pg	**Pg**	**00 03 32.8**	**-0.6**
	3.2nm,0.1s,SNR=7.9						
EBEN				Lg		00 03 53.6	
	1.8nm,0.1s,SNR=7.9						
EBEN	**Beniarda**	**1.87**	**160**	Pn	**Pn**	**00 03 30.1**	**+0.9**
	SNR=4.0						
EBEN	**Beniarda**	**1.87**	**160**	Pg	**Pg**	**00 03 32.8**	**-0.6**
	3.2nm,0.1s,SNR=7.9						
EVIA	**Vianos**	**2.15**	**212**	Pn	**Pn**	**00 03 34.0**	**+0.8**
	0.8nm,0.1s,SNR=7.9						
EVIA				Sn	**Sn**	**00 03 59.5**	**-1.1**
	3.6nm,0.3s,SNR=6.2						
EVIA				Lg		00 04 06.2	
	11nm,0.3s,SNR=12						
EIBI	**Ibiza**	**2.33**	**127**	Pn	**Pn**	**00 03 34.7**	**-1.1**
	0.7nm,0.1s,SNR=7.9						
EIBI				Sn	**Sn**	**00 04 00.6**	**-4.6**
	2.6nm,0.5s,SNR=7.9						
EIBI	**Ibiza**	**2.33**	**127**	Pn	**Pn**	**00 03 34.7**	**-1.1**
	0.7nm,0.1s,SNR=7.9						
EIBI				Sn	**Sn**	**00 04 00.6**	**-4.6**
	2.6nm,0.5s,SNR=7.9						
ESDC	**Sonseca Array**	**2.38**	**251**	⇓Pn	**Pn**	**00 03 38.3**	**+1.8**
	7.2nm,0.1s,baz=72,slow=14,SNR=18						
ESDC				Sn	**Sn**	**00 04 07.4**	**+0.9**
	0.4nm,0.3s,baz=73,slow=25,SNR=3.7						
ESDC				Lg		00 04 13.9	
	1.0nm,0.2s,baz=76,slow=30,SNR=7.9						
ESDC	**Sonseca Array**	**2.38**	**251**	Pn	**Pn**	**00 03 38.3**	**+1.8**
	7.2nm,0.1s,baz=72,slow=14,SNR=18						
ESDC				Sn	**Sn**	**00 04 07.4**	**+0.9**
	0.4nm,0.3s,baz=73,slow=25,SNR=3.7						
EBIE	**Bielsa**	**2.39**	**21**	Pn	**Pn**	**00 03 38.1**	**+1.5**
	0.0nm,0.1s,SNR=7.9						
EBIE				Pg	**Pg**	**00 03 42.6**	**-1.1**
	1.1nm,0.1s,SNR=7.9						
EBIE				Sn	**Sn**	**00 04 07.2**	**+0.5**
	0.9nm,0.7s,SNR=7.9						
EBIE				Lg		00 04 14.2	
	1.2nm,0.1s,SNR=7.9						
EBIE	**Bielsa**	**2.39**	**21**	Pn	**Pn**	**00 03 38.1**	**+1.5**
	SNR=7.9						
EBIE	**Bielsa**	**2.39**	**21**	Pg	**Pg**	**00 03 42.6**	**-1.1**
	1.1nm,0.1s,SNR=7.9						
EBIE				Sn	**Sn**	**00 04 07.2**	**+0.6**
	0.9nm,0.7s,SNR=7.9						
EMIR	**Miracle**	**2.41**	**52**	Pn	**Pn**	**00 03 37.8**	**+0.8**
	0.2nm,0.1s,SNR=12						
EMIR				Pg	**Pg**	**00 03 41.7**	**-2.6**
	1.1nm,0.1s,SNR=6.2						
EMIR				Sn	**Sn**	**00 04 06.7**	**-0.6**
	4.8nm,0.4s,SNR=7.9						
EMIR				Lg		00 04 13.2	
	7.1nm,0.1s,SNR=5.5						
EMIR	**Miracle**	**2.41**	**52**	Pn	**Pn**	**00 03 37.8**	**+0.9**
	0.2nm,0.1s,SNR=12						
EMIR	**Miracle**	**2.41**	**52**	Pg	**Pg**	**00 03 41.7**	**-2.5**
	1.1nm,0.1s,SNR=6.2						
EMIR				Sn	**Sn**	**00 04 06.7**	**-0.6**
	4.8nm,0.4s,SNR=7.9						
ETSF	**Etsaut**	**2.45**	**8**	*e*Pn	**Pn**	**00 03 39.7**	**+2.2**
ETSF				*e*Pg	**Pg**	**00 03 44.2**	**-0.9**
ETSF				*e*Sn	**Sn**	**00 04 05.6**	**-2.8**
ETSF				*e*Sg	**Sg**	**00 04 14.4**	**-3.4**
	4.5nm,0.2s						
ETSF	**Etsaut**	**2.45**	**8**	*e*Sn	**Sn**	**00 04 05.6**	**-2.8**
ETSF				*e*Sg	**Sg**	**00 04 14.4**	**-3.4**
	2.2nm,0.2s						
ETSF	**Etsaut**	**2.45**	**8**	*e*Pg	**Pg**	**00 03 44.2**	**-0.9**
EMUR	**La Murta**	**2.63**	**184**	Pn	**Pn**	**00 03 40.6**	**+0.6**
EMUR				Pg	**Pg**	**00 03 47.6**	**-0.9**
EMUR				Lg		00 04 18.7	
EMUR	**La Murta**	**2.63**	**184**	Pn	**Pn**	**00 03 40.6**	**+0.6**
	SNR=4.0						
EMUR				Pg	**Pg**	**00 03 47.6**	**-1.0**
	0.5nm,0.2s,SNR=7.9						
EMUR				Lg		00 04 18.7	
	12nm,0.5s,SNR=7.9						
EMUR	**La Murta**	**2.63**	**184**	Pn	**Pn**	**00 03 40.6**	**+0.6**
	SNR=4.0						
EMUR	**La Murta**	**2.63**	**184**	Pg	**Pg**	**00 03 47.7**	**-0.8**
	0.5nm,0.2s,SNR=7.9						
SJPF	**Ste Jean**	**2.65**	**357**	*e*Pn	**Pn**	**00 03 42.8**	**+2.5**
SJPF				*e*Pg	**Pg**	**00 03 49.3**	**+0.4**
SJPF				*e*Sn	**Sn**	**00 04 11.7**	**-1.5**
SJPF				*e*Sg	**Sg**	**00 04 20.7**	**-3.5**
	6.7nm,0.3s						
SJPF	**Ste Jean**	**2.65**	**357**	*e*Pg	**Pg**	**00 03 49.3**	**+0.4**
SJPF				*e*Sn	**Sn**	**00 04 11.7**	**-1.5**
SJPF				*e*Sg	**Sg**	**00 04 20.7**	**-3.5**
	3.3nm,0.3s						
EPF	**Esparros**	**2.76**	**21**	*e*Pn	**Pn**	**00 03 43.4**	**+1.5**
EPF				*e*Pg	**Pg**	**00 03 49.0**	**-2.2**
EPF				*e*Sg	**Sg**	**00 04 22.3**	**-5.6**
	7.6nm,0.2s						
EPF	**Esparros**	**2.76**	**21**	*e*Pg	**Pg**	**00 03 49.0**	**-2.2**
EPF				*e*Sg	**Sg**	**00 04 22.3**	**-5.6**
	3.8nm,0.2s						
EALK	**Alkurruntz**	**2.77**	**353**	Pn	**Pn**	**00 03 44.1**	**+2.0**
EALK				Pg	**Pg**	**00 03 52.6**	**+1.2**
EALK				Sn	**Sn**	**00 04 17.7**	**+1.3**
EALK				Lg		00 04 28.5	
EALK	**Alkurruntz**	**2.77**	**353**	Pn	**Pn**	**00 03 44.1**	**+2.0**
	0.2nm,0.1s,SNR=7.9						
EALK				Pg	**Pg**	**00 03 51.7**	**+0.3**
	1.4nm,0.2s,SNR=7.9						
EALK				Sn	**Sn**	**00 04 17.7**	**+1.3**
	2.3nm,0.4s,SNR=7.9						
EALK				Lg		00 04 28.5	
	10nm,0.3s,SNR=7.9						
EALK	**Alkurruntz**	**2.77**	**353**	Pg	**Pg**	**00 03 52.6**	**+1.2**
	1.4nm,0.2s,SNR=7.9						
EALK				Sn	**Sn**	**00 04 17.7**	**+1.3**
	2.3nm,0.4s,SNR=7.9						
EQES	**Quesada**	**3.10**	**211**	Pn	**Pn**	**00 03 47.3**	**+0.6**
	0.1nm,0.0s,SNR=7.9						
EQES				Pg	**Pg**	**00 03 56.9**	**-1.0**
	SNR=7.9						
EQES				Sn	**Sn**	**00 04 23.6**	**-1.0**
	2.9nm,0.3s,SNR=7.9						
EQES				Lg		00 04 35.1	
	1.0nm,0.1s,SNR=7.9						
EQES	**Quesada**	**3.10**	**211**	Pg	**Pg**	**00 03 56.9**	**-1.0**
	SNR=7.9						
EQES	**Quesada**	**3.10**	**211**	Pn	**Pn**	**00 03 47.3**	**+0.6**
	0.1nm,0.0s,SNR=7.9						
EQES				Sn	**Sn**	**00 04 23.6**	**-1.0**
	2.9nm,0.3s,SNR=7.9						
ELAN	**Lanestosa**	**3.29**	**328**	Pn	**Pn**	**00 03 52.4**	**+3.0**
	0.1nm,0.0s,SNR=7.9						
ELAN				Pg	**Pg**	**00 04 01.9**	**+0.1**
	SNR=7.9						
ELAN				Sn	**Sn**	**00 04 29.5**	**0.0**
	0.3nm,0.3s,SNR=4.0						
ELAN				Lg		00 04 46.8	
	3.5nm,0.2s,SNR=4.0						
ELAN	**Lanestosa**	**3.29**	**328**	Pn	**Pn**	**00 03 52.4**	**+2.9**
	0.1nm,0.0s,SNR=7.9						
ELAN	**Lanestosa**	**3.29**	**328**	Pg	**Pg**	**00 04 01.9**	**+0.1**
	SNR=7.9						
ELAN				Sn	**Sn**	**00 04 29.5**	**-0.1**
	0.3nm,0.3s,SNR=4.0						
EJON	**La Jonquera**	**3.55**	**55**	Pn	**Pn**	**00 03 53.1**	**0.0**
EJON				Pg	**Pg**	**00 04 01.2**	**-5.8**
EJON				Lg		00 04 46.9	
EJON	**La Jonquera**	**3.55**	**55**	Pn	**Pn**	**00 03 53.1**	**0.0**
	0.3nm,0.1s,SNR=7.9						
EJON				Pg	**Pg**	**00 04 01.2**	**-5.8**
	0.9nm,0.2s,SNR=7.9						
EJON				Lg		00 04 49.1	
	1.1nm,0.2s,SNR=7.9						
EJON	**La Jonquera**	**3.55**	**55**	Pn	**Pn**	**00 03 53.1**	**0.0**
	0.3nm,0.1s,SNR=7.9						
EJON	**La Jonquera**	**3.55**	**55**	Pg	**Pg**	**00 04 01.2**	**-5.8**
	0.9nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.58**	**231**	Pn	**Pn**	**00 03 53.9**	**+0.4**
	1.1nm,0.2s,SNR=7.9						
EADA				Sn	**Sn**	**00 04 34.1**	**-2.8**
	5.2nm,0.1s,SNR=9.0						
EADA				Lg		00 04 50.8	
	1.4nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.58**	**231**	Pn	**Pn**	**00 03 53.9**	**+0.3**
	1.1nm,0.2s,SNR=7.9						
EADA				Sn	**Sn**	**00 04 34.1**	**-2.8**
	5.2nm,0.1s,SNR=9.0						
MTLF	**Montolieu**	**3.76**	**39**	*e*Pn	**Pn**	**00 03 56.1**	**0.0**
MTLF				*e*Pg	**Pg**	**00 04 07.4**	**-3.7**
MTLF				*e*Sn	**Sn**	**00 04 34.5**	**-6.9**
MTLF				*e*Sg	**Sg**	**00 04 53.2**	**-8.0**
	4.5nm,0.5s						
MTLF	**Montolieu**	**3.76**	**39**	*e*Pg	**Pg**	**00 04 07.4**	**-3.7**
MTLF				*e*Sn	**Sn**	**00 04 34.5**	**-6.9**
MTLF				*e*Sg	**Sg**	**00 04 53.2**	**-8.0**
	2.2nm,0.5s						
EBER	**Berja**	**3.85**	**203**	Lg		00 05 00.1	
	1.2nm,0.2s,SNR=7.9						
EARI	**Arriondas**	**4.21**	**314**	Pn	**Pn**	**00 04 05.2**	**+2.7**
EARI				Sn	**Sn**	**00 04 52.7**	**-0.1**
EARI	**Arriondas**	**4.21**	**314**	Pn	**Pn**	**00 04 05.2**	**+2.7**
	SNR=7.9						
EARI				Sn	**Sn**	**00 04 52.7**	**-0.1**
	SNR=4.0						
ECAL	**Calabor**	**4.55**	**291**	Pn	**Pn**	**00 04 08.3**	**+1.0**
	SNR=7.9						
ECAL				Sn	**Sn**	**00 04 59.6**	**-1.7**
	SNR=7.9						
ECAL				Lg		00 05 24.9	
	0.9nm,0.3s,SNR=7.9						
ECAL	**Calabor**	**4.55**	**291**	Pn	**Pn**	**00 04 08.3**	**+1.0**
	SNR=7.9						
ECAL				Sn	**Sn**	**00 04 59.6**	**-1.7**
	SNR=7.9						
LFF	**La Frestale**	**4.66**	**16**	*e*Pn	**Pn**	**00 04 08.8**	**0.0**
LFF				*e*Sn	**Sn**	**00 04 58.2**	**-5.9**
	3.0nm,0.3s						
EBAD	**Badajoz**	**4.92**	**252**	Pn	**Pn**	**00 04 13.1**	**+0.5**
	0.2nm,0.1s,SNR=7.9						
EBAD				Sn	**Sn**	**00 05 05.8**	**-5.0**
	SNR=7.9						
EBAD	**Badajoz**	**4.92**	**252**	Pn	**Pn**	**00 04 13.1**	**+0.5**
	0.2nm,0.1s,SNR=7.9						
CAF	**Calviac**	**5.01**	**26**	*e*Pn	**Pn**	**00 04 13.2**	**-0.6**
CAF				*e*Sn	**Sn**	**00 05 06.0**	**-6.9**
	1.1nm,0.3s						
LASF	**Ste Croix**	**5.12**	**44**	*e*Pn	**Pn**	**00 04 14.2**	**-1.1**
EMIN	**Mina Concepcio**	**5.15**	**240**	Lg		00 05 42.0	
	SNR=4.0						
RJF	**Les Rejaudoux**	**5.18**	**20**	*e*Pn	**Pn**	**00 04 14.1**	**-2.2**
ELOB	**Lobios**	**5.48**	**287**	Pn	**Pn**	**00 04 20.3**	**-0.3**
ELOB				Sn	**Sn**	**00 05 21.9**	**-3.0**
ELOB	**Lobios**	**5.48**	**287**	Pn	**Pn**	**00 04 20.3**	**-0.2**
ELOB				Sn	**Sn**	**00 05 22.0**	**-2.9**
SMRF	**Simiane la Rot**	**6.03**	**52**	*e*Pn	**Pn**	**00 04 26.8**	**-1.4**

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*IDC **01** 00:22:13.8±0.9,7.17S×149.26E,h30^{km}±5^{km},mb3.8/5,mb1 4.1/7,mb1mx3.9/13,ML3.5/2,MS3.6/5,Ms1 3.6/5,ms1mx3.1/21,Error ellipse: s-maj=41.5km s-min=15.7km az=129.0*

*NEIC **01** 00:22:17.1±2.8,7.41S×149.64E,h74^{km}±22^{km},mb4.1/3,Error ellipse: s-maj=43.2km s-min=20.7km az=124.0*

ISC 01 00:22:11.3±1.1,**7.3S**±0.2×**149.6E**±0.2,**h33**^{km},**(h29**^{km}±1.8^{km}**:pP-P),n17,**σ**1^{s}02**/15,**mb3.9**/5,**MS3.5**/5,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.21**	**229**	Pn	**Pn**	**00 23 03.9**	**+3.2**
	6.3nm,0.3s,baz=38,slow=9.5,SNR=12						
PMG				Sn	**Sn**	**00 23 38.4**	**+0.1**
	10nm,0.3s,baz=359,slow=13,SNR=4.8						
PMG				Lg		00 23 50.3	
	17nm,0.3s,baz=35,slow=24,SNR=6.8						
PMG	**Port Moresby**	**3.21**	**229**	*e*P	**P**	**00 23 04.3**	**+3.8**
PMG				Sn	**Sn**	**00 23 38.4**	**+0.1**
PMG				Lg		00 23 50.3	
WRAB	**Tennant Creek**	**19.42**	**228**	*e*P	**P**	**00 26 36.6**	**-1.0**
	8.7nm,0.8s						
WB2	**Warramunga Arr**	**19.42**	**228**	*e*P	**P**	**00 26 37.4**	**-0.3**
WB2				*e*		00 26 46.1	
WRA	**Warramunga Arr**	**19.43**	**228**	P	**P**	**00 26 37.8**	**0.0**
	0.5nm,0.3s,baz=52,slow=11,SNR=31						
WRA				pP		00 26 45.6	
	1.4nm,0.3s,baz=53,slow=11,SNR=23						
ASAR	**Alice Springs**	**22.19**	**221**	P	**P**	**00 27 06.8**	**+0.5**
	1.8nm,0.9s,mb3.5,baz=54,slow=9.8,SNR=15						
ASAR				pP		00 27 15.7	
	2.2nm,0.5s,baz=53,slow=9.9,SNR=12						
ASAR				LR	LR	00 35 33.1	
	comp=Z,60nm,20.3s,MS3.0,baz=33,slow=36						
STKA	**Stephens Creek**	**25.58**	**196**	*e*P	**P**	**00 27 38.1**	**-1.1**
	6.3nm,1.0s,mb4.1						
STKA	**Stephens Creek**	**25.58**	**196**	P	**P**	**00 27 39.5**	**+0.3**
	3.2nm,0.7s,mb3.9,baz=359,slow=13,SNR=4.8						
STKA				pP	pP	00 27 47.4	-1.2
	2.6nm,0.5s,baz=6.7,slow=7.6,SNR=5.3						
STKA				LR	LR	00 37 14.7	
	comp=Z,129nm,20.4s,MS3.4,baz=23,slow=35						
FITZ	**Fitzroy Crossi**	**25.70**	**243**	*e*P	**P**	**00 27 39.7**	**-0.7**
	4.0nm,0.6s,mb4.1						
FITZ	**Fitzroy Crossi**	**25.70**	**243**	P	**P**	**00 27 39.0**	**-1.4**
	1.2nm,0.5s,mb3.7,baz=38,slow=5.4,SNR=7.2						
FITZ				pP	pP	00 27 47.3	-2.5
	3.5nm,0.6s,baz=46,slow=4.7,SNR=4.0						
CBIJ	**Chichi jima**	**34.92**	**348**	LR	LR	00 40 58.5	
	comp=Z,122nm,19.7s,MS3.6,baz=86,slow=32						
RPZ	**Rata Peaks**	**40.86**	**156**	LR	LR	00 43 19.4	
	comp=Z,104nm,19.7s,MS3.7,baz=204,slow=31						
VNDA	**Vanda**	**70.50**	**177**	LR	LR	01 03 25.9	
	comp=Z,51nm,18.2s,MS3.8,baz=57,slow=35						
ILAR	**Eielson Array**	**85.65**	**23**	P	**P**	**00 34 48.0**	**+0.5**
	1.1nm,0.7s,mb4.2,baz=251,slow=5.8,SNR=7.4						
ILAR				pP	pP	00 34 58.3	+0.3
	1.4nm,0.8s,baz=259,slow=5.2,SNR=8.1						
ILAR	**Eielson Array**	**85.65**	**23**	P	**P**	**00 34 48.0**	**+0.5**
ILAR				pP	pP	00 34 58.3	+0.3
NVAR	**Mina Array Bea**	**96.11**	**52**	P	**P**	**00 35 41.5**	**+4.4**
	0.4nm,0.7s,mb4.0,baz=251,slow=8.0,SNR=3.9						
NVAR				pP	pP	00 35 51.3	+3.7
	1.7nm,1.0s,baz=250,slow=5.0,SNR=5.4						
YKA	**Yellowknife Ar**	**99.09**	**28**	pP	pP	00 36 02.6	+2.0
	0.2nm,0.5s,baz=265,slow=4.6,SNR=3.6						

DJA 01 00:25:06.8±1.0,**9.67S**×**113.92E,h2**^{km}**,MD4.8**/3,**ML4.0**/3,**1C-5D,Error ellipse: s-maj=24.4km s-min=13.6km az=31.0,South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**1.20**	**10**	⇓*i*Pn	Pn	00 25 27.1	-3.5
	106nm,0.2s						
SRDI				⇓*i*Sn	Sn	00 25 44.0	-3.6
RATI	**Rata**	**1.84**	**60**	⇑*i*Pn	Pn	00 25 36.8	-3.0
	206nm,0.2s						
RATI				⇓*i*Sn	Sn	00 25 58.7	-5.3
KEDI	**Kedomdong**	**2.46**	**62**	⇓*e*Pn	Pn	00 25 45.6	-3.0
	46nm,0.2s						
KEDI				⇓*i*Sn	Sn	00 26 12.0	-7.6

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*CSEM **01** 00:33:06.8±0.5,67.77N×20.06E,h2^{km},ML1.7,Error ellipse: s-maj=14.5km s-min=12.6km az=16.0,Mining explosion.*

*UPP **01** 00:33:06.5,67.84N×20.20E,h0^{km},ML2.6,Mining explosion.*

HEL 01 00:33:06.9±0.1,**67.85N**×**20.20E,ML1.7,ML2.4**(UPP),**Explosion,Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	**Kurravaara**	**0.12**	**26**	*i* P	Pg	00 33 08.9	-0.3
KUA				*i* S	Sg	00 33 10.8	-0.1
NIKU	**Nikkaluokta**	**0.44**	**273**	*i* P	Pg	00 33 14.7	-1.0
NIKU				*i* S	Sg	00 33 20.8	-0.8
MASU	**Masugnsbyn**	**0.79**	**119**	*i* P	Pg	00 33 20.9	-1.8
PAJU	**Pajala**	**1.40**	**125**	*e*P	Pb	00 33 31.5	-2.0
SJUU	**Sjulsmark**	**2.42**	**166**	*e*P	Pn	00 33 47.7	-0.5
SGF	**Sodankyl**	**2.45**	**97**	*e*P	Pn	00 33 49.5	+0.7
SGF				*e*S	Sn	00 34 19.1	-0.8
SGF				MSG		00 34 23.0	
	comp=Z,1.7nm,0.2s						
SGF	**Sodankyl**	**2.45**	**97**	P	Pn	00 33 49.5	+0.7
SGF				S	Sn	00 34 19.1	-0.8
	comp=Z,1.7nm,0.2s						
KEV	**Kevo**	**3.13**	**49**	*e*P	Pn	00 34 00.5	+2.1
KEV				*e*S	Sn	00 34 37.3	+0.2
KEV				MSG		00 34 53.8	
	comp=Z,1.5nm,0.2s						
KEV	**Kevo**	**3.13**	**49**	P	Pn	00 34 00.5	+2.1
KEV				S	Sn	00 34 37.3	+0.2
	comp=Z,1.5nm,0.2s						
OUL	**Oulu**	**3.59**	**138**	*e*P	Pn	00 34 04.6	-0.5
OUL				*e*S	Sn	00 34 45.5	-3.3
OUL				MSG		00 35 00.2	
	comp=Z,1.5nm,0.2s						
OUL	**Oulu**	**3.59**	**138**	P	Pn	00 34 04.5	-0.5
OUL				S	Sn	00 34 45.5	-3.3
	comp=Z,1.5nm,0.2s						
MSF	**Maaselka**	**3.99**	**115**	*e*P	Pn	00 34 09.4	-1.3
MSF				*e*S	Sn	00 34 55.6	-3.3
MSF				MSG		00 35 15.7	
	comp=Z,1.5nm,0.3s						

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*IDC **01** 00:34:42.4±1.1,6.63S×149.77E,h41^{km}±8^{km},mb4.0/5,mb1 4.3/7,mb1mx4.0/14,ML4.0/2,MS3.4/4,Ms1 3.3/4,ms1mx3.1/20,Error ellipse: s-maj=52.5km s-min=12.5km az=131.0*

*NEIC **01** 00:34:43.2±2.9,6.63S×149.72E,h48^{km}±25^{km},mb4.2/3,Error ellipse: s-maj=43.5km s-min=19.1km az=131.0*

ISC 01 00:34:43.4±3.2,**6.6S**±0.3×**149.6E**±0.3,**h67**^{km}±27^{km},**n16,**σ**0^{s}72**/14,**mb3.9**/5,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.68**	**220**	P	**P**	**00 35 39.1**	**-0.2**
	13nm,0.3s,baz=58,slow=7.1,SNR=28						
PMG				S	**S**	**00 36 22.4**	**+0.7**
	35nm,0.3s,baz=69,slow=20,SNR=14						
PMG				LR	LR	00 37 08.4	
	comp=Z,158nm,20.9s,baz=200,slow=38						
PMG	**Port Moresby**	**3.68**	**220**	*e*P	**P**	**00 35 38.9**	**-0.4**
CTA	**Charters Tower**	**13.80**	**193**	LR	LR	00 42 46.2	
	comp=Z,47nm,19.4s,baz=227,slow=35						
WRAB	**Tennant Creek**	**19.86**	**227**	*e*P	**P**	**00 39 10.5**	**-1.3**
	24nm,0.7s						
WB2	**Warramunga Arr**	**19.86**	**227**	*e*P	**P**	**00 39 11.5**	**-0.3**
WB2				*e*		00 39 22.1	
WRA	**Warramunga Arr**	**19.87**	**227**	P	**P**	**00 39 11.6**	**-0.3**
	1.9nm,0.3s,baz=53,slow=11,SNR=79						
WRA				pP		00 39 22.2	
	2.9nm,0.3s,baz=53,slow=11,SNR=21						
ASAR	**Alice Springs**	**22.70**	**220**	P	**P**	**00 39 40.8**	**+0.4**
	2.9nm,0.7s,mb3.7,baz=54,slow=9.7,SNR=21						
ASAR				pP		00 39 51.2	
	3.6nm,0.6s,baz=56,slow=9.0,SNR=12						
FITZ	**Fitzroy Crossi**	**25.99**	**242**	*e*P	**P**	**00 40 13.0**	**+1.0**
	4.9nm,1.1s,mb3.9						
FITZ				*e*	pP	00 40 24.0	-3.8
FITZ	**Fitzroy Crossi**	**25.99**	**242**	P	**P**	**00 40 12.8**	**+0.8**
	4.4nm,0.8s,mb3.9,baz=88,slow=3.7,SNR=17						
FITZ				pP	pP	00 40 24.2	-3.6
	11nm,0.7s,baz=97,slow=3.4,SNR=9.3						
STKA	**Stephens Creek**	**26.24**	**195**	*e*P	**P**	**00 40 14.0**	**-0.2**
	3.8nm,0.6s,mb4.0						
STKA				*e*		00 40 24.4	
STKA	**Stephens Creek**	**26.24**	**195**	P	**P**	**00 40 13.8**	**-0.4**
	4.6nm,0.5s,mb4.1,baz=2.8,slow=9.3,SNR=9.8						
STKA				LR	LR	00 50 56.6	
	comp=Z,70nm,18.3s,baz=24,slow=37						
CBIJ	**Chichi jima**	**34.24**	**348**	LR	LR	00 52 09.1	
	comp=Z,596nm,21.4s,baz=203,slow=30						
ILAR	**Eielson Array**	**85.03**	**23**	P	**P**	**00 47 12.0**	**-0.6**
	0.7nm,0.8s,mb3.6,baz=253,slow=4.5,SNR=7.5						
NVAR	**Mina Array Bea**	**95.71**	**52**	P	**P**	**00 48 04.5**	**+1.2**
	0.6nm,0.8s,mb4.1,baz=266,slow=4.8,SNR=3.9						
NVAR				pP	pP	00 48 16.8	-5.5
	1.6nm,1.0s,baz=256,slow=4.8,SNR=4.6						
NVAR	**Mina Array Bea**	**95.71**	**52**	P	**P**	**00 48 04.5**	**+1.2**
NVAR				pP	pP	00 48 16.8	-5.5
GERES	**GERESS Array B**	**123.83**	**326**	PKP	PKPdf	00 53 37.6	+3.5
	1.0nm,0.8s,baz=117,slow=3.0,SNR=3.9						

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*IDC **01** 00:41:50.0±6.2,6.18S×150.44E,mb3.8/4,mb1 4.0/5,mb1mx3.8/14,ML3.0/1,Error ellipse: s-maj=92.9km s-min=62.0km az=33.0*

*NEIC **01** 00:42:02.6±12.0,6.74S×150.02E,h50^{km}±47^{km},mb3.9/1,Error ellipse: s-maj=129.1km s-min=43.5km az=214.0*

ISC 01 00:42:02.7±5.1,**6.8S**±0.3×**149.9E**±0.3,**h62**^{km}±33^{km},**n8,**σ**0^{s}63**/10,**mb3.6**/3,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.76**	**226**	Pn	**P**	**00 42 59.8**	**+0.1**
	5.2nm,0.3s,baz=53,slow=6.7,SNR=12						
PMG				Sn	**S**	**00 43 43.1**	**+0.1**
	7.4nm,0.3s,baz=98,slow=20,SNR=12						
PMG	**Port Moresby**	**3.76**	**226**	Pn	**P**	**00 42 59.8**	**+0.1**
PMG				Sn	**S**	**00 43 43.1**	**+0.1**
WRAB	**Tennant Creek**	**19.97**	**228**	*e*P	**P**	**00 46 31.9**	**-0.7**
	3.3nm,0.5s						
WB2	**Warramunga Arr**	**19.97**	**228**	*e*P	**P**	**00 46 32.3**	**-0.4**
WB2				*e*		00 46 42.2	
WRA	**Warramunga Arr**	**19.98**	**228**	P	**P**	**00 46 32.2**	**-0.5**
	1.7nm,0.4s,baz=53,slow=11,SNR=34						
WRA				pP		00 46 42.2	
	3.5nm,0.5s,baz=53,slow=11,SNR=13						
ASAR	**Alice Springs**	**22.76**	**221**	P	**P**	**00 47 02.2**	**+1.5**
	0.7nm,0.6s,mb3.3,baz=54,slow=9.1,SNR=8.7						
STKA	**Stephens Creek**	**26.14**	**196**	P	**P**	**00 47 32.8**	**-0.2**
	1.6nm,0.9s,mb3.6,baz=27,slow=9.0,SNR=2.2						
FITZ	**Fitzroy Crossi**	**26.19**	**242**	P	**P**	**00 47 33.9**	**+0.3**
	2.0nm,0.5s,mb3.9,baz=36,slow=3.7,SNR=13						

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*NEIC **01** 00:43:34.1±4.8,51.50N×179.46W,h33^{km}±32^{km},ML3.1(AEIC),Error ellipse: s-maj=32.4km s-min=17.9km az=191.0*

*IDC **01** 00:43:36.8±4.8,51.57N×179.45W,h57^{km}±46^{km},mb3.2/7,mb1 3.6/8,mb1mx3.4/23,ML3.1/1,Error ellipse: s-maj=53.2km s-min=21.0km az=178.0*

ISC 01 00:43:33.9±1.5**, 51.5N**±0.3×**179.43W**±0.09**, h46**^{km}±10^{km}**, n15, σ**0^{s}**66**/16**, mb3.5**/7**, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIMD	Kanaga Island	1.38	80	P	P	00 43 56.8	-0.5
KIWB	Kanaga Island	1.45	77	eP	P	00 43 58.6	+0.4
ADK	Adak	1.74	78	P	P	00 44 02.1	-0.1
ADAG	Mount Adagdak	1.81	75	P	P	00 44 03.5	+0.3
GSMY	Great Sitkin M	2.15	75	P	P	00 44 08.4	+0.3
GSIG	Igitkin Island	2.22	77	P	P	00 44 08.8	-0.3
FX1	Attu Island--F	4.75	289	P	P	00 44 44.4	-0.5
	2.7nm,0.3s,baz=250,slow=22,SNR=14						
FX1				S	S	00 45 39.9	+0.5
	baz=269,slow=22,SNR=2.1						
ILAR	Eielson Array	21.36	39	P	P	00 48 19.6	+0.6
	0.4nm,0.5s,mb3.0,baz=245,slow=6.8,SNR=5.3						
INK	Inuvik	27.55	35	P	P	00 49 18.0	0.0
	0.4nm,0.6s,mb3.2,baz=284,slow=9.8,SNR=4.1						
YKA	Yellowknife Ar	35.41	46	P	P	00 50 25.8	-1.0
	0.8nm,0.7s,mb3.8,baz=282,slow=8.0,SNR=9.1						
NVAR	Mina Array Bea	43.92	83	P	P	00 51 39.5	+2.0
	0.4nm,0.8s,mb3.2,baz=304,slow=5.9,SNR=3.6						
NVAR	Mina Array Bea	43.92	83	P	P	00 51 39.5	+1.9
SONM	Songino Array	46.23	296	P	P	00 51 55.7	-0.2
	0.4nm,0.7s,mb3.4,baz=45,slow=12,SNR=2.5						
PDAR	Pinedale Array	46.63	72	P	P	00 51 58.4	-0.8
	1.8nm,0.8s,mb4.0,baz=309,slow=3.9,SNR=16						
TXAR	Lajitas Array	59.02	81	P	P	00 53 30.9	-0.3
	0.4nm,0.7s,mb3.6,baz=297,slow=5.6,SNR=5.1						

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*IDC **01** 00:45:03.8±6.9, 59.81S×26.32W, h68^{km}±60^{km}, mb4.0/4, mb1 4.1/5, mb1mx3.8/12, ML3.9/1, MS2.3/1, Ms1 2.3/1, ms1mx2.2/15, Error ellipse: s-maj=87.3km s-min=24.9km az=43.0*

NEIC 01 00:45:04.6±2.9**, 59.87S**×**26.49W, h78**^{km}±27^{km}**, mb4.2**/3**, 4C, Error ellipse: s-maj=51.1km s-min=11.0km az=222.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	13.16	153	eS	S	00 50 22.2	-12
VNA1	Neumayer--Stat	13.16	153	⇑iP	P	00 48 08.5	-0.8
VNA1				eS	S	00 50 22.2	-12
VNA3	Neumayer Olymp	13.30	156	eS	S	00 50 23.6	-14
VNA3	Neumayer Olymp	13.30	156	⇑iP	P	00 48 10.1	-1.0
VNA3				eS	S	00 50 23.6	-14
VNA2	Neumayer--Watz	13.56	153	eS	S	00 50 26.8	-17
VNA2	Neumayer--Watz	13.56	153	⇑iP	P	00 48 13.3	-1.0
VNA2				eS	S	00 50 26.8	-17
SNAA	Sanae	15.15	151	eS	S	00 51 05.9	-15
SNAA	Sanae	15.15	151	P	P	00 48 33.0	-1.9
	0.5nm,0.3s,baz=314,slow=14,SNR=68						
SNAA				S	S	00 51 04.7	-16
	0.1nm,0.3s,baz=32,slow=19,SNR=6.1						
SNAA				LR	LR	00 53 21.8	
	comp=Z,12nm,19.1s,baz=352,slow=33						
SNAA	Sanae	15.15	151	⇑iP	P	00 48 32.6	-2.3
SNAA				eS	S	00 51 05.9	-15
TRQA	Tornquist	31.32	298	eP	P	00 51 17.6	-1.6
	3.3nm,0.6s						
CPUP	Villa Florida	39.67	314	P	P	00 52 29.1	-1.2
	1.0nm,0.3s,baz=170,slow=6.7,SNR=13						
BDFB	Brasilia	46.88	331	P	P	00 53 26.6	-2.0
	1.9nm,0.4s,baz=146,slow=10,SNR=5.7						
LVC	Limon Verde	47.60	302	P	P	00 53 33.8	-0.4
	1.6nm,0.4s,baz=155,slow=11,SNR=8.0						
LVC	Limon Verde	47.60	302	eP	P	00 53 33.2	-1.0
	1.2nm,0.4s						
LPAZ	La Paz	52.93	307	P	P	00 54 14.2	-0.7
	1.9nm,0.4s,baz=88,slow=8.7,SNR=7.5						
LPAZ	La Paz	52.93	307	eP	P	00 54 12.4	-2.4
	2.1nm,0.5s						
FINES	FINESS Array B	127.58	29	PKP	PKPdf	01 03 59.2	-0.2
	1.6nm,0.8s,baz=153,slow=6.2,SNR=6.9						
ARCES	ARCESS Array B	134.34	23	PKP	PKPdf	01 04 11.6	-0.4
	1.4nm,0.8s,baz=180,slow=2.4,SNR=5.1						
YKA	Yellowknife Ar	139.20	315	PKP	PKPdf	01 04 20.6	-0.5
	0.3nm,0.4s,baz=128,slow=2.3,SNR=12						
YKA	Yellowknife Ar	139.20	315	PKP	PKPdf	01 04 20.6	-0.5
INK	Inuvik	148.92	316	PKPbc	PKPdf	01 04 41.0	+3.7
	1.1nm,0.5s,baz=193,slow=1.1,SNR=15						
SONM	Songino Array	150.38	93	PKPbc	PKPdf	01 04 46.5	+6.3
	1.6nm,0.6s,baz=224,slow=2.9,SNR=10.0						
ILAR	Eielson Array	152.81	306	PKPbc	PKPdf	01 04 50.5	+7.2
	0.4nm,0.4s,baz=141,slow=1.8,SNR=8.8						

IDC 01 00:48:23.7±5.2**, 18.77S**×**138.49E, mb1 3.1**/3**, mb1mx3.1**/9**, ML2.6**/3**, Error ellipse: s-maj=46.7km s-min=29.4km az=31.0, Queensland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	4.09	253	Pn	Pn	00 49 26.4	-2.5
	0.1nm,0.3s,baz=74,slow=12,SNR=4.5						
WRA				Sn	Sn	00 50 16.3	-1.9
	0.1nm,0.3s,baz=71,slow=21,SNR=4.7						
WRA				Lg		00 50 34.6	
	0.3nm,0.3s,baz=78,slow=24,SNR=7.3						
ASAR	Alice Springs	6.48	221	Pn	Pn	00 50 00.9	-1.9
	0.1nm,0.3s,baz=46,slow=12,SNR=4.6						
STKA	Stephens Creek	13.35	168	Pn	P	00 51 35.3	-1.7
	0.2nm,0.3s,baz=338,slow=11,SNR=3.0						

MOS 01 01:02:27.1±0.8**, 56.50N**×**121.00E, h14**^{km}**, mb4.4**/1**, Error ellipse: s-maj=40.9km s-min=34.9km az=148.7, Southeastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRS	Chara	1.56	286	eP	Pn	01 02 55.2	+0.6
CRS				e		01 03 15.7	
CRS				pmax	pmax		
	comp=Z,134nm,0.6s						
CRS				smax			
	comp=E,840nm,0.8s						
TUP	Tupik	2.16	196	eP	Pn	01 03 03.0	-0.3
TUP				eS	Sn	01 03 31.2	+1.2
TUP				pmax	pmax		
	comp=Z,205nm,0.3s						
TUP				smax			
	comp=N,461nm,0.4s						
CLNS	Chul'man	2.17	79	eP	Pn	01 03 04.3	+0.9
CLNS				eS	Sn	01 03 27.6	-2.7
CLNS				pmax	pmax		
	comp=Z,15nm,0.8s						
CLNS				pmax	pmax		
	comp=N,5.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,14nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,17nm,0.8s						
CLNS				pmax	pmax		
	comp=N,14nm,0.9s						
CLNS				pmax	pmax		
	comp=E,23nm,0.9s						
CLNS				smax			
	comp=N,25nm,0.8s						
CLNS				smax			
	comp=E,16nm,0.8s						
CLNS				smax			
	comp=Z,17nm,0.8s						
CLNS				smax			
	comp=N,132nm,0.8s						
CLNS				smax			
	comp=E,81nm,0.8s						
CLNS				smax			
	comp=Z,58nm,0.8s						
CLNS				MLR	MLR		
	comp=Z,100nm,14.0s						
NLYR	Nelyaty	2.94	272	eP	Pn	01 03 14.2	-0.1
NLYR				e		01 03 57.1	
NLYR				pmax	pmax		
	comp=Z,21nm,0.3s						
NLYR				smax			
	comp=E,235nm,0.7s						
YLYR	Ulyunkhan	5.80	258	eP	Pn	01 03 53.6	-1.3
YLYR				eS	Sn	01 04 59.0	-2.9
YLYR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
YLYR				smax			
	comp=N,56nm,1.3s						

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*THR **01** 01:13:09.6±0.7, 39.38N×53.90E, h15^{km}, ML4.4*
*CSEM **01** 01:13:09.6±0.1, 39.32N×53.99E, h10^{km}, mb4.5/44, Error ellipse: s-maj=2.5km s-min=2.2km az=124.0*
*MOS **01** 01:13:15.0±1.2, 39.49N×53.84E, h33^{km}, mb4.8/15, Error ellipse: s-maj=10.3km s-min=5.9km az=125.8*
*BJI **01** 01:13:15.3, 39.30N×54.00E, h35^{km}, mB4.7, mb4.8, Ms4.2, Msz4.0*
*NEIC **01** 01:13:15.4±0.5, 39.29N×54.00E, h35^{km}, mb4.5/53, Error ellipse: s-maj=11.5km s-min=4.1km az=176.0*
NEIC Felt at Ashgabat.
*ZUR_RM **01** 01:13:15, 39.29N×54.00E, h12^{km}, Mw4.4/4, Moment Tensor Solution. s4 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.46; $M_{\theta\theta}$3.48; $M_{\phi\phi}$-3.02; $M_{r\theta}$0.67; $M_{\theta\phi}$3.32; $M_{\phi r}$0.83; Best double couple: $M_0$4.76×10^{15} NP1:ϕ_s22°, δ88°, λ168°. NP2:ϕ_s112°, δ78°, λ2°. Principal axes: T 5.034, Plg10°, Azm337°; N -.555, Plg78°, Azm194°; P -4.479, Plg7°, Azm68°;*
*IDC **01** 01:13:16.6±3.2, 39.24N×53.85E, h42^{km}±31^{km}, mb4.2/17, mb1 4.3/22, mb1mx4.2/28, ML3.6/5, MS3.5/6, Ms1 3.5/6, ms1mx3.2/25 Error ellipse: s-maj=25.4km s-min=13.7km az=6.0*
*NNC **01** 01:13:24.2±5.4, 39.78N×55.15E, Error ellipse: s-maj=93.2km s-min=28.7km az=101.0*

ISC 01 01:13:10.8±1.3**, 39.37N**±0.04×**53.89E**±0.03**, h9**^{km}±9^{km}**, h39**^{km}±5.0^{km}**:pP-P, n224, σ**1^{s}**17**/241**, mb4.5**/66**, MS3.6**/9**, 11C-21D, Turkmenistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAMV	Damavand	4.03	203	ePN	Pn	01 14 13.5	-0.6
DAMV				AMP		01 15 05.0	
	comp=N,534nm,0.5s						
DAMV				AMP		01 15 20.8	
	comp=E,517nm,0.6s						
DAMV	Damavand	4.03	203	ePn	Pn	01 14 13.5	-0.6
	comp=E,524nm,0.6s						
THKV	Tehran--Karaj	4.19	216	ePN	Pn	01 14 15.3	-1.1
GRMI	Germi	4.70	265	ePN	Pn	01 14 21.9	-1.7
MAK	Makhachkala	6.00	309	eP	Pn	01 14 48.0	+6.0
MAK				i S	Sn	01 15 53.5	+1.8
MAK				pmax	pmax		
	comp=Z,560nm,0.5s						
MAK				smax			
	comp=N,525nm,0.6s						
MAK				smax			
	comp=E,875nm,0.6s						
NASN	Na'in	6.62	188	ePN	Pn	01 14 48.6	-2.1
NASN	Na'in	6.62	188	ePn	Pn	01 14 48.7	-2.0
NASN				Sn	Sn	01 16 01.5	-5.5
SNGE	Sanandaj	6.74	233	ePN	Pn	01 14 51.2	-1.2
GNI	Garni	7.09	279	P	Pn	01 14 58.4	+1.1
	comp=E,3.7nm,0.3s,baz=34,slow=3.0,SNR=23						
GNI				S	Sn	01 16 17.8	-0.9
	comp=E,4.4nm,0.3s,baz=264,slow=22,SNR=2.9						
GNI	Garni	7.09	279	P	Pn	01 14 58.4	+1.1
GNI				S	Sn	01 16 17.8	-1.0
GNI				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MAKU	Maku	7.13	273	ePN	Pn	01 14 56.5	-1.4
TI2	Plekhanov	7.35	292	i P	Pn	01 15 01.2	+0.3
TI2				i S	Sn	01 16 20.0	-5.2
TI2				smax			
	comp=N,40nm,0.6s						
SHGR	Shooshtar-Gavs	8.34	211	ePn	P	01 15 12.5	-2.3
KIV	Kislovodsk	9.55	302	c iP	P	01 15 29.5	-2.0
KIV				eS	Sn	01 17 09.9	-10
KIV				pmax	pmax		
	comp=Z,48nm,0.7s						
KIV				pmax	pmax		
	comp=N,20nm,0.8s						
KIV				pmax	pmax		
	comp=E,25nm,0.8s						
KIV				MLR	MLR		
	comp=Z,146nm,23.0s						
KIV				MLR	MLR		
	comp=N,73nm,15.0s						
KIV				MLR	MLR		
	comp=E,66nm,15.0s						
KIV	Kislovodsk	9.55	302	eP	P	01 15 29.3	-2.2
	comp=E,32nm,0.5s						
KRBR	Kerman	9.66	165	ePN	P	01 15 31.4	-1.7
GOF	Gofitskoye	9.85	309	⇓iP	P	01 15 33.5	-2.1
GOF				i S	Sn	01 17 21.5	-5.9
GOF				pmax	pmax		
	comp=Z,50nm,1.4s						
GOF				smax			
	comp=E,140nm,1.2s						
MALT	Malatya	12.10	270	P	P	01 16 10.0	+3.6
	comp=E,8.4nm,1.1s						
AML	Almayashu	15.26	73	P	P	01 16 47.0	-1.1
	SNR=6.8						
AML	Almayashu	15.26	73	eP	P	01 16 46.0	-2.1
	comp=E,13nm,0.6s						
EKS2	Erkin-Say	15.37	71	P	P	01 16 48.1	-1.3
	SNR=9.7						
EKS2	Erkin-Say	15.37	71	eP	P	01 16 47.9	-1.6
	comp=E,6.0nm,0.4s						
EKS2	Erkin-Say	15.37	71	eP	P	01 16 47.8	-1.6
	comp=E,6.0nm,0.4s						
ASF	Jabal al Asfar	15.54	248	P	P	01 16 57.8	+6.2
	comp=E,0.2nm,0.3s,baz=296,slow=6.3,SNR=3.3						
BRTR	Keskin Array B	15.63	278	P	P	01 16 53.4	+0.7
	comp=E,0.3nm,0.3s,baz=95,slow=12,SNR=10						
HILS	Ha'il	15.63	224	P	P	01 16 59.9	+7.0
VRSR	Storozhevoye	15.69	324	eP	P	01 16 51.7	-1.8
VRSR				eSS	S	01 19 47.3	-0.5
VRSR				pmax	pmax		
	comp=Z,20nm,0.7s						
VRSR				pmax	pmax		
	comp=N,20nm,0.9s						
VRSR				pmax	pmax		
	comp=E,50nm,0.9s						
UCH	Uchtor	15.88	73	P	P	01 16 54.0	-2.0
	SNR=9.2						
UCH	Uchtor	15.88	73	eP	P	01 16 54.3	-1.7
	comp=E,8.0nm,0.8s						
UCH	Uchtor	15.88	73	eP	P	01 16 54.3	-1.7
	comp=E,8.0nm,0.8s						
AAK	Ala-Archa	15.89	72	⇑P	P	01 16 55.4	-0.8
	comp=E,18nm,0.8s						
AAK	Ala-Archa	15.89	72	P	P	01 16 55.0	-1.2
	SNR=11						
AAK	Ala-Archa	15.89	72	eP	P	01 16 53.3	-2.9
	comp=E,14nm,0.8s						
AAK	Ala-Archa	15.89	72	eP	P	01 16 53.3	-2.9
	comp=E,14nm,0.8s						
USP	Ospenovka	15.96	69	P	P	01 16 56.0	-1.1
	SNR=5.3						
FRU	Bishkek	16.00	71	eP	P	01 17 04.5	+6.9
FRU				pmax	pmax		
	comp=Z,63nm,1.5s						
CHMS	Chumysh	16.12	70	P	P	01 17 04.7	+5.7
	SNR=14						
KBK	Karagaybulak	16.23	72	P	P	01 17 00.4	-0.1
	SNR=16						
KZA	Kyzart	16.42	74	P	P	01 17 02.9	0.0
	SNR=6.7						
MMLI	Mount Malkishu	16.47	251	P	P	01 17 11.9	+8.3
HMDT	Nahal Hemdat	16.48	250	P	P	01 17 11.8	+8.0
TKM2	Tokmak 2	16.73	71	P	P	01 17 08.2	+1.4
	SNR=25						
TKM2	Tokmak 2	16.73	71	eP	P	01 17 05.5	-1.3
	comp=Z,34nm,0.9s						
TKM2	Tokmak 2	16.73	71	eP	P	01 17 05.5	-1.3
	comp=Z,34nm,0.9s						
DRGI	Dragot	16.93	248	P	P	01 17 16.6	+7.2
CSS	Prodhromos	16.96	261	P	P	01 17 13.3	+3.5
	comp=Z,42nm,1.1s						
CSS				e		01 17 23.4	
MZLS	Mizel	16.97	208	P	P	01 17 17.1	+7.1
KSH	Kashi	17.06	82	⇑iP	P	01 17 14.8	+3.7
KSH				eAP		01 17 18.0	
KSH				eXP		01 17 21.0	
KSH				PP	PP	01 17 29.1	+3.7
KSH				PPP	PPP	01 17 37.0	+3.5
KSH				eS	S	01 20 25.1	+5.5
KSH				XS		01 20 29.5	
KSH				PCP	PcP	01 21 59.0	+1.8
KSH				AMB	AMB		
	comp=Z,80nm,1.3s						
KSH				LR	LR		
	comp=N,510nm,6.8s						
KSH				LR	LR		
	comp=E,460nm,5.8s						
MZDA	Masada	17.10	248	P	P	01 17 18.5	+6.9
ARU	Arti	17.35	9	eP	P	01 17 13.1	-1.4
ARU				eS	S	01 20 14.5	-12
ARU	Arti	17.35	9	eP	P	01 17 12.6	-2.0
	comp=E,55nm,0.4s						
ARU	Arti	17.35	9	eP	P	01 17 12.6	-1.9
	comp=E,55nm,0.4s						
MASH	Mash'abbe Sade	17.68	248	P	P	01 17 25.4	+6.5
BRVK	Borovoye	17.72	34	eP	P	01 17 19.7	+0.5
	comp=E,10.0nm,0.8s						
BRVK	Borovoye	17.72	34	eP	P	01 17 19.7	+0.5
	comp=E,10.0nm,0.8s						
RTMM	Retamin	17.73	248	P	P	01 17 25.9	+6.5
BVA0	Borovoye Array	17.74	34	⇓P	P	01 17 20.2	+0.7
	comp=E,1.9nm,0.7s,baz=226,slow=13,SNR=60						
BVA0				⇓S	S	01 20 30.4	-4.6
	comp=E,5.7nm,0.8s						
BVA0	Borovoye Array	17.74	34	i P	P	01 17 19.9	+0.4
BVA0				S	S	01 20 27.3	-7.8
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	Borovoye Array	17.74	34	P	P	01 17 20.1	+0.7
	comp=Z,1.9nm,0.3s,baz=225,slow=13,SNR=22						
BVAR				S	S	01 20 27.0	-8.1
	comp=Z,1.2nm,0.3s,baz=222,slow=21,SNR=5.9						
PRNI	Paran	17.89	246	P	P	01 17 28.0	+6.5
KZIT	Kziot	18.01	248	P	P	01 17 29.2	+6.2
JMQS	Jabal Moqyreh	18.18	240	D		01 17 38.5	
KMTI	Karmit	18.23	245	P	P	01 17 31.6	+5.8
KBRS	Khaybar	18.28	227	P	P	01 17 33.5	+7.2
CHKZ	Chkalovo	18.30	33	⇑P	P	01 17 27.9	+1.5
	comp=Z,7.8nm,0.6s						
CHKZ				⇑S	S	01 20 44.0	-3.6
	comp=Z,22nm,1.2s						
CHKZ	Chkalovo	18.30	33	P	P	01 17 27.1	+0.7
CHKZ				S	S	01 20 37.9	-10
CHKZ				pmax	pmax		
	comp=Z,5.0nm,0.6s						
CHKZ	Chkalovo	18.30	33	eP	P	01 17 26.3	0.0
	comp=Z,10nm,0.6s						
CHKZ	Chkalovo	18.30	33	eP	P	01 17 26.3	-0.1
	comp=Z,10nm,0.6s						
EIL	Elat	18.33	244	P	P	01 17 32.8	+5.8
EIL	Elat	18.33	244	P	P	01 17 38.5	+11
	comp=Z,0.4nm,0.3s,baz=16,slow=9.8,SNR=9.6						
EIL	Elat	18.33	244	P	P	01 17 36.3	+9.4
	comp=Z,34nm,1.1s						
BDAS	Al Bad'	18.99	241	P	P	01 17 46.5	+12
OBN	Obninsk	19.57	329	eP	P	01 17 41.1	-0.4
OBN				S	S	01 21 14.0	-2.2
OBN				pmax	pmax		
	comp=Z,27nm,0.7s						
OBN				MLR	MLR		
	comp=Z,200nm,16.0s						
OBN	Obninsk	19.57	329	eP	P	01 17 40.8	-0.8
	comp=Z,28nm,0.5s						
OBN	Obninsk	19.57	329	eP	P	01 17 40.8	-0.7
	comp=Z,28nm,0.5s						
MOS	Moscow	19.63	332	eP	P	01 17 41.0	-1.2
MOS				e		01 21 17.9	
MOS				pmax	pmax		
	comp=Z,117nm,1.4s						
MOS				pmax	pmax		
	comp=E,105nm,0.9s						
KIS	Kishinev	19.75	301	⇓iP	P	01 17 43.0	-0.6
KIS				pmax	pmax		
	comp=Z,480μm,2.2s						
UMJS	Umm Lajj	19.83	230	P	P	01 17 55.4	+11
CFR	Carcaliu	19.88	295	⇓iP	P	01 17 43.4	-1.7
CFR	Carcaliu	19.88	295	⇓iP	P	01 17 43.4	-1.7
HARR	Harsova	19.96	294	⇑iP	P	01 17 44.5	-1.5
HARR	Harsova	19.96	294	⇓iP	P	01 17 44.8	-1.2
HARR	Harsova	19.96	294	⇑iP	P	01 17 44.5	-1.5
KAMS	Al Khamasin	20.62	206	P	P	01 18 03.6	+11
AKASG	Malin Array Be	20.68	311	P	P	01 17 52.5	-1.0
	comp=Z,32nm,0.4s,baz=92,slow=8.7,SNR=230						
AKASG				S	S	01 21 38.0	-1.6
	comp=Z,2.4nm,0.7s,baz=111,slow=23,SNR=7.1						
AKASG	Malin Array Be	20.68	311	P	P	01 17 52.5	-1.0
AKASG				S	S	01 21 38.0	-1.6
AKASG				pmax	pmax		
	comp=Z,33nm,0.4s						
BRD	Bordesti	20.70	296	⇓iP	P	01 17 54.8	+1.1
BRD	Bordesti	20.70	296	⇓iP	P	01 17 54.8	+1.1
KURK	Kurchatov	20.73	49	⇑P	P	01 17 55.6	+1.6
	comp=Z,9.0nm,0.9s,baz=257,slow=9.2,SNR=20						
KURK	Kurchatov	20.73	49	i P	P	01 17 55.5	+1.5
KURK				S	S	01 21 41.4	+0.9
KURK				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KURK	Kurchatov	20.73	49	eP	P	01 17 55.6	+1.6
	comp=Z,15nm,0.8s						
VRI	Vrincioaia	20.95	297	⇓iP	P	01 17 56.4	+0.1
VRI	Vrincioaia	20.95	297	⇓iP	P	01 17 56.4	+0.1
ISR	Istrita	20.99	295	⇑iP	P	01 17 57.5	+0.8
ISR	Istrita	20.99	295	⇓iP	P	01 17 57.7	+1.0
ISR	Istrita	20.99	295	⇑iP	P	01 17 57.5	+0.8
MLR	Muntele Rosu	21.45	296	P	P	01 18 02.2	+0.8
	comp=Z,38nm,0.9s,mb4.7,baz=123,slow=1.8,SNR=97						
MLR	Muntele Rosu	21.45	296	P	P	01 18 02.2	+0.9
MLR				pmax	pmax		
	comp=Z,38nm,0.9s						
MLR	Muntele Rosu	21.45	296	⇓iP	P	01 18 02.6	+1.3
MLR	Muntele Rosu	21.45	296	⇓iP	P	01 18 02.6	+1.3
AJM	Ajmer	21.59	120	eP	P	01 18 05.0	+2.1
MK02	Makanchi Array	21.96	61	⇓P	P	01 18 08.1	+1.7
	comp=Z,22nm,0.8s,mb4.6,baz=252,slow=11						
MK02	Makanchi Array	21.96	61	P	P	01 18 08.1	+1.6
MK02				pmax	pmax		
	comp=Z,35nm,1.0s,mb4.7						
RZN	Rozhen	22.25	285	eP	P	01 18 12.0	+2.6
MMB	Musomiste	22.99	285	eP	P	01 18 18.0	+1.3
MNK	Minsk	23.17	319	eP	P	01 18 16.0	-2.2
VTS	Vitosha	23.32	288	eP	P	01 18 21.0	+1.2
IDI	Anoyia	23.37	269	P	P	01 18 21.8	+1.4
	comp=Z,8.8nm,0.6s,mb4.3,baz=52,slow=18,SNR=1.4						
KWP	Kalwaria	24.33	305	eP	P	01 18 31.9	+2.3
KOLS	Kolonicke sedl	24.46	303	eP	P	01 18 33.1	+2.2
CRVS	Cervenica-Dubn	24.98	303	eP	P	01 18 37.1	+1.2
NVS	Novosibirsk	25.02	42	eP	P	01 18 47.0	+11
NVS				i		01 19 11.9	
NVS				eS	S	01 22 55.5	-1.8
NVS				e		01 23 59.3	
NVS				pmax	pmax		
	comp=N,5.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,3.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						
NVS				smax			
	comp=N,18nm,1.9s						
SUW	Suwalki	25.40	315	eP	P	01 18 41.0	+1.3
ZAL	Zalesovo	25.48	45	P	P	01 18 41.8	+1.3
	comp=N,2.4nm,0.7s,mb3.8,baz=135,slow=7.9,SNR=13						
ZAL				LR	LR	01 30 26.3	
	comp=N,102nm,19.3s,MS3.4,baz=150,slow=40						
ZAL	Zalesovo	25.48	45	P	P	01 18 41.8	+1.3
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ZAL				MLR	MLR		
	comp=Z,102nm,19.3s						
ZAL	Zalesovo	25.48	45	P	P	01 18 41.8	+1.3
ZAL				LR	LR	01 30 26.2	
WMQ	Urumqi	25.56	69	⇓P	P	01 18 41.4	0.0
WMQ				PP	PP	01 19 20.2	-0.7
WMQ				eS	S	01 23 05.0	-1.6
WMQ				AMB	AMB		
	comp=Z,48nm,0.8s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,14nm,6.7s						
WMQ				LR	LR		
	comp=N,139nm,21.2s,MS3.6						
WMQ				LR	LR		
	comp=E,109nm,19.1s,MS3.6						
WMQ				LR	LR		
	comp=Z,124nm,18.5s,MS3.5						
DIVS	Divcibare	25.62	292	eP	P	01 18 42.7	+0.7
NIE	Niedzica	25.81	304	eP	P	01 18 45.5	+1.8
PSZ	Piszkesteto	25.87	300	eP	P	01 18 43.9	-0.3
	comp=Z,7.9nm,0.9s,mb4.2						
PSZ	Piszkesteto	25.87	300	eP	P	01 18 43.9	-0.3
	comp=Z,7.9nm,0.9s,mb4.2						

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WAR   Warsaw            26.03 310  eP     P      01 18 49.1 +3.4
OJC   Ojcow             26.29 306  eP     P      01 18 48.7 +0.6
VYHS  Vyhne             26.64 302  i P    P      01 18 52.3 +1.0
VYHS                               esP    sP     01 19 07.1  +12
JOF   Joensuu           27.21 337  ep     P      01 18 56.0 -0.4
      comp=Z,12nm,0.5s,mb4.7
JOF   Joensuu           27.21 337  eP     P      01 18 56.0 -0.4
JOF                                 pmax  pmax
      comp=Z,12nm,0.5s,mb4.7
MORC  Moravsky Berou    27.65 304  eP     P      01 19 01.3 +0.8
      comp=Z,5.2nm,0.6s,mb4.3
FINES FINESS Array B    27.93 331   P     P      01 19 03.2 +0.2
      comp=Z,5.2nm,0.6s,mb4.4,baz=138,slow=11,SNR=64
FINES                               LR    LR     01 32 04.5
      comp=Z,161nm,21.7s,MS3.6,baz=322,slow=40
FINES FINESS Array B    27.93 331   P     P      01 19 03.2 +0.2
FINES                               pmax  pmax
      comp=Z,5.0nm,0.6s
FINES                               MLR   MLR
      comp=Z,161nm,21.7s
KAF   Kangasniemi       28.28 333  ep     P      01 19 06.5 +0.4
GERES GERESS Array B    30.06 302   P     P      01 19 22.2 -0.1
      comp=Z,1.1nm,0.5s,mb3.9,baz=98,slow=8.5,SNR=12
GERES GERESS Array B    30.06 302   P     P      01 19 22.2 -0.1
GERES                               pmax  pmax
      comp=Z,1.0nm,0.5s
BRG   Berggiesshubel    30.08 306  eP     P      01 19 23.7 +1.3
BRG                                e             01 19 36.5
BRG                                 pmax  pmax
      comp=Z,7.0nm,0.8s,mb4.4
BRG   Berggiesshubel    30.08 306  eP     P      01 19 23.7 +1.3
      comp=Z,7.0nm,0.8s,mb4.4
BRG                                e             01 19 36.5
KHC   Kasperske Hory    30.16 302  eP     P      01 19 23.0 -0.1
KHC                                e             01 19 36.5
KHC                                e             01 29 51.2
KHC   Kasperske Hory    30.16 302  eP     P      01 19 23.0 -0.1
KHC                                e             01 19 36.5
KHC                                e             01 20 09.0
KHC   Kasperske Hory    30.16 302  eP     P      01 19 23.0 -0.1
KHC                                 pP    pP     01 19 36.5  +11
KHC                                ex     x      01 20 09.0
BSD   Bornholm Skovb    30.31 314  i P    P      01 19 22.9 -1.4
BSD                                e             01 19 35.0
BSD                                i             01 19 36.4
APA   Apatity           30.45 345⇓iP      P      01 19 39.4  +14
APA                                i             01 20 25.1
APA                                 pmax  pmax
      comp=Z,120nm,1.8s,mb5.3
CLL   Collm             30.72 306  eP     P      01 19 29.0 +1.0
CLL                                e             01 19 44.0
CLL   Collm             30.72 306   P     P      01 19 29.0 +1.0
CLL                                e*SP   sP     01 19 44.0  +12
WTTA  Wattenberg        31.42 299⇓iP      P      01 19 29.4 -4.8
      comp=Z,7.5nm,0.6s,mb4.7
WATA  Walderalm         31.46 299⇑iP      P      01 19 35.0 +0.4
      comp=Z,4.2nm,0.7s,mb4.4
MOX   Moxa              31.53 305  eP     P      01 19 35.5 +0.3
MOX                                e             01 19 48.2
MOX                                 pmax  pmax
      comp=Z,14nm,1.3s,mb4.6
MOX   Moxa              31.53 305  i P    P      01 19 35.5 +0.3
      comp=Z,logA/T=1.0,mb4.6
MOX                                 pP    pP     01 19 48.0  +10
MOX   Moxa              31.53 305  eP     P      01 19 35.5 +0.3
      comp=Z,14nm,1.3s,mb4.6
MOX                                e             01 19 48.2
SQTA  Sankt Quirin      31.71 298⇓iP      P      01 19 36.5 -0.3
      comp=Z,2.7nm,0.5s,mb4.3
MOTA  Moosalm           31.78 299⇑iP      P      01 19 35.9 -1.5
      comp=Z,2.2nm,0.5s,mb4.2
HFS   Hagfors           32.51 323   P     P      01 19 43.6  0.0
      comp=Z,12nm,0.5s,mb5.0,baz=108,slow=9.4,SNR=40
HFS   Hagfors           32.51 323   P     P      01 19 43.6  0.0
HFS                                 pmax  pmax
      comp=Z,12nm,0.5s
DAVA  Damuels           32.61 299⇓iP      P      01 19 43.8 -0.9
      comp=Z,4.8nm,0.7s,mb4.5
DAVOX Davos             32.64 298   P     P      01 19 44.6 -0.3
      comp=Z,1.9nm,0.5s,mb4.3,baz=35,slow=12,SNR=7.1
KEV   Kevo              33.60 343  ep     P      01 19 53.0  0.0
      comp=Z,12nm,0.6s,mb5.0
KEV   Kevo              33.60 343  eP     P      01 19 53.0  0.0
KEV                                 pmax  pmax
      comp=Z,12nm,0.6s,mb5.0
ARCES ARCESS Array B    33.77 342   P     P      01 19 55.4 +0.9
      comp=Z,3.3nm,0.6s,mb4.5,baz=146,slow=8.7,SNR=22
ARCES                               LR    LR     01 35 00.3
      comp=Z,148nm,18.1s,MS3.8,baz=13,slow=38
ARCES ARCESS Array B    33.77 342   P     P      01 19 55.4 +0.9
ARCES                               pmax  pmax
      comp=Z,3.0nm,0.6s
ARCES                               MLR   MLR
      comp=Z,148nm,18.1s
ARCES ARCESS Array B    33.77 342   P     P      01 19 55.4 +0.9
ARCES                               LR    LR     01 35 00.3
KTK1  Kautokeino        33.94 341  eP     P      01 19 57.7 +1.7
KTK1                                AMb   AMB    01 20 06.4
      comp=Z,57nm,2.5s,mb5.1
KTK1  Kautokeino        33.94 341  eP     P      01 19 57.7 +1.7
      comp=Z,57nm,2.5s,mb5.1,SNR=30
NB2   NORSAR Subarra    33.97 324   P     P      01 19 55.5 -0.9
      comp=Z,10nm,0.7s,mb4.9,baz=113,slow=8.6
NB2   NORSAR Subarra    33.97 324   P     P      01 19 55.5 -0.9
      baz=113,slow=8.6
NOA   NORSAR Array B    33.97 324   P     P      01 19 55.9 -0.5
      comp=Z,8.1nm,0.7s,mb4.8,baz=113,slow=8.4,SNR=26
NOA   NORSAR Array B    33.97 324   P     P      01 19 55.9 -0.5
NOA                                 pmax  pmax
      comp=Z,8.0nm,0.7s
CDF   Champ du Feu      34.32 301  eP     P      01 19 58.7 -0.8
      comp=Z,4.5nm,0.7s,mb4.2
HINF  Hinteralfeld      34.63 300  eP     P      01 20 02.9 +0.7
SBF   Sospel            34.66 293  eP     P      01 20 01.6 -0.9
      comp=Z,22nm,0.9s,mb4.8
MOR8  Moi Rana          34.87 333  eP     P      01 20 03.8 -0.2
MOR8                                AMb   AMB    01 20 08.7
      comp=Z,42nm,2.0s,mb5.0
MOR8                               ePP    PP     01 21 20.9 -0.7
MOR8  Moi Rana          34.87 333  eP     P      01 20 03.8 -0.2
      comp=Z,42nm,2.0s,mb5.0,SNR=30
MOR8  Moi Rana          34.87 333  ePP    PP     01 21 21.0 -0.6
      SNR=47
LPG   La Plagne         34.92 296  eP     P      01 20 04.6  0.0
      comp=Z,6.6nm,0.5s,mb4.5
LPL   La Plagne         34.93 296  eP     P      01 20 04.6 -0.1
      comp=Z,9.6nm,0.7s,mb4.6
HAU   Haudompre         34.96 300  eP     P      01 20 04.3 -0.7
      comp=Z,12nm,0.8s,mb4.6
MBDF  Montbardon        35.00 294  eP     P      01 20 05.0 -0.4
      comp=Z,20nm,0.6s,mb4.9
NSS   Namsos            35.01 330  eP     P      01 20 04.7 -0.6
GTA   Gaotai            35.20  75  eP     P      01 20 08.8 +1.7
GTA                                 AP    pP     01 20 17.2 +7.3
GTA                                 XP    sP     01 20 21.6  +11
GTA                                 AMB   AMB
      comp=Z,6.0nm,0.8s,mb4.6
GTA                                 AMB   AMB
      comp=Z,57nm,6.1s
GTA                                 LR    LR
      comp=N,88nm,18.3s
GTA                                 LR    LR
      comp=E,118nm,12.9s
GTA                                 LR    LR
      comp=Z,106nm,13.3s,MS3.8
CABF  La Chapelle       35.25 298  eP     P      01 20 06.7 -0.8
      comp=Z,11nm,0.7s,mb4.6
FRF   La Foret Royal    35.27 292  eP     P      01 20 07.2 -0.5
      comp=Z,21nm,0.8s,mb4.8
LMR   La Mourre         35.41 292  eP     P      01 20 09.5 +0.6
TRO   Tromso            35.49 340  eP     P      01 20 09.1 -0.2
TRO                                 AMb   AMB    01 20 10.3
      comp=Z,84nm,1.8s,mb5.4
TRO   Tromso            35.49 340  eP     P      01 20 09.1 -0.2
      comp=Z,84nm,1.8s,mb5.4
TRO   Tromso            35.49 340  eP     P      01 20 09.1 -0.2
      comp=Z,84nm,1.8s,mb5.4,SNR=30
ORIF  Oris-en-Rattie    35.60 295  eP     P      01 20 10.2 -0.3
      comp=Z,4.2nm,0.7s,mb4.2
GIVF  Givet             35.86 304  eP     P      01 20 13.7 +1.1
ZAK   Zakamensk         36.07  56  eP     P      01 20 13.9 -0.5
MOL   Molde             36.12 325  eP     P      01 20 18.2 +3.5
MOL                                 AMb   AMB    01 20 28.8
      comp=Z,82nm,2.1s,mb5.3
MOL   Molde             36.12 325  eP     P      01 20 18.2 +3.5
      comp=Z,82nm,2.1s,mb5.3
BAIF  Baives            36.26 304  eP     P      01 20 17.2 +1.2
      comp=Z,6.4nm,0.7s,mb4.4
SMF   Signal de Mont    36.79 298  eP     P      01 20 19.9 -0.5
      comp=Z,9.1nm,0.6s,mb4.5
SSF   Saint Saulge      36.96 299  eP     P      01 20 22.2 +0.3
      comp=Z,1.6nm,0.6s,mb4.1
AVF   Avril sur Loir    37.10 298  eP     P      01 20 23.0 -0.1
      comp=Z,15nm,0.8s,mb4.6
BGF   Bois d'Agland     37.48 298  eP     P      01 20 26.0 -0.2
      comp=Z,4.0nm,0.5s,mb4.2
TCF   Toulx Ste Croi    37.95 298  eP     P      01 20 30.6 +0.4
      comp=Z,4.3nm,0.6s,mb4.1
CAF   Calviac           38.28 296  eP     P      01 20 33.4 +0.4
      comp=Z,3.3nm,0.5s,mb4.0
SONM  Songino Array     38.30  60   P     P      01 20 34.5 +1.3
      comp=Z,1.4nm,0.7s,mb3.8,baz=267,slow=9.6,SNR=9.0
RJF   Les Rejaudoux     38.59 296  eP     P      01 20 36.3 +0.7
      comp=Z,9.6nm,0.6s,mb4.4
ULN   Ulaanbaatar       38.74  59  eP     P      01 20 38.6 +1.8
      comp=Z,10.0nm,0.9s,mb4.5
LFF   La Frestale       39.20 296  eP     P      01 20 41.2 +0.5
      comp=Z,26nm,0.6s,mb4.9
LDF   La Druitiere      39.20 302  eP     P      01 20 40.9 +0.2
      comp=Z,13nm,0.7s,mb4.5
LZH   Lanzhou           39.25  79 ⇓P      P      01 20 41.5 +0.3
LZH                                 PP    PP     01 22 15.6 +0.4
LZH                                 AMB   AMB
      comp=Z,29nm,1.3s,mb4.8
LZH                                 AMB   AMB
      comp=Z,97nm,5.2s
LZH                                 LR    LR
      comp=N,191nm,13.0s
LZH                                 LR    LR
      comp=Z,296nm,17.3s,MS4.2
FLN   La Foliniere      39.42 302  eP     P      01 20 42.5  0.0
      comp=Z,10.0nm,0.6s,mb4.4
MFF   Saint Martin d    39.51 299  eP     P      01 20 42.7 -0.6
      comp=Z,9.3nm,0.8s,mb4.3
GRR   Gorron            39.72 302  eP     P      01 20 44.6 -0.4
      comp=Z,13nm,0.7s,mb4.5
EPF   Esparros          39.89 293  eP     P      01 20 46.0 -0.4
      comp=Z,28nm,1.3s,mb4.5
ETSF  Etsaut            40.56 293  eP     P      01 20 51.8 -0.2
      comp=Z,14nm,1.0s,mb4.2
EKA   Eskdalemuir Ar    40.59 313   P     P      01 20 52.3 +0.3
      comp=Z,5.7nm,0.7s,mb4.3,baz=99,slow=8.5,SNR=27
EKA   Eskdalemuir Ar    40.59 313   P     P      01 20 52.3 +0.3
EKA                                 pmax  pmax
      comp=Z,6.0nm,0.7s
SGMF  Saint Gilles      40.86 302  eP     P      01 20 54.6 +0.3
      comp=Z,28nm,0.8s,mb4.7
CD2   Chengdu           41.21  86  eP     P      01 20 57.1 -0.3
QUIF  Quistinic         41.32 301  eP     P      01 20 58.3 +0.2
ROSF  Rostrenen         41.32 302  eP     P      01 20 58.0 -0.1
      comp=Z,12nm,0.8s,mb4.3
ESDC  Sonseca Array     43.94 290   P     P      01 21 19.2 -0.3
      comp=Z,3.1nm,0.6s,mb4.2,baz=61,slow=8.4,SNR=23
CMAR  Chiang Mai Arr    44.06 105   P     P      01 21 20.4 -0.5
      comp=Z,1.3nm,0.4s,mb4.0,baz=301,slow=8.9,SNR=8.2
CMAR                                LR    LR     01 44 50.9
      comp=Z,51nm,18.6s,MS3.5,baz=130,slow=43
HIA   Hailar            46.76  55   P     P      01 21 44.2 +2.3
EVO   Evora             47.29 290  eP     P      01 21 44.6 -1.7
      comp=Z,109nm,1.5s,mb5.2
NJ2   Nanjing           52.25  77  eP     P      01 22 23.8 -0.7
NJ2                                 AMB   AMB
      comp=Z,30nm,0.5s,mb5.5
JNU   Nakatsue          60.66  70   LR    LR     01 53 43.4
      comp=Z,4.0nm,18.7s,MS2.6,baz=69,slow=40
INK   Inuvik            72.50   3   P     P      01 24 39.2 +0.2
      comp=Z,1.3nm,1.1s,mb3.8,baz=321,slow=6.5,SNR=3.3
INK   Inuvik            72.50   3   P     P      01 24 39.2 +0.2
INK                                 pmax  pmax
      comp=Z,1.0nm,1.1s
INK   Inuvik            72.50   3   P     P      01 24 39.2 +0.2
ILAR  Eielson Array     74.92   9   P     P      01 24 54.3 +1.2
      comp=Z,0.5nm,0.8s,mb3.5,baz=319,slow=4.2,SNR=5.6
ILAR  Eielson Array     74.92   9   P     P      01 24 54.3 +1.2
ILAR                                pmax  pmax
      comp=Z,1.0nm,0.8s
YKA   Yellowknife Ar    78.06 355   LR    LR     02 04 18.3
      comp=Z,45nm,19.6s,MS3.8,baz=25,slow=39
WRA   Warramunga Arr    95.35 111   P     P      01 26 35.3 -1.6
      comp=Z,0.7nm,0.6s,mb4.3,baz=318,slow=4.0,SNR=12
WRA   Warramunga Arr    95.35 111   P     P      01 26 35.3 -1.5
WRA                                 pmax  pmax
      comp=Z,1.0nm,0.6s
```

NIED ***01*** *01:32:00, 38.90N×141.70E, h74^{km}, Mw4.1 Best double couple: M$_0$1.86×10^{15} NP1:φ$_s$347°, δ80°, λ-24°. NP2:φ$_s$82°, δ66°, λ-169°.*

MOS ***01*** *01:32:34.5±0.9, 38.80N×141.55E, h33^{km}, mb4.5/12, Error ellipse: s-maj=19.0km s-min=9.6km az=100.7*

IDC ***01*** *01:32:39.9±2.3, 38.93N×141.52E, h58^{km}±21^{km}, mb3.9/15, mb1 4.1/18, mb1mx4.0/25, ML4.6/3, Error ellipse: s-maj=19.6km s-min=12.6km az=99.0*

BJI ***01*** *01:32:42.5, 38.87N×141.44E, h99^{km}, mB5.0, mb4.6*

JMA ***01*** *01:32:42.1±0.1, 38.91N×141.63E, h76^{km}±1^{km}, M4.2 Broadband fault plane solution: P waves. NP1:φ$_s$74°, δ58°, λ-171°. NP2:φ$_s$339°, δ82°, λ-32°. Principal axes: T Plg16°, Azm31°; N Plg57°, Azm147°; P Plg28°, Azm292°;*

JMA Felt III J1.

NEIC ***01*** *01:32:45.0±1.1, 38.91N×141.46E, h105^{km}±9^{km}, mb4.7/8, MW4.2(NIED) Error ellipse: s-maj=11.5km s-min=8.4km az=84.0*

NEIC Recorded [3 JMA] in Miyagi, [2 JMA] in Iwate and [1 JMA] in Akita, Fukushima and Yamagata Prefectures.

ISC 01 01:32:40.4±0.5**, 38.89N**±0.03×**141.68E**±0.06**, h86**^{km}±2^{km}**,**
h112^{km}±1.4^{km}**:pP-P, n88,** σ**0**^{s}**98**/109**, mb4.4**/37**, 9C-4D,**
Near east coast of eastern Honshu

```
Code  Station Name       Δ°   AZ°  Phase ID      Time        Res
                                   Op     ISC    h  m  s     ISC
OFUJ  Ofunato            0.19 356 ⇓P      P      01 32 53.4 +0.5
OFUJ                               eS     S      01 33 01.6 -0.6
JMK   Ichinoseki         0.37 279 ⇑P      P      01 32 54.0 +0.1
JMK                                 S     S      01 33 02.7 -1.3
JIO   Ouri               0.51 211 ⇑P      P      01 32 55.5 +0.5
JIO                                 S     S      01 33 05.0 -0.9
JOM   Ohasama            0.65 332 ⇑P      P      01 32 56.8 +0.4
JOM                                 S     S      01 33 07.7 -0.5
JOU   Okura              0.96 237 ⇑P      P      01 33 00.3 +0.7
JOU                                 S     S      01 33 14.0  0.0
JYK   Kaneyama           1.03 272 ⇑P      P      01 33 01.0 +0.5
JYK                                eS     S      01 33 15.3 -0.3
JMM   Marumori           1.24 215   P     P      01 33 03.3 +0.2
JMM                                 S     S      01 33 19.4 -0.7
JYS   Shirataka          1.44 243 ⇑P      P      01 33 06.4 +0.7
JYS                                eS     S      01 33 24.8 +0.5
JANG  Nango              1.48 355 ⇑P      P      01 33 06.2 -0.1
JANG                                S     S      01 33 24.9 -0.4
JAH   Hinai              1.53 328 ⇓P      P      01 33 07.7 +0.9
JAH                                 S     S      01 33 28.3 +2.0
JYA   Atsumi             1.57 260 ⇑P      P      01 33 08.0 +0.6
JYA                                 S     S      01 33 27.6 +0.3
MAJO  Matsushiro         3.62 231  eP     P      01 33 37.2 +1.6
MAT   Matsushiro         3.62 231   P     P      01 33 37.0 +1.5
MAT                                eS     S      01 34 16.7 -0.6
MAT   Matsushiro         3.62 231  eP     P      01 33 37.0 +1.5
MAT                                 S     S      01 34 17.0 -0.3
ASAJ  Asahikawa          5.26   7   P     P      01 33 56.6 -1.5
      21nm,0.3s,baz=237,slow=6.3,SNR=37
ASAJ                                S     S      01 34 54.1 -3.9
      8.6nm,0.3s,baz=336,slow=32,SNR=6.7
ASAJ  Asahikawa          5.26   7   P     P      01 33 56.7 -1.4
ASAJ                                S     S      01 34 54.2 -3.9
ASAJ                                pmax  pmax
      comp=Z,21nm,0.3s
JHJ   Hachijo jima 2     5.96 196   P     P      01 34 05.8 -1.9
      comp=Z,90nm,0.3s,baz=65,slow=16,SNR=21
JHJ                                 S     S      01 35 09.8 -5.6
      comp=Z,108nm,0.3s,baz=59,slow=24,SNR=7.7
YUK   Yuzh-Kuril'sk      6.02  30  eP     P      01 34 05.0 -3.5
YUK                                i S    S      01 35 09.9 -6.8
YUK                                 pmax  pmax
      comp=Z,510nm,0.3s
YUK                                 smax
      comp=N,2μm,0.4s
YUK                                 smax
      comp=E,2μm,0.8s
YUK                                 smax
      comp=N,770nm,0.5s
YUK                                 smax
      comp=E,440nm,0.5s
YSS   Yuzh-Sakhalins     8.09   5  eP     P      01 34 34.0 -3.1
MDJ   Mudanjiang        10.69 306  eP     P      01 35 14.4 +2.3
CBIJ  Chichi jima       11.77 178   P     P      01 35 22.4 -4.3
      comp=E,12nm,0.3s,baz=302,slow=21,SNR=9.7
CBIJ                                S     S      01 37 24.1  -13
      comp=E,13nm,0.3s,baz=275,slow=23,SNR=7.3
CN2   Changchun         13.14 297  eP     P      01 35 45.6 +0.8
NJ2   Nanjing           19.78 257  eP     P      01 37 05.7 -0.4
NJ2                                 AP           01 37 25.4
NJ2                                 XP           01 37 40.7
NJ2                                 S     S      01 40 36.0 -3.1
NJ2                                 PCP   PcP    01 41 21.2 +0.3
NJ2                                 SCP          01 44 45.4
NJ2                                 AMB   AMB
      comp=Z,30nm,0.7s
NJ2                                 AMB   AMB
      comp=Z,1μm,3.5s
HHC   Hu-ho-hao-te      23.15 284  eP     P      01 37 38.2 -1.4
HHC                                 AP           01 38 01.4
HHC                                 PP    PP     01 38 14.4 +1.5
HHC                                 PCP   PcP    01 41 24.5 -2.9
HHC                                 S     S      01 41 35.4 -5.5
HHC                                 XS           01 42 20.0
HHC                                 SS    SS     01 42 30.4 -2.5
HHC                                 SCP          01 44 50.8
HHC                                 AMB   AMB
      comp=Z,12nm,0.5s,mb4.5
HHC                                 AMB   AMB
      comp=Z,80nm,5.7s
YAK   Yakutsk           24.31 346   P     P      01 37 50.6  0.0
BOD   Bodaibo           26.09 326  eP     P      01 38 05.8 -1.7
SONM  Songino Array     26.97 301   P     P      01 38 15.7 +0.1
      comp=Z,1.3nm,0.5s,mb3.8,baz=104,slow=10,SNR=7.8
ENH   Enshi             27.76 262  eP     P      01 38 22.1 -1.0
      comp=Z,15nm,0.7s,mb4.6
ZAK   Zakamensk         29.32 306  eP     P      01 38 36.4 -0.4
ZAK                                e             01 39 28.0
LZH   Lanzhou           30.02 277 ⇑P      P      01 38 42.3 -0.8
LZH                                 AP    pP     01 39 06.8 +3.9
LZH                                 XP    sP     01 39 20.0 +7.0
LZH                                 PP    PP     01 39 43.5 -0.6
LZH                                eS     S      01 43 29.5 -4.0
LZH                                 XS           01 44 12.4
LZH                                 AMB   AMB
      comp=Z,27nm,1.3s,mb4.7
LZH                                 AMB   AMB
      comp=Z,102nm,4.9s
GYA   Guiyang           31.79 258   P     P      01 38 58.0 -0.7
GYA                                 S     S      01 44 05.4 +4.0
GYA                                 AMB   AMB
      comp=Z,10.0nm,1.1s,mb4.5
GYA                                 AMB   AMB
      comp=Z,100nm,4.4s
CD2   Chengdu           31.93 267  eP     P      01 38 58.4 -1.5
CD2                                 PP    PP     01 40 05.4 -2.8
CD2                                eS     S      01 43 56.0 -7.6
CD2                                 SS    SS     01 45 53.6 -7.2
CD2                                 AMB   AMB
      comp=Z,10.0nm,0.7s,mb4.7
CD2                                 AMB   AMB
      comp=Z,120nm,4.4s
GTA   Gaotai            32.26 284  eP     P      01 39 03.6 +0.8
GTA                                 AP    pP     01 39 28.2 +5.3
GTA                                 XP    sP     01 39 41.4 +8.2
GTA                                 AMB   AMB
      comp=Z,4.0nm,1.3s,mb4.0
KMI   Kunming           35.49 259  eP     P      01 39 31.0 +0.4
KMI                                 AMB   AMB
      comp=Z,15nm,1.0s,mb4.8
WMQ   Urumqi            40.22 295⇓iP      P      01 40 10.2 +0.3
WMQ                                 AP    pP     01 40 35.8 +5.3
WMQ                                 XP    sP     01 40 49.2 +8.6
WMQ                                 PP    PP     01 41 47.8 +0.5
WMQ                                 PCP   PcP    01 42 13.4 +0.4
WMQ                                 S     S      01 46 07.7 -2.5
WMQ                                 AMB   AMB
      comp=Z,19nm,0.6s,mb5.1
WMQ                                 AMB   AMB
      comp=Z,23nm,7.1s
ZAL   Zalesovo          40.85 311   P     P      01 40 15.0  0.0
      comp=Z,14nm,0.5s,mb5.1,baz=289,slow=7.1,SNR=46
ZAL   Zalesovo          40.85 311   P     P      01 40 15.0 +0.1
ZAL                                 pmax  pmax
      comp=Z,14nm,0.5s
NVS   Novosibirsk       41.73 312⇓iP      P      01 40 21.5 -0.5
NVS                                 pmax  pmax
      comp=E,6.0nm,0.5s
NVS                                 pmax  pmax
      comp=Z,6.0nm,0.5s,mb4.6
CMAR  Chiang Mai Arr    42.20 254   P     P      01 40 26.1 -0.3
      comp=Z,0.7nm,0.4s,mb3.7,baz=45,slow=5.1,SNR=3.2
CMAR  Chiang Mai Arr    42.20 254   P     P      01 40 26.1 -0.3
CMAR                                pmax  pmax
      comp=Z,1.0nm,0.4s
MK02  Makanchi Array    43.33 300   P     P      01 40 35.1 -0.1
MK02                                pmax  pmax
      comp=Z,17nm,0.8s,mb4.8
KURK  Kurchatov         44.97 307  i P    P      01 40 48.2 -0.2
KURK                                pmax  pmax
      comp=Z,21nm,1.2s,mb4.7
KURK  Kurchatov         44.97 307  eP     P      01 40 48.2 -0.2
      comp=Z,33nm,0.8s,mb5.1
GUN   Gumba             47.21 274  eP     P      01 41 07.3 +0.9
      comp=Z,25nm,0.5s,mb5.2
KKN   Kakani            47.73 274  eP     P      01 41 11.2 +0.7
      comp=Z,26nm,0.6s,mb5.2
PKI   Pulchoki          47.74 274  eP     P      01 41 11.3 +0.8
      comp=Z,5.4nm,0.4s,mb4.7
ILAR  Eielson Array     47.82  33   P     P      01 41 11.8 +1.1
      comp=Z,0.8nm,0.6s,mb3.8,baz=268,slow=6.0,SNR=12
ILAR  Eielson Array     47.82  33   P     P      01 41 11.8 +1.2
ILAR                                pmax  pmax
      comp=Z,1.0nm,0.6s
GKN   Gorkha            48.13 275  eP     P      01 41 13.0 -0.6
TKM2  Tokmak 2          48.95 297  eP     P      01 41 20.4 +0.7
      comp=Z,6.5nm,0.6s,mb4.7
KOLN  Koldanda          49.05 275  eP     P      01 41 20.6 -0.1
      comp=Z,5.0nm,0.3s,mb5.0
CHKZ  Chkalovo          49.21 312   P     P      01 41 21.1 -0.4
CHKZ                                pmax  pmax
      comp=Z,1.0nm,0.4s,mb4.1
CHKZ  Chkalovo          49.21 312  eP     P      01 41 21.1 -0.4
      comp=Z,8.8nm,0.5s,mb5.0
BVAR  Borovoye Array    49.50 311   P     P      01 41 23.6 -0.1
      comp=Z,3.9nm,0.4s,mb4.7,baz=74,slow=7.8,SNR=33
BRVK  Borovoye          49.55 311  eP     P      01 41 24.0 -0.1
      comp=Z,4.9nm,0.6s,mb4.6
AAK   Ala-Archa         49.82 297  eP     P      01 41 25.2 -1.2
      comp=Z,4.3nm,0.8s,mb4.4
KSH   Kashi             49.87 293  eP     P      01 41 27.3 +0.5
KSH                                eAP    pP     01 41 54.7 +6.8
KSH                                eXP    sP     01 42 06.3 +8.8
KSH                                ePCP   PcP    01 42 47.6 +1.3
KSH                                 AMB   AMB
      comp=Z,160nm,5.3s
INK   Inuvik            52.64  28  eP     P      01 41 48.7 +1.3
ARU   Arti              55.12 318  eP     P      01 42 05.2 -0.4
ARU   Arti              55.12 318  eP     P      01 42 05.1 -0.6
      comp=Z,12nm,0.8s,mb5.0
WRA   Warramunga Arr    58.93 188   P     P      01 42 32.5 -0.5
      comp=Z,1.0nm,0.5s,mb4.2,baz=6.0,slow=7.3,SNR=18
WRA   Warramunga Arr    58.93 188   P     P      01 42 32.5 -0.5
WRA                                 pmax  pmax
      comp=Z,1.0nm,0.5s
ARCES ARCESS Array B    62.34 339   P     P      01 42 55.1 -0.4
      comp=Z,3.3nm,0.8s,mb4.4,baz=60,slow=8.2,SNR=8.0
ARCES ARCESS Array B    62.34 339   P     P      01 42 55.1 -0.4
ARCES                               pmax  pmax
      comp=Z,3.0nm,0.8s
ASAR  Alice Springs     62.66 188   P     P      01 42 58.6 +0.4
      comp=Z,0.3nm,0.3s,mb3.6,baz=5.3,slow=7.1,SNR=5.1
JOF   Joensuu           64.43 332  ep     P      01 43 08.3 -0.9
      comp=Z,1.1nm,0.4s,mb4.0
JOF   Joensuu           64.43 332  eP     P      01 43 08.3 -0.9
JOF                                 pmax  pmax
      comp=Z,1.0nm,0.4s,mb4.0
KAF   Kangasniemi       66.76 332  ep     P      01 43 23.0 -1.1
      comp=Z,2.5nm,0.5s,mb4.3,baz=49,slow=6.0
KAF   Kangasniemi       66.76 332  eP     P      01 43 23.0 -1.1
KAF                                 pmax  pmax
      comp=Z,3.0nm,0.5s,mb4.4
FINES FINESS Array B    67.27 332   P     P      01 43 27.0 -0.3
```

	comp=Z,2.8nm,0.6s,mb4.3,baz=32,slow=9.5,SNR=16						
FINES	**FINESS Array B**	**67.27**	**332**	P	**P**	**01 43 27.0**	**-0.3**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NB2	**NORSAR Subarra**	**72.56**	**337**	P	**P**	**01 43 59.4**	**+0.1**
	comp=Z,1.1nm,0.6s,mb3.9,baz=40,slow=6.2						
NOA	**NORSAR Array B**	**72.56**	**337**	P	**P**	**01 43 59.7**	**+0.4**
	comp=Z,2.0nm,0.8s,mb4.0,baz=39,slow=6.0,SNR=5.8						
NOA	**NORSAR Array B**	**72.56**	**337**	P	**P**	**01 43 59.7**	**+0.4**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	**NORSAR Array B**	**72.56**	**337**	P	**P**	**01 43 59.7**	**+0.4**
AKASG	**Malin Array Be**	**72.96**	**322**	P	**P**	**01 44 01.9**	**0.0**
	comp=Z,2.6nm,0.5s,mb4.4,baz=44,slow=6.1,SNR=23						
AKASG	**Malin Array Be**	**72.96**	**322**	P	**P**	**01 44 01.9**	**0.0**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
NVAR	**Mina Array Bea**	**73.71**	**54**	P	**P**	**01 44 09.3**	**+2.7**
	comp=Z,0.4nm,0.6s,mb3.3,baz=286,slow=1.9,SNR=5.1						
NVAR	**Mina Array Bea**	**73.71**	**54**	P	**P**	**01 44 09.3**	**+2.7**
PDAR	**Pinedale Array**	**76.22**	**46**	P	**P**	**01 44 22.9**	**+2.1**
	comp=Z,0.2nm,0.5s,mb3.1,slow=1.5,SNR=4.2						
BRTR	**Keskin Array B**	**77.78**	**311**	P	**P**	**01 44 31.0**	**+1.5**
	comp=Z,0.8nm,0.4s,mb3.8,baz=116,slow=3.5,SNR=7.7						
BRTR	**Keskin Array B**	**77.78**	**311**	P	**P**	**01 44 31.0**	**+1.4**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CLL	**Collm**	**79.59**	**330**	P	**P**	**01 44 39.6**	**+0.4**
GERES	**GERESS Array B**	**81.25**	**328**	P	**P**	**01 44 48.9**	**+0.9**
	comp=Z,0.7nm,0.6s,mb3.7,baz=37,slow=6.8,SNR=8.0						
GERES	**GERESS Array B**	**81.25**	**328**	P	**P**	**01 44 48.9**	**+0.9**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
VNA2	**Neumayer--Watz**	**144.16**	**197**	*e*	PKPbc	01 52 08.8	+4.5
VNA3	**Neumayer Olymp**	**144.41**	**195**	*e*	PKPbc	01 52 09.3	+4.3
VNA1	**Neumayer--Stat**	**144.56**	**197**	*e*	PKPbc	01 52 06.4	+1.0

MAN 01 02:07:21.0,13.84N×120.52E,h66^{km},mb3.9,ML2.6, MS2.2,2D,Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	**Lubang**	**0.29**	**249**	*e*P	P	02 07 37.9	+6.1
LUBP	**Lubang**	**0.29**	**249**	*e*P	P	02 07 34.1	+2.3
LUBP				*e*S	S	02 07 44.1	+4.4
TGY	**Tagaytay City**	**0.48**	**57**	⇓*e*P	P	02 07 35.8	+2.4
TGY				*e*S	S	02 07 48.1	+5.6
NBP	**Mount Natib**	**0.91**	**353**	*e*P	P	02 07 38.9	+0.6
ARP	**Angono**	**0.93**	**41**	*e*P	P	02 07 38.5	-0.1
LQP	**Lukban**	**1.02**	**74**	⇓*i*P	P	02 07 41.2	+1.3
SJMP	**San Jose**	**1.49**	**157**	*e*P	P	02 07 46.0	-0.2
SJMP				*e*S	S	02 08 04.6	-0.3

NEIC 01 02:07:28.2,28.77S×71.40W,h37^{km},MD3.8(GUC)**,1D, After GUC.,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VACH	**Vallenar**	**0.59**	**71**	⇓*i*P	P	02 07 40.2	+0.1
VACH				*i* S	S	02 07 49.2	+0.4
LSCH	**La Serena**	**1.14**	**173**	*e*P	P	02 07 48.7	+0.8
LSCH				*i* S	S	02 08 03.5	+0.9
CPCH	**Copiapo**	**1.68**	**34**	*e*P	P	02 07 56.2	+0.6
CPCH				*i* S	S	02 08 17.9	+1.7
CMCH	**Combarbala**	**2.42**	**172**	*e*P	P	02 08 06.5	+0.3
CMCH				*i* S	S	02 08 36.1	+1.2

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*IDC **01** 02:14:17.0±3.9,6.60S×129.79E,h90^{km}±34^{km},mb3.9/4, mb1 4.3/8,mb1mx4.1/15,MS2.7/1,Ms1 2.7/1,ms1mx2.4/19, Error ellipse: s-maj=33.0km s-min=22.4km az=72.0*

*NEIC **01** 02:14:19.6±2.0,6.57S×129.94E,h114^{km}±16^{km},mb4.5/8, Error ellipse: s-maj=16.8km s-min=13.3km az=167.0*

ISC 01 02:14:20.4±1.8**,6.82S**±0.09×**129.99E**±0.10**,h121**^{km}±17^{km}**, n24,σ1^{s}03**/26**,mb4.3**/4**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.33**	**158**	*e*P	**P**	**02 15 53.3**	**+0.8**
	186nm,0.5s						
KAKA				*e*S	**S**	**02 17 03.6**	**-0.3**
FITZ	**Fitzroy Crossi**	**11.98**	**200**	*e*P	**P**	**02 17 08.6**	**+0.3**
	15nm,0.3s						
FITZ				*e*S	**S**	**02 19 17.7**	**-2.1**
FITZ	**Fitzroy Crossi**	**11.98**	**200**	P	**P**	**02 17 08.1**	**-0.2**
	5.2nm,0.3s,baz=19,slow=9.7,SNR=42						
FITZ				S	**S**	**02 19 18.5**	**-1.3**
	5.8nm,0.3s,baz=185,slow=14,SNR=8.5						
FITZ				LR	LR	02 22 00.1	
	comp=Z,30nm,18.5s,baz=51,slow=38						
WRAB	**Tennant Creek**	**13.70**	**162**	*e*P	**P**	**02 17 30.1**	**-0.6**
	26nm,0.6s						
WRA	**Warramunga Arr**	**13.71**	**162**	P	**P**	**02 17 29.8**	**-1.0**
	4.4nm,0.3s,baz=342,slow=13,SNR=31						
WRA				S	**S**	**02 19 56.1**	**-4.2**
	9.1nm,0.3s,baz=349,slow=18,SNR=12						
WB2	**Warramunga Arr**	**13.71**	**162**	*e*P	**P**	**02 17 29.4**	**-1.4**
WB2				*e*S	**S**	**02 19 53.0**	**-7.4**
ASAR	**Alice Springs**	**17.16**	**168**	P	**P**	**02 18 15.5**	**+1.3**
	2.3nm,0.3s,baz=342,slow=8.9,SNR=27						
ASAR				S	**S**	**02 21 20.3**	**+1.0**
	2.3nm,0.3s,baz=343,slow=24,SNR=6.4						
ASPA	**Alice Springs**	**17.16**	**168**	*e*P	**P**	**02 18 16.0**	**+1.8**
ASPA				*e*S	**S**	**02 21 19.4**	**+0.1**
PMG	**Port Moresby**	**17.19**	**100**	P	**P**	**02 18 14.0**	**-0.6**
	1.6nm,0.3s,baz=295,slow=7.0,SNR=9.8						
MBWA	**Marble Bar**	**17.37**	**214**	*e*P	**P**	**02 18 18.1**	**+1.4**
	14nm,0.6s						
CTA	**Charters Tower**	**20.56**	**131**	*e*P	**P**	**02 18 52.0**	**+0.6**
	12nm,0.8s						
CTA				*e*S	S	02 23 01.1	+32
CTA	**Charters Tower**	**20.56**	**131**	P	**P**	**02 18 52.0**	**+0.6**
	12nm,0.6s,baz=307,slow=12,SNR=15						
CTAO	**Charters Tower**	**20.56**	**131**	*e*P	**P**	**02 18 51.8**	**+0.4**
	23nm,1.0s						
FORT	**Forrest**	**23.90**	**184**	*e*P	**P**	**02 19 32.1**	**+8.1**
	76nm,0.7s,mb5.1						
STKA	**Stephens Creek**	**27.18**	**158**	*e*P	**P**	**02 19 54.4**	**-0.2**
	3.0nm,0.4s,mb4.2						
STKA	**Stephens Creek**	**27.18**	**158**	P	**P**	**02 19 54.5**	**-0.2**
	4.4nm,0.5s,mb4.2,baz=331,slow=7.6,SNR=12						
SONM	**Songino Array**	**58.27**	**342**	P	**P**	**02 24 00.2**	**-4.4**
	0.4nm,0.4s,mb3.8,baz=146,slow=5.2,SNR=2.8						
VNDA	**Vanda**	**72.62**	**173**	P	**P**	**02 25 35.5**	**-0.4**
	1.5nm,0.7s,mb3.9,baz=303,slow=4.9,SNR=5.6						
VNDA	**Vanda**	**72.62**	**173**	*e*P	**P**	**02 25 34.4**	**-1.5**
	3.5nm,1.0s,mb4.1						
LVC	**Limon Verde**	**145.38**	**148**	PKPbc	PKPbc	02 33 46.4	+1.1
	2.8nm,0.6s,baz=231,slow=4.8,SNR=4.8						
LVC	**Limon Verde**	**145.38**	**148**	*e*P	PKPdf	02 33 45.8	+1.1
LVC				PKPbc	PKPbc	02 33 46.4	+1.1
CPUP	**Villa Florida**	**146.29**	**168**	PKPbc	PKPbc	02 33 48.0	+0.6
	1.8nm,0.8s,baz=180,slow=3.1,SNR=5.4						
LPAZ	**La Paz**	**150.86**	**142**	PKPbc	PKPdf	02 34 01.1	+7.5
	0.5nm,0.3s,baz=6.9,slow=5.1,SNR=3.8						
LPAZ				PKPab	PKPab	02 34 09.6	+0.1
	1.7nm,0.5s,baz=239,slow=3.2,SNR=8.4						
LPAZ	**La Paz**	**150.86**	**142**	PKPbc	PKPdf	02 34 01.1	+7.5
LPAZ				PKPab	PKPab	02 34 09.6	+0.1

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*ISK **01** 02:14:26.4,39.35N×28.16E,h14^{km},MD3.3*

*CSEM **01** 02:14:26.2±0.1,39.35N×28.17E,h12^{km},MD3.3,Error ellipse: s-maj=2.0km s-min=1.4km az=108.0*

*ATH **01** 02:14:31.1,39.42N×27.90E,h41^{km}*

ISC 01 02:14:26.4±0.6**,39.34N**±0.03×**28.22E**±0.04**,h5**^{km}±6^{km}**, n27,σ0^{s}88**/34**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DST	**Dursunbey**	**0.41**	**50**	*i* PG	**Pg**	**02 14 35.2**	**+0.5**
BTOK	**Tokmak**	**0.45**	**341**	*i* P	**Pg**	**02 14 35.6**	**+0.3**
BTOK				*i* S	**Sg**	**02 14 42.0**	**+0.7**
AKS	**Akhisar**	**0.56**	**215**	*i* PG	**Pg**	**02 14 37.6**	**0.0**
AKS				SG	**Sg**	**02 14 45.6**	**+0.6**
ORLT	**Orhaneli**	**0.88**	**36**	*i* PG	**Pg**	**02 14 43.8**	**-0.1**
MANT	**Manisa**	**0.89**	**163**	*i* P	**Pb**	**02 14 44.1**	**+0.2**
MANT				*i* S	**Sb**	**02 14 54.9**	**-1.0**
KCT	**Karacabey**	**0.93**	**6**	PG	**Pg**	**02 14 44.7**	**-0.3**
BNT	**Bandirma**	**1.04**	**347**	*i* PG	**Pg**	**02 14 46.6**	**-0.6**
EDC	**Edincik**	**1.04**	**345**	*i* PG	**Pg**	**02 14 46.5**	**-0.7**
ULDT	**Uludag**	**1.07**	**41**	*i* P	**Pb**	**02 14 47.2**	**+0.2**
ULDT				*i* S	**Sb**	**02 15 03.4**	**+2.4**
AYVA	**Ayvalik**	**1.19**	**269**	*i* P	**Pb**	**02 14 49.7**	**+0.7**
AYVA				*i* S	**Sb**	**02 15 05.6**	**+1.2**
KDAG	**Bornova**	**1.20**	**219**	*i* P	**Pb**	**02 14 48.7**	**-0.5**
KDAG				*i* S	**Sb**	**02 15 06.1**	**+1.4**
IZM	**Izmir**	**1.20**	**219**	*i* PN	**Pn**	**02 14 48.8**	**-1.0**
KHL	**Karahalli**	**1.44**	**135**	PN	**Pn**	**02 14 53.2**	**0.0**
PRK	**Paraskevi**	**1.51**	**267**	*e*P	**Pn**	**02 14 53.7**	**-0.6**
EZN	**Ezine**	**1.54**	**289**	*e*PN	**Pn**	**02 14 53.3**	**-1.4**
BADT	**Buyukada**	**1.66**	**24**	PN	**Pn**	**02 14 55.7**	**-0.7**
DENT	**Denizli**	**1.71**	**158**	*e*PN	**Pn**	**02 14 57.2**	**+0.2**
HRT	**Hereke**	**1.85**	**36**	PN	**Pn**	**02 14 58.4**	**-0.7**
GPA	**Golpazari**	**1.87**	**59**	*e*PN	**Pn**	**02 14 59.5**	**+0.2**
SMG	**Samos**	**1.96**	**214**	*e*P	**Pn**	**02 15 02.7**	**+2.1**
ESKT	**Eskisehir**	**2.04**	**84**	*i* P	**Pn**	**02 15 00.0**	**-1.9**
ESKT				*i* S	**Sn**	**02 15 34.1**	**+6.0**
ESKT	**Eskisehir**	**2.04**	**84**	*e*Pn	**Pn**	**02 15 02.1**	**+0.2**
YER	**Yerkesik**	**2.20**	**179**	*e*PN	**Pn**	**02 15 03.1**	**-1.0**
LIA	**Limnos Island**	**2.41**	**284**	*e*P	**Pn**	**02 15 06.4**	**-0.7**
MDU	**Mudurnu**	**2.56**	**63**	*e*PN	**Pn**	**02 15 09.7**	**+0.4**
KIZT	**Kizilcal**	**2.88**	**98**	*e*PN	**Pn**	**02 15 14.7**	**+0.8**
NVR	**Nevrokopi**	**3.89**	**302**	*e*P	**Pn**	**02 15 26.9**	**-1.2**

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*IDC **01** 02:15:42.0±0.6,58.71S×25.13W,mb4.2/5,mb1 4.4/6, mb1mx4.3/11,ML4.8/1,MS3.6/7,Ms1 3.6/7,ms1mx3.4/15, Error ellipse: s-maj=45.9km s-min=20.4km az=58.0*

*NEIC **01** 02:15:46.0±2.7,58.75S×25.21W,h27^{km}±18^{km},mb4.5/8, Error ellipse: s-maj=13.0km s-min=7.8km az=223.0*

*SYO **01** 02:15:45.5,58.87S×25.19W,h27^{km},MB4.5*

*BJI **01** 02:15:48.9,58.70S×25.20W,h27^{km},mB5.0,Ms5.2, Msz4.8*

ISC 01 02:15:40.7±0.7**,59.0S**±0.1×**25.2W**±0.2**,h10**^{km}**,n63, σ1^{s}36**/28**,mb4.3**/11**,MS4.0**/9**,3C-3D,South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	**Neumayer--Stat**	**13.67**	**156**	*e*	**P**	**02 19 03.1**	**+6.5**
VNA1	**Neumayer--Stat**	**13.67**	**156**	*e*	**S**	**02 21 25.3**	**-4.2**
VNA1	**Neumayer--Stat**	**13.67**	**156**	*e*		02 32 09.1	
VNA1	**Neumayer--Stat**	**13.67**	**156**	⇑*i*Pn	**P**	**02 19 00.7**	**+4.1**
VNA1				*e*		02 19 03.1	
VNA1				*e*		02 21 25.3	
VNA1				*e*		02 24 20.9	
VNA1				*e*		02 32 09.1	
VNA3	**Neumayer Olymp**	**13.86**	**159**	*e*	**P**	**02 19 05.2**	**+6.1**
VNA3	**Neumayer Olymp**	**13.86**	**159**	*e*	**S**	**02 21 27.4**	**-6.7**
VNA3	**Neumayer Olymp**	**13.86**	**159**	⇑*i*Pn	**P**	**02 19 02.9**	**+3.8**
VNA3				*e*		02 19 05.2	
VNA3				*e*		02 21 27.4	
VNA3				*e*		02 24 23.8	
VNA3				*e*		02 32 11.7	
VNA2	**Neumayer--Watz**	**14.07**	**156**	*e*	**P**	**02 19 08.1**	**+6.3**
VNA2	**Neumayer--Watz**	**14.07**	**156**	*e*	**S**	**02 21 30.1**	**-8.9**
VNA2	**Neumayer--Watz**	**14.07**	**156**	⇑*i*Pn	**P**	**02 19 05.7**	**+3.9**
VNA2				*e*		02 19 08.1	
VNA2				*e*		02 21 30.1	
VNA2				*e*		02 24 25.1	
VNA2				*e*		02 32 12.8	
SNAA	**Sanae**	**15.62**	**153**	*e*	**P**	**02 19 27.6**	**+5.4**
SNAA	**Sanae**	**15.62**	**153**	*e*	**S**	**02 21 59.7**	**-16**
SNAA	**Sanae**	**15.62**	**153**	*e*	tx	02 25 04.6	
SNAA	**Sanae**	**15.62**	**153**	*e*		02 32 32.6	
SNAA	**Sanae**	**15.62**	**153**	Pn	**P**	**02 19 24.9**	**+2.7**
	3.9nm,0.3s,baz=320,slow=15,SNR=427						
SNAA				Sn	**S**	**02 22 06.9**	**-8.9**
	0.1nm,0.3s,baz=327,slow=17,SNR=4.1						
SNAA				PcP	PcP	02 24 24.5	+0.1
	0.1nm,0.3s,slow=1.0,SNR=4.5						
SNAA				LR	LR	02 24 26.6	
	comp=Z,96nm,18.8s,slow=33						
SNAA	**Sanae**	**15.62**	**153**	⇓*i*Pn	**P**	**02 19 25.1**	**+2.9**
SNAA				*e*		02 19 27.6	
SNAA				*e*		02 21 59.7	
SNAA				*e*		02 25 04.6	
SNAA				*e*		02 32 32.6	
EFI	**East Falkland**	**19.90**	**277**	*e*P	**P**	**02 20 15.9**	**+1.0**
	50nm,0.9s						
USHA	**Ushuaia**	**23.64**	**261**	LR	LR	02 27 53.6	
	comp=Z,173nm,18.6s,MS3.5,baz=314,slow=31						
SYO	**Syowa Base**	**28.66**	**137**	⇓sP	sP	02 21 51.5	+8.2
QSPA	**South Pole Qui**	**31.25**	**180**	⇓*i*P	**P**	**02 22 05.8**	**+3.8**
	5.6nm,0.6s,mb4.6						
TRQA	**Tornquist**	**31.50**	**295**	*e*P	**P**	**02 22 04.7**	**+0.1**
	2.5nm,0.7s,mb4.2						
MAW	**Mawson**	**37.17**	**141**	LR	LR	02 36 03.9	
	comp=Z,103nm,19.0s,MS3.6,baz=73,slow=33						
CPUP	**Villa Florida**	**39.56**	**311**	P	**P**	**02 23 11.4**	**-2.0**
	0.9nm,0.5s,mb3.8,baz=163,slow=6.2,SNR=5.2						
CPUP				LR	LR	02 37 59.2	
	comp=Z,51nm,19.8s,MS3.4,baz=313,slow=34						
CPUP	**Villa Florida**	**39.56**	**311**	P	**P**	**02 23 11.4**	**-2.0**
CPUP				LR	LR	02 37 59.2	
VNDA	**Vanda**	**43.68**	**182**	P	**P**	**02 23 51.0**	**+4.5**
	2.4nm,0.7s,mb4.1,baz=196,slow=6.4,SNR=11						
VNDA				LR	LR	02 40 42.4	
	comp=Z,71nm,18.5s,MS3.6,baz=157,slow=34						
BDFB	**Brasilia**	**46.44**	**329**	P	**P**	**02 24 10.6**	**+1.3**
	2.4nm,0.6s,mb4.3,baz=160,slow=5.8,SNR=9.3						
BDFB				PcP	PcP	02 25 45.0	+0.5
	2.5nm,0.5s,baz=154,slow=1.2,SNR=5.2						
LBTB	**Lobatse**	**48.96**	**69**	*e*P	**P**	**02 24 28.8**	**-0.1**
	3.7nm,0.9s,mb4.4						
LPAZ	**La Paz**	**52.94**	**305**	P	**P**	**02 24 59.3**	**0.0**
	2.2nm,0.6s,mb4.2,baz=137,slow=7.4,SNR=9.6						
LPAZ				LR	LR	02 44 45.9	
	comp=Z,35nm,19.3s,MS3.4,baz=298,slow=33						
LPAZ	**La Paz**	**52.94**	**305**	*e*P	**P**	**02 24 58.7**	**-0.6**
	2.6nm,0.7s,mb4.3						
SAML	**Samuel**	**57.62**	**314**	*e*P	**P**	**02 25 31.0**	**-2.2**
	2.6nm,0.7s,mb4.4						
LSZ	**Lusaka**	**58.54**	**65**	*e*P	**P**	**02 25 39.8**	**+0.2**
	3.1nm,0.8s,mb4.4						
DBIC	**Dimbokro**	**67.45**	**22**	*e*P	**P**	**02 26 38.7**	**0.0**
	8.6nm,0.9s,mb4.8						
ASAR	**Alice Springs**	**95.86**	**161**	P	**P**	**02 29 09.8**	**+1.4**
	0.7nm,0.6s,mb4.2,baz=184,slow=4.1,SNR=3.9						
ASAR				PKKPbc		02 45 54.7	
	0.2nm,0.5s,baz=18,slow=1.5,SNR=4.4						
ASAR				LR	LR	03 11 32.5	
	comp=Z,48nm,18.4s,MS4.0,baz=304,slow=35						
WRA	**Warramunga Arr**	**99.58**	**161**	PKKPbc		02 45 47.1	
	0.3nm,0.5s,baz=357,slow=2.8,SNR=6.8						
HWUT	**Hardware Ranch**	**122.77**	**297**	*e*PKPdf	PKPdf	02 34 37.8	-1.4
PDAR	**Pinedale Array**	**122.77**	**299**	PKP	PKPdf	02 34 37.8	-1.4
	0.8nm,0.5s,baz=127,slow=4.9,SNR=13						
PDAR				PKKPbc		02 44 39.0	
	0.4nm,1.0s,SNR=3.8						
NOA	**NORSAR Array B**	**123.00**	**20**	PKP	PKPdf	02 34 37.5	-1.6
	1.1nm,0.7s,baz=201,slow=1.7,SNR=3.6						
CMAR	**Chiang Mai Arr**	**123.04**	**110**	PKP	PKPdf	02 34 39.8	-0.5
	1.1nm,0.6s,baz=236,slow=4.6,SNR=4.7						
NVAR	**Mina Array Bea**	**123.47**	**290**	PKP	PKPdf	02 34 41.1	+0.4
	1.2nm,0.6s,baz=120,slow=3.3,SNR=13						
LOHW	**Long Hollow**	**123.90**	**299**	*e*PKPdf	PKPdf	02 34 40.7	-0.8
MOOW	**Moose Ponds**	**124.07**	**299**	*e*PKPdf	PKPdf	02 34 40.8	-1.1
FINES	**FINESS Array B**	**126.49**	**28**	PKP	PKPdf	02 34 44.0	-1.8
	1.2nm,0.4s,baz=129,slow=2.9,SNR=22						
FINES	**FINESS Array B**	**126.49**	**28**	PKP	PKPdf	02 34 44.0	-1.8
BMO	**Blue Mountains**	**127.93**	**296**	*e*PKPdf	PKPdf	02 34 47.3	-1.8
ARCES	**ARCESS Array B**	**133.28**	**22**	PKP	PKPdf	02 34 57.2	-1.3
	2.3nm,0.5s,baz=221,slow=1.8,SNR=15						
ARCES	**ARCESS Array B**	**133.28**	**22**	PKP	PKPdf	02 34 57.2	-1.3
BVAR	**Borovoye Array**	**135.43**	**59**	PKP	PKPdf	02 35 02.1	-0.9
	1.3nm,0.4s,baz=206,slow=2.9,SNR=11						
WMQ	**Urumqi**	**137.41**	**80**	PKP	PKPdf	02 35 06.6	-0.2
WMQ				XPKP		02 35 20.4	
WMQ				PP	PP	02 37 56.1	+3.0
WMQ				LR	LR		
	comp=E,62nm,20.2s						
WMQ				LR	LR		
	comp=Z,29nm,16.0s,MS4.1						
YKA	**Yellowknife Ar**	**139.04**	**315**	PKP	PKPdf	02 35 08.3	-1.0
	comp=Z,5.5nm,0.7s,baz=128,slow=2.2,SNR=67						
YKW3	**Yellowknife Ar**	**139.08**	**315**	*e*PKPdf	PKPdf	02 35 08.3	-1.1
LZH	**Lanzhou**	**139.99**	**102**	*e*PKP	PKPdf	02 35 11.5	-0.3
LZH				XPKP		02 35 23.4	
LZH				LR	LR		
	comp=N,217nm,18.0s						
LZH				LR	LR		
	comp=Z,349nm,20.2s,MS5.1						
GTA	**Gaotai**	**140.46**	**95**	*e*PKP	PKPdf	02 35 21.3	+8.7
NJ2	**Nanjing**	**143.89**	**122**	*e*PKP	PKPdf	02 35 27.1	+8.6
HHC	**Hu-ho-hao-te**	**147.53**	**105**	*e*PKP	PKPdf	02 35 29.6	+5.1
HHC				APKP		02 35 38.0	
HHC				SKS	SKS	02 42 32.2	-0.1
HHC				PP	PP		
	comp=Z,74nm,5.5s						
HHC				LR	LR		
	comp=N,166nm,17.8s,MS5.0						
HHC				LR	LR		
	comp=E,122nm,15.5s,MS5.0						
HHC				LR	LR		
	comp=Z,91nm,13.1s,MS4.7						
INK	**Inuvik**	**148.72**	**317**	*e*PKPbc	PKPdf	02 35 28.1	+2.5
DAWY	**Dawson**	**149.50**	**308**	*e*PKPbc	PKPdf	02 35 30.3	+3.4
SONM	**Songino Array**	**149.75**	**90**	PKPbc	PKPdf	02 35 32.3	+4.5
	comp=Z,5.5nm,0.8s,baz=238,slow=2.7,SNR=20						
SML	**Sawmill**	**152.53**	**300**	*e*PKPbc	PKPdf	02 35 37.9	+6.4
ILAR	**Eielson Array**	**152.81**	**307**	PKPbc	PKPdf	02 35 38.2	+6.3
	comp=Z,16nm,1.0s,baz=153,slow=2.0,SNR=93						
ILAR	**Eielson Array**	**152.81**	**307**	PKPbc	PKPdf	02 35 38.1	+6.3
COLA	**College**	**153.23**	**307**	*e*PKPbc	PKPdf	02 35 38.9	+6.5
MCK	**McKinley**	**153.39**	**304**	*e*PKPbc	PKPdf	02 35 40.2	+7.5
CN2	**Changchun**	**156.48**	**117**	*e*PKP	PKPdf	02 35 36.2	-1.2

DJA 01 03:04:08.9±1.0**,9.81S×113.77E,h2**^{km}**,MD4.7**/3**,ML3.9**/3**, 3C-3D,Error ellipse: s-maj=23.8km s-min=15.5km az=31.0,South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**1.38**	**16**	⇓*i*Pn	Pn	03 04 32.0	-3.1
	104nm,0.2s						
SRDI				⇑*i*Sn	Sn	03 04 49.4	-4.8
RATI	**Rata**	**2.05**	**58**	⇓*i*Pn	Pn	03 04 41.7	-3.1
	108nm,0.2s						
RATI				⇑*i*Sn	Sn	03 05 05.3	-6.0
KEDI	**Kedomdong**	**2.67**	**61**	⇑*i*Pn	Pn	03 04 50.3	-3.3
	44nm,0.3s						
KEDI				⇓*i*Sn	Sn	03 05 20.5	-6.4

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*IDC **01** 03:19:55.4±1.4,6.70S×149.96E,mb4.1/5,mb1 4.4/6, mb1mx4.1/13,ML3.3/1,MS2.9/1,Ms1 2.8/1,ms1mx2.4/15, Error ellipse: s-maj=60.5km s-min=21.9km az=126.0*

*NEIC **01** 03:20:02.2±2.8,6.91S×150.00E,h49^{km}±22^{km},mb4.3/2, Error ellipse: s-maj=39.8km s-min=18.2km az=121.0*

ISC 01 03:20:01.7±3.7**,6.9S**±0.3×**150.0E**±0.3**,h64**^{km}±29^{km}**,n12, σ0^{s}65**/13**,mb3.9**/4**,1C,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.74**	**227**	Pn	**P**	**03 20 58.4**	**0.0**
	17nm,0.3s,baz=70,slow=6.0,SNR=29						
PMG				Sn	**S**	**03 21 42.2**	**+0.7**
	36nm,0.3s,baz=14,slow=5.1,SNR=9.8						
PMG	**Port Moresby**	**3.74**	**227**	*e*P	**P**	**03 20 57.8**	**-0.5**
PMG				Sn	**S**	**03 21 42.2**	**+0.7**
WRAB	**Tennant Creek**	**19.95**	**228**	*e*P	**P**	**03 24 30.3**	**-0.9**
	18nm,0.6s						
WB2	**Warramunga Arr**	**19.95**	**228**	*e*P	**P**	**03 24 30.2**	**-1.1**
WRA	**Warramunga Arr**	**19.96**	**228**	P	**P**	**03 24 30.6**	**-0.8**
	9.3nm,0.5s,baz=51,slow=11,SNR=67						
WRA				PcP	PcP	03 28 52.3	+6.7
	0.7nm,0.6s,baz=39,slow=2.1,SNR=6.6						
ASAR	**Alice Springs**	**22.73**	**221**	P	**P**	**03 24 59.9**	**+0.6**
	2.0nm,0.6s,mb3.7,baz=56,slow=9.5,SNR=23						
ASPA	**Alice Springs**	**22.73**	**221**	*e*P	**P**	**03 24 59.8**	**+0.5**
STKA	**Stephens Creek**	**26.07**	**196**	P	**P**	**03 25 31.4**	**+0.1**
	3.5nm,0.6s,mb4.1,baz=32,slow=12,SNR=6.1						
STKA				LR	LR	03 36 33.6	
	comp=Z,30nm,22.0s,baz=24,slow=38						
FITZ	**Fitzroy Crossi**	**26.19**	**243**	⇑*i*P	**P**	**03 25 32.9**	**+0.5**
	4.8nm,0.9s,mb4.0						
FITZ	**Fitzroy Crossi**	**26.19**	**243**	P	**P**	**03 25 33.0**	**+0.5**
	2.1nm,0.4s,mb4.0,baz=47,slow=7.1,SNR=11						
ILAR	**Eielson Array**	**85.14**	**23**	P	**P**	**03 32 32.2**	**+0.5**
	0.7nm,0.8s,mb3.8,baz=260,slow=4.7,SNR=6.2						
GERES	**GERESS Array B**	**124.27**	**326**	PKP	PKPdf	03 38 56.6	+3.1
	0.7nm,0.8s,baz=90,slow=2.9,SNR=5.1						

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*NEIC **01** 03:56:33.1±0.5,31.49S×66.71W,h120^{km}±7^{km},mb4.3/2, MD3.8(GUC),Error ellipse: s-maj=8.3km s-min=6.7km az=111.0*

*IDC **01** 03:56:34.3±4.2,31.42S×66.64W,h131^{km}±40^{km},mb3.1/3, mb1 3.5/6,mb1mx3.4/14,Error ellipse: s-maj=39.7km s-min=23.9km az=58.0*

*GUC **01** 03:56:34.1±0.6,31.48S×67.01W,h150^{km},MD3.8,ML4.1*

ISC 01 03:56:32.7±0.8**,31.45S**±0.05×**66.82W**±0.08**, h126**^{km}±13^{km}**,n24,σ1^{s}08**/30**,mb3.4**/3**,4C,La Rioja Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	**Mendoza**	**2.24**	**230**	*e*P	**P**	**03 57 11.0**	**+1.1**
MDZ				S	**S**	**03 57 40.2**	**+2.0**
JACH	**Jahuel**	**3.43**	**248**	*e*P	**P**	**03 57 26.1**	**+0.4**
JACH				*i* S	**S**	**03 57 58.6**	**-7.6**
FCH	**Farellones**	**3.48**	**237**	⇑*i*P	**P**	**03 57 27.0**	**+0.6**
FCH				*i* S	**S**	**03 58 07.3**	**-0.2**
FCH				AMP		03 58 12.4	
	comp=E,152nm,0.7s						
CMCH	**Combarbala**	**3.59**	**273**	⇑*i*P	**P**	**03 57 28.8**	**+0.9**
CMCH				*i* S	**S**	**03 58 09.3**	**-0.8**
CLCH	**Cerro Calan**	**3.69**	**237**	*e*P	**P**	**03 57 29.2**	**0.0**
CLCH				*i* S	**S**	**03 58 11.3**	**-1.2**
CLCH				AMP		03 58 21.3	
	comp=E,282nm,0.3s						
PCH	**Pirque**	**3.80**	**234**	*e*P	**P**	**03 57 30.6**	**0.0**
ROCH	**El Roble**	**3.86**	**246**	*e*P	**P**	**03 57 31.4**	**-0.1**
RCDM	**Rinconada Maip**	**3.93**	**238**	*e*P	**P**	**03 57 32.5**	**0.0**
LSCH	**La Serena**	**4.11**	**291**	*i* S	**S**	**03 58 20.0**	**-2.5**
TACH	**Talagante**	**4.11**	**237**	*i* P	**P**	**03 57 34.4**	**-0.5**
CPCH	**Copiapo**	**5.11**	**322**	*i* P	**P**	**03 57 49.0**	**+0.7**
CPCH				*i* S	**S**	**03 58 45.9**	**-0.8**
TRQA	**Tornquist**	**7.70**	**150**	*e*P	**P**	**03 58 22.3**	**-1.0**
	comp=E,17nm,0.6s						
LVC	**Limon Verde**	**9.00**	**348**	P	**P**	**03 58 41.3**	**+0.6**
	comp=E,0.9nm,0.3s,baz=161,slow=12,SNR=9.8						
LVC				S	**S**	**04 00 16.2**	**-4.5**
	comp=E,0.5nm,0.3s,baz=165,slow=20,SNR=3.7						
CPUP	**Villa Florida**	**9.76**	**61**	P	**P**	**03 58 48.5**	**-2.3**
	comp=E,1.0nm,0.3s,baz=258,slow=13,SNR=16						
CPUP	**Villa Florida**	**9.76**	**61**	P	**P**	**03 58 48.5**	**-2.4**
LPAZ	**La Paz**	**15.14**	**355**	P	**P**	**04 00 02.7**	**+1.6**
	comp=E,0.7nm,0.3s,baz=178,slow=6.5,SNR=21						
LPAZ	**La Paz**	**15.14**	**355**	*e*P	**P**	**04 00 02.3**	**+1.3**
	comp=E,4.3nm,0.7s						
BDFB	**Brasilia**	**23.29**	**52**	P	**P**	**04 01 29.7**	**-0.2**
	comp=E,3.7nm,1.0s,mb3.7,baz=206,slow=8.9,SNR=3.8						
BBL	**Barber's Block**	**46.99**	**7**	*e*P	**P**	**04 04 59.9**	**+6.9**
MGG	**Marie-Galante**	**47.39**	**7**	⇑*i*P	**P**	**04 04 58.9**	**+2.8**
DEG	**La Desirade**	**47.81**	**7**	⇑*e*P	**P**	**04 05 05.2**	**+5.8**
SNAA	**Sanae**	**52.33**	**159**	P	**P**	**04 05 32.3**	**-0.7**
	comp=E,0.2nm,0.5s,mb3.4,baz=304,slow=11,SNR=10						
TXAR	**Lajitas Array**	**69.87**	**326**	P	**P**	**04 07 31.7**	**-0.1**
	comp=E,0.2nm,0.5s,mb3.2,baz=153,slow=8.1,SNR=4.2						
WRA	**Warramunga Arr**	**125.01**	**204**	PKP	PKPdf	04 15 18.5	0.0
	comp=E,0.1nm,0.3s,baz=160,slow=1.9,SNR=5.6						

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*IDC **01** 03:58:35.0±3.8,6.70S×149.90E,h21^{km}±24^{km},mb4.2/9, mb1 4.5/11,mb1mx4.3/14,ML3.6/2,MS3.2/4,Ms1 3.1/4, ms1mx3.1/14,Error ellipse: s-maj=30.7km s-min=13.1km az=131.0*

*NEIC **01** 03:58:37.6±3.6,6.93S×149.87E,h35^{km}±23^{km},mb4.5/4, Error ellipse: s-maj=35.2km s-min=21.0km az=225.0*

ISC 01 03:58:34.4±0.7**,6.8S**±0.1×**150.0E**±0.1**,h33**^{km}**,n23, σ1^{s}34**/23**,mb4.2**/8**,MS3.1**/2**,1C-1D,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.81**	**226**	Pn	**Pn**	**03 59 33.9**	**+1.4**
	22nm,0.3s,baz=39,slow=11,SNR=42						
PMG				Sn	**Sn**	**04 00 19.0**	**+2.3**
	31nm,0.3s,baz=3.2,slow=22,SNR=15						
PMG				LR	LR	04 00 52.3	
	comp=Z,189nm,21.8s,baz=192,slow=36						
PMG	**Port Moresby**	**3.81**	**226**	*e*P	**P**	**03 59 33.0**	**+0.8**
CTA	**Charters Tower**	**13.72**	**195**	Pn	**P**	**04 01 46.2**	**-2.9**
	0.4nm,0.3s,baz=231,slow=13,SNR=2.6						
CTA				LR	LR	04 06 29.5	
	comp=Z,83nm,18.9s,baz=45,slow=34						

CTA	Charters Tower	13.72	195	Pn	P	04 01 46.2	-2.9
CTA				LR	LR	04 06 29.5	
CTAO	Charters Tower	13.72	195	P	P	04 01 47.1	-2.0
CTAO				e		04 01 57.7	
KAKA	Kakadu	18.24	250	eP	P	04 02 41.7	-5.3
	8.5nm,0.5s						
WRAB	Tennant Creek	20.02	228	eP	P	04 03 05.2	-2.2
	34nm,0.6s						
WB2	Warramunga Arr	20.02	228	⇓iP	P	04 03 05.7	-1.7
WB2				i		04 03 06.5	
WB2				i		04 03 07.8	
WRA	Warramunga Arr	20.03	228	P	P	04 03 06.0	-1.6
	18nm,0.6s,baz=53,slow=11,SNR=237						
WRA				S	S	04 06 53.3	+7.4
	1.6nm,0.9s,baz=45,slow=21,SNR=4.6						
WRA				PcP	PcP	04 07 27.7	+5.3
	1.8nm,0.6s,baz=42,slow=2.0,SNR=8.0						
ASAR	Alice Springs	22.81	221	P	P	04 03 35.4	-0.3
	6.7nm,0.7s,mb4.2,baz=55,slow=9.6,SNR=57						
ASAR				S	S	04 07 45.0	+6.8
	2.1nm,1.0s,baz=34,slow=22,SNR=7.2						
ASPA	Alice Springs	22.81	221	eP	P	04 03 35.4	-0.3
STKA	Stephens Creek	26.17	196	eP	P	04 04 07.1	-0.8
	10nm,0.9s,mb4.3						
STKA	Stephens Creek	26.17	196	P	P	04 04 08.3	+0.4
	8.8nm,0.6s,mb4.5,baz=12,slow=9.6,SNR=11						
STKA				LR	LR	04 13 46.6	
	comp=Z,92nm,19.0s,MS3.3,baz=24,slow=35						
FITZ	Fitzroy Crossi	26.24	242	⇑iP	P	04 04 08.5	-0.1
	14nm,0.9s,mb4.5						
FITZ	Fitzroy Crossi	26.24	242	P	P	04 04 08.6	-0.1
	5.7nm,0.4s,mb4.4,baz=44,slow=5.4,SNR=61						
FITZ				LR	LR	04 16 50.4	
	comp=Z,35nm,18.0s,MS2.9,baz=265,slow=42						
CMAR	Chiang Mai Arr	56.20	297	P	P	04 08 13.8	-0.2
	1.0nm,0.4s,mb4.2,baz=116,slow=4.7,SNR=5.5						
VNDA	Vanda	71.00	177	P	P	04 09 51.8	+1.4
	2.4nm,1.0s,mb4.1,baz=323,slow=5.1,SNR=3.9						
ILAR	Eielson Array	85.04	23	P	P	04 11 07.2	-0.5
	1.1nm,0.8s,mb4.0,baz=245,slow=4.3,SNR=19						
NVAR	Mina Array Bea	95.52	52	P	P	04 11 60.0	+2.4
	0.5nm,0.5s,mb4.2,baz=254,slow=6.0,SNR=5.2						
YKA	Yellowknife Ar	98.47	28	P	P	04 12 11.0	+0.6
	0.3nm,0.8s,mb3.9,baz=284,slow=2.9,SNR=4.0						
PDAR	Pinedale Array	102.26	48	P	Pdif	04 12 29.9	+1.9
	0.2nm,0.5s,baz=225,slow=2.1,SNR=4.1						
GERES	GERESS Array B	124.18	326	PKP	PKPdf	04 17 32.6	+2.6
	1.3nm,0.7s,baz=81,slow=1.4,SNR=12						
BDFB	Brasilia	151.50	141	PKPbc	PKPdf	04 18 28.7	+8.9
	1.4nm,0.4s,baz=230,slow=3.3,SNR=6.9						

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*WAR **01** 04:33:38.6, 51.51N×16.09E, h1^{km}, ML2.8, Mining Induced*

*PRU **01** 04:33:38.2, 51.48N×16.12E*

ISC 01 04:33:35.3±1.0**, 51.52N**±0.05×**16.11E**±0.04**, n10,** σ**1**^{s}**22**/23**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.69	170	ePG	Pg	04 33 51.0	+1.8
KSP				eSG	Sg	04 34 00.0	+1.6
UPC	Upice	1.02	183	ePG	Pg	04 33 57.0	+1.3
UPC				eSG	Sg	04 34 10.1	+0.8
DPC	Dobruska-Polom	1.18	173	ePG	Pg	04 33 59.6	+0.6
DPC				eSG	Sg	04 34 14.8	+0.1
PVCC	Panska Ves	1.39	225	ePG	Pg	04 34 04.1	+1.0
PVCC				eSG	Sg	04 34 22.8	+1.1
PRU	Pruhonice	1.83	214	PG	Pg	04 34 11.4	-0.5
PRU				i x	x	04 34 13.8	
PRU				i x	x	04 34 28.0	
PRU				SG	Sg	04 34 35.5	-0.8
	7.9nm,0.6s						
CLL	Collm	1.96	265	ePG	Pg	04 34 14.0	-0.4
CLL				eSG	Sg	04 34 41.0	+0.5
OKC	Ostrava-Krasne	2.13	142	ePG	Pg	04 34 17.5	-0.4
OKC				eSG	Sg	04 34 44.7	-1.5
NKC	Novy Kostel	2.65	242	ePN	Pn	04 34 21.6	+1.5
NKC				ePG	Pg	04 34 27.5	-0.8
NKC				eSG	Sg	04 35 02.0	-1.7
OJC	Ojcow	2.68	118	ePG	Pg	04 34 29.0	+0.2
OJC				eSG	Sg	04 35 03.0	-1.5
KHC	Kasperske Hory	2.89	215	ePN	Pn	04 34 24.6	+1.1
KHC				ePG	Pg	04 34 30.3	-2.8
KHC				eSN	Sn	04 34 58.4	-1.1
KHC				eSG	Sg	04 35 08.6	-3.0

JMA 01 04:53:53.6±0.1**, 42.26N×143.28E, h49**^{km}±1^{km}**, M3.5, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JEM	Erimo	0.26	201	P	P	04 54 02.3	0.0
JCH	Churui	0.36	10	P	P	04 54 03.3	0.0
JCH				eS	S	04 54 10.1	0.0
JNBK	Urakawa-nobuka	0.39	273	P	P	04 54 03.6	0.0
JNBK				eS	S	04 54 11.2	+0.5
JOB	Onbets	0.76	32	P	P	04 54 08.7	+0.5
JBT2	Biratori 2	0.85	308	P	P	04 54 09.6	+0.2
JAR	Ashorobuto	1.10	19	P	P	04 54 12.7	-0.2
JAR				eS	S	04 54 27.6	+0.4
JAK	Akkeshi	1.28	54	P	P	04 54 14.5	-1.0

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*IDC **01** 05:03:57.7±1.0, 4.44S×104.68W, mb3.9/12, mb1 4.2/12, mb1mx4.1/17, MS4.2/14, Ms1 4.2/14, ms1mx4.1/17, Error ellipse: s-maj=43.3km s-min=16.8km az=55.0*

*NEIC **01** 05:03:59.5±0.5, 4.45S×104.65W, h10^{km}, mb4.3/13, Error ellipse: s-maj=19.5km s-min=8.0km az=56.0*

ISC 01 05:03:58.0±0.8**, 4.4S**±0.1×**104.6W**±0.2**, h10**^{km}**, n44,** σ**0**^{s}**99**/35**, mb4.1**/22**, MS4.2**/14**, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTAV	Otavalo	26.56	81	eP	P	05 09 43.2	+4.9
	5.9nm,1.2s,mb4.0						
TXAR	Lajitas Array	33.57	2	P	P	05 10 40.9	+0.4
	0.4nm,0.6s,mb3.5,baz=187,slow=9.6,SNR=3.6						
TXAR				LR	LR	05 22 03.6	
	comp=Z,381nm,21.3s,MS4.1,baz=95,slow=32						
SDV	Santo Domingo	36.38	69	eP	P	05 11 04.7	+0.1
	10nm,1.1s,mb4.7						
TUC	Tucson	36.99	351	P	P	05 11 14.0	+4.4
	2.0nm,1.0s,mb3.9						
LPAZ	La Paz	37.72	111	P	P	05 11 16.6	+0.7
	0.8nm,0.6s,mb3.6,baz=270,slow=6.1,SNR=4.7						
LPAZ				LR	LR	05 24 24.9	
	comp=Z,180nm,19.0s,MS3.9,baz=121,slow=32						
LPAZ	La Paz	37.72	111	eP	P	05 11 17.7	+1.9
	2.8nm,0.9s,mb4.0						
LVC	Limon Verde	38.99	121	P	P	05 11 27.1	+0.7
	6.0nm,1.0s,mb4.3,baz=283,slow=7.4,SNR=4.2						
LVC	Limon Verde	38.99	121	eP	P	05 11 27.4	+0.9
	14nm,1.4s,mb4.5						
ANMO	Albuquerque	39.19	358	P	P	05 11 28.9	+0.8
	0.5nm,0.7s,mb3.3,baz=140,slow=7.9,SNR=3.0						
ANMO				LR	LR	05 24 59.1	
	comp=Z,125nm,19.8s,MS3.8,slow=32						
SAML	Samuel	41.39	98	eP	P	05 11 45.5	-0.9
	20nm,1.1s,mb4.7						
TPNV	Topopah Spring	42.55	346	eP	P	05 11 57.0	+1.2
	1.5nm,0.9s,mb3.7						
ARUT	Antelope Range	42.78	350	eP	P	05 11 59.0	+1.4
MSU	Marysvale	43.28	351	eP	P	05 12 02.1	+0.5
NVAR	Mina Array Bea	44.47	345	P	P	05 12 10.3	-1.0
	0.9nm,1.0s,mb3.5,baz=157,slow=6.9,SNR=3.8						
NVAR				LR	LR	05 27 00.5	
	comp=Z,280nm,18.3s,MS4.2,baz=295,slow=31						
DAU	Daniels Canyon	45.02	353	eP	P	05 12 17.3	+1.6
JLU	Jordanelle	45.23	353	eP	P	05 12 18.1	+0.8
TCUT	Toone Canyon	45.74	353	P	P	05 12 19.5	-1.8
ELK	Elko	45.98	349	eP	P	05 12 24.1	+0.8
	1.8nm,0.9s,mb4.0						
PDAR	Pinedale Array	47.17	355	P	P	05 12 32.5	-0.2
	0.9nm,0.7s,mb3.8,baz=157,slow=6.9,SNR=8.9						
PDAR				LR	LR	05 29 59.0	
	comp=Z,225nm,19.5s,MS4.1,baz=186,slow=33						
IMW	Indian Meadow	48.43	354	eP	P	05 12 41.9	-0.6
HLID	Hailey	48.57	351	eP	P	05 12 43.9	+0.4
	6.3nm,1.1s,mb4.6						
YBH	Yreka Blue Hor	48.80	342	P	P	05 12 44.5	-0.9
	1.7nm,0.8s,mb4.1,baz=156,slow=10.0,SNR=3.1						
QLMT	Earthquake Lak	49.40	354	eP	P	05 12 50.8	+0.8
MCMT	McKenzie Canyo	49.57	352	eP	P	05 12 51.5	+0.2
CPUP	Villa Florida	50.17	121	P	P	05 12 54.5	-1.6
	3.9nm,0.8s,mb4.5,baz=320,slow=10.0,SNR=7.6						
CPUP				LR	LR	05 30 55.5	
	comp=Z,207nm,18.0s,MS4.2,baz=68,slow=32						
NEW	Newport	53.59	350	P	P	05 13 20.0	-1.5
	2.1nm,0.7s,mb4.2,baz=126,slow=5.8,SNR=3.3						
NEW	Newport	53.59	350	P	P	05 13 20.0	-1.5
ULM	Lac du Bonnet	54.97	7	LR	LR	05 35 44.9	
	comp=Z,339nm,18.4s,MS4.5,baz=334,slow=35						
BDFB	Brasilia	56.70	106	LR	LR	05 36 19.4	
	comp=Z,327nm,18.1s,MS4.5,baz=132,slow=34						
EDM	Edmonton	57.89	354	eP	P	05 13 50.8	-1.7
SCHQ	Schefferville	66.83	23	LR	LR	05 43 17.3	
	comp=Z,268nm,18.6s,MS4.5,baz=30,slow=35						
YKA	Yellowknife Ar	67.16	355	P	P	05 14 53.1	-0.9
	0.6nm,0.7s,mb3.8,baz=162,slow=6.2,SNR=9.9						
YKA				LR	LR	05 42 04.0	
	comp=Z,164nm,19.7s,MS4.2,baz=200,slow=34						
INK	Inuvik	75.31	349	P	P	05 15 42.5	-0.4
	1.3nm,0.6s,mb4.0,baz=158,slow=4.7,SNR=6.5						
INK	Inuvik	75.31	349	eP	P	05 15 41.9	-1.0
	2.3nm,0.9s,mb4.1						
MCK	McKinley	75.58	341	P	P	05 15 45.1	+0.6
	1.1nm,0.8s,mb3.8						
ILAR	Eielson Array	75.69	343	P	P	05 15 44.1	-1.0
	1.1nm,0.7s,mb3.9,baz=156,slow=6.1,SNR=12						
ILAR				LR	LR	05 45 29.6	
	comp=Z,111nm,18.7s,MS4.2,baz=176,slow=33						
RES	Resolute Bay	79.20	3	eP	P	05 16 04.4	0.0
	4.8nm,1.0s,mb4.4						
RPZ	Rata Peaks	82.86	227	LR	LR	05 48 10.3	
	comp=Z,307nm,18.1s,MS4.7,baz=258,slow=32						
QSPA	South Pole Qui	85.64	180	eP	P	05 16 38.3	+0.8
	12nm,1.1s,mb5.0						
VNDA	Vanda	86.48	193	LR	LR	05 47 25.1	
	comp=Z,85nm,18.9s,MS4.2,baz=97,slow=30						
SNAA	Sanae	89.54	162	LR	LR	05 49 44.9	
	comp=Z,76nm,20.8s,MS4.1,baz=92,slow=31						
WRA	Warramunga Arr	117.23	245	PKP	PKPdf	05 22 46.0	-1.4
	0.4nm,0.4s,baz=101,slow=2.7,SNR=7.6						
BRTR	Keskin Array B	128.50	41	PKP	PKPdf	05 23 07.7	-1.2
	0.7nm,0.6s,baz=252,slow=1.9,SNR=3.5						
CMAR	Chiang Mai Arr	153.06	303	PKPbc	PKPdf	05 23 59.0	+6.7
	0.7nm,0.4s,baz=90,slow=0.9,SNR=3.8						
CMAR				PKPab	PKPab	05 24 09.3	-1.2
	0.7nm,0.4s,baz=44,slow=2.0,SNR=6.0						

MAN 01 05:05:26.2, 13.90N×120.40E, h85^{km}**, mb3.7, ML2.4, MS2.4, 1C-1D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	Lubang	0.22	223	eP	P	05 05 45.0	+6.3
LUBP	Lubang	0.22	223	eP	P	05 05 40.5	+1.8
LUBP				eS	S	05 05 49.2	+1.1
PAZ	Puerto Azul	0.42	39	eP	P	05 05 41.1	+1.2
TGY	Tagaytay City	0.56	69	⇓iP	P	05 05 13.0	-28
TGY				i S	S	05 05 54.9	+2.7
NBP	Mount Natib	0.84	1	eP	P	05 05 45.0	+1.0
ARP	Angono	0.97	49	eP	P	05 05 45.4	0.0
SJMP	San Jose	1.59	154	eP	P	05 05 54.0	+0.6
SJMP				eS	S	05 06 12.8	-0.7
PCPH	Palayan	1.79	22	⇑eP	P	05 05 56.0	0.0
PCPH				eS	S	05 06 19.0	+1.1
ENPP	El Nido	2.84	200	eP	P	05 06 10.1	-0.4
ENPP				eS	S	05 06 41.7	-2.0

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*IDC **01** 05:06:07.7±2.7, 4.75S×104.82W, mb3.9/9, mb1 4.2/9, mb1mx4.1/14, Error ellipse: s-maj=108.0km s-min=31.4km az=58.0*

*NEIC **01** 05:06:09.4±1.5, 4.77S×104.78W, h10^{km}, mb4.3/4, Error ellipse: s-maj=45.1km s-min=14.3km az=45.0*

ISC 01 05:06:07.5±1.7**, 4.8S**±0.3×**104.8W**±0.3**, h10**^{km}**, n19,** σ**0**^{s}**94**/19**, mb4.0**/13**, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	Lajitas Array	33.92	2	P	P	05 12 53.1	+0.1
	0.7nm,0.9s,mb3.6,baz=185,slow=11,SNR=2.8						
SDV	Santo Domingo	36.66	68	eP	P	05 13 17.2	+0.7
	4.1nm,0.8s,mb4.3						
LPAZ	La Paz	37.75	110	P	P	05 13 32.5	+6.9
	0.4nm,0.5s,mb3.4,baz=204,slow=21,SNR=3.5						
SAML	Samuel	41.50	98	eP	P	05 13 56.5	-0.4
	4.7nm,1.0s,mb4.1						
ARUT	Antelope Range	43.09	350	eP	P	05 14 08.9	-0.7
PDAR	Pinedale Array	47.51	355	P	P	05 14 44.6	-0.2
	1.0nm,0.8s,mb3.9,baz=190,slow=10,SNR=2.7						
IMW	Indian Meadow	48.76	354	eP	P	05 14 54.0	-0.5
HLID	Hailey	48.88	351	eP	P	05 14 56.7	+1.2
	3.4nm,1.1s,mb4.3						
MCMT	McKenzie Canyo	49.90	353	eP	P	05 15 05.5	+2.2
CPUP	Villa Florida	50.13	121	P	P	05 15 05.5	+0.2
	1.4nm,0.9s,mb4.0,baz=330,slow=10,SNR=3.3						
CPUP	Villa Florida	50.13	121	P	P	05 15 05.5	+0.2
NEW	Newport	53.90	350	P	P	05 15 34.0	+0.7
	2.0nm,0.7s,mb4.2,baz=150,slow=8.4,SNR=3.4						
NEW	Newport	53.90	350	P	P	05 15 34.0	+0.7
ULM	Lac du Bonnet	55.34	7	P	P	05 15 42.3	-1.5
	2.9nm,0.8s,mb4.3,baz=191,slow=11,SNR=2.4						
YKA	Yellowknife Ar	67.49	355	P	P	05 17 03.8	-1.8
	0.7nm,0.8s,mb3.8,baz=163,slow=6.4,SNR=4.5						
INK	Inuvik	75.62	349	P	P	05 17 54.2	0.0
	1.3nm,0.9s,mb3.9,baz=164,slow=5.3,SNR=3.6						
INK	Inuvik	75.62	349	P	P	05 17 54.2	0.0
MCK	McKinley	75.86	341	eP	P	05 17 56.1	+0.5
	2.9nm,1.1s,mb4.1						
ILAR	Eielson Array	75.97	343	P	P	05 17 55.9	-0.3
	2.0nm,1.0s,mb4.0,baz=165,slow=4.4,SNR=6.0						

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*IDC **01** 05:42:13.7±1.3, 19.05S×69.04W, h136^{km}±14^{km}, mb3.3/2, mb1 3.5/4, mb1mx3.3/14, MS2.7/1, Ms1 2.7/1, ms1mx2.4/6, Error ellipse: s-maj=39.8km s-min=9.4km az=97.0*

ISC 01 05:42:13.2±1.2**, 19.07S**±0.07×**69.0W**±0.3**, h145**^{km}±12^{km}**, n5,** σ**0**^{s}**97**/6**, mb3.6**/1**, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	2.89	17	P	P	05 42 59.5	-0.2
	12nm,0.3s,baz=194,slow=8.0,SNR=412						
LPAZ				S	S	05 43 35.5	+0.2
	baz=253,slow=19,SNR=1.8						
LVC	Limon Verde	3.52	179	P	P	05 43 06.9	-1.1
	9.3nm,0.3s,baz=4.5,slow=7.8,SNR=61						
LVC				S	S	05 43 50.7	+0.8
	11nm,0.3s,baz=102,slow=20,SNR=14						
CPUP	Villa Florida	12.97	126	LR	LR	05 51 17.7	
	comp=Z,33nm,19.9s,baz=326,slow=42						
BDFB	Brasilia	20.33	84	P	P	05 46 39.7	-0.1
	1.0nm,0.4s,baz=217,slow=5.1,SNR=4.7						
YKA	Yellowknife Ar	88.88	341	P	P	05 54 51.9	+0.3
	0.4nm,0.5s,mb3.6,baz=132,slow=4.8,SNR=15						
YKA				pP	pP	05 55 23.5	-5.2
	0.2nm,0.6s,baz=134,slow=4.5,SNR=2.6						

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*IDC **01** 05:42:17.3±0.9, 3.30S×135.14E, mb4.1/5, mb1 4.3/9, mb1mx4.2/15, ML3.7/4, MS3.6/3, Ms1 3.6/3, ms1mx3.2/19, Error ellipse: s-maj=36.1km s-min=20.1km az=66.0*

*NEIC **01** 05:42:20.4±0.7, 3.34S×135.12E, h10^{km}, mb4.1/3, Error ellipse: s-maj=15.8km s-min=12.0km az=77.0*

ISC 01 05:42:23.1±2.4**, 3.69S**±0.06×**135.22E**±0.10**, h56**^{km}±24^{km}**, n26,** σ**1**^{s}**32**/25**, mb4.5**/8**, MS3.8**/2**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.38	197	eP	P	05 44 38.7	+0.6
	11nm,0.5s						
PMG	Port Moresby	13.15	116	Pn	P	05 45 29.5	+0.4
	0.6nm,0.3s,baz=312,slow=14,SNR=3.3						
PMG				LR	LR	05 51 13.6	
	comp=Z,164nm,19.7s,baz=331,slow=40						
WRAB	Tennant Creek	16.17	183	eP	P	05 46 06.3	-1.9
	59nm,1.4s						
WB2	Warramunga Arr	16.18	183	eP	P	05 46 06.8	-1.5
WB2				i		05 46 13.5	
WB2				eS	S	05 49 02.5	-3.1
WRA	Warramunga Arr	16.18	183	Pn	P	05 46 06.0	-2.4
	0.3nm,0.3s,baz=5.0,slow=13,SNR=10						
WRA				Sn	S	05 49 04.6	-1.0
	0.2nm,0.3s,baz=11,slow=21,SNR=4.4						
FITZ	Fitzroy Crossi	17.12	213	eP	P	05 46 21.8	+1.6
	3.9nm,0.8s						
FITZ	Fitzroy Crossi	17.12	213	P	P	05 46 21.1	+1.0
	0.3nm,0.3s,baz=29,slow=9.5,SNR=6.5						
FITZ				S	S	05 49 27.8	+0.7
	0.3nm,0.3s,baz=195,slow=13,SNR=3.5						
CTA	Charters Tower	19.53	147	P	P	05 46 50.8	+2.0
	0.3nm,0.3s,baz=313,slow=11,SNR=6.6						
CTAO	Charters Tower	19.53	147	eP	P	05 46 51.1	+2.3
	8.1nm,0.8s						
ASAR	Alice Springs	19.90	184	P	P	05 46 54.1	+1.4
	23nm,0.7s,baz=9.4,slow=10,SNR=72						
ASAR				S	S	05 50 36.0	+7.4
	0.8nm,0.9s,baz=9.9,slow=21,SNR=3.4						
ASPA	Alice Springs	19.91	184	eP	P	05 46 54.0	+1.2
STKA	Stephens Creek	28.68	169	P	P	05 48 18.2	+1.2
	3.8nm,1.0s,mb4.1,baz=349,slow=5.2,SNR=5.4						
CMAR	Chiang Mai Arr	41.96	303	P	P	05 50 08.1	-2.4
	0.5nm,0.4s,mb3.5,baz=99,slow=12,SNR=2.9						
RPZ	Rata Peaks	50.91	147	LR	LR	06 11 11.4	
	comp=Z,64nm,19.8s,MS3.6,baz=0.4,slow=34						
GUN	Gumba	56.92	307	eP	P	05 52 05.7	+0.5
	16nm,0.9s,mb5.1						
PKI	Pulchoki	57.16	306	eP	P	05 52 07.3	+0.4
KKN	Kakani	57.35	306	eP	P	05 52 08.6	+0.4
	20nm,0.9s,mb5.1						
DMN	Daman	57.42	306	eP	P	05 52 09.2	+0.5
	22nm,1.0s,mb5.2						
GKN	Gorkha	57.96	306	eP	P	05 52 12.7	+0.2
KOLN	Koldanda	58.70	306	eP	P	05 52 18.2	+0.6
	16nm,0.8s,mb5.1						
VNDA	Vanda	75.14	174	LR	LR	06 27 03.7	
	comp=Z,52nm,18.2s,MS3.9,baz=73,slow=36						
BVAR	Borovoye Array	78.14	326	P	P	05 54 16.7	-1.2
	1.2nm,0.7s,mb3.9,baz=112,slow=7.8,SNR=4.6						
ILAR	Eielson Array	88.17	25	P	P	05 55 06.5	-2.2
	0.4nm,0.6s,mb3.8,baz=262,slow=4.4,SNR=7.9						
CPUP	Villa Florida	147.78	159	PKPbc	PKPdf	06 02 07.3	+7.8
	3.3nm,0.9s,baz=249,slow=3.0,SNR=6.5						
LPAZ	La Paz	149.56	131	PKPbc	PKPdf	06 02 12.3	+10
	1.8nm,1.0s,baz=290,slow=5.5,SNR=5.1						
LPAZ	La Paz	149.56	131	PKPbc	PKPdf	06 02 12.3	+10

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*IDC **01** 05:43:03.1±0.9, 10.39S×166.15E, mb4.3/8, mb1 4.4/8, mb1mx4.2/15, MS3.4/1, Ms1 3.4/1, ms1mx3.0/20, Error ellipse: s-maj=31.2km s-min=21.6km az=110.0*

*NEIC **01** 05:43:17.6±8.0, 10.57S×166.10E, h120^{km}±71^{km}, Error ellipse: s-maj=23.3km s-min=20.3km az=67.0*

ISC 01 05:43:25.0±3.0**, 10.7S**±0.1×**166.0E**±0.2**, h199**^{km}±27^{km}**, n15,** σ**1**^{s}**10**/15**, mb3.9**/8**, 2C-2D, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	11.28	178	eP	P	05 46 01.6	0.0
DZM				eS	S	05 48 03.6	-1.0
NOUC	Port Laguerre	11.30	179	eP	P	05 46 03.5	+1.6
CTA	Charters Tower	21.16	242	LR	LR	05 54 01.6	
	comp=Z,103nm,21.5s,baz=210,slow=31						
URZ	Urewera	29.16	162	P	P	05 49 09.1	-0.7
	2.9nm,0.3s,mb4.4,baz=283,slow=14,SNR=6.7						
STKA	Stephens Creek	30.83	223	P	P	05 49 24.6	-0.1
	3.8nm,0.7s,mb4.2,baz=38,slow=11,SNR=5.9						
RPZ	Rata Peaks	33.15	173	P	P	05 49 43.3	-1.2
	17nm,0.7s,mb4.7,baz=229,slow=9.3,SNR=8.9						
ASAR	Alice Springs	33.15	243	P	P	05 49 43.6	-1.1
	0.7nm,0.8s,mb3.2,baz=78,slow=8.3,SNR=4.4						
CMAR	Chiang Mai Arr	72.22	293	P	P	05 54 31.0	+0.4
	0.8nm,0.4s,mb3.7,baz=126,slow=5.8,SNR=4.3						
ILAR	Eielson Array	83.14	18	P	P	05 55 29.1	-0.6
	1.0nm,0.7s,mb3.7,baz=232,slow=5.3,SNR=15						
NVAR	Mina Array Bea	85.64	50	P	P	05 55 43.1	+0.5
	2.6nm,1.1s,mb3.9,baz=231,slow=7.2,SNR=7.5						
YKA	Yellowknife Ar	94.59	27	P	P	05 56 22.2	-1.6
	0.4nm,0.9s,mb3.5,baz=259,slow=4.7,SNR=5.2						
SNAA	Sanae	97.44	184	⇑i	P	05 56 37.0	+0.4
VNA3	Neumayer Olymp	98.15	181	⇓i	P	05 56 41.5	+1.6
VNA2	Neumayer--Watz	98.40	182	⇑i	P	05 56 43.6	+2.6
VNA1	Neumayer--Stat	98.71	182	⇓i	P	05 56 47.1	+4.7

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*IDC **01** 05:50:56.2±2.2, 1.95S×140.03E, mb3.9/4, mb1 4.1/5, mb1mx4.0/12, ML4.2/1, Error ellipse: s-maj=69.3km s-min=27.8km az=88.0*

*NEIC **01** 05:50:57.5±1.6, 2.01S×140.06E, h10^{km}, mb3.9/2, Error ellipse: s-maj=55.7km s-min=16.6km az=90.0*

ISC 01 05:50:59.9±3.7**, 2.15S**±0.09×**139.2E**±0.3**, h21**^{km}±28^{km}**, n10,** σ**0**^{s}**89**/13**, mb3.8**/4**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	12.44	212	eP	P	05 53 57.3	-1.5
	4.4nm,0.4s						
WRAB	Tennant Creek	18.29	195	eP	P	05 55 15.6	+1.3
	7.1nm,0.5s						
WB2	Warramunga Arr	18.30	195	eP	P	05 55 14.7	+0.2
WRA	Warramunga Arr	18.30	195	P	P	05 55 14.8	+0.3
	0.9nm,0.3s,baz=18,slow=12,SNR=39						
WRA				S	S	05 58 34.0	-1.0
	0.2nm,0.3s,baz=12,slow=23,SNR=4.9						
FITZ	Fitzroy Crossi	20.67	219	P	P	05 55 46.7	+5.5
	2.2nm,0.7s,baz=35,slow=12,SNR=8.3						
FITZ				S	S	05 59 27.6	+1.4
	3.3nm,0.9s,baz=201,slow=9.4,SNR=3.9						
ASAR	Alice Springs	21.99	193	P	P	05 55 55.5	+1.0
	1.9nm,0.5s,mb3.8,baz=26,slow=10,SNR=15						
ASAR				S	S	05 59 59.1	+8.0
	0.9nm,0.8s,baz=15,slow=28,SNR=5.0						
STKA	Stephens Creek	29.66	176	P	P	05 57 05.8	-0.7
	1.8nm,0.6s,mb4.0,baz=358,slow=8.1,SNR=4.7						
STKA	Stephens Creek	29.66	176	P	P	05 57 05.8	-0.7
BVAR	Borovoye Array	79.11	325	P	P	06 03 04.5	+0.1
	1.0nm,0.7s,mb3.9,baz=117,slow=6.4,SNR=4.8						
CHKZ	Chkalovo	79.19	326	eP	P	06 03 04.3	-0.5
	0.9nm,0.9s,mb3.7						

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*PRU **01** 06:12:12.0, 51.40N×16.14E*

WAR 01 06:12:12.1, 51.45N×16.11E, h1^{km}**, ML2.6, Mining Induced, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.61	169	ePG	Pg	06 12 23.0	-1.4
KSP				eSG	Sg	06 12 31.0	-1.6
UPC	Upice	0.94	184	ePG	Pg	06 12 29.5	-1.4
DPC	Dobruska-Polom	1.11	173	ePG	Pg	06 12 32.2	-2.0
DPC				eSG	Sg	06 12 46.4	-2.5
PVCC	Panska Ves	1.34	227	ePG	Pg	06 12 37.0	-1.9
PRU	Pruhonice	1.77	215	ePG	Pg	06 12 44.3	-3.1
PRU				eSG	Sg	06 13 07.6	-3.4
	8.2nm,0.3s						
CLL	Collm	1.96	267	i PG	Pg	06 12 48.3	-2.8
CLL				eSG	Sg	06 13 14.0	-3.2
OKC	Ostrava-Krasne	2.07	140	eSG	Sg	06 13 16.0	-4.9
NKC	Novy Kostel	2.62	244	ePG	Pg	06 13 00.8	-3.7
NKC				eSG	Sg	06 13 35.9	-3.5
KHC	Kasperske Hory	2.83	216	ePG	Pg	06 13 02.9	-5.7
KHC				eSN	Sn	06 13 31.0	-3.5
KHC				eSG	Sg	06 13 40.7	-5.7

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*ZUR **01** 06:18:01.8, 46.34N×6.82E, h5^{km}, ML2.2/14*

*STR **01** 06:18:02.1±2.4, 46.33N×6.84E, h5^{km}±1^{km}, Ml2.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **01** 06:18:02.1, 46.33N×6.84E, h5^{km}, ML2.7(LDG), ML2.6(GEN), ML2.6(VIE), ML2.3(STR), ML2.1(ZUR), After STR.*

*CSEM **01** 06:18:02.1±0.1, 46.31N×6.95E, h8^{km}, ML2.7/14, Error ellipse: s-maj=1.7km s-min=1.0km az=70.0*

*LDG **01** 06:18:02.7±0.1, 46.33N×6.84E, h5^{km}, Md2.8/3, Ml2.7/18, Error ellipse: s-maj=1.4km s-min=1.2km az=100.0*

*GEN **01** 06:18:03.6, 46.25N×6.79E, h3^{km}, ML2.6*

ISC 01 06:18:00.7±0.2**, 46.34N**±0.01×**6.74E**±0.02**, h9**^{km}±2^{km}**, n83,** σ**1**^{s}**12**/152**, 3C-5D, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OG01	Vacheresse	0.04	250	Pg	Pg	06 18 03.5	+1.0
OG01				Sg	Sg	06 18 05.2	+1.6
AIGLE	Aigle	0.15	91	⇑iPg	Pg	06 18 03.9	-0.1
AIGLE				eSg	Sg	06 18 05.5	-0.8
SALAN	Lac Salanfe	0.26	141	⇓iPg	Pg	06 18 06.6	+0.5
SALAN				eSg	Sg	06 18 10.4	+0.8

GRYON	Gryon	0.27	110	ePg	Pg	06 18 06.4	0.0
GRYON				eSg	Sg	06 18 10.1	-0.1
EMV	Vieux Emosson	0.30	159	ePg	Pg	06 18 07.6	+0.7
EMV				eSg	Sg	06 18 12.3	+1.2
GIMEL	Gimel	0.38	300	ePg	Pg	06 18 10.8	+2.4
SENIN	Lac Senin	0.39	87	ePg	Pg	06 18 08.6	0.0
SENIN				i Sg	Sg	06 18 13.7	-0.2
TORNY	Torny	0.46	19	⇑iPg	Pg	06 18 11.6	+1.7
TORNY				eSg	Sg	06 18 17.6	+1.5
CABF	La Chapelle	0.52	301	ePg	Pg	06 18 13.4	+2.1
CABF				eSg	Sg	06 18 21.2	+2.9
	78nm,0.4s						
DIX	Grande Dixence	0.54	119	⇓iPg	Pg	06 18 11.8	+0.3
DIX				eSg	Sg	06 18 18.6	-0.1
LKBD	Leukerbad	0.62	86	ePg	Pg	06 18 12.8	-0.3
LKBD				eSg	Sg	06 18 20.9	-0.5
BRANT	Les Verrieres	0.62	343	⇓iPg	Pg	06 18 14.5	+1.3
RSL	Roselend	0.66	187	Pg	Pg	06 18 15.0	+1.0
RSL				Sg	Sg	06 18 23.6	+0.8
WIMIS	Wimmis	0.69	62	ePg	Pg	06 18 14.3	-0.3
LPL	La Plagne	0.83	180	ePg	Pg	06 18 18.0	+0.7
LPL				eSg	Sg	06 18 29.8	+1.4
	16nm,0.2s						
LPL	La Plagne	0.83	180	eSg	Sg	06 18 29.8	+1.4
	8.1nm,0.2s						
LPG	La Plagne	0.85	179	ePg	Pg	06 18 18.3	+0.6
LPG				eSg	Sg	06 18 30.2	+1.2
	40nm,0.4s						
LSD	Ceresole Reale	0.93	162	P	Pb	06 18 19.5	+0.9
LSD				S	Sb	06 18 30.3	-0.6
LSD	Ceresole Reale	0.93	162	P	Pb	06 18 19.5	+0.9
LSD				S	Sb	06 18 30.3	-0.6
OG05	Jujurieux	0.94	252	Pg	Pg	06 18 22.3	+2.8
OG05				Sg	Sg	06 18 36.2	+4.1
MCGN	Macugnaga	0.95	114	ePg	Pg	06 18 19.0	-0.7
MCGN				eSg	Sg	06 18 30.4	-2.0
MCGN	Macugnaga	0.95	114	ePg	Pg	06 18 19.0	-0.7
MCGN	Macugnaga	0.95	114	eSg	Sg	06 18 30.4	-2.0
TRAV		1.09	139	P	Pb	06 18 22.4	+1.1
TRAV				S	Sb	06 18 35.1	-0.4
TRAV		1.09	139	P	Pb	06 18 22.4	+1.1
TRAV				S	Sb	06 18 35.1	-0.3
ORX	Oropa	1.12	129	P	Pb	06 18 23.0	+1.1
ORX				S	Sb	06 18 36.1	-0.2
ORX	Oropa	1.12	129	P	Pb	06 18 23.0	+1.2
ORX				S	Sb	06 18 36.1	-0.3
BALST	Balsthal	1.19	33	⇑iP*P		06 18 24.2	
RSP	Reno Superiore	1.25	163	P	Pb	06 18 24.8	+0.8
RSP				S	Sb	06 18 39.3	-0.7
RSP	Reno Superiore	1.25	163	P	Pb	06 18 24.8	+0.8
RSP				S	Sb	06 18 39.3	-0.7
BNALP	Bannalp	1.27	65	⇓iPg	Pg	06 18 25.6	-0.6
RRL	Cesana Torines	1.43	179	P	Pn	06 18 28.5	+1.6
RRL	Cesana Torines	1.43	179	P	Pn	06 18 28.5	+1.6
HINF	Hinteralfeld	1.48	3	ePn	Pn	06 18 28.2	+0.6
HINF				ePg	Pg	06 18 29.7	-0.5
HINF				eSg	Sg	06 18 49.8	-0.1
	27nm,0.3s						
HINF	Hinteralfeld	1.48	3	ePg	Pg	06 18 29.7	-0.5
HINF				eSg	Sg	06 18 49.8	-0.1
	13nm,0.3s						
BHB	Bricherasio	1.55	166	P	Pn	06 18 29.2	+0.6
ORIF	Oris-en-Rattie	1.55	203	ePg	Pg	06 18 31.1	-0.5
ORIF				eSg	Sg	06 18 51.3	-1.0
	23nm,0.3s						
MBDF	Montbardon	1.62	179	ePg	Pg	06 18 32.3	-0.7
MBDF				eSg	Sg	06 18 54.0	-0.6
	27nm,0.4s						
HAU	Haudompre	1.68	351	ePn	Pn	06 18 31.5	+0.9
HAU				ePg	Pg	06 18 33.7	-0.6
HAU				eSg	Sg	06 18 55.9	-0.9
	19nm,0.3s						
HAU	Haudompre	1.68	351	ePg	Pg	06 18 33.7	-0.6
HAU				eSg	Sg	06 18 55.9	-0.9
	9.6nm,0.3s						
PZZ	Prazzo	1.86	172	P	Pn	06 18 33.7	+0.7
PZZ	Prazzo	1.86	172	P	Pn	06 18 33.7	+0.6
SMF	Signal de Mont	2.02	280	ePn	Pn	06 18 36.9	+1.4
SMF				ePg	Pg	06 18 42.0	+0.8
SMF				eSg	Sg	06 19 07.6	-0.6
	8.9nm,0.2s						
SMF	Signal de Mont	2.02	280	ePg	Pg	06 18 42.0	+0.8
SMF				eSg	Sg	06 19 07.6	-0.6
	4.4nm,0.2s						
VIVF	Saint-Julien-l	2.08	225	ePn	Pn	06 18 37.6	+1.4
VIVF				ePg	Pg	06 18 43.4	+1.2
VIVF				eSg	Sg	06 19 09.0	-0.9
	9.4nm,0.3s						
VIVF	Saint-Julien-l	2.08	225	ePg	Pg	06 18 43.4	+1.2
VIVF				eSg	Sg	06 19 09.0	-0.9
	4.7nm,0.3s						
CDF	Champ du Feu	2.10	10	ePn	Pn	06 18 36.8	+0.2
CDF				ePg	Pg	06 18 41.4	-1.3
CDF				eSg	Sg	06 19 08.5	-2.2
	8.1nm,0.3s						
CDF	Champ du Feu	2.10	10	ePg	Pg	06 18 41.4	-1.3
CDF				eSg	Sg	06 19 08.5	-2.2
	4.1nm,0.3s						
STV	Sta Anna Valdi	2.14	169	P	Pn	06 18 37.6	+0.5
STV	Sta Anna Valdi	2.14	169	P	Pn	06 18 37.7	+0.6
ROB	Roburent	2.20	158	P	Pn	06 18 38.5	+0.5
ROB	Roburent	2.20	158	P	Pn	06 18 38.5	+0.5
SSF	Saint Saulge	2.34	289	ePn	Pn	06 18 41.4	+1.4
SSF				ePg	Pg	06 18 47.2	-0.2
SSF				eSn	Sn	06 19 08.6	-0.5
SSF				eSg	Sg	06 19 15.9	-2.7
	3.7nm,0.3s						
SSF	Saint Saulge	2.34	289	ePg	Pg	06 18 47.2	-0.2
SSF				eSn	Sn	06 19 08.6	-0.5
SSF				eSg	Sg	06 19 15.9	-2.7
	1.9nm,0.3s						
DAVA	Damuels	2.35	65	⇓iPN	Pn	06 18 45.7	+5.5
DAVA				i SG	Sg	06 19 16.3	-2.8
	2.9nm,0.2s						
DAVA	Damuels	2.35	65	i Sg	Sg	06 19 16.3	-2.8
AVF	Avril sur Loir	2.38	282	ePn	Pn	06 18 41.9	+1.4
AVF				ePg	Pg	06 18 48.4	+0.2
AVF				eSg	Sg	06 19 17.8	-2.1
	3.3nm,0.3s						
AVF	Avril sur Loir	2.38	282	eSg	Sg	06 19 17.8	-2.1
	1.6nm,0.3s						
AVF	Avril sur Loir	2.38	282	ePg	Pg	06 18 48.4	+0.2
SMRF	Simiane la Rot	2.51	200	ePn	Pn	06 18 42.8	+0.4
SMRF				ePg	Pg	06 18 49.4	-1.4
SMRF				eSg	Sg	06 19 22.6	-1.6
	2.6nm,0.3s						
SMRF	Simiane la Rot	2.51	200	ePg	Pg	06 18 49.4	-1.4
SMRF				eSg	Sg	06 19 22.6	-1.6
	1.3nm,0.3s						
SBF	Sospel	2.53	169	ePn	Pn	06 18 42.4	-0.3
SBF				eSg	Sg	06 19 22.1	-2.8
	10nm,0.3s						
IMI	Imperia	2.57	161	P	Pn	06 18 42.6	-0.6
IMI	Imperia	2.57	161	P	Pn	06 18 42.6	-0.6
BGF	Bois d'Agland	2.70	276	ePn	Pn	06 18 46.2	+1.1
BGF				ePg	Pg	06 18 54.7	+0.1
BGF				eSg	Sg	06 19 29.6	-1.0
	12nm,0.3s						
BGF	Bois d'Agland	2.70	276	ePg	Pg	06 18 54.7	+0.1
BGF				eSg	Sg	06 19 29.6	-1.0
	6.1nm,0.3s						
FRF	La Foret Royal	2.78	181	ePn	Pn	06 18 46.2	-0.1
FRF				ePg	Pg	06 18 54.4	-1.9
FRF				eSg	Sg	06 19 29.8	-3.6
	5.5nm,0.3s						
FRF	La Foret Royal	2.78	181	ePg	Pg	06 18 54.4	-1.9
FRF				eSg	Sg	06 19 29.8	-3.6
	2.8nm,0.3s						
HYF	Humbligny	2.96	290	ePn	Pn	06 18 49.8	+0.9
LMR	La Mourre	3.02	183	ePn	Pn	06 18 49.2	-0.4
LMR				ePg	Pg	06 18 58.2	-2.7
LMR				eSg	Sg	06 19 36.1	-5.0
	7.9nm,0.5s						
LMR	La Mourre	3.02	183	ePg	Pg	06 18 58.2	-2.7
LMR				eSg	Sg	06 19 36.1	-5.0
	4.0nm,0.5s						
LASF	Ste Croix	3.05	223	ePn	Pn	06 18 50.3	+0.2
LASF				ePg	Pg	06 18 59.7	-1.9
LASF				eSg	Sg	06 19 37.3	-4.9
	10.0nm,0.5s						
LASF	Ste Croix	3.05	223	ePg	Pg	06 18 59.7	-1.9
LASF				eSg	Sg	06 19 37.3	-4.9
	5.0nm,0.5s						
TCF	Toulx Ste Croi	3.14	271	ePn	Pn	06 18 52.1	+0.7
TCF				ePg	Pg	06 19 02.2	-1.2
TCF				eSn	Sn	06 19 28.4	-1.0
TCF				eSg	Sg	06 19 43.0	-2.3
	3.2nm,0.4s						
TCF	Toulx Ste Croi	3.14	271	ePg	Pg	06 19 02.2	-1.2
TCF				eSn	Sn	06 19 28.4	-1.0
TCF				eSg	Sg	06 19 43.0	-2.3
	1.6nm,0.4s						
CAF	Calviac	3.57	248	ePn	Pn	06 18 57.9	+0.4
RJF	Les Rejaudoux	3.80	256	ePn	Pn	06 19 00.7	0.0
BAIF	Baives	4.08	336	ePn	Pn	06 19 04.3	-0.5
MTLF	Montolieu	4.40	229	ePg	Pg	06 19 24.7	-3.8
MTLF				eSg	Sg	06 20 21.8	-5.4
	2.3nm,0.4s						
MFF	Saint Martin d	4.76	276	ePn	Pn	06 19 14.0	-0.5
LDF	La Druitiere	5.17	298	ePn	Pn	06 19 19.5	-0.7
GRR	Gorron	5.55	294	ePn	Pn	06 19 24.8	-0.8
ROSF	Rostrenen	7.09	290	ePn	Pn	06 19 45.7	-1.6

NIED ***01*** *06:52:00, 41.60N×142.10E, h50^{km}, Mw4.5 Best double couple: M$_0$6.59×10^{15} NP1:ϕ_s20°, δ68°, λ90°. NP2:ϕ_s201°, δ22°, λ91°.*

MOS ***01*** *06:52:22.1±1.2, 41.27N×141.96E, h33^{km}, mb4.9/22, Error ellipse: s-maj=14.1km s-min=7.5km az=98.4*

JMA ***01*** *06:52:27.5±0.1, 41.57N×142.06E, h63^{km}±3^{km}, M4.4*

JMA Felt II J1.

IDC ***01*** *06:52:29.8±0.6, 41.58N×142.03E, h74^{km}±4^{km}, mb4.1/20, mb1 4.3/21, mb1mx4.3/25, MS3.6/8, Ms1 3.6/8, ms1mx3.4/23, Error ellipse: s-maj=15.0km s-min=9.3km az=106.0*

BJI ***01*** *06:52:29.2, 41.78N×142.30E, h98^{km}, mB4.9, mb4.7*

NEIC ***01*** *06:52:29.7±0.3, 41.56N×142.00E, mb4.7/33, MW4.5(NIED), Error ellipse: s-maj=7.0km s-min=5.7km az=129.0*

ISC 01 06:52:27.2±0.3**, 41.57N**±0.03×**142.03E**±0.03**, h67**^{km}±2^{km}**, h75**^{km}±1.7^{km}**: pP-P, n165,** σ1^{s}05/178**, mb4.6**/69**, 4C-7D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOT	Ohata	0.76	256	P	P	06 52 43.1	+0.3
JOT				eS	S	06 52 54.6	+0.3
JKB	Kayabe	0.81	293	P	P	06 52 43.3	-0.1
JKB				eS	S	06 52 55.8	+0.4
JNBK	Urakawa-nobuka	0.89	37	P	P	06 52 43.7	-0.6
JNBK				eS	S	06 52 56.6	-0.4
JEM	Erimo	0.95	62	P	P	06 52 44.8	-0.4
JEM				eS	S	06 52 57.5	-1.0
JTM	Tenmabayashi	1.07	223	P	P	06 52 47.3	+0.5
JTM				eS	S	06 53 01.5	+0.3
JNB	Noboribetsu	1.16	321	P	P	06 52 47.6	-0.3
JNB				eS	S	06 53 02.5	-0.9
JSR	Shiriuchi	1.21	269	P	P	06 52 49.3	+0.7
JBT2	Biratori 2	1.23	11	P	P	06 52 49.1	+0.2
JBT2				eS	S	06 53 06.6	+1.6
JANG	Nango	1.26	198	P	P	06 52 49.1	-0.2
JANG				eS	S	06 53 05.2	-0.5
JEW	Eniwo	1.34	341	P	P	06 52 50.8	+0.3
JEW				eS	S	06 53 07.8	+0.1
JYM2	Yakumo 2	1.36	294	P	P	06 52 51.2	+0.5
JCH	Churui	1.44	43	P	P	06 52 52.1	+0.3
JCH				eS	S	06 53 09.4	-0.5
JFR	Furan	1.64	14	P	P	06 52 54.5	-0.1
JFR				eS	S	06 53 14.0	-0.7
JOSM	Okushiri--Mats	1.98	286	P	P	06 52 58.9	-0.2
ASAJ	Asahikawa	2.58	9	P	P	06 53 08.8	+1.1
	24nm,0.3s,baz=233,slow=14,SNR=40						
ASAJ				S	S	06 53 39.6	+1.8
	38nm,0.3s,baz=314,slow=31,SNR=11						
ASAJ				LR	LR	06 54 38.7	
	comp=Z,834nm,21.9s,slow=50						
ASAJ	Asahikawa	2.58	9	P	P	06 53 08.8	+1.2
ASAJ				S	S	06 53 39.7	+1.9
ASAJ				pmax	pmax		
	comp=Z,24nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,835nm,21.9s						
YUK	Yuzh-Kuril'sk	3.74	48	⇓iP	P	06 53 21.8	-2.1
YUK				i S	S	06 54 02.0	-5.1
YUK				pmax	pmax		
	comp=N,190nm,0.4s						
YUK				pmax	pmax		
	comp=E,190nm,0.4s						
YUK				pmax	pmax		
	comp=Z,710nm,0.4s						
YUK				smax			
	comp=N,2µm,0.7s						
YUK				smax			
	comp=E,4µm,0.7s						
YUK				smax			
	comp=N,2µm,0.5s						
YUK				smax			
	comp=E,2µm,0.5s						
YSS	Yuzh-Sakhalins	5.41	5	eP	P	06 53 50.2	+3.1
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
YSS				MLR	MLR		
	comp=Z,500nm,16.0s						
YSS	Yuzh-Sakhalins	5.41	5	eP	P	06 53 48.7	+1.6
KUR	Kuril'sk	5.61	47	P	P	06 53 48.0	-1.9
KUR				eS	S	06 54 48.0	-5.7
KUR				smax			
	comp=N,150nm,0.5s						
KUR				smax			
	comp=E,150nm,0.5s						
MAJO	Matsushiro	5.84	212	eP	P	06 53 54.8	+1.7
	comp=E,36nm,0.7s						
MAT	Matsushiro	5.84	212	P	P	06 53 54.2	+1.2
MAT				eS	S	06 55 02.0	+2.6
MAT	Matsushiro	5.84	212	P	P	06 53 54.0	+1.0
	comp=E,30nm,0.8s						
MAT				S	S	06 55 07.0	+7.6
MDJ	Mudanjiang	9.60	293	P	P	06 54 44.6	-0.2
MDJ				AMB	AMB		
	comp=Z,13nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,65nm,4.8s						
MDJ	Mudanjiang	9.60	293	eP	P	06 54 45.4	+0.5
	comp=Z,27nm,0.9s						
CN2	Changchun	12.41	286	eP	P	06 55 22.6	-0.2
CN2				eS	S	06 57 37.9	-2.0
CN2				AMB	AMB		
	comp=Z,10.0nm,1.4s						
CN2				AMB	AMB		
	comp=Z,180nm,5.0s						
SNY	Shenyang	13.79	277	⇑P	P	06 55 47.7	+6.8
SNY				S	S	06 58 11.8	-1.1
SNY				AMB	AMB		
	comp=Z,10.0nm,1.2s						
CBIJ	Chichi jima	14.44	179	LR	LR	07 01 22.3	
	comp=Z,21nm,19.8s,baz=316,slow=37						
DL2	Dalian	15.81	267	P	P	06 56 10.1	+3.2
DL2				AMB	AMB		
	comp=Z,20nm,0.9s						
HIA	Hailar	17.39	304	eP	P	06 56 25.6	-1.1
	comp=Z,9.4nm,1.1s						
CLNS	Chul'man	18.86	330	eP	P	06 56 42.7	-1.5
CLNS				pmax	pmax		
	comp=Z,21nm,0.9s						
CLNS				pmax	pmax		
	comp=N,15nm,0.8s						
CLNS				pmax	pmax		
	comp=E,10.0nm,1.0s						
BJI	Beijing	19.61	274	eP	P	06 56 50.4	-2.3
BJI				AMB	AMB		
	comp=Z,32nm,0.8s						
BJT	Baijiatuau	19.62	274	eP	P	06 56 50.1	-2.7
	comp=Z,32nm,0.9s						
YAK	Yakutsk	21.79	344	i P	P	06 57 11.4	-3.4
YAK				pmax	pmax		
	comp=Z,28nm,1.0s,mb4.5						
YAK				MLR	MLR		
	comp=Z,100nm,14.0s						
YAK	Yakutsk	21.79	344	eP	P	06 57 11.7	-3.1
HHC	Hu-ho-hao-te	22.88	278	eP	P	06 57 26.7	+1.1
HHC				AP		06 57 47.4	
HHC				XP		06 57 59.5	
HHC				PP	PP	06 58 01.4	+4.6
HHC				PCP	PcP	07 01 13.6	-2.5
HHC				S	S	07 01 25.9	-0.3
HHC				XS		07 02 02.5	
HHC				SS	SS	07 02 17.1	+2.8
HHC				SCS	ScS	07 08 26.9	-4.1
HHC				AMB	AMB		
	comp=Z,15nm,0.5s,mb4.6						
HHC				AMB	AMB		
	comp=Z,99nm,4.8s						
BOD	Bodaibo	24.09	322	eP	P	06 57 36.1	-1.0
ULN	Ulaanbaatar	25.48	296	eP	P	06 57 50.9	+0.4
	comp=Z,9.1nm,1.0s,mb4.2						
SONM	Songino Array	25.93	296	P	P	06 57 55.2	+0.5
	comp=Z,7.8nm,0.7s,mb4.2,baz=82,slow=8.7,SNR=22						
XAN	Xi'an	27.10	265	P	P	06 58 05.5	-0.1
XAN				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.3						
ZAK	Zakamensk	28.06	302	⇓eP	P	06 58 13.4	-0.8
ENH	Enshi	28.51	257	eP	P	06 58 16.1	-2.3
	comp=Z,9.6nm,0.6s,mb4.6						
LZH	Lanzhou	30.08	272	eP	P	06 58 32.4	+0.1
LZH				AP	pP	06 58 51.3	+2.9
LZH				PP	PP	06 59 33.6	+1.1
LZH				eS	S	07 03 23.1	-1.5
LZH				SS	SS	07 05 05.4	-0.8
LZH				AMB	AMB		
	comp=Z,29nm,1.5s,mb4.7						
LZH				AMB	AMB		
	comp=Z,103nm,5.1s						
GTA	Gaotai	31.95	280	eP	P	06 58 48.7	0.0
GTA				PCP	PcP	07 01 37.8	+0.1
GTA				S	S	07 03 53.2	-0.8
GTA				SS	SS	07 05 50.8	+1.0
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.3						
GTA				AMB	AMB		
	comp=Z,98nm,5.0s						
CD2	Chengdu	32.41	263	eP	P	06 58 50.2	-2.7
CD2				PP	PP	07 00 01.2	-1.3
CD2				eS	S	07 04 00.2	-1.1
CD2				SS	SS	07 06 05.3	+4.7
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
CD2				AMB	AMB		
	comp=Z,110nm,5.4s						
GYA	Guiyang	32.71	254	P	P	06 58 54.3	-1.1
GYA				S	S	07 04 01.7	-4.2
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
WMQ	Urumqi	39.40	292	⇑P	P	06 59 53.6	+1.8
WMQ				AP	pP	07 00 13.9	+5.4
WMQ				XP	sP	07 00 24.7	+8.3
WMQ				PP	PP	07 01 29.0	+2.1
WMQ				PCP	PcP	07 01 59.7	+0.1
WMQ				S	S	07 05 49.6	+1.3
WMQ				XS		07 06 23.6	
WMQ				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,19nm,6.2s						
NANT	Nan	41.80	250	P	P	07 00 07.0	-4.9
MKAR	Makanchi Array	42.26	298	i P	P	07 00 15.3	0.0
MKAR				pmax	pmax		
	comp=Z,18nm,1.0s						
IMA	Indian Mountai	42.58	33	eP	P	07 00 18.1	+0.4
	comp=Z,17nm,1.0s,mb4.7						
CHG	Chiang Mai	43.03	251	⇓P	P	07 00 24.3	+2.3
	comp=Z,12nm,0.8s,mb4.7						
CMAR	Chiang Mai Arr	43.27	251	P	P	07 00 24.8	+0.9
	comp=Z,2.0nm,0.5s,mb4.1,baz=47,slow=7.9,SNR=13						
CMAR				PcP	PcP	07 02 13.0	+0.5
	comp=Z,1.9nm,0.8s,baz=354,slow=1.8,SNR=6.2						
CMAR				LR	LR	07 18 03.0	
	comp=Z,48nm,18.3s,baz=65,slow=35						
CMAR	Chiang Mai Arr	43.27	251	P	P	07 00 24.8	+0.9
CMAR						07 02 13.0	
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CMAR				MLR	MLR		
	comp=Z,48nm,18.3s						
KURK	Kurchatov	43.63	305	d iP	P	07 00 26.2	-0.2
KURK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
KURK	Kurchatov	43.63	305	eP	P	07 00 25.8	-0.6
	comp=Z,22nm,0.9s,mb4.9						
SHL	Shillong	44.11	265	eP	P	07 00 31.0	+0.4
MCK	McKinley	44.65	36	eP	P	07 00 34.7	+0.3
	comp=Z,5.2nm,1.0s,mb4.2						
COLA	College	45.03	35	i P	P	07 00 38.0	+0.5
COLA	College	45.03	35	eP	P	07 00 38.0	+0.5
	comp=Z,20nm,0.9s,mb4.8						
ILAR	Eielson Array	45.45	35	P	P	07 00 40.7	-0.1
	comp=Z,12nm,1.0s,mb4.6,baz=267,slow=6.1,SNR=65						
ILAR				pP	pP	07 00 59.0	+1.4
	comp=Z,5.3nm,1.1s,baz=278,slow=6.6,SNR=4.2						
ILAR				LR	LR	07 22 44.0	
	comp=Z,55nm,18.3s,baz=350,slow=40						
ILAR	Eielson Array	45.45	35	P	P	07 00 40.7	-0.1
ILAR				*PP	pP	07 00 59.1	+1.5
ILAR				pmax	pmax		
	comp=Z,12nm,1.0s						
ILAR				pmax	pmax		
	comp=Z,5.0nm,1.1s						
ILAR				MLR	MLR		
	comp=Z,55nm,18.3s						
GUN	Gumba	47.34	272	eP	P	07 00 56.9	+0.7
	comp=Z,66nm,0.5s,mb5.7						
CHKZ	Chkalovo	47.66	310	i P	P	07 00 57.7	-0.6
CHKZ				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.5						
CHKZ	Chkalovo	47.66	310	eP	P	07 00 57.1	-1.2
	comp=Z,9.3nm,0.8s,mb4.7						
KKN	Kakani	47.85	272	eP	P	07 01 00.7	+0.5
	comp=Z,59nm,1.0s,mb5.4						
PKI	Pulchoki	47.87	272	eP	P	07 01 00.6	+0.2
BRVK	Borovoye	48.02	310	P	P	07 01 00.6	-0.6
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.1						
BRVK	Borovoye	48.02	310	eP	P	07 01 01.2	+0.1
	comp=Z,9.4nm,1.0s,mb4.6						
TKM2	Tokmak 2	48.02	295	eP	P	07 01 02.0	+0.7
	comp=Z,15nm,0.6s,mb5.0						
DMN	Daman	48.08	272	eP	P	07 01 02.3	+0.3
	comp=Z,37nm,1.0s,mb5.2						
GKN	Gorkha	48.22	273	eP	P	07 01 03.1	0.0
	comp=Z,29nm,0.6s,mb5.3						
AAK	Ala-Archa	48.88	295	i P	P	07 01 07.8	-0.1
AAK				pmax	pmax		
	comp=Z,7.0nm,2.0s,mb4.2						
AAK				MLR	MLR		
	comp=Z,100nm,18.0s						
AAK	Ala-Archa	48.88	295	eP	P	07 01 07.0	-1.0
	comp=Z,3.7nm,0.6s,mb4.5						
KOLN	Koldanda	49.12	273	eP	P	07 01 10.0	0.0
	comp=Z,34nm,0.9s,mb5.3						
EKS2	Erkin-Say	49.35	295	eP	P	07 01 11.5	-0.1
	comp=Z,6.1nm,0.7s,mb4.6						
AML	Almayashu	49.62	295	eP	P	07 01 14.5	+0.8
	comp=Z,12nm,1.1s,mb4.8						
INK	Inuvik	50.16	29	P	P	07 01 17.7	+0.2
	comp=Z,6.7nm,0.6s,mb4.8,baz=297,slow=6.9,SNR=73						
INK	Inuvik	50.16	29	P	P	07 01 17.7	+0.2
INK				pmax	pmax		
	comp=Z,7.0nm,0.6s						
INK	Inuvik	50.16	29	eP	P	07 01 17.0	-0.4
	comp=Z,7.7nm,0.7s,mb4.7						
ARU	Arti	53.34	317	⇑iP	P	07 01 40.6	-0.9
ARU				e		07 02 47.3	
ARU				e		07 03 40.7	
ARU				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
ARU	Arti	53.34	317	eP	P	07 01 41.0	-0.5
	comp=Z,14nm,1.1s,mb4.9						
RES	Resolute Bay	58.10	15	eP	P	07 02 14.4	-1.1
	comp=Z,14nm,0.7s,mb5.1						
KEV	Kevo	59.39	339	ep	P	07 02 22.5	-1.9
	comp=Z,13nm,0.8s,mb5.0						
KEV	Kevo	59.39	339	eP	P	07 02 22.5	-1.9
KEV				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
YKA	Yellowknife Ar	59.67	32	P	P	07 02 25.9	-0.5
	comp=Z,1.4nm,0.8s,mb4.0,baz=304,slow=6.6,SNR=18						
YKA				pP	pP	07 02 45.5	+1.5
	comp=Z,0.4nm,0.4s,baz=307,slow=6.7,SNR=4.4						
YKA	Yellowknife Ar	59.67	32	i P	P	07 02 25.9	-0.6
YKA				pmax	pmax		

	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	59.67	32	P	P	07 02 25.9	-0.5
YKA				pP	pP	07 02 45.5	+1.5
ARCES	ARCESS Array B	59.94	339	P	P	07 02 29.9	+1.7
	comp=Z,4.6nm,0.8s,mb4.5,baz=53,slow=6.1,SNR=5.9						
ARCES				LR	LR	07 32 52.0	
	comp=Z,98nm,19.5s,baz=20,slow=40						
ARCES	ARCESS Array B	59.94	339	P	P	07 02 29.9	+1.7
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,98nm,19.5s						
WRAB	Tennant Creek	61.60	188	*e*P	P	07 02 37.7	-2.4
	comp=Z,10nm,0.9s,mb4.9						
WB2	Warramunga Arr	61.61	188	*e*P	P	07 02 38.6	-1.6
WRA	Warramunga Arr	61.61	188	P	P	07 02 38.5	-1.8
	comp=Z,5.6nm,0.8s,mb4.7,baz=4.5,slow=6.9,SNR=42						
WRA	Warramunga Arr	61.61	188	P	P	07 02 38.5	-1.7
WRA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
JOF	Joensuu	62.21	331	*e*p	P	07 02 40.6	-3.0
	comp=Z,7.2nm,0.5s,mb5.0						
JOF	Joensuu	62.21	331	*e*P	P	07 02 40.6	-3.0
JOF				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
KAF	Kangasniemi	64.52	332	*e*p	P	07 02 56.5	-2.2
	comp=Z,4.3nm,0.7s,mb4.4,baz=46,slow=6.2						
KAF	Kangasniemi	64.52	332	*e*P	P	07 02 56.5	-2.2
KAF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
OBN	Obninsk	64.78	322	⇑*i*P	P	07 03 00.4	-0.1
OBN				*e*	pP	07 03 15.7	-2.6
OBN				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s						
FINES	FINESS Array B	65.04	332	P	P	07 03 01.4	-0.8
	comp=Z,7.4nm,0.6s,mb4.7,baz=50,slow=8.0,SNR=35						
FINES				LR	LR	07 32 44.1	
	comp=Z,146nm,19.3s,baz=148,slow=37						
FINES	FINESS Array B	65.04	332	*i* P	P	07 03 01.4	-0.7
FINES				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ASAR	Alice Springs	65.34	188	P	P	07 03 03.8	-0.9
	comp=Z,3.0nm,0.6s,mb4.3,baz=5.0,slow=6.5,SNR=29						
ASPA	Alice Springs	65.34	188	*e*P	P	07 03 03.7	-1.0
VRSR	Storozhevoye	65.86	318	*e*P	P	07 03 06.9	-0.6
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
VRSR				pmax	pmax		
	comp=N,20nm,1.5s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.3s						
SUMG	Summit	66.15	0	*e*P	P	07 03 09.5	+0.4
	comp=E,14nm,0.9s,mb4.8						
KIV	Kislovodsk	68.33	310	*i* P	P	07 03 23.9	+0.7
KIV				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.2						
KIV	Kislovodsk	68.33	310	*e*P	P	07 03 24.6	+1.4
	comp=Z,43nm,1.0s,mb5.2						
FFC	Flin Flon	69.65	34	P	P	07 03 29.3	-1.8
	comp=Z,15nm,1.2s,mb4.7						
FFC				*e*pP	pP	07 03 50.0	+0.8
NB2	NORSAR Subarra	70.20	337	P	P	07 03 33.4	-0.9
	comp=Z,2.3nm,0.5s,mb4.3,baz=36,slow=6.2						
NOA	NORSAR Array B	70.20	337	P	P	07 03 33.9	-0.4
	comp=Z,3.6nm,0.7s,mb4.3,baz=37,slow=6.1,SNR=12						
NOA				pP	pP	07 03 53.7	+1.3
	comp=Z,3.1nm,0.8s,baz=37,slow=6.1,SNR=3.5						
NOA				LR	LR	07 37 43.4	
	comp=Z,69nm,18.8s,baz=350,slow=39						
NOA	NORSAR Array B	70.20	337	P	P	07 03 33.9	-0.4
NOA				*PP	pP	07 03 53.7	+1.3
NOA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,69nm,18.8s						
NOA	NORSAR Array B	70.20	337	P	P	07 03 33.9	-0.4
NOA				pP	pP	07 03 53.7	+1.3
NOA				LR	LR	07 37 43.4	
SOC	Sochi	70.26	311	*e*P	P	07 03 34.8	-0.2
SOC				*e*	pP	07 03 55.7	+2.7
SOC				*e*		07 06 08.3	
SOC				*e*PS	PS	07 13 09.0	-7.7
SOC				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.3						
SOC				pmax	pmax		
	comp=N,44nm,1.0s						
SOC				pmax	pmax		
	comp=E,46nm,1.0s						
AKASG	Malin Array Be	71.02	322	P	P	07 03 38.8	-0.6
	comp=E,11nm,0.9s,mb4.7,baz=44,slow=6.0,SNR=36						
AKASG				pP	pP	07 03 59.3	+1.7
	comp=E,2.0nm,0.6s,baz=45,slow=6.0,SNR=2.4						
AKASG	Malin Array Be	71.02	322	P	P	07 03 38.8	-0.6
AKASG				*PP	pP	07 03 59.3	+1.8
AKASG				pmax	pmax		
	comp=Z,11nm,0.9s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NVAR	Mina Array Bea	71.93	55	P	P	07 03 45.8	+0.7
	comp=Z,1.1nm,0.8s,mb3.8,baz=282,slow=6.0,SNR=8.4						
NVAR				pP	pP	07 04 05.0	+1.8
	comp=Z,2.5nm,0.8s,baz=284,slow=6.2,SNR=8.8						
MNV	Mina	72.02	54	P	P	07 03 45.9	+0.3
FRB	Frobisher Bay	72.25	14	P	P	07 03 46.2	-0.4
	comp=Z,19nm,0.8s,mb5.0,baz=46,slow=3.7,SNR=7.4						
FRB	Frobisher Bay	72.25	14	P	P	07 03 46.2	-0.4
FRB				pmax	pmax		
	comp=Z,19nm,0.8s						
FRB	Frobisher Bay	72.25	14	P	P	07 03 46.2	-0.4
TPNV	Topopah Spring	74.12	55	*e*P	P	07 03 58.2	+0.2
	comp=Z,1.8nm,0.9s,mb3.8						
PDAR	Pinedale Array	74.17	47	P	P	07 03 58.7	+0.6
	comp=Z,1.6nm,0.9s,mb3.7,baz=275,slow=2.4,SNR=11						
PDAR				pP	pP	07 04 18.0	+1.7
	comp=Z,1.3nm,0.7s,baz=297,slow=3.3,SNR=6.1						
PDAR				LR	LR	07 35 06.1	
	comp=Z,45nm,18.1s,baz=77,slow=34						
MALT	Malatya	74.38	307	*e*P	P	07 04 00.7	+1.3
	comp=Z,7.0nm,1.0s,mb4.3						
KOLS	Kolonicke sedl	75.44	324	*e*P	P	07 04 06.3	+1.1
OJC	Ojcow	75.55	326	*e*P	P	07 04 06.3	+0.5
CRVS	Cervenica-Dubn	75.82	324	*e*P	P	07 04 10.0	+2.6
NIE	Niedzica	75.94	325	*e*P	P	07 04 09.6	+1.5
BRTR	Keskin Array B	76.22	311	P	P	07 04 10.7	+0.8
	comp=Z,1.8nm,0.6s,mb4.0,baz=54,slow=5.2,SNR=7.6						
BRTR	Keskin Array B	76.22	311	P	P	07 04 10.7	+0.8
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MLR	Muntele Rosu	76.25	319	P	P	07 04 10.7	+0.8
	comp=Z,0.7nm,0.4s,mb3.7,baz=11,slow=7.6,SNR=4.6						
MLR	Muntele Rosu	76.25	319	P	P	07 04 10.7	+0.8
MLR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CLL	Collm	77.41	330	P	P	07 04 16.4	+0.1
	comp=Z,logA/T=0.9,mb4.4						
PV10	Paradox Valley	77.44	50	*e*P	P	07 04 17.3	+0.5
NWAO	Narrogin (SRO)	77.57	201	P	P	07 04 17.7	+0.1
	comp=Z,9.9nm,1.1s,mb4.5						
PV01	Paradox Valley	77.88	50	*e*P	P	07 04 22.1	+2.9
MOX	Moxa	78.46	330	*e*P	P	07 04 20.0	-2.1
KHC	Kasperske Hory	78.93	328	*e*P	P	07 04 25.0	+0.3
EKA	Eskdalemuir Ar	79.02	341	P	P	07 04 25.4	+0.3
	comp=Z,1.5nm,0.6s,mb4.0,baz=34,slow=4.4,SNR=5.5						
EKA				pP	pP	07 04 44.6	+1.3
	comp=Z,0.7nm,0.7s,baz=18,slow=7.0,SNR=1.7						
EKA	Eskdalemuir Ar	79.02	341	P	P	07 04 25.4	+0.4
EKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
EKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	79.11	328	P	P	07 04 26.0	+0.3
	comp=Z,1.2nm,0.6s,mb3.9,baz=14,slow=5.5,SNR=5.7						
GERES	GERESS Array B	79.11	328	P	P	07 04 26.0	+0.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SCHQ	Schefferville	80.85	16	P	P	07 04 34.8	-0.1
	comp=Z,1.7nm,0.5s,mb4.1,slow=10,SNR=4.4						
SSF	Saint Saulge	84.37	333	*e*P	P	07 04 53.2	+0.3
LPL	La Plagne	84.54	330	*e*P	P	07 04 54.9	+1.0
	comp=Z,11nm,0.8s,mb4.5						
LPG	La Plagne	84.55	330	*e*P	P	07 04 55.0	+1.1
	comp=Z,9.1nm,0.7s,mb4.5						
SMF	Signal de Mont	84.62	333	*e*P	P	07 04 54.6	+0.4
AVF	Avril sur Loir	84.66	333	*e*P	P	07 04 54.8	+0.4
	comp=Z,8.5nm,0.6s,mb4.5						
MBDF	Montbardon	85.20	330	*e*P	P	07 04 57.3	+0.2
	comp=Z,18nm,1.0s,mb4.7						
ORIF	Oris-en-Rattie	85.37	330	*e*P	P	07 04 58.7	+0.7
	comp=Z,13nm,0.9s,mb4.5						
VIVF	Saint-Julien-l	85.87	331	*e*P	P	07 05 01.2	+0.8
	comp=Z,23nm,1.0s,mb4.8						
MFF	Saint Martin d	85.98	335	*e*P	P	07 05 01.7	+0.8
RJF	Les Rejaudoux	86.58	333	*e*P	P	07 05 04.8	+0.9
CAF	Calviac	86.73	333	*e*P	P	07 05 05.9	+1.3
	comp=Z,18nm,0.9s,mb4.7						
TXAR	Lajitas Array	86.99	53	P	P	07 05 07.2	+0.9
	comp=Z,0.8nm,1.0s,mb3.6,baz=304,slow=4.5,SNR=6.2						
TXAR				pP	pP	07 05 27.8	+2.9
	comp=Z,2.8nm,1.1s,baz=272,slow=3.2,SNR=7.9						
TXAR	Lajitas Array	86.99	53	P	P	07 05 07.2	+0.9
TXAR				pP	pP	07 05 27.8	+2.9
SNAA	Sanae	145.21	199	*e*	PKPdf	07 12 00.6	+4.8
SNAA	Sanae	145.21	199	*e*	PKPdf	07 12 02.6	+6.8
SNAA	Sanae	145.21	199	⇓*i*PKPdf	PKPdf	07 11 57.4	+1.6
SNAA				*e*		07 12 00.6	
SNAA				*e*		07 12 02.6	
VNA2	Neumayer--Watz	146.79	198	*e*	PKPdf	07 12 07.6	+9.0
VNA2	Neumayer--Watz	146.79	198	*e*	PKPdf	07 12 09.2	+11
VNA2	Neumayer--Watz	146.79	198	⇓*i*PKPdf	PKPdf	07 12 04.0	+5.4
VNA2				*e*		07 12 07.6	
VNA2				*e*		07 12 09.2	
VNA3	Neumayer Olymp	147.06	196	*e*	PKPdf	07 12 08.1	+9.1
VNA3	Neumayer Olymp	147.06	196	*e*	PKPdf	07 12 09.4	+10
VNA3	Neumayer Olymp	147.06	196	⇓*i*PKPdf	PKPdf	07 12 04.4	+5.4
VNA3				*e*		07 12 08.1	
VNA3				*e*		07 12 09.4	
BDFB	Brasilia	152.74	22	PKPbc	PKPdf	07 12 18.6	+9.3
	comp=Z,1.6nm,0.7s,baz=7.6,slow=3.7,SNR=3.6						
BDFB	Brasilia	152.74	22	PKIKP	PKPdf	07 12 18.6	+9.3
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.7s						

MAN 01 06:54:03.9, 17.47N×120.22E, h11^{km}, mb3.9, ML2.7, MS2.3, 2C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABRA	Dolores	0.50	69	*e*P	Pg	06 54 14.4	+0.2
ABRA				*e*S	Sg	06 54 21.1	+0.1
PIP	Pasuquin	0.93	24	⇑*i*P	Pb	06 54 21.2	-0.4
PIP				*i* S	Sb	06 54 34.7	+0.9
BCPH	Baguio City Da	1.14	162	⇑*i*P	Pb	06 54 23.8	-1.4
BCPH				*i* S	Sb	06 54 39.7	0.0
CVP	Callao Caves	1.55	81	*e*P	Pn	06 54 30.0	-1.6
CVP				*e*S	Sb	06 54 50.0	-1.6
CAUP	Cauayan	1.62	109	*e*P	Pn	06 54 32.9	+0.2
BALP	Baler	2.15	143	*e*P	Pn	06 54 41.6	+1.3

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*NEIC **01** 07:18:22.5, 17.35N×94.94W, h139^{km}, MD4.0(MEX), After MEX.*

MEX 01 07:18:22.9±1.6**, 17.35N×94.95W, h135^{km}**±13^{km}**, MD4.0, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	Matias Romero	0.26	167	*i* P	P	07 18 40.0	-2.1
CMIG				*i* S	S	07 18 53.9	-2.7
CMIG	Matias Romero	0.26	167	*i* P	P	07 18 40.0	-2.0
CMIG				*i* S	S	07 18 53.4	-3.3
TUIG	Tuzandepetl	0.85	36	*i* P	P	07 18 44.6	-0.7
TUIG				*i* S	S	07 18 59.6	-2.8
OXX	Oaxaca	1.72	261	*i* P	P	07 18 53.5	-0.7
OXX				*i* S	S	07 19 17.3	-0.8
VHO	Vista Hermosa	1.73	261	*i* P	P	07 18 52.8	-1.5
VHO				*i* S	S	07 19 17.0	-1.3
VHO	Vista Hermosa	1.73	261	*i* P	P	07 18 52.9	-1.4
VHO				*i* S	S	07 19 16.7	-1.6
HUIG	Huatulco	1.93	215	*i* P	P	07 18 53.7	-2.9
HUIG				*i* S	S	07 19 19.7	-2.7
HUIG	Huatulco	1.93	215	*i* P	P	07 18 53.7	-2.9
HUIG				*i* S	S	07 19 19.7	-2.7
SCX	San Cristobal	2.29	105	*i* P	P	07 19 00.7	-0.6
IISM	Ciudad Serdan	2.83	306	*i* P	P	07 19 10.5	+2.3
CCIG	Comitan	2.89	111	*i* P	P	07 19 08.2	-0.9
CCIG				*i* S	S	07 19 40.7	-3.5
CCIG	Comitan	2.89	111	*i* P	P	07 19 08.0	-1.1
CCIG				*i* S	S	07 19 41.1	-3.1

WEL 01 07:18:55.1±0.3**, 39.07S×177.62E, h35^{km}**±2^{km}**, ML3.5**/6**, 1D, Error ellipse: s-maj=3.1km s-min=1.6km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNZ	Kokohu	0.06	40	⇓PN	P	07 19 00.8	0.0
KNZ				SN	S	07 19 05.0	0.0
MWZ	Matawai	0.74	354	PN	P	07 19 08.7	-0.3
MWZ				SN	S	07 19 19.0	-0.1
BKZ	Black Stump Fm	0.88	263	PN	P	07 19 10.5	-0.5
BKZ				*e*SN	S	07 19 22.3	-0.6
URZ	Urewera	0.90	334	PN	P	07 19 10.7	-0.6
URZ				SN	S	07 19 22.6	-0.8
PUZ	Puketiti	1.11	27	PN	P	07 19 14.1	-0.3
PUZ				*e*SN	S	07 19 28.6	-0.1
PWZ	Pawanui	1.12	211	*e*PN	P	07 19 13.8	-0.7
MOVZ	Moawhango	1.49	256	PN	P	07 19 19.5	-0.3
NGZ	Ngauruhoe	1.57	266	PN	P	07 19 20.9	0.0
FWVZ	Far West T-bar	1.62	263	*e*PN	P	07 19 21.8	+0.2
TSZ	Takapari Road	1.62	232	PN	P	07 19 20.2	-1.4
BFZ	Birch Farm	1.93	213	*e*PN	P	07 19 24.2	-1.8
MRZ	Mangatainoka R	2.23	224	*e*PN	P	07 19 28.2	-2.2
MRZ				SN	S	07 19 54.1	-2.9
CAW	Cannon Point	2.83	223	*e*SN	S	07 20 08.0	-4.1
NNZ	Nelson	3.90	235	*e*PN	P	07 19 50.5	-3.5
NNZ				*e*SN	S	07 20 33.2	-6.0
THZ	Tophouse	4.49	232	*e*PN	P	07 19 58.0	-4.5
KHZ	Kahutara	4.56	222	*e*SN	S	07 20 46.8	-9.2
DSZ	Denniston Nort	5.18	237	*e*SN	S	07 21 03.6	-8.1
MQZ	McQueen's Vall	5.95	217	*e*SN	S	07 21 19.4	-12

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*IDC **01** 07:22:58.3±16.0, 45.94N×150.61E, h88^{km}±174^{km}, mb3.2/4, mb1 3.6/5, mb1mx3.3/21, ML3.6/1, Error ellipse: s-maj=248.0km s-min=26.9km az=123.0*

*JMA **01** 07:23:06.4±0.6, 45.54N×149.85E, h156^{km}, M3.6*

ISC 01 07:23:06.8±1.2**, 45.6N**±0.2×**149.5E**±0.2**, h220^{km}**±14^{km}**, n23, σ1^{s}01**/31**, mb3.2**/4**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	3.49	232	P	P	07 24 02.6	-1.1
NEM2				*e*S	S	07 24 46.8	-1.1
JNK	Nakash	3.96	241	P	P	07 24 09.8	+0.4
JTKR	Abashiri--Toko	4.30	250	P	P	07 24 13.8	+0.2
JAK	Akkeshi	4.32	235	P	P	07 24 13.3	-0.5
JAK				*e*S	S	07 25 05.5	-0.3
JAR	Ashorobuto	4.71	243	P	P	07 24 20.1	+1.5
JOB	Onbets	4.88	239	P	P	07 24 21.3	+0.5
JKK2	Kamakawa 2	5.11	253	P	P	07 24 25.1	+1.4
ASAJ	Asahikawa	5.13	256	P	P	07 24 24.1	+0.1
	1.3nm,0.3s,baz=105,slow=15,SNR=8.8						
ASAJ	Asahikawa	5.13	256	P	P	07 24 25.5	+1.5
JCH	Churui	5.33	238	P	P	07 24 26.4	-0.1
JCH				*e*S	S	07 25 28.7	+0.2
JNBK	Urakawa-nobuka	5.89	238	P	P	07 24 33.2	-0.5
JNBK				*e*S	S	07 25 41.2	-0.1
JNB	Noboribetsu	6.86	246	P	P	07 24 46.0	0.0
JKB	Kayabe	7.17	242	P	P	07 24 50.2	+0.2
JKB				*e*S	S	07 26 09.6	-1.1
JSR	Shiriuchi	7.75	242	P	P	07 24 57.9	+0.4
JTM	Tenmabayashi	7.81	235	*e*S	S	07 26 23.2	-2.4
JANG	Nango	7.84	231	P	P	07 24 58.0	-0.7
JANG				*e*S	S	07 26 24.7	-1.6
JTH	Tanohata	7.97	228	*e*S	S	07 26 30.2	+1.0
JRG	Rokugo	9.01	230	P	P	07 25 14.5	+0.7
JRG				*e*S	S	07 26 56.4	+3.1
JIO	Ouri	9.36	223	P	P	07 25 18.6	+0.3
JIO				*e*S	S	07 27 02.1	+0.8
YKA	Yellowknife Ar	53.34	35	P	P	07 32 02.0	-2.7
	0.2nm,0.4s,mb2.9,baz=300,slow=6.8,SNR=4.3						
PDAR	Pinedale Array	67.44	52	P	P	07 33 39.6	-0.7
	0.6nm,0.7s,mb3.3,baz=315,slow=2.6,SNR=5.2						
ASAR	Alice Springs	70.37	195	P	P	07 34 05.9	+7.4
	0.4nm,0.7s,mb3.2,baz=12,slow=6.3,SNR=5.8						
TXAR	Lajitas Array	80.24	58	P	P	07 34 55.1	+0.9
	0.3nm,0.4s,mb3.3,baz=292,slow=4.4,SNR=18						

IDC 01 07:23:55.5±3.9**, 33.00N×90.53E, mb3.8**/2**, mb1 3.9**/3**, mb1mx3.5**/16**, ML4.4**/1**, Error ellipse: s-maj=142.0km s-min=35.0km az=89.0, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	19.06	34	P	P	07 28 19.5	-2.2
	0.3nm,0.3s,baz=216,slow=12,SNR=2.6						
ASAR	Alice Springs	69.89	138	P	P	07 35 08.6	-2.0
	0.6nm,0.6s,baz=322,slow=6.4,SNR=8.1						
ILAR	Eielson Array	72.80	22	P	P	07 35 25.5	-1.7
	0.8nm,0.9s,baz=298,slow=5.4,SNR=5.7						

IDC 01 07:35:08.0±1.4**, 14.37N×144.44E, mb3.6**/4**, mb1 3.9**/4**, mb1mx3.6**/19**, Error ellipse: s-maj=160.0km s-min=25.9km az=113.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	35.51	196	P	P	07 42 06.2	-2.6
	0.9nm,0.6s,baz=18,slow=8.5,SNR=9.1						
FITZ	Fitzroy Crossi	37.21	210	P	P	07 42 21.4	-1.7
	1.7nm,0.8s,baz=45,slow=5.7,SNR=4.1						
ASAR	Alice Springs	39.18	195	P	P	07 42 38.1	-1.5
	0.3nm,0.4s,baz=17,slow=8.4,SNR=6.7						
ILAR	Eielson Array	68.05	25	P	P	07 46 09.2	-2.0
	0.1nm,0.5s,baz=254,slow=6.0,SNR=4.9						

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*NEIC **01** 07:38:04.6±1.0, 12.67S×74.95W, h83^{km}±17^{km}, mb4.0/1, Error ellipse: s-maj=22.0km s-min=12.5km az=209.0*

*IDC **01** 07:38:06.8±9.0, 12.74S×74.81W, h114^{km}±110^{km}, mb2.8/2, mb1 3.2/4, mb1mx3.1/16, ML3.8/2, Error ellipse: s-maj=106.0km s-min=77.0km az=74.0*

ISC 01 07:38:03.7±1.2**, 12.7S**±0.2×**74.9W**±0.1**, h91^{km}**±19^{km}**, n9, σ0^{s}99**/9**, mb3.4**/3**, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNA	Nana	2.00	290	*e*P	P	07 38 36.2	-0.1
LPAZ	La Paz	7.49	119	P	P	07 39 52.5	+0.5
	0.3nm,0.3s,baz=301,slow=13,SNR=8.8						
LPAZ	La Paz	7.49	119	*e*P	P	07 39 53.1	+1.0
LVC	Limon Verde	11.41	151	P	P	07 40 45.0	0.0
	0.2nm,0.3s,baz=343,slow=11,SNR=3.9						
SAML	Samuel	12.12	73	*e*P	P	07 40 53.1	-1.4
	2.8nm,0.4s						
SDV	Santo Domingo	21.86	11	*e*P	P	07 42 52.3	+2.1
	3.8nm,0.6s,mb3.9						
TXAR	Lajitas Array	50.15	327	P	P	07 46 51.6	-0.4
	0.3nm,0.6s,mb3.4,baz=146,slow=9.3,SNR=4.6						
YKA	Yellowknife Ar	81.06	343	P	P	07 50 09.2	-0.6
	0.1nm,0.5s,mb2.9,baz=137,slow=6.1,SNR=5.2						
YKA	Yellowknife Ar	81.06	343	P	P	07 50 09.2	-0.6

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*IDC **01** 07:58:54.9±2.6, 17.52S×178.60W, h638^{km}±33^{km}, mb3.3/9, mb1 3.5/9, mb1mx3.4/17, Error ellipse: s-maj=27.7km s-min=15.9km az=163.0*

*NEIC **01** 07:58:54.9±3.3, 17.70S×178.52W, h644^{km}±37^{km}, mb4.2/9, Error ellipse: s-maj=22.3km s-min=16.5km az=221.0*

ISC 01 07:58:54.6±2.7**, 17.6S**±0.2×**178.6W**±0.1**, h660^{km}**±34^{km}**, n27, σ0^{s}92**/24**, mb4.0**/14**, 8C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	20.88	189	P	P	08 02 57.5	+1.8
	5.6nm,0.7s,baz=235,slow=21,SNR=5.1						
RPZ	Rata Peaks	27.42	196	P	P	08 03 52.7	-0.3
	5.9nm,0.8s,mb4.2,baz=83,slow=6.3,SNR=4.4						
CTA	Charters Tower	33.30	260	*e*P	P	08 04 43.4	+0.6
	3.0nm,0.6s,mb4.0						
CTA	Charters Tower	33.30	260	P	P	08 04 43.1	+0.3
	3.3nm,0.5s,mb4.1,baz=90,slow=9.0,SNR=8.9						
CTAO	Charters Tower	33.30	260	*e*P	P	08 04 42.6	-0.2
	4.1nm,0.7s,mb4.1						
CNB	Canberra Magne	33.44	232	⇑*i*P	P	08 04 43.5	-0.3
	6.5nm,0.5s,mb4.4						
STKA	Stephens Creek	38.59	241	⇑*i*P	P	08 05 26.1	+0.2
	5.6nm,0.9s,mb4.0						
STKA	Stephens Creek	38.59	241	P	P	08 05 25.9	0.0
	4.8nm,0.6s,mb4.1,baz=96,slow=8.5,SNR=10.0						
WB2	Warramunga Arr	44.48	259	⇑*i*P	P	08 06 12.3	-0.1
WRAB	Tennant Creek	44.48	259	*e*P	P	08 06 12.1	-0.4
	7.4nm,0.6s,mb4.2						
WRA	Warramunga Arr	44.49	259	P	P	08 06 12.4	-0.1
	3.5nm,0.4s,mb4.0,baz=95,slow=6.9,SNR=86						
WRA				PcP	PcP	08 07 40.6	-0.4
	0.9nm,0.5s,baz=89,slow=3.8,SNR=6.3						
ASAR	Alice Springs	44.68	254	P	P	08 06 13.8	-0.1
	17nm,0.9s,mb4.4,baz=89,slow=8.1,SNR=141						
ASAR				PcP	PcP	08 07 41.1	-0.5
	1.8nm,0.5s,baz=103,slow=3.8,SNR=11						
ASAR				S	S	08 12 07.2	+1.8
	0.3nm,0.6s,baz=98,slow=13,SNR=4.0						
ASPA	Alice Springs	44.68	254	⇓*i*P	P	08 06 13.7	-0.2
KAKA	Kakadu	47.44	269	⇑*i*P	P	08 06 34.9	+0.1
	8.9nm,0.4s,mb4.5						
FORT	Forrest	49.95	244	*e*P	P	08 06 51.4	-1.7
	15nm,0.4s,mb4.7						
FITZ	Fitzroy Crossi	52.88	260	⇑*i*P	P	08 07 14.4	+0.2
	1.3nm,0.3s,mb3.6						
MBWA	Marble Bar	57.95	256	*e*P	P	08 07 48.1	-0.8
	3.2nm,0.5s,mb3.7						
ILAR	Eielson Array	85.67	13	P	P	08 10 26.4	-0.3
	0.8nm,1.0s,mb3.3,baz=219,slow=4.8,SNR=7.8						
TXAR	Lajitas Array	86.01	58	P	P	08 10 29.5	+0.4
	0.8nm,0.8s,mb3.4,baz=215,slow=6.8,SNR=8.9						
CMAR	Chiang Mai Arr	88.62	290	P	P	08 10 44.1	+2.6
	1.7nm,1.0s,mb3.8,baz=121,slow=2.3,SNR=6.3						
SNAA	Sanae	90.87	179	⇑*i*	P	08 10 47.5	-3.1
VNA3	Neumayer Olymp	91.02	176	⇑*i*	P	08 10 51.2	-0.1
VNA2	Neumayer--Watz	91.45	177	⇑*i*	P	08 10 53.5	+0.1
ARCES	ARCESS Array B	126.02	350	PKP	PKPdf	08 16 44.1	+0.8
	4.9nm,1.1s,slow=1.2,SNR=4.1						
BRTR	Keskin Array B	144.46	315	PKP	PKPdf	08 17 20.9	+3.0
	3.1nm,1.0s,baz=104,slow=5.1,SNR=4.5						
CLL	Collm	145.16	347	*i* PKP1	PKPbc	08 17 22.5	+2.7
GERES	GERESS Array B	147.31	345	PKPbc	PKPdf	08 17 28.3	+6.0
	1.5nm,0.6s,baz=27,slow=3.0,SNR=7.4						

IDC 01 08:08:38.4±2.5**, 20.40S×176.02W, mb4.2**/4**, mb1 4.3**/5**, mb1mx4.0**/16**, ML4.4**/1**, Error ellipse: s-maj=56.1km s-min=36.7km az=84.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	18.76	197	P	P	08 12 59.0	-2.2
	1.3nm,0.3s,baz=112,slow=4.1,SNR=8.5						
THZ	Tophouse	23.27	201	*e*P	P	08 13 48.7	+0.2
RPZ	Rata Peaks	25.63	202	P	P	08 14 09.6	-1.6
	11nm,0.5s,baz=352,slow=1.6,SNR=17						
STKA	Stephens Creek	39.50	244	P	P	08 16 10.7	-1.9
	1.6nm,0.6s,baz=84,slow=10,SNR=9.0						
ASAR	Alice Springs	46.34	256	P	P	08 17 06.5	-1.7
	2.5nm,0.9s,baz=92,slow=7.9,SNR=13						
WRA	Warramunga Arr	46.45	262	P	P	08 17 07.4	-1.7
	1.3nm,0.7s,baz=97,slow=6.9,SNR=8.4						
AKASG	Malin Array Be	143.80	333	PKP	PKPdf	08 28 14.1	-3.1
	0.9nm,0.4s,baz=42,slow=4.3,SNR=5.9						
BRTR	Keskin Array B	148.13	314	PKPbc	PKPdf	08 28 26.2	+1.4
	0.7nm,0.5s,baz=90,slow=1.2,SNR=3.7						

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*IDC **01** 08:54:29.7±1.1, 20.32S×173.35W, mb3.8/6, mb1 4.2/7, mb1mx4.0/16, ML4.1/1, Error ellipse: s-maj=69.3km s-min=21.4km az=157.0*

*NEIC **01** 08:54:30.3±0.7, 20.07S×173.33W, h10^{km}, mb4.6/2, Error ellipse: s-maj=20.8km s-min=11.9km az=158.0*

ISC 01 08:54:28.4±0.8**, 20.1S**±0.1×**173.3W**±0.1**, h10^{km}, n11, σ1^{s}30**/10**, mb4.0**/8**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	6.30	14	*e*P	Pn	08 56 02.4	-1.4
RAR	Rarotonga	12.71	97	Pn	P	08 57 30.8	-1.4
	1.1nm,0.3s,baz=225,slow=2.9,SNR=3.1						

CTAO	**Charters Tower**	**37.93**	**263**	P	**P**	**09 01 47.8**	**-0.2**
	9.2nm,1.1s,mb4.4						
STKA	**Stephens Creek**	**41.95**	**244**	P	**P**	**09 02 21.9**	**+0.6**
	2.2nm,0.7s,mb3.9,baz=60,slow=8.1,SNR=3.2						
ASAR	**Alice Springs**	**48.91**	**256**	P	**P**	**09 03 16.2**	**-0.6**
	1.0nm,0.6s,mb4.0,baz=101,slow=7.8,SNR=15						
ASAR				PcP	PcP	09 04 43.6	+2.1
	0.7nm,0.6s,baz=102,slow=3.8,SNR=4.3						
WRAB	**Tennant Creek**	**49.02**	**261**	*e*P	**P**	**09 03 17.2**	**-0.5**
	8.3nm,1.1s,mb4.7						
WRA	**Warramunga Arr**	**49.03**	**261**	P	**P**	**09 03 17.0**	**-0.8**
	1.6nm,0.9s,mb4.0,baz=96,slow=6.8,SNR=9.1						
NVAR	**Mina Array Bea**	**77.74**	**41**	P	**P**	**09 06 31.2**	**+3.8**
	0.5nm,0.7s,mb3.6,baz=225,slow=8.9,SNR=4.0						
TXAR	**Lajitas Array**	**83.14**	**56**	P	**P**	**09 06 58.2**	**+1.9**
	0.7nm,1.1s,mb3.6,baz=225,slow=5.1,SNR=3.9						
ILAR	**Eielson Array**	**86.99**	**11**	P	**P**	**09 07 17.1**	**+2.4**
	0.3nm,0.7s,mb3.6,baz=224,slow=6.6,SNR=4.8						
AKASG	**Malin Array Be**	**144.64**	**335**	PKP	PKPdf	09 14 07.4	-0.8
	1.2nm,0.7s,baz=37,slow=4.2,SNR=4.7						

BJI 01 09:23:30.8,37.34N×95.30E,h25^{km},ML3.8,Ms3.4, Msz3.2,Qinghai

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GTA	**Gaotai**	**4.11**	**58**	PG	Pn	09 24 44.0	+10
GTA				S	Sn	09 25 24.1	+2.6
GTA				Smax			
	comp=N,21nm,0.6s						
GTA				Smax			
	comp=E,25nm,0.6s						
WMQ	**Urumqi**	**8.68**	**321**	*e*P	P	09 25 40.8	+2.9
WMQ				S	Sn	09 27 06.6	-9.4
WMQ				Smax			
	comp=N,24nm,0.8s						
WMQ				Smax			
	comp=E,36nm,0.8s						

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*NEIC **01** 09:44:27.6,19.24N×64.75W,h32^{km},MD3.6(RSPR), After RSPR.*

RSPR 01 09:44:27.6,19.24N×64.75W,h32^{km}±33^{km}**,MD3.6**/14,**MD3.6**/14**,11C-5D,Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MTP	**Monte Pirata**	**1.37**	**214**	*e*S	Sn	09 45 05.8	-2.4
MTP	**Monte Pirata**	**1.37**	**214**	⇑*i*P	Pn	09 44 49.4	-1.5
MTP				*e*S	Sn	09 45 05.8	-2.4
CBYP	**Canovanas**	**1.43**	**228**	*e*S	Sn	09 45 06.8	-2.7
CBYP	**Canovanas**	**1.43**	**228**	⇑*e*P	Pn	09 44 49.5	-2.2
CBYP				*e*S	Sn	09 45 06.8	-2.7
HUMP	**Col San Antoni**	**1.51**	**224**	*e*S	Sn	09 45 09.0	-2.7
HUMP	**Col San Antoni**	**1.51**	**224**	⇑*e*P	Pn	09 44 50.8	-2.1
HUMP				*e*S	Sn	09 45 09.0	-2.7
CPD	**Cerro la Pandu**	**1.63**	**223**	*e*S	Sn	09 45 12.4	-2.2
CPD	**Cerro la Pandu**	**1.63**	**223**	⇓*e*P	Pn	09 44 52.7	-1.9
CPD				*e*S	Sn	09 45 12.4	-2.2
CSB	**Colonia Sabana**	**1.64**	**235**	⇑*e*P	Pn	09 44 51.9	-2.8
CSB				*e*S	Sn	09 45 12.2	-2.7
SJG	**San Juan**	**1.74**	**230**	*e*S	Sn	09 45 14.9	-2.6
SJG	**San Juan**	**1.74**	**230**	⇑*e*P	Pn	09 44 54.0	-2.2
SJG				*e*S	Sn	09 45 14.3	-3.2
SJG	**San Juan**	**1.74**	**230**	⇓*e*P	Pn	09 44 53.8	-2.4
SJG				*e*S	Sn	09 45 14.9	-2.6
AOPR	**Arecibo Observ**	**2.10**	**245**	*e*S	Sn	09 45 23.5	-3.0
AOPR	**Arecibo Observ**	**2.10**	**245**	⇓*e*P	Pn	09 44 59.8	-1.5
AOPR				*e*S	Sn	09 45 23.5	-3.0
OBIP	**Obispado Ponce**	**2.13**	**236**	*e*S	Sn	09 45 25.3	-2.0
OBIP	**Obispado Ponce**	**2.13**	**236**	⇓*e*P	Pn	09 45 00.1	-1.7
OBIP				*e*S	Sn	09 45 25.3	-2.0
PORP	**Portuguez**	**2.15**	**237**	⇑*e*P	Pn	09 44 59.8	-2.2
PORP				*e*S	Sn	09 45 24.8	-3.0
ICM	**Isla Caja Muer**	**2.15**	**232**	*e*S	Sn	09 45 26.3	-1.7
ICM	**Isla Caja Muer**	**2.15**	**232**	⇓*e*P	Pn	09 45 00.4	-1.7
ICM				*e*S	Sn	09 45 26.3	-1.7
LRS	**Lares**	**2.20**	**245**	⇑*e*P	Pn	09 45 00.2	-2.6
LSP	**Las Mesas**	**2.46**	**245**	⇑*e*P	Pn	09 45 05.2	-1.2
LSP				*e*S	Sn	09 45 33.6	-2.1
MGP	**Maguayo**	**2.54**	**242**	*e*S	Sn	09 45 35.0	-2.7
MGP	**Maguayo**	**2.54**	**242**	⇑*e*P	Pn	09 45 05.2	-2.4
MGP				*e*S	Sn	09 45 35.6	-2.1
MGP	**Maguayo**	**2.54**	**242**	⇑*e*P	Pn	09 45 05.1	-2.5
MGP	**Maguayo**	**2.54**	**242**	⇑*e*P	Pn	09 45 05.1	-2.5
MGP				*e*S	Sn	09 45 35.0	-2.7

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*LDG **01** 10:04:36.2±0.1,44.48N×6.79E,h2^{km},Md2.0/2,Ml2.0/6, Error ellipse: s-maj=2.0km s-min=1.1km az=74.0*

STR 01 10:04:35.8±0.6**,44.46N×6.76E,h5**^{km}±1^{km}**,Ml2.1,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0,France**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SURF	**Saint Ours**	**0.04**	**61**	Pg	Pg	10 04 37.5	+0.5
SURF				Sg	Sg	10 04 38.5	+0.6
MBDF	**Montbardon**	**0.27**	**2**	*e*Pg	Pg	10 04 41.2	0.0
MBDF				*e*Sg	Sg	10 04 45.0	+0.2
	27nm,0.3s						
OG22	**Abries**	**0.39**	**20**	Pg	Pg	10 04 43.5	-0.1
OG22				Sg	Sg	10 04 48.9	+0.2
TOUF	**Mont Tournerai**	**0.57**	**142**	Pg	Pg	10 04 47.0	-0.2
TOUF				Sg	Sg	10 04 54.9	+0.1
AUTN	**L'Aution**	**0.67**	**134**	Pg	Pg	10 04 49.4	+0.2
AURF	**Auriere**	**0.70**	**144**	Pg	Pg	10 04 47.4	-2.5
SAOF	**Saorge**	**0.74**	**129**	Pg	Pg	10 04 50.4	-0.2
SAOF				Sg	Sg	10 05 00.0	-0.6
SBF	**Sospel**	**0.77**	**141**	*e*Pg	Pg	10 04 50.5	-0.7
SBF				*e*Sg	Sg	10 05 00.9	-0.6
	5.5nm,0.2s						
ORIF	**Oris-en-Rattie**	**0.78**	**306**	*e*Pg	Pg	10 04 50.7	-0.6
ORIF				*e*Sg	Sg	10 05 00.6	-1.1
	3.0nm,0.2s						
FRF	**La Foret Royal**	**0.90**	**185**	*e*Pg	Pg	10 04 53.3	-0.5
FRF				*e*Sg	Sg	10 05 05.4	-0.5
	5.3nm,0.2s						
SMRF	**Simiane la Rot**	**0.98**	**241**	*e*Pg	Pg	10 04 55.8	+0.4
SMRF				*e*Sg	Sg	10 05 08.9	+0.4
	5.4nm,0.3s						
LPG	**La Plagne**	**1.04**	**360**	*e*Pg	Pg	10 04 55.6	-0.9
LPG				*e*Sg	Sg	10 05 08.5	-1.9
	2.7nm,0.3s						
LPL	**La Plagne**	**1.06**	**359**	*e*Pg	Pg	10 04 55.4	-1.5
LPL				*e*Sg	Sg	10 05 09.4	-1.6
	1.5nm,0.3s						
LMR	**La Mourre**	**1.14**	**189**	*e*Pg	Pg	10 04 58.1	-0.5
LMR				*e*Sg	Sg	10 05 13.1	-0.7
	4.1nm,0.3s						
PGF	**Pioggiola**	**2.51**	**139**	*e*Pn	Pn	10 05 16.4	-1.6
PGF				*e*Pg	Pg	10 05 23.1	-2.8
PGF				*e*Sn	Sn	10 05 45.1	-4.2
	1.7nm,0.2s						

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*HEL **01** 10:39:36.6±0.1,59.01N×18.03E,ML1.9,ML2.3(UPP), ML2.2(NAO),Explosion*

*IDC **01** 10:39:39.1±2.0,59.24N×17.99E,mb1 3.1/4, mb1mx3.0/17,ML2.4/4,Error ellipse: s-maj=27.6km s-min=6.6km az=180.0*

*NAO **01** 10:39:39.1±3.1,59.29N×17.96E,ML2.2*

*BER **01** 10:39:39.7±3.8,59.21N×17.90E,ML2.2(NAO)*

ISC 01 10:39:34.7±0.5**,59.01N**±0.04×**18.16E**±0.06**,n29,**σ**0**^{s}**98**/42**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NRTU	**Norrtaelje**	**0.71**	**19**	*i* P	**Pg**	**10 39 49.5**	**+0.7**
NRTU				*i* S	**Sg**	**10 39 58.7**	**+0.3**
VIKU	**Vikbolandet**	**0.92**	**237**	*i* P	**Pg**	**10 39 52.0**	**-1.0**
ESKU	**Eskilstuna**	**0.94**	**285**	*i* P	**Pg**	**10 39 52.0**	**-1.4**
BACU	**Backbrunna**	**1.01**	**328**	*e*P	**Pb**	**10 39 53.9**	**-0.8**
FLYU	**Flymyra**	**1.13**	**353**	*e*P	**Pb**	**10 39 56.7**	**-0.1**
OSTU	**Oestervaala**	**1.33**	**337**	*e*P	**Pb**	**10 40 00.1**	**-0.1**
GOTU	**Gotland**	**1.34**	**171**	*e*P	**Pb**	**10 40 00.4**	**0.0**
AAL	**Aland**	**1.50**	**38**	*e*P	**Pn**	**10 40 04.0**	**+1.1**
LNKU	**Linkoeping**	**1.60**	**242**	*e*P	**Pn**	**10 40 04.0**	**-0.3**
VSTU	**Vaestervik**	**1.60**	**213**	*e*P	**Pn**	**10 40 04.5**	**+0.2**
NRAU	**Nora**	**1.70**	**291**	*e*P	**Pn**	**10 40 05.9**	**+0.1**
ASKU	**Askersund**	**1.73**	**268**	*e*P	**Pn**	**10 40 06.3**	**0.0**
FALU	**Falun**	**1.90**	**323**	*e*P	**Pn**	**10 40 09.2**	**+0.6**
IGGU	**Iggoen**	**1.92**	**348**	*e*P	**Pn**	**10 40 09.8**	**+0.9**
IGGU				*e*S	**Sn**	**10 40 35.1**	**+1.0**
HFS	**Hagfors**	**2.54**	**298**	Pn	**Pn**	**10 40 18.8**	**+1.0**
	0.1nm,0.3s,baz=115,slow=16,SNR=26						
HFS				Lg		10 40 51.8	
	0.5nm,0.3s,baz=130,slow=33,SNR=22						
HFS	**Hagfors**	**2.54**	**298**	Pn	**Pn**	**10 40 18.4**	**+0.7**
	baz=112,slow=14						
HFS				Lg		10 40 51.9	
	baz=108,slow=28						
HFS	**Hagfors**	**2.54**	**298**	*e*P	**Pn**	**10 40 18.4**	**+0.7**
HFS				*e*SG	**Sg**	**10 40 51.9**	**-7.3**
NOA	**NORSAR Array B**	**4.04**	**303**	Pn	**Pn**	**10 40 38.0**	**-1.1**
	0.1nm,0.3s,baz=191,slow=2.3,SNR=2.7						
NOA				Pg	**Pg**	**10 40 46.8**	**-8.5**
	0.3nm,0.3s,baz=124,slow=14,SNR=2.6						
NOA				Sn	**Sn**	**10 41 22.8**	**-5.0**
	0.2nm,0.3s,baz=311,slow=12,SNR=2.2						
NOA				Lg		10 41 39.4	
	0.6nm,0.3s,baz=123,slow=23,SNR=3.3						
PVF	**Pernaja**	**4.19**	**65**	*e*P	**Pn**	**10 40 42.6**	**+1.4**
PVF				*e*S	**Sn**	**10 41 30.9**	**-0.7**
PVF				MSG		10 41 53.2	
	comp=Z,2.1nm,0.2s						
KEF	**Keuruu**	**4.58**	**43**	*e*P	**Pn**	**10 40 48.5**	**+1.7**
KEF				*e*S	**Sn**	**10 41 40.2**	**-1.3**
KEF				MSG		10 42 03.1	
	comp=Z,0.9nm,0.2s						
VAF	**Ylistaro**	**4.60**	**27**	*e*S	**Sn**	**10 41 41.3**	**-0.8**
VAF				MSG		10 42 05.0	
	comp=Z,1.9nm,0.2s						
FIA0	**FINESS Array S**	**4.64**	**55**	Pn	**Pn**	**10 40 48.8**	**+1.2**
	baz=239,slow=12						
FIA0				Sn	**Sn**	**10 41 42.8**	**-0.3**
	baz=237,slow=22						
FIA0				Lg		10 42 02.6	
	baz=233,slow=28						
FIA0	**FINESS Array S**	**4.64**	**55**	*e*P	**Pn**	**10 40 48.9**	**+1.3**
FIA0				*e*S	**Sn**	**10 41 42.6**	**-0.5**
FIA0				MSG		10 42 04.8	
	comp=Z,1.5nm,0.2s						
FINES	**FINESS Array B**	**4.64**	**55**	Pn	**Pn**	**10 40 48.7**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=242,slow=13,SNR=14						
FINES				Sn	**Sn**	**10 41 43.2**	**+0.2**
	comp=Z,0.7nm,0.3s,baz=242,slow=22,SNR=11						
FINES				Lg		10 42 01.1	
	comp=Z,0.7nm,0.3s,baz=252,slow=24,SNR=7.8						
KAF	**Kangasniemi**	**5.08**	**49**	*e*S	**Sn**	**10 41 52.6**	**-1.6**
KAF				MSG		10 41 55.2	
	comp=Z,1.9nm,0.2s						
SUF	**Sumiainen**	**5.39**	**43**	*e*P	**Pn**	**10 40 59.5**	**+1.2**
SUF				*e*S	**Sn**	**10 41 59.7**	**-2.3**
SUF				MSG		10 42 28.5	
	comp=Z,0.6nm,0.2s						
ARA0	**ARCESS Array S**	**11.03**	**14**	Pn	**P**	**10 42 11.3**	**-5.2**
	baz=198,slow=14						
ARA0				Sn	**S**	**10 44 10.1**	**-12**
	baz=204,slow=28						
ARA0	**ARCESS Array S**	**11.03**	**14**	*e*P	**P**	**10 42 11.3**	**-5.2**
ARA0				*e*S	**S**	**10 44 10.1**	**-12**
ARCES	**ARCESS Array B**	**11.03**	**14**	Pn	**P**	**10 42 11.8**	**-4.7**
	comp=Z,0.1nm,0.3s,baz=199,slow=14,SNR=6.5						

DJA 01 10:42:51.1±0.9**,10.10S×114.79E,h33**^{km}**,MD4.7**/4**, ML4.0**/4**,4C-4D,Error ellipse: s-maj=19.4km s-min=10.6km az=8.0,South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RATI	**Rata**	**1.56**	**28**	⇑*i*Pn	Pn	10 43 14.8	-2.1
	86nm,0.2s						
RATI				⇓*i*Sn	Sn	10 43 32.8	-3.3
SRDI	**Scrawed**	**1.73**	**338**	⇑*i*Pn	Pn	10 43 17.9	-1.6
	151nm,0.2s						
SRDI				⇓*i*Sn	Sn	10 43 37.6	-3.0
KELI	**Kelakatan**	**1.90**	**351**	⇑*i*Pn	Pn	10 43 20.8	-1.0
	145nm,0.2s						
KELI				⇓*i*Sn	Sn	10 43 42.0	-2.8
KEDI	**Kedomdong**	**2.07**	**39**	⇑*i*Pn	Pn	10 43 23.1	-1.2
	52nm,0.2s						
KEDI				⇓*i*Sn	Sn	10 43 46.4	-2.8

IDC 01 10:59:01.0±10.0**,2.13N×128.10E,h295**^{km}±103^{km}**, mb3.2**/5**,mb1 3.4**/5**,mb1mx3.2**/15**,Error ellipse: s-maj=100.0km s-min=19.4km az=52.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**20.25**	**187**	P	P	11 03 15.0	-0.3
	1.8nm,0.9s,baz=350,slow=18,SNR=3.7						
WRA	**Warramunga Arr**	**22.77**	**165**	P	P	11 03 38.1	-1.7
	0.9nm,0.3s,baz=343,slow=10,SNR=9.6						
ASAR	**Alice Springs**	**26.26**	**168**	P	P	11 04 10.4	-1.3
	1.0nm,0.5s,baz=354,slow=8.1,SNR=22						
ASAR				PcP	PcP	11 07 27.9	-2.3
	0.3nm,0.5s,baz=352,slow=2.4,SNR=6.1						
CMAR	**Chiang Mai Arr**	**32.86**	**302**	P	P	11 05 07.9	-1.8
	1.2nm,0.7s,baz=113,slow=7.7,SNR=5.6						
STKA	**Stephens Creek**	**36.17**	**160**	P	P	11 05 35.6	-1.8
	1.2nm,0.3s,baz=337,slow=10,SNR=14						

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*TIF **01** 11:00:54.1,42.34N×44.06E,h4^{km},Mpv4.4*

*MOS **01** 11:00:55.0±1.1,42.35N×44.00E,h12^{km},mb4.4/1,Error ellipse: s-maj=70.3km s-min=9.8km az=109.4*

ISC 01 11:00:55.0±0.5**,42.41N**±0.04×**44.07E**±0.05**,h4**^{km}**,n14,** σ**0**^{s}**87**/22**,1C-6D,Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZEI	**Tsey**	**0.38**	**340**	*i* PG	**Pg**	**11 01 02.3**	**-0.4**
ONI	**Oni**	**0.49**	**290**	⇑*i*P	**Pg**	**11 01 04.8**	**0.0**
ONI				*e*S	**Sg**	**11 01 11.8**	**+0.4**
DUS	**Dusheti**	**0.57**	**124**	⇓*i*P	**Pg**	**11 01 05.6**	**-0.8**
DUS				*i* S	**Sg**	**11 01 14.6**	**+0.7**
TBLG	**Delisi**	**0.84**	**144**	⇓*i*P	**Pg**	**11 01 11.0**	**-0.8**
	comp=Z,250nm,0.4s						
TBLG				*i* S	**Sg**	**11 01 22.8**	**-0.2**
	comp=E,570nm,0.4s						
TI2	**Plekhanov**	**0.84**	**143**	⇓*i*PG	**Pg**	**11 01 11.0**	**-0.9**
TI2				*i* S	**Sg**	**11 01 22.8**	**-0.4**
TI2				pmax	pmax		
	comp=Z,250nm,0.4s						
MTA	**Mtatsminda**	**0.90**	**143**	⇓*i*P	**Pb**	**11 01 11.7**	**-1.1**
MTA				*i* S	**Sg**	**11 01 24.6**	**-0.2**
AKH	**Akhalkalaki**	**1.09**	**204**	⇓*i*P	**Pb**	**11 01 15.6**	**-0.5**
AKH				*i* S	**Sb**	**11 01 30.7**	**+0.2**
DGRG	**David-gareji**	**1.36**	**134**	⇓*i*P	**Pb**	**11 01 21.1**	**+0.3**
DGRG				*i* S	**Sb**	**11 01 40.9**	**+2.4**
KUBR	**Kubataba**	**1.47**	**341**	*i* PG	**Pg**	**11 01 23.2**	**-1.2**
SHAR	**Shatzhatmas**	**1.68**	**323**	*i* PN	**Pn**	**11 01 25.9**	**+0.4**
PYA	**Pyatigorsk**	**1.78**	**336**	*i* PN	**Pn**	**11 01 27.3**	**+0.4**
KIV	**Kislovodsk**	**1.85**	**327**	*i* PN	**Pn**	**11 01 28.7**	**+0.8**
NAGR	**Nagutskaya**	**2.25**	**335**	*i* PN	**Pn**	**11 01 34.3**	**+0.7**
VAD	**Vardenisi**	**2.55**	**150**	*e*P	**Pn**	**11 01 37.0**	**-0.9**
VAD				*e*S	**Sn**	**11 02 12.0**	**+2.3**

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*BJI **01** 11:18:51.6,3.79S×136.07E,h10^{km},mB5.3,mb4.8,Ms4.8, Msz4.3*

*IDC **01** 11:18:56.1±0.7,3.34S×135.43E,mb4.6/6,mb1 4.8/10, mb1mx4.7/14,ML4.3/4,MS4.1/6,Ms1 4.1/6,ms1mx4.0/11, Error ellipse: s-maj=29.0km s-min=16.4km az=73.0*

*NEIC **01** 11:18:59.0±0.3,3.38S×135.40E,h10^{km},mb4.8/23,Error ellipse: s-maj=11.2km s-min=5.9km az=83.0*

*SYO **01** 11:18:58.0,3.31S×135.52E,h10^{km},MB4.8*

*MOS **01** 11:18:59.3±1.1,3.54S×135.42E,h42^{km},mb4.9/5,Error ellipse: s-maj=21.2km s-min=10.3km az=110.4*

*DJA **01** 11:19:02.1±0.6,1.06S×135.97E,h200^{km},mb4.6/1, ML5.6/1,Error ellipse: s-maj=51.5km s-min=5.9km az=7.0*

ISC 01 11:18:56.2±1.6**,3.51S**±0.04×**135.61E**±0.05**,h15**^{km}±11^{km}**, h17**^{km}±3.0^{km}**:pP-P,n103,**σ**1**^{s}**23**/106**,mb4.9**/43**,MS4.1**/14**, 10C-3D,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOMI	**Yo Moklole**	**5.02**	**80**	⇑*i*Pn	**Pn**	**11 20 16.8**	**+4.1**
	864nm,0.5s						
YOMI				⇓*i*Sn	**Sn**	**11 21 10.2**	**-0.9**
SWI	**Sorong**	**5.08**	**301**	*e*Pn	**Pn**	**11 20 13.0**	**-0.7**
SWI				*e*Sn	**Sn**	**11 21 09.0**	**-3.7**
KAKA	**Kakadu**	**9.66**	**199**	⇑*i*P	**P**	**11 21 17.1**	**-0.8**
	92nm,0.6s						
KAKA				*e*S	**Sn**	**11 23 01.3**	**-5.8**
PMG	**Port Moresby**	**12.88**	**118**	Pn	**P**	**11 22 04.8**	**+3.3**
	2.4nm,0.3s,baz=270,slow=2.8,SNR=14						
PMG				Sn	**S**	**11 24 20.5**	**-5.0**
	0.4nm,0.3s,baz=273,slow=17,SNR=1.9						
PMG				Lg		11 26 06.3	
	0.1nm,0.3s,baz=306,slow=17,SNR=1.8						
PMG	**Port Moresby**	**12.88**	**118**	*i* P	**P**	**11 22 04.7**	**+3.2**
PMG	**Port Moresby**	**12.88**	**118**	*e*P	**P**	**11 22 04.7**	**+3.2**
NINI	**Niniconang**	**15.84**	**266**	⇑*i*P	**P**	**11 22 45.4**	**+4.9**
TANI	**Tanete Lipujan**	**16.20**	**270**	⇑*i*P	**P**	**11 22 47.8**	**+2.8**
WRAB	**Tennant Creek**	**16.37**	**184**	*i* P	**P**	**11 22 46.5**	**-0.6**
WRAB	**Tennant Creek**	**16.37**	**184**	*e*P	**P**	**11 22 45.3**	**-1.8**
	9.9nm,0.6s						
WB2	**Warramunga Arr**	**16.38**	**184**	*e*P	**P**	**11 22 45.3**	**-2.0**
WB2				*i*		11 22 52.7	
WB2				*e*S	**S**	**11 25 41.1**	**-7.1**
WRA	**Warramunga Arr**	**16.38**	**184**	Pn	**P**	**11 22 45.4**	**-1.9**
	1.3nm,0.3s,baz=3.3,slow=13,SNR=26						
WRA				Sn	**S**	**11 25 40.6**	**-7.6**
	2.2nm,0.3s,baz=3.2,slow=22,SNR=6.7						
WRA				Lg		11 27 36.2	
	baz=9.4,slow=23,SNR=3.1						
WRA	**Warramunga Arr**	**16.38**	**184**	*i* P	**P**	**11 22 45.4**	**-1.9**
WRA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
FITZ	**Fitzroy Crossi**	**17.48**	**213**	*e*P	**P**	**11 23 00.7**	**-0.5**
	comp=Z,22nm,0.8s						
FITZ				*e*S	**S**	**11 26 03.8**	**-10**
FITZ	**Fitzroy Crossi**	**17.48**	**213**	P	**P**	**11 23 00.3**	**-0.9**
	comp=Z,1.2nm,0.3s,baz=26,slow=11,SNR=25						
FITZ				S	**S**	**11 26 05.8**	**-7.8**
	comp=Z,2.2nm,0.3s,baz=189,slow=17,SNR=5.5						
FITZ				Lg		11 28 16.0	
	baz=163,slow=19,SNR=1.7						
FITZ				LR	LR	11 30 28.5	
	comp=Z,295nm,19.4s,baz=63,slow=40						
CTA	**Charters Tower**	**19.47**	**149**	*e*P	**P**	**11 23 27.4**	**+2.0**
	comp=Z,20nm,0.8s						
CTA				*e*S	**S**	**11 27 00.8**	**+2.2**
CTA	**Charters Tower**	**19.47**	**149**	P	**P**	**11 23 27.7**	**+2.4**
	comp=Z,0.9nm,0.3s,baz=323,slow=12,SNR=26						
CTA				S	**S**	**11 26 56.9**	**-1.7**
	comp=Z,0.4nm,0.3s,baz=216,slow=17,SNR=2.1						
CTA				Lg		11 29 14.7	
	comp=Z,0.4nm,0.3s,baz=63,slow=19,SNR=5.0						
CTA	**Charters Tower**	**19.47**	**149**	*e*P	**P**	**11 23 27.7**	**+2.3**
CTA				S	**S**	**11 26 56.9**	**-1.7**
CTAO	**Charters Tower**	**19.47**	**149**	*e*P	**P**	**11 23 27.6**	**+2.2**
	comp=Z,48nm,1.1s						
KEDI	**Kedomdong**	**20.01**	**255**	⇑*i*P	**P**	**11 23 31.6**	**+0.3**
	comp=Z,51nm,0.7s						
ASAR	**Alice Springs**	**20.10**	**185**	P	**P**	**11 23 33.9**	**+1.6**
	comp=Z,28nm,0.5s,baz=9.7,slow=11,SNR=264						
ASAR				S	**S**	**11 27 11.2**	**-0.8**
	comp=Z,5.4nm,0.7s,baz=5.5,slow=28,SNR=4.0						
ASAR				Lg		11 29 43.2	
	comp=Z,14nm,1.0s,baz=12,slow=30,SNR=2.9						
ASAR				LR	LR	11 30 58.1	
	comp=Z,175nm,19.4s,MS3.4,baz=1.4,slow=36						
ASPA	**Alice Springs**	**20.11**	**185**	*e*P	**P**	**11 23 34.2**	**+1.9**
ASPA				*e*S	**S**	**11 27 09.1**	**-3.0**
KELI	**Kelakatan**	**21.52**	**257**	⇑*i*P	**P**	**11 23 44.8**	**-2.1**
SRDI	**Scrawed**	**21.91**	**256**	⇑*i*P	**P**	**11 23 48.9**	**-1.9**
MBWA	**Marble Bar**	**23.37**	**220**	*e*P	**P**	**11 24 07.4**	**+2.1**
	comp=Z,104nm,1.1s,mb5.2						
FORT	**Forrest**	**28.04**	**194**	*e*P	**P**	**11 24 49.8**	**+0.8**
	comp=Z,72nm,0.7s,mb5.4						
STKA	**Stephens Creek**	**28.77**	**169**	*e*P	**P**	**11 24 56.4**	**+0.9**
	comp=Z,11nm,0.8s,mb4.6						
STKA	**Stephens Creek**	**28.77**	**169**	P	**P**	**11 24 56.8**	**+1.2**
	comp=Z,7.4nm,0.7s,mb4.5,baz=331,slow=8.0,SNR=19						
STKA				LR	LR	11 37 29.5	
	comp=Z,804nm,18.7s,MS4.3,baz=162,slow=38						
KLBR	**Kellerberrin**	**32.60**	**209**	*e*P	**P**	**11 25 30.9**	**+1.5**
	comp=Z,21nm,0.9s,mb5.1						
NWAO	**Narrogin (SRO)**	**33.95**	**208**	P	**P**	**11 25 41.9**	**+0.8**
	comp=Z,3.5nm,0.7s,mb4.4,baz=22,slow=11,SNR=2.9						
NWAO	**Narrogin (SRO)**	**33.95**	**208**	*e*P	**P**	**11 25 41.9**	**+0.8**
NWAO	**Narrogin (SRO)**	**33.95**	**208**	*e*P	**P**	**11 25 42.2**	**+1.1**
	comp=Z,18nm,1.1s,mb4.9						
SSE	**Sheshan**	**37.06**	**339**	P	**P**	**11 26 09.0**	**+1.4**
SSE				S	**S**	**11 31 53.6**	**+1.3**
SSE				XS		11 32 07.8	
SSE				AMB	AMB		
	comp=Z,31nm,0.7s,mb5.2						
SSE				LR	LR		
	comp=N,115nm,20.8s,MS3.7						
SSE				LR	LR		
	comp=E,66nm,20.8s,MS3.7						
SSE				LR	LR		
	comp=Z,172nm,19.2s,MS3.9						
NJ2	**Nanjing**	**38.79**	**337**	*e*P	**P**	**11 26 23.4**	**+1.3**
NJ2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
MAJO	**Matsushiro**	**39.92**	**3**	*e*P	**P**	**11 26 29.9**	**-1.6**
	comp=Z,8.9nm,0.8s,mb4.5						
CMAR	**Chiang Mai Arr**	**42.20**	**302**	P	**P**	**11 26 48.4**	**-2.1**
	comp=Z,95nm,0.3s,mb5.9,baz=124,slow=9.8,SNR=313						
CMAR	**Chiang Mai Arr**	**42.20**	**302**	*e*P	**P**	**11 26 48.4**	**-2.0**
KMI	**Kunming**	**42.76**	**314**	*e*P	**P**	**11 26 56.0**	**+1.1**
KMI				S	**S**	**11 33 19.5**	**+1.7**
KMI				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.5						
KMI				LR	LR		
	comp=Z,117nm,31.3s,MS3.6						
XAN	**Xi'an**	**45.04**	**328**	P	**P**	**11 27 14.7**	**+1.4**
XAN				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.5						
CD2	**Chengdu**	**45.77**	**321**	*e*P	**P**	**11 27 20.0**	**+0.9**
CD2				*e*S	**S**	**11 34 04.1**	**+2.9**
CD2				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.6						
CD2				AMB	AMB		
	comp=Z,90nm,4.9s						
CD2				LR	LR		
	comp=E,240nm,5.4s						
CD2				LR	LR		
	comp=Z,180nm,14.4s,MS4.2						
BJT	**Baijiatuau**	**46.85**	**339**	*e*P	**P**	**11 27 25.5**	**-2.0**
BJI	**Beijing**	**46.87**	**340**	*e*P	**P**	**11 27 27.1**	**-0.6**
BJI				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.8						
BJI				LR	LR		
	comp=N,144nm,15.9s,MS4.2						
BJI				LR	LR		
	comp=E,161nm,17.8s,MS4.2						
BJI				LR	LR		
	comp=Z,183nm,25.1s						
CN2	**Changchun**	**47.98**	**350**	*e*P	**P**	**11 27 35.8**	**-0.5**
IMP	**Imphal**	**49.29**	**307**	*e*	**P**	**11 27 41.8**	**-4.9**
HHC	**Hu-ho-hao-te**	**49.32**	**336**	*e*P	**P**	**11 27 46.5**	**-0.2**
HHC				AP	pP	11 27 51.0	-0.4
HHC				XP	sP	11 27 53.5	+0.2
HHC				PCP	PcP	11 29 09.8	+0.1
HHC				PP	PP	11 29 39.6	-1.6
HHC				SCP		11 33 03.7	
HHC				PCS		11 33 05.3	
HHC				S	**S**	**11 34 50.0**	**-1.3**
HHC				SCS	ScS	11 37 34.1	-1.3
HHC				AMB	AMB		
	comp=Z,18nm,0.9s,mb5.1						
HHC				LR	LR		
	comp=N,121nm,15.5s,MS4.1						
HHC				LR	LR		
	comp=E,80nm,14.9s,MS4.1						
HHC				LR	LR		
	comp=Z,113nm,13.1s,MS4.0						
LZH	**Lanzhou**	**49.33**	**326**	*e*P	**P**	**11 27 48.0**	**+1.1**
LZH				AP	pP	11 27 56.5	+4.9
LZH				XP	sP	11 27 59.6	+6.2
LZH				AMB	AMB		
	comp=Z,39nm,1.3s,mb5.3						
LZH				AMB	AMB		
	comp=Z,213nm,4.3s						
LZH				LR	LR		
	comp=N,263nm,15.1s						
LZH				LR	LR		
	comp=Z,302nm,17.8s,MS4.3						
SHL	**Shillong**	**51.29**	**307**	*e*P	**P**	**11 28 02.2**	**+0.2**
LSA	**Lhasa**	**53.85**	**311**	P	**P**	**11 28 22.4**	**+1.4**
GTA	**Gaotai**	**53.93**	**326**	*e*P	**P**	**11 28 22.3**	**+0.8**
GTA				AP	pP	11 28 26.7	+0.5
GTA				XP	sP	11 28 29.7	+1.7
GTA				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.7						

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ULN   Ulaanbaatar        56.95 337  eP      P      11 28 43.4 +0.1
        comp=Z,3.3nm,0.7s,mb4.5
GUN   Gumba              57.14 306  eP      P      11 28 44.9  0.0
        comp=Z,32nm,0.7s,mb5.5
SONM  Songino Array      57.18 337   P      P      11 28 44.6 -0.3
        comp=Z,1.5nm,0.5s,mb4.3,baz=149,slow=7.2,SNR=4.2
PKI   Pulchoki           57.38 306  eP      P      11 28 46.3 -0.2
        comp=Z,24nm,0.9s,mb5.2
KKN   Kakani             57.57 306  eP      P      11 28 47.9  0.0
        comp=Z,29nm,0.8s,mb5.4
DMN   Daman              57.64 306  eP      P      11 28 48.7 +0.3
        comp=Z,37nm,0.7s,mb5.5
GKN   Gorkha             58.17 306  eP      P      11 28 52.1  0.0
        comp=Z,85nm,1.1s,mb5.7
KOLN  Koldanda           58.92 305  eP      P      11 28 57.5 +0.1
        comp=Z,56nm,0.8s,mb5.7
ZAK   Zakamensk          60.45 337  eP      P      11 29 06.1 -1.4
MOY   Mondy              62.35 336  eP      P      11 29 20.8 +0.4
BOD   Bodaibo            63.56 347  eP      P      11 29 26.4 -1.8
WMQ   Urumqi             63.75 323 ⇑P       P      11 29 30.0 +0.2
WMQ                                  AP     pP     11 29 34.4 -0.2
WMQ                                  XP     sP     11 29 37.0 +0.7
WMQ                                  PCP    PcP    11 30 06.3 +0.6
WMQ                                  PP     PP     11 31 51.1 -0.7
WMQ                                 eS      S      11 38 01.5 -0.7
WMQ                                  AMB    AMB
        comp=Z,17nm,0.9s,mb5.1
WMQ                                  LR     LR
        comp=N,440nm,17.4s,MS5.0
WMQ                                  LR     LR
        comp=E,781nm,18.6s,MS5.0
WMQ                                  LR     LR
        comp=Z,178nm,16.4s,MS4.3
DDI   Dehra Dun          64.38 306  eP      P      11 29 32.6 -1.5
POO   Poona              64.61 292  e       P      11 29 33.0 -2.7
YAK   Yakutsk            65.52 357  i P     P      11 29 39.9 -1.0
YAK                                  pmax   pmax
        comp=Z,8.0nm,0.6s,mb4.9
YAK                                  MLR    MLR
        comp=Z,100nm,16.0s,MS4.1
SDNR  Sundarnagar        65.67 307  eP      P      11 29 42.8 +0.4
MKAR  Makanchi Array     68.56 324  i P     P      11 30 00.4  0.0
MKAR                                 pmax   pmax
        comp=Z,7.0nm,0.6s
TKM2  Tokmak 2           71.03 318  eP      P      11 30 16.1 +0.6
        comp=Z,3.2nm,0.7s,mb4.4
UCH   Uchtor             71.48 317  eP      P      11 30 18.9 +0.6
        comp=Z,6.6nm,0.9s,mb4.6
AAK   Ala-Archa          71.66 317  i P     P      11 30 18.0 -1.3
AAK                                  pmax   pmax
        comp=Z,6.0nm,1.4s,mb4.3
AAK   Ala-Archa          71.66 317  eP      P      11 30 18.9 -0.4
        comp=Z,20nm,1.4s,mb4.9
AML   Almayashu          72.01 316  eP      P      11 30 22.9 +1.4
        comp=Z,5.9nm,0.8s,mb4.6
EKS2  Erkin-Say          72.15 317  eP      P      11 30 22.8 +0.5
        comp=Z,3.3nm,0.8s,mb4.3
NVS   Novosibirsk        72.37 331⇓iP       P      11 30 21.9 -1.5
NVS                                  pmax   pmax
        comp=Z,16nm,1.1s,mb4.9
NVS                                  pmax   pmax
        comp=N,8.0nm,1.3s
NVS                                  pmax   pmax
        comp=E,12nm,1.2s
KURK  Kurchatov          72.62 326  i P     P      11 30 24.7 -0.2
KURK  Kurchatov          72.62 326  eP      P      11 30 25.0 +0.1
        comp=E,9.3nm,0.9s,mb4.7
PPT   Papeete            74.47 107  eLR     LR     11 54 41.2
        comp=E,151nm,23.0s
TBI   Tubuai             74.78 113  eLR     LR     11 54 50.4
        comp=E,109nm,27.2s
TIXI  Tiksi              75.15 358  eP      P      11 30 38.1 -1.1
TIXI                                 pmax   pmax
        comp=Z,2.0nm,1.0s,mb4.0
TIXI                                 MLR    MLR
        comp=Z,75nm,18.0s,MS4.0
VNDA  Vanda              75.28 174   LR     LR     12 02 13.7
        comp=Z,284nm,18.1s,MS4.6,baz=349,slow=34
BVAR  Borovoye Array     78.22 326   P      P      11 30 57.2 +0.5
        comp=Z,5.1nm,0.7s,mb4.6,baz=117,slow=6.6,SNR=32
BRVK  Borovoye           78.29 326   P      P      11 30 57.2 +0.1
BRVK                                 pmax   pmax
        comp=Z,3.0nm,0.7s,mb4.3
BRVK  Borovoye           78.29 326  eP      P      11 30 57.6 +0.6
        comp=Z,10nm,0.8s,mb4.8
CHKZ  Chkalovo           78.34 327  eP      P      11 30 57.0 -0.3
        comp=Z,6.3nm,0.8s,mb4.6
MAW   Mawson             80.23 202   LR     LR     12 03 42.3
        comp=Z,157nm,20.3s,MS4.3,baz=249,slow=33
ARU   Arti               85.77 327  eP      P      11 31 35.2 -0.7
ARU                                 e              11 34 55.3
ARU                                 eS      S      11 41 58.9 -7.6
ARU                                 eSS     SS     11 47 47.4 +0.4
ARU   Arti               85.77 327  eP      P      11 31 35.4 -0.5
        comp=Z,10nm,1.3s,mb4.9
QSPA  South Pole Qui     86.44 180⇓iP       P      11 31 40.6 +1.8
        comp=Z,16nm,1.3s,mb5.1
MCK   McKinley           86.73  26  eP      P      11 31 40.6 +0.2
        comp=Z,8.7nm,0.9s,mb5.0
COLA  College            87.47  25  eP      P      11 31 43.7 -0.3
        comp=Z,7.5nm,0.9s,mb4.9
DIV   Divide             87.57  28  eP      P      11 31 45.5 +0.9
        comp=Z,62nm,0.9s,mb5.8
ILAR  Eielson Array      87.84  25   P      P      11 31 44.9 -0.9
        comp=Z,2.6nm,0.5s,mb4.7,baz=264,slow=4.3,SNR=56
ILAR                                 LR     LR     12 14 11.2
        comp=Z,74nm,18.7s,MS4.1,baz=356,slow=38
ILAR  Eielson Array      87.84  25  eP      P      11 31 44.9 -0.9
RKT   Rikitea            88.10 113  eLR     LR     12 01 00.8
        comp=Z,151nm,37.2s
SYO   Syowa Base         88.91 201 ⇑PcP     PcP    11 31 58.3 +5.5
ARCES ARCESS Array B    100.23 340   P      P      11 32 42.6 -0.1
        comp=Z,3.6nm,0.8s,baz=45,slow=5.1,SNR=6.0
ARCES ARCESS Array B    100.23 340  eP      P      11 32 42.6 -0.1
VNA2  Neumayer--Watz    101.81 192⇑i               11 37 17.4
NVAR  Mina Array Bea    104.77  51   Pdiff  Pdif   11 33 07.5 +3.8
        comp=Z,0.6nm,0.7s,baz=288,slow=5.7,SNR=4.1
TXAR  Lajitas Array     118.35  59   PKP    PKPdf  11 37 45.3 -2.1
        comp=Z,0.3nm,0.8s,baz=207,slow=2.0,SNR=3.1
LPAZ  La Paz            149.37 131   PKPbc  PKPdf  11 38 50.6 +5.8
        comp=Z,8.2nm,0.9s,baz=281,slow=1.0,SNR=21
LPAZ  La Paz            149.37 131  ePKP2   PKPab  11 38 50.6 -1.8
LPAZ  La Paz            149.37 131  ePKPdf  PKPdf  11 38 46.1 +1.3
LPAZ                                ePKPbc  PKPdf  11 38 50.5 +5.8
SDV   Santo Domingo     153.38  77  ePKPbc  PKPdf  11 38 57.0 +6.2
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*IDC **01** 11:45:39.1±0.7, 32.23N×92.77E, mb4.2/11, mb1 4.4/13, mb1mx4.3/18, ML3.9/2, MS3.7/5, Ms1 3.8/5, ms1mx3.3/20, Error ellipse: s-maj=28.3km s-min=16.1km az=55.0*

*LDG **01** 11:45:40.8±0.5, 32.65N×92.17E, h10^{km}, Mb4.7/10, Ms3.8/5, Error ellipse: s-maj=25.9km s-min=7.7km az=130.0*

*MOS **01** 11:45:43.3±1.6, 32.13N×92.84E, h40^{km}, mb4.6/13, Error ellipse: s-maj=18.5km s-min=9.5km az=105.9*

*NEIC **01** 11:45:44.6±1.4, 32.14N×92.73E, h37^{km}±13^{km}, mb4.4/22, Error ellipse: s-maj=13.2km s-min=7.7km az=218.0*

*BJI **01** 11:45:46.1, 32.16N×92.87E, h41^{km}, mB4.9, mb4.6, Ms4.4, Msz4.2*

ISC 01 11:45:43.7±0.8**, 32.10N**±0.04×**92.72E**±0.04**, h52**^{km}±8^{km}**, n89, σ1^{s}34**/97**, mb4.5**/32**, MS4.0**/9**, 1C, Xizang**

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Code  Station Name          Δ°   AZ°   Phase ID       Time        Res
                                      Op     ISC     h  m  s      ISC
LSA   Lhasa               2.74 210   P      P      11 46 32.0 +5.7
SHL   Shillong            6.55 187  eP      P      11 47 21.0 +1.3
SHL                                 eS      S      11 48 42.5 +8.7
AGT   Agartala            8.28 189  eP      P      11 47 42.0 -1.8
GTA   Gaotai              9.30  36  eP      P      11 47 56.4 -1.3
GTA                                  S      S      11 49 40.7 -1.3
GTA                                  AMB    AMB
        comp=Z,23nm,1.1s
GTA                                  AMB    AMB
        comp=Z,21nm,4.3s
GTA                                  LR     LR
        comp=N,1µm,12.2s
GTA                                  LR     LR
        comp=E,1µm,13.8s
GTA                                  LR     LR
        comp=Z,1µm,9.6s
CD2   Chengdu             9.50  94  eP      P      11 48 00.7 +0.1
CD2                                  S      S      11 49 50.1 +3.1
CD2                                  AMB    AMB
        comp=Z,10.0nm,1.0s
CD2                                  AMB    AMB
        comp=Z,150nm,4.8s
CD2                                  LR     LR
        comp=N,970nm,7.2s
CD2                                  LR     LR
        comp=Z,840nm,6.6s
LZH   Lanzhou            10.05  64  eP      P      11 48 07.6 -0.4
LZH                                  AP            11 48 12.3
LZH                                  PP     PP     11 48 16.1 +0.1
LZH                                 eS      S      11 50 00.2 -0.1
LZH                                  XS            11 50 07.8
LZH                                  SS     SS     11 50 13.5 -1.1
LZH                                  AMB    AMB
        comp=Z,21nm,1.3s
LZH                                  AMB    AMB
        comp=Z,112nm,4.2s
LZH                                  LR     LR
        comp=N,1µm,8.2s
LZH                                  LR     LR
        comp=Z,2µm,10.3s
KMI   Kunming            11.21 126  eP      P      11 48 25.1 +1.2
KMI                                  AP            11 48 29.6
KMI                                  S      S      11 50 24.7 -4.0
KMI                                  AMB    AMB
        comp=Z,13nm,0.8s
KMI                                  LR     LR
        comp=N,1µm,10.5s
KMI                                  LR     LR
        comp=E,972nm,11.2s
KMI                                  LR     LR
        comp=Z,494nm,10.8s
WMQ   Urumqi             12.35 343   P      P      11 48 41.5 +2.4
WMQ                                  AP            11 48 45.5
WMQ                                  PP     PP     11 48 51.7 +2.5
WMQ                                  PPP    PPP    11 48 58.7 +2.2
WMQ                                  S      S      11 50 59.3 +3.2
WMQ                                  AMB    AMB
        comp=Z,3.0nm,0.6s
WMQ                                  LR     LR
        comp=N,438nm,17.9s
WMQ                                  LR     LR
        comp=E,781nm,18.1s
WMQ                                  LR     LR
        comp=Z,178nm,17.2s
GYA   Guiyang            13.40 111⇑iP       P      11 48 52.5 -0.6
GYA                                  S      S      11 51 14.6 -6.7
GYA                                  AMB    AMB
        comp=Z,30nm,0.9s
GYA                                  LR     LR
        comp=N,560nm,10.3s
GYA                                  LR     LR
        comp=E,530nm,11.4s
GYA                                  LR     LR
        comp=Z,920nm,10.4s
XAN   Xi'an              13.73  78   P      P      11 48 56.3 -1.0
XAN                                  AMB    AMB
        comp=Z,10.0nm,1.3s
ENH   Enshi              14.47  93  eP      P      11 49 06.2 -0.8
        comp=Z,6.2nm,0.6s
CMAR  Chiang Mai Arr     14.70 156   Pn     P      11 49 09.9 -0.1
        comp=Z,0.1nm,0.3s,baz=331,slow=13,SNR=15
CMAR                                 LR     LR     11 55 16.4
        comp=Z,25nm,18.3s,baz=315,slow=39
BHPL  Bhopal             16.15 241  eP      P      11 49 28.4 -0.2
BHPL                                e              11 49 31.1
        comp=Z,37nm,1.1s
BHPL                                eS      S      11 52 27.9 +2.2
BTO   Baotou             16.30  54  eP      P      11 49 29.2 -1.3
BTO                                  AMB    AMB
        comp=Z,8.0nm,0.5s
AJM   Ajmer              16.72 255  eP      P      11 49 33.7 -2.1
AJM                                 e              11 49 42.8
        comp=Z,60nm,1.3s
AJM                                 e              11 51 48.5
TKM2  Tokmak 2           17.32 313  eP      P      11 49 43.9 +0.7
        comp=Z,11nm,1.2s
HHC   Hu-ho-hao-te       17.47  55  eP      P      11 49 48.6 +3.5
HHC                                  AP            11 49 53.7
HHC                                  XP            11 49 57.2
HHC                                  PP     PP     11 50 03.0 +3.0
HHC                                  S      S      11 53 02.0 +6.3
HHC                                  XS            11 53 10.5
HHC                                  PCP    PcP    11 54 27.9 +3.4
HHC                                  AMB    AMB
        comp=Z,16nm,0.6s
HHC                                  AMB    AMB
        comp=Z,80nm,4.5s
HHC                                  LR     LR
        comp=N,650nm,12.7s
HHC                                  LR     LR
        comp=E,478nm,11.3s
HHC                                  LR     LR
        comp=Z,319nm,12.0s
UCH   Uchtor             17.65 310  eP      P      11 49 48.0 +0.7
        comp=Z,15nm,1.0s
AAK   Ala-Archa          17.86 311  i P     P      11 49 51.7 +1.7
AAK                                  pmax   pmax
        comp=Z,18nm,1.2s
AAK                                  MLR    MLR
        comp=Z,300nm,20.0s
AAK   Ala-Archa          17.86 311  eP      P      11 49 51.0 +1.1
        comp=Z,9.0nm,0.8s
AML   Almayashu          18.14 309   P      P      11 49 54.0 +0.5
        comp=Z,7.2nm,0.5s
EKS2  Erkin-Say          18.34 310   P      P      11 49 55.7 -0.1
        comp=Z,3.7nm,0.5s
SONM  Songino Array      18.85  30   P      P      11 50 00.5 -1.4
        comp=Z,0.5nm,0.3s,baz=212,slow=12,SNR=4.3
ULN   Ulaanbaatar        19.15  31   P      P      11 50 05.3  0.0
        comp=Z,4.0nm,0.8s
ZAK   Zakamensk          19.88  20  eP      P      11 50 13.9 +0.7
MOY   Mondy              20.48  15  eP      P      11 50 21.0 +1.6
BJI   Beijing            20.52  61  eP      P      11 50 18.9 -1.0
BJI                                  AMB    AMB
        comp=Z,8.0nm,1.0s
BJI                                  LR     LR
        comp=N,851nm,15.2s,MS4.2
BJI                                  LR     LR
        comp=E,457nm,17.1s,MS4.2
BJI                                  LR     LR
        comp=Z,279nm,22.8s
TIA   Tai'an             20.60  72  eP      P      11 50 22.9 +2.1
KURK  Kurchatov          21.33 335  i P     P      11 50 26.8 -1.3
KURK  Kurchatov          21.33 335  eP      P      11 50 26.0 -2.1
        comp=Z,9.9nm,0.9s,mb4.1
POO   Poona              21.71 236  eP      P      11 50 29.9 -2.2
POO                                 e              11 50 32.0
KAD   Karad              22.32 233  eP      P      11 50 38.3 +0.2
BVAR  Borovoye Array     26.41 329   P      P      11 51 16.9 -0.1
        comp=Z,1.6nm,0.9s,mb3.5,baz=135,slow=8.2,SNR=7.0
BVAR                                 PcP    PcP    11 54 42.2 +0.2
        comp=Z,1.4nm,0.7s,baz=180,slow=1.5,SNR=7.0
BRVK  Borovoye           26.48 329  eP      P      11 51 17.5 -0.2
        comp=Z,9.7nm,1.4s,mb4.1
HIA   Hailar             26.52  42  eP      P      11 51 18.4 +0.3
        comp=Z,7.9nm,0.9s,mb4.2
CHKZ  Chkalovo           26.76 330  eP      P      11 51 21.3 +1.0
        comp=Z,6.7nm,1.1s,mb4.1
CN2   Changchun          28.15  56  eP      P      11 51 35.2 +2.1
CN2                                 eS      S      11 56 14.0 +0.9
CN2                                  AMB    AMB
        comp=Z,10.0nm,0.6s,mb4.6
CN2                                  AMB    AMB
        comp=Z,120nm,7.0s
CN2                                  LR     LR
        comp=N,300nm,11.0s,MS4.3
CN2                                  LR     LR
        comp=E,300nm,11.0s,MS4.3
CN2                                  LR     LR
        comp=Z,440nm,12.0s,MS4.3
BOD   Bodaibo            29.55  23  eP      P      11 51 44.0 -1.3
YAK   Yakutsk            38.18  27  i P     P      11 53 00.9 +1.3
YAK                                  pmax   pmax
        comp=Z,18nm,1.4s,mb4.6
YAK                                  MLR    MLR
        comp=Z,100nm,18.0s,MS3.7
JHJ   Hachijo jima 2     39.40  75   LR     LR     12 09 47.6
        comp=Z,190nm,19.0s,MS4.0,baz=75,slow=37
SOC   Sochi              42.74 301  eP      P      11 53 41.2 +3.8
SOC                                 e              11 55 24.6
SOC                                 ePPP    PPP    11 55 48.3 -5.7
SOC                                 eS      S      11 59 54.4 -2.6
SOC                                  pmax   pmax
        comp=Z,32nm,0.7s,mb5.2
SOC                                  pmax   pmax
        comp=N,40nm,1.1s
SOC                                  pmax   pmax
        comp=E,54nm,0.8s
SOC                                  MLR    MLR
        comp=N,628nm,24.0s,MS4.5
SOC                                  MLR    MLR
        comp=Z,440nm,22.0s,MS4.3
SOC                                  MLR    MLR
        comp=E,328nm,18.0s,MS4.5
TIXI  Tiksi              44.06  16  eP      P      11 53 46.6 -1.1
TIXI                                 pmax   pmax
        comp=Z,11nm,1.7s,mb4.3
TIXI                                 MLR    MLR
        comp=Z,59nm,14.0s,MS3.6
OBN   Obninsk            45.22 318  eP      P      11 53 59.7 +2.5
OBN                                 e              11 55 39.1
OBN                                 e              11 56 20.9
OBN                                  pmax   pmax
        comp=Z,11nm,0.7s,mb4.8
AKASG Malin Array Be     49.53 312   P      P      11 54 30.5 -0.6
        comp=Z,2.6nm,0.7s,mb4.4,baz=74,slow=6.7,SNR=6.0
AKASG Malin Array Be     49.53 312   P      P      11 54 30.5 -0.5
AKASG                                pmax   pmax
        comp=Z,3.0nm,0.7s
FINES FINESS Array B     51.28 326   P      P      11 54 45.0 +0.8
        comp=Z,3.3nm,0.8s,mb4.3,baz=90,slow=9.5,SNR=6.4
FINES                                LR     LR     12 20 29.8
        comp=Z,137nm,19.6s,MS4.0,baz=157,slow=41
FINES FINESS Array B     51.28 326   P      P      11 54 45.0 +0.8
FINES                                pmax   pmax
        comp=Z,3.0nm,0.8s
FINES                                MLR    MLR
        comp=Z,137nm,19.7s
FINES FINESS Array B     51.28 326   P      P      11 54 45.0 +0.8
FINES                                LR     LR     12 20 29.8
ARCES ARCESS Array B     52.37 336   P      P      11 54 52.6 +0.4
        comp=Z,5.0nm,1.1s,mb4.4,baz=100,slow=7.4,SNR=4.4
ARCES                                LR     LR     12 19 07.5
        comp=Z,158nm,19.7s,MS4.1,baz=43,slow=38
ARCES ARCESS Array B     52.37 336   P      P      11 54 52.6 +0.4
ARCES                                pmax   pmax
        comp=Z,5.0nm,1.1s
ARCES                                MLR    MLR
        comp=Z,158nm,19.7s
OJC   Ojcow              55.57 312  eP      P      11 55 18.6 +2.6
NB2   NORSAR Subarra     58.47 326   P      P      11 55 35.7 -0.7
        comp=Z,1.6nm,0.7s,mb4.2,baz=80,slow=7.0
NOA   NORSAR Array B     58.47 326   P      P      11 55 35.9 -0.5
        comp=Z,2.4nm,0.7s,mb4.3,baz=80,slow=7.0,SNR=8.1
NOA                                  LR     LR     12 24 08.6
        comp=Z,121nm,19.4s,MS4.0,baz=35,slow=40
NOA   NORSAR Array B     58.47 326   P      P      11 55 35.9 -0.5
NOA                                  pmax   pmax
        comp=Z,2.0nm,0.7s
NOA                                  MLR    MLR
        comp=Z,121nm,19.5s
BRG   Berggiesshubel     59.08 314  eP      P      11 55 43.7 +2.9
BRG                                  pmax   pmax
        comp=Z,5.0nm,1.0s,mb4.5
BRG   Berggiesshubel     59.08 314   P      P      11 55 43.7 +2.9
        comp=Z,4.7nm,0.9s,mb4.5
GERES GERESS Array B     59.75 311   P      P      11 55 45.9 +0.5
        comp=Z,1.6nm,0.7s,mb4.2,baz=76,slow=5.5,SNR=11
GERES GERESS Array B     59.75 311   P      P      11 55 45.9 +0.5
GERES                                pmax   pmax
        comp=Z,2.0nm,0.7s
GRA1  Grafenberg Arr     61.08 313  eP      P      11 55 56.2 +1.8
        comp=Z,8.0nm,0.9s,mb4.8
GRF   Grafenberg Arr     61.08 313  eP      P      11 55 56.2 +1.8
GRF                                  pmax   pmax
        comp=Z,8.0nm,0.9s,mb4.8
KMBO  Kilima Mbogo       61.92 249   P      P      11 56 00.7 +0.2
        comp=Z,4.6nm,1.1s,mb4.5,baz=44,slow=16,SNR=4.1
KMBO  Kilima Mbogo       61.92 249   P      P      11 56 00.7 +0.1
KMBO                                 pmax   pmax
        comp=Z,5.0nm,1.2s
CDF   Champ du Feu       63.94 312  eP      P      11 56 10.9 -2.5
LPG   La Plagne          65.30 309  eP      P      11 56 21.8 -0.5
        comp=Z,16nm,0.9s,mb4.8
LPL   La Plagne          65.30 309  eP      P      11 56 21.7 -0.6
        comp=Z,19nm,0.8s,mb4.8
WRAB  Tennant Creek      65.32 137  eP      P      11 56 22.1 -0.8
        comp=Z,9.3nm,0.9s,mb4.8
WRA   Warramunga Arr     65.32 137   P      P      11 56 24.0 +1.2
        comp=Z,4.4nm,0.7s,mb4.6,baz=332,slow=6.5,SNR=11
WRA   Warramunga Arr     65.32 137   P      P      11 56 24.0 +1.2
WRA                                  pmax   pmax
        comp=Z,4.0nm,0.7s
WB2   Warramunga Arr     65.32 137  eP      P      11 56 24.1 +1.2
MBDF  Montbardon         65.57 309  eP      P      11 56 23.5 -0.5
        comp=Z,14nm,1.0s,mb4.6
ORIF  Oris-en-Rattie     66.08 309  eP      P      11 56 25.9 -1.4
        comp=Z,16nm,0.9s,mb4.7
ORIF                                eR
        comp=Z,186nm,22.0s
SMF   Signal de Mont     66.75 311  eP      P      11 56 29.9 -1.6
        comp=Z,12nm,0.8s,mb4.7
SSF   Saint Saulge       66.80 312  eP      P      11 56 30.4 -1.4
        comp=Z,9.1nm,0.9s,mb4.5
AVF   Avril sur Loir     67.00 312  eP      P      11 56 31.6 -1.5
TCF   Toulx Ste Croi     67.93 312  eP      P      11 56 36.8 -2.1
ASAR  Alice Springs      68.00 139   P      P      11 56 41.4 +1.6
        comp=Z,4.4nm,0.8s,mb4.5,baz=327,slow=5.9,SNR=21
CAF   Calviac            68.57 310  eP      P      11 56 41.2 -1.7
        comp=Z,12nm,0.9s,mb4.5
RJF   Les Rejaudoux      68.77 311  eP      P      11 56 42.7 -1.4
RJF                                 eR
        comp=Z,217nm,18.0s
ETSF  Etsaut             71.16 309  eP      P      11 56 57.1 -1.6
        comp=Z,22nm,1.2s,mb4.7
COLA  College            72.54  23  i P     P      11 57 08.5 +2.1
COLA  College            72.54  23  eP      P      11 57 07.1 +0.7
ILAR  Eielson Array      72.92  23   P      P      11 57 08.5 -0.2
        comp=Z,2.7nm,0.9s,mb4.2,baz=284,slow=6.5,SNR=18
ILAR  Eielson Array      72.92  23   P      P      11 57 08.5 -0.2
ILAR                                 pmax   pmax
        comp=Z,3.0nm,0.9s
INK   Inuvik             74.18  16   P      P      11 57 16.8 +0.8
        comp=Z,3.1nm,0.9s,mb4.2
SML   Sawmill            74.32  26  eP      P      11 57 19.5 +2.6
YKA   Yellowknife Ar     83.21  12   P      P      11 58 04.7 -0.5
        comp=Z,0.9nm,0.8s,mb3.9,baz=329,slow=4.9,SNR=13
YKA   Yellowknife Ar     83.21  12   P      P      11 58 04.7 -0.5
YKA                                  pmax   pmax
        comp=Z,1.0nm,0.8s
TXAR  Lajitas Array     116.96  16   PKP    PKPdf  12 04 25.1 +2.1
        comp=Z,0.4nm,0.6s,baz=136,slow=1.0,SNR=5.6
SAML  Samuel            147.91 311  ePKPdf  PKPdf  12 05 25.4 +4.8
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*NEIC **01** 11:51:47.2, 32.70S×71.49W, h25^{km}, ML2.9(GUC), After GUC.*

GUC 01 11:51:47.2±0.6**, 32.70S**×**71.49W, h25**^{km}±3^{km}**, MD3.9, ML2.9, 4C-1D, Near coast of central Chile**

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Code  Station Name          Δ°   AZ°   Phase ID       Time        Res
                                      Op     ISC     h  m  s      ISC
PACH  Papudo              0.16  15⇑iP       Pb     11 51 52.6 +0.2
PACH                                i S     Sb     11 51 56.6 +0.6
IHA   Instituto Hidr      0.35 201⇑iP       Pb     11 51 54.8 -0.2
IHA                                 i S     Sb     11 52 00.6 +0.2
ROCH  El Roble            0.49 125  i P     Pb     11 51 57.5 +0.3
ROCH                                i S     Sb     11 52 05.0 +1.0
JACH  Jahuel              0.76  89⇑iP       Pb     11 52 01.1 -0.5
JACH                                i S     Sb     11 52 10.7 -0.7
LCCH  Las Cruces          0.78 185  eP      Pb     11 52 01.3 -0.7
LCCH                                i S     Sb     11 52 11.8 -0.5
PEL   Peldehue            0.81 124  eP      Pb     11 52 02.3 -0.2
PEL                                  AMP           11 52 14.8
        comp=N,981nm,0.2s
RCDM  Rinconada Maip      0.98 144  eP      Pb     11 52 04.8 -0.6
RCDM                                i S     Sb     11 52 17.8  0.0
RCDM                                 AMP           11 52 18.7
        comp=E,2µm,0.1s
STL   Santa Lucia         1.02 136  eP      Pn     11 52 05.3 -0.8
STL                                 i S     Sb     11 52 19.5 +0.3
STL                                  AMP           11 52 20.9
        comp=N,206nm,0.5s
TACH  Talagante           1.06 154  eP      Pn     11 52 06.2 -0.4
CLCH  Cerro Calan         1.06 131  eP      Pn     11 52 06.2 -0.4
CLCH                                i S     Sb     11 52 20.3 +0.1
CLCH                                 AMP           11 52 23.9
        comp=E,469nm,0.4s
ANTU  Antumapu            1.13 141  eP      Pn     11 52 06.8 -0.8
ANTU                                i S     Sb     11 52 22.5 +0.3
ANTU                                 AMP           11 52 24.4
        comp=E,414nm,0.9s
```

FCH	**Farellones**	**1.19**	**122**	⇓iP	Pn	11 52 08.2	-0.3
FCH				i S	Sn	11 52 24.5	+0.7
FCH				AMP		11 52 25.1	
	comp=E,506nm,0.2s						
PCH	**Pirque**	**1.23**	**139**	eP	Pn	11 52 08.9	-0.2
PCH				i S	Sn	11 52 25.1	0.0
LNV	**Longovilo**	**1.26**	**177**	eP	Pn	11 52 09.1	-0.4
LNV				i S	Sn	11 52 25.4	-0.2
CHCH	**Chadas Angostu**	**1.42**	**151**	⇑iP	Pn	11 52 11.7	0.0
LMEL	**Las Melosas**	**1.57**	**137**	eP	Pn	11 52 14.2	+0.3
LMEL				i S	Sn	11 52 34.9	+1.2
LMEL				AMP		11 52 40.1	
	comp=N,658nm,0.2s						
CACH	**El Canelo**	**1.60**	**153**	eP	Pn	11 52 15.4	+1.1
SFDO	**San Fernando**	**1.95**	**168**	eP	Pn	11 52 19.7	+0.3
SFDO				i S	Sn	11 52 45.4	+2.1

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*IDC **01** 12:02:36.2±1.1, 3.47S×135.42E, mb4.3/3, mb1 4.2/7, mb1mx4.1/14, ML3.5/4, MS3.4/1, Ms1 3.4/1, ms1mx2.5/16, Error ellipse: s-maj=52.2km s-min=25.6km az=68.0*

*NEIC **01** 12:02:39.3±0.6, 3.61S×135.21E, h10^{km}, mb4.4/6, Error ellipse: s-maj=16.0km s-min=9.6km az=77.0*

ISC 01 12:02:39.0±0.6**, 3.99S**±0.06×**135.07E**±0.10**, h33**^{km}**, n20,** σ**1**^{s}**37**/22**, mb4.2**/6**, 1C, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.05**	**197**	eP	**P**	**12 04 54.3**	**+4.0**
	9.5nm,0.5s						
PMG	**Port Moresby**	**13.16**	**115**	Pn	**P**	**12 05 45.2**	**-1.0**
	0.5nm,0.3s,baz=238,slow=4.4,SNR=3.1						
WRAB	**Tennant Creek**	**15.87**	**182**	eP	**P**	**12 06 22.3**	**+0.7**
	17nm,0.6s						
WB2	**Warramunga Arr**	**15.87**	**182**	eP	**P**	**12 06 30.2**	**+8.5**
WB2				i		12 06 33.1	
WRA	**Warramunga Arr**	**15.87**	**183**	Pn	**P**	**12 06 20.5**	**-1.2**
	0.1nm,0.3s,baz=137,slow=34,SNR=3.5						
WRA				Sn	**S**	**12 09 16.2**	**-0.3**
	0.3nm,0.3s,baz=2.2,slow=23,SNR=3.8						
WRA	**Warramunga Arr**	**15.87**	**183**	Pn	**P**	**12 06 20.5**	**-1.2**
WRA				Sn	**S**	**12 09 16.2**	**-0.3**
FITZ	**Fitzroy Crossi**	**16.79**	**213**	P	**P**	**12 06 31.5**	**-1.9**
	0.2nm,0.3s,baz=203,slow=4.0,SNR=3.6						
FITZ				S	**S**	**12 09 37.4**	**-0.3**
	0.4nm,0.3s,baz=188,slow=16,SNR=6.9						
CTA	**Charters Tower**	**19.36**	**147**	P	**P**	**12 07 06.2**	**+1.4**
	0.3nm,0.3s,baz=310,slow=17,SNR=2.7						
CTA	**Charters Tower**	**19.36**	**147**	P	**P**	**12 07 06.2**	**+1.4**
CTAO	**Charters Tower**	**19.36**	**147**	eP	**P**	**12 07 05.9**	**+1.1**
	3.0nm,0.7s						
ASAR	**Alice Springs**	**19.60**	**183**	P	**P**	**12 07 11.0**	**+3.6**
	32nm,0.6s,baz=8.8,slow=11,SNR=79						
ASAR				LR	LR	12 15 18.0	
	comp=Z,102nm,18.8s,baz=196,slow=38						
ASPA	**Alice Springs**	**19.60**	**183**	⇑iP	**P**	**12 07 10.9**	**+3.5**
ASPA				i		12 07 14.6	
MBWA	**Marble Bar**	**22.66**	**220**	P	**P**	**12 07 44.6**	**+5.7**
AML	**Almayashu**	**71.98**	**317**	eP	**P**	**12 14 03.0**	**+1.7**
	4.2nm,0.8s,mb4.4						
KURK	**Kurchatov**	**72.71**	**326**	P	**P**	**12 14 05.3**	**-0.2**
	3.3nm,0.9s,mb4.3						
BVAR	**Borovoye Array**	**78.31**	**326**	P	**P**	**12 14 37.5**	**+0.1**
	2.2nm,0.6s,mb4.3,baz=121,slow=8.4,SNR=12						
BRVK	**Borovoye**	**78.38**	**326**	eP	**P**	**12 14 37.7**	**-0.1**
	2.9nm,0.6s,mb4.4						
CHKZ	**Chkalovo**	**78.44**	**327**	eP	**P**	**12 14 37.7**	**-0.4**
	1.9nm,0.8s,mb4.1						
ILAR	**Eielson Array**	**88.50**	**25**	P	**P**	**12 15 26.1**	**-3.0**
	0.4nm,0.7s,mb3.8,baz=271,slow=4.9,SNR=8.1						
LPAZ	**La Paz**	**149.47**	**132**	PKPbc	PKPdf	12 22 29.6	+8.3
	2.5nm,0.8s,baz=207,slow=2.3,SNR=5.5						

BJI 01 12:03:21.6, 35.63N×84.98E, h30^{km}, ML3.7, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SDNR	**Sundarnagar**	**7.85**	**241**	eP	Pn	12 06 02.8	+46
	389nm,0.2s						
SDNR				eS	Sn	12 06 06.0	-39
WMQ	**Urumqi**	**8.44**	**14**	eP	P	12 05 26.0	+1.0

IDC 01 12:04:31.8±18.0**, 7.19S**×**157.44E, mb3.8**/3**, mb1 4.1**/3**, mb1mx3.8**/12**, Error ellipse: s-maj=409.0km s-min=51.0km az=98.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**25.74**	**238**	P	P	12 10 05.5	-0.5
	3.3nm,0.7s,baz=64,slow=9.7,SNR=5.0						
ASAR	**Alice Springs**	**27.91**	**231**	P	P	12 10 22.9	-2.9
	0.5nm,0.8s,baz=53,slow=9.0,SNR=2.9						
CMAR	**Chiang Mai Arr**	**63.06**	**295**	P	P	12 15 01.5	-2.1
	0.6nm,0.6s,baz=121,slow=5.1,SNR=5.3						

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*NEIC **01** 12:07:12.5, 33.96S×71.36W, h53^{km}, MD3.9(GUC), After GUC.*

GUC 01 12:07:12.5±0.6**, 33.96S**×**71.36W, h53**^{km}±3^{km}**, MD3.9, ML2.8, 1C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LNV	**Longovilo**	**0.04**	**278**	⇓iP	P	12 07 20.5	0.0
LNV				i S	S	12 07 26.9	+0.5
TACH	**Talagante**	**0.47**	**49**	⇓iP	P	12 07 24.1	+0.5
TACH				i S	S	12 07 32.3	+0.7
LCCH	**Las Cruces**	**0.52**	**340**	eP	P	12 07 24.2	+0.1
LCCH				i S	S	12 07 33.0	+0.4
CHCH	**Chadas Angostu**	**0.59**	**87**	⇑iP	P	12 07 25.6	+0.6
CHCH				i S	S	12 07 35.2	+1.0
CACH	**El Canelo**	**0.65**	**104**	eP	P	12 07 26.8	+1.0
CACH				i S	S	12 07 37.4	+1.8
RCDM	**Rinconada Maip**	**0.66**	**44**	eP	P	12 07 26.3	+0.4
RCDM				i S	S	12 07 36.2	+0.4
RCDM				AMP		12 07 37.3	
	comp=E,1µm,0.2s						
SFDO	**San Fernando**	**0.71**	**157**	i P	P	12 07 27.0	+0.5
SFDO				i S	S	12 07 37.6	+0.7
ANTU	**Antumapu**	**0.72**	**57**	eP	P	12 07 27.2	+0.5
ANTU				i S	S	12 07 38.1	+0.9
ANTU				AMP		12 07 38.9	
	comp=E,736nm,0.5s						
PCH	**Pirque**	**0.78**	**64**	eP	P	12 07 27.9	+0.4
PCH				i S	S	12 07 39.5	+1.0
CLCH	**Cerro Calan**	**0.89**	**51**	eP	P	12 07 29.6	+0.7
CLCH				i S	S	12 07 42.1	+0.9
CLCH				AMP		12 07 43.4	
	comp=N,384nm,0.2s						
LMEL	**Las Melosas**	**0.97**	**84**	eP	P	12 07 30.5	+0.5
LMEL				i S	S	12 07 44.1	+1.0
LMEL				AMP		12 07 45.6	
	comp=N,471nm,0.2s						
PEL	**Peldehue**	**0.99**	**35**	i S	S	12 07 44.3	+0.7
PEL				AMP		12 07 49.6	
	comp=N,328nm,0.2s						
FCH	**Farellones**	**1.09**	**55**	⇓iP	P	12 07 32.6	+0.8
FCH				i S	S	12 07 47.4	+1.3
FCH				AMP		12 07 48.0	
	comp=N,836nm,0.4s						
JACH	**Jahuel**	**1.43**	**27**	⇓iP	P	12 07 36.5	-0.1

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*IDC **01** 12:14:35.2±2.1, 30.45S×177.29W, mb4.2/5, mb1 4.3/7, mb1mx4.1/16, ML3.7/2, Error ellipse: s-maj=51.8km s-min=33.5km az=130.0*

NEIC 01 12:14:35.9±2.2**, 30.42S**×**177.20W, h10**^{km}**, mb4.6**/1**, Error ellipse: s-maj=45.6km s-min=14.5km az=93.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**1.32**	**332**	eP	Pb	12 14 59.5	-0.9
URZ	**Urewera**	**9.12**	**209**	Pn	P	12 16 46.1	-4.6
	0.3nm,0.3s,baz=16,slow=17,SNR=4.4						
RPZ	**Rata Peaks**	**16.22**	**212**	Pn	P	12 18 24.7	-0.8
	0.8nm,0.3s,baz=181,slow=17,SNR=3.9						
CTA	**Charters Tower**	**34.48**	**279**	P	P	12 21 26.1	-0.2
	2.2nm,0.5s,baz=101,slow=11,SNR=5.9						
CTAO	**Charters Tower**	**34.48**	**279**	eP	P	12 21 19.6	-6.6
STKA	**Stephens Creek**	**35.15**	**257**	P	P	12 21 31.3	-0.5
	3.3nm,0.4s,baz=105,slow=10,SNR=7.7						
STKA	**Stephens Creek**	**35.15**	**257**	P	P	12 21 31.3	-0.5
ASAR	**Alice Springs**	**43.80**	**267**	P	P	12 22 41.4	-2.4
	0.9nm,0.4s,baz=102,slow=7.0,SNR=22						
WRAB	**Tennant Creek**	**44.78**	**272**	eP	P	12 22 49.8	-2.0
	4.7nm,0.5s						
WRA	**Warramunga Arr**	**44.79**	**272**	P	P	12 22 48.9	-2.9
	2.0nm,0.3s,baz=111,slow=8.1,SNR=11						
FITZ	**Fitzroy Crossi**	**53.05**	**270**	P	P	12 23 53.8	-1.9
	1.4nm,0.8s,baz=159,slow=8.6,SNR=3.9						
FINES	**FINESS Array B**	**145.40**	**340**	PKPbc	PKPbc	12 34 13.9	0.0
	2.4nm,0.4s,baz=72,slow=4.4,SNR=31						
AKASG	**Malin Array Be**	**151.73**	**323**	PKPbc	PKPdf	12 34 30.9	+4.0
	0.5nm,0.4s,baz=47,slow=2.7,SNR=4.8						

IDC 01 12:23:56.3±4.5**, 3.66N**×**128.43E, mb3.7**/4**, mb1 3.9**/4**, mb1mx3.7**/17**, MS3.3**/3**, Ms1 3.3**/3**, ms1mx3.0**/19**, Error ellipse: s-maj=105.0km s-min=68.6km az=86.0, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**21.80**	**187**	P	P	12 28 51.1	-0.9
	0.7nm,0.4s,slow=8.1,SNR=6.5						
PMG	**Port Moresby**	**22.73**	**125**	LR	LR	12 36 28.9	
	comp=Z,230nm,21.0s,baz=125,slow=33						
WRA	**Warramunga Arr**	**24.16**	**166**	P	P	12 29 15.1	-0.3
	0.9nm,0.4s,baz=344,slow=10.0,SNR=6.7						
ASAR	**Alice Springs**	**27.68**	**169**	P	P	12 29 45.2	-3.0
	0.3nm,0.5s,baz=356,slow=7.8,SNR=8.2						
CTA	**Charters Tower**	**29.39**	**144**	LR	LR	12 42 58.0	
	comp=Z,150nm,18.1s,baz=162,slow=39						
JNU	**Nakatsue**	**29.40**	**4**	LR	LR	12 39 31.2	
	comp=Z,7.7nm,21.9s,baz=358,slow=32						
STKA	**Stephens Creek**	**37.49**	**161**	P	P	12 31 11.8	-2.0
	5.3nm,1.2s,baz=339,slow=12,SNR=4.0						

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*IDC **01** 12:27:09.0±1.1, 3.37S×135.45E, mb4.2/4, mb1 4.6/8, mb1mx4.4/14, ML4.1/4, Error ellipse: s-maj=40.6km s-min=22.3km az=79.0*

*BJI **01** 12:27:12.0, 3.40S×135.30E, h10^{km}, mb4.5*

*NEIC **01** 12:27:12.1±0.5, 3.37S×135.34E, h10^{km}, mb4.3/8, Error ellipse: s-maj=11.7km s-min=8.1km az=87.0*

ISC 01 12:27:08.6±0.5**, 3.62S**±0.05×**135.4E**±0.1**, h10**^{km}**, n29,** σ**1**^{s}**13**/35**, mb4.5**/12**, 1D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.50**	**198**	eP	**P**	**12 29 29.5**	**+0.9**
	67nm,0.6s						
KAKA				i S	**Sn**	**12 31 09.0**	**-7.5**
PMG	**Port Moresby**	**13.01**	**117**	Pn	**P**	**12 30 16.5**	**+0.1**
	0.7nm,0.3s,baz=331,slow=10,SNR=4.0						
PMG				Sn	**S**	**12 32 36.8**	**-5.5**
	0.5nm,0.3s,baz=236,slow=15,SNR=2.3						
WRAB	**Tennant Creek**	**16.25**	**184**	eP	**P**	**12 30 57.9**	**-0.9**
	76nm,1.0s						
WB2	**Warramunga Arr**	**16.26**	**184**	eP	**P**	**12 30 58.2**	**-0.7**
WB2				eS	**S**	**12 33 51.0**	**-8.1**
WRA	**Warramunga Arr**	**16.26**	**184**	Pn	**P**	**12 30 58.0**	**-0.9**
	1.1nm,0.3s,baz=4.6,slow=13,SNR=10						
WRA				Sn	**S**	**12 33 51.5**	**-7.6**
	2.6nm,0.3s,baz=5.2,slow=21,SNR=9.0						
FITZ	**Fitzroy Crossi**	**17.28**	**213**	eP	**P**	**12 31 12.6**	**+0.8**
	8.5nm,0.4s						
FITZ				eS	**S**	**12 34 15.4**	**-7.3**
FITZ	**Fitzroy Crossi**	**17.28**	**213**	P	**P**	**12 31 13.7**	**+1.9**
	0.6nm,0.3s,baz=15,slow=9.8,SNR=21						
FITZ				S	**S**	**12 34 14.7**	**-7.9**
	6.2nm,0.3s,baz=183,slow=15,SNR=11						
CTA	**Charters Tower**	**19.49**	**148**	eP	**P**	**12 31 40.4**	**+1.6**
	12nm,0.8s						
CTA	**Charters Tower**	**19.49**	**148**	P	**P**	**12 31 40.1**	**+1.3**
	1.2nm,0.3s,baz=324,slow=12,SNR=23						
CTAO	**Charters Tower**	**19.49**	**148**	eP	**P**	**12 31 40.2**	**+1.4**
	25nm,0.9s						
ASAR	**Alice Springs**	**19.98**	**184**	P	**P**	**12 31 46.6**	**+2.4**
	16nm,0.7s,baz=8.6,slow=11,SNR=193						
ASAR				S	**S**	**12 35 19.7**	**-3.6**
	4.6nm,0.6s,baz=6.1,slow=28,SNR=4.1						
ASPA	**Alice Springs**	**19.98**	**184**	⇓iP	**P**	**12 31 46.9**	**+2.6**
ASPA				eS	**S**	**12 35 22.2**	**-1.1**
MBWA	**Marble Bar**	**23.16**	**220**	eP	**P**	**12 32 20.0**	**+3.6**
	9.2nm,0.8s,mb4.3						
STKA	**Stephens Creek**	**28.71**	**169**	eP	**P**	**12 33 10.1**	**+1.9**
	4.5nm,0.8s,mb4.2						
STKA	**Stephens Creek**	**28.71**	**169**	P	**P**	**12 33 08.9**	**+0.7**
	3.6nm,0.9s,mb4.1,baz=343,slow=9.2,SNR=5.0						
SHL	**Shillong**	**51.19**	**307**	e	**P**	**12 36 14.5**	**0.0**
GTA	**Gaotai**	**53.91**	**326**	eP	**P**	**12 36 35.1**	**+0.5**
GTA				AP	pP	12 36 39.7	+2.0
GTA				XP	sP	12 36 42.6	+3.8
GTA				AMB	AMB		
	comp=Z,2.0nm,0.8s,mb4.1						
GUN	**Gumba**	**57.04**	**307**	eP	**P**	**12 36 57.8**	**+0.3**
	comp=Z,20nm,0.8s,mb5.2						
PKI	**Pulchoki**	**57.27**	**306**	eP	**P**	**12 36 59.0**	**-0.1**
KKN	**Kakani**	**57.47**	**306**	eP	**P**	**12 37 00.6**	**+0.1**
	comp=Z,15nm,0.8s,mb5.1						
DMN	**Daman**	**57.53**	**306**	eP	**P**	**12 37 01.2**	**+0.2**
	comp=Z,25nm,1.0s,mb5.2						
GKN	**Gorkha**	**58.07**	**306**	eP	**P**	**12 37 05.0**	**+0.3**
	comp=Z,18nm,0.7s,mb5.2						
KOLN	**Koldanda**	**58.82**	**306**	eP	**P**	**12 37 09.8**	**-0.1**
	comp=Z,21nm,0.8s,mb5.2						
BVAR	**Borovoye Array**	**78.19**	**326**	P	**P**	**12 39 09.7**	**-0.2**
	comp=Z,1.4nm,0.7s,mb4.0,baz=124,slow=5.3,SNR=6.3						
BRVK	**Borovoye**	**78.26**	**326**	eP	**P**	**12 39 08.8**	**-1.5**
	comp=Z,2.9nm,0.8s,mb4.3						
CHKZ	**Chkalovo**	**78.32**	**327**	eP	**P**	**12 39 10.0**	**-0.6**
	comp=Z,1.4nm,0.7s,mb4.0						
ILAR	**Eielson Array**	**88.03**	**25**	P	**P**	**12 39 58.7**	**-1.4**
	comp=Z,0.4nm,0.6s,mb3.8,baz=270,slow=4.5,SNR=12						
LPAZ	**La Paz**	**149.46**	**131**	PKPbc	PKPdf	12 47 03.7	+6.1
	comp=Z,1.8nm,1.0s,baz=284,slow=4.2,SNR=4.5						
LPAZ	**La Paz**	**149.46**	**131**	PKPbc	PKPdf	12 47 03.7	+6.0

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*STR **01** 12:31:42.9±0.8, 44.49N×6.73E, h2^{km}±1^{km}, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **01** 12:31:42.7±0.1, 44.47N×6.73E, h2^{km}, Md1.9/3, Ml1.9/4, Error ellipse: s-maj=1.9km s-min=1.2km az=72.0*

ISC 01 12:31:42.0±0.5**, 44.46N**±0.02×**6.70E**±0.04**, h6**^{km}±8^{km}**, n12,** σ**0**^{s}**61**/23**, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SURF	**Saint Ours**	**0.08**	**75**	Pg	**Pg**	**12 31 44.4**	**+0.4**
SURF				Sg	**Sg**	**12 31 45.4**	**+0.1**
MBDF	**Montbardon**	**0.27**	**10**	ePg	**Pg**	**12 31 48.1**	**+0.5**
MBDF				eSg	**Sg**	**12 31 51.6**	**+0.3**
	16nm,0.3s						
TOUF	**Mont Tournerai**	**0.59**	**138**	Pg	**Pg**	**12 31 54.0**	**+0.1**
AUTN	**L'Aution**	**0.70**	**131**	Pg	**Pg**	**12 31 57.1**	**+1.1**
AUTN				Sg	**Sg**	**12 32 06.1**	**+0.8**
AURF	**Auriere**	**0.73**	**142**	Pg	**Pg**	**12 31 56.5**	**-0.1**
ORIF	**Oris-en-Rattie**	**0.74**	**308**	ePg	**Pg**	**12 31 56.7**	**-0.2**
ORIF				ePn	**Pn**	**12 31 59.4**	**+0.6**
ORIF				eSg	**Sg**	**12 32 07.0**	**+0.1**
	4.1nm,0.4s						
SBF	**Sospel**	**0.80**	**138**	ePg	**Pg**	**12 31 57.6**	**-0.4**
SBF				ePn	**Pn**	**12 31 59.6**	**+0.1**
SBF				eSg	**Sg**	**12 32 07.5**	**-1.1**
	8.5nm,0.4s						
FRF	**La Foret Royal**	**0.90**	**183**	ePg	**Pg**	**12 32 00.0**	**0.0**
FRF				eSg	**Sg**	**12 32 13.0**	**+1.0**
	5.6nm,0.2s						
SMRF	**Simiane la Rot**	**0.94**	**240**	ePg	**Pg**	**12 32 00.5**	**-0.4**
SMRF				eSg	**Sg**	**12 32 14.2**	**+0.7**
	3.4nm,0.3s						
LPG	**La Plagne**	**1.04**	**2**	ePg	**Pg**	**12 32 02.6**	**-0.2**
LPG				eSg	**Sg**	**12 32 15.9**	**-0.8**
	1.1nm,0.2s						
LPL	**La Plagne**	**1.06**	**1**	ePg	**Pg**	**12 32 02.5**	**-0.7**
LMR	**La Mourre**	**1.13**	**187**	ePg	**Pg**	**12 32 03.8**	**-0.9**
LMR				eSg	**Sg**	**12 32 18.8**	**-1.0**
	3.4nm,0.2s						

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*JMA **01** 12:41:36.0±0.1, 24.88N×122.20E, h90^{km}±3^{km}, M2.6*

TAP 01 12:41:36.2, 24.80N×122.17E, h88^{km}, ML3.6, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.84**	**114**	P	P	12 41 54.1	-0.1
YOJ				S	S	12 42 07.7	+0.2
IRIF	**Iriomote-Funau**	**1.49**	**108**	P	P	12 42 01.9	-0.4
IRIF				S	S	12 42 21.5	0.0
HATJ	**Hateruma jima**	**1.66**	**116**	eS	S	12 42 25.4	+0.1
JKRS	**Kuro-shima**	**1.77**	**108**	P	P	12 42 05.7	-0.1
JKRS				S	S	12 42 27.6	0.0
JIJ	**Ishigaki jima**	**1.85**	**103**	P	P	12 42 06.3	-0.6
JIJ				S	S	12 42 29.0	-0.4
JTJ	**Tarama**	**2.31**	**93**	S	S	12 42 40.5	-0.1

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*BER **01** 12:44:31.1±2.7, 60.53N×25.37E, ML2.2(NAO), Suspected explosion*

*NAO **01** 12:44:32.2±4.8, 60.65N×25.03E, ML2.2*

HEL 01 12:44:32.0±0.4**, 60.56N**×**25.22E, ML1.5, ML2.2**(NAO)**, Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PVF	**Pernaja**	**0.32**	**93**	eP	Pg	12 44 37.7	-0.6
PVF				eS	Sg	12 44 41.9	-0.6
FIA0	**FINESS Array S**	**0.98**	**25**	Pg	Pg	12 44 49.5	-2.0
	baz=195,slow=16						
FIA0				Lg		12 45 00.8	
	baz=208,slow=37						
FIA0				Rg		12 45 07.4	
	baz=200,slow=37						
FIA0	**FINESS Array S**	**0.98**	**25**	eP	Pb	12 44 49.4	-2.0
FIA0				eS	Sg	12 45 01.9	-2.6
VJF	**Virojoki**	**1.15**	**90**	eP	Pb	12 44 52.0	-2.5
VJF				eS	Sb	12 45 08.3	-1.6
KEF	**Keuruu**	**1.62**	**354**	eP	Pn	12 45 01.3	-0.7
KEF				eS	Sb	12 45 21.2	-2.2
KAF	**Kangasniemi**	**1.64**	**18**	eP	Pn	12 45 01.1	-1.1
KAF				eS	Sb	12 45 22.4	-1.6
SUF	**Sumiainen**	**2.21**	**11**	MSG		12 45 44.0	
	comp=Z,1.4nm,0.1s						
VAF	**Ylistaro**	**2.77**	**335**	MSG		12 45 58.8	
	comp=Z,1.9nm,0.2s						
HFS	**Hagfors**	**5.74**	**271**	Sn	Sn	12 46 59.8	-8.3
	baz=97,slow=22						
HFS				Lg		12 47 30.6	
	baz=82,slow=37						
HFS	**Hagfors**	**5.74**	**271**	eS	Sn	12 46 59.8	-8.3
HFS				eSG	Sg	12 47 30.6	-12

GUC 01 12:50:43.5±1.0**, 23.64S**×**68.72W, h95**^{km}±16^{km}**, MD3.7, ML3.5, 1C-1D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SPCH	**San Pedro de A**	**0.87**	**34**	⇓iP	P	12 51 03.4	+1.0
SPCH				i S	S	12 51 18.1	+1.6
LVC	**Limon Verde**	**1.03**	**350**	⇑iP	P	12 51 04.5	+0.2
LVC				i S	S	12 51 20.8	+1.0
LVC				AMP		12 51 22.2	
	comp=N,2µm,0.5s						
ANCH	**Antofagasta**	**1.55**	**268**	eP	P	12 51 11.0	+0.4
ANCH				i S	S	12 51 31.5	+0.9
ANCH				AMP		12 51 35.1	
	comp=E,970nm,0.7s						
CPN1	**Cerro Paranal**	**1.83**	**237**	eP	P	12 51 14.7	+0.6
CPN1				i S	S	12 51 38.7	+2.0
CPN1				AMP		12 51 44.0	
	comp=E,426nm,0.6s						

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*BJI **01** 13:05:15.1, 4.11S×135.90E, h10^{km}, mB4.7, mb4.7, Ms4.4, Msz4.2*

*IDC **01** 13:05:21.5±0.9, 3.28S×135.56E, mb4.2/5, mb1 4.4/9, mb1mx4.3/14, ML4.1/4, Error ellipse: s-maj=41.0km s-min=19.6km az=64.0*

*NEIC **01** 13:05:24.4±0.5, 3.40S×135.33E, h10^{km}, mb4.2/6, Error ellipse: s-maj=12.9km s-min=7.9km az=82.0*

ISC 01 13:05:23.7±2.6**, 3.62S**±0.05×**135.36E**±0.09**, h28**^{km}±20^{km}**, h15**^{km}±1.1^{km}**:pP-P, n39,** σ**1**^{s}**09**/40**, mb4.7**/16**, MS4.1**/3**, 2D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.49**	**198**	eP	**P**	**13 07 42.1**	**+0.5**
	49nm,0.6s						
KAKA				eS	**Sn**	**13 09 26.6**	**-1.8**
PMG	**Port Moresby**	**13.05**	**117**	Pn	**P**	**13 08 29.7**	**-0.4**
	1.1nm,0.3s,baz=62,slow=5.7,SNR=5.6						
WRAB	**Tennant Creek**	**16.25**	**183**	eP	**P**	**13 09 10.3**	**-1.5**
	13nm,1.0s						
WB2	**Warramunga Arr**	**16.26**	**183**	eP	**P**	**13 09 10.5**	**-1.4**
WRA	**Warramunga Arr**	**16.26**	**183**	Pn	**P**	**13 09 10.0**	**-1.9**
	0.8nm,0.3s,baz=3.4,slow=13,SNR=14						
FITZ	**Fitzroy Crossi**	**17.26**	**213**	eP	**P**	**13 09 24.9**	**+0.3**
	9.2nm,0.7s						
FITZ	**Fitzroy Crossi**	**17.26**	**213**	P	**P**	**13 09 25.0**	**+0.4**
	0.8nm,0.3s,baz=22,slow=9.7,SNR=15						
CTA	**Charters Tower**	**19.52**	**148**	eP	**P**	**13 09 53.4**	**+1.5**
	6.0nm,0.6s						
CTA	**Charters Tower**	**19.52**	**148**	P	**P**	**13 09 53.2**	**+1.3**
	0.7nm,0.3s,baz=326,slow=12,SNR=10						
CTAO	**Charters Tower**	**19.52**	**148**	eP	**P**	**13 09 53.2**	**+1.3**
ASAR	**Alice Springs**	**19.98**	**184**	P	**P**	**13 09 59.0**	**+1.9**
	16nm,0.6s,baz=8.6,slow=10,SNR=132						
ASPA	**Alice Springs**	**19.98**	**184**	⇓iP	**P**	**13 09 59.2**	**+2.2**
MBWA	**Marble Bar**	**23.13**	**220**	eP	**P**	**13 10 30.9**	**+2.1**
	10.0nm,0.7s,mb4.3						
STKA	**Stephens Creek**	**28.72**	**169**	P	**P**	**13 11 22.5**	**+1.6**
	2.5nm,0.7s,mb4.0,baz=358,slow=11,SNR=4.2						
NJ2	**Nanjing**	**38.78**	**337**	eP	**P**	**13 12 47.4**	**-0.4**
NJ2				AP	pP	13 12 53.1	-3.2
NJ2				XP	sP	13 12 55.6	-4.2
CMAR	**Chiang Mai Arr**	**42.05**	**303**	P	**P**	**13 13 15.5**	**+0.6**
	0.6nm,0.6s,mb3.4,baz=118,slow=7.1,SNR=5.5						
CD2	**Chengdu**	**45.69**	**321**	eP	**P**	**13 13 43.4**	**-0.8**
CN2	**Changchun**	**48.04**	**350**	eP	**P**	**13 14 03.4**	**+0.9**
LZH	**Lanzhou**	**49.27**	**326**	eP	**P**	**13 14 12.1**	**-0.1**
LZH				PP	PP	13 16 06.5	+0.1
LZH				AMB	AMB		
	comp=Z,21nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,169nm,4.5s						
LZH				LR	LR		
	comp=N,175nm,15.0s						
LZH				LR	LR		
	comp=Z,246nm,17.8s,MS4.2						
HHC	**Hu-ho-hao-te**	**49.31**	**336**	eP	**P**	**13 14 12.4**	**0.0**
HHC				AP	pP	13 14 16.6	-4.4
HHC				XP	sP	13 14 19.7	-4.7
HHC				PCP	PcP	13 15 35.5	+0.3
HHC				PP	PP	13 16 05.2	-1.5
HHC				S	**S**	**13 21 16.8**	**+1.0**
HHC				AMB	AMB		
	comp=Z,12nm,0.5s,mb5.2						
HHC				AMB	AMB		
	comp=Z,85nm,4.4s						
HHC				LR	LR		
	comp=E,117nm,11.9s						
GTA	**Gaotai**	**53.88**	**326**	eP	**P**	**13 14 47.5**	**+0.7**
GTA				AP	pP	13 14 52.2	-3.2
GTA				XP	sP	13 14 54.6	-4.2
GTA				S	**S**	**13 22 26.8**	**+8.3**
GTA				XS		13 22 34.1	
GTA				SCS	ScS	13 24 31.8	+1.1
GTA				SS	SS	13 26 07.0	+7.9
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.4						
GTA				AMB	AMB		
	comp=Z,63nm,5.3s						
GTA				LR	LR		
	comp=N,89nm,12.2s,MS4.2						
GTA				LR	LR		
	comp=E,95nm,11.0s,MS4.2						
GTA				LR	LR		
	comp=Z,114nm,17.5s						
GUN	**Gumba**	**57.00**	**307**	eP	**P**	**13 15 09.8**	**+0.2**
	comp=Z,29nm,0.7s,mb5.4						
PKI	**Pulchoki**	**57.23**	**306**	eP	**P**	**13 15 11.3**	**0.0**
KKN	**Kakani**	**57.43**	**306**	eP	**P**	**13 15 12.8**	**+0.2**
	comp=Z,13nm,0.5s,mb5.2						
DMN	**Daman**	**57.49**	**306**	eP	**P**	**13 15 13.3**	**+0.2**
	comp=Z,28nm,0.7s,mb5.4						
GKN	**Gorkha**	**58.03**	**306**	eP	**P**	**13 15 17.0**	**+0.2**

	comp=Z,32nm,0.7s,mb5.5						
KOLN	**Koldanda**	**58.78**	**306**	*e*P	**P**	**13 15 22.6**	**+0.6**
	comp=Z,34nm,0.7s,mb5.5						
WMQ	**Urumqi**	**63.69**	**323**	⇓P	**P**	**13 15 54.3**	**-0.7**
WMQ				AP	pP	13 15 58.7	-5.1
WMQ				XP	sP	13 16 01.3	-5.7
WMQ				PCP	PcP	13 16 26.1	-4.7
WMQ				S	**S**	**13 24 25.3**	**-0.5**
WMQ				SCS	ScS	13 25 42.8	+0.2
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,7.0nm,5.8s						
WMQ				LR	LR		
	comp=N,84nm,16.6s,MS4.0						
WMQ				LR	LR		
	comp=E,33nm,15.0s,MS4.0						
WMQ				LR	LR		
	comp=Z,43nm,18.2s,MS3.7						
DDI	**Dehra Dun**	**64.23**	**306**	*e*	**P**	**13 15 58.2**	**-0.6**
KURK	**Kurchatov**	**72.56**	**326**	*e*P	**P**	**13 16 49.7**	**-0.6**
BVAR	**Borovoye Array**	**78.16**	**326**	P	**P**	**13 17 22.0**	**0.0**
	comp=Z,2.5nm,0.6s,mb4.3,baz=118,slow=7.8,SNR=18						
BRVK	**Borovoye**	**78.23**	**326**	*e*P	**P**	**13 17 21.3**	**-1.1**
	comp=Z,4.1nm,0.8s,mb4.4						
CHKZ	**Chkalovo**	**78.29**	**327**	*e*P	**P**	**13 17 22.6**	**-0.1**
	comp=Z,2.6nm,0.8s,mb4.2						
MCK	**McKinley**	**86.93**	**26**	*e*P	**P**	**13 18 05.7**	**-1.4**
ILAR	**Eielson Array**	**88.04**	**25**	P	**P**	**13 18 10.8**	**-1.6**
	comp=Z,0.6nm,0.4s,mb4.2,baz=264,slow=4.4,SNR=18						
INK	**Inuvik**	**93.75**	**22**	P	**P**	**13 18 42.0**	**+3.2**
ARCES	**ARCESS Array B**	**100.25**	**340**	P	P	13 19 07.8	-0.6
	comp=Z,7.8nm,1.1s,baz=51,slow=7.8,SNR=4.0						
LPAZ	**La Paz**	**149.50**	**131**	PKPbc	PKPdf	13 25 15.3	+3.6
	comp=Z,2.9nm,1.1s,baz=354,slow=2.4,SNR=5.1						
LPAZ	**La Paz**	**149.50**	**131**	*e*PKPbc	PKPdf	13 25 15.0	+3.3

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*IDC **01** 13:08:05.6±0.7, 3.48S×135.67E, mb4.3/6, mb1 4.5/10, mb1mx4.4/14, ML4.2/4, MS3.6/4, Ms1 3.6/4, ms1mx3.2/15, Error ellipse: s-maj=35.9km s-min=17.3km az=68.0*

*BJI **01** 13:08:06.5, 3.87S×136.05E, h42^{km}, mB5.2, mb4.7, Ms4.6, Msz4.5*

*NEIC **01** 13:08:08.9±0.4, 3.59S×135.38E, h10^{km}, mb4.3/8, Error ellipse: s-maj=12.7km s-min=7.4km az=78.0*

ISC 01 13:08:06.8±2.6, **3.75S**±0.05×**135.51E**±0.10, **h24**^{km}±19^{km}, **n41**, σ**1**^{s}**02**/41, **mb4.6**/20, **MS4.1**/3, **1C**, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**12.86**	**116**	Pn	**P**	**13 11 11.4**	**+0.4**
	0.8nm,0.3s,baz=332,slow=17,SNR=2.6						
WRAB	**Tennant Creek**	**16.12**	**184**	*e*P	**P**	**13 11 52.3**	**-1.4**
WB2	**Warramunga Arr**	**16.13**	**184**	*e*P	**P**	**13 11 52.3**	**-1.6**
WB2				*i*		13 11 59.6	
WRA	**Warramunga Arr**	**16.13**	**184**	Pn	**P**	**13 11 52.1**	**-1.8**
	1.7nm,0.3s,baz=2.6,slow=13,SNR=5.8						
WRA				Sn	**S**	**13 14 42.1**	**-10**
	1.7nm,0.3s,baz=5.7,slow=22,SNR=4.5						
WRA				Lg		13 16 42.9	
	baz=1.4,slow=27,SNR=5.6						
FITZ	**Fitzroy Crossi**	**17.23**	**213**	*e*P	**P**	**13 12 07.2**	**-0.5**
	12nm,0.6s						
FITZ	**Fitzroy Crossi**	**17.23**	**213**	P	**P**	**13 12 07.0**	**-0.7**
	2.1nm,0.3s,baz=32,slow=9.9,SNR=4.6						
FITZ				S	**S**	**13 15 08.7**	**-8.3**
	1.6nm,0.3s,baz=181,slow=13,SNR=3.7						
FITZ				LR	LR	13 19 33.8	
	comp=Z,86nm,20.3s,baz=61,slow=39						
CTA	**Charters Tower**	**19.32**	**148**	*e*P	**P**	**13 12 35.6**	**+2.3**
	5.9nm,0.6s						
CTA	**Charters Tower**	**19.32**	**148**	P	**P**	**13 12 35.6**	**+2.3**
	0.4nm,0.3s,baz=327,slow=14,SNR=5.2						
CTA				S	**S**	**13 15 46.9**	**-18**
	0.2nm,0.3s,baz=52,slow=19,SNR=3.0						
CTA				Lg		13 18 16.9	
	0.2nm,0.3s,baz=232,slow=18,SNR=3.2						
CTAO	**Charters Tower**	**19.32**	**148**	*e*P	**P**	**13 12 35.5**	**+2.2**
	8.8nm,0.8s						
ASAR	**Alice Springs**	**19.86**	**184**	P	**P**	**13 12 41.0**	**+1.7**
	92nm,0.6s,baz=9.1,slow=10,SNR=48						
ASAR				S	**S**	**13 16 15.6**	**-0.4**
	7.0nm,0.7s,baz=2.0,slow=25,SNR=4.4						
ASAR				LR	LR	13 19 43.9	
	comp=Z,97nm,18.8s,baz=1.8,slow=35						
ASPA	**Alice Springs**	**19.86**	**184**	⇑*i*P	**P**	**13 12 41.0**	**+1.7**
MBWA	**Marble Bar**	**23.12**	**220**	*e*P	**P**	**13 13 16.0**	**+3.7**
	15nm,0.9s,mb4.4						
STKA	**Stephens Creek**	**28.55**	**169**	P	**P**	**13 14 03.4**	**+0.4**
	2.5nm,0.6s,mb4.1,baz=314,slow=13,SNR=3.0						
STKA				LR	LR	13 25 19.8	
	comp=Z,143nm,19.1s,MS3.6,baz=195,slow=36						
STKA	**Stephens Creek**	**28.55**	**169**	P	**P**	**13 14 03.4**	**+0.4**
STKA				LR	LR	13 25 19.8	
CMAR	**Chiang Mai Arr**	**42.24**	**303**	P	**P**	**13 16 00.8**	**+0.6**
	2.9nm,1.0s,mb3.9,baz=126,slow=7.0,SNR=10						
KMI	**Kunming**	**42.85**	**314**	*e*P	**P**	**13 16 05.9**	**+0.8**
KMI				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.5						
XAN	**Xi'an**	**45.19**	**328**	P	**P**	**13 16 23.7**	**-0.2**
XAN				AMB	AMB		
	comp=Z,11nm,1.5s,mb4.5						
ASAJ	**Asahikawa**	**48.08**	**7**	P	**P**	**13 16 43.9**	**-2.6**
	comp=Z,15nm,1.0s,mb5.0,baz=201,slow=8.6,SNR=4.8						
CN2	**Changchun**	**48.20**	**350**	*e*P	**P**	**13 16 46.6**	**-0.8**
LZH	**Lanzhou**	**49.47**	**326**	*e*P	**P**	**13 16 57.5**	**+0.1**
LZH				AP	pP	13 17 08.0	+3.2
LZH				XP	sP	13 17 11.6	+3.9
LZH				AMB	AMB		
	comp=Z,31nm,1.3s,mb5.2						
LZH				AMB	AMB		
	comp=Z,198nm,4.6s						
LZH				LR	LR		
	comp=N,256nm,13.1s						
LZH				LR	LR		
	comp=Z,393nm,17.2s,MS4.5						
HHC	**Hu-ho-hao-te**	**49.50**	**336**	*e*P	**P**	**13 16 57.2**	**-0.3**
HHC				PCP	PcP	13 18 19.4	-0.2
HHC				PP	PP	13 18 51.6	-0.7
HHC				S	**S**	**13 24 01.9**	**-0.5**
HHC				AMB	AMB		
	comp=Z,18nm,0.7s,mb5.2						
HHC				AMB	AMB		
	comp=Z,158nm,4.2s						
SHL	**Shillong**	**51.35**	**307**	*e*P	**P**	**13 17 11.5**	**-0.4**
LSA	**Lhasa**	**53.94**	**311**	P	**P**	**13 17 33.0**	**+2.0**
GTA	**Gaotai**	**54.08**	**326**	*e*P	**P**	**13 17 32.5**	**+0.6**
GTA				AP	pP	13 17 39.9	+0.5
GTA				XP	sP	13 17 43.0	+0.7
GTA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
GUN	**Gumba**	**57.20**	**307**	*e*P	**P**	**13 17 54.8**	**+0.1**
	comp=Z,15nm,0.7s,mb5.1						
SONM	**Songino Array**	**57.36**	**337**	P	**P**	**13 17 55.9**	**+0.4**
	comp=Z,0.6nm,0.4s,mb4.0,baz=143,slow=7.2,SNR=2.3						
KKN	**Kakani**	**57.63**	**306**	*e*P	**P**	**13 17 58.0**	**+0.3**
	comp=Z,15nm,0.8s,mb5.1						
DMN	**Daman**	**57.69**	**306**	*e*P	**P**	**13 17 58.3**	**+0.1**
GKN	**Gorkha**	**58.23**	**306**	*e*P	**P**	**13 18 01.0**	**-0.9**
	comp=Z,12nm,0.7s,mb5.0						
KOLN	**Koldanda**	**58.98**	**306**	*e*P	**P**	**13 18 07.7**	**+0.6**
	comp=Z,17nm,0.9s,mb5.0						
KURK	**Kurchatov**	**72.76**	**326**	*e*P	**P**	**13 19 34.5**	**-0.6**
	comp=Z,2.7nm,0.7s,mb4.3						
VNDA	**Vanda**	**75.05**	**174**	LR	LR	13 52 08.7	
	comp=Z,126nm,18.4s,MS4.2,baz=353,slow=35						
BVAR	**Borovoye Array**	**78.36**	**326**	P	**P**	**13 20 07.2**	**+0.4**
	comp=Z,3.9nm,0.8s,mb4.4,baz=124,slow=5.3,SNR=13						
BRVK	**Borovoye**	**78.43**	**326**	*e*P	**P**	**13 20 07.7**	**+0.5**
	comp=Z,7.8nm,1.0s,mb4.6						
CHKZ	**Chkalovo**	**78.48**	**327**	*e*P	**P**	**13 20 06.7**	**-0.8**
	comp=Z,3.3nm,0.9s,mb4.3						
MCK	**McKinley**	**86.99**	**26**	*e*P	**P**	**13 20 51.1**	**0.0**
	comp=Z,0.9nm,0.6s,mb4.2						
ILAR	**Eielson Array**	**88.10**	**25**	P	**P**	**13 20 55.2**	**-1.1**
	comp=Z,0.9nm,0.5s,mb4.3,baz=263,slow=4.4,SNR=22						
ARCES	**ARCESS Array B**	**100.42**	**340**	P	P	13 21 52.0	-0.9
	comp=Z,2.9nm,0.7s,baz=72,slow=5.7,SNR=6.5						
CPUP	**Villa Florida**	**147.62**	**158**	PKPbc	PKPdf	13 27 53.4	+1.6
	comp=Z,6.0nm,0.7s,baz=264,slow=1.8,SNR=8.3						
LPAZ	**La Paz**	**149.29**	**131**	PKPbc	PKPdf	13 27 58.5	+3.7
	comp=Z,3.0nm,0.8s,baz=235,slow=3.2,SNR=8.0						
LPAZ	**La Paz**	**149.29**	**131**	*e*P	PKPdf	13 27 58.3	+3.5

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*ISK **01** 13:20:58.2, 37.75N×27.01E, h14^{km}, MD3.1*

*CSEM **01** 13:20:58.8±0.1, 37.77N×27.09E, h15^{km}, MD3.1, Error ellipse: s-maj=1.7km s-min=1.4km az=17.0*

*ATH **01** 13:21:00.9, 37.80N×26.80E, h10^{km}, MD3.0/3*

ISC 01 13:20:58.9±0.7, **37.73N**±0.03×**27.02E**±0.04, **h9**^{km}±6^{km}, **n12**, σ**0**^{s}**79**/18, **1D**, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMG	**Samos**	**0.14**	**261**	⇓*i*PG	**Pg**	**13 21 03.5**	**+1.2**
AYDN	**Tasoluk**	**0.69**	**96**	*i* P	**Pb**	**13 21 12.4**	**-0.2**
AYDN				*i* S	**Sg**	**13 21 22.2**	**+0.2**
IZM	**Izmir**	**0.69**	**16**	*i* PG	**Pg**	**13 21 11.7**	**-1.2**
IZM				*i* SG	**Sg**	**13 21 21.8**	**-0.4**
KDAG	**Bornova**	**0.70**	**16**	*i* P	**Pb**	**13 21 11.8**	**-1.1**
KDAG				*i* S	**Sb**	**13 21 23.2**	**+1.0**
MLSB	**Milas**	**0.74**	**126**	PG	**Pg**	**13 21 13.5**	**-0.4**
MLSB				SG	**Sg**	**13 21 24.3**	**+0.4**
YER	**Yerkesik**	**1.17**	**120**	PN	**Pn**	**13 21 20.7**	**-0.7**
YER				SN	**Sn**	**13 21 37.5**	**-0.1**
AKS	**Akhisar**	**1.31**	**28**	PN	**Pn**	**13 21 22.4**	**-1.0**
APE	**Apeiranthos**	**1.36**	**241**	PN	**Pn**	**13 21 23.5**	**-0.6**
APE	**Apeiranthos**	**1.36**	**241**	*e*Pb	**Pb**	**13 21 24.5**	**+0.4**
MANT	**Manisa**	**1.43**	**58**	*i* P	**Pn**	**13 21 26.9**	**+1.7**
MANT				*i* S	**Sb**	**13 21 44.5**	**+0.9**
DALT	**Dalyan (Mudla)**	**1.61**	**126**	*e*PN	**Pn**	**13 21 27.3**	**-0.4**
PRK	**Paraskevi**	**1.62**	**339**	*e*PB	**Pb**	**13 21 29.0**	**+0.4**

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*LDG **01** 13:29:49.1±0.1, 42.95N×0.23E, h13^{km}±2^{km}, Md2.0/2, Ml2.0/2, Error ellipse: s-maj=10.8km s-min=1.1km az=170.0*

MDD 01 13:29:49.6±0.5, **43.02N**×**0.22E**, **h14**^{km}±3^{km}, **mbLg1.5**/7, **Error ellipse: s-maj=2.5km s-min=2.2km az=163.0, PRXIMO, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EPF	**Esparros**	**0.09**	**84**	*e*Pg	Pg	13 29 52.5	-0.2
EPF				*e*Sg	Sg	13 29 54.8	0.0
	42nm,0.2s						
LABF	**Labassere**	**0.11**	**283**	Pg	Pg	13 29 52.5	-0.5
LABF				Lg		13 29 55.0	
VIEF	**Viey**	**0.20**	**227**	Pg	Pg	13 29 53.9	-0.5
VIEF				Lg		13 29 57.4	
RESF	**Ens**	**0.23**	**158**	Pg	Pg	13 29 54.8	-0.1
RESF				Lg		13 29 58.6	
EBIE	**Bielsa**	**0.34**	**190**	Pg	Pg	13 29 56.4	-0.5
	0.7nm,0.1s,SNR=26						
EBIE				Lg		13 30 01.3	
	30nm,0.2s,SNR=58						
MELF	**Melles**	**0.42**	**111**	Pg	Pg	13 29 57.3	-1.1
MELF				Lg		13 30 02.6	
ETSF	**Etsaut**	**0.59**	**258**	*e*Pg	Pg	13 30 00.4	-1.2
ETSF				*e*Sg	Sg	13 30 08.1	-1.5
	12nm,0.2s						
SJPF	**Ste Jean**	**1.06**	**275**	*e*Sg	Sg	13 30 23.5	-1.8
	2.9nm,0.3s						
EALK	**Alkurruntz**	**1.28**	**279**	Lg		13 30 32.4	
	1.7nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**1.40**	**202**	Pg	Pg	13 30 15.6	-2.0
	10nm,0.3s,SNR=7.9						
ESAC				Lg		13 30 35.2	
	9.5nm,0.1s,SNR=7.9						
EMIR	**Miracle**	**1.47**	**139**	Lg		13 30 37.1	
	2.1nm,0.2s,SNR=7.9						
MTLF	**Montolieu**	**1.49**	**77**	*e*Pg	Pg	13 30 17.3	-2.2
MTLF				*e*Sg	Sg	13 30 36.3	-3.2
	3.2nm,0.2s						
EPOB	**Poblet**	**1.79**	**159**	Lg		13 30 45.6	
	0.9nm,0.2s,SNR=7.9						

IDC 01 13:40:32.7±2.3, **16.26S**×**178.66W**, **mb3.9**/5, **mb1 4.2**/5, **mb1mx4.0**/14, **1C**, **Error ellipse: s-maj=131.0km s-min=24.2km az=145.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**39.23**	**239**	P	P	13 48 02.6	-2.0
	1.3nm,0.7s,baz=78,slow=9.3,SNR=5.3						
WRA	**Warramunga Arr**	**44.71**	**258**	P	P	13 48 47.7	-1.9
	1.4nm,0.7s,baz=92,slow=6.8,SNR=6.3						
ASAR	**Alice Springs**	**45.02**	**253**	P	P	13 48 50.7	-1.4
	5.0nm,0.5s,baz=88,slow=8.5,SNR=133						
ASPA	**Alice Springs**	**45.03**	**253**	⇑*i*P	P	13 48 50.8	-1.3
NVAR	**Mina Array Bea**	**78.42**	**44**	P	P	13 52 36.2	-0.8
	0.8nm,0.8s,baz=236,slow=11,SNR=4.9						
ILAR	**Eielson Array**	**84.35**	**13**	P	P	13 53 05.8	-1.8
	0.1nm,0.4s,baz=221,slow=5.3,SNR=7.9						

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*NEIC **01** 14:06:24.5±0.6, 4.83N×77.38W, h10^{km}, mb3.4/2, Error ellipse: s-maj=15.9km s-min=10.9km az=78.0*

*IDC **01** 14:06:34.1±10.0, 4.88N×77.10W, h92^{km}±98^{km}, mb3.5/6, mb1 3.8/6, mb1mx3.6/17, Error ellipse: s-maj=87.8km s-min=22.9km az=71.0*

ISC 01 14:06:26.8±0.8, **5.0N**±0.1×**77.2W**±0.1, **h33**^{km}, **n13**, σ**0**^{s}**72**/10, **mb3.8**/6, **Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTAV	**Otavalo**	**4.91**	**195**	*e*P	**P**	**14 07 34.6**	**-5.6**
SDV	**Santo Domingo**	**7.54**	**59**	*e*P	**P**	**14 08 17.4**	**+0.3**
	11nm,0.8s						
SAML	**Samuel**	**19.65**	**135**	*e*P	**P**	**14 10 55.0**	**-0.8**
	1.3nm,0.6s						
LPAZ	**La Paz**	**22.96**	**157**	P	**P**	**14 11 30.4**	**+0.8**
	0.3nm,0.4s,mb3.0,baz=355,slow=12,SNR=2.7						
PDAR	**Pinedale Array**	**47.31**	**328**	P	**P**	**14 14 59.5**	**+0.2**
	1.8nm,1.1s,mb3.9,baz=126,slow=12,SNR=6.1						
ULM	**Lac du Bonnet**	**47.77**	**344**	P	**P**	**14 15 02.2**	**-0.5**
	1.1nm,0.5s,mb4.2,baz=167,slow=2.7,SNR=3.1						
NVAR	**Mina Array Bea**	**50.00**	**318**	P	**P**	**14 15 20.5**	**+0.4**
	0.6nm,0.7s,mb3.8,baz=111,slow=5.8,SNR=5.8						
YKA	**Yellowknife Ar**	**63.64**	**342**	P	**P**	**14 16 55.9**	**-0.8**
	1.6nm,0.7s,mb4.2,baz=130,slow=6.7,SNR=34						
YKA	**Yellowknife Ar**	**63.64**	**342**	P	**P**	**14 16 55.9**	**-0.8**
ILAR	**Eielson Array**	**76.93**	**336**	P	**P**	**14 18 17.7**	**+0.3**
	1.0nm,0.7s,mb3.9,baz=103,slow=3.8,SNR=14						
ASAR	**Alice Springs**	**144.79**	**235**	PKP	PKPdf	14 25 59.5	-1.7
	0.9nm,1.0s,baz=117,slow=3.9,SNR=6.2						
WRAB	**Tennant Creek**	**145.94**	**241**	*e*PKPdf	PKPdf	14 26 03.9	+0.7
WRA	**Warramunga Arr**	**145.95**	**241**	PKPbc	PKPbc	14 26 03.2	-1.0
	1.2nm,0.8s,baz=108,slow=3.2,SNR=7.3						

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*NEIC **01** 14:08:34.4±5.0, 6.65S×149.77E, h23^{km}±34^{km}, mb4.6/6, Error ellipse: s-maj=16.8km s-min=16.0km az=82.0*

*IDC **01** 14:08:35.8±0.6, 6.83S×149.97E, h35^{km}±4^{km}, mb4.4/7, mb1 4.6/9, mb1mx4.4/14, ML3.4/2, MS3.4/6, Ms1 3.4/6, ms1mx3.2/21, Error ellipse: s-maj=35.7km s-min=10.8km az=132.0*

ISC 01 14:08:32.6±0.6, **6.7S**±0.1×**149.8E**±0.1, **h23**^{km}, **(h33**^{km}±1.7^{km}**:pP-P)**, **n33**, σ**1**^{s}**12**/26, **mb4.4**/8, **MS3.5**/4, **1D**, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.76**	**223**	Pn	**Pn**	**14 09 32.9**	**+2.2**
	21nm,0.3s,baz=52,slow=6.4,SNR=80						
PMG				Sn	**Sn**	**14 10 16.8**	**+2.0**
	34nm,0.3s,baz=358,slow=22,SNR=13						
PMG				LR	LR	14 10 51.6	
	comp=Z,243nm,20.5s,baz=53,slow=36						
PMG	**Port Moresby**	**3.76**	**223**	*e*P	**Pn**	**14 09 32.9**	**+2.2**
CTA	**Charters Tower**	**13.78**	**194**	Pn	**P**	**14 11 48.2**	**-1.0**
	0.1nm,0.3s,baz=25,slow=15,SNR=2.8						
CTA				LR	LR	14 16 48.4	
	comp=Z,78nm,18.2s,baz=22,slow=36						
CTA	**Charters Tower**	**13.78**	**194**	Pn	**P**	**14 11 48.2**	**-1.0**
CTA				LR	LR	14 16 48.4	
CTAO	**Charters Tower**	**13.78**	**194**	*e*P	**P**	**14 11 48.7**	**-0.5**
KAKA	**Kakadu**	**18.14**	**249**	*e*P	**P**	**14 12 44.3**	**-0.7**
	10.0nm,0.5s						
WRAB	**Tennant Creek**	**19.96**	**227**	*e*P	**P**	**14 13 05.0**	**-1.2**
	35nm,0.8s						
WB2	**Warramunga Arr**	**19.96**	**227**	*e*P	**P**	**14 13 05.1**	**-1.3**
WRA	**Warramunga Arr**	**19.97**	**227**	P	**P**	**14 13 05.3**	**-1.2**
	33nm,0.9s,baz=51,slow=11,SNR=62						
WRA				pP		14 13 15.8	
	27nm,0.8s,baz=51,slow=11,SNR=12						
WRA				S	**S**	**14 16 49.4**	**+5.0**
	0.5nm,0.4s,baz=44,slow=24,SNR=3.8						
WRA				PcP	PcP	14 17 25.4	+3.5
	0.9nm,0.4s,baz=25,slow=1.9,SNR=5.5						
WRA				pPcP		14 17 37.2	
	0.9nm,0.8s,baz=29,slow=2.0,SNR=5.0						
ASAR	**Alice Springs**	**22.77**	**220**	P	**P**	**14 13 34.4**	**-0.4**
	14nm,1.1s,mb4.3,baz=56,slow=9.1,SNR=41						
ASPA	**Alice Springs**	**22.77**	**220**	*e*P	**P**	**14 13 34.4**	**-0.5**
FITZ	**Fitzroy Crossi**	**26.13**	**242**	*e*P	**P**	**14 14 08.2**	**+1.2**
	16nm,1.2s,mb4.4						
FITZ	**Fitzroy Crossi**	**26.13**	**242**	P	**P**	**14 14 07.5**	**+0.5**
	6.8nm,0.5s,mb4.4,baz=36,slow=5.2,SNR=24						
FITZ				pP	pP	14 14 18.7	+4.8
	15nm,0.7s,baz=43,slow=6.9,SNR=10						
FITZ				LR	LR	14 25 51.6	
	comp=Z,18nm,19.4s,MS2.6,baz=83,slow=40						
STKA	**Stephens Creek**	**26.23**	**196**	*e*P	**P**	**14 14 06.6**	**-1.3**
	16nm,0.9s,mb4.6						
STKA	**Stephens Creek**	**26.23**	**196**	P	**P**	**14 14 06.0**	**-1.9**
	40nm,1.1s,mb4.8,baz=355,slow=9.3,SNR=17						
STKA				pP	pP	14 14 16.5	+1.8
	13nm,0.8s,baz=14,slow=9.6,SNR=7.1						
STKA				LR	LR	14 24 52.8	
	comp=Z,104nm,19.1s,MS3.4,baz=24,slow=37						
CBIJ	**Chichi jima**	**34.34**	**348**	LR	LR	14 26 00.2	
	comp=Z,318nm,21.9s,MS4.0,baz=106,slow=30						
VNDA	**Vanda**	**71.12**	**177**	P	**P**	**14 19 51.2**	**+0.4**
QSPA	**South Pole Qui**	**83.32**	**180**	*e*P	**P**	**14 21 00.0**	**+1.5**
	2.2nm,0.4s,mb4.5						
QSPA				*e*	pP	14 21 08.9	+2.9
QSPA				⇓*i*P	pP	14 21 09.4	+3.4
KURK	**Kurchatov**	**83.38**	**323**	P	**P**	**14 20 59.5**	**+0.1**
	3.3nm,1.2s,mb4.2						
MCK	**McKinley**	**83.73**	**23**	P	**P**	**14 21 00.3**	**-0.6**
ILAR	**Eielson Array**	**85.01**	**23**	P	**P**	**14 21 06.8**	**-0.4**
	1.7nm,0.8s,mb4.2,baz=250,slow=5.0,SNR=17						
ILAR				pP	pP	14 21 17.5	+2.8
	1.9nm,0.8s,baz=256,slow=5.3,SNR=9.5						
NVAR	**Mina Array Bea**	**95.60**	**52**	P	**P**	**14 21 59.2**	**+1.4**
	1.4nm,1.0s,mb4.4,baz=274,slow=3.8,SNR=6.8						
NVAR				pP	pP	14 22 09.6	+4.3
	2.1nm,0.9s,baz=250,slow=4.3,SNR=8.9						
NVAR	**Mina Array Bea**	**95.60**	**52**	P	**P**	**14 21 59.2**	**+1.4**
NVAR				pP	pP	14 22 09.6	+4.3
NEW	**Newport**	**96.99**	**42**	LR	LR	15 01 48.0	
	comp=Z,54nm,18.5s,MS4.1,baz=250,slow=33						
YKA	**Yellowknife Ar**	**98.46**	**28**	P	**P**	**14 22 10.9**	**+0.8**
	0.5nm,0.9s,mb4.1,baz=275,slow=4.7,SNR=6.0						
YKA				pP	pP	14 22 20.9	+3.3
	0.3nm,0.7s,baz=267,slow=4.8,SNR=4.2						
YKA	**Yellowknife Ar**	**98.46**	**28**	P	**P**	**14 22 10.9**	**+0.8**
YKA				pP	pP	14 22 20.9	+3.3
PDAR	**Pinedale Array**	**102.32**	**48**	P	Pdif	14 22 28.6	+0.6
	1.0nm,1.1s,baz=243,slow=3.3,SNR=4.8						
PDAR				pP		14 22 38.0	
	0.9nm,0.9s,baz=270,slow=1.5,SNR=5.7						
IDI	**Anoyia**	**122.06**	**308**	PKP	PKPdf	14 27 28.1	-2.3
	3.0nm,0.7s,baz=53,slow=5.1,SNR=3.3						
GERES	**GERESS Array B**	**123.98**	**326**	PKP	PKPdf	14 27 31.1	-2.7
	1.0nm,0.7s,baz=90,slow=1.3,SNR=6.1						
GERES				pPKP		14 27 42.4	
	1.0nm,0.6s,SNR=5.3						
LPAZ	**La Paz**	**136.11**	**122**	PKP	PKPdf	14 27 56.6	-1.0
	1.0nm,1.0s,baz=312,slow=6.1,SNR=3.9						
CPUP	**Villa Florida**	**137.97**	**142**	PKP	PKPdf	14 27 58.6	-2.2
	1.6nm,0.9s,baz=208,slow=5.9,SNR=3.1						
SDV	**Santo Domingo**	**139.92**	**84**	*e*PKPdf	PKPdf	14 28 02.3	-2.4
BDFB	**Brasilia**	**151.70**	**142**	PKPbc	PKPdf	14 28 26.2	+1.9
	1.5nm,0.5s,baz=186,slow=9.2,SNR=2.7						

DJA 01 14:24:03.4±1.0, **9.43S**×**114.07E**, **h13**^{km}±5^{km}, **MD4.8**/3, **ML3.5**/2, **4C-3D**, **Error ellipse: s-maj=24.1km s-min=12.1km az=41.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	**Scrawed**	**0.95**	**4**	⇑*i*Pn	Pn	14 24 19.1	-3.2
	54nm,0.2s						
SRDI				⇑*i*Sn	Sn	14 24 31.7	-3.9
KELI	**Kelakatan**	**1.27**	**19**	⇑*i*Pn	Pn	14 24 24.9	-2.1
	84nm,0.1s						
KELI	**Kelakatan**	**1.27**	**19**	⇓*i*Pg	Pg	14 24 25.5	-3.4
KELI				⇓*i*Sn	Sn	14 24 39.7	-4.2
RATI	**Rata**	**1.60**	**64**	⇑*i*Pn	Pn	14 24 29.0	-2.7
RATI				⇓*i*Sn	Sn	14 24 47.0	-5.3

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*NEIC **01** 14:28:06.6, 31.26S×68.99W, h150^{km}, MD3.5(GUC), After GUC.*

GUC 01 14:28:06.6±0.9, **31.26S**×**68.99W**, **h150**^{km}, **MD3.5**, **ML3.6**, **10C-3D**, **San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDZ	**Mendoza**	**1.63**	**176**	*e*P	P	14 28 35.3	-2.6
MDZ				*i* S	S	14 28 56.1	-5.8
CMCH	**Combarbala**	**1.72**	**272**	⇑*i*P	P	14 28 39.7	+0.8
CMCH				*i* S	S	14 29 04.3	+0.5
JACH	**Jahuel**	**1.97**	**223**	⇓*i*P	P	14 28 42.1	+0.5
JACH				*i* S	S	14 29 10.0	+1.4
FCH	**Farellones**	**2.34**	**208**	⇑*i*P	P	14 28 47.1	+0.8
FCH				*i* S	S	14 29 18.2	+1.5
FCH				AMP		14 29 26.9	
	comp=E,158nm,0.3s						
LSCH	**La Serena**	**2.36**	**304**	⇓*i*P	P	14 28 46.6	0.0
LSCH				*i* S	S	14 29 16.1	-1.0
LSCH				AMP		14 29 17.1	
	comp=E,399nm,0.6s						
PEL	**Peldehue**	**2.37**	**217**	*e*P	P	14 28 46.5	-0.1
PEL				*i* S	S	14 29 17.0	-0.3
ROCH	**El Roble**	**2.42**	**225**	⇑*i*P	P	14 28 47.5	+0.1
ROCH				*i* S	S	14 29 18.6	+0.1
CLCH	**Cerro Calan**	**2.50**	**211**	⇑*i*P	P	14 28 48.7	+0.3
CLCH				*i* S	S	14 29 20.3	0.0
CLCH				AMP		14 29 25.0	
	comp=E,181nm,0.5s						
PCH	**Pirque**	**2.69**	**208**	⇑*i*P	P	14 28 50.7	0.0
RCDM	**Rinconada Maip**	**2.71**	**214**	⇑*i*P	P	14 28 50.6	-0.3
RCDM				*i* S	S	14 29 24.9	+0.1
RCDM				AMP		14 29 27.5	
	comp=N,348nm,0.1s						
LMEL	**Las Melosas**	**2.78**	**201**	⇑*i*P	P	14 28 52.8	+1.0
LMEL				AMP		14 29 35.7	
	comp=N,131nm,0.2s						
TACH	**Talagante**	**2.90**	**214**	⇑*i*P	P	14 28 52.5	-0.9
CHCH	**Chadas Angostu**	**3.02**	**207**	⇓*i*P	P	14 28 54.7	-0.2
CHCH				*i* S	S	14 29 31.6	-0.2
LCCH	**Las Cruces**	**3.11**	**224**	⇑*i*P	P	14 28 55.6	-0.4
CACH	**El Canelo**	**3.16**	**205**	⇑*i*P	P	14 28 57.0	+0.3
TRQA	**Tornquist**	**8.91**	**142**	*e*P	P	14 30 09.4	-3.6
	comp=N,3.1nm,0.3s						

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*NIED **01** 14:30:00, 35.00N×135.80E, h14^{km}, Mw4.0 Best double couple: $M_0$1.04×10^{15} NP1:ϕ_s11°, δ52°, λ112°. NP2:ϕ_s158°, δ43°, λ65°.*

*NEIC **01** 14:30:18.7±0.6, 34.32N×135.90E, h10^{km}, mb4.4/9, Error ellipse: s-maj=13.2km s-min=12.2km az=161.0*

NEIC Felt in Osaka Prefecture. Recorded [3 JMA] in Kyoto, Osaka and Shiga; [2 JMA] in Hyogo and Nara; [1 JMA] in Aichi, Gifu, Mie, Okayama and Tottori Prefectures.

*IDC **01** 14:30:21.5±1.1, 35.13N×135.77E, mb4.1/15, mb1 4.2/16, mb1mx4.1/27, ML3.6/1, MS3.1/3, Ms1 3.1/3, ms1mx2.8/24, Error ellipse: s-maj=31.5km s-min=19.4km az=6.0*

*JMA **01** 14:30:23.4, 35.04N×135.81E, h13^{km}, M4.0 Broadband fault plane solution: P waves. NP1:ϕ_s155°, δ35°, λ63°. NP2:ϕ_s7°, δ60°, λ108°. Principal axes: T Plg70°, Azm316°; N Plg15°, Azm178°; P Plg13°, Azm84°;*

JMA Felt III J1.

*MOS **01** 14:30:25.1±0.8, 35.25N×135.77E, h33^{km}, mb4.4/10 Error ellipse: s-maj=32.2km s-min=16.5km az=112.0*

*BJI **01** 14:30:26.2, 34.70N×135.23E, h10^{km}, mB4.6, mb4.5, Ms4.0, Msz3.7*

ISC 01 14:30:23.2±0.3, **35.03N**±0.03×**135.81E**±0.03, **h24**^{km}±3^{km}, **n73**, σ**0**^{s}**94**/84, **mb4.3**/32, **MS3.8**/6, **1C-9D**, **Western Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHE	**Heguri**	**0.39**	**196**	⇓P	**Pb**	**14 30 31.3**	**-0.1**
JHE				S	**Sb**	**14 30 36.7**	**-0.3**
JWT	**Wachi**	**0.42**	**307**	⇓P	**Pb**	**14 30 31.7**	**-0.3**

JWT				S	**Sb**	**14 30 37.1**	**-1.0**
JEG	**Eigenji**	**0.49**	**77**	⇓P	**Pb**	**14 30 32.8**	**-0.2**
JEG				S	**Sb**	**14 30 39.5**	**-0.3**
JFM	**Mihama**	**0.52**	**15**	⇓P	**Pb**	**14 30 33.4**	**-0.2**
JFM				S	**Sb**	**14 30 40.4**	**-0.3**
TSUJ	**Tsu 2**	**0.59**	**122**	⇓P	**Pb**	**14 30 34.6**	**-0.2**
TSUJ				S	**Sb**	**14 30 42.6**	**-0.1**
JMIK	**Miki**	**0.66**	**251**	⇓P	**Pb**	**14 30 36.3**	**+0.3**
JMIK				S	**Sb**	**14 30 45.3**	**+0.6**
JKS	**Kasai**	**0.80**	**267**	⇓P	**Pb**	**14 30 38.4**	**+0.2**
JKS				S	**Sb**	**14 30 49.0**	**+0.4**
JWY	**Kouya**	**0.83**	**193**	⇓P	**Pb**	**14 30 39.1**	**+0.4**
JWY				S	**Sb**	**14 30 50.0**	**+0.5**
JKY	**Yasaka**	**0.83**	**316**	⇓P	**Pb**	**14 30 39.1**	**+0.2**
MAJO	**Matsushiro**	**2.46**	**51**	*e*P	**Pn**	**14 31 03.4**	**+0.6**
MAT	**Matsushiro**	**2.46**	**51**	P	**Pn**	**14 31 04.2**	**+1.4**
MAT				S	**Sn**	**14 31 34.4**	**+1.9**
MAT	**Matsushiro**	**2.46**	**51**	*e*P	**Pn**	**14 31 04.0**	**+1.2**
MAT				*e*S	**Sn**	**14 31 34.0**	**+1.5**
JHJ	**Hachijo jima 2**	**3.80**	**119**	Pn	**Pn**	**14 31 22.0**	**+0.2**
	10nm,0.3s,baz=58,slow=19,SNR=4.9						
JHJ				Sn	**Sn**	**14 32 05.2**	**-1.2**
	13nm,0.3s,baz=73,slow=19,SNR=2.1						
CBIJ	**Chichi jima**	**9.61**	**144**	LR	LR	14 35 25.9	
	comp=Z,49nm,20.1s,baz=35,slow=31						
ASAJ	**Asahikawa**	**10.47**	**28**	LR	LR	14 37 10.4	
	comp=Z,78nm,19.6s,baz=225,slow=39						
CN2	**Changchun**	**11.87**	**321**	*e*P	**P**	**14 33 17.3**	**+3.3**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s						
CN2				AMB	AMB		
	comp=Z,70nm,6.0s						
CN2				LR	LR		
	comp=N,250nm,14.0s						
CN2				LR	LR		
	comp=E,190nm,14.0s						
CN2				LR	LR		
	comp=Z,200nm,14.0s						
NJ2	**Nanjing**	**14.45**	**263**	*e*P	**P**	**14 33 45.8**	**-2.5**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
HIA	**Hailar**	**18.50**	**325**	*e*P	**P**	**14 34 42.0**	**+2.4**
	comp=Z,9.0nm,0.7s						
HHC	**Hu-ho-hao-te**	**19.96**	**294**	*e*P	**P**	**14 34 57.3**	**+0.7**
HHC				PP	PP	14 35 18.7	+3.0
HHC				S	**S**	**14 38 42.4**	**+8.0**
HHC				AMB	AMB		
	comp=Z,11nm,0.5s						
HHC				AMB	AMB		
	comp=Z,75nm,4.0s						
HHC				LR	LR		
	comp=N,140nm,9.2s						
HHC				LR	LR		
	comp=E,134nm,12.6s						
HHC				LR	LR		
	comp=Z,106nm,12.9s						
ENH	**Enshi**	**22.64**	**265**	*e*P	**P**	**14 35 24.3**	**+0.5**
	comp=Z,15nm,0.8s,mb4.5						
ULN	**Ulaanbaatar**	**24.92**	**310**	*e*P	**P**	**14 35 46.2**	**+0.5**
	comp=Z,14nm,1.3s,mb4.3						
SONM	**Songino Array**	**25.33**	**309**	P	**P**	**14 35 50.4**	**+0.8**
	comp=Z,2.2nm,0.5s,mb3.9,baz=106,slow=9.0,SNR=8.2						
LZH	**Lanzhou**	**25.97**	**282**	*e*P	**P**	**14 35 54.5**	**-1.2**
LZH				PP	PP	14 36 35.6	-1.3
LZH				*e*S	**S**	**14 40 26.0**	**+3.5**
LZH				AMB	AMB		
	comp=Z,25nm,1.3s,mb4.6						
LZH				AMB	AMB		
	comp=Z,102nm,4.8s						
LZH				LR	LR		
	comp=N,394nm,12.5s						
LZH				LR	LR		
	comp=Z,758nm,15.2s,MS4.3						
GYA	**Guiyang**	**26.40**	**259**	⇑*i*P	**P**	**14 36 01.0**	**+1.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.6						
GYA				AMB	AMB		
	comp=Z,330nm,4.4s						
GYA				LR	LR		
	comp=N,230nm,15.0s,MS3.9						
GYA				LR	LR		
	comp=E,120nm,16.3s,MS3.9						
GYA				LR	LR		
	comp=Z,290nm,15.3s,MS3.9						
CD2	**Chengdu**	**27.14**	**270**	*e*P	**P**	**14 36 04.0**	**-2.5**
ZAK	**Zakamensk**	**28.13**	**313**	*e*P	**P**	**14 36 14.8**	**-0.4**
GTA	**Gaotai**	**28.88**	**289**	*e*P	**P**	**14 36 21.9**	**-0.2**
GTA				PP	PP	14 37 14.7	-0.9
GTA				S	**S**	**14 41 15.1**	**+5.5**
GTA				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.4						
GTA				AMB	AMB		
	comp=Z,150nm,5.7s						
GTA				LR	LR		
	comp=N,78nm,11.8s,MS3.7						
GTA				LR	LR		
	comp=E,107nm,13.7s,MS3.7						
GTA				LR	LR		
	comp=Z,155nm,10.7s,MS3.9						
CMAR	**Chiang Mai Arr**	**36.58**	**253**	P	**P**	**14 37 29.9**	**+0.6**
	comp=Z,1.0nm,0.6s,mb3.8,baz=51,slow=7.1,SNR=7.6						
CMAR	**Chiang Mai Arr**	**36.58**	**253**	P	**P**	**14 37 30.0**	**+0.7**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TIXI	**Tiksi**	**36.87**	**356**	*e*P	**P**	**14 37 29.5**	**-1.7**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
TIXI				MLR	MLR		
	comp=Z,50nm,15.0s,MS3.4						
WMQ	**Urumqi**	**37.74**	**298**	P	**P**	**14 37 40.4**	**+1.6**
WMQ				PP	PP	14 39 11.1	+3.0
WMQ				*e*PCP	PcP	14 39 55.4	-0.6
WMQ				*e*S	**S**	**14 43 33.5**	**+6.1**
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.6s,mb4.3						
WMQ				AMB	AMB		
	comp=Z,11nm,5.2s						
WMQ				LR	LR		
	comp=N,68nm,15.0s,MS3.6						
WMQ				LR	LR		
	comp=E,41nm,16.2s,MS3.6						
WMQ				LR	LR		
	comp=Z,44nm,17.5s,MS3.3						
ZAL	**Zalesovo**	**40.00**	**314**	P	**P**	**14 37 57.9**	**+0.3**
	comp=Z,0.6nm,0.3s,mb3.7,baz=350,slow=12,SNR=5.4						
ZAL				LR	LR	14 55 44.9	
	comp=Z,82nm,18.9s,MS3.6,baz=272,slow=38						
ZAL	**Zalesovo**	**40.00**	**314**	P	**P**	**14 37 57.9**	**+0.4**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZAL				MLR	MLR		
	comp=Z,83nm,18.9s						
GUN	**Gumba**	**42.82**	**275**	*e*P	**P**	**14 38 21.8**	**+0.8**
	comp=Z,20nm,0.7s,mb5.0						
PKI	**Pulchoki**	**43.33**	**275**	*e*P	**P**	**14 38 25.5**	**+0.4**
	comp=Z,7.7nm,0.8s,mb4.5						
KKN	**Kakani**	**43.35**	**275**	*e*P	**P**	**14 38 25.6**	**+0.3**
	comp=Z,10nm,0.8s,mb4.6						
DMN	**Daman**	**43.56**	**275**	*e*P	**P**	**14 38 27.7**	**+0.7**
KURK	**Kurchatov**	**43.64**	**309**	*e*P	**P**	**14 38 26.2**	**-1.1**
	comp=Z,2.1nm,0.7s,mb4.0						
GKN	**Gorkha**	**43.80**	**276**	*e*P	**P**	**14 38 28.0**	**-0.9**
	comp=Z,17nm,0.9s,mb4.8						
KOLN	**Koldanda**	**44.73**	**276**	*e*P	**P**	**14 38 36.8**	**+0.3**
	comp=Z,11nm,0.9s,mb4.7						
TKM2	**Tokmak 2**	**46.60**	**299**	*e*P	**P**	**14 38 51.5**	**+0.5**
AML	**Almayashu**	**48.14**	**298**	*e*P	**P**	**14 39 04.0**	**+0.8**
	comp=Z,5.1nm,0.5s,mb4.8						
CHKZ	**Chkalovo**	**48.39**	**314**	*e*P	**P**	**14 39 03.5**	**-1.5**
	comp=Z,2.9nm,0.6s,mb4.5						
BVAR	**Borovoye Array**	**48.59**	**313**	P	**P**	**14 39 05.9**	**-0.6**
	comp=Z,0.8nm,0.5s,mb4.0,baz=90,slow=8.9,SNR=8.8						
BVAR				PcP	PcP	14 40 31.8	-0.5
	comp=Z,0.8nm,0.6s,baz=117,slow=3.3,SNR=5.8						
BRVK	**Borovoye**	**48.65**	**313**	*e*P	**P**	**14 39 07.0**	**0.0**
	comp=Z,1.4nm,0.6s,mb4.2						
HYB	**Hyderabad**	**53.58**	**266**	*e*P	**P**	**14 39 44.0**	**-0.7**
HYB	**Hyderabad**	**53.58**	**266**	*i* P	**P**	**14 39 44.0**	**-0.7**
ARU	**Arti**	**54.85**	**318**	*e*P	**P**	**14 39 52.3**	**-1.3**
ARU	**Arti**	**54.85**	**318**	*e*P	**P**	**14 39 52.1**	**-1.4**
	comp=Z,13nm,0.9s,mb5.0						
INK	**Inuvik**	**58.21**	**26**	P	**P**	**14 40 17.1**	**-0.2**
	comp=Z,1.1nm,0.7s,mb4.0,baz=219,slow=7.1,SNR=10						
INK	**Inuvik**	**58.21**	**26**	P	**P**	**14 40 17.1**	**-0.2**
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	**Inuvik**	**58.21**	**26**	*e*P	**P**	**14 40 16.8**	**-0.5**
	comp=Z,0.8nm,0.5s,mb4.0						
ARCES	**ARCESS Array B**	**64.24**	**339**	P	**P**	**14 40 57.0**	**-1.0**
	comp=Z,2.5nm,0.5s,mb4.5,baz=60,slow=9.8,SNR=11						
ARCES	**ARCESS Array B**	**64.24**	**339**	P	**P**	**14 40 57.0**	**-1.0**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
YKA	**Yellowknife Ar**	**67.77**	**28**	P	**P**	**14 41 20.6**	**0.0**
	comp=Z,0.3nm,0.8s,mb3.4,baz=300,slow=6.7,SNR=4.2						
FINES	**FINESS Array B**	**68.41**	**331**	P	**P**	**14 41 22.9**	**-1.7**
	comp=Z,1.9nm,0.6s,mb4.3,baz=90,slow=3.8,SNR=13						
FINES	**FINESS Array B**	**68.41**	**331**	P	**P**	**14 41 23.0**	**-1.7**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	**Malin Array Be**	**73.03**	**320**	P	**P**	**14 41 51.9**	**-0.7**
	comp=Z,1.5nm,0.4s,mb4.2,baz=51,slow=6.5,SNR=11						
AKASG	**Malin Array Be**	**73.03**	**320**	P	**P**	**14 41 51.9**	**-0.8**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
HFS	**Hagfors**	**73.96**	**334**	P	**P**	**14 41 57.2**	**-0.7**
	comp=Z,2.2nm,0.7s,mb4.2,baz=45,slow=6.1,SNR=4.1						
HFS	**Hagfors**	**73.96**	**334**	P	**P**	**14 41 57.2**	**-0.7**
HFS				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NB2	**NORSAR Subarra**	**74.20**	**335**	P	**P**	**14 41 58.5**	**-0.7**
	comp=Z,1.4nm,0.7s,mb4.0,baz=45,slow=5.6						
NOA	**NORSAR Array B**	**74.20**	**335**	P	**P**	**14 41 58.7**	**-0.6**
	comp=Z,1.6nm,0.6s,mb4.1,baz=45,slow=5.7,SNR=7.9						
NOA	**NORSAR Array B**	**74.20**	**335**	P	**P**	**14 41 58.7**	**-0.5**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	**NORSAR Array B**	**74.20**	**335**	P	**P**	**14 41 58.7**	**-0.6**
BRTR	**Keskin Array B**	**76.69**	**309**	P	**P**	**14 42 14.7**	**+0.7**
	comp=Z,2.3nm,1.0s,mb4.1,baz=108,slow=3.9,SNR=6.3						
BRTR	**Keskin Array B**	**76.69**	**309**	P	**P**	**14 42 14.7**	**+0.8**
BRTR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
NVAR	**Mina Array Bea**	**79.79**	**50**	P	**P**	**14 42 32.2**	**+1.3**
	comp=Z,0.5nm,0.7s,mb3.5,baz=301,slow=5.3,SNR=3.9						
TPNV	**Topopah Spring**	**81.98**	**50**	P	**P**	**14 42 42.3**	**-0.2**
PDAR	**Pinedale Array**	**82.26**	**42**	P	**P**	**14 42 45.2**	**+1.5**
	comp=Z,0.8nm,0.8s,mb3.7,baz=315,slow=2.1,SNR=4.4						
IDI	**Anoyia**	**84.91**	**310**	P	**P**	**14 42 56.6**	**-0.8**
	comp=Z,2.2nm,0.6s,mb4.5,baz=63,slow=2.3,SNR=2.9						
LPAZ	**La Paz**	**151.59**	**55**	PKPbc	PKPdf	14 50 18.7	+4.7
	comp=Z,1.0nm,0.9s,baz=315,slow=8.6,SNR=3.1						
LPAZ	**La Paz**	**151.59**	**55**	PKIKP	PKPdf	14 50 18.7	+4.7
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						

IDC 01 14:34:02.2±2.8,6.43S×149.80E,h45^{km}±15^{km},mb3.4/3, mb1 3.7/4,mb1mx3.5/13,ML2.5/1,Error ellipse: s-maj=63.9km s-min=26.0km az=141.0,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.94**	**221**	P	P	14 35 01.2	-0.6
	2.6nm,0.3s,baz=34,slow=11,SNR=8.8						
PMG				S	S	14 35 45.5	-1.8
	2.5nm,0.3s,baz=200,slow=23,SNR=5.6						
WRA	**Warramunga Arr**	**20.14**	**227**	P	P	14 38 33.2	-2.2
	1.1nm,0.5s,baz=53,slow=11,SNR=12						
WRA				pP		14 38 43.9	
	1.3nm,0.5s,baz=53,slow=11,SNR=6.5						
ASAR	**Alice Springs**	**22.96**	**220**	P	P	14 39 02.8	-0.9
	1.1nm,1.1s,baz=53,slow=9.3,SNR=8.1						
ASAR				pP		14 39 12.6	
	0.5nm,0.6s,baz=59,slow=9.5,SNR=4.1						
STKA	**Stephens Creek**	**26.45**	**196**	P	P	14 39 34.9	-2.1
	2.9nm,1.1s,baz=24,slow=12,SNR=2.5						
STKA				pP	pP	14 39 47.8	-0.9
	2.6nm,1.0s,baz=6.3,slow=9.2,SNR=1.9						

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*IDC **01** 14:35:12.6±1.2,6.82S×149.98E,h41^{km}±8^{km},mb4.3/8, mb1 4.5/10,mb1mx4.3/16,ML3.7/2,MS3.3/3,Ms1 3.3/3, ms1mx3.1/14,Error ellipse: s-maj=32.8km s-min=12.1km az=126.0*

*NEIC **01** 14:35:14.3±2.4,6.88S×149.89E,h56^{km}±21^{km},mb4.6/4, Error ellipse: s-maj=23.6km s-min=18.3km az=139.0*

ISC 01 14:35:14.3±2.9,6.9S±0.1×149.9E±0.1,h69^{km}±23^{km},n25, σ1^{s}16/24,mb4.3/11,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.64**	**227**	P	**P**	**14 36 09.4**	**-0.2**
	39nm,0.3s,baz=63,slow=5.2,SNR=67						
PMG				S	**S**	**14 36 52.7**	**+1.2**
	70nm,0.3s,baz=197,slow=15,SNR=19						
PMG	**Port Moresby**	**3.64**	**227**	*e*P	**P**	**14 36 09.6**	**+0.1**
CTA	**Charters Tower**	**13.54**	**195**	P	**P**	**14 38 24.8**	**-0.1**
	0.2nm,0.3s,baz=15,slow=14,SNR=2.8						
CTAO	**Charters Tower**	**13.54**	**195**	P	**P**	**14 38 23.6**	**-1.2**
WRAB	**Tennant Creek**	**19.84**	**228**	*e*P	**P**	**14 39 40.9**	**-1.4**
	64nm,0.8s						
WB2	**Warramunga Arr**	**19.85**	**228**	*e*P	**P**	**14 39 41.2**	**-1.1**
WRA	**Warramunga Arr**	**19.86**	**228**	P	**P**	**14 39 42.0**	**-0.4**
	31nm,0.6s,baz=52,slow=11,SNR=54						
WRA				pP		14 39 53.5	
	11nm,0.5s,baz=53,slow=11,SNR=7.5						
WRA				pPcP		14 44 03.2	
	1.3nm,0.5s,baz=44,slow=1.9,SNR=5.4						
ASAR	**Alice Springs**	**22.63**	**221**	P	**P**	**14 40 10.7**	**+0.3**
	6.0nm,0.6s,mb4.1,baz=55,slow=9.4,SNR=60						
ASAR				LR	LR	14 48 54.2	
	comp=Z,103nm,19.0s,baz=279,slow=36						
ASPA	**Alice Springs**	**22.63**	**221**	*e*P	**P**	**14 40 10.7**	**+0.3**
STKA	**Stephens Creek**	**25.99**	**196**	*e*P	**P**	**14 40 42.5**	**0.0**
	17nm,0.8s,mb4.5						
STKA	**Stephens Creek**	**25.99**	**196**	P	**P**	**14 40 42.5**	**-0.1**
	22nm,0.8s,mb4.7,baz=4.4,slow=9.0,SNR=23						
FITZ	**Fitzroy Crossi**	**26.09**	**243**	*e*P	**P**	**14 40 44.4**	**+0.8**
	6.2nm,0.4s,mb4.4						
FITZ	**Fitzroy Crossi**	**26.09**	**243**	P	**P**	**14 40 44.3**	**+0.7**
	6.1nm,0.4s,mb4.4,baz=44,slow=5.2,SNR=29						
FITZ				pP	pP	14 40 55.1	-4.7
	9.7nm,0.6s,baz=39,slow=5.5,SNR=6.3						
MBWA	**Marble Bar**	**32.39**	**241**	P	**P**	**14 41 37.3**	**-2.5**
CMAR	**Chiang Mai Arr**	**56.21**	**298**	P	**P**	**14 44 49.9**	**-0.1**
	1.3nm,1.0s,mb3.9,baz=117,slow=6.0,SNR=6.0						
CMAR				pP	pP	14 45 00.5	-7.5
	0.5nm,0.7s,baz=126,slow=5.9,SNR=2.5						
CMAR				PcP	PcP	14 45 46.0	-0.7
	0.7nm,0.8s,baz=112,slow=4.9,SNR=5.5						
FX1	**Attu Island--F**	**62.79**	**16**	LR	LR	15 08 22.2	
	comp=Z,6.7nm,19.6s,baz=176,slow=32						
GUN	**Gumba**	**70.77**	**303**	*e*P	**P**	**14 46 25.2**	**-0.3**
DMN	**Daman**	**71.32**	**302**	*e*P	**P**	**14 46 28.0**	**-0.9**
	8.5nm,0.8s,mb4.6						
GKN	**Gorkha**	**71.84**	**302**	*e*P	**P**	**14 46 33.6**	**+1.6**
	5.9nm,0.6s,mb4.6						
KOLN	**Koldanda**	**72.64**	**302**	*e*P	**P**	**14 46 38.3**	**+1.5**
	4.2nm,0.6s,mb4.5						
QSPA	**South Pole Qui**	**83.04**	**180**	*e*P	**P**	**14 47 34.8**	**+1.7**
	4.6nm,0.8s,mb4.4						
ILAR	**Eielson Array**	**85.23**	**23**	P	**P**	**14 47 42.1**	**-2.0**
	1.6nm,0.9s,mb3.9,baz=249,slow=5.1,SNR=9.4						
ILAR				LR	LR	15 24 39.5	
	comp=Z,31nm,19.5s,baz=357,slow=35						
INK	**Inuvik**	**91.48**	**21**	P	**P**	**14 48 13.6**	**-0.4**
	10.0nm,1.6s,mb4.7,baz=181,slow=5.3,SNR=3.7						
NVAR	**Mina Array Bea**	**95.69**	**52**	P	**P**	**14 48 35.8**	**+1.9**
	0.9nm,1.0s,mb4.2,baz=243,slow=4.3,SNR=5.7						
GERES	**GERESS Array B**	**124.28**	**326**	PKP	PKPdf	14 54 07.7	+2.2
	1.0nm,0.6s,baz=45,slow=1.9,SNR=6.1						
GERES				pPKP		14 54 20.1	
	0.2nm,0.3s,baz=135,slow=1.9,SNR=1.8						

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*IDC **01** 14:35:59.9±0.9,6.57S×149.72E,h35^{km}±7^{km},mb4.2/5, mb1 4.5/7,mb1mx4.2/14,ML4.3/2,MS3.8/2,Ms1 3.9/2, ms1mx3.1/14,Error ellipse: s-maj=45.1km s-min=16.3km az=130.0*

*NEIC **01** 14:36:02.7±1.1,6.83S×149.63E,h60^{km},mb4.7/1,Error ellipse: s-maj=40.5km s-min=17.3km az=127.0*

ISC 01 14:35:58.5±1.0,6.7S±0.2×149.6E±0.2,h33^{km}, (h32^{km}±2.9^{km}:pP-P),n17,σ0^{s}92/15,mb4.2/5,MS3.9/2,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.59**	**222**	Sn	**Sn**	**14 37 41.9**	**+6.8**
	38nm,0.3s,baz=74,slow=19,SNR=3.7						
PMG	**Port Moresby**	**3.59**	**222**	P	**P**	**14 36 52.2**	**-0.9**
CTA	**Charters Tower**	**13.67**	**193**	Pn	**P**	**14 39 12.6**	**+0.1**
	0.3nm,0.3s,baz=14,slow=11,SNR=2.3						
CTA	**Charters Tower**	**13.67**	**193**	Pn	**P**	**14 39 12.6**	**+0.1**
WRAB	**Tennant Creek**	**19.78**	**227**	*e*P	**P**	**14 40 28.3**	**-0.6**
	40nm,0.9s						
WB2	**Warramunga Arr**	**19.78**	**227**	*e*P	**P**	**14 40 27.9**	**-1.0**
WRA	**Warramunga Arr**	**19.79**	**227**	P	**P**	**14 40 28.9**	**-0.1**
	1.9nm,0.3s,baz=52,slow=11,SNR=9.4						
WRA				pP		14 40 39.7	
	1.6nm,0.3s,baz=51,slow=11,SNR=4.9						
WRA	**Warramunga Arr**	**19.79**	**227**	P	**P**	**14 40 28.9**	**-0.1**
WRA				pP		14 40 39.7	
ASAR	**Alice Springs**	**22.60**	**220**	P	**P**	**14 40 59.5**	**+1.9**
	4.5nm,0.7s,mb4.0,baz=52,slow=10,SNR=7.6						
ASAR				pP		14 41 09.1	
	7.2nm,0.9s,baz=53,slow=9.3,SNR=2.7						
ASAR	**Alice Springs**	**22.60**	**220**	P	**P**	**14 40 59.5**	**+1.9**
ASAR				pP		14 41 09.1	
ASAR				LR	LR	14 48 54.2	
FITZ	**Fitzroy Crossi**	**25.94**	**242**	P	**P**	**14 41 31.3**	**+1.4**
	5.0nm,0.4s,mb4.4,baz=51,slow=5.8,SNR=2.4						
FITZ				pP	pP	14 41 42.1	+2.8
	16nm,0.8s,baz=40,slow=3.4,SNR=3.3						
STKA	**Stephens Creek**	**26.11**	**196**	P	**P**	**14 41 31.3**	**-0.1**
	38nm,1.2s,mb4.8,baz=17,slow=12,SNR=6.8						
STKA	**Stephens Creek**	**26.11**	**196**	P	**P**	**14 41 31.3**	**-0.1**
URZ	**Urewera**	**40.08**	**146**	LR	LR	14 56 01.8	
	comp=Z,108nm,21.6s,MS3.7,baz=224,slow=30						
ILAR	**Eielson Array**	**85.15**	**23**	P	**P**	**14 48 31.2**	**-1.0**
	0.7nm,0.7s,mb3.9,baz=257,slow=5.0,SNR=3.0						
ILAR				pP	pP	14 48 40.4	-2.4
	1.2nm,0.8s,baz=251,slow=5.0,SNR=3.8						
NVAR	**Mina Array Bea**	**95.78**	**52**	P	**P**	**14 49 23.4**	**+0.6**
	0.6nm,0.7s,mb4.1,baz=254,slow=6.6,SNR=3.0						
NVAR				pP	pP	14 49 33.8	+0.3
	2.0nm,1.0s,baz=259,slow=3.8,SNR=4.8						
NVAR				LR	LR	15 31 27.4	
	comp=Z,61nm,18.3s,MS4.1,baz=140,slow=35						
GERES	**GERESS Array B**	**123.95**	**326**	pPKP		14 55 05.9	
	1.1nm,0.7s,baz=45,slow=1.4,SNR=3.2						

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*IDC **01** 14:40:25.5±1.7,6.67S×149.98E,mb4.0/5,mb1 4.3/6, mb1mx4.1/14,ML3.0/1,Error ellipse: s-maj=60.7km s-min=24.6km az=127.0*

*NEIC **01** 14:40:26.8±1.0,6.88S×150.20E,h10^{km},mb4.4/2,Error ellipse: s-maj=38.3km s-min=14.3km az=130.0*

ISC 01 14:40:28.1±1.1,6.9S±0.2×150.3E±0.2,h33^{km},n12, σ0^{s}84/14,mb3.8/4,1D,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.94**	**231**	Pn	**Pn**	**14 41 28.5**	**+0.7**
	8.1nm,0.3s,baz=62,slow=6.9,SNR=32						
PMG				Sn	**Sn**	**14 42 14.4**	**+1.0**
	33nm,0.3s,baz=47,slow=23,SNR=6.0						
PMG	**Port Moresby**	**3.94**	**231**	*e*P	**P**	**14 41 28.1**	**+0.4**
PMG				Sn	**Sn**	**14 42 14.4**	**+1.0**
WRAB	**Tennant Creek**	**20.14**	**228**	*e*P	**P**	**14 45 00.9**	**-1.4**
	28nm,1.0s						
WB2	**Warramunga Arr**	**20.14**	**228**	⇓*i*P	**P**	**14 45 01.3**	**-1.1**
WRA	**Warramunga Arr**	**20.15**	**228**	P	**P**	**14 45 01.4**	**-1.0**
	12nm,0.7s,baz=51,slow=10,SNR=30						
ASAR	**Alice Springs**	**22.89**	**222**	P	**P**	**14 45 30.4**	**+0.2**
	1.8nm,0.6s,mb3.7,baz=55,slow=9.3,SNR=11						
ASPA	**Alice Springs**	**22.89**	**222**	*e*P	**P**	**14 45 30.5**	**+0.3**
STKA	**Stephens Creek**	**26.11**	**197**	P	**P**	**14 46 01.4**	**+0.4**
	2.1nm,0.4s,mb4.0,baz=1.8,slow=16,SNR=3.4						
FITZ	**Fitzroy Crossi**	**26.43**	**243**	*e*P	**P**	**14 46 03.4**	**-0.7**
	4.7nm,0.6s,mb4.2						
FITZ	**Fitzroy Crossi**	**26.43**	**243**	P	**P**	**14 46 03.4**	**-0.7**
	1.5nm,0.5s,mb3.8,baz=42,slow=8.6,SNR=6.8						
ILAR	**Eielson Array**	**85.07**	**23**	P	**P**	**14 53 02.7**	**+1.2**
	0.4nm,0.6s,mb3.7,baz=248,slow=4.8,SNR=5.0						
ILAR	**Eielson Array**	**85.07**	**23**	P	**P**	**14 53 02.7**	**+1.2**

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*IDC **01** 14:40:50.3±1.4,6.63S×149.73E,h40^{km}±11^{km},mb4.0/5, mb1 4.4/7,mb1mx4.1/14,ML4.1/2,Error ellipse: s-maj=61.3km s-min=18.7km az=128.0*

*NEIC **01** 14:40:51.0±2.8,6.75S×149.73E,h41^{km}±23^{km},mb4.6/1, Error ellipse: s-maj=38.3km s-min=19.8km az=135.0*

ISC 01 14:40:49.1±3.6,6.6S±0.3×149.7E±0.3,h46^{km}±30^{km},n11, σ0^{s}95/12,mb4.1/5,1D,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.73**	**221**	Pn	**P**	**14 41 45.2**	**-0.5**
	21nm,0.3s,baz=48,slow=10,SNR=10						
PMG				Sn	**S**	**14 42 29.9**	**+1.1**
	43nm,0.3s,baz=135,slow=21,SNR=7.2						
PMG	**Port Moresby**	**3.73**	**221**	*e*P	**P**	**14 41 45.3**	**-0.4**
PMG				Sn	**S**	**14 42 29.9**	**+1.1**
WRAB	**Tennant Creek**	**19.92**	**227**	*e*P	**P**	**14 45 18.7**	**-1.0**
	28nm,0.8s						
WB2	**Warramunga Arr**	**19.92**	**227**	⇓*i*P	**P**	**14 45 19.2**	**-0.6**
WRA	**Warramunga Arr**	**19.93**	**227**	P	**P**	**14 45 19.0**	**-0.8**
	1.9nm,0.3s,baz=53,slow=11,SNR=20						
WRA				pP		14 45 30.0	
	2.0nm,0.3s,baz=53,slow=11,SNR=5.1						
ASAR	**Alice Springs**	**22.74**	**220**	P	**P**	**14 45 48.6**	**+0.2**
	3.5nm,0.6s,mb3.9,baz=55,slow=9.3,SNR=12						
FITZ	**Fitzroy Crossi**	**26.06**	**242**	P	**P**	**14 46 21.3**	**+1.0**
	4.5nm,0.5s,mb4.3,baz=50,slow=4.9,SNR=8.3						
FITZ				pP	pP	14 46 31.4	-0.8
	11nm,0.6s,baz=99,slow=3.6,SNR=6.3						
STKA	**Stephens Creek**	**26.25**	**196**	P	**P**	**14 46 21.5**	**-0.4**
	5.2nm,0.5s,mb4.3,baz=23,slow=19,SNR=5.0						
ILAR	**Eielson Array**	**85.00**	**23**	P	**P**	**14 53 19.8**	**-0.7**
	0.6nm,0.7s,mb3.8,baz=254,slow=4.6,SNR=6.1						
NVAR	**Mina Array Bea**	**95.65**	**52**	P	**P**	**14 54 13.2**	**+2.1**
	0.4nm,0.7s,mb3.9,baz=260,slow=5.5,SNR=2.5						
GERES	**GERESS Array B**	**123.88**	**326**	PKP	PKPdf	14 59 44.8	+2.5
	0.4nm,0.2s,baz=27,slow=2.2,SNR=3.8						
GERES				pPKP		14 59 56.8	
	0.7nm,0.7s,baz=45,slow=1.9,SNR=1.8						

NEIC 01 15:14:28.5,51.41N×177.45W,h30^{km},mb3.9/1, ML3.9(AEIC),After AEIC.,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIMD	**Kanaga Island**	**0.38**	**20**	P	Pb	15 14 36.5	-0.5
KIWB	**Kanaga Island**	**0.48**	**22**	P	Pb	15 14 37.8	-0.8
KIKV	**Kanaga Island**	**0.50**	**20**	P	Pb	15 14 38.1	-0.8
ADAG	**Mount Adagdak**	**0.78**	**42**	P	Pb	15 14 42.0	-1.5
GSTD	**Great Sitkin T**	**1.04**	**51**	P	Pn	15 14 45.8	-1.4
GSMY	**Great Sitkin M**	**1.07**	**53**	P	Pn	15 14 46.3	-1.4
GSTR	**Great Sitkin T**	**1.10**	**51**	P	Pn	15 14 47.0	-1.1
GSIG	**Igitkin Island**	**1.11**	**58**	P	Pn	15 14 46.9	-1.4
GSIG				S	Sn	15 15 01.1	-1.6
ATKA	**Atka Island**	**2.17**	**67**	P	Pn	15 15 02.0	-1.4
ATKA				S	Sn	15 15 27.2	-2.4
NIKO	**Nikolski**	**5.51**	**70**	P	Pn	15 15 48.7	-2.2
PMR	**Palmer**	**18.50**	**46**	*e*P	P	15 18 40.4	-3.7
	12nm,1.3s						

WEL 01 15:16:56.5±0.9,35.30S×178.14E,h33^{km},ML3.5/1,Error ellipse: s-maj=13.0km s-min=6.0km az=90.0,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	**Puketiti**	**2.77**	**178**	*e*PN	Pn	15 17 38.3	-1.4
PUZ				*e*SN	Sn	15 18 08.5	-3.9
URZ	**Urewera**	**3.07**	**195**	*e*P*	Pb	15 17 42.7	-7.6
URZ				S*	Sb	15 18 18.7	-8.9
MWZ	**Matawai**	**3.07**	**189**	*e*P*	Pb	15 17 42.7	-7.6
MWZ				*e*S*	Sb	15 18 17.7	-10

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*NEIC **01** 15:19:48.3±2.1,2.72S×118.39E,h10^{km},mb4.2/1,Error ellipse: s-maj=81.2km s-min=17.1km az=73.0*

IDC 01 15:19:42.8±7.0,2.72S×117.62E,mb4.2/3,mb1 4.3/4, mb1mx3.9/16,ML3.4/1,Error ellipse: s-maj=179.0km s-min=105.8km az=56.0,Borneo

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**17.19**	**153**	P	P	15 23 44.6	-1.5
	0.1nm,0.3s,baz=347,slow=14,SNR=3.5						
WRA	**Warramunga Arr**	**23.65**	**138**	P	P	15 24 55.2	-1.7

	1.9nm,0.4s,baz=315,slow=11,SNR=15						
WRAB	**Tennant Creek**	**23.65**	**138**	*e*P	P	15 24 55.1	-1.7
	4.5nm,0.6s						
WB2	**Warramunga Arr**	**23.66**	**138**	*e*P	P	15 24 55.1	-1.8
WB2				*i*		15 25 07.1	
ASPA	**Alice Springs**	**26.11**	**144**	*e*P	P	15 25 18.4	-1.9
ASPA				*i*		15 25 35.9	
ASAR	**Alice Springs**	**26.11**	**144**	P	P	15 25 18.2	-2.1
	3.3nm,0.8s,baz=319,slow=8.4,SNR=34						
STKA	**Stephens Creek**	**36.74**	**145**	P	P	15 26 53.1	-0.8
	3.2nm,0.5s,baz=346,slow=6.7,SNR=8.7						

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*IDC **01** 15:20:38.3±5.1, 6.77S×149.94E, h51^{km}±44^{km}, mb4.0/5, mb1 4.3/7, mb1mx3.9/15, ML3.4/2, MS2.8/1, Ms1 2.8/1, ms1mx2.4/11, Error ellipse: s-maj=46.7km s-min=29.8km az=130.0*

ISC 01 15:20:38.1±3.7**, 6.9S**±0.2×**150.0E**±0.2**, h63**^{km}±30^{km}**, n9, σ0^{s}.40**/10**, mb4.1**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.75**	**227**	P	**P**	**15 21 34.6**	**-0.4**
	17nm,0.3s,baz=54,slow=7.4,SNR=64						
PMG				S	**S**	**15 22 18.7**	**+0.4**
	10nm,0.3s,baz=75,slow=21,SNR=8.9						
CTA	**Charters Tower**	**13.63**	**195**	P	**P**	**15 23 50.4**	**+0.2**
	0.2nm,0.3s,baz=30,slow=14,SNR=2.4						
CTA				LR	LR	15 28 41.8	
	comp=Z,38nm,19.2s,baz=243,slow=35						
WRA	**Warramunga Arr**	**19.98**	**228**	P	**P**	**15 25 07.1**	**-0.8**
	18nm,0.7s,baz=52,slow=11,SNR=104						
ASAR	**Alice Springs**	**22.74**	**221**	P	**P**	**15 25 36.0**	**+0.2**
	2.7nm,0.6s,mb3.9,baz=54,slow=9.6,SNR=39						
STKA	**Stephens Creek**	**26.09**	**196**	*e*P	**P**	**15 26 07.4**	**-0.4**
	2.8nm,0.4s,mb4.2						
STKA	**Stephens Creek**	**26.09**	**196**	P	**P**	**15 26 07.8**	**0.0**
	4.0nm,0.5s,mb4.2,baz=26,slow=13,SNR=16						
FITZ	**Fitzroy Crossi**	**26.21**	**243**	*e*P	**P**	**15 26 09.2**	**+0.2**
	2.9nm,0.4s,mb4.2						
FITZ	**Fitzroy Crossi**	**26.21**	**243**	P	**P**	**15 26 09.1**	**+0.1**
	4.1nm,0.5s,mb4.2,baz=32,slow=8.2,SNR=15						
ILAR	**Eielson Array**	**85.12**	**23**	P	**P**	**15 33 08.5**	**+0.3**
	1.3nm,1.0s,mb4.0,baz=244,slow=4.8,SNR=7.2						

MAN 01 15:39:21.7, 11.25N×124.61E, mb4.5, ML3.3, MS3.2, 1D, Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OCLP	**Ormoc**	**0.20**	**179**	*e*P	Pg	15 39 26.1	+0.5
OCLP				*e*S	Sg	15 39 28.7	+0.3
BESP	**Borongan**	**0.89**	**67**	*e*P	Pg	15 39 39.0	-0.5
BESP				*e*S	Sg	15 39 51.2	0.0
LLP	**Lapu-Lapu**	**1.12**	**214**	*e*P	Pb	15 39 41.7	-1.9
LLP				*i* S	Sb	15 39 57.1	-1.6
MSLP	**Maasin**	**1.14**	**167**	*e*P	Pb	15 39 42.8	-1.1
SCPH	**Surigao**	**1.70**	**149**⇓	*e*P	Pn	15 39 53.0	+0.2
TBP	**Tagbilaran**	**1.71**	**205**	*e*P	Pn	15 39 52.1	-0.9
TBP				*e*S	Sb	15 40 16.2	+0.4
GUIM	**Jordan**	**2.08**	**253**	*e*P	Pn	15 39 58.4	+0.2
GUIM				*e*S	Sn	15 40 27.1	+2.0

CASC 01 15:49:00.0±2.6**, 13.89N×90.90W, h99**^{km}±13^{km}**, MD3.8, ML4.1, 7C-8D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IXG	**Ixpaco**	**0.51**	**57**⇓	*e*P	P	15 49 15.9	-0.1
IXG				*e*S	S	15 49 27.9	0.0
FUG	**Fuego 3**	**0.56**	**6**⇓	*i*P	P	15 49 16.2	-0.2
FUG				*e*S	S	15 49 29.3	+0.8
PCG	**Pacaya**	**0.57**	**29**⇓	*e*P	P	15 49 16.7	+0.2
NBG	**Las Nubes**	**0.88**	**38**⇓	*e*P	P	15 49 19.5	+0.2
NBG				*e*S	S	15 49 37.2	+3.5
CUSS	**Cusmapa**	**0.92**	**89**⇓	*e*P	P	15 49 19.7	-0.1
CUSS				*e*S	S	15 49 35.7	+1.1
RBDL	**Robledal**	**1.20**	**79**⇑	*e*P	P	15 49 23.0	0.0
RBDL				*e*S	S	15 49 40.2	0.0
RTR	**El Retiro**	**1.22**	**90**⇑	*e*P	P	15 49 23.6	+0.4
RTR				*e*S	S	15 49 44.3	+3.6
SBLS	**San Blas**	**1.24**	**92**⇑	*e*P	P	15 49 23.9	+0.4
SBLS				*e*S	S	15 49 42.0	+0.9
SNJE	**San Jose**	**1.25**	**91**⇑	*e*P	P	15 49 24.3	+0.6
SNJE				*e*S	S	15 49 42.9	+1.5
MTO2	**Montecristo 2**	**1.57**	**71**⇓	*e*P	P	15 49 27.3	-0.2
MTO2				*e*S	S	15 49 49.3	+1.3
BOQS	**Boqueron**	**1.58**	**95**⇑	*e*P	P	15 49 28.0	+0.4
BOQS				*e*S	S	15 49 48.0	-0.1
MRL	**Marmol**	**1.65**	**45**⇓	*e*P	P	15 49 28.8	+0.2
MRL				*e*S	S	15 49 50.1	+0.4
LFU	**La Fuente**	**1.74**	**94**⇑	*e*P	P	15 49 30.2	+0.6
LFRS	**El Faro**	**1.80**	**98**⇓	*e*P	P	15 49 32.4	+1.9
LFRS				*e*S	S	15 49 54.8	+1.8
LBRS	**Las Brisas**	**1.81**	**95**	*e*P	P	15 49 31.0	+0.5
LBRS				*e*S	S	15 49 54.4	+1.3
LCBS	**La Ceiba**	**1.88**	**97**⇑	*e*P	P	15 49 31.6	+0.1
LCBS				*e*S	S	15 49 53.4	-1.4
SNVI	**San Vicente**	**2.02**	**98**	*e*P	P	15 49 33.8	+0.6
SNVI				*e*S	S	15 49 58.4	+0.4

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*TIR **01** 16:04:37.5, 41.82N×19.74E, h23^{km}, Ml2.6*

*CSEM **01** 16:04:37.5±0.1, 41.82N×19.76E, h25^{km}, ML2.6, Error ellipse: s-maj=2.3km s-min=1.5km az=65.0*

*PDG **01** 16:04:39.2±0.1, 41.88N×19.75E, h12^{km}*

ISC 01 16:04:39.2±0.4**, 41.81N**±0.03×**19.75E**±0.04**, h16**^{km}±6^{km}**, n20, σ1^{s}.12**/38**, 5C-5D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LACI	**Lac**	**0.17**	**190**	*i* Pg	**Pb**	**16 04 42.7**	**-0.9**
LACI				*i* Sg	**Sb**	**16 04 46.8**	**+0.1**
PUK	**Puka**	**0.26**	**24**	*i* Pg	**Pb**	**16 04 44.0**	**-1.0**
PUK				*i* Sg	**Sb**	**16 04 49.0**	**+0.2**
SDA	**Shkodra**	**0.31**	**322**	*i* Pg	**Pb**	**16 04 44.9**	**-0.9**
SDA				*i* Sg	**Sb**	**16 04 50.2**	**-0.1**
QSH	**Qafa e Shtames**	**0.31**	**158**	*i* Pg	**Pb**	**16 04 45.8**	**0.0**
QSH				*i* Sg	**Sb**	**16 04 50.8**	**+0.4**
ULC	**Ulcinj**	**0.41**	**293**⇑	*i*Pg	**Pb**	**16 04 46.5**	**-1.0**
ULC				*e*Sg	**Sb**	**16 04 53.0**	**-0.1**
TIR	**Tirane**	**0.47**	**169**	*i* Pg	**Pb**	**16 04 47.5**	**-1.1**
TIR				*i* Sg	**Sb**	**16 04 56.0**	**+1.1**
TTG	**Podgorica**	**0.72**	**330**⇑	*i*Pg	**Pb**	**16 04 51.4**	**-1.4**
TTG				*e*Sg	**Sb**	**16 05 02.0**	**-0.2**
BUM	**Brajici-Budva**	**0.80**	**308**	*e*Pg	**Pb**	**16 04 53.1**	**-1.2**
BUM				*e*Sg	**Sb**	**16 05 05.5**	**+0.8**
OHR	**Ohrid**	**1.05**	**131**	*e*Pn	**Sb**	**16 05 14.1**	**+2.3**
IVA	**Berane**	**1.07**	**6**⇑	*i*Pg	**Pb**	**16 04 57.6**	**-1.2**
IVA				*e*Sg	**Sb**	**16 05 13.3**	**+1.0**
HCY	**Herceg Novi**	**1.13**	**305**⇑	*i*Pg	**Pb**	**16 04 59.4**	**-0.5**
HCY				*e*Sg	**Sb**	**16 05 16.4**	**+2.3**
NKY	**Niksic**	**1.15**	**331**	*e*Pg	**Pb**	**16 04 59.3**	**-0.8**
NKY				*e*Sg	**Sb**	**16 05 16.7**	**+2.1**
SKO	**Skopje**	**1.27**	**82**⇑	*i*Pg	**Pn**	**16 05 02.0**	**-0.3**
SKO				*i* Sg	**Sb**	**16 05 19.2**	**+1.0**
BRY	**Bratogost**	**1.41**	**321**⇓	*i*Pg	**Pn**	**16 05 04.0**	**-0.3**
BRY				*e*Sg	**Sb**	**16 05 25.4**	**+3.2**
BRY	**Bratogost**	**1.41**	**321**	*e*Sg	**Sb**	**16 05 25.4**	**+3.1**
UPM	**Unac-Piva**	**1.53**	**336**	*e*Pg	**Pn**	**16 05 06.2**	**+0.3**
UPM				*e*Sg	**Sn**	**16 05 28.0**	**+2.4**
NVSS	**Nova Varos 2**	**1.70**	**359**⇓	*i*Pg	**Pn**	**16 05 09.8**	**+1.3**
NVSS				Sg	**Sn**	**16 05 22.5**	**-7.5**
GRUS	**Gruza**	**2.20**	**19**⇓	*i*Pg	**Pn**	**16 05 14.4**	**-1.2**
GRUS				Sg	**Sn**	**16 05 29.5**	**-13**
DIVS	**Divcibare**	**2.29**	**4**⇓	*i*Pg	**Pn**	**16 05 16.1**	**-0.9**
DIVS				Sg	**Sn**	**16 05 39.5**	**-5.6**
BOLS	**Boljevac**	**2.59**	**38**⇓	*i*Pg	**Pn**	**16 05 19.9**	**-1.4**
BOLS				Sg	**Sn**	**16 05 41.4**	**-11**

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*JMA **01** 16:11:36.2±0.3, 24.40N×122.26E, h8^{km}, M3.0*

TAP 01 16:11:34.5, 24.88N×122.28E, h5^{km}**, ML3.3, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.79**	**122**	P	Pg	16 11 49.4	-0.8
YOJ				S	Sg	16 11 58.8	-1.9
IRIF	**Iriomote-Funau**	**1.43**	**112**	P	Pn	16 12 01.1	-0.1
IRIF				S	Sb	16 12 18.5	-1.2
HATJ	**Hateruma jima**	**1.61**	**120**	*e*S	Sb	16 12 20.3	-4.8
JKRS	**Kuro-shima**	**1.70**	**112**	P	Pn	16 12 05.7	+0.6
JKRS				*e*S	Sn	16 12 25.0	-2.5
JIJ	**Ishigaki jima**	**1.77**	**106**	P	Pn	16 12 06.1	0.0
JIJ				*e*S	Sn	16 12 26.1	-3.2

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*CSEM **01** 16:13:01.5±0.4, 38.92N×28.08W, h30^{km}, ML3.0, Error ellipse: s-maj=58.7km s-min=6.2km az=118.0*

*PDA **01** 16:13:02.9±1.0, 38.80N×27.77W, h5^{km}±6^{km}, MD2.3, ML3.0, Error ellipse: s-maj=12.6km s-min=3.1km az=107.0*

SVSA 01 16:13:02.9±1.0**, 38.80N×27.77W, h5**^{km}±6^{km}**, MD2.3, ML3.0, Error ellipse: s-maj=12.6km s-min=3.1km az=107.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMAN	**Manadas**	**0.30**	**236**	*i* P	Pg	16 13 08.2	-0.8
PMAN				*i* S	Sg	16 13 12.7	-0.4
	2µm,0.1s						
STGR	**Santa Cruz**	**0.33**	**327**	*e*P	Pg	16 13 08.8	-0.8
STGR				*i* S	Sg	16 13 13.8	-0.3
	225nm,0.1s						
STGR	**Santa Cruz**	**0.33**	**327**	*e*P	Pg	16 13 08.8	-0.8
STGR				*i* S	Sg	16 13 13.8	-0.3
	225nm,0.1s						
ROSA	**Rosais**	**0.38**	**258**	*e*P	Pg	16 13 09.7	-0.8
ROSA				*e*S	Sg	16 13 14.4	-1.2
PICO	**Pico**	**0.60**	**240**	*e*P	Pg	16 13 13.4	-1.4
PICO				*e*S	Sg	16 13 21.1	-1.7
HOR	**Horta**	**0.73**	**248**	*e*S	Sg	16 13 23.9	-3.3
PCED	**Cedros**	**0.75**	**257**	*e*S	Sg	16 13 24.3	-3.6
	234nm,0.4s						
CALA	**Caldeira**	**0.76**	**254**	*e*S	Sg	16 13 24.9	-3.5

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*PRU **01** 16:29:47.2, 51.50N×16.03E*

WAR 01 16:29:47.3, 51.56N×16.01E, h1^{km}**, ML2.7, Mining Induced, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.74**	**166**	*e*PG	Pg	16 30 01.0	-1.1
KSP				*e*SG	Sg	16 30 10.0	-2.0
UPC	**Upice**	**1.06**	**180**	*e*PG	Pg	16 30 06.7	-1.7
DPC	**Dobruska-Polom**	**1.23**	**171**	*e*PG	Pg	16 30 09.4	-2.5
DPC				*e*SG	Sg	16 30 24.7	-3.6
	42nm,0.7s						
PVCC	**Panska Ves**	**1.38**	**222**	*e*PG	Pg	16 30 12.7	-2.1
PRU	**Pruhonice**	**1.83**	**211**	PG	Pg	16 30 20.0	-3.8
PRU				SG	Sg	16 30 43.8	-4.4
	12nm,0.4s						
CLL	**Collm**	**1.90**	**263**	*e*PG	Pg	16 30 22.0	-3.2
CLL				*i*		16 30 25.8	
CLL				*e*SG	Sg	16 30 48.0	-2.5
OKC	**Ostrava-Krasne**	**2.20**	**141**	*e*SG	Sg	16 30 55.7	-4.8
NKC	**Novy Kostel**	**2.62**	**241**	*e*PN	Pn	16 30 29.8	-1.6
NKC				*e*PG	Pg	16 30 35.7	-3.9
NKC				*e*SG	Sg	16 31 09.7	-4.7
KHC	**Kasperske Hory**	**2.89**	**214**	*e*PG	Pg	16 30 39.7	-5.3
KHC				*e*x	x	16 31 11.0	
KHC				*e*SG	Sg	16 31 17.8	-5.7

CASC 01 16:33:01.6±2.0**, 11.59N×88.18W, h31**^{km}±13^{km}**, MD3.8, 8C-8D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PYN	**Poneloya**	**1.38**	**55**⇑	*e*P	Pn	16 33 24.7	-0.4
LEON	**Leon**	**1.50**	**57**⇑	*e*P	Pn	16 33 26.2	-0.7
CRIN	**San Cristobal**	**1.56**	**45**⇓	*e*P	Pn	16 33 27.8	0.0
TEL3	**Telica 3**	**1.63**	**53**⇑	*e*P	Pn	16 33 28.1	-0.6
TELN	**Telica**	**1.66**	**53**⇓	*e*P	Pn	16 33 28.4	-0.7
COPN	**Copaltepe**	**1.66**	**69**⇓	*e*P	Pn	16 33 28.3	-0.8
COPN				*e*S	Sn	16 33 48.8	-0.9
MIRN	**Miramar**	**1.67**	**60**⇓	*e*P	Pn	16 33 28.2	-1.0
CNCH	**Conchagua**	**1.71**	**11**⇑	*e*P	Pn	16 33 29.7	-0.1
CNCH				*e*S	Sn	16 33 52.2	+1.5
CNGN	**Cerro Negro**	**1.71**	**58**⇓	*e*P	Pn	16 33 28.9	-0.9
MOMJ	**Momotombo**	**1.80**	**63**⇑	*e*P	Pn	16 33 30.2	-1.0
VSM	**San Miguel**	**1.82**	**357**⇓	*e*P	Pn	16 33 31.9	+0.5
VSM				*e*S	Sn	16 33 54.0	+0.2
BLLM	**Bellamira**	**1.84**	**358**⇑	*e*P	Pn	16 33 31.6	-0.1
BLLM				*e*S	Sn	16 33 53.6	-0.5
APYN	**Apoyeque**	**1.90**	**70**⇓	*e*P	Pn	16 33 31.6	-1.0
APYN				*e*S	Sn	16 33 56.3	+0.5
TICN	**Ticuantepe**	**1.96**	**77**⇓	*e*P	Pn	16 33 33.1	-0.3
TICN				*e*S	Sn	16 33 56.8	-0.3
WILN	**Americas 2**	**2.03**	**74**	*e*P	Pn	16 33 32.8	-1.7
WILN				*e*S	Sn	16 33 59.6	+0.5
SNVI	**San Vicente**	**2.11**	**342**	*e*P	Pn	16 33 33.6	-1.9
SNVI				*e*S	Sn	16 34 01.2	+0.3
LCBS	**La Ceiba**	**2.19**	**339**⇑	*e*P	Pn	16 33 36.0	-0.7
LCBS				*e*S	Sn	16 34 03.2	+0.1
LFRS	**El Faro**	**2.19**	**337**	*e*P	Pn	16 33 35.9	-0.9
LFRS				*e*S	Sn	16 34 03.0	-0.1
SNJE	**San Jose**	**2.65**	**329**	*e*P	Pn	16 33 42.1	-1.2
RTR	**El Retiro**	**2.70**	**328**	*e*P	Pn	16 33 43.5	-0.4
RTR				*e*S	Sn	16 34 15.9	0.0
JCR	**Jicaral**	**3.48**	**120**	*e*P	Pn	16 33 54.1	-1.0
JCR				*e*S	Sn	16 34 32.8	-3.0
PRS1	**Puriscal**	**4.13**	**112**	*e*P	Pn	16 34 04.1	-0.2
LAJ	**Bijagual**	**4.35**	**113**	*e*P	Pn	16 34 00.0	-7.4
LCR2	**La Lucha 2**	**4.50**	**114**	*e*P	Pn	16 34 09.9	+0.3
URSC	**Urasca**	**4.67**	**112**	*e*P	Pn	16 34 12.5	+0.6
URSC				*e*S	Sn	16 35 04.6	-1.2
BUS	**Buena Vista**	**4.80**	**115**⇑	*e*P	Pn	16 34 14.2	+0.4
BUS				*e*S	Sn	16 35 10.0	+0.9

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*IDC **01** 16:37:51.1±0.8, 3.41S×135.46E, mb4.2/6, mb1 4.4/10, mb1mx4.3/15, ML3.9/4, MS3.4/3, Ms1 3.4/3, ms1mx3.1/16, Error ellipse: s-maj=35.2km s-min=18.1km az=68.0*

*BJI **01** 16:37:54.3, 3.40S×135.30E, h10^{km}, mb4.6*

*NEIC **01** 16:37:54.4±0.5, 3.43S×135.32E, h10^{km}, mb4.2/8, Error ellipse: s-maj=11.8km s-min=7.3km az=79.0*

ISC 01 16:37:54.7±1.7**, 3.67S**±0.06×**135.39E**±0.09**, h40**^{km}±16^{km}**, n33, σ1^{s}.03**/38**, mb4.4**/15**, MS3.9**/1**, 1C, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.45**	**198**	*e*P	**P**	**16 40 11.8**	**+0.6**
	45nm,0.5s						
PMG	**Port Moresby**	**13.00**	**117**	Pn	**P**	**16 40 59.9**	**+0.4**
	0.7nm,0.3s,baz=298,slow=7.6,SNR=8.9						
PMG				Sn	**S**	**16 43 18.7**	**-5.0**
	0.3nm,0.3s,baz=191,slow=21,SNR=2.7						
WRAB	**Tennant Creek**	**16.20**	**184**	*e*P	**P**	**16 41 39.0**	**-2.1**
	38nm,0.7s						
WB2	**Warramunga Arr**	**16.21**	**184**	*e*P	**P**	**16 41 39.0**	**-2.2**
WB2				*i*		16 41 46.5	
WB2				*e*S	**S**	**16 44 34.0**	**-5.3**
WRA	**Warramunga Arr**	**16.21**	**184**	Pn	**P**	**16 41 39.4**	**-1.8**
	0.5nm,0.3s,baz=356,slow=13,SNR=20						
WRA				Sn	**S**	**16 44 34.0**	**-5.3**
	0.9nm,0.3s,baz=6.2,slow=22,SNR=8.3						
FITZ	**Fitzroy Crossi**	**17.23**	**213**	*e*P	**P**	**16 41 54.8**	**+0.7**
	12nm,0.8s						
FITZ				*e*S	**S**	**16 44 56.7**	**-6.1**
FITZ	**Fitzroy Crossi**	**17.23**	**213**	P	**P**	**16 41 54.9**	**+0.8**
	0.4nm,0.3s,baz=22,slow=11,SNR=13						
FITZ				S	**S**	**16 44 57.1**	**-5.7**
	1.0nm,0.3s,baz=178,slow=13,SNR=5.0						
FITZ				LR	LR	16 49 15.4	
	comp=Z,49nm,18.9s,baz=61,slow=39						
CTA	**Charters Tower**	**19.45**	**148**	*e*P	**P**	**16 42 22.2**	**+1.3**
	6.5nm,0.6s						
CTA	**Charters Tower**	**19.45**	**148**	P	**P**	**16 42 20.0**	**-0.9**
	0.5nm,0.3s,baz=323,slow=12,SNR=12						
CTA				S	**S**	**16 45 52.7**	**-0.2**
	0.1nm,0.3s,baz=53,slow=21,SNR=3.0						
CTAO	**Charters Tower**	**19.45**	**148**	*e*P	**P**	**16 42 22.2**	**+1.3**
	9.1nm,0.7s						
ASAR	**Alice Springs**	**19.93**	**184**	P	**P**	**16 42 28.2**	**+2.2**
	49nm,0.7s,baz=10,slow=11,SNR=209						
ASAR				S	**S**	**16 46 07.7**	**+4.6**
	2.8nm,0.8s,baz=2.0,slow=25,SNR=5.1						
ASAR				LR	LR	16 49 42.4	
	comp=Z,79nm,21.8s,baz=2.3,slow=35						
ASPA	**Alice Springs**	**19.93**	**184**⇑	*i*P	**P**	**16 42 28.1**	**+2.0**
ASPA				*e*S	**S**	**16 46 02.6**	**-0.5**
MBWA	**Marble Bar**	**23.11**	**220**	*e*P	**P**	**16 43 02.4**	**+4.2**
	4.8nm,0.7s,mb4.0						
STKA	**Stephens Creek**	**28.66**	**169**	P	**P**	**16 43 51.6**	**+1.6**
	1.7nm,0.4s,mb4.1,baz=345,slow=7.2,SNR=6.5						
CMAR	**Chiang Mai Arr**	**42.10**	**303**	P	**P**	**16 45 45.4**	**+0.5**
	0.5nm,0.8s,mb3.2,baz=116,slow=6.3,SNR=4.1						
RPZ	**Rata Peaks**	**50.83**	**147**	LR	LR	17 06 53.3	
	comp=Z,111nm,18.5s,MS3.9,baz=304,slow=34						
GTA	**Gaotai**	**53.94**	**326**	*e*P	**P**	**16 47 17.0**	**+0.2**
GTA				AP	pP	16 47 22.7	-5.7
GTA				XP	sP	16 47 25.3	-7.8
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.2						
GUN	**Gumba**	**57.05**	**307**	*e*P	**P**	**16 47 39.3**	**-0.2**
	comp=Z,14nm,0.7s,mb5.1						
PKI	**Pulchoki**	**57.29**	**306**	*e*P	**P**	**16 47 40.9**	**-0.2**
KKN	**Kakani**	**57.48**	**306**	*e*P	**P**	**16 47 42.1**	**-0.4**
	comp=Z,17nm,0.9s,mb5.1						
DMN	**Daman**	**57.55**	**306**	*e*P	**P**	**16 47 43.1**	**+0.2**
	comp=Z,22nm,1.0s,mb5.1						
GKN	**Gorkha**	**58.09**	**306**	*e*P	**P**	**16 47 46.9**	**+0.2**
	comp=Z,15nm,0.8s,mb5.1						
KOLN	**Koldanda**	**58.84**	**306**	*e*P	**P**	**16 47 52.1**	**+0.2**
	comp=Z,15nm,0.8s,mb5.1						
WMQ	**Urumqi**	**63.75**	**323**	P	**P**	**16 48 31.8**	**+7.0**
DDI	**Dehra Dun**	**64.29**	**306**	*e*	**P**	**16 48 28.9**	**+0.3**
ZAL	**Zalesovo**	**71.14**	**331**	P	**P**	**16 49 11.2**	**+0.2**
	comp=Z,1.1nm,0.7s,mb3.9,baz=314,slow=5.3,SNR=7.4						
KURK	**Kurchatov**	**72.63**	**326**	*e*P	**P**	**16 49 19.7**	**-0.2**
	comp=Z,1.5nm,0.6s,mb4.1						
BVAR	**Borovoye Array**	**78.22**	**326**	P	**P**	**16 49 50.6**	**-1.2**
	comp=Z,2.5nm,0.7s,mb4.2,baz=100,slow=9.0,SNR=11						
BRVK	**Borovoye**	**78.30**	**326**	*e*P	**P**	**16 49 46.8**	**-5.4**
	comp=Z,1.4nm,0.7s,mb4.0						
CHKZ	**Chkalovo**	**78.35**	**327**	*e*P	**P**	**16 49 52.4**	**0.0**
	comp=Z,1.9nm,0.8s,mb4.1						
ILAR	**Eielson Array**	**88.08**	**25**	P	**P**	**16 50 40.8**	**-1.1**
	comp=Z,1.0nm,0.6s,mb4.2,baz=262,slow=4.2,SNR=14						
LPAZ	**La Paz**	**149.44**	**131**	PKPbc	PKPdf	16 57 45.7	+10
	comp=Z,2.6nm,0.8s,baz=203,slow=3.2,SNR=10.0						
LPAZ	**La Paz**	**149.44**	**131**	PKPbc	PKPdf	16 57 45.7	+10

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*IDC **01** 16:47:22.9±0.7, 3.61S×135.41E, mb4.0/7, mb1 4.4/12, mb1mx4.4/15, ML4.1/5, Error ellipse: s-maj=35.6km s-min=16.2km az=68.0*

*NEIC **01** 16:47:25.8±0.5, 3.57S×135.43E, h10^{km}, mb4.2/6, Error ellipse: s-maj=13.4km s-min=8.2km az=77.0*

ISC 01 16:47:25.2±2.6**, 3.76S**±0.07×**135.4E**±0.1**, h33**^{km}±25^{km}**, n24, σ1^{s}.09**/26**, mb4.0**/10**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.37**	**198**	*e*P	**P**	**16 49 41.5**	**+0.5**
	15nm,0.4s						
KAKA				*e*S	**S**	**16 51 25.6**	**-0.8**
PMG	**Port Moresby**	**12.94**	**116**	Pn	**P**	**16 50 28.7**	**-0.9**
	0.7nm,0.3s,baz=266,slow=5.9,SNR=3.9						
PMG				Sn	**S**	**16 52 46.0**	**-7.3**
	0.2nm,0.3s,baz=24,slow=21,SNR=2.4						
WRAB	**Tennant Creek**	**16.11**	**184**	*e*P	**P**	**16 51 13.3**	**+2.3**
	54nm,0.8s						
WB2	**Warramunga Arr**	**16.12**	**184**	*e*P	**P**	**16 51 16.0**	**+4.9**
WB2				*e*S	**S**	**16 54 00.3**	**-8.2**
WRA	**Warramunga Arr**	**16.12**	**184**	Pn	**P**	**16 51 08.9**	**-2.2**
	1.1nm,0.3s,baz=8.0,slow=11,SNR=11						
WRA				Sn	**S**	**16 54 06.4**	**-2.1**
	0.5nm,0.3s,baz=6.5,slow=22,SNR=5.9						
FITZ	**Fitzroy Crossi**	**17.17**	**213**	P	**P**	**16 51 25.2**	**+0.9**
	0.6nm,0.3s,baz=36,slow=10.0,SNR=9.6						
FITZ				S	**S**	**16 54 23.8**	**-8.9**
	0.5nm,0.3s,baz=176,slow=12,SNR=4.6						
CTA	**Charters Tower**	**19.37**	**148**	*e*P	**P**	**16 51 52.9**	**+1.8**
	6.2nm,0.8s						
CTA	**Charters Tower**	**19.37**	**148**	P	**P**	**16 51 51.4**	**+0.3**
	0.6nm,0.3s,baz=338,slow=12,SNR=6.8						
CTAO	**Charters Tower**	**19.37**	**148**	*e*P	**P**	**16 51 51.2**	**+0.2**
	16nm,1.1s						
ASAR	**Alice Springs**	**19.85**	**184**	P	**P**	**16 51 58.1**	**+1.8**
	3.6nm,0.3s,baz=6.6,slow=11,SNR=93						
ASPA	**Alice Springs**	**19.85**	**184**	*e*P	**P**	**16 51 57.6**	**+1.3**
MBWA	**Marble Bar**	**23.06**	**220**	P	**P**	**16 52 34.6**	**+5.6**
	3.0nm,0.7s,mb3.8						
STKA	**Stephens Creek**	**28.57**	**169**	P	**P**	**16 53 21.1**	**+0.7**
	6.1nm,1.0s,mb4.3,baz=331,slow=6.4,SNR=2.9						
CMAR	**Chiang Mai Arr**	**42.17**	**303**	P	**P**	**16 55 16.9**	**0.0**
	0.5nm,0.8s,mb3.2,baz=117,slow=6.0,SNR=3.9						
BJT	**Baijiatuau**	**47.01**	**340**	*e*P	**P**	**16 55 54.8**	**-0.6**
	14nm,1.1s,mb4.8						
SONM	**Songino Array**	**57.33**	**337**	P	**P**	**16 57 12.4**	**-0.1**
	0.5nm,0.5s,mb3.8,baz=169,slow=6.3,SNR=5.0						
ZAL	**Zalesovo**	**71.22**	**331**	P	**P**	**16 58 42.6**	**-0.3**
	0.9nm,0.4s,mb4.1,baz=30,slow=6.2,SNR=6.3						
VNDA	**Vanda**	**75.06**	**174**	P	**P**	**16 59 06.4**	**+1.5**
	1.2nm,0.4s,mb4.2,baz=7.7,slow=8.7,SNR=19						
BVAR	**Borovoye Array**	**78.31**	**326**	P	**P**	**16 59 24.2**	**+0.5**
	2.1nm,0.8s,mb4.1,baz=117,slow=6.6,SNR=12						
CHKZ	**Chkalovo**	**78.44**	**327**	*e*P	**P**	**16 59 24.5**	**+0.1**
	1.7nm,0.8s,mb4.0						
ILAR	**Eielson Array**	**88.15**	**25**	P	**P**	**17 00 13.7**	**0.0**
	0.3nm,0.6s,mb3.7,baz=268,slow=4.3,SNR=5.0						
CPUP	**Villa Florida**	**147.65**	**158**	PKPbc	PKPdf	17 07 10.8	+6.4
	1.3nm,0.6s,baz=180,slow=20,SNR=4.0						
CPUP	**Villa Florida**	**147.65**	**158**	PKPbc	PKPdf	17 07 10.8	+6.4
LPAZ	**La Paz**	**149.36**	**131**	PKPbc	PKPdf	17 07 17.2	+10
	1.5nm,0.8s,baz=118,slow=2.9,SNR=6.7						

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*BJI **01** 16:50:08.7, 20.00S×178.60W, h599^{km}, mb4.3*

*NEIC **01** 16:50:10.8±2.9, 19.97S×178.59W, h600^{km}±32^{km}, mb4.5/8, Error ellipse: s-maj=20.0km s-min=12.7km az=55.0*

*IDC **01** 16:50:15.1±1.9, 20.08S×178.71W, h651^{km}±24^{km}, mb3.4/14, mb1 3.7/15, mb1mx3.6/19, Error ellipse: s-maj=17.9km s-min=11.8km az=166.0*

ISC 01 16:50:05.0±3.0**, 19.86S**±0.09×**178.5W**±0.1**, h537**^{km}±35^{km}**, n44, σ0^{s}.93**/38**, mb4.2**/22**, 2C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	**Urewera**	**18.72**	**191**	P	**P**	**16 53 49.7**	**-0.8**
	8.1nm,0.3s,baz=338,slow=3.0,SNR=36						
URZ				S	**S**	**16 56 54.2**	**+2.1**
	0.9nm,0.3s,baz=263,slow=23,SNR=6.8						
THZ	**Tophouse**	**23.01**	**197**	*e*P	**P**	**16 54 29.4**	**-0.6**
RPZ	**Rata Peaks**	**25.33**	**198**	P	**P**	**16 54 50.5**	**-0.2**
	8.7nm,0.5s,mb4.6,baz=350,slow=6.1,SNR=7.2						
CTA	**Charters Tower**	**33.05**	**263**⇓	*i*P	**P**	**16 55 58.9**	**+1.4**
	12nm,0.6s,mb4.6						
CTA	**Charters Tower**	**33.05**	**263**	P	**P**	**16 55 59.0**	**+1.5**
	16nm,0.5s,mb4.8,baz=99,slow=10,SNR=32						
PMG	**Port Moresby**	**34.70**	**282**	P	**P**	**16 56 13.1**	**+1.7**
	35nm,0.7s,mb5.0,baz=98,slow=5.7,SNR=14						
TOO	**Toolangi**	**35.87**	**233**	*e*P	**P**	**16 56 21.6**	**+0.8**
	14nm,0.7s,mb4.6						
STKA	**Stephens Creek**	**37.61**	**243**	*e*P	**P**	**16 56 36.4**	**+1.2**
	6.1nm,1.1s,mb4.0						
STKA	**Stephens Creek**	**37.61**	**243**	P	**P**	**16 56 36.0**	**+0.8**
	4.4nm,0.7s,mb4.1,baz=68,slow=5.6,SNR=4.7						
ASAR	**Alice Springs**	**44.17**	**256**	P	**P**	**16 57 27.8**	**0.0**
	7.2nm,0.5s,mb4.5,baz=87,slow=8.3,SNR=45						
ASAR				S	**S**	**17 03 14.9**	**-7.3**
	7.2nm,0.6s,baz=92,slow=16,SNR=65						
ASPA	**Alice Springs**	**44.17**	**256**	*e*P	**P**	**16 57 27.4**	**-0.3**
WB2	**Warramunga Arr**	**44.17**	**262**	*e*P	**P**	**16 57 27.4**	**-0.4**
WRA	**Warramunga Arr**	**44.19**	**262**	P	**P**	**16 57 27.3**	**-0.5**
	5.1nm,0.3s,mb4.6,baz=97,slow=6.9,SNR=64						
WRA				S	**S**	**17 03 15.0**	**-7.5**
	1.0nm,0.6s,baz=94,slow=13,SNR=7.9						
KAKA	**Kakadu**	**47.49**	**271**	*e*P	**P**	**16 57 52.0**	**-1.3**
	13nm,0.6s,mb4.6						
FITZ	**Fitzroy Crossi**	**52.61**	**262**	P	**P**	**16 58 30.3**	**-0.7**
	2.5nm,0.5s,mb3.8,baz=165,slow=6.7,SNR=12						
VNDA	**Vanda**	**58.50**	**185**	P	**P**	**16 59 10.4**	**-0.6**
	1.3nm,0.4s,mb3.5,baz=8.3,slow=8.2,SNR=19						
MAJO	**Matsushiro**	**69.40**	**324**	*e*P	**P**	**17 00 19.5**	**-1.2**
	4.3nm,0.5s,mb4.2						
QSPA	**South Pole Qui**	**70.20**	**180**	*e*P	**P**	**17 00 23.7**	**-1.0**
	13nm,0.8s,mb4.5						
MDJ	**Mudanjiang**	**79.70**	**325**	*e*P	**P**	**17 01 17.6**	**-0.4**
	9.8nm,1.0s,mb4.1						
NVAR	**Mina Array Bea**	**80.91**	**44**	P	**P**	**17 01 25.1**	**+0.7**
	0.2nm,0.4s,mb2.9,baz=210,slow=6.2,SNR=3.7						
TPNV	**Topopah Spring**	**81.46**	**46**	P	**P**	**17 01 28.3**	**+1.1**
CN2	**Changchun**	**81.48**	**323**	*e*P	**P**	**17 01 27.3**	**+0.2**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.1						
ENH	**Enshi**	**85.26**	**304**	*e*P	**P**	**17 01 46.2**	**0.0**

	comp=Z,25nm,1.2s,mb4.6						
TXAR	Lajitas Array	87.14	58	P	P	17 01 56.4	+1.3
	comp=Z,1.5nm,0.9s,mb3.6,baz=236,slow=4.5,SNR=3.7						
TXAR	Lajitas Array	87.14	58	P	P	17 01 56.4	+1.3
XAN	Xi'an	87.34	308	P	P	17 01 56.0	0.0
XAN				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.4						
ILAR	Eielson Array	87.81	13	P	P	17 01 56.3	-1.1
	comp=Z,1.1nm,0.4s,mb3.9,baz=222,slow=5.3,SNR=26						
ILAR				pP	pP	17 04 10.4	+14
	comp=Z,1.4nm,1.1s,baz=226,slow=6.5,SNR=4.6						
SNAA	Sanae	88.66	179		P	17 01 58.8	-2.5
SNAA	Sanae	88.66	179	P	P	17 01 58.5	-2.8
	comp=Z,0.3nm,0.5s,mb3.4,baz=202,slow=7.1,SNR=8.8						
SNAA	Sanae	88.66	179	P	P	17 01 58.8	-2.5
VNA3	Neumayer Olymp	88.81	176	⇑*i*	P	17 02 02.0	0.0
PDAR	Pinedale Array	88.85	43	P	P	17 02 03.2	+0.4
	comp=Z,0.4nm,0.6s,mb3.4,baz=232,slow=4.3,SNR=3.8						
VNA2	Neumayer--Watz	89.25	177	⇑*i*	P	17 02 03.9	-0.1
CMAR	Chiang Mai Arr	89.42	290	P	P	17 02 06.6	+0.6
	comp=Z,3.6nm,0.9s,mb4.2,baz=124,slow=2.8,SNR=24						
VNA1	Neumayer--Stat	89.47	177	⇓*i*	P	17 02 05.3	+0.2
BVAR	Borovoye Array	118.26	320	PKP	PKPdf	17 07 49.3	-1.5
	comp=Z,0.5nm,0.3s,baz=118,slow=2.2,SNR=6.8						
HFS	Hagfors	138.83	351	PKhKP		17 08 19.8	
	comp=Z,0.8nm,0.3s,baz=90,slow=3.0,SNR=10						
AKASG	Malin Array Be	142.21	331	PKhKP		17 08 31.1	
	comp=Z,1.8nm,0.3s,baz=41,slow=4.5,SNR=29						
EKA	Eskdalemuir Ar	144.41	5	PKP	PKPdf	17 08 39.0	-0.3
	comp=Z,1.3nm,0.7s,baz=326,slow=3.0,SNR=4.3						
BRTR	Keskin Array B	146.03	313	PKPbc	PKPbc	17 08 44.1	-0.1
	comp=Z,0.9nm,0.5s,baz=139,slow=4.6,SNR=6.8						
CLL	Collm	147.33	347	*i* PKP1	PKPdf	17 08 47.8	+3.5
CLL				*i* PKP2	PKPab	17 08 51.4	-2.4
MLR	Muntele Rosu	147.41	327	PKPbc	PKPdf	17 08 47.9	+3.2
	comp=Z,1.5nm,0.4s,baz=337,slow=6.8,SNR=5.1						
BRG	Berggiesshubel	147.52	345	*e*P	PKPdf	17 08 48.4	+3.7
BRG				*e*		17 08 52.7	
GERES	GERESS Array B	149.45	344	PKPbc	PKPdf	17 08 52.9	+5.0
	comp=Z,1.9nm,0.9s,slow=2.7,SNR=10						

NIED ***01*** *16:54:00, 42.90N×145.30E, h32^{km}, Mw3.4 Best double couple: M$_0$1.21×10^{14} NP1:φ$_s$242°, δ66°, λ-152°. NP2: φ$_s$140°, δ64°, λ-26°.*

JMA 01 16:54:01.5±0.1**, 42.88N×145.30E, h44^{km}**±1^{km}**, M3.5, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAK	Akkeshi	0.46	285	P	P	16 54 11.8	-0.1
JAK				*e*S	S	16 54 19.5	+0.3
NEM2	Nemuro 2	0.58	34	P	P	16 54 13.2	-0.3
NEM2				*e*S	S	16 54 21.6	-0.6
JNK	Nakash	0.82	329	P	P	16 54 16.5	-0.3
JNK				*e*S	S	16 54 27.1	-0.9
JRA	Rausu	1.06	353	P	P	16 54 20.1	-0.1
JRA				*e*S	S	16 54 33.7	-0.4
JOB	Onbets	1.08	272	P	P	16 54 19.9	-0.4
JOB				*e*S	S	16 54 34.2	-0.2
JAR	Ashorobuto	1.20	291	P	P	16 54 21.8	-0.2
JAR				*e*S	S	16 54 37.0	-0.4
JCH	Churui	1.45	260	P	P	16 54 24.8	-1.0
JCH				*e*S	S	16 54 41.7	-2.1
JTKR	Abashiri--Toko	1.49	318	P	P	16 54 26.6	+0.3
JTKR				*e*S	S	16 54 45.1	+0.4

NIED ***01*** *17:12:00, 42.90N×145.20E, h41^{km}, Mw3.7 Best double couple: M$_0$3.45×10^{14} NP1:φ$_s$3°, δ70°, λ65°. NP2:φ$_s$237°, δ32°, λ139°.*

JMA 01 17:12:07.4±0.1**, 42.90N×145.24E, h47^{km}**±1^{km}**, M3.8, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAK	Akkeshi	0.41	284	P	P	17 12 17.4	0.0
JAK				*e*S	S	17 12 24.7	+0.2
NEM2	Nemuro 2	0.59	38	P	P	17 12 19.4	-0.3
NEM2				*e*S	S	17 12 27.8	-0.8
JNK	Nakash	0.78	331	P	P	17 12 22.1	-0.1
JNK				*e*S	S	17 12 32.2	-0.9
JOB	Onbets	1.03	271	P	P	17 12 25.4	-0.3
JOB				*e*S	S	17 12 38.1	-1.2
JRA	Rausu	1.04	355	P	P	17 12 25.8	0.0
JRA				*e*S	S	17 12 39.4	-0.1
JAR	Ashorobuto	1.15	291	P	P	17 12 27.2	-0.1
JAR				*e*S	S	17 12 40.6	-1.5
JCH	Churui	1.41	259	P	P	17 12 30.3	-0.9
JCH				*e*S	S	17 12 48.2	-0.6
JTKR	Abashiri--Toko	1.44	318	P	P	17 12 31.9	+0.3
JTKR				*e*S	S	17 12 50.2	+0.6

IDC ***01*** *17:42:23.2±1.1, 36.80N×3.34E, mb4.1/13, mb1 4.3/19, mb1mx4.2/27, ML4.1/6, MS3.6/5, Ms1 3.6/5, ms1mx3.3/21, Error ellipse: s-maj=29.5km s-min=16.5km az=4.0*

BJI ***01*** *17:42:23.7, 36.80N×3.40E, h10^{km}, mB4.7, mb4.4, Ms4.7, Msz4.3*

CSEM ***01*** *17:42:23.5±0.1, 36.84N×3.51E, h12^{km}, mb4.4/5, ML4.1/27, Error ellipse: s-maj=2.0km s-min=1.6km az=22.0*

MDD ***01*** *17:42:24.1±0.4, 36.81N×3.46E, mb4.8/24, Error ellipse: s-maj=5.7km s-min=4.7km az=13.0, PRXIMO*

NEIC ***01*** *17:42:24.8±0.3, 36.85N×3.45E, h10^{km}, mb4.5/5, Error ellipse: s-maj=4.8km s-min=2.8km az=162.0*

NEIC At least 15 people injured, minor damage to some buildings and power outages occurred in the Boumerdas area. Felt at Algiers.

MED_RC ***01*** *17:42:24.8±0.5, 36.75N×3.49E, h15^{km}, MW4.3/6, Moment Tensor Solution. Body waves: s6,c6; Duration: 1^{s}0 Moment tensor: Scale 10^{15}Nm; M$_{rr}$2.25±.25; M$_{θθ}$-1.38±.38; M$_{φφ}$-0.87±.20; M$_{rθ}$-0.97±1.24; M$_{θφ}$-2.70±.20; M$_{φr}$0.14±.74; Best double couple: M$_0$3.34×10^{15} NP1:φ$_s$18°, δ48°, λ45°. NP2:φ$_s$255°, δ58°, λ128°. Principal axes: T 2.78, Plg57°, Azm219°; N 1.12, Plg32°, Azm52°; P -3.9, Plg6°, Azm318°; nsta1 refers to waves, cutoff=35s.*

ZUR_RM ***01*** *17:42:24, 36.85N×3.45E, h6^{km}, Mw4.4/19, Moment Tensor Solution. s19 Moment tensor: Scale 10^{15}Nm; M$_{rr}$2.09; M$_{θθ}$-0.23; M$_{φφ}$-1.86; M$_{rθ}$-1.64; M$_{θφ}$-1.16; M$_{φr}$-2.61; Best double couple: M$_0$3.83×10^{15} NP1:φ$_s$212°, δ72°, λ93°. NP2:φ$_s$22°, δ18°, λ81°. Principal axes: T 3.653, Plg63°, Azm126°; N .36, Plg3°, Azm31°; P -4.012, Plg27°, Azm299°;*

INMG ***01*** *17:42:26.2±1.5, 36.75N×3.44E, h31^{km}, ML3.1 Error ellipse: s-maj=6.7km s-min=4.3km az=117.0*

LDG ***01*** *17:42:27.4±0.3, 36.80N×3.51E, h20^{km}, Ml3.9/14, ms3.0/5, Error ellipse: s-maj=5.8km s-min=2.6km az=148.0*

STR ***01*** *17:42:36.1±1.1, 37.63N×3.42E, h10^{km}±1^{km}, Ml3.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 01 17:42:23.1±0.2**, 36.96N**±0.02×**3.39E**±0.02**, h10^{km}, (h13^{km}**±1.1^{km}**:pP-P), n224, σ1^{s}27**/292**, mb4.2**/22**, MS3.8**/6**, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABMS	Boumerdes	0.22	160	P	Pg	17 42 25.2	-2.7
ABA	Alger-Bouzarea	0.32	241	P	Pg	17 42 31.5	+1.7
ADJB	Djebel Djouab	0.80	177	P	Pb	17 42 36.9	-1.7
EMHD	Djebel Mahouad	0.83	205	P	Pb	17 42 38.5	-0.7
AKET	Djebel Ketaf	0.99	156	P	Pb	17 42 40.4	-1.5
AKF	Akfadou	1.00	108	P	Pb	17 42 41.3	-0.8
EBNR	Beni Rached	1.64	247	P	Pn	17 42 53.0	+0.8
SET	Setif	1.79	114	P	Pn	17 42 53.0	-1.4
ECHA	Ech Chlef	1.82	244	P	Pn	17 42 54.0	-0.8
ECHF	Ech Chlef	1.83	245	Pn	Pn	17 42 54.0	-1.0
CKHR	Kef el Ahmar	1.95	118	P	Pn	17 42 55.5	-1.2
DFRA	Djebel Bou Aff	2.04	101	P	Pn	17 42 56.7	-1.3
EANR	'Ain N'Sour	2.10	242	P	Pn	17 42 57.5	-1.3
ETRT	Tiaret	2.30	228	P	Pn	17 43 02.0	+0.3
CMER	Merouana	2.43	123	Pn	Pn	17 43 04.0	+0.5
CTEI	Djebel Teioual	2.59	109	Pn	Pn	17 43 09.0	+3.1
EIBI	Ibiza	2.62	323	Pn	Pn	17 43 08.4	+2.0
	61nm,0.2s,SNR=85						
EIBI				Sn	Sn	17 43 39.5	+1.0
	161nm,0.2s						
EIBI				T		17 45 03.2	
	SNR=7.9						
EIBI	Ibiza	2.62	323	Pn	Pn	17 43 08.4	+2.1
	61nm,0.2s,SNR=85						
EIBI				Sn	Sn	17 43 39.5	+1.0
	161nm,0.2s						
CAEH	'Ain El Ouahch	2.78	93	P	Pn	17 43 06.8	-1.8
CMAH	Djebel Manchou	3.25	95	Pn	Pn	17 43 23.3	+8.0
ODJA	Bouhanifia	3.29	242	Pn	Pn	17 43 28.0	+12
EBEN	Beniarda	3.35	302	Pn	Pn	17 43 17.7	+1.1
	26nm,0.2s,SNR=46						
EBEN				Sn	Sn	17 43 56.2	-0.8
	103nm,0.5s,SNR=5.9						
EBEN				T		17 45 31.3	
	SNR=7.9						
EBEN	Beniarda	3.35	302	Pn	Pn	17 43 17.7	+1.0
	26nm,0.2s,SNR=46						
EBEN				Sn	Sn	17 43 56.2	-0.7
	103nm,0.5s,SNR=5.9						
CABS	Djebel Ababsia	3.36	100	Pn	Pn	17 43 10.0	-6.8
CART	Cartagena	3.56	282	*e*P	Pn	17 43 19.1	-0.5
CART	Cartagena	3.56	282	*e*P	Pn	17 43 19.1	-0.5
EMUR	La Murta	3.79	285	Pn	Pn	17 43 23.7	+0.8
	30nm,0.4s,SNR=15						
EMUR				Sn	Sn	17 44 07.2	-0.9
	192nm,0.6s						
EMUR				T		17 45 44.7	
	SNR=7.9						
EMUR	La Murta	3.79	285	Pn	Pn	17 43 23.7	+0.8
	30nm,0.4s,SNR=15						
EMUR				Sn	Sn	17 44 07.2	-0.9
	192nm,0.6s						
EBR	Ebro Roquetas	4.47	331	*e*PNPN		17 43 42.5	
EBR				*e*Rs		17 44 31.5	
BLIT	Baltah	4.47	91	*i* P	Pn	17 43 30.0	-2.6
EMOS	Mosqueruela	4.55	320	Pn	Pn	17 43 34.9	+1.2
	26nm,0.3s,SNR=37						
EMOS				Sn	Sn	17 44 26.7	-0.6
	253nm,1.0s						
EMOS	Mosqueruela	4.55	320	Pn	Pn	17 43 34.9	+1.2
	26nm,0.3s,SNR=37						
EMOS				Sn	Sn	17 44 26.7	-0.6
	253nm,1.0s						
KRIT	Krib	4.61	96	*i* P	Pn	17 43 31.5	-3.1
ERTA	Horta de San J	4.65	330	Pn	Pn	17 43 36.4	+1.2
	29nm,0.5s,SNR=6.9						
ERTA				Sn	Sn	17 44 27.5	-2.3
	58nm,0.5s						
ERTA	Horta de San J	4.65	330	Pn	Pn	17 43 36.4	+1.3
	29nm,0.5s,SNR=6.9						
ERTA				Sn	Sn	17 44 27.5	-2.3
	58nm,0.5s						
EPOB	Poblet	4.74	338	Pn	Pn	17 43 37.5	+1.1
	26nm,0.4s,SNR=23						
EPOB				Sn	Sn	17 44 30.4	-1.8
	46nm,0.6s						
EPOB	Poblet	4.74	338	Pn	Pn	17 43 37.5	+1.1
	26nm,0.4s,SNR=23						
EPOB				Sn	Sn	17 44 30.4	-1.8
	46nm,0.6s						
EVIA	Vianos	4.96	292	Pn	Pn	17 43 40.6	+1.1
	60nm,0.6s,SNR=16						
EVIA				Sn	Sn	17 44 35.2	-2.4
	101nm,0.5s						
EVIA	Vianos	4.96	292	Sn	Sn	17 44 35.2	-2.4
	101nm,0.5s						
EBER	Berja	5.03	271	Pn	Pn	17 43 39.7	-0.8
	7.5nm,0.2s,SNR=16						
EBER				Sn	Sn	17 44 36.5	-2.9
	60nm,0.5s,SNR=7.9						
EBER	Berja	5.03	271	Pn	Pn	17 43 39.7	-0.8
	7.5nm,0.2s,SNR=16						
EBER				Sn	Sn	17 44 36.5	-2.9
	60nm,0.5s,SNR=7.9						
EMIR	Miracle	5.16	344	Pn	Pn	17 43 44.3	+2.0
	80nm,0.2s,SNR=41						
EMIR				Sn	Sn	17 44 41.6	-1.0
	174nm,0.7s,SNR=4.9						
EMIR	Miracle	5.16	344	Sn	Sn	17 44 41.6	-1.0
	174nm,0.7s,SNR=4.9						
EMIR	Miracle	5.16	344	Pn	Pn	17 43 44.3	+2.0
	80nm,0.2s,SNR=41						
TROT	Trozza	5.21	104	*i* P	Pn	17 43 41.5	-1.5
EQES	Quesada	5.21	281	Pn	Pn	17 43 44.5	+1.4
	114nm,0.5s,SNR=64						
EQES				Sn	Sn	17 44 43.9	-0.2
	347nm,0.8s						
EQES	Quesada	5.21	281	Pn	Pn	17 43 44.5	+1.4
	114nm,0.5s,SNR=64						
VSL	Villasalto	5.35	60	*e*P	Pn	17 43 43.0	-2.1
	26nm,0.2s						
VSL	Villasalto	5.35	60	*e*P	Pn	17 43 43.0	-2.1
	26nm,0.2s						
ZGN	Zaghouan	5.43	94	*i* P	Pn	17 43 43.5	-2.6
EJON	La Jonquera	5.50	356	Pn	Pn	17 43 48.3	+1.2
	17nm,0.2s,SNR=36						
EJON				Sn	Sn	17 44 48.3	-2.8
	33nm,0.6s						
EJON	La Jonquera	5.50	356	Pn	Pn	17 43 48.3	+1.2
	17nm,0.2s,SNR=36						
EJON				Sn	Sn	17 44 48.3	-2.9
	33nm,0.6s						
SJAF	Saint Jean de	5.54	356	Pn	Pn	17 43 48.5	+0.9
ESAC	San Caprasio	5.62	329	Pn	Pn	17 43 51.4	+2.6
	41nm,0.4s,SNR=6.1						
ESAC				Sn	Sn	17 44 52.6	-1.6
	50nm,0.2s						
ESAC	San Caprasio	5.62	329	Pn	Pn	17 43 51.4	+2.6
	41nm,0.4s,SNR=6.1						
ESAC				Sn	Sn	17 44 52.6	-1.6
	50nm,0.2s						
ERON	Agron	5.76	273	Pn	Pn	17 43 53.3	+2.5
	4.5nm,0.2s,SNR=4.0						
ERON				Sn	Sn	17 44 56.8	-0.9
	27nm,0.7s,SNR=4.0						
CARF	Carcanieres	5.84	351	Pn	Pn	17 43 52.4	+0.5
MBZ	Menzel Bouzelf	5.85	91	*i* P	Pn	17 43 49.5	-2.5
ELOJ	Sierra Loja	6.03	274	Pn	Pn	17 43 55.6	+0.9
	19nm,0.6s,SNR=16						
ELOJ				Sn	Sn	17 45 04.1	-0.5
	23nm,1.0s,SNR=4.0						
SALF	Salau	6.04	344	Pn	Pn	17 43 56.4	+1.7
ELUQ	Luque	6.13	278	Pn	Pn	17 43 56.8	+0.7
	13nm,0.4s,SNR=7.8						
ELUQ				Sn	Sn	17 45 05.4	-1.8
	25nm,0.7s,SNR=4.0						
ELUQ	Luque	6.13	278	Sn	Sn	17 45 05.4	-1.7
	25nm,0.7s,SNR=4.0						
EBIE	Bielsa	6.24	337	Pn	Pn	17 43 58.9	+1.2
	11nm,0.3s,SNR=14						
EBIE				Sn	Sn	17 45 07.7	-2.1
	17nm,0.6s						
EBIE	Bielsa	6.24	337	Pn	Pn	17 43 58.9	+1.3
	11nm,0.3s,SNR=14						
EBIE				Sn	Sn	17 45 07.7	-2.1
	17nm,0.6s						
MELF	Melles	6.24	342	Pn	Pn	17 43 59.2	+1.6
MELF				Sg	Sn	17 45 08.5	-1.4
MLS	Moulis	6.25	344	Pn	Pn	17 43 59.7	+2.0
MLS				Sg	Sn	17 45 08.9	-1.0
RESF	Ens	6.30	339	Pn	Pn	17 43 59.7	+1.3
ESDC	Sonseca Array	6.38	297	Pn	Pn	17 43 60.0	+0.3
	18nm,0.3s,baz=109,slow=14,SNR=93						
ESDC				Sn	Sn	17 45 15.8	+2.4
	9.0nm,0.3s,baz=111,slow=24,SNR=8.1						
ESDC	Sonseca Array	6.38	297	Pn	Pn	17 43 59.7	+0.1
	6.0nm,0.3s,baz=110,slow=14,SNR=56						
ESDC				Sn	Sn	17 45 09.7	-3.6
	32nm,0.6s,baz=114,slow=24,SNR=6.0						
ESDC	Sonseca Array	6.38	297	Pn	Pn	17 43 59.7	+0.1
	6.0nm,0.3s,SNR=56						
ESDC				Sn	Sn	17 45 09.7	-3.7
	32nm,0.6s,SNR=6.0						
MTLF	Montolieu	6.44	352	*e*Pn	Pn	17 44 00.9	+0.5
MTLF				*e*Sn	Sn	17 45 10.9	-3.8
	20nm,0.6s						
EADA	Adamuz	6.44	283	Pn	Pn	17 43 59.4	-1.0
	2.1nm,0.2s,SNR=11						
EADA				Sn	Sn	17 45 11.1	-3.7
	51nm,0.6s						
EADA	Adamuz	6.44	283	Pn	Pn	17 43 59.4	-1.0
	2.1nm,0.2s,SNR=11						
EADA				Sn	Sn	17 45 11.1	-3.7
	51nm,0.6s						
EPF	Esparros	6.50	340	*e*Pn	Pn	17 44 02.4	+1.1
EPF				*e*Sn	Sn	17 45 13.5	-2.8
	30nm,0.5s						
EMIJ	Mijas	6.56	269	Pn	Pn	17 44 01.1	-1.0
	5.2nm,0.4s,SNR=7.9						
EMIJ				Sn	Sn	17 45 11.8	-6.1
	15nm,0.5s,SNR=7.9						
EMIJ	Mijas	6.56	269	Pn	Pn	17 44 01.1	-1.0
	5.2nm,0.4s,SNR=7.9						
EMIJ				Sn	Sn	17 45 11.8	-6.0
	15nm,0.5s,SNR=7.9						
GELF	Grande-Etoile	6.61	13	Pn	Pn	17 44 03.0	+0.3
ETSF	Etsaut	6.66	334	*e*Pn	Pn	17 44 04.3	+0.7
ETSF				*e*Sn	Sn	17 45 17.1	-3.2
	18nm,0.5s						
LMR	La Mourre	6.80	20	*e*Pn	Pn	17 44 04.3	-1.2
LMR				*e*Sn	Sn	17 45 17.3	-6.5
	11nm,0.3s						
TAVF	Tavernes	6.96	16	Pn	Pn	17 44 07.7	0.0
FRF	La Foret Royal	7.05	20	*e*Pn	Pn	17 44 07.8	-1.2
FRF				*e*Sn	Sn	17 45 23.8	-6.2
	24nm,0.4s						
PGF	Pioggiola	7.06	36	*e*Pn	Pn	17 44 08.0	-1.1
PGF				*e*Sn	Sn	17 45 22.0	-8.3
	32nm,0.6s						
PGF				*e*Sg	Sg	17 46 10.9	-7.3
PGF	Pioggiola	7.06	36	*e*Sn	Sn	17 45 22.0	-8.3
	16nm,0.6s						
SJPF	Ste Jean	7.09	332	*e*Pn	Pn	17 44 10.4	+0.8
SJPF				*e*Sn	Sn	17 45 27.2	-3.9
	18nm,0.4s						
LASF	Ste Croix	7.12	3	*e*Pn	Pn	17 44 09.8	-0.2
LASF				*e*Sn	Sn	17 45 25.2	-6.6
	27nm,0.5s						
LASF				*e*Sg	Sg	17 46 18.1	-2.1
LASF	Ste Croix	7.12	3	*e*Sn	Sn	17 45 25.2	-6.6
	14nm,0.5s						
SMRF	Simiane la Rot	7.21	13	*e*Pn	Pn	17 44 11.2	0.0
SMRF				*e*Sn	Sn	17 45 31.4	-2.5
	45nm,1.0s						
SMRF				*e*Sg	Sg	17 46 15.2	-7.9
SMRF	Simiane la Rot	7.21	13	*e*Sg	Sg	17 46 15.2	-7.9
EALK	Alkurruntz	7.29	331	Pn	Pn	17 44 14.0	+1.7
	9.7nm,0.4s,SNR=8.0						
EALK				Sn	Sn	17 45 32.4	-3.7
	18nm,0.4s,SNR=6.8						
SBF	Sospel	7.56	23	*e*Pn	Pn	17 44 15.6	-0.5
SBF				*e*Sn	Sn	17 45 35.4	-7.3
	26nm,0.4s						
IMI	Imperia	7.75	25	P	Pn	17 44 17.1	-1.7
STV	Sta Anna Valdi	7.87	21	P	Pn	17 44 19.4	-1.1
ENR	Entracque	7.88	22	P	Pn	17 44 19.6	-1.0
VIVF	Saint-Julien-l	7.95	7	*e*Pn	Pn	17 44 21.5	-0.1
VIVF				*e*Sn	Sn	17 45 44.2	-8.3
	16nm,0.6s						
VIVF				*e*Sg	Sg	17 46 39.2	-8.7
VIVF	Saint-Julien-l	7.95	7	*e*Sn	Sn	17 45 44.2	-8.3
	7.8nm,0.6s						
VIVF				*e*Sg	Sg	17 46 39.2	-8.7
CAF	Calviac	8.02	353	*e*Pn	P	17 44 23.3	+0.7
PZZ	Prazzo	8.05	19	P	P	17 44 23.4	+0.4
PZZ	Prazzo	8.05	19	P	P	17 44 23.4	+0.5
EMIN	Mina Concepcio	8.05	279	Pn	P	17 44 21.6	-1.4
	2.0nm,0.2s,SNR=26						
EMIN				Sn	Sn	17 45 49.1	-6.0
	13nm,0.6s,SNR=7.9						
EMIN	Mina Concepcio	8.05	279	Pn	P	17 44 21.6	-1.4
	2.0nm,0.2s,SNR=26						
EMIN				Sn	Sn	17 45 49.1	-6.0
	13nm,0.6s,SNR=7.9						
ROB	Roburent	8.08	24	P	P	17 44 23.2	-0.2
ROB	Roburent	8.08	24	P	P	17 44 23.2	-0.2
DOI	San Damiano	8.09	20	*e*Pn	P	17 44 23.6	+0.2
DOI	San Damiano	8.09	20	*e*Pn	P	17 44 23.6	+0.1
FIN	Finale Ligure	8.12	25	P	P	17 44 22.5	-1.4
ELAN	Lanestosa	8.16	322	Pn	P	17 44 25.6	+1.1
	7.5nm,0.4s,SNR=10						
ELAN				Sn	Sn	17 45 54.8	-2.9
	27nm,1.0s,SNR=7.9						
ELAN	Lanestosa	8.16	322	Sn	Sn	17 45 54.8	-2.9
	27nm,1.0s,SNR=7.9						
ELAN	Lanestosa	8.16	322	Pn	P	17 44 25.6	+1.1
	7.5nm,0.4s,SNR=10						
MBDF	Montbardon	8.17	17	*e*Pn	P	17 44 25.7	+1.0
MBDF				*e*Sn	Sn	17 45 52.9	-5.2
	37nm,1.2s						
ORIF	Oris-en-Rattie	8.17	13	*e*Pn	P	17 44 25.9	+1.2
ORIF				*e*Sn	Sn	17 45 53.0	-5.1
	9.6nm,0.7s						
ORIF				*e*Sg	Sg	17 46 43.0	-12
ORIF				*e*R			
	142nm,19.8s						
LFF	La Frestale	8.22	347	*e*Pn	P	17 44 27.0	+1.6
LBL	Lubilhac	8.27	359	Pn	P	17 44 27.5	+1.5
RRL	Cesana Torines	8.36	17	P	P	17 44 27.4	+0.1
RRL	Cesana Torines	8.36	17	P	P	17 44 27.4	+0.1
BHB	Bricherasio	8.40	19	P	P	17 44 27.8	-0.1
BHB	Bricherasio	8.40	19	P	P	17 44 27.8	-0.1
EBAD	Badajoz	8.42	285	Pn	P	17 44 27.8	-0.3
	1.2nm,0.2s,SNR=5.7						
EBAD				Sn	Sn	17 45 58.3	-5.9
	7.8nm,0.9s,SNR=7.9						
EBAD	Badajoz	8.42	285	Pn	P	17 44 27.8	-0.3
	1.2nm,0.2s,SNR=5.7						
EBAD				Sn	Sn	17 45 58.3	-6.0
	7.8nm,0.9s,SNR=7.9						
RJF	Les Rejaudoux	8.46	351	*e*Pn	P	17 44 29.8	+1.2
RJF				*e*R			
	349nm,17.9s						
BNI	Bardonecchia	8.46	16	P	P	17 44 25.6	-3.1
	6.8nm,0.8s						
PCP	Pian Castagno	8.53	26	P	P	17 44 28.6	-1.0
COLF	Collangettes	8.56	1	Pn	P	17 44 30.2	+0.2
PALC	Alcoutim	8.68	277	*e*Pn	P	17 44 30.5	-1.3
PALC				*e*Sn	Sn	17 46 04.6	-6.2
RSP	Reno Superiore	8.69	18	P	P	17 44 32.8	+0.9
RSP	Reno Superiore	8.69	18	P	P	17 44 32.8	+0.9
PYM	Petit Puy Mans	8.79	358	Pn	P	17 44 35.3	+2.0
LPG	La Plagne	8.90	15	*e*Pn	P	17 44 35.7	+0.9
LPG				*e*Sg	Sg	17 47 08.5	-11
LPL	La Plagne	8.91	15	*e*Pn	P	17 44 35.9	+0.9
LPL				*e*Sn	Sn	17 46 12.1	-4.4
	6.2nm,0.5s						
LPL				*e*Sg	Sg	17 47 06.7	-13
LSD	Ceresole Reale	8.95	17	P	P	17 44 36.3	+0.8
LSD	Ceresole Reale	8.95	17	P	P	17 44 36.3	+0.8
MNS	Montasola	8.98	50	*e*Pn	P	17 44 34.6	-1.3
MNS	Montasola	8.98	50	*e*Pn	P	17 44 34.6	-1.3
PCBR	Castelo Branco	9.00	292	*e*Pn	P	17 44 37.3	+1.1
PLDF	La Plantade	9.01	1	Pn	P	17 44 37.2	+0.9
PBEJ	Beja	9.01	280	*e*Pn	P	17 44 35.2	-1.1
AGO	Saint Agoulin	9.09	359	Pn	P	17 44 39.1	+1.7
EARI	Arriondas	9.13	317	Pn	P	17 44 39.4	+1.4
	55nm,0.6s,SNR=36						
EARI				Sn	Sn	17 46 16.5	-5.4
	29nm,1.1s,SNR=4.0						
EARI	Arriondas	9.13	317	Pn	P	17 44 39.4	+1.4
	55nm,0.6s,SNR=36						
EARI				Sn	Sn	17 46 16.5	-5.5
OG05	Jujurieux	9.21	9	Pn	P	17 44 39.5	+0.5
MTE	Manteigas	9.21	295	*e*Pn	P	17 44 39.8	+0.7
MTE	Manteigas	9.21	295	*e*P	P	17 44 39.8	+0.7
PBRG	Braganca	9.21	305	*e*Pn	P	17 44 39.2	+0.1
ECAL	Calabor	9.28	306	Pn	P	17 44 40.2	+0.2
	34nm,0.3s,SNR=49						
ECAL				Sn	Sn	17 46 20.1	-5.4
	9.8nm,0.6s						
ECAL	Calabor	9.28	306	Pn	P	17 44 40.2	+0.2
ECAL				Sn	Sn	17 46 20.1	-5.4
ORX	Oropa	9.33	20	P	P	17 44 41.2	+0.5
ORX	Oropa	9.33	20	P	P	17 44 41.2	+0.5
TCF	Toulx Ste Croi	9.37	355	*e*Pn	P	17 44 41.4	+0.2
PVIS	Viseu	9.57	297	*e*Pn	P	17 44 43.9	-0.1
BGF	Bois d'Agland	9.60	358	*e*Pn	P	17 44 44.9	+0.5
PVRL	Vila Real	9.64	300	*e*Pn	P	17 44 44.8	-0.2
SMF	Signal de Mont	9.69	2	*e*Pn	P	17 44 46.1	+0.5
ERUA	La Rua	9.76	307	Pn	P	17 44 47.2	+0.5
	26nm,0.7s,SNR=8.0						
AVF	Avril sur Loir	9.83	360	*e*Pn	P	17 44 47.7	+0.2
CABF	La Chapelle	9.85	11	*e*Pn	P	17 44 47.4	-0.5
MFF	Saint Martin d	9.99	346	*e*Pn	P	17 44 48.9	-0.9
EINC	Incio	10.03	308	Pn	P	17 44 50.9	+0.6
	5.9nm,0.4s						
SSF	Saint Saulge	10.10	0	*e*Pn	P	17 44 51.6	+0.4
ELOB	Lobios	10.12	302	Pn	P	17 44 51.3	-0.3
	6.7nm,0.3s,SNR=9.4						
ELOB				Sn	S	17 46 40.9	-5.4
	8.6nm,0.5s,SNR=4.0						
ELOB	Lobios	10.12	302	Pn	P	17 44 51.3	-0.3
	6.7nm,0.3s						

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ELOB                                  Sn        S         17 46 40.9  -5.4
EPON   Pontenova          10.27 312   Pn        P         17 44 53.8  +0.2
       3.6nm,0.2s,SNR=12
EPON                                  Sn        S         17 46 41.6  -8.3
       4.4nm,0.6s,SNR=4.0
EPON   Pontenova          10.27 312   Pn        P         17 44 53.8  +0.2
       3.6nm,0.2s
HYF    Humbligny          10.32 357   ePn       P         17 44 54.4  +0.1
DAVOX  Davos              10.94  24   Pn        P         17 45 01.0  -1.7
       0.2nm,0.3s,baz=342,slow=23,SNR=2.6
DAVOX  Davos              10.94  24   Pn        P         17 45 01.0  -1.7
HINF   Hinteralfeld       11.15  12   ePn       P         17 45 03.8  -1.8
EMAZ   Mazaricos          11.21 306   Pn        P         17 45 06.7  +0.1
       3.7nm,0.4s
EMAZ   Mazaricos          11.21 306   Pn        P         17 45 06.7  +0.2
       3.7nm,0.4s
HAU    Haudompre          11.26  10   ePn       P         17 45 06.6  -0.5
HAU                                   eR
       168nm,19.2s
MEZF   Maizieres J'vi     11.60   6   ePn       P         17 45 11.6  -0.2
CDF    Champ du Feu       11.80  13   ePn       P         17 45 14.6  +0.2
GRR    Gorron             11.84 346   ePn       P         17 45 14.9  -0.1
LDF    La Druitiere       11.91 349   ePn       P         17 45 15.5  -0.5
QUIF   Quistinic          11.97 338   ePn       P         17 45 16.4  -0.3
SGMF   Saint Gilles       12.11 341   ePn       P         17 45 18.1  -0.5
FLN    La Foliniere       12.13 348   ePn       P         17 45 18.6  -0.4
FLN                                   eR
       179nm,17.9s
ROSF   Rostrenen          12.38 339   ePn       P         17 45 21.9  -0.4
DOU    Dourbes            13.16   3   P         P         17 45 33.9  +1.2
GIVF   Givet              13.18   4   ePn       P         17 45 32.5  -0.4
SNF    Seneffe            13.56   2   P         P         17 45 40.8  +2.9
MEM    Membach            13.78   7   P         P         17 45 44.0  +3.3
GERES  GERESS Array B     14.06  29   Pn        P         17 45 46.7  +2.2
       0.2nm,0.3s,baz=236,slow=9.6,SNR=5.2
KHC    Kasperske Hory     14.25  28   eP        P         17 45 54.5  +7.5
CLL    Collm              15.90  23   P         P         17 46 16.0  +7.6
CLL    Collm              15.90  23   P         P         17 46 14.0  +5.6
PSZ    Piszkesteto        16.35  43   P         P         17 46 14.7  +0.5
PSZ    Piszkesteto        16.35  43   P         P         17 46 14.7  +0.5
MORC   Moravsky Berou     16.40  34   eP        P         17 46 16.6  +1.8
MORC   Moravsky Berou     16.40  34   eP        P         17 46 16.6  +1.8
IDI    Anoyia             17.45  89   P         P         17 46 28.3  +0.1
       0.2nm,0.3s,baz=296,slow=13,SNR=4.2
KWP    Kalwaria           18.86  42   eP        P         17 46 50.6  +5.1
EKA    Eskdalemuir Ar     18.92 348   P         P         17 46 50.0  +3.8
       0.1nm,0.3s,baz=165,slow=13,SNR=12
MLR    Muntele Rosu       18.94  56   P         P         17 46 48.5  +2.0
       0.2nm,0.3s,baz=320,slow=2.1,SNR=5.1
MLR                                   LR        LR        17 54 06.4
       comp=Z,130nm,18.3s,baz=173,slow=37
AKASG  Malin Array Be     23.01  45   P         P         17 47 28.5  -0.4
       2.3nm,0.6s,mb3.8,baz=243,slow=9.9,SNR=17
BRTR   Keskin Array B     23.84  74   P         P         17 47 38.8  +1.7
       0.8nm,0.8s,mb3.2,baz=270,slow=1.4,SNR=2.8
HFS    Hagfors            24.12  13   P         P         17 47 40.3  +0.6
       7.3nm,1.1s,mb4.0,baz=162,slow=4.7,SNR=4.3
NB2    NORSAR Subarra     24.61   9   P         P         17 47 46.6  +2.2
       1.4nm,0.7s,mb3.6,baz=192,slow=10
NOA    NORSAR Array B     24.61   9   P         P         17 47 47.0  +2.5
       4.7nm,1.0s,mb4.0,baz=192,slow=9.3,SNR=7.6
MALT   Malatya            27.68  76   P         P         17 48 13.2   0.0
       5.3nm,1.4s,mb4.0
MALT   Malatya            27.68  76   P         P         17 48 13.2   0.0
       5.3nm,1.4s,mb4.0
ASF    Jabal al Asfar     27.92  90   P         P         17 48 15.7  +0.3
       1.3nm,0.7s,mb3.7,baz=11,slow=8.3,SNR=3.7
ARU    Arti               41.25  44   eP        P         17 50 09.3  -0.3
       8.9nm,1.2s,mb4.3
ARU    Arti               41.25  44   eP        P         17 50 09.4  -0.3
       8.9nm,1.2s,mb4.3
BRVK   Borovoye           48.16  48   eP        P         17 51 06.0  +0.9
       5.8nm,1.1s,mb4.5
BRVK   Borovoye           48.16  48   eP        P         17 51 06.0  +0.9
       5.8nm,1.1s,mb4.5
KMBO   Kilima Mbogo       49.21 133   LR        LR        18 12 34.4
       comp=Z,46nm,18.9s,MS3.5,baz=76,slow=37
KURK   Kurchatov          53.71  50   eP        P         17 51 46.0  -1.2
       4.6nm,0.9s,mb4.4
KURK   Kurchatov          53.71  50   eP        P         17 51 46.0  -1.2
       4.6nm,0.9s,mb4.4
ZAL    Zalesovo           56.39  45   P         P         17 52 06.5  -0.1
       1.2nm,0.8s,mb4.0,baz=184,slow=5.8,SNR=7.1
WMQ    Urumqi             61.93  55   P         P         17 52 47.5  +2.3
WMQ                                   AP        pP        17 52 51.9  +3.6
WMQ                                   XP        sP        17 52 54.5  +5.0
WMQ                                   PCP       PcP       17 53 28.5  +2.8
WMQ                                   eS        S         18 01 09.1  +1.7
WMQ                                   AMB       AMB
       comp=Z,3.0nm,0.5s,mb4.7
WMQ                                   AMB       AMB
       comp=Z,13nm,7.9s
WMQ                                   LR        LR
       comp=Z,29nm,17.0s,MS3.5
ULM    Lac du Bonnet      67.90 317   P         P         17 53 23.0  -0.7
       comp=Z,3.6nm,0.8s,mb4.5,baz=45,slow=7.1,SNR=3.1
YKA    Yellowknife Ar     69.17 334   P         P         17 53 31.5  +0.2
       comp=Z,2.5nm,1.1s,mb4.1,baz=51,slow=6.2,SNR=16
YKA                                   LR        LR        18 23 32.4
       comp=Z,42nm,18.1s,MS3.7,baz=95,slow=36
BDFB   Brasilia           71.27 233   LR        LR        18 22 59.4
       comp=Z,29nm,19.0s,MS3.6,baz=208,slow=34
SONM   Songino Array      71.28  44   P         P         17 53 46.0  +1.5
       comp=Z,2.0nm,0.8s,mb4.1,baz=297,slow=8.3,SNR=11
GTA    Gaotai             72.00  54   eP        P         17 53 49.7  +0.8
GTA                                   AP        pP        17 53 54.3  +2.3
GTA                                   XP        sP        17 53 56.9  +3.8
GTA                                   AMB       AMB
       comp=Z,2.0nm,1.6s,mb3.8
ILAR   Eielson Array      75.95 347   P         P         17 54 12.9  +1.6
       comp=Z,1.5nm,1.0s,mb3.9,baz=30,slow=3.6,SNR=10
LZH    Lanzhou            76.51  55   eP        P         17 54 15.2  +0.2
LZH                                   AP        pP        17 54 18.5  +0.3
LZH                                   PP        PP        17 57 08.5  -0.1
LZH                                   AMB       AMB
       comp=Z,22nm,1.3s,mb4.9
LZH                                   AMB       AMB
       comp=Z,101nm,5.2s
LZH                                   LR        LR
       comp=N,261nm,15.0s
LZH                                   LR        LR
       comp=Z,294nm,17.9s,MS4.6
ISCO   Idaho Springs      79.59 312   eP        P         17 54 33.7  +1.9
       comp=Z,8.0nm,1.2s,mb4.5
ISCO   Idaho Springs      79.59 312   eP        P         17 54 33.7  +1.9
       comp=Z,8.0nm,1.2s,mb4.5
PDAR   Pinedale Array     79.92 316   P         P         17 54 34.3  +0.7
       comp=Z,8.4nm,1.3s,mb4.5,baz=56,slow=5.3,SNR=13
PDAR                                  LR        LR        18 27 33.8
       comp=Z,62nm,18.9s,MS4.0,baz=164,slow=34
CN2    Changchun          83.97  38   eP        P         17 54 54.6   0.0
TXAR   Lajitas Array      85.03 303   P         P         17 55 02.1  +1.8
       comp=Z,0.8nm,0.7s,mb3.9,baz=90,slow=6.3,SNR=5.2
LPAZ   La Paz             85.58 246   P         P         17 55 04.6  +1.4
       comp=Z,0.7nm,0.7s,mb4.0,baz=42,slow=15,SNR=4.0
NJ2    Nanjing            88.64  50   eP        P         17 55 17.4  -0.4
NJ2                                   AMB       AMB
       comp=Z,10.0nm,0.6s,mb5.3
STKA   Stephens Creek    145.35  94   PKPbc     PKPbc     18 02 01.8   0.0
       comp=Z,2.1nm,0.5s,baz=321,slow=6.5,SNR=4.5
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*SYO **01** 17:49:34.5,22.32S×169.58E,h10^{km},MB4.8*
*BJI **01** 17:49:40.7,22.03S×169.71E,h64^{km},mB4.9,mb4.7,Ms5.0,Msz4.7*
*IDC **01** 17:49:41.2±5.8,22.19S×169.41E,h52^{km}±50^{km},mb4.3/16,mb1 4.4/17,mb1mx4.4/20,ML4.2/1,MS3.8/6,Ms1 3.8/6,ms1mx3.6/17,Error ellipse: s-maj=24.0km s-min=17.3km az=44.0*
*NEIC **01** 17:49:42.2±2.6,22.18S×169.36E,h61^{km}±22^{km},mb4.7/13,Error ellipse: s-maj=13.0km s-min=8.1km az=217.0*
ISC 01 17:49:39.2±1.8,**22.23S**±0.08×**169.30E**±0.09,**h44**^{km}±14^{km},**n73,**σ**0^{s}.97**/53,**mb4.7**/31,**MS4.0**/8,**9C-5D,Southeast of Loyalty Islands**

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Code   Station Name        Δ°   AZ°    Phase ID           Time       Res
                                      Op        ISC       h  m  s    ISC
DZM    Mont Dzumac         2.65 273   eP        P         17 50 20.5   0.0
NOUC   Port Laguerre       2.78 272⇑  eP        P         17 50 22.0  -0.3
NOUC                                  eS        S         17 50 55.1  +0.2
URZ    Urewera            17.33 159   P         P         17 53 40.3  +0.9
       0.9nm,0.3s,baz=12,slow=7.6,SNR=9.0
URZ                                   LR        LR        17 58 47.4
       comp=Z,347nm,19.6s,baz=276,slow=32
URZ    Urewera            17.33 159   P         P         17 53 40.3  +0.9
URZ                                   LR        LR        17 58 47.4
RPZ    Rata Peaks         21.48 177   P         P         17 54 26.0  +0.2
       14nm,0.7s,mb4.4,baz=127,slow=3.2,SNR=4.4
RPZ                                   LR        LR        18 01 36.4
       comp=Z,371nm,18.9s,MS3.8,baz=312,slow=33
CTA    Charters Tower     21.59 271   eP        P         17 54 29.2  +2.0
       7.6nm,0.8s,mb4.2
CTA    Charters Tower     21.59 271   P         P         17 54 28.8  +1.6
       11nm,0.9s,mb4.3,baz=88,slow=11,SNR=11
CTA                                   LR        LR        18 01 52.5
       comp=Z,188nm,19.8s,MS3.5,baz=282,slow=34
CTAO   Charters Tower     21.59 271   eP        P         17 54 29.0  +1.8
       13nm,0.9s,mb4.4
PMG    Port Moresby       24.78 297   P         P         17 54 58.7  +0.2
       23nm,1.0s,mb4.7,baz=99,slow=10,SNR=5.8
STKA   Stephens Creek     26.42 243   eP        P         17 55 14.3  +0.6
       7.9nm,0.9s,mb4.2
STKA   Stephens Creek     26.42 243   P         P         17 55 14.7  +1.0
       3.0nm,0.8s,mb3.9,baz=328,slow=20,SNR=4.8
STKA                                  PcP       PcP       17 58 38.1  -0.6
       2.2nm,0.7s,baz=116,slow=1.9,SNR=4.1
STKA                                  LR        LR        18 05 19.0
       comp=Z,284nm,18.3s,MS3.9,baz=207,slow=35
ASAR   Alice Springs      32.58 261   P         P         17 56 08.1  -0.6
       5.8nm,0.6s,mb4.7,baz=83,slow=8.9,SNR=89
ASAR                                  PcP       PcP       17 58 53.3  -1.1
       1.5nm,0.9s,baz=95,slow=2.9,SNR=5.1
ASPA   Alice Springs      32.58 261   eP        P         17 56 08.1  -0.6
WB2    Warramunga Arr     32.65 267   eP        P         17 56 07.8  -1.5
WRAB   Tennant Creek      32.65 267   eP        P         17 56 08.2  -1.2
       4.5nm,0.6s,mb4.6
WRA    Warramunga Arr     32.66 267   P         P         17 56 08.1  -1.3
       4.5nm,0.8s,mb4.4,baz=97,slow=8.4,SNR=25
KAKA   Kakadu             36.37 279   eP        P         17 56 40.2  -1.0
       16nm,0.9s,mb5.0
FITZ   Fitzroy Crossi     41.09 268⇓  iP        P         17 57 21.0  +0.6
       30nm,0.8s,mb5.0
FITZ   Fitzroy Crossi     41.09 268   P         P         17 57 21.1  +0.7
       38nm,0.7s,mb5.1,baz=150,slow=6.1,SNR=67
MBWA   Marble Bar         45.90 262   eP        P         17 57 59.5   0.0
       29nm,0.9s,mb5.2
KLBR   Kellerberrin       46.54 247   eP        P         17 58 03.6  -0.8
       8.3nm,0.6s,mb4.8
NWAO   Narrogin (SRO)     46.96 245   P         P         17 58 07.3  -0.3
       13nm,0.8s,mb4.9,baz=98,slow=10,SNR=9.4
NWAO   Narrogin (SRO)     46.96 245   eP        P         17 58 07.3  -0.4
       11nm,0.8s,mb4.8
VNDA   Vanda              55.46 182   P         P         17 59 11.3   0.0
       1.1nm,0.8s,mb3.9,baz=41,slow=14,SNR=2.5
VNDA                                  LR        LR        18 20 12.8
       comp=Z,55nm,19.5s,MS3.6,baz=10,slow=33
VNDA   Vanda              55.46 182   P         P         17 59 11.3   0.0
VNDA                                  LR        LR        18 20 12.8
QSPA   South Pole Qui     67.84 180⇓  iP        P         18 00 33.3  -1.0
       20nm,0.9s,mb5.2
NJ2    Nanjing            72.40 317   eP        P         18 01 04.0  +1.3
NJ2                                   AMB       AMB
       comp=Z,20nm,0.6s,mb5.2
MAW    Mawson             75.70 202   P         P         18 01 21.0  -0.2
       comp=Z,2.7nm,0.7s,mb4.3,baz=124,slow=11,SNR=4.1
MAW                                   LR        LR        18 31 10.0
       comp=Z,43nm,19.3s,MS3.8,baz=128,slow=33
CN2    Changchun          77.03 329   eP        P         18 01 28.8  -0.5
CN2                                   eS        S         18 11 16.7  +3.6
CN2                                   AMB       AMB
       comp=Z,10.0nm,1.0s,mb4.7
CN2                                   AMB       AMB
       comp=Z,60nm,4.0s
CN2                                   LR        LR
       comp=N,200nm,13.0s,MS4.8
CN2                                   LR        LR
       comp=E,200nm,13.0s,MS4.8
CN2                                   LR        LR
       comp=Z,300nm,16.0s,MS4.7
ENH    Enshi              77.62 310   eP        P         18 01 32.4  -0.4
       comp=Z,6.0nm,0.9s,mb4.5
BJT    Baijiatuau         79.28 321   eP        P         18 01 41.7   0.0
       comp=Z,5.2nm,0.6s,mb4.6
CMAR   Chiang Mai Arr     79.79 295   P         P         18 01 46.1  +1.3
       comp=Z,2.3nm,0.8s,mb4.2,baz=134,slow=4.3,SNR=16
KMI    Kunming            79.90 302   eP        P         18 01 46.3  +0.9
KMI                                   AMB       AMB
       comp=Z,7.0nm,1.4s,mb4.4
SYO    Syowa Base         82.09 196   ⇑P        P         18 01 54.6  -1.4
SYO    Syowa Base         82.09 196   ⇓pP       pP        18 01 58.3   -11
CD2    Chengdu            82.10 308   eP        P         18 01 57.5  +0.7
HHC    Hu-ho-hao-te       82.52 320   eP        P         18 01 55.1  -3.6
HHC                                   AMB       AMB
       comp=Z,22nm,0.5s,mb5.4
LZH    Lanzhou            84.77 312   ⇑P        P         18 02 12.0  +1.8
LZH                                   ePP       PP        18 05 31.2  +2.9
LZH                                   AMB       AMB
       comp=Z,27nm,1.5s,mb5.2
LZH                                   AMB       AMB
       comp=Z,108nm,6.5s
LZH                                   LR        LR
       comp=N,275nm,15.2s
LZH                                   LR        LR
       comp=Z,395nm,17.5s,MS4.8
SNAA   Sanae              86.19 182⇑  i         P         18 02 15.6  -0.8
SNAA   Sanae              86.19 182⇑  i         P         18 02 23.2  +6.8
SNAA   Sanae              86.19 182   P         P         18 02 15.7  -0.7
       comp=Z,3.5nm,0.8s,mb4.7,baz=188,slow=4.1,SNR=29
VNA3   Neumayer Olymp     86.78 180⇓  i         P         18 02 20.3  +1.0
VNA3   Neumayer Olymp     86.78 180⇑  i         P         18 02 28.9   +10
VNA3   Neumayer Olymp     86.78 180⇑  i         P         18 02 35.1   +16
VNA2   Neumayer--Watz     87.07 181⇓  i         P         18 02 22.0  +1.3
VNA1   Neumayer--Stat     87.36 181⇑  i         P         18 02 23.8  +1.7
GTA    Gaotai             89.21 313   eP        P         18 02 32.6  +0.9
GTA                                   AMB       AMB
       comp=Z,6.0nm,1.0s,mb4.9
YBH    Yreka Blue Hor     89.40  44   P         P         18 02 32.1  -0.4
       comp=Z,2.3nm,0.7s,mb4.6,baz=196,slow=4.1,SNR=3.8
SONM   Songino Array      89.63 323   P         P         18 02 34.3  +0.8
       comp=Z,2.7nm,0.9s,mb4.6,baz=135,slow=5.2,SNR=13
NVAR   Mina Array Bea     90.73  48   P         P         18 02 38.0  -0.8
       comp=Z,3.0nm,0.9s,mb4.6,baz=219,slow=7.2,SNR=16
TPNV   Topopah Spring     91.50  51   eP        P         18 02 41.6  -0.8
       comp=Z,5.4nm,1.1s,mb4.8
ILAR   Eielson Array      93.05  17   P         P         18 02 46.7  -2.2
       comp=Z,1.5nm,1.1s,mb4.3,baz=242,slow=4.6,SNR=7.6
WMQ    Urumqi             99.30 313   ⇑P        P         18 03 18.4  +0.6
WMQ                                   ePP       PP        18 07 24.4  +1.0
WMQ                                   AMB       AMB
       comp=Z,3.0nm,0.5s,mb5.1
WMQ                                   AMB       AMB
       comp=Z,13nm,7.5s
WMQ                                   LR        LR
       comp=N,55nm,18.0s,MS4.1
WMQ                                   LR        LR
       comp=E,24nm,19.2s,MS4.1
WMQ                                   LR        LR
       comp=Z,31nm,21.8s,MS3.8
CHKZ   Chkalovo          112.68 320   ePKPdf    PKPdf     18 08 10.9  +0.3
DPC    Dobruska-Polom    144.84 330   ePKP      PKPdf     18 09 12.9  +1.8
DPC                                   ex        x         18 09 22.8
DPC                                   epPKP               18 09 28.8
UPC    Upice             144.88 330   ePKP      PKPdf     18 09 13.1  +1.9
UPC                                   ex        x         18 09 23.1
UPC                                   epPKP               18 09 28.7
BRG    Berggiesshubel    145.55 332   eP        PKPdf     18 09 13.8  +1.5
BRG                                   i                   18 09 24.1
BRG                                   i                   18 09 30.0
CLL    Collm             145.62 333   i PKIKP   PKPdf     18 09 13.7  +1.3
       comp=Z,logA/T=0.9
CLL                                   i                   18 09 23.8
CLL                                   i *PPKP             18 09 30.6
PRU    Pruhonice         145.92 331   ePKP      PKPdf     18 09 16.4  +3.4
PRU                                   ex        x         18 09 24.9
PRU                                   epPKP               18 09 29.7
EKA    Eskdalemuir Ar    146.46 352   PKPbc     PKPbc     18 09 15.3  +0.3
       comp=Z,2.9nm,0.7s,slow=2.5,SNR=9.4
NKC    Novy Kostel       146.66 333   ePKP      PKPdf     18 09 11.7  -2.5
NKC                                   ex        x         18 09 21.1
NKC                                   ex        x         18 09 27.6
SKO    Skopje            146.68 314⇑  iPKP      PKPdf     18 09 18.0  +3.4
MOX    Moxa              146.70 334   eP        PKPdf     18 09 26.0   +12
KHC    Kasperske Hory    146.97 330   ePKP      PKPdf     18 09 18.6  +3.8
KHC                                   ex        x         18 09 28.3
KHC                                   epPKP               18 09 32.7
GERES  GERESS Array B    147.12 330   PKPbc     PKPdf     18 09 18.4  +3.3
       comp=Z,1.9nm,0.8s,baz=45,slow=1.9,SNR=11
GRA1   Grafenberg Arr    147.59 333   ePKP      PKPdf     18 09 20.8  +5.0
GIVF   Givet             149.62 340   ePKP1     PKPdf     18 09 23.9  +4.9
CDF    Champ du Feu      150.19 336   ePKP1     PKPdf     18 09 25.3  +5.3
HINF   Hinteralfeld      150.84 335   ePKP1     PKPdf     18 09 26.7  +5.7
HAU    Haudompre         150.88 336   ePKP1     PKPdf     18 09 27.6  +6.6
       comp=Z,8.8nm,0.8s
MEZF   Maizieres J'vi    150.92 338   ePKP1     PKPdf     18 09 27.4  +6.3
       comp=Z,16nm,0.7s
CABF   La Chapelle       152.13 335   ePKP1     PKPdf     18 09 30.9  +8.0
SSF    Saint Saulge      152.69 339   ePKP1     PKPdf     18 09 31.0  +7.3
       comp=Z,10.0nm,0.9s
```

IDC 01 17:53:43.9±3.6,**22.81S**×**178.03W,mb3.9**/3,**mb1 4.1**/3,**mb1mx3.8**/13,**Error ellipse: s-maj=172.0km s-min=55.8km az=152.0,South of Fiji Islands**

```
Code   Station Name        Δ°   AZ°    Phase ID           Time       Res
                                      Op        ISC       h  m  s    ISC
STKA   Stephens Creek     36.81 247   P         P         18 00 54.1  -1.5
       1.2nm,0.6s,baz=90,slow=14,SNR=4.7
ASAR   Alice Springs      44.01 259   P         P         18 01 53.4  -1.8
       2.0nm,1.0s,baz=101,slow=8.1,SNR=8.1
WRA    Warramunga Arr     44.30 264   P         P         18 01 55.5  -2.0
       0.9nm,0.5s,baz=103,slow=8.5,SNR=6.8
HFS    Hagfors           141.80 351   PKP       PKPdf     18 13 14.3  -4.6
       4.0nm,0.9s,baz=90,slow=4.4,SNR=7.1
AKASG  Malin Array Be    145.00 329   PKP       PKPdf     18 13 23.0  -1.8
       1.2nm,0.7s,baz=42,slow=3.9,SNR=9.4
```

IDC 01 17:55:02.3±7.5,**5.47S**×**151.04E,h188**^{km}±43^{km},**mb3.5**/3,**mb1 3.7**/4,**mb1mx3.3**/13,**MS3.7**/2,**Ms1 3.8**/2,**ms1mx2.9**/15,**Error ellipse: s-maj=75.9km s-min=61.4km az=160.0,New Britain region**

```
Code   Station Name        Δ°   AZ°    Phase ID           Time       Res
                                      Op        ISC       h  m  s    ISC
PMG    Port Moresby        5.49 224   P         P         17 56 22.4  -1.1
       4.5nm,0.3s,baz=25,slow=5.2,SNR=22
PMG                                   S         S         17 57 27.2  +0.7
       10nm,0.3s,baz=238,slow=18,SNR=12
WRA    Warramunga Arr     21.70 227   P         P         17 59 38.4  -0.5
       1.0nm,0.3s,baz=50,slow=9.9,SNR=9.6
ASAR   Alice Springs      24.49 221   P         P         18 00 05.4  -0.4
       1.9nm,0.3s,baz=51,slow=9.0,SNR=38
STKA   Stephens Creek     27.72 197   P         P         18 00 32.2  -3.1
       1.8nm,0.8s,baz=348,slow=9.3,SNR=2.7
URZ    Urewera            40.33 148   LR        LR        18 16 58.0
       comp=Z,67nm,19.9s,baz=74,slow=33
ILAR   Eielson Array      83.44  22   LR        LR        18 43 24.3
       comp=Z,51nm,18.7s,baz=358,slow=35
```

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*ROM **01** 17:55:30.2±1.1,39.39N×15.97E,h272^{km}±10^{km},MD2.8/8,ML2.3/8,Error ellipse: s-maj=4.2km s-min=2.6km az=90.0*
*CSEM **01** 17:55:32.5±0.1,39.38N×15.92E,h251^{km},ML2.3/8,Error ellipse: s-maj=3.2km s-min=1.8km az=80.0*
*NEIC **01** 17:55:34.5±0.6,39.54N×15.80E,h240^{km}±6^{km},MD2.8(ROM),Error ellipse: s-maj=14.3km s-min=12.2km az=62.0*
*IDC **01** 17:55:36.0±1.5,39.67N×15.78E,h253^{km}±26^{km},mb3.1/7,mb1 3.1/11,mb1mx3.0/23,Error ellipse: s-maj=28.4km s-min=21.0km az=178.0*
ISC 01 17:55:32.6±0.6,**39.38N**±0.07×**16.0E**±0.1,**h254**^{km}±4^{km},**n51,**σ**0^{s}.58**/53,**mb3.6**/5,**9C-12D,Southern Italy**

```
Code   Station Name        Δ°   AZ°    Phase ID           Time       Res
                                      Op        ISC       h  m  s    ISC
TIP    Timpagrande         0.66 108⇓  iP        P         17 56 07.1  +0.4
TIP    Timpagrande         0.66 108⇓  iPg       P         17 56 07.0  +0.4
GRI    Girifalco           0.67 147⇓  iP        P         17 56 07.1  +0.4
GRI    Girifalco           0.67 147⇓  iPg       P         17 56 07.1  +0.4
ORI    Oriolo Calabro      0.78  29⇑  iP        P         17 56 07.3  +0.2
       164nm,0.3s
ORI    Oriolo Calabro      0.78  29⇑  iPg       P         17 56 07.3  +0.2
ORI    Oriolo Calabro      0.78  29⇑  iP        P         17 56 07.3  +0.2
       164nm,0.3s
MGR    Morigerati          0.81 338⇓  iP        P         17 56 06.9  -0.4
       46nm,0.3s
MGR    Morigerati          0.81 338⇓  iPg       P         17 56 06.9  -0.4
MGR    Morigerati          0.81 338⇓  iP        P         17 56 06.9  -0.4
       46nm,0.3s
SLCN   Sala Consilina      1.03 346   eP        P         17 56 08.5  +0.1
       78nm,0.2s
SLCN   Sala Consilina      1.03 346   ePg       P         17 56 08.5  +0.2
SLCN   Sala Consilina      1.03 346   eP        P         17 56 08.5  +0.1
       78nm,0.2s
CEL    Celeste             1.12 182   eP        P         17 56 08.4  -0.5
CEL    Celeste             1.12 182   ePg       P         17 56 08.4  -0.6
SCLL   Scilla              1.14 189   eP        P         17 56 08.8  -0.2
SCLL   Scilla              1.14 189   ePg       P         17 56 08.8  -0.3
MSRU   Castanea            1.17 197   eP        P         17 56 08.5  -0.7
SGO    Sicignano           1.28 337⇑  iP        P         17 56 09.8  -0.1
       70nm,0.5s
SGO    Sicignano           1.28 337⇑  iPg       P         17 56 09.8  -0.1
SGO    Sicignano           1.28 337⇑  iP        P         17 56 09.8  -0.1
       70nm,0.5s
SOI    Samo                1.31 176   eP        P         17 56 10.0  -0.2
       67nm,0.5s
SOI    Samo                1.31 176   ePg       P         17 56 10.0  -0.2
SOI    Samo                1.31 176   eP        P         17 56 10.0  -0.2
       67nm,0.5s
LTRZ   Laterza             1.39  28⇓  iP        P         17 56 09.6  -1.1
       30nm,0.2s
LTRZ   Laterza             1.39  28⇓  iPg       P         17 56 09.6  -1.1
LTRZ   Laterza             1.39  28⇓  iP        P         17 56 09.6  -1.1
       30nm,0.2s
MTTG   Motta San Giov      1.39 188   eP        P         17 56 11.2  +0.4
MTTG   Motta San Giov      1.39 188   ePg       P         17 56 11.2  +0.4
MRLC   Muro Lucano         1.42 346   eP        P         17 56 10.8  -0.1
MRLC                                  S         S         17 56 41.3  +0.5
       15nm,0.3s
MRLC   Muro Lucano         1.42 346   ePg       P         17 56 10.8  -0.1
MRLC                                  eSg       S         17 56 41.3  +0.5
MRLC   Muro Lucano         1.42 346   eP        P         17 56 10.8  -0.1
       15nm,0.3s
MRLC   Muro Lucano         1.42 346   S         S         17 56 41.3  +0.5
CLLN   Colliano            1.42 340   eP        P         17 56 10.8  -0.1
MMME   Mongiuffi-Meli      1.55 201   eP        P         17 56 12.8  +0.9
LCI    Lecce               1.92  60⇓  iP        P         17 56 15.0  +0.1
LCI    Lecce               1.92  60⇓  iPg       P         17 56 15.0  +0.1
VAE    Valguarnera         2.25 213   P         P         17 56 23.3  +5.3
       1.1nm,0.3s,baz=66,slow=18,SNR=2.0
SDI    San Donato          2.84 326⇑  iP        P         17 56 24.1  +0.1
       38nm,0.7s
SDI    San Donato          2.84 326⇑  iPg       P         17 56 24.1  +0.2
SDI    San Donato          2.84 326⇑  iP        P         17 56 24.1  +0.1
       38nm,0.7s
IDI    Anoyia              8.21 117   P         P         17 57 34.6  +5.3
       0.5nm,0.3s,baz=220,slow=17,SNR=6.1
BRTR   Keskin Array B     13.66  83   P         P         17 58 42.5  +5.2
       0.1nm,0.3s,baz=280,slow=7.5,SNR=5.5
ESDC   Sonseca Array      15.37 277   P         P         17 58 58.1  -0.1
       0.1nm,0.3s,baz=75,slow=12,SNR=3.3
EKA    Eskdalemuir Ar     20.44 328   P         P         17 59 51.7  +0.4
       1.0nm,0.9s,baz=141,slow=10,SNR=2.9
HFS    Hagfors            20.82 357   P         P         17 59 54.5  -0.5
       2.6nm,0.7s,baz=172,slow=10,SNR=9.2
NOA    NORSAR Array B     21.88 354   P         P         18 00 05.7  +0.3
       0.6nm,0.5s,mb3.4,baz=178,slow=10,SNR=3.3
FINES  FINESS Array B     22.95  13   P         P         18 00 15.9  +0.4
       1.5nm,0.7s,mb3.7,baz=192,slow=9.8,SNR=6.5
ARCES  ARCESS Array B     30.64   7   P         P         18 01 24.3  -0.7
       4.1nm,0.9s,mb4.1,baz=197,slow=9.4,SNR=3.1
SCHQ   Schefferville      55.13 316   P         P         18 04 39.1  -1.1
       4.2nm,0.8s,mb4.0,baz=207,slow=2.3,SNR=7.1
YKA    Yellowknife Ar     70.99 338   P         P         18 06 25.0  +1.3
       0.2nm,0.5s,mb3.0,baz=43,slow=4.9,SNR=4.0
```

MEX 01 17:59:29.0±0.4,**15.51N**×**96.43W,h5**^{km}±7^{km},**MD3.9,1D,Near coast of Oaxaca**

```
Code   Station Name        Δ°   AZ°    Phase ID           Time       Res
                                      Op        ISC       h  m  s    ISC
HUIG   Huatulco            0.41  50⇓  iP        Pg        17 59 36.5  -0.6
HUIG                                  i S       Sg        17 59 42.7  +0.1
VHO    Vista Hermosa       1.58 350   eP        Pn        17 59 54.8  -3.0
VHO                                   i S       Sb        18 00 13.9  -4.7
OXX    Oaxaca              1.59 350   i P       Pn        17 59 53.7  -4.3
OXX                                   i S       Sb        18 00 14.0  -4.8
CMIG   Matias Romero       2.17  43   i P       Pn        18 00 02.7  -3.6
CMIG                                  i S       Sn        18 00 28.5  -5.3
PPM    Popocatepetl        4.11 330   i P       Pn        18 00 44.0   +10
PPM                                   i S       Sn        18 01 18.4  -4.7
```

*NEIC **01** 18:06:14.7,34.75N×25.47E,h15^{km},MD3.4(ATH),After ATH.*
*CSEM **01** 18:06:14.5±0.5,34.73N×25.40E,h2^{km},MD3.4,Error ellipse: s-maj=14.2km s-min=5.4km az=176.0*
ATH 01 18:06:14.7,34.75N×25.47E,h15^{km}±4^{km},MD3.4/4,1C, Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XRY	Khrisi	0.22	56	ePB	Pb	18 06 20.1	+0.2
XRY				eSB	Sb	18 06 23.0	-0.4
NPS	Neapolis	0.53	13	ePN	Pn	18 06 24.9	-2.4
VAM	Vamos	1.23	303	ePN	Pn	18 06 38.0	+0.6
KARP	Karpathos	1.60	60	ePN	Pn	18 06 44.5	+1.8
SANT	Santorini	1.62	360	eP	Pn	18 06 45.0	+2.1
SANT	Santorini	1.62	360	eP	Pn	18 06 45.0	+2.1
RHK1	Bakonya	12.65	336	⇑eP	P	18 09 18.0	+1.2

WEL 01 18:24:34.0±0.3,37.40S×176.07E,h256^{km}±3^{km},ML3.5/2, 1C,Error ellipse: s-maj=5.1km s-min=3.1km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	1.19	136	⇑PN	P	18 25 10.9	-0.2
URZ				SN	S	18 25 39.8	-0.1
MWZ	Matawai	1.48	129	PN	P	18 25 13.1	0.0
MWZ				SN	S	18 25 42.9	-0.7
MXZ	Matakaoa Point	1.79	96	PN	P	18 25 15.2	-0.3
MXZ				SN	S	18 25 47.6	-0.1
BKZ	Black Stump Fm	1.79	169	PN	P	18 25 15.3	-0.2
KNZ	Kokohu	2.05	142	PN	P	18 25 17.8	0.0
KNZ				SN	S	18 25 50.3	-1.4
MRZ	Mangatainoka R	3.28	186	PN	P	18 25 28.1	-2.3
MRZ				SN	S	18 26 10.0	-4.1
KIW	Kapiti Island	3.57	194	PN	P	18 25 31.3	-2.3
KIW				SN	S	18 26 16.4	-3.6
NNZ	Nelson	4.34	208	PN	P	18 25 40.1	-2.5
NNZ				SN	S	18 26 32.0	-4.1
QRZ	Quartz Range	4.39	218	PN	P	18 25 41.1	-2.0
THZ	Tophouse	4.99	208	PN	P	18 25 47.2	-3.3

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*NEIC **01** 18:43:33.9±3.2,5.29S×151.59E,h56^{km}±25^{km},mb4.6/3, Error ellipse: s-maj=38.8km s-min=18.1km az=115.0*
*IDC **01** 18:43:37.4±5.0,5.36S×151.65E,h91^{km}±42^{km},mb3.8/7, mb1 4.0/8,mb1mx3.9/14,MS3.2/5,Ms1 3.2/5,ms1mx3.1/16, Error ellipse: s-maj=47.9km s-min=26.1km az=118.0*
ISC 01 18:43:36.9±4.4,5.2S±0.2×151.5E±0.3,h95^{km}±35^{km},n23, σ0^{s}87/22,mb4.1/10,3D,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	5.95	225	P	P	18 45 02.8	-1.1
	8.5nm,0.3s,baz=38,slow=10,SNR=48						
PMG				S	S	18 46 13.0	+1.6
	10nm,0.3s,baz=340,slow=21,SNR=8.0						
PMG				LR	LR	18 47 07.7	
	comp=Z,106nm,19.3s,baz=42,slow=35						
PMG	Port Moresby	5.95	225	eP	P	18 44 59.9	-4.1
PMG				S	S	18 46 13.0	+1.6
PMG				LR	LR	18 47 07.7	
CTA	Charters Tower	15.62	198	LR	LR	18 52 50.7	
	comp=Z,128nm,18.9s,baz=36,slow=36						
KAKA	Kakadu	20.22	247	eP	P	18 48 05.8	-0.8
	20nm,0.6s						
WRAB	Tennant Creek	22.16	227	eP	P	18 48 25.6	-0.3
	20nm,0.8s,mb4.5						
WB2	Warramunga Arr	22.16	227	⇓iP	P	18 48 25.7	-0.3
WRA	Warramunga Arr	22.17	227	P	P	18 48 25.9	-0.2
	3.9nm,0.7s,mb3.9,baz=52,slow=10.0,SNR=35						
ASAR	Alice Springs	24.95	221	P	P	18 48 53.4	+0.4
	7.2nm,0.8s,mb4.2,baz=55,slow=8.5,SNR=64						
ASAR				LR	LR	18 57 40.1	
	comp=Z,54nm,19.5s,baz=36,slow=34						
ASPA	Alice Springs	24.95	221	⇓iP	P	18 48 54.3	+1.3
STKA	Stephens Creek	28.08	198	LR	LR	19 01 01.8	
	comp=Z,95nm,18.1s,baz=24,slow=37						
FITZ	Fitzroy Crossi	28.29	241	⇓iP	P	18 49 22.6	-1.1
	6.6nm,0.9s,mb4.2						
FITZ	Fitzroy Crossi	28.29	241	P	P	18 49 23.0	-0.7
	4.5nm,0.5s,mb4.2,baz=13,slow=1.3,SNR=16						
FITZ				LR	LR	19 00 45.8	
	comp=Z,26nm,19.1s,baz=42,slow=36						
MBWA	Marble Bar	34.60	240	P	P	18 50 16.5	-2.3
CMAR	Chiang Mai Arr	56.85	296	P	P	18 53 15.1	+0.8
	1.7nm,1.0s,mb4.0,baz=111,slow=5.5,SNR=7.7						
SONM	Songino Array	65.97	329	P	P	18 54 15.2	0.0
	1.0nm,0.5s,mb3.9,baz=150,slow=5.1,SNR=5.5						
GUN	Gumba	71.19	302	eP	P	18 54 48.1	+0.4
	5.6nm,0.6s,mb4.6						
KKN	Kakani	71.67	301	eP	P	18 54 50.6	0.0
DMN	Daman	71.77	301	eP	P	18 54 51.5	+0.3
GKN	Gorkha	72.28	301	eP	P	18 54 54.1	-0.1
KOLN	Koldanda	73.10	301	eP	P	18 54 58.5	-0.5
	8.2nm,0.8s,mb4.6						
ZAL	Zalesovo	80.77	327	P	P	18 55 42.0	+0.7
	0.7nm,0.8s,mb3.6,baz=330,slow=7.3,SNR=3.4						
ILAR	Eielson Array	83.05	22	P	P	18 55 53.3	+0.4
	0.6nm,0.6s,mb3.6,baz=247,slow=5.4,SNR=11						
GERES	GERESS Array B	123.70	328	PKP	PKPdf	19 02 24.4	+0.7
	0.8nm,0.8s,baz=90,slow=1.3,SNR=5.9						

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*IDC **01** 18:51:06.2±3.6,24.73N×109.15W,mb3.5/2,mb1 4.1/6, mb1mx3.9/18,ML3.7/3,MS3.6/1,Ms1 3.6/1,ms1mx2.8/15, Error ellipse: s-maj=53.2km s-min=25.6km az=153.0*
*NEIC **01** 18:51:06.8±2.5,24.50N×109.15W,h10^{km},mb4.1/11, Error ellipse: s-maj=32.0km s-min=10.7km az=185.0*
ISC 01 18:51:06.5±2.3,24.7N±0.2×109.07W±0.07,h10^{km},n37, σ1^{s}25/39,mb3.9/4,Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LTX	Lajitas	6.69	45	P	Pn	18 52 47.3	0.0
	4.5nm,0.6s						
TXAR	Lajitas Array	6.69	45	Pn	Pn	18 52 47.8	+0.4
	0.3nm,0.3s,baz=225,slow=12,SNR=4.0						
TXAR				Pg	Pg	18 53 13.5	-6.6
	1.1nm,0.3s,baz=218,slow=14,SNR=6.2						
TXAR				Lg		18 54 36.7	
	4.5nm,0.3s,baz=221,slow=25,SNR=8.2						
TXAR				LR	LR	18 55 07.9	
	comp=Z,474nm,18.5s,baz=290,slow=36						
TXAR	Lajitas Array	6.69	45	Pn	Pn	18 52 47.8	+0.5
TXAR				Pg	Pg	18 53 13.5	-6.6
TXAR				Lg		18 54 36.7	
TXAR				LR	LR	18 55 08.0	
TUC	Tucson	7.75	349	eP	Pn	18 52 59.4	-2.8
	7.9nm,0.9s						
GDL2	Guadalupe Moun	8.56	28	eP	P	18 53 10.5	-3.0
LENM	Lemitar	9.63	10	eP	P	18 53 28.4	0.0
BNM	Barren Site	9.68	12	eP	P	18 53 29.1	+0.1
LPM	Los Pinos Moun	9.84	12	P	P	18 53 31.4	+0.3
LAZ	Ladron	9.84	9	eP	P	18 53 31.4	+0.2
JCT	Junction City	10.05	53	P	P	18 53 36.4	+2.3
	17nm,1.3s						
ANMO	Albuquerque	10.49	12	Pn	P	18 53 39.4	-0.7
	baz=210,slow=14,SNR=5.4						
ANMO				Lg		18 56 35.9	
	baz=351,slow=17,SNR=4.2						
ANMO	Albuquerque	10.49	12	Pn	P	18 53 39.4	-0.7
ANMO				Lg		18 56 35.9	
PFO	Pinyon Flat Ob	10.99	326	eP	P	18 53 46.6	-0.3
DAC	Darwin (Calif)	13.69	330	eP	P	18 54 25.2	+2.0
	60nm,1.5s						
TPNV	Topopah Spring	13.69	335	eP	P	18 54 23.8	+0.6
	5.7nm,1.0s						
MVU	Marysvale	14.04	350	P	P	18 54 27.6	-0.1
	8.4nm,1.0s						
MSU	Marysvale	14.04	350	P	P	18 54 28.3	+0.4
MSU				e		18 54 38.0	
MTUM	Tungsten Hills	15.02	330	eP	P	18 54 42.9	+2.3
TPH	Tonopah	15.05	334	eP	P	18 54 42.4	+1.3
	28nm,1.6s						
ISCO	Idaho Springs	15.36	10	P	P	18 54 45.3	+0.3
	28nm,1.6s						
MNV	Mina	15.73	333	eP	P	18 54 50.1	+0.2
	15nm,1.1s						
NVAR	Mina Array Bea	15.79	332	Pn	P	18 54 52.3	+1.6
	0.2nm,0.3s,baz=155,slow=13,SNR=40						
MIAR	Mount Ida	16.67	50	eP	P	18 55 03.6	+1.8
	20nm,1.3s						
SPUT	South Promonto	16.82	351	P	P	18 55 02.5	-1.3
SPUT				e		18 55 12.7	
ELK	Elko	16.84	344	eP	P	18 55 04.5	+0.6
	12nm,1.3s						
HWUT	Hardware Ranch	17.01	354	eP	P	18 55 05.3	-0.8
	27nm,1.4s						
BMN	Battle Mountai	17.13	338	P	P	18 55 11.3	+3.7
BMN				e		18 55 18.2	
WCN	Washoe City	17.15	331	eP	P	18 55 09.4	+1.6
	14nm,1.0s						
PDAR	Pinedale Array	18.05	359	P	P	18 55 19.1	0.0
	0.0nm,0.3s,baz=170,slow=9.3,SNR=9.7						
HLID	Hailey	19.34	348	eP	P	18 55 33.0	-1.7
	13nm,1.6s						
MOD	Modoc	19.55	334	eP	P	18 55 36.4	-0.7
	11nm,1.0s						
MCMT	McKenzie Canyo	20.34	352	eP	P	18 55 44.6	-1.0
BMO	Blue Mountains	21.21	344	eP	P	18 55 53.6	-1.0
	42nm,1.8s,mb4.5						
NEW	Newport	24.39	347	P	P	18 56 24.2	-1.7
	9.7nm,1.1s,mb4.2						
YKA	Yellowknife Ar	37.99	356	P	P	18 58 24.1	-2.0
	0.8nm,1.0s,mb3.4,baz=170,slow=8.0,SNR=6.4						
YKA	Yellowknife Ar	37.99	356	P	P	18 58 24.1	-2.0
ILAR	Eielson Array	46.91	339	P	P	18 59 37.5	-1.2
	0.6nm,0.8s,mb3.6,baz=151,slow=6.4,SNR=5.9						

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*IDC **01** 18:56:23.1±3.4,25.32N×109.27W,mb3.9/3,mb1 4.1/6, mb1mx3.9/17,ML3.9/3,MS4.0/6,Ms1 4.0/6,ms1mx3.6/18, Error ellipse: s-maj=56.4km s-min=24.8km az=164.0*
*NEIC **01** 18:56:26.0±3.2,25.46N×109.18W,h10^{km},mb4.1/4,Error ellipse: s-maj=49.0km s-min=14.0km az=193.0*
ISC 01 18:56:22.8±2.8,25.3N±0.3×109.3W±0.1,h10^{km},n19, σ1^{s}40/18,mb3.8/3,MS4.3/3,Gulf of California

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	Lajitas Array	6.41	50	Pn	Pn	18 57 59.9	+0.2
	0.6nm,0.3s,baz=228,slow=12,SNR=3.4						
TXAR				Pg	Pg	18 58 21.4	-9.4
	1.2nm,0.3s,baz=222,slow=15,SNR=5.4						
TXAR				Lg		18 59 43.9	
	8.8nm,0.3s,baz=220,slow=32,SNR=8.0						
ANMO	Albuquerque	9.93	13	LR	LR	19 02 26.7	
	comp=Z,685nm,21.0s,slow=37						
PFO	Pinyon Flat Ob	10.39	325	P	P	18 58 53.3	-1.7
DAC	Darwin (Calif)	13.08	329	P	P	18 59 31.2	-0.1
MTUM	Tungsten Hills	14.41	329	P	P	18 59 49.9	+1.1
NVAR	Mina Array Bea	15.18	332	Pn	P	19 00 03.1	+4.1
	0.1nm,0.3s,baz=149,slow=12,SNR=22						
NVAR				LR	LR	19 05 46.4	
	comp=Z,304nm,19.0s,baz=110,slow=37						
SPUT	South Promonto	16.20	351	P	P	19 00 10.0	-2.1
ELK	Elko	16.20	344	eP	P	19 00 11.3	-0.9
	40nm,1.9s						
MIAR	Mount Ida	16.42	52	P	P	19 00 13.6	-1.4
	23nm,1.2s						
WCN	Washoe City	16.53	330	eP	P	19 00 18.4	+2.0
	22nm,1.3s						
BEKR	Beckwourth	17.26	330	P	P	19 00 26.5	+0.9
KSU1	Kansas State U	17.42	35	P	P	19 00 29.2	+1.6
PDAR	Pinedale Array	17.44	359	Pn	P	19 00 30.6	+2.8
	0.1nm,0.3s,baz=169,slow=14,SNR=6.2						
PDAR				LR	LR	19 07 20.5	
	comp=Z,362nm,20.8s,baz=173,slow=38						
HLID	Hailey	18.71	348	P	P	19 00 43.7	+0.1
	12nm,1.5s						
YKA	Yellowknife Ar	37.37	356	P	P	19 03 35.8	-1.4
	0.8nm,1.0s,mb3.5,baz=172,slow=7.4,SNR=6.4						
YKA				LR	LR	19 19 37.1	
	comp=Z,394nm,18.8s,MS4.2,baz=195,slow=37						
YKA	Yellowknife Ar	37.37	356	P	P	19 03 35.8	-1.4
YKA				LR	LR	19 19 37.1	
SJG	San Juan	40.56	91	LR	LR	19 22 16.6	
	comp=Z,257nm,20.0s,MS4.1,baz=278,slow=38						
ILAR	Eielson Array	46.28	339	P	P	19 04 48.9	-1.2
	0.6nm,0.7s,mb3.7,baz=152,slow=6.9,SNR=7.7						
ARCES	ARCESS Array B	80.02	15	P	P	19 08 35.0	+1.6
	3.6nm,0.8s,mb4.3,baz=339,slow=7.7,SNR=3.8						
ARCES				LR	LR	19 44 32.2	
	comp=Z,190nm,18.6s,MS4.5,baz=200,slow=36						

IDC 01 19:06:55.8±3.6,3.63N×93.95E,mb3.9/3,mb1 4.1/4, mb1mx3.7/17,ML3.3/1,Error ellipse: s-maj=123.0km s-min=29.6km az=64.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.53	18	Pn	P	19 10 36.4	-1.5
	0.0nm,0.3s,baz=212,slow=12,SNR=7.0						
WRA	Warramunga Arr	46.07	122	P	P	19 15 21.5	-2.0
	1.4nm,0.6s,baz=300,slow=9.0,SNR=10						
ASAR	Alice Springs	47.44	127	P	P	19 15 32.7	-1.7
	0.5nm,0.6s,baz=303,slow=8.2,SNR=8.4						
ZAL	Zalesovo	50.70	353	P	P	19 15 56.9	-2.2
	0.6nm,0.2s,baz=166,slow=14,SNR=3.0						

ISC 01 19:09:02.7±1.6,37.32N±0.06×72.7E±0.3,h117^{km}±24^{km}, n18,σ0^{s}81/20,Tajikistan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	4.86	8	P	P	19 10 13.5	-1.4
	SNR=78						
UCH	Uchtor	5.09	15	P	P	19 10 17.9	-0.1
	SNR=6.3						
KZA	Kyzart	5.13	21	P	P	19 10 19.0	+0.5
	SNR=16						
EKS2	Erkin-Say	5.39	8	P	P	19 10 20.8	-1.3
	SNR=29						
DLH	Dalhousie	5.45	150	eP	P	19 10 23.0	+0.1
DLH				eS	S	19 11 25.0	0.0
THN	Thein Dam	5.46	152	eP	P	19 10 23.4	+0.5
	22nm,0.3s						
THN				eS	S	19 11 25.7	+0.7
AAK	Ala-Archa	5.47	14	P	P	19 10 23.0	-0.1
	SNR=11						
KBK	Karagaybulak	5.59	17	P	P	19 10 25.5	+0.8
	SNR=7.1						
ULHL	Ulahol	5.61	28	P	P	19 10 26.3	+1.3
	SNR=7.0						
CHMS	Chumysh	5.88	15	P	P	19 10 28.3	-0.3
	SNR=7.6						
TKM2	Tokmak 2	6.01	20	P	P	19 10 31.1	+0.7
	SNR=11						
SDNR	Sundarnagar	6.78	148	eS	S	19 11 54.4	-2.8
GKN	Gorkha	13.65	129	eP	P	19 12 12.8	+0.4
	5.2nm,0.2s						
KKN	Kakani	14.21	128	eP	P	19 12 19.3	-0.2
	1.5nm,0.2s						
DMN	Daman	14.22	129	eP	P	19 12 20.0	+0.3
	2.9nm,0.3s						
PKI	Pulchoki	14.44	129	eP	P	19 12 22.2	-0.3
	1.4nm,0.2s						
GUN	Gumba	14.50	127	eP	P	19 12 22.6	-0.7
BHPL	Bhopal	14.60	163	eP	P	19 12 25.2	+0.6
BHPL				AMb	AMB	19 12 26.9	
	comp=Z,4.6nm,0.3s						

IDC 01 19:11:29.2±10.0,6.13N×75.05W,mb3.6/1,mb1 4.0/1, mb1mx3.4/17,Error ellipse: s-maj=637.0km s-min=50.5km az=91.0,Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YKA	Yellowknife Ar	63.26	341	P	P	19 21 59.4	-2.3
	0.3nm,0.4s,baz=133,slow=6.6,SNR=7.9						
ASAR	Alice Springs	147.15	235	PKPbc	PKPdf	19 31 15.2	+0.5
	0.3nm,0.7s,baz=117,slow=3.3,SNR=4.8						
WRA	Warramunga Arr	148.33	242	PKPbc	PKPdf	19 31 17.2	+0.4
	0.3nm,0.5s,baz=109,slow=2.9,SNR=6.4						

WEL 01 19:13:08.3±0.3,35.26S×178.88E,h223^{km}±6^{km},ML3.9/5, Error ellipse: s-maj=8.8km s-min=4.6km az=90.0,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	2.35	191	PN	P	19 13 52.0	-0.6
MXZ				SN	S	19 14 24.9	-1.8
PUZ	Puketiti	2.86	190	PN	P	19 13 57.6	-0.4
PUZ				SN	S	19 14 35.6	-1.0
MWZ	Matawai	3.26	199	PN	P	19 14 02.4	-0.3
MWZ				eSN	S	19 14 44.6	-0.3
URZ	Urewera	3.32	205	PN	P	19 14 02.9	-0.5
URZ				SN	S	19 14 45.5	-0.5
KNZ	Kokohu	3.88	194	PN	P	19 14 09.6	-0.5
KNZ				SN	S	19 14 56.7	-1.3
MRZ	Mangatainoka R	6.00	205	PN	P	19 14 33.9	-2.7
MRZ				eSN	S	19 15 41.1	-4.2
KIW	Kapiti Island	6.42	208	ePN	P	19 14 39.0	-2.9
KIW				eSN	S	19 15 51.7	-3.2
MTW	Mount Morrison	6.47	203	ePN	P	19 14 39.4	-3.1
NNZ	Nelson	7.36	214	eSN	S	19 16 14.3	-2.4
THZ	Tophouse	8.01	214	ePN	P	19 14 59.3	-3.1
THZ				eSN	S	19 16 28.5	-3.2
KHZ	Kahutara	8.28	209	PN	P	19 15 02.1	-3.8
MQZ	McQueen’s Vall	9.71	208	eSN	S	19 17 03.7	-7.2

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*ROM **01** 19:17:00.3±0.1,46.07N×10.58E,h9^{km},MD2.5/3,ML1.7/3, Error ellipse: s-maj=1.0km s-min=0.8km az=90.0*
*CSEM **01** 19:17:00.1±0.1,46.06N×10.51E,h12^{km},ML2.5/4,Error ellipse: s-maj=3.4km s-min=2.6km az=102.0*
*ZUR **01** 19:17:01.0,46.07N×10.51E,h14^{km},ML2.1/5*
*NEIC **01** 19:17:01.2,46.10N×10.50E,h20^{km},MD2.5(ROM), ML2.1(ZUR),ML2.1(VIE),After ZUR.*
ISC 01 19:17:00.5±0.5,46.08N±0.02×10.56E±0.03,h9^{km}±5^{km}, n31,σ0^{s}64/51,7C-9D,Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MABI	Malga Bissina	0.04	238	⇓iPG	Pg	19 17 02.5	+0.2
MABI				SG	Sg	19 17 03.3	-0.1
MABI	Malga Bissina	0.04	238	⇓iPg	Pg	19 17 02.5	+0.2
MABI				eSg	Sg	19 17 03.3	-0.1
BRMO	Bormio	0.42	342	⇓iPG	Pg	19 17 09.7	+0.6
BRMO				SG	Sg	19 17 16.0	+1.2
	27nm,0.4s						
BRMO	Bormio	0.42	342	⇓iPg	Pg	19 17 09.7	+0.6
BRMO				eSg	Sg	19 17 16.0	+1.3
BRMO	Bormio	0.42	342	⇓iPg	Pg	19 17 09.7	+0.6
	27nm,0.4s						
BRMO				Sg	Sg	19 17 16.0	+1.2
SAL	Salo	0.47	183	ePG	Pg	19 17 09.9	-0.1
SAL				SG	Sg	19 17 17.5	+1.2
SAL	Salo	0.47	183	ePg	Pg	19 17 09.9	-0.1
SAL				eSg	Sg	19 17 17.5	+1.2
BERNI	Berninapass	0.50	312	ePg	Pg	19 17 11.6	+0.9
BERNI				eSg	Sg	19 17 18.0	+0.5
BERNI	Berninapass	0.50	312	eP	Pg	19 17 11.1	+0.4
FUORN	Ofenpass	0.58	339	⇓iPg	Pg	19 17 12.5	+0.3
FUORN				eSg	Sg	19 17 20.4	+0.3
APPI	Appiano	0.61	49	⇑iPG	Pg	19 17 13.0	+0.2
APPI				SG	Sg	19 17 21.2	+0.1
APPI	Appiano	0.61	49	⇑iPg	Pg	19 17 13.0	+0.2
APPI				eSg	Sg	19 17 21.2	+0.1
CTI	Castel Tesino	0.76	92	ePG	Pg	19 17 15.6	-0.1
CTI				SG	Sg	19 17 25.9	0.0
	31nm,0.4s						
CTI	Castel Tesino	0.76	92	ePg	Pg	19 17 15.7	-0.1
CTI				eSg	Sg	19 17 25.9	0.0
CTI	Castel Tesino	0.76	92	ePg	Pg	19 17 15.6	-0.1
	31nm,0.4s						
DAVOX	Davos	0.85	326	⇓iPg	Pg	19 17 17.3	-0.2
DAVOX				eSg	Sg	19 17 28.7	-0.2
VDL	Val di Lei	0.86	299	eP	Pb	19 17 18.0	+0.8
BRES	Bressanone	1.02	52	ePG	Pg	19 17 20.5	-0.5
BRES	Bressanone	1.02	52	ePg	Pg	19 17 20.4	-0.5
MUGIO	Muggio	1.07	262	⇓iPg	Pg	19 17 20.6	-1.3
MUGIO				eSg	Sg	19 17 34.5	-1.7
SQTA	Sankt Quirin	1.23	21	⇑iPG	Pg	19 17 24.9	-0.2
SQTA				i SG	Sg	19 17 41.5	0.0
	9.6nm,0.2s						
VAI	Varese	1.27	261	ePN	Pn	19 17 24.1	-0.3
	16nm,0.2s						
VAI	Varese	1.27	261	ePn	Pn	19 17 24.1	-0.3
	16nm,0.2s						
DAVA	Damuels	1.30	339	⇑iPG	Pg	19 17 26.0	-0.5
MOTA	Moosalm	1.32	16	⇓iPG	Pg	19 17 26.8	-0.2
MOTA				i SG	Sg	19 17 43.6	-1.0
	0.9nm,0.1s						
FUSIO	Fusio	1.37	287	⇑iP	Pb	19 17 26.6	+0.7
FUSIO	Fusio	1.37	287	eP*	Pb	19 17 26.6	+0.7
FUSIO	Fusio	1.37	287	i P	Pb	19 17 26.6	+0.7
WTTA	Wattenberg	1.40	32	⇑iPG	Pg	19 17 28.0	-0.5
WTTA				i SG	Sg	19 17 47.6	+0.4
	3.9nm,0.2s						
WATA	Walderalm	1.44	29	⇑iPG	Pg	19 17 29.2	-0.1
WATA				i SG	Sg	19 17 48.0	-0.5
	1.2nm,0.1s						
VOY	Vojsko	2.32	90	ePn	Pn	19 17 43.8	+4.3
VOY				eSn	Sn	19 18 14.1	+5.7

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*MOS **01** 19:35:34.7±0.8,36.42N×70.77E,h217^{km},mb4.4/18,Error ellipse: s-maj=13.0km s-min=7.2km az=100.5*
*BJI **01** 19:35:35.6,36.57N×70.70E,h223^{km},mB4.7,mb4.5*
*NEIC **01** 19:35:36.0±0.3,36.42N×70.81E,mb4.4/27,Error ellipse: s-maj=6.6km s-min=5.6km az=153.0*
*IDC **01** 19:35:36.3±0.7,36.43N×70.83E,h220^{km}±6^{km},mb3.9/18, mb1 4.1/19,mb1mx4.0/21,Error ellipse: s-maj=10.9km s-min=9.4km az=27.0*
*NNC **01** 19:35:39.7±4.1,36.69N×71.03E,h220^{km}±37^{km},mpv5.3, Error ellipse: s-maj=55.3km s-min=35.8km az=96.0*
ISC 01 19:35:34.0±0.3,36.36N±0.02×70.81E±0.03,h212^{km}±4^{km}, h217^{km}±2.4^{km}:pP-P,n173,σ1^{s}01/202,mb4.2/45,18C-19D, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	Cherat	2.69	160	⇑P	P	19 36 22.3	+1.1
CHCP	Chirah Chowk	3.36	142	⇑P	P	19 36 30.7	+1.6
THW	Thamme Wali	3.64	168	⇓P	P	19 36 33.3	+0.9
SBDP	Sheikh Budin	4.05	180	⇑P	P	19 36 37.4	-0.1
DRP	Derazinda	4.63	186	⇑P	P	19 36 45.2	+0.5
SARP	Sargodha	4.69	160	⇓P	P	19 36 45.9	+0.5
JMU	Jammu	4.96	136	⇑i	S	19 37 46.0	-1.0
KSH	Kashi	5.16	51	⇓iP	P	19 36 53.2	+1.8
KSH				S	S	19 37 52.7	+1.2
THN	Thein Dam	5.64	133	eP	P	19 36 57.9	+0.4
	32nm,0.3s						
THN				e		19 38 03.4	
DLH	Dalhousie	5.71	130	eP	P	19 36 58.0	-0.5
DLH				e		19 38 06.0	
PONG	Pong	6.12	134	eP	P	19 37 08.0	+4.3
PONG				eS	S	19 38 16.0	+2.4
AML	Almayashu	6.18	20	P	P	19 37 04.6	0.0
	SNR=1086						
AML	Almayashu	6.18	20	⇓eP	P	19 37 04.6	0.0
	1µm,0.5s						
UCH	Uchtor	6.53	25	P	P	19 37 09.3	+0.3
	SNR=406						
UCH	Uchtor	6.53	25	⇓eP	P	19 37 09.2	+0.2
	522nm,0.5s						
KZA	Kyzart	6.67	30	P	P	19 37 10.5	-0.3
	SNR=86						
EKS2	Erkin-Say	6.70	19	P	P	19 37 11.2	0.0
	SNR=151						
EKS2	Erkin-Say	6.70	19	eP	P	19 37 11.1	-0.1
	162nm,0.5s						
BHK	Bhakra	6.78	135	e	Px	19 37 36.0	
BHK				eS	S	19 38 26.6	-2.4
AAK	Ala-Archa	6.88	23	⇓P	P	19 37 13.8	+0.3
	190nm,0.8s						
AAK				⇑S	S	19 38 29.3	-1.9
	125nm,0.8s						
AAK	Ala-Archa	6.88	23	P	P	19 37 13.7	+0.2
	SNR=208						
AAK	Ala-Archa	6.88	23	d iPN	P	19 37 12.7	-0.9
AAK				pmax	pmax		
	comp=Z,137nm,0.6s						
AAK	Ala-Archa	6.88	23	⇓eP	P	19 37 12.7	-0.8
	comp=Z,153nm,0.5s						
SDNR	Sundarnagar	7.05	132	eP	P	19 37 15.8	+0.1
SDNR				eS	S	19 38 31.4	-3.7
KBK	Karagaybulak	7.06	26	P	P	19 37 16.1	+0.3
	SNR=197						
ULHL	Ulahol	7.23	34	P	P	19 37 18.1	+0.1
	SNR=15						
CHMS	Chumysh	7.29	23	P	P	19 37 18.4	-0.5

	SNR=134						
SMLA	Simla	7.43	133⇓	i	P	19 37 34.4	+14
SMLA				i		19 39 02.2	
USP	Ospenovka	7.46	21	P	P	19 37 20.2	-0.9
	SNR=51						
TKM2	Tokmak 2	7.52	28	P	P	19 37 22.1	+0.2
	SNR=20						
TKM2	Tokmak 2	7.52	28⇓	eP	P	19 37 21.9	+0.1
	comp=Z,342nm,0.7s						
DDI	Dehra Dun	8.54	133	eP	P	19 37 35.2	+0.1
DDI				eS	S	19 39 06.3	-3.4
RTK	Rohtak	8.70	146	eP	P	19 37 36.5	-0.6
KHET	Khetri	9.28	151	eP	P	19 37 43.6	-1.0
KHET				eS	S	19 39 21.3	-5.5
KHET				eS	S	19 39 23.4	-3.4
KHET				eS	S	19 39 23.6	-3.1
KHET				e		19 39 25.6	
	comp=E,206nm,0.4s						
KHET				e		19 39 26.1	
	comp=N,345nm,0.4s						
NDI	New Delhi	9.37	143⇓	iP	P	19 37 44.5	-1.3
NDI				eS	S	19 39 24.0	-4.8
JASL	Jaisalmer	9.41	179	eP	P	19 37 42.5	-3.7
JASL				e		19 37 42.9	
JASL				eS	S	19 39 22.6	-7.1
AYAN	Aya Nagar	9.49	144	eP	P	19 37 47.3	-0.1
AYAN				e		19 37 48.3	
	comp=Z,88nm,0.5s						
AYAN				eS	S	19 39 26.6	-5.1
KUDL	Kundal	9.49	148	eP	P	19 37 46.4	-1.0
KUDL				e		19 37 49.3	
	comp=Z,37nm,0.5s						
KUDL				eS	S	19 39 26.6	-5.2
SONA	Sohna	9.67	145	eP	P	19 37 49.5	-0.2
SONA				eS	S	19 39 31.6	-4.2
SONA				eS	S	19 39 31.7	-4.1
SONA				eS	S	19 39 31.8	-4.0
SONA				e		19 39 33.0	
	comp=N,185nm,0.5s						
SONA				e		19 39 33.1	
	comp=E,239nm,0.7s						
ASH	Ashkhabad	10.07	283	P	P	19 37 55.2	+0.4
ASH				S	S	19 39 45.2	+0.1
AJM	Ajmer	10.38	161⇓	eP	P	19 37 57.1	-1.7
AJM				eS	S	19 39 47.0	-5.2
PTH	Pithoragarh	10.41	128	eP	P	19 37 59.0	-0.2
PTH				e		19 39 31.6	
LGTI	Lohaghat	10.50	128	eP	P	19 37 59.5	-0.9
LGTI				eS	S	19 39 51.0	-4.1
AGRA	Agra	10.93	144	eS	S	19 40 00.3	-4.8
BHJ	Bhuj	13.10	185	eP	P	19 38 34.0	+0.8
MK31	Makanchi Array	13.49	36⇑	P	P	19 38 38.5	+0.4
	comp=E,21nm,0.6s,baz=223,slow=12,SNR=152						
MKAR	Makanchi Array	13.49	36	i P	P	19 38 38.4	+0.3
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KOLN	Koldanda	13.81	125	eP	P	19 38 42.3	+0.2
	comp=Z,32nm,0.3s						
BHPL	Bhopal	14.27	155⇓	iP	P	19 38 52.2	+4.4
BHPL				i		19 41 18.7	
	comp=Z,193nm,1.0s						
GKN	Gorkha	14.36	122	eP	P	19 38 49.3	+0.4
GKN				eS	S	19 41 19.8	-3.2
WMQ	Urumqi	14.90	55	P	P	19 38 58.1	+2.6
DMN	Daman	14.93	122	eP	P	19 38 56.6	+0.7
	comp=Z,115nm,0.6s						
KKN	Kakani	14.94	121	eP	P	19 38 56.2	+0.2
	comp=Z,135nm,0.6s						
PKI	Pulchoki	15.16	121	eP	P	19 38 59.2	+0.4
	comp=Z,209nm,0.7s						
PKI				eS	S	19 41 38.8	-2.2
GUN	Gumba	15.28	119	eP	P	19 39 00.7	+0.4
	comp=Z,92nm,0.4s						
KURK	Kurchatov	15.41	19⇑	P	P	19 39 00.5	-1.2
	comp=Z,7.4nm,1.3s,baz=201,slow=8.9,SNR=18						
KURK	Kurchatov	15.41	19	i P	P	19 39 00.6	-1.1
KURK				pmax	pmax		
	comp=Z,10.0nm,1.3s						
KURK	Kurchatov	15.41	19	eP	P	19 38 59.7	-2.0
	comp=Z,7.2nm,0.5s						
BVA0	Borovoye Array	16.67	359	P	P	19 39 16.3	-0.5
	comp=Z,1.6nm,0.6s,baz=162,slow=8.8,SNR=60						
BVAR	Borovoye Array	16.67	359	P	P	19 39 15.8	-1.0
	comp=Z,3.8nm,0.3s,baz=155,slow=9.1,SNR=36						
BVAR				S	S	19 42 15.4	+1.2
	comp=Z,0.3nm,0.3s,baz=180,slow=12,SNR=3.1						
BRVK	Borovoye	16.70	359	P	P	19 39 16.7	-0.5
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BRVK	Borovoye	16.70	359	eP	P	19 39 16.6	-0.5
	comp=Z,10.0nm,0.6s						
NGP	Nagpur	16.77	152⇓	eP	P	19 39 18.9	+0.7
NGP				e		19 42 16.4	
CHKZ	Chkalovo	17.32	360⇑	P	P	19 39 22.8	-1.2
	comp=Z,5.5nm,0.5s						
CHKZ	Chkalovo	17.32	360	P	P	19 39 22.6	-1.4
CHKZ				pmax	pmax		
	comp=Z,3.0nm,0.5s						
CHKZ	Chkalovo	17.32	360	eP	P	19 39 22.5	-1.4
	comp=Z,8.5nm,0.5s						
POO	Poona	17.96	171⇓	iP	P	19 39 31.0	0.0
	comp=Z,30nm,1.0s						
POO				e		19 39 50.0	
POO				e		19 39 59.0	
POO				i		19 43 11.0	
POO				e		19 43 18.0	
POO				e		19 43 39.0	
POO				i		19 43 47.0	
POO				i		19 43 52.0	
LSA	Lhasa	18.29	105	P	P	19 39 38.0	+3.7
LATR	Latur	18.58	163	eP	P	19 39 39.2	+1.9
LATR				e		19 43 00.0	
KAD	Karad	19.21	170⇑	iP	P	19 39 45.7	+1.9
KAD				i		19 43 23.0	
HYB	Hyderabad	20.07	158	eP	P	19 39 54.0	+1.4
	comp=Z,38nm,0.8s						
HYB				eS	S	19 43 39.0	+18
HYB	Hyderabad	20.07	158	i P	P	19 39 54.0	+1.4
	comp=Z,38nm,0.8s						
HYB				eS	S	19 43 39.0	+18
ZAL	Zalesovo	20.09	25	P	P	19 39 53.3	+0.8
	comp=Z,18nm,0.4s,baz=256,slow=6.4,SNR=77						
ZAL				S	S	19 43 23.8	+2.5
	comp=Z,2.3nm,0.6s,baz=24,slow=24,SNR=6.1						
ZAL	Zalesovo	20.09	25	P	P	19 39 53.3	+0.8
ZAL				S	S	19 43 23.8	+2.5
ZAL				pmax	pmax		
	comp=Z,18nm,0.4s						
ZAL	Zalesovo	20.09	25	P	P	19 39 53.3	+0.8
ZAL				S	S	19 43 23.8	+2.5
NVS	Novosibirsk	20.37	21	i P	P	19 39 54.9	-0.4
NVS				e		19 40 56.5	
NVS				i S	S	19 43 29.5	+3.1
NVS				pmax	pmax		
	comp=Z,27nm,0.7s						
NVS				pmax	pmax		
	comp=N,34nm,0.7s						
NVS				smax			
	comp=E,42nm,1.2s						
NVS				smax			
	comp=N,27nm,1.1s						
UMR	Umm Al-Rimmam	20.51	257	eP	P	19 39 57.3	+0.4
UMR				AMb	AMB	19 40 01.4	
	comp=Z,88nm,0.5s						
MIB	Mutribah	20.70	258	eP	P	19 40 00.3	+1.5
MIB				AMb	AMB	19 40 03.2	
	comp=Z,115nm,0.7s						
QRN	Al-Qurain	20.71	255	eP	P	19 39 59.4	+0.6
GNI	Garni	20.79	288	P	P	19 40 02.4	+2.8
	comp=Z,4.5nm,0.4s,baz=163,slow=10,SNR=6.5						
GNI	Garni	20.79	288	P	P	19 40 02.4	+2.8
GNI				pmax	pmax		
	comp=Z,5.0nm,0.4s						
RDF	Al-Radifah	20.91	256	eP	P	19 40 01.6	+0.7
RDF				AMb	AMB	19 40 03.6	
	comp=Z,45nm,0.4s						
SHL	Shillong	20.99	115	eP	P	19 40 04.0	+2.4
SHL				e	S	19 43 44.0	+6.3
RST	Umm Al-Ruwaisa	21.10	258	eP	P	19 40 03.8	+1.1
RST				AMb	AMB	19 40 06.4	
	comp=Z,106nm,0.4s						
HASS	Wahat al Ahsa’	21.24	244	P	P	19 40 04.0	0.0
ARU	Arti	21.72	341⇑	iP	P	19 40 09.6	+1.1
ARU				eS	S	19 43 57.0	+6.7
ARU				pmax	pmax		
	comp=Z,46nm,0.7s,mb5.1						
ARU	Arti	21.72	341	eP	P	19 40 09.8	+1.3
	comp=Z,55nm,0.8s,mb5.1						
GTA	Gaotai	23.05	74	P	P	19 40 24.5	+2.9
SOC	Sochi	24.80	297	eP	P	19 40 43.1	+5.2
SOC				e		19 41 25.9	
SOC				e		19 44 09.9	
SOC				eS	S	19 44 47.2	+4.8
SOC				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.0						
SOC				pmax	pmax		
	comp=N,26nm,0.8s						
SOC				pmax	pmax		
	comp=E,66nm,1.0s						
SOC				smax			
	comp=N,199nm,1.9s						
SOC				smax			
	comp=E,67nm,1.2s						
SOKR	Solikamsk	24.94	343⇑	iP	P	19 40 38.8	-0.3
SOKR				e		19 41 20.9	
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
MZLS	Mizel	25.23	248	P	P	19 40 43.1	+1.0
ARSS	Ar Rass	25.73	254	P	P	19 40 46.7	0.0
HILS	Ha’il	26.14	258	P	P	19 40 50.7	+0.3
AFFS	‘Afif	26.95	250	P	P	19 40 57.9	0.0
VRSR	Storozhevoye	26.97	313	eP	P	19 40 57.5	-0.3
VRSR				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,8.0nm,0.8s						
KAMS	Al Khamasin	27.96	242	P	P	19 41 06.1	-0.8
SONM	Songino Array	28.54	55	P	P	19 41 12.6	+0.7
	comp=E,1.1nm,0.5s,mb3.8,baz=282,slow=11,SNR=2.6						
BRTR	Keskin Array B	29.33	288	P	P	19 41 18.6	-0.3
	comp=E,1.3nm,0.7s,mb3.7,baz=110,slow=11,SNR=5.5						
BRTR	Keskin Array B	29.33	288	P	P	19 41 18.7	-0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
OBN	Obninsk	29.95	320⇑	iP	P	19 41 23.6	-0.6
OBN				e*PP	pP	19 42 08.5	+1.2
OBN				i		19 42 34.9	
OBN				e		19 44 21.1	
OBN				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.0						
OBN	Obninsk	29.95	320	eP	P	19 41 23.4	-0.8
	comp=Z,25nm,0.6s,mb5.0						
CMAR	Chiang Mai Arr	30.52	118	P	P	19 41 30.2	+0.6
	comp=Z,7.1nm,1.2s,mb4.2,baz=296,slow=8.1,SNR=16						
CMAR				pP	pP	19 42 13.2	+0.4
	comp=Z,0.9nm,0.7s,baz=301,slow=8.5,SNR=2.8						
CMAR	Chiang Mai Arr	30.52	118	P	P	19 41 30.3	+0.7
CMAR				*PP	pP	19 42 13.3	+0.5
CMAR				pmax	pmax		
	comp=Z,7.0nm,1.2s						
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
XAN	Xi’an	31.10	83	P	P	19 41 34.9	+0.4
XAN				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.4						
AKASG	Malin Array Be	32.91	309	P	P	19 41 49.0	-1.0
	comp=Z,4.1nm,0.4s,mb4.3,baz=80,slow=7.1,SNR=24						
AKASG	Malin Array Be	32.91	309	P	P	19 41 49.0	-1.0
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.4s						
JOF	Joensuu	35.91	330	ep	P	19 42 15.1	-0.2
	comp=Z,12nm,0.3s,mb4.9						
JOF	Joensuu	35.91	330	eP	P	19 42 15.1	-0.2
JOF				pmax	pmax		
	comp=Z,12nm,0.3s,mb4.9						
KOLS	Kolonicke sedl	37.23	305	eP	P	19 42 25.2	-1.3
FINES	FINESS Array B	37.52	326	P	P	19 42 28.3	-0.5
	comp=Z,5.5nm,0.4s,mb4.5,baz=118,slow=9.9,SNR=106						
FINES	FINESS Array B	37.52	326	i P	P	19 42 28.7	0.0
FINES				pmax	pmax		
	comp=Z,6.0nm,0.4s						
FINES	FINESS Array B	37.52	326	P	P	19 42 28.3	-0.5
KAF	Kangasniemi	37.66	327	ep	P	19 42 29.7	-0.2
	comp=Z,2.4nm,0.4s,mb4.1,baz=112,slow=8.5						
KAF	Kangasniemi	37.66	327	eP	P	19 42 29.7	-0.2
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.0						
NIE	Niedzica	38.52	306	eP	P	19 42 39.2	+1.9
OJC	Ojcow	38.87	307	eP	P	19 42 39.8	-0.3
NJ2	Nanjing	39.65	82	eP	P	19 42 47.4	+0.7
NJ2				AP	pP	19 43 31.0	-0.7
NJ2				XP	sP	19 43 54.1	-2.3
NJ2				PP	PP	19 44 26.1	+1.9
NJ2				S	S	19 48 35.0	+1.4
NJ2				XS		19 49 51.0	
NJ2				SS	SS	19 51 32.0	+0.3
NJ2				AMB	AMB		
	comp=Z,40nm,0.9s,mb4.8						
KEV	Kevo	40.88	338	ep	P	19 42 56.4	0.0
	comp=Z,7.5nm,0.3s,mb4.6						
KEV	Kevo	40.88	338	eP	P	19 42 56.4	0.0
KEV				pmax	pmax		
	comp=Z,8.0nm,0.3s,mb4.6						
ARCES	ARCESS Array B	41.22	338	P	P	19 42 59.6	+0.4
	comp=Z,11nm,0.5s,mb4.5,baz=110,slow=7.4,SNR=44						
ARCES	ARCESS Array B	41.22	338	P	P	19 42 59.6	+0.4
ARCES				pmax	pmax		
	comp=Z,11nm,0.5s						
KTK1	Kautokeino	41.69	336	eP	P	19 43 04.0	+1.2
SSE	Sheshan	41.85	82	eP	P	19 43 01.6	-3.1
SSE				AMB	AMB		
	comp=Z,36nm,0.8s,mb4.8						
BRG	Berggiesshubel	42.59	308	i P	P	19 43 10.8	+0.4
BRG				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.0						
BRG	Berggiesshubel	42.59	308	i P	P	19 43 10.8	+0.4
	comp=Z,4.3nm,0.6s,mb4.1						
GERES	GERESS Array B	42.89	305	P	P	19 43 12.8	0.0
	comp=Z,0.5nm,0.4s,mb3.3,baz=80,slow=8.1,SNR=11						
GERES	GERESS Array B	42.89	305	P	P	19 43 12.8	0.0
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
HFS	Hagfors	43.08	322	P	P	19 43 13.3	-0.9
	comp=Z,8.9nm,0.5s,mb4.5,baz=100,slow=9.0,SNR=72						
HFS				pP	pP	19 44 01.1	+1.3
	comp=Z,4.3nm,0.7s,baz=100,slow=8.8,SNR=2.4						
HFS	Hagfors	43.08	322	P	P	19 43 13.3	-1.0
HFS				*PP	pP	19 44 01.1	+1.3
HFS				pmax	pmax		
	comp=Z,9.0nm,0.5s						
HFS				pmax	pmax		
	comp=Z,4.0nm,0.7s						
TRO	Tromso	43.34	336	eP	P	19 43 15.6	-0.6
MOR8	Moi Rana	43.87	331	eP	P	19 43 19.9	-0.5
MOR8				AMb	AMB	19 43 21.5	
	comp=Z,36nm,1.2s,mb4.6						
MOR8	Moi Rana	43.87	331	eP	P	19 43 19.9	-0.5
	comp=Z,36nm,1.2s,mb4.6						
YAK	Yakutsk	44.17	35c	iP	P	19 43 22.7	-0.2
YAK				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.1						
YAK	Yakutsk	44.17	35	eP	P	19 43 22.9	-0.1
	comp=Z,7.0nm,0.4s,mb4.3						
NB2	NORSAR Subarra	44.40	323	P	P	19 43 23.7	-1.1
	comp=Z,6.2nm,0.5s,mb4.2,baz=97,slow=7.9						
NB2	NORSAR Subarra	44.40	323	P	P	19 43 23.7	-1.1
	baz=97,slow=7.9						
NOA	NORSAR Array B	44.40	323	P	P	19 43 24.1	-0.7
	comp=Z,7.1nm,0.6s,mb4.2,baz=100,slow=7.7,SNR=36						
NOA				pP	pP	19 44 10.7	+0.2
	comp=Z,2.2nm,0.8s,baz=99,slow=8.2,SNR=2.7						
NOA	NORSAR Array B	44.40	323	P	P	19 43 24.1	-0.7
NOA				*PP	pP	19 44 10.7	+0.2
NOA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WTTA	Wattenberg	44.45	303⇑	iP	P	19 43 24.8	-0.5
	comp=Z,2.9nm,0.5s,mb3.9						
LOF	Lofoten	44.70	333	eP	P	19 43 28.5	+1.5
SQTA	Sankt Quirin	44.74	303⇑	iP	P	19 43 26.9	-0.7
	comp=Z,2.4nm,0.4s,mb3.9						
MOTA	Moosalm	44.79	304⇓	iP	P	19 43 27.1	-1.0
	comp=Z,2.0nm,0.6s,mb3.6						
DAVA	Damuels	45.62	304⇑	iP	P	19 43 34.2	-0.5
	comp=Z,11nm,0.5s,mb4.4						
TIXI	Tiksi	45.96	22⇑	iP	P	19 43 37.3	+0.3
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.3						
HAU	Haudompre	47.85	305	eP	P	19 43 50.9	-1.1
LPG	La Plagne	48.09	302	eP	P	19 43 53.8	0.0
	comp=Z,11nm,0.7s,mb4.0						
LPL	La Plagne	48.10	302	eP	P	19 43 53.6	-0.3
	comp=Z,4.3nm,0.4s,mb3.8						
MBDF	Montbardon	48.25	301	eP	P	19 43 54.2	-0.9
	comp=Z,10.0nm,0.5s,mb4.1						
CABF	La Chapelle	48.30	303	eP	P	19 43 54.6	-0.8
	comp=Z,6.6nm,0.6s,mb3.9						
KMBO	Kilima Mbogo	48.62	227	P	P	19 43 58.9	+0.5
	comp=Z,1.8nm,0.5s,mb3.6,baz=42,slow=12,SNR=11						
KMBO	Kilima Mbogo	48.62	227	i P	P	19 43 59.4	+1.1
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.5s						
VIVF	Saint-Julien-l	49.67	301	eP	P	19 44 05.1	-0.8
	comp=Z,10nm,0.7s,mb4.0						
SMF	Signal de Mont	49.80	304	eP	P	19 44 05.8	-1.1
AVF	Avril sur Loir	50.10	304	eP	P	19 44 08.1	-1.0
	comp=Z,3.4nm,0.4s,mb3.7						
ETSF	Etsaut	53.85	300	eP	P	19 44 36.4	-0.6
	comp=Z,14nm,0.6s,mb4.4						
DAG	Danmarks Havn	54.82	344⇓	eP	P	19 44 43.4	-0.2
DAG				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.4						
DAG	Danmarks Havn	54.82	344⇓	eP	P	19 44 43.4	-0.2
	comp=Z,8.0nm,0.6s,mb4.4						
DAG	Danmarks Havn	54.82	344⇓	iP	P	19 44 43.4	-0.2
	comp=Z,8.0nm,0.6s,mb4.4						
ESDC	Sonseca Array	57.39	298	P	P	19 45 00.8	-1.4
	comp=Z,3.3nm,0.7s,mb4.1,baz=55,slow=7.8,SNR=13						
INK	Inuvik	74.07	9	eP	P	19 46 48.4	+0.6
	comp=Z,4.6nm,0.6s,mb4.3						
INK				epP	pP	19 47 40.9	+2.6
COLA	College	74.66	16	eP	P	19 46 51.3	+0.2
	comp=Z,8.8nm,0.9s,mb4.4						
ILAR	Eielson Array	74.96	16	P	P	19 46 52.4	-0.4
	comp=Z,4.8nm,1.0s,mb4.1,baz=319,slow=4.7,SNR=30						
ILAR				pP	pP	19 47 43.5	0.0
	comp=Z,1.8nm,1.2s,baz=320,slow=4.8,SNR=3.1						
ILAR	Eielson Array	74.96	16	P	P	19 46 52.4	-0.4
ILAR				*PP	pP	19 47 43.5	0.0
ILAR				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.2s						
YKA	Yellowknife Ar	81.39	3	P	P	19 47 28.2	+0.4
	comp=Z,5.6nm,0.5s,mb4.4,baz=350,slow=5.4,SNR=111						
YKA				pP	pP	19 48 19.8	+0.5
	comp=Z,0.8nm,0.5s,baz=350,slow=5.6,SNR=3.1						
YKA	Yellowknife Ar	81.39	3	i P	P	19 47 28.2	+0.4
YKA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
YKA	Yellowknife Ar	81.39	3	P	P	19 47 28.2	+0.4
YKA				pP	pP	19 48 19.8	+0.5
WRA	Warramunga Arr	82.05	122	P	P	19 47 31.6	-0.4
	comp=Z,0.8nm,0.4s,mb3.7,baz=326,slow=5.0,SNR=13						
WRA	Warramunga Arr	82.05	122	P	P	19 47 31.6	-0.4
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SCHQ	Schefferville	82.17	337	P	P	19 47 31.5	-0.3
	comp=Z,3.4nm,0.7s,mb4.1,baz=234,slow=10.0,SNR=5.0						
SCHQ	Schefferville	82.17	337	P	P	19 47 31.5	-0.3
ASAR	Alice Springs	84.30	125	P	P	19 47 43.0	-0.4
	comp=Z,1.3nm,0.7s,mb3.8,baz=315,slow=4.6,SNR=26						
ASAR				pP	pP	19 48 36.9	+1.6
	comp=Z,0.9nm,0.6s,baz=310,slow=5.3,SNR=4.4						
CPUP	Villa Florida	135.05	268	PKP	PKPdf	19 54 28.1	-0.1
	comp=Z,1.3nm,0.7s,baz=221,slow=12,SNR=3.3						
CPUP	Villa Florida	135.05	268	PKIKP	PKPdf	19 54 28.1	-0.1
CPUP				pmax	pmax		
	comp=Z,1.0nm,0.7s						

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*IDC **01** 20:16:15.0±1.6,6.96S×128.67E,mb3.9/3,mb1 4.4/6, mb1mx4.1/13,ML4.3/3,Error ellipse: s-maj=75.4km s-min=22.0km az=66.0*

*NEIC **01** 20:16:28.4±2.3,7.39S×128.17E,h118^{km}±24^{km},mb4.1/6, Error ellipse: s-maj=23.6km s-min=16.5km az=60.0*

ISC 01 20:16:30.1±1.7**,7.58S**±0.09×**128.5E**±0.1**,h166**^{km}±19^{km}**, n15,**σ1§**25**/22**,mb3.8**/6**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.40	143	eP	P	20 18 05.3	+2.2
	10nm,0.1s						
KAKA				eS	S	20 19 14.2	-1.2
FITZ	Fitzroy Crossi	10.81	194	eP	P	20 18 59.6	-1.8
	4.9nm,0.3s						
FITZ				eS	S	20 20 53.7	-6.3
FITZ	Fitzroy Crossi	10.81	194	Pn	P	20 18 59.4	-2.0
	2.0nm,0.3s,baz=22,slow=10,SNR=20						
FITZ				Sn	S	20 20 53.5	-6.5
	2.5nm,0.3s,baz=58,slow=6.2,SNR=4.2						
WRAB	Tennant Creek	13.54	156	eP	P	20 19 36.6	-0.1
	7.8nm,0.7s						
WRA	Warramunga Arr	13.55	156	Pn	P	20 19 35.0	-1.7
	1.1nm,0.3s,baz=331,slow=13,SNR=26						
WRA				Sn	S	20 21 58.3	-5.3
	4.0nm,0.3s,baz=327,slow=24,SNR=12						
WB2	Warramunga Arr	13.55	156	eP	P	20 19 36.3	-0.4
WB2				eS	S	20 21 59.9	-3.8
MBWA	Marble Bar	15.92	211	P	P	20 20 07.6	+1.2
	4.2nm,0.8s						
ASPA	Alice Springs	16.83	163	eP	P	20 20 20.0	+2.5
ASPA				eS	S	20 23 18.0	+0.3
ASAR	Alice Springs	16.83	163	P	P	20 20 19.6	+2.1
	2.1nm,0.3s,baz=341,slow=11,SNR=101						
ASAR				S	S	20 23 17.8	0.0
	0.5nm,0.3s,baz=344,slow=26,SNR=6.3						
STKA	Stephens Creek	27.10	155	P	P	20 22 03.9	+4.4
	1.0nm,0.4s,mb3.8,baz=318,slow=15,SNR=3.0						
CMAR	Chiang Mai Arr	38.95	312	P	P	20 23 41.5	-0.3
	0.6nm,0.7s,mb3.3,baz=139,slow=6.6,SNR=5.5						
ZAL	Zalesovo	71.43	334	P	P	20 27 33.6	-0.4
	0.7nm,0.5s,mb3.6,baz=333,slow=15,SNR=3.6						
KURK	Kurchatov	72.22	329	eP	P	20 27 38.5	-0.3
	3.2nm,0.8s,mb4.1						
BRVK	Borovoye	77.81	328	P	P	20 28 10.6	+0.1
	4.4nm,1.0s,mb4.0						
CHKZ	Chkalovo	77.96	329	eP	P	20 28 11.3	0.0
	1.1nm,0.7s,mb3.6						

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*IDC **01** 20:45:44.2±1.1,29.89N×98.50E,mb3.9/5,mb1 4.1/7, mb1mx3.8/19,ML3.7/2,MS3.2/1,Ms1 3.4/1,ms1mx2.6/20, Error ellipse: s-maj=52.5km s-min=17.0km az=73.0*

*NEIC **01** 20:45:45.8±0.6,29.91N×98.31E,h10^{km},mb4.0/4,Error ellipse: s-maj=14.8km s-min=10.7km az=77.0*

*BJI **01** 20:45:47.3,29.88N×98.26E,h10^{km},mb4.5,ML3.7,Ms4.1, Msz4.0*

ISC 01 20:45:42.8±0.5**,29.75N**±0.05×**98.32E**±0.05**,h10**^{km}**,n28,** σ**1§56**/33**,mb4.1**/10**,1D,Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CD2	Chengdu	4.84	75	eP	Pn	20 47 04.0	+6.5
CD2				PG	Pg	20 47 15.8	-3.7
CD2				SG	Sg	20 48 19.7	-4.3
CD2				Smax			
	comp=E,63nm,1.2s						
KMI	Kunming	6.05	139	eP	Pn	20 47 22.2	+7.5
KMI				PG	Pg	20 47 35.3	-8.4
KMI				SG	Sg	20 49 02.5	-1.9
KMI				Smax			
	comp=N,30nm,1.5s						
KMI				Smax			
	comp=E,31nm,2.3s						
KMI				LR	LR		
	comp=N,784nm,6.6s						
KMI				LR	LR		
	comp=E,766nm,6.8s						
KMI				LR	LR		
	comp=Z,397nm,8.4s						
LSA	Lhasa	6.24	271	P	Pn	20 47 22.4	+5.1
IMP	Imphal	6.30	219	e	Pn	20 47 16.7	-1.5
SHL	Shillong	7.07	235	eP	Pn	20 47 32.0	+3.0
SHL				eS	Sg	20 49 29.0	-9.2
LZH	Lanzhou	7.84	35	eP	Pn	20 47 44.5	+4.8
LZH				LR	LR		
	comp=N,1µm,8.3s						
LZH				LR	LR		
	comp=Z,2µm,12.3s						
ENH	Enshi	9.69	84	eP	P	20 48 07.3	+1.8

	comp=Z,10nm,0.9s						
GUN	**Gumba**	**11.06**	**263**	*e*P	**P**	**20 48 25.4**	**+1.1**
	comp=Z,24nm,0.4s						
CMAR	**Chiang Mai Arr**	**11.26**	**177**	Pn	**P**	**20 48 30.1**	**+3.2**
	comp=Z,0.1nm,0.3s,baz=351,slow=12,SNR=9.8						
CMAR				Pg	Px	20 49 17.7	
	comp=Z,0.1nm,0.3s,baz=354,slow=17,SNR=4.3						
CMAR				Lg		20 51 46.5	
	comp=Z,0.1nm,0.3s,baz=352,slow=31,SNR=3.0						
CMAR				LR	LR	20 52 58.0	
	comp=Z,125nm,18.7s,baz=355,slow=38						
PKI	**Pulchoki**	**11.55**	**262**	*e*P	**P**	**20 48 30.9**	**0.0**
	comp=Z,18nm,0.5s						
KKN	**Kakani**	**11.61**	**263**	*e*P	**P**	**20 48 31.7**	**0.0**
	comp=Z,11nm,0.4s						
DMN	**Daman**	**11.80**	**263**	*e*P	**P**	**20 48 34.6**	**+0.3**
	comp=Z,5.3nm,0.4s						
GKN	**Gorkha**	**12.12**	**265**	*e*P	**P**	**20 48 36.2**	**-2.4**
	comp=Z,16nm,0.5s						
KOLN	**Koldanda**	**13.07**	**265**	*e*P	**P**	**20 48 49.1**	**-2.2**
	comp=Z,12nm,0.6s						
SONM	**Songino Array**	**19.10**	**17**	P	**P**	**20 50 05.9**	**-2.3**
	comp=Z,0.2nm,0.3s,baz=207,slow=11,SNR=10						
ULN	**Ulaanbaatar**	**19.30**	**18**	*e*P	**P**	**20 50 08.4**	**-2.1**
	comp=Z,5.9nm,1.2s						
HYB	**Hyderabad**	**21.84**	**240**	*e*P	**P**	**20 50 40.0**	**+2.5**
HYB	**Hyderabad**	**21.84**	**240**	*i* P	**P**	**20 50 40.0**	**+2.5**
SNY	**Shenyang**	**23.68**	**53**	⇓P	**P**	**20 50 58.6**	**+3.3**
SNY				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
KURK	**Kurchatov**	**25.63**	**330**	*e*P	**P**	**20 51 14.1**	**+0.1**
	comp=Z,2.4nm,0.7s,mb3.8						
CN2	**Changchun**	**25.72**	**50**	*e*P	**P**	**20 51 19.2**	**+4.3**
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
ZAL	**Zalesovo**	**26.09**	**342**	P	**P**	**20 51 18.4**	**+0.1**
	comp=Z,0.7nm,0.7s,mb3.3,baz=308,slow=11,SNR=4.8						
BVAR	**Borovoye Array**	**30.96**	**327**	P	**P**	**20 52 01.8**	**-0.3**
	comp=Z,0.6nm,0.6s,mb3.6,baz=132,slow=36,SNR=4.6						
BRVK	**Borovoye**	**31.03**	**327**	*e*P	**P**	**20 52 02.4**	**-0.3**
	comp=Z,3.1nm,1.3s,mb4.0						
WRAB	**Tennant Creek**	**60.37**	**140**	*e*P	**P**	**20 55 54.7**	**-0.1**
	comp=Z,9.2nm,0.8s,mb4.9						
WRA	**Warramunga Arr**	**60.37**	**140**	P	**P**	**20 55 55.1**	**+0.3**
	comp=Z,4.6nm,0.7s,mb4.6,baz=331,slow=7.5,SNR=17						
ASAR	**Alice Springs**	**63.16**	**143**	P	**P**	**20 56 13.8**	**+0.3**
	comp=Z,0.8nm,0.5s,mb4.1,baz=327,slow=6.7,SNR=12						
YKA	**Yellowknife Ar**	**84.36**	**15**	P	**P**	**20 58 19.0**	**+3.1**
	comp=Z,0.3nm,0.7s,mb3.5,baz=328,slow=5.0,SNR=5.7						

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*MOS **01** 20:51:13.4±0.7,51.71N×16.11E,h10^{km},mb4.0/1,Error ellipse: s-maj=11.8km s-min=5.7km az=85.0*

*BGR **01** 20:51:14.1±0.6,51.35N×16.25E,h1^{km},ML3.4/8,Error ellipse: s-maj=8.9km s-min=6.7km az=167.0*

*NEIC **01** 20:51:14.9±0.3,51.66N×16.09E,h5^{km},ML3.4(SZGRF),ML3.4(VIE),ML2.9(CLL),ML2.8(BRG),Error ellipse: s-maj=4.4km s-min=3.8km az=65.0*

*IDC **01** 20:51:15.6±0.6,51.56N×15.90E,mb1 3.4/8,mb1mx3.3/21,ML3.3/8,Error ellipse: s-maj=9.5km s-min=5.6km az=96.0*

*IPEC **01** 20:51:15.3±0.3,51.62N×16.08E,h8^{km}±1^{km},ML2.7/3,Error ellipse: s-maj=2.0km s-min=0.8km az=31.0*

*WAR **01** 20:51:16.4,51.58N×16.00E,h1^{km},ML3.4,Mining Induced*

*CSEM **01** 20:51:16.3±0.2,51.58N×15.97E,h1^{km},ML3.7/9,Error ellipse: s-maj=3.2km s-min=1.9km az=19.0*

*PRU **01** 20:51:18.7,51.48N×16.01E,Felt In Harrachov*

*LDG **01** 20:51:20.3±0.8,51.45N×15.78E,h1^{km},Ml3.7/4,Error ellipse: s-maj=18.9km s-min=9.7km az=15.0,Suspected Mining induced.*

ISC 01 20:51:13.8±0.4**,51.55N**±0.02×**16.01E**±0.02**,n115,**σ1^{s}**31**/217**,13C-3D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.73**	**166**	*i* PG	**Pg**	**20 51 30.4**	**+2.0**
KSP				*e*SG	**Sg**	**20 51 41.4**	**+3.3**
KSP	**Ksiaz**	**0.73**	**166**	⇓*i*P	**Pg**	**20 51 30.4**	**+2.0**
KSP				*e*		20 51 44.1	
KSP	**Ksiaz**	**0.73**	**166**	⇓*i*Pg	**Pg**	**20 51 30.4**	**+2.0**
KSP				*i*		20 51 32.2	
KSP				*e*Sg	**Sg**	**20 51 40.6**	**+2.5**
KSP				*e*		20 51 44.1	
KSP	**Ksiaz**	**0.73**	**166**	⇓*i*Pg	**Pg**	**20 51 30.4**	**+2.0**
KSP				*e*Sg	**Sg**	**20 51 40.6**	**+2.5**
KSP	**Ksiaz**	**0.73**	**166**	*i* Pg	**Pg**	**20 51 30.5**	**+2.1**
KSP				*e*Pn	**Pn**	**20 51 32.2**	**+1.2**
KSP				*e*Sg	**Sg**	**20 51 40.7**	**+2.6**
UPC	**Upice**	**1.05**	**180**	*e*PG	**Pg**	**20 51 36.1**	**+1.5**
UPC				*e*SG	**Sg**	**20 51 50.0**	**+1.4**
UPC	**Upice**	**1.05**	**180**	*e*Pg	**Pg**	**20 51 36.1**	**+1.5**
UPC				*e*Sg	**Sg**	**20 51 50.6**	**+2.0**
DPC	**Dobruska-Polom**	**1.22**	**170**	*e*P	**Pg**	**20 51 39.1**	**+1.0**
DPC				*e*		20 51 54.8	
DPC				smax			
	comp=N,175nm,0.6s						
DPC	**Dobruska-Polom**	**1.22**	**170**	*e*PG	**Pg**	**20 51 39.1**	**+1.0**
DPC				*e*SG	**Sg**	**20 51 54.8**	**+0.4**
	comp=N,148nm,0.5s						
DPC	**Dobruska-Polom**	**1.22**	**170**	*e*Pg	**Pg**	**20 51 39.1**	**+1.0**
DPC				*e*Sg	**Sg**	**20 51 55.4**	**+1.0**
PVCC	**Panska Ves**	**1.37**	**222**	*e*PG	**Pg**	**20 51 42.3**	**+1.2**
PVCC				*e*SG	**Sg**	**20 52 00.7**	**+1.3**
PVCC	**Panska Ves**	**1.37**	**222**	*e*Pn	**Pn**	**20 51 41.7**	**+1.6**
PVCC	**Panska Ves**	**1.37**	**222**	*e*Pg	**Pg**	**20 51 42.3**	**+1.2**
PVCC				*e*Sg	**Sg**	**20 52 00.7**	**+1.3**
BRG	**Berggiesshubel**	**1.47**	**243**	*e*Pg	**Pg**	**20 51 42.4**	**-0.7**
BRG				*e*Sg	**Sg**	**20 52 03.5**	**+0.9**
BRG	**Berggiesshubel**	**1.47**	**243**	*i* P	**Pn**	**20 51 42.8**	**+1.3**
BRG				*i*		20 52 03.2	
BRG	**Berggiesshubel**	**1.47**	**243**	*i* Pn	**Pn**	**20 51 42.8**	**+1.3**
BRG				*i* Pg	**Pg**	**20 51 43.7**	**+0.7**
BRG				*i* Sg	**Sg**	**20 52 03.2**	**+0.6**
BRG	**Berggiesshubel**	**1.47**	**243**	*i* Pg	**Pg**	**20 51 43.7**	**+0.7**
BRG				*e*Sg	**Sg**	**20 52 03.2**	**+0.6**
RUE	**Ruedersdorf**	**1.66**	**305**	*e*P	**Pn**	**20 51 44.3**	**0.0**
RUE	**Ruedersdorf**	**1.66**	**305**	*e*Pn	**Pn**	**20 51 44.4**	**+0.1**
PRU	**Pruhonice**	**1.82**	**211**	P	**Pn**	**20 51 47.7**	**+1.1**
PRU				*e*		20 52 13.8	
PRU				smax			
	comp=N,78nm,0.3s						
PRU	**Pruhonice**	**1.82**	**211**	PN	**Pn**	**20 51 47.7**	**+1.1**
PRU				PG	**Pg**	**20 51 49.7**	**-0.4**
PRU				*i* x	x	20 51 53.9	
PRU				*e*x	x	20 52 06.1	
PRU				*e*SG	**Sg**	**20 52 13.8**	**-0.6**
	comp=N,78nm,0.3s						
PRU	**Pruhonice**	**1.82**	**211**	Pg	**Pg**	**20 51 49.7**	**-0.4**
PRU				Sg	**Sg**	**20 52 13.8**	**-0.6**
	comp=N,78nm,0.3s						
CLL	**Collm**	**1.90**	**264**	*e*Pn	**Pn**	**20 51 48.0**	**+0.3**
CLL				*e*Sg	**Sg**	**20 52 17.3**	**+0.4**
CLL	**Collm**	**1.90**	**264**	*i* P	**Pn**	**20 51 48.1**	**+0.4**
CLL				*e*		20 52 17.0	
CLL	**Collm**	**1.90**	**264**	*i* Pn	**Pn**	**20 51 48.1**	**+0.4**
CLL				*e*Pg	**Pg**	**20 51 51.0**	**-0.6**
CLL				*e*Sg	**Sg**	**20 52 17.0**	**+0.1**
CLL	**Collm**	**1.90**	**264**	*i* PN	**Pn**	**20 51 48.1**	**+0.4**
	comp=N,logA/T=2.1						
CLL				*e*PG	**Pg**	**20 51 51.0**	**-0.6**
CLL				*i*		20 51 55.0	
CLL				*e*SG	**Sg**	**20 52 17.0**	**+0.1**
CLL	**Collm**	**1.90**	**264**	*e*Pg	**Pg**	**20 51 51.0**	**-0.6**
CLL				Sg	**Sg**	**20 52 17.3**	**+0.4**
RAC	**Raciborz**	**2.02**	**136**	*e*PN	**Pn**	**20 51 51.0**	**+1.5**
RAC				*e*S	**Sn**	**20 52 22.0**	**+6.2**
MORC	**Moravsky Berou**	**2.03**	**151**	*e*Pn	**Pn**	**20 51 50.5**	**+0.9**
MORC				*e*Sg	**Sg**	**20 52 20.1**	**-1.2**
	comp=N,64nm,0.4s						
OKC	**Ostrava-Krasne**	**2.19**	**141**	*e*PG	**Pg**	**20 51 57.0**	**-0.5**
OKC				*e*SG	**Sg**	**20 52 25.9**	**-0.8**
OKC	**Ostrava-Krasne**	**2.19**	**141**	*e*Pn	**Pn**	**20 51 52.1**	**+0.2**
OKC	**Ostrava-Krasne**	**2.19**	**141**	Pg	**Pg**	**20 51 57.0**	**-0.5**
OKC				Sg	**Sg**	**20 52 25.9**	**-0.8**
VRAC	**Vranov**	**2.28**	**170**	Pn	**Pn**	**20 51 54.5**	**+1.4**
	comp=N,4.9nm,0.3s,baz=336,slow=14,SNR=33						
VRAC				Pg	**Pg**	**20 51 58.2**	**-1.0**
	comp=N,6.8nm,0.3s,baz=344,slow=16,SNR=18						
VRAC				Lg		20 52 27.9	
	comp=N,4.7nm,0.3s,baz=62,slow=19,SNR=12						
VRAC	**Vranov**	**2.28**	**170**	*e*Pn	**Pn**	**20 51 54.5**	**+1.4**
VRAC	**Vranov**	**2.28**	**170**	Pg	**Pg**	**20 51 58.2**	**-1.0**
VRAC				*e*Sg	**Sg**	**20 52 27.8**	**-1.8**
	comp=N,31nm,0.3s						
KRUC	**Moravsky**	**2.50**	**174**	*e*Pn	**Pn**	**20 51 57.7**	**+1.3**
KRUC	**Moravsky**	**2.50**	**174**	*e*Pg	**Pg**	**20 52 02.4**	**-1.4**
KRUC				*e*Sg	**Sg**	**20 52 36.4**	**-0.8**
	comp=N,31nm,0.4s						
TANN	**Tannenbergstha**	**2.51**	**244**	*e*Pn	**Pn**	**20 51 57.9**	**+1.4**
TANN				*e*Sg	**Sg**	**20 52 35.9**	**-1.6**
WERD	**Werda**	**2.59**	**246**	*e*Pn	**Pn**	**20 51 58.3**	**+0.7**
WERD				*e*Sg	**Sg**	**20 52 39.2**	**-0.7**
GUNZ	**Gunzen**	**2.61**	**244**	*e*Pn	**Pn**	**20 51 58.7**	**+0.8**
GUNZ				*e*Sg	**Sg**	**20 52 39.9**	**-0.8**
GUNZ	**Gunzen**	**2.61**	**244**	Sg	**Sg**	**20 52 39.9**	**-0.8**
NKC	**Novy Kostel**	**2.61**	**241**	*e*P	**Pn**	**20 51 58.9**	**+1.0**
NKC				*e*		20 52 40.6	
NKC				smax			
	comp=N,94nm,0.3s						
NKC	**Novy Kostel**	**2.61**	**241**	*e*PN	**Pn**	**20 51 58.9**	**+1.0**
NKC				*e*PG	**Pg**	**20 52 05.6**	**-0.3**
NKC				*e*SG	**Sg**	**20 52 40.6**	**-0.1**
	comp=N,94nm,0.3s						
NKC	**Novy Kostel**	**2.61**	**241**	*e*Pg	**Pg**	**20 52 05.6**	**-0.3**
NKC	**Novy Kostel**	**2.61**	**241**	Sg	**Sg**	**20 52 40.6**	**-0.1**
	comp=N,94nm,0.3s						
NEUB	**Neuenburg**	**2.67**	**264**	*e*Pn	**Pn**	**20 51 59.4**	**+0.6**
NEUB				*e*Sg	**Sg**	**20 52 42.7**	**-0.1**
OJC	**Ojcow**	**2.75**	**118**	*e*PN	**Pn**	**20 51 59.0**	**-0.8**
OJC				*i* PG	**Pg**	**20 52 08.3**	**-0.3**
OJC				*e*SN	**Sn**	**20 52 31.3**	**-2.9**
OJC				*e*SG	**Sg**	**20 52 44.3**	**-0.9**
OJC	**Ojcow**	**2.75**	**118**	*e*P	**Pn**	**20 51 59.1**	**-0.7**
OJC				*e*		20 52 30.9	
OJC	**Ojcow**	**2.75**	**118**	*e*Pg	**Pg**	**20 52 08.8**	**+0.2**
OJC				*e*Sn	**Sn**	**20 52 30.9**	**-3.3**
OJC				*e*Sg	**Sg**	**20 52 45.6**	**+0.4**
OJC	**Ojcow**	**2.75**	**118**	*e*Pn	**Pn**	**20 51 59.1**	**-0.7**
OJC				*e*Pg	**Pg**	**20 52 08.8**	**+0.2**
OJC				*e*Sn	**Sn**	**20 52 30.9**	**-3.3**
OJC				*e*Sg	**Sg**	**20 52 45.6**	**+0.4**
KHC	**Kasperske Hory**	**2.88**	**214**	*e*P	**Pn**	**20 52 02.4**	**+0.6**
KHC				*e*		20 52 37.5	
KHC	**Kasperske Hory**	**2.88**	**214**	*e*PN	**Pn**	**20 52 02.4**	**+0.6**
KHC				*e*PG	**Pg**	**20 52 08.9**	**-2.4**
KHC				*e*SN	**Sn**	**20 52 37.5**	**-0.1**
KHC				*e*SG	**Sg**	**20 52 48.2**	**-1.5**
KHC	**Kasperske Hory**	**2.88**	**214**	*e*Pn	**Pn**	**20 52 02.3**	**+0.5**
KHC	**Kasperske Hory**	**2.88**	**214**	*e*Pg	**Pg**	**20 52 08.9**	**-2.4**
KHC				*e*Sn	**Sn**	**20 52 37.5**	**-0.1**
KHC				*e*Sg	**Sg**	**20 52 48.2**	**-1.5**
MOX	**Moxa**	**2.91**	**254**	*e*Pn	**Pn**	**20 52 02.5**	**+0.3**
MOX				*e*Sg	**Sg**	**20 52 49.5**	**-1.3**
MOX	**Moxa**	**2.91**	**254**	*i* P	**Pn**	**20 52 02.3**	**+0.1**
MOX				Pg	**Pg**	**20 52 11.0**	**-0.9**
MOX				Sg	**Sg**	**20 52 50.0**	**-0.8**
MOX	**Moxa**	**2.91**	**254**	*e*Pn	**Pn**	**20 52 02.3**	**+0.1**
MOX				*e*Pg	**Pg**	**20 52 10.9**	**-1.0**
MOX				*e*Sg	**Sg**	**20 52 49.7**	**-1.1**
MOX	**Moxa**	**2.91**	**254**	*e*Pg	**Pg**	**20 52 10.9**	**-1.0**
MOX				*e*Sg	**Sg**	**20 52 49.3**	**-1.5**
GEC2	**GERESS Array S**	**3.09**	**210**	*e*Pg	**Pg**	**20 52 05.7**	**-10**
GEC2				*e*Sg	**Sg**	**20 52 48.2**	**-8.4**
GEC2	**GERESS Array S**	**3.09**	**210**	*e*Pg	**Pg**	**20 52 05.7**	**-10**
GEC2				*e*Sg	**Sg**	**20 52 48.2**	**-8.4**
GERES	**GERESS Array B**	**3.09**	**210**	Pn	**Pn**	**20 52 05.2**	**+0.5**
	comp=N,2.6nm,0.3s,baz=29,slow=13,SNR=79						
GERES				Pg	**Pg**	**20 52 11.8**	**-3.6**
	comp=N,7.8nm,0.3s,baz=22,slow=16,SNR=50						
GERES				Lg		20 52 51.4	
	comp=N,7.5nm,0.3s,baz=27,slow=25,SNR=6.3						
SMOL	**Smolenice**	**3.18**	**163**	*e*PN	**Pn**	**20 52 07.8**	**+1.8**
SMOL				*e*PG	**Pg**	**20 52 16.4**	**-0.8**
SMOL				*e*SB	**Sg**	**20 52 58.8**	**-0.7**
SMOL	**Smolenice**	**3.18**	**163**	*e*Pg	**Pg**	**20 52 16.4**	**-0.8**
SMOL				*e*Sg	**Sg**	**20 52 58.8**	**-0.7**
LIKS	**Likavka**	**3.20**	**140**	*e*SG	**Sg**	**20 53 02.4**	**+2.2**
MODS	**Modra-Piesok**	**3.29**	**165**	*e*PB	**Pb**	**20 52 15.5**	**+2.8**
MODS				*e*SG	**Sg**	**20 53 01.3**	**-1.9**
ZST	**Bratislava**	**3.43**	**168**	*e*PG	**Pg**	**20 52 21.1**	**-1.2**
ZST				*e*SB	**Sb**	**20 53 03.6**	**+5.8**
NIE	**Niedzica**	**3.48**	**126**	*e*P	**Pn**	**20 52 21.5**	**+11**
NIE				*e*S	**Sn**	**20 53 07.7**	**+15**
VYHS	**Vyhne**	**3.56**	**148**	*e*PN	**Pn**	**20 52 11.4**	**-0.1**
VYHS				*e*PG	**Pg**	**20 52 24.0**	**-0.9**
VYHS				*e*SG	**Sg**	**20 53 10.1**	**-2.3**
VYHS	**Vyhne**	**3.56**	**148**	*e*Pg	**Pg**	**20 52 24.0**	**-0.9**
VYHS				*e*Sg	**Sg**	**20 53 10.1**	**-2.3**
GRA1	**Grafenberg Arr**	**3.57**	**240**	*e*Pn	**Pn**	**20 52 12.1**	**+0.5**
GRA1				*e*Sg	**Sg**	**20 53 08.4**	**-4.3**
GRA1	**Grafenberg Arr**	**3.57**	**240**	Pn	**Pn**	**20 52 12.1**	**+0.5**
GRA1				Sg	**Sg**	**20 53 08.4**	**-4.3**
GRF	**Grafenberg Arr**	**3.57**	**240**	*e*Pn	**Pn**	**20 52 12.1**	**+0.5**
GRF				*e*Sg	**Sg**	**20 53 08.4**	**-4.3**
BSD	**Bornholm Skovb**	**3.63**	**350**	*i* P	**Pn**	**20 52 10.9**	**-1.5**
BSD				*i* S	**Sn**	**20 52 48.8**	**-7.8**
MOA	**Molln**	**3.88**	**198**	*i* PN	**Pn**	**20 52 16.8**	**+0.9**
MOA				*i* SG	**Sg**	**20 53 20.6**	**-2.2**
	comp=N,24nm,0.4s						
ARSA	**Arzberg**	**4.32**	**184**	⇑*i*PN	**Pn**	**20 52 23.9**	**+1.7**
ARSA				*i* PG	**Pg**	**20 52 37.8**	**-2.1**
ARSA				*i* SG	**Sg**	**20 53 37.2**	**-0.3**
	comp=N,19nm,0.7s						
ARSA	**Arzberg**	**4.32**	**184**	*i* Pg	**Pg**	**20 52 37.8**	**-2.1**
ARSA				*i* Sg	**Sg**	**20 53 37.2**	**-0.3**
	comp=N,19nm,0.7s						
CRVS	**Cervenica-Dubn**	**4.39**	**125**	*e*Pn	**Pn**	**20 52 23.6**	**+0.4**
CRVS				*e*		20 52 38.9	
CRVS				*e*Sg	**Sg**	**20 53 36.6**	**-3.4**
CRVS	**Cervenica-Dubn**	**4.39**	**125**	*e*SG	**Sg**	**20 53 36.6**	**-3.4**
CRVS	**Cervenica-Dubn**	**4.39**	**125**	*e*Pn	**Pn**	**20 52 23.6**	**+0.4**
CRVS				*e*Sg	**Sg**	**20 53 36.6**	**-3.4**
KOLS	**Kolonicke sedl**	**4.80**	**121**	*e*PN	**Pn**	**20 52 28.7**	**-0.3**
KOLS				*e*		20 52 50.4	
KBA	**Koelnbreinsper**	**4.80**	**202**	*i* PN	**Pn**	**20 52 30.1**	**+1.0**
KBA				*i* SG	**Sg**	**20 53 51.5**	**-2.2**
	comp=N,10nm,0.4s						
WATA	**Walderalm**	**5.11**	**216**	⇑*i*PN	**Pn**	**20 52 34.9**	**+1.4**
WATA				*i* SG	**Sg**	**20 54 05.1**	**+1.1**
	comp=N,14nm,0.7s						
WATA	**Walderalm**	**5.11**	**216**	⇑*i*Pn	**Pn**	**20 52 34.9**	**+1.4**
	comp=N,14nm,0.7s						
WATA				*i* Sg	**Sg**	**20 54 05.1**	**+1.1**
OBKA	**Obir**	**5.14**	**191**	⇑*i*PN	**Pn**	**20 52 36.2**	**+2.4**
OBKA				*i* SG	**Sg**	**20 54 06.3**	**+1.5**
	comp=N,11nm,0.7s						
OBKA	**Obir**	**5.14**	**191**	⇑*i*Pn	**Pn**	**20 52 36.2**	**+2.4**
	comp=N,11nm,0.7s						
OBKA				*i* Sg	**Sg**	**20 54 06.3**	**+1.5**
WTTA	**Wattenberg**	**5.15**	**215**	⇑*i*PN	**Pn**	**20 52 35.1**	**+1.1**
WTTA				*i* SG	**Sg**	**20 54 06.0**	**+0.7**
	comp=N,9.7nm,0.6s						
WTTA	**Wattenberg**	**5.15**	**215**	⇑*i*Pn	**Pn**	**20 52 35.1**	**+1.1**
	comp=N,9.7nm,0.6s						
WTTA				*i* Sg	**Sg**	**20 54 06.0**	**+0.7**
MOTA	**Moosalm**	**5.29**	**219**	⇑*i*PN	**Pn**	**20 52 36.3**	**+0.4**
MOTA				*i* SG	**Sg**	**20 54 07.5**	**-2.3**
	comp=N,9.0nm,0.6s						
MOTA	**Moosalm**	**5.29**	**219**	⇑*i*Pn	**Pn**	**20 52 36.3**	**+0.4**
	comp=N,9.0nm,0.6s						
MOTA				*i* Sg	**Sg**	**20 54 07.5**	**-2.3**
SQTA	**Sankt Quirin**	**5.35**	**218**	⇑*i*PN	**Pn**	**20 52 38.3**	**+1.5**
SQTA				*i* SG	**Sg**	**20 54 11.6**	**-0.2**
	comp=N,6.0nm,0.4s						
SQTA	**Sankt Quirin**	**5.35**	**218**	⇑*i*Pn	**Pn**	**20 52 38.3**	**+1.5**
	comp=N,6.0nm,0.4s						
SQTA				*i* Sg	**Sg**	**20 54 11.6**	**-0.2**
DAVA	**Damuels**	**5.85**	**225**	⇑*i*PN	**Pn**	**20 52 43.5**	**-0.3**
DAVA				*i* SG	**Sg**	**20 54 30.1**	**+1.7**
	comp=N,15nm,0.8s						
DAVA	**Damuels**	**5.85**	**225**	⇑*i*Pn	**Pn**	**20 52 43.5**	**-0.3**
	comp=N,15nm,0.8s						
DAVA				*i* Sg	**Sg**	**20 54 30.1**	**+1.7**
DAVOX	**Davos**	**6.24**	**222**	Pn	**Pn**	**20 52 48.5**	**-0.8**
	comp=N,0.3nm,0.3s,baz=14,slow=19,SNR=4.7						
DAVOX				Lg		20 54 33.1	
	comp=N,0.6nm,0.3s,baz=207,slow=20,SNR=2.6						
CDF	**Champ du Feu**	**6.45**	**244**	*e*Pn	**Pn**	**20 52 50.0**	**-2.3**
CDF				*e*Pg	**Pg**	**20 53 18.1**	**-4.4**
CDF				*e*Sg	**Sg**	**20 54 36.6**	**-12**
	comp=N,28nm,1.0s						
CDF	**Champ du Feu**	**6.45**	**244**	*e*Pn	**Pn**	**20 52 50.0**	**-2.3**
CDF				*e*Sg	**Sg**	**20 54 36.6**	**-12**
	comp=N,14nm,1.0s						
HINF	**Hinteralfeld**	**7.02**	**241**	*e*Pn	**Pn**	**20 53 02.3**	**+2.0**
HINF				*e*Sg	**Sg**	**20 54 54.2**	**-13**
	comp=N,15nm,0.7s						
HINF	**Hinteralfeld**	**7.02**	**241**	*e*Sg	**Sg**	**20 54 54.2**	**-13**
	comp=N,7.6nm,0.7s						
HAU	**Haudompre**	**7.19**	**244**	*e*Pn	**Pn**	**20 53 00.3**	**-2.4**
HAU				*e*Pg	**Pg**	**20 53 29.6**	**-7.7**
HAU				*e*Sg	**Sg**	**20 54 59.5**	**-14**
	comp=N,22nm,0.9s						
HAU	**Haudompre**	**7.19**	**244**	*e*Pg	**Pg**	**20 53 29.6**	**-7.7**
HAU				*e*Sg	**Sg**	**20 54 59.5**	**-14**
	comp=N,11nm,0.9s						
GIVF	**Givet**	**7.23**	**263**	*e*Pn	**Pn**	**20 53 02.4**	**-0.9**
BAIF	**Baives**	**7.63**	**263**	*e*Pn	**Pn**	**20 53 09.0**	**+0.2**
CABF	**La Chapelle**	**8.17**	**237**	*e*Sg	**Sg**	**20 55 28.6**	**-17**
	comp=N,87nm,1.5s						
AKASG	**Malin Array Be**	**8.36**	**91**	Pn	**P**	**20 53 14.9**	**-4.1**
	comp=N,0.9nm,0.3s,baz=278,slow=12,SNR=10						
AKASG				Sn	**Sn**	**20 54 48.4**	**-7.0**
	comp=N,0.9nm,0.3s,baz=272,slow=23,SNR=5.0						
AKASG	**Malin Array Be**	**8.36**	**91**	P	**P**	**20 53 15.0**	**-4.1**
AKASG						20 54 48.4	
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
LPL	**La Plagne**	**8.62**	**229**	*e*Pn	**P**	**20 53 21.4**	**-1.3**
LPG	**La Plagne**	**8.62**	**229**	*e*Pn	**P**	**20 53 22.8**	**+0.1**
HFS	**Hagfors**	**8.70**	**352**	Pn	**P**	**20 53 19.5**	**-4.2**
	comp=Z,0.0nm,0.3s,baz=171,slow=15,SNR=10.0						
HFS				Sn	**Sn**	**20 54 55.6**	**-8.2**
	comp=Z,0.1nm,0.3s,baz=164,slow=27,SNR=4.2						
MBDF	**Montbardon**	**9.20**	**226**	*e*Pn	**P**	**20 53 30.3**	**-0.4**
SMF	**Signal de Mont**	**9.37**	**243**	*e*Pn	**P**	**20 53 29.5**	**-3.5**
AVF	**Avril sur Loir**	**9.56**	**245**	*e*Pn	**P**	**20 53 31.8**	**-3.8**
HYF	**Humbligny**	**9.71**	**249**	*e*Pn	**P**	**20 53 36.7**	**-0.9**
NOA	**NORSAR Array B**	**9.87**	**346**	Pn	**P**	**20 53 35.6**	**-4.2**
	comp=Z,0.2nm,0.3s,baz=162,slow=14,SNR=2.5						
NOA				Sn	**Sn**	**20 55 22.1**	**-11**
	comp=Z,0.1nm,0.3s,baz=73,slow=14,SNR=2.4						
FINES	**FINESS Array B**	**11.35**	**25**	Pn	**P**	**20 53 55.2**	**-4.9**
	comp=Z,0.2nm,0.3s,baz=220,slow=12,SNR=8.2						
FINES				Sn	**S**	**20 55 55.6**	**-13**
	comp=Z,0.3nm,0.3s,baz=219,slow=22,SNR=3.8						
EKA	**Eskdalemuir Ar**	**12.03**	**296**	Pn	**P**	**20 54 04.6**	**-4.7**
	comp=Z,0.2nm,0.3s,baz=104,slow=14,SNR=3.7						

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*IDC **01** 21:15:28.3±2.4,7.53N×59.78E,mb3.8/7,mb1 3.9/7,mb1mx3.8/17,MS3.5/3,Ms1 3.6/3,ms1mx3.4/12,Error ellipse: s-maj=58.0km s-min=27.5km az=146.0*

*NEIC **01** 21:15:29.6±1.6,7.42N×59.82E,h10^{km},mb4.5/1,Error ellipse: s-maj=39.4km s-min=17.2km az=146.0*

ISC 01 21:15:28.3±2.0**,7.6N**±0.3×**59.8E**±0.2**,h10**^{km}**,n10,**σ**0**^{s}**93**/8**,mb3.9**/8**,MS3.5**/3**,Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	**Kilima Mbogo**	**24.12**	**250**	P	**P**	**21 20 45.5**	**0.0**
	5.6nm,1.0s,mb4.0,baz=51,slow=12,SNR=11						
KMBO				LR	LR	21 30 09.6	
	comp=Z,73nm,20.9s,MS3.1,baz=296,slow=37						
CMAR	**Chiang Mai Arr**	**39.53**	**70**	LR	LR	21 38 21.4	
	comp=Z,44nm,19.0s,MS3.3,baz=265,slow=35						
BRTR	**Keskin Array B**	**39.70**	**328**	P	**P**	**21 23 03.3**	**+0.8**
	1.5nm,1.1s,mb3.6,baz=168,slow=11,SNR=3.7						
IDI	**Anoyia**	**42.26**	**316**	P	**P**	**21 23 24.6**	**+0.9**
	4.2nm,0.8s,mb4.1,baz=132,slow=7.0,SNR=4.7						
CHKZ	**Chkalovo**	**46.80**	**9**	*e*P	**P**	**21 24 00.4**	**+0.6**
	4.0nm,0.9s,mb4.3						
AKASG	**Malin Array Be**	**49.94**	**335**	P	**P**	**21 24 22.0**	**-2.3**
	0.1nm,0.2s,mb3.4,baz=142,slow=6.8,SNR=8.5						
ZAL	**Zalesovo**	**50.44**	**19**	P	**P**	**21 24 27.4**	**-0.7**
	0.5nm,0.2s,mb4.1,baz=187,slow=8.1,SNR=2.3						
SONM	**Songino Array**	**56.23**	**36**	P	**P**	**21 25 11.5**	**+0.5**
	0.6nm,0.8s,mb3.6,baz=243,slow=5.5,SNR=3.9						
ESDC	**Sonseca Array**	**65.10**	**310**	P	**P**	**21 26 11.2**	**-0.3**
	0.4nm,0.5s,mb3.8,baz=86,slow=5.7,SNR=4.7						
ASAR	**Alice Springs**	**78.63**	**116**	LR	LR	21 56 53.9	
	comp=Z,55nm,18.1s,MS3.9,baz=27,slow=32						

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*NEIC **01** 22:12:12.8±1.7,51.31N×16.27E,h5^{km},ML2.8(VIE),Error ellipse: s-maj=19.3km s-min=7.8km az=208.0*

*WAR **01** 22:12:12.3,51.40N×16.21E,h1^{km},ML2.9,Mining Induced*

*PRU **01** 22:12:12.5,51.37N×16.23E*

ISC 01 22:12:09.8±0.9**,51.38N**±0.05×**16.20E**±0.04**,n14,**σ1^{s}**20**/28**,1C-1D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.55**	**174**	*i* PG	**Pg**	**22 12 22.6**	**+1.9**
KSP				*i* SG	**Sg**	**22 12 30.2**	**+2.2**
KSP	**Ksiaz**	**0.55**	**174**	⇓*i*Pg	**Pg**	**22 12 22.6**	**+1.9**
KSP				*i* Sg	**Sg**	**22 12 30.2**	**+2.2**
UPC	**Upice**	**0.89**	**188**	*e*PG	**Pg**	**22 12 28.7**	**+1.2**
DPC	**Dobruska-Polom**	**1.04**	**176**	*e*PG	**Pg**	**22 12 31.6**	**+1.1**
DPC				*e*SG	**Sg**	**22 12 45.3**	**+0.9**
PVCC	**Panska Ves**	**1.34**	**231**	*e*PG	**Pg**	**22 12 37.5**	**+0.9**
BRG	**Berggiesshubel**	**1.51**	**251**	*e*Pg	**Pg**	**22 12 40.1**	**+0.1**
BRG				*e*Sg	**Sg**	**22 13 00.9**	**+0.8**
PRU	**Pruhonice**	**1.75**	**218**	PG	**Pg**	**22 12 44.3**	**-0.5**
PRU				*i* x	x	22 12 48.8	
PRU				*i* x	x	22 13 00.3	
PRU				SG	**Sg**	**22 13 08.1**	**0.0**
	9.6nm,0.3s						
MORC	**Moravsky Berou**	**1.82**	**151**	*e*P	**Pn**	**22 12 43.6**	**+0.9**
MORC				*e*S	**Sn**	**22 13 05.2**	**-1.6**
OKC	**Ostrava-Krasne**	**1.98**	**141**	*e*PG	**Pg**	**22 12 48.6**	**-0.8**
OKC				*e*SG	**Sg**	**22 13 13.5**	**-2.4**
CLL	**Collm**	**2.01**	**269**	*e*PG	**Pg**	**22 12 49.0**	**-0.9**
CLL				*e*SG	**Sg**	**22 13 17.0**	**+0.4**
OJC	**Ojcow**	**2.56**	**116**	*e*PG	**Pg**	**22 13 00.0**	**-1.0**
OJC				*e*SG	**Sg**	**22 13 36.0**	**+0.8**
NKC	**Novy Kostel**	**2.64**	**246**	*e*PG	**Pg**	**22 13 02.1**	**-0.5**
NKC				*e*SG	**Sg**	**22 13 38.0**	**+0.2**
KHC	**Kasperske Hory**	**2.81**	**218**	*e*PN	**Pn**	**22 12 57.7**	**+0.8**
KHC				*e*PG	**Pg**	**22 13 03.6**	**-2.4**
KHC				*e*SN	**Sn**	**22 13 29.8**	**-2.2**
KHC				*e*SG	**Sg**	**22 13 41.9**	**-1.6**
MOA	**Molln**	**3.75**	**200**	⇑*i*PN	**Pn**	**22 13 11.3**	**+1.1**
MOA				*i* SG	**Sg**	**22 14 14.3**	**-0.5**
	3.7nm,0.5s						

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*STR **01** 22:44:26.8±0.1,43.09N×1.34W,h5^{km}±1^{km},Ml2.3,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **01** 22:44:27.4±0.3,43.11N×1.30W,h10^{km},Md2.5/2,Ml2.3/4,Error ellipse: s-maj=5.3km s-min=2.8km az=52.0*

*CSEM **01** 22:44:27.0±0.2,43.10N×1.32W,h10^{km},ML2.4/4,Error ellipse: s-maj=3.1km s-min=2.2km az=64.0*

MDD 01 22:44:26.9±0.4**,43.08N×1.34W,h11**^{km}±1^{km}**,mbLg1.7**/10**, Error ellipse: s-maj=6.4km s-min=2.1km az=22.0, PRXIMO,Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SJPF	**Ste Jean**	**0.09**	**69**	*e*Pg	Pg	22 44 29.7	+0.1
SJPF				*e*Sg	Sg	22 44 31.5	+0.1
	103nm,0.2s						
EALK	**Alkurruntz**	**0.18**	**319**	Pg	Pg	22 44 30.8	-0.3
	54nm,0.1s,SNR=18						
EALK				Lg		22 44 33.9	
	86nm,0.3s,SNR=7.9						
OSSF	**Osses**	**0.19**	**19**	Pg	Pg	22 44 30.8	-0.3
OSSF				Sg	Sg	22 44 33.6	-0.3
OSSF	**Osses**	**0.19**	**19**	Sg	Sg	22 44 33.6	-0.3
LARF	**Larrau**	**0.26**	**99**	Pg	Pg	22 44 32.3	-0.2
LARF				Sg	Sg	22 44 36.3	0.0
LARF	**Larrau**	**0.26**	**99**	Sg	Sg	22 44 36.3	0.0
ORDF	**Ordiarp**	**0.33**	**66**	Pg	Pg	22 44 33.3	-0.4
ORDF				Sg	Sg	22 44 38.1	-0.1
ORDF	**Ordiarp**	**0.33**	**66**	Sg	Sg	22 44 38.1	-0.1
ETSF	**Etsaut**	**0.60**	**107**	*e*Pg	Pg	22 44 37.8	-1.3
ETSF				*e*Sg	Sg	22 44 45.5	-1.7
	30nm,0.2s						
EBIE	**Bielsa**	**1.16**	**109**	Pg	Pg	22 44 48.3	-1.8
	1.3nm,0.1s,SNR=21						
EBIE				Lg		22 45 04.0	
	7.3nm,0.4s,SNR=7.9						
EBIE	**Bielsa**	**1.16**	**109**	Pg	Pg	22 44 48.3	-1.8
	1.3nm,0.1s,SNR=21						

EPF	**Esparros**	**1.23**	**92**	*e*Pg	Pg	22 44 49.6	-2.0
EPF				*e*Sg	Sg	22 45 04.8	-3.3
	11nm,0.2s						
ESAC	**San Caprasio**	**1.50**	**154**	Pg	Pg	22 44 55.0	-2.0
	1.4nm,0.1s,SNR=4.0						
ESAC				Lg		22 45 13.5	
	28nm,0.2s,SNR=7.9						
ESAC	**San Caprasio**	**1.50**	**154**	Pg	Pg	22 44 55.0	-2.0
	1.4nm,0.1s,SNR=4.0						
ELAN	**Lanestosa**	**1.54**	**276**	Pg	Pg	22 44 53.7	-4.0
	4.7nm,0.8s,SNR=6.0						
ELAN				Lg		22 45 14.0	
	1.1nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	**1.54**	**276**	Pg	Pg	22 44 53.7	-4.0
	4.7nm,0.8s,SNR=6.0						
LFF	**La Frestale**	**2.39**	**38**	*e*Pn	Pn	22 45 04.9	-1.8
LFF				*e*Pg	Pg	22 45 10.8	-3.8
LFF				*e*Sg	Sg	22 45 40.4	-6.1
	4.2nm,0.3s						
LFF	**La Frestale**	**2.39**	**38**	*e*Pg	Pg	22 45 10.8	-3.8
LFF				*e*Sg	Sg	22 45 40.4	-6.1
	2.1nm,0.3s						
EMIR	**Miracle**	**2.42**	**118**	Pg	Pg	22 45 11.5	-3.7
	4.8nm,0.3s,SNR=7.9						
EMIR				Sn	Sn	22 45 37.6	+0.7
	SNR=7.9						
EMIR				Lg		22 45 43.7	
	3.5nm,0.2s,SNR=7.9						
EMIR	**Miracle**	**2.42**	**118**	Pg	Pg	22 45 11.5	-3.7
	4.8nm,0.3s,SNR=7.9						
EMIR				Sn	Sn	22 45 37.6	+0.6
	SNR=7.9						
ERTA	**Horta de San J**	**2.46**	**149**	Pg	Pg	22 45 14.1	-2.0
	0.3nm,0.1s,SNR=7.9						
ERTA				Sn	Sn	22 45 38.0	0.0
	SNR=4.0						
ERTA				Lg		22 45 43.9	
	0.8nm,0.2s,SNR=7.9						
ERTA	**Horta de San J**	**2.46**	**149**	Sn	Sn	22 45 38.0	0.0
	SNR=4.0						
ERTA	**Horta de San J**	**2.46**	**149**	Pg	Pg	22 45 14.1	-2.0
	0.3nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**2.49**	**133**	Pg	Pg	22 45 12.7	-4.0
	0.6nm,0.1s,SNR=7.9						
EPOB				Lg		22 45 46.1	
	1.1nm,0.2s,SNR=7.9						
EPOB	**Poblet**	**2.49**	**133**	Pg	Pg	22 45 12.7	-4.0
	0.6nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	**2.62**	**83**	*e*Pn	Pn	22 45 07.7	-2.2
MTLF				*e*Sn	Sn	22 45 37.7	-4.2
	4.8nm,0.5s						
EMOS	**Mosqueruela**	**2.79**	**166**	Sn	Sn	22 45 43.4	-3.0
	SNR=7.9						
EMOS				Lg		22 45 55.2	
	0.6nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	**2.79**	**166**	Sn	Sn	22 45 43.4	-3.0
	SNR=7.9						
RJF	**Les Rejaudoux**	**3.03**	**42**	*e*Pn	Pn	22 45 12.6	-3.2
CAF	**Calviac**	**3.07**	**52**	*e*Pn	Pn	22 45 13.3	-3.1
LASF	**Ste Croix**	**3.91**	**73**	*e*Pn	Pn	22 45 25.4	-2.8
LASF				*e*Sn	Sn	22 46 07.4	-7.2
	0.8nm,0.2s						
AVF	**Avril sur Loir**	**4.99**	**40**	*e*Pn	Pn	22 45 39.3	-4.3

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*IDC **01** 22:54:30.3±4.3, 5.78S×154.46E, h140^{km}±38^{km}, mb3.9/12, mb1 4.2/13, mb1mx4.1/17, MS3.6/2, Ms1 3.6/2, ms1mx3.0/16, Error ellipse: s-maj=27.9km s-min=15.7km az=107.0*

*NEIC **01** 22:54:30.8±2.5, 5.74S×154.40E, h144^{km}±21^{km}, mb4.4/3, Error ellipse: s-maj=21.0km s-min=12.6km az=113.0*

ISC 01 22:54:28.6±2.8**, 5.8S**±0.1×**154.5E**±0.1**, h141**^{km}±24^{km}**, n30, σ0^{s}86**/29**, mb4.2**/16**, 1C, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**8.14**	**243**	P	**P**	**22 56 24.7**	**-0.3**
	31nm,0.3s,baz=63,slow=7.7,SNR=56						
PMG				S	**S**	**22 57 56.3**	**+0.6**
	2.1nm,0.3s,baz=33,slow=10.0,SNR=2.9						
PMG	**Port Moresby**	**8.14**	**243**	*e*P	**P**	**22 56 24.8**	**-0.2**
	188nm,0.8s						
CTA	**Charters Tower**	**16.32**	**209**	LR	LR	23 02 58.2	
	comp=Z,57nm,20.4s,baz=226,slow=31						
DZM	**Mont Dzumac**	**19.86**	**146**	*e*P	**P**	**22 58 50.5**	**-0.4**
KAKA	**Kakadu**	**22.84**	**251**	*e*P	**P**	**22 59 20.9**	**+0.3**
	14nm,1.4s,mb4.2						
WRAB	**Tennant Creek**	**24.13**	**233**	*e*P	**P**	**22 59 33.6**	**+0.7**
	15nm,0.6s,mb4.7						
WB2	**Warramunga Arr**	**24.13**	**233**	⇑*i*P	**P**	**22 59 33.7**	**+0.8**
WRA	**Warramunga Arr**	**24.14**	**233**	P	**P**	**22 59 33.9**	**+0.9**
	5.0nm,0.4s,mb4.4,baz=55,slow=9.5,SNR=39						
ASAR	**Alice Springs**	**26.64**	**226**	P	**P**	**22 59 56.1**	**-0.1**
	3.4nm,0.4s,mb4.3,baz=61,slow=8.9,SNR=30						
ASPA	**Alice Springs**	**26.64**	**226**	*e*P	**P**	**22 59 56.1**	**-0.1**
STKA	**Stephens Creek**	**28.63**	**203**	P	**P**	**23 00 13.2**	**-1.0**
	3.0nm,0.5s,mb4.3,baz=28,slow=12,SNR=12						
FITZ	**Fitzroy Crossi**	**30.73**	**244**	*e*P	**P**	**23 00 31.7**	**-1.3**
	3.5nm,0.5s,mb4.3						
FITZ	**Fitzroy Crossi**	**30.73**	**244**	P	**P**	**23 00 31.2**	**-1.8**
	7.3nm,0.8s,mb4.5,baz=47,slow=4.2,SNR=13						
CBIJ	**Chichi jima**	**34.81**	**340**	LR	LR	23 11 46.1	
	comp=Z,327nm,21.6s,baz=298,slow=30						
MBWA	**Marble Bar**	**37.00**	**242**	*e*P	**P**	**23 01 24.6**	**-1.8**
CMAR	**Chiang Mai Arr**	**59.85**	**295**	P	**P**	**23 04 20.9**	**-1.2**
	1.4nm,0.6s,mb3.9,baz=123,slow=5.3,SNR=9.4						
FX1	**Attu Island--F**	**60.56**	**13**	P	**P**	**23 04 25.7**	**-0.7**
	6.6nm,0.6s,mb4.6,baz=297,slow=13,SNR=3.3						
SONM	**Songino Array**	**68.08**	**327**	P	**P**	**23 05 15.1**	**-0.2**
	1.9nm,0.8s,mb3.9,baz=342,slow=41,SNR=9.3						
VNDA	**Vanda**	**71.78**	**178**	P	**P**	**23 05 37.2**	**0.0**
	1.9nm,0.8s,mb3.9,baz=328,slow=9.4,SNR=4.7						
VNDA	**Vanda**	**71.78**	**178**	P	**P**	**23 05 37.2**	**0.0**
GUN	**Gumba**	**74.11**	**301**	*e*P	**P**	**23 05 52.3**	**+0.7**
KKN	**Kakani**	**74.59**	**301**	*e*P	**P**	**23 05 54.6**	**+0.2**
DMN	**Daman**	**74.69**	**301**	*e*P	**P**	**23 05 55.7**	**+0.7**
	4.7nm,0.6s,mb4.3						
GKN	**Gorkha**	**75.19**	**301**	*e*P	**P**	**23 05 58.3**	**+0.5**
KOLN	**Koldanda**	**76.02**	**300**	*e*P	**P**	**23 06 02.5**	**0.0**
	5.2nm,0.7s,mb4.3						
ILAR	**Eielson Array**	**82.44**	**22**	P	**P**	**23 06 36.0**	**-0.3**
	1.2nm,0.9s,mb3.5,baz=246,slow=5.7,SNR=14						
MAW	**Mawson**	**85.32**	**203**	P	**P**	**23 06 51.4**	**+0.8**
	5.5nm,0.8s,mb4.3,baz=74,slow=9.3,SNR=4.3						
INK	**Inuvik**	**88.77**	**21**	P	**P**	**23 07 08.6**	**+1.4**
	0.9nm,0.7s,mb3.8,baz=200,slow=21,SNR=3.3						
CHKZ	**Chkalovo**	**91.03**	**324**	*e*P	**P**	**23 07 16.4**	**-1.7**
NVAR	**Mina Array Bea**	**91.35**	**52**	P	**P**	**23 07 21.3**	**+1.3**
	0.5nm,0.8s,mb3.6,baz=230,slow=7.0,SNR=3.3						

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*BJI **01** 23:17:18.8, 3.82S×135.94E, h27^{km}, mB5.6, mb5.4, Ms5.2, Msz4.9*

*CSEM **01** 23:17:18.1, 3.73S×135.44E, h8^{km}, mb5.5*

*IDC **01** 23:17:19.7±1.9, 3.58S×135.75E, h7^{km}±10^{km}, mb5.0/15, mb1 5.0/19, mb1mx5.0/21, ML4.7/4, MS5.1/16, Ms1 5.1/16, ms1mx4.8/23, Error ellipse: s-maj=19.2km s-min=7.8km az=68.0*

*MOS **01** 23:17:20.8±1.2, 3.94S×135.39E, h33^{km}, mb5.5/10, MS4.8/9, Error ellipse: s-maj=20.6km s-min=9.2km az=113.3*

*HRVD **01** 23:17:21.6±0.2, 3.70S×135.53E, h12^{km}, MW5.5/63, Centroid moment Tensor Solution. LP body waves: s57,c98;Mantle waves: s63,c131; Half duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.08±.04; M$_{\theta\theta}$-1.51±.04; M$_{\phi\phi}$1.43±.05; M$_{r\theta}$0.79±.12; M$_{\theta\phi}$1.37±.04; M$_{\phi r}$1.01±.12; Best double couple: M$_0$2.35×10^{17} NP1:ϕ_s68°, δ80°, λ27°. NP2:ϕ_s333°, δ63°, λ169°. Principal axes: T 2.58, Plg26°, Azm294°; N -.46, Plg61°, Azm87°; P -2.12, Plg11°, Azm198°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **01** 23:17:21.6±0.2, 3.67S×135.53E, h10^{km}, mb5.3/35, MS5.3/121, MW5.5 Error ellipse: s-maj=5.8km s-min=4.7km az=93.0, Moment Tensor Solution. s14 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.22; M$_{\theta\theta}$-1.58; M$_{\phi\phi}$1.35; M$_{r\theta}$0.80; M$_{\theta\phi}$0.82; M$_{\phi r}$0.68; Best double couple: M$_0$2×10^{17} NP1:ϕ_s328°, δ58°, λ172°. NP2:ϕ_s62°, δ83°, λ32°. Principal axes: T 2.01, Plg27°, Azm289°; N -.03, Plg58°, Azm72°; P -1.98, Plg17°, Azm190°;*

NEIC One person killed in the Nabire area. Felt at Jayapura.

*DJA **01** 23:17:23.3±0.2, 3.35S×135.53E, h33^{km}, mb5.5/3 Error ellipse: s-maj=18.0km s-min=6.6km az=175.0*

ISC 01 23:17:19.0±0.9**, 3.70S**±0.03×**135.58E**±0.03**, h11**^{km}±5^{km}**, h17**^{km}±2.1^{km}**:pP-P, n346, σ1^{s}20**/225**, mb5.4**/75**, MS5.2**/154**, 16C-17D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOMI	**Yo Moklole**	**5.08**	**78**	⇑*i*P	**Pn**	**23 18 39.1**	**+2.1**
	1μm,0.5s						
YOMI				⇓*i*pP		23 18 45.7	
YOMI				*i* S	**Sn**	**23 19 37.8**	**+1.4**
YOMI	**Yo Moklole**	**5.08**	**78**	⇓*i*pP		23 18 45.7	
YOMI	**Yo Moklole**	**5.08**	**78**	⇑*i*P	**Pn**	**23 18 39.1**	**+2.1**
	2μm,0.5s						
YOMI				⇓*i*S	**Sn**	**23 19 37.8**	**+1.4**
SWI	**Sorong**	**5.15**	**303**	*e*P	**Pn**	**23 18 36.0**	**-2.0**
SWI				*e*S	**Sn**	**23 19 31.0**	**-7.2**
KAKA	**Kakadu**	**9.48**	**199**	*e*P	**P**	**23 19 36.7**	**-1.8**
	385nm,0.5s						
PMG	**Port Moresby**	**12.82**	**117**	Pn	**P**	**23 20 21.1**	**-3.1**
	1.8nm,0.3s,baz=62,slow=5.4,SNR=5.0						
PMG				Sn	**S**	**23 22 47.1**	**-0.8**
	2.8nm,0.3s,baz=137,slow=19,SNR=1.8						
PMG				Lg		23 24 02.9	
	2.1nm,0.3s,baz=322,slow=19,SNR=2.5						
PMG	**Port Moresby**	**12.82**	**117**	*i* P	**P**	**23 20 25.0**	**+0.9**
PMG	**Port Moresby**	**12.82**	**117**	*e*P	**P**	**23 20 22.3**	**-1.8**
	226nm,0.9s						
MATI	**Mati**	**14.08**	**319**	*e*P	**P**	**23 20 43.4**	**+2.5**
DAV	**Davao City (W)**	**14.63**	**317**	*e*P	**P**	**23 20 57.0**	**+8.9**
BUNI	**Buntu Taipa**	**15.23**	**270**	⇑*i*P	**P**	**23 20 58.6**	**+2.7**
	50nm,0.4s						
BUKP	**Musuan**	**15.57**	**318**	*e*P	**P**	**23 21 03.9**	**+3.6**
NINI	**Niniconang**	**15.80**	**267**	⇓*i*P	**P**	**23 21 06.1**	**+2.8**
	651nm,1.3s						
BUTP	**Butuan**	**16.03**	**322**	*e*P	**P**	**23 21 10.7**	**+4.5**
TANI	**Tanete Lipujan**	**16.17**	**270**	⇑*i*P	**P**	**23 21 08.9**	**+0.9**
WRAB	**Tennant Creek**	**16.18**	**184**	*i* P	**P**	**23 21 03.5**	**-4.7**
WRAB	**Tennant Creek**	**16.18**	**184**	*e*P	**P**	**23 21 03.7**	**-4.5**
	290nm,0.6s						
WB2	**Warramunga Arr**	**16.19**	**184**	*e*P	**P**	**23 21 03.4**	**-4.9**
WB2				*e*S	**S**	**23 24 07.0**	**-0.7**
WRA	**Warramunga Arr**	**16.19**	**184**	Pn	**P**	**23 21 03.5**	**-4.8**
	4.5nm,0.3s,baz=7.0,slow=13,SNR=34						
WRA				Sn	**S**	**23 23 58.6**	**-9.2**
	7.6nm,0.3s,baz=9.5,slow=22,SNR=4.6						
WRA				Lg		23 25 39.6	
	baz=15,slow=23,SNR=2.8						
PAGZ	**Pagadian**	**16.72**	**313**	*e*P	**P**	**23 21 14.0**	**-1.1**
IPIL	**Ipil**	**17.28**	**311**	*e*P	**P**	**23 21 22.0**	**-0.1**
FITZ	**Fitzroy Crossi**	**17.31**	**213**	*e*P	**P**	**23 21 19.7**	**-2.8**
	103nm,0.9s						
FITZ				*e*S	**S**	**23 24 21.8**	**-12**
FITZ	**Fitzroy Crossi**	**17.31**	**213**	P	**P**	**23 21 19.8**	**-2.7**
	4.7nm,0.3s,baz=26,slow=10,SNR=46						
FITZ				S	**S**	**23 24 23.0**	**-11**
	8.9nm,0.3s,baz=189,slow=20,SNR=5.1						
FITZ				Lg		23 26 36.9	
	baz=192,slow=18,SNR=2.0						
FITZ				LR	LR	23 28 51.8	
	comp=Z,5μm,20.1s,baz=55,slow=40						
TBP	**Tagbilaran**	**17.70**	**319**	*e*P	**P**	**23 21 29.3**	**+2.0**
BESP	**Borongan**	**18.24**	**327**	*e*P	**P**	**23 21 33.7**	**-0.3**
OCLP	**Ormoc**	**18.27**	**323**	*e*P	**P**	**23 21 34.9**	**+0.5**
GUIM	**Jordan**	**19.23**	**318**	*e*P	**P**	**23 21 45.2**	**-0.8**
CTA	**Charters Tower**	**19.33**	**148**	⇓*i*P	**P**	**23 21 46.7**	**-0.5**
	87nm,0.9s						
CTA	**Charters Tower**	**19.33**	**148**	P	**P**	**23 21 46.7**	**-0.5**
	3.3nm,0.3s,baz=324,slow=13,SNR=47						
CTA				S	**S**	**23 25 24.6**	**+5.3**
	0.5nm,0.3s,baz=39,slow=18,SNR=2.4						
CTA				Lg		23 27 32.9	
	2.8nm,0.3s,baz=249,slow=21,SNR=5.8						
CTA				LR	LR	23 29 04.0	
	comp=Z,8μm,19.9s,baz=329,slow=36						
CTAO	**Charters Tower**	**19.33**	**148**	*e*P	**P**	**23 21 46.7**	**-0.5**
	478nm,1.4s						
RCP	**Roxas**	**19.82**	**320**	⇑*e*P	**P**	**23 21 52.7**	**0.0**
ASAR	**Alice Springs**	**19.92**	**185**	P	**P**	**23 21 53.8**	**0.0**
	309nm,0.6s,baz=9.1,slow=11,SNR=540						
ASAR				S	**S**	**23 25 32.0**	**-0.1**
	33nm,0.8s,baz=5.3,slow=29,SNR=2.9						
ASAR				Lg		23 27 40.5	
	51nm,0.9s,slow=33,SNR=2.8						
ASPA	**Alice Springs**	**19.92**	**185**	*e*P	**P**	**23 21 53.5**	**-0.3**
ASPA				*e*S	**S**	**23 25 27.4**	**-4.7**
KEDI	**Kedomdong**	**19.93**	**255**	⇓*i*P	**P**	**23 21 54.4**	**+0.4**
CUYO	**Cuyo Island**	**20.47**	**315**	*e*P	**P**	**23 21 54.0**	**-5.6**
RATI	**Rata**	**20.54**	**255**	⇓*i*P	**P**	**23 22 00.4**	**0.0**
OTRP	**Odiongan**	**20.88**	**320**	*e*P	**P**	**23 22 03.1**	**-0.7**
KELI	**Kelakatan**	**21.45**	**257**	⇓*i*P	**P**	**23 22 10.4**	**+0.8**
SJMP	**San Jose**	**21.55**	**318**	*e*P	**P**	**23 22 09.9**	**-0.7**
BATP	**Bataraza**	**21.64**	**305**	*e*P	**P**	**23 22 12.4**	**+0.9**
BOAC	**Boac**	**21.83**	**322**	*e*P	**P**	**23 22 11.8**	**-1.6**
SRDI	**Scrawed**	**21.83**	**256**	⇓*i*P	**P**	**23 22 15.9**	**+2.4**
ENPP	**El Nido**	**21.85**	**313**	*e*P	**P**	**23 22 15.3**	**+1.6**
LQP	**Lukban**	**22.52**	**322**	⇓*i*P	**P**	**23 22 21.0**	**+0.5**
POLP	**Polilio Island**	**22.76**	**324**	*e*P	**P**	**23 22 22.3**	**-0.5**
TGY	**Tagaytay City**	**22.88**	**321**	P	**P**	**23 22 25.4**	**+1.4**
	293nm,0.8s,mb5.8,baz=203,slow=5.8,SNR=9.2						
LUBP	**Lubang**	**23.05**	**319**	*e*P	**P**	**23 22 25.9**	**+0.2**
MBWA	**Marble Bar**	**23.21**	**220**	*e*P	**P**	**23 22 29.0**	**+1.8**
	78nm,0.6s,mb5.3						
MBWA				LR	LR		
	comp=Z,4μm,19.0s,MS4.9						
NBP	**Mount Natib**	**23.69**	**321**	*e*P	**P**	**23 22 33.2**	**+1.3**
BALP	**Baler**	**23.77**	**325**	*e*P	**P**	**23 22 32.3**	**-0.4**
PCPH	**Palayan**	**23.91**	**324**	*e*P	**P**	**23 22 35.0**	**+1.0**
CAUP	**Cauayan**	**24.60**	**327**	*e*P	**P**	**23 22 48.6**	**+7.9**
SCZP	**Santa Cruz**	**24.79**	**322**	*e*P	**P**	**23 22 41.6**	**-1.0**
CVP	**Callao Caves**	**25.23**	**328**	*e*P	**P**	**23 22 50.0**	**+3.3**
SGCP	**Mt. Cagua**	**25.56**	**329**	*e*P	**P**	**23 22 50.2**	**+0.4**
ABRA	**Dolores**	**25.79**	**326**	*e*P	**P**	**23 22 49.8**	**-2.2**
FORT	**Forrest**	**27.86**	**194**	*e*P	**P**	**23 23 12.3**	**+1.5**
	comp=Z,237nm,0.7s,mb5.9						
STKA	**Stephens Creek**	**28.60**	**169**	*e*P	**P**	**23 23 15.8**	**-1.7**
	comp=Z,20nm,0.7s,mb4.9						
STKA				*e*S	S	23 28 25.5	+21
STKA	**Stephens Creek**	**28.60**	**169**	P	**P**	**23 23 16.0**	**-1.5**
	comp=Z,16nm,0.7s,mb4.8,baz=345,slow=8.2,SNR=15						
STKA				S	**S**	**23 27 59.0**	**-5.2**
	comp=Z,10nm,0.9s,baz=71,slow=15,SNR=1.6						
STKA				Lg		23 32 16.1	
	comp=Z,34nm,1.0s,baz=64,slow=7.2,SNR=3.6						
STKA				LR	LR	23 36 36.0	
	comp=Z,4μm,19.9s,MS5.0,baz=343,slow=40						
JOW	**Kunigami**	**31.16**	**347**	P	**P**	**23 23 36.6**	**-3.7**
	comp=Z,27nm,0.8s,mb5.1,baz=102,slow=22,SNR=3.2						
JOW				LR	LR	23 36 27.1	
	comp=Z,3μm,18.3s,MS4.9,baz=161,slow=37						
CBIJ	**Chichi jima**	**31.27**	**11**	P	**P**	**23 23 38.5**	**-2.8**
	comp=Z,64nm,0.8s,mb5.5,baz=293,slow=12,SNR=2.1						
CBIJ				LR	LR	23 35 02.5	
	comp=Z,2μm,21.7s,MS4.7,baz=306,slow=34						
TATO	**Taipei**	**31.62**	**335**	PFAKE		23 24 00.0	+16
TATO				LR	LR		
	comp=Z,1μm,20.0s,MS4.7						
KLBR	**Kellerberrin**	**32.42**	**209**	*e*P	**P**	**23 23 51.6**	**+0.3**
	comp=Z,48nm,0.9s,mb5.3						
MUN	**Mundaring**	**33.51**	**211**	*e*P	**P**	**23 24 03.2**	**+2.4**
	comp=Z,13nm,0.9s,mb4.9						
NWAO	**Narrogin (SRO)**	**33.77**	**208**	P	**P**	**23 24 03.3**	**+0.2**
	comp=Z,27nm,0.8s,mb5.2,baz=35,slow=11,SNR=8.9						
NWAO				PP	PP	23 25 12.0	-4.1
	comp=Z,18nm,0.6s,baz=32,slow=16,SNR=3.3						
NWAO	**Narrogin (SRO)**	**33.77**	**208**	*e*P	**P**	**23 24 01.7**	**-1.4**
	comp=Z,25nm,0.9s,mb5.2						
NWAO				LR	LR		
	comp=Z,6μm,21.0s,MS5.3						
QIZ	**Qiongzhong**	**33.94**	**313**	P	**P**	**23 24 04.3**	**-0.3**
QIZ				S	**S**	**23 29 22.0**	**-6.1**
QIZ				AMB	AMB		
	comp=Z,586nm,5.1s						
QIZ				LR	LR		
	comp=E,1μm,18.0s						
QIZ				LR	LR		
	comp=Z,2μm,23.5s						
QIZ	**Qiongzhong**	**33.94**	**313**	PFAKE		23 24 20.0	+15
QIZ				LR	LR		
	comp=Z,2μm,19.0s,MS4.9						
GZH	**Guangzhou**	**34.34**	**322**	P	**P**	**23 24 08.3**	**+0.2**
GZH				S	**S**	**23 29 37.2**	**+2.7**
GZH				LR	LR		
	comp=N,1μm,15.9s,MS4.9						
GZH				LR	LR		
	comp=E,1μm,19.9s,MS4.9						
GZH				LR	LR		
	comp=Z,2μm,16.2s,MS4.9						
TOO	**Toolangi**	**34.92**	**166**	*e*P	**P**	**23 24 12.8**	**-0.1**
	comp=Z,14nm,1.3s,mb4.7						
IPM	**Ipoh**	**35.49**	**283**	⇓*e*P	**P**	**23 24 23.3**	**+5.3**
JHJ	**Hachijo jima 2**	**36.83**	**6**	LR	LR	23 38 26.2	
	comp=Z,3μm,18.2s,MS5.1,baz=181,slow=34						
SSE	**Sheshan**	**37.22**	**339**	P	**P**	**23 24 33.1**	**+0.7**
SSE				S	**S**	**23 30 13.6**	**-5.1**
SSE				XS		23 30 29.2	
SSE				SS	SS	23 32 56.0	+6.6
SSE				AMB	AMB		
	comp=Z,117nm,1.0s,mb5.7						
SSE				LR	LR		
	comp=N,622nm,16.6s,MS4.7						
SSE				LR	LR		
	comp=E,895nm,16.6s,MS4.7						
SSE				LR	LR		
	comp=Z,1μm,23.1s						
WAKE	**Wake Island**	**38.15**	**52**	PFAKE		23 24 50.0	+10
WAKE				LR	LR		
	comp=Z,34μm,21.0s,MS6.1						
NJ2	**Nanjing**	**38.95**	**337**	*e*P	**P**	**23 24 47.5**	**+0.6**
NJ2				AP	pP	23 24 59.2	+9.0
NJ2				XP	sP	23 25 03.3	+12
NJ2				PP	PP	23 26 24.5	+4.4
NJ2				S	**S**	**23 30 48.0**	**+3.1**
NJ2				AMB	AMB		
	comp=Z,2μm,6.2s						
NJ2				LR	LR		
	comp=N,3μm,20.7s,MS5.6						
NJ2				LR	LR		
	comp=E,9μm,19.6s,MS5.6						
NJ2				LR	LR		
	comp=Z,4μm,18.0s,MS5.3						
COCO	**West Island**	**39.24**	**255**	PFAKE		23 25 00.0	+10
COCO				LR	LR		
	comp=Z,341nm,22.0s,MS4.1						
WHN	**Wuhan**	**39.63**	**331**	⇑P	**P**	**23 24 53.5**	**+0.9**
WHN				S	**S**	**23 30 58.0**	**+2.7**
WHN				LR	LR		
	comp=N,2μm,27.3s						
WHN				LR	LR		
	comp=E,7μm,42.9s						
WHN				LR	LR		
	comp=Z,3μm,22.6s,MS5.1						
MAJO	**Matsushiro**	**40.10**	**3**	*e*P	**P**	**23 24 55.4**	**-1.1**
	comp=Z,51nm,1.0s,mb5.2						
MAJO				LR	LR		
	comp=Z,2μm,19.0s,MS4.9						
MAT	**Matsushiro**	**40.10**	**3**	P	**P**	**23 24 55.2**	**-1.3**
MAT				S	**S**	**23 31 02.0**	**-0.3**
MAT	**Matsushiro**	**40.10**	**3**	*e*P	**P**	**23 24 55.0**	**-1.5**
	comp=Z,66nm,1.2s,mb5.2						
MAT				*e*S	**S**	**23 31 02.0**	**-0.3**
MAT				LR	LR		
	comp=Z,1μm,20.0s,MS4.7						
NANT	**Nan**	**40.97**	**304**	P	**P**	**23 25 03.0**	**-0.7**
GYA	**Guiyang**	**41.00**	**319**	⇑*i*P	**P**	**23 25 04.4**	**+0.5**
GYA				AP	pP	23 25 09.8	+2.6
GYA				XP	sP	23 25 11.6	+3.0
GYA				PP	PP	23 26 40.4	-1.2
GYA				S	**S**	**23 31 10.8**	**-5.0**
GYA				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.1						
GYA				LR	LR		
	comp=N,670nm,15.8s,MS4.9						
GYA				LR	LR		
	comp=E,1μm,16.0s,MS4.9						
GYA				LR	LR		
	comp=Z,1μm,18.8s,MS4.8						
INCN	**Inchon**	**41.81**	**349**	PFAKE		23 25 20.0	+10
INCN				LR	LR		
	comp=Z,2μm,19.0s,MS5.1						
ENH	**Enshi**	**41.99**	**325**	*e*P	**P**	**23 25 11.6**	**-0.5**
	comp=Z,62nm,0.9s,mb5.2						
ENH				LR	LR		
	comp=Z,1μm,22.0s,MS4.7						
CHRT	**Chiangrai**	**42.25**	**305**	⇓P	**P**	**23 25 15.0**	**+0.6**
	comp=Z,192nm,1.0s,mb5.7						
CMAR	**Chiang Mai Arr**	**42.27**	**303**	P	**P**	**23 25 14.7**	**+0.2**
	comp=Z,6.0nm,0.7s,mb4.3,baz=126,slow=6.6,SNR=38						
CMAR	**Chiang Mai Arr**	**42.27**	**303**	*i* P	**P**	**23 25 14.7**	**+0.2**
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
CHG	**Chiang Mai**	**42.44**	**303**	⇓P	**P**	**23 25 16.2**	**+0.3**
	comp=Z,32nm,1.1s,mb4.9						
KMI	**Kunming**	**42.86**	**314**	*e*P	**P**	**23 25 20.1**	**+0.8**
KMI				XP	sP	23 25 30.1	+6.2
KMI				PP	PP	23 26 58.1	-3.2
KMI				PCS		23 31 03.3	
KMI				S	**S**	**23 31 42.0**	**-1.3**
KMI				XS		23 31 55.1	
KMI				SS	SS	23 34 49.8	+1.4
KMI				AMB	AMB		
	comp=Z,66nm,1.5s,mb5.1						
KMI				AMB	AMB		
	comp=Z,567nm,5.1s						
KMI				LR	LR		
	comp=N,990nm,20.2s,MS4.9						
KMI				LR	LR		
	comp=E,2μm,23.3s,MS4.9						
KMI				LR	LR		
	comp=Z,2μm,21.7s,MS5.0						
TIA	**Tai'an**	**43.29**	**338**	*e*P	**P**	**23 25 21.5**	**-1.1**
TIA				AMB	AMB		
	comp=Z,126nm,1.6s,mb5.4						
DL2	**Dalian**	**44.31**	**344**	P	**P**	**23 25 34.1**	**+3.3**
DL2				S	**S**	**23 32 04.6**	**+0.5**
DL2				AMB	AMB		
	comp=Z,30nm,1.5s,mb4.8						
DL2				AMB	AMB		
	comp=Z,320nm,5.3s						
DL2				LR	LR		
	comp=N,810nm,21.2s,MS5.0						
DL2				LR	LR		
	comp=E,1μm,17.7s,MS5.0						
DL2				LR	LR		
	comp=Z,940nm,18.5s,MS4.7						
XAN	**Xi'an**	**45.18**	**328**	P	**P**	**23 25 37.5**	**-0.4**
XAN				S	**S**	**23 32 12.0**	**-4.8**
XAN				AMB	AMB		
	comp=Z,132nm,1.6s,mb5.5						
XAN				AMB	AMB		
	comp=Z,629nm,8.2s						
XAN				LR	LR		
	comp=N,398nm,19.2s,MS4.5						
XAN				LR	LR		
	comp=E,326nm,18.5s,MS4.5						
XAN				LR	LR		
	comp=Z,910nm,16.4s,MS4.8						
CD2	**Chengdu**	**45.89**	**321**	P	**P**	**23 25 42.4**	**-1.1**
CD2				PP	PP	23 27 30.1	-1.5
CD2				PPP	PPP	23 28 16.9	+2.4
CD2				S	**S**	**23 32 25.3**	**-1.7**
CD2				SCS	ScS	23 35 31.4	-5.7
CD2				SS	SS	23 35 44.0	+0.3
CD2				AMB	AMB		
	comp=Z,40nm,1.4s,mb5.2						
CD2				AMB	AMB		
	comp=Z,350nm,6.3s						
CD2				LR	LR		
	comp=E,666nm,17.4s						
CD2				LR	LR		
	comp=Z,720nm,19.8s,MS4.6						
SNY	**Shenyang**	**46.61**	**348**	⇓P	**P**	**23 25 49.2**	**+0.1**
SNY				AP	pP	23 26 01.7	+9.3
SNY				S	**S**	**23 32 30.2**	**-6.9**
SNY				SCS	ScS	23 35 41.4	-0.2
SNY				AMB	AMB		
	comp=Z,550nm,10.4s						
SNY				LR	LR		
	comp=E,1μm,22.6s						
SNY				LR	LR		
	comp=Z,2μm,18.3s,MS5.1						
VLA	**Vladivostok**	**46.72**	**356**	⇑*i*P	**P**	**23 25 51.0**	**+1.1**
VLA				*e*		23 27 39.0	
VLA				*e*S	**S**	**23 32 40.0**	**+1.3**
VLA				*i* PS	PS	23 32 59.0	+12
VLA				*e*		23 35 40.0	
VLA				pmax	pmax		
	comp=Z,800nm,8.0s						
VLA				pmax	pmax		

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      comp=N,500nm,6.0s
VLA                                pmax     pmax
      comp=Z,500nm,9.0s
VLA                                smax
      comp=N,600nm,9.0s
VLA                                smax
      comp=E,500nm,9.0s
BJT   Baijiatuau        47.02 340 eP        P         23 25 51.6  -0.7
      comp=E,63nm,0.9s,mb5.5
BJT                                LR       LR
      comp=Z,2µm,20.0s,MS5.1
BJI   Beijing           47.03 340 eP        P         23 25 51.6  -0.9
BJI                                S        S         23 32 40.4  -2.8
BJI                                AMB      AMB
      comp=Z,42nm,1.4s,mb5.2
BJI                                LR       LR
      comp=N,1µm,18.4s,MS5.2
BJI                                LR       LR
      comp=E,2µm,19.3s,MS5.2
BJI                                LR       LR
      comp=Z,2µm,23.2s,MS4.9
ASAJ  Asahikawa         48.01   7  P        P         23 25 57.9  -2.2
      comp=Z,16nm,0.7s,mb5.2,baz=80,slow=34,SNR=3.6
ASAJ                               LR       LR        23 45 21.7
      comp=Z,1µm,21.9s,MS4.8,baz=203,slow=35
CN2   Changchun         48.15 350 eP        P         23 26 00.1  -1.1
CN2                               eS        S         23 32 55.7  -3.2
CN2                                AMB      AMB
      comp=Z,30nm,0.7s,mb5.4
CN2                                AMB      AMB
      comp=Z,500nm,9.0s
CN2                                LR       LR
      comp=N,1µm,19.0s,MS5.1
CN2                                LR       LR
      comp=E,1µm,19.0s,MS5.1
CN2                                LR       LR
      comp=Z,2µm,21.0s,MS5.0
MDJ   Mudanjiang        48.39 354  P        P         23 26 02.6  -0.5
MDJ                                PP       PP        23 27 56.1  +0.7
MDJ                                PCS                23 31 20.5
MDJ                                S        S         23 33 06.0  +3.7
MDJ                                SCS      ScS       23 35 51.5  -1.7
MDJ                                AMB      AMB
      comp=Z,26nm,1.0s,mb5.2
MDJ                                AMB      AMB
      comp=Z,355nm,10.8s
MDJ                                LR       LR
      comp=N,1µm,18.8s,MS4.9
MDJ                                LR       LR
      comp=E,579nm,17.7s,MS4.9
MDJ                                LR       LR
      comp=Z,1µm,18.5s,MS5.0
MDJ   Mudanjiang        48.39 354 eP        P         23 26 02.5  -0.6
      comp=Z,23nm,0.8s,mb5.3
MDJ                                LR       LR
      comp=Z,1µm,19.0s,MS5.0
IMP   Imphal            49.37 307⇑eP        P         23 26 09.3  -1.6
LZH   Lanzhou           49.46 326 ⇑P        P         23 26 12.2  +0.8
LZH                                AP       pP        23 26 15.5  +0.7
LZH                                PP       PP        23 28 07.5  +1.3
LZH                                S        S         23 33 19.5  +2.1
LZH                                SS       SS        23 36 47.2  +1.7
LZH                                AMB      AMB
      comp=Z,138nm,1.5s,mb5.8
LZH                                AMB      AMB
      comp=Z,829nm,5.9s
LZH                                LR       LR
      comp=N,2µm,14.7s
LZH                                LR       LR
      comp=Z,3µm,18.0s,MS5.3
HHC   Hu-ho-hao-te      49.47 336 eP        P         23 26 12.2  +0.8
HHC                                AP       pP        23 26 16.9  +2.1
HHC                                XP       sP        23 26 18.9  +2.8
HHC                                PCP      PcP       23 27 34.8  +1.0
HHC                                PP       PP        23 28 04.3  -2.0
HHC                                SCP                23 31 27.7
HHC                                PCS                23 31 30.4
HHC                                S        S         23 33 18.3  +0.8
HHC                                SCS      ScS       23 35 59.8  -0.7
HHC                                SS       SS        23 36 45.2  -0.4
HHC                                AMB      AMB
      comp=Z,58nm,1.4s,mb5.4
HHC                                AMB      AMB
      comp=Z,910nm,3.6s
HHC                                LR       LR
      comp=N,688nm,17.4s,MS4.8
HHC                                LR       LR
      comp=E,461nm,16.1s,MS4.8
HHC                                LR       LR
      comp=Z,526nm,18.4s,MS4.6
BTO   Baotou            49.91 335 eP        P         23 26 15.2  +0.4
BTO                                AMB      AMB
      comp=Z,62nm,1.3s,mb5.5
BTO                                LR       LR
      comp=N,483nm,5.1s
BTO                                LR       LR
      comp=E,297nm,8.0s
RPZ   Rata Peaks        50.70 147  LR       LR        23 49 37.7
      comp=E,4µm,18.6s,MS5.5,baz=311,slow=38
YSS   Yuzh-Sakhalins    50.83   6⇑eP        P         23 26 21.0  -0.7
YSS                                S        S         23 33 36.0  -0.2
YSS                                pmax     pmax
      comp=Z,370nm,2.0s,mb6.0
YSS                                MLR      MLR
      comp=N,1µm,19.0s
YSS                                MLR      MLR
      comp=Z,1µm,19.0s,MS4.8
YSS   Yuzh-Sakhalins    50.83   6 eP        P         23 26 22.8  +1.1
YSS                                LR       LR
      comp=Z,829nm,20.0s,MS4.8
RAO   Raoul Island      50.84 125  PFAKE              23 26 40.0   +18
RAO                                LR       LR
      comp=Z,3µm,20.0s,MS5.3
AGT   Agartala          51.12 305⇑iP        P         23 26 23.0  -1.2
AGT                               e                   23 26 54.0
URZ   Urewera           51.13 138  P        P         23 26 25.0  +0.9
      comp=Z,12nm,0.7s,mb5.0,baz=338,slow=6.7,SNR=2.2
URZ                                LR       LR        23 48 23.8
      comp=Z,3µm,18.7s,MS5.4,baz=305,slow=36
SHL   Shillong          51.38 307⇑eP        P         23 26 26.0  -0.1
      comp=Z,115nm,1.0s,mb5.8
SHL                               e                   23 33 43.0
LSA   Lhasa             53.95 311  P        P         23 26 46.6  +1.3
GTA   Gaotai            54.07 326  P        P         23 26 46.3  +0.3
GTA                                AP       pP        23 26 50.8  +1.4
GTA                                XP       sP        23 26 53.4  +2.8
GTA                                PCP      PcP       23 27 50.1  -0.8
GTA                                PP       PP        23 28 49.6  +0.4
GTA                                S        S         23 34 22.1  +1.6
GTA                                SCS      ScS       23 36 33.2  +1.1
GTA                                SS       SS        23 38 02.7  +1.1
GTA                                AMB      AMB
      comp=Z,21nm,1.0s,mb5.0
GTA                                AMB      AMB
      comp=Z,1µm,5.3s
GTA                                LR       LR
      comp=N,547nm,16.4s,MS4.8
GTA                                LR       LR
      comp=E,585nm,17.5s,MS4.8
GTA                                LR       LR
      comp=Z,986nm,17.5s,MS4.9
HIA   Hailar            54.51 347 eP        P         23 26 48.4  -0.8
      comp=Z,15nm,1.0s,mb5.0
HIA                                LR       LR
      comp=Z,1µm,20.0s,MS5.0
MIDW  Midway            55.25  52  PFAKE              23 27 10.0   +15
MIDW                               LR       LR
      comp=Z,2µm,19.0s,MS5.2
PALK  Pallekele         55.84 281  PFAKE              23 27 10.0   +11
PALK                               LR       LR
      comp=Z,198nm,20.0s,MS4.2
ULN   Ulaanbaatar       57.11 337 eP        P         23 27 07.3  -0.6
      comp=Z,14nm,0.7s,mb5.1
ULN                                LR       LR
      comp=Z,1µm,21.0s,MS4.9
GUN   Gumba             57.22 307 eP        P         23 27 08.9  -0.1
      comp=Z,197nm,0.9s,mb6.2
SONM  Songino Array     57.34 337  P        P         23 27 08.9  -0.6
      comp=Z,7.0nm,0.8s,mb4.8,baz=153,slow=7.5,SNR=22
SONM                               PP       PP        23 29 17.5  -1.0
      comp=Z,8.9nm,1.2s,baz=166,slow=12,SNR=3.8
SONM                               S        S         23 35 08.6  +4.7
      comp=Z,0.1nm,0.3s,baz=281,slow=25,SNR=2.6
MDRS  Chennai           57.40 288 e         P         23 27 08.0  -2.4
MDRS                              e                   23 30 58.0
PKI   Pulchoki          57.46 306 eP        P         23 27 10.1  -0.6
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      comp=Z,103nm,1.1s,mb5.8
KKN   Kakani            57.65 306 eP        P         23 27 11.5  -0.5
      comp=Z,126nm,0.9s,mb6.0
DMN   Daman             57.72 306 eP        P         23 27 12.4  -0.1
      comp=Z,226nm,1.1s,mb6.1
GKN   Gorkha            58.26 306 eP        P         23 27 15.9  -0.3
KOLN  Koldanda          59.00 305 eP        P         23 27 21.2  -0.3
      comp=Z,306nm,1.2s,mb6.2
TRD   Trivandrum        59.70 282 e         P         23 27 40.0   +14
      comp=Z,2µm,4.0s
PET   Petropavlovsk     59.76  16 eP        P         23 27 29.1  +2.8
PET                               eS        S         23 35 36.1  +0.5
PET                               eSSS      SSS       23 42 09.8  +7.3
PET                                pmax     pmax
      comp=Z,200nm,17.2s
PET                                MLR      MLR
      comp=Z,800nm,22.0s,MS4.8
PET                                MLR      MLR
      comp=Z,700nm,20.0s
PET   Petropavlovsk     59.76  16  PFAKE              23 27 40.0   +14
PET                                LR       LR
      comp=Z,825nm,19.0s,MS4.9
HYB   Hyderabad         60.03 292 eP        P         23 27 28.0  -0.7
HYB   Hyderabad         60.03 292 i P       P         23 27 28.0  -0.7
CLNS  Chul'man          60.96 353 eP        P         23 27 32.9  -1.5
CLNS                               pmax     pmax
      comp=N,10.0nm,1.0s
CLNS                               pmax     pmax
      comp=E,10.0nm,1.0s
CLNS                               pmax     pmax
      comp=Z,18nm,1.0s,mb5.2
TLY   Talaya            61.50 338 eP        P         23 27 37.9  -0.3
TLY                               e                   23 28 15.1
TLY                               e                   23 29 50.6
TLY                               eSSS      SSS       23 42 41.0  +1.3
TLY                                pmax     pmax
      comp=Z,44nm,1.7s,mb5.3
TLY                                MLR      MLR
      comp=Z,891nm,19.0s,MS4.9
TLY   Talaya            61.50 338 eP        P         23 27 38.3  +0.2
      comp=Z,34nm,1.3s,mb5.3
TLY                                LR       LR
      comp=Z,241nm,20.0s,MS4.3
IRK   Irkutsk           61.72 339 eP        P         23 27 40.6  +0.9
LGTI  Lohaghat          62.37 306 eP        P         23 27 45.5  +1.1
PTH   Pithoragarh       62.43 306 eP        P         23 27 44.0  -0.8
MOY   Mondy             62.51 337 eP        P         23 27 45.1  +0.1
DGAR  Diego Garcia      62.90 264  PFAKE              23 28 00.0   +12
DGAR                               LR       LR
      comp=Z,291nm,20.0s,MS4.5
DRV   Dumont d'Urvil    62.93 178  P        P         23 27 50.0  +2.5
DRV                                S        S         23 36 22.0  +6.4
DRV                                L                  23 43 00.0
BOD   Bodaibo           63.73 347 eP        P         23 27 50.1  -2.8
WMQ   Urumqi            63.88 323 ⇑P        P         23 27 54.8  +0.6
WMQ                                AP       pP        23 27 59.6  +2.0
WMQ                                XP       sP        23 28 01.8  +3.0
WMQ                                PCP      PcP       23 28 30.5  +0.8
WMQ                                PP       PP        23 30 16.9  +0.4
WMQ                               eS        S         23 36 27.8  -0.1
WMQ                                AMB      AMB
      comp=Z,40nm,0.9s,mb5.5
WMQ                                AMB      AMB
      comp=Z,91nm,6.9s
WMQ                                LR       LR
      comp=N,974nm,28.2s,MS4.9
WMQ                                LR       LR
      comp=E,535nm,26.4s,MS4.9
WMQ                                LR       LR
      comp=Z,666nm,22.4s,MS4.8
MA2   Magadan           64.21   9 eP        P         23 27 55.6  -0.4
MA2                               e                   23 30 14.8
MA2                               ePPP      PPP       23 31 47.8  -3.8
MA2                               eS        S         23 36 30.3  -1.4
MA2                               ePS       PS        23 36 56.7  +4.2
MA2                               e                   23 37 50.7
MA2                               eSS       SS        23 40 47.6  +4.9
MA2                               eSSS      SSS       23 43 35.5  +3.9
MA2                                pmax     pmax
      comp=Z,60nm,2.0s,mb5.3
MA2                                MLR      MLR
      comp=Z,1µm,24.0s,MS5.1
MA2   Magadan           64.21   9 eP        P         23 27 55.4  -0.6
      comp=Z,25nm,0.9s,mb5.2
MA2                                LR       LR
      comp=Z,835nm,21.0s,MS4.9
DDI   Dehra Dun         64.46 306 eP        P         23 27 57.7  -0.5
NDI   New Delhi         64.57 304 eP        P         23 27 57.0  -1.9
NDI                               e                   23 36 36.0
POO   Poona             64.65 292 eP        P         23 27 56.5  -3.0
CASY  Casey             64.89 191  PFAKE              23 28 10.0   +10
CASY                               LR       LR
      comp=Z,2µm,19.0s,MS5.3
SMY   Shemya            64.91  25  PFAKE              23 28 10.0  +9.3
SMY                                LR       LR
      comp=Z,6µm,21.0s,MS5.7
YAK   Yakutsk           65.70 357 eP        P         23 28 04.8  -0.8
YAK                               e*PP      pP        23 28 13.1  +4.1
YAK                               e                   23 28 32.4
YAK                               eS        S         23 36 50.2  +0.3
YAK                               e                   23 37 58.3
YAK                               eSSS      SSS       23 44 07.5  +7.9
YAK                                pmax     pmax
      comp=N,6.0nm,0.9s
YAK                                pmax     pmax
      comp=Z,19nm,0.9s,mb5.1
YAK                                pmax     pmax
      comp=N,4.0nm,1.0s
YAK                                smax
      comp=E,118nm,9.0s
YAK                                smax
      comp=N,161nm,9.4s
YAK   Yakutsk           65.70 357 eP        P         23 28 04.7  -0.9
      comp=N,50nm,0.7s,mb5.7
YAK                                LR       LR
      comp=Z,2µm,20.0s,MS5.4
SDNR  Sundarnagar       65.75 307 eP        P         23 28 06.4  -0.1
      comp=Z,67nm,0.6s,mb5.8
BHK   Bhakra            66.16 307 e         P         23 28 26.3   +17
THN   Thein Dam         67.08 307 e         P         23 28 08.2  -6.7
SEY   Seymchan          67.66   8 eP        P         23 28 19.6  +1.5
SEY                               e                   23 28 41.3
SEY                               e                   23 30 50.0
SEY                               ePPP      PPP       23 32 24.1  -2.0
SEY                               eS        S         23 37 18.0  +4.4
SEY                                SS       SS        23 41 36.3  +0.2
SEY                                pmax     pmax
      comp=Z,220nm,1.5s,mb6.0
SEY                                smax
      comp=N,950nm,22.2s
SEY                                smax
      comp=E,2µm,29.5s
SEY                                MLR      MLR
      comp=N,2µm,21.0s
SEY                                MLR      MLR
      comp=Z,2µm,21.0s,MS5.3
KIWB  Kanaga Island     68.30  29 eP        P         23 28 22.3  +0.1
MKAR  Makanchi Array    68.69 324 eP        P         23 28 24.6  -0.2
MKAR                               pmax     pmax
      comp=Z,9.0nm,0.5s
KSH   Kashi             69.52 315⇑iP        P         23 28 31.8  +1.9
KSH                               eAP       pP        23 28 36.0  +2.6
KSH                               eXP       sP        23 28 37.8  +3.2
KSH                               ePCP      PcP       23 28 53.1  -0.2
KSH                               ePP       PP        23 31 10.5  +4.8
KSH                               ePPP      PPP       23 32 52.1  +7.3
KSH                                S        S         23 37 45.3  +9.2
KSH                               eXS                 23 37 52.0
KSH                               ePS       PS        23 38 13.0  +9.3
KSH                               eSKS      SKS       23 38 29.0  -2.1
KSH                                AMB      AMB
      comp=Z,320nm,5.8s
KSH                                LR       LR
      comp=N,310nm,6.0s
KSH                                LR       LR
      comp=E,280nm,5.3s
KZA   Kyzart            71.03 317  P        P         23 28 40.2  +1.0
      SNR=16
TKM2  Tokmak 2          71.14 318 eP        P         23 28 40.1  +0.3
      comp=E,13nm,0.7s,mb5.0
ZAL   Zalesovo          71.25 331  P        P         23 28 39.7  -0.5
      comp=E,14nm,0.9s,mb4.9,baz=3.2,slow=6.4,SNR=46
ZAL                                S        S         23 37 56.5  +0.4
      comp=E,0.6nm,0.3s,baz=359,slow=9.3,SNR=2.1
ZAL                                LR       LR        00 01 59.7
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      comp=E,612nm,21.4s,MS4.8,baz=340,slow=38
KBK   Karagaybulak      71.47 317  P        P         23 28 42.2  +0.4
      SNR=12
UCH   Uchtor            71.60 317  P        P         23 28 44.2  +1.7
      SNR=26
UCH   Uchtor            71.60 317  PFAKE              23 29 00.0   +17
UCH                                LR       LR
      comp=Z,860nm,21.0s,MS5.0
FRU   Bishkek           71.76 317 eP        P         23 28 41.0  -2.5
FRU                                pmax     pmax
      comp=Z,80nm,1.9s,mb5.3
FRU                                MLR      MLR
      comp=Z,500nm,24.0s,MS4.7
AAK   Ala-Archa         71.77 317  P        P         23 28 45.4  +1.9
      SNR=11
AAK   Ala-Archa         71.77 317 i P       P         23 28 43.3  -0.3
AAK                                pmax     pmax
      comp=Z,27nm,1.3s,mb5.0
AAK                                MLR      MLR
      comp=Z,700nm,18.0s,MS5.0
AAK   Ala-Archa         71.77 317  PFAKE              23 29 00.0   +16
AAK                                LR       LR
      comp=Z,208nm,21.0s,MS4.4
USP   Ospenovka         72.01 318  P        P         23 28 45.1  +0.1
      SNR=24
AML   Almayashu         72.12 316  P        P         23 28 47.1  +1.4
      SNR=30
AML   Almayashu         72.12 316  PFAKE              23 29 00.0   +14
AML                                LR       LR
      comp=Z,909nm,22.0s,MS5.0
EKS2  Erkin-Say         72.27 317  P        P         23 28 47.3  +0.8
      SNR=15
EKS2  Erkin-Say         72.27 317  PFAKE              23 29 00.0   +13
EKS2                               LR       LR
      comp=Z,766nm,19.0s,MS5.0
NVS   Novosibirsk       72.52 331⇑iP        P         23 28 46.0  -1.8
NVS                               i S       S         23 38 09.4  -1.2
NVS                                pmax     pmax
      comp=Z,186nm,2.0s,mb5.7
NVS                                pmax     pmax
      comp=N,141nm,1.7s
NVS                                pmax     pmax
      comp=E,87nm,1.5s
NVS                                smax
      comp=N,67nm,2.1s
KURK  Kurchatov         72.75 326 i P       P         23 28 48.7  -0.6
KURK                               pmax     pmax
      comp=Z,83nm,1.5s,mb5.4
KURK  Kurchatov         72.75 326 eP        P         23 28 48.6  -0.7
      comp=Z,103nm,1.3s,mb5.6
KURK                               LR       LR
      comp=Z,166nm,19.0s,MS4.3
UNV   Unalaska Valle    74.78  31 eP        P         23 29 01.5  +0.5
      comp=Z,80nm,0.8s,mb5.7
UNV                                LR       LR
      comp=Z,4µm,19.0s,MS5.7
VNDA  Vanda             75.10 174  P        P         23 29 02.1  -0.3
      comp=Z,5.8nm,0.9s,mb4.5,baz=331,slow=5.3,SNR=10
VNDA                               LR       LR        00 00 37.6
      comp=Z,4µm,19.1s,MS5.7,baz=352,slow=34
VNDA  Vanda             75.10 174 eP        P         23 29 02.2  -0.2
      comp=Z,7.6nm,0.9s,mb4.6
VNDA                               LR       LR
      comp=Z,4µm,19.0s,MS5.7
TIXI  Tiksi             75.33 358  PFAKE              23 29 20.0   +16
TIXI                               LR       LR
      comp=Z,2µm,19.0s,MS5.5
SBA   Scott Base        75.91 174  PFAKE              23 29 20.0   +13
SBA                                LR       LR
      comp=Z,2µm,19.0s,MS5.5
BVAR  Borovoye Array    78.35 326  P        P         23 29 20.9  -0.1
      comp=Z,24nm,0.8s,mb5.2,baz=117,slow=6.6,SNR=79
BVAR                               S        S         23 39 15.1  +0.1
      comp=Z,0.4nm,0.5s,baz=229,slow=43,SNR=2.2
BRVK  Borovoye          78.42 326  P        P         23 29 21.3  -0.1
BRVK                               pmax     pmax
      comp=Z,156nm,2.1s,mb5.6
BRVK  Borovoye          78.42 326 eP        P         23 29 21.0  -0.3
BRVK                               LR       LR
      comp=Z,177nm,21.0s,MS4.4
CHKZ  Chkalovo          78.48 327  P        P         23 29 21.3  -0.3
CHKZ                               pmax     pmax
      comp=Z,149nm,1.6s,mb5.7
CHKZ  Chkalovo          78.48 327 eP        P         23 29 21.0  -0.7
      comp=Z,24nm,0.8s,mb5.2
MAW   Mawson            80.05 202  P        P         23 29 31.4  +1.5
      comp=Z,10nm,0.9s,mb4.8,baz=89,slow=12,SNR=8.0
MAW                                S        S         23 39 37.0  +4.4
      comp=Z,6.6nm,1.1s,baz=262,slow=14,SNR=2.0
MAW                                LR       LR        00 03 45.2
      comp=Z,2µm,20.7s,MS5.5,baz=72,slow=35
TNA   Tin City          80.16  21  PFAKE              23 29 40.0  +9.5
TNA                                LR       LR
      comp=Z,430nm,19.0s,MS4.8
KDAK  Kodiak Island     83.54  31  PFAKE              23 30 00.0   +12
KDAK                               LR       LR
      comp=Z,414nm,21.0s,MS4.8
IMA   Indian Mountai    85.65  23 eP        P         23 30 00.3  +1.6
      comp=Z,289nm,1.3s,mb6.3
FIB   Fire Island       85.68  28  PFAKE              23 30 10.0   +11
FIB                                LR       LR
      comp=Z,2µm,19.0s,MS5.5
ARU   Arti              85.91 327 eP        P         23 29 59.3  -0.9
ARU                               e                   23 33 19.7
ARU                               eS        S         23 40 21.6   -10
ARU                               eSS       SS        23 46 09.2  -3.8
ARU                               eSSS      SSS       23 49 43.5  +1.6
ARU                                MLR      MLR
      comp=Z,300nm,23.0s,MS4.6
ARU                                MLR      MLR
      comp=N,200nm,25.0s,MS4.7
ARU                                MLR      MLR
      comp=E,300nm,20.5s,MS4.7
ARU   Arti              85.91 327 eP        P         23 29 59.1  -1.1
      comp=E,35nm,1.0s,mb5.5
ARU                                LR       LR
      comp=Z,127nm,20.0s,MS4.3
QSPA  South Pole Qui    86.26 180 eP        P         23 30 03.4  +2.0
      comp=Z,32nm,1.1s,mb5.5
SML   Sawmill           86.70  27 eP        P         23 30 04.3  +0.3
MCK   McKinley          86.91  26 eP        P         23 30 05.4  +0.5
      comp=Z,36nm,1.2s,mb5.5
MCK                                LR       LR
      comp=Z,436nm,21.0s,MS4.8
SOKR  Solikamsk         87.50 330⇓iP        P         23 30 06.7  -1.2
SOKR                               pmax     pmax
      comp=Z,20nm,0.9s,mb5.3
COLA  College           87.65  25 eP        P         23 30 08.8  +0.4
      comp=Z,19nm,1.1s,mb5.2
COLA                               LR       LR
      comp=Z,893nm,22.0s,MS5.1
DIV   Divide            87.75  28 eP        P         23 30 10.8  +1.8
      comp=Z,163nm,1.0s,mb6.2
DIV                                LR       LR
      comp=Z,4µm,21.0s,MS5.8
ILAR  Eielson Array     88.03  25  P        P         23 30 09.0  -1.3
      comp=Z,15nm,1.0s,mb5.2,baz=276,slow=4.6,SNR=30
ILAR                               LR       LR        00 04 42.5
      comp=Z,745nm,21.6s,MS5.1,baz=274,slow=32
SYO   Syowa Base        88.73 201 ⇓P        P         23 30 12.8  -0.8
DAWY  Dawson            91.12  26 eP        P         23 30 27.2  +2.4
SIT   Sitka             92.58  33  PFAKE              23 30 40.0  +8.3
SIT                                LR       LR
      comp=Z,1µm,21.0s,MS5.3
INK   Inuvik            93.74  22  P        P         23 30 36.2  -0.6
      comp=Z,5.7nm,1.1s,mb4.9,baz=284,slow=3.3,SNR=5.8
INK                                LR       LR        00 11 38.1
      comp=Z,434nm,18.3s,MS5.0,baz=235,slow=35
KIV   Kislovodsk        94.63 314  PFAKE              23 30 50.0  +8.6
KIV                                LR       LR
      comp=Z,119nm,20.0s,MS4.3
DLBC  Dease Lake        95.43  32  LR       LR        00 08 44.8
      comp=Z,568nm,20.4s,MS5.0,slow=32
SOC   Sochi             96.78 313 eP        P         23 30 49.3  -2.0
SOC                               e                   23 34 47.8
SOC                               e                   23 41 27.8
SOC                               eS        S         23 42 03.6  -5.8
SOC                               eSS       SS        23 48 50.1  +1.5
SOC                                pmax     pmax
      comp=N,70nm,0.9s
SOC                                pmax     pmax
      comp=E,28nm,0.9s
SOC                                pmax     pmax
      comp=Z,54nm,0.9s,mb6.0
VRSR  Storozhevoye      96.87 321 eP        P         23 30 50.1  -1.4
VRSR                               pmax     pmax
      comp=Z,10.0nm,0.8s,mb5.3
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VRSR                                   pmax      pmax
       comp=N,5.0nm,1.1s
VRSR                                   pmax      pmax
       comp=E,7.0nm,0.8s
MOS    Moscow             97.52 326  eP        P         23 30 54.1  -0.2
MOS                                  e                   23 34 50.5
OBN    Obninsk            98.18 325⇓iP        P         23 30 56.1  -1.2
OBN                                  e                   23 35 01.8
OBN                                  ePPP      PPP       23 37 13.2  +6.3
OBN                                   pmax      pmax
       comp=Z,36nm,1.5s,mb5.7
OBN                                   MLR       MLR
       comp=Z,300nm,20.0s,MS4.8
OBN    Obninsk            98.18 325  i P       P         23 30 56.0  -1.3
OBN                                   LR        LR
       comp=Z,300nm,20.0s,MS4.8
KMBO   Kilima Mbogo       98.24 268   LR        LR        00 14 11.0
       comp=Z,378nm,20.3s,MS4.9,baz=275,slow=35
KMBO   Kilima Mbogo       98.24 268   PFAKE               23 31 10.0  +11
KMBO                                  LR        LR
       comp=Z,421nm,20.0s,MS4.9
ANN    Anapa              98.38 315  eP        P         23 30 58.9  +0.5
ASF    Jabal al Asfar     99.31 302   S                   23 41 41.8
       comp=Z,0.6nm,0.4s,baz=267,slow=12,SNR=1.9
OCWA   Octopus Mounta     99.61  42   PFAKE               23 31 20.0  +16
OCWA                                  LR        LR
       comp=Z,1µm,20.0s,MS5.4
JOF    Joensuu            99.76 333  ep        P         23 31 00.9  -3.4
       comp=Z,6.1nm,1.0s,mb5.0
JOF    Joensuu            99.76 333  eP        P         23 31 00.9  -3.4
JOF                                   pmax      pmax
       comp=Z,6.0nm,1.0s,mb5.0
SNAA   Sanae             100.10 192⇑iP        P         23 31 07.9  +2.2
ARCES  ARCESS Array B    100.39 340   P         P         23 31 06.5  -0.6
       comp=Z,15nm,0.8s,baz=80,slow=5.5,SNR=32
COR    Corvallis         100.50  45   PFAKE               23 31 20.0  +12
COR                                   LR        LR
       comp=Z,639nm,19.0s,MS5.2
HOPS   Hopland           101.14  51   PFAKE               23 31 20.0  +8.9
HOPS                                  LR        LR
       comp=Z,883nm,19.0s,MS5.3
YBH    Yreka Blue Hor    101.19  48   PFAKE               23 31 20.0  +8.7
YBH                                   LR        LR
       comp=Z,1µm,20.0s,MS5.4
WDC    Whiskeytown Da    101.42  49   PFAKE               23 31 30.0  +18
WDC                                   LR        LR
       comp=Z,1µm,22.0s,MS5.4
BRTR   Keskin Array B    101.54 310   P         P         23 31 12.0  -0.9
       comp=Z,1.5nm,1.2s,baz=90,slow=8.6,SNR=2.5
KAF    Kangasniemi       102.20 333  ep        Pdif      23 31 12.6  -2.8
       comp=Z,4.8nm,0.8s
KAF    Kangasniemi       102.20 333  eP        Pdif      23 31 12.6  -2.8
KAF                                   pmax      pmax
       comp=Z,5.0nm,0.8s
YKA    Yellowknife Ar    102.34  27   P         Pdif      23 31 15.8  -0.2
       comp=Z,0.7nm,0.9s,baz=284,slow=5.0,SNR=5.2
YKA                                   PP        PP        23 35 26.6  -4.3
       comp=Z,1.7nm,1.2s,baz=288,slow=6.9,SNR=4.1
YKA                                   PKKPbc              23 47 17.6
       comp=Z,0.3nm,0.8s,baz=114,slow=2.8,SNR=3.7
YKA    Yellowknife Ar    102.34  27  i P       Pdif      23 31 19.1  +3.1
YKA                                   pmax      pmax
       comp=Z,1.0nm,0.9s
FINES  FINESS Array B    102.49 332   P         Pdif      23 31 15.1  -1.5
       comp=Z,4.1nm,0.8s,baz=63,slow=4.3,SNR=9.4
SAO    San Andreas Ge    102.60  53   PFAKE               23 31 30.0  +12
SAO                                   LR        LR
       comp=Z,819nm,20.0s,MS5.2
HAWA   Hanford           102.93  43   PFAKE               23 31 30.0  +11
HAWA                                  LR        LR
       comp=Z,1µm,20.0s,MS5.4
MOD    Modoc             102.96  48   PFAKE               23 31 30.0  +11
MOD                                   LR        LR
       comp=Z,711nm,20.0s,MS5.2
AKASG  Malin Array Be    103.19 321   Pdiff     Pdif      23 31 17.8  -2.2
       comp=Z,0.5nm,0.4s,baz=64,slow=4.3,SNR=6.0
AKASG                                 PP        PP        23 35 30.8  -6.9
       comp=Z,0.2nm,0.2s,baz=64,slow=5.9,SNR=4.0
AKASG                                 PKKPbc              23 47 13.6
       comp=Z,0.9nm,0.6s,baz=40,slow=15,SNR=4.4
CMB    Columbia Colle    103.32  52   PFAKE               23 31 30.0  +9.1
CMB                                   LR        LR
       comp=Z,904nm,19.0s,MS5.3
NEW    Newport           104.24  41   PFAKE               23 31 40.0  +15
NEW                                   LR        LR
       comp=Z,926nm,20.0s,MS5.3
BMO    Blue Mountains    104.71  45   PFAKE               23 31 40.0  +13
BMO                                   LR        LR
       comp=Z,819nm,21.0s,MS5.2
MBAR   Mbarara           104.77 268   PFAKE               23 31 40.0  +12
MBAR                                  LR        LR
       comp=Z,65nm,20.0s,MS4.2
NVAR   Mina Array Bea    104.91  51   Pdiff     Pdif      23 31 28.7  +0.8
       comp=Z,1.8nm,0.7s,baz=278,slow=3.2,SNR=13
NVAR                                  PP        PP        23 35 47.3  -3.7
       comp=Z,2.2nm,1.1s,baz=270,slow=8.1,SNR=4.1
NVAR   Mina Array Bea    104.91  51   Pdif      Pdif      23 31 28.7  +0.8
NVAR                                  PP        PP        23 35 47.3  -3.7
MNV    Mina              105.02  51   PFAKE               23 36 00.0
MNV                                   LR        LR
       comp=Z,623nm,20.0s,MS5.2
BMN    Battle Mountai    105.46  49   PFAKE               23 36 00.0
BMN                                   LR        LR
       comp=Z,689nm,22.0s,MS5.2
LSZ    Lusaka            105.73 253   PFAKE               23 36 00.0
LSZ                                   LR        LR
       comp=Z,586nm,20.0s,MS5.1
DAC    Darwin (Calif)    105.73  53   PFAKE               23 36 00.0
DAC                                   LR        LR
       comp=Z,686nm,19.0s,MS5.2
TPH    Tonopah           105.80  52   PFAKE               23 36 00.0
TPH                                   LR        LR
       comp=Z,546nm,20.0s,MS5.1
MLR    Muntele Rosu      106.34 316   PP        PP        23 36 03.3  +1.9
       comp=Z,2.3nm,0.8s,baz=93,slow=6.6,SNR=4.3
MSO    Missoula          106.64  42   PFAKE               23 36 00.0
MSO                                   LR        LR
       comp=Z,540nm,19.0s,MS5.1
TPNV   Topopah Spring    106.72  53   PFAKE               23 36 00.0
TPNV                                  LR        LR
       comp=Z,714nm,19.0s,MS5.2
ELK    Elko              106.90  49   PFAKE               23 36 00.0
ELK                                   LR        LR
       comp=Z,1µm,21.0s,MS5.4
PFO    Pinyon Flat Ob    106.99  56   PFAKE               23 36 00.0
PFO                                   LR        LR
       comp=Z,211nm,21.0s,MS4.7
HLID   Hailey            106.99  46   PFAKE               23 36 00.0
HLID                                  LR        LR
       comp=Z,901nm,20.0s,MS5.3
HFS    Hagfors           108.62 333   Pdiff     Pdif      23 31 42.7  -0.9
       comp=Z,3.6nm,0.8s,baz=63,slow=6.4,SNR=4.4
IDI    Anoyia            108.98 306   PKiKP               23 35 50.9
       comp=Z,1.9nm,0.6s,baz=56,slow=3.6,SNR=4.0
NOA    NORSAR Array B    109.28 335   Pdiff     Pdif      23 31 45.4  -1.1
       comp=Z,0.9nm,0.8s,baz=62,slow=4.5,SNR=3.7
NOA    NORSAR Array B    109.28 335   Pdif      Pdif      23 31 45.4  -1.1
HWUT   Hardware Ranch    109.45  47   PFAKE               23 36 00.0
HWUT                                  LR        LR
       comp=Z,1µm,19.0s,MS5.5
AHID   Auburn Hatcher    109.53  46   PFAKE               23 36 00.0
AHID                                  LR        LR
       comp=Z,569nm,19.0s,MS5.2
LKWY   Lake              109.58  44   PFAKE               23 36 00.0
LKWY                                  LR        LR
       comp=Z,1µm,20.0s,MS5.5
MVU    Marysvale         109.61  50   PFAKE               23 36 10.0
MVU                                   LR        LR
       comp=Z,588nm,21.0s,MS5.1
PMSA   Palmer Station    110.18 171   PFAKE               23 36 00.0  +6.4
PMSA                                  LR        LR
       comp=Z,1µm,20.0s,MS5.4
BW06   Boulder Array     110.63  46   PFAKE               23 36 10.0  +15
BW06                                  LR        LR
       comp=Z,689nm,20.0s,MS5.2
PDAR   Pinedale Array    110.63  46   Pdiff     Pdif      23 31 55.8  +2.9
       comp=Z,0.4nm,0.8s,baz=278,slow=6.4,SNR=2.5
PDAR                                  PKiKP               23 35 53.4
       comp=Z,0.5nm,0.8s,baz=180,slow=1.5,SNR=4.2
PDAR                                  PKKPbc              23 46 53.1
       comp=Z,0.5nm,0.6s,baz=113,slow=6.9,SNR=5.5
KONO   Kongsberg         110.67 334   PFAKE               23 36 10.0  +15
KONO                                  LR        LR
       comp=Z,2µm,20.0s,MS5.6
FFC    Flin Flon         111.27  32   PFAKE               23 36 10.0  +14
FFC                                   LR        LR
       comp=Z,414nm,22.0s,MS5.0
VRAC   Vranov            111.41 322   PP        PP        23 36 37.7  -0.6
       comp=Z,2.5nm,0.8s,baz=73,slow=8.8,SNR=4.0
LAO    LASA Array        111.78  41   PFAKE               23 36 10.0  +13
LAO                                   LR        LR
       comp=Z,1µm,21.0s,MS5.4
TUC    Tucson            111.89  57   PFAKE               23 36 10.0  +12
TUC                                   LR        LR
       comp=Z,725nm,21.0s,MS5.2
PV10   Paradox Valley    112.07  50  ePKPdf    PKPdf     23 35 57.4  -0.5
BRG    Berggiesshubel    112.41 324  eP        PKPdf     23 35 58.7  +0.5
BRG                                  e                   23 36 42.1
DGMT   Dagmar            112.47  38   PFAKE               23 36 10.0  +12
DGMT                                  LR        LR
       comp=Z,2µm,22.0s,MS5.6
PV01   Paradox Valley    112.49  50  ePKPdf    PKPdf     23 36 00.5  +1.7
CLL    Collm             112.78 325  ePKIKP    PKPdf     23 35 58.0  -1.0
CLL                                  i PP      PP        23 36 47.8  -0.8
CLL                                  e*PPP               23 37 00.0
GERES  GERESS Array B    113.34 322   PKiKP               23 35 58.0
       comp=Z,0.4nm,0.4s,baz=106,slow=1.0,SNR=8.4
GERES                                 PP        PP        23 36 52.8  -0.1
       comp=Z,3.1nm,1.2s,baz=90,slow=5.3,SNR=5.3
ISCO   Idaho Springs     114.29  48   PFAKE               23 36 10.0  +7.7
ISCO                                  LR        LR
       comp=Z,811nm,19.0s,MS5.3
ANMO   Albuquerque       114.89  53   PFAKE               23 36 20.0  +16
ANMO                                  LR        LR
       comp=Z,626nm,21.0s,MS5.2
SDCO   Great Sand Dun    114.94  50  ePKPdf    PKPdf     23 36 03.4  -0.2
SDCO                                  LR        LR
       comp=Z,750nm,21.0s,MS5.3
DAVOX  Davos             116.53 321   PKP       PKPdf     23 36 05.4  -1.1
       comp=Z,2.9nm,0.6s,baz=42,slow=3.1,SNR=6.3
CDF    Champ du Feu      117.38 324  ePKP1     PKPdf     23 36 07.6  -0.4
       comp=Z,3.0nm,0.6s
HAU    Haudompre         118.12 324  ePKP1     PKPdf     23 36 08.4  -1.1
       comp=Z,4.9nm,0.5s
LTX    Lajitas           118.48  59   PFAKE               23 36 20.0  +9.3
LTX                                   LR        LR
       comp=Z,815nm,20.0s,MS5.3
TXAR   Lajitas Array     118.48  59   PKP       PKPdf     23 36 07.5  -3.2
       comp=Z,0.6nm,0.7s,baz=270,slow=1.3,SNR=6.0
TXAR   Lajitas Array     118.48  59   PKP       PKPdf     23 36 07.5  -3.2
AMTX   Amarillo          118.70  52   PFAKE               23 36 20.0  +9.0
AMTX                                  LR        LR
       comp=Z,640nm,19.0s,MS5.3
EKA    Eskdalemuir Ar    118.76 335   PKP       PKPdf     23 36 07.7  -2.9
       comp=Z,1.0nm,0.7s,baz=37,slow=3.5,SNR=3.5
ESK    Eskdalemuir       118.80 335   PFAKE               23 36 20.0  +9.3
ESK                                   LR        LR
       comp=Z,306nm,20.0s,MS4.9
CABF   La Chapelle       118.94 323  ePKP1     PKPdf     23 36 10.2  -1.0
       comp=Z,12nm,0.7s
LPG    La Plagne         119.05 321  ePKP1     PKPdf     23 36 09.3  -2.1
       comp=Z,4.3nm,0.4s
LPL    La Plagne         119.06 321  ePKP1     PKPdf     23 36 08.8  -2.6
       comp=Z,5.2nm,0.5s
MBDF   Montbardon        119.39 320  ePKP1     PKPdf     23 36 11.2  -0.8
       comp=Z,14nm,0.9s
ORIF   Oris-en-Rattie    119.87 321  ePKP1     PKPdf     23 36 12.3  -0.6
SSF    Saint Saulge      120.26 324  ePKP1     PKPdf     23 36 13.0  -0.6
       comp=Z,10nm,0.9s
SMF    Signal de Mont    120.27 323  ePKP1     PKPdf     23 36 13.4  -0.3
EYMN   Ely               120.29  35   PFAKE               23 36 20.0  +6.3
EYMN                                  LR        LR
       comp=Z,1µm,22.0s,MS5.6
VIVF   Saint-Julien-l    120.65 321  ePKP1     PKPdf     23 36 13.8  -0.7
BGF    Bois d'Agland     120.91 324  ePKP1     PKPdf     23 36 14.6  -0.4
TCF    Toulx Ste Croi    121.42 324  ePKP1     PKPdf     23 36 15.4  -0.6
       comp=Z,32nm,1.3s
JCT    Junction City     121.45  56  ePKPdf    PKPdf     23 36 15.3  -1.2
JCT                                   LR        LR
       comp=Z,752nm,20.0s,MS5.3
MFF    Saint Martin d    122.62 325  ePKP1     PKPdf     23 36 17.4  -0.8
       comp=Z,11nm,0.8s
SGMF   Saint Gilles      122.98 328  ePKP1     PKPdf     23 36 18.3  -0.5
EFI    East Falkland     123.63 170   PFAKE               23 36 30.0  +10
EFI                                   LR        LR
       comp=Z,216nm,21.0s,MS4.8
JFWS   Jewell Farm       123.66  39   PFAKE               23 36 30.0  +10
JFWS                                  LR        LR
       comp=Z,1µm,20.0s,MS5.6
HKT    Hockley           124.89  56   PFAKE               23 36 30.0  +6.8
HKT                                   LR        LR
       comp=Z,721nm,20.0s,MS5.3
MIAR   Mount Ida         125.09  50   PFAKE               23 36 30.0  +6.6
MIAR                                  LR        LR
       comp=Z,962nm,21.0s,MS5.4
CCM    Cathedral Cave    125.33  45   PFAKE               23 36 30.0  +6.2
CCM                                   LR        LR
       comp=Z,828nm,21.0s,MS5.4
SCHQ   Schefferville     125.87  16   PKP       PKPdf     23 36 22.6  -1.7
       comp=Z,1.9nm,0.6s,baz=273,slow=18,SNR=3.1
AAM    Ann Arbor         128.05  37   PFAKE               23 36 40.0  +11
AAM                                   LR        LR
       comp=Z,1µm,22.0s,MS5.6
OXF    Oxford            128.24  48   PFAKE               23 36 40.0  +10
OXF                                   LR        LR
       comp=Z,655nm,22.0s,MS5.3
WVT    Waverly           128.65  45   PFAKE               23 36 40.0  +10
WVT                                   LR        LR
       comp=Z,769nm,20.0s,MS5.4
WCI    Wyandotte Cave    128.66  42   PFAKE               23 36 40.0  +10
WCI                                   LR        LR
       comp=Z,1µm,21.0s,MS5.6
ACSO   Alum Creek Sta    129.69  38   PFAKE               23 36 40.0  +7.9
ACSO                                  LR        LR
       comp=Z,2µm,21.0s,MS5.7
ERPA   Erie              130.30  35   PFAKE               23 36 40.0  +6.8
ERPA                                  LR        LR
       comp=Z,2µm,20.0s,MS5.7
LRAL   Lakeview Retre    130.69  49   PFAKE               23 36 50.0  +16
LRAL                                  LR        LR
       comp=Z,887nm,20.0s,MS5.5
MYNC   Murphy            131.79  45   PFAKE               23 36 50.0  +14
MYNC                                  LR        LR
       comp=Z,1µm,22.0s,MS5.5
MCWV   Mont Chateau      131.95  37   PFAKE               23 36 50.0  +14
MCWV                                  LR        LR
       comp=Z,2µm,21.0s,MS5.7
NCB    Newcomb           132.03  29   PFAKE               23 36 50.0  +14
NCB                                   LR        LR
       comp=Z,736nm,22.0s,MS5.3
EVO    Evora             132.04 321  ePKP1     PKPdf     23 36 35.8  -0.8
       comp=Z,159nm,1.7s
BINY   Binghamton        132.43  32   PFAKE               23 36 50.0  +13
BINY                                  LR        LR
       comp=Z,1µm,20.0s,MS5.7
SSPA   Standing Stone    132.46  35   PFAKE               23 36 50.0  +13
SSPA                                  LR        LR
       comp=Z,1µm,19.0s,MS5.6
BLA    Blacksburg        133.09  40   PFAKE               23 36 50.0  +11
BLA                                   LR        LR
       comp=Z,602nm,21.0s,MS5.3
WVL    Waterville        133.63  25   PFAKE               23 36 50.0  +11
WVL                                   LR        LR
       comp=Z,8µm,22.0s
PAYG   Puerto Ayora      133.96  94   PFAKE               23 36 50.0  +9.3
PAYG                                  LR        LR
       comp=Z,511nm,19.0s,MS5.3
CBN    Corbin            134.36  37   PFAKE               23 36 50.0  +9.1
CBN                                   LR        LR
       comp=Z,2µm,22.0s,MS5.8
EMMW   East Machias      134.41  23   PFAKE               23 36 50.0  +9.2
EMMW                                  LR        LR
       comp=Z,5µm,20.0s,MS6.2
HRV    Harvard--Oak R    134.41  28   PFAKE               23 36 50.0  +9.1
HRV                                   LR        LR
       comp=Z,905nm,21.0s,MS5.5
WES    Weston            134.62  28   PFAKE               23 36 50.0  +8.7
WES                                   LR        LR
       comp=Z,3µm,21.0s,MS6.0
TRQA   Tornquist         135.38 160   PFAKE               23 36 50.0  +7.2
TRQA                                  LR        LR
       comp=Z,1µm,20.0s,MS5.7
NHSC   New Hope          135.60  45   PFAKE               23 36 50.0  +6.6
NHSC                                  LR        LR
       comp=Z,1µm,22.0s,MS5.6
DWPF   Disney            137.22  52   PFAKE               23 37 00.0  +14
DWPF                                  LR        LR
       comp=Z,584nm,20.0s,MS5.3
JTS    JuntasAbangare    139.27  79   PFAKE               23 37 00.0  +9.5
JTS                                   LR        LR
       comp=Z,151nm,22.0s,MS4.7
DBIC   Dimbokro          140.50 276   PFAKE               23 37 00.0  +7.2
DBIC                                  LR        LR
       comp=Z,359nm,19.0s,MS5.1
NNA    Nana              144.20 116  ePKPdf    PKPdf     23 36 56.9  -2.4
NNA                                   LR        LR
       comp=Z,124nm,20.0s,MS4.7
LVC    Limon Verde       144.56 139  ePKPdf    PKPdf     23 36 59.2  -0.5
LVC                                   LR        LR
       comp=Z,587nm,20.0s,MS5.3
BBSR   BB Station        145.72  31   PFAKE               23 37 10.0  +11
BBSR                                  LR        LR
       comp=Z,880nm,21.0s,MS5.5
OTAV   Otavalo           145.82  95  ePKPdf    PKPdf     23 37 03.6  +1.4
OTAV                                  LR        LR
       comp=Z,264nm,21.0s,MS5.0
ARE    Arequipa          146.57 128  eP        PKPbc     23 37 07.0  +5.5
CPUP   Villa Florida     147.64 158   PKPbc     PKPdf     23 37 04.9  +0.1
       comp=Z,31nm,0.7s,baz=242,slow=1.8,SNR=67
CPUP   Villa Florida     147.64 158  ePKPdf    PKPdf     23 37 04.9  +0.1
CPUP                                  LR        LR
       comp=Z,1µm,20.0s,MS5.6
LPAZ   La Paz            149.28 131   PKPbc     PKPdf     23 37 10.0  +2.3
       comp=Z,8.0nm,0.9s,baz=44,slow=1.4,SNR=18
LPAZ   La Paz            149.28 131  ePKPdf    PKPdf     23 37 08.8  +1.1
LPAZ                                  LR        LR
       comp=Z,373nm,19.0s,MS5.2
SDV    Santo Domingo     153.45  78  ePKPdf    PKPdf     23 37 13.0  -0.9
SDV                                   LR        LR
       comp=Z,368nm,20.0s,MS5.2
AOPR   Arecibo Observ    153.74  55  ePKPbc    PKPdf     23 37 21.7  +7.5
SJG    San Juan          154.35  54   PKPbc     PKPdf     23 37 21.9  +6.9
       comp=Z,14nm,1.0s,baz=355,slow=4.9,SNR=2.5
SJG    San Juan          154.35  54   PKPbc     PKPdf     23 37 21.9  +6.9
SJG                                   LR        LR
       comp=Z,559nm,20.0s,MS5.4
SAML   Samuel            157.47 124   PFAKE               23 37 30.0  +11
SAML                                  LR        LR
       comp=Z,604nm,21.0s,MS5.4
BDFB   Brasilia          160.46 170   PKP       PKPdf     23 37 22.5  -0.2
       comp=Z,5.5nm,1.0s,baz=132,slow=1.3,SNR=7.2
BDFB                                  PKPab     PKPab     23 38 05.5  +2.5
       comp=Z,21nm,1.4s,baz=125,slow=7.3,SNR=4.3
RCBR   Riachuelo         167.28 222   PFAKE               23 37 40.0  +11
RCBR                                  LR        LR
       comp=Z,609nm,21.0s
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*IDC **01** 23:32:48.4±1.4, 3.60S×135.62E, mb3.8/4, mb1 4.2/6, mb1mx4.0/13, ML3.5/2, Error ellipse: s-maj=58.8km s-min=25.2km az=93.0*

*NEIC **01** 23:32:53.2±1.1, 3.46S×135.01E, h10^{km}, mb4.0/2, Error ellipse: s-maj=48.8km s-min=14.2km az=90.0*

ISC 01 23:32:48.5±1.0**, 3.63S**±0.09×**135.4E**±0.3**, h10^{km}, n9, σ0^{s}98**/9**, mb3.6**/4**, Irian Jaya region**

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Code   Station Name          Δ°  AZ°    Phase ID              Time     Res
                                      Op        ISC         h  m  s   ISC
WRAB   Tennant Creek      16.24 184  eP        P         23 36 40.1  +1.5
       17nm,0.7s
WRA    Warramunga Arr     16.25 184   Pn        P         23 36 37.0  -1.7
       0.1nm,0.3s,baz=6.2,slow=12,SNR=2.7
FITZ   Fitzroy Crossi     17.27 213   P         P         23 36 51.0  -0.6
       0.2nm,0.3s,baz=20,slow=14,SNR=2.6
ASAR   Alice Springs      19.97 184   P         P         23 37 24.7  +0.7
       11nm,0.8s,baz=7.3,slow=11,SNR=16
ZAL    Zalesovo           71.10 331   P         P         23 44 08.8  -0.3
       0.8nm,1.0s,mb3.6,baz=7.3,slow=18,SNR=3.5
ZAL    Zalesovo           71.10 331   P         P         23 44 08.8  -0.3
BVAR   Borovoye Array     78.19 326   P         P         23 44 51.0  +1.2
       0.7nm,0.6s,mb3.8,baz=117,slow=6.4,SNR=4.2
CHKZ   Chkalovo           78.32 327  eP        P         23 44 50.2  -0.2
       0.6nm,0.9s,mb3.5
ILAR   Eielson Array      88.04  25   P         P         23 45 39.4  -0.7
       0.3nm,0.7s,mb3.6,baz=266,slow=4.5,SNR=5.6
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*IDC **01** 23:42:27.8±0.9, 3.59S×135.83E, mb4.0/6, mb1 4.2/9, mb1mx4.1/14, ML3.9/3, Error ellipse: s-maj=63.0km s-min=18.9km az=74.0*

*NEIC **01** 23:42:31.6±0.7, 3.67S×135.26E, h10^{km}, mb4.4/3, Error ellipse: s-maj=28.2km s-min=13.5km az=66.0*

ISC 01 23:42:27.4±0.6**, 3.90S**±0.07×**135.2E**±0.1**, h10^{km}, n21, σ1^{s}24**/21**, mb4.0**/8**, Irian Jaya region**

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Code   Station Name          Δ°  AZ°    Phase ID              Time     Res
                                      Op        ISC         h  m  s   ISC
KAKA   Kakadu              9.18 197  eP        P         23 44 47.7  +4.9
       19nm,0.4s
PMG    Port Moresby       13.05 115  eP        P         23 45 36.6  +0.9
       11nm,1.0s
WB2    Warramunga Arr     15.97 183  eP        P         23 46 14.6  +0.7
WRA    Warramunga Arr     15.97 183   Pn        P         23 46 12.2  -1.7
       0.2nm,0.3s,baz=4.9,slow=13,SNR=5.8
WRA                                   Sn        S         23 49 03.4  -7.7
       baz=8.0,slow=22,SNR=2.8
FITZ   Fitzroy Crossi     16.95 213  eP        P         23 46 31.1  +4.7
       4.4nm,0.6s
FITZ                                 eS        S         23 49 27.2  -6.6
FITZ   Fitzroy Crossi     16.95 213   P         P         23 46 29.6  +3.2
       0.4nm,0.3s,baz=30,slow=7.6,SNR=10
FITZ                                  S         S         23 49 31.7  -2.1
       0.2nm,0.3s,baz=189,slow=16,SNR=4.0
CTA    Charters Tower     19.35 147   P         P         23 46 55.4  -0.5
       0.5nm,0.3s,baz=343,slow=5.9,SNR=3.0
CTA                                   Lg                  23 52 35.6
       0.3nm,0.3s,baz=228,slow=12,SNR=2.6
ASAR   Alice Springs      19.69 184   P         P         23 47 03.8  +4.0
       9.5nm,0.5s,baz=8.4,slow=11,SNR=74
ASPA   Alice Springs      19.69 184  eP        P         23 47 03.7  +3.9
STKA   Stephens Creek     28.47 169   P         P         23 48 24.4  -0.4
       2.4nm,0.8s,mb3.9,baz=146,slow=6.1,SNR=2.3
STKA   Stephens Creek     28.47 169   P         P         23 48 24.4  -0.4
SONM   Songino Array      57.39 337   P         P         23 52 17.9  -0.5
       0.4nm,0.7s,mb3.5,baz=166,slow=5.9,SNR=2.9
ZAL    Zalesovo           71.26 331   P         P         23 53 48.9  +0.1
       0.6nm,0.4s,mb3.9,baz=163,slow=1.5,SNR=3.3
VNDA   Vanda              74.93 174  eP        P         23 54 15.4  +5.4
       12nm,1.0s,mb4.8
BVAR   Borovoye Array     78.32 326   P         P         23 54 30.5  +1.2
       1.2nm,0.7s,mb4.0,baz=127,slow=7.4,SNR=7.4
BRVK   Borovoye           78.39 326  eP        P         23 54 29.5  -0.2
       1.4nm,0.5s,mb4.2
CHKZ   Chkalovo           78.45 327  eP        P         23 54 30.6  +0.6
       0.9nm,0.7s,mb3.8
RKT    Rikitea            88.31 113  eLQ                 23 56 32.0
RKT                                  eLR       LR        00 00 13.7
       686nm,26.8s
ILAR   Eielson Array      88.36  25   P         P         23 55 18.6  -1.8
       0.5nm,0.5s,mb4.0,baz=262,slow=4.4,SNR=10.0
ARCES  ARCESS Array B    100.47 340   P         P         23 56 15.2  -0.7
       4.6nm,0.9s,baz=68,slow=6.5,SNR=5.3
CPUP   Villa Florida     147.58 159   PKPbc     PKPdf     00 02 16.1  +2.9
       3.8nm,0.8s,baz=306,slow=6.9,SNR=4.2
```

JMA 01 23:57:42.0±0.4**, 38.21N**×**142.34E, h14^{km}, M1.5, Near east coast of eastern Honshu**

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Code   Station Name          Δ°  AZ°    Phase ID              Time     Res
                                      Op        ISC         h  m  s   ISC
JIO    Ouri                0.82 288   P         Pb        23 57 57.5   0.0
OFUJ   Ofunato             1.01 329   P         Pb        23 58 00.4  -0.5
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*IDC **01** 23:57:48.7±27.0, 38.89N×142.53E, h211^{km}±162^{km}, mb3.2/6, mb1 3.3/6, mb1mx3.1/23, Error ellipse: s-maj=647.0km s-min=24.2km az=172.0*

*JMA **01** 23:57:48.4±0.2, 41.57N×142.08E, h66^{km}±4^{km}, M3.3*

ISC 01 23:57:48.0±0.5**, 41.57N**±0.05×**142.09E**±0.06**, h67^{km}**±5^{km}**, n17, σ0^{s}43**/23**, mb3.6**/6**, 5D, Hokkaido region**

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Code   Station Name          Δ°  AZ°    Phase ID              Time     Res
                                      Op        ISC         h  m  s   ISC
JOT    Ohata               0.80 257   P         P         23 58 04.4  +0.3
JOT                                  eS        S         23 58 16.0   0.0
JKB    Kayabe              0.85 292 ⇓P         P         23 58 04.5  -0.2
JKB                                  eS        S         23 58 16.9  -0.1
JNBK   Urakawa-nobuka      0.87  35 ⇓P         P         23 58 04.8  -0.1
JEM    Erimo               0.92  61   P         P         23 58 05.4  -0.1
JEM                                  eS        S         23 58 18.3  -0.2
JTM    Tenmabayashi        1.09 225 ⇓P         P         23 58 08.4  +0.5
JTM                                  eS        S         23 58 22.6   0.0
JNB    Noboribetsu         1.19 319 ⇓P         P         23 58 08.8  -0.3
JBT2   Biratori 2          1.23  10   P         P         23 58 09.8  +0.2
JSR    Shiriuchi           1.25 269   P         P         23 58 10.2  +0.2
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JANG	Nango	1.27	200	P	P	23 58 10.2	-0.1
JANG				eS	S	23 58 26.3	-0.4
JCH	Churui	1.41	42	⇓P	P	23 58 13.0	+0.7
JAR	Ashorobuto	2.13	35	P	P	23 58 22.3	+0.2
JAR				eS	S	23 58 47.0	-0.3
SONM	Songino Array	25.96	296	P	P	00 03 15.5	-0.3
	0.2nm,0.3s,mb3.0,baz=90,slow=8.7,SNR=3.7						
ZAL	Zalesovo	39.39	308	P	P	00 05 13.2	+0.8
	1.0nm,0.3s,mb4.1,baz=59,slow=2.7,SNR=4.5						
ILAR	Eielson Array	45.43	35	P	P	00 06 01.9	+0.5
	0.4nm,0.6s,mb3.3,baz=259,slow=5.5,SNR=4.7						
BVAR	Borovoye Array	48.00	309	P	P	00 06 21.7	0.0
	0.7nm,0.4s,mb3.9,baz=77,slow=9.0,SNR=8.4						
INK	Inuvik	50.14	29	P	P	00 06 38.1	+0.1
	0.5nm,0.5s,mb3.7,baz=290,slow=4.7,SNR=5.6						
FINES	FINESS Array B	65.06	332	P	P	00 08 21.7	-1.3
	0.5nm,0.5s,mb3.6,baz=31,slow=11,SNR=6.9						

*NEIC **01** 23:58:44.0±0.7, 23.64S×66.78W, h198^{km}±9^{km}, mb4.0/2, Error ellipse: s-maj=12.4km s-min=9.8km az=50.0*

*IDC **01** 23:58:44.3±1.0, 23.48S×66.75W, h196^{km}±9^{km}, mb3.3/5, mb1 3.7/10, mb1mx3.7/16, Error ellipse: s-maj=22.8km s-min=13.4km az=35.0*

*GUC **01** 23:58:44.6±0.6, 23.77S×66.95W, h204^{km}±10^{km}, ML4.0*

ISC 01 23:58:43.6±0.6**, 23.66S**±0.06×**66.80W**±0.07**, h208**^{km}±6^{km}**, n25, σ1^{s}20**/31**, mb3.4**/6**, 7C-2D, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPCH	San Pedro de A	1.49	300	⇑iP	P	23 59 19.8	+1.5
SPCH				i S	S	23 59 46.3	+1.3
SPCH				AMP		23 59 49.3	
	comp=N,1µm,0.5s						
LVC	Limon Verde	2.20	298	P	P	23 59 26.0	+0.8
	comp=N,29nm,0.3s,baz=114,slow=6.6,SNR=643						
LVC				S	S	23 59 56.0	-1.3
	comp=N,199nm,0.3s,baz=255,slow=22,SNR=61						
LVC	Limon Verde	2.20	298	eP	P	23 59 24.1	-1.1
ANCH	Antofagasta	3.31	269	⇑iP	P	23 59 38.5	+0.7
ANCH				i S	S	00 00 19.1	-0.7
CPN1	Cerro Paranal	3.43	253	⇑iP	P	23 59 40.1	+0.9
CPN1				i S	S	00 00 22.2	-0.2
CPCH	Copiapo	4.88	220	⇑iP	P	23 59 55.7	-1.7
CPCH				i S	S	00 00 52.1	-2.5
LPAZ	La Paz	7.44	350	P	P	00 00 29.2	-1.2
	comp=N,1.5nm,0.3s,baz=164,slow=10,SNR=24						
LPAZ	La Paz	7.44	350	eP	P	00 00 29.5	-0.9
	comp=N,5.2nm,0.4s						
ARE	Arequipa	8.41	328	eP	P	00 00 45.0	+2.1
ARE				eS	S	00 02 10.0	-6.2
CPUP	Villa Florida	9.00	109	P	P	00 00 50.0	-0.6
	comp=N,0.1nm,0.3s,baz=315,slow=11,SNR=8.6						
TRQA	Tornquist	14.93	165	eP	P	00 02 06.1	+0.4
	comp=N,4.4nm,0.8s						
BDFB	Brasilia	19.40	69	P	P	00 02 54.8	-1.0
	comp=N,1.0nm,0.3s,baz=252,slow=11,SNR=35						
BAO	Brasilia Array	19.42	69	eP	P	00 02 55.2	-0.8
VNA3	Neumayer Olymp	57.41	161	⇓i	P	00 08 15.6	+3.4
VNA3	Neumayer Olymp	57.41	161	⇑iP	P	00 08 15.6	+3.4
VNA1	Neumayer--Stat	57.61	160	⇑i	P	00 08 19.4	+5.9
VNA2	Neumayer--Watz	57.98	160	⇑i	P	00 08 20.0	+3.9
SNAA	Sanae	59.61	161	⇓i	P	00 08 28.3	+0.9
SNAA	Sanae	59.61	161	P	P	00 08 28.3	+1.0
	comp=N,1.1nm,0.8s,mb3.5,baz=298,slow=6.9,SNR=11						
TXAR	Lajitas Array	63.51	324	P	P	00 08 53.0	-1.0
	comp=N,0.2nm,0.6s,mb3.0,baz=162,slow=8.6,SNR=3.3						
ANMO	Albuquerque	69.37	326	P	P	00 09 30.4	-0.3
	comp=N,0.9nm,0.6s,mb3.6,baz=156,slow=10.0,SNR=4.8						
PDAR	Pinedale Array	76.95	329	P	P	00 10 13.8	-0.8
	comp=N,0.5nm,0.6s,mb3.3,baz=129,slow=8.0,SNR=5.6						
NVAR	Mina Array Bea	78.39	321	P	P	00 10 23.6	+0.9
	comp=N,0.4nm,0.6s,mb3.2,baz=153,slow=6.0,SNR=3.6						
YKA	Yellowknife Ar	93.87	340	P	P	00 11 37.8	-0.1
	comp=N,1.2nm,0.8s,mb4.0,baz=130,slow=4.5,SNR=16						
YKA	Yellowknife Ar	93.87	340	P	P	00 11 37.8	-0.1

*IDC **01** 23:59:52.6±0.7, 3.52S×135.51E, mb4.1/8, mb1 4.4/12, mb1mx4.3/15, ML4.3/3, MS3.6/1, Ms1 3.6/1, ms1mx3.0/18, Error ellipse: s-maj=40.1km s-min=16.1km az=66.0*

*NEIC **01** 23:59:55.8±0.5, 3.57S×135.40E, h10^{km}, mb4.2/8, Error ellipse: s-maj=14.2km s-min=7.4km az=75.0*

ISC 01 23:59:56.6±1.7**, 3.87S**±0.05×**135.30E**±0.09**, h47**^{km}±15^{km}**, n26, σ1^{s}28**/30**, mb4.0**/10**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.23	198	eP	P	00 02 11.9	+2.0
	38nm,0.4s						
PMG	Port Moresby	13.00	116	Pn	P	00 02 59.7	-1.3
	baz=297,slow=12,SNR=4.0						
WRAB	Tennant Creek	15.99	183	eP	P	00 03 38.0	-2.0
	19nm,0.5s						
WB2	Warramunga Arr	16.00	183	eP	P	00 03 40.0	-0.1
WB2				eS	S	00 06 29.7	-6.1
WRA	Warramunga Arr	16.00	183	Pn	P	00 03 37.8	-2.3
	1.1nm,0.3s,baz=2.1,slow=13,SNR=9.0						
WRA				Sn	S	00 06 27.7	-8.1
	0.4nm,0.3s,baz=10,slow=22,SNR=3.6						
WRA				Lg		00 08 20.5	
	baz=4.7,slow=34,SNR=3.9						
FITZ	Fitzroy Crossi	17.01	213	eP	P	00 03 56.3	+3.5
	7.6nm,0.6s						
FITZ				eS	S	00 06 57.2	-1.9
FITZ	Fitzroy Crossi	17.01	213	P	P	00 03 54.2	+1.4
	0.7nm,0.3s,baz=12,slow=14,SNR=11						
FITZ				S	S	00 06 54.8	-4.3
	0.5nm,0.3s,baz=197,slow=14,SNR=3.6						
FITZ				Lg		00 08 59.4	
	baz=169,slow=20,SNR=1.9						
CTA	Charters Tower	19.34	147	eP	P	00 04 21.9	+1.0
	5.8nm,0.7s						
CTA	Charters Tower	19.34	147	P	P	00 04 21.1	+0.2
	0.6nm,0.3s,baz=336,slow=12,SNR=7.9						
CTA				S	S	00 07 52.4	+1.0
	0.2nm,0.3s,baz=292,slow=16,SNR=2.3						
CTA				Lg		00 10 00.0	
	0.1nm,0.3s,baz=45,slow=22,SNR=4.2						
CTAO	Charters Tower	19.34	147	eP	P	00 04 22.0	+1.0
	6.6nm,0.8s						
ASAR	Alice Springs	19.73	184	P	P	00 04 27.8	+2.6
	20nm,0.5s,baz=9.0,slow=11,SNR=86						
ASAR				S	S	00 07 58.1	-1.6
	0.6nm,0.6s,baz=17,slow=15,SNR=2.4						
ASAR				Lg		00 10 18.6	
	1.4nm,0.7s,baz=158,slow=16,SNR=2.9						
ASAR				LR	LR	00 12 21.7	
	comp=Z,187nm,21.9s,baz=179,slow=37						
ASPA	Alice Springs	19.73	184	eP	P	00 04 27.4	+2.2
ASPA				eS	S	00 08 00.1	+0.4
STKA	Stephens Creek	28.48	169	eP	P	00 05 50.0	+0.3
	3.8nm,1.1s,mb3.9						
STKA	Stephens Creek	28.48	169	P	P	00 05 50.4	+0.7
	1.9nm,0.6s,mb3.9,baz=333,slow=9.7,SNR=4.3						
CMAR	Chiang Mai Arr	42.13	303	P	P	00 07 46.5	+0.2
	0.7nm,0.7s,mb3.4,baz=117,slow=8.1,SNR=3.5						
SONM	Songino Array	57.39	337	P	P	00 09 42.6	-0.1
	0.5nm,0.8s,mb3.6,baz=150,slow=7.3,SNR=3.3						
ZAL	Zalesovo	71.27	331	P	P	00 11 12.7	-0.2
	1.1nm,0.4s,mb4.1,baz=358,slow=7.9,SNR=6.8						
KURK	Kurchatov	72.74	326	eP	P	00 11 21.8	+0.1
	1.9nm,0.8s,mb4.1						
VNDA	Vanda	74.95	174	P	P	00 11 38.1	+4.0
	1.4nm,1.0s,mb3.9,slow=3.0,SNR=2.5						
BVAR	Borovoye Array	78.34	326	P	P	00 11 53.1	-0.4
	2.3nm,0.6s,mb4.3,baz=129,slow=9.5,SNR=12						
BRVK	Borovoye	78.41	326	eP	P	00 11 54.3	+0.3
	5.0nm,0.8s,mb4.5						
CHKZ	Chkalovo	78.47	327	eP	P	00 11 54.9	+0.6
	1.7nm,0.6s,mb4.2						
ILAR	Eielson Array	88.30	25	P	P	00 12 42.6	-1.4
	0.8nm,0.5s,mb4.2,baz=268,slow=4.3,SNR=11						
ARCES	ARCESS Array B	100.46	340	P	P	00 13 40.2	+0.5
	4.6nm,0.8s,baz=72,slow=3.8,SNR=6.8						
CPUP	Villa Florida	147.58	159	PKPbc	PKPdf	00 19 41.0	+7.2
	3.0nm,0.7s,baz=198,slow=2.9,SNR=8.6						
LPAZ	La Paz	149.38	131	PKPbc	PKPdf	00 19 44.8	+7.8
	1.2nm,0.8s,baz=188,slow=5.7,SNR=4.4						

*IDC **02** 00:17:23.2±3.3, 6.91S×105.30E, mb4.1/5, mb1 4.3/5, mb1mx3.9/16, Error ellipse: s-maj=171.0km s-min=27.1km az=51.0*

ISC 02 00:17:14.9±2.5**, 6.3S**±1.0×**104.8E**±1.0**, n8, σ1^{s}22**/7**, mb4.2**/5**, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	23.48	122	P	P	00 22 28.5	+1.2
	3.1nm,0.7s,mb4.0,baz=336,slow=10.0,SNR=4.6						
WRA	Warramunga Arr	31.74	118	P	P	00 23 41.7	-1.3
	1.2nm,0.7s,mb3.9,baz=290,slow=9.8,SNR=4.0						
ASAR	Alice Springs	32.89	125	P	P	00 23 53.6	+0.6
	2.8nm,1.2s,mb4.1,baz=302,slow=8.2,SNR=6.9						
STKA	Stephens Creek	42.76	131	P	P	00 25 15.3	-0.6
	3.8nm,0.5s,mb4.4,baz=319,slow=9.0,SNR=17						
ZAL	Zalesovo	62.29	347	P	P	00 27 51.9	+11
	0.8nm,0.3s,mb4.4,baz=131,slow=0.5,SNR=3.0						
MOR8	Moi Rana	95.83	336	e	P	00 30 45.7	+1.6
LOF	Lofoten	96.24	338	e	P	00 30 44.3	-1.6
TXAR	Lajitas Array	144.67	46	PKP	PKPdf	00 37 03.2	+7.1
	0.2nm,0.5s,baz=315,slow=1.3,SNR=4.1						

*IDC **02** 00:19:46.7±2.7, 35.21N×81.05E, mb3.5/3, mb1 3.7/4, mb1mx3.3/18, ML3.9/1, Error ellipse: s-maj=141.0km s-min=27.6km az=52.0*

ISC 02 00:19:46.5±1.5**, 34.6N**±0.3×**79.9E**±0.6**, h33**^{km}**, n9, σ0^{s}99**/9**, mb3.4**/3**, Kashmir-Xizang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KOLN	Koldanda	7.53	154	eP	P	00 21 36.6	-0.1
	3.6nm,0.2s						
GKN	Gorkha	7.75	147	eP	P	00 21 38.5	-1.2
	7.2nm,0.3s						
KKN	Kakani	8.22	144	eP	P	00 21 46.5	+0.2
	11nm,0.5s						
GUN	Gumba	8.43	141	eP	P	00 21 49.9	+0.8
	4.6nm,0.3s						
PKI	Pulchoki	8.47	145	eP	P	00 21 49.6	-0.2
	5.7nm,0.4s						
BVAR	Borovoye Array	19.61	343	P	P	00 24 13.2	-1.5
	0.3nm,0.3s,baz=157,slow=11,SNR=6.8						
CMAR	Chiang Mai Arr	23.38	129	P	P	00 24 53.4	+0.2
	0.8nm,0.4s,mb3.5,baz=316,slow=11,SNR=4.7						
FINES	FINESS Array B	43.12	325	P	P	00 27 48.8	+3.8
	1.1nm,0.8s,mb3.6,baz=111,slow=12,SNR=3.9						
YKA	Yellowknife Ar	82.53	7	P	P	00 32 07.4	+0.6
	0.1nm,0.6s,mb3.0,baz=344,slow=5.1,SNR=4.2						

IDC 02 00:19:51.2±2.2**, 6.53S**×**105.82E, mb4.1**/6**, mb1 4.2**/6**, mb1mx3.9**/16**, Error ellipse: s-maj=108.0km s-min=21.0km az=53.0, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	22.49	123	P	P	00 24 53.2	-0.6
	6.3nm,0.8s,baz=173,slow=1.4,SNR=5.5						
WRA	Warramunga Arr	30.72	118	P	P	00 26 08.5	-1.9
	2.0nm,0.8s,baz=292,slow=10,SNR=5.9						
ASAR	Alice Springs	31.91	125	P	P	00 26 18.6	-2.3
	1.0nm,0.6s,baz=312,slow=7.8,SNR=5.7						
STKA	Stephens Creek	41.82	132	P	P	00 27 42.4	-2.1
	4.2nm,0.6s,baz=309,slow=7.7,SNR=12						
SONM	Songino Array	54.13	0	P	P	00 29 17.9	-2.4
	0.3nm,0.5s,baz=180,slow=7.2,SNR=2.9						
SONM				PcP	PcP	00 30 22.7	-2.3
	0.3nm,0.6s,baz=180,slow=3.7,SNR=3.6						
FINES	FINESS Array B	90.81	332	P	P	00 32 56.7	-0.8
	2.2nm,0.9s,baz=117,slow=3.1,SNR=4.2						
TXAR	Lajitas Array	144.12	47	PKP	PKPdf	00 39 28.5	-2.9
	0.4nm,0.6s,baz=315,slow=1.3,SNR=5.4						

IDC 02 00:20:22.2±2.0**, 3.53S**×**135.47E, mb4.0**/2**, mb1 4.2**/5**, mb1mx3.9**/13**, ML3.9**/3**, Error ellipse: s-maj=57.8km s-min=30.3km az=101.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	16.36	184	Pn	P	00 24 15.0	0.0
	0.7nm,0.3s,baz=5.9,slow=12,SNR=8.3						
FITZ	Fitzroy Crossi	17.40	213	P	P	00 24 25.4	-2.8
	0.2nm,0.3s,baz=27,slow=12,SNR=6.2						
CTA	Charters Tower	19.53	148	P	P	00 24 51.5	-2.8
	0.2nm,0.3s,baz=270,slow=13,SNR=2.5						
ASAR	Alice Springs	20.08	184	P	P	00 24 57.5	-2.8
	12nm,0.8s,baz=10,slow=11,SNR=31						
ILAR	Eielson Array	87.92	25	P	P	00 33 13.7	-1.1
	0.3nm,0.7s,baz=253,slow=4.1,SNR=4.7						

*STR **02** 00:23:48.9±0.2, 46.23N×3.82E, h5^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 02 00:23:46.5±0.1**, 46.23N**×**3.87E, h6**^{km}**, Md2.2**/3**, Ml2.0**/14**, Error ellipse: s-maj=1.7km s-min=1.4km az=29.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLDF	La Plantade	0.31	214	Pg	Pg	00 23 55.0	+2.1
PLDF				Sg	Sg	00 23 59.4	+2.3
SMF	Signal de Mont	0.41	357	ePg	Pg	00 23 54.8	-0.1
SMF				eSg	Sg	00 23 59.5	-0.9
	4.5nm,0.2s						
AGO	Saint Agoulin	0.55	251	Pg	Pg	00 23 58.7	+1.3
AGO				Sg	Sg	00 24 05.9	+1.2
AVF	Avril sur Loir	0.67	328	ePg	Pg	00 23 59.0	-0.8
AVF				eSg	Sg	00 24 07.1	-1.6
	5.7nm,0.2s						
PYM	Petit Puy Mans	0.77	232	Pg	Pg	00 24 03.1	+1.2
BGF	Bois d'Agland	0.78	295	ePg	Pg	00 24 01.7	-0.4
BGF				eSg	Sg	00 24 10.6	-2.0
	16nm,0.2s						
SSF	Saint Saulge	0.87	343	ePg	Pg	00 24 02.9	-1.0
SSF				eSg	Sg	00 24 13.9	-1.6
	4.4nm,0.2s						
LBL	Lubilhac	1.09	204	Pg	Pg	00 24 08.9	+0.6
TCF	Toulx Ste Croi	1.15	273	ePn	Pn	00 24 07.1	-2.0
TCF				ePg	Pg	00 24 08.2	-1.4
TCF				eSg	Sg	00 24 22.5	-2.5
	1.5nm,0.2s						
HYF	Humbligny	1.34	321	ePn	Pn	00 24 10.1	-1.7
HYF				eSg	Sg	00 24 28.9	-2.2
VIVF	Saint-Julien-l	1.49	157	ePn	Pn	00 24 12.2	-1.7
VIVF				ePg	Pg	00 24 15.6	-0.6
VIVF				eSg	Sg	00 24 33.7	-2.3
	2.9nm,0.3s						
CABF	La Chapelle	1.58	75	eSg	Sg	00 24 35.5	-3.6
	2.1nm,0.4s						
CAF	Calviac	1.82	225	eSg	Sg	00 24 43.0	-4.1
	2.7nm,0.3s						
RJF	Les Rejaudoux	1.89	241	eSg	Sg	00 24 44.9	-4.6
	3.2nm,0.4s						
ORIF	Oris-en-Rattie	1.93	132	eSg	Sg	00 24 46.7	-4.0
	2.8nm,0.3s						
LPL	La Plagne	2.12	109	ePg	Pg	00 24 26.2	-2.7
LPL				eSg	Sg	00 24 53.3	-3.9
	1.5nm,0.4s						
LPG	La Plagne	2.14	109	eSg	Sg	00 24 54.0	-3.8
	0.7nm,0.3s						
LASF	Ste Croix	2.15	180	ePn	Pn	00 24 21.4	-2.0
LASF				ePg	Pg	00 24 27.9	-1.6
LASF				eSg	Sg	00 24 54.4	-3.9
	1.3nm,0.2s						
MEZF	Maizieres J'vi	2.41	19	ePn	Pn	00 24 23.7	-3.4
HAU	Haudompre	2.45	43	eSg	Sg	00 25 04.0	-4.2
	2.4nm,0.2s						
MBDF	Montbardon	2.54	125	eSg	Sg	00 25 06.0	-4.9
	4.3nm,0.5s						
LFF	La Frestale	2.55	241	eSg	Sg	00 25 06.3	-5.1
	3.2nm,0.4s						
HINF	Hinteralfeld	2.58	51	ePn	Pn	00 24 27.5	-2.1
HINF				eSg	Sg	00 25 06.8	-5.7
	1.5nm,0.2s						
ETSF	Etsaut	4.59	225	ePn	Pn	00 24 55.0	-3.2

WEL 02 00:27:26.4±0.6**, 45.48S**×**167.14E, h94**^{km}±2^{km}**, ML3.5**/5**, 2C-2D, Error ellipse: s-maj=5.2km s-min=3.3km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	0.01	71	⇑PN	P	00 27 39.3	-0.3
DCZ				SN	S	00 27 48.8	-0.6
MLZ	Mavora Lakes	0.74	80	⇑PN	P	00 27 43.5	-0.4
MLZ				SN	S	00 27 56.1	-0.7
MSZ	Milford Sound	0.98	35	PN	P	00 27 46.0	-0.4
MSZ				SN	S	00 28 00.2	-1.3
WKZ	Wanaka	1.48	65	PN	P	00 27 52.3	-0.3
EAZ	Earnscleugh	1.55	82	PN	P	00 27 52.6	-0.8
TUZ	Tuapeka	1.81	106	PN	P	00 27 56.1	-0.6
TUZ				SN	S	00 28 16.6	-2.6
JCZ	Jackson Bay	1.82	40	PN	P	00 27 56.0	-0.8
LBZ	Lake Benmore	2.43	64	⇓PN	P	00 28 02.4	-2.7
LBZ				SN	S	00 28 28.9	-5.0
ODZ	Otahua Downs	2.52	81	⇓PN	P	00 28 03.9	-2.4
ODZ				SN	S	00 28 31.0	-5.2

*ROM **02** 00:40:47.6±0.7, 43.15N×15.50E, h10^{km}, MD3.1/9, ML2.4/8, Error ellipse: s-maj=7.0km s-min=3.9km az=90.0*

*NEIC **02** 00:40:47.6, 43.15N×15.50E, h10^{km}, MD3.1(ROM), ML3.2(LDG), ML3.1(VIE), After ROM.*

*CSEM **02** 00:40:48.0±0.1, 43.12N×15.48E, h20^{km}, ML3.3/2, Error ellipse: s-maj=3.6km s-min=3.3km az=74.0*

*LDG **02** 00:40:51.5±0.5, 43.19N×15.24E, h10^{km}, Ml3.2/2, Error ellipse: s-maj=12.4km s-min=5.9km az=80.0*

ISC 02 00:40:47.0±0.4**, 43.14N**±0.02×**15.47E**±0.04**, h10**^{km}**, n68, σ1^{s}25**/65**, 6C-2D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RGNG	Rignano Grg	1.47	177	ePN	Pn	00 41 13.4	-0.2
RGNG	Rignano Grg	1.47	177	ePn	Pn	00 41 13.4	-0.2
NVLJ	Novalja	1.49	343	i Pn	Pn	00 41 12.7	-1.2
NVLJ				i Sg	Sg	00 41 34.7	-1.9
INTR	Introdacqua	1.61	226	ePN	Pn	00 41 16.2	+0.5
INTR	Introdacqua	1.61	226	ePn	Pn	00 41 16.2	+0.5
CII	Carovilli	1.66	212	ePN	Pn	00 41 18.6	+2.3
CII	Carovilli	1.66	212	ePn	Pn	00 41 18.6	+2.3
STON	Ston	1.66	98	i Pn	Pn	00 41 16.8	+0.5
STON				i Sg	Sg	00 41 40.6	-1.7
AQU	L'Aquila	1.71	243	ePN	Pn	00 41 16.3	-0.8
	33nm,0.6s						
AQU	L'Aquila	1.71	243	ePn	Pn	00 41 16.3	-0.9
AQU	L'Aquila	1.71	243	ePn	Pn	00 41 16.3	-0.8
	33nm,0.6s						
SNTG	Esanatoglia	1.85	274	ePN	Pn	00 41 18.2	-0.9
	24nm,0.4s						
SNTG	Esanatoglia	1.85	274	ePn	Pn	00 41 18.2	-0.9
SNTG	Esanatoglia	1.85	274	ePn	Pn	00 41 18.2	-0.9
	24nm,0.4s						
SDI	San Donato	1.88	221	ePN	Pn	00 41 19.5	-0.1
	26nm,0.4s						
SDI	San Donato	1.88	221	ePn	Pn	00 41 19.5	-0.1
SDI	San Donato	1.88	221	ePn	Pn	00 41 19.5	-0.1
	26nm,0.4s						
PTQR	Pietraquaria	1.89	235	ePN	Pn	00 41 20.6	+0.9
	20nm,0.7s						
PTQR	Pietraquaria	1.89	235	ePn	Pn	00 41 20.6	+0.9
PTQR	Pietraquaria	1.89	235	ePn	Pn	00 41 20.6	+0.9
	20nm,0.7s						
BLY	Banja Luka	2.03	37	Pn	Pn	00 41 24.2	+2.5
BLY				Sg	Sg	00 41 53.7	-1.0
FSSB	Fossombrone	2.04	287	ePN	Pn	00 41 21.0	-0.8
FSSB	Fossombrone	2.04	287	ePn	Pn	00 41 20.9	-0.9
MNS	Montasola	2.19	251	ePN	Pn	00 41 24.1	+0.2
	16nm,0.6s						
MNS	Montasola	2.19	251	ePn	Pn	00 41 24.1	+0.1
MNS	Montasola	2.19	251	ePn	Pn	00 41 24.1	+0.2
	16nm,0.6s						
VBY	Vinica-Bojanci	2.37	356	ePn	Pn	00 41 29.3	+2.7
VBY				eSn	Sn	00 41 58.4	+2.4
CRE	Caprese Michel	2.61	282	ePN	Pn	00 41 30.5	+0.5
	18nm,0.5s						
CRE	Caprese Michel	2.61	282	ePn	Pn	00 41 30.5	+0.5
CRE	Caprese Michel	2.61	282	ePn	Pn	00 41 30.5	+0.5
	18nm,0.5s						
VISS	Visnje	2.70	351	i Pn	Pn	00 41 32.3	+1.0
SFI	Santa Sofia	2.74	287	ePN	Pn	00 41 32.1	+0.2
	15nm,0.8s						
SFI	Santa Sofia	2.74	287	ePn	Pn	00 41 32.1	+0.2
SFI	Santa Sofia	2.74	287	ePn	Pn	00 41 32.1	+0.2
	15nm,0.8s						
VOY	Vojsko	3.10	339	eSn	Sn	00 42 15.3	+0.7
VOJS	Vojsko	3.11	339	i Pn	Pn	00 41 36.9	-0.2
VOJS	Vojsko	3.11	339	i Pn	Pn	00 41 36.8	-0.3
OBKA	Obir	3.43	349	⇑iPN	Pn	00 41 42.7	+1.0
OBKA				i SG	Sg	00 42 39.9	-1.4
	25nm,0.6s						
FVI	Forni Avoltri	3.95	332	ePN	Pn	00 41 47.8	-1.3
	11nm,0.5s						
FVI	Forni Avoltri	3.95	332	ePn	Pn	00 41 47.8	-1.2
FVI	Forni Avoltri	3.95	332	ePn	Pn	00 41 47.8	-1.3
	11nm,0.5s						
ARSA	Arzberg	4.11	1	⇑iPN	Pn	00 41 52.0	+0.6
ARSA				i SG	Sg	00 43 03.2	-0.7
	3.4nm,0.3s						
KBA	Koelnbreinsper	4.22	340	⇑iPN	Pn	00 41 52.6	-0.2
KBA				i SN	Sn	00 42 43.4	+0.6
MOA	Molln	4.79	350	⇓iPN	Pn	00 42 01.4	+0.5
MOA				i SN	Sn	00 42 58.8	+1.6
PGF	Pioggiola	4.79	265	ePn	Pn	00 41 59.4	-1.6
WTTA	Wattenberg	4.93	328	⇑iPN	Pn	00 42 03.2	+0.2
WATA	Walderalm	5.02	328	⇓iPN	Pn	00 42 05.8	+1.6
SQTA	Sankt Quirin	5.07	325	⇑iPN	Pn	00 42 04.3	-0.7
MOTA	Moosalm	5.21	325	⇑iPN	Pn	00 42 10.7	+3.7
MOTA				i SN	Sn	00 43 08.7	+0.8
MOTA	Moosalm	5.21	325	i Sn	Sn	00 43 08.7	+0.8
SBF	Sospel	5.89	280	ePn	Pn	00 42 14.3	-2.2
KHC	Kasperske Hory	6.14	348	ePN	Pn	00 42 18.0	-2.0
KHC				ex	x	00 42 25.5	
KHC				eSN	Sn	00 43 26.0	-5.0
KHC				ex	x	00 43 38.5	
FRF	La Foret Royal	6.45	277	ePn	Pn	00 42 20.0	-4.3
MBDF	Montbardon	6.48	287	ePn	Pn	00 42 20.6	-4.2
LMR	La Mourre	6.55	275	ePn	Pn	00 42 22.1	-3.7
LPG	La Plagne	6.68	294	ePn	Px	00 42 25.8	
LPG				eSn	Sx	00 43 35.4	
	5.3nm,0.6s						
LPL	La Plagne	6.70	294	ePn	Px	00 42 24.7	
LPL				eSn	Sx	00 43 33.8	
	6.3nm,0.6s						
ORIF	Oris-en-Rattie	7.14	288	ePn	Px	00 42 30.6	
SMRF	Simiane la Rot	7.24	280	ePn	Px	00 42 33.7	
CABF	La Chapelle	7.51	301	ePn	Px	00 42 36.4	
CDF	Champ du Feu	7.78	315	ePn	Px	00 42 40.1	
VIVF	Saint-Julien-l	7.97	286	ePn	Px	00 42 42.5	
HAU	Haudompre	8.04	310	ePn	Px	00 42 43.1	
SSF	Saint Saulge	9.32	299	ePn	Px	00 43 01.1	
AVF	Avril sur Loir	9.33	297	ePn	Px	00 42 59.5	
BGF	Bois d'Agland	9.59	295	ePn	Px	00 43 04.5	
EPF	Esparros	11.07	275	ePn	Px	00 43 20.7	
SJPF	Ste Jean	12.20	276	ePn	Px	00 43 39.9	

*NEIC **02** 00:44:54.5, 18.59N×104.33W, h16^{km}, MD3.8(MEX), After MEX.*

MEX 02 00:44:54.0±1.2**, 18.57N**×**104.33W, h16**^{km}±167^{km}**, MD3.8, Near coast of Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COLM	Colima	0.86	45	i P	Pb	00 45 07.5	-2.6
COLM				i S	Sb	00 45 17.2	-4.0
CJM	Chamela	1.15	324	eP	Pb	00 45 11.1	-3.8
CJM				i S	Sb	00 45 25.6	-3.8
CGX	Ciudad Guzman	1.36	35	i P	Pn	00 45 16.3	-2.2
CGX				i S	Sb	00 45 32.0	-3.7
SFJM	Santa Fe	2.27	32	i P	Pn	00 45 30.5	-0.9
SFJM				i S	Sn	00 45 54.8	-4.4
ZIIG	Zihuatanejo	2.89	109	eS	Sn	00 46 11.0	-4.1
PLIG	Platanillo	4.59	91	i S	Sn	00 46 52.1	-5.9

IDC 02 00:57:06.9±34.0**, 23.29S**×**179.71W, h462**^{km}±304^{km}**, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.3**/15**, Error ellipse: s-maj=272.0km s-min=147.6km az=130.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	31.75	269	P	P	01 02 51.9	-1.1
	5.1nm,0.5s,baz=92,slow=9.8,SNR=5.8						
ASAR	Alice Springs	42.40	260	P	P	01 04 19.6	-1.3
	1.4nm,0.5s,baz=100,slow=7.1,SNR=22						
WRA	Warramunga Arr	42.72	265	P	P	01 04 21.9	-1.6
	2.5nm,0.4s,baz=94,slow=8.5,SNR=14						

FITZ	Fitzroy Crossi	51.14	265	P	P	01 05 26.5	-1.5
	1.4nm,0.5s,baz=117,slow=5.4,SNR=9.4						
ARCES	ARCESS Array B	131.34	348	PKP	PKPdf	01 15 24.9	-0.2
	3.0nm,0.9s,baz=45,slow=2.6,SNR=3.7						
FINES	FINESS Array B	137.95	342	PKP	PKPdf	01 15 37.8	+0.4
	0.7nm,0.6s,slow=1.4,SNR=4.8						
AKASG	Malin Array Be	144.60	328	PKP	PKPdf	01 15 49.1	-0.3
	1.2nm,0.4s,baz=39,slow=3.9,SNR=14						
BRTR	Keskin Array B	147.41	308	PKPbc	PKPdf	01 15 57.5	+3.1
	0.9nm,0.5s,baz=112,slow=3.0,SNR=3.9						

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*NEIC **02** 01:03:37.5, 38.71S×176.35E, h98^{km}, ML4.2(WEL), After WEL.*

WEL 02 01:03:37.6±0.2**, 38.72S×176.36E, h96^{km}**±1^{km}**, ML4.2**/11**, 13C-22D, Error ellipse: s-maj=1.1km s-min=0.7km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHTZ	Whakaora	0.32	279	P	P	01 03 52.1	+0.3
WHTZ	Whakaora	0.32	279	⇓P*	P	01 03 52.1	+0.2
PATZ	Paeroa	0.35	346	P	P	01 03 52.1	+0.1
PATZ	Paeroa	0.35	346	⇓P*	P	01 03 52.1	+0.2
BKZ	Black Stump Fm	0.46	167	P	P	01 03 52.9	+0.1
BKZ				S	S	01 04 04.1	-0.1
BKZ	Black Stump Fm	0.46	167	⇑P*	P	01 03 52.9	+0.1
BKZ				S*	S	01 04 04.1	-0.1
RITZ	Rihia Road	0.47	236	P	P	01 03 52.9	0.0
RITZ	Rihia Road	0.47	236	⇑P*	P	01 03 52.9	0.0
RATZ	Rangitukua	0.49	252	P	P	01 03 52.7	-0.3
RATZ	Rangitukua	0.49	252	⇓P*	P	01 03 52.7	-0.4
WATZ	Wairara	0.49	271	P	P	01 03 52.7	-0.4
WATZ	Wairara	0.49	271	⇓P*	P	01 03 52.7	-0.4
TAZ	Tarawera	0.50	13	P	P	01 03 53.1	0.0
TAZ	Tarawera	0.50	13	⇑P*	P	01 03 53.1	0.0
UTU	Utuhina	0.56	346	⇓P*	P	01 03 53.6	0.0
KATZ	Kakaramea	0.58	243	P	P	01 03 53.6	-0.2
KATZ	Kakaramea	0.58	243	⇓P*	P	01 03 53.6	-0.2
KAVZ	Karewarewa	0.68	236	P	P	01 03 54.5	-0.1
KAVZ	Karewarewa	0.68	236	⇑P*	P	01 03 54.5	-0.2
EDRZ	Edgecumbe	0.68	26	P	P	01 03 54.3	-0.3
EDRZ	Edgecumbe	0.68	26	⇑P*	P	01 03 54.3	-0.4
MGZ	Maungaku	0.70	246	P	P	01 03 54.5	-0.4
MGZ	Maungaku	0.70	246	⇓P*	P	01 03 54.5	-0.4
OTVZ	Oturere	0.70	230	⇓P*	P	01 03 54.9	0.0
OTVZ				S*	S	01 04 07.9	+0.1
LIRZ	Lichensteins R	0.71	1	P	P	01 03 54.8	-0.2
LIRZ	Lichensteins R	0.71	1	⇑P*	P	01 03 54.7	-0.3
WTVZ	West Tongariro	0.72	236	P	P	01 03 54.7	-0.4
WTVZ	West Tongariro	0.72	236	⇓P*	P	01 03 54.7	-0.3
URZ	Urewera	0.74	52	P	P	01 03 55.0	-0.3
URZ	Urewera	0.74	52	⇑P*	P	01 03 55.0	-0.3
URZ				S*	S	01 04 07.5	-0.9
NGZ	Ngauruhoe	0.75	232	P	P	01 03 55.2	-0.2
NGZ	Ngauruhoe	0.75	232	⇓P*	P	01 03 55.2	-0.2
NGZ				S*	S	01 04 08.9	+0.4
MARZ	Manawahe	0.77	19	P*	P	01 03 55.2	-0.4
TUVZ	Tukino	0.78	225	P	P	01 03 55.5	-0.2
TUVZ	Tukino	0.78	225	⇓P*	P	01 03 55.6	-0.1
TUVZ				S*	S	01 04 08.5	-0.5
CNZ	Chateau	0.80	233	P	P	01 03 55.4	-0.4
CNZ	Chateau	0.80	233	P*	P	01 03 55.4	-0.4
WPVZ	Whakapapa	0.80	232	P	P	01 03 55.5	-0.4
WPVZ	Whakapapa	0.80	232	⇓P*	P	01 03 55.4	-0.5
TWVZ	Taurewa	0.80	244	P	P	01 03 55.5	-0.4
TWVZ	Taurewa	0.80	244	⇓P*	P	01 03 55.5	-0.4
TWVZ				S*	S	01 04 08.6	-0.8
FWVZ	Far West T-bar	0.83	229	P	P	01 03 55.9	-0.2
FWVZ	Far West T-bar	0.83	229	P*	P	01 03 55.8	-0.3
DRZ	Dome Shelter	0.84	228	P	P	01 03 56.2	0.0
DRZ	Dome Shelter	0.84	228	P*	P	01 03 56.2	+0.1
MOVZ	Moawhango	0.84	214	⇓P*	P	01 03 55.7	-0.5
MOVZ				S*	S	01 04 08.8	-1.2
WNVZ	Wahianoa	0.85	224	P	P	01 03 56.2	-0.2
WNVZ	Wahianoa	0.85	224	⇓P*	P	01 03 56.2	-0.2
TGRZ	Tauranga	0.99	355	P	P	01 03 57.7	-0.1
TGRZ	Tauranga	0.99	355	⇓P*	P	01 03 57.7	-0.2
TGRZ				*e*S*	S	01 04 13.1	+0.1
MWZ	Matawai	0.99	68	P	P	01 03 57.9	+0.1
MWZ	Matawai	0.99	68	⇑P*	P	01 03 57.9	0.0
KNZ	Kokohu	1.07	107	P	P	01 03 58.8	0.0
KNZ	Kokohu	1.07	107	⇑PN	P	01 03 58.7	0.0
TOZ	Tahuroa Road	1.20	325	P	P	01 03 59.9	-0.5
TOZ	Tahuroa Road	1.20	325	⇑P*	P	01 03 59.9	-0.5
HIZ	Hauiti	1.20	279	P	P	01 03 59.9	-0.5
HIZ	Hauiti	1.20	279	⇓PN	P	01 03 59.9	-0.6
VRZ	Vera Road	1.32	251	P	P	01 04 01.2	-0.6
VRZ	Vera Road	1.32	251	⇓P*	P	01 04 01.2	-0.6
WIZ	White Island	1.35	29	P	P	01 04 01.5	-0.8
WIZ	White Island	1.35	29	P*	P	01 04 01.1	-1.1
PWZ	Pawanui	1.37	164	P	P	01 04 01.9	-0.5
PWZ	Pawanui	1.37	164	⇓PN	P	01 04 01.8	-0.5
TSZ	Takapari Road	1.38	193	P	P	01 04 01.5	-1.0
TSZ	Takapari Road	1.38	193	⇑PN	P	01 04 01.5	-1.1
MYRZ	Mayor Island	1.44	356	P*	P	01 04 03.0	-0.3
WAZ	Wanganui	1.49	225	P	P	01 04 03.5	-0.4
WAZ	Wanganui	1.49	225	⇓PN	P	01 04 03.5	-0.5
PUZ	Puketiti	1.62	67	P	P	01 04 05.3	-0.3
PUZ	Puketiti	1.62	67	PN	P	01 04 05.3	-0.3
RAEZ	Rainy Point	1.64	249	P	P	01 04 05.7	-0.1
RAEZ	Rainy Point	1.64	249	⇓PN	P	01 04 05.6	-0.2
NEZ	North Egmont	1.85	252	P	P	01 04 08.5	0.0
NEZ	North Egmont	1.85	252	PN	P	01 04 08.5	0.0
DFE	Dawson Falls	1.86	250	P	P	01 04 08.2	-0.5
DFE	Dawson Falls	1.86	250	PN	P	01 04 08.5	-0.1
PKE	Pukeiti	1.91	255	P	P	01 04 08.8	-0.5
PKE	Pukeiti	1.91	255	PN	P	01 04 08.8	-0.6
MXZ	Matakaoa Point	1.92	54	P	P	01 04 09.2	-0.2
MXZ	Matakaoa Point	1.92	54	PN	P	01 04 09.2	-0.2
BFZ	Birch Farm	1.96	183	P	P	01 04 07.5	-2.5
NRZ	Ngariki Road	1.99	251	P	P	01 04 09.8	-0.6
NRZ	Ngariki Road	1.99	251	PN	P	01 04 09.7	-0.7
NWEZ	Newall Road	2.02	253	P	P	01 04 09.9	-0.9
NWEZ	Newall Road	2.02	253	*e*PN	P	01 04 09.9	-0.9
MRZ	Mangatainoka R	2.03	197	P	P	01 04 06.9	-4.1
MRZ	Mangatainoka R	2.03	197	PN	P	01 04 09.1	-1.8
KIW	Kapiti Island	2.42	207	P	P	01 04 13.2	-3.1
KIW	Kapiti Island	2.42	207	⇓PN	P	01 04 13.2	-3.0
MTW	Mount Morrison	2.53	195	P	P	01 04 14.5	-3.3
MTW	Mount Morrison	2.53	195	⇑PN	P	01 04 14.4	-3.3
CAW	Cannon Point	2.59	202	P	P	01 04 15.2	-3.4
CAW	Cannon Point	2.59	202	PN	P	01 04 15.2	-3.5
PAWZ	Paruwai Farm	2.76	195	PN	P	01 04 17.2	-3.7
MRW	Makara Radio	2.81	206	P	P	01 04 17.9	-3.9
MRW	Makara Radio	2.81	206	PN	P	01 04 17.9	-3.9
MSWZ	Moikau Station	2.83	197	P	P	01 04 18.1	-3.8
MSWZ	Moikau Station	2.83	197	PN	P	01 04 18.0	-3.9
BHW	Baring Head	2.92	203	P	P	01 04 18.7	-4.5
BHW	Baring Head	2.92	203	PN	P	01 04 19.0	-4.2
TUWZ	Tuamarina	3.29	214	⇑PN	P	01 04 23.7	-4.5
NNZ	Nelson	3.39	222	*e*P	P	01 04 25.1	-4.5
NNZ	Nelson	3.39	222	PN	P	01 04 24.9	-4.7
BSWZ	Blackbirch Sta	3.55	212	P	P	01 04 28.0	-3.8
BSWZ	Blackbirch Sta	3.55	212	*e*PN	P	01 04 27.1	-4.7
QRZ	Quartz Range	3.63	233	P	P	01 04 28.6	-4.3
THZ	Tophouse	4.03	220	*e*P	P	01 04 33.7	-4.7
THZ	Tophouse	4.03	220	PN	P	01 04 33.6	-4.9
KHZ	Kahutara	4.28	209	*e*P	P	01 04 36.4	-5.4
KHZ	Kahutara	4.28	209	*e*PN	P	01 04 36.4	-5.4
MQZ	McQueen’s Vall	5.72	208	*e*P	P	01 04 53.6	-7.8
MQZ	McQueen’s Vall	5.72	208	*e*PN	P	01 04 53.5	-8.0
MQZ				*e*SN	S	01 05 53.3	-13
ODZ	Otahua Downs	7.62	212	*e*P	P	01 05 20.4	-7.3
ODZ	Otahua Downs	7.62	212	*e*PN	P	01 05 19.8	-8.0

JMA 02 01:26:47.8±0.5**, 44.39N×147.55E, h144**^{km}**, M3.6, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	1.66	233	P	P	01 27 18.9	-0.1
NEM2				*e*S	S	01 27 42.9	-0.1
JAK	Akkeshi	2.50	237	P	P	01 27 28.6	-0.6
JAK				*e*S	S	01 28 00.0	-0.8
JAR	Ashorobuto	2.94	250	P	P	01 27 34.6	-0.4
JCH	Churui	3.53	241	P	P	01 27 41.7	-0.8
JCH				*e*S	S	01 28 22.5	-2.0
JNBK	Urakawa-nobuka	4.09	241	P	P	01 27 48.0	-1.9
JNBK				*e*S	S	01 28 34.5	-3.1
JKB	Kayabe	5.38	245	*e*S	S	01 29 03.4	-5.2
JOT	Ohata	5.64	240	*e*S	S	01 29 08.1	-6.7

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*IDC **02** 01:34:07.5±5.9, 11.36N×62.23W, mb3.6/3, mb1 3.9/3, mb1mx3.5/19, Error ellipse: s-maj=195.0km s-min=40.6km az=4.0*

*FUNV **02** 01:34:17.2, 11.04N×62.04W, h71^{km}, MW3.0*

*TRN **02** 01:34:18.2, 11.05N×62.03W, h64^{km}, MD3.8*

ISC 02 01:34:15.0±0.4**, 11.04N**±0.03×**62.09W**±0.03**, h89**^{km}±5^{km}**, n23, σ1^{s}11**/38**, mb3.5**/3**, 4C-2D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	Guiria	0.41	199	*e*P	P	01 34 29.1	+0.1
GUIV				*e*S	S	01 34 37.7	-2.0
TRN	Trinidad (W)	0.78	120	⇑*i*P	P	01 34 33.6	+1.2
TRN				*e*S	S	01 34 44.2	-1.2
TPP	Pointe-a-Pierr	0.95	139	⇑*i*P	P	01 34 36.4	+2.1
TPP				*e*S	S	01 34 47.5	-1.3
ITEV	Isla Los Testi	1.07	287	*e*P	P	01 34 36.9	+1.3
ITEV				*e*S	S	01 34 51.2	0.0
TBH	Brigand Hill	1.15	119	*e*P	P	01 34 37.8	+1.1
CRUV	Carupano	1.18	252	*e*P	P	01 34 38.2	+1.0
CRUV				*e*S	S	01 34 53.8	+0.1
GRW	Mount Saint Ca	1.19	21	⇓*e*P	P	01 34 38.2	+0.9
GRW				*e*S	S	01 34 54.0	+0.1
GUNV	Guanoco	1.21	224	*e*P	P	01 34 39.1	+1.6
GUNV				*e*S	S	01 34 55.2	+0.9
TPR	Prospect	1.30	83	*e*P	P	01 34 39.1	+0.5
TPR				*e*S	S	01 34 55.3	-1.0
BOT	Bacolet	1.35	85	*e*P	P	01 34 40.5	+1.2
BOT				*e*S	S	01 34 57.0	-0.3
ORIV	Oritupano	2.35	214	*e*P	P	01 34 53.5	+1.0
ORIV				*e*S	S	01 35 20.3	-0.1
PCRV	Puerto La Cruz	2.65	251	*e*S	S	01 35 27.2	-0.6
RIOV	Rio Grande	2.96	175	*e*P	P	01 35 01.2	+0.1
RIOV				*e*S	S	01 35 33.4	-2.3
BIM	Bigot	3.60	16	⇑*e*P	P	01 35 09.7	-0.1
BIM				*e*S	S	01 35 49.3	-2.0
MVM	Montagne Vaucl	3.68	18	⇓*e*P	P	01 35 11.1	+0.2
MVM				*e*S	S	01 35 52.9	-0.5
FDF	Fort de France	3.78	14	⇑*e*P	P	01 35 12.3	0.0
ORCV	Isla La Orchil	4.10	281	*e*P	P	01 35 17.4	+0.7
ORCV				*e*S	S	01 36 00.8	-2.9
CAOV	Caicara del Or	5.57	229	*e*P	P	01 35 35.9	-1.0
CAOV				*e*S	S	01 36 33.7	-6.6
BAUV	El Baul	6.22	251	*e*P	P	01 35 44.9	-1.0
BAUV				*e*S	S	01 36 50.1	-6.1
TXAR	Lajitas Array	42.78	301	P	P	01 42 05.1	-0.4
	0.1nm,0.4s,mb2.9,baz=116,slow=10.0,SNR=5.8						
PDAR	Pinedale Array	51.87	316	P	P	01 43 15.2	-1.2
	0.3nm,0.5s,mb3.6,baz=116,slow=11,SNR=4.1						
FINES	FINESS Array B	79.52	29	P	P	01 46 15.0	+1.8
	1.4nm,0.8s,mb3.8,baz=236,slow=5.0,SNR=7.8						
CMAR	Chiang Mai Arr	145.22	33	PKPbc	PKPbc	01 53 46.0	+2.5
	0.8nm,0.4s,baz=314,slow=4.2,SNR=4.9						

IDC 02 01:37:25.4±1.1**, 20.25S×68.87W, h121**^{km}±15^{km}**, mb3.5**/1**, mb1 3.6**/4**, mb1mx3.3**/14**, Error ellipse: s-maj=50.2km s-min=9.1km az=96.0, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	2.35	181	P	P	01 38 03.8	-0.2
	9.6nm,0.3s,baz=2.8,slow=14,SNR=78						
LVC				S	S	01 38 33.4	+0.3
	31nm,0.3s,baz=89,slow=23,SNR=23						
LPAZ	La Paz	4.00	10	P	P	01 38 26.4	+0.3
	2.0nm,0.3s,baz=191,slow=8.3,SNR=39						
LPAZ				S	S	01 39 12.6	0.0
	baz=259,slow=21,SNR=1.7						
CPUP	Villa Florida	12.20	122	P	P	01 40 15.3	-0.9
	0.1nm,0.3s,baz=332,slow=12,SNR=2.9						
YKA	Yellowknife Ar	90.03	341	P	P	01 50 10.8	-1.3
	0.4nm,0.6s,baz=128,slow=4.7,SNR=10						

MAN 02 01:43:43.8, 12.14N×123.87E, h4^{km}**, mb4.5, ML3.4, MS3.2, 3C-1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMPH	Masbate	0.32	312	⇑*i*P	Pg	01 43 50.5	+0.3
MMPH				*i* S	Sg	01 43 54.0	-0.5
CNP	Catarman	0.86	65	*e*P	Pb	01 44 00.5	-0.5
RCP	Roxas	1.24	242	⇓*e*P	Pb	01 44 07.5	0.0
RCP				*e*S	Sb	01 44 25.8	+2.1
PLP	Palo	1.46	132	*e*P	Pn	01 44 10.9	-0.2
PLP				*e*S	Sb	01 44 33.6	+3.5
BESP	Borongan	1.63	109	*e*P	Pn	01 44 13.1	-0.4
AUQP	San Andres	1.65	315	*e*P	Pn	01 44 13.4	-0.3
LLP	Lapu-Lapu	1.82	177	⇑*i*P	Pn	01 44 15.8	-0.4
LLP				*i* S	Sn	01 44 40.1	+0.1
GUIM	Jordan	1.96	220	*e*P	Pn	01 44 17.9	-0.3
GUIM				*e*S	Sn	01 44 46.3	+2.7
MSLP	Maasin	2.22	154	*e*P	Pn	01 44 24.4	+2.4
MSLP				*e*S	Sn	01 44 55.4	+5.2
GQP	Guinayangan	2.23	322	⇑*e*P	Pn	01 44 26.0	+3.9
GQP				*e*S	Sn	01 44 44.5	-5.9
BOAC	Boac	2.37	304	*e*P	Pn	01 44 21.9	-2.1
TBP	Tagbilaran	2.44	180	*e*P	Pn	01 44 24.6	-0.5
SNPH	Sibulan	2.85	193	*e*P	Pn	01 44 31.0	0.0

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*IDC **02** 01:51:54.8±3.9, 60.03N×153.44W, h97^{km}±44^{km}, mb3.2/1, mb1 3.7/6, mb1mx3.4/22, Error ellipse: s-maj=34.7km s-min=26.4km az=170.0*

*NEIC **02** 01:51:55.4, 59.66N×153.07W, h109^{km}, mb3.4/1, After AEIC.*

ISC 02 01:51:53.2±0.3**, 59.67N**±0.03×**153.05W**±0.06**, h120**^{km}±2^{km}**, n93, σ0^{s}79**/122**, mb3.5**/2**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OPT	Oil Point	0.09	262	P	P	01 52 09.9	+0.1
ILS	Iliamna Low So	0.29	358	P	P	01 52 10.5	+0.3
ILS				S	S	01 52 22.5	-0.5
AUE	Augustine Isla	0.35	208	P	P	01 52 10.8	+0.4
IVE	Iliamna Volcan	0.35	3	P	P	01 52 10.8	+0.4
IVE				S	S	01 52 23.1	-0.4
AGU	Augustine-Summ	0.36	213	P	P	01 52 11.3	+0.8
AUH	Augustine H	0.36	214	P	P	01 52 11.1	+0.6
AUH				S	S	01 52 23.0	-0.6
AUW	Augustine West	0.37	216	P	P	01 52 11.1	+0.6
AUI	Augustine Isla	0.38	210	P	P	01 52 11.0	+0.4
AUI				S	S	01 52 23.2	-0.5
INE	Iliamna NE	0.40	359	P	P	01 52 11.1	+0.5
INE				S	S	01 52 23.9	0.0
ILW	Iliamna West	0.40	354	P	P	01 52 10.9	+0.3
ILW				S	S	01 52 23.9	+0.1
ILIM	Iliamna	0.42	6	P	P	01 52 11.0	+0.2
ILIM				S	S	01 52 24.0	-0.1
HOM	Homer	0.71	90	P	P	01 52 13.5	+0.8
RSO	Redoubt South	0.81	10	P	P	01 52 14.4	+0.8
RSO				S	S	01 52 28.3	-0.7
MCNL	McNeil River	0.82	234	P	P	01 52 13.9	+0.2
MCNL				S	S	01 52 28.3	-0.8
REF	Redoubt East F	0.84	12	P	P	01 52 14.5	+0.6
RDN	Redoubt North	0.86	9	P	P	01 52 14.8	+0.6
NCT	North Crescent	0.90	4	P	P	01 52 14.9	+0.4
NCT				S	S	01 52 30.1	-0.4
CNPM	China Poot	0.93	98	P	P	01 52 15.2	+0.3
NNL	Ninilchik	0.96	66	P	P	01 52 16.5	+1.4
BRLK	Bradley Lake	1.10	84	P	P	01 52 16.7	+0.2
BRLK				S	S	01 52 34.1	+0.1
SYI	Shuyak Island	1.11	162	P	P	01 52 17.1	+0.4
KAPH	Katmai Pasha	1.26	213	P	P	01 52 18.6	+0.2
KAPH				S	S	01 52 36.8	-0.4
KAHG	Katmai Hook Gl	1.41	214	P	P	01 52 20.3	+0.3
NKA	Nikishka	1.41	39	P	P	01 52 22.2	+2.3
KAHC	Katmai Hardscr	1.44	226	P	P	01 52 20.4	+0.1
KAHC				S	S	01 52 39.9	-1.0
KAIC	Katmai Ikaglui	1.57	222	P	P	01 52 22.0	+0.1
KAIC				S	S	01 52 40.6	-2.9
KAWH	Katmai	1.57	216	P	P	01 52 21.9	0.0
KAWH				S	S	01 52 42.6	-1.0
CKN	Chakachatna No	1.62	15	P	P	01 52 23.2	+0.7
SLKM	Skilak Lake	1.65	58	P	P	01 52 23.5	+0.7
KABR	Katmai Barrier	1.83	214	P	P	01 52 25.0	0.0
KABR				S	S	01 52 48.7	-0.4
VOGL	Vogel Lake	1.86	43	P	P	01 52 27.2	+1.8
SEW	Seward	1.87	75	P	P	01 52 25.5	+0.1
SEW				S	S	01 52 47.7	-2.1
MGLS	Mageik LS	1.88	220	P	P	01 52 25.9	+0.4
MGLS				S	S	01 52 51.5	+1.5
KDAK	Kodiak Island	1.91	172	P	P	01 52 25.1	-0.8
STLK	Strandline Lak	1.93	18	P	P	01 52 27.2	+1.0
STLK				S	S	01 52 52.5	+1.2
ANCK	Angle Creek	1.94	222	P	P	01 52 26.7	+0.3
ANCK				S	S	01 52 51.0	-0.4
CAHL	Cahill	2.00	217	P	P	01 52 27.4	+0.4
MPA	Moose Pass	2.02	64	P	P	01 52 27.8	+0.4
CNTC	Contact Creek	2.03	227	P	P	01 52 27.9	+0.4
CNTC				S	S	01 52 52.1	-1.3
FIB	Fire Island	2.07	42	P	P	01 52 29.7	+1.6
KJL	Kejulik	2.08	220	P	P	01 52 28.9	+0.7
RC01	Rabbit Creek A	2.18	48	P	P	01 52 29.9	+0.5
PWA	Palmer West	2.53	37	P	P	01 52 34.5	+0.4
PWA				S	S	01 53 04.5	-0.6
PWL	Port Wells	2.64	61	P	P	01 52 35.1	-0.4
PWL				S	S	01 53 05.6	-1.9
LTI	Latouche	2.65	80	P	P	01 52 35.5	-0.2
KNK	Knik Glacier	2.87	50	P	P	01 52 38.2	-0.4
GHO	Glory Hole Cre	2.93	42	P	P	01 52 38.9	-0.5
CUT	Chulitna	3.06	25	P	P	01 52 41.7	+0.5
SML	Sawmill	3.16	45	P	P	01 52 41.8	-0.7
GLI	Glacier Island	3.21	65	P	P	01 52 42.6	-0.5
FID	Port Fidalgo	3.45	69	P	P	01 52 45.5	-0.9
FID				S	S	01 53 22.7	-4.4
SCM	Sheep Creek Mo	3.55	50	P	P	01 52 47.3	-0.5
SCM				S	S	01 53 28.3	-1.1
TT01	Tatalina	3.55	337	P	P	01 52 47.2	-0.6
VLZ	Valdez	3.64	63	P	P	01 52 48.9	-0.1
HUR	Hurricane	3.71	25	P	P	01 52 50.0	+0.1
CVA	Cordova	3.76	73	P	P	01 52 50.2	-0.3
EYAK	Cordova Ski Ar	3.76	73	P	P	01 52 50.0	-0.5
DIV	Divide	3.90	65	P	P	01 52 52.5	+0.1
TRF	Thorofare Moun	4.02	18	P	P	01 52 54.6	+0.5
KTH	Kantishna Hill	4.03	14	P	P	01 52 54.8	+0.6
RND	Reindeer	4.26	26	P	P	01 52 56.8	-0.5
RND				S	S	01 53 42.8	-3.5
TZL	Tazlina	4.43	54	P	P	01 52 59.4	-0.1
MCK	McKinley	4.53	24	P	P	01 53 00.4	-0.5
BWN	Browne	4.83	19	P	P	01 53 04.7	-0.2
GLB	Gilahina Butte	4.89	65	P	P	01 53 06.0	+0.1
GLB				S	S	01 53 59.2	-2.7
PAX	Paxson	4.93	45	P	P	01 53 06.7	+0.4
THY	Trims Highway	5.13	40	P	P	01 53 10.1	+1.1
TGL	Tana Glacier	5.21	74	P	P	01 53 10.2	+0.1
DDM	Donnelly Dome	5.36	36	P	P	01 53 12.6	+0.5
BALM	Baldy	5.49	71	P	P	01 53 14.2	+0.3
BALM				S	S	01 54 12.3	-4.0
MLY	Manley	5.49	10	P	P	01 53 13.5	-0.4
CCB	Clear Creek Bu	5.57	24	P	P	01 53 13.6	-1.3
YAH	Yahtse	5.71	78	P	P	01 53 17.4	+0.5
COLA	College	5.76	23	P	P	01 53 16.5	-1.0
DOT	Dot Lake	5.85	43	P	P	01 53 19.3	+0.6
IL1	Eielson Array	5.88	27	P	P	01 53 18.0	-1.1
ILAR	Eielson Array	5.88	27	P	P	01 53 17.6	-1.5
	4.2nm,0.3s,baz=220,slow=14,SNR=279						
ILAR				S	S	01 54 19.0	-6.7
	3.4nm,0.3s,baz=207,slow=14,SNR=6.0						
CTGM	Chitina Glacie	5.97	72	P	P	01 53 21.2	+0.9
CHX	Chaix Hills	6.03	81	P	P	01 53 21.7	+0.6
IM3	Indian Mountai	6.35	357	P	P	01 53 25.4	-0.2
BCA3	Beaver Creek A	6.40	53	P	P	01 53 27.0	+0.8
IMA	Indian Mountai	6.43	358	*e*P	P	01 53 26.4	-0.3
PNL	Peninsula	6.92	84	P	P	01 53 32.5	-0.8
COLD	Coldfoot	7.70	8	P	P	01 53 43.0	-0.9
DAWY	Dawson	7.81	50	P	P	01 53 45.8	+0.3
DLBC	Dease Lake	11.90	86	P	P	01 54 43.7	+4.0
	1.1nm,0.3s,baz=261,slow=9.1,SNR=19						
DLBC	Dease Lake	11.90	86	P	P	01 54 43.7	+4.0
INK	Inuvik	12.12	36	P	P	01 54 42.3	-0.3
	0.2nm,0.3s,baz=240,slow=17,SNR=16						
YKA	Yellowknife Ar	18.61	65	P	P	01 56 03.4	0.0
	0.2nm,0.3s,baz=277,slow=10,SNR=19						
YKA	Yellowknife Ar	18.61	65	P	P	01 56 03.4	0.0
FX1	Attu Island--F	19.78	265	P	P	01 56 14.3	-1.4
	1.4nm,0.3s,baz=294,slow=22,SNR=6.8						
BW06	Boulder Array	31.34	103	P	P	01 58 05.5	+1.4
	0.4nm,0.5s,mb3.4						
SONM	Songino Array	54.97	306	P	P	02 01 13.4	-0.2
	0.3nm,0.4s,mb3.6,baz=53,slow=6.2,SNR=6.0						

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*THR **02** 01:54:57.8±0.9, 32.08N×49.84E, h14^{km}±10^{km}, ML3.2*

*KISR **02** 01:54:58.0±0.9, 31.76N×49.69E, h0^{km}±169^{km}, ML3.0*

ISC 02 01:54:56.9±0.7**, 32.00N**±0.05×**49.82E**±0.06**, h10**^{km}**, n8, σ0^{s}91**/15**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHGR	Shooshtar-Gavs	0.87	277	*e*PG	Pg	01 55 13.8	-0.5
SHGR				*e*SG	Sg	01 55 26.7	+0.7
SHGR				AMP		01 55 30.0	
	comp=N,1μm,0.7s						
SHGR				AMP		01 55 30.6	
	comp=E,798nm,0.5s						
NASN	Na’in	2.65	72	*e*PN	Pn	01 55 42.2	+1.7
NASN				*e*SG	Sg	01 56 19.8	-5.4
UMR	Umm Al-Rimmam	3.04	217	*e*P	Pn	01 55 46.4	+0.4
UMR				*e*S	Sn	01 56 22.0	-0.9
UMR				AML	AML	01 56 24.7	
	comp=Z,62nm,0.3s						
MIB	Mutribah	3.06	225	*e*P	Pn	01 55 47.5	+1.2
MIB				*e*S	Sn	01 56 23.2	-0.1
MIB				AML	AML	01 56 26.6	
	comp=Z,47nm,0.3s						
RST	Umm Al-Ruwaisa	3.48	225	*e*P	Pn	01 55 52.9	+0.6
RST				AML	AML	01 56 35.5	
	comp=Z,36nm,0.4s						
QRN	Al-Qurain	3.64	207	*e*P	Pn	01 55 54.7	+0.1
QRN				*e*S	Sn	01 56 37.1	-0.9
QRN				AML	AML	01 56 38.8	
	comp=Z,46nm,0.3s						
RDF	Al-Radifah	3.64	213	*e*P	Pn	01 55 54.7	+0.2
RDF				*e*S	Sn	01 56 37.2	-0.8
RDF				AML	AML	01 56 37.8	
	comp=Z,35nm,0.4s						
DAMV	Damavand	4.04	26	*e*PN	Pn	01 56 00.4	+0.2
DAMV				SN	Sn	01 56 46.1	-2.0
DAMV				AMP		01 57 10.6	
	comp=E,35nm,0.6s						
DAMV				AMP		01 57 13.6	
	comp=N,32nm,0.5s						

MAN 02 02:29:19.4, 6.71N×123.78E, h18^{km}**, mb4.5, ML3.4, MS3.3, 1C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTBH	Cotabato--PC H	0.68	42	⇓*e*P	Pb	02 29 31.9	-0.6
CTBH				*i* S	Sb	02 29 41.8	+0.3
PAGZ	Pagadian	1.20	341	*e*P	Pb	02 29 41.3	+0.1
KCP	Kidapawan	1.33	77	⇓*e*P	Pn	02 29 42.0	-1.2
KCP				*i* S	Sb	02 29 58.8	-1.4
IPIL	Ipil	1.61	312	*e*P	Pn	02 29 47.0	-0.3
IPIL				*e*S	Sn	02 30 07.8	+0.1
BUKP	Musuan	1.72	47	*e*P	Pn	02 29 48.8	0.0
BUKP				*e*S	Sn	02 30 12.5	+2.0
DCPH	Dipolog City	1.91	347	⇑*e*P	Pn	02 29 51.9	+0.3
DCPH				*i* S	Sn	02 30 18.7	+3.4

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*NEIC **02** 02:31:03.3, 32.40S×71.59W, h43^{km}, MD4.1(GUC), After GUC.*

GUC 02 02:31:03.3±0.6**, 32.40S×71.59W, h43**^{km}±1^{km}**, MD4.1, ML3.4, 5C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	Papudo	0.19	138	⇑*i*P	P	02 31 11.2	+0.5
PACH				*i* S	S	02 31 16.5	+0.6
IHA	Instituto Hidr	0.63	184	⇓*i*P	P	02 31 16.3	+0.4
IHA				*i* S	S	02 31 25.7	+0.6
ROCH	El Roble	0.75	140	⇑*i*P	P	02 31 18.3	+0.7
ROCH				*i* S	S	02 31 29.7	+1.7
JACH	Jahuel	0.89	109	⇑*i*P	P	02 31 20.3	+0.9

JACH				i S	S	02 31 33.0	+1.6
PEL	**Peldehue**	**1.06**	**135**	⇑iP	P	02 31 22.8	+0.9
PEL				i S	S	02 31 37.3	+1.5
PEL				AMP		02 31 43.1	
	comp=N,2μm,0.3s						
LCCH	**Las Cruces**	**1.08**	**179**	eP	P	02 31 22.8	+0.7
LCCH				i S	S	02 31 37.1	+1.0
RCDM	**Rinconada Maip**	**1.27**	**149**	eP	P	02 31 25.6	+0.6
RCDM				i S	S	02 31 42.2	+1.1
RCDM				AMP		02 31 44.2	
	comp=E,1μm,0.1s						
STL	**Santa Lucia**	**1.31**	**143**	eP	P	02 31 25.8	+0.3
STL				i S	S	02 31 43.5	+1.4
STL				AMP		02 31 51.0	
	comp=N,265nm,0.3s						
DSCH	**Colegio Aleman**	**1.32**	**140**	eP	P	02 31 26.2	+0.6
DSCH				i S	S	02 31 43.8	+1.5
DSCH				AMP		02 31 45.3	
	comp=E,1μm,0.5s						
CMCH	**Combarbala**	**1.32**	**22**	⇑iP	P	02 31 26.3	+0.7
CMCH				i S	S	02 31 43.5	+1.2
CMCH				AMP		02 31 45.4	
	comp=E,6μm,0.6s						
CLCH	**Cerro Calan**	**1.33**	**139**	eP	P	02 31 26.5	+0.6
CLCH				i S	S	02 31 44.0	+1.3
CLCH				AMP		02 31 46.5	
	comp=N,866nm,0.3s						
TACH	**Talagante**	**1.37**	**157**	eP	P	02 31 26.6	+0.2
TACH				i S	S	02 31 44.4	+0.9
FSR	**Penalolen**	**1.40**	**141**	eP	P	02 31 27.2	+0.4
FSR				i S	S	02 31 45.6	+1.3
FSR				AMP		02 31 51.2	
	comp=N,689nm,0.5s						
ANTU	**Antumapu**	**1.42**	**146**	eP	P	02 31 27.8	+0.7
ANTU				i S	S	02 31 46.3	+1.5
ANTU				AMP		02 31 50.1	
	comp=E,707nm,0.5s						
FCH	**Farellones**	**1.43**	**131**	⇓iP	P	02 31 28.4	+1.1
FCH				i S	S	02 31 47.2	+2.0
FCH				AMP		02 31 49.1	
	comp=E,1μm,0.2s						
LNV	**Longovilo**	**1.56**	**175**	eP	P	02 31 29.2	+0.1
SJCH	**San Jose de Ma**	**1.62**	**140**	eP	P	02 31 29.8	0.0
SJCH				i S	S	02 31 50.4	+0.7
SJCH				AMP		02 31 54.4	
	comp=N,389nm,0.6s						
CHCH	**Chadas Angostu**	**1.72**	**153**	eP	P	02 31 32.6	+1.3
CHCH				i S	S	02 31 53.6	+1.4
LMEL	**Las Melosas**	**1.86**	**142**	eP	P	02 31 34.6	+1.4
LMEL				i S	S	02 31 58.4	+2.8
LMEL				AMP		02 32 06.5	
	comp=N,829nm,0.2s						
CACH	**El Canelo**	**1.91**	**155**	eP	P	02 31 35.3	+1.3
SFDO	**San Fernando**	**2.26**	**168**	eP	P	02 31 41.3	+2.2

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*NEIC **02** 02:37:24.0, 18.62N×69.02W, h182^{km}, MD4.1(RSPR), After RSPR.*

RSPR 02 02:37:24.0, 18.62N×69.02W, h182^{km}±4^{km}**, MD4.1**/14, **MD4.1**/14**, 10C-6D, Dominican Republic region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGP	**Aguadilla**	**1.79**	**96**	eP	P	02 37 58.2	-1.2
LSP	**Las Mesas**	**1.89**	**103**	eS	S	02 38 29.2	+0.9
LSP	**Las Mesas**	**1.89**	**103**	⇓eP	P	02 38 00.3	0.0
LSP				eS	S	02 38 29.2	+0.9
MGP	**Maguayo**	**1.93**	**108**	⇓eP	P	02 38 00.1	-0.7
MGP				eS	S	02 38 29.3	+0.1
MGP	**Maguayo**	**1.93**	**108**	⇑eP	P	02 38 00.6	-0.2
MGP	**Maguayo**	**1.93**	**108**	eS	S	02 38 29.0	-0.2
MGP	**Maguayo**	**1.93**	**108**	⇑eP	P	02 38 00.6	-0.2
MGP				eS	S	02 38 29.0	-0.2
LRS	**Lares**	**2.09**	**99**	⇑eP	P	02 38 02.4	-0.1
LRS				eS	S	02 38 33.2	+1.0
AOPR	**Arecibo Observ**	**2.17**	**97**	⇓eP	P	02 38 04.2	+0.7
AOPR				eS	S	02 38 34.1	+0.2
PORP	**Portuguez**	**2.33**	**104**	⇑eP	P	02 38 05.0	-0.3
PORP				eS	S	02 38 36.8	-0.3
OBIP	**Obispado Ponce**	**2.36**	**104**	⇑eP	P	02 38 05.7	0.0
OBIP				eS	S	02 38 38.5	+0.7
CELP	**Cerrillos**	**2.38**	**103**	⇑eP	P	02 38 05.6	-0.3
ICM	**Isla Caja Muer**	**2.48**	**107**	eS	S	02 38 39.8	-0.5
ICM	**Isla Caja Muer**	**2.48**	**107**	⇓eP	P	02 38 06.9	-0.2
ICM				eS	S	02 38 39.8	-0.5
CSB	**Colonia Sabana**	**2.73**	**96**	⇓eP	P	02 38 09.2	-0.9
CSB				eS	S	02 38 46.0	+0.4
SJG	**San Juan**	**2.77**	**100**	eS	S	02 38 47.2	+0.9
SJG	**San Juan**	**2.77**	**100**	⇑eP	P	02 38 10.9	+0.4
SJG	**San Juan**	**2.77**	**100**	⇑eP	P	02 38 11.3	+0.8
SJG				eS	S	02 38 47.2	+0.9
CPD	**Cerro la Pandu**	**3.00**	**101**	⇑eP	P	02 38 13.6	+0.3
CBYP	**Canovanas**	**3.02**	**96**	P	P	02 38 15.4	+1.8
HUMP	**Col San Antoni**	**3.04**	**98**	eS	S	02 38 52.0	-0.3
HUMP	**Col San Antoni**	**3.04**	**98**	⇓eP	P	02 38 13.8	0.0
HUMP				eS	S	02 38 52.0	-0.3
MTP	**Monte Pirata**	**3.33**	**98**	⇑eP	P	02 38 17.5	+0.1

IDC 02 02:43:04.3±7.9**, 3.56N×128.07E, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.7**/18**, Error ellipse: s-maj=131.0km s-min=92.4km az=142.0, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**21.66**	**186**	P	P	02 47 56.0	-2.6
	0.6nm,0.4s,baz=32,slow=12,SNR=6.5						
WRA	**Warramunga Arr**	**24.15**	**165**	P	P	02 48 22.0	-1.2
	1.6nm,0.4s,baz=346,slow=10,SNR=9.2						
ASAR	**Alice Springs**	**27.65**	**168**	P	P	02 48 54.8	-1.2
	0.3nm,0.4s,baz=354,slow=7.8,SNR=4.0						
STKA	**Stephens Creek**	**37.51**	**161**	P	P	02 50 20.0	-1.9
	2.1nm,0.5s,baz=340,slow=6.5,SNR=10						

IDC 02 02:57:10.5±1.3**, 5.00S×104.41E, mb3.9**/7**, mb1 4.0**/7**, mb1mx3.8**/17**, Error ellipse: s-maj=78.1km s-min=17.9km az=48.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**24.50**	**124**	P	P	03 02 31.4	-1.5
	2.0nm,0.8s,baz=312,slow=12,SNR=3.7						
WRA	**Warramunga Arr**	**32.69**	**120**	P	P	03 03 44.5	-2.5
	0.8nm,0.4s,baz=302,slow=9.0,SNR=6.5						
ASAR	**Alice Springs**	**33.94**	**126**	P	P	03 03 56.0	-1.8
	0.5nm,0.4s,baz=299,slow=8.0,SNR=10						
STKA	**Stephens Creek**	**43.88**	**132**	P	P	03 05 19.6	-1.1
	3.0nm,0.6s,baz=304,slow=8.9,SNR=10						
SONM	**Songino Array**	**52.63**	**2**	P	P	03 06 26.7	-1.9
	0.8nm,0.9s,baz=170,slow=8.4,SNR=4.4						
BVAR	**Borovoye Array**	**64.54**	**338**	P	P	03 07 49.5	-2.1
	0.4nm,0.5s,baz=141,slow=9.2,SNR=3.8						
BRTR	**Keskin Array B**	**78.58**	**312**	P	P	03 09 14.5	-1.4
	0.9nm,0.7s,baz=131,slow=8.4,SNR=6.9						
TXAR	**Lajitas Array**	**144.07**	**44**	PKP	PKPdf	03 16 46.2	-4.4
	0.1nm,0.3s,baz=39,slow=1.8,SNR=4.1						

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*IDC **02** 03:00:05.0±1.3, 24.25N×122.53E, mb3.4/4, mb1 3.6/4, mb1mx3.4/21, MS3.6/1, Ms1 3.6/1, ms1mx2.6/17, Error ellipse: s-maj=74.6km s-min=27.1km az=68.0*

*TAP **02** 03:00:09.9, 23.98N×122.41E, h18^{km}±1^{km}, ML3.6*

*JMA **02** 03:00:09.5±0.3, 24.04N×122.50E, h29^{km}, M3.0*

ISC 02 03:00:09.0±1.7**, 24.2N**±0.1×**122.42E**±0.10**, h41^{km}**±16^{km}**, n11, σ0^{s}55**/15**, mb3.4**/4**, MS3.6**/1**, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.61**	**63**	P	**P**	**03 00 21.6**	**+0.3**
YOJ				S	**S**	**03 00 29.9**	**-0.2**
IRIF	**Iriomote-Funau**	**1.21**	**83**	P	**P**	**03 00 29.6**	**-0.1**
IRIF				eS	**S**	**03 00 46.0**	**+0.9**
HATJ	**Hateruma jima**	**1.27**	**95**	P	**P**	**03 00 30.2**	**-0.5**
HATJ				eS	**S**	**03 00 46.2**	**-0.7**
JKRS	**Kuro-shima**	**1.46**	**88**	P	**P**	**03 00 33.6**	**+0.3**
JKRS				eS	**S**	**03 00 52.6**	**+1.2**
JIJ	**Ishigaki jima**	**1.58**	**83**	P	**P**	**03 00 35.1**	**0.0**
JIJ				eS	**S**	**03 00 54.0**	**-0.6**
JTJ	**Tarama**	**2.13**	**77**	eS	**S**	**03 01 07.6**	**-0.7**
SONM	**Songino Array**	**26.82**	**336**	P	**P**	**03 05 47.4**	**+0.1**
	0.4nm,0.8s,mb3.0,baz=158,slow=7.8,SNR=3.0						
ZAL	**Zalesovo**	**40.86**	**327**	LR	LR	03 27 31.7	
	comp=Z,84nm,21.3s,MS3.6,baz=326,slow=40						
BVAR	**Borovoye Array**	**48.39**	**320**	P	**P**	**03 08 48.2**	**-0.5**
	0.3nm,0.4s,mb3.7,baz=90,slow=8.6,SNR=2.7						
ASAR	**Alice Springs**	**48.85**	**166**	P	**P**	**03 08 52.8**	**0.0**
	0.6nm,1.0s,mb3.6,baz=356,slow=15,SNR=6.0						
YKA	**Yellowknife Ar**	**82.53**	**23**	P	**P**	**03 12 29.0**	**+0.5**
	0.2nm,0.6s,mb3.4,baz=308,slow=5.2,SNR=4.9						

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*IDC **02** 03:30:00.6±0.5, 37.01N×33.23W, mb4.6/32, mb1 4.8/32, mb1mx4.7/34, MS4.6/13, Ms1 4.6/13, ms1mx4.4/30, Error ellipse: s-maj=15.7km s-min=10.1km az=159.0*

*BJI **02** 03:30:00.5, 37.00N×33.20W, h10^{km}, mB5.7, mb5.3*

*HRVD **02** 03:30:02.6±0.3, 37.11N×33.18W, h12^{km}, MW5.2/49, Centroid moment Tensor Solution. LP body waves: s22,c30;Mantle waves: s49,c84; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-4.03±.23; $M_{\theta\theta}$3.13±.23; $M_{\phi\phi}$0.91±.20; $M_{r\theta}$0.44±.57; $M_{\theta\phi}$5.40±.16; $M_{\phi r}$-1.63±.57; Best double couple: $M_0$6.46×10^{16} NP1:ϕ_s264°,δ54°,λ-38°. NP2:ϕ_s19°,δ60°,λ-137°. Principal axes: T 7.57, Plg3°, Azm140°; N -2.22, Plg40°, Azm47°; P -5.35, Plg50°, Azm235°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ZUR_RM **02** 03:30:02, 36.98N×33.24W, h15^{km}, Mw5.4/2, Moment Tensor Solution. s2 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.16; $M_{\theta\theta}$-0.07; $M_{\phi\phi}$0.22; $M_{r\theta}$-1.02; $M_{\theta\phi}$0.46; $M_{\phi r}$-0.50; Best double couple: $M_0$1.23×10^{17} NP1:ϕ_s67°,δ84°,λ-70°. NP2:ϕ_s172°,δ20°,λ-164°. Principal axes: T 1.329, Plg36°, Azm139°; N -.192, Plg20°, Azm245°; P -1.137, Plg47°, Azm357°;*

*SYO **02** 03:30:02.6, 36.97N×33.23W, h10^{km}, MB5.1*

*NEIC **02** 03:30:02.6±0.1, 36.98N×33.24W, h10^{km}, mb5.0/125, MS4.1/3, Error ellipse: s-maj=5.1km s-min=2.2km az=174.0*

ISC 02 03:30:00.9±0.2**, 37.01N**±0.05×**33.26W**±0.02**, h10^{km}, (h14^{km}**±3.2^{km}**:pP-P), n268, σ1^{s}01**/256**, mb4.9**/151**, MS4.5**/13**, 13C-3D, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CALA	**Caldeira**	**3.93**	**65**	eP	**Pn**	**03 31 00.8**	**-1.9**
PCED	**Cedros**	**3.95**	**65**	eP	**Pn**	**03 31 06.7**	**+3.7**
HOR	**Horta**	**3.97**	**66**	eP	**Pn**	**03 31 05.2**	**+2.0**
PICO	**Pico**	**4.11**	**67**	eP	**Pn**	**03 31 02.6**	**-2.6**
ROSA	**Rosais**	**4.32**	**65**	eP	**Pn**	**03 31 05.4**	**-2.8**
PMAN	**Manadas**	**4.40**	**67**	eP	**Pn**	**03 31 06.8**	**-2.6**
ADH	**Angra Heroismo**	**5.04**	**69**	eP	**Pn**	**03 31 14.6**	**-3.9**
PDA	**Ponta Delgada**	**6.09**	**81**	eP	**Pg**	**03 31 55.8**	**-6.8**
PDA				eLQ		03 32 40.4	
PDA				eLR	LR	03 34 01.6	
CCAN	**Las Canadas**	**16.53**	**117**	P	**P**	**03 33 55.7**	**+1.3**
	472nm,2.2s						
EOSO	**Osorio**	**17.37**	**116**	P	**P**	**03 34 04.5**	**-0.5**
	318nm,1.6s						
PTEO	**Sao Teotonio**	**19.52**	**81**	eP	**P**	**03 34 29.7**	**-1.5**
PTOM	**Tomar**	**19.66**	**75**	eP	**P**	**03 34 30.4**	**-2.3**
EVO	**Evora**	**20.00**	**78**	eP	**P**	**03 34 34.1**	**-2.4**
	156nm,1.7s						
EVO				eR			
	1μm,19.2s						
ELOB	**Lobios**	**20.03**	**68**	P	**P**	**03 34 36.8**	**+0.1**
	121nm,1.6s						
PVIS	**Viseu**	**20.07**	**72**	eP	**P**	**03 34 37.0**	**-0.2**
	58nm,1.7s						
PVRL	**Vila Real**	**20.24**	**70**	eP	**P**	**03 34 39.9**	**+1.0**
	92nm,1.7s						
MTE	**Manteigas**	**20.33**	**73**	eP	**P**	**03 34 40.9**	**+1.0**
MTE				eS	**S**	**03 38 34.6**	**+12**
MTE	**Manteigas**	**20.33**	**73**	P	**P**	**03 34 39.8**	**-0.1**
	50nm,1.3s						
PCBR	**Castelo Branco**	**20.37**	**74**	eP	**P**	**03 34 41.1**	**+0.7**
EINC	**Incio**	**20.64**	**66**	P	**P**	**03 34 44.2**	**+1.1**
	46nm,1.2s						
ERUA	**La Rua**	**20.76**	**67**	P	**P**	**03 34 46.9**	**+2.5**
	54nm,1.1s						
EBAD	**Badajoz**	**20.77**	**77**	P	**P**	**03 34 45.9**	**+1.5**
	20nm,0.9s						
EPON	**Pontenova**	**20.88**	**64**	P	**P**	**03 34 46.3**	**+0.7**
	227nm,1.7s						
EMIN	**Mina Concepcio**	**21.12**	**80**	P	**P**	**03 34 49.8**	**+1.7**
	26nm,1.0s,mb4.5						
ESPR	**Espera**	**21.88**	**82**	P	**P**	**03 34 55.6**	**-0.1**
	16nm,0.9s,mb4.5						
VAL	**Valentia**	**22.05**	**40**	⇑iP	tx	03 35 16.1	
EADA	**Adamuz**	**22.72**	**78**	P	**P**	**03 35 03.6**	**-0.4**
	16nm,1.0s,mb4.4						
EMIJ	**Mijas**	**22.79**	**82**	P	**P**	**03 35 02.9**	**-1.8**
	47nm,1.5s,mb4.7						
ELUQ	**Luque**	**23.04**	**80**	P	**P**	**03 35 08.7**	**+1.5**
	2.8nm,0.2s,mb4.3						
ESDC	**Sonseca Array**	**23.09**	**74**	P	**P**	**03 35 06.9**	**-0.7**
	12nm,0.9s,mb4.3,baz=277,slow=8.8,SNR=25						
ESDC	**Sonseca Array**	**23.09**	**74**	P	**P**	**03 35 06.1**	**-1.6**
	13nm,1.0s,mb4.3						
ELOJ	**Sierra Loja**	**23.19**	**81**	P	**P**	**03 35 10.3**	**+1.6**
	11nm,0.8s,mb4.3						
ERON	**Agron**	**23.48**	**81**	P	**P**	**03 35 12.1**	**+0.6**
EVIA	**Vianos**	**24.30**	**77**	P	**P**	**03 35 19.4**	**0.0**
	48nm,0.9s,mb4.9						
QUIF	**Quistinic**	**24.58**	**54**	eP	**P**	**03 35 22.1**	**+0.1**
	265nm,1.8s,mb5.2						
ROSF	**Rostrenen**	**24.62**	**53**	eP	**P**	**03 35 23.9**	**+1.4**
	71nm,1.2s,mb4.8						
SGMF	**Saint Gilles**	**25.06**	**54**	eP	**P**	**03 35 27.8**	**+1.2**
	218nm,1.6s,mb5.1						
SJPF	**Ste Jean**	**25.16**	**66**	eP	**P**	**03 35 27.5**	**-0.2**
	60nm,1.4s,mb4.6						
CART	**Cartagena**	**25.60**	**79**	eP	**P**	**03 35 34.3**	**+2.4**
	96nm,1.0s,mb5.3						
ETSF	**Etsaut**	**25.64**	**67**	eP	**P**	**03 35 32.3**	**+0.1**
	97nm,1.4s,mb4.8						
BBSR	**BB Station**	**26.19**	**269**	eP	**P**	**03 35 36.4**	**-1.0**
	64nm,1.2s,mb5.0						
GRR	**Gorron**	**26.19**	**54**	eP	**P**	**03 35 39.2**	**+2.0**
	227nm,1.2s,mb5.3						
EPF	**Esparros**	**26.31**	**66**	eP	**P**	**03 35 38.5**	**+0.2**
	192nm,1.5s,mb5.1						
MFF	**Saint Martin d**	**26.31**	**58**	eP	**P**	**03 35 38.3**	**0.0**
	103nm,1.3s,mb4.9						
FLN	**La Foliniere**	**26.52**	**53**	eP	**P**	**03 35 42.4**	**+2.1**
	150nm,1.2s,mb5.1						
FLN				eR			
	616nm,19.5s						
LFF	**La Frestale**	**26.71**	**62**	eP	**P**	**03 35 41.4**	**-0.6**
	80nm,1.4s,mb4.8						
LDF	**La Druitiere**	**26.72**	**54**	eP	**P**	**03 35 44.1**	**+2.1**
	148nm,1.1s,mb5.1						
RJF	**Les Rejaudoux**	**27.29**	**61**	eP	**P**	**03 35 46.6**	**-0.8**
	48nm,1.4s,mb4.5						
RJF				eR			
	457nm,18.0s						
ESK	**Eskdalemuir**	**27.39**	**38**	eP	**P**	**03 35 47.4**	**-0.8**
	53nm,1.4s,mb4.9						
EKA	**Eskdalemuir Ar**	**27.43**	**38**	P	**P**	**03 35 47.0**	**-1.5**
	8.5nm,0.9s,mb4.3,baz=241,slow=8.6,SNR=15						
CAF	**Calviac**	**27.65**	**62**	eP	**P**	**03 35 49.8**	**-0.8**
	31nm,1.3s,mb4.5						
MTLF	**Montolieu**	**27.69**	**66**	eP	**P**	**03 35 50.3**	**-0.7**
	164nm,1.6s,mb5.1						
TCF	**Toulx Ste Croi**	**27.88**	**59**	eP	**P**	**03 35 52.3**	**-0.4**
	119nm,1.4s,mb5.0						
HYF	**Humbligny**	**28.30**	**57**	eP	**P**	**03 35 56.2**	**-0.2**
BGF	**Bois d'Agland**	**28.35**	**59**	eP	**P**	**03 35 57.4**	**+0.5**
BORG	**Borgarnes**	**28.67**	**11**	LR	LR	03 43 56.6	
	comp=Z,948nm,20.0s,MS4.4,baz=242,slow=29						
AVF	**Avril sur Loir**	**28.72**	**59**	eP	**P**	**03 35 59.3**	**-0.9**
	42nm,1.4s,mb4.7						
SSF	**Saint Saulge**	**28.86**	**58**	eP	**P**	**03 36 01.7**	**+0.2**
	40nm,1.4s,mb4.7						
LASF	**Ste Croix**	**28.89**	**64**	eP	**P**	**03 36 01.7**	**-0.1**
	138nm,1.5s,mb5.2						
SCHQ	**Schefferville**	**28.98**	**319**	LR	LR	03 46 37.3	
	comp=Z,3μm,19.9s,MS4.9,baz=154,slow=34						
SMF	**Signal de Mont**	**29.04**	**59**	eP	**P**	**03 36 02.6**	**-0.5**
	74nm,1.4s,mb4.9						
VIVF	**Saint-Julien-l**	**29.50**	**63**	eP	**P**	**03 36 07.3**	**0.0**
	60nm,1.4s,mb4.8						
BAIF	**Baives**	**29.80**	**52**	eP	**P**	**03 36 11.1**	**+1.2**
	49nm,1.3s,mb4.8						
MEZF	**Maizieres J'vi**	**30.08**	**55**	eP	**P**	**03 36 11.9**	**-0.5**
	82nm,1.2s,mb5.0						
SMRF	**Simiane la Rot**	**30.13**	**64**	eP	**P**	**03 36 12.3**	**-0.6**
GIVF	**Givet**	**30.20**	**52**	eP	**P**	**03 36 12.6**	**-0.8**
CABF	**La Chapelle**	**30.58**	**59**	eP	**P**	**03 36 16.8**	**0.0**
	148nm,1.7s,mb5.2						
HAU	**Haudompre**	**30.88**	**57**	eP	**P**	**03 36 18.7**	**-0.7**
	30nm,1.1s,mb4.7						
HAU				eR			
	307nm,20.5s						
LPL	**La Plagne**	**30.97**	**61**	eP	**P**	**03 36 20.8**	**+0.5**
	48nm,1.2s,mb4.9						
LPG	**La Plagne**	**30.99**	**61**	eP	**P**	**03 36 21.2**	**+0.8**
	45nm,1.3s,mb4.8						
MBDF	**Montbardon**	**30.99**	**63**	eP	**P**	**03 36 19.8**	**-0.7**
	64nm,1.5s,mb4.9						
HINF	**Hinteralfeld**	**31.20**	**57**	eP	**P**	**03 36 20.1**	**-2.2**
SBF	**Sospel**	**31.47**	**65**	eP	**P**	**03 36 23.6**	**-1.2**
	55nm,0.9s,mb5.1						
CDF	**Champ du Feu**	**31.54**	**56**	eP	**P**	**03 36 24.8**	**-0.5**
	44nm,1.2s,mb4.9						
BFO	**Black Forest**	**32.23**	**56**	eP	**P**	**03 36 31.7**	**+0.4**
	33nm,1.4s,mb5.0						
STU	**Stuttgart**	**32.84**	**55**	P	**P**	**03 36 36.6**	**0.0**
	16nm,0.8s,mb5.0						
DAVOX	**Davos**	**33.19**	**59**	P	**P**	**03 36 39.1**	**-0.6**
	8.4nm,1.0s,mb4.6,baz=206,slow=6.8,SNR=5.1						
DAVA	**Damuels**	**33.21**	**58**	⇑iP	**P**	**03 36 39.7**	**-0.2**
	20nm,1.1s,mb5.0						
CLZ	**Clausthal**	**33.95**	**50**	eP	**P**	**03 36 47.1**	**+0.9**
	183nm,3.4s						
MOTA	**Moosalm**	**34.04**	**58**	⇑iP	**P**	**03 36 48.1**	**+1.0**
	9.4nm,1.1s,mb4.6						
MOTA				i		03 38 59.1	
	1.5nm,0.5s						
SQTA	**Sankt Quirin**	**34.11**	**58**	⇑iP	**P**	**03 36 48.1**	**+0.4**
	12nm,1.0s,mb4.8						
SQTA				i		03 39 04.3	
	2.0nm,0.6s						
FRB	**Frobisher Bay**	**34.16**	**333**	P	**P**	**03 36 47.0**	**-1.0**
	15nm,0.9s,mb4.9,baz=127,slow=7.9,SNR=3.9						
FRB				LR	LR	03 47 57.6	
	comp=Z,852nm,18.1s,MS4.5,baz=128,slow=32						
GRA1	**Grafenberg Arr**	**34.24**	**54**	eP	**P**	**03 36 48.5**	**-0.3**
	11nm,1.0s,mb4.7						
BSEG	**Bad Segeberg**	**34.28**	**46**	eP	**P**	**03 36 49.8**	**+0.7**
WATA	**Walderalm**	**34.36**	**58**	⇑iP	**P**	**03 36 50.8**	**+0.9**
	6.2nm,0.8s,mb4.6						
WTTA	**Wattenberg**	**34.40**	**58**	⇑iP	**P**	**03 36 50.3**	**+0.1**
	27nm,1.2s,mb5.0						
SJG	**San Juan**	**34.47**	**246**	LR	LR	03 45 49.6	
	comp=Z,127nm,20.1s,MS3.6,baz=50,slow=28						
SJG	**San Juan**	**34.47**	**246**	eP	**P**	**03 36 51.7**	**+0.6**
	44nm,1.3s,mb5.2						
MOX	**Moxa**	**34.58**	**52**	i P	**P**	**03 36 52.1**	**+0.4**
	logA/T=1.2,mb4.9						
MOX				L		03 49 06.0	
MOX	**Moxa**	**34.58**	**52**	eP	**P**	**03 36 52.1**	**+0.4**
	23nm,1.6s,mb4.9						
NKC	**Novy Kostel**	**35.07**	**53**	eP	**P**	**03 36 55.2**	**-0.7**
CLL	**Collm**	**35.51**	**51**	eP	**P**	**03 37 01.0**	**+1.3**
CLL				e		03 38 00.0	
CLL	**Collm**	**35.51**	**51**	P	**P**	**03 37 01.0**	**+1.3**
KBA	**Koelnbreinsper**	**35.57**	**59**	⇑iP	**P**	**03 36 59.9**	**-0.3**
	33nm,1.2s,mb5.1						
SUMG	**Summit**	**35.73**	**357**	eP	**P**	**03 37 01.0**	**-0.4**
	43nm,1.0s,mb5.3						
KHC	**Kasperske Hory**	**35.74**	**55**	eP	**P**	**03 37 01.7**	**+0.1**
GEC2	**GERESS Array S**	**35.82**	**56**	eP	**P**	**03 37 02.4**	**+0.1**
	14nm,1.4s,mb4.7						
GERES	**GERESS Array B**	**35.82**	**56**	P	**P**	**03 37 01.6**	**-0.6**
	3.4nm,1.0s,mb4.2,baz=259,slow=6.8,SNR=17						
BRG	**Berggiesshubel**	**36.07**	**52**	eP	**P**	**03 37 05.6**	**+1.2**
	12nm,1.3s,mb4.7						
MOA	**Molln**	**36.19**	**57**	⇑iP	**P**	**03 37 06.2**	**+0.8**
	22nm,1.1s,mb5.0						
PRU	**Pruhonice**	**36.40**	**54**	eP	**P**	**03 37 07.2**	**0.0**
PRU				epP	pP	03 37 15.0	+4.8
OBKA	**Obir**	**36.41**	**60**	⇑iP	**P**	**03 37 07.9**	**+0.6**
	23nm,1.2s,mb5.0						
JMIC	**Jan Mayen**	**36.43**	**13**	LR	LR	03 48 04.2	
	comp=Z,738nm,19.7s,MS4.5,baz=247,slow=30						
NB2	**NORSAR Subarra**	**36.72**	**35**	P	**P**	**03 37 09.5**	**-0.2**
	0.9nm,0.8s,mb3.6,baz=250,slow=9.3						
NOA	**NORSAR Array B**	**36.72**	**35**	P	**P**	**03 37 09.2**	**-0.5**
	9.6nm,0.9s,mb4.6,baz=251,slow=8.7,SNR=25						
NOA				LR	LR	03 50 05.1	
	comp=Z,265nm,18.8s,MS4.0,baz=275,slow=33						
ARSA	**Arzberg**	**37.05**	**58**	⇓iP	**P**	**03 37 10.6**	**-2.0**
	12nm,1.4s,mb4.5						
UPC	**Upice**	**37.36**	**53**	eP	**P**	**03 37 15.5**	**+0.3**
DPC	**Dobruska-Polom**	**37.56**	**53**	eP	**P**	**03 37 16.6**	**-0.3**
HFS	**Hagfors**	**37.59**	**37**	P	**P**	**03 37 16.5**	**-0.6**
	12nm,0.9s,mb4.6,baz=217,slow=7.4,SNR=11						
VRAC	**Vranov**	**37.72**	**55**	P	**P**	**03 37 18.3**	**+0.1**
	2.6nm,0.7s,mb4.0,baz=299,slow=6.3,SNR=4.7						
MORC	**Moravsky Berou**	**38.34**	**54**	eP	**P**	**03 37 24.6**	**+1.2**
	10nm,1.3s,mb4.4						
ACSO	**Alum Creek Sta**	**38.58**	**290**	eP	**P**	**03 37 26.2**	**+0.7**
	51nm,1.2s,mb5.1						
OKC	**Ostrava-Krasne**	**38.73**	**54**	eP	**P**	**03 37 27.2**	**+0.5**
SRO	**Srobarova**	**38.91**	**57**	eP	**P**	**03 37 29.4**	**+1.1**
VYHS	**Vyhne**	**39.23**	**56**	eP	**P**	**03 37 31.1**	**+0.2**
DBIC	**Dimbokro**	**39.78**	**132**	eP	**P**	**03 37 34.1**	**-1.7**
	16nm,0.9s,mb4.8						
DBIC				ePP	PP	03 38 60.0	-11
OJC	**Ojcow**	**39.79**	**53**	eP	**P**	**03 37 36.3**	**+0.8**
PSZ	**Piszkesteto**	**39.97**	**57**	eP	**P**	**03 37 37.4**	**+0.4**
	33nm,1.4s,mb4.9						
NIE	**Niedzica**	**40.15**	**55**	eP	**P**	**03 37 40.5**	**+2.0**
DAG	**Danmarks Havn**	**40.39**	**5**	⇑iP	**P**	**03 37 40.7**	**+0.5**
	7.5nm,0.7s,mb4.5						
KOLS	**Kolonicke sedl**	**41.47**	**55**	eP	**P**	**03 37 50.9**	**+1.6**
WCI	**Wyandotte Cave**	**41.54**	**288**	eP	**P**	**03 37 51.2**	**+1.1**
	27nm,1.2s,mb4.8						
KWP	**Kalwaria**	**41.70**	**54**	eP	**P**	**03 37 52.4**	**+1.3**
	23nm,1.1s,mb4.7						
SUW	**Suwalki**	**41.84**	**48**	eP	**P**	**03 37 50.5**	**-1.7**
SWET	**Sewanee**	**42.14**	**284**	eP	**P**	**03 37 56.4**	**+1.4**
USIN	**University of**	**42.66**	**288**	eP	**P**	**03 37 58.7**	**-0.5**
	51nm,1.1s,mb5.2						
WVT	**Waverly**	**43.32**	**286**	eP	**P**	**03 38 05.1**	**+0.4**
	14nm,1.0s,mb4.7						
FINES	**FINESS Array B**	**43.79**	**37**	P	**P**	**03 38 07.8**	**-0.3**
	12nm,0.9s,mb4.7,baz=243,slow=4.3,SNR=20						
FINES				LR	LR	03 53 52.4	
	comp=Z,446nm,19.4s,MS4.4,baz=134,slow=33						
SDV	**Santo Domingo**	**43.90**	**240**	eP	**P**	**03 38 11.1**	**+1.5**
	33nm,1.0s,mb5.0						
KAF	**Kangasniemi**	**43.97**	**36**	ep	**P**	**03 38 08.2**	**-1.3**
	24nm,1.5s,mb4.7,baz=263,slow=8.3						
FCC	**Fort Churchill**	**44.36**	**319**	eP	**P**	**03 38 13.5**	**+0.7**
	23nm,0.9s,mb4.9						
MLR	**Muntele Rosu**	**44.41**	**60**	P	**P**	**03 38 13.5**	**+0.1**
	3.1nm,0.5s,mb4.3,baz=304,slow=3.4,SNR=7.8						
MLR	**Muntele Rosu**	**44.41**	**60**	P	**P**	**03 38 13.5**	**+0.1**
FVM	**French Village**	**44.74**	**289**	eP	**P**	**03 38 16.3**	**+0.2**
	44nm,1.3s,mb5.1						
ARCES	**ARCESS Array B**	**45.00**	**25**	P	**P**	**03 38 17.3**	**-0.5**
	12nm,0.8s,mb4.8,baz=247,slow=9.2,SNR=12						
ARCES	**ARCESS Array B**	**45.00**	**25**	P	**P**	**03 38 17.3**	**-0.5**
OXF	**Oxford**	**45.07**	**284**	eP	**P**	**03 38 19.2**	**+0.5**
	74nm,1.0s,mb5.5						
AKASG	**Malin Array Be**	**45.75**	**52**	P	**P**	**03 38 22.6**	**-1.3**
	18nm,0.8s,mb5.0,baz=274,slow=8.1,SNR=51						
GVD	**Gavdhos**	**45.88**	**75**	eP	**P**	**03 38 23.9**	**-1.4**
	73nm,1.1s,mb5.5						
ULM	**Lac du Bonnet**	**45.90**	**307**	P	**P**	**03 38 23.9**	**-1.3**
	8.3nm,0.8s,mb4.7,baz=92,slow=7.4,SNR=9.2						
ULM				LR	LR	03 57 43.9	
	comp=Z,1μm,18.2s,MS4.8,baz=272,slow=36						
IDI	**Anoyia**	**46.35**	**74**	P	**P**	**03 38 28.5**	**-0.4**
	29nm,0.6s,mb5.4,baz=153,slow=21,SNR=3.8						
JOF	**Joensuu**	**46.35**	**35**	ep	**P**	**03 38 28.1**	**-0.4**
	14nm,1.0s,mb4.9						
RES	**Resolute Bay**	**47.24**	**341**	eP	**P**	**03 38 35.1**	**-0.4**
	26nm,1.0s,mb5.1						
MIAR	**Mount Ida**	**48.27**	**286**	eP	**P**	**03 38 44.3**	**+0.3**
	27nm,0.9s,mb5.3						
FFC	**Flin Flon**	**48.95**	**314**	eP	**P**	**03 38 49.2**	**+0.3**
	18nm,0.8s,mb5.2						
KSU1	**Kansas State U**	**49.01**	**293**	eP	**P**	**03 38 49.3**	**-0.4**
BRTR	**Keskin Array B**	**51.41**	**65**	P	**P**	**03 39 07.3**	**-0.6**
	3.5nm,1.0s,mb4.2,baz=281,slow=6.3,SNR=12						
BRTR				PcP	PcP	03 40 22.6	-0.2
	2.0nm,0.9s,baz=252,slow=3.9,SNR=3.7						
HKT	**Hockley**	**51.85**	**282**	eP	**P**	**03 39 12.3**	**+0.8**
	7.6nm,1.1s,mb4.5						
WMOK	**Wichita Mounta**	**52.18**	**288**	eP	**P**	**03 39 12.6**	**-1.3**
	29nm,1.4s,mb5.0						
CSS	**Prodhromos**	**52.91**	**71**	eP	**P**	**03 39 19.2**	**-0.1**

	17nm,0.9s,mb5.0						
LAO	LASA Array	53.40	305	eP	P	03 39 23.0	+0.2
	45nm,1.0s,mb5.3						
SAML	Samuel	53.65	218	eP	P	03 39 23.6	-1.4
	16nm,0.9s,mb4.9						
YKW3	Yellowknife Ar	54.06	326	eP	P	03 39 26.9	-0.5
YKA	Yellowknife Ar	54.07	325	P	P	03 39 26.8	-0.6
	11nm,0.9s,mb4.8,baz=77,slow=7.2,SNR=118						
YKA				PcP	PcP	03 40 30.8	-1.6
	1.1nm,0.7s,baz=68,slow=4.4,SNR=4.2						
YKA				LR	LR	04 01 16.3	
	comp=Z,702nm,20.2s,MS4.7,baz=90,slow=35						
BAO	Brasilia Array	54.18	198	P	P	03 39 28.4	-0.5
BDFB	Brasilia	54.19	198	P	P	03 39 28.4	-0.5
	10nm,1.1s,mb4.7,baz=32,slow=9.1,SNR=5.4						
BDFB				LR	LR	03 58 57.7	
	comp=Z,522nm,19.5s,MS4.6,baz=127,slow=32						
AMTX	Amarillo	54.32	290	eP	P	03 39 29.6	-0.1
	16nm,0.8s,mb5.0						
PHWY	Pilot Hill	54.66	298	eP	P	03 39 31.9	-0.1
JCT	Junction City	54.72	284	eP	P	03 39 32.5	-0.2
	21nm,0.9s,mb5.2						
MALT	Malatya	55.40	65	eP	P	03 39 35.1	-2.4
	37nm,1.4s,mb5.2						
OTAV	Otavalo	55.49	239	eP	P	03 39 41.4	+2.8
	22nm,1.4s,mb5.0						
EDM	Edmonton	55.82	314	eP	P	03 39 39.7	-0.7
SDCO	Great Sand Dun	56.02	294	eP	P	03 39 42.1	+0.1
	6.3nm,0.8s,mb4.7						
JMOS	Jabal al Moall	56.72	77	P	P	03 39 48.7	+1.5
CPRX	Cap Rock	56.74	289	eP	P	03 39 46.6	-0.6
ASF	Jabal al Asfar	56.77	72	P	P	03 39 46.5	-1.0
	4.7nm,0.8s,mb4.6,baz=238,slow=6.0,SNR=4.0						
TAYS	Tayyib Ism	56.82	77	P	P	03 39 44.0	-3.9
PDAR	Pinedale Array	56.97	301	P	P	03 39 47.7	-1.0
	6.8nm,0.9s,mb4.7,baz=76,slow=6.6,SNR=44						
PDAR				LR	LR	04 04 13.9	
	comp=Z,651nm,19.1s,MS4.8,baz=88,slow=36						
HRY	Holter Researc	57.04	306	eP	P	03 39 48.2	-1.0
BDAS	Al Bad‘	57.05	77	P	P	03 39 46.0	-3.5
YFT	Old Faithful	57.20	304	eP	P	03 39 50.5	+0.1
YMR	Madison River	57.21	304	eP	P	03 39 51.0	+0.6
BOZ	Bozeman (W)	57.29	305	eP	P	03 39 50.3	-0.7
	16nm,1.2s,mb4.9						
AYUS	‘Aynunah	57.30	77	P	P	03 39 51.2	-0.1
LOHW	Long Hollow	57.36	303	eP	P	03 39 51.2	-0.3
MOOW	Moose Ponds	57.40	303	eP	P	03 39 51.7	-0.1
JMQS	Jabal Moqyreh	57.45	76	P	P	03 39 54.6	+2.3
QLMT	Earthquake Lak	57.46	304	eP	P	03 39 52.3	+0.1
GDL2	Guadalupe Moun	57.48	288	eP	P	03 39 52.6	+0.1
IMW	Indian Meadow	57.48	303	eP	P	03 39 52.4	+0.1
WUWY	Wally Ulrich	57.48	303	eP	P	03 39 51.8	-0.5
SNOW	Snow King Moun	57.52	303	eP	P	03 39 52.2	-0.5
WALA	Waterton Lakes	57.52	310	eP	P	03 39 51.8	-0.8
	19nm,1.0s,mb5.1						
REDW	Red Top Meadow	57.62	302	eP	P	03 39 52.9	-0.4
REDW				e		03 40 06.8	
TPAW	Teton Pass	57.64	303	eP	P	03 39 53.6	+0.2
ANMO	Albuquerque	57.87	292	P	P	03 39 55.3	+0.1
	2.9nm,0.8s,mb4.3,baz=78,slow=5.8,SNR=10.0						
AHID	Auburn Hatcher	58.02	302	eP	P	03 39 56.3	+0.2
	41nm,1.2s,mb5.3						
LTX	Lajitas	58.23	285	eP	P	03 39 58.0	+0.2
	20nm,1.0s,mb5.1						
LTX				e	pP	03 40 02.9	+2.0
TXAR	Lajitas Array	58.23	285	P	P	03 39 57.9	+0.1
	6.9nm,1.0s,mb4.7,baz=84,slow=7.2,SNR=52						
TXAR				LR	LR	04 03 28.5	
	comp=Z,476nm,19.1s,MS4.6,baz=25,slow=34						
LPM	Los Pinos Moun	58.27	291	eP	P	03 39 58.8	+0.8
PV10	Paradox Valley	58.32	296	eP	P	03 39 59.8	+1.4
BNM	Barren Site	58.34	291	eP	P	03 39 59.1	+0.7
BNM				ePP	PP	03 42 10.3	+0.9
HWUT	Hardware Ranch	58.79	301	eP	P	03 40 01.4	-0.1
	20nm,1.0s,mb5.1						
DAU	Daniels Canyon	59.06	299	eP	P	03 40 03.5	+0.1
DAU				ePP	PP	03 42 14.5	-1.3
JLU	Jordanelle	59.12	300	eP	P	03 40 03.8	0.0
HVU	Hansel Valley	59.55	301	eP	P	03 40 06.4	-0.4
NOQ	North Oquirrh	59.56	300	eP	P	03 40 07.7	+0.8
INK	Inuvik	59.77	335	P	P	03 40 06.9	-1.1
	16nm,1.0s,mb5.0,baz=54,slow=9.5,SNR=46						
INK	Inuvik	59.77	335	eP	P	03 40 06.6	-1.4
	57nm,1.4s,mb5.4						
NEW	Newport	59.79	310	eP	P	03 40 07.5	-0.8
	34nm,1.1s,mb5.3						
NLU	North Lily Min	59.82	299	eP	P	03 40 08.9	+0.2
NLU				ePP	PP	03 42 17.8	-4.9
HLID	Hailey	59.93	304	eP	P	03 40 09.3	-0.1
	8.7nm,1.1s,mb4.7						
BGU	Big Grassy Mou	60.08	301	eP	P	03 40 10.2	-0.2
MSU	Marysvale	60.50	298	eP	P	03 40 14.1	+0.7
MVU	Marysvale	60.53	298	eP	P	03 40 14.3	+0.8
	20nm,1.1s,mb5.2						
ARU	Arti	61.03	39	eP	P	03 40 15.3	-1.4
	73nm,1.5s,mb5.6						
ARU				ePP	PP	03 42 22.3	-11
ARU				eScP		03 44 59.5	
BMO	Blue Mountains	61.29	306	eP	P	03 40 17.5	-1.1
	18nm,1.3s,mb5.0						
YNBS	Yanbu‘ al Bahr	61.29	80	P	P	03 40 15.4	-3.5
KBRS	Khaybar	61.57	78	P	P	03 40 22.9	+2.1
ELK	Elko	61.67	301	eP	P	03 40 21.3	0.0
	15nm,1.2s,mb5.0						
ARUT	Antelope Range	61.71	298	eP	P	03 40 22.5	+0.9
LPAZ	La Paz	62.38	218	P	P	03 40 26.4	+0.1
	14nm,0.9s,mb5.1,baz=22,slow=4.9,SNR=45						
LPAZ	La Paz	62.38	218	eP	P	03 40 26.1	-0.3
	28nm,1.1s,mb5.3						
DLBC	Dease Lake	62.60	324	P	P	03 40 26.8	-0.5
	9.3nm,1.1s,mb4.8,baz=135,slow=6.2,SNR=5.6						
DLBC	Dease Lake	62.60	324	P	P	03 40 26.8	-0.5
HILS	Ha’il	62.75	75	P	P	03 40 27.1	-1.6
NNA	Nana	63.66	229	eP	P	03 40 33.3	-1.6
	19nm,1.3s,mb5.0						
NEN	Nelson	63.69	296	eP	P	03 40 35.6	+0.8
DAWY	Dawson	63.86	332	eP	P	03 40 35.4	+0.1
TPH	Tonopah	64.24	299	eP	P	03 40 38.9	+0.6
	31nm,1.3s,mb5.2						
MOD	Modoc	64.56	304	P	P	03 40 40.5	+0.3
	10nm,0.8s,mb4.9						
MNV	Mina	64.72	300	eP	P	03 40 41.1	-0.3
	22nm,1.2s,mb5.1						
NVAR	Mina Array Bea	64.83	300	P	P	03 40 41.6	-0.5
	3.6nm,0.9s,mb4.4,baz=70,slow=7.2,SNR=21						
NVAR				LR	LR	04 09 46.8	
	comp=Z,817nm,18.2s,MS5.0,baz=305,slow=37						
AFFS	‘Afif	65.44	78	P	P	03 40 47.5	+1.2
MTUM	Tungsten Hills	65.52	299	eP	P	03 40 47.1	+0.5
BEKR	Beckwourth	65.55	302	eP	P	03 40 46.6	-0.1
	22nm,1.1s,mb5.1						
OMM	Old Mammoth Mi	65.69	300	eP	P	03 40 48.9	+1.2
ILAR	Eielson Array	66.17	335	P	P	03 40 49.9	-0.4
	4.2nm,1.0s,mb4.4,baz=47,slow=5.2,SNR=27						
YBH	Yreka Blue Hor	66.22	305	P	P	03 40 50.3	-0.7
	2.6nm,0.9s,mb4.3,baz=51,slow=5.5,SNR=3.2						
COLA	College	66.43	335	eP	P	03 40 51.8	-0.1
	4.9nm,0.9s,mb4.5						
BAR	Barrett	66.45	294	eP	P	03 40 52.9	+0.3
CMB	Columbia Colle	66.46	301	eP	P	03 40 52.7	+0.1
	17nm,1.2s,mb5.0						
BLJS	Baljurashi	66.46	82	P	P	03 40 48.6	-4.2
OHCM	Honcut	66.57	302	eP	P	03 40 53.4	+0.1
CPUP	Villa Florida	66.96	203	P	P	03 40 54.3	-1.6
	5.2nm,1.1s,mb4.5,baz=12,slow=4.0,SNR=5.5						
CPUP	Villa Florida	66.96	203	eP	P	03 40 54.1	-1.9
	26nm,1.5s,mb5.0						
MCK	McKinley	67.51	334	eP	P	03 40 59.0	+0.2
	15nm,1.3s,mb4.9						
IMA	Indian Mountai	67.55	338	eP	P	03 40 58.9	-0.1
TATS	Tathlith	68.13	82	P	P	03 41 09.0	+5.6
LVC	Limon Verde	68.17	215	P	P	03 41 02.6	-1.1
	4.0nm,0.9s,mb4.5,baz=44,slow=6.3,SNR=5.8						
CHKZ	Chkalovo	68.43	38	eP	P	03 41 03.7	-1.0
	12nm,1.0s,mb4.9						
CHKZ				ePP	PP	03 43 29.9	-8.0
BRVK	Borovoye	68.61	39	eP	P	03 41 04.9	-0.9
	19nm,1.1s,mb5.0						
BVAR	Borovoye Array	68.68	39	P	P	03 41 04.7	-1.5
	5.2nm,1.0s,mb4.4,baz=288,slow=4.7,SNR=19						
PMR	Palmer	68.94	333	eP	P	03 41 08.9	+1.2
KURK	Kurchatov	74.15	38	eP	P	03 41 37.8	-1.2
	23nm,1.2s,mb5.0						
ZAL	Zalesovo	74.88	33	P	P	03 41 42.6	-0.6
	2.0nm,0.8s,mb4.1,baz=160,slow=5.6,SNR=13						
EKS2	Erkin-Say	76.60	46	eP	P	03 41 54.5	+1.3
	26nm,1.4s,mb5.0						
AML	Almayashu	76.88	47	eP	P	03 41 55.3	+0.6
	28nm,1.1s,mb5.1						
AAK	Ala-Archa	77.03	46	eP	P	03 41 54.4	-1.2
	6.4nm,1.1s,mb4.5						
UCH	Uchtor	77.30	46	eP	P	03 41 58.1	+1.1
	22nm,1.1s,mb5.0						
LSZ	Lusaka	77.74	120	eP	P	03 41 59.9	-0.1
	18nm,1.1s,mb4.9						
KSH	Kashi	79.87	48	eP	P	03 42 13.9	+2.8
KSH				eAP	pP	03 42 17.0	+2.7
KSH				eXP	sP	03 42 20.0	+4.6
KSH				ePCP	PcP	03 42 22.0	+2.8
KSH				ePP	PP	03 45 16.0	+1.8
KSH				eS	S	03 52 13.6	+0.5
KSH				eXS		03 52 23.6	
KSH				eSKS	SKS	03 52 25.3	-2.9
KSH				eSCS	ScS	03 52 34.0	+1.5
KSH				ePS	PS	03 53 02.0	+3.0
KSH				eSS	SS	03 57 26.8	+1.4
KSH				AMB	AMB		
	comp=Z,90nm,1.7s,mb5.4						
LBTB	Lobatse	82.90	129	P	P	03 42 28.4	+1.0
	comp=Z,74nm,2.0s,mb5.4						
WMQ	Urumqi	83.36	39	P	P	03 42 31.3	+2.0
WMQ				AP	pP	03 42 36.3	+3.8
WMQ				XP	sP	03 42 38.4	+4.9
WMQ				PP	PP	03 45 44.7	+1.6
WMQ				SKS	SKS	03 52 49.3	-3.2
WMQ				S	S	03 52 50.9	+2.0
WMQ				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.8						
TLY	Talaya	83.96	25	eP	P	03 42 34.2	+2.1
	comp=Z,18nm,0.9s,mb5.2						
SONM	Songino Array	88.17	26	P	P	03 42 53.4	+0.5
	comp=Z,3.4nm,0.8s,mb4.6,baz=297,slow=3.2,SNR=4.1						
GTA	Gaotai	92.55	35	eP	P	03 43 09.7	-3.8
GTA				PP	PP	03 46 51.9	-5.7
GTA				PPP	PPP	03 48 51.0	-8.2
GTA				SKS	SKS	03 53 40.1	-10
GTA				S	S	03 54 05.8	-9.2
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb5.0						
GTA				AMB	AMB		
	comp=Z,178nm,6.1s						
YSS	Yuzh-Sakhalins	96.33	3	P	P	03 43 28.2	-2.5
	comp=Z,58nm,1.4s,mb5.8						
LZH	Lanzhou	97.09	34	eP	P	03 43 34.3	-0.1
LZH				XP	sP	03 43 49.1	+10
LZH				PP	PP	03 47 31.8	-1.3
LZH				SKS	SKS	03 54 09.5	-5.7
LZH				eS	S	03 54 52.4	-1.5
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb5.4						
LZH				AMB	AMB		
	comp=Z,125nm,6.8s						
MDJ	Mudanjiang	97.28	12	P	P	03 43 38.1	+3.1
MDJ				AP	pP	03 43 39.9	+1.7
MDJ				XP	sP	03 43 41.9	+2.6
MDJ				S	S	03 54 54.6	-0.7
MDJ				SCS	ScS	03 54 55.3	-0.7
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,156nm,4.9s						
CD2	Chengdu	101.36	37	eP	P	03 43 53.0	-0.8
NJ2	Nanjing	106.51	24	ePDIF	Pdif	03 44 17.3	+0.7
NJ2				PP	PP	03 48 44.0	-0.5
NJ2				S		03 56 12.0	
VNA2	Neumayer--Watz	109.23	171	⇑iP	Pdif	03 44 27.4	-0.2
VNA3	Neumayer Olymp	109.26	172	⇑iP	Pdif	03 44 28.6	+0.8
SNAA	Sanae	110.50	170	⇑iP	Pdif	03 44 26.4	-6.8
SYO	Syowa Base	118.30	157	⇓PKPdf	PKPdf	03 48 50.0	-0.8
VNDA	Vanda	138.87	185	ePKPdf	PKPdf	03 49 28.7	-0.8
ASPA	Alice Springs	162.71	43	⇓iP	PKPdf	03 50 09.2	+3.2
ASPA				eS		03 53 30.6	

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*WEL **02** 03:30:12.4±0.1, 44.07S×168.83E, h9^{km}±1^{km}, ML4.8/14, Error ellipse: s-maj=1.3km s-min=1.1km az=90.0*

WEL Felt in the Otago region, maximum reported intensity MM 4.

*NEIC **02** 03:30:12.4, 44.06S×168.82E, h9^{km}, mb4.7/1, ML4.8(WEL), After WEL.*

NEIC Felt at Queenstown.

*SYO **02** 03:30:12.4, 44.06S×168.82E, h9^{km}, MB4.7*

ISC 02 03:30:10.9±0.7, **43.98S**±0.03×**168.76E**±0.07, **h12**^{km}±5^{km}, **n52**, σ0^{s}**90**/59, **mb4.5**/1, **5C-3D, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
JCZ	Jackson Bay	0.10	180	P	Pg	03 30 14.1	+0.2
JCZ				S	Sg	03 30 15.3	-0.6
JCZ	Jackson Bay	0.10	180	⇑PG	Pg	03 30 14.1	+0.2
JCZ				⇑PG	Pg	03 30 14.1	+0.2
JCZ				SG	Sg	03 30 15.3	-0.6
FOZ	Fox Glacier	0.79	59	P*	Pb	03 30 28.6	+2.5
FOZ				S*	Sb	03 30 42.3	+5.9
WKZ	Wanaka	0.87	168	P	Pb	03 30 26.9	-0.6
WKZ	Wanaka	0.87	168	P*	Pb	03 30 26.9	-0.6
MSZ	Milford Sound	0.92	220	P*	Pb	03 30 28.2	-0.1
LBZ	Lake Benmore	1.11	112	⇓P	Pb	03 30 32.1	+0.6
LBZ				S	Sb	03 30 45.5	-0.2
LBZ	Lake Benmore	1.11	112	⇓P*	Pb	03 30 32.1	+0.6
LBZ				S*	Sb	03 30 45.4	-0.3
EAZ	Earnscleugh	1.32	163	P	Pb	03 30 34.7	-0.4
EAZ				S	Sb	03 30 48.3	-3.5
EAZ	Earnscleugh	1.32	163	P*	Pb	03 30 34.7	-0.4
EAZ				S*	Sb	03 30 49.8	-2.0
MLZ	Mavora Lakes	1.44	197	P	Pn	03 30 37.2	+0.3
MLZ	Mavora Lakes	1.44	197	PN	Pn	03 30 37.2	+0.3
WVZ	Waitaha Valley	1.70	59	⇑P	Pn	03 30 41.1	+0.5
WVZ	Waitaha Valley	1.70	59	⇑PN	Pn	03 30 41.1	+0.4
ODZ	Otahua Downs	1.72	129	eP	Pn	03 30 40.9	-0.1
ODZ	Otahua Downs	1.72	129	PN	Pn	03 30 40.9	-0.1
DCZ	Deep Cove	1.89	217	PN	Pn	03 30 44.1	+0.8
WHZ	Wether Hill Ro	2.00	196	P	Pn	03 30 47.0	+2.0
WHZ	Wether Hill Ro	2.00	196	PN	Pn	03 30 46.4	+1.4
TUZ	Tuapeka	2.08	163	PN	Pn	03 30 47.5	+1.5
LTZ	Lake Taylor	2.82	66	PN	Pn	03 30 57.4	+0.6
CRLZ	Canterbury Las	2.83	83	PN	Pn	03 30 57.0	+0.2
MQZ	McQueen’s Vall	2.83	86	eP	Pn	03 30 56.7	-0.1
MQZ	McQueen’s Vall	2.83	86	PN	Pn	03 30 56.7	-0.2
DSZ	Denniston Nort	3.16	46	P	Pn	03 31 01.2	-0.3
DSZ	Denniston Nort	3.16	46	PN	Pn	03 31 01.2	-0.3
THZ	Tophouse	3.77	55	P	Pn	03 31 10.3	+0.2
THZ	Tophouse	3.77	55	PN	Pn	03 31 10.3	+0.2
QRZ	Quartz Range	4.21	43	P	Pn	03 31 16.3	-0.1
QRZ	Quartz Range	4.21	43	PN	Pn	03 31 16.3	-0.1
NNZ	Nelson	4.38	53	P	Pn	03 31 18.9	0.0
NNZ	Nelson	4.38	53	PN	Pn	03 31 18.9	0.0
TUWZ	Tuamarina	4.59	58	PN	Pn	03 31 22.5	+0.7
MRW	Makara Radio	5.17	60	PN	Pn	03 31 31.1	+1.0
KIW	Kapiti Island	5.51	58	ePN	Pn	03 31 33.9	-1.0
NRZ	Ngariki Road	6.04	42	PN	Pn	03 31 42.2	-0.1
MRZ	Mangatainoka R	6.04	59	PN	Pn	03 31 40.2	-2.2
NWEZ	Newall Road	6.06	41	PN	Pn	03 31 42.2	-0.3
DFE	Dawson Falls	6.13	43	PN	Pn	03 31 43.6	0.0
RAEZ	Rainy Point	6.30	44	PN	Pn	03 31 46.3	+0.2
CNZ	Chateau	6.97	49	PN	Pn	03 31 56.3	+0.8
TUVZ	Tukino	6.98	50	PN	Pn	03 31 57.1	+1.5
NGZ	Ngauruhoe	7.02	49	PN	Pn	03 31 56.5	+0.4
MGZ	Maungaku	7.11	48	PN	Pn	03 31 57.6	+0.2
HIZ	Hauiti	7.13	42	PN	Pn	03 31 56.3	-1.4
WTAZ	Waiatarua	8.31	34	PN	P	03 32 13.2	-1.0
MKAZ	Moumakai	8.41	38	PN	P	03 32 15.7	+0.1
MTAZ	Motutapu	8.57	35	PN	P	03 32 16.8	-1.0
WCZ	Waipu Caves	9.10	30	PN	P	03 32 23.5	-1.5
CTAO	Charters Tower	30.33	315	eP	P	03 36 16.9	-7.6
	12nm,1.1s,mb4.5						
SYO	Syowa Base	61.24	199	⇓P	P	03 40 26.3	-1.2
SYO	Syowa Base	61.24	199	⇑pP	pP	03 40 28.9	-2.4

IDC 02 03:31:44.2±1.8, **3.38S**×**135.21E, mb3.9**/3, **mb1 4.2**/6, **mb1mx4.0**/14, **ML3.7**/3, **Error ellipse: s-maj=66.8km s-min=28.9km az=98.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
WRA	Warramunga Arr	16.48	183	Pn	P	03 35 32.4	-6.2
	0.1nm,0.3s,baz=3.0,slow=13,SNR=6.2						
FITZ	Fitzroy Crossi	17.38	212	P	P	03 35 47.8	-2.1
	0.6nm,0.3s,baz=17,slow=12,SNR=17						
CTA	Charters Tower	19.80	148	P	P	03 36 16.5	-2.7
	0.2nm,0.3s,baz=318,slow=12,SNR=5.7						
ASAR	Alice Springs	20.21	183	P	P	03 36 21.9	-1.7
	9.6nm,0.8s,baz=9.4,slow=12,SNR=57						
STKA	Stephens Creek	28.98	169	P	P	03 37 44.8	-3.0
	0.9nm,0.5s,baz=352,slow=7.1,SNR=3.5						
ILAR	Eielson Array	87.89	25	P	P	03 44 35.6	-1.1
	0.4nm,0.9s,baz=263,slow=4.2,SNR=3.1						

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*IDC **02** 03:32:20.5±0.5, 3.42S×135.19E, mb4.9/16, mb1 5.1/20, mb1mx5.0/22, ML4.6/4, MS4.9/2, Ms1 4.9/2, ms1mx3.9/22, Error ellipse: s-maj=23.1km s-min=12.1km az=78.0*

*NEIC **02** 03:32:22.0±0.2, 3.38S×135.41E, h10^{km}, mb5.4/40, MS5.1/2, MW5.6, Error ellipse: s-maj=6.6km s-min=5.3km az=86.0, Moment Tensor Solution. s15 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.50; M$_{\theta\theta}$-0.01; M$_{\phi\phi}$0.51; M$_{r\theta}$-2.22; M$_{\theta\phi}$-1.51; M$_{\phi r}$0.17; Best double couple: M$_{0}$2.7×10^{17} NP1: φ$_{s}$360°, δ34°, λ-11°. NP2: φ$_{s}$99°, δ84°, λ-124°. Principal axes: T 2.73, Plg30°, Azm216°; N .03, Plg34°, Azm103°; P -2.76, Plg41°, Azm337°;*

*HRVD **02** 03:32:22.0±0.2, 3.38S×135.46E, h12^{km}, MW5.6/74, Centroid moment Tensor Solution. LP body waves: s59,c114;Mantle waves: s74,c158; Half duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.14±.04; M$_{\theta\theta}$-1.25±.04; M$_{\phi\phi}$1.11±.05; M$_{r\theta}$-1.19±.10; M$_{\theta\phi}$-2.41±.04; M$_{\phi r}$0.48±.12; Best double couple: M$_{0}$2.98×10^{17} NP1: φ$_{s}$14°, δ65°, λ4°. NP2: φ$_{s}$282°, δ86°, λ155°. Principal axes: T 3, Plg21°, Azm235°; N -.06, Plg64°, Azm94°; P -2.95, Plg15°, Azm331°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **02** 03:32:22.2, 3.33S×135.43E, h10^{km}, MB5.4, MS5.2*

*MOS **02** 03:32:23.5±1.1, 3.43S×135.42E, h33^{km}, mb5.5/18, Error ellipse: s-maj=17.9km s-min=9.7km az=107.1*

*BJI **02** 03:32:23.3, 2.88S×135.46E, h10^{km}, mB5.4, mb4.9, Ms5.4, Msz5.2*

*DJA **02** 03:32:24.5±0.2, 3.46S×135.34E, h33^{km}, mb5.8/4, Error ellipse: s-maj=17.2km s-min=6.6km az=174.0*

ISC 02 03:32:20.4±0.2, **3.48S**±0.03×**135.38E**±0.03, **h12**^{km}, **h12**^{km}±1.1^{km}**:pP-P, n203**, σ1^{s}**25**/200, **mb5.2**/73, **MS5.2**/21, **17C-8D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SWI	Sorong	4.87	302	eP	Pn	03 33 36.0	+0.8
SWI				eS	Sn	03 34 33.0	+0.8
YOMI	Yo Moklole	5.24	81	⇑iP	Pn	03 33 43.3	+2.8
	1µm,0.6s						
YOMI				⇑ipP		03 33 47.6	
YOMI				i S	Sn	03 34 43.1	+1.6
YOMI	Yo Moklole	5.24	81	⇑ipP		03 33 47.6	
YOMI	Yo Moklole	5.24	81	⇑iP	Pn	03 33 43.3	+2.8
	2µm,0.6s						
YOMI				⇑iS	Sn	03 34 43.1	+1.6
KAKA	Kakadu	9.62	197	eP	P	03 34 41.2	-0.6
	254nm,0.5s						
PMG	Port Moresby	13.10	117	Pn	P	03 35 28.6	-0.4
	3.1nm,0.3s,baz=302,slow=9.1,SNR=21						
PMG	Port Moresby	13.10	117	eP	P	03 35 28.8	-0.2
PMG				pmax	pmax		
	comp=Z,700nm,1.0s						
PMG	Port Moresby	13.10	117	eP	P	03 35 28.8	-0.3
	comp=Z,697nm,1.1s						
BUNI	Buntu Taipa	15.03	269	⇑iP	P	03 35 56.5	+2.0
NINI	Niniconang	15.61	266	⇑iP	P	03 36 04.0	+1.9
	comp=Z,797nm,1.9s						
TANI	Tanete Lipujan	15.97	270	⇓iP	P	03 36 08.7	+2.0
WRAB	Tennant Creek	16.38	183	eP	P	03 36 07.8	-4.1
WRAB				pmax	pmax		
	comp=Z,1µm,1.3s						
WRAB	Tennant Creek	16.38	183	eP	P	03 36 07.8	-4.1
	comp=Z,1µm,1.4s						
WB2	Warramunga Arr	16.39	183	eP	P	03 36 08.7	-3.4
WB2				e		03 36 17.0	
WB2				eS	S	03 39 03.3	-10
WRA	Warramunga Arr	16.39	183	Pn	P	03 36 07.9	-4.2
	comp=Z,2.9nm,0.3s,baz=3.7,slow=13,SNR=18						
WRA				Sn	S	03 39 02.0	-12
	comp=Z,4.7nm,0.3s,baz=6.9,slow=22,SNR=7.5						
FITZ	Fitzroy Crossi	17.38	213	eP	P	03 36 23.6	-1.0
	comp=Z,26nm,0.5s						
FITZ				eS	S	03 39 29.8	-6.4
FITZ	Fitzroy Crossi	17.38	213	P	P	03 36 22.4	-2.1
	comp=Z,4.6nm,0.3s,baz=26,slow=10,SNR=16						
FITZ				S	S	03 39 28.0	-8.1
	comp=Z,2.8nm,0.3s,baz=188,slow=18,SNR=4.2						
FITZ				LR	LR	03 43 03.3	
	comp=Z,3µm,18.4s,baz=62,slow=37						
GUMO	Guam	19.40	29	P	P	03 36 50.7	+1.5
GUMO				pmax	pmax		
	comp=Z,300nm,1.1s						
GUMO	Guam	19.40	29	P	P	03 36 50.6	+1.4
	comp=Z,300nm,1.2s						
RCP	Roxas	19.52	320	⇑eP	P	03 36 52.1	+1.5
CTA	Charters Tower	19.62	148	eP	P	03 36 51.3	-0.4
	comp=Z,135nm,1.0s						
CTA				eS	S	03 40 25.3	-1.4
CTA	Charters Tower	19.62	148	P	P	03 36 52.5	+0.8
	comp=Z,1.8nm,0.3s,baz=325,slow=12,SNR=22						
CTAO	Charters Tower	19.62	148	eP	P	03 36 51.2	-0.5
CTAO				pmax	pmax		
	comp=Z,260nm,1.0s						
CTAO	Charters Tower	19.62	148	eP	P	03 36 51.2	-0.5
	comp=Z,256nm,1.1s						
KEDI	Kedomdong	19.79	255	⇓iP	P	03 36 53.3	-0.3
ASAR	Alice Springs	20.12	184	P	P	03 36 56.9	-0.2
	comp=Z,270nm,0.8s,baz=8.5,slow=11,SNR=61						
ASAR				S	S	03 40 34.9	-2.4
	comp=Z,14nm,0.7s,baz=6.6,slow=24,SNR=4.5						
ASAR				LR	LR	03 44 13.2	
	comp=Z,4µm,19.3s,MS4.8,baz=2.0,slow=35						
ASPA	Alice Springs	20.12	184	⇓iP	P	03 36 57.1	0.0
ASPA				eS	S	03 40 28.3	-9.0
RATI	Rata	20.40	254	⇑iP	P	03 37 00.2	+0.1
KELI	Kelakatan	21.30	256	⇑iP	P	03 37 09.5	+0.2
	comp=Z,461nm,1.7s,mb5.2						
SRDI	Scrawed	21.69	256	⇑iP	P	03 37 15.0	+1.7
	comp=Z,158nm,0.9s,mb5.1						
TGY	Tagaytay City	22.59	321	P	P	03 37 27.5	+5.2
	comp=Z,115nm,0.5s,mb5.6,baz=231,slow=15,SNR=2.9						
LUBP	Lubang	22.76	319	eP	P	03 37 24.7	+0.7
MBWA	Marble Bar	23.25	220	P	P	03 37 31.0	+2.3
MBWA	Marble Bar	23.25	220	eP	P	03 37 29.5	+0.8
	comp=Z,166nm,1.1s,mb5.4						
FORT	Forrest	28.02	193	eP	P	03 38 14.2	+0.7
	comp=Z,109nm,0.6s,mb5.7						
STKA	Stephens Creek	28.84	169	eP	P	03 38 20.5	-0.4
	comp=Z,24nm,0.9s,mb4.9						
STKA				eS	S	03 42 58.5	-11
STKA	Stephens Creek	28.84	169	P	P	03 38 20.8	-0.1
	comp=Z,28nm,1.0s,mb5.0,baz=345,slow=8.8,SNR=21						
JOW	Kunigami	30.91	348	P	P	03 38 38.2	-1.1
	comp=Z,27nm,1.0s,mb5.0,baz=94,slow=18,SNR=5.6						
KLBR	Kellerberrin	32.51	209	⇓iP	P	03 38 54.8	+1.5
	comp=Z,67nm,1.2s,mb5.5						
QIZ	Qiongzhong	33.64	313	eP	P	03 39 04.8	+1.5
QIZ				S	S	03 44 17.9	-6.7
QIZ				LR	LR		
	comp=N,3µm,18.8s,MS5.1						
QIZ				LR	LR		
	comp=E,3µm,23.2s,MS5.1						
QIZ				LR	LR		
	comp=Z,5µm,23.2s,MS5.1						
QIZ	Qiongzhong	33.64	313	P	P	03 39 04.4	+1.1
	comp=Z,23nm,1.0s,mb5.0						
NWAO	Narrogin (SRO)	33.86	208	P	P	03 39 05.5	+0.5
	comp=Z,17nm,0.8s,mb5.0,baz=18,slow=8.2,SNR=5.7						
NWAO	Narrogin (SRO)	33.86	208	eP	P	03 39 05.7	+0.6
NWAO				pmax	pmax		
	comp=Z,130nm,1.6s						
NWAO	Narrogin (SRO)	33.86	208	eP	P	03 39 05.7	+0.7
	comp=Z,135nm,1.6s,mb5.6						
NOUC	Port Laguerre	35.25	124	eP	P	03 39 20.4	+3.3
SSE	Sheshan	36.95	340	P	P	03 39 33.5	+2.1
SSE				S	S	03 45 17.3	+1.7
SSE				XS		03 45 22.4	

SSE				AMB	AMB		
	comp=Z,32nm,0.9s,mb5.2						
SSE				AMB	AMB		
	comp=Z,290nm,5.0s						
SSE				LR	LR		
	comp=N,3µm,25.1s,MS5.1						
SSE				LR	LR		
	comp=E,2µm,25.0s,MS5.1						
SSE				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
NJ2	**Nanjing**	**38.67**	**337**	*e*P	**P**	**03 39 44.3**	**-1.5**
NJ2				AP	pP	03 39 49.6	+0.1
NJ2				XP	sP	03 39 51.8	+0.8
NJ2				PP	PP	03 41 16.3	-1.8
NJ2				S	**S**	**03 45 41.0**	**-0.8**
NJ2				PCS		03 45 45.0	
NJ2				XS		03 45 51.0	
NJ2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,570nm,6.4s						
NJ2				LR	LR		
	comp=N,7µm,15.6s,MS5.6						
NJ2				LR	LR		
	comp=E,4µm,16.2s,MS5.6						
NJ2				LR	LR		
	comp=Z,7µm,16.0s,MS5.6						
WHN	**Wuhan**	**39.35**	**331**	*e*P	**P**	**03 39 52.5**	**+1.0**
WHN				S	**S**	**03 45 48.0**	**-4.0**
WHN				LR	LR		
	comp=Z,6µm,29.7s,MS5.3						
MAJO	**Matsushiro**	**39.90**	**4**	*e*P	**P**	**03 39 54.0**	**-2.0**
MAJO				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.9						
MAJO	**Matsushiro**	**39.90**	**4**	*e*P	**P**	**03 39 54.0**	**-2.0**
	comp=Z,22nm,0.8s,mb4.9						
MAT	**Matsushiro**	**39.90**	**4**	P	**P**	**03 39 53.7**	**-2.3**
MAT				S	**S**	**03 46 02.0**	**+1.6**
MAT	**Matsushiro**	**39.90**	**4**	*e*P	**P**	**03 39 54.0**	**-2.0**
	comp=Z,11nm,1.0s,mb4.5						
MAT				*e*S	**S**	**03 46 02.0**	**+1.6**
MAT				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
NANT	**Nan**	**40.69**	**304**	P	**P**	**03 40 04.0**	**+1.4**
GYA	**Guiyang**	**40.71**	**319**	P	**P**	**03 40 02.8**	**+0.1**
GYA				AP	pP	03 40 07.6	+1.2
GYA				XP	sP	03 40 10.0	+2.1
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.8						
GYA				LR	LR		
	comp=N,770nm,15.9s,MS4.9						
GYA				LR	LR		
	comp=E,1µm,15.0s,MS4.9						
GYA				LR	LR		
	comp=Z,2µm,15.9s,MS5.0						
ENH	**Enshi**	**41.70**	**325**	P	**P**	**03 40 09.5**	**-1.4**
	comp=Z,53nm,1.3s,mb5.0						
CMAR	**Chiang Mai Arr**	**41.99**	**303**	P	**P**	**03 40 12.7**	**-0.7**
	comp=Z,4.1nm,0.8s,baz=121,slow=6.1,SNR=8.4						
CHG	**Chiang Mai**	**42.15**	**303**	⇑P	**P**	**03 40 21.7**	**+7.0**
	comp=Z,17nm,0.8s,mb4.7						
KMI	**Kunming**	**42.57**	**314**	*e*P	**P**	**03 40 19.6**	**+1.5**
KMI				AP	pP	03 40 22.0	+0.2
KMI				S	**S**	**03 46 35.5**	**-4.5**
KMI				SS	SS	03 49 41.3	-2.7
KMI				AMB	AMB		
	comp=Z,17nm,0.7s,mb4.9						
KMI				LR	LR		
	comp=N,2µm,16.6s						
KMI				LR	LR		
	comp=E,2µm,23.0s						
KMI				LR	LR		
	comp=Z,3µm,27.1s						
TIA	**Tai’an**	**43.02**	**338**	P	**P**	**03 40 24.0**	**+2.4**
TIA				S	**S**	**03 46 47.5**	**+1.0**
TIA				AMB	AMB		
	comp=Z,55nm,1.6s,mb5.0						
TIA				LR	LR		
	comp=N,5µm,20.0s						
XAN	**Xi’an**	**44.89**	**328**	P	**P**	**03 40 34.2**	**-2.6**
CD2	**Chengdu**	**45.59**	**321**	P	**P**	**03 40 43.4**	**+1.0**
CD2				PP	PP	03 42 27.8	-2.0
CD2				PPP	tx	03 43 43.8	
CD2				S	**S**	**03 47 23.1**	**-0.7**
CD2				SCS	ScS	03 50 37.0	+0.8
CD2				SS	SS	03 50 39.3	-0.2
CD2				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.8						
CD2				AMB	AMB		
	comp=Z,190nm,9.6s						
CD2				LR	LR		
	comp=N,1µm,20.3s						
CD2				LR	LR		
	comp=Z,2µm,16.8s,MS5.1						
SNY	**Shenyang**	**46.36**	**348**	PR		03 40 46.8	
SNY				S	**S**	**03 47 29.2**	**-5.4**
SNY				AMB	AMB		
	comp=Z,20nm,2.4s,mb4.6						
SNY				AMB	AMB		
	comp=Z,400nm,11.3s						
SNY				LR	LR		
	comp=N,4µm,17.8s,MS5.4						
SNY				LR	LR		
	comp=E,2µm,19.2s,MS5.4						
SNY				LR	LR		
	comp=Z,4µm,18.6s,MS5.4						
VLA	**Vladivostok**	**46.49**	**356**	*e*P	**P**	**03 40 54.0**	**+4.7**
VLA				*e*		03 42 31.0	
VLA				*i* S	**S**	**03 47 35.0**	**-1.5**
VLA				*e*SS	SS	03 50 57.0	+2.0
VLA				pmax	pmax		
	comp=Z,800nm,11.0s						
VLA				pmax	pmax		
	comp=N,500nm,10.0s						
VLA				pmax	pmax		
	comp=Z,600nm,9.0s						
VLA				pmax	pmax		
	comp=N,500nm,10.0s						
VLA				smax			
	comp=N,2µm,13.0s						
VLA				smax			
	comp=E,1µm,11.0s						
VLA				MLR	MLR		
	comp=N,3µm,16.0s						
VLA				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.1						
BJT	**Baijiatuau**	**46.74**	**340**	*e*P	**P**	**03 40 49.7**	**-1.7**
BJT				pmax	pmax		
	comp=Z,140nm,1.2s						
BJT	**Baijiatuau**	**46.74**	**340**	*e*P	**P**	**03 40 49.7**	**-1.7**
	comp=Z,137nm,1.3s,mb5.7						
BJI	**Beijing**	**46.76**	**340**	P	**P**	**03 40 50.2**	**-1.3**
BJI				S	**S**	**03 47 32.6**	**-7.8**
BJI				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.9						
BJI				LR	LR		
	comp=N,4µm,19.1s,MS5.5						
BJI				LR	LR		
	comp=E,3µm,16.8s,MS5.5						
BJI				LR	LR		
	comp=Z,5µm,24.9s						
ASAJ	**Asahikawa**	**47.82**	**7**	P	**P**	**03 41 00.3**	**+0.5**
	comp=Z,22nm,0.8s,mb5.2,baz=251,slow=25,SNR=6.1						
CN2	**Changchun**	**47.91**	**350**	*e*P	**P**	**03 40 59.0**	**-1.5**
CN2				*e*S	**S**	**03 47 56.0**	**-0.5**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
CN2				AMB	AMB		
	comp=Z,500nm,10.0s						
CN2				LR	LR		
	comp=N,2µm,20.0s,MS5.2						
CN2				LR	LR		
	comp=E,2µm,20.0s,MS5.2						
CN2				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
MDJ	**Mudanjiang**	**48.16**	**354**	P	**P**	**03 41 01.0**	**-1.5**
MDJ				AP	pP	03 41 04.0	-2.2
MDJ				XP	sP	03 41 05.5	-2.2
MDJ				PP	PP	03 42 52.4	-1.9
MDJ				SCP		03 46 24.6	
MDJ				S	**S**	**03 48 00.3**	**+0.2**
MDJ				AMB	AMB		
	comp=Z,18nm,1.2s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,350nm,8.2s						
MDJ				LR	LR		
	comp=N,872nm,25.4s,MS5.0						
MDJ				LR	LR		
	comp=E,2µm,27.1s,MS5.0						
MDJ				LR	LR		
	comp=Z,1µm,35.6s						
MDJ	**Mudanjiang**	**48.16**	**354**	*e*P	**P**	**03 41 00.9**	**-1.6**
	comp=Z,36nm,0.9s,mb5.4						
IMP	**Imphal**	**49.08**	**307**	*e*	**P**	**03 41 05.3**	**-4.5**
LZH	**Lanzhou**	**49.17**	**326**	*e*P	**P**	**03 41 09.6**	**-0.8**
LZH				AP	pP	03 41 13.0	-1.2
LZH				XP	sP	03 41 14.3	-1.3
LZH				PP	PP	03 43 04.5	0.0
LZH				*e*S	**S**	**03 48 15.0**	**+0.6**
LZH				XS		03 48 21.6	
LZH				AMB	AMB		
	comp=Z,45nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,315nm,5.6s						
LZH				LR	LR		
	comp=N,1µm,14.0s						
LZH				LR	LR		
	comp=Z,3µm,17.5s,MS5.3						
HHC	**Hu-ho-hao-te**	**49.20**	**336**	*e*P	**P**	**03 41 10.5**	**0.0**
HHC				AP	pP	03 41 14.9	+0.6
HHC				XP	sP	03 41 17.6	+1.8
HHC				PCP	PcP	03 42 37.0	+3.0
HHC				PP	PP	03 43 02.0	-2.7
HHC				SCP		03 46 30.6	
HHC				PCS		03 46 33.7	
HHC				S	**S**	**03 48 09.1**	**-5.6**
HHC				SCS	ScS	03 51 00.1	+0.5
HHC				AMB	AMB		
	comp=Z,15nm,1.4s,mb4.8						
HHC				AMB	AMB		
	comp=Z,474nm,4.9s						
HHC				LR	LR		
	comp=N,1µm,17.0s,MS5.0						
HHC				LR	LR		
	comp=E,662nm,17.7s,MS5.0						
HHC				LR	LR		
	comp=Z,1µm,16.7s,MS5.0						
YSS	**Yuzh-Sakhalins**	**50.64**	**7**	⇑*e*P	**P**	**03 41 20.8**	**-0.7**
YSS				*e*S	**S**	**03 48 32.0**	**-2.6**
YSS				*e*SS	SS	03 52 04.0	-2.4
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
YSS				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.0						
YSS				MLR	MLR		
	comp=N,2µm,19.0s						
YSS	**Yuzh-Sakhalins**	**50.64**	**7**	*e*P	**P**	**03 41 21.7**	**+0.3**
	comp=N,50nm,1.0s,mb5.4						
SHL	**Shillong**	**51.09**	**307**	*e*P	**P**	**03 41 24.2**	**-0.9**
	comp=N,119nm,1.1s,mb5.7						
SHL				*e*		03 51 14.7	
URZ	**Urewera**	**51.42**	**138**	P	**P**	**03 41 29.8**	**+2.3**
	comp=N,17nm,1.0s,mb4.9,baz=315,slow=6.4,SNR=3.5						
LSA	**Lhasa**	**53.66**	**311**	P	**P**	**03 41 46.0**	**+1.7**
GTA	**Gaotai**	**53.78**	**326**	P	**P**	**03 41 45.7**	**+0.6**
GTA				AP	pP	03 41 50.0	+1.1
GTA				XP	sP	03 41 52.8	+2.5
GTA				PCP	PcP	03 42 50.3	-0.7
GTA				PP	PP	03 43 49.3	+1.5
GTA				PPP	PPP	03 44 59.2	+3.0
GTA				S	**S**	**03 49 16.4**	**-1.2**
GTA				XS		03 49 28.2	
GTA				AMB	AMB		
	comp=Z,8.0nm,1.5s,mb4.4						
GTA				AMB	AMB		
	comp=Z,412nm,5.0s						
GTA				LR	LR		
	comp=N,1µm,21.0s,MS5.1						
GTA				LR	LR		
	comp=E,1µm,20.6s,MS5.1						
GTA				LR	LR		
	comp=Z,2µm,22.5s,MS5.1						
HIA	**Hailar**	**54.26**	**347**	*e*P	**P**	**03 41 47.4**	**-1.1**
HIA				pmax	pmax		
	comp=Z,19nm,1.0s						
HIA	**Hailar**	**54.26**	**347**	*e*P	**P**	**03 41 47.4**	**-1.0**
	comp=Z,19nm,1.0s,mb5.0						
ULN	**Ulaanbaatar**	**56.83**	**338**	*e*P	**P**	**03 42 06.4**	**-0.8**
ULN				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
ULN	**Ulaanbaatar**	**56.83**	**338**	*e*P	**P**	**03 42 06.4**	**-0.7**
	comp=Z,29nm,1.1s,mb5.2						
GUN	**Gumba**	**56.93**	**307**	*e*P	**P**	**03 42 08.3**	**+0.2**
SONM	**Songino Array**	**57.06**	**337**	P	**P**	**03 42 07.9**	**-0.8**
	comp=Z,2.1nm,0.7s,mb4.3,baz=135,slow=7.0,SNR=12						
PKI	**Pulchoki**	**57.17**	**306**	*e*P	**P**	**03 42 09.6**	**-0.2**
	comp=Z,41nm,0.9s,mb5.5						
KKN	**Kakani**	**57.36**	**306**	*e*P	**P**	**03 42 10.9**	**-0.3**
	comp=Z,91nm,0.9s,mb5.8						
DMN	**Daman**	**57.43**	**306**	*e*P	**P**	**03 42 11.7**	**0.0**
	comp=Z,108nm,0.9s,mb5.9						
GKN	**Gorkha**	**57.97**	**306**	*e*P	**P**	**03 42 15.4**	**0.0**
	comp=Z,148nm,1.0s,mb6.0						
KOLN	**Koldanda**	**58.72**	**305**	*e*P	**P**	**03 42 21.0**	**+0.4**
	comp=Z,123nm,0.9s,mb6.0						
TRD	**Trivandrum**	**59.46**	**282**	⇓*e*	PcP	03 43 05.0	-8.4
PET	**Petropavlovsk**	**59.61**	**16**	*e*P	**P**	**03 42 27.3**	**+0.8**
PET				*e*S	**S**	**03 50 44.5**	**+10**
PET				pmax	pmax		
	comp=Z,300nm,13.1s						
PET				smax			
	comp=E,400nm,15.0s						
HYB	**Hyderabad**	**59.77**	**292**	*e*P	**P**	**03 42 26.0**	**-2.0**
HYB	**Hyderabad**	**59.77**	**292**	*i* P	**P**	**03 42 26.0**	**-2.0**
ZAK	**Zakamensk**	**60.33**	**337**	*e*P	**P**	**03 42 30.1**	**-1.3**
CLNS	**Chul’man**	**60.72**	**353**	*e*P	**P**	**03 42 47.4**	**+13**
CLNS				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.4						
CLNS				pmax	pmax		
	comp=N,19nm,1.3s						
CLNS				pmax	pmax		
	comp=E,20nm,1.1s						
TLY	**Talaya**	**61.23**	**338**	*e*P	**P**	**03 42 33.4**	**-4.1**
TLY				*e*S	**S**	**03 50 51.0**	**-4.3**
TLY				*e*SS	SS	03 54 49.7	-7.4
TLY				pmax	pmax		
	comp=Z,40nm,1.9s,mb5.2						
TLY				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.3						
IRK	**Irkutsk**	**61.45**	**339**	*e*P	**P**	**03 42 43.3**	**+4.3**
LGTI	**Lohaghat**	**62.08**	**306**	*e*P	**P**	**03 42 44.0**	**+0.4**
PTH	**Pithoragarh**	**62.14**	**306**	*e*P	**P**	**03 42 44.0**	**0.0**
MOY	**Mondy**	**62.23**	**337**	*e*P	**P**	**03 42 44.7**	**+0.4**
BHPL	**Bhopal**	**62.39**	**298**	*e*P	**P**	**03 42 45.3**	**-0.4**
AGRA	**Agra**	**63.20**	**303**	*e*P	**P**	**03 42 49.4**	**-1.6**
WMQ	**Urumqi**	**63.59**	**323**	⇑P	**P**	**03 42 54.0**	**+0.6**
WMQ				AP	pP	03 42 58.6	+1.3
WMQ				XP	sP	03 43 01.0	+2.3
WMQ				PCP	PcP	03 43 30.3	+0.6
WMQ				S	**S**	**03 51 25.2**	**0.0**
WMQ				XS		03 51 33.2	
WMQ				AMB	AMB		
	comp=Z,47nm,0.9s,mb5.5						
WMQ				AMB	AMB		
	comp=Z,75nm,6.9s						
WMQ				LR	LR		
	comp=N,2µm,22.5s,MS5.3						
WMQ				LR	LR		
	comp=E,1µm,27.2s,MS5.3						
WMQ				LR	LR		
	comp=Z,2µm,24.8s,MS5.2						
MA2	**Magadan**	**64.03**	**9**	*e*P	**P**	**03 42 52.4**	**-3.6**
MA2				*e*S	**S**	**03 51 24.3**	**-6.2**
MA2				*e*SS	SS	03 55 35.6	-5.2
MA2				pmax	pmax		
	comp=Z,2µm,11.4s						
MA2	**Magadan**	**64.03**	**9**	P	**P**	**03 42 57.9**	**+1.9**
	comp=Z,15nm,0.7s,mb5.1						
DDI	**Dehra Dun**	**64.17**	**306**	*e*	**P**	**03 42 49.0**	**-8.5**
NDI	**New Delhi**	**64.29**	**304**	*e*P	**P**	**03 42 56.0**	**-2.3**
NDI				*e*S	**S**	**03 51 34.0**	**-0.2**
AYAN	**Aya Nagar**	**64.29**	**304**	*e*P	**P**	**03 42 57.4**	**-0.9**
AYAN				*e*	pP	03 43 00.0	-2.2
	comp=Z,51nm,0.9s						
POO	**Poona**	**64.38**	**292**	⇓*i*P	**P**	**03 42 56.5**	**-2.5**
	comp=Z,30nm,1.0s,mb5.3						
BHGR	**Bahadurgarh**	**64.52**	**304**	*e*P	**P**	**03 42 58.8**	**-0.9**
FX1	**Attu Island--F**	**64.53**	**24**	P	**P**	**03 43 00.6**	**+1.2**
	comp=Z,15nm,0.7s,mb5.1,baz=219,slow=14,SNR=3.1						
KUDL	**Kundal**	**64.71**	**303**	*e*P	**P**	**03 43 00.0**	**-1.0**
KUDL				*e*	pP	03 43 02.2	-2.7
	comp=Z,93nm,1.3s						
KKR	**Kurukshetra**	**65.05**	**305**	*e*	**P**	**03 42 58.4**	**-4.8**
RTK	**Rohtak**	**65.07**	**304**	*e*P	**P**	**03 43 02.4**	**-0.9**
RTK				*e*	pP	03 43 04.7	-2.5
	comp=Z,179nm,0.9s						
KHET	**Khetri**	**65.26**	**303**	*e*P	**P**	**03 43 03.7**	**-0.9**
KHET				*e*	pP	03 43 06.1	-2.3
	comp=Z,96nm,1.2s						
YAK	**Yakutsk**	**65.48**	**357**	*e*P	**P**	**03 43 11.9**	**+6.6**
YAK				e*PP	pP	03 43 21.8	+13
YAK				*e*		03 45 31.4	
YAK				*e*PPP	PPP	03 47 03.5	-2.7
YAK				*e*S	S	03 51 47.5	-0.7
YAK				*e*		03 52 59.4	
YAK				*e*SS	SS	03 56 00.9	-2.5
YAK				*e*SSS	SSS	03 58 50.1	-6.3
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,10.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,2.0nm,0.9s						
YAK				pmax	pmax		
	comp=N,3.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
YAK				smax			
	comp=N,250nm,10.3s						
YAK				smax			
	comp=E,108nm,8.0s						
YAK	**Yakutsk**	**65.48**	**357**	P	**P**	**03 43 05.4**	**+0.1**
	comp=E,40nm,0.8s,mb5.5						
AJM	**Ajmer**	**65.76**	**301**	⇑*e*P	**P**	**03 43 05.0**	**-2.8**
BHK	**Bhakra**	**65.87**	**307**	*e*	**P**	**03 43 11.8**	**+3.4**
THN	**Thein Dam**	**66.79**	**307**	*e*P	**P**	**03 43 11.8**	**-2.4**
MKAR	**Makanchi Array**	**68.40**	**324**	*i* P	**P**	**03 43 24.5**	**+0.3**
MKAR				pmax	pmax		
	comp=Z,539nm,2.2s						
JASL	**Jaisalmer**	**69.09**	**300**	*e*P	**P**	**03 43 25.2**	**-3.6**
KSH	**Kashi**	**69.22**	**315**	P	**P**	**03 43 34.3**	**+5.0**
KSH				*e*AP	pP	03 43 38.6	+5.4
KSH				*e*XP	sP	03 43 41.2	+6.6
KSH				*e*PCP	PcP	03 43 57.1	+3.9
KSH				PP	PP	03 46 09.5	+4.9
KSH				*e*PPP	PPP	03 47 48.6	+5.6
KSH				*e*SCP		03 47 59.7	
KSH				*e*PCS		03 48 01.0	
KSH				S	S	03 52 39.6	+6.0
KSH				*e*XS		03 52 45.4	
KSH				*e*PS	PS	03 53 07.2	+6.1
KSH				SCS	ScS	03 53 31.7	+5.3
KSH				AMB	AMB		
	comp=Z,170nm,2.2s,mb5.6						
KSH				LR	LR		
	comp=N,710nm,4.0s						
KSH				LR	LR		
	comp=E,800nm,4.8s						
KZA	**Kyzart**	**70.74**	**317**	P	**P**	**03 43 39.9**	**+1.4**
	SNR=7.0						
TKM2	**Tokmak 2**	**70.85**	**318**	*e*P	**P**	**03 43 40.5**	**+1.3**
	comp=E,14nm,0.7s,mb5.0						
TKM2				*e*		03 43 47.9	
ZAL	**Zalesovo**	**70.97**	**331**	P	**P**	**03 43 38.5**	**-1.2**
	comp=E,9.6nm,0.8s,mb4.8,baz=5.1,slow=6.1,SNR=24						
ZAL	**Zalesovo**	**70.97**	**331**	P	**P**	**03 43 38.5**	**-1.2**
UCH	**Uchtor**	**71.30**	**317**	P	**P**	**03 43 43.6**	**+1.6**
	SNR=7.0						
UCH	**Uchtor**	**71.30**	**317**	*e*P	**P**	**03 43 43.2**	**+1.3**
	comp=E,59nm,1.2s,mb5.4						
FRU	**Bishkek**	**71.47**	**317**	*e*P	**P**	**03 43 45.0**	**+2.0**
AAK	**Ala-Archa**	**71.47**	**317**	*e*P	**P**	**03 43 42.6**	**-0.4**
AAK				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.4						
AAK	**Ala-Archa**	**71.47**	**317**	*e*P	**P**	**03 43 42.6**	**-0.3**
	comp=Z,55nm,1.3s,mb5.3						
USP	**Ospenovka**	**71.72**	**318**	P	**P**	**03 43 45.1**	**+0.6**
	SNR=11						
AML	**Almayashu**	**71.83**	**316**	P	**P**	**03 43 46.6**	**+1.5**
	SNR=10						
AML	**Almayashu**	**71.83**	**316**	*e*P	**P**	**03 43 46.3**	**+1.2**
	comp=Z,39nm,0.7s,mb5.4						
EKS2	**Erkin-Say**	**71.97**	**317**	P	**P**	**03 43 47.1**	**+1.1**
	SNR=6.5						
EKS2	**Erkin-Say**	**71.97**	**317**	*e*P	**P**	**03 43 44.1**	**-1.9**
	comp=Z,24nm,0.9s,mb5.1						
NVS	**Novosibirsk**	**72.23**	**331**	⇑*i*P	**P**	**03 43 45.9**	**-1.4**
NVS				*e*S	S	03 53 07.6	-0.8
NVS				pmax	pmax		
	comp=N,68nm,1.6s						
NVS				pmax	pmax		
	comp=E,63nm,1.6s						
NVS				pmax	pmax		
	comp=Z,93nm,1.6s,mb5.5						
NVS				smax			
	comp=N,324nm,3.4s						
KURK	**Kurchatov**	**72.47**	**326**	*e*P	**P**	**03 43 48.2**	**-0.5**
KURK				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
KURK	**Kurchatov**	**72.47**	**326**	*e*P	**P**	**03 43 48.1**	**-0.6**
	comp=Z,37nm,1.0s,mb5.3						
PPT	**Papeete**	**74.70**	**107**	*e*S	S	03 53 41.2	+4.3
PPT				*e*SS	SS	03 58 20.1	-6.6
PPT				*e*LQ		04 03 59.6	
PPT				*e*LR	LR	04 06 59.8	
	comp=Z,2µm,22.5s						
TBI	**Tubuai**	**75.01**	**113**	*e*S	S	03 53 47.6	+7.4
TBI				*e*LQ		04 04 08.0	
TBI				*e*LR	LR	04 07 04.7	
	comp=Z,2µm,27.0s						
VNDA	**Vanda**	**75.33**	**174**	P	**P**	**03 44 06.2**	**+1.3**
	comp=Z,3.7nm,0.9s,mb4.3,baz=318,slow=8.9,SNR=8.6						
VNDA	**Vanda**	**75.33**	**174**	*e*P	**P**	**03 44 07.0**	**+2.1**
VNDA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
VNDA	**Vanda**	**75.33**	**174**	*e*P	**P**	**03 44 07.0**	**+2.1**
	comp=Z,9.1nm,0.9s,mb4.7						
BVA0	**Borovoye Array**	**78.06**	**326**	P	**P**	**03 44 20.8**	**+0.2**
BVA0				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
BVAR	**Borovoye Array**	**78.06**	**326**	P	**P**	**03 44 19.7**	**-0.9**
	comp=Z,13nm,0.8s,mb4.9,baz=117,slow=6.6,SNR=33						
BRVK	**Borovoye**	**78.13**	**326**	*e*P	**P**	**03 44 21.0**	**0.0**
BRVK				pmax	pmax		
	comp=Z,75nm,1.2s,mb5.5						
BRVK	**Borovoye**	**78.13**	**326**	*e*P	**P**	**03 44 21.0**	**+0.1**
	comp=Z,75nm,1.3s,mb5.5						
CHKZ	**Chkalovo**	**78.19**	**327**	*e*P	**P**	**03 44 21.0**	**-0.2**
CHKZ				pmax	pmax		
	comp=Z,66nm,1.4s,mb5.4						
CHKZ	**Chkalovo**	**78.19**	**327**	*e*P	**P**	**03 44 21.0**	**-0.2**
	comp=Z,66nm,1.4s,mb5.4						
MAW	**Mawson**	**80.17**	**202**	P	**P**	**03 44 32.3**	**+0.5**
	comp=Z,5.2nm,0.8s,mb4.5,baz=36,slow=8.7,SNR=3.1						
IMA	**Indian Mountai**	**85.53**	**23**	*e*P	**P**	**03 44 59.9**	**+0.6**
IMA				*e*	pP	03 45 05.3	+2.1
IMA				pmax	pmax		
	comp=Z,210nm,1.1s,mb6.3						
IMA	**Indian Mountai**	**85.53**	**23**	*e*P	**P**	**03 44 59.9**	**+0.6**
	comp=Z,206nm,1.1s,mb6.3						
IMA				*e*	pP	03 45 05.3	+2.0
ARU	**Arti**	**85.62**	**327**	*e*P	**P**	**03 44 59.4**	**-0.5**
ARU				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.5						
ARU	**Arti**	**85.62**	**327**	*e*P	**P**	**03 44 59.4**	**-0.6**
	comp=Z,40nm,1.4s,mb5.5						
QSPA	**South Pole Qui**	**86.47**	**180**	⇓*i*P	**P**	**03 45 05.3**	**+1.6**
	comp=Z,34nm,1.0s,mb5.5						
MCK	**McKinley**	**86.80**	**26**	*e*P	**P**	**03 45 04.5**	**-1.1**
MCK				*e*		03 48 30.4	
MCK				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.2						
MCK	**McKinley**	**86.80**	**26**	*e*P	**P**	**03 45 04.5**	**-1.1**
	comp=Z,12nm,0.9s,mb5.1						
MCK				*e*PP	PP	03 48 30.4	-0.2
COLA	**College**	**87.54**	**25**	*e*P	**P**	**03 45 07.8**	**-1.3**
COLA				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.2						
COLA	**College**	**87.54**	**25**	*e*P	**P**	**03 45 07.8**	**-1.4**
	comp=Z,16nm,1.0s,mb5.2						
DIV	**Divide**	**87.65**	**28**	*e*P	**P**	**03 45 10.5**	**+0.8**
	comp=Z,185nm,0.9s,mb6.3						
DIV				*e*	pP	03 45 15.7	+2.0
ILAR	**Eielson Array**	**87.92**	**25**	P	**P**	**03 45 10.2**	**-0.8**
	comp=Z,4.4nm,0.9s,mb4.7,baz=268,slow=4.3,SNR=28						
SYO	**Syowa Base**	**88.85**	**201**	⇑pPdiff		03 45 13.7	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
SYO	Syowa Base	88.85	201	⇓pP	pP	03 45 24.6	+5.3
RDF	Al-Radifah	89.76	299	eP	P	03 45 21.1	+0.5
RDF				AMb	AMB	03 45 23.7	
	comp=Z,43nm,0.9s,mb5.8						
MIB	Mutribah	90.01	300	eP	P	03 45 21.8	+0.1
MIB				AMb	AMB	03 45 23.9	
	comp=Z,43nm,0.8s,mb5.8						
RST	Umm Al-Ruwaisa	90.28	299	eP	P	03 45 23.7	+0.7
RST				AMb	AMB	03 45 24.8	
	comp=Z,39nm,0.8s,mb5.8						
DAWY	Dawson	91.01	26	eP	P	03 45 26.0	+0.5
INK	Inuvik	93.62	22	P	P	03 45 38.4	+1.0
	comp=Z,4.1nm,1.0s,mb4.8,baz=270,slow=7.5,SNR=5.4						
INK	Inuvik	93.62	22	eP	P	03 45 38.3	+0.9
INK				pmax	pmax		
	comp=Z,19nm,1.4s						
INK	Inuvik	93.62	22	eP	P	03 45 38.3	+0.9
	comp=Z,19nm,1.4s,mb5.3						
BRTR	Keskin Array B	101.25	310	P	P	03 46 12.9	+0.2
	comp=Z,1.4nm,1.1s,baz=45,slow=6.1,SNR=2.6						
BRTR				PKiKP		03 50 35.8	
	comp=Z,0.8nm,0.8s,baz=90,slow=7.4,SNR=3.5						
YKA	Yellowknife Ar	102.24	27	P	Pdif	03 46 15.3	-1.4
	comp=Z,0.3nm,0.8s,baz=287,slow=4.9,SNR=3.6						
YKA				PP	PP	03 50 26.5	-4.8
	comp=Z,0.4nm,0.9s,baz=300,slow=7.3,SNR=3.9						
YKA				PKiKP		03 50 39.6	
	comp=Z,0.8nm,1.1s,baz=289,slow=1.7,SNR=4.5						
AKASG	Malin Array Be	102.89	321	Pdiff	Pdif	03 46 24.4	+4.5
	comp=Z,0.2nm,0.3s,baz=63,slow=3.7,SNR=4.2						
NVAR	Mina Array Bea	104.93	51	Pdiff	Pdif	03 46 32.3	+3.2
	comp=Z,1.4nm,0.8s,baz=254,slow=5.3,SNR=7.5						
PDAR	Pinedale Array	110.62	45	PKiKP		03 50 54.8	
	comp=Z,0.2nm,0.7s,baz=90,slow=0.9,SNR=2.0						
BRG	Berggiesshubel	112.12	324	PFAKE		03 51 10.0	+11
BRG				LR	LR		
	comp=Z,830nm,13.7s,MS5.5						
GERES	GERESS Array B	113.05	322	PKiKP		03 51 01.4	
	comp=Z,0.9nm,0.9s,baz=124,slow=3.5,SNR=3.4						
MOX	Moxa	113.56	325	i P	PKPdf	03 51 10.0	+8.1
MOX	Moxa	113.56	325	PFAKE		03 51 10.0	+8.1
MOX				LR	LR		
	comp=Z,400nm,21.0s,MS5.0						
ANMO	Albuquerque	114.92	53	PKP	PKPdf	03 51 05.0	+0.1
	comp=Z,0.9nm,0.9s,baz=214,slow=3.6,SNR=2.6						
TXAR	Lajitas Array	118.54	58	PKP	PKPdf	03 51 10.4	-1.7
	comp=Z,0.8nm,0.8s,baz=315,slow=5.3,SNR=5.0						
LPG	La Plagne	118.76	321	ePKP1	PKPdf	03 51 10.7	-1.5
	comp=Z,12nm,0.9s						
LPL	La Plagne	118.76	321	ePKP1	PKPdf	03 51 10.6	-1.6
	comp=Z,8.3nm,0.7s						
SBF	Sospel	119.05	319	ePKP1	PKPdf	03 51 10.5	-2.3
	comp=Z,44nm,1.1s						
ORIF	Oris-en-Rattie	119.57	321	ePKP1	PKPdf	03 51 12.0	-1.7
SSF	Saint Saulge	119.97	324	ePKP1	PKPdf	03 51 12.0	-2.4
	comp=Z,8.4nm,1.0s						
TCF	Toulx Ste Croi	121.13	324	ePKP1	PKPdf	03 51 15.2	-1.6
FLN	La Foliniere	121.28	327	ePKP1	PKPdf	03 51 15.3	-1.7
JCT	Junction City	121.50	56	ePKIKP	PKPdf	03 51 16.0	-1.9
NNA	Nana	144.47	116	ePKPdf	PKPdf	03 52 01.9	+0.9
LVC	Limon Verde	144.85	139	PKPbc	PKPbc	03 52 01.4	+3.1
	comp=Z,2.8nm,0.8s,baz=300,slow=4.7,SNR=4.7						
LVC	Limon Verde	144.85	139	ePKPdf	PKPdf	03 52 01.1	-0.4
OTAV	Otavalo	146.04	95	ePKPbc	PKPbc	03 52 05.7	+4.1
ARE	Arequipa	146.87	127	P	PKPbc	03 52 12.0	+8.7
CPUP	Villa Florida	147.91	158	PKPbc	PKPdf	03 52 07.3	+0.7
	comp=Z,20nm,0.9s,baz=238,slow=2.3,SNR=23						
CPUP	Villa Florida	147.91	158	ePKP2	PKPab	03 52 06.8	-4.2
LPAZ	La Paz	149.57	131	PKPbc	PKPdf	03 52 13.8	+4.3
	comp=Z,7.7nm,1.0s,baz=262,slow=1.4,SNR=19						
LPAZ	La Paz	149.57	131	ePKHKP		03 52 10.8	
SDV	Santo Domingo	153.60	77	ePKPbc	PKPdf	03 52 19.0	+3.5
SAML	Samuel	157.75	124	ePKPdf	PKPdf	03 52 21.1	+0.1

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*IDC **02** 03:36:04.3±1.4, 38.08N×21.61E, mb3.8/6, mb1 3.8/12, mb1mx3.7/26, ML3.5/6, MS2.8/1, Ms1 2.8/1, ms1mx2.3/33, Error ellipse: s-maj=23.7km s-min=18.3km az=27.0*

*ATH **02** 03:36:04.7, 37.90N×21.55E, h2^{km}, MD3.8/19, ML3.8*

*NEIC **02** 03:36:05.0, 37.89N×21.54E, h6^{km}, mb4.4/1, ML3.8(ATH), ML3.8(THE), After ATH.*

NEIC Felt at Pyrgos and in other parts of Ileia.

*THE **02** 03:36:06.5, 37.93N×21.57E, h1^{km}, ML4.0*

*CSEM **02** 03:36:06.0±0.1, 37.94N×21.59E, h2^{km}, mb4.4/1, Error ellipse: s-maj=2.5km s-min=1.6km az=11.0*

ISC 02 03:36:04.4±0.3**, 37.86N**±0.02×**21.50E**±0.02**, h6^{km}, n79, σ1^{s}38**/97**, mb3.8**/7**, 1C, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.76	153	ePG	Pg	03 36 19.5	-0.2
VLS	Valsamata	0.78	294	⇑iPB	Pb	03 36 20.2	+0.2
VLS				eSG	Sg	03 36 32.0	+1.5
LKD	Levkas	1.07	322	ePg	Pg	03 36 25.0	-0.8
LKD				eSg	Sg	03 36 42.2	+2.0
EVR	Evrytania	1.08	13	ePG	Pg	03 36 24.7	-1.2
AGG	Agios Georgios	1.33	29	ePb	Pb	03 36 29.4	+0.1
AGG				eSb	Sb	03 36 48.1	+1.6
MGER	Gerania Oros	1.40	84	ePN	Pn	03 36 30.7	+0.2
MKIT	Kithairon Oros	1.43	77	ePg	Pg	03 36 30.7	-2.2
MKIT				eSb	Sb	03 36 51.9	+2.5
NSAL	Nisos Salamina	1.56	88	ePn	Pn	03 36 32.5	-0.2
NSAL				eSb	Sb	03 36 55.3	+2.2
NAIG	Nisos Aigina	1.58	93	ePg	Pg	03 36 33.5	-2.5
NAIG				eSb	Sb	03 36 56.9	+3.1
VLI	Veliai	1.62	134	ePB	Pb	03 36 36.0	+1.7
ATH	Athens Observa	1.76	86	ePG	Pg	03 36 36.6	-2.9
MPAR	Parnis Oros	1.79	80	ePB	Pb	03 36 38.0	+0.8
JAN	Janina	1.86	344	ePB	Pb	03 36 39.5	+1.1
PTL	Penteli	1.88	84	ePn	Pn	03 36 38.0	+0.6
IGT	Igoumenitsa	1.90	332	ePb	Pb	03 36 39.0	-0.1
IGT				eSb	Sb	03 37 03.5	+0.5
NEO	Neokhori	1.98	43	ePB	Pb	03 36 39.0	-1.4
KYTH	Kithira	2.00	142	ePG	Pg	03 36 42.4	-2.0
XOR	Xorichti	2.00	41	ePb	Pb	03 36 39.3	-1.5
XOR				eSb	Sb	03 37 05.0	-1.1
KEK	Kerkira	2.27	325	ePN	Pn	03 36 45.5	+2.5
AOS	Alonnisos	2.28	54	ePn	Pn	03 36 42.7	-0.4
AOS				eSn	Sn	03 37 11.1	-0.7
SRN	Sarande	2.33	330	i Pn	Pn	03 36 44.9	+1.1
LIT	Litokhoron	2.36	19	ePn	Pn	03 36 45.4	+1.1
LIT				eSn	Sn	03 37 15.1	+1.1
KZN	Kozani	2.45	5	ePN	Pn	03 36 47.6	+2.1
PAIG	Paliouri	2.67	39	ePn	Pn	03 36 47.9	-0.9
PAIG				eSn	Sn	03 37 21.0	-0.8
FNA	Florina	2.92	358	ePn	Pn	03 36 52.8	+0.6
PLG	Polygyros	2.93	31	ePB	Pb	03 36 54.5	-2.2
THE	Thessaloniki	2.99	22	ePn	Pn	03 36 54.1	+0.8
OUR	Ouranopolis	3.13	37	ePn	Pn	03 36 56.1	+0.8
GRG	Griva	3.17	12	ePn	Pn	03 36 56.6	+0.8
VAM	Vamos	3.28	138	ePN	Pn	03 36 59.0	+1.7
SOH	Sokhos	3.29	25	ePn	Pn	03 36 57.7	+0.3
APE	Apeiranthos	3.31	103	ePN	Pn	03 36 58.5	+0.8
THR6	Thira Island,	3.46	115	ePn	Pn	03 37 01.5	+1.6
KNT	Kendrikon	3.47	18	ePn	Pn	03 36 59.4	-0.7
KNT				eSn	Sn	03 37 42.5	+0.6
SANT	Santorini	3.50	114	ePn	Pn	03 37 00.1	-0.4
SANT	Santorini	3.50	114	ePn	Pn	03 37 00.1	-0.4
SRS	Serrai	3.63	26	ePn	Pn	03 37 02.4	+0.1
SRS				eSn	Sn	03 37 46.0	-0.1
GVD	Gavdhos	3.67	145	ePn	Pn	03 37 02.7	-0.2
GVD	Gavdhos	3.67	145	ePn	Pn	03 37 02.7	-0.2
IDI	Anoyia	3.75	132	Pn	Pn	03 37 03.5	-0.5
	1.7nm,0.3s,baz=321,slow=13,SNR=21						
IDI				Sn	Sn	03 37 50.9	+1.8
	6.4nm,0.3s,baz=90,slow=20,SNR=4.5						
TIP	Timpagrande	3.94	291	eP	Pn	03 37 06.2	-0.6
TIP				eSn	Sn	03 37 51.2	-2.7
TIP	Timpagrande	3.94	291	eSn	Sn	03 37 51.2	-2.7
GRI	Girifalco	4.10	285	ePn	Pn	03 37 09.7	+0.6
GRI	Girifalco	4.10	285	ePn	Pn	03 37 09.6	+0.5
SKO	Skopje	4.10	359	eP	Pn	03 37 17.5	+8.4
NPS	Neapolis	4.21	127	ePN	Pn	03 37 12.5	+1.9
ORI	Oriolo Calabro	4.51	301	ePn	Pn	03 37 15.1	+0.3
ORI	Oriolo Calabro	4.51	301	ePn	Pn	03 37 15.1	+0.3
ALN	Alexandroupoli	4.65	48	ePn	Pn	03 37 16.8	+0.1
KARP	Karpathos	5.10	115	ePN	Pn	03 37 24.5	+1.2
SLCN	Sala Consilina	5.21	301	ePn	Pn	03 37 25.5	+0.8
SLCN	Sala Consilina	5.21	301	ePn	Pn	03 37 25.5	+0.8
SGO	Sicignano	5.51	301	ePn	Pn	03 37 29.6	+0.6
VAE	Valguarnera	5.63	268	Pn	Pn	03 37 32.1	+1.4
	0.7nm,0.3s,baz=90,slow=18,SNR=3.9						
VAE				Sn	Sn	03 38 34.1	-2.5
	1.3nm,0.3s,baz=286,slow=7.4,SNR=2.4						
VAE	Valguarnera	5.63	268	Pn	Pn	03 37 32.2	+1.5
VAE				Sn	Sn	03 38 34.1	-2.5
DIVS	Divcibare	6.33	350	ePn	Pn	03 37 37.2	-3.4
DIVS				Sn	Sn	03 38 47.7	-6.3
DIVS	Divcibare	6.33	350	Sn	Sn	03 38 47.7	-6.4
CII	Carovilli	6.75	307	ePn	Pn	03 37 47.5	+1.0
CII	Carovilli	6.75	307	ePn	Pn	03 37 47.5	+1.1
SDI	San Donato	7.05	305	ePn	Pn	03 37 50.6	-0.2
SDI	San Donato	7.05	305	ePn	Pn	03 37 50.6	-0.1
MLR	Muntele Rosu	8.31	22	Pn	P	03 38 04.4	-3.9
	0.1nm,0.3s,baz=225,slow=4.3,SNR=2.2						
MLR				LR	LR	03 40 25.6	
	comp=Z,58nm,18.9s,baz=221,slow=32						
MLR	Muntele Rosu	8.31	22	Pn	P	03 38 04.4	-3.9
BRTR	Keskin Array B	9.66	75	Pn	P	03 38 23.2	-3.7
	0.1nm,0.3s,baz=259,slow=12,SNR=2.7						
VOY	Vojsko	9.93	328	eSn	Sn	03 40 15.8	-7.8
VOJS	Vojsko	9.93	328	ePn	P	03 38 27.5	-3.1
ZST	Bratislava	10.81	344	eSN	S	03 40 46.5	+1.3
GERES	GERESS Array B	12.35	335	Pn	P	03 39 00.1	-3.5
	0.2nm,0.3s,baz=163,slow=14,SNR=4.2						
HAQS	Haql	14.23	124	P	P	03 39 26.5	-2.1
ESDC	Sonseca Array	19.92	283	P	P	03 40 38.5	-1.0
	0.2nm,0.3s,baz=70,slow=12,SNR=4.1						
HFS	Hagfors	22.84	350	P	P	03 41 06.9	-2.1
	2.2nm,0.6s,mb3.8,baz=146,slow=11,SNR=12						
FINES	FINESS Array B	23.78	5	P	P	03 41 16.2	-1.9
	1.8nm,0.9s,mb3.5,baz=170,slow=8.5,SNR=5.7						
NB2	NORSAR Subarra	24.08	348	P	P	03 41 19.0	-2.1
	0.9nm,0.6s,mb3.4,baz=161,slow=10						
NOA	NORSAR Array B	24.08	348	P	P	03 41 18.0	-3.1
	1.1nm,0.6s,mb3.5,baz=158,slow=8.9,SNR=5.8						
EKA	Eskdalemuir Ar	24.13	324	P	P	03 41 20.4	-1.2
	1.3nm,0.6s,mb3.6,baz=126,slow=10,SNR=7.1						
ARCES	ARCESS Array B	31.80	3	P	P	03 42 29.5	-2.0
	5.5nm,1.0s,mb4.3,baz=198,slow=11,SNR=2.8						
ARCES	ARCESS Array B	31.80	3	P	P	03 42 29.4	-2.0
BVAR	Borovoye Array	36.73	50	P	P	03 43 11.5	-2.5
	0.2nm,0.4s,mb3.3,baz=270,slow=7.2,SNR=2.0						
CHKZ	Chkalovo	36.92	48	eP	P	03 43 15.9	+0.3
	9.8nm,1.4s,mb4.5						

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*WAR **02** 03:41:51.7, 51.45N×16.16E, h1^{km}, ML2.6, Mining Induced*

*PRU **02** 03:41:52.5, 51.40N×16.20E*

ISC 02 03:41:50.4±1.0**, 51.43N**±0.04×**16.09E**±0.07**, n10, σ1^{s}14**/21**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.60	168	ePG	Pg	03 42 03.0	+0.5
KSP				eSG	Sg	03 42 11.0	+0.5
UPC	Upice	0.93	183	ePG	Pg	03 42 10.0	+1.1
DPC	Dobruska-Polom	1.09	172	ePG	Pg	03 42 12.5	+0.3
DPC				eSG	Sg	03 42 27.0	+0.2
PVCC	Panska Ves	1.32	227	ePG	Pg	03 42 17.0	+0.2
PRU	Pruhonice	1.75	215	PG	Pg	03 42 24.2	-1.1
PRU				SG	Sg	03 42 48.3	-0.3
	12nm,0.3s						
CLL	Collm	1.94	268	ePN	Pn	03 42 26.0	+1.0
CLL				i PG	Pg	03 42 28.5	-0.7
CLL				e		03 42 32.0	
CLL				i SG	Sg	03 42 56.1	+1.1
OKC	Ostrava-Krasne	2.06	140	eSG	Sg	03 42 55.4	-3.7
NKC	Novy Kostel	2.60	244	ePN	Pn	03 42 35.9	+1.4
NKC				ePG	Pg	03 42 43.1	+0.7
NKC				eSG	Sg	03 43 16.4	-0.7
KHC	Kasperske Hory	2.81	216	ePN	Pn	03 42 38.6	+1.2
KHC				ePG	Pg	03 42 43.8	-2.7
KHC				eSN	Sn	03 43 13.0	+0.5
KHC				eSG	Sg	03 43 21.9	-2.1
BSD	Bornholm Skovb	3.76	350	i P	Pn	03 42 49.1	-1.8
BSD				i S	Sn	03 43 29.8	-6.7
BSD				i		03 43 35.3	

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*BJI **02** 03:45:30.8, 3.33S×135.75E, h13^{km}, mB5.8, mb5.1, Ms5.5, Msz5.3*

*IDC **02** 03:45:31.5±0.4, 3.34S×135.49E, mb5.0/15, mb1 5.2/19, mb1mx5.2/20, ML4.8/4, MS5.3/12, Ms1 5.4/12, ms1mx5.0/22, Error ellipse: s-maj=21.5km s-min=11.5km az=73.0*

*HRVD **02** 03:45:33.3±0.2, 3.34S×135.45E, h14^{km}±1^{km}, MW5.7/74, Centroid moment Tensor Solution. LP body waves: s59,c106; Mantle waves: s74,c162; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.16±.07; $M_{\theta\theta}$-1.81±.06; $M_{\phi\phi}$1.97±.07; $M_{r\theta}$-2.35±.26; $M_{\theta\phi}$-3.50±.07; $M_{\phi r}$0.83±.18; Best double couple: $M_0$4.69×10^{17} NP1:ϕ_s15°, δ58°, λ0°. NP2:ϕ_s285°, δ90°, λ148°. Principal axes: T 4.84, Plg22°, Azm235°; N -.29, Plg58°, Azm104°; P -4.54, Plg22°, Azm334°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **02** 03:45:33.3±0.2, 3.35S×135.45E, h10^{km}, mb5.5/47, MS5.6/128 Error ellipse: s-maj=6.2km s-min=5.4km az=85.0*

NEIC Felt [V] at Nabire.

*SYO **02** 03:45:33.2, 3.32S×135.45E, h10^{km}, MB5.6, MS5.7*

*DJA **02** 03:45:34.7±0.2, 3.50S×135.41E, h33^{km}, mb5.5/7, Error ellipse: s-maj=13.6km s-min=6.5km az=179.0*

*MOS **02** 03:45:35.5±1.4, 3.25S×135.52E, h33^{km}, mb5.6/27, MS5.3/10, Error ellipse: s-maj=16.2km s-min=7.0km az=107.9*

ISC 02 03:45:30.6±1.1**, 3.44S**±0.03×**135.47E**±0.04**, h8^{km}**±7^{km}**, h12^{km}**±1.5^{km}**:pP-P, n357, σ1^{s}21**/221**, mb5.4**/85**, MS5.5**/158**, 21C-12D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SWI	Sorong	4.92	301	eP	Pn	03 46 47.0	+0.2
SWI				eS	Sn	03 47 45.0	+0.3
YOMI	Yo Moklole	5.14	81	⇑iP	Pn	03 46 52.6	+2.8
YOMI				⇑ipP		03 46 58.4	
YOMI				i S	Sn	03 47 55.2	+5.0
YOMI	Yo Moklole	5.14	81	⇑ipP		03 46 58.4	
YOMI	Yo Moklole	5.14	81	⇑iP	Pn	03 46 52.6	+2.8
	2μm,0.5s						
YOMI				⇓iS	Sn	03 47 55.2	+5.0
KAKA	Kakadu	9.69	198	eP	P	03 47 52.8	-0.8
	606nm,0.6s						
KAKA				eS	Sn	03 49 38.2	-5.6
PMG	Port Moresby	13.04	118	Pn	P	03 48 38.2	-0.8
	3.4nm,0.3s,baz=311,slow=5.9,SNR=18						
PMG				Sn	S	03 50 57.8	-7.5
	2.4nm,0.3s,baz=338,slow=16,SNR=2.5						
PMG	Port Moresby	13.04	118	eP	P	03 48 37.1	-1.9
PMG				pmax	pmax		
	comp=Z,1μm,1.1s						
PMG	Port Moresby	13.04	118	eP	P	03 48 37.1	-1.9
	comp=Z,1μm,1.2s						
BUNI	Buntu Taipa	15.12	269	⇑iP	P	03 49 08.4	+1.9
	comp=Z,62nm,0.5s						
BUKP	Musuan	15.30	317	eP	P	03 49 18.6	+10
NINI	Niniconang	15.71	266	⇑iP	P	03 49 15.8	+1.6
	comp=Z,566nm,1.1s						
TANI	Tanete Lipujan	16.06	270	⇑iP	P	03 49 22.7	+4.0
	comp=Z,66nm,1.4s						
WRAB	Tennant Creek	16.43	184	eP	P	03 49 20.1	-3.3
WRAB				pmax	pmax		
	comp=Z,920nm,0.9s						
WRAB	Tennant Creek	16.43	184	eP	P	03 49 20.1	-3.3
	comp=Z,916nm,0.9s						
WRAB				eS	S	03 52 11.5	-14
WB2	Warramunga Arr	16.44	184	⇓iP	P	03 49 20.2	-3.3
WB2				i		03 49 28.5	
WB2				eS	S	03 52 14.2	-12
WRA	Warramunga Arr	16.44	184	Pn	P	03 49 20.0	-3.5
	comp=Z,5.1nm,0.3s,baz=4.6,slow=13,SNR=51						
WRA				Sn	S	03 52 14.3	-12
	comp=Z,14nm,0.3s,baz=10,slow=22,SNR=7.9						
WRA	Warramunga Arr	16.44	184	i P	P	03 49 20.0	-3.5
WRA				pmax	pmax		
	comp=Z,33nm,0.5s						
PAGZ	Pagadian	16.47	313	eP	P	03 49 23.6	-0.3
FITZ	Fitzroy Crossi	17.47	213	⇓iP	P	03 49 36.5	0.0
	comp=Z,276nm,1.6s						
FITZ				eS	S	03 52 38.8	-11
FITZ	Fitzroy Crossi	17.47	213	P	P	03 49 36.0	-0.5
	comp=Z,6.2nm,0.3s,baz=24,slow=9.9,SNR=42						
FITZ				S	S	03 52 40.0	-9.4
	comp=Z,14nm,0.3s,baz=176,slow=14,SNR=7.0						
FITZ				LR	LR	03 55 53.7	
	comp=Z,5μm,20.8s,baz=62,slow=35						
SNPH	Sibulan	17.60	316	eP	P	03 49 40.7	+2.5
GUIM	Jordan	18.96	318	eP	P	03 49 53.5	-1.4
RCP	Roxas	19.55	320	⇑eP	P	03 50 03.3	+1.5
CTA	Charters Tower	19.61	148	⇓iP	P	03 50 03.3	+0.9
	comp=Z,192nm,1.1s						
CTA				eS	S	03 53 25.6	-12
CTA	Charters Tower	19.61	148	P	P	03 50 02.8	+0.4
	comp=Z,3.8nm,0.3s,baz=326,slow=13,SNR=62						
CTAO	Charters Tower	19.61	148	eP	P	03 50 03.6	+1.2
CTAO				pmax	pmax		
	comp=Z,370nm,1.0s						
CTAO	Charters Tower	19.61	148	eP	P	03 50 03.6	+1.1
	comp=Z,373nm,1.1s						
KEDI	Kedomdong	19.89	255	⇑iP	P	03 50 03.7	-1.9
	comp=Z,472nm,1.0s						
ASAR	Alice Springs	20.17	184	P	P	03 50 09.2	+0.7
	comp=Z,446nm,0.6s,baz=9.0,slow=10,SNR=403						
ASAR				LR	LR	03 57 34.4	
	comp=Z,5μm,18.3s,MS4.9,baz=2.4,slow=36						
ASAR	Alice Springs	20.17	184	P	P	03 50 09.2	+0.7
ASAR				LR	LR	03 57 34.4	
CUYO	Cuyo Island	20.21	315	eP	P	03 50 10.0	+1.0
RATI	Rata	20.50	254	⇑iP	P	03 50 10.9	-1.2
	comp=Z,395nm,1.2s						
OTRP	Odiongan	20.62	320	eP	P	03 50 16.4	+3.1
PPR	Puerto Princes	21.23	308	⇓eP	P	03 50 27.3	+7.8
SJMP	San Jose	21.28	318	eP	P	03 50 18.7	-1.3
KELI	Kelakatan	21.40	256	⇑iP	P	03 50 20.7	-0.5
	comp=Z,766nm,1.2s,mb5.6						
BATP	Bataraza	21.40	305	eP	P	03 50 22.9	+1.6
BOAC	Boac	21.56	321	eP	P	03 50 25.4	+2.6
ENPP	El Nido	21.60	313	eP	P	03 50 22.7	-0.5
SRDI	Scrawed	21.79	256	⇑iP	P	03 50 25.6	+0.4
	comp=Z,435nm,1.0s,mb5.5						
TGY	Tagaytay City	22.61	321	P	P	03 50 34.8	+1.3
	comp=Z,103nm,0.4s,mb5.6,baz=98,slow=7.1,SNR=3.8						
LUBP	Lubang	22.79	319	eP	P	03 50 35.1	-0.1
MBWA	Marble Bar	23.34	220	P	P	03 50 42.4	+1.9
MBWA	Marble Bar	23.34	220	eP	P	03 50 42.8	+2.3
	comp=Z,288nm,1.0s,mb5.7						
MBWA				LR	LR		
	comp=Z,16μm,19.0s,MS5.5						
NBP	Mount Natib	23.43	321	eP	P	03 50 42.3	+0.9
BALP	Baler	23.50	325	eP	P	03 50 43.4	+1.3
CAUP	Cauayan	24.33	327	eP	P	03 50 55.2	+5.1
SCZP	Santa Cruz	24.52	322	eP	P	03 50 49.3	-2.8
CVP	Callao Caves	24.95	328	eP	P	03 50 57.0	+0.8
FORT	Forrest	28.08	194	eP	P	03 51 25.9	+0.9
	comp=Z,307nm,0.8s,mb6.0						
STKA	Stephens Creek	28.87	169	eP	P	03 51 32.2	+0.2
	comp=Z,39nm,0.7s,mb5.2						
STKA	Stephens Creek	28.87	169	P	P	03 51 32.2	+0.2
	comp=Z,50nm,0.7s,mb5.3,baz=338,slow=6.8,SNR=33						
JOW	Kunigami	30.88	347	LR	LR	04 04 00.4	
	comp=Z,4μm,18.0s,MS5.1,baz=173,slow=36						
TATO	Taipei	31.34	335	PFAKE		03 52 10.0	+16
TATO				LR	LR		
	comp=Z,5μm,20.0s,MS5.2						
KGM	Kluang	32.59	279	eP	P	03 52 08.0	+2.9
KLBR	Kellerberrin	32.59	209	eP	P	03 52 05.5	+0.5
	comp=Z,68nm,1.0s,mb5.5						
QIZ	Qiongzhong	33.68	312	P	P	03 52 15.8	+1.3
QIZ				S	S	03 57 28.3	-8.4
QIZ				LR	LR		
	comp=N,3μm,14.1s						
QIZ				LR	LR		
	comp=E,3μm,25.0s						
QIZ				LR	LR		
	comp=Z,5μm,24.6s						
QIZ	Qiongzhong	33.68	312	eP	P	03 52 13.5	-1.1
	comp=Z,62nm,1.2s,mb5.4						
QIZ				LR	LR		
	comp=Z,4μm,21.0s,MS5.1						
NWAO	Narrogin (SRO)	33.95	208	P	P	03 52 16.9	+0.2
	comp=Z,31nm,1.0s,mb5.2,baz=24,slow=9.7,SNR=3.5						
NWAO	Narrogin (SRO)	33.95	208	eP	P	03 52 16.9	+0.2
	comp=Z,278nm,1.5s,mb6.0						
NWAO				ePP	PP	03 53 36.4	+6.1
NWAO				LR	LR		
	comp=Z,7μm,20.0s,MS5.4						
TOO	Toolangi	35.19	166	eP	P	03 52 28.1	+0.7
	comp=Z,19nm,1.0s,mb5.0						
NOUC	Port Laguerre	35.19	124	eP	P	03 52 27.7	+0.1
DZM	Mont Dzumac	35.30	124	eP	P	03 52 26.8	-1.6
SNG	Songkhla	36.35	287	P	P	03 52 38.0	+0.6
SSE	Sheshan	36.94	339	P	P	03 52 42.1	-0.1
SSE				S	S	03 58 27.2	+0.3
SSE				XS		03 58 32.8	
SSE				AMB	AMB		
	comp=Z,51nm,0.9s,mb5.3						
SSE				AMB	AMB		
	comp=Z,3μm,12.0s						
SSE				LR	LR		
	comp=N,3μm,19.8s,MS5.3						
SSE				LR	LR		
	comp=E,3μm,19.6s,MS5.3						
SSE				LR	LR		
	comp=Z,5μm,20.0s,MS5.3						
WAKE	Wake Island	38.08	52	PFAKE		03 53 00.0	+8.1
WAKE				LR	LR		
	comp=Z,31μm,20.0s,MS6.1						
NJ2	Nanjing	38.66	337	eP	P	03 52 57.0	+0.3
NJ2				AP	pP	03 53 07.1	+8.1
NJ2				XP	sP	03 53 10.4	+10
NJ2				PP	PP	03 54 32.2	+3.4
NJ2				PPP	PPP	03 54 53.5	+1.9
NJ2				S	S	03 58 50.0	-3.1
NJ2				XS		03 59 06.0	
NJ2				AMB	AMB		
	comp=Z,80nm,1.0s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,7μm,6.2s						
NJ2				LR	LR		
	comp=N,11μm,16.2s,MS5.8						
NJ2				LR	LR		
	comp=E,6μm,15.8s,MS5.8						
NJ2				LR	LR		
	comp=Z,11μm,17.4s,MS5.8						
NNT	Nongplab	38.91	295	P	P	03 53 04.0	+5.1
COCO	West Island	39.21	255	PFAKE		03 53 10.0	+8.6
COCO				LR	LR		
	comp=Z,537nm,21.0s						
WHN	Wuhan	39.35	331	⇑P	P	03 53 03.9	+1.5
MAJO	Matsushiro	39.85	3	eP	P	03 53 04.8	-1.8
	comp=Z,39nm,0.9s,mb5.1						
MAJO				LR	LR		
	comp=Z,5μm,19.0s,MS5.4						
MAT	Matsushiro	39.85	3	P	P	03 53 04.5	-2.0
MAT	Matsushiro	39.85	3	eP	P	03 53 05.0	-1.5
	comp=Z,24nm,0.9s,mb4.9						
MAT				LR	LR		
	comp=Z,5μm,20.0s,MS5.3						
GYA	Guiyang	40.74	319	P	P	03 53 12.8	-1.1
GYA				AP	pP	03 53 17.9	+1.7
GYA				XP	sP	03 53 20.4	+3.2
GYA				PP	PP	03 54 50.4	-0.7
GYA				S	S	03 59 25.2	+0.9
GYA				AMB	AMB		
	comp=Z,60nm,1.5s,mb5.0						
GYA				LR	LR		
	comp=N,2μm,21.0s						
GYA				LR	LR		
	comp=E,3μm,27.6s						
GYA				LR	LR		
	comp=Z,5μm,38.0s						
NANT	Nan	40.74	304	P	P	03 53 12.0	-1.9
ENH	Enshi	41.72	325	eP	P	03 53 21.4	-0.6
	comp=Z,34nm,0.9s,mb5.0						
ENH				LR	LR		
	comp=Z,2μm,19.0s,MS5.1						
CMAR	Chiang Mai Arr	42.04	302	P	P	03 53 24.3	-0.5
	comp=Z,6.2nm,0.9s,mb4.3,baz=121,slow=6.4,SNR=18						
CMAR				PcP	PcP	03 55 20.4	-0.1
	comp=Z,2.6nm,0.9s,baz=166,slow=3.7,SNR=2.0						
CMAR				LR	LR	04 11 38.7	
	comp=Z,2μm,18.3s,MS5.0,baz=213,slow=37						
CHG	Chiang Mai	42.21	303	⇑P	P	03 53 26.1	0.0
	comp=Z,16nm,1.2s,mb4.5						
KMI	Kunming	42.60	314	eP	P	03 53 30.2	+0.9
KMI				S	S	03 59 43.8	-8.2

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KMI                             AMB    AMB
      comp=Z,36nm,1.2s,mb5.0
KMI                             LR     LR
      comp=N,3µm,16.1s
KMI                             LR     LR
      comp=E,3µm,23.4s
KMI                             LR     LR
      comp=Z,4µm,24.9s
TIA   Tai’an          43.01 338 eP     P      03 53 34.0 +1.5
DL2   Dalian          44.03 344  P     P      03 53 42.9 +2.2
DL2                             AMB    AMB
      comp=Z,20nm,1.6s,mb4.6
DL2                             LR     LR
      comp=N,970nm,24.7s
DL2                             LR     LR
      comp=E,2µm,16.5s
DL2                             LR     LR
      comp=Z,2µm,20.0s,MS5.0
XAN   Xi’an           44.90 328  P     P      03 53 47.7 -0.1
XAN                              S     S      04 00 19.3 -6.0
XAN                             AMB    AMB
      comp=Z,15nm,1.1s,mb4.7
XAN                             LR     LR
      comp=N,1µm,15.5s,MS5.1
XAN                             LR     LR
      comp=E,2µm,18.1s,MS5.1
XAN                             LR     LR
      comp=Z,3µm,22.8s,MS5.2
CD2   Chengdu         45.62 321 eP     P      03 53 53.0 -0.6
CD2                             eS     S      04 00 36.6 +1.0
CD2                             AMB    AMB
      comp=Z,10.0nm,1.1s,mb4.7
CD2                             LR     LR
      comp=E,3µm,18.0s
CD2                             LR     LR
      comp=Z,3µm,16.8s,MS5.3
SNY   Shenyang        46.33 348 ⇓P     P      03 53 57.4 -1.6
SNY                             LR     LR
      comp=N,3µm,18.2s,MS5.4
SNY                             LR     LR
      comp=E,2µm,17.8s,MS5.4
SNY                             LR     LR
      comp=Z,4µm,19.2s,MS5.4
BJT   Baijiatuau      46.73 340 eP     P      03 54 01.8 -0.5
      comp=Z,141nm,1.1s,mb5.8
BJT                             LR     LR
      comp=Z,8µm,20.0s,MS5.7
ASAJ  Asahikawa       47.77   7  P     P      03 54 09.3 -1.1
      comp=Z,35nm,0.7s,mb5.5,baz=228,slow=16,SNR=16
CN2   Changchun       47.88 350 eP     P      03 54 09.8 -1.4
CN2                             eS     S      04 01 06.5 -1.1
CN2                             AMB    AMB
      comp=Z,10.0nm,1.0s,mb4.8
CN2                             AMB    AMB
      comp=Z,400nm,10.0s
CN2                             LR     LR
      comp=N,2µm,18.0s,MS5.4
CN2                             LR     LR
      comp=E,3µm,18.0s,MS5.4
CN2                             LR     LR
      comp=Z,2µm,19.0s,MS5.2
MDJ   Mudanjiang      48.13 354  P     P      03 54 13.0 -0.1
MDJ                             AP     pP     03 54 16.1 +0.6
MDJ                             XP     sP     03 54 17.4 +1.0
MDJ                             PCP    PcP    03 55 40.2 -0.9
MDJ                             PP     PP     03 56 03.7 -1.2
MDJ                             SCP           03 59 34.7
MDJ                             PCS           03 59 36.2
MDJ                             S      S      04 01 14.0 +2.9
MDJ                             XS            04 01 19.4
MDJ                             SCS    ScS    04 04 04.9 +0.9
MDJ                             AMB    AMB
      comp=Z,51nm,0.9s,mb5.5
MDJ                             AMB    AMB
      comp=Z,491nm,5.2s
MDJ                             LR     LR
      comp=N,1µm,17.6s
MDJ                             LR     LR
      comp=E,2µm,23.2s
MDJ                             LR     LR
      comp=Z,1µm,19.5s,MS5.0
MDJ   Mudanjiang      48.13 354 eP     P      03 54 12.8 -0.4
      comp=Z,52nm,0.8s,mb5.6
MDJ                             LR     LR
      comp=Z,2µm,19.0s,MS5.1
IMP   Imphal          49.13 307 eP     P      03 54 19.7 -1.4
LZH   Lanzhou         49.19 326 ⇑P     P      03 54 21.5  0.0
LZH                             AP     pP     03 54 24.8 +1.0
LZH                             PP     PP     03 56 15.6  0.0
LZH                             S      S      04 01 25.7 -0.4
LZH                             XS            04 01 36.6
LZH                             SS     SS     04 04 52.7 -0.5
LZH                             AMB    AMB
      comp=Z,194nm,1.5s,mb5.9
LZH                             AMB    AMB
      comp=Z,829nm,6.2s
LZH                             LR     LR
      comp=N,2µm,13.2s
LZH                             LR     LR
      comp=Z,4µm,18.0s,MS5.4
HHC   Hu-ho-hao-te    49.20 336 eP     P      03 54 21.9 +0.5
HHC                             AP     pP     03 54 26.4 +2.6
HHC                             XP     sP     03 54 29.2 +4.5
HHC                             PCP    PcP    03 55 46.7 +1.7
HHC                             PP     PP     03 56 15.3 -0.3
HHC                             SCP           03 59 39.8
HHC                             PCS           03 59 41.0
HHC                             S      S      04 01 25.2 -0.9
HHC                             XS            04 01 32.7
HHC                             SCS    ScS    04 04 10.1 -1.0
HHC                             SS     SS     04 04 53.8 +0.5
HHC                             AMB    AMB
      comp=Z,30nm,1.2s,mb5.2
HHC                             LR     LR
      comp=N,2µm,16.4s,MS5.1
HHC                             LR     LR
      comp=E,654nm,16.6s,MS5.1
HHC                             LR     LR
      comp=Z,2µm,17.8s,MS5.2
BTO   Baotou          49.63 335 eP     P      03 54 24.5 -0.3
BTO                             AMB    AMB
      comp=Z,38nm,2.1s,mb5.1
BTO                             LR     LR
      comp=N,386nm,4.7s
BTO                             LR     LR
      comp=E,1µm,5.7s
YSS   Yuzh-Sakhalins  50.59   6⇑eP     P      03 54 32.0  0.0
YSS                             e             03 54 50.2
YSS                             S      S      04 01 33.0  -12
YSS                             pmax   pmax
      comp=Z,80nm,0.9s,mb5.7
YSS                             MLR    MLR
      comp=N,3µm,20.0s
YSS                             MLR    MLR
      comp=Z,3µm,20.0s,MS5.3
YSS   Yuzh-Sakhalins  50.59   6 eP     P      03 54 31.8 -0.2
      comp=Z,71nm,0.8s,mb5.7
YSS                             LR     LR
      comp=Z,4µm,20.0s,MS5.4
AGT   Agartala        50.89 305⇓iP     P      03 54 32.0 -2.6
AGT                             i             03 55 32.0
RPZ   Rata Peaks      50.97 147  P     P      03 54 35.9 +1.0
      comp=Z,17nm,0.5s,mb5.2,baz=5.3,slow=3.8,SNR=2.9
RPZ                             LR     LR     04 15 38.5
      comp=Z,10µm,18.1s,MS5.9,baz=305,slow=35
RAO   Raoul Island    51.08 125 PFAKE         03 54 50.0  +14
RAO                             LR     LR
      comp=Z,3µm,20.0s,MS5.3
SHL   Shillong        51.13 307 eP     P      03 54 36.0 -0.4
      comp=Z,65nm,1.0s,mb5.5
SHL                             e             04 01 45.0
URZ   Urewera         51.39 138  P     P      03 54 38.7 +0.4
      comp=Z,30nm,1.1s,mb5.2,baz=52,slow=4.2,SNR=5.9
AFI   Afiamalu        53.06 105 PFAKE         03 55 00.0 +8.9
AFI                             LR     LR
      comp=Z,3µm,19.0s,MS5.4
LSA   Lhasa           53.70 311  P     P      03 54 57.0 +1.4
GTA   Gaotai          53.79 326  P     P      03 54 56.7 +0.6
GTA                             AP     pP     03 55 01.2 +2.7
GTA                             XP     sP     03 55 03.7 +4.3
GTA                             PCP    PcP    03 56 01.8 -0.2
GTA                             PP     PP     03 57 00.6 +1.8
GTA                             PPP    PPP    03 58 09.4 +2.2
GTA                             PCS           04 00 02.4
GTA                             S      S      04 02 30.4 +1.1
GTA                             XS            04 02 39.5
GTA                             PS     PS     04 02 43.4 +3.1
GTA                             SCS    ScS    04 04 41.9 -0.8
GTA                             SS     SS     04 06 10.8 +1.1
GTA                             AMB    AMB
      comp=Z,27nm,1.5s,mb5.0
GTA                             LR     LR
      comp=N,1µm,23.7s,MS5.1
GTA                             LR     LR
      comp=E,1µm,21.4s,MS5.1
GTA                             LR     LR
      comp=Z,2µm,22.9s,MS5.2
HIA   Hailar          54.24 347 eP     P      03 54 58.3 -0.9
      comp=Z,18nm,1.0s,mb5.0
HIA                             LR     LR
      comp=Z,5µm,19.0s,MS5.6
MIDW  Midway          55.18  52 PFAKE         03 55 20.0  +14
MIDW                            LR     LR
      comp=Z,6µm,21.0s,MS5.6
VIS   Vishakhapatnam  55.54 294 eP     P      03 55 07.5 -1.7
PALK  Pallekele       55.68 281 eP     P      03 55 08.1 -2.1
      comp=Z,28nm,1.3s,mb5.1
PALK                            LR     LR
      comp=Z,490nm,20.0s,MS4.6
ULN   Ulaanbaatar     56.83 337 eP     P      03 55 17.4 -0.7
      comp=Z,28nm,1.0s,mb5.2
ULN                             LR     LR
      comp=Z,3µm,21.0s,MS5.4
GUN   Gumba           56.98 307 eP     P      03 55 19.7 +0.3
      comp=Z,281nm,0.8s,mb6.4
SONM  Songino Array   57.06 337  P     P      03 55 19.9 +0.2
      comp=Z,3.9nm,0.6s,mb4.6,baz=154,slow=7.8,SNR=28
PKI   Pulchoki        57.22 306 eP     P      03 55 21.1  0.0
KKN   Kakani          57.41 306 eP     P      03 55 22.5  0.0
      comp=Z,159nm,0.9s,mb6.1
DMN   Daman           57.48 306 eP     P      03 55 23.2 +0.2
      comp=Z,214nm,0.8s,mb6.2
GKN   Gorkha          58.02 306 eP     P      03 55 26.9 +0.2
      comp=Z,327nm,1.0s,mb6.3
KOLN  Koldanda        58.77 305 eP     P      03 55 32.5 +0.6
      comp=Z,326nm,1.0s,mb6.3
PET   Petropavlovsk   59.55  16 eP     P      03 55 38.0 +1.0
PET                             pmax   pmax
      comp=Z,40nm,2.1s,mb5.1
PET   Petropavlovsk   59.55  16 PFAKE         03 55 50.0  +13
PET                             LR     LR
      comp=Z,1µm,19.0s,MS5.1
HYB   Hyderabad       59.84 292 eP     P      03 55 38.0 -1.5
HYB   Hyderabad       59.84 292 i P    P      03 55 38.0 -1.5
ZAK   Zakamensk       60.32 337⇓iP     P      03 55 42.0 -0.4
CLNS  Chul’man        60.69 353 eP     P      03 55 46.8 +2.1
CLNS                            pmax   pmax
      comp=Z,40nm,1.1s,mb5.5
CLNS                            pmax   pmax
      comp=N,20nm,0.8s
CLNS                            pmax   pmax
      comp=E,6.0nm,0.7s
CLNS                            MLR    MLR
      comp=N,1µm,14.0s,MS5.1
CLNS                            MLR    MLR
      comp=Z,2µm,14.0s,MS5.3
CLNS                            MLR    MLR
      comp=E,200nm,17.0s,MS5.1
TLY   Talaya          61.22 338 eP     P      03 55 47.9 -0.5
      comp=E,16nm,0.7s,mb5.2
TLY                             LR     LR
      comp=Z,741nm,20.0s,MS4.8
IRK   Irkutsk         61.44 339 eP     P      03 55 48.9 -1.0
PTH   Pithoragarh     62.19 306 eP     P      03 55 54.6 -0.7
PTH                             e             03 59 28.8
MOY   Mondy           62.23 337 eP     P      03 55 56.1 +0.8
BHPL  Bhopal          62.45 298 eP     P      03 55 54.9 -2.2
BHPL                            e      pP     03 55 58.5 -1.0
      comp=Z,52nm,1.7s
DGAR  Diego Garcia    62.82 263 PFAKE         03 56 10.0  +10
DGAR                            LR     LR
      comp=Z,475nm,20.0s,MS4.7
AGRA  Agra            63.25 303 eP     P      03 56 01.1 -1.2
BOD   Bodaibo         63.46 347 eP     P      03 56 01.5 -1.8
WMQ   Urumqi          63.61 323 ⇑P     P      03 56 05.6 +1.1
WMQ                             AP     pP     03 56 10.1 +3.2
WMQ                             XP     sP     03 56 12.7 +4.9
WMQ                             PCP    PcP    03 56 42.0 +1.2
WMQ                             S      S      04 04 36.9 -0.1
WMQ                             XS            04 04 45.1
WMQ                             AMB    AMB
      comp=Z,101nm,0.9s,mb5.8
WMQ                             LR     LR
      comp=N,3µm,25.2s,MS5.4
WMQ                             LR     LR
      comp=E,946nm,21.1s,MS5.4
WMQ                             LR     LR
      comp=Z,2µm,25.3s,MS5.3
ASOR  Ausora          63.91 304 eP     P      03 56 05.7 -1.0
MA2   Magadan         63.97   9  P     P      03 56 04.2 -2.5
      comp=Z,49nm,1.1s,mb5.5
MA2                             LR     LR
      comp=Z,1µm,19.0s,MS5.2
DDI   Dehra Dun       64.22 306 eP     P      03 56 08.2 -0.6
SONA  Sohna           64.31 304 eP     P      03 56 08.0 -1.4
SONA                            e      pP     03 56 09.8 -2.0
      comp=Z,216nm,1.4s
NDI   New Delhi       64.34 304 eP     P      03 56 07.0 -2.6
NDI                             eS     S      04 04 47.0 +0.7
AYAN  Aya Nagar       64.35 304 eP     P      03 56 09.1 -0.5
AYAN                            e      pP     03 56 11.7 -0.4
      comp=Z,108nm,1.4s
FX1   Attu Island--F  64.45  24  P     P      03 56 09.9 +0.1
      comp=Z,28nm,0.8s,mb5.3,baz=90,slow=19,SNR=5.6
POO   Poona           64.45 292⇑iP     P      03 56 07.5 -2.9
      comp=Z,70nm,1.0s,mb5.7
BHGR  Bahadurgarh     64.57 304 eP     P      03 56 10.1 -0.9
SMY   Shemya          64.72  25 PFAKE         03 56 20.0 +8.4
SMY                             LR     LR
      comp=Z,6µm,22.0s,MS5.7
KKR   Kurukshetra     65.10 305 e      P      03 56 09.5 -4.9
CASY  Casey           65.12 191 eP     P      03 56 14.2 +0.3
      comp=Z,108nm,1.6s,mb5.6
CASY                            LR     LR
      comp=Z,4µm,20.0s,MS5.6
KHET  Khetri          65.32 303 eP     P      03 56 15.9  0.0
KHET                            e      pP     03 56 17.6 -0.7
      comp=Z,167nm,0.8s
YAK   Yakutsk         65.44 357 eP     P      03 56 17.7 +1.6
YAK                             e*PP   pP     03 56 26.8 +8.3
YAK                             e             03 56 43.0
YAK                             e             03 58 44.6
YAK                             ePPP   PPP    04 00 12.8 -3.9
YAK                             eS     S      04 04 58.8 -0.4
YAK                             e             04 06 09.5
YAK                             eSS    SS     04 09 15.8 +1.6
YAK                             pmax   pmax
      comp=Z,16nm,0.9s,mb5.0
YAK                             pmax   pmax
      comp=N,11nm,1.2s
YAK                             pmax   pmax
      comp=E,3.0nm,1.3s
YAK                             pmax   pmax
      comp=N,5.0nm,1.0s
YAK                             pmax   pmax
      comp=Z,9.0nm,1.0s,mb4.8
YAK                             pmax   pmax
      comp=E,2.0nm,0.9s
YAK                             smax
      comp=N,563nm,11.8s
YAK                             smax
      comp=E,167nm,7.9s
YAK   Yakutsk         65.44 357 eP     P      03 56 14.3 -1.7
      comp=E,57nm,0.8s,mb5.7
YAK                             LR     LR
      comp=Z,3µm,20.0s,MS5.5
SDNR  Sundarnagar     65.51 307 i P    P      03 56 17.6 +0.5
      comp=Z,113nm,0.6s,mb6.1
AJM   Ajmer           65.81 301 eP     P      03 56 17.0 -2.1
BHK   Bhakra          65.92 307 eP     P      03 56 23.0 +3.3
BHK                             eS     S      04 05 06.2 +0.5
THN   Thein Dam       66.83 307 eP     P      03 56 23.4 -2.1
KIWB  Kanaga Island   68.13  29 eP     P      03 56 33.0 -0.3
MKAR  Makanchi Array  68.42 324 i P    P      03 56 35.9 +0.7
MKAR                            pmax   pmax
      comp=Z,97nm,1.0s
JASL  Jaisalmer       69.15 300 eP     P      03 56 36.5 -3.6
KSH   Kashi           69.26 315  P     P      03 56 42.2 +1.7
KSH                             eAP    pP     03 56 46.6 +3.6
KSH                             XP     sP     03 56 49.0 +5.2
KSH                             ePCP   PcP    03 57 05.2 +0.9
KSH                             ePP    PP     03 59 18.3 +2.5
KSH                             ePPP   PPP    04 00 57.7 +3.4
KSH                             eSCP          04 01 07.1
KSH                             ePCS          04 01 09.1
KSH                              S     S      04 05 49.1 +3.5
KSH                              XS           04 05 56.7
KSH                             ePS    PS     04 06 17.6 +5.3
KSH                              SCS   ScS    04 06 39.0 +0.8
KSH                             eSS    SS     04 10 20.0 +6.1
KSH                              AMB   AMB
      comp=Z,250nm,2.5s,mb5.7
KSH                              LR    LR
      comp=N,630nm,12.5s,MS5.3
KSH                              LR    LR
      comp=E,970nm,14.7s,MS5.3
MIR   Mirnyy          69.56 197⇓eP     P      03 56 46.7 +4.8
MIR                             e             03 59 16.0
MIR                             ePPP   PPP    04 01 00.0 +3.2
MIR                             eS     S      04 05 49.0 +0.4
MIR                              pmax  pmax
      comp=Z,180nm,1.6s,mb5.8
MIR                              smax
      comp=N,500nm,12.0s
MIR                              smax
      comp=E,1µm,18.0s
MIR                              MLR   MLR
      comp=N,900nm,18.0s,MS5.2
MIR                              MLR   MLR
      comp=E,900nm,18.0s,MS5.2
MIR                              MLR   MLR
      comp=Z,3µm,18.0s,MS5.6
KIP   Kipapa          69.57  66 PFAKE         03 56 50.0 +7.3
KIP                             LR     LR
      comp=Z,4µm,20.0s,MS5.7
TKM2  Tokmak 2        70.88 318 eP     P      03 56 51.2 +0.8
      comp=Z,34nm,0.8s,mb5.3
TKM2                            LR     LR
      comp=Z,2µm,19.0s,MS5.4
ZAL   Zalesovo        70.97 331  P     P      03 56 50.1 -0.6
      comp=Z,13nm,0.8s,mb4.9,baz=6.0,slow=6.6,SNR=52
ZAL                             LR     LR     04 33 26.2
      comp=Z,1µm,18.1s,MS5.2,baz=342,slow=40
UCH   Uchtor          71.33 317 eP     P      03 56 54.8 +1.7
      comp=Z,47nm,1.0s,mb5.4
UCH                             LR     LR
      comp=Z,2µm,20.0s,MS5.3
FRU   Bishkek         71.50 317 eP     P      03 56 55.0 +0.9
FRU                             pmax   pmax
      comp=Z,100nm,2.0s,mb5.4
FRU                             MLR    MLR
      comp=Z,2µm,18.0s,MS5.3
AAK   Ala-Archa       71.51 317 i P    P      03 56 54.0 -0.1
AAK                             pmax   pmax
      comp=Z,57nm,1.9s,mb5.2
AAK                             MLR    MLR
      comp=Z,2µm,17.0s,MS5.3
AAK   Ala-Archa       71.51 317 eP     P      03 56 54.0 -0.1
      comp=Z,21nm,0.8s,mb5.1
AAK                             LR     LR
      comp=Z,525nm,21.0s,MS4.8
POHA  Pohakuloa       71.52  68 PFAKE         03 57 10.0  +15
POHA                            LR     LR
      comp=Z,1.0nm,19.0s
AML   Almayashu       71.86 316 eP     P      03 56 57.5 +1.3
      comp=Z,66nm,0.9s,mb5.6
AML                             LR     LR
      comp=Z,2µm,22.0s,MS5.4
EKS2  Erkin-Say       72.00 317 eP     P      03 56 57.8 +0.7
      comp=Z,26nm,0.7s,mb5.3
EKS2                            LR     LR
      comp=Z,2µm,21.0s,MS5.4
NVS   Novosibirsk     72.24 331⇑iP     P      03 56 57.2 -1.1
NVS                             eS     S      04 06 19.1 -0.9
NVS                             pmax   pmax
      comp=Z,279nm,2.0s,mb5.8
NVS                             pmax   pmax
      comp=N,129nm,1.6s
NVS                             pmax   pmax
      comp=E,126nm,1.6s
NVS                             smax
      comp=E,422nm,2.6s
KURK  Kurchatov       72.48 326d iP    P      03 56 59.6 -0.2
KURK                            pmax   pmax
      comp=Z,80nm,1.7s,mb5.4
KURK  Kurchatov       72.48 326 eP     P      03 56 59.6 -0.1
      comp=Z,44nm,0.9s,mb5.4
KURK                            LR     LR
      comp=Z,322nm,20.0s,MS4.6
UNV   Unalaska Valle  74.62  31 eP     P      03 57 12.3 +0.2
      comp=Z,136nm,1.0s,mb5.8
UNV                             LR     LR
      comp=Z,8µm,21.0s,MS6.0
TIXI  Tiksi           75.07 358 PFAKE         03 57 30.0  +16
TIXI                            LR     LR
      comp=Z,3µm,19.0s,MS5.6
VNDA  Vanda           75.36 174  P     P      03 57 17.0 +0.9
      comp=Z,6.1nm,0.8s,mb4.6,baz=324,slow=5.1,SNR=18
VNDA                            LR     LR     04 29 15.7
      comp=Z,6µm,18.6s,MS6.0,baz=349,slow=35
VNDA  Vanda           75.36 174 eP     P      03 57 17.0 +0.9
VNDA                            pmax   pmax
      comp=Z,29nm,1.2s
VNDA  Vanda           75.36 174 eP     P      03 57 16.9 +0.9
      comp=Z,29nm,1.2s,mb5.1
VNDA                            ePP    PP     04 00 01.6 -5.4
VNDA                            LR     LR
      comp=Z,6µm,19.0s,MS5.9
SBA   Scott Base      76.18 173 eP     P      03 57 25.3 +4.6
      comp=Z,504nm,2.2s,mb6.1
SBA                             LR     LR
      comp=Z,3µm,19.0s,MS5.7
BVA0  Borovoye Array  78.08 326  P     P      03 57 32.1 +0.5
BVA0                            pmax   pmax
      comp=Z,21nm,1.5s,mb4.8
BVAR  Borovoye Array  78.08 326  P     P      03 57 32.1 +0.5
      comp=Z,19nm,0.8s,mb5.1,baz=117,slow=6.6,SNR=88
BRVK  Borovoye        78.15 326 eP     P      03 57 32.2 +0.2
      comp=Z,94nm,1.2s,mb5.6
BRVK                            LR     LR
      comp=Z,298nm,21.0s,MS4.6
CHKZ  Chkalovo        78.20 327 eP     P      03 57 32.3  0.0
CHKZ                            pmax   pmax
      comp=Z,96nm,1.2s,mb5.6
CHKZ  Chkalovo        78.20 327 eP     P      03 57 32.2  0.0
      comp=Z,96nm,1.3s,mb5.6
TNA   Tin City        79.95  21 PFAKE         03 57 50.0 +8.4
TNA                             LR     LR
      comp=Z,1µm,22.0s,MS5.1
MAW   Mawson          80.25 202 eP     P      03 57 44.7 +1.6
      comp=Z,22nm,1.6s,mb4.8
MAW   Mawson          80.25 202  P     P      03 57 43.6 +0.5
      comp=Z,7.8nm,0.8s,mb4.7,baz=70,slow=7.4,SNR=7.5
MAW                             LR     LR     04 28 53.0
      comp=Z,4µm,21.4s,MS5.7,baz=68,slow=32
KDAK  Kodiak Island   83.37  31 eP     P      03 58 00.8 +1.2
      comp=Z,94nm,1.2s,mb5.7
KDAK                            LR     LR
      comp=Z,940nm,21.0s,MS5.1
SLKM  Skilak Lake     85.31  29 eP     P      03 58 09.7 +0.5
IMA   Indian Mountai  85.46  23 eP     P      03 58 11.2 +1.3
IMA                             pmax   pmax
      comp=Z,310nm,1.2s,mb6.3
IMA   Indian Mountai  85.46  23 eP     P      03 58 10.3 +0.4
FIB   Fire Island     85.50  28 PFAKE         03 58 20.0  +10
FIB                             LR     LR
      comp=Z,1µm,20.0s,MS5.4
ARU   Arti            85.64 327 eP     P      03 58 10.6 -0.4
ARU                             e             04 01 29.2
ARU                             eS     S      04 08 34.4 -7.4
ARU                             eSS    SS     04 14 16.3 -4.9
ARU                             eSSS   SSS    04 17 46.9 -3.0
ARU   Arti            85.64 327 eP     P      03 58 10.4 -0.6
      comp=Z,55nm,1.2s,mb5.7
ARU                             LR     LR
      comp=Z,259nm,21.0s,MS4.6
PMR   Palmer          86.10  28 eP     P      03 58 14.8 +1.6
PMR                             LR     LR
      comp=Z,3µm,21.0s,MS5.6
QSPA  South Pole Qui  86.52 180⇑iP     P      03 58 16.6 +1.7
      comp=Z,59nm,1.0s,mb5.8
SML   Sawmill         86.52  28 eP     P      03 58 08.0 -7.2
MCK   McKinley        86.72  26 eP     P      03 58 14.9 -1.3
      comp=Z,44nm,1.2s,mb5.6
MCK                             LR     LR
      comp=Z,1µm,21.0s,MS5.3
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SOKR	**Solikamsk**	**87.22**	**330**	⇓*i*P	**P**	**03 58 22.4**	**+3.7**
SOKR				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
COLA	**College**	**87.46**	**25**	*e*P	**P**	**03 58 19.2**	**-0.6**
	comp=Z,29nm,1.0s,mb5.5						
COLA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
DIV	**Divide**	**87.57**	**28**	*e*P	**P**	**03 58 20.9**	**+0.6**
	comp=Z,447nm,1.2s						
DIV				LR	LR		
	comp=Z,10µm,21.0s						
ILAR	**Eielson Array**	**87.84**	**25**	P	**P**	**03 58 20.4**	**-1.2**
	comp=Z,3.8nm,0.4s,mb5.0,baz=262,slow=4.1,SNR=111						
ILAR				LR	LR	04 37 38.4	
	comp=Z,1µm,20.0s,MS5.3,baz=277,slow=36						
THY	**Trims Highway**	**88.04**	**26**	*e*P	**P**	**03 58 22.5**	**-0.1**
RKT	**Rikitea**	**88.26**	**113**	*e*LR	LR	04 13 27.9	
	comp=Z,1µm,32.5s						
SYO	**Syowa Base**	**88.93**	**201**	⇓P	**P**	**03 58 26.9**	**+0.2**
SYO	**Syowa Base**	**88.93**	**201**	⇑PcP	PcP	03 58 31.7	+3.1
DAWY	**Dawson**	**90.93**	**26**	*e*P	**P**	**03 58 38.3**	**+2.2**
SIT	**Sitka**	**92.42**	**33**	PFAKE		03 59 00.0	+17
SIT				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
INK	**Inuvik**	**93.54**	**22**	P	**P**	**03 58 46.5**	**-1.6**
	comp=Z,1.7nm,1.0s,mb4.4,baz=184,slow=6.9,SNR=6.7						
INK				LR	LR	04 36 09.8	
	comp=Z,2µm,21.8s,MS5.5,baz=259,slow=32						
INK	**Inuvik**	**93.54**	**22**	*e*P	**P**	**03 58 47.7**	**-0.3**
INK				pmax	pmax		
	comp=Z,15nm,1.1s						
INK	**Inuvik**	**93.54**	**22**	*e*P	**P**	**03 58 47.7**	**-0.3**
	comp=Z,15nm,1.2s,mb5.3						
KIV	**Kislovodsk**	**94.37**	**314**	P	**P**	**03 58 51.6**	**-0.8**
KIV	**Kislovodsk**	**94.37**	**314**	P	**P**	**03 58 51.5**	**-0.9**
KIV				LR	LR		
	comp=Z,260nm,22.0s,MS4.7						
SOC	**Sochi**	**96.53**	**313**	*e*P	**P**	**03 59 01.3**	**-1.0**
SOC				*e*		04 02 54.3	
SOC				*e*PPP	PPP	04 05 04.4	-0.1
SOC				*e*		04 09 33.6	
SOC				*e*S	S	04 10 14.7	-5.1
SOC				*e*SS	SS	04 16 51.7	-5.7
SOC				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.8						
SOC				pmax	pmax		
	comp=N,72nm,1.0s						
SOC				pmax	pmax		
	comp=E,36nm,1.0s						
SOC				smax			
	comp=N,30nm,0.9s						
SOC				smax			
	comp=E,39nm,0.8s						
SOC				MLR	MLR		
	comp=Z,635nm,18.0s,MS5.1						
SOC				MLR	MLR		
	comp=N,154nm,19.0s,MS5.0						
SOC				MLR	MLR		
	comp=E,415nm,18.0s,MS5.0						
VRSR	**Storozhevoye**	**96.60**	**321**	*e*P	**P**	**03 59 03.7**	**+1.3**
VRSR				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.2						
VRSR				pmax	pmax		
	comp=N,8.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,6.0nm,0.7s						
BBB	**Bella Bella**	**96.64**	**38**	LR	LR	04 37 52.5	
	comp=E,2µm,19.7s,MS5.7,baz=272,slow=32						
OBN	**Obninsk**	**97.90**	**325**	*i* P	**P**	**03 59 10.0**	**+1.8**
OBN				*e*		04 03 02.9	
OBN				*e*		04 09 46.8	
OBN				*e*PS	PS	04 11 58.1	-2.5
OBN				pmax	pmax		
	comp=Z,48nm,2.1s,mb5.7						
OBN				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.4						
OBN	**Obninsk**	**97.90**	**325**	P	**P**	**03 59 09.5**	**+1.3**
	comp=Z,20nm,0.9s,mb5.7						
OBN				LR	LR		
	comp=Z,439nm,20.0s,MS5.0						
KMBO	**Kilima Mbogo**	**98.14**	**268**	P	**P**	**03 59 11.3**	**+1.1**
	comp=Z,1.2nm,0.8s,mb4.5,baz=58,slow=19,SNR=3.1						
KMBO				LR	LR	04 42 37.7	
	comp=Z,790nm,19.6s,MS5.2,baz=94,slow=35						
KMBO	**Kilima Mbogo**	**98.14**	**268**	*e*P	**P**	**03 59 10.9**	**+0.7**
	comp=Z,4.9nm,1.1s,mb5.0						
KMBO				LR	LR		
	comp=Z,817nm,21.0s,MS5.2						
JOF	**Joensuu**	**99.48**	**333**	*e*p	**P**	**03 59 13.9**	**-1.2**
OCWA	**Octopus Mounta**	**99.50**	**42**	PFAKE		03 59 30.0	+14
OCWA				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
ARCES	**ARCESS Array B**	**100.11**	**340**	P	P	03 59 17.5	-0.4
	comp=Z,23nm,1.1s,baz=88,slow=4.5,SNR=12						
SNAA	**Sanae**	**100.33**	**192**	*e*P	P	03 59 22.5	+3.6
SNAA				pmax	pmax		
	comp=Z,8.0nm,1.1s						
SNAA	**Sanae**	**100.33**	**192**	*e*P	P	03 59 22.5	+3.7
	comp=Z,7.6nm,1.2s						
COR	**Corvallis**	**100.40**	**45**	PFAKE		03 59 30.0	+10
COR				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
SIM	**Simferopol’**	**100.46**	**315**	*e*P	P	03 59 22.0	+1.9
SIM				*e*		04 09 59.0	
HUMO	**Hull Mountain**	**100.84**	**47**	PFAKE		03 59 30.0	+8.2
HUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
HOPS	**Hopland**	**101.06**	**51**	PFAKE		03 59 30.0	+7.1
HOPS				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
YBH	**Yreka Blue Hor**	**101.10**	**48**	PFAKE		03 59 40.0	+17
YBH				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
BRTR	**Keskin Array B**	**101.29**	**310**	P	P	03 59 24.9	+1.0
	comp=Z,1.6nm,1.0s,baz=135,slow=7.0,SNR=4.7						
WDC	**Whiskeytown Da**	**101.33**	**49**	PFAKE		03 59 40.0	+16
WDC				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
KAF	**Kangasniemi**	**101.93**	**333**	*e*p	P	03 59 26.0	-0.2
YKA	**Yellowknife Ar**	**102.16**	**27**	P	Pdif	03 59 26.8	-0.5
	comp=Z,0.7nm,0.9s,baz=293,slow=4.8,SNR=3.8						
YKA				PKiKP		04 03 50.3	
	comp=Z,0.6nm,0.9s,baz=302,slow=1.5,SNR=3.5						
YKA				PKKPbc		04 15 33.2	
	comp=Z,0.2nm,0.7s,baz=112,slow=2.4,SNR=4.9						
YKA	**Yellowknife Ar**	**102.16**	**27**	*i* P	Pdif	03 59 31.3	+4.0
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	**FINESS Array B**	**102.21**	**332**	P	Pdif	03 59 26.8	-0.7
	comp=Z,2.5nm,0.8s,baz=45,slow=2.7,SNR=5.3						
SAO	**San Andreas Ge**	**102.53**	**53**	PFAKE		03 59 40.0	+10
SAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
HAWA	**Hanford**	**102.81**	**43**	PFAKE		03 59 40.0	+9.4
HAWA				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
MOD	**Modoc**	**102.87**	**48**	PFAKE		03 59 40.0	+9.1
MOD				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
AKASG	**Malin Array Be**	**102.92**	**321**	Pdiff	Pdif	03 59 29.5	-1.4
	comp=Z,1.9nm,0.9s,baz=62,slow=4.5,SNR=4.5						
AKASG				PP	PP	04 03 40.1	-7.8
	comp=Z,0.3nm,0.4s,baz=63,slow=7.7,SNR=4.6						
CMB	**Columbia Colle**	**103.25**	**52**	PFAKE		03 59 40.0	+7.3
CMB				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
NEW	**Newport**	**104.11**	**41**	PFAKE		03 59 50.0	+14
NEW				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
BMO	**Blue Mountains**	**104.60**	**45**	PFAKE		03 59 50.0	+12
BMO				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
MBAR	**Mbarara**	**104.67**	**268**	PFAKE		03 59 50.0	+10
MBAR				LR	LR		
	comp=Z,249nm,21.0s,MS4.7						
NVAR	**Mina Array Bea**	**104.83**	**51**	Pdiff	Pdif	03 59 42.4	+2.8
	comp=Z,1.2nm,0.8s,baz=265,slow=4.1,SNR=4.7						
NVAR	**Mina Array Bea**	**104.83**	**51**	Pdif	Pdif	03 59 42.4	+2.8
MNV	**Mina**	**104.94**	**51**	PFAKE		03 59 50.0	+10
MNV				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BMN	**Battle Mountai**	**105.38**	**49**	PFAKE		04 04 10.0	
BMN				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
DAC	**Darwin (Calif)**	**105.67**	**53**	PFAKE		04 04 10.0	
DAC				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LSZ	**Lusaka**	**105.70**	**253**	PFAKE		04 04 10.0	
LSZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
TPH	**Tonopah**	**105.72**	**52**	PFAKE		04 04 10.0	
TPH				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
MLR	**Muntele Rosu**	**106.08**	**316**	Pdiff	Pdif	03 59 48.2	+3.3
	comp=Z,3.5nm,1.0s,baz=12,slow=2.6,SNR=3.5						
LBTB	**Lobatse**	**106.43**	**243**	PFAKE		04 04 10.0	
LBTB				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
MSO	**Missoula**	**106.52**	**42**	PFAKE		04 04 10.0	
MSO				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
TPNV	**Topopah Spring**	**106.65**	**53**	PFAKE		04 04 10.0	
TPNV				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
ELK	**Elko**	**106.81**	**49**	PFAKE		04 04 10.0	
ELK				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
HLID	**Hailey**	**106.88**	**46**	PFAKE		04 04 10.0	
HLID				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
PFO	**Pinyon Flat Ob**	**106.93**	**56**	PFAKE		04 04 10.0	
PFO				LR	LR		
	comp=Z,535nm,21.0s,MS5.1						
HFS	**Hagfors**	**108.34**	**333**	Pdiff	Pdif	03 59 57.4	+2.9
	comp=Z,6.1nm,1.0s,baz=27,slow=3.3,SNR=4.9						
BOZ	**Bozeman (W)**	**108.36**	**43**	PFAKE		04 04 10.0	
BOZ				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
SUR	**Sutherland**	**108.70**	**234**	PFAKE		04 04 20.0	
SUR				LR	LR		
	comp=Z,484nm,19.0s,MS5.1						
NOA	**NORSAR Array B**	**109.00**	**335**	Pdiff	Pdif	03 59 58.5	+1.1
	comp=Z,0.8nm,1.1s,baz=52,slow=2.8,SNR=2.5						
NOA				PKKPbc		04 15 11.3	
	comp=Z,2.0nm,1.1s,baz=80,slow=3.2,SNR=3.4						
NOA	**NORSAR Array B**	**109.00**	**335**	Pdif	Pdif	03 59 58.5	+1.1
NOA				PKKPbc		04 15 11.3	
HWUT	**Hardware Ranch**	**109.36**	**47**	PFAKE		04 04 20.0	
HWUT				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
AHID	**Auburn Hatcher**	**109.42**	**46**	PFAKE		04 04 20.0	
AHID				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
LKWY	**Lake**	**109.47**	**44**	PFAKE		04 04 20.0	
LKWY				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
MVU	**Marysvale**	**109.53**	**50**	PFAKE		04 04 20.0	
MVU				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
KONO	**Kongsberg**	**110.39**	**334**	PFAKE		04 04 20.0	+14
KONO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
PMSA	**Palmer Station**	**110.45**	**171**	PFAKE		04 04 20.0	+14
PMSA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
BW06	**Boulder Array**	**110.52**	**45**	PFAKE		04 04 20.0	+13
BW06				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
PDAR	**Pinedale Array**	**110.52**	**45**	PKiKP		04 04 05.7	
	comp=Z,0.5nm,0.8s,baz=222,slow=1.4,SNR=3.6						
PDAR				PKKPbc		04 15 05.9	
	comp=Z,0.4nm,0.7s,baz=108,slow=5.7,SNR=3.8						
FFC	**Flin Flon**	**111.10**	**32**	PFAKE		04 04 20.0	+13
FFC				LR	LR		
	comp=Z,467nm,20.0s,MS5.1						
LAO	**LASA Array**	**111.66**	**41**	PFAKE		04 04 20.0	+11
LAO				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
TUC	**Tucson**	**111.84**	**57**	PFAKE		04 04 20.0	+11
TUC				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
PV10	**Paradox Valley**	**111.99**	**50**	*e*PKPdf	PKPdf	04 04 12.0	+2.5
PRU	**Pruhonice**	**112.13**	**323**	*e*PKP	PKPdf	04 04 14.0	+4.5
PRU				*e*PP	PP	04 04 52.9	-2.7
BRG	**Berggiesshubel**	**112.14**	**324**	*e*PKIKP	PKPdf	04 04 15.1	+5.7
BRG				pmax	pmax		
	comp=Z,21nm,1.9s						
BRG				MLR	MLR		
	comp=N,2µm,26.2s,MS5.7						
BRG				MLR	MLR		
	comp=E,2µm,26.2s,MS5.7						
BRG				MLR	MLR		
	comp=Z,1µm,26.2s,MS5.3						
BRG	**Berggiesshubel**	**112.14**	**324**	*e*P	PKPdf	04 04 15.1	+5.7
BRG				*e*		04 05 12.2	
BRG				LR	LR		
	comp=Z,1µm,26.2s,MS5.3						
DGMT	**Dagmar**	**112.33**	**38**	PFAKE		04 04 20.0	+10
DGMT				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
CLL	**Collm**	**112.50**	**325**	*e*PKIKP	PKPdf	04 04 15.0	+4.8
CLL				MLR	MLR		
	comp=Z,2µm,19.7s,MS5.7						
CLL	**Collm**	**112.50**	**325**	*e**PPKP		04 04 15.0	
CLL				*e*PP	PP	04 04 56.0	-2.6
KHC	**Kasperske Hory**	**113.04**	**323**	*e*PKIKP	PKPdf	04 04 11.0	-0.4
KHC				*e*		04 04 16.0	
KHC	**Kasperske Hory**	**113.04**	**323**	*e*PKP	PKPdf	04 04 11.0	-0.4
KHC				pPKP		04 04 16.0	
GERES	**GERESS Array B**	**113.07**	**322**	Pdiff	Pdif	04 00 16.2	+0.5
	comp=Z,0.1nm,0.3s,baz=90,slow=2.9,SNR=2.2						
GERES				PKiKP		04 04 09.2	
	comp=Z,0.7nm,0.7s,baz=236,slow=3.5,SNR=4.2						
ISCO	**Idaho Springs**	**114.19**	**48**	PFAKE		04 04 30.0	+16
ISCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
ANMO	**Albuquerque**	**114.82**	**53**	PFAKE		04 04 30.0	+15
ANMO				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
SDCO	**Great Sand Dun**	**114.85**	**50**	PFAKE		04 04 30.0	+15
SDCO				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
DAVOX	**Davos**	**116.27**	**321**	PKP	PKPdf	04 04 17.1	-0.7
	comp=Z,6.4nm,0.9s,baz=227,slow=4.2,SNR=6.6						
DAVOS	**Davos**	**116.29**	**322**	PKIKP	PKPdf	04 04 17.1	-0.7
HINF	**Hinteralfeld**	**117.64**	**324**	*e*PKP1	PKPdf	04 04 21.2	+0.9
	comp=Z,20nm,1.0s						
GIVF	**Givet**	**117.67**	**327**	*e*PKP1	PKPdf	04 04 20.5	+0.2
HAU	**Haudompre**	**117.85**	**324**	*e*PKP1	PKPdf	04 04 21.6	+0.9
	comp=Z,15nm,0.9s						
BAIF	**Baives**	**118.03**	**327**	*e*PKP1	PKPdf	04 04 21.3	+0.3
	comp=Z,36nm,1.3s						
MEZF	**Maizieres J’vi**	**118.36**	**325**	*e*PKP1	PKPdf	04 04 22.2	+0.5
LTX	**Lajitas**	**118.43**	**58**	PFAKE		04 04 30.0	+7.6
LTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
TXAR	**Lajitas Array**	**118.43**	**58**	PKP	PKPdf	04 04 20.3	-2.1
	comp=Z,0.6nm,0.9s,baz=221,slow=1.5,SNR=4.4						
TXAR				PKKPbc		04 14 38.8	
	comp=Z,0.5nm,0.9s,baz=124,slow=3.9,SNR=4.0						
EKA	**Eskdalemuir Ar**	**118.48**	**335**	PKP	PKPdf	04 04 21.7	-0.1
	comp=Z,1.4nm,1.0s,slow=2.1,SNR=3.5						
ESK	**Eskdalemuir**	**118.52**	**335**	PFAKE		04 04 30.0	+8.1
ESK				LR	LR		
	comp=Z,516nm,20.0s,MS5.2						
AMTX	**Amarillo**	**118.62**	**52**	PFAKE		04 04 30.0	+7.4
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
CABF	**La Chapelle**	**118.67**	**323**	*e*PKP1	PKPdf	04 04 23.9	+1.5
LPG	**La Plagne**	**118.78**	**321**	*e*PKP1	PKPdf	04 04 23.5	+0.8
	comp=Z,27nm,0.9s						
LPL	**La Plagne**	**118.79**	**321**	*e*PKP1	PKPdf	04 04 23.3	+0.6
	comp=Z,16nm,0.8s						
BNI	**Bardonecchia**	**119.03**	**321**	*e*PKIKP	PKPdf	04 04 23.4	+0.2
MBDF	**Montbardon**	**119.12**	**320**	*e*PKP1	PKPdf	04 04 24.9	+1.6
	comp=Z,26nm,1.0s						
ORIF	**Oris-en-Rattie**	**119.60**	**321**	*e*PKP1	PKPdf	04 04 25.3	+1.2
SSF	**Saint Saulge**	**119.99**	**324**	*e*PKP1	PKPdf	04 04 25.0	+0.2
	comp=Z,54nm,1.5s						
SMF	**Signal de Mont**	**120.00**	**324**	*e*PKP1	PKPdf	04 04 26.2	+1.3
EYMN	**Ely**	**120.14**	**35**	PFAKE		04 04 40.0	+15
EYMN				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
VIVF	**Saint-Julien-l**	**120.38**	**321**	*e*PKP1	PKPdf	04 04 26.7	+1.0
BGF	**Bois d’Agland**	**120.64**	**324**	*e*PKP1	PKPdf	04 04 27.5	+1.3
	comp=Z,54nm,1.3s						
WMOK	**Wichita Mounta**	**120.93**	**51**	PFAKE		04 04 40.0	+13
WMOK				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
TCF	**Toulx Ste Croi**	**121.15**	**324**	*e*PKP1	PKPdf	04 04 28.5	+1.2
	comp=Z,67nm,1.3s						
JCT	**Junction City**	**121.40**	**56**	*e*PKPdf	PKPdf	04 04 27.0	-1.2
JCT				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
GRR	**Gorron**	**121.72**	**327**	*e*PKP1	PKPdf	04 04 28.8	+0.5
RJF	**Les Rejaudoux**	**122.08**	**323**	*e*PKP1	PKPdf	04 04 29.4	+0.4
JFWS	**Jewell Farm**	**123.53**	**39**	PFAKE		04 04 40.0	+8.1
JFWS				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
EFI	**East Falkland**	**123.90**	**170**	PFAKE		04 04 40.0	+7.6
EFI				LR	LR		
	comp=Z,559nm,20.0s,MS5.2						
HKT	**Hockley**	**124.83**	**56**	PFAKE		04 04 50.0	+15
HKT				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
MIAR	**Mount Ida**	**125.01**	**50**	PFAKE		04 04 50.0	+15
MIAR				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
CCM	**Cathedral Cave**	**125.23**	**45**	*e*PKPdf	PKPdf	04 04 33.2	-2.2
CCM				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
SCHQ	**Schefferville**	**125.66**	**16**	PKP	PKPdf	04 04 33.7	-2.0
	comp=Z,4.9nm,1.0s,baz=202,slow=12,SNR=4.5						
SCHQ	**Schefferville**	**125.66**	**16**	PKP	PKPdf	04 04 33.7	-2.0
AAM	**Ann Arbor**	**127.91**	**36**	PFAKE		04 04 50.0	+10
AAM				LR	LR		
	comp=Z,5µm,22.0s,MS6.1						
OXF	**Oxford**	**128.15**	**48**	PFAKE		04 04 50.0	+8.9
OXF				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
WCI	**Wyandotte Cave**	**128.54**	**42**	PFAKE		04 04 50.0	+8.2
WCI				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
WVT	**Waverly**	**128.54**	**45**	PFAKE		04 04 50.0	+8.2
WVT				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
ESDC	**Sonseca Array**	**128.54**	**320**	PKP	PKPdf	04 04 40.8	-0.9
	comp=Z,0.3nm,0.5s,baz=6.5,slow=2.5,SNR=2.6						
ACSO	**Alum Creek Sta**	**129.55**	**38**	PFAKE		04 04 50.0	+6.4
ACSO				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
ERPA	**Erie**	**130.15**	**34**	PFAKE		04 05 00.0	+15
ERPA				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
LRAL	**Lakeview Retre**	**130.60**	**48**	PFAKE		04 05 00.0	+14
LRAL				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MYNC	**Murphy**	**131.68**	**44**	PFAKE		04 05 00.0	+12
MYNC				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
MCWV	**Mont Chateau**	**131.81**	**37**	PFAKE		04 05 00.0	+12
MCWV				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
NCB	**Newcomb**	**131.86**	**29**	PFAKE		04 05 00.0	+12
NCB				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
BINY	**Binghamton**	**132.27**	**32**	PFAKE		04 05 00.0	+11
BINY				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
SSPA	**Standing Stone**	**132.31**	**34**	PFAKE		04 05 00.0	+11
SSPA				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
BLA	**Blacksburg**	**132.96**	**40**	PFAKE		04 05 00.0	+10
BLA				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
WVL	**Waterville**	**133.44**	**25**	PFAKE		04 05 00.0	+9.2
WVL				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
PAYG	**Puerto Ayora**	**134.08**	**94**	PFAKE		04 05 00.0	+7.2
PAYG				LR	LR		
	comp=Z,931nm,21.0s,MS5.5						
EMMW	**East Machias**	**134.21**	**23**	PFAKE		04 05 00.0	+7.8
EMMW				LR	LR		
	comp=Z,9µm,21.0s,MS6.4						
CBN	**Corbin**	**134.22**	**37**	PFAKE		04 05 00.0	+7.6
CBN				LR	LR		
	comp=Z,5µm,22.0s,MS6.2						
HRV	**Harvard--Oak R**	**134.24**	**28**	PFAKE		04 05 00.0	+7.7
HRV				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
TEIG	**Tepich**	**134.24**	**65**	PFAKE		04 05 00.0	+7.1
TEIG				LR	LR		
	comp=Z,1.0nm,21.0s						
NHSC	**New Hope**	**135.50**	**44**	PFAKE		04 05 10.0	+15
NHSC				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
TRQA	**Tornquist**	**135.66**	**160**	PFAKE		04 05 10.0	+15
TRQA				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
DWPF	**Disney**	**137.14**	**51**	PFAKE		04 05 10.0	+12
DWPF				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
JTS	**JuntasAbangare**	**139.32**	**78**	PFAKE		04 05 10.0	+7.6
JTS				LR	LR		
	comp=Z,325nm,22.0s,MS5.0						
DBIC	**Dimbokro**	**140.36**	**276**	*e*PKPpre		04 04 55.9	
DBIC				LR	LR		
	comp=Z,996nm,20.0s,MS5.6						
NNA	**Nana**	**144.41**	**116**	*e*PKPdf	PKPdf	04 05 09.9	-1.5
NNA				LR	LR		
	comp=Z,321nm,20.0s,MS5.1						
LVC	**Limon Verde**	**144.82**	**139**	*e*PKPdf	PKPdf	04 05 12.6	+0.7
LVC				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
BBSR	**BB Station**	**145.55**	**31**	*e*PKPdf	PKPdf	04 05 12.7	-0.2
BBSR				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
OTAV	**Otavalo**	**145.95**	**95**	*e*PKPdf	PKPdf	04 05 16.4	+2.2
OTAV				*e*SKP		04 08 40.9	
OTAV				LR	LR		
	comp=Z,598nm,20.0s,MS5.4						
ARE	**Arequipa**	**146.82**	**127**	*e*P	PKPbc	04 05 18.0	+3.8
CPUP	**Villa Florida**	**147.92**	**158**	PKPbc	PKPdf	04 05 20.3	+3.3
	comp=Z,61nm,1.0s,baz=243,slow=1.7,SNR=67						
CPUP	**Villa Florida**	**147.92**	**158**	*e*PKPdf	PKPdf	04 05 17.7	+0.7
CPUP				*e*PKPbc	PKPdf	04 05 20.0	+3.0
CPUP				LR	LR		
	comp=Z,1µm,19.0s,MS5.8						
LPAZ	**La Paz**	**149.53**	**131**	PKP	PKPdf	04 05 22.0	+2.1
	comp=Z,19nm,1.0s,baz=233,slow=0.3,SNR=31						
LPAZ				PKPbc	PKPdf	04 05 26.0	+6.1
	comp=Z,24nm,1.1s,baz=293,slow=1.4,SNR=31						
LPAZ	**La Paz**	**149.53**	**131**	*e*PKPdf	PKPdf	04 05 22.0	+2.2
LPAZ				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
SDV	**Santo Domingo**	**153.50**	**77**	*e*PKPdf	PKPdf	04 05 26.9	+1.1
SDV				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
SJG	**San Juan**	**154.29**	**54**	PFAKE		04 05 40.0	+13
SJG				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
HUMP	**Col San Antoni**	**154.51**	**53**	*e*PKPdf	PKPdf	04 05 26.4	-0.6
HUMP				*e*PKP	PKPdf	04 05 31.8	+4.8
SAML	**Samuel**	**157.70**	**124**	*e*PKPdf	PKPdf	04 05 31.6	+0.2
SAML				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
BDFB	**Brasilia**	**160.73**	**170**	PKP	PKPdf	04 05 34.1	-0.6
	comp=Z,2.4nm,0.8s,baz=112,slow=0.8,SNR=3.2						
BAO	**Brasilia Array**	**160.74**	**170**	PKP	PKPdf	04 05 37.0	+2.2
RCBR	**Riachuelo**	**167.39**	**223**	PFAKE		04 05 50.0	+9.1
RCBR				LR	LR		
	comp=Z,2µm,21.0s						

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*IDC **02** 03:48:55.9±0.7, 3.68S×135.41E, mb4.5/7, mb1 5.0/11, mb1mx4.9/15, ML5.2/3, Error ellipse: s-maj=39.7km s-min=17.6km az=74.0*

*NEIC **02** 03:48:57.9±0.5, 3.67S×135.43E, h10^{km}, mb5.3/4, Error ellipse: s-maj=17.2km s-min=10.0km az=75.0*

*BJI **02** 03:49:04.7, 2.90S×134.67E, h10^{km}, mb4.8*

ISC 02 03:49:04.0±3.8, **3.78S**±0.09×**135.6E**±0.2, **h76**^{km}±37^{km}, **n24,** σ**0**^{s}**85**/20, **mb4.5**/13, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**12.73**	**117**	Pn	**P**	**03 52 03.7**	**+0.2**
	2.1nm,0.3s,baz=287,slow=14,SNR=2.1						
WRA	**Warramunga Arr**	**16.12**	**184**	Pn	**P**	**03 52 41.6**	**-5.7**
	9.9nm,0.3s,baz=5.6,slow=21,SNR=4.5						
WRA				Sn	**S**	**03 55 34.3**	**-8.9**
	1.6nm,0.3s,baz=12,slow=23,SNR=2.4						
CTA	**Charters Tower**	**19.23**	**148**	P	**P**	**03 53 24.7**	**-0.1**
	3.1nm,0.3s,baz=316,slow=11,SNR=4.6						
ASAR	**Alice Springs**	**19.84**	**185**	P	**P**	**03 53 30.5**	**-0.9**

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              25nm,0.3s,baz=7.6,slow=12,SNR=16
MBWA  Marble Bar         23.19 221  eP      P        03 54 05.9 +0.9
              124nm,1.1s,mb5.2
WHN   Wuhan              39.73 331  eP      P        03 56 31.0 +0.2
MAJO  Matsushiro         40.18   3  eP      P        03 56 34.8 +0.3
              27nm,1.3s,mb4.9
XAN   Xi'an              45.28 328  P       P        03 57 10.0 -6.0
XAN                                 AMB     AMB
              comp=Z,9.0nm,2.2s,mb4.1
BJT   Baijiatuau         47.11 340  eP      P        03 57 29.3 -1.1
              comp=Z,35nm,1.2s,mb5.0
CN2   Changchun          48.24 350  eP      P        03 57 40.7 +1.5
CN2                                 AMB     AMB
              comp=Z,10.0nm,0.7s,mb4.8
MDJ   Mudanjiang         48.48 354  eP      P        03 57 40.6 -0.4
              comp=Z,54nm,2.0s,mb5.0
LSA   Lhasa              54.05 311  P       P        03 58 24.0 +0.8
SONM  Songino Array      57.44 337  P       P        03 58 47.0 -0.3
              comp=Z,1.3nm,0.5s,mb4.2,baz=153,slow=7.3,SNR=3.1
ZAL   Zalesovo           71.35 331  P       P        04 00 15.5 -2.1
              comp=Z,3.9nm,0.9s,mb4.2,baz=278,slow=7.1,SNR=1.8
VNDA  Vanda              75.01 174  P       P        04 00 38.6 +0.1
              comp=Z,4.7nm,0.9s,mb4.2,baz=324,slow=6.7,SNR=2.6
BVAR  Borovoye Array     78.46 326  P       P        04 00 58.1 -0.1
              comp=Z,3.8nm,0.7s,mb4.3,baz=117,slow=9.7,SNR=4.2
MAW   Mawson             80.00 202  P       P        04 01 06.5 +0.1
              comp=Z,2.3nm,0.5s,mb4.2,baz=153,slow=4.5,SNR=2.1
ILAR  Eielson Array      88.07  25  P       P        04 01 46.3 -0.6
              comp=Z,2.3nm,0.6s,mb4.4,baz=264,slow=4.1,SNR=7.6
INK   Inuvik             93.79  22  P       P        04 02 14.8 +1.3
              comp=Z,2.4nm,1.1s,mb4.5,baz=264,slow=10,SNR=2.8
ARCES ARCESS Array B    100.49 340  P       P        04 02 43.8  0.0
              comp=Z,4.1nm,0.6s,baz=75,slow=5.7,SNR=9.0
ARE   Arequipa          146.47 128  eP      PKPdf    04 08 44.0 +8.0
CPUP  Villa Florida     147.54 158  PKPbc   PKPdf    04 08 43.2 +5.6
              comp=Z,22nm,1.1s,baz=253,slow=2.5,SNR=5.7
CPUP  Villa Florida     147.54 158  PKPbc   PKPdf    04 08 43.2 +5.6
LPAZ  La Paz            149.18 131  PKPbc   PKPdf    04 08 48.6 +8.2
              comp=Z,17nm,1.0s,baz=207,slow=3.2,SNR=3.6
```

BUC 02 03:50:51.5±3.4**,45.72N×26.70E,h139^{km}**±30^{km}**,MD3.9**/4**, 2C-5D,Error ellipse: s-maj=41.8km s-min=17.1km az=110.0,Romania**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s    ISC
VRI   Vrincioaia          0.15    9⇓iP      P        03 51 10.7 -0.1
VRI                                 iS      S        03 51 23.5 -1.9
BRD   Bordesti            0.29  125⇑iP      P        03 51 12.4 +1.2
CFR   Carcaliu            1.15  118⇓iP      P        03 51 16.0 -0.9
CFR                                 iS      S        03 51 33.5 -3.0
HARR  Harsova             1.35  139 ⇑P      P        03 51 19.6 +0.6
HARR                                iS      S        03 51 38.1 -2.0
BUC1  Bucharest           1.45  199 iS      S        03 51 41.7 -0.4
BUC1  Bucharest           1.45  199⇓iP      P        03 51 19.6 -0.5
BUC1                                 S      S        03 51 41.7 -0.4
TLCR                      1.58  109⇓iP      P        03 51 21.9 +0.3
TLCR                                iS      S        03 51 43.1 -1.5
IAS   Iasi                1.59   22⇓iP      P        03 51 21.8 +0.2
IAS                                 iS      S        03 51 42.7 -2.0
```

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*IDC **02** 03:54:38.5±1.0,3.12S×135.07E,mb4.2/6,mb1 4.7/8, mb1mx4.5/14,ML4.7/1,Error ellipse: s-maj=41.7km s-min=22.9km az=76.0*

*NEIC **02** 03:54:38.2±0.6,3.30S×135.26E,h10^{km},mb4.9/9,Error ellipse: s-maj=25.1km s-min=10.5km az=85.0*

ISC 02 03:54:39.6±0.7**,3.55S**±0.07×**135.0E**±0.1**,h33^{km},n20, σ1^{s}47**/20**,mb4.4**/13**,Irian Jaya region**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s    ISC
WRA   Warramunga Arr     16.31 182  Pn      P        03 58 29.7 +1.8
              baz=7.6,slow=12,SNR=1.9
WRA                                 Sn      S        04 01 21.2 -6.0
              1.1nm,0.3s,baz=11,slow=23,SNR=4.1
FITZ  Fitzroy Crossi     17.12 212  P       P        03 58 43.0 +4.9
              2.2nm,0.3s,baz=18,slow=13,SNR=2.2
FITZ                                S       S        04 01 44.0 -1.8
              0.9nm,0.3s,baz=187,slow=16,SNR=3.4
CTAO  Charters Tower     19.78 147  eP      P        03 59 09.6 -0.4
              544nm,1.3s
ASAR  Alice Springs      20.03 183  P       P        03 59 16.6 +3.9
              99nm,1.0s,baz=5.5,slow=12,SNR=6.1
NWAO  Narrogin (SRO)     33.62 208  P       P        04 01 20.1 +0.8
              17nm,0.8s,mb5.0
CMAR  Chiang Mai Arr     41.69 303  P       P        04 02 28.3 +1.0
              0.6nm,0.4s,mb3.6,baz=107,slow=9.4,SNR=3.2
YSS   Yuzh-Sakhalins     50.75   7  P       P        04 03 35.8 -2.8
              31nm,1.1s,mb5.2
SONM  Songino Array      56.97 337  P       P        04 04 24.1 -0.2
              0.9nm,0.8s,mb3.9,baz=150,slow=8.0,SNR=2.3
ZAL   Zalesovo           70.83 331  P       P        04 05 54.1 -0.8
              1.0nm,0.8s,mb3.8,baz=342,slow=6.4,SNR=3.1
UCH   Uchtor             71.08 317  P       P        04 05 58.8 +2.1
              6.6nm,1.0s,mb4.5
AAK   Ala-Archa          71.25 317  P       P        04 06 00.5 +2.8
AML   Almayashu          71.60 317  eP      P        04 05 55.5 -4.3
              15nm,1.2s,mb4.8
EKS2  Erkin-Say          71.75 317  eP      P        04 05 57.3 -3.3
              15nm,1.3s,mb4.8
KURK  Kurchatov          72.30 326  eP      P        04 06 01.8 -1.9
              11nm,1.2s,mb4.7
BVAR  Borovoye Array     77.90 326  P       P        04 06 37.1 +1.2
              3.9nm,1.1s,mb4.3,baz=90,slow=7.4,SNR=3.8
BRVK  Borovoye           77.97 326  eP      P        04 06 35.5 -0.7
              6.8nm,1.1s,mb4.5
CHKZ  Chkalovo           78.03 327  eP      P        04 06 36.9 +0.4
              4.8nm,1.1s,mb4.3
ILAR  Eielson Array      88.14  25  P       P        04 07 27.2 -0.7
              0.7nm,0.8s,mb3.9,baz=270,slow=4.2,SNR=4.1
CPUP  Villa Florida     148.00 159  PKPbc   PKPdf    04 14 28.6 +9.3
              1.9nm,0.7s,baz=238,slow=7.5,SNR=5.3
LPAZ  La Paz            149.82 131  PKPbc   PKPdf    04 14 33.6  +11
              0.8nm,0.7s,baz=166,slow=4.2,SNR=2.9
```

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*MOS **02** 03:56:45.6±0.9,42.74N×145.66E,h33^{km},mb4.4/8,Error ellipse: s-maj=25.0km s-min=11.6km az=94.5*

*IDC **02** 03:56:48.8±1.4,42.48N×145.37E,h56^{km}±6^{km},mb3.8/16, mb1 3.9/17,mb1mx3.9/27,MS3.6/1,Ms1 3.6/1, ms1mx3.1/29,Error ellipse: s-maj=35.2km s-min=11.2km az=19.0*

*JMA **02** 03:56:50.3±0.1,42.98N×145.44E,h47^{km}±1^{km},M4.1*

JMA Felt I J1.

*BJI **02** 03:56:51.0,43.01N×145.53E,h78^{km},mB5.6,mb4.7, Ms4.5*

*NEIC **02** 03:56:51.4±1.0,42.97N×145.34E,h56^{km}±8^{km},mb4.3/6, Error ellipse: s-maj=10.9km s-min=7.9km az=154.0*

NEIC Recorded [1 JMA] in eastern Hokkaido.

ISC 02 03:56:49.5±0.7**,42.99N**±0.07×**145.45E**±0.06**,h54^{km}**±4^{km}**, h55^{km}**±4.8^{km}**:pP-P,n51,σ0^{s}78**/60**,mb4.1**/22**,2C-5D, Hokkaido region**

```
Code  Station Name         Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s    ISC
NEM2  Nemuro 2            0.43   29 ⇑P      P        03 57 00.5 +0.2
NEM2                                eS      S        03 57 07.7 -0.4
JAK   Akkeshi             0.55  271 ⇓P      P        03 57 01.9 +0.3
JAK                                 eS      S        03 57 10.4 -0.1
JNK   Nakash              0.80  318 ⇓P      P        03 57 05.1 +0.3
JNK                                  S      S        03 57 15.5 -0.6
JRA   Rausu               0.98  346  P      P        03 57 07.8 +0.6
JRA                                 eS      S        03 57 20.1 -0.3
YUK   Yuzh-Kuril'sk       1.09   16 ePN     P        03 57 08.5 -0.3
YUK                                 i                03 57 19.5
YUK                                  pmax   pmax
              comp=Z,700nm,0.5s
YUK                                  pmax   pmax
              comp=N,280nm,0.3s
YUK                                  pmax   pmax
              comp=E,340nm,0.3s
YUK                                  pmax   pmax
              comp=N,11µm,1.5s
YUK                                  pmax   pmax
              comp=E,16µm,1.7s
YUK                                  pmax   pmax
              comp=N,7µm,0.5s
YUK                                  pmax   pmax
              comp=E,3µm,0.5s
JOB   Onbets              1.19  267 ⇓P      P        03 57 10.4 +0.3
JOB                                 eS      S        03 57 25.3 -0.2
JAR   Ashorobuto          1.27  285 ⇓P      P        03 57 11.8 +0.5
JAR                                 eS      S        03 57 27.3 -0.2
JTKR  Abashiri--Toko      1.49  312 ⇓P      P        03 57 15.4 +0.9
ASAJ  Asahikawa           2.36  300  P      P        03 57 28.3 +1.6
              comp=E,34nm,0.3s,baz=116,slow=10,SNR=66
ASAJ                                 S      S        03 58 00.1 +5.6
              comp=E,15nm,0.3s,baz=348,slow=25,SNR=6.2
ASAJ                                 LR     LR       03 58 34.7
              comp=E,1µm,21.6s,baz=321,slow=41
ASAJ  Asahikawa           2.36  300  PN     P        03 57 28.3 +1.6
ASAJ                                 S      S        03 58 00.1 +5.6
ASAJ                                 pmax   pmax
              comp=Z,34nm,0.3s
ASAJ                                 MLR    MLR
              comp=Z,1µm,21.6s
KUR   Kuril'sk            2.84   37⇑iPN     P        03 57 30.3 -3.2
KUR                                  pmax   pmax
              comp=Z,150nm,0.5s
YSS   Yuzh-Sakhalins      4.40  335 ePN     P        03 57 55.0 -0.5
YSS   Yuzh-Sakhalins      4.40  335  P      P        03 57 55.3 -0.2
MAJO  Matsushiro          8.51  223  P      P        03 59 00.1 +7.4
              comp=Z,11nm,0.8s
MAT   Matsushiro          8.51  223  P      P        03 58 50.7 -2.0
MAT                                  S      Px       03 59 05.0
MAT   Matsushiro          8.51  223 eP      P        03 58 51.0 -1.7
MAT                                 eS      Px       03 59 05.0
MDJ   Mudanjiang         11.58  284  P      P        03 59 35.6 +1.2
MDJ                                  S      S        04 01 37.3 -5.8
MDJ                                  PCP    PcP      04 05 18.1 -3.9
MDJ                                  SCP             04 08 42.6
MDJ                                  PCS             04 08 55.2
MDJ                                  SCS    ScS      04 12 18.5 -4.7
MDJ                                  AMB    AMB
              comp=Z,4.0nm,0.7s
MDJ                                  AMB    AMB
              comp=Z,669nm,6.9s
MDJ                                  LR     LR
              comp=N,2µm,15.5s
MDJ                                  LR     LR
              comp=E,934nm,14.6s
ULN   Ulaanbaatar        27.19  294  P      P        04 02 30.0 +0.2
              comp=E,3.0nm,0.8s,mb3.9
SONM  Songino Array      27.63  294  P      P        04 02 31.7 -2.1
              comp=E,3.1nm,0.7s,mb4.0,baz=85,slow=8.1,SNR=10
KMI   Kunming            39.14  257 eP      P        04 04 14.0 +0.6
KMI                                  AMB    AMB
              comp=Z,10.0nm,0.9s,mb4.5
IMA   Indian Mountai     40.01   34 eP      P        04 04 21.0 +0.8
              comp=Z,28nm,0.9s,mb5.0
ILAR  Eielson Array      42.83   36  P      P        04 04 44.1 +0.8
              comp=Z,0.9nm,0.6s,mb3.7,baz=274,slow=7.7,SNR=8.2
ILAR  Eielson Array      42.83   36  P      P        04 04 44.1 +0.8
ILAR                                 pmax   pmax
              comp=Z,1.0nm,0.6s
KURK  Kurchatov          44.93  304 eP      P        04 04 59.7 -0.7
              comp=Z,2.7nm,0.8s,mb4.1
INK   Inuvik             47.69   30  P      P        04 05 22.4 +0.5
              comp=Z,2.3nm,0.8s,mb4.2,baz=267,slow=7.4,SNR=12
INK   Inuvik             47.69   30  P      P        04 05 22.5 +0.6
INK                                  pmax   pmax
              comp=Z,2.0nm,0.9s
INK   Inuvik             47.69   30 eP      P        04 05 22.0 +0.1
              comp=Z,4.0nm,1.0s,mb4.4
CHKZ  Chkalovo           48.68  310 eP      P        04 05 29.4 -0.4
              comp=Z,2.1nm,0.8s,mb4.2
BVAR  Borovoye Array     49.03  309  P      P        04 05 32.5  0.0
              comp=Z,1.4nm,0.4s,mb4.4,baz=81,slow=8.5,SNR=15
RES   Resolute Bay       56.05   16 eP      P        04 06 23.6 -1.0
              comp=Z,8.8nm,0.8s,mb4.8
YKA   Yellowknife Ar     57.12   33  P      P        04 06 32.0 -0.3
              comp=Z,0.2nm,0.6s,mb3.4,baz=305,slow=7.4,SNR=5.5
FINES FINESS Array B     64.99  332  P      P        04 07 24.3 -1.1
              comp=Z,1.8nm,0.5s,mb4.3,baz=51,slow=7.9,SNR=16
FINES FINESS Array B     64.99  332  P      P        04 07 24.3 -1.1
FINES                                pmax   pmax
              comp=Z,2.0nm,0.5s
NVAR  Mina Array Bea     69.03   57  P      P        04 07 52.0 +0.7
              comp=Z,0.3nm,0.5s,mb3.5,baz=284,slow=7.4,SNR=3.6
NVAR                                 pP     pP       04 08 05.0 -1.3
              comp=Z,0.8nm,0.7s,baz=298,slow=4.7,SNR=4.3
NB2   NORSAR Subarra     69.86  338  P      P        04 07 55.4 -0.5
              comp=Z,1.5nm,0.6s,mb4.1,baz=33,slow=6.2
NOA   NORSAR Array B     69.86  338  P      P        04 07 55.8 -0.1
              comp=Z,2.3nm,0.7s,mb4.2,baz=35,slow=6.1,SNR=11
NOA                                  pP     pP       04 08 11.6 +0.6
              comp=Z,1.6nm,0.7s,baz=34,slow=6.1,SNR=4.7
NOA   NORSAR Array B     69.86  338  P      P        04 07 55.8 -0.1
NOA                                  *PP    pP       04 08 11.6 +0.6
NOA                                  pmax   pmax
              comp=Z,2.0nm,0.7s
HFS   Hagfors            69.91  337  P      P        04 07 55.4 -0.8
              comp=Z,1.9nm,0.4s,mb4.3,baz=37,slow=7.4,SNR=13
HFS   Hagfors            69.91  337  P      P        04 07 55.4 -0.8
HFS                                  pmax   pmax
              comp=Z,2.0nm,0.4s
PDAR  Pinedale Array     71.35   49  P      P        04 08 05.7 +0.4
              comp=Z,0.5nm,0.6s,mb3.6,baz=136,slow=0.5,SNR=4.9
AKASG Malin Array Be     71.45  323  P      P        04 08 05.2 -0.5
              comp=Z,2.2nm,0.5s,mb4.3,baz=40,slow=6.0,SNR=17
AKASG Malin Array Be     71.45  323  P      P        04 08 05.2 -0.5
AKASG                                pmax   pmax
              comp=Z,2.0nm,0.5s
OJC   Ojcow              75.77  327 eP      P        04 08 31.5 +0.8
BRTR  Keskin Array B     77.16  313  P      P        04 08 39.4 +0.5
              comp=Z,0.7nm,0.7s,mb3.7,baz=76,slow=5.1,SNR=5.0
BRTR  Keskin Array B     77.16  313  P      P        04 08 39.4 +0.5
BRTR                                 pmax   pmax
              comp=Z,1.0nm,0.7s
EKA   Eskdalemuir Ar     78.49  342  P      P        04 08 45.9  0.0
              comp=Z,0.7nm,0.6s,mb3.8,baz=18,slow=2.6,SNR=3.5
EKA   Eskdalemuir Ar     78.49  342  P      P        04 08 45.9 +0.1
EKA                                  pmax   pmax
              comp=Z,1.0nm,0.6s
KHC   Kasperske Hory     79.02  330 eP      P        04 08 49.5 +0.6
GERES GERESS Array B     79.21  330  P      P        04 08 49.3 -0.6
              comp=Z,0.3nm,0.5s,mb3.5,baz=9.5,slow=6.0,SNR=3.6
GERES                                pP     pP       04 09 07.0 +1.8
              comp=Z,0.7nm,0.7s,baz=14,slow=5.5,SNR=3.2
TXAR  Lajitas Array      84.10   55  P      P        04 09 16.8 +1.1
              comp=Z,0.6nm,0.9s,mb3.7,baz=297,slow=2.8,SNR=3.8
IDI   Anoyia             85.10  315  P      P        04 09 20.1 -0.5
              comp=Z,2.9nm,0.5s,mb4.7,baz=27,slow=10,SNR=8.3
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*ATH **02** 03:59:25.2,39.34N×28.02E,h10^{km},MD3.5/3*

*ISK **02** 03:59:25.6,39.27N×27.99E,h10^{km},MD3.4*

*CSEM **02** 03:59:25.4±0.1,39.27N×27.99E,h10^{km},MD3.3/1,Error ellipse: s-maj=1.8km s-min=1.3km az=124.0*

ISC 02 03:59:25.8±0.5**,39.27N**±0.02×**28.01E**±0.05**,h9^{km}**±5^{km}**, n31,σ0^{s}64**/37**,Turkey**

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Code  Station Name         Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s    ISC
BALB  Balikesir           0.39  345 iPG     Pg       03 59 34.3 +0.5
BALB                                iSG     Sg       03 59 39.6 +0.6
AKS   Akhisar             0.41  202 iPG     Pg       03 59 34.1 -0.2
AKS                                 iSG     Sg       03 59 40.6 +0.7
BTOK  Tokmak              0.50    2 iP      Pg       03 59 35.7 -0.2
BTOK                                iS      Sg       03 59 43.0 +0.4
DST   Dursunbey           0.59   54 iPG     Pg       03 59 37.5 -0.2
MANT  Manisa              0.88  151 iP      Pb       03 59 43.5 +0.6
MANT                                iS      Sb       03 59 53.0 -1.6
KCT   Karacabey           1.03   15 iPG     Pg       03 59 45.9 -0.7
ORLT  Orhaneli            1.04   41 iPG     Pg       03 59 46.0 -0.6
KDAG  Bornova             1.04  214 iP      Pb       03 59 45.2 -0.3
KDAG                                iS      Sb       03 59 53.5 -5.6
IZM   Izmir               1.04  214 iPG     Pg       03 59 45.4 -1.4
EDC   Edincik             1.09  354 iPN     Pn       03 59 46.8 -0.4
BNT   Bandirma            1.09  356 iPN     Pn       03 59 46.8 -0.4
BLCB  Balcova             1.16  221 iPN     Pn       03 59 47.8 -0.4
PRK   Paraskevi           1.35  270 ePB     Pb       03 59 50.7 -0.2
EZN   Ezine               1.42  294  PN     Pn       03 59 51.9  0.0
KHL   Karahalli           1.51  128 ePN     Pn       03 59 54.0 +0.8
ALT   Altintas            1.65   97  PN     Pn       03 59 55.5 +0.3
DENT  Denizli             1.71  152  PN     Pn       03 59 56.5 +0.4
BADT  Buyukada            1.80   28  PN     Pn       03 59 57.0 -0.3
SMG   Samos               1.81  211 ePN     Pn       03 59 59.5 +2.0
ISK   Istanbul-Kandi      1.97   24 ePN     Pn       03 59 59.3 -0.5
HRT   Hereke              2.01   39 ePN     Pn       03 59 59.8 -0.6
GPA   Golpazari           2.05   59 ePN     Pn       04 00 01.1 +0.2
YER   Yerkesik            2.14  174 ePN     Pn       04 00 01.6 -0.6
ESKT  Eskisehir           2.21   83 ePN     Pn       04 00 03.7 +0.4
ESKT  Eskisehir           2.21   83 iP      Pn       04 00 08.5 +5.2
ESKT                                iS      Sn       04 00 36.2 +5.2
ISP   Isparta             2.42  125 ePN     Pn       04 00 06.4 +0.2
DALT  Dalyan (Mudla)      2.54  169 ePN     Pn       04 00 08.2 +0.2
RDO   Rodhopi             2.67  316 ePN     Pn       04 00 09.9 +0.1
MDU   Mudurnu             2.74   63 ePN     Pn       04 00 11.1 +0.3
KIZT  Kizilcal            3.04   96 ePN     Pn       04 00 15.7 +0.7
KAMT  Kaman               4.42   87 ePN     Pn       04 00 35.2 +0.4
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*IDC **02** 04:00:14.4±1.0,3.12S×135.35E,mb4.4/4,mb1 4.7/7, mb1mx4.4/15,ML3.6/3,Error ellipse: s-maj=43.1km s-min=25.5km az=80.0*

*NEIC **02** 04:00:15.8±0.7,3.21S×135.26E,h10^{km},mb4.5/7,Error ellipse: s-maj=22.7km s-min=12.9km az=79.0*

ISC 02 04:00:17.1±0.6**,3.47S**±0.07×**135.1E**±0.1**,h33^{km},n17, σ0^{s}97**/17**,mb4.2**/9**,Irian Jaya region**

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Code  Station Name         Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s    ISC
PMG   Port Moresby       13.35  117  Pn     P        04 03 26.5 -0.3
              0.7nm,0.3s,baz=283,slow=4.9,SNR=8.6
WRAB  Tennant Creek      16.38  183  P      P        04 04 11.8 +5.6
              82nm,1.0s
WRA   Warramunga Arr     16.39  183  Pn     P        04 04 06.5 +0.1
              0.2nm,0.3s,baz=360,slow=13,SNR=2.9
WRA                                  Sn     S        04 07 00.3 -6.3
              0.4nm,0.3s,baz=7.8,slow=22,SNR=5.3
FITZ  Fitzroy Crossi     17.25  212  P      P        04 04 22.1 +5.0
              0.5nm,0.3s,baz=31,slow=9.1,SNR=2.6
FITZ                                 S      S        04 07 25.4 -0.9
              0.4nm,0.3s,baz=190,slow=17,SNR=3.1
ASAR  Alice Springs      20.11  183  P      P        04 04 53.2 +2.2
              35nm,0.6s,baz=11,slow=10,SNR=21
CASY  Casey              65.03  191  P      P        04 10 55.8 -0.2
              1.7nm,0.7s,mb4.2
TKM2  Tokmak 2           70.65  318  P      P        04 11 30.5 -1.0
              2.6nm,0.7s,mb4.3
ZAL   Zalesovo           70.82  331  P      P        04 11 32.7 +0.4
              1.9nm,0.2s,mb4.6,baz=83,slow=3.0,SNR=3.5
ZAL   Zalesovo           70.82  331  P      P        04 11 32.7 +0.4
UCH   Uchtor             71.11  317 eP      P        04 11 39.7 +5.5
              4.1nm,1.0s,mb4.3
AML   Almayashu          71.63  317 eP      P        04 11 37.4  0.0
              4.7nm,1.0s,mb4.4
KURK  Kurchatov          72.30  326  P      P        04 11 41.7 +0.6
              4.1nm,1.0s,mb4.3
BVAR  Borovoye Array     77.90  326  P      P        04 12 13.2  0.0
              0.9nm,0.8s,mb3.8,baz=135,slow=6.3,SNR=3.6
CHKZ  Chkalovo           78.02  327 eP      P        04 12 15.1 +1.2
              2.7nm,0.8s,mb4.2
ILAR  Eielson Array      88.02   25  P      P        04 13 02.9 -1.9
              1.1nm,1.0s,mb4.0,baz=265,slow=4.2,SNR=4.4
CPUP  Villa Florida     148.03  159  PKPbc  PKPdf    04 20 02.8 +6.0
              2.3nm,0.7s,baz=195,slow=4.9,SNR=5.7
LPAZ  La Paz            149.78  131  PKPbc  PKPdf    04 20 08.0 +8.1
              0.7nm,0.9s,baz=8.0,slow=1.5,SNR=2.6
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*IDC **02** 04:17:19.3±0.7,51.11N×173.10W,mb4.6/19,mb1 4.8/21, mb1mx4.7/26,ML4.4/2,MS4.8/1,Ms1 4.7/1,ms1mx3.5/26, Error ellipse: s-maj=17.2km s-min=9.7km az=170.0*

*BJI **02** 04:17:21.7,51.26N×173.53W,h19^{km},mB5.5,mb4.7, Ms4.8,Msz4.6*

*NEIC **02** 04:17:24.2±0.3,50.81N×173.19W,mb4.9/60, ML4.5(AEIC),Error ellipse: s-maj=7.1km s-min=3.0km az=187.0*

*MOS **02** 04:17:25.8±0.8,51.35N×173.91W,h32^{km},mb5.0/24, Error ellipse: s-maj=26.1km s-min=8.5km az=104.8*

ISC 02 04:17:22.8±0.2**,50.89N**±0.04×**173.15W**±0.03**,h37^{km}, h37^{km}**±.7^{km}**:pP-P,n238,σ1^{s}10**/249**,mb4.8**/93**,MS4.8**/7**, 6C-8D,Andreanof Islands**

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Code  Station Name         Δ°   AZ°    Phase ID          Time      Res
                                     Op       ISC      h  m  s    ISC
ATKA  Atka Island         1.47  334  P      P        04 17 47.2 -0.1
ATKA                                 S      S        04 18 06.5 +1.0
GSIG  Igitkin Island      2.06  303  P      P        04 17 54.6 -1.0
GSIG                                 S      S        04 18 19.4 -0.9
GSMY  Great Sitkin M      2.16  304  P      P        04 17 56.1 -0.9
GSMY                                 S      S        04 18 22.1 -0.7
GSTR  Great Sitkin T      2.19  305  P      P        04 17 56.9 -0.5
GSTR                                 S      S        04 18 21.8 -1.8
GSTD  Great Sitkin T      2.21  303  P      P        04 17 57.1 -0.7
GSTD                                 S      S        04 18 22.2 -1.9
GSSP  Great Sitkin S      2.25  304  P      P        04 17 57.6 -0.7
ADAG  Mount Adagdak       2.42  298  P      P        04 18 00.0 -0.8
KIRH  Kanaga Island       2.67  294  P      P        04 18 03.2 -1.2
KIWB  Kanaga Island       2.69  293  P      P        04 18 03.2 -1.4
KINC  Kanaga Island       2.70  294  P      P        04 18 03.6 -1.2
KIKV  Kanaga Island       2.71  293  P      P        04 18 03.6 -1.3
KIMD  Kanaga Island       2.71  290  P      P        04 18 03.3 -1.7
OKCE  Okmok Cone E        3.99   48  P      P        04 18 24.1 +1.0
OKCD  Okmok Cone D        4.01   49  P      P        04 18 24.2 +0.7
MCIR  Makushin Cirqu      4.91   49  P      P        04 18 35.4 -0.8
MSW   Makushin Switc      4.94   50  P      P        04 18 36.1 -0.5
MTBL  Makushin Table      5.02   50  P      P        04 18 38.0 +0.2
UNV   Unalaska Valle      5.04   51  P      P        04 18 37.1 -0.9
AKLV  Akutan Long Va      5.48   50  P      P        04 18 45.0 +0.8
AKGG  Akutan Green G      5.49   50  P      P        04 18 44.8 +0.6
AHB   Akutan Harbor       5.53   51  P      P        04 18 45.4 +0.6
WESS  West Dahl Sout      6.26   52  P      P        04 18 54.8 -0.4
WESS                                 S      S        04 20 05.1 -1.3
WFAR  Faris Peak          6.26   51  P      P        04 18 55.5 +0.3
WPOG  Pogromni            6.31   51  P      P        04 18 55.4 -0.5
FALS  False Pass          7.11   52  P      P        04 19 06.8 -0.2
DOL   Dolgoi Island       8.03   54  P      P        04 19 18.3 -1.6
HAG   Hague Volcano       8.09   52  P      P        04 19 20.1 -0.5
PS1A  Pavlof South-1      8.22   52  P      P        04 19 22.3 -0.2
FX1   Attu Island--F      8.70  289  Pn     P        04 19 24.2 -4.9
              5.7nm,0.3s,baz=163,slow=6.6,SNR=28
FX1                                  Sn     S        04 20 55.0  -12
              2.5nm,0.3s,baz=232,slow=12,SNR=2.2
FX1   Attu Island--F      8.70  289  P      P        04 19 24.2 -4.9
FX1                                                  04 20 55.0
FX1                                  pmax   pmax
              comp=Z,6.0nm,0.3s
ANM   Nome               14.31   14 eP      P        04 20 52.3 +7.8
TT01  Tatalina           15.19   31  P      P        04 20 53.7 -2.2
SLKM  Skilak Lake        16.03   44 eP      P        04 21 06.7 -0.2
SML   Sawmill            17.44   42 eP      P        04 21 23.2 -1.3
SCM   Sheep Creek Mo     17.88   42  P      P        04 21 28.9 -1.1
IM3   Indian Mountai     18.09   26  P      P        04 21 32.4 -0.2
IMA   Indian Mountai     18.18   26 eP      P        04 21 35.3 +1.6
MCK   McKinley           18.19   36  P      P        04 21 33.6 -0.3
BWN   Browne             18.25   34  P      P        04 21 34.7 +0.1
DIV   Divide             18.28   45  P      P        04 21 36.2 +1.2
COLA  College            19.23   34 eP      P        04 21 43.4 -2.9
              comp=Z,17nm,0.8s
THY   Trims Highway      19.25   39 eP      P        04 21 46.6 +0.1
ILAR  Eielson Array      19.51   35  P      P        04 21 46.8 -2.6
              comp=Z,1.9nm,0.3s,baz=233,slow=9.4,SNR=84
ILAR                                 S      S        04 25 20.7 -1.4
              comp=Z,0.1nm,0.3s,baz=227,slow=16,SNR=3.3
ILAR  Eielson Array      19.51   35  P      P        04 21 46.8 -2.6
ILAR                                 S      S        04 25 20.7 -1.4
ILAR                                 pmax   pmax
              comp=Z,2.0nm,0.3s
DAWY  Dawson             22.10   41 eP      P        04 22 16.6 +0.6
DLBC  Dease Lake         25.67   56  P      P        04 22 50.7 +0.2
              comp=Z,3.7nm,0.5s,mb4.2,baz=261,slow=13,SNR=7.7
DLBC  Dease Lake         25.67   56  P      P        04 22 50.7 +0.2
              comp=Z,106nm,0.6s,mb5.5
INK   Inuvik             25.88   33  P      P        04 22 51.7 -0.7
              comp=Z,14nm,0.5s,mb4.7,baz=244,slow=9.9,SNR=65
INK   Inuvik             25.88   33  P      P        04 22 51.7 -0.7
INK                                  pmax   pmax
              comp=Z,14nm,0.5s
INK   Inuvik             25.88   33 eP      P        04 22 51.7 -0.7
              comp=Z,23nm,0.8s,mb4.8
YKW3  Yellowknife Ar     32.97   47 eP      P        04 23 54.9 -1.0
YKA   Yellowknife Ar     32.99   47  P      P        04 23 54.4 -1.5
              comp=Z,3.9nm,0.7s,mb4.5,baz=271,slow=7.9,SNR=64
YKA                                  PcP    PcP      04 26 37.9 -1.5
              comp=Z,1.1nm,0.7s,baz=290,slow=2.7,SNR=9.6
YKA   Yellowknife Ar     32.99   47  P      P        04 23 54.4 -1.5
YKA                                                  04 26 37.9
YKA                                  pmax   pmax
              comp=Z,4.0nm,0.7s
YKA                                  pmax   pmax
              comp=Z,1.0nm,0.7s
YKA   Yellowknife Ar     32.99   47  P      P        04 23 54.4 -1.5
YKA                                  PcP    PcP      04 26 37.9 -1.5
VLMM  Larch Mountain     33.91   79  P      P        04 24 04.7 +0.7
SSOR  Sweet Springs      33.97   80  P      P        04 24 05.5 +0.9
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TBM	**Table Mountain**	**34.06**	**75**	P	**P**	**04 24 05.5**	**+0.2**
EBG	**Ellensburg**	**34.19**	**76**	P	**P**	**04 24 06.9**	**+0.4**
WTV	**Waterville**	**34.22**	**74**	P	**P**	**04 24 06.4**	**-0.3**
BROR	**Big Rock Looko**	**34.26**	**81**	P	**P**	**04 24 07.6**	**+0.5**
HBO	**Huckleberry Mo**	**34.55**	**82**	P	**P**	**04 24 10.3**	**+0.7**
CROR	**Criterion Ridg**	**34.82**	**79**	P	**P**	**04 24 12.2**	**+0.2**
HAWA	**Hanford**	**35.06**	**76**	*e*P	**P**	**04 24 13.4**	**-0.6**
	comp=Z,17nm,0.9s,mb5.0						
OD2	**Odessa Site #2**	**35.11**	**74**	P	**P**	**04 24 13.9**	**-0.5**
VIPM	**Ingram Point**	**35.28**	**79**	P	**P**	**04 24 16.3**	**+0.4**
NEW	**Newport**	**35.69**	**72**	P	**P**	**04 24 18.8**	**-0.5**
	comp=Z,13nm,0.7s,mb5.0,baz=296,slow=6.8,SNR=24						
NEW	**Newport**	**35.69**	**72**	P	**P**	**04 24 18.8**	**-0.5**
NEW				pmax	pmax		
	comp=Z,13nm,0.7s						
NEW	**Newport**	**35.69**	**72**	*e*P	**P**	**04 24 18.1**	**-1.2**
	comp=Z,14nm,0.9s,mb4.9						
EDM	**Edmonton**	**35.92**	**62**	*e*P	**P**	**04 24 20.5**	**-0.6**
BMO	**Blue Mountains**	**37.17**	**77**	*e*P	**P**	**04 24 30.9**	**-0.9**
	comp=Z,19nm,1.7s,mb4.7						
MDJ	**Mudanjiang**	**38.16**	**284**	P	**P**	**04 24 36.3**	**-3.8**
MDJ				AP	pP	04 24 45.0	-5.6
MDJ				XP	sP	04 24 48.8	-6.4
MDJ				PCP	PcP	04 26 52.6	-2.3
MDJ				S	**S**	**04 30 26.0**	**-4.5**
MDJ				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.3						
MDJ				LR	LR		
	comp=N,239nm,22.2s,MS4.2						
MDJ				LR	LR		
	comp=E,384nm,20.5s,MS4.2						
MDJ				LR	LR		
	comp=Z,459nm,19.9s,MS4.3						
MSO	**Missoula**	**38.26**	**72**	*e*P	**P**	**04 24 39.4**	**-1.5**
	comp=Z,8.5nm,1.2s,mb4.3						
CMB	**Columbia Colle**	**38.97**	**88**	*e*P	**P**	**04 24 46.0**	**-0.9**
HRY	**Holter Researc**	**39.59**	**71**	*e*P	**P**	**04 24 50.8**	**-1.1**
HLID	**Hailey**	**39.62**	**77**	*e*P	**P**	**04 24 51.7**	**-0.5**
	comp=Z,14nm,1.1s,mb4.6						
MCMT	**McKenzie Canyo**	**39.92**	**74**	*e*P	**P**	**04 24 54.1**	**-0.5**
MCMT				*e*pP	pP	04 25 05.4	+0.2
NVAR	**Mina Array Bea**	**40.06**	**86**	P	**P**	**04 24 56.1**	**+0.2**
	comp=Z,3.4nm,0.9s,mb4.1,baz=299,slow=7.1,SNR=18						
NVAR				PcP	PcP	04 27 00.1	-0.8
	comp=Z,1.6nm,0.8s,baz=330,slow=2.8,SNR=6.4						
MNV	**Mina**	**40.15**	**86**	*e*P	**P**	**04 24 56.5**	**-0.1**
BOZ	**Bozeman (W)**	**40.24**	**73**	*e*P	**P**	**04 24 56.3**	**-1.0**
	comp=Z,7.9nm,0.8s,mb4.5						
MTUM	**Tungsten Hills**	**40.54**	**88**	*e*P	**P**	**04 25 00.1**	**+0.2**
MTUM				*e*pP	pP	04 25 10.9	+0.4
ELK	**Elko**	**40.64**	**81**	*e*P	**P**	**04 25 00.4**	**-0.3**
	comp=Z,5.2nm,1.0s,mb4.1						
ELK				*e*pP	pP	04 25 11.3	0.0
QLMT	**Earthquake Lak**	**40.78**	**74**	*e*P	**P**	**04 25 01.8**	**0.0**
TPH	**Tonopah**	**40.95**	**86**	*e*P	**P**	**04 25 03.4**	**+0.1**
	comp=Z,4.1nm,0.8s,mb4.1						
BOD	**Bodaibo**	**41.09**	**309**	*e*P	**P**	**04 25 01.5**	**-2.8**
GCMT	**Greycliff**	**41.35**	**71**	*e*P	**P**	**04 25 06.1**	**-0.4**
HVU	**Hansel Valley**	**41.60**	**78**	*e*P	**P**	**04 25 08.0**	**-0.5**
HVU				*e*pP	pP	04 25 19.1	0.0
HIA	**Hailar**	**41.75**	**295**	*c* *i*P	**P**	**04 25 08.9**	**-0.7**
SPUT	**South Promonto**	**42.06**	**79**	*e*P	**P**	**04 25 12.3**	**0.0**
TPNV	**Topopah Spring**	**42.25**	**87**	*e*P	**P**	**04 25 13.4**	**-0.5**
	comp=Z,12nm,0.9s,mb4.5						
HWUT	**Hardware Ranch**	**42.45**	**78**	*e*P	**P**	**04 25 14.7**	**-0.8**
	comp=Z,8.0nm,1.1s,mb4.3						
TCUT	**Toone Canyon**	**42.82**	**78**	*e*P	**P**	**04 25 18.6**	**0.0**
BW06	**Boulder Array**	**43.03**	**75**	*e*P	**P**	**04 25 19.5**	**-0.8**
	comp=Z,14nm,0.9s,mb4.7						
BW06				*e*pP	pP	04 25 30.7	-0.2
PDAR	**Pinedale Array**	**43.03**	**75**	P	**P**	**04 25 19.9**	**-0.3**
	comp=Z,15nm,0.9s,mb4.7,baz=305,slow=4.2,SNR=101						
PDAR				LR	LR	04 40 52.8	
	comp=Z,1µm,21.0s,MS4.7,baz=306,slow=33						
NLU	**North Lily Min**	**43.08**	**80**	*e*P	**P**	**04 25 20.1**	**-0.6**
DAU	**Daniels Canyon**	**43.32**	**79**	*e*P	**P**	**04 25 22.8**	**+0.1**
ARUT	**Antelope Range**	**43.51**	**84**	*e*P	**P**	**04 25 23.1**	**-1.1**
MVU	**Marysvale**	**43.85**	**82**	*e*P	**P**	**04 25 26.5**	**-0.5**
	comp=Z,10.0nm,1.3s,mb4.4						
MSU	**Marysvale**	**43.87**	**82**	*e*P	**P**	**04 25 26.9**	**-0.2**
MSU				*e*pP	pP	04 25 37.4	-0.3
NEN	**Nelson**	**43.94**	**87**	*e*P	**P**	**04 25 27.4**	**-0.3**
SRU	**San Rafael**	**44.54**	**80**	*e*P	**P**	**04 25 31.6**	**-0.8**
SRU				*e*pP	pP	04 25 42.8	-0.4
PV10	**Paradox Valley**	**45.91**	**80**	*e*P	**P**	**04 25 43.0**	**-0.4**
PV01	**Paradox Valley**	**46.35**	**80**	*e*P	**P**	**04 25 46.0**	**-0.9**
PV01				*e*pP	pP	04 25 56.8	-0.7
ULM	**Lac du Bonnet**	**46.93**	**59**	P	**P**	**04 25 50.1**	**-1.1**
	comp=Z,11nm,0.8s,mb4.8,baz=302,slow=9.0,SNR=10						
SDCO	**Great Sand Dun**	**48.50**	**78**	*e*P	**P**	**04 26 02.8**	**-0.9**
	comp=Z,12nm,1.3s,mb4.8						
SDCO				*e*pP	pP	04 26 13.9	-0.5
ANMO	**Albuquerque**	**49.67**	**82**	*e*P	**P**	**04 26 11.7**	**-1.1**
	comp=Z,7.9nm,1.3s,mb4.6						
ANMO				*e*	pP	04 26 22.9	-0.6
LPM	**Los Pinos Moun**	**49.98**	**82**	*e*P	**P**	**04 26 14.3**	**-0.8**
SONM	**Songino Array**	**50.02**	**300**	P	**P**	**04 26 14.6**	**-0.6**
	comp=Z,3.3nm,0.6s,mb4.6,baz=45,slow=8.2,SNR=12						
ZAK	**Zakamensk**	**50.22**	**304**	*e*P	**P**	**04 26 15.9**	**-0.8**
SSE	**Sheshan**	**51.57**	**274**	P	**P**	**04 26 30.5**	**+3.3**
SSE				AMB	AMB		
	comp=Z,21nm,0.6s,mb5.2						
NJ2	**Nanjing**	**52.40**	**276**	*e*P	**P**	**04 26 33.5**	**+0.1**
NJ2				AP	pP	04 26 43.6	-0.6
NJ2				XP	sP	04 26 48.0	-0.6
NJ2				PP	PP	04 28 31.5	-1.7
NJ2				PPP	PPP	04 29 37.0	-1.2
NJ2				S	**S**	**04 33 55.0**	**-0.2**
NJ2				XS		04 34 12.0	
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
NJ2				AMB	AMB		
	comp=Z,1µm,4.6s						
NJ2				LR	LR		
	comp=N,2µm,19.8s,MS5.4						
NJ2				LR	LR		
	comp=E,2µm,20.3s,MS5.4						
NJ2				LR	LR		
	comp=Z,600nm,13.8s						
AMTX	**Amarillo**	**52.70**	**79**	*e*P	**P**	**04 26 33.4**	**-2.3**
	comp=Z,7.2nm,0.9s,mb4.6						
GDL2	**Guadalupe Moun**	**52.79**	**83**	*e*P	**P**	**04 26 34.9**	**-1.5**
WMOK	**Wichita Mounta**	**54.59**	**77**	*e*P	**P**	**04 26 47.1**	**-2.4**
LTX	**Lajitas**	**55.18**	**85**	*e*P	**P**	**04 26 52.0**	**-2.0**
	comp=Z,13nm,1.1s,mb4.9						
TXAR	**Lajitas Array**	**55.18**	**85**	P	**P**	**04 26 52.4**	**-1.6**
	comp=Z,5.8nm,0.8s,mb4.7,baz=295,slow=5.4,SNR=66						
TXAR				PcP	PcP	04 27 53.2	-1.4
	comp=Z,2.2nm,0.8s,baz=281,slow=2.9,SNR=5.3						
ZAL	**Zalesovo**	**56.92**	**316**	P	**P**	**04 27 04.8**	**-1.3**
	comp=Z,0.9nm,0.4s,mb4.1,baz=76,slow=4.0,SNR=5.2						
ZAL				PcP	PcP	04 28 00.7	-0.4
	comp=Z,1.1nm,0.6s,baz=67,slow=10,SNR=4.0						
ZAL	**Zalesovo**	**56.92**	**316**	P	**P**	**04 27 04.9**	**-1.2**
ZAL						04 28 00.7	
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MIAR	**Mount Ida**	**57.90**	**73**	P	**P**	**04 27 11.1**	**-2.2**
SCHQ	**Schefferville**	**58.12**	**41**	P	**P**	**04 27 13.4**	**-1.1**
	comp=Z,11nm,0.8s,mb5.0,baz=303,slow=7.5,SNR=8.4						
KEV	**Kevo**	**58.77**	**352**	*e*p	**P**	**04 27 15.2**	**-3.7**
LZH	**Lanzhou**	**58.92**	**290**	*e*P	**P**	**04 27 19.2**	**-1.2**
LZH				AP	pP	04 27 30.7	-0.6
LZH				XP	sP	04 27 35.2	-0.4
LZH				PP	PP	04 29 31.2	-1.3
LZH				AMB	AMB		
	comp=Z,24nm,1.4s,mb5.0						
LZH				AMB	AMB		
	comp=Z,114nm,5.2s						
LZH				LR	LR		
	comp=N,446nm,14.3s						
LZH				LR	LR		
	comp=Z,498nm,17.4s,MS4.7						
GTA	**Gaotai**	**59.02**	**296**	*e*P	**P**	**04 27 20.1**	**-1.0**
GTA				AP	pP	04 27 30.3	-1.7
GTA				XP	sP	04 27 34.2	-2.1
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.8						
ARCES	**ARCESS Array B**	**59.12**	**352**	P	**P**	**04 27 20.2**	**-1.1**
	comp=Z,6.5nm,0.5s,mb4.9,baz=23,slow=7.4,SNR=38						
ARCES	**ARCESS Array B**	**59.12**	**352**	P	**P**	**04 27 20.2**	**-1.1**
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.5s						
ARCES	**ARCESS Array B**	**59.12**	**352**	P	**P**	**04 27 20.2**	**-1.1**
KURK	**Kurchatov**	**61.88**	**317**	*d* *i*P	**P**	**04 27 39.7**	**-0.6**
KURK				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.1						
CD2	**Chengdu**	**62.55**	**286**	*e*P	**P**	**04 27 45.9**	**+0.8**
WMQ	**Urumqi**	**62.55**	**306**	⇓P	**P**	**04 27 45.2**	**+0.3**
WMQ				AP	pP	04 27 55.4	-0.6
WMQ				XP	sP	04 27 59.6	-0.6
WMQ				PCP	PcP	04 28 24.3	+0.7
WMQ				*e*S	**S**	**04 36 08.8**	**+0.5**
WMQ				AMB	AMB		
	comp=Z,13nm,0.8s,mb5.1						
WMQ				LR	LR		
	comp=N,116nm,18.6s,MS4.2						
WMQ				LR	LR		
	comp=E,152nm,22.3s,MS4.2						
WMQ				LR	LR		
	comp=Z,274nm,20.8s,MS4.4						
CHKZ	**Chkalovo**	**62.91**	**323**	*i* P	**P**	**04 27 46.1**	**-1.1**
CHKZ				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.7						
CHKZ	**Chkalovo**	**62.91**	**323**	*e*P	**P**	**04 27 46.0**	**-1.2**
	comp=Z,5.9nm,0.9s,mb4.7						
MKAR	**Makanchi Array**	**63.08**	**312**	*i* P	**P**	**04 27 46.9**	**-1.5**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
BVA0	**Borovoye Array**	**63.50**	**323**	*i* P	**P**	**04 27 50.6**	**-0.4**
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
BVAR	**Borovoye Array**	**63.50**	**323**	P	**P**	**04 27 50.8**	**-0.2**
	comp=Z,6.2nm,0.5s,mb4.9,baz=53,slow=7.4,SNR=47						
BVAR				PcP	PcP	04 28 26.3	-0.9
	comp=Z,4.7nm,0.7s,baz=63,slow=3.3,SNR=7.1						
BRVK	**Borovoye**	**63.52**	**323**	*e*P	**P**	**04 27 50.6**	**-0.5**
	comp=Z,23nm,1.2s,mb5.1						
GYA	**Guiyang**	**63.92**	**280**	P	**P**	**04 27 52.8**	**-1.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.8						
ARU	**Arti**	**64.83**	**331**	⇓*i*P	**P**	**04 27 57.9**	**-1.6**
ARU				*e*		04 28 33.2	
ARU				*e*		04 30 18.4	
ARU				*e*S	**S**	**04 36 35.5**	**-0.8**
ARU				*e*		04 37 49.3	
ARU				*e*SS	SS	04 40 45.6	-4.1
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
ARU	**Arti**	**64.83**	**331**	*e*P	**P**	**04 27 58.8**	**-0.7**
	comp=Z,4.6nm,0.5s,mb4.8						
JOF	**Joensuu**	**64.91**	**348**	*e*p	**P**	**04 27 58.5**	**-1.4**
	comp=Z,5.4nm,0.5s,mb4.8						
JOF	**Joensuu**	**64.91**	**348**	*e*P	**P**	**04 27 58.5**	**-1.4**
JOF				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
KAF	**Kangasniemi**	**66.29**	**350**	*e*p	**P**	**04 28 07.9**	**-0.9**
	comp=Z,5.5nm,0.6s,mb4.8,baz=9.2,slow=6.0						
KAF	**Kangasniemi**	**66.29**	**350**	*e*P	**P**	**04 28 07.9**	**-0.9**
KAF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
FINES	**FINESS Array B**	**66.97**	**350**	P	**P**	**04 28 12.3**	**-0.7**
	comp=Z,4.6nm,0.7s,mb4.6,baz=23,slow=8.1,SNR=19						
FINES	**FINESS Array B**	**66.97**	**350**	P	**P**	**04 28 12.4**	**-0.7**
FINES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NB2	**NORSAR Subarra**	**68.37**	**358**	P	**P**	**04 28 21.6**	**-0.3**
	comp=Z,5.6nm,0.8s,mb4.7,baz=2.0,slow=6.2						
NOA	**NORSAR Array B**	**68.37**	**358**	P	**P**	**04 28 21.3**	**-0.5**
	comp=Z,4.6nm,0.7s,mb4.6,baz=2.9,slow=6.3,SNR=17						
NOA	**NORSAR Array B**	**68.37**	**358**	P	**P**	**04 28 21.3**	**-0.6**
NOA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
USP	**Ospenovka**	**69.36**	**314**	P	**P**	**04 28 28.8**	**+0.5**
	SNR=14						
CHMS	**Chumysh**	**69.45**	**313**	P	**P**	**04 28 29.2**	**+0.4**
	SNR=5.5						
AAK	**Ala-Archa**	**69.86**	**313**	P	**P**	**04 28 32.0**	**+0.7**
	SNR=12						
AAK	**Ala-Archa**	**69.86**	**313**	*d* *i*P	**P**	**04 28 30.9**	**-0.4**
AAK				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
AAK	**Ala-Archa**	**69.86**	**313**	*e*P	**P**	**04 28 30.2**	**-1.1**
	comp=Z,14nm,0.8s,mb5.0						
EKS2	**Erkin-Say**	**70.16**	**314**	P	**P**	**04 28 34.0**	**+0.8**
	SNR=12						
EKS2	**Erkin-Say**	**70.16**	**314**	*e*P	**P**	**04 28 33.1**	**-0.1**
	comp=Z,17nm,0.8s,mb5.0						
AML	**Almayashu**	**70.62**	**314**	P	**P**	**04 28 37.0**	**+1.1**
	SNR=6.7						
AML	**Almayashu**	**70.62**	**314**	*e*P	**P**	**04 28 36.0**	**+0.1**
	comp=Z,12nm,0.8s,mb4.9						
OBN	**Obninsk**	**71.50**	**343**	*e*P	**P**	**04 28 40.2**	**-0.8**
OBN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
OBN				MLR	MLR		
	comp=Z,400nm,17.0s,MS4.8						
CMAR	**Chiang Mai Arr**	**74.61**	**280**	P	**P**	**04 28 58.8**	**-1.1**
	comp=Z,3.0nm,0.8s,mb4.3,baz=31,slow=7.2,SNR=11						
CMAR	**Chiang Mai Arr**	**74.61**	**280**	P	**P**	**04 28 58.8**	**-1.1**
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
VRSR	**Storozhevoye**	**74.64**	**340**	*e*P	**P**	**04 28 59.9**	**+0.5**
VRSR				pmax	pmax		
	comp=N,30nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.1s						
BSEG	**Bad Segeberg**	**75.51**	**358**	*e*P	**P**	**04 29 06.1**	**+1.7**
BSEG				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
KKN	**Kakani**	**75.74**	**296**	*e*P	**P**	**04 29 05.5**	**-0.7**
PKI	**Pulchoki**	**75.83**	**296**	*e*P	**P**	**04 29 06.8**	**0.0**
	comp=Z,33nm,1.1s,mb5.2						
GKN	**Gorkha**	**75.94**	**297**	*e*P	**P**	**04 29 06.9**	**-0.4**
	comp=Z,40nm,0.9s,mb5.4						
DMN	**Daman**	**75.98**	**296**	*e*P	**P**	**04 29 07.4**	**-0.2**
	comp=Z,24nm,0.8s,mb5.2						
KOLN	**Koldanda**	**76.70**	**298**	*e*P	**P**	**04 29 11.5**	**-0.2**
	comp=Z,26nm,0.9s,mb5.2						
AKASG	**Malin Array Be**	**77.02**	**346**	P	**P**	**04 29 12.3**	**-0.6**
	comp=Z,17nm,0.9s,mb5.0,baz=14,slow=5.4,SNR=26						
AKASG	**Malin Array Be**	**77.02**	**346**	P	**P**	**04 29 12.4**	**-0.6**
AKASG				pmax	pmax		
	comp=Z,17nm,1.0s						
CLZ	**Clausthal**	**77.61**	**358**	*e*P	**P**	**04 29 17.8**	**+1.6**
	comp=Z,21nm,0.9s,mb5.1						
CLL	**Collm**	**78.05**	**356**	⇓*i*P	**P**	**04 29 19.5**	**+0.8**
CLL				*e*	pP	04 29 31.0	+1.1
CLL				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
CLL				MLR	MLR		
	comp=Z,2µm,19.7s,MS5.5						
CLL	**Collm**	**78.05**	**356**	⇓*i*P	**P**	**04 29 19.5**	**+0.8**
	comp=Z,16nm,0.9s,mb5.0						
CLL				*e*	pP	04 29 31.0	+1.1
CLL				LR	LR		
	comp=Z,2µm,19.7s,MS5.5						
CLL	**Collm**	**78.05**	**356**	⇓P	**P**	**04 29 19.5**	**+0.8**
	comp=Z,logA/T=1.2,mb4.9						
CLL				*e**PP	pP	04 29 31.0	+1.1
BRG	**Berggiesshubel**	**78.44**	**355**	*i* P	**P**	**04 29 21.6**	**+0.8**
BRG				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
BRG	**Berggiesshubel**	**78.44**	**355**	*i* PKP	**P**	**04 29 21.6**	**+0.8**
	comp=Z,14nm,0.9s,mb4.9						
OJC	**Ojcow**	**78.67**	**352**	*e*P	**P**	**04 29 22.6**	**+0.5**
UPC	**Upice**	**78.69**	**354**	*e*P	**P**	**04 29 23.1**	**+0.9**
PVCC	**Panska Ves**	**78.75**	**355**	*e*P	**P**	**04 29 23.8**	**+1.3**
MOX	**Moxa**	**78.77**	**357**	*e*P	**P**	**04 29 23.7**	**+1.1**
MOX				pmax	pmax		
	comp=Z,51nm,1.9s,mb5.1						
MOX	**Moxa**	**78.77**	**357**	*i* P	**P**	**04 29 23.7**	**+1.1**
	comp=Z,logA/T=1.4,mb5.1						
MOX	**Moxa**	**78.77**	**357**	*e*P	**P**	**04 29 23.7**	**+1.1**
	comp=Z,51nm,1.9s,mb5.1						
DPC	**Dobruska-Polom**	**78.82**	**354**	*e*P	**P**	**04 29 23.5**	**+0.6**
DPC				*e*	pP	04 29 34.7	+0.5
NKC	**Novy Kostel**	**79.15**	**356**	*e*P	**P**	**04 29 25.9**	**+1.2**
NKC				*e*pP	pP	04 29 36.9	+0.9
OKC	**Ostrava-Krasne**	**79.19**	**353**	*e*P	**P**	**04 29 25.3**	**+0.3**
PRU	**Pruhonice**	**79.29**	**355**	*e*P	**P**	**04 29 26.1**	**+0.6**
GIVF	**Givet**	**79.38**	**1**	*e*P	**P**	**04 29 27.0**	**+1.1**
BAIF	**Baives**	**79.41**	**2**	*e*P	**P**	**04 29 27.4**	**+1.3**
	comp=Z,47nm,1.1s,mb5.0						
GOF	**Gofitskoye**	**79.43**	**335**	*e*P	**P**	**04 29 27.0**	**+0.7**
KOLS	**Kolonicke sedl**	**79.69**	**350**	*e*P	**P**	**04 29 28.6**	**+0.9**
GRA1	**Grafenberg Arr**	**79.73**	**357**	*e*P	**P**	**04 29 29.6**	**+1.7**
	comp=Z,24nm,0.8s,mb5.2						
GRF	**Grafenberg Arr**	**79.73**	**357**	*e*P	**P**	**04 29 29.6**	**+1.7**
GRF				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.2						
KHC	**Kasperske Hory**	**80.20**	**356**	*e*P	**P**	**04 29 31.8**	**+1.4**
KHC				*e*pP	pP	04 29 43.0	+1.3
VYHS	**Vyhne**	**80.47**	**352**	*e*P	**P**	**04 29 33.2**	**+1.4**
GEC2	**GERESS Array S**	**80.48**	**355**	*e*P	**P**	**04 29 33.2**	**+1.3**
GEC2				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
GEC2	**GERESS Array S**	**80.48**	**355**	*e*P	**P**	**04 29 33.2**	**+1.3**
	comp=Z,9.0nm,1.1s,mb4.6						
GERES	**GERESS Array B**	**80.48**	**355**	P	**P**	**04 29 32.7**	**+0.8**
	comp=Z,3.7nm,0.8s,mb4.4,baz=18,slow=4.2,SNR=27						
GERES	**GERESS Array B**	**80.48**	**355**	P	**P**	**04 29 32.7**	**+0.8**
GERES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
FLN	**La Foliniere**	**80.53**	**5**	*e*P	**P**	**04 29 32.8**	**+0.6**
KIV	**Kislovodsk**	**80.54**	**335**	*e*P	**P**	**04 29 33.2**	**+0.9**
KIV				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
KIV				pmax	pmax		
	comp=N,4.0nm,0.8s						
KIV				pmax	pmax		
	comp=E,10.0nm,1.2s						
SMOL	**Smolenice**	**80.57**	**353**	*e*P	**P**	**04 29 34.1**	**+1.8**
LDF	**La Druitiere**	**80.72**	**5**	*e*P	**P**	**04 29 33.9**	**+0.7**
	comp=E,26nm,0.8s,mb4.9						
ROSF	**Rostrenen**	**80.78**	**7**	*e*P	**P**	**04 29 35.5**	**+2.0**
GRR	**Gorron**	**80.89**	**5**	*e*P	**P**	**04 29 35.0**	**+1.0**
	comp=E,18nm,0.6s,mb4.9						
SGMF	**Saint Gilles**	**80.91**	**6**	*e*P	**P**	**04 29 35.2**	**+1.0**
MEZF	**Maizieres J’vi**	**80.98**	**1**	*e*P	**P**	**04 29 35.9**	**+1.4**
CDF	**Champ du Feu**	**81.08**	**360**	*e*P	**P**	**04 29 36.2**	**+1.1**
	comp=E,20nm,0.8s,mb4.8						
BFO	**Black Forest**	**81.16**	**359**	*e*P	**P**	**04 29 37.0**	**+1.5**
BFO				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
BFO	**Black Forest**	**81.16**	**359**	*e*P	**P**	**04 29 37.0**	**+1.5**
	comp=Z,13nm,1.1s,mb4.8						
QUIF	**Quistinic**	**81.20**	**7**	*e*P	**P**	**04 29 37.6**	**+1.9**
HAU	**Haudompre**	**81.49**	**0**	*e*P	**P**	**04 29 38.3**	**+1.1**
	comp=Z,12nm,0.7s,mb4.6						
HINF	**Hinteralfeld**	**81.68**	**360**	*e*P	**P**	**04 29 39.2**	**+1.0**
	comp=Z,14nm,0.7s,mb4.7						
ARSA	**Arzberg**	**81.96**	**354**	⇑*i*P	**P**	**04 29 41.6**	**+1.9**
	comp=Z,8.7nm,1.2s,mb4.6						
MOTA	**Moosalm**	**82.08**	**357**	⇑*i*P	**P**	**04 29 42.0**	**+1.7**
	comp=Z,4.6nm,0.8s,mb4.5						
WTTA	**Wattenberg**	**82.15**	**357**	⇑*i*P	**P**	**04 29 42.7**	**+2.1**
	comp=Z,9.4nm,0.9s,mb4.7						
HYF	**Humbligny**	**82.16**	**3**	*e*P	**P**	**04 29 42.2**	**+1.5**
SQTA	**Sankt Quirin**	**82.20**	**357**	⇑*i*P	**P**	**04 29 42.9**	**+2.0**
	comp=Z,3.4nm,0.6s,mb4.5						
KBA	**Koelnbreinsper**	**82.26**	**356**	⇓*i*P	**P**	**04 29 43.2**	**+2.0**
	comp=Z,17nm,0.7s,mb5.1						
SSF	**Saint Saulge**	**82.39**	**2**	*e*P	**P**	**04 29 43.2**	**+1.3**
	comp=Z,33nm,0.8s,mb5.0						
AVF	**Avril sur Loir**	**82.66**	**2**	*e*P	**P**	**04 29 44.4**	**+1.2**
	comp=Z,21nm,0.8s,mb4.9						
DAVOX	**Davos**	**82.68**	**358**	P	**P**	**04 29 44.5**	**+1.1**
	comp=Z,7.2nm,0.6s,mb4.9,baz=340,slow=10						
MFF	**Saint Martin d**	**82.71**	**5**	*e*P	**P**	**04 29 44.6**	**+1.1**
	comp=Z,79nm,1.3s,mb5.3						
OBKA	**Obir**	**82.76**	**355**	⇑*i*P	**P**	**04 29 45.5**	**+1.7**
	comp=Z,4.8nm,0.7s,mb4.6						
SMF	**Signal de Mont**	**82.82**	**2**	*e*P	**P**	**04 29 45.3**	**+1.2**
	comp=Z,27nm,0.9s,mb5.0						
BGF	**Bois d’Agland**	**82.88**	**3**	*e*P	**P**	**04 29 45.6**	**+1.2**
	comp=Z,27nm,1.0s,mb4.9						
CABF	**La Chapelle**	**82.88**	**1**	*e*P	**P**	**04 29 46.2**	**+1.8**
	comp=Z,32nm,0.9s,mb5.0						
TCF	**Toulx Ste Croi**	**83.13**	**3**	*e*P	**P**	**04 29 46.7**	**+1.1**
	comp=Z,5.8nm,0.6s,mb4.5						
LPL	**La Plagne**	**83.98**	**0**	*e*P	**P**	**04 29 52.4**	**+2.5**
	comp=Z,13nm,1.0s,mb4.7						
LPG	**La Plagne**	**84.00**	**0**	*e*P	**P**	**04 29 52.7**	**+2.7**
	comp=Z,33nm,1.1s,mb5.1						
RJF	**Les Rejaudoux**	**84.08**	**4**	*e*P	**P**	**04 29 51.3**	**+0.9**
	comp=Z,16nm,0.9s,mb4.8						
LFF	**La Frestale**	**84.41**	**4**	*e*P	**P**	**04 29 53.4**	**+1.3**
	comp=Z,23nm,0.8s,mb5.0						
CAF	**Calviac**	**84.48**	**3**	*e*P	**P**	**04 29 53.8**	**+1.4**
ORIF	**Oris-en-Rattie**	**84.58**	**1**	*e*P	**P**	**04 29 55.0**	**+2.1**
	comp=Z,37nm,1.1s,mb5.1						
VIVF	**Saint-Julien-l**	**84.62**	**2**	*e*P	**P**	**04 29 55.0**	**+1.9**
	comp=Z,20nm,0.9s,mb5.0						
MBDF	**Montbardon**	**84.77**	**0**	*e*P	**P**	**04 29 56.2**	**+2.3**
	comp=Z,31nm,0.8s,mb5.2						
MTLF	**Montolieu**	**86.07**	**3**	*e*P	**P**	**04 30 02.1**	**+1.8**
EPF	**Esparros**	**86.29**	**5**	*e*P	**P**	**04 30 03.2**	**+1.8**
	comp=Z,12nm,0.9s,mb4.8						
BRTR	**Keskin Array B**	**86.76**	**340**	P	**P**	**04 30 04.7**	**+0.9**
	comp=Z,1.0nm,0.6s,mb4.3,baz=58,slow=1.7,SNR=4.6						
BRTR	**Keskin Array B**	**86.76**	**340**	P	**P**	**04 30 04.7**	**+0.9**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MAW	**Mawson**	**148.25**	**217**	PKPbc	PKPdf	04 37 03.3	+3.3
	comp=Z,5.4nm,0.7s,baz=101,slow=5.2,SNR=3.8						
MAW	**Mawson**	**148.25**	**217**	PKHKP	PKPdf	04 37 03.3	+3.3
MAW				pmax	pmax		
	comp=Z,5.0nm,0.7s						

IDC ***02*** *04:18:33.0±2.2, 11.32S×165.94E, mb3.9/5, mb1 4.1/5, mb1mx3.9/15, Error ellipse: s-maj=124.0km s-min=26.1km az=136.0*

ISC 02 04:18:36.6±1.1**, 11.3S**±0.1×**165.8E**±0.2**, h33**^{km}**, n7, σ0**^{s}**63**/7**, mb3.9**/4**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**10.69**	**177**	*e*P	**P**	**04 21 10.7**	**0.0**
CTA	**Charters Tower**	**20.73**	**243**	*e*P	**P**	**04 23 18.1**	**+1.1**
	2.8nm,0.4s						
CTA	**Charters Tower**	**20.73**	**243**	P	**P**	**04 23 17.7**	**+0.7**
	3.1nm,0.8s,baz=65,slow=9.6,SNR=7.7						
STKA	**Stephens Creek**	**30.29**	**224**	P	**P**	**04 24 47.0**	**-0.1**
	1.2nm,0.5s,mb3.9,baz=41,slow=9.3,SNR=3.6						
WRA	**Warramunga Arr**	**31.46**	**250**	P	**P**	**04 24 56.7**	**-0.9**
	1.3nm,0.5s,mb4.0,baz=81,slow=9.3,SNR=4.7						
ILAR	**Eielson Array**	**83.76**	**18**	P	**P**	**04 31 04.0**	**+0.7**
	1.1nm,0.8s,mb4.0,baz=230,slow=6.3,SNR=6.3						
YKA	**Yellowknife Ar**	**95.19**	**27**	P	**P**	**04 31 57.1**	**-0.5**
	0.2nm,0.6s,mb3.7,baz=257,slow=4.7,SNR=4.0						

GUC 02 04:18:50.3±0.7**, 22.77S**×**68.81W, h90**^{km}±6^{km}**, MD3.8, ML3.7, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**0.18**	**327**	*e*P	P	04 19 03.6	+0.4
LVC				*i* S	S	04 19 14.3	+1.5
LVC				AMP		04 19 15.4	
	comp=N,5µm,0.3s						
SPCH	**San Pedro de A**	**0.58**	**104**	*i* P	P	04 19 06.7	+0.8
SPCH				*e*S	S	04 19 18.8	+1.4
SPCH				AMP		04 19 20.1	
	comp=E,8µm,0.4s						
ANCH	**Antofagasta**	**1.73**	**238**	*e*P	P	04 19 19.7	+0.1
ANCH				*i* S	S	04 19 42.1	+1.0
CPN1	**Cerro Paranal**	**2.36**	**218**	*e*P	P	04 19 28.9	+0.8
CPN1				*i* S	S	04 19 57.8	+1.7
CPN1				AMP		04 20 03.7	
	comp=E,351nm,0.2s						

IDC ***02*** *04:18:58.0±1.1, 3.39S×135.19E, mb4.1/5, mb1 4.3/7, mb1mx4.2/14, ML3.9/2, Error ellipse: s-maj=66.0km s-min=20.7km az=78.0*

NEIC ***02*** *04:19:09.8±2.9, 4.16S×135.95E, h147*^{km}*±31*^{km}*, mb4.3/7, Error ellipse: s-maj=19.9km s-min=16.7km az=161.0*

ISC 02 04:19:02.5±2.4**, 3.77S**±0.07×**135.9E**±0.1**, h78**^{km}±25^{km}**, n17, σ1**^{s}**28**/21**, mb3.8**/5**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.51**	**201**	*e*P	**P**	**04 21 19.2**	**+0.4**
	18nm,0.4s						
KAKA				*e*S	**S**	**04 23 06.1**	**+1.2**
PMG	**Port Moresby**	**12.52**	**117**	P	**P**	**04 22 00.2**	**+1.0**
	24nm,1.1s						
WRAB	**Tennant Creek**	**16.13**	**185**	*e*P	**P**	**04 22 43.1**	**-2.7**
	20nm,0.8s						

WB2	Warramunga Arr	16.14	185	eP	P	04 22 42.2	-3.7
WB2				e		04 22 53.3	
WB2				eS	S	04 25 42.7	+0.6
WRA	Warramunga Arr	16.14	185	Pn	P	04 22 45.6	-0.4
	0.4nm,0.3s,baz=5.6,slow=13,SNR=6.9						
WRA				Sn	S	04 25 41.0	-1.1
	0.6nm,0.3s,baz=4.6,slow=24,SNR=5.2						
FITZ	Fitzroy Crossi	17.42	214	eP	P	04 23 01.1	-0.8
	5.0nm,0.7s						
FITZ				eS	S	04 26 04.9	-6.0
FITZ	Fitzroy Crossi	17.42	214	P	P	04 23 00.5	-1.4
	0.4nm,0.3s,baz=24,slow=8.5,SNR=13						
FITZ				S	S	04 26 04.2	-6.7
	0.6nm,0.3s,baz=181,slow=12,SNR=3.8						
CTAO	Charters Tower	19.11	149	eP	P	04 23 17.7	-4.1
	8.0nm,0.9s						
ASAR	Alice Springs	19.87	185	P	P	04 23 34.5	+4.6
	15nm,0.5s,baz=9.3,slow=10,SNR=64						
ASPA	Alice Springs	19.87	185	eP	P	04 23 24.4	-5.5
ASPA				e		04 23 35.9	
ASPA				eS	S	04 27 10.7	+6.5
MBWA	Marble Bar	23.35	221	P	P	04 24 07.2	+2.5
	16nm,1.2s,mb4.2						
STKA	Stephens Creek	28.47	170	P	P	04 25 00.7	+8.3
	4.4nm,1.2s,mb3.9,baz=354,slow=9.0,SNR=4.8						
SONM	Songino Array	57.52	337	P	P	04 28 44.9	-1.2
	0.5nm,0.8s,mb3.6,baz=135,slow=6.1,SNR=2.8						
ZAL	Zalesovo	71.46	331	P	P	04 30 16.7	+0.3
	0.6nm,0.4s,mb3.8,baz=54,slow=13,SNR=3.2						
BVAR	Borovoye Array	78.58	326	P	P	04 30 57.8	+0.7
	0.8nm,0.6s,mb3.7,baz=108,slow=4.6,SNR=4.0						
CPUP	Villa Florida	147.46	158	PKPbc	PKPdf	04 38 44.8	+9.3
	2.7nm,0.9s,baz=265,slow=1.9,SNR=3.3						
LPAZ	La Paz	149.00	131	PKPbc	PKPdf	04 38 50.5	+12
	2.1nm,1.0s,baz=62,slow=5.5,SNR=4.5						

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*IDC **02** 04:28:48.4±0.9, 3.34S×135.60E, mb4.3/5, mb1 4.5/8, mb1mx4.3/14, ML3.8/3, Error ellipse: s-maj=50.7km s-min=21.3km az=84.0*

*NEIC **02** 04:28:50.4±0.7, 3.47S×135.32E, h10^{km}, mb4.4/8, Error ellipse: s-maj=20.6km s-min=11.3km az=83.0*

ISC 02 04:28:58.1±2.0**, 3.81S**±0.06×**135.4E**±0.1**, h97**^{km}±20^{km}**, n25, σ1^{s}00**/28**, mb4.2**/12**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.30	198	eP	P	04 31 11.9	+1.1
	16nm,0.4s						
KAKA				eS	S	04 32 52.8	-1.7
PMG	Port Moresby	12.97	116	Pn	P	04 31 59.8	-0.1
	1.2nm,0.3s,baz=319,slow=19,SNR=3.7						
WRAB	Tennant Creek	16.05	183	eP	P	04 32 39.0	-0.5
	44nm,1.1s						
WB2	Warramunga Arr	16.06	183	eP	P	04 32 38.8	-0.8
WB2				eS	S	04 35 34.3	0.0
WRA	Warramunga Arr	16.06	183	Pn	P	04 32 38.9	-0.7
	0.4nm,0.3s,baz=4.8,slow=13,SNR=5.9						
WRA				Sn	S	04 35 34.3	0.0
	0.3nm,0.3s,baz=8.8,slow=22,SNR=5.2						
FITZ	Fitzroy Crossi	17.10	213	eP	P	04 32 53.8	+1.4
	2.9nm,0.6s						
FITZ				eS	S	04 35 58.4	+0.7
FITZ	Fitzroy Crossi	17.10	213	P	P	04 32 53.8	+1.4
	0.4nm,0.3s,baz=18,slow=8.6,SNR=7.2						
FITZ				S	S	04 35 56.6	-1.1
	0.5nm,0.3s,baz=181,slow=6.4,SNR=4.3						
ASAR	Alice Springs	19.79	184	P	P	04 33 26.7	+3.6
	20nm,0.7s,baz=8.9,slow=10,SNR=44						
ASPA	Alice Springs	19.79	184	eP	P	04 33 26.7	+3.6
MBWA	Marble Bar	22.98	220	eP	P	04 33 60.0	+4.9
	38nm,1.4s,mb4.5						
STKA	Stephens Creek	28.53	169	P	P	04 34 48.8	+2.0
	3.8nm,0.7s,mb4.1,baz=321,slow=7.3,SNR=7.2						
PKI	Pulchoki	57.34	306	eP	P	04 38 38.8	+0.1
	2.8nm,0.3s,mb4.7						
DMN	Daman	57.60	306	eP	P	04 38 41.0	+0.5
GKN	Gorkha	58.15	306	eP	P	04 38 44.7	+0.4
KOLN	Koldanda	58.89	306	eP	P	04 38 49.0	-0.4
	14nm,0.8s,mb5.0						
ZAL	Zalesovo	71.24	331	P	P	04 40 07.3	-1.3
	0.7nm,0.3s,mb3.9,baz=6.2,slow=10,SNR=5.3						
UCH	Uchtor	71.53	317	P	P	04 40 07.1	-3.4
	4.7nm,1.2s,mb4.2						
AML	Almayashu	72.05	317	eP	P	04 40 14.4	+0.7
	3.7nm,0.8s,mb4.3						
KURK	Kurchatov	72.72	326	P	P	04 40 17.1	-0.3
	2.3nm,0.9s,mb4.0						
BVAR	Borovoye Array	78.32	326	P	P	04 40 49.7	+0.5
	1.4nm,0.6s,mb3.9,baz=121,slow=8.6,SNR=9.8						
BRVK	Borovoye	78.39	326	eP	P	04 40 49.7	+0.2
	2.8nm,0.7s,mb4.1						
CHKZ	Chkalovo	78.45	327	eP	P	04 40 49.7	-0.1
	1.4nm,0.7s,mb3.8						
ILAR	Eielson Array	88.22	25	P	P	04 41 38.0	-1.2
	0.6nm,0.4s,mb4.0,baz=262,slow=4.4,SNR=23						
CPUP	Villa Florida	147.62	158	PKPbc	PKPdf	04 48 36.9	+7.8
	3.0nm,0.8s,baz=179,slow=3.7,SNR=6.5						
LPAZ	La Paz	149.37	131	PKPbc	PKPdf	04 48 41.2	+9.1
	0.9nm,0.8s,baz=180,slow=4.0,SNR=3.0						

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*IDC **02** 04:33:00.3±1.0, 3.34S×135.53E, mb4.0/4, mb1 4.2/8, mb1mx4.1/15, ML3.7/4, Error ellipse: s-maj=50.4km s-min=23.5km az=84.0*

*NEIC **02** 04:33:01.5±0.6, 3.36S×135.42E, h10^{km}, mb4.3/6, Error ellipse: s-maj=17.7km s-min=11.5km az=76.0*

ISC 02 04:33:05.4±2.7**, 3.51S**±0.08×**135.5E**±0.1**, h57**^{km}±26^{km}**, n23, σ1^{s}05**/25**, mb4.3**/11**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	12.96	117	Pn	P	04 36 11.3	+2.4
	0.6nm,0.3s,baz=294,slow=14,SNR=3.7						
PMG	Port Moresby	12.96	117	P	P	04 36 08.8	0.0
	14nm,0.9s						
WRAB	Tennant Creek	16.36	184	P	P	04 36 51.0	-2.0
	19nm,0.7s						
WB2	Warramunga Arr	16.37	184	eP	P	04 36 56.7	+3.6
WB2				eS	S	04 39 43.9	-8.5
WRA	Warramunga Arr	16.38	184	Pn	P	04 36 49.3	-3.8
	0.2nm,0.3s,baz=4.0,slow=13,SNR=2.6						
WRA				Sn	S	04 39 43.6	-8.8
	0.7nm,0.3s,baz=6.9,slow=22,SNR=6.5						
FITZ	Fitzroy Crossi	17.44	213	P	P	04 37 06.6	+0.1
	0.5nm,0.3s,baz=29,slow=9.4,SNR=4.9						
FITZ				S	S	04 40 08.8	-7.7
	0.7nm,0.3s,baz=197,slow=16,SNR=4.6						
CTA	Charters Tower	19.52	148	P	P	04 37 30.6	-0.4
	0.3nm,0.3s,baz=295,slow=16,SNR=4.8						
ASAR	Alice Springs	20.10	184	P	P	04 37 36.8	-0.4
	8.2nm,0.5s,baz=8.3,slow=10,SNR=28						
ASPA	Alice Springs	20.10	184	eP	P	04 37 38.3	+1.1
ASPA				eS	S	04 41 14.5	-0.3
MBWA	Marble Bar	23.32	220	eP	P	04 38 11.7	+2.4
	10.0nm,1.0s,mb4.2						
STKA	Stephens Creek	28.79	169	P	P	04 39 00.6	+0.3
	0.9nm,0.5s,mb3.8,baz=2.4,slow=7.0,SNR=3.6						
KKN	Kakani	57.50	306	eP	P	04 42 51.2	-0.3
DMN	Daman	57.56	306	eP	P	04 42 52.1	+0.1
	8.0nm,0.5s,mb5.0						
GKN	Gorkha	58.10	306	eP	P	04 42 55.9	+0.2
	3.8nm,0.3s,mb5.0						
KOLN	Koldanda	58.85	305	eP	P	04 43 01.3	+0.4
	13nm,0.8s,mb5.0						
AML	Almayashu	71.95	316	P	P	04 44 25.0	+0.1
	3.7nm,0.9s,mb4.3						
EKS2	Erkin-Say	72.09	317	P	P	04 44 22.8	-2.9
	5.6nm,1.1s,mb4.4						
KURK	Kurchatov	72.57	326	P	P	04 44 28.5	+0.1
	2.0nm,0.9s,mb4.0						
BVAR	Borovoye Array	78.17	326	P	P	04 45 00.9	+0.7
	1.1nm,0.7s,mb3.9,baz=135,slow=6.3,SNR=5.6						
CHKZ	Chkalovo	78.29	327	eP	P	04 45 00.7	-0.3
	0.9nm,0.8s,mb3.8						
ILAR	Eielson Array	87.88	25	P	P	04 45 49.1	-0.5
	0.2nm,0.6s,mb3.5,baz=250,slow=4.0,SNR=3.4						
CPUP	Villa Florida	147.83	158	PKPbc	PKPdf	04 52 49.5	+7.7
	2.4nm,0.9s,baz=269,slow=7.3,SNR=4.1						
LPAZ	La Paz	149.44	131	PKPbc	PKPdf	04 52 54.8	+10
	0.5nm,0.8s,baz=270,slow=3.0,SNR=2.3						

IDC 02 04:42:15.0±1.9**, 3.37S**×**135.14E, mb3.9**/2**, mb1 4.1**/4**, mb1mx3.9**/12**, ML3.6**/2**, Error ellipse: s-maj=134.0km s-min=33.0km az=108.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	16.49	183	Pn	P	04 46 02.6	-6.9
	0.2nm,0.3s,baz=5.2,slow=13,SNR=4.2						
WRA				Sn	S	04 48 59.5	-14
	0.2nm,0.3s,baz=360,slow=24,SNR=5.1						
FITZ	Fitzroy Crossi	17.35	212	P	P	04 46 18.7	-1.7
	0.2nm,0.3s,baz=21,slow=11,SNR=8.3						
FITZ				S	S	04 49 21.5	-11
	0.6nm,0.3s,baz=179,slow=7.3,SNR=5.8						
ASAR	Alice Springs	20.22	183	P	P	04 46 51.4	-3.1
	7.2nm,0.6s,baz=9.5,slow=10,SNR=47						
ASPA	Alice Springs	20.22	183	eP	P	04 46 51.2	-3.3
ILAR	Eielson Array	87.91	25	P	P	04 55 06.2	-1.4
	0.2nm,0.5s,baz=256,slow=4.3,SNR=5.4						
CPUP	Villa Florida	148.11	158	PKPbc	PKPdf	05 02 03.4	+1.3
	2.2nm,0.9s,baz=316,slow=0.9,SNR=3.6						

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*IDC **02** 05:16:10.5±1.0, 3.20S×135.76E, mb3.7/5, mb1 4.0/8, mb1mx3.9/15, ML3.8/3, Error ellipse: s-maj=50.1km s-min=20.0km az=81.0*

*NEIC **02** 05:16:11.4±1.0, 3.40S×135.74E, h10^{km}, mb4.3/2, Error ellipse: s-maj=30.1km s-min=14.7km az=90.0*

ISC 02 05:16:20.4±4.2**, 3.8S**±0.1×**135.8E**±0.2**, h93**^{km}±41^{km}**, n12, σ1^{s}28**/14**, mb3.5**/5**, 1D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	Tennant Creek	16.10	185	eP	P	05 20 01.9	-0.7
	16nm,0.8s						
WRA	Warramunga Arr	16.11	185	Pn	P	05 20 02.0	-0.8
	0.4nm,0.3s,baz=2.4,slow=13,SNR=4.5						
WRA				Sn	S	05 22 57.2	-0.9
	0.4nm,0.3s,baz=5.9,slow=24,SNR=5.5						
WRA				Lg		05 24 55.4	
	baz=5.2,slow=28,SNR=3.0						
FITZ	Fitzroy Crossi	17.33	214	P	P	05 20 18.3	+0.4
	0.4nm,0.3s,baz=18,slow=13,SNR=8.7						
FITZ				S	S	05 23 20.1	-5.5
	0.3nm,0.3s,baz=173,slow=15,SNR=2.4						
CTA	Charters Tower	19.16	149	P	P	05 20 40.2	+1.0
	0.1nm,0.3s,baz=315,slow=8.6,SNR=1.9						
CTA				Lg		05 26 41.2	
	0.2nm,0.3s,baz=251,slow=19,SNR=4.1						
CTA	Charters Tower	19.16	149	P	P	05 20 40.2	+1.0
CTA				Lg		05 26 41.2	
ASAR	Alice Springs	19.84	185	P	P	05 20 50.8	+4.4
	7.8nm,0.9s,baz=8.8,slow=11,SNR=19						
ASPA	Alice Springs	19.84	185	⇓iP	P	05 20 50.7	+4.3
MBWA	Marble Bar	23.25	221	P	P	05 21 23.3	+2.9
	9.1nm,0.9s,mb4.1						
STKA	Stephens Creek	28.47	170	P	P	05 22 12.4	+3.4
	1.0nm,0.7s,mb3.5,baz=337,slow=7.7,SNR=3.0						
SONM	Songino Array	57.49	337	P	P	05 25 56.0	-6.3
	0.2nm,0.9s,mb3.2,baz=146,slow=10,SNR=2.4						
BVAR	Borovoye Array	78.53	326	P	P	05 28 12.6	-0.4
	0.7nm,0.7s,mb3.6,baz=108,slow=4.6,SNR=3.6						
ILAR	Eielson Array	88.04	25	P	P	05 29 00.2	-1.0
	0.3nm,0.9s,mb3.3,baz=246,slow=5.0,SNR=2.9						

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*PRU **02** 05:32:49.0, 50.26N×19.14E*

WAR 02 05:32:47.4, 50.17N×19.30E, h1^{km}, Location given by Central Institute of Mining, origin time based upon NIE, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	Ostrava-Krasne	0.81	246	ePG	Pg	05 33 03.4	-0.2
OKC				eSG	Sg	05 33 14.9	+0.4
NIE	Niedzica	1.00	138	ePg	Pg	05 33 06.8	-0.5
NIE				eSg	Sg	05 33 21.7	+1.1
VYHS	Vyhne	1.71	190	i PN	Pn	05 33 17.8	-0.6
VYHS				eSN	Sn	05 33 41.3	+0.1
CRVS	Cervenica-Dubn	1.90	131	ePN	Pn	05 33 22.9	+1.7
CRVS				eSN	Sn	05 33 49.7	+3.7
DPC	Dobruska-Polom	1.92	277	ePG	Pg	05 33 20.5	-5.2
DPC				eSG	Sg	05 33 46.4	-4.9
	18nm,0.4s						
UPC	Upice	2.13	280	eSG	Sg	05 33 52.6	-5.8
PRU	Pruhonice	3.07	268	eSG	Sg	05 34 24.2	-5.4
	7.2nm,0.6s						
KHC	Kasperske Hory	3.86	257	ePG	Pg	05 34 00.0	-4.5
KHC				ex	x	05 34 36.0	
KHC				eSG	Sg	05 34 49.5	-6.4

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*IDC **02** 05:41:20.7±0.9, 3.14S×135.37E, mb3.9/5, mb1 4.2/8, mb1mx4.1/15, ML4.0/3, Error ellipse: s-maj=48.2km s-min=19.7km az=78.0*

*NEIC **02** 05:41:21.4±0.7, 3.23S×135.30E, h10^{km}, mb4.2/7, Error ellipse: s-maj=21.8km s-min=11.0km az=86.0*

ISC 02 05:41:26.3±2.3**, 3.48S**±0.07×**135.3E**±0.2**, h68**^{km}±21^{km}**, n20, σ1^{s}41**/24**, mb3.7**/7**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.59	197	eP	P	05 43 43.9	-0.1
	12nm,0.4s						
WRAB	Tennant Creek	16.38	183	eP	P	05 45 11.2	-2.2
	15nm,0.6s						
WB2	Warramunga Arr	16.39	183	eS	S	05 48 02.8	-10
WRA	Warramunga Arr	16.39	183	Pn	P	05 45 12.6	-0.9
	0.6nm,0.3s,baz=5.8,slow=12,SNR=13						
WRA				Sn	S	05 48 03.2	-9.4
	0.9nm,0.3s,baz=6.4,slow=23,SNR=8.3						
WRA				Lg		05 50 03.8	
	baz=356,slow=28,SNR=3.5						
FITZ	Fitzroy Crossi	17.33	212	eP	P	05 45 25.4	+0.1
	6.1nm,1.2s						
FITZ				eS	S	05 48 26.1	-7.7
FITZ	Fitzroy Crossi	17.33	212	P	P	05 45 27.1	+1.9
	0.3nm,0.3s,baz=33,slow=11,SNR=9.0						
FITZ				S	S	05 48 25.7	-8.0
	0.3nm,0.3s,baz=160,slow=6.0,SNR=3.9						
CTA	Charters Tower	19.68	148	eP	P	05 45 53.4	+0.7
	6.0nm,1.0s						
CTA	Charters Tower	19.68	148	P	P	05 45 53.1	+0.4
	0.4nm,0.3s,baz=318,slow=12,SNR=9.8						
CTA				Lg		05 51 36.8	
	0.2nm,0.3s,baz=230,slow=23,SNR=3.7						
CTAO	Charters Tower	19.68	148	eP	P	05 45 52.1	-0.5
	13nm,1.1s						
ASAR	Alice Springs	20.11	184	P	P	05 45 59.0	+1.8
	13nm,0.5s,baz=7.8,slow=11,SNR=31						
ASAR				S	S	05 49 32.6	-1.7
	2.3nm,0.7s,baz=5.5,slow=29,SNR=6.9						
ASPA	Alice Springs	20.11	184	eP	P	05 45 58.9	+1.7
ASPA				eS	S	05 49 34.2	-0.2
MBWA	Marble Bar	23.18	219	P	P	05 46 31.8	+3.9
	6.5nm,0.8s,mb4.0						
STKA	Stephens Creek	28.87	169	P	P	05 47 25.3	+4.5
	2.5nm,1.0s,mb3.8,baz=353,slow=10,SNR=4.1						
SONM	Songino Array	57.01	337	P	P	05 51 06.4	-1.1
	0.3nm,0.8s,mb3.4,baz=153,slow=9.7,SNR=2.4						
TKM2	Tokmak 2	70.77	318	P	P	05 52 34.9	-2.5
KURK	Kurchatov	72.40	326	P	P	05 52 46.4	-0.6
	3.4nm,1.2s,mb4.0						
BVAR	Borovoye Array	77.99	326	P	P	05 53 20.1	+1.2
	0.5nm,0.7s,mb3.4,baz=129,slow=9.2,SNR=2.8						
CHKZ	Chkalovo	78.12	327	P	P	05 53 22.5	+2.9
	1.7nm,1.0s,mb3.7						
ILAR	Eielson Array	87.96	25	P	P	05 54 09.8	+0.1
	0.4nm,0.8s,mb3.5,baz=264,slow=4.3,SNR=6.9						
LPAZ	La Paz	149.66	131	PKPbc	PKPdf	06 01 14.8	+10
	0.4nm,0.6s,baz=169,slow=5.2,SNR=2.7						

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*IDC **02** 05:49:48.6±0.8, 3.44S×135.50E, mb4.2/6, mb1 4.4/10, mb1mx4.3/14, ML3.8/4, Error ellipse: s-maj=41.2km s-min=18.1km az=65.0*

*NEIC **02** 05:49:49.9±0.5, 3.73S×135.24E, h10^{km}, mb4.4/11, Error ellipse: s-maj=19.1km s-min=7.9km az=79.0*

*BJI **02** 05:49:50.5, 3.70S×135.20E, h10^{km}, mb4.5*

ISC 02 05:49:53.6±2.0**, 3.84S**±0.05×**135.35E**±0.09**, h60**^{km}±19^{km}**, n31, σ1^{s}26**/34**, mb4.2**/13**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.28	198	eP	P	05 52 03.5	-3.6
	25nm,0.5s						
KAKA				eS	S	05 53 52.7	+1.8
PMG	Port Moresby	12.96	116	Pn	P	05 52 56.2	-0.7
	0.5nm,0.3s,baz=294,slow=10.0,SNR=2.4						
PMG	Port Moresby	12.96	116	Pn	P	05 52 56.2	-0.7
WRAB	Tennant Creek	16.03	183	eP	P	05 53 36.0	-0.7
	87nm,1.1s						
WB2	Warramunga Arr	16.04	183	eP	P	05 53 36.2	-0.6
WB2				e		05 53 43.1	
WB2				eS	S	05 56 26.9	-5.6
WRA	Warramunga Arr	16.04	183	Pn	P	05 53 35.9	-0.9
	0.4nm,0.3s,baz=4.5,slow=13,SNR=7.7						
WRA				Sn	S	05 56 29.5	-3.0
	0.6nm,0.3s,baz=4.9,slow=22,SNR=4.7						
WRA				Lg		05 58 21.2	
	baz=8.1,slow=30,SNR=3.1						
FITZ	Fitzroy Crossi	17.07	213	eP	P	05 53 50.9	+1.1
	7.8nm,0.8s						
FITZ				eS	S	05 56 54.8	-1.4
FITZ	Fitzroy Crossi	17.07	213	P	P	05 53 50.9	+1.1
	0.6nm,0.3s,baz=21,slow=12,SNR=16						
FITZ				S	S	05 56 53.8	-2.3
	0.9nm,0.3s,baz=176,slow=11,SNR=5.9						
CTA	Charters Tower	19.34	148	P	P	05 54 17.9	+1.1
	0.2nm,0.3s,baz=319,slow=14,SNR=4.9						
CTA	Charters Tower	19.34	148	P	P	05 54 17.9	+1.1
CTAO	Charters Tower	19.34	148	eP	P	05 54 18.0	+1.1
	8.1nm,0.8s						
ASAR	Alice Springs	19.76	184	P	P	05 54 24.9	+3.5
	76nm,1.0s,baz=11,slow=11,SNR=106						
ASAR				S	S	05 57 55.9	+0.2
	1.3nm,0.5s,baz=349,slow=7.7,SNR=3.9						
ASPA	Alice Springs	19.76	184	eP	P	05 54 24.5	+3.0
MBWA	Marble Bar	22.96	220	eP	P	05 54 58.5	+4.7
	18nm,1.1s,mb4.4						
STKA	Stephens Creek	28.50	169	eP	P	05 55 47.6	+2.0
	2.9nm,0.9s,mb4.0						
STKA	Stephens Creek	28.50	169	P	P	05 55 48.0	+2.4
	3.1nm,0.8s,mb4.1,baz=351,slow=6.4,SNR=5.6						
CMAR	Chiang Mai Arr	42.16	303	P	P	05 57 42.2	0.0
	0.5nm,0.3s,mb3.5,baz=121,slow=6.7,SNR=4.4						
GTA	Gaotai	54.06	326	eP	P	05 59 14.9	+0.5
GTA				AP	pP	05 59 18.7	-12
GTA				XP	sP	05 59 21.2	-16
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	57.15	338	P	P	05 59 36.3	-0.3
	comp=Z,3.5nm,1.0s,mb4.3						
SONM	Songino Array	57.38	337	P	P	05 59 37.4	-0.8
	comp=Z,0.7nm,0.5s,mb3.9,baz=162,slow=7.8,SNR=5.7						
WMQ	Urumqi	63.86	323	eP	P	06 00 23.0	+0.7
UCH	Uchtor	71.54	317	eP	P	06 01 11.9	+1.6
	comp=Z,3.8nm,1.1s,mb4.2						
AML	Almayashu	72.07	317	P	P	06 01 13.0	-0.4
	comp=Z,4.7nm,0.9s,mb4.4						
KURK	Kurchatov	72.74	326	eP	P	06 01 17.5	+0.2
	comp=Z,4.9nm,0.9s,mb4.4						
BVAR	Borovoye Array	78.34	326	P	P	06 01 49.2	+0.2
	comp=Z,2.5nm,0.7s,mb4.2,baz=124,slow=5.3,SNR=13						
BRVK	Borovoye	78.41	326	eP	P	06 01 46.5	-2.9
	comp=Z,4.9nm,0.9s,mb4.4						
CHKZ	Chkalovo	78.47	327	eP	P	06 01 49.5	-0.2
	comp=Z,2.6nm,1.0s,mb4.1						
ILAR	Eielson Array	88.25	25	P	P	06 02 38.2	-1.0
	comp=Z,0.6nm,0.6s,mb4.0,baz=267,slow=4.6,SNR=15						
ARCES	ARCESS Array B	100.45	340	P	P	06 03 37.0	+1.8
	comp=Z,2.4nm,0.8s,baz=72,slow=3.8,SNR=5.3						
CPUP	Villa Florida	147.59	158	PKPbc	PKPdf	06 09 37.1	+7.9
	comp=Z,2.2nm,0.7s,baz=121,slow=2.8,SNR=5.4						
LPAZ	La Paz	149.36	131	PKPbc	PKPdf	06 09 42.0	+10
	comp=Z,1.6nm,0.7s,baz=227,slow=4.5,SNR=4.2						

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*IDC **02** 06:02:13.7±16.0, 3.76N×127.44E, mb3.8/4, mb1 4.0/4, mb1mx3.7/18, Error ellipse: s-maj=268.0km s-min=100.9km az=150.0*

ISC 02 06:01:45.3±1.0**, 6.84N**±0.07×**124.77E**±0.05**, h25**^{km}±9^{km}**, n11, σ0^{s}88**/16**, mb3.7**/4**, 1C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCP	Kidapawan	0.36	62	⇓iP	Pb	06 01 53.4	+0.3
KCP				i S	Sb	06 01 59.0	+0.6
CTBH	Cotabato--PC H	0.64	306	⇓iP	Pb	06 01 57.5	-0.3
CTBH				i S	Sb	06 02 06.0	-0.4
BUKP	Musuan	1.07	16	eP	Pn	06 02 04.0	-0.8
BUKP				eS	Sb	06 02 17.4	-1.2
MATI	Mati	1.48	86	eP	Pn	06 02 11.8	+1.1
PAGZ	Pagadian	1.70	306	eP	Pn	06 02 14.0	+0.2
PAGZ				eS	Sn	06 02 35.5	+0.5
DCPH	Dipolog City	2.23	321	⇑eP	Pn	06 02 23.3	+1.9
DCPH				eS	Sn	06 02 56.0	+7.6
SNPH	Sibulan	2.91	329	eP	Pn	06 02 36.0	+4.8
FITZ	Fitzroy Crossi	24.80	178	P	P	06 07 07.4	+0.4
	2.4nm,0.9s,mb3.7,baz=6.0,slow=8.0,SNR=5.8						
WRA	Warramunga Arr	28.23	161	P	P	06 07 33.5	-5.1
	0.8nm,0.5s,mb3.6,baz=344,slow=10,SNR=6.4						
ASAR	Alice Springs	31.61	164	P	P	06 08 07.7	-1.0
	0.7nm,0.6s,mb3.7,baz=344,slow=7.0,SNR=7.1						
STKA	Stephens Creek	41.72	158	P	P	06 09 33.0	-1.1
	2.4nm,0.7s,mb3.9,baz=331,slow=10,SNR=3.9						

IDC 02 06:08:55.5±13.0**, 4.11S**×**135.55E, mb4.0**/1**, mb1 4.2**/4**, mb1mx3.9**/12**, ML3.7**/3**, MS3.7**/1**, Ms1 3.7**/1**, ms1mx2.7**/20**, Error ellipse: s-maj=196.0km s-min=65.6km az=176.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WB2	Warramunga Arr	15.78	184	eP	P	06 12 36.6	-4.3
WRA	Warramunga Arr	15.78	184	Pn	P	06 12 40.4	-0.5
	0.4nm,0.3s,baz=6.3,slow=12,SNR=12						
WRA				Sn	S	06 15 28.1	-8.8
	0.1nm,0.3s,baz=6.6,slow=22,SNR=3.7						
FITZ	Fitzroy Crossi	16.95	214	Pn	P	06 12 54.6	-1.3
	0.2nm,0.3s,baz=30,slow=14,SNR=5.7						
FITZ				Sn	S	06 15 51.6	-13
	0.1nm,0.3s,baz=338,slow=3.6,SNR=3.4						
ASAR	Alice Springs	19.51	185	P	P	06 13 23.4	-3.7
	0.4nm,0.3s,baz=6.9,slow=10,SNR=18						
ASPA	Alice Springs	19.51	185	eP	P	06 13 23.7	-3.4
STKA	Stephens Creek	28.20	169	P	P	06 14 50.2	-1.7
	1.1nm,0.6s,baz=333,slow=9.7,SNR=3.6						

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*IDC **02** 06:29:17.4±0.6, 82.92N×7.29W, mb3.7/16, mb1 4.0/17, mb1mx3.9/21, ML3.2/1, MS3.6/9, Ms1 3.6/9, ms1mx3.4/21, Error ellipse: s-maj=21.1km s-min=12.2km az=36.0*

*BJI **02** 06:29:18.9, 82.90N×7.50W, h10^{km}, mB4.5, mb4.3, Ms4.1, Msz3.9*

*NEIC **02** 06:29:18.9±0.3, 82.86N×7.47W, h10^{km}, mb4.4/16, Error ellipse: s-maj=8.4km s-min=5.5km az=204.0*

ISC 02 06:29:17.3±0.3**, 82.91N**±0.06×**7.4W**±0.4**, h10**^{km}**, n50, σ1^{s}02**/50**, mb4.1**/32**, MS3.6**/10**, North of Svalbard**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAG	Danmarks Havn	6.47	204	eP	Pn	06 30 54.0	-1.0
DAG	Danmarks Havn	6.47	204	i P	Pn	06 30 54.0	-1.0
HOPEN	Hopen	8.45	121	eP	P	06 31 19.1	-3.6
HOPEN				eS	rx	06 32 44.7	
HOPEN				AML	AML	06 32 49.7	
	comp=Z,10.0nm,0.3s						
SUMG	Summit	11.99	229	eP	P	06 32 06.9	-4.1
SCO	Scoresbysund	12.86	202	eP	P	06 32 24.3	+1.7
SCO	Scoresbysund	12.86	202	i P	P	06 32 24.3	+1.7
ARCES	ARCESS Array B	15.08	133	Pn	P	06 32 50.4	-1.2
	comp=Z,0.1nm,0.3s,baz=347,slow=12,SNR=2.6						
ARCES				LR	LR	06 38 42.8	
	comp=Z,273nm,19.8s,baz=16,slow=38						
RES	Resolute Bay	16.67	292	eP	P	06 33 06.8	-5.2
	comp=Z,18nm,1.0s						
NOA	NORSAR Array B	22.46	156	P	P	06 34 17.7	+0.2
	comp=Z,1.0nm,0.9s,mb3.2,baz=344,slow=9.8,SNR=2.9						
NOA				LR	LR	06 41 06.2	
	comp=Z,75nm,21.7s,MS3.1,baz=190,slow=32						
NOA	NORSAR Array B	22.46	156	P	P	06 34 17.7	+0.2
NOA				LR	LR	06 41 06.2	
FINES	FINESS Array B	23.07	138	P	P	06 34 23.8	+0.5
	comp=Z,1.9nm,1.0s,mb3.5,slow=7.6,SNR=2.6						
FINES				LR	LR	06 43 21.6	
	comp=Z,152nm,19.3s,MS3.5,baz=169,slow=37						
FINES	FINESS Array B	23.07	138	P	P	06 34 23.8	+0.5
FINES				LR	LR	06 43 21.6	
HFS	Hagfors	23.50	153	P	P	06 34 27.0	-0.4
	comp=Z,3.6nm,0.9s,mb3.8,baz=27,slow=3.2,SNR=3.1						

INK	Inuvik	26.64	318	eP	P	06 34 56.0	-1.2
	comp=Z,10.0nm,1.2s,mb4.2						
YKA	Yellowknife Ar	30.49	299	P	P	06 35 31.1	-0.8
	comp=Z,0.9nm,1.0s,mb3.5,baz=33,slow=9.8,SNR=8.8						
YKA				LR	LR	06 46 59.9	
	comp=Z,117nm,18.6s,MS3.6,baz=350,slow=35						
ILAR	Eielson Array	31.13	327	P	P	06 35 37.4	-0.2
	comp=Z,0.9nm,0.9s,mb3.6,baz=359,slow=6.5,SNR=7.5						
SCHQ	Schefferville	32.24	249	LR	LR	06 49 24.7	
	comp=Z,93nm,18.0s,MS3.5,baz=154,slow=37						
AKASG	Malin Array Be	33.98	137	P	P	06 36 01.2	-1.4
	comp=Z,0.1nm,0.3s,mb3.3,baz=345,slow=9.8,SNR=4.2						
GERES	GERESS Array B	34.77	155	P	P	06 36 09.2	-0.1
	comp=Z,0.8nm,0.6s,mb3.8,slow=8.0,SNR=6.2						
BRVK	Borovoye	36.18	93	eP	P	06 36 21.1	-0.1
	comp=Z,1.7nm,0.8s,mb4.0						
BVAR	Borovoye Array	36.22	93	P	P	06 36 22.1	+0.5
	comp=Z,0.7nm,0.8s,mb3.6,baz=329,slow=8.4,SNR=3.3						
ZAL	Zalesovo	37.11	78	P	P	06 36 29.7	+0.6
	comp=Z,3.1nm,1.0s,mb4.1,baz=113,slow=9.4,SNR=13						
EDM	Edmonton	39.45	295	P	P	06 36 49.6	+0.9
KURK	Kurchatov	39.51	85	eP	P	06 36 46.5	-2.8
	comp=Z,14nm,1.4s,mb4.5						
ULM	Lac du Bonnet	40.29	277	LR	LR	06 53 19.2	
	comp=Z,71nm,19.1s,MS3.5,baz=5.7,slow=36						
ESDC	Sonseca Array	43.39	176	P	P	06 37 22.2	+1.1
	comp=Z,0.6nm,0.5s,mb3.6,baz=4.1,slow=7.7,SNR=4.0						
WALA	Waterton Lakes	43.61	294	P	P	06 37 23.2	+0.6
	comp=Z,4.1nm,0.8s,mb4.2						
NEW	Newport	44.75	297	P	P	06 37 32.7	+0.8
	comp=Z,5.8nm,1.2s,mb4.3,baz=23,slow=21,SNR=3.9						
NEW	Newport	44.75	297	eP	P	06 37 32.5	+0.5
	comp=Z,4.6nm,1.0s,mb4.3						
SONM	Songino Array	45.61	60	P	P	06 37 38.6	-0.1
	comp=Z,0.5nm,0.8s,mb3.5,baz=333,slow=5.5,SNR=3.9						
ULN	Ulaanbaatar	45.65	59	eP	P	06 37 39.1	0.0
	comp=Z,2.9nm,0.9s,mb4.2						
MSO	Missoula	45.81	293	eP	P	06 37 41.7	+1.4
	comp=Z,5.7nm,1.0s,mb4.5						
EKS2	Erkin-Say	46.84	92	eP	P	06 37 49.4	+0.9
	comp=Z,5.4nm,1.1s,mb4.4						
AAK	Ala-Archa	46.95	92	eP	P	06 37 48.8	-0.6
	comp=Z,11nm,1.2s,mb4.7						
MALT	Malatya	47.10	130	eP	P	06 37 51.3	+0.7
	comp=Z,2.5nm,0.9s,mb4.1						
UCH	Uchtor	47.35	92	eP	P	06 37 53.7	+1.1
	comp=Z,12nm,1.2s,mb4.7						
WMQ	Urumqi	47.41	78	P	P	06 37 55.8	+2.7
WMQ				AP	pP	06 38 00.3	+4.2
WMQ				XP	sP	06 38 03.0	+5.7
WMQ				PCP	PcP	06 39 26.3	+2.3
WMQ				eS	S	06 44 49.0	+2.8
WMQ				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.4						
WMQ				AMB	AMB		
	comp=Z,19nm,7.9s						
WMQ				LR	LR		
	comp=N,87nm,22.3s,MS3.7						
WMQ				LR	LR		
	comp=E,55nm,23.0s,MS3.7						
WMQ				LR	LR		
	comp=Z,86nm,19.2s,MS3.7						
BMO	Blue Mountains	48.14	296	eP	P	06 37 59.1	+0.4
	comp=Z,3.5nm,1.1s,mb4.3						
BW06	Boulder Array	49.31	288	eP	P	06 38 06.6	-1.2
	comp=Z,8.3nm,1.4s,mb4.6						
PDAR	Pinedale Array	49.31	288	P	P	06 38 07.0	-0.8
	comp=Z,2.6nm,1.2s,mb4.1,baz=27,slow=6.6,SNR=8.7						
PDAR				LR	LR	07 00 29.2	
	comp=Z,62nm,20.6s,MS3.6,baz=216,slow=38						
PDAR	Pinedale Array	49.31	288	P	P	06 38 07.0	-0.8
PDAR				LR	LR	07 00 29.2	
MDJ	Mudanjiang	50.97	39	P	P	06 38 19.7	-0.7
MDJ				PCP	PcP	06 39 36.1	-0.8
MDJ				PP	PP	06 40 15.9	-1.9
MDJ				SCP		06 43 32.4	
MDJ				PCS		06 43 33.6	
MDJ				S	S	06 45 35.0	-0.9
MDJ				SS	SS	06 49 11.8	+3.1
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.8s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,94nm,3.9s						
MDJ				LR	LR		
	comp=N,116nm,15.8s,MS4.1						
MDJ				LR	LR		
	comp=E,85nm,15.8s,MS4.1						
MDJ				LR	LR		
	comp=Z,116nm,15.8s,MS4.0						
CN2	Changchun	51.44	43	eP	P	06 38 24.6	+0.6
PV10	Paradox Valley	53.58	287	eP	P	06 38 41.6	+1.4
PV01	Paradox Valley	53.77	286	eP	P	06 38 41.8	+0.3
SDCO	Great Sand Dun	53.78	283	eP	P	06 38 41.2	-0.3
	comp=Z,5.2nm,1.3s,mb4.3						
BBSR	BB Station	54.17	242	P	P	06 38 43.7	-0.7
	comp=Z,23nm,0.9s,mb5.1						
NVAR	Mina Array Bea	54.60	296	P	P	06 38 47.3	-0.3
	comp=Z,0.6nm,0.8s,mb3.7,baz=309,slow=4.5,SNR=4.0						
NVAR				LR	LR	07 04 01.5	
	comp=Z,58nm,20.1s,MS3.6,baz=105,slow=38						
TXAR	Lajitas Array	61.86	280	P	P	06 39 38.0	-0.6
	comp=Z,0.6nm,0.8s,mb3.8,baz=19,slow=4.9,SNR=4.9						
TXAR				LR	LR	07 05 50.9	
	comp=Z,63nm,18.3s,MS3.8,baz=40,slow=36						
CMAR	Chiang Mai Arr	73.79	72	P	P	06 40 51.4	-1.8
	comp=Z,0.7nm,0.3s,mb4.1,baz=350,slow=7.5,SNR=6.5						

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*IDC **02** 06:46:41.3±0.8, 3.63S×135.18E, mb4.0/4, mb1 4.3/9, mb1mx4.3/14, ML3.9/5, MS3.3/1, Ms1 3.3/1, ms1mx2.7/21, Error ellipse: s-maj=40.8km s-min=19.3km az=74.0*

*NEIC **02** 06:46:41.7±0.7, 3.73S×135.22E, h10^{km}, mb4.4/7, Error ellipse: s-maj=18.0km s-min=11.6km az=84.0*

ISC 02 06:46:44.3±1.8**, 3.81S**±0.05×**135.19E**±0.09**, h47**^{km}±18^{km}**, n27, σ1^{s}28**/32**, mb4.4**/13**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.26	197	eP	P	06 48 59.0	+1.1
	28nm,0.5s						
KAKA				eS	S	06 50 41.7	-0.1
PMG	Port Moresby	13.12	116	Pn	P	06 49 50.5	+0.1
	0.7nm,0.3s,baz=268,slow=12,SNR=3.0						
PMG				LR	LR	06 55 58.5	
	comp=Z,131nm,18.8s,baz=239,slow=42						
PMG	Port Moresby	13.12	116	eP	P	06 49 49.4	-1.0
	17nm,1.0s						
PMG				LR	LR	06 55 58.5	
WRAB	Tennant Creek	16.05	183	eP	P	06 50 27.2	-1.2
	32nm,0.8s						
WRAB				eS	S	06 53 15.4	-9.2
WB2	Warramunga Arr	16.06	183	eP	P	06 50 27.5	-1.0
WB2				e		06 50 34.8	
WB2				eS	S	06 53 22.6	-2.2
WRA	Warramunga Arr	16.06	183	Pn	P	06 50 26.6	-1.9
	0.6nm,0.3s,slow=13,SNR=17						
WRA				Sn	S	06 53 20.1	-4.7
	0.6nm,0.3s,baz=9.7,slow=23,SNR=4.4						
WRA				Lg		06 55 18.2	
	baz=16,slow=30,SNR=3.1						
FITZ	Fitzroy Crossi	17.01	213	eP	P	06 50 41.7	+1.3
	7.4nm,1.1s						
FITZ				eS	S	06 53 48.0	+1.4
FITZ	Fitzroy Crossi	17.01	213	P	P	06 50 41.8	+1.3
	0.4nm,0.3s,baz=21,slow=12,SNR=16						
FITZ				S	S	06 53 45.8	-0.8
	0.7nm,0.3s,baz=176,slow=14,SNR=4.1						
CTA	Charters Tower	19.45	147	P	P	06 51 12.9	+3.1
	0.2nm,0.3s,baz=313,slow=13,SNR=3.6						
CTAO	Charters Tower	19.45	147	eP	P	06 51 09.6	-0.2
	7.5nm,0.8s						
ASAR	Alice Springs	19.78	183	P	P	06 51 15.8	+2.4
	2.0nm,0.3s,baz=9.3,slow=10,SNR=115						
ASAR				S	S	06 54 48.4	-0.2
	0.2nm,0.3s,baz=8.4,slow=25,SNR=3.0						
ASPA	Alice Springs	19.78	183	eP	P	06 51 16.2	+2.7
MBWA	Marble Bar	22.88	220	P	P	06 51 47.6	+2.7
	28nm,1.3s,mb4.5						
STKA	Stephens Creek	28.56	169	P	P	06 52 39.1	+1.0
	3.5nm,0.9s,mb4.1,baz=276,slow=4.9,SNR=5.0						
GUN	Gumba	56.97	307	eP	P	06 56 27.0	-0.7
	10nm,0.7s,mb5.0						
SONM	Songino Array	57.29	337	P	P	06 56 30.1	+0.5
	0.5nm,0.6s,mb3.7,baz=153,slow=6.4,SNR=2.4						
KKN	Kakani	57.40	306	eP	P	06 56 29.9	-0.9
	6.3nm,0.4s,mb5.0						
DMN	Daman	57.47	306	eP	P	06 56 30.3	-0.9
	6.1nm,0.4s,mb4.9						
GKN	Gorkha	58.01	306	eP	P	06 56 34.0	-1.0
	6.6nm,0.4s,mb5.0						
KOLN	Koldanda	58.75	306	eP	P	06 56 39.4	-0.8
	13nm,0.8s,mb5.0						
UCH	Uchtor	71.41	317	P	P	06 58 00.8	-0.8
	2.8nm,1.0s,mb4.2						
AML	Almayashu	71.93	317	eP	P	06 58 04.7	-0.1
	2.3nm,0.8s,mb4.2						
EKS2	Erkin-Say	72.08	317	eP	P	06 58 09.9	+4.3
	4.6nm,1.0s,mb4.4						
BVAR	Borovoye Array	78.22	326	P	P	06 58 42.4	+1.8
	0.5nm,0.6s,mb3.6,baz=127,slow=7.2,SNR=3.0						
ILAR	Eielson Array	88.29	25	P	P	06 59 32.2	+0.6
	0.8nm,0.6s,mb4.1,baz=264,slow=4.4,SNR=10						
CPUP	Villa Florida	147.68	159	PKPbc	PKPdf	07 06 27.3	+5.6
	1.8nm,0.9s,baz=210,slow=6.5,SNR=2.6						
LPAZ	La Paz	149.50	131	PKPbc	PKPdf	07 06 36.1	+11
	0.7nm,0.7s,baz=251,slow=5.9,SNR=3.1						

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*IDC **02** 06:52:32.9±1.0, 55.68S×26.30W, mb4.1/3, mb1 4.0/4, mb1mx3.9/12, ML3.1/1, Error ellipse: s-maj=73.0km s-min=26.1km az=41.0*

NEIC 02 06:52:41.1±6.1**, 56.05S×26.97W, h65**^{km}±52^{km}**, mb4.1**/5**, Error ellipse: s-maj=53.4km s-min=14.4km az=51.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNAA	Sanae	18.69	156	P	P	06 56 54.7	-1.4
	0.1nm,0.3s,baz=316,slow=9.6,SNR=8.0						
SNAA	Sanae	18.69	156	eP	P	06 56 53.5	-2.6
	5.1nm,1.0s						
CPUP	Villa Florida	36.90	311	P	P	06 59 43.4	-1.7
	1.5nm,0.9s,baz=186,slow=10,SNR=3.6						
CPUP	Villa Florida	36.90	311	P	P	06 59 43.4	-1.7
LVC	Limon Verde	45.41	300	P	P	07 00 54.5	-0.3
	1.7nm,0.6s,baz=127,slow=5.1,SNR=4.5						
LVC	Limon Verde	45.41	300	eP	P	07 00 51.9	-3.0
	3.0nm,0.8s						
VNDA	Vanda	46.58	183	eP	P	07 01 03.1	-0.3
	1.7nm,1.0s						
LPAZ	La Paz	50.48	305	P	P	07 01 34.4	0.0
	1.6nm,0.4s,baz=153,slow=6.0,SNR=16						
LPAZ	La Paz	50.48	305	eP	P	07 01 34.0	-0.4
	2.5nm,0.7s						
SDV	Santo Domingo	74.09	315	eP	P	07 04 10.8	-1.2
	2.1nm,0.8s						
WRAB	Tennant Creek	102.68	162	ePdif	Pdif	07 06 29.1	-3.0
	8.0nm,1.2s						
FINES	FINESS Array B	124.33	28	PKP	PKPdf	07 11 31.1	-0.4
	1.7nm,1.0s,baz=90,slow=1.9,SNR=4.5						
ARCES	ARCESS Array B	130.90	22	PKP	PKPdf	07 11 43.9	0.0
	1.7nm,0.7s,baz=180,slow=1.2,SNR=3.6						
YKA	Yellowknife Ar	136.25	318	PKP	PKPdf	07 11 53.3	-0.6
	0.2nm,0.5s,baz=132,slow=2.1,SNR=4.8						
YKA	Yellowknife Ar	136.25	318	PKP	PKPdf	07 11 53.3	-0.6
ILAR	Eielson Array	150.21	312	PKPbc	PKPdf	07 12 23.1	+5.4
	1.0nm,0.6s,baz=139,slow=2.3,SNR=9.3						
SONM	Songino Array	150.61	86	PKPbc	PKPdf	07 12 24.7	+5.8
	0.5nm,0.6s,baz=218,slow=4.3,SNR=5.7						

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*IDC **02** 07:10:46.4±1.6, 3.22S×135.30E, mb4.1/3, mb1 4.2/7, mb1mx4.0/15, ML3.8/4, Error ellipse: s-maj=49.0km s-min=27.2km az=96.0*

*NEIC **02** 07:10:47.5±0.7, 3.21S×135.31E, h10^{km}, mb4.1/4, Error ellipse: s-maj=14.6km s-min=11.5km az=108.0*

ISC 02 07:10:47.3±4.8**, 3.6S**±0.1×**135.4E**±0.1**, h15**^{km}±36^{km}**, n18, σ1^{s}67**/23**, mb4.0**/3**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.52	198	eP	P	07 13 07.9	+0.8
	19nm,0.5s						
KAKA				eS	Sn	07 14 54.8	-0.1
PMG	Port Moresby	13.06	117	Pn	P	07 13 55.3	+0.2
	0.9nm,0.3s,baz=293,slow=13,SNR=2.4						
PMG	Port Moresby	13.06	117	Pn	P	07 13 55.3	+0.2
WRAB	Tennant Creek	16.28	183	eP	P	07 14 35.3	-1.9
	20nm,0.8s						
WB2	Warramunga Arr	16.29	183	eP	P	07 14 36.3	-1.1
WB2				e		07 14 43.6	
WB2				eS	S	07 17 33.5	-4.0
WRA	Warramunga Arr	16.29	183	Pn	P	07 14 36.4	-1.0
	0.3nm,0.3s,baz=2.9,slow=13,SNR=13						
WRA				Sn	S	07 17 32.8	-4.7
	0.4nm,0.3s,baz=1.1,slow=23,SNR=6.0						
FITZ	Fitzroy Crossi	17.29	213	eP	P	07 14 51.9	+1.9
	1.9nm,0.3s						
FITZ				eS	S	07 17 57.0	-3.5
FITZ	Fitzroy Crossi	17.29	213	P	P	07 14 51.4	+1.4
	0.3nm,0.3s,baz=25,slow=9.7,SNR=11						
FITZ				S	S	07 17 54.4	-6.1
	0.4nm,0.3s,baz=193,slow=14,SNR=5.0						
CTA	Charters Tower	19.54	148	P	P	07 15 19.7	+2.3
	0.3nm,0.3s,baz=327,slow=12,SNR=3.1						
CTA	Charters Tower	19.54	148	P	P	07 15 19.7	+2.3
CTAO	Charters Tower	19.54	148	P	P	07 15 19.7	+2.4
	7.2nm,1.0s						
ASAR	Alice Springs	20.02	184	P	P	07 15 25.6	+3.0
	14nm,0.6s,baz=8.2,slow=11,SNR=150						
ASAR				S	S	07 19 06.0	+4.5
	0.8nm,0.6s,baz=1.8,slow=28,SNR=4.2						
ASPA	Alice Springs	20.02	184	eP	P	07 15 25.1	+2.5
MBWA	Marble Bar	23.16	220	eP	P	07 15 58.0	+3.6
	20nm,1.3s,mb4.4						
STKA	Stephens Creek	28.75	169	P	P	07 16 48.5	+2.0
	2.6nm,1.0s,mb3.9,baz=338,slow=11,SNR=2.8						
MDJ	Mudanjiang	48.26	354	P	P	07 19 25.0	-4.7
ILAR	Eielson Array	88.01	25	P	P	07 23 36.5	-1.4
	0.3nm,0.5s,mb3.8,baz=248,slow=3.9,SNR=9.9						
LPAZ	La Paz	149.51	131	PKPbc	PKPdf	07 30 40.9	+4.8
	0.8nm,0.8s,baz=262,slow=3.3,SNR=4.1						

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*IDC **02** 07:34:00.9±0.8, 3.50S×135.72E, mb4.3/6, mb1 4.3/9, mb1mx4.1/15, ML3.7/3, MS3.2/1, Ms1 3.2/1, ms1mx2.5/17, Error ellipse: s-maj=35.5km s-min=20.4km az=82.0*

*NEIC **02** 07:34:02.1±0.6, 3.50S×135.68E, h10^{km}, mb4.2/6, Error ellipse: s-maj=22.0km s-min=9.9km az=86.0*

ISC 02 07:34:03.9±0.6**, 3.66S**±0.05×**135.7E**±0.1**, h33**^{km}**, n28, σ1^{s}06**/29**, mb4.5**/13**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.56	200	eP	P	07 36 23.5	+1.1
	18nm,0.5s						
KAKA				eS	S	07 38 06.2	-3.7
WRAB	Tennant Creek	16.23	185	eP	P	07 37 49.7	-1.5
	9.2nm,0.7s						
WRAB				eS	S	07 40 44.2	-5.6
WB2	Warramunga Arr	16.24	185	eP	P	07 37 51.9	+0.6
WRA	Warramunga Arr	16.24	185	Pn	P	07 37 52.1	+0.8
	0.2nm,0.3s,baz=2.5,slow=13,SNR=8.3						
WRA				Sn	S	07 40 45.6	-4.4
	0.7nm,0.3s,baz=357,slow=24,SNR=6.6						
FITZ	Fitzroy Crossi	17.42	214	eP	P	07 38 06.8	+0.7
	3.2nm,0.6s						
FITZ	Fitzroy Crossi	17.42	214	P	P	07 38 07.3	+1.2
	0.4nm,0.3s,baz=31,slow=12,SNR=18						
FITZ				S	S	07 41 09.6	-7.5
	0.9nm,0.3s,baz=180,slow=10.0,SNR=6.7						
CTA	Charters Tower	19.30	149	P	P	07 38 29.2	+0.3
	0.1nm,0.3s,baz=343,slow=11,SNR=2.5						
CTA				LR	LR	07 46 43.5	
	comp=Z,73nm,19.5s,baz=223,slow=39						
ASAR	Alice Springs	19.97	185	P	P	07 38 38.4	+2.1
	9.0nm,0.6s,baz=6.7,slow=11,SNR=32						
ASPA	Alice Springs	19.97	185	eP	P	07 38 41.1	+4.8
GUN	Gumba	57.31	307	eP	P	07 43 51.2	0.0
	14nm,0.7s,mb5.1						
PKI	Pulchoki	57.54	306	eP	P	07 43 53.3	+0.4
KKN	Kakani	57.74	306	eP	P	07 43 54.2	-0.1
DMN	Daman	57.80	306	eP	P	07 43 55.0	+0.3
	16nm,0.9s,mb5.1						
GKN	Gorkha	58.34	306	eP	P	07 43 58.8	+0.3
	15nm,0.7s,mb5.2						
KOLN	Koldanda	59.09	305	eP	P	07 44 04.1	+0.4
	20nm,0.8s,mb5.2						
RAR	Rarotonga	64.94	112	P	P	07 44 41.9	-1.1
	9.5nm,0.7s,mb4.9,baz=199,slow=23,SNR=3.1						
ZAL	Zalesovo	71.28	331	P	P	07 45 20.1	-1.7
	0.8nm,0.3s,mb4.1,baz=44,slow=2.9,SNR=4.9						
UCH	Uchtor	71.66	317	eP	P	07 45 23.1	-1.2
	2.0nm,0.8s,mb4.1						
AML	Almayashu	72.19	316	eP	P	07 45 27.1	-0.4
	3.7nm,1.0s,mb4.3						
KURK	Kurchatov	72.80	326	P	P	07 45 27.3	-3.6
BVAR	Borovoye Array	78.39	326	P	P	07 46 03.6	+0.9
	1.5nm,0.7s,mb4.0,baz=117,slow=6.4,SNR=9.5						
BRVK	Borovoye	78.47	326	eP	P	07 46 03.0	-0.2
	2.7nm,0.9s,mb4.2						
CHKZ	Chkalovo	78.52	327	eP	P	07 46 03.5	0.0
	1.3nm,0.7s,mb4.0						
MAW	Mawson	80.14	202	P	P	07 46 11.9	-0.1
	2.4nm,0.3s,mb4.5,baz=296,slow=22,SNR=7.7						
ILAR	Eielson Array	87.93	25	P	P	07 46 51.9	+0.6
	0.4nm,0.5s,mb3.9,baz=263,slow=4.5,SNR=12						
LVC	Limon Verde	144.50	138	PKP	PKPdf	07 53 41.4	+3.6
	0.3nm,0.3s,baz=183,slow=2.5,SNR=3.4						
CPUP	Villa Florida	147.63	158	PKPbc	PKPdf	07 53 48.2	+5.2
	1.9nm,0.6s,baz=101,slow=2.8,SNR=5.8						
LPAZ	La Paz	149.20	131	PKPbc	PKPdf	07 53 54.7	+9.0
	0.5nm,0.5s,baz=261,slow=5.6,SNR=4.1						

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*NEIC **02** 07:40:31.2, 41.03S×174.61E, h44^{km}, ML4.1(WEL), After WEL.*

NEIC Felt in the Wellington area.

WEL 02 07:40:31.3±0.0**, 41.05S×174.61E, h44**^{km}**, ML4.2**/7**, 7C-4D, Error ellipse: s-maj=0.6km s-min=0.5km az=0.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRW	Makara Radio	0.20	160	P	P	07 40 38.8	0.0
MRW				S	S	07 40 44.4	+0.3
MRW	Makara Radio	0.20	160	⇓P*	P	07 40 38.8	0.0
MRW				S*	S	07 40 44.4	+0.3
WEL	Wellington	0.27	154	P	P	07 40 39.4	-0.2
WEL	Wellington	0.27	154	⇑P*	P	07 40 39.4	-0.1
WEL				S*	S	07 40 45.2	0.0
KIW	Kapiti Island	0.29	51	P	P	07 40 39.6	-0.2
KIW	Kapiti Island	0.29	51	⇓P*	P	07 40 39.5	-0.2
KIW				S*	S	07 40 45.7	0.0
CAW	Cannon Point	0.35	101	P	P	07 40 40.3	-0.1
CAW				S	S	07 40 47.0	+0.3
CAW	Cannon Point	0.35	101	⇑P*	P	07 40 40.3	-0.1
CAW				eS*	S	07 40 47.8	+1.0
BHW	Baring Head	0.41	152	P	P	07 40 40.9	-0.2
BHW				S	S	07 40 48.6	+0.6
BHW	Baring Head	0.41	152	⇑P*	P	07 40 40.9	-0.1
BHW				S*	S	07 40 48.1	+0.2
MSWZ	Moikau Station	0.61	128	P	P	07 40 43.3	-0.3
MSWZ	Moikau Station	0.61	128	⇑P*	P	07 40 43.3	-0.3
TUWZ	Tuamarina	0.64	232	P*	P	07 40 43.6	-0.3
MTW	Mount Morrison	0.68	100	P	P	07 40 44.1	-0.5
MTW	Mount Morrison	0.68	100	⇑P*	P	07 40 44.1	-0.5
PAWZ	Paruwai Farm	0.70	119	⇑P*	P	07 40 44.4	-0.4
MRZ	Mangatainoka R	0.83	63	P	P	07 40 46.2	-0.4
MRZ	Mangatainoka R	0.83	63	⇑PN	P	07 40 46.2	-0.4
MRZ				S*	S	07 40 57.6	-0.3
BSWZ	Blackbirch Sta	0.87	219	P	P	07 40 47.0	-0.2
BSWZ	Blackbirch Sta	0.87	219	PN	P	07 40 46.9	-0.3
NNZ	Nelson	0.95	259	P	P	07 40 47.8	-0.5
NNZ	Nelson	0.95	259	PN	P	07 40 47.8	-0.5
BFZ	Birch Farm	1.29	74	P	P	07 40 51.7	-1.5
BFZ	Birch Farm	1.29	74	ePN	P	07 40 51.7	-1.5
WAZ	Wanganui	1.32	13	P	P	07 40 54.4	+0.7
WAZ	Wanganui	1.32	13	PN	P	07 40 54.3	+0.6
TSZ	Takapari Road	1.42	47	eP	P	07 40 53.9	-1.2
TSZ	Takapari Road	1.42	47	PN	P	07 40 53.9	-1.2
THZ	Tophouse	1.47	240	P	P	07 40 54.9	-0.9
THZ	Tophouse	1.47	240	⇓PN	P	07 40 54.9	-1.0
KHZ	Kahutara	1.59	210	eP	P	07 40 56.2	-1.3
KHZ	Kahutara	1.59	210	⇓PN	P	07 40 56.2	-1.3
QRZ	Quartz Range	1.59	277	P	P	07 40 57.0	-0.5
QRZ	Quartz Range	1.59	277	PN	P	07 40 56.9	-0.6
DFE	Dawson Falls	1.76	347	P	P	07 41 00.7	+0.8
DFE	Dawson Falls	1.76	347	ePN	P	07 40 59.9	+0.1
NRZ	Ngariki Road	1.78	343	P	P	07 41 00.7	+0.5
NRZ	Ngariki Road	1.78	343	PN	P	07 41 00.6	+0.4
MOVZ	Moawhango	1.85	28	P	P	07 41 00.1	-1.1
MOVZ	Moawhango	1.85	28	PN	P	07 41 00.1	-1.1
NWEZ	Newall Road	1.86	342	P	P	07 41 01.6	+0.3
NWEZ	Newall Road	1.86	342	PN	P	07 41 01.5	+0.3
WNVZ	Wahianoa	1.87	24	P	P	07 41 05.9	+4.4
WNVZ	Wahianoa	1.87	24	ePN	P	07 41 03.4	+1.9
PKE	Pukeiti	1.91	345	P	P	07 41 02.5	+0.5
PKE	Pukeiti	1.91	345	ePN	P	07 41 02.5	+0.5
VRZ	Vera Road	1.92	3	P	P	07 41 02.5	+0.4
VRZ	Vera Road	1.92	3	PN	P	07 41 02.5	+0.3
TUVZ	Tukino	1.94	25	P	P	07 41 01.1	-1.4
TUVZ	Tukino	1.94	25	ePN	P	07 41 01.8	-0.7
CNZ	Chateau	1.98	22	P	P	07 41 02.7	-0.2
CNZ	Chateau	1.98	22	ePN	P	07 41 02.7	-0.3
NGZ	Ngauruhoe	2.01	22	P	P	07 41 03.5	0.0
NGZ	Ngauruhoe	2.01	22	PN	P	07 41 03.2	-0.3
OTVZ	Oturere	2.04	24	PN	P	07 41 03.6	-0.3
MGZ	Maungaku	2.16	20	P	P	07 41 05.3	-0.3
MGZ	Maungaku	2.16	20	ePN	P	07 41 05.0	-0.6
DSZ	Denniston Nort	2.23	251	eP	P	07 41 05.2	-1.3
DSZ	Denniston Nort	2.23	251	PN	P	07 41 05.2	-1.3
BKZ	Black Stump Fm	2.37	38	P	P	07 41 06.1	-2.4
BKZ	Black Stump Fm	2.37	38	ePN	P	07 41 06.4	-2.1
LTZ	Lake Taylor	2.46	224	eP	P	07 41 07.3	-2.6
LTZ	Lake Taylor	2.46	224	ePN	P	07 41 07.9	-2.0
HIZ	Hauiti	2.53	4	P	P	07 41 11.2	+0.3
HIZ	Hauiti	2.53	4	PN	P	07 41 11.1	+0.2
MQZ	McQueen's Vall	3.03	208	eP	P	07 41 13.9	-4.1
MQZ	McQueen's Vall	3.03	208	PN	P	07 41 13.9	-4.1
KNZ	Kokohu	3.10	50	eP	P	07 41 17.9	-1.1
KNZ	Kokohu	3.10	50	ePN	P	07 41 17.9	-1.0
URZ	Urewera	3.38	36	eP	P	07 41 20.6	-2.4
URZ	Urewera	3.38	36	ePN	P	07 41 20.5	-2.5
WVZ	Waitaha Valley	3.53	234	eP	P	07 41 27.7	+2.7
WVZ	Waitaha Valley	3.53	234	ePN	P	07 41 22.3	-2.7
FOZ	Fox Glacier	4.43	234	ePN	P	07 41 33.7	-4.2
LBZ	Lake Benmore	4.67	223	ePN	P	07 41 37.0	-4.1
ODZ	Otahua Downs	4.94	215	eP	P	07 41 40.0	-5.0
ODZ	Otahua Downs	4.94	215	PN	P	07 41 39.6	-5.4
JCZ	Jackson Bay	5.28	233	eP	P	07 41 49.1	-0.6
JCZ	Jackson Bay	5.28	233	ePN	P	07 41 48.8	-0.8

IDC 02 07:43:52.0±1.0**, 3.29S×135.21E, mb3.8**/3**, mb1 4.0**/5**, mb1mx3.8**/14**, ML3.4**/2**, Error ellipse: s-maj=55.2km s-min=28.8km az=93.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRAB	Tennant Creek	16.56	183	eP	P	07 47 52.4	+5.0
WRA	Warramunga Arr	16.57	183	Pn	P	07 47 39.8	-7.7
	0.1nm,0.3s,baz=1.8,slow=13,SNR=4.0						
WRA				Sn	S	07 50 32.6	-19
	0.2nm,0.3s,baz=6.5,slow=22,SNR=5.4						
FITZ	Fitzroy Crossi	17.45	212	P	P	07 47 55.6	-3.0
	0.2nm,0.3s,baz=7.9,slow=6.7,SNR=9.4						
FITZ				S	S	07 50 58.1	-14
	0.3nm,0.3s,baz=170,slow=13,SNR=6.2						
ASAR	Alice Springs	20.29	183	P	P	07 48 28.8	-3.5
	5.4nm,0.7s,baz=9.6,slow=10,SNR=18						
BVAR	Borovoye Array	77.81	326	P	P	07 55 52.3	-0.5
	0.7nm,0.7s,baz=117,slow=6.4,SNR=3.9						
ILAR	Eielson Array	87.82	25	P	P	07 56 40.9	-3.2
	0.4nm,0.7s,baz=261,slow=4.2,SNR=6.2						
CPUP	Villa Florida	148.15	158	PKPbc	PKPdf	08 03 39.9	+0.8
	1.5nm,0.9s,baz=119,slow=19,SNR=2.8						
LPAZ	La Paz	149.82	131	PKPbc	PKPdf	08 03 45.8	+3.8
	0.6nm,0.8s,baz=214,slow=3.6,SNR=2.5						
LPAZ				PKPab	PKPab	08 03 52.1	-0.5
	1.3nm,0.3s,baz=167,slow=10,SNR=16						

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*IDC **02** 07:45:19.9±2.1, 11.66S×164.39E, mb3.8/4, mb1 4.0/5, mb1mx3.8/14, ML3.7/1, MS3.3/1, Ms1 3.3/1, ms1mx2.8/21, Error ellipse: s-maj=135.0km s-min=26.2km az=134.0*

ISC 02 07:45:32.6±4.6**, 11.8S**±0.2×**164.1E**±0.2**, h116**^{km}±46^{km}**, n7, σ1^{s}02**/8**, mb3.6**/4**, Santa Cruz Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	10.45	168	eP	P	07 48 00.5	+0.2
DZM				eS	S	07 49 55.6	-0.2
NOUC	Port Laguerre	10.45	169	eP	P	07 48 00.5	+0.1

CTA	Charters Tower	19.02	242	P	P	07 49 46.8	-1.3
	0.1nm,0.3s,baz=60,slow=12,SNR=3.8						
CTA				LR	LR	07 56 33.5	
	comp=Z,91nm,18.2s,baz=44,slow=35						
STKA	Stephens Creek	28.79	223	P	P	07 51 21.9	+0.1
	4.0nm,1.2s,mb3.9,baz=8.7,slow=13,SNR=3.0						
ASAR	Alice Springs	31.01	244	P	P	07 51 43.0	+1.3
	0.4nm,0.6s,mb3.4,baz=63,slow=10,SNR=5.0						
ILAR	Eielson Array	84.75	19	P	P	07 57 55.1	+0.5
	0.4nm,1.0s,mb3.3,baz=225,slow=5.1,SNR=4.2						
YKA	Yellowknife Ar	96.39	28	P	P	07 58 48.4	-0.8
	0.2nm,0.6s,mb3.7,baz=271,slow=4.2,SNR=5.3						

IDC 02 07:57:41.3±0.9**, 20.06N**×**120.51E, mb3.9**/7**, mb1 4.1**/7**, mb1mx3.9**/19**, MS3.1**/1**, Ms1 3.3**/1**, ms1mx2.9**/20**, Error ellipse: s-maj=70.8km s-min=17.7km az=67.0, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	20.42	269	LR	LR	08 11 26.3	
	comp=Z,53nm,18.4s,baz=80,slow=40						
SONM	Songino Array	29.98	341	P	P	08 03 51.5	-2.1
	1.0nm,1.0s,baz=135,slow=8.2,SNR=2.7						
WRA	Warramunga Arr	42.00	160	P	P	08 05 34.5	-1.6
	3.5nm,1.1s,baz=342,slow=9.0,SNR=18						
ASAR	Alice Springs	45.38	163	P	P	08 06 02.5	-1.0
	1.3nm,0.8s,baz=348,slow=7.7,SNR=16						
CTA	Charters Tower	47.20	146	P	P	08 06 14.6	-3.3
	3.1nm,0.8s,baz=339,slow=8.6,SNR=2.2						
BVAR	Borovoye Array	50.52	323	P	P	08 06 40.8	-2.4
	0.7nm,0.7s,baz=51,slow=9.2,SNR=2.7						
GERES	GERESS Array B	85.62	321	P	P	08 10 21.6	-1.3
	0.3nm,0.3s,baz=56,slow=4.8,SNR=4.1						
YKA	Yellowknife Ar	87.00	22	P	P	08 10 29.0	-0.3
	0.3nm,0.6s,baz=311,slow=4.4,SNR=8.4						

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*BJI **02** 08:04:02.0, 4.34S×135.74E, h10^{km}, mB5.0, mb4.7, Ms4.5, Msz4.1*

*IDC **02** 08:04:06.3±0.6, 3.63S×135.58E, mb4.3/8, mb1 4.5/13, mb1mx4.4/16, ML4.1/5, Error ellipse: s-maj=32.8km s-min=14.9km az=66.0*

*NEIC **02** 08:04:08.2±0.3, 3.69S×135.53E, h10^{km}, mb4.5/19, Error ellipse: s-maj=11.7km s-min=6.8km az=74.0*

*SYO **02** 08:04:08.3, 3.72S×135.54E, h10^{km}, MB4.5*

*MOS **02** 08:04:09.3±0.8, 3.53S×135.83E, h33^{km}, mb4.3/6, Error ellipse: s-maj=28.8km s-min=12.6km az=122.1*

ISC 02 08:04:08.0±2.1**, 3.85S**±0.04×**135.57E**±0.09**, h24**^{km}±15^{km}**, h15**^{km}±1.8^{km}**:pP-P, n71, σ1^{s}28**/72**, mb4.4**/28**, MS4.2**/3**, 2C-3D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.34	199	eP	P	08 06 24.6	+0.4
	46nm,0.4s						
PMG	Port Moresby	12.76	116	Pn	P	08 07 09.9	-1.1
	0.7nm,0.3s,baz=284,slow=12,SNR=2.2						
PMG	Port Moresby	12.76	116	P	P	08 07 09.9	-1.0
PMG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PMG	Port Moresby	12.76	116	eP	P	08 07 10.6	-0.4
	comp=Z,32nm,0.9s						
WRAB	Tennant Creek	16.03	184	c iP	P	08 07 59.3	+5.5
WRAB	Tennant Creek	16.03	184	eP	P	08 07 51.2	-2.6
	comp=Z,75nm,0.8s						
WRAB				eS	S	08 10 33.7	-17
WB2	Warramunga Arr	16.04	184	eP	P	08 07 51.5	-2.4
WB2				i		08 08 00.1	
WRA	Warramunga Arr	16.04	184	Pn	P	08 07 51.6	-2.3
	comp=Z,0.6nm,0.3s,baz=7.0,slow=13,SNR=21						
WRA				Sn	S	08 10 40.3	-11
	comp=Z,0.3nm,0.3s,baz=12,slow=22,SNR=4.2						
FITZ	Fitzroy Crossi	17.18	214	eP	P	08 08 07.9	-0.4
	comp=Z,11nm,0.8s						
FITZ				eS	S	08 11 11.1	-6.0
FITZ	Fitzroy Crossi	17.18	214	P	P	08 08 09.4	+1.0
	comp=Z,0.7nm,0.3s,baz=22,slow=12,SNR=16						
FITZ				S	S	08 11 09.4	-7.7
	comp=Z,0.6nm,0.3s,baz=190,slow=17,SNR=3.6						
CTA	Charters Tower	19.21	148	eP	P	08 08 34.6	+1.4
	comp=Z,11nm,0.9s						
CTA	Charters Tower	19.21	148	P	P	08 08 34.3	+1.2
	comp=Z,0.4nm,0.3s,baz=318,slow=11,SNR=14						
CTAO	Charters Tower	19.21	148	eP	P	08 08 33.9	+0.7
	comp=Z,22nm,1.0s						
CTAO				eS	S	08 12 29.4	+26
GUMO	Guam	19.63	28	P	P	08 08 37.7	-0.3
	comp=Z,217nm,1.1s						
ASAR	Alice Springs	19.77	185	P	P	08 08 41.5	+2.0
	comp=Z,5.4nm,0.3s,baz=8.9,slow=10,SNR=330						
ASAR				S	S	08 12 13.6	-1.6
	comp=Z,0.2nm,0.3s,baz=7.9,slow=26,SNR=2.9						
ASPA	Alice Springs	19.77	185	⇓iP	P	08 08 41.5	+2.0
MBWA	Marble Bar	23.09	221	eP	P	08 09 16.2	+2.9
	comp=Z,13nm,0.8s,mb4.4						
STKA	Stephens Creek	28.45	169	eP	P	08 10 03.9	+0.6
	comp=Z,2.9nm,0.6s,mb4.1						
STKA	Stephens Creek	28.45	169	P	P	08 10 03.8	+0.5
	comp=Z,2.8nm,0.6s,mb4.0,baz=349,slow=7.0,SNR=10						
NJ2	Nanjing	39.08	337	eP	P	08 11 35.4	+0.2
NJ2				AP	pP	08 11 45.9	+3.4
NJ2				XP	sP	08 11 49.9	+4.4
NJ2				PP	PP	08 13 08.5	-0.3
NJ2				PPP	PPP	08 13 31.2	-1.2
NJ2				S	S	08 17 30.0	-2.8
NJ2				XS		08 17 47.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
NJ2				LR	LR		
	comp=N,530nm,16.6s,MS4.8						
NJ2				LR	LR		
	comp=E,1µm,15.4s,MS4.8						
NJ2				LR	LR		
	comp=Z,650nm,15.9s,MS4.5						
ENH	Enshi	42.11	325	P	P	08 11 59.3	-0.9
	comp=Z,5.5nm,0.8s,mb4.2						
CMAR	Chiang Mai Arr	42.35	303	P	P	08 12 00.7	-1.6
	comp=Z,1.0nm,0.4s,mb3.8,baz=128,slow=6.9,SNR=6.4						
CMAR	Chiang Mai Arr	42.35	303	P	P	08 12 00.7	-1.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CN2	Changchun	48.30	350	eP	P	08 12 51.5	+2.1
MDJ	Mudanjiang	48.54	354	P	P	08 12 53.8	+2.5
MDJ				AP	pP	08 12 56.8	-1.9
MDJ				XP	sP	08 12 58.3	-3.4
MDJ				PCP	PcP	08 14 17.8	+0.5
MDJ				SCP		08 18 10.7	
MDJ				PCS		08 18 14.1	
MDJ				S	S	08 19 55.9	+5.7
MDJ				XS		08 20 03.2	
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.4s,mb4.4						
MDJ				AMB	AMB		
	comp=Z,52nm,4.2s						
MDJ				LR	LR		
	comp=N,126nm,8.1s						
MDJ				LR	LR		
	comp=E,83nm,8.7s						
MDJ				LR	LR		
	comp=Z,82nm,10.3s,MS4.0						
LZH	Lanzhou	49.59	326	eP	P	08 12 58.5	-1.0
LZH				AP	pP	08 13 03.5	-3.4
LZH				XP	sP	08 13 06.2	-3.6
LZH				AMB	AMB		
	comp=Z,26nm,1.5s,mb5.0						
HHC	Hu-ho-hao-te	49.61	336	eP	P	08 12 59.0	-0.6
HHC				AP	pP	08 13 03.5	-3.5
HHC				XP	sP	08 13 06.0	-3.9
HHC				PCP	PcP	08 14 20.6	-0.6
HHC				PP	PP	08 14 51.0	-3.6
HHC				S	S	08 20 04.9	-0.2
HHC				SCS	ScS	08 22 47.2	+0.5
HHC				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb4.7						
HHC				AMB	AMB		
	comp=Z,118nm,4.8s						
URZ	Urewera	51.02	138	P	P	08 13 11.4	+1.0
	comp=Z,6.5nm,0.4s,mb4.9,baz=101,slow=16,SNR=7.2						
SHL	Shillong	51.46	307	e	P	08 13 13.0	-0.9
GTA	Gaotai	54.19	326	eP	P	08 13 34.7	+0.7
GTA				AP	pP	08 13 39.9	-1.5
GTA				XP	sP	08 13 43.1	-1.2
GTA				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.6						
ULN	Ulaanbaatar	57.25	338	i P	P	08 13 59.8	+3.9
GUN	Gumba	57.31	307	eP	P	08 14 01.8	+5.2
SONM	Songino Array	57.47	337	P	P	08 13 56.2	-1.3
	comp=Z,0.6nm,0.6s,mb3.8,baz=136,slow=7.2,SNR=4.1						
PKI	Pulchoki	57.54	306	eP	P	08 14 01.8	+3.5
DMN	Daman	57.80	306	eP	P	08 14 04.4	+4.3
	comp=Z,16nm,0.9s,mb5.0						
GKN	Gorkha	58.34	306	eP	P	08 14 08.6	+4.7
KOLN	Koldanda	59.09	306	eP	P	08 14 09.5	+0.4
ZAK	Zakamensk	60.74	337	eP	P	08 14 19.0	-1.1
WMQ	Urumqi	64.00	323	⇑P	P	08 14 43.4	+1.4
WMQ				AP	pP	08 14 47.4	-2.2
WMQ				XP	sP	08 14 50.4	-1.9
WMQ				PCP	PcP	08 15 18.8	+1.7
WMQ				PP	PP	08 17 05.9	+1.4
WMQ				eS	S	08 23 17.0	+2.0
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.5						
WMQ				LR	LR		
	comp=N,111nm,20.0s,MS4.1						
WMQ				LR	LR		
	comp=E,45nm,20.0s,MS4.1						
WMQ				LR	LR		
	comp=Z,43nm,18.2s,MS3.7						
MK02	Makanchi Array	68.79	324	P	P	08 15 12.1	-0.3
MK02				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
TKM2	Tokmak 2	71.25	318	P	P	08 15 27.7	+0.3
	comp=Z,2.6nm,0.7s,mb4.3						
ZAL	Zalesovo	71.38	331	P	P	08 15 27.5	-0.5
	comp=Z,1.5nm,0.7s,mb4.0,baz=345,slow=6.9,SNR=7.5						
ZAL	Zalesovo	71.38	331	P	P	08 15 27.5	-0.5
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.7s						
UCH	Uchtor	71.70	317	eP	P	08 15 31.1	+0.9
	comp=Z,4.4nm,1.0s,mb4.3						
AAK	Ala-Archa	71.88	317	⇓eP	P	08 15 31.0	-0.2
AAK	Ala-Archa	71.88	317	eP	P	08 15 31.3	+0.1
	comp=Z,1.7nm,0.8s,mb4.0						
AML	Almayashu	72.23	316	eP	P	08 15 34.3	+1.0
	comp=Z,4.5nm,0.7s,mb4.5						
EKS2	Erkin-Say	72.37	317	P	P	08 15 34.5	+0.3
	comp=Z,3.6nm,0.9s,mb4.3						
KURK	Kurchatov	72.88	326	i P	P	08 15 36.0	-1.0
KURK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
KURK	Kurchatov	72.88	326	eP	P	08 15 36.1	-0.9
	comp=Z,3.5nm,0.9s,mb4.3						
VNDA	Vanda	74.95	174	P	P	08 15 49.2	+0.7
	comp=Z,1.9nm,1.0s,mb4.0,baz=324,slow=10,SNR=3.7						
VNDA	Vanda	74.95	174	P	P	08 15 49.2	+0.7
VNDA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
VNDA	Vanda	74.95	174	eP	P	08 15 49.9	+1.4
	comp=Z,8.0nm,1.4s,mb4.5						
BVA0	Borovoye Array	78.47	326	P	P	08 16 08.6	0.0
BVAR	Borovoye Array	78.47	326	P	P	08 16 08.7	0.0
	comp=Z,5.4nm,0.9s,mb4.5,baz=116,slow=7.3,SNR=20						
BRVK	Borovoye	78.55	326	eP	P	08 16 08.5	-0.5
	comp=Z,5.6nm,0.8s,mb4.5						
CHKZ	Chkalovo	78.60	327	i P	P	08 16 09.0	-0.3
CHKZ	Chkalovo	78.60	327	eP	P	08 16 08.1	-1.2
	comp=Z,5.1nm,1.0s,mb4.4						
ARU	Arti	86.03	327	eP	P	08 16 46.9	-0.9
ARU	Arti	86.03	327	P	P	08 16 46.5	-1.3
	comp=Z,5.9nm,1.2s,mb4.7						
ILAR	Eielson Array	88.17	25	P	P	08 16 56.0	-1.9
	comp=Z,0.6nm,0.5s,mb4.1,baz=262,slow=4.4,SNR=12						
ILAR	Eielson Array	88.17	25	P	P	08 16 56.0	-1.9
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SYO	Syowa Base	88.58	201	⇓PcP	PcP	08 17 06.1	+4.4
KIV	Kislovodsk	94.73	314	eP	P	08 17 31.4	+2.6
	comp=Z,13nm,1.2s,mb5.2						
ARCES	ARCESS Array B	100.53	340	P	P	08 17 53.9	-0.7
	comp=Z,2.9nm,0.8s,baz=76,slow=5.0,SNR=12						
ARCES	ARCESS Array B	100.53	340	P	P	08 17 53.9	-0.7
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CPUP	Villa Florida	147.50	158	PKPbc	PKPdf	08 23 54.4	+1.5
	comp=Z,5.2nm,0.6s,baz=237,slow=2.4,SNR=21						
CPUP	Villa Florida	147.50	158	PKP2	PKPab	08 23 54.4	-0.7
CPUP				pmax	pmax		
	comp=Z,5.0nm,0.6s						
LPAZ	La Paz	149.18	131	PKPbc	PKPdf	08 24 00.3	+4.6
	comp=Z,3.0nm,0.8s,baz=230,slow=1.5,SNR=15						
LPAZ	La Paz	149.18	131	PKP2	PKPab	08 24 00.4	-1.7
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LPAZ	La Paz	149.18	131	ePKPdf	PKPdf	08 23 55.5	-0.2
LPAZ				ePKPbc	PKPdf	08 24 00.1	+4.3
LPAZ				PKPbc	PKPdf	08 24 00.3	+4.6

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*NEIC **02** 08:11:18.5, 41.33S×172.89E, h130^{km}, After WEL.*

WEL 02 08:11:19.3±0.3**, 41.38S**×**172.92E, h121**^{km}±2^{km}**, ML3.7**/8**, 4C-1D, Error ellipse: s-maj=1.5km s-min=1.4km az=0.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNZ	Nelson	0.38	66	P	P	08 11 36.9	+0.1
NNZ				S	S	08 11 50.0	-0.1
NNZ	Nelson	0.38	66	⇑PN	P	08 11 36.9	+0.1
NNZ				SN	S	08 11 49.8	-0.4
THZ	Tophouse	0.39	181	P	P	08 11 37.1	+0.2
THZ				S	S	08 11 50.3	+0.1
THZ	Tophouse	0.39	181	PN	P	08 11 37.0	+0.2
THZ				SN	S	08 11 49.9	-0.3
QRZ	Quartz Range	0.62	332	P	P	08 11 38.2	-0.1
QRZ				S	S	08 11 51.5	-1.2
QRZ	Quartz Range	0.62	332	PN	P	08 11 38.2	-0.1
QRZ				SN	S	08 11 51.5	-1.2
TUWZ	Tuamarina	0.77	95	⇑PN	P	08 11 39.7	+0.2
TUWZ				SN	S	08 11 54.6	-0.3
BSWZ	Blackbirch Sta	0.80	116	P	P	08 11 39.8	+0.1
BSWZ	Blackbirch Sta	0.80	116	PN	P	08 11 39.8	+0.1
DSZ	Denniston Nort	0.92	246	P	P	08 11 40.4	-0.5
DSZ	Denniston Nort	0.92	246	⇑PN	P	08 11 40.4	-0.5
DSZ				SN	S	08 11 54.8	-2.3
KHZ	Kahutara	1.14	156	P	P	08 11 43.1	-0.1
KHZ	Kahutara	1.14	156	⇑PN	P	08 11 43.1	-0.2
KHZ				SN	S	08 11 59.7	-1.4
MRW	Makara Radio	1.35	84	P	P	08 11 45.0	-0.6
MRW	Makara Radio	1.35	84	PN	P	08 11 45.0	-0.6
MRW				SN	S	08 12 03.9	-1.6
WEL	Wellington	1.40	87	P	P	08 11 45.5	-0.6
WEL	Wellington	1.40	87	PN	P	08 11 45.5	-0.6
WEL				SN	S	08 12 05.0	-1.4
BHW	Baring Head	1.47	92	P	P	08 11 45.9	-1.0
BHW	Baring Head	1.47	92	PN	P	08 11 45.9	-1.0
BHW				SN	S	08 12 05.8	-2.0
LTZ	Lake Taylor	1.49	199	PN	P	08 11 46.6	-0.5
LTZ				SN	S	08 12 06.1	-2.1
KIW	Kapiti Island	1.59	72	P	P	08 11 47.7	-0.6
KIW	Kapiti Island	1.59	72	⇓PN	P	08 11 47.7	-0.6
KIW				SN	S	08 12 09.1	-1.2
CAW	Cannon Point	1.64	81	P	P	08 11 48.1	-0.8
CAW	Cannon Point	1.64	81	PN	P	08 11 48.1	-0.9
CAW				SN	S	08 12 09.9	-1.5
MSWZ	Moikau Station	1.76	92	P	P	08 11 49.1	-1.2
MSWZ	Moikau Station	1.76	92	PN	P	08 11 49.1	-1.2
MSWZ				SN	S	08 12 11.7	-2.0
MTW	Mount Morrison	1.96	85	ePN	P	08 11 50.9	-1.9
MTW				SN	S	08 12 16.1	-2.0
MRZ	Mangatainoka R	2.14	71	P	P	08 11 53.5	-1.6
MRZ	Mangatainoka R	2.14	71	PN	P	08 11 53.5	-1.6
MRZ				SN	S	08 12 20.5	-1.5
NRZ	Ngariki Road	2.18	21	P	P	08 11 56.0	+0.4
NRZ	Ngariki Road	2.18	21	PN	P	08 11 56.0	+0.4
CRLZ	Canterbury Las	2.21	186	SN	S	08 12 19.3	-4.5
NWEZ	Newall Road	2.22	19	P	P	08 11 56.5	+0.4
NWEZ	Newall Road	2.22	19	PN	P	08 11 56.5	+0.3
DFE	Dawson Falls	2.24	24	P	P	08 11 56.8	+0.4
DFE	Dawson Falls	2.24	24	PN	P	08 11 56.8	+0.5
WAZ	Wanganui	2.26	45	P	P	08 11 56.8	+0.1
WAZ	Wanganui	2.26	45	PN	P	08 11 56.8	+0.2
WAZ				SN	S	08 12 26.0	+1.1
NEZ	North Egmont	2.29	24	P	P	08 11 57.2	+0.2
NEZ	North Egmont	2.29	24	PN	P	08 11 57.2	+0.2
PKE	Pukeiti	2.33	21	P	P	08 11 58.0	+0.4
PKE	Pukeiti	2.33	21	PN	P	08 11 58.0	+0.4
MQZ	McQueen’s Vall	2.34	185	eP	P	08 11 55.9	-1.8
MQZ	McQueen’s Vall	2.34	185	PN	P	08 11 55.8	-1.9
MQZ				SN	S	08 12 22.0	-4.8
WVZ	Waitaha Valley	2.35	223	eP	P	08 11 56.1	-1.8
WVZ	Waitaha Valley	2.35	223	PN	P	08 11 56.1	-1.8
WVZ				SN	S	08 12 23.0	-4.0
RAEZ	Rainy Point	2.37	29	P	P	08 11 58.6	+0.5
RAEZ	Rainy Point	2.37	29	PN	P	08 11 58.5	+0.3
VRZ	Vera Road	2.65	33	P	P	08 12 01.6	-0.3
VRZ	Vera Road	2.65	33	PN	P	08 12 01.6	-0.2
VRZ				SN	S	08 12 33.6	-0.5
TSZ	Takapari Road	2.66	61	P	P	08 12 00.1	-1.9
TSZ	Takapari Road	2.66	61	PN	P	08 12 00.1	-1.9
RPZ	Rata Peaks	2.71	210	eP	P	08 12 00.8	-1.9
RPZ	Rata Peaks	2.71	210	PN	P	08 12 00.8	-1.9
RPZ				SN	S	08 12 31.1	-4.4
MOVZ	Moawhango	2.92	49	P	P	08 12 04.0	-1.5
MOVZ	Moawhango	2.92	49	PN	P	08 12 04.0	-1.5
CNZ	Chateau	2.96	44	P	P	08 12 06.6	+0.6
CNZ	Chateau	2.96	44	PN	P	08 12 06.6	+0.6
TUVZ	Tukino	2.97	46	PN	P	08 12 05.6	-0.4
NGZ	Ngauruhoe	3.01	44	P	P	08 12 07.3	+0.7
NGZ	Ngauruhoe	3.01	44	PN	P	08 12 06.4	-0.2
MGZ	Maungaku	3.11	41	P	P	08 12 07.5	-0.5
MGZ	Maungaku	3.11	41	PN	P	08 12 07.5	-0.5
HIZ	Hauiti	3.22	28	P	P	08 12 08.3	-1.2
HIZ	Hauiti	3.22	28	PN	P	08 12 07.9	-1.6
FOZ	Fox Glacier	3.24	226	PN	P	08 12 06.3	-3.5
FOZ				SN	S	08 12 40.7	-7.3
LBZ	Lake Benmore	3.62	213	eP	P	08 12 11.3	-3.5
LBZ	Lake Benmore	3.62	213	PN	P	08 12 11.3	-3.5
ODZ	Otahua Downs	4.03	204	eP	P	08 12 17.8	-2.5
ODZ	Otahua Downs	4.03	204	PN	P	08 12 17.8	-2.5
ODZ				SN	S	08 13 01.6	-5.4
JCZ	Jackson Bay	4.08	227	eP	P	08 12 18.2	-2.9
JCZ	Jackson Bay	4.08	227	PN	P	08 12 18.2	-2.8
JCZ				SN	S	08 13 01.8	-6.5
WKZ	Wanaka	4.48	218	eP	P	08 12 23.0	-3.4
WKZ	Wanaka	4.48	218	PN	P	08 12 23.0	-3.4
EAZ	Earnscleugh	4.67	213	PN	P	08 12 24.7	-4.3
KUZ	Kuaotunu	5.11	26	PN	P	08 12 33.3	-1.6

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*IDC **02** 08:13:25.2±0.8, 8.21S×124.51E, mb4.0/5, mb1 4.4/8, mb1mx4.2/16, ML3.9/3, MS3.6/5, Ms1 3.6/5, ms1mx3.2/18, Error ellipse: s-maj=42.7km s-min=18.5km az=61.0*

*NEIC **02** 08:13:26.6±0.5, 8.10S×125.00E, h15^{km}, mb4.3/5, Error ellipse: s-maj=22.9km s-min=8.5km az=67.0*

ISC 02 08:13:26.8±0.6**, 8.22S**±0.07×**124.9E**±0.2**, h33**^{km}**, n22, σ0^{s}95**/19**, mb4.1**/10**, MS3.6**/5**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.85	176	Pn	P	08 15 48.9	-0.4
	1.1nm,0.3s,baz=19,slow=6.1,SNR=12						
FITZ				Sn	Sn	08 17 39.0	-0.9
	3.8nm,0.3s,baz=168,slow=5.7,SNR=9.4						
MBWA	Marble Bar	13.81	201	eP	P	08 16 43.1	+0.5
WRA	Warramunga Arr	14.80	143	Pn	P	08 16 55.4	-0.2
	0.7nm,0.3s,baz=319,slow=13,SNR=26						
WRA				Sn	S	08 19 33.7	-5.6
	0.6nm,0.3s,baz=309,slow=20,SNR=6.1						
WRAB	Tennant Creek	14.80	143	eP	P	08 16 54.9	-0.8
	29nm,0.8s						
ASAR	Alice Springs	17.61	152	P	P	08 17 33.8	+2.4
	0.5nm,0.3s,baz=318,slow=8.6,SNR=25						
ASAR				S	S	08 20 39.6	-4.5
	0.2nm,0.3s,baz=312,slow=18,SNR=5.6						
PMG	Port Moresby	22.01	95	P	P	08 18 26.7	+6.7
	7.8nm,0.6s,mb4.3,baz=345,slow=8.1,SNR=3.4						
PMG	Port Moresby	22.01	95	eP	P	08 18 28.9	+8.8
	26nm,0.9s,mb4.7						
CTAO	Charters Tower	23.78	122	P	P	08 18 42.6	+5.1
	9.9nm,1.0s,mb4.2						
NWAO	Narrogin (SRO)	25.60	195	LR	LR	08 29 13.7	
	comp=Z,18nm,21.4s,MS2.6,baz=215,slow=37						
CMAR	Chiang Mai Arr	36.87	316	P	P	08 20 34.8	+0.5
	2.1nm,0.7s,mb4.1,baz=137,slow=6.4,SNR=10						
CMAR				LR	LR	08 36 42.7	
	comp=Z,90nm,21.1s,MS3.5,baz=130,slow=38						
URZ	Urewera	55.58	131	LR	LR	08 47 53.6	
	comp=Z,99nm,19.8s,MS3.9,baz=246,slow=37						
SONM	Songino Array	58.17	345	P	P	08 23 19.6	-0.2
	0.5nm,0.7s,mb3.7,baz=180,slow=4.3,SNR=3.0						
TKM2	Tokmak 2	67.81	323	P	P	08 24 18.9	-4.8
	5.8nm,1.0s,mb4.6						
ZAL	Zalesovo	70.55	336	P	P	08 24 39.5	-0.8
	1.3nm,0.6s,mb4.0,baz=337,slow=4.7,SNR=6.4						
KURK	Kurchatov	71.02	331	eP	P	08 24 43.0	-0.3
	3.3nm,0.9s,mb4.3						
VNDA	Vanda	71.90	172	LR	LR	08 55 16.4	
	comp=Z,75nm,19.6s,MS4.0,baz=341,slow=35						
VNDA	Vanda	71.90	172	eP	P	08 24 51.1	+3.0
	0.8nm,0.5s,mb3.9						
MAW	Mawson	72.00	201	LR	LR	08 55 59.0	
	comp=Z,61nm,18.3s,MS3.9,baz=73,slow=36						
BVAR	Borovoye Array	76.48	330	P	P	08 25 14.7	-0.3
	0.2nm,0.3s,mb3.5,baz=124,slow=5.2,SNR=3.2						
CHKZ	Chkalovo	76.73	330	P	P	08 25 16.5	0.0
	1.9nm,0.9s,mb4.0						
CPUP	Villa Florida	145.59	176	PKPbc	PKPbc	08 33 06.9	+3.7
	3.3nm,1.1s,baz=223,slow=6.5,SNR=4.7						
LPAZ	La Paz	152.44	152	PKPbc	PKPdf	08 33 27.5	+14
	0.4nm,0.6s,baz=135,slow=1.4,SNR=2.5						
LPAZ				PKPab	PKPab	08 33 33.3	+0.2
	0.7nm,0.7s,baz=233,slow=22,SNR=4.2						

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*IDC **02** 08:18:08.5±1.0, 7.98S×125.29E, mb4.0/5, mb1 4.3/8, mb1mx4.1/15, ML3.8/2, Error ellipse: s-maj=40.4km s-min=18.6km az=61.0*

*NEIC **02** 08:18:15.2±0.6, 8.19S×125.22E, h55^{km}, mb4.2/4, Error ellipse: s-maj=20.1km s-min=9.9km az=65.0*

ISC 02 08:18:11.1±0.6**, 8.14S**±0.08×**125.3E**±0.1**, h33**^{km}**, n17, σ1^{s}20**/19**, mb4.0**/9**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	9.91	178	Pn	P	08 20 33.6	-0.8
	0.6nm,0.3s,baz=5.6,slow=12,SNR=3.0						
FITZ				Sn	Sn	08 22 20.6	-5.1
	1.6nm,0.3s,baz=161,slow=9.9,SNR=7.9						
MBWA	Marble Bar	14.00	202	eP	P	08 21 28.7	-0.8
	10nm,1.2s						
WRAB	Tennant Creek	14.67	144	eP	P	08 21 39.3	+1.1
	24nm,0.8s						
WRA	Warramunga Arr	14.67	144	Pn	P	08 21 39.2	+0.9
	0.5nm,0.3s,baz=316,slow=13,SNR=9.4						
WRA				Sn	S	08 24 18.0	-2.5
	0.1nm,0.3s,baz=313,slow=22,SNR=3.4						
ASAR	Alice Springs	17.53	153	P	P	08 22 17.1	+2.5
	baz=319,slow=12,SNR=4.7						
PMG	Port Moresby	21.69	95	P	P	08 23 00.3	-0.9
	9.1nm,0.9s,mb4.2,baz=258,slow=9.3,SNR=2.9						
PMG	Port Moresby	21.69	95	P	P	08 23 00.3	-0.9
	0.9nm,1.0s,mb3.1						
CMAR	Chiang Mai Arr	37.04	316	P	P	08 25 19.2	-0.8
	3.0nm,0.9s,mb4.1,baz=149,slow=6.7,SNR=8.3						
SONM	Songino Array	58.17	345	P	P	08 28 04.2	0.0
	0.4nm,1.0s,mb3.4,baz=157,slow=11,SNR=2.9						
TKM2	Tokmak 2	67.95	323	P	P	08 29 03.6	-5.3
	4.2nm,1.1s,mb4.4						
AML	Almayashu	68.66	321	eP	P	08 29 13.0	-0.3
	1.7nm,0.8s,mb4.0						
EKS2	Erkin-Say	68.90	322	P	P	08 29 16.2	+1.4
	2.9nm,1.0s,mb4.2						
ZAL	Zalesovo	70.61	336	P	P	08 29 24.4	-0.6
	1.3nm,0.3s,mb4.3,baz=35,slow=4.5,SNR=5.1						
ZAL	Zalesovo	70.61	336	P	P	08 29 24.4	-0.6
KURK	Kurchatov	71.11	331	eP	P	08 29 27.5	-0.6
	2.7nm,0.9s,mb4.2						
VNDA	Vanda	71.93	172	P	P	08 29 34.4	+1.8
	0.6nm,0.7s,mb3.7,baz=315,slow=1.4,SNR=3.4						
VNDA	Vanda	71.93	172	P	P	08 29 34.4	+1.8

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*NEIC **02** 08:34:17.0±0.9, 22.84S×66.11W, h244^{km}±10^{km}, mb4.1/10, Error ellipse: s-maj=14.6km s-min=11.2km az=61.0*

*IDC **02** 08:34:17.7±1.1, 22.70S×66.13W, h246^{km}±14^{km}, mb3.7/3, mb1 3.8/7, mb1mx3.6/14, Error ellipse: s-maj=20.0km s-min=16.1km az=100.0*

ISC 02 08:34:16.8±0.7**, 22.75S**±0.06×**66.05W**±0.08**, h251**^{km}±8^{km}**,**

n25,σ1^{s}06/30,mb4.1/10,1C-3D,Jujuy Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**2.65**	**272**	P	**P**	**08 35 06.7**	**+0.7**
	151nm,0.3s,baz=95,slow=6.0,SNR=1642						
LVC				S	**S**	**08 35 43.7**	**-0.5**
	46nm,0.3s,baz=242,slow=18,SNR=8.2						
LVC	**Limon Verde**	**2.65**	**272**	*e*Pn	**P**	**08 35 06.0**	**+0.1**
LVC				S	**S**	**08 35 43.8**	**-0.5**
LPAZ	**La Paz**	**6.72**	**343**	P	**P**	**08 35 56.1**	**+1.5**
	1.9nm,0.3s,baz=150,slow=9.2,SNR=73						
LPAZ				S	**S**	**08 37 11.0**	**-0.2**
	0.5nm,0.3s,baz=356,slow=16,SNR=8.1						
LPAZ	**La Paz**	**6.72**	**343**	*e*P	**P**	**08 35 55.7**	**+1.1**
	13nm,0.5s						
LPAZ				*e*S	**S**	**08 37 10.2**	**-1.0**
ARE	**Arequipa**	**8.09**	**320**	P	**P**	**08 36 11.0**	**-0.9**
ARE				*e*S	**S**	**08 37 38.0**	**-4.2**
CPUP	**Villa Florida**	**8.70**	**116**	P	**P**	**08 36 19.7**	**0.0**
	0.1nm,0.3s,baz=296,slow=7.1,SNR=3.4						
SAML	**Samuel**	**14.00**	**12**	*e*P	**P**	**08 37 26.6**	**+0.5**
	6.8nm,1.0s						
TRQA	**Tornquist**	**15.65**	**168**	*e*P	**P**	**08 37 39.7**	**-6.2**
	6.0nm,0.9s						
BDFB	**Brasilia**	**18.43**	**71**	P	**P**	**08 38 16.6**	**+0.7**
	0.8nm,0.3s,baz=251,slow=10,SNR=29						
BAO	**Brasilia Array**	**18.46**	**71**	P	**P**	**08 38 16.4**	**+0.2**
SDV	**Santo Domingo**	**31.76**	**351**	*e*P	**P**	**08 40 14.6**	**-5.2**
	3.0nm,0.8s,mb3.9						
USHA	**Ushuaia**	**32.09**	**183**	P	**P**	**08 40 22.0**	**-0.2**
	11nm,0.8s,mb4.4,baz=277,slow=8.1,SNR=2.7						
RCBR	**Riachuelo**	**33.60**	**65**	P	**P**	**08 40 35.3**	**-0.3**
	10nm,0.8s,mb4.4						
JTS	**JuntasAbangare**	**37.70**	**329**	P	**P**	**08 41 12.5**	**+2.4**
	31nm,1.4s,mb4.6						
VNA3	**Neumayer Olymp**	**58.05**	**161**	⇓*i*	**P**	**08 43 44.5**	**-0.8**
VNA1	**Neumayer--Stat**	**58.23**	**161**	⇓*i*	**P**	**08 43 47.2**	**+0.7**
VNA2	**Neumayer--Watz**	**58.60**	**161**	⇑*i*	**P**	**08 43 50.3**	**+1.2**
SNAA	**Sanae**	**60.24**	**161**	⇓*i*	**P**	**08 44 00.0**	**-0.2**
WVT	**Waverly**	**62.08**	**340**	*e*P	**P**	**08 44 10.7**	**-2.3**
	5.6nm,0.9s,mb4.2						
DBIC	**Dimbokro**	**66.58**	**72**	*e*P	**P**	**08 44 40.6**	**-1.7**
	5.5nm,0.7s,mb4.3						
SDCO	**Great Sand Dun**	**70.69**	**328**	*e*P	**P**	**08 45 07.9**	**+0.7**
	3.5nm,1.1s,mb3.9						
HLID	**Hailey**	**79.53**	**326**	*e*P	**P**	**08 45 58.4**	**+1.3**
	1.0nm,0.8s,mb3.5						
ESDC	**Sonseca Array**	**84.89**	**43**	P	**P**	**08 46 24.7**	**0.0**
	1.8nm,0.7s,mb3.9,baz=238,slow=5.1,SNR=4.4						
YKA	**Yellowknife Ar**	**93.26**	**340**	P	**P**	**08 47 03.3**	**-0.2**
	0.2nm,0.5s,mb3.4,baz=130,slow=4.6,SNR=8.8						
MBAR	**Mbarara**	**96.03**	**93**	P	**P**	**08 47 14.3**	**-3.0**

IDC 02 09:00:56.0±27.0,**22.61S**×**172.50W**,**mb4.0**/4,**mb1 4.1**/4,**mb1mx3.9**/15,**MS3.3**/1,**Ms1 3.2**/1,**ms1mx2.6**/22,**Error ellipse: s-maj=496.0km s-min=152.0km az=78.0,Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**38.42**	**266**	P	P	09 08 19.9	-1.3
	1.9nm,0.3s,baz=98,slow=10,SNR=5.8						
STKA	**Stephens Creek**	**41.59**	**247**	P	P	09 08 44.8	-2.5
	0.8nm,0.4s,baz=79,slow=10,SNR=6.7						
STKA				LR	LR	09 22 34.3	
	comp=Z,41nm,19.7s,baz=27,slow=31						
ASAR	**Alice Springs**	**49.05**	**258**	P	P	09 09 45.1	-1.9
	0.4nm,0.4s,baz=91,slow=7.0,SNR=14						
WRA	**Warramunga Arr**	**49.40**	**263**	P	P	09 09 48.2	-1.5
	0.8nm,0.4s,baz=100,slow=8.1,SNR=16						

*IDC **02** 09:19:44.2±1.5,16.01N×60.22W,mb3.6/3,mb1 4.0/4,mb1mx3.6/20,ML5.7/1,Error ellipse: s-maj=17.3km s-min=12.5km az=63.0*

ISC 02 09:19:50.3±0.7,**15.79N**±0.05×**61.4W**±0.1,**h24**^{km}±8^{km},**n10,σ1^{s}06**/12,**mb3.5**/3,**3C-1D,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGG	**Marie-Galante**	**0.14**	**26**	⇑*i*P	**Pb**	**09 19 55.4**	**+0.2**
BBL	**Barber’s Block**	**0.28**	**198**	⇓*i*P	**Pb**	**09 19 56.1**	**-0.7**
DEG	**La Desirade**	**0.60**	**31**	⇑*e*P	**Pb**	**09 20 02.3**	**+0.2**
SEG	**Port Louis**	**0.62**	**349**	⇑*e*P	**Pb**	**09 20 01.9**	**-0.5**
GRW	**Mount Saint Ca**	**3.62**	**184**	*e*P	**Pn**	**09 20 47.5**	**+1.2**
TRN	**Trinidad (W)**	**5.11**	**180**	*e*P	**Pn**	**09 21 09.0**	**+1.5**
TRN				*e*S	**Sn**	**09 22 05.0**	**-1.5**
SJG	**San Juan**	**5.12**	**297**	Pn	**Pn**	**09 21 07.8**	**+0.3**
	4.1nm,0.3s,baz=248,slow=12,SNR=2.9						
SJG				Sn	**Sn**	**09 22 19.5**	**+13**
	2.5nm,0.3s,baz=343,slow=19,SNR=2.8						
TXAR	**Lajitas Array**	**41.09**	**297**	P	**P**	**09 27 35.6**	**+1.6**
	0.3nm,0.9s,mb2.9,baz=107,slow=9.4,SNR=3.6						
PDAR	**Pinedale Array**	**49.03**	**313**	P	**P**	**09 28 36.7**	**-0.6**
	1.0nm,0.6s,mb4.0,baz=111,slow=10.0,SNR=12						
YKA	**Yellowknife Ar**	**59.53**	**334**	P	**P**	**09 29 52.2**	**-1.7**
	0.4nm,0.6s,mb3.7,baz=106,slow=7.2,SNR=9.0						

*NEIC **02** 10:07:42.8,35.67S×71.72W,h92^{km},MD3.5(GUC),After GUC.*

GUC 02 10:07:42.8±0.6,**35.67S**×**71.72W**,**h92**^{km}±6^{km},**MD3.5,ML3.4,2D,Central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CCHI	**Chillan**	**0.98**	**197**	*e*P	P	10 08 02.6	0.0
CCHI				*i* S	S	10 08 17.4	-0.1
CCHI				AMP		10 08 18.9	
	comp=N,629nm,0.8s						
SFDO	**San Fernando**	**1.20**	**29**	⇓*i*P	P	10 08 05.3	-0.1
SFDO				*i* S	S	10 08 22.6	+0.3
LNV	**Longovilo**	**1.73**	**9**	*e*P	P	10 08 13.5	+1.5
LNV				*i* S	S	10 08 35.5	+1.9
CACH	**El Canelo**	**1.80**	**31**	*e*P	P	10 08 12.9	-0.1
CACH				*i* S	S	10 08 36.2	+1.0
TACH	**Talagante**	**2.11**	**18**	*i* S	S	10 08 42.9	+0.4
LMEL	**Las Melosas**	**2.21**	**35**	⇓*i*P	P	10 08 18.6	+0.2
LMEL				*i* S	S	10 08 46.0	+1.1
LMEL				AMP		10 08 49.1	
	comp=N,182nm,0.2s						
PCH	**Pirque**	**2.27**	**26**	*e*P	P	10 08 19.3	-0.1
RCDM	**Rinconada Maip**	**2.30**	**19**	*e*P	P	10 08 19.6	-0.1
RCDM				*i* S	S	10 08 47.0	-0.2
RCDM				AMP		10 08 51.3	
	comp=N,352nm,0.1s						
CLCH	**Cerro Calan**	**2.47**	**24**	*e*P	P	10 08 21.7	-0.3
CLCH				*i* S	S	10 08 51.4	+0.1
CLCH				AMP		10 08 56.7	
	comp=E,229nm,0.3s						
FCH	**Farellones**	**2.62**	**27**	*e*P	P	10 08 24.1	0.0
FCH				AMP		10 08 58.0	
	comp=E,160nm,0.3s						
ROCH	**El Roble**	**2.75**	**13**	*e*P	P	10 08 26.4	+0.4
JACH	**Jahuel**	**3.12**	**18**	*i* P	P	10 08 30.6	-0.5
JACH				*i* S	S	10 09 07.0	-0.4

*JMA **02** 10:14:35.7±0.2,24.16N×122.58E,h42^{km},M2.3*

TAP 02 10:14:34.1,23.92N×**122.71E,h22**^{km}**,ML3.2,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.60**	**27**	P	Pb	10 14 46.4	+0.5
YOJ				*e*S	Sb	10 14 54.1	+0.1
IRIF	**Iriomote-Funau**	**1.02**	**66**	P	Pb	10 14 54.4	+1.4
IRIF				*e*S	Sb	10 15 08.5	+2.6
JKRS	**Kuro-shima**	**1.23**	**75**	P	Pn	10 14 58.3	+2.1
JKRS				*e*S	Sb	10 15 15.0	+3.0
JIJ	**Ishigaki jima**	**1.38**	**71**	P	Pn	10 14 59.5	+1.1
JIJ				*e*S	Sn	10 15 17.2	+1.1

*CASC **02** 10:23:50.5±2.0,3.40N×83.35W,h35^{km}±266^{km},mb6.1,MD4.6,MW4.2,mb4.6(NEIC)*

*IDC **02** 10:23:51.9±1.4,3.15N×83.39W,mb3.6/6,mb1 3.9/7,mb1mx3.8/18,MS3.5/4,Ms1 3.5/4,ms1mx3.3/15,Error ellipse: s-maj=165.0km s-min=19.3km az=56.0*

*NEIC **02** 10:23:53.0±0.6,4.03N×82.20W,h10^{km},mb4.6/5,Error ellipse: s-maj=44.4km s-min=8.8km az=57.0*

ISC 02 10:23:54.0±0.7,**3.74N**±0.06×**82.8W**±0.1,**h33**^{km},**n29,σ1^{s}85**/31,**mb4.0**/9,**MS3.5**/3,**3C-3D,South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AZU	**Azuero**	**4.76**	**32**	⇑*i*P	**P**	**10 25 07.7**	**+2.3**
AZU				AMb	AMB	10 25 08.5	
	comp=Z,412nm,0.5s						
ACR	**Cerro Adams**	**4.89**	**356**	⇑*e*P	**P**	**10 25 05.2**	**-2.0**
OTAV	**Otavalo**	**5.60**	**128**	*e*Pn	**Pn**	**10 25 12.1**	**-5.2**
	comp=Z,5.7nm,0.8s						
OTAV				*e*S	**S**	**10 26 13.0**	**-8.2**
CNI	**Changuinola**	**5.65**	**3**	*e*P	**P**	**10 25 19.5**	**+1.7**
LCR2	**La Lucha 2**	**6.07**	**349**	⇓*e*P	**P**	**10 25 22.2**	**-1.5**
LCR2				*e*S	**S**	**10 26 34.5**	**+1.5**
UPA	**Univ. de Panam**	**6.15**	**32**	⇑*e*P	**P**	**10 25 27.7**	**+2.8**
UPA				AMb	AMB	10 25 28.4	
	comp=Z,381nm,0.5s						
LAJ	**Bijagual**	**6.21**	**348**	*e*P	**P**	**10 25 22.4**	**-3.4**
ICR	**Volcan Irazu**	**6.28**	**351**	*e*P	**P**	**10 25 26.5**	**-0.2**
PRS1	**Puriscal**	**6.37**	**347**	⇓*e*P	**P**	**10 25 24.9**	**-3.1**
PRS1				*e*S	**S**	**10 26 37.9**	**-2.5**
JCR	**Jicaral**	**6.47**	**340**	*e*P	**P**	**10 25 27.1**	**-2.3**
JTS	**JuntasAbangare**	**6.83**	**342**	*e*P	**P**	**10 25 32.3**	**-2.2**
	comp=Z,24nm,0.4s						
TRTC	**Tortuguero**	**6.84**	**353**	⇓*e*P	**P**	**10 25 35.1**	**+0.5**
TRTC				*e*S	**S**	**10 26 55.5**	**+3.3**
SDV	**Santo Domingo**	**13.16**	**67**	*e*P	**P**	**10 27 00.3**	**-1.0**
	comp=Z,6.3nm,0.8s						
NNA	**Nana**	**16.73**	**159**	*e*P	**P**	**10 27 48.3**	**+0.7**
	comp=Z,50nm,1.2s						
SJG	**San Juan**	**21.70**	**48**	LR	LR	10 36 22.3	
	comp=Z,88nm,20.0s,MS3.2,baz=271,slow=33						
SAML	**Samuel**	**23.30**	**123**	*e*P	**P**	**10 28 58.0**	**-2.1**
	comp=Z,12nm,0.9s,mb4.3						
LPAZ	**La Paz**	**24.65**	**144**	P	**P**	**10 29 13.9**	**+0.7**
	comp=Z,4.4nm,1.0s,mb3.9,baz=314,slow=7.9,SNR=12						
OXF	**Oxford**	**31.22**	**349**	*e*P	**P**	**10 30 11.3**	**-1.5**
	comp=Z,21nm,1.2s,mb4.8						
ANMO	**Albuquerque**	**38.00**	**328**	P	**P**	**10 31 18.0**	**+7.2**
	comp=Z,0.7nm,0.7s,mb3.5,baz=160,slow=10,SNR=3.6						
ANMO	**Albuquerque**	**38.00**	**328**	P	**P**	**10 31 18.0**	**+7.2**
CPUP	**Villa Florida**	**38.77**	**142**	P	**P**	**10 31 17.4**	**0.0**
	comp=Z,1.8nm,1.1s,mb3.7,baz=165,slow=12,SNR=3.1						
CPUP				LR	LR	10 48 12.6	
	comp=Z,91nm,18.1s,MS3.6,baz=344,slow=38						
CPUP	**Villa Florida**	**38.77**	**142**	*e*P	**P**	**10 31 17.0**	**-0.3**
	comp=Z,7.8nm,1.3s,mb4.3						
CPUP				P		10 31 17.4	
CPUP				LR	LR	10 48 12.6	
BDFB	**Brasilia**	**39.48**	**120**	LR	LR	10 49 53.0	
	comp=Z,115nm,19.3s,MS3.7,baz=115,slow=39						
PV10	**Paradox Valley**	**41.94**	**329**	*e*P	**P**	**10 31 45.4**	**+1.9**
PDAR	**Pinedale Array**	**45.55**	**332**	P	**P**	**10 32 16.0**	**+3.3**
	comp=Z,0.5nm,1.0s,mb3.4,baz=135,slow=7.7,SNR=2.6						
NVAR	**Mina Array Bea**	**47.27**	**322**	P	**P**	**10 32 28.4**	**+2.2**
	comp=Z,0.5nm,0.6s,mb3.6,baz=139,slow=8.3,SNR=3.7						
NVAR	**Mina Array Bea**	**47.27**	**322**	P	**P**	**10 32 28.4**	**+2.2**
HAWA	**Hanford**	**53.09**	**329**	*e*P	**P**	**10 33 08.5**	**-2.0**
	comp=Z,9.0nm,0.8s,mb4.8						
YKA	**Yellowknife Ar**	**63.17**	**344**	P	**P**	**10 34 24.2**	**+3.2**
	comp=Z,1.0nm,0.8s,mb4.0,baz=139,slow=6.2,SNR=11						

*SKHL **02** 10:27:38.9±2.2,47.91N×155.43E,h37^{km}±6^{km},mb5.2/2,mbh5.2/2,Ms5.0/6,msh5.7/3*

*CSEM **02** 10:27:38.1,48.05N×155.15E,h2^{km},mb5.5*

*IDC **02** 10:27:40.0±0.5,48.14N×154.94E,mb4.6/25,mb1 4.8/27,mb1mx4.7/30,ML5.0/1,MS4.4/13,Ms1 4.4/13,ms1mx4.0/30,Error ellipse: s-maj=16.3km s-min=13.1km az=165.0*

*SYO **02** 10:27:39.4,47.95N×154.99E,h4^{km},MB5.0,MS5.4*

*BJI **02** 10:27:39.9,48.33N×155.27E,h27^{km},mB5.1,mb5.0,Ms4.9,Msz4.7*

*MOS **02** 10:27:42.0±1.1,48.16N×155.04E,h24^{km},mb5.1/45,MS4.6/24,Error ellipse: s-maj=8.8km s-min=5.5km az=91.3*

*HRVD **02** 10:27:46.7±1.4,47.96N×155.19E,h28^{km}±3^{km},MW4.9/21,Centroid moment Tensor Solution. LP body waves: s21,c26;Mantle waves: s20,c21; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.30±.31; M$_{\theta\theta}$-1.59±.21; M$_{\phi\phi}$-0.71±.19; M$_{r\theta}$-0.30±.41; M$_{\theta\phi}$-0.58±.09; M$_{\phi r}$1.27±.33; Best double couple: M$_0$2.36×10^{16} NP1:ϕ_s260°,δ44°,λ121°. NP2:ϕ_s41°,δ54°,λ64°. Principal axes: T 2.82, Plg68°, Azm253°; N -.91, Plg21°, Azm57°; P -1.91, Plg5°, Azm149°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **02** 10:27:46.7±0.2,48.10N×154.97E,h50^{km},mb4.9/68,MS4.9/7 Error ellipse: s-maj=6.8km s-min=4.4km az=170.0*

ISC 02 10:27:38.1±1.0,**48.05N**±0.04×**155.09E**±0.04,**h1**^{km}±6^{km},**h16**^{km}±3.6^{km}**:pP-P,n326,σ1^{s}07**/328,**mb5.0**/114,**MS4.6**/38,**28C-13D,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril’s**	**2.72**	**14**	*e*PN	**Pn**	**10 28 21.0**	**-2.7**
SKR				pmax	pmax		
	comp=Z,850nm,0.5s						
SKR				pmax	pmax		
	comp=N,410nm,0.4s						
SKR				pmax	pmax		
	comp=E,160nm,0.4s						
SKR				MLR	MLR		
	comp=N,11μm,14.0s						
SKR				MLR	MLR		
	comp=E,9μm,14.0s						
SKR				MLR	MLR		
	comp=Z,11μm,14.0s						
SKR	**Severo-Kuril’s**	**2.72**	**14**	*e*P	**Pn**	**10 28 21.0**	**-2.7**
SKR				AMB	AMB	10 28 24.5	
	comp=Z,410nm,0.5s						
SKR				AMB	AMB	10 28 24.5	
	comp=Z,160nm,0.5s						
SKR				AMB	AMB	10 28 24.5	
	comp=Z,850nm,0.5s						
SKR				*i* S	**Sn**	**10 28 50.9**	**-6.8**
SKR				A		10 29 04.0	
	comp=Z,8μm,4.0s						
SKR				A		10 29 04.0	
	comp=Z,6μm,2.0s						
SKR				A		10 29 04.0	
	comp=Z,3μm,2.0s						
SKR				A		10 29 04.0	
	comp=Z,8μm,4.0s						
SKR				A		10 29 04.0	
	comp=Z,7μm,2.0s						
SKR				A		10 29 04.0	
	comp=Z,3μm,2.0s						
SKR				A		10 29 14.3	
	comp=Z,3μm,0.7s						
SKR				A		10 29 14.3	
	comp=Z,3μm,0.7s						
SKR				A		10 29 14.3	
	comp=Z,1μm,0.7s						
SKR				AMS	AMS	10 30 08.0	
	comp=Z,10μm,14.0s						
SKR				AMS	AMS	10 30 08.0	
	comp=Z,11μm,14.0s						
SKR				AMS	AMS	10 30 08.0	
	comp=Z,9μm,14.0s						
PET	**Petropavlovsk**	**5.47**	**23**	*e*PN	**Pn**	**10 29 02.7**	**-0.1**
PET				pmax	pmax		
	comp=Z,159nm,0.5s						
PET				MLR	MLR		
	comp=Z,3μm,16.0s						
PET				MLR	MLR		
	comp=Z,4μm,17.0s						
PET	**Petropavlovsk**	**5.47**	**23**	*e*Pn	**Pn**	**10 29 02.2**	**-0.5**
	comp=Z,44nm,0.4s						
PET	**Petropavlovsk**	**5.47**	**23**	*e*P	**Pn**	**10 29 02.3**	**-0.5**
KUR	**Kuril’sk**	**5.71**	**243**	κ *i*PN	**Pn**	**10 29 06.6**	**+0.5**
KUR				pmax	pmax		
	comp=N,190nm,0.6s						
KUR				pmax	pmax		
	comp=E,210nm,0.6s						
KUR				pmax	pmax		
	comp=Z,530nm,0.6s						
KUR				MLR	MLR		
	comp=N,20μm,16.0s						
KUR				MLR	MLR		
	comp=E,8μm,16.0s						
KUR				MLR	MLR		
	comp=Z,8μm,16.0s						
KUR	**Kuril’sk**	**5.71**	**243**	⇑*i*P	**Pn**	**10 29 06.6**	**+0.5**
KUR				⇑*i*P		10 29 06.6	
KUR				AMB	AMB	10 29 07.0	
	comp=Z,190nm,0.6s						
KUR				AMB	AMB	10 29 07.0	
	comp=Z,210nm,0.6s						
KUR				AMB	AMB	10 29 07.0	
	comp=Z,530nm,0.6s						
KUR				*e*S	**Sn**	**10 30 14.0**	**+0.7**
KUR				A		10 30 23.0	
	comp=Z,9μm,2.0s						
KUR				A		10 30 23.0	
	comp=Z,6μm,2.0s						
KUR				A		10 30 34.2	
	comp=Z,1μm,1.0s						
KUR				A		10 30 34.2	
	comp=Z,1μm,1.0s						
KUR				AMS	AMS	10 31 20.0	
	comp=Z,20μm,16.0s						
KUR				AMS	AMS	10 31 20.0	
	comp=Z,8μm,16.0s						
KUR				AMS	AMS	10 31 20.0	
	comp=Z,8μm,16.0s						
YUK	**Yuzh-Kuril’sk**	**7.57**	**241**	*e*P	**Pn**	**10 29 33.0**	**+0.7**
YUK				AMB	AMB	10 29 34.0	
	comp=Z,2μm,1.0s						
YUK				AMB	AMB	10 29 34.2	
	comp=Z,210nm,0.4s						
YUK				AMB	AMB	10 29 34.2	
	comp=Z,230nm,0.4s						
YUK				AMB	AMB	10 29 34.2	
	comp=Z,710nm,0.4s						
YUK				A		10 31 37.0	
	comp=Z,1μm,0.9s						
YUK				AMS	AMS	10 32 41.0	
	comp=Z,6μm,16.0s						
YSS	**Yuzh-Sakhalins**	**8.42**	**267**	⇓*i*PN	**P**	**10 29 47.6**	**+3.4**
YSS				pmax	pmax		
	comp=E,120nm,0.8s						
YSS				pmax	pmax		
	comp=Z,120nm,0.8s						
YSS				pmax	pmax		
	comp=N,90nm,0.7s						
YSS				MLR	MLR		
	comp=Z,2μm,15.0s						
YSS				MLR	MLR		
	comp=N,1μm,12.0s						
YSS				MLR	MLR		
	comp=E,2μm,13.0s						
YSS	**Yuzh-Sakhalins**	**8.42**	**267**	⇓*e*Pn	**P**	**10 29 47.8**	**+3.7**
	comp=E,118nm,0.7s						
YSS	**Yuzh-Sakhalins**	**8.42**	**267**	⇓*i*P	**P**	**10 29 47.6**	**+3.4**
YSS				AMB	AMB	10 29 48.9	
	comp=E,90nm,0.8s						
YSS				AMB	AMB	10 29 48.9	
	comp=E,120nm,0.8s						
YSS				*e*S	**Sn**	**10 31 21.0**	**-0.1**
YSS				A		10 31 23.9	
	comp=E,50nm,0.8s						
YSS				AMS	AMS	10 34 32.0	
	comp=E,1μm,13.0s						
YSS				AMS	AMS	10 34 32.0	
	comp=E,2μm,13.0s						
YSS				AMS	AMS	10 34 32.0	
	comp=E,2μm,15.0s						
TYV	**Tymovskoe**	**8.57**	**294**	*e*P	**P**	**10 29 42.6**	**-3.6**
TYV				AMS	AMS	10 33 38.0	
	comp=E,7μm,16.0s						
TYV				AMS	AMS	10 33 38.0	
	comp=E,5μm,18.0s						
TYV				AMS	AMS	10 33 38.0	
	comp=E,3μm,18.0s						
UGL	**Uglegorsk**	**8.70**	**282**	*e*P	**P**	**10 29 49.0**	**+1.0**
UGL				AMB	AMB	10 29 51.0	
	comp=E,80nm,0.7s						
UGL				AMB	AMB	10 29 51.0	
	comp=E,60nm,0.7s						
UGL				AMB	AMB	10 29 51.0	
	comp=E,160nm,0.7s						
UGL				AMS	AMS	10 33 32.0	
	comp=E,5μm,17.0s						
UGL				AMS	AMS	10 33 32.0	
	comp=E,6μm,17.0s						
UGL				AMS	AMS	10 33 32.0	
	comp=E,7μm,17.0s						
OKH	**Okha**	**9.46**	**310**	AMS	AMS	10 35 27.8	
	comp=E,8μm,10.0s						
OKH				AMS	AMS	10 35 27.8	
	comp=E,7μm,12.0s						
OKH				AMS	AMS	10 35 27.8	
	comp=E,8μm,12.0s						
ASAJ	**Asahikawa**	**9.53**	**250**	Pn	**P**	**10 30 02.6**	**+3.2**
	comp=E,17nm,0.3s,baz=84,slow=12,SNR=68						
ASAJ				LR	LR	10 33 53.7	
	comp=E,4μm,18.4s,baz=284,slow=40						
ASAJ	**Asahikawa**	**9.53**	**250**	P	**P**	**10 30 02.9**	**+3.5**
ASAJ	**Asahikawa**	**9.53**	**250**	PN	**P**	**10 30 02.6**	**+3.2**
ASAJ				pmax	pmax		
	comp=Z,17nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,4μm,18.4s						
JEM	**Erimo**	**10.37**	**239**	P	**P**	**10 30 10.5**	**-0.5**
JEW	**Eniwo**	**10.90**	**246**	P	**P**	**10 30 19.5**	**+1.3**
MA2	**Magadan**	**11.82**	**349**	*e*PN	**P**	**10 30 31.5**	**+0.8**
MA2				*e*SS	SS	10 32 50.7	-7.7
MA2				pmax	pmax		
	comp=Z,30nm,1.5s						
MA2				MLR	MLR		
	comp=Z,8μm,13.0s						
MA2	**Magadan**	**11.82**	**349**	*e*P	**P**	**10 30 30.9**	**+0.2**
JSH	**Shimam**	**11.88**	**248**	P	**P**	**10 30 31.9**	**+0.4**
JOT	**Ohata**	**12.00**	**241**	P	**P**	**10 30 30.1**	**-3.1**
JTM	**Tenmabayashi**	**12.36**	**239**	P	**P**	**10 30 34.5**	**-3.6**
GRNR	**Gornyy**	**12.45**	**290**	*e*P	**P**	**10 30 44.4**	**+5.1**
GRNR				AMB	AMB	10 30 45.0	
	comp=Z,50nm,1.0s						
TEY	**Ternei**	**13.07**	**264**	*e*P	**P**	**10 30 50.0**	**+2.4**
TEY				AMS	AMS	10 32 46.0	
	comp=Z,2μm,20.0s						
TEY				AMS	AMS	10 32 46.0	
	comp=Z,1μm,18.0s						
JYA	**Atsumi**	**14.62**	**235**	P	**P**	**10 31 04.8**	**-3.1**
EKMR	**Ekimchan**	**14.91**	**298**	*e*P	**P**	**10 31 10.5**	**-1.1**
EKMR				AMB	AMB	10 31 21.4	
	comp=Z,20nm,0.7s						
SEY	**Seymchan**	**14.99**	**355**	*e*P	**P**	**10 31 14.2**	**+1.6**
SEY				*e*S	**S**	**10 34 01.2**	**+0.8**
SEY				pmax	pmax		
	comp=N,50nm,1.1s						
SEY				pmax	pmax		
	comp=Z,70nm,1.1s						
SEY				MLR	MLR		
	comp=E,2μm,16.0s						
SEY				MLR	MLR		
	comp=Z,4μm,16.0s						
KLR	**Kul’dur**	**15.46**	**283**	*e*P	**P**	**10 31 19.0**	**+0.2**
KLR				AMS	AMS	10 37 48.5	
	comp=Z,2μm,17.0s						
KLR				AMS	AMS	10 37 48.5	
	comp=Z,3μm,17.0s						
MAJO	**Matsushiro**	**16.93**	**233**	*e*P	**P**	**10 31 34.4**	**-3.3**
MAJO				pmax	pmax		
	comp=Z,41nm,0.8s						
MAJO	**Matsushiro**	**16.93**	**233**	*e*P	**P**	**10 31 34.4**	**-3.3**
	comp=Z,41nm,0.8s						
MAT	**Matsushiro**	**16.93**	**233**	P	**P**	**10 31 36.1**	**-1.6**
MAT				S	**S**	**10 34 56.0**	**+10**
MAT	**Matsushiro**	**16.93**	**233**	P	**P**	**10 31 34.2**	**-3.5**
MAT	**Matsushiro**	**16.93**	**233**	*e*P	**P**	**10 31 36.0**	**-1.7**
	comp=Z,14nm,0.6s						
MAT				*e*S	**S**	**10 34 56.0**	**+10**
JRY	**Ryogami san**	**16.96**	**231**	P	**P**	**10 31 37.4**	**-0.7**
BMKR	**Bomnak**	**17.62**	**302**	*e*P	**P**	**10 31 45.4**	**-0.8**
BMKR				AMB	AMB	10 31 47.9	
	comp=Z,30nm,0.5s						
YASR	**Yasnyy**	**17.90**	**297**	*e*P	**P**	**10 31 50.7**	**+0.9**
YASR				AMB	AMB	10 31 55.1	
	comp=Z,3.0nm,0.6s						
YASR				AMB	AMB	10 31 55.1	
	comp=Z,10.0nm,0.6s						
YASR				AMB	AMB	10 31 55.1	
	comp=Z,30nm,0.6s						
MDJ	**Mudanjiang**	**17.91**	**268**	P	**P**	**10 31 49.0**	**-0.9**
MDJ				S	**S**	**10 35 09.2**	**+1.2**
MDJ				PCP	PcP	10 36 24.2	-2.9
MDJ				SCP		10 40 01.5	

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MDJ                                  AMB      AMB
       comp=Z,134nm,5.5s
MDJ                                  LR       LR
       comp=N,788nm,17.7s
MDJ                                  LR       LR
       comp=E,1µm,19.1s
MDJ                                  LR       LR
       comp=Z,1µm,19.1s
MDJ    Mudanjiang         17.91 268  eP       P        10 31 48.9 -0.9
       comp=Z,12nm,0.6s
JGF    Kuroka             18.09 233  P        P        10 31 54.3 +2.1
ZEA    Zeya               18.39 298  eP       P        10 31 57.6 +1.8
ZEA                                  AMB      AMB      10 32 03.6
       comp=Z,30nm,1.1s
ZEA                                  AMB      AMB      10 32 03.6
       comp=Z,40nm,1.1s
ZEA                                  AMB      AMB      10 32 03.6
       comp=Z,50nm,1.1s
ZEA                                  AMB      AMB      10 32 15.0
       comp=Z,400nm,12.0s
ZEA                                  AMB      AMB      10 32 15.0
       comp=Z,400nm,12.0s
ZEA                                  AMS      AMS      10 40 07.0
       comp=Z,1µm,16.0s
ZEA                                  AMS      AMS      10 40 07.0
       comp=Z,3µm,16.0s
ZEA                                  AMS      AMS      10 40 07.0
       comp=Z,4µm,16.0s
KROS   Kirovskiy          18.64 301  eP       P        10 31 55.2 -3.7
KROS                                 AMB      AMB      10 31 57.6
       comp=Z,10.0nm,0.5s
YAK    Yakutsk            20.01 324⇑ eP       P        10 32 11.0 -3.7
YAK                                  pmax     pmax
       comp=Z,8.0nm,0.8s
YAK                                  MLR      MLR
       comp=E,268nm,12.0s,MS4.1
YAK                                  MLR      MLR
       comp=Z,664nm,12.0s,MS4.2
YAK                                  MLR      MLR
       comp=N,463nm,13.0s,MS4.1
YAK    Yakutsk            20.01 324  eP       P        10 32 12.0 -2.7
       comp=N,55nm,0.8s
CLNS   Chul’man           20.25 307  eP       P        10 32 19.3 +2.0
CLNS                                 e*PP              10 32 27.0
CLNS                                 e                 10 32 35.6
CLNS                                 ePPP     PPP      10 32 44.4 -1.8
CLNS                                 e                 10 36 22.9
CLNS                                 pmax     pmax
       comp=Z,81nm,0.9s
CLNS                                 pmax     pmax
       comp=N,34nm,1.0s
CLNS                                 pmax     pmax
       comp=E,58nm,1.2s
CLNS                                 pmax     pmax
       comp=N,39nm,1.1s
CLNS                                 pmax     pmax
       comp=Z,53nm,1.1s
CLNS                                 pmax     pmax
       comp=E,25nm,1.0s
CLNS                                 MLR      MLR
       comp=Z,3µm,16.0s,MS4.7
CLNS                                 MLR      MLR
       comp=N,2µm,14.0s,MS4.7
CLNS                                 MLR      MLR
       comp=E,600nm,15.0s,MS4.7
JAD    Aida               20.34 238  P        P        10 32 18.7 +0.3
CN2    Changchun          20.98 269  eP       P        10 32 22.2 -2.8
CN2                                  eS       S        10 36 07.0 -7.8
CN2                                  AMB      AMB
       comp=Z,30nm,0.9s
CN2                                  AMB      AMB
       comp=Z,160nm,5.0s
CN2                                  LR       LR
       comp=N,1µm,14.0s,MS4.7
CN2                                  LR       LR
       comp=E,2µm,14.0s,MS4.7
CN2                                  LR       LR
       comp=Z,3µm,15.0s,MS4.8
SNY    Shenyang           23.05 266 ⇑P        P        10 32 46.1 +0.5
SNY                                  AMB      AMB
       comp=Z,10.0nm,0.4s,mb4.7
SNY                                  LR       LR
       comp=E,1µm,16.5s
SNY                                  LR       LR
       comp=Z,1µm,18.1s,MS4.5
HIA    Hailar             23.25 286  eP       P        10 32 47.2 -0.3
HIA                                  pmax     pmax
       comp=Z,12nm,1.0s
HIA    Hailar             23.25 286  eP       P        10 32 47.1 -0.4
       comp=Z,12nm,1.0s,mb4.4
INCN   Inchon             23.28 254  eP       P        10 32 48.2 +0.3
       comp=Z,51nm,1.0s,mb5.0
DL2    Dalian             25.77 262  P        P        10 33 12.2 +0.4
DL2                                  S        S        10 37 42.3 +2.8
DL2                                  AMB      AMB
       comp=Z,30nm,0.7s,mb5.0
DL2                                  LR       LR
       comp=N,440nm,13.5s
DL2                                  LR       LR
       comp=Z,640nm,14.5s,MS4.3
BOD    Bodaibo            26.23 307  eP       P        10 33 11.4 -4.5
TIXI   Tiksi              26.62 342  eP       P        10 33 16.7 -2.7
TIXI                                 pmax     pmax
       comp=Z,6.0nm,0.6s,mb4.5
TIXI                                 MLR      MLR
       comp=Z,2µm,17.0s,MS4.6
SSE    Sheshan            30.82 249  P        P        10 34 00.2 +2.7
SSE                                  AP       pP       10 34 08.4  +11
SSE                                  S        S        10 39 04.2 +3.3
SSE                                  AMB      AMB
       comp=Z,24nm,0.7s,mb5.2
SSE                                  AMB      AMB
       comp=Z,244nm,4.6s
SSE                                  LR       LR
       comp=N,178nm,18.2s,MS4.0
SSE                                  LR       LR
       comp=E,270nm,18.2s,MS4.0
SSE                                  LR       LR
       comp=Z,325nm,17.1s,MS4.0
HHC    Hu-ho-hao-te       31.55 273  eP       P        10 34 03.6 -0.3
HHC                                  AP       pP       10 34 07.2 +3.1
HHC                                  PP       PP       10 35 07.5 -0.4
HHC                                  PCP      PcP      10 36 54.3 -2.4
HHC                                  S        S        10 39 10.5 -1.7
HHC                                  PCS               10 40 39.7
HHC                                  SS       SS       10 40 59.9  0.0
HHC                                  SCS      ScS      10 44 34.0 -2.2
HHC                                  AMB      AMB
       comp=Z,23nm,0.8s,mb5.2
HHC                                  AMB      AMB
       comp=Z,158nm,4.3s
HHC                                  LR       LR
       comp=N,514nm,12.8s,MS4.7
HHC                                  LR       LR
       comp=E,962nm,12.5s,MS4.7
HHC                                  LR       LR
       comp=Z,1µm,12.9s,MS4.7
NJ2    Nanjing            31.66 253  eP       P        10 34 04.8 -0.2
NJ2                                  AP       pP       10 34 14.6 +9.4
NJ2                                  XP       sP       10 34 18.6  +13
NJ2                                  PP       PP       10 35 10.8 +1.4
NJ2                                  PPP      PPP      10 35 25.1 +0.7
NJ2                                  S        S        10 39 10.0 -4.0
NJ2                                  XS                10 39 26.0
NJ2                                  AMB      AMB
       comp=Z,20nm,0.9s,mb5.0
NJ2                                  AMB      AMB
       comp=Z,520nm,7.4s
NJ2                                  LR       LR
       comp=N,4µm,12.3s,MS5.3
NJ2                                  LR       LR
       comp=E,2µm,14.6s,MS5.3
NJ2                                  LR       LR
       comp=Z,3µm,13.4s,MS5.1
ULN    Ulaanbaatar        31.75 288d iP       P        10 34 04.4 -1.2
ULN    Ulaanbaatar        31.75 288  eP       P        10 34 04.2 -1.4
       comp=Z,5.3nm,0.6s,mb4.7
IMA    Indian Mountai     31.97  37  eP       P        10 34 08.3 +1.0
IMA                                  pmax     pmax
       comp=Z,74nm,1.1s,mb5.5
IMA    Indian Mountai     31.97  37  eP       P        10 34 08.3 +1.0
       comp=Z,74nm,1.1s,mb5.5
IMA                                  e                 10 34 50.6
SONM   Songino Array      32.18 288  P        P        10 34 07.1 -2.3
       comp=Z,2.7nm,0.7s,mb4.3,baz=74,slow=9.0,SNR=15
SONM                                 PcP      PcP      10 36 57.5 -0.8
       comp=Z,1.0nm,0.7s,baz=135,slow=2.0,SNR=2.5
TLY    Talaya             32.79 296  eP       P        10 34 13.7 -0.9
TLY                                  pmax     pmax
       comp=Z,19nm,0.9s,mb5.0
TLY    Talaya             32.79 296  eP       P        10 34 13.7 -1.0
       comp=Z,19nm,0.9s,mb5.0
ZAK    Zakamensk          33.36 294⇑ eP       P        10 34 18.6 -1.0
ZAK                                  e                 10 37 00.2
MCK    McKinley           33.79  42  P        P        10 34 20.3 -2.9
MCK                                  pmax     pmax
       comp=Z,6.0nm,1.0s,mb4.5
MCK    McKinley           33.79  42  P        P        10 34 20.3 -2.9
       comp=Z,6.1nm,1.0s,mb4.5
SML    Sawmill            34.10  45  eP       P        10 34 25.6 -0.3
COLA   College            34.28  40⇓ eP       P        10 34 27.3 -0.1
COLA   College            34.28  40  eP       P        10 34 27.4 -0.1
       comp=Z,26nm,0.9s,mb5.2
ILAR   Eielson Array      34.69  40  P        P        10 34 30.4 -0.5
       comp=Z,1.5nm,0.8s,mb4.0,baz=266,slow=8.0,SNR=17
WHN    Wuhan              35.55 256  eP       P        10 34 38.8 +0.1
ENH    Enshi              38.92 260  eP       P        10 35 07.2 +0.2
       comp=Z,23nm,0.7s,mb4.9
LZH    Lanzhou            39.19 272 ⇑P        P        10 35 08.5 -0.7
LZH                                  PP       PP       10 36 41.5 -1.4
LZH                                  S        S        10 41 07.5 -2.5
LZH                                  AMB      AMB
       comp=Z,37nm,1.3s,mb4.8
LZH                                  AMB      AMB
       comp=Z,157nm,5.2s
LZH                                  LR       LR
       comp=N,638nm,13.2s
LZH                                  LR       LR
       comp=Z,1µm,16.8s,MS4.8
INK    Inuvik             39.83  33  eP       P        10 35 13.9 -0.3
INK                                  pmax     pmax
       comp=Z,11nm,1.0s
INK    Inuvik             39.83  33  eP       P        10 35 13.9 -0.3
       comp=Z,11nm,1.0s,mb4.4
GTA    Gaotai             40.09 279  eP       P        10 35 17.0 +0.4
GTA                                  AP       pP       10 35 20.7 +3.9
GTA                                  XP       sP       10 35 23.4 +6.5
GTA                                  PP       PP       10 36 53.2 +0.5
GTA                                  PPP      PPP      10 37 19.6 +1.5
GTA                                  PCP      PcP      10 37 21.9 -0.1
GTA                                  S        S        10 41 24.7 +1.1
GTA                                  SS       SS       10 44 15.1 +1.3
GTA                                  AMB      AMB
       comp=Z,10.0nm,1.1s,mb4.4
GTA                                  AMB      AMB
       comp=Z,78nm,9.9s
GTA                                  LR       LR
       comp=N,879nm,18.0s,MS4.8
GTA                                  LR       LR
       comp=E,882nm,17.6s,MS4.8
GTA                                  LR       LR
       comp=Z,2µm,18.4s,MS4.9
CD2    Chengdu            42.32 265  P        P        10 35 35.6 +0.6
CD2                                  PP       PP       10 37 16.3 +0.3
CD2                                  PPP      PPP      10 37 47.8 -0.2
CD2                                  S        S        10 41 55.8 -0.9
CD2                                  SS       SS       10 44 59.8 +0.9
CD2                                  AMB      AMB
       comp=Z,30nm,0.8s,mb5.1
CD2                                  AMB      AMB
       comp=Z,180nm,4.6s
CD2                                  LR       LR
       comp=E,410nm,14.4s
CD2                                  LR       LR
       comp=Z,400nm,19.2s,MS4.3
ZAL    Zalesovo           42.96 305  P        P        10 35 39.1 -0.8
       comp=Z,3.6nm,0.4s,mb4.5,baz=38,slow=5.9,SNR=13
ZAL                                  LR       LR       10 55 17.0
       comp=Z,489nm,21.3s,MS4.4,baz=42,slow=39
ZAL    Zalesovo           42.96 305  P        P        10 35 39.1 -0.8
ZAL                                  pmax     pmax
       comp=Z,4.0nm,0.4s
ZAL                                  MLR      MLR
       comp=Z,489nm,21.3s
GYA    Guiyang            43.30 258⇑ iP       P        10 35 43.4 +0.4
GYA                                  S        S        10 42 10.2 -0.9
GYA                                  AMB      AMB
       comp=Z,20nm,0.8s,mb4.9
GYA                                  LR       LR
       comp=N,270nm,24.3s,MS4.4
GYA                                  LR       LR
       comp=E,510nm,25.6s,MS4.4
GYA                                  LR       LR
       comp=Z,310nm,26.0s,MS4.1
DLBC   Dease Lake         43.73  47  P        P        10 35 44.4 -1.6
WMQ    Urumqi             45.71 291 ⇑P        P        10 36 02.0 -0.1
WMQ                                  AP       pP       10 36 06.0 +3.7
WMQ                                  XP       sP       10 36 08.7 +6.3
WMQ                                  PCP      PcP      10 37 40.8 +0.2
WMQ                                  PP       PP       10 37 49.5 -0.2
WMQ                                  S        S        10 42 43.5 -2.1
WMQ                                  AMB      AMB
       comp=Z,12nm,1.0s,mb4.9
WMQ                                  LR       LR
       comp=N,939nm,18.8s,MS4.8
WMQ                                  LR       LR
       comp=E,315nm,19.2s,MS4.8
WMQ                                  LR       LR
       comp=Z,735nm,17.6s,MS4.7
KMI    Kunming            46.79 260  eP       P        10 36 10.6 -0.4
KMI                                  PP       PP       10 37 59.5 -1.3
KMI                                  PPP      PPP      10 38 44.2 -2.0
KMI                                  S        S        10 42 58.4 -3.0
KMI                                  SS       SS       10 46 16.5 -3.8
KMI                                  SSS      SSS      10 47 22.6 -6.3
KMI                                  AMB      AMB
       comp=Z,16nm,0.6s,mb5.3
KMI                                  LR       LR
       comp=Z,217nm,20.2s,MS4.1
MKAR   Makanchi Array     47.54 297  i P      P        10 36 15.4 -1.2
MKAR                                 pmax     pmax
       comp=Z,24nm,0.6s
KURK   Kurchatov          47.76 303d iP       P        10 36 16.6 -1.7
KURK                                 pmax     pmax
       comp=Z,24nm,0.7s,mb5.4
KURK   Kurchatov          47.76 303  eP       P        10 36 16.7 -1.6
       comp=Z,50nm,0.6s,mb5.8
YKW3   Yellowknife Ar     49.04  38  eP       P        10 36 28.2 +0.2
YKA    Yellowknife Ar     49.08  38  P        P        10 36 28.6 +0.3
       comp=Z,4.3nm,0.8s,mb4.5,baz=297,slow=7.4,SNR=19
YKA    Yellowknife Ar     49.08  38  P        P        10 36 28.6 +0.3
YKA                                  pmax     pmax
       comp=Z,4.0nm,0.8s
YKA    Yellowknife Ar     49.08  38  P        P        10 36 28.6 +0.3
RES    Resolute Bay       49.17  19  eP       P        10 36 29.2 +0.3
RES                                  pmax     pmax
       comp=Z,22nm,1.0s,mb5.1
RES    Resolute Bay       49.17  19  eP       P        10 36 29.1 +0.3
       comp=Z,22nm,1.0s,mb5.1
CHKZ   Chkalovo           50.62 310  i P      P        10 36 38.3 -1.9
CHKZ                                 pmax     pmax
       comp=Z,11nm,0.6s,mb5.0
CHKZ   Chkalovo           50.62 310  eP       P        10 36 38.0 -2.2
       comp=Z,18nm,0.7s,mb5.1
BVA0   Borovoye Array     51.07 309  i P      P        10 36 42.1 -1.5
BVAR   Borovoye Array     51.07 309  P        P        10 36 42.1 -1.5
       comp=Z,11nm,0.5s,mb5.1,baz=62,slow=7.9,SNR=74
BRVK   Borovoye           51.11 309  eP       P        10 36 42.0 -1.9
BRVK                                 pmax     pmax
       comp=Z,15nm,0.6s,mb5.1
BRVK   Borovoye           51.11 309  eP       P        10 36 42.0 -1.9
       comp=Z,15nm,0.6s,mb5.1
NANT   Nan                52.58 256  P        P        10 36 54.0 -1.5
ULHL   Ulahol             53.62 295  P        P        10 37 02.5 -0.5
       SNR=10
TKM2   Tokmak 2           53.63 296  P        P        10 37 02.3 -0.7
       SNR=9.2
TKM2   Tokmak 2           53.63 296  eP       P        10 37 01.6 -1.3
       comp=Z,8.3nm,0.8s,mb4.8
CHG    Chiang Mai         53.72 257 ⇑P        P        10 37 04.5 +0.6
       comp=Z,18nm,0.8s,mb5.2
SHL    Shillong           53.74 269⇑ eP       P        10 37 03.5 -0.5
SHL                                  e                 10 41 38.0
CMAR   Chiang Mai Arr     53.97 257  P        P        10 37 06.7 +0.9
       comp=Z,6.8nm,0.7s,mb4.8,baz=32,slow=7.5,SNR=33
CMAR                                 LR       LR       11 01 07.7
       comp=Z,533nm,19.8s,MS4.6,baz=55,slow=37
CMAR   Chiang Mai Arr     53.97 257  P        P        10 37 06.7 +0.9
CMAR                                 pmax     pmax
       comp=Z,7.0nm,0.7s
CMAR                                 MLR      MLR
       comp=Z,533nm,19.8s
CMAR   Chiang Mai Arr     53.97 257  P        P        10 37 06.7 +0.9
CMAR                                 LR       LR       11 01 07.7
USP    Ospenovka          54.09 297  P        P        10 37 05.3 -1.0
       SNR=19
KZA    Kyzart             54.32 296  P        P        10 37 08.1  0.0
       SNR=10
EDM    Edmonton           54.45  48  eP       P        10 37 08.7 -0.1
AAK    Ala-Archa          54.46 297  P        P        10 37 08.3 -0.7
       SNR=11
AAK    Ala-Archa          54.46 297c iP       P        10 37 07.0 -2.0
AAK                                  pmax     pmax
       comp=Z,16nm,1.0s,mb5.0
AAK                                  MLR      MLR
       comp=Z,700nm,18.0s,MS4.8
AAK    Ala-Archa          54.46 297  eP       P        10 37 07.0 -2.0
       comp=Z,12nm,0.7s,mb5.0
UCH    Uchtor             54.68 296  eP       P        10 37 08.3 -2.3
       comp=Z,1.8nm,0.7s,mb4.2
EKS2   Erkin-Say          54.87 297  P        P        10 37 11.4 -0.6
       SNR=13
EKS2   Erkin-Say          54.87 297  eP       P        10 37 11.1 -1.0
       comp=Z,14nm,0.8s,mb5.0
ARU    Arti               54.96 318⇑ iP       P        10 37 10.0 -2.5
ARU                                  e                 10 38 09.0
ARU                                  e                 10 39 10.8
ARU                                  ePPP     PPP      10 40 22.4 -6.6
ARU                                  eS       S        10 44 50.2 -3.4
ARU                                  pmax     pmax
       comp=Z,9.0nm,0.7s,mb4.9
ARU    Arti               54.96 318  eP       P        10 37 09.8 -2.7
       comp=Z,10nm,0.6s,mb5.0
AML    Almayashu          55.23 296  P        P        10 37 14.2 -0.5
       SNR=7.0
AML    Almayashu          55.23 296  eP       P        10 37 14.0 -0.7
       comp=Z,6.6nm,0.8s,mb4.7
NEW    Newport            55.33  54  P        P        10 37 15.5 +0.2
NEW                                  pmax     pmax
       comp=Z,7.0nm,1.2s
NEW    Newport            55.33  54  P        P        10 37 15.5 +0.2
       comp=Z,6.7nm,1.3s,mb4.5
YBH    Yreka Blue Hor     55.96  64  P        P        10 37 21.0 +1.0
       comp=Z,1.9nm,0.7s,mb4.2,baz=252,slow=5.7,SNR=4.0
GUN    Gumba              56.22 275  eP       P        10 37 22.1 +0.1
       comp=Z,39nm,0.4s,mb5.8
WALA   Waterton Lakes     56.58  52  P        P        10 37 29.6 +5.2
       comp=Z,15nm,1.0s,mb5.0
KKN    Kakani             56.70 276  eP       P        10 37 25.7 +0.2
       comp=Z,40nm,0.5s,mb5.7
PKI    Pulchoki           56.75 276  eP       P        10 37 25.9  0.0
       comp=Z,21nm,0.5s,mb5.4
DMN    Daman              56.93 276  eP       P        10 37 27.5 +0.3
       comp=Z,31nm,0.4s,mb5.7
GKN    Gorkha             56.98 276  eP       P        10 37 27.5  0.0
       comp=Z,73nm,0.4s,mb6.0
ARCES  ARCESS Array B     57.06 341  P        P        10 37 25.3 -2.2
       comp=Z,5.0nm,0.8s,mb4.6,baz=47,slow=7.5,SNR=12
ARCES                                LR       LR       11 07 50.7
       comp=Z,934nm,18.2s,MS4.9,baz=27,slow=42
BMO    Blue Mountains     57.24  58  eP       P        10 37 28.6 -0.6
       comp=Z,2.9nm,0.7s,mb4.4
KOLN   Koldanda           57.83 277  eP       P        10 37 33.6 +0.1
       comp=Z,31nm,0.5s,mb5.6
FFC    Flin Flon          58.88  41  eP       P        10 37 40.1 -0.3
FFC                                  pmax     pmax
       comp=Z,12nm,1.0s,mb4.9
FFC    Flin Flon          58.88  41  eP       P        10 37 40.0 -0.4
       comp=Z,12nm,1.0s,mb4.9
SUMG   Summit             59.30   5  eP       P        10 37 43.5 +0.3
       comp=Z,84nm,0.9s,mb5.8
SUMG                                 e                 10 38 18.9
FCC    Fort Churchill     59.44  34  eP       P        10 37 43.7 -0.5
FCC                                  pmax     pmax
       comp=Z,16nm,1.1s,mb5.0
FCC    Fort Churchill     59.44  34  eP       P        10 37 43.7 -0.5
       comp=Z,16nm,1.1s,mb5.0
FCC                                  e                 10 38 16.6
HLID   Hailey             59.67  57  eP       P        10 37 46.3 +0.2
       comp=Z,7.6nm,1.4s,mb4.5
HLID                                 e                 10 38 27.4
BOZ    Bozeman (W)        59.90  54  eP       P        10 37 48.0 +0.4
BOZ                                  e                 10 38 28.3
BOZ                                  pmax     pmax
       comp=Z,8.0nm,0.9s,mb4.8
BOZ    Bozeman (W)        59.90  54  eP       P        10 37 48.0 +0.3
       comp=Z,8.0nm,0.9s,mb4.8
BOZ                                  e                 10 38 28.3
QLMT   Earthquake Lak     60.53  55  eP       P        10 37 52.9 +0.9
QLMT                                 e                 10 38 32.1
NVAR   Mina Array Bea     60.65  64  P        P        10 37 53.4 +0.5
       comp=Z,1.4nm,0.7s,mb4.2,baz=300,slow=7.3,SNR=7.0
NVAR                                 LR       LR       10 57 57.1
       comp=Z,85nm,21.5s,MS3.9,baz=160,slow=30
JOF    Joensuu            60.76 334  ep       P        10 37 51.6 -1.6
       comp=Z,1.6nm,0.4s,mb4.5
JOF    Joensuu            60.76 334  eP       P        10 37 51.6 -1.6
JOF                                  pmax     pmax
       comp=Z,2.0nm,0.4s,mb4.6
YMR    Madison River      60.89  55  P        P        10 37 54.8 +0.4
TPH    Tonopah            61.53  64  eP       P        10 37 58.3 -0.5
TPH                                  e                 10 38 39.9
TPH                                  pmax     pmax
       comp=Z,11nm,1.3s,mb4.9
TPH    Tonopah            61.53  64  eP       P        10 37 58.3 -0.5
       comp=Z,11nm,1.4s,mb4.9
TPH                                  e                 10 38 39.9
TPAW   Teton Pass         61.66  56  eP       P        10 37 59.5 -0.1
TPAW                                 e                 10 38 41.4
SNOW   Snow King Moun     61.78  56  eP       P        10 38 00.5  0.0
SNOW                                 e                 10 38 40.0
DGMT   Dagmar             61.94  48  eP       P        10 38 00.2 -1.3
       comp=Z,19nm,0.7s,mb5.4
DGMT                                 e                 10 38 11.2
DGMT                                 e                 10 38 41.8
HWUT   Hardware Ranch     62.54  58  P        P        10 38 05.5 -0.1
       comp=Z,1.6nm,0.5s,mb4.4
KAF    Kangasniemi        62.82 336  ep       P        10 38 05.9 -1.2
       comp=Z,2.4nm,0.5s,mb4.6
KAF    Kangasniemi        62.82 336  eP       P        10 38 05.9 -1.2
KAF                                  pmax     pmax
       comp=Z,2.0nm,0.5s,mb4.5
BW06   Boulder Array      62.90  55  eP       P        10 38 07.0 -0.9
       comp=Z,6.2nm,1.0s,mb4.7
BW06                                 e                 10 38 47.6
PDAR   Pinedale Array     62.90  55  P        P        10 38 07.9  0.0
       comp=Z,2.0nm,0.9s,mb4.2,baz=286,slow=2.4,SNR=14
NLU    North Lily Min     63.34  59  eP       P        10 38 12.5 +1.7
FINES  FINESS Array B     63.43 335  P        P        10 38 09.7 -1.4
       comp=Z,3.5nm,0.4s,mb4.9,baz=42,slow=7.5,SNR=35
FINES                                LR       LR       11 08 49.3
       comp=Z,481nm,18.6s,MS4.7,baz=247,slow=39
FINES  FINESS Array B     63.43 335  P        P        10 38 09.7 -1.4
FINES                                pmax     pmax
       comp=Z,4.0nm,0.4s
FINES                                MLR      MLR
       comp=Z,481nm,18.6s
FINES  FINESS Array B     63.43 335  P        P        10 38 09.7 -1.4
FINES                                LR       LR       11 08 49.3
ULM    Lac du Bonnet      64.66  42  P        P        10 38 18.7 -0.6
       comp=Z,3.6nm,0.8s,mb4.7,baz=299,slow=5.4,SNR=4.3
ULM                                  LR       LR       11 10 24.1
       comp=Z,205nm,18.0s,MS4.4,baz=297,slow=40
ULM    Lac du Bonnet      64.66  42  P        P        10 38 18.7 -0.6
ULM                                  LR       LR       11 10 24.1
SRU    San Rafael         64.79  59  eP       P        10 38 19.7 -0.6
OBN    Obninsk            64.98 326⇓ iP       P        10 38 21.4 +0.1
OBN                                  eS       S        10 46 55.8 -6.8
OBN                                  eSS      SS       10 51 08.2 -7.9
OBN                                  pmax     pmax
       comp=Z,12nm,1.2s,mb5.0
OBN                                  MLR      MLR
       comp=Z,400nm,17.0s,MS4.7
PV10   Paradox Valley     66.14  59  eP       P        10 38 28.9 -0.1
PV01   Paradox Valley     66.58  59  eP       P        10 38 30.9 -0.8
ISCO   Idaho Springs      67.10  56  eP       P        10 38 35.7 +0.7
ISCO                                 pmax     pmax
       comp=Z,7.0nm,1.0s,mb4.8
ISCO   Idaho Springs      67.10  56  eP       P        10 38 35.6 +0.6
       comp=Z,7.1nm,1.1s,mb4.8
NB2    NORSAR Subarra     67.42 342  P        P        10 38 35.3 -1.4
       comp=Z,3.8nm,0.6s,mb4.8,baz=26,slow=6.2
NOA    NORSAR Array B     67.42 342  P        P        10 38 35.7 -1.0
       comp=Z,4.9nm,0.6s,mb4.9,baz=26,slow=6.3,SNR=24
NOA                                  LR       LR       11 12 56.1
       comp=Z,422nm,18.9s,MS4.7,baz=20,slow=40
NOA    NORSAR Array B     67.42 342  P        P        10 38 35.7 -1.0
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NOA                                pmax     pmax
       comp=Z,5.0nm,0.6s
NOA                                MLR      MLR
       comp=Z,422nm,18.9s
NOA    NORSAR Array B  67.42 342   P        P         10 38 35.7 -1.0
NOA                                LR       LR        11 12 56.1
HFS    Hagfors         67.70 340   P        P         10 38 37.8 -0.7
       comp=Z,9.0nm,0.4s,mb5.4,baz=63,slow=3.3,SNR=60
HFS    Hagfors         67.70 340   P        P         10 38 37.8 -0.7
HFS                                pmax     pmax
       comp=Z,9.0nm,0.4s
HFS    Hagfors         67.70 340   P        P         10 38 37.8 -0.7
CTA    Charters Tower  68.28 189   LR       LR        11 08 14.5
       comp=Z,170nm,19.1s,MS4.3,baz=142,slow=36
EYMN   Ely             68.31  42   P        P         10 38 38.1 -4.4
       comp=Z,14nm,1.1s,mb5.1
AFI    Afiamalu        68.38 145  eP        P         10 38 41.1 -2.4
AFI                                pmax     pmax
       comp=Z,61nm,1.0s,mb5.8
AFI    Afiamalu        68.38 145  eP        P         10 38 41.0 -2.4
       comp=Z,61nm,1.0s,mb5.8
SDCO   Great Sand Dun  68.59  57  eP        P         10 38 41.7 -2.8
       comp=Z,3.5nm,0.9s,mb4.6
ANMO   Albuquerque     70.01  60   P        P         10 38 54.1 +0.9
       comp=Z,1.2nm,0.6s,mb4.2,baz=347,slow=6.3,SNR=5.9
ANMO   Albuquerque     70.01  60  eP        P         10 38 53.3 +0.1
ANMO                               pmax     pmax
       comp=Z,3.0nm,0.9s
ANMO   Albuquerque     70.01  60  eP        P         10 38 53.3 +0.1
       comp=Z,2.7nm,0.9s,mb4.4
ANMO                              e                   10 39 34.2
WRAB   Tennant Creek   70.18 201  i P       P         10 38 54.5 +0.1
WRAB   Tennant Creek   70.18 201  eP        P         10 38 53.7 -0.7
       comp=Z,15nm,1.0s,mb5.1
WB2    Warramunga Arr  70.19 201  eP        P         10 38 53.9 -0.6
WRA    Warramunga Arr  70.19 201   P        P         10 38 54.3 -0.2
       comp=Z,2.9nm,1.0s,mb4.4,baz=17,slow=6.3,SNR=16
WRA    Warramunga Arr  70.19 201  i P       P         10 38 54.5  0.0
WRA                                pmax     pmax
       comp=Z,3.0nm,1.0s
SUW    Suwalki         70.48 332  eP        P         10 38 54.6 -1.1
POO    Poona           70.66 276⇓iP        P         10 38 56.0 -1.4
       comp=Z,40nm,1.0s,mb5.5
FITZ   Fitzroy Crossi  70.93 210  eP        P         10 38 59.6 +0.6
       comp=Z,6.8nm,0.8s,mb4.8
AKASG  Malin Array Be  71.20 327   P        P         10 38 58.7 -1.4
       comp=Z,4.4nm,0.5s,mb4.9,baz=32,slow=6.1,SNR=26
AKASG  Malin Array Be  71.20 327   P        P         10 38 58.7 -1.4
AKASG                              pmax     pmax
       comp=Z,4.0nm,0.5s
KAD    Karad           71.30 275  eP        P         10 39 00.0 -1.3
SCHQ   Schefferville   71.58  24   P        P         10 39 03.2 +0.9
       comp=Z,4.7nm,0.4s,mb5.0,baz=82,slow=4.3,SNR=37
SCHQ                               LR       LR        11 13 52.7
       comp=Z,153nm,18.6s,MS4.3,baz=274,slow=39
SCHQ   Schefferville   71.58  24   P        P         10 39 03.2 +0.9
SCHQ                               LR       LR        11 13 52.7
SOC    Sochi           72.51 316  eP        P         10 39 06.9 -1.1
SOC                               e                   10 39 27.9
SOC                               e                   10 41 45.8
SOC                               eS        S         10 48 26.6 -5.5
SOC                               e                   10 48 59.9
SOC                               eSS       SS        10 53 02.0  -11
SOC                               eSSS      SSS       10 56 17.4 -4.8
SOC                                pmax     pmax
       comp=Z,31nm,1.1s,mb5.3
SOC                                pmax     pmax
       comp=N,2.0nm,0.4s
SOC                                pmax     pmax
       comp=E,6.0nm,0.4s
SOC                                MLR      MLR
       comp=Z,586nm,20.0s,MS4.9
SOC                                MLR      MLR
       comp=N,407nm,17.0s,MS4.9
SOC                                MLR      MLR
       comp=E,391nm,17.0s,MS4.9
CPRX   Cap Rock        72.89  60  eP        P         10 39 09.4 -1.1
GDL2   Guadalupe Moun  73.20  61  eP        P         10 39 12.7 +0.5
ASAR   Alice Springs   73.88 200   P        P         10 39 17.1 +0.7
       comp=E,1.8nm,0.6s,mb4.2,baz=14,slow=5.2,SNR=26
ASPA   Alice Springs   73.88 200  eP        P         10 39 17.5 +1.1
BSEG   Bad Segeberg    74.10 339  eP        P         10 39 17.3 +0.3
BSEG                               pmax     pmax
       comp=Z,26nm,0.9s,mb5.3
BSEG   Bad Segeberg    74.10 339  eP        P         10 39 17.3 +0.3
PALK   Pallekele       74.19 263   P        P         10 39 17.9 -0.5
       comp=Z,15nm,1.1s,mb4.9
KWP    Kalwaria        74.38 330  eP        P         10 39 18.8 +0.1
KWP                                pmax     pmax
       comp=Z,78nm,0.9s,mb5.7
KWP    Kalwaria        74.38 330  eP        P         10 39 19.1 +0.4
KWP                               e                   10 39 54.7
KIS    Kishinev        74.40 325  eP        P         10 39 17.0 -1.9
KIS                                MLR      MLR
       comp=Z,300nm,17.0s,MS4.7
KIS                                MLR      MLR
       comp=Z,400nm,17.0s
WMOK   Wichita Mounta  74.51  55  eP        P         10 39 17.9 -1.9
WMOK                              e                   10 39 31.0
WMOK                               pmax     pmax
       comp=Z,10.0nm,0.9s,mb4.8
WMOK   Wichita Mounta  74.51  55  eP        P         10 39 17.9 -1.9
       comp=Z,10nm,0.8s,mb4.9
WMOK                              e                   10 39 31.0
OJC    Ojcow           74.81 332⇑eP        P         10 39 21.3  0.0
OJC    Ojcow           74.81 332  eP        P         10 39 21.3  0.0
KOLS   Kolonicke sedl  75.12 330  eP        P         10 39 23.0 -0.1
KSP    Ksiaz           75.32 334⇑eP        P         10 39 24.1 -0.1
KSP                               epP       pP        10 39 27.1 +2.7
KSP                                LR       LR
       comp=Z,2μm,18.5s,MS5.3
KSP    Ksiaz           75.32 334  eP        P         10 39 24.2  0.0
KSP                               e                   10 40 00.9
NIE    Niedzica        75.35 331  eP        P         10 39 25.2 +0.9
EKA    Eskdalemuir Ar  75.38 347   P        P         10 39 24.6 +0.2
       comp=Z,9.4nm,0.5s,mb5.1,baz=18,slow=5.1,SNR=54
EKA    Eskdalemuir Ar  75.38 347   P        P         10 39 24.6 +0.2
EKA                                pmax     pmax
       comp=Z,9.0nm,0.5s
CRVS   Cervenica-Dubn  75.42 330  eP        P         10 39 25.5 +0.7
OKC    Ostrava-Krasne  75.66 333⇑iP        P         10 39 26.4 +0.3
OKC                                MLR      MLR
       comp=Z,700nm,20.9s,MS4.9
OKC    Ostrava-Krasne  75.66 333⇑iP        P         10 39 26.4 +0.3
OKC                               ex        x         10 40 01.8
OKC                                AMS      AMS       11 17 40.0
       comp=Z,700nm,20.9s
LTX    Lajitas         75.69  62  eP        P         10 39 27.2 +0.5
LTX                                pmax     pmax
       comp=Z,8.0nm,0.7s,mb5.0
LTX    Lajitas         75.69  62  eP        P         10 39 27.2 +0.4
       comp=Z,8.0nm,0.7s,mb5.0
LTX                               e                   10 39 57.7
TXAR   Lajitas Array   75.69  62   P        P         10 39 27.4 +0.6
       comp=Z,3.4nm,0.6s,mb4.7,baz=297,slow=4.5,SNR=51
TXAR                               LR       LR        11 10 07.6
       comp=Z,81nm,18.9s,MS4.0,baz=335,slow=34
UPC    Upice           75.70 334⇑eP        P         10 39 26.9 +0.6
UPC                               ex        x         10 40 02.5
DPC    Dobruska-Polom  75.75 334⇑iP        P         10 39 27.1 +0.5
DPC                                MLR      MLR
       comp=Z,600nm,19.7s,MS4.9
DPC    Dobruska-Polom  75.75 334⇑iP        P         10 39 27.1 +0.5
DPC                               ex        x         10 40 02.5
DPC                                AMS      AMS       11 18 20.0
       comp=Z,600nm,19.7s
CLL    Collm           75.82 337⇑iP        P         10 39 26.7 -0.3
CLL                                pmax     pmax
       comp=Z,44nm,1.0s,mb5.5
CLL                                MLR      MLR
       comp=Z,700nm,17.6s,MS5.0
CLL    Collm           75.82 337⇑iP        P         10 39 26.7 -0.3
       comp=Z,44nm,1.0s,mb5.5
CLL                               i                   10 40 02.0
CLL                                LR       LR
       comp=Z,700nm,17.6s,MS5.0
CLL    Collm           75.82 337 ⇑P        P         10 39 26.7 -0.3
       comp=Z,logA/T=1.6,mb5.5
CLL                               i                   10 39 30.5
CLL                               e                   10 39 35.0
MBWA   Marble Bar      75.83 214  eP        P         10 39 26.6 -1.1
       comp=Z,22nm,1.3s,mb5.1
MORC   Moravsky Berou  75.90 333  eP        P         10 39 27.6 +0.1
MORC                               pmax     pmax
       comp=Z,28nm,0.8s,mb5.4
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MORC   Moravsky Berou  75.90 333  eP        P         10 39 27.6 +0.1
       comp=Z,28nm,0.8s,mb5.4
BRG    Berggiesshubel  75.96 336  i P       P         10 39 27.8  0.0
BRG                                pmax     pmax
       comp=Z,18nm,1.1s,mb5.1
BRG    Berggiesshubel  75.96 336  i P       P         10 39 27.8  0.0
       comp=Z,18nm,1.1s,mb5.1
BRG                               i                   10 40 03.4
CCM    Cathedral Cave  75.97  48  eP        P         10 39 27.9 -0.2
CCM                               e                   10 39 39.0
CCM                                pmax     pmax
       comp=Z,10.0nm,1.0s,mb4.9
CCM    Cathedral Cave  75.97  48  eP        P         10 39 27.9 -0.2
       comp=Z,10nm,1.0s,mb4.9
CCM                               e                   10 39 39.0
CLZ    Clausthal       76.01 338  eP        P         10 39 28.7 +0.6
       comp=Z,54nm,1.3s,mb5.5
PVCC   Panska Ves      76.10 335  eP        P         10 39 28.9 +0.3
PVCC                               MLR      MLR
       comp=Z,600nm,19.6s,MS4.9
PVCC   Panska Ves      76.10 335⇑eP        P         10 39 28.9 +0.3
PVCC                              ex        x         10 40 03.8
PVCC                               AMS      AMS       11 15 50.0
       comp=Z,600nm,19.6s
PRU    Pruhonice       76.59 335⇑eP        P         10 39 32.1 +0.8
PRU                               ex        x         10 40 07.2
PRU                                AMS      AMS       11 16 10.0
VRAC   Vranov          76.60 334   P        P         10 39 32.2 +0.8
       comp=Z,17nm,0.8s,mb5.3,baz=32,slow=7.1,SNR=15
VRAC   Vranov          76.60 334   P        P         10 39 32.2 +0.8
VRAC                               pmax     pmax
       comp=Z,17nm,0.8s
VYHS   Vyhne           76.63 332  eP        P         10 39 32.0 +0.4
VYHS                              e                   10 40 07.8
MLR    Muntele Rosu    76.75 326   P        P         10 39 33.3 +0.9
       comp=Z,20nm,0.6s,mb5.5,baz=298,slow=9.4,SNR=49
MLR                                LR       LR        11 20 14.0
       comp=Z,348nm,19.8s,MS4.7,baz=189,slow=41
MOX    Moxa            76.79 337  eP        P         10 39 32.0 -0.5
MOX                                L                  11 16 51.0
PSZ    Piszkesteto     76.79 331  eP        P         10 39 33.1 +0.6
PSZ                                pmax     pmax
       comp=Z,16nm,0.9s,mb5.2
PSZ    Piszkesteto     76.79 331  eP        P         10 39 33.1 +0.6
       comp=Z,16nm,0.9s,mb5.1
PSZ                               e                   10 40 08.4
NKC    Novy Kostel     76.94 336⇑iP        P         10 39 33.7 +0.4
NKC                                MLR      MLR
       comp=Z,700nm,20.0s,MS5.0
NKC    Novy Kostel     76.94 336⇑iP        P         10 39 33.7 +0.4
NKC                               ex        x         10 40 09.6
NKC                                AMS      AMS       11 18 40.0
       comp=Z,700nm,20.0s
CTKT   Corum           77.10 318  i P       P         10 39 35.5 +1.1
JCT    Junction City   77.10  59  eP        P         10 39 34.3 -0.3
JCT                                pmax     pmax
       comp=Z,15nm,1.0s,mb5.1
JCT    Junction City   77.10  59  eP        P         10 39 34.3 -0.3
       comp=Z,15nm,1.1s,mb5.0
MODS   Modra-Piesok    77.22 333  eP        P         10 39 36.3 +1.4
MODS                              e                   10 40 12.1
MALT   Malatya         77.23 314  eP        P         10 39 36.3 +1.1
MALT                               pmax     pmax
       comp=Z,37nm,1.0s,mb5.5
MALT   Malatya         77.23 314  eP        P         10 39 36.3 +1.1
       comp=Z,37nm,1.1s,mb5.4
MALT                              e                   10 40 11.6
MALT                              e                   10 40 21.5
ZST    Bratislava      77.44 333  eP        P         10 39 37.2 +1.1
MIAR   Mount Ida       77.47  52  eP        P         10 39 36.6  0.0
MIAR                              e                   10 39 47.9
MIAR                               pmax     pmax
       comp=Z,14nm,0.8s,mb5.1
MIAR   Mount Ida       77.47  52  eP        P         10 39 36.5  0.0
       comp=Z,14nm,0.8s,mb5.2
MIAR                              ePcP      PcP       10 39 47.9 +0.5
KHC    Kasperske Hory  77.64 335⇑iP        P         10 39 37.7 +0.5
KHC                                MLR      MLR
       comp=Z,700nm,20.6s,MS5.0
KHC    Kasperske Hory  77.64 335⇑iP        P         10 39 37.7 +0.5
KHC                               ex        x         10 40 13.7
KHC                                AMS      AMS       11 17 00.0
       comp=Z,700nm,20.6s
GRA1   Grafenberg Arr  77.77 337  eP        P         10 39 38.9 +1.0
       comp=Z,47nm,1.0s,mb5.6
GRF    Grafenberg Arr  77.77 337  eP        P         10 39 38.9 +1.0
GRF                                pmax     pmax
       comp=Z,47nm,1.0s,mb5.6
ELDT   Eldivan         77.82 318  i P       P         10 39 39.5 +1.1
DLF    Lyons Farm      77.83 349  eP        P         10 39 38.2 +0.1
GEC2   GERESS Array S  77.86 335  eP        P         10 39 38.8 +0.4
GEC2                               pmax     pmax
       comp=Z,12nm,0.9s,mb5.0
GEC2   GERESS Array S  77.86 335  eP        P         10 39 38.8 +0.4
       comp=Z,12nm,0.9s,mb5.0
GERES  GERESS Array B  77.86 335   P        P         10 39 39.0 +0.7
       comp=Z,7.4nm,0.6s,mb5.0,baz=33,slow=5.8,SNR=55
GERES  GERESS Array B  77.86 335   P        P         10 39 39.0 +0.6
GERES                              pmax     pmax
       comp=Z,7.0nm,0.6s
DCN    Croghan         77.88 349  eP        P         10 39 38.5 +0.1
WCI    Wyandotte Cave  78.24  45  eP        P         10 39 40.9 +0.2
WCI                                pmax     pmax
       comp=Z,15nm,0.8s,mb5.2
WCI    Wyandotte Cave  78.24  45  eP        P         10 39 40.9 +0.2
       comp=Z,16nm,0.8s,mb5.2
WCI                               e                   10 40 16.6
BRTR   Keskin Array B  78.34 318   P        P         10 39 42.1 +0.9
       comp=Z,8.1nm,0.8s,mb4.9,baz=72,slow=3.9,SNR=39
BRTR   Keskin Array B  78.34 318   P        P         10 39 42.2 +0.9
BRTR                               pmax     pmax
       comp=Z,8.0nm,0.8s
SGKT   Sivrigoynuk     78.36 319  i P       P         10 39 42.4 +1.1
KAHT   Ahir Dag        78.52 314  i P       P         10 39 43.9 +1.6
AVNT   Avonos          78.55 316  i P       P         10 39 42.9 +0.5
GIVF   Givet           78.92 341  eP        P         10 39 44.3 +0.1
COBT   Iskenderun      79.71 314  i P       P         10 39 50.0 +1.3
BFO    Black Forest    79.76 338  eP        P         10 39 49.5 +0.7
BFO                                pmax     pmax
       comp=Z,48nm,1.6s,mb5.2
BFO    Black Forest    79.76 338  eP        P         10 39 49.5 +0.7
       comp=Z,48nm,1.6s,mb5.2
CDF    Champ du Feu    79.94 339  eP        P         10 39 50.2 +0.4
       comp=Z,33nm,1.1s,mb4.9
VTS    Vitosha         80.26 326   P        P         10 39 52.0 +0.4
MEZF   Maizieres J'vi  80.38 340  eP        P         10 39 52.8 +0.7
RZN    Rozhen          80.46 325  eP        P         10 39 54.0 +1.3
HAU    Haudompre       80.55 339  eP        P         10 39 53.2 +0.2
       comp=Z,15nm,0.8s,mb4.8
HAU                               eR
       comp=Z,338nm,18.2s
HINF   Hinteralfeld    80.60 339  eP        P         10 39 53.3  0.0
DAVOX  Davos           80.80 337   P        P         10 39 56.1 +1.8
       comp=Z,3.4nm,0.6s,mb4.6,baz=12,slow=9.3,SNR=6.4
MMB    Musomiste       80.92 325   P        P         10 39 55.5 +0.4
FLN    La Foliniere    81.27 344  eP        P         10 39 57.2 +0.4
FLN                               eR
       comp=Z,434nm,19.8s
LDF    La Druitiere    81.37 344  eP        P         10 39 57.6 +0.3
GRR    Gorron          81.70 344  eP        P         10 39 59.7 +0.7
SSF    Saint Saulge    82.08 341  eP        P         10 40 02.5 +1.5
AVF    Avril sur Loir  82.38 341  eP        P         10 40 03.3 +0.7
       comp=Z,15nm,0.7s,mb4.9
SMF    Signal de Mont  82.41 340  eP        P         10 40 03.4 +0.7
BGF    Bois d'Agland   82.71 341  eP        P         10 40 05.1 +0.8
       comp=Z,9.7nm,0.6s,mb5.0
LPL    La Plagne       82.78 338  eP        P         10 40 06.4 +1.7
       comp=Z,15nm,0.7s,mb5.0
LPG    La Plagne       82.79 338  eP        P         10 40 06.6 +1.8
       comp=Z,42nm,1.1s,mb5.3
MFF    Saint Martin d  83.28 343  eP        P         10 40 08.2 +0.9
MBDF   Montbardon      83.51 338  eP        P         10 40 09.5 +1.1
ORIF   Oris-en-Rattie  83.55 339  eP        P         10 40 09.8 +1.2
       comp=Z,34nm,1.0s,mb5.2
ORIF                              eR
       comp=Z,252nm,21.8s
HILS   Ha'il           84.07 305   P        P         10 40 13.0 +1.4
RJF    Les Rejaudoux   84.19 342  eP        P         10 40 12.8 +1.0
RJF                               eR
       comp=Z,474nm,20.0s
ARSS   Ar Rass         84.44 303   D                  10 40 14.2
SANT   Santorini       84.70 321   P        P         10 40 12.2 -2.3
       comp=Z,25nm,1.1s,mb5.4
MZLS   Mizel           84.74 300   P        P         10 40 16.0 +0.9
IDI    Anoyia          85.86 321   P        P         10 40 20.1 -0.3
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       comp=Z,5.3nm,0.6s,mb4.8,baz=35,slow=8.0,SNR=6.8
JMQS   Jabal Moqyreh   86.03 310   P        P         10 40 23.0 +1.6
AFFS   'Afif           86.09 302   P        P         10 40 22.7 +0.9
KBRS   Khaybar         86.71 306   P        P         10 40 26.2 +1.4
TATS   Tathlith        89.23 299   P        P         10 40 36.5 -0.5
RPZ    Rata Peaks      92.46 168   LR       LR        11 20 34.9
       comp=Z,217nm,18.0s,MS4.6,baz=316,slow=34
SYO    Syowa Base     142.72 212 ⇓Pdiff     Pdif      10 44 36.5 +3.4
CPUP   Villa Florida  146.66  61   PKPbc    PKPbc     10 47 22.3 +1.2
       comp=Z,5.4nm,0.7s,baz=324,slow=2.9,SNR=11
CPUP   Villa Florida  146.66  61  ePKP2     PKPab     10 47 22.4 -2.2
SNAA   Sanae          154.17 196  e         PKPdf     10 47 49.3  +18
SNAA   Sanae          154.17 196  e         Px        10 48 05.8
SNAA   Sanae          154.17 196   PKPbc    PKPdf     10 47 39.2 +7.5
       comp=Z,0.5nm,0.7s,baz=166,slow=3.3,SNR=7.1
SNAA   Sanae          154.17 196   PKIKP    PKPdf     10 47 30.2 -1.5
SNAA                              e                   10 47 37.1
SNAA   Sanae          154.17 196   PKPdf    PKPdf     10 47 30.2 -1.4
SNAA                              ePKPbc    PKPdf     10 47 37.1 +5.4
SNAA                               PKPbc    PKPdf     10 47 39.2 +7.5
SNAA                              e                   10 47 49.3
SNAA                              e                   10 48 05.8
SNAA                              e                   10 48 06.0
VNA2   Neumayer--Watz 155.59 194  e         PKPab     10 47 57.6 -2.6
VNA2   Neumayer--Watz 155.59 194  e         Px        10 48 14.3
VNA2   Neumayer--Watz 155.59 194⇓iPKPdf    PKPdf     10 47 30.8 -2.8
VNA2                              e                   10 47 57.6
VNA2                              e                   10 48 14.3
VNA3   Neumayer Olymp 155.65 192  e         PKPab     10 47 57.5 -2.9
VNA3   Neumayer Olymp 155.65 192  e         Px        10 48 14.3
VNA3   Neumayer Olymp 155.65 192⇓iPKPdf    PKPdf     10 47 30.0 -3.6
VNA3                              e                   10 47 57.5
VNA3                              e                   10 48 14.3
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PGC 02 10:30:01.8,52.39N×118.31W,h1^{km},ML3.0/11,1D, Rocky Mountains, British Columbia, south of Jasper, Alberta.,British Columbia

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Code   Station Name      Δ°   AZ°     Phase ID            Time      Res
                                   Op       ISC        h  m  s    ISC
MNB    Mounoet Dainar   0.20 194 ⇓P        Pg        10 30 05.2 -0.6
DOWB   Downie Slide     0.89 189   P        Pg        10 30 17.5 -2.0
DOWB                               S        Sg        10 30 29.7 -1.6
SLEB   Sale Mountain    1.23 175   P        Pb        10 30 23.9 -1.7
SLEB                               S        Sb        10 30 40.8 -1.1
SLEB                               Trac               10 30 48.0
       comp=Z,110nm,0.2s
LLLB   Lillooet         2.86 233   Pn       Pn        10 30 48.6 -0.7
LLLB                               Pg       Pg        10 30 53.0 -5.9
LLLB                               Sn       Sn        10 31 22.3 -2.7
LLLB                               Sg       Sg        10 31 30.4 -6.7
LLLB                               Trac               10 31 35.7
       comp=Z,15nm,0.3s
EDM    Edmonton         3.12  73   Pn       Pn        10 30 51.5 -1.6
EDM                                Sn       Sn        10 31 27.8 -3.7
EDM                                Sg       Sg        10 31 37.0 -8.6
EDM                                Trac               10 31 42.7
       comp=Z,6.0nm,0.1s
PNT    Penticton        3.19 196   Pn       Pn        10 30 52.9 -1.2
PNT                                Pg       Pg        10 30 58.6 -6.8
PNT                                Sn       Sn        10 31 32.2 -1.1
PNT                                Sg       Sg        10 31 41.1 -6.9
PNT                                Trac               10 31 47.4
       comp=Z,29nm,0.5s
HOPB   Hope             3.60 214   Pn       Pn        10 30 57.5 -2.4
HOPB                               Sg       Sg        10 31 53.5 -8.1
HOPB                               Trac               10 31 58.0
       comp=Z,55nm,0.3s
WSLR   Whistler         3.68 234   Pg       Pg        10 31 08.5 -6.8
WSLR                               Sg       Sg        10 31 55.6 -8.8
WSLR                               Trac               10 31 57.7
       comp=Z,7.0nm,0.3s
HNB    Haney            4.13 223   Trac               10 32 17.2
       comp=Z,39nm,0.9s
HNB    Haney            4.13 223   Sg       Sg        10 32 10.0 -9.4
WPB    Watts Point      4.13 230   Pg       Pg        10 31 15.1 -9.2
WPB                                Sg       Sg        10 32 10.2 -9.3
WPB                                Trac               10 32 13.5
       comp=Z,4.0nm,0.3s
BMBC   Bull Mountain    4.29 330   Pn       Pn        10 31 07.7 -2.0
BMBC                               Sn       Sn        10 31 57.2 -4.0
BMBC                               Sg       Sg        10 32 12.5  -12
BMBC                               Trac               10 32 17.8
       comp=Z,12nm,0.5s
WALA   Waterton Lakes   4.35 138   Trac               10 32 21.6
       comp=Z,20nm,0.7s
WALA   Waterton Lakes   4.35 138   Sg       Sg        10 32 17.8 -8.9
BIB    Bowen Island     4.36 229   Sg       Sg        10 32 16.8  -10
BIB                                Trac               10 32 19.4
       comp=Z,3.0nm,0.3s
FNBB   Fort Nelson      7.03 340   Pn       Pn        10 31 44.4 -4.0
FNBB                               Sn       Sn        10 32 59.8  -10
FNBB                               Trac               10 33 05.8
       comp=Z,3.0nm,0.3s
YKW3   Yellowknife Ar  10.38  10   P        P         10 32 27.0 -7.7
YKW3                               P                  10 32 27.4
YKW3                               Sn       S         10 34 14.7  -18
YKW3                               Sn       S         10 34 15.7  -17
YKW3                               Trac               10 34 18.9
       comp=Z,1.0nm,0.3s
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*HEL **02** 10:34:35.7±0.1,59.01N×18.03E,ML2.3(UPP), ML2.3(NAO),Explosion*

*IDC **02** 10:34:38.0±1.8,59.17N×18.00E,mb1 2.9/4, mb1mx2.9/18,ML2.4/4,Error ellipse: s-maj=23.9km s-min=6.4km az=179.0*

*NAO **02** 10:34:38.5±3.4,59.30N×17.95E,ML2.3*

*BER **02** 10:34:38.2±3.8,59.16N×17.90E,ML2.3(NAO)*

ISC 02 10:34:33.9±0.5,59.01N±0.03×18.06E±0.06,n26,σ0.^{s}78/41, Sweden

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Code   Station Name      Δ°   AZ°     Phase ID            Time      Res
                                   Op       ISC        h  m  s    ISC
NRTU   Norrtaelje       0.73  23  i P       Pg        10 34 48.6  0.0
NRTU                              i S       Sg        10 34 58.1 -0.2
VIKU   Vikbolandet      0.87 235  i P       Pg        10 34 51.0 -0.3
ESKU   Eskilstuna       0.89 285  i P       Pg        10 34 51.1 -0.6
BACU   Backbrunna       0.98 331  eP        Pb        10 34 52.9 -0.6
FLYU   Flymyra          1.13 355  eP        Pb        10 34 55.8 -0.2
FLYU                              eS        Sb        10 35 10.5 -0.6
OSTU   Oestervaala      1.31 339  eP        Pb        10 34 59.1 -0.1
GOTU   Gotland          1.35 168  eP        Pb        10 34 58.9 -0.9
AAL    Aland            1.53  39  eP        Pn        10 35 03.0 +0.3
AAL                               eS        Sb        10 35 23.7 +0.9
LNKU   Linkoeping       1.55 241  eP        Pn        10 35 03.1 +0.1
VSTU   Vaestervik       1.57 211  eP        Pn        10 35 03.6 +0.4
NRAU   Nora             1.65 291  eP        Pn        10 35 04.9 +0.5
ASKU   Askersund        1.68 268  eP        Pn        10 35 05.1 +0.3
FALU   Falun            1.87 324  eP        Pn        10 35 08.4 +0.9
IGGU   Iggoen           1.91 349  eP        Pn        10 35 08.7 +0.6
IGGU                              eS        Sn        10 35 34.0 +0.9
HFS    Hagfors          2.49 299   Pn       Pn        10 35 17.8 +1.4
       0.1nm,0.3s,baz=114,slow=16,SNR=27
HFS                                Lg                 10 35 50.9
       0.5nm,0.3s,baz=113,slow=30,SNR=22
HFS    Hagfors          2.49 299   Pn       Pn        10 35 17.8 +1.3
       baz=116,slow=14
HFS                                Lg                 10 35 50.7
       baz=127,slow=37
HFS    Hagfors          2.49 299  eP        Pn        10 35 17.8 +1.3
HFS                               eSB       Sb        10 35 50.7 -0.1
NOA    NORSAR Array B   4.00 304   Pn       Pn        10 35 37.4 -0.3
       0.1nm,0.3s,baz=86,slow=15,SNR=2.3
NOA                                Pg       Pg        10 35 46.0 -7.7
       0.3nm,0.3s,baz=24,slow=16,SNR=2.3
NOA                                Sn       Sn        10 36 23.3 -2.7
       0.2nm,0.3s,baz=56,slow=27,SNR=2.2
NOA                                Lg                 10 36 41.6
       0.6nm,0.3s,baz=112,slow=21,SNR=3.9
PVF    Pernaja          4.23  65  eP        Pn        10 35 41.7 +0.6
PVF                               eS        Sn        10 36 31.5 -0.5
KEF    Keuruu           4.62  44  eP        Pn        10 35 47.6 +1.0
KEF                               eS        Sn        10 36 41.0 -0.8
FIA0   FINESS Array S   4.68  55   Pn       Pn        10 35 47.7 +0.1
       baz=236,slow=12
FIA0                               Sn       Sn        10 36 42.0 -1.4
       baz=240,slow=22
FIA0                               Lg                 10 37 01.7
       baz=246,slow=28
FIA0   FINESS Array S   4.68  55  eP        Pn        10 35 48.6 +1.0
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FIA0				*e*S	Sn	10 36 42.0	-1.4
FINES	FINESS Array B	4.68	55	Pn	Pn	10 35 47.9	+0.3
	0.2nm,0.3s,baz=245,slow=12,SNR=8.9						
FINES				Pg	Pg	10 35 58.4	-9.0
	0.2nm,0.3s,baz=238,slow=15,SNR=3.5						
FINES				Sn	Sn	10 36 42.2	-1.2
	0.7nm,0.3s,baz=244,slow=22,SNR=12						
FINES				Lg		10 37 01.6	
	0.7nm,0.3s,baz=235,slow=26,SNR=8.1						
ARA0	ARCESS Array S	11.04	14	Pn	P	10 37 11.5	-4.5
	baz=194,slow=14						
ARA0				Sn	S	10 39 08.8	-13
	baz=199,slow=22						
ARA0	ARCESS Array S	11.04	14	*e*P	P	10 37 11.5	-4.5
ARA0				*e*S	S	10 39 08.8	-13
ARCES	ARCESS Array B	11.04	14	Pn	P	10 37 11.6	-4.4
	0.1nm,0.3s,baz=194,slow=13,SNR=7.3						

BJI ***02*** *11:04:01.4, 17.62S×177.74W, h594^{km}, mB5.0, mb4.9*

IDC ***02*** *11:04:02.9±0.7, 17.86S×178.61W, h569^{km}±7^{km}, mb3.9/16, mb1 4.1/16, mb1mx4.1/18, Error ellipse: s-maj=14.3km s-min=8.2km az=146.0*

NEIC ***02*** *11:04:02.6±0.2, 17.74S×178.66W, mb4.8/29, Error ellipse: s-maj=9.7km s-min=6.6km az=134.0*

ISC 02 11:03:59.4±0.7**, 17.85S**±0.06×**178.58W**±0.06**, h546**^{km}±9^{km}**, h568**^{km}±1.6^{km}**: pP-P, n210,** σ**1**^{s}**18**/85**, mb4.7**/40**, 9C-20D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	7.63	60	*e*P	P	11 05 53.6	-0.5
AFI				*e*S	S	11 07 25.0	-0.5
DZM	Mont Dzumac	14.69	251	*e*P	P	11 07 08.0	+2.4
NOUC	Port Laguerre	14.83	251	*e*P	P	11 07 09.5	+2.5
RAR	Rarotonga	18.04	104	*e*P	P	11 07 35.8	-2.3
	62nm,1.2s						
OUZ	Omahuta	18.65	200	P	P	11 07 48.4	+4.5
WCZ	Waipu Caves	19.08	198	P	P	11 07 52.1	+4.2
URZ	Urewera	20.68	190	P	P	11 08 02.1	-0.7
	61nm,0.7s,baz=2.2,slow=7.0,SNR=20						
URZ	Urewera	20.68	190	*e*P	P	11 08 00.9	-1.9
URZ				*e*E		11 08 08.1	
MWZ	Matawai	20.69	189	*e*P	P	11 08 01.1	-1.8
MWZ				S	S	11 11 16.6	-2.1
THZ	Tophouse	24.93	195	P	P	11 08 40.1	-1.0
THZ				S	S	11 12 23.2	-3.5
LTZ	Lake Taylor	26.04	195	P	P	11 08 49.5	-1.5
RPZ	Rata Peaks	27.23	197	P	P	11 09 00.5	-0.9
	15nm,0.6s,mb4.8,baz=30,slow=4.3,SNR=8.2						
CTA	Charters Tower	33.30	260	⇓*i*P	P	11 09 53.8	+0.4
	37nm,0.8s,mb5.0						
CTA				*e*		11 10 10.3	
CTA	Charters Tower	33.30	260	P	P	11 09 54.2	+0.7
	48nm,0.8s,mb5.1,baz=90,slow=10,SNR=79						
CTAO	Charters Tower	33.30	260	*e*P	P	11 09 54.0	+0.5
	56nm,0.8s,mb5.2						
CTAO				*e*		11 10 10.4	
PMG	Port Moresby	34.29	280	P	P	11 10 03.4	+1.6
	230nm,0.8s,mb5.8,baz=75,slow=5.9,SNR=75						
PMG	Port Moresby	34.29	280	*e*P	P	11 10 03.1	+1.3
	358nm,1.0s,mb5.8						
TOO	Toolangi	37.08	231	⇓*i*P	P	11 10 26.7	+2.1
	36nm,0.9s,mb4.9						
TOO				*e*S	S	11 15 32.7	-0.7
STKA	Stephens Creek	38.52	241	⇓*i*P	P	11 10 38.2	+1.9
	56nm,1.0s,mb5.0						
STKA				*e*S	S	11 15 50.8	-3.7
STKA	Stephens Creek	38.52	241	P	P	11 10 38.2	+1.9
	49nm,0.6s,mb5.2,baz=90,slow=9.2,SNR=124						
STKA				ScP		11 15 32.2	
	2.2nm,0.8s,baz=64,slow=3.3,SNR=2.9						
RKT	Rikitea	41.07	105	*e*LR	LR	11 10 40.1	
	228nm,36.2s						
YOMI	Yo Moklole	42.82	286	*e*P	P	11 11 12.3	+1.2
	252nm,0.6s						
WB2	Warramunga Arr	44.47	259	⇓*i*P	P	11 11 23.4	-0.5
WB2				*e*S	S	11 17 12.3	-7.5
WB2				*e*SCS	ScS	11 20 21.4	+1.6
WRAB	Tennant Creek	44.48	260	*e*P	P	11 11 23.4	-0.5
	78nm,0.7s,mb5.3						
WRA	Warramunga Arr	44.48	259	P	P	11 11 23.6	-0.4
	44nm,0.7s,mb5.1,baz=91,slow=6.9,SNR=421						
WRA				PcP	PcP	11 12 55.6	-0.3
	8.1nm,0.7s,baz=89,slow=4.1,SNR=8.0						
WRA				ScP		11 15 55.0	
	1.6nm,0.8s,baz=87,slow=4.2,SNR=5.1						
WRA				S	S	11 17 17.0	-3.0
	3.6nm,0.8s,baz=97,slow=13,SNR=6.3						
ASAR	Alice Springs	44.65	254	P	P	11 11 25.7	+0.4
	295nm,0.6s,baz=89,slow=7.9,SNR=3432						
ASAR				PcP	PcP	11 12 56.0	-0.5
	10nm,0.5s,baz=95,slow=3.8,SNR=6.8						
ASAR				S	S	11 17 20.1	-2.2
	7.4nm,0.8s,baz=88,slow=15,SNR=14						
ASPA	Alice Springs	44.66	254	⇓*i*P	P	11 11 25.7	+0.4
ASPA				*e*PCP	PcP	11 12 56.1	-0.4
ASPA				*e*S	S	11 17 18.3	-4.0
ASPA				*e*SCS	ScS	11 20 20.8	-0.1
KAKA	Kakadu	47.42	269	⇓*i*P	P	11 11 46.1	-0.5
	82nm,0.6s,mb5.4						
KAKA				*e*S	S	11 17 57.6	-3.2
FORT	Forrest	49.89	245	⇓*i*P	P	11 12 04.3	-0.5
	239nm,0.7s,mb5.7						
FITZ	Fitzroy Crossi	52.88	261	⇓*i*P	P	11 12 26.5	-0.1
	16nm,0.6s,mb4.5						
FITZ	Fitzroy Crossi	52.88	261	P	P	11 12 26.6	-0.1
	11nm,0.3s,mb4.7,baz=104,slow=3.0,SNR=115						
MBWA	Marble Bar	57.93	256	*e*P	P	11 13 00.8	-0.9
	46nm,0.7s,mb4.8						
KLBR	Kellerberrin	58.71	244	*e*P	P	11 13 06.1	-0.7
	44nm,0.7s,mb4.8						
NWAO	Narrogin (SRO)	59.10	242	*e*P	P	11 13 08.9	-0.5
	15nm,0.8s,mb4.3						
MUN	Mundaring	60.01	243	⇑*i*P	P	11 13 15.4	+0.1
	17nm,0.8s,mb4.4						
SBA	Scott Base	60.47	184	P	P	11 13 19.4	+1.6
	5.9nm,0.8s,mb4.0						
VNDA	Vanda	60.49	185	P	P	11 13 19.6	+1.6
	2.5nm,0.8s,baz=12,slow=4.9,SNR=10						
VNDA	Vanda	60.49	185	*e*P	P	11 13 18.9	+0.9
	6.9nm,1.3s,mb3.8						
NINI	Niniconang	61.70	275	⇓*e*P	P	11 13 27.3	+0.6
	488nm,0.8s						
KEDI	Kedomdong	64.01	269	⇑*e*P	P	11 13 40.3	-1.3
	94nm,0.6s,mb5.4						
RATI	Rata	64.50	269	⇓*e*P	P	11 13 44.0	-0.7
KELI	Kelakatan	65.63	269	⇓*e*P	P	11 13 50.5	-1.2
	194nm,0.4s						
SRDI	Scrawed	65.89	269	⇑*e*P	P	11 13 52.0	-1.3
CASY	Casey	66.12	205	*e*P	P	11 13 54.3	+0.4
	36nm,1.1s,mb4.8						
CASY				*e*		11 14 08.6	
MAJO	Matsushiro	67.76	323	*e*P	P	11 14 03.5	-1.0
	19nm,0.6s,mb4.8						
MAT	Matsushiro	67.76	323	P	P	11 14 03.3	-1.2
MAT	Matsushiro	67.76	323	*e*P	P	11 14 03.0	-1.5
	19nm,0.8s,mb4.7						
QSPA	South Pole Qui	72.20	180	⇑*i*P	P	11 14 31.7	+1.7
	12nm,0.9s,mb4.3						
YSS	Yuzh-Sakhalins	73.29	333	*e*P	P	11 14 36.9	+0.2
	22nm,0.8s,mb4.6						
MDJ	Mudanjiang	78.04	325	P	P	11 15 03.6	+0.8
MDJ				PP	PP	11 18 11.4	+1.7
MDJ				S	S	11 24 12.6	+0.5
MDJ				AMB	AMB		
	comp=Z,43nm,1.1s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,48nm,6.1s						
MDJ	Mudanjiang	78.04	325	*e*P	P	11 15 03.3	+0.5
	comp=Z,45nm,0.9s,mb4.8						
YBH	Yreka Blue Hor	78.58	39	P	P	11 15 06.2	+0.4
	comp=Z,1.3nm,0.5s,baz=69,slow=4.0,SNR=5.8						
MTUM	Tungsten Hills	78.74	45	*e*P	P	11 15 07.3	+0.7
MTUM				*e*pP	pP	11 17 08.7	+4.8
NVAR	Mina Array Bea	79.49	44	P	P	11 15 11.4	+0.8
	comp=Z,3.3nm,0.8s,mb3.7,baz=225,slow=9.1,SNR=23						
NVAR				pP	pP	11 17 11.9	+3.8
	comp=Z,2.5nm,1.0s,baz=225,slow=9.6,SNR=5.6						
LDFC	Landfair	79.94	48	*e*P	P	11 15 13.9	+0.9
LDFC				*e*pP	pP	11 17 15.2	+4.5
LDFC				*e*sP	sP	11 18 05.6	+0.1
MOD	Modoc	80.14	40	*e*P	P	11 15 14.3	+0.4
	comp=Z,5.3nm,0.8s,mb3.9						
MOD				*e*pP	pP	11 17 16.0	+4.4
MA2	Magadan	81.10	345	*e*P	P	11 15 17.0	-1.5
	comp=Z,17nm,0.8s,mb4.5						
SNG	Songkhla	83.50	280	P	P	11 15 32.0	+0.5
	comp=Z,162nm,1.0s,mb5.5						
BJT	Baijiatuau	83.62	315	⇓*i*P	P	11 15 31.8	+0.2
	comp=Z,50nm,1.2s,mb4.9						
MAW	Mawson	83.86	200	P	P	11 15 32.8	+0.8
	comp=Z,5.4nm,0.7s,mb4.2,baz=139,slow=11,SNR=4.1						
ENH	Enshi	84.10	304	*e*P	P	11 15 34.9	+0.7
	comp=Z,127nm,1.2s,mb5.3						
MCK	McKinley	84.52	13	*e*P	P	11 15 34.2	-1.2
	comp=Z,5.8nm,0.9s,mb4.1						
COLA	College	85.75	13	*e*P	P	11 15 39.3	-2.0
	comp=Z,12nm,1.1s,mb4.4						
ILAR	Eielson Array	85.86	13	P	P	11 15 40.6	-1.3
	comp=Z,2.0nm,0.4s,mb4.1,baz=230,slow=5.2,SNR=85						
ILAR				pP	pP	11 17 45.1	+3.7
	comp=Z,5.0nm,1.3s,baz=233,slow=6.5,SNR=3.6						
TXAR	Lajitas Array	86.10	58	P	P	11 15 45.5	+1.6
	comp=Z,2.6nm,0.7s,mb4.0,baz=222,slow=6.3,SNR=35						
TXAR				pP	pP	11 17 48.1	+4.6
	comp=Z,0.8nm,1.1s,baz=214,slow=6.5,SNR=3.0						
TXAR				PKKPbc		11 33 40.5	
	comp=Z,0.1nm,0.5s,baz=63,slow=2.0,SNR=5.1						
TXAR	Lajitas Array	86.10	58	P	P	11 15 45.5	+1.6
TXAR				pP	pP	11 17 48.1	+4.6
TXAR				PKKPbc		11 33 40.5	
HIA	Hailar	86.23	325	*e*P	P	11 15 43.2	-0.7
	comp=Z,22nm,1.2s,mb4.7						
PDAR	Pinedale Array	87.42	43	P	P	11 15 50.3	+0.6
	comp=Z,1.0nm,0.6s,baz=199,slow=2.4,SNR=12						
PDAR				pP	pP	11 17 53.9	+4.1
	comp=Z,0.6nm,1.0s,baz=231,slow=5.8,SNR=2.5						
PDAR				PP	PP	11 19 22.9	-2.9
	comp=Z,0.6nm,0.7s,baz=256,slow=6.1,SNR=5.3						
CMAR	Chiang Mai Arr	88.71	290	P	P	11 15 57.7	+1.4
	comp=Z,14nm,0.9s,mb4.8,baz=105,slow=3.0,SNR=62						
CMAR				PP	PP	11 19 34.2	-2.3
	comp=Z,1.0nm,0.8s,baz=111,slow=6.6,SNR=4.5						
CHG	Chiang Mai	88.83	290	⇓P	P	11 15 57.9	+1.0
	comp=Z,17nm,0.8s,mb4.9						
SNAA	Sanae	90.66	179	⇑*i*	P	11 16 04.8	+0.7
VNA3	Neumayer Olymp	90.81	176	⇑*i*	P	11 16 08.0	+3.2
VNA2	Neumayer--Watz	91.25	177	⇑*i*	P	11 16 09.0	+2.2
ULN	Ulaanbaatar	93.00	320	*e*P	P	11 16 15.4	0.0
	comp=Z,14nm,1.1s,mb4.9						
SONM	Songino Array	93.40	319	P	P	11 16 17.4	+0.2
	comp=Z,3.1nm,1.0s,mb4.3,baz=130,slow=4.7,SNR=15						
SONM				PP	PP	11 20 14.1	+1.6
	comp=Z,0.7nm,0.9s,baz=108,slow=7.8,SNR=4.4						
YKA	Yellowknife Ar	94.34	25	P	P	11 16 20.6	-0.5
	comp=Z,0.3nm,0.5s,mb3.7,baz=237,slow=4.5,SNR=18						
YKA				PP	PP	11 20 17.4	-1.8
	comp=Z,0.1nm,0.7s,baz=234,slow=9.6,SNR=3.8						
YKA				PKKPbc		11 33 16.4	
	comp=Z,0.1nm,0.4s,baz=33,slow=2.4,SNR=3.9						
KURK	Kurchatov	111.67	318	*e*PKPdf	PKPdf	11 21 31.6	+0.1
TKM2	Tokmak 2	113.42	310	*e*PKPdf	PKPdf	11 21 35.2	0.0
UCH	Uchtor	114.19	309	*e*PKPdf	PKPdf	11 21 37.6	+0.8
AAK	Ala-Archa	114.22	309	*e*PKPdf	PKPdf	11 21 36.1	-0.7
EKS2	Erkin-Say	114.75	309	*e*PKPdf	PKPdf	11 21 38.5	+0.7
AML	Almayashu	114.79	309	*e*PKPdf	PKPdf	11 21 38.9	+1.0
CHKZ	Chkalovo	116.50	322	*e*PKPdf	PKPdf	11 21 40.5	-0.4
BRVK	Borovoye	116.76	321	*e*PKPdf	PKPdf	11 21 41.4	-0.1
ARCES	ARCESS Array B	126.23	350	PKP	PKPdf	11 21 59.9	+0.6
	comp=Z,2.6nm,0.5s,baz=17,slow=1.6,SNR=21						
FINES	FINESS Array B	133.09	344	PKhKP		11 22 04.1	
	comp=Z,2.1nm,0.8s,baz=315,slow=2.7,SNR=4.7						
FINES				PKP	PKPdf	11 22 12.8	+0.3
	comp=Z,2.9nm,0.8s,baz=72,slow=4.4,SNR=12						
FINES				PP	PP	11 24 50.1	+1.2
	comp=Z,1.4nm,0.7s,baz=63,slow=4.3,SNR=4.7						
FINES	FINESS Array B	133.09	344	PKP		11 22 04.1	
FINES				PKP	PKPdf	11 22 12.8	+0.3
FINES				PP	PP	11 24 50.1	+1.2
NB2	NORSAR Subarra	136.30	353	PKP	PKPdf	11 22 20.2	+1.8
	comp=Z,0.8nm,0.5s,baz=12,slow=2.3						
NOA	NORSAR Array B	136.30	353	PKhKP		11 22 08.1	
	comp=Z,0.4nm,0.7s,baz=42,slow=4.3,SNR=2.8						
NOA				PKP	PKPdf	11 22 19.8	+1.4
	comp=Z,1.0nm,0.6s,baz=15,slow=4.0,SNR=3.5						
HFS	Hagfors	136.85	351	PKhKP		11 22 07.8	
	comp=Z,2.4nm,0.4s,baz=90,slow=1.5,SNR=13						
HFS				PKP	PKPdf	11 22 19.8	+0.4
	comp=Z,3.3nm,0.7s,baz=117,slow=3.3,SNR=4.5						
HFS	Hagfors	136.85	351	PKP		11 22 07.8	
HFS				PKP	PKPdf	11 22 19.8	+0.4
KMBO	Kilima Mbogo	140.01	246	PKP	PKPdf	11 22 28.6	+2.2
	comp=Z,2.2nm,0.7s,baz=94,slow=1.9,SNR=6.0						
KMBO	Kilima Mbogo	140.01	246	*e*PKPdf	PKPdf	11 22 28.6	+2.1
AKASG	Malin Array Be	140.43	332	PKhKP		11 22 19.7	
	comp=Z,1.9nm,0.4s,baz=42,slow=4.0,SNR=15						
AKASG				PKP	PKPdf	11 22 28.2	+2.0
	comp=Z,2.1nm,0.4s,baz=34,slow=2.5,SNR=8.5						
MALT	Malatya	141.85	310	*e*PKPpre		11 22 26.9	
BLJS	Baljurashi	141.99	280	P	PKPdf	11 22 29.2	-0.5
EKA	Eskdalemuir Ar	142.42	4	PKhKP		11 22 20.1	
	comp=Z,0.6nm,0.3s,baz=275,slow=3.7,SNR=4.4						
EKA				PKP	PKPdf	11 22 31.1	+1.7
	comp=Z,1.5nm,0.3s,baz=321,slow=1.1,SNR=8.4						
BSEG	Bad Segeberg	143.33	351	*e*PKPbc	PKPbc	11 22 30.4	+0.4
BNN	Bunyan	143.49	312	*i* P	PKPbc	11 22 32.2	+1.2
YOZ	Yozgat	143.52	314	P	PKPbc	11 22 32.4	+1.4
TOS	Tosya	143.73	316	P	PKPbc	11 22 33.2	+1.6
BALT	Daday	143.89	318	*i* P	PKPbc	11 22 33.6	+1.5
DCN	Croghan	143.93	9	*e*P	PKPbc	11 22 31.5	-0.3
KWP	Kalwaria	143.95	336	*e*PKP	PKPdf	11 22 32.8	+0.6
DLF	Lyons Farm	144.09	8	*e*P	PKPbc	11 22 32.2	0.0
KBRS	Khaybar	144.09	289	P	PKPbc	11 22 34.9	+1.8
COBT	Iskenderun	144.12	308	*i* P	PKPbc	11 22 34.4	+1.5
CANT	Cankiri	144.21	316	P	PKPbc	11 22 34.7	+1.7
AVNT	Avonos	144.22	313	*i* P	PKPdf	11 22 34.2	+1.1
ELDT	Eldivan	144.40	316	*i* P	PKPdf	11 22 35.1	+1.8
SAFT	Safranbolu	144.49	318	P	PKPdf	11 22 34.7	+1.2
OJC	Ojcow	144.50	340	*e*PKP	PKPdf	11 22 34.5	+1.3
BRTR	Keskin Array B	144.63	315	PKP	PKPdf	11 22 35.1	+1.4
	comp=Z,14nm,0.5s,baz=117,slow=2.8,SNR=81						
KOLS	Kolonicke sedl	144.69	336	*i* PKP	PKPdf	11 22 35.5	+1.9
KOLS				*e*		11 22 43.0	
NIG	Nigde	144.69	312	*i* P	PKPdf	11 22 35.4	+1.5
KAMT	Kaman	144.75	314	*i* P	PKPdf	11 22 34.9	+0.9
NIE	Niedzica	145.01	338	*e*PKP	PKPdf	11 22 36.7	+2.6
KSP	Ksiaz	145.01	344	*e*PKP	PKPdf	11 22 36.2	+2.1
CRVS	Cervenica-Dubn	145.02	337	*e*PKP	PKPdf	11 22 36.6	+2.5
ANTO	Ankara	145.12	316	P	PKPdf	11 22 32.7	-1.9
LOD	Lodumlu	145.13	316	P	PKPdf	11 22 37.2	+2.5
SGKT	Sivrigoynuk	145.25	317	*i* P	PKPdf	11 22 37.3	+2.5
CLZ	Clausthal	145.35	350	*e*PKPbc	PKPbc	11 22 37.3	+1.6
OKC	Ostrava-Krasne	145.37	341	*e*PKP	PKPdf	11 22 37.2	+2.5
CLL	Collm	145.37	347	*i* PKP1	PKPbc	11 22 36.8	+1.0
UPC	Upice	145.39	344	*e*PKP	PKPdf	11 22 37.5	+2.8
DPC	Dobruska-Polom	145.45	343	*e*PKP	PKPdf	11 22 37.9	+3.1
MEST	Erdemli	145.66	310	*i* P	PKPdf	11 22 38.2	+2.6
MLR	Muntele Rosu	145.70	329	PKPbc	PKPbc	11 22 38.2	+1.4
	comp=Z,7.7nm,0.4s,baz=5.7,slow=1.7,SNR=25						
PVCC	Panska Ves	145.74	345	*e*PKP	PKPdf	11 22 38.5	+3.2
MBAR	Mbarara	145.82	241	*e*PKPdf	PKPdf	11 22 39.4	+2.8
MDU	Mudurnu	145.85	318	P	PKPdf	11 22 37.9	+2.0
HENT	Hendek	145.86	318	*i* P	PKPdf	11 22 35.6	-0.2
HMDT	Nahal Hemdat	146.10	302	P	PKPdf	11 22 36.4	-0.1
MMLI	Mount Malkishu	146.13	302	P	PKPdf	11 22 36.7	+0.1
TBKS	Tabuk	146.17	294	P	PKPdf	11 22 40.8	+4.0
MKRJ	Makawir	146.20	300	P	PKPdf	11 22 36.6	-0.1
KIZT	Kizilcal	146.23	315	*i* P	PKPdf	11 22 39.4	+2.9
PRU	Pruhonice	146.25	345	*e*PKP	PKPdf	11 22 39.5	+3.3
VRAC	Vranov	146.31	342	PKPbc	PKPbc	11 22 40.0	+1.9
	comp=Z,14nm,0.8s,baz=64,slow=4.0,SNR=7.7						
VYHS	Vyhne	146.31	339	*e*PKP	PKPdf	11 22 40.2	+3.9
VYHS				*e*		11 22 54.5	
DRGI	Dragot	146.40	301	P	PKPdf	11 22 37.0	0.0
PSZ	Piszkesteto	146.42	337	*e*PKPbc	PKPbc	11 22 39.9	+1.5
NKC	Novy Kostel	146.50	347	*e*PKP	PKPdf	11 22 40.5	+3.9
JMQS	Jabal Moqyreh	146.63	296	P	PKPdf	11 22 42.0	+4.5
DBAS	Duba	146.84	293	P	PKPdf	11 22 42.5	+4.6
ZFRI	Zfri	146.85	299	P	PKPdf	11 22 38.3	+0.5
CSS	Prodhromos	146.92	307	*e*PKPbc	PKPbc	11 22 41.4	+1.4
CSS				*e*PKPab	PKPab	11 22 45.6	-0.7
PRNI	Paran	147.04	298	P	PKPdf	11 22 39.0	+0.9
ZST	Bratislava	147.14	341	*e*PKP	PKPdf	11 22 42.8	+5.1
JMOS	Jabal al Moall	147.23	296	P	PKPdf	11 22 43.2	+4.8
EIL	Elat	147.25	297	P	PKPdf	11 22 39.2	+0.7
EIL	Elat	147.25	297	*e*PKPdf	PKPdf	11 22 39.4	+0.9
EIL				*e*PKPbc	PKPdf	11 22 43.3	+4.9
EIL				*e*PKPab	PKPab	11 22 46.8	-1.0
MBH	Mount Berech	147.25	298	P	PKPdf	11 22 39.4	+0.9
GRA1	Grafenberg Arr	147.27	348	*e*PKPbc	PKPdf	11 22 42.7	+4.9
GRA1				*e*PKPab	PKPab	11 22 46.2	-1.0
KHC	Kasperske Hory	147.28	345	*e*PKP	PKPdf	11 22 42.7	+4.8
ULDT	Uludag	147.35	319	*i* P	PKPdf	11 22 39.0	+0.7
BDAS	Al Bad‘	147.39	295	P	PKPdf	11 22 43.4	+4.7
KZIT	Kziot	147.40	300	P	PKPdf	11 22 39.7	+1.0
HAQS	Haql	147.41	296	P	PKPdf	11 22 43.7	+5.0
GEC2	GERESS Array S	147.51	345	*e*PKPbc	PKPdf	11 22 43.2	+4.9
GERES	GERESS Array B	147.51	345	PKPbc	PKPdf	11 22 43.2	+4.9
	comp=Z,2.9nm,0.5s,baz=63,slow=3.0,SNR=8.5						
TAYS	Tayyib Ism	147.56	295	P	PKPdf	11 22 44.1	+5.1
ISP	Isparta	147.68	314	*e*PKPbc	PKPdf	11 22 42.5	+3.6
GIVF	Givet	147.71	356	*e*PKP1	PKPdf	11 22 43.1	+4.6
	comp=Z,49nm,0.7s						
BAIF	Baives	147.79	357	*e*PKP1	PKPdf	11 22 43.5	+4.8
	comp=Z,34nm,0.7s						
WLF	Walferdange	148.03	354	*e*PKPbc	PKPdf	11 22 44.9	+5.8
BTOK	Tokmak	148.27	319	*i* P	PKPdf	11 22 45.2	+5.5
MOA	Molln	148.28	343	⇓*i*P	PKPdf	11 22 45.1	+5.6
	comp=Z,30nm,1.5s						
ARSA	Arzberg	148.47	341	⇓*i*P	PKPdf	11 22 45.8	+6.0
	comp=Z,8.4nm,0.8s						
DNZL	Cakiroluk	148.75	315	*i* P	PKPdf	11 22 47.2	+6.6
BFO	Black Forest	149.08	351	*e*PKPbc	PKPdf	11 22 46.8	+6.0
FLN	La Foliniere	149.13	2	*e*PKP1	PKPdf	11 22 46.4	+5.6
	comp=Z,54nm,0.8s						
PERS	Pernice	149.14	341	*i* PKPbc	PKPdf	11 22 46.6	+5.7
CDF	Champ du Feu	149.14	352	*e*PKP1	PKPdf	11 22 46.8	+5.9
	comp=Z,35nm,0.8s						
KBA	Koelnbreinsper	149.24	344	⇑*i*P	PKPdf	11 22 46.8	+5.7
	comp=Z,15nm,0.4s						
MEZF	Maizieres J’vi	149.28	355	*e*PKP1	PKPdf	11 22 47.3	+6.2
	comp=Z,21nm,0.5s						
LDF	La Druitiere	149.31	2	*e*PKP1	PKPdf	11 22 46.7	+5.6
	comp=Z,28nm,0.5s						
WATA	Walderalm	149.43	346	⇓*i*P	PKPdf	11 22 47.8	+6.4
	comp=Z,11nm,0.4s						
GRR	Gorron	149.48	3	*e*PKP1	PKPdf	11 22 47.3	+5.9
	comp=Z,37nm,0.6s						
WTTA	Wattenberg	149.49	346	⇓*i*P	PKPdf	11 22 48.1	+6.6
	comp=Z,20nm,0.4s						
SGMF	Saint Gilles	149.50	5	*e*PKP1	PKPdf	11 22 47.1	+5.6
	comp=Z,27nm,0.7s						
DIVS	Divcibare	149.52	333	⇑P	PKPdf	11 22 48.1	+6.5
MOTA	Moosalm	149.53	347	⇓*i*P	PKPdf	11 22 48.0	+6.5
	comp=Z,3.5nm,0.4s						
KDAG	Bornova	149.54	318	*i* P	PKPdf	11 22 46.7	+4.8
SQTA	Sankt Quirin	149.62	347	⇓*i*P	PKPdf	11 22 48.3	+6.6
	comp=Z,15nm,0.5s						
HAU	Haudompre	149.65	353	*e*PKP1	PKPdf	11 22 47.9	+6.2
	comp=Z,19nm,0.5s						
LEGS	Legarje	149.69	341	*i* PKPbc	PKPdf	11 22 48.3	+6.4
LEGS				*i* PKPab	PKPab	11 22 55.5	-1.6
HINF	Hinteralfeld	149.78	353	*e*PKP1	PKPdf	11 22 48.0	+6.1
	comp=Z,15nm,0.8s						
DAVA	Damuels	149.83	349	⇓*i*P	PKPdf	11 22 48.9	+6.9
	comp=Z,41nm,1.2s						
LJU	Ljubljana	149.85	342	*e*PKPbc	PKPdf	11 22 48.5	+6.4
VISS	Visnje	149.97	341	*e*PKPbc	PKPdf	11 22 49.0	+6.7
VISS				*i* PKPab	PKPab	11 22 56.6	-1.7
VOY	Vojsko	150.05	342	*e*PKPbc	PKPdf	11 22 48.7	+6.3
BDRM	Kayabasi	150.17	315	*i* P	PKPdf	11 22 50.5	+7.6
DAVOX	Davos	150.31	348	PKPbc	PKPdf	11 22 50.3	+7.5
	comp=Z,31nm,0.6s,baz=265,slow=2.4,SNR=40						
SKO	Skopje	150.50	329	*i* P	PKPdf	11 22 50.6	+7.4
HYF	Humbligny	150.64	358	*e*PKP1	PKPdf	11 22 50.6	+7.3
SSF	Saint Saulge	150.82	357	*e*PKP1	PKPdf	11 22 50.8	+7.3
	comp=Z,63nm,0.9s						
CABF	La Chapelle	151.06	353	*e*PKP1	PKPdf	11 22 51.8	+7.9
	comp=Z,33nm,0.8s						
AVF	Avril sur Loir	151.09	357	*e*PKP1	PKPdf	11 22 50.9	+7.0
	comp=Z,9.4nm,0.6s						
MFF	Saint Martin d	151.30	2	*e*PKP1	PKPdf	11 22 51.5	+7.3
	comp=Z,29nm,0.7s						
BGF	Bois d’Agland	151.35	358	*e*PKP1	PKPdf	11 22 51.8	+7.5
	comp=Z,19nm,0.5s						
TCF	Toulx Ste Croi	151.63	359	*e*PKP1	PKPdf	11 22 52.3	+7.6
	comp=Z,13nm,0.7s						
LPL	La Plagne	152.06	352	*e*PKP1	PKPdf	11 22 54.3	+9.0
LPG	La Plagne	152.08	352	*e*PKP1	PKPdf	11 22 54.4	+9.1
RJF	Les Rejaudoux	152.62	360	*e*PKP1	PKPdf	11 22 54.5	+8.4
ORIF	Oris-en-Rattie	152.75	353	*e*PKP1	PKPdf	11 22 55.2	+8.9
	comp=Z,9.5nm,0.6s						
MBDF	Montbardon	152.83	352	*e*PKP1	PKPdf	11 22 55.4	+9.0
	comp=Z,16nm,0.7s						
IDI	Anoyia	152.87	314	PKPbc	PKPdf	11 22 55.4	+8.6
	comp=Z,5.8nm,0.5s,baz=135,slow=4.3,SNR=9.7						
CAF	Calviac	153.00	359	*e*PKP1	PKPdf	11 22 55.6	+8.9

IDC ***02*** *11:46:03.0±3.8, 4.23S×135.57E, mb4.0/1, mb1 4.0/4, mb1mx3.8/12, ML3.4/3, MS3.4/1, Ms1 3.4/1, ms1mx2.7/17, Error ellipse: s-maj=74.5km s-min=32.7km az=98.0*

NEIC ***02*** *11:46:11.8±6.1, 4.62S×135.51E, h35^{km}, mb4.1/1, Error ellipse: s-maj=80.6km s-min=41.8km az=171.0*

ISC 02 11:46:04.0±3.5**, 4.2S**±0.2×**135.4E**±0.2**, h22**^{km}±41^{km}**, n9,** σ**0**^{s}**81**/12**, mb3.7**/1**, MS3.4**/1**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	8.92	199	*e*P	P	11 48 15.2	+0.6
	6.3nm,0.4s						
WRAB	Tennant Creek	15.64	184	*e*P	P	11 49 49.4	+4.5
	9.3nm,0.7s						
WB2	Warramunga Arr	15.65	184	*e*P	P	11 49 44.2	-0.9
WB2				*e*S	S	11 52 37.5	-0.6
WRA	Warramunga Arr	15.65	184	Pn	P	11 49 43.7	-1.4
	0.1nm,0.3s,baz=2.5,slow=13,SNR=8.1						
WRA				Sn	S	11 52 39.3	+1.2
	0.2nm,0.3s,baz=8.4,slow=24,SNR=5.0						
FITZ	Fitzroy Crossi	16.76	214	Pn	P	11 49 59.9	+0.6
	0.1nm,0.3s,baz=45,slow=13,SNR=4.9						
FITZ				Sn	S	11 53 03.4	-0.6
	0.3nm,0.3s,baz=194,slow=17,SNR=4.9						
ASAR	Alice Springs	19.37	184	P	P	11 50 31.9	+0.6
	0.5nm,0.3s,baz=9.0,slow=11,SNR=37						
ASAR				S	S	11 54 11.1	+7.9
	0.1nm,0.3s,baz=4.1,slow=25,SNR=3.7						
ASPA	Alice Springs	19.37	184	*e*P	P	11 50 32.0	+0.7
STKA	Stephens Creek	28.11	169	P	P	11 51 56.3	-0.2
	1.4nm,0.7s,mb3.7,baz=337,slow=7.7,SNR=3.1						
ASAJ	Asahikawa	48.56	7	LR	LR	12 14 53.2	
	comp=Z,46nm,21.0s,MS3.4,baz=349,slow=36						

IDC 02 11:46:42.1±6.1**, 33.18N**×**91.28E, h44**^{km}±55^{km}**, mb3.5**/3**, mb1 3.7**/5**, mb1mx3.5**/17**, ML3.6**/2**, Error ellipse: s-maj=89.9km s-min=23.0km az=76.0, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	16.19	153	P	P	11 50 26.7	-1.4
	0.1nm,0.3s,baz=331,slow=10,SNR=7.3						
SONM	Songino Array	18.56	33	P	P	11 50 55.3	-2.1
	0.0nm,0.3s,baz=216,slow=12,SNR=8.5						
ZAL	Zalesovo	21.26	349	P	P	11 51 24.2	-2.3
	0.9nm,0.6s,baz=295,slow=13						
WRA	Warramunga Arr	66.93	136	P	P	11 57 29.4	-2.9
	0.7nm,1.0s,baz=328,slow=7.9,SNR=4.7						
ASAR	Alice Springs	69.61	139	P	P	11 57 47.4	-1.5
	0.8nm,0.6s,baz=325,slow=6.1,SNR=7.0						
ILAR	Eielson Array	72.39	22	P	P	11 58 03.2	-1.6
	0.5nm,0.7s,baz=310,slow=5.1,SNR=6.1						

CASC ***02*** *12:03:30.4±2.5, 12.43N×89.05W, h20^{km}±9^{km}, MD4.5, ML4.1, mb4.6(NEIC)*

BJI ***02*** *12:03:36.5, 12.70N×88.70W, h79^{km}, mB4.7, Ms4.8, Msz4.4*

NEIC ***02*** *12:03:36.6±1.2, 12.67N×88.72W, h80^{km}±11^{km}, mb4.6/38, Error ellipse: s-maj=11.8km s-min=5.5km az=55.0*

IDC ***02*** *12:03:47.3±4.3, 13.24N×88.71W, h148^{km}±40^{km}, mb3.9/12, mb1 4.1/13, mb1mx4.0/19, MS3.9/8, Ms1 3.9/8, ms1mx3.6/17, Error ellipse: s-maj=32.6km s-min=12.2km az=58.0*

ISC 02 12:03:31.6±0.6**, 12.47N**±0.04×**89.00W**±0.04**, h54**^{km}±4^{km}**, n120,** σ**1**^{s}**13**/127**, mb4.6**/41**, MS4.0**/9**, 17C-6D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNVI	San Vicente	1.14	8	⇑*e*P	P	12 03 51.1	-0.5
SNVI				*e*P		12 03 51.5	

SNVI				eS	S	12 04 06.2	-0.3
LFRS	El Faro	1.14	357	⇑iP	P	12 03 51.3	-0.3
LCBS	La Ceiba	1.18	1	⇑eP	P	12 03 51.6	-0.4
BLLM	Bellamira	1.22	38	⇑eP	P	12 03 52.9	+0.3
BLLM				eS	S	12 04 11.9	+3.5
SNET	Serv Nac Est T	1.23	350	eP	P	12 03 52.0	-0.7
SNET				i		12 04 16.8	
	comp=Z,4µm,0.7s						
LBRS	Las Brisas	1.26	358	⇑eP	P	12 03 53.2	0.0
BOQS	Boqueron	1.28	348	⇑eP	P	12 03 53.5	-0.1
CNCH	Conchagua	1.39	55	⇓eP	P	12 03 55.1	-0.1
SBLS	San Blas	1.49	336	⇑eP	P	12 03 56.0	-0.5
SBLS				eS	S	12 04 17.9	+3.0
CAHU	Cacacuatique	1.50	31	⇑eP	P	12 03 57.6	+0.9
CAHU				eS	S	12 04 19.7	+4.3
SNJE	San Jose	1.50	337	⇓eP	P	12 03 56.4	-0.4
RTR	El Retiro	1.55	336	⇑eP	P	12 03 57.0	-0.3
CRIN	San Cristobal	1.92	83	eP	P	12 04 03.2	+0.7
PYN	Poneloya	1.94	92	⇑eP	P	12 04 01.6	-1.2
MTO2	Montecristo 2	1.95	350	⇓eP	P	12 04 03.3	+0.4
LEON	Leon	2.06	91	⇓eP	P	12 04 03.4	-1.2
LEON				eS	S	12 04 31.3	+2.3
TELN	Telica	2.12	86	eP	P	12 04 04.7	-0.7
MIRN	Miramar	2.24	91	⇑eP	P	12 04 05.8	-1.3
MIRN				eS	S	12 04 35.7	+2.2
CNGN	Cerro Negro	2.25	89	⇓eP	P	12 04 06.2	-1.0
MOMJ	Momotombo	2.41	91	eP	P	12 04 08.6	-0.9
MOMJ				eS	S	12 04 36.9	-0.9
APYN	Apoyeque	2.60	95	eP	P	12 04 11.6	-0.7
APYN				eS	S	12 04 44.6	+1.8
XAVN	Gruta Xavier	2.64	97	⇑eP	P	12 04 12.1	-0.6
XAVN				eS	S	12 04 45.6	+2.0
CRUN	El Crucero	2.69	100	eP	P	12 04 14.3	+0.8
MGAN	Managua	2.71	97	⇑eP	P	12 04 13.5	-0.3
MGAN				eS	S	12 04 46.2	+0.7
TICN	Ticuantepe	2.75	99	eP	P	12 04 14.2	-0.1
TICN				eS	S	12 04 45.8	-0.5
WILN	Americas 2	2.77	96	eP	P	12 04 13.8	-0.8
WILN				eS	S	12 04 47.0	0.0
MASN	Masaya	2.83	100	eP	P	12 04 14.9	-0.5
PYTN	Playitas	2.88	88	⇓eP	P	12 04 14.7	-1.4
PYTN				eS	S	12 04 51.0	+1.3
APON	Apoyo	2.92	101	⇑eP	P	12 04 16.2	-0.6
JTS	JuntasAbangare	4.53	118	eP	P	12 04 38.6	-0.8
JCR	Jicaral	4.62	124	eP	P	12 04 39.9	-0.8
CGA2	Cerro Gallo 2	5.08	118	eP	P	12 04 48.4	+1.3
PRS1	Puriscal	5.23	118	eP	P	12 04 50.3	+1.2
LAJ	Bijagual	5.45	118	⇑eP	P	12 04 47.5	-4.7
SJS	Escuela Geolog	5.47	117	eP	P	12 04 52.7	+0.2
SJS				eS	S	12 05 55.1	+0.2
TRTC	Tortuguero	5.52	109	eP	P	12 04 51.5	-1.6
LCR2	La Lucha 2	5.61	118	⇑eP	P	12 04 54.2	-0.2
URSC	Urasca	5.76	117	eP	P	12 04 57.5	+1.0
BUS	Buena Vista	5.91	119	eP	P	12 04 59.3	+0.7
ACR	Cerro Adams	6.88	123	⇑iP	P	12 05 12.6	+0.3
OTAV	Otavalo	16.04	138	P	P	12 07 18.9	+3.6
	comp=Z,13nm,1.0s						
DWPF	Disney	17.09	23	P	P	12 07 28.3	0.0
	comp=Z,43nm,1.0s						
SDV	Santo Domingo	18.40	99	eP	P	12 07 43.6	-1.1
	comp=Z,9.8nm,0.7s						
HKT	Hockley	18.51	341	eP	P	12 07 46.1	+0.2
	comp=Z,27nm,1.3s						
JCT	Junction City	20.52	333	eP	P	12 08 07.0	-0.9
	comp=Z,55nm,0.8s						
LRAL	Lakeview Retre	20.55	5	eP	P	12 08 08.5	+0.4
	comp=Z,33nm,1.0s						
LTX	Lajitas	21.62	323	eP	P	12 08 20.6	+1.6
	comp=Z,38nm,0.9s,mb4.8						
TXAR	Lajitas Array	21.62	323	P	P	12 08 20.4	+1.4
	comp=Z,23nm,0.8s,mb4.7,baz=146,slow=10,SNR=256						
TXAR				LR	LR	12 18 32.2	
	comp=Z,146nm,21.1s,MS3.4,baz=220,slow=42						
OXF	Oxford	21.94	359	eP	P	12 08 22.6	+0.5
	comp=Z,67nm,0.9s,mb5.1						
COW	Cow Castle Cre	22.15	19	eP	P	12 08 26.0	+1.8
MIAR	Mount Ida	22.36	350	eP	P	12 08 27.0	+0.7
	comp=Z,119nm,0.8s,mb5.4						
MIAR				e		12 08 35.5	
UALR	University of	22.41	353	eP	P	12 08 27.1	+0.4
	comp=Z,40nm,0.8s,mb4.9						
SJG	San Juan	22.74	73	P	P	12 08 32.1	+1.9
	comp=Z,11nm,0.7s,mb4.4						
SWET	Sewanee	22.81	6	eP	P	12 08 30.7	0.0
SWET				e		12 08 37.7	
HBAR	Harrisburg	23.03	357	eP	P	12 08 34.2	+1.3
CPCT	Cooper Cave	23.23	9	eP	P	12 08 35.3	+0.5
WVT	Waverly	23.58	2	eP	P	12 08 38.1	0.0
	comp=Z,10nm,0.8s,mb4.3						
WMOK	Wichita Mounta	23.88	340	eP	P	12 08 40.2	-0.9
	comp=Z,35nm,1.2s,mb4.7						
PARMO	Parma	24.10	359	eP	P	12 08 44.6	+1.4
CPRX	Cap Rock	24.57	329	eP	P	12 08 48.2	+0.3
AMTX	Amarillo	25.10	335	eP	P	12 08 53.4	+0.5
	comp=Z,27nm,0.7s,mb4.9						
USIN	University of	25.41	2	P	P	12 08 54.2	-1.6
FVM	French Village	25.44	357	eP	P	12 08 54.9	-1.1
	comp=Z,14nm,0.8s,mb4.5						
CCM	Cathedral Cave	25.55	356	eP	P	12 08 56.5	-0.7
	comp=Z,165nm,0.8s,mb5.6						
CCM				e		12 09 40.9	
CCM				ePcP	PcP	12 12 28.1	+0.1
WCI	Wyandotte Cave	25.76	5	eP	P	12 08 57.4	-1.7
	comp=Z,54nm,0.8s,mb5.1						
LPM	Los Pinos Moun	27.01	326	P	P	12 09 10.2	-0.5
ANMO	Albuquerque	27.41	328	P	P	12 09 16.3	+2.0
	comp=Z,0.7nm,0.5s,mb3.5,baz=136,slow=12,SNR=6.8						
ANMO	Albuquerque	27.41	328	P	P	12 09 16.1	+1.8
	comp=Z,2.3nm,1.1s,mb3.6						
TUC	Tucson	28.09	318	eP	P	12 09 21.3	+0.8
	comp=Z,11nm,1.0s,mb4.4						
TUC				e		12 09 25.6	
ACSO	Alum Creek Sta	28.15	10	eP	P	12 09 19.3	-1.6
	comp=Z,26nm,0.8s,mb4.9						
SDCO	Great Sand Dun	29.17	332	eP	P	12 09 30.6	+0.6
	comp=Z,5.8nm,1.0s,mb4.3						
ISCO	Idaho Springs	30.92	335	eP	P	12 09 46.1	+0.6
	comp=Z,4.6nm,1.0s,mb4.3						
PV01	Paradox Valley	30.94	329	eP	P	12 09 46.9	+1.2
PV10	Paradox Valley	31.36	329	eP	P	12 09 49.2	-0.3
PV10				ePcP	PcP	12 12 44.3	+2.0
NEN	Nelson	32.81	319	eP	P	12 10 03.1	+1.0
MSU	Marysvale	33.12	326	eP	P	12 10 05.6	+0.8
SAML	Samuel	33.34	128	eP	P	12 10 05.6	-1.2
	comp=Z,9.8nm,0.9s,mb4.7						
SAML				ePcP	PcP	12 12 52.1	+4.2
ARUT	Antelope Range	33.34	323	eP	P	12 10 07.6	+1.0
DAU	Daniels Canyon	34.02	329	eP	P	12 10 12.9	+0.4
TPNV	Topopah Spring	34.50	320	eP	P	12 10 18.4	+1.7
	comp=Z,5.1nm,1.1s,mb4.4						
TPNV				ePcP	PcP	12 12 53.6	+2.6
PDAR	Pinedale Array	35.05	333	P	P	12 10 21.4	+0.1
	comp=Z,1.3nm,0.8s,mb3.9,baz=135,slow=7.8,SNR=11						
PDAR				PcP	PcP	12 12 53.8	+1.2
	comp=Z,0.7nm,0.6s,baz=136,slow=5.3,SNR=4.5						
HWUT	Hardware Ranch	35.08	330	eP	P	12 10 22.4	+0.9
	comp=Z,4.1nm,0.8s,mb4.4						
LPAZ	La Paz	35.25	144	P	P	12 10 31.9	+8.7
	comp=Z,1.2nm,0.8s,mb3.9,baz=324,slow=13,SNR=3.7						
LPAZ				LR	LR	12 25 02.7	
	comp=Z,132nm,19.4s,MS3.7,baz=94,slow=36						
LPAZ	La Paz	35.25	144	eP	P	12 10 24.5	+1.3
	comp=Z,1.7nm,0.7s,mb4.1						
LPAZ				LR	LR	12 25 02.8	
EYMN	Ely	35.42	357	eP	P	12 10 22.3	-2.1
	comp=Z,30nm,0.7s,mb5.3						
EYMN				ePcP	PcP	12 12 55.1	+1.5
NVAR	Mina Array Bea	36.70	320	P	P	12 10 37.3	+2.1
	comp=Z,3.9nm,0.9s,mb4.2,baz=135,slow=7.8,SNR=24						
NVAR				PcP	PcP	12 12 59.4	+2.0
	comp=Z,1.9nm,0.7s,baz=138,slow=3.7,SNR=12						
NVAR				LR	LR	12 28 25.6	
	comp=Z,185nm,18.1s,MS3.9,baz=65,slow=41						
NVAR	Mina Array Bea	36.70	320	P	P	12 10 37.4	+2.1
NVAR				PcP	PcP	12 12 59.4	+2.0
NVAR				LR	LR	12 28 25.6	
YMR	Madison River	37.18	334	eP	P	12 10 39.8	+0.5
QLMT	Earthquake Lak	37.51	334	eP	P	12 10 43.3	+1.3
QLMT				ePP	PP	12 12 10.9	-0.1
QLMT				ePcP	PcP	12 13 02.9	+3.0
CMB	Columbia Colle	37.81	318	eP	P	12 10 45.9	+1.4
	comp=Z,7.6nm,1.1s,mb4.3						
HLID	Hailey	37.94	330	eP	P	12 10 46.4	+0.8
	comp=Z,2.0nm,0.8s,mb3.9						
HLID				ePcP	PcP	12 13 03.4	+2.2
DGMT	Dagmar	38.05	344	eP	P	12 10 46.6	+0.1
	comp=Z,66nm,1.1s,mb5.3						
ULM	Lac du Bonnet	38.09	353	P	P	12 10 44.9	-1.8
	comp=Z,16nm,0.8s,mb4.8,baz=173,slow=8.7,SNR=17						
ULM				LR	LR	12 28 36.4	
	comp=Z,226nm,19.6s,MS4.0,baz=145,slow=40						
ULM	Lac du Bonnet	38.09	353	P	P	12 10 44.9	-1.8
ULM				LR	LR	12 28 36.4	
MCMT	McKenzie Canyo	38.14	332	eP	P	12 10 49.0	+1.7
LVC	Limon Verde	40.05	150	P	P	12 11 10.7	+7.4
	comp=Z,1.5nm,0.7s,mb3.8,baz=284,slow=24,SNR=3.1						
LVC	Limon Verde	40.05	150	P	P	12 11 09.7	+6.4
	comp=Z,7.0nm,1.2s,mb4.3						
BMO	Blue Mountains	40.31	329	eP	P	12 11 04.4	-0.9
	comp=Z,3.4nm,1.1s,mb4.0						
SCHQ	Schefferville	45.70	18	P	P	12 11 47.0	-1.9
	comp=Z,15nm,0.8s,mb5.0,baz=207,slow=5.0,SNR=13						
SCHQ				LR	LR	12 33 05.3	
	comp=Z,208nm,18.0s,MS4.1,baz=279,slow=39						
FCC	Fort Churchill	46.36	356	eP	P	12 11 51.7	-2.3
	comp=Z,19nm,1.1s,mb4.9						
BDFB	Brasilia	49.25	123	P	P	12 12 23.6	+6.4
	comp=Z,2.1nm,0.4s,mb4.5,baz=299,slow=7.9,SNR=3.6						
BDFB				LR	LR	12 34 48.5	
	comp=Z,245nm,19.2s,MS4.2,baz=175,slow=38						
CPUP	Villa Florida	49.36	142	P	P	12 12 26.6	+8.7
	comp=Z,2.7nm,0.9s,mb4.3,baz=15,slow=5.8,SNR=3.6						
CPUP	Villa Florida	49.36	142	P	P	12 12 20.2	+2.3
	comp=Z,11nm,1.3s,mb4.7						
YKA	Yellowknife Ar	53.20	345	P	P	12 12 44.7	-1.7
	comp=Z,4.7nm,0.8s,mb4.5,baz=142,slow=7.7,SNR=53						
YKA				PcP	PcP	12 13 53.8	+0.1
	comp=Z,0.8nm,0.8s,baz=148,slow=3.9,SNR=4.3						
YKA				LR	LR	12 37 45.7	
	comp=Z,127nm,18.3s,MS4.0,baz=185,slow=39						
YKA	Yellowknife Ar	53.20	345	P	P	12 12 44.7	-1.7
YKA				PcP	PcP	12 13 53.9	+0.1
YKA				LR	LR	12 37 45.7	
YKW3	Yellowknife Ar	53.26	346	eP	P	12 12 44.8	-2.0
YKW3				e		12 12 52.7	
RES	Resolute Bay	62.28	358	eP	P	12 13 47.9	-2.2
	comp=Z,4.8nm,0.8s,mb4.7						
INK	Inuvik	62.73	343	eP	P	12 13 51.7	-1.5
	comp=Z,14nm,1.1s,mb5.0						
INK				e		12 13 59.3	
ILAR	Eielson Array	65.39	336	P	P	12 14 09.7	-0.8
	comp=Z,3.0nm,1.0s,mb4.3,baz=135,slow=4.0,SNR=8.7						
ILAR				LR	LR	12 48 06.6	
	comp=Z,95nm,20.4s,MS4.0,baz=358,slow=41						
MCK	McKinley	65.80	335	P	P	12 14 10.9	-2.2
	comp=Z,4.7nm,1.1s,mb4.4						
SUMG	Summit	66.95	15	eP	P	12 14 18.3	-1.9
	comp=Z,12nm,0.9s,mb4.9						
DBIC	Dimbokro	82.89	85	P	P	12 15 51.0	-1.6
GERES	GERESS Array B	88.90	40	P	P	12 16 21.0	-0.4
	comp=Z,0.2nm,0.3s,mb4.0,baz=288,slow=4.2,SNR=3.7						
CN2	Changchun	115.79	333	ePKP	PKPdf	12 22 14.6	+6.2
SONM	Songino Array	118.42	348	PKP	PKPdf	12 22 16.4	+3.1
	comp=Z,0.5nm,0.6s,baz=3.7,slow=1.4,SNR=4.5						
WMQ	Urumqi	123.90	3	PKP	PKPdf	12 22 25.3	+1.3
WMQ				PP	PP	12 24 13.5	+0.7
WMQ				PKS	PKS	12 26 00.7	+0.8
WMQ				SKS	SKS	12 29 25.9	+5.4
WMQ				SKKS		12 30 55.3	
WMQ				PP	PP		
	comp=Z,30nm,11.4s						
WMQ				LR	LR		
	comp=N,17nm,20.0s,MS4.2						
WMQ				LR	LR		
	comp=E,56nm,21.0s,MS4.2						
WMQ				LR	LR		
	comp=Z,75nm,23.7s,MS4.3						
WB2	Warramunga Arr	137.81	254	eP	PKPdf	12 23 00.7	+10
WRA	Warramunga Arr	137.82	254	PKP	PKPdf	12 22 54.3	+3.3
	comp=Z,0.5nm,0.7s,baz=93,slow=3.0,SNR=9.1						
ASAR	Alice Springs	137.87	249	PKP	PKPdf	12 22 54.1	+3.2
	comp=Z,0.4nm,0.7s,baz=107,slow=2.9,SNR=6.1						
CMAR	Chiang Mai Arr	148.28	346	PKPbc	PKPdf	12 23 12.6	+3.4
	comp=Z,7.6nm,0.8s,baz=325,slow=2.2,SNR=39						

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*CSEM **02** 12:13:22.2±0.1, 32.23N×35.36E, h2^{km}, ML2.0, Error ellipse: s-maj=3.5km s-min=2.1km az=77.0*

GII 02 12:13:22.6±0.2**, 32.24N×35.37E, h5**^{km}±1^{km}**, ML2.0**/3**, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HMDT	Nahal Hemdat	0.13	86	Pg	Pg	12 13 25.8	+0.4
HMDT	Nahal Hemdat	0.13	86	⇑Pg	Pg	12 13 25.8	+0.4
MMLI	Mount Malkishu	0.20	12	Pg	Pg	12 13 26.9	+0.2
MMLI	Mount Malkishu	0.20	12	⇑Pg	Pg	12 13 26.9	+0.2
OFRI	‘Ofer	0.50	319	Pg	Pg	12 13 32.3	-0.3
OFRI				Sg	Sg	12 13 40.7	+1.4
HAF	Haifa	0.61	331	Pg	Pg	12 13 34.8	0.0
DRGI	Dragot	0.65	178	Pg	Pg	12 13 35.4	-0.1
MKRJ	Makawir	0.73	162	Pg	Pg	12 13 37.1	0.0
KSHT	Keshet	0.82	27	Pg	Pg	12 13 38.8	-0.3
HNTI	Hanita	0.85	349	Sg	Sg	12 13 52.0	+0.9
HNTI	Hanita	0.85	349	Sg	Sg	12 13 51.9	+0.8
MZDA	Masada	0.93	180	Pg	Pg	12 13 40.3	-0.9

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*IDC **02** 12:38:32.3±2.0, 8.27S×125.18E, mb3.8/2, mb1 4.3/5, mb1mx4.0/12, ML3.8/3, MS3.0/3, Ms1 3.0/3, ms1mx2.7/16, Error ellipse: s-maj=93.1km s-min=24.4km az=58.0*

*NEIC **02** 12:38:38.0±3.4, 8.42S×124.84E, h133^{km}±33^{km}, mb4.5/7, Error ellipse: s-maj=28.6km s-min=22.4km az=127.0*

ISC 02 12:38:36.3±2.1**, 8.44S**±0.09×**124.78E**±0.10**, h129**^{km}±21^{km}**, n17, σ1§21**/22**, mb4.2**/6**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	8.64	120	eP	P	12 40 39.7	+0.2
	13nm,0.5s						
KAKA				eS	S	12 42 14.7	-1.0
FITZ	Fitzroy Crossi	9.64	175	eP	P	12 40 54.7	+1.8
	4.9nm,0.6s						
FITZ				eS	S	12 42 39.5	-0.2
FITZ	Fitzroy Crossi	9.64	175	Pn	P	12 40 54.2	+1.3
	0.4nm,0.3s,baz=12,slow=12,SNR=15						
FITZ				Sn	S	12 42 38.2	-1.4
	0.6nm,0.3s,baz=8.5,slow=11,SNR=2.9						
FITZ				LR	LR	12 45 12.9	
	comp=Z,44nm,18.6s,baz=32,slow=41						
WRA	Warramunga Arr	14.71	142	Pn	P	12 41 58.5	-0.6
	0.7nm,0.3s,baz=318,slow=13,SNR=25						
WRA				Sn	S	12 44 40.0	+1.1
	0.4nm,0.3s,baz=302,slow=25,SNR=5.7						
WRAB	Tennant Creek	14.71	142	eP	P	12 41 58.2	-0.9
	20nm,0.9s						
WRAB				eS	S	12 44 31.7	-7.2
WB2	Warramunga Arr	14.71	142	eP	P	12 41 59.0	-0.2
WB2				eS	S	12 44 38.4	-0.6
ASPA	Alice Springs	17.48	151	eP	P	12 42 39.9	+6.4
ASPA				eS	S	12 45 47.3	+5.7
ASAR	Alice Springs	17.48	151	P	P	12 42 36.9	+3.4
	0.4nm,0.3s,baz=321,slow=11,SNR=23						
ASAR				S	S	12 45 47.0	+5.4
	0.1nm,0.3s,baz=321,slow=21,SNR=7.9						
ASAR				LR	LR	12 49 52.6	
	comp=Z,68nm,19.7s,baz=326,slow=39						
PMG	Port Moresby	22.13	94	P	P	12 43 23.8	+1.7
	10.0nm,1.0s,mb4.2						
CTA	Charters Tower	23.78	121	LR	LR	12 52 37.5	
	comp=Z,49nm,20.3s,baz=45,slow=36						
NWAO	Narrogin (SRO)	25.35	195	P	P	12 43 49.6	-3.4
	21nm,1.0s,mb4.6						
STKA	Stephens Creek	28.07	148	P	P	12 44 25.8	+7.9
	1.3nm,0.8s,mb3.7,baz=333,slow=11,SNR=2.8						
CMAR	Chiang Mai Arr	36.94	316	P	P	12 45 44.5	+10
	1.1nm,1.0s,mb3.5,baz=138,slow=7.5,SNR=4.6						
ULN	Ulaanbaatar	58.22	346	P	P	12 48 17.6	-1.7
	3.6nm,0.7s,mb4.3						
CASY	Casey	58.58	187	P	P	12 48 21.5	-0.1
	15nm,0.8s,mb4.9						
VNDA	Vanda	71.69	172	P	PcP	12 50 00.3	-3.8
CHKZ	Chkalovo	76.86	330	P	PcP	12 50 24.7	-1.8

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*NAO **02** 12:39:58.8±3.0, 61.09N×29.06E, ML2.1*

*BER **02** 12:39:59.3±2.8, 60.96N×29.01E, ML2.1(NAO), Suspected explosion*

HEL 02 12:39:58.6±0.2**, 60.91N×29.13E, ML1.5, ML2.1**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJF	Virojoki	0.86	245	eP	Pg	12 40 14.1	-1.7
VJF				eS	Sg	12 40 24.0	-3.3
FIA0	FINESS Array S	1.57	291	Pn	Pn	12 40 25.9	-2.1
	baz=111,slow=16						
FIA0				Lg		12 40 46.6	
	baz=104,slow=37						
FIA0				Rg		12 40 53.5	
	baz=117,slow=37						
FIA0	FINESS Array S	1.57	291	ePG	Pg	12 40 27.0	-3.0
FIA0				eSN	Sn	12 40 49.1	-0.2
PVF	Pernaja	1.65	258	eP	Pn	12 40 27.4	-1.5
PVF				eS	Sb	12 40 48.9	-2.0
KAF	Kangasniemi	1.81	313	eP	Pn	12 40 30.5	-0.8
KAF				eS	Sn	12 40 53.2	-2.1
KAF				MSG		12 40 56.6	
	comp=Z,2.6nm,0.1s						
JOF	Joensuu	2.26	26	eP	Pn	12 40 38.4	+0.7
JOF				eSB	Sb	12 41 06.7	-1.9
SUF	Sumiainen	2.30	323	ePB	Pb	12 40 38.9	-1.8
SUF				eSB	Sb	12 41 07.9	-1.8
SUF				MSG		12 41 10.8	
	comp=Z,1.5nm,0.2s						
HFS	Hagfors	7.66	271	Pn	Pn	12 41 50.1	-4.0
	baz=91,slow=16						
HFS	Hagfors	7.66	271	eP	Pn	12 41 50.1	-4.0
ARA0	ARCESS Array S	8.79	352	Pn	P	12 42 04.3	-5.6
	baz=170,slow=14						
ARA0	ARCESS Array S	8.79	352	eP	P	12 42 04.3	-5.6

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*IDC **02** 12:54:15.7±0.6, 39.94N×77.49E, mb4.3/16, mb1 4.5/17, mb1mx4.4/22, ML3.8/1, MS3.7/6, Ms1 3.7/6, ms1mx3.3/24, Error ellipse: s-maj=19.9km s-min=12.2km az=44.0*

*BJI **02** 12:54:18.6, 40.03N×77.45E, h25^{km}, mB4.6, mb4.8, ML4.9, Ms4.2, Msz4.1*

*MOS **02** 12:54:19.9±1.6, 39.96N×77.48E, h33^{km}, mb4.6/21, Error ellipse: s-maj=11.5km s-min=6.8km az=97.9*

*NNC **02** 12:54:22.9±3.7, 40.46N×77.77E, mpv4.7, Error ellipse: s-maj=33.5km s-min=23.0km az=155.0*

*NEIC **02** 12:54:22.2±0.9, 39.92N×77.39E, h49^{km}±8^{km}, mb4.6/30, Error ellipse: s-maj=8.7km s-min=6.7km az=196.0*

ISC 02 12:54:19.1±0.4**, 39.74N**±0.02×**77.51E**±0.03**, h42**^{km}±4^{km}**, n173, σ1§37**/190**, mb4.5**/53**, MS3.8**/16**, 25C-16D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	1.21	260	⇑iPG	P	12 54 41.0	+1.2
KSH				SG	S	12 54 55.6	+0.4
ULHL	Ulahol	2.68	339	P	P	12 55 01.6	+0.7
	SNR=627						
KZA	Kyzart	2.89	324	P	P	12 55 04.9	+1.0
	SNR=160						
UCH	Uchtor	3.36	319	P	P	12 55 11.2	+0.6
	SNR=381						
UCH	Uchtor	3.36	319	ePn	P	12 55 11.1	+0.6
UCH				eSn	S	12 55 55.7	+6.0
TKM2	Tokmak 2	3.49	336	P	P	12 55 13.0	+0.7
	SNR=40						
TKM2	Tokmak 2	3.49	336	ePn	P	12 55 12.6	+0.3
TKM2				eSn	S	12 55 59.4	+6.6
KBK	Karagaybulak	3.49	327	P	P	12 55 13.0	+0.6
	SNR=101						
AAA	Alma-Ata	3.55	353	ePN	P	12 55 16.0	+2.8
AAA				e		12 55 58.0	
AAA				pmax	pmax		
	comp=Z,2µm,2.0s						
AAA				smax			
	comp=N,4µm,2.0s						
AAA				smax			
	comp=E,7µm,2.0s						
AAA				MLR	MLR		
	comp=N,9µm,8.0s						
AAA				MLR	MLR		
	comp=E,4µm,8.0s						
AAA				MLR	MLR		
	comp=Z,10µm,8.0s						
AAK	Ala-Archa	3.68	323	⇑Pn	P	12 55 15.8	+0.8
	comp=Z,566nm,0.8s						
AAK				⇑Lg		12 56 06.9	
	comp=Z,1µm,0.9s						
AAK				⇑Rg		12 56 29.5	
	comp=Z,4µm,8.9s						
AAK	Ala-Archa	3.68	323	P	P	12 55 15.8	+0.8
	SNR=120						
AAK	Ala-Archa	3.68	323	c iPN	P	12 55 14.7	-0.3
AAK	Ala-Archa	3.68	323	ePn	P	12 55 14.2	-0.8
AAK				eSn	S	12 56 06.3	+8.6
AML	Almayashu	3.75	311	P	P	12 55 17.2	+1.2
	SNR=325						
AML	Almayashu	3.75	311	ePn	P	12 55 17.1	+1.1
AML				eSn	S	12 55 60.0	+0.5
FRU	Bishkek	3.78	326	⇑iPN	P	12 55 18.0	+1.5
FRU				i		12 56 10.0	
FRU				pmax	pmax		
	comp=Z,800nm,1.0s						
FRU				pmax	pmax		
	comp=Z,3µm,2.0s						
FRU				smax			
	comp=E,6µm,2.4s						
CHMS	Chumysh	3.86	328	P	P	12 55 17.9	+0.4
	SNR=110						
EKS2	Erkin-Say	4.05	317	P	P	12 55 21.3	+1.0
	SNR=804						
EKS2	Erkin-Say	4.05	317	ePn	P	12 55 21.0	+0.7
EKS2				eSn	S	12 56 01.4	-5.7
USP	Ospenovka	4.18	328	P	P	12 55 21.8	-0.4
	SNR=53						
CHCP	Chirah Chowk	6.96	211	P	P	12 56 03.8	+2.6
DLH	Dalhousie	7.29	190	eP	P	12 56 06.0	+0.2
DLH				e		12 57 32.0	
CEP	Cherat	7.42	219	P	P	12 56 09.0	+1.5
CEP				S	S	12 57 32.0	+0.7
THN	Thein Dam	7.43	192	eP	P	12 56 08.6	+0.8
	comp=E,6.1nm,0.4s						
THN				e		12 57 38.1	
MK31	Makanchi Array	7.86	25	⇓Pn	P	12 56 11.8	-1.9
	comp=E,9.5nm,0.5s,baz=208,slow=13,SNR=109						
MK31				⇓Lg		12 58 03.1	
	comp=E,67nm,0.8s,baz=207,slow=17,SNR=3.8						
MK31				⇑Rg		12 59 15.1	
	comp=E,1µm,10.2s,baz=204,slow=13,SNR=3.9						
MKAR	Makanchi Array	7.86	25	i P	P	12 56 11.7	-2.0
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
PONG	Pong	7.87	190	eP	P	12 56 16.0	+2.2
PONG				e		12 57 47.0	
SDNR	Sundarnagar	8.23	183	⇑eP	P	12 56 19.8	+0.9
SDNR				e		12 57 50.0	
THW	Thamme Wali	8.35	216	⇑P	P	12 56 20.7	+0.3
SMLA	Simla	8.60	182	⇑iP	P	12 56 37.9	+14
SMLA				i S	S	12 58 08.9	+8.3
	comp=Z,1µm,0.4s						
WMQ	Urumqi	8.63	59	⇑iP	P	12 56 24.0	-0.4
WMQ				XP		12 56 31.8	
WMQ				S	S	12 58 00.5	-1.0
WMQ				PCP	PcP	13 02 48.7	-1.7
WMQ				AMB	AMB		
	comp=Z,34nm,0.7s						
WMQ				AMB	AMB		
	comp=Z,22nm,5.0s						
WMQ				Smax			
	comp=N,27nm,1.0s						
WMQ				Smax			
	comp=E,23nm,1.0s						
WMQ				LR	LR		
	comp=N,206nm,18.0s						
WMQ				LR	LR		
	comp=E,76nm,13.6s						
WMQ				LR	LR		
	comp=Z,506nm,19.0s						
SARP	Sargodha	8.73	208	⇑P	P	12 56 25.9	+0.1
SBDP	Sheikh Budin	9.20	218	P	P	12 56 31.4	-0.7
DDI	Dehra Dun	9.41	177	eP	P	12 56 35.9	+0.8
DDI				e		12 58 22.6	
DRP	Derazinda	9.94	219	P	P	12 56 42.0	-0.4
LGTI	Lohaghat	10.51	167	⇓iP	P	12 56 49.5	-0.7
LGTI				e		12 58 51.0	

KURK	Kurchatov	11.00	4	Pn	P	12 56 53.1	-3.7
	comp=Z,12nm,0.9s,baz=189,slow=9.8,SNR=32						
KURK				⇓Lg		12 59 56.8	
	comp=Z,134nm,1.4s,baz=121,slow=16,SNR=4.4						
KURK				⇑Rg		13 00 57.9	
	comp=Z,991nm,9.6s,baz=1.0,slow=13,SNR=3.3						
KURK	Kurchatov	11.00	4	d *i*P	P	12 56 52.9	-3.9
KURK				pmax	pmax		
	comp=Z,12nm,0.9s						
KURK	Kurchatov	11.00	4	*e*P	P	12 56 53.0	-3.8
NDI	New Delhi	11.03	181	*e*	P	12 56 54.0	-3.3
	comp=Z,86nm,0.5s						
NDI				*e*S	S	12 58 51.5	-8.9
AYAN	Aya Nagar	11.24	182	*e*P	P	12 56 58.4	-1.7
AYAN				*e*S	S	12 58 56.4	-8.9
SONA	Sohna	11.47	182	*e*P	P	12 57 01.4	-1.8
SONA				*e*S	S	12 59 00.5	-10
KUDL	Kundal	11.60	184	*e*P	P	12 57 02.9	-2.0
KUDL				*e*S	S	12 59 04.9	-9.2
KHET	Khetri	11.72	187	*e*P	P	12 57 05.2	-1.4
KHET				*e*S	S	12 59 06.6	-11
AGRA	Agra	12.48	178	*e*P	P	12 57 14.4	-2.4
KOLN	Koldanda	12.97	155	*e*P	P	12 57 21.5	-1.8
	comp=Z,62nm,0.4s						
GKN	Gorkha	13.11	151	*e*P	P	12 57 23.5	-1.7
	comp=Z,132nm,0.4s						
GKN				*e*S	S	12 59 46.8	-3.8
AJM	Ajmer	13.44	191	⇓*i*	P	12 57 25.0	-4.5
AJM				*i*		12 59 57.0	
KKN	Kakani	13.55	149	*e*P	P	12 57 29.3	-1.6
	comp=Z,79nm,0.6s						
KKN				*e*S	S	12 59 56.6	-4.4
DMN	Daman	13.65	150	*e*P	P	12 57 31.1	-1.1
	comp=Z,60nm,0.5s						
GUN	Gumba	13.69	147	*e*P	P	12 57 31.5	-1.2
	comp=Z,67nm,0.4s						
PKI	Pulchoki	13.80	149	*e*P	P	12 57 32.7	-1.5
	comp=Z,120nm,0.6s						
BVA0	Borovoye Array	14.15	342	⇑Pn	P	12 57 34.4	-4.3
	comp=Z,4.6nm,1.1s,baz=151,slow=15,SNR=85						
BVA0				⇑Lg		13 01 32.3	
	comp=Z,14nm,1.3s,baz=148,slow=30,SNR=4.5						
BVA0				⇓Rg		13 02 39.2	
	comp=Z,9.3nm,8.8s						
BVA0	Borovoye Array	14.15	342	*i* P	P	12 57 34.3	-4.4
BVA0				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BVAR	Borovoye Array	14.15	342	Pn	P	12 57 33.5	-5.2
	comp=Z,0.5nm,0.3s,baz=159,slow=13,SNR=21						
BVAR				Lg		13 01 35.0	
	comp=Z,0.5nm,0.3s,baz=150,slow=21,SNR=5.3						
BRVK	Borovoye	14.21	342	*e*P	P	12 57 35.3	-4.1
	comp=Z,19nm,1.0s						
CHKZ	Chkalovo	14.71	344	⇓Pn	P	12 57 44.6	-1.3
	comp=Z,22nm,1.2s						
CHKZ				⇑Lg		13 01 49.8	
	comp=Z,214nm,1.9s						
CHKZ				⇑Rg		13 02 57.0	
	comp=Z,1µm,9.3s						
CHKZ	Chkalovo	14.71	344	*i* P	P	12 57 44.6	-1.3
CHKZ				pmax	pmax		
	comp=Z,22nm,1.3s						
CHKZ	Chkalovo	14.71	344	*e*P	P	12 57 42.4	-3.5
	comp=Z,39nm,1.3s						
ZAL	Zalesovo	15.04	17	Lg		13 02 10.8	
	comp=Z,0.2nm,0.3s,baz=162,slow=8.3,SNR=1.9						
NVS	Novosibirsk	15.59	12	*e*P	P	12 57 54.8	-2.5
NVS				pmax	pmax		
	comp=N,31nm,1.3s						
NVS				pmax	pmax		
	comp=E,12nm,1.3s						
NVS				pmax	pmax		
	comp=Z,39nm,1.3s						
BHPL	Bhopal	16.45	180	⇓*i*	P	12 58 15.2	+6.7
GTA	Gaotai	17.20	84	*e*P	P	12 58 16.8	-0.9
GTA				S	S	13 01 23.0	-3.0
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s						
GTA				AMB	AMB		
	comp=Z,73nm,5.3s						
GTA				LR	LR		
	comp=N,505nm,12.6s						
GTA				LR	LR		
	comp=E,436nm,9.2s						
GTA				LR	LR		
	comp=Z,490nm,10.7s						
SHL	Shillong	18.57	135	*e*P	P	12 58 33.0	-1.9
	comp=Z,32nm,0.8s						
SHL				*e*S	S	13 02 05.0	+7.8
NGP	Nagpur	18.58	175	⇑*e*P	P	12 58 34.3	-0.7
NGP				*e*		13 01 59.8	
MOY	Mondy	20.18	46	*e*P	P	12 58 53.2	+0.6
ARU	Arti	20.83	330	⇓*i*P	P	12 58 57.6	-1.8
ARU				*e*		12 59 16.1	
ARU				*e*S	S	13 02 41.9	-2.5
ARU				*e*SS	SS	13 03 03.4	-14
ARU				pmax	pmax		
	comp=Z,34nm,1.1s						
ARU	Arti	20.83	330	*e*P	P	12 58 57.1	-2.3
	comp=Z,49nm,1.0s						
ZAK	Zakamensk	20.98	51	⇑*i*P	P	12 59 01.7	+0.8
LZH	Lanzhou	21.07	92	⇓P	P	12 59 03.5	+1.6
LZH				AP		12 59 11.0	
LZH				XP		12 59 14.5	
LZH				PP	PP	12 59 23.2	-2.4
LZH				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.5						
LZH				AMB	AMB		
	comp=Z,126nm,4.6s						
LZH				LR	LR		
	comp=N,236nm,10.2s						
LZH				LR	LR		
	comp=Z,442nm,12.0s,MS4.1						
POO	Poona	21.37	190	⇑*i*P	P	12 59 07.0	+1.9
	comp=Z,50nm,1.0s,mb4.8						
POO				*i*		12 59 31.0	
POO				*i*		12 59 40.5	
POO				*i* S	S	13 03 03.0	+8.1
POO				*e*		13 03 38.0	
POO				*i*		13 03 52.0	
TLY	Talaya	21.68	48	⇑*i*P	P	12 59 08.6	+0.7
TLY				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.2						
TLY				MLR	MLR		
	comp=Z,100nm,13.0s,MS3.4						
TLY	Talaya	21.68	48	*e*P	P	12 59 08.8	+1.0
	comp=Z,14nm,1.0s,mb4.3						
IRK	Irkutsk	22.26	47	*e*P	P	12 59 15.0	+1.4
IRK				*e*		12 59 27.6	
HYB	Hyderabad	22.26	177	*e*P	P	12 59 15.0	+1.1
	comp=Z,40nm,1.0s,mb4.8						
HYB	Hyderabad	22.26	177	*i* P	P	12 59 15.0	+1.1
	comp=Z,40nm,1.0s,mb4.8						
HYB				*e*S	S	13 03 23.0	+12
SONM	Songino Array	22.27	59	P	P	12 59 14.9	+1.1
	comp=Z,3.6nm,0.7s,mb3.9,baz=255,slow=8.2,SNR=23						
VIS	Vishakhapatnam	22.52	165	*e*P	P	12 59 20.6	+4.2
KAD	Karad	22.54	188	*e*P	P	12 59 18.0	+1.3
KAD				*e*		12 59 27.7	
	comp=Z,72nm,1.3s						
ULN	Ulaanbaatar	22.71	59	⇑*e*P	P	12 59 21.2	+3.1
ULN	Ulaanbaatar	22.71	59	*e*P	P	12 59 19.4	+1.3
	comp=Z,14nm,0.9s,mb4.4						
CD2	Chengdu	23.09	104	P	P	12 59 27.0	+5.0
CD2				PP	PP	12 59 57.1	+4.0
CD2				*e*S	S	13 03 29.1	+3.0
CD2				SS	SS	13 04 16.2	+3.3
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
CD2				AMB	AMB		
	comp=Z,90nm,4.2s						
CD2				LR	LR		
	comp=E,230nm,10.2s						
CD2				LR	LR		
	comp=Z,200nm,10.2s,MS3.9						
SOKR	Solikamsk	23.76	333	⇑*i*P	P	12 59 28.4	+0.2
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
SOKR				MLR	MLR		
	comp=Z,250nm,19.0s,MS3.7						
GNI	Garni	25.05	282	P	P	12 59 42.2	+1.3
	comp=Z,2.5nm,0.3s,mb4.2,baz=172,slow=23,SNR=3.6						
GNI	Garni	25.05	282	P	P	12 59 42.2	+1.3
GNI				pmax	pmax		
	comp=Z,3.0nm,0.4s						
XAN	Xi’an	25.68	93	P	P	12 59 49.3	+2.4
XAN				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.6						
HHC	Hu-ho-hao-te	25.91	76	*e*P	P	12 59 52.9	+4.0
HHC				PP	PP	13 00 35.8	+5.4
HHC				S	S	13 04 17.8	+4.0
HHC				SS	SS	13 05 26.8	+5.6
HHC				SCP		13 06 54.4	
HHC				PCS		13 07 00.3	
HHC				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.3						
HHC				LR	LR		
	comp=N,186nm,8.3s						
HHC				LR	LR		
	comp=E,260nm,7.4s						
HHC				LR	LR		
	comp=Z,114nm,8.7s						
KIV	Kislovodsk	26.16	291	*e*P	P	12 59 53.8	+2.6
KIV				*e*S	S	13 04 19.3	+1.5
KIV				pmax	pmax		
	comp=N,8.0nm,1.2s						
KIV				pmax	pmax		
	comp=E,6.0nm,1.2s						
KIV				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.3						
KIV				MLR	MLR		
	comp=Z,199nm,23.0s,MS3.6						
KIV				MLR	MLR		
	comp=N,129nm,16.0s						
KIV				MLR	MLR		
	comp=E,84nm,16.0s						
KIV	Kislovodsk	26.16	291	P	P	12 59 51.3	+0.1
	comp=E,19nm,1.2s,mb4.5						
ENH	Enshi	27.72	100	*e*P	P	13 00 06.8	+1.1
	comp=E,25nm,1.1s,mb4.8						
CMAR	Chiang Mai Arr	28.16	133	P	P	13 00 10.9	+1.3
	comp=E,1.9nm,0.8s,mb3.8,baz=316,slow=9.6,SNR=10						
CMAR	Chiang Mai Arr	28.16	133	P	P	13 00 11.0	+1.3
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SOC	Sochi	28.33	290	*e*P	P	13 00 14.5	+3.5
SOC				*e*		13 01 07.1	
SOC				*e*		13 03 28.6	
SOC				*e*S	S	13 04 51.2	-1.8
SOC				*e*SS	SS	13 06 15.8	-3.1
SOC				*e*SSS	SSS	13 06 38.0	-0.2
SOC				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.6						
SOC				pmax	pmax		
	comp=N,4.0nm,0.3s						
SOC				pmax	pmax		
	comp=E,7.0nm,0.5s						
SOC				MLR	MLR		
	comp=Z,177nm,18.0s,MS3.7						
SOC				MLR	MLR		
	comp=N,148nm,19.0s,MS3.7						
SOC				MLR	MLR		
	comp=E,137nm,21.0s,MS3.7						
BJT	Baijiatuau	29.51	77	P	P	13 00 25.5	+3.9
	comp=E,10nm,1.2s,mb4.4						
BOD	Bodaibo	29.58	40	*e*P	P	13 00 22.2	+0.2
ANN	Anapa	29.86	293	*e*P	P	13 00 13.6	-11
ANN				*i*	pP	13 00 22.8	-13
ANN				*e**PP	pP	13 00 30.2	-5.7
ANN				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.3						
MALT	Malatya	30.23	280	*e*P	P	13 00 25.8	-2.2
	comp=Z,4.9nm,0.9s,mb4.2						
OBN	Obninsk	31.15	313	*i* P	P	13 00 38.6	+2.7
OBN				*e**SP	sP	13 00 56.8	+4.2
OBN				*e*		13 01 38.6	
OBN				*e*		13 03 33.8	
OBN				*i* S	S	13 05 37.2	-0.3
OBN				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
OBN				MLR	MLR		
	comp=Z,200nm,11.0s,MS4.0						
BRTR	Keskin Array B	33.48	284	P	P	13 00 55.7	-0.7
	comp=Z,3.0nm,0.7s,mb4.3,baz=90,slow=8.6,SNR=10						
BRTR	Keskin Array B	33.48	284	P	P	13 00 55.7	-0.7
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NJ2	Nanjing	34.12	90	*e*P	P	13 01 06.1	+4.1
NJ2				PP	PP	13 02 21.8	+4.6
NJ2				S	S	13 06 27.0	+2.9
NJ2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.4						
NJ2				LR	LR		
	comp=N,670nm,16.0s,MS4.6						
NJ2				LR	LR		
	comp=E,600nm,16.4s,MS4.6						
NJ2				LR	LR		
	comp=Z,1µm,15.4s,MS4.8						
AKASG	Malin Array Be	35.14	304	P	P	13 01 08.7	-1.8
	comp=Z,0.4nm,0.3s,mb3.8,baz=75,slow=7.6,SNR=5.7						
CN2	Changchun	35.59	67	*e*P	P	13 01 15.8	+1.4
EIL	Elat	36.11	267	*e*P	P	13 01 23.1	+4.2
	comp=Z,6.3nm,0.8s,mb4.6						
SSE	Sheshan	36.33	90	P	P	13 01 25.9	+5.1
SSE				S	S	13 07 00.2	+2.0
SSE				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,24nm,11.1s						
SSE				LR	LR		
	comp=N,75nm,17.0s,MS3.6						
SSE				LR	LR		
	comp=E,43nm,16.9s,MS3.6						
SSE				LR	LR		
	comp=Z,65nm,17.6s,MS3.5						
FINES	FINESS Array B	37.87	322	P	P	13 01 32.2	-1.1
	comp=Z,2.1nm,0.6s,mb4.1,baz=108,slow=9.2,SNR=15						
FINES				LR	LR	13 18 02.9	
	comp=Z,118nm,21.8s,MS3.7,baz=164,slow=38						
FINES	FINESS Array B	37.87	322	*i* P	P	13 01 32.6	-0.8
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	FINESS Array B	37.87	322	P	P	13 01 32.2	-1.1
FINES				LR	LR	13 18 02.9	
YAK	Yakutsk	38.33	37	*e*P	P	13 01 36.2	-1.0
YAK				*e*		13 01 41.4	
YAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
YAK				pmax	pmax		
	comp=N,4.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
YAK	Yakutsk	38.33	37	P	P	13 01 36.6	-0.5
	comp=E,28nm,0.9s,mb5.0						
ARCES	ARCESS Array B	40.27	335	P	P	13 01 52.4	-0.8
	comp=E,6.5nm,0.6s,mb4.5,baz=103,slow=8.6,SNR=13						
ARCES				LR	LR	13 18 02.6	
	comp=E,72nm,20.1s,MS3.5,baz=15,slow=36						
ARCES	ARCESS Array B	40.27	335	P	P	13 01 52.4	-0.8
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,72nm,20.1s						
ARE0	ARCESS Array S	40.27	335	P	P	13 01 52.1	-1.1
TIXI	Tiksi	40.84	22	⇑*e*P	P	13 01 57.9	-0.1
TIXI				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.2						
GVD	Gavdhos	42.26	281	P	P	13 02 08.2	-1.8
	comp=Z,10nm,0.6s,mb4.6						
MORC	Moravsky Berou	42.69	304	*e*P	P	13 02 11.6	-1.7
	comp=Z,2.5nm,0.7s,mb4.0						
NB2	NORSAR Subarra	45.00	321	P	P	13 02 30.7	-1.0
	comp=Z,2.1nm,0.7s,mb4.1,baz=87,slow=7.9						
NOA	NORSAR Array B	45.00	321	P	P	13 02 30.8	-1.0
	comp=Z,2.0nm,0.7s,mb4.1,baz=87,slow=7.9,SNR=6.9						
NOA				LR	LR	13 22 38.1	
	comp=Z,64nm,18.8s,MS3.6,baz=95,slow=38						
NOA	NORSAR Array B	45.00	321	P	P	13 02 30.8	-0.9
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA				MLR	MLR		
	comp=Z,64nm,18.8s						
NOA	NORSAR Array B	45.00	321	P	P	13 02 30.8	-1.0
NOA				LR	LR	13 22 38.1	
CLL	Collm	45.25	307	P	P	13 02 33.3	-0.6
GERES	GERESS Array B	45.34	304	P	P	13 02 34.5	-0.2
	comp=Z,1.9nm,0.6s,mb4.1,baz=68,slow=7.2,SNR=15						
GERES	GERESS Array B	45.34	304	P	P	13 02 34.5	-0.2
GERES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
GRA1	Grafenberg Arr	46.72	305	*e*P	P	13 02 50.3	+4.8
	comp=Z,12nm,1.5s,mb4.6						
GRF	Grafenberg Arr	46.72	305	*e*P	P	13 02 50.3	+4.8
GRF				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.6						
MAJO	Matsushiro	47.05	74	*e*P	P	13 02 51.0	+2.7
	comp=Z,10nm,0.9s,mb4.8						
LPG	La Plagne	50.85	301	*e*P	P	13 03 16.7	-0.8
	comp=Z,13nm,1.0s,mb4.5						
LPL	La Plagne	50.85	301	*e*P	P	13 03 16.3	-1.3
MBDF	Montbardon	51.10	300	*e*P	P	13 03 18.3	-1.2
AVF	Avril sur Loir	52.61	304	*e*P	P	13 03 28.6	-2.1
	comp=Z,15nm,0.9s,mb4.6						
DAG	Danmarks Havn	53.09	343	⇓*e*P	P	13 03 33.2	-0.8
DAG				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
DAG	Danmarks Havn	53.09	343	⇓*e*P	P	13 03 33.2	-0.8
	comp=Z,2.1nm,0.5s,mb4.3						
DAG	Danmarks Havn	53.09	343	⇓*i*P	P	13 03 33.2	-0.8
	comp=Z,2.1nm,0.5s,mb4.3						
KMBO	Kilima Mbogo	54.84	232	P	P	13 03 49.4	+1.8
	comp=Z,3.7nm,0.9s,mb4.4,baz=58,slow=19,SNR=7.3						
KMBO	Kilima Mbogo	54.84	232	P	P	13 03 49.4	+1.8
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KMBO	Kilima Mbogo	54.84	232	*e*P	P	13 03 49.3	+1.7
	comp=Z,6.5nm,1.0s,mb4.6						
SUMG	Summit	59.64	342	*e*P	P	13 04 20.1	-0.7
	comp=Z,24nm,1.4s,mb5.0						
RES	Resolute Bay	65.75	358	*e*P	P	13 05 02.0	+0.9
	comp=Z,2.3nm,0.8s,mb4.3						
IMA	Indian Mountai	67.40	20	*e*P	P	13 05 11.0	-0.6
	comp=Z,53nm,1.0s,mb5.5						
IMA				*e*PP	PP	13 07 40.8	-1.5
INK	Inuvik	69.79	12	*e*P	P	13 05 25.9	-0.5
	comp=Z,8.5nm,1.0s,mb4.6						
COLA	College	69.85	19	*e*P	P	13 05 27.0	+0.1
	comp=Z,7.7nm,1.0s,mb4.6						
ILAR	Eielson Array	70.17	19	P	P	13 05 28.2	-0.5
	comp=Z,3.9nm,0.9s,mb4.3,baz=316,slow=4.7,SNR=24						
ILAR				PP	PP	13 08 06.2	0.0
	comp=Z,1.7nm,1.0s,baz=313,slow=8.5,SNR=5.2						
ILAR	Eielson Array	70.17	19	P	P	13 05 28.3	-0.5
ILAR						13 08 06.3	
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
MCK	McKinley	70.50	20	P	P	13 05 30.0	-0.8
	comp=Z,3.0nm,1.1s,mb4.1						
MBWA	Marble Bar	72.27	139	*e*P	P	13 05 42.5	+0.4
	comp=Z,5.2nm,0.8s,mb4.5						
DAWY	Dawson	72.50	16	*e*P	P	13 05 42.3	-0.4
FITZ	Fitzroy Crossi	72.97	132	*e*P	P	13 05 50.4	+4.1
	comp=Z,3.7nm,0.8s,mb4.4						
FITZ	Fitzroy Crossi	72.97	132	P	P	13 05 48.3	+1.9
	comp=Z,4.3nm,0.7s,mb4.5,baz=338,slow=2.5,SNR=9.1						
YKW3	Yellowknife Ar	77.58	6	*e*P	P	13 06 11.4	-0.4
YKA	Yellowknife Ar	77.65	6	P	P	13 06 11.9	-0.2
	comp=Z,2.6nm,0.6s,mb4.3,baz=346,slow=5.5,SNR=46						
YKA				LR	LR	13 39 58.5	
	comp=Z,51nm,18.5s,MS3.9,baz=215,slow=35						
YKA	Yellowknife Ar	77.65	6	P	P	13 06 11.9	-0.3
YKA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,51nm,18.5s						
YKA	Yellowknife Ar	77.65	6	P	P	13 06 11.9	-0.2
YKA				LR	LR	13 39 58.5	
WRA	Warramunga Arr	79.57	127	P	P	13 06 25.1	+1.5
	comp=Z,3.8nm,0.9s,mb4.3,baz=324,slow=5.2,SNR=23						
WRA	Warramunga Arr	79.57	127	*i* P	P	13 06 26.4	+2.8
WRA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
WRAB	Tennant Creek	79.57	127	*e*P	P	13 06 25.5	+1.9
	comp=Z,28nm,1.4s,mb5.0						
WB2	Warramunga Arr	79.58	127	*e*P	P	13 06 26.4	+2.8
DBIC	Dimbokro	79.91	270	*e*P	P	13 06 24.9	-0.6
	comp=Z,10nm,0.8s,mb4.8						
SCHQ	Schefferville	80.97	340	LR	LR	13 41 33.2	
	comp=Z,58nm,20.8s,MS3.9,baz=50,slow=35						
FCC	Fort Churchill	81.61	356	*e*P	P	13 06 33.9	+0.4
ASAR	Alice Springs	82.12	130	P	P	13 06 38.8	+1.9
	comp=Z,3.0nm,0.8s,mb4.2,baz=317,slow=5.3,SNR=18						
CTA	Charters Tower	87.40	119	*e*P	P	13 07 05.7	+2.4
	comp=Z,4.1nm,0.9s,mb4.7						
CTA	Charters Tower	87.40	119	P	P	13 07 05.2	+1.8
	comp=Z,5.0nm,0.9s,mb4.8,baz=311,slow=7.9,SNR=5.4						
CTA	Charters Tower	87.40	119	P	P	13 07 05.2	+1.9
CTA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CTAO	Charters Tower	87.40	119	*e*P	P	13 07 08.1	+4.7
	comp=Z,9.6nm,1.1s,mb4.9						
ULM	Lac du Bonnet	90.20	356	LR	LR	13 53 52.1	
	comp=Z,45nm,19.2s,MS3.9,baz=359,slow=40						
SNAA	Sanae	124.27	202	⇑*i*PKPdf	PKPdf	13 13 18.6	+5.9
SNAA				*e*		13 15 12.5	
VNA2	Neumayer--Watz	125.37	204	⇓*i*PKPdf	PKPdf	13 13 19.8	+5.2
VNA2				*e*		13 15 14.1	
VNA1	Neumayer--Stat	125.55	204	⇓*i*PKPdf	PKPdf	13 13 19.0	+4.0
VNA1				*e*		13 15 13.5	
VNA3	Neumayer Olymp	126.17	204	⇑*i*PKPdf	PKPdf	13 13 17.1	+0.9
VNA3				*e*		13 15 11.1	
LPAZ	La Paz	142.07	298	PKP	PKPdf	13 13 52.5	+5.4
	comp=Z,0.7nm,0.8s,baz=346,slow=6.3,SNR=4.0						
LPAZ	La Paz	142.07	298	PKIKP	PKPdf	13 13 52.5	+5.4
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
LVC	Limon Verde	146.83	291	PKPbc	PKPbc	13 14 00.5	+3.8
	comp=Z,8.3nm,0.8s,baz=337,slow=1.5,SNR=9.8						
LVC	Limon Verde	146.83	291	*e*PKPdf	PKPdf	13 13 58.6	+3.5

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*CSEM **02** 13:07:36.7±0.1, 40.26N×20.53E, h2^{km}, MD3.1, Error ellipse: s-maj=3.2km s-min=1.6km az=105.0*
*THE **02** 13:07:37.9, 40.27N×20.63E, h10^{km}, ML3.4*
*ATH **02** 13:07:38.2, 40.23N×20.63E, h17^{km}±2^{km}, MD3.1/4*
*NEIC **02** 13:07:38.2, 40.23N×20.63E, h17^{km}, MD3.1(ATH), After ATH.*

ISC 02 13:07:36.9±0.7, **40.27N**±0.03×**20.57E**±0.06, **h6**^{km}±4^{km}, **n16**, σ1§**13**/28, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
LSK	Leskovik	0.13	168	*i* Pg	Pg	13 07 39.2	-0.5
LSK				*i* Sg	Sg	13 07 41.6	+0.1
KBN	Korca	0.39	26	*i* Pg	Pg	13 07 45.1	+0.4
KBN				*i* Sg	Sg	13 07 51.9	+2.0
JAN	Janina	0.65	160	*e*PN	Pn	13 07 49.0	-3.3
JAN				*e*SN	Sn	13 07 58.4	-4.6
MEV	Metsovon	0.70	134	*e*Pg	Pg	13 07 49.1	-1.9
MEV				*e*Sg	Sg	13 08 00.1	-0.4
IGT	Igoumenitsa	0.76	194	*e*Pg	Pg	13 07 52.8	+0.6
IGT				*e*Sg	Sg	13 08 04.3	+2.0
FNA	Florina	0.80	50	*e*Pg	Pg	13 07 51.3	-1.6
FNA				*e*Sg	Sg	13 08 03.7	+0.1
KEK	Kerkira	0.81	227	*e*PN	Pn	13 07 54.2	-0.4
KZN	Kozani	0.92	88	*e*PN	Pn	13 07 55.2	-1.0
KZN				*e*SN	Sn	13 08 07.6	-2.2
LIT	Litokhoron	1.48	96	*e*Pb	Pb	13 08 04.2	-0.3
LIT				*e*Sb	Sb	13 08 25.0	+1.6
GRG	Griva	1.56	63	*e*Pb	Pb	13 08 05.2	-0.5
GRG				*e*Sb	Sb	13 08 27.4	+1.9
LKD	Levkas	1.57	178	*e*Pb	Pb	13 08 05.3	-0.6
EVR	Evrytania	1.66	144	*e*PN	Pn	13 08 07.1	+0.4
EVR				*e*SN	Sn	13 08 29.7	+1.1
SKO	Skopje	1.82	21	*e*Pn	Pn	13 08 13.5	+4.5
AGG	Agios Georgios	1.85	132	*e*Pb	Pb	13 08 10.2	-0.5
AGG				*e*Sb	Sb	13 08 35.0	+0.9
KNT	Kendrikon	1.98	63	*e*Pb	Pb	13 08 12.2	-0.8
KNT				*e*Sb	Sb	13 08 37.6	-0.3
PLG	Polygyros	2.20	86	*e*PN	Pn	13 08 15.4	+0.9

IDC 02 13:31:20.3±59.0, **15.69S**×**175.23W**, **mb3.9**/3, **mb1 4.1**/3, **mb1mx3.7**/14, **Error ellipse: s-maj=1120.0km s-min=185.3km az=78.0**, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**42.37**	**240**	P	P	13 39 16.7	-1.4
	2.9nm,1.1s,baz=87,slow=13,SNR=4.7						
WRA	**Warramunga Arr**	**48.06**	**257**	P	P	13 40 01.6	-2.2
	0.2nm,0.6s,baz=93,slow=7.2,SNR=5.1						
ASAR	**Alice Springs**	**48.34**	**252**	P	P	13 40 03.9	-2.0
	2.5nm,0.5s,baz=90,slow=8.0,SNR=80						

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*IDC **02** 13:38:28.6±0.5,57.16S×26.06W,h64^{km}±4^{km},mb4.2/7, mb1 4.2/8,mb1mx4.0/13,MS3.5/5,Ms1 3.5/5,ms1mx3.0/13, Error ellipse: s-maj=22.5km s-min=15.8km az=47.0*

*BJI **02** 13:38:30.1,57.30S×25.98W,h90^{km},mB4.9*

*HRVD **02** 13:38:31.3±0.9,57.36S×26.17W,h116^{km}±7^{km},MW5.1/22, Centroid moment Tensor Solution. LP body waves: s12,c14;Mantle waves: s22,c23; Half duration: $1^{s}2$ Moment tensor: Scale 10^{16}Nm; M_{rr}4.49±.43; $M_{\theta\theta}$-5.09±.46; $M_{\phi\phi}$0.60±.48; $M_{r\theta}$-0.36±.49; $M_{\theta\phi}$-0.43±.41; $M_{\phi r}$-1.72±.36; Best double couple: $M_0$5.15×10^{16} NP1: ϕ_s105°,δ46°,λ119°. NP2:ϕ_s246°,δ51°,λ63°. Principal axes: T 5.14, Plg69°, Azm93°; N 0, Plg20°, Azm264°; P -5.15, Plg3°, Azm355°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **02** 13:38:31.3±1.7,57.17S×26.04W,h91^{km}±15^{km},mb4.9/9 Error ellipse: s-maj=11.2km s-min=9.0km az=47.0*

ISC 02 13:38:30.1±3.4,**57.1S**±0.1×**26.0W**±0.2,**h94**^{km}±34^{km},**n50, σ**0^{s}**93**/21,**mb4.6**/13,**2C-2D,South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**15.54**	**158**	⇓*i*P	**P**	**13 42 05.6**	**+1.1**
VNA3	**Neumayer Olymp**	**15.74**	**160**	⇓*i*P	**P**	**13 42 07.3**	**+0.2**
VNA2	**Neumayer--Watz**	**15.94**	**158**	⇑*i*P	**P**	**13 42 09.3**	**-0.1**
SNAA	**Sanae**	**17.48**	**156**	⇑*i*P	**P**	**13 42 27.1**	**-1.6**
SNAA	**Sanae**	**17.48**	**156**	P	**P**	**13 42 27.3**	**-1.3**
	1.2nm,0.3s,baz=315,slow=9.9,SNR=99						
SNAA				PcP	PcP	13 47 04.4	-0.8
	0.1nm,0.3s,baz=278,slow=6.1,SNR=6.0						
SNAA				LR	LR	13 47 45.4	
	comp=Z,47nm,21.8s,baz=4.7,slow=32						
USHA	**Ushuaia**	**23.58**	**257**	LR	LR	13 50 38.9	
	comp=Z,105nm,19.7s,baz=296,slow=31						
QSPA	**South Pole Qui**	**33.12**	**180**	*e*P	**P**	**13 44 58.3**	**-0.1**
	18nm,0.6s,mb5.1						
SUR	**Sutherland**	**40.30**	**72**	P	**P**	**13 46 00.1**	**+0.9**
	6.6nm,1.0s,mb4.4,baz=119,slow=12,SNR=4.0						
BDFB	**Brasilia**	**44.64**	**329**	P	**P**	**13 46 35.9**	**+1.2**
	3.0nm,0.5s,mb4.3,baz=136,slow=6.5,SNR=3.9						
BDFB				LR	LR	14 01 59.0	
	comp=Z,88nm,19.0s,baz=118,slow=32						
VNDA	**Vanda**	**45.52**	**182**	P	**P**	**13 46 41.4**	**+0.5**
	3.7nm,0.7s,mb4.3,baz=190,slow=7.0,SNR=26						
VNDA				pP	pP	13 46 58.5	-4.9
	2.5nm,0.7s,baz=179,slow=6.8,SNR=4.3						
VNDA				LR	LR	14 02 47.9	
	comp=Z,55nm,19.9s,baz=214,slow=32						
VNDA	**Vanda**	**45.52**	**182**	*e*P	**P**	**13 46 40.9**	**-0.1**
	4.4nm,0.7s,mb4.3						
LVC	**Limon Verde**	**46.42**	**300**	P	**P**	**13 46 49.0**	**+0.3**
	4.6nm,0.6s,mb4.4,baz=137,slow=6.1,SNR=9.1						
LVC				PcP	PcP	13 48 22.4	0.0
	4.2nm,0.8s,baz=106,slow=7.4,SNR=4.2						
LVC	**Limon Verde**	**46.42**	**300**	*e*P	**P**	**13 46 48.7**	**0.0**
	5.1nm,0.6s,mb4.4						
LBTB	**Lobatse**	**48.70**	**71**	*e*P	**P**	**13 47 05.7**	**-0.8**
	11nm,0.8s,mb4.8						
LPAZ	**La Paz**	**51.55**	**305**	P	**P**	**13 47 28.4**	**+0.2**
	5.0nm,0.4s,mb4.9,baz=116,slow=6.2,SNR=33						
LPAZ				PcP	PcP	13 48 41.9	+0.8
	3.1nm,0.5s,baz=156,slow=1.9,SNR=2.7						
LPAZ	**La Paz**	**51.55**	**305**	*e*P	**P**	**13 47 28.4**	**+0.2**
	6.2nm,0.5s,mb4.9						
LPAZ				*e*PcP	PcP	13 48 41.7	+0.6
SAML	**Samuel**	**56.04**	**314**	*e*P	**P**	**13 47 59.7**	**-1.6**
	10nm,0.6s,mb5.0						
LSZ	**Lusaka**	**58.16**	**67**	*e*P	**P**	**13 48 15.2**	**-1.0**
	16nm,1.0s,mb5.0						
DBIC	**Dimbokro**	**65.89**	**23**	*e*P	**P**	**13 49 07.2**	**-0.6**
	9.4nm,0.6s,mb4.8						
KMBO	**Kilima Mbogo**	**74.82**	**68**	P	**P**	**13 50 04.3**	**+2.6**
	1.3nm,0.5s,mb3.9,baz=214,slow=24,SNR=6.2						
KMBO				LR	LR	14 18 58.1	
	comp=Z,53nm,19.1s,baz=80,slow=32						
SDV	**Santo Domingo**	**75.25**	**314**	*e*P	**P**	**13 50 04.1**	**0.0**
	24nm,0.8s,mb5.0						
ASAR	**Alice Springs**	**97.75**	**161**	P	**P**	**13 51 55.3**	**0.0**
	0.6nm,0.7s,mb4.2,baz=175,slow=4.2,SNR=7.2						
ASAR				pP	pP	13 52 13.2	-7.6
	1.0nm,0.7s,baz=184,slow=3.9,SNR=6.0						
ASAR				PKiKP		13 56 28.8	
	0.1nm,0.4s,baz=174,slow=1.1,SNR=3.9						
WRA	**Warramunga Arr**	**101.47**	**161**	P	P	13 52 13.3	+1.2
	0.5nm,1.1s,baz=198,slow=4.5,SNR=3.0						
WRA				pP		13 52 30.1	
	0.3nm,0.6s,baz=193,slow=4.4,SNR=2.2						
PDAR	**Pinedale Array**	**121.48**	**301**	PKP	PKPdf	13 57 13.0	+1.2
	0.5nm,0.7s,baz=162,slow=5.2,SNR=5.1						
PDAR				pPKP		13 57 31.1	
	0.4nm,0.6s,baz=117,slow=5.0,SNR=2.9						
NVAR	**Mina Array Bea**	**122.43**	**292**	PKP	PKPdf	13 57 16.4	+2.8
	2.1nm,1.0s,baz=132,slow=2.9,SNR=7.8						
NVAR	**Mina Array Bea**	**122.43**	**292**	PKP	PKPdf	13 57 16.4	+2.8
CMAR	**Chiang Mai Arr**	**124.06**	**110**	PKP	PKPdf	13 57 18.4	+1.1
	1.7nm,0.7s,baz=229,slow=3.9,SNR=12						
CMAR				pPKP		13 57 37.5	
	2.8nm,0.9s,baz=229,slow=3.9,SNR=9.7						
FINES	**FINESS Array B**	**125.03**	**28**	PKP	PKPdf	13 57 19.2	+1.2
	3.5nm,0.7s,baz=148,slow=2.5,SNR=19						
FINES	**FINESS Array B**	**125.03**	**28**	PKP	PKPdf	13 57 19.2	+1.2
BMO	**Blue Mountains**	**126.74**	**297**	*e*PKPdf	PKPdf	13 57 22.9	+1.3
ARCES	**ARCESS Array B**	**131.70**	**22**	PKP	PKPdf	13 57 31.8	+1.3
	8.5nm,1.1s,baz=222,slow=2.9,SNR=13						
BVAR	**Borovoye Array**	**134.80**	**58**	PKP	PKPdf	13 57 38.7	+1.9
	1.8nm,0.5s,baz=176,slow=2.8,SNR=14						
BVAR				pPKP		13 57 58.0	
	1.1nm,0.5s,baz=225,slow=2.1,SNR=4.9						
YKA	**Yellowknife Ar**	**137.42**	**317**	PKP	PKPdf	13 57 42.9	+1.6
	1.9nm,0.5s,baz=143,slow=1.5,SNR=8.4						
YKA				pPKP		13 58 01.7	
	2.9nm,0.8s,baz=129,slow=2.3,SNR=6.8						
YKA	**Yellowknife Ar**	**137.42**	**317**	PKP	PKPdf	13 57 42.9	+1.6
YKA				pPKP		13 58 01.7	
YKW3	**Yellowknife Ar**	**137.46**	**317**	*e*PKPdf	PKPdf	13 57 42.3	+0.9
YKW3				*e*		13 58 01.1	
WMQ	**Urumqi**	**137.47**	**79**	PKP	PKPdf	13 57 44.4	+2.5
WMQ				PP	PP	14 00 34.4	+2.5
WMQ				PKS	PKS	14 01 19.1	+2.0
WMQ				SKKS		14 07 16.9	
WMQ				PP	PP		
	comp=Z,35nm,9.0s						
ZAL	**Zalesovo**	**142.22**	**64**	PKP	PKPdf	13 57 53.5	+3.5
	comp=Z,0.9nm,0.5s,baz=108,slow=4.7,SNR=4.0						
ZAL				pPKP		13 58 10.8	
	comp=Z,1.0nm,0.3s,baz=53,slow=3.2,SNR=2.3						
ZAL	**Zalesovo**	**142.22**	**64**	PKP	PKPdf	13 57 53.5	+3.5
ZAL				pPKP		13 58 10.8	
NJ2	**Nanjing**	**145.21**	**121**	*e*PKP	PKPdf	13 57 58.0	+2.2
INK	**Inuvik**	**147.06**	**319**	*e*PKPbc	PKPdf	13 58 01.7	+3.8
DAWY	**Dawson**	**148.01**	**310**	*e*PKPbc	PKPdf	13 58 04.0	+4.5
DIV	**Divide**	**149.81**	**303**	*e*PKPbc	PKPdf	13 58 09.6	+7.2
SONM	**Songino Array**	**150.12**	**87**	PKPbc	PKPdf	13 58 10.3	+6.9
	comp=Z,6.0nm,0.6s,baz=224,slow=3.3,SNR=27						
SONM				PKPab	PKPab	13 58 16.8	-0.1
	comp=Z,2.4nm,0.7s,baz=238,slow=4.3,SNR=5.9						
SONM				pPKPbc		13 58 29.4	
	comp=Z,3.3nm,0.5s,baz=220,slow=1.5,SNR=7.3						
ULN	**Ulaanbaatar**	**150.49**	**88**	*e*PKPbc	PKPdf	13 58 11.0	+7.1
SML	**Sawmill**	**151.19**	**304**	*e*PKPbc	PKPdf	13 58 12.6	+8.0
ILAR	**Eielson Array**	**151.33**	**310**	PKPbc	PKPdf	13 58 12.7	+8.0
	comp=Z,11nm,0.8s,baz=147,slow=4.5,SNR=105						
ILAR				PKPab	PKPab	13 58 21.4	-0.1
	comp=Z,2.3nm,0.7s,baz=115,slow=0.6,SNR=14						
ILAR				pPKPbc		13 58 31.0	
	comp=Z,16nm,1.1s,baz=145,slow=1.5,SNR=8.1						
COLA	**College**	**151.75**	**310**	*e*PKPbc	PKPdf	13 58 12.9	+7.6
COLA				*e*PKPab	PKPab	13 58 22.7	-0.6
MCK	**McKinley**	**151.97**	**307**	*e*PKPbc	PKPdf	13 58 14.6	+8.9
CN2	**Changchun**	**157.66**	**114**	*e*PKP	PKPdf	13 58 20.7	+6.8
MDJ	**Mudanjiang**	**160.27**	**119**	PKP	PKPdf	13 58 16.0	-0.9
MDJ				PP	PP		
	comp=Z,44nm,3.8s						

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*MAN **02** 13:40:42.1,16.34N×119.73E,h3^{km},mb4.5,ML3.4,MS3.3*

*IDC **02** 13:40:48.0±2.8,16.23N×119.77E,h89^{km}±26^{km},mb3.7/5, mb1 3.9/6,mb1mx3.6/19,MS3.2/1,Ms1 3.4/1,ms1mx2.3/25, Error ellipse: s-maj=48.6km s-min=17.9km az=58.0*

*NEIC **02** 13:40:48.7±1.3,16.19N×119.73E,h99^{km}±12^{km},mb4.4/9, Error ellipse: s-maj=18.5km s-min=7.9km az=59.0*

ISC 02 13:40:40.3±0.5,**16.26N**±0.05×**119.61E**±0.05,**h33**^{km},**n27, σ**1^{s}**30**/32,**mb4.3**/12,**2D,Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BOLP	**Bolinao**	**0.32**	**68**	*e*P	**P**	**13 40 47.8**	**-0.4**
BOLP				*e*S	**S**	**13 40 53.2**	**-0.7**
SCZP	**Santa Cruz**	**0.56**	**149**	*e*P	**P**	**13 40 53.5**	**+1.8**
SCZP				*e*S	**S**	**13 41 06.7**	**+6.7**
BCPH	**Baguio City Da**	**0.94**	**82**	*e*P	**P**	**13 40 58.0**	**+0.8**
BCPH				*e*S	**S**	**13 41 10.0**	**+0.3**
PCPH	**Palayan**	**1.59**	**116**	⇓*e*P	**P**	**13 41 09.0**	**+2.5**
ABRA	**Dolores**	**1.74**	**37**	*e*P	**P**	**13 41 10.9**	**+2.3**
TGY	**Tagaytay City**	**2.50**	**149**	⇓*i*P	**P**	**13 41 26.0**	**+6.6**
TGY				*i* S	**S**	**13 42 00.9**	**+12**
TGY	**Tagaytay City**	**2.50**	**149**	P	**P**	**13 41 26.3**	**+6.8**
	74nm,0.3s,baz=298,slow=3.5,SNR=12						
TGY				S	**S**	**13 42 01.3**	**+12**
	32nm,0.3s,baz=332,slow=22,SNR=3.2						
LUBP	**Lubang**	**2.59**	**166**	*e*P	**P**	**13 41 29.0**	**+8.3**
ENPP	**El Nido**	**5.03**	**182**	*e*P	**P**	**13 41 56.7**	**+1.3**
CMAR	**Chiang Mai Arr**	**19.84**	**279**	P	**P**	**13 45 13.4**	**+2.1**
	1.4nm,0.9s,baz=84,slow=8.9,SNR=8.8						
CMAR				LR	LR	13 52 26.9	
	comp=Z,73nm,20.2s,baz=90,slow=35						
KS15	**Wonju Array Si**	**22.33**	**18**	P	**P**	**13 45 33.9**	**-2.8**
SONM	**Songino Array**	**33.32**	**344**	P	**P**	**13 47 17.8**	**+0.6**
	0.7nm,0.8s,mb3.7,baz=169,slow=7.3,SNR=3.3						
SONM	**Songino Array**	**33.32**	**344**	P	**P**	**13 47 17.8**	**+0.6**
MBWA	**Marble Bar**	**37.19**	**180**	*e*P	**P**	**13 47 50.4**	**0.0**
	15nm,1.4s,mb4.6						
PMG	**Port Moresby**	**37.34**	**131**	P	**P**	**13 47 52.1**	**+0.4**
	11nm,1.0s,mb4.6						
WRAB	**Tennant Creek**	**38.77**	**158**	*e*P	**P**	**13 48 02.6**	**-1.0**
	9.1nm,0.9s,mb4.5						
WRA	**Warramunga Arr**	**38.78**	**158**	P	**P**	**13 48 02.4**	**-1.3**
	3.7nm,0.7s,mb4.2,baz=339,slow=9.1,SNR=30						
WB2	**Warramunga Arr**	**38.78**	**158**	*e*P	**P**	**13 48 02.2**	**-1.5**
ASPA	**Alice Springs**	**42.07**	**160**	*e*P	**P**	**13 48 30.0**	**-1.0**
ASAR	**Alice Springs**	**42.07**	**160**	P	**P**	**13 48 30.1**	**-0.8**
	3.2nm,0.7s,mb4.0,baz=340,slow=7.0,SNR=39						
ASAR				PcP	PcP	13 50 26.1	0.0
	0.5nm,0.8s,baz=350,slow=1.7,SNR=3.8						
UCH	**Uchtor**	**46.37**	**313**	*e*P	**P**	**13 49 08.1**	**+2.7**
	3.0nm,1.0s,mb4.2						
KURK	**Kurchatov**	**47.49**	**326**	*e*P	**P**	**13 49 14.1**	**+0.1**
	3.3nm,0.9s,mb4.3						
STKA	**Stephens Creek**	**52.30**	**156**	*e*P	**P**	**13 49 49.8**	**-1.3**
	2.1nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**52.30**	**156**	P	**P**	**13 49 50.1**	**-0.9**
	2.5nm,0.7s,mb4.3,baz=341,slow=5.8,SNR=6.0						
BRVK	**Borovoye**	**53.15**	**325**	*e*P	**P**	**13 49 56.2**	**-0.9**
	5.6nm,1.4s,mb4.3						
MCK	**McKinley**	**76.21**	**27**	P	**P**	**13 52 26.5**	**-0.3**
	5.5nm,1.2s,mb4.4						
INK	**Inuvik**	**81.10**	**21**	P	**P**	**13 52 52.1**	**-1.3**
	3.9nm,1.2s,mb4.2						

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*CSEM **02** 13:53:02.8±0.2,34.95N×2.90W,h5^{km},ML3.7/3,Error ellipse: s-maj=3.9km s-min=2.9km az=125.0*

*MDD **02** 13:53:03.9±1.2,34.99N×3.00W,h5^{km}±5^{km},mb4.3/19, Error ellipse: s-maj=8.7km s-min=8.0km az=137.0, PRXIMO AftershockPLICA*

*INMG **02** 13:53:04.0±1.0,35.02N×2.90W,h15^{km}±3^{km},ML3.0,Error ellipse: s-maj=5.5km s-min=3.9km az=156.0*

*NEIC **02** 13:53:04.0,35.00N×2.99W,h6^{km},MN3.7(MDD),After MDD.*

*SFS **02** 13:53:04.0,35.00N×2.99W,ML4.3*

*LDG **02** 13:53:05.1±0.4,34.95N×2.96W,h10^{km},Ml3.7/1,Error ellipse: s-maj=7.7km s-min=3.9km az=177.0*

CNRM 02 13:53:03.7,35.06N×2.72W,h7^{km}**,MD4.0,4D,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.09**	**193**	*i* P	Pg	13 53 05.8	-0.1
MELI	**Melilla**	**0.29**	**323**	P	Pg	13 53 09.5	-0.1
MELI				S	Sg	13 53 14.3	+0.6
MELI	**Melilla**	**0.29**	**323**	*i* P	Pg	13 53 09.5	-0.2
EMLI	**Melilla**	**0.30**	**322**	P	Pg	13 53 09.6	-0.3
	434nm,0.1s,SNR=7.9						
EMEL	**Melilla**	**0.31**	**321**	P	Pg	13 53 09.6	-0.4
	434nm,0.1s,SNR=7.9						
EMEL				S	Sg	13 53 14.0	-0.2
	5μm,0.3s,SNR=7.9						
TOU	**Touzarine**	**0.85**	**264**	*i* P	Pb	13 53 18.0	-2.4
TOU				*i* S	Sb	13 53 30.0	-1.9
MPAL	**Palemas**	**1.01**	**280**	*e*P	Pb	13 53 22.0	-1.2
MPAL				*i* S	Sb	13 53 34.0	-2.5
TZK	**Tazeka**	**1.55**	**232**	*i* P	Pn	13 53 29.0	-2.9
TZK				*i* S	Sb	13 53 47.0	-5.0
EBER	**Berja**	**1.84**	**356**	P	Pn	13 53 34.4	-1.6
	15nm,0.3s,SNR=7.9						
EBER				S	Sn	13 53 56.9	-2.8
	SNR=7.9						
EBER	**Berja**	**1.84**	**356**	Sn	Sn	13 53 56.9	-2.9
EBER	**Berja**	**1.84**	**356**	P	Pn	13 53 34.4	-1.6
	15nm,0.3s,SNR=7.9						
ERON	**Agron**	**2.14**	**336**	P	Pn	13 53 37.6	-2.7
	14nm,0.3s,SNR=7.9						
ERON				S	Sn	13 54 03.8	-3.7
	44nm,0.6s,SNR=7.9						
DKH	**Dar Kharkhour**	**2.20**	**282**	*i* P	Pn	13 53 40.0	-1.2
DKH				*i* S	Sn	13 54 05.0	-4.0
EMIJ	**Mijas**	**2.24**	**313**	P	Pn	13 53 37.7	-4.1
	19nm,0.3s,SNR=7.9						
EMIJ				S	Sn	13 54 03.5	-6.5
	116nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	**2.24**	**313**	Sn	Sn	13 54 03.5	-6.6
ELOJ	**Sierra Loja**	**2.38**	**331**	P	Pn	13 53 42.4	-1.4
	20nm,0.3s,SNR=7.9						
ELOJ				S	Sn	13 54 09.0	-4.6
	32nm,0.5s,SNR=7.9						
REAL	**Reales**	**2.47**	**306**	P	Pn	13 53 41.0	-4.1
REAL				S	Sn	13 54 14.0	-1.8
REAL	**Reales**	**2.47**	**306**	*e*S	Sn	13 54 14.0	-1.8
REAL	**Reales**	**2.47**	**306**	*e*P	Pn	13 53 41.0	-4.1
MIF	**Mishlifen**	**2.65**	**232**	*i* P	Pn	13 53 45.0	-2.6
MIF				*i* S	Sn	13 54 14.5	-5.9
EQES	**Quesada**	**2.75**	**354**	P	Pn	13 53 49.6	+0.5
	22nm,0.4s,SNR=7.9						
EQES				S	Sn	13 54 23.9	+0.9
	229nm,0.5s,SNR=7.9						
EQES	**Quesada**	**2.75**	**354**	S	Sn	13 54 23.9	+1.0
	229nm,0.5s,SNR=7.9						
EQES	**Quesada**	**2.75**	**354**	P	Pn	13 53 49.6	+0.5
	22nm,0.4s,SNR=7.9						
ELUQ	**Luque**	**2.79**	**334**	P	Pn	13 53 49.0	-0.6
	29nm,0.3s,SNR=7.9						
ELUQ				S	Sn	13 54 22.2	-1.8
	58nm,0.5s,SNR=7.9						
CZD	**Col de Zad**	**2.79**	**224**	*i* P	Pn	13 53 47.0	-2.7
CZD				*i* S	Sn	13 54 17.0	-7.0
LIJA	**Lijar**	**2.85**	**311**	P	Pn	13 53 49.2	-1.2
LIJA				S	Sn	13 54 28.4	+2.9
LIJA	**Lijar**	**2.85**	**311**	*i* P	Pn	13 53 49.2	-1.3
LIJA				*e*S	Sn	13 54 28.4	+2.9
CART	**Cartagena**	**2.88**	**28**	*e*Pn	Pn	13 53 48.5	-2.4
CART				*e*Sn	Sn	13 54 21.2	-5.0
CART	**Cartagena**	**2.88**	**28**	*e*Pn	Pn	13 53 48.5	-2.4
CART				*e*Sn	Sn	13 54 21.2	-5.0
EMUR	**La Murta**	**3.02**	**23**	P	Pn	13 53 52.2	-0.7
	18nm,0.3s,SNR=7.9						
EMUR				S	Sn	13 54 26.0	-3.8
	100nm,0.5s,SNR=7.9						
EMUR	**La Murta**	**3.02**	**23**	Sn	Sn	13 54 26.0	-3.8
EMUR	**La Murta**	**3.02**	**23**	Pn	Pn	13 53 52.2	-0.7
ESPR	**Espera**	**3.12**	**306**	P	Pn	13 53 51.8	-2.5
	15nm,0.4s,SNR=7.9						
ESPR				S	Sn	13 54 27.8	-4.5
	30nm,0.3s,SNR=7.9						
ESPR	**Espera**	**3.12**	**306**	P	Pn	13 53 51.8	-2.5
	15nm,0.4s,SNR=7.9						
ESPR				Sn	Sn	13 54 27.8	-4.4
SFS	**San Fernando**	**3.16**	**297**	*e*Pn	Pn	13 53 47.7	-7.2
SFS	**San Fernando**	**3.16**	**297**	*e*Pn	Pn	13 53 47.7	-7.2
EANR	**'Ain N'Sour**	**3.24**	**73**	P	Pn	13 54 11.0	+15
ETRT	**Tiaret**	**3.31**	**83**	P	Pn	13 54 12.0	+15
ZFT	**Errachidia**	**3.31**	**205**	*e*P	Pn	13 53 54.0	-3.0
EADA	**Adamuz**	**3.44**	**335**	P	Pn	13 53 56.7	-2.2
	20nm,0.4s,SNR=7.9						
EADA				S	Sn	13 54 35.4	-5.0
	83nm,0.7s,SNR=7.9						
EADA	**Adamuz**	**3.44**	**335**	Pn	Pn	13 53 56.7	-2.2
EADA				Sn	Sn	13 54 35.4	-5.0
EVIA	**Vianos**	**3.58**	**3**	P	Pn	13 54 02.5	+1.7
	22nm,0.5s,SNR=7.9						
EVIA				S	Sn	13 54 42.9	-0.9
	70nm,0.6s,SNR=7.9						
EVIA	**Vianos**	**3.58**	**3**	Sn	Sn	13 54 42.9	-0.9
EBEN	**Beniarda**	**4.15**	**28**	P	Pn	13 54 08.9	0.0
	9.5nm,0.5s,SNR=7.9						
EBEN				S	Sn	13 54 54.7	-3.6
	23nm,0.9s,SNR=7.9						
EBEN	**Beniarda**	**4.15**	**28**	Pn	Pn	13 54 08.9	0.0
EBEN				Sn	Sn	13 54 54.7	-3.7
EMIN	**Mina Concepcio**	**4.18**	**311**	⇓P	Pn	13 54 05.2	-4.2
	12nm,0.3s,SNR=18						
EMIN				S	Sn	13 54 50.2	-8.9
	9.8nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.18**	**311**	⇓Pn	Pn	13 54 05.2	-4.1
EMIN				Sn	Sn	13 54 50.2	-8.9
ESDC	**Sonseca Array**	**4.71**	**348**	Pn	Pn	13 54 15.7	-1.2
ESDC				Sn	Sn	13 55 20.4	+7.9
ESDC	**Sonseca Array**	**4.71**	**348**	P	Pn	13 54 15.7	-1.2
	22nm,0.4s,baz=173,slow=12,SNR=7.9						
ESDC	**Sonseca Array**	**4.71**	**348**	Pn	Pn	13 54 15.7	-1.2
EMHD	**Djebel Mahouad**	**4.76**	**75**	P	Pn	13 54 20.0	+2.4
EBAD	**Badajoz**	**5.04**	**318**	P	Pn	13 54 17.8	-3.8
	12nm,0.3s,SNR=7.9						
EBAD				S	Sn	13 55 12.3	-8.6
	25nm,0.5s,SNR=7.9						
EBAD	**Badajoz**	**5.04**	**318**	Pn	Pn	13 54 17.8	-3.8
EBAD				Sn	Sn	13 55 12.3	-8.6
PBEJ	**Beja**	**5.09**	**307**	*e*Pn	Pn	13 54 17.5	-4.8
PBEJ				*e*Sn	Sn	13 55 13.5	-8.6
	13nm,0.5s						
PBEJ	**Beja**	**5.09**	**307**	*e*Pn	Pn	13 54 17.5	-4.8
PBEJ				*e*Sn	Sn	13 55 13.5	-8.6
	13nm,0.5s						
EIBI	**Ibiza**	**5.12**	**38**	P	Pn	13 54 21.7	-1.0
	14nm,0.5s,SNR=7.9						
EIBI				S	Sn	13 55 19.3	-3.6
	19nm,0.8s,SNR=7.9						
EIBI	**Ibiza**	**5.12**	**38**	Pn	Pn	13 54 21.7	-1.0
EIBI				Sn	Sn	13 55 19.3	-3.6
EVO	**Evora**	**5.48**	**311**	*e*Pn	Pn	13 54 24.5	-3.3
EVO				*e*Sn	Sn	13 55 25.0	-6.9
	31nm,0.5s						
EMOS	**Mosqueruela**	**5.59**	**18**	P	Pn	13 54 29.0	-0.3
	4.7nm,0.6s,SNR=7.9						
EMOS				S	Sn	13 55 32.4	-2.1
	10nm,0.7s,SNR=7.9						
EMOS	**Mosqueruela**	**5.59**	**18**	Pn	Pn	13 54 29.0	-0.3
EMOS				Sn	Sn	13 55 32.4	-2.1
MOE	**Montemor**	**5.69**	**309**	*e*Pn	Pn	13 54 26.4	-4.3
MOE				*e*Sn	Sn	13 55 28.1	-9.0
OUK	**Oukaimeden**	**5.78**	**230**	*e*P	Pn	13 54 30.0	-2.0
PCBR	**Castelo Branco**	**6.09**	**323**	*e*Pn	Pn	13 54 32.4	-4.0
PCBR				*e*Sn	Sn	13 55 37.9	-9.2
	13nm,0.7s						
PCBR	**Castelo Branco**	**6.09**	**323**	*e*Pn	Pn	13 54 32.4	-4.0
PCBR				*e*Sn	Sn	13 55 37.9	-9.2
	13nm,0.7s						
CIA	**Chichaoua**	**6.14**	**237**	*e*P	Pn	13 54 33.0	-4.1
ERTA	**Horta de San J**	**6.36**	**21**	P	Pn	13 54 40.5	+0.3
	11nm,0.6s,SNR=7.9						
ERTA				S	Sn	13 55 48.7	-5.2
	5.9nm,0.6s,SNR=7.9						
ERTA	**Horta de San J**	**6.36**	**21**	Pn	Pn	13 54 40.5	+0.3
ERTA				Sn	Sn	13 55 48.7	-5.2
PTOM	**Tomar**	**6.42**	**317**	*e*Pn	Pn	13 54 36.3	-4.8
PTOM				*e*Sn	Sn	13 55 46.0	-9.5
	15nm,0.5s						
PTOM	**Tomar**	**6.42**	**317**	*e*Pn	Pn	13 54 36.3	-4.8
PTOM				*e*Sn	Sn	13 55 46.0	-9.5
	15nm,0.5s						
MTE	**Manteigas**	**6.56**	**326**	*e*Pn	Pn	13 54 38.7	-4.3
MTE				*e*Sn	Sn	13 55 51.0	-7.9
	14nm,0.7s						
MTE	**Manteigas**	**6.56**	**326**	*e*Pn	Pn	13 54 38.7	-4.3
MTE				*e*Sn	Sn	13 55 46.9	-12
MTE	**Manteigas**	**6.56**	**326**	P	Pn	13 54 38.7	-4.3
MTE				S	Sn	13 55 51.0	-7.9
	7.1nm,0.7s						
MTE	**Manteigas**	**6.56**	**326**	*e*Pn	Pn	13 54 38.7	-4.3
MTE				*e*Sn	Sn	13 55 46.9	-12
EPOB	**Poblet**	**6.96**	**24**	P	Pn	13 54 47.7	-0.8
	5.5nm,0.7s,SNR=7.9						
EPOB	**Poblet**	**6.96**	**24**	Pn	Pn	13 54 47.8	-0.8
PVIS	**Viseu**	**6.97**	**326**	*e*Pn	Pn	13 54 45.2	-3.6
PVIS				*e*Sn	Sn	13 55 59.4	-10
PVRL	**Vila Real**	**7.35**	**329**	*e*Pn	Pn	13 54 50.1	-4.0
PVRL				*e*Sn	Sn	13 56 08.3	-10
	9.4nm,0.4s						
PVRL	**Vila Real**	**7.35**	**329**	P	Pn	13 54 50.1	-4.0
PVRL				S	Sn	13 56 08.3	-10
	4.7nm,0.4s						
PBRG	**Braganca**	**7.44**	**336**	*e*Pn	Pn	13 54 51.9	-3.4
PBRG				*e*Sn	Sn	13 56 10.5	-10
	3.6nm,0.3s						
PBRG	**Braganca**	**7.44**	**336**	P	Pn	13 54 51.9	-3.4
PBRG				S	Sn	13 56 10.5	-10
	1.8nm,0.3s						
ECAL	**Calabor**	**7.56**	**337**	P	Pn	13 54 53.6	-3.4
	3.8nm,0.3s,SNR=7.9						
ECAL				S	Sn	13 56 14.1	-10
	15nm,0.7s,SNR=7.9						
ECAL	**Calabor**	**7.56**	**337**	Pn	Pn	13 54 53.6	-3.4
EMIR	**Miracle**	**7.61**	**25**	P	Pn	13 54 57.4	-0.4
	1.8nm,0.3s,SNR=7.9						
EMIR	**Miracle**	**7.61**	**25**	Pn	Pn	13 54 57.4	-0.3
EBIE	**Bielsa**	**7.94**	**15**	P	Pn	13 55 01.6	-0.7
	0.7nm,0.3s,SNR=4.0						
EBIE	**Bielsa**	**7.94**	**15**	Pn	Pn	13 55 01.6	-0.7
ELOB	**Lobios**	**7.98**	**330**	⇓P	Pn	13 54 59.3	-3.6
	8.3nm,0.4s,SNR=18						
ELOB				S	Sn	13 56 23.5	-11
	9.0nm,0.6s,SNR=7.9						
ELOB	**Lobios**	**7.98**	**330**	⇓Pn	Pn	13 54 59.3	-3.6
ETSF	**Etsaut**	**8.01**	**11**	*e*Pn	P	13 55 01.4	-1.9
ERUA	**La Rua**	**8.10**	**336**	P	P	13 55 01.3	-3.2
	11nm,0.6s,SNR=4.0						
SJPF	**Ste Jean**	**8.12**	**8**	*e*Pn	P	13 55 02.5	-2.4
EPF	**Esparros**	**8.31**	**16**	*e*Pn	P	13 55 05.0	-2.5
EINC	**Incio**	**8.40**	**336**	P	P	13 55 05.3	-3.5
	3.6nm,0.3s,SNR=4.0						
EINC	**Incio**	**8.40**	**336**	Pn	P	13 55 05.3	-3.5
EARI	**Arriondas**	**8.45**	**348**	P	P	13 55 06.3	-3.1
	9.0nm,0.6s,SNR=4.0						
EARI	**Arriondas**	**8.45**	**348**	Pn	P	13 55 06.3	-3.2

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*NEIC **02** 13:55:07.7±3.1,6.68S×129.74E,h117^{km}±31^{km},mb4.2/11, Error ellipse: s-maj=17.4km s-min=13.4km az=216.0*

*IDC **02** 13:55:09.4±5.2,6.73S×129.74E,h133^{km}±51^{km},mb3.6/7, mb1 3.8/11,mb1mx3.7/16,Error ellipse: s-maj=37.9km s-min=18.4km az=50.0*

ISC 02 13:55:07.6±2.5,**6.78S**±0.08×**129.84E**±0.07,**h139**^{km}±26^{km}**, n24, σ**1^{s}**18**/28,**mb3.9**/15,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**11.97**	**200**	P	**P**	**13 57 54.4**	**-0.3**
	2.0nm,0.3s,baz=15,slow=9.2,SNR=62						
FITZ				S	**S**	**13 59 58.8**	**-7.0**
	6.3nm,0.3s,baz=142,slow=5.3,SNR=14						
WRAB	**Tennant Creek**	**13.79**	**162**	*e*P	**P**	**13 58 14.4**	**-3.9**
	11nm,0.6s						
WRAB				*e*S	Sx	14 00 32.9	
WRA	**Warramunga Arr**	**13.79**	**162**	P	**P**	**13 58 16.6**	**-1.7**
	2.2nm,0.3s,baz=336,slow=14,SNR=56						
WRA				S	**S**	**14 00 40.8**	**-7.5**
	3.8nm,0.3s,baz=332,slow=22,SNR=11						
ASAR	**Alice Springs**	**17.23**	**167**	P	**P**	**13 59 02.3**	**+1.0**
	0.9nm,0.3s,baz=345,slow=9.4,SNR=57						
ASAR				S	**S**	**14 02 05.6**	**-1.0**
	1.1nm,0.3s,baz=237,slow=8.2,SNR=9.0						
MBWA	**Marble Bar**	**17.32**	**213**	*e*P	**P**	**13 59 02.2**	**-0.1**

	8.4nm,0.6s						
MBWA				*e*S	S	14 02 01.6	-6.9
PMG	Port Moresby	17.34	100	P	P	13 59 05.3	+2.6
	0.4nm,0.3s,baz=255,slow=15,SNR=2.6						
PMG				S	S	14 02 08.5	-0.6
	0.3nm,0.3s,baz=341,slow=22,SNR=3.8						
CTA	Charters Tower	20.70	131	P	P	13 59 40.5	+2.0
	2.6nm,0.8s,baz=357,slow=10,SNR=3.6						
STKA	Stephens Creek	27.27	158	P	P	14 00 42.5	+1.5
	2.0nm,0.8s,mb3.8,baz=340,slow=15,SNR=2.9						
CMAR	Chiang Mai Arr	39.47	310	P	P	14 02 27.1	+0.9
	0.3nm,0.3s,mb3.3,baz=138,slow=8.9,SNR=4.8						
MAJO	Matsushiro	43.80	10	*e*P	P	14 02 59.2	-2.1
	6.9nm,0.6s,mb4.5						
ULN	Ulaanbaatar	58.01	342	P	P	14 04 46.9	-1.2
	2.2nm,0.6s,mb4.2						
SONM	Songino Array	58.19	342	P	P	14 04 49.4	+0.1
	0.6nm,0.4s,mb3.7,baz=164,slow=6.4,SNR=4.9						
YAK	Yakutsk	68.61	360	P	P	14 05 56.5	-0.8
TKM2	Tokmak 2	69.72	321	*e*P	P	14 06 04.6	+0.1
	3.5nm,0.8s,mb4.1						
UCH	Uchtor	70.06	319	*e*P	P	14 06 08.1	+1.6
	6.6nm,1.5s,mb4.1						
AML	Almayashu	70.54	319	*e*P	P	14 06 11.4	+2.0
	3.0nm,1.0s,mb4.0						
EKS2	Erkin-Say	70.75	320	P	P	14 06 15.9	+5.2
	1.5nm,0.7s,mb3.8						
ZAL	Zalesovo	71.32	334	P	P	14 06 13.7	-0.2
	2.1nm,0.3s,mb4.3,baz=15,slow=2.1,SNR=5.1						
KURK	Kurchatov	72.25	329	*e*P	P	14 06 19.1	-0.4
	2.9nm,0.7s,mb4.1						
BVAR	Borovoye Array	77.80	328	P	P	14 06 51.1	+0.2
	0.9nm,0.6s,mb3.6,baz=90,slow=4.4,SNR=8.3						
BRVK	Borovoye	77.87	328	*e*P	P	14 06 51.1	-0.2
	2.1nm,0.8s,mb3.8						
CHKZ	Chkalovo	77.99	328	*e*P	P	14 06 50.9	-1.1
	1.8nm,0.7s,mb3.8						
ILAR	Eielson Array	93.22	25	P	P	14 08 06.5	-0.6
	0.5nm,0.7s,mb3.8,baz=241,slow=4.9,SNR=7.3						
LPAZ	La Paz	150.99	142	PKPbc	PKPdf	14 14 48.9	+10
	0.4nm,0.3s,baz=38,slow=5.2,SNR=4.8						

MAN 02 13:58:39.8,9.40N×125.60E,h7^{km},mb4.1,ML2.9,MS2.6, Mindanao

*CNRM **02** 14:10:15.9,35.07N×2.59W,h12^{km},MD3.0*

*MDD **02** 14:10:17.5±1.9,34.96N×3.16W,mb3.4/6,Error ellipse: s-maj=18.1km s-min=7.3km az=151.0,PRXIMO SOLUCIN POBRE AftershockPLICA*

*NEIC **02** 14:10:18.6,35.03N×3.15W,MG3.3(MDD),After MDD.*

*CSEM **02** 14:10:19.6±0.4,35.20N×3.15W,h15^{km},MD3.0,Error ellipse: s-maj=11.9km s-min=8.8km az=27.0*

ISC 02 14:10:20.1±0.6,**35.17N**±0.04×**3.18W**±0.04,**h15^{km},n19, σ1§24**/34,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	Melilla	0.23	55	P	Pb	14 10 24.2	-1.1
	46nm,0.1s,SNR=4.0						
EMEL				S	Sb	14 10 28.3	-0.5
	191nm,0.1s,SNR=5.4						
EMLI	Melilla	0.23	56	P	Pb	14 10 24.2	-1.2
	46nm,0.1s,SNR=4.0						
MELI	Melilla	0.24	59	P	Pb	14 10 24.2	-1.3
MELI				S	Sb	14 10 30.8	+1.7
MELI	Melilla	0.24	59	*e*P	Pb	14 10 24.2	-1.3
MELI	Melilla	0.24	59	*e*S	Sb	14 10 30.8	+1.6
ZAI	Zaio	0.41	119	*i* P	Pb	14 10 30.0	+1.5
TOU	Touzarine	0.51	246	*e*P	Pb	14 10 33.0	+2.8
TOU				*e*S	Sb	14 10 45.0	+7.9
TZK	Tazeka	1.36	218	*i* P	Pn	14 10 43.0	-1.6
TZK				*i* S	Sb	14 11 02.0	+0.3
EBER	Berja	1.74	8	P	Pn	14 10 51.0	+1.0
	1.0nm,0.1s,SNR=7.9						
EBER				S	Sn	14 11 11.8	-0.3
	8.1nm,0.3s,SNR=7.9						
EBER	Berja	1.74	8	P	Pn	14 10 51.0	+0.9
	1.0nm,0.1s,SNR=7.9						
EBER				S	Sn	14 11 11.8	-0.3
	8.1nm,0.3s,SNR=7.9						
EMIJ	Mijas	1.90	318	P	Pn	14 10 52.1	-0.2
	2.4nm,0.3s,SNR=4.0						
EMIJ				S	Sn	14 11 17.3	+1.2
	4.8nm,0.3s,SNR=7.9						
EQES	Quesada	2.63	2	P	Pn	14 11 03.4	+0.6
	1.1nm,0.1s,SNR=7.9						
EQES				S	Sn	14 11 36.9	+2.2
	2.2nm,0.3s,SNR=7.9						
EQES	Quesada	2.63	2	P	Pn	14 11 03.4	+0.6
	1.1nm,0.1s,SNR=7.9						
EQES				S	Sn	14 11 36.9	+2.3
	2.2nm,0.3s,SNR=7.9						
EADA	Adamuz	3.19	340	P	Pn	14 11 10.7	-0.1
	1.0nm,0.3s,SNR=7.9						
EADA				S	Sn	14 11 49.3	+0.3
	0.9nm,0.2s,SNR=7.9						
EADA	Adamuz	3.19	340	P	Pn	14 11 10.7	-0.1
	1.0nm,0.3s,SNR=7.9						
EADA				S	Sn	14 11 49.3	+0.3
	0.9nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	3.83	314	P	Pn	14 11 18.8	-1.0
	0.5nm,0.2s,SNR=7.9						
EMIN				S	Sn	14 12 05.3	+0.4
	0.4nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	3.83	314	P	Pn	14 11 18.8	-1.0
	0.5nm,0.2s,SNR=7.9						
EMIN				S	Sn	14 12 05.3	+0.4
	0.4nm,0.3s,SNR=7.9						
EBAD	Badajoz	4.71	321	P	Pn	14 11 30.9	-1.5
	1.0nm,0.2s,SNR=7.9						
EBAD				S	Sn	14 12 25.2	-2.2
	1.4nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.71	321	P	Pn	14 11 30.9	-1.5
	1.0nm,0.2s,SNR=7.9						
EBAD				S	Sn	14 12 25.2	-2.2

*IDC **02** 14:15:31.9±2.5,3.98S×135.24E,mb3.6/1,mb1 4.0/5, mb1mx3.9/13,ML3.7/4,Error ellipse: s-maj=63.6km s-min=26.9km az=60.0*

*NEIC **02** 14:15:48.2±4.3,4.55S×135.15E,h157^{km}±42^{km},mb4.1/7, Error ellipse: s-maj=34.1km s-min=20.0km az=217.0*

ISC 02 14:15:31.6±2.8,**3.97S**±0.07×**135.5E**±0.1,**h14**^{km}±20^{km}, **n16,σ1§35**/22,**mb4.0**/4,**Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.20	199	*e*P	P	14 17 48.9	+2.1
	11nm,0.4s						
KAKA				*e*S	Sn	14 19 30.9	-0.2
WRAB	Tennant Creek	15.91	184	*e*P	P	14 19 15.7	-1.2
	25nm,0.9s						
WB2	Warramunga Arr	15.92	184	*e*P	P	14 19 16.2	-0.8
WB2				*e*S	S	14 22 10.0	-3.3
WRA	Warramunga Arr	15.92	184	Pn	P	14 19 15.5	-1.5
	0.2nm,0.3s,slow=13,SNR=20						
WRA				Sn	S	14 22 08.6	-4.7
	0.4nm,0.3s,baz=7.4,slow=22,SNR=5.7						
FITZ	Fitzroy Crossi	17.04	214	*e*P	P	14 19 31.5	+0.4
	3.4nm,0.8s						
FITZ	Fitzroy Crossi	17.04	214	Pn	P	14 19 29.2	-1.9
	0.3nm,0.3s,baz=28,slow=13,SNR=16						
FITZ				Sn	S	14 22 38.6	-0.4
	0.3nm,0.3s,baz=200,slow=15,SNR=4.5						
CTA	Charters Tower	19.16	148	P	P	14 19 57.2	-0.1
	0.2nm,0.3s,baz=347,slow=11,SNR=4.1						
CTA	Charters Tower	19.16	148	P	P	14 19 57.2	-0.1
CTAO	Charters Tower	19.16	148	*e*P	P	14 19 56.4	-0.9
	4.3nm,0.9s						
ASAR	Alice Springs	19.65	184	P	P	14 20 04.2	+1.3
	0.7nm,0.3s,baz=7.1,slow=12,SNR=90						
ASAR				S	S	14 23 41.2	+3.2
	0.1nm,0.3s,baz=3.5,slow=27,SNR=4.4						
ASPA	Alice Springs	19.65	184	*e*P	P	14 20 04.6	+1.7
ASPA				*e*S	S	14 23 41.5	+3.5
MBWA	Marble Bar	22.94	221	*e*P	P	14 20 37.4	+0.7
	4.9nm,0.9s,mb3.9						
NWAO	Narrogin (SRO)	33.49	209	*e*P	P	14 22 05.4	-7.3
	17nm,1.2s,mb4.9						
CMAR	Chiang Mai Arr	42.33	303	P	P	14 23 26.4	-0.7
	1.0nm,1.0s,mb3.4,baz=116,slow=5.3,SNR=6.1						
AML	Almayashu	72.24	317	P	P	14 26 59.8	+1.3
	1.2nm,0.6s,mb4.0						
BRVK	Borovoye	78.59	326	P	P	14 27 33.2	-1.1

MAN 02 14:19:25.5,9.95N×123.43E,h6^{km},mb4.2,ML3.0,MS2.7, Negros

*CNRM **02** 14:32:43.5,34.99N×2.60W,h8^{km},MD3.0*

*MDD **02** 14:32:44.6±1.8,34.97N×3.07W,mb3.7/8,Error ellipse: s-maj=16.2km s-min=8.7km az=149.0,PRXIMO AftershockPLICA*

*NEIC **02** 14:32:44.8,34.98N×3.08W,MG3.7(MDD),After MDD.*

*CSEM **02** 14:32:44.9±0.5,35.06N×2.87W,h10^{km},MD3.0,Error ellipse: s-maj=10.5km s-min=4.7km az=129.0*

ISC 02 14:32:46.5±0.8,**35.14N**±0.04×**2.98W**±0.07,**h24**^{km}±4^{km}, **n25,σ1§42**/42,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.16	14	P	Pb	14 32 50.6	-1.0
MELI	Melilla	0.16	14	*i* P	Pb	14 32 50.6	-1.0
EMEL	Melilla	0.16	8	P	Pb	14 32 50.1	-1.5
	115nm,0.1s,SNR=4.0						
EMEL				S	Sb	14 32 55.9	+0.8
	456nm,0.2s,SNR=6.9						
EMLI	Melilla	0.17	10	P	Pb	14 32 50.1	-1.5
	115nm,0.1s,SNR=4.0						
TOU	Touzarine	0.66	255	*i* P	Pb	14 33 00.5	+1.3
TOU				*i* S	Sb	14 33 12.0	+4.1
MPAL	Palemas	0.79	277	*e*P	Pb	14 33 04.0	+2.5
MPAL				*i* S	Sb	14 33 18.0	+6.3
TZK	Tazeka	1.44	224	*i* P	Pn	14 33 10.0	-1.5
TZK				*i* S	Sn	14 33 29.5	-0.3
EBER	Berja	1.76	2	P	Pn	14 33 16.7	+0.7
	1.6nm,0.1s,SNR=6.3						
EBER				S	Sn	14 33 38.7	+0.8
	18nm,0.4s,SNR=5.6						
EBER	Berja	1.76	2	P	Pn	14 33 16.7	+0.6
	1.6nm,0.1s,SNR=6.3						
EBER				Sn	Sn	14 33 38.7	+0.8
EMIJ	Mijas	2.04	315	P	Pn	14 33 19.4	-0.6
	2.4nm,0.2s,SNR=7.9						
EMIJ				S	Sn	14 33 44.3	-0.6
	6.3nm,0.3s,SNR=7.9						
LIJA	Lijar	2.64	313	P	Pn	14 33 31.7	+3.1
LIJA	Lijar	2.64	313	*i* P	Pn	14 33 31.7	+3.1
EQES	Quesada	2.66	359	P	Pn	14 33 30.6	+1.6
	2.5nm,0.2s,SNR=7.9						
EQES				S	Sn	14 34 04.4	+3.6
	6.4nm,0.2s,SNR=7.9						
EQES	Quesada	2.66	359	P	Pn	14 33 30.6	+1.6
	2.5nm,0.2s,SNR=7.9						
EQES				S	Sn	14 34 04.4	+3.6
	6.4nm,0.2s,SNR=7.9						
ESPR	Espera	2.90	307	S	Sn	14 34 07.7	+0.8
	6.0nm,0.4s,SNR=7.9						
ESPR	Espera	2.90	307	S	Sn	14 34 07.7	+0.8
	6.0nm,0.4s,SNR=7.9						
EMUR	La Murta	3.04	27	P	Pn	14 33 36.4	+2.0
	4.2nm,0.3s,SNR=7.9						
EMUR				S	Sn	14 34 08.1	-2.4
	6.1nm,0.3s,SNR=7.9						
EMUR	La Murta	3.04	27	P	Pn	14 33 36.4	+2.0
	4.2nm,0.3s,SNR=7.9						
EMUR				Sn	Sn	14 34 08.1	-2.4
EADA	Adamuz	3.28	338	P	Pn	14 33 38.6	+0.8
	1.4nm,0.2s,SNR=5.9						
EADA				S	Sn	14 34 16.5	-0.1
	3.2nm,0.5s,SNR=7.9						
EADA	Adamuz	3.28	338	P	Pn	14 33 38.6	+0.8
	1.4nm,0.2s,SNR=5.9						
EADA				Sn	Sn	14 34 16.5	-0.1
EVIA	Vianos	3.52	6	S	Sn	14 34 23.7	+1.3
	4.4nm,0.5s,SNR=7.9						
EMIN	Mina Concepcio	3.97	313	P	Pn	14 33 46.8	-0.7
	1.4nm,0.2s,SNR=7.9						
EMIN				S	Sn	14 34 32.0	-1.8
	0.5nm,0.2s,SNR=68						
EMIN	Mina Concepcio	3.97	313	Pn	Pn	14 33 46.8	-0.7
EMIN				Sn	Sn	14 34 32.0	-1.8
EBAD	Badajoz	4.84	319	P	Pn	14 33 59.0	-1.0
	3.2nm,0.2s,SNR=7.9						
EBAD				S	Sn	14 34 53.8	-2.2
	2.2nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.84	319	Pn	Pn	14 33 59.0	-0.9
EBAD				Sn	Sn	14 34 53.8	-2.2

DJA 02 14:46:25.1±0.9,**9.44S**×**115.17E,h13**^{km}±4^{km},**MD4.9**/4, **ML4.1**/3,**3C-4D,Error ellipse: s-maj=18.1km s-min=8.1km az=176.0,South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	Rata	0.80	27	*e*Pg	Pg	14 46 39.2	-2.1
	2µm,0.2s						
RATI				⇑*e*Sg	Sg	14 46 49.5	-2.6
KEDI	Kedomdong	1.33	45	⇓*e*Pn	Pn	14 46 46.8	-2.7
	99nm,0.2s						
KEDI				⇓*e*Sn	Sn	14 47 02.0	-5.1
KELI	Kelakatan	1.39	331	⇑*e*Pn	Pn	14 46 48.0	-2.2
	484nm,0.2s						
KELI				⇑*e*Sn	Sn	14 47 04.4	-4.1
SRDI	Scrawed	1.39	313	⇓*e*Pn	Pn	14 46 47.4	-2.9
	207nm,0.2s						
SRDI				⇓*e*Sn	Sn	14 47 04.0	-4.6

*LDG **02** 14:47:48.3±0.2,15.79N×61.79W,h10^{km},Mb5.1/16, Ms4.4/4,Error ellipse: s-maj=10.4km s-min=5.7km az=92.0*

*IDC **02** 14:47:52.1±0.5,15.70N×61.61W,mb4.4/18,mb1 4.6/20, mb1mx4.5/23,ML6.6/1,MS4.3/5,Ms1 4.3/5,ms1mx3.5/17, Error ellipse: s-maj=10.6km s-min=8.3km az=111.0*

*TRN **02** 14:47:53.1,15.80N×61.45W,h29^{km},MD4.2*

*HRVD **02** 14:47:54.1±0.3,15.83N×61.54W,h12^{km},MW5.0/50, Centroid moment Tensor Solution. LP body waves: s17,c23;Mantle waves: s50,c77; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.43±.18; $M_{\theta\theta}$0.98±.12; $M_{\phi\phi}$1.46±.17; $M_{r\theta}$-0.28±.48; $M_{\theta\phi}$-2.37±.14; $M_{\phi r}$1.30±.55; Best double couple: $M_0$3.35×10^{16} NP1:ϕ_s296°,δ39°, λ-123°. NP2:ϕ_s156°,δ59°,λ-66°. Principal axes: T 3.82, Plg11°, Azm229°; N -.92, Plg20°, Azm323°; P -2.89, Plg67°, Azm113°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*NEIC **02** 14:47:54.1±1.1,15.67N×61.30W,h18^{km}±6^{km},mb5.0/45 Error ellipse: s-maj=7.3km s-min=5.5km az=183.0*

NEIC Felt on Dominica.

*MOS **02** 14:47:55.7±1.7,15.52N×61.96W,h33^{km},mb4.8/16, MS4.4/4,Error ellipse: s-maj=17.6km s-min=11.4km az=64.7*

*BJI **02** 14:47:57.1,15.70N×61.30W,h18^{km},mB4.9,Ms5.1, Msz4.8*

ISC 02 14:47:54.7±0.4,**15.83N**±0.03×**61.32W**±0.04,**h30**^{km}±3^{km}, **n164,σ1§32**/156,**mb4.8**/65,**MS4.5**/9,**7C-1D,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	Marie-Galante	0.09	360	⇑*i*P	Pn	14 48 00.3	+0.4
PSDMZ	Portsmouth	0.28	209	⇓*i*P	Pb	14 47 59.2	-2.7
BBL	Barber's Block	0.33	206	⇑*i*P	Pb	14 47 59.7	-2.9
BBL	Barber's Block	0.33	206	⇑*i*P	Pb	14 48 00.7	-1.9
DLVT	Layou Valley	0.39	191	*e*P	Pb	14 48 04.5	+1.0
DLVT				*e*S	Sb	14 48 09.0	-0.5
MDN	Morne-Daniel	0.51	188	⇑*i*P	Pb	14 48 05.3	+0.1
MDN				*e*S	Sb	14 48 12.1	-0.4
DEG	La Desirade	0.54	27	*e*P	Pb	14 48 07.2	+1.4
DBCT	Belle View Cho	0.55	183	*e*P	Pb	14 48 06.4	+0.5
DPMT	Pointe Michel	0.56	186	*e*P	Pb	14 48 06.9	+0.8
DSTT	Stowe	0.58	179	*e*P	Pb	14 48 08.0	+1.7
SEG	Port Louis	0.60	342	⇑*e*P	Pb	14 48 06.8	+0.1
DSHT	Scott's Head	0.61	185	*e*P	Pb	14 48 07.2	+0.3
FDF	Fort de France	1.10	172	⇑*e*P	Pn	14 48 12.4	-1.8
CRM	Caravelle	1.13	160	⇑*i*P	Pn	14 48 14.2	-0.6
CRM				*i* S	Sn	14 48 30.3	+0.9
BIM	Bigot	1.32	170	*e*P	Pn	14 48 16.7	-0.8
BIM				*e*S	Sn	14 48 36.7	+2.5
GRW	Mount Saint Ca	3.66	185	*e*P	Pn	14 48 52.0	+1.3
GRW				*e*S	Sn	14 49 36.1	+2.7
TRN	Trinidad (W)	5.15	181	*e*P	Pn	14 49 12.0	+0.1
SJG	San Juan	5.15	297	Pn	Pn	14 49 08.2	-3.7
	46nm,0.3s,baz=331,slow=23,SNR=19						
SJG				Sn	Sn	14 50 04.9	-6.2
	28nm,0.3s,baz=6.8,slow=18,SNR=3.4						
SJG	San Juan	5.15	297	P	Pn	14 49 08.2	-3.7
SJG						14 50 04.9	
SJG				pmax	pmax		
	comp=Z,47nm,0.3s						
SJG	San Juan	5.15	297	*e*Pn	Pn	14 49 07.6	-4.4
SDV	Santo Domingo	11.42	234	*e*Pn	P	14 50 32.9	-6.2
OTAV	Otavalo	22.93	229	*e*P	P	14 52 56.3	-1.5
	comp=Z,9.9nm,0.8s,mb4.3						
SAML	Samuel	24.68	184	*e*P	P	14 53 14.3	-0.4
	comp=Z,26nm,0.9s,mb4.8						
BLA	Blacksburg	27.21	325	P	P	14 53 38.5	+0.6
	comp=Z,15nm,0.8s,mb4.6						
MYNC	Murphy	28.02	317	*e*P	P	14 53 43.4	-1.9
	comp=Z,15nm,0.9s,mb4.6						
ACSO	Alum Creek Sta	30.77	326	*e*P	P	14 54 09.8	-0.1
	comp=Z,48nm,1.3s,mb5.2						
WVT	Waverly	31.09	316	*e*P	P	14 54 12.2	-0.4
	comp=Z,12nm,0.8s,mb4.8						
OXF	Oxford	31.34	312	*e*P	P	14 54 15.9	+1.0
	comp=Z,27nm,0.9s,mb5.1						
UTMT	University of	31.90	315	P	P	14 54 19.0	-0.8
LPAZ	La Paz	32.61	192	P	P	14 54 23.8	-2.3
	comp=Z,1.8nm,0.9s,mb4.0,baz=27,slow=8.4,SNR=6.0						
LPAZ	La Paz	32.61	192	P	P	14 54 23.8	-2.4
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LPAZ	La Paz	32.61	192	*e*P	P	14 54 24.5	-1.7
	comp=Z,2.2nm,0.8s,mb4.1						
BDFB	Brasilia	33.91	157	P	P	14 54 37.0	-0.5
	comp=Z,7.5nm,0.8s,mb4.7,baz=338,slow=11,SNR=7.6						
BDFB	Brasilia	33.91	157	P	P	14 54 37.0	-0.5
BDFB				pmax	pmax		
	comp=Z,8.0nm,0.8s						
CCM	Cathedral Cave	34.42	316	*e*P	P	14 54 40.0	-1.7
	comp=Z,21nm,1.1s,mb5.0						
MIAR	Mount Ida	34.42	309	*e*P	P	14 54 41.1	-0.6
	comp=Z,13nm,1.2s,mb4.7						
HKT	Hockley	34.62	300	*e*P	P	14 54 43.5	+0.1
	comp=Z,34nm,1.4s,mb5.1						
JCT	Junction City	38.07	299	*e*P	P	14 55 13.1	+0.4
	comp=Z,38nm,1.1s,mb5.0						
WMOK	Wichita Mounta	38.47	306	*e*P	P	14 55 14.9	-1.0
	comp=Z,16nm,1.3s,mb4.6						
LVC	Limon Verde	38.92	191	P	P	14 55 17.8	-2.0
	comp=Z,2.5nm,0.7s,mb4.1,baz=322,slow=9.4,SNR=3.2						
LVC	Limon Verde	38.92	191	*e*P	P	14 55 17.9	-1.9
	comp=Z,5.1nm,0.9s,mb4.2						
SCHQ	Schefferville	39.16	355	P	P	14 55 23.6	+2.2
	comp=Z,3.5nm,0.9s,mb4.1,baz=198,slow=13,SNR=3.4						
LTX	Lajitas	41.13	297	P	P	14 55 39.1	+1.2
TXAR	Lajitas Array	41.13	297	P	P	14 55 36.6	-1.4
	comp=Z,0.7nm,0.5s,mb3.5,baz=124,slow=9.0,SNR=3.7						
ULM	Lac du Bonnet	44.22	329	P	P	14 56 03.0	0.0
	comp=Z,7.5nm,0.6s,mb4.6,baz=132,slow=9.2,SNR=13						
BNM	Barren Site	44.53	303	*e*P	P	14 56 05.7	-0.1
LPM	Los Pinos Moun	44.57	303	*e*P	P	14 56 06.6	+0.5
ANMO	Albuquerque	44.58	304	P	P	14 56 05.2	-1.0
	comp=Z,1.7nm,0.6s,mb4.1,baz=123,slow=8.0,SNR=5.0						
LENM	Lemitar	44.82	303	*e*P	P	14 56 09.2	+1.2
RW3	Ridgway	46.37	308	*e*P	P	14 56 21.8	+1.5
PV10	Paradox Valley	47.43	308	*e*P	P	14 56 29.4	+0.8
TUC	Tucson	47.63	299	*e*P	P	14 56 31.6	+1.3
	comp=Z,11nm,1.1s,mb4.8						
DGMT	Dagmar	47.80	322	*e*P	P	14 56 33.0	+1.6
	comp=Z,49nm,1.3s,mb5.4						
LAO	LASA Array	48.25	319	*e*P	P	14 56 36.3	+1.4
	comp=Z,23nm,0.9s,mb5.2						
PDAR	Pinedale Array	49.05	313	P	P	14 56 40.6	-0.5
	comp=Z,3.9nm,0.7s,mb4.5,baz=112,slow=8.0,SNR=30						
PDAR				PcP	PcP	14 58 05.5	+0.6
	comp=Z,2.8nm,1.0s,baz=141,slow=5.8,SNR=2.4						
DAU	Daniels Canyon	49.61	310	*e*P	P	14 56 47.2	+1.8
JLU	Jordanelle	49.80	310	*e*P	P	14 56 48.3	+1.4
MSU	Marysvale	49.86	307	*e*P	P	14 56 47.6	+0.2
TCUT	Toone Canyon	49.90	311	*e*P	P	14 56 48.3	+0.6
NLU	North Lily Min	50.10	309	*e*P	P	14 56 50.3	+1.0
HWUT	Hardware Ranch	50.14	311	*e*P	P	14 56 49.3	-0.2
	comp=Z,15nm,1.1s,mb4.9						
ARUT	Antelope Range	50.69	306	*e*P	P	14 56 54.8	+1.1
QLMT	Earthquake Lak	50.98	315	*e*P	P	14 56 56.7	+1.0
BGU	Big Grassy Mou	51.04	310	*e*P	P	14 56 56.5	+0.2
HVU	Hansel Valley	51.06	311	*e*P	P	14 56 57.0	+0.5
BOZ	Bozeman (W)	51.37	316	*e*P	P	14 56 58.8	+0.1
	comp=Z,15nm,1.4s,mb4.7						
MCMT	McKenzie Canyo	51.94	315	*e*P	P	14 57 02.1	-1.0
MNV	Mina	54.46	306	*e*P	P	14 57 20.8	-1.0
	comp=Z,18nm,1.3s,mb4.8						
NVAR	Mina Array Bea	54.57	306	P	P	14 57 20.2	-2.5
	comp=Z,2.6nm,1.2s,mb4.1,baz=315,slow=6.3,SNR=3.5						
NVAR				PcP	PcP	14 58 25.9	+0.5
	comp=Z,2.1nm,0.8s,baz=144,slow=4.6,SNR=5.2						
NVAR	Mina Array Bea	54.57	306	P	P	14 57 20.2	-2.5
NVAR				PcP	PcP	14 58 25.9	+0.5
BMO	Blue Mountains	55.01	314	*e*P	P	14 57 25.7	-0.1
	comp=Z,7.4nm,1.4s,mb4.5						
ESDC	Sonseca Array	55.03	52	P	P	14 57 28.5	+2.4
	comp=Z,1.1nm,0.5s,mb4.1,baz=272,slow=6.1,SNR=4.8						
EDM	Edmonton	55.07	325	*e*P	P	14 57 25.0	-1.1
NEW	Newport	55.73	318	P	P	14 57 30.1	-0.8
	comp=Z,3.8nm,0.5s,mb4.7						
NEW	Newport	55.73	318	P	P	14 57 30.2	-0.7
NEW				pmax	pmax		
	comp=Z,4.0nm,0.5s						
NEW	Newport	55.73	318	*e*P	P	14 57 30.4	-0.5
	comp=Z,12nm,1.1s,mb4.8						
BORG	Borgarnes	55.86	19	LR	LR	15 18 39.3	
	comp=Z,284nm,18.3s,MS4.4,baz=137,slow=33						
DBIC	Dimbokro	55.98	93	*e*P	P	14 57 36.1	+3.0
	comp=Z,15nm,1.0s,mb5.0						
OHCM	Honcut	57.15	307	*e*P	P	14 57 41.6	+0.3
ROSF	Rostrenen	57.19	42	*e*P	P	14 57 40.4	-1.0
	comp=Z,60nm,1.2s,mb5.2						
SJPF	Ste Jean	57.59	49	*e*P	P	14 57 43.5	-0.7
	comp=Z,74nm,1.3s,mb5.2						
SGMF	Saint Gilles	57.64	43	*e*P	P	14 57 43.4	-1.1
SUMG	Summit	58.29	8	*e*P	P	14 57 50.8	+2.0
	comp=Z,22nm,1.1s,mb5.1						
EPF	Esparros	58.71	49	*e*P	P	14 57 51.7	-0.4
GRR	Gorron	58.78	43	*e*P	P	14 57 51.2	-1.3
	comp=Z,102nm,1.2s,mb5.4						
FLN	La Foliniere	59.10	42	*e*P	P	14 57 53.6	-1.1
	comp=Z,110nm,1.4s,mb5.4						
FLN				*e*R			
	comp=Z,548nm,22.5s						
LFF	La Frestale	59.26	47	*e*P	P	14 57 55.0	-0.9
LDF	La Druitiere	59.30	43	*e*P	P	14 57 55.0	-1.1
YKA	Yellowknife Ar	59.52	334	P	P	14 57 56.0	-1.5
	comp=Z,5.3nm,0.5s,mb4.8,baz=106,slow=7.5,SNR=96						
YKA	Yellowknife Ar	59.52	334	P	P	14 57 56.0	-1.5
YKA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
YKA	Yellowknife Ar	59.52	334	P	P	14 57 56.0	-1.5
YKW3	Yellowknife Ar	59.56	334	*e*P	P	14 57 56.9	-0.8
MTLF	Montolieu	60.11	49	*e*P	P	14 58 00.7	-1.1
	comp=Z,49nm,1.2s,mb5.1						
CAF	Calviac	60.19	47	*e*P	P	14 58 01.2	-1.1
TCF	Toulx Ste Croi	60.47	46	*e*P	P	14 58 03.1	-1.1
HYF	Humbligny	60.90	44	*e*P	P	14 58 06.2	-0.9
BGF	Bois d'Agland	60.95	45	*e*P	P	14 58 06.4	-1.0
	comp=Z,54nm,1.1s,mb5.3						
AVF	Avril sur Loir	61.32	45	*e*P	P	14 58 08.5	-1.4
	comp=Z,93nm,1.6s,mb5.4						
SSF	Saint Saulge	61.46	45	*e*P	P	14 58 09.5	-1.4
	comp=Z,47nm,1.3s,mb5.2						
SMF	Signal de Mont	61.64	45	*e*P	P	14 58 10.8	-1.3
	comp=Z,74nm,1.3s,mb5.4						
BAIF	Baives	62.34	41	*e*P	P	14 58 15.1	-1.6
SMRF	Simiane la Rot	62.59	48	*e*P	P	14 58 18.4	-0.1
	comp=Z,155nm,1.5s,mb5.6						
GIVF	Givet	62.74	41	*e*P	P	14 58 17.6	-1.7
ORIF	Oris-en-Rattie	62.88	47	*e*P	P	14 58 20.1	-0.3
ORIF				*e*R			
	comp=Z,728nm,22.5s						
CABF	La Chapelle	63.17	45	*e*P	P	14 58 21.3	-1.0
	comp=Z,39nm,1.3s,mb5.1						
JMIC	Jan Mayen	63.46	17	LR	LR	15 19 16.1	
	comp=Z,251nm,20.7s,MS4.4,baz=274,slow=30						
MBDF	Montbardon	63.50	48	*e*P	P	14 58 24.1	-0.4
	comp=Z,27nm,1.0s,mb4.9						
LPL	La Plagne	63.53	47	*e*P	P	14 58 24.6	-0.1
	comp=Z,14nm,0.9s,mb4.7						
HINF	Hinteralfeld	63.80	44	*e*P	P	14 58 24.5	-1.9

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CDF    Champ du Feu       64.14  44  eP      P        14 58 27.1  -1.5
              comp=Z,48nm,1.3s,mb5.1
DLBC   Dease Lake         65.52 327  eP      P        14 58 38.6  +1.2
GRA1   Grafenberg Arr     66.82  42  eP      P        14 58 52.4  +6.6
              comp=Z,12nm,1.1s,mb4.8
GRF    Grafenberg Arr     66.82  42  eP      P        14 58 52.4  +6.6
GRF                                   pmax   pmax
              comp=Z,12nm,1.1s,mb4.8
NKC    Novy Kostel        67.63  42  eP      P        14 58 57.8  +6.9
NKC                                   AMS    AMS      15 22 10.0
              comp=Z,300nm,26.6s
NAO01  NORSAR Array S     67.64  30  eP      P        14 58 54.3  +3.4
              comp=Z,11nm,0.9s,mb4.9
NB2    NORSAR Subarra     67.83  30   P      P        14 58 55.5  +3.5
              comp=Z,18nm,1.2s,mb5.0,baz=263,slow=6.5
NOA    NORSAR Array B     67.83  30   P      P        14 58 54.7  +2.7
              comp=Z,6.9nm,1.0s,mb4.6,baz=262,slow=6.3,SNR=11
NOA                                   LR     LR       15 22 39.6
              comp=Z,211nm,21.6s,MS4.3,baz=290,slow=31
NOA    NORSAR Array B     67.83  30   P      P        14 58 54.7  +2.7
CLL    Collm              68.02  41  eP      P        14 58 56.0  +2.7
CLL                                  i       pP       14 59 00.0  -2.7
CLL    Collm              68.02  41   P      P        14 58 56.0  +2.7
CLL                                  i *PP   pP       14 59 00.0  -2.7
KHC    Kasperske Hory     68.34  43  eP      P        14 59 02.2  +6.8
KHC                                   MLR    MLR
              comp=Z,400nm,6.4s
GERES  GERESS Array B     68.42  43   P      P        14 58 57.6  +1.8
              comp=Z,2.4nm,0.9s,mb4.2,baz=252,slow=3.1,SNR=8.5
GERES  GERESS Array B     68.42  43   P      P        14 58 57.6  +1.7
GERES                                 pmax   pmax
              comp=Z,2.0nm,0.9s
BRG    Berggiesshubel     68.60  41  eP      P        14 59 00.1  +3.1
BRG                                   pmax   pmax
              comp=Z,21nm,1.7s,mb4.8
BRG                                   MLR    MLR
              comp=N,250nm,23.6s,MS4.5
BRG                                   MLR    MLR
              comp=E,250nm,23.6s,MS4.5
BRG                                   MLR    MLR
              comp=Z,460nm,23.6s,MS4.6
BRG    Berggiesshubel     68.60  41  eP      P        14 59 00.1  +3.1
              comp=Z,21nm,1.7s,mb4.8
BRG                                  i                14 59 04.1
INK    Inuvik             68.84 338  eP      P        14 58 57.8  -0.4
              comp=Z,15nm,1.0s,mb4.9
PRU    Pruhonice          68.97  42  eP      P        14 59 04.4  +5.1
PRU                                   AMS    AMS      15 23 20.0
PVCC   Panska Ves         68.99  42  eP      P        14 59 06.0  +6.6
PVCC                                  AMS    AMS      15 23 20.0
              comp=Z,300nm,18.2s
UPC    Upice              69.92  42  eP      P        14 59 12.4  +7.4
DPC    Dobruska-Polom     70.12  42  eP      P        14 59 10.7  +4.5
DPC                                   AMS    AMS      15 22 20.0
USHA   Ushuaia            70.64 184   P      P        14 59 07.2  -2.1
              comp=Z,15nm,0.9s,mb4.9,baz=331,slow=13,SNR=3.9
DAWY   Dawson             70.68 333  eP      P        14 59 08.4  -1.0
OKC    Ostrava-Krasne     71.31  42   AMS    AMS      15 25 20.0
              comp=Z,200nm,19.6s
PSZ    Piszkesteto        72.57  44   P      P        14 59 23.9  +2.8
THY    Trims Highway      73.50 332   P      P        14 59 26.4  +0.2
ILAR   Eielson Array      73.94 334   P      P        14 59 28.6   0.0
              comp=Z,2.8nm,0.7s,mb4.3,baz=99,slow=3.1,SNR=27
ILAR   Eielson Array      73.94 334   P      P        14 59 28.6   0.0
ILAR                                  pmax   pmax
              comp=Z,3.0nm,0.7s
ARCES  ARCESS Array B     74.19  21   P      P        14 59 31.4  +1.4
              comp=Z,4.3nm,0.8s,mb4.4,baz=309,slow=7.8,SNR=7.3
ARCES                                 LR     LR       15 24 42.7
              comp=Z,130nm,19.4s,MS4.2,baz=106,slow=30
KWP    Kalwaria           74.27  42  eP      P        14 59 35.2  +4.3
              comp=Z,22nm,1.0s,mb5.0
COLA   College            74.34 334  eP      P        14 59 33.0  +2.0
FINES  FINESS Array B     75.01  30   P      P        14 59 36.8  +1.9
              comp=Z,4.5nm,0.8s,mb4.4,baz=269,slow=3.6,SNR=11
FINES                                 LR     LR       15 27 26.8
              comp=Z,154nm,19.1s,MS4.3,baz=338,slow=32
KAF    Kangasniemi        75.05  29  ep      P        14 59 38.9  +3.8
              comp=Z,7.3nm,0.8s,mb4.7,baz=274,slow=5.4
KAF    Kangasniemi        75.05  29  eP      P        14 59 38.9  +3.8
KAF                                   pmax   pmax
              comp=Z,7.0nm,0.8s,mb4.6
IMA    Indian Mountai     76.63 335   P      P        14 59 41.0  -3.0
JOF    Joensuu            77.25  28  ep      P        14 59 50.1  +2.6
              comp=Z,7.3nm,0.8s,mb4.7
JOF    Joensuu            77.25  28  eP      P        14 59 50.1  +2.6
JOF                                   pmax   pmax
              comp=Z,7.0nm,0.8s,mb4.6
AKASG  Malin Array Be     78.27  41   P      P        14 59 56.5  +3.2
              comp=Z,2.3nm,0.9s,mb4.1,baz=267,slow=4.9,SNR=10
AKASG  Malin Array Be     78.27  41   P      P        14 59 56.6  +3.3
AKASG                                 pmax   pmax
              comp=Z,2.0nm,0.9s
OBN    Obninsk            81.61  35  eP      P        15 00 14.8  +3.7
OBN                                   pmax   pmax
              comp=Z,13nm,0.8s,mb4.9
OBN                                   MLR    MLR
              comp=Z,100nm,17.0s,MS4.2
BRTR   Keskin Array B     83.78  51   P      P        15 00 23.5  +0.8
              comp=Z,1.1nm,0.6s,mb4.2,baz=256,slow=5.1,SNR=5.9
BRTR   Keskin Array B     83.78  51   P      P        15 00 23.5  +0.8
BRTR                                  pmax   pmax
              comp=Z,1.0nm,0.6s
VRSR   Storozhevoye       84.24  38  eP      P        15 00 29.3  +4.6
VRSR                                  pmax   pmax
              comp=N,10.0nm,1.0s
VRSR                                  pmax   pmax
              comp=Z,7.0nm,1.0s,mb4.8
VRSR                                  pmax   pmax
              comp=E,7.0nm,0.7s
MALT   Malatya            87.75  51   P      P        15 00 47.4  +5.0
              comp=E,2.4nm,0.6s,mb4.6
WMQ    Urumqi            114.22  24   PKP    PKPdf    15 06 34.5  -2.1
WMQ                                   XPKP            15 06 41.5
WMQ                                   PP     PP       15 07 36.3  +4.4
WMQ                                   PP     PP
              comp=Z,23nm,7.9s
WMQ                                   LR     LR
              comp=N,199nm,22.8s,MS4.8
WMQ                                   LR     LR
              comp=E,162nm,22.2s,MS4.8
WMQ                                   LR     LR
              comp=Z,153nm,23.6s,MS4.5
CN2    Changchun         120.34 354  ePKP    PKPdf    15 06 48.1  -0.4
LZH    Lanzhou           126.50  15  ePKP    PKPdf    15 06 59.2  -1.3
LZH                                   XPKP            15 07 02.7
LZH                                   LR     LR
              comp=N,257nm,18.0s
LZH                                   LR     LR
              comp=Z,346nm,20.2s,MS5.0
GYA    Guiyang           136.38  16   PKP    PKPdf    15 07 23.2  +3.8
GYA                                   PP     PP       15 10 01.4  +2.3
GYA                                   PP     PP
              comp=Z,120nm,7.2s
CMAR   Chiang Mai Arr    140.78  30   PKP    PKPdf    15 07 23.2  -4.6
              comp=Z,0.4nm,0.5s,baz=285,slow=4.5,SNR=3.7
CMAR                                  PP     PP       15 10 23.1  -3.7
              comp=Z,2.1nm,1.3s,baz=296,slow=6.8,SNR=4.1
CMAR   Chiang Mai Arr    140.78  30   PKIKP  PKPdf    15 07 23.2  -4.6
CMAR                                                  15 10 23.1
CMAR                                  pmax   pmax
              comp=Z,2.0nm,1.3s
STKA   Stephens Creek    153.74 228   PKP    PKPdf    15 07 44.4  -3.9
              comp=Z,2.5nm,0.9s,baz=53,slow=5.1,SNR=2.4
STKA                                  PKPbc  PKPdf    15 07 54.1  +5.8
              comp=Z,3.5nm,0.9s,baz=157,slow=7.7,SNR=3.9
STKA   Stephens Creek    153.74 228   PKP    PKPdf    15 07 44.4  -3.9
STKA                                  PKPbc  PKPdf    15 07 54.1  +5.8
ASAR   Alice Springs     163.70 239   PKP    PKPdf    15 07 57.3  -2.9
              comp=Z,1.5nm,0.8s,baz=89,slow=0.9,SNR=11
ASAR                                  PKPab  PKPab    15 08 48.2  -1.3
              comp=Z,1.7nm,0.7s,baz=115,slow=4.2,SNR=14
WRA    Warramunga Arr    164.55 252   PKP    PKPdf    15 07 57.2  -4.0
              comp=Z,2.8nm,0.9s,baz=51,slow=0.5,SNR=14
WRA                                   PKPab  PKPab    15 08 53.0  -0.3
              comp=Z,2.5nm,1.0s,baz=98,slow=4.3,SNR=7.1
WRA    Warramunga Arr    164.55 252   PKIKP  PKPdf    15 07 57.2  -4.0
WRA                                   pmax   pmax
              comp=Z,3.0nm,0.9s
WRA                                   pmax   pmax
              comp=Z,3.0nm,1.0s
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*NEIC **02** 14:48:15.7, 34.99S×70.55W, h2^{km}, ML3.0(GUC), After GUC.*

GUC 02 14:48:15.7±0.8**, 34.99S**×**70.55W, h2^{km}**±4^{km}**, MD3.8, ML3.0, 6C-8D, Chile-Argentina border region**

```
Code   Station Name        Δ°   AZ°    Phase ID            Time     Res
                                      Op      ISC        h  m  s    ISC
SFDO   San Fernando       0.53 314⇓iP     Pg         14 48 26.5  +0.1
SFDO                               i S     Sg         14 48 35.2  +1.7
CICH   Cipreses           0.68   9⇓iP     Pg         14 48 28.1  -1.1
CICH                               i S     Sg         14 48 38.6  +0.4
CACH   El Canelo          0.87 357⇑iP     Pg         14 48 31.7  -1.3
CACH                               i S     Sg         14 48 44.8  +0.1
CHCH   Chadas Angostu     1.06 355⇓iP     Pb         14 48 35.3  -1.1
CHCH                               i S     Sb         14 48 50.4  -0.1
LMEL   Las Melosas        1.17  14⇓iP     Pb         14 48 36.9  -1.4
LMEL                               i S     Sb         14 48 53.4  -0.5
LNV    Longovilo          1.25 325⇑iP     Pb         14 48 38.7  -1.0
LNV                                i S     Sb         14 48 56.5  +0.3
PCH    Pirque             1.36   1⇑iP     Pb         14 48 40.9  -0.8
TACH   Talagante          1.37 346⇓iP     Pb         14 48 40.7  -1.1
TACH                               i S     Sb         14 48 59.7  +0.1
RCDM   Rinconada Maip     1.51 352⇓iP     Pn         14 48 43.1  -0.8
RCDM                               i S     Sb         14 49 03.8  +0.1
RCDM                                 AMP             14 49 06.0
              comp=E,299nm,0.3s
CLCH   Cerro Calan        1.59   0⇑iP     Pn         14 48 44.6  -0.4
CLCH                               i S     Sb         14 49 06.7  +0.8
CLCH                                 AMP             14 49 22.4
              comp=E,407nm,0.5s
FCH    Farellones         1.67   7⇓iP     Pn         14 48 46.1   0.0
FCH                                i S     Sb         14 49 09.4  +1.1
FCH                                  AMP             14 49 26.7
              comp=N,231nm,0.2s
LCCH   Las Cruces         1.73 330⇓iP     Pn         14 48 46.6  -0.4
PEL    Peldehue           1.84 356 eP     Pn         14 48 48.8  +0.1
ROCH   El Roble           2.05 349 eP     Pn         14 48 52.1  +0.6
JACH   Jahuel             2.30 359⇑iP     Pn         14 48 56.0  +0.8
PACH   Papudo             2.55 343⇑iP     Pn         14 48 59.5  +0.6
LVC    Limon Verde       12.41   7  P      P          14 51 10.7  -5.7
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*IDC **02** 14:52:55.2±1.1, 3.41N×83.00W, mb3.9/7, mb1 4.2/8, mb1mx4.0/18, MS4.2/10, Ms1 4.2/10, ms1mx3.7/16, Error ellipse: s-maj=37.3km s-min=21.9km az=52.0*

*NEIC **02** 14:52:56.8±0.5, 3.49N×82.87W, h10^{km}, mb4.7/20, Error ellipse: s-maj=18.1km s-min=8.1km az=45.0*

*CASC **02** 14:52:57.6±1.7, 3.58N×83.67W, h20^{km}±999^{km}, MD4.8, mb4.7(NEIC)*

ISC 02 14:52:60.0±0.5**, 3.76N**±0.05×**82.80W**±0.09**, h33^{km}, n74, σ1§24**/52**, mb4.4**/25**, MS4.3**/10**, 4C-1D, South of Panama**

```
Code   Station Name        Δ°   AZ°    Phase ID            Time     Res
                                      Op      ISC        h  m  s    ISC
OTAV   Otavalo            5.58 129  eP     P          14 54 17.0  -5.8
URSC   Urasca             6.11 351⇑eP     P          14 54 28.8  -1.5
URSC                                eS     S          14 55 39.4  -0.5
ICR    Volcan Irazu       6.26 351⇑eP     P          14 54 31.4  -1.0
ICR                                 eS     S          14 55 45.0  +1.3
PRS1   Puriscal           6.36 346⇑eP     P          14 54 30.1  -3.7
VPS2   Volcan Poas 2      6.54 348⇓eP     P          14 54 33.0  -3.3
JTS    JuntasAbangare     6.83 342  ePn    Pn         14 54 37.8  -2.7
              54nm,0.6s
TRTC   Tortuguero         6.83 352⇑eP     P          14 54 40.0  -0.4
TRTC                                eS     S          14 55 59.1  +1.2
SDV    Santo Domingo     13.12  67  eP     P          14 56 06.6  -0.1
              27nm,0.9s
NNA    Nana              16.73 159  eP     P          14 56 54.7  +1.2
              53nm,1.0s
SJG    San Juan          21.66  48   P     P          14 57 52.2  +2.5
              18nm,0.2s,mb5.1,baz=319,slow=18,SNR=3.6
SJG                                  LR    LR         15 05 41.5
              comp=Z,1µm,21.3s,MS4.2,baz=257,slow=35
SJG    San Juan          21.66  48  eP     P          14 57 53.4  +3.6
              37nm,1.0s,mb4.8
SAML   Samuel            23.28 123  eP     P          14 58 04.3  -1.6
              17nm,1.0s,mb4.4
LPAZ   La Paz            24.64 144   P     P          14 58 17.8  -1.4
              2.5nm,0.7s,mb3.9,baz=331,slow=12,SNR=8.0
LPAZ   La Paz            24.64 144  eP     P          14 58 18.5  -0.6
              16nm,1.1s,mb4.5
HKT    Hockley           28.82 336  eP     P          14 58 53.3  -4.1
              15nm,1.4s,mb4.5
JCT    Junction City     31.05 331  eP     P          14 59 17.8  +0.5
              23nm,1.2s,mb4.9
CCM    Cathedral Cave    34.99 348  eP     P          14 59 50.8  -0.6
              6.1nm,0.7s,mb4.6
CPRX   Cap Rock          35.16 328   P     P          14 59 52.4  -0.4
AMTX   Amarillo          35.58 333  eP     P          14 59 56.0  -0.4
              16nm,0.9s,mb4.9
BNM    Barren Site       37.49 327  eP     P          15 00 10.1  -2.5
ANMO   Albuquerque       38.00 328   P     P          15 00 18.6  +1.8
              2.6nm,0.9s,mb4.0,baz=159,slow=7.7,SNR=4.9
ANMO   Albuquerque       38.00 328  eP     P          15 00 18.5  +1.7
              10nm,1.1s,mb4.5
BDFB   Brasilia          39.46 120   LR    LR         15 17 27.1
              comp=Z,578nm,21.6s,MS4.4,baz=304,slow=37
SDCO   Great Sand Dun    39.69 331  eP     P          15 00 32.5  +1.7
              17nm,1.0s,mb4.7
PV01   Paradox Valley    41.52 329  eP     P          15 00 49.9  +4.0
PV10   Paradox Valley    41.95 329  eP     P          15 00 50.0  +0.6
MSU    Marysvale         43.73 326  eP     P          15 01 05.6  +1.6
PDAR   Pinedale Array    45.55 332   P     P          15 01 18.4  -0.1
              0.8nm,0.9s,mb3.6,baz=117,slow=9.9,SNR=4.6
PDAR                                 LR    LR         15 21 37.1
              comp=Z,476nm,18.5s,MS4.5,baz=132,slow=38
PDAR   Pinedale Array    45.55 332   P     P          15 01 18.4  -0.1
PDAR                                 LR    LR         15 21 37.1
HWUT   Hardware Ranch    45.64 330  eP     P          15 01 20.4  +1.1
              5.1nm,0.8s,mb4.5
BGU    Big Grassy Mou    45.91 328  eP     P          15 01 21.5  +0.1
TPH    Tonopah           46.40 322  eP     P          15 01 26.2  +0.9
              7.9nm,0.9s,mb4.6
MNV    Mina              47.19 322  eP     P          15 01 30.8  -0.8
              13nm,1.2s,mb4.7
NVAR   Mina Array Bea    47.28 322   P     P          15 01 32.7  +0.5
              1.4nm,0.8s,mb4.0,baz=143,slow=7.2,SNR=7.8
NVAR   Mina Array Bea    47.28 322   P     P          15 01 32.7  +0.5
ULM    Lac du Bonnet     47.62 349   P     P          15 01 34.2  -0.6
              2.8nm,0.8s,mb4.4,baz=151,slow=5.4,SNR=3.2
ULM                                  LR    LR         15 23 05.9
              comp=Z,156nm,21.7s,MS3.9,baz=136,slow=38
ULM    Lac du Bonnet     47.62 349   P     P          15 01 34.2  -0.6
ULM                                  LR    LR         15 23 05.9
QLMT   Earthquake Lak    48.01 333  eP     P          15 01 38.9  +1.0
CMB    Columbia Colle    48.36 320   P     P          15 01 38.9  -1.8
              4.5nm,0.7s,mb4.6
HLID   Hailey            48.51 329  eP     P          15 01 42.0  +0.3
              3.2nm,1.1s,mb4.3
BOZ    Bozeman (W)       48.72 333  eP     P          15 01 42.5  -0.9
              11nm,1.2s,mb4.8
SCHQ   Schefferville     52.54  12   LR    LR         15 24 13.0
              comp=Z,186nm,19.5s,MS4.1,baz=280,slow=36
RKT    Rikitea           57.45 240  eLR    LR         15 19 57.0
              299nm,36.2s
YKA    Yellowknife Ar    63.16 344   P     P          15 03 26.1  -0.7
              1.7nm,0.9s,mb4.2,baz=138,slow=6.6,SNR=23
YKA                                  LR    LR         15 31 13.3
              comp=Z,161nm,18.9s,MS4.2,baz=165,slow=36
YKA    Yellowknife Ar    63.16 344   P     P          15 03 26.1  -0.7
YKA                                  LR    LR         15 31 13.3
YKW3   Yellowknife Ar    63.22 344  eP     P          15 03 25.2  -2.0
PPT    Papeete           69.15 250  eLR    LR         15 25 20.9
              853nm,24.8s,baz=81
TBI    Tubuai            70.26 244  eLR    LR         15 25 52.6
              586nm,26.8s,baz=66
RES    Resolute Bay      71.21 357  eP     P          15 04 21.2  +4.0
              3.5nm,0.9s,mb4.3
INK    Inuvik            72.82 342  eP     P          15 04 28.1  +1.3
              9.7nm,1.2s,mb4.6
SUMG   Summit            73.91  13   P     P          15 04 34.0  +0.8
              11nm,0.9s,mb4.8
ILAR   Eielson Array     75.77 337   P     P          15 04 44.4  +0.4
              1.0nm,0.9s,mb3.8,baz=132,slow=3.4,SNR=7.8
ILAR                                 LR    LR         15 40 30.0
              comp=Z,266nm,18.8s,MS4.6,baz=289,slow=38
ESDC   Sonseca Array     79.02  50   P     P          15 05 03.6  +1.0
              0.1nm,0.3s,mb3.3,baz=275,slow=19,SNR=2.6
ESK    Eskdalemuir       81.00  35  eP     P          15 05 16.3  +3.5
              20nm,1.2s,mb4.9
NOA    NORSAR Array B    88.69  29   LR    LR         15 42 24.6
              comp=Z,96nm,18.2s,MS4.2,baz=295,slow=33
NKC    Novy Kostel       90.50  40   AMS   AMS        15 39 40.0
              300nm,18.5s
KHC    Kasperske Hory    91.36  41   AMS   AMS        15 39 50.0
              200nm,20.8s
PVCC   Panska Ves        91.81  39   AMS   AMS        15 38 50.0
PRU    Pruhonice         91.87  40   AMS   AMS        15 39 50.0
ARCES  ARCESS Array B    92.82  20   LR    LR         15 42 59.1
              comp=Z,80nm,20.1s,MS4.2,baz=204,slow=32
DPC    Dobruska-Polom    92.94  39   AMS   AMS        15 41 00.0
              200nm,19.6s
OKC    Ostrava-Krasne    94.19  40   AMS   AMS        15 41 10.0
              300nm,19.9s
FINES  FINESS Array B    95.63  27   LR    LR         15 44 39.9
              comp=Z,103nm,19.1s,MS4.3,baz=169,slow=32
CTA    Charters Tower   129.56 247   PKP   PKPdf      15 12 04.6  -2.1
              1.9nm,0.6s,baz=345,slow=6.1,SNR=4.1
CTA    Charters Tower   129.56 247   PKP   PKPdf      15 12 04.6  -2.1
ASAR   Alice Springs    139.42 237   PKP   PKPdf      15 12 24.8  -0.1
              0.3nm,0.6s,baz=104,slow=2.2,SNR=2.4
WRA    Warramunga Arr   140.39 243   PKP   PKPdf      15 12 26.7   0.0
              0.6nm,0.7s,baz=113,slow=1.9,SNR=4.1
KOLN   Koldanda         146.02  22  eP     PKPdf      15 12 40.4  +4.0
GKN    Gorkha           146.18  20  eP     PKPdf      15 12 40.9  +4.3
KKN    Kakani           146.60  19  eP     PKPdf      15 12 42.5  +5.1
              11nm,0.7s
GUN    Gumba            146.68  18  eP     PKPdf      15 12 43.2  +5.7
              40nm,0.9s
DMN    Daman            146.70  20  eP     PKPdf      15 12 41.8  +4.3
              30nm,1.1s
PKI    Pulchoki         146.84  19  eP     PKPdf      15 12 43.0  +5.2
SHL    Shillong         150.40  10  eP     PKPdf      15 12 50.8  +7.3
```

IDC 02 15:05:29.6±4.7**, 4.88S**×**131.29E, mb3.4**/1**, mb1 3.4**/3**, mb1mx3.3**/12**, ML2.9**/2**, Error ellipse: s-maj=712.0km s-min=30.7km az=77.0, Banda Sea**

```
Code   Station Name        Δ°   AZ°    Phase ID            Time     Res
                                      Op      ISC        h  m  s    ISC
WRA    Warramunga Arr    15.26 169   Pn    P          15 09 06.3  -1.9
              0.0nm,0.3s,baz=330,slow=12,SNR=3.7
ASAR   Alice Springs     18.84 173   P     P          15 09 51.2  -2.2
              0.1nm,0.3s,baz=351,slow=9.9,SNR=9.4
SONM   Songino Array     56.88 340   P     P          15 15 16.3  -2.3
              0.2nm,0.4s,baz=164,slow=9.0,SNR=3.6
```

OTT 02 15:27:58.6±0.0**, 49.64N**×**67.09W, h18^{km}, MN3.1**/23**, 45km south from Port-Cartier, Qc Lower St. Lawrence Seismic Zone, Quebec, Southern Quebec**

```
Code   Station Name        Δ°   AZ°    Phase ID            Time     Res
                                      Op      ISC        h  m  s    ISC
ICQ    Pointe Anglais     0.17 225   PG    Pb         15 28 02.4  -0.8
ICQ                                  SG    Sb         15 28 05.4  -0.8
ICQ                                  Trac             15 28 06.2
              comp=Z,3µm,0.1s
SMQ    Clarke City        0.63  23   PG    Pb         15 28 09.8  -1.1
SMQ                                  SG    Sb         15 28 18.6  -0.5
SMQ                                  Trac             15 28 19.6
              comp=Z,295nm,0.1s
CNQ    Baie Comeau        0.73 243   PG    Pb         15 28 11.0  -1.4
CNQ                                  SG    Sb         15 28 21.1  -0.9
CNQ                                  Trac             15 28 21.6
              comp=Z,404nm,0.1s
GSQ    Grosses Roches     0.73 181   PG    Pb         15 28 10.4  -2.1
GSQ                                  SG    Sb         15 28 19.1  -2.9
GSQ                                  Trac             15 28 19.9
              comp=Z,238nm,0.1s
MNQ    Manicouagan        1.41 310   PN    Pn         15 28 22.8  -0.7
MNQ                                  PG    Pn         15 28 23.6   0.0
MNQ                                  SN    Sn         15 28 41.1  -0.6
MNQ                                  SG    Sb         15 28 42.3  +0.7
MNQ                                  Trac             15 28 44.1
              comp=Z,227nm,0.1s
A21    Saint Andre        2.59 223   PN    Pn         15 28 38.4  -2.2
A21                                  SN    Sn         15 29 09.3  -2.7
A21                                  Trac             15 29 15.8
              comp=Z,42nm,0.2s
A64    Saint Simeon       2.60 227   PN    Pn         15 28 38.1  -2.5
A64                                  SN    Sn         15 29 08.0  -4.0
A64                                  Trac             15 29 19.4
              comp=Z,13nm,0.1s
A61    Sainte Mathild     2.79 227   PN    Pn         15 28 41.3  -2.0
A61                                  SN    Sn         15 29 13.7  -3.1
A61                                  Trac             15 29 32.8
              comp=Z,13nm,0.1s
A16    Riviere Ouelle     2.91 223   PN    Pn         15 28 44.2  -0.9
A16                                  Trac             15 29 31.5
              comp=Z,14nm,0.1s
LMQ    La Malbaie         3.00 227   PN    Pn         15 28 43.6  -2.7
LMQ                                  SN    Sn         15 29 17.4  -4.8
LMQ                                  Trac             15 29 29.3
              comp=Z,18nm,0.1s
A54    Misere             3.11 227   PN    Pn         15 28 45.9  -2.0
A54                                  SN    Sn         15 29 21.4  -3.6
A54                                  Trac             15 29 35.8
              comp=Z,13nm,0.1s
DAQ    Lac Daran          3.22 240   PN    Pn         15 28 47.5  -1.9
DAQ                                  SN    Sn         15 29 24.1  -3.6
DAQ                                  Trac             15 29 40.1
              comp=Z,22nm,0.1s
LMN    Caledonia Moun     4.09 157   PN    Pn         15 28 56.6  -5.2
LMN                                  SN    Sn         15 29 42.6  -7.2
LMN                                  Trac             15 29 45.5
              comp=Z,2.4nm,0.1s
GGN    Saint George       4.53 178   PN    Pn         15 29 04.2  -3.9
GGN                                  SN    Sn         15 29 54.9  -6.0
GGN                                  Trac             15 29 56.2
              comp=Z,3.2nm,0.1s
DPQ    Saint Jean         4.82 234   PN    Pn         15 29 09.2  -3.0
DPQ                                  SN    Sn         15 30 02.3  -6.1
DPQ                                  Trac             15 30 05.9
              comp=Z,2.7nm,0.0s
SCHQ   Schefferville      5.20   2   PN    Pn         15 29 14.2  -3.4
SCHQ                                 SN    Sn         15 30 10.8  -7.0
SCHQ                                 Trac             15 30 15.0
              comp=Z,3.0nm,0.1s
MOQ    Mont Orford        5.57 221   PN    Pn         15 29 19.4  -3.4
MOQ                                  SN    Sn         15 30 17.6  -9.4
MOQ                                  Trac             15 30 23.5
              comp=Z,2.2nm,0.1s
LG4Q   La Grande 4        5.91 315   PN    Pn         15 29 24.3  -3.3
LG4Q                                 SN    Sn         15 30 28.3  -7.4
LG4Q                                 Trac             15 31 03.7
              comp=Z,4.4nm,0.2s
TRQ    Mont Tremblant     6.07 239   SN    Sn         15 30 31.5  -8.1
TRQ                                  Trac             15 30 34.8
              comp=Z,2.0nm,0.1s
DRLN   Deer Lake          6.26  90   PN    Pn         15 29 26.8  -5.8
DRLN                                 SN    Sn         15 30 32.5   -12
DRLN                                 Trac             15 31 15.2
              comp=Z,4.5nm,0.2s
GRQ    Grand Remous       6.61 246   PN    Pn         15 29 33.2  -4.2
GRQ                                  SN    Sn         15 30 44.0  -9.1
GRQ                                  Trac             15 31 27.5
              comp=Z,11nm,0.3s
ALFO   Alfred             6.62 236   PN    Pn         15 29 32.2  -5.5
ALFO                                 Trac             15 31 06.7
              comp=Z,1.3nm,0.1s
GAC    Glen Almond        6.90 238   PN    Pn         15 29 36.9  -4.6
GAC                                  SN    Sn         15 30 46.1   -14
GAC                                  Trac             15 31 12.3
              comp=Z,2.0nm,0.1s
VLDQ   Val d'Or           7.01 261   PN    Pn         15 29 41.0  -2.0
VLDQ                                 SN    Sn         15 30 58.3  -4.7
VLDQ                                 Trac             15 31 47.8
              comp=Z,3.7nm,0.2s
CRLO   Chalk River        7.81 246   SN    Sn         15 31 12.6   -10
CRLO                                 Trac             15 31 30.3
              comp=Z,1.4nm,0.1s
EEO    Eldee              8.56 254   SN    Sn         15 31 11.7   -30
SADO   Sadowa             9.54 244   PN    P          15 30 13.2  -4.9
SADO                                 SN    Sn         15 31 53.5   -12
SADO                                 Trac             15 32 58.9
              comp=Z,2.2nm,0.3s
VIMO   Victor Mine       10.92 293   PN    P          15 30 31.0  -6.0
VIMO                                 SN    S          15 32 25.4   -14
VIMO                                 Trac             15 32 39.4
              comp=Z,0.6nm,0.1s
SILO   Sutton Inlier     11.98 301   PN    P          15 30 45.9  -5.6
SILO                                 Trac             15 33 14.7
              comp=Z,0.3nm,0.1s
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*NIED **02** 15:34:00, 44.50N×148.10E, h92^{km}, Mw4.0 Best double couple: $M_0 1.33×10^{15}$ NP1:ϕ_s152°, δ51°, λ61°. NP2:ϕ_s13°, δ47°, λ121°.*

*MOS **02** 15:34:07.2±1.0, 45.13N×147.87E, h91^{km}, mb4.3/1, Error*

ellipse: s-maj=43.1km s-min=19.3km az=59.7
*JMA **02** 15:34:08.7±0.4, 44.47N×148.14E, h98^{km}, M4.1*
*IDC **02** 15:34:09.5±1.1, 45.03N×147.90E, h102^{km}±8^{km}, mb3.6/6, mb1 4.0/8, mb1mx3.6/23, Error ellipse: s-maj=46.6km s-min=18.0km az=135.0*
ISC 02 15:34:05.7±1.0**, 44.6N**±0.1×**148.3E**±0.1**, h83**^{km}±10^{km}**, h101**^{km}±2.1^{km}**:pP-P, n31, σ1^{s}12**/42**, mb3.9**/6**, 2C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUR	Kuril'sk	0.65	336	α iPN	P	15 34 20.6	-0.7
KUR				i S	S	15 34 32.0	-0.9
KUR				pmax	pmax		
	comp=N,360nm,0.4s						
KUR				pmax	pmax		
	comp=E,50nm,0.4s						
KUR				pmax	pmax		
	comp=Z,1μm,0.4s						
KUR				smax			
	comp=N,3μm,0.4s						
KUR				smax			
	comp=E,720nm,0.4s						
KUR				smax			
	comp=N,15μm,3.0s						
KUR				smax			
	comp=E,8μm,3.0s						
YUK	Yuzh-Kuril'sk	1.82	251	ePN	P	15 34 36.7	+0.9
YUK				i S	S	15 34 58.5	+0.6
YUK				pmax	pmax		
	comp=Z,500nm,0.3s						
YUK				pmax	pmax		
	comp=N,250nm,0.5s						
YUK				pmax	pmax		
	comp=E,480nm,0.5s						
YUK				smax			
	comp=N,2μm,0.5s						
YUK				smax			
	comp=E,2μm,0.5s						
YUK				smax			
	comp=E,3μm,1.0s						
NEM2	Nemuro 2	2.21	236	P	P	15 34 42.2	+1.0
NEM2				eS	S	15 35 06.4	-1.1
JRA	Rausu	2.35	254	P	P	15 34 44.5	+1.3
JNK	Nakash	2.75	249	P	P	15 34 50.1	+1.3
JNK				eS	S	15 35 21.7	+0.7
JAK	Akkeshi	3.05	239	P	P	15 34 53.3	+0.4
JAK				eS	S	15 35 27.7	-0.7
JTKR	Abashiri--Toko	3.19	259	P	P	15 34 55.5	+0.7
JAR	Ashorobuto	3.50	249	P	P	15 35 00.5	+1.3
JAR				eS	S	15 35 40.4	+0.8
JKK2	Kamakawa 2	4.03	261	P	P	15 35 07.0	+0.6
JSE	Soyaes	4.04	276	P	P	15 35 06.4	-0.3
ASAJ	Asahikawa	4.08	265	P	P	15 35 07.3	+0.1
	comp=E,9.1nm,0.3s,baz=89,slow=18,SNR=60						
ASAJ	Asahikawa	4.08	265	PN	P	15 35 07.3	+0.1
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.3s						
JCH	Churui	4.08	242	P	P	15 35 07.2	0.0
JCH				eS	S	15 35 52.2	-1.9
JFR	Furan	4.34	252	P	P	15 35 11.8	+1.0
JWK2	Keihoku	4.56	281	P	P	15 35 14.8	+1.1
JNBK	Urakawa-nobuka	4.64	241	P	P	15 35 14.3	-0.7
JNBK				eS	S	15 36 04.9	-3.1
JEW	Eniwo	5.24	252	P	P	15 35 24.3	+1.1
JKB	Kayabe	5.94	245	P	P	15 35 31.7	-1.1
JKB				eS	S	15 36 33.7	-6.5
JOT	Ohata	6.20	241	P	P	15 35 34.6	-1.8
JOT				eS	S	15 36 38.0	-8.6
JANG	Nango	6.55	232	P	P	15 35 38.5	-2.8
JANG				eS	S	15 36 45.5	-10
JOSM	Okushiri--Mats	6.89	251	P	P	15 35 44.9	-1.0
MA2	Magadan	15.04	5	eP	P	15 37 29.5	-5.0
FX1	Attu Island--F	18.31	54	P	P	15 38 16.4	+1.2
	comp=Z,0.9nm,0.3s,baz=102,slow=16,SNR=3.8						
FX1	Attu Island--F	18.31	54	P	P	15 38 16.4	+1.2
FX1				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ILAR	Eielson Array	40.30	37	P	P	15 41 35.0	-0.8
	comp=Z,0.3nm,0.5s,mb3.4,baz=266,slow=7.8,SNR=12						
ILAR				pP	pP	15 41 58.7	+2.8
	comp=Z,0.5nm,0.9s,baz=294,slow=10,SNR=3.7						
YKA	Yellowknife Ar	54.62	34	P	P	15 43 25.2	-2.2
	comp=Z,1.8nm,0.9s,mb4.1,baz=300,slow=6.9,SNR=11						
YKA				pP	pP	15 43 50.7	+2.4
	comp=Z,0.3nm,0.6s,baz=299,slow=6.8,SNR=2.5						
YKA	Yellowknife Ar	54.62	34	P	P	15 43 25.2	-2.3
YKA				*PP	pP	15 43 50.7	+2.4
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NVAR	Mina Array Bea	66.44	59	P	P	15 44 48.0	-0.1
	comp=Z,4.4nm,1.1s,mb4.2,baz=290,slow=7.7,SNR=11						
NVAR				pP	pP	15 45 12.8	+3.2
	comp=Z,0.5nm,0.8s,baz=281,slow=4.6,SNR=2.3						
PDAR	Pinedale Array	68.73	51	P	P	15 45 01.9	-0.3
	comp=Z,1.0nm,0.6s,mb3.8,baz=314,slow=2.2,SNR=9.4						
ASAR	Alice Springs	69.23	194	P	P	15 45 07.3	+1.7
	comp=Z,0.3nm,0.7s,mb3.3,baz=12,slow=6.8,SNR=2.9						
TXAR	Lajitas Array	81.50	57	P	P	15 46 15.6	+0.3
	comp=Z,2.5nm,0.5s,mb4.3,baz=294,slow=2.7,SNR=7.9						

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*NEIC **02** 15:36:14.8±2.1, 7.50S×147.51E, h53^{km}±20^{km}, mb4.2/7, Error ellipse: s-maj=18.9km s-min=16.5km az=160.0*
*IDC **02** 15:36:16.0±2.1, 7.53S×147.75E, h80^{km}±19^{km}, mb3.6/5, mb1 3.8/7, mb1mx3.7/13, MS2.9/1, Ms1 2.9/1, ms1mx2.4/18, Error ellipse: s-maj=36.5km s-min=15.6km az=115.0*
ISC 02 15:36:15.2±2.5**, 7.6S**±0.1×**147.5E**±0.2**, h71**^{km}±22^{km}**, n25, σ0^{s}75**/27**, mb4.3**/11**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	1.81	191	P	P	15 36 45.3	+0.3
	40nm,0.3s,baz=38,slow=4.1,SNR=96						
PMG				S	S	15 37 12.4	+5.5
	152nm,0.3s,baz=344,slow=17,SNR=7.1						
CTA	Charters Tower	12.46	185	eP	P	15 39 12.2	+0.7
	1.2nm,0.3s						
CTA	Charters Tower	12.46	185	P	P	15 39 12.1	+0.7
	0.6nm,0.3s,baz=10,slow=11,SNR=9.0						
CTA				LR	LR	15 43 53.9	
	comp=Z,51nm,18.9s,baz=50,slow=36						
CTAO	Charters Tower	12.46	185	eP	P	15 39 10.5	-1.0
	4.0nm,0.8s						
KAKA	Kakadu	15.69	250	eP	P	15 39 53.0	-0.5
	8.3nm,0.6s						
WRAB	Tennant Creek	17.68	225	eP	P	15 40 18.1	-0.2
	5.6nm,0.4s						
WB2	Warramunga Arr	17.68	225	eP	P	15 40 18.2	-0.2
WRA	Warramunga Arr	17.69	225	P	P	15 40 18.3	-0.2
	1.1nm,0.3s,baz=55,slow=12,SNR=38						
ASAR	Alice Springs	20.61	218	P	P	15 40 50.8	-0.3
	4.2nm,0.4s,baz=45,slow=8.9,SNR=50						
ASAR				S	S	15 44 40.9	+8.4
	1.7nm,0.9s,baz=31,slow=23,SNR=6.0						
ASPA	Alice Springs	20.62	218	eP	P	15 40 52.0	+0.9
FITZ	Fitzroy Crossi	23.69	242	eP	P	15 41 21.9	+0.4
	8.5nm,1.9s,mb3.8						
FITZ	Fitzroy Crossi	23.69	242	P	P	15 41 21.5	0.0
	1.3nm,0.4s,mb3.6,baz=73,slow=6.8,SNR=14						
STKA	Stephens Creek	24.76	192	eP	P	15 41 32.6	+0.8
	1.3nm,0.6s,mb3.5						
STKA	Stephens Creek	24.76	192	P	P	15 41 30.9	-0.9
	0.9nm,0.4s,mb3.6,baz=20,slow=13,SNR=7.5						
NWAO	Narrogin (SRO)	37.70	224	eP	P	15 43 22.1	-3.6
	37nm,1.2s,mb5.1						
CMAR	Chiang Mai Arr	54.45	299	P	P	15 45 37.5	-0.5
	0.7nm,0.4s,mb4.0,baz=119,slow=5.6,SNR=6.9						
PKI	Pulchoki	69.43	303	eP	P	15 47 18.1	-0.1
KKN	Kakani	69.61	303	eP	P	15 47 19.3	0.0
DMN	Daman	69.69	303	eP	P	15 47 19.8	0.0
	5.5nm,0.6s,mb4.6						
GKN	Gorkha	70.22	303	eP	P	15 47 23.1	+0.1
	5.6nm,0.5s,mb4.7						
SBA	Scott Base	70.92	176	eP	P	15 47 20.4	-6.0
	73nm,1.8s,mb5.2						
KOLN	Koldanda	71.00	303	eP	P	15 47 27.9	+0.2
	7.3nm,0.8s,mb4.6						
AML	Almayashu	83.24	314	eP	P	15 48 37.2	+1.8
	3.8nm,0.8s,mb4.3						
EKS2	Erkin-Say	83.33	315	eP	P	15 48 36.6	+0.7
	2.8nm,0.7s,mb4.2						
ILAR	Eielson Array	86.76	23	P	P	15 48 50.9	-1.5
	0.5nm,1.0s,mb3.4,baz=236,slow=6.5,SNR=3.9						

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*CNRM **02** 15:40:48.9, 35.02N×2.44W, h11^{km}, MD3.1*
*CSEM **02** 15:40:51.1±0.3, 34.98N×2.85W, h5^{km}, MD3.1, Error ellipse: s-maj=8.2km s-min=6.0km az=138.0*
*MDD **02** 15:40:52.4±1.8, 35.00N×3.10W, mb3.4/5, Error ellipse: s-maj=17.5km s-min=7.7km az=146.0, PRXIMO AftershockPLICA*
*NEIC **02** 15:40:53.1, 35.06N×3.09W, MG3.4(MDD), After MDD.*
ISC 02 15:40:51.6±1.1**, 35.06N**±0.04×**2.8W**±0.1**, h23**^{km}±5^{km}**, n19, σ1^{s}28**/31**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.11	145	i P	Pb	15 40 54.0	-2.0
MELI	Melilla	0.25	338	P	Pb	15 40 58.1	+0.4
MELI				S	Sb	15 41 03.3	+1.4
MELI	Melilla	0.25	338	eP	Pb	15 40 58.1	+0.3
EMLI	Melilla	0.26	336	P	Pb	15 40 57.7	-0.2
	53nm,0.1s,SNR=7.9						
EMEL	Melilla	0.27	335	P	Pb	15 40 57.7	-0.2
	53nm,0.1s,SNR=7.9						
EMEL				S	Sb	15 41 01.3	-0.9
	360nm,0.2s,SNR=4.8						
TOU	Touzarine	0.77	263	i P	Pb	15 41 07.5	+1.2
TOU				i S	Sb	15 41 21.0	+4.7
MPAL	Palemas	0.94	281	eP	Pb	15 41 10.0	+1.0
MPAL				i S	Sb	15 41 26.5	+5.5
TZK	Tazeka	1.48	230	i P	Pn	15 41 17.5	+0.2
TZK				i S	Sn	15 41 36.5	+0.4
EBER	Berja	1.84	358	P	Pn	15 41 25.7	+3.4
	1.1nm,0.1s,SNR=7.9						
EBER				S	Sn	15 41 45.7	+0.6
	21nm,0.5s,SNR=7.9						
EBER	Berja	1.84	358	S	Sn	15 41 45.7	+0.6
	21nm,0.5s,SNR=7.9						
EBER	Berja	1.84	358	P	Pn	15 41 25.7	+3.4
	1.1nm,0.1s,SNR=7.9						
EMIJ	Mijas	2.19	314	P	Pn	15 41 26.3	-1.1
	2.5nm,0.2s,SNR=7.9						
EMIJ				S	Sn	15 41 52.1	-1.9
	3.3nm,0.2s,SNR=7.9						
EQES	Quesada	2.75	356	P	Pn	15 41 38.4	+3.0
	2.6nm,0.2s,SNR=7.9						
EQES				S	Sn	15 42 11.6	+3.4
	4.4nm,0.2s,SNR=7.9						
EQES	Quesada	2.75	356	P	Pn	15 41 38.3	+2.9
EQES				S	Sn	15 42 11.6	+3.4
	4.4nm,0.2s,SNR=7.9						
EADA	Adamuz	3.41	336	P	Pn	15 41 45.3	+0.5
EADA				S	Sn	15 42 23.7	-1.3
EADA	Adamuz	3.41	336	P	Pn	15 41 45.3	+0.5
	2.2nm,0.3s,SNR=4.9						
EADA				S	Sn	15 42 23.7	-1.3
	2.9nm,0.3s,SNR=7.9						
EADA	Adamuz	3.41	336	P	Pn	15 41 45.3	+0.5
	2.2nm,0.3s,SNR=4.9						
EMIN	Mina Concepcio	4.12	312	P	Pn	15 41 53.6	-1.3
	0.5nm,0.1s,SNR=6.9						
EMIN				S	Sn	15 42 39.6	-3.4
	0.5nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.12	312	P	Pn	15 41 53.6	-1.2
	0.5nm,0.1s,SNR=6.9						

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*IDC **02** 15:51:48.0±1.0, 39.27N×27.90E, mb3.7/6, mb1 4.0/13, mb1mx3.9/25, ML4.0/7, MS3.6/7, Ms1 3.6/7, ms1mx3.4/22, Error ellipse: s-maj=15.4km s-min=13.3km az=65.0*
*ISK **02** 15:51:48.1, 39.26N×27.96E, h11^{km}, ML4.4*
*CSEM **02** 15:51:48.3, 39.30N×28.03E, h10^{km}, ML4.6*
*ZUR_RM **02** 15:51:48, 39.26N×27.96E, h15^{km}, Mw4.6/22, Moment Tensor Solution. s22 Moment tensor: Scale 10^{15}Nm; M_{rr}-2.66; $M_{\theta\theta}$7.06; $M_{\phi\phi}$-4.40; $M_{r\theta}$-2.47; $M_{\theta\phi}$-5.09; $M_{\phi r}$-1.07; Best double couple: $M_0$8.23×10^{15} NP1:ϕ_s69°, δ80°, λ-156°. NP2:ϕ_s334°, δ67°, λ-11°. Principal axes: T 9.312, Plg9°, Azm200°; N -2.156, Plg64°, Azm90°; P -7.156, Plg24°, Azm294°;*
*NEIC **02** 15:51:48.0, 39.26N×27.96E, h11^{km}, mb4.3/23, MD4.3(ATH), ML4.4(ISK), After ISK.*
*BJI **02** 15:51:48.0, 39.30N×28.00E, h11^{km}, mB5.1, mb4.7, Ms4.7, Msz4.5*
*MOS **02** 15:51:49.1±2.5, 39.39N×28.41E, h10^{km}, mb4.1/5, Error ellipse: s-maj=11.0km s-min=6.0km az=94.5*
*ATH **02** 15:51:49.1, 39.20N×27.94E, h30^{km}, MD4.3/13*
*THE **02** 15:51:49.6, 39.24N×28.01E, h7^{km}, ML4.3*
*SOF **02** 15:51:52.6, 39.67N×27.85E, h10^{km}, MD4.0*
ISC 02 15:51:48.4±0.1**, 39.26N**±0.01×**27.97E**±0.02**, h11**^{km}**, n291, σ1^{s}15**/319**, mb4.4**/17**, MS3.8**/9**, 6C-5D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALB	Balikesir	0.38	350	i PG	Pg	15 51 56.5	+0.2
BALB				SG	Sg	15 52 02.7	+1.1
BALB	Balikesir	0.38	350	Pg	Pg	15 51 56.5	+0.2
BALB				Sg	Sg	15 52 02.5	+1.0
BALB	Balikesir	0.38	350	i Pg	Pg	15 51 56.5	+0.2
BALB				Sg	Sg	15 52 02.5	+0.9
AKS	Akhisar	0.40	197	i PG	Pg	15 51 56.7	0.0
AKS	Akhisar	0.40	197	Pg	Pg	15 51 56.7	-0.1
BTOK	Tokmak	0.50	6	i P	Pg	15 51 58.7	+0.1
BTOK				i S	Sg	15 52 06.2	+0.8
DST	Dursunbey	0.61	56	i PG	Pg	15 52 00.2	-0.7
DST	Dursunbey	0.61	56	Pg	Pg	15 52 00.2	-0.6
MANT	Manisa	0.90	149	i P	Pb	15 52 06.5	+0.9
MANT				i S	Sb	15 52 17.4	+0.1
AYVA	Ayvalik	0.99	273	i P	Pb	15 52 08.4	+1.3
AYVA				i S	Sb	15 52 22.4	+2.4
KDAG	Bornova	1.02	213	i P	Pb	15 52 07.8	+0.1
KDAG				i S	Sb	15 52 23.7	+2.9
IZM	Izmir	1.03	213	i PG	Pg	15 52 07.8	-1.2
IZM	Izmir	1.03	213	Pg	Pg	15 52 07.8	-1.3
KCT	Karacabey	1.04	17	i PG	Pg	15 52 08.4	-1.0
KCT	Karacabey	1.04	17	Pg	Pg	15 52 08.4	-0.9
ORLT	Orhaneli	1.06	42	i PG	Pg	15 52 08.5	-1.2
ORLT	Orhaneli	1.06	42	Pg	Pg	15 52 08.5	-1.1
EDC	Edincik	1.08	356	PN	Pn	15 52 09.4	-0.1
EDC	Edincik	1.08	356	Pn	Pn	15 52 09.4	-0.1
BNT	Bandirma	1.09	358	i PN	Pn	15 52 09.5	-0.1
BNT	Bandirma	1.09	358	Pn	Pn	15 52 09.5	-0.1
BLCB	Balcova	1.14	220	i PN	Pn	15 52 10.3	0.0
BLCB	Balcova	1.14	220	Pn	Pn	15 52 10.3	0.0
ULDT	Uludag	1.26	45	i P	Pb	15 52 11.8	+0.1
ULDT				i S	Sb	15 52 29.2	+1.4
PRK	Paraskevi	1.32	270	ePN	Pn	15 52 13.6	+0.8
EZN	Ezine	1.39	294	i PN	Pn	15 52 14.4	+0.5
EZN	Ezine	1.39	294	Pn	Pn	15 52 14.4	+0.5
ARMT	Armutlu	1.47	28	PN	Pn	15 52 15.4	+0.4
KHL	Karahalli	1.54	127	i PN	Pn	15 52 16.6	+0.6
KHL	Karahalli	1.54	127	Pn	Pn	15 52 16.6	+0.7
SART	Tekirdag	1.55	337	i P	Pn	15 52 16.8	+0.7
SART				i S	Sb	15 52 40.0	+3.9
BOZC	Bozcaada	1.59	292	i P	Pn	15 52 17.2	+0.4
BOZC				i S	Sb	15 52 40.0	+2.7
AYDN	Tasoluk	1.60	183	i P	Pn	15 52 16.5	-0.4
AYDN				i S	Sn	15 52 37.8	+0.1
ALT	Altintas	1.68	96	i PN	Pn	15 52 18.4	+0.4
ALT	Altintas	1.68	96	Pn	Pn	15 52 18.4	+0.3
DENT	Denizli	1.72	151	i PN	Pn	15 52 18.5	-0.2
DENT	Denizli	1.72	151	Pn	Pn	15 52 18.5	-0.1
DNZL	Cakiroluk	1.79	151	i P	Pn	15 52 19.8	+0.2
DNZL				i S	Sn	15 52 43.0	+0.6
SMG	Samos	1.79	210	ePB	Pb	15 52 18.7	-2.1
BADT	Buyukada	1.81	29	i PN	Pn	15 52 19.7	-0.3
BADT	Buyukada	1.81	29	Pn	Pn	15 52 19.7	-0.2
MLSB	Milas	1.97	184	i PN	Pn	15 52 21.7	-0.5
MLSB	Milas	1.97	184	Pn	Pn	15 52 21.7	-0.5
ISK	Istanbul-Kandi	1.98	25	PN	Pn	15 52 21.7	-0.7
ISK	Istanbul-Kandi	1.98	25	Pn	Pn	15 52 21.7	-0.7
HRT	Hereke	2.03	39	PN	Pn	15 52 22.3	-0.7
HRT	Hereke	2.03	39	Pn	Pn	15 52 22.3	-0.7
GPA	Golpazari	2.07	60	PN	Pn	15 52 23.9	+0.2
GPA	Golpazari	2.07	60	Pn	Pn	15 52 23.9	+0.3
EYL	Eskiyayla	2.13	52	ePN	Pn	15 52 25.0	+0.6
EYL	Eskiyayla	2.13	52	Pn	Pn	15 52 25.0	+0.5
YER	Yerkesik	2.14	173	i PN	Pn	15 52 24.2	-0.4
YER	Yerkesik	2.14	173	Pn	Pn	15 52 24.2	-0.4
ALN	Alexandroupoli	2.20	318	ePn	Pn	15 52 25.8	+0.3
LIA	Limnos Island	2.24	287	ePN	Pn	15 52 26.4	+0.3
ESKT	Eskisehir	2.25	83	PN	Pn	15 52 26.4	+0.2
ESKT	Eskisehir	2.25	83	Pn	Pn	15 52 26.4	+0.2
ESKT	Eskisehir	2.25	83	i P	Pn	15 52 26.6	+0.4
ESKT				i S	Sn	15 53 01.9	+7.8
LOS	Limnos	2.33	288	ePn	Pn	15 52 27.9	+0.6
ISP	Isparta	2.45	125	PN	Pn	15 52 28.5	-0.5
ISP	Isparta	2.45	125	d iP	Pn	15 52 29.3	+0.3
ISP	Isparta	2.45	125	Pn	Pn	15 52 28.5	-0.5
ISP	Isparta	2.45	125	i P	Pn	15 52 29.3	+0.3
ISP				i S	Sn	15 53 09.2	+10
DALT	Dalyan (Mudla)	2.55	168	PN	Pn	15 52 30.5	+0.1
DALT	Dalyan (Mudla)	2.55	168	Pn	Pn	15 52 30.4	0.0
RDO	Rodhopi	2.65	316	ePN	Pn	15 52 32.1	+0.3
BCK	Bucak	2.74	130	PN	Pn	15 52 33.7	+0.6
BCK	Bucak	2.74	130	Pn	Pn	15 52 33.7	+0.6
HENT	Hendek	2.74	54	i P	Pn	15 52 32.8	-0.4
HENT				i S	Sn	15 53 13.0	+6.5
MDU	Mudurnu	2.77	63	PN	Pn	15 52 33.7	+0.1
APE	Apeiranthos	2.91	222	i PN	Pn	15 52 35.1	-0.6
APE	Apeiranthos	2.91	222	ePN	Pn	15 52 34.3	-1.4
APE	Apeiranthos	2.91	222	⇑ eP	Pn	15 52 39.8	+4.1
APE	Apeiranthos	2.91	222	Pn	Pn	15 52 35.1	-0.6
ELL	Elmali	2.94	148	ePN	Pn	15 52 36.8	+0.7
ELL	Elmali	2.94	148	Pn	Pn	15 52 36.8	+0.7
ARG	Arkhangelos	3.05	178	ePN	Pn	15 52 37.1	-0.4
KIZT	Kizilcal	3.07	96	PN	Pn	15 52 37.9	0.0
KIZT	Kizilcal	3.07	96	Pn	Pn	15 52 37.9	+0.1
KDZ	Kurdzhali	3.08	322	P	Pn	15 52 38.0	0.0
ANTB	Antalya	3.17	137	ePN	Pn	15 52 39.4	+0.1
AOS	Alonnisos	3.18	270	ePn	Pn	15 52 39.4	0.0
OUR	Ouranopolis	3.25	290	ePn	Pn	15 52 40.1	-0.3
DIM	Dimitrovgrad	3.34	327	P	Pn	15 52 41.0	-0.8
DIM				Pg	Pg	15 52 51.0	-4.2
DIM	Dimitrovgrad	3.34	327	Pg	Pg	15 52 51.0	-4.2
SGKT	Sivrigoynuk	3.41	66	i P	Pn	15 52 43.0	+0.3
SGKT				i S	Sg	15 53 41.6	-0.2
RZN	Rozhen	3.47	315	P	Pn	15 52 48.0	+4.5
THR3	Thira Island,	3.50	216	ePn	Pn	15 52 42.1	-1.9
SANT	Santorini	3.51	215	ePn	Pn	15 52 42.5	-1.6
SANT				ePb	Pb	15 52 50.4	+0.2
SANT				ePg	Pg	15 52 54.6	-3.8
SANT				eSn	Sn	15 53 35.2	+9.2
SANT	Santorini	3.51	215	ePn	Pn	15 52 42.5	-1.6
SANT	Santorini	3.51	215	ePb	Pb	15 52 50.4	+0.2
THR1	Thera Island	3.51	215	ePn	Pn	15 52 43.4	-0.7
THR5	Thira Island,	3.52	217	ePn	Pn	15 52 45.5	+1.3
THR6	Thira Island,	3.55	216	ePn	Pn	15 52 44.2	-0.5
PLG	Polygyros	3.65	289	ePN	Pn	15 52 45.7	-0.5
NEO	Neokhori	3.68	272	ePN	Pn	15 52 46.5	-0.1
KONT	Konya--Tatoy	3.69	110	PN	Pn	15 52 47.0	+0.4
KONT	Konya--Tatoy	3.69	110	Pn	Pn	15 52 47.0	+0.3
XOR	Xorichti	3.71	273	ePn	Pn	15 52 46.0	-0.9
LOD	Lodumlu	3.76	79	ePN	Pn	15 52 48.3	+0.6
KARP	Karpathos	3.77	190	ePN	Pn	15 52 47.6	-0.2
NVR	Nevrokopi	3.77	305	ePN	Pn	15 52 47.4	-0.4
ANTO	Ankara	3.78	79	PN	Pn	15 52 48.5	+0.6
ANTO	Ankara	3.78	79	Pn	Pn	15 52 48.5	+0.6
SRS	Serrai	3.83	300	ePn	Pn	15 52 48.0	-0.7
SOH	Sokhos	3.87	295	ePn	Pn	15 52 49.0	-0.2
LKR	Lokris	3.92	263	ePN	Pn	15 52 50.0	0.0
PRD	Provadia	3.96	354	P	Pn	15 52 49.0	-1.5
THE	Thessaloniki	4.08	291	ePn	Pn	15 52 52.3	0.0
SAFT	Safranbolu	4.12	60	ePN	Pn	15 52 53.3	+0.6
SAFT	Safranbolu	4.12	60	Pn	Pn	15 52 53.3	+0.6
HDMB	Hadim	4.24	121	ePN	Pn	15 52 55.2	+0.7
HDMB	Hadim	4.24	121	Pn	Pn	15 52 55.2	+0.7
SZH	Strazhica	4.28	340	P	Pn	15 52 54.0	-1.1
LIT	Litokhoron	4.31	283	ePn	Pn	15 52 55.0	-0.5
KNT	Kendrikon	4.32	298	ePn	Pn	15 52 55.6	0.0
ZKR	Zakros	4.37	199	P	Pn	15 52 56.4	0.0
ELDT	Eldivan	4.38	72	i P	Pn	15 52 56.7	+0.2
ELDT				i S	Sg	15 54 11.5	-2.6
AGG	Agios Georgios	4.39	269	ePn	Pn	15 52 56.1	-0.5
BRTR	Keskin Array B	4.41	82	Pn	Pn	15 52 56.9	-0.1
	2.4nm,0.3s,baz=260,slow=13,SNR=66						
BRTR				Pg	Pg	15 53 10.9	-5.6
	16nm,0.3s,baz=248,slow=16,SNR=37						
BRTR				Lg		15 54 09.7	
	9.8nm,0.3s,baz=266,slow=22,SNR=8.0						
BRTR	Keskin Array B	4.41	82	Pn	Pn	15 52 56.8	-0.1
BRTR	Keskin Array B	4.41	82	Pg	Pg	15 53 10.9	-5.6
NPS	Neapolis	4.41	206	ePN	Pn	15 52 55.7	-1.3
PSN	Preselentsi	4.42	2	P	Pn	15 52 55.3	-1.7
PVL	Pavlikeni	4.42	334	P	Pn	15 52 56.2	-0.9
KAMT	Kaman	4.46	87	ePN	Pn	15 52 58.2	+0.6
KAMT	Kaman	4.46	87	Pn	Pn	15 52 58.1	+0.6
KKB	Krupnik	4.54	307	P	Pn	15 53 07.9	+9.2
CANT	Cankiri	4.55	71	ePN	Pn	15 52 59.4	+0.5
CANT	Cankiri	4.55	71	Pn	Pn	15 52 59.4	+0.6
LAST	Lasithi	4.55	207	P	Pn	15 53 00.0	+1.1
GRG	Griva	4.59	293	ePn	Pn	15 53 00.1	+0.6
VAY	Valandovo	4.61	298	i Pn	Pg	15 53 17.6	-2.9
IDI	Anoyia	4.67	213	Pn	Pn	15 52 59.0	-1.6
	1.4nm,0.3s,baz=28,slow=13,SNR=6.5						
IDI				Pg	Pg	15 53 13.3	-8.4
	6.2nm,0.3s,baz=7.4,slow=16,SNR=11						
IDI				Lg		15 54 21.7	
	6.6nm,0.3s,baz=148,slow=22,SNR=2.9						
IDI	Anoyia	4.67	213	Pg	Pg	15 53 13.3	-8.3
BALT	Daday	4.72	60	i P	Pn	15 53 02.4	+1.1
BALT				S	Sb	15 54 10.9	+2.7
VLI	Veliai	4.72	239	ePN	Pn	15 52 59.9	-1.4
EVR	Evrytania	4.80	268	ePN	Pn	15 53 03.2	+0.7
KZN	Kozani	4.89	284	ePN	Pn	15 53 03.8	+0.1
VTS	Vitosha	4.90	314	P	Pn	15 53 03.7	-0.2
TOS	Tosya	4.97	67	ePN	Pn	15 53 04.9	+0.1
TOS	Tosya	4.97	67	Pn	Pn	15 53 04.9	+0.1
ITM	Ithomi	5.19	248	ePN	Pn	15 53 09.2	+1.2
FNA	Florina	5.28	289	ePn	Pn	15 53 09.6	+0.3
NIG	Nigde	5.32	100	ePN	Pn	15 53 09.7	-0.1
NIG	Nigde	5.32	100	Pn	Pn	15 53 09.7	-0.2
BZK	Bozkurt	5.32	58	ePN	Pn	15 53 09.3	-0.5
BZK	Bozkurt	5.32	58	Pn	Pn	15 53 09.3	-0.5
AVNT	Avonos	5.39	93	i P	Pn	15 53 12.4	+1.7
AVNT				i S	Sg	15 54 42.8	-5.0
GVD	Gavdhos	5.40	216	ePn	Pn	15 53 09.1	-1.8
GVD	Gavdhos	5.40	216	ePn	Pn	15 53 09.1	-1.8
CTKT	Corum	5.42	73	P	Pn	15 53 18.0	+6.9
CTKT				S	Sg	15 54 41.4	-7.4
IKL	Isikli	5.45	122	ePN	Pn	15 53 11.9	+0.3
IKL	Isikli	5.45	122	Pn	Pn	15 53 11.9	+0.3
MEST	Erdemli	5.57	117	P	Pn	15 53 13.6	+0.3
BYBT	Boyabat	5.64	65	ePN	Pn	15 53 14.4	+0.1
BYBT	Boyabat	5.64	65	Pn	Pn	15 53 14.4	+0.1
SKO	Skopje	5.66	301	⇑ iPn	Pn	15 53 14.9	+0.4
YOZ	Yozgat	5.70	84	ePN	Pn	15 53 15.2	0.0
YOZ	Yozgat	5.70	84	Pn	Pn	15 53 15.2	0.0
LEF	Lefka	5.71	135	ePN	Pn	15 53 15.3	+0.1
LEF	Lefka	5.71	135	Pn	Pn	15 53 15.2	0.0
LEF	Lefka	5.71	135	Pn	Pn	15 53 15.2	0.0
LKD	Levkas	5.73	267	ePn	Pn	15 53 15.9	+0.4
IGT	Igoumenitsa	5.92	275	ePn	Pn	15 53 17.6	-0.6
CSS	Prodhromos	6.07	133	ePn	Pn	15 53 18.5	-1.8
CSS	Prodhromos	6.07	133	ePn	Pn	15 53 18.5	-1.8
BNN	Bunyan	6.15	91	ePN	Pn	15 53 22.0	+0.6
BNN	Bunyan	6.15	91	Pn	Pn	15 53 22.0	+0.6
MLR	Muntele Rosu	6.40	347	Pn	Pn	15 53 24.6	-0.5
	6.7nm,0.3s,baz=158,slow=5.6,SNR=55						
MLR				Lg		15 55 20.9	
	1.9nm,0.3s,baz=48,slow=20,SNR=3.5						
BOLS	Boljevac	6.41	317	⇓ iPn	Pn	15 53 24.0	-1.2
BOLS				Sn	Sn	15 54 32.8	-6.4
KVT	Kavak	6.45	71	ePN	Pn	15 53 26.5	+0.8
TOKT	Tokat	6.69	78	ePN	Pn	15 53 29.8	+0.7
TOKT	Tokat	6.69	78	Pn	Pn	15 53 29.8	+0.6
COBT	Iskenderun	7.10	110	P	Pn	15 53 36.3	+1.3
SVIS	Svilajnac	7.12	317	⇑ iPn	Pn	15 53 32.7	-2.5
SVIS				Sn	Sn	15 54 47.7	-9.2
GRUS	Gruza	7.13	313	⇑ iPn	Pn	15 53 33.1	-2.3
KAHT	Ahir Dag	7.18	100	P	Pn	15 53 38.7	+2.7
SIM	Simferopol'	7.29	37	eP	Pn	15 53 35.3	-2.2
SIM				eS	Sn	15 54 48.4	-13
SIM				pmax	pmax		
	comp=Z,57nm,0.8s						
KIS	Kishinev	7.75	4	eP	Pn	15 53 42.0	-2.0
KIS				e		15 55 19.0	
GZT	Gaziantep	7.78	101	P	Pn	15 53 44.6	+0.2
MALT	Malatya	8.22	93	ePN	P	15 53 50.1	-0.5
MALT	Malatya	8.22	93	Pn	P	15 53 50.1	-0.5
TIP	Timpagrande	8.70	273	ePn	P	15 53 55.5	-1.8
TIP	Timpagrande	8.70	273	ePn	P	15 53 55.5	-1.7
PTK	Pertek	8.89	89	ePN	P	15 53 59.2	-0.7

ANN	**Anapa**	**8.95**	**49**	eP	**P**	**15 53 52.5**	**-8.2**
ANN				e		15 55 30.1	
ANN				pmax	pmax		
	comp=Z,92nm,1.1s						
EZC	**Erzincan**	**9.17**	**83**	ePN	**P**	**15 53 58.1**	**-5.6**
EZC	**Erzincan**	**9.17**	**83**	Pn	**P**	**15 53 58.1**	**-5.7**
KMPD	**K-Podol'skiy**	**9.36**	**354**	P	**P**	**15 54 04.0**	**-2.3**
CUC	**Castrocucco**	**9.41**	**278**	P	**P**	**15 54 08.5**	**+1.5**
SLCN	**Sala Consilina**	**9.56**	**281**	ePn	**P**	**15 54 09.3**	**+0.3**
MGR	**Morigerati**	**9.61**	**279**	ePn	**P**	**15 54 10.4**	**+0.7**
PKSM	**Moragy**	**9.76**	**318**	P	**P**	**15 54 09.4**	**-2.3**
PKSM	**Moragy**	**9.76**	**318**⇓	eP	**P**	**15 54 09.6**	**-2.1**
SGO	**Sicignano**	**9.81**	**282**	ePn	**P**	**15 54 12.6**	**0.0**
SOC	**Sochi**	**9.82**	**60**	eP	**P**	**15 54 18.0**	**+5.4**
SOC				eS	**Sn**	**15 56 04.3**	**+0.3**
SOC				pmax	pmax		
	comp=Z,31nm,1.0s						
SOC				pmax	pmax		
	comp=N,21nm,1.2s						
SOC				pmax	pmax		
	comp=E,15nm,0.8s						
SOC				MLR	MLR		
	comp=Z,319nm,17.0s						
SOC				MLR	MLR		
	comp=N,244nm,11.0s						
SOC				MLR	MLR		
	comp=E,205nm,13.0s						
CSSN	**Cassano Irpino**	**10.05**	**283**	ePn	**P**	**15 54 16.5**	**+0.7**
ASF	**Jabal al Asfar**	**10.13**	**132**	Pn	**P**	**15 54 16.9**	**-0.1**
	comp=E,0.3nm,0.3s,baz=123,slow=4.3,SNR=4.7						
ASF				Sn	**S**	**15 56 08.6**	**-3.1**
	comp=E,0.1nm,0.3s,baz=12,slow=22,SNR=2.1						
PSZ	**Piszkesteto**	**10.44**	**329**	ePn	**P**	**15 54 15.3**	**-5.8**
	comp=E,12nm,0.9s						
KWP	**Kalwaria**	**11.02**	**342**	eP	**P**	**15 54 28.1**	**-1.0**
KWP	**Kalwaria**	**11.02**	**342**	eP	**P**	**15 54 28.0**	**-1.1**
EIL	**Elat**	**11.17**	**147**	Pn	**P**	**15 54 29.2**	**-1.9**
	comp=E,1.1nm,0.3s,baz=345,slow=26,SNR=4.3						
EIL				Sn	**S**	**15 56 25.8**	**-11**
	comp=E,0.7nm,0.3s,baz=358,slow=29,SNR=2.5						
EIL	**Elat**	**11.17**	**147**	eP	**P**	**15 54 24.8**	**-6.3**
EIL				Sn	**S**	**15 56 25.8**	**-11**
AQU	**L'Aquila**	**11.46**	**290**	P	**P**	**15 54 30.9**	**-4.2**
AKASG	**Malin Array Be**	**11.47**	**4**	Pn	**P**	**15 54 32.9**	**-2.3**
	comp=E,1.7nm,0.3s,baz=190,slow=12,SNR=6.3						
AKASG				Sn	**S**	**15 56 36.0**	**-8.4**
	comp=E,0.6nm,0.3s,baz=173,slow=22,SNR=2.5						
AKASG	**Malin Array Be**	**11.47**	**4**	P	**P**	**15 54 32.9**	**-2.3**
AKASG						15 56 36.0	
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
KIV	**Kislovodsk**	**11.97**	**62**	eP	**P**	**15 54 34.7**	**-7.3**
KIV				pmax	pmax		
	comp=Z,9.0nm,1.4s						
KIV				pmax	pmax		
	comp=N,3.0nm,0.7s						
KIV				pmax	pmax		
	comp=E,5.0nm,1.0s						
KIV				MLR	MLR		
	comp=E,134nm,18.0s						
KIV				MLR	MLR		
	comp=Z,160nm,18.0s						
ARSA	**Arzberg**	**12.07**	**315**	P	**P**	**15 54 42.6**	**-0.7**
VOY	**Vojsko**	**12.36**	**308**	e(P)	**P**	**15 54 48.2**	**+0.9**
VOY				e		15 54 55.8	
ZEI	**Tsey**	**12.53**	**69**	P	**P**	**15 54 53.0**	**+3.5**
OKC	**Ostrava-Krasne**	**12.67**	**330**	eP	**P**	**15 55 07.8**	**+16**
OKC				AMS	AMS	16 00 20.0	
	comp=Z,500nm,12.3s						
GNI	**Garni**	**12.95**	**81**	LR	LR	15 59 23.4	
	comp=Z,100nm,20.8s,baz=141,slow=35						
DPC	**Dobruska-Polom**	**13.81**	**327**	AMS	AMS	16 01 30.0	
	comp=Z,400nm,13.7s						
GERES	**GERESS Array B**	**14.01**	**318**	Pn	**P**	**15 55 08.6**	**-0.4**
	baz=117,slow=9.0,SNR=6.1						
KHC	**Kasperske Hory**	**14.25**	**318**⇑	eP	**P**	**15 55 19.2**	**+7.0**
KHC	**Kasperske Hory**	**14.25**	**318**	eP	**P**	**15 55 19.6**	**+7.4**
KHC				e		15 55 30.0	
KHC	**Kasperske Hory**	**14.25**	**318**	eP	**P**	**15 55 19.6**	**+7.4**
KHC				x	x	15 55 30.0	
KHC				AMS	AMS	16 01 10.0	
	comp=Z,500nm,11.8s						
VRSR	**Storozhevoye**	**14.31**	**30**	eP	**P**	**15 55 10.4**	**-2.5**
VRSR				e		15 57 46.3	
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,40nm,1.6s						
VRSR				smax			
	comp=N,40nm,0.9s						
VRSR				smax			
	comp=Z,4.0nm,0.8s						
VRSR				smax			
	comp=E,10.0nm,0.7s						
PRU	**Pruhonice**	**14.34**	**323**	AMS	AMS	16 01 20.0	
PVCC	**Panska Ves**	**14.70**	**324**	AMS	AMS	16 01 40.0	
	comp=E,300nm,12.8s						
SUW	**Suwalki**	**15.11**	**349**	eP	**P**	**15 55 18.6**	**-4.8**
	comp=E,21nm,0.9s						
DAVOX	**Davos**	**15.19**	**305**	Pn	**P**	**15 55 30.4**	**+5.9**
	comp=E,0.3nm,0.3s,baz=122,slow=12,SNR=10						
BRG	**Berggiesshubel**	**15.23**	**324**	eP	**P**	**15 55 30.4**	**+5.5**
BRG				pmax	pmax		
	comp=Z,2.0nm,1.6s						
BRG				MLR	MLR		
	comp=N,650nm,15.5s						
BRG				MLR	MLR		
	comp=E,660nm,15.5s						
BRG				MLR	MLR		
	comp=Z,370nm,14.0s						
BRG	**Berggiesshubel**	**15.23**	**324**	P	**P**	**15 55 30.4**	**+5.5**
	comp=Z,2.3nm,1.6s						
MNK	**Minsk**	**15.24**	**360**	eP	**P**	**15 55 26.0**	**+0.9**
DAVOS	**Davos**	**15.27**	**306**	P	**P**	**15 55 30.4**	**+4.9**
NKC	**Novy Kostel**	**15.52**	**320**	eP	**P**	**15 55 20.5**	**-8.2**
NKC				AMS	AMS	16 02 10.0	
	comp=Z,300nm,12.6s						
GRA1	**Grafenberg Arr**	**15.82**	**317**	eP	**P**	**15 55 36.8**	**+4.2**
	comp=Z,13nm,1.0s						
GRF	**Grafenberg Arr**	**15.82**	**317**	eP	**P**	**15 55 36.8**	**+4.2**
GRF				pmax	pmax		
	comp=Z,13nm,1.0s						
CLL	**Collm**	**15.96**	**324**	eP	**P**	**15 55 34.0**	**-0.4**
CLL	**Collm**	**15.96**	**324**	P	**P**	**15 55 34.0**	**-0.4**
SBF	**Sospel**	**16.03**	**293**	eP	**P**	**15 55 39.6**	**+4.2**
	comp=Z,34nm,0.7s						
MOX	**Moxa**	**16.19**	**320**	eP	**P**	**15 55 40.0**	**+2.7**
MOX				QM		16 01 08.0	
MOX				RM		16 04 25.0	
FRF	**La Foret Royal**	**16.55**	**292**	eP	**P**	**15 55 44.3**	**+2.3**
	comp=Z,29nm,0.9s						
LMR	**La Mourre**	**16.62**	**291**	eP	**P**	**15 55 44.4**	**+1.5**
	comp=Z,53nm,1.3s						
MBDF	**Montbardon**	**16.66**	**296**	eP	**P**	**15 55 45.9**	**+2.6**
	comp=Z,62nm,0.9s						
BNI	**Bardonecchia**	**16.79**	**297**	eP	**P**	**15 55 46.0**	**+1.0**
	comp=Z,99nm,1.8s						
BNI	**Bardonecchia**	**16.79**	**297**	eP	**P**	**15 55 46.0**	**+1.0**
	comp=Z,99nm,1.8s						
LPG	**La Plagne**	**16.85**	**299**	eP	**P**	**15 55 48.8**	**+3.1**
	comp=Z,53nm,1.1s						
LPL	**La Plagne**	**16.86**	**299**	eP	**P**	**15 55 49.0**	**+3.1**
	comp=Z,13nm,0.7s						
OBN	**Obninsk**	**16.88**	**17**	eP	**P**	**15 55 41.4**	**-4.6**
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s						
OBN	**Obninsk**	**16.88**	**17**	eP	**P**	**15 55 42.9**	**-3.1**
	comp=Z,49nm,1.1s						
ORIF	**Oris-en-Rattie**	**17.32**	**296**	eP	**P**	**15 55 54.3**	**+2.7**
	comp=Z,26nm,0.8s						
ORIF				eR			
	comp=Z,318nm,19.9s						
CDF	**Champ du Feu**	**17.46**	**308**	eP	**P**	**15 55 55.5**	**+2.1**
	comp=Z,28nm,1.0s						
CABF	**La Chapelle**	**17.59**	**302**	eP	**P**	**15 55 57.3**	**+2.3**
	comp=Z,88nm,1.5s						
MOS	**Moscow**	**17.70**	**18**	eP	**P**	**15 56 00.2**	**+3.9**
MOS				pmax	pmax		
	comp=Z,140nm,1.4s						
MOS				pmax	pmax		
	comp=N,89nm,1.0s						
MOS				pmax	pmax		
	comp=E,88nm,0.8s						
SMF	**Signal de Mont**	**19.09**	**301**	eP	**P**	**15 56 13.1**	**-0.4**
	comp=E,13nm,0.8s						
VSU	**Vasula**	**19.23**	**358**	deP	**P**	**15 56 18.5**	**+3.5**
SSF	**Saint Saulge**	**19.42**	**302**	eP	**P**	**15 56 15.9**	**-1.4**
	comp=E,8.9nm,1.1s						
AVF	**Avril sur Loir**	**19.45**	**301**	eP	**P**	**15 56 16.7**	**-1.0**
	comp=E,29nm,1.1s						
BGF	**Bois d'Agland**	**19.74**	**300**	eP	**P**	**15 56 21.9**	**+1.0**
DOU	**Dourbes**	**19.75**	**311**	P	**P**	**15 56 20.1**	**-0.9**
TCF	**Toulx Ste Croi**	**20.11**	**299**	eP	**P**	**15 56 26.7**	**+1.7**
	comp=E,94nm,1.3s						
LDF	**La Druitiere**	**22.17**	**304**	eP	**P**	**15 56 46.0**	**+0.1**
FINES	**FINESS Array B**	**22.24**	**358**	P	**P**	**15 56 45.9**	**-0.6**
	comp=E,3.3nm,0.7s,mb3.9,baz=150,slow=7.7,SNR=6.7						
FINES				LR	LR	16 05 45.0	
	comp=E,123nm,18.5s,MS3.4,baz=182,slow=38						
FINES	**FINESS Array B**	**22.24**	**358**	P	**P**	**15 56 45.9**	**-0.6**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES				MLR	MLR		
	comp=Z,123nm,18.5s						
SJPF	**Ste Jean**	**22.25**	**289**	eP	**P**	**15 56 47.8**	**+1.1**
	comp=Z,210nm,1.7s,mb5.0						
GRR	**Gorron**	**22.60**	**303**	eP	**P**	**15 56 50.2**	**+0.1**
HFS	**Hagfors**	**22.74**	**341**	P	**P**	**15 56 51.8**	**+0.4**
	comp=Z,4.0nm,0.8s,mb3.9,baz=153,slow=9.9,SNR=4.8						
HFS	**Hagfors**	**22.74**	**341**	P	**P**	**15 56 51.8**	**+0.4**
HFS				pmax	pmax		
	comp=Z,4.0nm,0.8s						
JOF	**Joensuu**	**23.77**	**4**	ep	**P**	**15 57 00.9**	**-0.5**
NB2	**NORSAR Subarra**	**24.15**	**340**	P	**P**	**15 57 04.0**	**-1.1**
	comp=Z,10nm,1.4s,mb4.1,baz=147,slow=12						
NOA	**NORSAR Array B**	**24.15**	**340**	P	**P**	**15 57 06.5**	**+1.4**
	comp=Z,0.6nm,0.8s,mb3.1,baz=144,slow=12,SNR=3.5						
NOA				LR	LR	16 05 32.8	
	comp=Z,61nm,21.2s,MS3.0,baz=155,slow=34						
NOA	**NORSAR Array B**	**24.15**	**340**	P	**P**	**15 57 06.5**	**+1.4**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,61nm,21.2s						
ESDC	**Sonseca Array**	**24.59**	**281**	P	**P**	**15 57 09.6**	**+0.1**
	comp=Z,2.6nm,0.7s,mb3.9,baz=65,slow=10,SNR=7.2						
EKA	**Eskdalemuir Ar**	**26.23**	**318**	P	**P**	**15 57 22.9**	**-2.0**
	comp=Z,1.6nm,0.7s,mb3.6,baz=108,slow=10,SNR=5.4						
EKA	**Eskdalemuir Ar**	**26.23**	**318**	P	**P**	**15 57 22.9**	**-2.0**
EKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARU	**Arti**	**26.45**	**39**⇓	iP	**P**	**15 57 24.8**	**-2.0**
ARU				i		15 58 07.5	
ARU				eS	**S**	**16 01 53.6**	**-4.7**
ARU				eSS	SS	16 03 04.8	-3.1
ARU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.2						
ARU	**Arti**	**26.45**	**39**	eP	**P**	**15 57 25.2**	**-1.6**
	comp=Z,14nm,0.9s,mb4.5						
ARU				e		15 57 38.1	
ARCES	**ARCESS Array B**	**30.36**	**358**	LR	LR	16 10 45.7	
	comp=Z,120nm,18.2s,MS3.6,baz=12,slow=38						
CHKZ	**Chkalovo**	**32.18**	**49**	eP	**P**	**15 58 16.6**	**-1.6**
	comp=Z,3.8nm,0.9s,mb4.2						
AAK	**Ala-Archa**	**34.96**	**69**	eP	**P**	**15 58 43.9**	**+1.5**
	comp=Z,4.6nm,1.1s,mb4.3						
JMIC	**Jan Mayen**	**36.86**	**341**	LR	LR	16 13 15.0	
	comp=Z,106nm,18.8s,MS3.6,baz=101,slow=35						
KURK	**Kurchatov**	**36.92**	**55**	P	**P**	**15 59 01.2**	**+2.3**
WMQ	**Urumqi**	**44.09**	**64**	⇑P	**P**	**15 59 59.0**	**+0.9**
WMQ				AP	pP	16 00 03.2	+1.8
WMQ				XP	sP	16 00 05.8	+3.0
WMQ				PP	PP	16 01 43.5	+1.0
WMQ				S	**S**	**16 06 31.4**	**+1.3**
WMQ				XS		16 06 38.0	
WMQ				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.2						
WMQ				LR	LR		
	comp=N,106nm,17.8s,MS3.8						
WMQ				LR	LR		
	comp=E,38nm,21.0s,MS3.8						
WMQ				LR	LR		
	comp=Z,125nm,20.0s,MS3.8						
KOLN	**Koldanda**	**47.12**	**87**	eP	**P**	**16 00 21.4**	**-1.0**
GKN	**Gorkha**	**47.81**	**86**	eP	**P**	**16 00 26.9**	**-1.0**
DMN	**Daman**	**48.37**	**86**	eP	**P**	**16 00 34.5**	**+2.3**
	comp=Z,32nm,1.2s,mb5.2						
KKN	**Kakani**	**48.41**	**86**	eP	**P**	**16 00 34.5**	**+2.0**
PKI	**Pulchoki**	**48.62**	**86**	eP	**P**	**16 00 37.4**	**+3.3**
GUN	**Gumba**	**48.82**	**85**	eP	**P**	**16 00 37.7**	**+2.0**
TIXI	**Tiksi**	**56.54**	**22**	eP	**P**	**16 01 36.3**	**+3.7**
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
TIXI				MLR	MLR		
	comp=Z,99nm,17.0s,MS4.0						
PALK	**Pallekele**	**56.93**	**110**	P	**P**	**16 01 33.2**	**-3.0**
	comp=Z,39nm,1.5s,mb5.2						
LZH	**Lanzhou**	**58.46**	**67**	eP	**P**	**16 01 45.4**	**-1.3**
LZH				AP	pP	16 01 48.7	-1.4
LZH				PP	PP	16 03 56.5	-1.4
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,113nm,5.2s						
LZH				LR	LR		
	comp=N,307nm,15.3s						
LZH				LR	LR		
	comp=Z,395nm,20.2s,MS4.5						
CN2	**Changchun**	**68.80**	**50**	eP	**P**	**16 02 54.9**	**+0.4**
MDJ	**Mudanjiang**	**70.76**	**48**	P	**P**	**16 03 02.1**	**-4.4**
MDJ				PCP	PcP	16 03 23.4	-4.0
MDJ				S	S	16 12 14.5	-5.1
MDJ				SCS	ScS	16 13 05.1	-1.3
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.3s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,60nm,3.7s						
MDJ				LR	LR		
	comp=N,145nm,5.6s						
MDJ				LR	LR		
	comp=E,68nm,6.9s						
MDJ				LR	LR		
	comp=Z,101nm,5.0s						
NJ2	**Nanjing**	**71.17**	**64**	eP	**P**	**16 03 06.9**	**-2.3**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
YKA	**Yellowknife Ar**	**74.22**	**343**	P	**P**	**16 03 24.9**	**-1.5**
	comp=Z,0.4nm,0.8s,mb3.4,baz=34,slow=5.4,SNR=6.7						
NVAR	**Mina Array Bea**	**96.72**	**334**	LR	LR	16 54 17.9	
	comp=Z,40nm,18.1s,MS3.9,baz=305,slow=39						
TXAR	**Lajitas Array**	**98.23**	**319**	LR	LR	16 50 21.3	
	comp=Z,49nm,19.0s,MS4.0,baz=160,slow=36						

TAP 02 15:55:46.6, 24.43N×121.71E, h67^{km}±1^{km}, ML3.6, Taiwan

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*NEIC **02** 15:58:13.6, 34.96N×3.09W, MG3.7(MDD), After MDD.*
*CSEM **02** 15:58:13.6±0.1, 35.04N×2.90W, h5^{km}, MD3.4, Error ellipse: s-maj=4.1km s-min=2.5km az=114.0*
*MDD **02** 15:58:14.6±1.7, 35.01N×3.15W, mb3.7/6, Error ellipse: s-maj=17.5km s-min=7.1km az=150.0, PRXIMO AftershockPLICA*
*CNRM **02** 15:58:14.7, 35.09N×2.75W, h6^{km}, MD3.4*
ISC 02 15:58:13.9±0.7**, 35.03N**±0.03×**2.78W**±0.05**, h10^{km}, n25,** σ1^{s}06/40**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.07**	**152**	iP	**Pg**	**15 58 17.0**	**+0.8**
MELI	**Melilla**	**0.29**	**335**	P	**Pg**	**15 58 21.7**	**+1.7**
MELI				S	**Sg**	**15 58 25.2**	**+1.2**
MELI	**Melilla**	**0.29**	**335**	eP	**Pg**	**15 58 21.7**	**+1.7**
EMLI	**Melilla**	**0.30**	**333**	P	**Pg**	**15 58 19.6**	**-0.6**
	721nm,0.2s,SNR=7.9						
EMEL	**Melilla**	**0.30**	**332**	P	**Pg**	**15 58 19.6**	**-0.7**
	721nm,0.2s,SNR=7.9						
EMEL				S	**Sg**	**15 58 25.2**	**+0.7**
	1μm,0.2s,SNR=7.9						
TOU	**Touzarine**	**0.80**	**265**	iP	**Pb**	**15 58 29.5**	**+0.1**
TOU				iS	**Sb**	**15 58 40.5**	**+0.4**
MPAL	**Palemas**	**0.97**	**282**	eP	**Pb**	**15 58 32.5**	**+0.1**
MPAL				iS	**Sb**	**15 58 45.0**	**0.0**
TZK	**Tazeka**	**1.49**	**231**	iP	**Pn**	**15 58 40.5**	**-0.4**
TZK				iS	**Sb**	**15 58 59.5**	**-0.6**
EBER	**Berja**	**1.87**	**357**	P	**Pn**	**15 58 46.6**	**+0.3**
	3.0nm,0.3s,SNR=5.8						
EBER				S	**Sn**	**15 59 08.0**	**-2.0**
	104nm,0.6s,SNR=15						
EBER	**Berja**	**1.87**	**357**	S	**Sn**	**15 59 08.0**	**-2.1**
	104nm,0.6s,SNR=15						
EBER	**Berja**	**1.87**	**357**	P	**Pn**	**15 58 46.6**	**+0.3**
	3.0nm,0.3s,SNR=5.8						
EMIJ	**Mijas**	**2.23**	**314**	P	**Pn**	**15 58 48.0**	**-3.5**
	5.4nm,0.2s,SNR=7.9						
EMIJ				S	**Sn**	**15 59 13.7**	**-5.6**
	23nm,0.4s,SNR=7.9						
MIF	**Mishlifen**	**2.59**	**232**	iP	**Pn**	**15 58 56.5**	**-0.2**
CZD	**Col de Zad**	**2.74**	**224**	iP	**Pn**	**15 58 59.0**	**+0.3**
EQES	**Quesada**	**2.78**	**355**	P	**Pn**	**15 59 00.7**	**+1.4**
EQES				S	**Sn**	**15 59 34.0**	**+0.8**
EQES	**Quesada**	**2.78**	**355**	P	**Pn**	**15 59 00.7**	**+1.4**
	5.0nm,0.3s,SNR=4.0						
EQES				S	**Sn**	**15 59 34.0**	**+0.8**
	19nm,0.3s,SNR=7.9						
EQES	**Quesada**	**2.78**	**355**	P	**Pn**	**15 59 00.7**	**+1.4**
	5.0nm,0.3s,SNR=4.0						
EQES				S	**Sn**	**15 59 34.0**	**+0.8**
	19nm,0.3s,SNR=7.9						
EMUR	**La Murta**	**3.07**	**23**	P	**Pn**	**15 59 04.7**	**+1.2**
EMUR				S	**Sn**	**15 59 39.3**	**-1.3**
EMUR	**La Murta**	**3.07**	**23**	P	**Pn**	**15 59 04.7**	**+1.2**
	5.4nm,0.3s,SNR=4.0						
EMUR				S	**Sn**	**15 59 39.3**	**-1.3**
	12nm,0.5s,SNR=7.9						
EMUR	**La Murta**	**3.07**	**23**	P	**Pn**	**15 59 04.7**	**+1.2**
	5.4nm,0.3s,SNR=4.0						
EMUR				S	**Sn**	**15 59 39.3**	**-1.4**
	12nm,0.5s,SNR=7.9						
ZFT	**Errachidia**	**3.26**	**204**	iP	**Pn**	**15 59 06.5**	**+0.3**
EADA	**Adamuz**	**3.45**	**336**	P	**Pn**	**15 59 07.8**	**-1.1**
	4.2nm,0.3s,SNR=12						
EADA				S	**Sn**	**15 59 46.3**	**-3.9**
	6.1nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**3.45**	**336**	P	**Pn**	**15 59 07.8**	**-1.0**
	4.2nm,0.3s,SNR=12						
EADA				S	**Sn**	**15 59 46.3**	**-3.9**
EMIN	**Mina Concepcio**	**4.16**	**312**	P	**Pn**	**15 59 16.1**	**-2.8**
	3.2nm,0.3s,SNR=17						
EMIN	**Mina Concepcio**	**4.16**	**312**	P	**Pn**	**15 59 16.1**	**-2.9**

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*NEIC **02** 16:01:47.2±0.6, 21.06S×178.86W, h600^{km}, mb4.4/11, Error ellipse: s-maj=31.1km s-min=10.1km az=149.0*
*IDC **02** 16:01:53.5±2.2, 20.94S×179.24W, h657^{km}±25^{km}, mb3.5/8, mb1 3.6/8, mb1mx3.4/16, Error ellipse: s-maj=51.7km s-min=13.7km az=158.0*
ISC 02 16:01:51.4±2.5**, 21.1S**±0.3×**179.2W**±0.2**, h653^{km}**±34^{km}**, n34,** σ**0^{s}77**/24**, mb4.2**/15**, 1C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**32.30**	**265**	eP	**P**	**16 07 32.0**	**+0.5**
	7.7nm,0.4s,mb4.6						
CTA	**Charters Tower**	**32.30**	**265**	P	**P**	**16 07 32.3**	**+0.8**
	8.6nm,0.4s,mb4.6,baz=92,slow=10,SNR=21						
CTAO	**Charters Tower**	**32.30**	**265**	eP	**P**	**16 07 31.9**	**+0.4**
	9.8nm,0.4s,mb4.7						
PMG	**Port Moresby**	**34.37**	**285**	P	**P**	**16 07 48.9**	**+0.2**
	14nm,0.9s,mb4.5,baz=338,slow=3.9,SNR=5.6						
PMG	**Port Moresby**	**34.37**	**285**	eP	**P**	**16 07 48.9**	**+0.2**
	12nm,0.8s,mb4.5						
TOO	**Toolangi**	**34.65**	**234**	eP	**P**	**16 07 51.1**	**+0.3**
	3.2nm,0.8s,mb3.9						
STKA	**Stephens Creek**	**36.52**	**245**	eP	**P**	**16 08 07.1**	**+0.9**
	2.3nm,0.5s,mb4.0						
STKA	**Stephens Creek**	**36.52**	**245**	P	**P**	**16 08 07.3**	**+1.1**
	2.6nm,0.5s,mb4.0,baz=87,slow=11,SNR=10						
ASAR	**Alice Springs**	**43.28**	**257**	P	**P**	**16 09 00.2**	**0.0**
	9.0nm,0.5s,mb4.5,baz=97,slow=7.5,SNR=190						
ASAR				PcP	PcP	16 10 33.9	-0.2
	3.2nm,1.0s,baz=114,slow=3.4,SNR=7.6						
ASAR				ScP		16 13 29.3	
	1.1nm,0.9s,baz=103,slow=4.6,SNR=6.6						
ASAR				S	**S**	**16 14 43.6**	**+0.3**
	1.1nm,0.8s,baz=91,slow=17,SNR=8.2						
ASPA	**Alice Springs**	**43.28**	**257**	eP	**P**	**16 09 00.2**	**0.0**
WB2	**Warramunga Arr**	**43.38**	**263**⇑	iP	**P**	**16 09 00.5**	**-0.6**
WB2				eS		16 13 09.8	
WRAB	**Tennant Creek**	**43.39**	**263**	eP	**P**	**16 08 60.0**	**-1.1**
	17nm,0.8s,mb4.5						
WRA	**Warramunga Arr**	**43.40**	**263**	P	**P**	**16 09 00.7**	**-0.4**
	5.6nm,0.3s,mb4.4,baz=97,slow=7.3,SNR=274						
WRA				S	**S**	**16 14 43.6**	**-1.3**
	0.8nm,0.8s,baz=96,slow=12,SNR=4.3						
FORT	**Forrest**	**48.03**	**247**	eP	**P**	**16 09 35.5**	**-0.6**
	68nm,0.9s,mb5.0						
FITZ	**Fitzroy Crossi**	**51.82**	**263**	epP	**P**	**16 10 03.8**	**0.0**
FITZ	**Fitzroy Crossi**	**51.82**	**263**	P	**P**	**16 10 03.9**	**+0.1**
	3.7nm,0.5s,mb3.9,baz=28,slow=5.1,SNR=13						
MBWA	**Marble Bar**	**56.62**	**258**	eP	**P**	**16 10 36.1**	**-1.0**
	8.3nm,0.5s,mb4.1						
MUN	**Mundaring**	**58.05**	**245**	eP	**P**	**16 10 47.0**	**+0.4**
	15nm,1.2s,mb4.0						
NVAR	**Mina Array Bea**	**82.21**	**44**	P	**P**	**16 13 07.0**	**-0.7**
	0.3nm,0.4s,mb3.1,baz=229,slow=8.3,SNR=3.3						
ENH	**Enshi**	**85.41**	**305**	eP	**P**	**16 13 24.5**	**+1.0**
	5.7nm,0.8s,mb4.2						
MCK	**McKinley**	**87.77**	**13**	P	**P**	**16 13 33.3**	**-0.5**
	3.4nm,1.1s,mb3.9						
CMAR	**Chiang Mai Arr**	**89.23**	**290**	P	**P**	**16 13 43.6**	**+2.0**
	1.4nm,0.6s,mb3.9,baz=148,slow=2.4,SNR=12						
ARCES	**ARCESS Array B**	**129.26**	**349**	PKP	PKPdf	16 19 46.8	-0.1
	1.6nm,0.6s,baz=135,slow=3.4,SNR=8.3						
FINES	**FINESS Array B**	**135.98**	**343**	PKP	PKPdf	16 19 59.0	-0.5
	1.5nm,0.8s,baz=68,slow=10,SNR=4.8						
AKASG	**Malin Array Be**	**142.93**	**330**	PKhKP		16 20 10.6	
	5.2nm,0.4s,baz=41,slow=4.2,SNR=38						
MALT	**Malatya**	**143.35**	**306**	ePKPdf	PKPdf	16 20 14.3	+0.9
EKA	**Eskdalemuir Ar**	**145.65**	**4**	PKPbc	PKPbc	16 20 19.2	+1.1
	4.7nm,1.0s,baz=333,slow=1.9,SNR=5.8						
ASF	**Jabal al Asfar**	**146.01**	**297**	PKPbc	PKPbc	16 20 22.0	+2.2
	1.4nm,0.4s,baz=267,slow=2.8,SNR=3.9						
BRTR	**Keskin Array B**	**146.35**	**311**	PKPbc	PKPbc	16 20 22.4	+2.1
	1.5nm,0.5s,baz=136,slow=4.5,SNR=7.6						
MLR	**Muntele Rosu**	**148.05**	**326**	PKPbc	PKPdf	16 20 27.6	+6.7
	2.4nm,0.5s,baz=155,slow=7.6,SNR=5.1						
CLL	**Collm**	**148.33**	**345**	iPKP1	PKPdf	16 20 27.0	+5.8
PRU	**Pruhonice**	**149.14**	**343**	ePKPbc	PKPdf	16 20 29.2	+6.7
KHC	**Kasperske Hory**	**150.18**	**343**	ePKPbc	PKPdf	16 20 31.0	+6.9
GERES	**GERESS Array B**	**150.41**	**343**	PKPbc	PKPdf	16 20 32.1	+7.6
	1.0nm,0.4s,baz=35,slow=2.8,SNR=13						

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*MOS **02** 16:17:19.8±0.8, 53.78N×168.91E, h19^{km}, mb4.3/1, Error ellipse: s-maj=36.4km s-min=17.6km az=20.3*
KRSC 02 16:17:19.5±0.8**, 53.77N×169.08E, h19^{km}**±14^{km}**, ML4.1, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKI	**Bering**	**2.31**	**310**	iP	Pn	16 17 55.5	-1.9
BKI				iS	Sn	16 18 23.1	-2.5
KBTR	**Krutoberegovo**	**4.36**	**307**	P	Pn	16 18 24.9	-1.5
KBTR				S	Sn	16 19 11.9	-5.4
KBTR	**Krutoberegovo**	**4.36**	**307**	eP	Pn	16 18 25.1	-1.3
KBTR				eS	Sn	16 19 13.6	-3.7
KBG	**Krutoberegovo**	**4.43**	**307**	eS	Sn	16 19 16.6	-2.7
KBG				Smax			
	100nm,1.2s						
ZLN	**Zelenaya**	**5.28**	**299**	eP	Pn	16 18 39.1	-0.4
ZLN				eS	Sn	16 19 37.6	-3.0
SVLR	**Shiveluch**	**5.31**	**305**	eP	Pn	16 18 40.3	+0.4
SVLR				eS	Sn	16 19 38.5	-2.8
CIRR	**Tsirk**	**5.35**	**299**	eP	Pn	16 18 40.8	+0.4
CIRR				eS	Sn	16 19 39.9	-2.3
LGNR	**Loginova**	**5.37**	**299**	eP	Pn	16 18 40.2	-0.5
LGNR				eS	Sn	16 19 39.4	-3.3
TUMR	**Tumrok**	**5.42**	**290**	eP	Pn	16 18 41.6	+0.2
TUMR				eS	Sn	16 19 41.1	-3.0
SPN	**Mys Shipunski**	**5.46**	**267**	P	Pn	16 18 41.6	-0.4
SPN				S	Sn	16 19 41.8	-3.2
SPN	**Mys Shipunski**	**5.46**	**267**	eP	Pn	16 18 41.5	-0.5
SPN				eS	Sn	16 19 41.4	-3.6
KLY	**Klyuchi**	**5.47**	**301**	P	Pn	16 18 40.1	-2.1
KLY				S	Sn	16 19 39.4	-6.0
KLY	**Klyuchi**	**5.47**	**301**	eP	Pn	16 18 40.4	-1.8
KLY				eS	Sn	16 19 40.0	-5.4
KRSR	**Krestovskiy**	**5.48**	**300**	eP	Pn	16 18 42.0	-0.3
KRSR				eS	Sn	16 19 41.9	-3.7
KMNR	**Kamenistaya**	**5.49**	**295**	eP	Pn	16 18 41.8	-0.7
KMNR				eS	Sn	16 19 41.8	-4.1

KPT	**Kopyto**	5.57	297	eP	Pn	16 18 44.0	+0.5
KPT				eS	Sn	16 19 45.6	-2.2
KII	**Karymskiy**	5.70	277	P	Pn	16 18 45.4	0.0
KII				S	Sn	16 19 48.9	-2.2
KII	**Karymskiy**	5.70	277	eP	Pn	16 18 45.3	-0.1
KII				eS	Sn	16 19 48.8	-2.3
KOZR	**Kozyr**	5.77	297	PN	Pn	16 18 46.8	+0.4
KOZ	**Kozyrevsk**	5.78	297	P	Pn	16 18 46.8	+0.2
KOZ				S	Sn	16 19 50.5	-2.7
KOZ	**Kozyrevsk**	5.78	297	eP	Pn	16 18 47.2	+0.6
KOZ				eS	Sn	16 19 50.9	-2.3
NLC	**Nalytchevo**	5.85	268	P	Pn	16 18 46.9	-0.6
NLC				S	Sn	16 19 50.8	-4.0
NLC	**Nalytchevo**	5.85	268	i P	Pn	16 18 47.1	-0.4
NLC				i S	Sn	16 19 50.7	-4.0
SRDR	**Sredinnyy**	5.96	299	eP	Pn	16 18 49.2	+0.2
SRDR				eS	Sn	16 19 54.7	-2.8
SDLR	**Sedlovina**	6.10	269	eP	Pn	16 18 51.0	-0.1
SDLR				eS	Sn	16 19 57.3	-3.9
UGLR	**Uglovaya**	6.15	269	eP	Pn	16 18 51.9	+0.2
UGLR				eS	Sn	16 19 59.3	-3.0
SMAR	**Somma**	6.15	269	eP	Pn	16 18 51.6	-0.2
SMAR				eS	Sn	16 19 58.2	-4.2
AVH	**Avacha**	6.19	269	eP	Pn	16 18 52.6	+0.3
AVH				eS	Sn	16 20 00.0	-3.4
KOK	**Koryaka**	6.25	270	eP	Pn	16 18 51.9	-1.2
KOK				eS	Sn	16 19 59.3	-5.5
PET	**Petropavlovsk**	6.28	267	P	Pn	16 18 53.4	-0.2
PET				S	Sn	16 20 01.7	-4.0
PET	**Petropavlovsk**	6.28	267	eP	Pn	16 18 53.8	+0.2
PET				eS	Sn	16 20 02.1	-3.6
RUS	**Russkaya**	6.50	262	P	Pn	16 18 56.3	-0.5
RUS				S	Sn	16 20 06.2	-5.0
RUS	**Russkaya**	6.50	262	eP	Pn	16 18 56.1	-0.7
RUS				eS	Sn	16 20 06.2	-5.0
GNL	**Ganaly**	6.61	274	eP	Pn	16 18 58.6	+0.3
GNL				eS	Sn	16 20 10.2	-3.7
GRL	**Gorelyy**	6.73	264	eP	Pn	16 19 00.4	+0.4
GRL				eS	Sn	16 20 13.7	-3.2

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*NEIC **02** 16:26:33.9±2.2, 3.94S×154.00E, h403^{km}±22^{km}, mb4.0/9, Error ellipse: s-maj=25.2km s-min=15.2km az=97.0*

*IDC **02** 16:26:36.4±2.3, 3.96S×153.80E, h428^{km}±24^{km}, mb3.1/7, mb1 3.4/9, mb1mx3.3/16, Error ellipse: s-maj=28.2km s-min=13.8km az=125.0*

ISC 02 16:26:34.4±2.1, **4.0S**±0.1×**153.9E**±0.2, **h422**^{km}±21^{km}, **n20,** σ**1**^{s}**10**/21, **mb3.7**/13, **New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	8.59	231	P	P	16 28 37.7	+0.3
	0.8nm,0.3s,baz=43,slow=6.5,SNR=9.2						
PMG				S	S	16 30 28.7	+14
	0.1nm,0.3s,baz=114,slow=12,SNR=2.8						
PMG	**Port Moresby**	8.59	231	ePn	P	16 28 37.0	-0.3
	22nm,0.9s						
PMG				S	S	16 30 28.7	+14
CTA	**Charters Tower**	17.65	204	P	P	16 30 16.7	+1.7
	0.6nm,0.3s,baz=23,slow=6.7,SNR=6.5						
CTAO	**Charters Tower**	17.65	204	eP	P	16 30 15.8	+0.9
	2.5nm,0.5s						
WRA	**Warramunga Arr**	24.80	229	P	P	16 31 21.7	-0.8
	1.4nm,1.0s,mb3.4,baz=52,slow=9.5,SNR=6.7						
WRA				PcP	PcP	16 34 46.5	+0.4
	0.6nm,0.6s,baz=55,slow=2.6,SNR=6.6						
WRA				S	S	16 35 12.5	-1.2
	0.6nm,1.1s,baz=50,slow=14,SNR=5.8						
ASAR	**Alice Springs**	27.48	223	P	P	16 31 45.6	-0.7
	0.3nm,0.4s,mb3.1,baz=52,slow=8.8,SNR=8.7						
ASAR				PcP	PcP	16 34 52.2	-0.1
	0.4nm,0.6s,baz=45,slow=2.1,SNR=5.5						
FITZ	**Fitzroy Crossi**	31.01	241	P	P	16 32 16.2	-0.8
	2.2nm,1.0s,mb3.4,baz=70,slow=15,SNR=6.3						
SONM	**Songino Array**	66.25	327	P	P	16 36 41.8	+1.0
	0.2nm,0.5s,mb3.0,baz=139,slow=5.8,SNR=4.0						
VNDA	**Vanda**	73.59	178	P	P	16 37 24.5	+0.5
	1.3nm,0.7s,mb3.7,baz=330,slow=6.1,SNR=10						
VNDA	**Vanda**	73.59	178	P	P	16 37 24.5	+0.5
	1.1nm,0.9s,mb3.5						
MCK	**McKinley**	79.70	22	eP	P	16 37 55.8	-1.9
	4.1nm,0.9s,mb4.1						
COLA	**College**	80.70	22	eP	P	16 38 02.0	-0.8
	9.1nm,0.9s,mb4.5						
ILAR	**Eielson Array**	81.00	22	P	P	16 38 03.5	-1.0
	1.8nm,0.6s,mb4.0,baz=240,slow=5.2,SNR=39						
TKM2	**Tokmak 2**	84.17	314	eP	P	16 38 22.4	+1.5
	1.3nm,0.6s,mb3.8						
UCH	**Uchtor**	84.84	313	P	P	16 38 26.6	+2.4
	1.6nm,1.0s,mb3.7						
QSPA	**South Pole Qui**	85.96	180	eP	P	16 38 29.6	+0.8
	5.5nm,0.8s,mb4.3						
CHKZ	**Chkalovo**	89.22	324	eP	P	16 38 44.0	-0.7
	1.1nm,0.8s,mb3.6						
YKA	**Yellowknife Ar**	94.20	28	P	P	16 39 07.9	+0.5
	0.7nm,0.8s,mb3.8,baz=268,slow=4.5,SNR=10.0						
LPAZ	**La Paz**	133.81	117	PKP	PKPdf	16 45 06.4	+3.3
	0.6nm,0.6s,baz=296,slow=4.2,SNR=3.5						
BDFB	**Brasilia**	150.82	132	PKPbc	PKPdf	16 45 40.6	+8.1
	4.9nm,0.8s,baz=225,slow=4.8,SNR=5.6						

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*GRAL **02** 17:03:53.9±0.9, 32.08N×35.33E, h29^{km}, MD3.2*

*GII **02** 17:03:54.2±0.4, 32.25N×35.37E, h4^{km}±2^{km}, ML2.8/11, Mw2.7/5*

*CSEM **02** 17:03:54.3±0.1, 32.27N×35.35E, h2^{km}, Mw2.7, Error ellipse: s-maj=1.7km s-min=0.9km az=102.0*

ISC 02 17:03:53.7±0.4, **32.25N**±0.02×**35.40E**±0.05, **h2**^{km}±6^{km}, **n37,** σ**0**^{s}**86**/47, **1D, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HMDT	**Nahal Hemdat**	0.11	86	Pg	Pg	17 03 57.7	+1.7
MMLI	**Mount Malkishu**	0.19	6	Pg	Pg	17 03 58.7	+1.1
MMLI	**Mount Malkishu**	0.19	6	⇑Pg	Pg	17 03 58.7	+1.1
SLTI	**Sal'it**	0.30	269	Pg	Pg	17 04 00.0	+0.3
SLTI				Sg	Sg	17 04 04.8	+1.0
SLTI	**Sal'it**	0.30	269	⇑Pg	Pg	17 04 00.0	+0.3
SLTI				Sg	Sg	17 04 04.8	+1.1
OFRI	**'Ofer**	0.51	317	Pg	Pg	17 04 04.0	+0.1
GLH	**Golan-Tel Qazi**	0.51	25	Pg	Pg	17 04 05.0	+1.1
GLH	**Golan-Tel Qazi**	0.51	25	⇑Pg	Pg	17 04 05.0	+1.0
HAF	**Haifa**	0.62	330	Pg	Pg	17 04 06.2	+0.2
DRGI	**Dragot**	0.65	180	Pg	Pg	17 04 07.2	+0.5
DRGI	**Dragot**	0.65	180	⇑Pg	Pg	17 04 07.2	+0.5
DSI	**Dead Sea**	0.67	181	Pg	Pg	17 04 07.2	+0.1
DSI	**Dead Sea**	0.67	181	⇑Pg	Pg	17 04 07.2	+0.1
MKRJ	**Makawir**	0.72	163	Pg	Pg	17 04 09.0	+0.9
KSHT	**Keshet**	0.81	25	Pg	Pg	17 04 10.4	+0.4
KSHT	**Keshet**	0.81	25	⇑Pg	Pg	17 04 10.4	+0.5
HNTI	**Hanita**	0.86	347	Pg	Pg	17 04 10.8	+0.1
HNTI				Sg	Sg	17 04 23.4	+1.2
AMZI	**Amatzia**	0.89	208	Pg	Pg	17 04 10.1	-1.3
AMZI				Sg	Sg	17 04 21.8	-1.4
YTIR	**Yattir**	0.91	195	Pg	Pg	17 04 11.6	-0.3
YTIR	**Yattir**	0.91	195	⇓Pg	Pg	17 04 11.6	-0.3
MZDA	**Masada**	0.93	182	Pg	Pg	17 04 11.9	-0.5
MZDA	**Masada**	0.93	182	⇑Pg	Pg	17 04 11.9	-0.4
HRI	**Mount Hermon**	1.06	16	Pg	Pg	17 04 14.4	-0.4
MATL	**Matirih**	1.24	357	i PG	Pg	17 04 18.4	-0.1
MATL				i SG	Sg	17 04 35.5	+0.4
RTMM	**Retamin**	1.34	207	Pn	Pn	17 04 19.0	-0.4
MASH	**Mash'abbe Sade**	1.35	203	Pn	Pn	17 04 19.1	-0.5
KZIT	**Kziot**	1.58	213	Pn	Pn	17 04 22.8	-0.1
KZIT				Sn	Sn	17 04 44.7	+0.5
BHL	**Bhannes**	1.67	7	i PG	Pg	17 04 25.2	-1.8
BHL				i SG	Sg	17 04 47.8	-1.4
ZFRI	**Zfri**	1.70	186	Pn	Pn	17 04 24.7	+0.2
PRNI	**Paran**	1.92	190	Pn	Pn	17 04 27.7	0.0
PRNI				Sn	Sn	17 04 53.7	+1.0
PRNI	**Paran**	1.92	190	⇑Pn	Pn	17 04 27.7	0.0
PRNI				Sn	Sn	17 04 53.7	+1.0
HWQ	**Hawqa**	2.08	13	i PG	Pg	17 04 31.1	-4.1
HWQ				i SG	Sg	17 05 00.3	-2.6
KMTI	**Karmit**	2.21	195	Pn	Pn	17 04 31.6	-0.2
KMTI	**Karmit**	2.21	195	Pn	Pn	17 04 31.6	-0.3
HRFI	**Mount Harif**	2.22	188	Pn	Pn	17 04 32.0	0.0
MBH	**Mount Berech**	2.48	190	Pn	Pn	17 04 35.4	-0.3
EIL	**Elat**	2.59	189	Pn	Pn	17 04 36.8	-0.6

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*STR **02** 17:13:14.7±0.2, 43.62N×7.76E, h5^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 02 17:13:13.2±0.1, **43.56N×7.73E, h20**^{km}, **Md2.1**/1, **Ml2.2**/5, **Error ellipse: s-maj=2.1km s-min=1.5km az=57.0, Near south coast of France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REVF	**Revere**	0.32	305	Pg	Pb	17 13 21.0	+0.9
REVF				Sg	Sb	17 13 25.5	+0.7
SBF	**Sospel**	0.37	325	ePg	Pb	17 13 21.4	+0.4
SBF				eSg	Sb	17 13 26.6	+0.3
	78nm,0.2s						
AURF	**Auriere**	0.44	319	Pg	Pb	17 13 22.7	+0.6
SAOF	**Saorge**	0.45	344	Pg	Pb	17 13 22.1	-0.2
SAOF				Sg	Sb	17 13 28.3	-0.1
AUTN	**L'Aution**	0.49	334	Pg	Pb	17 13 23.2	+0.2
AUTN				Sg	Sb	17 13 29.8	+0.2
MVIF	**Mont Vial**	0.54	309	Pg	Pb	17 13 24.8	+1.0
MVIF				Sg	Sb	17 13 31.8	+0.8
TOUF	**Mont Tournerai**	0.57	323	Pg	Pb	17 13 24.8	+0.4
TOUF				Sg	Sb	17 13 32.1	+0.1
FRF	**La Foret Royal**	0.78	270	ePg	Pb	17 13 28.7	+0.7
FRF				eSg	Sb	17 13 38.6	+0.5
	25nm,0.2s						
LMR	**La Mourre**	0.91	256	ePg	Pb	17 13 30.4	+0.2
LMR				eSg	Sb	17 13 42.3	+0.4
	3.9nm,0.2s						
MBDF	**Montbardon**	1.35	330	ePg	Pn	17 13 38.4	+1.1
MBDF				eSg	Sb	17 13 56.5	+1.8
	12nm,0.6s						
PGF	**Pioggiola**	1.38	137	ePn	Pn	17 13 35.9	-1.7
PGF				eSn	Sn	17 13 52.3	-3.0
	1.9nm,0.2s						
SMRF	**Simiane la Rot**	1.61	286	eSg	Sn	17 14 04.2	+2.9
	2.8nm,0.2s						
ORIF	**Oris-en-Rattie**	1.90	316	eSg	Sn	17 14 13.5	+4.9
	2.1nm,0.2s						

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*IDC **02** 17:15:25.6±1.9, 11.24N×85.59W, mb3.7/5, mb1 4.1/5, mb1mx3.9/17, MS3.3/2, Ms1 3.3/2, ms1mx2.9/18, Error ellipse: s-maj=55.5km s-min=44.2km az=47.0*

*CASC **02** 17:15:27.8±2.2, 10.68N×86.30W, MD4.1, ML4.2, mb4.2(NEIC)*

*NEIC **02** 17:15:32.8±1.4, 11.12N×85.53W, h64^{km}±16^{km}, mb4.2/4, Error ellipse: s-maj=28.0km s-min=12.9km az=58.0*

ISC 02 17:15:28.8±1.0, **10.53N**±0.07×**86.37W**±0.09, **h57**^{km}±10^{km}, **n38,** σ**1**^{s}**26**/47, **mb4.0**/9, **MS3.2**/2, **9C-7D, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APON	**Apoyo**	1.41	12	⇓eP	P	17 15 52.0	-0.7
APON				eS	S	17 16 10.3	-0.1
JTS	**JuntasAbangare**	1.41	100	ePg	P	17 15 51.3	-1.5
JTS				eSg	S	17 16 09.2	-1.3
CRUN	**El Crucero**	1.44	3	eP	P	17 15 53.9	+0.7
MASN	**Masaya**	1.46	8	⇓eP	P	17 15 53.9	+0.5
MASN				eS	S	17 16 10.5	-1.1
MASN				i		17 16 16.1	
	comp=Z,123μm,0.7s						
TICN	**Ticuantepe**	1.50	5	⇓eP	P	17 15 53.3	-0.6
XAVN	**Gruta Xavier**	1.61	1	⇓eP	P	17 15 54.9	-0.5
MGAN	**Managua**	1.61	4	⇑eP	P	17 15 54.4	-1.0
MGAN				eS	S	17 16 15.9	+0.8
MGAN				i		17 16 26.8	
	comp=E,1μm,0.6s						
WILN	**Americas 2**	1.63	6	⇑eP	P	17 15 54.4	-1.3
WILN				eS	S	17 16 15.6	0.0
COPN	**Copaltepe**	1.65	352	⇓eP	P	17 15 55.2	-0.9
COPN				i		17 16 19.2	
	comp=Z,3μm,0.4s						
APYN	**Apoyeque**	1.69	0	⇓eP	P	17 15 56.2	-0.3
APYN				eS	S	17 16 18.4	+1.3
MOMJ	**Momotombo**	1.87	355	⇑eP	P	17 15 58.9	-0.2
MOMJ				eS	S	17 16 22.4	+0.9
MIRN	**Miramar**	1.93	350	⇑eP	P	17 15 59.1	-0.7
MIRN				eS	S	17 16 24.9	+2.1
MIRN				i		17 16 30.4	
	comp=Z,3μm,0.5s						
LEON	**Leon**	1.94	345	⇑eP	P	17 15 59.3	-0.7
LEON				eS	S	17 16 26.2	+2.9
PYN	**Poneloya**	1.95	341	⇑eP	P	17 15 59.5	-0.6
CNGN	**Cerro Negro**	1.98	351	⇑eP	P	17 16 01.2	+0.6
PYTN	**Playitas**	2.02	9	⇓eP	P	17 16 00.4	-0.7
TEL3	**Telica 3**	2.08	347	⇑eP	P	17 16 01.3	-0.7
TEL3				i		17 16 30.6	
	comp=Z,1μm,0.5s						
TELN	**Telica**	2.11	348	⇑eP	P	17 16 01.6	-0.8
VPS2	**Volcan Poas 2**	2.12	99	eP	P	17 16 05.3	+2.7
CRIN	**San Cristobal**	2.26	343	eP	P	17 16 05.4	+0.8
CRIN				eS	S	17 16 35.0	+3.8
SJS	**Escuela Geolog**	2.35	104	eP	P	17 16 08.4	+2.6
SJS				eS	S	17 16 39.2	+5.7
ICR	**Volcan Irazu**	2.55	102	eP	P	17 16 10.8	+2.0
URSC	**Urasca**	2.64	105	eP	P	17 16 10.2	+0.3
NNA	**Nana**	24.29	157	P	P	17 20 45.5	+3.4
TXAR	**Lajitas Array**	24.73	322	P	P	17 20 48.1	+1.8
	comp=Z,1.4nm,0.6s,mb3.7,baz=146,slow=9.0,SNR=6.1						
TXAR				PcP	PcP	17 24 26.4	+3.4
	comp=Z,0.4nm,0.4s,baz=180,slow=3.6,SNR=3.3						
MIAR	**Mount Ida**	24.79	346	P	P	17 20 44.9	-2.0
	comp=Z,7.2nm,0.8s,mb4.2						
WMOK	**Wichita Mounta**	26.63	337	eP	P	17 21 05.2	+1.2
	comp=Z,5.3nm,0.8s,mb4.1						
WMOK				e		17 21 12.7	
BBSR	**BB Station**	29.53	39	P	P	17 21 21.8	-8.4
	comp=Z,73nm,1.3s,mb5.2						
SAML	**Samuel**	30.11	129	eP	P	17 21 35.3	-0.2
	comp=Z,1.4nm,0.8s,mb3.7						
LPAZ	**La Paz**	32.18	146	LR	LR	17 34 01.3	
	comp=Z,24nm,20.2s,MS2.9,baz=95,slow=34						
PDAR	**Pinedale Array**	37.95	332	P	P	17 22 43.1	+0.5
	comp=Z,0.6nm,0.7s,mb3.4,baz=127,slow=9.0,SNR=4.2						
PDAR				PcP	PcP	17 24 59.8	+1.8
	comp=Z,0.3nm,0.6s,baz=135,slow=6.4,SNR=3.0						
PDAR	**Pinedale Array**	37.95	332	P	P	17 22 43.1	+0.5
PDAR				PcP	PcP	17 24 59.8	+1.8
NVAR	**Mina Array Bea**	39.84	320	P	P	17 23 02.0	+3.7
	comp=Z,1.1nm,0.9s,mb3.6,baz=131,slow=8.3,SNR=5.9						
NVAR				PcP	PcP	17 25 06.8	+2.8
	comp=Z,3.3nm,1.0s,baz=143,slow=4.5,SNR=11						
NVAR	**Mina Array Bea**	39.84	320	P	P	17 23 02.0	+3.7
NVAR				PcP	PcP	17 25 06.8	+2.8
SCHQ	**Schefferville**	46.82	15	P	P	17 23 50.9	-3.7
	comp=Z,2.7nm,0.8s,mb4.2,baz=216,slow=17,SNR=2.5						
YKA	**Yellowknife Ar**	55.73	345	P	P	17 24 58.9	-2.8
	comp=Z,0.3nm,0.6s,mb3.5,baz=139,slow=7.2,SNR=8.6						
YKA				LR	LR	17 51 47.7	
	comp=Z,44nm,18.2s,MS3.6,baz=260,slow=40						
YKA	**Yellowknife Ar**	55.73	345	P	P	17 24 58.9	-2.8
CMAR	**Chiang Mai Arr**	150.72	350	PKPbc	PKPdf	17 35 18.6	+8.8
	comp=Z,1.0nm,0.8s,baz=354,slow=3.1,SNR=7.6						

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*CNRM **02** 17:50:38.3, 35.42N×2.47W, h17^{km}, MD4.9*

*IAG **02** 17:50:42, 34.95N×2.96W, h8^{km}, Mw4.9, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.02; M$_{θθ}$0.06; M$_{ϕϕ}$-0.04; M$_{rθ}$-0.33; M$_{θϕ}$-2.03; M$_{ϕr}$-1.92; Best double couple: M$_0$2.81×10^{16} NP1:ϕ$_s$92°, δ47°, λ183°. NP2:ϕ$_s$0°, δ88°, λ-42°. Principal axes: T 2.97, Plg27°, Azm55°; N -.349, Plg47°, Azm178°; P -2.62, Plg30°, Azm307°;*

*INMG **02** 17:50:42.8±1.4, 34.99N×2.74W, h15^{km}±4^{km}, ML4.2 Error ellipse: s-maj=4.9km s-min=3.2km az=97.0*

*IGIL **02** 17:50:43.2, 34.92N×2.98W, h2^{km}, ML4.9*

*IDC **02** 17:50:43.8±0.6, 35.24N×3.06W, mb4.2/23, mb1 4.5/27, mb1mx4.4/28, ML4.4/4, MS4.3/16, Ms1 4.3/16, ms1mx4.2/24, Error ellipse: s-maj=16.6km s-min=13.6km az=155.0*

*SFS **02** 17:50:43.0, 34.93N×3.03W, ML5.5*

*MDD **02** 17:50:43.0±0.5, 34.93N×2.87W, mb5.2/26, Error ellipse: s-maj=4.9km s-min=3.7km az=37.0, PRXIMO AftershockPLICA*

MDD EMS: IV MELILLA.

*BJI **02** 17:50:43.1, 35.95N×3.75W, h7^{km}, mB5.3, mb4.8, Ms5.1, Msz4.7*

*STR **02** 17:50:44.1±0.0, 34.87N×2.99W, h10^{km}±1^{km}, Ml4.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **02** 17:50:44.1±0.5, 34.88N×3.00W, h10^{km}, Md4.6/1, Ml4.9/8, ms4.2/7, Error ellipse: s-maj=12.4km s-min=5.7km az=6.0*

*CSEM **02** 17:50:44.9, 34.98N×3.00W, h20^{km}, mb4.7, ML4.7*

*NEIC **02** 17:50:45.0±1.8, 35.03N×3.03W, h14^{km}±11^{km}, mb4.7/68, MS4.7/1, MN4.8(MDD), Error ellipse: s-maj=6.4km s-min=3.3km az=176.0*

NEIC Felt [III] at Melilla.

*MED_RC **02** 17:50:45.0±0.6, 34.89N×3.08W, h15^{km}, MW4.9/33, Moment Tensor Solution. Body waves: s33,c54; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.84±.05; M$_{θθ}$-0.16±.04; M$_{ϕϕ}$1.00±.04; M$_{rθ}$-0.76±.20; M$_{θϕ}$-2.20±.04; M$_{ϕr}$0.09±.13; Best double couple: M$_0$2.44×10^{16} NP1:ϕ$_s$6°, δ66°, λ-12°. NP2:ϕ$_s$101°, δ79°, λ-156°. Principal axes: T 2.77, Plg9°, Azm231°; N -.67, Plg64°, Azm123°; P -2.1, Plg25°, Azm325°; nsta1 refers to waves, cutoff=35s.*

*HRVD **02** 17:50:45.0±0.4, 34.97N×2.91W, h12^{km}, MW4.9/56, Centroid moment Tensor Solution. LP body waves: s24,c29;Mantle waves: s56,c84; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.45±.10; M$_{θθ}$-0.21±.10; M$_{ϕϕ}$0.66±.10; M$_{rθ}$0.53±.28; M$_{θϕ}$-2.60±.07; M$_{ϕr}$-1.06±.25; Best double couple: M$_0$2.84×10^{16} NP1:ϕ$_s$93°, δ71°, λ174°. NP2:ϕ$_s$185°, δ84°, λ19°. Principal axes: T 3.22, Plg18°, Azm51°; N -.77, Plg70°, Azm202°; P -2.46, Plg9°, Azm318°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ZUR_RM **02** 17:50:45, 35.03N×3.03W, h12^{km}, Mw5.0/19, Moment Tensor Solution. s19 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.66; M$_{θθ}$0.12; M$_{ϕϕ}$0.54; M$_{rθ}$0.42; M$_{θϕ}$-2.69; M$_{ϕr}$-1.72; Best double couple: M$_0$3.2×10^{16} NP1:ϕ$_s$359°, δ86°, λ-34°. NP2:ϕ$_s$92°, δ56°, λ-175°. Principal axes: T 3.609, Plg20°, Azm50°; N -.81, Plg56°, Azm173°; P -2.799, Plg26°, Azm310°;*

*MOS **02** 17:50:47.8±1.3, 35.17N×2.99W, h36^{km}, mb4.6/21, MS4.3/28 Error ellipse: s-maj=17.5km s-min=4.6km az=57.2*

ISC 02 17:50:43.6±0.1, **35.09N**±0.02×**3.03W**±0.01, **h14**^{km}, **h14**^{km}±1.1^{km}**:pP-P, n542,** σ**1**^{s}**30**/655, **mb4.7**/85, **MS4.4**/32, **25C-25D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	0.22	15	⇓P	Pg	17 50 50.2	+1.5
	3μm,0.1s,SNR=18						
EMEL				S	Sg	17 50 54.5	+2.5
	370μm,1.1s,SNR=5.0						
MELI	**Melilla**	0.22	20	⇓P	Pg	17 50 50.1	+1.4
MELI				S	Sg	17 50 55.0	+3.0
MELI	**Melilla**	0.22	20	i P	Pg	17 50 50.1	+1.4
EMLI	**Melilla**	0.22	17	P	Pg	17 50 50.2	+1.5
	3μm,0.1s,SNR=18						
ZAI	**Zaio**	0.26	117	i P	Pg	17 50 46.8	-2.6
ZAI				i S	Sg	17 50 55.0	+1.8
TAF	**Taforalt**	0.57	118	P	Pb	17 50 49.0	-6.0
TOU	**Touzarine**	0.61	258	i P	Pb	17 50 58.0	+2.4
TOU				i S	Sb	17 51 11.0	+7.3
MPAL	**Palemas**	0.76	281	i P	Pb	17 51 00.0	+1.8
MPAL				i S	Sb	17 51 13.5	+5.3
OUJ	**Oujda**	1.02	115	eP	Pb	17 50 59.5	-3.1
TZK	**Tazeka**	1.38	224	i P	Pn	17 51 09.0	+0.4
EBER	**Berja**	1.81	4	P	Pn	17 51 14.5	-0.3
EBER				S	Sn	17 51 36.9	-0.8
EBER	**Berja**	1.81	4	⇓P	Pn	17 51 14.9	+0.1
	90nm,0.2s,SNR=18						
EBER				S	Sn	17 51 37.2	-0.5
	29μm,0.9s,SNR=56						
EBER	**Berja**	1.81	4	S	Sn	17 51 37.2	-0.5
	29μm,0.9s,SNR=56						
EBER	**Berja**	1.81	4	P	Pn	17 51 14.9	+0.1
	90nm,0.2s,SNR=18						
DKH	**Dar Kharkhour**	1.95	282	i P	Pn	17 51 16.5	-0.3
DKH				i S	Sn	17 51 40.0	-1.2
ERON	**Agron**	2.03	342	P	Pn	17 51 17.9	0.0
ERON				S	Sn	17 51 44.0	+0.8
ERON	**Agron**	2.03	342	⇓P	Pn	17 51 17.8	-0.1
	366nm,0.6s,SNR=18						
ERON				S	Sn	17 51 44.0	+0.8
	845nm,0.7s,SNR=14						
ERON	**Agron**	2.03	342	S	Sn	17 51 44.0	+0.8
	845nm,0.7s,SNR=14						
ERON	**Agron**	2.03	342	P	Pn	17 51 17.9	0.0
EMIJ	**Mijas**	2.04	317	P	Pn	17 51 17.0	-1.2
EMIJ				S	Sn	17 51 43.6	-0.1
EMIJ	**Mijas**	2.04	317	⇓P	Pn	17 51 17.9	-0.3
	301nm,0.4s,SNR=18						
EMIJ				S	Sn	17 51 43.5	-0.2
	2μm,0.9s,SNR=6.8						
EMIJ	**Mijas**	2.04	317	S	Sn	17 51 43.5	-0.2
	2μm,0.9s,SNR=6.8						
ELOJ	**Sierra Loja**	2.25	336	P	Pn	17 51 21.6	+0.5
ELOJ				S	Sn	17 51 51.8	+2.9
ELOJ	**Sierra Loja**	2.25	336	⇓P	Pn	17 51 21.6	+0.6
	156nm,0.3s,SNR=18						
ELOJ				S	Sn	17 51 52.0	+3.2
	247nm,0.3s,SNR=8.3						
ELOJ	**Sierra Loja**	2.25	336	S	Sn	17 51 52.0	+3.2
	247nm,0.3s,SNR=8.3						
REAL	**Reales**	2.25	309	⇑P	Pn	17 51 21.2	+0.1
REAL				S	Sx	17 52 11.3	
REAL	**Reales**	2.25	309	i P	Pn	17 51 21.2	0.0
IFR	**Ifrane**	2.34	229	P	Pn	17 51 21.0	-1.4
IFR				S	Sn	17 51 56.5	+5.3
ODJA	**Bouhanifia**	2.37	83	P	Pn	17 51 21.0	-1.8
EJIF	**Jimena Fronter**	2.41	305	P	Pn	17 51 26.4	+3.0
EJIF				S	Sn	17 52 01.6	+8.8
EJIF	**Jimena Fronter**	2.41	305	P	Pn	17 51 27.0	+3.6
	1.0nm,0.2s,SNR=4.0						
EJIF				S	Sn	17 51 55.2	+2.4
	SNR=7.9						
EJIF	**Jimena Fronter**	2.41	305	P	Pn	17 51 26.4	+3.1
EJIF				S	Sn	17 51 55.2	+2.3
	SNR=7.9						
MIF	**Mishlifen**	2.48	228	i P	Pn	17 51 23.0	-1.3
MIF	**Mishlifen**	2.48	228	i S	Sn	17 51 57.0	+2.4
CZD	**Col de Zad**	2.65	220	i S	Sn	17 52 02.0	+3.1
CZD	**Col de Zad**	2.65	220	i P	Pn	17 51 27.0	+0.2
LIJA	**Lijar**	2.65	314	⇑P	Pn	17 51 30.1	+3.4
LIJA	**Lijar**	2.65	314	i P	Pn	17 51 30.1	+3.3
ELUQ	**Luque**	2.66	338	P	Pn	17 51 29.3	+2.3
ELUQ				S	Sn	17 52 04.1	+4.7
ELUQ	**Luque**	2.66	338	⇓P	Pn	17 51 29.3	+2.3
	543nm,0.5s,SNR=18						
ELUQ				S	Sn	17 52 00.7	+1.4
	2μm,0.9s						
ELUQ	**Luque**	2.66	338	P	Pn	17 51 29.3	+2.3
	543nm,0.5s,SNR=18						
ELUQ				S	Sn	17 52 04.1	+4.7
EQES	**Quesada**	2.71	359	P	Pn	17 51 30.0	+2.3
EQES				S	Sn	17 52 04.3	+3.7
EQES	**Quesada**	2.71	359	⇓P	Pn	17 51 30.0	+2.3
	254nm,0.3s,SNR=18						
EQES				S	Sn	17 52 01.7	+1.1
	8μm,1.3s						
EQES	**Quesada**	2.71	359	P	Pn	17 51 30.0	+2.3
	254nm,0.3s,SNR=18						
EQES				S	Sn	17 52 04.3	+3.7
CNIL	**Conil**	2.77	298	P	Pn	17 51 31.7	+3.1
CNIL				S	Sg	17 52 19.4	+3.3
CNIL	**Conil**	2.77	298	i P	Pn	17 51 31.7	+3.1
ESPR	**Espera**	2.90	309	P	Pn	17 51 31.3	+0.8
ESPR				S	Sn	17 52 11.1	+5.7
ESPR	**Espera**	2.90	309	⇓P	Pn	17 51 32.2	+1.8
	330nm,0.6s,SNR=18						
ESPR				S	Sn	17 52 06.0	+0.6
	1μm,0.8s						
ESPR	**Espera**	2.90	309	P	Pn	17 51 32.2	+1.8
	330nm,0.6s,SNR=18						
ESPR				S	Sn	17 52 11.1	+5.7
SFS	**San Fernando**	2.93	299	ePn	Pn	17 51 32.4	+1.6
SFS	**San Fernando**	2.93	299	⇑P	Pn	17 51 34.0	+3.2
SFS				S	Sg	17 52 24.0	+2.8
SFS	**San Fernando**	2.93	299	ePn	Pn	17 51 32.4	+1.6
SFS	**San Fernando**	2.93	299	i P	Pn	17 51 34.0	+3.2
GIBL	**Gibalbin**	2.95	307	P	Pn	17 51 33.4	+2.3
GIBL	**Gibalbin**	2.95	307	eP	Pn	17 51 33.4	+2.3
CART	**Cartagena**	2.98	33	ePn	Pn	17 51 29.8	-1.8
CART				eSn	Sn	17 52 01.7	-5.8
CART	**Cartagena**	2.98	33	P	Pn	17 51 29.8	-1.8

CART				S	Sn	17 52 02.0	-5.5
CART	Cartagena	2.98	33	*e*Pn	Pn	17 51 29.8	-1.8
CART				*e*Sn	Sn	17 52 01.7	-5.8
SCRT	Cerro San Cris	2.99	302	P	Pn	17 51 34.5	+2.9
SCRT	Cerro San Cris	2.99	302	*e*P	Pn	17 51 34.5	+2.9
EMUR	La Murta	3.10	27	P	Pn	17 51 32.5	-0.7
EMUR				S	Sn	17 52 05.8	-4.8
EMUR	La Murta	3.10	27	⇑P	Pn	17 51 32.3	-1.0
	266nm,0.3s,SNR=18						
EMUR				S	Sn	17 52 05.8	-4.7
	3µm,0.8s,SNR=21						
EMUR	La Murta	3.10	27	P	Pn	17 51 32.5	-0.8
ZFT	Errachidia	3.24	200	*i* P	Pn	17 51 34.0	-1.2
ZFT				*i* S	Sn	17 52 12.0	-2.0
EADA	Adamuz	3.32	338	⇓P	Pn	17 51 37.2	+0.9
	468nm,0.5s,SNR=18						
EADA				S	Sn	17 52 15.3	-0.7
	4µm,1.0s						
EADA	Adamuz	3.32	338	P	Pn	17 51 37.2	+0.9
	468nm,0.5s,SNR=18						
RTC	Rabat Centre	3.35	252	*i* P	Pn	17 51 35.5	-1.2
RTC				*i* S	Sn	17 52 16.0	-0.6
EANR	’Ain N’Sour	3.48	74	P	Pn	17 51 37.0	-1.6
EVIA	Vianos	3.57	7	P	Pn	17 51 42.5	+2.6
EVIA				S	Sn	17 52 14.3	-8.0
EVIA	Vianos	3.57	7	P	Pn	17 51 40.7	+0.9
	101nm,0.4s,SNR=45						
EVIA				S	Sn	17 52 18.4	-3.9
	2µm,1.2s,SNR=8.7						
EVIA	Vianos	3.57	7	P	Pn	17 51 42.5	+2.6
ECHF	Ech Chlef	3.71	72	P	Pn	17 51 40.0	-2.0
ECHA	Ech Chlef	3.73	72	P	Pn	17 51 40.0	-2.2
EBNR	Beni Rached	3.90	71	P	Pn	17 51 44.0	-0.6
EMIN	Mina Concepcio	3.97	313	P	Pn	17 51 45.4	-0.2
EMIN				S	Sn	17 52 31.8	-0.7
EMIN	Mina Concepcio	3.97	313	⇑P	Pn	17 51 45.5	-0.1
	281nm,0.4s,SNR=18						
EMIN				S	Sn	17 52 30.8	-1.7
	553nm,0.9s						
EMIN	Mina Concepcio	3.97	313	S	Sn	17 52 31.8	-0.7
EMIN	Mina Concepcio	3.97	313	P	Pn	17 51 45.5	-0.1
	281nm,0.4s,SNR=18						
AVE	Averroes	4.05	245	P	Pn	17 51 46.5	-0.2
AVE				S	Sn	17 52 33.5	-1.0
EBEN	Beniarda	4.25	31	P	Pn	17 51 49.0	-0.6
EBEN				S	Sn	17 52 34.8	-4.8
EBEN	Beniarda	4.25	31	P	Pn	17 51 48.1	-1.4
	42nm,0.3s,SNR=43						
EBEN				S	Sn	17 52 34.8	-4.8
	378nm,0.8s,SNR=7.2						
EBEN	Beniarda	4.25	31	P	Pn	17 51 49.0	-0.6
PALC	Alcoutim	4.31	305	*i* Pn	Pn	17 51 50.2	-0.2
PALC				*e*Sn	Sn	17 52 40.8	-0.2
	258nm,0.5s						
PALC	Alcoutim	4.31	305	⇓P	Pn	17 51 50.2	-0.2
PALC				S	Sn	17 52 40.8	-0.2
	129nm,0.5s						
PALC	Alcoutim	4.31	305	*e*Sn	Sn	17 52 40.8	-0.2
	258nm,0.5s						
ESDC	Sonseca Array	4.64	351	Pn	Pn	17 51 55.1	0.0
	59nm,0.3s,baz=172,slow=13,SNR=454						
ESDC				Sn	Sn	17 52 48.2	-1.1
	34nm,0.3s,baz=175,slow=21,SNR=13						
ESDC				Lg		17 53 02.9	
	120nm,0.3s,baz=169,slow=28,SNR=16						
ESDC	Sonseca Array	4.64	351	Pn	Pn	17 51 55.8	+0.8
ESDC	Sonseca Array	4.64	351	⇑P	Pn	17 51 55.2	+0.1
	138nm,0.3s,baz=171,slow=13,SNR=18						
ESDC				S	Sn	17 52 47.7	-1.7
	1µm,0.8s,baz=168,slow=27,SNR=17						
ESDC	Sonseca Array	4.64	351	P	Pn	17 51 55.2	+0.1
	138nm,0.3s,SNR=18						
ESDC	Sonseca Array	4.64	351	Pn	Pn	17 51 55.8	+0.7
EBAD	Badajoz	4.86	320	⇓P	Pn	17 51 58.2	0.0
	139nm,0.3s,SNR=18						
EBAD				S	Sn	17 52 52.0	-2.9
	678nm,1.2s						
EBAD	Badajoz	4.86	320	P	Pn	17 51 58.2	0.0
	139nm,0.3s,SNR=18						
PBEJ	Beja	4.88	308	*e*Pn	Pn	17 51 57.9	-0.5
PBEJ				*e*Sn	Sn	17 52 54.4	-1.0
	153nm,0.5s						
PBEJ	Beja	4.88	308	P	Pn	17 51 57.9	-0.5
PBEJ				S	Sn	17 52 54.4	-1.0
	76nm,0.5s						
PBEJ	Beja	4.88	308	*e*Pn	Pn	17 51 57.7	-0.7
PBEJ	Beja	4.88	308	*e*Sn	Sn	17 52 54.4	-1.0
	153nm,0.5s						
EMHD	Djebel Mahouad	5.00	75	P	Pn	17 51 53.0	-7.1
ABA	Alger-Bouzarea	5.21	69	P	Pn	17 52 00.7	-2.4
PTEO	Sao Teotonio	5.21	300	*e*Pn	Pn	17 52 02.6	-0.6
PTEO				*e*Sn	Sn	17 53 03.3	-0.5
	211nm,0.7s						
PTEO	Sao Teotonio	5.21	300	P	Pn	17 52 02.6	-0.6
PTEO				S	Sn	17 53 03.3	-0.5
	106nm,0.7s						
PTEO	Sao Teotonio	5.21	300	*e*Sn	Sn	17 53 03.3	-0.5
	211nm,0.7s						
EIBI	Ibiza	5.26	40	P	Pn	17 52 02.4	-1.4
EIBI	Ibiza	5.26	40	⇑P	Pn	17 52 02.5	-1.4
	122nm,0.3s,SNR=18						
EIBI				S	Sn	17 52 59.5	-5.5
	865nm,1.3s						
EIBI	Ibiza	5.26	40	P	Pn	17 52 02.5	-1.4
	122nm,0.3s,SNR=18						
EVO	Evora	5.27	312	*e*Pn	Pn	17 52 04.8	+0.8
EVO				*e*Sn	Sn	17 53 05.0	-0.4
	614nm,0.7s						
EVO				*e*R			
	3µm,25.2s						
ADJB	Djebel Djouab	5.37	77	P	Pn	17 52 04.8	-0.7
MOE	Montemor	5.48	310	*e*Pn	Pn	17 52 06.9	0.0
MOE				*e*Sn	Sn	17 53 09.7	-0.7
MOE	Montemor	5.48	310	*e*Pn	Pn	17 52 06.7	-0.2
OUK	Oukaimeden	5.61	228	*i* P	Pn	17 52 07.5	-1.2
OUK				*i* S	Sn	17 53 11.0	-2.7
EMOS	Mosqueruela	5.64	20	P	Pn	17 52 09.8	+0.6
	23nm,0.3s,SNR=26						
EMOS				S	Sn	17 53 07.6	-7.0
	346nm,1.0s						
EMOS	Mosqueruela	5.64	20	P	Pn	17 52 09.9	+0.6
AKET	Djebel Ketaf	5.71	78	P	Pn	17 52 09.4	-0.8
PCBR	Castelo Branco	5.92	325	*e*Pn	Pn	17 52 13.1	0.0
PCBR				*e*Sn	Sn	17 53 18.6	-2.9
	185nm,0.6s						
PCBR	Castelo Branco	5.92	325	P	Pn	17 52 13.1	0.0
PCBR				S	Sn	17 53 18.6	-2.9
	92nm,0.6s						
CIA	Chichaoua	5.95	235	*i* P	Pn	17 52 13.0	-0.5
LIS	Lisbon	6.10	308	*e*P	Pn	17 52 14.7	-1.0
LIS				AML	AML	17 52 16.8	
	comp=Z,1µm,0.2s						
LIS				AML	AML	17 52 18.9	
	comp=E,1µm,0.8s						
LIS				*e*S	Sn	17 53 19.1	-6.9
LIS				*e*S	Sn	17 53 19.4	-6.5
LIS	Lisbon	6.10	308	*e*P	Pn	17 52 14.7	-1.0
LIS				*e*S	Sn	17 53 19.1	-6.9
	comp=E,1µm,0.2s						
LIS	Lisbon	6.10	308	*e*P	Pn	17 52 14.7	-1.0
	comp=E,1µm,0.2s						
PTOM	Tomar	6.23	318	*e*Pn	Pn	17 52 16.5	-1.1
PTOM				*e*Sn	Sn	17 53 24.5	-4.8
	comp=E,169nm,0.6s						
PTOM	Tomar	6.23	318	*e*Pn	Pn	17 52 16.5	-1.1
PTOM				*e*Sn	Sn	17 53 24.5	-4.8
	comp=E,169nm,0.6s						
EBR	Ebro Roquetas	6.36	25	*i* PN	Pn	17 52 19.5	+0.1
EBR				*e*Rs		17 53 30.5	
EBR	Ebro Roquetas	6.36	25	*i* SN	Sn	17 53 35.5	+2.9
MTE	Manteigas	6.40	327	*i* Pn	Pn	17 52 19.5	-0.4
MTE				*e*Sn	Sn	17 53 30.1	-3.4
	comp=E,317nm,0.8s						
MTE	Manteigas	6.40	327	*e*Pn	Pn	17 52 19.4	-0.5
MTE				*e*Sn	Sn	17 53 29.7	-3.8
MTE	Manteigas	6.40	327	⇓P	Pn	17 52 19.5	-0.4
MTE				S	Sn	17 53 30.1	-3.4
	comp=E,158nm,0.8s						
MTE	Manteigas	6.40	327	*e*Sn	Sn	17 53 29.7	-3.8
ERTA	Horta de San J	6.43	23	⇓P	Pn	17 52 20.7	+0.3
	comp=E,221nm,0.7s,SNR=18						
ERTA				S	Sn	17 53 29.3	-5.1
	comp=E,443nm,1.3s						
ERTA	Horta de San J	6.43	23	P	Pn	17 52 20.7	+0.3
	comp=E,221nm,0.7s,SNR=18						
PVIS	Viseu	6.81	327	*e*Pn	Pn	17 52 25.4	-0.3
PVIS				*e*Sn	Sn	17 53 39.3	-4.5
	comp=E,140nm,0.8s						
PVIS	Viseu	6.81	327	*e*Pn	Pn	17 52 25.3	-0.4
PVIS				*e*Sn	Sn	17 53 37.0	-6.8
PVIS	Viseu	6.81	327	P	Pn	17 52 25.4	-0.3
PVIS				S	Sn	17 53 39.3	-4.5
	comp=E,70nm,0.8s						
PVIS	Viseu	6.81	327	*e*Sn	Sn	17 53 37.0	-6.8
ESAC	San Caprasio	6.92	16	P	Pn	17 52 27.3	0.0
	comp=E,21nm,0.3s,SNR=6.9						
ESAC				S	Sn	17 53 41.0	-5.6
	comp=E,248nm,0.9s						
ESAC	San Caprasio	6.92	16	P	Pn	17 52 27.3	0.0
	comp=E,21nm,0.3s,SNR=6.9						
CKHR	Kef el Ahmar	7.02	80	P	Pn	17 52 28.0	-0.7
EPOB	Poblet	7.04	26	Pn	Pn	17 52 28.3	-0.7
EPOB	Poblet	7.04	26	P	Pn	17 52 28.1	-0.8
	comp=E,17nm,0.4s,SNR=24						
EPOB				S	Sn	17 53 43.3	-6.3
	comp=E,31nm,0.8s						
EPOB	Poblet	7.04	26	Pn	Pn	17 52 28.3	-0.6
AFS	Agadir Fac de	7.17	231	*i* P	Pn	17 52 29.5	-1.2
PVRL	Vila Real	7.20	331	*i* Pn	Pn	17 52 30.9	-0.2
PVRL				*e*Sn	Sn	17 53 47.9	-5.6
	comp=E,283nm,0.6s						
PVRL	Vila Real	7.20	331	⇑*e*Pn	Pn	17 52 30.9	-0.2
PVRL	Vila Real	7.20	331	⇑P	Pn	17 52 30.9	-0.2
PVRL				S	Sn	17 53 47.9	-5.6
	comp=E,141nm,0.6s						
PBRG	Braganca	7.31	338	*e*Pn	Pn	17 52 32.1	-0.7
PBRG				*e*Sn	Sn	17 53 50.0	-6.4
PBRG	Braganca	7.31	338	*e*Pn	Pn	17 52 32.0	-0.8
PBRG				*e*Sn	Sn	17 53 50.0	-6.4
PBRG	Braganca	7.31	338	*e*Sn	Sn	17 53 50.0	-6.4
CMER	Merouana	7.32	83	P	Pn	17 52 38.0	+5.2
DFRA	Djebel Bou Aff	7.38	76	P	Pn	17 52 32.0	-1.7
ECAL	Calabor	7.43	338	Pn	Pn	17 52 34.1	-0.4
ECAL	Calabor	7.43	338	⇓P	Pn	17 52 33.7	-0.8
	comp=E,66nm,0.3s,SNR=18						
ECAL				S	Sn	17 53 52.1	-7.3
	comp=E,342nm,0.8s						
ECAL	Calabor	7.43	338	Pn	Pn	17 52 34.1	-0.4
EMIR	Miracle	7.69	26	P	Pn	17 52 38.6	+0.5
	comp=E,29nm,0.3s,SNR=13						
EMIR				S	Sn	17 53 59.7	-6.2
	comp=E,85nm,0.6s						
EMIR	Miracle	7.69	26	P	Pn	17 52 38.6	+0.5
	comp=E,29nm,0.3s,SNR=13						
CTEI	Djebel Teioual	7.75	80	P	Pn	17 52 42.0	+3.1
CASM	Ain Smara	7.83	79	P	Pn	17 52 37.0	-3.1
ELOB	Lobios	7.83	331	Pn	Pn	17 52 39.6	-0.4
ELOB	Lobios	7.83	331	P	Pn	17 52 39.2	-0.8
	comp=E,80nm,0.5s,SNR=77						
ELOB				S	Sn	17 54 02.7	-6.7
	comp=E,451nm,1.0s						
ELOB	Lobios	7.83	331	Pn	Pn	17 52 39.7	-0.4
ERUA	La Rua	7.97	337	P	Pn	17 52 41.2	-0.8
	comp=E,82nm,0.6s,SNR=45						
ERUA				S	Sn	17 54 06.2	-6.6
	comp=E,135nm,0.7s						
EBIE	Bielsa	7.98	17	P	Pn	17 52 41.7	-0.4
	comp=E,5.3nm,0.3s,SNR=26						
EBIE				S	Sn	17 54 05.3	-7.7
	comp=E,46nm,0.8s,SNR=4.7						
EBIE	Bielsa	7.98	17	P	Pn	17 52 41.7	-0.4
	comp=E,5.3nm,0.3s,SNR=26						
ETSF	Etsaut	8.03	13	*e*Pn	P	17 52 42.5	-0.3
ETSF				*e*Sn	Sn	17 54 09.5	-4.9
	comp=E,120nm,1.0s						
SJPF	Ste Jean	8.14	9	*e*Pn	P	17 52 44.3	0.0
SJPF				*e*Sn	Sn	17 54 10.1	-6.9
	comp=E,94nm,0.9s						
ELAN	Lanestosa	8.14	358	P	P	17 52 44.1	-0.2
	comp=E,6.1nm,0.2s,SNR=16						
ELAN				S	Sn	17 54 09.9	-7.1
	comp=E,137nm,0.9s,SNR=4.7						
ELAN	Lanestosa	8.14	358	P	P	17 52 44.1	-0.2
	comp=E,6.1nm,0.2s,SNR=16						
VIEF	Viey	8.14	16	P	P	17 52 44.4	+0.1
RESF	Ens	8.14	18	P	P	17 52 44.2	-0.1
CAEH	’Ain El Ouahch	8.19	75	P	P	17 52 45.0	0.0
EALK	Alkurruntz	8.21	8	P	P	17 52 45.5	+0.3
	comp=E,44nm,0.4s,SNR=29						
EALK				S	Sn	17 54 12.3	-6.4
	comp=E,524nm,1.0s,SNR=7.9						
EINC	Incio	8.28	337	P	P	17 52 45.5	-0.7
	comp=E,118nm,0.6s,SNR=54						
EINC				S	Sn	17 54 13.4	-7.0
	comp=E,166nm,0.8s						
LABF	Labassere	8.31	16	P	P	17 52 46.4	-0.2
EZAM	Zamans	8.33	330	P	P	17 52 45.8	-1.1
	comp=E,30nm,0.4s,SNR=5.7						
EZAM				S	Sn	17 54 15.1	-6.7
	comp=E,97nm,0.8s						
SALF	Salau	8.34	22	P	P	17 52 46.4	-0.6
EPF	Esparros	8.35	17	*e*Pn	P	17 52 47.0	-0.3
EARI	Arriondas	8.38	349	P	P	17 52 47.1	-0.5
	comp=E,79nm,0.7s,SNR=25						
EARI				S	Sn	17 54 16.9	-6.0
	comp=E,98nm,0.8s,SNR=4.9						
EARI	Arriondas	8.38	349	P	P	17 52 47.1	-0.5
MLS	Moulis	8.49	21	P	P	17 52 49.5	+0.4
CARF	Carcanieres	8.60	26	P	P	17 52 51.7	+1.0
CMAH	Djebel Manchou	8.62	77	P	P	17 52 48.0	-3.0
EJON	La Jonquera	8.68	30	P	P	17 52 50.4	-1.4
	comp=E,19nm,0.7s,SNR=5.0						
EJON				S	Sn	17 54 22.3	-8.1
	comp=E,22nm,0.8s						
EJON	La Jonquera	8.68	30	P	P	17 52 50.5	-1.3
LPEF	Le Peyrat	8.74	25	P	P	17 52 54.0	+1.4
EPON	Pontenova	8.83	340	P	P	17 52 53.3	-0.6
	comp=E,8.5nm,0.2s,SNR=28						
EPON				S	Sn	17 54 27.7	-6.4
	comp=E,89nm,0.8s						
EPON	Pontenova	8.83	340	P	P	17 52 53.3	-0.6
STS	Santiago	8.89	333	P	P	17 52 53.8	-1.0
	comp=E,22nm,0.5s,SNR=5.8						
STS				S	Sn	17 54 28.6	-7.1
	comp=E,107nm,0.8s						
EMAZ	Mazaricos	9.11	331	P	P	17 52 57.0	-0.8
	comp=E,14nm,0.3s,SNR=12						
EMAZ				S	Sn	17 54 34.1	-7.0
	comp=E,172nm,1.0s						
MTLF	Montolieu	9.19	25	*e*Pn	P	17 52 58.8	-0.1
LFF	La Frestale	10.25	15	*e*Pn	P	17 53 12.0	-1.5
LASF	Ste Croix	10.43	29	*e*Pn	P	17 53 13.2	-2.7
CAF	Calviac	10.57	20	*e*Pn	P	17 53 16.9	-0.9
RJF	Les Rejaudoux	10.78	17	*e*Pn	P	17 53 18.8	-1.9
RJF				*e*R			
	comp=E,3µm,12.8s						
VSL	Villasalto	10.82	62	*e*Pn	P	17 53 17.8	-3.4
VSL				*e*Sn	S	17 55 12.8	-10
VSL	Villasalto	10.82	62	*e*Pn	P	17 53 17.8	-3.4
LMR	La Mourre	11.06	39	*e*Pn	P	17 53 23.8	-0.8
LMR				*e*Sn	S	17 55 20.1	-9.0
	comp=E,45nm,0.8s						
FRF	La Foret Royal	11.29	39	*e*Pn	P	17 53 26.1	-1.6
VIVF	Saint-Julien-l	11.40	29	*e*Pn	P	17 53 27.1	-2.0
MFF	Saint Martin d	11.71	10	*e*Pn	P	17 53 31.9	-1.4
TCF	Toulx Ste Croi	11.87	18	*e*Pn	P	17 53 33.9	-1.6
SBF	Sospel	11.91	40	*e*Pn	P	17 53 34.8	-1.3
PGF	Pioggiola	11.97	48	*e*Pn	P	17 53 35.7	-1.2
STV	Sta Anna Valdi	12.12	38	P	P	17 53 40.2	+1.3
STV	Sta Anna Valdi	12.12	38	P	P	17 53 40.2	+1.2
ENR	Entracque	12.16	38	P	P	17 53 40.0	+0.6
ENR	Entracque	12.16	38	P	P	17 53 40.0	+0.6
IMI	Imperia	12.19	40	P	P	17 53 41.0	+1.2
IMI	Imperia	12.19	40	P	P	17 53 41.0	+1.2
PZZ	Prazzo	12.20	37	P	P	17 53 42.2	+2.2
MBDF	Montbardon	12.21	35	*e*Pn	P	17 53 38.5	-1.6
MONE	Monesi	12.23	40	P	P	17 53 41.0	+0.6
MONE	Monesi	12.23	40	P	P	17 53 41.0	+0.6
BGF	Bois d’Agland	12.29	19	*e*Pn	P	17 53 39.1	-2.0
RRL	Cesana Torines	12.36	34	P	P	17 53 44.0	+1.9
RRL	Cesana Torines	12.36	34	P	P	17 53 44.0	+1.9
ROB	Roburent	12.44	39	P	P	17 53 44.4	+1.2
ROB	Roburent	12.44	39	P	P	17 53 44.3	+1.1
BHB	Bricherasio	12.53	36	P	P	17 53 45.7	+1.3
BHB	Bricherasio	12.53	36	P	P	17 53 45.7	+1.3
FIN	Finale Ligure	12.56	40	*e*P	P	17 53 47.1	+2.4
FIN	Finale Ligure	12.56	40	*e*P	P	17 53 47.1	+2.3
AVF	Avril sur Loir	12.64	20	*e*Pn	P	17 53 43.6	-2.3
SMF	Signal de Mont	12.65	22	*e*Pn	P	17 53 44.0	-2.1
RSP	Reno Superiore	12.76	35	P	P	17 53 48.5	+1.2
RSP	Reno Superiore	12.76	35	P	P	17 53 48.5	+1.1
QUIF	Quistinic	12.82	360	*e*Pn	P	17 53 46.7	-1.5
QUIF				*e*Sn	S	17 56 00.0	-12
	comp=E,150nm,1.0s						
SSF	Saint Saulge	12.93	20	*e*Pn	P	17 53 47.4	-2.3
LSD	Ceresole Reale	12.94	34	P	P	17 53 50.5	+0.7
LSD	Ceresole Reale	12.94	34	P	P	17 53 50.5	+0.7
PCP	Pian Castagno	12.96	40	P	P	17 53 50.3	+0.2
PCP	Pian Castagno	12.96	40	P	P	17 53 50.3	+0.2
SGMF	Saint Gilles	13.16	1	*e*Pn	P	17 53 51.4	-1.4
SGMF				*e*Sn	S	17 56 08.8	-11
	comp=E,297nm,1.7s						
ROSF	Rostrenen	13.24	359	*e*Pn	P	17 53 52.4	-1.4
ROSF				*e*Sn	S	17 56 11.9	-10
	comp=E,76nm,0.9s						
GRR	Gorron	13.39	6	*e*Pn	P	17 53 54.4	-1.4
GRR				*e*Sn	S	17 56 12.4	-13
	comp=E,95nm,1.3s						
CABF	La Chapelle	13.41	28	*e*Pn	P	17 53 54.4	-1.6
GRFL	Gerfalco	13.52	49	*e*P	P	17 53 58.8	+1.4
GRFL	Gerfalco	13.52	49	*e*P	P	17 53 58.8	+1.4
MAIM		13.65	46	P	P	17 53 56.5	-2.7
LDF	La Druitiere	13.67	8	*e*Pn	P	17 53 57.9	-1.5
MCGN	Macugnaga	13.70	34	*e*P	P	17 54 03.1	+3.3
MCGN	Macugnaga	13.70	34	*e*P	P	17 54 03.1	+3.3
GRAM		13.75	43	P	P	17 53 58.9	-1.6
GRAM		13.75	43	P	P	17 53 58.9	-1.6
FLN	La Foliniere	13.79	7	*e*Pn	P	17 53 59.5	-1.6
FLN				*e*R			
	comp=E,2µm,15.2s						
BDI	Bagni Di Lucca	13.80	45	*e*P	P	17 54 01.7	+0.6
BDI	Bagni Di Lucca	13.80	45	*e*P	P	17 54 01.7	+0.6
ERBM	Eremo	13.90	44	*e*P	P	17 54 05.1	+2.6
GSCL	Gusciola	13.96	44	*e*P	P	17 54 05.9	+2.6
GSCL	Gusciola	13.96	44	*e*P	P	17 54 05.9	+2.6
VAE	Valguarnera	14.27	75	Pn	P	17 54 11.2	+3.8
	comp=E,0.8nm,0.3s,baz=220,slow=17,SNR=2.3						
VAE				LR	LR	17 59 24.1	
	comp=E,1µm,18.8s,baz=146,slow=37						
CRE	Caprese Michel	14.37	49	*e*P	P	17 54 17.3	+8.7
SFTF	Sexfontaines	14.41	22	*e*Pn	P	17 54 09.2	0.0
SFI	Santa Sofia	14.45	48	*e*P	P	17 54 18.8	+9.0
HAU	Haudompre	14.68	26	*e*Pn	P	17 54 11.5	-1.1
HAU				*e*R			
	comp=E,2µm,15.0s						
MEZF	Maizieres J’vi	14.68	22	*e*Pn	P	17 54 11.8	-0.9
HINF	Hinteralfeld	14.70	27	*e*Pn	P	17 54 11.4	-1.6
AQU	L’Aquila	14.72	56	*e*P	P	17 54 14.5	+1.2
	comp=E,62nm,1.3s						
AQU	L’Aquila	14.72	56	*e*P	P	17 54 14.5	+1.2
	comp=E,62nm,1.3s						
FSSB	Fossombrone	14.92	50	*e*P	P	17 54 20.6	+4.8
RFYF	Reffroy	14.93	22	*e*Pn	P	17 54 14.8	-1.1
DAVOX	Davos	15.19	36	Pn	P	17 54 23.1	+3.7
	comp=E,0.2nm,0.3s,baz=202,slow=19,SNR=7.0						
BRMO	Bormio	15.22	38	*e*P	P	17 54 23.3	+3.5
BRMO	Bormio	15.22	38	*e*P	P	17 54 23.3	+3.5
CDF	Champ du Feu	15.35	27	*e*Pn	P	17 54 21.3	-0.2
DAVA	Damuels	15.56	35	⇓*i*P	P	17 54 27.0	+2.8
	comp=E,13nm,0.7s						
CTI	Castel Tesino	15.60	41	*e*P	P	17 54 25.6	+0.9
BFO	Black Forest	15.69	29	*e*P	P	17 54 32.9	+7.0
BFO				pmax	pmax		
	comp=Z,29nm,1.2s						
BFO	Black Forest	15.69	29	*e*P	P	17 54 32.9	+7.0
	comp=Z,29nm,1.2s						
BAIF	Baives	15.87	17	*e*Pn	P	17 54 28.1	-0.1
DOU	Dourbes	16.00	18	P	P	17 54 30.4	+0.6
WLF	Walferdange	16.05	22	*e*P	P	17 54 30.3	-0.2
	comp=Z,38nm,0.9s						
WLF				*e*		17 54 36.9	
WLF	Walferdange	16.05	22	*e*P	P	17 54 30.3	-0.2
GIVF	Givet	16.07	19	*e*Pn	P	17 54 30.8	+0.1
SQTA	Sankt Quirin	16.15	37	⇑*i*P	P	17 54 33.4	+1.6
	comp=Z,18nm,0.8s						
MOTA	Moosalm	16.18	37	⇑*i*P	P	17 54 33.4	+1.2
	comp=Z,15nm,1.0s						
TIP	Timpagrande	16.30	70	*e*P	P	17 54 27.4	-6.3
WTTA	Wattenberg	16.39	38	⇑*i*P	P	17 54 36.6	+1.8
	comp=Z,35nm,0.9s						
WATA	Walderalm	16.41	37	⇑*i*P	P	17 54 36.3	+1.2
	comp=Z,28nm,0.9s						
FVI	Forni Avoltri	16.56	41	*e*P	P	17 54 42.4	+5.4
PTCC	Patocco-Chiusa	16.75	43	*e*P	P	17 54 42.4	+3.0
PTCC	Patocco-Chiusa	16.75	43	*e*P	P	17 54 42.4	+3.0
VOY	Vojsko	16.84	44	*e*Pn	P	17 54 41.7	+1.2
VOY				*e*		17 54 45.1	
VOY				*e*		17 54 51.6	
FUR	Furstenfeldbru	16.85	35	*e*P	P	17 54 42.5	+1.9
FUR				pmax	pmax		
	comp=Z,49nm,1.4s						
FUR	Furstenfeldbru	16.85	35	*e*P	P	17 54 42.5	+1.9
	comp=Z,49nm,1.4s						
CADS	Cadrg	16.86	44	*e*Pn	P	17 54 45.5	+4.6
KBA	Koelnbreinsper	17.16	41	⇑*i*P	P	17 54 46.2	+1.7
	comp=Z,27nm,1.6s						
LJU	Ljubljana	17.21	45	*e*Pn	P	17 54 48.6	+3.4
OBKA	Obir	17.49	44	⇓*i*P	P	17 54 51.6	+3.0
	comp=Z,86nm,2.0s						
PERS	Pernice	17.88	44	*e*Pn	P	17 54 58.5	+4.9
GRA1	Grafenberg Arr	17.95	31	*e*P	P	17 54 56.5	+2.2
	comp=Z,52nm,1.4s						
GRF	Grafenberg Arr	17.95	31	*e*P	P	17 54 56.5	+2.2
GRF				pmax	pmax		
	comp=Z,52nm,1.4s						
GRF				MLR	MLR		
	comp=Z,800nm,18.8s						
BUG	Bochum--Univer	17.95	21	*e*P	P	17 54 58.0	+3.6
MOA	Molln	18.13	40	⇑*i*P	P	17 54 57.2	+0.6
	comp=Z,25nm,1.3s						
ARSA	Arzberg	18.46	43	⇓*i*P	P	17 55 01.3	+0.6
	comp=Z,32nm,1.0s						
GEC2	GERESS Array S	18.48	37	*e*P	P	17 55 01.8	+0.8
GEC2				pmax	pmax		
	comp=Z,13nm,1.1s						
GEC2	GERESS Array S	18.48	37	*e*P	P	17 55 01.8	+0.8
	comp=Z,13nm,1.1s						
GERES	GERESS Array B	18.48	37	P	P	17 54 59.6	-1.4
	comp=Z,0.3nm,0.3s,baz=225,slow=13,SNR=22						
GERES				PcP	PcP	17 59 31.2	-0.4
	comp=Z,0.1nm,0.3s,baz=225,slow=2.8,SNR=3.5						
GERES	GERESS Array B	18.48	37	PcP	Px	17 59 31.2	
KHC	Kasperske Hory	18.61	36	*e*P	P	17 55 01.9	-0.7
KHC				*e*S	S	17 58 34.3	+7.5
KHC				MLR	MLR		
	comp=Z,2µm,22.2s						
KHC	Kasperske Hory	18.61	36	*e*P	P	17 55 01.9	-0.7
KHC				*e*		17 55 12.0	
KHC				*e*		17 55 25.0	
KHC				*e*S	S	17 58 34.3	+7.5
KHC	Kasperske Hory	18.61	36	*e*P	P	17 55 01.9	-0.7
KHC				pP		17 55 12.0	
KHC				x	x	17 55 25.0	
KHC				*e*S	S	17 58 34.3	+7.5
KHC				AMS	AMS	18 01 20.0	
	comp=Z,2µm,22.2s						
MOX	Moxa	18.84	30	*e*P	P	17 55 07.1	+1.8
MOX				pmax	pmax		
	comp=Z,51nm,1.9s						
MOX				MLR	MLR		
	comp=Z,2µm,14.0s						
MOX	Moxa	18.84	30	*i* P	P	17 55 07.1	+1.8
	comp=Z,logA/T=1.4						
MOX				S	S	17 58 31.0	-0.8
MOX				L		18 03 31.0	
MOX	Moxa	18.84	30	*e*P	P	17 55 07.1	+1.8
	comp=Z,51nm,1.9s						
NKC	Novy Kostel	18.88	32	*e*P	P	17 55 07.7	+1.9
NKC				*e*S	S	17 58 38.7	+6.0
NKC				AMS	AMS	18 02 30.0	
	comp=Z,1µm,13.9s						
CLZ	Clausthal	19.31	26	*e*P	P	17 55 13.3	+2.4
	comp=Z,28nm,1.5s						
RHK1	Bakonya	19.37	49	*e*P	P	17 55 12.1	+0.4
PRU	Pruhonice	19.66	35	*e*P	P	17 55 12.6	-2.3
PRU				*e*S	S	17 58 54.9	+4.7
PRU				AMS	AMS	18 02 10.0	
	comp=Z,1µm,12.0s						
PRU	Pruhonice	19.66	35	*e*S	S	17 58 54.9	+4.7
PKS9	Tamasi	19.73	48	*e*P	P	17 55 15.6	-0.1
NRDL	Niedersach Rie	19.76	24	*e*P	P	17 55 18.5	+2.5
	comp=Z,43nm,1.7s						
PKSM	Moragy	19.78	49	P	P	17 55 15.8	-0.4

ZST	**Bratislava**	19.87	43	eP	P	17 55 17.2	0.0
CLL	**Collm**	19.91	31	i P	P	17 55 18.7	+1.0
CLL				pmax	pmax		
	comp=Z,31nm,1.4s						
CLL	**Collm**	19.91	31	i P	P	17 55 18.7	+1.0
	comp=Z,31nm,1.4s						
CLL				eS	S	17 59 04.0	+8.3
CLL	**Collm**	19.91	31	P	P	17 55 17.0	-0.7
	comp=Z,logA/T=1.3						
CLL				e		17 55 30.0	
CLL				ePP	PP	17 55 36.0	-0.7
CLL				i		17 56 10.9	
CLL				e		17 57 16.0	
CLL				eS	S	17 59 04.0	+8.3
BRG	**Berggiesshubel**	20.00	33	eP	P	17 55 20.8	+2.2
BRG				eS	S	17 59 02.0	+4.5
BRG				pmax	pmax		
	comp=Z,68nm,1.7s						
BRG				MLR	MLR		
	comp=N,1µm,10.7s						
BRG				MLR	MLR		
	comp=E,1µm,10.7s						
BRG				MLR	MLR		
	comp=Z,990nm,10.7s						
BRG	**Berggiesshubel**	20.00	33	eP	P	17 55 20.8	+2.2
	comp=Z,68nm,1.7s						
BRG				eS	S	17 59 02.0	+4.5
BRG				LR	LR		
	comp=Z,990nm,10.7s						
BRG	**Berggiesshubel**	20.00	33	eP	P	17 55 18.5	-0.1
	comp=Z,68nm,1.7s						
BRG				eS	S	17 59 02.0	+4.5
PVCC	**Panska Ves**	20.04	34	eP	P	17 55 19.4	+0.4
PVCC				MLR	MLR		
	comp=Z,2µm,16.1s,MS4.5						
PVCC	**Panska Ves**	20.04	34	eP	P	17 55 19.4	+0.4
PVCC				eS	S	17 59 08.8	+10
PVCC				AMS	AMS	18 03 00.0	
	comp=Z,2µm,16.1s						
MODS	**Modra-Piesok**	20.07	42	eP	P	17 55 18.5	-0.8
PKSG		20.18	46	⇓eP	P	17 55 20.8	+0.2
SMOL	**Smolenice**	20.23	42	eP	P	17 55 21.5	+0.5
ESK	**Eskdalemuir**	20.23	360	eP	P	17 55 20.2	-0.8
	comp=Z,23nm,0.9s						
ESK	**Eskdalemuir**	20.23	360	eP	P	17 55 20.2	-0.8
	comp=Z,23nm,0.9s						
VRAC	**Vranov**	20.24	39	P	P	17 55 18.1	-3.0
	comp=Z,14nm,0.8s,baz=240,slow=10,SNR=17						
VRAC	**Vranov**	20.24	39	P	P	17 55 18.1	-3.1
VRAC				pmax	pmax		
	comp=Z,14nm,0.8s						
VRAC	**Vranov**	20.24	39	eP	P	17 55 20.9	-0.3
EKA	**Eskdalemuir Ar**	20.25	360	P	P	17 55 21.4	+0.2
	comp=Z,7.4nm,0.8s,baz=178,slow=10,SNR=14						
EKA	**Eskdalemuir Ar**	20.25	360	P	P	17 55 21.4	+0.2
EKA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
GRUS	**Gruza**	20.27	57	⇑iP	P	17 55 19.8	-1.7
SRO1	**Iza**	20.28	45	eP	P	17 55 22.1	+0.5
SKO	**Skopje**	20.30	63	⇓iP	P	17 55 20.6	-1.2
	comp=Z,0.1nm,1.1s						
SRO	**Srobarova**	20.35	45	eP	P	17 55 24.0	+1.7
BEO	**Belgrade**	20.40	54	⇓iP	P	17 55 23.3	+0.5
BUD	**Budapest**	20.60	46	P	P	17 55 27.3	+2.4
UPC	**Upice**	20.71	36	eP	P	17 55 25.2	-0.8
DPC	**Dobruska-Polom**	20.76	37	eP	P	17 55 27.5	+1.0
DPC				eS	S	17 59 17.4	+4.5
DPC				AMS	AMS	18 02 40.0	
	comp=Z,1µm,17.6s						
KOLL	**Kolacno**	20.80	43	eP	P	17 55 26.2	-0.8
VYHS	**Vyhne**	21.00	44	eP	P	17 55 28.2	-0.8
BSEG	**Bad Segeberg**	21.05	22	eP	P	17 55 31.2	+1.8
BSEG				pmax	pmax		
	comp=Z,72nm,1.5s,mb4.8						
BSEG	**Bad Segeberg**	21.05	22	eP	P	17 55 31.2	+1.8
	comp=Z,72nm,1.5s,mb4.8						
KSP	**Ksiaz**	21.06	36	eP	P	17 55 29.4	-0.2
KSP				eS	S	17 59 21.0	+2.2
KSP				MLR	MLR		
	comp=Z,3µm,21.0s,MS4.7						
KSP	**Ksiaz**	21.06	36	eP	P	17 55 29.4	-0.2
KSP				epP		17 55 30.9	
KSP				eS	S	17 59 21.0	+2.2
KSP				LR	LR		
	comp=Z,3µm,21.0s,MS4.7						
KSP	**Ksiaz**	21.06	36	eP	P	17 55 29.4	-0.2
KSP				epP		17 55 30.9	
KSP				eS	S	17 59 21.0	+2.2
KSP	**Ksiaz**	21.06	36	eP	P	17 55 25.3	-4.3
KSP				e		17 55 30.2	
KSP				MLR	MLR	18 02 58.6	
	comp=Z,3µm,21.0s,MS4.6						
RUE	**Ruedersdorf**	21.11	29	eP	P	17 55 30.6	+0.5
	comp=Z,145nm,1.7s,mb5.0						
RUE	**Ruedersdorf**	21.11	29	eP	P	17 55 30.6	+0.5
	comp=Z,145nm,1.7s,mb5.0						
BOLS	**Boljevac**	21.11	58	⇑iP	P	17 55 29.5	-0.7
PSZ	**Piszkesteto**	21.33	46	e	P	17 55 33.2	+0.9
PSZ	**Piszkesteto**	21.33	46	eP	P	17 55 31.1	-1.2
	comp=Z,50nm,1.2s,mb4.7						
OKC	**Ostrava-Krasne**	21.37	40	eP	P	17 55 33.9	+1.1
OKC				eS	S	17 59 32.8	+8.1
OKC				AMS	AMS	18 04 20.0	
	comp=Z,700nm,13.2s						
KKB	**Krupnik**	21.48	64	eP	P	17 55 34.0	0.0
VTS	**Vitosha**	21.71	62	eP	P	17 55 35.0	-1.2
VTS	**Vitosha**	21.71	62	P	P	17 55 36.0	-0.2
MMB	**Musomiste**	21.92	65	P	P	17 55 38.0	-0.3
GVD	**Gavdhos**	22.20	83	eP	P	17 55 39.0	-2.2
	comp=Z,46nm,1.1s,mb4.8						
GVD	**Gavdhos**	22.20	83	eP	P	17 55 39.0	-2.2
	comp=Z,46nm,1.1s,mb4.8						
NIE	**Niedzica**	22.32	43	eP	P	17 55 43.5	+1.3
PGB	**Panagyurishte**	22.40	62	eP	P	17 55 43.0	-0.1
OJC	**Ojcow**	22.47	41	eP	P	17 55 44.8	+1.1
OJC				eS	S	17 59 51.2	+6.3
OJC				MLR	MLR	18 04 58.5	
	comp=Z,900nm,17.0s,MS4.3						
RZN	**Rozhen**	22.66	65	eP	P	17 55 44.5	-1.2
CRVS	**Cervenica-Dubn**	22.72	45	eP	P	17 55 49.5	+3.4
IDI	**Anoyia**	22.79	81	P	P	17 55 47.8	+0.7
	comp=Z,40nm,1.1s,mb4.8,baz=283,slow=13,SNR=21						
SANT	**Santorini**	23.13	79	eP	P	17 55 49.9	-0.4
	comp=Z,75nm,1.0s,mb5.1						
SANT	**Santorini**	23.13	79	eP	P	17 55 49.9	-0.4
	comp=Z,75nm,1.0s,mb5.1						
APE	**Apeiranthos**	23.13	77	⇑eP	P	17 55 53.0	+2.7
KOLS	**Kolonicke sedl**	23.20	46	eP	P	17 55 52.2	+1.3
DIM	**Dimitrovgrad**	23.32	64	eP	P	17 55 52.0	-0.1
KWP	**Kalwaria**	23.78	44	eP	P	17 55 55.4	-1.0
	comp=Z,43nm,0.9s,mb4.9						
KWP	**Kalwaria**	23.78	44	eP	P	17 55 55.4	-1.1
	comp=Z,43nm,0.9s,mb4.9						
AYVA	**Ayvalik**	23.99	71	P	P	17 56 01.2	+2.6
MLR	**Muntele Rosu**	24.30	56	P	P	17 56 01.3	-0.3
	comp=Z,11nm,0.9s,mb4.3,baz=271,slow=5.3,SNR=12						
MLR				LR	LR	18 05 56.9	
	comp=Z,1µm,18.1s,MS4.5,baz=248,slow=38						
MLR	**Muntele Rosu**	24.30	56	P	P	17 56 01.3	-0.3
MLR				pmax	pmax		
	comp=Z,11nm,0.9s						
MLR				MLR	MLR		
	comp=Z,1µm,18.1s						
KDAG	**Bornova**	24.45	73	P	P	17 56 07.2	+4.1
AYDN	**Tasoluk**	24.96	75	P	P	17 56 10.2	+2.1
MANT	**Manisa**	25.46	73	P	P	17 56 13.8	+1.1
KMPD	**K-Podol’skiy**	25.59	49	P	P	17 56 14.0	+0.2
DNZL	**Cakiroluk**	25.89	75	P	P	17 56 18.9	+2.1
ULDT	**Uludag**	25.89	69	P	P	17 56 15.9	-0.8
SUW	**Suwalki**	26.34	36	eP	P	17 56 16.9	-3.8
	comp=Z,64nm,1.1s,mb5.1						
SUW				e		17 56 37.5	
KIS	**Kishinev**	26.62	54	eP	P	17 56 22.0	-1.4
KIS				MLR	MLR		
	comp=Z,900nm,13.0s,MS4.5						
KIS				MLR	MLR		
	comp=E,600nm,15.0s						
KIS				MLR	MLR		
	comp=Z,1µm,14.0s						
HFS	**Hagfors**	27.31	18	P	P	17 56 29.3	-0.3
	comp=Z,1.8nm,0.9s,baz=217,slow=14,SNR=3.4						
HFS	**Hagfors**	27.31	18	P	P	17 56 29.3	-0.3
HFS				pmax	pmax		
	comp=Z,2.0nm,0.9s						
NB2	**NORSAR Subarra**	27.53	15	P	P	17 56 30.6	-1.0
	comp=Z,5.6nm,1.0s,mb4.2,baz=209,slow=8.6						
NOA	**NORSAR Array B**	27.53	15	P	P	17 56 31.7	+0.1
	comp=Z,0.9nm,0.8s,baz=207,slow=8.8,SNR=3.3						
NOA				LR	LR	18 08 25.8	
	comp=Z,708nm,18.1s,baz=215,slow=39						
NOA	**NORSAR Array B**	27.53	15	P	P	17 56 31.7	+0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,708nm,18.1s						
NOA	**NORSAR Array B**	27.53	15	P	P	17 56 31.7	+0.1
NOA				LR	LR	18 08 25.8	
AKASG	**Malin Array Be**	28.03	46	P	P	17 56 33.4	-2.8
	comp=Z,2.1nm,0.7s,mb3.9,baz=246,slow=10.0,SNR=14						
AKASG	**Malin Array Be**	28.03	46	P	P	17 56 33.4	-2.8
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRTR	**Keskin Array B**	29.36	70	P	P	17 56 48.4	+0.1
	comp=Z,1.7nm,0.9s,mb3.8,baz=259,slow=6.3,SNR=8.6						
BRTR	**Keskin Array B**	29.36	70	P	P	17 56 48.4	+0.1
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MEST	**Erdemli**	30.05	76	P	P	17 56 54.4	-0.2
AVNT	**Avonos**	30.36	72	P	P	17 56 55.9	-1.4
COBT	**Iskenderun**	31.75	76	P	P	17 57 08.7	-0.7
KAHT	**Ahir Dag**	32.07	74	P	P	17 57 12.4	+0.1
FINES	**FINESS Array B**	32.20	26	P	P	17 57 11.0	-2.2
	comp=Z,1.4nm,0.8s,mb3.8,baz=258,slow=20,SNR=2.4						
FINES				LR	LR	18 10 17.3	
	comp=Z,249nm,18.5s,MS3.9,baz=354,slow=37						
FINES	**FINESS Array B**	32.20	26	P	P	17 57 11.0	-2.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
FINES				MLR	MLR		
	comp=Z,249nm,18.5s						
EIL	**Elat**	32.39	89	eP	P	17 57 14.7	-0.5
	comp=Z,14nm,1.1s,mb4.7						
EIL	**Elat**	32.39	89	eP	P	17 57 14.7	-0.4
	comp=Z,14nm,1.1s,mb4.7						
GZT	**Gaziantep**	32.65	74	P	P	17 57 17.0	-0.3
MALT	**Malatya**	33.20	72	eP	P	17 57 21.6	-0.5
	comp=Z,39nm,1.2s,mb5.2						
MALT	**Malatya**	33.20	72	eP	P	17 57 21.6	-0.5
	comp=Z,39nm,1.2s,mb5.2						
OBN	**Obninsk**	33.76	41	i P	P	17 57 26.9	+0.2
OBN				e		17 58 36.8	
OBN				i		18 00 06.7	
OBN				pmax	pmax		
	comp=Z,23nm,1.8s,mb4.8						
OBN				MLR	MLR		
	comp=Z,400nm,16.0s,MS4.2						
OBN	**Obninsk**	33.76	41	eP	P	17 57 25.6	-1.1
	comp=Z,48nm,1.7s,mb5.2						
OBN	**Obninsk**	33.76	41	eP	P	17 57 25.6	-1.1
	comp=Z,48nm,1.7s,mb5.2						
SOC	**Sochi**	33.82	62	eP	P	17 57 27.9	+0.4
SOC				e		17 58 46.1	
SOC				eS	S	18 02 44.8	-5.1
SOC				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
SOC				pmax	pmax		
	comp=N,25nm,1.0s						
SOC				pmax	pmax		
	comp=E,22nm,1.0s						
SOC				MLR	MLR		
	comp=Z,436nm,21.0s,MS4.2						
SOC				MLR	MLR		
	comp=N,457nm,19.0s,MS4.3						
SOC				MLR	MLR		
	comp=E,228nm,19.0s,MS4.3						
VRSR	**Storozhevoye**	34.22	49	eP	P	17 57 30.2	-0.6
VRSR				e*SP	sP	17 57 41.5	+4.9
VRSR				e		18 00 10.2	
VRSR				eS	S	18 02 49.5	-6.5
VRSR				e*SS		18 03 06.8	
VRSR				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,70nm,1.0s						
VRSR				smax			
	comp=N,10.0nm,1.2s						
VRSR				smax			
	comp=Z,7.0nm,2.3s						
VRSR				smax			
	comp=E,3.0nm,0.7s						
VRSR				MLR	MLR		
	comp=Z,240nm,21.0s,MS3.9						
VRSR				MLR	MLR		
	comp=N,600nm,19.0s,MS4.5						
VRSR				MLR	MLR		
	comp=E,790nm,20.0s,MS4.5						
MOS	**Moscow**	34.53	41	eP	P	17 57 32.0	-1.4
MOS				e		17 58 45.7	
MOS				MLR	MLR		
	comp=Z,800nm,19.3s,MS4.5						
MOS				MLR	MLR		
	comp=E,900nm,19.2s						
KIV	**Kislovodsk**	35.97	62	eP	P	17 57 47.8	+2.0
KIV				e		17 59 08.1	
KIV				ePPP	PPP	17 59 21.0	-6.5
KIV				eS	S	18 03 22.7	-0.5
KIV				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
KIV				pmax	pmax		
	comp=N,3.0nm,0.6s						
KIV				pmax	pmax		
	comp=E,8.0nm,1.3s						
KIV				MLR	MLR		
	comp=Z,237nm,22.0s,MS3.9						
KIV				MLR	MLR		
	comp=N,50nm,14.0s						
KIV				MLR	MLR		
	comp=E,169nm,22.0s						
KIV	**Kislovodsk**	35.97	62	P	P	17 57 48.1	+2.3
	comp=E,11nm,1.1s,mb4.7						
KIV	**Kislovodsk**	35.97	62	P	P	17 57 48.1	+2.3
	comp=E,11nm,1.1s,mb4.7						
GOF	**Gofitskoye**	36.20	60	⇑iP	P	17 57 47.0	-0.7
GOF				pmax	pmax		
	comp=Z,70nm,1.8s,mb5.3						
ARCES	**ARCESS Array B**	37.90	16	LR	LR	18 13 39.9	
	comp=Z,934nm,21.2s,MS4.6,baz=236,slow=36						
SUMG	**Summit**	41.67	345	eP	P	17 58 34.0	+1.2
	comp=Z,18nm,0.9s,mb4.7						
SUMG	**Summit**	41.67	345	eP	P	17 58 34.0	+1.1
	comp=Z,18nm,0.9s,mb4.7						
DAG	**Danmarks Havn**	42.38	355	⇓iP	P	17 58 39.9	+1.3
DAG				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
DAG	**Danmarks Havn**	42.38	355	⇓iP	P	17 58 39.9	+1.3
	comp=Z,5.0nm,1.0s,mb4.1						
ARU	**Arti**	46.17	43	⇑iP	P	17 59 08.8	-0.5
ARU				e		18 00 44.4	
ARU				e		18 00 56.2	
ARU				eS	S	18 05 51.2	-3.1
ARU				e		18 09 03.1	
ARU				eSS	SS	18 09 13.3	+1.4
ARU				eSSS	SSS	18 10 08.8	-8.1
ARU				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.5						
ARU				MLR	MLR		
	comp=Z,300nm,25.0s,MS4.1						
ARU				MLR	MLR		
	comp=N,200nm,18.0s						
ARU				MLR	MLR		
	comp=E,200nm,23.0s						
ARU	**Arti**	46.17	43	eP	P	17 59 08.7	-0.7
	comp=E,98nm,1.2s,mb5.6						
ARU	**Arti**	46.17	43	eP	P	17 59 08.7	-0.6
	comp=E,98nm,1.2s,mb5.6						
SCHQ	**Schefferville**	47.45	315	P	P	17 59 19.1	-0.5
	comp=E,35nm,1.1s,mb5.2,baz=100,slow=6.4,SNR=8.1						
SCHQ				LR	LR	18 17 00.2	
	comp=E,166nm,18.4s,MS4.0,baz=53,slow=33						
SCHQ	**Schefferville**	47.45	315	P	P	17 59 19.0	-0.6
MBAR	**Mbarara**	47.49	131	eP	P	17 59 19.2	-1.2
	comp=E,12nm,1.2s,mb4.7						
MBAR	**Mbarara**	47.49	131	eP	P	17 59 19.2	-1.2
	comp=E,12nm,1.2s,mb4.7						
KMBO	**Kilima Mbogo**	52.09	125	P	P	17 59 57.6	+1.9
	comp=E,3.2nm,0.9s,mb4.2,baz=335,slow=9.5,SNR=9.5						
KMBO				LR	LR	18 21 57.8	
	comp=E,139nm,19.4s,MS4.0,baz=291,slow=36						
KMBO	**Kilima Mbogo**	52.09	125	P	P	17 59 57.6	+1.9
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KMBO				MLR	MLR		
	comp=Z,139nm,19.4s						
KMBO	**Kilima Mbogo**	52.09	125	eP	P	17 59 57.0	+1.2
	comp=Z,7.7nm,1.2s,mb4.5						
KMBO	**Kilima Mbogo**	52.09	125	eP	P	17 59 57.0	+1.3
	comp=Z,7.7nm,1.2s,mb4.5						
BRVK	**Borovoye**	53.24	46	eP	P	18 00 01.9	-1.8
	comp=Z,57nm,1.7s,mb5.2						
BRVK	**Borovoye**	53.24	46	eP	P	18 00 01.9	-1.9
	comp=Z,57nm,1.7s,mb5.2						
BVA0	**Borovoye Array**	53.31	46	i P	P	18 00 03.8	-0.5
BVA0				pmax	pmax		
	comp=Z,4.0nm,1.5s,mb4.1						
CHKZ	**Chkalovo**	53.32	45	i P	P	18 00 04.2	-0.1
CHKZ				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.6						
CHKZ	**Chkalovo**	53.32	45	eP	P	18 00 02.6	-1.6
	comp=Z,24nm,1.5s,mb4.9						
CHKZ	**Chkalovo**	53.32	45	eP	P	18 00 02.7	-1.6
	comp=Z,24nm,1.5s,mb4.9						
GENY	**Geneseo**	56.94	302	eP	P	18 00 31.7	+0.9
GENY	**Geneseo**	56.94	302	eP	P	18 00 31.7	+1.0
RES	**Resolute Bay**	57.01	342	eP	P	18 00 30.1	-0.7
	comp=Z,4.7nm,0.9s,mb4.5						
RES	**Resolute Bay**	57.01	342	eP	P	18 00 30.1	-0.7
	comp=Z,4.7nm,0.9s,mb4.5						
SSPA	**Standing Stone**	57.71	300	eP	P	18 00 37.5	+1.3
	comp=Z,40nm,1.3s,mb5.3						
SSPA	**Standing Stone**	57.71	300	eP	P	18 00 37.5	+1.3
	comp=Z,40nm,1.3s,mb5.3						
LSZ	**Lusaka**	58.19	144	eP	P	18 00 39.5	-0.4
	comp=Z,11nm,1.0s,mb4.8						
LSZ	**Lusaka**	58.19	144	eP	P	18 00 39.5	-0.4
	comp=Z,11nm,1.0s,mb4.8						
EKS2	**Erkin-Say**	58.37	58	eP	P	18 00 39.2	-1.6
	comp=Z,8.3nm,0.9s,mb4.8						
EKS2	**Erkin-Say**	58.37	58	eP	P	18 00 39.2	-1.6
	comp=Z,8.3nm,0.9s,mb4.8						
AML	**Almayashu**	58.50	58	eP	P	18 00 40.5	-1.2
	comp=Z,9.5nm,1.2s,mb4.7						
AML	**Almayashu**	58.50	58	eP	P	18 00 40.5	-1.2
	comp=Z,9.5nm,1.2s,mb4.7						
KURK	**Kurchatov**	58.84	47	⇑iP	P	18 00 43.6	-0.3
KURK				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
KURK	**Kurchatov**	58.84	47	eP	P	18 00 42.6	-1.4
	comp=Z,22nm,1.0s,mb5.1						
KURK	**Kurchatov**	58.84	47	eP	P	18 00 42.6	-1.3
	comp=Z,22nm,1.0s,mb5.1						
AAK	**Ala-Archa**	58.87	57	⇓iP	P	18 00 44.4	+0.1
AAK				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
AAK				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.3						
AAK	**Ala-Archa**	58.87	57	eP	P	18 00 42.4	-1.9
	comp=Z,6.4nm,0.9s,mb4.7						
UCH	**Uchtor**	59.03	58	eP	P	18 00 45.0	-0.4
	comp=Z,5.2nm,0.9s,mb4.6						
UCH	**Uchtor**	59.03	58	eP	P	18 00 45.0	-0.4
	comp=Z,5.2nm,0.9s,mb4.6						
MCWV	**Mont Chateau**	59.46	299	eP	P	18 00 51.1	+2.7
	comp=Z,21nm,0.8s,mb5.2						
MCWV	**Mont Chateau**	59.46	299	eP	P	18 00 51.1	+2.7
	comp=Z,21nm,0.8s,mb5.2						
TKM2	**Tokmak 2**	59.53	57	eP	P	18 00 47.9	-1.0
	comp=Z,5.2nm,1.2s,mb4.4						
TKM2	**Tokmak 2**	59.53	57	eP	P	18 00 47.9	-0.9
	comp=Z,5.2nm,1.2s,mb4.4						
NVS	**Novosibirsk**	60.15	42	i P	P	18 00 53.0	+0.1
NVS				pmax	pmax		
	comp=N,12nm,1.9s						
NVS				pmax	pmax		
	comp=E,31nm,1.9s						
NVS				pmax	pmax		
	comp=Z,77nm,1.9s,mb5.4						
KSH	**Kashi**	61.07	60	P	P	18 01 01.2	+1.8
KSH				eAP	pP	18 01 05.2	+1.6
KSH				eXP	sP	18 01 08.0	+2.8
KSH				ePCP	PcP	18 01 44.1	+1.8
KSH				ePP	PP	18 03 18.1	+1.9
KSH				ePPP	PPP	18 04 46.1	+1.8
KSH				eSCP		18 05 43.1	
KSH				ePCS		18 05 44.3	
KSH				eS	S	18 09 16.4	+0.2
KSH				eSCS	ScS	18 10 47.4	+0.8
KSH				eSS	SS	18 13 16.0	-1.5
KSH				AMB	AMB		
	comp=Z,40nm,1.7s,mb5.3						
KSH				LR	LR		
	comp=N,190nm,4.9s						
KSH				LR	LR		
	comp=E,220nm,5.1s						
PWV	**Princeton**	61.23	297	eP	P	18 01 01.9	+1.4
PWV	**Princeton**	61.23	297	eP	P	18 01 02.0	+1.5
FCC	**Fort Churchill**	61.28	324	eP	P	18 01 00.3	-0.3
	comp=E,20nm,1.1s,mb5.2						
ZAL	**Zalesovo**	61.32	42	P	P	18 01 00.8	-0.1
	comp=E,1.5nm,0.8s,mb4.2,baz=188,slow=6.8,SNR=11						
ZAL				LR	LR	18 28 38.7	
	comp=E,205nm,18.9s,MS4.3,baz=179,slow=37						
ZAL	**Zalesovo**	61.32	42	P	P	18 01 00.8	-0.1
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ZAL				MLR	MLR		
	comp=Z,205nm,18.9s						
ACSO	**Alum Creek Sta**	61.47	301	eP	P	18 01 01.9	-0.1
	comp=Z,43nm,0.9s,mb5.6						
ACSO	**Alum Creek Sta**	61.47	301	eP	P	18 01 02.0	-0.1
	comp=Z,43nm,0.9s,mb5.6						
MKAR	**Makanchi Array**	62.50	51	i P	P	18 01 08.0	-0.9
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
ULM	**Lac du Bonnet**	65.63	315	P	P	18 01 30.1	+0.8
	comp=Z,6.0nm,1.0s,mb4.6,baz=80,slow=6.6,SNR=4.1						
ULM				LR	LR	18 27 28.2	
	comp=Z,160nm,18.6s,MS4.2,baz=313,slow=34						
LBTB	**Lobatse**	65.64	152	eP	P	18 01 28.8	-0.9
	comp=Z,7.1nm,0.8s,mb4.8						
LBTB	**Lobatse**	65.64	152	eP	P	18 01 28.8	-0.9
	comp=Z,7.1nm,0.8s,mb4.8						
BDFB	**Brasilia**	66.08	228	P	P	18 01 33.8	+1.2
	comp=Z,2.1nm,0.6s,mb4.3,baz=53,slow=6.7,SNR=3.5						
BDFB				LR	LR	18 27 24.2	
	comp=Z,402nm,19.8s,MS4.6,baz=59,slow=33						
BDFB	**Brasilia**	66.08	228	P	P	18 01 33.8	+1.2
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BDFB				MLR	MLR		
	comp=Z,402nm,19.8s						
SDV	**Santo Domingo**	66.64	264	eP	P	18 01 37.2	+0.9
	comp=Z,29nm,1.3s,mb5.1						
WMQ	**Urumqi**	67.21	52	⇑P	P	18 01 40.5	+1.1
WMQ				AP	pP	18 01 45.0	+1.3
WMQ				XP	sP	18 01 47.4	+2.2
WMQ				PCP	PcP	18 02 08.7	+1.3
WMQ				PP	PP	18 04 09.9	+0.6
WMQ				S	S	18 10 32.7	+0.6
WMQ				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.9						
WMQ				LR	LR		
	comp=N,295nm,18.2s,MS4.6						
WMQ				LR	LR		
	comp=E,144nm,18.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,160nm,18.2s,MS4.3						
TIXI	**Tiksi**	68.33	15	⇑iP	P	18 01 47.4	+1.4
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,179nm,16.0s,MS4.4						
TIXI	**Tiksi**	68.33	15	⇑eP	P	18 01 47.6	+1.6
YKW3	**Yellowknife Ar**	68.45	332	eP	P	18 01 45.0	-1.9
YKA	**Yellowknife Ar**	68.48	332	P	P	18 01 45.9	-1.1
	comp=Z,1.6nm,0.6s,mb4.2,baz=59,slow=6.4,SNR=17						
YKA				LR	LR	18 29 09.6	
	comp=Z,375nm,18.5s,MS4.7,baz=75,slow=34						
YKA	**Yellowknife Ar**	68.48	332	P	P	18 01 45.9	-1.2
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,375nm,18.5s						
YKA	**Yellowknife Ar**	68.48	332	P	P	18 01 45.9	-1.1
YKA				LR	LR	18 29 09.6	

INK	Inuvik	70.54	343	eP	P	18 01 57.7	-1.9
	comp=Z,11nm,1.3s,mb4.6						
SUR	Sutherland	70.75	159	eP	P	18 02 00.3	-1.1
	comp=Z,18nm,0.8s,mb5.0						
MIAR	Mount Ida	71.55	300	eP	P	18 02 03.9	-2.4
	comp=Z,13nm,1.1s,mb4.8						
SAML	Samuel	71.65	245	eP	P	18 02 08.1	+0.9
	comp=Z,5.6nm,1.1s,mb4.4						
KOLN	Koldanda	72.06	68	eP	P	18 02 09.5	0.0
	comp=Z,60nm,1.8s,mb5.2						
TLY	Talaya	72.46	39	eP	P	18 02 14.5	+3.1
TLY				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.9						
TLY	Talaya	72.46	39	eP	P	18 02 11.5	+0.1
	comp=Z,7.5nm,1.0s,mb4.6						
GKN	Gorkha	72.73	68	eP	P	18 02 13.3	-0.1
	comp=Z,48nm,1.3s,mb5.3						
ZAK	Zakamensk	73.01	40	eP	P	18 02 16.6	+2.0
DMN	Daman	73.29	68	eP	P	18 02 16.9	+0.2
	comp=Z,77nm,1.4s,mb5.5						
KKN	Kakani	73.33	68	eP	P	18 02 17.3	+0.4
BOD	Bodaibo	73.51	30	eP	P	18 02 13.7	-3.6
PKI	Pulchoki	73.54	68	eP	P	18 02 18.9	+0.7
	comp=Z,25nm,1.2s,mb5.0						
GUN	Gumba	73.72	67	eP	P	18 02 19.4	+0.2
WMOK	Wichita Mounta	75.11	302	eP	P	18 02 25.1	-2.0
	comp=Z,8.3nm,1.1s,mb4.6						
DAWY	Dawson	75.35	342	eP	P	18 02 28.2	+0.4
SONM	Songino Array	76.17	41	P	P	18 02 33.6	+0.8
	comp=Z,3.7nm,1.1s,mb4.2,baz=327,slow=5.3,SNR=8.9						
ULN	Ulaanbaatar	76.50	41	⇓eP	P	18 02 35.8	+1.1
ULN	Ulaanbaatar	76.50	41	eP	P	18 02 34.7	+0.1
	comp=Z,6.5nm,1.1s,mb4.5						
ILAR	Eielson Array	76.52	345	P	P	18 02 34.8	+0.3
	comp=Z,2.6nm,1.1s,mb4.1,baz=15,slow=5.1,SNR=9.5						
ILAR	Eielson Array	76.52	345	P	P	18 02 34.8	+0.4
ILAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
IMA	Indian Mountai	76.65	348	eP	P	18 02 36.5	+1.4
	comp=Z,106nm,1.4s,mb5.6						
LSA	Lhasa	76.70	63	P	P	18 02 38.0	+1.8
GTA	Gaotai	77.25	51	eP	P	18 02 40.4	+1.3
GTA				AP	pP	18 02 45.1	+1.8
GTA				XP	sP	18 02 47.5	+2.7
GTA				PCP	PcP	18 02 51.8	+1.6
GTA				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.4						
PDAR	Pinedale Array	77.57	314	P	P	18 02 40.1	-0.6
	comp=Z,1.6nm,0.8s,mb4.0,baz=58,slow=6.0,SNR=10						
PDAR				LR	LR	18 34 39.4	
	comp=Z,115nm,18.4s,MS4.2,baz=61,slow=34						
OTAV	Otavalo	77.95	262	eP	P	18 02 46.5	+3.1
	comp=Z,7.2nm,0.9s,mb4.6						
MCMT	McKenzie Canyo	78.22	317	eP	P	18 02 45.4	+1.2
MCMT				e		18 03 08.9	
NEW	Newport	78.34	321	LR	LR	18 33 58.4	
	comp=Z,171nm,18.4s,MS4.4,baz=1.7,slow=33						
RW3	Ridgway	79.08	309	eP	P	18 02 49.3	+0.2
HWUT	Hardware Ranch	79.45	314	eP	P	18 02 50.5	-0.6
	comp=Z,9.5nm,1.2s,mb4.6						
SHL	Shillong	79.50	66	eP	P	18 02 52.2	+0.6
CPUP	Villa Florida	79.80	228	P	P	18 02 54.3	+1.0
	comp=Z,2μm,0.4s,baz=211,slow=14,SNR=5.5						
PV10	Paradox Valley	79.86	310	eP	P	18 02 53.0	-0.3
HLID	Hailey	79.89	317	eP	P	18 02 54.2	+0.8
	comp=Z,2.5nm,0.8s,mb4.2						
LPAZ	La Paz	80.09	242	P	P	18 02 56.5	+1.6
	comp=Z,0.9nm,0.8s,mb3.8,baz=29,slow=7.9,SNR=3.3						
LPAZ				LR	LR	18 34 32.2	
	comp=Z,178nm,21.3s,MS4.4,baz=57,slow=33						
LPAZ	La Paz	80.09	242	P	P	18 02 56.6	+1.7
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
LPAZ				MLR	MLR		
	comp=Z,178nm,21.3s						
LPAZ	La Paz	80.09	242	eP	P	18 02 55.3	+0.3
	comp=Z,3.1nm,1.0s,mb4.2						
ANMO	Albuquerque	80.22	306	LR	LR	18 36 41.8	
	comp=Z,247nm,20.1s,MS4.5,slow=34						
GDL2	Guadalupe Moun	80.40	303	eP	P	18 02 56.7	+0.4
BMO	Blue Mountains	80.66	319	eP	P	18 02 56.7	-0.7
	comp=Z,5.1nm,1.0s,mb4.4						
BMO				e		18 03 11.0	
TXAR	Lajitas Array	81.56	300	P	P	18 03 02.2	-0.2
	comp=Z,1.3nm,1.0s,mb3.8,baz=92,slow=6.3,SNR=3.9						
TXAR				PP	PP	18 06 06.1	-5.1
	comp=Z,0.6nm,0.9s,baz=72,slow=11,SNR=2.9						
TXAR				LR	LR	18 41 27.4	
	comp=Z,150nm,18.4s,MS4.4,baz=40,slow=37						
MSU	Marysvale	81.73	312	eP	P	18 03 03.8	+0.6
MSU				e		18 03 16.3	
LZH	Lanzhou	81.79	52	⇑P	P	18 03 05.4	+1.9
LZH				AP	pP	18 03 08.6	+0.7
LZH				XP	sP	18 03 10.1	+0.8
LZH				PP	PP	18 06 13.5	+0.6
LZH				AMB	AMB		
	comp=Z,27nm,1.4s,mb5.0						
LZH				AMB	AMB		
	comp=Z,104nm,5.2s						
LZH				LR	LR		
	comp=N,351nm,14.9s						
LZH				LR	LR		
	comp=Z,584nm,17.8s,MS5.0						
HHC	Hu-ho-hao-te	83.46	44	eP	P	18 03 16.2	+4.2
HHC				AP	pP	18 03 21.0	+4.6
HHC				XP	sP	18 03 23.6	+5.8
HHC				SKS	SKS	18 13 35.3	-0.4
HHC				S	S	18 13 38.9	+7.2
HHC				XS		18 13 47.1	
HHC				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,129nm,4.0s						
HHC				LR	LR		
	comp=N,241nm,16.6s,MS4.7						
HHC				LR	LR		
	comp=E,165nm,16.6s,MS4.7						
HHC				LR	LR		
	comp=Z,174nm,13.6s,MS4.6						
TUC	Tucson	84.69	306	eP	P	18 03 20.1	+1.6
	comp=Z,7.7nm,1.0s,mb4.8						
LVC	Limon Verde	84.79	238	P	P	18 03 23.7	+4.6
	comp=Z,7.5nm,1.1s,mb4.7,baz=95,slow=3.5,SNR=5.8						
LVC	Limon Verde	84.79	238	eP	P	18 03 23.4	+4.3
	comp=Z,29nm,1.6s,mb5.2						
CD2	Chengdu	84.90	56	eP	P	18 03 21.5	+2.0
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb5.0						
TPH	Tonopah	85.06	314	eP	P	18 03 20.9	+0.8
	comp=Z,3.3nm,0.8s,mb4.5						
NVAR	Mina Array Bea	85.46	315	P	P	18 03 23.5	+1.3
	comp=Z,0.8nm,0.8s,mb3.9,baz=98,slow=1.1,SNR=4.4						
NVAR				PP	PP	18 06 42.5	+0.4
	comp=Z,0.9nm,0.8s,baz=7.1,slow=7.3,SNR=3.8						
XAN	Xi’an	86.31	51	P	P	18 03 27.8	+1.3
XAN				AP	pP	18 03 39.1	+8.3
XAN				AMB	AMB		
	comp=Z,13nm,1.4s,mb5.0						
KMI	Kunming	87.73	61	eP	P	18 03 34.6	+1.0
KMI				S	S	18 14 10.3	-3.2
KMI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.8						
KMI				LR	LR		
	comp=Z,123nm,31.9s,MS4.1						
CN2	Changchun	88.56	35	eP	P	18 03 36.3	-0.8
CMAR	Chiang Mai Arr	88.93	68	P	P	18 03 41.0	+1.6
	comp=Z,4.9nm,1.1s,mb4.7,baz=302,slow=6.1,SNR=22						
CMAR	Chiang Mai Arr	88.93	68	P	P	18 03 41.0	+1.6
CMAR				pmax	pmax		
	comp=Z,5.0nm,1.1s						
ENH	Enshi	89.12	53	eP	P	18 03 38.5	-1.6
	comp=Z,11nm,1.3s,mb5.0						
NJ2	Nanjing	93.76	46	eP	P	18 04 02.5	+1.0
NJ2				PP	PP	18 07 49.0	-0.8
NJ2				PPP	PPP	18 09 51.0	-1.5
NJ2				S	S	18 15 03.0	-4.4
NJ2				XS		18 15 21.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.7						
NJ2				LR	LR		
	comp=N,160nm,26.0s,MS5.1						
NJ2				LR	LR		
	comp=E,800nm,26.0s,MS5.1						
NJ2				LR	LR		
	comp=Z,350nm,26.2s,MS4.7						
ASAR	Alice Springs	141.05	85	PKP	PKPdf	18 10 16.3	-1.2
	comp=Z,1.9nm,0.9s,baz=315,slow=2.6,SNR=4.5						
CTA	Charters Tower	149.10	69	PKPbc	PKPdf	18 10 33.4	+2.3
	comp=Z,8.5nm,0.9s,baz=267,slow=6.9,SNR=6.0						
CTA	Charters Tower	149.10	69	PKP2	PKPab	18 10 33.4	-5.0
CTA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CTA	Charters Tower	149.10	69	PKPbc	PKPdf	18 10 33.4	+2.3
STKA	Stephens Creek	150.41	94	PKPbc	PKPdf	18 10 37.2	+4.3
	comp=Z,19nm,0.9s,baz=316,slow=2.0,SNR=20						
STKA	Stephens Creek	150.41	94	PKPbc	PKPdf	18 10 37.2	+4.3

*IDC **02** 18:01:23.2±1.6, 4.12S×135.08E, mb3.4/2, mb1 4.1/6, mb1mx4.0/13, ML3.9/4, MS3.1/2, Ms1 3.1/2, ms1mx2.6/17, Error ellipse: s-maj=50.7km s-min=13.8km az=82.0*
*NEIC **02** 18:01:26.9±1.0, 4.15S×135.26E, h35km, mb4.0/6, Error ellipse: s-maj=20.0km s-min=13.9km az=70.0*
ISC 02 18:01:22.0±2.4**, 4.09S**±0.05×**135.3E**±0.1**, h14**km±17km**, n22, σ1§08**/28**, mb3.7**/5**, MS3.2**/1**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	9.04	199	eP	P	18 03 36.1	+1.1
	14nm,0.4s						
KAKA				eS	Sn	18 05 18.3	+0.8
PMG	Port Moresby	12.88	115	P	P	18 04 26.6	-0.8
	14nm,1.1s						
WRAB	Tennant Creek	15.78	183	eP	P	18 05 04.3	-1.3
	16nm,0.7s						
WRAB				eS	S	18 07 51.3	-9.1
WB2	Warramunga Arr	15.79	183	eP	P	18 05 04.1	-1.6
WB2				e		18 05 11.3	
WB2				eS	S	18 08 00.4	-0.3
WRA	Warramunga Arr	15.79	183	Pn	P	18 05 03.8	-1.9
	0.2nm,0.3s,baz=5.2,slow=13,SNR=13						
WRA				Sn	S	18 08 00.8	+0.1
	0.4nm,0.3s,baz=5.9,slow=22,SNR=6.0						
FITZ	Fitzroy Crossi	16.85	214	eP	P	18 05 19.2	-0.1
	3.5nm,0.6s						
FITZ				eS	S	18 08 25.2	-0.1
FITZ	Fitzroy Crossi	16.85	214	Pn	P	18 05 19.0	-0.3
	0.8nm,0.3s,baz=22,slow=7.9,SNR=22						
FITZ				Sn	S	18 08 22.8	-2.4
	0.1nm,0.3s,baz=185,slow=12,SNR=3.9						
CTA	Charters Tower	19.14	147	P	P	18 05 49.2	+1.7
	0.3nm,0.3s,baz=326,slow=14,SNR=5.1						
CTA	Charters Tower	19.14	147	P	P	18 05 49.2	+1.7
CTAO	Charters Tower	19.14	147	eP	P	18 05 49.7	+2.2
	6.7nm,1.0s						
ASAR	Alice Springs	19.51	184	P	P	18 05 52.8	+0.9
	1.0nm,0.3s,baz=9.0,slow=11,SNR=104						
ASAR				S	S	18 09 32.5	+7.0
	0.1nm,0.3s,baz=6.8,slow=23,SNR=5.1						
ASAR				LR	LR	18 12 50.0	
	comp=Z,34nm,20.2s,baz=1.2,slow=35						
ASPA	Alice Springs	19.51	184	eP	P	18 05 53.2	+1.4
MBWA	Marble Bar	22.75	220	eP	P	18 06 26.5	+1.3
	3.7nm,0.7s,mb3.9						
STKA	Stephens Creek	28.26	169	LR	LR	18 19 39.3	
	comp=Z,62nm,18.2s,MS3.2,baz=25,slow=39						
CMAR	Chiang Mai Arr	42.27	303	P	P	18 09 16.8	-0.3
	0.8nm,0.9s,mb3.3,baz=130,slow=7.1,SNR=5.5						
GUN	Gumba	57.25	307	eP	P	18 11 03.8	-7.9
PKI	Pulchoki	57.48	306	eP	P	18 11 07.1	-6.2
SONM	Songino Array	57.60	337	P	P	18 11 14.6	+0.7
	0.3nm,0.8s,mb3.4,baz=135,slow=4.1,SNR=2.3						
GKN	Gorkha	58.29	306	eP	P	18 11 10.5	-8.4
KOLN	Koldanda	59.03	306	eP	P	18 11 16.1	-8.0
UCH	Uchtor	71.71	317	P	P	18 12 45.3	-0.4
	1.2nm,0.8s,mb3.9						
AML	Almayashu	72.23	317	eP	P	18 12 48.2	-0.5
	3.5nm,1.2s,mb4.2						

*CNRM **02** 18:04:43.3, 35.08N×2.58W, h9km, MD2.7*
*NEIC **02** 18:04:45.6, 35.05N×3.08W, MG3.0(MDD), After MDD.*
*MDD **02** 18:04:45.1±1.8, 35.01N×3.10W, mb3.0/3, Error ellipse: s-maj=16.9km s-min=7.2km az=146.0, PRXIMO SOLUCIN POBRE AftershockPLICA*
*CSEM **02** 18:04:45.9±0.5, 35.21N×2.93W, h25km, MD2.7, Error ellipse: s-maj=12.3km s-min=7.0km az=97.0*
ISC 02 18:04:46.9±0.8**, 35.17N**±0.05×**3.06W**±0.09**, h20**km±6km**, n18, σ1§13**/33**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EMEL	Melilla	0.15	33	P	Pb	18 04 50.5	-1.0
	27nm,0.1s,SNR=7.4						
EMEL				S	Sb	18 04 54.2	-0.3
	327nm,0.2s,SNR=5.3						
EMLI	Melilla	0.15	34	P	Pb	18 04 50.5	-1.0
	27nm,0.1s,SNR=7.4						
EMLI				S	Sb	18 04 54.2	-0.4
	327nm,0.2s,SNR=5.3						
MELI	Melilla	0.16	39	P	Pb	18 04 50.8	-0.7
MELI				S	Sb	18 04 55.8	+1.1
MELI	Melilla	0.16	39	eP	Pb	18 04 50.8	-0.7
MELI				iS	Sb	18 04 55.8	+1.2
ZAI	Zaio	0.33	128	iS	Sb	18 05 04.0	+5.2
TOU	Touzarine	0.61	250	iP	Pb	18 05 00.5	+1.8
TOU				iS	Sb	18 05 13.0	+6.2
MPAL	Palemas	0.73	274	eP	Pb	18 05 03.0	+2.3
TZK	Tazeka	1.43	221	iP	Pn	18 05 11.0	-1.0
TZK				iS	Sn	18 05 30.0	-0.2
EBER	Berja	1.73	4	P	Pn	18 05 17.4	+1.1
	0.6nm,0.1s,SNR=7.9						
EBER				S	Sn	18 05 38.6	+0.6
	8.0nm,0.4s,SNR=5.2						
EBER	Berja	1.73	4	S	Sn	18 05 38.6	+0.7
	8.0nm,0.4s,SNR=5.2						
EMIJ	Mijas	1.97	315	P	Pn	18 05 19.8	0.0
	0.9nm,0.3s,SNR=7.9						
EMIJ				S	Sn	18 05 44.6	+0.6
	2.1nm,0.3s,SNR=7.9						
EQES	Quesada	2.63	360	P	Pn	18 05 31.1	+2.0
	1.2nm,0.2s,SNR=5.9						
EQES				S	Sn	18 06 04.5	+3.8
	3.7nm,0.3s,SNR=7.4						
EADA	Adamuz	3.23	338	P	Pn	18 05 37.2	-0.5
	0.6nm,0.3s,SNR=7.9						
EADA				S	Sn	18 06 16.8	+0.7
	1.6nm,0.4s,SNR=7.9						
EADA	Adamuz	3.23	338	P	Pn	18 05 37.2	-0.5
	0.6nm,0.3s,SNR=7.9						
EADA				S	Sn	18 06 16.8	+0.8
	1.6nm,0.4s,SNR=7.9						
EMIN	Mina Concepcio	3.90	313	P	Pn	18 05 46.7	-0.5
	0.4nm,0.2s,SNR=7.9						
EMIN				S	Sn	18 06 31.5	-1.4
	0.8nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	3.90	313	P	Pn	18 05 46.7	-0.5
	0.4nm,0.2s,SNR=7.9						
EMIN				S	Sn	18 06 31.5	-1.5
	0.8nm,0.3s,SNR=7.9						
EBAD	Badajoz	4.78	320	P	Pn	18 05 58.8	-1.0
	0.8nm,0.2s,SNR=7.9						
EBAD				S	Sn	18 06 53.0	-2.2
	1.0nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.78	320	P	Pn	18 05 58.8	-0.9
	0.8nm,0.2s,SNR=7.9						
EBAD				S	Sn	18 06 53.0	-2.2

*IDC **02** 18:06:15.7±36.0, 6.17N×126.61E, mb4.0/4, mb1 4.1/4, mb1mx3.7/18, Error ellipse: s-maj=609.0km s-min=106.5km az=161.0*
ISC 02 18:06:20.4±1.0**, 6.25N**±0.10×**126.25E**±0.08**, h60**km±16km**, n11, σ0§96**/15**, mb3.8**/4**, 2C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	Mati	0.69	0	eP	P	18 06 35.1	+0.4
MATI				eS	S	18 06 45.0	-0.3
KCP	Kidapawan	1.38	303	⇑iP	P	18 06 43.8	-0.2
KCP				iS	S	18 06 59.5	-2.0
BIPH	Bislig	1.93	3	⇑eP	P	18 06 51.7	+0.2
BIPH				eS	S	18 07 13.8	-0.7
BUKP	Musuan	2.01	324	eP	P	18 06 52.1	-0.5
BUKP				eS	S	18 07 16.8	+0.3
BUTP	Butuan	2.77	347	eP	P	18 07 05.0	+1.5
PAGZ	Pagadian	3.26	299	eP	P	18 07 11.0	+0.6
IPIL	Ipil	3.96	293	eP	P	18 07 21.8	+1.5
FITZ	Fitzroy Crossi	24.20	181	P	P	18 11 33.5	+0.9
	3.0nm,0.8s,mb3.8,baz=1.5,slow=7.7,SNR=6.3						
WRA	Warramunga Arr	27.21	163	P	P	18 12 00.8	0.0
	1.1nm,0.5s,mb3.7,baz=344,slow=10,SNR=8.0						
ASAR	Alice Springs	30.66	166	P	P	18 12 29.6	-2.0
	0.9nm,0.7s,mb3.7,baz=344,slow=7.0,SNR=5.4						
STKA	Stephens Creek	40.64	160	P	P	18 13 56.2	-0.1
	1.9nm,0.7s,mb3.8,baz=346,slow=9.7,SNR=4.1						

*STR **02** 18:11:18.6±0.4, 41.61N×2.45E, h5km±1km, Ml3.3, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **02** 18:11:18.1, 41.53N×2.59E, ML3.5(STR), ML3.3(LDG), MN3.2(MDD), After MDD.*
NEIC Felt [II] at Arenys de Mar.
*LDG **02** 18:11:18.6±0.1, 41.59N×2.53E, h6km, Md3.2/1, Ml3.3/21, Error ellipse: s-maj=1.9km s-min=1.3km az=164.0*
*CSEM **02** 18:11:19.2±0.1, 41.61N×2.57E, h15km, ML3.3/20, Error ellipse: s-maj=1.5km s-min=1.1km az=144.0*
MDD 02 18:11:18.1±0.4**, 41.55N×2.61E, mbLg2.9**/11**, 1C, Error ellipse: s-maj=4.3km s-min=2.7km az=134.0, PRXIMO II ARENYS DE MAR, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CFON	Fontmartina	0.25	328	Pg	Pg	18 11 22.3	-0.7
CFON				Sg	Sg	18 11 25.5	-0.8
CFON	Fontmartina	0.25	328	Pg	Pg	18 11 22.3	-0.7
CFON				Sg	Sg	18 11 25.5	-0.8
CBRU	Bruguera	0.80	336	Pg	Pg	18 11 32.7	-1.4
CBRU				Sg	Sg	18 11 43.1	-1.6
CBRU	Bruguera	0.80	336	Pg	Pg	18 11 32.6	-1.4
CBRU	Bruguera	0.80	336	Pg	Pg	18 11 32.7	-1.3
CBRU				Sg	Sg	18 11 43.1	-1.6
EMIR	Miracle	0.89	294	Pg	Pg	18 11 34.3	-1.5
	45nm,0.1s,SNR=75						
EMIR				Lg		18 11 45.8	
	205nm,0.1s,SNR=32						
EMIR	Miracle	0.89	294	Pg	Pg	18 11 34.3	-1.5
	45nm,0.1s,SNR=75						
EJON	La Jonquera	0.92	13	⇑Pg	Pg	18 11 35.4	-1.0
	50nm,0.1s,SNR=18						
EJON				Lg		18 11 47.8	
	442nm,0.3s,SNR=63						
EJON	La Jonquera	0.92	13	Pg	Pg	18 11 35.4	-1.0
	50nm,0.1s,SNR=18						
SJAF	Saint Jean de	0.95	12	Pg	Pg	18 11 35.9	-1.2
SJAF				Sg	Sg	18 11 48.7	-1.1
SJAF	Saint Jean de	0.95	12	Pg	Pg	18 11 36.0	-1.1
SJAF				Lg		18 11 48.8	
VALF	Valcebollere	0.96	333	Pg	Pg	18 11 35.3	-1.9
VALF	Valcebollere	0.96	333	Pg	Pg	18 11 35.3	-1.8
VALF				Lg		18 11 48.6	
FILF	Fillols	1.01	358	Pg	Pg	18 11 36.7	-1.5
FILF				Sg	Sg	18 11 49.8	-1.8
FILF	Fillols	1.01	358	Pg	Pg	18 11 36.8	-1.4
FILF				Lg		18 11 49.6	
CLLI	Llivia	1.04	333	Pn	Pn	18 11 36.8	-2.9
CLLI				Sn	Sn	18 11 50.0	-5.2
CLLI	Llivia	1.04	333	Pg	Pg	18 11 36.8	-2.0
CLLI				Lg		18 11 49.9	
	118nm,0.1s						
CLLI	Llivia	1.04	333	Pn	Pn	18 11 36.8	-2.9
CLLI				Sn	Sn	18 11 50.0	-5.2
CGAR	Garraf	1.14	257	Pg	Pg	18 11 28.9	-12
CGAR				Sg	Sg	18 11 36.5	-19
CGAR	Garraf	1.14	257	Pg	Pg	18 11 28.8	-12
EPOB	Poblet	1.17	261	Pg	Pg	18 11 39.2	-2.2
	33nm,0.1s,SNR=193						
EPOB				Lg		18 11 53.8	
	120nm,0.2s,SNR=7.9						
EPOB	Poblet	1.17	261	Pg	Pg	18 11 39.2	-2.2
	33nm,0.1s,SNR=193						
CORG	Organya	1.18	306	Pg	Pg	18 11 39.3	-2.3
CORG				Sg	Sg	18 11 54.6	-2.8
CORG	Organya	1.18	306	Pg	Pg	18 11 39.3	-2.3
CORG				Sg	Sg	18 11 54.6	-2.7
CARF	Carcanieres	1.22	342	Pg	Pg	18 11 40.7	-1.8
CARF				Sg	Sg	18 11 56.3	-2.5
CARF	Carcanieres	1.22	342	Pg	Pg	18 11 40.5	-1.9
CARF				Lg		18 11 56.5	
PAND	Andorre	1.25	321	Pg	Pg	18 11 41.0	-2.1
PAND				Lg		18 11 56.8	
CSOR	Sort	1.38	307	Pg	Pg	18 11 43.1	-2.4
CSOR				Sg	Sg	18 12 00.8	-3.0
CSOR	Sort	1.38	307	Pg	Pg	18 11 43.1	-2.4
CSOR				Sg	Sg	18 12 00.8	-3.0
LRDF	Laroque-de-Fa	1.39	358	Pg	Pg	18 11 43.3	-2.4
LRDF				Sg	Sg	18 12 01.8	-2.4
LRDF	Laroque-de-Fa	1.39	358	Pg	Pg	18 11 43.0	-2.8
LRDF				Lg		18 12 01.8	
CAVN	Les Avellanes	1.43	284	Pg	Pg	18 11 44.1	-2.5
CAVN				Sg	Sg	18 12 02.7	-3.0
CAVN	Les Avellanes	1.43	284	Pg	Pg	18 11 44.1	-2.5
CAVN				Sg	Sg	18 12 02.7	-3.0
LPEF	Le Peyrat	1.49	340	Pg	Pg	18 11 45.5	-2.3
LPEF	Le Peyrat	1.49	340	Pn	Pn	18 11 45.3	-0.9
LPEF				Sn	Sn	18 12 05.3	-1.3
GRBF	Gourbit	1.52	329	Pn	Pn	18 11 45.6	-0.9
GRBF	Gourbit	1.52	329	Pn	Pn	18 11 45.5	-1.0
GRBF				Pn	Pn	18 11 45.6	-0.9
GRBF	Gourbit	1.52	329	Pn	Pn	18 11 45.6	-0.9
SALF	Salau	1.60	319	Pg	Pg	18 11 46.8	-3.3
SALF				Sg	Sg	18 12 07.5	-4.0
SALF	Salau	1.60	319	Pn	Pn	18 11 46.8	-1.0
SALF				Sn	Sn	18 12 06.6	-2.9
EBR	Ebro Roquetas	1.76	246	ePN	Pn	18 11 49.5	-0.5
EBR				eS*S*		18 12 19.5	
MLS	Moulis	1.80	322	Pg	Pg	18 11 50.2	-3.8
MLS	Moulis	1.80	322	Pn	Pn	18 11 50.2	-0.4
MLS				Sn	Sn	18 12 13.0	-1.5
MTLF	Montolieu	1.81	351	ePn	Pn	18 11 48.3	-2.5
MTLF				eP		18 11 50.3	
MTLF				ePg	Pg	18 11 51.6	-2.6
MTLF				eSn	Sn	18 12 09.5	-5.3
MTLF				eSg	Sg	18 12 13.7	-4.7
	100nm,0.2s						
MTLF	Montolieu	1.81	351	eP	Pn	18 11 50.3	-0.5
MTLF	Montolieu	1.81	351	ePg	Pg	18 11 51.6	-2.6
MTLF				eSn	Sn	18 12 09.5	-5.3
MTLF				eSg	Sg	18 12 13.7	-4.7
	50nm,0.2s						
ERTA	Horta de San J	1.82	252	Pn	Pn	18 11 48.3	-2.6
	3.2nm,0.2s,SNR=41						
ERTA				Pg	Pg	18 11 51.6	-2.7
	35nm,0.3s						
ERTA				Lg		18 12 15.6	
	77nm,0.4s,SNR=7.9						
ERTA	Horta de San J	1.82	252	Pn	Pn	18 11 48.3	-2.5
	3.2nm,0.2s,SNR=41						
ERTA	Horta de San J	1.82	252	Pg	Pg	18 11 51.6	-2.7
	35nm,0.3s						
MELF	Melles	1.91	314	Pn	Pn	18 11 51.5	-0.6
MELF				Sn	Sn	18 12 16.0	-1.2
RESF	Ens	2.10	307	Pg	Pg	18 11 55.5	-4.6
RESF				Sg	Sg	18 12 23.0	-5.1
RESF	Ens	2.10	307	Pn	Pn	18 11 54.4	-0.6
RESF				Sn	Sn	18 12 23.0	+0.8
EBIE	Bielsa	2.16	303	Pn	Pn	18 11 54.3	-1.4
	0.3nm,0.1s,SNR=45						
EBIE				Pg	Pg	18 11 57.0	-4.1
	5.5nm,0.3s,SNR=5.7						
EBIE				Lg		18 12 24.1	
	49nm,0.3s,SNR=32						
EBIE	Bielsa	2.16	303	Pn	Pn	18 11 54.3	-1.4
	0.3nm,0.1s,SNR=45						
EBIE	Bielsa	2.16	303	Pg	Pg	18 11 57.0	-4.1
	5.5nm,0.3s,SNR=5.7						
EPF	Esparros	2.24	312	eP	Pn	18 11 56.0	-0.9
EPF				ePg	Pg	18 11 58.3	-4.5
EPF				eSn	Sn	18 12 19.5	-6.2
EPF				eSg	Sg	18 12 26.6	-6.1
	147nm,0.3s						
EPF	Esparros	2.24	312	ePg	Pg	18 11 58.3	-4.5
EPF				eSn	Sn	18 12 19.5	-6.2
EPF				eSg	Sg	18 12 26.6	-6.1
	73nm,0.3s						
ESAC	San Caprasio	2.31	275	Pn	Pn	18 11 56.3	-1.7
	12nm,0.1s,SNR=16						
ESAC				Pg	Pg	18 11 59.9	-4.4
	57nm,0.3s,SNR=5.3						
ESAC				Lg		18 12 29.3	
	535nm,0.2s,SNR=13						
ESAC	San Caprasio	2.31	275	Pn	Pn	18 11 56.3	-1.7

	12nm,0.1s,SNR=16						
ESAC	**San Caprasio**	**2.31**	**275**	Pg	Pg	18 11 59.9	-4.4
	57nm,0.3s,SNR=5.3						
VIEF	**Viey**	**2.34**	**306**	Sn	Sn	18 12 29.1	+0.9
LABF	**Labassere**	**2.40**	**309**	Pg	Pg	18 12 01.2	-4.8
LABF				Sg	Sg	18 12 32.5	-5.6
LABF	**Labassere**	**2.40**	**309**	Pn	Pn	18 11 58.5	-0.7
LABF				Sn	Sn	18 12 31.8	+2.0
EMOS	**Mosqueruela**	**2.62**	**244**	Pn	Pn	18 11 59.4	-2.9
	1.2nm,0.2s,SNR=7.9						
EMOS				Pg	Pg	18 12 07.1	-3.2
	8.8nm,0.5s,SNR=12						
EMOS				Lg		18 12 42.7	
	9.6nm,0.3s,SNR=7.9						
EMOS	**Mosqueruela**	**2.62**	**244**	Pn	Pn	18 11 59.4	-2.9
	1.2nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	**2.62**	**244**	Pg	Pg	18 12 07.1	-3.2
	8.8nm,0.5s,SNR=12						
LASF	**Ste Croix**	**2.69**	**20**	*e*Pn	Pn	18 12 00.0	-3.3
LASF				*e*Pg	Pg	18 12 08.8	-2.8
LASF				*e*Sn	Sn	18 12 30.4	-6.6
LASF				*e*Sg	Sg	18 12 42.2	-5.2
	16nm,0.3s						
LASF	**Ste Croix**	**2.69**	**20**	*e*Pg	Pg	18 12 08.8	-2.8
LASF				*e*Sn	Sn	18 12 30.4	-6.6
LASF				*e*Sg	Sg	18 12 42.2	-5.2
	8.2nm,0.3s						
REYF	**Montagne du Re**	**2.69**	**305**	Sn	Sn	18 12 40.5	+3.3
EIBI	**Ibiza**	**2.70**	**201**	Pn	Pn	18 12 00.1	-3.4
	2.8nm,0.1s,SNR=16						
EIBI				Sn	Sn	18 12 29.8	-7.6
	11nm,0.2s,SNR=10						
EIBI	**Ibiza**	**2.70**	**201**	Sn	Sn	18 12 29.8	-7.6
	11nm,0.2s,SNR=10						
EIBI	**Ibiza**	**2.70**	**201**	Pn	Pn	18 12 00.1	-3.4
	2.8nm,0.1s,SNR=16						
ETSF	**Etsaut**	**2.71**	**301**	*e*Pn	Pn	18 12 01.0	-2.6
ETSF				*e*Pg	Pg	18 12 07.5	-4.7
ETSF				*e*Sg	Sg	18 12 40.6	-7.7
	51nm,0.2s						
ETSF	**Etsaut**	**2.71**	**301**	*e*Pg	Pg	18 12 07.5	-4.7
ETSF				*e*Sg	Sg	18 12 40.6	-7.7
	25nm,0.2s						
ATE	**Arette**	**2.90**	**303**	Lg		18 12 46.1	
SJPF	**Ste Jean**	**3.24**	**300**	*e*Pn	Pn	18 12 07.8	-3.4
SJPF				*e*P		18 12 10.3	
SJPF				*e*Pg	Pg	18 12 17.4	-5.4
SJPF				*e*Sn	Sn	18 12 45.5	-5.6
	52nm,0.4s						
SJPF				*e*Sg	Sg	18 12 58.6	-7.4
	52nm,0.4s						
SJPF	**Ste Jean**	**3.24**	**300**	Pn	Pn	18 12 10.3	-0.9
SJPF				Pg	Pg	18 12 17.4	-5.4
SJPF				Sn	Sn	18 12 45.5	-5.6
	0.0nm,0.4s						
SJPF				Lg		18 12 58.6	
	26nm,0.4s						
SJPF	**Ste Jean**	**3.24**	**300**	*e*P	Pn	18 12 10.3	-0.9
SJPF	**Ste Jean**	**3.24**	**300**	*e*Pg	Pg	18 12 17.4	-5.4
SJPF				*e*Sn	Sn	18 12 45.5	-5.6
	26nm,0.4s						
SJPF				*e*Sg	Sg	18 12 58.6	-7.4
	26nm,0.4s						
SMRF	**Simiane la Rot**	**3.26**	**41**	*e*Pn	Pn	18 12 10.1	-1.4
SMRF				*e*Sg	Sg	18 13 00.9	-5.7
	7.0nm,0.3s						
LMR	**La Mourre**	**3.39**	**57**	*e*Pn	Pn	18 12 10.3	-3.0
LMR				*e*Sn	Sn	18 12 49.5	-5.3
	6.9nm,0.2s						
CAF	**Calviac**	**3.40**	**353**	*e*Pn	Pn	18 12 10.0	-3.4
CAF				*e*Pg	Pg	18 12 20.9	-5.0
CAF				*e*Sn	Sn	18 12 49.0	-6.0
CAF				*e*Sg	Sg	18 13 03.6	-7.5
	22nm,0.3s						
CAF	**Calviac**	**3.40**	**353**	*e*Pg	Pg	18 12 20.9	-5.0
CAF				*e*Sn	Sn	18 12 49.0	-6.0
CAF				*e*Sg	Sg	18 13 03.6	-7.5
	11nm,0.3s						
EALK	**Alkurruntz**	**3.48**	**300**	Pn	Pn	18 12 12.8	-1.8
	3.2nm,0.3s,SNR=5.5						
EALK				Pg	Pg	18 12 23.3	-4.2
	9.3nm,0.4s,SNR=6.5						
EALK				Lg		18 13 05.9	
	114nm,0.6s,SNR=7.9						
EALK	**Alkurruntz**	**3.48**	**300**	Pg	Pg	18 12 23.3	-4.1
	9.3nm,0.4s,SNR=6.5						
EBEN	**Beniarda**	**3.58**	**218**	Pn	Pn	18 12 13.7	-2.3
	1.5nm,0.3s,SNR=4.0						
EBEN	**Beniarda**	**3.58**	**218**	Pn	Pn	18 12 13.7	-2.3
	1.5nm,0.3s,SNR=4.0						
FRF	**La Foret Royal**	**3.59**	**55**	*e*Pn	Pn	18 12 13.3	-2.9
FRF				*e*Sn	Sn	18 12 53.3	-6.7
	12nm,0.5s						
VIVF	**Saint-Julien-l**	**3.63**	**24**	*e*Pn	Pn	18 12 14.0	-2.7
VIVF				*e*Pg	Pg	18 12 25.7	-4.8
VIVF				*e*Sn	Sn	18 12 53.7	-7.2
VIVF				*e*Sg	Sg	18 13 10.8	-8.1
	14nm,0.4s						
VIVF	**Saint-Julien-l**	**3.63**	**24**	*e*Pg	Pg	18 12 25.7	-4.8
VIVF				*e*Sn	Sn	18 12 53.7	-7.2
VIVF				*e*Sg	Sg	18 13 10.8	-8.1
	7.1nm,0.4s						
LFF	**La Frestale**	**3.65**	**339**	*e*P	Pn	18 12 13.0	-4.0
LFF				*e*Pg	Pg	18 12 24.9	-6.0
LFF				*e*Sg	Sg	18 13 11.9	-7.7
	36nm,0.4s						
LFF	**La Frestale**	**3.65**	**339**	*e*Pg	Pg	18 12 24.9	-6.0
LFF	**La Frestale**	**3.65**	**339**	*e*Sg	Sg	18 13 11.9	-7.7
	18nm,0.4s						
RJF	**Les Rejaudoux**	**3.83**	**348**	*e*Pn	Pn	18 12 15.6	-4.0
RJF				*e*Pg	Pg	18 12 27.8	-6.8
RJF				*e*Sg	Sg	18 13 17.6	-8.1
	14nm,0.3s						
RJF	**Les Rejaudoux**	**3.83**	**348**	*e*Pg	Pg	18 12 27.8	-6.8
RJF				*e*Sg	Sg	18 13 17.6	-8.1
	7.1nm,0.3s						
ORIF	**Oris-en-Rattie**	**4.13**	**34**	*e*Pn	Pn	18 12 20.6	-3.2
ORIF				*e*Sn	Sn	18 13 06.0	-7.5
	12nm,0.6s						
SBF	**Sospel**	**4.24**	**55**	*e*Pn	Pn	18 12 22.4	-3.0
SBF				*e*Sn	Sn	18 13 09.5	-6.8
	11nm,0.4s						
MBDF	**Montbardon**	**4.40**	**42**	*e*Pn	Pn	18 12 24.8	-2.8
TCF	**Toulx Ste Croi**	**4.74**	**357**	*e*Pn	Pn	18 12 28.1	-4.4
TCF				*e*Pg	Pg	18 12 45.6	-7.2
TCF				*e*Sg	Sg	18 13 47.3	-8.7
	19nm,0.7s						
TCF	**Toulx Ste Croi**	**4.74**	**357**	*e*Pg	Pg	18 12 45.6	-7.2
TCF				*e*Sg	Sg	18 13 47.3	-8.7
	9.6nm,0.7s						
ELAN	**Lanestosa**	**4.78**	**293**	Pn	Pn	18 12 30.9	-2.1
	1.8nm,0.2s,SNR=7.9						
ELAN				Sn	Sn	18 13 22.9	-7.1
	4.2nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	**4.78**	**293**	Pn	Pn	18 12 30.9	-2.1
	1.8nm,0.2s,SNR=7.9						
ELAN				Sn	Sn	18 13 22.9	-7.1
	4.2nm,0.2s,SNR=7.9						
PGF	**Pioggiola**	**4.86**	**76**	*e*Pn	Pn	18 12 30.2	-4.0
PGF				*e*Sn	Sn	18 13 24.3	-7.7
	9.1nm,0.3s						
LPG	**La Plagne**	**4.96**	**36**	*e*Pn	Pn	18 12 32.3	-3.3
LPL	**La Plagne**	**4.97**	**36**	*e*Pn	Pn	18 12 33.5	-2.2
LPL				*e*Sn	Sn	18 13 24.7	-10
	1.8nm,0.4s						
LPL	**La Plagne**	**4.97**	**36**	*e*Sn	Sn	18 13 24.7	-10
	0.9nm,0.4s						
BGF	**Bois d'Agland**	**5.01**	**2**	*e*Pg	Pg	18 12 49.0	-9.0
BGF				*e*Sg	Sg	18 13 54.5	-10
	25nm,0.4s						
AVF	**Avril sur Loir**	**5.26**	**6**	*e*Sg	Sg	18 14 02.6	-11
	6.0nm,0.4s						
ESDC	**Sonseca Array**	**5.34**	**252**	Pn	Pn	18 12 36.3	-4.6
	0.9nm,0.2s,baz=67,slow=14,SNR=5.9						
ESDC				Lg		18 14 05.0	
	3.7nm,0.5s,baz=57,slow=30,SNR=3.9						
ESDC	**Sonseca Array**	**5.34**	**252**	Pn	Pn	18 12 36.3	-4.7
MFF	**Saint Martin d**	**5.42**	**339**	*e*Pn	Pn	18 12 37.1	-5.0
MFF				*e*Pg	Pg	18 12 58.5	-7.9
MFF	**Saint Martin d**	**5.42**	**339**	*e*Pg	Pg	18 12 58.5	-7.9
EARI	**Arriondas**	**6.05**	**289**	Pn	Pn	18 12 47.8	-3.1
	1.0nm,0.5s,SNR=7.9						
EARI				Sn	Sn	18 13 53.5	-8.3
	0.8nm,0.2s,SNR=7.9						
EARI	**Arriondas**	**6.05**	**289**	Pn	Pn	18 12 47.8	-3.1
EARI				Sn	Sn	18 13 53.5	-8.3

*CSEM **02** 18:18:30.1±0.3,35.31N×2.49W,h12^{km},MD2.5,Error ellipse: s-maj=14.9km s-min=5.4km az=127.0*
*CNRM **02** 18:18:35.9,35.03N×2.58W,h10^{km},MD2.5*
MDD 02 18:18:17.2±2.8**,35.00N×3.12W,mb2.9**/4**,Error ellipse: s-maj=33.4km s-min=12.0km az=140.0,PRXIMO SIN SOLUCIN AftershockPLICA,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.30**	**96**	*i* P	Pg	18 18 39.0	+16
EMEL	**Melilla**	**0.33**	**24**	P	Pg	18 18 22.9	-0.9
	26nm,0.1s,SNR=7.9						
EMEL				S	Sg	18 18 27.7	-0.4
	83nm,0.1s,SNR=4.5						
TOU	**Touzarine**	**0.53**	**266**	*i* P	Pg	18 18 53.0	+25
TOU				*i* S	Sg	18 19 05.5	+31
MPAL	**Palemas**	**0.71**	**288**	*i* S	Sg	18 19 10.0	+29
TZK	**Tazeka**	**1.27**	**224**	*i* P	Pb	18 19 03.0	+21
EBER	**Berja**	**1.90**	**5**	P	Pn	18 18 50.9	-0.4
	0.5nm,0.2s,SNR=7.9						
EBER				S	Sn	18 19 10.3	-5.9
	3.8nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	**2.06**	**320**	P	Pn	18 18 50.8	-2.7
	0.7nm,0.2s,SNR=7.9						
EQES	**Quesada**	**2.80**	**1**	P	Pn	18 19 03.2	-0.8
	0.9nm,0.2s,SNR=6.0						
EQES				S	Sn	18 19 35.8	-3.2
	3.0nm,0.5s,SNR=7.9						

*STR **02** 18:19:38.5±0.1,42.99N×0.28E,h10^{km}±1^{km},Ml2.6,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **02** 18:19:38.8,43.01N×0.28E,h15^{km},ML3.2(LDG), ML2.6(MRB),ML2.6(STR),MN2.7(MDD),After LDG.*
*MDD **02** 18:19:39.8±0.3,42.98N×0.28E,h8^{km}±3^{km},mbLg2.6/9, Error ellipse: s-maj=2.1km s-min=1.4km az=6.0,PRXIMO*
*CSEM **02** 18:19:39.0±0.0,43.02N×0.29E,h5^{km},ML3.2/14,Error ellipse: s-maj=0.9km s-min=0.7km az=3.0*
LDG 02 18:19:38.8±0.1**,43.01N×0.28E,h15^{km},Md3.2**/1**,Ml3.2**/12**, 1D,Error ellipse: s-maj=1.4km s-min=1.0km az=167.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
EPF	**Esparros**	**0.05**	**58**	*e*Pg	Pg	18 19 41.9	+0.2
EPF				*e*Sg	Sg	18 19 43.8	+0.2
	598nm,0.2s						
LABF	**Labassere**	**0.16**	**286**	Pg	Pg	18 19 43.1	+0.1
LABF				Sg	Sg	18 19 45.4	-0.4
LABF	**Labassere**	**0.16**	**286**	Pg	Pg	18 19 43.2	+0.3
LABF				Lg		18 19 46.3	
RESF	**Ens**	**0.20**	**168**	Pg	Pg	18 19 43.4	-0.2
RESF				Sg	Sg	18 19 46.6	-0.3
RESF	**Ens**	**0.20**	**168**	Pg	Pg	18 19 43.5	-0.2
RESF				Lg		18 19 46.6	
VIEF	**Viey**	**0.23**	**238**	Pg	Pg	18 19 43.9	-0.2
VIEF				Sg	Sg	18 19 47.2	-0.4
VIEF	**Viey**	**0.23**	**238**	Pg	Pg	18 19 43.9	-0.1
VIEF				Lg		18 19 47.4	
EBIE	**Bielsa**	**0.34**	**198**	⇓Pg	Pg	18 19 45.7	-0.3
	64nm,0.3s,SNR=18						
EBIE				Lg		18 19 50.1	
	333nm,0.1s,SNR=7.9						
EBIE	**Bielsa**	**0.34**	**198**	Pg	Pg	18 19 45.7	-0.3
	64nm,0.3s,SNR=18						
EBIE				Lg		18 19 50.1	
	333nm,0.1s,SNR=7.9						
MELF	**Melles**	**0.37**	**111**	Pg	Pg	18 19 46.0	-0.7
MELF				Sg	Sg	18 19 51.8	-0.2
MELF	**Melles**	**0.37**	**111**	Pg	Pg	18 19 45.9	-0.8
MELF				Lg		18 19 51.9	
REYF	**Montagne du Re**	**0.50**	**278**	Pg	Pg	18 19 48.6	-0.5
REYF				Sg	Sg	18 19 55.9	-0.1
REYF	**Montagne du Re**	**0.50**	**278**	Pg	Pg	18 19 48.6	-0.6
REYF				Lg		18 19 55.9	
MLS	**Moulis**	**0.60**	**94**	Pg	Pg	18 19 49.6	-1.4
MLS	**Moulis**	**0.60**	**94**	Pg	Pg	18 19 49.9	-1.1
MLS				Lg		18 19 59.4	
ETSF	**Etsaut**	**0.63**	**261**	*e*Pn	Pn	18 19 50.8	-2.1
ETSF				*e*Sg	Sg	18 19 59.0	-1.2
	165nm,0.2s						
ETSF				*e*Sn	Sn	18 20 00.6	-1.9
ETSF	**Etsaut**	**0.63**	**261**	Lg		18 19 59.0	
	82nm,0.2s						
FDAF	**Les Forges d'A**	**0.65**	**254**	Pg	Pg	18 19 51.2	-0.9
FDAF				Sg	Sg	18 20 00.3	-0.7
FDAF	**Les Forges d'A**	**0.65**	**254**	Pg	Pg	18 19 51.3	-0.8
FDAF				Lg		18 19 60.0	
SALF	**Salau**	**0.71**	**110**	Pg	Pg	18 19 52.3	-0.9
SALF				Sg	Sg	18 20 01.4	-1.4
SALF	**Salau**	**0.71**	**110**	Pg	Pg	18 19 51.6	-1.6
SALF				Lg		18 20 01.3	
ATE	**Arette**	**0.73**	**277**	Pg	Pg	18 19 52.5	-1.1
ATE				Lg		18 20 02.8	
CSOR	**Sort**	**0.89**	**135**	Pg	Pg	18 19 55.7	-1.0
CSOR				Sg	Sg	18 20 07.2	-1.5
LARF	**Larrau**	**0.93**	**272**	Pg	Pg	18 19 56.4	-1.2
LARF				Sg	Sg	18 20 09.1	-1.1
LARF	**Larrau**	**0.93**	**272**	Pg	Pg	18 19 56.6	-1.0
PAND	**Andorre**	**1.05**	**117**	Pg	Pg	18 19 58.3	-1.5
CORG	**Organya**	**1.09**	**135**	Pg	Pg	18 19 59.2	-1.5
CORG				Sg	Sg	18 20 13.9	-1.3
CORG	**Organya**	**1.09**	**135**	Pg	Pg	18 19 59.2	-1.5
CORG				Sg	Sg	18 20 13.9	-1.4
SJPF	**Ste Jean**	**1.11**	**276**	*e*Pn	Pn	18 19 58.3	-1.5
SJPF				*e*Pg	Pg	18 19 59.5	-1.6
SJPF				*e*Sn	Sn	18 20 13.4	-1.4
	59nm,0.2s						
SJPF	**Ste Jean**	**1.11**	**276**	*e*Pg	Pg	18 19 59.5	-1.6
OSSF	**Osses**	**1.16**	**283**	Pg	Pg	18 19 59.5	-2.6
OSSF	**Osses**	**1.16**	**283**	Pg	Pg	18 19 59.5	-2.6
CAVN	**Les Avellanes**	**1.17**	**163**	Pg	Pg	18 20 01.0	-1.4
CAVN				Sg	Sg	18 20 16.5	-1.7
CAVN	**Les Avellanes**	**1.17**	**163**	Pg	Pg	18 20 01.0	-1.4
CAVN				Sg	Sg	18 20 16.5	-1.6
EALK	**Alkurruntz**	**1.33**	**280**	Pg	Pg	18 20 03.9	-1.6
	50nm,0.3s,SNR=46						
EALK				Pn	Pn	18 20 06.0	+3.1
	23nm,0.2s,SNR=7.9						
EALK				Lg		18 20 22.4	
	92nm,0.3s,SNR=11						
EALK	**Alkurruntz**	**1.33**	**280**	Pn	Pn	18 20 06.0	+3.1
	23nm,0.2s,SNR=7.9						
CLLI	**Llivia**	**1.35**	**112**	Pg	Pg	18 20 04.0	-1.9
CLLI				Sg	Sg	18 20 22.8	-1.2
CLLI	**Llivia**	**1.35**	**112**	Pg	Pg	18 20 04.0	-1.9
CLLI	**Llivia**	**1.35**	**112**	Pg	Pg	18 20 04.1	-1.8
CLLI				Sg	Sg	18 20 22.8	-1.2
CARF	**Carcanieres**	**1.37**	**102**	Pg	Pg	18 20 05.0	-1.3
CARF				Sg	Sg	18 20 23.4	-1.2
CARF	**Carcanieres**	**1.37**	**102**	Pg	Pg	18 20 05.0	-1.2
ESAC	**San Caprasio**	**1.40**	**204**	Pg	Pg	18 20 05.7	-1.2
	29nm,0.3s,SNR=21						
ESAC				Lg		18 20 24.3	
	85nm,0.1s,SNR=28						
ESAC	**San Caprasio**	**1.40**	**204**	Pg	Pg	18 20 05.7	-1.1
	29nm,0.3s,SNR=21						
VALF	**Valcebollere**	**1.41**	**115**	Pg	Pg	18 20 05.3	-1.8
VALF	**Valcebollere**	**1.41**	**115**	Pn	Pn	18 20 05.2	+1.1
EMIR	**Miracle**	**1.43**	**139**	Pg	Pg	18 20 05.6	-1.8
	15nm,0.3s,SNR=26						
EMIR				Lg		18 20 25.2	
	61nm,0.6s,SNR=14						
EMIR	**Miracle**	**1.43**	**139**	Pg	Pg	18 20 05.6	-1.8
	15nm,0.3s,SNR=26						
MTLF	**Montolieu**	**1.45**	**76**	*e*Pn	Pn	18 20 03.3	-1.4
MTLF				*e*Pg	Pg	18 20 06.3	-1.7
MTLF				*e*Sn	Sn	18 20 20.1	-3.4
MTLF				*e*Sg	Sg	18 20 24.9	-2.5
	51nm,0.3s						
MTLF	**Montolieu**	**1.45**	**76**	*e*Pg	Pg	18 20 06.3	-1.7
MTLF				*e*Sn	Sn	18 20 20.1	-3.4
MTLF				*e*Sg	Sg	18 20 24.9	-2.5
	26nm,0.3s						
CBRU	**Bruguera**	**1.57**	**117**	Pg	Pg	18 20 08.3	-2.0
CBRU				Sg	Sg	18 20 30.2	-1.2
CBRU	**Bruguera**	**1.57**	**117**	Pg	Pg	18 20 08.4	-1.9
CBRU				Sg	Sg	18 20 30.2	-1.2
EPOB	**Poblet**	**1.75**	**160**	Pn	Pn	18 20 10.8	+1.8
	5.9nm,0.3s,SNR=36						
EPOB				Sn	Sn	18 20 33.5	+2.4
	33nm,0.2s,SNR=17						
EPOB	**Poblet**	**1.75**	**160**	Pn	Pn	18 20 10.8	+1.8
	5.9nm,0.3s,SNR=36						
EPOB				Sn	Sn	18 20 33.5	+2.4
	33nm,0.2s,SNR=17						
LFF	**La Frestale**	**1.96**	**10**	*e*Pn	Pn	18 20 10.3	-1.7
LFF				*e*Pg	Pg	18 20 15.4	-2.7
LFF				*e*Sg	Sg	18 20 40.0	-4.3
	26nm,0.2s						
LFF	**La Frestale**	**1.96**	**10**	*e*Pg	Pg	18 20 15.4	-2.7
LFF				*e*Sg	Sg	18 20 40.0	-4.3
	13nm,0.2s						
EJON	**La Jonquera**	**2.00**	**105**	Pn	Pn	18 20 15.2	+2.7
	SNR=7.9						
EJON				Pg	Pg	18 20 16.9	-1.9
	3.9nm,0.3s,SNR=4.9						
EJON				Lg		18 20 44.2	
	8.9nm,0.3s,SNR=7.3						
EJON	**La Jonquera**	**2.00**	**105**	Pn	Pn	18 20 15.2	+2.7
	SNR=7.9						
EJON	**La Jonquera**	**2.00**	**105**	Pg	Pg	18 20 16.9	-1.9
	3.9nm,0.3s,SNR=4.9						
CFON	**Fontmartina**	**2.02**	**127**	Pg	Pg	18 20 16.0	-3.3
CFON				Sg	Sg	18 20 42.7	-3.5
CFON	**Fontmartina**	**2.02**	**127**	Pg	Pg	18 20 16.0	-3.2
CFON				Sg	Sg	18 20 42.7	-3.5
ERTA	**Horta de San J**	**2.05**	**179**	Pn	Pn	18 20 14.0	+0.8
	0.3nm,0.1s,SNR=7.9						
ERTA				Pg	Pg	18 20 16.5	-3.2
	SNR=7.9						
ERTA				Sn	Sn	18 20 38.7	+0.1
	5.4nm,0.1s,SNR=4.0						
ERTA				Lg		18 20 43.1	
	7.9nm,0.1s,SNR=11						
ERTA	**Horta de San J**	**2.05**	**179**	Pg	Pg	18 20 16.5	-3.3
	SNR=7.9						
ERTA	**Horta de San J**	**2.05**	**179**	Pn	Pn	18 20 14.0	+0.8
	0.3nm,0.1s,SNR=7.9						
ERTA				Sn	Sn	18 20 38.7	+0.1
	5.4nm,0.1s,SNR=4.0						
EBR	**Ebro Roquetas**	**2.19**	**176**	*e*S*	Sb	18 20 48.5	+4.0
CAF	**Calviac**	**2.31**	**33**	*e*Pn	Pn	18 20 14.4	-2.6
CAF				*e*Pg	Pg	18 20 21.8	-3.2
CAF				*e*Sg	Sg	18 20 51.5	-4.4
	28nm,0.2s						
CAF	**Calviac**	**2.31**	**33**	*e*Pg	Pg	18 20 21.8	-3.2
CAF				*e*Sg	Sg	18 20 51.5	-4.4
	14nm,0.2s						
RJF	**Les Rejaudoux**	**2.46**	**21**	*e*Pg	Pg	18 20 23.9	-4.2
EMOS	**Mosqueruela**	**2.70**	**192**	Pn	Pn	18 20 24.0	+1.5
	0.8nm,0.2s,SNR=7.9						
EMOS				Sn	Sn	18 20 53.2	-1.9
	1.6nm,0.2s,SNR=7.9						
EMOS				Lg		18 21 02.0	
	2.8nm,0.1s,SNR=4.0						
EMOS	**Mosqueruela**	**2.70**	**192**	Pn	Pn	18 20 24.0	+1.5
	0.8nm,0.2s,SNR=7.9						
EMOS				Sn	Sn	18 20 53.2	-1.9
	1.6nm,0.2s,SNR=7.9						
ELAN	**Lanestosa**	**2.73**	**276**	Pn	Pn	18 20 24.7	+1.7
	3.2nm,0.2s,SNR=4.0						
ELAN				Sn	Sn	18 20 56.8	+0.8
	SNR=7.9						
ELAN	**Lanestosa**	**2.73**	**276**	Pn	Pn	18 20 24.7	+1.7
	3.2nm,0.2s,SNR=4.0						
LASF	**Ste Croix**	**2.81**	**66**	*e*Pn	Pn	18 20 21.4	-2.7
LASF				*e*Pg	Pg	18 20 31.0	-4.0
LASF				*e*Sg	Sg	18 21 07.2	-5.3
	21nm,0.2s						
LASF	**Ste Croix**	**2.81**	**66**	*e*Pg	Pg	18 20 31.0	-4.0
LASF				*e*Sg	Sg	18 21 07.2	-5.3
	11nm,0.2s						
TCF	**Toulx Ste Croi**	**3.56**	**22**	*e*Pn	Pn	18 20 31.4	-3.3
TCF				*e*Pg	Pg	18 20 45.0	-4.9
TCF				*e*Sg	Sg	18 21 28.6	-8.8
	8.9nm,0.2s						
TCF	**Toulx Ste Croi**	**3.56**	**22**	*e*Pg	Pg	18 20 45.0	-4.9
TCF				*e*Sg	Sg	18 21 28.6	-8.8
	4.4nm,0.2s						
MFF	**Saint Martin d**	**3.61**	**355**	*e*Pg	Pg	18 20 45.5	-5.4
MFF				*e*Sg	Sg	18 21 30.6	-8.5
	8.0nm,0.3s						
VIVF	**Saint-Julien-l**	**3.67**	**58**	*e*Pg	Pg	18 20 46.0	-6.1
VIVF				*e*Sn	Sn	18 21 13.3	-6.4
VIVF				*e*Sg	Sg	18 21 33.7	-7.4
	21nm,0.3s						
BGF	**Bois d'Agland**	**3.99**	**26**	*e*Pg	Pg	18 20 52.7	-5.9
BGF				*e*Sn	Sn	18 21 21.5	-6.4
BGF				*e*Sg	Sg	18 21 43.2	-8.6
	32nm,0.4s						
AVF	**Avril sur Loir**	**4.37**	**29**	*e*Sg	Sg	18 21 56.2	-8.1
	6.2nm,0.3s						
SMF	**Signal de Mont**	**4.43**	**34**	*e*Sg	Sg	18 22 00.0	-6.4
	5.3nm,0.3s						
MBDF	**Montbardon**	**5.00**	**68**	*e*Pn	Pn	18 20 51.4	-3.7
LDF	**La Druitiere**	**5.60**	**357**	*e*Sn	Sn	18 22 01.8	-6.5
LDF				*e*Sg	Sg	18 22 34.9	-10
	5.1nm,0.5s						
HINF	**Hinteralfeld**	**6.67**	**42**	*e*Pn	Pn	18 21 13.1	-5.7
EMLI	**Melilla**	**8.09**	**199**	P	P	18 21 42.7	+4.1
	315nm,0.1s,SNR=20						

*MDD **02** 18:21:36.0±1.1,34.94N×3.02W,mb4.1/16,Error ellipse: s-maj=11.1km s-min=6.2km az=142.0,PRXIMO AftershockPLICA*
*CNRM **02** 18:21:35.7,35.13N×2.71W,h3^{km},MD3.5*
*NEIC **02** 18:21:36.4,34.96N×2.99W,h6^{km},MG4.1(MDD),After MDD.*
*INMG **02** 18:21:37.6±0.9,35.04N×2.93W,h18^{km}±3^{km},ML2.5,Error ellipse: s-maj=5.9km s-min=4.0km az=143.0*
*LDG **02** 18:21:37.6±0.6,34.98N×2.98W,h2^{km},Ml3.3/1,Error ellipse: s-maj=11.6km s-min=5.6km az=175.0*
CSEM 02 18:21:35.2±0.1**,34.96N×2.88W,h2^{km},ML3.3**/1**,Error ellipse: s-maj=2.2km s-min=1.5km az=137.0,Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.11**	**85**	*i* P	Pg	18 21 38.0	+0.5
MELI	**Melilla**	**0.34**	**353**	P	Pg	18 21 43.0	+1.1
MELI	**Melilla**	**0.34**	**353**	*i* P	Pg	18 21 43.0	+1.1
EMEL	**Melilla**	**0.34**	**350**	P	Pg	18 21 42.7	+0.6
	315nm,0.1s,SNR=20						
EMEL				S	Sg	18 21 47.4	+0.7
	562nm,0.3s,SNR=12						
TOU	**Touzarine**	**0.71**	**270**	*i* P	Pg	18 21 51.5	+2.0
TOU				*i* S	Sg	18 22 03.5	+4.5
MPAL	**Palemas**	**0.91**	**287**	*e*P	Pb	18 21 54.5	+1.2
MPAL				*i* S	Sg	18 22 07.0	+1.6
TZK	**Tazeka**	**1.38**	**231**	*i* P	Pb	18 22 02.0	+0.6
TZK				*i* S	Sb	18 22 21.0	+1.6
EBER	**Berja**	**1.93**	**360**	P	Pn	18 22 07.5	-1.9
	9.4nm,0.3s,SNR=12						
EBER				S	Sn	18 22 29.6	-5.0
	179nm,0.5s						
EBER	**Berja**	**1.93**	**360**	Pn	Pn	18 22 07.6	-1.8
EBER				S	Sn	18 22 29.6	-5.0
	179nm,0.5s						
ERON	**Agron**	**2.19**	**340**	P	Pn	18 22 10.5	-2.6
	6.0nm,0.2s,SNR=6.7						
ERON				S	Sn	18 22 35.9	-5.1
	6.5nm,0.3s						
EMIJ	**Mijas**	**2.22**	**317**	P	Pn	18 22 10.8	-2.7
	8.4nm,0.2s,SNR=16						
EMIJ				S	Sn	18 22 36.7	-5.2
	18nm,0.3s,SNR=7.7						
ELOJ	**Sierra Loja**	**2.41**	**335**	P	Pn	18 22 14.6	-1.7
	7.0nm,0.2s,SNR=4.0						
ELOJ				S	Sn	18 22 44.3	-2.5
	6.8nm,0.3s,SNR=4.0						
MIF	**Mishlifen**	**2.48**	**232**	*e*P	Pn	18 22 18.0	+0.7
MIF				*i* S	Sn	18 22 47.0	-1.6
CZD	**Col de Zad**	**2.63**	**224**	*e*P	Pn	18 22 21.0	+1.6
CZD				*i* S	Sn	18 22 52.0	-0.3
LIJA	**Lijar**	**2.82**	**314**	*i* P	Pn	18 22 22.0	-0.1
ELUQ	**Luque**	**2.83**	**337**	P	Pn	18 22 21.7	-0.5
	12nm,0.3s,SNR=13						
ELUQ				S	Sn	18 22 55.9	-1.4
	10nm,0.4s,SNR=5.0						
ELUQ	**Luque**	**2.83**	**337**	S	Sn	18 22 55.9	-1.4
	10nm,0.4s,SNR=5.0						
EQES	**Quesada**	**2.84**	**357**	P	Pn	18 22 22.7	+0.3
	14nm,0.4s,SNR=28						

EQES				S	Sn	18 22 55.8	-1.9
	62nm,0.5s,SNR=12						
EQES	**Quesada**	2.84	357	P	Pn	18 22 22.7	+0.3
	14nm,0.4s,SNR=28						
EQES				S	Sn	18 22 55.8	-1.9
	62nm,0.5s,SNR=12						
ESPR	**Espera**	3.07	309	P	Pn	18 22 24.4	-1.3
	10nm,0.4s,SNR=9.7						
ESPR				S	Sn	18 22 58.6	-5.0
	10nm,0.3s						
ESPR	**Espera**	3.07	309	Pn	Pn	18 22 24.4	-1.3
ESPR				S	Sn	18 22 58.6	-5.0
	10nm,0.3s						
ZFT	**Errachidia**	3.17	203	eP	Pn	18 22 28.5	+1.5
ZFT	**Errachidia**	3.17	203	i S	Sn	18 23 06.0	+0.1
EMUR	**La Murta**	3.17	24	P	Pn	18 22 25.2	-1.9
	18nm,0.4s,SNR=11						
EMUR				S	Sn	18 22 60.0	-5.9
	58nm,0.8s						
EMUR	**La Murta**	3.17	24	Pn	Pn	18 22 25.2	-1.8
EMUR	**La Murta**	3.17	24	Sn	Sn	18 23 00.0	-5.9
EADA	**Adamuz**	3.48	337	P	Pn	18 22 29.6	-1.9
	9.5nm,0.3s,SNR=15						
EADA				S	Sn	18 23 08.4	-5.5
	12nm,0.4s						
EADA	**Adamuz**	3.48	337	Pn	Pn	18 22 29.6	-1.9
EADA				Sn	Sn	18 23 08.4	-5.4
EVIA	**Vianos**	3.68	5	P	Pn	18 22 34.7	+0.3
	4.4nm,0.3s,SNR=4.0						
EVIA				S	Sn	18 23 13.1	-5.9
	16nm,0.4s,SNR=4.0						
EMIN	**Mina Concepcio**	4.15	314	P	Pn	18 22 38.2	-2.8
	2.7nm,0.2s,SNR=41						
EMIN				S	Sn	18 23 22.7	-8.1
	4.5nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	4.15	314	Sn	Sn	18 23 22.7	-8.0
EMIN	**Mina Concepcio**	4.15	314	Pn	Pn	18 22 38.2	-2.8
EBEN	**Beniarda**	4.30	29	P	Pn	18 22 41.8	-1.3
	2.5nm,0.4s,SNR=7.9						
EBEN				S	Sn	18 23 29.5	-5.2
	10nm,0.6s,SNR=7.9						
EBEN	**Beniarda**	4.30	29	Pn	Pn	18 22 41.8	-1.4
EBEN				Sn	Sn	18 23 29.5	-5.2
PALC	**Alcoutim**	4.48	305	ePn	Pn	18 22 42.7	-2.9
PALC				eSn	Sn	18 23 31.5	-7.6
	7.8nm,0.4s						
PALC	**Alcoutim**	4.48	305	ePn	Pn	18 22 42.7	-2.9
PALC				eSn	Sn	18 23 31.5	-7.6
	7.8nm,0.4s						
ESDC	**Sonseca Array**	4.78	350	P	Pn	18 22 48.2	-1.8
	3.8nm,0.3s,baz=173,slow=12,SNR=17						
ESDC				S	Sn	18 23 53.3	+6.5
	2.4nm,0.5s,baz=169,slow=28,SNR=4.0						
ESDC	**Sonseca Array**	4.78	350	Pn	Pn	18 22 48.2	-1.8
EBAD	**Badajoz**	5.03	320	P	Pn	18 22 50.7	-2.8
	9.6nm,0.2s,SNR=22						
EBAD				S	Sn	18 23 45.5	-7.6
	6.2nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	5.03	320	Pn	Pn	18 22 50.7	-2.8
EBAD				Sn	Sn	18 23 45.5	-7.6
PBEJ	**Beja**	5.05	309	ePn	Pn	18 22 50.7	-3.0
EIBI	**Ibiza**	5.28	39	P	Pn	18 22 55.2	-1.8
	4.6nm,0.2s,SNR=7.9						
EIBI				S	Sn	18 23 52.8	-6.7
	11nm,0.7s,SNR=7.9						
EIBI	**Ibiza**	5.28	39	Pn	Pn	18 22 55.2	-1.9
EIBI				Sn	Sn	18 23 52.8	-6.6
EVO	**Evora**	5.45	312	ePn	Pn	18 22 57.1	-2.3
EVO				eSn	Sn	18 23 59.5	-4.0
	12nm,0.5s						
MOE	**Montemor**	5.65	311	ePn	Pn	18 22 59.8	-2.4
PCBR	**Castelo Branco**	6.09	324	ePn	Pn	18 23 06.1	-2.3
PTOM	**Tomar**	6.40	318	ePn	Pn	18 23 09.4	-3.5
ERTA	**Horta de San J**	6.50	22	P	Pn	18 23 13.3	-0.9
	3.0nm,0.3s,SNR=6.1						
ERTA	**Horta de San J**	6.50	22	P	Pn	18 23 13.3	-1.0
	3.0nm,0.3s,SNR=6.1						
PVIS	**Viseu**	6.98	327	ePn	Pn	18 23 17.7	-3.3
PVRL	**Vila Real**	7.37	330	ePn	Pn	18 23 23.3	-3.1
PBRG	**Braganca**	7.47	337	ePn	Pn	18 23 24.8	-3.1
ECAL	**Calabor**	7.60	338	P	Pn	18 23 26.2	-3.4
	8.9nm,0.8s,SNR=7.9						
ECAL				S	Sn	18 24 47.9	-9.5
	14nm,1.1s,SNR=7.9						
ECAL	**Calabor**	7.60	338	Pn	Pn	18 23 26.2	-3.4
ECAL				Sn	Sn	18 24 47.9	-9.4
ELOB	**Lobios**	8.00	331	P	P	18 23 32.2	-3.1
	2.8nm,0.4s,SNR=7.9						
ELOB	**Lobios**	8.00	331	Pn	P	18 23 32.2	-3.1
ETSF	**Etsaut**	8.13	12	ePn	P	18 23 34.6	-2.5
SJPF	**Ste Jean**	8.24	8	ePn	P	18 23 35.3	-3.4
EINC	**Incio**	8.44	337	P	P	18 23 38.6	-2.8
	1.3nm,0.3s,SNR=4.0						
EINC	**Incio**	8.44	337	Pn	P	18 23 38.6	-2.8
EPF	**Esparros**	8.44	16	ePn	P	18 23 38.0	-3.4
EARI	**Arriondas**	8.52	348	P	P	18 23 40.4	-2.1
	2.4nm,0.6s,SNR=4.0						
EARI	**Arriondas**	8.52	348	Pn	P	18 23 40.5	-2.0

IDC ***02*** *18:25:39.0±0.8, 49.27N×19.89E, mb4.0/1, mb1 3.8/9, mb1mx3.6/21, ML3.5/8, Error ellipse: s-maj=10.4km s-min=8.0km az=172.0*

NEIC ***02*** *18:25:38.5±0.4, 49.47N×19.90E, h5^{km}, mb4.2/2, ML4.1(SZGRF), ML3.7(VIE), Error ellipse: s-maj=5.5km s-min=4.8km az=149.0*

NEIC Felt in much of northern and central Slovakia.

LDG ***02*** *18:25:38.6±0.4, 49.50N×20.05E, h10^{km}, Ml4.0/5, Error ellipse: s-maj=9.3km s-min=5.8km az=23.0*

BJI ***02*** *18:25:38.6, 49.02N×19.98E, h11^{km}, Ms4.2, Msz3.9*

MOS ***02*** *18:25:39.0±1.4, 49.52N×19.97E, h16^{km}, mb4.2/1, Error ellipse: s-maj=7.1km s-min=6.4km az=97.4*

IPEC ***02*** *18:25:39.2±0.2, 49.37N×19.88E, h3^{km}±1^{km}, ML3.5/2, Error ellipse: s-maj=1.2km s-min=0.8km az=10.0*

CSEM ***02*** *18:25:39.6±0.2, 49.42N×19.87E, h8^{km}, ML4.2/8, Error ellipse: s-maj=3.7km s-min=3.0km az=5.0*

PRU ***02*** *18:25:39.2, 49.50N×19.94E, h5^{km}*

BGR ***02*** *18:25:42.0±0.9, 49.77N×19.81E, h10^{km}, ML4.1/4, Error ellipse: s-maj=28.9km s-min=11.1km az=14.0*

ISC 02 18:25:37.2±0.2, **49.50N**±0.02×**19.81E**±0.02, **h5^{km}, n127, σ1^{s}53**/237, **mb4.0**/2, **MS3.9**/2, **12C-5D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIE	**Niedzica**	0.34	103	ePg	Pg	18 25 43.9	-0.2
NIE				e		18 25 44.3	
NIE				i Sg	Sg	18 25 48.2	-0.4
LIKS	**Likavka**	0.64	226	ePG	Pg	18 25 48.7	-1.4
LIKS				eSG	Sg	18 25 55.3	-3.3
OJC	**Ojcow**	0.72	360	i Pg	Pg	18 25 54.5	+2.8
OJC				i Sg	Sg	18 26 06.3	+4.9
OKC	**Ostrava-Krasne**	1.13	288	ePg	Pg	18 26 01.9	+2.0
OKC				eSg	Sg	18 26 18.7	+3.8
OKC	**Ostrava-Krasne**	1.13	288	ePg	Pg	18 26 01.9	+2.0
OKC				eSg	Sg	18 26 18.4	+3.5
VYHS	**Vyhne**	1.19	213	ePN	Pn	18 26 00.3	-0.2
VYHS				eSN	Sn	18 26 17.6	+0.4
RAC	**Raciborz**	1.20	300	ePg	Pg	18 26 03.7	+2.5
RAC				eSg	Sg	18 26 22.1	+4.9
CRVS	**Cervenica-Dubn**	1.24	118	ePN	Pn	18 26 00.0	-1.2
CRVS				eSN	Sn	18 26 17.0	-1.4
KOLL	**Kolacno**	1.30	226	ePN	Pn	18 26 03.2	+1.1
KOLL				eSN	Sn	18 26 20.7	+0.6
MORC	**Moravsky Berou**	1.50	282	ePn	Pn	18 26 06.4	+1.5
MORC				eSn	Sn	18 26 26.6	+1.6
MORC	**Moravsky Berou**	1.50	282	ePn	Pn	18 26 06.4	+1.5
MORC				eSn	Sn	18 26 26.6	+1.5
MORC				eSg	Sg	18 26 29.2	+2.0
	510nm,0.3s						
PSZ	**Piszkesteto**	1.58	178⇑	ePn	Pn	18 26 06.7	+0.6
PSZ				eSn	Sb	18 26 25.4	-1.4
PSZ	**Piszkesteto**	1.58	178	ePn	Pn	18 26 06.1	0.0
PSZ				eSn	Sn	18 26 24.9	-2.2
PSZ	**Piszkesteto**	1.58	178	ePn	Pn	18 26 06.6	+0.5
PSZ				eSg	Sg	18 26 24.9	-5.0
PSZ				eS	Sb	18 26 25.4	-1.4
KOLS	**Kolonicke sedl**	1.71	108	ePN	Pn	18 26 08.9	+0.9
KOLS				eSN	Sn	18 26 31.0	+0.5
SMOL	**Smolenice**	1.85	239	ePN	Pn	18 26 11.7	+1.8
SMOL				eSN	Sn	18 26 36.7	+2.7
SMOL	**Smolenice**	1.85	239	eSn	Sn	18 26 36.7	+2.7
UZH	**Uzhgorod**	1.85	117	eP	Pn	18 26 07.0	-2.9
KWP	**Kalwaria**	1.89	85	eP	Pn	18 26 12.1	+1.6
KWP				e		18 26 39.5	
KWP	**Kalwaria**	1.89	85	ePn	Pn	18 26 11.6	+1.1
KWP				ePg	Pg	18 26 15.3	+0.3
KWP				eSn	Sn	18 26 32.5	-2.6
KWP				eSn	Sn	18 26 39.5	+4.5
KWP				eSg	Sg	18 26 43.9	+3.6
KWP	**Kalwaria**	1.89	85	ePn	Pn	18 26 11.6	+1.1
KWP	**Kalwaria**	1.89	85	ePg	Pg	18 26 15.3	+0.3
KWP				eSg	Sg	18 26 37.6	-2.7
KWP	**Kalwaria**	1.89	85	ePn	Pn	18 26 12.1	+1.6
KWP				ePg	Pg	18 26 15.3	+0.3
KWP				eSn	Sn	18 26 39.5	+4.5
KWP				eSg	Sg	18 26 43.9	+3.6
SRO	**Srobarova**	1.95	211	ePN	Pn	18 26 15.3	+3.9
SRO				eSG	Sg	18 26 42.0	-0.3
SRO	**Srobarova**	1.95	211	eSg	Sg	18 26 42.0	-0.3
SRO2	**Moca**	1.97	209	ePG	Pg	18 26 16.5	-0.1
MODS	**Modra-Piesok**	2.01	237	ePN	Pn	18 26 12.7	+0.4
MODS				eSN	Sn	18 26 38.9	+0.8
MODS	**Modra-Piesok**	2.01	237	ePn	Pn	18 26 12.7	+0.4
SRO1	**Iza**	2.03	212	ePG	Pg	18 26 18.1	+0.4
SRO1				eSG	Sg	18 26 44.3	-0.4
VRAC	**Vranov**	2.11	266	Pn	Pn	18 26 15.2	+1.6
	11nm,0.3s,baz=92,slow=13,SNR=49						
VRAC				Lg		18 26 45.7	
	52nm,0.3s,baz=160,slow=23,SNR=19						
VRAC	**Vranov**	2.11	266	Pn	Pn	18 26 15.2	+1.6
VRAC				eSg	Sg	18 26 45.6	-1.8
	184nm,0.3s						
ZST	**Bratislava**	2.21	235	ePN	Pn	18 26 16.3	+1.2
ZST				eSN	Sn	18 26 44.3	+1.2
ZST	**Bratislava**	2.21	235	ePn	Pn	18 26 16.2	+1.1
ZST				eSn	Sn	18 26 44.3	+1.2
KRUC	**Moravsky**	2.28	260	ePn	Pn	18 26 18.8	+2.8
PKSG		2.31	205	eP	Pn	18 26 17.0	+0.5
DPC	**Dobruska-Polom**	2.41	292	eP	Pn	18 26 20.3	+2.4
DPC				e		18 26 57.0	
DPC				smax			
	comp=N,142nm,0.3s						
DPC	**Dobruska-Polom**	2.41	292	ePN	Pn	18 26 20.3	+2.4
DPC				ePG	Pg	18 26 24.7	-0.6
DPC				eSG	Sg	18 26 57.0	-0.5
	comp=N,142nm,0.3s						
DPC	**Dobruska-Polom**	2.41	292	ePg	Pg	18 26 24.7	-0.6
DPC				Sg	Sg	18 26 57.0	-0.5
	comp=N,142nm,0.3s						
KSP	**Ksiaz**	2.63	302	eP	Pn	18 26 23.6	+2.5
KSP				e		18 26 56.6	
KSP	**Ksiaz**	2.63	302	ePn	Pn	18 26 23.6	+2.5
KSP				ePg	Pg	18 26 30.4	+0.6
KSP				eSn	Sn	18 26 56.6	+2.8
KSP				eSg	Sg	18 27 03.8	-1.1
KSP	**Ksiaz**	2.63	302	eSn	Sn	18 26 56.6	+2.8
KSP	**Ksiaz**	2.63	302	ePg	Pg	18 26 30.4	+0.6
KSP				eSg	Sg	18 27 03.8	-1.1
KSP	**Ksiaz**	2.63	302	ePn	Pn	18 26 23.6	+2.5
KSP				ePg	Pg	18 26 31.9	+2.1
KSP				eSn	Sn	18 26 57.3	+3.5
KSP				eSg	Sg	18 27 03.8	-1.1
UPC	**Upice**	2.65	294	ePG	Pg	18 26 29.3	-0.8
UPC				ex	x	18 27 05.0	
LVV	**L'vov**	2.76	82	eP	Pn	18 26 23.0	0.0
SOP	**Sopron**	2.82	231⇑	iP	Pn	18 26 24.7	+0.9
SOP				eS	Sn	18 26 58.2	-0.4
PKSM	**Moragy**	3.38	194⇓	eP	Pn	18 26 31.2	-0.6
PKSM				eS	Sn	18 27 08.6	-4.2
PRU	**Pruhonice**	3.45	280	ePN	Pn	18 26 33.2	+0.4
PRU				PG	Pg	18 26 43.2	-2.9
PRU				SG	Sg	18 27 29.0	-3.1
	comp=N,64nm,0.3s						
PRU	**Pruhonice**	3.45	280	Pg	Pg	18 26 43.2	-2.9
PRU				Sg	Sg	18 27 29.0	-3.1
	comp=N,64nm,0.3s						
PVCC	**Panska Ves**	3.53	289	ePN	Pn	18 26 39.1	+5.2
PVCC				ePG	Pg	18 26 45.7	-2.1
PVCC				eSG	Sg	18 27 34.0	-0.9
PVCC	**Panska Ves**	3.53	289	Pg	Pg	18 26 45.7	-2.1
PVCC				Sg	Sg	18 27 34.0	-0.9
RHK1	**Bakonya**	3.60	200	eP	Pn	18 26 34.6	-0.3
ARSA	**Arzberg**	3.63	233⇓	iPN	Pn	18 26 37.4	+2.0
ARSA				i SG	Sg	18 27 38.4	+0.2
	comp=N,11nm,0.5s						
BRG	**Berggiesshubel**	4.01	292	ePg	Pg	18 26 52.4	-5.0
BRG				eSg	Sg	18 27 45.6	-5.3
BRG	**Berggiesshubel**	4.01	292	ePn	Pn	18 26 51.8	+11
BRG				i Pg	Pg	18 26 55.5	-1.9
BRG				i Sg	Sg	18 27 46.5	-4.4
BRG	**Berggiesshubel**	4.01	292	Sg	Sg	18 27 45.6	-5.3
BRG	**Berggiesshubel**	4.01	292	i Pg	Pg	18 26 55.5	-1.9
MOA	**Molln**	4.03	248⇑	iPN	Pn	18 26 42.2	+1.3
MOA				i SG	Sg	18 27 52.5	+1.2
	comp=N,12nm,0.3s						
GEC2	**GERESS Array S**	4.06	263	ePn	Pn	18 26 42.4	+1.0
GERES	**GERESS Array B**	4.06	263	Pn	Pn	18 26 43.2	+1.7
	comp=N,3.5nm,0.3s,baz=85,slow=14,SNR=93						
GERES				Sn	Sn	18 27 31.7	+1.7
	comp=N,3.5nm,0.3s,baz=72,slow=25,SNR=5.4						
GERES				Lg		18 27 43.4	
	comp=N,11nm,0.3s,baz=76,slow=28,SNR=6.4						
KHC	**Kasperske Hory**	4.09	267	eP	Pn	18 26 43.0	+1.1
KHC				e		18 27 32.0	
KHC				smax			
	comp=N,66nm,0.4s						
KHC	**Kasperske Hory**	4.09	267	ePN	Pn	18 26 43.0	+1.1
KHC				ePG	Pg	18 26 56.3	-2.6
KHC				eSN	Sn	18 27 32.0	+1.2
KHC				ex	x	18 27 45.5	
KHC				eSG	Sg	18 27 51.8	-1.7
	comp=N,66nm,0.4s						
KHC	**Kasperske Hory**	4.09	267	eSn	Sn	18 27 32.0	+1.2
KHC				eSg	Sg	18 27 51.8	-1.7
	comp=N,66nm,0.4s						
KHC	**Kasperske Hory**	4.09	267	ePg	Pg	18 26 56.3	-2.6
GOLS	**Golise**	4.49	221	ePn	Pn	18 26 47.2	-0.3
OBKA	**Obir**	4.62	232⇓	iPN	Pn	18 26 50.7	+1.2
CLL	**Collm**	4.71	295	eP	Pn	18 26 56.0	+5.3
CLL				e		18 27 46.0	
CLL	**Collm**	4.71	295	ePn	Pn	18 26 56.0	+5.3
CLL				ePg	Pg	18 27 12.0	+0.6
CLL				eSn	Sn	18 27 46.0	-0.6
CLL				eSg	Sg	18 28 10.0	-4.2
CLL	**Collm**	4.71	295	ePN	Pn	18 26 56.0	+5.3
CLL				e		18 27 09.0	
CLL				ePG	Pg	18 27 12.0	+0.6
CLL				eSN	Sn	18 27 46.0	-0.6
CLL				eSG	Sg	18 28 10.0	-4.2
CLL	**Collm**	4.71	295	Sg	Sg	18 28 08.4	-5.8
CLL	**Collm**	4.71	295	ePg	Pg	18 27 12.0	+0.6
NKC	**Novy Kostel**	4.82	282	ePN	Pn	18 26 53.6	+1.4
NKC				ePG	Pg	18 27 08.7	-4.7
NKC				eSG	Sg	18 28 15.4	-2.2
	comp=N,79nm,0.5s						
NKC	**Novy Kostel**	4.82	282	ePg	Pg	18 27 08.7	-4.7
NKC				eSg	Sg	18 28 15.4	-2.2
	comp=N,79nm,0.5s						
TANN	**Tannenbergstha**	4.83	284	eSg	Sg	18 28 13.8	-4.3
GUNZ	**Gunzen**	4.91	283	ePn	Pn	18 26 54.9	+1.4
WERD	**Werda**	4.93	284	ePg	Pg	18 27 09.9	-5.8
WERD				eSg	Sg	18 28 14.1	-7.4
KBA	**Koelnbreinsper**	4.95	243⇑	iPN	Pn	18 26 56.4	+2.4
KBA				i SG	Sg	18 28 23.4	+1.5
	comp=N,8.9nm,0.4s						
SUW	**Suwalki**	4.98	24	Pn	Pn	18 26 49.5	-5.0
SUW				ePg	Pg	18 27 15.2	-1.5
SUW				eSg	Sg	18 28 26.8	+3.6
SUW	**Suwalki**	4.98	24	ePn	Pn	18 26 55.8	+1.3
SUW	**Suwalki**	4.98	24	ePg	Pg	18 27 15.2	-1.5
SUW	**Suwalki**	4.98	24	ePn	Pn	18 26 55.9	+1.4
SUW				ePg	Pg	18 27 15.2	-1.5
SUW				eSn	Sn	18 28 03.3	+10
SUW				eSg	Sg	18 28 26.8	+3.6
MOX	**Moxa**	5.40	285	eSg	Sg	18 28 31.9	-5.1
MOX	**Moxa**	5.40	285	ePg	Pg	18 27 21.3	-3.7
MOX				eSg	Sg	18 28 31.8	-5.2
MOX	**Moxa**	5.40	285	ePg	Pg	18 27 21.3	-3.7
MOX				Sg	Sg	18 28 31.9	-5.1
GRA1	**Grafenberg Arr**	5.59	275	Sg	Sg	18 28 39.4	-3.9
GRF	**Grafenberg Arr**	5.59	275	eSg	Sg	18 28 39.4	-3.9
MLR	**Muntele Rosu**	5.77	132	Pn	Pn	18 27 05.1	-0.6
	comp=N,0.3nm,0.3s,baz=298,slow=16,SNR=7.8						
WTTA	**Wattenberg**	5.88	251⇑	iPN	Pn	18 27 08.9	+1.7
WTTA				i SN	Sn	18 28 15.5	-0.5
WTTA				i SG	Sg	18 28 54.3	+1.1
	comp=N,12nm,0.5s						
WTTA	**Wattenberg**	5.88	251⇑	iPn	Pn	18 27 08.9	+1.7
	comp=N,12nm,0.5s						
WTTA				i Sn	Sn	18 28 15.5	-0.5
WTTA				i Sg	Sg	18 28 54.3	+1.1
WATA	**Walderalm**	5.89	252⇑	iPN	Pn	18 27 08.3	+1.0
WATA				i SN	Sn	18 28 15.9	-0.2
WATA				i SG	Sg	18 28 54.1	+0.7
	comp=N,11nm,0.5s						
WATA	**Walderalm**	5.89	252⇑	iPn	Pn	18 27 08.3	+1.0
	comp=N,11nm,0.5s						
WATA				i Sn	Sn	18 28 15.9	-0.2
WATA				i Sg	Sg	18 28 54.1	+0.7
SQTA	**Sankt Quirin**	6.17	252⇓	iPN	Pn	18 27 11.9	+0.7
SQTA				i SG	Sg	18 28 59.2	-3.4
	comp=N,12nm,0.5s						
SQTA	**Sankt Quirin**	6.17	252⇓	iPn	Pn	18 27 11.9	+0.7
	comp=N,12nm,0.5s						
SQTA				i Sg	Sg	18 28 59.2	-3.4
AKASG	**Malin Array Be**	6.18	75	Pn	Pn	18 27 08.9	-2.5
	comp=N,1.0nm,0.3s,baz=250,slow=13,SNR=4.2						
AKASG				Lg		18 28 50.4	
	comp=N,2.4nm,0.3s,baz=327,slow=19,SNR=5.2						
MOTA	**Moosalm**	6.18	253⇑	iPN	Pn	18 27 13.0	+1.6
MOTA				i SN	Sn	18 28 23.1	-0.3
MOTA				i SG	Sg	18 29 01.8	-1.2
	comp=N,14nm,0.6s						
MOTA	**Moosalm**	6.18	253⇑	iPn	Pn	18 27 13.0	+1.6
	comp=N,14nm,0.6s						
MOTA				i Sn	Sn	18 28 23.1	-0.3
MOTA				i Sg	Sg	18 29 01.8	-1.2
BSD	**Bornholm Skovb**	6.38	334	i P	Pn	18 27 14.5	+0.3
BSD				i		18 27 18.6	
DAVA	**Damuels**	6.97	255	i SG	Sg	18 29 30.9	+1.6
	comp=N,13nm,0.5s						
DAVA	**Damuels**	6.97	255⇑	iPn	Pn	18 27 24.3	+1.7
	comp=N,13nm,0.5s						
DAVA				i Sg	Sg	18 29 30.9	+1.6
DAVOX	**Davos**	7.18	252	Pn	Pn	18 27 26.2	+0.7
	comp=N,1.9nm,0.3s,baz=82,slow=12,SNR=20						
DAVOX				Sn	Sn	18 28 45.2	-3.1
	comp=N,2.2nm,0.3s,baz=317,slow=23,SNR=11						
DAVOX				Lg		18 29 26.2	
	comp=N,1.4nm,0.3s,baz=351,slow=22,SNR=3.6						
DAVOX	**Davos**	7.18	252	Pn	Pn	18 27 26.2	+0.7
DAVOX				Sn	Sn	18 28 45.2	-3.1
DAVOX				Lg		18 29 26.2	
CDF	**Champ du Feu**	8.32	267	ePn	P	18 27 39.2	-2.2
CDF				eSg	Sg	18 30 01.6	-13
	comp=N,40nm,1.0s						
HINF	**Hinteralfeld**	8.74	264	ePn	P	18 27 45.8	-1.5
HINF				eSn	Sn	18 29 21.6	-5.7
HINF				eSg	Sg	18 30 16.2	-12
	comp=N,48nm,1.0s						
HINF	**Hinteralfeld**	8.74	264	ePn	P	18 27 45.8	-1.5
HINF				eSg	Sg	18 30 16.2	-12
	comp=N,24nm,1.0s						
HAU	**Haudompre**	9.02	266	ePn	P	18 27 49.2	-1.9
HAU				eSg	Sg	18 30 24.0	-14
	comp=N,21nm,0.6s						
CABF	**La Chapelle**	9.63	258	ePn	P	18 27 57.4	-2.1
CABF				eSn	Sn	18 29 41.6	-7.7
CABF				eSg	Sg	18 30 43.8	-14
	comp=N,24nm,0.9s						
LPG	**La Plagne**	9.70	251	ePn	P	18 27 59.9	-0.5
LPG				eSn	Sn	18 29 42.8	-8.1
	comp=N,6.5nm,0.7s						
LPL	**La Plagne**	9.70	251	ePn	P	18 28 00.3	-0.2
LPL				eSn	Sn	18 29 42.9	-8.1
MBDF	**Montbardon**	10.08	247	ePn	P	18 28 03.5	-2.2
MBDF				eSn	S	18 29 52.7	-7.7
ORIF	**Oris-en-Rattie**	10.52	249	ePn	P	18 28 10.2	-1.5
SMRF	**Simiane la Rot**	11.21	246	ePn	P	18 28 19.1	-2.1
HFS	**Hagfors**	11.22	344	Pn	P	18 28 19.0	-2.2
	comp=N,0.1nm,0.3s,baz=156,slow=15,SNR=5.0						
HFS				Sn	S	18 30 18.0	-10
	comp=N,0.0nm,0.3s,baz=156,slow=25,SNR=2.6						
HFS	**Hagfors**	11.22	344	Sn	S	18 30 18.0	-10
VIVF	**Saint-Julien-l**	11.29	251	ePn	P	18 28 19.7	-2.6
LASF	**Ste Croix**	12.20	250	ePn	P	18 28 32.1	-2.4
NAO01	**NORSAR Array S**	12.45	339	P	P	18 28 37.0	-0.7
NAO01				eS	S	18 30 47.8	-10
FINES	**FINESS Array B**	12.48	14	Pn	P	18 28 34.6	-3.7
	comp=N,0.5nm,0.3s,baz=205,slow=11,SNR=12						
FINES				Sn	S	18 30 48.9	-10
	comp=N,0.7nm,0.3s,baz=184,slow=21,SNR=6.4						
FINES	**FINESS Array B**	12.48	14	P	P	18 28 34.6	-3.7
FINES						18 30 48.9	
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	**FINESS Array B**	12.48	14	Sn	S	18 30 48.9	-10
NOA	**NORSAR Array B**	12.55	340	Pn	P	18 28 37.5	-1.7
	comp=Z,0.2nm,0.3s,baz=148,slow=14,SNR=3.2						
NOA				Sn	S	18 30 54.8	-5.7
	comp=Z,0.2nm,0.3s,baz=342,slow=20,SNR=2.7						
CAF	**Calviac**	12.89	256	ePn	P	18 28 41.2	-2.6
ARCES	**ARCESS Array B**	20.29	6	P	P	18 30 13.8	-2.5
	comp=Z,11nm,1.2s,baz=201,slow=13,SNR=6.9						
ARCES	**ARCESS Array B**	20.29	6	P	P	18 30 13.8	-2.4
ARCES				pmax	pmax		
	comp=Z,11nm,1.2s						
ARU	**Arti**	24.09	58	eP	P	18 30 55.4	+1.3
	comp=Z,3.2nm,1.0s,mb3.7						
WMQ	**Urumqi**	45.51	70	⇑P	P	18 34 01.1	+2.0
WMQ				AP	pP	18 34 05.6	+5.0
WMQ				XP	sP	18 34 08.1	+6.9
WMQ				PCP	PcP	18 35 40.6	+2.2
WMQ				PP	PP	18 35 48.0	+1.8
WMQ				S	S	18 40 41.8	+1.1
WMQ				LR	LR		
	comp=N,86nm,17.2s						
WMQ				LR	LR		
	comp=Z,48nm,17.2s,MS3.5						
ULN	**Ulaanbaatar**	54.43	56	eP	P	18 35 09.0	+1.8
	comp=Z,2.9nm,0.7s,mb4.3						
SSE	**Sheshan**	73.78	61	P	P	18 37 16.8	+2.7
SSE				LR	LR		
	comp=N,107nm,24.5s,MS4.3						
SSE				LR	LR		
	comp=E,163nm,24.5s,MS4.3						
SSE				LR	LR		
	comp=Z,219nm,22.0s,MS4.4						

IDC ***02*** *18:26:40.8±0.5, 0.37N×169.77E, mb4.8/19, mb1 4.9/20, mb1mx4.9/23, MS4.5/14, Ms1 4.5/14, ms1mx4.2/25, Error ellipse: s-maj=23.3km s-min=12.7km az=135.0*

MOS ***02*** *18:26:42.4±1.2, 0.21N×170.40E, h39^{km}, mb5.2/8, Error ellipse: s-maj=18.9km s-min=14.9km az=124.2*

NEIC ***02*** *18:26:42.5±0.2, 0.38N×169.71E, h10^{km}, mb5.2/59, Error ellipse: s-maj=6.9km s-min=4.4km az=150.0*

BJI ***02*** *18:26:42.5, 0.73N×169.63E, h10^{km}, mB5.3, mb5.0, Ms4.6, Msz4.5*

HRVD ***02*** *18:26:42.5±0.4, 0.31N×169.68E, h32^{km}±1^{km}, MW5.1/55, Centroid moment Tensor Solution. LP body waves: s38,c58;Mantle waves: s55,c89; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.58±.23; $M_{\theta\theta}$-2.33±.17; $M_{\phi\phi}$0.75±.16; $M_{r\theta}$3.92±.25; $M_{\theta\phi}$-4.18±.17; $M_{\phi r}$-1.51±.23; Best double couple: $M_0$6.27×10^{16} NP1:ϕ_s196°,δ47°,λ15°. NP2:ϕ_s95°,δ79°,λ136°. Principal axes: T 6.43, Plg38°, Azm46°; N -.33, Plg45°, Azm264°; P -6.1, Plg20°, Azm153°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 02 18:26:44.0±2.3, **0.35N**±0.06×**169.70E**±0.04, **h30^{km}**±15^{km}, **h30^{km}**±1.2^{km}**:pP-P, n177, σ0^{s}74**/168, **mb5.1**/87, **MS4.5**/18, **7C-2D, Gilbert Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NOUC	**Port Laguerre**	22.56	188	eP	P	18 31 42.5	-0.7
AFI	**Afiamalu**	23.17	128	P	P	18 31 53.0	+3.7
	114nm,1.0s,mb5.3						
PMG	**Port Moresby**	24.45	246	P	P	18 32 06.2	+4.5
	23nm,0.8s,mb4.7,baz=44,slow=7.6,SNR=12						
PMG				LR	LR	18 40 42.0	
	comp=Z,885nm,21.7s,MS4.2,baz=242,slow=34						
PMG	**Port Moresby**	24.45	246	i P	P	18 32 07.2	+5.5
PMG	**Port Moresby**	24.45	246	eP	P	18 32 02.1	+0.4

	49nm,1.0s,mb4.9						
PMG				LR	LR	18 40 42.0	
GUMO	**Guam**	**27.89**	**299**	P	**P**	**18 32 28.9**	**-4.8**
	428nm,1.4s,mb5.9						
CTA	**Charters Tower**	**30.66**	**227**	*e*P	**P**	**18 32 57.4**	**-0.9**
	22nm,1.1s,mb4.9						
CTA	**Charters Tower**	**30.66**	**227**	P	**P**	**18 32 57.6**	**-0.7**
	2.6nm,0.5s,mb4.3,baz=79,slow=12,SNR=4.7						
CTA				LR	LR	18 44 43.8	
	comp=Z,1μm,18.5s,MS4.7,baz=45,slow=35						
CTAO	**Charters Tower**	**30.66**	**227**	*e*P	**P**	**18 32 57.2**	**-1.2**
	58nm,1.2s,mb5.3						
RAR	**Rarotonga**	**36.72**	**128**	LR	LR	18 44 35.4	
	comp=Z,476nm,19.5s,MS4.3,baz=312,slow=29						
CBIJ	**Chichi jima**	**37.50**	**317**	LR	LR	18 47 16.8	
	comp=Z,930nm,18.8s,MS4.6,baz=104,slow=33						
URZ	**Urewera**	**39.02**	**171**	P	**P**	**18 34 06.0**	**-3.8**
	10nm,0.7s,mb4.7,baz=250,slow=2.9,SNR=3.7						
URZ				LR	LR	18 46 48.7	
	comp=Z,734nm,19.9s,MS4.5,baz=27,slow=31						
KAKA	**Kakadu**	**39.17**	**249**	*e*P	**P**	**18 34 16.0**	**+4.8**
	67nm,1.5s,mb5.2						
WRAB	**Tennant Creek**	**40.07**	**238**	*c i*P	**P**	**18 34 24.3**	**+5.7**
WRAB	**Tennant Creek**	**40.07**	**238**	*e*P	**P**	**18 34 19.2**	**+0.6**
	84nm,1.1s,mb5.4						
WRAB				*e*		18 34 24.1	
WB2	**Warramunga Arr**	**40.07**	**238**	*e*P	**P**	**18 34 24.3**	**+5.7**
WRA	**Warramunga Arr**	**40.08**	**238**	P	**P**	**18 34 18.5**	**-0.2**
	36nm,0.9s,mb5.1,baz=64,slow=8.3,SNR=61						
STKA	**Stephens Creek**	**41.65**	**217**	*e*P	**P**	**18 34 31.3**	**-0.2**
	11nm,0.9s,mb4.5						
STKA	**Stephens Creek**	**41.65**	**217**	P	**P**	**18 34 31.5**	**-0.1**
	6.8nm,0.7s,mb4.4,baz=44,slow=12,SNR=16						
STKA				LR	LR	18 49 59.1	
	comp=Z,985nm,20.9s,MS4.7,baz=36,slow=34						
ASAR	**Alice Springs**	**42.16**	**233**	P	**P**	**18 34 35.1**	**-0.7**
	0.9nm,0.6s,baz=63,slow=8.1,SNR=4.7						
ASAR				LR	LR	18 50 37.5	
	comp=Z,309nm,19.7s,baz=61,slow=34						
ASPA	**Alice Springs**	**42.16**	**233**	*e*P	**P**	**18 34 40.4**	**+4.5**
PPT	**Papeete**	**43.85**	**116**	*e*S	**S**	**18 41 17.3**	**-0.9**
PPT				*e*LQ		18 45 00.1	
PPT				*e*LR	LR	18 46 32.7	
	546nm,25.2s,baz=290						
TOO	**Toolangi**	**43.86**	**208**	*e*P	**P**	**18 34 55.7**	**+6.2**
	12nm,1.1s,mb4.5						
RPZ	**Rata Peaks**	**43.88**	**179**	LR	LR	18 51 13.5	
	comp=Z,1μm,18.3s,MS4.8,baz=315,slow=34						
PMOR	**Pomariorio Ree**	**44.60**	**112**	*e*P	**P**	**18 34 44.0**	**-12**
	54nm,0.9s,mb5.4						
TBI	**Tubuai**	**46.13**	**124**	*e*S	**S**	**18 41 49.7**	**-1.3**
TBI				*e*LQ		18 45 46.2	
TBI				*e*LR	LR	18 47 16.0	
	475nm,26.8s,baz=305						
MAJO	**Matsushiro**	**46.35**	**324**	*e*P	**P**	**18 35 09.3**	**-0.1**
	45nm,1.3s,mb5.2						
MAJO				*e*	pP	18 35 16.6	-2.0
MAT	**Matsushiro**	**46.35**	**324**	P	**P**	**18 35 09.6**	**+0.2**
MAT				S	**S**	**18 42 10.0**	**+16**
MAT	**Matsushiro**	**46.35**	**324**	*e*P	**P**	**18 35 10.0**	**+0.6**
	6.0nm,0.8s,mb4.6						
MAT				*e*S	**S**	**18 42 11.0**	**+17**
FITZ	**Fitzroy Crossi**	**47.03**	**245**	*e*P	**P**	**18 35 19.6**	**+4.6**
	14nm,0.9s,mb4.9						
FITZ	**Fitzroy Crossi**	**47.03**	**245**	P	**P**	**18 35 13.4**	**-1.6**
	1.8nm,0.8s,mb4.0,baz=90,slow=14,SNR=4.2						
FITZ				LR	LR	18 54 52.1	
	comp=Z,268nm,19.7s,MS4.2,baz=83,slow=36						
ASAJ	**Asahikawa**	**49.81**	**335**	P	**P**	**18 35 36.5**	**+0.3**
	17nm,0.8s,mb5.1,baz=154,slow=9.3,SNR=5.3						
FORT	**Forrest**	**50.20**	**228**	*e*P	**P**	**18 35 45.8**	**+6.4**
	123nm,0.8s,mb6.0						
YSS	**Yuzh-Sakhalins**	**52.05**	**337**	⇓*i*P	**P**	**18 35 53.0**	**-0.2**
YSS				*e*		18 35 59.5	
YSS	**Yuzh-Sakhalins**	**52.05**	**337**	*e*P	**P**	**18 35 53.7**	**+0.5**
	69nm,1.1s,mb5.5						
YSS				*e*		18 35 59.5	
YSS				*e*	pP	18 36 02.9	+0.4
MBWA	**Marble Bar**	**53.26**	**243**	*e*P	**P**	**18 36 01.6**	**-0.9**
	21nm,1.0s,mb5.0						
MBWA				*e*		18 36 06.0	
SSE	**Sheshan**	**55.16**	**308**	P	**P**	**18 36 16.8**	**+0.4**
SSE				S	**S**	**18 43 54.6**	**-1.0**
SSE				AMB	AMB		
	comp=Z,32nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,213nm,4.4s						
SSE				LR	LR		
	comp=N,107nm,24.5s,MS4.1						
SSE				LR	LR		
	comp=E,163nm,24.5s,MS4.1						
SSE				LR	LR		
	comp=Z,219nm,22.0s,MS4.2						
MDJ	**Mudanjiang**	**56.60**	**327**	P	**P**	**18 36 26.9**	**+0.3**
MDJ				PCP	PcP	18 37 20.9	-1.6
MDJ				PP	PP	18 38 35.1	+1.1
MDJ				PCS		18 41 21.8	
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,66nm,4.5s						
MDJ				LR	LR		
	comp=N,235nm,18.8s						
MDJ				LR	LR		
	comp=E,148nm,13.3s						
MDJ				LR	LR		
	comp=Z,317nm,16.5s,MS4.5						
MDJ	**Mudanjiang**	**56.60**	**327**	*e*P	**P**	**18 36 27.0**	**+0.4**
	comp=Z,20nm,1.1s,mb5.1						
NJ2	**Nanjing**	**57.36**	**309**	*e*P	**P**	**18 36 31.3**	**-0.9**
NJ2				AP	pP	18 36 40.9	-0.6
NJ2				XP	sP	18 36 46.1	+1.1
NJ2				PP	PP	18 38 41.0	0.0
NJ2				PPP	tx	18 39 03.3	
NJ2				S	**S**	**18 44 27.0**	**+2.2**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,1μm,4.2s						
NJ2				LR	LR		
	comp=N,930nm,15.2s,MS5.0						
NJ2				LR	LR		
	comp=E,630nm,18.8s,MS5.0						
CN2	**Changchun**	**58.48**	**324**	*e*P	**P**	**18 36 38.8**	**-1.0**
CN2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.5						
RKT	**Rikitea**	**58.57**	**117**	*e*LR	LR	18 52 59.3	
	comp=Z,426nm,26.5s,baz=344						
NWAO	**Narrogin (SRO)**	**59.40**	**231**	P	**P**	**18 36 47.1**	**+0.8**
	comp=Z,20nm,1.1s,mb5.0,baz=97,slow=8.2,SNR=2.6						
BJT	**Baijiatuau**	**62.60**	**316**	*e*P	**P**	**18 37 07.2**	**-0.7**
	comp=Z,13nm,0.5s,mb5.3						
BJT				*e*		18 37 14.5	
ENH	**Enshi**	**64.36**	**304**	*e*P	**P**	**18 37 18.7**	**-1.0**
	comp=Z,8.6nm,0.8s,mb4.8						
ENH				*e*	pP	18 37 26.4	-2.7
HIA	**Hailar**	**64.79**	**326**	*e*P	**P**	**18 37 22.1**	**0.0**
	comp=Z,22nm,1.0s,mb5.1						
HIA				*e*		18 37 28.4	
HIA				*e*	pP	18 37 31.7	+0.1
HHC	**Hu-ho-hao-te**	**66.15**	**315**	*e*P	**P**	**18 37 31.2**	**+0.2**
HHC				AP	pP	18 37 35.9	-4.6
HHC				XP	sP	18 37 37.5	-6.4
HHC				PCP	PcP	18 38 01.6	+0.6
HHC				PP	PP	18 39 59.8	+0.9
HHC				SCP		18 42 02.3	
HHC				S	S	18 46 19.2	+3.2
HHC				XS		18 46 25.1	
HHC				SCS	ScS	18 47 23.4	+2.2
HHC				SS	SS	18 50 36.1	+2.8
HHC				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.8						
HHC				AMB	AMB		
	comp=Z,103nm,4.8s						
HHC				LR	LR		
	comp=N,146nm,16.6s,MS4.5						
HHC				LR	LR		
	comp=E,160nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=Z,109nm,16.6s,MS4.1						
YAK	**Yakutsk**	**68.51**	**341**	*e*P	**P**	**18 37 43.6**	**-1.9**
YAK				*e*	pP	18 37 52.9	-2.1
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
YAK				pmax	pmax		
	comp=E,6.0nm,0.9s						
YAK				pmax	pmax		
	comp=N,10.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
YAK				pmax	pmax		
	comp=E,10.0nm,1.0s						
YAK	**Yakutsk**	**68.51**	**341**	*e*P	**P**	**18 37 44.3**	**-1.2**
	comp=E,87nm,1.1s,mb5.6						
YAK				*e*	pP	18 37 54.3	-0.7
SML	**Sawmill**	**69.00**	**20**	*e*P	**P**	**18 37 48.0**	**-0.5**
KMI	**Kunming**	**69.07**	**297**	*e*P	**P**	**18 37 50.1**	**+0.5**
KMI				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.3						
CD2	**Chengdu**	**69.30**	**303**	*e*P	**P**	**18 37 48.5**	**-2.5**
DRV	**Dumont d'Urvil**	**70.09**	**192**	S	S	18 47 06.0	+3.4
MCK	**McKinley**	**70.16**	**18**	*e*P	**P**	**18 37 54.5**	**-1.1**
	comp=Z,31nm,1.1s,mb5.2						
LZH	**Lanzhou**	**70.44**	**308**	⇑P	**P**	**18 37 58.9**	**+1.1**
LZH				PP	PP	18 40 39.5	+3.8
LZH				AMB	AMB		
	comp=Z,37nm,1.3s,mb5.2						
LZH				AMB	AMB		
	comp=Z,102nm,6.2s						
IMA	**Indian Mountai**	**70.56**	**15**	*e*P	**P**	**18 37 58.0**	**+0.1**
	comp=Z,82nm,0.7s,mb5.8						
THY	**Trims Highway**	**70.97**	**20**	*e*P	**P**	**18 38 00.3**	**-0.2**
COLA	**College**	**71.31**	**18**	*e*P	**P**	**18 38 01.1**	**-1.5**
	comp=Z,23nm,0.9s,mb5.1						
ILAR	**Eielson Array**	**71.53**	**18**	P	**P**	**18 38 02.6**	**-1.3**
	comp=Z,8.3nm,0.7s,mb4.8,baz=242,slow=5.4,SNR=53						
ILAR				LR	LR	19 05 21.7	
	comp=Z,370nm,18.9s,MS4.7,baz=242,slow=32						
CMAR	**Chiang Mai Arr**	**71.66**	**289**	P	**P**	**18 38 06.2**	**+0.8**
	comp=Z,3.1nm,0.8s,mb4.3,baz=96,slow=3.5,SNR=20						
CMAR	**Chiang Mai Arr**	**71.66**	**289**	*i* P	**P**	**18 38 06.2**	**+0.8**
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ULN	**Ulaanbaatar**	**71.71**	**321**	*c i*P	**P**	**18 38 06.3**	**+1.1**
ULN	**Ulaanbaatar**	**71.71**	**321**	*e*P	**P**	**18 38 06.0**	**+0.7**
	comp=Z,18nm,0.8s,mb5.0						
ULN				*e*		18 38 12.2	
ULN				*e*	pP	18 38 15.7	+0.9
SONM	**Songino Array**	**72.12**	**321**	P	**P**	**18 38 07.8**	**+0.2**
	comp=Z,6.7nm,0.6s,mb4.7,baz=130,slow=5.8,SNR=56						
BOD	**Bodaibo**	**72.14**	**332**	*e*P	**P**	**18 38 07.3**	**-0.3**
OHCM	**Honcut**	**73.50**	**49**	*e*P	**P**	**18 38 14.9**	**-1.1**
DAWY	**Dawson**	**73.58**	**21**	*e*P	**P**	**18 38 16.1**	**+0.1**
OOW	**Octopus West**	**73.87**	**40**	P	**P**	**18 38 19.4**	**+1.5**
OCWA	**Octopus Mounta**	**73.88**	**40**	*e*P	**P**	**18 38 18.7**	**+0.7**
	comp=Z,46nm,0.7s,mb5.5						
OCWA				*e*	pP	18 38 29.8	+2.3
LASM	**Arnica Sink**	**73.97**	**47**	P	**P**	**18 38 19.5**	**+0.9**
CMB	**Columbia Colle**	**74.04**	**50**	*e*P	**P**	**18 38 18.3**	**-0.9**
	comp=Z,8.5nm,0.8s,mb4.7						
OSD	**Olympics--Snow**	**74.21**	**40**	P	**P**	**18 38 21.0**	**+1.1**
BEKR	**Beckwourth**	**74.46**	**49**	*e*P	**P**	**18 38 21.7**	**+0.2**
	comp=Z,14nm,0.9s,mb4.9						
DLBC	**Dease Lake**	**74.58**	**28**	*e*P	**P**	**18 38 22.0**	**+0.2**
PGC	**Sidney**	**74.62**	**39**	*e*P	**P**	**18 38 22.4**	**+0.2**
	comp=Z,50nm,0.7s,mb5.5						
PGC				*e*	pP	18 38 32.3	+0.5
ZAK	**Zakamensk**	**74.89**	**323**	*i* P	**P**	**18 38 24.2**	**+0.4**
MOD	**Modoc**	**74.97**	**47**	*e*P	**P**	**18 38 24.4**	**-0.1**
	comp=Z,13nm,0.9s,mb4.9						
OMM	**Old Mammoth Mi**	**75.04**	**51**	*e*P	**P**	**18 38 24.8**	**-0.1**
TLY	**Talaya**	**75.09**	**324**	*d i*P	**P**	**18 38 24.6**	**-0.3**
TLY				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
TLY	**Talaya**	**75.09**	**324**	*e*P	**P**	**18 38 25.0**	**+0.1**
	comp=Z,19nm,1.0s,mb5.0						
TLY				*e*	pP	18 38 34.7	+0.2
MTUM	**Tungsten Hills**	**75.32**	**51**	*e*P	**P**	**18 38 26.5**	**0.0**
NVAR	**Mina Array Bea**	**75.73**	**50**	P	**P**	**18 38 28.8**	**-0.1**
	comp=Z,9.7nm,0.9s,mb4.8,baz=242,slow=6.1,SNR=48						
NVAR				LR	LR	19 08 45.2	
	comp=Z,177nm,18.8s,MS4.4,baz=150,slow=33						
NVAR	**Mina Array Bea**	**75.73**	**50**	P	**P**	**18 38 28.8**	**-0.1**
NVAR				LR	LR	19 08 45.1	
TIXI	**Tiksi**	**75.80**	**348**	⇑*i*P	**P**	**18 38 27.6**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,215nm,17.0s,MS4.5						
MNV	**Mina**	**75.85**	**50**	*e*P	**P**	**18 38 29.1**	**-0.4**
	comp=Z,32nm,1.1s,mb5.2						
TPH	**Tonopah**	**76.50**	**51**	*e*P	**P**	**18 38 32.9**	**-0.3**
	comp=Z,26nm,1.0s,mb5.1						
BMN	**Battle Mountai**	**76.93**	**49**	*e*P	**P**	**18 38 35.8**	**+0.2**
	comp=Z,44nm,1.2s,mb5.3						
TPNV	**Topopah Spring**	**77.07**	**52**	*e*P	**P**	**18 38 36.0**	**-0.4**
	comp=Z,11nm,0.9s,mb4.8						
OD2	**Odessa Site #2**	**77.35**	**41**	P	**P**	**18 38 38.0**	**+0.3**
BMO	**Blue Mountains**	**77.74**	**44**	*e*P	**P**	**18 38 39.5**	**-0.4**
	comp=Z,36nm,1.4s,mb5.1						
TRCR	**Troy Canyon**	**77.82**	**51**	*e*P	**P**	**18 38 40.3**	**-0.1**
VNDA	**Vanda**	**77.90**	**182**	P	**P**	**18 38 41.1**	**+1.0**
	comp=Z,0.6nm,0.9s,baz=31,slow=5.9,SNR=4.2						
VNDA				LR	LR	19 07 16.5	
	comp=Z,132nm,20.6s,baz=30,slow=31						
VNDA	**Vanda**	**77.90**	**182**	P	**P**	**18 38 40.5**	**+0.3**
	comp=Z,13nm,1.4s,mb4.7						
INK	**Inuvik**	**77.92**	**19**	*e*P	**P**	**18 38 39.8**	**-0.7**
	comp=Z,29nm,1.1s,mb5.1						
NEN	**Nelson**	**77.99**	**54**	*e*P	**P**	**18 38 41.0**	**-0.5**
SBA	**Scott Base**	**78.13**	**181**	*e*P	**P**	**18 38 43.1**	**+1.7**
	comp=Z,32nm,1.3s,mb5.1						
NEW	**Newport**	**78.59**	**41**	P	**P**	**18 38 44.3**	**-0.2**
	comp=Z,7.7nm,0.8s,mb4.7,baz=270,slow=7.1,SNR=8.9						
NEW	**Newport**	**78.59**	**41**	*e*P	**P**	**18 38 44.0**	**-0.5**
	comp=Z,15nm,0.9s,mb4.9						
SHL	**Shillong**	**78.86**	**296**	*e*P	**P**	**18 38 47.7**	**+1.2**
ARUT	**Antelope Range**	**79.41**	**52**	*e*P	**P**	**18 38 49.3**	**+0.1**
HLID	**Hailey**	**79.55**	**46**	*e*P	**P**	**18 38 50.0**	**+0.2**
	comp=Z,15nm,1.2s,mb4.8						
BGU	**Big Grassy Mou**	**80.16**	**49**	*e*P	**P**	**18 38 53.3**	**+0.2**
MSO	**Missoula**	**80.43**	**43**	*e*P	**P**	**18 38 53.8**	**-0.6**
	comp=Z,11nm,1.0s,mb4.7						
MVU	**Marysvale**	**80.46**	**51**	*e*P	**P**	**18 38 55.4**	**+0.6**
	comp=Z,21nm,1.1s,mb5.0						
HVU	**Hansel Valley**	**80.47**	**48**	*e*P	**P**	**18 38 55.0**	**+0.3**
MSU	**Marysvale**	**80.49**	**51**	*e*P	**P**	**18 38 55.7**	**+0.8**
NLU	**North Lily Min**	**80.75**	**50**	*e*P	**P**	**18 38 56.3**	**0.0**
WALA	**Waterton Lakes**	**80.83**	**40**	*e*P	**P**	**18 38 56.9**	**+0.4**
	comp=Z,43nm,0.9s,mb5.4						
MCMT	**McKenzie Canyo**	**80.86**	**45**	*e*P	**P**	**18 38 57.0**	**+0.2**
JLU	**Jordanelle**	**81.31**	**49**	*e*P	**P**	**18 38 59.5**	**+0.3**
HWUT	**Hardware Ranch**	**81.34**	**48**	*e*P	**P**	**18 38 59.2**	**-0.1**
	comp=Z,7.4nm,1.0s,mb4.6						
TCUT	**Toone Canyon**	**81.40**	**49**	*e*P	**P**	**18 38 59.1**	**-0.5**
DAU	**Daniels Canyon**	**81.43**	**49**	*e*P	**P**	**18 38 59.9**	**0.0**
BOZ	**Bozeman (W)**	**81.83**	**44**	*e*P	**P**	**18 39 01.5**	**-0.3**
	comp=Z,17nm,1.2s,mb4.8						
SRU	**San Rafael**	**81.84**	**51**	*e*P	**P**	**18 39 01.8**	**-0.2**
QLMT	**Earthquake Lak**	**81.86**	**45**	*e*P	**P**	**18 39 02.6**	**+0.7**
EDM	**Edmonton**	**81.92**	**36**	*e*P	**P**	**18 39 01.8**	**-0.3**
EDM				*e*	pP	18 39 11.4	-0.4
TPAW	**Teton Pass**	**82.03**	**46**	*e*P	**P**	**18 39 03.2**	**+0.3**
REDW	**Red Top Meadow**	**82.08**	**46**	*e*P	**P**	**18 39 03.7**	**+0.6**
IMW	**Indian Meadow**	**82.09**	**46**	*e*P	**P**	**18 39 03.9**	**+0.7**
IMW				*e*	pP	18 39 12.7	-0.2
YMR	**Madison River**	**82.17**	**45**	*e*P	**P**	**18 39 04.7**	**+1.1**
MOOW	**Moose Ponds**	**82.21**	**46**	*e*P	**P**	**18 39 03.9**	**+0.1**
YNR	**Norris Junctio**	**82.38**	**45**	*e*P	**P**	**18 39 06.8**	**+2.2**
PV10	**Paradox Valley**	**82.93**	**52**	*e*P	**P**	**18 39 07.2**	**-0.5**
PDAR	**Pinedale Array**	**82.96**	**47**	P	**P**	**18 39 07.5**	**-0.2**
	comp=Z,9.3nm,0.8s,mb4.9,baz=238,slow=2.5,SNR=63						
YKA	**Yellowknife Ar**	**83.11**	**27**	P	**P**	**18 39 07.6**	**-0.5**
	comp=Z,15nm,0.7s,mb5.1,baz=258,slow=5.4,SNR=159						
YKA				LR	LR	19 09 31.3	
	comp=Z,383nm,19.9s,MS4.8,baz=110,slow=31						
YKA	**Yellowknife Ar**	**83.11**	**27**	P	**P**	**18 39 07.6**	**-0.5**
YKA				LR	LR	19 09 31.3	
YKW3	**Yellowknife Ar**	**83.11**	**27**	*e*P	**P**	**18 39 07.2**	**-0.9**
YKW3				*e*	pP	18 39 17.8	-0.1
PV01	**Paradox Valley**	**83.27**	**52**	*e*P	**P**	**18 39 09.0**	**-0.4**
RW3	**Ridgway**	**83.97**	**52**	*e*P	**P**	**18 39 13.3**	**+0.3**
WMQ	**Urumqi**	**83.98**	**314**	⇑P	**P**	**18 39 13.5**	**+0.5**
WMQ				PP	PP	18 42 31.5	+2.9
WMQ				AMB	AMB		
	comp=Z,27nm,1.0s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,29nm,7.8s						
WMQ				LR	LR		
	comp=E,110nm,23.4s						
WMQ				LR	LR		
	comp=Z,170nm,24.0s,MS4.3						
GUN	**Gumba**	**84.38**	**298**	*e*P	**P**	**18 39 16.3**	**+1.0**
	comp=Z,45nm,1.1s,mb5.5						
BNM	**Barren Site**	**84.56**	**56**	*e*P	**P**	**18 39 16.5**	**+0.4**
ANMO	**Albuquerque**	**84.74**	**55**	P	**P**	**18 39 17.7**	**+0.7**
	comp=Z,8.5nm,0.8s,mb4.9,baz=256,slow=4.7,SNR=15						
ANMO	**Albuquerque**	**84.74**	**55**	*e*P	**P**	**18 39 17.3**	**+0.3**
	comp=Z,9.2nm,0.9s,mb4.9						
PKI	**Pulchoki**	**84.78**	**298**	*e*P	**P**	**18 39 18.0**	**+0.7**
	comp=Z,22nm,1.0s,mb5.2						
KKN	**Kakani**	**84.90**	**298**	*e*P	**P**	**18 39 18.6**	**+0.7**
	comp=Z,32nm,1.1s,mb5.3						
MIR	**Mirnyy**	**85.03**	**203**	⇑*e*P	**P**	**18 39 23.8**	**+6.2**
MIR				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.2						
DMN	**Daman**	**85.05**	**298**	*e*P	**P**	**18 39 19.5**	**+0.8**
	comp=Z,43nm,1.3s,mb5.4						
GKN	**Gorkha**	**85.48**	**298**	*e*P	**P**	**18 39 20.6**	**-0.2**
SDCO	**Great Sand Dun**	**85.67**	**52**	*e*P	**P**	**18 39 21.6**	**+0.1**
SDCO				*e*		18 40 06.1	
LAO	**LASA Array**	**85.67**	**43**	*e*P	**P**	**18 39 22.1**	**+0.8**
	comp=Z,78nm,1.0s,mb5.9						
ISCO	**Idaho Springs**	**85.69**	**50**	*e*P	**P**	**18 39 21.8**	**+0.3**
	comp=Z,11nm,0.9s,mb5.1						
GDL2	**Guadalupe Moun**	**86.37**	**58**	*e*P	**P**	**18 39 25.5**	**+0.3**
KOLN	**Koldanda**	**86.39**	**298**	*e*P	**P**	**18 39 25.2**	**-0.1**
ZAL	**Zalesovo**	**86.71**	**324**	P	**P**	**18 39 26.8**	**+0.5**
	comp=Z,10nm,1.1s,mb5.0,baz=12,slow=5.9,SNR=24						
ZAL				LR	LR	19 20 59.8	
	comp=Z,113nm,19.1s,MS4.3,baz=238,slow=38						
ZAL	**Zalesovo**	**86.71**	**324**	*i* P	**P**	**18 39 27.5**	**+1.2**
ZAL				pmax	pmax		
	comp=Z,10.0nm,1.1s						
CLNB	**Carlsbad**	**86.78**	**58**	*e*P	**P**	**18 39 27.1**	**0.0**
CPRX	**Cap Rock**	**86.81**	**57**	*e*P	**P**	**18 39 26.8**	**-0.5**
TXAR	**Lajitas Array**	**86.89**	**61**	P	**P**	**18 39 28.0**	**+0.2**
	comp=Z,7.4nm,0.7s,mb5.0,baz=252,slow=4.0,SNR=29						
MKAR	**Makanchi Array**	**87.97**	**317**	*i* P	**P**	**18 39 32.6**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
AMTX	**Amarillo**	**88.67**	**55**	*e*P	**P**	**18 39 36.1**	**0.0**
	comp=Z,25nm,1.0s,mb5.5						
JCT	**Junction City**	**90.25**	**60**	*e*P	**P**	**18 39 42.4**	**-1.3**
	comp=Z,19nm,1.0s,mb5.4						
QSPA	**South Pole Qui**	**90.28**	**180**	*e*P	**P**	**18 39 43.1**	**+0.4**
	comp=Z,20nm,1.4s,mb5.2						
KURK	**Kurchatov**	**90.42**	**321**	*i* P	**P**	**18 39 43.1**	**-0.9**
KURK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.6						
KURK	**Kurchatov**	**90.42**	**321**	*e*P	**P**	**18 39 42.8**	**-1.2**
	comp=Z,8.8nm,1.3s,mb4.9						
WMOK	**Wichita Mounta**	**91.05**	**55**	*e*P	**P**	**18 39 46.9**	**-0.4**
	comp=Z,3.4nm,0.8s,mb4.7						
KSH	**Kashi**	**92.67**	**309**	P	**P**	**18 39 57.8**	**+3.2**
KSH				*e*PP	PP	18 43 42.5	+3.4
KSH				AMB	AMB		
	comp=Z,90nm,5.1s						
TKM2	**Tokmak 2**	**92.78**	**313**	*e*P	**P**	**18 39 54.8**	**-0.2**
	comp=Z,4.0nm,0.9s,mb4.8						
AAK	**Ala-Archa**	**93.61**	**313**	⇑*e*P	**P**	**18 39 57.9**	**-0.9**
AAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb5.0						
AAK	**Ala-Archa**	**93.61**	**313**	*e*P	**P**	**18 39 57.8**	**-1.1**
	comp=Z,8.0nm,1.0s,mb5.1						
UCH	**Uchtor**	**93.62**	**312**	*e*P	**P**	**18 39 59.5**	**+0.6**
	comp=Z,21nm,1.1s,mb5.5						
EKS2	**Erkin-Say**	**94.13**	**313**	*e*P	**P**	**18 40 01.2**	**0.0**
	comp=Z,7.2nm,0.9s,mb5.1						
AML	**Almayashu**	**94.23**	**312**	*e*P	**P**	**18 40 02.3**	**+0.6**
	comp=Z,15nm,0.8s,mb5.5						
AML				*e*		18 40 09.2	
CHKZ	**Chkalovo**	**95.11**	**324**	*i* P	**P**	**18 40 04.8**	**-0.7**
CHKZ				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.9						
CHKZ	**Chkalovo**	**95.11**	**324**	*e*P	**P**	**18 40 04.4**	**-1.0**
	comp=Z,7.8nm,1.2s,mb5.0						
BVA0	**Borovoye Array**	**95.33**	**323**	*i* P	**P**	**18 40 06.4**	**-0.1**
BVA0				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb4.2						
BVAR	**Borovoye Array**	**95.33**	**323**	P	**P**	**18 40 06.1**	**-0.4**
	comp=Z,2.9nm,0.7s,mb4.8,baz=90,slow=4.4,SNR=15						
BRVK	**Borovoye**	**95.39**	**323**	*e*P	**P**	**18 40 06.0**	**-0.7**
	comp=Z,6.8nm,1.0s,mb5.0						
OBN	**Obninsk**	**112.82**	**333**	*e*PKIKP	PKPdf	18 45 11.4	-12
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SOC	**Sochi**	**117.57**	**321**	*i* PKIKP	PKPdf	18 45 26.8	-5.6
SOC				*e*		18 46 42.3	
SOC				*e*PPP	PPP	18 49 16.0	+1.7
SOC				*e*		18 52 17.4	
SOC				*e*SS	SS	19 02 46.3	-4.1
SOC				pmax	pmax		
	comp=Z,24nm,1.2s						
SOC				pmax	pmax		
	comp=N,27nm,1.0s						
SOC				pmax	pmax		
	comp=E,16nm,1.0s						
AKASG	**Malin Array Be**	**119.07**	**332**	PKP	PKPdf	18 45 31.2	-4.0
	comp=E,0.5nm,0.5s,baz=45,slow=1.5,SNR=6.0						
LPAZ	**La Paz**	**120.86**	**109**	PKP	PKPdf	18 45 35.9	-3.6
	comp=E,0.6nm,0.5s,baz=309,slow=6.5,SNR=3.6						
BRTR	**Keskin Array B**	**123.47**	**320**	PKP	PKPdf	18 45 40.5	-3.6
	comp=E,1.3nm,0.9s,baz=108,slow=3.1,SNR=5.6						
GERES	**GERESS Array B**	**126.80**	**340**	PKP	PKPdf	18 45 46.4	-3.8
	comp=E,0.6nm,0.6s,baz=243,slow=3.0,SNR=6.8						
CPUP	**Villa Florida**	**127.90**	**124**	PKP	PKPdf	18 45 49.0	-4.0
	comp=E,0.0nm,0.8s,baz=227,slow=19,SNR=1.6						
CPUP	**Villa Florida**	**127.90**	**124**	PKP	PKPdf	18 45 49.0	-4.0

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*NEIC **02** 18:27:01.8±0.7, 6.40N×127.70E, h100^{km}, mb4.3/10, Error ellipse: s-maj=41.9km s-min=11.6km az=74.0*

*BJI **02** 18:27:01.8, 6.40N×127.70E, h100^{km}, mB5.2, mb4.7*

*IDC **02** 18:27:03.1±12.0, 5.96N×126.47E, h91^{km}±119^{km}, mb3.8/9, mb1 4.0/9, mb1mx3.8/19, Error ellipse: s-maj=70.5km s-min=17.8km az=63.0*

ISC 02 18:26:57.3±1.0, **5.95N**±0.07×**126.29E**±0.08, **h53**^{km}±8^{km}, **n32, σ0^{s}.98**/35, **mb4.3**/22, **1C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	**Mati**	**0.99**	**358**	*e*P	**P**	**18 27 14.8**	**-0.3**
MATI				*e*S	**S**	**18 27 29.6**	**+1.1**
BUKP	**Musuan**	**2.27**	**328**	*e*P	**P**	**18 27 32.4**	**-0.9**
BUKP				*e*S	**S**	**18 27 57.0**	**-3.1**
CTBH	**Cotabato--PC H**	**2.39**	**302**	⇑*e*P	**P**	**18 27 34.6**	**-0.4**
CTBH				*i* S	**S**	**18 28 03.7**	**+0.6**
BUTP	**Butuan**	**3.07**	**348**	*e*P	**P**	**18 27 44.4**	**-0.3**
PAGZ	**Pagadian**	**3.45**	**303**	*e*P	**P**	**18 27 50.0**	**+0.1**
SCPH	**Surigao**	**3.89**	**348**	⇓*e*P	**P**	**18 27 56.6**	**+0.5**
IPIL	**Ipil**	**4.12**	**297**	*e*P	**P**	**18 27 59.4**	**0.0**
FITZ	**Fitzroy Crossi**	**23.91**	**182**	*e*P	**P**	**18 32 09.3**	**+2.0**
	2.2nm,0.4s,mb3.9						
FITZ	**Fitzroy Crossi**	**23.91**	**182**	P	**P**	**18 32 09.3**	**+2.0**
	3.1nm,0.5s,mb4.0,baz=3.1,slow=8.5,SNR=12						
WRAB	**Tennant Creek**	**26.91**	**163**	*e*P	**P**	**18 32 35.1**	**-0.6**
	5.5nm,0.7s,mb4.2						
WRA	**Warramunga Arr**	**26.92**	**163**	P	**P**	**18 32 35.1**	**-0.6**
	1.1nm,0.6s,mb3.6,baz=343,slow=10,SNR=6.8						
ENH	**Enshi**	**28.91**	**329**	*e*P	**P**	**18 32 54.6**	**+1.0**
	8.2nm,1.0s,mb4.4						
CMAR	**Chiang Mai Arr**	**29.42**	**297**	P	**P**	**18 32 59.1**	**+0.8**
	0.6nm,0.5s,mb3.6,baz=97,slow=6.7,SNR=7.4						
ASAR	**Alice Springs**	**30.36**	**166**	P	**P**	**18 33 06.2**	**-0.4**
	2.3nm,0.5s,mb4.2,baz=344,slow=6.9,SNR=29						
XAN	**Xi'an**	**32.26**	**332**	P	**P**	**18 33 21.8**	**-1.4**
XAN				AMB	AMB		
	comp=Z,16nm,1.1s,mb4.8						
MAJO	**Matsushiro**	**32.35**	**18**	*e*P	**P**	**18 33 12.8**	**-11**
	comp=Z,6.0nm,0.6s,mb4.6						
HHC	**Hu-ho-hao-te**	**37.17**	**341**	*e*P	**P**	**18 34 04.9**	**-0.1**
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,165nm,4.6s						
GUN	**Gumba**	**44.10**	**304**	*e*P	**P**	**18 35 04.0**	**+1.6**
	comp=Z,9.8nm,0.6s,mb4.7						
KKN	**Kakani**	**44.54**	**304**	*e*P	**P**	**18 35 06.2**	**+0.2**
DMN	**Daman**	**44.62**	**304**	*e*P	**P**	**18 35 05.3**	**-1.3**
ULN	**Ulaanbaatar**	**44.89**	**342**	*e*P	**P**	**18 35 08.9**	**+0.5**
	comp=Z,3.3nm,0.7s,mb4.3						
SONM	**Songino Array**	**45.07**	**341**	P	**P**	**18 35 10.3**	**+0.4**
	comp=Z,1.2nm,0.8s,mb3.8,baz=164,slow=6.3,SNR=8.7						

SONM				PcP	PcP	18 36 49.5	-0.9
	comp=Z,0.5nm,0.6s,baz=166,slow=4.5,SNR=4.5						
KOLN	Koldanda	45.93	303	eP	P	18 35 15.1	-1.9
	comp=Z,5.0nm,0.6s,mb4.6						
UCH	Uchtor	58.26	317	eP	P	18 36 51.1	+2.1
	comp=Z,9.0nm,1.6s,mb4.5						
ZAL	Zalesovo	58.43	333	P	P	18 36 50.2	+0.3
	comp=Z,1.1nm,0.8s,mb3.9,baz=0.5,slow=9.9,SNR=5.8						
EKS2	Erkin-Say	58.93	317	P	P	18 36 54.4	+0.8
	comp=Z,1.7nm,0.9s,mb4.1						
KURK	Kurchatov	59.65	327	eP	P	18 36 58.0	-0.4
	comp=Z,3.4nm,0.7s,mb4.5						
KURK				e		18 37 06.0	
BVAR	Borovoye Array	65.24	327	P	P	18 37 36.1	+0.5
	comp=Z,1.4nm,0.6s,mb4.2,baz=135,slow=8.4,SNR=11						
BRVK	Borovoye	65.31	327	eP	P	18 37 35.5	-0.5
	comp=Z,2.7nm,0.7s,mb4.4						
BRVK				e		18 37 42.9	
ARU	Arti	72.84	327	P	P	18 38 21.7	-0.5
	comp=Z,1.9nm,0.6s,mb4.2						
ARCES	ARCESS Array B	88.23	340	P	P	18 39 43.0	-0.6
	comp=Z,4.8nm,0.9s,mb4.7,baz=72,slow=7.7,SNR=5.7						
FINES	FINESS Array B	89.68	332	P	P	18 39 47.3	-3.4
	comp=Z,1.2nm,0.9s,mb4.2,baz=45,slow=5.4,SNR=5.5						

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*CSEM **02** 18:34:35.2±0.2,35.03N×2.89W,h8^{km},MD2.6,Error ellipse: s-maj=6.2km s-min=6.0km az=6.0*
*CNRM **02** 18:34:35.5,35.11N×2.66W,h11^{km},MD2.6*
MDD 02 18:34:35.6±2.7,34.95N×3.08W,mb2.9/4,Error ellipse: s-maj=26.7km s-min=12.4km az=135.0,PRXIMO SIN SOLUCIN AftershockPLICA,Morocco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.27	85	iP	Pg	18 34 39.0	-2.1
EMEL	Melilla	0.37	15	P	Pg	18 34 42.2	-0.8
	39nm,0.2s,SNR=4.0						
EMEL				S	Sg	18 34 47.6	-0.3
	163nm,0.2s,SNR=4.9						
EMLI	Melilla	0.37	16	P	Pg	18 34 42.2	-0.8
	39nm,0.2s,SNR=4.0						
EMLI				S	Sg	18 34 47.6	-0.3
	163nm,0.2s,SNR=4.9						
TOU	Touzarine	0.56	272	iP	Pg	18 34 52.0	+5.2
TOU				iS	Sg	18 35 03.0	+8.8
TZK	Tazeka	1.25	227	eP	Pb	18 35 02.0	+2.1
TZK				iS	Sb	18 35 21.5	+5.1
EBER	Berja	1.95	4	P	Pn	18 35 07.2	-3.2
	0.8nm,0.3s,SNR=7.9						
EBER				S	Sn	18 35 30.1	-5.9
	5.0nm,0.4s,SNR=7.9						
EBER	Berja	1.95	4	P	Pn	18 35 07.2	-3.2
	0.8nm,0.3s,SNR=7.9						
EBER				S	Sn	18 35 30.1	-5.9
	5.0nm,0.4s,SNR=7.9						
EMIJ	Mijas	2.12	320	P	Pn	18 35 11.8	-1.0
	1.0nm,0.3s,SNR=7.9						
EMIJ				S	Sn	18 35 36.1	-4.2
	2.2nm,0.3s,SNR=7.9						
EQES	Quesada	2.85	0	P	Pn	18 35 22.7	-0.5
	1.3nm,0.3s,SNR=7.9						
EQES				S	Sn	18 35 56.2	-2.5
	2.4nm,0.3s,SNR=7.9						
EQES	Quesada	2.85	0	P	Pn	18 35 22.7	-0.5
	1.3nm,0.3s,SNR=7.9						

IDC 02 18:36:27.1±1.1,26.62S×106.94W,mb4.0/6,mb1 4.2/6,mb1mx3.9/15,Error ellipse: s-maj=39.8km s-min=28.5km az=39.0,Easter Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	34.72	92	P	P	18 43 19.8	-1.2
	1.2nm,0.3s,baz=259,slow=8.1,SNR=3.3						
LPAZ	La Paz	37.43	82	P	P	18 43 42.4	-1.5
	0.6nm,0.8s,baz=289,slow=4.5,SNR=3.2						
NVAR	Mina Array Bea	65.58	350	P	P	18 47 14.1	-0.8
	0.6nm,0.7s,baz=186,slow=8.2,SNR=4.0						
PDAR	Pinedale Array	69.08	358	P	P	18 47 35.6	-1.3
	0.3nm,0.6s,baz=173,slow=7.3,SNR=3.5						
MAW	Mawson	85.76	176	P	P	18 49 08.4	-0.4
	2.8nm,0.4s,baz=225,slow=8.6,SNR=7.2						
YKA	Yellowknife Ar	89.01	356	P	P	18 49 22.6	-2.1
	1.0nm,0.7s,baz=164,slow=5.2,SNR=17						
SONM	Songino Array	146.43	318	PKPbc	PKPbc	18 56 08.4	-1.3
	1.1nm,0.8s,baz=88,slow=1.5,SNR=8.2						
ZAL	Zalesovo	151.36	345	PKPbc	PKPdf	18 56 21.4	+3.4
	0.6nm,0.4s,baz=92,slow=4.8,SNR=4.3						

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*NEIC **02** 18:37:12.2,38.04S×176.46E,h141^{km},After WEL.*
WEL 02 18:37:11.7±0.2,38.02S×176.44E,h142^{km}±1^{km},ML3.8/4,4C,Error ellipse: s-maj=2.5km s-min=2.1km az=90.0,North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.58	115	⇑PN	P	18 37 32.9	-0.2
URZ				SN	S	18 37 48.5	-1.0
URZ				SN	S	18 37 48.5	-1.0
MWZ	Matawai	0.92	111	P	P	18 37 35.5	+0.3
MWZ				S	S	18 37 51.4	-1.9
MWZ	Matawai	0.92	111	PN	P	18 37 35.3	+0.1
MWZ				SN	S	18 37 52.9	-0.4
BKZ	Black Stump Fm	1.15	178	P	P	18 37 37.4	+0.1
BKZ				S	S	18 37 56.8	-0.3
BKZ	Black Stump Fm	1.15	178	⇑PN	P	18 37 37.4	0.0
BKZ				SN	S	18 37 56.3	-0.8
BKZ				SN	S	18 37 56.4	-0.7
KNZ	Kokohu	1.40	136	P	P	18 37 39.6	-0.3
KNZ	Kokohu	1.40	136	⇑PN	P	18 37 39.5	-0.4
KNZ				eSN	S	18 37 59.0	-2.5
PUZ	Puketiti	1.44	93	eP	P	18 37 39.9	-0.5
PUZ				S	S	18 37 59.9	-2.5
PUZ	Puketiti	1.44	93	PN	P	18 37 39.7	-0.7
MOVZ	Moawhango	1.49	201	P	P	18 37 40.6	-0.3
MOVZ	Moawhango	1.49	201	⇑PN	P	18 37 40.5	-0.3
MXZ	Matakaoa Point	1.55	74	P	P	18 37 41.3	-0.3
MXZ	Matakaoa Point	1.55	74	PN	P	18 37 41.3	-0.3
TSZ	Takapari Road	2.07	190	P	P	18 37 46.5	-1.1
TSZ	Takapari Road	2.07	190	PN	P	18 37 46.4	-1.2
CAW	Cannon Point	3.26	198	P	P	18 37 59.8	-3.1
CAW	Cannon Point	3.26	198	PN	P	18 37 59.6	-3.3
CAW				SN	S	18 38 36.7	-5.4
MRW	Makara Radio	3.48	202	ePN	P	18 38 02.5	-3.2
MRW				SN	S	18 38 42.9	-4.2
NNZ	Nelson	3.97	215	P	P	18 38 08.6	-3.7
NNZ	Nelson	3.97	215	PN	P	18 38 08.6	-3.7
NNZ				eSN	S	18 38 53.9	-4.9
THZ	Tophouse	4.62	215	PN	P	18 38 17.6	-3.3
THZ				SN	S	18 39 09.1	-5.1
KHZ	Kahutara	4.92	206	eP	P	18 38 20.5	-4.4
KHZ	Kahutara	4.92	206	PN	P	18 38 20.5	-4.3
KHZ				eSN	S	18 39 15.2	-6.1
MQZ	McQueen's Vall	6.37	206	eP	P	18 38 37.7	-6.5
MQZ	McQueen's Vall	6.37	206	ePN	P	18 38 38.3	-5.8
MQZ				SN	S	18 39 44.1	-12

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*THE **02** 18:41:42.9,37.88N×19.98E,h10^{km},ML3.6*
*NEIC **02** 18:41:45.3,38.08N×20.15E,h15^{km},MD3.7(ATH),After ATH.*
*ATH **02** 18:41:45.3,38.08N×20.15E,h15^{km}±5^{km},MD3.7/12*
*CSEM **02** 18:41:46.2±0.1,38.08N×20.21E,h2^{km},MD3.7,Error ellipse: s-maj=3.6km s-min=1.9km az=14.0*
ISC 02 18:41:46.0±0.6,38.02N±0.06×20.20E±0.05,h15^{km},n35,σ1^{s}05/37,Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	Valsamata	0.35	63	ePB	Pb	18 41 52.2	-1.2
LKD	Levkas	0.78	27	ePg	Pg	18 42 00.2	-1.5
RLS	Riolos of Patr	1.00	87	ePB	Pb	18 42 04.3	-0.3
IGT	Igoumenitsa	1.52	4	ePb	Pb	18 42 12.7	-0.6
IGT				eSb	Sb	18 42 36.7	+4.5
IGT	Igoumenitsa	1.52	4	eSb	Sb	18 42 36.7	+4.5
EVR	Evrytania	1.55	54	ePN	Pn	18 42 15.5	+2.2
ITM	Ithomi	1.61	121	ePN	Pn	18 42 16.2	+2.1
KEK	Kerkira	1.72	350	ePN	Pn	18 42 15.6	-0.1
AGG	Agios Georgios	1.95	58	ePn	Pn	18 42 20.7	+1.6
AGG				eSn	Sn	18 42 48.6	+5.2
LKR	Lokris	2.29	73	ePB	Pb	18 42 24.4	-2.2
VLI	Veliai	2.54	120	ePB	Pb	18 42 29.8	-1.1
NEO	Neokhori	2.70	61	ePN	Pn	18 42 30.0	+0.3
XOR	Xorichti	2.70	59	ePn	Pn	18 42 30.9	+1.1
LIT	Litokhoron	2.74	40	ePn	Pn	18 42 31.0	+0.7
KYTH	Kithira	2.86	127	ePB	Pb	18 42 34.5	-1.8
PTL	Penteli	2.90	88	ePN	Pn	18 42 34.0	+1.4
FNA	Florina	2.91	18	ePn	Pn	18 42 33.0	+0.3
TIP	Timpagrande	2.93	294	ePn	Pn	18 42 32.7	-0.3
TIP	Timpagrande	2.93	294	ePn	Pn	18 42 32.7	-0.4
PLG	Polygyros	3.45	46	ePN	Pn	18 42 40.2	-0.2
ORI	Oriolo Calabro	3.56	306	ePn	Pn	18 42 42.2	+0.2
ORI	Oriolo Calabro	3.56	306	ePn	Pn	18 42 42.2	+0.2
SOH	Sokhos	3.72	40	ePn	Pn	18 42 44.0	-0.2
SOH	Sokhos	3.72	40	ePn	Pn	18 42 44.0	-0.2
OUR	Ouranopolis	3.74	51	ePn	Pn	18 42 44.0	-0.5
OUR	Ouranopolis	3.74	51	ePn	Pn	18 42 44.0	-0.6
MGR	Morigerati	4.19	302	ePn	Pn	18 42 50.5	-0.3
MGR	Morigerati	4.19	302	ePn	Pn	18 42 50.5	-0.4
SLCN	Sala Consilina	4.26	305	ePn	Pn	18 42 52.8	+0.9
SLCN	Sala Consilina	4.26	305	ePn	Pn	18 42 52.8	+0.8
MRLC	Muro Lucano	4.56	308	ePn	Pn	18 42 55.9	-0.2
MRLC	Muro Lucano	4.56	308	ePn	Pn	18 42 55.9	-0.3
SGO	Sicignano	4.56	305	ePn	Pn	18 42 56.0	-0.2
SGO	Sicignano	4.56	305	ePn	Pn	18 42 56.0	-0.2
KARP	Karpathos	6.11	112	ePN	Pn	18 43 18.4	+0.3

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*CNRM **02** 18:47:39.5,35.16N×2.59W,h9^{km},MD2.8*
*MDD **02** 18:47:42.7±1.6,35.01N×3.11W,mb3.3/4,Error ellipse: s-maj=16.7km s-min=7.9km az=144.0,PRXIMO SOLUCIN POBRE AftershockPLICA*
CSEM 02 18:47:41.3±0.1,34.99N×2.89W,h5^{km},MD2.8,Error ellipse: s-maj=3.8km s-min=2.8km az=129.0,Morocco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.12	99	iP	Pg	18 47 44.5	+0.6
MELI	Melilla	0.31	353	P	Pg	18 47 48.5	+1.0
MELI				S	Sg	18 47 52.0	+0.4
MELI	Melilla	0.31	353	eP	Pg	18 47 48.5	+1.0
EMLI	Melilla	0.32	351	P	Pg	18 47 48.3	+0.7
	50nm,0.1s,SNR=14						
EMEL	Melilla	0.32	350	P	Pg	18 47 48.3	+0.7
	50nm,0.1s,SNR=14						
EMEL				S	Sg	18 47 53.2	+1.3
	262nm,0.1s,SNR=7.4						
TOU	Touzarine	0.71	268	iP	Pg	18 47 56.0	+0.5
TOU				iS	Sg	18 48 10.0	+5.0
TZK	Tazeka	1.40	230	eP	Pb	18 48 08.0	+0.5
TZK				iS	Sb	18 48 27.0	+1.5
EBER	Berja	1.91	0	P	Pn	18 48 11.9	-2.9
	1.7nm,0.3s,SNR=6.8						
EBER				S	Sn	18 48 35.0	-4.4
	11nm,0.5s						
EBER	Berja	1.91	0	P	Pn	18 48 11.9	-2.9
	1.7nm,0.3s,SNR=6.8						
EBER				S	Sn	18 48 35.0	-4.4
	11nm,0.5s						
EMIJ	Mijas	2.19	316	P	Pn	18 48 16.8	-2.1
	1.2nm,0.1s,SNR=7.3						
EMIJ				S	Sn	18 48 42.3	-4.5
	2.7nm,0.3s						
EQES	Quesada	2.81	357	P	Pn	18 48 28.1	+0.3
	1.8nm,0.3s,SNR=8.1						
EQES				S	Sn	18 49 02.3	-0.2
	13nm,0.5s						
EQES	Quesada	2.81	357	P	Pn	18 48 28.1	+0.3
	1.8nm,0.3s,SNR=8.1						
EQES				S	Sn	18 49 02.3	-0.2
	13nm,0.5s						
EADA	Adamuz	3.45	337	S	Sn	18 49 13.9	-4.7
	1.9nm,0.3s,SNR=6.2						
EMIN	Mina Concepcio	4.12	313	P	Pn	18 48 43.7	-2.6
	0.4nm,0.2s,SNR=7.7						

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*NEIC **02** 18:55:04.3,34.94N×3.04W,MG3.1(MDD),After MDD.*
*CSEM **02** 18:55:04.0±0.2,35.01N×2.83W,h10^{km},MD2.7,Error ellipse: s-maj=6.4km s-min=4.9km az=96.0*
*CNRM **02** 18:55:04.0,35.08N×2.63W,h8^{km},MD2.7*
*MDD **02** 18:55:05.1±1.8,34.98N×3.07W,mb3.1/3,Error ellipse: s-maj=18.5km s-min=8.3km az=134.0,PRXIMO AftershockPLICA*
ISC 02 18:55:04.2±1.0,35.03N±0.04×2.74W±0.08,h10^{km},n18,σ1^{s}34/28,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.06	182	iP	Pg	18 55 07.0	+0.7
MELI	Melilla	0.31	329	P	Pg	18 55 11.6	+1.0
MELI				S	Sg	18 55 15.2	+0.4
MELI	Melilla	0.31	329	eP	Pg	18 55 11.6	+1.1
EMLI	Melilla	0.32	328	P	Pg	18 55 10.8	0.0
	47nm,0.1s,SNR=8.7						
EMEL	Melilla	0.32	327	P	Pg	18 55 10.8	0.0
	47nm,0.1s,SNR=8.7						
EMEL				S	Sg	18 55 16.0	+0.7
	288nm,0.2s,SNR=6.8						
TOU	Touzarine	0.83	266	iP	Pb	18 55 21.0	+0.8
TOU				iS	Sb	18 55 32.5	+1.2
TZK	Tazeka	1.52	232	eP	Pn	18 55 31.0	-0.5
TZK				iS	Sb	18 55 50.5	-0.6
EBER	Berja	1.87	356	P	Pn	18 55 37.2	+0.7
	0.9nm,0.2s,SNR=7.0						
EBER				S	Sn	18 55 57.9	-2.4
	7.9nm,0.6s						
EBER	Berja	1.87	356	S	Sn	18 55 57.9	-2.5
	7.9nm,0.6s						
EBER	Berja	1.87	356	P	Pn	18 55 37.2	+0.7
	0.9nm,0.2s,SNR=7.0						
EMIJ	Mijas	2.25	313	P	Pn	18 55 39.6	-2.4
	0.8nm,0.1s,SNR=5.8						
EMIJ				S	Sn	18 56 06.6	-3.5
	1.6nm,0.3s						
EMIJ	Mijas	2.25	313	S	Sn	18 56 06.6	-3.5
	1.6nm,0.3s						
EQES	Quesada	2.78	355	P	Pn	18 55 51.1	+1.5
	0.9nm,0.2s,SNR=5.6						
EQES				S	Sn	18 56 25.4	+1.9
	3.1nm,0.3s,SNR=6.2						
EQES	Quesada	2.78	355	P	Pn	18 55 51.1	+1.5
	0.9nm,0.2s,SNR=5.6						
EQES				S	Sn	18 56 25.4	+1.9
	3.1nm,0.3s,SNR=6.2						
EADA	Adamuz	3.46	335	P	Pn	18 55 58.7	-0.6
	0.8nm,0.2s,SNR=4.8						
EADA				S	Sn	18 56 37.3	-3.4
	1.2nm,0.3s						
EADA	Adamuz	3.46	335	P	Pn	18 55 58.7	-0.6
	0.8nm,0.2s,SNR=4.8						
EADA				S	Sn	18 56 37.3	-3.5
	1.2nm,0.3s						
EMIN	Mina Concepcio	4.18	312	P	Pn	18 56 06.8	-2.8
	0.4nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.18	312	P	Pn	18 56 06.8	-2.7

ISC 02 19:00:55.3±2.9,3.80S±0.08×135.6E±0.2,h110^{km}±29^{km},n10,σ0^{s}91/13,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.38	199	eP	P	19 03 07.8	-1.0
	12nm,0.6s						
KAKA				eS	S	19 04 54.5	+1.5
WB2	Warramunga Arr	16.09	184	eP	P	19 04 35.1	-1.3
WB2				eS	S	19 07 31.5	+0.5
FITZ	Fitzroy Crossi	17.22	214	eP	P	19 04 51.9	+1.4
	2.0nm,0.8s						
FITZ				eS	S	19 07 54.9	-1.6
ASPA	Alice Springs	19.82	184	eP	P	19 05 24.7	+5.1
GUN	Gumba	57.27	307	eP	P	19 10 33.8	-0.1
PKI	Pulchoki	57.50	306	eP	P	19 10 35.8	+0.2
KKN	Kakani	57.70	306	eP	P	19 10 36.7	-0.3
DMN	Daman	57.76	306	eP	P	19 10 37.8	+0.4
GKN	Gorkha	58.30	306	eP	P	19 10 41.5	+0.3
KOLN	Koldanda	59.05	306	eP	P	19 10 46.3	0.0
	6.0nm,0.8s						

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*NEIC **02** 19:07:17.9,35.04N×3.14W,MG3.5(MDD),After MDD.*
MDD 02 19:07:17.9±2.0,35.04N×3.14W,mb3.5/5,Error ellipse: s-maj=20.3km s-min=8.2km az=157.0,PRXIMO AftershockPLICA,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	Melilla	0.30	30	P	Pg	19 07 23.5	-0.4
	85nm,0.1s,SNR=9.3						
EMEL				S	Sg	19 07 27.4	-0.5
	457nm,0.2s,SNR=6.0						
EMLI	Melilla	0.30	31	P	Pg	19 07 23.5	-0.5
	85nm,0.1s,SNR=9.3						
EMLI				S	Sg	19 07 27.4	-0.6
	457nm,0.2s,SNR=6.0						
EBER	Berja	1.87	6	P	Pn	19 07 48.3	-3.1
	0.5nm,0.2s,SNR=5.4						
EBER				S	Sn	19 08 10.2	-5.8
	6.6nm,0.4s						
EBER	Berja	1.87	6	S	Sn	19 08 10.2	-5.8
	6.6nm,0.4s						
EBER	Berja	1.87	6	P	Pn	19 07 48.3	-3.1
	0.5nm,0.2s,SNR=5.4						
EMIJ	Mijas	2.02	319	P	Pn	19 07 51.7	-1.9
	0.9nm,0.1s,SNR=8.1						
EMIJ				S	Sn	19 08 16.3	-3.6
	2.5nm,0.3s						
EQES	Quesada	2.76	1	P	Pn	19 08 03.0	-1.2
	1.5nm,0.2s,SNR=6.8						
EQES				S	Sn	19 08 37.1	-1.6
	2.1nm,0.2s,SNR=5.5						
EQES	Quesada	2.76	1	P	Pn	19 08 03.0	-1.2
	1.5nm,0.2s,SNR=6.8						
EQES				S	Sn	19 08 37.1	-1.6
	2.1nm,0.2s,SNR=5.5						
EMUR	La Murta	3.19	28	P	Pn	19 08 08.0	-2.3
	2.5nm,0.3s,SNR=7.9						
EMUR	La Murta	3.19	28	P	Pn	19 08 08.0	-2.3
	2.5nm,0.3s,SNR=7.9						
EADA	Adamuz	3.33	340	P	Pn	19 08 10.6	-1.7
	1.2nm,0.2s,SNR=7.5						
EADA				S	Sn	19 08 48.6	-4.6
	1.0nm,0.3s						
EADA	Adamuz	3.33	340	P	Pn	19 08 10.6	-1.7
	1.2nm,0.2s,SNR=7.5						
EADA				S	Sn	19 08 48.6	-4.5
	1.0nm,0.3s						
EMIN	Mina Concepcio	3.94	315	P	Pn	19 08 18.6	-2.4
	0.3nm,0.1s,SNR=7.1						
EMIN	Mina Concepcio	3.94	315	P	Pn	19 08 18.6	-2.4
	0.3nm,0.1s,SNR=7.1						
EBAD	Badajoz	4.84	321	P	Pn	19 08 31.3	-2.4
	1.5nm,0.2s,SNR=7.9						

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*IDC **02** 19:13:06.8±2.7,52.29N×179.32W,h204^{km}±28^{km},mb3.2/5,mb1 3.7/6,mb1mx3.3/22,Error ellipse: s-maj=46.1km s-min=16.7km az=164.0*
*NEIC **02** 19:13:09.1,52.14N×179.12W,h233^{km},After AEIC.*
ISC 02 19:13:07.4±0.6,52.4N±0.2×179.34W±0.09,h219^{km}±8^{km},n20,σ0^{s}60/23,mb3.4/4,Andreanof Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIKV	Kanaga Island	1.45	112	P	P	19 13 43.2	+0.4
KINC	Kanaga Island	1.45	109	P	P	19 13 43.1	+0.3
KIMD	Kanaga Island	1.46	116	P	P	19 13 43.0	+0.1
KIWB	Kanaga Island	1.47	112	P	P	19 13 43.2	+0.2
KIRH	Kanaga Island	1.48	110	P	P	19 13 43.5	+0.4
ADAG	Mount Adagdak	1.74	104	P	P	19 13 45.2	-0.1
GSTD	Great Sitkin T	2.00	100	P	P	19 13 47.7	0.0
GSTD				S	S	19 14 18.3	-0.5
GSTR	Great Sitkin T	2.04	98	P	P	19 13 48.5	+0.3
GSMY	Great Sitkin M	2.06	100	P	P	19 13 48.4	+0.2
GSIG	Igitkin Island	2.15	101	P	P	19 13 49.0	-0.2
GSIG				S	S	19 14 20.6	-0.9
ATKA	Atka Island	3.17	92	P	P	19 14 00.5	0.0
SMY	Shemya	4.01	277	P	P	19 14 11.8	+1.2
FX1	Attu Island--F	4.59	279	P	P	19 14 18.1	+0.4
	19nm,0.3s,baz=70,slow=3.0,SNR=58						
FX1				S	S	19 15 10.8	-1.6
	14nm,0.3s,baz=277,slow=22,SNR=19						
FX1	Attu Island--F	4.59	279	P	P	19 14 18.2	+0.5
ILAR	Eielson Array	20.65	41	P	P	19 17 31.4	+0.8
	0.9nm,0.8s,baz=245,slow=8.5,SNR=9.7						
YKA	Yellowknife Ar	34.76	47	P	P	19 19 37.9	-0.2
	0.5nm,0.4s,mb3.4,baz=282,slow=9.1,SNR=12						
YKA	Yellowknife Ar	34.76	47	P	P	19 19 37.9	-0.2
NVAR	Mina Array Bea	43.76	83	P	P	19 20 52.6	+0.2
	3.1nm,1.0s,mb3.6,baz=308,slow=6.2,SNR=11						
PDAR	Pinedale Array	46.31	73	P	P	19 21 11.4	-1.1
	1.0nm,0.6s,mb3.4,baz=320,slow=4.7,SNR=9.8						
CMAR	Chiang Mai Arr	70.58	275	P	P	19 24 00.1	-0.2
	0.9nm,1.0s,mb3.4,baz=23,slow=6.9,SNR=4.8						

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*LDG **02** 19:16:26.3±0.4,10.61N×61.68W,h10^{km},Mb5.6/40,Ms5.0/7,Error ellipse: s-maj=43.0km s-min=7.6km az=112.0*
*FUNV **02** 19:16:30.3,10.51N×60.90W,h25^{km},MW4.3*
*MOS **02** 19:16:31.9±1.0,10.56N×61.44W,h33^{km},mb5.4/25,MS5.0/19,Error ellipse: s-maj=15.5km s-min=7.9km az=63.3*
*IDC **02** 19:16:32.6±2.1,10.60N×61.46W,h27^{km}±13^{km},mb4.8/20,mb1 5.0/22,mb1mx4.9/25,ML6.6/1,MS5.1/14,Ms1 5.1/14,ms1mx4.9/19,Error ellipse: s-maj=15.0km s-min=11.3km az=92.0*
*TRN **02** 19:16:33.5,10.40N×61.08W,h27^{km},MD5.5*
*NEIC **02** 19:16:34.7±0.1,10.49N×61.48W,mb5.4/167,MS5.3/122,MW5.6,MD5.4(TRN),MD5.1(CAR),Error ellipse: s-maj=4.4km s-min=2.6km az=189.0,Moment Tensor Solution. s26 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.21; M$_{\theta\theta}$0.59; M$_{\phi\phi}$-1.80; M$_{r\theta}$0.81; M$_{\theta\phi}$0.87; M$_{\phi r}$1.72; Best double couple: M$_0$2.6×10^{17} NP1:ϕ_s129°,δ35°,λ29°. NP2: ϕ_s14°,δ73°,λ122°. Principal axes: T 2.6, Plg51°, Azm321°; N .05, Plg30°, Azm184°; P -2.65, Plg22°, Azm81°;*
NEIC Minor damage to buildings at Mayaro and cell phone service was interrupted on Trinidad. Felt [V] at Port-of-Spain; [IV] at Arouca and Tunapuna. Felt in much of Trinidad and at Crown Point, Tobago.
*SYO **02** 19:16:34.6,10.46N×61.49W,h51^{km},MB5.4*
*BGS **02** 19:16:34.3±1.8,10.47N×61.48W,h50^{km},mb5.3*
*HRVD **02** 19:16:34.7±0.1,10.42N×61.03W,h16^{km},MW5.8/64,Centroid moment Tensor Solution. LP body waves: s58,c112;Mantle waves: s64,c134; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.27±.04; M$_{\theta\theta}$1.48±.04; M$_{\phi\phi}$-0.22±.04; M$_{r\theta}$1.64±.14; M$_{\theta\phi}$0.92±.03; M$_{\phi r}$5.54±.30; Best double couple: M$_0$5.98×10^{17} NP1:ϕ_s89°,δ13°,λ-21°. NP2:ϕ_s200°,δ85°,λ-102°. Principal axes: T 5.6, Plg39°, Azm301°; N .75, Plg12°, Azm201°; P -6.36, Plg48°, Azm97°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*BJI **02** 19:16:34.6,10.50N×61.50W,h49^{km},mB5.6,Ms5.7,Msz5.5*
*ORF **02** 19:16:51.3,13.04N×59.93W,h30^{km},mb5.5*
ISC 02 19:16:32.7±0.1,10.49N±0.02×61.45W±0.02,h48^{km},h48^{km}±1.0^{km}:pP-P,n631,σ1^{s}05/543,mb5.4/202,MS5.2/152,53C-33D,Trinidad

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRN	Trinidad (W)	0.16	15	⇑iP	P	19 16 41.8	+1.2
TRN				eS	S	19 16 48.6	+2.4
TPP	Pointe-a-Pierr	0.17	181	⇓iP	P	19 16 42.4	+1.8
SIPA	Siparia	0.35	190	eP	P	19 16 45.0	+2.7
TBH	Brigand Hill	0.37	91	⇑iP	P	19 16 39.0	-3.5
BUAY	Buenos Aires	0.45	212	eP	P	19 16 47.9	+4.7
BUAY				eS	S	19 16 55.7	+5.0
GUIV	Guiria	0.78	282	eP	P	19 16 52.1	+4.6
GUIV				eS	S	19 17 07.7	+9.3
TPR	Prospect	0.96	43	⇓iP	P	19 16 49.2	-0.8
BOT	Bacolet	0.98	47	⇓iP	P	19 16 49.3	-1.1
GUNV	Guanoco	1.51	258	⇓eP	P	19 17 04.3	+6.5
GRW	Mount Saint Ca	1.67	353	eP	P	19 17 02.7	+2.5
CRUV	Carupano	1.77	276	eP	P	19 17 05.0	+3.5
ITEV	Isla Los Testi	1.86	298	⇑eP	P	19 17 06.4	+3.6
ITEV				eS	S	19 17 33.6	+8.4
ORIV	Oritupano	2.39	234	⇑eP	P	19 17 14.1	+3.7
ORIV				eS	S	19 17 45.9	+7.3
RIOV	Rio Grande	2.43	189	eP	P	19 17 10.2	-0.8
RIOV				eS	S	19 17 39.2	-0.3

SVB	Belmont	2.77	4	eP	P	19 17 18.6	+2.8
SVB				eS	S	19 17 53.8	+5.5
SVV	Soufriere Volc	2.82	5	eP	P	19 17 18.8	+2.3
PCRV	Puerto La Cruz	3.15	265⇑	eP	P	19 17 23.9	+2.8
PCRV				eS	S	19 18 04.3	+6.5
GURV	El Guri	3.16	211	eP	P	19 17 21.6	+0.4
GURV				eS	S	19 17 59.4	+1.4
IBAV	Isla La Blanqu	3.34	294⇑	eP	P	19 17 26.6	+2.7
IBAV				eS	S	19 18 08.6	+5.8
BIM	Bigot	4.02	5⇑	eP	P	19 17 34.6	+1.1
BIM				eS	S	19 18 21.4	+1.6
MVM	Montagne Vaucl	4.08	8⇑	eP	P	19 17 34.6	+0.4
MVM				eS	S	19 18 21.3	+0.1
FDF	Fort de France	4.23	4	eP	P	19 17 37.1	+0.8
FDF				eS	S	19 18 26.7	+1.6
CRM	Caravelle	4.27	7	eP	P	19 17 37.4	+0.4
CUPV	Cœpira	4.29	265⇑	eP	P	19 17 39.9	+2.6
CUPV				eS	S	19 18 31.6	+5.0
ORCV	Isla La Orchil	4.84	286⇑	eP	P	19 17 47.2	+2.2
MERV	Las Mercedes	4.93	256⇑	eP	P	19 17 47.8	+1.5
FUNV	FUNVISIS	5.27	270	eP	P	19 17 54.1	+3.1
CAOV	Caicara del Or	5.75	237⇑	eP	P	19 17 57.8	+0.2
CAOV				eS	S	19 19 03.3	+0.1
TURV	Turiamo	6.29	270	eP	P	19 18 05.9	+0.7
JACV	Jacura	7.28	275	eP	P	19 18 20.3	+1.2
PAYV	Puerto Ayacuch	7.95	231	eS	S	19 19 55.3	-2.5
CURV	Curarigua	8.39	268⇑	eP	P	19 18 34.3	-0.1
MONV	Montecano	8.49	281⇑	eP	P	19 18 36.3	+0.5
SJG	San Juan	8.84	330	Pn	P	19 18 40.6	0.0
	13nm,0.3s,baz=150,slow=15,SNR=10						
SJG				Sn	S	19 20 16.5	-3.5
	56nm,0.3s,baz=318,slow=14,SNR=5.9						
SJG				LR	LR	19 20 54.0	
	comp=Z,3µm,21.8s,baz=120,slow=30						
SJG	San Juan	8.84	330	P	P	19 18 40.6	0.0
SJG						19 20 16.5	
SJG				pmax	pmax		
	comp=Z,13nm,0.3s						
SJG				MLR	MLR		
	comp=Z,3µm,21.8s						
SJG	San Juan	8.84	330	ePn	P	19 18 40.9	+0.2
	comp=Z,33nm,0.6s						
SJG				eSn	S	19 20 15.9	-4.1
DABV	Dabajuro	9.04	274	eP	P	19 18 43.0	-0.3
SDV	Santo Domingo	9.20	261	ePn	P	19 18 44.5	-1.1
	comp=Z,88nm,0.5s						
SDV				eS	S	19 20 14.8	-14
VIGV	El Vigia	9.91	261	eP	P	19 18 55.4	-0.1
CAPV	Capacho	11.04	257⇑	eP	P	19 19 10.1	-0.8
GWJ	Greenwich	16.61	299⇑	eP	P	19 20 27.7	+3.9
STH	Stony Hill	16.68	299⇑	eP	P	19 20 28.9	+4.2
CVJ	Coleyville	17.37	298⇑	iP	P	19 20 35.8	+2.4
MCJ	Malvern	17.38	297⇑	iP	P	19 20 38.6	+5.0
SAML	Samuel	19.39	185	eP	P	19 20 56.1	-1.5
	comp=Z,157nm,1.0s						
OTAV	Otavalo	19.74	240	eP	P	19 21 04.3	+2.9
	comp=Z,141nm,1.1s						
BBSR	BB Station	21.98	353	PFAKE		19 21 40.0	+16
BBSR				LR	LR		
	comp=Z,7µm,21.0s,MS5.0						
JTS	JuntasAbangare	23.12	272	eP	P	19 21 37.9	+2.3
	comp=Z,72nm,1.3s,mb4.9						
JTS				LR	LR		
	comp=Z,1µm,20.0s,MS4.4						
DWPF	Disney	25.68	316	eP	P	19 22 00.8	+0.7
	comp=Z,445nm,1.5s,mb5.8						
DWPF				e		19 22 22.0	
DWPF				LR	LR		
	comp=Z,2µm,22.0s,MS4.5						
NNA	Nana	27.07	215	eP	P	19 22 15.9	+2.8
	comp=Z,57nm,0.9s,mb5.1						
NNA				LR	LR		
	comp=Z,964nm,20.0s,MS4.4						
LPAZ	La Paz	27.41	194	P	P	19 22 18.4	+2.2
	comp=Z,7.5nm,0.7s,mb4.3,baz=7.3,slow=11,SNR=18						
LPAZ				S	S	19 27 07.1	+16
	comp=Z,3.6nm,0.8s,baz=39,slow=13,SNR=2.0						
LPAZ				LR	LR	19 34 13.5	
	comp=Z,5µm,19.3s,MS5.1,baz=5.4,slow=38						
LPAZ	La Paz	27.41	194	eP	P	19 22 15.3	-0.9
	comp=Z,37nm,0.9s,mb4.9						
LPAZ				P		19 22 18.4	
LPAZ				epP	pP	19 22 28.3	-0.3
LPAZ				S	S	19 27 07.1	+16
LPAZ				LR	LR	19 34 13.5	
TEIG	Tepich	27.58	294	PFAKE		19 22 30.0	+12
TEIG				LR	LR		
	comp=Z,1.0nm,21.0s						
NHSC	New Hope	28.35	325	eP	P	19 22 24.8	+0.4
	comp=Z,489nm,1.4s,mb5.9						
NHSC				LR	LR		
	comp=Z,5µm,20.0s,MS5.1						
BDFB	Brasilia	29.17	153	P	P	19 22 31.4	-0.6
	comp=Z,36nm,0.9s,mb5.1,baz=326,slow=12,SNR=27						
BDFB				S	S	19 27 34.7	+15
	comp=Z,10.0nm,1.0s,baz=186,slow=22,SNR=1.9						
BDFB				LR	LR	19 34 54.7	
	comp=Z,14µm,19.4s,MS5.6,baz=332,slow=38						
BAO	Brasilia Array	29.18	153	eP	P	19 22 31.8	-0.2
BAO				i		19 22 33.2	
BAO				e	pP	19 22 45.7	+1.2
BAO				e		19 22 57.8	
BAO				e		19 23 02.2	
BAO				e		19 23 29.2	
BAO				e		19 23 54.1	
BAO				e		19 25 29.9	
BAO				e		19 28 07.8	
RCBR	Riachuelo	30.16	121	eP	P	19 22 40.2	-0.7
	comp=Z,66nm,1.3s,mb5.2						
RCBR				LR	LR		
	comp=Z,4µm,22.0s,MS5.0						
CCIG	Comitan	30.38	284	i P	P	19 22 43.0	+0.3
PAYG	Puerto Ayora	30.75	251	PFAKE		19 23 00.0	+14
PAYG				LR	LR		
	comp=Z,4µm,21.0s,MS5.0						
CBN	Corbin	31.08	335	eP	P	19 22 48.7	0.0
	comp=Z,69nm,0.9s,mb5.5						
CBN				LR	LR		
	comp=Z,10µm,22.0s,MS5.5						
BLA	Blacksburg	31.63	330	eP	P	19 22 54.0	+0.5
	comp=Z,70nm,1.0s,mb5.5						
BLA				ePP	PP	19 24 01.5	+2.3
BLA				LR	LR		
	comp=Z,7µm,20.0s,MS5.3						
LRAL	Lakeview Retre	32.49	318	eP	P	19 22 59.6	-1.5
	comp=Z,118nm,1.2s,mb5.6						
LRAL				LR	LR		
	comp=Z,4µm,20.0s,MS5.1						
CPCT	Cooper Cave	32.52	323	eP	P	19 23 01.0	-0.3
CPCT				ePP	PP	19 24 21.2	+10
CPCT				ePcP	PcP	19 25 48.1	+0.8
LSCT	Lakeside	32.75	344	PFAKE		19 23 10.0	+6.8
LSCT				LR	LR		
	comp=Z,5.0nm,19.0s						
HRV	Harvard--Oak R	33.10	346	PFAKE		19 23 20.0	+14
HRV				LR	LR		
	comp=Z,5µm,22.0s,MS5.2						
SWET	Sewanee	33.20	322	eP	P	19 23 07.7	+0.4
SWET				epP	pP	19 23 20.6	+0.5
MCWV	Mont Chateau	33.34	334	eP	P	19 23 06.7	-1.8
	comp=Z,151nm,1.5s,mb5.7						
MCWV				LR	LR		
	comp=Z,6µm,22.0s,MS5.3						
SSPA	Standing Stone	33.36	337	eP	P	19 23 08.7	+0.1
	comp=Z,68nm,1.3s,mb5.4						
SSPA				ePcP	PcP	19 25 50.4	+0.9
SSPA				LR	LR		
	comp=Z,3µm,22.0s,MS4.9						
LVC	Limon Verde	33.70	192	P	P	19 23 11.9	+0.2
	comp=Z,26nm,1.0s,mb5.1,baz=14,slow=7.9,SNR=20						
LVC	Limon Verde	33.70	192	eP	P	19 23 11.6	-0.1
	comp=Z,24nm,0.7s,mb5.2						
LVC				LR	LR		
	comp=Z,6µm,19.0s,MS5.3						
BINY	Binghamton	34.06	341	eP	P	19 23 14.6	+0.1
	comp=Z,184nm,1.3s,mb5.8						
BINY				LR	LR		
	comp=Z,13µm,22.0s,MS5.6						
HNH	Hanover	34.41	346	eP	P	19 23 18.8	+1.3
	comp=Z,11nm,1.2s,mb4.7						
ACCN	Adirondack Com	34.45	344	eP	P	19 23 19.1	+1.2
ACCN				epP	pP	19 23 33.6	+2.9
EMMW	East Machias	34.49	352	PFAKE		19 23 30.0	+12
EMMW				LR	LR		
	comp=Z,27µm,21.0s,MS6.0						
WVL	Waterville	34.68	350	PFAKE		19 23 30.0	+10
WVL				LR	LR		
	comp=Z,16µm,20.0s,MS5.8						
WVT	Waverly	34.97	321	eP	P	19 23 21.6	-0.8
	comp=Z,58nm,0.7s,mb5.6						
WVT				LR	LR		
	comp=Z,4µm,22.0s,MS5.1						
OXF	Oxford	34.98	318	eP	P	19 23 21.7	-0.8
	comp=Z,191nm,0.9s,mb6.0						
OXF				LR	LR		
	comp=Z,3µm,20.0s,MS5.1						
NCB	Newcomb	35.15	344	eP	P	19 23 24.0	+0.2
	comp=Z,70nm,1.0s,mb5.5						
NCB				epP	pP	19 23 36.3	-0.4
NCB				LR	LR		
	comp=Z,7µm,22.0s,MS5.4						
GENY	Geneseo	35.19	339	eP	P	19 23 23.2	-1.0
ACSO	Alum Creek Sta	35.24	331	eP	P	19 23 25.4	+0.7
	comp=Z,72nm,1.2s,mb5.5						
ACSO				LR	LR		
	comp=Z,6µm,20.0s,MS5.3						
ERPA	Erie	35.45	336	PFAKE		19 23 40.0	+14
ERPA				LR	LR		
	comp=Z,7µm,22.0s,MS5.4						
WCI	Wyandotte Cave	35.48	325	eP	P	19 23 27.5	+0.8
	comp=Z,170nm,1.3s,mb5.8						
WCI				ePcP	PcP	19 25 57.2	+1.5
WCI				LR	LR		
	comp=Z,702nm,21.0s,MS4.4						
UTMT	University of	35.75	320	eP	P	19 23 28.6	-0.4
	comp=Z,586nm,1.0s						
GLAT	Glass	35.97	320	eP	P	19 23 31.4	+0.5
GLAT				e		19 24 01.7	
USIN	University of	36.08	324	eP	P	19 23 31.1	-0.7
	comp=Z,213nm,1.2s,mb6.0						
USIN				epP	pP	19 23 45.6	+0.9
VAO	Valinhos	36.18	157⇓	eP	P	19 23 32.7	-0.1
VAO				i		19 23 33.8	
VAO				i		19 23 38.4	
VAO				i		19 23 54.6	
VAO				i		19 24 22.4	
VAO	Valinhos	36.18	157⇓	eP	P	19 23 32.7	-0.1
VAO				i		19 23 33.8	
VAO				i		19 23 38.4	
VAO				i		19 23 54.6	
VAO				i		19 24 22.4	
BLO	Bloomington	36.27	326	eP	P	19 23 33.9	+0.4
	comp=Z,93nm,0.9s,mb5.7						
BLO				ePcP	PcP	19 25 58.9	+0.9
BLO				eScP		19 29 38.6	
PARMO	Parma	36.51	320	eP	P	19 23 35.6	+0.2
UALR	University of	37.12	316	eP	P	19 23 39.9	-0.6
	comp=Z,18nm,0.8s,mb5.0						
AAM	Ann Arbor	37.18	332	eP	P	19 23 41.4	+0.4
	comp=Z,107nm,1.4s,mb5.5						
AAM				LR	LR		
	comp=Z,7µm,22.0s,MS5.4						
HKT	Hockley	37.41	306	eP	P	19 23 42.5	-0.6
	comp=Z,247nm,1.7s,mb5.8						
HKT				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
CAM4	Nova Friburgo	37.53	151	eP	P	19 23 43.3	-0.8
CAM4				i		19 23 44.7	
CAM4				i		19 23 49.5	
CAM4				i	pP	19 23 55.9	-1.1
CAM4	Nova Friburgo	37.53	151	eP	P	19 23 43.3	-0.8
CAM4				i		19 23 44.7	
CAM4				i		19 23 49.5	
CAM4				i	pP	19 23 55.9	-1.1
FVM	French Village	37.75	321	eP	P	19 23 45.1	-0.7
	comp=Z,225nm,1.3s,mb5.7						
FVM				eS	S	19 29 34.2	+1.7
FVM				eScP		19 29 45.7	
MIAR	Mount Ida	37.85	314	eP	P	19 23 46.5	-0.2
	comp=Z,35nm,1.4s,mb4.9						
MIAR				LR	LR		
	comp=Z,5µm,19.0s,MS5.3						
SLM	Saint Louis	38.05	322	eP	P	19 23 48.0	-0.3
	comp=Z,199nm,1.6s,mb5.6						
CCM	Cathedral Cave	38.30	321	eP	P	19 23 49.2	-1.2
	comp=Z,192nm,1.4s,mb5.6						
CCM				LR	LR		
	comp=Z,755nm,21.0s,MS4.5						
JCT	Junction City	40.79	305	eP	P	19 24 10.8	-0.4
	comp=Z,68nm,0.9s,mb5.3						
JCT				esP	sP	19 24 29.5	-0.4
JCT				eScP		19 30 00.2	
JCT				eS	S	19 30 21.3	+3.0
JCT				LR	LR		
	comp=Z,4µm,22.0s,MS5.2						
JFWS	Jewell Farm	40.90	327	eP	P	19 24 11.8	-0.1
	comp=Z,124nm,1.3s,mb5.4						
JFWS				LR	LR		
	comp=Z,5µm,20.0s,MS5.4						
SFJM	Santa Fe	41.19	289	i P	P	19 24 16.7	+2.2
WMOK	Wichita Mounta	41.70	311	eP	P	19 24 17.0	-1.7
	comp=Z,23nm,1.0s,mb4.8						
WMOK				ePP	PP	19 25 57.8	-0.7
WMOK				eScP		19 30 02.7	
WMOK				LR	LR		
	comp=Z,7µm,22.0s,MS5.5						
KSU1	Kansas State U	42.33	318	eP	P	19 24 21.9	-1.9
KSU1				ePP	PP	19 26 04.9	-0.2
KSU1				ePcP	PcP	19 26 18.7	+1.4
LTX	Lajitas	43.60	302	eP	P	19 24 34.3	0.0
	comp=Z,44nm,1.3s,mb5.0						
LTX				epP	pP	19 24 47.8	+0.5
LTX				LR	LR		
	comp=Z,2µm,21.0s,MS4.9						
TXAR	Lajitas Array	43.60	302	P	P	19 24 34.0	-0.3
	comp=Z,8.2nm,0.9s,mb4.5,baz=141,slow=8.0,SNR=15						
TXAR				PcP	PcP	19 26 23.4	+1.8
	comp=Z,5.5nm,0.7s,baz=116,slow=4.9,SNR=5.3						
TXAR				ScP		19 30 12.2	
	comp=Z,4.8nm,0.9s,baz=127,slow=6.3,SNR=8.6						
TXAR				LR	LR	19 46 59.9	
	comp=Z,1µm,19.4s,MS4.8,baz=225,slow=42						
MDZ	Mendoza	43.70	189	eP	P	19 24 27.9	-7.1
AMTX	Amarillo	43.93	310	eP	P	19 24 35.1	-1.7
	comp=Z,50nm,1.2s,mb5.1						
AMTX				LR	LR		
	comp=Z,5µm,22.0s,MS5.4						
CHIE	El Hierro	44.25	61	P	P	19 24 39.0	-0.6
	comp=Z,56nm,0.7s,mb5.4						
SCHQ	Schefferville	44.44	356	P	P	19 24 41.9	+1.3
	comp=Z,88nm,0.7s,mb5.6,baz=171,slow=6.8,SNR=104						
SCHQ				S	S	19 31 13.8	+2.3
	comp=Z,35nm,1.5s,baz=285,slow=17,SNR=1.7						
SCHQ				LR	LR	19 41 38.7	
	comp=Z,3µm,21.6s,MS5.2,baz=183,slow=34						
SCHQ	Schefferville	44.44	356	P	P	19 24 41.9	+1.3
SCHQ				S	S	19 31 13.8	+2.3
SCHQ				LR	LR	19 41 38.6	
CLNB	Carlsbad	44.68	306	eP	P	19 24 42.8	-0.1
CPRX	Cap Rock	44.92	307	eP	P	19 24 43.8	-1.0
CPRX				esP	sP	19 25 03.6	0.0
GDL2	Guadalupe Moun	45.04	305	eP	P	19 24 45.9	+0.1
EYMN	Ely	45.07	332	eP	P	19 24 45.6	-0.1
	comp=Z,14nm,0.7s,mb4.9						
EYMN				ePP	PP	19 26 29.8	-2.5
EYMN				LR	LR		
	comp=Z,5µm,21.0s,MS5.4						
LPA	La Plata	45.27	176	deP	P	19 24 42.0	-5.6
LPA				epP	pP	19 25 03.0	+2.4
LPA				eSS	Sx	19 35 18.0	
BNM	Barren Site	47.47	307	eP	P	19 25 05.3	+0.3
BNM				eScP		19 30 27.9	
BNM				eS	S	19 31 54.4	-0.6
LPM	Los Pinos Moun	47.52	307	eP	P	19 25 05.8	+0.4
LPM				ePcP	PcP	19 26 37.6	+2.4
LPM				eScP		19 30 27.9	
LPM				eS	S	19 31 58.9	+3.1
ANMO	Albuquerque	47.60	308	P	P	19 25 06.4	+0.4
	comp=Z,33nm,1.1s,mb5.3,baz=105,slow=8.5,SNR=40						
ANMO				ScP		19 30 28.4	
	comp=Z,20nm,1.4s,baz=126,slow=5.4,SNR=7.3						
ANMO				S	S	19 31 58.4	+1.5
	comp=Z,1.5nm,1.0s,baz=294,slow=17,SNR=1.3						
ANMO	Albuquerque	47.60	308	eP	P	19 25 05.8	-0.2
	comp=Z,81nm,1.3s,mb5.6						
ANMO				LR	LR		
	comp=Z,4µm,22.0s,MS5.4						
LENM	Lemitar	47.75	307	eP	P	19 25 07.8	+0.7
LENM				eScP		19 30 29.7	
SDCO	Great Sand Dun	47.89	312	eP	P	19 25 07.7	-0.5
	comp=Z,22nm,0.8s,mb5.2						
SDCO				epP	pP	19 25 19.8	-1.4
SDCO				ePP	PP	19 26 57.6	-2.0
SDCO				eScP		19 30 28.8	
SDCO				LR	LR		
	comp=Z,7µm,20.0s,MS5.7						
LAZ	Ladron	47.95	307	eP	P	19 25 09.3	+0.6
LAZ				eScP		19 30 30.5	
TRQA	Tornquist	48.29	181	eP	P	19 25 09.7	-1.6
	comp=Z,13nm,0.9s,mb5.0						
TRQA				LR	LR		
	comp=Z,5µm,19.0s,MS5.5						
ULM	Lac du Bonnet	48.74	331	P	P	19 25 12.6	-2.0
	comp=Z,25nm,0.9s,mb5.3,baz=126,slow=7.8,SNR=22						
ULM				ScP		19 30 30.7	
	comp=Z,5.9nm,1.0s,baz=16,slow=6.6,SNR=3.3						
ULM				S	S	19 32 08.5	-4.1
	comp=Z,1.2nm,0.4s,baz=28,slow=23,SNR=2.0						
ULM				LR	LR	19 45 07.6	
	comp=Z,4µm,20.8s,MS5.4,baz=134,slow=35						
ULM	Lac du Bonnet	48.74	331	P	P	19 25 12.6	-2.0
ULM				ScP		19 30 30.7	
ULM				S	S	19 32 08.5	-4.1
ULM				LR	LR	19 45 07.6	
ISCO	Idaho Springs	48.79	314	eP	P	19 25 14.2	-0.9
	comp=Z,18nm,0.9s,mb5.1						
ISCO				epP	pP	19 25 27.9	-0.4
ISCO				eScP		19 30 33.3	
ISCO				LR	LR		
	comp=Z,5µm,20.0s,MS5.5						
RW3	Ridgway	49.68	312	eP	P	19 25 21.6	-0.3
PV01	Paradox Valley	50.29	311	eP	P	19 25 26.8	+0.2
PV01				epP	pP	19 25 38.4	-1.4
PV01				eScP		19 30 39.8	
TUC	Tucson	50.29	303	eP	P	19 25 27.2	+0.4
	comp=Z,39nm,1.4s,mb5.2						
TUC				epP	pP	19 25 39.0	-0.9
TUC				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
PV10	Paradox Valley	50.72	311	eP	P	19 25 29.0	-0.9
DGMT	Dagmar	52.00	325	eP	P	19 25 38.7	-0.7
	comp=Z,74nm,0.7s,mb5.7						
DGMT				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
SRU	San Rafael	52.06	312	eP	P	19 25 39.4	-0.5
SRU				ePcP	PcP	19 26 53.6	+2.0
SRU				eScP		19 30 46.2	
LAO	LASA Array	52.28	322	eP	P	19 25 40.1	-1.5
	comp=Z,88nm,0.8s,mb5.7						
LAO				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
TMUT	Trail Mountain	52.62	312	eP	P	19 25 43.8	-0.4
TMUT				ePP	PP	19 27 46.4	+1.7
BW06	Boulder Array	52.70	316	eP	P	19 25 43.4	-1.4
	comp=Z,61nm,1.0s,mb5.5						
BW06				LR	LR		
	comp=Z,4µm,22.0s,MS5.5						
PDAR	Pinedale Array	52.70	316	P	P	19 25 43.6	-1.2
	comp=Z,26nm,0.9s,mb5.2,baz=121,slow=8.6,SNR=86						
PDAR				ScP		19 30 48.9	
	comp=Z,18nm,1.2s,baz=124,slow=5.3,SNR=16						
PDAR				S	S	19 33 06.7	-0.7
	comp=Z,0.4nm,0.9s,baz=101,slow=20,SNR=2.7						
PDAR				LR	LR	19 50 43.0	
	comp=Z,2µm,20.8s,MS5.2,baz=116,slow=39						
DAU	Daniels Canyon	53.03	313	eP	P	19 25 46.6	-0.6
DAU				eScP		19 30 51.5	
MSU	Marysvale	53.09	311	eP	P	19 25 47.6	-0.1
MSU				epP	pP	19 26 00.9	-0.1
MVU	Marysvale	53.12	311	eP	P	19 25 47.7	-0.2
	comp=Z,65nm,1.5s,mb5.3						
MVU				ePP	PP	19 27 49.9	+0.3
MVU				LR	LR		
	comp=Z,7µm,21.0s,MS5.7						
MPU	Maple Canyon	53.17	313	eP	P	19 25 47.9	-0.4
JLU	Jordanelle	53.23	313	eP	P	19 25 48.1	-0.7
JLU				epP	pP	19 26 02.6	+0.6
TCUT	Toone Canyon	53.38	314	eP	P	19 25 48.6	-1.3
TCUT				eScP		19 30 51.6	
NLU	North Lily Min	53.47	312	eP	P	19 25 49.6	-0.9
HWUT	Hardware Ranch	53.66	314	eP	P	19 25 50.6	-1.3
	comp=Z,36nm,0.9s,mb5.3						
HWUT				eScP		19 30 52.6	
HWUT				LR	LR		
	comp=Z,4µm,21.0s,MS5.4						
LOHW	Long Hollow	53.74	317	eP	P	19 25 51.0	-1.4
LOHW				epP	pP	19 26 06.0	+0.2
LOHW				eScP		19 30 53.3	
AHID	Auburn Hatcher	53.75	316	eP	P	19 25 51.0	-1.5
	comp=Z,34nm,0.8s,mb5.3						
AHID				ePcP	PcP	19 26 59.3	+1.3
AHID				LR	LR		
	comp=Z,4µm,22.0s,MS5.4						
SNOW	Snow King Moun	53.78	317	eP	P	19 25 52.5	-0.2
SNOW				epP	pP	19 26 05.8	-0.2
SNOW				ePP	PP	19 27 52.7	-2.7
SNOW				eScP		19 30 53.3	
WUWY	Wally Ulrich	53.80	317	eP	P	19 25 50.0	-2.9
WUWY				epP	pP	19 26 05.3	-0.9
WUWY				ePP	PP	19 27 57.0	+1.3
REDW	Red Top Meadow	53.81	317	eP	P	19 25 51.8	-1.1
REDW				epP	pP	19 26 05.6	-0.7
REDW				ePP	PP	19 27 55.9	+0.2
REDW				eScP		19 30 54.3	
ARUT	Antelope Range	53.83	309	eP	P	19 25 52.9	-0.3
MOOW	Moose Ponds	53.88	317	eP	P	19 25 52.5	-1.0
MOOW				ePcP	PcP	19 26 59.5	+1.1
MOOW				ePP	PP	19 27 54.9	-1.5
MOOW				eScP		19 30 53.7	
TPAW	Teton Pass	53.92	317	eP	P	19 25 52.7	-1.1
TPAW				ePP	PP	19 27 54.3	-2.5
TPAW				eScP		19 30 54.8	
LKWY	Lake	53.98	318	PFAKE		19 26 10.0	+16
LKWY				LR	LR		
	comp=Z,5µm,21.0s,MS5.5						
IMW	Indian Meadow	54.07	317	eP	P	19 25 53.7	-1.2
IMW				eScP		19 30 55.5	
FCC	Fort Churchill	54.13	340	eP	P	19 25 53.3	-1.8
	comp=Z,33nm,0.5s,mb5.5						
SPUT	South Promonto	54.18	314	eP	P	19 25 55.0	-0.7
YFT	Old Faithful	54.22	318	eP	P	19 25 57.0	+1.1
YFT				eScP		19 30 55.9	
NEN	Nelson	54.37	306	eP	P	19 25 57.1	-0.1
NEN				eScP		19 30 57.5	
YMR	Madison River	54.39	318	eP	P	19 25 57.2	+0.1
YMR				eScP		19 30 57.2	
BGU	Big Grassy Mou	54.47	313	eP	P	19 25 56.9	-0.9
BGU				eScP		19 30 57.2	
FFC	Flin Flon	54.48	332	eP	P	19 25 55.1	-2.6
	comp=Z,20nm,0.8s,mb5.1						
HVU	Hansel Valley	54.57	314	eP	P	19 25 57.4	-1.2
HVU				epP	pP	19 26 10.5	-1.4
HVU				ePP	PP	19 28 02.9	+0.3
QLMT	Earthquake Lak	54.75	318	eP	P	19 25 59.7	-0.1
QLMT				epP	pP	19 26 15.5	+2.2
QLMT				eScP		19 31 00.4	
EVO	Evora	55.13	50	eP	P	19 26 00.7	-1.9
EVO				eR			
	comp=Z,2µm,20.8s						
PTOM	Tomar	55.13	49	eP	P	19 26 01.8	-0.9
BOZ	Bozeman (W)	55.20	319	PFAKE		19 26 10.0	+6.9
BOZ				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
PFO	Pinyon Flat Ob	55.23	304	PFAKE		19 26 20.0	+17
PFO				LR	LR		
	comp=Z,407nm,22.0s,MS4.5						
TRCR	Troy Canyon	55.61	309	eP	P	19 26 06.3	+0.2
TRCR				epP	pP	19 26 20.2	+0.6
MCMT	McKenzie Canyo	55.69	318	eP	P	19 26 06.2	-0.4
MCMT				epP	pP	19 26 19.9	-0.1
MCMT				eScP		19 31 01.2	
HRY	Holter Researc	55.75	320	eP	P	19 26 06.4	-0.6
TPNV	Topopah Spring	55.78	308	eP	P	19 26 07.2	-0.2
	comp=Z,44nm,1.1s,mb5.4						
TPNV				eScP		19 31 04.0	
TPNV				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
PVIS	Viseu	55.83	48	eP	P	19 26 08.1	+0.4
	comp=Z,72nm,1.5s,mb5.5						
PCBR	Castelo Branco	55.89	49	eP	P	19 26 08.2	+0.1
	comp=Z,37nm,0.8s,mb5.5						
MTE	Manteigas	55.99	48	eP	P	19 26 08.8	-0.1

	comp=Z,92nm,1.6s,mb5.6						
MTE				eS	S	19 33 58.5	+6.7
MTE				i -		19 46 55.5	
ELK	Elko	56.01	312	eP	P	19 26 07.7	-1.3
	comp=Z,15nm,0.9s,mb5.0						
ELK				epP	pP	19 26 22.2	-0.2
ELK				eScP		19 31 02.6	
ELK				LR	LR		
	comp=Z,6µm,21.0s,MS5.6						
DBIC	Dimbokro	56.03	89	eP	P	19 26 06.9	-2.6
	comp=Z,30nm,1.0s,mb5.3						
DBIC				LR	LR		
	comp=Z,905nm,22.0s,MS4.8						
PVRL	Vila Real	56.12	47	eP	P	19 26 10.4	+0.6
	comp=Z,85nm,1.7s,mb5.5						
HLID	Hailey	56.30	316	eP	P	19 26 10.2	-0.8
	comp=Z,38nm,0.9s,mb5.4						
HLID				epP	pP	19 26 23.6	-0.9
HLID				eScP		19 31 04.9	
HLID				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
ESPR	Espera	56.38	53	P	P	19 26 12.8	+1.1
	comp=Z,175nm,2.3s,mb5.7						
MWC	Mount Wilson	56.65	304	eP	P	19 26 14.6	+1.0
DAC	Darwin (Calif)	56.68	307	eP	P	19 26 15.5	+1.6
	comp=Z,16nm,0.9s,mb5.0						
DAC				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
CHMT	Chamberlain Mo	56.73	320	eP	P	19 26 13.0	-1.0
CHMT				epP	pP	19 26 27.3	-0.2
TPH	Tonopah	56.80	309	eP	P	19 26 14.2	-0.4
	comp=Z,51nm,1.3s,mb5.4						
TPH				epP		19 31 08.1	
TPH				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
PBRG	Braganca	56.98	47	eP	P	19 26 16.8	+0.9
MSO	Missoula	57.14	320	eP	P	19 26 16.1	-0.9
	comp=Z,31nm,1.3s,mb5.2						
MSO				epP	pP	19 26 29.2	-1.2
MSO				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
BMN	Battle Mountai	57.38	311	eP	P	19 26 17.3	-1.4
	comp=Z,49nm,1.3s,mb5.4						
BMN				epP	pP	19 26 32.6	+0.5
BMN				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
MNV	Mina	57.59	309	eP	P	19 26 19.7	-0.5
	comp=Z,68nm,1.4s,mb5.5						
MNV				eScP		19 31 11.7	
MNV				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
EADA	Adamuz	57.66	51	P	P	19 26 21.7	+1.0
	comp=Z,153nm,2.2s,mb5.6						
MTUM	Tungsten Hills	57.67	308	eP	P	19 26 21.4	+0.5
NVAR	Mina Array Bea	57.70	309	P	P	19 26 20.5	-0.6
	comp=Z,5.4nm,0.6s,mb4.8,baz=100,slow=7.7,SNR=33						
NVAR				ScP		19 31 10.6	
	comp=Z,2.0nm,0.8s,baz=113,slow=6.1,SNR=4.9						
NVAR				LR	LR	19 52 50.5	
	comp=Z,2µm,20.8s,MS5.2,baz=115,slow=38						
ELUQ	Luque	57.77	52	P	P	19 26 22.1	+0.7
	comp=Z,6.7nm,0.6s,mb4.8						
ELOJ	Sierra Loja	57.77	53	P	P	19 26 23.2	+1.7
	comp=Z,13nm,1.1s,mb4.9						
ERON	Agron	58.01	53	P	P	19 26 25.8	+2.6
	comp=Z,12nm,0.7s,mb5.0						
OMM	Old Mammoth Mi	58.06	308	eP	P	19 26 23.1	-0.4
VAL	Valentia	58.43	34	⇑iP	P	19 26 25.5	-0.4
ESDC	Sonseca Array	58.47	50	P	P	19 26 26.1	-0.3
	comp=Z,15nm,0.8s,mb5.1,baz=261,slow=7.3,SNR=45						
ESDC	Sonseca Array	58.47	50	P	P	19 26 26.1	-0.2
	comp=Z,14nm,0.8s,mb5.0						
BMO	Blue Mountains	58.69	316	eP	P	19 26 26.0	-1.8
	comp=Z,98nm,1.6s,mb5.6						
BMO				epP	pP	19 26 39.8	-1.5
BMO				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
EBER	Berja	58.71	53	P	P	19 26 29.6	+1.5
	comp=Z,131nm,1.4s,mb5.8						
CMB	Columbia Colle	59.23	308	eP	P	19 26 30.9	-0.8
	comp=Z,9.4nm,0.9s,mb4.8						
CMB				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
EVIA	Vianos	59.35	51	P	P	19 26 32.9	+0.5
EDM	Edmonton	59.38	327	eP	P	19 26 30.1	-2.3
LRV	Little Rabbit	59.42	306	eP	P	19 26 34.4	+1.4
BEKR	Beckwourth	59.58	310	eP	P	19 26 32.7	-1.4
	comp=Z,12nm,1.0s,mb4.9						
NEW	Newport	59.66	320	LR	LR	19 52 59.4	
	comp=Z,3µm,21.7s,MS5.5,baz=116,slow=37						
NEW	Newport	59.66	320	eP	P	19 26 32.8	-1.6
	comp=Z,68nm,0.7s,mb5.8						
NEW				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
ELAN	Lanestosa	59.72	46	P	P	19 26 35.9	+0.9
	comp=Z,536nm,2.9s,mb6.1						
SAO	San Andreas Ge	59.82	306	PFAKE		19 26 50.0	+14
SAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
MOD	Modoc	59.99	312	eP	P	19 26 36.4	-0.5
	comp=Z,12nm,0.8s,mb5.0						
MOD				epP	pP	19 26 50.8	+0.4
MOD				ePP	PP	19 28 53.7	+2.3
MOD				e		19 30 20.0	
MOD				eScP		19 31 19.5	
MOD				LR	LR		
	comp=Z,4µm,21.0s,MS5.5						
LBCM	Butte Creek Ri	60.53	311	P	P	19 26 40.4	-0.1
CGW	Gweek	60.63	38	⇓eP	P	19 26 39.7	-1.4
HAWA	Hanford	60.63	318	eP	P	19 26 38.7	-2.4
	comp=Z,32nm,0.7s,mb5.6						
HAWA				epP	pP	19 26 53.6	-1.1
HAWA				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
CGH1	Goonhilly	60.65	38	eP	P	19 26 40.4	-0.8
CCA1	Carnmenellis	60.66	38	⇓eP	P	19 26 41.3	+0.1
DCN	Croghan	60.66	34	eP	P	19 26 39.8	-1.5
CMA1	Manaccan	60.68	38	⇓eP	P	19 26 40.5	-0.9
CRQ2	Rosemanowes 2	60.68	38	⇓eP	P	19 26 40.9	-0.6
CRQ2				AMb	AMB	19 26 44.6	
	comp=Z,100nm,2.1s,mb5.6						
DLF	Lyons Farm	61.05	34	eP	P	19 26 42.5	-1.4
DMUB	Kingscourt	61.09	33	eP	P	19 26 44.0	-0.1
DSB	Dublin	61.12	34	eP	P	19 26 42.9	-1.5
	comp=Z,34nm,0.9s,mb5.5						
QUIF	Quistinic	61.21	41	eP	P	19 26 44.5	-0.5
	comp=Z,58nm,0.8s,mb5.5						
EMOS	Mosqueruela	61.23	50	P	P	19 26 47.0	+1.8
	comp=Z,16nm,0.8s,mb5.2						
SJPF	Ste Jean	61.26	46	eP	P	19 26 45.2	-0.2
	comp=Z,150nm,1.1s,mb5.7						
ROSF	Rostrenen	61.26	40	eP	P	19 26 44.8	-0.6
	comp=Z,55nm,0.7s,mb5.5						
WDC	Whiskeytown Da	61.36	311	eP	P	19 26 42.0	-4.2
	comp=Z,5.3nm,0.7s,mb4.8						
WDC				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
HOPS	Hopland	61.47	309	PFAKE		19 27 00.0	+13
HOPS				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
ESAC	San Caprasio	61.50	48	P	P	19 26 48.7	+1.6
	comp=Z,78nm,0.7s,mb6.0						
TBM	Table Mountain	61.55	318	P	P	19 26 47.4	0.0
ETSF	Etsaut	61.69	47	eP	P	19 26 48.0	-0.3
	comp=Z,86nm,1.2s,mb5.5						
SGMF	Saint Gilles	61.70	41	eP	P	19 26 47.3	-1.0
	comp=Z,199nm,1.4s,mb5.8						
YBH	Yreka Blue Hor	61.71	312	P	P	19 26 47.2	-1.3
	comp=Z,7.1nm,0.5s,mb5.0,baz=89,slow=3.6,SNR=18						
YBH	Yreka Blue Hor	61.71	312	P	P	19 26 47.2	-1.3
YBH				pmax	pmax		
	comp=Z,7.0nm,0.5s						
YBH	Yreka Blue Hor	61.71	312	eP	P	19 26 46.6	-1.9
	comp=Z,14nm,0.9s,mb5.1						
YBH				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
ERTA	Horta de San J	61.95	49	P	P	19 26 51.1	+1.1
	comp=Z,19nm,0.9s,mb5.2						
EFI	East Falkland	61.98	178	P	P	19 26 49.6	-0.5
	comp=Z,43nm,1.1s,mb5.5						
EFI				LR	LR		
	comp=Z,907nm,20.0s,MS4.9						
GCL	Cushendall	61.98	32	⇓eP	P	19 26 50.0	-0.1
HUMO	Hull Mountain	62.07	313	eP	P	19 26 48.3	-2.6
	comp=Z,6.6nm,0.7s,mb4.9						
HUMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
YRE	Yr Eifl	62.11	35	⇓eP	P	19 26 50.9	-0.1
YRE				AMb	AMB	19 26 53.4	
	comp=Z,38nm,0.8s,mb5.6						
YRC	Rhoscolyn	62.12	35	⇓eP	P	19 26 50.3	-0.8
YRC				AMb	AMB	19 26 54.0	
	comp=Z,49nm,1.1s,mb5.5						
EBIE	Bielsa	62.15	47	P	P	19 26 52.0	+0.6
	comp=Z,39nm,0.8s,mb5.6						
WCB1	Church Bay	62.19	35	⇓eP	P	19 26 51.2	-0.3
WCB1				AMb	AMB	19 26 54.4	
	comp=Z,90nm,1.4s,mb5.7						
YLL	Llanberis	62.31	35	⇓eP	P	19 26 52.1	-0.2
YLL				AMb	AMB	19 26 54.8	
	comp=Z,143nm,1.2s,mb6.0						
RESF	Ens	62.31	47	eP	P	19 26 52.3	-0.2
WME	Myndd Eilian	62.33	35	⇓eP	P	19 26 52.1	-0.3
WME				AMb	AMB	19 26 54.1	
	comp=Z,42nm,1.2s,mb5.4						
EPF	Esparros	62.36	47	eP	P	19 26 52.5	-0.3
	comp=Z,128nm,0.9s,mb5.8						
GMK	Mull of Kintyr	62.37	32	⇓eP	P	19 26 51.5	-1.1
WIM	Isle of Man	62.40	34	eP	P	19 26 52.1	-0.8
WIM				AMb	AMB	19 26 55.4	
	comp=Z,105nm,1.2s,mb5.8						
WPM1	Penmaenmawr	62.50	35	⇓eP	P	19 26 53.2	-0.4
WPM1				AMb	AMB	19 26 56.0	
	comp=Z,103nm,1.2s,mb5.8						
KRMB	Red Mountain	62.55	311	eP	P	19 26 54.1	0.0
GAL1	Galloway	62.65	33	⇓eP	P	19 26 54.0	-0.6
COR	Corvallis	62.74	315	PFAKE		19 27 10.0	+15
COR				LR	LR		
	comp=Z,531nm,22.0s,MS4.7						
GRR	Gorron	62.82	41	eP	P	19 26 54.9	-0.9
	comp=Z,104nm,1.0s,mb5.6						
MFF	Saint Martin d	62.83	43	eP	P	19 26 55.1	-0.8
	comp=Z,106nm,1.2s,mb5.5						
KBO	Bosley Butte	62.92	312	eP	P	19 26 56.7	+0.2
KBO				epP	pP	19 27 08.5	-1.7
SALF	Salau	62.92	47	eP	P	19 26 57.3	+0.7
LFF	La Frestale	63.05	45	eP	P	19 26 56.6	-0.8
	comp=Z,275nm,1.2s,mb6.0						
KEBM	Edson Butte	63.12	313	eP	P	19 26 58.4	+0.5
FLN	La Foliniere	63.16	40	eP	P	19 26 57.3	-0.8
	comp=Z,176nm,0.9s,mb5.9						
FLN				eR			
	comp=Z,2µm,22.8s						
BWH	Wardlaw	63.33	33	eP	P	19 26 58.5	-0.6
LDF	La Druitiere	63.35	41	eP	P	19 26 58.4	-0.9
	comp=Z,77nm,1.0s,mb5.5						
BBO1	Bothel	63.39	33	⇓eP	P	19 26 58.8	-0.7
BHH	Howats Hill	63.53	33	eP	P	19 27 00.1	-0.3
SUMG	Summit	63.56	8	⇑eP	P	19 27 01.4	+1.0
	comp=Z,101nm,0.9s,mb5.8						
BDL	Dobcross Hall	63.58	33	eP	P	19 27 00.1	-0.6
ESK	Eskdalemuir	63.62	33	eP	P	19 27 00.8	-0.2
	comp=Z,23nm,0.8s,mb5.3						
ESK				LR	LR		
	comp=Z,597nm,22.0s,MS4.7						
EKA	Eskdalemuir Ar	63.65	33	P	P	19 27 01.0	-0.1
	comp=Z,11nm,0.7s,mb5.0,baz=247,slow=6.3,SNR=7.7						
EKA	Eskdalemuir Ar	63.65	33	P	P	19 27 01.0	-0.2
EKA				pmax	pmax		
	comp=Z,11nm,0.7s						
RJF	Les Rejaudoux	63.66	45	eP	P	19 27 00.5	-0.9
	comp=Z,196nm,1.4s,mb5.7						
RJF				eR			
	comp=Z,3µm,22.0s						
BTA	Talkin	63.76	33	⇓eP	P	19 27 00.5	-1.4
OSD	Olympics--Snow	63.76	318	P	P	19 27 02.5	+0.5
MTLF	Montolieu	63.77	47	eP	P	19 27 01.0	-1.1
	comp=Z,126nm,1.0s,mb5.6						
PGC	Sidney	63.80	319	eP	P	19 27 01.5	-0.7
	comp=Z,311nm,1.2s,mb6.2						
MDO	Dochfour	63.82	30	⇓eP	P	19 27 01.6	-0.7
OSR	Olympics--Salm	63.85	318	P	P	19 27 02.9	+0.3
CAF	Calviac	63.97	45	eP	P	19 27 02.4	-1.0
	comp=Z,195nm,1.0s,mb5.8						
OCWA	Octopus Mounta	64.05	318	eP	P	19 27 03.9	+0.1
	comp=Z,57nm,0.9s,mb5.6						
OCWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
EJON	La Jonquera	64.09	48	P	P	19 27 06.1	+1.8
	comp=Z,21nm,0.8s,mb5.2						
SJAF	Saint Jean de	64.10	48	eP	P	19 27 04.3	0.0
YKA	Yellowknife Ar	64.28	336	P	P	19 27 03.3	-1.8
	comp=Z,9.2nm,0.4s,mb5.2,baz=106,slow=7.3,SNR=148						
YKA				LR	LR	19 54 04.0	
	comp=Z,6µm,21.6s,MS5.7,baz=110,slow=35						
YKA	Yellowknife Ar	64.28	336	P	P	19 27 03.3	-1.8
YKA				pmax	pmax		
	comp=Z,9.0nm,0.4s						
YKA				MLR	MLR		
	comp=Z,6µm,21.6s						
YKW3	Yellowknife Ar	64.32	336	eP	P	19 27 03.1	-2.2
TCF	Toulx Ste Croi	64.34	44	eP	P	19 27 04.9	-0.9
	comp=Z,95nm,1.0s,mb5.5						
VERF	Verneugheol	64.42	44	eP	P	19 27 06.2	-0.1
MCD	Coleburn Disti	64.43	30	eP	P	19 27 05.5	-0.7
SCO	Scoresbysund	64.82	14	eP	P	19 27 12.7	+4.2
SCO				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
SCO	Scoresbysund	64.82	14	eP	P	19 27 12.7	+4.2
	comp=Z,17nm,0.9s,mb5.1						
SCO	Scoresbysund	64.82	14	i P	P	19 27 12.7	+4.2
	comp=Z,17nm,0.9s,mb5.1						
BGF	Bois d'Agland	64.83	43	eP	P	19 27 08.1	-0.9
	comp=Z,148nm,1.0s,mb5.7						
HYF	Humbligny	64.84	43	eP	P	19 27 08.3	-0.7
LASF	Ste Croix	65.07	46	eP	P	19 27 09.9	-0.7
	comp=Z,138nm,1.2s,mb5.5						
AVF	Avril sur Loir	65.22	43	eP	P	19 27 10.3	-1.2
	comp=Z,70nm,1.0s,mb5.3						
USHA	Ushuaia	65.34	184	P	P	19 27 11.9	-0.2
	comp=Z,9.2nm,0.9s,mb4.8,baz=303,slow=12,SNR=2.7						
SSF	Saint Saulge	65.38	43	eP	P	19 27 11.1	-1.4
	comp=Z,67nm,1.0s,mb5.3						
SMF	Signal de Mont	65.52	43	eP	P	19 27 12.4	-1.0
	comp=Z,149nm,1.0s,mb5.7						
VIVF	Saint-Julien-l	65.78	45	eP	P	19 27 14.9	-0.2
	comp=Z,77nm,1.1s,mb5.3						
TRIS	Tristan da Cun	66.03	139	P	P	19 27 15.0	-1.9
SMRF	Simiane la Rot	66.28	47	eP	P	19 27 18.2	-0.1
	comp=Z,81nm,1.1s,mb5.4						
BAIF	Baives	66.45	40	eP	P	19 27 18.0	-1.2
	comp=Z,28nm,0.9s,mb5.0						
OG05	Jujurieux	66.52	44	eP	P	19 27 20.1	+0.3
ORIF	Oris-en-Rattie	66.63	46	eP	P	19 27 20.6	+0.1
	comp=Z,64nm,1.1s,mb5.3						
ORIF				eR			
	comp=Z,2µm,22.2s						
MEZF	Maizieres J'vi	66.68	42	eP	P	19 27 19.7	-1.0
	comp=Z,170nm,0.9s,mb5.8						
GIVF	Givet	66.84	40	eP	P	19 27 20.6	-1.1
	comp=Z,120nm,1.0s,mb5.6						
LMR	La Mourre	66.86	47	eP	P	19 27 20.9	-1.0
	comp=Z,63nm,0.9s,mb5.3						
RES	Resolute Bay	66.89	351	eP	P	19 27 21.6	-0.1
	comp=Z,52nm,1.1s,mb5.5						
RES				epP	pP	19 27 35.2	-0.3
FRF	La Foret Royal	66.99	47	eP	P	19 27 21.8	-1.0
	comp=Z,82nm,0.9s,mb5.5						
CABF	La Chapelle	67.04	44	eP	P	19 27 22.2	-0.8
	comp=Z,120nm,1.1s,mb5.5						
BNI	Bardonecchia	67.21	46	eP	P	19 27 24.4	+0.2
	comp=Z,21nm,1.0s,mb5.1						
MBDF	Montbardon	67.23	46	eP	P	19 27 24.2	-0.1
	comp=Z,56nm,0.8s,mb5.4						
THEF	They Montfort	67.24	42	eP	P	19 27 24.7	+0.4
RRL	Cesana Torines	67.27	46	P	P	19 27 25.1	+0.6
LPL	La Plagne	67.32	45	eP	P	19 27 25.0	+0.2
	comp=Z,79nm,0.9s,mb5.4						
LPG	La Plagne	67.33	45	eP	P	19 27 25.1	+0.3
	comp=Z,123nm,1.3s,mb5.5						
OG01	Vacheresse	67.40	44	eP	P	19 27 25.1	-0.2
PZZ	Prazzo	67.44	46	P	P	19 27 26.2	+0.6
PZZ	Prazzo	67.44	46	P	P	19 27 26.2	+0.6
HAU	Haudompre	67.44	42	eP	P	19 27 24.1	-1.4
	comp=Z,85nm,1.3s,mb5.3						
HAU				eR			
	comp=Z,630nm,21.0s						
FENE	Fenestrelle	67.48	46	P	P	19 27 26.1	+0.3
DOI	San Damiano	67.54	46	eP	P	19 27 26.8	+0.6
STV	Sta Anna Valdi	67.56	46	P	P	19 27 26.4	+0.1
STV	Sta Anna Valdi	67.56	46	P	P	19 27 26.4	+0.1
STV2	Anna di Valdie	67.56	46	P	P	19 27 26.5	+0.1
STV2	Anna di Valdie	67.56	46	P	P	19 27 26.5	+0.2
SBF	Sospel	67.59	47	eP	P	19 27 25.4	-1.1
	comp=Z,77nm,0.8s,mb5.5						
BHB	Bricherasio	67.60	46	P	P	19 27 26.3	-0.3
LSD	Ceresole Reale	67.60	45	P	P	19 27 27.5	+0.9
WLF	Walferdange	67.60	41	⇑eP	P	19 27 25.6	-0.9
	comp=Z,59nm,1.0s,mb5.6						
ENR	Entracque	67.63	46	P	P	19 27 26.3	-0.5
ENR	Entracque	67.63	46	P	P	19 27 26.3	-0.5
RSP	Reno Superiore	67.63	45	P	P	19 27 27.3	+0.6
LOMF	Lomont	67.66	43	eP	P	19 27 27.5	+0.6
HGN	Heimansgroeve	67.67	39	eP	P	19 27 27.0	+0.1
	comp=Z,29nm,1.1s,mb5.2						
HGN				eS	S	19 36 23.5	+4.4
MEM	Membach	67.69	40	P	P	19 27 26.1	-0.9
	comp=Z,32nm,1.7s,mb5.1						
HINF	Hinteralfeld	67.75	43	eP	P	19 27 26.0	-1.4
	comp=Z,43nm,0.7s,mb5.3						
NEGI	Negi	67.78	47	P	P	19 27 27.6	-0.2
NEGI	Negi	67.78	47	P	P	19 27 27.6	-0.1
MONE	Monesi	67.85	47	P	P	19 27 28.3	+0.2
MONE	Monesi	67.85	47	P	P	19 27 28.3	+0.2
IMI	Imperia	67.92	47	P	P	19 27 27.2	-1.4
IMI	Imperia	67.92	47	P	P	19 27 27.2	-1.4
MOF	Molkenrain	67.94	43	eP	P	19 27 28.4	-0.2
ROB	Roburent	67.96	46	P	P	19 27 28.3	-0.5
ECH	Echery	68.01	42	eP	P	19 27 29.1	0.0
TRAV		68.02	45	P	P	19 27 28.9	-0.3
CDF	Champ du Feu	68.12	42	eP	P	19 27 28.8	-1.0
	comp=Z,96nm,1.0s,mb5.5						
BBS	Basel-Blauen	68.13	43	eP	P	19 27 29.9	+0.1
WLS	Welschbruch	68.17	42	eP	P	19 27 30.1	0.0
FIN	Finale Ligure	68.19	47	P	P	19 27 29.2	-1.1
ORO	Oropa	68.20	45	eP	P	19 27 30.6	+0.3
ORX	Oropa	68.20	45	P	P	19 27 29.9	-0.4
MCGN	Macugnaga	68.25	45	eP	P	19 27 32.2	+1.6
LIBD	Limburg	68.30	42	eP	P	19 27 31.2	+0.3
WTSB	Winterswijk	68.43	38	eP	P	19 27 31.4	-0.2
	comp=Z,45nm,1.2s,mb5.3						
WTSB				eS	S	19 36 29.5	+1.2
PCP	Pian Castagno	68.47	46	P	P	19 27 31.9	-0.1
WIT	Witteveen	68.52	37	eP	P	19 27 32.9	+0.8
FELD	Feldberg	68.52	43	eP	P	19 27 32.3	0.0
ABH	Alteburg	68.53	40	eP	P	19 27 32.7	+0.4
LANF	Langenberg	68.56	41	eP	P	19 27 32.7	+0.2
PGF	Pioggiola	68.59	48	eP	P	19 27 31.9	-0.9
	comp=Z,98nm,1.0s,mb5.4						
VSL	Villasalto	68.62	52	⇑eP	P	19 27 33.1	+0.1
	comp=Z,96nm,1.1s,mb5.6						
VAI	Varese	68.78	45	eP	P	19 27 33.4	-0.5
BFO	Black Forest	68.80	42	eP	P	19 27 33.6	-0.4
BOB	Bobbio (Coli)	69.13	46	eP	P	19 27 37.3	+1.2
STU	Stuttgart	69.43	42	eP	P	19 27 37.1	-0.8
	comp=Z,85nm,0.9s,mb5.7						
BACM		69.53	47	P	P	19 27 37.8	-0.8
GRAM		69.54	46	P	P	19 27 37.8	-0.8
VINC	Vinca	69.57	47	P	P	19 27 38.0	-0.8
VALM		69.66	47	P	P	19 27 38.1	-1.2
DAVA	Damuels	69.71	43	⇑iP	P	19 27 40.0	+0.4
	comp=Z,85nm,1.0s,mb5.6						
MAIM		69.80	47	P	P	19 27 38.6	-1.5
BDI	Bagni Di Lucca	69.88	47	eP	P	19 27 40.3	-0.4
GSCL	Gusciola	69.90	47	eP	P	19 27 42.6	+1.8
BRMO	Bormio	69.95	44	eP	P	19 27 41.5	+0.5
DLBC	Dease Lake	69.95	329	eP	P	19 27 42.1	+1.2
SAL	Salo	69.97	45	eP	P	19 27 42.5	+1.3
DAG	Danmarks Havn	69.99	10	eP	P	19 27 41.0	+0.2
DAG				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.2						
DAG	Danmarks Havn	69.99	10	eP	P	19 27 41.0	+0.2
	comp=Z,44nm,1.3s,mb5.2						
DAG	Danmarks Havn	69.99	10	i P	P	19 27 41.0	+0.2
	comp=Z,44nm,1.3s,mb5.2						
GRFL	Gerfalco	70.09	48	eP	P	19 27 42.7	+0.8
ZCCA	Zocca	70.18	47	eP	P	19 27 42.5	0.0
CSNT	Castellina Chi	70.34	48	eP	P	19 27 45.2	+1.8
MOTA	Moosalm	70.54	43	⇑iP	P	19 27 44.6	0.0
	comp=Z,37nm,0.8s,mb5.4						
CLZ	Clausthal	70.60	39	eP	P	19 27 44.9	0.0
	comp=Z,41nm,1.2s,mb5.2						
SQTA	Sankt Quirin	70.60	44	⇑iP	P	19 27 45.1	+0.1
	comp=Z,38nm,0.8s,mb5.4						
MUD	Monsted U'grnd	70.63	34	i P	P	19 27 46.3	+1.3
MUD				i S	S	19 36 57.2	+3.2
MUD				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.3						
MUD				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.0						
MUD	Monsted U'grnd	70.63	34	i P	P	19 27 46.3	+1.3
	comp=Z,46nm,1.1s,mb5.3						
MUD				i S	S	19 36 57.2	+3.2
	comp=Z,1µm,22.0s						
PGD	Poggio Sodo	70.68	47	eP	P	19 27 44.7	-0.8
SFI	Santa Sofia	70.77	47	eP	P	19 27 45.6	-0.5
CTI	Castel Tesino	70.80	45	eP	P	19 27 46.0	-0.2
WATA	Walderalm	70.86	44	⇑iP	P	19 27 47.3	+0.8
	comp=Z,25nm,0.9s,mb5.2						
BSEG	Bad Segeberg	70.86	36	eP	P	19 27 46.8	+0.3
BSEG				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
GRA1	Grafenberg Arr	70.86	41	eP	P	19 27 46.6	+0.1
	comp=Z,42nm,1.2s,mb5.2						
GRA1				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
GRF	Grafenberg Arr	70.86	41	eP	P	19 27 46.6	+0.1
GRF				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.2						
WTTA	Wattenberg	70.89	44	⇓iP	P	19 27 46.7	-0.1
	comp=Z,33nm,0.9s,mb5.3						
MOX	Moxa	71.22	40	eP	P	19 27 48.0	-0.7
MOX				pmax	pmax		
	comp=Z,75nm,2.4s,mb5.2						
MOX				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.8						
MOX	Moxa	71.22	40	i P	P	19 27 48.0	-0.7
	comp=Z,logA/T=1.5,mb5.2						
MOX				S	S	19 37 07.0	+6.1
MOX				L		20 02 36.0	
MOX	Moxa	71.22	40	eP	P	19 27 48.0	-0.7
	comp=Z,75nm,2.4s,mb5.2						
MOX				LR	LR		
	comp=Z,500nm,20.0s,MS4.8						
MNS	Montasola	71.29	49	eP	P	19 27 49.2	0.0
FSSB	Fossombrone	71.43	47	eP	P	19 27 50.4	+0.3
KONO	Kongsberg	71.46	30	PFAKE		19 28 00.0	+10
KONO				LR	LR		
	comp=Z,784nm,20.0s,MS5.0						
SNTG	Esanatoglia	71.53	48	eP	P	19 27 50.5	-0.1
ARV	Arcevia	71.54	48	eP	P	19 27 50.3	-0.4
FVI	Forni Avoltri	71.62	44	eP	P	19 27 51.5	+0.4
NKC	Novy Kostel	71.71	41	eP	P	19 27 52.2	+0.6
NKC				epP	pP	19 28 05.3	-0.1
NKC				eS	S	19 37 09.0	+2.5
NKC				AMS	AMS	19 55 10.0	
	comp=Z,1µm,21.8s						
PTQR	Pietraquaria	71.81	49	eP	P	19 27 53.4	+1.1
AQU	L'Aquila	71.82	49	⇑eP	P	19 27 52.4	0.0
	comp=Z,44nm,0.9s,mb5.4						
PTCC	Patocco-Chiusa	72.00	45	eP	P	19 27 53.0	-0.4
KBA	Koelnbreinsper	72.04	44	⇑iP	P	19 27 53.8	+0.2
	comp=Z,54nm,1.1s,mb5.4						
CLL	Collm	72.16	39	⇑iP	P	19 27 54.6	+0.4
CLL				i *PP	pP	19 28 11.2	+3.1
CLL				eS	S	19 37 15.0	+3.2
CLL				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
CLL				MLR	MLR		
	comp=Z,2µm,22.1s,MS5.2						
CLL	Collm	72.16	39	⇑iP	P	19 27 54.6	+0.4
	comp=Z,31nm,1.0s,mb5.2						
CLL				i pP	pP	19 28 11.2	+3.1
CLL				eS	S	19 37 15.0	+3.2
CLL				LR	LR		
	comp=Z,2µm,22.1s,MS5.2						
CLL	Collm	72.16	39	⇑P	P	19 27 54.6	+0.4
	comp=Z,logA/T=1.5,mb5.2						
CLL				i		19 28 00.9	
CLL				i *PP	pP	19 28 11.2	+3.1
CLL				e		19 28 33.0	
CLL				eS	S	19 37 15.0	+3.2
CLL				eSS	SS	19 41 54.0	+2.3
CADS	Cadrg	72.26	45	eP	P	19 27 55.0	+0.1
NAO01	NORSAR Array S	72.31	29	eP	P	19 27 55.3	+0.3
	comp=Z,42nm,1.1s,mb5.3						

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KHC   Kasperske Hory   72.34  42  eP      P      19 27 55.4  0.0
KHC                               epP     pP     19 28 08.6 -0.6
KHC                               eS      S      19 37 17.0 +3.1
KHC                                AMS    AMS    19 55 20.0
      comp=Z,1µm,24.8s
VOY   Vojsko           72.35  45  eP      P      19 27 55.7 +0.2
VOY                               e              19 28 02.3
GEC2  GERESS Array S   72.40  42  eP      P      19 27 55.6 -0.1
GEC2                               pmax   pmax
      comp=Z,47nm,1.1s,mb5.3
GEC2  GERESS Array S   72.40  42  eP      P      19 27 55.6 -0.1
      comp=Z,47nm,1.1s,mb5.3
GERES GERESS Array B   72.40  42   P      P      19 27 55.6 -0.1
      comp=Z,17nm,0.8s,mb5.0,baz=252,slow=4.2,SNR=109
GERES GERESS Array B   72.40  42   P      P      19 27 55.6 -0.1
GERES                              pmax   pmax
      comp=Z,17nm,0.8s
CII   Carovilli        72.48  50  eP      P      19 27 57.4 +1.1
      comp=Z,43nm,0.9s,mb5.4
SIT   Sitka            72.50 327   PFAKE         19 28 10.0  +14
SIT                                LR     LR
      comp=Z,5µm,21.0s,MS5.7
NB2   NORSAR Subarra   72.50  29   P      P      19 27 57.1 +1.0
      comp=Z,35nm,1.2s,mb5.2,baz=260,slow=6.2
NB2   NORSAR Subarra   72.50  29   P      P      19 27 57.1 +1.0
      baz=260,slow=6.5
NOA   NORSAR Array B   72.50  29   P      P      19 27 57.1 +1.0
      comp=Z,19nm,1.0s,mb5.0,baz=259,slow=5.9,SNR=28
NOA   NORSAR Array B   72.50  29   P      P      19 27 57.1 +1.0
NOA                                pmax   pmax
      comp=Z,19nm,1.0s
MOA   Molln            72.71  43⇑iP     P      19 27 57.5 -0.1
      comp=Z,36nm,1.1s,mb5.2
BRG   Berggiesshubel   72.72  40  i P     P      19 27 57.9 +0.4
BRG                               i       pP     19 28 11.8 +0.4
BRG                               eS      S      19 37 25.0 +6.9
BRG                                pmax   pmax
      comp=Z,27nm,1.0s,mb5.1
BRG                                MLR    MLR
      comp=N,350nm,21.9s,MS5.2
BRG                                MLR    MLR
      comp=E,1µm,19.2s,MS5.2
BRG                                MLR    MLR
      comp=Z,2µm,23.5s,MS5.3
BRG   Berggiesshubel   72.72  40  i P     P      19 27 57.9 +0.4
      comp=Z,27nm,1.0s,mb5.1
BRG                               i       pP     19 28 11.8 +0.4
BRG                               eS      S      19 37 25.0 +6.9
BRG                               eSS     SS     19 42 11.0  +10
BRG                                LR     LR
      comp=Z,2µm,23.5s,MS5.3
LJU   Ljubljana        72.80  45  eP      P      19 27 58.3 +0.2
OBKA  Obir             72.83  45⇑iP     P      19 27 58.2 -0.1
      comp=Z,41nm,0.8s,mb5.4
PRU   Pruhonice        73.03  41  eP      P      19 27 59.5 +0.1
PRU                               e*PP    pP     19 28 13.3  0.0
PRU                               eS      S      19 37 25.3 +3.6
PRU                                pmax   pmax
      comp=Z,51nm,1.3s,mb5.3
PRU   Pruhonice        73.03  41  eP      P      19 27 59.5 +0.1
      comp=Z,51nm,1.3s,mb5.3
PRU                               epP     pP     19 28 13.3  0.0
PRU                               eS      S      19 37 25.3 +3.6
PRU                                AMS    AMS    19 55 30.0
PVCC  Panska Ves       73.09  40  eP      P      19 28 00.9 +1.2
PVCC                              epP     pP     19 28 16.1 +2.5
PVCC                              eS      S      19 37 26.6 +4.3
PVCC                               AMS    AMS    19 55 40.0
      comp=Z,1µm,21.1s
SGO   Sicignano        73.21  51  eP      P      19 28 01.9 +1.2
MGR   Morigerati       73.40  51  eP      P      19 28 02.3 +0.5
CRES  Cresnjev         73.43  45  eP      P      19 28 01.7 -0.2
ARSA  Arzberg          73.53  44⇓iP     P      19 28 02.0 -0.4
      comp=Z,18nm,1.0s,mb5.0
INK   Inuvik           73.71 338  eP      P      19 28 01.6 -1.5
      comp=Z,71nm,1.4s,mb5.4
UPC   Upice            74.01  40  eP      P      19 28 06.1 +1.0
UPC                               epP     pP     19 28 18.1 -0.9
DPC   Dobruska-Polom   74.20  41  eP      P      19 28 07.7 +1.5
DPC                               e*PP    pP     19 28 19.1 -1.0
DPC                                MLR    MLR
      comp=Z,1µm,20.5s,MS5.1
DPC   Dobruska-Polom   74.20  41  eP      P      19 28 07.7 +1.5
DPC                               epP     pP     19 28 19.1 -1.0
DPC                               ex      x      19 37 19.8
DPC                                AMS    AMS    19 56 20.0
      comp=Z,1µm,20.5s
KSP   Ksiaz            74.20  40  eP      P      19 28 07.5 +1.3
KSP                               e*PP    pP     19 28 19.8 -0.3
KSP                               eS      S      19 37 36.0 +1.3
KSP                                MLR    MLR
      comp=Z,3µm,22.3s,MS5.5
KSP   Ksiaz            74.20  40  epP     pP     19 28 19.8 -0.3
VRAC  Vranov           74.33  42  eP      P      19 28 07.2 +0.2
ZST   Bratislava       74.63  43  eP      P      19 28 08.8  0.0
ZST                               e       pP     19 28 20.5 -2.2
LOF   Lofoten          74.75  22  eP      P      19 28 12.2 +3.2
LOF                                AMb    AMB    19 28 16.9
      comp=Z,45nm,0.9s,mb5.4
LOF   Lofoten          74.75  22  eP      P      19 28 12.2 +3.2
      comp=Z,45nm,0.9s,mb5.4
MODS  Modra-Piesok     74.75  43  eP      P      19 28 08.7 -0.8
MODS                              e       pP     19 28 19.9 -3.5
SMOL  Smolenice        74.86  43  eP      P      19 28 11.2 +1.2
SMOL                              e       pP     19 28 24.4 +0.4
PMSA  Palmer Station   75.07 181   P      P      19 28 17.2 +6.3
      comp=Z,33nm,1.0s,mb5.2
PMSA                               LR     LR
      comp=Z,2µm,21.0s,MS5.5
OKC   Ostrava-Krasne   75.35  41  eP      P      19 28 15.0 +2.1
OKC                               epP     pP     19 28 27.0 +0.2
OKC                               eS      S      19 37 55.6 +8.1
OKC                                AMS    AMS    19 57 00.0
      comp=Z,600nm,25.2s
DAWY  Dawson           75.36 334  eP      P      19 28 12.9 +0.3
VYHS  Vyhne            75.79  43  eP      P      19 28 15.5 +0.1
VYHS                              epP     pP     19 28 28.6 -0.7
OJC   Ojcow            76.42  41  eP      P      19 28 19.6 +0.7
PSZ   Piszkesteto      76.50  43  eP      P      19 28 17.9 -1.6
      comp=Z,24nm,1.2s,mb5.0
DIVS  Divcibare        76.65  47⇓iP     P      19 28 22.3 +2.0
NIE   Niedzica         76.76  42  eP      P      19 28 23.9 +3.0
TRO   Tromso           76.88  21  eP      P      19 28 21.7 +0.5
TRO                                AMb    AMB    19 28 30.5
      comp=Z,57nm,1.3s,mb5.3
TRO   Tromso           76.88  21  eP      P      19 28 21.7 +0.5
      comp=Z,57nm,1.3s,mb5.3
SKO   Skopje           77.80  49  eP      P      19 28 25.0 -1.8
KOLS  Kolonicke sedl   78.06  42  eP      P      19 28 29.2 +1.1
DIV   Divide           78.15 330   PFAKE         19 28 40.0  +12
DIV                                LR     LR
      comp=Z,12µm,22.0s,MS6.2
KWP   Kalwaria         78.31  41  eP      P      19 28 31.4 +1.9
KTK1  Kautokeino       78.37  21  eP      P      19 28 31.3 +1.9
KTK1                               AMb    AMB    19 28 38.2
      comp=Z,52nm,1.2s,mb5.3
KTK1  Kautokeino       78.37  21  eP      P      19 28 31.3 +1.9
      comp=Z,52nm,1.2s,mb5.3
SUW   Suwalki          78.44  37  eP      P      19 28 27.7 -2.4
      comp=Z,31nm,0.9s,mb5.2
SUW   Suwalki          78.44  37  eP      P      19 28 27.9 -2.2
ILAR  Eielson Array    78.64 334   P      P      19 28 30.7 -0.3
      comp=Z,4.9nm,0.6s,mb4.7,baz=104,slow=3.6,SNR=63
ILAR                               PP     PP     19 31 31.4 +0.3
      comp=Z,2.1nm,0.9s,baz=89,slow=5.3,SNR=4.6
ILAR                               LR     LR     20 03 25.4
      comp=Z,3µm,21.9s,MS5.5,baz=106,slow=36
ILAR  Eielson Array    78.64 334   P      P      19 28 30.7 -0.3
ILAR                                             19 31 31.4
ILAR                               pmax   pmax
      comp=Z,5.0nm,0.6s
ILAR                               pmax   pmax
      comp=Z,2.0nm,0.9s
ILAR                               MLR    MLR
      comp=Z,3µm,21.9s
KKB   Krupnik          79.03  49  eP      P      19 28 35.0 +1.4
COLA  College          79.05 334  i P     P      19 28 34.5 +1.3
COLA  College          79.05 334  eP      P      19 28 34.1 +0.9
      comp=Z,28nm,1.3s,mb5.0
COLA                               LR     LR
      comp=Z,3µm,22.0s,MS5.6
VTS   Vitosha          79.07  48  eP      P      19 28 34.0 +0.2
ARCES ARCESS Array B   79.18  21   P      P      19 28 34.8 +1.0
      comp=Z,16nm,0.7s,mb5.1,baz=261,slow=2.9,SNR=40
ARCES                              LR     LR     19 58 37.3
      comp=Z,292nm,18.9s,MS4.6,baz=256,slow=32
ARCES ARCESS Array B   79.18  21   P      P      19 28 34.8 +1.0
ARCES                              pmax   pmax
      comp=Z,16nm,0.7s
ARCES                              MLR    MLR
      comp=Z,292nm,18.9s
ARE0  ARCESS Array S   79.18  21  eP      P      19 28 34.4 +0.5
ARE0                              epP     pP     19 28 48.6 +0.8
RKT   Rikitea          79.27 244  eLR     LR     19 54 44.3
      comp=Z,957nm,25.5s
SML   Sawmill          79.37 331   P      P      19 28 36.7 +1.7
SML                               epP     pP     19 28 49.4 +0.4
MCK   McKinley         79.56 333  eP      P      19 28 36.4 +0.4
      comp=Z,18nm,1.2s,mb4.9
MCK                                LR     LR
      comp=Z,3µm,21.0s,MS5.6
FINES FINESS Array B   79.69  29   P      P      19 28 37.2 +0.5
      comp=Z,5.5nm,0.6s,mb4.7,baz=260,slow=4.0,SNR=36
FINES                              LR     LR     19 59 36.2
      comp=Z,465nm,21.0s,MS4.8,baz=180,slow=32
FINES FINESS Array B   79.69  29   P      P      19 28 37.2 +0.5
FINES                              pmax   pmax
      comp=Z,6.0nm,0.6s
FINES                              MLR    MLR
      comp=Z,465nm,21.0s
FINES FINESS Array B   79.69  29   P      P      19 28 37.2 +0.5
FINES                              LR     LR     19 59 36.2
KEV   Kevo             79.70  21  ep      P      19 28 37.3 +0.7
PGB   Panagyurishte    79.78  48  eP      P      19 28 38.5 +0.9
VSU   Vasula           80.20  32⇓eP     P      19 28 40.5 +1.0
VSU   Vasula           80.20  32⇓eP     P      19 28 40.6 +1.1
RZN   Rozhen           80.26  49  eP      P      19 28 41.0 +0.8
FIB   Fire Island      80.28 331   PFAKE         19 28 50.0  +10
FIB                                LR     LR
      comp=Z,4µm,19.0s,MS5.8
GVD   Gavdhos          80.45  56  eP      P      19 28 41.4  0.0
      comp=Z,54nm,1.0s,mb5.4
MNK   Minsk            81.14  36  eP      P      19 28 44.0 -0.5
IMA   Indian Mountai   81.40 336  eP      P      19 28 47.4 +1.7
      comp=Z,185nm,1.3s,mb5.8
RSO   Redoubt South    81.61 330  eP      P      19 28 48.4 +1.5
KDAK  Kodiak Island    81.82 327   PFAKE         19 29 00.0  +12
KDAK                               LR     LR
      comp=Z,714nm,20.0s,MS5.0
JOF   Joensuu          82.00  27  ep      P      19 28 48.3 -0.6
      comp=Z,9.4nm,0.8s,mb4.8
JOF   Joensuu          82.00  27  eP      P      19 28 48.3 -0.6
JOF                                pmax   pmax
      comp=Z,9.0nm,0.8s,mb4.8
AKASG Malin Array Be   82.40  40   P      P      19 28 51.0 -0.2
      comp=Z,1.2nm,0.6s,mb4.0,baz=268,slow=4.9,SNR=14
AKASG Malin Array Be   82.40  40   P      P      19 28 51.0 -0.2
AKASG                              pmax   pmax
      comp=Z,1.0nm,0.6s
ESKT  Eskisehir        85.17  51   P      P      19 29 05.8 +0.4
ISP   Isparta          85.19  53  i P     P      19 29 07.8 +2.3
SGKT  Sivrigoynuk      85.91  50   P      P      19 29 08.8 -0.2
OBN   Obninsk          86.03  35⇑eP     P      19 29 10.5 +1.3
OBN                               i              19 39 40.8
OBN                                pmax   pmax
      comp=Z,85nm,1.6s,mb5.7
OBN                                MLR    MLR
      comp=Z,700nm,19.0s,MS5.1
OBN   Obninsk          86.03  35  eP      P      19 29 10.2 +1.0
      comp=Z,75nm,1.0s,mb5.9
OBN                                LR     LR
      comp=Z,248nm,22.0s,MS4.6
MOS   Moscow           86.48  34  eP      P      19 29 13.9 +2.5
MOS                               e       pP     19 29 25.0 -0.6
MOS                               e       pP     19 29 31.2 +5.6
MOS                                MLR    MLR
      comp=Z,2µm,22.5s,MS5.5
SIM   Simferopol’      86.58  45   P      P      19 29 10.0 -2.2
SIM                               eS      S      19 39 50.0 +6.5
ELDT  Eldivan          86.95  50   P      P      19 29 15.3 +1.2
TNA   Tin City         87.22 336   PFAKE         19 29 30.0  +15
TNA                                LR     LR
      comp=Z,2µm,21.0s,MS5.4
BRTR  Keskin Array B   87.26  50   P      P      19 29 16.4 +0.8
      comp=Z,3.7nm,0.8s,mb4.7,baz=270,slow=3.7,SNR=15
BRTR  Keskin Array B   87.26  50   P      P      19 29 16.4 +0.8
BRTR                               pmax   pmax
      comp=Z,4.0nm,0.8s
VRSR  Storozhevoye     88.49  38  eP      P      19 29 22.1 +0.9
VRSR                              e*SP    sP     19 29 34.1 -6.4
VRSR                              e              19 39 40.7
VRSR                              eS      S      19 40 03.0 +1.7
VRSR                              eSS     SS     19 45 56.1 +0.4
VRSR                               pmax   pmax
      comp=Z,20nm,0.7s,mb5.5
VRSR                               pmax   pmax
      comp=N,2.0nm,0.3s
VRSR                               pmax   pmax
      comp=E,10.0nm,0.8s
VRSR                               smax
      comp=N,200nm,4.2s
VRSR                               smax
      comp=Z,120nm,4.0s
VRSR                               smax
      comp=E,170nm,4.5s
VNA1  Neumayer--Stat   88.51 165⇑iP     P      19 29 25.1 +4.2
VNA1  Neumayer--Stat   88.51 165⇑i      P      19 29 26.5 +5.6
VNA1  Neumayer--Stat   88.51 165⇑i      pP     19 29 39.0 +3.8
VNA1  Neumayer--Stat   88.51 165          sP     19 29 43.3 +3.1
VNA1  Neumayer--Stat   88.51 165⇓i      PP     19 32 53.3 +1.5
VNA3  Neumayer Olymp   88.53 165⇓iP     P      19 29 24.4 +3.4
VNA3  Neumayer Olymp   88.53 165⇑i      P      19 29 26.0 +5.0
VNA3  Neumayer Olymp   88.53 165          pP     19 29 38.0 +2.8
VNA3  Neumayer Olymp   88.53 165⇑i      sP     19 29 44.0 +3.8
VNA2  Neumayer--Watz   88.91 165   P      P      19 29 26.4 +3.6
VNA2  Neumayer--Watz   88.91 165⇑i      P      19 29 27.8 +5.0
VNA2  Neumayer--Watz   88.91 165⇑i      pP     19 29 40.3 +3.2
VNA2  Neumayer--Watz   88.91 165⇑i      sP     19 29 45.5 +3.4
ANN   Anapa            88.92  45  eP      P      19 29 14.1 -9.3
SUR   Sutherland       89.10 123   P      P      19 29 25.3 +0.7
      comp=E,22nm,1.1s,mb5.4
SUR                                LR     LR
      comp=Z,465nm,20.0s,MS4.9
COBT  Iskenderun       89.94  53   P      P      19 29 31.0 +2.5
KAHT  Ahir Dag         90.17  52   P      P      19 29 31.8 +2.3
UNV   Unalaska Valle   90.33 325   PFAKE         19 29 40.0  +10
UNV                                LR     LR
      comp=Z,12µm,20.0s,MS6.3
SNAA  Sanae            90.54 164⇑iP     P      19 29 30.5  0.0
SNAA  Sanae            90.54 164⇑i      P      19 29 31.5 +1.0
SNAA  Sanae            90.54 164⇑i      pP     19 29 44.1 -0.7
SNAA  Sanae            90.54 164⇑i      sP     19 29 49.0 -0.7
SNAA  Sanae            90.54 164⇑i      PP     19 33 00.3 -7.7
SNAA  Sanae            90.54 164   P      P      19 29 31.3 +0.8
      comp=Z,12nm,1.1s,mb5.1,baz=327,slow=4.7,SNR=28
SNAA                               LR     LR     20 07 38.6
      comp=Z,555nm,21.4s,MS5.0,baz=309,slow=34
SNAA  Sanae            90.54 164   P      P      19 29 31.3 +0.8
SNAA                               pmax   pmax
      comp=Z,12nm,1.1s
SNAA                               MLR    MLR
      comp=Z,555nm,21.4s
SNAA  Sanae            90.54 164⇑iP     P      19 29 31.5 +1.0
GZT   Gaziantep        90.77  52   P      P      19 29 34.2 +1.9
SOC   Sochi            90.81  45  eP      P      19 29 33.7 +1.3
SOC                               e              19 33 17.3
SOC                               ePPP    PPP    19 35 04.7 -6.1
SOC                               eS      S      19 40 28.7 +6.0
SOC                               eSS     SS     19 46 41.5  +12
SOC                               eSSS    SSS    19 50 05.6 -0.7
SOC                                pmax   pmax
      comp=Z,48nm,1.2s,mb5.7
SOC                                pmax   pmax
      comp=N,27nm,0.8s
SOC                                pmax   pmax
      comp=E,49nm,1.2s
SOC                                MLR    MLR
      comp=Z,377nm,23.0s,MS4.8
SOC                                MLR    MLR
      comp=N,183nm,20.0s,MS4.8
SOC                                MLR    MLR
      comp=E,324nm,22.0s,MS4.8
MALT  Malatya          91.20  51  eP      P      19 29 35.8 +1.5
      comp=E,23nm,1.5s,mb5.3
PPT   Papeete          91.35 252  eS      SP     19 41 41.3 +0.4
PPT                               eLR     LR     20 00 21.7
      comp=E,2µm,25.0s,baz=65
LBTB  Lobatse          91.72 115  eP      P      19 29 37.7 +0.7
      comp=E,28nm,1.3s,mb5.4
LBTB                               LR     LR
      comp=Z,1µm,21.0s,MS5.4
MBAR  Mbarara          92.26  90   PFAKE         19 29 50.0  +10
MBAR                               LR     LR
      comp=Z,254nm,22.0s,MS4.6
TBI   Tubuai           92.29 247  eLR     LR     20 00 48.0
      comp=Z,767nm,29.8s,baz=66
LSZ   Lusaka           92.37 105⇑eP     P      19 29 41.7 +1.5
      comp=Z,70nm,1.5s,mb5.8
LSZ                                LR     LR
      comp=Z,913nm,21.0s,MS5.2
KIV   Kislovodsk       92.77  45  eP      P      19 29 43.1 +1.7
KIV                               e              19 33 26.3
KIV                               eSS     SS     19 47 01.4 +3.7
KIV                                pmax   pmax
      comp=Z,10.0nm,1.4s,mb5.0
KIV                                pmax   pmax
      comp=N,2.0nm,0.9s
KIV                                pmax   pmax
      comp=E,5.0nm,1.4s
KIV                                MLR    MLR
      comp=Z,568nm,28.0s,MS4.9
KIV                                MLR    MLR
      comp=N,234nm,19.0s
KIV                                MLR    MLR
      comp=E,299nm,28.0s
KIV   Kislovodsk       92.77  45  eP      P      19 29 42.7 +1.3
      comp=E,12nm,1.0s,mb5.3
KIV                                LR     LR
      comp=Z,74nm,20.0s,MS4.1
ERZM  Erzurum          92.99  49   P      P      19 29 45.6 +3.1
MAIT  Maitri           94.38 161  eP      P      19 29 49.0 +0.9
ARU   Arti             97.06  29   PFAKE         19 30 10.0 +9.4
ARU                                LR     LR
      comp=Z,186nm,21.0s,MS4.5
TIXI  Tiksi            97.76 357  eP      P      19 30 05.4 +2.0
TIXI                               pmax   pmax
      comp=Z,15nm,1.7s,mb5.2
TIXI  Tiksi            97.76 357⇓eP     P      19 30 05.9 +2.5
TIXI                               LR     LR
      comp=Z,943nm,22.0s,MS5.2
KMBO  Kilima Mbogo     98.76  90   PFAKE         19 30 20.0  +11
KMBO                               LR     LR
      comp=Z,627nm,19.0s,MS5.1
SMY   Shemya          101.23 329   PFAKE         19 30 30.0  +10
SMY                                LR     LR
      comp=Z,3µm,21.0s,MS5.8
SYO   Syowa Base      103.68 159  ⇓PP     PP     19 34 43.2 -6.3
BRVK  Borovoye        104.53  28   PFAKE         19 30 50.0  +16
BRVK                               LR     LR
      comp=Z,133nm,20.0s,MS4.5
BVAR  Borovoye Array  104.60  28   PKKPbc        19 46 20.4
      comp=Z,0.7nm,0.8s,baz=135,slow=2.1,SNR=3.9
MA2   Magadan         105.53 344   PFAKE         19 35 00.0
MA2                                LR     LR
      comp=Z,2µm,21.0s,MS5.7
MIDW  Midway          107.12 304   PFAKE         19 35 10.0
MIDW                               LR     LR
      comp=Z,2µm,19.0s,MS5.7
YAK   Yakutsk         107.19 355   PFAKE         19 35 10.0
YAK                                LR     LR
      comp=Z,2µm,22.0s,MS5.5
PET   Petropavlovsk   108.08 336   PFAKE         19 35 10.0
PET                                LR     LR
      comp=Z,2µm,21.0s,MS5.6
SBA   Scott Base      108.40 190   PFAKE         19 35 10.0
SBA                                LR     LR
      comp=Z,832nm,22.0s,MS5.3
VNDA  Vanda           109.41 189   PFAKE         19 35 10.0
VNDA                               LR     LR
      comp=Z,780nm,20.0s,MS5.3
ZAL   Zalesovo        109.73  20   PKiKP         19 35 02.5
      comp=Z,1.1nm,0.8s,baz=177,slow=3.5,SNR=3.7
ZAL   Zalesovo        109.73  20   PKPdf         19 35 02.5
KURK  Kurchatov       109.87  26   PFAKE         19 35 10.0
KURK                               LR     LR
      comp=Z,169nm,22.0s,MS4.6
AFI   Afiamalu        112.02 259   PFAKE         19 35 20.0  +17
AFI                                LR     LR
      comp=Z,1µm,22.0s,MS5.5
EKS2  Erkin-Say       113.13  34   PFAKE         19 35 20.0  +15
EKS2                               LR     LR
      comp=Z,817nm,21.0s,MS5.3
AML   Almayashu       113.44  35   PFAKE         19 35 20.0  +14
AML                                LR     LR
      comp=Z,524nm,20.0s,MS5.1
AAK   Ala-Archa       113.55  34   PFAKE         19 35 20.0  +14
AAK                                LR     LR
      comp=Z,142nm,21.0s,MS4.5
UCH   Uchtor          113.83  34   PFAKE         19 35 20.0  +14
UCH                                LR     LR
      comp=Z,767nm,22.0s,MS5.3
TKM2  Tokmak 2        113.96  33   PFAKE         19 35 20.0  +13
TKM2                               LR     LR
      comp=Z,565nm,20.0s,MS5.2
TLY   Talaya          116.76  10   PFAKE         19 35 30.0  +18
TLY                                LR     LR
      comp=Z,193nm,22.0s,MS4.7
YSS   Yuzh-Sakhalins  118.87 341   PFAKE         19 35 30.0  +14
YSS                                LR     LR
      comp=Z,1µm,21.0s,MS5.5
WMQ   Urumqi          119.10  25  ⇑PKP    PKPdf  19 35 17.4 +0.8
WMQ                                XPKP          19 35 35.2
WMQ                                PP     PP     19 36 42.0 +0.1
WMQ                                PKS    PKS    19 38 52.8 +0.3
WMQ                                SKKS          19 43 29.9
WMQ                                LR     LR
      comp=N,435nm,23.0s,MS5.3
WMQ                                LR     LR
      comp=E,656nm,24.2s,MS5.3
WMQ                                LR     LR
      comp=Z,588nm,22.0s,MS5.2
SONM  Songino Array   120.94  10   PKP    PKPdf  19 35 22.7 +2.5
      comp=Z,2.0nm,0.6s,baz=291,slow=1.1,SNR=34
SONM                               PKKPbc        19 45 24.6
      comp=Z,0.6nm,0.7s,baz=173,slow=3.6,SNR=6.5
ULN   Ulaanbaatar     121.01   9   PFAKE         19 35 30.0  +10
ULN                                LR     LR
      comp=Z,807nm,22.0s,MS5.3
ERM   Erimo           123.08 338   PFAKE         19 35 40.0  +16
ERM                                LR     LR
      comp=Z,85nm,20.0s,MS4.4
CASY  Casey           124.01 176   PFAKE         19 35 40.0  +14
CASY                               LR     LR
      comp=Z,1µm,22.0s,MS5.5
WAKE  Wake Island     124.13 302   PFAKE         19 35 40.0  +13
WAKE                               LR     LR
      comp=Z,9µm,20.0s
MDJ   Mudanjiang      124.25 350   PKP    PKPdf  19 35 27.1 +0.5
MDJ                                XPKP          19 35 47.1
MDJ                                PP     PP     19 37 19.5 +2.7
MDJ                                SKS    SKS    19 42 34.3  +10
MDJ                                LR     LR
      comp=N,393nm,23.6s
MDJ                                LR     LR
      comp=E,851nm,29.3s
MDJ                                LR     LR
      comp=Z,1µm,21.7s,MS5.5
CN2   Changchun       125.61 354  ePKP    PKPdf  19 35 31.4 +2.2
CN2                                PP     PP     19 37 27.1 +1.5
CN2                                PP     PP
      comp=Z,310nm,6.0s
CN2                                LR     LR
      comp=N,1µm,20.0s,MS5.5
CN2                                LR     LR
      comp=E,600nm,20.0s,MS5.5
CN2                                LR     LR
      comp=Z,1µm,21.0s,MS5.5
GTA   Gaotai          127.39  18   PKP    PKPdf  19 35 35.7 +2.9
GTA                                XPKP          19 35 50.3
GTA                                PP     PP     19 37 38.0 +0.8
GTA                                SKS    SKS    19 42 42.5 +9.1
GTA                                SKKS          19 44 26.2
GTA                                SS     SS     19 54 41.5 +0.8
GTA                                PP     PP
      comp=Z,86nm,5.7s
GTA                                LR     LR
      comp=N,450nm,24.5s,MS5.2
GTA                                LR     LR
      comp=E,367nm,22.2s,MS5.2
GTA                                LR     LR
      comp=Z,670nm,26.8s,MS5.2
HHC   Hu-ho-hao-te    128.51   7  ePKP    PKPdf  19 35 38.7 +3.8
HHC                                XPKP          19 35 52.7
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HHC				PP	PP	19 37 49.0	+4.0
HHC				PKS	PKS	19 39 13.5	+3.0
HHC				SKS	SKS	19 42 44.0	+7.6
HHC				SKKS		19 44 37.0	
HHC				PP	PP		
	comp=Z,173nm,6.9s						
HHC				LR	LR		
	comp=N,518nm,25.0s,MS5.2						
HHC				LR	LR		
	comp=E,210nm,23.8s,MS5.2						
HHC				LR	LR		
	comp=Z,551nm,20.2s,MS5.2						
KOLN	**Koldanda**	**129.09**	**41**	*e*P	PKPdf	19 35 38.5	+2.1
	comp=Z,17nm,0.9s						
GKN	**Gorkha**	**129.59**	**40**	*e*P	PKPdf	19 35 40.1	+2.8
	comp=Z,56nm,0.9s						
BJI	**Beijing**	**129.68**	**2**	PKP	PKPdf	19 35 41.2	+4.0
BJI				LR	LR		
	comp=N,1µm,20.9s,MS5.6						
BJI				LR	LR		
	comp=E,565nm,20.9s,MS5.6						
BJI				LR	LR		
	comp=Z,1µm,24.2s,MS5.5						
MAJO	**Matsushiro**	**129.69**	**339**	*e*PKPdf	PKPdf	19 35 40.4	+3.0
MAJO				*e*pPKPdf		19 35 52.9	
MAJO				LR	LR		
	comp=Z,952nm,20.0s,MS5.5						
MAT	**Matsushiro**	**129.69**	**339**	PKP	PKPdf	19 35 40.0	+2.7
MAT	**Matsushiro**	**129.69**	**339**	*e*PKP	PKPdf	19 35 41.0	+3.7
MAT				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
BJT	**Baijiatuau**	**129.70**	**2**	*e*PKPdf	PKPdf	19 35 40.7	+3.5
BJT				*e*SKP		19 38 59.0	
KKN	**Kakani**	**130.14**	**39**	*e*P	PKPdf	19 35 41.4	+3.0
	comp=Z,10nm,0.5s						
DMN	**Daman**	**130.16**	**40**	*e*P	PKPdf	19 35 40.7	+2.3
	comp=Z,6.8nm,0.5s						
PKI	**Pulchoki**	**130.37**	**40**	*e*P	PKPdf	19 35 41.2	+2.4
	comp=Z,27nm,1.0s						
GUN	**Gumba**	**130.43**	**39**	*e*P	PKPdf	19 35 41.4	+2.5
LZH	**Lanzhou**	**131.64**	**16**	*e*PKP	PKPdf	19 35 39.5	-1.5
LZH				XPKP		19 35 59.3	
LZH				*e*PP	PP	19 38 03.0	-2.4
LZH				SKKS		19 44 48.1	
LZH				PP	PP		
	comp=Z,148nm,6.8s						
LZH				LR	LR		
	comp=N,579nm,18.0s						
LZH				LR	LR		
	comp=Z,747nm,20.1s,MS5.4						
INCN	**Inchon**	**131.69**	**351**	PFAKE		19 35 50.0	+8.9
INCN				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
XAN	**Xi'an**	**134.78**	**11**	PKP	PKPdf	19 35 51.4	+4.4
CD2	**Chengdu**	**136.46**	**19**	PKP	PKPdf	19 35 51.4	+1.3
CD2				PP	PP	19 38 30.8	-4.5
CD2				SKKS		19 45 26.3	
CD2				PP	PP		
	comp=Z,190nm,6.0s						
CD2				LR	LR		
	comp=E,340nm,19.2s						
CD2				LR	LR		
	comp=Z,420nm,21.6s,MS5.1						
NJ2	**Nanjing**	**137.70**	**360**	*e*PKP	PKPdf	19 35 52.6	+0.2
NJ2				PP	PP	19 38 43.0	-0.4
NJ2				PKS	PKS	19 39 28.0	+0.5
NJ2				SKS	SKS	19 42 58.0	+1.9
NJ2				PP	PP		
	comp=Z,2µm,10.4s						
NJ2				LR	LR		
	comp=N,3µm,24.0s,MS6.0						
NJ2				LR	LR		
	comp=E,1µm,21.2s,MS6.0						
NJ2				LR	LR		
	comp=Z,2µm,18.6s,MS5.9						
PALK	**Pallekele**	**138.39**	**66**	PFAKE		19 36 10.0	+16
PALK				LR	LR		
	comp=Z,112nm,22.0s,MS4.6						
ENH	**Enshi**	**138.55**	**12**	*e*PKPpre		19 35 50.5	
SSE	**Sheshan**	**138.58**	**357**	PKP	PKPdf	19 35 50.4	-3.6
SSE				LR	LR		
	comp=N,492nm,23.9s,MS5.3						
SSE				LR	LR		
	comp=E,379nm,23.9s,MS5.3						
SSE				LR	LR		
	comp=Z,784nm,21.7s,MS5.4						
KMI	**Kunming**	**141.39**	**23**	*e*PKP	PKPdf	19 35 58.5	-0.8
KMI				PP	PP	19 39 06.7	+0.6
KMI				SKKS		19 45 50.4	
KMI				SS	SS	19 57 28.1	-1.4
KMI				SSS	SSS	20 02 46.2	-1.4
KMI				LR	LR		
	comp=Z,672nm,25.0s,MS5.3						
GYA	**Guiyang**	**141.50**	**17**	PKP	PKPdf	19 36 01.4	+2.0
GYA				SKS	SKS	19 43 04.7	+2.1
GYA				PP	PP		
	comp=Z,1µm,9.2s						
GYA				LR	LR		
	comp=N,420nm,26.1s,MS5.3						
GYA				LR	LR		
	comp=E,580nm,27.1s,MS5.3						
GYA				LR	LR		
	comp=Z,440nm,26.0s,MS5.1						
TOO	**Toolangi**	**143.75**	**218**	*e*P	PKPbc	19 36 04.0	+2.2
	comp=Z,12nm,0.8s						
GUMO	**Guam**	**144.59**	**312**	PFAKE		19 36 20.0	+15
GUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
CHRT	**Chiangrai**	**144.62**	**32**	⇑P	PKPbc	19 36 03.0	-1.8
	comp=Z,213nm,1.2s						
CHG	**Chiang Mai**	**145.05**	**34**	⇓P	PKPdf	19 36 07.0	+1.3
	comp=Z,60nm,1.0s						
CMAR	**Chiang Mai Arr**	**145.33**	**34**	PKPbc	PKPbc	19 36 08.3	+1.6
	comp=Z,111nm,1.2s,baz=318,slow=4.9,SNR=149						
CMAR	**Chiang Mai Arr**	**145.33**	**34**	PKIKP	PKPdf	19 36 08.3	+2.1
CMAR				pmax	pmax		
	comp=Z,111nm,1.2s						
NANT	**Nan**	**145.99**	**31**	⇑P	PKPdf	19 36 09.0	+1.7
QIZ	**Qiongzhong**	**149.44**	**16**	PKP	PKPdf	19 36 18.0	+5.1
QIZ				PP	PP	19 39 53.5	0.0
QIZ				LR	LR		
	comp=N,862nm,23.3s						
QIZ				LR	LR		
	comp=Z,1µm,24.6s,MS5.6						
QIZ	**Qiongzhong**	**149.44**	**16**	*e*PKPab	PKPab	19 36 24.4	-0.1
STKA	**Stephens Creek**	**149.89**	**222**	*e*P	PKPdf	19 36 17.5	+4.2
	comp=Z,19nm,0.8s						
STKA	**Stephens Creek**	**149.89**	**222**	PKP	PKPdf	19 36 16.8	+3.5
	comp=Z,16nm,0.9s,baz=129,slow=5.7,SNR=11						
STKA				PKPbc	PKPdf	19 36 21.8	+8.4
	comp=Z,30nm,1.1s,baz=84,slow=4.6,SNR=17						
CTA	**Charters Tower**	**151.67**	**247**	*e*PKP	PKPdf	19 36 26.9	+11
	comp=Z,39nm,0.9s						
CTA	**Charters Tower**	**151.67**	**247**	PKPbc	PKPdf	19 36 26.4	+10
	comp=Z,32nm,0.8s,baz=120,slow=2.2,SNR=9.7						
CTA	**Charters Tower**	**151.67**	**247**	PKIKP	PKPdf	19 36 26.4	+10
CTA				pmax	pmax		
	comp=Z,32nm,0.8s						
CTAO	**Charters Tower**	**151.67**	**247**	*e*PKPdf	PKPdf	19 36 20.9	+4.6
CTAO				*e*pPKPdf		19 36 27.3	
CTAO				LR	LR		
	comp=Z,698nm,22.0s,MS5.4						
PMG	**Port Moresby**	**151.81**	**270**	PKPbc	PKPdf	19 36 27.3	+11
	comp=Z,15nm,0.9s,baz=297,slow=9.5,SNR=5.7						
PMG	**Port Moresby**	**151.81**	**270**	PKIKP	PKPdf	19 36 27.3	+11
PMG				pmax	pmax		
	comp=Z,15nm,1.0s						
PMG	**Port Moresby**	**151.81**	**270**	*e*PKPdf	PKPdf	19 36 19.4	+2.7
PMG				*e*PKPbc	PKPdf	19 36 25.9	+9.1
PMG				PKPbc	PKPdf	19 36 27.3	+11
PMG				LR	LR		
	comp=Z,774nm,21.0s,MS5.5						
NWAO	**Narrogin (SRO)**	**157.64**	**177**	PFAKE		19 36 40.0	+16
NWAO				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
COCO	**West Island**	**158.64**	**97**	PFAKE		19 36 40.0	+14
COCO				LR	LR		
	comp=Z,163nm,21.0s,MS4.8						
ASAR	**Alice Springs**	**160.35**	**226**	PKP	PKPdf	19 36 30.4	+3.0
	comp=Z,3.1nm,0.7s,baz=102,slow=1.2,SNR=19						
ASAR				PKPab	PKPab	19 37 12.3	+1.5
	comp=Z,6.7nm,0.7s,baz=126,slow=4.0,SNR=11						
ASPA	**Alice Springs**	**160.35**	**226**	*e*P	PKPdf	19 36 31.4	+3.9
WB2	**Warramunga Arr**	**162.10**	**236**	*e*PKP	PKPdf	19 36 33.8	+4.5
WB2				*e*pPKP		19 37 32.4	
WRAB	**Tennant Creek**	**162.11**	**236**	*e*PKPdf	PKPdf	19 36 31.1	+1.9
WRAB				*e*pPKPdf		19 36 46.4	
WRAB				*e*PKPab	PKPab	19 37 19.6	+1.1
WRAB				*e*pPKPab		19 37 32.4	
WRAB				LR	LR		
	comp=Z,423nm,22.0s						
WRA	**Warramunga Arr**	**162.12**	**236**	PKP	PKPdf	19 36 32.4	+3.1
	comp=Z,3.1nm,0.8s,baz=120,slow=0.4,SNR=14						
WRA				PKPab	PKPab	19 37 19.3	+0.8
	comp=Z,5.6nm,0.9s,baz=106,slow=4.2,SNR=13						
WRA	**Warramunga Arr**	**162.12**	**236**	PKIKP	PKPdf	19 36 32.4	+3.1
WRA						19 37 19.3	
WRA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WRA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MBWA	**Marble Bar**	**169.33**	**186**	PFAKE		19 36 50.0	+15
MBWA				LR	LR		
	comp=Z,824nm,21.0s						
FITZ	**Fitzroy Crossi**	**169.78**	**221**	*e*P	PKPdf	19 36 40.4	+4.9
	comp=Z,4.3nm,1.4s						
FITZ				*e*pPKP		19 37 58.1	
FITZ	**Fitzroy Crossi**	**169.78**	**221**	PKP	PKPdf	19 36 39.1	+3.6
	comp=Z,4.2nm,1.0s,baz=169,slow=9.5,SNR=3.1						
FITZ				PKPab	PKPab	19 37 54.3	+2.3
	comp=Z,3.4nm,0.9s,baz=180,slow=11,SNR=3.8						

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*CNRM **02** 19:23:31.7, 35.13N×2.69W, h10^{km}, MD2.9*
*NEIC **02** 19:23:33.0, 34.98N×2.94W, h18^{km}, MG3.2(MDD), After MDD.*
*MDD **02** 19:23:33.0±3.0, 34.98N×2.94W, h18^{km}±10^{km}, mb3.2/3, Error ellipse: s-maj=28.7km s-min=20.2km az=103.0, PRXIMO SIN SOLUCIN SOLUCIN POBRE*
*CSEM **02** 19:23:32.2±0.2, 35.13N×2.86W, h23^{km}±1^{km}, mb4.4/3, Error ellipse: s-maj=5.4km s-min=2.5km az=143.0*
ISC 02 19:23:31.7±1.7**, 34.98N**±0.05×**2.7W**±0.1**, h11**^{km}±6^{km}**, n10, σ1ˢ07**/19**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMLI	**Melilla**	**0.36**	**332**	P	**Pg**	**19 23 38.9**	**-0.3**
	36nm,0.1s,SNR=4.0						
EMLI				S	**Sg**	**19 23 44.5**	**+0.2**
	119nm,0.1s,SNR=7.9						
EMEL	**Melilla**	**0.36**	**331**	P	**Pg**	**19 23 38.9**	**-0.4**
	36nm,0.1s,SNR=4.0						
EMEL				S	**Sg**	**19 23 44.5**	**+0.1**
	119nm,0.1s,SNR=7.9						
TOU	**Touzarine**	**0.83**	**269**	*i* P	**Pb**	**19 23 47.5**	**-0.2**
TOU				*i* S	**Sb**	**19 23 59.0**	**+0.4**
TZK	**Tazeka**	**1.48**	**234**	*e*P	**Pn**	**19 23 58.5**	**0.0**
TZK				*i* S	**Sb**	**19 24 17.5**	**-0.1**
EBER	**Berja**	**1.92**	**356**	P	**Pn**	**19 24 04.2**	**-0.5**
	1.0nm,0.2s,SNR=5.6						
EBER				S	**Sn**	**19 24 26.6**	**-2.4**
	16nm,0.8s,SNR=8.0						
EBER	**Berja**	**1.92**	**356**	P	**Pn**	**19 24 04.2**	**-0.5**
	1.0nm,0.2s,SNR=5.6						
EBER				S	**Sn**	**19 24 26.5**	**-2.5**
EMIJ	**Mijas**	**2.29**	**314**	P	**Pn**	**19 24 07.6**	**-2.3**
	1.7nm,0.1s,SNR=7.9						
EMIJ				S	**Sn**	**19 24 32.3**	**-6.0**
	2.4nm,0.2s,SNR=7.9						
EQES	**Quesada**	**2.83**	**355**	P	**Pn**	**19 24 19.3**	**+1.6**
	3.9nm,0.4s,SNR=11						
EQES				S	**Sn**	**19 24 53.3**	**+1.2**
	SNR=7.9						
ELUQ	**Luque**	**2.85**	**335**	P	**Pn**	**19 24 20.0**	**+1.9**
	3.8nm,0.3s,SNR=7.9						
ELUQ				S	**Sn**	**19 24 52.6**	**-0.1**
	SNR=4.0						
ELUQ	**Luque**	**2.85**	**335**	S	**Sn**	**19 24 52.7**	**-0.1**

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*CSEM **02** 19:24:35.4±0.1, 35.32N×2.54W, h2^{km}, MD3.0, Error ellipse: s-maj=6.3km s-min=2.9km az=136.0*
*CNRM **02** 19:24:40.9, 35.09N×2.67W, h12^{km}, MD3.0*
*MDD **02** 19:24:42.2±2.5, 35.00N×3.10W, mb3.2/4, Error ellipse: s-maj=24.6km s-min=11.3km az=146.0, PRXIMO AftershockPLICA*
ISC 02 19:24:41.7±1.3**, 35.03N**±0.04×**2.79W**±0.08**, h15**^{km}±6^{km}**, n9, σ0ˢ96**/14**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.07**	**147**	*i* P	**Pb**	**19 24 44.0**	**-0.2**
EMLI	**Melilla**	**0.30**	**334**	S	**Sg**	**19 24 52.7**	**0.0**
	274nm,0.1s,SNR=4.7						
EMLI	**Melilla**	**0.30**	**334**	P	**Pb**	**19 24 47.8**	**-0.4**
	62nm,0.1s,SNR=7.9						
EMEL	**Melilla**	**0.30**	**333**	P	**Pb**	**19 24 47.8**	**-0.4**
	62nm,0.1s,SNR=7.9						
EMEL				S	**Sg**	**19 24 52.7**	**-0.1**
	274nm,0.1s,SNR=4.7						
TOU	**Touzarine**	**0.79**	**266**	*i* P	**Pb**	**19 24 57.0**	**+0.4**
TOU				*i* S	**Sb**	**19 25 08.0**	**+1.1**
TZK	**Tazeka**	**1.48**	**231**	*i* S	**Sb**	**19 25 26.0**	**-0.9**
EBER	**Berja**	**1.87**	**358**	P	**Pn**	**19 25 14.4**	**+0.9**
	0.8nm,0.1s,SNR=7.9						
EBER				S	**Sn**	**19 25 35.4**	**-1.5**
	35nm,0.6s,SNR=6.1						
EMIJ	**Mijas**	**2.22**	**314**	P	**Pn**	**19 25 16.9**	**-1.7**
	0.5nm,0.1s,SNR=7.9						
EMIJ				S	**Sn**	**19 25 42.1**	**-3.9**
	5.4nm,0.3s,SNR=7.9						
EQES	**Quesada**	**2.78**	**355**	P	**Pn**	**19 25 28.2**	**+1.6**
	3.0nm,0.3s,SNR=7.9						
EQES				S	**Sn**	**19 26 00.6**	**+0.6**
	10nm,0.4s,SNR=7.0						

DJA 02 19:45:49.4±0.8**, 9.38S**×**113.12E, h33**^{km}**, MD4.8**/3**, ML4.5**/4**, 5C-4D, Error ellipse: s-maj=19.1km s-min=17.1km az=131.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	**Scrawed**	**1.35**	**49**	⇑*e*Pn	Pn	19 46 10.4	-1.9
	441nm,0.1s						
SRDI				⇑*e*Sn	Sn	19 46 25.7	-3.4
KELI	**Kelakatan**	**1.78**	**50**	⇓*e*Pn	Pn	19 46 17.6	-0.8
	248nm,0.2s						
KELI				⇑*e*Sn	Sn	19 46 37.7	-2.4
RATI	**Rata**	**2.47**	**75**	⇓*e*Pn	Pn	19 46 27.0	-1.3
	392nm,0.2s						
RATI	**Rata**	**2.47**	**75**	⇑*e*P	P	19 46 27.6	-0.5
RATI				⇓*e*Sn	Sn	19 46 53.9	-3.7
KEDI	**Kedomdong**	**3.09**	**74**	⇑*e*Pn	Pn	19 46 35.1	-2.0
	129nm,0.2s						
KEDI				⇓*e*Sn	Sn	19 47 09.0	-4.2

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*CSEM **02** 20:02:46.4±0.2, 35.04N×2.76W, h15^{km}, MD2.7, Error ellipse: s-maj=5.1km s-min=3.0km az=102.0*
*CNRM **02** 20:02:46.4, 35.11N×2.62W, h9^{km}, MD2.7*
*MDD **02** 20:02:49.8±2.8, 35.04N×2.99W, h16^{km}±8^{km}, mb2.8/4, Error ellipse: s-maj=28.1km s-min=18.4km az=111.0, PRXIMO AftershockPLICA SOLUCIN POBRE*
ISC 02 20:02:47.5±1.2**, 35.03N**±0.05×**2.74W**±0.09**, h23**^{km}±5^{km}**, n10, σ1ˢ10**/18**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.06**	**186**	*i* P	**Pb**	**20 02 50.0**	**-1.5**
EMLI	**Melilla**	**0.32**	**327**	P	**Pb**	**20 02 55.4**	**+0.8**
	49nm,0.1s,SNR=4.0						
EMLI				S	**Sb**	**20 02 59.2**	**-0.2**
	18nm,0.1s,SNR=7.9						
EMEL	**Melilla**	**0.32**	**326**	P	**Pb**	**20 02 55.4**	**+0.8**
	49nm,0.1s,SNR=4.0						
EMEL				S	**Sb**	**20 02 59.2**	**-0.3**
	18nm,0.1s,SNR=7.9						
TOU	**Touzarine**	**0.84**	**265**	*i* P	**Pb**	**20 03 03.0**	**-0.2**
TOU				*i* S	**Sb**	**20 03 15.5**	**+1.5**
TZK	**Tazeka**	**1.52**	**232**	*e*P	**Pn**	**20 03 14.0**	**+0.3**
TZK				*i* S	**Sn**	**20 03 33.0**	**+0.1**
EBER	**Berja**	**1.86**	**356**	P	**Pn**	**20 03 18.7**	**+0.1**
	0.6nm,0.3s,SNR=4.0						
EBER				S	**Sn**	**20 03 41.7**	**0.0**
	SNR=7.9						
EBER	**Berja**	**1.86**	**356**	P	**Pn**	**20 03 18.7**	**+0.1**
	0.6nm,0.3s,SNR=4.0						
EBER				S	**Sn**	**20 03 41.7**	**0.0**
	SNR=7.9						
EMIJ	**Mijas**	**2.25**	**313**	P	**Pn**	**20 03 22.5**	**-1.6**
	0.2nm,0.1s,SNR=4.0						
EMIJ				S	**Sn**	**20 03 49.0**	**-2.5**
	1.1nm,0.2s,SNR=7.9						
EQES	**Quesada**	**2.78**	**355**	P	**Pn**	**20 03 34.3**	**+2.7**
	0.7nm,0.2s,SNR=5.0						
EQES				S	**Sn**	**20 04 05.2**	**+0.4**
	5.7nm,0.6s,SNR=7.9						
EQES	**Quesada**	**2.78**	**355**	S	**Sn**	**20 04 05.2**	**+0.4**
	5.7nm,0.6s,SNR=7.9						

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*FUNV **02** 20:05:30.3, 10.10N×61.26W, h45^{km}, MW2.9*
TRN 02 20:05:32.9, 10.55N×**61.09W, h23**^{km}**, MD3.1, 1C, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	**0.07**	**164**	*e*P	Pb	20 05 37.0	0.0
TBH				*e*S	Sb	20 05 43.2	+3.4
TRN	**Trinidad (W)**	**0.33**	**287**	⇑*i*P	Pb	20 05 39.9	-0.3
TRN				*e*S	Sb	20 05 45.7	+0.6
TPP	**Pointe-a-Pierr**	**0.43**	**237**	*e*P	Pb	20 05 42.3	+0.5
TPP				*e*S	Sb	20 05 51.3	+3.5
TPR	**Prospect**	**0.70**	**26**	*e*P	Pb	20 05 46.3	0.0
TPR				*e*S	Sb	20 05 57.1	+1.6
GUIV	**Guiria**	**1.12**	**275**	*e*S	Sb	20 06 02.3	-5.4
GRW	**Mount Saint Ca**	**1.69**	**341**	*e*P	Pn	20 06 01.4	-0.2
GUNV	**Guanoco**	**1.87**	**258**	*e*P	Pn	20 05 56.2	-7.9
GUNV				*e*S	Sn	20 06 16.2	-11
CRUV	**Carupano**	**2.12**	**273**	*e*P	Pn	20 05 59.7	-8.0
RIOV	**Rio Grande**	**2.57**	**196**	*e*P	Pn	20 06 03.2	-11
RIOV				*e*S	Sn	20 06 25.1	-20
SVV	**Soufriere Volc**	**2.75**	**357**	*e*P	Pn	20 06 16.3	-0.4
CUPV	**Cœpira**	**4.65**	**264**	*e*S	Sn	20 07 21.0	-17
CAOV	**Caicara del Or**	**6.08**	**239**	*e*P	Pn	20 06 50.9	-13
CAOV				*e*S	Sn	20 07 50.3	-23
BAUV	**El Baul**	**7.04**	**257**	*e*P	Pn	20 07 05.4	-12

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*CSEM **02** 20:10:11.0±0.5, 38.83N×27.78W, h8^{km}±4^{km}, ML1.9, Error ellipse: s-maj=6.8km s-min=1.4km az=167.0*
*PDA **02** 20:10:11.0±0.5, 38.83N×27.78W, h8^{km}±4^{km}, MD3.4, ML1.9, Error ellipse: s-maj=6.8km s-min=1.4km az=167.0*
SVSA 02 20:10:11.0±0.5**, 38.83N**×**27.78W, h8**^{km}±4^{km}**, MD3.4, ML1.9, Error ellipse: s-maj=6.8km s-min=1.4km az=167.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMAN	**Manadas**	**0.32**	**231**	*i* P	Pg	20 10 16.6	-0.9
PMAN				*e*S	Sg	20 10 20.7	-1.1
	132nm,0.1s						
PMAN	**Manadas**	**0.32**	**231**	*e*S	Sg	20 10 20.7	-1.1
	132nm,0.1s						
PSBA	**Serra de Santa**	**0.36**	**100**	*e*P	Pg	20 10 17.1	-1.2
PSBA				*e*S	Sg	20 10 22.1	-1.1
ROSA	**Rosais**	**0.38**	**253**	*e*S	Sg	20 10 22.6	-1.3
PICO	**Pico**	**0.61**	**237**	*e*P	Pg	20 10 21.3	-1.9
PICO				*e*S	Sg	20 10 28.6	-2.7
PCED	**Cedros**	**0.75**	**255**	*e*rx	Pb	20 10 20.7	-5.2

MEX 02 20:15:09.0±1.1**, 16.63N**×**100.45W, h15**^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.46**	**23**	*i* P	Pb	20 15 16.4	-1.8
CAIG				*i* S	Sb	20 15 23.4	-1.0
ACX	**Acapulco**	**0.57**	**65**	*i* P	Pb	20 15 19.3	-0.8
ACX				*i* S	Sb	20 15 25.5	-2.2
PLIG	**Platanillo**	**1.98**	**27**	*i* P	Pn	20 15 41.2	-1.2
PLIG				*i* S	Sn	20 16 03.0	-4.1

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*IDC **02** 20:17:07.7±2.3, 59.17N×2.41E, mb1 3.5/5, mb1mx3.3/21, ML3.2/5, Error ellipse: s-maj=46.0km s-min=17.1km az=152.0*
*NAO **02** 20:17:07.9±3.4, 59.10N×2.25E, h9^{km}±24^{km}, ML2.7*
*CSEM **02** 20:17:09.7±0.1, 59.23N×2.15E, h35^{km}, ML2.6, Error ellipse: s-maj=5.3km s-min=2.4km az=155.0*
*BGS **02** 20:17:10.2±0.2, 59.21N×2.41E, h31^{km}±999^{km}, ML3.0*
*BER **02** 20:17:10.7±2.9, 59.22N×2.17E, h15^{km}±11^{km}, MD3.0, ML2.6, ML2.7(NAO)*
*NEIC **02** 20:17:11.3, 59.25N×2.25E, h13^{km}, ML2.8(BER), After BER.*
ISC 02 20:17:07.4±0.3**, 59.25N**±0.03×**2.20E**±0.04**, h15**^{km}**, n56, σ1ˢ20**/88**, 8C, North Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMY	**Karmoy**	**1.56**	**90**	*e*P	**Pn**	**20 17 36.1**	**+1.2**
KMY				*e*S	**Sn**	**20 17 55.6**	**+0.7**
STAV	**Stavanger**	**1.83**	**98**	*e*P	**Pn**	**20 17 40.9**	**+2.2**
STAV				*e*S	**Sn**	**20 18 03.7**	**+2.0**
STAV				AML	AML	20 18 08.9	
	comp=Z,143nm,0.2s						
STAV	**Stavanger**	**1.83**	**98**	*e*P	**Pn**	**20 17 40.9**	**+2.2**
	SNR=55						
STAV				*e*S	**Sn**	**20 18 03.7**	**+2.0**
	comp=Z,143nm,0.2s,SNR=55						
EGD	**Espegrend**	**1.84**	**55**	⇑*i*P	**Pn**	**20 17 40.0**	**+1.2**
EGD				*e*S	**Sn**	**20 18 00.9**	**-1.0**
EGD				AML	AML	20 18 10.7	
	comp=Z,94nm,0.3s						
EGD	**Espegrend**	**1.84**	**55**	⇑*i*P	**Pn**	**20 17 40.0**	**+1.2**
	SNR=55						
EGD				*e*S	**Sn**	**20 18 00.9**	**-1.1**
	comp=Z,94nm,0.3s,SNR=55						
SAN1	**Sandwick**	**1.91**	**295**	*e*P	**Pn**	**20 17 40.8**	**+0.9**
LRW	**Lerwick**	**1.93**	**299**	*e*P	**Pn**	**20 17 41.1**	**+1.0**
LRW				*e*S	**Sn**	**20 18 03.8**	**-0.5**
LRW				AML	AML	20 18 13.6	
	comp=N,78nm,0.3s						
LRW				AML	AML	20 18 13.8	
	comp=E,56nm,0.2s						
BER	**Bergen**	**1.95**	**53**	⇑*i*P	**Pn**	**20 17 41.5**	**+1.1**
BER				⇑*i*P		20 17 43.0	
BER				*e*S	**Sn**	**20 18 03.9**	**-0.8**
BER				AML	AML	20 18 13.9	
	comp=Z,99nm,0.3s						
BER	**Bergen**	**1.95**	**53**	⇑*i*P	**Pn**	**20 17 41.5**	**+1.1**
	SNR=55						
BER				*e*S	**Sn**	**20 18 03.9**	**-0.8**
	comp=Z,99nm,0.3s,SNR=55						
ASK	**Askoy**	**1.95**	**49**	⇑*i*P	**Pn**	**20 17 41.5**	**+1.1**
ASK				*e*S	**Sn**	**20 18 03.6**	**-1.2**
ASK				AML	AML	20 18 13.9	
	comp=Z,114nm,0.3s						
RUND	**Rundenannen**	**1.98**	**52**	*e*P	**Pn**	**20 17 42.1**	**+1.3**
RUND				*e*S	**Sn**	**20 18 04.6**	**-0.9**
RUND				AML	AML	20 18 14.1	
	comp=Z,130nm,0.2s						
RUND	**Rundenannen**	**1.98**	**52**	*e*P	**Pn**	**20 17 42.1**	**+1.3**
	SNR=55						
RUND				*e*S	**Sn**	**20 18 04.6**	**-0.9**
	comp=Z,130nm,0.2s,SNR=55						
WAL1	**Walls**	**2.18**	**299**	*e*P	**Pn**	**20 17 44.7**	**+1.0**
BLS5	**Blasjo**	**2.19**	**84**	*e*P	**Pn**	**20 17 45.8**	**+2.1**
BLS5				*e*S	**Sn**	**20 18 11.7**	**+0.9**
BLS5	**Blasjo**	**2.19**	**84**	*e*P	**Pn**	**20 17 45.8**	**+2.0**
	SNR=55						
BLS5				*e*S	**Sn**	**20 18 11.6**	**+0.9**
	SNR=55						
SUE	**Sulen**	**2.22**	**34**	⇑*i*P	**Pn**	**20 17 45.2**	**+1.0**
SUE				*e*S	**Sn**	**20 18 11.7**	**+0.1**
ODD1	**Odda**	**2.35**	**72**	⇑*i*P	**Pn**	**20 17 46.2**	**+0.1**
OST	**Stronsay**	**2.45**	**268**	*e*P	**Pn**	**20 17 48.5**	**+0.9**
OWE	**Westray**	**2.69**	**274**	*e*P	**Pn**	**20 17 51.9**	**+1.0**
FOO	**Floro**	**2.75**	**30**	*e*P	**Pn**	**20 17 52.5**	**+0.7**
FOO				*e*S	**Sn**	**20 18 23.7**	**-1.2**
FOO	**Floro**	**2.75**	**30**	*e*S	**Sn**	**20 18 23.7**	**-1.3**
	SNR=55						
SNART	**Snartemo**	**2.76**	**107**	*e*P	**Pn**	**20 17 52.7**	**+0.8**
SNART				*e*S	**Sn**	**20 18 23.8**	**-1.5**
SNART	**Snartemo**	**2.76**	**107**	*e*S	**Sn**	**20 18 23.8**	**-1.5**
HYA	**Hoyanger**	**2.77**	**44**	*e*P	**Pn**	**20 17 53.6**	**+1.5**
HYA				*e*S	**Sn**	**20 18 24.9**	**-0.5**
HYA				AML	AML	20 18 40.0	
	comp=Z,37nm,0.3s						

HYA	**Hoyanger**	2.77	44	eP	Pn	20 17 53.6	+1.5
	SNR=55						
HYA				eS	Sn	20 18 24.9	-0.6
	comp=Z,37nm,0.3s,SNR=55						
OHO	**Hoy**	2.85	264	eP	Pn	20 17 53.7	+0.5
OBR	**Brabster**	2.85	259	eP	Pn	20 17 53.6	+0.4
MLA1	**Latheron**	3.05	254	eP	Pn	20 17 56.1	+0.1
ORE	**Reay**	3.17	260	eP	Pn	20 17 57.9	+0.1
ORE				eS	Sn	20 18 32.5	-3.3
ORE				AML	AML	20 18 34.2	
	comp=N,39nm,0.3s						
ORE				AML	AML	20 18 36.6	
	comp=E,29nm,0.2s						
MCD	**Coleburn Disti**	3.32	242	eP	Pn	20 17 59.7	-0.2
MCD				eS	Sn	20 18 35.3	-4.1
MCD				AML	AML	20 18 38.2	
	comp=N,27nm,0.2s						
MCD				AML	AML	20 18 38.7	
	comp=E,37nm,0.4s						
MME1	**Meikle Cairn**	3.35	237	eP	Pn	20 17 59.8	-0.4
EDR	**Drumtochty**	3.43	229	eP	Pn	20 18 01.1	-0.4
MDO	**Dochfour**	3.91	245	eP	Pn	20 18 07.3	-0.9
ESY	**Stoneypath**	4.23	220	eP	Pn	20 18 11.7	-1.1
MOL	**Molde**	4.23	36	eP	Pn	20 18 14.7	+1.8
MOL				eS	Sn	20 19 01.3	-1.3
MOL				AML	AML	20 19 10.4	
	comp=Z,7.6nm,0.2s						
MOL	**Molde**	4.23	36	eP	Pn	20 18 14.7	+1.8
	SNR=53						
MOL				eS	Sn	20 19 01.3	-1.3
	comp=Z,7.6nm,0.2s,SNR=53						
DOMB	**Dombas**	4.39	47	eP	Pn	20 18 16.0	+0.9
DOMB				eS	Sn	20 19 03.4	-3.1
DOMB				AML	AML	20 19 04.0	
	comp=Z,14nm,0.2s						
EDI	**Edinburgh**	4.42	223	eP	Pn	20 18 14.7	-0.8
EDI				eS	Sn	20 19 01.3	-5.9
EDI				AML	AML	20 19 04.7	
	comp=E,26nm,0.4s						
EDI				AML	AML	20 19 05.4	
	comp=N,29nm,0.4s						
EAU	**Auchinoon**	4.57	224	eP	Pn	20 18 16.9	-0.7
NAO01	**NORSAR Array S**	4.64	66	ePn	Pn	20 18 18.6	0.0
NAO01				eS	Sn	20 19 02.0	-11
NAO01	**NORSAR Array S**	4.64	66	ePn	Pn	20 18 18.6	0.0
MUD	**Monsted U'grnd**	4.66	124	iP	Pn	20 18 18.2	-0.7
MUD				iS	Sn	20 19 06.8	-6.5
MUD				i		20 19 09.6	
NB2	**NORSAR Subarra**	4.85	64	Pn	Pn	20 18 21.5	-0.1
NB2				Lg		20 19 41.7	
NOA	**NORSAR Array B**	4.85	64	Pn	Pn	20 18 20.9	-0.7
	comp=N,1.2nm,0.3s,baz=250,slow=11,SNR=8.8						
NOA				Sn	Sn	20 19 13.6	-4.6
	comp=N,1.5nm,0.3s,baz=248,slow=18,SNR=2.9						
NOA				Lg		20 19 36.5	
	comp=N,3.2nm,0.3s,baz=176,slow=19,SNR=5.7						
NOA	**NORSAR Array B**	4.85	64	Sn	Sn	20 19 13.6	-4.5
EKA	**Eskdalemuir Ar**	4.88	219	Pn	Pn	20 18 20.7	-1.4
	comp=N,1.3nm,0.3s,baz=27,slow=12,SNR=26						
EKA				Sn	Sn	20 19 12.4	-6.6
	comp=N,3.1nm,0.3s,baz=35,slow=24,SNR=15						
HFS	**Hagfors**	5.89	76	Pn	Pn	20 18 35.4	-0.9
	baz=268,slow=14						
HFS				Sn	Sn	20 19 38.4	-5.8
	baz=264,slow=28						
HFS				Lg		20 20 11.6	
	baz=269,slow=28						
HFS	**Hagfors**	5.89	76	Pn	Pn	20 18 35.5	-0.8
	comp=N,0.1nm,0.3s,baz=263,slow=12,SNR=9.9						
HFS				Sn	Sn	20 19 37.8	-6.4
	comp=N,0.2nm,0.3s,baz=262,slow=22,SNR=5.1						
HFS				Lg		20 20 10.8	
	comp=N,0.4nm,0.3s,baz=264,slow=28,SNR=6.5						
NSS	**Namsos**	7.02	37	eP	Pn	20 18 50.7	-1.5
NSS				eS	Sn	20 20 06.0	-6.5
BSD	**Bornholm Skovb**	8.05	115	iP	P	20 19 03.7	-2.9
BSD				iS	Sn	20 20 28.8	-9.4
FIA0	**FINESS Array S**	12.00	69	P	P	20 19 59.7	-1.1
	baz=253,slow=11						
FINES	**FINESS Array B**	12.00	69	Pn	P	20 19 58.2	-2.6
	comp=N,0.1nm,0.3s,baz=281,slow=21,SNR=4.2						
FINES				Lg		20 23 20.8	
	comp=N,0.2nm,0.3s,baz=259,slow=21,SNR=3.2						
ARA0	**ARCESS Array S**	14.29	34	P	P	20 20 28.5	-2.3
	baz=225,slow=16						
ARCES	**ARCESS Array B**	14.29	34	Pn	P	20 20 28.4	-2.5
	comp=N,0.1nm,0.3s,baz=231,slow=13,SNR=3.2						
SPA0	**Spitsbergen Ar**	19.58	9	P	P	20 21 38.3	+1.1
	baz=248,slow=12						
MDRS	**Chennai**	72.75	93	e	P	20 28 38.0	+1.3

TRN 02 20:24:48.2, 10.51N×61.08W, h28^{km}, MD3.7, 1C-1D, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	0.03	161	eP	Pn	20 24 52.6	0.0
TBH				eS	Sn	20 24 57.4	+2.3
TRN	**Trinidad (W)**	0.35	293	⇑iP	Pb	20 24 55.3	-0.8
TRN				eS	Sb	20 25 02.0	+0.4
TPP	**Pointe-a-Pierr**	0.42	243	⇓iP	Pb	20 24 56.4	-0.8
TPP				eS	Sb	20 25 05.2	+1.9
TPR	**Prospect**	0.73	24	eP	Pb	20 25 02.4	0.0
TPR				eS	Sb	20 25 12.9	+0.9
BOT	**Bacolet**	0.74	28	eP	Pb	20 25 02.5	+0.1
BOT				eS	Sb	20 25 14.0	+1.8
SVB	**Belmont**	2.75	356	eP	Pn	20 25 31.0	-0.6
SVB				eS	Sn	20 26 02.9	-1.3
SVV	**Soufriere Volc**	2.79	357	eP	Pn	20 25 31.1	-1.1
SVV				eS	Sn	20 26 04.4	-1.0

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*NEIC **02** 20:34:15.6, 34.07S×72.42W, h32^{km}, ML2.9(GUC), After GUC.*

GUC 02 20:34:15.6±0.7**, 34.07S×72.42W, h32^{km}**±3^{km}**, MD3.5, ML2.9, 4C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LNV	**Longovilo**	0.85	83	⇓iP	Pn	20 34 31.1	-0.2
LNV				iS	Sn	20 34 42.6	-0.1
LCCH	**Las Cruces**	0.92	50	⇓iP	Pn	20 34 32.7	+0.3
LCCH				iS	Sn	20 34 44.9	+0.2
SFDO	**San Fernando**	1.28	115	⇓iP	Pn	20 34 38.4	+0.8
SFDO				iS	Sn	20 34 54.8	+1.0
TACH	**Talagante**	1.30	72	⇑iP	Pn	20 34 38.0	+0.2
TACH				iS	Sn	20 34 55.2	+1.0
RCDM	**Rinconada Maip**	1.46	67	⇑iP	Pn	20 34 40.3	+0.1
RCDM				iS	Sn	20 34 59.5	+1.2
RCDM				AMP		20 35 05.9	
	comp=E,160nm,0.1s						
CHCH	**Chadas Angostu**	1.48	85	⇓iP	Pn	20 34 41.0	+0.6
CHCH				eS	Sn	20 35 00.5	+1.9
CACH	**El Canelo**	1.51	92	⇓iP	Pn	20 34 42.1	+1.3
CACH				eS	Sn	20 35 02.9	+3.3
PCH	**Pirque**	1.65	75	⇓iP	Pn	20 34 43.7	+0.9
PCH				iS	Sn	20 35 05.5	+2.4
CICH	**Cipreses**	1.68	99	⇑iP	Pn	20 34 44.3	+1.1
CICH				iS	Sn	20 35 07.4	+3.6
CLCH	**Cerro Calan**	1.71	67	iP	Pn	20 34 44.9	+1.2
CLCH				iS	Sn	20 35 06.5	+1.9
CLCH				AMP		20 35 18.0	
	comp=E,179nm,0.7s						
LMEL	**Las Melosas**	1.86	84	eP	Pn	20 34 47.1	+1.4
LMEL				iS	Sn	20 35 10.8	+2.5
LMEL				AMP		20 35 14.4	
	comp=N,583nm,0.2s						
FCH	**Farellones**	1.92	68	⇑iP	Pn	20 34 47.6	+0.9
FCH				iS	Sn	20 35 13.5	+3.5
FCH				AMP		20 35 17.1	
	comp=N,164nm,0.2s						

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*FUNV **02** 20:34:50.8, 10.61N×61.00W, h90^{km}, MW2.6*

TRN 02 20:34:55.5, 10.51N×61.05W, h30^{km}, MD3.1, 1C, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	0.03	222	eP	Pn	20 35 00.2	+0.4
TBH				eS	Sn	20 35 05.5	+3.2
TRN	**Trinidad (W)**	0.38	292	⇑iP	Pb	20 35 02.9	-1.2
TRN				eS	Sb	20 35 10.2	+0.2
TPP	**Pointe-a-Pierr**	0.44	245	eP	Pb	20 35 04.9	-0.2
TPP				eS	Sb	20 35 13.4	+1.9
TPR	**Prospect**	0.72	21	eP	Pb	20 35 08.5	-1.1
TPR				eS	Sb	20 35 21.4	+2.2
BOT	**Bacolet**	0.73	26	eP	Pb	20 35 09.4	-0.2
BOT				eS	Sb	20 35 20.7	+1.4
GUIV	**Guiria**	1.17	277	eP	Pn	20 35 12.5	-3.5
GUIV				eS	Sn	20 35 27.9	-3.1
GRW	**Mount Saint Ca**	1.75	340	eP	Pn	20 35 24.0	-0.4
GRW				eS	Sn	20 35 45.9	0.0
GUNV	**Guanoco**	1.90	260	eP	Pn	20 35 22.1	-4.4
GUNV				eS	Sn	20 35 45.6	-4.1
ITEV	**Isla Los Testi**	2.22	293	eP	Pn	20 35 25.6	-5.4
ITEV				eS	Sn	20 35 50.7	-7.0
PCRV	**Puerto La Cruz**	3.55	265	eP	Pn	20 35 43.1	-6.9
CUPV	**Cœpira**	4.69	265	eP	Pn	20 35 58.0	-8.2
CUPV				eS	Sn	20 36 49.4	-11
CAOV	**Caicara del Or**	6.10	239	eP	Pn	20 36 18.0	-8.1
CAOV				eS	Sn	20 37 21.8	-14

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*NEIC **02** 20:35:45.1, 37.18N×28.60E, h7^{km}, MD3.3(ATH), After ATH.*
*ATH **02** 20:35:45.1, 37.18N×28.60E, h7^{km}±5^{km}, MD3.3/5*
*ISK **02** 20:35:45.0, 37.20N×28.72E, h9^{km}, MD3.3*
*CSEM **02** 20:35:45.0±0.1, 37.20N×28.70E, h10^{km}, MD3.3, Error ellipse: s-maj=2.3km s-min=1.9km az=137.0*

ISC 02 20:35:45.4±0.5**, 37.18N**±0.02×**28.69E**±0.03**, h6^{km}**±5^{km}**, n27, σ1^{s}05**/39**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YER	**Yerkesik**	0.33	262	iPG	Pg	20 35 52.6	+0.5
DALT	**Dalyan (Mudla)**	0.41	186	iPG	Pg	20 35 53.5	-0.2
DALT				SG	Sg	20 36 00.4	+1.2
DNZL	**Cakiroluk**	0.58	29	iP	Pg	20 35 56.4	-0.8
DNZL				iS	Sg	20 36 04.9	0.0
DENT	**Denizli**	0.64	25	iPG	Pg	20 35 57.3	-0.9
MLSB	**Milas**	0.74	279	ePG	Pg	20 36 00.2	0.0
AYDN	**Tasoluk**	0.81	307	iP	Pb	20 36 01.4	-0.1
AYDN				iS	Sb	20 36 13.3	+0.9
BDRM	**Kayabasi**	1.00	264	iP	Pb	20 36 05.2	+0.3
BDRM				iS	Sb	20 36 20.4	+2.3
ARG	**Arkhangelos**	1.06	205	ePB	Pb	20 36 04.8	-1.1
ELL	**Elmali**	1.06	113	PG	Pg	20 36 05.3	-1.4
KSL	**Kastellorizon**	1.25	145	ePB	Pb	20 36 09.5	+0.4
KSL				eSB	Sb	20 36 27.5	+2.2
MANT	**Manisa**	1.31	355	iP	Pb	20 36 09.6	-0.6
MANT				iS	Sb	20 36 27.6	+0.4
KHL	**Karahalli**	1.32	30	ePN	Pn	20 36 10.1	-0.4
BCK	**Bucak**	1.54	79	ePN	Pn	20 36 13.2	-0.4
SMG	**Samos**	1.57	290	ePB	Pb	20 36 13.2	-1.3
ISP	**Isparta**	1.59	65	ePN	Pn	20 36 14.0	-0.3
ISP	**Isparta**	1.59	65	ePn	Pn	20 36 13.9	-0.4
ISP				eSn	Sn	20 36 37.0	+1.6
ISP	**Isparta**	1.59	65	iP	Pn	20 36 14.2	-0.2
ISP				iS	Sb	20 36 40.9	+5.7
ISP	**Isparta**	1.59	65	ePn	Pn	20 36 13.9	-0.4
ISP				eSn	Sn	20 36 37.0	+1.6
IZM	**Izmir**	1.66	318	PN	Pn	20 36 14.4	-1.0
KDAG	**Bornova**	1.66	318	iP	Pn	20 36 14.8	-0.6
KDAG				iS	Sn	20 36 35.9	-1.4
BLCB	**Balcova**	1.78	313	ePN	Pn	20 36 17.3	+0.3
AKS	**Akhisar**	1.83	338	PN	Pn	20 36 16.9	-0.9
KARP	**Karpathos**	2.04	218	ePG	Pg	20 36 22.5	-3.8
ALT	**Altintas**	2.18	30	ePN	Pn	20 36 22.4	-0.4
BTOK	**Tokmak**	2.63	349	P	Pn	20 36 33.8	+4.6
BTOK				S	Sg	20 37 15.3	+2.2
ULDT	**Uludag**	2.98	7	P	Pn	20 36 41.7	+7.5
ULDT				S	Sg	20 37 26.6	+1.9
NPS	**Neapolis**	3.14	233	ePN	Pn	20 36 35.9	-0.6

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*CNRM **02** 20:37:59.4, 35.18N×2.69W, h9^{km}, MD2.8*
*CSEM **02** 20:38:00.1±0.1, 35.03N×2.80W, h15^{km}, MD2.8, Error ellipse: s-maj=2.1km s-min=1.2km az=87.0*
*MDD **02** 20:38:04.2±1.6, 35.13N×3.13W, mb3.1/4, Error ellipse: s-maj=15.9km s-min=6.1km az=164.0, PRXIMO AftershockPLICA*
*NEIC **02** 20:38:05.1, 35.18N×3.17W, MG3.1(MDD), After MDD.*

ISC 02 20:38:01.7±0.9**, 35.06N**±0.04×**2.86W**±0.08**, h21^{km}**±5^{km}**, n16, σ1^{s}35**/25**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.13	132	iP	Pb	20 38 04.0	-2.0
MELI	**Melilla**	0.24	346	P	Pb	20 38 07.3	-0.2
MELI				S	Sb	20 38 10.6	-0.9
MELI	**Melilla**	0.24	346	eP	Pb	20 38 07.3	-0.2
EMLI	**Melilla**	0.25	343	P	Pb	20 38 08.8	+1.1
	46nm,0.1s,SNR=7.9						
EMEL	**Melilla**	0.26	342	P	Pb	20 38 08.8	+1.1
	46nm,0.1s,SNR=7.9						
EMEL				S	Sb	20 38 11.9	+0.1
	323nm,0.1s,SNR=7.9						
TOU	**Touzarine**	0.74	263	iP	Pb	20 38 15.0	-0.7
TOU				iS	Sb	20 38 27.5	+2.1
TZK	**Tazeka**	1.46	229	eP	Pn	20 38 27.0	-0.1
TZK				iS	Sn	20 38 46.0	+0.2
EBER	**Berja**	1.84	359	P	Pn	20 38 36.6	+4.0
	0.2nm,0.1s,SNR=7.9						
EBER				S	Sn	20 38 55.9	+0.5
	9.8nm,0.5s,SNR=8.5						
EBER	**Berja**	1.84	359	S	Sn	20 38 56.0	+0.6
EMIJ	**Mijas**	2.16	315	P	Pn	20 38 35.7	-1.5
	2.5nm,0.3s,SNR=6.4						
EMIJ				S	Sn	20 39 01.2	-2.4
	SNR=7.9						
ELUQ	**Luque**	2.75	336	P	Pn	20 38 47.8	+2.2
	SNR=7.9						
EQES	**Quesada**	2.75	357	P	Pn	20 38 47.7	+2.1
	1.3nm,0.3s,SNR=9.6						
EQES				S	Sn	20 39 18.9	+0.5
	6.8nm,0.4s,SNR=6.8						
EQES	**Quesada**	2.75	357	P	Pn	20 38 47.7	+2.1
	1.3nm,0.3s,SNR=9.6						
EQES				S	Sn	20 39 19.0	+0.5
EADA	**Adamuz**	3.40	337	P	Pn	20 38 54.6	-0.3
	1.6nm,0.4s,SNR=5.5						
EADA				S	Sn	20 39 32.8	-2.2
	SNR=7.9						
EADA	**Adamuz**	3.40	337	S	Sn	20 39 32.8	-2.2
	SNR=7.9						
EADA	**Adamuz**	3.40	337	P	Pn	20 38 54.6	-0.2
	1.6nm,0.4s,SNR=5.5						

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*BGR **02** 20:50:42.8±0.4, 48.42N×7.36E, h5^{km}, ML1.3/1, Error ellipse: s-maj=6.7km s-min=3.3km az=1.0*
*LDG **02** 20:50:42.1±0.3, 48.47N×7.32E, h5^{km}, Md1.7/1, Ml2.2/2, Error ellipse: s-maj=5.1km s-min=3.6km az=63.0*
*STR **02** 20:50:43.4±0.3, 48.41N×7.36E, h5^{km}±1^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 02 20:50:41.8±0.6**, 48.44N**±0.04×**7.30E**±0.04**, h11^{km}**±4^{km}**, n16, σ0^{s}93**/30**, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CDF	**Champ du Feu**	0.03	202	ePg	Pg	20 50 44.1	+0.2
CDF				eSg	Sg	20 50 45.0	-0.4
	57nm,0.2s						
CDF	**Champ du Feu**	0.03	202	ePg	Pg	20 50 44.2	+0.3
	SNR=74						
CDF				eSg	Sg	20 50 45.5	+0.2
	SNR=9.1						
WLS	**Welschbruch**	0.05	127	Pg	Pg	20 50 43.7	-0.4
WLS				Sg	Sg	20 50 44.7	-0.9
ECH	**Echery**	0.24	202	Pg	Pg	20 50 47.6	+0.5
ECH				Sg	Sg	20 50 51.3	+0.7
MOF	**Molkenrain**	0.60	190	Pg	Pg	20 50 55.5	+1.5
LANF	**Langenberg**	0.64	32	Pg	Pg	20 50 55.5	+0.8
LANF				Sg	Sg	20 51 04.8	+1.6
HINF	**Hinteralfeld**	0.69	205	ePg	Pg	20 50 56.8	+1.0
HINF				eSg	Sg	20 51 04.9	-0.2
	12nm,0.3s						
HINF	**Hinteralfeld**	0.69	205	eSg	Sg	20 51 05.1	0.0
	SNR=14						
BFO	**Black Forest**	0.70	99	ePg	Pg	20 50 55.7	-0.2
	SNR=2.7						
BFO				eSg	Sg	20 51 03.3	-2.0
	SNR=13						
HAU	**Haudompre**	0.77	236	ePg	Pg	20 50 57.7	+0.4
HAU				eSg	Sg	20 51 07.8	+0.1
	7.3nm,0.2s						
HAU	**Haudompre**	0.77	236	ePg	Pg	20 50 57.7	+0.4
	SNR=4.3						
HAU				eSg	Sg	20 51 08.4	+0.8
	SNR=2.2						
RFYF	**Reffroy**	1.22	279	ePn	Pn	20 51 04.2	-0.7
RFYF				ePg	Pg	20 51 05.3	-1.0
RFYF				eSg	Sg	20 51 21.6	-1.1
	2.8nm,0.2s						
RFYF	**Reffroy**	1.22	279	ePg	Pg	20 51 07.1	+0.7
	SNR=1.0						
RFYF				eSg	Sg	20 51 24.0	+1.3
	SNR=3.1						
MEZF	**Maizieres J'vi**	1.49	273	eSg	Sg	20 51 31.2	-0.4
	SNR=2.2						
SFTF	**Sexfontaines**	1.52	262	ePn	Pn	20 51 08.9	-0.3
SFTF				ePg	Pg	20 51 10.9	-1.4
SFTF				eSg	Sg	20 51 30.5	-2.2
	3.4nm,0.2s						
SFTF	**Sexfontaines**	1.52	262	eSg	Sg	20 51 32.8	+0.1
	SNR=3.3						

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*FUNV **02** 20:52:17.6, 10.40N×61.14W, h56^{km}, MW3.1*
*TRN **02** 20:52:19.6, 10.50N×61.13W, h33^{km}, MD3.7*

ISC 02 20:52:16.2±0.8**, 10.31N**±0.05×**61.18W**±0.05**, h54^{km}**±6^{km}**, n20, σ1^{s}17**/29**, 4C, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	0.20	33	⇑iP	P	20 52 24.7	-0.3
TBH				eS	S	20 52 30.0	-1.5
TPP	**Pointe-a-Pierr**	0.27	271	eP	P	20 52 27.9	+2.4
TPP				eS	S	20 52 35.3	+3.0
SIPA	**Siparia**	0.36	242	⇑iP	P	20 52 30.5	+4.1
TRN	**Trinidad (W)**	0.40	327	⇑iP	P	20 52 27.3	+0.6
TRN				eS	S	20 52 33.1	-1.3
BUAY	**Buenos Aires**	0.54	248	eP	P	20 52 33.0	+4.8
TPR	**Prospect**	0.95	25	⇑eP	P	20 52 33.6	0.0
TPR				eS	S	20 52 45.2	-1.3
BOT	**Bacolet**	0.96	28	eP	P	20 52 34.0	+0.2
BOT				eS	S	20 52 45.8	-0.9
GUIV	**Guiria**	1.08	288	eP	P	20 52 36.4	+1.0
GUNV	**Guanoco**	1.74	265	eP	P	20 52 45.5	+0.9
GUNV				eS	S	20 53 06.8	+1.0
GRW	**Mount Saint Ca**	1.89	346	eP	P	20 52 47.6	+0.8
CRUV	**Carupano**	2.05	280	eP	P	20 52 48.6	-0.5
ITEV	**Isla Los Testi**	2.18	299	eP	P	20 52 50.5	-0.4
ITEV				eS	S	20 53 15.2	-1.5
RIOV	**Rio Grande**	2.32	196	eP	P	20 52 54.2	+1.4
ORIV	**Oritupano**	2.52	241	eS	S	20 53 24.7	-0.6
SVB	**Belmont**	2.94	359	eP	P	20 53 02.7	+1.0
SVV	**Soufriere Volc**	2.99	359	eP	P	20 53 03.4	+1.0
SVV				eS	S	20 53 38.1	+1.0
GURV	**El Guri**	3.16	217	eS	S	20 53 40.1	-1.4
PCRV	**Puerto La Cruz**	3.40	268	eP	P	20 53 07.5	-0.7
CUPV	**Cœpira**	4.54	267	eP	P	20 53 23.2	-1.1
CUPV				eS	S	20 54 12.0	-4.3
CAOV	**Caicara del Or**	5.88	240	eP	P	20 53 41.4	-1.5

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*NNC **02** 21:10:39.4±6.4, 43.38N×87.89E, h33^{km}, mpv2.5, Error ellipse: s-maj=415.6km s-min=50.1km az=42.0*

BJI 02 21:10:35.7, 42.92N×87.93E, h14^{km}, ML3.2, 2C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	**Urumqi**	0.92	349	⇓iPG	Pg	21 10 51.5	-2.7
WMQ				SG	Sg	21 11 03.5	-3.0
WMQ				Smax			
	comp=N,225nm,0.4s						
WMQ				Smax			
	comp=E,348nm,0.8s						
MK31	**Makanchi Array**	5.57	316	⇑Pn	Pn	21 11 58.1	-2.2
	comp=E,0.2nm,0.3s,baz=129,slow=15,SNR=38						
MK31				⇑Sn	Sn	21 12 59.9	-4.9
	comp=E,2.0nm,0.5s,baz=87,slow=31,SNR=4.9						
MK31				⇓Lg		21 13 30.3	
	comp=E,3.2nm,0.5s,baz=128,slow=29,SNR=4.9						

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*CSEM **02** 21:11:09.6±0.3, 35.03N×2.76W, h12^{km}, MD2.7, Error ellipse: s-maj=10.4km s-min=7.2km az=98.0*
*CNRM **02** 21:11:09.3, 34.98N×2.53W, h10^{km}, MD2.7*
*MDD **02** 21:11:10.8±2.3, 34.99N×3.15W, mb2.9/5, Error ellipse: s-maj=21.7km s-min=9.6km az=151.0, PRXIMO AftershockPLICA*

ISC 02 21:11:10.0±1.3**, 35.01N**±0.05×**2.7W**±0.1**, h17^{km}**±6^{km}**, n12, σ1^{s}40**/19**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.05	221	iP	Pb	21 11 13.0	-0.3
EMLI	**Melilla**	0.35	325	P	Pb	21 11 17.2	-0.3
	18nm,0.1s,SNR=7.9						
EMEL	**Melilla**	0.36	324	P	Pb	21 11 17.2	-0.4
	18nm,0.1s,SNR=7.9						
EMEL				S	Sb	21 11 21.8	-0.8
	129nm,0.1s,SNR=7.9						
TOU	**Touzarine**	0.86	267	iP	Pb	21 11 27.0	+0.8
TOU				iS	Sb	21 11 40.0	+2.7
TZK	**Tazeka**	1.53	233	eP	Pn	21 11 36.5	-0.3
TZK				iS	Sn	21 11 55.5	-0.9
EBER	**Berja**	1.89	355	P	Pn	21 11 41.8	-0.2
	0.7nm,0.3s,SNR=7.9						
EBER				S	Sn	21 12 03.5	-2.0
	4.7nm,0.3s,SNR=7.9						
EBER	**Berja**	1.89	355	S	Sn	21 12 03.5	-2.0
	4.7nm,0.3s,SNR=7.9						
EBER	**Berja**	1.89	355	P	Pn	21 11 41.8	-0.2
	0.7nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	2.29	313	P	Pn	21 11 45.5	-2.2
	0.8nm,0.2s,SNR=7.9						
EMIJ				S	Sn	21 12 10.1	-5.6
	1.5nm,0.3s,SNR=7.9						
EQES	**Quesada**	2.80	354	P	Pn	21 11 57.0	+2.0
	0.8nm,0.3s,SNR=7.9						
EQES				S	Sn	21 12 30.7	+2.0
	0.3nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.80	354	P	Pn	21 11 57.0	+2.0
	0.8nm,0.3s,SNR=7.9						
EADA	**Adamuz**	3.49	335	P	Pn	21 12 07.1	+2.3
	0.4nm,0.2s,SNR=4.0						
EADA				S	Sn	21 12 41.9	-4.3
	0.6nm,0.3s,SNR=7.9						

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*NEIC **02** 21:12:48.5, 16.81N×100.48W, h10^{km}, MD3.9(MEX), After MEX.*

MEX 02 21:12:46.2±0.6**, 16.66N×100.52W, h4^{km}**±5^{km}**, MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	0.46	32	iP	Pg	21 12 54.5	-0.9
CAIG				iS	Sg	21 12 58.3	-3.2
CAIG	**El Cayaco**	0.46	32	iP	Pg	21 12 54.5	-0.9
CAIG				eS	Sg	21 13 01.6	+0.1
ACX	**Acapulco**	0.62	70	iP	Pg	21 12 57.5	-1.1
ACX				iS	Sg	21 13 06.5	-0.3
ZIIG	**Zihuatanejo**	1.30	316	iP	Pb	21 13 08.7	-2.1
ZIIG				iS	Sb	21 13 23.3	-4.4
ZIIG	**Zihuatanejo**	1.30	316	iP	Pb	21 13 08.7	-2.1
ZIIG				eS	Sb	21 13 24.0	-3.8
PLIG	**Platanillo**	1.98	29	iP	Pn	21 13 18.1	-2.7
PLIG				iS	Sn	21 13 41.0	-5.3
PNIG	**Pinotepa**	2.31	96	eP	Pn	21 13 25.1	-0.5
PNIG				iS	Sn	21 13 50.4	-4.4
YAIG	**Yautepec**	2.59	32	iP	Pn	21 13 25.9	-3.7
YAIG				iS	Sn	21 13 55.1	-6.8
OXX	**Oaxaca**	3.66	83	iP	Pn	21 13 55.7	+11
SFJM	**Santa Fe**	4.49	328	iP	Pn	21 14 06.1	+10

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*NEIC **02** 21:14:35.2, 16.82N×100.88W, h16^{km}, MD3.6(MEX), After MEX.*

MEX 02 21:14:36.8±0.8**, 16.70N×100.73W, h19^{km}**±88^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.56	52	*i* P	Pb	21 14 46.6	-1.2
CAIG				*i* S	Sb	21 14 53.5	-1.9
ACX	Acapulco	0.80	78	*i* P	Pb	21 14 49.5	-2.4
ACX				*i* S	Sb	21 14 59.0	-3.2
ZIIG	Zihuatanejo	1.14	322	*i* S	Sb	21 15 06.4	-5.7
PLIG	Platanillo	2.05	35	*i* P	Pn	21 15 05.2	-5.7
PLIG				*i* S	Sn	21 15 30.0	-6.2
PLIG	Platanillo	2.05	35	*i* P	Pn	21 15 05.8	-5.2
PLIG				*i* S	Sn	21 15 31.8	-4.4
YAIG	Yautepec	2.67	36	*i* P	Pn	21 15 17.1	-2.6
YAIG				*i* S	Sn	21 15 47.6	-4.3

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*NEIC **02** 21:28:09.0, 18.65S×117.64E, h20^{km}, ML3.0(AUST), After AUST.*

AUST 02 21:28:09.5, 18.65S×117.64E, h20^{km}, ML3.0, Northwest of Australia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBWA	Marble Bar	3.18	142	*e*P	Pn	21 28 57.5	-2.1
MBWA				*e*S	Sn	21 29 25.9	-12
MBWA	Marble Bar	3.18	142	*e*Pn	Pn	21 28 56.6	-3.0
MBWA				*e*S	Sn	21 29 25.9	-12
GIRL	Giralia	4.37	207	*e*P	Pn	21 29 22.9	+6.3
GIRL				*e*S	Sn	21 30 08.3	+0.7
	311nm,1.2s						
FITZ	Fitzroy Crossi	7.62	87	*e*P	Pn	21 29 55.7	-6.6
FITZ				*e*S	Sn	21 31 17.1	-12
	4.6nm,0.8s						
FITZ	Fitzroy Crossi	7.62	87	*e*P	Pn	21 29 55.7	-6.6
	4.6nm,0.8s						
FITZ				*e*S	Sn	21 31 17.1	-12
MORW	Morawa	10.47	188	*e*P	P	21 30 34.8	-7.0
MORW				*e*S	S	21 32 22.0	-18
BLDU	Ballidu	11.94	184	*e*P	P	21 30 54.7	-7.1
BLDU				*e*S	S	21 32 54.7	-21
	7.0nm,1.5s						
BLDU	Ballidu	11.94	184	*e*P	P	21 30 54.7	-7.1
	7.0nm,1.5s						
BLDU				*e*S	S	21 32 54.7	-21
KMBL	Kambalda	13.23	164	*e*P	P	21 31 12.6	-6.4
NWAO	Narrogin (SRO)	14.22	181	*e*P	P	21 31 24.6	-7.5
	0.9nm,1.2s						
NWAO				*e*S	S	21 33 47.4	-23

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*IDC **02** 21:32:31.2±3.2, 18.15N×121.12E, h199^{km}±33^{km}, mb2.9/3, mb1 3.1/3, mb1mx2.9/18, Error ellipse: s-maj=43.7km s-min=19.3km az=60.0*

ISC 02 21:32:14.7±1.7**, 18.56N**±0.07×**120.91E**±0.08**, h9**^{km}±11^{km}**, n10, σ1^{s}16**/12**, mb3.3**/2**, 1C-1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.36	230	⇓*i*P	Pg	21 32 21.0	-1.1
PIP				*e*S	Sg	21 32 28.0	+1.0
ABRA	Dolores	0.92	192	*e*P	Pb	21 32 29.8	-2.6
ABRA				*e*S	Sb	21 32 43.8	-0.7
SGCP	Mt. Cagua	1.12	106	*e*P	Pb	21 32 35.6	-0.2
CAUP	Cauayan	1.83	151	*e*P	Pn	21 32 47.3	+0.8
BALP	Baler	2.87	167	*e*P	Pn	21 33 02.7	+1.2
PCPH	Palayan	2.98	177	⇑*e*P	Pn	21 33 06.8	+3.7
TGY	Tagaytay City	4.43	180	P	Pn	21 33 33.4	+10
	28nm,0.3s,baz=235,slow=5.7,SNR=4.4						
CMAR	Chiang Mai Arr	20.83	273	P	P	21 37 00.1	+0.8
	1.0nm,0.8s,baz=90,slow=9.0,SNR=7.0						
SONM	Songino Array	31.51	341	P	P	21 38 38.4	-0.7
	0.5nm,0.9s,mb3.4,baz=162,slow=8.6,SNR=3.0						
WRA	Warramunga Arr	40.47	160	P	P	21 39 46.8	-8.6
	0.3nm,0.5s,mb3.3,baz=342,slow=8.9,SNR=3.9						

IDC 02 21:56:16.3±3.8**, 30.55S×179.10W, mb4.2**/2**, mb1 4.5**/2**, mb1mx4.0**/12**, Error ellipse: s-maj=204.0km s-min=45.4km az=163.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	42.16	268	P	P	22 04 10.3	-1.9
	1.0nm,0.5s,baz=105,slow=7.1,SNR=17						
WRA	Warramunga Arr	43.16	273	P	P	22 04 19.2	-1.4
	3.6nm,0.6s,baz=113,slow=8.0,SNR=22						
FINES	FINESS Array B	144.96	339	PKP	PKPdf	22 15 53.9	-2.6
	1.5nm,0.4s,baz=72,slow=4.4,SNR=20						
NB2	NORSAR Subarra	148.75	350	PKP	PKPdf	22 16 04.1	+1.3
	0.6nm,0.6s,baz=18,slow=2.6						
NOA	NORSAR Array B	148.75	350	PKPbc	PKPdf	22 16 04.5	+1.8
	0.6nm,0.6s,baz=13,slow=4.1,SNR=4.0						

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*ISK **02** 21:59:49.6, 38.28N×38.77E, h5^{km}, MD3.6*

*CSEM **02** 21:59:50.4±0.1, 38.26N×38.77E, h5^{km}, MD3.6, Error ellipse: s-maj=2.3km s-min=2.1km az=3.0*

ISC 02 21:59:51.1±0.3**, 38.26N**±0.03×**38.79E**±0.03**, h5**^{km}**, n31, σ1^{s}12**/42**, 1D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELZG	Elazig	0.28	32	*i* P	Pg	21 59 56.5	-0.4
ELZG				*i* S	Sg	22 00 02.8	+2.1
MALT	Malatya	0.29	281	PG	Pg	21 59 55.6	-1.5
MALT				SG	Sg	22 00 00.7	-0.3
MALT	Malatya	0.29	281	*i* P	Pg	21 59 56.0	-1.1
MALT				*i* S	Sg	22 00 00.9	-0.1
MALT	Malatya	0.29	281	*e*Sg	Sg	22 00 00.7	-0.3
MYA	Malataya	0.30	284	*i* PG	Pg	21 59 56.6	-0.6
PTK	Pertek	0.79	36	*i* PG	Pg	22 00 05.4	-1.5
URFA	Urfa	0.81	178	PG	Pg	22 00 06.9	-0.5
DIY	Diyarbakir	1.19	107	*i* PN	Pn	22 00 13.9	-0.4
GZT	Gaziantep	1.32	228	*i* P	Pb	22 00 16.0	-0.1
GZT				*i* S	Sb	22 00 36.6	+3.3
BINT	Bingol	1.47	64	PN	Pn	22 00 18.3	0.0
DRBT	Darb Altahta	1.62	150	⇑*i*P	Pn	22 00 22.5	+2.0
DRBT				⇑*i*S	Sb	22 00 42.1	+0.3
KAHT	Ahir Dag	1.64	248	P	Pn	22 00 20.8	-0.1
KAHT				S	Sb	22 00 46.0	+3.5
EZC	Erzincan	1.69	28	PN	Pn	22 00 19.2	-2.3
KBSD	Kabsdagh	1.87	132	⇑*i*P	Pn	22 00 25.6	+1.5
KBSD				⇑*i*S	Sn	22 00 46.9	-1.5
BEST	Besiri	1.99	100	*i* P	Pn	22 00 25.6	-0.2
BEST				*i* S	Sn	22 00 52.6	+1.2
SVST	Sivas	2.09	317	P	Pn	22 00 30.0	+2.8
SVST				S	Sn	22 00 57.9	+4.0
BTMT	Batman	2.12	91	*e*PN	Pn	22 00 26.5	-1.2
GUMT	Gumushane	2.27	13	*e*PN	Pn	22 00 29.7	-0.1
VRT	Varto	2.31	67	*e*PN	Pn	22 00 31.0	+0.6
BNN	Bunyan	2.39	285	PN	Pn	22 00 31.0	-0.5
EZM	Erzurum	2.59	50	*e*PN	Pn	22 00 34.9	+0.5
ERZM	Erzurum	2.59	50	P	Pn	22 00 38.6	+4.1
COBT	Iskenderun	2.66	230	P	Pn	22 00 34.6	-0.9
COBT				S	Sn	22 01 16.3	+7.8
TOKT	Tokat	2.70	320	*e*PN	Pn	22 00 35.6	-0.4
BSHR	Al Beshri	2.71	162	⇑*i*S	Sn	22 01 10.3	+0.6
HTY	Hatay	3.01	226	*e*PN	Pn	22 00 39.5	-0.8
YOZ	Yozgat	3.04	298	*e*PN	Pn	22 00 40.9	+0.1
AVNT	Avonos	3.13	281	P	Pn	22 00 48.7	+6.5
AVNT				S	Sg	22 01 37.0	+1.5
NIG	Nigde	3.30	269	*e*PN	Pn	22 00 44.6	+0.1
WRDH	Warideh	3.34	216	⇓*i*P	Pn	22 00 44.1	-1.0
KAMT	Kaman	4.12	287	*e*PN	Pn	22 00 56.2	0.0

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*NEIC **02** 22:02:39.4, 16.61N×100.44W, h15^{km}, MD4.0(MEX), After MEX.*

MEX 02 22:02:38.9±1.1**, 16.67N×100.45W, h5**^{km}**, MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.41	26	*i* P	Pg	22 02 45.8	-1.5
CAIG				*i* S	Sg	22 02 53.0	+0.3
CAIG	El Cayaco	0.41	26	*i* P	Pg	22 02 45.8	-1.5
CAIG				*i* S	Sg	22 02 52.6	-0.2
ACX	Acapulco	0.55	69	*i* P	Pg	22 02 48.5	-1.4
ACX				*i* S	Sg	22 02 58.0	+0.7
ZIIG	Zihuatanejo	1.34	314	*i* P	Pb	22 03 01.5	-2.7
ZIIG				*i* S	Sb	22 03 19.2	-2.3
ZIIG	Zihuatanejo	1.34	314	*i* P	Pb	22 03 01.5	-2.7
ZIIG				*e*S	Sb	22 03 16.6	-4.9
PLIG	Platanillo	1.94	28	*i* P	Pn	22 03 09.5	-3.4
PLIG				*i* S	Sn	22 03 32.9	-4.9
YAIG	Yautepec	2.55	31	*i* P	Pn	22 03 17.8	-3.8
YAIG				*i* S	Sn	22 03 48.9	-4.5
PPM	Popocatepetl	2.95	36	*i* P	Pn	22 03 56.4	+29
PPM				*i* S	Sn	22 04 33.2	+30

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*MDD **02** 22:07:16.0±1.3, 34.92N×2.94W, mb3.6/10, Error ellipse: s-maj=12.0km s-min=8.1km az=134.0, PRXIMO AftershockPLICA*

*NEIC **02** 22:07:17.4, 34.98N×2.97W, h10^{km}, MG3.5(MDD), After MDD.*

*CSEM **02** 22:07:17.0±0.2, 35.10N×2.94W, h20^{km}, MD3.6, Error ellipse: s-maj=5.6km s-min=3.3km az=116.0*

*CNRM **02** 22:07:17.2, 35.10N×2.76W, h3^{km}, MD3.6*

*INMG **02** 22:07:18.0±0.9, 35.00N×2.93W, h15^{km}±3^{km}, ML2.4, Error ellipse: s-maj=4.7km s-min=3.5km az=153.0*

ISC 02 22:07:18.4±0.5**, 35.11N**±0.02×**2.92W**±0.04**, h30**^{km}±3^{km}**, n49, σ1^{s}29**/82**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.18	357	P	Pb	22 07 22.6	-1.7
MELI	Melilla	0.18	357	*i* P	Pb	22 07 22.6	-1.7
EMLI	Melilla	0.19	353	P	Pb	22 07 23.4	-1.0
	147nm,0.1s,SNR=23						
EMLI				S	Sb	22 07 28.5	-0.1
	1µm,0.1s,SNR=7.9						
EMEL	Melilla	0.19	352	P	Pb	22 07 23.4	-1.0
	147nm,0.1s,SNR=23						
EMEL				S	Sb	22 07 28.5	0.0
	1µm,0.1s,SNR=7.9						
ZAI	Zaio	0.20	135	*i* S	Sb	22 07 34.5	+5.6
TOU	Touzarine	0.70	258	*i* P	Pb	22 07 31.5	-0.5
TOU				*i* S	Sb	22 07 43.0	+1.7
MPAL	Palemas	0.84	278	*e*P	Pn	22 07 35.5	+1.3
MPAL				*i* S	Sb	22 07 48.0	+2.6
TZK	Tazeka	1.46	226	*i* P	Pn	22 07 43.0	0.0
TZK				*i* S	Sn	22 08 02.0	+0.7
EBER	Berja	1.78	1	P	Pn	22 07 48.6	+0.9
	1.3nm,0.2s,SNR=15						
EBER				S	Sn	22 08 11.6	+2.2
	5.8nm,0.2s,SNR=7.9						
EBER	Berja	1.78	1	P	Pn	22 07 48.6	+1.0
	1.3nm,0.2s,SNR=15						
EBER				S	Sn	22 08 11.6	+2.1
	5.8nm,0.2s,SNR=7.9						
ERON	Agron	2.03	340	P	Pn	22 07 51.1	-0.2
	2.2nm,0.2s,SNR=6.1						
ERON				S	Sn	22 08 17.8	+2.0
	2.0nm,0.2s,SNR=7.9						
EMIJ	Mijas	2.09	314	P	Pn	22 07 51.1	-0.9
	1.3nm,0.2s,SNR=7.9						
EMIJ				S	Sn	22 08 16.4	-0.8
	3.2nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	2.26	334	P	Pn	22 07 56.4	+1.9
	2.3nm,0.2s,SNR=9.7						
ELOJ				S	Sn	22 08 21.5	-0.2
	1.0nm,0.2s,SNR=7.9						
MIF	Mishlifen	2.56	229	*e*P	Pn	22 08 00.5	+1.7
MIF				*i* S	Sn	22 08 28.0	-1.2
ELUQ	Luque	2.67	336	P	Pn	22 08 02.0	+1.6
	1.4nm,0.2s,SNR=7.9						
ELUQ				S	Sn	22 08 34.4	+2.3
	3.5nm,0.2s,SNR=7.9						
EQES	Quesada	2.69	358	P	Pn	22 08 03.5	+2.8
EQES				S	Sn	22 08 36.1	+3.6
EQES	Quesada	2.69	358	P	Pn	22 08 03.5	+2.9
	1.9nm,0.1s,SNR=7.9						
EQES				S	Sn	22 08 36.1	+3.7
	7.6nm,0.3s,SNR=7.9						
EQES	Quesada	2.69	358	S	Sn	22 08 36.1	+3.6
	7.6nm,0.3s,SNR=7.9						
LIJA	Lijar	2.69	312	P	Pn	22 08 03.0	+2.3
CZD	Col de Zad	2.72	221	*e*P	Pn	22 08 02.5	+1.4
CZD				*i* S	Sn	22 08 32.0	-1.3
ESPR	Espera	2.95	307	P	Pn	22 08 06.9	+2.5
	1.4nm,0.2s,SNR=6.1						
ESPR				S	Sn	22 08 38.4	-0.8
	1.9nm,0.3s,SNR=7.9						
ESPR	Espera	2.95	307	S	Sn	22 08 38.4	-0.8
	1.9nm,0.3s,SNR=7.9						
EMUR	La Murta	3.04	26	P	Pn	22 08 06.1	+0.4
	0.7nm,0.2s,SNR=10						
EMUR				S	Sn	22 08 40.8	-0.7
	1.2nm,0.5s,SNR=7.9						
EMUR	La Murta	3.04	26	P	Pn	22 08 06.1	+0.5
	0.7nm,0.2s,SNR=10						
EMUR				S	Sn	22 08 40.8	-0.7
	1.2nm,0.5s,SNR=7.9						
ZFT	Errachidia	3.29	202	*e*P	Pn	22 08 09.0	-0.2
ZFT				*i* S	Sn	22 08 47.0	-0.9
EADA	Adamuz	3.33	337	P	Pn	22 08 10.2	+0.5
	0.9nm,0.2s,SNR=24						
EADA				S	Sn	22 08 48.4	-0.2
	0.8nm,0.2s,SNR=7.9						
EADA	Adamuz	3.33	337	P	Pn	22 08 10.2	+0.5
	0.9nm,0.2s,SNR=24						
EADA				S	Sn	22 08 48.4	-0.2
	0.8nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.02	312	P	Pn	22 08 19.0	-0.6
	2.8nm,0.3s,SNR=20						
EMIN				S	Sn	22 09 03.0	-3.2
	0.6nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.02	312	S	Sn	22 09 03.0	-3.2
	0.6nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.02	312	P	Pn	22 08 19.0	-0.5
	2.8nm,0.3s,SNR=20						
EBEN	Beniarda	4.18	30	P	Pn	22 08 22.5	+0.6
	SNR=7.9						
EBEN				S	Sn	22 09 09.8	-0.7
	0.4nm,0.2s,SNR=7.9						
EBEN	Beniarda	4.18	30	P	Pn	22 08 22.5	+0.6
	SNR=7.9						
EBEN				S	Sn	22 09 09.8	-0.6
	0.4nm,0.2s,SNR=7.9						
PALC	Alcoutim	4.36	304	*e*Pn	Pn	22 08 23.8	-0.6
PALC				*e*Sn	Sn	22 09 13.1	-1.8
	7.0nm,0.6s						
PALC	Alcoutim	4.36	304	Pn	Pn	22 08 23.8	-0.6
PALC				Sn	Sn	22 09 13.1	-1.8
	3.5nm,0.6s						
ESDC	Sonseca Array	4.63	350	P	Pn	22 08 29.7	+1.5
ESDC	Sonseca Array	4.63	350	P	Pn	22 08 29.7	+1.5
	SNR=7.9						
EBAD	Badajoz	4.89	319	P	Pn	22 08 31.7	-0.2
EBAD				S	Sn	22 09 27.0	-1.3
EBAD	Badajoz	4.89	319	P	Pn	22 08 31.7	-0.2
	3.1nm,0.3s,SNR=16						
EBAD				S	Sn	22 09 27.0	-1.2
	SNR=7.9						
EBAD	Badajoz	4.89	319	P	Pn	22 08 31.7	-0.2
	3.1nm,0.3s,SNR=16						
EBAD				S	Sn	22 09 27.0	-1.3
	SNR=7.9						
PBEJ	Beja	4.93	308	*e*Pn	Pn	22 08 31.9	-0.5
PBEJ				*e*Sn	Sn	22 09 26.9	-2.2
EIBI	Ibiza	5.19	40	P	Pn	22 08 35.4	-0.7
	3.3nm,0.3s,SNR=9.0						
EIBI				S	Sn	22 09 33.0	-2.6
	SNR=7.9						
EIBI	Ibiza	5.19	40	S	Sn	22 09 33.0	-2.6
EIBI	Ibiza	5.19	40	P	Pn	22 08 35.4	-0.6
	3.3nm,0.3s,SNR=9.0						
PCBR	Castelo Branco	5.95	324	*e*Pn	Pn	22 08 46.4	-0.4
PCBR				*e*Sn	Sn	22 09 51.3	-3.4
	2.5nm,0.6s						
PCBR	Castelo Branco	5.95	324	Pn	Pn	22 08 46.4	-0.4
PCBR				Sn	Sn	22 09 51.3	-3.4
	1.2nm,0.6s						
PTOM	Tomar	6.27	317	*e*Pn	Pn	22 08 50.2	-1.1
PVIS	Viseu	6.83	326	*e*Pn	Pn	22 08 59.1	-0.2
PVRL	Vila Real	7.21	330	*e*Pn	Pn	22 09 04.1	-0.5
PBRG	Braganca	7.32	337	*e*Pn	Pn	22 09 05.7	-0.4

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*NEIC **02** 22:18:53.2±2.3, 6.25S×154.87E, h336^{km}±21^{km}, mb4.1/11, Error ellipse: s-maj=25.4km s-min=11.8km az=98.0*

*IDC **02** 22:18:54.5±2.0, 6.37S×155.01E, h353^{km}±19^{km}, mb3.5/7, mb1 3.7/9, mb1mx3.6/16, Error ellipse: s-maj=25.3km s-min=13.0km az=124.0*

ISC 02 22:18:50.5±1.9**, 6.32S**±0.09×**155.0E**±0.1**, h329**^{km}±20^{km}**, n25, σ0^{s}78**/28**, mb3.8**/13**, 2C-1D, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	8.35	248	P	P	22 20 53.6	+4.2
	1.1nm,0.3s,baz=45,slow=19,SNR=3.6						
PMG	Port Moresby	8.35	248	*e*P	P	22 20 49.7	+0.3
	12nm,0.7s						
CTA	Charters Tower	16.11	211	⇑*i*P	P	22 22 21.7	+1.0
	17nm,0.7s						
CTA	Charters Tower	16.11	211	P	P	22 22 21.4	+0.7
	1.7nm,0.3s,baz=40,slow=12,SNR=46						
CTAO	Charters Tower	16.11	211	*e*P	P	22 22 21.7	+1.0
	37nm,0.9s						
DZM	Mont Dzumac	19.17	146	*e*P	P	22 22 51.7	-0.2
KAKA	Kakadu	23.16	252	*e*P	P	22 23 29.5	-1.0
	4.5nm,0.4s,mb4.0						
WRAB	Tennant Creek	24.20	234	*e*P	P	22 23 40.2	+0.3
	14nm,1.1s,mb4.1						
WB2	Warramunga Arr	24.20	234	*e*P	P	22 23 40.7	+0.8
WRA	Warramunga Arr	24.21	234	P	P	22 23 40.9	+0.9
	2.7nm,0.8s,mb3.5,baz=62,slow=9.6,SNR=13						
WRA				S	S	22 27 34.3	+1.6
	1.0nm,0.8s,baz=61,slow=16,SNR=5.8						
ASAR	Alice Springs	26.63	227	P	P	22 24 01.6	-0.3
	4.8nm,0.5s,mb4.0,baz=58,slow=9.0,SNR=69						
ASAR				S	S	22 28 10.6	-1.0
	0.8nm,0.7s,baz=59,slow=16,SNR=6.2						
ASAR	Alice Springs	26.63	227	P	P	22 24 01.6	-0.3
ASAR				S	S	22 28 10.6	-1.0
ASPA	Alice Springs	26.63	227	*e*P	P	22 24 01.2	-0.7
STKA	Stephens Creek	28.35	205	⇑*i*P	P	22 24 16.7	-0.5
	3.5nm,0.6s,mb3.8						
STKA	Stephens Creek	28.35	205	P	P	22 24 16.7	-0.5
	4.6nm,0.5s,mb4.0,baz=14,slow=8.5,SNR=13						
FITZ	Fitzroy Crossi	30.94	245	⇓*i*P	P	22 24 38.9	-1.0
	8.5nm,0.7s,mb4.1						
FITZ	Fitzroy Crossi	30.94	245	P	P	22 24 38.9	-0.9
	14nm,0.8s,mb4.2,baz=53,slow=5.2,SNR=45						
MBWA	Marble Bar	37.18	243	*e*P	P	22 25 32.0	-0.6
	3.1nm,0.6s,mb3.7						
MAJO	Matsushiro	45.45	341	*e*P	P	22 26 38.1	-1.3
	6.5nm,0.7s,mb3.9						
HIA	Hailar	63.31	335	P	P	22 28 46.6	-0.2
	4.6nm,0.8s,mb4.1						
ULN	Ulaanbaatar	68.44	327	*e*P	P	22 29 20.1	+1.0
	4.9nm,1.3s,mb4.1						
SONM	Songino Array	68.77	327	P	P	22 29 22.1	+1.0
	1.7nm,1.0s,mb3.8,baz=141,slow=6.3,SNR=9.6						
VNDA	Vanda	71.25	178	P	P	22 29 35.7	+0.1
	0.8nm,1.0s,mb3.4,baz=8.1,slow=7.1,SNR=2.6						
VNDA	Vanda	71.25	178	P	P	22 29 35.7	0.0
ILAR	Eielson Array	82.74	22	P	P	22 30 39.2	+0.3
	0.2nm,0.6s,mb3.1,baz=236,slow=6.5,SNR=3.5						

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*ISK **02** 22:35:30.9, 38.92N×26.70E, h9^{km}, MD3.2*

*NEIC **02** 22:35:32.0, 38.86N×26.71E, h29^{km}, MD3.2(ATH), After ATH.*

*ATH **02** 22:35:32.0, 38.86N×26.71E, h29^{km}±1^{km}, MD3.2/5*

*CSEM **02** 22:35:32.2±0.1, 38.90N×26.82E, h15^{km}, MD3.2, Error ellipse: s-maj=3.0km s-min=2.2km az=71.0*

ISC 02 22:35:32.0±0.6**, 38.89N**±0.03×**26.71E**±0.05**, h10**^{km}±5^{km}**, n26, σ0^{s}91**/36**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AYVA	Ayvalik	0.41	358	*i* P	Pg	22 35 40.7	+0.2
AYVA				*i* S	Sg	22 35 47.0	+0.9
PRK	Paraskevi	0.49	316	*e*PN	Pn	22 35 43.0	-1.7
BLCB	Balcova	0.57	153	PG	Pg	22 35 43.0	-0.5
BLCB				SG	Sg	22 35 51.1	-0.1
KDAG	Bornova	0.65	138	*i* P	Pb	22 35 44.9	-0.1
KDAG				*i* S	Sg	22 35 54.7	+0.8
IZM	Izmir	0.66	139	*i* PG	Pg	22 35 45.0	-0.2
AKS	Akhisar	0.86	91	PG	Pg	22 35 48.6	-0.6
BOZC	Bozcaada	1.08	332	*i* P	Pb	22 35 53.0	+0.8
BOZC				*i* S	Sb	22 36 08.4	+2.2
BALB	Balikesir	1.17	50	PN	Pn	22 35 53.3	-1.1
SMG	Samos	1.19	175	*e*PN	Pn	22 35 53.8	-0.8
BTOK	Tokmak	1.34	49	*i* P	Pb	22 35 56.3	-0.5
BTOK				*i* S	Sb	22 36 14.1	+0.2
MANT	Manisa	1.50	105	P	Pn	22 36 00.6	+1.5
MANT				S	Sb	22 36 19.8	+1.4
AYDN	Tasoluk	1.54	143	P	Pn	22 35 58.9	-0.7
AYDN				*i* S	Sb	22 36 19.5	+0.1
LIA	Limnos Island	1.55	311	*e*PN	Pn	22 36 00.1	+0.2
DST	Dursunbey	1.65	64	PN	Pn	22 36 00.5	-0.7
EDC	Edincik	1.70	31	PN	Pn	22 36 01.0	-1.0
BNT	Bandirma	1.73	32	*e*PN	Pn	22 36 01.6	-0.8
MLSB	Milas	1.80	152	*e*PN	Pn	22 36 04.3	+0.9
KCT	Karacabey	1.87	42	*e*PN	Pn	22 36 03.7	-0.7
BDRM	Kayabasi	1.91	162	P	Pn	22 36 08.0	+3.0
BDRM				S	Sn	22 36 35.6	+6.2
ORLT	Orhaneli	2.04	55	*e*PN	Pn	22 36 06.4	-0.5
APE	Apeiranthos	2.05	208	*e*PN	Pn	22 36 06.6	-0.3
YER	Yerkesik	2.15	144	*e*PN	Pn	22 36 08.5	+0.1
DNZL	Cakiroluk	2.19	122	P	Pn	22 36 15.2	+6.2
DNZL				S	Sn	22 36 42.1	+5.6
ULDT	Uludag	2.25	56	P	Pn	22 36 13.9	+4.0
ULDT				S	Sn	22 36 43.1	+5.1
RDO	Rodhopi	2.42	339	*e*PN	Pn	22 36 12.5	+0.2
NVR	Nevrokopi	3.29	319	*e*PN	Pn	22 36 24.3	-0.3

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*CSEM **02** 22:46:36.6±0.1, 34.94N×2.87W, h15^{km}, MD2.7, Error ellipse: s-maj=1.6km s-min=0.9km az=11.0*

*CNRM **02** 22:46:39.6, 35.02N×2.76W, h9^{km}, MD2.7*

*NEIC **02** 22:46:41.5, 35.15N×3.19W, MG2.9(MDD), After MDD.*

*MDD **02** 22:46:41.5±2.0, 35.15N×3.19W, mbLg1.8/4, Error ellipse: s-maj=21.1km s-min=6.4km az=175.0, PRXIMO AftershockPLICA*

ISC 02 22:46:37.9±1.1**, 35.02N**±0.06×**2.76W**±0.09**, h19**^{km}±6^{km}**, n16, σ1^{s}35**/27**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.05	170	*i* P	Pb	22 46 41.0	-0.3
ZAI				*i* S	Sb	22 46 43.0	-0.6
EMLI	Melilla	0.32	331	P	Pb	22 46 46.1	+1.2
	25nm,0.1s,SNR=8.1						
EMLI				S	Sb	22 46 49.2	-0.5
	75nm,0.4s						
EMEL	Melilla	0.33	330	P	Pb	22 46 46.1	+1.2
	SNR=8.1						
EMEL				S	Sb	22 46 49.2	-0.6
	75nm,0.4s						
TOU	Touzarine	0.82	266	*i* P	Pb	22 46 55.5	+2.2
TOU				*i* S	Sb	22 47 04.0	0.0
MPAL	Palemas	0.99	282	*e*P	Pb	22 47 04.5	+8.2
MPAL				*i* S	Sb	22 47 23.5	+15
EBER	Berja	1.88	357	P	Pn	22 47 13.1	+3.6
	0.3nm,0.2s,SNR=7.9						
EBER				S	Sn	22 47 31.7	-1.3
	3.6nm,0.4s,SNR=7.9						
EBER	Berja	1.88	357	P	Pn	22 47 13.1	+3.5
	0.3nm,0.2s,SNR=7.9						
EBER				S	Sn	22 47 31.7	-1.2
	3.6nm,0.4s,SNR=7.9						
EMIJ	Mijas	2.25	314	P	Pn	22 47 13.1	-1.8
	0.6nm,0.2s,SNR=6.9						
EMIJ				S	Sn	22 47 37.8	-4.6
	0.7nm,0.2s						
EMIJ	Mijas	2.25	314	S	Sn	22 47 37.8	-4.6
	0.7nm,0.2s						
EQES	Quesada	2.79	355	P	Pn	22 47 25.4	+2.8
	0.5nm,0.2s,SNR=8.5						
EQES				S	Sn	22 47 57.6	+1.5
	0.0nm,0.1s						
EQES	Quesada	2.79	355	P	Pn	22 47 25.4	+2.8
	0.5nm,0.2s,SNR=8.5						
EQES				S	Sn	22 47 57.6	+1.5
EADA	Adamuz	3.47	336	P	Pn	22 47 32.0	-0.2
	0.3nm,0.2s,SNR=4.6						
EADA				S	Sn	22 48 08.1	-5.1
	30nm,1.5s						
EADA	Adamuz	3.47	336	S	Sn	22 48 08.1	-5.1
	30nm,1.5s						
EADA	Adamuz	3.47	336	P	Pn	22 47 32.0	-0.2
	0.3nm,0.2s,SNR=4.6						
EMIN	Mina Concepcio	4.18	312	P	Pn	22 47 39.9	-2.5
	0.2nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.18	312	P	Pn	22 47 39.9	-2.5

GUC 02 22:54:04.1±0.8,35.01S×70.58W,h2km±5km,MD3.6, ML2.3,2D,Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFDO	San Fernando	0.53	318	⇓iP	Pg	22 54 14.9	+0.2
SFDO				iS	Sg	22 54 23.3	+1.4
CACH	El Canelo	0.89	359	⇓iP	Pg	22 54 20.5	-1.4
CACH				iS	Sg	22 54 33.7	-0.1
LNV	Longovilo	1.26	327	eP	Pb	22 54 27.0	-1.2
LNV				iS	Sb	22 54 44.5	-0.2
TACH	Talagante	1.39	348	iP	Pb	22 54 29.6	-0.8
TACH				iS	Sb	22 54 48.7	+0.2
PCH	Pirque	1.39	2	eP	Pb	22 54 29.0	-1.5
RCDM	Rinconada Maip	1.53	353	eP	Pn	22 54 32.0	-0.6
RCDM				iS	Sb	22 54 53.1	+0.5
RCDM				AMP		22 54 54.9	
	comp=E,107nm,0.4s						
FCH	Farellones	1.70	8	eP	Pn	22 54 35.0	+0.1
FCH				iS	Sb	22 54 58.1	+0.7
FCH				AMP		22 55 12.0	
	comp=N,46nm,0.3s						
LCCH	Las Cruces	1.74	332	eP	Pn	22 54 35.1	-0.4
LCCH				iS	Sn	22 54 59.1	+0.5

CNRM 02 23:05:22.6,35.16N×2.64W,h5km,MD2.6
NEIC 02 23:05:26.7,35.06N×3.17W,MG2.9(MDD),After MDD.
MDD 02 23:05:26.7±2.2,35.06N×3.17W,mb2.9/4,Error ellipse: s-maj=21.6km s-min=7.6km az=162.0,PRXIMO AftershockPLICA
CSEM 02 23:05:23.2±0.2,34.91N×2.81W,h15km,MD2.6,Error ellipse: s-maj=6.3km s-min=3.0km az=150.0,Morocco

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.08	42	iP	Pb	23 05 27.0	+1.1
EMLI	Melilla	0.40	343	P	Pb	23 05 32.3	+0.8
	29nm,0.2s,SNR=7.9						
EMEL	Melilla	0.40	343	P	Pb	23 05 32.3	+0.8
	29nm,0.2s,SNR=7.9						
EMEL				S	Sb	23 05 36.1	-1.0
	162nm,0.2s,SNR=6.8						
TOU	Touzarine	0.78	274	iP	Pb	23 05 39.0	+1.1
TOU				iS	Sb	23 05 52.0	+4.0
EBER	Berja	1.98	358	P	Pn	23 05 57.3	+0.6
	1.1nm,0.4s,SNR=7.9						
EBER				S	Sn	23 06 18.2	-3.1
	4.8nm,0.3s,SNR=7.9						
EBER	Berja	1.98	358	P	Pn	23 05 57.2	+0.6
EBER				S	Sn	23 06 18.2	-3.1
	4.8nm,0.3s,SNR=7.9						
EMIJ	Mijas	2.29	316	P	Pn	23 05 59.6	-1.6
	1.0nm,0.2s,SNR=7.9						
EMIJ				S	Sn	23 06 24.7	-4.6
	0.7nm,0.3s,SNR=7.9						
EMIJ	Mijas	2.29	316	S	Sn	23 06 24.7	-4.6
	0.7nm,0.3s,SNR=7.9						
EQES	Quesada	2.89	356	P	Pn	23 06 11.4	+1.7
	1.2nm,0.3s,SNR=7.9						
EQES				S	Sn	23 06 44.7	+0.3
	4.8nm,0.4s,SNR=7.9						
EQES	Quesada	2.89	356	P	Pn	23 06 11.4	+1.7
	1.2nm,0.3s,SNR=7.9						
EQES				S	Sn	23 06 44.7	+0.3
	4.8nm,0.4s,SNR=7.9						
ELUQ	Luque	2.89	336	P	Pn	23 06 10.7	+1.0
	0.9nm,0.2s,SNR=7.9						
EADA	Adamuz	3.55	337	P	Pn	23 06 18.7	-0.2
	0.7nm,0.2s,SNR=4.0						
EADA				S	Sn	23 06 56.6	-4.4
	1.2nm,0.3s,SNR=7.9						
EADA	Adamuz	3.55	337	S	Sn	23 06 56.6	-4.4
	1.2nm,0.3s,SNR=7.9						
EADA	Adamuz	3.55	337	P	Pn	23 06 18.7	-0.2
	0.7nm,0.2s,SNR=4.0						
EMIN	Mina Concepcio	4.22	314	P	Pn	23 06 26.5	-2.1
	0.3nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.22	314	P	Pn	23 06 26.5	-2.1
	0.3nm,0.2s,SNR=7.9						
ESDC	Sonseca Array	4.84	349	P	Pn	23 06 37.8	+0.4
	0.8nm,0.2s,baz=173,slow=12,SNR=4.0						
ESDC	Sonseca Array	4.84	349	P	Pn	23 06 37.8	+0.5

IDC 02 23:23:19.4±2.5,37.17N×74.88E,mb3.8/6,mb1 3.9/8, mb1mx3.7/20,ML3.4/2,Error ellipse: s-maj=53.1km s-min=24.0km az=169.0
NEIC 02 23:23:34.3±3.1,37.92N×74.88E,h91km±17km,mb3.5/2, Error ellipse: s-maj=32.9km s-min=15.3km az=174.0
ISC 02 23:23:31.1±0.9,37.75N±0.06×74.8E±0.2,h88km±12km, n29,σ1s02/30,mb3.6/6,1D,Tajikistan-Xinjiang border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KZA	Kyzart	4.34	5	P	P	23 24 36.3	+0.1
	SNR=14						
AML	Almayashu	4.46	349	P	P	23 24 38.6	+0.8
	SNR=11						
AML	Almayashu	4.46	349	eP	P	23 24 37.6	-0.2
UCH	Uchtor	4.48	357	P	P	23 24 38.9	+0.8
	SNR=54						
UCH	Uchtor	4.48	357	eP	P	23 24 38.5	+0.4
AAK	Ala-Archa	4.88	357	P	P	23 24 44.7	+1.0
	SNR=13						
AAK	Ala-Archa	4.88	357	eP	P	23 24 43.1	-0.5
KBK	Karagaybulak	4.90	1	P	P	23 24 44.6	+0.7
	SNR=22						
EKS2	Erkin-Say	4.97	351	P	P	23 24 42.5	-2.4
	SNR=10						
EKS2	Erkin-Say	4.97	351	eP	P	23 24 44.5	-0.3
TKM2	Tokmak 2	5.20	7	P	P	23 24 48.7	+0.7
	SNR=21						
TKM2	Tokmak 2	5.20	7	eP	P	23 24 48.2	+0.2
	11nm,0.6s						
CHMS	Chumysh	5.24	360	P	P	23 24 49.0	+0.5
	SNR=8.4						
SDNR	Sundarnagar	6.49	163	eP	P	23 24 55.6	-10
	58nm,0.4s						
SDNR				e		23 26 42.6	
SMLA	Simla	6.89	163	⇓i	P	23 25 14.3	+3.0
	107nm,0.7s						
SMLA				iS	S	23 26 28.2	-0.6
	88nm,0.5s						
DDI	Dehra Dun	7.89	159	e	P	23 25 15.1	-10
KURK	Kurchatov	13.25	11	eP	P	23 26 33.3	-3.4
BVAR	Borovoye Array	15.58	350	Pn	P	23 27 05.8	-0.8
	0.2nm,0.3s,baz=162,slow=9.1,SNR=3.5						
BRVK	Borovoye	15.63	350	P	P	23 27 07.3	0.0
	3.3nm,0.6s						
CHKZ	Chkalovo	16.19	351	eP	P	23 27 13.3	-1.0
	1.6nm,0.8s						
ZAL	Zalesovo	17.60	20	P	P	23 27 30.9	-0.9
	0.3nm,0.3s,baz=264,slow=11,SNR=13						
ZAL	Zalesovo	17.60	20	P	P	23 27 30.9	-0.9
GNI	Garni	23.44	285	P	P	23 28 31.0	-1.9
	1.7nm,0.5s,mb3.6,baz=129,slow=14,SNR=3.3						
SONM	Songino Array	25.13	56	P	P	23 28 48.9	-0.3
	2.1nm,0.8s,mb3.6,baz=254,slow=9.9,SNR=16						
BRTR	Keskin Array B	31.96	287	P	P	23 29 51.0	+0.3
	1.7nm,1.0s,mb3.7,baz=80,slow=7.5,SNR=4.6						
FINES	FINESS Array B	38.19	324	P	P	23 30 45.0	+1.6
	1.0nm,0.7s,mb3.8,baz=117,slow=9.3,SNR=4.7						
NB2	NORSAR Subarra	45.23	322	P	P	23 31 41.0	+0.2
	0.9nm,0.7s,mb3.6,baz=91,slow=7.9						
NOA	NORSAR Array B	45.23	322	P	P	23 31 41.9	+1.0
	1.9nm,1.0s,mb3.8,baz=91,slow=7.6,SNR=4.8						
YKA	Yellowknife Ar	79.81	4	P	P	23 35 31.7	+1.1
	0.3nm,0.6s,mb3.3,baz=349,slow=5.3,SNR=5.5						

IGQ 02 23:31:18.6,1.08N×81.63W,h12km±23km,mb4.3,3C-4D, Error ellipse: s-maj=23.2km s-min=10.6km az=28.6,Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PINO	Pino	3.26	112	⇑P	Pn	23 32 11.1	+0.5
CGGP	Crater GGP	3.27	112	P	Pn	23 32 11.1	+0.4
YANA	Yana	3.28	111	P	Pn	23 32 11.4	+0.5
JUA2	San Juan 2	3.28	113	⇓P	Pn	23 32 11.7	+0.8
COTA	Cotacachi	3.37	103	⇑P	Pn	23 32 13.9	+1.7
COTA				S	Sn	23 32 51.7	-0.8
VC1	Cotopaxi 1	3.65	118	P	Pn	23 32 17.6	+1.5
CAYA	Cayambe	3.77	105	⇓P	Pn	23 32 20.8	+2.9
CAYA				S	Sn	23 33 02.3	-0.4
CAYR	Refugio Cayamb	3.77	106	P	Pn	23 32 21.2	+3.3
CAYR				S	Sn	23 33 03.2	+0.6
ANTI	Antisana	3.78	114	P	Pn	23 32 19.8	+1.7
PISA	Pisayambo	3.88	123	⇓P	Pn	23 32 21.0	+1.7
IGUA	Igualata	3.93	131	⇓P	Pn	23 32 21.6	+1.4
ARRY	Arrayan	4.08	129	P	Pn	23 32 23.7	+1.4
ARRY				S	Sn	23 33 09.2	-1.4
PATA	Patacocha	4.10	129	⇑P	Pn	23 32 24.8	+2.3

CSEM 02 23:43:41.3±0.1,34.99N×2.87W,h10km,ML3.0/2,Error ellipse: s-maj=3.7km s-min=2.8km az=111.0
NEIC 02 23:43:42.7,35.00N×3.09W,MG3.7(MDD),After MDD.
MDD 02 23:43:42.8±1.4,35.00N×3.09W,mb3.7/8,Error ellipse: s-maj=13.1km s-min=5.8km az=158.0,PRXIMO AftershockPLICA
CNRM 02 23:43:42.1,35.15N×2.79W,h8km,MD3.3
ISC 02 23:43:42.0±0.7,35.03N±0.03×2.83W±0.05,h21km±4km, n42,σ1s31/61,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.09	132	iP	Pb	23 43 45.0	-1.0
MELI	Melilla	0.28	341	P	Pb	23 43 48.4	0.0
MELI	Melilla	0.28	341	iP	Pb	23 43 48.4	0.0
EMLI	Melilla	0.29	339	P	Pb	23 43 48.5	-0.1
	90nm,0.1s,SNR=18						
EMEL	Melilla	0.29	338	P	Pb	23 43 48.5	-0.1
	90nm,0.1s,SNR=18						
EMEL				S	Sb	23 43 52.7	-0.4
	617nm,0.2s,SNR=7.9						
TOU	Touzarine	0.77	265	iP	Pb	23 43 57.0	+0.5
MPAL	Palemas	0.94	282	eP	Pb	23 44 00.5	+1.1
MPAL				iS	Sb	23 44 12.0	+0.6
TZK	Tazeka	1.46	231	iP	Pn	23 44 07.5	+0.1
TZK				iS	Sn	23 44 26.5	+0.4
EBER	Berja	1.87	358	P	Pn	23 44 13.5	+0.3
	2.8nm,0.4s,SNR=7.3						
EBER				S	Sn	23 44 36.3	-0.1
	33nm,0.4s,SNR=7.9						
EBER	Berja	1.87	358	S	Sn	23 44 36.3	-0.1
	33nm,0.4s,SNR=7.9						
EBER	Berja	1.87	358	P	Pn	23 44 13.5	+0.3
	2.8nm,0.4s,SNR=7.3						
EMIJ	Mijas	2.20	315	P	Pn	23 44 16.4	-1.7
	2.5nm,0.1s,SNR=18						
EMIJ				S	Sn	23 44 41.7	-3.2
	37nm,0.6s,SNR=7.9						
ELOJ	Sierra Loja	2.37	333	P	Pn	23 44 22.9	+2.4
	1.4nm,0.2s,SNR=7.9						
ELOJ				S	Sn	23 44 49.0	-0.2
	4.6nm,0.4s,SNR=7.9						
EQES	Quesada	2.78	356	P	Pn	23 44 28.8	+2.5
	1.5nm,0.2s,SNR=24						
EQES				S	Sn	23 45 02.3	+2.9
	9.9nm,0.3s,SNR=7.9						
EQES	Quesada	2.78	356	P	Pn	23 44 28.8	+2.5
	1.5nm,0.2s,SNR=24						
EQES				S	Sn	23 45 02.3	+2.8
	9.9nm,0.3s,SNR=7.9						
ELUQ	Luque	2.78	336	P	Pn	23 44 27.6	+1.3
	1.6nm,0.2s,SNR=7.9						
ELUQ				S	Sn	23 45 00.9	+1.3
	4.3nm,0.2s,SNR=7.9						
ELUQ	Luque	2.78	336	S	Sn	23 45 00.9	+1.3
	4.3nm,0.2s,SNR=7.9						
LIJA	Lijar	2.81	313	P	Pn	23 44 28.6	+1.9
LIJA	Lijar	2.81	313	iP	Pn	23 44 28.6	+1.9
ESPR	Espera	3.07	308	P	Pn	23 44 30.9	+0.5
	SNR=7.9						
ESPR				S	Sn	23 45 08.8	+1.9
	3.8nm,0.2s,SNR=7.9						
ESPR	Espera	3.07	308	S	Sn	23 45 08.8	+1.9
	3.8nm,0.2s,SNR=7.9						
ESPR	Espera	3.07	308	P	Pn	23 44 30.9	+0.5
	SNR=7.9						
EMUR	La Murta	3.08	24	P	Pn	23 44 32.3	+1.7
	4.4nm,0.3s,SNR=7.9						
EMUR				S	Sn	23 45 05.6	-1.7
	8.9nm,0.4s,SNR=7.9						
EMUR	La Murta	3.08	24	S	Sn	23 45 05.6	-1.7
	8.9nm,0.4s,SNR=7.9						
EMUR	La Murta	3.08	24	P	Pn	23 44 32.3	+1.7
	4.4nm,0.3s,SNR=7.9						
ZFT	Errachidia	3.25	204	iS	Sn	23 45 11.0	-0.4
EADA	Adamuz	3.44	336	P	Pn	23 44 35.8	+0.2
	1.4nm,0.3s,SNR=9.6						
EADA				S	Sn	23 45 13.9	-2.3
	4.2nm,0.3s,SNR=7.9						
EADA	Adamuz	3.44	336	P	Pn	23 44 35.8	+0.2
	1.4nm,0.3s,SNR=9.6						
EADA				S	Sn	23 45 13.9	-2.3
	4.2nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	4.14	312	P	Pn	23 44 43.9	-1.6
	1.2nm,0.1s,SNR=23						
EMIN				S	Sn	23 45 29.4	-4.5
	1.5nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.14	312	P	Pn	23 44 44.0	-1.6
PALC	Alcoutim	4.48	304	ePn	Pn	23 44 48.5	-1.9
PALC				eSn	Sn	23 45 37.0	-5.5
	3.8nm,0.5s						
PALC	Alcoutim	4.48	304	ePn	Pn	23 44 48.5	-1.9
PALC				eSn	Sn	23 45 37.0	-5.5
	3.8nm,0.5s						
ESDC	Sonseca Array	4.73	349	P	Pn	23 44 54.8	+0.9
	0.4nm,0.3s,baz=173,slow=12,SNR=3.9						
ESDC	Sonseca Array	4.73	349	P	Pn	23 44 54.8	+0.9
EBAD	Badajoz	5.01	319	P	Pn	23 44 56.5	-1.5
	1.5nm,0.2s,SNR=7.6						
EBAD				S	Sn	23 45 51.0	-5.0
	6.8nm,0.3s,SNR=7.9						
EBAD	Badajoz	5.01	319	P	Pn	23 44 56.5	-1.4
PBEJ	Beja	5.04	308	ePn	Pn	23 44 57.0	-1.4
EIBI	Ibiza	5.20	39	P	Pn	23 45 01.0	+0.4
	3.8nm,0.3s,SNR=7.9						
EIBI	Ibiza	5.20	39	P	Pn	23 45 01.0	+0.4
PCBR	Castelo Branco	6.06	324	ePn	Pn	23 45 11.2	-1.6
PCBR				eSn	Sn	23 46 15.6	-6.8
	1.1nm,0.3s						
PCBR	Castelo Branco	6.06	324	P	Pn	23 45 11.2	-1.6
PCBR				S	Sn	23 46 15.6	-6.8
	0.6nm,0.3s						
PCBR	Castelo Branco	6.06	324	eSn	Sn	23 46 15.6	-6.8
	1.1nm,0.3s						

IDC 02 23:45:50.0±0.9,30.61N×83.51E,mb3.7/10,mb1 3.9/11, mb1mx3.8/20,ML3.5/1,MS3.4/2,Ms1 3.4/2,ms1mx3.0/22, Error ellipse: s-maj=32.4km s-min=16.3km az=48.0
NEIC 02 23:45:55.2±1.3,30.61N×83.37E,h41km±15km,mb4.2/4, Error ellipse: s-maj=20.8km s-min=9.4km az=70.0
NDI 02 23:45:55.9±2.8,30.06N×83.47E,h10km,mb4.2(NEIC)
ISC 02 23:45:49.4±0.4,30.56N±0.05×83.48E±0.05,h10km,n29, σ1s37/31,mb3.8/13,MS3.3/2,1C,Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTH	Pithoragarh	3.01	251	ePB	Pg	23 46 48.6	-0.9
PTH				eSG	Sg	23 47 30.4	+0.8
LGTI	Lohaghat	3.02	249	ePG	Pg	23 46 52.0	+2.3
LGTI				eSG	Sg	23 47 37.5	+7.5
DDI	Dehra Dun	4.69	268	eP	Pn	23 47 07.1	+5.0
NDI	New Delhi	5.77	253	ePG	Pg	23 47 43.0	-1.6
SHL	Shillong	8.93	122	⇑eP	P	23 48 01.0	-0.5
UCH	Uchtor	13.69	331	eP	P	23 49 05.0	-1.0
	3.3nm,0.8s						
HYB	Hyderabad	13.84	200	eP	P	23 49 08.0	-0.1
HYB	Hyderabad	13.84	200	iP	P	23 49 08.0	-0.1
TKM2	Tokmak 2	13.85	335	eP	P	23 49 09.1	+0.9
	1.5nm,0.8s						
AML	Almayashu	13.97	328	eP	P	23 49 08.6	-1.1
	2.5nm,0.8s						
AAK	Ala-Archa	14.03	332	P	P	23 49 12.3	+1.7
	2.0nm,0.7s						
EKS2	Erkin-Say	14.36	330	eP	P	23 49 19.7	+4.9
	3.9nm,0.9s						
CMAR	Chiang Mai Arr	18.50	127	P	P	23 50 09.7	+2.0
	0.1nm,0.3s,baz=306,slow=11,SNR=12						
KURK	Kurchatov	20.46	351	eP	P	23 50 26.7	-3.0
	6.0nm,1.0s						
PALK	Pallekele	23.31	187	eP	P	23 50 56.0	-2.7
	25nm,1.2s,mb4.5						
ZAL	Zalesovo	23.38	2	P	P	23 51 00.7	+1.8
	1.3nm,0.8s,mb3.4,baz=283,slow=11,SNR=8.6						
ZAL				LR	LR	00 01 39.9	
	comp=Z,62nm,18.1s,MS3.1,baz=20,slow=41						
BVAR	Borovoye Array	24.40	341	P	P	23 51 09.4	+0.5
	0.4nm,0.5s,mb3.1,baz=143,slow=14,SNR=3.5						
SONM	Songino Array	24.61	39	P	P	23 51 12.4	+1.5
	0.7nm,0.8s,mb3.2,baz=231,slow=10,SNR=8.2						
CHKZ	Chkalovo	24.91	342	eP	P	23 51 11.4	-2.4
	3.0nm,1.1s,mb3.7						
BRTR	Keskin Array B	41.32	297	P	P	23 53 38.2	+1.4
	0.5nm,0.8s,mb3.2,baz=56,slow=10,SNR=3.2						
AKASG	Malin Array Be	44.70	313	P	P	23 54 05.3	+1.1
	0.5nm,0.5s,mb3.6,baz=78,slow=7.6,SNR=6.2						
FINES	FINESS Array B	48.17	327	P	P	23 54 30.9	-0.6
	1.1nm,0.6s,mb4.0,baz=97,slow=11,SNR=7.1						
FINES				LR	LR	00 14 58.7	
	comp=Z,55nm,18.3s,MS3.6,baz=161,slow=36						
NB2	NORSAR Subarra	55.26	326	P	P	23 55 21.7	-3.2
	1.2nm,0.7s,mb4.0,baz=88,slow=7.4						
NOA	NORSAR Array B	55.26	326	P	P	23 55 23.6	-1.2
	0.9nm,0.7s,mb3.9,baz=88,slow=7.4,SNR=4.3						
WRA	Warramunga Arr	70.08	129	P	P	23 57 04.1	+0.1
	1.5nm,0.6s,mb4.1,baz=324,slow=6.3,SNR=26						
WRAB	Tennant Creek	70.08	129	eP	P	23 57 04.4	+0.4
	10nm,1.2s,mb4.6						
ASAR	Alice Springs	72.42	132	P	P	23 57 18.3	+0.2
	1.7nm,1.1s,mb3.9,baz=318,slow=6.0,SNR=8.3						
ILAR	Eielson Array	77.21	20	P	P	23 57 44.2	-0.6
	0.7nm,0.8s,mb3.6,baz=302,slow=4.9,SNR=7.2						
INK	Inuvik	77.67	13	P	P	23 57 45.2	-2.0

ISK 02 23:51:34.8,39.92N×40.70E,h3km,MD3.4
CSEM 02 23:51:35.3±0.1,39.92N×40.70E,h8km,MD3.4,Error ellipse: s-maj=3.6km s-min=2.9km az=142.0
ISC 02 23:51:37.0±0.7,39.89N±0.05×40.83E±0.06,h8km,n14, σ1s35/19,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	Erzurum	0.41	88	iPG	Pg	23 51 45.5	+0.2
ERZM	Erzurum	0.41	88	iP	Pg	23 51 45.5	+0.2
ERZM				S	Sg	23 51 50.5	-0.3
EZC	Erzincan	0.80	260	iPG	Pg	23 51 55.9	+2.9
VRT	Varto	0.93	144	iPG	Pg	23 51 55.2	-0.5
BINT	Bingol	1.05	195	iPG	Pg	23 51 55.4	-2.6
BINT				SG	Sg	23 52 11.2	-0.8
GUMT	Gumushane	1.18	299	iPN	Pn	23 51 56.3	-3.5
PTK	Pertek	1.50	229	ePN	Pn	23 52 02.7	-1.6
BCA	Borcka	1.66	21	PN	Pn	23 52 05.8	-0.9
BTMT	Batman	1.77	163	ePN	Pn	23 52 09.0	+0.7
KARS	Kars	1.87	67	ePN	Pn	23 52 10.0	+0.3
ELZG	Elazig	2.00	226	P	Pn	23 52 12.6	+1.0
ELZG				S	Sn	23 52 45.3	+8.3
BEST	Besiri	2.03	170	iP	Pn	23 52 14.0	+2.1
BEST				S	Sn	23 52 42.6	+5.0
MYA	Malataya	2.44	231	ePN	Pn	23 52 15.9	-1.9
MALT	Malatya	2.45	231	P	Pn	23 52 18.8	+0.9
MALT				S	Sn	23 52 56.8	+8.5

CNRM 02 23:54:49.7,35.15N×2.64W,h12km,MD2.6
CSEM 02 23:54:50.4±0.2,34.99N×2.87W,h10km,MD2.6,Error ellipse: s-maj=7.1km s-min=5.8km az=5.0
NEIC 02 23:54:52.4,35.06N×3.12W,MG2.9(MDD),After MDD.
MDD 02 23:54:52.4±2.3,35.06N×3.12W,mb2.9/3,Error ellipse: s-maj=23.1km s-min=8.8km az=152.0,PRXIMO AftershockPLICA
ISC 02 23:54:51.3±1.0,35.04N±0.05×2.81W±0.08,h10km±6km, n11,σ0s95/18,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.09	141	iP	Pg	23 54 54.0	+0.3
EMLI	Melilla	0.28	337	P	Pg	23 54 57.4	+0.1
	30nm,0.1s,SNR=7.9						
EMEL	Melilla	0.29	336	P	Pg	23 54 57.4	+0.1
	30nm,0.1s,SNR=7.9						
EMEL				S	Sg	23 55 01.3	0.0
	83nm,0.1s,SNR=7.9						
TOU	Touzarine	0.78	265	iP	Pb	23 55 06.0	-0.5
TOU				iS	Sb	23 55 18.0	+1.1
EBER	Berja	1.86	358	P	Pn	23 55 24.0	+0.4
	0.9nm,0.3s,SNR=7.9						
EBER				S	Sn	23 55 42.8	-4.5
	8.6nm,0.6s,SNR=7.9						
EBER	Berja	1.86	358	P	Pn	23 55 24.0	+0.4
	0.9nm,0.3s,SNR=7.9						
EBER				S	Sn	23 55 42.8	-4.5
	8.6nm,0.6s,SNR=7.9						
EMIJ	Mijas	2.21	314	P	Pn	23 55 26.0	-2.5
	0.9nm,0.2s,SNR=7.9						
EMIJ				S	Sn	23 55 50.4	-5.7
	2.9nm,0.3s,SNR=7.9						
EQES	Quesada	2.77	356	P	Pn	23 55 37.5	+0.9
	0.4nm,0.2s,SNR=7.9						
EQES				S	Sn	23 56 11.2	+0.7
	3.8nm,0.4s,SNR=7.9						
EQES	Quesada	2.77	356	P	Pn	23 55 37.5	+0.9
	0.4nm,0.2s,SNR=7.9						
EQES				S	Sn	23 56 11.2	+0.7
	3.8nm,0.4s,SNR=7.9						
EADA	Adamuz	3.43	336	P	Pn	23 55 44.6	-1.4
	0.6nm,0.3s,SNR=7.9						
EADA	Adamuz	3.43	336	P	Pn	23 55 44.6	-1.4

IDC 02 23:57:11.6±1.6,10.41N×61.62W,mb4.0/6,mb1 4.3/6, mb1mx3.9/18,MS3.3/4,Ms1 3.3/4,ms1mx3.0/21,Error ellipse: s-maj=40.3km s-min=36.0km az=111.0
TRN 02 23:57:20.1,10.53N×61.08W,h27km,MD3.9
FUNV 02 23:57:21.4,10.31N×61.45W,h67km,MW3.0
ISC 02 23:57:17.0±0.6,10.41N±0.05×61.27W±0.04,h61km±4km, n30,σ1s46/38,mb4.0/6,4C-1D,Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TPP	Pointe-a-Pierr	0.20	244	⇑eP	P	23 57 29.4	+2.8
TPP				eS	S	23 57 37.3	+3.7
TBH	Brigand Hill	0.21	69	⇑iP	P	23 57 24.9	-1.7
TBH				eS	S	23 57 28.6	-5.1
TRN	Trinidad (W)	0.27	331	⇑iP	P	23 57 27.6	+0.5
TRN				eS	S	23 57 32.7	-1.8
SIPA	Siparia	0.35	222	⇑iP	P	23 57 31.3	+3.6
BUAY	Buenos Aires	0.51	234	eP	P	23 57 32.0	+2.8
TPR	Prospect	0.91	32	⇓iP	P	23 57 33.9	-0.2
TPR				iS	S	23 57 45.1	-1.7
BOT	Bacolet	0.93	35	eP	P	23 57 33.9	-0.4
BOT				eS	S	23 57 45.3	-2.0
GUIV	Guiria	0.97	284	eP	P	23 57 38.2	+3.3
GUIV				eS	S	23 57 48.5	+0.3
GUNV	Guanoco	1.67	262	eP	P	23 57 45.5	+0.9
GRW	Mount Saint Ca	1.79	348	eP	P	23 57 47.9	+1.8
GRW				eS	S	23 58 10.4	+2.7
CRUV	Carupano	1.96	278	eP	P	23 57 48.5	0.0
CRUV				eS	S	23 58 09.2	-2.6
ITEV	Isla Los Testi	2.06	297	eP	P	23 57 51.3	+1.3
ITEV				eS	S	23 58 14.4	0.0
RIOV	Rio Grande	2.38	193	eP	P	23 57 56.0	+1.4
SVB	Belmont	2.85	0	eP	P	23 58 01.6	+0.4
SVV	Soufriere Volc	2.89	1	eP	P	23 58 03.0	+1.1
SVV				eS	S	23 58 35.7	+0.1
PCRV	Puerto La Cruz	3.32	266	eP	P	23 58 06.8	-1.0
CUPV	Cœpira	4.46	266	eP	P	23 58 22.9	-1.0
CUPV				eS	S	23 59 08.9	-6.1
MERV	Las Mercedes	5.09	257	eP	P	23 58 31.2	-1.4
MERV				eS	S	23 59 23.1	-7.5
CAOV	Caicara del Or	5.86	239	eP	P	23 58 41.3	-1.9
CAOV				eS	S	23 59 39.7	-10
SJG	San Juan	9.00	329	LR	LR	00 03 01.3	
	comp=Z,120nm,19.6s,baz=85,slow=40						
LPAZ	La Paz	27.38	194	LR	LR	00 14 13.8	
	comp=Z,28nm,19.7s,baz=212,slow=37						
SCHQ	Schefferville	44.53	355	P	P	00 05 25.8	+1.5
	2.8nm,0.6s,mb4.3,baz=168,slow=9.3,SNR=6.9						
ULM	Lac du Bonnet	48.90	331	P	P	00 05 57.1	-1.6
	1.2nm,0.4s,mb4.3,baz=149,slow=9.8,SNR=2.5						
ULM				LR	LR	00 28 07.0	
	comp=Z,53nm,18.2s,baz=23,slow=38						
PDAR	Pinedale Array	52.88	316	P	P	00 06 28.4	-0.7
	0.9nm,0.6s,mb3.9,baz=116,slow=10.0,SNR=8.4						

YKA	Yellowknife Ar	64.43	336	P	P	00 07 47.5	-1.4
	0.9nm,0.7s,mb3.9,baz=108,slow=7.4,SNR=8.2						
GERES	GERESS Array B	72.35	42	P	P	00 08 39.9	+1.7
	2.3nm,1.1s,mb4.0,baz=270,slow=4.0,SNR=6.0						
ILAR	Eielson Array	78.79	334	P	P	00 09 14.6	+0.1
	0.9nm,1.0s,mb3.6,baz=193,slow=9.6,SNR=4.2						
MLR	Muntele Rosu	80.72	45	LR	LR	00 44 02.0	
	comp=Z,27nm,18.8s,baz=257,slow=35						
CMAR	Chiang Mai Arr	145.30	34	PKPbc	PKPbc	00 16 52.9	+3.5
	1.2nm,0.4s,baz=321,slow=5.4,SNR=8.0						
ASAR	Alice Springs	160.42	226	PKPab	PKPab	00 17 54.2	+0.4
	0.6nm,0.7s,baz=117,slow=4.0,SNR=4.4						

*CSEM **03** 00:05:11.4±0.2, 35.10N×2.90W, h20^{km}, MD2.9, Error ellipse: s-maj=3.7km s-min=2.1km az=131.0*
*NEIC **03** 00:05:12.7, 35.01N×3.06W, h4^{km}, MG3.6(MDD), After MDD.*
*MDD **03** 00:05:12.6±1.2, 35.00N×3.04W, h4^{km}±5^{km}, mb3.7/9, Error ellipse: s-maj=11.1km s-min=7.5km az=141.0, PRXIMO AftershockPLICA*
*CNRM **03** 00:05:12.9, 35.04N×2.83W, h9^{km}, MD2.9*
*INMG **03** 00:05:14.0±1.0, 35.10N×2.96W, h18^{km}±3^{km}, ML2.2, Error ellipse: s-maj=7.1km s-min=5.0km az=149.0*
ISC 03 00:05:12.5±0.7**, 35.09N**±0.04×**2.90W**±0.04**, h27**^{km}±3^{km}**, n53, σ1^{s}17**/87**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.17	132	*i* P	Pb	00 05 15.5	-2.5
MELI	Melilla	0.21	353	P	Pb	00 05 18.3	-0.1
MELI	Melilla	0.21	353	*i* P	Pb	00 05 18.3	-0.1
EMLI	Melilla	0.22	350	S	Sb	00 05 22.3	-0.3
	1µm,0.2s,SNR=20						
EMLI	Melilla	0.22	350	P	Pb	00 05 18.3	-0.2
	12nm,0.0s,SNR=20						
EMEL	Melilla	0.22	349	P	Pb	00 05 18.3	-0.2
	12nm,0.0s,SNR=20						
EMEL				S	Sb	00 05 22.3	-0.4
	1µm,0.2s,SNR=20						
TOU	Touzarine	0.71	260	*i* P	Pb	00 05 26.0	-0.2
TOU				*i* S	Sb	00 05 36.5	+1.0
MPAL	Palemas	0.86	280	*i* P	Pb	00 05 30.0	+1.3
MPAL				*i* S	Sb	00 05 42.0	+2.1
TZK	Tazeka	1.45	227	*i* P	Pn	00 05 37.5	+0.2
TZK				*i* S	Sn	00 05 56.0	+0.4
EBER	Berja	1.81	0	P	Pn	00 05 43.2	+0.8
EBER				S	Sn	00 06 05.4	+0.7
EBER	Berja	1.81	0	P	Pn	00 05 43.2	+0.8
	2.4nm,0.3s,SNR=12						
EBER				S	Sn	00 06 05.1	+0.4
	12nm,0.4s						
EBER	Berja	1.81	0	S	Sn	00 06 05.1	+0.4
	12nm,0.4s						
EBER	Berja	1.81	0	P	Pn	00 05 43.2	+0.8
	2.4nm,0.3s,SNR=12						
ERON	Agron	2.06	340	P	Pn	00 05 46.2	+0.1
ERON				S	Sn	00 06 12.4	+1.2
ERON	Agron	2.06	340	P	Pn	00 05 46.0	-0.1
	2.3nm,0.2s,SNR=7.9						
ERON				S	Sn	00 06 12.4	+1.2
	5.0nm,0.4s,SNR=7.9						
EMIJ	Mijas	2.12	315	P	Pn	00 05 46.1	-0.8
	3.0nm,0.1s,SNR=18						
EMIJ				S	Sn	00 06 11.1	-1.4
	12nm,0.3s,SNR=7.9						
ELOJ	Sierra Loja	2.29	334	P	Pn	00 05 50.9	+1.5
ELOJ				S	Sn	00 06 21.9	+4.8
ELOJ	Sierra Loja	2.29	334	P	Pn	00 05 50.9	+1.5
	4.3nm,0.3s,SNR=12						
ELOJ				S	Sn	00 06 21.9	+4.8
	1.9nm,0.3s,SNR=4.0						
ELUQ	Luque	2.70	336	P	Pn	00 05 57.3	+2.1
	4.5nm,0.2s,SNR=17						
ELUQ				S	Sn	00 06 27.5	0.0
	5.8nm,0.3s,SNR=7.9						
EQES	Quesada	2.71	357	P	Pn	00 05 58.4	+3.0
EQES				S	Sn	00 06 31.7	+4.0
EQES	Quesada	2.71	357	P	Pn	00 05 58.1	+2.7
	7.5nm,0.3s,SNR=89						
EQES				S	Sn	00 06 31.7	+4.0
	18nm,0.3s,SNR=11						
EQES	Quesada	2.71	357	S	Sn	00 06 31.7	+4.0
	18nm,0.3s,SNR=11						
LIJA	Lijar	2.72	313	P	Pn	00 05 58.4	+2.9
ESPR	Espera	2.98	307	P	Pn	00 05 59.1	-0.2
	1.6nm,0.2s,SNR=7.0						
ESPR				S	Sn	00 06 34.3	-0.2
	3.7nm,0.3s,SNR=4.0						
ESPR	Espera	2.98	307	P	Pn	00 05 59.1	-0.1
	1.6nm,0.2s,SNR=7.0						
ESPR				S	Sn	00 06 34.3	-0.2
	3.7nm,0.3s,SNR=4.0						
EMUR	La Murta	3.06	25	P	Pn	00 06 01.1	+0.8
EMUR				S	Sn	00 06 36.3	-0.2
EMUR	La Murta	3.06	25	P	Pn	00 06 01.1	+0.8
	8.6nm,0.4s,SNR=14						
EMUR				S	Sn	00 06 35.2	-1.2
	4.0nm,0.3s						
EMUR	La Murta	3.06	25	P	Pn	00 06 01.1	+0.8
	8.6nm,0.4s,SNR=14						
EMUR				S	Sn	00 06 36.3	-0.2
EADA	Adamuz	3.36	337	P	Pn	00 06 05.6	+1.1
EADA				S	Sn	00 06 44.1	+0.2
EADA	Adamuz	3.36	337	P	Pn	00 06 05.4	+0.9
	1.8nm,0.2s,SNR=27						
EADA				S	Sn	00 06 44.1	+0.1
	2.5nm,0.3s						
EADA	Adamuz	3.36	337	P	Pn	00 06 05.4	+0.9
	1.8nm,0.2s,SNR=27						
EADA				S	Sn	00 06 44.1	+0.1
	2.5nm,0.3s						
EVIA	Vianos	3.56	5	P	Pn	00 06 10.8	+3.4
	0.8nm,0.2s,SNR=4.0						
EVIA				S	Sn	00 06 51.3	+2.2
	4.3nm,0.4s,SNR=7.9						
EVIA	Vianos	3.56	5	S	Sn	00 06 51.3	+2.2
	4.3nm,0.4s,SNR=7.9						
EMIN	Mina Concepcio	4.05	312	P	Pn	00 06 13.6	-0.8
EMIN				S	Sn	00 06 57.4	-4.1
EMIN	Mina Concepcio	4.05	312	P	Pn	00 06 13.5	-0.9
	1.8nm,0.1s,SNR=20						
EMIN				S	Sn	00 06 57.4	-4.1
	0.9nm,0.2s,SNR=4.0						
EBEN	Beniarda	4.20	30	S	Sn	00 07 04.9	-0.5
	2.9nm,0.5s,SNR=4.0						
EBEN	Beniarda	4.20	30	S	Sn	00 07 04.9	-0.5
	2.9nm,0.5s,SNR=4.0						
PALC	Alcoutim	4.39	304	*e*Pn	Pn	00 06 18.2	-1.0
PALC				*e*Sn	Sn	00 07 07.3	-2.9
ESDC	Sonseca Array	4.66	350	P	Pn	00 06 24.2	+1.2
	1.3nm,0.2s,baz=171,slow=12,SNR=38						
ESDC	Sonseca Array	4.66	350	P	Pn	00 06 24.2	+1.2
	1.3nm,0.2s,SNR=38						
EBAD	Badajoz	4.92	319	P	Pn	00 06 26.3	-0.5
EBAD				S	Sn	00 07 21.3	-2.3
EBAD	Badajoz	4.92	319	P	Pn	00 06 26.1	-0.7
	3.4nm,0.3s,SNR=19						
EBAD				S	Sn	00 07 21.3	-2.3
	3.6nm,0.3s,SNR=4.0						
EBAD	Badajoz	4.92	319	P	Pn	00 06 26.3	-0.5
EBAD				S	Sn	00 07 21.3	-2.3
	3.6nm,0.3s,SNR=4.0						
PBEJ	Beja	4.96	308	*e*Pn	Pn	00 06 26.4	-0.8
PBEJ				*e*Sn	Sn	00 07 21.0	-3.4
	2.0nm,0.3s						
PBEJ	Beja	4.96	308	P	Pn	00 06 26.4	-0.8
PBEJ				S	Sn	00 07 21.0	-3.4
	1.0nm,0.3s						
EIBI	Ibiza	5.20	40	P	Pn	00 06 30.3	-0.3
	0.5nm,0.1s,SNR=7.9						
EIBI				S	Sn	00 07 29.8	-0.6
	0.6nm,0.3s,SNR=7.9						
EIBI	Ibiza	5.20	40	P	Pn	00 06 30.3	-0.3
EIBI				S	Sn	00 07 29.8	-0.6
PCBR	Castelo Branco	5.98	324	*e*Pn	Pn	00 06 40.9	-0.7
PTOM	Tomar	6.30	318	*e*Pn	Pn	00 06 45.0	-1.2
PVRL	Vila Real	7.25	330	*e*Pn	Pn	00 06 58.8	-0.7
PVRL				*e*Sn	Sn	00 08 17.4	-4.3
PBRG	Braganca	7.35	337	*e*Pn	Pn	00 07 00.2	-0.7
ECAL	Calabor	7.47	337	P	Pn	00 07 02.0	-0.6
	0.8nm,0.2s,SNR=7.9						
ECAL	Calabor	7.47	337	P	Pn	00 07 02.0	-0.6

*JMA **03** 00:11:49.2±0.2, 24.40N×122.61E, h70^{km}, M2.2*
TAP 03 00:11:50.2, 24.02N×122.33E, h9^{km}, ML3.0, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.76	55	P	Pb	00 12 00.9	-4.3
YOJ				*e*S	Sb	00 12 09.5	-5.9
IRIF	Iriomote-Funau	1.32	76	P	Pb	00 12 08.3	-6.4
IRIF				*e*S	Sb	00 12 22.3	-9.2
JKRS	Kuro-shima	1.55	82	P	Pn	00 12 11.4	-6.8
JKRS				*e*S	Sb	00 12 29.1	-9.2
JIJ	Ishigaki jima	1.69	78	P	Pn	00 12 12.8	-7.4
JIJ				*e*S	Sn	00 12 30.3	-12

*LDG **03** 00:12:41.7±0.3, 48.47N×7.33E, h5^{km}, Md1.8/1, Ml2.0/2, Error ellipse: s-maj=5.5km s-min=3.7km az=64.0*
*STR **03** 00:12:42.0±0.1, 48.46N×7.31E, h2^{km}±1^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*BGR **03** 00:12:42.4±0.5, 48.43N×7.37E, h5^{km}, ML1.1/1, Error ellipse: s-maj=8.9km s-min=3.3km az=177.0*
ISC 03 00:12:40.6±0.8**, 48.48N**±0.06×**7.32E**±0.05**, h12**^{km}±6^{km}**, n13, σ0^{s}74**/24**, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	Welschbruch	0.07	163	Pg	Pg	00 12 43.3	+0.1
WLS				Sg	Sg	00 12 44.3	-0.5
CDF	Champ du Feu	0.08	203	*e*Pg	Pg	00 12 43.8	+0.6
CDF				*e*Sg	Sg	00 12 44.7	-0.2
	40nm,0.2s						
CDF	Champ du Feu	0.08	203	*e*Pg	Pg	00 12 43.9	+0.7
	SNR=40						
CDF				*e*Sg	Sg	00 12 45.2	+0.3
	SNR=1.3						
ECH	Echery	0.29	202	Pg	Pg	00 12 47.2	+0.5
ECH				Sg	Sg	00 12 50.9	+0.1
BFO	Black Forest	0.69	102	*e*Pg	Pg	00 12 55.4	+0.8
	SNR=2.6						
BFO				*e*Sg	Sg	00 13 03.0	-0.9
	SNR=14						
HINF	Hinteralfeld	0.74	205	*e*Pg	Pg	00 12 56.4	+0.9
HINF				*e*Sg	Sg	00 13 04.5	-0.9
	6.2nm,0.3s						
HINF	Hinteralfeld	0.74	205	*e*Sg	Sg	00 13 04.7	-0.7
	SNR=6.9						
HAU	Haudompre	0.81	234	*e*Pg	Pg	00 12 57.3	+0.4
HAU				*e*Sg	Sg	00 13 07.4	-0.3
	5.8nm,0.3s						
HAU	Haudompre	0.81	234	*e*Pg	Pg	00 12 57.3	+0.4
	SNR=2.5						
HAU				*e*Sg	Sg	00 13 08.7	+1.0
	SNR=2.9						
RFYF	Reffroy	1.23	277	*e*Pn	Pn	00 13 03.8	0.0
RFYF				*e*Pg	Pg	00 13 05.0	-0.4
RFYF				*e*Sg	Sg	00 13 21.3	-0.6
	3.3nm,0.3s						
RFYF	Reffroy	1.23	277	*e*Sg	Sg	00 13 23.5	+1.6
	SNR=3.5						
SFTF	Sexfontaines	1.55	260	*e*Pg	Pg	00 13 10.5	-1.1
SFTF				*e*Sg	Sg	00 13 30.1	-2.2
	2.3nm,0.2s						
SFTF	Sexfontaines	1.55	260	*e*Sg	Sg	00 13 32.6	+0.3
	SNR=3.4						

*IDC **03** 00:59:28.9±1.9, 21.12S×169.59E, mb3.9/5, mb1 4.1/5, mb1mx3.9/13, MS3.4/1, Ms1 3.4/1, ms1mx2.7/16, Error ellipse: s-maj=47.9km s-min=42.5km az=146.0*
ISC 03 00:59:24.4±6.0**, 20.3S**±0.3×**170.1E**±0.2**, h14**^{km}±40^{km}**, n8, σ1^{s}32**/7**, mb3.9**/5**, MS3.4**/1**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NOUC	Port Laguerre	3.98	242	*e*P	Pn	01 00 26.6	+0.2
NOUC				*e*S	Sn	01 01 13.4	0.0
WRA	Warramunga Arr	33.54	264	P	P	01 06 06.1	+0.1
	0.2nm,0.3s,mb3.5,baz=96,slow=8.4,SNR=13						
ASAR	Alice Springs	33.68	258	P	P	01 06 05.2	-2.0
	0.8nm,0.7s,mb3.8,baz=86,slow=9.5,SNR=8.1						
FITZ	Fitzroy Crossi	41.95	265	P	P	01 07 18.0	+1.3
	1.8nm,0.7s,mb3.8,baz=98,slow=17,SNR=5.4						
VNDA	Vanda	57.44	182	LR	LR	01 30 07.3	
	comp=Z,31nm,18.9s,MS3.4,baz=253,slow=32						
MAW	Mawson	77.79	202	P	P	01 11 22.5	+0.1
	2.4nm,0.4s,mb4.5,baz=130,slow=8.2,SNR=6.1						
SONM	Songino Array	88.51	323	P	P	01 12 26.3	+8.6
	0.7nm,1.0s,mb4.0,baz=135,slow=4.1,SNR=4.5						
GERES	GERESS Array B	145.77	332	PKPbc	PKPbc	01 19 09.7	+6.4
	0.9nm,0.8s,baz=45,slow=3.8,SNR=7.7						

*IDC **03** 01:01:27.5±1.3, 1.49N×97.68E, h36^{km}±6^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.7/18, ML4.2/1, MS2.9/1, Ms1 3.1/1, ms1mx2.7/24, Error ellipse: s-maj=62.5km s-min=15.8km az=53.0*
*NEIC **03** 01:01:27.3±0.6, 1.46N×97.64E, mb4.3/6, Error ellipse: s-maj=18.3km s-min=10.1km az=52.0*
ISC 03 01:01:25.3±0.8**, 1.5N**±0.1×**97.7E**±0.1**, h33**^{km}**, h33**^{km}±1.1^{km}**:pP-P, n25, σ1^{s}06**/25**, mb4.3**/16**, 1D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IPM	Ipoh	4.55	47	⇓*e*P	Pn	01 02 34.8	+0.9
	36nm,0.9s						
CMAR	Chiang Mai Arr	16.95	4	Pn	P	01 05 20.5	-1.3
	0.3nm,0.3s,baz=196,slow=13,SNR=9.8						
CMAR				LR	LR	01 12 29.1	
	comp=Z,42nm,21.8s,baz=185,slow=39						
JIRN	Jiri	28.30	338	*e*P	P	01 07 19.7	+1.5
PKI	Pulchoki	28.52	337	*e*P	P	01 07 21.9	+1.7
GUN	Gumba	28.64	338	*e*P	P	01 07 21.9	+0.6
	9.5nm,0.4s,mb4.9						
KKN	Kakani	28.76	337	*e*P	P	01 07 23.5	+1.1
	2.6nm,0.2s,mb4.6						
GKN	Gorkha	29.21	336	*e*P	P	01 07 27.2	+0.7
KOLN	Koldanda	29.45	334	*e*P	P	01 07 28.9	+0.3
	11nm,0.7s,mb4.7						
WRA	Warramunga Arr	41.75	123	P	P	01 09 13.3	-0.2
	1.9nm,0.7s,mb3.8,baz=302,slow=9.1,SNR=18						
WRA				pP	pP	01 09 24.9	+1.6
	2.4nm,0.7s,baz=302,slow=9.0,SNR=7.7						
WRAB	Tennant Creek	41.76	122	*e*P	P	01 09 13.9	+0.3
	3.6nm,0.6s,mb4.2						
ASAR	Alice Springs	43.15	128	P	P	01 09 25.1	+0.2
	0.5nm,0.6s,mb3.4,baz=300,slow=6.8,SNR=5.5						
UCH	Uchtor	45.62	336	*e*P	P	01 09 46.0	+1.4
	7.8nm,1.1s,mb4.5						
UCH				*e*	pP	01 09 54.9	+0.5
AML	Almayashu	45.88	335	*e*P	P	01 09 47.2	+0.6
	2.0nm,0.6s,mb4.2						
EKS2	Erkin-Say	46.28	336	*e*P	P	01 09 47.2	-2.6
EKS2				*e*pP	pP	01 09 57.0	-2.6
SONM	Songino Array	46.81	8	P	P	01 09 53.4	-0.5
	2.0nm,0.9s,mb4.0,baz=190,slow=8.5,SNR=13						
KURK	Kurchatov	51.68	345	*e*P	P	01 10 30.5	-0.9
	1.6nm,0.7s,mb4.1						
KURK				*e*	pP	01 10 39.7	-1.7
ZAL	Zalesovo	53.38	351	P	P	01 10 43.7	-0.4
	2.9nm,0.5s,mb4.5,baz=313,slow=7.3,SNR=19						
ZAL	Zalesovo	53.38	351	P	P	01 10 43.7	-0.4
BVAR	Borovoye Array	56.18	341	P	P	01 11 03.1	-1.3
	1.0nm,0.4s,mb4.2,baz=163,slow=7.2,SNR=10						
BVAR				pP	pP	01 11 13.7	-0.7
	3.2nm,0.6s,baz=143,slow=7.4,SNR=14						
BRVK	Borovoye	56.24	340	*e*P	P	01 11 03.4	-1.4
	3.4nm,0.7s,mb4.5						
BRVK				*e*	pP	01 11 12.4	-2.5
CHKZ	Chkalovo	56.65	341	*e*P	P	01 11 06.2	-1.6
	1.9nm,0.6s,mb4.3						
CHKZ				*e*	pP	01 11 16.0	-1.8
FINES	FINESS Array B	80.01	332	P	P	01 13 32.8	-0.1
	4.3nm,1.2s,mb4.2,baz=135,slow=8.1,SNR=5.2						
FINES				pP	pP	01 13 43.7	+0.5
	1.0nm,0.5s,baz=106,slow=5.8,SNR=2.7						
FINES	FINESS Array B	80.01	332	P	P	01 13 32.8	-0.1
FINES				pP	pP	01 13 43.7	+0.5
NB2	NORSAR Subarra	87.03	331	P	P	01 14 20.3	+12
	5.8nm,1.7s,mb4.5,baz=91,slow=4.8						
NOA	NORSAR Array B	87.03	331	P	P	01 14 09.0	+0.4
	0.5nm,0.9s,mb3.7,baz=81,slow=7.2,SNR=2.5						

*TIF **03** 01:19:05.9, 42.70N×45.93E, h9^{km}, Mpv3.4*
*MOS **03** 01:19:08.5±1.8, 42.65N×46.20E, h11^{km}, mb3.9/1, Error ellipse: s-maj=4.9km s-min=0.0km az=137.2*
ISC 03 01:19:09.5±0.5**, 42.60N**±0.05×**46.11E**±0.03**, h11**^{km}**, n15, σ1^{s}44**/26**, 2C-4D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BTLR	Botlikh	0.11	49	⇑*i*PG	Pg	01 19 09.5	-2.9
XNZR	Khunzakh	0.44	97	PG	Pg	01 19 18.6	+0.1
XNZR				*i* S	Sg	01 19 26.3	+1.7
UNCR	Uncukul	0.52	76	*i* PG	Pg	01 19 18.4	-1.6
UNCR				*i* S	Sg	01 19 27.4	+0.3
UNCR				pmax	pmax		
	comp=Z,98nm,0.2s						
DBC	Dubki	0.68	51	*i* PG	Pg	01 19 22.0	-1.2
DBC				*i* S	Sb	01 19 33.5	+1.5
BUJR	Buynaksk	0.77	72	⇑*i*PG	Pg	01 19 23.8	-1.2
BUJR				*i* S	Sb	01 19 36.5	+1.9
BUJR				pmax	pmax		
	comp=Z,91nm,0.3s						
KMKR	Kumukh	0.86	122	*i* PG	Pg	01 19 25.0	-1.9
KMKR				*i* S	Sb	01 19 38.0	+0.6
KMKR				pmax	pmax		
	comp=Z,77nm,0.2s						
DUS	Dusheti	1.16	245	⇓*i*P	Pb	01 19 29.6	-1.6
DUS				*i* S	Sb	01 19 46.8	+0.8
DGRG	David-gareji	1.27	206	⇓*i*P	Pb	01 19 33.6	+0.6
DGRG				*e*S	Sb	01 19 55.1	+5.9
TI2	Plekhanov	1.33	230	*e*PG	Pg	01 19 32.2	-4.0
MTA	Mtatsminda	1.33	228	⇓*i*P	Pb	01 19 33.1	-1.0
MTA				*i* S	Sb	01 19 52.1	+1.1
TBLG	Delisi	1.34	230	*e*P	Pb	01 19 32.2	-2.0
	comp=Z,20nm,0.6s						
TBLG				*e*S	Sb	01 19 51.2	0.0
	comp=N,30nm,0.6s						
ZEI	Tsey	1.64	277	PN	Pn	01 19 37.3	-1.3
ONI	Oni	1.97	270	⇓*i*P	Pn	01 19 43.0	-0.2
ONI				*e*S	Sn	01 20 09.5	+1.4
AKH	Akhalkalaki	2.28	240	*e*P	Pn	01 19 50.4	+2.6
	comp=Z,20nm,0.6s						
AKH				*e*S	Sn	01 20 20.3	+4.2
	comp=E,20nm,0.6s						
KIV	Kislovodsk	2.85	300	*e*PN	Pn	01 19 58.3	+2.5
KIV				*e*		01 20 32.9	
KIV				pmax	pmax		
	comp=Z,17nm,1.4s						
KIV				smax			
	comp=E,21nm,0.8s						

*NEIC **03** 01:19:56.2, 38.47N×25.61E, h30^{km}, MD2.9(ATH), After ATH.*
*ATH **03** 01:19:56.2, 38.47N×25.61E, h30^{km}±17^{km}, MD2.9/5*
*ISK **03** 01:19:56.4, 38.32N×25.67E, h10^{km}, MD3.1*
*CSEM **03** 01:19:56.9±0.2, 38.47N×25.62E, h20^{km}, MD2.9, Error ellipse: s-maj=4.7km s-min=4.2km az=117.0*
ISC 03 01:19:56.5±1.9**, 38.43N**±0.04×**25.56E**±0.07**, h15**^{km}±16^{km}**, n16, σ0^{s}78**/25**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.99	34	*e*PB	Pb	01 20 13.6	-1.2
PRK				*e*SN	Sn	01 20 28.3	-1.1
BLCB	Balcova	1.16	92	PN	Pn	01 20 17.7	-0.5
BLCB				SN	Sn	01 20 32.7	-1.1
SMG	Samos	1.23	125	*e*PN	Pn	01 20 19.7	+0.4
SMG				*e*SN	Sn	01 20 36.1	+0.4
AYVA	Ayvalik	1.24	45	P	Pb	01 20 19.5	+0.4
AYVA				S	Sb	01 20 34.8	0.0
IZM	Izmir	1.33	91	*i* PN	Pn	01 20 20.7	0.0
KDAG	Bornova	1.34	91	P	Pn	01 20 20.9	+0.1
KDAG				S	Sb	01 20 38.1	+0.5
APE	Apeiranthos	1.36	181	*e*PN	Pn	01 20 20.4	-0.6
APE	Apeiranthos	1.36	181	*e*Pb	Pb	01 20 20.7	-0.4
PTL	Penteli	1.39	255	*e*PN	Pn	01 20 22.5	+1.0
BOZC	Bozcaada	1.46	15	P	Pn	01 20 21.7	-0.8
BOZC				S	Sb	01 20 43.0	+1.9
LIA	Limnos Island	1.50	349	*e*PN	Pn	01 20 22.1	-0.9
AKS	Akhisar	1.82	75	*e*PN	Pn	01 20 28.1	+0.5
AYDN	Tasoluk	1.98	112	P	Pn	01 20 34.7	+4.7
AYDN				S	Sn	01 21 01.2	+6.6
BALB	Balikesir	2.17	55	*e*PN	Pn	01 20 32.7	0.0
MANT	Manisa	2.35	88	P	Pn	01 20 40.3	+5.1
MANT				S	Sn	01 21 09.3	+5.2
DNZL	Cakiroluk	2.85	104	P	Pn	01 20 52.6	+10
DNZL				S	Sn	01 21 30.9	+14

*CNRM **03** 01:25:59.8, 35.16N×2.71W, h7^{km}, MD2.8*
*NEIC **03** 01:26:00.2, 34.91N×2.86W, MG3.2(MDD), After MDD.*
*MDD **03** 01:26:00.3±1.6, 34.91N×2.91W, mb3.2/9, Error ellipse: s-maj=24.1km s-min=8.8km az=102.0, PRXIMO AftershockPLICA*
*CSEM **03** 01:26:00.2±0.1, 35.00N×2.90W, h8^{km}, MD2.8, Error ellipse: s-maj=3.8km s-min=3.2km az=133.0*
ISC 03 01:26:00.7±1.0**, 35.01N**±0.04×**2.77W**±0.08**, h19**^{km}±5^{km}**, n24, σ1^{s}25**/38**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.05	159	*i* P	Pb	01 26 04.0	-0.1
MELI	Melilla	0.31	334	P	Pb	01 26 06.6	-1.0
MELI				S	Sb	01 26 12.4	+0.3
MELI	Melilla	0.31	334	*e*P	Pb	01 26 06.6	-0.9
EMLI	Melilla	0.32	332	P	Pb	01 26 07.6	-0.1
	42nm,0.1s,SNR=9.9						
EMLI				S	Sb	01 26 12.9	+0.5
	152nm,0.2s,SNR=7.9						
EMEL	Melilla	0.33	331	P	Pb	01 26 07.6	-0.2
	42nm,0.1s,SNR=9.9						
EMEL				S	Sb	01 26 12.9	+0.3
	152nm,0.2s,SNR=7.9						
TOU	Touzarine	0.81	267	*i* P	Pb	01 26 15.0	-1.0
TOU				*i* S	Sb	01 26 27.5	+1.0
TZK	Tazeka	1.49	232	*i* P	Pn	01 26 27.5	+0.6
TZK				*i* S	Sn	01 26 46.0	+0.1
EBER	Berja	1.88	357	P	Pn	01 26 33.4	+0.9
	0.3nm,0.2s,SNR=7.9						
EBER				S	Sn	01 26 54.5	-1.4
	1.8nm,0.3s,SNR=6.7						
EBER	Berja	1.88	357	P	Pn	01 26 33.4	+0.9
	0.3nm,0.2s,SNR=7.9						
EBER				S	Sn	01 26 54.5	-1.4
	1.8nm,0.3s,SNR=6.7						
EMIJ	Mijas	2.25	314	P	Pn	01 26 36.3	-1.4
	0.4nm,0.1s,SNR=14						
EMIJ				S	Sn	01 27 01.6	-3.6
	1.2nm,0.2s						
EMIJ	Mijas	2.25	314	P	Pn	01 26 36.3	-1.4
	0.4nm,0.1s,SNR=14						
EMIJ				S	Sn	01 27 01.5	-3.7
	1.2nm,0.2s						
EQES	Quesada	2.79	355	P	Pn	01 26 47.8	+2.3
	0.6nm,0.2s,SNR=14						
EQES				S	Sn	01 27 21.4	+2.4
	2.7nm,0.2s						
EQES	Quesada	2.79	355	P	Pn	01 26 47.8	+2.3
	0.6nm,0.2s,SNR=14						
EQES				S	Sn	01 27 21.4	+2.4
	2.7nm,0.2s						
ESPR	Espera	3.12	307	P	Pn	01 26 51.1	+1.0
	0.6nm,0.1s,SNR=7.9						
ESPR				S	Sn	01 27 28.7	+1.5
	1.3nm,0.3s,SNR=7.9						
ESPR	Espera	3.12	307	P	Pn	01 26 51.1	+1.0
	0.6nm,0.1s,SNR=7.9						
ESPR				S	Sn	01 27 28.7	+1.5
	1.3nm,0.3s,SNR=7.9						
EADA	Adamuz	3.47	336	P	Pn	01 26 55.1	+0.1
	0.5nm,0.2s,SNR=5.4						
EADA				S	Sn	01 27 33.4	-2.7
	0.8nm,0.3s						
EADA	Adamuz	3.47	336	S	Sn	01 27 33.4	-2.7
	0.8nm,0.3s						
EADA	Adamuz	3.47	336	P	Pn	01 26 55.2	+0.1
EMIN	Mina Concepcio	4.18	312	P	Pn	01 27 03.2	-2.0
	0.4nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.18	312	P	Pn	01 27 03.2	-2.0
ESDC	Sonseca Array	4.75	349	P	Pn	01 27 14.0	+0.8
	1.3nm,0.2s,baz=173,slow=12,SNR=6.0						
ESDC	Sonseca Array	4.75	349	P	Pn	01 27 14.0	+0.7

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EBAD	**Badajoz**	5.05	319	P	Pn	01 27 15.3	-2.3
	0.8nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	5.05	319	P	Pn	01 27 15.3	-2.2

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*CNRM **03** 01:38:03.5, 35.07N×2.63W, h13^{km}, MD2.7*
*NEIC **03** 01:38:05.6, 35.03N×3.11W, MG2.9(MDD), After MDD.*
*MDD **03** 01:38:06.6±1.6, 35.08N×3.15W, mb2.9/3, Error ellipse: s-maj=16.1km s-min=5.7km az=160.0, PRXIMO AftershockPLICA*
*CSEM **03** 01:38:06.1±0.2, 35.15N×3.11W, h20^{km}, MD2.7, Error ellipse: s-maj=3.7km s-min=2.9km az=163.0*
ISC 03 01:38:06.8±0.7, **35.15N**±0.05×**3.11W**±0.09, **h19**^{km}±8^{km}, **n23**, σ**1^{s}06**/34, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	0.20	38	P	Pb	01 38 10.9	-1.0
	11nm,0.1s,SNR=8.9						
EMEL				S	Sb	01 38 15.3	+0.1
	112nm,0.2s						
EMLI	**Melilla**	0.20	39	P	Pb	01 38 10.9	-1.0
	11nm,0.1s,SNR=8.9						
MELI	**Melilla**	0.20	43	P	Pb	01 38 12.6	+0.7
MELI				S	Sb	01 38 15.1	-0.2
MELI	**Melilla**	0.20	43	*e*P	Pb	01 38 12.6	+0.7
TOU	**Touzarine**	0.56	251	*i* P	Pb	01 38 20.0	+2.2
TZK	**Tazeka**	1.38	221	*i* P	Pn	01 38 30.0	-1.3
TZK				*i* S	Sb	01 38 49.0	0.0
EBER	**Berja**	1.76	6	P	Pn	01 38 38.7	+2.0
	0.3nm,0.2s,SNR=7.9						
EBER				S	Sn	01 38 57.9	-0.9
	8.8nm,0.6s,SNR=7.9						
EBER	**Berja**	1.76	6	P	Pn	01 38 38.7	+2.0
	0.3nm,0.2s,SNR=7.9						
EBER				S	Sn	01 38 57.9	-0.8
	8.8nm,0.6s,SNR=7.9						
EMIJ	**Mijas**	1.96	317	P	Pn	01 38 39.1	-0.5
	0.5nm,0.1s,SNR=6.5						
EMIJ				S	Sn	01 39 03.7	-0.1
	1.4nm,0.2s						
ELUQ	**Luque**	2.59	339	P	Pn	01 38 50.1	+1.5
	0.4nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.65	1	P	Pn	01 38 51.2	+1.6
	0.7nm,0.3s,SNR=8.7						
EQES				S	Sn	01 39 24.7	+3.3
	3.9nm,0.4s						
EQES	**Quesada**	2.65	1	S	Sn	01 39 24.7	+3.2
	3.9nm,0.4s						
EQES	**Quesada**	2.65	1	P	Pn	01 38 51.2	+1.7
	0.7nm,0.3s,SNR=8.7						
EMUR	**La Murta**	3.08	29	P	Pn	01 38 55.0	-0.6
	0.9nm,0.2s,SNR=4.0						
EMUR	**La Murta**	3.08	29	P	Pn	01 38 55.0	-0.6
	0.9nm,0.2s,SNR=4.0						
EADA	**Adamuz**	3.24	339	P	Pn	01 38 58.1	+0.2
	0.2nm,0.1s,SNR=4.9						
EADA				S	Sn	01 39 36.1	-0.2
	0.7nm,0.2s						
EADA	**Adamuz**	3.24	339	P	Pn	01 38 58.1	+0.2
	0.2nm,0.1s,SNR=4.9						
EADA				S	Sn	01 39 36.1	-0.2
	0.7nm,0.2s						
EMIN	**Mina Concepcio**	3.89	313	P	Pn	01 39 06.2	-0.9
	0.1nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	3.89	313	P	Pn	01 39 06.2	-0.9
	0.1nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	4.57	352	P	Pn	01 39 16.9	+0.1
	0.6nm,0.2s,baz=171,slow=12,SNR=5.4						
ESDC	**Sonseca Array**	4.57	352	P	Pn	01 39 16.9	+0.1
	0.6nm,0.2s,SNR=5.4						
EBAD	**Badajoz**	4.77	320	P	Pn	01 39 18.6	-1.0
	0.5nm,0.2s,SNR=4.8						
EBAD				S	Sn	01 40 14.2	-1.0
EBAD	**Badajoz**	4.77	320	P	Pn	01 39 18.6	-1.0
	0.5nm,0.2s,SNR=4.8						
EBAD				S	Sn	01 40 14.2	-0.9

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*IDC **03** 01:44:38.3±0.8, 3.31S×135.51E, mb4.0/7, mb1 4.3/11, mb1mx4.2/15, ML3.8/4, MS3.7/4, Ms1 3.7/4, ms1mx3.2/19, Error ellipse: s-maj=34.6km s-min=17.3km az=68.0*
*NEIC **03** 01:44:41.2±0.5, 3.31S×135.41E, h10^{km}, mb4.3/10, Error ellipse: s-maj=13.7km s-min=7.5km az=77.0*
ISC 03 01:44:39.9±2.9, **3.59S**±0.05×**135.5E**±0.1, **h29**^{km}±22^{km}, **n37**, σ**1^{s}15**/41, **mb4.1**/12, **MS3.8**/3, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	9.55	198	*e*P	P	01 47 00.1	+1.3
	20nm,0.5s						
KAKA				*e*S	Sn	01 48 43.4	-2.9
PMG	**Port Moresby**	12.95	117	Pn	P	01 47 43.4	-1.5
	0.6nm,0.3s,baz=292,slow=18,SNR=2.7						
PMG	**Port Moresby**	12.95	117	*e*Pn	P	01 47 44.8	-0.1
WRAB	**Tennant Creek**	16.28	184	*e*P	P	01 48 26.8	-1.6
	34nm,0.8s						
WRAB				*e*S	S	01 51 18.8	-8.9
WB2	**Warramunga Arr**	16.29	184	*e*P	P	01 48 28.0	-0.5
WB2				*i*		01 48 35.4	
WB2				*e*S	S	01 51 22.6	-5.2
WRA	**Warramunga Arr**	16.29	184	Pn	P	01 48 27.0	-1.6
	0.3nm,0.3s,baz=3.6,slow=13,SNR=13						
WRA				Sn	S	01 51 22.3	-5.6
	0.8nm,0.3s,baz=6.7,slow=23,SNR=9.7						
FITZ	**Fitzroy Crossi**	17.35	213	*e*P	P	01 48 44.7	+2.8
	7.2nm,0.8s						
FITZ				*e*S	S	01 51 46.7	-5.5
FITZ	**Fitzroy Crossi**	17.35	213	P	P	01 48 43.5	+1.5
	0.5nm,0.3s,baz=38,slow=13,SNR=13						
FITZ				S	S	01 51 46.7	-5.5
	1.0nm,0.3s,baz=189,slow=14,SNR=9.3						
CTA	**Charters Tower**	19.46	148	*e*P	P	01 49 11.0	+3.5
	16nm,1.1s						
CTA	**Charters Tower**	19.46	148	P	P	01 49 10.0	+2.5
	0.6nm,0.3s,baz=325,slow=12,SNR=30						
CTA				LR	LR	01 57 08.7	
	comp=Z,162nm,20.3s,baz=20,slow=38						
CTAO	**Charters Tower**	19.46	148	*e*P	P	01 49 09.1	+1.6
	16nm,0.8s						
ASAR	**Alice Springs**	20.01	184	P	P	01 49 16.9	+3.4
	26nm,0.7s,baz=9.2,slow=10,SNR=119						
ASAR				S	S	01 52 52.1	+0.5
	5.5nm,0.8s,baz=4.8,slow=28,SNR=6.6						
ASPA	**Alice Springs**	20.02	184	*e*P	P	01 49 17.2	+3.7
ASPA				*e*S	S	01 52 51.9	+0.3
MBWA	**Marble Bar**	23.23	220	*e*P	P	01 49 49.2	+3.2
	15nm,1.1s,mb4.3						
STKA	**Stephens Creek**	28.71	169	*e*P	P	01 50 39.1	+2.1
	2.6nm,0.8s,mb4.0						
STKA	**Stephens Creek**	28.71	169	P	P	01 50 39.1	+2.1
	1.9nm,0.8s,mb3.9,slow=8.1,SNR=4.8						
JHJ	**Hachijo jima 2**	36.74	6	LR	LR	02 03 54.7	
	comp=Z,85nm,18.7s,MS3.6,baz=56,slow=32						
CMAR	**Chiang Mai Arr**	42.15	303	P	P	01 52 31.6	-0.4
	1.0nm,0.3s,mb3.9,baz=120,slow=7.3,SNR=3.1						
RPZ	**Rata Peaks**	50.83	147	LR	LR	02 15 34.5	
	comp=Z,102nm,18.5s,MS3.9,baz=219,slow=36						
URZ	**Urewera**	51.26	138	LR	LR	02 15 24.6	
	comp=Z,105nm,18.6s,MS3.9,baz=201,slow=36						
GUN	**Gumba**	57.09	307	*e*P	P	01 54 26.0	-0.5
SONM	**Songino Array**	57.21	337	P	P	01 54 26.7	-0.3
	0.3nm,0.4s,mb3.6,baz=161,slow=8.0,SNR=3.0						
PKI	**Pulchoki**	57.33	306	*e*P	P	01 54 28.4	+0.3
KKN	**Kakani**	57.52	306	*e*P	P	01 54 29.5	0.0
DMN	**Daman**	57.59	306	*e*P	P	01 54 30.3	+0.4
GKN	**Gorkha**	58.13	306	*e*P	P	01 54 33.7	0.0
KOLN	**Koldanda**	58.87	305	*e*P	P	01 54 39.0	+0.1
	14nm,0.8s,mb5.0						
TKM2	**Tokmak 2**	71.01	318	*e*P	P	01 55 53.1	-4.2
ZAL	**Zalesovo**	71.12	331	P	P	01 55 56.9	-0.8
	0.8nm,0.7s,mb3.8,baz=110,slow=3.8,SNR=4.4						
ZAL	**Zalesovo**	71.12	331	P	P	01 55 56.9	-0.8
UCH	**Uchtor**	71.46	317	*e*P	P	01 56 00.5	+0.4
	5.5nm,1.2s,mb4.4						
AML	**Almayashu**	71.99	316	*e*P	P	01 56 03.9	+0.8
	2.7nm,0.8s,mb4.2						
BVAR	**Borovoye Array**	78.22	326	P	P	01 56 38.1	-0.4
	0.8nm,0.7s,mb3.8,baz=117,slow=6.6,SNR=4.5						
BRVK	**Borovoye**	78.29	326	*e*P	P	01 56 38.9	0.0
	3.0nm,0.9s,mb4.2						
CHKZ	**Chkalovo**	78.34	327	*e*P	P	01 56 38.6	-0.6
	2.0nm,0.9s,mb4.0						
ILAR	**Eielson Array**	87.97	25	P	P	01 57 27.8	-0.4
	0.9nm,0.7s,mb4.1,baz=264,slow=4.6,SNR=11						
LPAZ	**La Paz**	149.41	131	PKPbc	PKPdf	02 04 32.6	+4.8
	1.0nm,0.6s,baz=89,slow=2.0,SNR=7.2						

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*CSEM **03** 01:46:14.2±0.1, 43.19N×15.50E, h10^{km}, ML3.1/4, Error ellipse: s-maj=2.8km s-min=1.8km az=50.0*
*ROM **03** 01:46:15.8±0.9, 43.11N×15.39E, h10^{km}, MD3.1/11, ML2.3/5, Error ellipse: s-maj=7.9km s-min=5.9km az=90.0*
*NEIC **03** 01:46:15.9, 43.11N×15.39E, h10^{km}, MD3.1(ROM), ML3.1(LDG), ML2.9(VIE), After ROM.*
*LDG **03** 01:46:17.7±0.4, 43.17N×15.42E, h10^{km}, Ml3.1/4, Error ellipse: s-maj=9.8km s-min=4.6km az=60.0*
ISC 03 01:46:14.6±0.4, **43.16N**±0.02×**15.37E**±0.05, **h10**^{km}, **n56**, σ**1^{s}25**/69, **4C-1D**, **Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVLJ	**Novalja**	1.45	346	*i* Pn	Pn	01 46 41.0	-0.1
NVLJ				*i* Sg	Sg	01 47 02.5	-0.5
NVLJ	**Novalja**	1.45	346	*i* Sg	Sg	01 47 02.4	-0.6
RGNG	**Rignano Grg**	1.49	174	*e*PN	Pn	01 46 41.0	-0.7
FGMS	**Monte Sant'Ang**	1.51	163	*e*PN	Pn	01 46 43.4	+1.4
FGMS	**Monte Sant'Ang**	1.51	163	*e*Pn	Pn	01 46 43.4	+1.4
INTR	**Introdacqua**	1.57	224	*e*PN	Pn	01 46 43.3	+0.5
INTR	**Introdacqua**	1.57	224	*e*Pn	Pn	01 46 43.3	+0.5
CING	**Cingoli**	1.60	279	*e*PN	Pn	01 46 43.9	+0.7
CING	**Cingoli**	1.60	279	*e*Pn	Pn	01 46 43.9	+0.7
CII	**Carovilli**	1.64	209	*e*PN	Pn	01 46 44.2	+0.5
CII	**Carovilli**	1.64	209	*e*Pn	Pn	01 46 44.2	+0.5
AQU	**L'Aquila**	1.66	242	*e*Pn	Pn	01 46 45.7	+1.7
AQU	**L'Aquila**	1.66	242	*e*Pn	Pn	01 46 45.7	+1.7
STON	**Ston**	1.73	99	*i* Pn	Pn	01 46 44.0	-1.1
STON				*i* Sn	Sn	01 47 06.5	-1.0
STON				*i* Sg	Sg	01 47 07.5	-5.0
STON	**Ston**	1.73	99	*i* Pn	Pn	01 46 44.0	-1.1
STON				*i* Sn	Sn	01 47 06.4	-1.1
STON				*i* Sg	Sg	01 47 07.5	-5.0
SNTG	**Esanatoglia**	1.78	274	*e*PN	Pn	01 46 46.1	+0.4
	32nm,0.7s						
SNTG	**Esanatoglia**	1.78	274	*e*Pn	Pn	01 46 46.1	+0.3
SNTG	**Esanatoglia**	1.78	274	*e*Pn	Pn	01 46 46.1	+0.4
	32nm,0.7s						
ARV	**Arcevia**	1.80	282	*e*PN	Pn	01 46 47.2	+1.1
ARV	**Arcevia**	1.80	282	*e*Pn	Pn	01 46 47.2	+1.1
SDI	**San Donato**	1.85	219	*e*PN	Pn	01 46 46.0	-0.8
	87nm,0.6s						
SDI	**San Donato**	1.85	219	*e*Pn	Pn	01 46 46.0	-0.8
SDI	**San Donato**	1.85	219	*e*Pn	Pn	01 46 46.0	-0.8
	87nm,0.6s						
SGG	**Gregorio Mates**	1.92	203	*e*PN	Pn	01 46 47.8	+0.1
SGG	**Gregorio Mates**	1.92	203	*e*Pn	Pn	01 46 47.8	+0.1
FSSB	**Fossombrone**	1.96	287	*e*PN	Pn	01 46 48.7	+0.3
	18nm,0.4s						
FSSB	**Fossombrone**	1.96	287	*e*Pn	Pn	01 46 48.7	+0.3
	18nm,0.4s						
BLY	**Banja Luka**	2.06	39	Pn	Pn	01 46 51.9	+2.1
MURB	**Monte Urbino**	2.08	274	*e*PN	Pn	01 46 50.9	+0.8
MURB	**Monte Urbino**	2.08	274	*e*Pn	Pn	01 46 50.9	+0.8
MNS	**Montasola**	2.12	250	*e*PN	Pn	01 46 52.5	+1.8
	21nm,0.7s						
MNS	**Montasola**	2.12	250	*e*Pn	Pn	01 46 52.5	+1.8
MNS	**Montasola**	2.12	250	*e*Pn	Pn	01 46 52.5	+1.8
	21nm,0.7s						
VBY	**Vinica-Bojanci**	2.35	358	*e*Pn	Pn	01 46 55.2	+1.3
VBY				*e*(Sn)	Sn	01 47 29.5	+6.5
MRLC	**Muro Lucano**	2.40	178	*e*PN	Pn	01 46 53.4	-1.3
MRLC	**Muro Lucano**	2.40	178	*e*Pn	Pn	01 46 53.4	-1.3
SGO	**Sicignano**	2.60	181	*e*PN	Pn	01 46 56.9	-0.6
	5.0nm,0.4s						
SGO	**Sicignano**	2.60	181	*e*Pn	Pn	01 46 56.9	-0.5
SGO	**Sicignano**	2.60	181	*e*Pn	Pn	01 46 56.9	-0.6
	5.0nm,0.4s						
VOY	**Vojsko**	3.06	340	*e*Pn	Pn	01 47 04.7	+0.6
VOY				*e*Sn	Sn	01 47 43.9	+2.8
VOY				*e*		01 47 53.6	
OBKA	**Obir**	3.40	350	⇑*i*PN	Pn	01 47 11.3	+2.4
OBKA				*i* SG	Sg	01 48 07.0	-0.9
	19nm,0.6s						
KBA	**Koelnbreinsper**	4.17	341	⇑*i*PN	Pn	01 47 20.4	+0.5
KBA				*i* SG	Sg	01 48 30.9	-2.7
	4.7nm,0.6s						
PGF	**Pioggiola**	4.72	265	*e*Pn	Pn	01 47 26.8	-0.9
MOA	**Molln**	4.75	351	⇑*i*PN	Pn	01 47 28.6	+0.5
SQTA	**Sankt Quirin**	5.01	326	⇓*i*PN	Pn	01 47 32.9	+1.1
MOTA	**Moosalm**	5.16	326	⇑*i*PN	Pn	01 47 35.1	+1.3
SBF	**Sospel**	5.81	280	*e*Pn	Pn	01 47 41.9	-1.1
KHC	**Kasperske Hory**	6.10	349	*e*P	Pn	01 47 45.5	-1.6
KHC				*e*		01 48 55.0	
KHC	**Kasperske Hory**	6.10	349	*e*P	Pn	01 47 45.5	-1.6
KHC				x	x	01 48 55.0	
FRF	**La Foret Royal**	6.37	277	*e*Pn	Pn	01 47 49.9	-1.0
MBDF	**Montbardon**	6.40	287	*e*Pn	Pn	01 47 48.2	-3.2
MBDF				*e*Sn	Sn	01 49 00.1	-5.2
	3.3nm,0.6s						
LMR	**La Mourre**	6.47	275	*e*Pn	Pn	01 47 51.2	-1.2
LPG	**La Plagne**	6.61	294	*e*Pn	Pn	01 47 50.7	-3.6
LPG				*e*Sn	Sn	01 49 05.3	-5.1
	5.4nm,0.6s						
LPL	**La Plagne**	6.62	294	*e*Pn	Pn	01 47 53.3	-1.2
LPL				*e*Sn	Sn	01 49 05.4	-5.5
	3.1nm,0.4s						
ORIF	**Oris-en-Rattie**	7.06	288	*e*Pn	Pn	01 47 58.8	-1.8
ORIF				*e*Sn	Sn	01 49 14.7	-7.1
	4.1nm,0.6s						
CLL	**Collm**	8.31	350	*e*SG	Sg	01 50 44.0	-7.3

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*IDC **03** 01:47:15.6±1.8, 49.90S×118.15E, mb3.8/2, mb1 3.9/2, mb1mx3.7/10, MS3.5/2, Ms1 3.5/2, ms1mx2.8/19, Error ellipse: s-maj=89.0km s-min=37.1km az=106.0*
*NEIC **03** 01:47:17.1±1.0, 49.74S×118.97E, h10^{km}, mb4.3/3, Error ellipse: s-maj=62.6km s-min=17.9km az=111.0*
ISC 03 01:47:14.5±1.2, **49.7S**±0.2×**119.0E**±0.7, **h10**^{km}, **n13**, σ**1^{s}03**/10, **mb4.1**/3, **MS3.4**/2, **3C-1D**, **Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	**Tennant Creek**	32.13	28	*e*P	P	01 53 44.1	0.0
	98nm,1.2s						
VNDA	**Vanda**	32.24	164	P	P	01 53 44.6	+0.1
	0.9nm,0.7s,mb3.7,baz=323,slow=8.4,SNR=8.1						
VNDA				LR	LR	02 05 43.5	
	comp=Z,115nm,19.1s,MS3.6,baz=351,slow=34						
VNDA	**Vanda**	32.24	164	*e*P	P	01 53 44.4	-0.2
	1.0nm,0.6s,mb3.8						
VNDA				LR	LR	02 05 43.5	
MAW	**Mawson**	32.74	216	LR	LR	02 05 01.3	
	comp=Z,57nm,20.6s,MS3.3,baz=236,slow=33						
QSPA	**South Pole Qui**	40.42	180	*e*P	P	01 55 01.1	+7.2
	7.2nm,1.0s,mb4.4						
SNAA	**Sanae**	52.19	200	⇑*i*	P	01 56 25.6	-1.2
SNAA	**Sanae**	52.19	200	P	P	01 56 24.6	-2.2
	0.9nm,0.8s,mb3.8,baz=154,slow=10,SNR=8.5						
SNAA	**Sanae**	52.19	200	*e*P	P	01 56 25.5	-1.4
	4.8nm,0.9s,mb4.4						
VNA2	**Neumayer--Watz**	53.73	199	⇑*i*	P	01 56 39.3	+1.0
VNA3	**Neumayer Olymp**	53.96	198	⇑*i*	P	01 56 40.7	+0.8
VNA1	**Neumayer--Stat**	54.13	199	⇓*i*	P	01 56 37.4	-3.8
PDAR	**Pinedale Array**	146.20	83	PKPbc	PKPbc	02 06 58.2	+3.8
	0.6nm,0.9s,baz=225,slow=3.8,SNR=4.4						
YKA	**Yellowknife Ar**	148.48	46	PKPbc	PKPdf	02 07 03.6	+4.2
	0.7nm,0.8s,baz=278,slow=2.2,SNR=9.8						

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*CSEM **03** 01:51:31.8±0.2, 34.99N×2.81W, h12^{km}, ML3.1/1, Error ellipse: s-maj=5.3km s-min=4.7km az=172.0*
*CNRM **03** 01:51:31.1, 35.10N×2.58W, h15^{km}, MD3.3*
*NEIC **03** 01:51:32.8, 34.97N×3.05W, MG3.7(MDD), After MDD.*
*MDD **03** 01:51:33.1±1.4, 34.98N×3.03W, mb3.7/13, Error ellipse: s-maj=13.1km s-min=6.3km az=148.0, PRXIMO AftershockPLICA*
*INMG **03** 01:51:33.8±0.8, 35.03N×2.89W, h14^{km}±3^{km}, ML2.2, Error ellipse: s-maj=5.7km s-min=4.9km az=91.0*
ISC 03 01:51:32.0±0.7, **35.10N**±0.04×**2.77W**±0.05, **h10**^{km}, **n47**, σ**1^{s}52**/71, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	0.13	170	*i* P	Pg	01 51 35.5	+0.3
MELI	**Melilla**	0.23	325	*i* P	Pg	01 51 39.0	+2.0
EMLI	**Melilla**	0.24	324	P	Pg	01 51 39.0	+1.8
	61nm,0.1s,SNR=18						
EMEL	**Melilla**	0.25	323	P	Pg	01 51 39.0	+1.7
	61nm,0.1s,SNR=18						
EMEL				S	Sg	01 51 43.5	+2.7
	637nm,0.2s,SNR=7.9						
TOU	**Touzarine**	0.82	260	*i* P	Pb	01 51 48.0	+0.2
TOU				*i* S	Sb	01 52 00.5	+1.8
MPAL	**Palemas**	0.96	278	*i* P	Pb	01 51 51.0	+0.6
MPAL				*i* S	Sb	01 52 04.0	+1.0
TZK	**Tazeka**	1.54	229	*i* P	Pn	01 51 58.0	-1.7
EBER	**Berja**	1.79	357	P	Pn	01 52 04.4	+1.1
	1.8nm,0.3s,SNR=8.5						
EBER				S	Sn	01 52 26.8	+0.5
	36nm,0.4s,SNR=7.9						
EBER	**Berja**	1.79	357	S	Sn	01 52 26.8	+0.4
	36nm,0.4s,SNR=7.9						
ERON	**Agron**	2.09	337	P	Pn	01 52 07.7	+0.2
	2.7nm,0.2s,SNR=7.9						
ERON				S	Sn	01 52 32.1	-1.7
	3.6nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	2.18	313	P	Pn	01 52 07.1	-1.9
EMIJ				S	Sn	01 52 32.5	-3.8
EMIJ	**Mijas**	2.18	313	P	Pn	01 52 07.1	-1.9
	1.5nm,0.1s,SNR=19						
EMIJ				S	Sn	01 52 32.5	-3.8
	26nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	2.18	313	S	Sn	01 52 32.5	-3.8
	26nm,0.4s,SNR=7.9						
EQES	**Quesada**	2.71	355	P	Pn	01 52 19.6	+3.2
	4.1nm,0.3s,SNR=24						
EQES				S	Sn	01 52 53.0	+3.4
	11nm,0.3s,SNR=7.9						
EQES	**Quesada**	2.71	355	P	Pn	01 52 19.6	+3.2
	4.1nm,0.3s,SNR=24						
EQES				S	Sn	01 52 53.0	+3.5
	11nm,0.3s,SNR=7.9						
ELUQ	**Luque**	2.73	334	P	Pn	01 52 18.5	+1.7
ELUQ				S	Sn	01 52 51.4	+1.2
ELUQ	**Luque**	2.73	334	P	Pn	01 52 18.5	+1.7
	2.4nm,0.3s,SNR=7.9						
ELUQ				S	Sn	01 52 51.4	+1.2
	2.5nm,0.3s,SNR=7.9						
LIJA	**Lijar**	2.79	311	*i* P	Pn	01 52 18.5	+0.9
EMUR	**La Murta**	3.00	24	P	Pn	01 52 23.0	+2.4
	4.1nm,0.4s,SNR=12						
EMUR				S	Sn	01 52 55.9	-1.1
	SNR=7.9						
EMUR	**La Murta**	3.00	24	S	Sn	01 52 55.9	-1.1
	SNR=7.9						
EMUR	**La Murta**	3.00	24	P	Pn	01 52 23.0	+2.4
	4.1nm,0.4s,SNR=12						
ESPR	**Espera**	3.06	306	P	Pn	01 52 21.6	+0.2
ESPR				S	Sn	01 53 00.7	+2.2
ESPR	**Espera**	3.06	306	P	Pn	01 52 21.4	0.0
	2.0nm,0.2s,SNR=7.9						
ESPR				S	Sn	01 52 55.5	-3.0
	SNR=4.0						
ESPR	**Espera**	3.06	306	P	Pn	01 52 21.6	+0.2
ESPR				S	Sn	01 53 00.7	+2.2
EADA	**Adamuz**	3.39	335	P	Pn	01 52 26.5	+0.4
EADA				S	Sn	01 53 05.0	-1.8
EADA	**Adamuz**	3.39	335	P	Pn	01 52 26.5	+0.4
	1.5nm,0.2s,SNR=10.0						
EADA				S	Sn	01 53 04.5	-2.2
	SNR=7.9						
EADA	**Adamuz**	3.39	335	S	Sn	01 53 04.5	-2.2
	SNR=7.9						
EADA	**Adamuz**	3.39	335	P	Pn	01 52 26.5	+0.4
	1.5nm,0.2s,SNR=10.0						
EMIN	**Mina Concepcio**	4.12	311	P	Pn	01 52 34.6	-1.8
	1.2nm,0.2s,SNR=16						
EMIN				S	Sn	01 53 20.2	-5.1
	SNR=7.9						
EMIN	**Mina Concepcio**	4.12	311	P	Pn	01 52 34.6	-1.9
	1.2nm,0.2s,SNR=16						
ESDC	**Sonseca Array**	4.66	349	P	Pn	01 52 45.5	+1.3
	1.6nm,0.1s,baz=172,slow=12,SNR=9.9						
ESDC	**Sonseca Array**	4.66	349	P	Pn	01 52 45.5	+1.3
EBAD	**Badajoz**	4.98	318	P	Pn	01 52 47.2	-1.5
EBAD				S	Sn	01 53 41.3	-5.8
EBAD	**Badajoz**	4.98	318	P	Pn	01 52 47.0	-1.8
	3.0nm,0.2s,SNR=7.3						
EBAD				S	Sn	01 53 41.3	-5.8
	SNR=7.9						
EBAD	**Badajoz**	4.98	318	P	Pn	01 52 47.2	-1.5
PBEJ	**Beja**	5.03	307	*e*Pn	Pn	01 52 47.8	-1.6
PBEJ				*e*Sn	Sn	01 53 43.0	-5.4
	1.3nm,0.3s						
PBEJ	**Beja**	5.03	307	P	Pn	01 52 47.8	-1.6
PBEJ				S	Sn	01 53 43.0	-5.4
	0.6nm,0.3s						
PBEJ	**Beja**	5.03	307	*e*Sn	Sn	01 53 43.0	-5.4
	1.3nm,0.3s						
EIBI	**Ibiza**	5.12	39	P	Pn	01 52 51.4	+0.8
	8.3nm,0.8s,SNR=7.5						
EIBI	**Ibiza**	5.12	39	P	Pn	01 52 51.4	+0.8
MOE	**Montemor**	5.63	309	*e*Pn	Pn	01 52 56.5	-1.3
PCBR	**Castelo Branco**	6.03	323	*e*Pn	Pn	01 53 02.0	-1.5
PCBR				*e*Sn	Sn	01 54 06.1	-7.3
	2.5nm,0.5s						
PCBR	**Castelo Branco**	6.03	323	P	Pn	01 53 02.0	-1.5
PCBR				S	Sn	01 54 06.1	-7.3
	1.2nm,0.5s						
PCBR	**Castelo Branco**	6.03	323	*e*Sn	Sn	01 54 06.1	-7.3
	2.5nm,0.5s						
PTOM	**Tomar**	6.36	317	*e*Pn	Pn	01 53 06.5	-1.7
PVIS	**Viseu**	6.91	326	*e*Pn	Pn	01 53 14.4	-1.5
PVRL	**Vila Real**	7.29	329	*e*Pn	Pn	01 53 19.7	-1.5

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*IDC **03** 02:06:26.6±1.6, 54.00N×160.93W, mb3.8/9, mb1 4.0/11, mb1mx3.8/23, ML3.8/2, MS3.5/2, Ms1 3.5/2, ms1mx2.6/28, Error ellipse: s-maj=34.6km s-min=22.5km az=8.0*
*NEIC **03** 02:06:34.0±0.7, 54.25N×160.83W, h45^{km}±6^{km}, ML3.9(AEIC), Error ellipse: s-maj=9.0km s-min=4.1km az=145.0*
ISC 03 02:06:32.7±0.8, **54.18N**±0.06×**160.86W**±0.08, **h55**^{km}±8^{km}, **n44**, σ**0^{s}85**/54, **mb3.9**/9, **MS3.6**/1, **Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DOL	**Dolgoi Island**	1.13	329	P	P	02 06 51.8	-0.9
DRIA	**Deer Island**	1.14	315	P	P	02 06 52.3	-0.4
DT1	**Dutton Round H**	1.24	319	P	P	02 06 53.4	-0.8
DT1				S	S	02 07 09.5	-0.7
DTNA	**Dutton South F**	1.27	321	P	P	02 06 53.9	-0.6
DTNA				S	S	02 07 10.3	-0.5
HAG	**Hague Volcano**	1.29	332	P	P	02 06 54.6	-0.3
PVV	**Pavlof Volcano**	1.31	336	P	P	02 06 54.7	-0.6
PVV				S	S	02 07 11.7	-0.3
PS1A	**Pavlof South-1**	1.34	338	P	P	02 06 55.3	-0.4
PN6	**Pavlof North-6**	1.42	335	P	P	02 06 57.2	+0.5
PN7A	**Pavlof North-7**	1.42	333	P	P	02 06 57.1	+0.3
PN7A				S	S	02 07 16.1	+1.6
BALA	**Baldy Mountain**	1.51	313	P	P	02 06 58.6	+0.6
FALS	**False Pass**	1.64	296	P	P	02 07 00.0	+0.3
FALS				S	S	02 07 21.7	+1.9
BLHA	**Black Hill**	1.68	336	P	P	02 07 00.3	0.0
SSLN	**Shishaldin Nor**	1.94	290	P	P	02 07 04.6	+0.7
SSLW	**Shishaldin Wes**	1.99	289	P	P	02 07 05.0	+0.2
WTUG	**Tugumak**	2.16	289	P	P	02 07 07.4	+0.3
WESN	**West Dahl Nort**	2.21	282	P	P	02 07 08.1	+0.2
WESS	**West Dahl Sout**	2.28	279	P	P	02 07 09.9	+1.1
WESS				S	S	02 07 36.2	+0.4
WPOG	**Pogromni**	2.31	282	P	P	02 07 10.2	+0.9
WFAR	**Faris Peak**	2.32	280	P	P	02 07 10.1	+0.7
AHB	**Akutan Harbor**	2.92	271	P	P	02 07 18.8	+1.0
AKLV	**Akutan Long Va**	3.00	272	P	P	02 07 19.7	+0.8
AKGG	**Akutan Green G**	3.02	272	P	P	02 07 19.8	+0.5
AKGG				S	S	02 07 53.6	-0.7
LVA	**Lava Point**	3.04	272	P	P	02 07 20.2	+0.6
ANPK	**Aniakchak Peak**	3.09	29	P	P	02 07 20.4	+0.1
UNV	**Unalaska Valle**	3.35	267	P	P	02 07 23.5	-0.4
UNV				S	S	02 08 01.1	-1.6
MTBL	**Makushin Table**	3.44	269	P	P	02 07 25.4	+0.2
MNAT	**Makushin Natee**	3.45	267	P	P	02 07 25.4	0.0
MNAT				S	S	02 08 03.0	-2.3
MSW	**Makushin Switc**	3.50	268	P	P	02 07 26.1	0.0
MCIR	**Makushin Cirqu**	3.56	269	P	P	02 07 26.7	-0.2
MCIR				S	S	02 08 06.5	-1.6
CAHL	**Cahill**	4.97	36	P	P	02 07 46.2	-0.6
ILAR	**Eielson Array**	12.74	28	Pn	P	02 09 27.4	-5.6
	0.2nm,0.3s,baz=223,slow=13,SNR=9.3						

DAWY	**Dawson**	14.73	39	P	P	02 09 58.5	-0.4
INK	**Inuvik**	19.07	32	P	P	02 10 50.3	-2.6
	0.3nm,0.3s,baz=226,slow=14,SNR=9.9						
INK				LR	LR	02 19 44.2	
	comp=Z,134nm,18.6s,baz=255,slow=42						
YKA	**Yellowknife Ar**	25.15	52	P	P	02 11 55.3	+1.6
	0.4nm,0.5s,mb3.2,baz=271,slow=9.5,SNR=9.4						
PDAR	**Pinedale Array**	35.12	87	P	P	02 13 21.5	-1.0
	0.2nm,0.6s,mb3.2,baz=21,slow=7.7,SNR=3.2						
TXAR	**Lajitas Array**	47.75	97	P	P	02 15 05.6	-0.3
	0.2nm,0.6s,mb3.4,baz=310,slow=7.0,SNR=3.0						
TXAR	**Lajitas Array**	47.75	97	P	P	02 15 05.6	-0.3
SONM	**Songino Array**	54.63	304	P	P	02 15 58.0	+0.4
	0.4nm,0.5s,mb3.8,baz=310,slow=4.5,SNR=4.4						
ARCES	**ARCESS Array B**	56.51	357	P	P	02 16 10.0	-0.9
	6.1nm,1.1s,mb4.5,baz=39,slow=7.8,SNR=5.9						
FINES	**FINESS Array B**	64.59	356	P	P	02 17 05.7	0.0
	1.8nm,0.6s,mb4.3,baz=14,slow=7.9,SNR=18						
FINES				LR	LR	02 46 36.8	
	comp=Z,34nm,18.9s,MS3.6,baz=346,slow=37						
NB2	**NORSAR Subarra**	64.96	4	P	P	02 17 08.8	+0.7
	1.0nm,0.6s,mb4.0,baz=356,slow=6.5						
NOA	**NORSAR Array B**	64.96	4	P	P	02 17 08.7	+0.7
	1.1nm,0.7s,mb4.0,baz=356,slow=6.6,SNR=5.7						
BVAR	**Borovoye Array**	65.01	329	P	P	02 17 09.3	+0.7
	1.8nm,0.5s,mb4.4,baz=45,slow=5.4,SNR=19						
AKASG	**Malin Array Be**	75.15	353	P	P	02 18 10.8	+0.7
	0.8nm,0.3s,mb4.1,baz=9.5,slow=6.0,SNR=5.3						

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*IDC **03** 02:18:51.6±2.1, 3.30S×134.78E, mb4.0/3, mb1 4.0/5, mb1mx3.8/13, ML2.9/2, Error ellipse: s-maj=105.0km s-min=31.4km az=102.0*

*NEIC **03** 02:18:56.6±1.5, 3.44S×134.70E, h10^{km}, mb3.9/1, Error ellipse: s-maj=48.6km s-min=19.6km az=103.0*

ISC 03 02:18:56.0±5.6, **3.6S**±0.2×**134.7E**±0.3, **h42**^{km}±50^{km}, **n7, σ1^{s}34**/9, **mb3.7**/2, **1D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRAB	**Tennant Creek**	16.21	181	*e*P	P	02 22 42.5	+0.1
	12nm,1.1s						
WRA	**Warramunga Arr**	16.22	181	Pn	P	02 22 40.0	-2.6
	0.1nm,0.3s,baz=2.5,slow=13,SNR=5.0						
WRA				Sn	S	02 25 33.3	-7.4
	0.2nm,0.3s,baz=5.6,slow=22,SNR=6.0						
FITZ	**Fitzroy Crossi**	16.91	211	P	P	02 22 52.4	+1.1
	0.0nm,0.3s,baz=50,slow=7.9,SNR=2.1						
FITZ				S	S	02 25 56.2	-0.6
	0.1nm,0.3s,baz=164,slow=17,SNR=2.9						
ASAR	**Alice Springs**	19.94	182	P	P	02 23 30.6	+3.3
	8.8nm,0.5s,baz=10,slow=11,SNR=81						
ASPA	**Alice Springs**	19.94	182	⇓*i*P	P	02 23 30.9	+3.6
STKA	**Stephens Creek**	28.83	168	P	P	02 24 53.5	+0.8
	1.4nm,0.7s,mb3.8,baz=349,slow=16,SNR=2.8						
ILAR	**Eielson Array**	88.32	25	P	P	02 31 43.5	-0.7
	0.3nm,0.7s,mb3.6,baz=240,slow=3.2,SNR=5.0						

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*IDC **03** 02:28:46.9±1.3, 13.63N×121.36E, mb3.5/3, mb1 3.7/3, mb1mx3.4/18, Error ellipse: s-maj=73.3km s-min=9.4km az=54.0*

*NEIC **03** 02:28:48.4±0.9, 13.59N×121.22E, h10^{km}, mb4.0/1, Error ellipse: s-maj=69.8km s-min=9.4km az=68.0*

NEIC Felt [I PIVS] at Puerto Galera. Also felt [I PIVS] at Batangas, Luzon.

*MAN **03** 02:28:48.0, 13.66N×120.95E, h1^{km}, mb4.2, ML3.0, MS2.7*

ISC 03 02:28:49.9±0.6, **13.65N**±0.04×**120.94E**±0.05, **h23**^{km}±7^{km}, **n18, σ1^{s}13**/21, **mb3.6**/4, **1C-1D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TGY	**Tagaytay City**	0.45	359	Pg	Pb	02 28 59.1	0.0
	1µm,0.3s,baz=177,slow=3.3,SNR=91						
TGY				Lg		02 29 07.2	
	2µm,0.3s,baz=144,slow=19,SNR=21						
LUBP	**Lubang**	0.68	277	*e*P	Pb	02 29 01.7	-1.3
LUBP	**Lubang**	0.68	277	*e*P	Pb	02 29 02.0	-1.0
LUBP				*e*S	Sb	02 29 12.9	+0.8
LQP	**Lukban**	0.74	52	⇑*e*P	Pb	02 29 03.1	-0.8
BOAC	**Boac**	0.90	102	*e*P	Pb	02 29 05.8	-0.8
ARP	**Angono**	0.91	13	*e*P	Pb	02 29 05.7	-1.1
SJMP	**San Jose**	1.20	172	*e*P	Pn	02 29 12.0	+0.7
SJMP				*e*S	Sb	02 29 29.3	+2.5
NBP	**Mount Natib**	1.20	335	*e*P	Pn	02 29 11.6	+0.2
POLP	**Polilio Island**	1.44	42	*e*P	Pn	02 29 15.2	+0.4
POLP				*e*S	Sn	02 29 34.6	+1.4
OTRP	**Odiongan**	1.66	141	*e*P	Pn	02 29 18.4	+0.4
PCPH	**Palayan**	1.91	4	⇓*e*P	Pn	02 29 21.7	+0.2
BALP	**Baler**	2.17	16	*e*P	Pn	02 29 27.0	+1.7
ENPP	**El Nido**	2.85	212	*e*P	Pn	02 29 35.4	+0.4
MBWA	**Marble Bar**	34.61	182	P	P	02 35 37.7	-1.8
WRA	**Warramunga Arr**	35.89	158	P	P	02 35 46.9	-3.5
	0.4nm,0.5s,mb3.6,baz=341,slow=9.3,SNR=5.9						
SONM	**Songino Array**	36.17	343	P	P	02 35 52.4	-0.1
	0.7nm,0.6s,mb3.8,baz=159,slow=10,SNR=7.7						
ASAR	**Alice Springs**	39.19	161	P	P	02 36 15.8	-2.3
	0.2nm,0.6s,mb3.1,baz=344,slow=6.6,SNR=2.6						
KURK	**Kurchatov**	50.36	326	P	P	02 37 47.5	+0.4
	0.7nm,0.4s,mb4.0						

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*IDC **03** 02:42:50.0±1.2, 59.32S×24.88W, mb4.1/2, mb1 4.1/3, mb1mx3.9/12, ML3.9/1, MS2.5/1, Ms1 2.5/1, ms1mx2.4/10, Error ellipse: s-maj=57.9km s-min=34.2km az=22.0*

*NEIC **03** 02:42:57.7±0.7, 59.58S×25.19W, h55^{km}, mb4.2/3, Error ellipse: s-maj=31.3km s-min=9.3km az=52.0*

ISC 03 02:42:48.6±1.7, **59.2S**±0.3×**24.5W**±0.6, **h10**^{km}, **n15, σ0^{s}73**/10, **mb4.2**/4, **1C-3D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	13.35	156	⇓*i*	P	02 46 01.3	+0.8
VNA3	**Neumayer Olymp**	13.56	159	⇑*i*	P	02 46 02.8	-0.2
VNA2	**Neumayer--Watz**	13.74	156	⇓*i*	P	02 46 06.1	+0.6
SNAA	**Sanae**	15.29	154	⇓*i*	P	02 46 24.5	-1.3
SNAA	**Sanae**	15.29	154	Pn	P	02 46 24.7	-1.0
	0.5nm,0.3s,baz=317,slow=15,SNR=72						
SNAA				LR	LR	02 50 14.7	
	comp=Z,15nm,18.5s,baz=193,slow=29						
SNAA	**Sanae**	15.29	154	*e*P	P	02 46 24.2	-1.6
	5.1nm,0.6s						
USHA	**Ushuaia**	24.00	261	P	P	02 48 03.8	+0.1
	14nm,1.1s,mb4.3,baz=93,slow=14,SNR=3.8						
TRQA	**Tornquist**	31.93	295	*e*P	P	02 49 15.4	-0.9
	2.7nm,0.7s,mb4.2						
LVC	**Limon Verde**	48.13	300	*e*P	P	02 51 31.3	+0.9
	1.3nm,0.3s,mb4.4						
LPAZ	**La Paz**	53.36	304	P	P	02 52 10.2	0.0
	0.4nm,0.3s,mb3.8,baz=81,slow=9.3,SNR=3.9						
NVAR	**Mina Array Bea**	123.89	289	PKP	PKPdf	03 01 49.8	+0.2
	0.9nm,0.8s,baz=173,slow=4.4,SNR=5.0						
YKA	**Yellowknife Ar**	139.44	314	PKP	PKPdf	03 02 18.1	+0.2
	0.8nm,0.7s,baz=126,slow=2.3,SNR=11						
YKA	**Yellowknife Ar**	139.44	314	PKP	PKPdf	03 02 18.1	+0.1
SONM	**Songino Array**	149.36	90	PKPbc	PKPdf	03 02 39.7	+4.6
	1.3nm,1.0s,baz=209,slow=2.8,SNR=5.6						
ILAR	**Eielson Array**	153.22	307	PKPbc	PKPdf	03 02 47.9	+7.5
	4.5nm,1.1s,baz=117,slow=2.0,SNR=23						

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*CSEM **03** 02:45:49.3±0.1, 35.02N×2.87W, h10^{km}, MD2.8, Error ellipse: s-maj=3.3km s-min=2.3km az=96.0*

*CNRM **03** 02:45:50.0, 35.10N×2.70W, h14^{km}, MD2.8*

*NEIC **03** 02:45:52.4, 35.10N×3.17W, MG3.0(MDD), After MDD.*

*MDD **03** 02:45:52.4±2.2, 35.10N×3.17W, mb3.0/6, Error ellipse: s-maj=23.0km s-min=6.8km az=165.0, PRXIMO AftershockPLICA*

ISC 03 02:45:50.1±1.0, **35.02N**±0.05×**2.80W**±0.09, **h20**^{km}±6^{km}, **n17, σ1^{s}06**/24, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.07	139	*i* P	Pb	02 45 53.0	-0.8
EMLI	**Melilla**	0.31	336	P	Pb	02 45 57.4	+0.5
	26nm,0.1s,SNR=7.9						
EMEL	**Melilla**	0.31	335	P	Pb	02 45 57.4	+0.4
	26nm,0.1s,SNR=7.9						
EMEL				S	Sb	02 46 00.7	-0.9
	98nm,0.1s,SNR=7.9						
TOU	**Touzarine**	0.79	266	*i* P	Pb	02 46 06.0	+1.0
TOU				*i* S	Sb	02 46 16.0	+0.8
TZK	**Tazeka**	1.47	231	*i* P	Pn	02 46 16.0	+0.1
TZK				*i* S	Sn	02 46 34.5	-0.2
EBER	**Berja**	1.88	358	P	Pn	02 46 22.1	+0.4
	0.2nm,0.1s,SNR=5.1						
EBER				S	Sn	02 46 44.2	-0.8
	SNR=7.9						
EBER	**Berja**	1.88	358	S	Sn	02 46 44.2	-0.8
	SNR=7.9						
EBER	**Berja**	1.88	358	P	Pn	02 46 22.1	+0.4
	0.2nm,0.1s,SNR=5.1						
EMIJ	**Mijas**	2.23	314	P	Pn	02 46 24.8	-1.9
	0.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	02 46 50.0	-3.9
	SNR=7.9						
EMIJ	**Mijas**	2.23	314	S	Sn	02 46 50.0	-3.9
	SNR=7.9						
EQES	**Quesada**	2.79	356	P	Pn	02 46 37.0	+2.2
	1.2nm,0.2s,SNR=17						
EQES				S	Sn	02 47 09.2	+1.0
	SNR=7.9						
EQES	**Quesada**	2.79	356	P	Pn	02 46 37.0	+2.3
	1.2nm,0.2s,SNR=17						
EQES				S	Sn	02 47 09.2	+1.1
	SNR=7.9						
EADA	**Adamuz**	3.45	336	P	Pn	02 46 44.1	-0.1
	1.0nm,0.3s,SNR=7.4						
EADA	**Adamuz**	3.45	336	P	Pn	02 46 44.1	-0.1
	1.0nm,0.3s,SNR=7.4						
EMIN	**Mina Concepcio**	4.16	312	P	Pn	02 46 52.1	-2.1
	SNR=7.9						
ESDC	**Sonseca Array**	4.74	349	P	Pn	02 47 02.9	+0.4
	0.3nm,0.3s,baz=172,slow=12,SNR=6.5						
ESDC	**Sonseca Array**	4.74	349	P	Pn	02 47 02.9	+0.5

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*IDC **03** 02:53:04.9±3.5, 10.87N×61.36W, mb3.6/9, mb1 4.0/9, mb1mx3.8/20, MS3.5/2, Ms1 3.4/2, ms1mx2.9/21, Error ellipse: s-maj=108.0km s-min=23.2km az=2.0*

*NEIC **03** 02:53:10.9±0.7, 10.67N×61.36W, h50^{km}, mb3.7/2, Error ellipse: s-maj=18.4km s-min=13.4km az=142.0*

*TRN **03** 02:53:11.1, 10.50N×61.10W, h27^{km}, MD3.9*

ISC 03 02:53:08.6±0.6, **10.38N**±0.05×**61.21W**±0.07, **h59**^{km}±4^{km}, **n25, σ1^{s}28**/30, **mb3.6**/9, **MS3.5**/2, **2C-2D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	0.18	55	⇑*i*P	P	02 53 15.9	-1.8
TPP	**Pointe-a-Pierr**	0.24	255	⇓*i*P	P	02 53 20.0	+1.8
TPP				*e*S	S	02 53 26.5	+1.3
TRN	**Trinidad (W)**	0.32	325	⇑*i*P	P	02 53 18.6	-0.2
TRN				*e*S	S	02 53 24.7	-1.7
TPR	**Prospect**	0.91	28	⇓*i*P	P	02 53 25.3	-0.2
TPR				*e*S	S	02 53 37.3	-1.0
BOT	**Bacolet**	0.92	32	*e*P	P	02 53 25.4	-0.3
BOT				*e*S	S	02 53 37.3	-1.2
GRW	**Mount Saint Ca**	1.82	346	*e*P	P	02 53 39.4	+1.1
SVB	**Belmont**	2.87	359	*e*P	P	02 53 54.7	+1.5
SVB				*e*S	S	02 54 28.0	+1.3
SVV	**Soufriere Volc**	2.92	360	*e*P	P	02 53 55.0	+1.2
SVV				*e*S	S	02 54 29.3	+1.5
FDF	**Fort de France**	4.33	1	*e*P	P	02 54 13.3	-0.3
SDV	**Santo Domingo**	9.41	262	*e*Pn	P	02 55 21.7	-2.2
	5.4nm,0.3s						
SDV				*e*Sn	S	02 57 02.4	-6.9
SAML	**Samuel**	19.30	186	*e*P	P	02 57 33.4	+1.7
	2.2nm,0.8s						
OTAV	**Otavalo**	19.88	241	P	P	02 57 41.7	+3.7
	6.8nm,0.9s						
BDFB	**Brasilia**	28.97	153	LR	LR	03 11 57.8	
	comp=Z,63nm,19.1s,MS3.2,baz=110,slow=38						
TXAR	**Lajitas Array**	43.85	302	P	P	03 01 09.6	-1.6
	0.3nm,0.8s,mb3.0,baz=126,slow=7.8,SNR=3.5						
TXAR	**Lajitas Array**	43.85	302	P	P	03 01 09.6	-1.6
ANMO	**Albuquerque**	47.85	308	P	P	03 01 42.5	-0.3
	0.7nm,0.6s,mb3.9,baz=90,slow=8.1,SNR=1.3						
PDAR	**Pinedale Array**	52.94	316	P	P	03 02 19.6	-1.7
	0.7nm,0.8s,mb3.7,baz=117,slow=9.6,SNR=5.1						
NVAR	**Mina Array Bea**	57.95	309	P	P	03 02 57.1	-0.4
	0.2nm,0.3s,mb3.6,baz=111,slow=7.7,SNR=2.8						
ESDC	**Sonseca Array**	58.36	50	P	P	03 03 00.5	+0.1
	1.1nm,0.6s,mb4.0,baz=264,slow=8.0,SNR=6.4						
YKA	**Yellowknife Ar**	64.47	336	P	P	03 03 39.0	-2.1
	0.3nm,0.3s,mb3.7,baz=108,slow=7.2,SNR=7.9						
YKA				LR	LR	03 29 54.6	
	comp=Z,54nm,20.7s,MS3.7,baz=340,slow=34						
YKA	**Yellowknife Ar**	64.47	336	P	P	03 03 39.0	-2.1
YKA				LR	LR	03 29 54.6	
GERES	**GERESS Array B**	72.33	42	P	P	03 04 31.1	+1.1
	1.7nm,0.9s,mb4.0,baz=252,slow=4.2,SNR=12						
NOA	**NORSAR Array B**	72.48	29	P	P	03 04 31.7	+1.0
	0.4nm,0.9s,mb3.4,baz=216,slow=18,SNR=2.4						
ILAR	**Eielson Array**	78.84	334	P	P	03 05 06.8	+0.1
	0.3nm,0.7s,mb3.3,baz=94,slow=4.3,SNR=6.7						
CMAR	**Chiang Mai Arr**	145.29	34	PKP	PKPdf	03 12 44.1	+3.4
	2.6nm,0.8s,baz=319,slow=5.6,SNR=14						

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*NEIC **03** 02:53:51.4, 33.85S×71.01W, h70^{km}, MD3.8(GUC), After GUC.*

GUC 03 02:53:51.4±0.7, **33.85S**×**71.01W**, **h70**^{km}±3^{km}, **MD3.8, ML3.8, 10C-10D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TACH	**Talagante**	0.20	16	⇓*i*P	P	02 54 02.2	+0.2
CHCH	**Chadas Angostu**	0.31	106	⇓*i*P	P	02 54 02.6	-0.1
CHCH				*i* S	S	02 54 11.6	+0.6
LNV	**Longovilo**	0.35	252	⇓*i*P	P	02 54 03.2	+0.2
RCDM	**Rinconada Maip**	0.39	25	⇓*i*P	P	02 54 03.5	+0.2
RCDM				*i* S	S	02 54 12.4	+0.3
RCDM				AMP		02 54 13.1	
	comp=N,10µm,0.1s						
ANTU	**Antumapu**	0.42	48	⇑*i*P	P	02 54 03.6	+0.1
ANTU				*i* S	S	02 54 13.2	+0.7
ANTU				AMP		02 54 13.9	
	comp=N,7µm,0.3s						
CACH	**El Canelo**	0.43	129	⇑*i*P	P	02 54 04.1	+0.5
CACH				*i* S	S	02 54 14.2	+1.5
PCH	**Pirque**	0.47	61	⇓*i*P	P	02 54 04.1	+0.2
PCH				*i* S	S	02 54 13.8	+0.6
SAN	**Santiago**	0.49	36	*e*P	P	02 54 04.5	+0.4
SAN				*i* S	S	02 54 14.1	+0.6
STL	**Santa Lucia**	0.51	37	⇓*i*P	P	02 54 04.5	+0.1
STL				*i* S	S	02 54 14.5	+0.6
STL				AMP		02 54 16.0	
	comp=N,3µm,0.2s						
FSR	**Penalolen**	0.54	47	⇑*i*P	P	02 54 04.8	+0.1
FSR				*i* S	S	02 54 15.2	+0.6
FSR				AMP		02 54 17.1	
	comp=E,7µm,0.1s						
DSCH	**Colegio Aleman**	0.58	39	⇓*i*P	P	02 54 05.4	+0.3
DSCH				*i* S	S	02 54 16.0	+0.9
DSCH				AMP		02 54 16.3	
	comp=N,9µm,0.3s						
SJCH	**San Jose de Ma**	0.58	69	*i* P	P	02 54 04.4	-0.8
SJCH				*i* S	S	02 54 14.9	-0.3
SJCH				AMP		02 54 16.5	
	comp=E,2µm,0.1s						
CLCH	**Cerro Calan**	0.60	41	⇑*i*P	P	02 54 05.5	+0.2
CLCH				*i* S	S	02 54 16.1	+0.6
CLCH				AMP		02 54 17.1	
	comp=N,4µm,0.3s						
CLCH				AMP		02 54 17.6	
	comp=N,5µm,0.3s						
LCCH	**Las Cruces**	0.60	308	⇓*i*P	P	02 54 05.3	-0.1
LCCH				*i* S	S	02 54 15.4	-0.1
LMEL	**Las Melosas**	0.67	90	⇑*i*P	P	02 54 06.6	+0.6
LMEL				*i* S	S	02 54 18.2	+1.2
LMEL				AMP		02 54 18.6	
	comp=N,31µm,0.2s						
PEL	**Peldehue**	0.75	21	⇑*i*P	P	02 54 07.5	+0.5
PEL				*i* S	S	02 54 19.4	+0.8
PEL				AMP		02 54 20.0	
	comp=N,8µm,0.1s						
SFDO	**San Fernando**	0.77	181	⇑*i*P	P	02 54 07.3	+0.1
SFDO				*i* S	S	02 54 19.6	+0.7
FCH	**Farellones**	0.79	49	⇓*i*P	P	02 54 07.9	+0.4
FCH				*i* S	S	02 54 20.6	+1.2
FCH				AMP		02 54 22.5	
	comp=N,7µm,0.2s						
ROCH	**El Roble**	0.87	360	⇓*i*P	P	02 54 08.9	+0.5
ROCH				*i* S	S	02 54 22.2	+1.0
IHA	**Instituto Hidr**	0.98	327	⇑*i*P	P	02 54 10.2	+0.4
IHA				*e*S	S	02 54 23.4	-0.1
JACH	**Jahuel**	1.21	17	⇑*i*P	P	02 54 12.8	-0.1
JACH				*i* S	S	02 54 29.5	+0.5
PACH	**Papudo**	1.36	344	⇑*i*P	P	02 54 15.3	+0.3
PACH				*i* S	S	02 54 32.3	-0.1
TALC	**Talca**	1.63	198	*i* P	P	02 54 20.0	+1.4
TALC				*i* S	S	02 54 40.4	+1.7
CMCH	**Combarbala**	2.67	0	*e*P	P	02 54 32.6	-0.5
CMCH				AMP		02 55 13.7	
	comp=E,2µm,0.5s						

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*NEIC **03** 03:20:55.0, 35.84N×22.73E, h43^{km}, MD3.6(ATH), After ATH.*

*CSEM **03** 03:20:55.0, 35.84N×22.73E, h43^{km}, MD3.6/10, After ATH*

ATH 03 03:20:55.0, 35.84N×**22.73E, h43**^{km}±5^{km}, **MD3.6**/10, **1C-1D, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KYTH	**Kithira**	0.51	29	⇓*i*P	P	03 21 06.5	+0.6
VLI	**Veliai**	0.89	11	⇑*i*P	P	03 21 12.9	+1.7
VAM	**Vamos**	1.27	109	*e*P	P	03 21 18.3	+1.6
ITM	**Ithomi**	1.48	334	*e*P	P	03 21 19.8	+0.1
PTL	**Penteli**	2.38	22	*e*P	P	03 21 33.1	+0.6
RLS	**Riolos of Patr**	2.43	336	*e*P	P	03 21 33.7	+0.5
MPAR	**Parnis Oros**	2.44	19	*e*P	P	03 21 35.0	+1.7
APE	**Apeiranthos**	2.57	61	*e*P	P	03 21 35.2	+0.1
LKR	**Lokris**	2.81	4	*e*P	P	03 21 38.7	+0.1
EVR	**Evrytania**	3.16	347	*e*P	P	03 21 45.4	+1.9
NEO	**Neokhori**	3.48	6	*e*P	P	03 21 48.3	+0.2
KARP	**Karpathos**	3.62	93	*e*P	P	03 21 49.9	-0.1
ARG	**Arkhangelos**	4.39	84	*e*P	P	03 22 01.7	+0.8

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*IDC **03** 03:22:13.6±4.1, 35.31N×71.11E, mb3.8/6, mb1 3.9/7, mb1mx3.6/20, ML3.6/1, Error ellipse: s-maj=80.9km s-min=48.7km az=173.0*

ISC 03 03:22:33.1±2.4, **36.3N**±0.1×**71.0E**±0.3, **h122**^{km}±20^{km}, **n19, σ0^{s}66**/20, **mb3.7**/5, **Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AML	**Almayashu**	6.21	19	P	P	03 24 03.4	-0.1
	SNR=145						
UCH	**Uchtor**	6.54	24	P	P	03 24 08.1	0.0
	SNR=20						
KZA	**Kyzart**	6.67	29	P	P	03 24 09.3	-0.5
	SNR=24						
EKS2	**Erkin-Say**	6.72	18	P	P	03 24 10.3	-0.3
	SNR=12						
AAK	**Ala-Archa**	6.90	22	P	P	03 24 13.0	0.0
	SNR=15						
SDNR	**Sundarnagar**	6.90	132	*e*P	P	03 24 12.8	-0.2
	222nm,0.2s						
SDNR				*e*S	S	03 25 24.0	-6.6
KBK	**Karagaybulak**	7.07	25	P	P	03 24 15.9	+0.7
	SNR=6.0						
ULHL	**Ulahol**	7.22	33	P	P	03 24 17.0	-0.3
	SNR=6.0						
CHMS	**Chumysh**	7.31	22	P	P	03 24 19.0	+0.5
	SNR=12						
USP	**Ospenovka**	7.48	20	P	P	03 24 20.3	-0.6
	SNR=7.0						
TKM2	**Tokmak 2**	7.53	27	P	P	03 24 24.6	+3.1
	SNR=23						
BVAR	**Borovoye Array**	16.74	359	P	P	03 26 21.5	+0.2
	0.2nm,0.3s,baz=164,slow=10,SNR=8.0						
ZAL	**Zalesovo**	20.10	24	P	P	03 26 58.0	-0.9
	1.4nm,0.5s,baz=252,slow=7.8,SNR=3.8						
FINES	**FINESS Array B**	37.65	326	P	P	03 29 37.7	+0.2
	0.8nm,0.4s,mb3.9,baz=112,slow=10,SNR=6.8						
ARCES	**ARCESS Array B**	41.33	338	P	P	03 30 08.2	+0.4
	6.5nm,1.2s,mb4.3,baz=104,slow=7.4,SNR=9.0						
NOA	**NORSAR Array B**	44.54	323	P	P	03 30 33.1	-0.7
	0.3nm,0.6s,mb3.2,baz=112,slow=8.9,SNR=2.9						
INK	**Inuvik**	74.12	9	P	P	03 33 57.0	0.0
	0.7nm,0.6s,mb3.6,baz=333,slow=2.7,SNR=5.9						
YKA	**Yellowknife Ar**	81.46	3	P	P	03 34 37.4	0.0
	0.2nm,0.4s,mb3.3,baz=349,slow=5.3,SNR=5.3						
WB2	**Warramunga Arr**	81.91	122	*e*P	P	03 34 41.2	+0.6
WB2				*i*		03 34 48.9	

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*LDG **03** 03:46:38.9±0.4, 10.60N×61.67W, h10^{km}, Mb5.2/39, Ms4.6/7, Error ellipse: s-maj=49.3km s-min=8.0km az=112.0*

*MOS **03** 03:46:44.4±0.9, 10.63N×61.35W, h33^{km}, mb5.1/18, Error ellipse: s-maj=17.5km s-min=9.0km az=65.6*

*IDC **03** 03:46:46.2±0.5, 10.64N×61.42W, h38^{km}±4^{km}, mb4.6/16, mb1 4.9/17, mb1mx4.8/20, ML6.2/1, MS4.9/13, Ms1 4.9/13, ms1mx4.8/21, Error ellipse: s-maj=16.1km s-min=12.4km az=91.0*

*NEIC **03** 03:46:46.3±0.1, 10.57N×61.44W, mb5.1/139, MS5.1/115, Error ellipse: s-maj=3.6km s-min=2.3km az=190.0*

NEIC Felt [IV] at Port-of-Spain, San Fernando and Tunapuna; [III] at Chaguanas. Felt in much of Trinidad.

*BJI **03** 03:46:46.3, 10.60N×61.40W, h41^{km}, mB5.5, Ms5.4, Msz5.1*

*SYO **03** 03:46:46.3, 10.57N×61.45W, h42^{km}, MB5.1, MS5.1*

*HRVD **03** 03:46:46.3±0.2, 10.31N×61.02W, h25^{km}, MW5.3/58, Centroid moment Tensor Solution. LP body waves: s50,c87;Mantle waves: s58,c106; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.03±.03; $M_{\theta\theta}$0.62±.03; $M_{\phi\phi}$0.42±.03; $M_{r\theta}$-0.15±.06; $M_{\theta\phi}$1.02±.02; $M_{\phi r}$-0.14±.07; Best double couple: $M_0$1.3×10^{17} NP1: ϕ_s228°, δ40°, λ-90°. NP2: ϕ_s48°, δ50°, λ-90°. Principal axes: T 1.56, Plg5°, Azm138°; N -.51, Plg0°, Azm228°; P -1.05, Plg85°, Azm318°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*TRN **03** 03:46:46.3, 10.43N×61.03W, h34^{km}, MD5.1*

ISC 03 03:46:44.2±0.2, **10.54N**±0.03×**61.46W**±0.02, **h41**^{km}, **h41**^{km}±.4^{km}**:pP-P, n438, σ0^{s}80**/342, **mb5.0**/157, **MS5.0**/136, **9C-37D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TRN	**Trinidad (W)**	0.12	27	⇑*i*P	P	03 46 54.5	+3.6
TRN				*e*S	S	03 47 03.7	+8.1
TPP	**Pointe-a-Pierr**	0.22	179	⇑*i*P	P	03 46 56.4	+4.6
TBH	**Brigand Hill**	0.39	99	⇑*i*P	P	03 46 51.9	-1.6
TBH				*e*S	S	03 46 56.5	-3.5
TPR	**Prospect**	0.92	46	⇑*e*P	P	03 47 01.0	+0.1
BOT	**Bacolet**	0.95	49	*e*P	P	03 47 01.4	+0.1
BOT				*e*S	S	03 47 12.4	-1.5
GRW	**Mount Saint Ca**	1.62	353	⇑*i*P	P	03 47 15.2	+4.5
SVB	**Belmont**	2.72	4	*e*P	P	03 47 28.9	+2.4
SVV	**Soufriere Volc**	2.77	5	*e*P	P	03 47 30.7	+3.6
BBSP	**Saint Philip**	3.21	37	*e*P	P	03 47 34.4	+0.9
BIM	**Bigot**	3.97	5	*e*P	P	03 47 46.1	+1.9
MVM	**Montagne Vaucl**	4.03	8	*e*P	P	03 47 46.4	+1.4
FDF	**Fort de France**	4.18	4	⇑*e*P	P	03 47 49.0	+1.9
CRM	**Caravelle**	4.22	7	*e*P	P	03 47 48.9	+1.1
STAT	**Sint Eustatius**	7.07	348	*e*P	P	03 48 32.9	+5.2
STMA	**St. Maarten, A**	7.63	348	*e*P	P	03 48 39.6	+4.1
SJG	**San Juan**	8.79	329	Pn	P	03 48 51.0	-0.7
	4.8nm,0.3s,baz=156,slow=6.5,SNR=8.8						
SJG				Sn	S	03 50 26.9	-3.6
	14nm,0.3s,baz=16,slow=20,SNR=2.8						
SJG	**San Juan**	8.79	329	P	P	03 48 51.0	-0.6
SJG						03 50 26.9	
SJG				pmax	pmax		
	comp=Z,5.0nm,0.3s						
SJG	**San Juan**	8.79	329	*e*P	P	03 48 52.5	+0.8
	comp=Z,65nm,0.9s						
SDV	**Santo Domingo**	9.20	260	*e*P	P	03 48 57.3	+0.1
	comp=Z,235nm,0.8s						
SAML	**Samuel**	19.44	185	*e*P	P	03 51 09.4	-0.9
	comp=Z,7.5nm,1.1s						
OTAV	**Otavalo**	19.76	240	*e*P	P	03 51 17.1	+3.4
	comp=Z,140nm,1.1s						
BBSR	**BB Station**	21.93	353	PFAKE		03 51 50.0	+14
BBSR				LR	LR		
	comp=Z,3µm,22.0s,MS4.7						
JTS	**JuntasAbangare**	23.11	272	*e*P	P	03 51 51.1	+3.3
	comp=Z,24nm,1.4s,mb4.4						
JTS				LR	LR		
	comp=Z,645nm,20.0s,MS4.1						
DWPF	**Disney**	25.63	316	*e*P	P	03 52 12.3	+0.4
	comp=Z,63nm,0.9s,mb5.1						
DWPF				LR	LR		

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       comp=Z,836nm,22.0s,MS4.2
NNA    Nana               27.10 215  eP     P      03 52 26.2 +0.6
       comp=Z,28nm,1.0s,mb4.7
NNA                                  LR     LR
       comp=Z,810nm,20.0s,MS4.3
LPAZ   La Paz             27.46 194  P      P      03 52 30.5 +1.7
       comp=Z,2.8nm,0.6s,mb4.0,baz=12,slow=11,SNR=20
LPAZ                                 LR     LR     04 04 40.8
       comp=Z,5µm,18.4s,MS5.1,baz=10,slow=39
LPAZ   La Paz             27.46 194  P      P      03 52 30.5 +1.6
LPAZ                                 pmax   pmax
       comp=Z,3.0nm,0.6s
LPAZ                                 MLR    MLR
       comp=Z,5µm,18.4s
LPAZ   La Paz             27.46 194  eP     P      03 52 30.3 +1.4
       comp=Z,5.4nm,0.8s,mb4.1
LPAZ                                 LR     LR
       comp=Z,5µm,20.0s,MS5.1
NHSC   New Hope           28.30 325  eP     P      03 52 37.1 +0.9
       comp=Z,170nm,1.4s,mb5.5
NHSC                                 LR     LR
       comp=Z,3µm,20.0s,MS4.9
ARE    Arequipa           28.61 200  P      P      03 52 43.0 +3.9
COW    Cow Castle Cre     28.79 325  eP     P      03 52 40.3 -0.4
BDFB   Brasilia           29.22 153  P      P      03 52 44.1 -0.5
       comp=Z,19nm,0.7s,mb4.9,baz=331,slow=8.8,SNR=23
BDFB                                 LR     LR     04 05 12.8
       comp=Z,7µm,20.1s,MS5.3,baz=169,slow=38
BDFB   Brasilia           29.22 153  P      P      03 52 44.1 -0.5
BDFB                                 pmax   pmax
       comp=Z,19nm,0.7s
BDFB                                 MLR    MLR
       comp=Z,7µm,20.1s
BAO    Brasilia Array     29.23 153  eP     P      03 52 44.5 -0.2
BAO                                  e      pP     03 52 55.6 -0.1
BAO                                  e             03 53 12.5
BAO                                  e             03 53 21.5
BAO                                  e             03 56 36.4
BAO                                  e             03 57 11.9
RCBR   Riachuelo          30.20 121  PFAKE         03 53 10.0  +17
RCBR                                 LR     LR
       comp=Z,2µm,19.0s,MS4.7
PAYG   Puerto Ayora       30.76 251  PFAKE         03 53 10.0  +12
PAYG                                 LR     LR
       comp=Z,2µm,20.0s,MS4.7
CBN    Corbin             31.02 335  PFAKE         03 53 10.0  +10
CBN                                  LR     LR
       comp=Z,7µm,22.0s,MS5.3
BLA    Blacksburg         31.58 330  eP     P      03 53 04.3 -1.0
       comp=Z,64nm,1.5s,mb5.2
BLA                                  LR     LR
       comp=Z,4µm,20.0s,MS5.1
FWV    Forest Hill        32.06 330  eP     P      03 53 09.6 +0.1
LRAL   Lakeview Retre     32.44 318  eP     P      03 53 12.9  0.0
       comp=Z,24nm,0.8s,mb5.1
LRAL                                 LR     LR
       comp=Z,2µm,19.0s,MS4.9
CPCT   Cooper Cave        32.47 323  eP     P      03 53 13.8 +0.7
WES    Weston             32.87 346  eP     P      03 53 16.9 +0.4
       comp=Z,18nm,0.6s,mb5.2
WES                                  LR     LR
       comp=Z,2µm,22.0s,MS4.9
HRV    Harvard--Oak R     33.04 346  eP     P      03 53 18.6 +0.6
       comp=Z,15nm,0.8s,mb5.0
HRV                                  LR     LR
       comp=Z,3µm,22.0s,MS4.9
SWET   Sewanee            33.16 322  eP     P      03 53 19.2 +0.1
MCWV   Mont Chateau       33.29 334  eP     P      03 53 20.8 +0.6
       comp=Z,24nm,0.9s,mb5.1
MCWV                                 LR     LR
       comp=Z,4µm,22.0s,MS5.1
SSPA   Standing Stone     33.31 337  eP     P      03 53 20.2 -0.1
       comp=Z,36nm,1.3s,mb5.1
SSPA                                 LR     LR
       comp=Z,1µm,22.0s,MS4.6
LVC    Limon Verde        33.75 192  P      P      03 53 24.4 +0.1
       comp=Z,9.6nm,0.6s,mb4.9,baz=19,slow=9.0,SNR=19
LVC    Limon Verde        33.75 192  eP     P      03 53 24.1 -0.2
       comp=Z,13nm,0.6s,mb5.0
LVC                                  LR     LR
       comp=Z,5µm,20.0s,MS5.2
FFD    Franklin Falls     33.98 347  eP     P      03 53 26.6 +0.5
       comp=Z,56nm,0.7s,mb5.6
BINY   Binghamton         34.01 341  eP     P      03 53 27.3 +1.0
       comp=Z,12nm,0.7s,mb5.0
BINY                                 LR     LR
       comp=Z,6µm,22.0s,MS5.3
HNH    Hanover            34.35 346  eP     P      03 53 30.2 +0.9
       comp=Z,2.3nm,0.8s,mb4.2
EMMW   East Machias       34.44 352  PFAKE         03 53 40.0  +10
EMMW                                 LR     LR
       comp=Z,13µm,22.0s,MS5.6
WVL    Waterville         34.63 350  PFAKE         03 53 40.0 +8.4
WVL                                  LR     LR
       comp=Z,10µm,22.0s,MS5.5
WVT    Waverly            34.92 321  eP     P      03 53 33.9 -0.3
       comp=Z,72nm,0.9s,mb5.6
WVT                                  ePcP   PcP    03 56 06.1 -0.4
WVT                                  LR     LR
       comp=Z,2µm,21.0s,MS4.9
OXF    Oxford             34.93 317  eP     P      03 53 34.4 +0.1
       comp=Z,46nm,0.8s,mb5.5
OXF                                  ePcP   PcP    03 56 06.4 -0.1
OXF                                  LR     LR
       comp=Z,2µm,21.0s,MS4.8
NCB    Newcomb            35.09 344  eP     P      03 53 36.7 +1.1
       comp=Z,34nm,1.1s,mb5.2
NCB                                  LR     LR
       comp=Z,3µm,20.0s,MS5.0
ACSO   Alum Creek Sta     35.19 331  PFAKE         03 53 50.0  +14
ACSO                                 LR     LR
       comp=Z,3µm,20.0s,MS5.1
ERPA   Erie               35.40 336  P      P      03 53 37.8 -0.5
       comp=Z,15nm,0.3s,mb5.4
ERPA                                 LR     LR
       comp=Z,5µm,22.0s,MS5.2
WCI    Wyandotte Cave     35.43 325  eP     P      03 53 38.9 +0.4
       comp=Z,57nm,1.0s,mb5.5
WCI                                  LR     LR
       comp=Z,495nm,21.0s,MS4.2
UTMT   University of      35.70 320  eP     P      03 53 41.8 +1.0
USIN   University of      36.03 324  eP     P      03 53 43.9 +0.3
       comp=Z,94nm,1.0s,mb5.7
BLO    Bloomington        36.22 326  eP     P      03 53 46.1 +0.9
       comp=Z,30nm,0.6s,mb5.4
PARMO  Parma              36.46 320  eP     P      03 53 47.7 +0.5
PARMO                                epP    pP     03 53 57.8 -0.8
PARMO                                esP    sP     03 54 03.9 +0.3
UALR   University of      37.07 315  eP     P      03 53 52.3 -0.1
       comp=Z,9.5nm,0.6s,mb4.8
AAM    Ann Arbor          37.12 332  eP     P      03 53 53.7 +0.9
       comp=Z,26nm,0.6s,mb5.2
AAM                                  LR     LR
       comp=Z,4µm,22.0s,MS5.1
HKT    Hockley            37.38 306  eP     P      03 53 54.8 -0.3
       comp=Z,113nm,1.6s,mb5.5
HKT                                  pP     pP     03 54 07.5 +1.2
HKT                                  LR     LR
       comp=Z,796nm,20.0s,MS4.5
CAM4   Nova Friburgo      37.58 151⇓iP     P      03 53 57.2 +0.4
CAM4                                 i             03 53 59.8
CAM4                                 i      pP     03 54 07.8 -0.3
CAM4                                 i             03 54 13.8
CAM4                                 i             03 54 22.2
CAM4   Nova Friburgo      37.58 151⇓iP     P      03 53 57.2 +0.4
CAM4                                 i      pP     03 54 07.8 -0.3
CAM4                                 i             03 54 13.8
CAM4                                 i             03 54 22.2
FVM    French Village     37.70 321  eP     P      03 53 57.8 +0.1
       comp=Z,24nm,0.6s,mb5.1
FVM                                  ePcP   PcP    03 56 14.9 +0.1
MIAR   Mount Ida          37.81 314  eP     P      03 53 58.1 -0.5
       comp=Z,6.0nm,0.8s,mb4.4
MIAR                                 pP     pP     03 54 09.9  0.0
MIAR                                 ePcP   PcP    03 56 15.7 +0.5
MIAR                                 LR     LR
       comp=Z,3µm,20.0s,MS5.2
CCM    Cathedral Cave     38.25 321  eP     P      03 54 01.9 -0.3
       comp=Z,25nm,0.6s,mb5.1
CCM                                  epP    pP     03 54 13.0 -0.6
CCM                                  ePcP   PcP    03 56 16.9 +0.4
CCM                                  LR     LR
       comp=Z,429nm,20.0s,MS4.3
JCT    Junction City      40.75 305  eP     P      03 54 23.1  0.0
       comp=Z,54nm,0.9s,mb5.2
JCT                                  pP     pP     03 54 33.4 -1.1
JCT                                  LR     LR
       comp=Z,2µm,22.0s,MS4.9
JFWS   Jewell Farm        40.85 327  eP     P      03 54 24.7 +0.9
       comp=Z,13nm,0.7s,mb4.7
JFWS                                 LR     LR
       comp=Z,3µm,20.0s,MS5.2
WMOK   Wichita Mounta     41.66 311  eP     P      03 54 29.3 -1.2
       comp=Z,12nm,0.9s,mb4.5
WMOK                                 LR     LR
       comp=Z,4µm,21.0s,MS5.2
KSU1   Kansas State U     42.29 318  eP     P      03 54 34.2 -1.4
KSU1                                 ePcP   PcP    03 56 29.1 -0.5
LTX    Lajitas            43.57 302  eP     P      03 54 46.7 +0.4
       comp=Z,23nm,1.1s,mb4.8
LTX                                  epP    pP     03 54 57.3 -0.3
LTX                                  ePcP   PcP    03 56 35.3 +1.4
LTX                                  LR     LR
       comp=Z,1µm,22.0s,MS4.8
TXAR   Lajitas Array      43.57 302  P      P      03 54 46.4 +0.2
       comp=Z,8.2nm,0.7s,mb4.6,baz=109,slow=6.3,SNR=57
TXAR                                 PcP    PcP    03 56 35.1 +1.2
       comp=Z,5.0nm,0.6s,baz=118,slow=6.1,SNR=7.2
TXAR                                 ScP           04 00 24.6
       comp=Z,3.1nm,1.0s,baz=124,slow=4.5,SNR=7.8
TXAR                                 LR     LR     04 17 04.2
       comp=Z,863nm,19.9s,MS4.7,baz=75,slow=42
TXAR   Lajitas Array      43.57 302  P      P      03 54 46.4 +0.2
TXAR                                 PcP    PcP    03 56 35.1 +1.2
TXAR                                 ScP           04 00 24.6
TXAR                                 LR     LR     04 17 04.2
AMTX   Amarillo           43.88 310  eP     P      03 54 48.1 -0.6
       comp=Z,21nm,1.0s,mb4.8
AMTX                                 LR     LR
       comp=Z,3µm,20.0s,MS5.1
SCHQ   Schefferville      44.38 356  P      P      03 54 53.3 +0.9
       comp=Z,48nm,0.8s,mb5.3,baz=172,slow=6.8,SNR=48
SCHQ                                 LR     LR     04 11 52.0
       comp=Z,1µm,22.0s,MS4.9,baz=181,slow=34
CLNB   Carlsbad           44.64 306  eP     P      03 54 54.4 -0.4
CPRX   Cap Rock           44.88 307  eP     P      03 54 56.5 -0.2
GDL2   Guadalupe Moun     45.01 305  eP     P      03 54 58.2 +0.5
EYMN   Ely                45.02 332  eP     P      03 54 56.7 -0.9
       comp=Z,16nm,0.8s,mb4.9
EYMN                                 LR     LR
       comp=Z,3µm,22.0s,MS5.2
BNM    Barren Site        47.43 307  eP     P      03 55 17.8 +0.9
LPM    Los Pinos Moun     47.48 307  eP     P      03 55 18.2 +0.8
ANMO   Albuquerque        47.56 308  eP     P      03 55 18.7 +0.8
       comp=Z,35nm,1.0s,mb5.3
ANMO                                 LR     LR
       comp=Z,2µm,19.0s,MS5.1
LENM   Lemitar            47.71 307  eP     P      03 55 20.1 +1.0
SDCO   Great Sand Dun     47.85 312  eP     P      03 55 19.8 -0.3
       comp=Z,14nm,0.6s,mb5.2
SDCO                                 epP    pP     03 55 31.9 +0.3
SDCO                                 ePcP   PcP    03 56 48.7  0.0
SDCO                                 LR     LR
       comp=Z,4µm,19.0s,MS5.4
LAZ    Ladron             47.91 307  eP     P      03 55 21.8 +1.2
LAZ                                  epP    pP     03 55 33.6 +1.4
TRQA   Tornquist          48.34 181  eP     P      03 55 22.7 -1.2
       comp=Z,7.3nm,0.8s,mb4.8
TRQA                                 LR     LR
       comp=Z,3µm,20.0s,MS5.3
ULM    Lac du Bonnet      48.69 331  P      P      03 55 25.0 -1.4
       comp=Z,13nm,0.5s,mb5.2,baz=126,slow=7.8,SNR=19
ULM                                  LR     LR     04 15 10.3
       comp=Z,2µm,21.4s,MS5.1,baz=114,slow=35
ULM    Lac du Bonnet      48.69 331  P      P      03 55 25.0 -1.4
ULM                                  LR     LR     04 15 10.3
ISCO   Idaho Springs      48.75 314  eP     P      03 55 26.8 -0.2
       comp=Z,21nm,1.1s,mb5.1
ISCO                                 LR     LR
       comp=Z,3µm,20.0s,MS5.3
PV01   Paradox Valley     50.24 311  eP     P      03 55 39.2 +0.6
PV01                                 ePcP   PcP    03 56 58.5 +1.1
TUC    Tucson             50.25 303  eP     P      03 55 39.0 +0.2
       comp=Z,16nm,1.0s,mb5.0
TUC                                  pP     pP     03 55 49.8 -0.5
TUC                                  LR     LR
       comp=Z,954nm,20.0s,MS4.8
PV10   Paradox Valley     50.67 311  eP     P      03 55 41.4 -0.5
NRS    Narsarsuaq         51.89  10  i P    P      03 55 50.7 +0.1
DGMT   Dagmar             51.95 325  eP     P      03 55 51.0 -0.3
       comp=Z,59nm,0.8s,mb5.6
DGMT                                 LR     LR
       comp=Z,2µm,19.0s,MS5.2
SRU    San Rafael         52.02 312  eP     P      03 55 51.9  0.0
LAO    LASA Array         52.23 322  eP     P      03 55 53.2 -0.2
       comp=Z,56nm,0.8s,mb5.5
LAO                                  LR     LR
       comp=Z,2µm,20.0s,MS5.1
TMUT   Trail Mountain     52.58 312  eP     P      03 55 56.5 +0.3
TMUT                                 epP    pP     03 56 08.2 +0.5
BW06   Boulder Array      52.66 316  eP     P      03 55 55.9 -0.8
       comp=Z,36nm,0.9s,mb5.3
BW06                                 epP    pP     03 56 08.5 +0.2
BW06                                 LR     LR
       comp=Z,3µm,22.0s,MS5.2
PDAR   Pinedale Array     52.66 316  P      P      03 55 55.9 -0.8
       comp=Z,23nm,0.7s,mb5.2,baz=118,slow=7.9,SNR=100
PDAR                                 ScP           04 01 00.1
       comp=Z,2.3nm,0.7s,baz=114,slow=6.5,SNR=6.3
PDAR                                 LR     LR     04 20 27.0
       comp=Z,1µm,20.6s,MS4.9,baz=113,slow=38
DAU    Daniels Canyon     52.98 313  eP     P      03 55 59.6 +0.5
DAU                                  epP    pP     03 56 12.3 +1.5
MSU    Marysvale          53.05 311  eP     P      03 55 59.9 +0.2
MVU    Marysvale          53.07 311  eP     P      03 55 60.0 +0.1
       comp=Z,20nm,1.1s,mb5.0
MVU                                  LR     LR
       comp=Z,3µm,19.0s,MS5.4
MPU    Maple Canyon       53.12 312  eP     P      03 55 59.7 -0.5
JLU    Jordanelle         53.19 313  eP     P      03 56 00.9 +0.2
JLU                                  epP    pP     03 56 14.0 +1.7
TCUT   Toone Canyon       53.34 314  eP     P      03 56 01.1 -0.6
NLU    North Lily Min     53.43 312  eP     P      03 56 02.2 -0.3
HWUT   Hardware Ranch     53.62 314  eP     P      03 56 03.1 -0.8
       comp=Z,30nm,0.9s,mb5.2
HWUT                                 LR     LR
       comp=Z,2µm,20.0s,MS5.2
LOHW   Long Hollow        53.69 317  eP     P      03 56 03.5 -0.9
AHID   Auburn Hatcher     53.71 316  eP     P      03 56 03.8 -0.7
       comp=Z,34nm,0.8s,mb5.3
AHID                                 LR     LR
       comp=Z,2µm,22.0s,MS5.2
SNOW   Snow King Moun     53.73 317  eP     P      03 56 04.5 -0.1
WUWY   Wally Ulrich       53.76 317  eP     P      03 56 04.0 -0.8
REDW   Red Top Meadow     53.76 317  eP     P      03 56 04.4 -0.5
REDW                                 epP    pP     03 56 17.2 +0.7
ARUT   Antelope Range     53.79 309  eP     P      03 56 05.4 +0.2
MOOW   Moose Ponds        53.84 317  eP     P      03 56 05.3 -0.1
TPAW   Teton Pass         53.88 317  eP     P      03 56 05.1 -0.7
LKWY   Lake               53.93 318  PFAKE         03 56 20.0  +14
LKWY                                 LR     LR
       comp=Z,3µm,20.0s,MS5.3
IMW    Indian Meadow      54.02 317  eP     P      03 56 05.9 -0.9
FCC    Fort Churchill     54.08 340  eP     P      03 56 05.5 -1.4
       comp=Z,25nm,0.6s,mb5.3
SPUT   South Promonto     54.14 314  eP     P      03 56 06.9 -0.7
YFT    Old Faithful       54.17 318  eP     P      03 56 09.0 +1.1
NEN    Nelson             54.33 306  eP     P      03 56 09.8 +0.6
NEN                                  epP    pP     03 56 21.4 +0.5
YMR    Madison River      54.34 318  eP     P      03 56 09.4 +0.3
BGU    Big Grassy Mou     54.43 313  eP     P      03 56 09.5 -0.3
BGU                                  epP    pP     03 56 22.0 +0.5
FFC    Flin Flon          54.43 332  eP     P      03 56 07.7 -1.9
       comp=Z,9.8nm,0.6s,mb4.9
HVU    Hansel Valley      54.53 314  eP     P      03 56 09.5 -1.0
QLMT   Earthquake Lak     54.71 318  eP     P      03 56 12.3 +0.6
QLMT                                 epP    pP     03 56 24.3 +0.8
PTOM   Tomar              55.10  49  eP     P      03 56 13.5 -1.2
PTOM                                 epP    pP     03 56 26.7 +0.2
BOZ    Bozeman (W)        55.16 319  eP     P      03 56 14.5 -0.5
       comp=Z,29nm,0.9s,mb5.3
BOZ                                  epP    pP     03 56 25.7 -1.0
BOZ                                  LR     LR
       comp=Z,2µm,22.0s,MS5.0
PFO    Pinyon Flat Ob     55.19 304  eP     P      03 56 15.3 -0.1
       comp=Z,5.8nm,1.0s,mb4.6
PFO                                  LR     LR
       comp=Z,184nm,21.0s,MS4.1
BAR    Barrett            55.20 302  eP     P      03 56 14.8 -0.6
MCMT   McKenzie Canyo     55.64 318  eP     P      03 56 18.7 +0.2
HRY    Holter Researc     55.70 320  eP     P      03 56 18.6 -0.3
HRY                                  epP    pP     03 56 30.9 +0.2
TPNV   Topopah Spring     55.74 308  eP     P      03 56 20.0 +0.6
       comp=Z,35nm,0.9s,mb5.4
TPNV                                 LR     LR
       comp=Z,1µm,20.0s,MS5.0
PVIS   Viseu              55.80  48  epP    pP     03 56 31.6 +0.1
PCBR   Castelo Branco     55.86  49  eP     P      03 56 19.9 -0.3
PCBR                                 epP    pP     03 56 31.8 -0.1
MTE    Manteigas          55.97  48  epP    pP     03 56 33.1 +0.4
ELK    Elko               55.97 312  eP     P      03 56 20.6 -0.4
       comp=Z,12nm,0.8s,mb5.0
ELK                                  epP    pP     03 56 32.7  0.0
ELK                                  esP    sP     03 56 37.8 +0.3
ELK                                  LR     LR
       comp=Z,3µm,21.0s,MS5.4
DBIC   Dimbokro           56.04  89  eP     P      03 56 19.1 -2.7
       comp=Z,15nm,1.0s,mb5.0
DBIC                                 LR     LR
       comp=Z,439nm,19.0s,MS4.6
PVRL   Vila Real          56.09  47  epP    pP     03 56 33.0 -0.6
HLID   Hailey             56.26 316  eP     P      03 56 22.6 -0.4
       comp=Z,37nm,0.9s,mb5.4
HLID                                 epP    pP     03 56 35.7 +0.9
HLID                                 LR     LR
       comp=Z,2µm,21.0s,MS5.1
DAC    Darwin (Calif)     56.64 307  eP     P      03 56 25.9 +0.1
DAC                                  LR     LR
       comp=Z,1µm,20.0s,MS5.0
TPH    Tonopah            56.75 309  eP     P      03 56 26.5 -0.1
       comp=Z,22nm,1.0s,mb5.1
TPH                                  epP    pP     03 56 38.2 -0.2
TPH                                  LR     LR
       comp=Z,2µm,21.0s,MS5.1
MSO    Missoula           57.09 320  eP     P      03 56 28.0 -0.9
       comp=Z,7.4nm,0.9s,mb4.7
MSO                                  LR     LR
       comp=Z,1µm,21.0s,MS5.0
BMN    Battle Mountai     57.34 311  eP     P      03 56 30.6 -0.2
       comp=Z,16nm,0.6s,mb5.2
BMN                                  epP    pP     03 56 43.1 +0.6
BMN                                  LR     LR
       comp=Z,2µm,20.0s,MS5.2
MNV    Mina               57.55 309  eP     P      03 56 32.4 +0.1
       comp=Z,9.1nm,0.6s,mb5.0
MNV                                  LR     LR
       comp=Z,2µm,22.0s,MS5.2
MTUM   Tungsten Hills     57.63 308  eP     P      03 56 32.2 -0.7
NVAR   Mina Array Bea     57.66 309  P      P      03 56 33.0 -0.1
       comp=Z,10nm,0.7s,mb5.0,baz=100,slow=6.4,SNR=46
NVAR                                 LR     LR     04 22 55.1
       comp=Z,1µm,21.9s,MS5.0,baz=130,slow=38
OMM    Old Mammoth Mi     58.02 308  eP     P      03 56 36.3 +0.8
OMM                                  epP    pP     03 56 48.2 +0.9
ESDC   Sonseca Array      58.44  50  P      P      03 56 38.3 -0.2
       comp=Z,3.9nm,0.5s,mb4.7,baz=258,slow=7.8,SNR=47
BMO    Blue Mountains     58.64 316  eP     P      03 56 38.4 -1.3
       comp=Z,23nm,1.0s,mb5.2
BMO                                  LR     LR
       comp=Z,2µm,22.0s,MS5.3
WCN    Washoe City        58.96 310  eP     P      03 56 42.1  0.0
       comp=Z,6.4nm,0.9s,mb4.7
WCN                                  epP    pP     03 56 54.9 +1.0
CMB    Columbia Colle     59.19 308  eP     P      03 56 43.5 -0.2
       comp=Z,3.8nm,0.7s,mb4.5
CMB                                  LR     LR
       comp=Z,1µm,19.0s,MS5.1
EDM    Edmonton           59.33 327  eP     P      03 56 42.6 -1.8
BEKR   Beckwourth         59.54 310  eP     P      03 56 45.1 -1.0
       comp=Z,8.2nm,0.7s,mb4.9
NEW    Newport            59.61 320  eP     P      03 56 45.3 -1.2
       comp=Z,65nm,0.7s,mb5.8
NEW                                  epP    pP     03 56 57.8 -0.5
NEW                                  LR     LR
       comp=Z,2µm,22.0s,MS5.3
SAO    San Andreas Ge     59.78 306  PFAKE         03 57 00.0  +12
SAO                                  LR     LR
       comp=Z,2µm,20.0s,MS5.1
MOD    Modoc              59.95 312  eP     P      03 56 48.4 -0.5
       comp=Z,6.3nm,0.6s,mb4.8
MOD                                  LR     LR
       comp=Z,2µm,20.0s,MS5.3
OHCM   Honcut             60.28 309  eP     P      03 56 50.3 -0.9
OD2    Odessa Site #2     60.34 319  P      P      03 56 51.0 -0.5
LBCM   Butte Creek Ri     60.48 311  P      P      03 56 52.8 +0.2
HAWA   Hanford            60.59 318  eP     P      03 56 52.2 -0.9
       comp=Z,27nm,0.8s,mb5.4
HAWA                                 epP    pP     03 57 04.8 -0.2
HAWA                                 LR     LR
       comp=Z,2µm,20.0s,MS5.2
WAH2   Wahluke Slope      60.71 318  P      P      03 56 53.7 -0.3
EPH    Ephrata            60.91 319  P      P      03 56 54.8 -0.5
NSHM   Saint Helena R     60.99 308  eP     P      03 56 56.1 +0.1
QUIF   Quistinic          61.17  41  eP     P      03 56 57.4 +0.3
       comp=Z,24nm,0.6s,mb5.2
ROSF   Rostrenen          61.23  40  eP     P      03 56 57.3 -0.2
       comp=Z,19nm,0.6s,mb5.1
SJPF   Ste Jean           61.23  46  eP     P      03 56 57.6 +0.1
       comp=Z,61nm,1.3s,mb5.3
WDC    Whiskeytown Da     61.32 311  eP     P      03 56 55.4 -2.8
       comp=Z,5.4nm,0.7s,mb4.8
WDC                                  LR     LR
       comp=Z,2µm,21.0s,MS5.2
EBG    Ellensburg         61.42 318  P      P      03 56 59.1 +0.4
HOPS   Hopland            61.43 309  PFAKE         03 57 10.0  +11
HOPS                                 LR     LR
       comp=Z,2µm,20.0s,MS5.3
VFP    Flag Point         61.60 316  P      P      03 57 00.4 +0.4
ETSF   Etsaut             61.66  47  eP     P      03 57 00.7 +0.3
       comp=Z,41nm,1.1s,mb5.2
SGMF   Saint Gilles       61.66  41  eP     P      03 57 00.2 -0.2
YBH    Yreka Blue Hor     61.67 312  eP     P      03 56 59.0 -1.5
       comp=Z,11nm,0.8s,mb5.0
YBH                                  LR     LR
       comp=Z,2µm,20.0s,MS5.2
EFI    East Falkland      62.03 178  PFAKE         03 57 10.0 +7.2
EFI                                  LR     LR
       comp=Z,470nm,20.0s,MS4.7
HUMO   Hull Mountain      62.03 313  eP     P      03 57 01.1 -1.8
       comp=Z,6.2nm,0.8s,mb4.8
HUMO                                 LR     LR
       comp=Z,1µm,20.0s,MS5.1
EPF    Esparros           62.33  47  eP     P      03 57 05.3 +0.4
       comp=Z,33nm,0.8s,mb5.2
RPW    Rockport           62.46 319  P      P      03 57 04.5 -1.2
MELF   Melles             62.60  47⇓eP     P      03 57 07.5 +0.8
COR    Corvallis          62.70 315  eP     P      03 57 07.1 -0.3
       comp=Z,22nm,0.8s,mb5.3
COR                                  LR     LR
       comp=Z,443nm,21.0s,MS4.6
GRR    Gorron             62.79  41  eP     P      03 57 07.5 -0.4
       comp=Z,38nm,0.9s,mb5.2
MFF    Saint Martin d     62.80  43  eP     P      03 57 07.8 -0.2
       comp=Z,8.8nm,0.7s,mb4.7
KBO    Bosley Butte       62.87 312  eP     P      03 57 09.3 +0.8
KBO                                  epP    pP     03 57 21.3 +0.8
SALF   Salau              62.89  47⇓eP     P      03 57 09.4 +0.7
LFF    La Frestale        63.02  45  eP     P      03 57 09.2 -0.3
       comp=Z,40nm,0.8s,mb5.3
FLN    La Foliniere       63.13  40  eP     P      03 57 09.9 -0.3
       comp=Z,72nm,0.8s,mb5.5
FLN                                  eR
       comp=Z,1µm,22.5s
LDF    La Druitiere       63.31  41  eP     P      03 57 10.8 -0.6
       comp=Z,17nm,0.7s,mb5.0
SUMG   Summit             63.51   8  eP     P      03 57 13.5 +1.2
       comp=Z,64nm,1.0s,mb5.6
ESK    Eskdalemuir        63.58  33  eP     P      03 57 12.4 -0.7
       comp=Z,7.8nm,0.6s,mb4.9
ESK                                  LR     LR
       comp=Z,335nm,20.0s,MS4.5
RJF    Les Rejaudoux      63.63  45  eP     P      03 57 12.9 -0.6
       comp=Z,30nm,1.0s,mb5.0
RJF                                  eR
       comp=Z,999nm,20.0s
MTLF   Montolieu          63.74  47  eP     P      03 57 13.7 -0.6
       comp=Z,30nm,0.8s,mb5.1
PGC    Sidney             63.75 319  eP     P      03 57 13.3 -0.9
       comp=Z,99nm,0.7s,mb6.0
STW    Striped Peak       63.77 319  P      P      03 57 14.9 +0.6
CAF    Calviac            63.93  45  eP     P      03 57 15.1 -0.4
       comp=Z,50nm,0.7s,mb5.4
OCWA   Octopus Mounta     64.00 318  eP     P      03 57 16.6 +0.8
       comp=Z,32nm,0.6s,mb5.5
OCWA                                 LR     LR
       comp=Z,794nm,19.0s,MS4.9
YKA    Yellowknife Ar     64.23 336  P      P      03 57 15.1 -1.9
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	comp=Z,6.7nm,0.4s,mb5.1,baz=105,slow=7.2,SNR=117						
YKA				LR	LR	04 24 17.1	
	comp=Z,3µm,21.8s,MS5.4,baz=115,slow=35						
YKA	**Yellowknife Ar**	**64.23**	**336**	*i* P	**P**	**03 57 15.5**	**-1.6**
YKA				pmax	pmax		
	comp=Z,7.0nm,0.4s						
YKW3	**Yellowknife Ar**	**64.26**	**336**	*e*P	**P**	**03 57 15.6**	**-1.7**
TCF	**Toulx Ste Croi**	**64.31**	**44**	*e*P	**P**	**03 57 17.5**	**-0.4**
	comp=Z,25nm,0.7s,mb5.1						
VERF	**Verneugheol**	**64.39**	**44**⇓	*e*P	**P**	**03 57 18.4**	**0.0**
PYM	**Petit Puy Mans**	**64.75**	**44**⇓	*e*P	**P**	**03 57 21.6**	**+0.8**
SCO	**Scoresbysund**	**64.77**	**14**	*e*P	**P**	**03 57 26.5**	**+6.0**
SCO				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
SCO	**Scoresbysund**	**64.77**	**14**	*e*P	**P**	**03 57 26.5**	**+6.0**
	comp=Z,11nm,0.7s,mb5.0						
SCO	**Scoresbysund**	**64.77**	**14**	*i* P	**P**	**03 57 26.5**	**+6.0**
	comp=Z,11nm,0.7s,mb5.0						
BGF	**Bois d'Agland**	**64.80**	**43**	*e*P	**P**	**03 57 20.6**	**-0.5**
	comp=Z,42nm,0.9s,mb5.2						
HYF	**Humbligny**	**64.81**	**43**	*e*P	**P**	**03 57 20.9**	**-0.2**
LBL	**Lubilhac**	**64.81**	**45**⇓	*e*P	**P**	**03 57 22.2**	**+1.0**
LASF	**Ste Croix**	**65.04**	**46**	*e*P	**P**	**03 57 23.2**	**+0.5**
	comp=Z,21nm,0.9s,mb4.9						
AVF	**Avril sur Loir**	**65.19**	**43**	*e*P	**P**	**03 57 22.9**	**-0.7**
	comp=Z,30nm,0.9s,mb5.0						
PLDF	**La Plantade**	**65.21**	**44**⇓	*e*P	**P**	**03 57 24.3**	**+0.6**
MENF	**Mencas**	**65.24**	**39**⇓	*e*P	**P**	**03 57 22.7**	**-1.2**
SSF	**Saint Saulge**	**65.34**	**43**	*e*P	**P**	**03 57 23.8**	**-0.8**
	comp=Z,19nm,0.8s,mb4.9						
USHA	**Ushuaia**	**65.39**	**184**	LR	LR	04 30 11.0	
	comp=Z,755nm,18.0s,MS4.9,baz=352,slow=40						
SMF	**Signal de Mont**	**65.49**	**43**	*e*P	**P**	**03 57 25.0**	**-0.5**
	comp=Z,40nm,0.9s,mb5.2						
VIVF	**Saint-Julien-l**	**65.74**	**46**	*e*P	**P**	**03 57 27.5**	**+0.3**
	comp=Z,20nm,0.8s,mb4.9						
SMRF	**Simiane la Rot**	**66.25**	**47**	*e*P	**P**	**03 57 30.7**	**+0.3**
	comp=Z,80nm,1.2s,mb5.3						
BAIF	**Baives**	**66.41**	**40**	*e*P	**P**	**03 57 30.5**	**-0.8**
	comp=Z,12nm,0.6s,mb4.8						
ORIF	**Oris-en-Rattie**	**66.60**	**46**	*e*P	**P**	**03 57 33.1**	**+0.5**
	comp=Z,14nm,0.9s,mb4.7						
ORIF				*e*R			
	comp=Z,841nm,20.0s						
MEZF	**Maizieres J'vi**	**66.64**	**42**	*e*P	**P**	**03 57 32.3**	**-0.5**
	comp=Z,75nm,0.7s,mb5.5						
GIVF	**Givet**	**66.81**	**40**	*e*P	**P**	**03 57 33.3**	**-0.5**
	comp=Z,29nm,0.6s,mb5.2						
LMR	**La Mourre**	**66.83**	**47**	*e*P	**P**	**03 57 33.5**	**-0.6**
	comp=Z,20nm,0.7s,mb5.0						
RES	**Resolute Bay**	**66.84**	**351**	*e*P	**P**	**03 57 33.8**	**+0.1**
	comp=Z,16nm,0.8s,mb5.1						
RES				*e*pP	pP	03 57 46.0	+0.3
FRF	**La Foret Royal**	**66.96**	**47**	*e*P	**P**	**03 57 34.4**	**-0.5**
	comp=Z,38nm,0.7s,mb5.2						
CABF	**La Chapelle**	**67.01**	**44**	*e*P	**P**	**03 57 34.9**	**-0.2**
	comp=Z,41nm,0.8s,mb5.2						
MBDF	**Montbardon**	**67.20**	**46**	*e*P	**P**	**03 57 36.8**	**+0.4**
	comp=Z,13nm,0.6s,mb4.8						
THEF	**They Montfort**	**67.21**	**42**⇓	*e*P	**P**	**03 57 36.2**	**-0.1**
RSL	**Roselend**	**67.24**	**45**⇓	*e*P	**P**	**03 57 37.0**	**+0.4**
LPL	**La Plagne**	**67.28**	**45**	*e*P	**P**	**03 57 37.5**	**+0.6**
	comp=Z,28nm,0.8s,mb5.0						
LPG	**La Plagne**	**67.30**	**45**	*e*P	**P**	**03 57 37.7**	**+0.7**
	comp=Z,36nm,1.0s,mb5.0						
OG01	**Vacheresse**	**67.37**	**44**⇓	*e*P	**P**	**03 57 37.0**	**-0.4**
HAU	**Haudompre**	**67.41**	**42**	*e*P	**P**	**03 57 36.8**	**-0.8**
	comp=Z,11nm,0.7s,mb4.7						
HAU				*e*R			
	comp=Z,497nm,21.2s						
DOI	**San Damiano**	**67.51**	**46**	*e*P	**P**	**03 57 39.0**	**+0.7**
SBF	**Sospel**	**67.56**	**47**	*e*P	**P**	**03 57 38.4**	**-0.3**
	comp=Z,73nm,1.0s,mb5.3						
WLF	**Walferdange**	**67.57**	**41**	*e*P	**P**	**03 57 38.3**	**-0.3**
	comp=Z,17nm,0.8s,mb5.1						
WLF				*e*pP	pP	03 57 50.2	-0.4
HGN	**Heimansgroeve**	**67.63**	**39**	*e*P	**P**	**03 57 38.2**	**-0.8**
	comp=Z,24nm,0.9s,mb5.2						
HGN				*e*x	x	03 57 50.1	
HGN				*e*S	S	04 06 40.6	+9.0
HINF	**Hinteralfeld**	**67.71**	**43**	*e*P	**P**	**03 57 38.5**	**-1.0**
	comp=Z,23nm,0.6s,mb5.0						
MOF	**Molkenrain**	**67.91**	**43**⇓	*e*P	**P**	**03 57 39.7**	**-1.0**
ECH	**Echery**	**67.98**	**42**⇓	*e*P	**P**	**03 57 40.7**	**-0.5**
CDF	**Champ du Feu**	**68.09**	**42**	*e*P	**P**	**03 57 41.2**	**-0.7**
	comp=Z,17nm,0.7s,mb4.9						
BBS	**Basel-Blauen**	**68.10**	**43**⇓	*e*P	**P**	**03 57 41.0**	**-1.0**
WLS	**Welschbruch**	**68.14**	**42**⇓	*e*P	**P**	**03 57 41.8**	**-0.4**
MCGN	**Macugnaga**	**68.22**	**45**	*e*P	**P**	**03 57 43.5**	**+0.8**
WTSB	**Winterswijk**	**68.39**	**38**	*e*P	**P**	**03 57 43.5**	**-0.3**
WTSB				*e*x	x	03 57 54.7	
ABH	**Alteburg**	**68.50**	**40**⇓	*e*P	**P**	**03 57 44.2**	**-0.2**
LANF	**Langenberg**	**68.52**	**41**⇓	*e*P	**P**	**03 57 44.6**	**0.0**
PGF	**Pioggiola**	**68.56**	**48**	*e*P	**P**	**03 57 44.5**	**-0.4**
	comp=Z,31nm,0.9s,mb5.0						
VAI	**Varese**	**68.75**	**45**	*e*P	**P**	**03 57 45.5**	**-0.5**
BOB	**Bobbio (Coli)**	**69.10**	**46**	*e*P	**P**	**03 57 48.6**	**+0.4**
STU	**Stuttgart**	**69.40**	**42**	*e*P	**P**	**03 57 49.2**	**-0.7**
	comp=Z,31nm,0.7s,mb5.3						
DAVA	**Damuels**	**69.67**	**43**⇓	*i*P	**P**	**03 57 52.1**	**+0.4**
	comp=Z,25nm,0.8s,mb5.2						
DAVA				*i*	pP	03 58 04.2	+0.5
	comp=Z,51nm,1.0s						
PII	**Pisa**	**69.77**	**47**	*e*P	**P**	**03 57 51.8**	**-0.6**
BRMO	**Bormio**	**69.92**	**44**	*e*P	**P**	**03 57 53.4**	**+0.2**
DAG	**Danmarks Havn**	**69.94**	**10**⇓	*i*P	**P**	**03 57 53.8**	**+1.0**
DAG				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
DAG	**Danmarks Havn**	**69.94**	**10**⇓	*i*P	**P**	**03 57 53.8**	**+1.0**
	comp=Z,9.0nm,0.8s,mb4.8						
ZCCA	**Zocca**	**70.15**	**47**	*e*P	**P**	**03 57 54.9**	**+0.3**
CSNT	**Castellina Chi**	**70.31**	**48**	*e*P	**P**	**03 57 54.7**	**-0.9**
MOTA	**Moosalm**	**70.51**	**43**⇓	*i*P	**P**	**03 57 56.8**	**+0.1**
	comp=Z,13nm,0.7s,mb5.0						
MOTA				*i*	pP	03 58 09.4	+0.6
	comp=Z,14nm,0.8s						
CLZ	**Clausthal**	**70.56**	**39**	*e*P	**P**	**03 57 57.1**	**+0.1**
	comp=Z,11nm,0.8s,mb4.8						
CLZ				*e*pP	pP	03 58 09.2	+0.2
SQTA	**Sankt Quirin**	**70.57**	**44**⇓	*i*P	**P**	**03 57 57.2**	**+0.1**
	comp=Z,14nm,0.7s,mb5.0						
SQTA				*i*	pP	03 58 09.2	0.0
	comp=Z,40nm,1.0s						
MUD	**Monsted U'grnd**	**70.59**	**34**	*e*P	**P**	**03 58 04.0**	**+6.9**
	comp=Z,41nm,1.2s,mb5.2						
MUD	**Monsted U'grnd**	**70.59**	**34**	*i* P	**P**	**03 58 04.0**	**+6.9**
	comp=Z,41nm,1.2s,mb5.2						
PGD	**Poggio Sodo**	**70.65**	**47**	*e*P	**P**	**03 57 57.0**	**-0.6**
CTI	**Castel Tesino**	**70.76**	**45**	*e*P	**P**	**03 57 58.0**	**-0.3**
BSEG	**Bad Segeberg**	**70.83**	**36**	*e*P	**P**	**03 57 58.5**	**0.0**
BSEG				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
GRA1	**Grafenberg Arr**	**70.83**	**41**	*e*P	**P**	**03 57 58.6**	**-0.1**
	comp=Z,11nm,0.9s,mb4.8						
GRA1				*e*pP	pP	03 58 10.6	-0.1
GRA1				LR	LR		
	comp=Z,700nm,20.9s,MS4.9						
GRF	**Grafenberg Arr**	**70.83**	**41**	*e*P	**P**	**03 57 58.6**	**-0.1**
GRF				*e**PP	pP	03 58 10.6	-0.1
GRF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
WTTA	**Wattenberg**	**70.86**	**44**⇓	*i*P	**P**	**03 57 58.9**	**0.0**
	comp=Z,12nm,0.7s,mb4.9						
WTTA				*i*	pP	03 58 11.1	+0.2
	comp=Z,27nm,1.3s						
MOX	**Moxa**	**71.19**	**40**	*e*P	**P**	**03 58 00.0**	**-0.8**
MOX				L		04 26 17.0	
MNS	**Montasola**	**71.26**	**49**	*e*P	**P**	**03 58 01.3**	**-0.1**
FSSB	**Fossombrone**	**71.40**	**47**	*e*P	**P**	**03 58 01.2**	**-1.0**
KONO	**Kongsberg**	**71.41**	**30**	AMS	AMS	04 25 14.2	
	comp=Z,261nm,22.0s,MS4.5						
KONO	**Kongsberg**	**71.41**	**30**	PFAKE		03 58 10.0	+8.0
KONO				LR	LR		
	comp=Z,399nm,20.0s,MS4.7						
ARV	**Arcevia**	**71.51**	**48**	*e*P	**P**	**03 58 02.0**	**-0.9**
FVI	**Forni Avoltri**	**71.59**	**44**	*e*P	**P**	**03 58 03.2**	**0.0**
NKC	**Novy Kostel**	**71.67**	**41**	*e*P	**P**	**03 58 03.5**	**-0.2**
NKC				*e*pP	pP	03 58 15.4	-0.4
PTCC	**Patocco-Chiusa**	**71.97**	**45**	*e*P	**P**	**03 58 05.3**	**-0.2**
KBA	**Koelnbreinsper**	**72.01**	**44**⇓	*i*P	**P**	**03 58 05.7**	**0.0**
	comp=Z,19nm,1.3s,mb4.9						
KBA				*i*	pP	03 58 18.3	+0.5
	comp=Z,45nm,1.0s						
SDI	**San Donato**	**72.08**	**50**	*e*P	**P**	**03 58 06.2**	**-0.1**
CLL	**Collm**	**72.13**	**39**⇓	*i*P	**P**	**03 58 06.1**	**-0.2**
CLL				*i* *PP	pP	03 58 18.1	-0.3
CLL				*e*S	S	04 07 24.0	-0.4
CLL				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
CLL				MLR	MLR		
	comp=Z,700nm,21.2s,MS4.9						
CLL	**Collm**	**72.13**	**39**⇓	*i*P	**P**	**03 58 06.1**	**-0.2**
	comp=Z,9.0nm,1.0s,mb4.7						
CLL				*i* pP	pP	03 58 18.1	-0.3
CLL				*e*S	S	04 07 24.0	-0.4
CLL				LR	LR		
	comp=Z,700nm,21.2s,MS4.9						
CLL	**Collm**	**72.13**	**39**	⇓P	**P**	**03 58 06.1**	**-0.2**
	comp=Z,logA/T=1.0,mb4.7						
CLL				*i* *PP	pP	03 58 18.1	-0.3
CLL				*e*S	S	04 07 24.0	-0.4
CLL				*e*PS		04 07 48.0	
NAO01	**NORSAR Array S**	**72.27**	**29**	*e*P	**P**	**03 58 08.1**	**+1.0**
NAO01				*e*pP	pP	03 58 19.8	+0.7
COP	**Copenhagen**	**72.28**	**35**	*i* S		04 07 49.8	
	comp=Z,260nm,20.0s						
KHC	**Kasperske Hory**	**72.31**	**42**	*e*P	**P**	**03 58 07.0**	**-0.5**
KHC				*e*pP	pP	03 58 19.0	-0.5
VOY	**Vojsko**	**72.32**	**45**	*e*P	**P**	**03 58 07.8**	**+0.2**
VOY				*e*	pP	03 58 19.7	0.0
GEC2	**GERESS Array S**	**72.37**	**42**	*e*P	**P**	**03 58 07.7**	**-0.1**
GEC2				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
GEC2	**GERESS Array S**	**72.37**	**42**	*e*P	**P**	**03 58 07.7**	**-0.1**
	comp=Z,16nm,0.9s,mb5.0						
GERES	**GERESS Array B**	**72.37**	**42**	P	**P**	**03 58 07.4**	**-0.4**
	comp=Z,8.5nm,0.7s,mb4.8,baz=261,slow=5.0,SNR=81						
GERES				pP	pP	03 58 17.8	-2.1
	comp=Z,19nm,1.0s,baz=252,slow=4.2,SNR=15						
GERES	**GERESS Array B**	**72.37**	**42**	P	**P**	**03 58 07.4**	**-0.4**
GERES				*PP	pP	03 58 17.8	-2.1
GERES				pmax	pmax		
	comp=Z,9.0nm,0.7s						
SIT	**Sitka**	**72.45**	**327**	PFAKE		03 58 20.0	+12
SIT				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
NB2	**NORSAR Subarra**	**72.46**	**29**	P	**P**	**03 58 08.9**	**+0.7**
	comp=Z,1.7nm,0.8s,mb4.0,baz=259,slow=6.2						
NB2	**NORSAR Subarra**	**72.46**	**29**	P	**P**	**03 58 08.9**	**+0.7**
	baz=259,slow=6.5						
NOA	**NORSAR Array B**	**72.46**	**29**	P	**P**	**03 58 08.7**	**+0.5**
	comp=Z,8.3nm,0.9s,mb4.7,baz=261,slow=6.0,SNR=20						
NOA				pP	pP	03 58 19.6	-0.6
	comp=Z,26nm,0.9s,baz=259,slow=5.9,SNR=26						
NOA	**NORSAR Array B**	**72.46**	**29**	P	**P**	**03 58 08.7**	**+0.5**
NOA				*PP	pP	03 58 19.6	-0.6
NOA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MOA	**Molln**	**72.68**	**43**⇓	*i*P	**P**	**03 58 09.4**	**-0.3**
	comp=Z,10.0nm,0.7s,mb4.8						
MOA				*i*	pP	03 58 21.5	-0.3
	comp=Z,30nm,1.1s						
BRG	**Berggiesshubel**	**72.68**	**40**	*e*P	**P**	**03 58 09.6**	**-0.1**
BRG				*e*	pP	03 58 21.8	+0.1
BRG				*e*		03 58 28.1	
BRG				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
BRG				MLR	MLR		
	comp=N,440nm,17.6s,MS4.9						
BRG				MLR	MLR		
	comp=E,440nm,17.6s,MS4.9						
BRG				MLR	MLR		
	comp=Z,760nm,17.6s,MS5.0						
BRG	**Berggiesshubel**	**72.68**	**40**	*e*P	**P**	**03 58 09.6**	**-0.1**
	comp=Z,16nm,1.0s,mb4.9						
BRG				*e*	pP	03 58 21.8	+0.1
BRG				*e*		03 58 28.1	
BRG				*e*S		04 07 48.0	
BRG				*e*SS	SS	04 12 38.0	+25
BRG				LR	LR		
	comp=Z,760nm,17.6s,MS5.0						
LJU	**Ljubljana**	**72.76**	**45**	*i* P	**P**	**03 58 10.4**	**+0.2**
LJU				*i*	pP	03 58 22.3	-0.1
OBKA	**Obir**	**72.80**	**45**⇓	*i*P	**P**	**03 58 10.6**	**+0.1**
	comp=Z,14nm,0.8s,mb5.0						
OBKA				*i*	pP	03 58 22.6	+0.1
	comp=Z,20nm,1.0s						
PRU	**Pruhonice**	**73.00**	**41**	*e*P	**P**	**03 58 11.4**	**-0.2**
PRU				*e**PP	pP	03 58 23.4	-0.2
PRU				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
PRU	**Pruhonice**	**73.00**	**41**	*e*P	**P**	**03 58 11.4**	**-0.2**
	comp=Z,10nm,0.8s,mb4.8						
PRU				*e*pP	pP	03 58 23.4	-0.2
LEGS	**Legarje**	**73.31**	**45**	*e*P	**P**	**03 58 13.4**	**-0.1**
ARSA	**Arzberg**	**73.50**	**44**⇓	*i*P	**P**	**03 58 14.3**	**-0.3**
	comp=Z,6.8nm,0.6s,mb4.8						
ARSA				*i*	pP	03 58 26.2	-0.5
	comp=Z,13nm,0.9s						
INK	**Inuvik**	**73.66**	**338**	*e*P	**P**	**03 58 14.3**	**-0.8**
	comp=Z,29nm,1.1s,mb5.1						
UPC	**Upice**	**73.97**	**40**	*e*P	**P**	**03 58 17.4**	**+0.2**
UPC				*e*pP	pP	03 58 29.1	-0.2
DPC	**Dobruska-Polom**	**74.16**	**41**	*e*P	**P**	**03 58 18.4**	**+0.1**
DPC				*e*pP	pP	03 58 29.5	-0.9
KSP	**Ksiaz**	**74.17**	**40**	*e*P	**P**	**03 58 18.7**	**+0.4**
KSP				*e*pP	pP	03 58 30.1	-0.3
KSP				*e*S		04 08 09.5	
KSP				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
ZST	**Bratislava**	**74.60**	**43**	*e*P	**P**	**03 58 21.1**	**+0.2**
ZST				*e*pP	pP	03 58 33.0	0.0
MODS	**Modra-Piesok**	**74.72**	**43**	*e*P	**P**	**03 58 21.0**	**-0.6**
MODS				*e*pP	pP	03 58 32.4	-1.3
SMOL	**Smolenice**	**74.82**	**43**	*e*P	**P**	**03 58 22.5**	**+0.3**
SMOL				*e*pP	pP	03 58 34.1	-0.2
MORC	**Moravsky Berou**	**74.93**	**41**	*e*P	**P**	**03 58 23.3**	**+0.5**
	comp=Z,18nm,1.7s,mb4.7						
MORC				*e*pP	pP	03 58 34.9	0.0
PMSA	**Palmer Station**	**75.12**	**181**	*e*P	**P**	**03 58 24.4**	**+0.8**
	comp=Z,13nm,0.6s,mb5.0						
PMSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
OKC	**Ostrava-Krasne**	**75.32**	**41**	*e*P	**P**	**03 58 25.3**	**+0.3**
OKC				*e*pP	pP	03 58 37.3	+0.2
SRO	**Srobarova**	**75.40**	**43**	*e*P	**P**	**03 58 26.7**	**+1.2**
SRO				*e*	pP	03 58 36.6	-1.0
VYHS	**Vyhne**	**75.76**	**43**	*e*P	**P**	**03 58 27.8**	**+0.3**
VYHS				*e*pP	pP	03 58 39.1	-0.5
OJC	**Ojcow**	**76.39**	**41**	*e*P	pP	03 58 43.6	+0.4
PSZ	**Piszkesteto**	**76.47**	**43**	*e*P	**P**	**03 58 30.0**	**-1.6**
	comp=Z,9.5nm,0.9s,mb4.7						
PSZ				*e*	pP	03 58 43.7	0.0
TRO	**Tromso**	**76.83**	**21**	*e*P	**P**	**03 58 33.9**	**+0.6**
TRO				*e*pP	pP	03 58 46.1	+0.7
CRVS	**Cervenica-Dubn**	**77.49**	**42**	*e*P	sP	03 58 54.4	+0.5
CRVS	**Cervenica-Dubn**	**77.49**	**42**	*e*sP	sP	03 58 54.4	+0.5
SKO	**Skopje**	**77.77**	**49**	*e*P	**P**	**03 58 39.6**	**+0.6**
KOLS	**Kolonicke sedl**	**78.03**	**42**	*e*P	pP	03 58 52.6	+0.2
KOLS	**Kolonicke sedl**	**78.03**	**42**	*e*pP	pP	03 58 52.6	+0.2
DIV	**Divide**	**78.10**	**330**	PFAKE		03 58 50.0	+10
DIV				LR	LR		
	comp=Z,10µm,22.0s						
KWP	**Kalwaria**	**78.28**	**41**	*e*P	**P**	**03 58 43.0**	**+1.4**
	comp=Z,34nm,1.0s,mb5.2						
KWP				*e*pP	pP	03 58 54.8	+1.0
KWP	**Kalwaria**	**78.28**	**41**	*e*P	pP	03 58 55.2	+1.4
KTK1	**Kautokeino**	**78.33**	**21**	*e*P	**P**	**03 58 43.7**	**+2.2**
KTK1				*e*pP	pP	03 58 55.5	+1.8
SUW	**Suwalki**	**78.41**	**37**	P	**P**	**03 58 42.1**	**-0.2**
	comp=Z,22nm,1.0s,mb5.0						
SUW				*e*pP	pP	03 58 54.8	+0.4
SUW	**Suwalki**	**78.41**	**37**	*e*P	pP	03 58 55.4	+1.0
ILAR	**Eielson Array**	**78.59**	**334**	P	**P**	**03 58 42.8**	**-0.2**
	comp=Z,7.6nm,0.8s,mb4.7,baz=89,slow=4.4,SNR=88						
ILAR				LR	LR	04 33 17.0	
	comp=Z,2µm,21.9s,MS5.4,baz=111,slow=36						
ILAR	**Eielson Array**	**78.59**	**334**	P	**P**	**03 58 42.8**	**-0.2**
ILAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ILAR				MLR	MLR		
	comp=Z,2µm,21.9s						
COLA	**College**	**79.00**	**334**	*e*P	**P**	**03 58 45.8**	**+0.5**
COLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
ARCES	**ARCESS Array B**	**79.14**	**21**	P	**P**	**03 58 46.4**	**+0.4**
	comp=Z,13nm,0.7s,mb5.0,baz=270,slow=3.6,SNR=36						
ARCES				pP	pP	03 58 58.6	+0.5
	comp=Z,17nm,0.9s,baz=270,slow=6.1,SNR=6.3						
ARCES				LR	LR	04 30 44.5	
	comp=Z,166nm,19.3s,MS4.4,baz=204,slow=33						
ARE0	**ARCESS Array S**	**79.14**	**21**	*e*P	**P**	**03 58 46.5**	**+0.6**
MCK	**McKinley**	**79.51**	**333**	*e*P	**P**	**03 58 48.6**	**+0.6**
	comp=Z,4.8nm,1.0s,mb4.4						
MCK				*e*pP	pP	03 59 01.3	+1.0
MCK				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
FINES	**FINESS Array B**	**79.64**	**29**	P	**P**	**03 58 49.0**	**+0.1**
	comp=Z,3.7nm,0.7s,mb4.4,baz=250,slow=3.4,SNR=22						
FINES				pP	pP	03 59 00.9	-0.1
	comp=Z,12nm,0.9s,baz=225,slow=5.4,SNR=8.1						
FINES				LR	LR	04 30 17.7	
	comp=Z,156nm,19.9s,MS4.3,baz=110,slow=33						
KEV	**Kevo**	**79.65**	**21**	*e*p	pP	03 59 05.2	+4.3
KAF	**Kangasniemi**	**79.72**	**29**	*e*p	**P**	**03 58 49.8**	**+0.6**
VSU	**Vasula**	**80.16**	**32**⇓	*e*P	**P**	**03 58 52.0**	**+0.4**
FIB	**Fire Island**	**80.23**	**331**	PFAKE		03 59 00.0	+8.0
FIB				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
SLKM	**Skilak Lake**	**80.30**	**330**	*e*P	**P**	**03 58 53.8**	**+1.4**
IMA	**Indian Mountai**	**81.35**	**336**	*e*P	**P**	**03 58 59.1**	**+1.3**
RSO	**Redoubt South**	**81.56**	**330**	*e*P	**P**	**03 59 00.2**	**+1.3**
KDAK	**Kodiak Island**	**81.77**	**327**	PFAKE		03 59 10.0	+10
KDAK				LR	LR		
	comp=Z,467nm,21.0s,MS4.8						
JOF	**Joensuu**	**81.96**	**27**	*e*p	**P**	**03 59 03.8**	**+2.8**
	comp=Z,5.5nm,1.0s,mb4.4						
JOF	**Joensuu**	**81.96**	**27**	*e*P	**P**	**03 59 03.8**	**+2.8**
JOF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
AKASG	**Malin Array Be**	**82.36**	**40**	P	**P**	**03 59 03.1**	**-0.2**
	comp=Z,0.5nm,0.5s,baz=274,slow=4.2,SNR=4.9						
AKASG	**Malin Array Be**	**82.36**	**40**	P	**P**	**03 59 03.1**	**-0.2**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
OBN	**Obninsk**	**85.99**	**35***d*	*i*P	**P**	**03 59 22.6**	**+1.2**
OBN				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.5						
OBN	**Obninsk**	**85.99**	**35**	*e*P	**P**	**03 59 22.3**	**+0.9**
	comp=Z,17nm,0.6s,mb5.5						
OBN				*e*pP	pP	03 59 34.1	+0.3
OBN				LR	LR		
	comp=Z,118nm,22.0s,MS4.2						
TNA	**Tin City**	**87.17**	**336**	PFAKE		03 59 40.0	+13
TNA				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
BRTR	**Keskin Array B**	**87.23**	**50**	P	**P**	**03 59 28.1**	**+0.3**
	comp=Z,1.5nm,0.7s,mb4.3,baz=258,slow=4.2,SNR=8.1						
BRTR				pP	pP	03 59 40.6	+0.4
	comp=Z,2.9nm,0.9s,baz=237,slow=3.9,SNR=8.2						
BRTR	**Keskin Array B**	**87.23**	**50**	P	**P**	**03 59 28.2**	**+0.4**
BRTR				*PP	pP	03 59 40.6	+0.4
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
VRSR	**Storozhevoye**	**88.45**	**38**	*e*P	**P**	**03 59 34.3**	**+0.9**
VRSR				*e**PP	pP	03 59 46.5	+0.7
VRSR				*e*		04 09 53.5	
VRSR				*e*S	S	04 10 12.2	-1.8
VRSR				*e*SS	SS	04 16 03.4	-4.7
VRSR				*e*SSS	SSS	04 19 40.7	-0.4
VRSR				pmax	pmax		
	comp=N,5.0nm,0.5s						
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.3						
VRSR				pmax	pmax		
	comp=E,9.0nm,0.9s						
VRSR				smax			
	comp=N,120nm,5.3s						
VRSR				smax			
	comp=Z,180nm,3.9s						
VRSR				smax			
	comp=E,100nm,3.2s						
VNA1	**Neumayer--Stat**	**88.57**	**165**	*e*	pP	03 59 48.2	+2.3
VNA1	**Neumayer--Stat**	**88.57**	**165**⇓	*i*P	**P**	**03 59 36.1**	**+2.6**
VNA1				*e*	pP	03 59 48.2	+2.3
VNA1				*e*		04 03 04.0	
VNA3	**Neumayer Olymp**	**88.58**	**165**	*e*	pP	03 59 48.0	+2.0
VNA3	**Neumayer Olymp**	**88.58**	**165**⇓	*i*P	**P**	**03 59 35.9**	**+2.3**
VNA3				*e*	pP	03 59 48.0	+2.0
VNA3				*e*		04 03 04.2	
VNA2	**Neumayer--Watz**	**88.97**	**165**	*e*	pP	03 59 49.9	+2.0
VNA2	**Neumayer--Watz**	**88.97**	**165**⇑	*i*P	**P**	**03 59 37.9**	**+2.5**
VNA2				*e*	pP	03 59 49.9	+2.0
VNA2				*e*		04 03 06.0	
UNV	**Unalaska Valle**	**90.28**	**325**	PFAKE		03 59 50.0	+8.0
UNV				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
EIL	**Elat**	**90.34**	**60**	LR	LR	04 42 03.1	
	comp=Z,168nm,19.3s,MS4.5,baz=281,slow=37						
SNAA	**Sanae**	**90.60**	**164**	*e*	pP	03 59 56.0	+0.5
SNAA	**Sanae**	**90.60**	**164**⇓	*e*P	**P**	**03 59 44.0**	**+0.9**
SNAA	**Sanae**	**90.60**	**164**⇑	*i*P	**P**	**03 59 43.7**	**+0.6**
SNAA				*e*	pP	03 59 56.0	+0.5
SNAA				*e*		04 03 12.3	
SOC	**Sochi**	**90.78**	**45**	*e*P	**P**	**03 59 45.2**	**+0.6**
SOC				*e*		04 03 19.2	
SOC				*e*S	S	04 10 30.8	-4.7
SOC				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.7						
SOC				pmax	pmax		
	comp=N,16nm,0.6s						
SOC				pmax	pmax		
	comp=E,24nm,0.9s						
SOC				MLR	MLR		
	comp=Z,184nm,22.0s,MS4.5						
SOC				MLR	MLR		
	comp=N,196nm,24.0s,MS4.6						
SOC				MLR	MLR		
	comp=E,175nm,20.0s,MS4.6						
MALT	**Malatya**	**91.18**	**51**	*e*P	**P**	**03 59 47.6**	**+1.0**
	comp=E,2.3nm,0.8s,mb4.6						
LBTB	**Lobatse**	**91.75**	**115**	*e*P	**P**	**03 59 50.3**	**+0.7**
	comp=E,5.8nm,1.0s,mb4.9						
LBTB				*e*pP	pP	04 00 03.0	+1.0
LBTB				LR	LR		
	comp=Z,293nm,19.0s,MS4.8						
MBAR	**Mbarara**	**92.27**	**90**	PFAKE		04 00 00.0	+7.8
MBAR				LR	LR		
	comp=Z,96nm,20.0s,MS4.2						
TBI	**Tubuai**	**92.30**	**247**	*e*LR	LR	04 31 24.2	
	comp=Z,221nm,22.5s						
LSZ	**Lusaka**	**92.39**	**105**	*e*P	**P**	**03 59 53.7**	**+1.0**
	comp=Z,26nm,1.5s,mb5.3						
LSZ				*e*pP	pP	04 00 06.3	+1.2
LSZ				LR	LR		
	comp=Z,444nm,20.0s,MS4.9						
ARU	**Arti**	**97.02**	**29**	PFAKE		04 00 20.0	+7.2
ARU				LR	LR		
	comp=Z,90nm,21.0s,MS4.2						
TIXI	**Tiksi**	**97.70**	**357**	*i* P	**P**	**04 00 17.3**	**+1.8**
TIXI				pmax	pmax		
	comp=Z,600nm,21.0s						
KMBO	**Kilima Mbogo**	**98.77**	**90**	PFAKE		04 00 30.0	+8.3
KMBO				LR	LR		
	comp=Z,378nm,20.0s,MS4.9						
SMY	**Shemya**	**101.18**	**329**	PFAKE		04 00 40.0	+8.3
SMY				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
SYO	**Syowa Base**	**103.74**	**159**	⇓pPdiff		04 00 53.0	
BRVK	**Borovoye**	**104.49**	**28**	PFAKE		04 01 00.0	+14
BRVK				LR	LR		
	comp=Z,63nm,20.0s,MS4.2						
MA2	**Magadan**	**105.48**	**344**	PFAKE		04 05 20.0	
MA2				LR	LR		
	comp=Z,882nm,22.0s,MS5.3						
YAK	**Yakutsk**	**107.13**	**355**	PFAKE		04 05 20.0	
YAK				LR	LR		
	comp=Z,864nm,22.0s,MS5.3						
PET	**Petropavlovsk**	**108.03**	**336**	PFAKE		04 05 20.0	
PET				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
SBA	**Scott Base**	**108.45**	**190**	PFAKE		04 05 20.0	
SBA				LR	LR		
	comp=Z,555nm,21.0s,MS5.1						
KURK	**Kurchatov**	**109.82**	**26**	PFAKE		04 05 20.0	
KURK				LR	LR		
	comp=Z,67nm,22.0s,MS4.2						
EKS2	**Erkin-Say**	**113.09**	**34**	PKP	PKPdf	04 05 19.5	+2.1
EKS2				LR	LR		
	comp=Z,399nm,20.0s,MS5.0						
AML	**Almayashu**	**113.40**	**35**	PFAKE		04 05 30.0	+12
AML				LR	LR		
	comp=Z,413nm,22.0s,MS5.0						
AAK	**Ala-Archa**	**113.51**	**34**	*e*PKP	PKPdf	04 05 21.5	+3.3

AAK				LR	LR		
	comp=Z,78nm,20.0s,MS4.3						
UCH	**Uchtor**	**113.79**	**34**	PFAKE		04 05 30.0	+11
UCH				LR	LR		
	comp=Z,356nm,21.0s,MS4.9						
TKM2	**Tokmak 2**	**113.92**	**33**	PFAKE		04 05 30.0	+11
TKM2				LR	LR		
	comp=Z,313nm,21.0s,MS4.9						
KSH	**Kashi**	**116.42**	**36**	ePKP	PKPdf	04 05 30.3	+6.3
KSH				eXPKP		04 05 46.8	
KSH				ePKS	PKS	04 09 06.0	+6.2
KSH				ePPP	PPP	04 09 24.0	+20
KSH				eSKS	SKS	04 12 36.8	+26
KSH				PP	PP		
	comp=Z,200nm,3.6s						
KSH				LR	LR		
	comp=N,190nm,5.1s						
KSH				LR	LR		
	comp=E,190nm,4.8s						
TLY	**Talaya**	**116.71**	**10**	PFAKE		04 05 40.0	+16
TLY				LR	LR		
	comp=Z,85nm,22.0s,MS4.3						
RAO	**Raoul Island**	**118.12**	**242**	PFAKE		04 05 40.0	+13
RAO				LR	LR		
	comp=Z,1μm,21.0s,MS5.5						
YSS	**Yuzh-Sakhalins**	**118.81**	**341**	PFAKE		04 05 40.0	+12
YSS				LR	LR		
	comp=Z,791nm,20.0s,MS5.3						
WMQ	**Urumqi**	**119.06**	**25**	⇑PKP	PKPdf	04 05 30.2	+1.2
WMQ				XPKP		04 05 47.7	
WMQ				PP	PP	04 06 54.5	+0.6
WMQ				PKS	PKS	04 09 05.6	+0.8
WMQ				SKKS		04 13 42.7	
WMQ				LR	LR		
	comp=N,240nm,26.0s,MS4.9						
WMQ				LR	LR		
	comp=E,262nm,25.0s,MS4.9						
WMQ				LR	LR		
	comp=Z,224nm,22.0s,MS4.8						
SONM	**Songino Array**	**120.89**	**10**	PKP	PKPdf	04 05 35.2	+2.7
	comp=Z,1.9nm,0.5s,baz=309,slow=1.3,SNR=23						
SONM				PKKPbc		04 15 37.1	
	comp=Z,0.6nm,0.8s,baz=156,slow=5.0,SNR=4.5						
ULN	**Ulaanbaatar**	**120.96**	**9**	PFAKE		04 05 50.0	+17
ULN				LR	LR		
	comp=Z,446nm,22.0s,MS5.1						
CASY	**Casey**	**124.07**	**176**	PFAKE		04 05 50.0	+12
CASY				LR	LR		
	comp=Z,504nm,19.0s,MS5.2						
MDJ	**Mudanjiang**	**124.20**	**350**	PKP	PKPdf	04 05 39.5	+0.6
MDJ				XPKP		04 05 56.0	
MDJ				PKS	PKS	04 09 16.4	+1.7
MDJ				SS	SS	04 24 14.8	+1.4
MDJ				PP	PP		
	comp=Z,76nm,5.5s						
MDJ				LR	LR		
	comp=N,371nm,22.6s						
MDJ				LR	LR		
	comp=Z,495nm,22.6s,MS5.1						
CN2	**Changchun**	**125.55**	**354**	ePKP	PKPdf	04 05 44.6	+3.1
CN2				PP	PP	04 07 39.1	+1.6
CN2				LR	LR		
	comp=N,1μm,20.0s,MS5.7						
CN2				LR	LR		
	comp=E,1μm,20.0s,MS5.7						
CN2				LR	LR		
	comp=Z,1μm,21.0s,MS5.6						
GTA	**Gaotai**	**127.34**	**18**	PKP	PKPdf	04 05 50.2	+5.0
GTA				PP	PP	04 07 45.0	-4.1
GTA				SKKS		04 14 37.7	
GTA				PP	PP		
	comp=Z,73nm,5.0s						
GTA				LR	LR		
	comp=N,216nm,26.0s						
GTA				LR	LR		
	comp=E,213nm,14.5s						
GTA				LR	LR		
	comp=Z,286nm,24.1s,MS4.9						
HHC	**Hu-ho-hao-te**	**128.46**	**7**	ePKP	PKPdf	04 05 51.0	+3.7
HHC				XPKP		04 06 05.8	
HHC				PKS	PKS	04 09 25.9	+3.1
HHC				SKS	SKS	04 12 56.4	+6.9
HHC				SKKS		04 14 49.4	
HHC				PP	PP		
	comp=Z,130nm,4.8s						
HHC				LR	LR		
	comp=N,292nm,20.2s						
HHC				LR	LR		
	comp=E,201nm,15.1s						
HHC				LR	LR		
	comp=Z,245nm,22.6s,MS4.8						
KOLN	**Koldanda**	**129.05**	**41**	eP	PKPdf	04 05 46.8	-2.0
	comp=Z,6.0nm,0.8s						
GKN	**Gorkha**	**129.55**	**40**	eP	PKPdf	04 05 51.3	+1.6
BJI	**Beijing**	**129.63**	**2**	PKP	PKPdf	04 05 52.0	+2.5
BJI				PP	PP	04 08 01.7	-2.8
BJI				PP	PP		
	comp=Z,23nm,5.0s						
BJI				LR	LR		
	comp=N,481nm,22.1s,MS5.2						
BJI				LR	LR		
	comp=E,339nm,20.5s,MS5.2						
BJI				LR	LR		
	comp=Z,539nm,25.2s,MS5.1						
MAJO	**Matsushiro**	**129.64**	**339**	ePKPdf	PKPdf	04 05 51.1	+1.5
MAJO				LR	LR		
	comp=Z,398nm,20.0s,MS5.1						
BJT	**Baijiatuau**	**129.65**	**2**	ePKPdf	PKPdf	04 05 51.4	+1.9
KKN	**Kakani**	**130.10**	**39**	eP	PKPdf	04 05 52.8	+2.1
	comp=Z,9.7nm,0.5s						
DMN	**Daman**	**130.12**	**40**	eP	PKPdf	04 05 52.8	+2.0
PKI	**Pulchoki**	**130.34**	**40**	eP	PKPdf	04 05 52.8	+1.6
GUN	**Gumba**	**130.39**	**39**	eP	PKPdf	04 05 53.9	+2.6
KS15	**Wonju Array Si**	**131.47**	**350**	PKPdf	PKPdf	04 05 56.0	+2.9
LZH	**Lanzhou**	**131.59**	**16**	ePKP	PKPdf	04 05 53.2	-0.2
LZH				XPKP		04 06 14.5	
LZH				PKS	PKS	04 09 28.1	-0.6
LZH				PP	PP		
	comp=Z,158nm,8.1s						
LZH				LR	LR		
	comp=N,289nm,18.2s						
LZH				LR	LR		
	comp=Z,498nm,20.0s,MS5.2						
INCN	**Inchon**	**131.63**	**351**	PFAKE		04 06 10.0	+17
INCN				LR	LR		
	comp=Z,724nm,22.0s,MS5.3						
PALK	**Pallekele**	**138.38**	**66**	PFAKE		04 06 20.0	+14
PALK				LR	LR		
	comp=Z,51nm,20.0s,MS4.3						
SSE	**Sheshan**	**138.52**	**357**	ePKP	PKPdf	04 06 06.1	-0.2
SSE				PP	PP	04 09 00.6	-0.4
SSE				SS	SS	04 27 06.3	-2.0
SSE				PP	PP		
	comp=Z,383nm,4.7s						
SSE				LR	LR		
	comp=N,295nm,24.3s,MS5.0						
SSE				LR	LR		
	comp=E,83nm,24.3s,MS5.0						
SSE				LR	LR		
	comp=Z,365nm,23.2s,MS5.0						
WHN	**Wuhan**	**138.95**	**6**	ePKP	PKPdf	04 06 07.2	+0.1
KMI	**Kunming**	**141.35**	**23**	ePKP	PKPdf	04 06 12.2	+0.6
KMI				PP	PP	04 09 21.3	+3.1
KMI				SS	SS	04 27 42.4	+0.6
KMI				SSS	SSS	04 32 57.6	-2.3
KMI				LR	LR		
	comp=Z,258nm,22.8s,MS4.9						
GYA	**Guiyang**	**141.45**	**17**	PKP	PKPdf	04 06 10.2	-1.5
GYA				SKS	SKS	04 13 11.5	-4.2
GYA				LR	LR		
	comp=N,250nm,26.3s,MS5.1						
GYA				LR	LR		
	comp=E,360nm,27.9s,MS5.1						
GYA				LR	LR		
	comp=Z,160nm,28.3s,MS4.6						
CMAR	**Chiang Mai Arr**	**145.29**	**34**	PKPbc	PKPbc	04 06 20.4	+1.4
	comp=Z,23nm,0.8s,baz=319,slow=5.0,SNR=76						
CMAR				pPKPbc		04 06 32.6	
	comp=Z,27nm,0.8s,baz=313,slow=4.9,SNR=13						
CMAR	**Chiang Mai Arr**	**145.29**	**34**	PKIKP	PKPdf	04 06 20.4	+1.8
CMAR				*PP		04 06 32.6	
CMAR				pmax	pmax		
	comp=Z,23nm,0.8s						
STKA	**Stephens Creek**	**149.92**	**222**	ePKP	PKPdf	04 06 29.4	+3.6
	comp=Z,7.3nm,0.7s						
STKA	**Stephens Creek**	**149.92**	**222**	PKP	PKPdf	04 06 29.1	+3.2
	comp=Z,5.7nm,0.7s,baz=81,slow=2.9,SNR=9.7						
CTA	**Charters Tower**	**151.68**	**247**	ePKP	PKPdf	04 06 38.6	+10
	comp=Z,15nm,0.6s						
CTA				epPKP		04 06 51.8	
CTA	**Charters Tower**	**151.68**	**247**	PKP	PKPdf	04 06 32.5	+3.8
	comp=Z,9.2nm,0.8s,baz=65,slow=2.7,SNR=6.1						
CTA				PKPbc	PKPdf	04 06 38.6	+10
	comp=Z,17nm,0.6s,baz=92,slow=1.3,SNR=49						
CTA	**Charters Tower**	**151.68**	**247**	PKIKP	PKPdf	04 06 32.5	+3.7
CTA						04 06 38.7	
CTA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CTA				pmax	pmax		
	comp=Z,17nm,0.6s						
CTA	**Charters Tower**	**151.68**	**247**	PKP	PKPdf	04 06 32.5	+3.8
CTA				PKPbc	PKPdf	04 06 38.6	+10
CTA				epPKP		04 06 51.8	
CTAO	**Charters Tower**	**151.68**	**247**	ePKPdf	PKPdf	04 06 31.6	+2.8
CTAO				ePKPbc	PKPdf	04 06 38.2	+9.4
CTAO				LR	LR		
	comp=Z,268nm,19.0s,MS5.1						
PMG	**Port Moresby**	**151.80**	**270**	PKPbc	PKPdf	04 06 37.5	+8.4
	comp=Z,57nm,1.3s,baz=21,slow=7.6,SNR=5.9						
PMG	**Port Moresby**	**151.80**	**270**	PKIKP	PKPdf	04 06 37.5	+8.4
PMG				pmax	pmax		
	comp=Z,57nm,1.3s						
PMG	**Port Moresby**	**151.80**	**270**	ePKPbc	PKPdf	04 06 38.5	+9.3
PMG				LR	LR		
	comp=Z,348nm,21.0s,MS5.1						
ASAR	**Alice Springs**	**160.38**	**226**	PKP	PKPdf	04 06 42.0	+2.1
	comp=Z,2.1nm,0.7s,baz=82,slow=1.1,SNR=20						
ASAR				PKPab	PKPab	04 07 24.2	+0.9
	comp=Z,6.1nm,0.6s,baz=128,slow=4.3,SNR=26						
WRAB	**Tennant Creek**	**162.13**	**237**	ePKPdf	PKPdf	04 06 44.5	+2.7
WRAB				ePKPab	PKPab	04 07 31.3	+0.4
WRAB				LR	LR		
	comp=Z,268nm,21.0s						
WRA	**Warramunga Arr**	**162.14**	**237**	PKP	PKPdf	04 06 44.5	+2.7
	comp=Z,3.0nm,0.7s,baz=128,slow=0.5,SNR=15						
WRA				PKPab	PKPab	04 07 31.9	+0.9
	comp=Z,5.9nm,0.8s,baz=108,slow=4.3,SNR=14						
WRA	**Warramunga Arr**	**162.14**	**237**	PKIKP	PKPdf	04 06 44.5	+2.7
WRA						04 07 31.9	
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
MBWA	**Marble Bar**	**169.38**	**186**	PFAKE		04 07 00.0	+12
MBWA				LR	LR		
	comp=Z,460nm,20.0s						

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*IDC **03** 04:02:35.3±0.7, 15.03S×172.87W, mb4.1/10, mb1 4.4/11, mb1mx4.3/17, ML4.5/1, MS3.4/2, Ms1 3.4/2, ms1mx3.2/24, Error ellipse: s-maj=35.9km s-min=16.8km az=131.0*

*NEIC **03** 04:02:36.7±0.6, 14.91S×172.81W, h10^{km}, Error ellipse: s-maj=32.0km s-min=13.4km az=132.0*

ISC 03 04:02:34.9±0.6**, 15.0S**±0.2×**172.9W**±0.2**, h10**^{km}**, n16, σ0**^{s}**98**/14**, mb4.0**/10**, MS3.6**/1**, Samoa Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**1.49**	**46**	ePn	**Pn**	**04 02 59.2**	**-2.6**
AFI				e	**Sb**	**04 03 13.4**	**-7.7**
RAR	**Rarotonga**	**13.92**	**118**	Pn	**P**	**04 05 44.9**	**-10**
	2.3nm,0.3s,baz=104,slow=11,SNR=4.3						
RAR				LR	LR	04 09 03.3	
	comp=Z,91nm,20.9s,baz=80,slow=28						
URZ	**Urewera**	**24.84**	**199**	P	**P**	**04 07 59.5**	**+0.7**
	11nm,0.3s,mb4.8,baz=316,slow=2.7,SNR=16						
URZ				LR	LR	04 16 20.9	
	comp=Z,181nm,19.9s,MS3.6,baz=28,slow=33						
STKA	**Stephens Creek**	**44.69**	**240**	P	**P**	**04 10 49.1**	**-1.0**
	4.1nm,1.1s,mb4.2,baz=117,slow=9.0,SNR=2.7						
WRA	**Warramunga Arr**	**50.44**	**256**	P	**P**	**04 11 34.5**	**-0.5**
	1.1nm,0.8s,mb4.0,baz=96,slow=7.4,SNR=7.1						
ASAR	**Alice Springs**	**50.73**	**252**	P	**P**	**04 11 37.2**	**0.0**
	4.5nm,0.6s,mb4.6,baz=90,slow=7.6,SNR=28						
VNDA	**Vanda**	**63.87**	**186**	P	**P**	**04 13 08.6**	**-1.0**
	2.4nm,1.0s,mb4.2,baz=350,slow=5.7,SNR=6.8						
NVAR	**Mina Array Bea**	**73.66**	**42**	P	**P**	**04 14 11.3**	**+0.6**
	1.0nm,0.7s,mb3.8,baz=231,slow=9.8,SNR=5.9						
TXAR	**Lajitas Array**	**79.95**	**56**	P	**P**	**04 14 47.3**	**+1.2**
	0.6nm,1.0s,mb3.5,baz=219,slow=5.8,SNR=3.5						
PDAR	**Pinedale Array**	**81.60**	**42**	P	**P**	**04 14 54.8**	**+0.3**
	0.4nm,0.6s,mb3.5,baz=238,slow=2.7,SNR=4.3						
ILAR	**Eielson Array**	**81.91**	**11**	P	**P**	**04 14 56.5**	**+0.9**
	0.6nm,0.7s,mb3.6,baz=231,slow=6.5,SNR=8.7						
YKA	**Yellowknife Ar**	**89.49**	**23**	P	**P**	**04 15 33.8**	**+0.6**
	0.8nm,0.8s,mb4.1,baz=239,slow=4.7,SNR=12						
YKA	**Yellowknife Ar**	**89.49**	**23**	P	**P**	**04 15 33.8**	**+0.6**
KHC	**Kasperske Hory**	**145.51**	**353**	ePKP	PKPdf	04 22 16.5	+0.2
GERES	**GERESS Array B**	**145.77**	**352**	PKPbc	PKPbc	04 22 16.8	+2.2
	0.8nm,0.6s,baz=27,slow=3.0,SNR=7.3						
BRTR	**Keskin Array B**	**146.12**	**322**	PKPbc	PKPbc	04 22 18.8	+3.1
	1.8nm,0.6s,baz=122,slow=3.1,SNR=9.2						

MAN 03 04:10:04.3, 13.28N×119.99E, h17^{km}**, mb3.9, ML2.6, MS2.3, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	**Lubang**	**0.52**	**29**	eP	Pb	04 10 14.8	+0.3
LUBP	**Lubang**	**0.52**	**29**	eP	Pb	04 10 31.1	+17
SJMP	**San Jose**	**1.37**	**126**	eP	Pn	04 10 29.4	+0.6
SJMP				eS	Sb	04 10 46.3	+0.2
NBP	**Mount Natib**	**1.51**	**16**	eP	Pn	04 10 29.9	-1.0
NBP				eS	Sn	04 10 50.6	+0.3
ARP	**Angono**	**1.68**	**42**	eP	Pn	04 10 33.5	+0.2

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*TRN **03** 04:11:07.5, 10.56N×61.09W, h24^{km}, MD3.5*

*FUNV **03** 04:11:08.7, 10.59N×61.45W, h96^{km}, MW2.6*

ISC 03 04:11:05.6±1.0**, 10.59N**±0.07×**61.24W**±0.06**, h57**^{km}±8^{km}**, n14, σ1**^{s}**17**/24**, 2C-2D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRN	**Trinidad (W)**	**0.17**	**291**	⇑iP	**P**	**04 11 14.1**	**-0.3**
TRN				eS	**S**	**04 11 20.0**	**-0.9**
TBH	**Brigand Hill**	**0.20**	**120**	eP	**P**	**04 11 11.3**	**-3.2**
TBH				eS	**S**	**04 11 16.6**	**-4.5**
TPP	**Pointe-a-Pierr**	**0.34**	**218**	⇑iP	**P**	**04 11 15.9**	**+0.2**
TPP				eS	**S**	**04 11 23.8**	**+0.7**
TPR	**Prospect**	**0.75**	**37**	⇓iP	**P**	**04 11 20.9**	**+0.6**
TPR				eS	**S**	**04 11 31.7**	**+0.4**
BOT	**Bacolet**	**0.77**	**42**	⇓eP	**P**	**04 11 20.9**	**+0.3**
BOT				eS	**S**	**04 11 31.3**	**-0.5**
GUIV	**Guiria**	**0.97**	**274**	eP	**P**	**04 11 24.4**	**+1.1**
GUIV				eS	**S**	**04 11 38.6**	**+2.3**
GRW	**Mount Saint Ca**	**1.62**	**345**	eP	**P**	**04 11 35.6**	**+3.3**
GRW				eS	**S**	**04 11 57.5**	**+5.3**
GUNV	**Guanoco**	**1.73**	**256**	eP	**P**	**04 11 35.7**	**+1.8**
GUNV				eS	**S**	**04 11 54.0**	**-0.8**
CRUV	**Carupano**	**1.96**	**273**	eP	**P**	**04 11 36.6**	**-0.5**
ITEV	**Isla Los Testi**	**2.01**	**293**	eP	**P**	**04 11 38.0**	**+0.2**
ITEV				eS	**S**	**04 12 00.4**	**-1.2**
ORIV	**Oritupano**	**2.61**	**235**	eP	**P**	**04 11 46.6**	**+0.2**
IBAV	**Isla La Blanqu**	**3.50**	**291**	eP	**P**	**04 11 57.7**	**-1.2**
CUPV	**Cœpira**	**4.50**	**264**	eP	**P**	**04 12 11.2**	**-1.8**
CUPV				eS	**S**	**04 12 56.1**	**-8.6**
CAOV	**Caicara del Or**	**5.97**	**238**	eS	**S**	**04 13 30.5**	**-11**

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*NEIC **03** 04:19:33.9, 14.81N×93.91W, h40^{km}, MD4.3(MEX), After MEX.*

MEX 03 04:19:33.9±1.5**, 14.81N×93.91W, h40**^{km}±999^{km}**, MD4.2, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	**Comitan**	**2.25**	**49**	i P	P	04 20 07.1	-2.4
CCIG				i S	S	04 20 32.5	-3.8
SCX	**San Cristobal**	**2.28**	**33**	i P	P	04 20 08.6	-1.3
SCX				i S	S	04 20 35.5	-1.4
CMIG	**Matias Romero**	**2.46**	**338**	i P	P	04 20 10.3	-2.1
CMIG				i S	S	04 20 37.6	-3.8
OXX	**Oaxaca**	**3.52**	**310**	i P	P	04 20 30.8	+3.2

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*IDC **03** 04:22:42.2±1.5, 35.91N×25.99E, h135^{km}±20^{km}, mb2.8/2, mb1 3.2/5, mb1mx3.1/20, Error ellipse: s-maj=42.5km s-min=25.8km az=20.0*

*NEIC **03** 04:22:42.1, 36.07N×26.03E, h130^{km}, After ATH.*

*ATH **03** 04:22:42.1, 36.07N×26.03E, h130^{km}±3^{km}*

*THE **03** 04:22:49.8, 35.87N×24.84E, h22^{km}*

ISC 03 04:22:42.1±0.5**, 36.05N**±0.05×**25.99E**±0.04**, h129**^{km}±4^{km}**, n33, σ1**^{s}**02**/45**, mb2.9**/2**, 4C-3D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THR1	**Thera Island**	**0.53**	**307**	ePg	**P**	**04 23 02.1**	**+0.8**
THR1				eSg	**S**	**04 23 14.3**	**-1.7**
SANT	**Santorini**	**0.53**	**307**	ePn	**P**	**04 23 01.9**	**+0.5**
SANT				eSn	**S**	**04 23 15.5**	**-0.5**
THR6	**Thira Island,**	**0.57**	**303**	ePg	**P**	**04 23 02.6**	**+1.0**
THR6				eSg	**S**	**04 23 10.8**	**-5.6**
THR5	**Thira Island,**	**0.63**	**305**	ePg	**P**	**04 23 03.0**	**+1.0**
NPS	**Neapolis**	**0.84**	**201**	⇑iP	**P**	**04 23 04.3**	**+0.7**
KARP	**Karpathos**	**1.08**	**117**	⇑iP	**P**	**04 23 07.1**	**+1.1**
KARP				eS	**S**	**04 23 23.5**	**-0.4**
APE	**Apeiranthos**	**1.08**	**340**	⇓iP	**P**	**04 23 06.6**	**+0.6**
IDI	**Anoyia**	**1.17**	**230**	P	**P**	**04 23 07.4**	**+0.5**
	13nm,0.3s,baz=15,slow=5.5,SNR=228						
IDI				S	**S**	**04 23 24.7**	**-1.0**
	66nm,0.3s,baz=323,slow=22,SNR=35						
XRY	**Khrisi**	**1.20**	**192**	eP	**P**	**04 23 08.0**	**+0.8**
BDRM	**Kayabasi**	**1.55**	**49**	i P	**P**	**04 23 11.5**	**+0.4**
BDRM				S	**S**	**04 23 32.1**	**-1.1**
VAM	**Vamos**	**1.59**	**247**	eP	**P**	**04 23 12.5**	**+0.9**
ARG	**Arkhangelos**	**1.74**	**84**	⇑iP	**P**	**04 23 13.6**	**+0.3**
ARG				eS	**S**	**04 23 36.1**	**-0.9**
SMG	**Samos**	**1.79**	**22**	⇓iP	**P**	**04 23 14.3**	**+0.4**
GVD	**Gavdhos**	**1.97**	**233**	ePb	**P**	**04 23 17.2**	**+1.2**
GVD				eSn	**S**	**04 23 39.9**	**-1.9**
AYDN	**Tasoluk**	**2.21**	**43**	i P	**P**	**04 23 20.0**	**+0.8**
AYDN				S	**S**	**04 23 55.5**	**+8.2**
KYTH	**Kithira**	**2.40**	**276**	eP	**P**	**04 23 22.2**	**+0.6**
VLI	**Veliai**	**2.55**	**286**	⇑iP	**P**	**04 23 23.6**	**0.0**
KDAG	**Bornova**	**2.56**	**23**	i P	**P**	**04 23 23.7**	**-0.1**
KSL	**Kastellorizon**	**2.91**	**87**	eP	**P**	**04 23 28.4**	**0.0**
DNZL	**Cakiroluk**	**2.95**	**55**	i P	**P**	**04 23 29.3**	**+0.5**
DNZL				S	**S**	**04 24 03.6**	**-0.8**
MANT	**Manisa**	**3.18**	**39**	i P	**P**	**04 23 32.1**	**+0.1**
ITM	**Ithomi**	**3.46**	**290**	eP	**P**	**04 23 36.2**	**+0.6**
RLS	**Riolos of Patr**	**4.13**	**300**	⇓iP	**P**	**04 23 45.7**	**+1.0**
AGG	**Agios Georgios**	**4.15**	**317**	ePn	**P**	**04 23 45.9**	**+1.0**
AGG				eSn	**S**	**04 24 29.4**	**-3.6**
VLS	**Valsamata**	**4.81**	**298**	eP	**P**	**04 23 53.4**	**-0.3**
LKD	**Levkas**	**5.01**	**304**	ePn	**P**	**04 23 54.9**	**-1.5**
LKD				eSn	**S**	**04 24 43.9**	**-10**
TIP	**Timpagrande**	**7.96**	**296**	ePn	**P**	**04 24 33.7**	**-2.5**
EIL	**Elat**	**9.86**	**128**	P	**P**	**04 24 59.2**	**-2.4**
	0.6nm,0.3s,baz=323,slow=15,SNR=10						
EIL	**Elat**	**9.86**	**128**	ePn	**P**	**04 24 59.0**	**-2.6**
AKASG	**Malin Array Be**	**14.83**	**8**	P	**P**	**04 26 07.7**	**+1.5**
	0.6nm,0.3s,baz=196,slow=11,SNR=5.3						
GERES	**GERESS Array B**	**15.65**	**329**	P	**P**	**04 26 16.0**	**-0.5**
	0.0nm,0.3s,baz=132,slow=12,SNR=5.0						
ESDC	**Sonseca Array**	**23.87**	**288**	P	**P**	**04 27 44.4**	**-0.1**
	0.1nm,0.3s,mb2.8,baz=85,slow=9.9,SNR=4.4						
YKA	**Yellowknife Ar**	**76.81**	**342**	P	**P**	**04 34 18.6**	**-2.0**
	0.2nm,0.4s,mb3.1,baz=28,slow=5.7,SNR=4.2						

GUC 03 04:48:43.5±0.8**, 25.59S×70.49W, h43**^{km}±4^{km}**, MD3.9, ML4.1, 1C-2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	**Cerro Paranal**	**0.97**	**5**	⇓iP	P	04 49 02.3	+1.5
CPN1				i S	S	04 49 15.1	+1.6
CPCH	**Copiapo**	**1.76**	**176**	⇑iP	P	04 49 12.6	+0.4
CPCH				i S	S	04 49 34.9	+1.5
CPCH				AMP		04 49 38.0	
	comp=N,3μm,0.1s						
ANCH	**Antofagasta**	**1.90**	**2**	⇓iP	P	04 49 14.9	+0.7
ANCH				i S	S	04 49 38.4	+1.4
SPCH	**San Pedro de A**	**3.39**	**38**	eP	P	04 49 36.4	+1.1

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*CNRM **03** 04:50:02.3, 35.95N×2.57W, h7^{km}, MD2.8*

*NEIC **03** 04:50:03.1, 34.96N×3.07W, MG3.1(MDD), After MDD.*

*MDD **03** 04:50:03.1±2.0, 34.96N×3.07W, mb3.1/2, Error ellipse: s-maj=21.0km s-min=8.9km az=137.0, AftershockPLICA PRXIMO*

*CSEM **03** 04:50:03.5±0.1, 35.13N×3.13W, h8^{km}, mb3.1/3, Error ellipse: s-maj=3.7km s-min=2.4km az=127.0*

ISC 03 04:50:04.9±0.9**, 35.11N**±0.06×**3.1W**±0.1**, h18**^{km}±8^{km}**, n20, σ1**^{s}**00**/26**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.21**	**25**	P	**Pb**	**04 50 09.2**	**-0.9**
	SNR=7.9						
EMEL				S	**Sb**	**04 50 14.5**	**+1.0**
	125nm,0.2s,SNR=7.9						
EMLI	**Melilla**	**0.21**	**27**	P	**Pb**	**04 50 09.2**	**-0.9**
	31nm,0.1s,SNR=7.9						
TOU	**Touzarine**	**0.59**	**255**	i S	**Sb**	**04 50 32.0**	**+7.8**
TZK	**Tazeka**	**1.38**	**222**	i P	**Pn**	**04 50 29.0**	**-0.5**
TZK				i S	**Sb**	**04 50 48.0**	**+0.9**
EBER	**Berja**	**1.79**	**5**	P	**Pn**	**04 50 35.0**	**-0.3**
	0.3nm,0.1s,SNR=7.9						
EBER				S	**Sn**	**04 50 56.6**	**-1.1**
	24nm,0.9s,SNR=7.9						
EBER	**Berja**	**1.79**	**5**	S	**Sn**	**04 50 56.6**	**-1.1**
	24nm,0.9s,SNR=7.9						
EBER	**Berja**	**1.79**	**5**	P	**Pn**	**04 50 35.0**	**-0.3**
	0.3nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	**2.01**	**317**	P	**Pn**	**04 50 37.8**	**-0.7**
	0.6nm,0.1s,SNR=7.9						
EMIJ				S	**Sn**	**04 51 03.2**	**-0.1**
	2.9nm,0.4s,SNR=4.0						
EQES	**Quesada**	**2.68**	**360**	P	**Pn**	**04 50 49.8**	**+1.6**
	0.5nm,0.1s,SNR=7.9						
EQES				S	**Sn**	**04 51 22.9**	**+2.4**
	4.5nm,0.5s,SNR=7.9						
EQES	**Quesada**	**2.68**	**360**	P	**Pn**	**04 50 49.8**	**+1.7**
	0.5nm,0.1s,SNR=7.9						
EQES				S	**Sn**	**04 51 22.9**	**+2.4**
	4.5nm,0.5s,SNR=7.9						
ESPR	**Espera**	**2.86**	**309**	P	**Pn**	**04 50 51.8**	**+1.1**
	0.3nm,0.1s,SNR=4.0						
ESPR	**Espera**	**2.86**	**309**	P	**Pn**	**04 50 51.8**	**+1.1**
	0.3nm,0.1s,SNR=4.0						
EMUR	**La Murta**	**3.09**	**28**	P	**Pn**	**04 50 54.1**	**+0.1**
	0.3nm,0.1s,SNR=7.9						
EMUR	**La Murta**	**3.09**	**28**	P	**Pn**	**04 50 54.1**	**+0.1**
	0.3nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**3.28**	**339**	P	**Pn**	**04 50 56.7**	**0.0**
	0.2nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.28**	**339**	P	**Pn**	**04 50 56.7**	**+0.1**
	0.2nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.93**	**313**	P	**Pn**	**04 51 04.8**	**-1.1**
	0.3nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.93**	**313**	P	**Pn**	**04 51 04.8**	**-1.1**
	0.3nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**4.82**	**320**	P	**Pn**	**04 51 17.4**	**-1.1**
	0.2nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**4.82**	**320**	P	**Pn**	**04 51 17.4**	**-1.1**

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*CSEM **03** 04:50:44.8±0.2, 35.05N×2.86W, h10^{km}, MD4.2, Error ellipse: s-maj=4.6km s-min=3.6km az=109.0*

*MDD **03** 04:50:45.7±1.1, 34.93N×3.00W, mb3.8/10, Error ellipse: s-maj=11.1km s-min=6.3km az=131.0, PRXIMO AftershockPLICA*

*NEIC **03** 04:50:46.5, 34.96N×2.99W, h8^{km}, MG3.8(MDD), After MDD.*

*SFS **03** 04:50:46.0, 34.93N×2.96W, ML3.7*

*INMG **03** 04:50:47.1±0.9, 35.02N×2.85W, h19^{km}±2^{km}, ML2.7, Error ellipse: s-maj=4.8km s-min=3.7km az=155.0*

*CNRM **03** 04:50:47.8, 35.00N×2.80W, h6^{km}, MD4.2*

ISC 03 04:50:45.4±0.5**, 35.08N**±0.03×**2.82W**±0.04**, h10**^{km}**, n77, σ1**^{s}**43**/131**, 1C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.12**	**152**	i P	**Pg**	**04 50 48.5**	**0.0**
MELI	**Melilla**	**0.24**	**336**	P	**Pg**	**04 50 52.6**	**+2.1**
MELI				S	**Sg**	**04 50 56.6**	**+2.8**
MELI	**Melilla**	**0.24**	**336**	eS	**Sg**	**04 50 56.6**	**+2.8**
EMLI	**Melilla**	**0.25**	**334**	S	**Sg**	**04 50 58.1**	**+3.9**
	280nm,0.2s,SNR=7.9						

EMEL	**Melilla**	**0.25**	**332**	P	**Pg**	**04 50 52.7**	**+2.0**
	188nm,0.2s,SNR=7.9						
EMEL				S	**Sg**	**04 50 58.1**	**+3.9**
	280nm,0.2s,SNR=7.9						
TOU	**Touzarine**	**0.78**	**262**	iP	**Pb**	**04 51 01.0**	**+0.4**
TOU				iS	**Sb**	**04 51 12.5**	**+1.5**
MPAL	**Palemas**	**0.94**	**279**	iP	**Pb**	**04 51 05.0**	**+1.7**
MPAL				iS	**Sb**	**04 51 18.5**	**+3.0**
TZK	**Tazeka**	**1.50**	**229**	iP	**Pn**	**04 51 12.0**	**-0.5**
TZK				iS	**Sb**	**04 51 31.0**	**-0.9**
EBER	**Berja**	**1.82**	**358**	P	**Pn**	**04 51 17.4**	**+0.4**
EBER				S	**Sn**	**04 51 41.9**	**+1.6**
EBER	**Berja**	**1.82**	**358**	P	**Pn**	**04 51 17.4**	**+0.4**
	2.0nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**04 51 39.7**	**-0.6**
	404nm,0.6s						
EBER	**Berja**	**1.82**	**358**	P	**Pn**	**04 51 17.4**	**+0.3**
	2.0nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**04 51 41.9**	**+1.6**
ERON	**Agron**	**2.10**	**338**	P	**Pn**	**04 51 20.9**	**-0.2**
ERON				S	**Sn**	**04 51 49.6**	**+2.2**
ERON	**Agron**	**2.10**	**338**	P	**Pn**	**04 51 20.9**	**-0.2**
	2.1nm,0.2s,SNR=11						
ERON				S	**Sn**	**04 51 46.4**	**-1.0**
	11nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	**2.17**	**314**	P	**Pn**	**04 51 21.0**	**-1.2**
EMIJ				S	**Sn**	**04 51 46.9**	**-2.6**
EMIJ	**Mijas**	**2.17**	**314**	P	**Pn**	**04 51 21.0**	**-1.2**
	2.3nm,0.1s,SNR=11						
EMIJ				S	**Sn**	**04 51 46.3**	**-3.1**
	9.7nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	**2.17**	**314**	P	**Pn**	**04 51 21.0**	**-1.2**
	2.3nm,0.1s,SNR=11						
EMIJ				S	**Sn**	**04 51 46.8**	**-2.6**
ELOJ	**Sierra Loja**	**2.33**	**333**	P	**Pn**	**04 51 24.1**	**-0.4**
ELOJ				S	**Sn**	**04 51 53.8**	**+0.4**
ELOJ	**Sierra Loja**	**2.33**	**333**	P	**Pn**	**04 51 25.1**	**+0.7**
	3.5nm,0.3s,SNR=7.9						
ELOJ				S	**Sn**	**04 51 53.8**	**+0.4**
	6.2nm,0.4s,SNR=4.0						
ELOJ	**Sierra Loja**	**2.33**	**333**	P	**Pn**	**04 51 24.0**	**-0.5**
ELOJ				S	**Sn**	**04 51 53.8**	**+0.4**
	6.2nm,0.4s,SNR=4.0						
REAL	**Reales**	**2.40**	**306**	P	**Pn**	**04 51 24.2**	**-1.2**
REAL	**Reales**	**2.40**	**306**	eP	**Pn**	**04 51 24.2**	**-1.2**
MIF	**Mishlifen**	**2.60**	**231**	iP	**Pn**	**04 51 30.0**	**+1.7**
EQES	**Quesada**	**2.73**	**356**	P	**Pn**	**04 51 32.8**	**+2.7**
EQES				S	**Sn**	**04 52 05.5**	**+2.1**
EQES	**Quesada**	**2.73**	**356**	P	**Pn**	**04 51 32.8**	**+2.7**
	8.4nm,0.2s,SNR=7.9						
EQES				S	**Sn**	**04 52 06.6**	**+3.2**
	99nm,0.6s,SNR=7.9						
EQES	**Quesada**	**2.73**	**356**	S	**Sn**	**04 52 05.5**	**+2.1**
ELUQ	**Luque**	**2.74**	**335**	P	**Pn**	**04 51 30.4**	**+0.1**
ELUQ				S	**Sn**	**04 52 04.4**	**+0.6**
ELUQ	**Luque**	**2.74**	**335**	P	**Pn**	**04 51 32.0**	**+1.7**
	4.5nm,0.2s,SNR=4.0						
ELUQ				S	**Sn**	**04 52 04.4**	**+0.6**
	14nm,0.6s,SNR=7.9						
ELUQ	**Luque**	**2.74**	**335**	P	**Pn**	**04 51 30.4**	**+0.1**
ELUQ				S	**Sn**	**04 52 04.4**	**+0.6**
	14nm,0.6s,SNR=7.9						
CZD	**Col de Zad**	**2.75**	**223**	iP	**Pn**	**04 51 32.0**	**+1.5**
LIJA	**Lijar**	**2.78**	**312**	⇑P	**Pn**	**04 51 33.0**	**+2.1**
LIJA				S	**Sn**	**04 52 07.3**	**+2.5**
LIJA	**Lijar**	**2.78**	**312**	eS	**Sn**	**04 52 07.3**	**+2.5**
EMUR	**La Murta**	**3.04**	**24**	P	**Pn**	**04 51 35.1**	**+0.7**
EMUR				S	**Sn**	**04 52 10.7**	**-0.6**
EMUR	**La Murta**	**3.04**	**24**	P	**Pn**	**04 51 35.1**	**+0.6**
	SNR=7.9						
EMUR				S	**Sn**	**04 52 09.3**	**-2.0**
	17nm,0.3s,SNR=7.9						
EMUR	**La Murta**	**3.04**	**24**	P	**Pn**	**04 51 35.1**	**+0.6**
	SNR=7.9						
EMUR				S	**Sn**	**04 52 10.7**	**-0.6**
ESPR	**Espera**	**3.04**	**307**	P	**Pn**	**04 51 35.5**	**+0.8**
ESPR				S	**Sn**	**04 52 11.7**	**+0.2**
ESPR	**Espera**	**3.04**	**307**	P	**Pn**	**04 51 34.9**	**+0.3**
	0.9nm,0.3s,SNR=9.4						
ESPR				S	**Sn**	**04 52 11.7**	**+0.2**
	21nm,0.8s,SNR=7.9						
ESPR	**Espera**	**3.04**	**307**	S	**Sn**	**04 52 11.7**	**+0.2**
	21nm,0.8s,SNR=7.9						
ESPR	**Espera**	**3.04**	**307**	P	**Pn**	**04 51 34.9**	**+0.3**
	0.9nm,0.3s,SNR=9.4						
ZFT	**Errachidia**	**3.30**	**203**	iP	**Pn**	**04 51 37.5**	**-0.7**
EADA	**Adamuz**	**3.39**	**336**	P	**Pn**	**04 51 40.2**	**+0.6**
EADA				S	**Sn**	**04 52 18.9**	**-1.4**
EADA	**Adamuz**	**3.39**	**336**	P	**Pn**	**04 51 40.2**	**+0.6**
	2.5nm,0.1s,SNR=23						
EADA				S	**Sn**	**04 52 18.2**	**-2.2**
	27nm,0.6s,SNR=7.9						
EADA	**Adamuz**	**3.39**	**336**	P	**Pn**	**04 51 40.2**	**+0.6**
	2.5nm,0.1s,SNR=23						
EADA				S	**Sn**	**04 52 18.9**	**-1.4**
EVIA	**Vianos**	**3.56**	**4**	P	**Pn**	**04 51 43.9**	**+1.9**
EVIA				S	**Sn**	**04 52 25.5**	**+0.9**
EVIA	**Vianos**	**3.56**	**4**	P	**Pn**	**04 51 45.9**	**+4.0**
	0.9nm,0.1s,SNR=7.9						
EVIA				S	**Sn**	**04 52 25.5**	**+0.9**
	31nm,0.6s,SNR=4.0						
EVIA	**Vianos**	**3.56**	**4**	P	**Pn**	**04 51 43.9**	**+1.9**
EVIA				S	**Sn**	**04 52 25.5**	**+0.9**
	31nm,0.6s,SNR=4.0						
EMIN	**Mina Concepcio**	**4.11**	**312**	P	**Pn**	**04 51 48.4**	**-1.3**
	2.6nm,0.1s,SNR=37						
EMIN				S	**Sn**	**04 52 34.4**	**-4.0**
	3.3nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.11**	**312**	P	**Pn**	**04 51 48.5**	**-1.2**
EMIN				S	**Sn**	**04 52 34.4**	**-4.0**
	3.3nm,0.3s,SNR=7.9						
EBEN	**Beniarda**	**4.17**	**29**	P	**Pn**	**04 51 52.2**	**+1.5**
EBEN				S	**Sn**	**04 52 38.8**	**-1.3**
EBEN	**Beniarda**	**4.17**	**29**	P	**Pn**	**04 51 52.2**	**+1.5**
	0.8nm,0.1s,SNR=7.9						
EBEN				S	**Sn**	**04 52 37.0**	**-3.1**
	38nm,1.2s,SNR=7.9						
EBEN	**Beniarda**	**4.17**	**29**	P	**Pn**	**04 51 52.2**	**+1.6**
	0.8nm,0.1s,SNR=7.9						
EBEN				S	**Sn**	**04 52 38.8**	**-1.2**
PALC	**Alcoutim**	**4.46**	**304**	ePn	**Pn**	**04 51 52.9**	**-1.8**
PALC				eSn	**Sn**	**04 52 41.9**	**-5.3**
	15nm,0.6s						
PALC	**Alcoutim**	**4.46**	**304**	ePn	**Pn**	**04 51 52.9**	**-1.8**
PALC				eSn	**Sn**	**04 52 41.9**	**-5.3**
	15nm,0.6s						
ESDC	**Sonseca Array**	**4.68**	**349**	P	**Pn**	**04 51 55.9**	**-1.9**
	2.8nm,0.2s,baz=173,slow=12,SNR=31						
ESDC				S	**Sn**	**04 52 49.1**	**-3.7**
	1.3nm,0.4s,SNR=7.9						
ESDC	**Sonseca Array**	**4.68**	**349**	P	**Pn**	**04 51 55.9**	**-1.9**
	2.8nm,0.2s,baz=173,slow=12,SNR=31						
ESDC				S	**Sn**	**04 52 49.1**	**-3.7**
	1.3nm,0.4s,SNR=7.9						
EBAD	**Badajoz**	**4.98**	**319**	P	**Pn**	**04 52 00.8**	**-1.3**
	2.1nm,0.2s,SNR=7.9						
EBAD				S	**Sn**	**04 52 55.8**	**-4.6**
	SNR=7.9						
EBAD	**Badajoz**	**4.98**	**319**	S	**Sn**	**04 52 55.8**	**-4.6**
EBAD	**Badajoz**	**4.98**	**319**	P	**Pn**	**04 52 00.8**	**-1.3**
	2.1nm,0.2s,SNR=7.9						
PBEJ	**Beja**	**5.02**	**307**	ePn	**Pn**	**04 52 01.0**	**-1.6**
PBEJ				eSn	**Sn**	**04 52 56.2**	**-5.2**
	5.2nm,0.5s						
PBEJ	**Beja**	**5.02**	**307**	ePn	**Pn**	**04 52 01.0**	**-1.6**
PBEJ				eSn	**Sn**	**04 52 56.2**	**-5.2**
	5.2nm,0.5s						
EIBI	**Ibiza**	**5.16**	**39**	P	**Pn**	**04 52 03.9**	**-0.7**
EIBI				S	**Sn**	**04 53 02.4**	**-2.5**
EIBI	**Ibiza**	**5.16**	**39**	P	**Pn**	**04 52 03.9**	**-0.7**
	0.7nm,0.1s,SNR=7.9						
EIBI				S	**Sn**	**04 53 01.7**	**-3.2**
	SNR=7.9						
EIBI	**Ibiza**	**5.16**	**39**	P	**Pn**	**04 52 03.9**	**-0.7**
EIBI				S	**Sn**	**04 53 02.4**	**-2.5**
EMOS	**Mosqueruela**	**5.59**	**19**	P	**Pn**	**04 52 12.3**	**+1.5**
	0.3nm,0.2s,SNR=4.0						
EMOS	**Mosqueruela**	**5.59**	**19**	P	**Pn**	**04 52 11.5**	**+0.8**
PCBR	**Castelo Branco**	**6.03**	**323**	ePn	**Pn**	**04 52 15.8**	**-1.1**
PCBR				eSn	**Sn**	**04 53 21.1**	**-5.6**
	4.1nm,0.4s						
PCBR	**Castelo Branco**	**6.03**	**323**	P	**Pn**	**04 52 15.8**	**-1.1**
PCBR				S	**Sn**	**04 53 21.1**	**-5.6**
	2.0nm,0.4s						
PTOM	**Tomar**	**6.36**	**317**	ePn	**Pn**	**04 52 19.6**	**-1.9**
ERTA	**Horta de San J**	**6.37**	**22**	P	**Pn**	**04 52 23.3**	**+1.6**
	0.5nm,0.2s,SNR=7.9						
ERTA	**Horta de San J**	**6.37**	**22**	P	**Pn**	**04 52 23.3**	**+1.6**
MTE	**Manteigas**	**6.50**	**326**	ePn	**Pn**	**04 52 22.4**	**-1.1**
MTE				eSn	**Sn**	**04 53 33.7**	**-4.8**
	4.9nm,0.6s						
MTE	**Manteigas**	**6.50**	**326**	P	**Pn**	**04 52 22.4**	**-1.1**
MTE				S	**Sn**	**04 53 33.7**	**-4.8**
	2.5nm,0.6s						
PVIS	**Viseu**	**6.91**	**326**	ePn	**Pn**	**04 52 28.1**	**-1.2**
PVRL	**Vila Real**	**7.29**	**330**	ePn	**Pn**	**04 52 33.5**	**-1.1**
PVRL				eSn	**Sn**	**04 53 52.4**	**-5.9**
	5.3nm,0.6s						
PVRL	**Vila Real**	**7.29**	**330**	P	**Pn**	**04 52 33.5**	**-1.1**
PVRL				S	**Sn**	**04 53 52.4**	**-5.9**
	2.7nm,0.6s						
PBRG	**Braganca**	**7.39**	**337**	ePn	**Pn**	**04 52 35.0**	**-1.0**
ECAL	**Calabor**	**7.51**	**337**	P	**Pn**	**04 52 37.1**	**-0.6**
	0.5nm,0.2s,SNR=7.9						
ECAL	**Calabor**	**7.51**	**337**	P	**Pn**	**04 52 37.1**	**-0.6**

*IDC **03** 04:53:59.8±10.0, 10.28N×61.53W, mb3.8/5, mb1 4.1/5, mb1mx3.7/20, MS2.9/1, Ms1 2.9/1, ms1mx2.3/19, Error ellipse: s-maj=238.0km s-min=91.0km az=151.0*
*FUNV **03** 04:54:04.4, 10.37N×61.05W, h12^{km}, MW3.0*
*NEIC **03** 04:54:08.2±1.0, 10.58N×61.40W, h50^{km}, Error ellipse: s-maj=23.1km s-min=14.8km az=100.0*
*TRN **03** 04:54:08.9, 10.56N×61.11W, h29^{km}, MD3.8*
ISC 03 04:54:05.1±0.5**, 10.36N**±0.04×**61.10W**±0.05**, h56**^{km}±4^{km}**, n27, σ1^{s}25**/36**, mb3.8**/5**, 1C-2D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	**0.13**	**14**	eP	**P**	**04 54 13.5**	**-0.2**
TBH				eS	**S**	**04 54 18.3**	**-1.7**
TPP	**Pointe-a-Pierr**	**0.35**	**263**	⇓iP	**P**	**04 54 17.5**	**+2.2**
TPP				eS	**S**	**04 54 26.5**	**+3.8**
TRN	**Trinidad (W)**	**0.41**	**314**	⇓iP	**P**	**04 54 15.8**	**-0.1**
TRN				eS	**S**	**04 54 21.7**	**-2.1**
SIPA	**Siparia**	**0.46**	**242**	iP	**P**	**04 54 21.0**	**+4.7**
BUAY	**Buenos Aires**	**0.63**	**247**	eP	**P**	**04 54 23.1**	**+4.7**
TPR	**Prospect**	**0.88**	**21**	⇑iP	**P**	**04 54 22.5**	**+1.0**
TPR				eS	**S**	**04 54 33.6**	**-0.2**
BOT	**Bacolet**	**0.89**	**25**	eP	**P**	**04 54 22.4**	**+0.8**
BOT				eS	**S**	**04 54 33.8**	**-0.2**
GUIV	**Guiria**	**1.14**	**285**	eP	**P**	**04 54 25.7**	**+0.5**
GUIV				eS	**S**	**04 54 41.6**	**+1.6**
GUNV	**Guanoco**	**1.82**	**264**	eP	**P**	**04 54 36.3**	**+1.6**
GRW	**Mount Saint Ca**	**1.87**	**343**	eP	**P**	**04 54 36.8**	**+1.4**
CRUV	**Carupano**	**2.12**	**279**	eP	**P**	**04 54 39.1**	**+0.2**
CRUV				eS	**S**	**04 55 05.2**	**+1.0**
ITEV	**Isla Los Testi**	**2.23**	**297**	eP	**P**	**04 54 40.4**	**-0.1**
RIOV	**Rio Grande**	**2.38**	**197**	eP	**P**	**04 54 43.0**	**+0.3**
RIOV				eS	**S**	**04 55 11.4**	**+0.7**
ORIV	**Oritupano**	**2.61**	**241**	eP	**P**	**04 54 46.1**	**+0.2**
GURV	**El Guri**	**3.24**	**217**	eS	**S**	**04 55 31.3**	**-1.1**
PCRV	**Puerto La Cruz**	**3.49**	**267**	eP	**P**	**04 54 57.0**	**-1.3**
MERV	**Las Mercedes**	**5.24**	**258**	eP	**P**	**04 55 22.0**	**-0.8**
MERV				eS	**S**	**04 56 18.1**	**-4.5**
CAOV	**Caicara del Or**	**5.98**	**240**	eP	**P**	**04 55 31.3**	**-1.7**
CAOV				eS	**S**	**04 56 35.7**	**-5.3**
SJG	**San Juan**	**9.13**	**328**	LR	LR	04 59 34.7	
	comp=Z,78nm,20.9s,baz=202,slow=37						
SDV	**Santo Domingo**	**9.52**	**262**	ePn	**P**	**04 56 19.6**	**-2.5**
	2.1nm,0.3s						
SAML	**Samuel**	**19.29**	**186**	eP	**P**	**04 58 31.0**	**+2.7**
	1.0nm,0.7s						
SCHQ	**Schefferville**	**44.59**	**355**	P	**P**	**05 02 14.3**	**+0.9**
	2.4nm,0.6s,mb4.2,baz=228,slow=12,SNR=3.7						
SCHQ	**Schefferville**	**44.59**	**355**	P	**P**	**05 02 14.3**	**+0.9**
PDAR	**Pinedale Array**	**53.03**	**316**	P	**P**	**05 03 17.5**	**-1.3**
	0.7nm,0.9s,mb3.6,baz=112,slow=8.0,SNR=5.8						
NEW	**Newport**	**59.98**	**320**	P	**P**	**05 04 06.3**	**-1.8**
	1.4nm,0.5s,mb4.2,baz=115,slow=9.7,SNR=4.1						
YKA	**Yellowknife Ar**	**64.54**	**336**	P	**P**	**05 04 37.1**	**-1.1**
	0.3nm,0.3s,mb3.7,baz=105,slow=7.2,SNR=11						
ILAR	**Eielson Array**	**78.91**	**334**	P	**P**	**05 06 04.7**	**+0.8**
	0.2nm,0.5s,mb3.3,baz=90,slow=3.7,SNR=4.5						

*NEIC **03** 05:05:59.2, 16.27N×98.38W, h9^{km}, MD3.6(MEX), After MEX.*
MEX 03 05:05:59.2±0.8**, 16.27N**×**98.38W, h9**^{km}±5^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.27**	**64**	iP	Pg	05 06 04.0	-0.8
PNIG				iS	Sg	05 06 08.3	-0.2
ACX	**Acapulco**	**1.59**	**292**	iP	Pn	05 06 23.0	-4.7
ACX				iS	Sb	05 06 42.0	-6.4
VHO	**Vista Hermosa**	**1.77**	**63**	iP	Pn	05 06 27.3	-3.0
VHO				iS	Sn	05 06 48.0	-5.1
CAIG	**El Cayaco**	**1.97**	**293**	iP	Pn	05 06 31.5	-1.7
PLIG	**Platanillo**	**2.37**	**333**	iP	Pn	05 06 36.4	-2.5
PLIG				iS	Sn	05 07 02.9	-5.4
PPM	**Popocatepetl**	**2.79**	**355**	iP	Pn	05 06 44.6	-0.3
PPM				iS	Sn	05 07 15.3	-3.7

*CNRM **03** 05:35:25.8, 35.14N×2.60W, h16^{km}, MD2.7*
*CSEM **03** 05:35:26.8±0.1, 35.03N×2.87W, h12^{km}, MD2.7, Error ellipse: s-maj=3.3km s-min=2.8km az=115.0*
*NEIC **03** 05:35:28.1, 34.99N×3.09W, MG3.5(MDD), After MDD.*
*MDD **03** 05:35:28.5±1.8, 35.01N×3.11W, mb3.0/3, Error ellipse: s-maj=17.9km s-min=7.0km az=145.0, PRXIMO AftershockPLICA*
ISC 03 05:35:27.5±0.9**, 35.04N**±0.04×**2.82W**±0.08**, h23**^{km}±4^{km}**, n27, σ1^{s}12**/40**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.09**	**139**	iP	**Pb**	**05 35 31.0**	**-0.9**
MELI	**Melilla**	**0.27**	**339**	P	**Pb**	**05 35 34.6**	**+0.6**
MELI				S	**Sb**	**05 35 38.7**	**+0.3**
MELI	**Melilla**	**0.27**	**339**	iS	**Sb**	**05 35 38.7**	**+0.3**
MELI	**Melilla**	**0.27**	**339**	iP	**Pb**	**05 35 34.6**	**+0.6**
EMLI	**Melilla**	**0.28**	**338**	S	**Sb**	**05 35 38.5**	**-0.1**
	316nm,0.2s,SNR=7.9						
EMLI	**Melilla**	**0.28**	**338**	P	**Pb**	**05 35 34.0**	**-0.1**
	11nm,0.1s,SNR=7.9						
EMEL	**Melilla**	**0.28**	**337**	P	**Pb**	**05 35 34.0**	**-0.2**
	11nm,0.1s,SNR=7.9						
EMEL				S	**Sb**	**05 35 38.5**	**-0.2**
	316nm,0.2s,SNR=7.9						
TOU	**Touzarine**	**0.77**	**265**	iP	**Pb**	**05 35 42.0**	**-0.2**
TOU				iS	**Sb**	**05 35 55.0**	**+2.7**
TZK	**Tazeka**	**1.47**	**230**	iP	**Pn**	**05 35 53.0**	**0.0**
TZK				iS	**Sn**	**05 36 12.0**	**+0.3**
EBER	**Berja**	**1.86**	**358**	P	**Pn**	**05 36 00.5**	**+2.0**
	0.8nm,0.3s,SNR=4.0						
EBER				S	**Sn**	**05 36 21.4**	**-0.1**
	10nm,0.5s						
EBER	**Berja**	**1.86**	**358**	S	**Sn**	**05 36 21.4**	**0.0**
	10nm,0.5s						
EBER	**Berja**	**1.86**	**358**	P	**Pn**	**05 36 00.5**	**+2.0**
	0.8nm,0.3s,SNR=4.0						
EMIJ	**Mijas**	**2.20**	**314**	P	**Pn**	**05 36 02.4**	**-1.0**
	1.1nm,0.1s,SNR=10.0						
EQES	**Quesada**	**2.77**	**356**	P	**Pn**	**05 36 14.2**	**+2.7**
	0.6nm,0.1s,SNR=4.0						
EQES				S	**Sn**	**05 36 47.7**	**+3.2**
	4.9nm,0.3s,SNR=7.9						
EQES	**Quesada**	**2.77**	**356**	P	**Pn**	**05 36 14.2**	**+2.7**
	0.6nm,0.1s,SNR=4.0						
EQES				S	**Sn**	**05 36 47.7**	**+3.2**
	4.9nm,0.3s,SNR=7.9						
EMUR	**La Murta**	**3.07**	**24**	S	**Sn**	**05 36 51.3**	**-1.0**
	2.0nm,0.3s,SNR=4.0						
EMUR	**La Murta**	**3.07**	**24**	S	**Sn**	**05 36 51.3**	**-1.0**
	2.0nm,0.3s,SNR=4.0						
EADA	**Adamuz**	**3.43**	**336**	P	**Pn**	**05 36 21.5**	**+0.6**
EADA				S	**Sn**	**05 36 59.6**	**-1.7**
EADA	**Adamuz**	**3.43**	**336**	P	**Pn**	**05 36 21.3**	**+0.4**
	0.2nm,0.1s,SNR=6.4						
EADA				S	**Sn**	**05 36 59.6**	**-1.7**
	0.7nm,0.2s						
EADA	**Adamuz**	**3.43**	**336**	P	**Pn**	**05 36 21.3**	**+0.4**
	0.2nm,0.1s,SNR=6.4						
EADA				S	**Sn**	**05 36 59.6**	**-1.7**
	0.7nm,0.2s						
EVIA	**Vianos**	**3.60**	**4**	S	**Sn**	**05 37 06.7**	**+1.1**
	1.6nm,0.3s,SNR=4.0						
EMIN	**Mina Concepcio**	**4.13**	**312**	P	**Pn**	**05 36 29.6**	**-1.3**
EMIN				S	**Sn**	**05 37 14.9**	**-4.2**
EMIN	**Mina Concepcio**	**4.13**	**312**	P	**Pn**	**05 36 29.4**	**-1.5**
	0.6nm,0.1s,SNR=10						
EMIN				S	**Sn**	**05 37 14.9**	**-4.2**
	0.4nm,0.2s						
EMIN	**Mina Concepcio**	**4.13**	**312**	S	**Sn**	**05 37 14.9**	**-4.2**
	0.4nm,0.2s						
EMIN	**Mina Concepcio**	**4.13**	**312**	P	**Pn**	**05 36 29.6**	**-1.3**
EBAD	**Badajoz**	**5.01**	**319**	P	**Pn**	**05 36 42.2**	**-1.1**
	0.5nm,0.1s,SNR=7.2						
EBAD				S	**Sn**	**05 37 36.1**	**-5.1**
	0.9nm,0.3s						
EBAD	**Badajoz**	**5.01**	**319**	P	**Pn**	**05 36 42.2**	**-1.1**

*IDC **03** 06:01:16.3±4.7, 7.10S×150.81E, h122^{km}±40^{km}, mb3.6/6, mb1 3.7/7, mb1mx3.7/13, Error ellipse: s-maj=49.8km s-min=24.5km az=112.0*
*NEIC **03** 06:01:17.0±2.9, 7.08S×150.72E, h125^{km}±22^{km}, mb4.0/3, Error ellipse: s-maj=37.1km s-min=18.8km az=112.0*
ISC 03 06:01:16.6±3.4**, 7.0S**±0.2×**150.6E**±0.3**, h134**^{km}±26^{km}**, n12, σ0^{s}92**/13**, mb3.8**/5**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**4.15**	**235**	P	**P**	**06 02 19.6**	**+0.1**
	1.3nm,0.3s,baz=45,slow=10.0,SNR=3.8						
PMG				S	**S**	**06 03 15.0**	**+7.3**
	4.0nm,0.3s,baz=126,slow=8.5,SNR=5.4						
KAKA	**Kakadu**	**18.79**	**251**	eP	**P**	**06 05 26.8**	**-1.5**
	5.8nm,0.8s						
WRAB	**Tennant Creek**	**20.34**	**229**	eP	**P**	**06 05 43.9**	**-0.4**
	4.0nm,0.6s						
WB2	**Warramunga Arr**	**20.34**	**229**	eP	**P**	**06 05 44.4**	**+0.1**
WRA	**Warramunga Arr**	**20.35**	**229**	P	**P**	**06 05 44.5**	**+0.1**
	3.7nm,1.0s,baz=55,slow=10,SNR=19						
ASAR	**Alice Springs**	**23.05**	**222**	P	**P**	**06 06 12.3**	**+1.2**
	5.7nm,0.7s,mb4.1,baz=54,slow=9.2,SNR=45						
ASPA	**Alice Springs**	**23.05**	**222**	eP	**P**	**06 06 12.1**	**+1.0**
STKA	**Stephens Creek**	**26.13**	**198**	P	**P**	**06 06 39.6**	**-0.5**
	1.1nm,0.5s,mb3.7,baz=32,slow=15,SNR=3.1						
FITZ	**Fitzroy Crossi**	**26.70**	**243**	eP	**P**	**06 06 44.6**	**-0.8**
	1.7nm,0.3s,mb4.2						
FITZ	**Fitzroy Crossi**	**26.70**	**243**	P	**P**	**06 06 44.7**	**-0.7**
	2.0nm,0.4s,mb4.1,baz=42,slow=8.9,SNR=23						
SONM	**Songino Array**	**67.05**	**329**	P	**P**	**06 11 59.2**	**+1.6**
	0.4nm,0.6s,mb3.5,baz=148,slow=6.4,SNR=4.1						
ILAR	**Eielson Array**	**85.02**	**22**	P	**P**	**06 13 36.9**	**-1.1**
	1.2nm,0.7s,mb3.7,baz=246,slow=5.2,SNR=7.6						

*CASC **03** 06:07:32.0±2.5, 12.59N×89.45W, h34^{km}±20^{km}, MD4.4, ML4.2, mb4.3(NEIC)*
*NEIC **03** 06:07:33.8±1.6, 12.52N×89.45W, h74^{km}±17^{km}, mb4.3/27, Error ellipse: s-maj=17.3km s-min=7.9km az=50.0*
*BJI **03** 06:07:33.7, 12.50N×89.50W, h73^{km}, mB4.9, Ms5.1, Msz4.9*
*IDC **03** 06:07:55.3±3.9, 13.84N×89.22W, h189^{km}±31^{km}, mb3.6/8, mb1 3.8/9, mb1mx3.6/18, MS3.9/10, Ms1 3.9/10, ms1mx3.6/17, Error ellipse: s-maj=35.5km s-min=19.8km az=38.0*
ISC 03 06:07:30.9±0.6**, 12.53N**±0.05×**89.46W**±0.04**, h59**^{km}±5^{km}**, n102, σ1^{s}11**/95**, mb4.3**/30**, MS4.1**/12**, 10C-14D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LFRS	**El Faro**	**1.16**	**19**	⇑eP	**P**	**06 07 51.2**	**0.0**
LFRS				eS	**S**	**06 08 05.7**	**-0.7**
SNET	**Serv Nac Est T**	**1.17**	**11**	⇓eP	**P**	**06 07 52.0**	**+0.5**
SNET				i		06 08 16.8	
	comp=Z,5μm,0.7s						
BOQS	**Boqueron**	**1.21**	**8**	⇓eP	**P**	**06 07 50.5**	**-1.5**
LCBS	**La Ceiba**	**1.21**	**22**	⇑eP	**P**	**06 07 52.3**	**+0.2**
SNVI	**San Vicente**	**1.23**	**29**	⇓eP	**P**	**06 07 52.4**	**0.0**
LFU	**La Fuente**	**1.26**	**15**	⇑eP	**P**	**06 07 53.4**	**+0.6**
LBRS	**Las Brisas**	**1.27**	**18**	⇑eP	**P**	**06 07 53.6**	**+0.7**
LBRS				eS	**S**	**06 08 08.7**	**-0.5**
SBLS	**San Blas**	**1.31**	**353**	⇑eP	**P**	**06 07 52.7**	**-0.9**
SBLS				eS	**S**	**06 08 10.5**	**+0.1**
SNJE	**San Jose**	**1.34**	**354**	⇓eP	**P**	**06 07 53.3**	**-0.7**
RTR	**El Retiro**	**1.37**	**352**	⇓eP	**P**	**06 07 53.7**	**-0.7**
CUSS	**Cusmapa**	**1.45**	**341**	⇑eP	**P**	**06 07 56.6**	**+1.0**
VSM	**San Miguel**	**1.46**	**52**	⇓eP	**P**	**06 07 54.3**	**-1.3**
BLLM	**Bellamira**	**1.50**	**52**	⇓eP	**P**	**06 07 57.1**	**+1.0**
RBDL	**Robledal**	**1.59**	**352**	⇑eP	**P**	**06 07 57.0**	**-0.4**
CAHU	**Cacacuatique**	**1.73**	**44**	⇓eP	**P**	**06 08 00.3**	**+1.0**
CAHU				eS	**S**	**06 08 21.2**	**+0.9**
CNCH	**Conchagua**	**1.75**	**65**	⇑eP	**P**	**06 07 59.8**	**+0.3**
MTO2	**Montecristo 2**	**1.86**	**3**	⇓eP	**P**	**06 08 01.6**	**+0.5**
IXG	**Ixpaco**	**1.90**	**329**	eP	**P**	**06 08 00.2**	**-1.5**
IXG				AML	AML	06 08 42.8	
	comp=N,15μm,0.6s						
FUG	**Fuego 3**	**2.34**	**325**	⇑eP	**P**	**06 08 09.7**	**+1.8**
PYN	**Poneloya**	**2.38**	**93**	eP	**P**	**06 08 08.0**	**-0.5**
LEON	**Leon**	**2.51**	**92**	⇓eP	**P**	**06 08 10.1**	**-0.1**
TELN	**Telica**	**2.56**	**88**	eP	**P**	**06 08 12.5**	**+1.5**
MIRN	**Miramar**	**2.68**	**92**	eP	**P**	**06 08 12.3**	**-0.5**
JAT	**Jato**	**2.77**	**310**	eP	**P**	**06 08 12.1**	**-1.9**
JAT				eS	**S**	**06 08 48.4**	**+2.1**
JAT				AML	AML	06 09 13.8	
	comp=N,2μm,0.6s						
COPN	**Copaltepe**	**2.82**	**97**	eP	**P**	**06 08 14.1**	**-0.6**
APYN	**Apoyeque**	**3.05**	**95**	⇓eP	**P**	**06 08 17.4**	**-0.5**
XAVN	**Gruta Xavier**	**3.08**	**97**	eP	**P**	**06 08 18.4**	**0.0**
MGAN	**Managua**	**3.16**	**97**	eP	**P**	**06 08 19.4**	**-0.1**
MGAN				eS	**S**	**06 08 56.0**	**-0.1**
MGAN				i		06 08 59.2	
	comp=E,227nm,0.5s						
TICN	**Ticuantepe**	**3.19**	**99**	eP	**P**	**06 08 20.3**	**+0.4**
WILN	**Americas 2**	**3.21**	**96**	⇓eP	**P**	**06 08 19.8**	**-0.4**
PYTN	**Playitas**	**3.32**	**89**	eP	**P**	**06 08 20.4**	**-1.3**
APON	**Apoyo**	**3.37**	**100**	eP	**P**	**06 08 22.3**	**-0.1**
JTS	**JuntasAbangare**	**4.94**	**116**	ePn	**P**	**06 08 44.8**	**+0.4**
PRS1	**Puriscal**	**5.64**	**116**	⇓eP	**P**	**06 08 57.6**	**+3.5**
PRS1				eS	**S**	**06 09 57.7**	**-0.7**
LAJ	**Bijagual**	**5.87**	**116**	⇓eP	**P**	**06 08 54.9**	**-2.3**
TRTC	**Tortuguero**	**5.95**	**108**	eP	**P**	**06 09 00.7**	**+2.3**
URSC	**Urasca**	**6.18**	**115**	⇑eP	**P**	**06 09 04.4**	**+2.8**
URSC				eS	**S**	**06 10 15.4**	**+3.6**
TEIG	**Tepich**	**7.74**	**8**	P	**P**	**06 09 27.7**	**+4.3**
	comp=E,0.0nm,0.3s,baz=181,slow=24,SNR=3.3						
HKT	**Hockley**	**18.32**	**342**	eP	**P**	**06 11 40.6**	**-1.9**
	comp=E,38nm,2.0s						
SDV	**Santo Domingo**	**18.84**	**99**	eP	**P**	**06 11 48.8**	**0.0**
	comp=E,4.5nm,0.7s						
JCT	**Junction City**	**20.27**	**333**	eP	**P**	**06 12 01.4**	**-2.7**
	comp=E,9.5nm,0.7s						
LRAL	**Lakeview Retre**	**20.54**	**6**	eP	**P**	**06 12 07.6**	**+0.7**
	comp=E,5.9nm,0.6s						
LTX	**Lajitas**	**21.31**	**324**	eP	**P**	**06 12 16.1**	**+1.3**
	comp=E,22nm,1.0s,mb4.4						
TXAR	**Lajitas Array**	**21.31**	**324**	P	**P**	**06 12 17.1**	**+2.3**
	comp=E,9.5nm,0.6s,mb4.3,baz=144,slow=10,SNR=123						
OXF	**Oxford**	**21.89**	**0**	eP	**P**	**06 12 22.0**	**+1.5**
	comp=E,90nm,1.0s,mb5.2						
MIAR	**Mount Ida**	**22.24**	**351**	eP	**P**	**06 12 25.1**	**+1.3**
	comp=E,26nm,1.1s,mb4.6						
UALR	**University of**	**22.30**	**354**	eP	**P**	**06 12 25.4**	**+0.8**
	comp=E,42nm,1.0s,mb4.8						
SWET	**Sewanee**	**22.81**	**7**	eP	**P**	**06 12 30.5**	**+0.9**
HBAR	**Harrisburg**	**22.95**	**357**	eP	**P**	**06 12 33.1**	**+2.2**
SJG	**San Juan**	**23.14**	**73**	LR	LR	06 20 56.8	
	comp=E,332nm,21.4s,MS3.8,baz=280,slow=35						
WVT	**Waverly**	**23.55**	**3**	eP	**P**	**06 12 38.1**	**+1.4**
	comp=E,2.3nm,0.5s,mb3.9						
WMOK	**Wichita Mounta**	**23.68**	**341**	eP	**P**	**06 12 38.0**	**0.0**
	comp=E,15nm,0.8s,mb4.5						
PARMO	**Parma**	**24.03**	**359**	eP	**P**	**06 12 41.5**	**+0.2**
CPRX	**Cap Rock**	**24.30**	**329**	eP	**P**	**06 12 44.9**	**+0.9**
AMTX	**Amarillo**	**24.87**	**336**	eP	**P**	**06 12 46.7**	**-2.8**
	comp=E,12nm,0.6s,mb4.6						
FVM	**French Village**	**25.36**	**358**	eP	**P**	**06 12 52.8**	**-1.4**
	comp=E,7.5nm,0.6s,mb4.4						
CCM	**Cathedral Cave**	**25.47**	**357**	eP	**P**	**06 12 55.0**	**-0.2**
	comp=E,12nm,0.6s,mb4.6						
WCI	**Wyandotte Cave**	**25.75**	**6**	eP	**P**	**06 12 56.2**	**-1.6**
	comp=E,10nm,0.6s,mb4.5						
ANMO	**Albuquerque**	**27.13**	**328**	P	**P**	**06 13 13.0**	**+2.5**
	comp=E,0.7nm,0.5s,mb3.4,baz=124,slow=8.8,SNR=6.2						
ANMO	**Albuquerque**	**27.13**	**328**	P	**P**	**06 13 10.6**	**+0.1**

	comp=E,1.0nm,0.5s,mb3.6						
TUC	**Tucson**	**27.76**	**319**	*e*P	**P**	**06 13 22.7**	**+6.4**
	comp=E,9.7nm,1.3s,mb4.3						
SDCO	**Great Sand Dun**	**28.92**	**333**	*e*P	**P**	**06 13 25.4**	**-1.2**
	comp=E,1.9nm,0.8s,mb3.9						
NEN	**Nelson**	**32.48**	**319**	P	**P**	**06 13 56.0**	**-2.1**
SAML	**Samuel**	**33.72**	**128**	*e*P	**P**	**06 14 09.3**	**+0.4**
	comp=E,10nm,1.3s,mb4.6						
PDAR	**Pinedale Array**	**34.80**	**334**	P	**P**	**06 14 20.2**	**+2.3**
	comp=E,0.3nm,0.5s,mb3.5,baz=120,slow=9.8,SNR=3.8						
PDAR				PcP	PcP	06 16 53.6	+3.2
	comp=E,0.5nm,0.5s,baz=134,slow=5.5,SNR=5.7						
HWUT	**Hardware Ranch**	**34.81**	**330**	*e*P	**P**	**06 14 17.1**	**-0.9**
	comp=E,1.9nm,0.7s,mb4.1						
EYMN	**Ely**	**35.35**	**358**	*e*P	**P**	**06 14 21.5**	**-1.1**
	comp=E,6.4nm,0.6s,mb4.7						
LPAZ	**La Paz**	**35.56**	**143**	LR	LR	06 31 40.6	
	comp=E,59nm,18.7s,MS3.4,baz=247,slow=39						
LPAZ	**La Paz**	**35.56**	**143**	*e*P	**P**	**06 14 24.4**	**-0.2**
	comp=E,2.4nm,1.1s,mb4.0						
REDW	**Red Top Meadow**	**35.85**	**333**	*e*P	**P**	**06 14 27.4**	**+0.6**
SNOW	**Snow King Moun**	**35.89**	**333**	*e*P	**P**	**06 14 27.5**	**+0.3**
TPAW	**Teton Pass**	**35.99**	**333**	*e*P	**P**	**06 14 27.8**	**-0.3**
ELK	**Elko**	**36.08**	**326**	P	**P**	**06 14 28.3**	**-0.6**
IMW	**Indian Meadow**	**36.31**	**333**	P	**P**	**06 14 30.7**	**0.0**
NVAR	**Mina Array Bea**	**36.37**	**320**	P	**P**	**06 14 34.8**	**+3.4**
	comp=E,1.9nm,0.7s,mb4.2,baz=130,slow=8.5,SNR=12						
NVAR				PcP	PcP	06 16 57.7	+2.6
	comp=E,1.2nm,0.9s,baz=125,slow=3.2,SNR=3.6						
NVAR				LR	LR	06 30 41.3	
	comp=E,198nm,19.7s,MS3.9,baz=145,slow=38						
NVAR	**Mina Array Bea**	**36.37**	**320**	P	**P**	**06 14 34.8**	**+3.4**
NVAR				PcP	PcP	06 16 57.7	+2.6
NVAR				LR	LR	06 30 41.3	
HLID	**Hailey**	**37.67**	**330**	*e*P	**P**	**06 14 41.8**	**-0.3**
	comp=E,0.8nm,0.6s,mb3.6						
DGMT	**Dagmar**	**37.88**	**344**	*e*P	**P**	**06 14 44.2**	**+0.5**
	comp=E,18nm,0.7s,mb4.9						
MCMT	**McKenzie Canyo**	**37.89**	**333**	*e*P	**P**	**06 14 44.2**	**+0.3**
ULM	**Lac du Bonnet**	**37.98**	**353**	P	**P**	**06 14 43.6**	**-1.0**
	comp=E,2.4nm,0.5s,mb4.2,baz=172,slow=8.9,SNR=5.4						
ULM				LR	LR	06 32 54.1	
	comp=E,220nm,20.0s,MS4.0,baz=101,slow=41						
BOZ	**Bozeman (W)**	**38.01**	**335**	*e*P	**P**	**06 14 45.9**	**+1.0**
	comp=E,1.4nm,0.6s,mb3.9						
WALA	**Waterton Lakes**	**41.66**	**336**	*e*P	**P**	**06 15 13.8**	**-1.3**
WALA				*e*	pP	06 15 27.3	-3.1
FFC	**Flin Flon**	**43.24**	**349**	*e*P	**P**	**06 15 27.7**	**-0.3**
	comp=E,3.0nm,0.7s,mb4.1						
SCHQ	**Schefferville**	**45.79**	**18**	P	**P**	**06 15 47.8**	**-0.6**
	comp=E,7.5nm,0.7s,mb4.8,baz=209,slow=7.8,SNR=17						
SCHQ				LR	LR	06 37 17.4	
	comp=E,172nm,18.3s,MS4.0,baz=207,slow=40						
FCC	**Fort Churchill**	**46.28**	**357**	*e*P	**P**	**06 15 51.5**	**-0.6**
	comp=E,4.1nm,0.6s,mb4.5						
BDFB	**Brasilia**	**49.65**	**123**	P	pP	06 16 32.2	-2.3
	comp=E,4.1nm,1.0s,baz=286,slow=7.4,SNR=3.9						
BDFB				LR	LR	06 39 01.0	
	comp=E,193nm,19.2s,MS4.1,baz=300,slow=37						
BDFB	**Brasilia**	**49.65**	**123**	P	pP	06 16 32.2	-2.3
BDFB				LR	LR	06 39 01.0	
YKA	**Yellowknife Ar**	**53.04**	**346**	P	**P**	**06 16 43.3**	**-0.6**
	comp=E,1.6nm,0.8s,mb4.0,baz=144,slow=7.5,SNR=19						
YKA				LR	LR	06 42 37.1	
	comp=E,196nm,19.3s,MS4.2,baz=130,slow=40						
YKW3	**Yellowknife Ar**	**53.10**	**346**	*e*P	**P**	**06 16 43.8**	**-0.6**
INK	**Inuvik**	**62.55**	**343**	*e*P	**P**	**06 17 49.6**	**-1.1**
	comp=E,1.3nm,0.4s,mb4.4						
ILAR	**Eielson Array**	**65.17**	**337**	P	**P**	**06 18 08.3**	**+0.5**
	comp=E,0.8nm,0.7s,mb3.9,baz=159,slow=5.0,SNR=13						
ILAR				LR	LR	06 49 31.6	
	comp=E,125nm,19.0s,MS4.1,baz=169,slow=39						
ARCES	**ARCESS Array B**	**86.74**	**19**	LR	LR	06 59 55.9	
	comp=E,44nm,18.8s,MS3.9,baz=199,slow=36						
FINES	**FINESS Array B**	**90.76**	**26**	LR	LR	07 05 48.4	
	comp=E,60nm,18.4s,MS4.1,baz=118,slow=39						
CN2	**Changchun**	**115.55**	**333**	*e*PKP	PKPdf	06 26 07.3	+0.8
BJI	**Beijing**	**122.53**	**337**	PKP	PKPdf	06 26 24.4	+4.3
HHC	**Hu-ho-hao-te**	**123.44**	**341**	*e*PKP	PKPdf	06 26 27.5	+5.6
WMQ	**Urumqi**	**123.87**	**2**	PKP	PKPdf	06 26 23.0	+0.4
WMQ				XPKP		06 26 47.0	
WMQ				PP	PP	06 28 11.5	+0.2
WMQ				PKS	PKS	06 29 58.4	-0.1
WMQ				PP	PP		
	comp=Z,17nm,7.4s						
WMQ				LR	LR		
	comp=N,89nm,28.0s,MS4.6						
WMQ				LR	LR		
	comp=E,176nm,28.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,111nm,23.5s,MS4.5						
NJ2	**Nanjing**	**128.04**	**329**	*e*PKP	PKPdf	06 26 37.1	+6.1
LZH	**Lanzhou**	**130.04**	**346**	*e*PKP	PKPdf	06 26 35.4	+0.7
LZH				LR	LR		
	comp=N,172nm,18.0s						
LZH				LR	LR		
	comp=Z,249nm,20.2s,MS4.9						
WRA	**Warramunga Arr**	**137.41**	**254**	PKP	PKPdf	06 26 59.2	+10
	comp=Z,0.5nm,0.5s,baz=89,slow=2.5,SNR=8.3						
ASAR	**Alice Springs**	**137.48**	**249**	PKP	PKPdf	06 26 59.8	+11
	comp=Z,0.4nm,0.5s,baz=92,slow=2.1,SNR=6.4						
CMAR	**Chiang Mai Arr**	**148.12**	**345**	PKPbc	PKPdf	06 27 15.8	+8.2
	comp=Z,1.6nm,0.6s,baz=345,slow=3.1,SNR=8.6						

DJA 03 06:10:51.9±1.3**, 2.35S**×**119.53E, h200**^{km}**, MD4.6**/3**, ML4.6**/3**, 4C-3D, Error ellipse: s-maj=47.6km s-min=33.4km az=103.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TANI	**Tanete Lipujan**	**1.09**	**188**	⇑*e*Pn	P	06 11 14.4	-8.1
	776nm,0.2s						
TANI				⇓*i*Sn	S	06 11 30.8	-15
BUNI	**Buntu Taipa**	**1.52**	**149**	⇓*e*Pn	P	06 11 25.3	-0.9
	482nm,0.2s						
BUNI				⇑*e*Sn	S	06 11 51.1	-1.5
NINI	**Niniconang**	**2.07**	**174**	⇓*i*Pn	P	06 11 31.6	+0.1
	284nm,0.3s						
NINI	**Niniconang**	**2.07**	**174**	⇑*e*P	P	06 11 32.4	+0.9
NINI				⇑*e*Sn	S	06 11 59.2	-2.9

*IDC **03** 06:27:03.2±5.7, 36.24S×179.77W, h111^{km}±49^{km}, mb4.2/3, mb1 4.3/5, mb1mx4.0/13, MS3.8/1, Ms1 3.8/1, ms1mx2.8/16, Error ellipse: s-maj=62.6km s-min=42.1km az=178.0*

*NEIC **03** 06:27:05.6±1.7, 36.34S×179.97W, h127^{km}±14^{km}, mb4.5/6, Error ellipse: s-maj=26.0km s-min=16.1km az=194.0*

ISC 03 06:26:53.9±1.8**, 36.5S**±0.1×**178.5W**±0.2**, h124**^{km}±10^{km}**, n34,** σ**1**^{s}**13**/37**, mb4.6**/8**, 1C-1D, East of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**2.79**	**247**	P	**P**	**06 27 36.7**	**-1.7**
MXZ				S	**S**	**06 28 11.1**	**-1.1**
MXZ	**Matakaoa Point**	**2.79**	**247**	P	**P**	**06 27 35.9**	**-2.5**
MXZ				S	**S**	**06 28 10.4**	**-1.8**
MXZ				*e*T		06 30 22.0	
PUZ	**Puketiti**	**3.05**	**238**	P	**P**	**06 27 43.0**	**+1.2**
PUZ				S	**S**	**06 28 22.1**	**+3.9**
PUZ	**Puketiti**	**3.05**	**238**	P	**P**	**06 27 42.1**	**+0.3**
PUZ				S	**S**	**06 28 20.2**	**+2.0**
MWZ	**Matawai**	**3.68**	**239**	P	**P**	**06 27 50.0**	**-0.2**
MWZ				S	**S**	**06 28 35.4**	**+2.2**
MWZ	**Matawai**	**3.68**	**239**	P	**P**	**06 27 49.8**	**-0.4**
MWZ				S	**S**	**06 28 35.6**	**+2.4**
URZ	**Urewera**	**3.94**	**243**	P	**P**	**06 27 52.6**	**-1.1**
	13nm,0.3s,baz=20,slow=1.3,SNR=44						
URZ				S	**S**	**06 28 39.8**	**+0.3**
	24nm,0.3s,baz=120,slow=22,SNR=11						
URZ	**Urewera**	**3.94**	**243**	P	**P**	**06 27 52.6**	**-1.1**
URZ	**Urewera**	**3.94**	**243**	P	**P**	**06 27 52.4**	**-1.3**
KNZ	**Kokohu**	**3.96**	**230**	*e*P	**P**	**06 27 56.1**	**+2.2**
KNZ	**Kokohu**	**3.96**	**230**	P	**P**	**06 27 55.8**	**+1.9**
BKZ	**Black Stump Fm**	**4.79**	**235**	P	**P**	**06 28 05.3**	**+0.1**
BKZ				S	**S**	**06 29 02.1**	**+2.0**
NGZ	**Ngauruhoe**	**5.40**	**239**	P	**P**	**06 28 13.0**	**-0.3**
TUVZ	**Tukino**	**5.41**	**238**	*e*P	**P**	**06 28 12.9**	**-0.5**
CNZ	**Chateau**	**5.45**	**239**	P	**P**	**06 28 13.8**	**-0.2**
THZ	**Tophouse**	**8.51**	**229**	S	**S**	**06 30 29.2**	**-1.1**
RPZ	**Rata Peaks**	**10.77**	**225**	P	**P**	**06 29 25.4**	**-0.1**
	0.7nm,0.3s,baz=319,slow=23,SNR=2.5						
RPZ				S	**S**	**06 31 21.7**	**-2.5**
	1.7nm,0.3s,baz=38,slow=19,SNR=5.6						
STKA	**Stephens Creek**	**33.20**	**266**	P	**P**	**06 33 20.1**	**-0.6**
	1.4nm,0.7s,mb3.9,baz=124,slow=15,SNR=4.5						
CTA	**Charters Tower**	**34.89**	**288**	*e*P	**P**	**06 33 34.1**	**-1.1**
	2.6nm,0.4s,mb4.4						
CTAO	**Charters Tower**	**34.89**	**288**	*e*P	**P**	**06 33 33.9**	**-1.4**
	4.3nm,0.6s,mb4.5						
ASAR	**Alice Springs**	**42.77**	**274**	P	**P**	**06 34 41.4**	**+0.8**
	5.2nm,0.5s,mb4.5,baz=115,slow=7.9,SNR=69						
ASAR				LR	LR	06 52 55.9	
	comp=Z,101nm,18.2s,baz=141,slow=37						
ASPA	**Alice Springs**	**42.77**	**274**	⇑*i*P	**P**	**06 34 41.5**	**+0.9**
WB2	**Warramunga Arr**	**44.29**	**279**	*e*P	**P**	**06 34 52.5**	**-0.4**
WRAB	**Tennant Creek**	**44.30**	**279**	*e*P	**P**	**06 34 52.6**	**-0.4**
	16nm,0.5s,mb5.0						
WRA	**Warramunga Arr**	**44.30**	**279**	P	**P**	**06 34 52.8**	**-0.2**
	8.4nm,0.4s,mb4.8,baz=119,slow=7.6,SNR=193						
NWAO	**Narrogin (SRO)**	**52.11**	**254**	*e*P	**P**	**06 35 54.3**	**+1.0**
	4.4nm,0.3s,mb5.0						
FITZ	**Fitzroy Crossi**	**52.23**	**275**	⇓*i*P	**P**	**06 35 55.2**	**+0.8**
	3.1nm,0.6s,mb4.5						
MBWA	**Marble Bar**	**55.41**	**268**	P	**P**	**06 36 18.3**	**+0.6**
	3.3nm,0.6s,mb4.5						
ARCES	**ARCESS Array B**	**144.45**	**346**	PKP	PKPdf	06 46 24.6	+10
	1.9nm,0.7s,baz=90,slow=2.4,SNR=4.1						
JOF	**Joensuu**	**147.88**	**335**	*e*pkp	PKPdf	06 46 30.8	+11
KAF	**Kangasniemi**	**150.10**	**337**	*e*pkp	PKPdf	06 46 35.0	+11
FINES	**FINESS Array B**	**150.67**	**336**	PKPbc	PKPdf	06 46 39.0	+15
	3.4nm,0.5s,baz=36,slow=5.1,SNR=25						
BRTR	**Keskin Array B**	**154.62**	**287**	PKPbc	PKPdf	06 46 49.0	+18
	0.9nm,0.7s,baz=153,slow=2.8,SNR=3.8						
NB2	**NORSAR Subarra**	**154.71**	**349**	PKP	PKPdf	06 46 59.9	+30
	1.7nm,0.8s,baz=22,slow=4.1						

*BGR **03** 06:52:37.9±0.5, 48.42N×7.36E, h5^{km}, ML1.1/1, Error ellipse: s-maj=8.9km s-min=3.3km az=177.0*

*STR **03** 06:52:38.4±0.2, 48.42N×7.32E, h2^{km}±1^{km}, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 03 06:52:37.1±0.3**, 48.47N**×**7.34E, h6**^{km}**, Md2.3**/3**, Ml2.3**/2**, Error ellipse: s-maj=5.7km s-min=3.8km az=67.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLS	**Welschbruch**	**0.06**	**171**	Pg	Pg	06 52 38.9	+0.2
WLS				Sg	Sg	06 52 39.9	+0.1
CDF	**Champ du Feu**	**0.07**	**215**	*e*Pg	Pg	06 52 39.3	+0.4
CDF				*e*Sg	Sg	06 52 40.2	+0.1
	46nm,0.2s						
CDF	**Champ du Feu**	**0.07**	**215**	*e*Pg	Pg	06 52 39.4	+0.5
	SNR=46						
CDF				*e*Sg	Sg	06 52 40.7	+0.5
	SNR=5.0						
ECH	**Echery**	**0.28**	**205**	Pg	Pg	06 52 42.9	0.0
ECH				Sg	Sg	06 52 46.5	-0.2
LANF	**Langenberg**	**0.59**	**31**	Pg	Pg	06 52 50.7	+1.7
BFO	**Black Forest**	**0.68**	**102**	*e*Pg	Pg	06 52 50.7	+0.1
	SNR=1.6						
BFO				*e*Sg	Sg	06 52 58.6	-1.1
	SNR=10						
HINF	**Hinteralfeld**	**0.73**	**207**	*e*Pg	Pg	06 52 52.0	+0.2
HINF				*e*Sg	Sg	06 53 00.0	-1.6
	10nm,0.4s						
HINF	**Hinteralfeld**	**0.73**	**207**	*e*Sg	Sg	06 53 00.3	-1.3
	SNR=6.6						
HAU	**Haudompre**	**0.81**	**235**	*e*Pg	Pg	06 52 52.9	-0.4
HAU				*e*Sg	Sg	06 53 03.2	-1.0
	9.4nm,0.3s						
HAU	**Haudompre**	**0.81**	**235**	*e*Pg	Pg	06 52 52.9	-0.4
	SNR=2.3						
HAU				*e*Sg	Sg	06 53 03.5	-0.6
	SNR=2.7						
RFYF	**Reffroy**	**1.25**	**278**	*e*Pn	Pn	06 52 59.3	-1.8
RFYF				*e*Pg	Pg	06 53 00.4	-1.7
RFYF				*e*Sg	Sg	06 53 16.8	-1.9
	5.7nm,0.3s						
RFYF	**Reffroy**	**1.25**	**278**	*e*Sg	Sg	06 53 19.2	+0.4
	SNR=2.5						
SFTF	**Sexfontaines**	**1.56**	**261**	*e*Pg	Pg	06 53 06.2	-2.0
SFTF				*e*Sg	Sg	06 53 25.9	-3.1
	4.5nm,0.2s						
SFTF	**Sexfontaines**	**1.56**	**261**	*e*Sg	Sg	06 53 27.8	-1.3
	SNR=2.3						

IDC 03 07:08:13.5±0.8**, 16.68N**×**145.71E, mb3.7**/6**, mb1 4.0**/6**, mb1mx3.8**/19**, Error ellipse: s-maj=46.3km s-min=21.3km az=108.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**38.06**	**198**	P	P	07 15 33.5	-2.3
	0.6nm,0.6s,baz=23,slow=9.2,SNR=18						
ASAR	**Alice Springs**	**41.72**	**196**	P	P	07 16 04.8	-1.3
	0.4nm,0.6s,baz=16,slow=14,SNR=4.1						
ILAR	**Eielson Array**	**65.45**	**26**	P	P	07 18 57.6	-2.5
	0.8nm,0.7s,baz=263,slow=7.1,SNR=7.3						
BVAR	**Borovoye Array**	**68.04**	**321**	P	P	07 19 15.0	-1.8
	0.8nm,0.5s,baz=101,slow=7.6,SNR=7.5						
YKA	**Yellowknife Ar**	**79.76**	**28**	P	P	07 20 22.7	-1.9
	0.3nm,0.5s,baz=288,slow=5.1,SNR=6.8						
NVAR	**Mina Array Bea**	**84.37**	**52**	P	P	07 20 49.3	+0.1
	0.6nm,0.5s,baz=269,slow=6.1,SNR=5.9						
LPAZ	**La Paz**	**147.57**	**94**	PKPbc	PKPdf	07 28 00.7	+0.9
	0.6nm,0.3s,baz=213,slow=13,SNR=7.3						

*NIED **03** 07:14:00, 36.90N×135.20E, h340^{km}, Mw4.1 Best double couple: $M_0$1.46×10^{15} NP1:ϕ_s24°, δ89°, λ-111°. NP2: ϕ_s291°, δ21°, λ-3°.*

*BJI **03** 07:14:31.0, 36.92N×135.30E, h395^{km}, mB4.6, mb4.3*

*IDC **03** 07:14:32.8±2.6, 37.03N×135.48E, h376^{km}±31^{km}, mb3.4/10, mb1 3.6/11, mb1mx3.3/24, Error ellipse: s-maj=25.8km s-min=12.2km az=74.0*

*JMA **03** 07:14:32.5±0.2, 36.92N×135.22E, h377^{km}±2^{km}, M3.7*

*NEIC **03** 07:14:33.1±0.6, 36.97N×135.26E, h376^{km}±10^{km}, mb3.8/8, Error ellipse: s-maj=20.2km s-min=11.1km az=65.0*

ISC 03 07:14:32.2±0.3**, 36.97N**±0.06×**135.28E**±0.07**, h379**^{km}±4^{km}**, n51,** σ**0**^{s}**93**/61**, mb3.8**/22**, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKY	**Yasaka**	**1.34**	**186**	P	**P**	**07 15 22.5**	**-0.3**
JKY				S	**S**	**07 16 01.8**	**-0.7**
JKSM	**Kasumi**	**1.46**	**200**	P	**P**	**07 15 22.8**	**-0.6**
JHG	**Hegura jima**	**1.58**	**56**	P	**P**	**07 15 24.6**	**+0.6**
JWT	**Wachi**	**1.68**	**176**	P	**P**	**07 15 24.5**	**-0.1**
JWT				S	**S**	**07 16 04.4**	**-1.3**
JGM	**Miyama**	**1.72**	**137**	P	**P**	**07 15 24.8**	**0.0**
JGM				S	**S**	**07 16 06.4**	**+0.3**
JSZ	**Suzu**	**1.73**	**73**	P	**P**	**07 15 25.6**	**+0.7**
JNG	**Nsakai**	**2.34**	**103**	P	**P**	**07 15 29.3**	**+0.4**
MAJO	**Matsushiro**	**2.39**	**99**	*e*Pn	**P**	**07 15 29.5**	**+0.2**
MAT	**Matsushiro**	**2.39**	**99**	P	**P**	**07 15 29.6**	**+0.3**
MAT				*e*S	**S**	**07 16 14.5**	**+0.4**
MAT	**Matsushiro**	**2.39**	**99**	P	**P**	**07 15 29.5**	**+0.2**
MAT	**Matsushiro**	**2.39**	**99**	*e*P	**P**	**07 15 30.0**	**+0.7**
MAT				S	**S**	**07 16 15.0**	**+0.9**
JSD	**Sado**	**2.60**	**65**	P	**P**	**07 15 31.3**	**+0.4**
JIE	**Ise**	**2.82**	**155**	P	**P**	**07 15 33.1**	**+0.5**
JIE				S	**S**	**07 16 19.7**	**-0.4**
JHK	**Hiroka**	**3.00**	**84**	P	**P**	**07 15 34.3**	**+0.2**
JHK				S	**S**	**07 16 26.1**	**+3.3**
JYN	**Shimob**	**3.02**	**118**	P	**P**	**07 15 34.1**	**-0.2**
JRY	**Ryogami san**	**3.07**	**107**	P	**P**	**07 15 35.6**	**+0.9**
JOD2	**Odawara 2**	**3.52**	**118**	P	**P**	**07 15 39.0**	**+0.2**
JOD2				S	**S**	**07 16 32.7**	**+1.5**
JFT	**Otama**	**4.08**	**81**	P	**P**	**07 15 44.4**	**+0.2**
JMM	**Marumori**	**4.48**	**77**	P	**P**	**07 15 48.6**	**+0.3**
JFK	**Kawauchi**	**4.49**	**83**	P	**P**	**07 15 47.8**	**-0.6**
JFK				*e*S	**S**	**07 16 45.9**	**-2.3**
JRG	**Rokugo**	**4.87**	**58**	P	**P**	**07 15 52.7**	**+0.3**
JMK	**Ichinoseki**	**5.10**	**65**	P	**P**	**07 15 54.9**	**+0.1**
BSO1	**Boso 1**	**5.18**	**115**	P	**P**	**07 15 54.3**	**-1.3**
MDJ	**Mudanjiang**	**8.77**	**332**	P	**P**	**07 16 36.5**	**-0.1**
MDJ				AMB	AMB		
	comp=Z,23nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,165nm,5.4s						
ASAJ	**Asahikawa**	**9.05**	**36**	P	**P**	**07 16 39.9**	**-0.1**
	comp=Z,9.5nm,0.3s,baz=235,slow=12,SNR=28						
ASAJ				S	**S**	**07 18 18.1**	**-2.8**
	comp=Z,1.7nm,0.3s,baz=40,slow=26,SNR=14						
CN2	**Changchun**	**10.13**	**315**	*e*P	**P**	**07 16 52.1**	**-0.6**
ENH	**Enshi**	**22.45**	**260**	*e*P	**P**	**07 18 60.0**	**-1.5**
	comp=Z,22nm,0.7s,mb4.5						
SONM	**Songino Array**	**23.80**	**306**	P	**P**	**07 19 13.3**	**-0.4**
	comp=Z,3.5nm,1.0s,mb3.5,baz=111,slow=8.7,SNR=12						
CMAR	**Chiang Mai Arr**	**36.79**	**250**	P	**P**	**07 21 08.8**	**+2.1**
	comp=Z,1.2nm,0.8s,mb3.2,baz=47,slow=8.2,SNR=4.7						
KURK	**Kurchatov**	**42.09**	**308**	*e*P	**P**	**07 21 48.7**	**-0.9**
	comp=Z,4.8nm,0.8s,mb3.7						
GUN	**Gumba**	**42.26**	**272**	*e*P	**P**	**07 21 53.3**	**+2.0**
	comp=Z,5.9nm,0.4s,mb4.1						
KKN	**Kakani**	**42.79**	**273**	*e*P	**P**	**07 21 57.2**	**+1.7**
DMN	**Daman**	**43.01**	**272**	*e*P	**P**	**07 21 59.8**	**+2.5**
	comp=Z,8.6nm,0.3s,mb4.3						
GKN	**Gorkha**	**43.21**	**273**	*e*P	**P**	**07 21 58.4**	**-0.5**
	comp=Z,18nm,0.7s,mb4.3						
KOLN	**Koldanda**	**44.14**	**273**	*e*P	**P**	**07 22 06.1**	**-0.2**
	comp=Z,4.9nm,0.3s,mb4.2						
TKM2	**Tokmak 2**	**45.31**	**297**	*e*P	**P**	**07 22 15.7**	**+0.4**
	comp=Z,3.8nm,0.6s,mb3.7						
AAK	**Ala-Archa**	**46.16**	**297**	*e*P	**P**	**07 22 20.9**	**-1.1**
	comp=Z,3.7nm,0.8s,mb3.6						
UCH	**Uchtor**	**46.25**	**296**	*e*P	**P**	**07 22 23.6**	**+1.0**
	comp=Z,2.6nm,0.7s,mb3.5						
EKS2	**Erkin-Say**	**46.67**	**297**	*e*P	**P**	**07 22 25.1**	**-0.8**
	comp=Z,2.6nm,0.7s,mb3.6						
AML	**Almayashu**	**46.87**	**296**	*e*P	**P**	**07 22 28.1**	**+0.8**
	comp=Z,21nm,0.7s,mb4.5						
BVAR	**Borovoye Array**	**46.96**	**312**	P	**P**	**07 22 27.4**	**-0.5**
	comp=Z,2.1nm,0.6s,mb3.6,baz=88,slow=7.5,SNR=15						
BRVK	**Borovoye**	**47.02**	**312**	*e*P	**P**	**07 22 27.7**	**-0.7**
	comp=Z,4.2nm,1.0s,mb3.6						
WB2	**Warramunga Arr**	**56.61**	**181**	*e*P	**P**	**07 23 37.9**	**-1.2**
WRA	**Warramunga Arr**	**56.61**	**181**	P	**P**	**07 23 38.0**	**-1.1**
	comp=Z,4.0nm,0.5s,mb4.0,baz=357,slow=7.5,SNR=67						
ASAR	**Alice Springs**	**60.32**	**181**	P	**P**	**07 24 03.9**	**-0.3**
	comp=Z,1.0nm,0.5s,mb3.5,baz=14,slow=13,SNR=22						
ARCES	**ARCESS Array B**	**62.27**	**338**	P	**P**	**07 24 15.9**	**-0.5**
	comp=Z,1.7nm,0.8s,mb3.6,baz=30,slow=9.8,SNR=4.4						
FINES	**FINESS Array B**	**66.51**	**330**	P	**P**	**07 24 43.3**	**-0.2**
	comp=Z,1.4nm,0.9s,mb3.7,baz=90,slow=5.7,SNR=6.3						
AKASG	**Malin Array Be**	**71.26**	**320**	P	**P**	**07 25 12.5**	**0.0**
	comp=Z,2.1nm,0.5s,mb4.1,baz=49,slow=6.2,SNR=22						
NB2	**NORSAR Subarra**	**72.26**	**335**	P	**P**	**07 25 18.5**	**+0.4**
	comp=Z,0.8nm,0.7s,mb3.6,baz=45,slow=5.8						
NOA	**NORSAR Array B**	**72.26**	**335**	P	**P**	**07 25 18.2**	**+0.1**
	comp=Z,1.5nm,0.8s,mb3.8,baz=45,slow=5.8,SNR=5.0						
BRTR	**Keskin Array B**	**75.14**	**309**	P	**P**	**07 25 36.2**	**+1.2**
	comp=Z,2.8nm,1.2s,mb3.9,baz=117,slow=5.5,SNR=3.6						

WEL 03 07:19:41.6±0.6**, 47.51S**×**165.21E, h33**^{km}**, ML3.8**/4**, Error ellipse: s-maj=8.6km s-min=5.2km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	**Wether Hill Ro**	**2.48**	**50**	PN	Pn	07 20 18.1	-2.6
WHZ				SN	Sn	07 20 45.3	-4.9
MLZ	**Mavora Lakes**	**2.98**	**44**	PN	Pn	07 20 25.3	-2.5
MLZ				SN	Sn	07 20 57.7	-5.1
TUZ	**Tuapeka**	**3.42**	**64**	PN	Pn	07 20 31.9	-2.1
EAZ	**Earnscleugh**	**3.64**	**53**	PN	Pn	07 20 35.2	-1.9
EAZ				SN	Sn	07 21 15.0	-4.4
WKZ	**Wanaka**	**3.77**	**46**	PN	Pn	07 20 36.9	-2.1
WKZ				SN	Sn	07 21 19.6	-3.2
JCZ	**Jackson Bay**	**4.24**	**37**	PN	Pn	07 20 43.2	-2.5
JCZ				SN	Sn	07 21 31.4	-3.3
ODZ	**Otahua Downs**	**4.50**	**59**	PN	Pn	07 20 44.6	-4.8

*CSEM **03** 07:33:01.2±0.3, 35.00N×2.98W, h8^{km}, mb4.0/17, Error ellipse: s-maj=5.2km s-min=3.7km az=157.0*

*NEIC **03** 07:33:02.6, 34.98N×3.05W, h0^{km}, MG4.0(MDD), After MDD.*

*SFS **03** 07:33:02.0, 34.98N×3.05W, ML4.0*

*LDG **03** 07:33:04.0±0.4, 34.90N×3.08W, h10^{km}, Ml3.6/1, Error ellipse: s-maj=8.8km s-min=5.4km az=175.0*

MDD 03 07:33:03.1±1.1**, 35.01N**×**3.08W, mb4.0**/18**, Error ellipse: s-maj=11.0km s-min=5.2km az=150.0, AftershockPLICA PRXIMO, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.30**	**19**	P	Pg	07 33 08.7	-0.5
	158nm,0.1s,SNR=20						
EMEL				S	Sg	07 33 12.9	-0.3
	3µm,0.2s,SNR=7.9						
MELI	**Melilla**	**0.30**	**23**	P	Pg	07 33 08.5	-0.7
MELI				S	Sg	07 33 13.1	-0.2
MELI	**Melilla**	**0.30**	**23**	*i* P	Pg	07 33 08.5	-0.7
EMLI	**Melilla**	**0.31**	**20**	P	Pg	07 33 08.7	-0.5
	158nm,0.1s,SNR=20						
EBER	**Berja**	**1.89**	**5**	P	Pn	07 33 34.7	-2.2
	4.5nm,0.3s,SNR=7.9						
EBER				S	Sn	07 33 55.2	-6.5
	238nm,0.8s,SNR=7.9						
EBER	**Berja**	**1.89**	**5**	P	Pn	07 33 34.7	-2.2
	4.5nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	**2.07**	**319**	P	Pn	07 33 36.7	-2.8
	6.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	07 34 01.0	-5.4
	104nm,0.4s,SNR=7.9						
ERON	**Agron**	**2.09**	**344**	P	Pn	07 33 37.0	-2.8
	4.9nm,0.2s,SNR=6.3						
ERON				S	Sn	07 34 00.7	-6.1
	31nm,0.4s						
REAL	**Reales**	**2.27**	**311**	*i* P	Pn	07 33 40.5	-1.9
ELOJ	**Sierra Loja**	**2.30**	**338**	P	Pn	07 33 42.2	-0.7
	9.2nm,0.4s,SNR=8.4						
ELOJ				S	Sn	07 34 10.8	-1.6
	7.2nm,0.3s						
LIJA	**Lijar**	**2.67**	**316**	P	Pn	07 33 48.0	-0.1
LIJA	**Lijar**	**2.67**	**316**	*i* P	Pn	07 33 48.0	-0.1
ELUQ	**Luque**	**2.72**	**340**	P	Pn	07 33 47.6	-1.3
	7.1nm,0.2s,SNR=9.1						
ELUQ				S	Sn	07 34 20.4	-2.5
	16nm,0.3s						
ELUQ	**Luque**	**2.72**	**340**	P	Pn	07 33 47.5	-1.3
ELUQ				S	Sn	07 34 20.4	-2.5
	16nm,0.3s						
EQES	**Quesada**	**2.79**	**0**	P	Pn	07 33 48.8	-0.9
	12nm,0.2s,SNR=7.9						
EQES				S	Sn	07 34 21.8	-2.8
	76nm,0.4s,SNR=7.9						
EQES	**Quesada**	**2.79**	**0**	P	Pn	07 33 48.8	-1.0
	12nm,0.2s,SNR=7.9						
EQES				S	Sn	07 34 21.8	-2.8
	76nm,0.4s,SNR=7.9						
ESPR	**Espera**	**2.92**	**310**	P	Pn	07 33 50.2	-1.5
	6.4nm,0.3s,SNR=7.9						
ESPR				S	Sn	07 34 28.5	+0.5
	15nm,0.3s,SNR=7.9						
ESPR	**Espera**	**2.92**	**310**	S	Sn	07 34 28.5	+0.6
	15nm,0.3s,SNR=7.9						
ESPR	**Espera**	**2.92**	**310**	P	Pn	07 33 50.2	-1.4
	6.4nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**3.37**	**339**	P	Pn	07 33 55.9	-2.2
	6.9nm,0.2s,SNR=7.9						
EADA				S	Sn	07 34 33.8	-5.6
	46nm,0.5s,SNR=7.9						
EADA	**Adamuz**	**3.37**	**339**	P	Pn	07 33 55.9	-2.2
	6.9nm,0.2s,SNR=7.9						
EVIA	**Vianos**	**3.65**	**7**	P	Pn	07 34 00.9	-1.1
EVIA				S	Sn	07 34 43.1	-3.4
EVIA	**Vianos**	**3.65**	**7**	P	Pn	07 34 01.7	-0.3
	0.3nm,0.1s,SNR=7.9						
EVIA				S	Sn	07 34 43.1	-3.4
	24nm,0.4s,SNR=7.9						
EVIA	**Vianos**	**3.65**	**7**	P	Pn	07 34 00.9	-1.1
EVIA				S	Sn	07 34 43.1	-3.3
	24nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.00**	**315**	P	Pn	07 34 03.6	-3.3
	5.5nm,0.2s,SNR=7.9						
EMIN				S	Sn	07 34 48.7	-6.6
	4.1nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.00**	**315**	P	Pn	07 34 03.6	-3.4
	5.5nm,0.2s,SNR=7.9						
EBEN	**Beniarda**	**4.34**	**31**	P	Pn	07 34 08.6	-3.2
	1.5nm,0.2s,SNR=7.9						
EBEN				S	Sn	07 34 56.3	-7.6
	4.2nm,0.4s,SNR=7.9						
EBEN	**Beniarda**	**4.34**	**31**	P	Pn	07 34 08.6	-3.2
	1.5nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	**4.71**	**352**	P	Pn	07 34 14.9	-2.2
	1.5nm,0.2s,baz=172,slow=12,SNR=8.1						
ESDC				S	Sn	07 35 07.6	-5.6

	0.7nm,0.3s,baz=177,slow=22,SNR=3.8						
ESDC	**Sonseca Array**	4.71	352	P	Pn	07 34 14.9	-2.2
	1.5nm,0.2s,baz=172,slow=12,SNR=8.1						
EBAD	**Badajoz**	4.89	321	P	Pn	07 34 16.6	-3.0
	6.7nm,0.3s,SNR=28						
EBAD				S	Sn	07 35 10.6	-7.3
	8.6nm,0.4s,SNR=6.1						
EBAD	**Badajoz**	4.89	321	P	Pn	07 34 16.6	-3.1
	6.7nm,0.3s,SNR=28						
PBEJ	**Beja**	4.89	309	*e*Pn	Pn	07 34 16.8	-2.9
EVO	**Evora**	5.29	313	*e*Pn	Pn	07 34 23.1	-2.3
EVO				*e*Sn	Sn	07 35 20.9	-7.1
	15nm,0.3s						
EIBI	**Ibiza**	5.34	40	P	Pn	07 34 21.0	-5.0
	6.9nm,0.3s,SNR=8.1						
EIBI				S	Sn	07 35 19.2	-10
	SNR=7.9						
EIBI	**Ibiza**	5.34	40	P	Pn	07 34 21.0	-5.1
	6.9nm,0.3s,SNR=8.1						
MTE	**Manteigas**	6.44	328	*e*Pn	Pn	07 34 38.3	-3.2
MTE				*e*Sn	Sn	07 35 48.9	-7.8
	14nm,0.7s						
MTE	**Manteigas**	6.44	328	P	Pn	07 34 38.3	-3.2
MTE				S	Sn	07 35 48.9	-7.8
	7.2nm,0.7s						
ERTA	**Horta de San J**	6.52	23	P	Pn	07 34 38.5	-4.1
	5.1nm,0.6s,SNR=7.9						
ERTA	**Horta de San J**	6.52	23	P	Pn	07 34 38.5	-4.1
ECAL	**Calabor**	7.49	339	P	Pn	07 34 52.1	-4.2
	1.2nm,0.2s,SNR=4.9						
ECAL				S	Sn	07 36 11.9	-11
	6.5nm,0.6s,SNR=7.9						
ECAL	**Calabor**	7.49	339	P	Pn	07 34 52.1	-4.2
ELOB	**Lobios**	7.88	332	P	Pn	07 34 57.4	-4.3
	3.0nm,0.3s,SNR=6.2						
ELOB				S	Sn	07 36 22.0	-11
	3.1nm,0.5s,SNR=7.9						
ELOB	**Lobios**	7.88	332	P	Pn	07 34 57.4	-4.4
ETSF	**Etsaut**	8.12	13	*e*Pn	P	07 35 01.5	-3.5
SJPF	**Ste Jean**	8.22	10	*e*Pn	P	07 35 02.4	-4.0

*IDC **03** 07:54:48.1±0.7, 12.84N×147.23E, mb4.2/12, mb1 4.4/12, mb1mx4.3/21, MS3.7/6, Ms1 3.8/6, ms1mx3.4/24, Error ellipse: s-maj=26.3km s-min=15.1km az=101.0*

*NEIC **03** 07:54:49.6±0.3, 12.83N×147.15E, h10^{km}, mb4.5/14, Error ellipse: s-maj=10.3km s-min=6.6km az=86.0*

*BJI **03** 07:54:49.5, 13.28N×147.26E, h8^{km}, mB5.2, mb4.9, Ms4.7, Msz3.9*

*MOS **03** 07:54:51.8±1.5, 12.83N×146.99E, h33^{km}, mb4.6/3, Error ellipse: s-maj=38.6km s-min=19.2km az=101.0*

ISC 03 07:54:51.0±5.5**, 12.82N**±0.06×**147.06E**±0.10**, h31**^{km}±38^{km}**, n48,** σ**1^{s}05**/45**, mb4.5**/30**, MS3.9**/9**, 5D, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	2.27	290	*e*Pn	Pn	07 55 27.4	+0.2
GUMO				*e*Sn	Sn	07 55 52.0	-2.4
PMG	**Port Moresby**	22.08	180	P	P	07 59 46.8	+1.3
	22nm,0.9s,mb4.6,baz=350,slow=4.2,SNR=6.9						
PMG	**Port Moresby**	22.08	180	*i* P	P	07 59 46.6	+1.2
PMG	**Port Moresby**	22.08	180	*e*P	P	07 59 45.8	+0.4
	23nm,0.9s,mb4.6						
KAKA	**Kakadu**	29.23	210	*e*P	P	08 00 47.7	-4.9
	8.8nm,0.8s,mb4.5						
KS15	**Wonju Array Si**	29.92	328	*e*P	P	08 00 57.2	-1.4
SSE	**Sheshan**	29.98	311	*e*P	P	08 00 57.8	-1.5
SSE				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,511nm,6.0s						
SSE				LR	LR		
	comp=Z,120nm,19.6s,MS3.5						
NJ2	**Nanjing**	32.18	311	*e*P	P	08 01 18.8	+0.2
NJ2				PP	PP	08 02 22.6	-3.3
NJ2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,720nm,4.7s						
NJ2				LR	LR		
	comp=N,980nm,15.6s,MS4.8						
NJ2				LR	LR		
	comp=E,1µm,15.4s,MS4.8						
NJ2				LR	LR		
	comp=Z,1µm,15.3s,MS4.8						
WRAB	**Tennant Creek**	34.87	201	*i* P	P	08 01 41.8	-0.1
WRAB	**Tennant Creek**	34.87	201	*e*P	P	08 01 41.6	-0.3
	comp=Z,28nm,1.1s,mb5.1						
WB2	**Warramunga Arr**	34.88	201	*e*P	P	08 01 41.4	-0.6
WRA	**Warramunga Arr**	34.88	201	P	P	08 01 41.5	-0.5
	comp=Z,10nm,0.8s,mb4.8,baz=23,slow=9.4,SNR=48						
WHN	**Wuhan**	34.96	306	*e*P	P	08 01 43.5	+0.9
FITZ	**Fitzroy Crossi**	37.29	215	*e*P	P	08 02 02.5	+0.1
	comp=Z,4.8nm,1.0s,mb4.3						
FITZ	**Fitzroy Crossi**	37.29	215	P	P	08 02 02.2	-0.3
	comp=Z,5.6nm,1.0s,mb4.4,baz=26,slow=4.8,SNR=7.4						
ASAR	**Alice Springs**	38.48	200	P	P	08 02 12.2	-0.1
	comp=Z,3.9nm,0.8s,mb4.2,baz=27,slow=6.6,SNR=29						
ASAR				LR	LR	08 17 01.8	
	comp=Z,68nm,19.3s,MS3.5,baz=30,slow=35						
ENH	**Enshi**	38.80	303	*e*P	P	08 02 16.3	+1.3
	comp=Z,16nm,1.0s,mb4.7						
HHC	**Hu-ho-hao-te**	41.75	319	*e*P	P	08 02 40.2	+1.0
HHC				AP	pP	08 02 45.7	-2.7
HHC				XP	sP	08 02 50.4	-1.8
HHC				AMB	AMB		
	comp=Z,28nm,0.9s,mb4.9						
HHC				AMB	AMB		
	comp=Z,67nm,4.2s						
HHC				LR	LR		
	comp=N,222nm,6.0s						
HHC				LR	LR		
	comp=E,110nm,6.5s						
HIA	**Hailar**	42.75	334	*e*P	P	08 02 46.9	-0.4
	comp=E,3.9nm,0.4s,mb4.5						
MBWA	**Marble Bar**	43.14	219	*e*P	P	08 02 50.2	-0.6
	comp=E,4.2nm,0.8s,mb4.2						
STKA	**Stephens Creek**	44.75	187	P	P	08 03 02.8	-1.0
	comp=E,1.8nm,0.8s,mb4.0,baz=13,slow=19,SNR=3.7						
STKA				LR	LR	08 22 11.2	
	comp=E,116nm,18.3s,MS3.8,baz=21,slow=37						
LZH	**Lanzhou**	45.16	309	⇓P	P	08 03 09.6	+2.6
LZH				AP	pP	08 03 16.2	0.0
LZH				XP	sP	08 03 19.5	-0.5
LZH				AMB	AMB		
	comp=Z,43nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,198nm,4.5s						
LZH				LR	LR		
	comp=N,192nm,13.1s						
LZH				LR	LR		
	comp=Z,245nm,17.2s,MS4.2						
CMAR	**Chiang Mai Arr**	46.57	283	P	P	08 03 20.3	+2.0
	comp=Z,5.0nm,0.8s,mb4.5,baz=82,slow=6.2,SNR=19						
CMAR				LR	LR	08 21 23.6	
	comp=Z,48nm,18.8s,MS3.5,baz=110,slow=34						
ULN	**Ulaanbaatar**	48.23	325	*d i*P	P	08 03 31.8	+0.8
ULN	**Ulaanbaatar**	48.23	325	*e*P	P	08 03 31.7	+0.7
	comp=Z,12nm,1.1s,mb4.8						
SONM	**Songino Array**	48.59	324	P	P	08 03 34.6	+0.8
	comp=Z,3.3nm,0.8s,mb4.4,baz=139,slow=8.1,SNR=16						
ZAK	**Zakamensk**	51.67	326	⇓*i*P	P	08 03 57.5	+0.3
SHL	**Shillong**	53.29	292	*e*P	P	08 04 11.5	+1.8
URZ	**Urewera**	58.08	152	LR	LR	08 26 32.3	
	comp=Z,81nm,21.9s,MS3.8,baz=28,slow=33						
TIXI	**Tiksi**	59.83	353	*e*P	P	08 04 53.2	-2.5
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.1						
RAR	**Rarotonga**	62.21	122	LR	LR	08 24 24.4	
	comp=Z,128nm,21.9s,MS4.0,baz=293,slow=29						
ZAL	**Zalesovo**	63.50	324	P	P	08 05 20.4	-0.1
	comp=Z,1.0nm,0.6s,mb4.1,baz=53,slow=3.6,SNR=5.3						
KURK	**Kurchatov**	66.54	320	*d i*P	P	08 05 40.2	-0.1
KURK	**Kurchatov**	66.54	320	*e*P	P	08 05 39.7	-0.6
	comp=Z,16nm,0.8s,mb5.1						
ILAR	**Eielson Array**	68.35	25	P	P	08 05 49.6	-1.8
	comp=Z,0.6nm,0.5s,mb3.9,baz=254,slow=5.2,SNR=9.5						
ILAR				LR	LR	08 33 35.6	
	comp=Z,65nm,18.7s,MS3.9,baz=6.9,slow=34						
UCH	**Uchtor**	68.60	310	*e*P	P	08 05 54.5	+1.1
	comp=Z,3.5nm,0.9s,mb4.3						
CHKZ	**Chkalovo**	71.75	322	*e*P	P	08 06 11.4	-0.8
	comp=Z,3.3nm,0.8s,mb4.3						
BRVK	**Borovoye**	71.91	322	*e*P	P	08 06 13.1	-0.2
	comp=Z,3.5nm,0.7s,mb4.4						
INK	**Inuvik**	74.26	22	*e*P	P	08 06 26.1	-0.6
	comp=Z,2.2nm,0.8s,mb4.1						
ARU	**Arti**	78.61	325	⇓*i*P	P	08 06 50.8	-0.5
ARU				*e*		08 09 49.1	
ARU				*e*PPP	PPP	08 11 37.7	-3.1
ARU				*e*S	S	08 16 39.0	-5.7
ARU				*e*SS	SS	08 21 44.6	-7.0
ARU				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
YKA	**Yellowknife Ar**	82.55	28	P	P	08 07 11.9	-0.2
	comp=Z,0.6nm,0.5s,mb3.9,baz=282,slow=5.4,SNR=12						
NVAR	**Mina Array Bea**	85.73	52	P	P	08 07 29.5	+0.8
	comp=Z,0.6nm,0.6s,mb4.0,baz=253,slow=6.5,SNR=3.4						
ELK	**Elko**	87.48	49	*e*P	P	08 07 38.1	+0.8
	comp=Z,1.6nm,0.9s,mb4.2						
FINES	**FINESS Array B**	92.75	336	P	P	08 08 00.6	-0.7
	comp=Z,1.6nm,0.8s,mb4.5,baz=90,slow=3.8,SNR=4.9						
FINES	**FINESS Array B**	92.75	336	*i* P	P	08 08 01.9	+0.6
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SOC	**Sochi**	93.43	316	*e*P	P	08 08 04.9	0.0
SOC				*e*PPP	PPP	08 13 51.4	-3.1
SOC				*e*S	S	08 18 58.6	-9.1
LVC	**Limon Verde**	144.46	111	PKP	PKPdf	08 14 28.1	-2.3
	comp=Z,2.0nm,0.7s,baz=308,slow=7.8,SNR=4.2						
LPAZ	**La Paz**	145.79	100	PKPbc	PKPbc	08 14 31.4	+3.0
	comp=Z,1.3nm,0.8s,baz=279,slow=4.8,SNR=5.6						

*IDC **03** 08:07:33.6±6.7, 10.44N×61.59W, mb3.5/3, mb1 3.9/3, mb1mx3.4/19, Error ellipse: s-maj=168.0km s-min=46.0km az=120.0*

*TRN **03** 08:07:42.3, 10.43N×61.12W, h32^{km}, MD3.8*

ISC 03 08:07:42.5±0.9**, 10.42N**±0.07×**61.12W**±0.07**, h33**^{km}**, n11,** σ**0^{s}64**/17**, mb3.4**/3**, 3C-1D, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	0.08	43	⇑*e*P	P	08 07 47.3	-0.9
TBH				*e*S	S	08 07 52.4	+0.3
TPP	**Pointe-a-Pierr**	0.34	252	⇓*i*P	P	08 07 50.6	-0.2
TPP				*e*S	S	08 07 57.9	+1.2
TRN	**Trinidad (W)**	0.35	309	⇑*e*P	P	08 07 50.1	-0.9
TRN				*e*S	S	08 07 57.0	+0.1
SIPA	**Siparia**	0.47	233	*i* P	P	08 07 52.5	-0.1
SIPA				*e*S	S	08 08 06.9	+7.1
BUAY	**Buenos Aires**	0.64	240	*e*P	P	08 07 55.3	+0.3
TPR	**Prospect**	0.83	24	⇑*i*P	P	08 07 57.6	-0.2
TPR				*e*S	S	08 08 09.7	+0.7
BOT	**Bacolet**	0.84	28	*e*P	P	08 07 57.7	-0.2
BOT				*e*S	S	08 08 10.0	+0.8
GRW	**Mount Saint Ca**	1.80	343	*e*P	P	08 08 10.9	-0.9
PDAR	**Pinedale Array**	52.97	316	P	P	08 16 50.0	-8.2
	0.4nm,0.5s,mb3.6,baz=109,slow=9.3,SNR=4.4						
YKA	**Yellowknife Ar**	64.47	336	P	P	08 18 10.5	-7.3
	0.2nm,0.3s,mb3.6,baz=106,slow=7.3,SNR=6.7						
ILAR	**Eielson Array**	78.84	334	P	P	08 19 36.9	-6.7
	0.1nm,0.4s,mb3.1,baz=96,slow=4.5,SNR=4.1						

*MOS **03** 08:13:12.8±0.8, 43.11N×15.35E, h10^{km}, mb4.2/5, Error ellipse: s-maj=10.3km s-min=4.6km az=86.7*

*BJI **03** 08:13:12.9, 43.10N×15.50E, h10^{km}, mB5.1, mb4.5, Ms4.3, Msz4.2*

*PDG **03** 08:13:14.2±0.9, 43.09N×15.39E, h10^{km}±3^{km}*

*ROM **03** 08:13:14.8±0.2, 43.09N×15.50E, h10^{km}, ML4.2, Error ellipse: s-maj=2.5km s-min=1.6km az=90.0*

*CSEM **03** 08:13:14.3, 43.11N×15.36E, h10^{km}, ML4.7*

*MED_RC **03** 08:13:14.9±0.2, 43.21N×15.10E, h15^{km}, MW4.6/10, Moment Tensor Solution. Body waves: s10,c15; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}9.47±.39; $M_{\theta\theta}$-7.62±.23; $M_{\phi\phi}$-1.85±.37; $M_{r\theta}$-5.52±.77; $M_{\theta\phi}$2.29±.24; $M_{\phi r}$-3.67±1.31; Best double couple: $M_0$1.09×10^{16} NP1: ϕ_s124°,δ35°,λ124°. NP2:ϕ_s265°,δ62°,λ69°. Principal axes: T 1.23, Plg66°, Azm135°; N -.29, Plg19°, Azm275°; P -.94, Plg14°, Azm10°; nsta1 refers to waves, cutoff=35s.*

*HRVD **03** 08:13:14.9±0.9, 42.96N×15.09E, h16^{km}±2^{km}, MW4.8/40, Centroid moment Tensor Solution. LP body waves: s7,c7; Mantle waves: s40,c50; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.29±.17; $M_{\theta\theta}$-1.20±.13; $M_{\phi\phi}$-0.09±.09; $M_{r\theta}$0.93±.37; $M_{\theta\phi}$0.27±.06; $M_{\phi r}$-0.55±.39; Best double couple: $M_0$1.67×10^{16} NP1:ϕ_s273°,δ26°,λ71°. NP2:ϕ_s114°, δ65°,λ99°. Principal axes: T 1.71, Plg68°, Azm42°; N -.07, Plg8°, Azm290°; P -1.63, Plg20°, Azm197°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ZUR_RM **03** 08:13:14, 43.09N×15.50E, h4^{km}, Mw4.6/33, Moment Tensor Solution. s33 Moment tensor: Scale 10^{15}Nm; M_{rr}7.33; $M_{\theta\theta}$-7.16; $M_{\phi\phi}$-0.17; $M_{r\theta}$-2.09; $M_{\theta\phi}$1.60; $M_{\phi r}$-0.90; Best double couple: $M_0$7.77×10^{15} NP1:ϕ_s273°,δ53°,λ78°. NP2:ϕ_s112°,δ39°,λ105°. Principal axes: T 7.788, Plg78°, Azm137°; N -.043, Plg10°, Azm280°; P -7.745, Plg7°, Azm11°;*

*NEIC **03** 08:13:14.9, 43.09N×15.50E, h10^{km}, mb4.2/8, ML4.7(CSEM), ML4.6(VIE), ML4.6(LDG), ML4.5(STR), ML4.5(PDG), ML4.2(ROM), After ROM.*

*LDG **03** 08:13:16.3±0.2, 43.10N×15.40E, h10^{km}, Ml4.6/26, ms3.5/6, Error ellipse: s-maj=9999.9km s-min=9999.9km az=99.0*

*IPEC **03** 08:13:17.4±0.2, 43.11N×15.44E, h25^{km}±2^{km}, ML4.0/1, Error ellipse: s-maj=1.4km s-min=0.9km az=78.0*

*IDC **03** 08:13:20.3±2.5, 43.24N×15.54E, h44^{km}±19^{km}, mb3.9/13, mb1 4.1/24, mb1mx4.1/28, ML4.1/11, MS4.0/11, Ms1 4.0/11, ms1mx3.7/24, Error ellipse: s-maj=23.2km s-min=13.5km az=15.0*

*STR **03** 08:13:27.0±0.4, 43.51N×14.31E, h10^{km}±1^{km}, Ml4.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 03 08:13:13.7±0.1**, 43.14N**±0.01×**15.34E**±0.01**, h10**^{km}**, n464,** σ**1^{s}28**/580**, mb4.4**/23**, MS4.0**/13**, 32C-7D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AOI	**Ancona**	1.33	289	P	Pb	08 13 39.6	+1.2
FG2	**Serracapriola**	1.34	186	*e*PN	Pn	08 13 38.8	+0.3
FG2	**Serracapriola**	1.34	186	*e*Pn	Pn	08 13 38.8	+0.3
TERO	**Teramo**	1.38	249	*e*PN	Pn	08 13 40.0	+1.0
TERO	**Teramo**	1.38	249	*e*Pn	Pn	08 13 40.0	+0.9
NVLJ	**Novalja**	1.47	347	*i* Pn	Pn	08 13 40.9	+0.6
NVLJ				*i* Sg	Sg	08 14 02.8	+0.2
NVLJ	**Novalja**	1.47	347	*i* Pn	Pn	08 13 40.9	+0.6
NVLJ				*i* Sg	Sg	08 14 02.7	+0.1
RGNG	**Rignano Grg**	1.47	173	*e*PN	Pn	08 13 39.7	-0.7
RGNG	**Rignano Grg**	1.47	173	*e*Pn	Pn	08 13 39.7	-0.7
FGMS	**Monte Sant'Ang**	1.50	162	*e*PN	Pn	08 13 39.9	-0.9
FGMS	**Monte Sant'Ang**	1.50	162	*e*Pn	Pn	08 13 39.9	-0.9
CIGN	**Sant'Elia a Pi**	1.52	192	P	Pn	08 13 41.2	+0.2
INTR	**Introdacqua**	1.55	224	*e*PN	Pn	08 13 42.4	+0.9
INTR	**Introdacqua**	1.55	224	*e*Pn	Pn	08 13 42.4	+1.0
CING	**Cingoli**	1.59	279	*e*PN	Pn	08 13 43.3	+1.3
CING				SN	Sn	08 14 06.0	+3.3
CING	**Cingoli**	1.59	279	*e*Pn	Pn	08 13 43.3	+1.3
CING				*e*Sn	Sn	08 14 06.0	+3.3
CING	**Cingoli**	1.59	279	Sn	Sn	08 14 06.0	+3.3
CII	**Carovilli**	1.61	209	*e*PN	Pn	08 13 43.0	+0.7
CII	**Carovilli**	1.61	209	*e*Pn	Pn	08 13 43.0	+0.7
AQU	**L'Aquila**	1.63	242	*e*PN	Pn	08 13 44.1	+1.5
RNI2	**Rionero Sannit**	1.68	212	P	Pn	08 13 43.8	+0.4
STON	**Ston**	1.75	98	*i* Pn	Pn	08 13 43.7	-0.7
STON				*i* Sn	Sn	08 14 06.9	0.0
STON				*i* Sg	Sg	08 14 08.5	-3.5
STON	**Ston**	1.75	98	*i* Sn	Sn	08 14 06.9	0.0
STON				*i* Sg	Sg	08 14 08.5	-3.5
SNTG	**Esanatoglia**	1.76	275	*e*PN	Pn	08 13 45.8	+1.3
	556nm,0.5s						
SNTG	**Esanatoglia**	1.76	275	*e*Pn	Pn	08 13 45.8	+1.3
SNTG	**Esanatoglia**	1.76	275	*e*Pn	Pn	08 13 45.8	+1.3
	556nm,0.5s						
ARV	**Arcevia**	1.79	282	*e*PN	Pn	08 13 46.2	+1.3
ARV	**Arcevia**	1.79	282	*e*Pn	Pn	08 13 46.2	+1.3
PTQR	**Pietraquaria**	1.81	233	*e*PN	Pn	08 13 46.5	+1.2
PTQR	**Pietraquaria**	1.81	233	*e*Pn	Pn	08 13 46.5	+1.2
SDI	**San Donato**	1.82	219	*e*PN	Pn	08 13 45.7	+0.3
SDI	**San Donato**	1.82	219	*e*Pn	Pn	08 13 45.7	+0.3
FG5	**Orsara di Pugl**	1.85	182	*e*PN	Pn	08 13 45.5	-0.4
FG5	**Orsara di Pugl**	1.85	182	*e*Pn	Pn	08 13 45.5	-0.3
FIAM	**Fiamignano**	1.85	243	P	Pn	08 13 47.7	+1.8
SGG	**Gregorio Mates**	1.89	203	*e*PN	Pn	08 13 46.8	+0.4
SGG	**Gregorio Mates**	1.89	203	*e*Pn	Pn	08 13 46.8	+0.4
IPES	**Pescosannita**	1.94	191	*e*PN	Pn	08 13 47.2	+0.1
FSSB	**Fossombrone**	1.95	287	*e*PN	Pn	08 13 48.9	+1.7
	403nm,0.5s						
FSSB	**Fossombrone**	1.95	287	*e*Pn	Pn	08 13 48.9	+1.6
FSSB	**Fossombrone**	1.95	287	*e*Pn	Pn	08 13 48.9	+1.7
	403nm,0.5s						
PSB1	**Pescosannita**	1.95	192	P	Pn	08 13 49.3	+2.0
PESA	**Pesaro**	1.99	295	P	Pn	08 13 50.4	+2.6
FG4	**Candela**	2.01	176	*e*PN	Pn	08 13 48.9	+0.8
FG4	**Candela**	2.01	176	*e*Pn	Pn	08 13 48.9	+0.8
GUAR	**Guarcino**	2.01	229	P	Pn	08 13 49.9	+1.7
MRB1	**Monte Rocchett**	2.03	188	P	Pn	08 13 49.6	+1.2
MURB	**Monte Urbino**	2.06	274	*e*PN	Pn	08 13 50.6	+1.7
BLY	**Banja Luka**	2.09	39	Sg	Sg	08 14 21.5	-1.8
RFI	**Roccamonfina**	2.09	209	*e*PN	Pn	08 13 50.8	+1.5
RFI	**Roccamonfina**	2.09	209	*e*Pn	Pn	08 13 50.8	+1.5
MNS	**Montasola**	2.10	250	*e*PN	Pn	08 13 51.2	+1.8
MNS	**Montasola**	2.10	250	*e*Pn	Pn	08 13 51.2	+1.8
CERT	**Cerreto**	2.11	237	*e*PN	Pn	08 13 51.2	+1.7
CERT	**Cerreto**	2.11	237	*e*Pn	Pn	08 13 51.2	+1.7
MTCE	**Montecelio**	2.22	241	P	Pn	08 13 52.8	+1.7
RSM	**Repubblica di**	2.25	292	*e*PN	Pn	08 13 53.8	+2.3
RSM	**Repubblica di**	2.25	292	*e*Pn	Pn	08 13 53.8	+2.3
TREB	**Trebinje**	2.25	100	Pn	Pn	08 13 51.7	+0.2
CSSN	**Cassano Irpino**	2.29	186	*e*PN	Pn	08 13 50.9	-1.2
	347nm,0.5s						
CSSN	**Cassano Irpino**	2.29	186	*e*Pn	Pn	08 13 50.9	-1.1
CSSN	**Cassano Irpino**	2.29	186	*e*Pn	Pn	08 13 50.9	-1.2
	347nm,0.5s						
BADI	**Badiali**	2.29	280	P	Pn	08 13 52.5	+0.4
BRY	**Bratogost**	2.36	95	*e*Pn	Pn	08 13 53.5	+0.4
BRY				*e*Sn	Sn	08 14 23.5	+1.0
BOJS	**Bojanci**	2.37	358	*e*Pn	Pn	08 13 54.6	+1.4
BOJS				*i*		08 13 56.0	
	comp=Z,6µm,1.3s						
BOJS	**Bojanci**	2.37	358	*e*Pn	Pn	08 13 54.7	+1.5
	comp=Z,6µm,1.3s						
MRLC	**Muro Lucano**	2.38	177	*e*PN	Pn	08 13 52.9	-0.5
MRLC	**Muro Lucano**	2.38	177	*e*Pn	Pn	08 13 52.9	-0.5
HCY	**Herceg Novi**	2.42	105	⇑*i*Pn	Pn	08 13 54.8	+0.7
HCY				*e*Sn	Sn	08 14 23.9	-0.2
SISC	**Sisak**	2.45	17	*i* Pn	Pn	08 13 55.7	+1.3
SISC				*i* Sg	Sg	08 14 32.2	-3.1
SISC	**Sisak**	2.45	17	*i* Pn	Pn	08 13 55.7	+1.3
SISC				*i* Sg	Sg	08 14 32.1	-3.1
KNDS	**Knezji Dol**	2.49	344	*i* Pn	Pn	08 13 56.2	+1.2
	comp=Z,4µm,0.8s						
KNDS	**Knezji Dol**	2.49	344	*i* Pn	Pn	08 13 56.2	+1.2
	comp=Z,4µm,0.8s						
CRE	**Caprese Michel**	2.52	282	*e*PN	Pn	08 13 57.6	+2.2
	comp=Z,557nm,0.7s						
CRE	**Caprese Michel**	2.52	282	*e*Pn	Pn	08 13 57.6	+2.3
CRE	**Caprese Michel**	2.52	282	*e*Pn	Pn	08 13 57.6	+2.2
	comp=Z,557nm,0.7s						
SGO	**Sicignano**	2.58	181	*e*PN	Pn	08 13 55.6	-0.6
	comp=Z,166nm,0.5s						
SGO	**Sicignano**	2.58	181	*e*Pn	Pn	08 13 55.6	-0.6
SGO	**Sicignano**	2.58	181	*e*Pn	Pn	08 13 55.6	-0.6
	comp=Z,166nm,0.5s						
UPM	**Unac-Piva**	2.61	87	⇑*i*Pn	Pn	08 13 57.7	+0.9
UPM				*e*Sn	Sn	08 14 30.2	+1.4
SFI	**Santa Sofia**	2.66	288	*e*PN	Pn	08 13 59.5	+2.2
	comp=Z,808nm,0.8s						
SFI	**Santa Sofia**	2.66	288	*e*Pn	Pn	08 13 59.5	+2.2
SFI	**Santa Sofia**	2.66	288	*e*Pn	Pn	08 13 59.5	+2.2
	comp=Z,808nm,0.8s						
ISOR	**Termini**	2.66	197	*e*PN	Pn	08 13 56.8	-0.6
CEY	**Cerknica**	2.68	346	*e*Pn	Pn	08 13 58.3	+0.5
CEY				*i*		08 14 00.1	
	comp=Z,4µm,1.0s						
CEY	**Cerknica**	2.68	346	*e*Pn	Pn	08 13 59.4	+1.7
CEY				*e*Sn	Sn	08 14 33.4	+2.8
CRES	**Cresnjev**	2.69	2	*e*Pn	Pn	08 13 59.6	+1.8
CRES				*i*		08 14 00.8	
	comp=Z,2µm,0.7s						
VISS	**Visnje**	2.69	352	*i* Pn	Pn	08 13 59.0	+1.2
VISS				*i*		08 13 59.9	
	comp=Z,3µm,0.8s						
VISS	**Visnje**	2.69	352	*i* Pn	Pn	08 13 59.0	+1.2
	comp=Z,3µm,0.8s						
NKY	**Niksic**	2.70	96	*e*Pn	Pn	08 13 58.0	0.0
NKY				*e*Sn	Sn	08 14 31.8	+0.6
ZAG	**Zagreb**	2.73	10	*i* Pn	Pn	08 14 00.1	+1.7
ZAG				*i* Sn	Sn	08 14 35.6	+3.8
PGD	**Poggio Sodo**	2.73	287	*e*PN	Pn	08 14 00.7	+2.2
PGD	**Poggio Sodo**	2.73	287	*e*Pn	Pn	08 14 00.7	+2.2
BUM	**Brajici-Budva**	2.75	106	⇑*i*Pn	Pn	08 13 58.7	0.0
BUM				*e*Sn	Sn	08 14 32.7	+0.4
SLCN	**Sala Consilina**	2.75	175	*e*PN	Pn	08 13 59.0	+0.3
LTRZ	**Laterza**	2.76	156	*e*PN	Pn	08 13 57.7	-1.2
	comp=Z,734nm,0.7s						
LTRZ	**Laterza**	2.76	156	*e*Pn	Pn	08 13 57.6	-1.2
LTRZ	**Laterza**	2.76	156	*e*Pn	Pn	08 13 57.7	-1.2
	comp=Z,734nm,0.7s						
PTJ	**Puntijarka**	2.81	9	*i* Pn	Pn	08 14 00.2	+0.7
PTJ				Sn	Sn	08 14 36.5	+2.8
TRI	**Trieste**	2.81	337	*e*PN	Pn	08 14 00.7	+1.2
TRI	**Trieste**	2.81	337	*e*Pn	Pn	08 14 00.7	+1.2
LEGS	**Legarje**	2.81	360	*e*Pn	Pn	08 14 01.2	+1.7
LEGS	**Legarje**	2.81	360	*e*Pn	Pn	08 14 01.2	+1.6
GOLS	**Golise**	2.88	4	*i* Pn	Pn	08 14 01.5	+1.0
GOLS				*i*		08 14 02.3	
VMG	**Vicchio**	2.88	288	*e*Pn	Pn	08 14 03.1	+2.6
VMG	**Vicchio**	2.88	288	*e*Pn	Pn	08 14 03.1	+2.5
PDKS	**Podkum**	2.93	355	*i* Pn	Pn	08 14 02.5	+1.2
PDKS	**Podkum**	2.93	355	*i* Pn	Pn	08 14 02.5	+1.2
LJU	**Ljubljana**	2.96	349	*e*Pn	Pn	08 14 04.0	+2.3
LJU				*e*Sn	Sn	08 14 39.9	+2.2
	comp=Z,6µm,1.1s						
LJU	**Ljubljana**	2.96	349	P	Pn	08 14 03.8	+2.1
LJU	**Ljubljana**	2.96	349	*e*Pn	Pn	08 14 04.1	+2.4
LJU				*e*Sn	Sn	08 14 40.1	+2.4
PLE	**Pljevlja**	2.97	85	⇑*i*Pn	Pn	08 14 02.8	+1.0
PLE				*e*Sn	Sn	08 14 39.1	+1.2
TTG	**Podgorica**	2.97	102	⇑*i*Pn	Pn	08 14 02.6	+0.8
TTG				*e*Sn	Sn	08 14 38.2	+0.3
CSNT	**Castellina Chi**	2.98	278	*e*Pn	Pn	08 14 03.0	+1.1
MGR	**Morigerati**	3.00	177	*e*PN	Pn	08 14 01.9	-0.4
	comp=Z,146nm,0.6s						
MGR	**Morigerati**	3.00	177	*e*Pn	Pn	08 14 01.9	-0.4
MGR	**Morigerati**	3.00	177	*e*Pn	Pn	08 14 01.9	-0.4
	comp=Z,146nm,0.6s						
DOBS	**Dobrina**	3.01	2	P	Pn	08 14 04.0	+1.6
SEI	**Scarperia**	3.04	289	*e*Pn	Pn	08 14 05.5	+2.7
VOY	**Vojsko**	3.07	341	*e*Pn	Pn	08 14 04.3	+1.0
VOY				*e*Sn	Sn	08 14 40.9	+0.4
ULC	**Ulcinj**	3.12	111	⇑*i*Pn	Pn	08 14 03.9	0.0
ULC				*e*Sn	Sn	08 14 41.2	-0.4
CUC	**Castrocucco**	3.16	173	P	Pn	08 14 05.2	+0.7
MAON	**Monte Argentar**	3.18	259	P	Pn	08 14 06.9	+2.1
ORI	**Oriolo Calabro**	3.18	164	*e*Pn	Pn	08 14 05.1	+0.2
ORI	**Oriolo Calabro**	3.18	164	*e*Pn	Pn	08 14 05.1	+0.3
GRFL	**Gerfalco**	3.19	272	*e*Pn	Pn	08 14 06.0	+1.0
GRFL	**Gerfalco**	3.19	272	*e*Pn	Pn	08 14 06.0	+1.0
NVSS	**Nova Varos 2**	3.20	82	⇑*i*Pn	Pn	08 14 07.0	+1.9
NVSS				Sn	Sn	08 14 45.1	+1.3
TLI	**Talmassons**	3.21	331	⇑*e*P	Pn	08 14 06.0	+0.7
FNVD	**Fontana Vidola**	3.23	290	*e*Pn	Pn	08 14 08.6	+3.1
FNVD	**Fontana Vidola**	3.23	290	*e*Pn	Pn	08 14 08.6	+3.1
DRE	**Drenchia**	3.27	339	⇑*i*P	Pn	08 14 07.0	+0.9
CADS	**Cadrg**	3.30	340	*i* Pn	Pn	08 14 07.0	+0.5
CADS				*i*		08 14 07.8	
CADS	**Cadrg**	3.30	340	*i* Pn	Pn	08 14 06.9	+0.5
GROS	**Grobnik**	3.33	2	P	Pn	08 14 08.2	+1.3
IVA	**Berane**	3.35	93	*e*Pn	Pn	08 14 07.9	+0.7
IVA				*e*Sn	Sn	08 14 47.9	+0.3
ROBS	**Robic**	3.37	338	*i* Pn	Pn	08 14 08.3	+0.8
	comp=Z,3µm,0.9s						
ZCCA	**Zocca**	3.39	292	*e*Pn	Pn	08 14 10.8	+3.1
ZCCA	**Zocca**	3.39	292	*e*Pn	Pn	08 14 10.9	+3.1
OBKA	**Obir**	3.42	351	⇑*i*PN	Pn	08 14 09.4	+1.2
OBKA				*i* SG	Sg	08 15 07.1	-0.4
	comp=Z,1µm,0.6s						
BAD	**Bernadia**	3.44	335	⇑*i*P	Pn	08 14 09.0	+0.5
PVY	**Plav**	3.45	97	⇑*i*Pn	Pn	08 14 09.4	+0.7
PVY				*e*Sn	Sn	08 14 50.1	+0.1
BUA	**Buia**	3.46	334	⇑*i*P	Pn	08 14 10.0	+1.2
LCI	**Lecce**	3.48	143	P	Pn	08 14 09.2	+0.1

PERS	Pernice	3.50	357	P	Pn	08 14 10.8	+1.4
DIVS	Divcibare	3.51	73	⇑iPn	Pn	08 14 09.6	+0.1
DIVS				Sn	Sn	08 14 50.5	-1.1
BISS	Bistriski jare	3.51	358	i Pn	Pn	08 14 11.0	+1.4
MPRI	Monte Prat	3.53	332	⇑iP	Pn	08 14 10.0	+0.2
PUK	Puka	3.53	106	i Pn	Pn	08 14 10.8	+1.0
PUK	Puka	3.53	106	ePn	Pn	08 14 10.8	+1.0
CAE	Caneva	3.54	325	⇓iP	Pn	08 14 10.0	+0.1
RHK1	Bakonya	3.54	32	⇑eP	Pn	08 14 10.4	+0.5
RHK1	Bakonya	3.54	32	eS	Sn	08 14 51.9	-0.5
	comp=Z,24nm,0.7s						
PII	Pisa	3.56	281	ePn	Pn	08 14 11.2	+1.1
PII	Pisa	3.56	281	ePn	Pn	08 14 11.2	+1.0
PTCC	Patocco-Chiusa	3.56	337	ePn	Pn	08 14 10.7	+0.5
PTCC	Patocco-Chiusa	3.56	337	ePn	Pn	08 14 10.7	+0.5
BDI	Bagni Di Lucca	3.57	287	ePn	Pn	08 14 11.2	+0.9
BDI	Bagni Di Lucca	3.57	287	ePn	Pn	08 14 11.2	+0.9
LSR	Lussari	3.58	339	⇓iP	Pn	08 14 11.0	+0.5
MLNI	Malnisio	3.59	328	⇓iP	Pn	08 14 11.0	+0.4
MAIM		3.61	284	P	Pn	08 14 11.9	+1.0
MAIM				S	Sn	08 14 48.0	-6.1
MAIM		3.61	284	P	Pn	08 14 11.9	+1.0
GSCL	Gusciola	3.65	291	ePn	Pn	08 14 13.9	+2.4
GSCL	Gusciola	3.65	291	ePn	Pn	08 14 13.9	+2.4
VLC	Villacollemand	3.74	288	ePn	Pn	08 14 13.9	+1.2
VLC	Villacollemand	3.74	288	ePn	Pn	08 14 13.9	+1.2
QSH	Qafa e Shtames	3.75	114	i Pn	Pn	08 14 14.0	+1.1
ERBM	Eremo	3.79	291	P	Pn	08 14 16.4	+2.9
TIR	Tirane	3.81	116	ePn	Pn	08 14 14.0	+0.3
TIR				i Sn	Sg	08 15 25.0	+4.6
TIR	Tirane	3.81	116	P	Pn	08 14 14.4	+0.7
PKSM	Moragy	3.87	36	eP	Pn	08 14 15.2	+0.6
PKSM				eS	Sn	08 15 01.4	+0.7
VALM		3.88	290	P	Pn	08 14 15.2	+0.4
VALM		3.88	290	P	Pn	08 14 15.2	+0.4
VINC	Vinca	3.90	287	P	Pn	08 14 15.4	+0.4
VINC				S	Sn	08 14 54.1	-7.3
VINC	Vinca	3.90	287	P	Pn	08 14 15.4	+0.4
VINC	Vinca	3.90	287	P	Pn	08 14 15.4	+0.4
FVI	Forni Avoltri	3.91	333	ePn	Pn	08 14 15.4	+0.3
FVI	Forni Avoltri	3.91	333	ePn	Pn	08 14 15.4	+0.2
CTI	Castel Tesino	3.93	319	ePn	Pn	08 14 15.5	0.0
CTI	Castel Tesino	3.93	319	ePn	Pn	08 14 15.5	+0.1
GRUS	Gruza	3.98	77	⇓iPn	Pn	08 14 16.8	+0.6
GRUS				Sn	Sn	08 15 07.2	+3.8
BACM		3.99	288	P	Pn	08 14 16.5	+0.3
BACM		3.99	288	P	Pn	08 14 16.5	+0.2
GRAM		4.05	291	P	Pn	08 14 17.7	+0.6
GRAM		4.05	291	P	Pn	08 14 17.7	+0.5
BEO	Belgrade	4.06	64	⇑iPn	Pn	08 14 17.2	0.0
BEO				Sn	Sn	08 15 06.6	+1.2
BEO	Belgrade	4.06	64	Pn	Pn	08 14 17.2	-0.1
TIP	Timpagrande	4.10	164	ePn	Pn	08 14 17.5	-0.3
TIP	Timpagrande	4.10	164	ePn	Pn	08 14 17.5	-0.3
ARSA	Arzberg	4.12	2	⇓iPN	Pn	08 14 18.7	+0.6
ARSA				i SG	Sg	08 15 31.7	+1.0
	comp=Z,143nm,0.6s						
CODM		4.17	289	P	Pn	08 14 19.8	+0.9
CODM		4.17	289	P	Pn	08 14 19.8	+0.9
KBA	Koelnbreinsper	4.19	341	⇑iPN	Pn	08 14 20.5	+1.4
KBA				i SG	Sg	08 15 31.9	-1.2
	comp=Z,508nm,0.7s						
SEST	Monte Rota	4.24	330	P	Pn	08 14 21.4	+1.6
SAL	Salo	4.25	307	ePn	Pn	08 14 20.4	+0.4
SAL	Salo	4.25	307	ePn	Pn	08 14 20.4	+0.5
BRES	Bressanone	4.39	326	P	Pn	08 14 22.8	+0.8
GRI	Girifalco	4.39	169	P	Pn	08 14 24.0	+2.0
SVIS	Svilajnac	4.42	73	⇑iPn	Pn	08 14 23.0	+0.6
SVIS				Sn	Sn	08 15 11.3	-3.2
APPI	Appiano	4.44	320	P	Pn	08 14 22.8	+0.1
MABI	Malga Bissina	4.52	312	ePn	Pn	08 14 23.5	-0.3
MABI	Malga Bissina	4.52	312	ePn	Pn	08 14 23.5	-0.3
OHR	Ohrid	4.54	115	ePn	Pn	08 14 23.8	-0.3
OHR				eSn	Sn	08 15 14.5	-3.0
BOB	Bobbio (Coli)	4.56	293	ePn	Pn	08 14 25.9	+1.5
BOB	Bobbio (Coli)	4.56	293	ePn	Pn	08 14 25.9	+1.5
SOP	Sopron	4.63	10	ePn	Pn	08 14 25.1	-0.3
SOP				eSn	Sn	08 15 18.1	-1.7
SOP	Sopron	4.63	10	P	Pn	08 14 26.3	+0.9
SOP				eS	Sn	08 15 18.6	-1.2
SKO	Skopje	4.65	102	i Pn	Pn	08 14 26.8	+1.1
SKO				i Pb	Pb	08 14 37.6	+2.5
SKO				i Sb	Sb	08 15 35.9	+4.2
SKO				i Sg	Sg	08 15 47.9	-0.7
SKO				Lg		08 16 08.5	
	comp=Z,0.1nm,0.8s						
PGF	Pioggiola	4.70	265	ePn	Pn	08 14 26.9	+0.5
PGF				eSn	Sn	08 15 17.4	-4.3
	comp=Z,20nm,0.4s						
PGF	Pioggiola	4.70	265	eSn	Sn	08 15 17.4	-4.3
	comp=Z,9.9nm,0.4s						
BARS	Barje	4.77	92	⇑iPn	Sn	08 15 24.4	+1.1
PKSG		4.77	26	⇑iP	Pn	08 14 28.0	+0.6
MOA	Molln	4.77	351	⇑iPN	Pn	08 14 28.2	+0.8
MOA				i SN	Sn	08 15 24.5	+1.0
MOA				i SG	Sg	08 15 51.8	-0.8
	comp=Z,467nm,1.2s						
KEK	Kerkira	4.79	134	ePn	Pn	08 14 26.5	-1.1
BGLD	Berchtesgaden	4.80	341	⇑iPn	Pn	08 14 28.9	+1.0
BRMO	Bormio	4.86	315	ePn	Pn	08 14 29.5	+0.8
BOLS	Boljevac	4.87	80	⇑iPn	Pn	08 14 28.6	-0.1
BOLS				Sn	Sn	08 15 30.4	+4.6
BOLS	Boljevac	4.87	80	Pn	Pn	08 14 28.6	-0.1
WTTA	Wattenberg	4.89	329	⇑iPN	Pn	08 14 30.2	+1.2
WTTA				i SG	Sg	08 15 55.6	-0.8
	comp=Z,527nm,1.2s						
BIA	Bitola	4.93	113	i Pn	Pn	08 14 30.4	+0.8
BIA				i Sn	Sn	08 15 26.3	-1.1
RMOA	Moar Alm	4.94	340	⇑iPn	Pn	08 14 31.3	+1.5
WATA	Walderalm	4.97	329	⇑iPN	Pn	08 14 31.9	+1.7
FUORN	Ofenpass	5.01	316	ePn	Pn	08 14 31.7	+0.9
SQTA	Sankt Quirin	5.02	326	⇑iPN	Pn	08 14 32.5	+1.6
FNA	Florina	5.08	116	eP	Pn	08 14 31.0	-0.8
PCP	Pian Castagno	5.11	288	P	Pn	08 14 32.9	+0.7
PCP	Pian Castagno	5.11	288	P	Pn	08 14 32.9	+0.7
SRO	Srobarova	5.12	23	i PN	Pn	08 14 33.1	+0.7
SRO				eSN	Sn	08 15 33.0	+0.7
MOTA	Moosalm	5.16	326	⇑iPN	Pn	08 14 34.3	+1.4
MOTA				i SN	Sn	08 15 34.1	+0.8
IGT	Igoumenitsa	5.20	132	eP	Pn	08 14 32.5	-1.0
ZST	Bratislava	5.21	13	ePN	Pn	08 14 33.2	-0.4
ZST				eSN	Sn	08 15 31.2	-3.2
FIN	Finale Ligure	5.28	284	P	Pn	08 14 34.6	0.0
FIN	Finale Ligure	5.28	284	P	Pn	08 14 34.6	0.0
DAVOX	Davos	5.32	315	P	Pn	08 14 36.4	+1.3
	comp=Z,5.0nm,0.3s,baz=140,slow=14,SNR=93						
DAVOX				S	Sn	08 15 39.7	+2.5
	comp=Z,15nm,0.3s,baz=318,slow=22,SNR=7.3						
DAVOX	Davos	5.32	315	P	Pn	08 14 36.4	+1.3
DAVOX				S	Sn	08 15 39.7	+2.5
VDL	Val di Lei	5.35	311	P	Pn	08 14 36.7	+1.1
DAVOS	Davos	5.40	315	P	Pn	08 14 36.4	+0.1
DAVOS				S	Sn	08 15 39.7	+0.4
MODS	Modra-Piesok	5.41	14	ePN	Pn	08 14 35.0	-1.4
MODS				eSN	Sn	08 15 35.6	-3.9
MODS	Modra-Piesok	5.41	14	eSn	Sn	08 15 35.6	-3.9
MODS	Modra-Piesok	5.41	14	ePn	Pn	08 14 34.9	-1.5
TUE	Stuetta	5.41	310	P	Pn	08 14 37.4	+0.9
VAI	Varese	5.44	302	ePn	Pn	08 14 36.2	-0.6
IMI	Imperia	5.47	281	P	Pn	08 14 37.2	-0.1
IMI	Imperia	5.47	281	P	Pn	08 14 37.2	-0.1
ROB	Roburent	5.54	285	P	Pn	08 14 37.4	-0.8
MEV	Metsovon	5.55	125	eP	Pn	08 14 38.2	-0.1
SMOL	Smolenice	5.57	14	ePN	Pn	08 14 38.5	-0.2
SMOL				eSN	Sn	08 15 43.8	+0.2
MONE	Monesi	5.59	282	P	Pn	08 14 37.2	-1.7
DAVA	Damuels	5.67	319	⇑iPN	Pn	08 14 41.0	+1.0
DAVA				i SN	Sn	08 15 45.2	-0.7
GRG	Griva	5.69	110	eP	Pn	08 14 38.6	-1.7
VAE	Valguarnera	5.70	187	LR	LR	08 17 34.1	
	comp=Z,3μm,18.2s,baz=75,slow=44						
PSZ	Piszkesteto	5.75	32	ePn	Pn	08 14 41.7	+0.5
PSZ	Piszkesteto	5.75	32	ePn	Pn	08 14 41.4	+0.2
	comp=Z,8.4nm,0.4s						
PSZ	Piszkesteto	5.75	32	eP	Pn	08 14 41.7	+0.5
VSL	Villasalto	5.78	233	ePn	Pn	08 14 40.8	-0.8
	comp=Z,6.8nm,0.6s						
VSL	Villasalto	5.78	233	ePn	Pn	08 14 40.8	-0.8
	comp=Z,6.8nm,0.6s						
SBF	Sospel	5.80	280	ePn	Pn	08 14 41.3	-0.6
SBF				eSn	Sn	08 15 44.5	-4.7
	comp=Z,183nm,0.6s						
SBF	Sospel	5.80	280	eSn	Sn	08 15 44.5	-4.7
	comp=Z,92nm,0.6s						
VTS	Vitosha	5.81	93	eP	Pn	08 14 41.0	-1.0
VTS	Vitosha	5.81	93	P	Pn	08 14 44.6	+2.6
AUTN	L'Aution	5.81	281	P	Pn	08 14 42.3	+0.2
AUTN				S	Sn	08 15 44.5	-5.1
GEC2	GERESS Array S	5.82	349	ePn	Pn	08 14 41.5	-0.7
GEC2				eSn	Sn	08 15 47.3	-2.6
GERES	GERESS Array B	5.82	349	P	Pn	08 14 41.5	-0.7
	comp=Z,10.0nm,0.3s,baz=166,slow=13,SNR=228						
GERES				S	Sn	08 15 47.7	-2.2
	comp=Z,21nm,0.3s,baz=164,slow=24,SNR=34						
GERES	GERESS Array B	5.82	349	P	Pn	08 14 41.5	-0.7
GERES				S	Sn	08 15 47.7	-2.2
GERES				pmax	pmax		
	comp=Z,10.0nm,0.3s						
LLS	Linth-Limmern	5.82	312	P	Pn	08 14 43.7	+1.4
ORO	Oropa	5.83	298	ePn	Pn	08 14 40.8	-1.5
ORO	Oropa	5.83	298	ePn	Pn	08 14 40.8	-1.6
ORX	Oropa	5.83	298	P	Pn	08 14 40.1	-2.3
REVF	Revere	5.84	279	P	Pn	08 14 42.7	+0.3
ENR	Entracque	5.85	283	P	Pn	08 14 42.3	-0.3
UBR	Uberruh	5.85	323	P	Pn	08 14 43.6	+1.0
KKB	Krupnik	5.86	100	eP	Pn	08 14 43.0	+0.2
AURF	Auriere	5.88	280	P	Pn	08 14 42.8	-0.2
VYHS	Vyhne	5.89	23	ePN	Pn	08 14 43.4	+0.2
VYHS				eSN	Sn	08 15 48.1	-3.4
STV	Sta Anna Valdi	5.92	284	P	Pn	08 14 42.8	-0.8
TOUF	Mont Tournerai	5.94	281	P	Pn	08 14 45.0	+1.0
JAVC	Velka Javorina	5.95	15	P	Pn	08 14 45.3	+1.3
KNT	Kendrikon	5.95	107	eP	Pn	08 14 43.1	-1.0
MCGN	Macugnaga	5.96	301	P	Pn	08 14 45.9	+1.7
LKD	Levkas	5.98	136	eP	Pn	08 14 42.3	-2.1
MVIF	Mont Vial	6.00	280	P	Pn	08 14 44.7	-0.1
DOI	San Damiano	6.01	286	P	Pn	08 14 44.6	-0.3
BHB	Bricherasio	6.07	289	P	Pn	08 14 44.4	-1.3
MUO	Muotathal	6.10	311	P	Pn	08 14 47.0	+0.8
PZZ	Prazzo	6.12	286	P	Pn	08 14 45.3	-1.0
KHC	Kasperske Hory	6.12	349	d iP	Pn	08 14 46.3	-0.1
KHC	Kasperske Hory	6.12	349	ePN	Pn	08 14 46.3	-0.1
KHC				ex	x	08 15 40.0	
KHC				eSN	Sn	08 15 53.9	-3.4
RSP	Reno Superiore	6.16	292	P	Pn	08 14 45.0	-2.0
BNALP	Bannalp	6.16	310	ePn	Pn	08 14 48.0	+1.0
VRAC	Vranov	6.23	8	P	Pn	08 14 48.1	0.0
	comp=Z,2.3nm,0.3s,baz=190,slow=13,SNR=6.6						
VRAC				S	Sn	08 15 58.1	-2.1
	comp=Z,4.3nm,0.3s,baz=90,slow=21,SNR=3.2						
VRAC	Vranov	6.23	8	P	Pn	08 14 48.1	+0.1
VRAC				S	Sn	08 15 58.1	-2.0
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.3s						
WILA	Wila	6.24	316	P	Pn	08 14 49.3	+1.2
FENE	Fenestrelle	6.26	290	P	Pn	08 14 46.4	-1.9
OG22	Abries	6.29	288	P	Pn	08 14 47.9	-0.9
LSD	Ceresole Reale	6.32	294	P	Pn	08 14 46.6	-2.5
SURF	Saint Ours	6.32	285	P	Pn	08 14 48.2	-1.0
FRF	La Foret Royal	6.35	277	ePn	Pn	08 14 48.6	-1.1
FRF				eSn	Sn	08 15 57.5	-5.6
LKBD	Leukerbad	6.38	303	P	Pn	08 14 49.6	-0.5
MBDF	Montbardon	6.39	287	ePn	Pn	08 14 49.3	-0.9
MBDF				eSn	Sn	08 15 57.7	-6.3
	comp=Z,178nm,0.7s						
MMB	Musomiste	6.40	101	eP	Pn	08 14 40.0	-10
SOH	Sokhos	6.40	108	eP	Pn	08 14 48.2	-2.2
RRL	Cesana Torines	6.42	289	P	Pn	08 14 49.5	-1.2
LMR	La Mourre	6.46	275	ePn	Pn	08 14 50.2	-1.0
LMR				eSn	Sn	08 15 59.4	-6.3
	comp=Z,25nm,0.4s						
SRS	Serrai	6.46	105	eP	Pn	08 14 49.5	-1.7
PGB	Panagyurishte	6.51	92	eP	Pn	08 14 52.0	0.0
BNI	Bardonecchia	6.53	290	ePn	Pn	08 14 49.8	-2.3
	comp=Z,10nm,0.4s						
BNI				P		08 14 55.0	
BNI				eSn	Sn	08 16 03.2	-4.3
BNI	Bardonecchia	6.53	290	ePn	Pn	08 14 49.8	-2.4
	comp=Z,10nm,0.4s						
BNI	Bardonecchia	6.53	290	P	Pn	08 14 55.0	+2.8
LPG	La Plagne	6.60	294	ePn	Pn	08 14 51.7	-1.5
LPG				ePg	Pg	08 15 16.9	-8.5
LPG				eSn	Sn	08 16 02.3	-7.0
	comp=Z,291nm,0.6s						
LPG	La Plagne	6.60	294	ePg	Pg	08 15 16.9	-8.5
LPL	La Plagne	6.62	294	ePn	Pn	08 14 52.4	-1.0
LPL				eSn	Sn	08 16 03.1	-6.6
	comp=Z,387nm,0.8s						
AGG	Agios Georgios	6.69	126	eP	Pn	08 14 52.5	-2.0
EMV	Vieux Emosson	6.70	299	P	Pn	08 14 54.7	+0.1
RSL	Roselend	6.74	295	P	Pn	08 14 55.4	+0.2
TAVF	Tavernes	6.78	277	P	Pn	08 14 55.6	-0.2
MORC	Moravsky Berou	6.81	12	ePn	Pn	08 14 54.5	-1.8
	comp=Z,5.0nm,0.4s						
MORC				P		08 14 58.7	
MORC				eSn	Sn	08 16 12.5	-2.1
MORC	Moravsky Berou	6.81	12	P	Pn	08 14 58.7	+2.5
PRU	Pruhonice	6.88	356	ePn	Pn	08 14 56.6	-0.5
	comp=Z,3.7nm,0.5s						
PRU				eSn	Sn	08 16 12.8	-3.4
STOF	St-Etienne Org	6.91	280	P	Pn	08 14 58.4	+0.9
OG01	Vacheresse	6.94	300	P	Pn	08 14 57.3	-0.7
GDM	Grand'Maison	6.95	290	P	Pn	08 14 57.4	-0.7
PRA	Prague	6.96	355	SG	Sb	08 16 35.0	-3.8
PRA				AMS	AMS	08 17 15.0	
ROTZ	Rotzenmuhle	6.98	343	⇑iPn	Pn	08 14 56.7	-1.8
FELD	Feldberg	7.00	315	P	Pn	08 14 58.2	-0.6
FELD				S	Sn	08 16 14.0	-5.3
XOR	Xorichti	7.01	120	eP	Pn	08 14 54.8	-4.3
BBS	Basel-Blauen	7.01	311	P	Pn	08 14 59.4	+0.4
BBS				S	Sn	08 16 16.0	-3.7
PAIG	Paliouri	7.03	114	eP	Pn	08 14 52.6	-6.6
VILF	Villemus	7.04	279	P	Pn	08 14 58.2	-1.2
OUR	Ouranopolis	7.04	111	eP	Pn	08 14 57.1	-2.3
ORIF	Oris-en-Rattie	7.05	288	ePn	Pn	08 14 58.5	-1.0
ORIF				eSn	Sn	08 16 13.1	-7.4
	comp=Z,109nm,0.5s						
ORIF				eR			
	comp=Z,727nm,17.0s						
STU	Stuttgart	7.08	325	ePn	Pn	08 14 58.4	-1.6
STU	Stuttgart	7.08	325	ePn	Pn	08 14 58.4	-1.5
RZN	Rozhen	7.09	99	eP	Pn	08 14 59.0	-1.1
BFO	Black Forest	7.14	319	ePn	Pn	08 15 00.1	-0.7
BFO				eSn	Sn	08 16 16.5	-6.4
SMRF	Simiane la Rot	7.14	280	ePn	Pn	08 14 59.7	-1.2
CRVS	Cervenica-Dubn	7.17	34	ePN	Pn	08 15 03.2	+2.0
GRN	Grenoble	7.21	290	P	Pn	08 15 01.9	+0.1
GELF	Grande-Etoile	7.24	275	P	Pn	08 15 01.8	-0.4
TREF	Trevaresse	7.27	277	P	Pn	08 15 02.6	0.0
LOMF	Lomont	7.34	308	P	Pn	08 15 03.4	-0.2
LOMF				S	Sn	08 16 22.5	-5.2
NKC	Novy Kostel	7.37	345	ePN	Pn	08 15 02.6	-1.4
NKC				eSN	Sn	08 16 21.6	-7.0
PVCC	Panska Ves	7.41	356	ePN	Pn	08 15 04.3	-0.3
CABF	La Chapelle	7.43	301	ePn	Pn	08 15 03.9	-1.0
CABF				eSn	Sn	08 16 22.8	-7.4
	comp=Z,282nm,0.9s						
MOF	Molkenrain	7.45	312	P	Pn	08 15 04.8	-0.3
MOF				S	Sn	08 16 25.3	-5.2
HINF	Hinteralfeld	7.58	311	ePn	Pn	08 15 05.9	-1.1
HINF				eSn	Sn	08 16 25.7	-8.1
	comp=Z,306nm,0.7s						
HINF	Hinteralfeld	7.58	311	eSn	Sn	08 16 25.7	-8.1
	comp=Z,153nm,0.7s						
OG05	Jujurieux	7.63	296	P	Pn	08 15 06.5	-1.1
ECH	Echery	7.66	314	P	Pn	08 15 07.4	-0.6
ECH				S	Sn	08 16 31.1	-4.6
WLS	Welschbruch	7.68	316	P	Pn	08 15 07.4	-1.0
CDF	Champ du Feu	7.72	316	ePn	Pn	08 15 07.0	-1.9
CDF				eSn	Sn	08 16 29.8	-7.5
	comp=Z,88nm,0.6s						
CDF	Champ du Feu	7.72	316	ePn	Pn	08 15 07.0	-1.9
CDF				Pg	Pg	08 15 36.5	-11
CDF				eSn	Sn	08 16 29.8	-7.5
CDF	Champ du Feu	7.72	316	Pg	Pg	08 15 36.5	-11
CDF				eSn	Sn	08 16 29.8	-7.5
	comp=Z,44nm,0.6s						
ITM	Ithomi	7.80	138	ePn	Pn	08 15 07.9	-2.1
BRG	Berggiesshubel	7.80	353	eP	Pn	08 15 08.9	-1.1
BRG				i		08 16 32.3	
BRG	Berggiesshubel	7.80	353	ePn	Pn	08 15 08.9	-1.1
BRG				i Pg	Pn	08 15 09.9	-0.1
BRG				i Sn	Sn	08 16 32.3	-7.0
BRG				i		08 16 51.1	
BRG				i Sg	Sg	08 17 23.2	-10
BRG	Berggiesshubel	7.80	353	i Sg	Sg	08 17 23.2	-10
LANF	Langenberg	7.85	321	P	Pn	08 15 10.4	-0.3
LANF				S	Sn	08 16 36.8	-3.7
VIVF	Saint-Julien-l	7.88	286	ePn	Pn	08 15 09.7	-1.5
VIVF				eSn	Sn	08 16 33.7	-7.7
	comp=Z,35nm,0.7s						
TOD	Tromm	7.89	327	P	Pn	08 15 11.8	+0.5
MOX	Moxa	7.93	343	eP	Pn	08 15 10.3	-1.6
MOX				e		08 16 35.5	
MOX				MLR	MLR		
	comp=Z,2μm,14.0s						
MOX	Moxa	7.93	343	i P	Pn	08 15 10.3	-1.6
MOX				S	Sn	08 16 35.0	-7.6
MOX				L		08 18 29.0	
MOX	Moxa	7.93	343	ePn	Pn	08 15 09.8	-2.1
MLR	Muntele Rosu	7.96	69	P	Pn	08 15 11.9	-0.4
	comp=Z,0.3nm,0.3s,baz=291,slow=8.5,SNR=4.0						
HAU	Haudompre	7.97	311	ePn	Pn	08 15 10.9	-1.5
HAU				eSn	Sn	08 16 35.2	-8.3
	comp=Z,403nm,0.6s						
HAU				eR			
	comp=Z,854nm,14.8s						
ALN	Alexandroupoli	8.28	102	eP	P	08 15 15.1	-1.6
THEF	They Montfort	8.29	311	P	P	08 15 16.3	-0.6
CLL	Collm	8.33	350	i Pn	P	08 15 16.3	-1.1
CLL				i Sn	Sn	08 16 46.8	-5.7
CLL				i Sg	Sg	08 17 48.6	-2.3
CLL	Collm	8.33	350	i PN	P	08 15 16.3	-1.1
CLL				i SN	Sn	08 16 46.8	-5.7
CLL				e		08 17 05.0	
CLL				i		08 17 39.8	
CLL				i SG	Sg	08 17 48.6	-2.3
LASF	Ste Croix	8.39	280	ePn	P	08 15 16.7	-1.5
PLDF	La Plantade	8.84	293	P	P	08 15 22.4	-2.0
SMF	Signal de Mont	8.88	297	ePn	P	08 15 23.4	-1.7
SMF				eSn	Sn	08 16 57.3	-9.0
	comp=Z,184nm,0.6s						
LBL	Lubilhac	8.94	288	P	P	08 15 24.5	-1.4
MEZF	Maizieres J'vi	8.96	310	ePn	P	08 15 23.6	-2.6
	baz=127						
MEZF				eSn	Sn	08 16 58.8	-9.5
	comp=Z,66nm,0.6s						
WLF	Walferdange	9.10	319	Pn	P	08 15 27.0	-1.2
	comp=Z,36nm,1.0s						
WLF	Walferdange	9.10	319	Pn	P	08 15 27.0	-1.1
	comp=Z,36nm,1.0s						
AGO	Saint Agoulin	9.19	293	P	P	08 15 26.6	-2.7
SSF	Saint Saulge	9.24	299	eSn	Sn	08 17 05.2	-10
	comp=Z,49nm,0.5s						
SSF	Saint Saulge	9.24	299	ePn	P	08 15 27.9	-2.2
SSF				eSn	Sn	08 17 05.2	-10
	comp=Z,24nm,0.5s						
AVF	Avril sur Loir	9.25	297	eSn	Sn	08 17 04.8	-11
	comp=Z,81nm,0.8s						
AVF	Avril sur Loir	9.25	297	ePn	P	08 15 27.9	-2.3
AVF				eSn	Sn	08 17 04.8	-11
	comp=Z,41nm,0.8s						
CLZ	Clausthal	9.33	341	ePn	P	08 15 30.4	-0.9
KMPD	K-Podol'skiy	9.46	51	P	P	08 15 35.0	+1.9
BGF	Bois d'Agland	9.51	295	ePn	P	08 15 31.5	-2.2
BGF				eSn	Sn	08 17 11.8	-10
	comp=Z,127nm,0.5s						
MTLF	Montolieu	9.58	276	ePn	P	08 15 32.2	-2.5
CAF	Calviac	9.73	285	ePn	P	08 15 34.3	-2.4
CAF				eSn	Sn	08 17 18.2	-9.0
	comp=Z,14nm,0.5s						
MEM	Membach	9.83	323	P	P	08 15 39.3	+1.2
	comp=Z,14nm,1.7s						
TCF	Toulx Ste Croi	9.87	293	ePn	P	08 15 36.0	-2.6
TCF				eSn	Sn	08 17 20.4	-10
	comp=Z,55nm,0.7s						
TCF	Toulx Ste Croi	9.87	293	eSn	Sn	08 17 20.4	-10
	comp=Z,28nm,0.7s						
HYF	Humbligny	9.87	299	ePn	P	08 15 36.5	-2.1
HYF				eSn	Sn	08 17 21.2	-9.4
HYF	Humbligny	9.87	299	eSn	Sn	08 17 21.2	-9.4
APE	Apeiranthos	9.88	124	i P	P	08 15 38.3	-0.5
GIVF	Givet	10.04	318	ePn	P	08 15 39.2	-1.7
GIVF				eSn	S	08 17 25.8	-8.9
	comp=Z,84nm,0.9s						
GIVF	Givet	10.04	318	eSn	S	08 17 25.8	-8.9
	comp=Z,42nm,0.9s						
DOU	Dourbes	10.15	317	P	P	08 15 42.6	+0.2
BAIF	Baives	10.32	316	ePn	P	08 15 43.4	-1.4
BAIF				eSn	S	08 17 31.9	-10
	comp=Z,34nm,0.7s						
BAIF	Baives	10.32	316	eSn	S	08 17 31.9	-10
	comp=Z,17nm,0.7s						
LFF	La Frestale	10.67	285	ePn	P	08 15 46.0	-3.6
IDI	Anoyia	10.78	133	P	P	08 15 46.9	-4.2
	comp=Z,0.8nm,0.3s,baz=320,slow=17,SNR=3.3						
IDI				S	S	08 17 41.0	-12
	comp=Z,1.4nm,0.3s,baz=36,slow=23,SNR=4.7						
EPF	Esparros	10.98	275	ePn	P	08 15 51.5	-2.3
MFF	Saint Martin d	11.52	293	ePn	P	08 15 58.0	-3.3
MFF				eSn	S	08 18 00.8	-10
	comp=Z,62nm,1.2s						
LDF	La Druitiere	12.07	302	ePn	P	08 16 06.6	-2.1
LDF				eSn	S	08 18 14.3	-10
	comp=Z,54nm,0.9s						
AKASG	Malin Array Be	12.12	47	P	P	08 16 09.7	+0.4
	comp=Z,0.3nm,0.3s,baz=239,slow=12,SNR=2.1						
FLN	La Foliniere	12.36	303	ePn	P	08 16 10.2	-2.3
FLN				eSn	S	08 18 18.4	-13
	comp=Z,55nm,0.7s						
FLN				eR			
	comp=Z,455nm,16.0s						
GRR	Gorron	12.46	301	ePn	P	08 16 12.1	-1.9
GRR				eSn	S	08 18 22.4	-12
	comp=Z,34nm,0.7s						
BRTR	Keskin Array B	14.14	98	P	P	08 16 35.1	-1.1
	comp=Z,0.2nm,0.3s,baz=274,slow=12,SNR=3.7						
ESDC	Sonseca Array	14.89	263	P	P	08 16 50.6	+4.6
	comp=Z,0.4nm,0.3s,baz=70,slow=11,SNR=6.3						
ANN	Anapa	15.99	76	i P	P	08 17 13.5	+13
ANN				pmax	pmax		
	comp=Z,174nm,1.2s						
VSU	Vasula	16.91	21	i P	P	08 17 11.5	-0.2
HFS	Hagfors	17.05	357	P	P	08 17 13.8	+0.3
	comp=Z,0.1nm,0.3s,baz=173,slow=12,SNR=5.9						
EKA	Eskdalemuir Ar	17.10	322	P	P	08 17 15.8	+1.6
	comp=Z,0.2nm,0.3s,baz=112,slow=9.0,SNR=6.1						
NAO01	NORSAR Array S	17.94	353	eP	P	08 17 25.1	+0.5
	comp=Z,15nm,1.0s						
NAO01	NORSAR Array S	17.94	353	eP	P	08 17 25.1	+0.5
	comp=Z,15nm,1.0s						
VRSR	Storozhevoye	18.06	55	eP	P	08 17 24.7	-1.4
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.6s						
VRSR				pmax	pmax		
	comp=N,9.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,7.0nm,0.6s						
VRSR				MLR	MLR		
	comp=Z,360nm,21.0s						
VRSR				MLR	MLR		
	comp=N,210nm,15.0s						
VRSR				MLR	MLR		
	comp=E,110nm,15.0s						
NB2	NORSAR Subarra	18.10	354	P	P	08 17 26.7	0.0
	comp=E,12nm,0.9s,baz=169,slow=11						
NOA	NORSAR Array B	18.10	354	P	P	08 17 27.2	+0.6
	comp=E,0.2nm,0.3s,baz=167,slow=11,SNR=18						
NOA				LR	LR	08 25 04.4	
	comp=E,501nm,18.4s,baz=175,slow=39						
OBN	Obninsk	18.26	42	d eP	P	08 17 27.3	-1.3
OBN				eS	S	08 20 52.2	+2.7
OBN				pmax	pmax		
	comp=Z,13nm,0.8s						
OBN				MLR	MLR		
	comp=Z,700nm,16.0s						
MOS	Moscow	19.10	41	eP	P	08 17 37.2	-1.7
MOS				MLR	MLR		
	comp=Z,1μm,11.4s						
MOS				MLR	MLR		
	comp=E,1μm,11.1s						
FINES	FINESS Array B	19.43	16	P	P	08 17 40.4	-2.2
	comp=E,1.2nm,0.3s,baz=192,slow=8.8,SNR=30						
FINES				LR	LR	08 26 30.6	
	comp=E,322nm,18.7s,baz=20,slow=41						
FINES	FINESS Array B	19.43	16	P	P	08 17 40.4	-2.2
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						

FINES				MLR	MLR		
	comp=Z,322nm,18.7s						
FINES	**FINESS Array B**	**19.43**	**16**	P	**P**	**08 17 40.4**	**-2.2**
FINES				LR	LR	08 26 30.6	
KIV	**Kislovodsk**	**19.81**	**78**	*i* P	**P**	**08 17 46.0**	**-1.1**
KIV				pmax	pmax		
	comp=Z,12nm,1.1s						
KIV				MLR	MLR		
	comp=Z,100nm,15.0s						
ASF	**Jabal al Asfar**	**20.22**	**116**	P	**P**	**08 17 55.4**	**+3.9**
	comp=Z,2.7nm,0.5s,baz=315,slow=2.9,SNR=5.1						
EIL	**Elat**	**20.66**	**124**	P	**P**	**08 17 59.0**	**+2.8**
	comp=Z,4.8nm,0.9s,baz=347,slow=18,SNR=3.6						
EIL	**Elat**	**20.66**	**124**	P	**P**	**08 17 54.9**	**-1.3**
	comp=Z,5.4nm,0.8s						
EIL	**Elat**	**20.66**	**124**	P	**P**	**08 17 54.9**	**-1.3**
	comp=Z,5.4nm,0.8s						
ZEI	**Tsey**	**20.87**	**81**	P	**P**	**08 17 58.9**	**+0.7**
ZEI				PP	PP	08 18 04.7	-16
ZEI				PP	PP	08 18 16.1	-4.4
ARCES	**ARCESS Array B**	**26.98**	**8**	P	**P**	**08 18 55.7**	**-1.2**
	comp=Z,2.7nm,0.7s,mb3.9,baz=191,slow=6.2,SNR=8.4						
ARCES				LR	LR	08 30 28.0	
	comp=Z,694nm,18.6s,MS4.2,baz=198,slow=38						
ARCES	**ARCESS Array B**	**26.98**	**8**	P	**P**	**08 18 55.7**	**-1.3**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARCES				MLR	MLR		
	comp=Z,694nm,18.6s						
BORG	**Borgarnes**	**29.86**	**329**	LR	LR	08 30 32.5	
	comp=Z,44nm,18.1s,MS3.1,baz=358,slow=35						
ARU	**Arti**	**30.36**	**49**	⇑*i*P	**P**	**08 19 25.1**	**-2.5**
ARU				*e*		08 20 22.9	
ARU				*e*		08 22 23.5	
ARU				*e*S	**S**	**08 24 24.6**	**-2.1**
ARU				*e*SS	SS	08 26 05.3	-0.6
ARU				*e*SSS	SSS	08 26 21.7	-5.6
ARU				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
ARU				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.0						
ARU				MLR	MLR		
	comp=N,100nm,16.0s,MS3.9						
ARU				MLR	MLR		
	comp=E,200nm,17.0s,MS3.9						
ARU	**Arti**	**30.36**	**49**	*e*P	**P**	**08 19 24.5**	**-3.1**
	comp=E,4.6nm,0.4s,mb4.6						
BRVK	**Borovoye**	**37.16**	**55**	*e*P	**P**	**08 20 25.0**	**-1.2**
	comp=E,14nm,0.6s,mb5.0						
BRVK	**Borovoye**	**37.16**	**55**	*e*P	**P**	**08 20 25.0**	**-1.2**
	comp=E,14nm,0.6s,mb5.0						
CHKZ	**Chkalovo**	**37.28**	**54**	*e*P	**P**	**08 20 25.6**	**-1.7**
	comp=E,4.1nm,0.7s,mb4.4						
CHKZ	**Chkalovo**	**37.28**	**54**	*e*P	**P**	**08 20 25.6**	**-1.6**
	comp=E,4.1nm,0.7s,mb4.4						
DBIC	**Dimbokro**	**40.45**	**212**	P	**P**	**08 20 52.2**	**-1.8**
	comp=E,5.2nm,0.9s,mb4.3						
EKS2	**Erkin-Say**	**42.04**	**70**	*e*P	**P**	**08 21 06.1**	**-0.7**
	comp=E,2.8nm,0.6s,mb4.1						
EKS2	**Erkin-Say**	**42.04**	**70**	*e*P	**P**	**08 21 06.1**	**-0.7**
	comp=E,2.8nm,0.6s,mb4.1						
KURK	**Kurchatov**	**42.68**	**57**	*e*P	**P**	**08 21 10.5**	**-1.4**
	comp=E,2.2nm,0.6s,mb4.1						
KURK	**Kurchatov**	**42.68**	**57**	*e*P	**P**	**08 21 10.5**	**-1.4**
	comp=E,2.2nm,0.6s,mb4.1						
ZAL	**Zalesovo**	**45.47**	**51**	P	**P**	**08 21 33.6**	**-0.8**
	comp=E,3.4nm,0.7s,mb4.3,baz=187,slow=7.5,SNR=18						
ZAL				LR	LR	08 42 50.7	
	comp=E,316nm,19.3s,MS4.3,baz=182,slow=39						
ZAL	**Zalesovo**	**45.47**	**51**	P	**P**	**08 21 33.6**	**-0.7**
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ZAL				MLR	MLR		
	comp=Z,316nm,19.3s						
WMQ	**Urumqi**	**50.90**	**63**	P	**P**	**08 22 17.2**	**+0.5**
WMQ				AP	pP	08 22 21.4	+1.6
WMQ				XP	sP	08 22 24.2	+3.2
WMQ				PCP	PcP	08 23 34.0	+0.5
WMQ				PP	PP	08 24 14.4	+0.4
WMQ				*e*S	**S**	**08 29 32.2**	**+0.5**
WMQ				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb4.3						
WMQ				LR	LR		
	comp=N,181nm,24.4s,MS4.1						
WMQ				LR	LR		
	comp=E,118nm,24.2s,MS4.1						
WMQ				LR	LR		
	comp=Z,105nm,25.8s,MS3.7						
SCHQ	**Schefferville**	**52.17**	**313**	P	**P**	**08 22 27.3**	**+1.1**
	comp=Z,3.0nm,0.8s,mb4.2,baz=94,slow=12,SNR=3.6						
SONM	**Songino Array**	**60.37**	**51**	P	**P**	**08 23 23.8**	**-1.2**
	comp=Z,1.7nm,0.5s,mb4.3,baz=288,slow=8.3,SNR=17						
LZH	**Lanzhou**	**65.48**	**63**	*e*P	**P**	**08 23 57.8**	**-1.2**
LZH				AP	pP	08 24 00.0	-2.1
LZH				XP	sP	08 24 02.5	-0.7
LZH				PP	PP	08 26 23.5	-1.8
LZH				AMB	AMB		
	comp=Z,22nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,89nm,5.3s						
LZH				LR	LR		
	comp=N,178nm,15.0s						
LZH				LR	LR		
	comp=Z,246nm,17.8s,MS4.5						
YKA	**Yellowknife Ar**	**67.35**	**337**	P	**P**	**08 24 09.8**	**-0.6**
	comp=Z,0.6nm,0.6s,mb3.8,baz=40,slow=5.4,SNR=14						
YKA				LR	LR	08 52 29.7	
	comp=Z,72nm,19.7s,MS3.9,baz=350,slow=35						
YKA	**Yellowknife Ar**	**67.35**	**337**	*i* P	**P**	**08 24 09.8**	**-0.6**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	**67.35**	**337**	P	**P**	**08 24 09.9**	**-0.5**
ULM	**Lac du Bonnet**	**69.37**	**320**	P	**P**	**08 24 22.2**	**-1.0**
	comp=Z,4.3nm,0.7s,mb4.5,baz=44,slow=5.6,SNR=7.0						
BJI	**Beijing**	**70.67**	**53**	P	**P**	**08 24 33.8**	**+2.4**
BJI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.5						
ILAR	**Eielson Array**	**71.53**	**352**	P	**P**	**08 24 35.9**	**-0.2**
	comp=Z,0.5nm,0.6s,mb3.6,baz=3.8,slow=5.9,SNR=14						
ILAR				LR	LR	08 54 56.4	
	comp=Z,99nm,18.2s,MS4.1,baz=9.9,slow=35						
CMAR	**Chiang Mai Arr**	**73.03**	**80**	P	**P**	**08 24 44.0**	**-1.7**
	comp=Z,1.2nm,0.6s,mb4.0,baz=303,slow=7.8,SNR=5.2						
CMAR	**Chiang Mai Arr**	**73.03**	**80**	P	**P**	**08 24 44.1**	**-1.7**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**73.03**	**80**	P	**P**	**08 24 44.0**	**-1.8**
CN2	**Changchun**	**73.28**	**45**	*e*P	**P**	**08 24 45.0**	**-1.7**
MDJ	**Mudanjiang**	**74.80**	**42**	P	**P**	**08 24 52.7**	**-2.8**
MDJ				AMB	AMB		
	comp=Z,10.0nm,2.4s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,101nm,3.9s						
MDJ				LR	LR		
	comp=N,71nm,27.9s,MS4.1						
MDJ				LR	LR		
	comp=E,99nm,25.9s,MS4.1						
MDJ				LR	LR		
	comp=Z,136nm,18.2s						
NJ2	**Nanjing**	**77.61**	**58**	*e*P	**P**	**08 25 09.3**	**-2.3**
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
SSE	**Sheshan**	**79.71**	**57**	P	**P**	**08 25 19.2**	**-3.9**
SSE				XP	sP	08 25 32.3	+5.0
SSE				S	S	08 35 18.2	-6.0
SSE				XS		08 35 33.8	
SSE				AMB	AMB		
	comp=Z,23nm,0.6s,mb5.3						
SSE				AMB	AMB		
	comp=Z,123nm,4.3s						
SSE				LR	LR		
	comp=N,52nm,17.1s,MS4.0						
SSE				LR	LR		
	comp=E,40nm,16.8s,MS4.0						
SSE				LR	LR		
	comp=Z,57nm,15.7s,MS4.0						
PDAR	**Pinedale Array**	**81.23**	**322**	P	**P**	**08 25 31.1**	**+0.2**
	comp=Z,2.3nm,0.7s,mb4.2,baz=51,slow=5.5,SNR=14						
PDAR				LR	LR	09 02 01.1	
	comp=Z,71nm,20.5s,MS4.0,baz=241,slow=36						
BDFB	**Brasilia**	**82.31**	**240**	LR	LR	09 01 49.0	
	comp=Z,55nm,18.7s,MS4.0,baz=113,slow=35						
NVAR	**Mina Array Bea**	**88.57**	**325**	P	**P**	**08 26 09.5**	**+1.8**
	comp=Z,0.7nm,0.6s,mb4.2,baz=39,slow=2.9,SNR=6.0						
NVAR				LR	LR	09 08 56.3	
	comp=Z,82nm,18.3s,MS4.2,baz=220,slow=38						
TXAR	**Lajitas Array**	**88.73**	**310**	P	**P**	**08 26 10.1**	**+1.4**
	comp=Z,0.9nm,0.8s,mb4.2,baz=90,slow=2.5,SNR=9.7						

WEL 03 08:30:32.9±0.9,**47.47S**×**165.44E,h33**^{km},**ML3.7**/6,**Error ellipse: s-maj=14.1km s-min=9.2km az=90.0,Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	**Wether Hill Ro**	**2.34**	**48**	PN	Pn	08 31 07.7	-2.2
WHZ				SN	Sn	08 31 34.0	-3.8
MLZ	**Mavora Lakes**	**2.84**	**43**	PN	Pn	08 31 14.8	-2.2
MLZ				SN	Sn	08 31 47.3	-3.3
TUZ	**Tuapeka**	**3.26**	**64**	PN	Pn	08 31 21.3	-1.7
MSZ	**Milford Sound**	**3.29**	**33**	*e*PN	Pn	08 31 20.8	-2.7
EAZ	**Earnscleugh**	**3.49**	**52**	*e*PN	Pn	08 31 23.8	-2.5
WKZ	**Wanaka**	**3.63**	**45**	PN	Pn	08 31 26.5	-1.7
JCZ	**Jackson Bay**	**4.12**	**36**	*e*PN	Pn	08 31 32.7	-2.5
ODZ	**Otahua Downs**	**4.35**	**58**	*e*PN	Pn	08 31 33.9	-4.5
LBZ	**Lake Benmore**	**4.52**	**49**	*e*PN	Pn	08 31 36.5	-4.5
FOZ	**Fox Glacier**	**4.92**	**39**	*e*PN	Pn	08 31 43.6	-2.9
LTZ	**Lake Taylor**	**6.73**	**48**	*e*PN	Pn	08 32 08.1	-3.9
DSZ	**Denniston Nort**	**7.30**	**41**	*e*PN	Pn	08 32 14.0	-6.0

CASC 03 08:34:25.1±1.5,**14.14N**×**91.34W,h70**^{km}±16^{km},**MD3.7, ML3.9,3C-1D,Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	**0.34**	**303**	⇑*e*P	P	08 34 36.0	-0.7
JAT				*e*S	S	08 34 46.1	+0.9
JAT				AML	AML	08 34 46.5	
	comp=E,5µm,0.2s						
IXG	**Ixpaco**	**0.86**	**87**	⇑*e*P	P	08 34 41.5	-0.5
IXG				*e*S	S	08 34 54.9	+0.2
IXG				AML	AML	08 35 02.7	
	comp=E,5µm,0.4s						
RBDL	**Robledal**	**1.61**	**91**	*e*P	P	08 34 51.8	-0.2
RBDL				*e*S	S	08 35 14.0	+2.2
RTR	**El Retiro**	**1.66**	**98**	*e*P	P	08 34 52.7	-0.1
SBLS	**San Blas**	**1.69**	**100**	⇓*e*P	P	08 34 53.1	-0.1
SBLS				*e*S	S	08 35 14.8	+0.9
SNJE	**San Jose**	**1.71**	**99**	⇑*e*P	P	08 34 53.6	+0.3
SNJE				*e*S	S	08 35 15.4	+1.2
LFU	**La Fuente**	**2.20**	**100**	*e*P	P	08 35 00.1	0.0
LFU				*e*S	S	08 35 27.8	+1.7
LFRS	**El Faro**	**2.27**	**103**	*e*P	P	08 35 00.6	-0.6
LFRS				*e*S	S	08 35 28.6	+0.5
LCBS	**La Ceiba**	**2.34**	**101**	*e*P	P	08 35 01.9	-0.4
SNVI	**San Vicente**	**2.49**	**102**	*e*P	P	08 35 04.4	+0.2
SNVI				*e*S	S	08 35 33.8	+0.4
CNCH	**Conchagua**	**3.52**	**104**	*e*P	P	08 35 17.6	-1.0

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*NEIC **03** 08:47:58.2±3.9,32.02S×68.42W,h141^{km}±33^{km}, MD3.8(GUC),Error ellipse: s-maj=37.6km s-min=11.0km az=82.0*

GUC 03 08:47:58.0±0.7,**32.01S**×**68.46W,h150**^{km}±26^{km},**MD3.8, ML3.8,4C-1D,Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDZ	**Mendoza**	**0.93**	**200**	⇑*i*P	P	08 48 21.0	-1.4
MDZ				*i*		08 48 35.0	
MDZ				*i* S	S	08 48 37.9	-3.3
JACH	**Jahuel**	**1.92**	**249**	*e*P	P	08 48 32.8	+0.3
JACH				*i* S	S	08 48 59.6	+0.4
FCH	**Farellones**	**2.02**	**229**	⇑*i*P	P	08 48 34.6	+0.8
FCH				*i* S	S	08 49 02.1	+0.8
FCH				AMP		08 49 12.6	
	comp=N,198nm,0.2s						
PEL	**Peldehue**	**2.19**	**238**	*e*P	P	08 48 35.3	-0.5
PEL				*i* S	S	08 49 03.9	-1.0
PEL				AMP		08 49 05.6	
	comp=N,559nm,0.3s						
CLCH	**Cerro Calan**	**2.23**	**231**	⇑*i*P	P	08 48 36.5	+0.2
CLCH				*i* S	S	08 49 05.8	+0.1
CLCH				AMP		08 49 07.8	
	comp=N,354nm,0.7s						
DSCH	**Colegio Aleman**	**2.25**	**231**	*e*P	P	08 48 36.9	+0.3
DSCH				*i* S	S	08 49 06.0	-0.2
DSCH				AMP		08 49 09.6	
	comp=N,396nm,0.5s						
CMCH	**Combarbala**	**2.32**	**290**	⇓*i*P	P	08 48 37.9	+0.4
CMCH				*i* S	S	08 49 07.5	-0.1
CMCH				AMP		08 49 12.3	
	comp=N,1µm,0.7s						
LMEL	**Las Melosas**	**2.34**	**218**	*e*P	P	08 48 38.0	+0.2
LMEL				*i* S	S	08 49 08.3	+0.1
LMEL				AMP		08 49 17.4	
	comp=N,124nm,0.2s						
ROCH	**El Roble**	**2.36**	**245**	*i* P	P	08 48 37.6	-0.3
ROCH				*i* S	S	08 49 06.8	-1.7
PCH	**Pirque**	**2.36**	**227**	*e*P	P	08 48 38.0	+0.1
PCH				*i* S	S	08 49 08.9	+0.4
RCDM	**Rinconada Maip**	**2.46**	**233**	*e*P	P	08 48 39.4	+0.1
RCDM				*i* S	S	08 49 10.8	-0.1
RCDM				AMP		08 49 11.6	
	comp=E,426nm,0.2s						
PACH	**Papudo**	**2.57**	**257**	*e*P	P	08 48 39.5	-1.2
TACH	**Talagante**	**2.65**	**231**	*e*P	P	08 48 41.2	-0.4
CHCH	**Chadas Angostu**	**2.66**	**223**	*e*P	P	08 48 41.6	-0.1
LCCH	**Las Cruces**	**3.00**	**240**	*i* P	P	08 48 44.8	-1.2
LNV	**Longovilo**	**3.15**	**231**	*e*P	P	08 48 45.9	-2.0
LSCH	**La Serena**	**3.18**	**311**	⇑*i*P	P	08 48 47.8	-0.5
LSCH				*i* S	S	08 49 23.5	-3.5
LSCH				AMP		08 49 24.1	
	comp=N,289nm,0.4s						
SFDO	**San Fernando**	**3.36**	**219**	*i* P	P	08 48 50.4	-0.4

IDC 03 08:52:03.0±1.4,**72.74N**×**5.12E,mb3.4**/3,**mb1 3.7**/6, **mb1mx3.5**/19,**ML3.3**/3,**MS2.8**/3,**Ms1 2.8**/3,**ms1mx2.7**/18, **Error ellipse: s-maj=27.9km s-min=18.5km az=48.0, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARCES	**ARCESS Array B**	**7.32**	**106**	Pn	Pn	08 53 51.1	-2.8
	0.3nm,0.3s,baz=309,slow=12,SNR=14						
ARCES				Sn	Sn	08 55 11.8	-6.9
	0.3nm,0.3s,baz=300,slow=20,SNR=2.5						
ARCES				LR	LR	08 57 06.1	
	comp=Z,45nm,18.4s,baz=14,slow=41						
NOA	**NORSAR Array B**	**11.98**	**166**	Pn	P	08 54 55.5	-2.3
	0.3nm,0.3s,baz=351,slow=14,SNR=2.6						
NOA				LR	LR	08 59 07.1	
	comp=Z,45nm,21.1s,baz=25,slow=35						
HFS	**Hagfors**	**13.09**	**161**	Pn	P	08 55 09.6	-3.1
	0.2nm,0.3s,slow=12,SNR=17						
FINES	**FINESS Array B**	**13.84**	**134**	LR	LR	08 59 57.9	
	comp=Z,53nm,21.4s,baz=306,slow=34						
GERES	**GERESS Array B**	**24.29**	**166**	P	P	08 57 23.6	+1.2
	0.5nm,0.6s,baz=350,slow=11,SNR=3.3						
AKASG	**Malin Array Be**	**24.51**	**141**	P	P	08 57 23.4	-1.1
	0.6nm,0.6s,baz=341,slow=9.1,SNR=3.7						
ILAR	**Eielson Array**	**41.47**	**342**	P	P	08 59 50.3	-2.2
	0.8nm,0.8s,baz=5.3,slow=7.8,SNR=11						

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*NEIC **03** 09:38:44.6±4.4,6.44S×129.50E,h15^{km},mb3.9/1,Error ellipse: s-maj=53.1km s-min=28.9km az=173.0*

*IDC **03** 09:39:06.2±10.0,7.81S×129.46E,h128^{km}±79^{km},mb3.7/1, mb1 4.0/4,mb1mx3.6/13,Error ellipse: s-maj=72.1km s-min=50.0km az=4.0*

ISC 03 09:39:02.2±1.7,**7.48S**±0.08×**129.2E**±0.1,**h178**^{km}±19^{km}, **n15,**σ1^{s}**32**/23,**mb4.6**/4,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.08**	**149**	*e*P	**P**	**09 40 31.6**	**+0.6**
	105nm,0.1s						
KAKA				*e*S	**S**	**09 41 38.6**	**-1.5**
FITZ	**Fitzroy Crossi**	**11.11**	**198**	*e*P	**P**	**09 41 37.7**	**+0.7**
	4.5nm,0.3s						
FITZ				*e*S	**S**	**09 43 38.0**	**-0.4**
FITZ	**Fitzroy Crossi**	**11.11**	**198**	P	**P**	**09 41 38.3**	**+1.3**
	2.4nm,0.3s,baz=16,slow=11,SNR=68						
FITZ				S	**S**	**09 43 37.1**	**-1.3**
	1.7nm,0.3s,baz=180,slow=20,SNR=4.2						
WRAB	**Tennant Creek**	**13.36**	**158**	*e*Pn	**P**	**09 42 05.5**	**-0.4**
	12nm,0.4s						
WRAB				*e*Sn	**S**	**09 44 28.8**	**-1.8**
WRA	**Warramunga Arr**	**13.36**	**159**	P	**P**	**09 42 05.7**	**-0.2**
	2.0nm,0.3s,baz=339,slow=13,SNR=104						
WRA				S	**S**	**09 44 29.9**	**-0.7**
	3.8nm,0.3s,baz=338,slow=23,SNR=10.0						
WB2	**Warramunga Arr**	**13.37**	**158**	*e*P	**P**	**09 42 05.4**	**-0.5**
WB2				*e*S	**S**	**09 44 30.6**	**-0.1**
ASPA	**Alice Springs**	**16.72**	**165**	*e*P	**P**	**09 42 50.3**	**+2.6**
ASPA				*e*S	**S**	**09 45 51.8**	**+5.2**
ASAR	**Alice Springs**	**16.72**	**165**	P	**P**	**09 42 50.2**	**+2.5**
	1.4nm,0.3s,baz=336,slow=10,SNR=64						
ASAR				S	**S**	**09 45 50.1**	**+3.5**
	0.7nm,0.3s,baz=349,slow=27,SNR=5.0						
STKA	**Stephens Creek**	**26.89**	**156**	*e*P	**P**	**09 44 32.4**	**+3.8**
	1.9nm,0.8s,mb3.8						
STKA	**Stephens Creek**	**26.89**	**156**	P	**P**	**09 44 31.2**	**+2.6**
	1.8nm,0.7s,mb3.8,baz=336,slow=10,SNR=6.1						
GUN	**Gumba**	**54.66**	**312**	*e*P	**P**	**09 48 15.5**	**+0.5**
	11nm,0.4s,mb4.9						
PKI	**Pulchoki**	**54.82**	**311**	*e*P	**P**	**09 48 15.2**	**-1.0**
DMN	**Daman**	**55.07**	**311**	*e*P	**P**	**09 48 16.5**	**-1.5**
	5.5nm,0.4s,mb4.6						
GKN	**Gorkha**	**55.63**	**311**	*e*P	**P**	**09 48 21.8**	**-0.2**
	10nm,0.4s,mb5.1						
KOLN	**Koldanda**	**56.28**	**310**	*e*P	**P**	**09 48 26.7**	**0.0**

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*ROM **03** 09:47:57.7±1.0,43.18N×15.68E,h10^{km},MD3.1/9, ML2.9/3,Error ellipse: s-maj=9.0km s-min=6.2km az=90.0*

*NEIC **03** 09:47:57.7,43.18N×15.68E,h10^{km},MD3.1(ROM), ML3.4(LDG),ML3.3(VIE),After ROM.*

*CSEM **03** 09:47:58.5±0.1,43.18N×15.51E,h10^{km},ML3.4/2,Error ellipse: s-maj=2.9km s-min=2.6km az=6.0*

*LDG **03** 09:48:05.8±0.7,43.13N×14.99E,h10^{km},Ml3.4/7,Error ellipse: s-maj=15.3km s-min=7.3km az=73.0*

ISC 03 09:47:58.7±0.5,**43.18N**±0.03×**15.39E**±0.06,**h10**^{km},**n58,** σ1^{s}**21**/72,**3C,Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TERO	**Teramo**	**1.43**	**248**	*e*PN	**Pn**	**09 48 25.3**	**+0.6**
TERO	**Teramo**	**1.43**	**248**	*e*Pn	**Pn**	**09 48 25.3**	**+0.5**
NVLJ	**Novalja**	**1.43**	**345**	*i* Pn	**Pn**	**09 48 25.0**	**+0.1**
NVLJ				*i* Sg	**Sg**	**09 48 47.0**	**+0.5**
NVLJ	**Novalja**	**1.43**	**345**	*i* Pn	**Pn**	**09 48 24.9**	**0.0**
NVLJ				*i* Sg	**Sg**	**09 48 46.9**	**+0.4**
RGNG	**Rignano Grg**	**1.51**	**174**	*e*PN	**Pn**	**09 48 24.3**	**-1.6**
RGNG	**Rignano Grg**	**1.51**	**174**	*e*Pn	**Pn**	**09 48 24.3**	**-1.6**
INTR	**Introdacqua**	**1.60**	**224**	*e*PN	**Pn**	**09 48 27.5**	**+0.2**
INTR	**Introdacqua**	**1.60**	**224**	*e*Pn	**Pn**	**09 48 27.5**	**+0.2**
CING	**Cingoli**	**1.62**	**278**	*e*PN	**Pn**	**09 48 28.3**	**+0.9**
CING	**Cingoli**	**1.62**	**278**	*e*Pn	**Pn**	**09 48 28.3**	**+0.8**
CII	**Carovilli**	**1.66**	**209**	*e*Pn	**Pn**	**09 48 33.2**	**+5.0**
AQU	**L'Aquila**	**1.68**	**241**	*e*Pn	**Pn**	**09 48 30.7**	**+2.3**
AQU	**L'Aquila**	**1.68**	**241**	*e*Pn	**Pn**	**09 48 30.7**	**+2.3**
STON	**Ston**	**1.72**	**100**	*i* Pn	**Pn**	**09 48 28.6**	**-0.3**
STON				*i* Sg	**Sg**	**09 48 52.6**	**-3.5**
STON	**Ston**	**1.72**	**100**	*i* Pn	**Pn**	**09 48 28.6**	**-0.3**
STON				*i* Sg	**Sg**	**09 48 52.5**	**-3.5**
SNTG	**Esanatoglia**	**1.79**	**273**	*e*PN	**Pn**	**09 48 30.2**	**+0.2**
	98nm,0.5s						
SNTG	**Esanatoglia**	**1.79**	**273**	*e*Pn	**Pn**	**09 48 30.2**	**+0.3**
SNTG	**Esanatoglia**	**1.79**	**273**	*e*Pn	**Pn**	**09 48 30.2**	**+0.2**
	98nm,0.5s						
ARV	**Arcevia**	**1.82**	**281**	*e*PN	**Pn**	**09 48 30.8**	**+0.5**
ARV	**Arcevia**	**1.82**	**281**	*e*Pn	**Pn**	**09 48 30.8**	**+0.5**
SDI	**San Donato**	**1.88**	**219**	*e*PN	**Pn**	**09 48 31.4**	**+0.2**
	82nm,0.4s						
SDI	**San Donato**	**1.88**	**219**	*e*Pn	**Pn**	**09 48 31.4**	**+0.2**
SDI	**San Donato**	**1.88**	**219**	*e*Pn	**Pn**	**09 48 31.4**	**+0.2**
	82nm,0.4s						
SGG	**Gregorio Mates**	**1.94**	**203**	*e*PN	**Pn**	**09 48 32.6**	**+0.5**
SGG	**Gregorio Mates**	**1.94**	**203**	*e*Pn	**Pn**	**09 48 32.6**	**+0.5**
FSSB	**Fossombrone**	**1.97**	**286**	*e*PN	**Pn**	**09 48 33.3**	**+0.8**
	63nm,0.6s						
FSSB	**Fossombrone**	**1.97**	**286**	*e*Pn	**Pn**	**09 48 33.3**	**+0.8**
FSSB	**Fossombrone**	**1.97**	**286**	*e*Pn	**Pn**	**09 48 33.3**	**+0.8**
	63nm,0.6s						
BLY	**Banja Luka**	**2.03**	**39**	Sg	**Sg**	**09 49 05.2**	**-1.3**
MURB	**Monte Urbino**	**2.10**	**273**	*e*PN	**Pn**	**09 48 36.0**	**+1.7**
MNS	**Montasola**	**2.15**	**249**	*e*PN	**Pn**	**09 48 36.6**	**+1.5**
	48nm,0.5s						
MNS	**Montasola**	**2.15**	**249**	*e*Pn	**Pn**	**09 48 36.6**	**+1.5**
MNS	**Montasola**	**2.15**	**249**	*e*Pn	**Pn**	**09 48 36.6**	**+1.5**
	48nm,0.5s						
BOJS	**Bojanci**	**2.33**	**358**	*i* Pn	**Pn**	**09 48 39.4**	**+1.8**
	comp=Z,86nm,0.6s						
BOJS	**Bojanci**	**2.33**	**358**	*i* Pn	**Pn**	**09 48 39.4**	**+1.8**
	comp=Z,86nm,0.6s						
KNDS	**Knezji Dol**	**2.46**	**343**	*i* Pn	**Pn**	**09 48 40.5**	**+1.0**
CRE	**Caprese Michel**	**2.55**	**281**	*e*PN	**Pn**	**09 48 42.5**	**+1.7**
	comp=Z,21nm,0.5s						
CRE	**Caprese Michel**	**2.55**	**281**	*e*Pn	**Pn**	**09 48 42.5**	**+1.8**
CRE	**Caprese Michel**	**2.55**	**281**	*e*Pn	**Pn**	**09 48 42.5**	**+1.7**
	comp=Z,21nm,0.5s						
VOY	**Vojsko**	**3.05**	**340**	*e*Pn	**Pn**	**09 48 48.3**	**+0.4**
VOY				*e*Sn	**Sn**	**09 49 27.6**	**+2.8**
OBKA	**Obir**	**3.38**	**350**	⇑*i*PN	**Pn**	**09 48 53.9**	**+1.2**
OBKA				*i* SG	**Sg**	**09 49 50.8**	**-0.5**
	comp=Z,32nm,0.5s						
OBKA	**Obir**	**3.38**	**350**	*i* Sg	**Sg**	**09 49 50.8**	**-0.5**
	comp=Z,32nm,0.5s						
KBA	**Koelnbreinsper**	**4.16**	**340**	⇑*i*PN	**Pn**	**09 49 04.3**	**+0.6**
KBA				*i* SG	**Sg**	**09 50 14.2**	**-3.0**
	comp=Z,20nm,0.7s						
KBA	**Koelnbreinsper**	**4.16**	**340**	*i* Sg	**Sg**	**09 50 14.2**	**-3.0**
	comp=Z,20nm,0.7s						
MOA	**Molln**	**4.74**	**351**	⇑*i*PN	**Pn**	**09 49 12.7**	**+0.8**
MOA				*i* SN	**Sn**	**09 50 08.3**	**+0.7**
PGF	**Pioggiola**	**4.74**	**265**	*e*Pn	**Pn**	**09 49 10.4**	**-1.6**
SBF	**Sospel**	**5.83**	**279**	*e*Pn	**Pn**	**09 49 26.3**	**-1.0**
SBF				*e*Sn	**Sn**	**09 50 25.2**	**-10**
	comp=Z,5.8nm,0.3s						
FRF	**La Foret Royal**	**6.38**	**276**	*e*Pn	**Pn**	**09 49 33.5**	**-1.7**
MBDF	**Montbardon**	**6.41**	**287**	*e*Pn	**Pn**	**09 49 33.2**	**-2.3**
MBDF				*e*Sn	**Sn**	**09 50 39.1**	**-10**
	comp=Z,6.7nm,0.6s						
LMR	**La Mourre**	**6.49**	**274**	*e*Pn	**Pn**	**09 49 35.3**	**-1.3**
LPG	**La Plagne**	**6.62**	**293**	*e*Pn	**Pn**	**09 49 37.5**	**-0.9**
LPG				*e*Sn	**Sn**	**09 50 46.2**	**-8.5**
	comp=Z,11nm,0.5s						
LPL	**La Plagne**	**6.63**	**294**	*e*Pn	**Pn**	**09 49 38.4**	**-0.3**
LPL				*e*Sn	**Sn**	**09 50 45.8**	**-9.3**
	comp=Z,12nm,0.4s						
ORIF	**Oris-en-Rattie**	**7.07**	**287**	*e*Pn	**Pn**	**09 49 43.2**	**-1.6**
ORIF				*e*Sn	**Sn**	**09 50 59.1**	**-7.0**
	comp=Z,7.1nm,0.5s						
SMRF	**Simiane la Rot**	**7.17**	**280**	*e*Pn	**Pn**	**09 49 44.8**	**-1.5**
CABF	**La Chapelle**	**7.44**	**301**	*e*Pn	**Pn**	**09 49 49.9**	**-0.1**
HINF	**Hinteralfeld**	**7.58**	**311**	*e*Sn	**Sn**	**09 51 09.6**	**-9.2**
	comp=Z,5.7nm,0.5s						
CDF	**Champ du Feu**	**7.71**	**316**	*e*Pn	**Pn**	**09 49 53.5**	**-0.3**
HAU	**Haudompre**	**7.97**	**310**	*e*Pn	**Pn**	**09 49 55.9**	**-1.5**
HAU				*e*Sn	**Sn**	**09 51 20.9**	**-7.6**
	comp=Z,17nm,0.4s						

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*IDC **03** 09:57:37.0±0.9,8.08N×126.82E,mb4.0/7,mb1 4.2/7, mb1mx4.0/20,Error ellipse: s-maj=65.1km s-min=19.5km az=77.0*

*MAN **03** 09:57:41.3,7.95N×126.81E,h1^{km},mb4.8,ML3.7,MS3.7*

*NEIC **03** 09:57:45.5±0.7,7.94N×126.73E,h70^{km},mb4.2/4,Error ellipse: s-maj=53.5km s-min=13.1km az=74.0*

ISC 03 09:57:38.8±1.5,**7.96N**±0.05×**127.16E**±0.05,**h17**^{km}±11^{km}, **n23,**σ1^{s}**28**/30,**mb4.0**/9,**2C-3D,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	**0.83**	**286**	⇓*i*P	**Pb**	**09 57 53.0**	**-1.3**
BIPH				*i* S	**Sb**	**09 58 00.3**	**-4.7**
MATI	**Mati**	**1.35**	**222**	*e*P	**Pn**	**09 58 03.3**	**+0.2**
MATI				*e*S	**Sb**	**09 58 19.1**	**-1.0**
BUTP	**Butuan**	**1.83**	**303**	*e*P	**Pn**	**09 58 10.1**	**+0.3**
BUTP				*e*S	**Sn**	**09 58 32.4**	**-0.3**
BUKP	**Musuan**	**2.08**	**268**	*e*P	**Pn**	**09 58 14.1**	**+0.6**
BUKP				*e*S	**Sn**	**09 58 40.6**	**+1.3**
KCP	**Kidapawan**	**2.26**	**246**	⇓*e*P	**Pn**	**09 58 19.6**	**+3.5**
KCP				*i* S	**Sn**	**09 58 45.4**	**+1.6**
SCPH	**Surigao**	**2.45**	**318**	⇑*e*P	**Pn**	**09 58 20.0**	**+1.2**
CTBH	**Cotabato--PC H**	**2.98**	**256**	⇑*i*P	**Pn**	**09 58 26.4**	**0.0**
CTBH				*i* S	**Sn**	**09 58 59.4**	**-2.7**
MSLP	**Maasin**	**3.14**	**314**	*e*P	**Pn**	**09 58 30.4**	**+1.9**

TBP	**Tagbilaran**	3.69	298	*e*P	Pn	09 58 36.4	0.0
TBP				*e*S	Sn	09 59 18.2	-1.8
PAGZ	**Pagadian**	3.75	269	*e*P	Pn	09 58 37.6	+0.4
DCPH	**Dipolog City**	3.82	280	⇓*e*P	Pn	09 58 39.6	+1.3
BESP	**Borongan**	4.00	335	*e*P	Pn	09 58 50.1	+9.3
KAKA	**Kakadu**	21.17	166	*e*P	P	10 02 26.6	+0.8
	9.9nm,0.5s,mb4.4						
FITZ	**Fitzroy Crossi**	25.94	183	*e*P	P	10 03 12.2	-0.1
	3.5nm,0.5s,mb4.2						
FITZ	**Fitzroy Crossi**	25.94	183	P	P	10 03 12.8	+0.6
	4.2nm,0.6s,mb4.2,baz=9.0,slow=9.0,SNR=23						
WRA	**Warramunga Arr**	28.61	166	P	P	10 03 33.9	-2.7
	0.7nm,0.7s,mb3.5,baz=346,slow=9.8,SNR=4.5						
ASAR	**Alice Springs**	32.11	168	P	P	10 04 07.1	-0.5
	0.9nm,0.3s,mb4.0,baz=352,slow=6.7,SNR=20						
ASAR				PcP	PcP	10 06 56.0	-0.8
	0.5nm,0.7s,baz=352,slow=2.7,SNR=5.3						
STKA	**Stephens Creek**	41.94	162	*e*P	P	10 05 31.2	+0.7
	1.2nm,0.5s,mb3.8						
STKA	**Stephens Creek**	41.94	162	P	P	10 05 31.4	+0.8
	1.9nm,0.6s,mb3.9,baz=343,slow=9.3,SNR=7.2						
KURK	**Kurchatov**	58.46	326	*e*P	P	10 07 31.9	-4.3
	2.0nm,0.9s,mb4.2						
BVAR	**Borovoye Array**	64.06	326	P	P	10 08 11.1	-2.9
	0.3nm,0.6s,mb3.5,baz=117,slow=6.4,SNR=2.6						
ILAR	**Eielson Array**	81.13	26	P	P	10 09 54.8	+0.3
	0.3nm,0.6s,mb3.4,baz=263,slow=4.1,SNR=5.5						
FINES	**FINESS Array B**	88.33	332	P	P	10 10 28.3	-2.3
	5.1nm,1.2s,mb4.6,baz=56,slow=5.0,SNR=3.3						

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*IDC **03** 09:59:10.5±2.0,64.70N×31.27E,mb1 3.1/4, mb1mx3.0/18,ML2.6/4,Error ellipse: s-maj=24.1km s-min=8.8km az=108.0*

*NAO **03** 09:59:12.5±3.3,64.84N×29.92E,ML2.0*

*BER **03** 09:59:12.7±4.4,64.81N×30.32E,ML2.0(NAO), Suspected explosion*

HEL 03 09:59:10.4±0.3**,64.76N×30.74E,ML2.0,ML2.0**(NAO)**, Explosion,Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	**Maaselka**	1.36	329	*e*P	Pb	09 59 35.0	-1.4
MSF				*e*S	Sb	09 59 52.9	-1.3
KJN	**Kajaani**	1.48	244	*e*P	Pn	09 59 36.7	-1.6
KJN				*e*S	Sb	09 59 55.9	-1.9
JOF	**Joensuu**	1.87	172	*e*P	Pn	09 59 42.9	-1.0
JOF				*e*S	Sn	10 00 08.4	-0.1
OUL	**Oulu**	2.09	281	*e*P	Pn	09 59 47.1	0.0
SUF	**Sumiainen**	2.89	227	*e*SB	Sb	10 00 35.5	-3.3
SUF				MSG		10 00 39.8	
	comp=Z,4.2nm,0.1s						
SGF	**Sodankyl**	3.19	329	*e*S	Sn	10 00 39.8	-2.4
FIA0	**FINESS Array S**	3.94	215	Pn	Pn	10 00 12.1	-1.5
	baz=38,slow=12						
FIA0				Pg	Pb	10 00 20.4	-0.3
	baz=12,slow=18						
FIA0				Sn	Sn	10 00 58.5	-2.7
	baz=30,slow=22						
FIA0				Lg		10 01 11.3	
	baz=40,slow=28						
FIA0	**FINESS Array S**	3.94	215	*e*P	Pn	10 00 12.6	-1.0
FIA0				MSG		10 01 17.2	
	comp=Z,2.3nm,0.1s						
FINES	**FINESS Array B**	3.94	215	Pn	Pn	10 00 12.1	-1.4
	comp=Z,0.2nm,0.3s,baz=34,slow=13,SNR=5.3						
FINES				Sn	Sn	10 01 01.7	+0.5
	comp=Z,0.2nm,0.3s,baz=32,slow=21,SNR=2.9						
FINES				Lg		10 01 15.4	
	comp=Z,0.6nm,0.3s,baz=34,slow=27,SNR=5.5						
ARA0	**ARCESS Array S**	5.21	339	Pn	Pn	10 00 29.0	-2.5
	baz=154,slow=16						
ARA0				Sn	Sn	10 01 26.6	-6.5
	baz=155,slow=28						
ARA0				Lg		10 01 48.4	
	baz=156,slow=37						
ARA0	**ARCESS Array S**	5.21	339	*e*P	Pn	10 00 29.0	-2.5
ARA0				*e*S	Sn	10 01 26.6	-6.5
ARA0				*e*SG		10 01 48.4	
ARCES	**ARCESS Array B**	5.21	339	Pn	Pn	10 00 29.2	-2.3
	comp=Z,0.2nm,0.3s,baz=156,slow=13,SNR=40						
ARCES				Sn	Sn	10 01 27.6	-5.6
	comp=Z,0.3nm,0.3s,baz=154,slow=26,SNR=7.6						
ARCES				Lg		10 01 49.9	
	comp=Z,0.5nm,0.3s,baz=159,slow=28,SNR=7.3						
HFS	**Hagfors**	9.14	247	Pn	P	10 01 21.1	-5.5
	baz=69,slow=12						
HFS	**Hagfors**	9.14	247	Pn	P	10 01 22.1	-4.5
	comp=Z,0.0nm,0.3s,baz=55,slow=15,SNR=5.9						
HFS				Sn	Sn	10 03 02.5	-9.0
	comp=Z,0.0nm,0.3s,baz=43,slow=26,SNR=2.9						
HFS	**Hagfors**	9.14	247	*e*P	P	10 01 21.1	-5.5
NOA	**NORSAR Array B**	9.64	256	Pn	P	10 01 29.8	-3.5
	comp=Z,0.1nm,0.3s,baz=21,slow=12,SNR=2.5						
NOA				Sn	Sn	10 03 15.2	-8.3
	comp=Z,0.1nm,0.3s,baz=302,slow=21,SNR=2.5						

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*NIED **03** 10:02:00,26.50N×141.90E,h44^{km},Mw4.0 Best double couple: M$_0$1.18×10^{15} NP1:φ$_s$352°,δ82°,λ79°. NP2:φ$_s$228°, δ14°,λ146°.*

*IDC **03** 10:02:22.9±1.0,26.44N×141.88E,h49^{km}±10^{km},mb3.8/16, mb1 4.0/17,mb1mx3.9/25,ML4.1/1,Error ellipse: s-maj=21.9km s-min=11.5km az=95.0*

*JMA **03** 10:02:24.9,26.55N×141.92E,h58^{km},M4.6*

JMA Felt II J1.

*NEIC **03** 10:02:28.9±7.4,26.51N×141.74E,h98^{km}±68^{km},mb4.2/5, Error ellipse: s-maj=15.0km s-min=7.9km az=71.0*

ISC 03 10:02:23.2±0.7**,26.48N**±0.05×**141.9E**±0.1**,h64**^{km}±6^{km}**, n33,**σ$0^{s}95$/39**,mb4.1**/22**,1D,Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHHJ	**Haha-jima-NKT**	0.32	62	P	P	10 02 34.3	+0.3
JHHJ				S	S	10 02 41.2	-0.6
CBIJ	**Chichi jima**	0.68	25	P	P	10 02 37.9	+0.3
	664nm,0.3s,baz=259,slow=22,SNR=519						
CBIJ				S	S	10 02 47.8	-0.4
	4μm,0.3s,baz=285,slow=20,SNR=188						
CBIJ	**Chichi jima**	0.68	25	P	P	10 02 37.8	+0.3
CBIJ				S	S	10 02 47.1	-1.1
JIE	**Ise**	9.05	332	P	P	10 04 35.7	+2.1
JOD2	**Odawara 2**	9.08	345	P	P	10 04 34.8	+0.9
JRY	**Ryogami san**	9.84	346	P	P	10 04 44.5	+0.1
JRY				*e*S	S	10 06 34.5	+0.3
ASAJ	**Asahikawa**	17.61	2	P	P	10 06 24.0	-1.7
	1.1nm,0.3s,baz=149,slow=16,SNR=6.0						
SONM	**Songino Array**	34.97	317	P	P	10 09 10.5	-0.6
	0.4nm,0.6s,mb3.5,baz=127,slow=7.2,SNR=4.4						
CMAR	**Chiang Mai Arr**	40.31	268	P	P	10 09 56.2	+0.1
	1.6nm,0.5s,mb4.0,baz=51,slow=8.9,SNR=7.8						
CTA	**Charters Tower**	46.48	174	P	P	10 10 47.4	+1.3
	0.8nm,0.4s,mb4.0,baz=352,slow=7.1,SNR=2.4						
WRAB	**Tennant Creek**	46.71	190	*e*P	P	10 10 48.2	+0.4
	8.7nm,0.6s,mb4.9						
WB2	**Warramunga Arr**	46.72	190	⇓*i*P	P	10 10 48.5	+0.6
WRA	**Warramunga Arr**	46.72	190	P	P	10 10 48.6	+0.7
	6.1nm,0.6s,mb4.7,baz=8.8,slow=8.6,SNR=95						
WRA				S	S	10 17 29.9	-2.1
	2.2nm,0.9s,baz=7.5,slow=15,SNR=9.7						
FITZ	**Fitzroy Crossi**	47.03	201	P	P	10 10 51.1	+0.6
	0.7nm,0.3s,mb4.0,baz=18,slow=11,SNR=8.1						
ASAR	**Alice Springs**	50.44	189	P	P	10 11 16.3	-0.4
	1.1nm,0.9s,mb3.9,baz=12,slow=14,SNR=8.8						
ASAR				S	S	10 18 23.1	-0.9
	0.6nm,0.8s,baz=12,slow=18,SNR=4.6						
UCH	**Uchtor**	56.41	305	*e*P	P	10 12 01.1	+0.6
	0.9nm,0.5s,mb4.1						
AML	**Almayashu**	57.02	305	*e*P	P	10 12 03.9	-1.0
	1.2nm,0.4s,mb4.3						
STKA	**Stephens Creek**	58.03	180	P	P	10 12 10.5	-1.6
	0.7nm,0.3s,mb4.2,baz=26,slow=8.1,SNR=11						
BVAR	**Borovoye Array**	58.30	318	P	P	10 12 11.9	-1.8
	0.8nm,0.4s,mb4.1,baz=79,slow=7.3,SNR=3.8						
BRVK	**Borovoye**	58.37	318	P	P	10 12 12.3	-1.8
	1.5nm,0.4s,mb4.4						
ILAR	**Eielson Array**	58.39	28	P	P	10 12 13.1	-1.1
	1.1nm,0.8s,mb3.9,baz=269,slow=6.3,SNR=10.0						
INK	**Inuvik**	63.71	24	*e*P	P	10 12 49.9	0.0
	0.9nm,0.6s,mb4.0						
YKA	**Yellowknife Ar**	72.82	28	P	P	10 13 47.3	+0.9
	1.8nm,0.9s,mb4.0,baz=294,slow=6.3,SNR=14						
ARCES	**ARCESS Array B**	74.03	341	P	P	10 13 54.1	+0.7
	2.4nm,0.6s,mb4.3,baz=59,slow=7.1,SNR=10.0						
JOF	**Joensuu**	75.51	334	*e*p	P	10 14 01.8	-0.2
	0.7nm,0.3s,mb4.1						
KAF	**Kangasniemi**	77.90	334	*e*p	P	10 14 15.5	+0.1
FINES	**FINESS Array B**	78.37	334	P	P	10 14 17.9	-0.1
	1.6nm,0.4s,mb4.3,baz=68,slow=5.4,SNR=24						
NVAR	**Mina Array Bea**	81.12	52	P	P	10 14 35.0	+1.6
	0.2nm,0.4s,mb3.4,baz=294,slow=3.8,SNR=3.9						
HFS	**Hagfors**	83.88	337	P	P	10 14 46.7	-0.2
	2.3nm,0.4s,mb4.6,baz=63,slow=3.2,SNR=6.7						
NB2	**NORSAR Subarra**	84.08	338	P	P	10 14 48.1	+0.2
	0.8nm,0.4s,mb4.2,baz=45,slow=4.5						
NB2	**NORSAR Subarra**	84.08	338	P	P	10 14 48.1	+0.2
	baz=45,slow=4.6						
NOA	**NORSAR Array B**	84.08	338	P	P	10 14 48.3	+0.5
	0.9nm,0.4s,mb4.2,baz=46,slow=4.6,SNR=5.6						
PDAR	**Pinedale Array**	84.85	44	P	P	10 14 53.3	+1.1
	0.4nm,0.7s,mb3.7,baz=270,slow=3.0,SNR=3.5						

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*CSEM **03** 10:04:33.5±0.2,59.00N×18.10E,ML1.7,Error ellipse: s-maj=3.2km s-min=2.1km az=92.0,Mining explosion.*

*UPP **03** 10:04:34.1,59.01N×18.05E,h0^{km},ML2.5,Mining explosion.*

*NAO **03** 10:04:38.0±3.4,59.29N×17.95E,ML2.0*

*BER **03** 10:04:39.1±3.4,59.25N×17.90E,ML2.0(NAO)*

HEL 03 10:04:35.0±0.1**,59.01N×18.02E,ML1.7,ML2.4**(UPP)**, ML2.0**(NAO)**,Explosion,Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NYNU	**Nynaeshamn**	0.01	259	*i* P	Pg	10 04 34.8	-0.4
NYNU				*i* S	Sg	10 04 35.1	-0.1
NYNU	**Nynaeshamn**	0.01	259	P	Pg	10 04 34.7	-0.4
NRTU	**Norrtaelje**	0.74	25	*i* P	Pg	10 04 48.0	-1.8
VIKU	**Vikbolandet**	0.85	234	*i* P	Pg	10 04 50.5	-1.6
VIKU	**Vikbolandet**	0.85	234	P	Pg	10 04 50.4	-1.6
ESKU	**Eskilstuna**	0.87	286	*i* P	Pg	10 04 50.5	-1.9
ESKU	**Eskilstuna**	0.87	286	P	Pg	10 04 50.4	-1.9
BACU	**Backbrunna**	0.97	332	*e*P	Pg	10 04 52.3	-2.0
FLYU	**Flymyra**	1.13	357	*e*P	Pb	10 04 55.2	-1.9
OSTU	**Oestervaala**	1.31	340	*e*P	Pb	10 04 58.5	-1.6
GOTU	**Gotland**	1.36	167	*e*P	Pb	10 05 01.2	+0.3
GOTU	**Gotland**	1.36	167	P	Pb	10 04 58.7	-2.3
LNKU	**Linkoeping**	1.53	240	*e*P	Pn	10 05 02.4	-1.3
AAL	**Aland**	1.55	40	*e*P	Pn	10 05 02.4	-1.5
VSTU	**Vaestervik**	1.56	211	*e*P	Pn	10 05 03.0	-1.1
VSTU	**Vaestervik**	1.56	211	P	Pn	10 05 02.9	-1.2
NRAU	**Nora**	1.63	292	*e*P	Pn	10 05 04.3	-0.8
NRAU	**Nora**	1.63	292	P	Pn	10 05 04.2	-0.9
ASKU	**Askersund**	1.66	267	*e*P	Pn	10 05 04.7	-0.8
ASKU	**Askersund**	1.66	267	P	Pn	10 05 04.5	-1.0
BYXU	**Byxelkrok**	1.80	198	*e*P	Pn	10 05 07.1	-0.4
FALU	**Falun**	1.86	324	*e*P	Pn	10 05 07.8	-0.6
FALU				*e*S	Sn	10 05 32.4	-0.5
FALU	**Falun**	1.86	324	P	Pn	10 05 07.7	-0.7
FALU				S	Sn	10 05 32.3	-0.6
IGGU	**Iggoen**	1.91	350	*e*P	Pn	10 05 08.3	-0.7
IGGU				*e*S	Sn	10 05 33.4	-0.7
HFS	**Hagfors**	2.47	299	Pn	Pn	10 05 17.2	+0.1
	baz=124,slow=16						
HFS				Lg		10 05 50.8	
	baz=101,slow=37						
HFS	**Hagfors**	2.47	299	*e*PB	Pb	10 05 17.2	-2.8
HFS				*e*SG	Sg	10 05 50.8	-6.6
HFS	**Hagfors**	2.47	299	Pb	Pb	10 05 17.2	-2.9
HFS				Sg	Sg	10 05 50.7	-6.6
BLEU	**Blekinge**	2.96	205	*e*P	Pn	10 05 23.1	-1.0
HEMU	**Hemsoen**	3.68	0	*e*P	Pn	10 05 32.7	-1.7
PVF	**Pernaja**	4.25	65	*e*SG	Sg	10 06 45.0	-12
KEF	**Keuruu**	4.63	44	*e*P	Pn	10 05 46.8	-1.2
KEF				*e*S	Sn	10 06 40.3	-2.9
KEF	**Keuruu**	4.63	44	P	Pn	10 05 46.7	-1.2
KEF				S	Sn	10 06 40.3	-2.9
VAF	**Ylistaro**	4.64	27	*e*S	Sn	10 06 42.0	-1.4
VAF				*e*SG	Sg	10 06 58.8	-11
VAF	**Ylistaro**	4.64	27	S	Sn	10 06 41.9	-1.5
FIA0	**FINESS Array S**	4.70	55	Pn	Pn	10 05 47.5	-1.4
	baz=246,slow=14						
FIA0				Sn	Sn	10 06 41.4	-3.6
	baz=246,slow=28						
FIA0				Lg		10 07 01.4	
	baz=246,slow=28						
FIA0	**FINESS Array S**	4.70	55	*e*P	Pn	10 05 48.3	-0.6
FIA0				*e*S	Sn	10 06 41.7	-3.4
FIA0				*e*SG	Sg	10 07 00.4	-11
FIA0				MSG		10 07 02.5	
	comp=Z,1.1nm,0.2s						
FIA0	**FINESS Array S**	4.70	55	P	Pn	10 05 48.2	-0.7
FIA0				S	Sn	10 06 41.6	-3.4
VJF	**Virojoki**	5.06	68	*e*SG	Sg	10 07 09.9	-14
SUF	**Sumiainen**	5.45	43	*e*S	Sn	10 06 57.9	-5.8
SUF				MSG		10 07 02.5	
	comp=Z,0.4nm,0.1s						
ARA0	**ARCESS Array S**	11.05	14	Pn	P	10 07 11.2	-6.0
	baz=198,slow=16						
ARA0				Sn	S	10 09 08.6	-14
	baz=198,slow=28						
ARA0	**ARCESS Array S**	11.05	14	*e*P	P	10 07 11.2	-6.0
ARA0				*e*S	S	10 09 08.6	-14
ARA0	**ARCESS Array S**	11.05	14	Pn	P	10 07 11.1	-6.0
	SNR=0.1						
ARA0				Sn	S	10 09 08.6	-14
	SNR=5.6						

PRU 03 10:07:05.5,49.40N×19.84E,h10^{km}**,High Tatras, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIE	**Niedzica**	0.31	86	*e*Pg	Pg	10 07 09.9	-2.0
NIE				*e*Sg	Sg	10 07 14.1	-2.1
OJC	**Ojcow**	0.82	358	*e*Pg	Pg	10 07 20.3	-1.7
OJC				*e*Sg	Sg	10 07 32.1	-0.9
OKC	**Ostrava-Krasne**	1.19	292	*e*PG	Pg	10 07 27.7	-1.5
OKC				*e*SG	Sg	10 07 44.7	-0.4
DPC	**Dobruska-Polom**	2.47	294	*e*PG	Pg	10 07 50.1	-4.7
DPC				*e*SG	Sg	10 08 22.6	-5.1

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*MDD **03** 10:14:34.9±0.9,34.91N×2.95W,mb4.4/19,Error ellipse: s-maj=8.5km s-min=6.1km az=136.0,AftershockPLICA PRXIMO*

MDD EMS: II MELILLA.

*NEIC **03** 10:14:35.3,34.93N×3.02W,MG4.4(MDD),After MDD.*

NEIC Felt [II] at Melilla.

*SFS **03** 10:14:35.0,34.92N×2.99W,ML4.4*

*CNRM **03** 10:14:35.7,35.11N×2.79W,h5^{km},MD4.1*

*INMG **03** 10:14:36.7±1.1,35.01N×2.96W,h14^{km}±4^{km},ML3.0,Error ellipse: s-maj=5.3km s-min=5.1km az=142.0*

*LDG **03** 10:14:36.2±0.5,34.83N×2.98W,h10^{km},Ml3.4/4*

CSEM 03 10:14:34.4±0.1**,35.04N×2.84W,h10**^{km}**,MD4.1,4D,Error ellipse: s-maj=2.4km s-min=1.8km az=113.0,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.10	131	*i* P	Pg	10 14 38.0	+0.9
MELI	**Melilla**	0.27	343	P	Pg	10 14 42.0	+1.9
MELI				S	Sg	10 14 46.9	+3.1
MELI	**Melilla**	0.27	343	*i* P	Pg	10 14 42.0	+2.0
MELI				*i* S	Sg	10 14 46.9	+3.1
EMLI	**Melilla**	0.28	341	S	Sg	10 14 46.8	+2.7
	6μm,0.2s						
EMLI	**Melilla**	0.28	341	P	Pg	10 14 42.1	+1.9
	520nm,0.1s,SNR=18						
EMEL	**Melilla**	0.28	340	⇓P	Pg	10 14 42.1	+1.9
	520nm,0.1s,SNR=18						
EMEL				S	Sg	10 14 46.8	+2.6
	6μm,0.2s						
TOU	**Touzarine**	0.75	265	*i* P	Pb	10 14 50.0	+0.9
TOU				*i* S	Sb	10 15 02.0	+2.8
TZK	**Tazeka**	1.46	230	*i* P	Pn	10 15 01.5	+0.6
TZK				*i* S	Sb	10 15 21.0	+1.4
EBER	**Berja**	1.86	359	P	Pn	10 15 07.4	+0.7
EBER				S	Sn	10 15 29.1	-1.2
EBER	**Berja**	1.86	359	P	Pn	10 15 07.4	+0.7
	6.1nm,0.3s,SNR=14						
EBER				S	Sn	10 15 29.1	-1.2
	422nm,0.5s						
EBER	**Berja**	1.86	359	S	Sn	10 15 29.1	-1.2
	422nm,0.5s						
EBER	**Berja**	1.86	359	P	Pn	10 15 07.4	+0.8
	6.1nm,0.3s,SNR=14						
ERON	**Agron**	2.13	339	P	Pn	10 15 10.2	-0.3
ERON				S	Sn	10 15 34.8	-2.3
ERON	**Agron**	2.13	339	P	Pn	10 15 09.9	-0.6
	11nm,0.2s,SNR=10						
ERON				S	Sn	10 15 37.0	-0.2
	22nm,0.3s						
ERON	**Agron**	2.13	339	P	Pn	10 15 10.2	-0.3
ERON				S	Sn	10 15 37.0	-0.2
	22nm,0.3s						
EMIJ	**Mijas**	2.19	315	P	Pn	10 15 10.3	-1.1
EMIJ				S	Sn	10 15 35.2	-3.6
EMIJ	**Mijas**	2.19	315	P	Pn	10 15 10.3	-1.1
	16nm,0.2s,SNR=18						
EMIJ				S	Sn	10 15 38.3	-0.5
	115nm,0.5s,SNR=6.1						
EMIJ	**Mijas**	2.19	315	S	Sn	10 15 35.2	-3.5
	115nm,0.5s,SNR=6.1						
ELOJ	**Sierra Loja**	2.36	334	P	Pn	10 15 15.1	+1.3
	36nm,0.4s,SNR=27						
ELOJ				S	Sn	10 15 45.7	+2.6
	26nm,0.4s						
REAL	**Reales**	2.41	308	*i* P	Pn	10 15 13.0	-1.5
REAL				*e*S	Sn	10 15 43.0	-1.3
MIF	**Mishlifen**	2.56	231	*i* P	Pn	10 15 18.0	+1.3
MIF				*i* S	Sn	10 15 50.0	+1.8
CZD	**Col de Zad**	2.71	223	*i* P	Pn	10 15 20.0	+1.2
CZD				*i* S	Sn	10 15 52.0	0.0
EQES	**Quesada**	2.77	356	⇓P	Pn	10 15 22.1	+2.5
	24nm,0.3s,SNR=18						
EQES				S	Sn	10 15 56.4	+2.9
	189nm,0.5s,SNR=16						
EQES	**Quesada**	2.77	356	P	Pn	10 15 22.1	+2.5
	24nm,0.3s,SNR=18						
EQES	**Quesada**	2.77	356	S	Sn	10 15 56.4	+3.0
	189nm,0.5s,SNR=16						
ELUQ	**Luque**	2.77	336	P	Pn	10 15 21.2	+1.5
	64nm,0.4s,SNR=31						
ELUQ				S	Sn	10 15 54.8	+1.3
	46nm,0.4s						
ELUQ	**Luque**	2.77	336	S	Sn	10 15 54.8	+1.3
	46nm,0.4s						
LIJA	**Lijar**	2.79	313	P	Pn	10 15 21.8	+1.7
LIJA				S	Sn	10 15 55.0	+0.9
LIJA	**Lijar**	2.79	313	*i* P	Pn	10 15 21.8	+1.8
LIJA				*e*S	Sn	10 15 55.0	+0.9
ESPR	**Espera**	3.05	308	P	Pn	10 15 24.4	+0.7
ESPR				S	Sn	10 16 02.8	+2.1
ESPR	**Espera**	3.05	308	P	Pn	10 15 23.6	-0.1
	8.6nm,0.2s,SNR=16						
ESPR				S	Sn	10 15 59.3	-1.4
	30nm,0.4s,SNR=5.9						
ESPR	**Espera**	3.05	308	P	Pn	10 15 23.6	-0.1
	8.6nm,0.2s,SNR=16						
ESPR				S	Sn	10 16 02.8	+2.1
EMUR	**La Murta**	3.08	24	P	Pn	10 15 24.7	+0.6
EMUR				S	Sn	10 15 57.6	-3.8
EMUR	**La Murta**	3.08	24	⇓P	Pn	10 15 24.5	+0.3
	20nm,0.3s,SNR=18						
EMUR				S	Sn	10 15 59.6	-1.9
	35nm,0.5s						
EMUR	**La Murta**	3.08	24	P	Pn	10 15 24.5	+0.4
	20nm,0.3s,SNR=18						
EMUR				S	Sn	10 15 57.6	-3.8
	35nm,0.5s						
ZFT	**Errachidia**	3.25	203	*i* P	Pn	10 15 27.0	+0.5
ZFT				*i* S	Sn	10 16 04.0	-1.7
EANR	**’Ain N’Sour**	3.34	73	P	Pg	10 15 44.0	+2.9
ETRT	**Tiaret**	3.41	83	P	Pg	10 15 46.0	+3.5
EADA	**Adamuz**	3.42	336	P	Pn	10 15 29.4	+0.5
EADA				S	Sn	10 16 07.4	-2.6
EADA	**Adamuz**	3.42	336	P	Pn	10 15 29.4	+0.5
	15nm,0.3s,SNR=58						
EADA				S	Sn	10 16 11.4	+1.4
	29nm,0.5s						
EADA	**Adamuz**	3.42	336	P	Pn	10 15 29.4	+0.4
	15nm,0.3s,SNR=58						
EADA				S	Sn	10 16 07.4	-2.6
	29nm,0.5s						
ECHA	**Ech Chlef**	3.60	71	P	Pg	10 15 50.0	+3.6
EVIA	**Vianos**	3.60	4	P	Pn	10 15 34.8	+3.2
	15nm,0.4s,SNR=9.9						
EBNR	**Beni Rached**	3.77	69	P	Pg	10 15 54.0	+4.3
EMIN	**Mina Concepcio**	4.12	313	⇓P	Pn	10 15 37.6	-1.3
	8.6nm,0.2s,SNR=18						
EMIN				S	Sn	10 16 23.0	-4.7
	2.7nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	4.12	313	P	Pn	10 15 37.6	-1.3
	8.6nm,0.2s,SNR=18						
EBEN	**Beniarda**	4.22	29	P	Pn	10 15 41.7	+1.4
EBEN				S	Sn	10 16 26.8	-3.4
EBEN	**Beniarda**	4.22	29	P	Pn	10 15 41.3	+1.0
	9.3nm,0.4s,SNR=8.3						
EBEN				S	Sn	10 16 26.8	-3.4
	6.0nm,0.4s						
EBEN	**Beniarda**	4.22	29	S	Sn	10 16 26.8	-3.4
	6.0nm,0.4s						
EBEN	**Beniarda**	4.22	29	P	Pn	10 15 41.3	+1.0
	9.3nm,0.4s,SNR=8.3						
ESDC	**Sonseca Array**	4.71	349	P	Pn	10 15 48.4	+1.1
	11nm,0.3s,baz=173,slow=12,SNR=42						
ESDC				S	Sn	10 16 40.2	-2.6
	baz=169,slow=28,SNR=7.9						
ESDC	**Sonseca Array**	4.71	349	P	Pn	10 15 48.4	+1.1
	11nm,0.3s,SNR=42						
EMHD	**Djebel Mahouad**	4.86	75	P	Pb	10 16 02.0	+2.6
EBAD	**Badajoz**	5.00	319	P	Pn	10 15 50.2	-1.1
	7.3nm,0.2s,SNR=31						
EBAD				S	Sn	10 16 44.6	-5.2
	14nm,0.4s,SNR=5.0						
EBAD	**Badajoz**	5.00	319	P	Pn	10 15 50.2	-1.1
	7.3nm,0.2s,SNR=31						
PBEJ	**Beja**	5.03	308	*e*Pn	Pn	10 15 50.0	-1.7
PBEJ				*e*Sn	Sn	10 16 46.5	-4.1
	14nm,0.5s						
PBEJ	**Beja**	5.03	308	Pn	Pn	10 15 50.0	-1.7
PBEJ				Sn	Sn	10 16 46.5	-4.1
	7.0nm,0.5s						
PBEJ	**Beja**	5.03	308	*e*Sn	Sn	10 16 46.5	-4.1
	14nm,0.5s						
EIBI	**Ibiza**	5.20	39	P	Pn	10 15 54.6	+0.4
EIBI				S	Sn	10 16 51.9	-3.1
EIBI	**Ibiza**	5.20	39	P	Pn	10 15 54.6	+0.4
	14nm,0.5s,SNR=8.8						
EIBI				S	Sn	10 16 51.9	-3.1
	34nm,1.1s						
EIBI	**Ibiza**	5.20	39	P	Pn	10 15 54.6	+0.4
	14nm,0.5s,SNR=8.8						
EIBI				S	Sn	10 16 51.9	-3.1
	34nm,1.1s						
PTEO	**Sao Teotonio**	5.37	299	*e*Pn	Pn	10 15 55.0	-1.6
PTEO				*e*Sn	Sn	10 16 55.3	-3.9
	18nm,0.5s						
PTEO	**Sao Teotonio**	5.37	299	*e*Pn	Pn	10 15 55.0	-1.6
PTEO				*e*Sn	Sn	10 16 55.3	-3.9
	18nm,0.5s						
EVO	**Evora**	5.42	312	*e*Pn	Pn	10 15 56.7	-0.6
EVO				*e*Sn	Sn	10 16 55.4	-5.1
	24nm,0.4s						
MOE	**Montemor**	5.63	310	*e*Pn	Pn	10 15 59.0	-1.2
MOE				*e*Sn	Sn	10 17 01.7	-3.9
PCBR	**Castelo Branco**	6.05	324	*e*Pn	Pn	10 16 05.0	-1.1
PCBR				*e*Sn	Sn	10 17 10.9	-5.3
	14nm,0.4s						
PCBR	**Castelo Branco**	6.05	324	Pn	Pn	10 16 05.0	-1.1
PCBR				Sn	Sn	10 17 10.9	-5.3
	6.8nm,0.4s						
PTOM	**Tomar**	6.37	317	*e*Pn	Pn	10 16 08.7	-2.0
PTOM				*e*Sn	Sn	10 17 18.3	-6.0
	22nm,0.6s						
PTOM	**Tomar**	6.37	317	Pn	Pn	10 16 08.7	-2.0
PTOM				Sn	Sn	10 17 18.3	-6.0
	11nm,0.6s						
ERTA	**Horta de San J**	6.42	22	P	Pn	10 16 13.0	+1.6
	11nm,0.4s,SNR=13						
ERTA				S	Sn	10 17 22.0	-3.4
	2.3nm,0.4s,SNR=7.9						
ERTA	**Horta de San J**	6.42	22	P	Pn	10 16 13.0	+1.6
	11nm,0.4s,SNR=13						
MTE	**Manteigas**	6.52	327	*e*Pn	Pn	10 16 11.5	-1.3
MTE				*e*Sn	Sn	10 17 22.3	-5.8
	16nm,0.6s						
MTE	**Manteigas**	6.52	327	Pn	Pn	10 16 11.5	-1.3
MTE				Sn	Sn	10 17 22.3	-5.8
	7.9nm,0.6s						

EPOB	Poblet	7.02	25	P	Pn	10 16 19.4	-0.4
	2.1nm,0.3s,SNR=7.9						
EPOB	Poblet	7.02	25	P	Pn	10 16 19.4	-0.4
	2.1nm,0.3s,SNR=7.9						
PVRL	Vila Real	7.32	330	ePn	Pn	10 16 22.7	-1.3
PBRG	Braganca	7.42	337	ePn	Pn	10 16 24.2	-1.2
ECAL	Calabor	7.54	337	P	Pn	10 16 26.2	-0.9
	9.1nm,0.4s,SNR=8.4						
ECAL				S	Sn	10 17 42.4	-11
	5.8nm,0.4s						
ECAL	Calabor	7.54	337	P	Pn	10 16 26.2	-0.9
ELOB	Lobios	7.95	331	P	Pn	10 16 31.7	-1.2
	11nm,0.5s,SNR=15						
ELOB				S	Sn	10 17 54.3	-10
	4.4nm,0.5s						
ELOB	Lobios	7.95	331	P	Pn	10 16 31.7	-1.2
ETSF	Etsaut	8.05	12	ePn	P	10 16 34.5	+0.3
ETSF				eSn	Sn	10 18 00.6	-5.6
	3.6nm,0.5s						
SJPF	Ste Jean	8.16	8	ePn	P	10 16 35.5	-0.3
SJPF				eSn	Sn	10 18 02.7	-6.4
	1.8nm,0.4s						
EALK	Alkurruntz	8.24	7	P	P	10 16 38.6	+1.8
EALK	Alkurruntz	8.24	7	P	P	10 16 38.6	+1.8
EPF	Esparros	8.36	16	ePn	P	10 16 38.3	-0.2
EPF				eSn	Sn	10 18 09.4	-4.5
	1.3nm,0.3s						
EINC	Incio	8.38	337	P	P	10 16 38.9	0.0
EINC	Incio	8.38	337	P	P	10 16 36.2	-2.7
	5.2nm,0.4s,SNR=4.5						
EINC	Incio	8.38	337	P	P	10 16 38.9	0.0
EARI	Arriondas	8.45	348	P	P	10 16 40.0	+0.1
EARI	Arriondas	8.45	348	P	P	10 16 37.6	-2.2
	9.9nm,0.6s,SNR=12						
EARI	Arriondas	8.45	348	P	P	10 16 40.0	+0.1
EPON	Pontenova	8.93	339	P	P	10 16 46.2	-0.2
EPON	Pontenova	8.93	339	P	P	10 16 43.7	-2.7
	9.8nm,0.8s,SNR=5.0						
EPON	Pontenova	8.93	339	P	P	10 16 46.2	-0.2
MTLF	Montolieu	9.17	24	ePn	P	10 16 49.1	-0.7
LASF	Ste Croix	10.40	28	ePn	P	10 17 05.7	-1.0
SMRF	Simiane la Rot	11.04	34	ePn	P	10 17 14.4	-1.0
BLY	Banja Luka	18.13	52	ePn	P	10 18 48.1	+0.2
MOX	Moxa	18.80	30	eP	P	10 18 59.0	+2.9
CLL	Collm	19.88	30	eSG	S	10 22 43.0	-3.5

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*PDG **03** 10:18:09.0±0.9, 43.22N×15.46E, h10^{km}±1^{km}*
*ROM **03** 10:18:10.4±1.0, 43.12N×15.46E, h10^{km}, MD3.1/11, ML2.7/6, Error ellipse: s-maj=9.1km s-min=7.3km az=90.0*
*NEIC **03** 10:18:10.5, 43.12N×15.46E, h10^{km}, MD3.6(PDG), MD3.1(ROM), After ROM.*
*CSEM **03** 10:18:11.3±0.1, 43.25N×15.09E, h10^{km}, ML2.7/6, Error ellipse: s-maj=1.9km s-min=1.7km az=34.0*
ISC 03 10:18:10.2±0.3**, 43.16N**±0.02×**15.34E**±0.03**, h10**^{km}**, n70, σ1ˢ.02**/90**, 3C, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TERO	Teramo	1.39	248	ePN	Pn	10 18 36.0	+0.3
TERO	Teramo	1.39	248	ePn	Pn	10 18 36.0	+0.3
NVLJ	Novalja	1.44	346	iPn	Pn	10 18 36.5	0.0
NVLJ				iSg	Sg	10 18 58.3	+0.1
NVLJ	Novalja	1.44	346	iPn	Pn	10 18 36.4	-0.1
NVLJ				iSg	Sg	10 18 58.3	+0.1
RGNG	Rignano Grg	1.50	173	ePN	Pn	10 18 34.8	-2.5
RGNG	Rignano Grg	1.50	173	ePn	Pn	10 18 34.8	-2.6
FGMS	Monte Sant'Ang	1.52	163	ePN	Pn	10 18 37.6	-0.1
	614nm,0.6s						
FGMS	Monte Sant'Ang	1.52	163	ePn	Pn	10 18 37.6	0.0
FGMS	Monte Sant'Ang	1.52	163	ePn	Pn	10 18 37.6	-0.1
	614nm,0.6s						
INTR	Introdacqua	1.57	223	ePN	Pn	10 18 38.5	+0.2
INTR	Introdacqua	1.57	223	ePn	Pn	10 18 38.5	+0.2
CING	Cingoli	1.58	278	ePN	Pn	10 18 39.2	+0.7
CING	Cingoli	1.58	278	ePn	Pn	10 18 39.2	+0.7
CII	Carovilli	1.63	208	ePn	Pn	10 18 39.5	+0.2
CII	Carovilli	1.63	208	ePn	Pn	10 18 39.5	+0.3
AQU	L'Aquila	1.64	241	ePn	Pn	10 18 39.1	-0.3
AQU	L'Aquila	1.64	241	ePn	Pn	10 18 39.1	-0.3
STON	Ston	1.75	99	iPn	Pn	10 18 39.3	-1.6
STON				iSn	Sn	10 19 02.2	-1.2
STON				iSg	Sg	10 19 03.6	-5.0
STON	Ston	1.75	99	iPn	Pn	10 18 39.3	-1.6
STON				iSg	Sg	10 19 03.6	-5.0
SNTG	Esanatoglia	1.76	274	ePN	Pn	10 18 41.0	0.0
	82nm,0.7s						
SNTG	Esanatoglia	1.76	274	ePn	Pn	10 18 41.0	0.0
SNTG	Esanatoglia	1.76	274	ePn	Pn	10 18 41.0	0.0
	82nm,0.7s						
ARV	Arcevia	1.79	282	ePN	Pn	10 18 42.0	+0.6
	18nm,0.5s						
ARV	Arcevia	1.79	282	ePn	Pn	10 18 42.0	+0.6
ARV	Arcevia	1.79	282	ePn	Pn	10 18 42.0	+0.6
	18nm,0.5s						
SDI	San Donato	1.84	218	ePN	Pn	10 18 40.6	-1.6
	65nm,0.5s						
SDI	San Donato	1.84	218	ePn	Pn	10 18 40.6	-1.7
SDI	San Donato	1.84	218	ePn	Pn	10 18 40.6	-1.6
	65nm,0.5s						
SGG	Gregorio Mates	1.92	202	ePN	Pn	10 18 43.4	+0.1
SGG	Gregorio Mates	1.92	202	ePn	Pn	10 18 43.4	+0.1
FSSB	Fossombrone	1.94	287	ePN	Pn	10 18 44.4	+0.8
	38nm,0.5s						
FSSB	Fossombrone	1.94	287	ePn	Pn	10 18 44.4	+0.7
FSSB	Fossombrone	1.94	287	ePn	Pn	10 18 44.4	+0.8
	38nm,0.5s						
BLY	Banja Luka	2.07	39	Sg	Sg	10 19 17.7	-1.4
MNS	Montasola	2.11	249	ePN	Pn	10 18 47.7	+1.7
	31nm,0.4s						
MNS	Montasola	2.11	249	ePn	Pn	10 18 47.7	+1.6
BOJS	Bojanci	2.34	358	iPn	Pn	10 18 50.3	+1.0
BRY	Bratogost	2.36	95	ePn	Pn	10 18 48.8	-0.8
BRY				eSn	Sn	10 19 20.5	+1.6
BRY	Bratogost	2.36	95	eSn	Sn	10 19 20.5	+1.6
MRLC	Muro Lucano	2.41	177	ePN	Pn	10 18 49.1	-1.2
	29nm,0.5s						
MRLC	Muro Lucano	2.41	177	ePn	Pn	10 18 49.1	-1.2
MRLC	Muro Lucano	2.41	177	ePn	Pn	10 18 49.1	-1.2
	29nm,0.5s						
HCY	Herceg Novi	2.43	106	ePn	Pn	10 18 50.2	-0.5
HCY				eSn	Sn	10 19 22.5	+1.9
HCY	Herceg Novi	2.43	106	eSn	Sn	10 19 22.5	+1.8
KNDS	Knezji Dol	2.46	344	iPn	Pn	10 18 51.6	+0.5
CRE	Caprese Michel	2.52	282	ePN	Pn	10 18 52.8	+1.0
	22nm,0.6s						
CRE	Caprese Michel	2.52	282	ePn	Pn	10 18 52.8	+1.0
CRE	Caprese Michel	2.52	282	ePn	Pn	10 18 52.8	+1.0
	22nm,0.6s						
UPM	Unac-Piva	2.61	88	ePn	Pn	10 18 52.1	-1.1
UPM				iSn	Sn	10 19 26.9	+1.7
VISS	Visnje	2.66	352	iPn	Pn	10 18 54.5	+0.5
NKY	Niksic	2.70	96	ePn	Pn	10 18 53.6	-0.9
NKY				eSn	Sn	10 19 28.5	+0.8
NKY	Niksic	2.70	96	eSn	Sn	10 19 28.5	+0.8
BUM	Brajici-Budva	2.76	107	ePn	Pn	10 18 54.5	-0.8
BUM				eSn	Sn	10 19 30.4	+1.4
PLE	Pljevlja	2.96	85	ePn	Pn	10 18 57.1	-1.1
PLE				eSn	Sn	10 19 34.5	+0.2
PLE	Pljevlja	2.96	85	eSn	Sn	10 19 34.5	+0.3
TTG	Podgorica	2.98	103	ePn	Pn	10 18 57.7	-0.7
TTG				eSn	Sn	10 19 35.0	+0.5
TTG	Podgorica	2.98	103	eSn	Sn	10 19 35.0	+0.5
VOY	Vojsko	3.05	341	ePn	Pn	10 18 59.7	+0.3
VOY				eSn	Sn	10 19 36.3	-0.1
IVA	Berane	3.35	93	ePn	Pn	10 19 02.9	-0.8
IVA				eSn	Sn	10 19 44.4	+0.3
IVA	Berane	3.35	93	eSn	Sn	10 19 44.4	+0.3
OBKA	Obir	3.39	351	⇑iPN	Pn	10 19 05.3	+1.0
OBKA				iSG	Sg	10 20 01.3	-1.9
	35nm,0.7s						
PVY	Plav	3.45	98	ePn	Pn	10 19 04.0	-1.2
PVY				eSn	Sn	10 19 46.5	0.0
PVY	Plav	3.45	98	eSn	Sn	10 19 46.5	0.0
DIVS	Divcibare	3.50	73	ePn	Pn	10 19 06.9	+1.0
DIVS				Sn	Sn	10 19 49.1	+1.3
DIVS	Divcibare	3.50	73	Sn	Sn	10 19 49.1	+1.3
RHK1	Bakonya	3.52	33	eS	Sn	10 19 44.6	-3.7
	1.9nm,0.5s						
RHK1	Bakonya	3.52	33	eP	Pn	10 19 06.9	+0.8
KBA	Koelnbreinsper	4.16	341	⇑iPN	Pn	10 19 15.7	+0.4
KBA				iSG	Sg	10 20 25.3	-3.5
	0.2nm,0.1s						
MOA	Molln	4.75	351	⇑iPN	Pn	10 19 23.8	+0.2
MOA				iSN	Sn	10 20 19.8	+0.5
KHC	Kasperske Hory	6.09	349	ePN	Pn	10 19 41.0	-1.6
KHC				x	x	10 19 50.0	
KHC				ex	x	10 20 35.0	
KHC				eSN	Sn	10 20 57.5	+4.4

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*CNRM **03** 10:54:44.3, 35.23N×2.67W, h1^{km}, MD3.7*
*MDD **03** 10:54:46.5±1.2, 34.95N×2.94W, mb3.6/9, Error ellipse: s-maj=12.7km s-min=6.9km az=114.0, AftershockPLICA PRXIMO*
*NEIC **03** 10:54:47.2, 34.98N×3.00W, MG3.6(MDD), After MDD.*
*CSEM **03** 10:54:47.2±0.2, 35.07N×2.96W, h8^{km}, MD3.7, Error ellipse: s-maj=4.5km s-min=2.2km az=103.0*
ISC 03 10:54:48.4±0.6**, 35.11N**±0.03×**2.99W**±0.07**, h18**^{km}±4^{km}**, n39, σ1ˢ.40**/64**, 2D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.19	13	P	Pb	10 54 52.7	-0.6
MELI				S	Sb	10 54 57.7	+1.0
MELI	Melilla	0.19	13	iP	Pb	10 54 52.7	-0.6
EMEL	Melilla	0.19	7	P	Pb	10 54 52.8	-0.6
	88nm,0.1s,SNR=12						
EMEL				S	Sb	10 54 57.5	+0.8
	1µm,0.3s,SNR=13						
EMLI	Melilla	0.20	9	P	Pb	10 54 52.8	-0.6
	88nm,0.1s,SNR=12						
TOU	Touzarine	0.65	257	iP	Pb	10 55 01.5	+0.6
TOU				iS	Sb	10 55 14.0	+4.6
TZK	Tazeka	1.42	225	iP	Pn	10 55 12.0	-1.5
TZK				iS	Sn	10 55 34.0	+2.2
EBER	Berja	1.79	2	P	Pn	10 55 20.6	+1.7
	1.7nm,0.2s,SNR=7.6						
EBER				S	Sn	10 55 39.9	-1.3
	61nm,0.6s,SNR=15						
EBER	Berja	1.79	2	S	Sn	10 55 39.9	-1.3
	61nm,0.6s,SNR=15						
EBER	Berja	1.79	2	P	Pn	10 55 20.6	+1.8
	1.7nm,0.2s,SNR=7.6						
ERON	Agron	2.02	341	P	Pn	10 55 22.3	+0.2
	3.7nm,0.3s,SNR=7.9						
ERON				S	Sn	10 55 49.7	+2.6
	6.4nm,0.3s,SNR=7.9						
EMIJ	Mijas	2.05	316	P	Pn	10 55 21.3	-1.3
	2.1nm,0.2s,SNR=6.1						
EMIJ				S	Sn	10 55 45.6	-2.4
	22nm,0.4s,SNR=7.9						
ELOJ	Sierra Loja	2.24	335	P	Pn	10 55 26.9	+1.5
	5.3nm,0.3s,SNR=6.6						
MIF	Mishlifen	2.51	228	iP	Pn	10 55 28.5	-0.7
MIF				iS	Sn	10 56 01.0	+1.4
ELUQ	Luque	2.66	337	P	Pn	10 55 32.4	+1.1
	4.5nm,0.2s,SNR=4.0						
ELUQ				S	Sn	10 56 04.5	+1.2
	6.1nm,0.4s,SNR=7.9						
LIJA	Lijar	2.66	313	P	Pn	10 55 32.2	+1.0
LIJA				S	Sn	10 56 05.0	+1.7
LIJA	Lijar	2.66	313	iP	Pn	10 55 32.2	+0.9
LIJA	Lijar	2.66	313	eS	Sn	10 56 05.0	+1.7
CZD	Col de Zad	2.68	220	iP	Pn	10 55 31.0	-0.6
CZD				iS	Sn	10 56 05.0	+1.1
EQES	Quesada	2.69	359	P	Pn	10 55 33.2	+1.5
	3.4nm,0.2s,SNR=19						
EQES				S	Sn	10 56 06.8	+2.6
	29nm,0.3s,SNR=14						
EQES	Quesada	2.69	359	P	Pn	10 55 33.2	+1.5
	3.4nm,0.2s,SNR=19						
EQES				S	Sn	10 56 06.8	+2.7
	29nm,0.3s,SNR=14						
ESPR	Espera	2.92	308	P	Pn	10 55 35.1	+0.1
	2.0nm,0.2s,SNR=7.9						
ESPR				S	Sn	10 56 11.3	+1.5
	3.6nm,0.2s,SNR=7.9						
ESPR	Espera	2.92	308	P	Pn	10 55 35.1	+0.2
	2.0nm,0.2s,SNR=7.9						
ESPR				S	Sn	10 56 11.3	+1.4
	3.6nm,0.2s,SNR=7.9						
EMUR	La Murta	3.07	27	P	Pn	10 55 35.1	-2.0
EMUR				S	Sn	10 56 09.5	-4.2
EMUR	La Murta	3.07	27	P	Pn	10 55 35.1	-2.0
	2.7nm,0.2s,SNR=6.2						
EMUR				S	Sn	10 56 09.5	-4.2
	16nm,0.5s						
EMUR	La Murta	3.07	27	P	Pn	10 55 35.1	-2.0
	2.7nm,0.2s,SNR=6.2						
ZFT	Errachidia	3.27	201	iP	Pn	10 55 39.5	-0.5
ZFT				iS	Sn	10 56 19.0	+0.2
EADA	Adamuz	3.31	338	⇓P	Pn	10 55 40.3	-0.2
EADA				S	Sn	10 56 18.4	-1.4
EADA	Adamuz	3.31	338	⇓P	Pn	10 55 40.3	-0.2
	3.4nm,0.3s,SNR=18						
EADA				S	Sn	10 56 20.5	+0.7
	15nm,0.6s						
EADA	Adamuz	3.31	338	S	Sn	10 56 18.4	-1.4
	15nm,0.6s						
EADA	Adamuz	3.31	338	P	Pn	10 55 40.3	-0.2
	3.4nm,0.3s,SNR=18						
EVIA	Vianos	3.55	6	S	Sn	10 56 27.4	+1.6
	16nm,0.5s,SNR=5.3						
EMIN	Mina Concepcio	3.98	313	P	Pn	10 55 48.7	-1.5
	1.0nm,0.2s,SNR=21						
EMIN				S	Sn	10 56 32.8	-4.1
	0.8nm,0.3s						
EMIN	Mina Concepcio	3.98	313	P	Pn	10 55 48.7	-1.4
EBAD	Badajoz	4.86	320	P	Pn	10 56 01.2	-1.4
	1.9nm,0.2s,SNR=6.6						
EBAD				S	Sn	10 56 55.5	-3.6
	4.3nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.86	320	P	Pn	10 56 01.2	-1.4
PBEJ	Beja	4.89	308	ePn	Pn	10 56 01.6	-1.4
PBEJ				eSn	Sn	10 56 57.5	-2.3
	2.5nm,0.3s						
PBEJ	Beja	4.89	308	ePn	Pn	10 56 01.6	-1.4
PBEJ				eSn	Sn	10 56 57.5	-2.3
	2.5nm,0.3s						
MOE	Montemor	5.49	310	ePn	Pn	10 56 09.9	-1.5
MOE				eSn	Sn	10 57 12.3	-2.5
PCBR	Castelo Branco	5.92	324	ePn	Pn	10 56 16.0	-1.5

ATH 03 10:57:19.0, 39.24N×20.75E, h10^{km}**, MD3.6**/3**, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	Kerkira	0.88	303	ePB	Pb	10 57 35.5	-0.3
VLS	Valsamata	1.07	187	ePB	Pb	10 57 39.5	+0.4
VLI	Veliai	3.05	145	ePN	Pn	10 58 10.0	+1.7

IDC 03 11:06:04.4±12.0**, 4.70N×73.39W, mb3.4**/2**, mb1 3.8**/2**, mb1mx3.4**/18**, Error ellipse: s-maj=768.0km s-min=45.0km az=90.0, Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKA	Yellowknife Ar	65.15	340	P	P	11 16 47.4	-1.9
	0.5nm,0.8s,baz=133,slow=6.5,SNR=7.6						
ILAR	Eielson Array	78.76	335	P	P	11 18 08.2	-1.9
	0.2nm,0.6s,baz=87,slow=4.6,SNR=6.1						
ASAR	Alice Springs	147.63	232	PKPbc	PKPdf	11 25 50.8	0.0
	0.3nm,0.6s,baz=121,slow=4.3,SNR=3.3						
WRA	Warramunga Arr	149.04	238	PKPbc	PKPdf	11 25 55.5	+2.4
	0.5nm,1.0s,baz=112,slow=2.9,SNR=5.6						

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*NAO **03** 11:11:52.8±4.2, 67.66N×33.47E, ML2.2*
HEL 03 11:11:54.1±0.8**, 67.69N×33.53E, ML2.2**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	Maaselka	2.52	227	eP	Pn	11 12 37.0	+0.1
MSF				eSG	Sg	11 13 10.6	-7.3
SGF	Sodankyl	2.70	268	eP	Pn	11 12 40.5	+1.0
SGF				eSG	Sg	11 13 17.0	-7.0
KEV	Kevo	3.16	314	eP	Pn	11 12 44.4	-1.6
KEV				eS	Sn	11 13 23.2	-1.8
ARA0	ARCESS Array S	3.48	306	Pn	Pn	11 12 48.2	-2.4
	baz=122,slow=16						
ARA0				Sn	Sn	11 13 29.8	-3.3
	baz=125,slow=28						
ARA0				Lg		11 13 41.5	
	baz=114,slow=37						
ARA0	ARCESS Array S	3.48	306	eP	Pn	11 12 48.2	-2.4
ARA0				eS	Sn	11 13 29.8	-3.3
ARA0				eSG		11 13 41.5	
OUL	Oulu	4.03	233	eSG	Sg	11 13 57.6	-11
KJN	Kajaani	4.33	216	eS	Sn	11 13 50.5	-4.2
FIA0	FINESS Array S	7.04	211	Lg		11 15 27.6	
	baz=21,slow=28						
FIA0	FINESS Array S	7.04	211	Lg		11 15 27.6	
	baz=21,slow=28						
FIA0	FINESS Array S	7.04	211	eSG		11 15 27.6	

IDC 03 11:41:07.3±43.0**, 16.24S×173.02W, mb4.1**/3**, mb1 4.3**/3**, mb1mx3.7**/15**, Error ellipse: s-maj=829.0km s-min=187.7km az=79.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	43.94	241	P	P	11 49 17.0	-1.0
	2.0nm,0.9s,baz=85,slow=11,SNR=3.7						
WRA	Warramunga Arr	50.02	257	P	P	11 50 03.5	-2.4
	0.4nm,0.5s,baz=96,slow=7.3,SNR=8.6						
ASAR	Alice Springs	50.21	253	P	P	11 50 05.2	-2.1
	4.9nm,0.5s,baz=89,slow=8.1,SNR=82						

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*MDD **03** 11:43:07.7±1.6, 34.89N×2.98W, mb3.4/8, Error ellipse: s-maj=17.2km s-min=9.0km az=114.0, AftershockPLICA PRXIMO*
*NEIC **03** 11:43:08.2, 34.92N×2.98W, MG3.4(MDD), After MDD.*
*CSEM **03** 11:43:08.3±0.3, 35.08N×2.92W, h6^{km}±2^{km}, MD3.5, Error ellipse: s-maj=10.1km s-min=4.7km az=96.0*
*CNRM **03** 11:43:09.8, 35.13N×2.82W, h1^{km}, MD3.5*
ISC 03 11:43:09.4±0.6**, 35.07N**±0.03×**2.94W**±0.07**, h10**^{km}**, n24, σ1ˢ.26**/38**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.19	121	iP	Pg	11 43 12.0	-1.6
MELI	Melilla	0.23	2	P	Pg	11 43 18.9	+4.7
MELI				S	Sg	11 43 21.2	+3.8
MELI	Melilla	0.23	2	iS	Sg	11 43 21.2	+3.8
EMEL	Melilla	0.23	357	P	Pg	11 43 14.5	+0.1
	41nm,0.1s,SNR=10						
EMEL				S	Sg	11 43 20.8	+3.1
	602nm,0.1s,SNR=6.9						
EMLI	Melilla	0.23	359	P	Pg	11 43 14.5	+0.2
	41nm,0.1s,SNR=10						
EMLI				S	Sg	11 43 20.8	+3.2
	602nm,0.1s,SNR=6.9						
EBER	Berja	1.83	1	P	Pn	11 43 43.1	+1.9
	3.2nm,0.6s,SNR=9.0						
EBER				S	Sn	11 44 02.9	-1.6
	49nm,0.8s						
EBER	Berja	1.83	1	S	Sn	11 44 02.9	-1.6
	49nm,0.8s						
EBER	Berja	1.83	1	P	Pn	11 43 43.1	+1.9
	3.2nm,0.6s,SNR=9.0						
EMIJ	Mijas	2.11	316	P	Pn	11 43 44.3	-0.9
	1.2nm,0.1s,SNR=7.9						
EMIJ				S	Sn	11 44 10.1	-1.6
	12nm,0.5s,SNR=7.9						
MIF	Mishlifen	2.52	229	iS	Sn	11 44 23.0	+1.0
CZD	Col de Zad	2.68	221	iP	Pn	11 43 54.0	+0.7
CZD				iS	Sn	11 44 27.0	+0.9
EQES	Quesada	2.73	358	P	Pn	11 43 53.7	-0.5
	1.0nm,0.3s,SNR=9.3						
EQES				S	Sn	11 44 28.7	+1.2
	17nm,0.3s,SNR=8.5						
EQES	Quesada	2.73	358	P	Pn	11 43 53.7	-0.4
	1.0nm,0.3s,SNR=9.3						
EQES				S	Sn	11 44 28.7	+1.2
	17nm,0.3s,SNR=8.5						
EMUR	La Murta	3.09	26	P	Pn	11 43 58.3	-0.9
	7.0nm,0.6s,SNR=7.9						
EMUR				S	Sn	11 44 32.7	-3.9
	3.3nm,0.4s,SNR=7.9						
EMUR	La Murta	3.09	26	P	Pn	11 43 58.3	-0.9
	7.0nm,0.6s,SNR=7.9						
EMUR				S	Sn	11 44 32.7	-3.9
	3.3nm,0.4s,SNR=7.9						
ZFT	Errachidia	3.25	202	eP	Pn	11 44 02.0	+0.5
ZFT				iS	Sn	11 44 40.0	-0.6
EADA	Adamuz	3.36	337	P	Pn	11 44 04.0	+0.9
	1.1nm,0.4s,SNR=7.8						
EADA				S	Sn	11 44 41.7	-1.8
	3.1nm,0.4s						
EADA	Adamuz	3.36	337	P	Pn	11 44 04.0	+0.9
	1.1nm,0.4s,SNR=7.8						
EADA				S	Sn	11 44 41.7	-1.7
	3.1nm,0.4s						
EVIA	Vianos	3.58	6	S	Sn	11 44 50.3	+1.3
	SNR=7.9						
EMIN	Mina Concepcio	4.04	313	P	Pn	11 44 12.1	-0.5
	1.1nm,0.2s,SNR=12						
EMIN				S	Sn	11 44 56.8	-3.8
	1.2nm,0.4s,SNR=7.9						
EMIN	Mina Concepcio	4.04	313	S	Sn	11 44 56.8	-3.8
EMIN	Mina Concepcio	4.04	313	P	Pn	11 44 12.1	-0.6
	1.1nm,0.2s,SNR=12						
EBAD	Badajoz	4.92	320	P	Pn	11 44 24.5	-0.6
	2.1nm,0.3s,SNR=6.6						
EBAD	Badajoz	4.92	320	P	Pn	11 44 24.5	-0.7

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*CSEM **03** 12:16:03.0, 12.16N×45.24E, h23^{km}, ML3.4, After DHMR*
DHMR 03 12:16:03.5±0.5**, 12.19N×45.27E, h26**^{km}±7^{km}**, ML3.5, 6C-3D, Western Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ADEN	Aden	0.64	334	⇑iP	Pb	12 16 16.1	0.0
ADEN				iS	Sb	12 16 25.4	+0.7
ADEN				AML	AML	12 16 33.2	
	comp=E,2µm,0.5s						
ADEN	Aden	0.64	334	⇑iP	Pb	12 16 16.1	0.0
ADEN				iS	Sb	12 16 25.0	+0.3
	comp=E,649nm,0.7s						
TRBA	At Turbah	1.50	312	⇓iP	Pn	12 16 30.0	+0.8
TRBA				iS	Sn	12 16 50.7	+2.6
TRBA				AML	AML	12 16 59.1	
	comp=E,968nm,0.6s						
TRBA	At Turbah	1.50	312	⇓iP	Pn	12 16 30.0	+0.8
TRBA				iS	Sn	12 16 49.6	+1.5
LBOS		1.67	359	iP	Pn	12 16 32.7	+1.2
LBOS				iS	Sn	12 16 54.9	+2.7
BDHA	Al Bayda'	1.79	9	⇑iP	Pn	12 16 34.3	+1.0
BDHA				AML	AML	12 16 50.0	
	comp=N,644nm,0.4s						
BDHA				iS	Sn	12 16 58.4	+3.0
BDHA	Al Bayda'	1.79	9	⇑iP	Pn	12 16 34.3	+1.0
BDHA				iS	Sn	12 16 59.7	+4.3
UDYN	Al 'Udayn	2.16	325	⇑iP	Pn	12 16 40.0	+1.4
UDYN				iS	Sn	12 17 08.7	+4.0
UDYN				AML	AML	12 17 28.9	
	comp=N,398nm,0.8s						
UDYN	Al 'Udayn	2.16	325	⇑iP	Pn	12 16 39.5	+1.0
UDYN				iS	Sn	12 17 09.5	+4.8
	comp=N,197nm,0.7s						
DHBB	Dhamar BB	2.50	340	⇓iP	Pn	12 16 45.8	+2.3
DHBB				iS	Sn	12 17 19.0	+5.4

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*BER **03** 12:56:18.5±6.8, 58.01N×22.37E, ML2.4(NAO), Suspected explosion*
*NAO **03** 12:56:20.6±5.5, 58.27N×22.19E, ML2.4*
HEL 03 12:56:12.0±1.0**, 57.41N×24.66E, ML1.8, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVF	Pernaja	3.20	11	eP	Pn	12 57 03.0	-1.6
PVF				eS	Sn	12 57 41.4	-2.7
PVF				eSG	Sg	12 57 53.5	-5.2
VJF	Virojoki	3.48	24	eSG	Sg	12 57 58.6	-9.1
FIA0	FINESS Array S	4.11	10	Pn	Pn	12 57 19.4	+1.9
	baz=181,slow=18						
FIA0				Sn	Sn	12 58 02.5	-4.4
	baz=184,slow=22						
FIA0				Lg		12 58 18.7	
	baz=192,slow=28						
FIA0	FINESS Array S	4.11	10	eP	Pn	12 57 18.0	+0.6

FIA0				*e*S	Sn	12 58 03.5	-3.5
FIA0				*e*SG	Sg	12 58 18.3	-11
FIA0				MSG		12 58 25.0	
	comp=Z,2.4nm,0.3s						
KEF	Keuruu	4.77	1	*e*S	Sn	12 58 18.4	-5.4
KEF				MSG		12 58 42.4	
	comp=Z,0.6nm,0.2s						
HFS	Hagfors	6.32	300	Pn	Pn	12 57 33.5	-15
	baz=124,slow=14						
HFS				Lg		12 58 49.5	
	baz=106,slow=28						

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*CASC **03** 13:58:15.5±2.0, 14.50N×93.24W, h0^{km}±265^{km}, MD4.6, ML4.2, mb4.5(NEIC)*

*IDC **03** 13:58:25.3±0.8, 14.41N×91.87W, mb4.4/12, mb1 4.6/14, mb1mx4.5/19, MS4.0/9, Ms1 4.0/9, ms1mx3.7/21, Error ellipse: s-maj=32.5km s-min=16.1km az=52.0*

*MEX **03** 13:58:26.8±0.8, 13.61N×92.79W, h50^{km}±149^{km}, MD4.7*

*NEIC **03** 13:58:34.2±0.8, 14.25N×92.11W, h76^{km}±6^{km}, mb4.5/33, MD4.6(MEX), Error ellipse: s-maj=9.5km s-min=4.6km az=223.0*

*BJI **03** 13:58:34.2, 14.30N×92.10W, h76^{km}, mB4.9, Ms4.9, Msz4.5*

ISC 03 13:58:32.7±0.8**, 14.20N**±0.07×**92.18W**±0.07**, h81**^{km}±6^{km}**, n131, σ0^{s}81**/130**, mb4.4**/40**, 5C-6D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	Comitan	2.07	1	*e*P	P	13 59 07.5	+1.3
CCIG				*i* S	S	13 59 38.9	+8.1
CUSS	Cusmapa	2.18	97⇑	*e*P	P	13 59 09.4	+1.6
RBDL	Robledal	2.42	92⇓	*e*P	P	13 59 11.4	+0.3
RTR	El Retiro	2.48	97⇑	*e*P	P	13 59 11.7	-0.2
SBLS	San Blas	2.51	98⇓	*e*P	P	13 59 12.5	+0.1
SNJE	San Jose	2.52	97⇑	*e*P	P	13 59 12.4	-0.1
SNJE				*e*S	S	13 59 55.6	+14
SCX	San Cristobal	2.56	350	*i* P	P	13 59 12.0	-1.0
SCX				*i* S	S	13 59 48.0	+4.9
MTO2	Montecristo 2	2.74	86⇓	*e*P	P	13 59 16.1	+0.5
BOQS	Boqueron	2.85	99⇓	*e*P	P	13 59 17.2	0.0
BOQS				*e*S	S	14 00 06.0	+16
LBRS	Las Brisas	3.08	98	*e*P	P	13 59 19.7	-0.6
LFRS	El Faro	3.08	100⇓	*e*P	P	13 59 20.1	-0.2
LCBS	La Ceiba	3.15	100⇓	*e*P	P	13 59 20.7	-0.6
SNVI	San Vicente	3.29	100	*e*P	P	13 59 23.1	-0.2
SNVI				*e*S	S	14 00 15.9	+14
CMIG	Matias Romero	3.88	318	*i* P	P	13 59 24.1	-7.3
CMIG				*i* S	S	14 00 09.4	-6.6
CMIG	Matias Romero	3.88	318	*e*P	P	13 59 24.0	-7.4
CMIG				*i* S	S	14 00 09.3	-6.7
BLLM	Bellamira	3.90	101	*e*P	P	13 59 33.6	+1.9
CNCH	Conchagua	4.32	102⇑	*e*P	P	13 59 37.0	-0.5
CNCH				*e*S	S	14 00 42.9	+16
EVV	El Vigia	5.21	325	*e*P	P	13 59 45.0	-4.8
PYN	Poneloya	5.33	109	*e*P	P	13 59 50.5	-0.9
TEL3	Telica 3	5.44	107	*e*P	P	13 59 52.2	-0.7
LEON	Leon	5.44	108	*e*P	P	13 59 52.5	-0.4
MIRN	Miramar	5.60	108	*e*P	P	13 59 54.3	-0.8
MOMJ	Momotombo	5.77	107	*e*P	P	13 59 57.1	-0.4
COPN	Copaltepe	5.80	110	*e*P	P	13 59 57.6	-0.2
APYN	Apoyeque	6.00	108	*e*P	P	13 59 60.0	-0.7
MGAN	Managua	6.13	109	*e*S	S	14 01 25.6	+14
MGAN				*i*		14 01 46.8	
	comp=N,236nm,0.7s						
WILN	Americas 2	6.18	108	*e*P	P	14 00 03.2	+0.1
WILN				*e*S	S	14 01 29.3	+16
TICN	Ticuantepe	6.18	110	*e*P	P	14 00 04.2	+1.1
LVIG	Laguna Verde	6.83	324	*e*P	P	14 00 04.8	-7.3
LVIG				*e*S	S	14 01 24.1	-4.9
TEIG	Tepich	7.05	31	Pn	P	14 00 15.8	+0.5
	comp=N,0.0nm,0.3s,baz=227,slow=24,SNR=7.3						
PPM	Popocatepetl	7.85	309	*i* P	P	14 00 20.0	-6.2
JTS	JuntasAbangare	8.06	118	*e*Pn	P	14 00 28.3	-0.8
	comp=N,9.5nm,0.7s						
LAJ	Bijagual	8.98	118	*e*P	P	14 00 38.5	-3.1
ICR	Volcan Irazu	9.18	116	*e*P	P	14 00 45.8	+1.5
URSC	Urasca	9.29	117	*e*P	P	14 00 47.9	+2.0
JCT	Junction City	17.66	338	*e*P	P	14 02 34.5	-0.5
	comp=N,8.8nm,0.8s						
LTX	Lajitas	18.43	327	*e*P	P	14 02 43.5	-0.7
	comp=N,18nm,1.1s						
TXAR	Lajitas Array	18.43	327	P	P	14 02 43.2	-1.0
	comp=N,0.3nm,0.3s,baz=148,slow=12,SNR=19						
TXAR				LR	LR	14 11 56.1	
	comp=N,147nm,18.9s,baz=145,slow=44						
TXAR	Lajitas Array	18.43	327	P	P	14 02 43.2	-1.0
TXAR				LR	LR	14 11 56.1	
LRAL	Lakeview Retre	19.33	13	*e*P	P	14 02 54.4	+0.2
	comp=N,9.9nm,0.8s						
MIAR	Mount Ida	20.29	357	*e*P	P	14 03 03.6	-0.7
	comp=N,39nm,1.1s						
OXF	Oxford	20.38	7	*e*P	P	14 03 05.6	+0.4
	comp=N,33nm,0.9s						
UALR	University of	20.48	360	*e*P	P	14 03 06.2	-0.1
	comp=N,11nm,0.7s						
CLNB	Carlsbad	20.92	331	*e*P	P	14 03 09.8	-0.9
GDL2	Guadalupe Moun	21.09	330	*e*P	P	14 03 11.6	-0.9
WMOK	Wichita Mounta	21.30	345	*e*P	P	14 03 13.8	-0.8
	comp=N,9.5nm,0.7s,mb4.2						
CPRX	Cap Rock	21.55	332	*e*P	P	14 03 16.0	-1.1
SWET	Sewanee	21.67	14	*e*P	P	14 03 18.2	0.0
SDV	Santo Domingo	21.75	102	*e*P	P	14 03 18.5	-0.6
	comp=N,7.9nm,0.8s,mb4.1						
MYNC	Murphy	22.01	18	*e*P	P	14 03 22.7	+1.2
	comp=N,22nm,1.0s,mb4.4						
CPCT	Cooper Cave	22.25	17	*e*P	P	14 03 24.3	+0.4
AMTX	Amarillo	22.31	339	*e*P	P	14 03 24.3	-0.2
	comp=N,65nm,0.8s,mb5.0						
BNM	Barren Site	23.78	329	*e*P	P	14 03 40.3	+1.5
LPM	Los Pinos Moun	23.91	329	*e*P	P	14 03 40.0	0.0
LENM	Lemitar	23.97	329	*e*P	P	14 03 42.1	+1.5
ANMO	Albuquerque	24.34	331	P	P	14 03 44.8	+0.6
	comp=N,5.3nm,0.7s,mb4.0,baz=159,slow=11,SNR=11						
ANMO	Albuquerque	24.34	331	*e*P	P	14 03 44.6	+0.4
	comp=N,6.2nm,0.8s,mb4.0						
WCI	Wyandotte Cave	24.49	11	*e*P	P	14 03 45.5	-0.2
	comp=N,32nm,0.8s,mb4.7						
TUC	Tucson	24.77	320	*e*P	P	14 03 49.3	+0.9
	comp=N,4.0nm,0.9s,mb3.9						
KSU1	Kansas State U	25.11	352	*e*P	P	14 03 50.8	-0.8
SDCO	Great Sand Dun	26.27	336	*e*P	P	14 04 03.0	+0.7
	comp=N,18nm,1.1s,mb4.4						
CBN	Corbin	27.27	26	P	P	14 04 11.8	+0.3
PV01	Paradox Valley	27.92	332	*e*P	P	14 04 18.3	+0.8
PV10	Paradox Valley	28.33	331	*e*P	P	14 04 20.7	-0.4
ARUT	Antelope Range	30.14	325	*e*P	P	14 04 37.8	+0.6
TCUT	Toone Canyon	31.62	332	*e*P	P	14 04 50.4	+0.2
PDAR	Pinedale Array	32.16	336	P	P	14 04 54.0	-0.8
	comp=N,3.0nm,0.8s,mb4.1,baz=137,slow=8.7,SNR=20						
PDAR				PcP	PcP	14 07 45.5	+3.3
	comp=N,1.1nm,0.6s,baz=142,slow=4.6,SNR=7.1						
HVU	Hansel Valley	32.77	331	*e*P	P	14 05 00.6	+0.4
REDW	Red Top Meadow	33.19	335	*e*P	P	14 05 03.8	0.0
ELK	Elko	33.23	327	*e*P	P	14 05 03.7	-0.4
	comp=N,1.6nm,0.7s,mb4.0						
SNOW	Snow King Moun	33.23	335	*e*P	P	14 05 04.7	+0.6
WUWY	Wally Ulrich	33.29	335	*e*P	P	14 05 04.7	0.0
WUWY				*e*		14 05 12.6	
LOHW	Long Hollow	33.29	335	*e*P	P	14 05 04.8	+0.1
MNV	Mina	33.32	321	*e*P	P	14 05 04.9	0.0
	comp=N,6.8nm,1.1s,mb4.4						
TPAW	Teton Pass	33.33	335	*e*P	P	14 05 05.2	+0.2
NVAR	Mina Array Bea	33.41	321	P	P	14 05 05.8	+0.1
	comp=N,6.3nm,0.8s,mb4.5,baz=134,slow=8.5,SNR=31						
NVAR				PcP	PcP	14 07 49.7	+4.1
	comp=N,1.6nm,0.8s,baz=122,slow=3.0,SNR=5.2						
NVAR				LR	LR	14 20 08.4	
	comp=N,258nm,18.2s,baz=255,slow=39						
NVAR	Mina Array Bea	33.41	321	P	P	14 05 05.8	+0.1
NVAR				PcP	PcP	14 07 49.7	+4.1
NVAR				LR	LR	14 20 08.4	
QLMT	Earthquake Lak	34.63	336	*e*P	P	14 05 17.3	+1.1
HLID	Hailey	34.92	331	*e*P	P	14 05 18.6	0.0
	comp=N,7.9nm,1.0s,mb4.5						
MCMT	McKenzie Canyo	35.22	334	*e*P	P	14 05 22.4	+1.3
MCMT				*e*		14 05 29.8	
DGMT	Dagmar	35.59	346	*e*P	P	14 05 23.9	-0.4
	comp=N,15nm,0.7s,mb5.0						
ULM	Lac du Bonnet	36.08	356	P	P	14 05 26.9	-1.5
	comp=N,5.1nm,0.7s,mb4.6,baz=174,slow=8.1,SNR=7.8						
ULM				LR	LR	14 21 13.2	
	comp=N,68nm,18.7s,baz=66,slow=38						
ULM	Lac du Bonnet	36.08	356	P	P	14 05 26.9	-1.5
ULM				LR	LR	14 21 13.2	
HRY	Holter Researc	36.35	337	*e*P	P	14 05 30.9	+0.1
SAML	Samuel	36.83	127	*e*P	P	14 05 33.0	-2.1
	comp=N,3.2nm,0.8s,mb4.3						
LPAZ	La Paz	38.50	141	P	P	14 05 49.0	+0.1
	comp=N,1.1nm,0.7s,mb3.8,baz=326,slow=12,SNR=5.2						
LPAZ				LR	LR	14 20 26.1	
	comp=N,78nm,20.7s,baz=276,slow=34						
LPAZ	La Paz	38.50	141	*e*P	P	14 05 48.5	-0.4
	comp=N,5.7nm,1.4s,mb4.2						
EDM	Edmonton	42.39	341	*e*P	P	14 06 19.9	-0.7
LVC	Limon Verde	43.11	148	*e*P	P	14 06 29.5	+2.6
	comp=N,5.4nm,1.1s,mb4.2						
SCHQ	Schefferville	45.09	20	P	P	14 06 41.0	-1.5
	comp=N,13nm,0.9s,mb4.7,baz=187,slow=6.2,SNR=6.4						
SCHQ				PcP	PcP	14 08 23.2	+0.9
	comp=N,4.9nm,0.9s,baz=238,slow=6.8,SNR=3.7						
SCHQ				LR	LR	14 26 27.2	
	comp=N,491nm,20.5s,baz=236,slow=38						
SCHQ	Schefferville	45.09	20	P	P	14 06 41.0	-1.5
SCHQ				PcP	PcP	14 08 23.2	+0.9
SCHQ				LR	LR	14 26 27.2	
YKA	Yellowknife Ar	50.79	347	P	P	14 07 26.5	-0.1
	comp=N,23nm,0.7s,mb5.3,baz=150,slow=7.4,SNR=331						
YKA				PcP	PcP	14 08 42.2	-0.4
	comp=N,2.7nm,0.8s,baz=146,slow=3.8,SNR=9.4						
YKA	Yellowknife Ar	50.79	347	P	P	14 07 26.6	-0.1
YKA				PcP	PcP	14 08 42.2	-0.4
YKW3	Yellowknife Ar	50.85	347	*e*P	P	14 07 26.7	-0.5
BDFB	Brasilia	52.77	123	P	P	14 07 41.4	-0.7
	comp=N,4.1nm,0.8s,mb4.5,baz=289,slow=8.1,SNR=4.4						
BDFB				LR	LR	14 32 31.9	
	comp=N,136nm,18.2s,baz=303,slow=39						
BDFB	Brasilia	52.77	123	P	P	14 07 41.4	-0.7
BDFB				LR	LR	14 32 31.9	
INK	Inuvik	60.20	344	*e*P	P	14 08 33.8	-0.5
	comp=N,11nm,0.8s,mb4.9						
ILAR	Eielson Array	62.59	337	P	P	14 08 49.6	-0.8
	comp=N,6.1nm,0.9s,mb4.5,baz=134,slow=3.8,SNR=42						
RSO	Redoubt South	63.39	331	*e*P	P	14 08 56.7	+0.9
DAG	Danmarks Havn	72.51	13⇑	*i*P	P	14 09 51.9	-0.2
	comp=N,2.8nm,0.5s,mb4.3						
JMIC	Jan Mayen	74.61	20	LR	LR	14 44 02.7	
	comp=N,279nm,19.7s,baz=307,slow=37						
EVO	Evora	76.79	53	*e*P	P	14 10 16.1	-1.3
	comp=N,28nm,1.2s,mb4.6						
EVO				*e*R			
	comp=N,116nm,21.6s						
QUIF	Quistinic	78.95	43	*e*P	P	14 10 28.7	-0.5
	comp=N,30nm,1.1s,mb4.7						
ESDC	Sonseca Array	79.73	52	P	P	14 10 33.7	+0.1
	comp=N,2.4nm,0.8s,mb4.1,baz=283,slow=5.8,SNR=7.1						
GRR	Gorron	80.39	43	*e*P	P	14 10 36.8	-0.1
	comp=N,25nm,0.9s,mb4.7						
FLN	La Foliniere	80.57	42	*e*P	P	14 10 37.8	-0.1
	comp=N,9.0nm,0.5s,mb4.5						
FLN				*e*R			
	comp=N,192nm,20.5s						
LDF	La Druitiere	80.84	42	*e*P	P	14 10 39.1	-0.2
	comp=N,13nm,0.8s,mb4.5						
TCF	Toulx Ste Croi	82.86	44	*e*P	P	14 10 49.6	-0.2
	comp=N,5.3nm,0.7s,mb4.2						
BGF	Bois d'Agland	83.23	44	*e*P	P	14 10 51.6	0.0
	comp=N,11nm,0.6s,mb4.6						
AVF	Avril sur Loir	83.52	43	*e*P	P	14 10 52.7	-0.4
	comp=N,4.9nm,0.7s,mb4.1						
SSF	Saint Saulge	83.55	43	*e*P	P	14 10 53.1	-0.2
SMF	Signal de Mont	83.88	44	*e*P	P	14 10 54.6	-0.3
	comp=N,6.8nm,0.7s,mb4.3						
NOA	NORSAR Array B	84.05	28	P	P	14 10 55.5	+0.1
	comp=N,1.9nm,0.8s,mb4.0,baz=290,slow=5.1,SNR=3.9						
NOA				LR	LR	14 45 45.3	
	comp=N,104nm,19.9s,baz=280,slow=34						
MEZF	Maizieres J'vi	84.21	42	*e*P	P	14 10 57.1	+0.6
HAU	Haudompre	85.18	42	*e*P	P	14 11 01.9	+0.6
HAU				*e*R			
	comp=N,136nm,18.0s						
HFS	Hagfors	85.51	29	P	P	14 11 03.7	+1.0
	comp=N,1.2nm,0.6s,mb4.0,baz=180,slow=1.5,SNR=4.6						
ORIF	Oris-en-Rattie	85.70	45	*e*P	P	14 11 04.9	+0.9
	comp=N,14nm,0.9s,mb4.6						
ORIF				*e*R			
	comp=N,104nm,19.0s						
DBIC	Dimbokro	85.81	84	P	P	14 11 07.0	+1.8
	comp=N,3.7nm,0.7s,mb4.4,baz=224,slow=2.7,SNR=7.4						
DBIC	Dimbokro	85.81	84	P	P	14 11 07.0	+1.7
ARCES	ARCESS Array B	86.00	18	P	P	14 11 04.5	-0.3
	comp=N,2.9nm,0.8s,mb4.3,slow=7.2,SNR=3.5						
ARCES				LR	LR	14 47 07.9	
	comp=N,139nm,20.8s,baz=198,slow=34						
MBDF	Montbardon	86.36	45	*e*P	P	14 11 08.3	+1.1
	comp=N,6.4nm,0.7s,mb4.3						
CN2	Changchun	112.83	331	*e*PKP	PKPdf	14 17 06.1	+5.8
WMQ	Urumqi	122.26	0	*e*PKP	PKPdf	14 17 20.2	+1.6
WMQ				XPKP		14 17 47.7	
WMQ				*e*PP	PP	14 19 00.5	+1.0
WMQ				LR	LR		
	comp=N,25nm,21.6s						
WMQ				LR	LR		
	comp=E,51nm,18.8s						
WMQ				LR	LR		
	comp=Z,53nm,18.8s						
LZH	Lanzhou	127.74	344	*e*PKP	PKPdf	14 17 29.5	+0.1
LZH				XPKP		14 17 58.7	
LZH				LR	LR		
	comp=N,183nm,18.5s						
LZH				LR	LR		
	comp=Z,279nm,20.0s						
STKA	Stephens Creek	128.01	241	PKP	PKPdf	14 17 33.8	+3.7
	comp=Z,0.7nm,0.3s,baz=153,slow=4.5,SNR=3.4						
WRA	Warramunga Arr	135.28	256	PKhKP		14 17 42.4	
	comp=Z,0.5nm,0.8s,baz=82,slow=3.2,SNR=4.3						
WRA				PKP	PKPdf	14 17 48.2	+4.2
	comp=Z,0.8nm,0.8s,baz=79,slow=2.5,SNR=6.8						
WRA	Warramunga Arr	135.28	256	PKP	PKPdf	14 17 48.2	+4.2
ASAR	Alice Springs	135.57	251	PKP	PKPdf	14 17 48.9	+4.4
	comp=Z,0.8nm,1.0s,baz=91,slow=2.7,SNR=4.5						
CMAR	Chiang Mai Arr	145.75	341	PKPbc	PKPbc	14 18 05.4	+1.8
	comp=Z,12nm,0.8s,baz=341,slow=3.8,SNR=59						
HYB	Hyderabad	147.28	17	*e*P	PKPdf	14 18 09.0	+3.6
HYB	Hyderabad	147.28	17	*i* PKP	PKPdf	14 18 09.0	+3.6

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*NAO **03** 14:12:17.1±5.1, 67.51N×33.02E, ML2.0*

HEL 03 14:12:14.3±0.9**, 67.64N×33.99E, ML1.4, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	Maaselka	2.62	231	*e*SG	Sg	14 13 35.2	-6.2
SGF	Sodankyl	2.87	270	*e*P	Pn	14 13 00.1	-2.1
SGF				*e*S	Sn	14 13 34.9	-3.1
KEV	Kevo	3.32	313	*e*P	Pn	14 13 07.8	-0.7
KEV				*e*S	Sn	14 13 47.2	-2.1
ARA0	ARCESS Array S	3.65	305	Pn	Pn	14 13 11.6	-1.6
	baz=122,slow=16						
ARA0				Pg	Pg	14 13 20.3	-6.9
	baz=119,slow=16						
ARA0				Sn	Sn	14 13 52.0	-5.7
	baz=123,slow=28						
ARA0				Lg		14 14 04.9	
	baz=123,slow=28						
OUL	Oulu	4.14	236	*e*SG	Sg	14 14 21.6	-11
KJN	Kajaani	4.40	219	*e*S	Sn	14 14 13.3	-3.4
KJN				MSG		14 14 17.0	
	comp=Z,0.6nm,0.2s						
JOF	Joensuu	4.87	195	*e*S	Sn	14 14 23.3	-5.2
JOF				MSG		14 14 45.0	
	comp=Z,0.3nm,0.2s						

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*IDC **03** 14:16:31.3±9.6, 3.75S×152.15E, h87^{km}±63^{km}, mb3.9/4, mb1 4.1/5, mb1mx3.7/15, ML3.3/1, MS3.0/2, Ms1 3.0/2, ms1mx2.6/21, Error ellipse: s-maj=77.5km s-min=47.4km az=10.0*

*NEIC **03** 14:16:39.6±9.1, 4.47S×152.01E, h122^{km}±40^{km}, mb4.3/3, Error ellipse: s-maj=112.5km s-min=35.4km az=194.0*

ISC 03 14:16:28.3±5.6**, 3.7S**±0.3×**152.2E**±0.3**, h76**^{km}±40^{km}**, n9, σ0^{s}43**/10**, mb4.1**/6**, 1D, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	7.56	222	P	P	14 18 17.9	0.0
	2.5nm,0.3s,baz=54,slow=10,SNR=12						
PMG				S	S	14 19 42.8	+0.1
	1.4nm,0.3s,baz=359,slow=23,SNR=2.6						
PMG				LR	LR	14 21 30.5	
	comp=Z,67nm,18.6s,baz=72,slow=40						
WRAB	Tennant Creek	23.74	226	*e*P	P	14 21 34.4	-0.1
	11nm,0.6s,mb4.3						
WB2	Warramunga Arr	23.74	226⇓	*i*P	P	14 21 34.9	+0.4
WRA	Warramunga Arr	23.75	226	P	P	14 21 35.0	+0.5
	5.3nm,0.5s,mb4.2,baz=51,slow=10,SNR=96						
ASAR	Alice Springs	26.57	220	P	P	14 22 00.2	-1.1
	1.0nm,0.3s,mb3.8,baz=53,slow=9.1,SNR=50						
ASAR				LR	LR	14 33 15.2	
	comp=Z,40nm,19.2s,baz=178,slow=38						
FITZ	Fitzroy Crossi	29.70	239	*e*P	P	14 22 29.4	0.0
	2.1nm,0.8s,mb3.8						
FITZ	Fitzroy Crossi	29.70	239	P	P	14 22 29.2	-0.2
	2.8nm,0.6s,mb4.1,baz=54,slow=7.3,SNR=12						
MBWA	Marble Bar	36.03	239	P	P	14 23 24.4	+0.1
	3.7nm,0.5s,mb4.6						
VNDA	Vanda	73.91	178	P	P	14 27 56.6	+0.2
	1.1nm,0.6s,mb3.8,baz=331,slow=7.2,SNR=16						

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*GUC **03** 14:17:14.7±0.8, 29.61S×69.83W, h143^{km}±17^{km}, ML5.1*

*SYO **03** 14:17:14.6, 29.58S×69.41W, h109^{km}, MB4.8*

*NEIC **03** 14:17:15.2±0.4, 29.59S×69.51W, h113^{km}±4^{km}, mb4.8/11, MD4.6(SJA), Error ellipse: s-maj=12.0km s-min=4.4km az=91.0*

NEIC Felt [III] at San Juan.

*IDC **03** 14:17:18.0±0.8, 29.69S×69.43W, h133^{km}±6^{km}, mb4.2/7, mb1 4.3/9, mb1mx4.2/15, MS3.6/1, Ms1 3.6/1, ms1mx2.9/18, Error ellipse: s-maj=29.0km s-min=16.4km az=106.0*

ISC 03 14:17:14.4±0.4**, 29.63S**±0.02×**69.50W**±0.09**, h115**^{km}±6^{km}**, n84, σ0^{s}94**/58**, mb4.6**/14**, 18C-2D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	Vallenar	1.52	313⇑	*i*P	P	14 17 43.5	+1.3
VACH				*i* S	S	14 18 03.9	+0.8
VACH				AMP		14 18 05.4	
	comp=N,44μm,0.2s						
LSCH	La Serena	1.54	259⇑	*i*P	P	14 17 42.9	+0.4
LSCH				*i* S	S	14 18 02.9	-0.7
LSCH				AMP		14 18 05.0	
	comp=N,20μm,0.3s						
CPCH	Copiapo	2.38	341⇑	*i*P	P	14 17 53.3	+0.1
CPCH				*i* S	S	14 18 22.6	+0.3
JACH	Jahuel	3.19	197	*e*P	P	14 18 04.8	+0.9
MDZ	Mendoza	3.29	170	*e*P	P	14 18 06.9	+1.5
MDZ				*i*		14 18 10.6	
MDZ				*i* S	S	14 18 40.9	-3.2
MDZ				*i*		14 18 44.5	
PACH	Papudo	3.34	209⇑	*i*P	P	14 18 05.3	-0.7
PACH				*i* S	S	14 18 44.2	-1.1
PEL	Peldehue	3.65	196	*e*P	P	14 18 10.3	+0.1
FCH	Farellones	3.75	190⇑	*i*P	P	14 18 12.9	+1.3
FCH				*i* S	S	14 18 56.8	+1.6
CLCH	Cerro Calan	3.86	193⇑	*i*P	P	14 18 13.3	+0.3
CLCH				*i* S	S	14 18 57.5	-0.4
DSCH	Colegio Aleman	3.87	193⇑	*i*P	P	14 18 13.6	+0.4
STL	Santa Lucia	3.92	194	*i* S	S	14 18 59.5	+0.2
RCDM	Rinconada Maip	4.01	196⇑	*i*P	P	14 18 14.7	-0.4
RCDM				*i* S	S	14 19 00.4	-1.0
ANTU	Antumapu	4.05	194	*e*P	P	14 18 15.5	-0.1
ANTU				*i* S	S	14 19 01.8	-0.6
PCH	Pirque	4.07	192⇑	*i*P	P	14 18 16.3	+0.3
LMEL	Las Melosas	4.25	188⇑	*i*P	P	14 18 19.0	+0.7
CHCH	Chadas Angostu	4.40	193⇑	*i*P	P	14 18 19.8	-0.7
LNV	Longovilo	4.61	200	*i* P	P	14 18 21.1	-2.2
CICH	Cipreses	4.74	189⇑	*i*P	P	14 18 25.1	+0.1
LVC	Limon Verde	7.01	4	P	P	14 18 54.0	-1.8
	comp=N,15nm,0.3s,baz=173,slow=8.8,SNR=126						
LVC				S	S	14 20 13.3	-1.1
	comp=N,16nm,0.3s,baz=332,slow=22,SNR=5.6						
LVC	Limon Verde	7.01	4	*e*Pn	P	14 18 54.0	-1.8
	comp=N,29nm,0.3s						
ARE	Arequipa	13.23	352	*e*P	P	14 20 20.0	+1.2
LPAZ	La Paz	13.34	6	P	P	14 20 19.1	-1.0
	comp=N,1.5nm,0.3s,baz=201,slow=5.3,SNR=39						
LPAZ	La Paz	13.34	6	*e*Pn	P	14 20 19.3	-0.9
	comp=N,12nm,0.6s						
NNA	Nana	18.83	337	P	P	14 21 23.8	-4.0
	comp=N,7.3nm,0.4s						
SAML	Samuel	21.41	17	*e*P	P	14 21 52.9	-1.4
	comp=N,7.3nm,0.5s,mb4.3						
BDFB	Brasilia	24.17	60	P	P	14 22 21.5	+0.3
	comp=N,6.2nm,0.5s,mb4.2,baz=228,slow=8.3,SNR=7.1						
BAO	Brasilia Array	24.19	60	*e*P	P	14 22 21.5	+0.1
BAO				*e*		14 22 49.8	
USHA	Ushuaia	25.20	179	P	P	14 22 30.1	-0.5
	comp=N,18nm,0.6s,mb4.7,baz=1.5,slow=7.7,SNR=16						
PMSA	Palmer Station	35.33	176	*e*P	P	14 23 58.5	-1.6
	comp=N,7.1nm,0.6s,mb4.7						
SJG	San Juan	47.57	4	LR	LR	14 46 45.3	
	comp=N,57nm,18.6s,baz=135,slow=37						
VNA3	Neumayer Olymp	52.63	159⇑	*i*	P	14 26 20.4	+2.1
VNA1	Neumayer--Stat	52.89	159⇓	*i*	P	14 26 16.2	-4.0
VNA2	Neumayer--Watz	53.24	159⇑	*i*	P	14 26 25.0	+2.1
SNAA	Sanae	54.85	159⇑	*i*	P	14 26 34.0	-0.6
SNAA	Sanae	54.85	159	*e*P	P	14 26 33.9	-0.7
	comp=N,18nm,0.6s,mb5.3						
MAIT	Maitri	59.47	158⇑	*i*P	P	14 27 07.0	-0.1
QSPA	South Pole Qui	60.60	180⇑	*i*P	P	14 27 14.9	+0.2
	comp=N,26nm,0.6s,mb5.4						
SBA	Scott Base	67.78	191	*e*P	P	14 28 01.3	0.0
	comp=N,28nm,1.5s,mb4.9						
VNDA	Vanda	68.79	191	P	P	14 28 08.0	+0.4
	comp=N,2.1nm,0.6s,mb4.2,baz=144,slow=4.4,SNR=11						
VNDA	Vanda	68.79	191	*e*P	P	14 28 08.2	+0.7
	comp=N,3.5nm,0.8s,mb4.2						
SYO	Syowa Base	69.14	159	⇓P	P	14 28 09.3	-0.4
SYO	Syowa Base	69.14	159	⇑PcP	PcP	14 28 32.9	0.0
TBI	Tubuai	70.53	254	*e*LR	LR	14 29 10.8	
	comp=N,125nm,33.2s						
DBIC	Dimbokro	71.72	71	P	P	14 28 26.3	0.0
	comp=N,19nm,0.6s,mb5.1,baz=215,slow=6.4,SNR=50						
DBIC	Dimbokro	71.72	71	P	P	14 28 26.3	0.0
PPT	Papeete	73.10	259	*e*LR	LR	14 27 59.1	
	comp=N,110nm,25.5s						
MAW	Mawson	76.74	163	P	P	14 28 53.9	-0.2
	comp=N,11nm,0.5s,mb4.9,baz=215,slow=7.0,SNR=21						
PV10	Paradox Valley	77.07	329	P	P	14 28 56.8	+0.3
PDAR	Pinedale Array	80.91	331	P	P	14 29 17.9	+0.7
	comp=N,0.3nm,0.5s,mb3.4,baz=130,slow=7.9,SNR=3.6						
LBTB	Lobatse	82.15	114	*e*P	P	14 29 24.1	0.0
	comp=N,9.5nm,0.4s,mb5.0						
CASY	Casey	84.40	180	*e*P	P	14 29 34.7	+0.2
	comp=N,12nm,0.9s,mb4.7						
YKA	Yellowknife Ar	98.64	341	P	P	14 30 40.9	-0.1
	comp=N,0.1nm,0.4s,mb3.7,baz=139,slow=4.1,SNR=5.4						
AKASG	Malin Array Be	117.62	45	PKP	PKPdf	14 35 46.4	-0.1
	comp=N,0.1nm,0.3s,baz=258,slow=2.6,SNR=6.2						
BRTR	Keskin Array B	117.76	58	PKP	PKPdf	14 35 48.5	+1.4
	comp=N,0.3nm,0.4s,baz=158,slow=6.7,SNR=3.5						
ASAR	Alice Springs	122.43	206	PKP	PKPdf	14 35 57.2	+0.7
	comp=N,0.8nm,0.4s,baz=130,slow=1.6,SNR=21						
ASAR				pPKP		14 36 31.9	
	comp=N,0.5nm,0.5s,baz=134,slow=1.7,SNR=3.3						
WB2	Warramunga Arr	125.62	208	*e*P	PKPdf	14 36 03.7	+0.9
WRA	Warramunga Arr	125.62	208	PKP	PKPdf	14 36 03.7	+0.9
	comp=N,1.9nm,0.4s,baz=159,slow=1.6,SNR=82						
WRA				pPKP		14 36 38.1	
	comp=N,1.1nm,0.6s,baz=168,slow=1.6,SNR=5.9						
WRAB	Tennant Creek	125.63	208	*e*P	PKPdf	14 36 03.8	+0.9
BVAR	Borovoye Array	142.58	40	PKP	PKPdf	14 36 32.3	-1.0
	comp=N,1.1nm,0.8s,baz=261,slow=1.7,SNR=5.5						
YAK	Yakutsk	145.23	344	*e*PKPbc	PKPbc	14 36 39.0	+0.8
EKS2	Erkin-Say	147.88	56	P	PKPdf	14 36 48.5	+5.8
	SNR=8.2						
EKS2	Erkin-Say	147.88	56	*e*PKPdf	PKPdf	14 36 43.6	+0.9
EKS2				*e*PKPab	PKPab	14 36 48.3	-2.5
KURK	Kurchatov	148.18	40	*e*PKPbc	PKPdf	14 36 45.2	+2.3
KURK				*e*PKPab	PKPab	14 36 48.2	-3.5
HYB	Hyderabad	148.40	105	*e*P	PKPdf	14 36 49.0	+4.8
HYB				*e*		14 37 24.0	
HYB	Hyderabad	148.40	105	*i* PKP	PKPdf	14 36 49.0	+4.8
AAK	Ala-Archa	148.40	56	P	PKPdf	14 36 50.1	+6.5
	SNR=11						
AAK	Ala-Archa	148.40	56	*e*PKPdf	PKPdf	14 36 44.5	+1.0
UCH	Uchtor	148.50	57	P	PKPdf	14 36 50.8	+7.1
	SNR=10						
UCH	Uchtor	148.50	57	*e*PKPdf	PKPdf	14 36 44.9	+1.2
UCH				*e*PKPab	PKPab	14 36 50.6	-2.7

CHMS	**Chumysh**	**148.50**	**55**	P	PKPdf	14 36 49.9	+6.3
	SNR=5.5						
KBK	**Karagaybulak**	**148.72**	**56**	P	PKPdf	14 36 50.9	+6.9
	SNR=7.2						
KZA	**Kyzart**	**149.06**	**57**	P	PKPdf	14 36 52.2	+7.6
	SNR=6.8						
TKM2	**Tokmak 2**	**149.12**	**55**	P	PKPdf	14 36 51.5	+6.9
	SNR=11						
TKM2	**Tokmak 2**	**149.12**	**55**	*e*PKPdf	PKPdf	14 36 46.7	+2.0
TKM2				*e*PKPab	PKPab	14 36 54.9	-0.9
ZAL	**Zalesovo**	**149.38**	**30**	PKP	PKPdf	14 36 46.9	+2.2
	comp=N,9.4nm,0.4s,baz=187,slow=4.0,SNR=7.3						
ZAL				PKPbc	PKPdf	14 36 50.9	+6.2
	comp=N,14nm,0.4s,baz=193,slow=3.9,SNR=7.2						
ZAL				pPKPbc		14 37 26.5	
	comp=N,5.5nm,0.6s,baz=158,slow=3.2,SNR=5.6						
ZAL	**Zalesovo**	**149.38**	**30**	PKP	PKPdf	14 36 46.9	+2.2
ZAL				PKPbc	PKPdf	14 36 50.9	+6.2
ZAL				pPKPbc		14 37 26.5	
KOLN	**Koldanda**	**156.35**	**88**	*e*P	PKPab	14 37 25.1	-1.6
	comp=N,12nm,0.8s						
GKN	**Gorkha**	**157.29**	**88**	*e*P	PKPab	14 37 29.3	-1.5
	comp=N,13nm,0.7s						
DMN	**Daman**	**157.63**	**89**	*e*P	PKPab	14 37 31.0	-1.2
	comp=N,15nm,0.8s						
KKN	**Kakani**	**157.81**	**89**	*e*P	PKPab	14 37 31.7	-1.3
	comp=N,20nm,0.7s						
PKI	**Pulchoki**	**157.89**	**89**	*e*P	PKPab	14 37 32.2	-1.2
GUN	**Gumba**	**158.36**	**88**	*e*P	PKPab	14 37 34.5	-0.9
SONM	**Songino Array**	**161.54**	**9**	PKP	PKPdf	14 37 03.3	+2.5
	comp=N,0.5nm,0.9s,baz=333,slow=2.8,SNR=3.8						
SONM				pPKP		14 37 38.9	
	comp=N,0.6nm,0.8s,slow=1.2,SNR=3.4						
SONM				PKPab	PKPab	14 37 48.1	-0.4
	comp=N,0.5nm,0.7s,baz=315,slow=5.2,SNR=4.9						
CMAR	**Chiang Mai Arr**	**164.68**	**134**	PKP	PKPdf	14 37 07.0	+2.2
	comp=N,0.7nm,0.9s,baz=244,slow=1.6,SNR=5.8						
CMAR				PKPab	PKPab	14 38 01.1	-1.9
	comp=N,0.8nm,0.8s,baz=236,slow=4.4,SNR=5.2						

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*NEIC **03** 14:28:26.1, 45.34N×9.43E, h14^{km}, MD2.5(ROM), ML2.4(LDG), After ROM.*

*LDG **03** 14:28:26.9±0.2, 45.33N×9.35E, h10^{km}, Ml2.4/12, Error ellipse: s-maj=3.8km s-min=1.9km az=87.0*

ROM 03 14:28:26.1±0.1**, 45.34N×9.43E, h14^{km}**±2^{km}**, MD2.5**/4**, ML1.9**/3**, 2C, Error ellipse: s-maj=1.2km s-min=1.1km az=90.0, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOB	**Bobbio (Coli)**	**0.57**	**178**	⇑*i*PG	Pg	14 28 37.8	0.0
BOB				SG	Sg	14 28 46.4	+0.7
	6.0nm,0.2s						
BOB	**Bobbio (Coli)**	**0.57**	**178**	⇑*i*Pg	Pg	14 28 37.8	-0.1
BOB				*e*Sg	Sg	14 28 46.4	+0.8
VAI	**Varese**	**0.70**	**319**	*e*PG	Pg	14 28 40.4	+0.1
VAI				SG	Sg	14 28 49.6	-0.2
	35nm,0.2s						
VAI	**Varese**	**0.70**	**319**	*e*Pg	Pg	14 28 40.4	+0.1
VAI				*e*Sg	Sg	14 28 49.6	-0.2
SAL	**Salo**	**0.82**	**71**	*e*PG	Pg	14 28 42.7	0.0
SAL				SG	Sg	14 28 54.1	+0.4
SAL	**Salo**	**0.82**	**71**	*e*Pg	Pg	14 28 42.7	+0.1
SAL				*e*Sg	Sg	14 28 54.1	+0.4
MABI	**Malga Bissina**	**1.05**	**46**	*e*PN	Pn	14 28 45.8	-0.5
MABI				SN	Sn	14 29 00.3	-0.3
MABI	**Malga Bissina**	**1.05**	**46**	*e*Pg	Pg	14 28 45.8	-1.4
MABI				*e*Sg	Sg	14 29 00.3	-0.9
ORO	**Oropa**	**1.05**	**286**	*e*PN	Pn	14 28 45.7	-0.7
	37nm,0.2s						
ORO	**Oropa**	**1.05**	**286**	*e*Pg	Pg	14 28 45.7	-1.6
MCGN	**Macugnaga**	**1.18**	**302**	*e*PN	Pn	14 28 48.9	+0.7
MCGN				SN	Sn	14 29 04.0	-0.1
	15nm,0.2s						
MCGN	**Macugnaga**	**1.18**	**302**	*e*Pg	Pg	14 28 48.9	-0.9
MCGN				*e*Sg	Sg	14 29 04.0	-1.7
LPG	**La Plagne**	**1.89**	**276**	*e*Pn	Pn	14 28 57.1	-1.2
LPG				*e*Sn	Sn	14 29 18.6	-3.4
	2.3nm,0.2s						
LPL	**La Plagne**	**1.90**	**276**	*e*Pn	Pn	14 28 57.1	-1.4
LPL				*e*Sn	Sn	14 29 18.9	-3.5
	4.3nm,0.3s						
MBDF	**Montbardon**	**1.98**	**253**	*e*Pn	Pn	14 28 57.1	-2.5
MBDF				*e*Sn	Sn	14 29 20.9	-3.4
	2.9nm,0.3s						
SBF	**Sospel**	**2.05**	**225**	*e*Pn	Pn	14 28 59.2	-1.4
SBF				*e*Sn	Sn	14 29 23.4	-2.7
	6.5nm,0.3s						
ORIF	**Oris-en-Rattie**	**2.54**	**262**	*e*Pn	Pn	14 29 06.2	-1.5
ORIF				*e*Sn	Sn	14 29 34.5	-4.2
	2.5nm,0.2s						
CABF	**La Chapelle**	**2.65**	**300**	*e*Pn	Pn	14 29 07.7	-1.5
CABF				*e*Sn	Sn	14 29 36.8	-4.6
	0.9nm,0.2s						
FRF	**La Foret Royal**	**2.67**	**229**	*e*Pn	Pn	14 29 07.5	-2.0
FRF				*e*Sn	Sn	14 29 37.3	-4.5
	1.3nm,0.2s						
PGF	**Pioggiola**	**2.81**	**186**	*e*Pn	Pn	14 29 10.2	-1.3
PGF				*e*Sn	Sn	14 29 41.0	-4.4
	2.4nm,0.3s						
LMR	**La Mourre**	**2.90**	**227**	*e*Pn	Pn	14 29 10.8	-1.9
LMR				*e*Sn	Sn	14 29 43.0	-4.7
	2.1nm,0.3s						
HINF	**Hinteralfeld**	**3.05**	**325**	*e*Pn	Pn	14 29 12.8	-2.0
HINF				*e*Sn	Sn	14 29 47.4	-4.0
	2.9nm,0.2s						
HAU	**Haudompre**	**3.41**	**323**	*e*Pn	Pn	14 29 18.0	-1.9
HAU				*e*Sn	Sn	14 29 56.7	-3.8
	7.5nm,0.3s						
CDF	**Champ du Feu**	**3.41**	**335**	*e*Pn	Pn	14 29 17.6	-2.4
CDF				*e*Sn	Sn	14 29 55.7	-4.9
	2.6nm,0.3s						

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*NAO **03** 14:36:06.9±4.9, 68.09N×33.76E, ML2.6*

*CSEM **03** 14:36:07.4±0.7, 68.10N×33.52E, h2^{km}, ML2.1, Error ellipse: s-maj=17.0km s-min=8.6km az=89.0, Mining explosion.*

HEL 03 14:36:10.2±0.3**, 68.08N×33.03E, ML2.1, ML1.8**(BER)**, ML2.6**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGF	**Sodankyl**	**2.55**	**259**	*e*P	Pn	14 36 52.3	-1.3
SGF				*e*SG	Sg	14 37 28.6	-6.6
SGF	**Sodankyl**	**2.55**	**259**	P	Pn	14 36 52.2	-1.3
SGF				Sg	Sg	14 37 28.6	-6.6
MSF	**Maaselka**	**2.68**	**218**	*e*P	Pn	14 36 54.4	-1.0
MSF				*e*SG	Sg	14 37 32.5	-6.9
MSF	**Maaselka**	**2.68**	**218**	P	Pn	14 36 54.3	-1.0
MSF				Sg	Sg	14 37 32.5	-7.0
KEV	**Kevo**	**2.75**	**311**	*e*P	Pn	14 36 55.9	-0.5
KEV				*e*SG	Sg	14 37 34.5	-7.4
KEV				MSG		14 37 36.2	
	comp=Z,7.4nm,0.2s						
KEV	**Kevo**	**2.75**	**311**	P	Pn	14 36 55.8	-0.6
KEV				Sg	Sg	14 37 34.4	-7.4
ARA0	**ARCESS Array S**	**3.10**	**302**	Pn	Pn	14 36 59.9	-1.4
	baz=116,slow=16						
ARA0				Sn	Sn	14 37 40.6	+1.0
	baz=112,slow=28						
ARA0				Lg		14 37 51.1	
	baz=109,slow=28						
ARA0	**ARCESS Array S**	**3.10**	**302**	*e*P	Pn	14 36 59.9	-1.4
ARA0				*e*SB	Sb	14 37 40.6	-4.0
KTK1	**Kautokeino**	**3.72**	**289**	*e*P	Pn	14 37 09.5	-0.5
KTK1				AML	AML	14 38 14.0	
	comp=Z,5.3nm,0.3s						
KTK1	**Kautokeino**	**3.72**	**289**	P	Pn	14 37 09.5	-0.6
	comp=Z,5.3nm,0.3s						
OUL	**Oulu**	**4.14**	**227**	*e*SB	Sb	14 38 13.4	-1.4
OUL				MSG		14 38 23.5	
	comp=Z,3.5nm,0.3s						
FIA0	**FINESS Array S**	**7.29**	**207**	Pn	Pn	14 37 56.9	-3.7
	baz=23,slow=14						
FIA0				Sn	Sn	14 39 16.9	-8.1
	baz=32,slow=22						
FIA0	**FINESS Array S**	**7.29**	**207**	*e*P	Pn	14 37 56.9	-3.7
FIA0				*e*S	Sn	14 39 16.9	-8.1

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*NEIC **03** 14:45:40.5, 16.64N×100.50W, h5^{km}, MD4.0(MEX), After MEX.*

MEX 03 14:45:40.5±0.4**, 16.64N×100.50W, h5^{km}**±4^{km}**, MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.46**	**28**	*i* P	Pg	14 45 49.0	-0.8
CAIG				*i* S	Sg	14 45 55.9	-0.1
ACX	**Acapulco**	**0.60**	**68**	*i* P	Pg	14 45 51.5	-1.0
ACX				*i* S	Sg	14 46 00.0	-0.5
PLIG	**Platanillo**	**1.99**	**28**	*e*P	Pn	14 46 12.2	-2.9
PLIG				*i* S	Sn	14 46 35.3	-5.3
PPM	**Popocatepetl**	**3.00**	**36**	*i* P	Pn	14 46 27.6	-2.0
PPM				*i* S	Sn	14 47 02.4	-4.0

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*BJI **03** 14:59:12.0, 34.20S×179.41E, h154^{km}, mB5.5, mb5.1*

*MOS **03** 14:59:13.6±1.4, 34.39S×179.29E, h159^{km}, mb5.4/12, Error ellipse: s-maj=16.2km s-min=15.3km az=33.9*

*NEIC **03** 14:59:14.3±0.8, 34.44S×179.32E, h157^{km}±6^{km}, mb5.3/47, MW5.7, Error ellipse: s-maj=9.1km s-min=6.4km az=177.0, Moment Tensor Solution. s16 Moment tensor: Scale 10^{17} Nm; M$_{rr}$1.68; M$_{\theta\theta}$-0.58; M$_{\phi\phi}$-1.10; M$_{r\theta}$1.40; M$_{\theta\phi}$-0.80; M$_{\phi r}$3.49; Best double couple: M$_0$4.1×10^{17} NP1:ϕ_s227°, δ13°, λ113°. NP2:ϕ_s23°, δ78°, λ85°. Principal axes: T 4.16, Plg56°, Azm287°; N -.09, Plg5°, Azm24°; P -4.08, Plg33°, Azm118°;*

*HRVD **03** 14:59:14.3±0.2, 34.36S×179.71E, h156^{km}, MW5.7/74, Centroid moment Tensor Solution. LP body waves: s65,c132;Mantle waves: s74,c155; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.19±.06; M$_{\theta\theta}$-0.67±.08; M$_{\phi\phi}$-0.52±.08; M$_{r\theta}$1.02±.05; M$_{\theta\phi}$-0.73±.08; M$_{\phi r}$4.15±.05; Best double couple: M$_0$4.45×10^{17} NP1: ϕ_s247°, δ11°, λ141°. NP2:ϕ_s16°, δ83°, λ81°. Principal axes: T 4.59, Plg51°, Azm276°; N -.28, Plg9°, Azm17°; P -4.31, Plg37°, Azm113°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **03** 14:59:14.2, 34.39S×179.32E, h155^{km}, MB5.2*

*IDC **03** 14:59:15.9±0.5, 34.38S×179.35E, h170^{km}±4^{km}, mb5.0/20, mb1 5.1/23, mb1mx5.1/24, MS4.5/12, Ms1 4.5/12, ms1mx4.2/22, Error ellipse: s-maj=11.8km s-min=7.5km az=177.0*

ISC 03 14:59:14.4±0.6**, 34.59S**±0.05×**179.37E**±0.04**, h169^{km}**±5^{km}**, h161^{km}**±2.1^{km}**:pP-P, n450,** σ**1^{s}30**/224**, mb5.3**/73**, 23C-17D, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**3.09**	**196**	P	**P**	**15 00 03.3**	**-1.0**
MXZ	**Matakaoa Point**	**3.09**	**196**	P	**P**	**15 00 03.1**	**-1.2**
MXZ				S	**S**	**15 00 40.9**	**-1.8**
MXZ				*e*T		15 02 53.4	
WIZ	**White Island**	**3.42**	**210**	P	**P**	**15 00 09.2**	**+0.6**
WIZ	**White Island**	**3.42**	**210**	P	**P**	**15 00 09.1**	**+0.5**
PUZ	**Puketiti**	**3.59**	**194**	P	**P**	**15 00 09.4**	**-1.3**
PUZ				S	**S**	**15 00 53.0**	**-1.0**
PUZ	**Puketiti**	**3.59**	**194**	P	**P**	**15 00 09.4**	**-1.3**
PUZ				S	**S**	**15 00 52.9**	**-1.1**
KUZ	**Kuaotunu**	**3.67**	**233**	*e*P	**P**	**15 00 14.1**	**+2.4**
KUZ	**Kuaotunu**	**3.67**	**233**	P	**P**	**15 00 14.0**	**+2.3**
TGRZ	**Tauranga**	**4.02**	**218**	P	**P**	**15 00 17.5**	**+1.3**
MWZ	**Matawai**	**4.02**	**201**	P	**P**	**15 00 15.4**	**-0.8**
MWZ				S	**S**	**15 01 05.6**	**+1.7**
MWZ	**Matawai**	**4.02**	**201**	P	**P**	**15 00 15.3**	**-0.9**
MWZ				S	**S**	**15 01 05.6**	**+1.7**
MWZ	**Matawai**	**4.02**	**201**	ScS	ScS	15 14 13.2	+1.2
MARZ	**Manawahe**	**4.03**	**212**	P	**P**	**15 00 17.4**	**+1.1**
URZ	**Urewera**	**4.09**	**206**	P	**P**	**15 00 16.1**	**-1.0**
	114nm,0.3s,baz=25,slow=0.3,SNR=322						
URZ				S	**S**	**15 01 06.7**	**+1.2**
	1µm,0.3s,baz=152,slow=22,SNR=20						
URZ	**Urewera**	**4.09**	**206**	*e*P	**P**	**15 00 15.8**	**-1.3**
URZ	**Urewera**	**4.09**	**206**	P	**P**	**15 00 15.7**	**-1.4**
EDRZ	**Edgecumbe**	**4.11**	**210**	P	**P**	**15 00 18.4**	**+1.1**
LIRZ	**Lichensteins R**	**4.18**	**214**	P	**P**	**15 00 20.0**	**+1.8**
LIRZ	**Lichensteins R**	**4.18**	**214**	P	**P**	**15 00 19.9**	**+1.7**
MKAZ	**Moumakai**	**4.24**	**232**	P	**P**	**15 00 22.0**	**+2.9**
MTAZ	**Motutapu**	**4.24**	**238**	P	**P**	**15 00 22.1**	**+3.0**
MTAZ	**Motutapu**	**4.24**	**238**	P	**P**	**15 00 22.0**	**+2.9**
OTAZ	**Otara**	**4.32**	**236**	P	**P**	**15 00 23.2**	**+3.2**
WCZ	**Waipu Caves**	**4.33**	**250**	⇓P	**P**	**15 00 22.7**	**+2.5**
KAAZ	**Kauri Point**	**4.41**	**238**	P	**P**	**15 00 25.3**	**+4.1**
TOZ	**Tahuroa Road**	**4.43**	**224**	*e*P	**P**	**15 00 23.9**	**+2.4**
TOZ	**Tahuroa Road**	**4.43**	**224**	P	**P**	**15 00 24.0**	**+2.5**
PATZ	**Paeroa**	**4.54**	**213**	P	**P**	**15 00 24.5**	**+1.5**
WTAZ	**Waiatarua**	**4.55**	**238**	*e*P	**P**	**15 00 26.9**	**+3.8**
WTAZ	**Waiatarua**	**4.55**	**238**	P	**P**	**15 00 26.8**	**+3.7**
KNZ	**Kokohu**	**4.63**	**197**	*e*P	**P**	**15 00 22.0**	**-2.1**
KNZ	**Kokohu**	**4.63**	**197**	P	**P**	**15 00 22.2**	**-1.9**
OUZ	**Omahuta**	**4.79**	**261**	*e*P	**P**	**15 00 27.8**	**+1.6**
OUZ	**Omahuta**	**4.79**	**261**	P	**P**	**15 00 27.8**	**+1.6**
WHTZ	**Whakaora**	**4.91**	**213**	*e*P	**P**	**15 00 30.3**	**+2.5**
BKZ	**Black Stump Fm**	**5.12**	**206**	*e*P	**P**	**15 00 28.6**	**-1.9**
BKZ	**Black Stump Fm**	**5.12**	**206**	*e*P	**P**	**15 00 27.6**	**-2.9**
RATZ	**Rangitukua**	**5.16**	**213**	P	**P**	**15 00 31.5**	**+0.5**
HIZ	**Hauiti**	**5.34**	**222**	P	**P**	**15 00 35.5**	**+2.0**
NGZ	**Ngauruhoe**	**5.49**	**212**	P	**P**	**15 00 34.5**	**-0.8**
CNZ	**Chateau**	**5.53**	**213**	*e*P	**P**	**15 00 34.3**	**-1.6**
TUVZ	**Tukino**	**5.54**	**211**	*e*P	**P**	**15 00 35.1**	**-0.9**
FWVZ	**Far West T-bar**	**5.57**	**212**	P	**P**	**15 00 35.3**	**-1.2**
PWZ	**Pawanui**	**5.79**	**199**	*e*P	**P**	**15 00 35.1**	**-4.2**
VRZ	**Vera Road**	**5.85**	**218**	*e*P	**P**	**15 00 40.5**	**+0.4**
TSZ	**Takapari Road**	**6.10**	**205**	*e*P	**P**	**15 00 39.2**	**-4.2**
RAEZ	**Rainy Point**	**6.16**	**219**	*e*P	**P**	**15 00 45.9**	**+1.7**
WAZ	**Wanganui**	**6.23**	**213**	*e*P	**P**	**15 00 43.3**	**-1.9**
NEZ	**North Egmont**	**6.30**	**221**	*e*P	**P**	**15 00 48.4**	**+2.3**
DFE	**Dawson Falls**	**6.34**	**220**	*e*P	**P**	**15 00 48.8**	**+2.2**
BFZ	**Birch Farm**	**6.57**	**201**	*e*P	**P**	**15 00 46.8**	**-2.9**
MRZ	**Mangatainoka R**	**6.77**	**205**	*e*P	**P**	**15 00 47.6**	**-4.7**
KIW	**Kapiti Island**	**7.19**	**208**	*e*P	**P**	**15 00 53.3**	**-4.6**
MTW	**Mount Morrison**	**7.24**	**204**	*e*P	**P**	**15 00 53.3**	**-5.3**
CAW	**Cannon Point**	**7.34**	**206**	*e*P	**P**	**15 00 54.9**	**-5.1**
MRW	**Makara Radio**	**7.59**	**208**	*e*P	**P**	**15 00 58.9**	**-4.3**
WEL	**Wellington**	**7.61**	**207**	*e*P	**P**	**15 00 58.6**	**-4.9**
BHW	**Baring Head**	**7.68**	**206**	*e*P	**P**	**15 00 59.9**	**-4.5**
NNZ	**Nelson**	**8.14**	**214**	*e*P	**P**	**15 01 05.8**	**-4.7**
QRZ	**Quartz Range**	**8.26**	**219**	*e*P	**P**	**15 01 08.1**	**-3.9**
THZ	**Tophouse**	**8.79**	**213**	*e*P	**P**	**15 01 14.5**	**-4.5**
THZ	**Tophouse**	**8.79**	**213**	ScS	ScS	15 14 15.5	-2.0
KHZ	**Kahutara**	**9.05**	**209**	*e*P	**P**	**15 01 17.3**	**-5.2**
DSZ	**Denniston Nort**	**9.30**	**218**	*e*P	**P**	**15 01 21.0**	**-4.8**
LTZ	**Lake Taylor**	**9.88**	**212**	*e*P	**P**	**15 01 27.8**	**-5.5**
MQZ	**McQueen's Vall**	**10.49**	**208**	*e*P	**P**	**15 01 35.0**	**-6.3**
WVZ	**Waitaha Valley**	**10.82**	**216**	*e*P	**P**	**15 01 40.7**	**-4.9**
RPZ	**Rata Peaks**	**11.16**	**213**	P	**P**	**15 01 46.1**	**-3.9**
	18nm,0.3s,baz=57,slow=3.7,SNR=60						
RPZ				S	**S**	**15 03 45.0**	**-7.2**
	42nm,0.3s,baz=306,slow=2.1,SNR=16						
RPZ	**Rata Peaks**	**11.16**	**213**	*e*P	**P**	**15 01 45.1**	**-4.9**
FOZ	**Fox Glacier**	**11.70**	**217**	*e*P	**P**	**15 01 51.0**	**-5.9**
LBZ	**Lake Benmore**	**12.08**	**213**	*e*P	**P**	**15 01 56.7**	**-5.2**
ODZ	**Otahua Downs**	**12.40**	**210**	*e*P	**P**	**15 02 00.8**	**-5.3**
JCZ	**Jackson Bay**	**12.53**	**218**	*e*P	**P**	**15 02 02.8**	**-4.9**
WKZ	**Wanaka**	**12.95**	**215**	*e*P	**P**	**15 02 07.8**	**-5.3**
EAZ	**Earnscleugh**	**13.13**	**213**	*e*P	**P**	**15 02 11.2**	**-4.1**
MSZ	**Milford Sound**	**13.37**	**218**	*e*P	**P**	**15 02 14.3**	**-4.1**
TUZ	**Tuapeka**	**13.56**	**210**	*e*P	**P**	**15 02 17.6**	**-3.1**
MLZ	**Mavora Lakes**	**13.74**	**215**	*e*P	**P**	**15 02 21.2**	**-1.8**
WHZ	**Wether Hill Ro**	**14.25**	**214**	*e*P	**P**	**15 02 28.7**	**-0.8**
DZM	**Mont Dzumac**	**16.86**	**314**	⇑*i*P	**P**	**15 03 02.4**	**+0.4**
NOUC	**Port Laguerre**	**16.92**	**314**	⇑*e*P	**P**	**15 03 02.8**	**+0.2**
RAR	**Rarotonga**	**22.68**	**59**	P	**P**	**15 04 01.4**	**-0.8**
	63nm,0.8s,mb5.1,baz=232,slow=7.7,SNR=8.7						
RAR				S	**S**	**15 08 02.6**	**+8.5**
	56nm,0.8s,baz=76,slow=20,SNR=4.6						
RAR				LR	LR	15 10 49.2	
	comp=Z,894nm,20.2s,baz=49,slow=31						
RAR	**Rarotonga**	**22.68**	**59**	P	**P**	**15 04 01.4**	**-0.8**
RAR				S	ScS	15 15 02.6	+7.4
RAR				pmax	pmax		
	comp=Z,63nm,0.8s						
RAR				smax			
	comp=N,56nm,0.8s						
RAR	**Rarotonga**	**22.68**	**59**	*e*P	**P**	**15 04 01.1**	**-1.1**
RIV	**Riverview**	**23.32**	**264**	*e*P	**P**	**15 04 12.8**	**+4.6**
CNB	**Canberra Magne**	**24.57**	**260**	⇓*i*P	**P**	**15 04 24.1**	**+4.1**
	comp=N,68nm,0.9s,mb5.2						
CNB				*e*PP	PP	15 04 56.7	-5.8
CNB				*e*PCP	PcP	15 07 53.6	-0.8
CNB				*e*SCP		15 11 16.4	
TOO	**Toolangi**	**27.46**	**254**	*e*P	**P**	**15 04 49.9**	**+3.3**
	comp=N,24nm,1.1s,mb4.7						
TOO				*e*pP	pP	15 05 25.6	+4.4
TOO				*e*PP	PP	15 05 50.5	+9.5
TOO				*e*PCP	PcP	15 08 00.0	-0.9
TOO				*e*S	**S**	**15 09 24.0**	**+11**
TOO				*e*SCP		15 11 24.3	
TOO				*e*SCS	ScS	15 15 14.4	-0.3
TBI	**Tubuai**	**29.36**	**76**	*e*P	**P**	**15 05 03.2**	**-0.6**
	comp=N,94nm,0.8s,mb5.6						
TBI				*e*LR	LR	15 12 42.1	
	comp=N,2µm,26.5s,baz=241						
STKA	**Stephens Creek**	**31.60**	**264**	*e*P	**P**	**15 05 23.9**	**+0.6**
	comp=N,25nm,0.8s,mb5.0						
STKA				*e*PP	PP	15 06 28.2	-5.8
STKA				*e*PCP	PcP	15 08 10.3	-1.2
STKA				*e*SCP		15 11 37.2	
STKA				*e*PCS		15 11 53.1	
STKA				*e*SCS	ScS	15 15 33.8	-0.5
STKA	**Stephens Creek**	**31.60**	**264**	P	**P**	**15 05 23.7**	**+0.4**
	comp=N,24nm,0.5s,mb5.2,baz=100,slow=9.4,SNR=23						
STKA				PcP	PcP	15 08 09.2	-2.4
	comp=N,19nm,0.8s,baz=35,slow=1.9,SNR=4.0						
STKA				ScP		15 11 36.4	
	comp=N,13nm,0.8s,baz=58,slow=4.3,SNR=7.4						
STKA				LR	LR	15 16 51.0	
	comp=N,1µm,19.9s,baz=355,slow=33						
PAE	**Paea**	**32.40**	**67**	*e*P	**P**	**15 05 28.5**	**-1.9**
	comp=N,83nm,0.9s,mb5.4						
PPT	**Papeete**	**32.46**	**66**	P	**P**	**15 05 29.6**	**-1.3**
	comp=N,12nm,0.4s,mb5.0,baz=220,slow=7.7,SNR=4.0						
PPT	**Papeete**	**32.46**	**66**	*e*P	**P**	**15 05 29.2**	**-1.7**
	comp=N,28nm,0.9s,mb5.0						
PPT	**Papeete**	**32.46**	**66**	*e*LR	LR	15 14 03.6	
	comp=N,1µm,22.0s,baz=232						
PPT	**Papeete**	**32.46**	**66**	P	**P**	**15 05 29.6**	**-1.3**
PPT				pmax	pmax		
	comp=Z,12nm,0.4s						
TVO	**Taravao**	**32.58**	**67**	*e*P	**P**	**15 05 30.3**	**-1.6**
	comp=Z,122nm,1.2s,mb5.5						
CTA	**Charters Tower**	**32.60**	**288**	*e*P	**P**	**15 05 32.6**	**+0.4**
	comp=Z,185nm,0.7s,mb5.9						
CTA				*e*S	**S**	**15 10 42.3**	**+8.0**
CTA				*e*SCP		15 11 41.8	
CTA	**Charters Tower**	**32.60**	**288**	P	**P**	**15 05 32.3**	**+0.1**
	comp=Z,232nm,0.8s,mb6.0,baz=109,slow=11,SNR=145						
CTA				ScP		15 11 40.3	
	comp=Z,26nm,0.9s,baz=98,slow=2.6,SNR=8.9						
CTA				LR	LR	15 17 54.7	
	comp=Z,450nm,18.7s,baz=147,slow=34						
CTA	**Charters Tower**	**32.60**	**288**	P	**P**	**15 05 32.3**	**+0.1**
CTA				pmax	pmax		
	comp=Z,233nm,0.8s						
CTA				pmax	pmax		
	comp=N,26nm,0.9s						
CTA				MLR	MLR		
	comp=Z,450nm,18.7s						
CTAO	**Charters Tower**	**32.60**	**288**	⇑*e*P	**P**	**15 05 32.6**	**+0.5**
	comp=Z,234nm,0.8s,mb6.0						
CTAO				*e*ScP		15 11 40.8	
TIAR	**Tiarei**	**32.64**	**67**	*e*P	**P**	**15 05 30.9**	**-1.6**
	comp=Z,192nm,0.8s,mb5.9						
MEH	**Mehetia**	**33.43**	**69**	*e*P	**P**	**15 05 37.9**	**-1.3**
	comp=Z,73nm,1.1s,mb5.3						
PMG	**Port Moresby**	**38.69**	**303**	P	**P**	**15 06 23.5**	**-0.1**
	comp=Z,84nm,0.9s,mb5.4,baz=125,slow=4.8,SNR=25						
PMG				ScP		15 12 01.7	
	comp=Z,15nm,1.0s,baz=151,slow=6.7,SNR=4.4						
PMG				LR	LR	15 20 05.2	
	comp=Z,802nm,18.1s,baz=313,slow=32						
PMG	**Port Moresby**	**38.69**	**303**	P	**P**	**15 06 23.5**	**-0.1**
PMG						15 12 01.7	
PMG				pmax	pmax		
	comp=Z,84nm,0.9s						
PMG				pmax	pmax		
	comp=N,15nm,1.0s						
PMG	**Port Moresby**	**38.69**	**303**	⇑*e*P	**P**	**15 06 23.2**	**-0.3**
	comp=N,88nm,0.9s,mb5.4						
PMG				*e*		15 12 02.2	
DRV	**Dumont d'Urvil**	**39.43**	**203**	P	**P**	**15 06 27.0**	**-2.1**
DRV				S	**S**	**15 12 13.0**	**-4.8**
DRV				L		15 15 00.0	
DRV				R		15 18 00.0	
ASAR	**Alice Springs**	**40.88**	**273**	P	**P**	**15 06 41.2**	**-0.2**
	comp=N,60nm,0.6s,mb5.4,baz=113,slow=7.4,SNR=327						
ASAR				pP	pP	15 07 17.5	-0.8
	comp=N,31nm,0.7s,baz=118,slow=7.2,SNR=2.3						
ASAR				PcP	PcP	15 08 37.6	-1.7
	comp=N,19nm,0.6s,baz=121,slow=3.9,SNR=4.9						
ASAR				S	**S**	**15 12 39.9**	**+0.1**
	comp=N,4.6nm,0.8s,baz=112,slow=15,SNR=3.3						
ASAR				PKiKP		15 15 44.6	
	comp=N,1.5nm,0.7s,baz=120,slow=1.2,SNR=6.2						
ASAR				LR	LR	15 22 13.7	
	comp=N,880nm,18.7s,baz=120,slow=34						
ASAR				PKPPKP		15 38 39.4	
	comp=N,2.0nm,1.1s,baz=300,slow=1.8,SNR=4.3						
ASPA	**Alice Springs**	**40.88**	**273**	*e*P	**P**	**15 06 41.1**	**-0.4**
ASPA				*e*pP	pP	15 07 17.8	-0.5
ASPA				*e*PCP	PcP	15 08 38.2	-1.2
ASPA				*e*S	**S**	**15 12 45.1**	**+5.3**
ASPA				*e*SCS	ScS	15 16 24.5	-1.2
RKT	**Rikitea**	**41.27**	**86**	*e*P	**P**	**15 06 45.5**	**+0.8**
	comp=N,206nm,1.1s,mb5.7						
RKT	**Rikitea**	**41.27**	**86**	*e*LR	LR	15 17 59.1	
	comp=N,2µm,37.2s						
WB2	**Warramunga Arr**	**42.25**	**278**	*e*P	**P**	**15 06 51.9**	**-0.8**
WB2				*e*sP	pP	15 07 26.2	-3.5
WB2				*e*S	**S**	**15 13 03.9**	**+4.0**
WB2				*e*SCS	ScS	15 16 34.0	-0.1
WRAB	**Tennant Creek**	**42.26**	**278**	*i* P	**P**	**15 06 51.9**	**-0.9**
WRAB	**Tennant Creek**	**42.26**	**278**	*e*P	**P**	**15 06 51.9**	**-0.8**
	comp=N,201nm,0.8s,mb5.8						
WRA	**Warramunga Arr**	**42.26**	**278**	P	**P**	**15 06 52.1**	**-0.7**
	comp=N,85nm,0.5s,mb5.6,baz=117,slow=7.7,SNR=327						
WRA				pP	pP	15 07 28.1	-1.7
	comp=N,30nm,0.6s,baz=119,slow=7.6,SNR=2.0						
WRA				PcP	PcP	15 08 42.0	-2.0
	comp=N,15nm,0.6s,baz=108,slow=3.3,SNR=5.8						
WRA				ScP		15 12 16.3	
	comp=N,4.9nm,0.8s,baz=119,slow=4.1,SNR=7.1						
WRA				S	**S**	**15 13 03.5**	**+3.4**
	comp=N,23nm,1.2s,baz=122,slow=14,SNR=9.8						
WRA				PKiKP		15 15 46.6	
	comp=N,1.3nm,0.8s,baz=105,slow=0.1,SNR=6.8						
WRA				pPKiKP		15 16 34.0	
	comp=N,1.8nm,0.9s,baz=117,slow=4.8,SNR=6.8						
WRA	**Warramunga Arr**	**42.26**	**278**	P	**P**	**15 06 52.1**	**-0.7**
WRA				*PP	pP	15 07 28.1	-1.7
WRA						15 08 42.0	
WRA				S	**S**	**15 13 03.5**	**+3.5**
WRA						15 16 34.0	
WRA				pmax	pmax		
	comp=Z,85nm,0.5s						
WRA				pmax	pmax		
	comp=N,30nm,0.6s						
WRA				pmax	pmax		
	comp=Z,15nm,0.6s						
WRA				pmax	pmax		
	comp=N,5.0nm,0.8s						
WRA				smax			
	comp=N,23nm,1.2s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FORT	**Forrest**	**42.98**	**260**	*e*P	**P**	**15 06 57.8**	**-0.7**
	comp=Z,238nm,0.4s,mb6.2						
FORT				*e*sP	sP	15 07 46.2	-9.0
SBA	**Scott Base**	**43.71**	**184**	⇑*i*P	**P**	**15 07 08.8**	**+5.1**
	comp=Z,52nm,0.8s,mb5.2						
SBA				*e*sP	sP	15 07 57.2	-3.2
SBA				*e*		15 08 49.5	
VNDA	**Vanda**	**43.72**	**185**	P	**P**	**15 07 06.7**	**+2.9**
	comp=Z,8.1nm,0.6s,mb4.5,baz=6.9,slow=8.4,SNR=29						
VNDA				sP	sP	15 08 01.9	+1.3
	comp=Z,13nm,0.9s,baz=306,slow=5.4,SNR=2.9						
VNDA				PcP	PcP	15 08 47.5	-0.7
	comp=Z,21nm,0.8s,baz=346,slow=4.1,SNR=5.6						
VNDA				ScP		15 12 23.5	
	comp=Z,6.9nm,0.8s,baz=326,slow=5.0,SNR=4.8						
VNDA				LR	LR	15 22 04.6	
	comp=Z,322nm,19.0s,baz=30,slow=31						

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VNDA Vanda             43.72 185   P       P       15 07 06.7 +2.9
VNDA                               *SP     sP      15 08 01.9 +1.3
VNDA                                               15 08 47.5
VNDA                               pmax    pmax
     comp=Z,8.0nm,0.6s
VNDA                               pmax    pmax
     comp=N,13nm,1.0s
VNDA                               pmax    pmax
     comp=Z,21nm,0.8s
VNDA                               pmax    pmax
     comp=N,7.0nm,0.8s
VNDA Vanda             43.72 185   P       P       15 07 06.7 +2.9
VNDA                               sP      sP      15 08 01.9 +1.3
VNDA                               PcP     PcP     15 08 47.5 -0.7
VNDA                               ScP             15 12 23.5
VNDA                               LR      LR      15 22 04.6
KAKA Kakadu            47.68 285   eP      P       15 07 34.0 -1.8
     comp=N,57nm,0.6s,mb5.4
KAKA                               eSCP            15 12 39.4
YOMI Yo Moklole        48.08 303⇓eP    P       15 07 38.9 -0.1
     comp=N,84nm,0.7s,mb5.5
FITZ Fitzroy Crossi    50.31 275   eP      P       15 07 54.5 -1.4
     comp=N,142nm,0.6s,mb5.8
FITZ                               eS      S       15 14 57.7 +3.7
FITZ Fitzroy Crossi    50.31 275   P       P       15 07 54.7 -1.1
     comp=N,163nm,0.6s,mb5.8,baz=171,slow=8.1,SNR=272
FITZ                               pP      pP      15 08 30.0 -4.0
     comp=N,44nm,0.9s,baz=173,slow=9.2,SNR=1.8
FITZ                               S       S       15 14 57.3 +3.3
     comp=N,3.5nm,0.9s,baz=16,slow=22,SNR=5.5
FITZ                               LR      LR      15 28 08.0
     comp=N,618nm,20.5s,baz=108,slow=34
CASY Casey             50.41 209⇓iP    P       15 07 57.0 +1.0
     comp=N,116nm,0.8s,mb5.6
NWAO Narrogin (SRO)    50.95 253   P       P       15 07 58.6 -1.9
     comp=N,66nm,0.8s,mb5.3,baz=114,slow=6.1,SNR=42
NWAO Narrogin (SRO)    50.95 253   P       P       15 07 58.7 -1.9
NWAO                               pmax    pmax
     comp=Z,66nm,0.8s
NWAO Narrogin (SRO)    50.95 253   eP      P       15 08 00.0 -0.6
     comp=Z,45nm,0.8s,mb5.2
KLBR Kellerberrin      51.01 255⇓iP    P       15 07 59.1 -1.9
     comp=Z,140nm,0.6s,mb5.8
KLBR                               eSCP            15 12 52.7
MUN  Mundaring         52.10 254⇓iP    P       15 08 07.5 -1.7
     comp=Z,66nm,0.5s,mb5.5
MUN                                eSCP            15 12 56.3
MBWA Marble Bar        53.70 268   eP      P       15 08 19.8 -1.3
     comp=Z,63nm,0.8s,mb5.4
QSPA South Pole Qui    55.53 180   eP      P       15 08 36.5 +2.9
     comp=Z,232nm,0.8s,mb6.1
NINI Niniconang        62.66 284⇓eP    P       15 09 24.4 +0.9
     comp=Z,132nm,0.9s,mb5.8
BUNI Buntu Taipa       62.66 286⇑eP    P       15 09 23.2 -0.3
KEDI Kedomdong         63.25 278⇓eP    P       15 09 27.8 +0.4
     comp=Z,86nm,0.7s,mb5.7
RATI Rata              63.60 278⇓eP    P       15 09 29.3 -0.4
     comp=Z,252nm,0.6s,mb6.2
KELI Kelakatan         64.73 278⇓eP    P       15 09 35.9 -1.1
     comp=Z,384nm,0.4s,mb6.6
SRDI Scrawed           64.87 277⇑eP    P       15 09 37.3 -0.6
     comp=Z,66nm,0.8s,mb5.5
MAW  Mawson            67.61 202   eP      P       15 09 55.3 +0.9
     comp=Z,125nm,0.9s,mb5.6
MAW                                ePCP    PcP     15 10 22.4 +2.3
MAW                                esP     sP      15 10 53.7 +0.8
MAW  Mawson            67.61 202   P       P       15 09 55.0 +0.6
     comp=Z,131nm,0.8s,mb5.7,baz=121,slow=7.6,SNR=69
MAW                                LR      LR      15 39 12.2
     comp=Z,230nm,19.7s,baz=304,slow=35
PMSA Palmer Station    69.37 156   eP      P       15 10 06.1 +1.0
     comp=Z,42nm,0.8s,mb5.2
CBIJ Chichi jima       70.74 325   LR      LR      15 38 56.9
     comp=Z,260nm,18.4s,baz=96,slow=34
SYO  Syowa Base        72.53 194  ⇓P       P       15 10 24.8 +0.9
SYO  Syowa Base        72.53 194  ⇑pP      pP      15 11 02.1 -2.7
TGY  Tagaytay City     73.61 300   P       P       15 10 31.5 +0.2
     comp=Z,138nm,0.5s,mb5.9,baz=159,slow=9.4,SNR=4.8
TGY                                pP      pP      15 11 08.6 -3.7
     comp=Z,81nm,0.5s,baz=108,slow=22,SNR=1.7
TGY  Tagaytay City     73.61 300   P       P       15 10 31.5 +0.2
TGY                                *PP     pP      15 11 08.6 -3.6
TGY                                pmax    pmax
     comp=Z,138nm,0.5s
TGY                                pmax    pmax
     comp=N,81nm,0.5s
USHA Ushuaia           73.70 146   P       P       15 10 32.1 +1.1
     comp=N,14nm,0.8s,mb4.8,baz=220,slow=5.3,SNR=4.6
SNAA Sanae             74.03 179⇑iP    P       15 10 33.9 +1.3
SNAA Sanae             74.03 179⇓i     PcP     15 10 47.8 +0.7
SNAA Sanae             74.03 179⇑i     pP      15 11 13.6  0.0
SNAA Sanae             74.03 179⇑iS    S       15 19 53.1 +3.5
SNAA Sanae             74.03 179   P       P       15 10 33.7 +1.1
     comp=N,39nm,1.0s,mb5.1,baz=168,slow=5.3,SNR=99
SNAA                               sP      sP      15 11 31.9 +0.2
     comp=N,19nm,1.1s,baz=170,slow=2.3,SNR=4.8
SNAA Sanae             74.03 179   P       P       15 10 33.7 +1.1
SNAA                               *SP     sP      15 11 31.9 +0.1
SNAA                               pmax    pmax
     comp=Z,39nm,1.0s
SNAA                               pmax    pmax
     comp=N,19nm,1.1s
VNA3 Neumayer Olymp    74.27 177⇑iP    P       15 10 37.5 +3.5
VNA3 Neumayer Olymp    74.27 177⇑i     PcP     15 10 52.0 +3.8
VNA3 Neumayer Olymp    74.27 177⇑i     pP      15 11 15.2 +0.2
VNA3 Neumayer Olymp    74.27 177⇑iS    S       15 19 59.1 +6.8
MAIT Maitri            74.56 184   eP      P       15 10 37.2 +1.5
NVL  N'lazarevskaya    74.56 184⇑eP    P       15 10 36.0 +0.3
NVL                                e       pP      15 11 15.0 -1.7
NVL                                eS      S       15 19 57.0 +1.5
NVL                                pmax    pmax
     comp=Z,138nm,1.0s,mb5.5
VNA2 Neumayer--Watz    74.67 178⇑iP    P       15 10 40.2 +3.9
VNA2 Neumayer--Watz    74.67 178⇑i     PcP     15 10 54.6 +4.7
VNA2 Neumayer--Watz    74.67 178⇑i     pP      15 11 18.6 +1.2
VNA2 Neumayer--Watz    74.67 178   S       S       15 20 02.2 +5.4
VNA1 Neumayer--Stat    74.92 177⇑iP    P       15 10 41.3 +3.6
VNA1 Neumayer--Stat    74.92 177           PcP     15 10 55.0 +4.0
VNA1 Neumayer--Stat    74.92 177⇑i     pP      15 11 19.5 +0.7
KGM  Kluang            79.69 280⇓eP    P       15 11 04.5 -0.6
     comp=Z,83nm,0.8s,mb5.4
MAJO Matsushiro        80.49 327   eP      P       15 11 05.1 -3.8
MAT  Matsushiro        80.49 327   P       P       15 11 04.8 -4.1
MAT                                S       S       15 21 02.0 +2.3
MAT  Matsushiro        80.49 327   eP      P       15 11 05.0 -3.9
     comp=Z,20nm,1.2s,mb4.6
MAT                                eS      S       15 21 02.0 +2.3
IPM  Ipoh              83.03 280⇓eP    P       15 11 21.4 -1.1
     comp=Z,19nm,0.7s,mb4.9
QIZ  Qiongzhong        84.85 297   eP      P       15 11 31.4 -0.1
QIZ                                XP      sP      15 12 28.1 -3.7
QIZ                                S       S       15 21 44.9 +1.2
QIZ                                XS              15 22 52.7
QIZ                                AMB     AMB
     comp=Z,28nm,1.2s,mb4.9
QIZ                                AMB     AMB
     comp=Z,361nm,5.9s
ASAJ Asahikawa         85.18 334   LR      LR      15 48 15.5
     comp=Z,326nm,18.5s,baz=81,slow=35
SSE  Sheshan           85.26 313   P       P       15 11 30.1 -3.2
SSE                                PP      PP      15 14 53.5 -1.2
SSE                                S       S       15 21 41.2 -6.3
SSE                                AMB     AMB
     comp=Z,19nm,0.7s,mb4.9
SSE                                AMB     AMB
     comp=Z,351nm,4.7s
KIWB Kanaga Island     86.13   2   eP      P       15 11 35.9 -1.1
NJ2  Nanjing           87.34 312   eP      P       15 11 43.5 +0.1
NJ2                                AP      pP      15 12 23.3 -2.4
NJ2                                XP      sP      15 12 41.3 -2.6
NJ2                                SKS     SKS     15 21 50.0 -2.4
NJ2                                S       S       15 22 07.0 -0.3
NJ2                                XS              15 23 17.0
NJ2                                AMB     AMB
     comp=Z,60nm,1.1s,mb5.3
NJ2                                AMB     AMB
     comp=Z,2µm,4.4s
YSS  Yuzh-Sakhalins    87.60 336   eP      P       15 11 43.8 -0.4
YSS  Yuzh-Sakhalins    87.60 336   eP      P       15 11 43.4 -0.8
     comp=Z,16nm,0.6s,mb5.0
PET  Petropavlovsk     89.09 348   eP      P       15 11 50.1 -1.0
PET                                eS      S       15 22 24.0 +1.0
PET                                eSP     SP      15 23 37.1 +5.5
PET                                pmax    pmax
     comp=Z,80nm,0.9s,mb5.7
PET                                pmax    pmax
     comp=Z,100nm,14.1s
PET                                pmax    pmax
     comp=Z,45nm,0.4s,mb5.8
PET                                pmax    pmax
     comp=Z,100nm,13.4s
PET                                smax
     comp=E,400nm,19.0s
PET                                smax
     comp=N,400nm,20.4s
PET  Petropavlovsk     89.09 348   P       P       15 11 49.7 -1.4
     comp=N,38nm,0.6s,mb5.5
WHN  Wuhan             89.15 309   eP      P       15 11 52.6 +0.6
BAR  Barrett           89.89  49   eP      P       15 11 56.3 +0.9
MWC  Mount Wilson      90.08  47   eP      P       15 11 57.0 +0.7
NSHM Saint Helena R    90.44  42   P       P       15 11 58.3 +0.5
DL2  Dalian            90.57 319   eP      P       15 11 59.0 +0.6
DL2                                AP      pP      15 12 37.9 -3.0
DL2                                XP      sP      15 12 57.7 -1.5
DL2                                SKS     SKS     15 22 14.3 +2.4
DL2                                S       S       15 22 42.9 +6.2
DL2                                AMB     AMB
     comp=Z,200nm,5.0s
PFO  Pinyon Flat Ob    90.65  49   eP      P       15 12 00.5 +1.6
     comp=Z,17nm,0.9s,mb5.1
MDJ  Mudanjiang        90.86 327   P       P       15 11 59.5 -0.1
MDJ                                AP      pP      15 12 39.0 -3.2
MDJ                                XP      sP      15 12 54.8 -5.6
MDJ                                SCS     ScS     15 22 45.2 +3.7
MDJ                                SS      SS      15 28 51.1 +1.4
MDJ                                AMB     AMB
     comp=Z,17nm,1.2s,mb5.0
MDJ                                AMB     AMB
     comp=Z,109nm,7.5s
CMB  Columbia Colle    91.34  43   eP      P       15 12 01.9 -0.2
     comp=Z,16nm,0.8s,mb5.1
GYA  Guiyang           91.75 301⇓iP    P       15 12 04.6 +0.4
GYA                                PP      PP      15 15 49.4 +1.8
GYA                                S       S       15 22 40.3 -7.1
GYA                                AMB     AMB
     comp=Z,20nm,1.0s,mb5.1
GYA                                AMB     AMB
     comp=Z,80nm,3.8s
MTUM Tungsten Hills    91.91  45   eP      P       15 12 05.3 +0.6
WDC  Whiskeytown Da    91.95  40   eP      P       15 12 05.1 +0.3
     comp=Z,11nm,0.6s,mb5.1
CN2  Changchun         92.18 324   eP      P       15 12 04.3 -1.4
CN2                                eAP     pP      15 12 44.2 -4.1
CN2                                eS      S       15 22 50.8 +0.1
CN2                                AMB     AMB
     comp=Z,10.0nm,1.0s,mb4.8
CN2                                AMB     AMB
     comp=Z,250nm,7.0s
WCN  Washoe City       92.57  43   eP      P       15 12 08.3 +0.6
     comp=Z,13nm,0.8s,mb5.1
YBH  Yreka Blue Hor    92.68  39   P       P       15 12 08.4 +0.3
     comp=Z,5.4nm,0.6s,mb4.8,baz=261,slow=2.8,SNR=18
YBH  Yreka Blue Hor    92.68  39   P       P       15 12 08.4 +0.3
YBH                                pmax    pmax
     comp=Z,5.0nm,0.6s
YBH  Yreka Blue Hor    92.68  39   eP      P       15 12 08.1  0.0
     comp=Z,6.3nm,0.8s,mb4.8
CMAR Chiang Mai Arr    92.73 290   P       P       15 12 08.6 -0.3
     comp=Z,9.6nm,0.9s,mb4.9,baz=151,slow=2.7,SNR=52
CMAR                               pP      pP      15 12 51.6 +0.2
     comp=Z,2.4nm,0.9s,baz=155,slow=2.6,SNR=1.9
CMAR                               PP      PP      15 15 52.0 -3.4
     comp=Z,6.9nm,1.0s,baz=134,slow=5.0,SNR=11
CMAR                               PKKPbc          15 29 21.3
     comp=Z,0.7nm,0.8s,baz=297,slow=3.4,SNR=5.5
CMAR                               PKPPKP          15 37 30.4
     comp=Z,2.7nm,1.1s,baz=304,slow=4.2,SNR=7.0
CMAR                               LR      LR      15 55 08.0
     comp=Z,177nm,18.2s,baz=115,slow=36
CMAR Chiang Mai Arr    92.73 290   P       P       15 12 08.6 -0.3
CMAR                               *PP     pP      15 12 51.6 +0.2
CMAR                                               15 15 52.0
CMAR                                               15 29 21.3
CMAR                               pmax    pmax
     comp=Z,10.0nm,0.9s
CMAR                               pmax    pmax
     comp=Z,2.0nm,0.9s
CMAR                               pmax    pmax
     comp=Z,7.0nm,1.0s
CMAR                               pmax    pmax
     comp=Z,1.0nm,0.8s
CMAR                               pmax    pmax
     comp=Z,3.0nm,1.1s
CMAR                               MLR     MLR
     comp=Z,177nm,18.2s
NVAR Mina Array Bea    92.80  44   P       P       15 12 08.4 -0.4
     comp=Z,14nm,0.9s,mb5.1,baz=222,slow=8.1,SNR=30
NVAR                               tx      tx      15 29 10.4
     comp=Z,1.0nm,0.7s,baz=70,slow=4.9,SNR=5.6
NVAR                               PKKPbc          15 29 17.9
     comp=Z,0.9nm,0.6s,baz=51,slow=4.8,SNR=4.0
NVAR                               PKPPKP          15 37 25.8
     comp=Z,0.9nm,0.7s,baz=69,slow=4.0,SNR=5.8
NVAR Mina Array Bea    92.80  44   P       P       15 12 08.4 -0.3
NVAR                               PKKPbc          15 29 17.9
NVAR                               P'P'            15 37 25.8
TPNV Topopah Spring    93.00  46   eP      P       15 12 10.7 +1.0
     comp=Z,10nm,0.8s,mb5.0
HUMO Hull Mountain     93.18  39   eP      P       15 12 11.1 +0.7
     comp=Z,6.4nm,0.6s,mb4.9
TPH  Tonopah           93.18  45   eP      P       15 12 10.6 +0.1
     comp=Z,17nm,0.8s,mb5.2
TUC  Tucson            93.43  53   eP      P       15 12 13.3 +1.6
     comp=Z,11nm,0.8s,mb5.0
TUC                                e               15 13 06.1
KMI  Kunming           93.77 298   eP      P       15 12 13.7 +0.3
KMI                                PP      PP      15 16 03.3 -0.2
KMI                                SKS     SKS     15 22 32.7 +2.4
KMI                                PS      PS      15 24 42.5 -4.5
KMI                                SS      SS      15 29 33.7 +2.2
KMI                                AMB     AMB
     comp=Z,9.0nm,1.2s,mb4.8
LVC  Limon Verde       93.79 121   P       P       15 12 16.6 +3.1
     comp=Z,12nm,0.9s,mb5.1,baz=254,slow=3.4,SNR=10
LVC                                pP      pP      15 12 58.6 +2.5
     comp=Z,8.8nm,0.8s,baz=274,slow=5.6,SNR=3.3
LVC  Limon Verde       93.79 121   eP      P       15 12 16.5 +3.0
     comp=Z,20nm,1.4s,mb5.1
MOD  Modoc             94.08  41   eP      P       15 12 14.4  0.0
     comp=Z,14nm,0.7s,mb5.2
BMN  Battle Mountai    94.77  43   eP      P       15 12 18.0 +0.4
     comp=Z,13nm,1.0s,mb5.1
ELK  Elko              96.10  44   eP      P       15 12 24.0 +0.3
     comp=Z,2.6nm,0.8s,mb4.6
MSU  Marysvale         96.47  47   eP      P       15 12 26.9 +1.5
TXAR Lajitas Array     96.48  59   P       P       15 12 24.9 -0.8
     comp=Z,2.8nm,1.0s,mb4.5,baz=211,slow=7.3,SNR=5.1
TXAR                               PKKPbc          15 29 10.1
     comp=Z,1.5nm,0.8s,baz=45,slow=1.8,SNR=4.0
TXAR Lajitas Array     96.48  59   P       P       15 12 24.9 -0.8
TXAR                               PKKPbc          15 29 10.1
BMO  Blue Mountains    97.68  40   eP      P       15 12 31.6 +0.8
     comp=Z,7.8nm,1.5s,mb4.9
ANMO Albuquerque       97.89  53   P       P       15 12 32.2 +0.2
     comp=Z,5.0nm,1.2s,mb4.8,baz=227,slow=6.4,SNR=4.7
ANMO Albuquerque       97.89  53   eP      P       15 12 32.6 +0.6
     comp=Z,2.9nm,0.9s,mb4.7
PV10 Paradox Valley    98.31  49   eP      P       15 12 34.6 +0.8
LPAZ La Paz            98.38 116   P       P       15 12 36.4 +1.9
     comp=Z,1.9nm,0.9s,mb4.5,baz=245,slow=4.7,SNR=5.5
LPAZ                               pP      pP      15 13 18.4 +1.2
     comp=Z,1.8nm,0.7s,baz=218,slow=7.4,SNR=3.9
LPAZ                               PP      PP      15 16 37.7 -1.1
     comp=Z,11nm,1.4s,baz=227,slow=6.7,SNR=9.5
LPAZ                               LR      LR      15 52 00.2
     comp=Z,125nm,18.3s,baz=292,slow=32
LPAZ La Paz            98.38 116   P       P       15 12 36.4 +1.9
LPAZ                               *PP     pP      15 13 18.4 +1.3
LPAZ                                               15 16 37.7
LPAZ                               pmax    pmax
     comp=Z,2.0nm,0.9s
LPAZ                               pmax    pmax
     comp=Z,2.0nm,0.7s
LPAZ                               pmax    pmax
     comp=Z,11nm,1.4s
LPAZ La Paz            98.38 116   eP      P       15 12 36.4 +1.9
     comp=Z,2.0nm,0.8s,mb4.6
HLID Hailey            98.40  42   eP      P       15 12 34.2 +0.2
     comp=Z,1.8nm,0.7s,mb4.6
PV01 Paradox Valley    98.46  49   eP      P       15 12 35.3 +0.8
HWUT Hardware Ranch    98.78  45   eP      P       15 12 36.0 +0.2
     comp=Z,1.8nm,0.7s,mb4.6
LZH  Lanzhou           99.46 307   eP      P       15 12 38.9 -0.2
LZH                                PP      PP      15 16 47.0 +0.7
LZH                                eS      S       15 23 44.0 -8.7
LZH                                AMB     AMB
     comp=Z,24nm,1.5s,mb5.4
LZH                                AMB     AMB
     comp=Z,102nm,6.9s
MCMT McKenzie Canyo   100.08  42   ePdif   P       15 12 43.0 +1.4
BW06 Boulder Array    100.67  45   ePdif   P       15 12 45.8 +1.4
PDAR Pinedale Array   100.67  45   P       P       15 12 43.2 -1.1
     comp=Z,0.7nm,0.7s,baz=231,slow=5.8,SNR=5.3
PDAR                               PKiKP           15 17 11.8
     comp=Z,0.8nm,0.5s,baz=154,slow=3.7,SNR=4.4
PDAR                               PKKPbc          15 28 56.2
     comp=Z,1.2nm,0.8s,baz=92,slow=5.8,SNR=5.6
COLA College          102.41  14   ePdif   Pdif    15 12 51.1 -0.4
ILAR Eielson Array    102.50  14   P       Pdif    15 12 51.5 -0.5
     comp=Z,2.3nm,0.8s,baz=238,slow=5.0,SNR=10
ILAR                               PKiKP           15 17 11.3
     comp=Z,2.6nm,0.6s,baz=344,slow=4.1,SNR=9.8
ILAR                               PKKPbc          15 28 49.5
     comp=Z,2.7nm,0.9s,baz=329,slow=2.1,SNR=5.9
ILAR                               tx      tx      15 29 13.4
     comp=Z,4.3nm,0.9s,baz=1.4,slow=3.6,SNR=13
ILAR Eielson Array    102.50  14   P       Pdif    15 12 51.5 -0.4
ILAR                               i               15 17 11.4
ILAR                               pmax    pmax
     comp=Z,2.0nm,0.8s
ILAR                               pmax    pmax
     comp=Z,3.0nm,0.6s
ILAR                               pmax    pmax
     comp=Z,3.0nm,0.9s
ILAR                               pmax    pmax
     comp=N,4.0nm,0.9s
SONM Songino Array    104.77 318   Pdiff   Pdif    15 13 10.3 +8.0
     comp=N,0.8nm,0.7s,baz=180,slow=2.5,SNR=3.9
SONM                               PP      PP      15 17 22.4 -3.9
     comp=N,1.6nm,1.1s,baz=146,slow=5.2,SNR=3.4
SONM                               PKKPbc          15 28 45.5
     comp=N,1.0nm,0.8s,baz=276,slow=2.8,SNR=6.4
SONM                               tx      tx      15 29 31.5
     comp=N,1.1nm,0.8s,baz=284,slow=3.3,SNR=4.4
TRD  Trivandrum       104.98 270   e               15 17 29.0
KSU1 Kansas State U   106.74  54   ePKP            15 17 21.7
SAML Samuel           106.76 114   ePKP            15 17 22.8
GUN  Gumba            107.92 292   eP              15 17 04.9
PKI  Pulchoki         108.11 291   eP              15 17 08.5
KKN  Kakani           108.32 291   eP              15 17 09.6
DMN  Daman            108.36 291   eP              15 17 11.4
     comp=N,4.7nm,0.6s
INK  Inuvik           108.41  17   ePKP            15 17 21.4
GKN  Gorkha           108.92 291   eP              15 17 13.4
KOLN Koldanda         109.60 291   eP              15 17 22.4
     comp=N,12nm,0.9s
YKA  Yellowknife Ar   110.17  27   Pdiff   Pdif    15 13 33.4 +7.7
     comp=N,0.4nm,0.9s,baz=239,slow=4.6,SNR=4.1
YKA                                PKiKP           15 17 25.1
     comp=N,4.7nm,0.6s,baz=261,slow=1.8,SNR=35
YKA                                PKKPbc          15 28 25.7
     comp=N,5.6nm,0.7s,baz=41,slow=3.3,SNR=40
YKA                                PKPPKP          15 36 54.8
     comp=N,1.0nm,0.9s,baz=45,slow=1.0,SNR=3.9
YKA  Yellowknife Ar   110.17  27   P       Pdif    15 13 33.4 +7.7
YKA                                i               15 17 25.1
YKA                                                15 28 25.7
YKA                                pmax    pmax
     comp=Z,5.0nm,0.6s
YKA                                pmax    pmax
     comp=Z,6.0nm,0.7s
YKA                                pmax    pmax
     comp=Z,1.0nm,0.9s
YKA  Yellowknife Ar   110.17  27   Pdif    Pdif    15 13 33.4 +7.7
YKA                                PKPdf   PKPdf   15 17 25.1 +0.1
YKA                                PKKPbc          15 28 25.7
YKA                                P'P'            15 36 54.8
YKW3 Yellowknife Ar   110.21  27   ePKP    PKPdf   15 17 25.1  0.0
SUR  Sutherland       110.40 199   Pdiff   Pdif    15 13 27.2 -0.3
     comp=Z,7.7nm,0.8s,baz=139,slow=6.6,SNR=6.0
SUR                                PKiKP           15 17 28.5
     comp=Z,17nm,0.5s,baz=154,slow=0.8,SNR=26
SUR                                PKKPbc          15 28 28.4
     comp=Z,9.7nm,0.7s,baz=4.3,slow=3.3,SNR=11
SUR  Sutherland       110.40 199   Pdif    Pdif    15 13 27.2 -0.3
SUR                                ePKP    PKPdf   15 17 29.0 +2.7
WVT  Waverly          111.36  60   ePKP    PKPdf   15 17 28.6 +0.6
SDV  Santo Domingo    111.44  94   PKP     PKPdf   15 17 30.5 +1.9
FFC  Flin Flon        111.47  38   ePKP    PKPdf   15 17 28.6 +0.9
TIXI Tiksi            111.70 345   i PKIKP PKPdf   15 17 26.7 -1.2
TIXI                               pmax    pmax
     comp=Z,5.0nm,0.8s
ULM  Lac du Bonnet    112.63  44   PKiKP           15 17 29.4
     comp=Z,4.6nm,0.6s,baz=230,slow=2.3,SNR=8.2
BDFB Brasilia         112.75 130   PKiKP           15 17 33.7
     comp=Z,17nm,1.2s,baz=246,slow=2.9,SNR=8.0
BDFB Brasilia         112.75 130   i PKIKP PKPdf   15 17 33.7 +2.5
BDFB                               pmax    pmax
     comp=Z,17nm,1.2s
JFWS Jewell Farm      112.79  53   ePKP    PKPdf   15 17 31.8 +1.1
WCI  Wyandotte Cave   113.41  59   ePKP    PKPdf   15 17 33.3 +1.3
WMQ  Urumqi           114.04 308  ⇓PKP     PKPdf   15 17 34.1 +1.0
WMQ                                XPKP            15 18 32.1
WMQ                                PP      PP      15 18 34.6 +0.1
WMQ                                PPP     PPP     15 21 01.2 +1.2
WMQ                                SKS     SKS     15 24 30.1  +27
WMQ                                PP      PP
     comp=Z,123nm,9.6s
EYMN Ely              114.20  47   ePKP    PKPdf   15 17 33.7 +0.3
LBTB Lobatse          115.71 206   ePKPdf  PKPdf   15 17 38.9 +2.1
ACSO Alum Creek Sta   116.59  58   ePKPdf  PKPdf   15 17 39.2 +1.1
FCC  Fort Churchill   117.15  36   ePKPdf  PKPdf   15 17 38.6 -0.2
BLA  Blacksburg       117.19  62   ePKPdf  PKPdf   15 17 40.5 +1.1
ZAL  Zalesovo         119.65 317   PKP     PKPdf   15 17 43.0 -0.7
     comp=Z,2.6nm,0.3s,baz=270,slow=1.4,SNR=10
ZAL  Zalesovo         119.65 317   PKIKP   PKPdf   15 17 43.0 -0.7
ZAL                                pmax    pmax
     comp=Z,3.0nm,0.4s
ZAL  Zalesovo         119.65 317   PKP     PKPdf   15 17 43.0 -0.8
CBN  Corbin           119.81  62   ePKPdf  PKPdf   15 17 45.3 +0.9
SSPA Standing Stone   120.33  59   ePKPdf  PKPdf   15 17 46.9 +1.4
KSH  Kashi            120.40 299   PKP     PKPdf   15 17 47.3 +1.7
KSH                                eXPKP           15 18 41.3
KSH                                ePP     PP      15 19 20.5 +2.3
KSH                                ePKS    PKS     15 21 22.0 +0.9
KSH                                eSKS    SKS     15 24 41.6  +15
KSH                                eSKKS           15 25 55.0
NVS  Novosibirsk      120.80 318   ePKIKP  PKPdf   15 17 44.1 -1.9
NVS                                e               15 18 20.5
NVS                                pmax    pmax
     comp=Z,12nm,1.0s
NVS                                pmax    pmax
     comp=N,3.0nm,0.7s
NVS                                pmax    pmax
     comp=E,2.0nm,0.5s
GENY Geneseo          121.13  57   ePKPdf  PKPdf   15 17 48.4 +1.4
KZA  Kyzart           121.81 302   P       PKPdf   15 17 49.5 +1.2
     SNR=7.9
TKM2 Tokmak 2         121.85 303   P       PKPdf   15 17 47.4 -0.9
     SNR=9.7
TKM2 Tokmak 2         121.85 303   ePKPdf  PKPdf   15 17 47.6 -0.7
RES  Resolute Bay     121.90  18   ePKPdf  PKPdf   15 17 47.1 -0.6
BINY Binghamton       122.22  58   ePKPdf  PKPdf   15 17 50.5 +1.5
KBK  Karagaybulak     122.22 302   P       PKPdf   15 17 49.5 +0.5
     SNR=11
KURK Kurchatov        122.28 312c iPKIKP   PKPdf   15 17 47.7 -1.2
KURK Kurchatov        122.28 312   ePKPdf  PKPdf   15 17 47.9 -1.0
KURK                               eSKPdf          15 21 06.7
UCH  Uchtor           122.38 302   P       PKPdf   15 17 50.6 +1.3
     SNR=18
UCH  Uchtor           122.38 302   ePKPdf  PKPdf   15 17 49.8 +0.5
UCH                                eSKPdf          15 21 10.0
CHMS Chumysh          122.47 303   P       PKPdf   15 17 49.6 +0.2
     SNR=9.1
AAK  Ala-Archa        122.53 302   P       PKPdf   15 17 50.1 +0.5
     SNR=6.9
AAK  Ala-Archa        122.53 302   i PKIKP PKPdf   15 17 49.1 -0.5
AAK  Ala-Archa        122.53 302   ePKPdf  PKPdf   15 17 48.7 -0.9
USP  Ospenovka        122.73 303   P       PKPdf   15 17 49.3 -0.6
     SNR=8.7
AML  Almayashu        122.92 301   P       PKPdf   15 17 50.7 +0.3
     SNR=10
AML  Almayashu        122.92 301   ePKPdf  PKPdf   15 17 50.6 +0.2
AML                                eSKPdf          15 21 10.8
EKS2 Erkin-Say        123.04 302   P       PKPdf   15 17 51.3 +0.7
     SNR=10
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EKS2	Erkin-Say	123.04	302	ePKPdf	PKPdf	15 17 50.9	+0.3
EKS2				eSKPdf		15 21 10.4	
PAL	Palisades	123.30	60	ePKPdf	PKPdf	15 17 52.9	+1.8
LSZ	Lusaka	123.35	214	ePKPdf	PKPdf	15 17 53.6	+1.8
MSNY	Massena	123.87	55	ePKPdf	PKPdf	15 17 53.3	+1.1
NCB	Newcomb	124.00	57	ePKPdf	PKPdf	15 17 53.4	+0.9
ACCN	Adirondack Com	124.21	57	ePKPdf	PKPdf	15 17 53.7	+0.8
HNH	Hanover	125.26	57	ePKPdf	PKPdf	15 17 56.3	+1.5
BRYW	Bryant College	125.27	60	ePKPdf	PKPdf	15 17 57.0	+2.1
HRV	Harvard--Oak R	125.43	59	ePKPdf	PKPdf	15 17 57.1	+1.9
HRV				e		15 18 53.4	
WES	Weston	125.56	59	ePKPdf	PKPdf	15 17 56.5	+1.0
CHKZ	Chkalovo	127.74	315	ePKPdf	PKPdf	15 17 58.6	-0.7
BVAR	Borovoye Array	127.77	314	PKhKP		15 17 49.9	
	comp=E,0.9nm,0.5s,baz=90,slow=1.5,SNR=8.3						
BVAR				PKP	PKPdf	15 17 58.9	-0.5
	comp=E,13nm,0.8s,baz=88,slow=2.1,SNR=34						
BVAR	Borovoye Array	127.77	314	PKP	PKPdf	15 17 58.9	-0.5
BRVK	Borovoye	127.84	314	ePKPdf	PKPdf	15 17 59.0	-0.6
KMBO	Kilima Mbogo	129.79	233	PKhKP		15 17 55.5	
	comp=E,0.9nm,0.7s,baz=56,slow=19,SNR=5.1						
KMBO				PKP	PKPdf	15 18 06.6	+2.3
	comp=E,16nm,1.0s,baz=40,slow=1.7,SNR=21						
KMBO	Kilima Mbogo	129.79	233	PKHKP		15 17 55.5	
KMBO						15 18 06.6	
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.7s						
KMBO				pmax	pmax		
	comp=Z,16nm,1.0s						
KMBO	Kilima Mbogo	129.79	233	PKP	PKPdf	15 17 55.5	-8.8
KMBO				ePKPdf	PKPdf	15 18 06.3	+1.9
KMBO				e		15 21 11.4	
SCHQ	Schefferville	130.81	44	PKP	PKPdf	15 18 04.8	-0.4
	comp=Z,14nm,0.8s,baz=267,slow=4.0,SNR=9.7						
MBAR	Mbarara	134.31	227	ePKPdf	PKPdf	15 18 13.8	+1.0
MBAR				eSKPbc		15 21 28.5	
ARU	Arti	134.80	318	i PKIKP	PKPdf	15 18 10.0	-2.6
ARU	Arti	134.80	318	ePKPpre		15 18 09.2	
ARU				ePKPdf	PKPdf	15 18 12.6	0.0
ARU				eSKPbc		15 21 26.1	
SOKR	Solikamsk	135.44	322	⇓iPKIKP	PKPdf	15 18 12.3	-1.4
SOKR				pmax	pmax		
	comp=Z,20nm,1.0s						
DAG	Danmarks Havn	136.94	6	ePKHKP		15 18 04.0	
DAG	Danmarks Havn	136.94	6	i P	PKPdf	15 18 04.0	-12
SUMG	Summit	137.32	16	ePKPdf	PKPdf	15 18 18.5	+1.7
NRS	Narsarsuaq	141.09	33	eP	PKPdf	15 18 17.1	-6.7
NRS	Narsarsuaq	141.09	33	i P	PKPdf	15 18 17.1	-6.7
KEV	Kevo	141.65	345	epkp	PKPdf	15 18 19.9	-4.6
ARCES	ARCESS Array B	142.14	345	PKhKP		15 18 20.9	
	comp=Z,4.5nm,0.5s,baz=48,slow=3.5,SNR=32						
ARCES				sPKP		15 19 27.6	
	comp=Z,4.7nm,0.6s,slow=1.2,SNR=4.5						
ARCES	ARCESS Array B	142.14	345	PKHKP		15 18 21.0	
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
GNI	Garni	143.82	292	PKP	PKPdf	15 18 29.6	+0.5
	comp=Z,5.2nm,0.4s,baz=287,slow=3.0,SNR=9.2						
GNI	Garni	143.82	292	PKIKP	PKPdf	15 18 29.6	+0.5
GNI				pmax	pmax		
	comp=Z,5.0nm,0.4s						
GNI	Garni	143.82	292	PKP	PKPdf	15 18 29.6	+0.5
TI2	Plekhanov	143.95	295	i PKHKP		15 18 26.8	
VANB	Van	144.69	290	eP	PKPdf	15 18 29.0	-1.7
GOF	Gofitskoye	145.25	301	⇑iPKP2	PKPab	15 18 30.5	-3.6
GOF				pmax	pmax		
	comp=Z,140nm,1.3s						
JOF	Joensuu	145.37	335	epkp	PKPdf	15 18 29.2	-1.9
KIV	Kislovodsk	145.53	299	c iPKIKP	PKPdf	15 18 31.8	-0.2
KIV	Kislovodsk	145.53	299	ePKPdf	PKPdf	15 18 32.6	+0.6
KIV				ePKPbc	PKPbc	15 18 33.6	+0.8
KIV				ePP	PP	15 21 54.6	-2.8
BTMT	Batman	146.12	289	eP	PKPdf	15 18 34.1	+0.9
VRT	Varto	146.19	290	eP	PKPdf	15 18 34.9	+1.7
MOS	Moscow	146.35	321	ePKP2	PKPab	15 18 34.6	-3.3
MOS				pmax	pmax		
	comp=Z,143nm,0.7s						
MOS				pmax	pmax		
	comp=E,102nm,0.8s						
EZM	Erzurum	146.39	292	eP	PKPdf	15 18 35.4	+1.9
VRSR	Storozhevoye	146.92	312	ePKIKP	PKPdf	15 18 35.7	+1.7
VRSR				eSS	SS	15 40 43.1	-6.1
VRSR				pmax	pmax		
	comp=Z,150nm,0.9s						
VRSR				pmax	pmax		
	comp=N,30nm,1.0s						
VRSR				pmax	pmax		
	comp=E,100nm,1.0s						
OBN	Obninsk	147.15	320	c iPKIKP	PKPdf	15 18 36.4	+2.1
OBN				e		15 19 23.8	
OBN				e		15 22 00.9	
OBN				e		15 25 28.2	
OBN				eSS	SS	15 40 46.1	-5.6
OBN				pmax	pmax		
	comp=Z,64nm,0.6s						
OBN	Obninsk	147.15	320	ePKPbc	PKPdf	15 18 36.3	+2.0
BORG	Borgarnes	147.30	16	PKPbc	PKPdf	15 18 39.1	+4.8
	comp=Z,71nm,0.8s,baz=306,slow=1.6,SNR=9.4						
BORG	Borgarnes	147.30	16	ePKPab	PKPab	15 18 39.7	-1.7
EZC	Erzincan	147.56	291	eP	PKPdf	15 18 39.9	+4.4
KAF	Kangasniemi	147.63	337	epkp	PKPdf	15 18 36.1	+1.2
TBKS	Tabuk	147.77	269	P	PKPdf	15 18 38.7	+2.5
PTK	Pertek	147.82	290	eP	PKPdf	15 18 38.4	+2.4
GUMT	Gumushane	147.86	292	eP	PKPdf	15 18 39.7	+3.7
DBAS	Duba	147.87	267	P	PKPdf	15 18 40.8	+4.4
URFA	Urfa	148.12	287	eP	PKPdf	15 18 37.2	+0.7
FINES	FINESS Array B	148.18	336	PKPbc	PKPdf	15 18 38.8	+3.0
	comp=Z,52nm,0.6s,baz=51,slow=3.3,SNR=198						
FINES				sPKPbc		15 19 41.9	
	comp=Z,42nm,1.0s,baz=72,slow=6.0,SNR=4.9						
FINES	FINESS Array B	148.18	336	PKIKP	PKPdf	15 18 38.8	+3.0
FINES						15 19 41.9	
FINES				pmax	pmax		
	comp=Z,52nm,0.6s						
FINES				pmax	pmax		
	comp=Z,42nm,1.0s						
MALT	Malatya	148.53	288	eP	PKPdf	15 18 37.4	+0.3
MALT	Malatya	148.53	288	ePKPdf	PKPdf	15 18 38.4	+1.3
MALT				ePKPbc	PKPdf	15 18 42.1	+4.9
MYA	Malataya	148.53	288	eP	PKPdf	15 18 41.9	+4.8
ASF	Jabal al Asfar	148.69	276	PKPbc	PKPdf	15 18 43.0	+5.5
	comp=Z,45nm,1.0s,baz=1.2,slow=2.0,SNR=41						
AYUS	‘Aynunah	148.81	268	P	PKPdf	15 18 43.2	+5.3
BDAS	Al Bad‘	149.04	269	P	PKPdf	15 18 44.0	+5.8
ANN	Anapa	149.24	301	i PKHKP		15 18 41.5	
ANN				i		15 18 47.8	
ANN				pmax	pmax		
	comp=Z,296nm,1.5s						
TAYS	Tayyib Ism	149.27	269	P	PKPdf	15 18 44.9	+6.3
JMOS	Jabal al Moall	149.28	270	P	PKPdf	15 18 44.0	+5.4
ALWS	Ilw as Safayha	149.37	270	P	PKPdf	15 18 43.9	+5.2
HAQS	Haql	149.39	270	P	PKPdf	15 18 44.5	+5.7
AQBJ	Aqaba	149.51	271	P	PKPdf	15 18 41.1	+2.2
MKRJ	Makawir	149.56	275	P	PKPdf	15 18 41.2	+2.3
EIL	Elat	149.58	271	P	PKPdf	15 18 41.2	+2.2
EIL	Elat	149.58	271	PKPbc	PKPdf	15 18 44.5	+5.4
	comp=Z,86nm,1.0s,baz=59,slow=2.1,SNR=45						
EIL	Elat	149.58	271	ePKPdf	PKPdf	15 18 40.9	+1.9
EIL				ePKPbc	PKPdf	15 18 44.4	+5.4
MBH	Mount Berech	149.64	271	P	PKPdf	15 18 41.5	+2.4
ZFRI	Zfri	149.66	272	P	PKPdf	15 18 41.3	+2.2
MZDA	Masada	149.72	274	P	PKPdf	15 18 41.5	+2.3
PRNI	Paran	149.74	272	P	PKPdf	15 18 41.6	+2.3
DRGI	Dragot	149.77	275	P	PKPdf	15 18 41.5	+2.2
KSHT	Keshet	149.77	277	P	PKPdf	15 18 42.0	+2.8
HMDT	Nahal Hemdat	149.83	276	P	PKPdf	15 18 41.8	+2.5
GLH	Golan-Tel Qazi	149.84	277	P	PKPdf	15 18 41.9	+2.6
KMTI	Karmit	149.90	271	P	PKPdf	15 18 41.8	+2.3
MMLI	Mount Malkishu	149.97	276	P	PKPdf	15 18 42.4	+2.9
VSU	Vasula	149.98	331	i PKHKP		15 18 43.8	
HTY	Hatay	150.09	284	eP	PKPdf	15 18 44.9	+5.3
MASH	Mash‘abbe Sade	150.11	273	P	PKPdf	15 18 42.2	+2.4
RTMM	Retamin	150.21	273	P	PKPdf	15 18 42.4	+2.5
HNTI	Hanita	150.32	277	P	PKPdf	15 18 42.7	+2.7
OFRI	‘Ofer	150.37	276	P	PKPdf	15 18 43.3	+3.2
HAF	Haifa	150.37	277	P	PKPdf	15 18 42.7	+2.6
KZIT	Kziot	150.40	273	P	PKPdf	15 18 42.9	+2.7
BNN	Bunyan	150.58	289	eP	PKPdf	15 18 44.5	+4.2
NIG	Nigde	151.51	287	eP	PKPdf	15 18 47.4	+5.7
PHNC	Paralimni	151.62	281	P	PKPdf	15 18 49.4	+7.5
MNK	Minsk	151.90	324	ePKIKP	PKPdf	15 18 47.0	+5.3
MNK				pmax	pmax		
	comp=Z,490nm,1.2s						
DBIC	Dimbokro	151.94	171	PKP	PKPdf	15 18 46.1	+3.0
	comp=Z,53nm,0.7s,baz=198,slow=2.2,SNR=75						
DBIC				PKPbc	PKPdf	15 18 52.8	+10
	comp=Z,281nm,0.8s,baz=154,slow=3.6,SNR=105						
DBIC	Dimbokro	151.94	171	PKIKP	PKPdf	15 18 46.1	+3.1
DBIC				pmax	pmax		
	comp=Z,53nm,0.7s						
DBIC				pmax	pmax		
	comp=Z,281nm,0.8s						
DBIC	Dimbokro	151.94	171	ePKPdf	PKPdf	15 18 45.1	+2.1
DBIC				ePKPbc	PKPdf	15 18 52.3	+9.2
TOS	Tosya	152.01	294	eP	PKPdf	15 18 48.6	+6.3
CSS	Prodhromos	152.18	281	P	PKPdf	15 18 50.6	+7.8
	comp=Z,0.7nm,0.6s						
KAMT	Kaman	152.26	290	eP	PKPdf	15 18 49.2	+6.5
BRTR	Keskin Array B	152.32	291	PKP	PKPdf	15 18 42.9	0.0
	comp=Z,4.7nm,1.1s,baz=135,slow=1.7,SNR=13						
BRTR				PKPbc	PKPdf	15 18 49.7	+6.9
	comp=Z,24nm,0.6s,baz=150,slow=3.7,SNR=72						
BRTR				pPKPbc		15 19 37.3	
	comp=Z,6.1nm,0.8s,baz=135,slow=3.5,SNR=2.1						
BRTR	Keskin Array B	152.32	291	PKIKP	PKPdf	15 18 42.9	+0.1
BRTR						15 18 49.7	
BRTR						15 19 37.3	
BRTR				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BRTR				pmax	pmax		
	comp=Z,24nm,0.6s						
BRTR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NB2	NORSAR Subarra	152.46	348	PKP	PKPdf	15 18 49.5	+7.2
	comp=Z,36nm,0.7s,baz=21,slow=2.5						
NB2	NORSAR Subarra	152.46	348	PKPa		15 18 49.5	
	baz=21,slow=2.5						
NOA	NORSAR Array B	152.46	348	PKP	PKPdf	15 18 42.5	+0.2
	comp=Z,7.4nm,1.2s,baz=47,slow=1.9,SNR=5.3						
NOA				PKPbc	PKPdf	15 18 49.3	+7.0
	comp=Z,9.5nm,0.6s,baz=340,slow=3.6,SNR=51						
NOA				sPKPbc		15 19 48.6	
	comp=Z,6.6nm,0.9s,baz=6.1,slow=3.8,SNR=3.9						
NOA	NORSAR Array B	152.46	348	PKIKP	PKPdf	15 18 42.5	+0.2
NOA						15 18 49.3	
NOA				pmax	pmax		
	comp=Z,7.0nm,1.2s						
NOA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
NOA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
SZAC	Souni-Zanaja	152.51	280	P	PKPdf	15 18 50.5	+7.3
LEF	Lefka	152.56	281	eP	PKPdf	15 18 50.4	+7.1
NAO01	NORSAR Array S	152.70	348	ePKPbc	PKPdf	15 18 50.5	+7.9
HFS	Hagfors	152.79	344	PKPbc	PKPdf	15 18 50.1	+7.3
	comp=Z,26nm,0.6s,baz=72,slow=4.7,SNR=52						
HFS	Hagfors	152.79	344	PKIKP	PKPdf	15 18 50.1	+7.3
HFS				pmax	pmax		
	comp=Z,26nm,0.6s						
ALFC	Alevga	152.80	281	P	PKPdf	15 18 50.9	+7.3
	comp=Z,1.4nm,0.7s						
PPCY	Paphos	152.97	280	P	PKPdf	15 18 51.7	+7.8
AKASG	Malin Array Be	153.02	316	PKP	PKPdf	15 18 42.3	-1.1
	comp=Z,4.4nm,0.9s,baz=46,slow=1.8,SNR=12						
AKASG				PKPbc	PKPdf	15 18 50.7	+7.3
	comp=Z,31nm,0.8s,baz=51,slow=2.5,SNR=41						
AKASG	Malin Array Be	153.02	316	PKIKP	PKPdf	15 18 42.3	-1.1
AKASG						15 18 50.7	
AKASG				pmax	pmax		
	comp=Z,4.0nm,1.0s						
AKASG				pmax	pmax		
	comp=Z,31nm,0.8s						
KIZT	Kizilcal	153.68	289	eP	PKPdf	15 18 51.5	+6.8
SUW	Suwalki	154.38	327	ePKP	PKPdf	15 18 54.2	+9.0
ISP	Isparta	154.73	286	i PKIKP	PKPdf	15 18 54.6	+8.5
ISP	Isparta	154.73	286	ePKPbc	PKPdf	15 18 54.5	+8.4
ISP				ePKPab	PKPab	15 19 10.4	-2.6
MLR	Muntele Rosu	157.03	306	PKP	PKPdf	15 18 48.5	-0.5
	comp=Z,13nm,1.4s,baz=1.8,slow=17,SNR=3.5						
MLR	Muntele Rosu	157.03	306	PKIKP	PKPdf	15 18 48.5	-0.5
MLR				pmax	pmax		
	comp=Z,13nm,1.4s						
MLR	Muntele Rosu	157.03	306	PKP	PKPdf	15 18 48.5	-0.5
CRVS	Cervenica-Dubn	158.29	318	ePKP	PKPab	15 19 27.1	-0.8
IDI	Anoyia	159.08	279	PKP	PKPdf	15 18 53.2	+1.3
	comp=Z,9.7nm,1.0s,baz=268,slow=2.4,SNR=7.1						
IDI				PKPab	PKPab	15 19 30.3	-1.5
	comp=Z,17nm,0.6s,baz=58,slow=8.1,SNR=18						
EKA	Eskdalemuir Ar	159.18	4	PKP	PKPdf	15 18 52.8	+1.4
	comp=Z,3.2nm,0.7s,baz=316,slow=0.9,SNR=7.4						
EKA				PKPab	PKPab	15 19 29.6	-2.0
	comp=Z,16nm,1.1s,baz=346,slow=3.4,SNR=7.9						
EKA	Eskdalemuir Ar	159.18	4	PKIKP	PKPdf	15 18 52.8	+1.5
EKA						15 19 29.6	
EKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
EKA				pmax	pmax		
	comp=Z,16nm,1.1s						
KSP	Ksiaz	159.62	328	ePKP2	PKPab	15 19 31.5	-2.1
KSP				e		15 23 12.0	
KSP	Ksiaz	159.62	328	ePKPdf	PKPdf	15 18 52.1	+0.1
KSP				ePKPab	PKPab	15 19 31.5	-2.1
KSP				ePP	PP	15 23 12.0	-4.1
GVD	Gavdhos	159.69	278	ePKPdf	PKPdf	15 18 53.2	+0.7
GVD				ePKPab	PKPab	15 19 33.1	-1.3
MORC	Moravsky Berou	159.79	324	ePKPdf	PKPdf	15 18 52.7	+0.5
VYHS	Vyhne	159.95	320	i PKP	PKPab	15 19 33.8	-1.3
BRG	Berggiesshubel	160.58	331	i PKIKP	PKPdf	15 18 51.9	-1.1
BRG				eSS	SS	15 43 08.0	-8.1
BRG				pmax	pmax		
	comp=Z,27nm,1.6s						
BRG	Berggiesshubel	160.58	331	i PKP	PKPdf	15 18 51.9	-1.1
BRG				i		15 18 54.9	
BRG				ePP	PP	15 23 06.0	-15
BRG				eSS	SS	15 43 08.0	-8.1
CLL	Collm	160.59	334	ePKIKP	PKPdf	15 18 55.0	+2.0
CLL				i		15 19 35.1	
CLL				pmax	pmax		
	comp=Z,17nm,1.4s						
CLL	Collm	160.59	334	ePKIKP	PKPdf	15 18 55.0	+2.0
	comp=Z,logA/T=1.1						
CLL				i PKP2	PKPab	15 19 35.1	-2.7
CLL				e		15 20 35.0	
GERES	GERESS Array B	162.23	328	PKPab	PKPab	15 19 42.4	-2.6
	comp=Z,1.4nm,0.8s,baz=27,slow=3.0,SNR=3.5						
GERES	GERESS Array B	162.23	328	PKP2	PKPab	15 19 42.4	-2.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
GRA1	Grafenberg Arr	162.57	334	ePKPdf	PKPdf	15 18 56.7	+1.7
GRA1				ePKPab	PKPab	15 19 42.2	-4.2
GRF	Grafenberg Arr	162.57	334	ePKIKP	PKPdf	15 18 56.7	+1.7
MEZF	Maizieres J’vi	165.47	345	ePKIKP	PKPdf	15 18 59.6	+1.8
FLN	La Foliniere	165.84	360	ePKIKP	PKPdf	15 18 59.9	+1.8
	comp=Z,40nm,1.1s						
LDF	La Druitiere	166.00	359	ePKIKP	PKPdf	15 19 00.5	+2.3
	comp=Z,24nm,0.9s						
CABF	La Chapelle	166.96	339	ePKIKP	PKPdf	15 19 01.3	+2.3
	comp=Z,23nm,1.1s						
AVF	Avril sur Loir	167.45	347	ePKIKP	PKPdf	15 19 01.2	+1.9
	comp=Z,6.0nm,0.9s						
SMF	Signal de Mont	167.49	346	ePKIKP	PKPdf	15 19 01.5	+2.2
LPL	La Plagne	167.72	335	ePKIKP	PKPdf	15 19 01.9	+2.4
	comp=Z,10nm,0.9s						
LPG	La Plagne	167.73	335	ePKIKP	PKPdf	15 19 02.3	+2.8
	comp=Z,9.4nm,0.8s						
BGF	Bois d’Agland	167.76	349	ePKIKP	PKPdf	15 19 01.4	+1.9
TCF	Toulx Ste Croi	168.12	350	ePKIKP	PKPdf	15 19 00.9	+1.1
	comp=Z,15nm,0.9s						
BNI	Bardonecchia	168.14	334	ePKPdf	PKPdf	15 19 02.2	+2.4
MBDF	Montbardon	168.39	333	ePKIKP	PKPdf	15 19 01.3	+1.3
	comp=Z,22nm,0.8s						
ORIF	Oris-en-Rattie	168.54	336	ePKIKP	PKPdf	15 19 01.8	+1.7
	comp=Z,14nm,0.9s						
RJF	Les Rejaudoux	169.17	352	ePKIKP	PKPdf	15 19 02.9	+2.5
	comp=Z,15nm,0.9s						
FRF	La Foret Royal	169.41	330	ePKIKP	PKPdf	15 19 02.5	+1.9
	comp=Z,122nm,1.6s						
LFF	La Frestale	169.61	355	ePKIKP	PKPdf	15 19 02.6	+1.9
LMR	La Mourre	169.66	330	ePKIKP	PKPdf	15 19 02.3	+1.5
	comp=Z,97nm,1.6s						
SJPF	Ste Jean	171.48	3	ePKIKP	PKPdf	15 19 03.9	+2.0
EPF	Esparros	171.54	355	ePKIKP	PKPdf	15 19 04.8	+2.9
	comp=Z,35nm,1.1s						
ETSF	Etsaut	171.70	360	ePKIKP	PKPdf	15 19 03.8	+1.8
	comp=Z,12nm,0.9s						
EVO	Evora	172.87	54	ePKIKP	PKPdf	15 19 04.1	+1.4
	comp=Z,56nm,1.0s						
ESDC	Sonseca Array	174.27	27	PKP	PKPdf	15 19 05.6	+2.5
	comp=Z,7.7nm,0.9s,baz=349,slow=2.6,SNR=17						
ESDC				PKPab	PKPab	15 20 37.2	-1.0
	comp=Z,1.8nm,0.7s,baz=323,slow=4.0,SNR=4.9						

BGR ***03*** *15:15:40.4±0.7,51.45N×16.34E,h1km,ML3.1/8,Error ellipse: s-maj=7.8km s-min=6.7km az=137.0*

NEIC ***03*** *15:15:41.8±0.3,51.52N×16.13E,h5km,ML3.2(VIE), ML3.1(SZGRF),ML2.7(CLL),ML2.6(BRG),Error ellipse: s-maj=4.8km s-min=3.8km az=59.0*

PRU ***03*** *15:15:42.6,51.47N×16.14E*

IPEC ***03*** *15:15:42.1±0.3,51.49N×16.20E,h8km±1km,ML2.6/3, Error ellipse: s-maj=2.1km s-min=0.8km az=32.0*

IDC ***03*** *15:15:43.1±0.7,51.46N×16.02E,mb1 3.4/7, mb1mx3.3/21,ML3.1/6,Error ellipse: s-maj=13.8km s-min=7.3km az=101.0*

CSEM ***03*** *15:15:43.0±0.2,51.45N×16.11E,ML3.4/6,Error ellipse: s-maj=3.9km s-min=2.2km az=15.0*

WAR ***03*** *15:15:43.2,51.46N×16.11E,h1km,ML3.3,Mining Induced*

ISC 03 15:15:40.5±0.4,**51.43N**±0.02×**16.13E**±0.03,**n68,** σ**1§33**/130,**3C-4D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.60	170	i PG	Pg	15 15 54.7	+2.3
KSP				eSG	Sg	15 16 03.7	+3.3
KSP	Ksiaz	0.60	170	⇓iPg	Pg	15 15 54.7	+2.3
KSP				i		15 15 56.0	
KSP				eSg	Sg	15 16 03.2	+2.8
KSP	Ksiaz	0.60	170	⇓iPg	Pg	15 15 54.7	+2.3
KSP				eSg	Sg	15 16 03.2	+2.8
KSP	Ksiaz	0.60	170	ePg	Pg	15 15 54.6	+2.2
KSP				eSg	Sg	15 16 03.2	+2.8
UPC	Upice	0.93	185	ePG	Pg	15 16 00.7	+1.7
DPC	Dobruska-Polom	1.09	174	ePG	Pg	15 16 03.4	+1.2
DPC				eSG	Sg	15 16 18.0	+1.3
	45nm,0.4s						
PVCC	Panska Ves	1.34	228	ePG	Pg	15 16 07.8	+0.6
PVCC	Panska Ves	1.34	228	Pg	Pg	15 16 07.8	+0.6
PVCC				eSg	Sg	15 16 26.3	+1.2
BRG	Berggiesshubel	1.49	249	ePn	Pn	15 16 08.9	+0.4
BRG				eSg	Sg	15 16 30.8	+0.8
BRG	Berggiesshubel	1.49	249	i Pn	Pn	15 16 08.8	+0.3
BRG				i Pg	Pg	15 16 10.5	+0.3
BRG				i Sg	Sg	15 16 30.5	+0.5
BRG	Berggiesshubel	1.49	249	ePn	Pn	15 16 09.7	+1.2
BRG	Berggiesshubel	1.49	249	i Pg	Pg	15 16 10.5	+0.3
BRG				eSg	Sg	15 16 30.2	+0.2
PRU	Pruhonice	1.76	216	PN	Pn	15 16 13.1	+0.6
PRU				PG	Pg	15 16 15.0	-0.7
PRU				i x	x	15 16 19.6	
PRU				i x	x	15 16 31.8	
PRU				SG	Sg	15 16 39.3	+0.1
	40nm,0.3s						
PRU	Pruhonice	1.76	216	Pg	Pg	15 16 15.0	-0.7
PRU				Sg	Sg	15 16 39.3	+0.1
	40nm,0.3s						
RUE	Ruedersdorf	1.79	307	ePn	Pn	15 16 12.9	0.0
RUE				eSg	Sg	15 16 40.8	+0.6
RUE	Ruedersdorf	1.79	307	ePn	Pn	15 16 12.9	0.0
RUE				eSg	Sg	15 16 40.8	+0.6
RUE	Ruedersdorf	1.79	307	Sg	Sg	15 16 40.8	+0.6
RAC	Raciborz	1.88	135	eP	Pn	15 16 18.0	+3.8
RAC				eS	Sn	15 16 43.0	+4.0
MORC	Moravsky Berou	1.89	151	ePn	Pn	15 16 14.8	+0.6
MORC				eSn	Sn	15 16 39.8	+0.7
MORC	Moravsky Berou	1.89	151	ePn	Pn	15 16 14.8	+0.6
MORC				eSn	Sn	15 16 39.8	+0.7
MORC				eSg	Sg	15 16 41.9	-1.3
	38nm,0.4s						
CLL	Collm	1.96	268	ePn	Pn	15 16 15.6	+0.2
CLL	Collm	1.96	268	ePn	Pn	15 16 16.0	+0.6
CLL				ePg	Pg	15 16 19.0	-0.7
CLL				i Sg	Sg	15 16 44.8	-1.1
CLL	Collm	1.96	268	ePN	Pn	15 16 16.0	+0.6
CLL				ePG	Pg	15 16 19.0	-0.7
CLL				i		15 16 22.9	
CLL				e		15 16 33.0	
CLL				i SG	Sg	15 16 44.8	-1.1
CLL	Collm	1.96	268	ePg	Pg	15 16 19.0	-0.7
OKC	Ostrava-Krasne	2.05	140	ePN	Pn	15 16 17.3	+0.7
OKC				ePG	Pg	15 16 20.4	-1.0
OKC				eSG	Sg	15 16 47.2	-1.5
OKC	Ostrava-Krasne	2.05	140	ePg	Pg	15 16 20.4	-1.0
OKC				eSg	Sg	15 16 47.2	-1.5
VRAC	Vranov	2.15	172	Pn	Pn	15 16 20.4	+2.5
	3.6nm,0.3s,baz=334,slow=12,SNR=15						
VRAC				Lg		15 16 51.1	
	7.3nm,0.3s,baz=91,slow=23,SNR=9.3						
VRAC	Vranov	2.15	172	ePn	Pn	15 16 19.6	+1.6
VRAC				eSg	Sg	15 16 50.8	-1.1
	33nm,0.3s						
KRUC	Moravsky	2.38	176	ePn	Pn	15 16 22.9	+1.6
KRUC				eSg	Sg	15 16 57.8	-1.9
	22nm,0.3s						
TANN	Tannenbergstha	2.54	248	ePn	Pn	15 16 24.9	+1.3
WERD	Werda	2.61	249	ePn	Pn	15 16 25.3	+0.6
OJC	Ojcow	2.62	116	ePN	Pn	15 16 25.0	+0.2
OJC				ePG	Pg	15 16 33.0	+0.2
OJC				eSG	Sg	15 17 08.0	+0.2
OJC	Ojcow	2.62	116	ePg	Pg	15 16 33.1	+0.3
OJC				eSg	Sg	15 17 08.1	+0.3
NKC	Novy Kostel	2.62	244	ePN	Pn	15 16 25.7	+0.9
NKC				ePG	Pg	15 16 32.3	-0.6
NKC				eSG	Sg	15 17 07.3	-0.6
NKC	Novy Kostel	2.62	244	Pg	Pg	15 16 32.3	-0.6
NKC				eSg	Sg	15 17 06.8	-1.1
GUNZ	Gunzen	2.63	248	ePn	Pn	15 16 26.3	+1.3
GUNZ				eSg	Sg	15 17 08.7	+0.6
KHC	Kasperske Hory	2.83	216	ePN	Pn	15 16 29.0	+1.3
KHC				ePG	Pg	15 16 34.6	-2.3
KHC				eSN	Sn	15 17 02.0	-1.0
KHC				eSG	Sg	15 17 15.7	+1.1
KHC	Kasperske Hory	2.83	216	ePg	Pg	15 16 34.6	-2.3
KHC				eSn	Sn	15 17 02.0	-1.0
KHC				eSg	Sg	15 17 15.7	+1.1
MOX	Moxa	2.96	256	ePn	Pn	15 16 30.2	+0.7
MOX				eSg	Sg	15 17 18.3	-0.7
MOX	Moxa	2.96	256	i P	Pn	15 16 29.8	+0.2
MOX				Pg	Pg	15 16 38.0	-1.5
MOX				Sg	Sg	15 17 18.0	-0.9
MOX	Moxa	2.96	256	ePn	Pn	15 16 29.8	+0.2
MOX				ePg	Pg	15 16 38.3	-1.2
MOX				eSg	Sg	15 17 18.1	-0.8
MOX	Moxa	2.96	256	ePg	Pg	15 16 38.3	-1.2
MOX				eSg	Sg	15 17 16.2	-2.7
GERES	GERESS Array B	3.02	212	Pn	Pn	15 16 32.1	+1.5
	1.3nm,0.3s,baz=28,slow=13,SNR=8.4						
GERES				Pg	Pg	15 16 38.4	-2.5
	5.3nm,0.3s,baz=31,slow=17,SNR=21						
GERES				Lg		15 17 18.8	
	5.3nm,0.3s,baz=36,slow=27,SNR=5.8						
GERES	GERESS Array B	3.02	212	Pg	Pg	15 16 38.4	-2.5
SMOL	Smolenice	3.04	163	ePB	Pb	15 16 38.8	+3.6
SMOL				eSG	Sg	15 17 22.8	+1.2
ZST	Bratislava	3.30	169	ePG	Pg	15 16 44.5	-1.8
ZST				eSG	Sg	15 17 30.1	-0.2
NIE	Niedzica	3.35	125	eP	Pg	15 16 45.6	-1.7
NIE				eS	Sg	15 17 31.7	-0.2
VYHS	Vyhne	3.42	148	ePN	Pn	15 16 36.9	+0.8
VYHS				ePG	Pg	15 16 47.1	-1.6
VYHS				eSG	Sg	15 17 34.1	-0.2
VYHS	Vyhne	3.42	148	ePg	Pg	15 16 47.1	-1.6
VYHS				eSg	Sg	15 17 34.1	-0.2
GRA1	Grafenberg Arr	3.58	243	ePn	Pn	15 16 39.1	+0.7
GRA1				eSg	Sg	15 17 37.8	-1.9
GRA1	Grafenberg Arr	3.58	243	Pn	Pn	15 16 39.1	+0.7
GRA1				Sg	Sg	15 17 37.8	-1.9
GRF	Grafenberg Arr	3.58	243	ePn	Pn	15 16 39.1	+0.7
GRF				eSg	Sg	15 17 37.8	-1.9
BSD	Bornholm Skovb	3.76	349	i P	Pn	15 16 39.0	-2.0
BSD				i S	Sn	15 17 22.3	-4.3
MOA	Molln	3.79	199	⇑iPN	Pn	15 16 42.4	+1.1
MOA				i SG	Sg	15 17 44.6	-1.9
	9.8nm,0.4s						
ARSA	Arzberg	4.20	186	⇑iPN	Pn	15 16 50.7	+3.4

ARSA				*i* SG	Sg	15 18 00.1	-0.3
	23nm,0.7s						
ARSA	**Arzberg**	4.20	186	*i* Sg	Sg	15 18 00.1	-0.3
CRVS	**Cervenica-Dubn**	4.26	124	*e*PN	Pn	15 16 49.3	+1.2
CRVS				*e*SG	Sg	15 17 58.8	-3.5
KOLS	**Kolonicke sedl**	4.67	120	*e*PN	Pn	15 16 53.7	-0.2
KBA	**Koelnbreinsper**	4.72	204⇑	*i*PN	Pn	15 16 55.5	+0.8
KBA				*i* SG	Sg	15 18 15.2	-2.5
	8.5nm,0.5s						
OBKA	**Obir**	5.04	193⇓	*i*PN	Pn	15 17 01.5	+2.4
OBKA				*i* SG	Sg	15 18 26.6	-1.5
	7.9nm,0.7s						
OBKA	**Obir**	5.04	193⇓	*i*Pn	Pn	15 17 01.5	+2.4
	7.9nm,0.7s						
OBKA				*i* Sg	Sg	15 18 26.6	-1.5
OBKA	**Obir**	5.04	193	*i* Sg	Sg	15 18 26.6	-1.5
	7.9nm,0.7s						
DAVOX	**Davos**	6.20	224	Lg		15 19 00.4	
	0.4nm,0.3s,baz=320,slow=18,SNR=3.7						
AKASG	**Malin Array Be**	8.28	90	Pn	P	15 17 41.7	-3.0
	0.8nm,0.3s,baz=278,slow=12,SNR=5.1						
HFS	**Hagfors**	8.83	352	Pn	P	15 17 48.1	-4.2
	0.0nm,0.3s,baz=169,slow=15,SNR=6.1						
NOA	**NORSAR Array B**	10.01	346	Pn	P	15 18 05.2	-3.3
	0.1nm,0.3s,baz=157,slow=12,SNR=2.5						
FINES	**FINESS Array B**	11.43	25	Pn	P	15 18 23.4	-4.5
	0.2nm,0.3s,baz=200,slow=12,SNR=6.8						
EKA	**Eskdalemuir Ar**	12.15	296	Pn	P	15 18 34.4	-3.4
	baz=106,slow=13,SNR=2.5						

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*MAN **03** 15:25:07.7, 8.33N×126.49E, h66^{km}, mb4.9, ML3.8, MS3.9*
MAN Bislig Surigao del Sur - Intensity II.
*NEIC **03** 15:25:08.1±3.3, 8.36N×126.55E, h110^{km}±30^{km}, mb4.1/8, Error ellipse: s-maj=20.3km s-min=7.3km az=77.0*
NEIC Felt [II PIVS] at Bislig.
*IDC **03** 15:25:11.6±5.5, 8.30N×126.46E, h141^{km}±53^{km}, mb3.7/15, mb1 3.8/16, mb1mx3.8/23, MS4.1/3, Ms1 4.1/3, ms1mx3.3/25, Error ellipse: s-maj=25.9km s-min=11.4km az=79.0*
ISC 03 15:25:05.9±0.5**, 8.36N**±0.03×**126.54E**±0.06**, h104**^{km}±4^{km}**, n53,** σ1§**10**/62**, mb4.1**/26**, 2C-5D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	0.25	226⇓	*i*P	P	15 25 19.9	-0.9
BIPH				*i* S	S	15 25 28.6	-3.5
BUTP	**Butuan**	1.09	304	*e*P	P	15 25 29.0	+1.0
MATI	**Mati**	1.43	191	*e*P	P	15 25 31.7	-0.2
MATI				*e*S	S	15 25 50.6	-0.8
BUKP	**Musuan**	1.54	252	*e*P	P	15 25 34.0	+0.7
SCPH	**Surigao**	1.76	324⇑	*e*P	P	15 25 37.0	+1.0
SCPH				*e*S	S	15 26 00.5	+2.1
KCP	**Kidapawan**	1.96	227⇓	*e*P	P	15 25 38.8	+0.2
KCP				*i* S	S	15 26 03.0	0.0
MSLP	**Maasin**	2.42	317	*e*P	P	15 25 46.2	+1.3
MSLP				*e*S	S	15 26 13.4	-0.6
CTBH	**Cotabato--PC H**	2.54	244⇓	*i*P	P	15 25 45.6	-0.8
CTBH				*i* S	S	15 26 15.8	-1.0
TBP	**Tagbilaran**	2.96	297	*e*P	P	15 25 53.1	+0.9
TBP				*i* S	S	15 26 27.1	+0.1
DCPH	**Dipolog City**	3.16	274⇓	*e*P	P	15 25 56.1	+1.1
PAGZ	**Pagadian**	3.17	261	*e*P	P	15 25 55.9	+0.8
PLP	**Palo**	3.19	331	*e*P	P	15 25 55.8	+0.5
PLP				*e*S	S	15 26 31.1	-1.5
LLP	**Lapu-Lapu**	3.20	308⇓	*i*P	P	15 25 56.7	+1.2
LLP				*e*S	S	15 26 30.6	-2.4
BESP	**Borongan**	3.40	341	*e*P	P	15 25 59.9	+1.7
BESP				*e*S	S	15 26 36.0	-1.9
IPIL	**Ipil**	3.97	262	*e*P	P	15 26 07.7	+1.7
CNP	**Catarman**	4.52	336	*e*P	P	15 26 13.5	0.0
CNP				*e*S	S	15 27 02.1	-3.2
JOW	**Kunigami**	18.45	5	P	P	15 29 15.3	-0.6
	3.9nm,0.3s,baz=113,slow=29,SNR=4.7						
FITZ	**Fitzroy Crossi**	26.30	182	P	P	15 30 33.8	-0.1
	2.1nm,0.5s,mb3.8,baz=0.7,slow=14,SNR=9.3						
CMAR	**Chiang Mai Arr**	28.62	293	P	P	15 30 55.6	+0.8
	1.0nm,0.5s,mb3.7,baz=86,slow=7.7,SNR=7.8						
WRAB	**Tennant Creek**	29.14	165	P	P	15 30 57.4	-2.1
	2.2nm,0.7s,mb3.9						
WRA	**Warramunga Arr**	29.15	165	P	P	15 30 57.8	-1.7
	0.7nm,0.6s,mb3.5,baz=347,slow=9.5,SNR=5.2						
ASAR	**Alice Springs**	32.63	167	P	P	15 31 29.3	-0.8
	0.5nm,0.4s,mb3.7,baz=348,slow=7.0,SNR=15						
SHL	**Shillong**	37.14	302⇑	*e*P	P	15 32 09.5	+1.1
ASAJ	**Asahikawa**	38.27	19	P	P	15 32 20.3	+2.6
	4.5nm,0.4s,mb4.6,baz=208,slow=8.1,SNR=7.6						
FORT	**Forrest**	38.94	178	*e*P	P	15 32 24.3	+1.0
	22nm,0.6s,mb5.2						
NWAO	**Narrogin (SRO)**	42.00	192	P	P	15 32 49.4	+0.8
	3.9nm,0.6s,mb4.3,baz=38,slow=8.2,SNR=5.4						
STKA	**Stephens Creek**	42.52	161	*e*P	P	15 32 53.1	+0.3
	2.5nm,0.9s,mb3.9						
STKA	**Stephens Creek**	42.52	161	P	P	15 32 53.1	+0.3
	1.9nm,0.5s,mb4.1,baz=331,slow=9.4,SNR=7.2						
SONM	**Songino Array**	42.90	340	P	P	15 32 55.5	-0.2
	0.4nm,0.4s,mb3.5,baz=155,slow=8.0,SNR=5.0						
GUN	**Gumba**	42.99	302	*e*P	P	15 32 57.4	+0.7
	25nm,0.8s,mb5.0						
PKI	**Pulchoki**	43.27	302	*e*P	P	15 32 59.0	0.0
KKN	**Kakani**	43.45	302	*e*P	P	15 33 00.6	+0.1
DMN	**Daman**	43.54	302	*e*P	P	15 33 01.3	+0.1
GKN	**Gorkha**	44.06	302	*e*P	P	15 33 04.4	-1.0
KOLN	**Koldanda**	44.86	301	*e*P	P	15 33 11.0	-0.8
	30nm,1.0s,mb5.0						
ZAL	**Zalesovo**	56.43	332	P	P	15 34 38.1	-0.9
	1.1nm,0.5s,mb4.2,baz=354,slow=9.5,SNR=6.1						
KURK	**Kurchatov**	57.79	326	*e*P	P	15 34 47.4	-1.1
	8.5nm,1.0s,mb4.7						
BVAR	**Borovoye Array**	63.38	326	P	P	15 35 25.9	-0.7
	0.9nm,0.4s,mb4.0,baz=103,slow=5.4,SNR=13						
BRVK	**Borovoye**	63.46	326	*e*P	P	15 35 26.0	-1.0
	2.1nm,0.6s,mb4.2						
CHKZ	**Chkalovo**	63.52	327	*e*P	P	15 35 26.3	-1.1
	1.0nm,0.7s,mb3.8						
MCK	**McKinley**	80.14	27	P	P	15 37 06.6	+0.8
	1.0nm,0.6s,mb3.8						
ILAR	**Eielson Array**	81.04	26	P	P	15 37 11.3	+0.8
	0.6nm,0.7s,mb3.5,baz=249,slow=4.2,SNR=5.5						
JOF	**Joensuu**	85.00	333	*e*p	P	15 37 30.5	-0.1
	1.1nm,0.4s,mb4.1						
ASF	**Jabal al Asfar**	85.31	302	LR	LR	16 21 50.6	
	comp=Z,130nm,21.9s,baz=52,slow=40						
ARCES	**ARCESS Array B**	86.07	340	P	P	15 37 36.4	+0.6
	2.0nm,0.7s,mb4.2,baz=63,slow=5.4,SNR=4.9						
KAF	**Kangasniemi**	87.44	332	*e*p	P	15 37 40.8	-1.7
FINES	**FINESS Array B**	87.69	332	P	P	15 37 43.4	-0.3
	1.5nm,0.4s,mb4.4,baz=81,slow=5.3,SNR=32						
FINES				LR	LR	16 21 46.7	
	comp=Z,123nm,19.8s,baz=222,slow=39						
FINES	**FINESS Array B**	87.69	332	P	P	15 37 43.4	-0.3
FINES				LR	LR	16 21 46.7	
VNDA	**Vanda**	88.01	173	P	P	15 37 46.5	+1.5
	1.9nm,1.1s,mb4.0						
AKASG	**Malin Array Be**	88.21	321	P	P	15 37 45.6	-0.8
	0.4nm,0.5s,mb3.7,baz=58,slow=5.2,SNR=5.7						
SBA	**Scott Base**	88.91	172	*e*P	P	15 37 49.7	+0.4
	3.8nm,0.9s,mb4.4						
NOA	**NORSAR Array B**	94.58	334	LR	LR	16 23 43.2	
	comp=Z,55nm,19.4s,baz=235,slow=37						
YKA	**Yellowknife Ar**	95.39	24	P	P	15 38 20.8	+1.4
	0.2nm,0.4s,mb3.9,baz=304,slow=4.2,SNR=5.2						

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*CNRM **03** 15:26:02.6, 35.25N×2.55W, h3^{km}, MD3.3*
*NEIC **03** 15:26:06.3, 35.01N×3.10W, h1^{km}, MG3.9(MDD), After MDD.*
*MDD **03** 15:26:06.7±1.2, 35.01N×3.09W, h3^{km}±8^{km}, mb3.9/12, Error ellipse: s-maj=14.9km s-min=8.4km az=122.0, PRXIMO AftershockPLICA*
*CSEM **03** 15:26:06.7±0.1, 35.14N×3.03W, h20^{km}, MD3.3, Error ellipse: s-maj=2.8km s-min=1.7km az=104.0*
ISC 03 15:26:07.4±0.6**, 35.15N**±0.03×**2.96W**±0.05**, h28**^{km}±3^{km}**, n54,** σ1§**05**/80**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	**Melilla**	0.15	8	P	Pb	15 26 13.5	+0.7
MELI				S	Sb	15 26 16.8	+0.3
MELI	**Melilla**	0.15	8	*e*P	Pb	15 26 13.5	+0.7
MELI				*i* S	Sb	15 26 16.8	+0.3
EMEL	**Melilla**	0.15	1	P	Pb	15 26 12.0	-0.9
	75nm,0.1s,SNR=18						
EMEL				S	Sb	15 26 16.6	0.0
	549nm,0.1s,SNR=13						
EMLI	**Melilla**	0.15	3	S	Sb	15 26 16.6	0.0
	549nm,0.1s,SNR=13						
EMLI	**Melilla**	0.15	3	P	Pb	15 26 12.0	-0.9
	75nm,0.1s,SNR=18						
TOU	**Touzarine**	0.68	255	*i* P	Pb	15 26 20.5	-0.1
MPAL	**Palemas**	0.81	276	*i* P	Pb	15 26 23.0	+0.2
TZK	**Tazeka**	1.46	224	*i* P	Pn	15 26 32.0	-0.3
EBER	**Berja**	1.75	2	P	Pn	15 26 37.6	+1.0
	1.6nm,0.3s,SNR=4.8						
EBER				S	Sn	15 26 59.1	+1.1
	1.8nm,0.2s						
EBER	**Berja**	1.75	2	P	Pn	15 26 37.6	+1.1
	1.6nm,0.3s,SNR=4.8						
EBER				S	Sn	15 26 59.1	+1.0
	1.8nm,0.2s						
ENIJ	**Nijar**	1.92	18	P	Pn	15 26 39.2	+0.3
ENIJ	**Nijar**	1.92	18	P	Pn	15 26 39.2	+0.2
ERON	**Agron**	1.99	340	P	Pn	15 26 40.0	0.0
	2.8nm,0.2s,SNR=7.9						
ERON				S	Sn	15 27 05.6	+1.3
	SNR=4.0						
ERON	**Agron**	1.99	340	P	Pn	15 26 40.0	0.0
	2.8nm,0.2s,SNR=7.9						
ERON				S	Sn	15 27 04.8	+0.6
EMIJ	**Mijas**	2.04	314	P	Pn	15 26 40.1	-0.6
	3.9nm,0.2s,SNR=12						
EMIJ				S	Sn	15 27 05.4	-0.2
	4.1nm,0.2s,SNR=6.0						
LIJA	**Lijar**	2.65	312	P	Pn	15 26 52.0	+2.7
LIJA				S	Sn	15 27 26.0	+5.1
EQES	**Quesada**	2.65	358	P	Pn	15 26 52.5	+3.1
EQES				S	Sn	15 27 25.6	+4.6
EQES	**Quesada**	2.65	358	P	Pn	15 26 52.5	+3.0
	4.3nm,0.2s,SNR=19						
EQES				S	Sn	15 27 25.6	+4.6
	27nm,0.6s						
EQES	**Quesada**	2.65	358	S	Sn	15 27 25.6	+4.5
	27nm,0.6s						
ESPR	**Espera**	2.91	307	P	Pn	15 26 53.9	+0.8
ESPR				S	Sn	15 27 29.2	+1.7
ESPR	**Espera**	2.91	307	P	Pn	15 26 53.9	+0.8
	5.5nm,0.2s,SNR=6.4						
ESPR	**Espera**	2.91	307	P	Pn	15 26 53.9	+0.8
	5.5nm,0.2s,SNR=6.4						
ESPR				S	Sn	15 27 29.2	+1.7
EMUR	**La Murta**	3.03	27	P	Pn	15 26 56.1	+1.4
	5.0nm,0.3s,SNR=5.8						
EMUR				S	Sn	15 27 28.6	-1.9
	9.0nm,0.5s						
EMUR	**La Murta**	3.03	27	P	Pn	15 26 56.1	+1.4
	5.0nm,0.3s,SNR=5.8						
EMUR				S	Sn	15 27 28.6	-1.9
	9.0nm,0.5s						
EADA	**Adamuz**	3.29	337	P	Pn	15 26 59.3	+0.9
	5.4nm,0.2s,SNR=16						
EADA				S	Sn	15 27 37.6	+0.6
	11nm,0.6s						
EADA	**Adamuz**	3.29	337	P	Pn	15 26 59.3	+0.9
	5.4nm,0.2s,SNR=16						
EADA				S	Sn	15 27 37.6	+0.6
	11nm,0.6s						
ZFT	**Errachidia**	3.31	201	*i* P	Pn	15 26 58.0	-0.8
ZFT				*i* S	Sn	15 27 38.0	+0.3
EVIA	**Vianos**	3.51	6	S	Sn	15 27 41.0	-1.6
	SNR=4.0						
EMIN	**Mina Concepcio**	3.98	312	P	Pn	15 27 07.8	-0.4
	3.2nm,0.1s,SNR=33						
EMIN				S	Sn	15 27 51.6	-2.8
	6.0nm,0.7s,SNR=4.0						
EMIN	**Mina Concepcio**	3.98	312	S	Sn	15 27 51.6	-2.9
	6.0nm,0.7s,SNR=4.0						
EMIN	**Mina Concepcio**	3.98	312	P	Pn	15 27 07.8	-0.4
	3.2nm,0.1s,SNR=33						
EBEN	**Beniarda**	4.17	31	P	Pn	15 27 12.6	+1.6
EBEN				S	Sn	15 27 55.9	-3.7
EBEN	**Beniarda**	4.17	31	P	Pn	15 27 12.6	+1.6
	0.6nm,0.2s,SNR=7.9						
EBEN				S	Sn	15 27 56.5	-3.0
	SNR=4.0						
EBEN	**Beniarda**	4.17	31	P	Pn	15 27 12.6	+1.6
	0.6nm,0.2s,SNR=7.9						
EBEN				S	Sn	15 27 55.8	-3.7
EBAD	**Badajoz**	4.85	319	P	Pn	15 27 20.2	-0.4
EBAD				S	Sn	15 28 13.8	-2.7
EBAD	**Badajoz**	4.85	319	P	Pn	15 27 20.1	-0.5
	3.8nm,0.2s,SNR=15						
EBAD				S	Sn	15 28 13.8	-2.7
	3.7nm,0.6s,SNR=4.0						
EBAD	**Badajoz**	4.85	319	S	Sn	15 28 13.9	-2.7
	3.7nm,0.6s,SNR=4.0						
EBAD	**Badajoz**	4.85	319	P	Pn	15 27 20.2	-0.4
PBEJ	**Beja**	4.88	308	*e*Pn	Pn	15 27 20.7	-0.4
EIBI	**Ibiza**	5.18	40	P	Pn	15 27 23.8	-1.5
EIBI				S	Sn	15 28 19.1	-5.8
EIBI	**Ibiza**	5.18	40	P	Pn	15 27 25.0	-0.3
	3.1nm,0.2s,SNR=4.0						
EIBI				S	Sn	15 28 19.6	-5.3
	SNR=4.0						
EIBI	**Ibiza**	5.18	40	P	Pn	15 27 25.0	-0.3
	3.1nm,0.2s,SNR=4.0						
MOE	**Montemor**	5.48	310	*e*Pn	Pn	15 27 29.3	-0.2
PCBR	**Castelo Branco**	5.90	324	*e*Pn	Pn	15 27 35.1	-0.4
ERTA	**Horta de San J**	6.36	23	P	Pn	15 27 42.7	+0.9
	1.6nm,0.2s,SNR=7.9						
ERTA	**Horta de San J**	6.36	23	P	Pn	15 27 42.7	+0.8
ECAL	**Calabor**	7.40	338	P	Pn	15 27 56.0	-0.5
	0.6nm,0.1s,SNR=7.9						
ECAL	**Calabor**	7.40	338	P	Pn	15 27 56.0	-0.5
ELOB	**Lobios**	7.81	331	P	Pn	15 28 01.3	-0.9
ELOB	**Lobios**	7.81	331	P	Pn	15 28 01.3	-0.9
EINC	**Incio**	8.25	337	P	P	15 28 07.6	-0.7
EINC	**Incio**	8.25	337	P	P	15 28 07.6	-0.7
EARI	**Arriondas**	8.33	349	P	P	15 28 09.3	-0.2
EARI	**Arriondas**	8.33	349	P	P	15 28 09.3	-0.2

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*IDC **03** 15:27:20.1±1.1, 3.37S×134.98E, mb3.7/3, mb1 4.1/6, mb1mx3.8/15, ML3.9/3, Error ellipse: s-maj=51.4km s-min=26.2km az=80.0*
*NEIC **03** 15:27:23.3±0.8, 3.49S×135.10E, h10^{km}, mb3.7/3, Error ellipse: s-maj=20.2km s-min=11.4km az=95.0*
ISC 03 15:27:18.4±3.0**, 3.57S**±0.09×**135.1E**±0.2**, h7**^{km}±19^{km}**, n14,** σ1§**31**/20**, mb3.5**/2**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	9.45	196	*e*P	P	15 29 38.5	+0.5
	11nm,0.4s						
WRAB	**Tennant Creek**	16.28	182	*e*P	P	15 31 07.0	-2.4
	8.6nm,0.6s						
WB2	**Warramunga Arr**	16.29	182	*e*P	P	15 31 13.6	+4.1
WB2				*e*S	S	15 34 02.7	-7.6
WRA	**Warramunga Arr**	16.29	182	Pn	P	15 31 07.0	-2.6
	0.2nm,0.3s,baz=0.1,slow=13,SNR=6.7						
WRA				Sn	S	15 34 03.1	-7.2
	0.3nm,0.3s,baz=5.3,slow=22,SNR=6.2						
WRA	**Warramunga Arr**	16.29	182	Pn	P	15 31 07.0	-2.6
WRA				Sn	S	15 34 03.1	-7.2
FITZ	**Fitzroy Crossi**	17.14	212	*e*P	P	15 31 22.5	+2.3
	4.3nm,0.9s						
FITZ				*e*S	S	15 34 28.8	-1.0
FITZ	**Fitzroy Crossi**	17.14	212	P	P	15 31 22.9	+2.7
	0.6nm,0.3s,baz=33,slow=12,SNR=10						
FITZ				S	S	15 34 25.9	-4.0
	0.3nm,0.3s,baz=192,slow=14,SNR=3.0						
CTA	**Charters Tower**	19.72	147	P	P	15 31 52.4	+0.7
	0.3nm,0.3s,baz=329,slow=16,SNR=3.5						
CTAO	**Charters Tower**	19.72	147	P	P	15 31 52.1	+0.5
	3.6nm,0.8s						
ASAR	**Alice Springs**	20.01	183	P	P	15 31 55.5	+0.7
	9.4nm,1.1s,baz=8.2,slow=10,SNR=4.8						
ASAR				S	S	15 35 35.4	+1.0
	1.0nm,0.8s,baz=6.6,slow=24,SNR=4.7						
ASPA	**Alice Springs**	20.01	183	*e*P	P	15 31 55.4	+0.6
ASPA				*e*S	S	15 35 34.5	+0.1
BVAR	**Borovoye Array**	77.95	326	P	P	15 39 18.8	-0.1
	0.3nm,0.6s,mb3.4,baz=135,slow=6.1,SNR=2.3						
ILAR	**Eielson Array**	88.13	25	P	P	15 40 10.5	-0.4
	0.2nm,0.6s,mb3.5,baz=263,slow=4.8,SNR=4.4						
LPAZ	**La Paz**	149.76	131	PKPbc	PKPdf	15 47 16.3	+8.3
	0.7nm,0.8s,baz=270,slow=1.0,SNR=3.4						

TRN 03 15:40:41.0, 10.44N×61.16W, h39^{km}, MD3.6, 2C, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	**Brigand Hill**	0.10	67⇑	*i*P	P	15 40 47.1	-0.2
TBH				*e*S	S	15 40 52.8	+0.9
TRN	**Trinidad (W)**	0.31	311⇑	*i*P	P	15 40 49.4	+0.1
TRN				*e*S	S	15 40 55.1	+0.1
TPR	**Prospect**	0.83	27	*i* P	P	15 40 56.2	0.0
TPR				*e*S	S	15 41 07.6	+0.1
BOT	**Bacolet**	0.84	31	*e*P	P	15 40 56.2	-0.2
BOT				*e*S	S	15 41 07.9	+0.1
GRW	**Mount Saint Ca**	1.77	344	*e*P	P	15 41 10.4	+0.6
GRW				*e*S	S	15 41 33.1	+1.8

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*NEIC **03** 15:43:27.6±2.8, 10.01S×161.45E, h10^{km}, mb4.2/1, Error ellipse: s-maj=70.6km s-min=24.8km az=113.0*
IDC 03 15:43:38.0±3.3**, 9.96S**×**160.92E, h71**^{km}±7^{km}**, mb3.7**/5**, mb1 3.8**/6**, mb1mx3.7**/16**, Error ellipse: s-maj=85.4km s-min=23.1km az=114.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	17.37	233	P	P	15 47 37.1	-0.1
	0.3nm,0.3s,baz=49,slow=11,SNR=4.9						
WRAB	**Tennant Creek**	27.48	246	*e*P	P	15 49 18.3	-1.6
	3.1nm,0.7s						
WRA	**Warramunga Arr**	27.50	246	P	P	15 49 18.1	-1.9
	1.0nm,0.5s,baz=74,slow=9.0,SNR=22						
WRA				pP	pP	15 49 34.2	-2.5
	0.7nm,0.6s,baz=74,slow=9.4,SNR=3.6						
STKA	**Stephens Creek**	28.22	217	P	P	15 49 23.4	-2.9
	2.6nm,1.2s,baz=85,slow=12,SNR=3.1						
ASAR	**Alice Springs**	29.16	239	P	P	15 49 31.4	-3.5
	0.3nm,0.6s,baz=62,slow=10.0,SNR=4.3						
ASAR				sP	sP	15 50 00.2	0.0
	0.7nm,1.0s,baz=65,slow=8.5,SNR=3.1						
FITZ	**Fitzroy Crossi**	35.12	253	P	P	15 50 25.2	-1.6
	2.4nm,0.4s,baz=60,slow=6.5,SNR=19						
SONM	**Songino Array**	75.03	325	P	P	15 55 12.8	-0.9
	1.6nm,0.7s,baz=141,slow=5.1,SNR=14						
SONM				pP	pP	15 55 30.3	-2.7
	1.0nm,0.6s,baz=140,slow=5.7,SNR=6.6						

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*SKHL **03** 16:06:55.0±2.4, 49.90N×153.78E, h180^{km}±30^{km}, mb6.3/2, mbh6.0/2, msh5.1/1*
*BJI **03** 16:06:55.8, 49.59N×153.76E, h233^{km}, mB4.8, mb4.8*
*MOS **03** 16:06:57.1±1.0, 49.92N×153.57E, h219^{km}, mb4.5/18, Error ellipse: s-maj=10.2km s-min=6.5km az=72.5*
*KRSC **03** 16:06:57.3±2.1, 49.55N×154.22E, h227^{km}±5^{km}, ML5.2*
*IDC **03** 16:06:58.9±0.7, 49.93N×153.50E, h217^{km}±6^{km}, mb4.3/27, mb1 4.5/30, mb1mx4.5/32, Error ellipse: s-maj=9.4km s-min=6.6km az=132.0*
*NEIC **03** 16:06:58.7±0.1, 49.93N×153.50E, mb4.7/70, Error ellipse: s-maj=4.0km s-min=2.5km az=158.0*
ISC 03 16:06:57.1±0.2**, 49.93N**±0.03×**153.55E**±0.03**, h214**^{km}±2^{km}**, h211**^{km}±3.0^{km}**:pP-P, n326,** σ1§**02**/369**, mb4.5**/109**, 29C-17D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	**Alaid**	1.59	53	*i* P	P	16 07 34.4	+1.2
SKR	**Severo-Kuril's**	1.81	64	*i* P	P	16 07 32.5	-2.7
SKR				*i* S	S	16 08 02.5	-2.1
SKR	**Severo-Kuril's**	1.81	64⇓	*i*PN	P	16 07 32.5	-2.7
SKR				*e*S	S	16 08 02.5	-2.1
SKR				pmax	pmax		
	comp=Z,7µm,0.6s						
SKR				pmax	pmax		
	comp=N,1µm,0.4s						
SKR				pmax	pmax		
	comp=E,1µm,0.6s						
SKR				pmax	pmax		
	comp=Z,11µm,1.0s						
SKR				pmax	pmax		
	comp=N,3µm,1.5s						
SKR				pmax	pmax		
	comp=E,4µm,1.5s						
SKR				smax			
	comp=N,2µm,4.0s						
SKR				smax			
	comp=E,4µm,4.0s						
SKR				smax			
	comp=N,710nm,0.2s						
SKR				smax			
	comp=E,1µm,0.2s						
SKR	**Severo-Kuril's**	1.81	64⇓	*i*P	P	16 07 32.5	-2.7
SKR				AMB	AMB	16 07 33.0	
	comp=E,3µm,2.0s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,4µm,2.0s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,11µm,2.0s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,1µm,0.5s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,1µm,0.5s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,7µm,0.5s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,3µm,1.5s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,4µm,1.5s						
SKR				AMB	AMB	16 07 33.0	
	comp=E,10µm,1.5s						
SKR				*e*S	S	16 08 02.5	-2.1
SKR				A		16 08 07.0	
	comp=E,2µm,4.0s						
SKR				A		16 08 07.0	
	comp=E,4µm,4.0s						
SKR				A		16 08 07.0	
	comp=E,2µm,4.0s						
SKR				A		16 08 07.0	
	comp=E,4µm,4.0s						
SKR				A		16 08 15.8	
	comp=E,710nm,1.3s						
SKR				A		16 08 15.8	
	comp=E,1µm,1.3s						
SKR				A		16 08 15.8	
	comp=E,2µm,1.3s						
PAU	**Pauzhetka**	2.58	52	*i* P	P	16 07 44.0	+0.7
PAU				*e*S	S	16 08 17.0	-1.9
PAU				Smax			
	comp=E,1µm,0.9s						
MIPR	**Malaya Ipel'ka**	3.10	39	*i* P	P	16 07 50.9	+1.8
MIPR				*i* S	S	16 08 29.7	+0.3
APC	**Apacha**	3.75	36	*i* P	P	16 07 58.6	+1.6
APC				*e*S	S	16 08 43.7	+0.3
APC				Smax			
	comp=E,560nm,1.4s						
GRL	**Gorelyy**	3.87	46	*i* P	P	16 07 59.7	+1.3
GRL				*e*S	S	16 08 44.8	-1.0
RUS	**Russkaya**	4.00	49	P	P	16 08 00.0	0.0
RUS				S	S	16 08 45.3	-3.5
RUS	**Russkaya**	4.00	49	*i* P	P	16 07 59.8	-0.2
RUS				*e*S	S	16 08 45.3	-3.5
KRMR	**Karymshinskiy**	4.08	43	*i* P	P	16 08 02.2	+1.2
KRMR				*e*S	S	16 08 48.9	-1.6
PET	**Petropavlovsk**	4.45	44	P	P	16 08 06.2	+0.7
PET				S	S	16 08 56.4	-2.2
PET	**Petropavlovsk**	4.45	44	*e*P	P	16 08 06.3	+0.8
PET				*e*S	S	16 08 56.4	-2.2
PET	**Petropavlovsk**	4.45	44⇓	*i*PN	P	16 08 06.1	+0.6
PET				*e*S	S	16 08 59.1	+0.5
PET				pmax	pmax		
	comp=Z,100nm,14.4s						
PET				pmax	pmax		
	comp=Z,309nm,0.6s						
PET				smax			
	comp=E,200nm,18.1s						
PET				smax			
	comp=N,610nm,0.6s						
PET				smax			
	comp=E,454nm,0.7s						
PET				smax			
	comp=N,300nm,11.1s						
PET				MLR	MLR		
	comp=Z,700nm,13.0s						
PET	**Petropavlovsk**	4.45	44	*e*Pn	P	16 08 03.2	-2.3
PET				*e*Sn	S	16 08 57.0	-1.6

KOK	Koryaka	4.62	41	*i* P	P	16 08 09.8	+2.0
KOK				*e*S	S	16 09 02.1	-0.5
UGLR	Uglovaya	4.65	43	*i* P	P	16 08 10.1	+2.0
UGLR				*e*S	S	16 09 02.2	-0.9
AVH	Avacha	4.65	42	*i* P	P	16 08 10.0	+1.9
AVH				*e*S	S	16 09 02.3	-0.9
GNL	Ganaly	4.65	34	*i* P	P	16 08 09.4	+1.3
SMAR	Somma	4.67	42	*i* P	P	16 08 10.5	+2.1
SMAR				*e*S	S	16 09 03.5	-0.2
SDLR	Sedlovina	4.72	43	*i* P	P	16 08 10.4	+1.4
SDLR				*i* S	S	16 09 02.8	-2.0
NLC	Nalytchevo	4.86	46	P	P	16 08 10.1	-0.6
NLC				S	S	16 09 02.7	-5.2
NLC	Nalytchevo	4.86	46	*i* P	P	16 08 10.0	-0.7
NLC				*i* S	S	16 09 02.7	-5.2
SPN	Mys Shipunski	5.14	49	P	P	16 08 13.6	-0.7
SPN				S	S	16 09 07.3	-6.9
SPN	Mys Shipunski	5.14	49	*e*P	P	16 08 13.4	-0.9
SPN				*i* S	S	16 09 09.1	-5.1
KII	Karymskiy	5.49	39	P	P	16 08 20.0	+1.2
KII	Karymskiy	5.49	39	*e*P	P	16 08 19.7	+0.9
KII				*e*S	S	16 09 20.3	-2.0
KUR	Kuril'sk	6.07	221	⇓*i*PN	P	16 08 25.0	-1.2
KUR				*i* S	S	16 09 36.5	+0.9
KUR				pmax	pmax		
	comp=Z,300nm,0.6s						
KUR				smax			
	comp=N,610nm,0.6s						
KUR				smax			
	comp=E,150nm,0.6s						
KUR	Kuril'sk	6.07	221	⇑*i*P	P	16 08 25.0	-1.2
KUR				AMB	AMB	16 08 25.5	
	comp=E,300nm,0.6s						
KUR				*i* S	S	16 09 36.5	+0.9
KUR				A		16 09 43.5	
	comp=E,610nm,0.6s						
KUR				A		16 09 43.5	
	comp=E,150nm,0.6s						
TUMR	Tumrok	6.70	34	*e*P	P	16 08 35.7	+1.4
TUMR				*e*S	S	16 09 48.4	-1.7
ESO	Esso	6.76	25	*i* P	P	16 08 38.3	+3.2
TYV	Tymovskoe	7.03	282	*e*P	P	16 08 39.8	+1.2
TYV				AMB	AMB	16 08 58.0	
	comp=E,40nm,0.9s						
KMNR	Kamenistaya	7.10	32	*e*P	P	16 08 41.3	+1.8
KMNR				*e*S	S	16 09 56.3	-3.1
KOZ	Kozyrevsk	7.22	29	P	P	16 08 42.4	+1.3
KOZ	Kozyrevsk	7.22	29	*e*P	P	16 08 41.9	+0.8
KOZR	Kozyr	7.24	29	PN	P	16 08 42.4	+1.1
KPT	Kopyto	7.26	31	*e*P	P	16 08 42.6	+1.0
KPT				*e*S	S	16 09 59.7	-3.5
SRDR	Sredinnyy	7.39	28	*e*P	P	16 08 45.5	+2.2
ZLN	Zelenaya	7.50	33	*e*P	P	16 08 46.7	+2.0
ZLN				*e*S	S	16 10 05.6	-3.2
LGNR	Loginova	7.51	32	*e*P	P	16 08 47.3	+2.4
LGNR				*e*S	S	16 10 06.6	-2.5
CIRR	Tsirk	7.56	32	*e*P	P	16 08 47.2	+1.7
CIRR				*e*S	S	16 10 06.5	-3.6
KRSR	Krestovskiy	7.58	31	*e*P	P	16 08 46.1	+0.4
KLY	Klyuchi	7.69	31	P	P	16 08 49.1	+2.0
KLY	Klyuchi	7.69	31	*i* P	P	16 08 49.2	+2.1
KLY				*e*S	S	16 10 10.6	-2.4
YSS	Yuzh-Sakhalins	7.77	252	⇓*i*PN	P	16 08 51.0	+2.8
YSS				pmax	pmax		
	comp=Z,70nm,1.1s						
YSS				pmax	pmax		
	comp=N,60nm,1.0s						
YSS				pmax	pmax		
	comp=E,60nm,1.0s						
YSS	Yuzh-Sakhalins	7.77	252	*e*Pn	P	16 08 49.7	+1.5
	comp=E,66nm,1.0s						
YUK	Yuzh-Kuril'sk	7.90	225	*i* PN	P	16 08 48.5	-1.3
YUK				*e*S	S	16 10 14.9	-3.1
YUK				pmax	pmax		
	comp=Z,3µm,0.4s						
YUK				pmax	pmax		
	comp=N,380nm,0.5s						
YUK				pmax	pmax		
	comp=E,2µm,0.5s						
YUK				pmax	pmax		
	comp=N,1µm,0.5s						
YUK				pmax	pmax		
	comp=E,3µm,0.5s						
YUK				pmax	pmax		
	comp=Z,5µm,0.5s						
YUK				smax			
	comp=N,550nm,0.5s						
YUK				smax			
	comp=E,550nm,0.5s						
YUK	Yuzh-Kuril'sk	7.90	225	⇑*i*P	P	16 08 48.5	-1.3
YUK				AMB	AMB	16 08 50.0	
	comp=E,1µm,1.0s						
YUK				AMB	AMB	16 08 50.0	
	comp=E,3µm,1.0s						
YUK				AMB	AMB	16 08 50.0	
	comp=E,5µm,1.0s						
YUK				AMB	AMB	16 08 50.0	
	comp=E,380nm,0.5s						
YUK				AMB	AMB	16 08 50.0	
	comp=E,2µm,0.5s						
YUK				AMB	AMB	16 08 50.0	
	comp=E,3µm,0.5s						
YUK				*e*S	S	16 10 14.9	-3.1
YUK				A		16 10 27.0	
	comp=E,550nm,0.5s						
SVLR	Shiveluch	8.09	32	*e*P	P	16 08 53.8	+1.5
SVLR				*e*S	S	16 10 18.5	-3.8
KBG	Krutoberegovo	8.39	37	*i* P	P	16 08 57.1	+0.9
KBG				*e*S	S	16 10 25.1	-4.2
KBG				Smax			
	comp=E,370nm,0.9s						
KBTR	Krutoberegovo	8.40	38	*e*P	P	16 08 55.1	-1.3
KBTR				*e*S	S	16 10 22.1	-7.5
JWK2	Keihoku	9.12	244	P	P	16 09 10.5	+4.8
ASAJ	Asahikawa	9.47	236	P	P	16 09 12.4	+2.2
	comp=E,68nm,0.3s,baz=70,slow=12,SNR=301						
ASAJ				S	S	16 10 56.7	+2.4
	comp=E,1.4nm,0.3s,baz=231,slow=14,SNR=2.1						
ASAJ	Asahikawa	9.47	236	PN	P	16 09 12.4	+2.2
ASAJ				S	S	16 10 56.7	+2.4
ASAJ				pmax	pmax		
	comp=Z,68nm,0.3s						
JEM	Erimo	10.71	226	P	P	16 09 23.4	-2.7
JEM				*e*S	S	16 11 14.5	-8.5
JEW	Eniwo	10.95	234	P	P	16 09 28.3	-0.8
JEW				*e*S	S	16 11 31.4	+2.9
GRNR	Gornyy	10.98	281	*e*P	P	16 09 34.0	+4.5
GRNR				AMB	AMB	16 09 36.0	
	comp=Z,30nm,0.8s						
JSH	Shimam	11.84	237	P	P	16 09 40.0	-0.3
JOT	Ohata	12.22	230	P	P	16 09 40.3	-4.8
JOT				*e*S	S	16 11 45.2	-12
TEY	Ternei	12.46	253	*e*P	P	16 09 49.0	+0.8
TEY				AMB	AMB	16 09 50.5	
	comp=Z,170nm,1.0s						
TEY				AMB	AMB	16 09 50.5	
	comp=Z,130nm,1.0s						
TEY				AMB	AMB	16 09 50.5	
	comp=Z,40nm,0.8s						
FX1	Attu Island--F	12.59	69	P	P	16 09 50.5	+0.8
	comp=Z,10nm,0.3s,baz=274,slow=3.4,SNR=12						
FX1	Attu Island--F	12.59	69	PN	P	16 09 50.5	+0.7
FX1				pmax	pmax		
	comp=Z,10.0nm,0.3s						
FX1	Attu Island--F	12.59	69	*e*Pn	P	16 09 48.9	-0.8
JTM	Tenmabayashi	12.66	229	P	P	16 09 45.5	-5.2
JTM				*e*S	S	16 11 56.0	-12
EKMR	Ekimchan	13.21	292	*e*P	P	16 09 58.6	+1.1
EKMR				AMB	AMB	16 10 02.0	
	comp=Z,200nm,0.5s						
EKMR				AMB	AMB	16 10 02.0	
	comp=Z,300nm,0.5s						
EKMR				AMB	AMB	16 10 02.0	
	comp=Z,70nm,0.5s						
KLR	Kul'dur	14.16	276	P	P	16 10 10.1	+0.9
JYA	Atsumi	15.03	226	P	P	16 10 14.8	-5.2
JYA				*e*S	S	16 12 54.8	-6.0
JMM	Marumori	15.14	222	P	P	16 10 17.6	-3.8
JMM				*e*S	S	16 12 55.0	-8.3
BMKR	Bomnak	15.81	297	*i* P	P	16 10 28.1	-1.3
BMKR				AMB	AMB	16 10 29.0	
	comp=Z,50nm,0.6s						
JSD	Sado	16.16	228	P	P	16 10 31.7	-2.1
YASR	Yasnyy	16.21	292	*e*P	P	16 10 35.3	+1.1
YASR				AMB	AMB	16 10 36.4	
	comp=Z,10.0nm,0.4s						
YASR				AMB	AMB	16 10 36.4	
	comp=Z,20nm,0.4s						
ZEA	Zeya	16.66	293	*e*P	P	16 10 39.5	0.0
ZEA				AMB	AMB	16 10 47.4	
	comp=Z,40nm,1.2s						
JYT	Yasato	16.78	220	P	P	16 10 38.6	-2.5
JYT				*e*S	S	16 13 32.6	-7.0
KROS	Kirovskiy	16.87	296	*i* P	P	16 10 39.0	-2.9
KROS				AMB	AMB	16 10 40.5	
	comp=Z,3.0nm,0.5s						
KROS				AMB	AMB	16 10 40.5	
	comp=Z,13nm,0.5s						
MDJ	Mudanjiang	17.07	261	P	P	16 10 42.7	-1.6
MDJ				AMB	AMB		
	comp=Z,129nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,120nm,4.3s						
MAJO	Matsushiro	17.39	225	*e*P	P	16 10 46.9	-0.8
	comp=Z,171nm,0.6s						
MAT	Matsushiro	17.39	225	P	P	16 10 46.8	-0.9
MAT				*e*S	S	16 13 53.0	+0.6
MAT	Matsushiro	17.39	225	P	P	16 10 46.9	-0.8
MAT	Matsushiro	17.39	225	*e*P	P	16 10 47.0	-0.7
	comp=Z,188nm,0.9s						
MAT				S	S	16 13 53.0	+0.6
JRY	Ryogami san	17.51	223	P	P	16 10 48.2	-0.8
YAK	Yakutsk	17.90	322	*c i*P	P	16 10 53.2	+0.3
YAK				pmax	pmax		
	comp=Z,23nm,0.6s						
YAK	Yakutsk	17.90	322	*e*P	P	16 10 52.8	-0.2
	comp=Z,38nm,0.8s						
CLNS	Chul'man	18.34	303	*e*P	P	16 10 57.6	+0.1
CLNS				pmax	pmax		
	comp=Z,39nm,0.9s						
CLNS				pmax	pmax		
	comp=N,9.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,24nm,1.0s						
JSG	Sagara	18.96	222	P	P	16 11 03.5	-0.5
JHJ2	Mitsune	19.65	216	P	P	16 11 11.0	-0.1
JHJ	Hachijo jima 2	19.65	216	P	P	16 11 11.4	+0.3
	comp=E,18nm,0.3s,baz=232,slow=19,SNR=7.1						
JWT	Wachi	19.74	229	P	P	16 11 11.1	-0.9
JIE	Ise	19.85	225	P	P	16 11 13.1	0.0
CN2	Changchun	20.10	263	*e*P	P	16 11 13.4	-2.1
CN2				AMB	AMB		
	comp=Z,30nm,1.1s						
JAD	Aida	20.62	231	P	P	16 11 20.9	+0.1
JWZ	Kozaga	21.02	226	P	P	16 11 25.7	+0.9
JHS	Saijyo	21.11	233	P	P	16 11 26.7	+1.1
JMN	Monobe	21.74	229	P	P	16 11 34.2	+2.5
KS15	Wonju Array Si	22.24	246	*e*P	P	16 11 38.6	+2.0
SNY	Shenyang	22.27	260	⇓P	P	16 11 37.4	+0.6
SNY				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
JNU	Nakatsue	23.73	233	P	P	16 11 51.7	+0.9
BOD	Bodaibo	24.31	304	*e*P	P	16 11 54.8	-1.2
BOD				*e*		16 12 40.4	
TIXI	Tiksi	24.52	341	*e*P	P	16 11 57.3	-0.5
TIXI				*e*		16 12 44.7	
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.0						
TNA	Tin City	25.27	37	*e*P	P	16 12 00.5	-4.3
	comp=Z,30nm,1.1s,mb4.8						
ANM	Nome	26.02	40	*e*P	P	16 12 12.2	+0.5
JAM	Amami Oshima	28.18	229	P	P	16 12 31.5	-0.1
JOW	Kunigami	30.14	229	P	P	16 12 48.6	-0.3
	comp=Z,31nm,0.4s,mb5.3,baz=47,slow=4.8,SNR=9.1						
JOW	Kunigami	30.14	229	P	P	16 12 48.6	-0.4
ULN	Ulaanbaatar	30.26	284	⇑*e*P	P	16 12 49.8	0.0
ULN	Ulaanbaatar	30.26	284	*e*P	P	16 12 48.9	-0.9
	comp=Z,1.5nm,0.6s,mb3.8						
HHC	Hu-ho-hao-te	30.50	269	*e*P	P	16 12 51.1	-0.9
HHC				AP	pP	16 13 33.0	-2.6
HHC				PP	PP	16 13 59.6	-1.0
HHC				PCP	PcP	16 15 45.7	+0.1
HHC				S	S	16 17 32.7	-3.7
HHC				AMB	AMB		
	comp=Z,22nm,0.6s,mb5.0						
HHC				AMB	AMB		
	comp=Z,125nm,5.4s						
SSE	Sheshan	30.64	244	*e*P	P	16 12 50.7	-2.5
SSE				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.5						
SSE				AMB	AMB		
	comp=Z,131nm,4.3s						
SONM	Songino Array	30.69	285	P	P	16 12 53.0	-0.5
	comp=Z,1.0nm,0.4s,mb3.8,baz=78,slow=8.0,SNR=13						
SONM				PcP	PcP	16 15 45.2	-0.8
	comp=Z,1.0nm,0.8s,baz=88,slow=1.5,SNR=3.6						
SONM				ScP		16 19 07.5	
	comp=Z,0.6nm,0.8s,slow=2.5,SNR=3.6						
TLY	Talaya	31.10	293	*e*P	P	16 12 57.4	+0.3
TLY				pmax	pmax		
	comp=Z,27nm,0.9s,mb4.9						
TLY	Talaya	31.10	293	*e*P	P	16 12 57.0	-0.1
	comp=Z,27nm,0.8s,mb4.9						
IMA	Indian Mountai	31.10	39	*e*P	P	16 12 56.5	-0.5
NJ2	Nanjing	31.33	248	*e*P	P	16 13 00.2	+0.9
NJ2				AP	pP	16 13 42.8	-0.3
NJ2				PP	PP	16 14 14.2	+3.2
NJ2				S	S	16 17 53.0	+3.7
NJ2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,1µm,5.5s						
ZAK	Zakamensk	31.72	291	⇓*i*P	P	16 13 02.4	-0.1
ZAK				*e*	pP	16 13 51.1	+4.8
KDAK	Kodiak Island	31.95	55	*e*P	P	16 13 02.5	-1.9
	comp=Z,48nm,0.8s,mb5.1						
PWA	Palmer West	32.80	47	*e*P	P	16 13 11.0	-0.7
MCK	McKinley	33.09	43	*e*P	P	16 13 13.8	-0.3
	comp=Z,17nm,0.8s,mb4.6						
COLA	College	33.51	41	*c i*P	P	16 13 17.7	0.0
COLA	College	33.51	41	*e*P	P	16 13 17.5	-0.2
	comp=Z,75nm,0.8s,mb5.3						
SML	Sawmill	33.52	47	*e*P	P	16 13 17.1	-0.7
ILAR	Eielson Array	33.92	41	P	P	16 13 20.6	-0.7
	comp=Z,16nm,0.6s,mb4.7,baz=276,slow=5.3,SNR=260						
ILAR				pP	pP	16 14 06.0	+0.5
	comp=Z,4.2nm,0.8s,baz=267,slow=8.5,SNR=2.8						
ILAR				PcP	PcP	16 15 52.5	-2.2
	comp=Z,0.4nm,0.5s,baz=283,slow=4.2,SNR=5.0						
ILAR	Eielson Array	33.92	41	P	P	16 13 20.6	-0.6
ILAR				*PP	pP	16 14 06.1	+0.5
ILAR						16 15 52.5	
ILAR				pmax	pmax		
	comp=Z,16nm,0.6s						
WHN	Wuhan	35.12	251	*e*P	P	16 13 32.7	+0.9
DAWY	Dawson	37.23	42	*e*P	P	16 13 48.9	-0.2
LZH	Lanzhou	38.19	268	*e*P	P	16 13 57.1	-0.2
LZH				AP	pP	16 14 40.5	-2.0
LZH				PP	PP	16 15 34.2	+3.4
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb4.5						
LZH				AMB	AMB		
	comp=Z,112nm,5.7s						
INK	Inuvik	38.84	35	⇑*e*P	P	16 14 02.7	+0.3
	comp=Z,20nm,0.6s,mb4.8						
GTA	Gaotai	38.86	275	P	P	16 14 03.4	+0.5
GTA				AP	pP	16 14 47.0	-1.2
GTA				PP	PP	16 15 40.8	+2.2
GTA				PCP	PcP	16 16 10.0	+0.2
GTA				S	S	16 19 46.9	+2.5
GTA				PCS		16 19 56.6	
GTA				XS		16 21 04.2	
GTA				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.6						
GTA				AMB	AMB		
	comp=Z,199nm,5.7s						
ZAL	Zalesovo	41.07	303	P	P	16 14 20.6	-0.2
	comp=Z,8.8nm,0.4s,mb4.5,baz=52,slow=6.4,SNR=32						
ZAL				PcP	PcP	16 16 16.6	-0.1
	comp=Z,2.2nm,0.4s,baz=100,slow=2.5,SNR=4.6						
ZAL				ScP		16 19 46.1	
	comp=Z,0.7nm,0.6s,baz=27,slow=1.8,SNR=4.3						
ZAL	Zalesovo	41.07	303	P	P	16 14 20.7	-0.2
ZAL						16 16 16.7	
ZAL				pmax	pmax		
	comp=Z,9.0nm,0.4s						
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.4s						
CD2	Chengdu	41.53	262	*e*P	P	16 14 21.0	-3.8
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
NVS	Novosibirsk	41.55	305	*i* P	P	16 14 23.0	-1.6
NVS				pmax	pmax		
	comp=N,2.0nm,0.4s						
NVS				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.2						
NVS				pmax	pmax		
	comp=E,5.0nm,0.5s						
GYA	Guiyang	42.77	255	⇑*i*P	P	16 14 35.1	+0.2
GYA				AP	pP	16 15 19.0	-1.8
GYA				PP	PP	16 16 19.9	+0.9
GYA				S	S	16 20 43.2	+1.2
GYA				SS	SS	16 23 54.6	+0.9
GYA				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.0						
WMQ	Urumqi	44.12	288	⇑P	P	16 14 46.8	+1.3
WMQ				AP	pP	16 15 30.8	-0.8
WMQ				PCP	PcP	16 16 29.1	+2.0
WMQ				PP	PP	16 16 34.1	+2.1
WMQ				S	S	16 21 02.6	+1.3
WMQ				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.3						
WMQ				AMB	AMB		
	comp=Z,54nm,9.0s						
MKAR	Makanchi Array	45.81	295	*i* P	P	16 14 58.3	-0.5
MKAR				pmax	pmax		
	comp=Z,22nm,0.8s						
KURK	Kurchatov	45.91	301	*d i*P	P	16 14 59.0	-0.5
KURK				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.5						
KURK	Kurchatov	45.91	301	⇓*i*P	P	16 14 58.9	-0.6
	comp=Z,38nm,0.6s,mb4.9						
KMI	Kunming	46.18	257	*e*P	P	16 15 02.3	+0.3
KMI				AP	pP	16 15 53.5	+5.0
KMI				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
QIZ	Qiongzhong	46.43	244	⇑P	P	16 15 05.6	+1.6
RES	Resolute Bay	47.73	20	*e*P	P	16 15 13.3	-0.1
	comp=Z,11nm,0.6s,mb4.3						
YKW3	Yellowknife Ar	48.19	38	*e*P	P	16 15 17.0	0.0
YKA	Yellowknife Ar	48.22	38	P	P	16 15 17.5	+0.2
	comp=Z,12nm,0.5s,mb4.5,baz=300,slow=7.4,SNR=140						
YKA				pP	pP	16 16 05.0	+0.8
	comp=Z,2.9nm,0.7s,baz=300,slow=7.7,SNR=4.1						
YKA				PcP	PcP	16 16 40.7	-0.6
	comp=Z,2.4nm,0.9s,baz=313,slow=3.5,SNR=5.7						
YKA	Yellowknife Ar	48.22	38	P	P	16 15 17.5	+0.2
YKA				*PP	pP	16 16 05.0	+0.8
YKA						16 16 40.7	
YKA				pmax	pmax		
	comp=Z,12nm,0.5s						
YKA	Yellowknife Ar	48.22	38	P	P	16 15 17.5	+0.2
YKA				pP	pP	16 16 05.0	+0.8
YKA				PcP	PcP	16 16 40.7	-0.6
CHKZ	Chkalovo	48.65	308	*i* P	P	16 15 19.8	-0.9
CHKZ				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.5						
BVA0	Borovoye Array	49.11	307	*i* P	P	16 15 23.6	-0.6
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	Borovoye Array	49.11	307	P	P	16 15 23.6	-0.6
	comp=Z,16nm,0.6s,mb4.5,baz=59,slow=8.6,SNR=98						
BVAR				PcP	PcP	16 16 43.9	-0.8
	comp=Z,2.1nm,0.4s,baz=89,slow=4.2,SNR=4.5						
BVAR				ScP		16 20 17.7	
	comp=Z,1.1nm,0.6s,baz=72,slow=4.7,SNR=4.1						
BRVK	Borovoye	49.15	308	⇓*i*P	P	16 15 23.8	-0.7
	comp=Z,11nm,0.7s,mb4.3						
TKM2	Tokmak 2	51.91	294	P	P	16 15 45.3	-0.1
	SNR=7.6						
TKM2	Tokmak 2	51.91	294	*e*P	P	16 15 45.1	-0.3
	comp=Z,6.2nm,0.7s,mb4.2						
USP	Ospenovka	52.35	295	P	P	16 15 48.2	-0.4
	SNR=11						
RPW	Rockport	52.60	57	P	P	16 15 50.1	-0.2
KZA	Kyzart	52.63	293	P	P	16 15 51.5	+0.8
	SNR=6.7						
AAK	Ala-Archa	52.74	294	P	P	16 15 51.4	-0.1
	SNR=8.5						
AAK	Ala-Archa	52.74	294	*d i*P	P	16 15 50.1	-1.4
AAK				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.2						
AAK	Ala-Archa	52.74	294	⇓*i*P	P	16 15 50.0	-1.5
	comp=Z,6.2nm,0.8s,mb4.1						
SHL	Shillong	52.81	266	*e*P	P	16 15 52.5	+0.3
ARU	Arti	52.90	316	⇓*i*P	P	16 15 51.2	-1.2
ARU				*e*		16 16 52.9	
ARU				*e*		16 17 51.0	
ARU				*e*S	S	16 23 03.3	+0.1
ARU				*e*SS	SS	16 26 45.1	+0.2
ARU				pmax	pmax		
	comp=Z,30nm,0.7s,mb4.8						
ARU	Arti	52.90	316	⇓*i*P	P	16 15 51.2	-1.2
	comp=Z,30nm,0.6s,mb4.9						
UCH	Uchtor	52.97	294	*e*P	P	16 15 53.1	-0.1
	comp=Z,1.3nm,0.6s,mb3.5						
EKS2	Erkin-Say	53.14	295	P	P	16 15 54.3	-0.1
	SNR=14						
EKS2	Erkin-Say	53.14	295	⇓*e*P	P	16 15 54.0	-0.4
	comp=Z,6.9nm,0.6s,mb4.3						
EKS2				*e*PcP	PcP	16 16 59.3	-0.4
CMAR	Chiang Mai Arr	53.46	254	P	P	16 15 57.0	-0.1
	comp=Z,12nm,0.5s,mb4.6,baz=34,slow=7.3,SNR=70						
CMAR				PcP	PcP	16 17 01.9	+0.6
	comp=Z,3.8nm,0.6s,baz=360,slow=3.4,SNR=5.6						
CMAR				ScP		16 20 37.4	
	comp=Z,0.9nm,0.8s,baz=11,slow=4.1,SNR=6.8						
CMAR	Chiang Mai Arr	53.46	254	P	P	16 15 57.1	0.0
CMAR						16 17 01.9	
CMAR				pmax	pmax		
	comp=Z,12nm,0.5s						
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
AML	Almayashu	53.51	294	*e*P	P	16 15 56.9	-0.3
	comp=Z,4.4nm,0.8s,mb4.0						
TBM	Table Mountain	53.86	57	P	P	16 15 59.3	-0.3
EDM	Edmonton	53.93	48	*e*P	P	16 15 59.8	-0.3
EPH	Ephrata	54.29	57	P	P	16 16 02.2	-0.5
ARCES	ARCESS Array B	54.95	340	P	P	16 16 05.7	-1.5
	comp=Z,1.7nm,0.6s,mb3.7,baz=29,slow=7.3,SNR=11						
ARCES	ARCESS Array B	54.95	340	P	P	16 16 05.7	-1.5
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	ARCESS Array B	54.95	340	P	P	16 16 05.7	-1.5
NEW	Newport	55.05	55	P	P	16 16 08.0	-0.3
	comp=Z,6.4nm,0.4s,mb4.5,baz=352,slow=5.1,SNR=7.9						
NEW	Newport	55.05	55	P	P	16 16 08.0	-0.2
NEW				pmax	pmax		
	comp=Z,6.0nm,0.4s						
NEW	Newport	55.05	55	P	P	16 16 08.0	-0.3
GUN	Gumba	55.07	273	*e*P	P	16 16 08.2	-0.4
	comp=Z,18nm,0.4s,mb4.9						
BBOR	Butler Butte	55.32	63	P	P	16 16 11.2	+1.0
HUMO	Hull Mountain	55.33	63	*e*P	P	16 16 10.9	+0.6
	comp=Z,25nm,1.2s,mb4.6						
KKN	Kakani	55.54	273	*e*P	P	16 16 11.5	-0.5
	comp=Z,21nm,0.6s,mb4.9						
PKI	Pulchoki	55.60	273	*e*P	P	16 16 12.1	-0.4
DMN	Daman	55.77	273	*e*P	P	16 16 13.3	-0.4
	comp=Z,39nm,0.8s,mb5.0						
GKN	Gorkha	55.81	274	*e*P	P	16 16 13.3	-0.6
	comp=Z,21nm,0.5s,mb4.9						
YBH	Yreka Blue Hor	56.02	64	P	P	16 16 16.3	+1.1
	comp=Z,15nm,0.6s,mb4.7,baz=354,slow=3.6,SNR=35						
YBH	Yreka Blue Hor	56.02	64	P	P	16 16 16.3	+1.1
YBH				pmax	pmax		
	comp=Z,15nm,0.6s						
YBH	Yreka Blue Hor	56.02	64	*e*P	P	16 16 16.2	+1.0
	comp=Z,9.8nm,0.6s,mb4.5						
KOLN	Koldanda	56.63	275	*e*P	P	16 16 19.4	-0.4
WDC	Whiskeytown Da	56.86	65	*e*P	P	16 16 21.3	+0.2
	comp=Z,15nm,1.0s,mb4.6						
BMO	Blue Mountains	57.09	58	*e*P	P	16 16 23.0	+0.2
	comp=Z,14nm,0.7s,mb4.7						
MOD	Modoc	57.30	62	⇑*e*P	P	16 16 24.8	+0.5
	comp=Z,24nm,0.7s,mb4.9						
LBCM	Butte Creek Ri	57.38	64	P	P	16 16 25.2	+0.3
SUMG	Summit	57.51	4	P	P	16 16 25.4	0.0
	comp=Z,4.6nm,0.7s,mb4.2						
MSO	Missoula	57.63	54	*e*P	P	16 16 26.2	-0.3
	comp=Z,25nm,1.3s,mb4.7						
FFC	Flin Flon	58.13	41	*e*P	P	16 16 29.9	0.0
	comp=Z,72nm,1.2s,mb5.2						
NSHM	Saint Helena R	58.15	67	*e*P	P	16 16 30.1	-0.2
NSHM				*e*pP	pP	16 17 06.9	-12

OHCM	Honcut	58.28	65	eP	P	16 16 30.4	-0.7
FCC	Fort Churchill	58.46	34	eP	P	16 16 31.0	-1.0
	comp=Z,9.2nm,0.4s,mb4.8						
JOF	Joensuu	58.62	333	ep	P	16 16 31.4	-1.8
	comp=Z,2.8nm,0.4s,mb4.2						
JOF	Joensuu	58.62	333	eP	P	16 16 31.4	-1.8
JOF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.3						
HRY	Holter Researc	58.81	53	eP	P	16 16 34.9	+0.2
WCN	Washoe City	59.31	64	⇑eP	P	16 16 38.7	+0.4
	comp=Z,34nm,0.9s,mb5.0						
PMG	Port Moresby	59.35	187	P	P	16 16 37.7	-1.1
	comp=Z,10nm,0.5s,mb4.7,baz=47,slow=3.6,SNR=9.2						
PMG	Port Moresby	59.35	187	P	P	16 16 37.7	-1.1
PMG				pmax	pmax		
	comp=Z,10.0nm,0.5s						
PMG	Port Moresby	59.35	187	eP	P	16 16 37.2	-1.6
HLID	Hailey	59.51	57	eP	P	16 16 39.5	0.0
	comp=Z,7.7nm,0.7s,mb4.4						
MCMT	McKenzie Canyo	59.52	55	eP	P	16 16 39.6	+0.1
CMB	Columbia Colle	59.78	66	⇑eP	P	16 16 41.3	-0.1
	comp=Z,24nm,1.0s,mb4.8						
BMN	Battle Mountai	60.02	62	⇑eP	P	16 16 43.7	+0.6
	comp=Z,36nm,1.1s,mb4.9						
QLMT	Earthquake Lak	60.27	55	eP	P	16 16 44.9	+0.3
NVAR	Mina Array Bea	60.74	64	P	P	16 16 48.5	+0.6
	comp=Z,34nm,0.8s,mb5.0,baz=296,slow=7.4,SNR=177						
MNV	Mina	60.82	64	⇑eP	P	16 16 48.8	+0.3
	comp=Z,20nm,0.8s,mb4.8						
OMM	Old Mammoth Mi	60.88	65	eP	P	16 16 49.5	+0.7
ELK	Elko	60.94	60	⇑eP	P	16 16 49.7	+0.5
	comp=Z,9.3nm,0.8s,mb4.5						
FINES	FINESS Array B	61.30	334	P	P	16 16 50.5	-0.8
	comp=Z,2.2nm,0.4s,mb4.1,baz=39,slow=7.4,SNR=39						
FINES				PcP	PcP	16 17 30.5	-1.0
	comp=Z,1.2nm,0.6s,baz=27,slow=3.1,SNR=2.8						
FINES	FINESS Array B	61.30	334	P	P	16 16 50.5	-0.8
FINES						16 17 30.5	
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MTUM	Tungsten Hills	61.31	65	eP	P	16 16 51.8	+0.1
DGMT	Dagmar	61.42	48	eP	P	16 16 51.9	-0.4
REDW	Red Top Meadow	61.57	56	eP	P	16 16 54.3	+0.9
HVU	Hansel Valley	61.60	58	eP	P	16 16 54.3	+0.7
TPH	Tonopah	61.60	64	⇑iP	P	16 16 53.9	+0.2
	comp=Z,33nm,0.8s,mb5.0						
BGU	Big Grassy Mou	62.04	59	eP	P	16 16 57.0	+0.4
SPUT	South Promonto	62.10	58	⇑eP	P	16 16 57.6	+0.7
TRCR	Troy Canyon	62.36	63	eP	P	16 16 58.5	-0.3
HWUT	Hardware Ranch	62.38	57	⇑eP	P	16 16 59.3	+0.5
	comp=Z,27nm,1.0s,mb4.8						
BW06	Boulder Array	62.66	55	eP	P	16 17 00.9	+0.3
	comp=Z,22nm,0.7s,mb4.9						
PDAR	Pinedale Array	62.66	55	P	P	16 17 00.8	+0.2
	comp=Z,19nm,0.6s,mb4.9,baz=314,slow=1.3,SNR=176						
PDAR				pP	pP	16 17 50.1	0.0
	comp=Z,3.0nm,0.9s,baz=320,slow=3.1,SNR=3.5						
TCUT	Toone Canyon	62.80	58	eP	P	16 17 02.6	+1.0
TPNV	Topopah Spring	62.94	64	⇑iP	P	16 17 02.6	+0.1
	comp=Z,34nm,0.8s,mb5.0						
NLU	North Lily Min	63.24	59	⇑eP	P	16 17 05.0	+0.5
DAU	Daniels Canyon	63.38	58	eP	P	16 17 06.2	+0.8
MPU	Maple Canyon	63.44	59	eP	P	16 17 06.2	+0.4
ULM	Lac du Bonnet	63.94	42	P	P	16 17 08.1	-0.7
	comp=Z,9.5nm,0.6s,mb4.6,baz=316,slow=6.3,SNR=16						
ARUT	Antelope Range	63.98	62	eP	P	16 17 09.4	+0.2
MVU	Marysvale	64.17	60	eP	P	16 17 10.6	+0.2
	comp=Z,12nm,0.8s,mb4.6						
TMUT	Trail Mountain	64.18	59	eP	P	16 17 11.2	+0.7
MSU	Marysvale	64.19	60	eP	P	16 17 11.2	+0.6
SRU	San Rafael	64.69	59	⇑iP	P	16 17 14.2	+0.4
KAKA	Kakadu	65.07	203	eP	P	16 17 15.1	-1.5
	comp=Z,5.3nm,0.8s,mb4.2						
NB2	NORSAR Subarra	65.32	341	P	P	16 17 16.7	-0.7
	comp=Z,1.0nm,0.4s,mb3.8,baz=29,slow=6.2						
NOA	NORSAR Array B	65.32	341	P	P	16 17 16.9	-0.4
	comp=Z,1.2nm,0.6s,mb3.7,baz=25,slow=6.3,SNR=5.4						
NOA	NORSAR Array B	65.32	341	P	P	16 17 17.0	-0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
PV10	Paradox Valley	66.03	59	eP	P	16 17 23.0	+0.7
PV01	Paradox Valley	66.46	58	eP	P	16 17 24.9	-0.2
RW3	Ridgway	66.86	58	eP	P	16 17 28.1	+0.5
ISCO	Idaho Springs	66.86	55	eP	P	16 17 28.4	+0.8
	comp=Z,33nm,1.2s,mb4.8						
SDCO	Great Sand Dun	68.41	57	eP	P	16 17 37.1	-0.1
	comp=Z,17nm,1.3s,mb4.5						
AKASG	Malin Array Be	69.07	326	P	P	16 17 40.0	-1.0
	comp=Z,2.1nm,0.4s,mb4.1,baz=33,slow=6.3,SNR=16						
AKASG	Malin Array Be	69.07	326	P	P	16 17 40.0	-1.0
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
TUC	Tucson	69.39	64	eP	P	16 17 43.4	+0.1
	comp=Z,11nm,1.2s,mb4.3						
LAZ	Ladron	69.95	60	eP	P	16 17 47.4	+0.7
CTA	Charters Tower	70.00	187	eP	P	16 17 46.0	-1.2
	comp=Z,4.9nm,0.8s,mb4.2						
CTA	Charters Tower	70.00	187	P	P	16 17 46.0	-1.2
	comp=Z,5.8nm,0.7s,mb4.3,baz=353,slow=6.5,SNR=11						
CTA	Charters Tower	70.00	187	P	P	16 17 46.0	-1.2
CTA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
CTAO	Charters Tower	70.00	187	eP	P	16 17 45.5	-1.7
	comp=Z,6.5nm,0.7s,mb4.4						
SCHQ	Schefferville	70.27	23	P	P	16 17 47.7	-0.5
	comp=Z,7.8nm,0.8s,mb4.4,baz=309,slow=5.9,SNR=17						
SCHQ	Schefferville	70.27	23	P	P	16 17 47.7	-0.5
LPM	Los Pinos Moun	70.31	60	eP	P	16 17 49.0	+0.2
WRAB	Tennant Creek	71.61	199	d iP	P	16 17 55.6	-1.2
WRAB	Tennant Creek	71.61	199	eP	P	16 17 55.5	-1.3
	comp=Z,8.8nm,0.6s,mb4.6						
WB2	Warramunga Arr	71.61	199	eP	P	16 17 55.7	-1.2
WRA	Warramunga Arr	71.62	199	P	P	16 17 55.8	-1.1
	comp=Z,4.6nm,0.4s,mb4.5,baz=24,slow=7.2,SNR=88						
WRA				pP	pP	16 18 46.0	-1.6
	comp=Z,1.8nm,1.0s,baz=17,slow=9.4,SNR=2.5						
WRA	Warramunga Arr	71.62	199	P	P	16 17 55.8	-1.1
WRA				*PP	pP	16 18 46.0	-1.6
WRA				pmax	pmax		
	comp=Z,5.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
FITZ	Fitzroy Crossi	72.09	208	eP	P	16 17 59.4	-0.3
	comp=Z,6.8nm,0.5s,mb4.5						
FITZ	Fitzroy Crossi	72.09	208	P	P	16 17 59.4	-0.3
	comp=Z,9.4nm,0.5s,mb4.6,baz=13,slow=5.0,SNR=47						
AMTX	Amarillo	72.60	56	eP	P	16 18 02.5	+0.1
	comp=Z,8.8nm,0.6s,mb4.6						
OJC	Ojcow	72.68	331	eP	P	16 18 02.8	+0.2
CPRX	Cap Rock	72.80	59	eP	P	16 18 03.6	0.0
GDL2	Guadalupe Moun	73.14	60	eP	P	16 18 05.7	0.0
CLL	Collm	73.69	335	eP	P	16 18 11.0	+2.5
CLL	Collm	73.69	335	P	P	16 18 11.0	+2.5
MORC	Moravsky Berou	73.77	332	eP	P	16 18 09.6	+0.7
WMOK	Wichita Mounta	74.26	55	eP	P	16 18 11.6	-0.5
	comp=Z,19nm,1.1s,mb4.6						
MLR	Muntele Rosu	74.64	325	P	P	16 18 14.2	+0.2
	comp=Z,2.4nm,0.5s,mb4.1,baz=310,slow=6.5,SNR=8.6						
MLR	Muntele Rosu	74.64	325	P	P	16 18 14.2	+0.2
MLR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MALT	Malatya	75.21	313	eP	P	16 18 17.8	+0.4
	comp=Z,1.4nm,0.5s,mb3.9						
ASAR	Alice Springs	75.32	199	P	P	16 18 18.1	-0.1
	comp=Z,9.5nm,0.7s,mb4.6,baz=12,slow=5.2,SNR=220						
ASPA	Alice Springs	75.32	199	⇓iP	P	16 18 18.1	-0.2
CCM	Cathedral Cave	75.45	48	eP	P	16 18 17.6	-1.1
	comp=Z,18nm,1.1s,mb4.6						
KHC	Kasperske Hory	75.50	334	eP	P	16 18 20.0	+1.2
LTX	Lajitas	75.69	61	⇑eP	P	16 18 20.7	+0.4
	comp=Z,32nm,1.0s,mb4.9						
TXAR	Lajitas Array	75.69	61	P	P	16 18 20.8	+0.5
	comp=Z,20nm,0.6s,mb4.9,baz=297,slow=4.4,SNR=55						
GERES	GERESS Array B	75.73	334	P	P	16 18 20.9	+0.9
	comp=Z,2.0nm,0.4s,mb4.1,baz=34,slow=6.1,SNR=22						
GERES	GERESS Array B	75.73	334	P	P	16 18 20.9	+0.8
GERES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FVM	French Village	75.90	47	⇑eP	P	16 18 20.9	-0.4
	comp=Z,14nm,0.6s,mb4.8						
BRTR	Keskin Array B	76.28	317	P	P	16 18 23.5	+0.2
	comp=Z,0.9nm,0.5s,mb3.7,baz=4.3,slow=3.7,SNR=5.8						
BRTR	Keskin Array B	76.28	317	P	P	16 18 23.5	+0.2
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MIAR	Mount Ida	77.09	51	eP	P	16 18 27.8	-0.2
	comp=Z,16nm,0.7s,mb4.8						
MIB	Mutribah	77.26	301	eP	P	16 18 29.2	+0.2
MIB				AMb	AMB	16 18 30.4	
	comp=Z,30nm,0.6s,mb5.1						
WCI	Wyandotte Cave	77.61	44	eP	P	16 18 30.5	-0.2
	comp=Z,24nm,0.6s,mb5.0						
RST	Umm Al-Ruwaisa	77.68	301	eP	P	16 18 31.1	-0.1
RST				AMb	AMB	16 18 32.4	
	comp=Z,23nm,0.6s,mb5.0						
RDF	Al-Radifah	77.82	300	eP	P	16 18 31.5	-0.5
RDF				AMb	AMB	16 18 35.8	
	comp=Z,40nm,0.8s,mb5.1						
CDF	Champ du Feu	77.82	338	eP	P	16 18 31.8	+0.2
MEZF	Maizieres J'vi	78.27	339	eP	P	16 18 34.0	0.0
HINF	Hinteralfeld	78.48	338	eP	P	16 18 35.4	+0.2
LDF	La Druitiere	79.28	343	eP	P	16 18 39.5	0.0
GRR	Gorron	79.61	343	eP	P	16 18 41.0	-0.3
CABF	La Chapelle	79.80	338	eP	P	16 18 42.5	+0.2
	comp=Z,3.4nm,0.5s,mb3.9						
SSF	Saint Saulge	79.97	340	eP	P	16 18 43.3	+0.1
	comp=Z,1.9nm,0.4s,mb3.8						
SGMF	Saint Gilles	80.05	344	eP	P	16 18 43.7	+0.1
	comp=Z,4.0nm,0.4s,mb4.1						
ROSF	Rostrenen	80.10	345	eP	P	16 18 43.8	0.0
SWET	Sewanee	80.25	46	⇑eP	P	16 18 44.4	-0.5
AVF	Avril sur Loir	80.27	340	eP	P	16 18 43.8	-1.0
	comp=Z,4.8nm,0.6s,mb4.0						
SMF	Signal de Mont	80.29	339	eP	P	16 18 44.2	-0.7
BGF	Bois d'Agland	80.60	340	eP	P	16 18 46.2	-0.3
LPL	La Plagne	80.66	337	eP	P	16 18 47.3	+0.4
	comp=Z,9.5nm,0.6s,mb4.3						
LPG	La Plagne	80.67	337	eP	P	16 18 47.5	+0.6
	comp=Z,8.8nm,0.6s,mb4.3						
TCF	Toulx Ste Croi	80.99	340	eP	P	16 18 48.4	-0.2
	comp=Z,2.9nm,0.6s,mb3.8						
BNI	Bardonecchia	81.11	337	eP	P	16 18 50.6	+1.3
MBDF	Montbardon	81.39	337	eP	P	16 18 50.9	+0.2
ORIF	Oris-en-Rattie	81.43	337	eP	P	16 18 51.3	+0.4
	comp=Z,6.5nm,0.6s,mb4.1						
VIVF	Saint-Julien-l	81.78	338	eP	P	16 18 52.9	+0.2
	comp=Z,6.5nm,0.7s,mb4.1						
STKA	Stephens Creek	82.13	190	eP	P	16 18 54.7	-0.1
	comp=Z,3.2nm,0.7s,mb4.1						
STKA	Stephens Creek	82.13	190	P	P	16 18 54.6	-0.1
	comp=Z,4.5nm,0.8s,mb4.1,baz=4.9,slow=3.9,SNR=8.1						
FORT	Forrest	83.48	202	eP	P	16 19 01.7	0.0
	comp=Z,122nm,0.7s						
ETSF	Etsaut	84.82	341	eP	P	16 19 08.3	+0.2
	comp=Z,8.6nm,0.8s,mb4.2						
KLBR	Kellerberrin	87.16	210	eP	P	16 19 19.4	-0.3
	comp=Z,10nm,0.6s,mb4.7						
TOO	Toolangi	87.42	186	eP	P	16 19 21.9	+1.1
	comp=Z,3.4nm,0.7s,mb4.2						
MUN	Mundaring	88.03	211	eP	P	16 19 23.8	0.0
	comp=Z,3.1nm,0.5s,mb4.4						
VNDA	Vanda	127.28	178	PKP	PKPdf	16 25 35.2	+0.6
	comp=Z,0.8nm,1.1s,baz=342,slow=3.2,SNR=2.1						
VNDA	Vanda	127.28	178	PKIKP	PKPdf	16 25 35.2	+0.5
VNDA				pmax	pmax		
	comp=Z,1.0nm,1.2s						
VNDA	Vanda	127.28	178	PKP	PKPdf	16 25 35.2	+0.6
SAML	Samuel	129.02	50	ePKPdf	PKPdf	16 25 40.0	+0.4
LPAZ	La Paz	132.55	60	SKPbc		16 28 53.1	
	comp=Z,1.2nm,0.9s,baz=310,slow=7.9,SNR=4.8						
SNAA	Sanae	155.68	198	⇑iP	PKPab	16 26 51.7	-1.3
SNAA	Sanae	155.68	198	PKPbc	PKPdf	16 26 33.0	+10
	comp=Z,0.3nm,0.7s,baz=207,slow=2.3,SNR=5.1						
SNAA				PKPab	PKPab	16 26 52.0	-1.0
	comp=Z,0.9nm,0.7s,baz=203,slow=4.3,SNR=12						
SNAA	Sanae	155.68	198	PKP2	PKPab	16 26 52.0	-1.0
VNA2	Neumayer--Watz	157.15	196	⇑iP	PKPab	16 26 58.6	-0.7
VNA3	Neumayer Olymp	157.26	194	⇑iP	PKPdf	16 26 27.2	+2.0
VNA3	Neumayer Olymp	157.26	194	⇑i	PKPab	16 26 59.7	-0.1
VNA1	Neumayer--Stat	157.54	196	⇑iP	PKPab	16 27 01.4	+0.4

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*WAR **03** 16:29:07, 51.51N×16.06E, h1^{km}, ML2.9, Mining Induced*
*PRU **03** 16:29:08.1, 51.43N×16.04E*
*NEIC **03** 16:29:11.9±1.3, 51.21N×15.73E, h5^{km}, MG3.0(WAR), Error ellipse: s-maj=16.1km s-min=7.3km az=199.0*
ISC 03 16:29:04.7±1.0, **51.49N**±0.05×**16.04E**±0.04, **n15,** σ**1^{s}10**/30, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.67	166	ePG	Pg	16 29 20.0	+1.9
KSP				eSG	Sg	16 29 29.0	+1.9
KSP	Ksiaz	0.67	166	ePg	Pg	16 29 19.7	+1.6
KSP				eSg	Sg	16 29 28.9	+1.8
UPC	Upice	0.99	181	ePG	Pg	16 29 25.7	+1.3
DPC	Dobruska-Polom	1.16	171	ePG	Pg	16 29 28.5	+0.6
DPC				eSG	Sg	16 29 43.6	+0.3
	12nm,0.3s						
PVCC	Panska Ves	1.34	224	ePG	Pg	16 29 32.4	+1.0
BRG	Berggiesshubel	1.46	246	i Pg	Pg	16 29 34.5	+0.7
BRG				i Sg	Sg	16 29 54.1	+0.9
PRU	Pruhonice	1.78	213	ePG	Pg	16 29 39.7	-0.6
PRU				eSG	Sg	16 30 03.6	-0.4
CLL	Collm	1.91	266	ePg	Pg	16 29 42.0	-0.8
CLL				i Sg	Sg	16 30 08.5	+0.2
CLL	Collm	1.91	266	ePG	Pg	16 29 42.0	-0.8
CLL				e		16 29 46.0	
CLL				i SG	Sg	16 30 08.5	+0.2
OKC	Ostrava-Krasne	2.13	140	eSG	Sg	16 30 14.1	-1.7
NKC	Novy Kostel	2.60	242	ePN	Pn	16 29 50.0	+1.3
NKC				ePG	Pg	16 29 56.8	+0.2
NKC				eSG	Sg	16 30 30.8	-0.5
OJC	Ojcow	2.71	117	ePG	Pg	16 29 58.0	-0.7
OJC				eSG	Sg	16 30 34.0	-0.7
OJC	Ojcow	2.71	117	ePg	Pg	16 29 57.8	-0.9
OJC				eSg	Sg	16 30 34.5	-0.2
KHC	Kasperske Hory	2.84	215	ePN	Pn	16 29 52.9	+0.7
KHC				ePG	Pg	16 29 59.3	-2.1
KHC				eSN	Sn	16 30 26.0	-1.6
KHC				eSG	Sg	16 30 36.2	-3.1
MOX	Moxa	2.92	255	ePg	Pg	16 30 02.0	-0.9
MOX				eSg	Sg	16 30 41.6	-0.1

IDC 03 16:30:09.5±48.0, **17.55S**×**173.26W, mb3.6**/3, **mb1 3.8**/3, **mb1mx3.6**/15, **Error ellipse: s-maj=915.0km s-min=189.5km az=81.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	43.12	242	P	P	16 38 12.4	-1.0
	0.6nm,0.4s,baz=117,slow=9.0,SNR=3.6						
WRA	Warramunga Arr	49.52	259	P	P	16 39 01.6	-2.6
	0.2nm,0.5s,baz=98,slow=6.9,SNR=5.2						
ASAR	Alice Springs	49.60	254	P	P	16 39 02.8	-2.0
	0.9nm,0.5s,baz=91,slow=8.5,SNR=27						

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*IDC **03** 16:31:38.2±1.6, 10.60N×61.45W, mb3.9/4, mb1 4.2/4, mb1mx3.8/20, Error ellipse: s-maj=45.7km s-min=42.2km az=107.0*
*TRN **03** 16:31:45.8, 10.46N×61.10W, h33^{km}, MD3.9*
ISC 03 16:31:43.2±1.1, **10.4N**±0.1×**61.2W**±0.1, **h64**^{km}±5^{km}, **n12,** σ**1^{s}10**/15, **mb3.9**/4, **2C, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TBH	Brigand Hill	0.15	60	⇑iP	P	16 31 50.8	-2.1
TBH				eS	S	16 31 55.8	-4.1
TPP	Pointe-a-Pierr	0.27	250	⇑iP	P	16 31 54.4	+0.8
TPP				eS	S	16 32 02.2	+1.1
TRN	Trinidad (W)	0.31	319	i P	P	16 31 53.4	-0.5
TRN				eS	S	16 32 01.0	-0.8
TPR	Prospect	0.87	28	eP	P	16 32 00.6	+0.6
TPR				eS	S	16 32 12.1	-0.4
BOT	Bacolet	0.89	32	eP	P	16 32 00.8	+0.6
BOT				eS	S	16 32 12.8	+0.1
GRW	Mount Saint Ca	1.80	345	eP	P	16 32 13.9	+1.2
SCHQ	Schefferville	44.53	355	P	P	16 39 51.8	+1.5
	3.8nm,0.7s,mb4.3,baz=205,slow=15,SNR=6.6						
PDAR	Pinedale Array	52.93	316	P	P	16 40 53.9	-1.5
	0.5nm,0.5s,mb3.7,baz=108,slow=9.4,SNR=5.4						
YKA	Yellowknife Ar	64.45	336	P	P	16 42 13.3	-1.7
	0.5nm,0.4s,mb3.9,baz=109,slow=7.3,SNR=7.8						
GERES	GERESS Array B	72.30	42	P	P	16 43 04.6	+0.8
	0.4nm,0.5s,mb3.6,baz=225,slow=7.5,SNR=4.0						
CMAR	Chiang Mai Arr	145.26	34	PKPbc	PKPbc	16 51 18.7	+3.6
	0.8nm,0.5s,baz=312,slow=5.3,SNR=9.3						
ASAR	Alice Springs	160.48	226	PKPab	PKPab	16 52 21.7	+1.8
	0.4nm,0.7s,baz=130,slow=4.7,SNR=5.7						

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*IDC **03** 16:40:12.6±0.9, 16.60S×41.59E, mb3.9/6, mb1 4.0/7, mb1mx3.8/20, ML3.1/1, Error ellipse: s-maj=32.4km s-min=28.1km az=137.0*
*NEIC **03** 16:40:14.4±0.5, 16.57S×41.66E, h10^{km}, Error ellipse: s-maj=14.6km s-min=12.2km az=179.0*
ISC 03 16:40:12.8±0.8, **16.5S**±0.1×**41.6E**±0.1, **h10**^{km}, **n11,** σ**0^{s}47**/10, **mb3.9**/6, **Mozambique Channel**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSZ	Lusaka	12.97	274	ePn	P	16 43 20.3	+0.3
KMBO	Kilima Mbogo	15.88	344	Pn	P	16 43 57.7	-0.6
	0.1nm,0.3s,baz=190,slow=18,SNR=2.3						
KMBO	Kilima Mbogo	15.88	344	eP	P	16 43 58.8	+0.5
SUR	Sutherland	24.58	226	P	P	16 45 33.8	-0.5
	18nm,0.8s,mb4.7,baz=61,slow=6.6,SNR=12						
SUR	Sutherland	24.58	226	eP	P	16 45 34.4	+0.1
CMAR	Chiang Mai Arr	66.26	61	P	P	16 51 03.5	-0.4
	0.4nm,0.8s,mb3.5,baz=246,slow=8.9,SNR=3.3						
GERES	GERESS Array B	69.64	341	P	P	16 51 23.9	-0.5
	0.5nm,0.7s,mb3.5,baz=135,slow=4.2,SNR=4.3						
ASAR	Alice Springs	85.55	113	P	P	16 52 53.2	+0.1
	0.7nm,0.5s,mb4.2,baz=264,slow=4.3,SNR=9.4						
SONM	Songino Array	86.19	38	P	P	16 52 56.6	+0.9
	0.5nm,0.8s,mb3.8,baz=214,slow=5.2,SNR=3.7						
WRA	Warramunga Arr	86.97	110	P	P	16 53 00.0	-0.1
	0.7nm,0.9s,mb3.9,baz=248,slow=2.9,SNR=8.7						
NVAR	Mina Array Bea	151.94	325	PKPbc	PKPdf	17 00 11.2	+6.3
	0.7nm,0.7s,baz=45,slow=3.8,SNR=4.5						

IDC 03 16:51:41.6±14.0, **6.06S**×**124.88E, h470**^{km}±87^{km}, **mb3.1**/1, **mb1 3.2**/4, **mb1mx2.9**/16, **1C, Error ellipse: s-maj=167.0km s-min=76.4km az=0.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	11.99	177	⇑iP	P	16 54 19.7	-2.0
	6.4nm,0.7s						
FITZ	Fitzroy Crossi	11.99	177	P	P	16 54 19.8	-1.9
	1.2nm,0.3s,baz=358,slow=11,SNR=122						
WRA	Warramunga Arr	16.58	147	P	P	16 55 10.1	+1.0
	0.4nm,0.3s,baz=325,slow=11,SNR=64						
WB2	Warramunga Arr	16.59	147	eP	P	16 55 10.2	+1.0
ASPA	Alice Springs	19.54	155	eP	P	16 55 37.9	-0.2
ASAR	Alice Springs	19.54	155	P	P	16 55 37.7	-0.4
	0.4nm,0.3s,baz=345,slow=14,SNR=18						
VNDA	Vanda	74.03	172	P	P	17 02 28.0	-1.3
	1.5nm,1.2s,baz=330,slow=7.7,SNR=3.6						

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*NEIC **03** 17:02:24.4, 37.72N×20.79E, h25^{km}, MD3.5(ATH), After ATH.*
*CSEM **03** 17:02:24.4, 37.72N×20.79E, h25^{km}, MD3.5/8, After ATH*
ATH 03 17:02:21.5, 37.50N×**20.52E, h12**^{km}±4^{km}, **MD3.5**/8, **Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.68	5	ePB	Pb	17 02 35.0	+0.2
VLS				eSB	Sb	17 02 44.5	+0.7
ITM	Ithomi	1.17	105	ePG	Pg	17 02 43.5	-1.4
EVR	Evrytania	1.74	35	ePG	Pg	17 02 54.5	-1.8
VLI	Veliai	2.08	111	ePN	Pn	17 02 59.5	+2.7
JAN	Janina	2.17	7	ePn	Pn	17 02 54.0	-4.0
KEK	Kerkira	2.28	346	ePN	Pn	17 03 01.0	+1.4
KYTH	Kithira	2.36	120	ePN	Pn	17 03 02.0	+1.4
NSAL	Nisos Salamina	2.37	79	ePN	Pn	17 03 02.5	+1.7
NEO	Neokhori	2.79	49	ePN	Pn	17 03 07.0	+0.2

TRN 03 17:10:11.4, 15.64N×**61.39W, h18**^{km}, **MD3.6, M2.6**(FDF), **4C, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBL	Barber's Block	0.14	213	⇑iP	Pb	17 10 17.0	+1.5
BBL				eS	Sb	17 10 19.4	+1.2
MGG	Marie-Galante	0.28	15	⇑iP	Pb	17 10 19.9	+2.2
MDN	Morne-Daniel	0.32	180	eP	Pb	17 10 20.9	+2.6
MDN				eS	Sb	17 10 26.1	+3.1
DBCT	Belle View Cho	0.37	173	eP	Pb	17 10 22.0	+2.9
DBCT				eS	Sb	17 10 27.1	+2.6
DSHT	Scott's Head	0.42	178	eP	Pb	17 10 23.0	+2.9
DSHT				eS	Sb	17 10 28.9	+2.9
DEG	La Desirade	0.74	26	⇑eP	Pb	17 10 27.1	+1.6
SEG	Port Louis	0.77	352	eP	Pb	17 10 27.5	+1.6
FDF	Fort de France	0.93	165	⇑eP	Pb	17 10 30.5	+1.8
BPA	Boggy Peak	1.47	342	eP	Pn	17 10 39.4	+2.1
BPA				eS	Sb	17 10 58.6	+2.6
CPB	Codrington	2.03	348	eP	Pn	17 10 47.1	+1.8
CPB				eS	Sn	17 11 12.9	+2.5

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*NNC **03** 17:30:48.4±15.0, 42.21N×71.73E, h24^{km}±79^{km}, mpv3.6, Error ellipse: s-maj=84.4km s-min=42.1km az=80.0*
ISC 03 17:30:46.9±3.2, **42.3N**±0.1×**71.6E**±0.3, **h24**^{km}, **n12,** σ**0^{s}89**/12, **3C-1D, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	1.57	96	P	Pn	17 31 10.1	-3.5
	SNR=17						
EKS2	Erkin-Say	1.65	77	P	Pn	17 31 16.0	+1.1
	SNR=24						
UCH	Uchtor	2.17	91	P	Pn	17 31 20.9	-1.4
	SNR=32						
AAK	Ala-Archa	2.17	80	⇑Pn	Pn	17 31 22.1	-0.1
	11nm,0.6s						
AAK				⇑Lg		17 31 55.3	
	32nm,0.4s						
AAK	Ala-Archa	2.17	80	P	Pn	17 31 22.9	+0.6
	SNR=16						
USP	Ospenovka	2.34	65	P	Sn	17 32 05.0	+12
	SNR=7.7						
CHMS	Chumysh	2.43	72	P	Pn	17 31 30.4	+4.4
	SNR=5.3						
KZA	Kyzart	2.72	94	P	Pn	17 31 30.3	+0.1
	SNR=23						
MK31	Makanchi Array	8.85	56	⇑Pn	P	17 32 57.4	+0.9
	7.4nm,1.4s,baz=234,slow=13,SNR=4.6						
MK31				⇓Lg		17 35 29.2	
	1.6nm,0.6s,baz=230,slow=28						
KURK	Kurchatov	9.70	27	Sn	Sn	17 34 56.9	-0.5
BVA0	Borovoye Array	10.75	356	Sn	S	17 35 23.0	-0.1
CHKZ	Chkalovo	11.39	357	Sn	S	17 35 38.9	0.0

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*IDC **03** 17:44:30.1±1.0, 14.57N×147.00E, mb3.9/10, mb1 4.1/10, mb1mx4.0/21, MS3.7/1, Ms1 3.7/1, ms1mx2.7/28, Error ellipse: s-maj=33.6km s-min=18.0km az=101.0*
*NEIC **03** 17:44:35.6±2.8, 14.56N×146.97E, h38^{km}±23^{km}, mb4.3/5, Error ellipse: s-maj=24.9km s-min=11.2km az=87.0*
ISC 03 17:44:35.1±3.0, **14.56N**±0.10×**146.9E**±0.2, **h50**^{km}±24^{km}, **n25,** σ**0^{s}61**/23, **mb4.3**/21, **MS3.8**/1, **Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.23	245	ePn	P	17 45 10.2	-0.2
WRAB	Tennant Creek	36.45	200	P	P	17 51 37.4	+0.2
	3.8nm,0.7s,mb4.4						
WRA	Warramunga Arr	36.46	200	P	P	17 51 37.2	-0.1
	1.1nm,0.8s,mb3.8,baz=23,slow=9.4,SNR=9.3						
FITZ	Fitzroy Crossi	38.66	214	P	P	17 51 55.0	-0.7
	3.9nm,1.3s,mb4.0,baz=73,slow=11,SNR=2.7						
ASAR	Alice Springs	40.07	199	P	P	17 52 08.0	+0.6
	0.2nm,0.6s,mb3.0,baz=14,slow=13,SNR=6.3						
CMAR	Chiang Mai Arr	46.08	282	P	P	17 52 57.0	+0.8
	1.8nm,0.9s,mb4.0,baz=83,slow=6.2,SNR=13						
ULN	Ulaanbaatar	46.76	324	eP	P	17 53 02.7	+1.4
	2.0nm,0.7s,mb4.2						
SONM	Songino Array	47.13	323	P	P	17 53 04.1	0.0
	2.5nm,0.9s,mb4.2,baz=138,slow=9.3,SNR=12						
GUN	Gumba	57.93	294	eP	P	17 54 25.5	+0.7
	21nm,0.9s,mb5.2						
PKI	Pulchoki	58.35	294	eP	P	17 54 27.3	-0.4
	4.5nm,0.5s,mb4.7						
KKN	Kakani	58.46	294	eP	P	17 54 28.5	0.0
	6.2nm,0.7s,mb4.8						
DMN	Daman	58.62	294	eP	P	17 54 29.6	0.0

	7.5nm,0.7s,mb4.9						
GKN	Gorkha	59.03	294	eP	P	17 54 32.4	-0.1
	24nm,0.9s,mb5.2						
URZ	Urewera	59.67	153	LR	LR	18 17 13.0	
	comp=Z,67nm,20.9s,MS3.8,baz=133,slow=33						
KOLN	Koldanda	59.95	294	eP	P	17 54 38.7	-0.1
	11nm,0.9s,mb4.9						
ZAL	Zalesovo	62.03	324	P	P	17 54 52.2	-0.3
	0.7nm,0.7s,mb3.9,baz=18,slow=17,SNR=4.4						
KURK	Kurchatov	65.15	319	eP	P	17 55 12.6	-0.5
	12nm,1.0s,mb4.9						
ILAR	Eielson Array	66.84	25	P	P	17 55 23.1	-0.5
	0.4nm,0.5s,mb3.7,baz=256,slow=5.5,SNR=12						
CHKZ	Chkalovo	70.31	322	eP	P	17 55 44.6	-0.5
	0.9nm,0.6s,mb3.9						
BVAR	Borovoye Array	70.42	321	P	P	17 55 46.2	+0.3
	4.0nm,0.7s,mb4.4,baz=101,slow=7.6,SNR=27						
BRVK	Borovoye	70.48	321	eP	P	17 55 45.9	-0.3
	2.6nm,0.7s,mb4.3						
YKA	Yellowknife Ar	81.08	28	P	P	17 56 47.2	+1.1
	0.3nm,0.4s,mb3.6,baz=282,slow=5.4,SNR=4.4						
YKA	Yellowknife Ar	81.08	28	P	P	17 56 47.2	+1.1
FINES	FINESS Array B	91.12	336	P	P	17 57 34.0	-1.4
	2.1nm,0.9s,mb4.5,baz=56,slow=5.0,SNR=6.2						
DBIC	Dimbokro	144.96	305	PKPbc	PKPbc	18 04 09.8	+1.8
	4.8nm,0.7s,baz=68,slow=3.9,SNR=8.6						

IDC 03 18:01:26.0±5.1**, 6.02S×148.21E, mb3.9**/3**, mb1 3.9**/5**, mb1mx3.7**/14**, ML3.2**/2**, Error ellipse: s-maj=78.3km s-min=49.1km az=69.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.52	197	Pn	Pn	18 02 23.9	+0.8
	8.0nm,0.3s,baz=48,slow=5.3,SNR=11						
PMG				Sn	Sn	18 03 05.5	-0.6
	12nm,0.3s,baz=15,slow=16,SNR=9.2						
WRA	Warramunga Arr	19.32	223	P	P	18 05 51.7	-3.9
	0.1nm,0.3s,baz=52,slow=11,SNR=5.8						
ASAR	Alice Springs	22.30	217	P	P	18 06 24.5	-2.2
	1.2nm,0.5s,baz=52,slow=9.3,SNR=9.4						
FITZ	Fitzroy Crossi	25.09	239	P	P	18 06 52.1	-1.9
	1.6nm,0.4s,baz=50,slow=8.6,SNR=6.2						
STKA	Stephens Creek	26.46	193	P	P	18 07 06.0	-0.7
	2.2nm,0.9s,baz=23,slow=10,SNR=3.9						

OTT 03 18:03:49.6±0.3**, 72.28N×93.90W, h18^{km}, MN3.1**/9**, 34km northeast from Fort Ross, Nu Boothia Ungava Seismic Zone., Northwest Territories**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RES	Resolute Bay	2.43	354	PN	Pn	18 04 29.4	+0.2
RES				SG	Sn	18 05 05.2	+6.3
RES				Trac		18 05 10.9	
	comp=Z,44nm,0.2s						
PINU	Pond Inlet	4.83	78	PN	Pn	18 05 00.0	-3.2
PINU				SN	Sn	18 05 53.7	-5.6
PINU				LG		18 06 20.3	
PINU				Trac		18 06 31.2	
	comp=Z,57nm,0.4s						
IGL	Igloolik	4.94	120	PN	Pn	18 05 07.5	+2.7
IGL				SN	Sn	18 06 00.5	-1.6
IGL				SG	Sn	18 06 23.3	+21
IGL				Trac		18 06 35.0	
	comp=Z,7.8nm,0.2s						
IGLN	Igloolik	4.94	120	PN	Pn	18 05 03.6	-1.2
IGLN				SN	Sn	18 05 55.7	-6.5
IGLN				Trac		18 06 30.7	
	comp=Z,14nm,0.3s						
QILN	Qililugaq Expl	6.24	151	PN	Pn	18 05 21.2	-1.9
QILN				SN	Sn	18 06 27.3	-7.5
QILN				Trac		18 07 13.9	
	comp=Z,33nm,0.6s						
TULEG	Thule	7.92	46	PN	Pn	18 05 46.5	-0.3
TULEG				SN	Sn	18 07 06.3	-11
EUNU	Eureka	8.01	9	PN	P	18 05 44.5	-3.4
LUPN	Lupin Mine	9.01	232	SN	Sn	18 07 31.4	-13
LUPN				LG		18 08 20.3	
LUPN				Trac		18 08 30.8	
	comp=Z,4.0nm,0.3s						
ACKN	Achilles Lake	9.54	228	PN	P	18 06 04.2	-4.8
ACKN				SN	Sn	18 07 43.3	-14
ACKN				Trac		18 08 48.3	
	comp=Z,7.8nm,0.7s						
YRTN	Rankin Inlet	9.54	175	PN	P	18 06 03.9	-5.1
YRTN				SN	Sn	18 07 46.3	-10
YRTN				LG		18 08 42.6	
YRTN				Trac		18 09 02.4	
	comp=Z,16nm,0.8s						
YMBN	Yamba Lake	9.79	229	PN	P	18 06 06.9	-5.5
YMBN				SN	Sn	18 07 48.1	-15
YMBN				Trac		18 08 52.3	
	comp=Z,4.1nm,0.5s						
YKW3	Yellowknife Ar	12.49	229	PN	P	18 06 39.5	-10
YKW3				SN	S	18 08 51.9	-17
YKW3				LG		18 10 11.7	
YKW3				Trac		18 10 31.2	
	comp=Z,5.1nm,0.7s						
FRB	Frobisher Bay	12.66	120	SN	S	18 09 04.0	-8.9
FRB				LG		18 10 27.9	

IDC ***03*** *18:42:15.9±1.4, 18.06S×71.62W, mb4.1/4, mb1 4.2/6, mb1mx4.0/14, ML4.1/2, MS2.8/2, Ms1 2.8/2, ms1mx2.8/14, Error ellipse: s-maj=35.0km s-min=28.0km az=133.0*

NEIC ***03*** *18:42:22.3±1.3, 18.18S×71.30W, h38^{km}±14^{km}, Error ellipse: s-maj=21.2km s-min=12.8km az=64.0*

ISC 03 18:42:20.4±1.3**, 18.17S**±0.08×**71.2W**±0.1**, h41**^{km}±14^{km}**, n12, σ1^{s}74**/16**, mb4.0**/4**, MS2.8**/1**, 3C, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARE	Arequipa	1.73	350	⇑iP	P	18 42 50.5	+2.0
ARE				eS	S	18 43 04.0	-5.5
LPAZ	La Paz	3.46	58	Pn	P	18 43 15.1	+2.1
	2.5nm,0.3s,baz=240,slow=9.5,SNR=79						
LPAZ				Pg	P	18 43 25.4	+12
	4.5nm,0.3s,baz=233,slow=9.3,SNR=17						
LVC	Limon Verde	4.90	155	Pn	P	18 43 34.2	+0.7
	5.5nm,0.3s,baz=342,slow=9.5,SNR=96						
LVC				Pg	P	18 43 45.6	+12
	19nm,0.3s,baz=348,slow=7.4,SNR=31						
LVC				Sn	S	18 44 28.4	-1.3
	25nm,0.3s,baz=93,slow=18,SNR=9.2						
LVC				Lg		18 44 46.4	
	13nm,0.3s,baz=174,slow=20,SNR=7.2						
LVC				LR	LR	18 45 30.9	
	comp=Z,76nm,21.1s,baz=193,slow=38						
NNA	Nana	8.23	318	Pn	P	18 44 18.6	-1.5
SAML	Samuel	12.01	41	ePn	P	18 45 08.9	-2.9
	1.9nm,0.7s						
BDFB	Brasilia	22.29	87	P	P	18 47 13.7	-1.9
	2.4nm,0.4s,mb4.0,baz=266,slow=11,SNR=4.5						
BDFB				LR	LR	18 58 04.2	
	comp=Z,37nm,18.7s,MS2.8,baz=133,slow=42						
VNA2	Neumayer--Watz	64.48	161	⇑i	P	18 52 56.3	+1.7
SNAA	Sanae	66.10	161	⇑i	P	18 53 04.1	-0.9
DBIC	Dimbokro	69.90	76	P	P	18 53 32.3	+2.7
	3.1nm,0.9s,mb4.2,baz=247,slow=7.7,SNR=3.4						
VNDA	Vanda	79.74	190	P	P	18 54 25.9	+0.8
	0.6nm,0.9s,mb3.5,baz=121,slow=5.8,SNR=3.1						
YKA	Yellowknife Ar	87.36	341	P	P	18 55 03.0	-0.9
	1.3nm,0.6s,mb4.3,baz=135,slow=4.8,SNR=29						
YKA	Yellowknife Ar	87.36	341	P	P	18 55 03.0	-0.9

NIED ***03*** *18:42:00, 33.30N×137.20E, h14^{km}, Mw3.9 Best double couple: $M_0$6.96×10^{14} NP1:ϕ_s236°, δ55°, λ59°. NP2:ϕ_s103°, δ45°, λ126°.*

JMA ***03*** *18:42:39.5±0.1, 33.29N×137.20E, h39^{km}±2^{km}, M4.0*

ISC 03 18:42:40.0±1.2**, 33.32N**±0.07×**137.19E**±0.04**, h40**^{km}±26^{km}**, n13, σ0^{s}52**/26**, 6D, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	Tokai 1	0.55	37	P	P	18 42 51.1	-0.4
TK01				S	S	18 42 59.2	-0.5
TK02	Tokai 2	0.78	37	⇓P	P	18 42 54.5	-0.1
TK02				S	S	18 43 05.5	+0.1
TK03	Tokai 3	1.06	38	P	P	18 42 58.4	-0.2
TK03				S	S	18 43 12.6	+0.2
JIE	Ise	1.14	340	⇓P	P	18 43 00.4	+0.7
JIE				S	S	18 43 14.7	+0.4
TK04	Tokai 4	1.20	28	⇓P	P	18 43 00.8	+0.2
TK04				S	S	18 43 16.2	+0.2
JWZ	Kozaga	1.25	280	P	P	18 43 01.0	-0.3
JWZ				S	S	18 43 16.1	-1.1
TSUJ	Tsu 2	1.52	335	⇓P	P	18 43 05.8	+0.6
TSUJ				S	S	18 43 24.4	+0.4
JWY	Kouya	1.60	304	⇓P	P	18 43 07.0	+0.7
JWY				S	S	18 43 26.1	+0.1
JWM	Minabe	1.62	289	P	P	18 43 06.6	0.0
JWM				S	S	18 43 25.6	-0.8
JHE	Heguri	1.82	317	⇓P	P	18 43 10.0	+0.5
JHE				S	S	18 43 31.7	+0.2
SHZ3	Shizuoka 3	1.93	26	P	P	18 43 10.7	-0.4
SHZ3				S	S	18 43 33.3	-1.0
JIZS	Izushimoda	1.98	45	P	P	18 43 12.4	+0.7
JIZS				S	S	18 43 35.4	0.0
MAT	Matsushiro	3.32	14	P	P	18 43 31.3	+0.5
MAT				S	S	18 44 08.6	-0.9

MOS ***03*** *18:53:33.2±0.8, 5.58N×125.92E, h33^{km}, mb4.8/17, Error ellipse: s-maj=25.1km s-min=9.4km az=110.4*

MAN ***03*** *18:53:40.6, 5.42N×126.36E, h90^{km}, mb5.2, ML4.2, MS4.4*

IDC ***03*** *18:53:41.6±1.5, 5.64N×126.27E, h94^{km}±12^{km}, mb4.3/19, mb1 4.4/20, mb1mx4.3/25, MS3.7/2, Ms1 3.6/2, ms1mx2.8/23, Error ellipse: s-maj=19.6km s-min=9.4km az=70.0*

NEIC ***03*** *18:53:42.2±1.4, 5.57N×126.10E, h100^{km}±13^{km}, mb4.6/26, Error ellipse: s-maj=12.1km s-min=4.7km az=73.0*

BJI ***03*** *18:53:42.2, 5.60N×126.10E, h100^{km}, mB5.4, mb4.9*

ISC 03 18:53:42.5±0.5**, 5.56N**±0.04×**126.22E**±0.05**, h121**^{km}±4^{km}**, n124, σ1^{s}06**/132**, mb4.6**/59**, 5C-3D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	1.38	2	eP	P	18 54 07.8	-1.3
DAV	Davao City (W)	1.63	337	⇑eP	P	18 54 11.4	-0.6
DAV	Davao City (W)	1.63	337	i S	S	18 54 33.0	-1.3
KCP	Kidapawan	1.82	322	⇑eP	P	18 54 13.4	-0.9
KCP				i S	S	18 54 38.4	0.0
BUKP	Musuan	2.57	334	eP	P	18 54 23.7	-0.3
BUKP				eS	S	18 54 57.0	+1.5
BIPH	Bislig	2.61	3	⇓eP	P	18 54 24.0	-0.6
BIPH				eS	S	18 54 56.8	+0.4
BUTP	Butuan	3.44	350	eP	P	18 54 36.5	+0.8
BUTP				eS	S	18 55 23.0	+6.9
PAGZ	Pagadian	3.62	309	eP	P	18 54 38.7	+0.7
IPIL	Ipil	4.24	302	eP	P	18 54 47.1	+0.6
IPIL				eS	S	18 55 36.0	+0.6
SCPH	Surigao	4.26	350	⇑eP	P	18 54 47.5	+0.8
TBP	Tagbilaran	4.72	331	eP	P	18 54 52.4	-0.5
TBP				eS	S	18 55 50.2	+3.2
MSLP	Maasin	4.74	344	eP	P	18 54 53.2	0.0
OCLP	Ormoc	5.68	344	eP	P	18 55 07.9	+2.1
PLP	Palo	5.70	348	eP	P	18 55 06.2	+0.1
PLP				eS	S	18 56 05.4	-5.5
BESP	Borongan	6.05	353	eP	P	18 55 09.2	-1.7
GUIM	Jordan	6.18	325	eP	P	18 55 14.4	+1.7
CNP	Catarman	7.08	348	eP	P	18 55 29.6	+4.8
PVCP	Virac	8.24	346	eP	P	18 55 44.3	+3.8
LQP	Lukban	9.67	332	⇑eP	P	18 56 04.9	+5.2
	113µm,0.5s						
TGY	Tagaytay City	9.95	329	P	P	18 56 01.0	-2.5
	baz=64,slow=18,SNR=1.8						
KAKA	Kakadu	19.18	161	eP	P	18 57 58.5	-0.8
	29nm,0.6s						
FITZ	Fitzroy Crossi	23.52	181	eP	P	18 58 43.5	+0.9
	15nm,0.4s,mb4.7						
FITZ	Fitzroy Crossi	23.52	181	P	P	18 58 44.3	+1.7
	18nm,0.5s,mb4.7,baz=9.0,slow=7.7,SNR=138						
PMG	Port Moresby	25.62	125	P	P	18 59 01.3	-1.5
	11nm,0.8s,mb4.3,baz=282,slow=8.4,SNR=4.3						
PMG	Port Moresby	25.62	125	i P	P	18 59 02.9	+0.2
PMG	Port Moresby	25.62	125	eP	P	18 59 02.8	+0.1
PMG				e		18 59 19.6	
SSE	Sheshan	25.84	350	P	P	18 59 07.5	+3.0
SSE				S	S	19 03 18.7	-4.3
SSE				AMB	AMB		
	comp=Z,19nm,0.7s,mb4.6						
SSE				AMB	AMB		
	comp=Z,545nm,4.4s						
CBIJ	Chichi jima	26.27	34	P	P	18 59 06.8	-1.8
	comp=Z,66nm,0.5s,mb5.3,baz=261,slow=21,SNR=7.4						
WRAB	Tennant Creek	26.57	163	i P	P	18 59 11.2	-0.1
WRAB	Tennant Creek	26.57	163	eP	P	18 59 10.6	-0.7
	comp=Z,30nm,1.1s,mb4.7						
WRA	Warramunga Arr	26.57	163	P	P	18 59 11.2	-0.2
	comp=Z,4.3nm,0.5s,mb4.2,baz=340,slow=10,SNR=34						
WRA				ScP		19 06 04.6	
	comp=Z,3.0nm,0.7s,baz=341,slow=3.4,SNR=13						
WRA	Warramunga Arr	26.57	163	P	P	18 59 11.2	-0.2
WRA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
WRA				pmax	pmax		
	comp=N,3.0nm,0.7s						
WB2	Warramunga Arr	26.57	163	eP	P	18 59 10.8	-0.6
NJ2	Nanjing	27.24	346	eP	P	18 59 22.9	+5.5
NJ2				S	S	19 03 40.0	-5.8
NJ2				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,940nm,4.0s						
MBWA	Marble Bar	27.30	193	eP	P	18 59 16.9	-1.2
	comp=Z,12nm,0.8s,mb4.5						
ENH	Enshi	29.20	329	eP	P	18 59 33.5	-1.5
	comp=Z,6.1nm,0.7s,mb4.3						
CMAR	Chiang Mai Arr	29.54	298	P	P	18 59 38.0	-0.2
	comp=Z,1.9nm,0.6s,mb3.9,baz=119,slow=7.6,SNR=23						
CMAR				PcP	PcP	19 02 42.0	+1.6
	comp=Z,0.7nm,0.6s,baz=114,slow=1.3,SNR=4.8						
CMAR				ScP		19 06 14.1	
	comp=Z,3.0nm,0.9s,baz=119,slow=1.5,SNR=20						
CMAR	Chiang Mai Arr	29.54	298	P	P	18 59 38.0	-0.1
CMAR						19 02 42.0	
CMAR						19 06 14.1	
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CMAR				pmax	pmax		
	comp=N,3.0nm,0.9s						
ASAR	Alice Springs	30.00	166	P	P	18 59 41.9	-0.3
	comp=N,4.9nm,0.5s,mb4.4,baz=345,slow=7.2,SNR=92						
ASAR				PcP	PcP	19 02 42.5	+1.0
	comp=N,1.9nm,0.4s,baz=351,slow=2.3,SNR=9.3						
ASAR				ScP		19 06 15.4	
	comp=N,4.9nm,1.1s,baz=359,slow=3.1,SNR=9.6						
ASPA	Alice Springs	30.00	166	eP	P	18 59 42.1	-0.1
JHJ	Hachijo jima 2	30.19	23	LR	LR	19 09 54.7	
	comp=N,220nm,22.0s,baz=114,slow=32						
KS15	Wonju Array Si	31.77	3	eP	P	18 59 55.4	-2.2
CTA	Charters Tower	32.21	143	P	P	19 00 02.3	+0.7
	comp=N,2.1nm,0.6s,mb4.0,baz=325,slow=15,SNR=6.3						
CTA				ScP		19 06 23.4	
	comp=N,6.7nm,0.9s,baz=18,slow=7.3,SNR=5.4						
CTA	Charters Tower	32.21	143	P	P	19 00 02.3	+0.7
CTA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CTA				pmax	pmax		
	comp=N,7.0nm,0.9s						
CTAO	Charters Tower	32.21	143	eP	P	19 00 03.1	+1.5
	comp=N,9.3nm,0.9s,mb4.5						
XAN	Xi'an	32.56	333	P	P	19 00 02.9	-1.6
XAN				AMB	AMB		
	comp=Z,9.0nm,0.6s,mb4.8						
MAJO	Matsushiro	32.74	18	P	P	19 00 04.9	-1.1
	comp=Z,6.0nm,0.9s,mb4.4						
BJT	Baijiatuau	35.48	347	eP	P	19 00 29.2	-0.1
	comp=Z,12nm,0.6s,mb4.9						
LZH	Lanzhou	36.68	329	eP	P	19 00 45.0	+5.6
LZH				AMB	AMB		
	comp=Z,24nm,1.3s,mb5.0						
KLBR	Kellerberrin	37.81	192	⇓iP	P	19 00 49.3	+0.3
	comp=Z,32nm,1.2s,mb5.0						
CN2	Changchun	38.09	359	eP	P	19 00 51.7	+0.5
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.1						
SHL	Shillong	38.40	305	eP	P	19 00 54.2	+0.3
SHL				eS	S	19 06 45.2	+5.8
MUN	Mundaring	38.53	194	⇓iP	P	19 00 55.5	+0.6
	comp=Z,15nm,0.5s,mb5.1						
MDJ	Mudanjiang	39.01	4	P	P	19 01 00.4	+1.6
MDJ				AMB	AMB		
	comp=Z,29nm,1.0s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,111nm,5.0s						
MDJ	Mudanjiang	39.01	4	eP	P	19 01 00.4	+1.6
	comp=Z,28nm,0.9s,mb5.1						
NWAO	Narrogin (SRO)	39.21	192	P	P	19 01 01.4	+0.8
	comp=Z,13nm,0.6s,mb4.9,baz=19,slow=8.0,SNR=19						
NWAO	Narrogin (SRO)	39.21	192	P	P	19 01 01.4	+0.8
NWAO				pmax	pmax		
	comp=Z,13nm,0.6s						
NWAO	Narrogin (SRO)	39.21	192	eP	P	19 01 00.6	0.0
	comp=Z,11nm,0.6s,mb4.9						
STKA	Stephens Creek	40.01	159	P	P	19 01 08.5	+1.4
	comp=Z,19nm,0.6s,mb5.1,baz=334,slow=8.5,SNR=48						
STKA				PcP	PcP	19 03 11.4	+0.9
	comp=Z,5.4nm,0.8s,baz=13,slow=5.5,SNR=3.1						
STKA				ScP		19 06 50.7	
	comp=Z,1.6nm,0.7s,baz=2.6,slow=15,SNR=3.2						
STKA				LR	LR	19 20 05.7	
	comp=Z,64nm,18.6s,baz=22,slow=40						
ASAJ	Asahikawa	41.01	18	P	P	19 01 16.6	+1.4
	comp=Z,12nm,0.7s,mb4.8,baz=233,slow=20,SNR=7.8						
ASAJ	Asahikawa	41.01	18	P	P	19 01 16.6	+1.4
ASAJ				pmax	pmax		
	comp=Z,12nm,0.7s						
GTA	Gaotai	41.28	329	eP	P	19 01 18.2	+0.7
GTA				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb4.2						
HIA	Hailar	43.90	354	eP	P	19 01 40.1	+1.4
	comp=Z,4.9nm,0.6s,mb4.4						
GUN	Gumba	44.25	305	eP	P	19 01 42.5	+0.6
	comp=Z,43nm,0.5s,mb5.5						
PKI	Pulchoki	44.51	304	eP	P	19 01 44.0	+0.1
KKN	Kakani	44.70	304	eP	P	19 01 45.5	+0.1
	comp=Z,12nm,0.5s,mb4.9						
DMN	Daman	44.78	304	eP	P	19 01 46.3	+0.3
	comp=Z,14nm,0.8s,mb4.8						
ULN	Ulaanbaatar	45.23	342	i P	P	19 01 51.3	+1.9
ULN	Ulaanbaatar	45.23	342	eP	P	19 01 49.7	+0.3
	comp=Z,4.4nm,0.8s,mb4.2						
GKN	Gorkha	45.31	304	eP	P	19 01 50.1	-0.2
	comp=Z,12nm,0.5s,mb4.9						
SONM	Songino Array	45.41	341	P	P	19 01 51.1	+0.3
	comp=Z,0.9nm,0.4s,mb3.9,baz=158,slow=8.5,SNR=20						
SONM				ScP		19 07 12.6	
	comp=Z,1.2nm,0.8s,baz=170,slow=4.8,SNR=7.1						
KOLN	Koldanda	46.08	304	eP	P	19 01 56.3	-0.1
	comp=Z,22nm,0.3s,mb5.4						
HYB	Hyderabad	48.04	288	eP	P	19 02 19.0	+7.2
HYB	Hyderabad	48.04	288	i P	P	19 02 19.0	+7.2
TLY	Talaya	49.64	342	i P	P	19 02 24.6	+0.9
TLY				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.3						
CLNS	Chul'man	51.15	359	eP	P	19 02 35.1	0.0
CLNS				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.3						
CLNS				pmax	pmax		
	comp=N,10.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.8s						
DDI	Dehra Dun	51.51	305	e	P	19 02 36.6	-1.5
BOD	Bodaibo	52.99	352	eP	P	19 02 49.1	+0.3
DLH	Dalhousie	53.91	307	eP	P	19 02 52.0	-3.9
MKAR	Makanchi Array	55.77	325	i P	P	19 03 08.4	-0.9
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
YAK	Yakutsk	56.41	2	c iP	P	19 03 14.3	+0.7
YAK				pmax	pmax		
	comp=Z,74nm,0.7s						
YAK	Yakutsk	56.41	2	eP	P	19 03 13.8	+0.2
	comp=Z,90nm,0.8s						
TKM2	Tokmak 2	58.05	318	eP	P	19 03 24.4	-0.9
	comp=Z,2.1nm,0.5s,mb4.4						
UCH	Uchtor	58.49	317	eP	P	19 03 28.8	+0.3
	comp=Z,5.0nm,1.0s,mb4.5						
AAK	Ala-Archa	58.67	317	i P	P	19 03 28.3	-1.3
AAK				pmax	pmax		
	comp=Z,2.0nm,1.7s,mb3.9						
ZAL	Zalesovo	58.74	333	P	P	19 03 28.9	-1.1
	comp=Z,3.0nm,0.3s,mb4.8,baz=345,slow=7.0,SNR=6.8						
ZAL	Zalesovo	58.74	333	P	P	19 03 28.9	-1.1
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KURK	Kurchatov	59.93	327	i P	P	19 03 37.0	-1.2
KURK				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
KURK	Kurchatov	59.93	327	eP	P	19 03 36.9	-1.4
	comp=Z,15nm,0.6s,mb5.2						
BVA0	Borovoye Array	65.52	327	i P	P	19 04 14.3	-0.9
BVA0				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.6						
BVAR	Borovoye Array	65.52	327	P	P	19 04 14.2	-0.9
	comp=Z,1.3nm,0.4s,mb4.2,baz=105,slow=4.4,SNR=19						
BRVK	Borovoye	65.59	327	eP	P	19 04 13.9	-1.7
	comp=Z,2.4nm,0.6s,mb4.2						
CHKZ	Chkalovo	65.68	327	i P	P	19 04 14.7	-1.4
CHKZ				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.1						
CHKZ	Chkalovo	65.68	327	eP	P	19 04 14.3	-1.8
	comp=Z,1.7nm,0.4s,mb4.2						
TIXI	Tiksi	66.03	1	eP	P	19 04 18.3	+0.2
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
CASY	Casey	72.56	187	eP	P	19 04 58.8	+0.8
	comp=Z,7.5nm,0.5s,mb4.8						
ARU	Arti	73.13	328	eP	P	19 05 00.5	-0.9
ARU				e		19 05 12.8	
ARU				e		19 07 48.7	
ARU				eSSS	SSS	19 22 23.8	+8.3
ARU	Arti	73.13	328	eP	P	19 04 59.6	-1.8
	comp=Z,4.6nm,0.4s,mb4.7						
RAR	Rarotonga	77.22	113	P	P	19 05 24.1	-1.4
	comp=Z,12nm,0.3s,mb5.0,baz=37,slow=19,SNR=6.9						
RAR	Rarotonga	77.22	113	P	P	19 05 24.1	-1.3
RAR				pmax	pmax		
	comp=Z,12nm,0.4s						
RAR	Rarotonga	77.22	113	P	P	19 05 24.1	-1.4
IMA	Indian Mountai	80.93	24	eP	P	19 05 47.1	+2.5
	comp=Z,55nm,0.9s,mb5.4						
MCK	McKinley	82.77	27	eP	P	19 05 55.3	+1.2
	comp=Z,9.7nm,0.8s,mb4.7						
COLA	College	83.27	25	eP	P	19 05 57.2	+0.6
	comp=Z,6.6nm,0.7s,mb4.6						
OBN	Obninsk	85.28	325	eP	P	19 06 06.6	-0.3
OBN				pmax	pmax		
	comp=Z,24nm,1.6s,mb4.9						
VNDA	Vanda	85.29	173	P	P	19 06 08.4	+1.9
	comp=Z,2.3nm,0.6s,mb4.3,baz=311,slow=6.2,SNR=23						
VNDA	Vanda	85.29	173	P	P	19 06 08.4	+1.9
VNDA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
VNDA	Vanda	85.29	173	eP	P	19 06 07.7	+1.2
	comp=Z,1.7nm,0.5s,mb4.2						
JOF	Joensuu	87.33	333	ep	P	19 06 16.4	-0.2
	comp=Z,3.6nm,0.4s,mb4.7						
JOF	Joensuu	87.33	333	eP	P	19 06 16.4	-0.2
JOF				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.7						
KEV	Kevo	88.01	340	ep	P	19 06 20.3	+0.5
	comp=Z,0.4nm,0.4s,mb3.8						
ARCES	ARCESS Array B	88.57	340	P	P	19 06 22.9	+0.4
	comp=Z,3.2nm,0.8s,mb4.4,baz=82,slow=6.1,SNR=14						
ARCES	ARCESS Array B	88.57	340	P	P	19 06 22.9	+0.5
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KMBO	Kilima Mbogo	89.08	269	P	P	19 06 26.5	+0.4
	comp=Z,0.3nm,0.4s,mb3.7,baz=59,slow=24,SNR=1.9						
KAF	Kangasniemi	89.75	332	ep	P	19 06 21.6	-6.5
FINES	FINESS Array B	89.99	332	P	P	19 06 29.3	0.0
	comp=Z,1.1nm,0.4s,mb4.3,baz=49,slow=5.5,SNR=22						
FINES	FINESS Array B	89.99	332	P	P	19 06 29.3	+0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	89.99	332	P	P	19 06 29.3	0.0
NB2	NORSAR Subarra	96.93	334	P	P	19 07 00.9	-0.2
	comp=Z,0.4nm,0.5s,mb4.1,baz=67,slow=5.8						
NOA	NORSAR Array B	96.93	334	P	P	19 07 00.7	-0.4
	comp=Z,0.7nm,0.9s,mb4.1,baz=68,slow=2.9,SNR=3.2						
NOA	NORSAR Array B	96.93	334	P	P	19 07 00.7	-0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	98.05	24	P	P	19 07 07.9	+1.8
	comp=Z,1.3nm,0.7s,mb4.6,baz=300,slow=4.7,SNR=20						
YKA	Yellowknife Ar	98.05	24	P	P	19 07 07.9	+1.8

YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
JTS	JuntasAbangare	145.19	63	ePKPdf	PKPdf	19 13 11.1	+4.2

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*BJI **03** 19:23:09.5, 14.54N×145.66E, h104^{km}, mB5.5, mb5.1*
*MOS **03** 19:23:10.6±1.2, 14.35N×145.27E, h116^{km}, mb4.9/21, Error ellipse: s-maj=21.2km s-min=9.4km az=99.5*
*IDC **03** 19:23:11.3±0.6, 14.26N×145.56E, h110^{km}±4^{km}, mb4.5/19, mb1 4.6/20, mb1mx4.5/26, MS3.6/6, Ms1 3.6/6, ms1mx3.4/23, Error ellipse: s-maj=15.3km s-min=8.0km az=92.0*
*NEIC **03** 19:23:11.6±0.2, 14.24N×145.40E, mb4.8/38, Error ellipse: s-maj=8.5km s-min=5.0km az=96.0*
ISC 03 19:23:11.5±0.4, 14.24N±0.03×145.34E±0.05, h123^{km}±3^{km}, h114^{km}±1.7^{km}:pP-P, n145, σ0^{s}97/139, mb4.9/70, 14C-15D, Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	0.79	215	⇓iPn	P	19 23 32.6	+0.5
GUMO				eSn	S	19 23 46.5	-1.2
ANA2	Anatahan	2.12	10	⇑iP	P	19 23 48.1	+1.0
ANA2				eS	S	19 24 13.8	-0.2
ANAT	Anatahan	2.12	8	⇑iP	P	19 23 48.2	+1.0
SARN	Sarigan	2.48	10	⇑iP	P	19 23 52.6	+0.8
SARN				eS	S	19 24 22.1	-0.3
JHJ	Hachijo jima 2	19.46	346	P	P	19 27 29.6	-1.3
	14nm,0.3s,baz=68,slow=8.8,SNR=6.6						
JHJ				LR	LR	19 33 59.8	
	comp=Z,147nm,21.7s,baz=136,slow=33						
JOW	Kunigami	20.27	311	P	P	19 27 41.2	+1.9
	59nm,0.5s,baz=120,slow=13,SNR=14						
MAT	Matsushiro	23.11	345	P	P	19 28 06.6	-0.6
MAT				eS	S	19 32 14.4	+8.9
MAT	Matsushiro	23.11	345	P	P	19 28 06.0	-1.2
	69nm,1.7s,mb4.7						
PMG	Port Moresby	23.57	175	P	P	19 28 12.4	+0.6
	40nm,0.8s,mb4.8,baz=345,slow=6.5,SNR=13						
PMG	Port Moresby	23.57	175	d iP	P	19 28 12.2	+0.3
PMG	Port Moresby	23.57	175	eP	P	19 28 11.8	-0.1
	49nm,0.9s,mb4.8						
SSE	Sheshan	27.79	311	P	P	19 28 47.5	-3.6
SSE				XP	sP	19 29 27.5	-4.4
SSE				S	S	19 33 22.1	-1.1
SSE				XS		19 34 07.9	
SSE				AMB	AMB		
	comp=Z,18nm,0.7s,mb4.7						
SSE				AMB	AMB		
	comp=Z,558nm,4.6s						
KS15	Wonju Array Si	27.84	329	eP	P	19 28 50.6	-0.8
KS15				e	pP	19 29 16.6	-1.3
KAKA	Kakadu	29.67	206	⇓iP	P	19 29 06.9	-1.1
	comp=Z,41nm,0.6s,mb5.2						
ASAJ	Asahikawa	29.86	356	P	P	19 29 07.8	-1.7
	comp=Z,9.7nm,1.0s,mb4.4,baz=283,slow=26,SNR=3.8						
ASAJ				LR	LR	19 38 53.1	
	comp=Z,100nm,21.2s,baz=179,slow=32						
ASAJ	Asahikawa	29.86	356	P	P	19 29 07.8	-1.7
ASAJ				pmax	pmax		
	comp=Z,10.0nm,1.0s						
ASAJ				MLR	MLR		
	comp=Z,100nm,21.2s						
NJ2	Nanjing	29.99	311	eP	P	19 29 10.3	-0.4
NJ2				AP	pP	19 29 39.1	+1.6
NJ2				PP	PP	19 30 09.4	-3.9
NJ2				PCP	PcP	19 32 11.0	+1.0
NJ2				S	S	19 34 00.0	+1.9
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,2µm,5.1s						
WHN	Wuhan	32.77	305	P	P	19 29 35.8	+0.7
CTA	Charters Tower	34.13	178	⇓iP	P	19 29 46.8	+0.1
	comp=Z,13nm,1.6s,mb4.5						
CTA	Charters Tower	34.13	178	P	P	19 29 46.8	+0.1
	comp=Z,7.3nm,0.8s,mb4.5,baz=357,slow=8.9,SNR=12						
CTA				PcP	PcP	19 32 21.4	0.0
	comp=Z,3.1nm,0.8s,baz=337,slow=7.7,SNR=2.7						
CTA				LR	LR	19 41 13.5	
	comp=Z,108nm,21.8s,baz=3.7,slow=32						
CTA	Charters Tower	34.13	178	P	P	19 29 46.8	+0.1
CTA						19 32 21.4	
CTA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
CTA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CTA				MLR	MLR		
	comp=Z,108nm,21.8s						
CTAO	Charters Tower	34.13	178	eP	P	19 29 46.4	-0.3
	comp=Z,58nm,1.6s,mb5.2						
WRAB	Tennant Creek	35.64	198	d iP	P	19 29 59.1	-0.4
WRAB	Tennant Creek	35.64	198	⇓iP	P	19 29 59.1	-0.4
	comp=Z,46nm,0.8s,mb5.5						
WB2	Warramunga Arr	35.65	198	⇓iP	P	19 29 59.3	-0.3
WB2				eS	S	19 35 26.8	+0.7
WRA	Warramunga Arr	35.65	198	P	P	19 29 58.7	-0.9
	comp=Z,25nm,0.9s,mb5.1,baz=6.4,slow=8.8,SNR=127						
WRA				pP	pP	19 30 23.6	-3.7
	comp=Z,3.9nm,0.7s,baz=20,slow=9.9,SNR=2.5						
WRA				PcP	PcP	19 32 26.2	+0.4
	comp=Z,4.4nm,0.6s,baz=8.7,slow=3.2,SNR=8.7						
WRA				S	S	19 35 26.4	+0.3
	comp=Z,2.2nm,1.2s,baz=19,slow=17,SNR=5.5						
WRA				ScP		19 36 00.0	
	comp=Z,3.1nm,0.8s,baz=15,slow=3.9,SNR=11						
WRA	Warramunga Arr	35.65	198	P	P	19 29 58.7	-0.9
WRA				*PP	pP	19 30 23.6	-3.7
WRA						19 32 26.2	
WRA				S	S	19 35 26.4	+0.3
WRA				pmax	pmax		
	comp=Z,25nm,1.0s						
WRA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WRA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
WRA				smax			
	comp=N,2.0nm,1.2s						
WRA				pmax	pmax		
	comp=N,3.0nm,0.8s						
BJT	Baijiatuau	36.21	321	eP	P	19 30 04.1	-0.1
	comp=N,11nm,0.6s,mb5.0						
ENH	Enshi	36.62	302	eP	P	19 30 08.6	+0.9
	comp=N,48nm,0.9s,mb5.4						
FITZ	Fitzroy Crossi	37.55	212	⇓iP	P	19 30 15.6	0.0
	comp=N,14nm,0.7s,mb4.9						
FITZ	Fitzroy Crossi	37.55	212	P	P	19 30 15.6	0.0
	comp=N,9.7nm,0.3s,mb5.1,baz=20,slow=8.3,SNR=191						
FITZ				PcP	PcP	19 32 32.2	+0.6
	comp=N,12nm,1.1s,baz=15,slow=3.8,SNR=4.1						
FITZ				ScP		19 36 07.8	
	comp=N,2.1nm,0.6s,baz=90,slow=2.0,SNR=5.5						
GYA	Guiyang	38.09	295	⇑iP	P	19 30 22.4	+2.3
GYA				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.3						
XAN	Xi’an	38.35	307	P	P	19 30 22.9	+0.8
XAN				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
ASAR	Alice Springs	39.30	197	P	P	19 30 30.1	0.0
	comp=Z,7.8nm,0.8s,mb4.6,baz=23,slow=11,SNR=49						
ASAR				pP	pP	19 30 54.3	-3.7
	comp=Z,1.8nm,0.6s,baz=20,slow=9.8,SNR=2.7						
ASAR				PcP	PcP	19 32 37.5	+0.5
	comp=Z,12nm,1.2s,baz=14,slow=3.5,SNR=6.3						
ASAR				ScP		19 36 14.3	
	comp=Z,0.9nm,0.6s,baz=20,slow=3.9,SNR=6.5						
ASAR				LR	LR	19 46 50.8	
	comp=Z,86nm,18.3s,baz=30,slow=36						
ASPA	Alice Springs	39.30	197	⇓iP	P	19 30 30.0	-0.1
BTO	Baotou	40.45	317	eP	P	19 30 40.7	+1.3
BTO				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.8						
HIA	Hailar	40.75	334	eP	P	19 30 42.0	+0.2
	comp=Z,85nm,1.3s,mb5.4						
HIA				e	pP	19 31 09.0	-0.8
KMI	Kunming	41.38	292	eP	P	19 30 49.5	+2.3
KMI				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.5						
CD2	Chengdu	41.55	301	eP	P	19 30 49.5	+0.9
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
NOUC	Port Laguerre	41.56	150	⇑eP	P	19 30 49.8	+1.0
DZM	Mont Dzumac	41.60	150	eP	P	19 30 49.8	+0.7
MBWA	Marble Bar	43.24	216	eP	P	19 31 01.9	-0.6
	comp=Z,8.1nm,0.4s,mb4.8						
FX1	Attu Island--F	44.43	24	P	P	19 31 11.8	+0.3
	comp=Z,80nm,0.6s,mb5.6,baz=317,slow=1.3,SNR=23						
FX1	Attu Island--F	44.43	24	P	P	19 31 11.8	+0.2
FX1				pmax	pmax		
	comp=Z,80nm,0.6s						
FX1	Attu Island--F	44.43	24	eP	P	19 31 11.6	+0.1
CMAR	Chiang Mai Arr	44.62	282	P	P	19 31 15.2	+1.5
	comp=Z,5.9nm,0.4s,mb4.7,baz=82,slow=6.1,SNR=70						
CMAR				pP	pP	19 31 40.8	-1.1
	comp=Z,7.7nm,1.0s,baz=81,slow=6.4,SNR=5.9						
CMAR				LR	LR	19 50 14.4	
	comp=Z,50nm,18.9s,baz=283,slow=36						
CMAR	Chiang Mai Arr	44.62	282	P	P	19 31 15.2	+1.6
CMAR				*PP	pP	19 31 40.8	-1.1
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.4s						
CMAR				pmax	pmax		
	comp=Z,8.0nm,1.0s						
CMAR				MLR	MLR		
	comp=Z,50nm,18.9s						
CLNS	Chul’man	45.28	344	eP	P	19 31 13.4	-4.9
CLNS				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.7						
CLNS				pmax	pmax		
	comp=N,10.0nm,0.9s						
MA2	Magadan	45.43	4	⇓eP	P	19 31 18.0	-1.5
MA2				pmax	pmax		
	comp=Z,72nm,1.3s,mb5.2						
STKA	Stephens Creek	45.99	184	⇓iP	P	19 31 23.7	-0.6
	comp=Z,10nm,0.8s,mb4.6						
STKA	Stephens Creek	45.99	184	P	P	19 31 23.7	-0.7
	comp=Z,13nm,0.7s,mb4.8,baz=355,slow=8.6,SNR=31						
STKA				pP	pP	19 31 50.6	-2.2
	comp=Z,8.7nm,0.9s,baz=46,slow=8.4,SNR=2.2						
ULN	Ulaanbaatar	46.11	325	c iP	P	19 31 25.8	+0.8
ULN	Ulaanbaatar	46.11	325	eP	P	19 31 25.7	+0.7
	comp=Z,15nm,0.9s,mb4.7						
ULN				e	pP	19 31 53.0	-0.5
SONM	Songino Array	46.46	324	P	P	19 31 28.4	+0.6
	comp=Z,5.5nm,0.4s,mb4.7,baz=139,slow=8.5,SNR=72						
SONM				pP	pP	19 31 55.6	-0.7
	comp=Z,8.7nm,0.9s,baz=116,slow=5.5,SNR=4.7						
GTA	Gaotai	47.08	311	P	P	19 31 33.7	+0.9
GTA				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.6						
FORT	Forrest	47.75	200	eP	P	19 31 37.9	-0.2
	comp=Z,59nm,0.6s,mb5.6						
YAK	Yakutsk	49.02	350	d iP	P	19 31 45.7	-1.8
YAK				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.5						
YAK	Yakutsk	49.02	350	⇓iP	P	19 31 45.5	-1.9
	comp=Z,64nm,1.0s,mb5.5						
BOD	Bodaibo	49.48	339	eP	P	19 31 49.5	-1.5
ZAK	Zakamensk	49.55	326	⇑iP	P	19 31 51.5	-0.2
ZAK				e	pP	19 32 19.1	-1.4
TLY	Talaya	50.05	327	eP	P	19 31 55.2	-0.3
TLY				e	pP	19 32 23.0	-1.3
TLY				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
TLY	Talaya	50.05	327	eP	P	19 31 55.8	+0.3
	comp=Z,21nm,0.8s,mb5.1						
TLY				e	pP	19 32 23.5	-0.8
SHL	Shillong	51.21	291	eP	P	19 32 05.2	+0.5
TOO	Toolangi	51.54	180	⇓iP	P	19 32 07.8	+0.8
	comp=Z,16nm,0.8s,mb5.1						
MUN	Mundaring	53.77	211	eP	P	19 32 22.5	-1.1
	comp=Z,5.8nm,0.5s,mb4.9						
GUN	Gumba	56.64	294	eP	P	19 32 44.7	+0.4
	comp=Z,75nm,0.8s,mb5.8						
WMQ	Urumqi	57.02	313	eP	P	19 32 47.4	+0.6
PKI	Pulchoki	57.05	294	eP	P	19 32 46.8	-0.4
	comp=Z,19nm,0.5s,mb5.4						
KKN	Kakani	57.17	294	eP	P	19 32 47.9	-0.1
	comp=Z,12nm,0.3s,mb5.4						
DMN	Daman	57.32	294	eP	P	19 32 49.0	-0.1
	comp=Z,30nm,0.5s,mb5.5						
GKN	Gorkha	57.74	294	eP	P	19 32 51.6	-0.4
	comp=Z,38nm,0.6s,mb5.6						
TIXI	Tiksi	58.23	354	⇓eP	P	19 32 51.9	-3.0
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
KOLN	Koldanda	58.65	294	eP	P	19 32 57.9	-0.5
URZ	Urewera	60.12	151	P	P	19 33 07.3	-1.0
	comp=Z,11nm,0.7s,mb5.0,baz=25,slow=4.8,SNR=9.5						
ZAL	Zalesovo	61.37	324	P	P	19 33 15.8	-0.8
	comp=Z,7.0nm,0.9s,mb4.7,baz=7.7,slow=6.6,SNR=29						
ZAL	Zalesovo	61.37	324	P	P	19 33 15.8	-0.8
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.9s						
NVS	Novosibirsk	62.49	325	⇑iP	P	19 33 22.4	-1.7
NVS				i	pP	19 33 50.6	-3.5
NVS				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.3						
NVS				pmax	pmax		
	comp=N,12nm,0.8s						
NVS				pmax	pmax		
	comp=E,15nm,0.8s						
RSO	Redoubt South	63.99	29	eP	P	19 33 32.4	-1.4
KURK	Kurchatov	64.38	320	c iP	P	19 33 35.7	-0.8
KURK	Kurchatov	64.38	320	⇑iP	P	19 33 35.6	-0.9
	comp=E,34nm,0.8s,mb5.2						
KURK				epP	pP	19 34 03.1	-3.6
SLKM	Skilak Lake	65.20	29	eP	P	19 33 41.2	-0.4
TKM2	Tokmak 2	65.63	311	P	P	19 33 45.2	+0.4
	SNR=10.0						
TKM2	Tokmak 2	65.63	311	eP	P	19 33 44.3	-0.5
	comp=E,6.3nm,0.7s,mb4.5						
TKM2				epP	pP	19 34 12.6	-2.4
KZA	Kyzart	65.85	310	P	P	19 33 47.4	+1.3
	SNR=6.4						
KBK	Karagaybulak	66.10	311	P	P	19 33 48.2	+0.5
	SNR=8.2						
UCH	Uchtor	66.40	310	P	P	19 33 50.8	+1.2
	SNR=12						
UCH	Uchtor	66.40	310	eP	P	19 33 50.5	+0.9
	comp=E,13nm,1.0s,mb4.7						
UCH				epP	pP	19 34 18.6	-1.3
AAK	Ala-Archa	66.43	310	⇑eP	P	19 33 48.7	-1.1
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
MCK	McKinley	66.65	26	eP	P	19 33 50.8	0.0
	comp=Z,3.0nm,0.7s,mb4.2						
EKS2	Erkin-Say	66.96	310	P	P	19 33 53.4	+0.3
	SNR=5.0						
COLA	College	67.41	25	i P	P	19 33 57.4	+1.8
ILAR	Eielson Array	67.79	25	P	P	19 33 55.1	-2.7
	comp=Z,7.2nm,0.9s,mb4.5,baz=252,slow=5.4,SNR=63						
ILAR				pP	pP	19 34 22.4	-6.0
	comp=Z,2.4nm,0.8s,baz=263,slow=4.9,SNR=3.1						
ILAR	Eielson Array	67.79	25	P	P	19 33 55.2	-2.7
ILAR				*PP	pP	19 34 22.4	-5.9
ILAR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CHKZ	Chkalovo	69.60	322	eP	P	19 34 08.0	-1.2
	comp=Z,17nm,1.1s,mb4.8						
BRVK	Borovoye	69.76	322	⇑iP	P	19 34 09.6	-0.6
	comp=Z,10nm,1.0s,mb4.6						
BRVK				epP	pP	19 34 38.4	-2.4
ARU	Arti	76.49	325	⇑iP	P	19 34 48.6	-0.7
ARU				e		19 34 54.1	
ARU				e		19 37 42.2	
ARU				ePPP	PPP	19 39 29.4	-2.9
ARU				eS	S	19 44 25.8	+2.5
ARU				e		19 44 52.9	
ARU				eSS	SS	19 49 23.7	+0.3
ARU				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
ARU	Arti	76.49	325	eP	P	19 34 48.1	-1.1
	comp=Z,11nm,1.0s,mb4.5						
ARU				epP	pP	19 35 19.4	-1.1
HUMO	Hull Mountain	81.75	48	eP	P	19 35 19.0	+1.0
	comp=Z,6.2nm,0.7s,mb4.5						
YKA	Yellowknife Ar	82.08	27	P	P	19 35 18.9	-0.3
	comp=Z,7.3nm,0.8s,mb4.5,baz=287,slow=5.4,SNR=62						
YKA				pP	pP	19 35 45.2	-5.6
	comp=Z,2.7nm,0.6s,baz=286,slow=5.2,SNR=5.5						
YKA	Yellowknife Ar	82.08	27	P	P	19 35 18.9	-0.4
YKA				*PP	pP	19 35 45.2	-5.6
YKA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
YKA	Yellowknife Ar	82.08	27	P	P	19 35 18.9	-0.3
YKA				pP	pP	19 35 45.2	-5.6
YBH	Yreka Blue Hor	82.11	49	eP	P	19 35 21.0	+1.1
	comp=Z,8.2nm,0.8s,mb4.6						
MOD	Modoc	83.82	48	eP	P	19 35 29.2	+0.7
	comp=Z,9.3nm,0.9s,mb4.6						
BEKR	Beckwourth	84.26	50	eP	P	19 35 31.4	+0.6
	comp=Z,11nm,0.9s,mb4.7						
BEKR				epP	pP	19 36 00.5	-2.0
CMB	Columbia Colle	84.67	52	eP	P	19 35 33.6	+0.7
	comp=Z,9.7nm,0.9s,mb4.7						
BMO	Blue Mountains	85.21	45	eP	P	19 35 35.7	+0.3
	comp=Z,12nm,1.0s,mb4.8						
BMO				epP	pP	19 36 04.2	-3.0
KEV	Kevo	86.04	342	ep	P	19 35 37.5	-1.4
	comp=Z,35nm,1.2s,mb5.2						
KEV	Kevo	86.04	342	eP	P	19 35 37.5	-1.4
KEV				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
ARCES	ARCESS Array B	86.61	342	P	P	19 35 41.8	+0.2
	comp=Z,7.2nm,0.9s,mb4.6,baz=85,slow=7.9,SNR=13						
ARCES	ARCESS Array B	86.61	342	P	P	19 35 41.8	+0.2
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ELK	Elko	87.81	49	eP	P	19 35 48.8	+0.7
	comp=Z,15nm,0.8s,mb5.1						
ELK				epP	pP	19 36 18.8	-1.3
JOF	Joensuu	87.90	335	ep	P	19 35 46.3	-1.7
	comp=Z,10nm,1.1s,mb4.8						
JOF	Joensuu	87.90	335	eP	P	19 35 46.3	-1.7
JOF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
TPNV	Topopah Spring	88.13	52	eP	P	19 35 50.3	+0.6
	comp=Z,1.0nm,0.3s,mb4.3						
KIV	Kislovodsk	89.10	315	eP	P	19 35 59.2	+5.1
KIV				ePS	PS	19 48 02.7	+8.0
KIV				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.7						
QLMT	Earthquake Lak	89.21	44	eP	P	19 35 55.4	+0.7
NEN	Nelson	89.59	53	eP	P	19 35 57.7	+1.1
MOOW	Moose Ponds	90.03	45	eP	P	19 35 59.0	+0.5
HWUT	Hardware Ranch	90.18	47	eP	P	19 35 59.7	+0.4
	comp=Z,10nm,0.6s,mb5.1						
MVU	Marysvale	90.72	50	eP	P	19 36 02.4	+0.6
	comp=Z,2.9nm,0.8s,mb4.5						
MSU	Marysvale	90.74	50	eP	P	19 36 00.9	-1.1
FINES	FINESS Array B	90.76	335	P	P	19 36 00.2	-1.3
	comp=Z,3.6nm,0.6s,mb4.7,baz=76,slow=4.7,SNR=24						
FINES	FINESS Array B	90.76	335	P	P	19 36 00.3	-1.2
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
VNDA	Vanda	92.08	176	P	P	19 36 08.4	+1.1
	comp=Z,2.7nm,0.9s,mb4.5,baz=311,slow=4.7,SNR=12						
VNDA	Vanda	92.08	176	P	P	19 36 08.4	+1.1
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA	Vanda	92.08	176	eP	P	19 36 08.4	+1.0
	comp=Z,4.5nm,1.0s,mb4.7						
PV10	Paradox Valley	93.10	49	eP	P	19 36 13.3	+0.4
SDCO	Great Sand Dun	95.93	49	eP	P	19 36 25.4	-0.3
	comp=Z,1.2nm,0.6s,mb4.5						
NOA	NORSAR Array B	96.60	339	P	P	19 36 27.8	-0.3
	comp=Z,0.7nm,0.8s,mb4.1,baz=34,slow=4.0,SNR=3.5						
NOA				LR	LR	20 18 51.5	
	comp=Z,34nm,20.8s,baz=100,slow=35						
NOA	NORSAR Array B	96.60	339	P	P	19 36 27.8	-0.4
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,34nm,20.8s						
KHC	Kasperske Hory	103.88	330	ePP	PP	19 41 19.0	-2.7
VNA2	Neumayer--Watz	120.95	190	⇑i	Px	19 42 21.4	
VNA2	Neumayer--Watz	120.95	190		Px	19 42 35.0	
VNA3	Neumayer Olymp	121.04	189	⇑i	Px	19 42 21.8	
SDV	Santo Domingo	137.56	59	ePKPdf	PKPdf	19 42 23.6	+1.7
DBIC	Dimbokro	143.85	303	PKP	PKPdf	19 42 33.0	-0.1
	comp=Z,5.1nm,0.6s,baz=22,slow=3.0,SNR=14						
DBIC	Dimbokro	143.85	303	PKIKP	PKPdf	19 42 33.0	-0.1
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.6s						
LVC	Limon Verde	146.53	109	ePKPbc	PKPbc	19 42 41.9	+3.0
LPAZ	La Paz	147.67	98	PKPbc	PKPdf	19 42 42.6	+3.1
	comp=Z,9.3nm,0.6s,baz=358,slow=4.1,SNR=40						
LPAZ				PKPab	PKPab	19 42 45.6	-1.6
	comp=Z,9.6nm,0.6s,baz=288,slow=3.0,SNR=41						
LPAZ	La Paz	147.67	98	PKIKP	PKPdf	19 42 42.6	+3.1
LPAZ						19 42 45.6	
LPAZ				pmax	pmax		
	comp=Z,9.0nm,0.6s						
LPAZ				pmax	pmax		
	comp=Z,10.0nm,0.6s						
LPAZ	La Paz	147.67	98	ePKPbc	PKPdf	19 42 42.8	+3.3
LPAZ				ePKPab	PKPab	19 42 45.5	-1.7
LPAZ				PKPab	PKPab	19 42 45.6	-1.6
SAML	Samuel	151.59	82	ePKPdf	PKPdf	19 42 47.9	+2.2
SAML				ePKPbc	PKPdf	19 42 53.6	+8.0
CPUP	Villa Florida	155.62	123	PKP	PKPdf	19 42 53.0	+2.2
	comp=Z,0.0nm,0.3s,baz=221,slow=13,SNR=2.0						
BDFB	Brasilia	167.03	98	PKPab	PKPab	19 44 08.3	-1.4
	comp=Z,0.8nm,0.3s,baz=243,slow=6.8,SNR=3.7						
BDFB	Brasilia	167.03	98	PKP2	PKPab	19 44 08.3	-1.4
BDFB				pmax	pmax		
	comp=Z,1.0nm,0.3s						

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*CSEM **03** 19:48:23.7±0.9, 38.57N×29.68W, h5^{km}, ML2.8, Error ellipse: s-maj=16.2km s-min=7.6km az=168.0*
*PDA **03** 19:48:23.7±0.9, 38.57N×29.68W, h5^{km}, MD3.5, ML2.8, Error ellipse: s-maj=16.2km s-min=7.6km az=168.0*
SVSA 03 19:48:23.7±0.9, 38.57N×29.68W, h5^{km}, MD3.5, ML2.8, Error ellipse: s-maj=16.2km s-min=7.6km az=168.0, Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CALA	Caldeira	0.77	89	eP	Pg	19 48 36.2	-2.8
CALA				eS	Sg	19 48 45.4	-3.8
CALA	Caldeira	0.77	89	eS	Sg	19 48 45.4	-3.8
PCED	Cedros	0.77	86	i P	Pg	19 48 36.0	-3.0
PCED				eS	Sg	19 48 45.3	-4.0
	178nm,0.2s						
PCED	Cedros	0.77	86	eS	Sg	19 48 45.3	-4.0
	178nm,0.2s						
HOR	Horta	0.82	93	erx	Sg	19 48 44.5	-6.6
PICO	Pico	0.98	94	eP	Pb	19 48 39.5	-3.4
PICO				eS	Sb	19 48 51.1	-4.9
PPNO	Prainha do Nor	1.11	95	eP	Pb	19 48 41.3	-3.8
PPNO				eS	Sb	19 48 54.4	-5.3
ROSA	Rosais	1.13	82	eS	Sb	19 48 54.5	-5.8
PID	Ribeirinha	1.23	96	eP	Pb	19 48 43.2	-3.9
PID				eS	Sb	19 48 56.8	-6.3
PMAN	Manadas	1.25	87	erx	Sb	19 48 54.4	-9.1
ASBA	Santa Barbara	1.85	85	eS	Sn	19 49 12.6	-7.8
	28nm,0.2s						
PSBA	Serra de Santa	1.85	83	eS	Sn	19 49 12.0	-8.5
	27nm,0.3s						
PPAD	Pico dos Padre	1.88	85	eS	Sn	19 49 13.0	-8.1
	14nm,0.2s						
PBIS	Biscoitos	1.91	84	eS	Sn	19 49 13.9	-8.0
	20nm,0.2s						
RIB2	Ribeirinha	1.96	86	eS	Sn	19 49 14.8	-8.5
	22nm,0.2s						
PVNV	Vila Nova	1.98	84	eS	Sn	19 49 15.3	-8.5
	9.0nm,0.1s						
PFAV	Pico das Favas	2.04	85	eS	Sn	19 49 16.4	-8.7
	12nm,0.2s						

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*BJI **03** 20:05:45.6, 26.68N×140.94E, h457^{km}, mB5.0, mb4.3*
*MOS **03** 20:05:51.1±0.8, 27.56N×140.06E, h416^{km}, mb4.1/14, Error ellipse: s-maj=24.6km s-min=11.8km az=113.1*
*IDC **03** 20:05:54.6±0.5, 27.51N×140.06E, h437^{km}±6^{km}, mb3.5/17, mb1 3.7/18, mb1mx3.7/23, Error ellipse: s-maj=14.2km s-min=8.3km az=83.0*
*JMA **03** 20:05:55.8±0.1, 27.70N×140.71E, h455^{km}, M3.9*
*NEIC **03** 20:05:56.1±0.9, 27.48N×140.00E, h457^{km}±10^{km}, mb4.1/16, Error ellipse: s-maj=8.9km s-min=5.6km az=83.0*
ISC 03 20:05:54.1±0.4, 27.54N±0.04×140.08E±0.08, h449^{km}±4^{km}, n98, σ0^{s}98/108, mb4.1/45, 1C-6D, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	1.92	103	P	P	20 06 54.1	-0.4
	71nm,0.3s,baz=286,slow=6.3,SNR=106						

CBIJ				S	S	20 07 41.5	-0.8
	133nm,0.3s,baz=289,slow=22,SNR=8.8						
CBIJ	Chichi jima	1.92	103	P	P	20 06 54.2	-0.3
CBIJ				eS	S	20 07 39.9	-2.3
JHHJ	Haha-jima-NKT	2.08	115	P	P	20 06 55.7	+0.3
JHHJ				eS	S	20 07 44.7	+0.9
JHJ2	Mitsune	5.56	358	P	P	20 07 25.9	+1.1
JHJ2				eS	S	20 08 36.0	-0.2
JHJ	Hachijo jima 2	5.57	357	P	P	20 07 24.9	0.0
	14nm,0.3s,baz=237,slow=18,SNR=8.8						
JHJ				S	S	20 08 35.0	-1.4
	15nm,0.3s,baz=84,slow=20,SNR=3.4						
BSO1	Boso 1	7.13	6	eS	S	20 09 06.9	+0.8
BSO2	Boso 2	7.21	4	eS	S	20 09 08.4	+0.8
BSO3	Boso 3	7.25	3	P	P	20 07 43.9	+1.3
BSO3				S	S	20 09 09.3	+1.0
JIE	Ise	7.42	338	P	P	20 07 47.2	+2.8
BSO4	Boso 4	7.43	2	P	P	20 07 45.3	+0.8
BSO4				S	S	20 09 13.8	+1.9
JOD2	Odawara 2	7.75	354	P	P	20 07 50.2	+2.2
JOD2				eS	S	20 09 17.1	-1.0
JNY	Yasuok	8.02	347	P	P	20 07 55.5	+4.5
JHU	Hanno	8.31	355	P	P	20 07 53.8	-0.5
JHU				eS	S	20 09 25.4	-4.0
JRY	Ryogami san	8.51	354	P	P	20 07 56.5	+0.1
JRY				S	S	20 09 30.7	-2.6
JYT	Yasato	8.66	1	P	P	20 07 56.5	-1.6
JYT				eS	S	20 09 35.0	-1.3
JAG	Ashikaga	8.88	357	P	P	20 07 59.7	-0.8
JAG				eS	S	20 09 39.0	-1.5
JHO	Hitachi	9.05	2	P	P	20 08 02.4	0.0
JHO				eS	S	20 09 43.1	-1.0
MAT	Matsushiro	9.12	350	P	P	20 08 02.6	-0.5
MAT				eS	S	20 09 41.7	-3.7
MAT	Matsushiro	9.12	350	P	P	20 08 04.0	+0.9
	6.8nm,0.7s						
MAT				S	S	20 09 42.0	-3.4
JFK	Kawauchi	9.82	4	P	P	20 08 11.6	+0.7
JOW	Kunigami	10.54	269	P	P	20 08 20.7	+1.8
JMK	Ichinoseki	11.42	4	P	P	20 08 29.4	+0.9
HIA	Hailar	26.76	330	eP	P	20 10 57.6	0.0
	9.4nm,1.0s,mb4.2						
ENH	Enshi	26.89	283	eP	P	20 10 58.1	-0.8
	11nm,0.8s,mb4.3						
ULN	Ulaanbaatar	32.72	317	i P	P	20 11 45.9	-3.2
SONM	Songino Array	33.11	317	P	P	20 11 53.1	+0.8
	1.4nm,1.0s,mb3.4,baz=128,slow=7.5,SNR=7.0						
SONM				PcP	PcP	20 14 23.4	-0.3
	0.8nm,0.4s,baz=146,slow=3.5,SNR=14						
SONM				ScP		20 17 24.7	
	0.4nm,1.0s,baz=159,slow=2.7,SNR=3.6						
YAK	Yakutsk	35.18	352	i P	P	20 12 09.5	-0.2
YAK	Yakutsk	35.18	352	eP	P	20 12 09.6	0.0
GTA	Gaotai	35.34	300	eP	P	20 12 12.0	+0.7
GTA				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.0						
BOD	Bodaibo	35.38	336	eP	P	20 12 09.4	-2.0
CMAR	Chiang Mai Arr	38.79	265	P	P	20 12 40.6	+0.7
	comp=Z,1.3nm,0.7s,mb3.5,baz=82,slow=5.0,SNR=12						
CMAR				PcP	PcP	20 14 42.0	+0.8
	comp=Z,0.4nm,0.8s,baz=289,slow=0.6,SNR=4.6						
CMAR	Chiang Mai Arr	38.79	265	P	P	20 12 40.7	+0.8
CMAR						20 14 42.0	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FITZ	Fitzroy Crossi	47.48	199	P	P	20 13 48.3	-0.5
	comp=Z,1.2nm,0.6s,mb3.5,baz=45,slow=5.7,SNR=5.5						
WRAB	Tennant Creek	47.52	187	eP	P	20 13 47.8	-1.3
	comp=Z,3.7nm,0.4s,mb4.1						
WRA	Warramunga Arr	47.53	187	P	P	20 13 48.0	-1.2
	comp=Z,1.7nm,0.3s,mb3.8,baz=5.0,slow=7.6,SNR=77						
WRA				PcP	PcP	20 15 10.9	-0.1
	comp=Z,0.9nm,0.6s,baz=3.7,slow=4.0,SNR=8.6						
WRA				ScP		20 18 20.5	
	comp=Z,1.2nm,1.2s,baz=2.6,slow=4.8,SNR=4.6						
WRA	Warramunga Arr	47.53	187	P	P	20 13 48.0	-1.1
WRA					pP	20 15 10.9	-5.8
WRA				pmax	pmax		
	comp=Z,2.0nm,0.3s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA				pmax	pmax		
	comp=N,1.0nm,1.2s						
GUN	Gumba	47.64	284	eP	P	20 13 50.9	+1.0
	comp=N,31nm,0.5s,mb4.9						
ZAL	Zalesovo	47.94	319	P	P	20 13 52.0	+0.2
	comp=N,2.7nm,0.5s,mb3.8,baz=360,slow=7.2,SNR=13						
ZAL				PcP	PcP	20 15 11.6	-0.5
	comp=N,2.9nm,0.3s,baz=346,slow=5.6,SNR=5.8						
ZAL	Zalesovo	47.94	319	P	P	20 13 52.0	+0.2
ZAL						20 15 11.6	
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.3s						
PKI	Pulchoki	48.12	283	eP	P	20 13 53.6	+0.1
	comp=Z,16nm,0.8s,mb4.4						
KKN	Kakani	48.18	284	eP	P	20 13 54.4	+0.4
	comp=Z,13nm,0.6s,mb4.4						
DMN	Daman	48.38	284	eP	P	20 13 55.9	+0.4
	comp=Z,17nm,0.6s,mb4.6						
GKN	Gorkha	48.69	284	eP	P	20 13 58.2	+0.4
	comp=Z,5.1nm,0.3s,mb4.4						
KOLN	Koldanda	49.64	284	eP	P	20 14 05.4	+0.5
	comp=Z,28nm,0.9s,mb4.6						
ASAR	Alice Springs	51.25	187	P	P	20 14 15.7	-1.3
	comp=Z,0.7nm,0.3s,mb3.4,baz=358,slow=4.1,SNR=19						
ASAR				PcP	PcP	20 15 24.9	+0.1
	comp=Z,0.5nm,0.5s,baz=20,slow=3.6,SNR=4.3						
KURK	Kurchatov	51.34	314	d iP	P	20 14 16.7	-0.6
KURK	Kurchatov	51.34	314	⇓eP	P	20 14 16.6	-0.6
	comp=Z,12nm,0.7s,mb4.3						
KURK				ePcP	PcP	20 15 22.7	-2.0
TKM2	Tokmak 2	53.63	305	eP	P	20 14 34.0	0.0
	comp=Z,2.0nm,0.4s,mb3.8						
AAK	Ala-Archa	54.47	304	d iP	P	20 14 39.0	-0.9
AAK	Ala-Archa	54.47	304	eP	P	20 14 38.9	-1.0
	comp=Z,1.8nm,0.8s,mb3.5						
UCH	Uchtor	54.50	304	eP	P	20 14 40.9	+0.7
	comp=Z,4.0nm,0.8s,mb3.8						
UCH				ePcP	PcP	20 15 37.3	+0.5
EKS2	Erkin-Say	54.99	304	eP	P	20 14 42.6	-1.0
	comp=Z,1.5nm,0.4s,mb3.7						
EKS2				ePcP	PcP	20 15 38.1	-0.6
AML	Almayashu	55.12	304	eP	P	20 14 44.5	-0.1
	comp=Z,4.9nm,0.6s,mb4.0						
CHKZ	Chkalovo	56.29	318	eP	P	20 14 51.6	-1.0
	comp=Z,7.6nm,0.5s,mb4.3						
BVAR	Borovoye Array	56.45	317	P	P	20 14 53.5	-0.2
	comp=Z,28nm,0.4s,mb5.0,baz=91,slow=6.9,SNR=250						
BVAR				PcP	PcP	20 15 43.9	-0.4
	comp=Z,2.0nm,0.4s,baz=108,slow=4.7,SNR=3.9						
BRVK	Borovoye	56.51	317	⇓iP	P	20 14 53.8	-0.2
	comp=Z,16nm,0.6s,mb4.5						
ILAR	Eielson Array	58.22	29	P	P	20 15 05.8	+0.2
	comp=Z,0.6nm,0.4s,mb3.3,baz=275,slow=4.7,SNR=10						
ILAR	Eielson Array	58.22	29	P	P	20 15 05.8	+0.3
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
STKA	Stephens Creek	59.10	179	P	P	20 15 10.9	-0.9
	comp=Z,0.9nm,0.5s,mb3.3,baz=310,slow=9.3,SNR=4.7						
ARU	Arti	62.92	322	d iP	P	20 15 36.3	-0.5
ARU	Arti	62.92	322	⇓iP	P	20 15 36.2	-0.6
	comp=Z,17nm,0.6s,mb4.8						
NWAO	Narrogin (SRO)	63.94	201	P	P	20 15 42.9	-0.8
	comp=Z,5.6nm,0.8s,mb4.2,baz=146,slow=3.6,SNR=3.0						
NWAO	Narrogin (SRO)	63.94	201	P	P	20 15 42.9	-0.7
NWAO				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KEV	Kevo	71.94	340	ep	P	20 16 31.0	-0.7
	comp=Z,0.9nm,0.4s,mb3.6						
KEV	Kevo	71.94	340	eP	P	20 16 31.0	-0.7
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.7						
ARCES	ARCESS Array B	72.50	340	P	P	20 16 35.7	+0.8
	comp=Z,2.4nm,0.4s,mb4.1,baz=76,slow=8.9,SNR=25						
ARCES	ARCESS Array B	72.50	340	P	P	20 16 35.7	+0.8
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
YKA	Yellowknife Ar	72.64	28	P	P	20 16 36.3	+0.5
	comp=Z,1.9nm,0.5s,mb3.9,baz=296,slow=5.9,SNR=28						
YKA	Yellowknife Ar	72.64	28	P	P	20 16 36.3	+0.5
YKA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
YKA	Yellowknife Ar	72.64	28	P	P	20 16 36.3	+0.5
JOF	Joensuu	73.85	333	ep	P	20 16 42.3	-0.4
	comp=Z,1.9nm,0.3s,mb4.1						
JOF	Joensuu	73.85	333	eP	P	20 16 42.3	-0.4
JOF				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.1						
OBN	Obninsk	75.10	325	⇑eP	P	20 16 50.3	+0.4
OBN				eS		20 26 15.0	
OBN				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.4						
KAF	Kangasniemi	76.26	334	ep	P	20 16 55.7	-0.5
	comp=Z,2.9nm,0.4s,mb4.2						
KAF	Kangasniemi	76.26	334	eP	P	20 16 55.7	-0.5
KAF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.2						
FINES	FINESS Array B	76.72	333	P	P	20 16 58.9	+0.2
	comp=Z,8.5nm,0.3s,mb4.7,baz=70,slow=5.5,SNR=137						
FINES	FINESS Array B	76.72	333	P	P	20 16 58.9	+0.2
FINES				pmax	pmax		
	comp=Z,9.0nm,0.4s						
FINES	FINESS Array B	76.72	333	P	P	20 16 58.9	+0.2
UMR	Umm Al-Rimmam	78.83	297	eP	P	20 17 10.9	+0.1
UMR				AMb	AMB	20 17 15.6	
	comp=Z,37nm,1.1s,mb4.8						
MIB	Mutribah	79.02	298	eP	P	20 17 12.7	+0.9
MIB				AMb	AMB	20 17 14.0	
	comp=Z,29nm,0.9s,mb4.8						
RDF	Al-Radifah	79.23	297	eP	P	20 17 12.9	0.0
RST	Umm Al-Ruwaisa	79.42	298	eP	P	20 17 14.4	+0.6
RST				AMb	AMB	20 17 15.1	
	comp=Z,20nm,0.5s,mb4.9						
AKASG	Malin Array Be	81.15	323	P	P	20 17 22.4	0.0
	comp=Z,1.5nm,0.3s,mb4.0,baz=51,slow=5.5,SNR=13						
AKASG	Malin Array Be	81.15	323	P	P	20 17 22.4	0.0
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
NVAR	Mina Array Bea	81.70	51	P	P	20 17 27.7	+2.2
	comp=Z,0.9nm,0.7s,mb3.4,baz=293,slow=5.8,SNR=7.9						
NB2	NORSAR Subarra	82.50	338	P	P	20 17 28.6	-0.4
	comp=Z,2.7nm,0.5s,mb4.0,baz=45,slow=5.0						
NOA	NORSAR Array B	82.50	338	P	P	20 17 29.1	+0.1
	comp=Z,9.6nm,0.9s,mb4.3,baz=46,slow=4.9,SNR=14						
NOA	NORSAR Array B	82.50	338	P	P	20 17 29.1	+0.1
NOA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
TPNV	Topopah Spring	83.85	52	eP	P	20 17 38.0	+1.6
	comp=Z,2.0nm,0.8s,mb3.7						
BRTR	Keskin Array B	84.33	312	P	P	20 17 39.0	+0.4
	comp=Z,1.4nm,0.6s,mb3.7,baz=90,slow=4.3,SNR=8.0						
BRTR	Keskin Array B	84.33	312	P	P	20 17 39.0	+0.4
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GERES	GERESS Array B	90.15	328	P	P	20 18 05.9	-0.1
	comp=Z,0.6nm,0.5s,mb3.7,baz=37,slow=6.7,SNR=7.4						
GERES	GERESS Array B	90.15	328	P	P	20 18 05.9	-0.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SNAA	Sanae	131.33	195	PKP	PKPdf	20 24 14.6	+1.0
	comp=Z,0.4nm,0.6s,baz=207,slow=8.3,SNR=6.4						
DBIC	Dimbokro	131.98	310	PKP	PKPdf	20 24 18.1	+1.8
	comp=Z,2.7nm,0.8s,baz=297,slow=2.3,SNR=3.4						
DBIC	Dimbokro	131.98	310	PKIKP	PKPdf	20 24 18.2	+1.9
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LPAZ	La Paz	151.60	73	PKPbc	PKPdf	20 24 59.9	+10
	comp=Z,2.7nm,0.8s,baz=275,slow=4.8,SNR=12						
LPAZ	La Paz	151.60	73	PKIKP	PKPdf	20 24 59.9	+10
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						

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*ROM **03** 20:39:10.2±0.4, 43.08N×15.48E, h10^{km}, MD3.1/12, ML2.6/6, Error ellipse: s-maj=4.4km s-min=2.9km az=90.0*
*NEIC **03** 20:39:10.2, 43.08N×15.48E, h10^{km}, MD3.1(ROM), ML3.2(VIE), ML3.1(LDG), After ROM.*
*CSEM **03** 20:39:11.3±0.1, 43.15N×15.48E, h25^{km}, ML3.2/6, Error ellipse: s-maj=2.2km s-min=1.6km az=108.0*
*LDG **03** 20:39:12.2±0.3, 43.15N×15.42E, h10^{km}, Ml3.1/6, Error ellipse: s-maj=7.7km s-min=3.7km az=73.0*

ISC 03 20:39:09.2±0.4**, 43.16N**±0.02×**15.37E**±0.05**, h10^{km}, n76, σ1^{s}.32**/91**, 3C-1D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TERO	Teramo	1.41	248	ePN	Pn	20 39 35.8	+0.8
TERO	Teramo	1.41	248	ePn	Pn	20 39 35.8	+0.9
NVLJ	Novalja	1.45	346	i Pn	Pn	20 39 35.4	-0.3
NVLJ				i Sg	Sg	20 39 57.2	-0.5
NVLJ	Novalja	1.45	346	i Pn	Pn	20 39 35.3	-0.4
NVLJ	Novalja	1.45	346	i Sg	Sg	20 39 57.2	-0.5
RGNG	Rignano Grg	1.49	174	ePN	Pn	20 39 34.9	-1.3
RGNG	Rignano Grg	1.49	174	ePn	Pn	20 39 34.9	-1.2
CING	Cingoli	1.61	279	ePN	Pn	20 39 38.7	+0.8
CING	Cingoli	1.61	279	ePn	Pn	20 39 38.7	+0.9
CII	Carovilli	1.64	209	ePn	Pn	20 39 39.5	+1.2
CII	Carovilli	1.64	209	ePn	Pn	20 39 39.5	+1.2
AQU	L'Aquila	1.66	242	ePn	Pn	20 39 39.9	+1.3
AQU	L'Aquila	1.66	242	ePn	Pn	20 39 39.9	+1.3
STON	Ston	1.73	99	i Pn	Pn	20 39 38.9	-0.7
STON				i Sg	Sg	20 40 02.7	-4.2
STON	Ston	1.73	99	i Pn	Pn	20 39 38.9	-0.7
STON				i Sg	Sg	20 40 02.6	-4.2
SNTG	Esanatoglia	1.78	274	ePN	Pn	20 39 40.8	+0.4
	52nm,0.5s						
SNTG	Esanatoglia	1.78	274	ePn	Pn	20 39 40.8	+0.4
SNTG	Esanatoglia	1.78	274	ePn	Pn	20 39 40.8	+0.4
	52nm,0.5s						
ARV	Arcevia	1.81	282	ePN	Pn	20 39 41.8	+1.1
ARV	Arcevia	1.81	282	ePn	Pn	20 39 41.8	+1.0
SDI	San Donato	1.85	219	ePN	Pn	20 39 40.7	-0.7
	58nm,0.7s						
SDI	San Donato	1.85	219	ePn	Pn	20 39 40.6	-0.7
SDI	San Donato	1.85	219	ePn	Pn	20 39 40.7	-0.7
	58nm,0.7s						
SGG	Gregorio Mates	1.92	203	ePN	Pn	20 39 42.6	+0.3
SGG	Gregorio Mates	1.92	203	ePn	Pn	20 39 42.6	+0.3
FSSB	Fossombrone	1.97	287	ePN	Pn	20 39 43.7	+0.7
	44nm,0.7s						
FSSB	Fossombrone	1.97	287	ePn	Pn	20 39 43.7	+0.7
FSSB	Fossombrone	1.97	287	ePn	Pn	20 39 43.7	+0.7
	44nm,0.7s						
BLY	Banja Luka	2.06	39	Sg	Sg	20 40 15.1	-2.8
MURB	Monte Urbino	2.09	274	ePN	Pn	20 39 47.0	+2.3
MURB	Monte Urbino	2.09	274	ePn	Pn	20 39 47.0	+2.3
MNS	Montasola	2.13	250	ePN	Pn	20 39 46.8	+1.5
	22nm,0.5s						
MNS	Montasola	2.13	250	ePn	Pn	20 39 46.8	+1.4
MNS	Montasola	2.13	250	ePn	Pn	20 39 46.8	+1.5
	22nm,0.5s						
BOJS	Bojanci	2.35	358	ePn	Pn	20 39 49.9	+1.4
	comp=Z,34nm,0.3s						
BOJS	Bojanci	2.35	358	ePn	Pn	20 39 49.9	+1.4
	comp=Z,34nm,0.3s						
MRLC	Muro Lucano	2.40	178	ePN	Pn	20 39 48.8	-0.4
MRLC	Muro Lucano	2.40	178	ePn	Pn	20 39 48.9	-0.3
CRE	Caprese Michel	2.54	282	ePN	Pn	20 39 53.0	+1.8
	comp=Z,19nm,0.6s						
CRE	Caprese Michel	2.54	282	ePn	Pn	20 39 53.0	+1.9
CRE	Caprese Michel	2.54	282	ePn	Pn	20 39 53.0	+1.8
	comp=Z,19nm,0.6s						
SGO	Sicignano	2.59	181	ePN	Pn	20 39 51.0	-1.0
	comp=Z,8.0nm,0.6s						
SGO	Sicignano	2.59	181	ePn	Pn	20 39 51.0	-1.0
SGO	Sicignano	2.59	181	ePn	Pn	20 39 51.0	-1.0
	comp=Z,8.0nm,0.6s						
SFI	Santa Sofia	2.67	287	ePN	Pn	20 39 54.9	+1.8
SFI	Santa Sofia	2.67	287	ePn	Pn	20 39 54.9	+1.8
VISS	Visnje	2.67	352	i Pn	Pn	20 39 54.4	+1.2
CSNT	Castellina Chi	3.00	277	ePN	Pn	20 39 58.7	+1.0
	comp=Z,19nm,0.7s						
CSNT	Castellina Chi	3.00	277	ePn	Pn	20 39 58.7	+1.0
CSNT	Castellina Chi	3.00	277	ePn	Pn	20 39 58.7	+1.0
	comp=Z,19nm,0.7s						
VOY	Vojsko	3.06	340	ePn	Pn	20 39 59.3	+0.6
VOY				eSn	Sn	20 40 36.7	+0.9
OBKA	Obir	3.41	350	⇑iPN	Pn	20 40 05.4	+1.9
OBKA				i SG	Sg	20 41 03.0	+0.4
	comp=Z,39nm,0.7s						
RHK1	Bakonya	3.51	32	eP	Pn	20 40 05.7	+0.6
RHK1				eS	Sn	20 40 46.6	-0.6
	comp=Z,1.3nm,0.3s						
PTCC	Patocco-Chiusa	3.55	337	ePN	Pn	20 40 06.3	+0.7
	comp=Z,14nm,0.5s						
PTCC	Patocco-Chiusa	3.55	337	ePn	Pn	20 40 06.3	+0.6
PTCC	Patocco-Chiusa	3.55	337	ePn	Pn	20 40 06.3	+0.7
	comp=Z,14nm,0.5s						
PKSM	Moragy	3.84	36	eP	Pn	20 40 11.6	+1.9
ARSA	Arzberg	4.10	1	⇑iPN	Pn	20 40 14.1	+0.8
KBA	Koelnbreinsper	4.18	341	⇓iPN	Pn	20 40 15.3	+0.8
KBA				i SG	Sg	20 41 27.1	-1.2
	comp=Z,7.6nm,0.5s						
PGF	Pioggiola	4.73	265	ePn	Pn	20 40 22.1	-0.2
MOA	Molln	4.76	351	⇑iPN	Pn	20 40 23.5	+0.8
MOA				i SN	Sn	20 41 18.8	+0.1
SBF	Sospel	5.82	280	ePn	Pn	20 40 36.7	-1.0
KHC	Kasperske Hory	6.11	349	eP	Pn	20 40 40.0	-1.8
KHC				e		20 40 49.5	
KHC				eSn	Sn	20 41 47.0	-5.5
KHC				eSg	rx	20 42 00.0	
KHC	Kasperske Hory	6.11	349	x	x	20 40 40.0	
KHC				ex	x	20 40 49.5	
KHC				eSN	Sn	20 41 47.0	-5.5
KHC				ex	x	20 42 00.0	
FRF	La Foret Royal	6.38	277	ePn	Pn	20 40 44.0	-1.6
MBDF	Montbardon	6.41	287	ePn	Pn	20 40 43.7	-2.3
MBDF				eSn	Sn	20 41 53.9	-6.1
	comp=Z,2.0nm,0.4s						
LMR	La Mourre	6.48	275	ePn	Pn	20 40 45.5	-1.5
LPG	La Plagne	6.61	294	ePn	Pn	20 40 45.8	-3.1
LPG				eSn	Sn	20 41 58.7	-6.4
	comp=Z,3.4nm,0.5s						
LPG	La Plagne	6.61	294	eSn	Sn	20 41 58.7	-6.4
	comp=Z,1.7nm,0.5s						
LPL	La Plagne	6.63	294	ePn	Pn	20 40 46.7	-2.5
LPL				eSn	Sn	20 42 00.4	-5.2
	comp=Z,6.2nm,0.5s						
ORIF	Oris-en-Rattie	7.07	288	ePn	Pn	20 40 52.2	-3.1
ORIF				eSn	Sn	20 42 10.5	-6.0
	comp=Z,2.7nm,0.4s						
ORIF	Oris-en-Rattie	7.07	288	eSn	Sn	20 42 10.5	-6.0
	comp=Z,1.4nm,0.4s						
SMRF	Simiane la Rot	7.17	280	ePn	Pn	20 40 55.2	-1.5
HINF	Hinteralfeld	7.59	311	ePn	Pn	20 41 00.9	-1.7
HINF				eSn	Sn	20 42 22.4	-7.1
	comp=Z,3.4nm,0.5s						
CDF	Champ du Feu	7.72	316	ePn	Pn	20 41 02.8	-1.7
HAU	Haudompre	7.97	311	ePn	Pn	20 41 04.8	-3.2
HAU				eSn	Sn	20 42 31.5	-7.7
	comp=Z,3.6nm,0.5s						

CASC 03 20:41:34.8±1.6**, 11.57N×86.87W, MD3.7, ML3.2, 7C-3D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COPN	Copaltepe	0.67	24	⇑eP	Pg	20 41 48.9	+0.8
TICN	Ticuantepe	0.78	53	eP	Pg	20 41 51.4	+1.0
XAVN	Gruta Xavier	0.79	42	⇑eP	Pg	20 41 51.3	+0.9
MASN	Masaya	0.82	59	eP	Pg	20 41 51.3	+0.2
PYN	Poneloya	0.82	349	⇑eP	Pg	20 41 51.1	-0.2
PYN				eS	Sg	20 42 05.0	+2.8
APYN	Apoyeque	0.83	37	⇑eP	Pg	20 41 51.5	0.0
MGAN	Managua	0.84	46	⇑eP	Pg	20 41 51.9	+0.3
MGAN				eS	Sg	20 42 05.6	+2.9
MGAN				i		20 42 07.8	
	comp=E,637nm,0.6s						
LEON	Leon	0.84	358	⇑eP	Pg	20 41 51.0	-0.6
APON	Apoyo	0.86	66	⇓eP	Pg	20 41 52.1	+0.1
APON				eS	Sg	20 42 05.4	+2.0
MIRN	Miramar	0.88	10	eP	Pg	20 41 52.0	-0.4
WILN	Americas 2	0.89	48	⇑eP	Pg	20 41 52.2	-0.4
WILN				eS	Sg	20 42 05.0	+0.6
MOMJ	Momotombo	0.90	21	eP	Pg	20 41 52.1	-0.6
CNGN	Cerro Negro	0.94	10	eP	Pg	20 41 53.4	-0.2
TEL3	Telica 3	1.00	1	⇓eP	Pb	20 41 53.6	-1.1
TELN	Telica	1.03	2	⇓eP	Pb	20 41 54.5	-0.8
CRIN	San Cristobal	1.14	351	eP	Pb	20 41 56.1	-1.0
LCBS	La Ceiba	2.92	315	eP	Pn	20 42 23.7	+0.3
LFRS	El Faro	2.96	314	eP	Pn	20 42 23.5	-0.4

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*NIED **03** 20:45:00, 42.90N×145.20E, h35^{km}, Mw4.1 Best double couple: $M_0 1.76\times10^{15}$ NP1:ϕ_s29°, δ78°, λ83°. NP2:ϕ_s240°, δ14°, λ120°.*
*MOS **03** 20:45:32.6±1.8, 42.64N×145.45E, h33^{km}, mb4.2/8, Error ellipse: s-maj=21.7km s-min=11.4km az=96.4*
*SKHL **03** 20:45:36.8±0.4, 42.91N×145.26E, h51^{km}±5^{km}, mb4.8/3*
*BJI **03** 20:45:36.3, 42.56N×145.02E, h50^{km}, mB5.2, mb4.2*
*JMA **03** 20:45:36.5±0.1, 42.90N×145.22E, h47^{km}±1^{km}, M4.0*
JMA Felt I J1.
*IDC **03** 20:45:37.2±0.9, 42.87N×145.39E, h50^{km}±7^{km}, mb3.6/13, mb1 3.9/14, mb1mx3.8/23, MS3.1/1, Ms1 3.1/1, ms1mx2.8/23, Error ellipse: s-maj=17.5km s-min=9.8km az=19.0*
*NEIC **03** 20:45:37.3±0.9, 42.91N×145.14E, h48^{km}±8^{km}, mb4.3/12, Error ellipse: s-maj=8.9km s-min=6.3km az=107.0*
NEIC Recorded [1 JMA] in eastern Hokkaido.

ISC 03 20:45:35.3±0.6**, 42.88N**±0.05×**145.25E**±0.06**, h52^{km}**±4^{km}**, h45^{km}**±5.0^{km}**:pP-P, n64, σ0^{s}.79**/77**, mb4.1**/27**, 3C-8D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JAK	Akkeshi	0.42	286	⇓P	P	20 45 46.4	+0.5
JAK				eS	S	20 45 53.5	+0.1
NEM2	Nemuro 2	0.60	36	⇓P	P	20 45 48.7	+0.8
NEM2				eS	S	20 45 57.2	+0.1
JNK	Nakash	0.80	331	⇓P	P	20 45 51.1	+0.5
JNK				eS	S	20 46 01.5	-0.3
JOB	Onbets	1.04	272	⇓P	P	20 45 54.3	+0.4
JRA	Rausu	1.06	355	⇓P	P	20 45 54.8	+0.7
JRA				eS	S	20 46 08.4	+0.3
JAR	Ashorobuto	1.16	291	⇓P	P	20 45 56.1	+0.6
JAR				eS	S	20 46 09.8	-0.8
YUK	Yuzh-Kuril'sk	1.23	21	⇑iPN	P	20 45 56.4	-0.2
YUK				i S	S	20 46 11.2	-1.2
YUK				pmax	pmax		
	comp=Z,2μm,0.2s						
YUK				pmax	pmax		
	comp=Z,2μm,0.3s						
YUK				smax			
	comp=E,6μm,0.5s						
YUK				smax			
	comp=N,8μm,0.7s						
YUK				smax			
	comp=E,14μm,0.7s						
YUK	Yuzh-Kuril'sk	1.23	21	⇑iP	P	20 45 56.4	-0.2
YUK				AMB	AMB	20 45 56.8	
	comp=E,2μm,0.2s						
YUK				AMB	AMB	20 45 57.0	
	comp=E,2μm,0.3s						
YUK				i S	S	20 46 11.2	-1.2
YUK				A		20 46 12.2	
	comp=E,5μm,0.5s						
YUK				A		20 46 12.2	
	comp=E,6μm,0.5s						
JCH	Churui	1.42	260	⇓P	P	20 45 59.2	0.0
JCH				eS	S	20 46 16.8	-0.2
JTKR	Abashiri--Toko	1.46	318	⇓P	P	20 46 00.9	+1.0
ASAJ	Asahikawa	2.29	303	P	P	20 46 13.3	+1.8
	comp=E,49nm,0.3s,baz=123,slow=9.4,SNR=118						
ASAJ				S	S	20 46 43.3	+4.7
	comp=E,66nm,0.3s,baz=359,slow=22,SNR=14						
ASAJ				LR	LR	20 47 14.6	
	comp=E,446nm,20.8s,baz=116,slow=41						
ASAJ	Asahikawa	2.29	303	PN	P	20 46 13.4	+1.9
ASAJ				S	S	20 46 43.3	+4.7
ASAJ				pmax	pmax		
	comp=Z,49nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,446nm,20.8s						
KUR	Kuril'sk	3.01	38	⇑iP	P	20 46 21.0	-0.8
KUR				AMB	AMB	20 46 23.0	
	comp=Z,130nm,0.5s						
KUR				i S	S	20 46 54.0	-2.9
KUR				A		20 47 04.5	
	comp=Z,470nm,0.5s						
KUR				A		20 47 04.5	
	comp=Z,230nm,0.5s						
YSS	Yuzh-Sakhalins	4.44	337	Pn	P	20 46 41.6	-0.2
YSS	Yuzh-Sakhalins	4.44	337	eP	P	20 46 47.0	+5.1
YSS				erx	rx	20 47 07.0	
MAJO	Matsushiro	8.34	223	ePn	P	20 47 34.6	-1.6
MAT	Matsushiro	8.34	223	P	P	20 47 35.3	-0.9
MAT				eS	S	20 49 06.2	-3.7

MAT	**Matsushiro**	**8.34**	**223**	P	**P**	**20 47 35.0**	**-1.2**
MAT				S	**S**	**20 49 06.0**	**-3.9**
EKMR	**Ekimchan**	**13.09**	**325**	*e*P	**P**	**20 48 39.5**	**-1.0**
EKMR				AMB	AMB	20 48 40.0	
	comp=Z,3.0nm,0.5s						
HIA	**Hailar**	**18.76**	**299**	P	**P**	**20 49 51.9**	**-0.5**
	comp=Z,3.3nm,0.5s						
BJT	**Baijiatuau**	**21.94**	**272**	*e*P	**P**	**20 50 24.8**	**-1.0**
	comp=Z,6.0nm,0.6s,mb4.2						
HHC	**Hu-ho-hao-te**	**25.08**	**277**	*e*P	**P**	**20 50 57.2**	**+0.9**
HHC				XP	sP	20 51 10.2	-5.2
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.5						
HHC				AMB	AMB		
	comp=Z,213nm,6.1s						
SONM	**Songino Array**	**27.54**	**294**	P	**P**	**20 51 19.3**	**+0.3**
	comp=Z,5.0nm,0.7s,mb4.2,baz=81,slow=8.1,SNR=44						
ZAK	**Zakamensk**	**29.46**	**299**	*e*P	**P**	**20 51 35.6**	**-0.5**
ENH	**Enshi**	**31.12**	**258**	*e*P	**P**	**20 51 50.9**	**-0.3**
	comp=Z,4.7nm,0.8s,mb4.4						
ZAL	**Zalesovo**	**40.44**	**308**	P	**P**	**20 53 10.6**	**+0.7**
	comp=Z,0.7nm,0.8s,mb3.5,baz=6.5,slow=3.0,SNR=4.0						
ZAL				PcP	PcP	20 55 12.6	-0.1
	comp=Z,0.9nm,0.6s,baz=21,slow=6.2,SNR=5.0						
ZAL	**Zalesovo**	**40.44**	**308**	P	**P**	**20 53 10.6**	**+0.7**
ZAL						20 55 12.6	
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ILAR	**Eielson Array**	**43.00**	**36**	P	**P**	**20 53 31.9**	**+1.2**
	comp=Z,0.9nm,0.6s,mb3.6,baz=274,slow=6.3,SNR=19						
ILAR				pP	pP	20 53 43.9	-0.5
	comp=Z,0.8nm,0.7s,baz=274,slow=8.4,SNR=3.7						
ILAR	**Eielson Array**	**43.00**	**36**	P	**P**	**20 53 31.9**	**+1.2**
ILAR				*PP	pP	20 53 43.9	-0.5
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KURK	**Kurchatov**	**44.87**	**304**	*e*P	**P**	**20 53 45.4**	**-0.5**
	comp=Z,2.4nm,0.7s,mb4.1						
CMAR	**Chiang Mai Arr**	**45.95**	**253**	P	**P**	**20 53 56.4**	**+1.4**
	comp=Z,2.8nm,1.1s,mb4.1,baz=45,slow=7.3,SNR=12						
CMAR	**Chiang Mai Arr**	**45.95**	**253**	P	**P**	**20 53 56.4**	**+1.4**
CMAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
INK	**Inuvik**	**47.85**	**30**	*e*P	**P**	**20 54 09.8**	**+0.6**
	comp=Z,1.3nm,0.4s,mb4.3						
CHKZ	**Chkalovo**	**48.64**	**310**	*e*P	**P**	**20 54 14.1**	**-1.4**
	comp=Z,0.8nm,0.4s,mb4.1						
BVAR	**Borovoye Array**	**48.98**	**309**	P	**P**	**20 54 18.4**	**+0.2**
	comp=Z,1.3nm,0.3s,mb4.4,baz=82,slow=8.4,SNR=23						
BVAR				PcP	PcP	20 55 40.6	-1.4
	comp=Z,0.8nm,0.7s,baz=63,slow=3.3,SNR=3.6						
BRVK	**Borovoye**	**49.03**	**309**	*e*P	**P**	**20 54 18.9**	**+0.3**
	comp=Z,1.9nm,0.9s,mb4.1						
TKM2	**Tokmak 2**	**49.63**	**295**	*e*P	**P**	**20 54 23.6**	**+0.3**
	comp=Z,3.5nm,0.8s,mb4.4						
GUN	**Gumba**	**49.68**	**273**	*e*P	**P**	**20 54 24.5**	**+0.6**
KKN	**Kakani**	**50.18**	**273**	*e*P	**P**	**20 54 27.9**	**+0.1**
	comp=Z,9.2nm,0.9s,mb4.8						
PKI	**Pulchoki**	**50.21**	**273**	*e*P	**P**	**20 54 27.7**	**-0.3**
DMN	**Daman**	**50.41**	**273**	*e*P	**P**	**20 54 29.9**	**+0.3**
GKN	**Gorkha**	**50.54**	**274**	*e*P	**P**	**20 54 29.8**	**-0.7**
EKS2	**Erkin-Say**	**50.95**	**296**	*e*P	**P**	**20 54 32.9**	**-0.5**
	comp=Z,1.7nm,0.7s,mb4.1						
KOLN	**Koldanda**	**51.43**	**274**	*e*P	**P**	**20 54 37.3**	**+0.1**
	comp=Z,8.9nm,0.7s,mb4.8						
ARU	**Arti**	**54.03**	**317**	*e*P	**P**	**20 54 55.3**	**-0.9**
	comp=Z,2.3nm,0.5s,mb4.4						
RES	**Resolute Bay**	**56.19**	**16**	*e*P	**P**	**20 55 10.8**	**-0.8**
	comp=Z,4.5nm,0.8s,mb4.5						
YKA	**Yellowknife Ar**	**57.29**	**33**	P	**P**	**20 55 20.0**	**+0.4**
	comp=Z,0.2nm,0.4s,mb3.5,baz=301,slow=6.7,SNR=3.2						
WRAB	**Tennant Creek**	**63.30**	**191**	*e*P	**P**	**20 56 00.9**	**-0.3**
	comp=Z,5.4nm,1.1s,mb4.6						
WRA	**Warramunga Arr**	**63.31**	**191**	P	**P**	**20 56 01.4**	**+0.2**
	comp=Z,0.5nm,0.6s,mb3.8,baz=9.2,slow=7.0,SNR=3.7						
WRA	**Warramunga Arr**	**63.31**	**191**	P	**P**	**20 56 01.4**	**+0.1**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**65.01**	**332**	P	**P**	**20 56 10.7**	**-0.9**
	comp=Z,1.4nm,0.6s,mb4.2,baz=53,slow=6.6,SNR=9.7						
FINES	**FINESS Array B**	**65.01**	**332**	P	**P**	**20 56 10.7**	**-0.9**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	**Alice Springs**	**67.04**	**191**	P	**P**	**20 56 25.8**	**+0.6**
	comp=Z,0.2nm,0.4s,mb3.5,baz=7.9,slow=4.8,SNR=3.9						
NB2	**NORSAR Subarra**	**69.90**	**338**	P	**P**	**20 56 41.9**	**-0.3**
	comp=Z,1.2nm,0.5s,mb4.1,baz=32,slow=6.2						
NOA	**NORSAR Array B**	**69.90**	**338**	P	**P**	**20 56 42.0**	**-0.2**
	comp=Z,3.0nm,0.8s,mb4.2,baz=34,slow=6.2,SNR=10.0						
NOA				pP	pP	20 56 56.7	-0.2
	comp=Z,1.5nm,0.7s,baz=33,slow=6.4,SNR=3.6						
NOA	**NORSAR Array B**	**69.90**	**338**	P	**P**	**20 56 42.0**	**-0.2**
NOA				*PP	pP	20 56 56.7	-0.1
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	**NORSAR Array B**	**69.90**	**338**	P	**P**	**20 56 42.0**	**-0.2**
NOA				pP	pP	20 56 56.7	-0.2
AKASG	**Malin Array Be**	**71.45**	**323**	P	**P**	**20 56 51.5**	**-0.3**
	comp=Z,1.5nm,0.5s,mb4.2,baz=39,slow=5.9,SNR=9.6						
AKASG	**Malin Array Be**	**71.45**	**323**	P	**P**	**20 56 51.5**	**-0.2**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
PDAR	**Pinedale Array**	**71.53**	**49**	P	**P**	**20 56 54.0**	**+1.7**
	comp=Z,0.3nm,0.4s,mb3.6,baz=315,slow=2.6,SNR=4.1						
PDAR				pP	pP	20 57 05.7	-1.3
	comp=Z,0.6nm,0.5s,baz=178,slow=0.5,SNR=3.8						
CLL	**Collm**	**77.43**	**332**	P	**P**	**20 57 26.7**	**+0.5**
KHC	**Kasperske Hory**	**79.03**	**330**	*e*P	**P**	**20 57 35.5**	**+0.5**
GERES	**GERESS Array B**	**79.23**	**330**	P	**P**	**20 57 36.8**	**+0.7**
	comp=Z,0.6nm,0.7s,mb3.7,baz=27,slow=3.0,SNR=5.4						
GERES	**GERESS Array B**	**79.23**	**330**	P	**P**	**20 57 36.8**	**+0.7**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						

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*CSEM **03** 21:00:26.2±1.2, 38.44N×29.58W, h5^{km}, ML2.7, Error ellipse: s-maj=34.9km s-min=11.2km az=159.0*

*PDA **03** 21:00:26.2±1.2, 38.44N×29.58W, h5^{km}, MD3.5, ML2.7, Error ellipse: s-maj=34.9km s-min=11.2km az=159.0*

SVSA 03 21:00:26.2±1.2**, 38.44N×29.58W, h5^{km}, MD3.5, ML2.7, Error ellipse: s-maj=34.9km s-min=11.2km az=159.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CALA	**Caldeira**	**0.70**	**78**	*e*P	Pg	21 00 38.4	-1.9
CALA				*e*S	Sg	21 00 46.2	-3.5
HOR	**Horta**	**0.75**	**83**	*e*rx	Sg	21 00 45.9	-5.4
PICO	**Pico**	**0.91**	**86**	*e*P	Pb	21 00 40.4	-3.7
PICO				*e*S	Sb	21 00 51.8	-4.5
ROSA	**Rosais**	**1.09**	**75**	*e*S	Sb	21 00 55.9	-5.5
PID	**Ribeirinha**	**1.15**	**89**	*e*P	Pb	21 00 44.2	-4.0
ASBA	**Santa Barbara**	**1.79**	**80**	*e*S	Sn	21 01 13.5	-7.9
	23nm,0.2s						
ASBA	**Santa Barbara**	**1.79**	**80**	*e*S	Sn	21 01 13.5	-7.9
	23nm,0.2s						
PPAD	**Pico dos Padre**	**1.82**	**81**	*e*S	Sn	21 01 13.7	-8.4
	9.6nm,0.1s						
PPAD	**Pico dos Padre**	**1.82**	**81**	*e*S	Sn	21 01 13.7	-8.4
	9.6nm,0.1s						
PBIS	**Biscoitos**	**1.85**	**79**	*e*S	Sn	21 01 14.4	-8.6
	14nm,0.2s						
RIB2	**Ribeirinha**	**1.90**	**82**	*e*S	Sn	21 01 15.9	-8.3
	30nm,0.2s						
PVNV	**Vila Nova**	**1.93**	**80**	*e*S	Sn	21 01 16.6	-8.3
	7.5nm,0.2s						
PFAV	**Pico das Favas**	**1.98**	**81**	*e*S	Sn	21 01 17.9	-8.2
	9.6nm,0.2s						

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*BJI **03** 21:28:30.9, 6.52S×127.71E, h413^{km}, mB4.9, mb4.4*

*SYO **03** 21:28:31.8, 6.57S×127.38E, h395^{km}, MB4.4*

*IDC **03** 21:28:33.6±1.6, 6.65S×127.40E, h414^{km}±18^{km}, mb4.0/12, mb1 4.1/15, mb1mx4.1/18, Error ellipse: s-maj=16.7km s-min=8.0km az=65.0*

*NEIC **03** 21:28:33.2±0.6, 6.58S×127.41E, h412^{km}±7^{km}, mb4.4/29, Error ellipse: s-maj=7.5km s-min=4.5km az=71.0*

*DJA **03** 21:28:34.0±0.3, 6.55S×127.30E, h500^{km}, mb4.9/4, Error ellipse: s-maj=27.0km s-min=9.2km az=173.0*

ISC 03 21:28:32.6±0.6**, 6.64S**±0.04×**127.42E**±0.05**, h423**^{km}±7^{km}**, n111,** $\sigma 0^{s}97$/93**, mb4.5**/47**, 5C-11D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUNI	**Buntu Taipa**	**7.67**	**292**	⇑*e*P	**P**	**21 30 26.0**	**+0.9**
	296nm,0.3s						
KAKA	**Kakadu**	**7.76**	**141**	⇓*i*P	**P**	**21 30 26.4**	**+0.2**
	159nm,0.5s						
KAKA				*e*S	**S**	**21 31 56.4**	**+0.5**
NINI	**Niniconang**	**7.94**	**286**	⇓*e*P	**P**	**21 30 29.9**	**+1.7**
TANI	**Tanete Lipujan**	**8.62**	**291**	⇓*e*P	**P**	**21 30 36.8**	**+1.0**
KEDI	**Kedomdong**	**11.36**	**260**	⇑*e*P	**P**	**21 31 06.1**	**-1.0**
	200nm,0.5s						
FITZ	**Fitzroy Crossi**	**11.52**	**189**	⇓*i*P	**P**	**21 31 08.1**	**-0.8**
	9.5nm,0.5s						
FITZ	**Fitzroy Crossi**	**11.52**	**189**	P	**P**	**21 31 08.1**	**-0.7**
	3.1nm,0.3s,baz=14,slow=7.8,SNR=89						
FITZ				S	**S**	**21 33 11.4**	**-1.9**
	2.7nm,0.3s,baz=146,slow=5.5,SNR=3.4						
KELI	**Kelakatan**	**12.92**	**262**	⇓*e*P	**P**	**21 31 22.7**	**-1.6**
SRDI	**Scrawed**	**13.29**	**261**	⇑*e*P	**P**	**21 31 25.2**	**-3.1**
	107nm,0.4s						
YOMI	**Yo Moklole**	**13.68**	**74**	⇑*e*P	**P**	**21 31 32.0**	**-0.7**
	80nm,0.4s						
WRAB	**Tennant Creek**	**14.82**	**154**	*e*P	**P**	**21 31 43.4**	**-1.2**
	190nm,0.6s						
WRAB				*e*S	**S**	**21 34 17.6**	**-1.2**
WRA	**Warramunga Arr**	**14.83**	**154**	P	**P**	**21 31 43.6**	**-0.9**
	23nm,0.3s,baz=333,slow=11,SNR=586						
WRA				S	**S**	**21 34 18.6**	**-0.3**
	5.4nm,0.3s,baz=325,slow=19,SNR=26						
WB2	**Warramunga Arr**	**14.83**	**154**	⇓*i*P	**P**	**21 31 43.7**	**-0.9**
WB2				*i* S	**S**	**21 34 18.4**	**-0.6**
MBWA	**Marble Bar**	**16.24**	**207**	*e*P	**P**	**21 31 58.8**	**-0.1**
ASAR	**Alice Springs**	**18.04**	**160**	P	**P**	**21 32 17.9**	**+1.0**
	17nm,0.3s,baz=347,slow=12,SNR=1054						
ASAR				S	**S**	**21 35 22.4**	**+4.2**
	3.7nm,0.3s,baz=341,slow=25,SNR=7.8						
ASAR				ScP		21 39 26.1	
	baz=331,slow=3.2,SNR=5.2						
ASAR	**Alice Springs**	**18.04**	**160**	P	**P**	**21 32 17.9**	**+1.0**
ASAR				S	**S**	**21 35 22.4**	**+4.2**
ASAR				ScP		21 39 26.1	
ASPA	**Alice Springs**	**18.04**	**160**	⇓*i*P	**P**	**21 32 18.0**	**+1.1**
ASPA				*i* S	**S**	**21 35 22.0**	**+3.8**
PMG	**Port Moresby**	**19.73**	**99**	P	**P**	**21 32 35.3**	**+1.7**
	12nm,0.3s,baz=108,slow=1.9,SNR=47						
PMG	**Port Moresby**	**19.73**	**99**	*e*P	**P**	**21 32 34.9**	**+1.3**
	58nm,0.6s						
LUBP	**Lubang**	**21.46**	**341**	*e*P	**P**	**21 32 50.0**	**-0.1**
CTA	**Charters Tower**	**22.64**	**128**	*e*P	**P**	**21 33 02.0**	**+1.0**
	12nm,0.8s,mb4.4						
CTA	**Charters Tower**	**22.64**	**128**	P	**P**	**21 33 02.1**	**+1.1**
	26nm,1.0s,mb4.6,baz=305,slow=12,SNR=18						
CTAO	**Charters Tower**	**22.64**	**128**	*e*P	**P**	**21 33 01.7**	**+0.7**
	21nm,0.8s,mb4.6						
FORT	**Forrest**	**24.02**	**179**	⇓*i*P	**P**	**21 33 13.7**	**+0.3**
	78nm,0.8s,mb5.2						
KLBR	**Kellerberrin**	**26.41**	**199**	*e*P	**P**	**21 33 35.1**	**+0.1**
	4.8nm,0.4s,mb4.3						
NWAO	**Narrogin (SRO)**	**27.82**	**199**	P	**P**	**21 33 47.8**	**+0.4**
	5.3nm,0.6s,mb4.0,baz=19,slow=5.2,SNR=7.1						
STKA	**Stephens Creek**	**28.38**	**154**	⇓*i*P	**P**	**21 33 52.7**	**+0.4**
	35nm,0.4s,mb5.0						
STKA	**Stephens Creek**	**28.38**	**154**	P	**P**	**21 33 52.7**	**+0.4**
	40nm,0.4s,mb5.1,baz=328,slow=8.8,SNR=255						
TOO	**Toolangi**	**34.90**	**154**	⇓*i*P	**P**	**21 34 50.3**	**+2.3**
	12nm,0.8s,mb4.3						
CMAR	**Chiang Mai Arr**	**37.57**	**312**	P	**P**	**21 35 10.5**	**+0.1**
	9.1nm,0.6s,mb4.2,baz=140,slow=6.9,SNR=84						
CMAR				PcP	PcP	21 37 19.9	+1.3
	4.7nm,0.9s,baz=161,slow=2.7,SNR=15						
KMI	**Kunming**	**39.67**	**324**	*e*P	**P**	**21 35 28.6**	**+1.0**
KMI				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.2						
ENH	**Enshi**	**40.54**	**336**	*e*P	**P**	**21 35 33.7**	**-0.9**
	comp=Z,12nm,0.7s,mb4.3						
MAJO	**Matsushiro**	**44.13**	**12**	*e*P	**P**	**21 36 01.9**	**-1.3**
	comp=Z,8.4nm,0.6s,mb4.2						
MAT	**Matsushiro**	**44.13**	**12**	P	**P**	**21 36 01.8**	**-1.4**
MAT	**Matsushiro**	**44.13**	**12**	*e*P	**P**	**21 36 02.0**	**-1.2**
	comp=Z,12nm,0.9s,mb4.2						
SHL	**Shillong**	**47.09**	**314**	⇑*e*P	**P**	**21 36 25.5**	**-0.9**
BJT	**Baijiatuau**	**47.58**	**348**	*e*P	**P**	**21 36 28.9**	**-1.0**
	comp=Z,10nm,0.7s,mb4.3						
LSA	**Lhasa**	**50.20**	**318**	P	**P**	**21 36 50.2**	**+0.4**
MDJ	**Mudanjiang**	**51.06**	**2**	*e*P	**P**	**21 36 55.9**	**-0.1**
	comp=Z,4.9nm,0.6s,mb3.9						
ASAJ	**Asahikawa**	**52.35**	**14**	P	**P**	**21 37 05.0**	**-0.4**
	comp=Z,4.4nm,0.6s,mb3.9,baz=245,slow=13,SNR=5.9						
GTA	**Gaotai**	**52.46**	**333**	*e*P	**P**	**21 37 05.9**	**-0.5**
GTA				PCP	PcP	21 38 11.4	+1.1
GTA				AMB	AMB		
	comp=Z,32nm,0.7s,mb4.7						
GUN	**Gumba**	**52.81**	**313**	*e*P	**P**	**21 37 08.4**	**-0.6**
	comp=Z,100nm,0.6s,mb5.2						
PKI	**Pulchoki**	**52.97**	**312**	*e*P	**P**	**21 37 09.3**	**-0.9**
	comp=Z,42nm,0.4s,mb5.0						
KKN	**Kakani**	**53.18**	**312**	*e*P	**P**	**21 37 10.9**	**-0.8**
	comp=Z,37nm,0.6s,mb4.8						
DMN	**Daman**	**53.21**	**312**	*e*P	**P**	**21 37 11.3**	**-0.6**
	comp=Z,26nm,0.4s,mb4.8						
GKN	**Gorkha**	**53.77**	**312**	*e*P	**P**	**21 37 15.3**	**-0.7**
	comp=Z,91nm,0.3s,mb5.5						
HYB	**Hyderabad**	**53.87**	**297**	*e*P	**P**	**21 37 14.5**	**-2.3**
HYB	**Hyderabad**	**53.87**	**297**	*i* P	**P**	**21 37 14.5**	**-2.3**
KOLN	**Koldanda**	**54.42**	**311**	*e*P	**P**	**21 37 20.0**	**-0.6**
URZ	**Urewera**	**54.78**	**133**	P	**P**	**21 37 22.2**	**-0.8**
	comp=Z,7.4nm,0.4s,mb4.3,baz=286,slow=19,SNR=6.7						
HIA	**Hailar**	**56.08**	**354**	*e*P	**P**	**21 37 31.3**	**-0.6**
	comp=Z,4.7nm,0.8s,mb3.9						
ULN	**Ulaanbaatar**	**57.17**	**344**	*e*P	**P**	**21 37 39.3**	**-0.2**
	comp=Z,12nm,0.8s,mb4.3						
ULN				*e*PcP	PcP	21 38 28.4	0.0
SONM	**Songino Array**	**57.33**	**343**	P	**P**	**21 37 40.6**	**0.0**
	comp=Z,7.5nm,0.7s,mb4.1,baz=171,slow=7.9,SNR=73						
SONM				PcP	PcP	21 38 28.6	-0.5
	comp=Z,1.6nm,0.4s,baz=165,slow=5.1,SNR=7.0						
NDI	**New Delhi**	**59.75**	**309**	*e*P	**P**	**21 37 54.0**	**-3.1**
	comp=Z,35nm,0.7s,mb4.9						
CASY	**Casey**	**60.68**	**188**	*e*P	**P**	**21 38 03.3**	**+0.6**
	comp=Z,13nm,0.9s,mb4.4						
KSH	**Kashi**	**66.04**	**319**	*e*P	**P**	**21 38 39.6**	**+1.9**
KSH				AMB	AMB		
	comp=Z,90nm,4.2s						
TKM2	**Tokmak 2**	**68.10**	**322**	P	**P**	**21 38 51.1**	**+0.8**
	SNR=5.2						
TKM2	**Tokmak 2**	**68.10**	**322**	*e*P	**P**	**21 38 50.5**	**+0.2**
	comp=Z,6.2nm,0.6s,mb4.4						
KBK	**Karagaybulak**	**68.36**	**321**	P	**P**	**21 38 52.9**	**+1.0**
	SNR=5.3						
UCH	**Uchtor**	**68.41**	**320**	*e*P	**P**	**21 38 52.9**	**+0.8**
	comp=Z,6.1nm,0.9s,mb4.2						
YAK	**Yakutsk**	**68.49**	**1**	*e*P	**P**	**21 38 51.9**	**-0.5**
	comp=Z,26nm,0.8s,mb4.9						
AAK	**Ala-Archa**	**68.63**	**321**	P	**P**	**21 38 54.6**	**+1.1**
	SNR=5.4						
AAK	**Ala-Archa**	**68.63**	**321**	*e*P	**P**	**21 38 53.2**	**-0.4**
	comp=Z,2.4nm,0.5s,mb4.1						
AML	**Almayashu**	**68.88**	**320**	*e*P	**P**	**21 38 55.6**	**+0.5**
	comp=Z,12nm,0.7s,mb4.6						
USP	**Ospenovka**	**68.96**	**321**	P	**P**	**21 38 55.9**	**+0.3**
	SNR=8.4						
EKS2	**Erkin-Say**	**69.10**	**321**	P	**P**	**21 38 57.7**	**+1.4**
	SNR=5.8						
EKS2	**Erkin-Say**	**69.10**	**321**	*e*P	**P**	**21 38 57.3**	**+1.0**
	comp=Z,14nm,1.3s,mb4.4						
ZAL	**Zalesovo**	**70.15**	**335**	P	**P**	**21 39 02.5**	**0.0**
	comp=Z,21nm,0.3s,mb5.1,baz=347,slow=4.5,SNR=66						
KURK	**Kurchatov**	**70.90**	**330**	*e*P	**P**	**21 39 07.1**	**+0.2**
	comp=Z,38nm,0.6s,mb5.1						
VNDA	**Vanda**	**73.12**	**173**	P	**P**	**21 39 19.8**	**+0.4**
	comp=Z,1.0nm,0.6s,mb3.5,baz=303,slow=8.3,SNR=11						
VNDA	**Vanda**	**73.12**	**173**	*e*P	**P**	**21 39 19.6**	**+0.1**
	comp=Z,4.7nm,1.3s,mb3.9						
BVAR	**Borovoye Array**	**76.41**	**329**	P	**P**	**21 39 38.7**	**+0.3**
	comp=Z,6.6nm,0.5s,mb4.6,baz=124,slow=10,SNR=67						
BRVK	**Borovoye**	**76.48**	**329**	*e*P	**P**	**21 39 38.5**	**-0.2**
	comp=Z,14nm,0.8s,mb4.6						
CHKZ	**Chkalovo**	**76.63**	**329**	*e*P	**P**	**21 39 39.2**	**-0.3**
	comp=Z,10nm,0.8s,mb4.5						
SYO	**Syowa Base**	**83.06**	**201**	⇓P	**P**	**21 40 15.4**	**+2.5**
QRN	**Al-Qurain**	**84.03**	**300**	*e*P	**P**	**21 40 19.3**	**+0.6**
QRN				AMb	AMB	21 40 26.6	
	comp=Z,80nm,1.1s,mb5.4						
ARU	**Arti**	**84.06**	**329**	*e*P	**P**	**21 40 18.0**	**-0.2**
	comp=Z,8.9nm,0.5s,mb4.8						
UMR	**Umm Al-Rimmam**	**84.36**	**301**	*e*P	**P**	**21 40 20.7**	**+0.4**
UMR				AMb	AMB	21 40 21.4	
	comp=Z,35nm,0.5s,mb5.3						
RDF	**Al-Radifah**	**84.39**	**300**	*e*P	**P**	**21 40 20.7**	**+0.2**
RDF				AMb	AMB	21 40 21.5	
	comp=Z,37nm,0.6s,mb5.3						
MIB	**Mutribah**	**84.73**	**301**	*e*P	**P**	**21 40 23.1**	**+1.0**
MIB				AMb	AMB	21 40 24.1	
	comp=Z,42nm,1.2s,mb5.0						
RST	**Umm Al-Ruwaisa**	**84.97**	**300**	*e*P	**P**	**21 40 23.9**	**+0.7**
RST				AMb	AMB	21 40 24.9	
	comp=Z,54nm,1.0s,mb5.2						
KMBO	**Kilima Mbogo**	**90.04**	**269**	P	**P**	**21 40 49.2**	**+1.6**
	comp=Z,0.8nm,0.5s,mb3.8,baz=62,slow=23,SNR=4.0						
KMBO	**Kilima Mbogo**	**90.04**	**269**	*e*P	**P**	**21 40 49.1**	**+1.5**
	comp=Z,2.1nm,0.9s,mb4.0						
ILAR	**Eielson Array**	**94.12**	**25**	P	**P**	**21 41 04.9**	**-0.2**
	comp=Z,0.6nm,0.7s,mb3.8,baz=256,slow=6.0,SNR=7.5						
LSZ	**Lusaka**	**97.11**	**254**	*e*P	**P**	**21 41 20.5**	**+0.6**
	comp=Z,1.6nm,0.7s,mb4.3						
ARCES	**ARCESS Array B**	**100.35**	**340**	P	P	21 41 32.6	-0.6
	comp=Z,8.9nm,1.1s,baz=68,slow=6.5,SNR=8.5						
FINES	**FINESS Array B**	**101.23**	**331**	P	P	21 41 36.1	-1.1
	comp=Z,1.1nm,0.8s,baz=34,slow=5.0,SNR=3.1						
FINES				PKiKP		21 46 00.9	
	comp=Z,3.5nm,1.2s,baz=72,slow=6.0,SNR=3.9						
HFS	**Hagfors**	**107.43**	**331**	Pdiff	Pdif	21 42 03.8	-0.7
	comp=Z,5.1nm,1.1s,baz=90,slow=4.3,SNR=5.8						
GERES	**GERESS Array B**	**110.50**	**320**	PKiKP		21 46 17.6	
	comp=Z,0.8nm,0.6s,baz=70,slow=1.7,SNR=11						
HINF	**Hinteralfeld**	**115.17**	**320**	*e*PKIKP	PKPdf	21 46 25.6	+1.0
	comp=Z,5.0nm,0.6s						
LPG	**La Plagne**	**115.98**	**318**	*e*PKIKP	PKPdf	21 46 28.0	+1.8
	comp=Z,2.2nm,0.6s						
LPL	**La Plagne**	**115.99**	**318**	*e*PKIKP	PKPdf	21 46 28.0	+1.8
	comp=Z,3.0nm,0.5s						
CABF	**La Chapelle**	**116.06**	**319**	*e*PKIKP	PKPdf	21 46 28.1	+1.8
	comp=Z,5.4nm,0.6s						
MBDF	**Montbardon**	**116.20**	**317**	*e*PKIKP	PKPdf	21 46 27.9	+1.2
ORIF	**Oris-en-Rattie**	**116.75**	**317**	*e*PKIKP	PKPdf	21 46 29.1	+1.4
	comp=Z,6.2nm,0.8s						
SSF	**Saint Saulge**	**117.57**	**320**	*e*PKIKP	PKPdf	21 46 30.8	+1.6
	comp=Z,3.9nm,0.6s						
VIVF	**Saint-Julien-l**	**117.58**	**318**	*e*PKIKP	PKPdf	21 46 30.9	+1.6
AVF	**Avril sur Loir**	**117.77**	**320**	*e*PKIKP	PKPdf	21 46 30.7	+1.1
	comp=Z,2.2nm,0.5s						
BGF	**Bois d'Agland**	**118.18**	**320**	*e*PKIKP	PKPdf	21 46 32.1	+1.7
	comp=Z,12nm,0.6s						
TCF	**Toulx Ste Croi**	**118.69**	**320**	*e*PKIKP	PKPdf	21 46 33.0	+1.6
GRR	**Gorron**	**119.73**	**323**	*e*PKIKP	PKPdf	21 46 34.3	+0.9
MTLF	**Montolieu**	**119.76**	**317**	*e*PKIKP	PKPdf	21 46 35.0	+1.4
MFF	**Saint Martin d**	**120.06**	**321**	*e*PKIKP	PKPdf	21 46 35.5	+1.5
	comp=Z,6.8nm,0.7s						
EPF	**Esparros**	**121.15**	**317**	*e*PKIKP	PKPdf	21 46 38.0	+1.7
SCHQ	**Schefferville**	**130.60**	**11**	PKP	PKPdf	21 46 57.0	+2.8
	comp=Z,4.2nm,1.1s,baz=240,slow=20,SNR=4.9						
SCHQ	**Schefferville**	**130.60**	**11**	PKP	PKPdf	21 46 57.0	+2.8
DBIC	**Dimbokro**	**132.61**	**273**	PKP	PKPdf	21 47 01.1	+2.1
	comp=Z,1.6nm,0.5s,baz=181,slow=1.1,SNR=5.3						
LVC	**Limon Verde**	**146.82**	**152**	*e*PKPbc	PKPbc	21 47 30.2	+4.1
LPAZ	**La Paz**	**152.50**	**146**	PKPbc	PKPdf	21 47 44.1	+11
	comp=Z,0.5nm,0.3s,baz=32,slow=7.1,SNR=5.1						
LPAZ				PKPab	PKPab	21 47 56.6	+1.5
	comp=Z,2.8nm,0.7s,baz=192,slow=3.5,SNR=13						
LPAZ	**La Paz**	**152.50**	**146**	PKPbc	PKPdf	21 47 44.1	+11
LPAZ				*e*PKPab	PKPab	21 47 56.7	+1.5
SAML	**Samuel**	**161.25**	**146**	*e*PKPab	PKPab	21 48 32.4	-0.2

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*CSEM **03** 21:33:38.7, 60.87N×4.49E, h15^{km}, After BER*

BER 03 21:33:38.7±2.7**, 60.87N×4.49E, h15**^{km}±10^{km}**, MD2.2, ML1.8, 4C, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SUE	**Sulen**	**0.23**	**35**	⇑*i*P	Pb	21 33 43.2	-0.9
SUE				*e*S	Sb	21 33 46.0	-1.6
SUE				AML	AML	21 33 46.6	
	comp=Z,619nm,0.1s						
SUE	**Sulen**	**0.23**	**35**	⇑*i*P	Pb	21 33 43.2	-0.8
	SNR=116						
SUE				*e*S	Sb	21 33 46.0	-1.6
	comp=Z,619nm,0.1s,SNR=116						
ASK	**Askoy**	**0.52**	**138**	*e*P	Pb	21 33 48.1	-0.8
ASK				*e*S	Sb	21 33 55.1	-0.9
ASK				AML	AML	21 33 55.5	
	comp=Z,238nm,0.1s						
ASK	**Askoy**	**0.52**	**138**	*e*P	Pb	21 33 48.2	-0.8
	SNR=96						
ASK				*e*S	Sb	21 33 55.1	-0.9
	comp=Z,238nm,0.1s,SNR=96						
BER	**Bergen**	**0.64**	**139**	*e*P	Pb	21 33 50.1	-1.0
BER				*e*S	Sb	21 33 58.1	-1.4
EGD	**Espegrend**	**0.70**	**149**	*e*P	Pb	21 33 51.3	-0.8
EGD				*e*S	Sb	21 34 00.7	-0.5
EGD				AML	AML	21 34 02.3	
	comp=Z,145nm,0.3s						
EGD	**Espegrend**	**0.70**	**149**	*e*P	Pb	21 33 51.3	-0.8
	SNR=94						
EGD				*e*S	Sb	21 34 00.7	-0.5
	comp=Z,145nm,0.3s,SNR=94						
FOO	**Floro**	**0.78**	**20**	*e*P	Pb	21 33 51.9	-1.6
FOO				*e*S	Sb	21 34 01.8	-1.7
FOO				AML	AML	21 34 02.4	
	comp=Z,34nm,0.2s						
FOO	**Floro**	**0.78**	**20**	*e*P	Pb	21 33 51.8	-1.6
	SNR=93						
FOO				*e*S	Sb	21 34 01.8	-1.7
	comp=Z,34nm,0.2s,SNR=93						
HYA	**Hoyanger**	**0.88**	**69**	*e*P	Pb	21 33 54.1	-1.0
HYA				*e*S	Sb	21 34 05.2	-1.2
HYA				AML	AML	21 34 07.4	
	comp=Z,16nm,0.1s						
HYA	**Hoyanger**	**0.88**	**69**	*e*P	Pb	21 33 54.1	-1.0
	SNR=93						
HYA				*e*S	Sb	21 34 05.2	-1.2
	comp=Z,16nm,0.1s,SNR=93						
ODD1	**Odda**	**1.43**	**131**	⇑*i*P	Pn	21 34 01.3	-2.9
ODD1				*e*S	Sb	21 34 20.0	-2.4
ODD1				AML	AML	21 34 21.5	
	comp=Z,21nm,0.2s						
ODD1	**Odda**	**1.43**	**131**	⇑*i*P	Pn	21 34 01.3	-3.0
	SNR=55						
ODD1				*e*S	Sb	21 34 20.0	-2.4
	comp=Z,21nm,0.2s,SNR=55						
KMY	**Karmoy**	**1.71**	**167**	*e*P	Pn	21 34 06.1	-2.1
KMY				*e*Sg	Sg	21 34 30.1	-5.6
KMY				AML	AML	21 34 31.1	
	comp=Z,8.8nm,0.2s						
KMY	**Karmoy**	**1.71**	**167**	*e*P	Pn	21 34 06.1	-2.1
	SNR=55						
KMY				*e*Sg	Sg	21 34 30.1	-5.5
	comp=Z,8.8nm,0.2s,SNR=91						
BLS5	**Blasjo**	**1.75**	**145**	*e*P	Pn	21 34 06.9	-2.0
BLS5				*e*Sg	Sg	21 34 31.9	-5.3
BLS5				AML	AML	21 34 32.7	
	comp=Z,9.1nm,0.3s						
BLS5	**Blasjo**	**1.75**	**145**	*e*P	Pn	21 34 06.9	-2.0
	SNR=55						
BLS5				*e*Sg	Sg	21 34 31.9	-5.3
	comp=Z,9.1nm,0.3s,SNR=91						
MOL	**Molde**	**2.24**	**39**	*e*P	Pn	21 34 16.2	+0.3
MOL				*e*Sg	Sg	21 34 46.6	-6.9
MOL				AML	AML	21 34 48.2	
	comp=Z,5.0nm,0.3s						
MOL	**Molde**	**2.24**	**39**	*e*P	Pn	21 34 16.2	+0.3
	SNR=55						
MOL				*e*Sg	Sg	21 34 46.6	-6.9
	comp=Z,5.0nm,0.3s,SNR=91						

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*NAO **03** 21:59:49.2±7.4, 60.68N×4.74E, h16^{km}±40^{km}, ML2.6*

*CSEM **03** 21:59:49.2±0.3, 60.86N×4.62E, h15^{km}, ML3.2/2, Error ellipse: s-maj=8.9km s-min=3.8km az=102.0*

*BER **03** 21:59:51.1±3.5, 60.87N×4.60E, h15^{km}±12^{km}, MD2.3, ML2.0, ML2.6(NAO)*

ISC 03 21:59:48.9±1.2**, 60.85N**±0.03×**4.5E**±0.2**, h12**^{km}±6^{km}**, n18,** $\sigma 1^{s}14$/35**, 2C, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SUE	**Sulen**	**0.25**	**33**	*e*P	**Pg**	**21 59 54.9**	**+0.7**
SUE				*e*S	**Sg**	**21 59 58.2**	**+0.3**
SUE				AML	AML	21 59 58.4	
	comp=Z,947nm,0.1s						
ASK	**Askoy**	**0.51**	**136**	*e*P	**Pb**	**21 59 60.0**	**+0.8**
ASK				*e*S	**Sb**	**22 00 06.9**	**+0.7**
ASK				AML	AML	22 00 07.3	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=Z,313nm,0.1s						
RUND	Rundenannen	0.62	135	⇑iP	Pb	22 00 01.9	+0.8
RUND				eS	Sb	22 00 09.8	+0.4
RUND				AML	AML	22 00 10.8	
	comp=Z,142nm,0.3s						
BER	Bergen	0.63	138	eP	Pb	22 00 01.9	+0.6
BER				eS	Sb	22 00 09.9	+0.2
EGD	Espegrend	0.69	148	eP	Pb	22 00 03.1	+0.9
EGD				eS	Sb	22 00 12.3	+0.9
EGD				AML	AML	22 00 14.1	
	comp=Z,189nm,0.3s						
FOO	Floro	0.80	20	⇑iP	Pb	22 00 03.7	-0.4
FOO				eS	Sb	22 00 13.6	-1.0
FOO				AML	AML	22 00 14.2	
	comp=Z,58nm,0.2s						
HYA	Hoyanger	0.89	68	eP	Pb	22 00 06.4	+0.7
HYA				eS	Sb	22 00 17.5	+0.3
HYA				AML	AML	22 00 20.8	
	comp=Z,20nm,0.2s						
HYA	Hoyanger	0.89	68	eP	Pb	22 00 06.4	+0.7
	SNR=91						
HYA				eS	Sb	22 00 17.5	+0.3
	comp=Z,20nm,0.2s,SNR=91						
ODD1	Odda	1.42	131	eP	Pn	22 00 13.2	-1.4
ODD1				eS	Sb	22 00 32.1	-0.6
ODD1				AML	AML	22 00 33.4	
	comp=Z,35nm,0.3s						
ODD1	Odda	1.42	131	eP	Pn	22 00 13.2	-1.4
	SNR=55						
ODD1				eS	Sb	22 00 32.1	-0.6
	comp=Z,35nm,0.3s						
KMY	Karmoy	1.69	167	eP	Pn	22 00 17.9	-0.6
KMY				eSg	Sg	22 00 41.7	-3.5
KMY				AML	AML	22 00 43.1	
	comp=Z,13nm,0.1s						
KMY	Karmoy	1.69	167	eP	Pn	22 00 17.9	-0.5
	SNR=55						
KMY				eSg	Sg	22 00 41.7	-3.5
	comp=Z,13nm,0.1s,SNR=90						
BLS5	Blasjo	1.74	145	eP	Pn	22 00 19.7	+0.5
BLS5				eSg	Sg	22 00 44.0	-2.9
BLS5				AML	AML	22 00 46.5	
	comp=Z,13nm,0.2s						
MOL	Molde	2.26	39	eP	Pn	22 00 28.5	+2.0
MOL				eSg	Sg	22 00 58.9	-5.2
MOL				AML	AML	22 00 60.0	
	comp=Z,8.7nm,0.4s						
MOL	Molde	2.26	39	eP	Pn	22 00 28.5	+1.9
	SNR=55						
MOL				eSg	Sg	22 00 58.9	-5.2
	comp=Z,8.7nm,0.4s,SNR=90						
NB2	NORSAR Subarra	3.29	84	Pn	Pn	22 00 38.8	-2.4
NB2				Pg	Pg	22 00 45.0	-10
NB2				Lg		22 01 30.1	
NB2	NORSAR Subarra	3.29	84	Pg	Pg	22 00 45.0	-10
HFS	Hagfors	4.61	95	Pn	Pn	22 00 57.5	-2.5
	baz=274,slow=16						
HFS				Sn	Sn	22 01 46.0	-8.2
	baz=280,slow=28						
HFS				Lg		22 02 10.1	
	baz=286,slow=37						

*ROM **03** 22:28:59.1±0.4, 44.35N×7.34E, h20^{km}±3^{km}, MD3.1/3, ML2.3/3, Error ellipse: s-maj=4.0km s-min=3.2km az=90.0*

*STR **03** 22:28:59.8±0.1, 44.34N×7.35E, h5^{km}±1^{km}, Ml3.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **03** 22:28:59.4, 44.35N×7.27E, h16^{km}, MD3.1(ROM), ML3.2(GEN), ML3.1(STR), ML3.1(LDG), After GEN.*

*CSEM **03** 22:28:59.8±0.1, 44.33N×7.40E, h8^{km}, ML3.1/27, Error ellipse: s-maj=1.2km s-min=0.8km az=73.0*

*GEN **03** 22:28:59.4, 44.35N×7.27E, h16^{km}, ML3.2*

*LDG **03** 22:29:00.1±0.1, 44.34N×7.33E, h2^{km}, Md3.1/3, Ml3.1/32, Error ellipse: s-maj=2.7km s-min=1.5km az=78.0*

ISC 03 22:28:59.3±0.2**, 44.35N**±0.01×**7.30E**±0.02**, h22**^{km}±2^{km}**, n138, σ1§14**/212**, 21C-8D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STV2	Anna di Valdie	0.10	170	⇓P	Pb	22 29 02.9	-0.6
STV2				S	Sb	22 29 04.8	-1.5
STV2	Anna di Valdie	0.10	170	⇓P	Pb	22 29 02.9	-0.6
STV	Sta Anna Valdi	0.10	170	P	Pb	22 29 03.0	-0.5
STV				S	Sb	22 29 04.9	-1.5
ENR	Entracque	0.15	144	⇓P	Pb	22 29 03.5	-0.4
ENR				S	Sb	22 29 05.9	-1.2
ENR	Entracque	0.15	144	⇓P	Pb	22 29 03.5	-0.5
DOI	San Damiano	0.16	346	⇑iPG	Pb	22 29 04.2	+0.1
DOI				SG	Sb	22 29 07.2	-0.2
DOI	San Damiano	0.16	346	⇑iPg	Pb	22 29 04.2	+0.1
DOI				eSg	Sb	22 29 07.2	-0.2
PZZ	Prazzo	0.21	318	⇓P	Pb	22 29 04.8	+0.1
PZZ	Prazzo	0.21	318	⇓P	Pb	22 29 04.8	0.0
TOUF	Mont Tournerai	0.34	186	Pg	Pb	22 29 06.6	0.0
TOUF				Sg	Sb	22 29 11.3	-0.3
TOUF	Mont Tournerai	0.34	186	Sg	Sb	22 29 11.3	-0.3
AUTN	L'Aution	0.36	165	Pg	Pb	22 29 06.9	-0.1
AUTN				Sg	Sb	22 29 11.9	-0.4
AUTN	L'Aution	0.36	165	Sg	Sb	22 29 11.9	-0.4
SURF	Saint Ours	0.37	291	Pg	Pb	22 29 07.4	+0.2
SAOF	Saorge	0.40	153	Pg	Pb	22 29 07.6	-0.1
SAOF				Sg	Sb	22 29 13.1	-0.4
SAOF	Saorge	0.40	153	Sg	Sb	22 29 13.1	-0.4
ROB	Roburent	0.41	97	⇑P	Pb	22 29 08.2	+0.3
ROB				S	Sb	22 29 14.2	+0.5
ROB	Roburent	0.41	97	⇑P	Pb	22 29 08.2	+0.3
ROB	Roburent	0.41	97	S	Sb	22 29 14.2	+0.5
MONE	Monesi	0.42	129	P	Pb	22 29 08.1	0.0
MONE				S	Sb	22 29 13.7	-0.2
MONE	Monesi	0.42	129	P	Pb	22 29 08.1	+0.1
AURF	Auriere	0.46	178	Pg	Pb	22 29 08.6	0.0
AURF				Sg	Sb	22 29 14.9	-0.1
MVIF	Mont Vial	0.46	193	Pg	Pb	22 29 08.8	+0.1
MVIF				Sg	Sb	22 29 15.0	-0.1
MVIF	Mont Vial	0.46	193	Sg	Sb	22 29 15.0	-0.1
SBF	Sospel	0.49	169	ePg	Pb	22 29 09.2	0.0
SBF				eSg	Sb	22 29 15.4	-0.6
	679nm,0.2s						
SBF	Sospel	0.49	169	eSg	Sb	22 29 15.4	-0.6
	340nm,0.2s						
BHB	Bricherasio	0.50	357	⇑P	Pb	22 29 08.6	-0.7
BHB				S	Sb	22 29 14.7	-1.4
BHB	Bricherasio	0.50	357	⇑P	Pb	22 29 08.6	-0.6
MBDF	Montbardon	0.54	315	ePg	Pb	22 29 10.2	+0.3
MBDF				eSg	Sb	22 29 17.7	+0.5
	562nm,0.2s						
MBDF	Montbardon	0.54	315	eSg	Sb	22 29 17.7	+0.5
	281nm,0.2s						
OG22	Abries	0.54	332	Pg	Pb	22 29 10.1	+0.1
OG22				Sg	Sb	22 29 18.4	+1.1
OG22	Abries	0.54	332	Sg	Sb	22 29 18.4	+1.1
REVF	Revere	0.61	175	Pg	Pb	22 29 11.5	+0.4
REVF				Sg	Sb	22 29 19.9	+0.7
REVF	Revere	0.61	175	Sg	Sb	22 29 19.9	+0.7
IMI	Imperia	0.61	136	⇑iPG	Pb	22 29 11.4	+0.3
IMI				SG	Sb	22 29 19.5	+0.3
	218nm,0.2s						
IMI	Imperia	0.61	136	⇑iPg	Pb	22 29 11.4	+0.3
IMI				eSg	Sb	22 29 19.5	+0.2
FIN	Finale Ligure	0.67	102	⇑iPG	Pb	22 29 12.5	+0.4
FIN				SG	Sb	22 29 21.1	+0.2
	337nm,0.4s						
FIN	Finale Ligure	0.67	102	⇑iPg	Pb	22 29 12.5	+0.4
FIN				eSg	Sb	22 29 21.1	+0.2
FIN	Finale Ligure	0.67	102	⇑iPg	Pb	22 29 12.5	+0.4
	337nm,0.4s						
FIN	Finale Ligure	0.67	102	Sg	Sb	22 29 21.1	+0.2
RRL	Cesana Torines	0.68	327	⇑P	Pb	22 29 12.6	+0.2
RRL				S	Sb	22 29 21.3	0.0
RRL	Cesana Torines	0.68	327	⇑P	Pb	22 29 12.6	+0.2
FENE	Fenestrelle	0.70	346	P	Pb	22 29 12.1	-0.6
FENE				S	Sb	22 29 21.3	-0.7
FENE	Fenestrelle	0.70	346	P	Pb	22 29 12.1	-0.6
RSP	Reno Superiore	0.81	358	⇑P	Pb	22 29 13.4	-1.0
RSP	Reno Superiore	0.81	358	⇑P	Pb	22 29 13.4	-1.1
BNI	Bardonecchia	0.83	328	ePg	Pb	22 29 15.1	+0.2
BNI				eSg	Sb	22 29 26.6	+0.9
BNI	Bardonecchia	0.83	328	ePg	Pb	22 29 15.1	+0.2
BNI				eSg	Sb	22 29 26.6	+0.9
OG25	Le Caire	0.88	272	Pg	Pb	22 29 16.7	+1.0
PCP	Pian Castagno	0.91	77	⇑P	Pb	22 29 16.9	+0.6
PCP	Pian Castagno	0.91	77	⇑P	Pb	22 29 16.9	+0.6
FRF	La Foret Royal	0.92	211	ePg	Pb	22 29 16.5	+0.1
FRF				eSg	Sb	22 29 28.3	+0.2
	308nm,0.2s						
STOF	St-Etienne Org	1.06	251	Pg	Pb	22 29 22.0	+3.2
STOF				Sg	Sb	22 29 38.2	+6.0
LSD	Ceresole Reale	1.12	355	⇑P	Pb	22 29 18.9	-0.9
LSD	Ceresole Reale	1.12	355	⇑P	Pb	22 29 18.9	-0.8
TAVF	Tavernes	1.16	231	Pg	Pn	22 29 21.5	+1.2
TAVF				Sg	Sb	22 29 38.2	+3.2
LMR	La Mourre	1.16	210	ePg	Pn	22 29 21.0	+0.6
LMR				eSg	Sb	22 29 35.9	+0.7
	531nm,0.2s						
ORIF	Oris-en-Rattie	1.16	300	ePg	Pn	22 29 21.6	+1.2
ORIF				eSg	Sb	22 29 36.2	+1.0
	60nm,0.2s						
GDM	Grand'Maison	1.20	316	Pg	Pn	22 29 22.4	+1.4
TRAV		1.21	15	P	Pn	22 29 20.3	-0.8
LPG	La Plagne	1.22	341	ePg	Pn	22 29 21.4	+0.2
LPG				eSg	Sb	22 29 37.9	+1.2
	58nm,0.2s						
LPL	La Plagne	1.24	341	ePg	Pn	22 29 22.1	+0.6
LPL				eSg	Sb	22 29 37.6	+0.2
	54nm,0.3s						
LPL	La Plagne	1.24	341	eSg	Sb	22 29 37.6	+0.2
	27nm,0.3s						
VILF	Villemus	1.24	247	Pg	Pn	22 29 24.1	+2.5
VILF				Sg	Sb	22 29 41.8	+4.2
SMRF	Simiane la Rot	1.30	254	ePg	Pn	22 29 24.2	+1.9
SMRF				eSg	Sb	22 29 41.8	+2.7
	275nm,0.2s						
ORO	Oropa	1.37	20	ePN	Pn	22 29 21.9	-1.5
	36nm,0.3s						
ORO	Oropa	1.37	20	ePg	Pn	22 29 21.9	-1.5
ORO	Oropa	1.37	20	ePn	Pn	22 29 21.9	-1.5
	36nm,0.3s						
ORX	Oropa	1.37	20	P	Pn	22 29 21.9	-1.6
GRN	Grenoble	1.42	310	Pg	Pn	22 29 27.2	+3.0
RSL	Roselend	1.42	341	Pg	Pn	22 29 27.2	+3.0
OCF	Saint Nazaire	1.45	280	Pg	Pn	22 29 27.3	+2.8
OG26	St.-Nazaire-De	1.45	280	Pg	Pn	22 29 27.3	+2.8
BERF	Bertagne	1.56	229	Pg	Pn	22 29 29.6	+3.5
TREF	Trevaresse	1.56	243	Pg	Pn	22 29 30.0	+3.9
GELF	Grande-Etoile	1.66	235	Pg	Pn	22 29 31.6	+4.0
MCGN	Macugnaga	1.68	17	ePN	Pn	22 29 26.8	-1.1
	9.0nm,0.2s						
MCGN	Macugnaga	1.68	17	ePg	Pn	22 29 26.8	-1.1
MCGN	Macugnaga	1.68	17	ePn	Pn	22 29 26.8	-1.1
	9.0nm,0.2s						
CODM		1.83	88	P	Pn	22 29 29.6	-0.4
CODM		1.83	88	P	Pn	22 29 29.6	-0.4
VAI	Varese	1.84	34	ePN	Pn	22 29 30.1	0.0
	15nm,0.3s						
VAI	Varese	1.84	34	ePg	Pn	22 29 30.1	0.0
VAI	Varese	1.84	34	ePn	Pn	22 29 30.1	0.0
	15nm,0.3s						
VIVF	Saint-Julien-l	1.94	286	ePn	Pn	22 29 32.7	+1.1
VIVF				eSn	Sn	22 29 56.0	+0.4
	38nm,0.4s						
GRAM		1.99	85	P	Pn	22 29 32.6	+0.4
GRAM		1.99	85	P	Pn	22 29 32.6	+0.4
BACM		1.99	91	P	Pn	22 29 32.6	+0.3
VALM		2.11	89	P	Pn	22 29 33.7	-0.3
VALM		2.11	89	P	Pn	22 29 33.7	-0.3
PGF	Pioggiola	2.18	145	ePn	Pn	22 29 34.0	-1.0
PGF				eSn	Sn	22 29 59.1	-2.5
	19nm,0.2s						
MAIM		2.34	100	P	Pn	22 29 36.4	-0.9
MAIM		2.34	100	P	Pn	22 29 36.3	-0.9
CABF	La Chapelle	2.42	340	ePn	Pn	22 29 39.9	+1.5
CABF				eSn	Sn	22 30 07.3	-0.4
	6.5nm,0.2s						
LASF	Ste Croix	2.49	265	ePn	Pn	22 29 39.6	+0.2
LASF				eSn	Sn	22 30 08.4	-1.1
	14nm,0.2s						
LBL	Lubilhac	3.02	288	Pn	Pn	22 29 47.4	+0.5
PLDF	La Plantade	3.07	303	Pn	Pn	22 29 48.1	+0.5
SMF	Signal de Mont	3.35	315	ePn	Pn	22 29 52.7	+1.1
SMF				eSn	Sn	22 30 29.7	-1.4
	11nm,0.3s						
SMF				eSg	Sn	22 30 44.6	+13
PYM	Petit Puy Mans	3.35	296	Pn	Pn	22 29 52.0	+0.4
AGO	Saint Agoulin	3.41	302	Pn	Pn	22 29 52.6	+0.2
DAVA	Damuels	3.45	31	⇑iPN	Pn	22 29 54.0	+0.9
DAVA				i SG	Sn	22 30 40.3	+6.6
HINF	Hinteralfeld	3.48	355	ePn	Pn	22 29 52.5	-1.1
HINF				eSn	Sn	22 30 31.8	-2.8
	5.2nm,0.3s						
AVF	Avril sur Loir	3.70	313	ePn	Pn	22 29 57.8	+1.3
AVF				eSn	Sn	22 30 37.8	-2.2
	6.4nm,0.3s						
HAU	Haudompre	3.72	350	ePn	Pn	22 29 56.7	-0.2
HAU				eSn	Sn	22 30 37.7	-2.9
	10nm,0.2s						
EJON	La Jonquera	3.73	241	P	Pn	22 29 56.7	-0.4
EJON				S	Sn	22 30 37.8	-3.1
EJON	La Jonquera	3.73	241	P	Pn	22 29 56.7	-0.4
EJON				Sn	Sn	22 30 37.7	-3.2
	5.3nm,0.2s						
CAF	Calviac	3.78	281	ePn	Pn	22 29 58.3	+0.5
CAF				eSn	Sn	22 30 39.8	-2.3
	2.9nm,0.2s						
SSF	Saint Saulge	3.80	317	ePn	Pn	22 29 59.0	+1.0
SSF				eSn	Sn	22 30 40.2	-2.4
	4.9nm,0.3s						
MTLF	Montolieu	3.81	256	ePn	Pn	22 29 58.3	+0.1
MTLF				eSn	Sn	22 30 40.6	-2.3
	9.4nm,0.3s						
MTLF				eSg	Sn	22 30 58.6	+16
MTLF	Montolieu	3.81	256	eSg	Sn	22 30 58.6	+16
BGF	Bois d'Agland	3.84	307	ePn	Pn	22 29 59.6	+1.1
BGF				eSn	Sn	22 30 42.1	-1.4
	10nm,0.3s						
SQTA	Sankt Quirin	3.97	42	⇓iPN	Pn	22 30 01.9	+1.5
SQTA				i SG	Sn	22 30 48.6	+1.8
MOTA	Moosalm	4.01	40	⇑iPN	Pn	22 30 01.6	+0.6
MOTA				i SG	Sn	22 30 51.1	+3.2
CDF	Champ du Feu	4.07	360	ePn	Pn	22 30 00.8	-1.0
CDF				eSn	Sn	22 30 46.0	-3.4
	4.4nm,0.2s						
TCF	Toulx Ste Croi	4.08	300	ePn	Pn	22 30 03.4	+1.4
TCF				eSn	Sn	22 30 48.5	-1.3
	6.9nm,0.5s						
WTTA	Wattenberg	4.21	45	⇓iPN	Pn	22 30 05.0	+1.2
WTTA				i SG	Sn	22 30 56.0	+3.1
RJF	Les Rejaudoux	4.22	285	ePn	Pn	22 30 04.3	+0.2
RJF				eSn	Sn	22 30 51.5	-1.9
	4.7nm,0.4s						
HYF	Humbligny	4.38	314	ePn	Pn	22 30 07.5	+1.3
HYF				eSn	Sn	22 30 55.1	-2.1
MEZF	Maizieres J'vi	4.44	340	ePn	Pn	22 30 07.5	+0.4
MEZF				eSn	Sn	22 30 54.8	-4.0
	8.9nm,0.3s						
LFF	La Frestale	4.72	280	ePn	Pn	22 30 10.9	-0.2
LFF				eSn	Sn	22 31 02.2	-3.7
	4.4nm,0.4s						
EMIR	Miracle	4.88	242	P	Pn	22 30 13.7	+0.4
EMIR				S	Sn	22 31 07.5	-2.3
EMIR	Miracle	4.88	242	Pn	Pn	22 30 13.7	+0.4
	1.1nm,0.1s,SNR=7.8						
EMIR				Sn	Sn	22 31 07.5	-2.3
	3.5nm,0.3s						
EPF	Esparros	5.22	258	ePn	Pn	22 30 16.7	-1.4
EPF				eSn	Sn	22 31 13.2	-5.1
EPF				eSg	Sn	22 31 43.7	+25
	4.2nm,0.3s						
EBIE	Bielsa	5.46	255	P	Pn	22 30 24.4	+2.9
EBIE				S	Sn	22 31 26.0	+1.4
EBIE	Bielsa	5.46	255	P	Pn	22 30 24.4	+2.8
EBIE				Sn	Sn	22 31 26.0	+1.5
	1.4nm,0.3s						
EPOB	Poblet	5.46	239	P	Pn	22 30 22.4	+0.8
EPOB				S	Sn	22 31 21.8	-2.8
EPOB	Poblet	5.46	239	Pn	Pn	22 30 22.4	+0.8
	0.5nm,0.2s,SNR=7.9						
EPOB				Sn	Sn	22 31 21.2	-3.4
	1.6nm,0.3s,SNR=7.9						
MFF	Saint Martin d	5.70	296	ePn	Pn	22 30 25.3	+0.4
MFF				eSn	Sn	22 31 26.3	-4.2
	1.9nm,0.4s						
ETSF	Etsaut	5.89	258	ePn	Pn	22 30 26.9	-0.6
ETSF				eSn	Sn	22 31 30.9	-4.2
	4.7nm,0.4s						
BAIF	Baives	6.09	341	ePn	Pn	22 30 30.8	+0.4
BAIF				eSn	Sn	22 31 34.3	-5.9
	1.3nm,0.3s						
ERTA	Horta de San J	6.15	239	P	Pn	22 30 32.0	+0.7
ERTA				S	Sn	22 31 40.0	-1.7
ERTA	Horta de San J	6.15	239	Pn	Pn	22 30 32.0	+0.7
	0.8nm,0.2s,SNR=7.9						
SJPF	Ste Jean	6.30	262	ePn	Pn	22 30 31.5	-1.9
SJPF				eSn	Sn	22 31 38.4	-7.1
	0.7nm,0.3s						
LDF	La Druitiere	6.66	312	ePn	Pn	22 30 38.1	-0.3
LDF				eSn	Sn	22 31 48.6	-5.8
	1.3nm,0.3s						
GRR	Gorron	6.94	308	ePn	Pn	22 30 42.5	+0.1
GRR				eSn	Sn	22 31 55.5	-6.0
	1.7nm,0.3s						
FLN	La Foliniere	6.95	312	ePn	Pn	22 30 41.9	-0.6
SGMF	Saint Gilles	7.86	303	ePn	Pn	22 30 53.8	-1.5
ROSF	Rostrenen	8.33	302	ePn	P	22 31 00.6	-1.2

*CSEM **03** 22:29:43.7±0.2, 42.61N×46.74E, h60^{km}±2^{km}, mb3.5/3, Error ellipse: s-maj=6.4km s-min=3.5km az=141.0*

*MOS **03** 22:29:44.3±1.3, 42.58N×46.67E, h76^{km}, mb4.1/3, Error ellipse: s-maj=13.2km s-min=8.7km az=112.7*

*IDC **03** 22:29:45.6±3.3, 42.66N×46.64E, h61^{km}±42^{km}, mb3.4/6, mb1 3.6/11, mb1mx3.4/22, ML4.0/4, Error ellipse: s-maj=23.8km s-min=18.1km az=41.0*

*NEIC **03** 22:29:45.8±1.1, 42.63N×46.68E, h63^{km}±14^{km}, mb3.5/3, Error ellipse: s-maj=12.1km s-min=8.4km az=168.0*

*TIF **03** 22:30:00.2, 41.19N×44.91E, h12^{km}, Mpv3.3*

ISC 03 22:29:45.3±0.3**, 42.59N**±0.04×**46.65E**±0.05**, h80**^{km}±3^{km}**, n48, σ1§19**/61**, mb3.5**/7**, 4C-6D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UNCR	Uncukul	0.16	40	i P	P	22 29 57.0	+0.1
UNCR				i S	S	22 30 04.0	-1.7
BTLR	Botlikh	0.33	283	i P	P	22 29 57.4	-0.4
BTLR				eS	S	22 30 05.8	-1.4
BTLR				pmax	pmax		
	comp=Z,1µm,0.4s						
BUJR	Buynaksk	0.41	55	⇓iP	P	22 29 59.0	+0.6
BUJR				eS	S	22 30 08.5	+0.2
BUJR				pmax	pmax		
	comp=Z,964nm,0.2s						
DBC	Dubki	0.45	17	eP	P	22 29 59.5	+0.8
DBC				eS	S	22 30 10.0	+1.2
DBC				pmax	pmax		
	comp=Z,580nm,0.2s						
DLMR	Dylym	0.48	358	⇑iP	P	22 29 58.7	-0.3
DLMR				i S	S	22 30 09.0	-0.3
DLMR				pmax	pmax		
	comp=Z,2µm,0.3s						
KMKR	Kumukh	0.57	144	⇓iP	P	22 29 57.5	-2.3
KMKR				eS	S	22 30 07.0	-3.6
KMKR				pmax	pmax		
	comp=Z,2µm,0.2s						
MAK	Makhachkala	0.73	59	⇑iP	P	22 30 03.2	+1.7
MAK				i		22 30 15.6	
MAK				pmax	pmax		
	comp=Z,800nm,1.0s						
MAK				pmax	pmax		
	comp=N,216nm,0.4s						
MAK				pmax	pmax		
	comp=E,252nm,0.4s						
MAK				pmax	pmax		
	comp=Z,648nm,0.4s						
MAK				smax			
	comp=N,5µm,0.7s						
MAK				smax			
	comp=E,2µm,0.7s						
MAK				smax			
	comp=Z,1µm,0.7s						
MAK				smax			
	comp=N,4µm,0.6s						
MAK				smax			
	comp=Z,850nm,1.0s						
MAK				smax			
	comp=E,3µm,0.6s						
MNSR	Manas	0.80	82	⇓iP	P	22 30 03.3	+1.0
MNSR				i S	S	22 30 17.0	+2.1
AKT	Akhty	1.37	144	⇑iP	P	22 30 09.0	-0.4
AKT				S	S	22 30 26.0	-1.3
AKT				pmax	pmax		
	comp=Z,168nm,0.2s						
DGRG	David-gareji	1.48	220	⇓iP	P	22 30 12.0	+1.1
DUS	Dusheti	1.53	252	⇓iP	P	22 30 14.4	+2.9
MTA	Mtatsminda	1.65	238	eP	P	22 30 13.8	+0.8
TI2	Plekhanov	1.65	239	eP	P	22 30 19.4	+6.3
TI2				i S	S	22 30 42.4	+8.8
TI2				pmax	pmax		
	comp=E,70nm,0.8s						
TI2				smax			
	comp=E,140nm,0.8s						
TBLG	Delisi	1.66	240	⇓iP	P	22 30 14.2	+1.0
ZEI	Tsey	2.04	276	P	P	22 30 19.1	+0.8
VAD	Vardenisi	2.50	196	eP	P	22 30 29.0	+4.3
AKH	Akhalkalaki	2.63	244	i P	P	22 30 25.0	-1.6
GNI	Garni	2.83	211	P	P	22 30 28.4	-1.0
	comp=E,1.1nm,0.3s,baz=319,slow=1.8,SNR=10.0						
GNI				S	S	22 31 03.6	+1.2
	comp=E,9.1nm,0.3s,baz=16,slow=9.9,SNR=11						
GNI	Garni	2.83	211	P	P	22 30 28.4	-1.0
GNI				S	S	22 31 03.6	+1.1
GNI				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GNI	Garni	2.83	211	P	P	22 30 28.4	-1.0
GNI				S	S	22 31 03.6	+1.2
KIV	Kislovodsk	3.20	297c	iP	P	22 30 34.4	-0.1
KIV				pmax	pmax		
	comp=Z,68nm,0.9s						
KIV	Kislovodsk	3.20	297	ePn	P	22 30 34.2	-0.4
KIV	Kislovodsk	3.20	297	ePn	P	22 30 34.2	-0.3
VRSR	Storozhevoye	10.02	332	eP	P	22 32 00.9	-7.3
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
VRSR				pmax	pmax		
	comp=N,6.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,3.0nm,1.0s						
OBN	Obninsk	14.16	336	i P	P	22 33 00.4	-2.5
OBN				pmax	pmax		
	comp=Z,11nm,1.1s						
OBN				MLR	MLR		
	comp=Z,200nm,10.0s						
AKASG	Malin Array Be	14.44	310	P	P	22 33 04.2	-2.4
	comp=Z,0.6nm,0.3s,baz=112,slow=13,SNR=4.4						
AKASG	Malin Array Be	14.44	310	P	P	22 33 04.2	-2.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MLR	Muntele Rosu	15.17	288	P	P	22 33 17.6	+1.6
	comp=Z,0.1nm,0.3s,baz=188,slow=8.9,SNR=3.3						
ARU	Arti	15.83	25	eP	P	22 33 22.3	-2.0
ARU				eSS	S	22 36 18.5	+1.3
ARU	Arti	15.83	25	Pn	P	22 33 22.4	-1.9
ARU	Arti	15.83	25	Pn	P	22 33 22.4	-1.9
IDI	Anoyia	18.40	254	P	P	22 33 57.0	+0.8
	comp=Z,0.5nm,0.3s,baz=122,slow=5.0,SNR=7.4						
BRVK	Borovoye	18.92	48	eP	P	22 34 01.3	-0.7
	comp=Z,1.9nm,0.6s						
BRVK	Borovoye	18.92	48	eP	P	22 34 01.3	-0.7
	comp=Z,1.9nm,0.6s						
BVAR	Borovoye Array	18.97	48	P	P	22 34 02.5	0.0
	comp=Z,0.4nm,0.3s,baz=235,slow=13,SNR=9.4						
CHKZ	Chkalovo	19.36	47	eP	P	22 34 06.0	-0.8
	comp=Z,1.2nm,0.5s						
VSU	Vasula	20.19	329	i P	P	22 34 15.0	-0.5
MORC	Moravsky Berou	21.30	300	eP	P	22 34 26.6	-0.3
	comp=Z,3.5nm,1.0s,mb3.6						
MORC	Moravsky Berou	21.30	300	eP	P	22 34 26.5	-0.4
	comp=Z,3.5nm,1.0s,mb3.6						
FINES	FINESS Array B	22.55	334	P	P	22 34 39.3	+0.4
	comp=Z,3.4nm,0.7s,mb3.8,baz=133,slow=11,SNR=13						
FINES	FINESS Array B	22.55	334	P	P	22 34 39.3	+0.4
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
GERES	GERESS Array B	23.71	297	P	P	22 34 51.7	+1.4
	comp=Z,0.6nm,0.6s,mb3.1,baz=100,slow=8.1,SNR=6.9						
HFS	Hagfors	26.64	323	P	P	22 35 17.6	-0.2
	comp=Z,2.0nm,0.6s,mb3.9,baz=120,slow=9.2,SNR=7.1						
HFS	Hagfors	26.64	323	P	P	22 35 17.6	-0.2
HFS				pmax	pmax		
	comp=Z,2.0nm,0.6s						

NOA	**NORSAR Array B**	28.13	323	P	P	22 35 30.4	-1.1
	comp=Z,0.4nm,0.7s,mb3.1,baz=119,slow=11,SNR=2.5						
SONM	**Songino Array**	41.50	61	P	P	22 37 26.4	+0.7
	comp=Z,0.2nm,0.5s,mb3.2,baz=292,slow=9.8,SNR=2.7						
CMAR	**Chiang Mai Arr**	50.14	102	P	P	22 38 34.5	-0.1
	comp=Z,0.6nm,0.5s,mb3.8,baz=304,slow=8.1,SNR=5.3						
CMAR	**Chiang Mai Arr**	50.14	102	P	P	22 38 34.5	0.0
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						

CSEM ***03*** *22:36:16.8±0.2, 34.98N×2.92W, h13^{km}±3^{km}, mb3.5/8, Error ellipse: s-maj=11.0km s-min=5.5km az=92.0*
CNRM ***03*** *22:36:18.0, 34.63N×2.78W, h6^{km}, MD2.8*
NEIC ***03*** *22:36:19.4, 34.99N×3.04W, MG3.5(MDD), After MDD.*
MDD ***03*** *22:36:20.3±1.4, 35.03N×3.08W, h1^{km}±13^{km}, mb3.5/8, Error ellipse: s-maj=22.9km s-min=8.6km az=123.0, PRXIMO AftershockPLICA*
ISC 03 22:36:17.9±0.7**, 34.99N**±0.04×**2.88W**±0.07**, h19**^{km}±5^{km}**, n26,** σ1§**32**/44**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	0.11	98	*i* P	Pb	22 36 21.0	-1.0
ZAI				*i* S	Sb	22 36 23.0	-1.7
MELI	**Melilla**	0.31	352	P	Pb	22 36 26.8	+2.1
MELI				S	Sb	22 36 29.2	-0.1
MELI	**Melilla**	0.31	352	*e*P	Pb	22 36 26.8	+2.1
EMLI	**Melilla**	0.32	350	P	Pb	22 36 25.1	+0.2
	97nm,0.1s,SNR=12						
EMEL	**Melilla**	0.32	349	P	Pb	22 36 25.1	+0.2
	97nm,0.1s,SNR=12						
EMEL				S	Sb	22 36 29.9	+0.3
	631nm,0.2s,SNR=6.0						
TOU	**Touzarine**	0.71	268	*i* P	Pb	22 36 35.0	+3.4
TOU				*i* S	Sb	22 36 47.0	+6.1
TZK	**Tazeka**	1.40	231	*i* P	Pn	22 36 42.5	-0.2
TZK				*i* S	Sb	22 37 01.0	+0.3
EBER	**Berja**	1.91	360	P	Pn	22 36 50.4	+0.5
	1.7nm,0.2s,SNR=8.7						
EBER				S	Sn	22 37 12.6	-1.0
	38nm,0.8s,SNR=4.7						
EBER	**Berja**	1.91	360	P	Pn	22 36 50.4	+0.5
	1.7nm,0.2s,SNR=8.7						
EBER				S	Sn	22 37 12.6	-1.0
	38nm,0.8s,SNR=4.7						
EMIJ	**Mijas**	2.20	316	P	Pn	22 36 53.5	-0.6
	2.3nm,0.3s,SNR=6.8						
EMIJ				S	Sn	22 37 19.7	-1.4
	6.3nm,0.4s						
ELOJ	**Sierra Loja**	2.39	335	P	Pn	22 36 59.6	+2.8
	3.3nm,0.4s,SNR=7.9						
ELUQ	**Luque**	2.80	337	P	Pn	22 37 04.6	+1.9
	6.4nm,0.5s,SNR=7.9						
ELUQ				S	Sn	22 37 36.7	+0.4
	2.5nm,0.4s,SNR=7.9						
EQES	**Quesada**	2.81	357	P	Pn	22 37 05.4	+2.5
	8.1nm,0.5s,SNR=10						
EQES				S	Sn	22 37 39.4	+2.8
	17nm,0.4s						
ESPR	**Espera**	3.06	309	P	Pn	22 37 07.5	+1.1
	2.3nm,0.3s,SNR=5.4						
ESPR				S	Sn	22 37 41.9	-0.9
	2.8nm,0.3s						
ESPR	**Espera**	3.06	309	P	Pn	22 37 07.5	+1.1
	2.3nm,0.3s,SNR=5.4						
ESPR				S	Sn	22 37 41.9	-0.9
	2.8nm,0.3s						
EADA	**Adamuz**	3.45	337	P	Pn	22 37 12.6	+0.6
	2.1nm,0.3s,SNR=9.9						
EADA				S	Sn	22 37 50.5	-2.3
	3.2nm,0.4s						
EADA	**Adamuz**	3.45	337	P	Pn	22 37 12.6	+0.6
	2.1nm,0.3s,SNR=9.9						
EADA				S	Sn	22 37 50.5	-2.3
	3.2nm,0.4s						
EVIA	**Vianos**	3.66	5	S	Sn	22 37 56.4	-1.6
	5.0nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	4.13	313	P	Pn	22 37 20.6	-1.0
	2.3nm,0.3s,SNR=12						
EMIN				S	Sn	22 38 05.9	-4.0
	3.6nm,1.0s,SNR=7.9						
EMIN	**Mina Concepcio**	4.13	313	P	Pn	22 37 20.6	-1.0
	2.3nm,0.3s,SNR=12						
ESDC	**Sonseca Array**	4.76	350	P	Pn	22 37 31.6	+1.1
	1.4nm,0.2s,baz=173,slow=12,SNR=6.7						
ESDC				S	Sn	22 38 37.5	+12
	0.7nm,0.5s,baz=173,slow=27,SNR=4.0						
ESDC	**Sonseca Array**	4.76	350	P	Pn	22 37 31.6	+1.1
	1.4nm,0.2s,SNR=6.7						
EBAD	**Badajoz**	5.01	320	P	Pn	22 37 33.4	-0.6
	1.1nm,0.2s,SNR=7.9						
EBAD				S	Sn	22 38 28.9	-3.2
	1.4nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	5.01	320	P	Pn	22 37 33.4	-0.7
EBAD				S	Sn	22 38 28.9	-3.3
PBEJ	**Beja**	5.03	309	*e*Pn	Pn	22 37 33.1	-1.3
PCBR	**Castelo Branco**	6.07	324	*e*Pn	Pn	22 37 48.8	-0.2

IDC 03 22:40:42.9±1.5**, 1.54N**×**124.04E, mb3.6**/3**, mb1 3.8**/4**, mb1mx3.6**/17**, ML3.6**/1**, MS2.9**/3**, Ms1 3.0**/3**, ms1mx2.9**/15**, Error ellipse: s-maj=129.0km s-min=23.4km az=73.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	19.58	175	P	P	22 45 11.0	-4.5
	0.1nm,0.3s,baz=11,slow=12,SNR=5.8						
FITZ				LR	LR	22 52 39.0	
	comp=Z,22nm,19.7s,baz=143,slow=37						
WRA	**Warramunga Arr**	23.62	155	P	P	22 45 55.9	-0.8
	1.6nm,0.7s,baz=335,slow=10,SNR=12						
ASAR	**Alice Springs**	26.83	160	P	P	22 46 26.0	-1.1
	0.4nm,0.7s,baz=342,slow=8.6,SNR=3.2						
ASAR				LR	LR	22 56 34.8	
	comp=Z,25nm,21.9s,baz=31,slow=36						
CMAR	**Chiang Mai Arr**	29.81	306	LR	LR	22 59 25.0	
	comp=Z,47nm,18.1s,baz=296,slow=38						
SONM	**Songino Array**	48.58	344	P	P	22 49 28.2	-1.9
	1.0nm,0.8s,baz=155,slow=8.2,SNR=7.3						

CSEM ***03*** *22:41:35.7±0.1, 35.03N×2.80W, h10^{km}, MD3.2, Error ellipse: s-maj=3.0km s-min=1.4km az=100.0*
CNRM ***03*** *22:41:36.2, 35.12N×2.71W, h4^{km}, MD3.2*
NEIC ***03*** *22:41:37.1, 35.00N×3.06W, MG3.5(MDD), After MDD.*
MDD ***03*** *22:41:37.2±1.3, 35.01N×3.04W, mb3.5/8, Error ellipse: s-maj=12.7km s-min=5.5km az=136.0, PRXIMO AftershockPLICA*
ISC 03 22:41:36.4±0.6**, 35.07N**±0.02×**2.88W**±0.06**, h10**^{km}**, n35,** σ1§**34**/58**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	0.15	132	*i* P	Pg	22 41 39.0	-0.8
MELI	**Melilla**	0.23	348	P	Pg	22 41 42.6	+1.2
MELI				S	Sg	22 41 46.5	+1.9
MELI	**Melilla**	0.23	348	*e*P	Pg	22 41 42.6	+1.3
EMLI	**Melilla**	0.24	346	P	Pg	22 41 42.7	+1.2
	115nm,0.1s,SNR=13						
EMEL	**Melilla**	0.24	345	P	Pg	22 41 42.7	+1.2
	115nm,0.1s,SNR=13						
EMEL				S	Sg	22 41 46.8	+1.8
	196nm,0.2s,SNR=16						
TOU	**Touzarine**	0.73	262	*i* P	Pb	22 41 52.0	+1.3
TOU				*i* S	Sb	22 42 04.0	+3.6
TZK	**Tazeka**	1.45	228	*i* P	Pn	22 42 02.0	-0.9
TZK				*i* S	Sb	22 42 23.0	+1.5
EBER	**Berja**	1.83	360	P	Pn	22 42 08.3	+0.1
	3.7nm,0.2s,SNR=6.0						
EBER				S	Sn	22 42 29.7	-1.8
	36nm,0.4s						
EBER	**Berja**	1.83	360	P	Pn	22 42 08.3	+0.1
	3.7nm,0.2s,SNR=6.0						
EBER				S	Sn	22 42 29.7	-1.8
	36nm,0.4s						
EMIJ	**Mijas**	2.15	315	P	Pn	22 42 10.8	-2.0
	1.4nm,0.1s,SNR=11						
EMIJ				S	Sn	22 42 37.3	-2.4
	7.5nm,0.3s						
EMIJ	**Mijas**	2.15	315	S	Sn	22 42 37.3	-2.3
	7.5nm,0.3s						
ELOJ	**Sierra Loja**	2.32	334	P	Pn	22 42 16.4	+1.2
	1.8nm,0.2s,SNR=7.9						
ELOJ				S	Sn	22 42 43.8	-0.2
	2.1nm,0.2s,SNR=7.9						
MIF	**Mishlifen**	2.56	230	*i* P	Pn	22 42 19.0	+0.4
MIF				*i* S	Sn	22 42 51.0	+0.9
CZD	**Col de Zad**	2.71	222	*i* P	Pn	22 42 21.0	+0.2
CZD				*i* S	Sn	22 42 54.0	0.0
ELUQ	**Luque**	2.73	336	P	Pn	22 42 21.2	+0.1
	5.2nm,0.4s,SNR=4.0						
ELUQ				S	Sn	22 42 55.6	+1.1
	3.3nm,0.3s,SNR=7.9						
EQES	**Quesada**	2.73	357	P	Pn	22 42 22.7	+1.5
	1.5nm,0.1s,SNR=24						
EQES				S	Sn	22 42 56.2	+1.6
	18nm,0.5s						
EQES	**Quesada**	2.73	357	P	Pn	22 42 22.7	+1.5
	1.5nm,0.1s,SNR=24						
EQES				S	Sn	22 42 56.2	+1.6
	18nm,0.5s						
LIJA	**Lijar**	2.75	313	*i* P	Pn	22 42 22.0	+0.6
ESPR	**Espera**	3.01	308	P	Pn	22 42 24.5	-0.6
	1.1nm,0.2s,SNR=4.8						
ESPR				S	Sn	22 43 02.7	+1.1
	3.5nm,0.3s						
ESPR	**Espera**	3.01	308	P	Pn	22 42 24.5	-0.6
	1.1nm,0.2s,SNR=4.8						
ESPR				S	Sn	22 43 02.7	+1.1
	3.5nm,0.3s						
ZFT	**Errachidia**	3.27	203	*e*P	Pn	22 42 30.0	+1.3
ZFT				*i* S	Sn	22 43 07.0	-1.1
EADA	**Adamuz**	3.38	337	P	Pn	22 42 30.0	-0.4
	1.6nm,0.3s,SNR=9.3						
EADA				S	Sn	22 43 08.4	-2.6
	5.7nm,0.4s						
EADA	**Adamuz**	3.38	337	S	Sn	22 43 08.4	-2.6
	5.7nm,0.4s						
EADA	**Adamuz**	3.38	337	P	Pn	22 42 30.0	-0.4
	1.6nm,0.3s,SNR=9.3						
EVIA	**Vianos**	3.58	5	P	Pn	22 42 34.0	+0.8
	1.1nm,0.2s,SNR=4.0						
EVIA				S	Sn	22 43 16.4	+0.4
	6.8nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	4.08	312	P	Pn	22 42 38.1	-2.1
	1.2nm,0.2s,SNR=15						
EMIN				S	Sn	22 43 23.9	-4.7
	0.4nm,0.2s						
EMIN	**Mina Concepcio**	4.08	312	P	Pn	22 42 38.1	-2.2
	1.2nm,0.2s,SNR=15						
PALC	**Alcoutim**	4.42	304	*e*Pn	Pn	22 42 42.9	-2.2
PALC				*e*Sn	Sn	22 43 33.2	-4.0
	3.3nm,0.6s						
PALC	**Alcoutim**	4.42	304	P	Pn	22 42 42.9	-2.2
PALC				S	Sn	22 43 33.2	-4.0
	1.6nm,0.6s						
ESDC	**Sonseca Array**	4.68	350	P	Pn	22 42 48.7	-0.1
	2.5nm,0.3s,baz=172,slow=12,SNR=7.9						
ESDC				Sb	Sb	22 43 53.2	-1.9
	baz=168,slow=28,SNR=4.0						
ESDC	**Sonseca Array**	4.68	350	P	Pn	22 42 48.7	-0.1
	2.5nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	4.95	319	P	Pn	22 42 50.7	-1.9
	1.2nm,0.2s,SNR=4.6						
EBAD				S	Sn	22 43 46.0	-4.7
	2.5nm,0.2s						
EBAD	**Badajoz**	4.95	319	P	Pn	22 42 50.7	-2.0
PBEJ	**Beja**	4.98	308	*e*Pn	Pn	22 42 51.3	-1.8
PCBR	**Castelo Branco**	6.00	324	*e*Pn	Pn	22 43 06.0	-1.5

CSEM ***03*** *23:13:47.4±0.9, 38.61N×28.54W, ML1.8, Error ellipse: s-maj=3.4km s-min=1.7km az=13.0*
PDA ***03*** *23:13:47.4±0.9, 38.61N×28.54W, MD3.2, ML1.8, Error ellipse: s-maj=3.4km s-min=1.7km az=13.0*
SVSA 03 23:13:47.4±0.9**, 38.61N**×**28.54W, MD3.2, ML1.8, Error ellipse: s-maj=3.4km s-min=1.7km az=13.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOR	**Horta**	0.11	220	*e*rx	Pg	23 13 48.8	-0.8
PCED	**Cedros**	0.13	278	*i* P	Pg	23 13 49.5	-0.4
PCED				*i* S	Sg	23 13 52.0	+0.4
	127nm,0.1s						
PCED	**Cedros**	0.13	278	*i* S	Sg	23 13 52.0	+0.4
CALA	**Caldeira**	0.13	257	*e*P	Pg	23 13 49.9	-0.1
CALA				*e*S	Sg	23 13 52.3	+0.6
CALA	**Caldeira**	0.13	257	*e*S	Sg	23 13 52.3	+0.6
PICO	**Pico**	0.14	141	*e*P	Pg	23 13 50.0	-0.2
PICO				*e*S	Sg	23 13 52.3	+0.2
PPNO	**Prainha do Nor**	0.26	123	*e*rx	Sg	23 13 55.4	-0.6
ROSA	**Rosais**	0.26	65	*e*P	Pg	23 13 52.3	-0.3
PMAN	**Manadas**	0.35	86	*e*S	Sg	23 13 59.1	-0.1
	26nm,0.3s						
PID	**Ribeirinha**	0.37	117	*e*P	Pg	23 13 54.6	-0.2

NIED ***03*** *23:39:00, 44.80N×150.20E, h14^{km}, Mw4.1 Best double couple: M$_0$1.79×10^{15} NP1:ϕ$_s$20°, δ69°, λ74°. NP2:ϕ$_s$238°, δ26°, λ125°.*
MOS ***03*** *23:39:50.7±1.5, 44.75N×150.30E, h38^{km}, mb4.4/11, Error ellipse: s-maj=15.7km s-min=12.4km az=101.3*
BJI ***03*** *23:39:50.8, 45.14N×150.17E, h34^{km}, mB4.7, mb4.3*
SKHL ***03*** *23:39:51.1±0.4, 44.80N×150.15E, h50^{km}±20^{km}, mb4.6/5*
IDC ***03*** *23:39:54.6±0.7, 44.84N×150.22E, h56^{km}±7^{km}, mb3.8/13, mb1 3.9/14, mb1mx3.9/19, MS3.6/2, Ms1 3.7/2, ms1mx3.1/28, Error ellipse: s-maj=22.0km s-min=14.7km az=115.0*
NEIC ***03*** *23:39:54.0±1.7, 44.82N×150.17E, h46^{km}±14^{km}, mb4.6/18, Error ellipse: s-maj=14.1km s-min=11.4km az=104.0*
ISC 03 23:39:49.2±2.5**, 44.84N**±0.09×**150.15E**±0.10**, h19**^{km}±16^{km}**, h46**^{km}±5.0^{km}**:pP-P, n80,** σ1§**11**/79**, mb4.3**/33**, MS3.6**/1**, 3D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	1.67	284	*e*P	Pn	23 40 17.0	-0.8
KUR				*e*S	Sn	23 40 30.5	-8.3
KUR				A		23 40 49.0	
	900nm,0.6s						
KUR				A		23 40 49.0	
	710nm,0.6s						
YUK	**Yuzh-Kuril'sk**	3.18	257	*e*P	Pn	23 40 39.5	+0.1
YUK				AMB	AMB	23 40 41.9	
	260nm,0.3s						
YUK				*i* S	Sn	23 41 16.0	-1.1
YUK				A		23 41 27.9	
	810nm,0.5s						
YUK				A		23 41 27.9	
	770nm,0.5s						
YUK				A		23 41 32.0	
	2µm,1.0s						
YUK				A		23 41 32.0	
	3µm,1.0s						
ASAJ	**Asahikawa**	5.46	265	P	Pn	23 41 14.1	+2.5
	6.4nm,0.3s,baz=72,slow=21,SNR=13						
ASAJ				LR	LR	23 43 39.7	
	comp=Z,484nm,18.3s,baz=273,slow=41						
ASAJ	**Asahikawa**	5.46	265	PN	Pn	23 41 14.1	+2.5
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,484nm,18.3s						
YSS	**Yuzh-Sakhalins**	5.58	295	Pn	Pn	23 41 15.4	+2.0
YSS	**Yuzh-Sakhalins**	5.58	295	*e*P	Pn	23 41 16.0	+2.6
SKR	**Severo-Kuril's**	7.09	32	*e*P	Pn	23 41 34.5	-0.2
TYV	**Tymovskoe**	7.85	323	*e*P	Pn	23 41 44.5	-0.9
TYV				AMB	AMB	23 41 49.5	
	comp=Z,10.0nm,0.5s						
MAJO	**Matsushiro**	12.27	232	*e*Pn	P	23 42 46.9	+1.0
MDJ	**Mudanjiang**	14.62	276	P	P	23 43 16.9	+0.1
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.5s						
MDJ				AMB	AMB		
	comp=Z,61nm,4.6s						
MDJ	**Mudanjiang**	14.62	276	*e*Pn	P	23 43 17.7	+0.8
CN2	**Changchun**	17.70	275	*e*P	P	23 43 56.2	+0.1
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s						
YAK	**Yakutsk**	20.94	333	*e*P	P	23 44 31.7	-1.3
YAK				pmax	pmax		
	comp=Z,11nm,0.9s						
YAK	**Yakutsk**	20.94	333	*e*P	P	23 44 32.1	-0.9
	comp=Z,30nm,0.5s						
BOD	**Bodaibo**	25.70	313	*e*P	P	23 45 14.9	-4.6
ULN	**Ulaanbaatar**	29.62	291	*e*P	P	23 45 54.8	-0.5
	comp=Z,4.8nm,1.0s,mb4.2						
SONM	**Songino Array**	30.06	292	P	P	23 45 58.6	-0.6
	comp=Z,1.3nm,0.7s,mb3.8,baz=73,slow=8.3,SNR=7.6						
GTA	**Gaotai**	37.24	280	P	P	23 47 02.0	+0.8
ILAR	**Eielson Array**	39.33	37	P	P	23 47 18.2	-0.3
	comp=Z,0.7nm,0.7s,mb3.5,baz=275,slow=7.7,SNR=8.7						
ILAR	**Eielson Array**	39.33	37	P	P	23 47 18.2	-0.2
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ZAL	**Zalesovo**	42.09	307	P	P	23 47 39.8	-1.3
	comp=Z,0.6nm,0.5s,mb3.5,baz=54,slow=3.7,SNR=3.8						
ZAL	**Zalesovo**	42.09	307	P	P	23 47 39.8	-1.3
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KURK	**Kurchatov**	46.71	304	*e*P	P	23 48 18.1	-0.3
	comp=Z,4.5nm,0.8s,mb4.5						
CMAR	**Chiang Mai Arr**	49.89	255	P	P	23 48 43.3	-0.2
	comp=Z,1.1nm,0.5s,mb4.1,baz=39,slow=7.6,SNR=7.3						
CMAR				LR	LR	00 13 13.5	
	comp=Z,61nm,18.2s,MS3.6,baz=65,slow=40						
CMAR	**Chiang Mai Arr**	49.89	255	P	P	23 48 43.3	-0.2
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CMAR				MLR	MLR		
	comp=Z,61nm,18.2s						
CHKZ	**Chkalovo**	50.08	310	*e*P	P	23 48 43.8	-0.7
	comp=Z,2.1nm,0.5s,mb4.4						
BRVK	**Borovoye**	50.52	310	*e*P	P	23 48 46.6	-1.2
	comp=Z,1.3nm,0.4s,mb4.2						
GUN	**Gumba**	53.09	274	*e*P	P	23 49 07.8	+0.2
	comp=Z,8.8nm,0.3s,mb5.1						
KKN	**Kakani**	53.59	275	*e*P	P	23 49 10.9	-0.3
	comp=Z,5.4nm,0.5s,mb4.8						
PKI	**Pulchoki**	53.63	274	*e*P	P	23 49 10.4	-1.1
YKA	**Yellowknife Ar**	53.69	35	P	P	23 49 10.6	-0.9
	comp=Z,0.3nm,0.6s,mb3.4,baz=301,slow=7.5,SNR=4.1						
YKA				pP	pP	23 49 23.6	+6.2
	comp=Z,0.8nm,0.5s,baz=299,slow=6.9,SNR=9.1						
DMN	**Daman**	53.82	275	*e*P	P	23 49 12.8	-0.1
GKN	**Gorkha**	53.92	275	*e*P	P	23 49 13.2	-0.4
KOLN	**Koldanda**	54.79	276	*e*P	P	23 49 19.9	-0.2
ARU	**Arti**	55.02	317	*e*P	P	23 49 19.4	-2.0
	comp=Z,3.5nm,0.5s,mb4.7						
ARCES	**ARCESS Array B**	58.96	340	P	P	23 49 46.8	-2.4
	comp=Z,2.0nm,0.8s,mb4.2,baz=27,slow=5.4,SNR=6.7						
ARCES	**ARCESS Array B**	58.96	340	P	P	23 49 46.8	-2.4
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
HLID	**Hailey**	64.31	53	*e*P	P	23 50 23.9	-1.5
	comp=Z,0.9nm,0.8s,mb3.9						
FINES	**FINESS Array B**	64.86	334	P	P	23 50 26.9	-1.8
	comp=Z,2.6nm,0.5s,mb4.5,baz=45,slow=6.9,SNR=23						
FINES	**FINESS Array B**	64.86	334	P	P	23 50 26.9	-1.8
FINES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
NVAR	**Mina Array Bea**	65.17	60	pP	pP	23 50 45.4	+8.3
	comp=Z,0.5nm,0.5s,baz=299,slow=8.2,SNR=4.0						
WRA	**Warramunga Arr**	66.06	196	P	P	23 50 34.4	-2.6
	comp=Z,1.1nm,0.9s,mb3.9,baz=13,slow=6.6,SNR=7.9						
WRA				pP	pP	23 50 50.8	+7.6
	comp=Z,1.7nm,0.7s,baz=14,slow=6.7,SNR=8.3						
WRA	**Warramunga Arr**	66.06	196	P	P	23 50 34.4	-2.6
WRA				*PP	pP	23 50 50.8	+7.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
PDAR	**Pinedale Array**	67.55	52	pP	pP	23 50 59.9	+7.6
	comp=Z,1.1nm,0.6s,baz=247,slow=2.1,SNR=8.5						
NB2	**NORSAR Subarra**	69.34	340	P	P	23 50 55.7	-1.2
	comp=Z,2.1nm,0.6s,mb4.2,baz=28,slow=6.5						
NOA	**NORSAR Array B**	69.34	340	P	P	23 50 55.2	-1.7
	comp=Z,2.0nm,0.5s,mb4.3,baz=29,slow=6.6,SNR=7.3						
NOA	**NORSAR Array B**	69.34	340	P	P	23 50 55.2	-1.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ASAR	**Alice Springs**	69.77	196	P	P	23 50 58.8	-1.4
	comp=Z,1.2nm,1.0s,mb3.8,baz=8.8,slow=6.1,SNR=8.6						
ASAR				pP	pP	23 51 15.8	+10
	comp=Z,0.9nm,0.6s,baz=11,slow=5.0,SNR=6.7						
KIV	**Kislovodsk**	70.62	313	*d i*P	P	23 51 06.5	+1.5
KIV				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
AKASG	**Malin Array Be**	71.95	325	P	P	23 51 12.2	-0.8
	comp=Z,2.0nm,0.4s,mb4.4,baz=38,slow=6.2,SNR=11						
AKASG	**Malin Array Be**	71.95	325	P	P	23 51 12.2	-0.7
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
CLL	**Collm**	77.31	334	⇓*i*P	P	23 51 43.5	-0.1
CLL				*e*	pP	23 51 50.0	+0.2
CLL	**Collm**	77.31	334	⇓P	P	23 51 43.5	-0.1
BRG	**Berggiesshubel**	77.39	333	*i* P	P	23 51 46.4	+2.4
BRG				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
BRG	**Berggiesshubel**	77.39	333	*i* P	P	23 51 46.4	+2.4
	comp=Z,1.3nm,0.6s,mb4.0						
BRTR	**Keskin Array B**	78.32	315	P	P	23 51 50.5	+1.1
	comp=Z,1.9nm,0.8s,mb4.1,baz=79,slow=4.1,SNR=10						
BRTR	**Keskin Array B**	78.32	315	P	P	23 51 50.6	+1.2
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KHC	**Kasperske Hory**	79.02	333	*e*P	P	23 51 53.5	+0.5
KHC				*e*		23 52 06.0	
KHC	**Kasperske Hory**	79.02	333	*e*P	P	23 51 53.5	+0.5
KHC				pP	pP	23 52 06.0	+6.8
GERES	**GERESS Array B**	79.23	332	P	P	23 51 54.8	+0.7
	comp=Z,0.9nm,0.4s,mb4.1,baz=41,slow=5.8,SNR=18						
GERES	**GERESS Array B**	79.23	332	P	P	23 51 54.8	+0.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
TXAR	**Lajitas Array**	80.25	58	pP	pP	23 52 13.6	+7.4
	comp=Z,1.0nm,0.5s,baz=293,slow=3.2,SNR=4.8						
CDF	**Champ du Feu**	81.60	336	*e*P	P	23 52 08.2	+1.5
FLN	**La Foliniere**	83.30	341	*e*P	P	23 52 15.0	-0.6
LDF	**La Druitiere**	83.38	341	*e*P	P	23 52 16.2	+0.3
GRR	**Gorron**	83.74	341	*e*P	P	23 52 17.4	-0.3
AVF	**Avril sur Loir**	84.17	338	*e*P	P	23 52 20.5	+0.6
	comp=Z,6.8nm,0.8s,mb4.5						
SMF	**Signal de Mont**	84.17	337	*e*P	P	23 52 20.5	+0.5
	comp=Z,20nm,1.0s,mb4.9						
SGMF	**Saint Gilles**	84.25	342	*e*P	P	23 52 21.6	+1.3
ROSF	**Rostrenen**	84.33	343	*e*P	P	23 52 20.4	-0.3
LPG	**La Plagne**	84.39	335	*e*P	P	23 52 22.6	+1.6
	comp=Z,1.5nm,0.5s,mb4.1						
BGF	**Bois d'Agland**	84.52	338	*e*P	P	23 52 23.9	+2.2
	comp=Z,8.6nm,0.7s,mb4.7						
QUIF	**Quistinic**	84.70	342	*e*P	P	23 52 22.3	-0.3
MFF	**Saint Martin d**	85.25	340	*e*P	P	23 52 26.5	+1.2
	comp=Z,68nm,1.5s,mb5.2						
RJF	**Les Rejaudoux**	86.04	338	*e*P	P	23 52 30.8	+1.5
	comp=Z,7.2nm,0.7s,mb4.7						
CAF	**Calviac**	86.24	338	*e*P	P	23 52 31.2	+0.9
	comp=Z,5.1nm,0.7s,mb4.6						
PGF	**Pioggiola**	86.33	332	*e*P	P	23 52 31.2	+0.4
LMR	**La Mourre**	86.42	334	*e*P	P	23 52 30.8	-0.4
	comp=Z,15nm,0.9s,mb4.9						
LFF	**La Frestale**	86.58	339	*e*P	P	23 52 33.0	+1.1
	comp=Z,5.4nm,0.6s,mb4.7						
ETSF	**Etsaut**	88.82	339	*e*P	P	23 52 44.6	+1.8
	comp=Z,15nm,1.0s,mb5.0						

STR ***03*** *23:54:09.3±0.1, 44.73N×6.57E, h5^{km}±1^{km}, Ml1.0, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
LDG 03 23:54:08.3±0.2**, 44.60N**×**7.26E, h2**^{km}**, Md2.2**/3**, Ml2.0**/6**, Error ellipse: s-maj=5.1km s-min=2.5km az=78.0, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OG22	**Abries**	0.31	314	Pg	Pg	23 54 15.1	+0.5
OG22				Sg	Sg	23 54 19.4	+0.6
SURF	**Saint Ours**	0.34	249	Pg	Pg	23 54 15.4	+0.3
SURF				Sg	Sg	23 54 20.0	+0.3
MBDF	**Montbardon**	0.37	290	*e*Pg	Pg	23 54 16.0	+0.3
MBDF				*e*Sg	Sg	23 54 20.5	-0.1
	26nm,0.2s						
SBF	**Sospel**	0.75	170	*e*Pg	Pg	23 54 22.9	-0.4
SBF				*e*Sg	Sg	23 54 31.4	-1.9
	7.2nm,0.3s						
LPG	**La Plagne**	0.96	338	*e*Pg	Pg	23 54 26.5	-1.1
LPG				*e*Sg	Sg	23 54 38.4	-2.0
	4.5nm,0.2s						
LPL	**La Plagne**	0.99	338	*e*Pg	Pg	23 54 27.2	-0.8
LPL				*e*Sg	Sg	23 54 39.4	-1.8
	5.3nm,0.3s						
ORIF	**Oris-en-Rattie**	1.03	288	*e*Pg	Pg	23 54 27.6	-1.3

ORIF				eSg	Sg	23 54 39.9	-2.8
	4.1nm,0.3s						
FRF	La Foret Royal	1.13	203	ePg	Pg	23 54 30.2	-0.7
FRF				eSg	Sg	23 54 42.1	-3.9
	4.2nm,0.2s						
SMRF	Simiane la Rot	1.36	243	ePg	Pg	23 54 34.4	-1.1
SMRF				eSg	Sg	23 54 51.2	-2.5
	1.5nm,0.3s						
LMR	La Mourre	1.38	203	ePg	Pg	23 54 33.3	-2.5
LMR				eSg	Sg	23 54 50.2	-4.0
	5.0nm,0.3s						
VIVF	Saint-Julien-l	1.86	279	ePn	Pn	23 54 39.5	-2.0

IDC 04 00:02:11.1±1.3**,3.61S**×**135.22E,mb3.4**/2**,mb1 4.0**/6**, mb1mx3.9**/13**,ML3.9**/4**,Error ellipse: s-maj=56.3km s-min=24.5km az=83.0,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WB2	Warramunga Arr	16.26	183	eP	P	00 05 56.0	-6.6
WB2				i		00 06 04.4	
WRA	Warramunga Arr	16.26	183	Pn	P	00 05 55.7	-6.9
	0.2nm,0.3s,baz=6.6,slow=13,SNR=14						
WRA				Sn	S	00 08 51.2	-13
	0.3nm,0.3s,baz=7.2,slow=22,SNR=7.1						
FITZ	Fitzroy Crossi	17.19	212	P	P	00 06 11.4	-3.1
	0.3nm,0.3s,baz=11,slow=8.4,SNR=7.7						
FITZ				S	S	00 09 13.7	-12
	0.7nm,0.3s,baz=184,slow=12,SNR=6.5						
CTA	Charters Tower	19.60	148	P	P	00 06 42.8	-1.0
	0.4nm,0.3s,baz=278,slow=15,SNR=4.1						
ASAR	Alice Springs	19.98	184	P	P	00 06 44.9	-3.2
	2.5nm,0.3s,baz=9.2,slow=11,SNR=205						
ASAR				S	S	00 10 25.3	-2.7
	0.1nm,0.3s,baz=3.0,slow=27,SNR=3.8						
ASPA	Alice Springs	19.98	184	eP	P	00 06 44.9	-3.2
SONM	Songino Array	57.12	337	P	P	00 12 00.6	-1.2
	0.3nm,0.7s,baz=158,slow=7.8,SNR=2.8						
ILAR	Eielson Array	88.09	25	P	P	00 15 01.4	-3.1
	0.2nm,0.4s,baz=258,slow=4.5,SNR=4.2						

IDC 04 00:21:52.9±8.4**,1.34N**×**124.33E,mb3.7**/3**,mb1 3.8**/4**, mb1mx3.6**/17**,ML3.6**/1**,Error ellipse: s-maj=137.0km s-min=109.6km az=125.0,Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.36	176	P	P	00 26 19.9	-3.0
	0.2nm,0.3s,baz=354,slow=8.0,SNR=3.1						
WRA	Warramunga Arr	23.32	156	P	P	00 27 02.1	-1.6
	1.0nm,0.6s,baz=334,slow=10,SNR=7.4						
ASAR	Alice Springs	26.54	160	P	P	00 27 32.5	-1.8
	0.6nm,0.6s,baz=338,slow=7.8,SNR=6.7						
STKA	Stephens Creek	36.87	155	P	P	00 29 03.8	-1.3
	1.2nm,0.7s,baz=325,slow=12,SNR=2.7						

IDC 04 00:22:40.2±10.0**,17.13S**×**178.77W,h490**^{km}±122^{km}**, mb3.0**/7**,mb1 3.3**/7**,mb1mx3.2**/15**,Error ellipse: s-maj=39.1km s-min=30.0km az=44.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	38.71	240	P	P	00 29 20.9	-1.4
	1.2nm,0.7s,baz=72,slow=9.6,SNR=2.5						
WRA	Warramunga Arr	44.44	259	P	P	00 30 07.2	-1.2
	0.6nm,0.6s,baz=93,slow=6.9,SNR=11						
ASAR	Alice Springs	44.67	253	P	P	00 30 08.7	-1.5
	8.7nm,0.7s,baz=89,slow=8.2,SNR=116						
FITZ	Fitzroy Crossi	52.82	260	P	P	00 31 09.8	-1.5
	1.4nm,0.9s,baz=22,slow=9.5,SNR=2.8						
VNDA	Vanda	61.19	185	P	P	00 32 06.2	-1.6
	1.6nm,1.1s,baz=12,slow=9.3,SNR=3.1						
NVAR	Mina Array Bea	79.11	44	P	P	00 33 54.0	-0.4
	0.2nm,0.4s,baz=228,slow=11,SNR=2.6						
TXAR	Lajitas Array	85.87	58	P	P	00 34 27.8	-0.9
	0.3nm,0.7s,baz=207,slow=2.8,SNR=4.8						
GERES	GERESS Array B	146.78	345	PKPbc	PKPbc	00 41 26.0	+0.3
	0.5nm,0.5s,baz=14,slow=3.0,SNR=8.1						

DJA 04 00:44:00.9±1.0**,9.56S**×**115.19E,h19**^{km}±26^{km}**,ML3.9**/3**, 7D,Error ellipse: s-maj=60.4km s-min=8.5km az=176.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	Rata	0.90	22	⇓ePn	Pn	00 44 15.6	-2.9
	438nm,0.2s						
RATI				⇓eSn	Sn	00 44 26.6	-4.3
KEDI	Kedomdong	1.40	41	⇓ePn	Pn	00 44 23.2	-2.5
	52nm,0.2s						
KEDI				⇓eSn	Sn	00 44 39.2	-4.6
SRDI	Scrawed	1.48	316	⇓ePn	Pn	00 44 24.1	-2.8
	158nm,0.2s						
SRDI				⇓eSn	Sn	00 44 41.5	-4.4
KELI	Kelakatan	1.50	333	⇓ePn	Pn	00 44 24.9	-2.2

*NEIC **04** 01:03:36.9,38.53S×175.91E,h151^{km},After WEL.*

WEL 04 01:03:36.2±0.3**,38.49S**×**175.86E,h155**^{km}±2^{km}**,ML4.1**/5**, 12C-2D,Error ellipse: s-maj=2.2km s-min=2.0km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KATZ	Kakaramea	0.50	194	P	P	01 03 58.3	-0.3
KATZ	Kakaramea	0.50	194	PN	P	01 03 58.3	-0.2
MGZ	Maungaku	0.57	206	P	P	01 03 58.8	-0.1
MGZ	Maungaku	0.57	206	⇑PN	P	01 03 58.8	-0.1
KRVZ	Karewarewa	0.63	195	PN	P	01 03 58.8	-0.3
KAVZ	Karewarewa	0.63	195	PN	P	01 03 59.1	-0.1
WTVZ	West Tongariro	0.66	198	⇑PN	P	01 03 59.2	-0.2
WTVZ				eSN	S	01 04 17.3	+0.1
TWVZ	Taurewa	0.67	209	P	P	01 03 59.1	-0.3
TWVZ	Taurewa	0.67	209	⇑PN	P	01 03 59.1	-0.3
OTVZ	Oturere	0.69	192	PN	P	01 03 59.5	-0.1
OTVZ				SN	S	01 04 17.1	-0.4
NGZ	Ngauruhoe	0.71	196	P	P	01 03 59.5	-0.2
NGZ	Ngauruhoe	0.71	196	⇑PN	P	01 03 59.4	-0.3
CNZ	Chateau	0.75	199	P	P	01 03 59.8	-0.1
CNZ	Chateau	0.75	199	⇓PN	P	01 03 59.8	-0.1
WPVZ	Whakapapa	0.75	199	P	P	01 03 59.9	0.0
WPVZ	Whakapapa	0.75	199	⇑PN	P	01 03 59.8	-0.1
TUVZ	Tukino	0.79	191	P	P	01 04 00.2	0.0
TUVZ	Tukino	0.79	191	⇑PN	P	01 04 00.2	0.0
TUVZ				SN	S	01 04 18.6	0.0
FWVZ	Far West T-bar	0.80	197	P	P	01 04 00.1	-0.1
FWVZ	Far West T-bar	0.80	197	PN	P	01 03 59.8	-0.4
FWVZ				SN	S	01 04 17.8	-0.9
BKZ	Black Stump Fm	0.84	144	P	P	01 04 00.4	0.0
BKZ	Black Stump Fm	0.84	144	⇑PN	P	01 04 00.4	0.0
BKZ				SN	S	01 04 19.3	+0.1
WNVZ	Wahianoa	0.86	193	P	P	01 04 00.6	0.0
WNVZ				S	S	01 04 18.9	-0.5
WNVZ	Wahianoa	0.86	193	⇑PN	P	01 04 00.6	0.0
WNVZ				SN	S	01 04 18.7	-0.7
MOVZ	Moawhango	0.92	185	P	P	01 04 00.7	-0.3
MOVZ				S	S	01 04 18.5	-1.6
MOVZ	Moawhango	0.92	185	⇑PN	P	01 04 00.7	-0.3
MOVZ				SN	S	01 04 18.5	-1.6
URZ	Urewera	1.01	77	P	P	01 04 01.3	-0.4
URZ	Urewera	1.01	77	⇑PN	P	01 04 01.3	-0.4
URZ				SN	S	01 04 20.1	-1.2
VRZ	Vera Road	1.07	233	PN	P	01 04 01.6	-0.6
VRZ				SN	S	01 04 21.3	-0.9
MWZ	Matawai	1.32	84	P	P	01 04 04.3	-0.4
MWZ	Matawai	1.32	84	⇑PN	P	01 04 04.3	-0.3
MWZ				SN	S	01 04 25.4	-1.3
WAZ	Wanganui	1.43	208	PN	P	01 04 04.8	-1.0
WAZ				SN	S	01 04 27.4	-1.3
KNZ	Kokohu	1.52	111	P	P	01 04 06.5	-0.1
KNZ	Kokohu	1.52	111	PN	P	01 04 06.5	-0.2
KNZ				SN	S	01 04 29.1	-1.1
TSZ	Takapari Road	1.57	177	P	P	01 04 06.5	-0.7
TSZ	Takapari Road	1.57	177	⇑PN	P	01 04 06.5	-0.7
TSZ				SN	S	01 04 30.1	-1.0
PWZ	Pawanui	1.72	153	P	P	01 04 08.3	-0.5
PWZ	Pawanui	1.72	153	PN	P	01 04 08.3	-0.5
PWZ				SN	S	01 04 33.5	-0.6
PUZ	Puketiti	1.94	78	PN	P	01 04 10.4	-0.8
PUZ				SN	S	01 04 36.0	-2.2
MXZ	Matakaoa Point	2.15	65	eP	P	01 04 13.2	-0.5
MXZ	Matakaoa Point	2.15	65	PN	P	01 04 13.2	-0.5
MXZ				SN	S	01 04 41.7	-0.9
MRZ	Mangatainoka R	2.18	186	P	P	01 04 12.2	-1.9
MRZ	Mangatainoka R	2.18	186	PN	P	01 04 12.2	-1.9
MRZ				eSN	S	01 04 39.7	-3.7
BFZ	Birch Farm	2.21	172	PN	P	01 04 13.0	-1.4
BFZ				SN	S	01 04 38.9	-5.0
KIW	Kapiti Island	2.48	197	PN	P	01 04 15.1	-2.7
CAW	Cannon Point	2.69	193	P	P	01 04 17.5	-2.9
CAW	Cannon Point	2.69	193	PN	P	01 04 17.5	-3.0
CAW				SN	S	01 04 49.3	-5.0
MRW	Makara Radio	2.88	198	P	P	01 04 19.5	-3.4
MRW	Makara Radio	2.88	198	PN	P	01 04 19.5	-3.3
MRW				eSN	S	01 04 52.7	-5.9
PAWZ	Paruwai Farm	2.91	186	PN	P	01 04 20.0	-3.3
PAWZ				eSN	S	01 04 53.2	-6.1
MSWZ	Moikau Station	2.96	189	P	P	01 04 20.4	-3.5
MSWZ	Moikau Station	2.96	189	⇓PN	P	01 04 20.4	-3.5
MSWZ				SN	S	01 04 54.5	-5.9
BHW	Baring Head	3.01	194	SN	S	01 04 54.8	-6.8
TUWZ	Tuamarina	3.28	206	PN	P	01 04 24.0	-4.1
TUWZ				SN	S	01 05 01.8	-6.1
NNZ	Nelson	3.33	214	P	P	01 04 24.3	-4.3
NNZ	Nelson	3.33	214	PN	P	01 04 24.3	-4.3
NNZ				SN	S	01 05 03.4	-5.4
QRZ	Quartz Range	3.47	227	eP	P	01 04 25.7	-4.8
QRZ	Quartz Range	3.47	227	PN	P	01 04 25.6	-4.9
THZ	Tophouse	3.98	214	PN	P	01 04 32.1	-4.9
KHZ	Kahutara	4.30	204	P	P	01 04 36.9	-4.4
KHZ	Kahutara	4.30	204	PN	P	01 04 36.8	-4.6
DSZ	Denniston Nort	4.50	222	PN	P	01 04 36.6	-7.3
LTZ	Lake Taylor	5.08	211	PN	P	01 04 45.8	-5.8
MQZ	McQueen's Vall	5.75	204	ePN	P	01 04 53.1	-7.3
MQZ				SN	S	01 05 54.9	-11
JCZ	Jackson Bay	7.72	222	ePN	P	01 05 20.5	-6.3

*IDC **04** 01:12:13.9±2.7,31.14S×177.40W,mb4.2/5,mb1 4.3/7, mb1mx4.1/17,ML3.8/2,MS3.7/1,Ms1 3.7/1,ms1mx2.8/20, Error ellipse: s-maj=57.2km s-min=32.4km az=113.0*

*NEIC **04** 01:12:14.7±1.2,31.14S×177.35W,h10^{km},mb4.5/1,Error ellipse: s-maj=30.4km s-min=12.8km az=117.0*

ISC 04 01:12:17.4±1.9**,31.11S**±0.09×**178.0W**±0.3**,h10**^{km}**,n19, σ0**^{s}**.98**/20**,mb4.2**/6**,MS3.6**/1**,2C-2D,Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	8.19	208	Pn	P	01 14 15.8	-3.4
	0.6nm,0.3s,baz=118,slow=17,SNR=3.9						
URZ				Sn	Sn	01 15 52.6	-0.2
	1.9nm,0.3s,baz=192,slow=22,SNR=10						
URZ	Urewera	8.19	208	Pn	P	01 14 15.8	-3.4
URZ				Sn	Sn	01 15 52.6	-0.2
RPZ	Rata Peaks	15.28	212	Pn	P	01 15 55.4	+0.7
	0.7nm,0.3s,baz=116,slow=9.6,SNR=3.2						
RPZ				Sn	S	01 18 34.0	-11
	0.5nm,0.3s,baz=172,slow=23,SNR=2.7						
AFI	Afiamalu	18.05	20	P	P	01 16 24.8	-5.3
CTA	Charters Tower	33.92	280	P	P	01 19 03.5	+0.7
	3.1nm,0.4s,mb4.5,baz=100,slow=11,SNR=12						
CTA				LR	LR	01 31 03.8	
	comp=Z,99nm,18.2s,MS3.6,baz=221,slow=33						
STKA	Stephens Creek	34.33	258	P	P	01 19 08.2	+1.9
	1.3nm,0.3s,mb4.3,baz=312,slow=24,SNR=2.5						
ASAR	Alice Springs	43.08	268	P	P	01 20 20.1	+0.8
	2.2nm,0.5s,mb4.1,baz=104,slow=7.4,SNR=14						
WB2	Warramunga Arr	44.12	273	eP	P	01 20 27.2	-0.7
WRAB	Tennant Creek	44.13	273	eP	P	01 20 26.6	-1.3
	5.5nm,0.8s,mb4.3						
WRA	Warramunga Arr	44.13	273	P	P	01 20 27.5	-0.4
	2.0nm,0.5s,mb4.1,baz=112,slow=8.0,SNR=33						
VNDA	Vanda	47.39	186	P	P	01 20 53.2	+0.1
FITZ	Fitzroy Crossi	52.37	270	P	P	01 21 31.3	-0.7
	0.6nm,0.4s,mb3.9,baz=350,slow=11,SNR=4.3						
QSPA	South Pole Qui	59.00	180	eP	P	01 22 29.5	+10
SNAA	Sanae	77.45	178	⇑i	P	01 24 21.1	+7.2
VNA3	Neumayer Olymp	77.60	176	⇓i	P	01 24 22.0	+7.3
VNA2	Neumayer--Watz	78.03	177	⇑i	P	01 24 26.9	+10
VNA1	Neumayer--Stat	78.27	177	⇓i	P	01 24 25.5	+7.1
KAF	Kangasniemi	145.22	340	ep	PKPbc	01 31 50.9	-4.0
	5.2nm,0.9s						
FINES	FINESS Array B	145.81	340	PKPbc	PKPbc	01 31 54.1	-2.3
	1.6nm,0.4s,baz=62,slow=4.7,SNR=25						

*MDD **04** 01:15:35.8±2.7,36.65N×7.17W,mbLg1.7/1,Error ellipse: s-maj=21.1km s-min=11.0km az=42.0,PRXIMO SIN SOLUCIN*

*CSEM **04** 01:15:35.8±0.6,36.61N×7.19W,h25^{km},ML1.0,Error ellipse: s-maj=14.2km s-min=6.3km az=23.0*

INMG 04 01:15:36.2±0.7**,36.51N**×**7.23W,h22**^{km}±10^{km}**,ML1.0, Error ellipse: s-maj=8.8km s-min=3.4km az=29.0,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALC	Alcoutim	0.97	348	eP	Pb	01 15 53.1	-1.2
PALC				eS	Sb	01 16 06.2	-0.5
	2.7nm,0.1s						
PALC	Alcoutim	0.97	348	eP	Pb	01 15 53.1	-1.2
PALC				eS	Sb	01 16 06.2	-0.5
	2.7nm,0.1s						
ESPR	Espera	1.16	72	P	Pn	01 15 55.4	-1.8
	SNR=7.9						
ESPR				S	Sb	01 16 10.5	-1.5
	5.8nm,0.2s,SNR=6.3						
ESPR	Espera	1.16	72	P	Pn	01 15 55.4	-1.9
	SNR=7.9						
ESPR				S	Sb	01 16 10.5	-1.5
	5.8nm,0.2s,SNR=6.3						
EMIN	Mina Concepcio	1.33	19	P	Pn	01 15 57.9	-1.8
	0.2nm,0.1s,SNR=10						
EMIN				S	Sn	01 16 14.2	-2.7
	0.6nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	1.33	19	P	Pn	01 15 57.9	-1.8
	0.2nm,0.1s,SNR=10						
EMIN				S	Sn	01 16 14.2	-2.7
	0.6nm,0.1s,SNR=7.9						
PTEO	Sao Teotonio	1.58	311	eS	Sn	01 16 19.7	-3.6
PBEJ	Beja	1.60	342	eP	Pn	01 16 01.5	-2.0
PBEJ				eS	Sn	01 16 20.7	-2.9
	0.8nm,0.1s						
PBEJ	Beja	1.60	342	eP	Pn	01 16 01.5	-2.0
PBEJ				eS	Sn	01 16 20.7	-2.9
	0.8nm,0.1s						
EBAD	Badajoz	2.25	4	P	Pn	01 16 10.6	-2.2
	0.3nm,0.1s,SNR=4.0						
EBAD				S	Sn	01 16 35.8	-4.4
	0.3nm,0.1s,SNR=7.9						
EBAD	Badajoz	2.25	4	P	Pn	01 16 10.6	-2.3
	0.3nm,0.1s,SNR=4.0						
EBAD				S	Sn	01 16 35.8	-4.4
	0.3nm,0.1s,SNR=7.9						
EADA	Adamuz	2.68	51	P	Pn	01 16 17.5	-1.5
	0.1nm,0.2s,SNR=4.0						
EADA				S	Sn	01 16 46.4	-4.8
	0.5nm,0.1s,SNR=7.9						
EADA	Adamuz	2.68	51	P	Pn	01 16 17.5	-1.6
	0.1nm,0.2s,SNR=4.0						
EADA				S	Sn	01 16 46.4	-4.8
	0.5nm,0.1s,SNR=7.9						
PCBR	Castelo Branco	3.33	357	ePn	Pn	01 16 25.5	-2.8

*IDC **04** 01:22:55.9±1.1,15.80N×61.76W,mb3.6/2,mb1 3.9/2, mb1mx3.5/20,Error ellipse: s-maj=13.9km s-min=11.0km az=127.0*

*TRN **04** 01:22:56.3,15.88N×61.61W,h27^{km},Md3.2(FDF)*

*NEIC **04** 01:22:58.3±0.9,15.85N×62.02W,h10^{km},mb3.5/1,Error ellipse: s-maj=20.2km s-min=11.7km az=83.0*

ISC 04 01:22:55.1±1.4**,15.84N**±0.05×**61.84W**±0.07**,h9**^{km}±10^{km}**, n17,σ0**^{s}**.82**/19**,mb3.5**/3**,7C,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBL	Barber's Block	0.47	131	⇑eP	Pg	01 23 05.8	+1.2
MGG	Marie-Galante	0.51	81	⇑iP	Pg	01 23 04.8	-0.6
SEG	Port Louis	0.65	30	⇑eP	Pb	01 23 08.9	+0.7
DEG	La Desirade	0.89	58	⇑eP	Pb	01 23 11.1	-1.3
FDF	Fort de France	1.28	149	⇑iP	Pb	01 23 19.4	+0.3
FDF				i S	Sb	01 23 35.2	-0.3
CRM	Caravelle	1.40	140	⇑eP	Pn	01 23 21.0	+0.1
CRM				eS	Sb	01 23 38.3	-0.5
MVM	Montagne Vaucl	1.57	144	⇑eP	Pn	01 23 23.4	+0.1
MVM				eS	Sb	01 23 39.6	-4.2
SJG	San Juan	4.70	299	P	Pn	01 24 06.8	-1.2
SDV	Santo Domingo	11.02	232	P	P	01 25 35.0	-1.2
SAML	Samuel	24.66	183	eP	P	01 28 18.9	+1.2
	1.0nm,0.8s,mb3.4						
WMOK	Wichita Mounta	38.06	307	eP	P	01 30 16.1	+0.3
BNM	Barren Site	44.10	303	eP	P	01 31 05.9	+0.2
BW06	Boulder Array	48.67	313	P	P	01 31 41.8	+0.1
YKA	Yellowknife Ar	59.30	335	P	P	01 32 59.2	-0.2
	0.5nm,0.5s,mb3.8,baz=106,slow=7.5,SNR=10						
YKA	Yellowknife Ar	59.30	335	P	P	01 32 59.2	-0.2
ILAR	Eielson Array	73.70	334	P	P	01 34 32.4	+1.5
	0.3nm,0.7s,mb3.4,baz=77,slow=5.6,SNR=5.6						
ASAR	Alice Springs	163.27	240	PKPab	PKPab	01 43 51.9	+0.4
	0.3nm,0.7s,baz=104,slow=4.0,SNR=4.7						

*IDC **04** 01:40:38.2±1.0,15.81N×61.70W,mb3.8/3,mb1 4.1/4, mb1mx3.7/21,ML5.1/1,Error ellipse: s-maj=18.3km s-min=12.6km az=55.0*

*NEIC **04** 01:40:39.4±1.0,15.76N×61.75W,h10^{km},mb3.9/2,Error ellipse: s-maj=21.6km s-min=11.4km az=90.0*

*TRN **04** 01:40:39.8,15.84N×61.59W,h19^{km},MD3.7*

ISC 04 01:40:40.9±0.7**,15.74N**±0.05×**61.82W**±0.08**,h28**^{km}±9^{km}**, n20,σ1**^{s}**.20**/26**,mb3.8**/5**,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBL	Barber's Block	0.39	122	eP	Pb	01 40 49.0	-0.5
BBL				eS	Sb	01 40 53.6	-1.8
MDN	Morne-Daniel	0.58	135	eP	Pb	01 40 52.6	+0.1
MDN				eS	Sb	01 41 01.0	+0.5
DBCT	Belle View Cho	0.65	135	eP	Pb	01 40 55.2	+1.5
DSHT	Scott's Head	0.67	140	eP	Pb	01 40 55.3	+1.3
DSTT	Stowe	0.69	134	eP	Pn	01 40 56.0	+1.2
BPA	Boggy Peak	1.30	358	eP	Pn	01 41 02.7	-0.9
BPA				eS	Sn	01 41 22.0	+1.8
CPB	Codrington	1.89	360	eP	Pn	01 41 11.2	-0.7
CPB				eS	Sn	01 41 35.0	-0.2
SJG	San Juan	4.77	300	Pn	Pn	01 41 51.3	-1.7
	1.6nm,0.3s,baz=276,slow=21,SNR=2.6						
SJG				Sn	Sn	01 42 50.4	+2.3
	2.0nm,0.3s,baz=274,slow=21,SNR=2.3						
SJG	San Juan	4.77	300	Pn	Pn	01 41 51.3	-1.7
SJG				Sn	Sn	01 42 50.4	+2.3
SDV	Santo Domingo	10.97	233	P	P	01 43 17.3	-2.1
OTAV	Otavalo	22.51	228	P	P	01 45 42.0	+2.0
SAML	Samuel	24.56	183	eP	P	01 45 58.8	-1.2
	1.5nm,0.7s,mb3.6						
WMOK	Wichita Mounta	38.13	307	P	P	01 47 58.8	-0.7
BNM	Barren Site	44.18	303	eP	P	01 48 49.4	+0.1
SDCO	Great Sand Dun	44.25	308	P	P	01 48 49.8	0.0
BW06	Boulder Array	48.76	314	eP	P	01 49 24.7	-0.6
	1.1nm,0.7s,mb4.0						
PDAR	Pinedale Array	48.76	314	P	P	01 49 25.9	+0.6
	0.9nm,0.7s,mb3.9,baz=117,slow=10.0,SNR=9.2						
TPNV	Topopah Spring	52.41	305	P	P	01 49 53.0	-0.2
YKA	Yellowknife Ar	59.40	335	P	P	01 50 41.4	-1.6
	0.7nm,0.5s,mb3.9,baz=106,slow=7.4,SNR=9.4						
ILAR	Eielson Array	73.80	334	P	P	01 52 14.7	+0.4
	0.3nm,0.5s,mb3.5,baz=86,slow=5.7,SNR=8.0						

*IDC **04** 01:44:11.0±3.0,50.78N×179.81E,mb3.5/5,mb1 4.0/6, mb1mx3.7/22,ML4.0/1,Error ellipse: s-maj=75.8km s-min=16.6km az=4.0*

*NEIC **04** 01:44:13.8±5.5,50.84N×179.63E,h22^{km}±35^{km},mb4.0/1, Error ellipse: s-maj=46.5km s-min=10.2km az=180.0*

ISC 04 01:44:10.0±5.2**,50.5N**±0.3×**179.7E**±0.1**,h16**^{km}±33^{km}**,n13, σ1**^{s}**.02**/14**,mb3.7**/6**,Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIWB	Kanaga Island	2.43	55	eP	Pn	01 44 49.4	-0.4
FX1	Attu Island--F	4.69	303	Pn	Pn	01 45 21.1	-0.8
	22nm,0.3s,baz=232,slow=4.8,SNR=39						
FX1				Sn	Sn	01 46 17.7	+1.1
	10nm,0.3s,baz=263,slow=23,SNR=3.9						
FX1	Attu Island--F	4.69	303	eP	Pn	01 45 20.6	-1.2
UNV	Unalaska Valle	9.15	63	eP	P	01 46 25.5	+1.1
ILAR	Eielson Array	22.55	38	P	P	01 49 10.3	+0.2
	0.5nm,0.8s,mb3.0,baz=234,slow=7.8,SNR=4.3						
YKA	Yellowknife Ar	36.55	45	P	P	01 51 14.9	-1.5
	0.2nm,0.3s,mb3.4,baz=284,slow=7.3,SNR=5.1						
ULN	Ulaanbaatar	45.77	296	P	P	01 52 32.1	0.0
SONM	Songino Array	46.16	297	P	P	01 52 35.6	+0.4
	0.3nm,0.5s,mb3.5,baz=69,slow=6.4,SNR=4.4						
BW06	Boulder Array	47.52	71	P	P	01 52 45.9	-0.1
	1.0nm,0.6s,mb4.0						
PDAR	Pinedale Array	47.52	71	P	P	01 52 47.9	+1.8
	1.1nm,0.6s,mb4.1,baz=309,slow=3.3,SNR=12						
WMOK	Wichita Mounta	59.10	72	P	P	01 54 11.9	+0.1
NOA	NORSAR Array B	68.43	354	P	P	01 55 10.6	-1.9
	2.4nm,1.1s,mb4.1,baz=11,slow=6.2,SNR=2.5						
NOA	NORSAR Array B	68.43	354	P	P	01 55 10.6	-1.9

*IDC **04** 02:10:35.1±0.9,3.38S×135.62E,mb4.1/6,mb1 4.4/10, mb1mx4.3/15,ML4.0/4,Error ellipse: s-maj=47.9km s-min=18.5km az=79.0*

*NEIC **04** 02:10:37.1±0.6,3.39S×135.30E,h10^{km},mb4.0/6,Error ellipse: s-maj=15.7km s-min=9.9km az=79.0*

ISC 04 02:10:37.4±2.7**,3.59S**±0.05×**135.1E**±0.1**,h29**^{km}±20^{km}**, n23,σ1**^{s}**.35**/30**,mb4.0**/6**,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.45	197	eP	P	02 12 56.2	+1.5
	21nm,0.5s						
KAKA				eS	Sn	02 14 39.3	-1.7
PMG	Port Moresby	13.26	116	Pn	P	02 13 45.7	-0.7
	1.1nm,0.3s,baz=290,slow=9.2,SNR=12						
PMG	Port Moresby	13.26	116	eP	P	02 13 46.5	+0.1
WRAB	Tennant Creek	16.26	183	eP	P	02 14 24.5	-1.0
	6.1nm,0.6s						
WB2	Warramunga Arr	16.27	183	eP	P	02 14 24.4	-1.3
WB2				i		02 14 31.5	
WB2				eS	S	02 17 19.7	-5.1
WRA	Warramunga Arr	16.27	183	Pn	P	02 14 24.8	-0.9
	0.5nm,0.3s,baz=2.5,slow=13,SNR=14						
WRA				Sn	S	02 17 18.6	-6.2
	0.7nm,0.3s,baz=7.2,slow=22,SNR=6.5						
FITZ	Fitzroy Crossi	17.16	212	eP	P	02 14 40.2	+3.2
	5.1nm,0.6s						
FITZ				eS	S	02 17 41.4	-3.9
FITZ	Fitzroy Crossi	17.16	212	P	P	02 14 40.6	+3.6
	0.3nm,0.3s,baz=22,slow=11,SNR=11						
FITZ				S	S	02 17 43.5	-1.8
	0.6nm,0.3s,baz=160,slow=9.4,SNR=4.2						
CTA	Charters Tower	19.65	147	eP	P	02 15 07.3	+0.3
	6.9nm,0.9s						
CTA	Charters Tower	19.65	147	P	P	02 15 06.8	-0.3
	1.1nm,0.3s,baz=333,slow=11,SNR=12						
CTAO	Charters Tower	19.65	147	eP	P	02 15 06.2	-0.9
	13nm,0.8s						
ASAR	Alice Springs	19.99	183	P	P	02 15 13.1	+2.4
	26nm,0.6s,baz=8.7,slow=12,SNR=117						
ASAR				S	S	02 18 50.1	+1.6
	1.8nm,0.8s,baz=5.3,slow=28,SNR=4.9						
ASPA	Alice Springs	19.99	183	eP	P	02 15 13.1	+2.4
ASPA				eS	S	02 18 48.6	0.0
MBWA	Marble Bar	23.01	219	eP	P	02 15 45.9	+4.7
STKA	Stephens Creek	28.78	169	eP	P	02 16 35.3	+0.2
	2.1nm,0.7s,mb4.0						
STKA	Stephens Creek	28.78	169	P	P	02 16 34.9	-0.2
	2.7nm,0.7s,mb4.1,baz=331,slow=10.0,SNR=8.5						
ULN	Ulaanbaatar	56.85	338	P	P	02 20 20.1	-1.8
SONM	Songino Array	57.07	337	P	P	02 20 24.4	+1.0
	0.3nm,0.5s,mb3.6,baz=162,slow=7.0,SNR=3.8						
ZAL	Zalesovo	70.95	331	P	P	02 21 54.7	+0.6
	1.4nm,0.9s,mb3.9,baz=12,slow=7.8,SNR=7.3						
ZAL	Zalesovo	70.95	331	P	P	02 21 54.7	+0.6
KURK	Kurchatov	72.43	326	eP	P	02 22 02.5	-0.5
	2.9nm,0.8s,mb4.3						
BVAR	Borovoye Array	78.02	326	P	P	02 22 36.0	+1.1
	1.4nm,0.7s,mb4.0,baz=121,slow=8.6,SNR=7.8						
ILAR	Eielson Array	88.11	25	P	P	02 23 24.6	-1.7

0.9nm,0.5s,mb4.3,baz=263,slow=4.4,SNR=20

PDG **04** 02:16:07.8±0.1, 42.74N×15.06E, h11^{km}±2^{km}

IDC **04** 02:16:09.6±0.8, 43.16N×15.33E, mb4.1/9, mb1 4.2/21, mb1mx4.1/30, ML3.9/10, MS3.1/2, Ms1 3.2/2, ms1mx2.7/32, Error ellipse: s-maj=16.4km s-min=11.2km az=73.0

MOS **04** 02:16:09.1±0.7, 43.13N×15.30E, h9^{km}, mb4.4/4, Error ellipse: s-maj=13.2km s-min=4.7km az=90.7

PRU **04** 02:16:09.7, 43.06N×15.62E

CSEM **04** 02:16:10.2±0.0, 43.13N×15.52E, h10^{km}, mb4.2/1, ML4.1/11, Error ellipse: s-maj=1.0km s-min=0.9km az=37.0

ROM **04** 02:16:11.3±0.2, 43.08N×15.46E, h10^{km}, MD3.7/43, ML3.8, Error ellipse: s-maj=2.5km s-min=1.7km az=90.0

LDG **04** 02:16:11.4±0.1, 43.19N×15.48E, h10^{km}, Ml4.1/18, Error ellipse: s-maj=3.6km s-min=2.7km az=81.0

ZUR_RM **04** 02:16:11, 43.08N×15.46E, h6^{km}, Mw3.8/20, Moment Tensor Solution. s20 Moment tensor: Scale 10^{14}Nm; M_{rr}4.03; $M_{\theta\theta}$-5.50; $M_{\phi\phi}$1.46; $M_{r\theta}$1.44; $M_{\theta\phi}$1.57; $M_{\phi r}$-2.00; Best double couple: $M_0$5.66×10^{14} NP1:ϕ_s125°,δ60°,λ119°. NP2:ϕ_s257°,δ41°,λ50°. Principal axes: T 5.155, Plg62°, Azm84°; N 1.019, Plg25°, Azm289°; P -6.174, Plg10°, Azm194°;

NEIC **04** 02:16:11.3, 43.08N×15.46E, h10^{km}, mb4.5/2, ML4.4(PDG), ML4.1(LDG), ML3.8(ROM), After ROM.

STR **04** 02:16:18.4±0.2, 43.47N×14.84E, h10^{km}±1^{km}, Ml4.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0

ISC 04 02:16:09.6±0.1**, 43.15N**±0.01×**15.39E**±0.01**, h10^{km}, n354, σ1^{s}41**/456**, mb4.2**/11**, MS3.2**/1**, 24C-13D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TERO	Teramo	1.41	249	⇓iPN	Pn	02 16 36.7	+1.2
TERO	Teramo	1.41	249	⇓iPn	Pn	02 16 36.7	+1.2
NVLJ	Novalja	1.46	345	i Pn	Pn	02 16 36.8	+0.7
NVLJ				i Sg	Sg	02 16 58.5	+0.2
NVLJ	Novalja	1.46	345	i Pn	Pn	02 16 36.8	+0.7
NVLJ				i Sg	Sg	02 16 58.4	+0.1
RGNG	Rignano Grg	1.48	174	ePN	Pn	02 16 36.3	-0.2
RGNG	Rignano Grg	1.48	174	ePn	Pn	02 16 36.3	-0.2
FGMS	Monte Sant'Ang	1.50	164	ePN	Pn	02 16 36.7	-0.1
FGMS	Monte Sant'Ang	1.50	164	ePn	Pn	02 16 36.7	-0.1
INTR	Introdacqua	1.58	224	⇓iPN	Pn	02 16 38.3	+0.4
INTR	Introdacqua	1.58	224	⇓iPn	Pn	02 16 38.3	+0.5
CING	Cingoli	1.62	279	ePN	Pn	02 16 39.9	+1.5
CING	Cingoli	1.62	279	ePn	Pn	02 16 39.9	+1.5
CII	Carovilli	1.64	210	ePN	Pn	02 16 39.2	+0.5
	791nm,0.7s						
CII	Carovilli	1.64	210	eP	Pn	02 16 39.0	+0.3
CII	Carovilli	1.64	210	eP	Pn	02 16 39.0	+0.3
CII	Carovilli	1.64	210	ePn	Pn	02 16 39.2	+0.5
	791nm,0.7s						
AQU	L'Aquila	1.67	242	ePN	Pn	02 16 40.3	+1.2
AQU	L'Aquila	1.67	242	eP	Pn	02 16 39.7	+0.7
AQU	L'Aquila	1.67	242	eP	Pn	02 16 39.7	+0.6
AQU	L'Aquila	1.67	242	ePn	Pn	02 16 40.3	+1.2
STON	Ston	1.72	99	i Pn	Pn	02 16 40.5	+0.7
STON				i Sg	Sg	02 17 03.6	-3.3
STON	Ston	1.72	99	i Pn	Pn	02 16 40.5	+0.6
STON				i Sg	Sg	02 17 03.6	-3.3
SNTG	Esanatoglia	1.79	274	ePN	Pn	02 16 42.3	+1.4
	500nm,0.4s						
SNTG	Esanatoglia	1.79	274	ePn	Pn	02 16 42.3	+1.4
SNTG	Esanatoglia	1.79	274	ePn	Pn	02 16 42.3	+1.4
	500nm,0.4s						
ARV	Arcevia	1.82	282	⇓iPN	Pn	02 16 42.7	+1.4
ARV	Arcevia	1.82	282	⇓iPn	Pn	02 16 42.7	+1.4
PTQR	Pietraquaria	1.85	233	ePN	Pn	02 16 42.6	+0.9
	253nm,0.6s						
PTQR	Pietraquaria	1.85	233	ePn	Pn	02 16 42.6	+0.9
PTQR	Pietraquaria	1.85	233	ePn	Pn	02 16 42.6	+0.9
	253nm,0.6s						
SDI	San Donato	1.85	220	ePN	Pn	02 16 42.0	+0.2
	740nm,0.7s						
SDI	San Donato	1.85	220	ePn	Pn	02 16 42.0	+0.2
	740nm,0.7s						
FG5	Orsara di Pugl	1.87	183	ePN	Pn	02 16 42.0	0.0
FG5	Orsara di Pugl	1.87	183	ePn	Pn	02 16 42.0	0.0
SGG	Gregorio Mates	1.92	203	ePN	Pn	02 16 42.7	0.0
SGG	Gregorio Mates	1.92	203	ePn	Pn	02 16 42.7	0.0
IPES	Pescosannita	1.96	192	ePN	Pn	02 16 43.3	0.0
FSSB	Fossombrone	1.98	287	ePN	Pn	02 16 45.1	+1.6
	394nm,0.7s						
FSSB	Fossombrone	1.98	287	ePn	Pn	02 16 45.1	+1.5
FSSB	Fossombrone	1.98	287	ePn	Pn	02 16 45.1	+1.6
	394nm,0.7s						
FG4	Candela	2.02	177	ePN	Pn	02 16 43.9	-0.3
	148nm,0.4s						
FG4	Candela	2.02	177	ePn	Pn	02 16 43.9	-0.3
FG4	Candela	2.02	177	ePn	Pn	02 16 43.9	-0.3
	148nm,0.4s						
MRB1	Monte Rocchett	2.05	189	ePN	Pn	02 16 44.7	+0.1
BLY	Banja Luka	2.06	39	Pn	Pn	02 16 47.3	+2.6
BLY				Sg	Sg	02 17 16.6	-1.6
MURB	Monte Urbino	2.10	274	⇓iPN	Pn	02 16 47.0	+1.8
MURB	Monte Urbino	2.10	274	⇓iPn	Pn	02 16 47.0	+1.8
RFI	Roccamonfina	2.12	210	ePN	Pn	02 16 46.3	+0.7
RFI	Roccamonfina	2.12	210	ePn	Pn	02 16 46.3	+0.7
MNS	Montasola	2.13	250	ePN	Pn	02 16 47.1	+1.3
	243nm,0.5s						
MNS	Montasola	2.13	250	ePn	Pn	02 16 47.1	+1.3
MNS	Montasola	2.13	250	ePn	Pn	02 16 47.1	+1.3
	243nm,0.5s						
CERT	Cerreto	2.15	237	ePN	Pn	02 16 46.7	+0.7
CERT	Cerreto	2.15	237	ePn	Pn	02 16 46.7	+0.8
TREB	Trebinje	2.22	100	ePn	Pn	02 16 47.7	+0.7
TREB				Sg	Sg	02 17 19.7	-3.9
MSC	Monte Massico	2.22	209	ePN	Pn	02 16 48.6	+1.5
MSC	Monte Massico	2.22	209	ePn	Pn	02 16 48.6	+1.6
RSM	Repubblica di	2.27	291	ePN	Pn	02 16 49.7	+1.9
RSM	Repubblica di	2.27	291	ePn	Pn	02 16 49.7	+1.9
BRY	Bratogost	2.33	95	⇑iPn	Pn	02 16 50.0	+1.4
BRY				eSn	Sn	02 17 23.2	+5.7
BOJS	Bojanci	2.35	358	i Pn	Pn	02 16 51.3	+2.4
HCY	Herceg Novi	2.40	106	⇑iPn	Pn	02 16 50.3	+0.7
HCY				eSn	Sn	02 17 23.1	+3.9
SISC	Sisak	2.42	17	i Pn	Pn	02 16 52.2	+2.3
SISC				i Sg	Sg	02 17 27.6	-2.8
SISC	Sisak	2.42	17	i Pn	Pn	02 16 52.2	+2.3
SISC				i Sg	Sg	02 17 27.5	-2.8
KNDS	Knezji Dol	2.48	343	i Pn	Pn	02 16 52.8	+2.0
CRE	Caprese Michel	2.55	282	ePN	Pn	02 16 53.9	+2.2
	138nm,0.4s						
CRE	Caprese Michel	2.55	282	ePn	Pn	02 16 53.9	+2.2
CRE	Caprese Michel	2.55	282	ePn	Pn	02 16 53.9	+2.2
	138nm,0.4s						
UPM	Unac-Piva	2.58	88	⇑iPn	Pn	02 16 54.6	+2.4
UPM				eSn	Sn	02 17 30.7	+6.8
SGO	Sicignano	2.59	181	ePN	Pn	02 16 51.5	-0.8
	95nm,0.6s						
SGO	Sicignano	2.59	181	ePn	Pn	02 16 51.5	-0.8
SGO	Sicignano	2.59	181	ePn	Pn	02 16 51.5	-0.8
	95nm,0.6s						
CEY	Cerknica	2.68	345	i Pn	Pn	02 16 55.3	+1.8
VISS	Visnje	2.68	352	i Pn	Pn	02 16 55.6	+2.0
SFI	Santa Sofia	2.68	287	ePN	Pn	02 16 55.5	+1.9
	265nm,0.8s						
SFI	Santa Sofia	2.68	287	ePn	Pn	02 16 55.5	+1.9
SFI	Santa Sofia	2.68	287	ePn	Pn	02 16 55.5	+1.9
	265nm,0.8s						
GCIS	Gornji Cirnik	2.72	4	i Pn	Pn	02 16 56.2	+2.0
BUM	Brajici-Budva	2.72	107	⇑iPn	Pn	02 16 54.8	+0.5
BUM				eSn	Sn	02 17 31.1	+3.5
PGD	Poggio Sodo	2.76	286	ePN	Pn	02 16 57.3	+2.5
	145nm,0.6s						
PGD	Poggio Sodo	2.76	286	ePn	Pn	02 16 57.3	+2.6
PGD	Poggio Sodo	2.76	286	ePn	Pn	02 16 57.3	+2.5
	145nm,0.6s						
LTRZ	Laterza	2.76	157	ePN	Pn	02 16 53.8	-1.0
	225nm,0.7s						
LTRZ	Laterza	2.76	157	ePn	Pn	02 16 53.8	-1.0
LTRZ	Laterza	2.76	157	ePn	Pn	02 16 53.8	-1.0
	225nm,0.7s						
SLCN	Sala Consilina	2.77	176	ePN	Pn	02 16 53.7	-1.1
	91nm,0.6s						
SLCN	Sala Consilina	2.77	176	ePn	Pn	02 16 53.7	-1.2
SLCN	Sala Consilina	2.77	176	ePn	Pn	02 16 53.7	-1.1
	91nm,0.6s						
TRI	Trieste	2.81	336	ePN	Pn	02 16 56.9	+1.5
	330nm,0.5s						
TRI	Trieste	2.81	336	ePn	Pn	02 16 56.9	+1.5
TRI	Trieste	2.81	336	ePn	Pn	02 16 56.9	+1.5
	330nm,0.5s						
VMG	Vicchio	2.91	287	ePn	Pn	02 16 59.5	+2.6
VMG	Vicchio	2.91	287	ePn	Pn	02 16 59.5	+2.6
PLE	Pljevlja	2.93	85	⇑iPn	Pn	02 16 59.5	+2.3
PLE				eSn	Sn	02 17 39.5	+6.6
TTG	Podgorica	2.94	103	⇑iPn	Pn	02 16 58.0	+0.6
TTG				eSn	Sn	02 17 36.5	+3.5
LJU	Ljubljana	2.96	348	ePn	Pn	02 17 00.0	+2.5
LJU				eSn	Sn	02 17 36.1	+2.7
CSNT	Castellina Chi	3.01	278	ePN	Pn	02 16 59.2	+1.0
CSNT	Castellina Chi	3.01	278	ePn	Pn	02 16 59.2	+1.0
MGR	Morigerati	3.02	178	ePN	Pn	02 16 57.8	-0.6
	50nm,0.6s						
MGR	Morigerati	3.02	178	ePn	Pn	02 16 57.8	-0.6
MGR	Morigerati	3.02	178	ePn	Pn	02 16 57.8	-0.6
	50nm,0.6s						
SEI	Scarperia	3.06	288	ePn	Pn	02 17 01.5	+2.4
SEI	Scarperia	3.06	288	ePn	Pn	02 17 01.5	+2.5
VOY	Vojsko	3.07	340	ePn	Pn	02 17 00.7	+1.5
VOY				eSn	Sn	02 17 41.2	+4.9
ULC	Ulcinj	3.09	111	⇑iPn	Pn	02 16 59.3	-0.2
ULC				eSn	Sn	02 17 38.6	+1.7
NVSS	Nova Varos 2	3.17	82	⇓iPn	Pn	02 17 03.0	+2.5
NVSS				Sn	Sn	02 17 40.6	+1.8
NVSS	Nova Varos 2	3.17	82	Sn	Sn	02 17 40.6	+1.8
NVSS	Nova Varos 2	3.17	82	Pn	Pn	02 17 03.0	+2.5
ORI	Oriolo Calabro	3.19	165	ePn	Pn	02 17 00.8	0.0
ORI	Oriolo Calabro	3.19	165	ePn	Pn	02 17 00.8	0.0
GRFL	Gerfalco	3.23	271	ePn	Pn	02 17 02.1	+0.8
GRFL	Gerfalco	3.23	271	ePn	Pn	02 17 02.1	+0.7
FNVD	Fontana Vidola	3.26	290	ePn	Pn	02 17 04.4	+2.6
FNVD	Fontana Vidola	3.26	290	ePn	Pn	02 17 04.4	+2.6
IVA	Berane	3.32	93	⇑iPn	Pn	02 17 04.5	+1.8
IVA				eSn	Sn	02 17 47.5	+4.9
OBKA	Obir	3.41	350	⇑iPN	Pn	02 17 05.9	+1.9
OBKA				i SN	Sn	02 17 48.1	+3.2
OBKA				i SG	Sg	02 18 04.7	+1.6
	446nm,0.5s						
ZCCA	Zocca	3.41	292	ePn	Pn	02 17 06.8	+2.8
ZCCA	Zocca	3.41	292	ePn	Pn	02 17 06.8	+2.8
DIVS	Divcibare	3.48	73	⇑iPn	Pn	02 17 04.3	-0.6
DIVS				Sn	Sn	02 17 42.9	-3.7
DIVS	Divcibare	3.48	73	Pn	Pn	02 17 04.3	-0.6
DIVS				Sn	Sn	02 17 42.9	-3.7
RHK1	Bakonya	3.51	32	⇑eP	Pn	02 17 05.8	+0.4
RHK1				eS	Sn	02 17 48.3	+0.8
	17nm,0.4s						
PTCC	Patocco-Chiusa	3.56	337	ePn	Pn	02 17 07.2	+1.0
PTCC	Patocco-Chiusa	3.56	337	ePn	Pn	02 17 07.2	+1.1
PII	Pisa	3.59	281	ePn	Pn	02 17 07.2	+0.8
PII	Pisa	3.59	281	ePn	Pn	02 17 07.2	+0.7
BDI	Bagni Di Lucca	3.59	286	ePn	Pn	02 17 07.1	+0.5
BDI	Bagni Di Lucca	3.59	286	ePn	Pn	02 17 07.1	+0.5
GSCL	Gusciola	3.68	291	ePn	Pn	02 17 10.0	+2.2
GSCL	Gusciola	3.68	291	ePn	Pn	02 17 10.0	+2.2
QSH	Qafa e Shtames	3.73	114	i Sn	Sn	02 17 51.0	-1.9
VLC	Villacollemand	3.77	287	eP	Pn	02 17 09.7	+0.6
VLC	Villacollemand	3.77	287	eP	Pn	02 17 09.7	+0.7
ERBM	Eremo	3.82	291	ePn	Pn	02 17 12.0	+2.3
ERBM	Eremo	3.82	291	ePn	Pn	02 17 12.0	+2.2
PKSM	Moragy	3.84	36	⇓eP	Pn	02 17 10.3	+0.2
FVI	Forni Avoltri	3.91	333	ePn	Pn	02 17 11.9	+0.8
FVI	Forni Avoltri	3.91	333	ePn	Pn	02 17 11.9	+0.8
CTI	Castel Tesino	3.94	319	ePN	Pn	02 17 11.9	+0.4
CTI	Castel Tesino	3.94	319	ePn	Pn	02 17 11.9	+0.4
GRUS	Gruza	3.94	77	⇑iPn	Pn	02 17 12.6	+1.0
GRUS				Sn	Sn	02 17 57.9	-0.5
BACM		4.01	288	P	Pn	02 17 14.1	+1.5
BACM				S	Sn	02 18 01.0	+0.8
BACM		4.01	288	P	Pn	02 17 14.1	+1.5
BACM				S	Sn	02 18 01.0	+0.8
BEO	Belgrade	4.02	64	⇑iPn	Pg	02 17 38.7	+8.8
BEO				Sg	Sg	02 18 21.5	-2.0
GRAM		4.08	291	P	Pn	02 17 15.3	+1.8
GRAM				S	Sn	02 18 03.9	+2.1
GRAM		4.08	291	P	Pn	02 17 15.3	+1.9
GRAM				S	Sn	02 18 03.9	+2.1
ARSA	Arzberg	4.10	1	⇓iPN	Pn	02 17 14.5	+0.7
ARSA				i SN	Sn	02 18 04.1	+1.7
ARSA	Arzberg	4.10	1	i Sn	Sn	02 18 04.1	+1.7
TIP	Timpagrande	4.10	165	eP	Pn	02 17 13.2	-0.6
TIP	Timpagrande	4.10	165	eP	Pn	02 17 13.2	-0.6
KBA	Koelnbreinsper	4.18	341	⇑iPN	Pn	02 17 16.5	+1.5
KBA				i SN	Sn	02 18 08.0	+3.5
KBA	Koelnbreinsper	4.18	341	⇑iPn	Pn	02 17 16.5	+1.5
KBA				eSn	Sn	02 18 06.8	+2.3
CODM		4.20	289	P	Pn	02 17 16.9	+1.7
SAL	Salo	4.26	307	ePn	Pn	02 17 16.3	+0.2
SAL	Salo	4.26	307	ePn	Pn	02 17 16.3	+0.2
SVIS	Svilajnac	4.38	73	ePn	Pn	02 17 17.4	-0.4
SVIS				Sn	Sn	02 18 07.0	-2.6
GRI	Girifalco	4.40	169	ePn	Pn	02 17 17.9	-0.1
GRI	Girifalco	4.40	169	ePn	Pn	02 17 17.9	-0.1
MABI	Malga Bissina	4.53	312	ePn	Pn	02 17 20.0	+0.1
MABI	Malga Bissina	4.53	312	ePn	Pn	02 17 20.0	+0.1
BOB	Bobbio (Coli)	4.58	293	ePn	Pn	02 17 21.7	+1.1
SOP	Sopron	4.61	10	⇓iPn	Pn	02 17 21.8	+0.8
SOP				eSn	Sn	02 18 14.6	-0.6
SKO	Skopje	4.62	103	i Pn	Pn	02 17 22.5	+1.3
SKO				i		02 17 33.5	
SKO				eSn	Sg	02 18 44.0	+0.4
SKO				Lg		02 18 57.5	
	comp=Z,0.1nm,0.9s						
PGF	Pioggiola	4.73	265	ePn	Pn	02 17 23.7	+0.9
PGF				eSn	Sn	02 18 12.8	-5.6
	comp=Z,78nm,1.0s						
PKSG		4.74	26	⇑eP	Pn	02 17 23.2	+0.3
MOA	Molln	4.76	351	⇓iPN	Pn	02 17 24.5	+1.3
MOA				i SN	Sn	02 18 21.9	+2.7
MOA	Molln	4.76	351	eSn	Sn	02 18 20.1	+0.9
BOLS	Boljevac	4.83	80	⇑iPn	Pn	02 17 24.1	0.0
BOLS				Sn	Sn	02 18 28.9	+8.0
BRMO	Bormio	4.87	315	ePn	Pn	02 17 25.6	+0.9
BRMO	Bormio	4.87	315	ePn	Pn	02 17 25.6	+0.8
WTTA	Wattenberg	4.89	329	⇑iPN	Pn	02 17 26.4	+1.4
WTTA				i SN	Sn	02 18 24.9	+2.5
BIA	Bitola	4.91	114	i Pn	Pn	02 17 26.6	+1.4
BIA				i		02 17 32.8	
BIA				i Sn	Sn	02 18 22.8	0.0
RMOA	Moar Alm	4.94	340	⇑iPn	Pn	02 17 27.3	+1.6
WATA	Walderalm	4.97	329	⇑iPN	Pn	02 17 28.2	+2.0
WATA				i SN	Sn	02 18 26.5	+2.0
SQTA	Sankt Quirin	5.03	325	⇑iPN	Pn	02 17 28.5	+1.6
SQTA				i SN	Sn	02 18 29.1	+3.3
FNA	Florina	5.05	116	eP	Pn	02 17 26.7	-0.6
FNA	Florina	5.05	116	P	Pn	02 17 26.7	-0.6
FNA				S	Sn	02 18 22.6	-3.9
FNA	Florina	5.05	116	P	Pn	02 17 26.7	-0.6
FNA				S	Sn	02 18 22.6	-3.9
SRO	Srobarova	5.09	23	ePN	Pn	02 17 28.8	+0.9
SOI	Samo	5.10	174	ePn	Pn	02 17 28.1	+0.2
SOI	Samo	5.10	174	ePn	Pn	02 17 28.1	+0.1
PCP	Pian Castagno	5.14	288	P	Pn	02 17 28.2	-0.3
PCP	Pian Castagno	5.14	288	P	Pn	02 17 28.2	-0.3
MOTA	Moosalm	5.17	326	⇑iPN	Pn	02 17 30.2	+1.3
MOTA				i SN	Sn	02 18 32.4	+3.0
ZST	Bratislava	5.19	13	i PN	Pn	02 17 30.0	+0.8
ZST				eSN	Sn	02 18 27.6	-2.2
IGT	Igoumenitsa	5.19	133	eP	Pn	02 17 28.2	-1.0
IGT	Igoumenitsa	5.19	133	P	Pn	02 17 28.2	-1.0
IGT				S	Sn	02 18 23.8	-6.1
IGT	Igoumenitsa	5.19	133	S	Sn	02 18 23.8	-6.1
FIN	Finale Ligure	5.31	284	P	Pn	02 17 30.1	-0.8
FIN	Finale Ligure	5.31	284	P	Pn	02 17 30.1	-0.8
DAVOX	Davos	5.33	315	Pn	Pn	02 17 32.8	+1.6
	comp=Z,3.7nm,0.3s,baz=141,slow=15,SNR=34						
DAVOX				Sn	Sn	02 18 36.8	+3.3
	comp=Z,2.5nm,0.3s,baz=352,slow=22,SNR=6.5						
DAVOS	Davos	5.41	315	P	Pn	02 17 32.8	+0.4
DAVOS				S	Sn	02 18 36.8	+1.3
VAI	Varese	5.46	302	ePn	Pn	02 17 32.0	-1.0
IMI	Imperia	5.50	280	P	Pn	02 17 33.1	-0.5
IMI	Imperia	5.50	280	P	Pn	02 17 33.1	-0.5
ROB	Roburent	5.56	284	P	Pn	02 17 33.6	-0.9
ROB	Roburent	5.56	284	P	Pn	02 17 33.6	-0.9
MONE	Monesi	5.62	282	P	Pn	02 17 34.8	-0.4
MONE	Monesi	5.62	282	P	Pn	02 17 34.8	-0.5
GRG	Griva	5.66	110	eP	Pn	02 17 34.9	-1.0
GRG	Griva	5.66	110	P	Pn	02 17 34.9	-1.0
GRG				S	Sn	02 18 37.5	-4.3
GRG	Griva	5.66	110	S	Sn	02 18 37.5	-4.3
DAVA	Damuels	5.67	319	⇑iPN	Pn	02 17 37.3	+1.2
DAVA				i SN	Sn	02 18 43.6	+1.5
VAE	Valguarnera	5.72	188	Pn	Pn	02 17 39.7	+3.1
	comp=Z,0.5nm,0.3s,baz=280,slow=16,SNR=3.6						
VAE				LR	LR	02 19 44.4	
	comp=Z,106nm,18.1s,baz=298,slow=37						
VAE	Valguarnera	5.72	188	Pn	Pn	02 17 39.8	+3.1
VAE				LR	LR	02 19 44.4	
PSZ	Piszkesteto	5.72	32	⇑ePn	Pn	02 17 36.8	+0.1
PSZ				eSn	Sn	02 18 41.8	-1.4
PSZ	Piszkesteto	5.72	32	eP	Pn	02 17 36.0	-0.7
SAOF	Saorge	5.75	281	P	Pn	02 17 37.0	-0.1
VTS	Vitosha	5.78	93	i P	Pn	02 17 37.0	-0.5
FUR	Furstenfeldbru	5.78	332	ePn	Pn	02 17 38.3	+0.7
GEC2	GERESS Array S	5.81	349	ePn	Pn	02 17 38.2	+0.2
GEC2				eSn	Sn	02 18 45.1	-0.4
GERES	GERESS Array B	5.81	349	Pn	Pn	02 17 38.0	-0.1
	comp=Z,6.4nm,0.3s,baz=167,slow=13,SNR=146						
GERES				Sn	Sn	02 18 43.9	-1.7
	comp=Z,5.8nm,0.3s,baz=161,slow=24,SNR=12						
GERES	GERESS Array B	5.81	349	P	Pn	02 17 38.0	0.0
GERES						02 18 43.9	
GERES				pmax	pmax		
	comp=Z,6.0nm,0.3s						
KOLL	Kolacno	5.82	20	i PN	Pn	02 17 38.0	-0.1
KOLL				eSN	Sn	02 18 43.5	-2.2
SBF	Sospel	5.83	280	ePn	Pn	02 17 37.8	-0.4
SBF				eSn	Sn	02 18 38.3	-7.6
	comp=Z,66nm,0.7s						
KKB	Krupnik	5.83	100	i P	Pn	02 17 39.0	+0.7
AUTN	L'Aution	5.84	281	P	Pn	02 17 38.7	+0.3
AUTN				S	Sn	02 18 46.0	-0.3
ORO	Oropa	5.85	298	ePn	Pn	02 17 36.3	-2.3
ORO	Oropa	5.85	298	ePn	Pn	02 17 36.3	-2.3
ORX	Oropa	5.86	298	P	Pn	02 17 36.1	-2.6
ORX				S	Sn	02 18 31.5	-15
VYHS	Vyhne	5.86	23	i PN	Pn	02 17 38.7	0.0
VYHS				eSN	Sn	02 18 44.7	-2.0
REVF	Revere	5.87	278	P	Pn	02 17 39.1	+0.3
ENR	Entracque	5.88	283	P	Pn	02 17 38.4	-0.5
ENR	Entracque	5.88	283	P	Pn	02 17 38.4	-0.5
AURF	Auriere	5.91	280	P	Pn	02 17 40.2	+0.9
AURF				S	Sn	02 18 47.7	-0.2
KNT	Kendrikon	5.93	107	eP	Pn	02 17 38.4	-1.2
STV2	Anna di Valdie	5.95	283	P	Pn	02 17 39.4	-0.5
STV2	Anna di Valdie	5.95	283	P	Pn	02 17 39.4	-0.5
STV	Sta Anna Valdi	5.95	283	P	Pn	02 17 39.2	-0.6
STV				S	Sn	02 18 34.5	-14
STV	Sta Anna Valdi	5.95	283	P	Pn	02 17 39.2	-0.7
TOUF	Mont Tournerai	5.97	281	P	Pn	02 17 39.0	-1.3
TOUF				S	Sn	02 18 48.6	-1.0
DOI	San Damiano	6.04	286	ePn	Pn	02 17 40.1	-1.1
BHB	Bricherasio	6.10	289	P	Pn	02 17 39.9	-2.2
BHB	Bricherasio	6.10	289	P	Pn	02 17 39.9	-2.1
KHC	Kasperske Hory	6.11	349	ePn	Pn	02 17 41.8	-0.4
KHC				e		02 17 48.5	
KHC				e		02 18 16.0	
KHC				e		02 18 31.5	
KHC				eSn	Sn	02 18 50.8	-2.2
KHC	Kasperske Hory	6.11	349	ePN	Pn	02 17 41.8	-0.4
KHC				x	x	02 17 48.5	
KHC				x	x	02 18 16.0	
KHC				x	x	02 18 31.5	
KHC				eSN	Sn	02 18 50.8	-2.2
KHC	Kasperske Hory	6.11	349	ePn	Pn	02 17 41.8	-0.4
KHC				eSn	Sn	02 18 50.8	-2.2
LIT	Litokhoron	6.13	117	eP	Pn	02 17 41.1	-1.4
LIT	Litokhoron	6.13	117	P	Pn	02 17 41.1	-1.4
LIT				S	Sn	02 18 48.8	-4.7
LIT	Litokhoron	6.13	117	P	Pn	02 17 41.2	-1.3
LIT				S	Sn	02 18 48.8	-4.8
PZZ	Prazzo	6.14	286	P	Pn	02 17 41.1	-1.6
RSP	Reno Superiore	6.18	292	P	Pn	02 17 39.7	-3.5
VRAC	Vranov	6.21	7	Pn	Pn	02 17 43.9	+0.2
	comp=Z,1.9nm,0.3s,baz=192,slow=13,SNR=12						
VRAC				Sn	Sn	02 18 54.7	-0.9
	comp=Z,1.6nm,0.3s,baz=110,slow=17,SNR=3.1						
VRAC	Vranov	6.21	7	P	Pn	02 17 43.9	+0.2
VRAC						02 18 54.7	
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.3s						
FENE	Fenestrelle	6.28	290	P	Pn	02 17 42.0	-2.6
LSD	Ceresole Reale	6.34	294	P	Pn	02 17 42.5	-3.0
SURF	Saint Ours	6.34	285	P	Pn	02 17 45.1	-0.4
MMB	Musomiste	6.37	101	i P	Pn	02 17 45.0	-0.9
SOH	Sokhos	6.38	109	eP	Pn	02 17 45.0	-1.0
FRF	La Foret Royal	6.38	277	ePn	Pn	02 17 43.3	-2.8
FRF				eSn	Sn	02 18 51.5	-8.3
	comp=Z,21nm,0.7s						
MBDF	Montbardon	6.42	287	ePn	Pn	02 17 44.8	-1.7
MBDF				eSn	Sn	02 18 51.6	-9.0
	comp=Z,25nm,0.6s						
SRS	Serrai	6.43	106	eP	Pn	02 17 45.9	-0.9
RRL	Cesana Torines	6.45	289	P	Pn	02 17 45.1	-1.8
RRL	Cesana Torines	6.45	289	P	Pn	02 17 45.1	-1.9
LMR	La Mourre	6.49	275	ePn	Pn	02 17 46.0	-1.5
BNI	Bardonecchia	6.55	290	eP	Pn	02 17 46.8	-1.7
BNI	Bardonecchia	6.55	290	eP	Pn	02 17 46.8	-1.6
LPG	La Plagne	6.62	294	ePn	Pn	02 17 47.0	-2.4
LPG				eSn	Sn	02 18 56.3	-9.5
	comp=Z,46nm,0.6s						
LPL	La Plagne	6.64	294	ePn	Pn	02 17 48.1	-1.6
LPL				eSn	Sn	02 18 57.0	-9.2
	comp=Z,69nm,0.7s						
AGG	Agios Georgios	6.67	126	eP	Pn	02 17 48.3	-1.8
AGG	Agios Georgios	6.67	126	P	Pn	02 17 48.3	-1.8
AGG				S	Sn	02 19 02.6	-4.4
AGG	Agios Georgios	6.67	126	P	Pn	02 17 48.3	-1.8
AGG				S	Sn	02 19 02.6	-4.4
MORC	Moravsky Berou	6.79	12	eP	Pn	02 17 51.3	-0.5
TAVF	Tavernes	6.81	277	P	Pn	02 17 52.5	+0.4
PRU	Pruhonice	6.86	355	ePN	Pn	02 17 52.0	-0.8
PRU				i x	x	02 18 02.5	
PRU				SN	Sn	02 19 08.9	-2.9
PRU				i x	x	02 19 24.0	
PRU	Pruhonice	6.86	355	ePn	Pn	02 17 52.0	-0.8
PRU				Sn	Sn	02 19 08.9	-2.9
STOF	St-Etienne Org	6.94	280	P	Pn	02 17 55.1	+1.3
OKC	Ostrava-Krasne	6.95	15	ePN	Pn	02 17 53.9	-0.2
OKC				eSN	Sn	02 19 12.4	-1.6
GDM	Grand'Maison	6.97	290	P	Pn	02 17 54.3	-0.1
OUR	Ouranopolis	7.02	111	eP	Pn	02 17 53.3	-1.6
RZN	Rozhen	7.06	99	i P	Pn	02 17 55.0	-0.6
VILF	Villemus	7.07	279	P	Pn	02 17 55.1	-0.6
ORIF	Oris-en-Rattie	7.08	288	ePn	Pn	02 17 54.3	-1.5
ORIF				eSn	Sn	02 19 09.4	-7.7
	comp=Z,47nm,0.7s						
BERF	Bertagne	7.08	275	P	Pn	02 17 56.0	+0.1
CRVS	Cervenica-Dubn	7.14	34	ePN	Pn	02 17 57.1	+0.4
GRA1	Grafenberg Arr	7.14	338	ePn	Pn	02 17 57.2	+0.4
GRA1				eSn	Sn	02 19 17.1	-1.7
GRF	Grafenberg Arr	7.14	338	eP	Pn	02 17 57.2	+0.4
GRF				e		02 19 17.1	
BFO	Black Forest	7.15	319	ePn	Pn	02 17 55.7	-1.2
SMRF	Simiane la Rot	7.17	280	ePn	Pn	02 17 57.1	-0.1
DPC	Dobruska-Polom	7.23	5	ePN	Pn	02 17 59.4	+1.4
GRN	Grenoble	7.24	290	P	Pn	02 17 57.8	-0.3
GELF	Grande-Etoile	7.27	275	P	Pn	02 17 58.6	0.0
LOMF	Lomont	7.35	308	P	Pn	02 17 58.6	-1.1
NKC	Novy Kostel	7.37	345	ePN	Pn	02 17 58.6	-1.3
NKC				eSN	Sn	02 19 22.5	-1.9
PVCC	Panska Ves	7.40	356	ePN	Pn	02 18 01.4	+1.0
CABF	La Chapelle	7.45	301	ePn	Pn	02 17 58.7	-2.4
CABF				eSn	Sn	02 19 16.1	-10
	comp=Z,55nm,0.9s						
MOF	Molkenrain	7.46	312	P	Pn	02 18 00.1	-1.1
MOF				S	Sn	02 19 24.6	-2.2
PRAF	Pradon	7.46	279	P	Pn	02 18 01.1	-0.1
TANN	Tannenbergstha	7.54	346	ePn	Pn	02 18 02.2	-0.1
HINF	Hinteralfeld	7.59	311	ePn	Pn	02 18 00.0	-3.1
HINF				eSn	Sn	02 19 22.1	-8.0
	comp=Z,40nm,0.6s						
ECH	Echery	7.67	314	P	Pn	02 18 02.7	-1.4
ECH				S	Sn	02 19 30.8	-1.1
WLS	Welschbruch	7.69	316	P	Pn	02 18 04.1	-0.3
CDF	Champ du Feu	7.73	316	ePn	Pn	02 18 02.8	-2.2
CDF				eSn	Sn	02 19 23.6	-10

	comp=Z,21nm,0.6s						
BRG	Berggiesshubel	7.79	353	i Pn	Pn	02 18 04.3	-1.5
BRG				i Sn	Sn	02 19 28.2	-6.7
BRG				i Sg	Sg	02 20 18.2	-11
BRG	Berggiesshubel	7.79	353	i Sn	Sn	02 19 28.2	-6.7
BRG	Berggiesshubel	7.79	353	ePn	Pn	02 18 04.5	-1.3
VIVF	Saint-Julien-l	7.91	286	ePn	Pn	02 18 04.9	-2.6
MLR	Muntele Rosu	7.92	69	Pn	Pn	02 18 08.5	+0.8
	comp=Z,0.5nm,0.3s,baz=241,slow=7.6,SNR=4.7						
MLR	Muntele Rosu	7.92	69	P	Pn	02 18 08.5	+0.8
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MOX	Moxa	7.93	342	eP	Pn	02 18 06.3	-1.4
MOX						02 19 32.3	
MOX				MLR	MLR		
	comp=Z,300nm,11.0s						
MOX	Moxa	7.93	342	i P	Pn	02 18 06.3	-1.4
MOX				S	Sn	02 19 32.0	-6.4
MOX				L		02 21 17.0	
HAU	Haudompre	7.98	311	ePn	Pn	02 18 06.3	-2.2
HAU				eSn	Sn	02 19 30.4	-9.4
	comp=Z,74nm,0.6s						
THEF	They Montfort	8.31	311	P	P	02 18 11.6	-1.4
THEF				S	Sn	02 19 46.1	-1.8
CLL	Collm	8.32	350	i Pn	P	02 18 11.7	-1.5
CLL				eSn	Sn	02 19 44.0	-4.2
CLL				eSg	Sg	02 20 45.0	-1.5
CLL	Collm	8.32	350	i PN	P	02 18 11.7	-1.5
CLL				eSN	Sn	02 19 44.0	-4.2
CLL				e		02 20 36.0	
CLL				eSG	Sg	02 20 45.0	-1.5
LASF	Ste Croix	8.42	280	ePn	P	02 18 12.1	-2.4
PLDF	La Plantade	8.86	293	P	P	02 18 18.8	-1.9
SMF	Signal de Mont	8.91	297	ePn	P	02 18 18.0	-3.3
SMF				eSn	Sn	02 19 52.3	-10
	comp=Z,46nm,0.7s						
LBL	Lubilhac	8.97	288	P	P	02 18 21.0	-1.2
MEZF	Maizieres J'vi	8.98	310	ePn	P	02 18 19.9	-2.4
MEZF				eSn	Sn	02 19 53.4	-11
	comp=Z,24nm,0.8s						
AGO	Saint Agoulin	9.21	293	P	P	02 18 23.8	-1.7
PYM	Petit Puy Mans	9.23	291	P	P	02 18 24.0	-1.8
SSF	Saint Saulge	9.26	299	ePn	P	02 18 22.2	-4.1
SSF				eSn	Sn	02 20 01.2	-10
	comp=Z,12nm,0.7s						
AVF	Avril sur Loir	9.27	297	ePn	P	02 18 22.9	-3.5
AVF				eSn	Sn	02 20 00.5	-11
	comp=Z,29nm,0.8s						
CLZ	Clausthal	9.33	340	ePn	P	02 18 26.8	-0.4
BGF	Bois d'Agland	9.53	295	ePn	P	02 18 26.2	-3.7
BGF				eSn	Sn	02 20 07.7	-11
	comp=Z,31nm,0.6s						
MTLF	Montolieu	9.61	276	ePn	P	02 18 29.0	-2.1
CAF	Calviac	9.76	285	ePn	P	02 18 30.8	-2.2
TCF	Toulx Ste Croi	9.89	293	ePn	P	02 18 31.4	-3.4
TCF				eSn	Sn	02 20 15.9	-11
	comp=Z,5.2nm,0.3s						
HYF	Humbligny	9.89	299	ePn	P	02 18 31.0	-3.8
HYF				eSn	Sn	02 20 16.2	-11
HYF	Humbligny	9.89	299	eSn	Sn	02 20 16.2	-11
RJF	Les Rejaudoux	10.19	287	ePn	P	02 18 37.1	-1.8
IDI	Anoyia	10.77	134	Pn	P	02 18 42.5	-4.3
	comp=Z,0.5nm,0.3s,baz=305,slow=18,SNR=7.8						
IDI				Sn	S	02 20 35.2	-13
	comp=Z,0.4nm,0.3s,baz=248,slow=7.8,SNR=3.4						
MFF	Saint Martin d	11.55	293	ePn	P	02 18 53.1	-4.4
BRTR	Keskin Array B	14.11	98	Pn	P	02 19 32.8	+1.1
	comp=Z,0.0nm,0.3s,baz=331,slow=13,SNR=3.7						
ESDC	Sonseca Array	14.93	263	Pn	P	02 19 46.6	+4.3
	comp=Z,0.2nm,0.3s,baz=72,slow=12,SNR=7.8						
HFS	Hagfors	17.04	357	P	P	02 20 10.6	+1.3
	comp=Z,0.0nm,0.3s,baz=180,slow=17,SNR=3.5						
EKA	Eskdalemuir Ar	17.11	322	P	P	02 20 10.5	+0.3
	comp=Z,0.1nm,0.3s,baz=132,slow=12,SNR=3.2						
NB2	NORSAR Subarra	18.09	353	P	P	02 20 22.6	+0.2
	comp=Z,6.2nm,1.0s,baz=167,slow=11						
NOA	NORSAR Array B	18.09	353	P	P	02 20 23.2	+0.8
	comp=Z,0.1nm,0.3s,baz=167,slow=11,SNR=6.1						
OBN	Obninsk	18.23	42	eP	P	02 20 25.5	+1.4
OBN				pmax	pmax		
	comp=Z,10.0nm,0.6s						
FINES	FINESS Array B	19.40	16	P	P	02 20 36.2	-2.1
	comp=Z,0.7nm,0.3s,baz=189,slow=9.0,SNR=24						
FINES	FINESS Array B	19.40	16	P	P	02 20 36.2	-2.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
EIL	Elat	20.65	124	P	P	02 20 51.2	-0.7
	comp=Z,3.2nm,0.8s,baz=9.6,slow=30,SNR=3.4						
EIL	Elat	20.65	124	P	P	02 20 51.2	-0.7
JOF	Joensuu	21.87	20	ep	P	02 21 01.1	-3.0
	comp=Z,7.8nm,0.7s,mb4.2						
JOF	Joensuu	21.87	20	eP	P	02 21 01.1	-3.0
JOF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.3						
ARCES	ARCESS Array B	26.96	8	P	P	02 21 52.2	-0.4
	comp=Z,4.4nm,0.8s,mb4.0,baz=76,slow=5.0,SNR=4.7						
ARCES				LR	LR	02 34 09.6	
	comp=Z,70nm,18.6s,MS3.2,baz=143,slow=40						
ARCES	ARCESS Array B	26.96	8	P	P	02 21 52.3	-0.4
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,71nm,18.6s						
ARCES	ARCESS Array B	26.96	8	P	P	02 21 52.2	-0.5
ARU	Arti	30.33	49	eP	P	02 22 20.5	-2.7
BRVK	Borovoye	37.12	55	eP	P	02 23 21.1	-0.7
	comp=Z,14nm,0.6s,mb5.0						
BVAR	Borovoye Array	37.19	55	P	P	02 23 22.2	-0.2
	comp=Z,7.4nm,0.7s,mb4.6,baz=270,slow=5.9,SNR=23						
DBIC	Dimbokro	40.48	212	P	P	02 23 48.5	-1.7
	comp=Z,3.2nm,0.9s,mb4.0,baz=14,slow=12,SNR=5.0						
DBIC	Dimbokro	40.48	212	P	P	02 23 48.5	-1.7
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.9s						
DBIC	Dimbokro	40.48	212	P	P	02 23 48.5	-1.7
KURK	Kurchatov	42.65	57	eP	P	02 24 05.9	-1.6
	comp=Z,2.7nm,0.6s,mb4.2						
KURK	Kurchatov	42.65	57	eP	P	02 24 05.9	-1.6
	comp=Z,2.7nm,0.6s,mb4.2						
ZAL	Zalesovo	45.43	51	P	P	02 24 29.9	-0.1
	comp=Z,3.1nm,0.7s,mb4.2,baz=192,slow=6.4,SNR=15						
ZAL	Zalesovo	45.43	51	P	P	02 24 29.9	-0.1
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SONM	Songino Array	60.34	51	P	P	02 26 20.3	-0.4
	comp=Z,3.1nm,0.7s,mb4.5,baz=292,slow=7.9,SNR=26						
YKA	Yellowknife Ar	67.34	337	P	P	02 27 06.6	+0.3
	comp=Z,0.4nm,0.5s,mb3.7,baz=41,slow=5.4,SNR=9.6						
PDAR	Pinedale Array	81.24	322	P	P	02 28 28.0	+1.1
	comp=Z,0.6nm,0.6s,mb3.7,baz=65,slow=5.1,SNR=6.5						
TXAR	Lajitas Array	88.75	310	P	P	02 29 06.9	+2.2
	comp=Z,0.5nm,0.8s,mb3.9,baz=66,slow=4.5,SNR=5.3						
WRA	Warramunga Arr	124.36	86	PKP	PKPdf	02 35 09.5	-2.7
	comp=Z,0.1nm,0.4s,baz=306,slow=2.1,SNR=5.1						

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*IDC **04** 02:25:35.8±7.8, 16.05S×167.50E, mb3.8/4, mb1 4.0/4, mb1mx3.8/14, MS3.2/3, Ms1 3.2/3, ms1mx2.9/27, Error ellipse: s-maj=171.0km s-min=41.8km az=27.0*

ISC 04 02:25:43.4±3.9**, 16.8S**±0.1×**167.1E**±0.3**, h34**^{km}±32^{km}**, n10, σ0**^{s}**50**/9**, mb3.7**/4**, MS3.1**/3**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	5.33	187	eP	P	02 27 02.6	-0.2
DZM				eS	S	02 28 04.4	+0.5
NOUC	Port Laguerre	5.38	188	eP	P	02 27 03.7	+0.3
NOUC				eS	S	02 28 04.4	-0.6
CTA	Charters Tower	20.09	257	LR	LR	02 36 26.3	
	comp=Z,58nm,19.1s,MS3.0,baz=225,slow=32						
URZ	Urewera	23.15	160	LR	LR	02 38 43.8	
	comp=Z,46nm,20.7s,MS2.9,baz=202,slow=33						
RPZ	Rata Peaks	27.09	174	LR	LR	02 41 00.2	
	comp=Z,89nm,20.7s,MS3.3,baz=158,slow=33						
STKA	Stephens Creek	27.63	232	eP	P	02 31 30.8	+0.7
	2.5nm,0.8s,mb3.9						
STKA	Stephens Creek	27.63	232	P	P	02 31 31.1	+1.1
	4.0nm,0.8s,mb4.1,baz=45,slow=8.9,SNR=7.0						
WRA	Warramunga Arr	31.26	259	P	P	02 32 01.9	-0.6
	0.2nm,0.9s,mb2.9,baz=88,slow=9.0,SNR=4.9						
ASAR	Alice Springs	31.88	252	P	P	02 32 08.0	0.0
	2.8nm,0.6s,mb4.3,baz=79,slow=8.7,SNR=44						
VNDA	Vanda	60.85	181	P	P	02 35 54.4	-0.1
	0.6nm,0.8s,mb3.8,baz=10,slow=5.9,SNR=3.3						

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*NIED **04** 02:30:00, 42.90N×145.50E, h38^{km}, Mw3.7 Best double couple: $M_0$3.45×10^{14} NP1:ϕ_s15°, δ70°, λ63°. NP2:ϕ_s252°, δ34°, λ142°.*

*JMA **04** 02:30:44.4±0.1, 42.95N×145.49E, h45^{km}±1^{km}, M3.7*

*MOS **04** 02:30:48.7±0.8, 44.18N×144.95E, h33^{km}, mb4.0/4, Error ellipse: s-maj=49.4km s-min=35.8km az=110.0*

*IDC **04** 02:30:54.6±14.0, 44.18N×145.05E, h68^{km}±133^{km}, mb3.4/6, mb1 3.5/6, mb1mx3.3/21, Error ellipse: s-maj=33.6km s-min=26.2km az=95.0*

ISC 04 02:30:44.0±1.1**, 42.97N**±0.08×**145.51E**±0.09**, h49**^{km}±6^{km}**, n18, σ0**^{s}**47**/22**, mb3.7**/5**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.42	23	P	P	02 30 54.7	+0.3
NEM2				eS	S	02 31 01.9	+0.1
JAK	Akkeshi	0.60	272	P	P	02 30 56.5	0.0
JAK				eS	S	02 31 05.2	-0.3
JNK	Nakash	0.84	317	P	P	02 30 59.9	+0.2
JNK				eS	S	02 31 10.8	-0.5
JRA	Rausu	1.00	344	P	P	02 31 02.5	+0.5
JRA				eS	S	02 31 16.1	+0.8
YUK	Yuzh-Kuril'sk	1.09	13	ePN	P	02 31 02.5	-0.7
YUK				i S	S	02 31 16.5	-0.9
YUK				pmax	pmax		
	comp=Z,460nm,0.4s						
YUK				pmax	pmax		
	comp=N,200nm,0.3s						
YUK				pmax	pmax		
	comp=E,180nm,0.4s						
YUK				smax			
	comp=N,2μm,0.7s						
YUK				smax			
	comp=E,4μm,0.7s						
YUK				smax			
	comp=N,1μm,0.5s						
YUK				smax			
	comp=E,3μm,0.6s						
JOB	Onbets	1.23	267	P	P	02 31 05.0	-0.2
JAR	Ashorobuto	1.32	285	P	P	02 31 06.5	0.0
JTKR	Abashiri--Toko	1.54	311	P	P	02 31 10.2	+0.7
SONM	Songino Array	27.68	294	P	P	02 36 29.2	0.0
	comp=E,0.9nm,0.7s,mb3.5,baz=84,slow=8.4,SNR=7.1						
ILAR	Eielson Array	42.82	36	P	P	02 38 38.6	+0.4
	comp=E,1.3nm,1.1s,mb3.6,baz=272,slow=8.5,SNR=5.9						
ILAR	Eielson Array	42.82	36	P	P	02 38 38.6	+0.4
ILAR				pmax	pmax		
	comp=Z,1.0nm,1.1s						
WRA	Warramunga Arr	63.44	192	P	pP	02 41 24.8	-0.2
	comp=Z,0.4nm,1.1s,baz=9.0,slow=7.0,SNR=2.5						
FINES	FINESS Array B	65.02	333	P	P	02 41 20.0	-0.6
	comp=Z,1.1nm,0.7s,mb4.0,baz=40,slow=9.2,SNR=6.3						
FINES	FINESS Array B	65.02	333	P	P	02 41 20.0	-0.6
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	NORSAR Array B	69.89	338	P	P	02 41 50.8	-0.3
	comp=Z,0.5nm,0.5s,mb3.7,baz=46,slow=5.4,SNR=2.8						
NOA	NORSAR Array B	69.89	338	P	P	02 41 50.8	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BRTR	Keskin Array B	77.20	313	P	P	02 42 34.5	+0.3
	comp=Z,0.5nm,0.6s,mb3.6,baz=34,slow=5.2,SNR=3.4						
BRTR	Keskin Array B	77.20	313	P	P	02 42 34.5	+0.3
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						

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*LDG **04** 02:39:18.1±0.2, 41.62N×2.51E, h10^{km}, Ml2.2/5, Error ellipse: s-maj=4.7km s-min=2.9km az=123.0*

MDD 04 02:39:18.7±0.7**, 41.60N**×**2.56E, h11**^{km}**, mbLg1.8**/11**, Error ellipse: s-maj=7.4km s-min=3.8km az=132.0, PRXIMO, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFON	Fontmartina	0.19	329	Pg	Pg	02 39 22.1	-0.8
CBRU	Bruguera	0.74	337	Pg	Pg	02 39 32.6	-1.0
EMIR	Miracle	0.84	292	Pg	Pg	02 39 34.1	-1.3
	2.3nm,0.1s,SNR=14						
EMIR				Lg		02 39 45.6	
	13nm,0.1s						
EJON	La Jonquera	0.88	16	Pg	Pg	02 39 35.2	-1.1
	4.8nm,0.1s,SNR=11						
EJON				Lg		02 39 47.9	
	11nm,0.2s						
CLLI	Llivia	0.98	334	Pg	Pg	02 39 37.3	-1.0
CGAR	Garraf	1.12	255	Pg	Pg	02 39 28.7	-12
CORG	Organya	1.12	305	Pg	Pg	02 39 39.3	-1.9
EPOB	Poblet	1.14	258	Pg	Pg	02 39 39.4	-2.2
	2.9nm,0.1s,SNR=11						
EPOB				Lg		02 39 54.0	
	8.0nm,0.1s						
CSOR	Sort	1.32	306	Pg	Pg	02 39 43.2	-1.8
CAVN	Les Avellanes	1.38	282	Pg	Pg	02 39 44.5	-1.9
MTLF	Montolieu	1.76	352	ePn	Pn	02 39 46.9	-2.5
MTLF				ePg	Pg	02 39 50.5	-3.3
MTLF				eSg	Sg	02 40 12.9	-4.4
	4.1nm,0.2s						
ERTA	Horta de San J	1.80	250	Pn	Pn	02 39 48.7	-1.3
	0.1nm,0.1s,SNR=4.0						
ERTA				Pg	Pg	02 39 51.8	-2.8
	0.6nm,0.1s,SNR=6.6						
ERTA				Lg		02 40 15.2	
	2.0nm,0.1s						
EBIE	Bielsa	2.10	302	Pn	Pn	02 39 54.0	-0.3
	0.1nm,0.1s,SNR=7.9						
EBIE				Pg	Pg	02 39 57.2	-3.4
	0.3nm,0.1s,SNR=7.9						
EBIE				Lg		02 40 24.2	
	4.0nm,0.2s,SNR=18						
EPF	Esparros	2.18	312	ePg	Pg	02 39 56.8	-5.5
EPF				eSn	Sn	02 40 18.3	-4.4
EPF				eSg	Sg	02 40 25.4	-6.0
	3.6nm,0.2s						
ESAC	San Caprasio	2.27	274	Pg	Pg	02 39 59.0	-5.1
	3.6nm,0.2s,SNR=6.5						
ESAC				Lg		02 40 29.7	
	16nm,0.2s,SNR=5.8						
EMOS	Mosqueruela	2.61	243	Pg	Pg	02 40 07.2	-3.6
	0.1nm,0.1s,SNR=4.0						
EMOS				Lg		02 40 42.9	
	0.2nm,0.1s,SNR=4.0						
LASF	Ste Croix	2.65	21	ePn	Pn	02 39 58.9	-3.2
LASF				eSg	Sg	02 40 40.9	-6.1
	0.5nm,0.3s						
ETSF	Etsaut	2.66	300	ePg	Pg	02 40 06.4	-5.3
ETSF				eSg	Sg	02 40 39.4	-7.7
	2.1nm,0.2s						
SMRF	Simiane la Rot	3.25	42	ePn	Pn	02 40 09.0	-1.6
CAF	Calviac	3.34	354	ePg	Pg	02 40 19.5	-5.9
CAF				eSg	Sg	02 41 02.1	-7.9
	0.5nm,0.2s						
LMR	La Mourre	3.39	58	ePn	Pn	02 40 09.0	-3.7
EALK	Alkurruntz	3.42	300	Lg		02 41 05.3	
	2.7nm,0.4s,SNR=4.0						

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*NEIC **04** 03:26:09.1, 15.87N×95.59W, h21^{km}, MD3.9(MEX), After MEX.*

MEX 04 03:26:08.8±1.1**, 15.86N**×**95.57W, h20**^{km}±36^{km}**, MD3.9, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	0.52	260	eP	Pb	03 26 17.0	-2.2
HUIG				i S	Sb	03 26 24.8	-1.5
CMIG	Matias Romero	1.39	28	eP	Pn	03 26 29.5	-3.9
CMIG				i S	Sb	03 26 47.2	-4.1
CMIG	Matias Romero	1.39	28	eP	Pn	03 26 29.1	-4.2
CMIG				i S	Sb	03 26 47.2	-4.1
OXX	Oaxaca	1.64	318	eP	Pn	03 26 35.0	-2.0
VHO	Vista Hermosa	1.64	317	eP	Pn	03 26 33.9	-3.1
VHO				eS	Sn	03 26 53.0	-4.7
PNIG	Pinotepa	2.51	282	eP	Pn	03 26 46.5	-2.9
PNIG				eS	Sn	03 27 16.7	-3.1
CCIG	Comitan	3.33	82	eP	Pn	03 26 59.6	-1.4
CCIG				eS	Sn	03 27 37.3	-3.2
PPM	Popocatepetl	4.32	318	eS	Sn	03 27 59.4	-6.2
YAIG	Yautepec	4.48	312	eS	Sn	03 28 05.2	-4.4
PLIG	Platanillo	4.52	304	eS	Sn	03 28 04.8	-5.9
CAIG	El Cayaco	4.66	285	eS	Sn	03 28 09.1	-5.0

GUC 04 03:29:03.3±0.7**, 31.28S**×**68.53W, h150**^{km}**, MD3.4, ML3.6, 6C-1D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	2.12	272	⇑iP	P	03 29 40.5	+0.4
CMCH				i S	S	03 30 08.4	-0.1
CMCH				AMP		03 30 10.7	
	comp=E,985nm,0.9s						
JACH	Jahuel	2.24	231	i P	P	03 29 42.1	+0.4
JACH				i S	S	03 30 11.5	+0.3
FCH	Farellones	2.53	216	⇑iP	P	03 29 45.8	+0.4
FCH				i S	S	03 30 18.2	+0.7
ROCH	El Roble	2.70	231	i P	P	03 29 47.9	+0.4
ROCH				i S	S	03 30 21.7	+0.4
CLCH	Cerro Calan	2.71	218	i P	P	03 29 48.5	+0.8
CLCH				i S	S	03 30 22.3	+0.8
CLCH				AMP		03 30 34.0	
	comp=E,74nm,0.4s						
PCH	Pirque	2.88	215	⇓iP	P	03 29 50.5	+0.7
RCDM	Rinconada Maip	2.93	220	⇑iP	P	03 29 50.4	-0.1
RCDM				i S	S	03 30 26.4	-0.1
RCDM				AMP		03 30 30.4	
	comp=E,110nm,0.1s						
TACH	Talagante	3.12	220	⇑iP	P	03 29 52.5	-0.4
TACH				i S	S	03 30 30.5	-0.4
CHCH	Chadas Angostu	3.20	213	⇑iP	P	03 29 53.8	-0.1
CHCH				i S	S	03 30 32.5	-0.1
LCCH	Las Cruces	3.38	229	⇑iP	P	03 29 55.7	-0.5

MAN 04 03:35:49.0, 18.42N×**120.85E, h9**^{km}**, mb4.0, ML2.8, MS2.6, 1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PIP	Pasuquin	0.24	247	⇓iP	Pg	03 35 54.4	+0.4
PIP				eS	Sg	03 36 05.2	+7.8
APYP	Conner	0.67	146	eP	Pb	03 36 02.7	+0.3
APYP				eS	Sg	03 36 13.0	+1.6
ABRA	Dolores	0.78	190	eP	Pb	03 36 03.8	-0.4
ABRA				eS	Sb	03 36 19.6	+4.9
SGCP	Mt. Cagua	1.15	99	eP	Pb	03 36 10.1	-0.5
SGCP				eS	Sb	03 36 26.4	+1.0
CVP	Callao Caves	1.17	127	eP	Pb	03 36 11.0	+0.1
CVP				eS	Sb	03 36 27.0	+1.1
CAUP	Cauayan	1.74	148	eP	Pn	03 36 19.4	-0.2
CAUP				eS	Sn	03 36 49.1	+7.1

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*MOS **04** 03:39:34.2±0.9, 36.49N×70.81E, h219^{km}, mb4.2/13, Error ellipse: s-maj=20.5km s-min=9.9km az=101.3*

*BJI **04** 03:39:35.6, 36.60N×70.90E, h244^{km}, mB4.9, mb4.4*

*NEIC **04** 03:39:38.7±1.0, 36.62N×70.86E, h244^{km}±9^{km}, mb4.3/8, Error ellipse: s-maj=9.9km s-min=7.3km az=217.0*

*IDC **04** 03:39:41.9±1.0, 36.57N×70.85E, h279^{km}±10^{km}, mb3.6/16, mb1 3.8/18, mb1mx3.8/22, Error ellipse: s-maj=12.7km s-min=9.9km az=176.0*

*NNC **04** 03:39:46.4±14.0, 38.43N×70.90E, mpv4.7, Error ellipse: s-maj=190.8km s-min=104.7km az=146.0*

ISC 04 03:39:37.5±0.3**, 36.54N**±0.03×**70.94E**±0.05**, h253**^{km}±5^{km}**, h273**^{km}±6.2^{km}**:pP-P, n129, σ0**^{s}**96**/141**, mb4.2**/26**, 10C-6D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	2.82	163	⇑P	P	03 40 29.3	+0.6
CHCP	Chirah Chowk	3.45	146	P	P	03 40 36.9	+1.3
THW	Thamme Wali	3.79	170	⇓P	P	03 40 40.0	+0.4
SBDP	Sheikh Budin	4.23	181	⇑P	P	03 40 44.8	+0.1
DRP	Derazinda	4.82	187	⇑P	P	03 40 52.0	+0.2
SARP	Sargodha	4.83	162	⇑P	P	03 40 52.2	+0.4
SARP				S	S	03 41 48.0	-1.8
KSH	Kashi	4.96	52	⇑iP	P	03 40 54.4	+0.9
THN	Thein Dam	5.69	135	eP	P	03 41 02.9	+0.5
	8.8nm,0.6s						
THN				eS	S	03 42 09.2	+0.4
DLH	Dalhousie	5.76	132	eP	P	03 41 02.0	-1.2
DLH				eS	S	03 42 04.0	-6.3
AML	Almayashu	5.98	20	P	P	03 41 05.8	-0.2
	SNR=224						
AML	Almayashu	5.98	20	eP	P	03 41 05.6	-0.4
UCH	Uchtor	6.32	25	P	P	03 41 10.5	+0.2
	SNR=139						
UCH	Uchtor	6.32	25	eP	P	03 41 10.2	-0.1
KZA	Kyzart	6.46	30	P	P	03 41 12.2	+0.1
	SNR=50						
EKS2	Erkin-Say	6.50	19	P	P	03 41 12.3	-0.2
	SNR=67						
EKS2	Erkin-Say	6.50	19	eP	P	03 41 11.9	-0.6
AAK	Ala-Archa	6.68	23	⇓Pg	P	03 41 14.8	0.0
	65nm,0.6s						
AAK				⇑Lg		03 42 28.6	
	84nm,0.7s						
AAK	Ala-Archa	6.68	23	P	P	03 41 14.9	+0.1
	SNR=88						
AAK	Ala-Archa	6.68	23	eP	P	03 41 13.6	-1.2
BHK	Bhakra	6.84	137	e	Px	03 41 43.8	
BHK				eS	S	03 42 30.4	-4.3
KBK	Karagaybulak	6.85	26	P	P	03 41 17.4	+0.5
	SNR=30						
ULHL	Ulahol	7.02	34	P	P	03 41 19.4	+0.2
	SNR=29						
CHMS	Chumysh	7.09	23	P	P	03 41 19.9	-0.1
	SNR=12						
SDNR	Sundarnagar	7.09	133	eP	P	03 41 20.0	-0.1
SDNR				eS	S	03 42 37.4	-3.0
USP	Ospenovka	7.25	21	P	P	03 41 21.7	-0.4
	SNR=12						
TKM2	Tokmak 2	7.31	28	P	P	03 41 22.9	+0.1
	SNR=18						
TKM2	Tokmak 2	7.31	28	eP	P	03 41 22.5	-0.3
SMLA	Simla	7.48	134	⇑iP	P	03 41 39.3	+14
SMLA				i S	S	03 43 00.0	+11
KKR	Kurukshetra	8.20	141	e	P	03 41 25.7	-8.4
KKR				e		03 42 46.6	
DDI	Dehra Dun	8.59	134	eP	P	03 41 39.0	0.0
DDI				eS	S	03 43 11.0	-3.3
RTK	Rohtak	8.79	147	eP	P	03 41 41.5	-0.1
RTK				e		03 43 01.9	
BHGR	Bahadurgarh	9.32	145	eP	P	03 41 47.6	-0.6
BHGR				eS	S	03 43 26.8	-4.1
KHET	Khetri	9.39	153	eP	P	03 41 49.1	0.0
KHET				AMb	AMB	03 41 51.0	
	comp=Z,8.5nm,0.0s						
KHET				e		03 43 30.5	
KHET				AML	AML	03 43 32.9	
	comp=N,49nm,0.1s						
KHET				AML	AML	03 43 33.1	
	comp=E,54nm,0.4s						
NDI	New Delhi	9.45	144	eP	P	03 41 49.5	-0.4
NDI				e		03 43 27.5	
AYAN	Aya Nagar	9.58	145	eS	S	03 43 32.7	-4.1
JASL	Jaisalmer	9.59	180	eP	P	03 41 47.3	-4.3
KUDL	Kundal	9.60	149	eP	P	03 41 51.3	-0.4
KUDL				eS	S	03 43 34.6	-2.6
KUDL				e		03 43 37.5	
	comp=Z,63nm,0.7s						
KALG	Kalgarh	9.60	135	AML	AML	03 43 28.0	
	comp=N,21nm,0.2s						
KALG				AML	AML	03 43 28.3	
	comp=E,81nm,0.4s						
PTH	Pithoragarh	10.45	129	eS	S	03 43 56.8	+0.3
MK31	Makanchi Array	13.29	36	⇑P	P	03 42 37.8	0.0
	comp=E,7.9nm,0.6s,baz=206,slow=12,SNR=72						
KOLN	Koldanda	13.83	126	eP	P	03 42 45.2	+0.7
	comp=E,44nm,0.7s						
GKN	Gorkha	14.37	122	eP	P	03 42 51.9	+0.7
	comp=E,59nm,0.5s						
BHPL	Bhopal	14.39	155	eP	P	03 42 54.8	+3.2
BHPL				AMb	AMB	03 42 56.1	
	comp=Z,50nm,0.2s						
BHPL				AML	AML	03 45 50.3	
	comp=E,8.5nm,0.3s						
BHPL				AML	AML	03 45 51.2	
	comp=N,9.7nm,0.0s						
WMQ	Urumqi	14.72	55	P	P	03 42 56.0	+0.6
WMQ				AMB	AMB		
	comp=Z,12nm,0.7s						
DMN	Daman	14.94	123	eP	P	03 42 59.1	+0.9
	comp=Z,46nm,0.6s						
KKN	Kakani	14.94	122	eP	P	03 42 58.7	+0.5

	comp=Z,73nm,0.5s						
PKI	Pulchoki	15.17	122	eP	P	03 43 01.6	+0.7
	comp=Z,84nm,0.6s						
KURK	Kurchatov	15.21	19	⇓P	P	03 42 60.0	-1.3
	comp=Z,4.8nm,1.0s						
KURK	Kurchatov	15.21	19	eP	P	03 42 59.9	-1.3
	comp=Z,7.3nm,0.8s						
GUN	Gumba	15.28	120	eP	P	03 43 02.9	+0.7
	comp=Z,35nm,0.4s						
BVA0	Borovoye Array	16.49	359	⇑P	P	03 43 15.0	-0.8
	comp=Z,1.0nm,0.6s						
BVA0	Borovoye Array	16.49	359	P	P	03 43 15.0	-0.8
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	Borovoye Array	16.49	359	P	P	03 43 15.3	-0.6
	comp=Z,1.6nm,0.3s,baz=153,slow=9.9,SNR=48						
BVAR				S	S	03 46 12.9	+2.4
	comp=Z,0.1nm,0.3s,baz=156,slow=29,SNR=3.7						
BRVK	Borovoye	16.52	359	eP	P	03 43 15.4	-0.8
	comp=Z,12nm,0.6s						
CHKZ	Chkalovo	17.14	359	⇑P	P	03 43 21.7	-1.1
	comp=Z,4.8nm,0.6s						
CHKZ	Chkalovo	17.14	359	P	P	03 43 21.6	-1.2
CHKZ				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CHKZ	Chkalovo	17.14	359	eP	P	03 43 21.4	-1.4
	comp=Z,5.4nm,0.4s						
POO	Poona	18.12	171	⇓i	P	03 43 33.0	-0.3
	comp=Z,40nm,1.0s						
ZAL	Zalesovo	19.88	25	P	P	03 43 51.9	+1.1
	comp=Z,7.8nm,0.3s,baz=253,slow=6.2,SNR=63						
ZAL				S	S	03 47 20.0	+4.4
	comp=Z,0.2nm,0.3s,baz=357,slow=24,SNR=9.7						
ZAL	Zalesovo	19.88	25	P	P	03 43 51.9	+1.1
ZAL				S	S	03 47 20.0	+4.4
ZAL				pmax	pmax		
	comp=Z,8.0nm,0.3s						
ZAL	Zalesovo	19.88	25	P	P	03 43 51.9	+1.1
ZAL				S	S	03 47 20.0	+4.4
NVS	Novosibirsk	20.16	21	i P	P	03 43 52.8	-0.8
NVS				i S	S	03 47 26.1	+5.5
NVS				pmax	pmax		
	comp=N,20nm,0.5s						
NVS				pmax	pmax		
	comp=Z,10.0nm,0.5s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.0s						
NVS				smax			
	comp=N,5.0nm,0.4s						
NVS				smax			
	comp=E,42nm,1.2s						
HYB	Hyderabad	20.20	159	eP	P	03 43 58.0	+3.8
HYB	Hyderabad	20.20	159	i P	P	03 43 58.0	+3.8
MIB	Mutribah	20.84	258	eP	P	03 44 02.6	+2.2
MIB				AMb	AMB	03 44 05.1	
	comp=Z,31nm,0.6s						
QRN	Al-Qurain	20.85	255	eP	P	03 44 02.6	+2.1
SHL	Shillong	20.97	116	e	P	03 44 05.5	+3.8
RDF	Al-Radifah	21.05	256	eP	P	03 44 03.7	+1.2
RDF				AMb	AMB	03 44 06.5	
	comp=Z,66nm,0.9s,mb5.2						
RST	Umm Al-Ruwaisa	21.23	258	eP	P	03 44 05.4	+1.1
RST				AMb	AMB	03 44 08.3	
	comp=Z,57nm,0.9s,mb5.1						
ARU	Arti	21.58	341	eP	P	03 44 08.8	+1.4
ARU				e		03 45 19.4	
ARU	Arti	21.58	341	eP	P	03 44 08.7	+1.2
	comp=Z,26nm,0.6s,mb4.9						
GTA	Gaotai	22.90	74	eP	P	03 44 24.4	+4.1
GTA				AMB	AMB		
	comp=Z,8.0nm,1.4s,mb4.1						
SONM	Songino Array	28.36	55	P	P	03 45 12.3	+2.2
	comp=Z,2.3nm,0.8s,mb3.9,baz=262,slow=10,SNR=15						
SONM				pP	pP	03 46 03.0	+3.3
	comp=Z,1.7nm,1.1s,baz=256,slow=10,SNR=3.5						
BRTR	Keskin Array B	29.37	288	P	P	03 45 19.1	0.0
	comp=Z,1.8nm,0.7s,mb3.8,baz=105,slow=9.1,SNR=14						
BRTR				pP	pP	03 46 14.6	+5.4
	comp=Z,0.2nm,0.3s,baz=39,slow=43,SNR=1.4						
CMAR	Chiang Mai Arr	30.52	119	P	P	03 45 31.0	+1.6
	comp=Z,1.1nm,0.5s,mb3.7,baz=297,slow=10,SNR=3.5						
CMAR				pP	pP	03 46 24.5	+4.7
	comp=Z,0.6nm,0.3s,baz=297,slow=10,SNR=1.5						
HHC	Hu-ho-hao-te	31.80	70	eP	P	03 45 39.0	-1.3
HHC				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,228nm,5.6s						
AKASG	Malin Array Be	32.88	309	P	P	03 45 48.7	-0.8
	comp=Z,5.1nm,0.7s,mb4.2,baz=79,slow=7.1,SNR=23						
AKASG	Malin Array Be	32.88	309	P	P	03 45 48.7	-0.8
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BOD	Bodaibo	35.35	39	eP	P	03 46 11.2	+0.9
JOF	Joensuu	35.81	330	ep	P	03 46 13.7	-0.4
	comp=Z,8.6nm,0.5s,mb4.5						
JOF	Joensuu	35.81	330	eP	P	03 46 13.7	-0.4
JOF				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.6						
IDI	Anoyia	37.04	282	P	P	03 46 24.1	-0.7
	comp=Z,2.6nm,0.5s,mb4.0,baz=27,slow=22,SNR=7.4						
FINES	FINESS Array B	37.42	326	P	P	03 46 27.6	0.0
	comp=Z,7.4nm,0.8s,mb4.3,baz=115,slow=9.8,SNR=28						
FINES	FINESS Array B	37.42	326	P	P	03 46 27.6	-0.1
FINES				pmax	pmax		
	comp=Z,7.0nm,0.8s						
KEV	Kevo	40.75	338	ep	P	03 46 53.7	-1.3
ARCES	ARCESS Array B	41.09	338	P	P	03 46 58.4	+0.6
	comp=Z,6.7nm,0.5s,mb4.4,baz=114,slow=7.8,SNR=56						
ARCES	ARCESS Array B	41.09	338	P	P	03 46 58.4	+0.6
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.5s						
CN2	Changchun	41.63	63	eP	P	03 47 00.4	-2.0
GERES	GERESS Array B	42.87	305	P	P	03 47 13.0	+0.8
	comp=Z,0.3nm,0.7s,baz=90,slow=7.8,SNR=3.2						
GERES				PcP	PcP	03 48 58.4	-0.4
	comp=Z,0.6nm,0.7s,baz=79,slow=6.8,SNR=5.2						
GERES	GERESS Array B	42.87	305	P	P	03 47 13.0	+0.8
GERES						03 48 58.4	
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NB2	NORSAR Subarra	44.32	323	P	P	03 47 23.2	-0.5
	comp=Z,6.0nm,0.6s,mb4.1,baz=95,slow=7.4						
NOA	NORSAR Array B	44.32	323	P	P	03 47 23.4	-0.3
	comp=Z,4.9nm,0.6s,mb4.0,baz=97,slow=7.7,SNR=24						
NOA	NORSAR Array B	44.32	323	P	P	03 47 23.4	-0.3
NOA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
NOA	NORSAR Array B	44.32	323	P	P	03 47 23.4	-0.3
MDJ	Mudanjiang	44.43	61	P	P	03 47 21.4	-3.4
MDJ				AMB	AMB		
	comp=Z,183nm,4.8s						
HINF	Hinteralfeld	47.53	305	eP	P	03 47 48.4	-0.6
HAU	Haudompre	47.83	305	eP	P	03 47 50.8	-0.5
	comp=Z,5.9nm,0.7s,mb3.7						
LPG	La Plagne	48.08	302	eP	P	03 47 53.2	-0.1
LPL	La Plagne	48.09	302	eP	P	03 47 53.4	+0.1
MBDF	Montbardon	48.25	301	eP	P	03 47 54.4	-0.1
	comp=Z,6.7nm,0.7s,mb3.8						
CABF	La Chapelle	48.29	303	eP	P	03 47 54.3	-0.5
KMBO	Kilima Mbogo	48.82	227	P	P	03 48 02.5	+3.2
VIVF	Saint-Julien-l	49.66	301	eP	P	03 48 05.2	-0.1
SMF	Signal de Mont	49.79	304	eP	P	03 48 05.6	-0.6
SSF	Saint Saulge	49.91	304	eP	P	03 48 06.3	-0.8
AVF	Avril sur Loir	50.08	304	eP	P	03 48 07.8	-0.6
TCF	Toulx Ste Croi	50.97	304	eP	P	03 48 14.9	-0.1
LDF	La Druitiere	51.91	307	eP	P	03 48 21.6	-0.3
FLN	La Foliniere	52.10	307	eP	P	03 48 23.0	-0.3
GRR	Gorron	52.44	307	eP	P	03 48 25.0	-0.8
SGMF	Saint Gilles	53.57	307	eP	P	03 48 33.4	-0.6
ETSF	Etsaut	53.85	300	eP	P	03 48 36.1	-0.1
	comp=Z,6.8nm,0.6s,mb4.1						
ROSF	Rostrenen	54.00	307	eP	P	03 48 36.3	-0.9
DAG	Danmarks Havn	54.68	344	⇓eP	P	03 48 42.2	+0.5
DAG				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.2						
DAG	Danmarks Havn	54.68	344	⇓iP	P	03 48 42.2	+0.5
	comp=Z,2.5nm,0.4s,mb4.1						
ESDC	Sonseca Array	57.39	298	P	P	03 49 01.1	-0.3
	comp=Z,1.3nm,0.7s,mb3.7,baz=53,slow=8.2,SNR=6.4						
INK	Inuvik	73.88	9	P	P	03 50 46.8	+1.2
	comp=Z,5.4nm,0.6s,mb4.3,baz=1.2,slow=7.0,SNR=19						
INK	Inuvik	73.88	9	P	P	03 50 46.8	+1.2
INK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
DBIC	Dimbokro	74.65	267	P	P	03 50 49.9	-1.2
	comp=Z,1.9nm,0.6s,mb3.9,baz=353,slow=9.4,SNR=6.2						
DBIC	Dimbokro	74.65	267	P	P	03 50 49.9	-1.2
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
DBIC	Dimbokro	74.65	267	P	P	03 50 49.9	-1.2
ILAR	Eielson Array	74.76	16	P	P	03 50 50.9	+0.2
	comp=Z,1.0nm,0.7s,mb3.5,baz=307,slow=4.4,SNR=15						
ILAR	Eielson Array	74.76	16	P	P	03 50 50.9	+0.2
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	81.21	3	P	P	03 51 26.6	+1.0
	comp=Z,2.6nm,0.4s,mb4.2,baz=351,slow=5.4,SNR=80						
YKA	Yellowknife Ar	81.21	3	P	P	03 51 26.6	+0.9
YKA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
WRA	Warramunga Arr	82.05	122	P	P	03 51 30.9	0.0
	comp=Z,1.5nm,0.7s,mb3.7,baz=322,slow=5.0,SNR=6.3						
WRA	Warramunga Arr	82.05	122	P	P	03 51 30.9	0.0
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRAB	Tennant Creek	82.06	122	P	P	03 51 29.9	-1.0
	comp=Z,7.7nm,0.7s,mb4.4						
ASAR	Alice Springs	84.32	125	P	P	03 51 42.6	+0.3
	comp=Z,1.2nm,0.6s,mb3.8,baz=309,slow=4.6,SNR=10						

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*TIF **04** 03:42:04.9, 42.03N×45.96E, h14km, Mpv3.4*

MOS 04 03:42:08.8±1.6**, 42.18N×45.87E, h17**km**, mb4.1**/1**, 5C-4D, Error ellipse: s-maj=31.7km s-min=13.4km az=53.0, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTLR	Botlikh	0.55	28	⇓iPG	Pb	03 42 20.0	+0.4
BTLR				i S	Sb	03 42 30.7	+3.7
BTLR				pmax	pmax		
	comp=Z,270nm,0.5s						
DGRG	David-gareji	0.82	207	⇓iP	Pb	03 42 22.5	-1.6
DGRG				eS	Sb	03 42 32.1	-2.6
DUS	Dusheti	0.87	265	⇑iP	Pb	03 42 24.7	-0.3
DUS				i S	Sb	03 42 39.0	+2.8
MTA	Mtatsminda	0.94	239	⇓iP	Pb	03 42 24.8	-1.4
MTA				i S	Sb	03 42 39.6	+1.5
TI2	Plekhanov	0.94	242	⇑iPG	Pb	03 42 25.4	-0.9
TI2				i S	Sb	03 42 39.4	+1.0
TI2				pmax	pmax		
	comp=Z,30nm,0.4s						
TI2				smax			
	comp=E,110nm,0.6s						
TBLG	Delisi	0.95	242	⇑iP	Pb	03 42 24.5	-2.0
	comp=Z,30nm,0.4s						
TBLG				i S	Sb	03 42 39.4	+0.8
	comp=E,120nm,0.4s						
DLMR	Dylym	1.05	32	⇓iPG	Pb	03 42 25.5	-2.7
DLMR				i S	Sb	03 42 43.5	+2.0
DLMR				pmax	pmax		
	comp=Z,406nm,0.3s						
DBC	Dubki	1.10	40	i PG	Pb	03 42 29.5	+0.5
DBC				i S	Sb	03 42 47.0	+4.1
BUJR	Buynaksk	1.12	54	⇑iPG	Pb	03 42 30.0	+0.6
BUJR				i S	Sb	03 42 46.5	+3.0
BUJR				pmax	pmax		
	comp=Z,113nm,0.3s						
MAK	Makhachkala	1.44	57	ePG	Pn	03 42 36.7	+2.4
MAK				i S	Sb	03 43 03.0	+10
MAK				smax			
	comp=N,1μm,0.8s						
MAK				smax			
	comp=E,238nm,0.7s						
ZEI	Tsey	1.57	293	PG	Pn	03 42 38.3	+2.1
ZEI				S	Sn	03 43 00.0	+3.8
STE	Stepanavan	1.61	224	i P	Pn	03 42 34.0	-2.8
STE				i S	Sn	03 42 55.0	-2.3
ONI	Oni	1.83	283	⇑iP	Pn	03 42 42.1	+2.1
ONI				i S	Sn	03 43 09.1	+6.2
AKH	Akhalkalaki	1.93	247	eP	Pn	03 42 41.2	-0.2
	comp=Z,30nm,0.4s						
AKH				i S	Sn	03 43 07.6	+2.1
	comp=E,50nm,0.4s						
VAD	Vardenisi	1.99	183	eP	Pn	03 42 39.0	-3.2
KIV	Kislovodsk	2.93	308	ePN	Pn	03 43 07.7	+12
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s						

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*NEIC **04** 03:48:06.3±0.3, 1.02N×126.44E, h10km, mb4.7/8, Error ellipse: s-maj=16.8km s-min=5.3km az=70.0*

*IDC **04** 03:48:13.4±3.2, 0.88N×126.35E, h63km±28km, mb4.2/14, mb1 4.3/15, mb1mx4.2/20, ML4.1/1, Error ellipse: s-maj=27.1km s-min=9.3km az=73.0*

ISC 04 03:48:07.8±0.4**, 0.98N**±0.07×**126.3E**±0.1**, h33**km**, n40,** σ**0ˢ96**/39**, mb4.6**/24**, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	14.92	156	eP	P	03 51 36.1	-2.1
	15nm,0.6s						
FITZ	Fitzroy Crossi	18.97	182	eP	P	03 52 28.0	-1.2
	5.0nm,0.6s						
FITZ	Fitzroy Crossi	18.97	182	P	P	03 52 28.1	-1.0
	0.5nm,0.3s,baz=18,slow=8.6,SNR=9.3						
WRAB	Tennant Creek	22.25	160	eP	P	03 53 02.6	-0.7
	25nm,0.7s,mb4.8						
WRA	Warramunga Arr	22.25	160	P	P	03 53 03.0	-0.4
	13nm,0.6s,mb4.6,baz=339,slow=11,SNR=64						
WRA				S	S	03 57 03.5	+2.2
	3.2nm,1.0s,baz=338,slow=15,SNR=6.7						
WB2	Warramunga Arr	22.25	160	eP	P	03 53 02.8	-0.7
WB2				eS	S	03 57 04.3	+2.9
MBWA	Marble Bar	22.91	196	P	P	03 53 17.4	+7.4
ASAR	Alice Springs	25.60	164	P	P	03 53 37.7	+1.7
	7.9nm,0.4s,mb4.6,baz=346,slow=12,SNR=46						
ASAR				S	S	03 57 59.1	-0.3
	0.4nm,0.6s,baz=352,slow=20,SNR=2.7						
ASPA	Alice Springs	25.60	164	eP	P	03 53 36.4	+0.4
ASPA				eS	S	03 58 08.6	+9.3
FORT	Forrest	31.63	177	eP	P	03 54 29.9	-0.3
	86nm,0.6s,mb5.8						
CMAR	Chiang Mai Arr	31.94	305	P	P	03 54 33.2	+0.2
	1.5nm,1.0s,mb3.8,baz=79,slow=4.8,SNR=4.7						
CMAR				PcP	PcP	03 57 24.5	+1.6
	1.4nm,0.8s,baz=226,slow=1.6,SNR=6.2						
KLBR	Kellerberrin	33.38	193	eP	P	03 54 46.2	+0.8
	10nm,0.5s,mb5.0						
MUN	Mundaring	34.13	195	eP	P	03 54 52.9	+1.0
	8.8nm,0.7s,mb4.8						
NWAO	Narrogin (SRO)	34.78	193	P	P	03 54 57.2	-0.2
	9.8nm,0.6s,mb4.9,baz=46,slow=7.4,SNR=8.0						
NWAO	Narrogin (SRO)	34.78	193	P	P	03 54 57.2	-0.2
STKA	Stephens Creek	35.76	157	eP	P	03 55 05.2	-0.6
	8.8nm,0.7s,mb4.8						
STKA	Stephens Creek	35.76	157	P	P	03 55 05.5	-0.3
	12nm,0.7s,mb4.9,baz=337,slow=6.3,SNR=20						
STKA				PcP	PcP	03 57 33.6	+0.1
	1.8nm,0.5s,baz=329,slow=7.7,SNR=3.0						
GUN	Gumba	47.00	308	eP	P	03 56 37.6	-0.4
	16nm,0.7s,mb5.0						
PKI	Pulchoki	47.22	308	eP	P	03 56 38.1	-1.6
KKN	Kakani	47.42	308	eP	P	03 56 40.4	-0.9
DMN	Daman	47.47	308	eP	P	03 56 40.7	-1.0
	6.1nm,0.6s,mb4.7						
KOLN	Koldanda	48.74	307	eP	P	03 56 51.7	+0.1
	29nm,1.0s,mb5.3						
SONM	Songino Array	49.75	343	P	P	03 57 00.2	+1.1
	2.1nm,0.7s,mb4.3,baz=155,slow=8.3,SNR=17						
SONM				PcP	PcP	03 58 21.1	+1.1
	0.9nm,0.8s,baz=153,slow=2.8,SNR=2.7						
URZ	Urewera	60.89	136	P	P	03 58 18.2	-1.6
	2.7nm,0.5s,mb4.6,baz=281,slow=10,SNR=3.7						
TKM2	Tokmak 2	61.50	320	P	P	03 58 25.4	+1.5
ZAL	Zalesovo	62.82	334	P	P	03 58 33.0	+0.6
	1.7nm,0.4s,mb4.6,baz=353,slow=5.3,SNR=8.0						
KURK	Kurchatov	63.80	328	eP	P	03 58 38.2	-0.8
	7.7nm,0.4s,mb5.1						
FX1	Attu Island--F	64.69	29	P	P	03 58 45.3	+0.6
	44nm,1.0s,mb5.4,baz=11,slow=7.3,SNR=3.4						
BVAR	Borovoye Array	69.36	328	P	P	03 59 14.0	-0.2
	1.6nm,0.5s,mb4.2,baz=108,slow=4.7,SNR=13						
CHKZ	Chkalovo	69.55	328	eP	P	03 59 14.8	-0.5
	2.4nm,0.8s,mb4.2						
ARU	Arti	77.00	328	eP	P	03 59 59.0	+0.1
	3.1nm,0.4s,mb4.6						
VNDA	Vanda	80.78	173	P	P	04 00 19.8	+0.6
	1.2nm,0.8s,mb3.9,baz=336,slow=4.9,SNR=5.3						
MAW	Mawson	81.03	200	P	P	04 00 21.7	+1.2
	2.9nm,0.6s,mb4.4,baz=81,slow=6.3,SNR=4.3						
ILAR	Eielson Array	87.78	25	P	P	04 00 54.5	+0.2
	0.9nm,0.7s,mb4.1,baz=256,slow=4.5,SNR=16						
BRTR	Keskin Array B	91.40	310	P	P	04 01 12.8	+0.7
	0.7nm,0.9s,mb4.0,baz=135,slow=1.7,SNR=4.3						
YKA	Yellowknife Ar	102.18	25	P	Pdif	04 02 01.6	+1.1
	0.2nm,0.7s,baz=292,slow=4.3,SNR=3.7						
YKA	Yellowknife Ar	102.18	25	P	Pdif	04 02 01.6	+1.1
SCHQ	Schefferville	123.34	9	PKP	PKPdf	04 07 03.9	+2.2
	15nm,1.2s,baz=97,slow=0.6,SNR=3.6						
TXAR	Lajitas Array	123.63	53	PKP	PKPdf	04 07 05.1	+2.3
	0.2nm,0.6s,baz=345,slow=0.2,SNR=4.9						
DBIC	Dimbokro	130.62	280	PKP	PKPdf	04 07 19.2	+2.5
	4.5nm,1.1s,baz=98,slow=13,SNR=2.7						

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*IDC **04** 04:28:45.0±0.9, 17.47S×172.91W, mb4.0/8, mb1 4.2/8, mb1mx4.0/17, Error ellipse: s-maj=43.6km s-min=18.5km az=131.0*

ISC 04 04:28:48.2±0.8**, 17.5S**±0.2×**173.0W**±0.2**, h33**km**, n10,** σ**0ˢ16**/8**, mb3.9**/8**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	22.47	201	P	P	04 33 45.9	+0.1
	4.0nm,0.5s,mb4.1,baz=36,slow=12,SNR=7.0						
RPZ	Rata Peaks	29.45	204	P	P	04 34 51.1	0.0
	9.2nm,1.0s,mb4.5,baz=28,slow=17,SNR=3.4						
STKA	Stephens Creek	43.38	242	P	P	04 36 49.2	-0.2
	0.9nm,0.7s,mb3.6,baz=73,slow=13,SNR=2.7						
WRA	Warramunga Arr	49.78	258	P	P	04 37 39.9	0.0
	0.6nm,0.6s,mb3.8,baz=98,slow=7.8,SNR=12						
ASAR	Alice Springs	49.87	254	P	P	04 37 40.7	+0.1
	2.6nm,0.6s,mb4.4,baz=90,slow=8.6,SNR=59						
NVAR	Mina Array Bea	75.59	41	P	P	04 40 31.4	-0.2
	0.5nm,0.8s,mb3.5,baz=229,slow=8.3,SNR=3.3						
PDAR	Pinedale Array	83.53	42	P	P	04 41 14.2	0.0
	0.5nm,0.8s,mb3.7,baz=243,slow=2.0,SNR=4.0						
ILAR	Eielson Array	84.37	11	P	P	04 41 18.2	+0.3
	0.7nm,0.9s,mb3.8,baz=219,slow=5.7,SNR=7.0						
BRTR	Keskin Array B	147.97	319	PKPbc	PKPdf	04 48 34.6	+7.4
	0.6nm,0.6s,baz=90,slow=1.2,SNR=3.8						
GERES	GERESS Array B	148.21	352	PKPbc	PKPdf	04 48 34.3	+7.0
	0.7nm,0.8s,slow=1.0,SNR=5.3						

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*IDC **04** 04:43:38.2±3.1, 30.65N×138.22E, h338km±75km, mb3.1/5, mb1 3.3/6, mb1mx3.0/22, Error ellipse: s-maj=167.0km s-min=14.0km az=68.0*

*JMA **04** 04:43:43.1±0.3, 31.21N×139.42E, h420km, M3.6*

ISC 04 04:43:39.7±0.6**, 30.9N**±0.1×**139.4E**±0.5**, h415**km±22km**, n12,** σ**0ˢ98**/18**, mb3.2**/5**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO3	Boso 3	3.98	14	S	S	04 45 51.6	+0.9
BSO4	Boso 4	4.13	11	P	P	04 44 56.0	+1.5
BSO4				eS	S	04 45 52.0	-1.3
CBIJ	Chichi jima	4.55	146	P	P	04 44 58.2	-0.3
	6.0nm,0.3s,baz=280,slow=22,SNR=4.4						
CBIJ				S	S	04 45 59.8	-0.7
	19nm,0.3s,baz=102,slow=23,SNR=7.8						
JHU	Hanno	4.91	359	P	P	04 45 02.4	+0.2
JHU				S	S	04 46 05.3	-1.6
JRY	Ryogami san	5.09	356	P	P	04 45 04.9	+0.9
JRY				S	S	04 46 10.6	+0.5
JAG	Ashikaga	5.48	1	P	P	04 45 07.9	-0.1
JAG				S	S	04 46 14.1	-3.3
MAT	Matsushiro	5.68	351	P	P	04 45 10.3	+0.2
MAT				eS	S	04 46 22.4	+1.3
SONM	Songino Array	30.27	313	P	P	04 49 15.0	-1.0
	0.6nm,0.4s,mb3.3,baz=130,slow=8.9,SNR=8.8						
ZAL	Zalesovo	45.01	317	P	P	04 51 16.9	-0.4
	0.7nm,0.3s,mb3.4,baz=14,slow=6.8,SNR=2.4						
WRA	Warramunga Arr	50.81	186	P	P	04 52 02.1	+0.1
	0.7nm,0.4s,mb3.2,baz=1.3,slow=7.9,SNR=13						
BVAR	Borovoye Array	53.57	316	P	P	04 52 21.0	-0.8
	2.1nm,0.7s,mb3.5,baz=94,slow=7.9,SNR=10						
ASAR	Alice Springs	54.54	186	P	P	04 52 30.5	+1.4
	0.3nm,0.6s,mb2.7,baz=0.8,slow=6.5,SNR=5.3						

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*CNRM **04** 04:49:50.9, 35.06N×2.56W, h23km, MD3.5*

*CSEM **04** 04:49:51.5±0.1, 34.97N×2.85W, h10km, ML2.9/2, Error ellipse: s-maj=3.1km s-min=2.6km az=93.0*

*NEIC **04** 04:49:53.6, 34.98N×3.06W, MG3.9(MDD), After MDD.*

*MDD **04** 04:49:53.6±1.2, 34.99N×3.05W, mb3.9/14, Error ellipse: s-maj=12.3km s-min=5.4km az=144.0, PRXIMO AftershockPLICA*

*INMG **04** 04:49:54.3±1.3, 35.03N×2.96W, h14km±5km, ML2.2, Error ellipse: s-maj=8.9km s-min=6.2km az=121.0*

ISC 04 04:49:52.9±0.6**, 35.00N**±0.03×**3.01W**±0.05**, h21**km±4km**, n60,** σ**1ˢ23**/84**, 2C-3D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.22	99	i P	Pb	04 49 55.0	-3.4
MELI	Melilla	0.30	11	⇓P	Pb	04 49 59.3	-0.3
MELI				S	Sb	04 50 03.5	-0.6
MELI	Melilla	0.30	11	i P	Pb	04 49 59.3	-0.3
EMEL	Melilla	0.30	8	⇓P	Pb	04 49 59.4	-0.3
	205nm,0.1s,SNR=18						
EMEL				S	Sb	04 50 04.1	-0.1
	2μm,0.1s,SNR=5.5						
EMLI	Melilla	0.30	9	P	Pb	04 49 59.4	-0.3
	205nm,0.1s,SNR=18						
TOU	Touzarine	0.61	266	i P	Pb	04 50 07.0	+2.1
TOU				i S	Sb	04 50 21.0	+7.9
MPAL	Palemas	0.80	286	i P	Pb	04 50 10.0	+2.0
MPAL				i S	Sb	04 50 25.0	+6.6
ERON	Agron	2.11	342	P	Pn	04 50 27.3	-0.4
	3.3nm,0.2s,SNR=7.9						
ERON				S	Sn	04 50 52.6	-1.0
	3.8nm,0.2s,SNR=7.9						
EMIJ	Mijas	2.12	318	⇑P	Pn	04 50 27.6	-0.2
	3.1nm,0.1s,SNR=18						
EMIJ				S	Sn	04 50 53.7	-0.1
	8.6nm,0.2s,SNR=5.7						
EMIJ	Mijas	2.12	318	S	Sn	04 50 53.7	-0.1
	8.6nm,0.2s,SNR=5.7						
ELOJ	Sierra Loja	2.33	337	P	Pn	04 50 32.3	+1.4
	4.3nm,0.2s,SNR=15						
ELOJ				S	Sn	04 51 01.5	+2.3
	6.1nm,0.6s,SNR=4.0						
CZD	Col de Zad	2.59	221	i P	Pn	04 50 34.0	-0.6
CZD				i S	Sn	04 51 06.0	+0.2
ELUQ	Luque	2.75	339	P	Pn	04 50 38.6	+1.8
	8.2nm,0.3s,SNR=16						
ELUQ				S	Sn	04 51 12.1	+2.3
	5.0nm,0.2s						
ELUQ	Luque	2.75	339	S	Sn	04 51 12.1	+2.3
	5.0nm,0.2s						
EQES	Quesada	2.79	359	P	Pn	04 50 39.2	+1.7
	6.6nm,0.1s,SNR=88						
EQES				S	Sn	04 51 13.2	+2.2
	28nm,0.3s,SNR=11						
EQES	Quesada	2.79	359	P	Pn	04 50 39.2	+1.7
	6.6nm,0.1s,SNR=88						
EQES	Quesada	2.79	359	S	Sn	04 51 13.2	+2.2
	28nm,0.3s,SNR=11						
ESPR	Espera	2.97	310	P	Pn	04 50 41.7	+1.7
	3.4nm,0.2s,SNR=10						
ESPR				S	Sn	04 51 18.4	+3.0
	7.1nm,0.3s						
ESPR	Espera	2.97	310	S	Sn	04 51 18.4	+3.0
	7.1nm,0.3s						
ESPR	Espera	2.97	310	P	Pn	04 50 41.7	+1.7
	3.4nm,0.2s,SNR=10						
ZFT	Errachidia	3.17	201	i P	Pn	04 50 43.0	+0.2
EADA	Adamuz	3.40	339	P	Pn	04 50 46.8	+0.7
	4.7nm,0.3s,SNR=22						
EADA				S	Sn	04 51 25.6	-0.7
	3.7nm,0.2s,SNR=7.9						
EADA	Adamuz	3.40	339	S	Sn	04 51 25.6	-0.7
	3.7nm,0.2s,SNR=7.9						
EADA	Adamuz	3.40	339	P	Pn	04 50 46.8	+0.7
	4.7nm,0.3s,SNR=22						
EVIA	Vianos	3.65	6	P	Pn	04 50 51.8	+2.2
	3.0nm,0.3s,SNR=8.1						
EVIA				S	Sn	04 51 33.2	+0.6
	9.0nm,0.3s						
EMIN	Mina Concepcio	4.04	314	⇓P	Pn	04 50 55.0	-0.2
	5.4nm,0.3s,SNR=18						
EMIN				S	Sn	04 51 40.9	-1.7
	1.0nm,0.2s						

EMIN	**Mina Concepcio**	**4.04**	**314**	P	**Pn**	**04 50 55.0**	**-0.3**
	5.4nm,0.3s,SNR=18						
EBEN	**Beniarda**	**4.32**	**30**	P	**Pn**	**04 50 59.7**	**+0.6**
	1.3nm,0.3s,SNR=7.9						
EBEN				S	**Sn**	**04 51 46.3**	**-3.1**
	2.7nm,0.5s,SNR=7.9						
EBEN	**Beniarda**	**4.32**	**30**	S	**Sn**	**04 51 46.3**	**-3.1**
	2.7nm,0.5s,SNR=7.9						
EBEN	**Beniarda**	**4.32**	**30**	P	**Pn**	**04 50 59.7**	**+0.6**
	1.3nm,0.3s,SNR=7.9						
PALC	**Alcoutim**	**4.37**	**306**	*e*Pn	**Pn**	**04 50 59.6**	**-0.3**
PALC				*e*Sn	**Sn**	**04 51 48.7**	**-2.1**
	3.9nm,0.5s						
PALC	**Alcoutim**	**4.37**	**306**	*e*Pn	**Pn**	**04 50 59.6**	**-0.3**
PALC				*e*Sn	**Sn**	**04 51 48.7**	**-2.1**
	3.9nm,0.5s						
ESDC	**Sonseca Array**	**4.72**	**351**	P	**Pn**	**04 51 05.3**	**+0.4**
ESDC				S	**Sn**	**04 52 11.1**	**+11**
ESDC	**Sonseca Array**	**4.72**	**351**	P	**Pn**	**04 51 05.3**	**+0.4**
	1.2nm,0.1s,baz=172,slow=12,SNR=29						
ESDC				S	**Sn**	**04 52 11.1**	**+11**
	0.9nm,0.2s,baz=170,slow=28,SNR=8.6						
ESDC	**Sonseca Array**	**4.72**	**351**	P	**Pn**	**04 51 05.3**	**+0.4**
	1.2nm,0.1s,SNR=29						
EBAD	**Badajoz**	**4.93**	**321**	⇑P	**Pn**	**04 51 07.6**	**-0.3**
	3.2nm,0.2s,SNR=18						
EBAD				S	**Sn**	**04 52 02.0**	**-3.0**
	5.0nm,0.2s						
EBAD	**Badajoz**	**4.93**	**321**	P	**Pn**	**04 51 07.6**	**-0.3**
	3.2nm,0.2s,SNR=18						
PBEJ	**Beja**	**4.94**	**309**	*e*Pn	**Pn**	**04 51 07.5**	**-0.5**
PBEJ				*e*Sn	**Sn**	**04 52 03.6**	**-1.7**
	1.8nm,0.3s						
PBEJ	**Beja**	**4.94**	**309**	*e*Pn	**Pn**	**04 51 07.5**	**-0.5**
PBEJ				*e*Sn	**Sn**	**04 52 03.6**	**-1.7**
	1.8nm,0.3s						
PTEO	**Sao Teotonio**	**5.27**	**300**	*e*Pn	**Pn**	**04 51 12.5**	**-0.1**
MOE	**Montemor**	**5.54**	**311**	*e*Pn	**Pn**	**04 51 16.6**	**+0.1**
PCBR	**Castelo Branco**	**6.00**	**325**	*e*Pn	**Pn**	**04 51 22.5**	**-0.4**
PCBR				*e*Sn	**Sn**	**04 52 26.4**	**-5.3**
	1.9nm,0.6s						
PCBR	**Castelo Branco**	**6.00**	**325**	P	**Pn**	**04 51 22.5**	**-0.4**
PCBR				S	**Sn**	**04 52 26.4**	**-5.3**
	0.9nm,0.6s						
PCBR	**Castelo Branco**	**6.00**	**325**	*e*Sn	**Sn**	**04 52 26.4**	**-5.3**
	1.9nm,0.6s						
PLOU	**Loures**	**6.26**	**310**	*e*Pn	**Pn**	**04 51 26.0**	**-0.6**
PTOM	**Tomar**	**6.31**	**319**	*e*Pn	**Pn**	**04 51 25.6**	**-1.6**
MTE	**Manteigas**	**6.48**	**328**	*e*Pn	**Pn**	**04 51 29.1**	**-0.5**
ERTA	**Horta de San J**	**6.50**	**23**	P	**Pn**	**04 51 30.3**	**+0.3**
	1.3nm,0.3s,SNR=7.9						
ERTA	**Horta de San J**	**6.50**	**23**	P	**Pn**	**04 51 30.3**	**+0.3**
	1.3nm,0.3s,SNR=7.9						
PVRL	**Vila Real**	**7.28**	**331**	*e*Pn	**Pn**	**04 51 40.0**	**-0.9**
PBRG	**Braganca**	**7.40**	**338**	*e*Pn	**Pn**	**04 51 41.8**	**-0.7**
ECAL	**Calabor**	**7.52**	**338**	P	**Pn**	**04 51 43.4**	**-0.8**
	1.1nm,0.2s,SNR=7.9						
ECAL	**Calabor**	**7.52**	**338**	P	**Pn**	**04 51 43.4**	**-0.9**
ELOB	**Lobios**	**7.92**	**331**	P	**Pn**	**04 51 49.1**	**-0.7**
	2.0nm,0.5s,SNR=4.6						
ELOB	**Lobios**	**7.92**	**331**	P	**Pn**	**04 51 49.2**	**-0.6**
EALK	**Alkurruntz**	**8.29**	**8**	P	**P**	**04 51 55.9**	**+0.9**
	0.8nm,0.4s,SNR=4.0						
EINC	**Incio**	**8.36**	**337**	P	**P**	**04 51 54.9**	**-1.1**
	0.8nm,0.4s,SNR=7.9						
EINC	**Incio**	**8.36**	**337**	P	**P**	**04 51 54.9**	**-1.1**
EARI	**Arriondas**	**8.46**	**349**	P	**P**	**04 51 56.7**	**-0.6**
	0.7nm,0.5s,SNR=4.0						
EARI	**Arriondas**	**8.46**	**349**	P	**P**	**04 51 56.8**	**-0.6**

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*NEIC **04** 04:59:44.5,16.26N×99.14W,h7^{km},MD3.7(MEX),After MEX.*

MEX 04 04:59:44.7±0.9,**16.24N**×**99.16W**,**h12**^{km}±13^{km},**MD3.8**, **Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	**0.95**	**311**	*e*P	Pb	04 59 59.5	-3.2
ACX				*i* S	Sb	05 00 11.5	-3.5
PNIG	**Pinotepa**	**1.01**	**81**	*e*P	Pb	05 00 00.8	-2.8
PNIG				*e*S	Sb	05 00 13.2	-3.4
CAIG	**El Cayaco**	**1.33**	**307**	*e*P	Pb	05 00 05.8	-3.3
CAIG				*e*S	Sb	05 00 23.6	-2.4
PLIG	**Platanillo**	**2.16**	**351**	*e*P	Pn	05 00 17.5	-3.6
PLIG				*e*S	Sn	05 00 42.4	-5.7
VHO	**Vista Hermosa**	**2.47**	**70**	*e*P	Pn	05 00 23.2	-2.3
VHO				*e*S	Sn	05 00 52.3	-3.7
YAIG	**Yautepec**	**2.60**	**2**	*e*P	Pn	05 00 24.7	-2.8
YAIG				*e*S	Sn	05 00 53.9	-5.5
YAIG	**Yautepec**	**2.60**	**2**	*e*P	Pn	05 00 24.7	-2.8
YAIG				*i* S	Sn	05 00 53.8	-5.6
PPM	**Popocatepetl**	**2.85**	**10**	*e*P	Pn	05 00 28.5	-2.5
PPM				*e*S	Sn	05 01 02.0	-3.6
PPM				*e*S	Sn	05 01 02.8	-2.8
PPM	**Popocatepetl**	**2.85**	**10**	*e*P	Pn	05 00 28.0	-3.0
PPM				*e*P		05 00 28.5	
PPM				*e*S	Sn	05 01 02.0	-3.6
PPM				*e*S	Sn	05 01 02.8	-2.8
IISM	**Ciudad Serdan**	**3.22**	**32**	*e*P	Pn	05 00 33.0	-3.2
IISM				*e*S	Sn	05 01 10.0	-4.8

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*IDC **04** 05:05:36.4±5.7,23.88S×170.74E,mb4.0/6,mb1 4.2/6, mb1mx4.1/13,MS3.4/1,Ms1 3.4/1,ms1mx2.7/22,Error ellipse: s-maj=228.0km s-min=34.1km az=154.0*

ISC 04 05:05:43.0±4.9,**23.4S**±0.3×**170.0E**±0.2,**h24**^{km}±33^{km},**n10**, σ**0^{s}63**/10,**mb4.0**/6,**MS3.3**/1,**Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**3.58**	**291**	*e*P	**Pn**	**05 06 38.2**	**-0.2**
DZM				*e*S	**Sn**	**05 07 20.5**	**0.0**
NOUC	**Port Laguerre**	**3.69**	**290**	*e*P	**Pn**	**05 06 40.2**	**+0.3**
NOUC				*e*S	**Sn**	**05 07 23.1**	**-0.1**
STKA	**Stephens Creek**	**26.51**	**245**	LR	LR	05 20 35.1	
	comp=Z,82nm,18.8s,MS3.3,baz=141,slow=33						
ASAR	**Alice Springs**	**33.07**	**262**	P	**P**	**05 12 18.6**	**-0.6**
	0.6nm,0.6s,mb3.7,baz=99,slow=8.9,SNR=3.6						
WRA	**Warramunga Arr**	**33.30**	**269**	P	**P**	**05 12 20.5**	**-0.6**
	0.4nm,0.7s,mb3.4,baz=99,slow=8.6,SNR=3.7						
FITZ	**Fitzroy Crossi**	**41.73**	**269**	P	**P**	**05 13 33.1**	**+1.1**
	2.8nm,0.7s,mb4.0,baz=143,slow=10,SNR=8.2						
CMAR	**Chiang Mai Arr**	**80.90**	**295**	P	**P**	**05 17 57.5**	**+0.4**
	1.1nm,0.3s,mb4.2,baz=128,slow=4.8,SNR=4.1						
SONM	**Songino Array**	**90.99**	**323**	P	**P**	**05 18 46.4**	**+0.1**
	2.3nm,1.3s,mb4.4,baz=135,slow=3.5,SNR=4.1						
ILAR	**Eielson Array**	**93.99**	**17**	P	**P**	**05 18 55.4**	**-4.3**
	0.6nm,0.9s,mb4.0,baz=223,slow=7.7,SNR=5.6						
GERES	**GERESS Array B**	**148.49**	**330**	PKPbc	PKPdf	05 25 27.4	-1.0
	0.5nm,0.7s,slow=2.7,SNR=5.4						

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*NEIC **04** 05:15:33.9±0.9,20.99S×68.89W,h130^{km}±19^{km},mb3.8/1, MD3.9(GUC),Error ellipse: s-maj=23.5km s-min=13.9km az=88.0*

*GUC **04** 05:15:33.7±0.8,21.33S×68.63W,h165^{km}±11^{km},MD3.9, ML4.2*

*SYO **04** 05:15:33.7,21.33S×68.63W,h165^{km},MB4.2*

*IDC **04** 05:15:34.8±0.6,20.96S×68.75W,h111^{km}±5^{km},mb3.8/11, mb1 3.9/12,mb1mx3.8/16,Error ellipse: s-maj=20.0km s-min=9.3km az=88.0*

ISC 04 05:15:33.0±0.7,**20.97S**±0.06×**68.85W**±0.08,**h111**^{km}±8^{km}, **n29**,σ**1^{s}25**/31,**mb4.0**/10,**8C-1D**,**Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**1.63**	**182**	P	**P**	**05 16 03.7**	**+1.8**
	103nm,0.3s,baz=16,slow=10,SNR=886						
LVC				S	**S**	**05 16 25.4**	**+1.7**
	84nm,0.3s,baz=103,slow=19,SNR=5.4						
LVC	**Limon Verde**	**1.63**	**182**	⇑*i*P	**P**	**05 16 03.7**	**+1.8**
LVC				*i* S	**S**	**05 16 26.3**	**+2.6**
LVC				AMP		05 16 29.3	
	comp=E,3μm,0.7s						
SPCH	**San Pedro de A**	**2.02**	**163**	⇑*i*P	**P**	**05 16 06.4**	**-0.4**
SPCH				*i* S	**S**	**05 16 31.8**	**-0.3**
SPCH				AMP		05 16 50.1	
	comp=E,918nm,0.4s						
ANCH	**Antofagasta**	**3.06**	**208**	*i* P	**P**	**05 16 20.4**	**-0.4**
ANCH				*i* S	**S**	**05 16 55.6**	**-1.4**
ANCH				AMP		05 17 11.8	
	comp=N,1μm,0.6s						
CPN1	**Cerro Paranal**	**3.91**	**201**	*e*P	**P**	**05 16 32.0**	**-0.3**
CPN1				*i* S	**S**	**05 17 15.9**	**-1.7**
LPAZ	**La Paz**	**4.71**	**8**	P	**P**	**05 16 45.5**	**+2.4**
	comp=N,6.2nm,0.3s,baz=183,slow=7.8,SNR=75						
LPAZ				S	**S**	**05 17 29.4**	**-7.6**
	comp=N,0.9nm,0.3s,baz=134,slow=6.1,SNR=3.7						
LPAZ	**La Paz**	**4.71**	**8**	*e*P	**P**	**05 16 45.2**	**+2.1**
CPUP	**Villa Florida**	**11.82**	**119**	P	**P**	**05 18 19.1**	**-0.1**
	comp=N,3.8nm,0.3s,baz=229,slow=14,SNR=1.2						
SAML	**Samuel**	**13.14**	**25**	*e*P	**P**	**05 18 34.0**	**-2.4**
	comp=N,2.1nm,0.6s						
BDFB	**Brasilia**	**20.47**	**78**	P	**P**	**05 20 02.3**	**-1.6**
	comp=N,1.5nm,0.5s,baz=250,slow=14,SNR=6.6						
SJG	**San Juan**	**38.93**	**4**	P	**P**	**05 22 48.0**	**-1.8**
	comp=N,10nm,0.5s,mb4.9,baz=215,slow=3.2,SNR=5.0						
TXAR	**Lajitas Array**	**60.23**	**325**	P	**P**	**05 25 31.6**	**-0.4**
	comp=N,0.3nm,0.7s,mb3.4,baz=150,slow=6.6,SNR=5.1						
VNA3	**Neumayer Olymp**	**60.55**	**161**	⇑*i*	**P**	**05 25 35.6**	**+1.9**
VNA1	**Neumayer--Stat**	**60.76**	**161**	⇓*i*	**P**	**05 25 35.0**	**-0.1**
VNA2	**Neumayer--Watz**	**61.13**	**161**	⇑*i*	**P**	**05 25 40.2**	**+2.7**
SNAA	**Sanae**	**62.76**	**161**	⇑*i*	**P**	**05 25 48.7**	**+0.3**
SNAA	**Sanae**	**62.76**	**161**	P	**P**	**05 25 48.4**	**0.0**
	comp=N,1.3nm,0.7s,mb4.0,baz=290,slow=7.4,SNR=24						
DBIC	**Dimbokro**	**68.53**	**74**	P	**P**	**05 26 25.3**	**-0.8**
	comp=N,3.8nm,0.7s,mb4.3,baz=216,slow=8.1,SNR=7.6						
PDAR	**Pinedale Array**	**73.68**	**330**	P	**P**	**05 26 57.1**	**+0.7**
	comp=N,0.5nm,0.7s,mb3.4,baz=132,slow=7.4,SNR=4.2						
ULM	**Lac du Bonnet**	**74.83**	**342**	P	**P**	**05 27 02.4**	**-0.5**
	comp=N,2.8nm,0.4s,mb4.3,baz=161,slow=6.2,SNR=7.4						
NVAR	**Mina Array Bea**	**75.11**	**322**	P	**P**	**05 27 06.0**	**+1.3**
	comp=N,0.6nm,0.6s,mb3.5,baz=145,slow=5.9,SNR=7.5						
SCHQ	**Schefferville**	**75.51**	**1**	P	**P**	**05 27 06.2**	**-0.4**
	comp=N,4.7nm,1.0s,mb4.2,baz=154,slow=3.7,SNR=3.3						
SYO	**Syowa Base**	**76.97**	**159**	⇑P	**P**	**05 27 02.7**	**-12**
SYO	**Syowa Base**	**76.97**	**159**	⇑PcP	PcP	05 27 15.3	-10
SYO	**Syowa Base**	**76.97**	**159**	⇑pP	pP	05 27 43.8	+0.7
YBH	**Yreka Blue Hor**	**79.83**	**322**	P	**P**	**05 27 31.1**	**+0.3**
	comp=N,1.0nm,0.9s,mb3.6,baz=132,slow=7.1,SNR=3.9						
YKA	**Yellowknife Ar**	**90.71**	**341**	P	**P**	**05 28 24.9**	**+0.9**
	comp=N,1.4nm,0.8s,mb4.1,baz=134,slow=4.6,SNR=24						
YKA				pP	pP	05 28 53.7	+0.4
	comp=N,2.4nm,1.0s,baz=134,slow=4.7,SNR=8.3						
ZAL	**Zalesovo**	**141.45**	**25**	PKP	PKPdf	05 34 53.5	+2.8
	comp=N,1.1nm,0.7s,baz=173,slow=1.6,SNR=3.9						
ZAL				pPKP		05 35 22.5	
	comp=N,1.4nm,0.9s,baz=188,slow=2.8,SNR=2.6						
SONM	**Songino Array**	**152.93**	**7**	PKPbc	PKPdf	05 35 19.4	+10
	comp=N,0.7nm,0.4s,baz=306,slow=1.9,SNR=8.6						
SONM				PKPab	PKPab	05 35 30.8	-0.1
	comp=N,0.2nm,0.4s,baz=308,slow=2.7,SNR=4.1						
SONM				pPKPbc		05 35 49.2	
	comp=N,1.5nm,0.7s,baz=332,slow=0.9,SNR=8.4						
SONM				pPKPab		05 36 00.7	
	comp=N,0.6nm,0.7s,baz=270,slow=1.2,SNR=2.8						

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*NEIC **04** 05:25:16.0,59.91N×152.76W,h101^{km},After AEIC.*

*IDC **04** 05:25:18.7±8.6,60.38N×152.90W,h116^{km}±76^{km},mb3.2/1, mb1 3.2/3,mb1mx3.0/19,Error ellipse: s-maj=69.9km s-min=40.4km az=15.0*

ISC 04 05:25:13.6±0.3,**59.91N**±0.02×**152.72W**±0.06, **h115**^{km}±3^{km},**n79**,σ**0^{s}73**/101,**mb3.6**/1,**Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ILS	**Iliamna Low So**	**0.18**	**284**	P	**P**	**05 25 29.7**	**+0.1**
ILIM	**Iliamna**	**0.20**	**325**	P	**P**	**05 25 29.7**	**0.0**
ILIM				S	**S**	**05 25 41.3**	**-0.5**
INE	**Iliamna NE**	**0.23**	**311**	P	**P**	**05 25 30.0**	**+0.3**
ILW	**Iliamna West**	**0.25**	**305**	P	**P**	**05 25 30.1**	**+0.2**
ILW				S	**S**	**05 25 42.4**	**+0.3**
OPT	**Oil Point**	**0.37**	**225**	P	**P**	**05 25 30.4**	**0.0**
OPT				S	**S**	**05 25 42.4**	**-0.5**
RSO	**Redoubt South**	**0.55**	**358**	P	**P**	**05 25 32.0**	**+0.6**
REF	**Redoubt East F**	**0.58**	**1**	P	**P**	**05 25 32.1**	**+0.5**
REF				S	**S**	**05 25 45.0**	**-0.3**
RDN	**Redoubt North**	**0.60**	**358**	P	**P**	**05 25 32.3**	**+0.5**
HOM	**Homer**	**0.60**	**115**	P	**P**	**05 25 32.5**	**+0.8**
HOM				S	**S**	**05 25 46.3**	**+0.6**
AUL	**Augustine Lava**	**0.65**	**214**	P	**P**	**05 25 32.5**	**+0.4**
AUL				S	**S**	**05 25 45.7**	**-0.5**
NCT	**North Crescent**	**0.66**	**351**	P	**P**	**05 25 32.6**	**+0.4**
NCT				S	**S**	**05 25 45.6**	**-0.8**
AUW	**Augustine West**	**0.67**	**215**	P	**P**	**05 25 32.6**	**+0.4**
DFR	**Drift River**	**0.68**	**1**	P	**P**	**05 25 32.8**	**+0.5**
DFR				S	**S**	**05 25 46.0**	**-0.7**
RDT	**Redoubt**	**0.68**	**13**	P	**P**	**05 25 32.8**	**+0.4**
AUI	**Augustine Isla**	**0.68**	**212**	P	**P**	**05 25 32.5**	**+0.1**
AUI				S	**S**	**05 25 45.9**	**-0.8**
NNL	**Ninilchik**	**0.73**	**79**	P	**P**	**05 25 34.5**	**+1.7**
CNPM	**China Poot**	**0.85**	**117**	P	**P**	**05 25 34.6**	**+0.6**
CNPM				S	**S**	**05 25 49.3**	**0.0**
BRLK	**Bradley Lake**	**0.94**	**98**	P	**P**	**05 25 35.6**	**+0.7**
BRLK				S	**S**	**05 25 51.4**	**+0.6**
MCNL	**McNeil River**	**1.10**	**229**	P	**P**	**05 25 36.3**	**-0.2**
MCNL				S	**S**	**05 25 52.2**	**-1.5**
NKA	**Nikishka**	**1.11**	**41**	P	**P**	**05 25 39.1**	**+2.4**
CKL	**Chakachamna La**	**1.30**	**8**	P	**P**	**05 25 39.4**	**+0.5**
SPU	**Mount Spurr**	**1.31**	**14**	P	**P**	**05 25 39.5**	**+0.5**
CKT	**Bend**	**1.32**	**11**	P	**P**	**05 25 39.5**	**+0.5**
SYI	**Shuyak Island**	**1.32**	**172**	P	**P**	**05 25 39.1**	**+0.1**
SYI				S	**S**	**05 25 57.2**	**-1.1**
CKN	**Chakachatna No**	**1.34**	**11**	P	**P**	**05 25 40.0**	**+0.7**
BGL	**Barrier Glacie**	**1.36**	**7**	P	**P**	**05 25 40.3**	**+0.8**
SLKM	**Skilak Lake**	**1.38**	**63**	P	**P**	**05 25 40.2**	**+0.4**
SLKM				S	**S**	**05 25 59.4**	**-0.2**
CRP	**Crater Peak**	**1.39**	**11**	P	**P**	**05 25 40.6**	**+0.8**
CGLM	**Capps Glacier**	**1.44**	**14**	P	**P**	**05 25 41.2**	**+0.7**
VOGL	**Vogel Lake**	**1.57**	**45**	P	**P**	**05 25 42.0**	**0.0**
STLK	**Strandline Lak**	**1.65**	**15**	P	**P**	**05 25 43.8**	**+0.8**
STLK				S	**S**	**05 26 05.8**	**+0.8**
SEW	**Seward**	**1.66**	**82**	P	**P**	**05 25 43.3**	**+0.3**
SEW				S	**S**	**05 26 04.7**	**-0.5**
KAHC	**Katmai Hardscr**	**1.73**	**224**	P	**P**	**05 25 44.0**	**+0.1**
MPA	**Moose Pass**	**1.77**	**70**	P	**P**	**05 25 45.2**	**+0.8**
KAWH	**Katmai**	**1.87**	**216**	P	**P**	**05 25 45.8**	**+0.2**
RC01	**Rabbit Creek A**	**1.89**	**50**	P	**P**	**05 25 46.6**	**+0.7**
RC01				S	**S**	**05 26 10.0**	**-0.1**
KABR	**Katmai Barrier**	**2.13**	**214**	P	**P**	**05 25 49.2**	**+0.2**
KDAK	**Kodiak Island**	**2.14**	**178**	P	**P**	**05 25 48.1**	**-1.0**
KDAK				S	**S**	**05 26 13.5**	**-2.3**
MGLS	**Mageik LS**	**2.17**	**219**	P	**P**	**05 25 50.2**	**+0.6**
PWA	**Palmer West**	**2.23**	**37**	P	**P**	**05 25 50.8**	**+0.5**
CAHL	**Cahill**	**2.30**	**217**	P	**P**	**05 25 51.8**	**+0.6**
PWL	**Port Wells**	**2.38**	**65**	P	**P**	**05 25 53.1**	**+0.9**
PMR	**Palmer**	**2.44**	**45**	P	**P**	**05 25 52.6**	**-0.5**
PMR				S	**S**	**05 26 20.9**	**-2.0**
LTI	**Latouche**	**2.45**	**85**	P	**P**	**05 25 53.6**	**+0.3**
KNK	**Knik Glacier**	**2.58**	**53**	P	**P**	**05 25 55.4**	**+0.3**
GHO	**Glory Hole Cre**	**2.63**	**43**	P	**P**	**05 25 55.5**	**-0.2**
GHO				S	**S**	**05 26 25.9**	**-1.6**
CUT	**Chulitna**	**2.77**	**24**	P	**P**	**05 25 57.6**	**+0.1**
SML	**Sawmill**	**2.87**	**47**	P	**P**	**05 25 58.5**	**-0.4**
SML				S	**S**	**05 26 31.2**	**-1.9**
GLI	**Glacier Island**	**2.96**	**68**	P	**P**	**05 26 00.1**	**+0.1**
FID	**Port Fidalgo**	**3.22**	**72**	P	**P**	**05 26 03.3**	**-0.3**
SCM	**Sheep Creek Mo**	**3.27**	**52**	P	**P**	**05 26 04.0**	**-0.2**
VLZ	**Valdez**	**3.39**	**66**	P	**P**	**05 26 06.3**	**+0.4**
TT01	**Tatalina**	**3.40**	**334**	P	**P**	**05 26 05.4**	**-0.6**
EYAK	**Cordova Ski Ar**	**3.54**	**77**	P	**P**	**05 26 07.2**	**-0.7**
DIV	**Divide**	**3.65**	**67**	P	**P**	**05 26 10.2**	**+0.9**
TRF	**Thorofare Moun**	**3.73**	**17**	P	**P**	**05 26 10.4**	**-0.1**
RND	**Reindeer**	**3.96**	**26**	P	**P**	**05 26 13.8**	**+0.2**
MCK	**McKinley**	**4.23**	**23**	P	**P**	**05 26 17.6**	**+0.3**
BWN	**Browne**	**4.54**	**18**	P	**P**	**05 26 21.8**	**+0.4**
NEA	**Nenana**	**4.98**	**18**	P	**P**	**05 26 26.9**	**-0.5**
MLY	**Manley**	**5.22**	**9**	P	**P**	**05 26 30.9**	**+0.4**
HDA	**Harding Lake**	**5.25**	**28**	P	**P**	**05 26 30.8**	**-0.3**
BALM	**Baldy**	**5.26**	**73**	P	**P**	**05 26 31.7**	**+0.6**
CCB	**Clear Creek Bu**	**5.27**	**24**	P	**P**	**05 26 30.4**	**-0.9**
COLA	**College**	**5.47**	**22**	P	**P**	**05 26 32.6**	**-1.3**
MDM	**Murphy Dome**	**5.47**	**20**	P	**P**	**05 26 33.6**	**-0.4**
YAH	**Yahtse**	**5.50**	**81**	P	**P**	**05 26 35.1**	**+0.6**
DOT	**Dot Lake**	**5.56**	**44**	P	**P**	**05 26 34.2**	**-1.0**
ILAR	**Eielson Array**	**5.58**	**27**	P	**P**	**05 26 34.6**	**-0.9**
	1.5nm,0.3s,baz=219,slow=14,SNR=66						
ILAR				S	**S**	**05 27 33.5**	**-5.3**
	2.0nm,0.3s,baz=86,slow=17,SNR=7.0						
IL1	**Eielson Array**	**5.58**	**27**	P	**P**	**05 26 34.5**	**-1.0**
GLM	**Gilmore Dome**	**5.66**	**24**	P	**P**	**05 26 35.5**	**-1.1**
CHX	**Chaix Hills**	**5.83**	**84**	P	**P**	**05 26 38.4**	**-0.4**
IM3	**Indian Mountai**	**6.11**	**356**	P	**P**	**05 26 42.5**	**-0.2**
BCA3	**Beaver Creek A**	**6.12**	**54**	P	**P**	**05 26 42.2**	**-0.5**
PNL	**Peninsula**	**6.73**	**86**	P	**P**	**05 26 51.2**	**-0.1**
COLD	**Coldfoot**	**7.43**	**8**	P	**P**	**05 27 00.0**	**-0.7**
BM3	**Burnt Mountain**	**8.34**	**22**	P	**P**	**05 27 12.0**	**-1.1**
YKA	**Yellowknife Ar**	**18.36**	**65**	P	**P**	**05 29 22.0**	**+0.8**
	0.1nm,0.3s,baz=276,slow=10.0,SNR=4.2						
SONM	**Songino Array**	**54.95**	**306**	P	**P**	**05 34 34.9**	**+0.6**
	0.3nm,0.5s,mb3.6,baz=49,slow=6.9,SNR=3.6						

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*NEIC **04** 05:25:24.1,16.05N×99.46W,h15^{km},MD3.7(MEX),After MEX.*

MEX 04 05:25:26.1±1.4,**16.20N**×**99.41W**,**h16**^{km}±20^{km},**MD3.7**, **Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	**0.82**	**324**	*e*P	Pb	05 25 37.5	-4.1
ACX	**Acapulco**	**0.82**	**324**	*i* P	Pb	05 25 38.3	-3.3
ACX				*i* S	Sb	05 25 47.5	-4.7
CAIG	**El Cayaco**	**1.18**	**316**	*i* P	Pb	05 25 45.4	-2.3
CAIG				*i* S	Sb	05 25 59.2	-3.3
PNIG	**Pinotepa**	**1.24**	**81**	*e*P	Pb	05 25 45.2	-3.4
PNIG				*i* S	Sb	05 25 59.5	-4.8
PNIG	**Pinotepa**	**1.24**	**81**	*i* P	Pb	05 25 45.2	-3.4
PNIG				*i* S	Sb	05 25 59.5	-4.8
PLIG	**Platanillo**	**2.18**	**358**	*e*P	Pn	05 25 58.4	-4.0
PLIG				*e*S	Sn	05 26 24.9	-4.3
ZIIG	**Zihuatanejo**	**2.42**	**306**	*e*P	Pn	05 25 59.5	-6.2
ZIIG				*e*S	Sn	05 26 28.5	-6.7
ZIIG	**Zihuatanejo**	**2.42**	**306**	*i* P	Pn	05 26 01.3	-4.4
ZIIG				*i* S	Sn	05 26 30.4	-4.8
YAIG	**Yautepec**	**2.67**	**7**	*e*P	Pn	05 26 06.3	-3.0
YAIG				*e*S	Sn	05 26 39.3	-2.2
YAIG	**Yautepec**	**2.67**	**7**	*e*P	Pn	05 26 06.3	-3.0
YAIG				*i* S	Sn	05 26 37.1	-4.4
VHO	**Vista Hermosa**	**2.70**	**71**	*e*P	Pn	05 26 07.4	-2.4
VHO				*e*S	Sn	05 26 39.6	-2.8
VHO	**Vista Hermosa**	**2.70**	**71**	*e*P	Pn	05 26 07.4	-2.4
VHO				*i* S	Sn	05 26 38.4	-4.0
OXX	**Oaxaca**	**2.72**	**71**	*e*S	Sn	05 26 39.0	-3.7
PPM	**Popocatepetl**	**2.95**	**14**	*e*P	Pn	05 26 12.0	-1.2
PPM				*e*S	Sn	05 26 47.6	-1.0
PPM	**Popocatepetl**	**2.95**	**14**	*e*P	Pn	05 26 11.2	-2.0
PPM				*e*P		05 26 12.0	
PPM				*i* S	Sn	05 26 45.5	-3.1

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*CSEM **04** 05:27:57.3±0.2,66.19N×12.84E,h2^{km},ML2.1/1,Error ellipse: s-maj=8.4km s-min=2.3km az=93.0,Suspected Mining explosion.*

*NAO **04** 05:27:59.8±1.9,66.32N×13.59E,ML2.7*

*UPP **04** 05:27:59.0,66.51N×13.69E,h0^{km},ML2.1,Suspected Mining explosion.*

*IDC **04** 05:28:00.7±1.6,66.35N×13.62E,mb1 3.2/3, mb1mx3.1/18,ML2.6/3,Error ellipse: s-maj=19.3km s-min=9.6km az=114.0*

*NEIC **04** 05:28:00.8,66.37N×13.31E,ML2.7(BER),After BER.*

*BER **04** 05:28:01.6±4.1,66.33N×13.43E,MD2.9,ML2.1, ML2.7(NAO)*

HEL 04 05:28:00.5±0.2,**66.36N**×**13.44E**,**h10**^{km}±1^{km},**ML2.1**, **ML2.1**(UPP),**ML2.1**(BER),**Northern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MOR8	**Moi Rana**	**0.45**	**114**	*e*P	Pg	05 28 09.3	-0.3
MOR8				*e*S	Sg	05 28 17.4	+1.7
MOR8	**Moi Rana**	**0.45**	**114**	*i* P	Pg	05 28 09.3	-0.3
MOR8				*i* S	Sg	05 28 17.4	+1.7
LOF	**Lofoten**	**1.78**	**1**	*e*P	Pn	05 28 32.2	+0.6
LOF				*e*S	Sn	05 28 55.2	+0.8
LOF				AML	AML	05 29 04.3	
	comp=Z,17nm,0.7s						
LOF	**Lofoten**	**1.78**	**1**	*e*P	Pn	05 28 32.2	+0.6
	SNR=50						
LOF				S	Sn	05 28 55.2	+0.8
	comp=Z,17nm,0.7s						
NSS	**Namsos**	**1.94**	**199**	*e*P	Pn	05 28 32.3	-1.5
NSS				*e*S	Sn	05 28 57.8	-0.6
NSS				AML	AML	05 29 00.5	
	comp=Z,35nm,0.3s						
NOD	**Norderasen**	**2.99**	**168**	*e*P	Pn	05 28 48.8	-0.1
SVAU	**Svanoeiden**	**3.18**	**123**	*e*P	Pn	05 28 50.2	-1.3
BREU	**Bredtraesk**	**3.30**	**136**	*e*P	Pn	05 28 52.1	-1.2
SOLU	**Sollefteaa**	**3.53**	**151**	*e*P	Pn	05 28 56.0	-0.5
KTK1	**Kautokeino**	**4.59**	**50**	*e*P	Pn	05 29 09.8	-1.8
KTK1				*e*S	Sn	05 30 04.2	-1.3
KTK1				AML	AML	05 30 27.9	
	comp=Z,8.5nm,0.8s						
ROTU	**Roteberg**	**5.07**	**167**	*e*S	Sn	05 30 15.1	-2.6
VAF	**Ylistaro**	**5.17**	**126**	*e*P	Pn	05 29 18.2	-1.7
VAF				*e*S	Sn	05 30 14.8	-5.5
VAF				*e*SG	Sg	05 30 40.6	-12
VAF				MSG		05 30 44.5	
	comp=Z,4.0nm,0.2s						
SGF	**Sodankyl**	**5.27**	**72**	*e*P	Pn	05 29 18.8	-2.4
SGF				*e*S	Sn	05 30 17.5	-5.2
SGF				*e*SG	Sg	05 30 42.3	-14
SGF				MSG		05 30 52.6	
	comp=Z,2.6nm,0.2s						
OUL	**Oulu**	**5.30**	**98**	*e*P	Pn	05 29 18.6	-3.0
OUL				*e*S	Sn	05 30 18.3	-5.2
OUL				*e*SG	Sg	05 30 45.8	-11
OUL				MSG		05 30 51.2	
	comp=Z,1.5nm,0.2s						
NB2	**NORSAR Subarra**	**5.43**	**191**	Pn	Pn	05 29 21.2	-2.3
	baz=359,slow=14						
NB2				Sn	Sn	05 30 22.1	-4.7
NB2				Lg		05 30 47.1	
NB2	**NORSAR Subarra**	**5.43**	**191**	*e*P	Pn	05 29 21.2	-2.3
NB2				*e*S	Sn	05 30 22.1	-4.7
NB2				*e*SG		05 30 47.1	
NOA	**NORSAR Array B**	**5.43**	**191**	Pn	Pn	05 29 21.9	-1.6
	comp=Z,0.2nm,0.3s,baz=28,slow=5.9,SNR=2.8						
NOA				Sn	Sn	05 30 24.8	-2.1
	comp=Z,0.4nm,0.3s,baz=40,slow=21,SNR=2.3						
NOA				Lg		05 30 50.3	
	comp=Z,1.1nm,0.3s,baz=350,slow=16,SNR=4.8						
ARA0	**ARCESS Array S**	**5.55**	**50**	Pn	Pn	05 29 22.6	-2.6
	baz=232,slow=14						
ARA0				Sn	Sn	05 30 25.1	-4.7
	baz=237,slow=22						
ARA0				Lg		05 30 52.1	
	baz=235,slow=37						
ARA0	**ARCESS Array S**	**5.55**	**50**	*e*P	Pn	05 29 22.6	-2.6
ARA0				*e*S	Sn	05 30 25.1	-4.7
ARA0				*e*SG		05 30 52.1	
ARA0	**ARCESS Array S**	**5.55**	**50**	Pn	Pn	05 29 22.5	-2.7
	SNR=7.6						
ARCES	**ARCESS Array B**	**5.55**	**50**	Pn	Pn	05 29 22.9	-2.3
	comp=Z,0.1nm,0.3s,baz=234,slow=13,SNR=16						
ARCES				Sn	Sn	05 30 24.9	-4.8
	comp=Z,0.7nm,0.3s,baz=237,slow=22,SNR=7.2						
ARCES				Lg		05 30 52.4	
	comp=Z,1.1nm,0.3s,baz=236,slow=26,SNR=6.5						
IGGU	**Iggoen**	**5.77**	**161**	*e*P	Pn	05 29 26.5	-1.8
FALU	**Falun**	**5.99**	**169**	*e*P	Pn	05 29 29.2	-2.1
FALU				*e*S	Sn	05 30 36.9	-3.8
FALU	**Falun**	**5.99**	**169**	P	Pn	05 29 29.2	-2.1
FALU				S	Sn	05 30 36.8	-3.9
KEV	**Kevo**	**6.12**	**50**	*e*P	Pn	05 29 30.3	-2.9
KEV				*e*S	Sn	05 30 37.2	-6.8
KEV				*e*SG	Sg	05 31 08.6	-16
HFS	**Hagfors**	**6.25**	**179**	Pn	Pn	05 29 32.2	-2.8
	baz=352,slow=14						
HFS				Sn	Sn	05 30 43.9	-3.4
	baz=7.3,slow=22						
HFS				Lg		05 31 11.8	
	baz=356,slow=28						
HFS	**Hagfors**	**6.25**	**179**	*e*P	Pn	05 29 32.2	-2.8
HFS				*e*S	Sn	05 30 43.9	-3.4
HFS				*e*SG		05 31 11.8	
MSF	**Maaselka**	**6.35**	**87**	*e*P	Pn	05 29 32.6	-3.8
MSF				*e*S	Sn	05 30 42.9	-6.9
MSF				*e*SG	Sg	05 31 17.6	-14
MSF				MSG		05 31 22.5	
	comp=Z,1.7nm,0.3s						
OSTU	**Oestervaala**	**6.37**	**163**	*e*P	Pn	05 29 33.5	-3.3
KJN	**Kajaani**	**6.42**	**104**	*e*P	Pn	05 29 33.6	-3.8
KJN				*e*S	Sn	05 30 44.2	-7.3

KJN				*e*SG	Sg	05 31 20.4	-14
KJN				MSG		05 31 27.7	
	comp=Z,1.3nm,0.2s						
KEF	Keuruu	6.51	125	*e*P	Pn	05 29 36.4	-2.4
KEF				*e*S	Sn	05 30 48.0	-5.8
KEF				*e*SG	Sg	05 31 22.1	-15
KEF				MSG		05 31 28.2	
	comp=Z,1.0nm,0.2s						
SUF	Sumiainen	6.58	118	*e*P	Pn	05 29 36.5	-3.2
SUF				*e*S	Sn	05 30 48.3	-7.3
SUF				*e*SG	Sg	05 31 23.9	-16
SUF				MSG		05 31 25.0	
	comp=Z,0.9nm,0.2s						
BACU	Backbrunna	6.74	164	*e*P	Pn	05 29 39.1	-2.8
KAF	Kangasniemi	7.04	121	*e*S	Sn	05 31 00.3	-6.6
KAF				*e*SG	Sg	05 31 37.0	-18
KAF				MSG		05 31 42.0	
	comp=Z,1.0nm,0.2s						
KAF	Kangasniemi	7.04	121	S	Sn	05 31 00.3	-6.7
NRTU	Norrtaelje	7.11	158	*e*P	Pn	05 29 43.9	-3.3
NRTU	Norrtaelje	7.11	158	P	Pn	05 29 43.8	-3.3
ESKU	Eskilstuna	7.28	168	*e*P	Pn	05 29 45.9	-3.7
FIA0	FINESS Array S	7.43	126	Pn	Pn	05 29 48.4	-3.3
	baz=323,slow=12						
FIA0				Sn	Sn	05 31 09.5	-7.5
	baz=318,slow=22						
FIA0				Lg		05 31 52.3	
	baz=327,slow=37						
FIA0	FINESS Array S	7.43	126	*e*S	Sn	05 31 09.6	-7.3
FIA0				*e*SG	Sg	05 31 50.9	-17
FIA0				MSG		05 31 53.6	
	comp=Z,1.0nm,0.2s						
FIA0	FINESS Array S	7.43	126	Pn	Pn	05 29 48.3	-3.4
	SNR=6.9						
FINES	FINESS Array B	7.43	126	Pn	Pn	05 29 47.4	-4.3
	comp=Z,0.1nm,0.3s,baz=318,slow=13,SNR=4.3						
FINES				Sn	Sn	05 31 10.8	-6.1
	comp=Z,0.2nm,0.3s,baz=322,slow=21,SNR=6.0						
FINES				Lg		05 31 51.1	
	comp=Z,0.6nm,0.3s,baz=340,slow=28,SNR=6.1						
NYNU	Nynaeshamn	7.67	162	*e*P	Pn	05 29 51.4	-3.7
PVF	Pernaja	8.05	131	*e*S	Sn	05 31 23.9	-8.4
PVF				*e*SG	Sg	05 32 08.0	-20
PVF				MSG		05 32 17.2	
	comp=Z,1.6nm,0.2s						
JOF	Joensuu	8.40	106	*e*P	P	05 30 00.6	-4.6
JOF				*e*S	Sn	05 31 31.5	-10

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*IDC **04** 05:39:10.0±3.0, 35.93N×10.76E, mb3.7/3, mb1 3.8/8, mb1mx3.6/23, ML3.8/5, MS2.9/1, Ms1 2.9/1, ms1mx2.5/25, Error ellipse: s-maj=75.0km s-min=32.3km az=2.0*

*TUN **04** 05:39:12.0, 36.46N×11.41E, h10^{km}, MD3.7*

*ROM **04** 05:39:13.0±2.3, 36.51N×11.04E, h10^{km}, MD3.0/5, ML3.3/3, Error ellipse: s-maj=16.0km s-min=13.5km az=90.0*

*NEIC **04** 05:39:13.0, 36.51N×11.04E, h10^{km}, MD3.0(ROM), After ROM.*

*CSEM **04** 05:39:14.0±0.2, 36.44N×11.18E, h10^{km}, MD3.7, Error ellipse: s-maj=9.5km s-min=3.9km az=160.0*

ISC 04 05:39:13.6±1.4**, 36.41N**±0.10×**11.24E**±0.05**, h13**^{km}±9^{km}**, n31, σ0^{s}98**/35**, mb3.7**/3**, Tunisia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBZ	Menzel Bouzelf	0.53	301	*i* P	Pb	05 39 24.6	+0.4
PTS	Pantelleria	0.73	56	*e*PG	Pg	05 39 28.2	-0.2
PTS	Pantelleria	0.73	56	*e*Pg	Pg	05 39 28.2	-0.2
ZGN	Zaghouan	0.92	268	*i* P	Pb	05 39 33.6	+2.8
KCHT	Kechabta	1.26	304	*i* P	Pb	05 39 37.6	+1.0
TROT	Trozza	1.57	238	*i* P	Pn	05 39 42.0	+0.7
LVI	Isola Levanzo	1.81	29	*e*PN	Pn	05 39 43.3	-1.4
LVI	Isola Levanzo	1.81	29	*e*Pn	Pn	05 39 43.3	-1.4
BLIT	Baltah	1.86	280	*i* P	Pn	05 39 45.0	-0.5
ERC	Erice	1.95	33	*e*PN	Pn	05 39 46.5	-0.3
ERC	Erice	1.95	33	*e*Pn	Pn	05 39 46.5	-0.3
CLTB	Caltabellotta	1.97	53	*e*PN	Pn	05 39 46.2	-0.8
	210nm,0.4s						
CLTB	Caltabellotta	1.97	53	*e*Pn	Pn	05 39 46.1	-0.9
CLTB	Caltabellotta	1.97	53	*e*Pn	Pn	05 39 46.2	-0.8
	210nm,0.4s						
GIB	Gibilmanna	2.73	54	*e*PN	Pn	05 39 58.2	+0.3
GIB				SN	Sn	05 40 31.6	+0.5
	30nm,0.3s						
GIB	Gibilmanna	2.73	54	*e*Pn	Pn	05 39 58.2	+0.3
GIB				*e*Sg	Sn	05 40 31.6	+0.5
GIB	Gibilmanna	2.73	54	*e*Pn	Pn	05 39 58.2	+0.3
	30nm,0.3s						
GIB				Sn	Sn	05 40 31.6	+0.5
VAE	Valguarnera	2.76	66	Pn	Pn	05 40 03.2	+4.9
	1.9nm,0.3s,baz=270,slow=12,SNR=3.0						
VAE				Sn	Sn	05 40 33.5	+1.7
	4.9nm,0.3s,baz=72,slow=2.4,SNR=8.1						
VAE				LR	LR	05 41 54.6	
	comp=Z,167nm,18.3s,baz=161,slow=50						
VAE	Valguarnera	2.76	66	Sn	Sn	05 40 33.5	+1.7
MEU	Monte Lauro	3.05	76	*e*PN	Pn	05 40 02.1	-0.3
	67nm,0.3s						
MEU	Monte Lauro	3.05	76	*e*Pn	Pn	05 40 02.1	-0.4
MEU	Monte Lauro	3.05	76	*e*Pn	Pn	05 40 02.1	-0.3
	67nm,0.3s						
SSY	Sortino	3.17	75	*e*PN	Pn	05 40 04.6	+0.5
SSY	Sortino	3.17	75	*e*Pn	Pn	05 40 04.6	+0.4
DAVOX	Davos	10.42	355	Pn	P	05 41 46.8	+1.2
	0.2nm,0.3s,baz=278,slow=9.0,SNR=4.9						
ESDC	Sonseca Array	12.42	290	Pn	P	05 42 11.7	-1.2
	0.8nm,0.3s,baz=94,slow=14,SNR=6.6						
BRTR	Keskin Array B	17.94	73	P	P	05 43 29.0	+4.8
	0.1nm,0.3s,baz=258,slow=13,SNR=3.4						
AKASG	Malin Array Be	19.27	37	P	P	05 43 47.0	+6.7
	0.4nm,0.3s,baz=229,slow=8.8,SNR=6.9						
SONM	Songino Array	67.18	47	P	P	05 50 08.6	-0.5
	0.8nm,0.7s,mb3.9,baz=284,slow=5.5,SNR=6.0						
YKA	Yellowknife Ar	72.30	337	P	P	05 50 38.8	-1.3
	0.3nm,0.6s,mb3.4,baz=46,slow=6.1,SNR=6.9						
PDAR	Pinedale Array	84.51	321	P	P	05 51 46.3	-0.9
	0.6nm,0.9s,mb3.7,baz=76,slow=6.1,SNR=4.1						

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*LDG **04** 05:49:58.8±0.0, 46.09N×2.60E, h2^{km}, Md1.9/2, Ml1.7/7, Error ellipse: s-maj=0.9km s-min=0.7km az=128.0*

*STR **04** 05:50:00.6±0.6, 46.07N×2.61E, h2^{km}±1^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 04 05:49:57.5±0.4**, 46.10N**±0.02×**2.57E**±0.04**, h13**^{km}±5^{km}**, n13, σ1^{s}06**/25**, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TCF	Toulx Ste Croi	0.31	307	*e*Pg	Pg	05 50 05.3	+1.1
TCF				*e*Sg	Sg	05 50 10.0	+1.4
	3.3nm,0.3s						
AGO	Saint Agoulin	0.39	97	Pg	Pg	05 50 07.2	+1.6
BGF	Bois d'Agland	0.50	22	*e*Pg	Pg	05 50 08.5	+0.8
BGF				*e*Sg	Sg	05 50 14.8	+0.3
	3.8nm,0.2s						
PLDF	La Plantade	0.74	100	Pg	Pg	05 50 14.3	+1.8
AVF	Avril sur Loir	0.88	38	*e*Pg	Pg	05 50 15.2	+0.1
AVF				*e*Sg	Sg	05 50 26.4	-0.6
AVF				*e*Sn	Sn	05 50 28.6	+0.6
	2.6nm,0.2s						
LBL	Lubilhac	0.99	151	Pg	Pg	05 50 18.6	+1.3
LBL				Sg	Sg	05 50 31.4	+0.8
SMF	Signal de Mont	1.03	58	*e*Pg	Pg	05 50 18.4	+0.1
SMF				*e*Sg	Sg	05 50 31.1	-1.1
	1.9nm,0.2s						
RJF	Les Rejaudoux	1.08	223	*e*Pg	Pg	05 50 19.2	-0.1
RJF				*e*Sg	Sg	05 50 33.5	-0.3
	1.2nm,0.2s						
SSF	Saint Saulge	1.16	33	*e*Pg	Pg	05 50 20.2	-0.5
SSF				*e*Sg	Sg	05 50 35.3	-0.9
	1.7nm,0.2s						
HYF	Humbligny	1.17	2	*e*Sg	Sg	05 50 35.8	-0.9
CAF	Calviac	1.23	197	*e*Pg	Pg	05 50 21.8	-0.2
CAF				*e*Sg	Sg	05 50 37.6	-0.9
	2.2nm,0.2s						
VIVF	Saint-Julien-l	1.93	129	*e*Pn	Pn	05 50 30.9	+0.5
VIVF				*e*Pg	Pg	05 50 34.4	-1.7
VIVF				*e*Sg	Sg	05 50 59.1	-2.8
	0.6nm,0.2s						
MFF	Saint Martin d	1.95	286	*e*Sn	Sn	05 50 55.3	+0.2
MFF				*e*Sg	Sg	05 51 00.3	-2.1
	1.0nm,0.3s						

IDC 04 05:53:04.6±7.3**, 11.20S**×**162.67E, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.8**/15**, MS3.3**/2**, Ms1 3.4**/2**, ms1mx2.9**/20**, Error ellipse: s-maj=193.0km s-min=39.5km az=120.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	18.09	239	LR	LR	06 03 01.7	
	comp=Z,45nm,21.6s,baz=227,slow=33						
WRA	Warramunga Arr	28.60	249	P	P	05 59 03.1	-1.8
	0.4nm,0.5s,baz=78,slow=9.0,SNR=6.0						
ASAR	Alice Springs	30.04	242	P	P	05 59 15.6	-2.2
	0.6nm,0.6s,baz=74,slow=9.4,SNR=7.3						
FITZ	Fitzroy Crossi	36.43	255	P	P	06 00 11.1	-2.0
	2.6nm,0.8s,baz=95,slow=3.0,SNR=12						
CMAR	Chiang Mai Arr	69.42	295	LR	LR	06 36 28.8	
	comp=Z,38nm,18.2s,baz=342,slow=38						
SONM	Songino Array	77.03	325	P	P	06 04 59.8	-1.4
	0.5nm,0.7s,baz=142,slow=6.1,SNR=6.4						

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*NEIC **04** 06:01:49.4±8.4, 0.51N×126.67E, h34^{km}±63^{km}, mb4.6/5, Error ellipse: s-maj=24.9km s-min=15.5km az=76.0*

*IDC **04** 06:01:50.8±2.2, 0.39N×126.55E, h47^{km}±19^{km}, mb3.9/8, mb1 4.0/9, mb1mx3.9/18, ML4.0/1, Error ellipse: s-maj=43.1km s-min=10.9km az=70.0*

ISC 04 06:01:43.8±2.7**, 0.61N**±0.08×**126.9E**±0.2**, h9**^{km}±16^{km}**, n19, σ0^{s}93**/22**, mb4.3**/13**, 2D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	14.31	158	⇓*i*P	P	06 05 07.6	-1.3
	7.9nm,0.5s						
FITZ	Fitzroy Crossi	18.63	184	*e*P	P	06 06 03.7	-0.1
	3.1nm,1.1s						
FITZ	Fitzroy Crossi	18.63	184	P	P	06 06 03.7	-0.1
	0.4nm,0.3s,baz=16,slow=10,SNR=12						
WRAB	Tennant Creek	21.69	161	*e*P	P	06 06 37.2	+0.2
	8.5nm,0.4s,mb4.5						
WRA	Warramunga Arr	21.69	161	P	P	06 06 37.0	-0.1
	9.7nm,0.4s,mb4.6,baz=336,slow=10,SNR=48						
WRA				S	S	06 10 34.1	+2.0
	2.3nm,0.8s,baz=331,slow=16,SNR=5.8						
WRA				ScP		06 14 12.6	
	0.6nm,0.9s,baz=344,slow=2.7,SNR=5.4						
WB2	Warramunga Arr	21.70	161	⇓*i*P	P	06 06 37.2	+0.1
WB2				*e*S	S	06 10 32.3	+0.1
PMG	Port Moresby	22.52	117	P	P	06 06 50.4	+4.9
	3.1nm,0.6s,mb3.9,baz=193,slow=17,SNR=2.0						
MBWA	Marble Bar	22.73	197	P	P	06 06 48.6	+1.1
	5.9nm,0.9s,mb4.0						
ASAR	Alice Springs	25.07	165	P	P	06 07 10.8	+0.6
	4.7nm,0.4s,mb4.4,baz=343,slow=9.1,SNR=99						
ASAR				S	S	06 11 30.1	-1.8
	0.4nm,0.7s,baz=330,slow=14,SNR=3.8						
ASAR				ScP		06 14 22.0	
	0.3nm,0.5s,baz=345,slow=2.4,SNR=4.2						
ASPA	Alice Springs	25.07	165	*e*P	P	06 07 11.2	+1.0
STKA	Stephens Creek	35.19	158	P	P	06 08 38.8	-1.5
	1.2nm,0.3s,mb4.3,baz=335,slow=5.2,SNR=5.1						
MDJ	Mudanjiang	43.89	3	P	P	06 09 53.5	+1.1
	7.2nm,0.6s,mb4.6						
SONM	Songino Array	50.29	342	P	P	06 10 44.1	+1.5
	1.3nm,0.7s,mb4.0,baz=162,slow=7.8,SNR=7.5						
ZAL	Zalesovo	63.43	334	P	P	06 12 15.4	-0.6
	1.0nm,0.4s,mb4.3,baz=134,slow=4.1,SNR=2.5						
KURK	Kurchatov	64.44	328	*e*P	P	06 12 22.4	-0.4
	3.5nm,0.5s,mb4.7						
BVAR	Borovoye Array	70.01	328	P	P	06 12 57.6	-0.2
	1.0nm,0.7s,mb3.8,baz=127,slow=7.4,SNR=4.2						
BRVK	Borovoye	70.08	328	*e*P	P	06 12 57.6	-0.5
	6.6nm,0.9s,mb4.6						
CHKZ	Chkalovo	70.19	328	P	P	06 12 57.5	-1.3
CHKZ				*e*		06 13 04.9	
ILAR	Eielson Array	87.85	25	P	P	06 14 34.5	0.0
	0.5nm,0.8s,mb3.8,baz=237,slow=4.4,SNR=6.5						

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*IDC **04** 06:29:01.9±1.6, 3.62S×136.64E, mb3.7/3, mb1 4.1/5, mb1mx4.0/12, ML3.8/2, Error ellipse: s-maj=75.3km s-min=27.4km az=98.0*

ISC 04 06:28:58.9±1.2**, 3.94S**±0.08×**136.8E**±0.3**, n8, σ1^{s}18**/10**, mb3.6**/2**, 1D, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.74	206	*e*P	P	06 31 22.5	-1.0
	5.3nm,0.3s						
WB2	Warramunga Arr	16.09	188	*e*P	P	06 32 49.2	+1.0
WB2				*e*		06 32 56.8	
WB2				*e*S	S	06 35 46.7	-0.8
WRA	Warramunga Arr	16.09	188	Pn	P	06 32 49.1	+0.8
	0.3nm,0.3s,baz=2.0,slow=13,SNR=9.2						
WRA				Sn	S	06 35 46.8	-0.8
	0.2nm,0.3s,baz=2.2,slow=23,SNR=4.8						
FITZ	Fitzroy Crossi	17.83	217	P	P	06 33 12.4	+2.1
	0.3nm,0.3s,baz=19,slow=13,SNR=5.3						
ASAR	Alice Springs	19.81	188	P	P	06 33 38.1	+4.1
	6.0nm,0.6s,baz=7.7,slow=11,SNR=84						
ASPA	Alice Springs	19.81	188	⇓*i*P	P	06 33 38.7	+4.6
SONM	Songino Array	58.05	336	P	P	06 38 54.6	-1.6
	0.2nm,0.6s,mb3.4,baz=143,slow=7.2,SNR=2.8						
ILAR	Eielson Array	87.73	25	P	P	06 41 51.0	+0.4
	0.6nm,1.1s,mb3.8,baz=251,slow=4.3,SNR=6.1						

IDC 04 06:35:55.0±13.0**, 11.15S**×**166.77E, mb3.9**/5**, mb1 4.1**/5**, mb1mx3.8**/16**, MS3.3**/3**, Ms1 3.3**/3**, ms1mx3.0**/23**, Error ellipse: s-maj=215.0km s-min=100.0km az=66.0, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	19.37	273	LR	LR	06 46 47.3	
	comp=Z,102nm,18.6s,baz=105,slow=34						
CTA	Charters Tower	21.64	243	P	P	06 40 47.5	-1.6
	2.7nm,0.9s,baz=58,slow=10,SNR=3.9						
CTA				LR	LR	06 48 21.8	
	comp=Z,76nm,18.6s,baz=225,slow=34						
STKA	Stephens Creek	31.07	225	P	P	06 42 14.7	-2.5
	1.8nm,0.8s,baz=40,slow=7.9,SNR=3.6						
WRA	Warramunga Arr	32.39	250	P	P	06 42 26.6	-2.3
	2.7nm,0.8s,baz=80,slow=9.2,SNR=16						
ASAR	Alice Springs	33.65	244	P	P	06 42 37.1	-2.7
	0.8nm,0.8s,baz=74,slow=9.9,SNR=6.2						
ASAR				LR	LR	06 53 46.9	
	comp=Z,38nm,21.4s,baz=212,slow=32						
FITZ	Fitzroy Crossi	40.33	255	P	P	06 43 35.4	-0.7
	2.8nm,1.1s,baz=288,slow=1.4,SNR=3.9						

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*IDC **04** 06:44:49.8±6.8, 22.20S×176.74W, h234^{km}±65^{km}, mb3.7/10, mb1 3.9/11, mb1mx3.8/17, MS3.6/1, Ms1 3.6/1, ms1mx2.8/25, Error ellipse: s-maj=41.0km s-min=20.0km az=164.0*

*NEIC **04** 06:44:50.9±1.3, 22.28S×176.71W, h248^{km}±13^{km}, mb4.2/5, Error ellipse: s-maj=17.5km s-min=7.6km az=144.0*

ISC 04 06:44:49.0±1.9**, 22.36S**±0.09×**176.7W**±0.1**, h243**^{km}±20^{km}**, n26, σ0^{s}66**/22**, mb3.8**/11**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	9.63	30	P	P	06 47 04.0	+0.2
	47nm,0.4s						
URZ	Urewera	16.71	197	P	P	06 48 29.9	-0.8
	2.8nm,0.3s,baz=324,slow=24,SNR=6.5						
URZ				S	S	06 51 27.8	+0.1
	0.8nm,0.3s,baz=209,slow=23,SNR=8.5						
CTA	Charters Tower	34.53	267	*e*P	P	06 51 16.8	+0.4
	5.0nm,0.6s,mb4.2						
CTA	Charters Tower	34.53	267	P	P	06 51 16.9	+0.5
	8.2nm,0.7s,mb4.4,baz=91,slow=9.6,SNR=16						
CTAO	Charters Tower	34.53	267	*e*P	P	06 51 16.3	-0.1
	7.3nm,0.6s,mb4.4						
PMG	Port Moresby	36.94	285	P	P	06 51 36.5	-0.2
	7.9nm,0.8s,mb4.3,baz=224,slow=11,SNR=3.6						
PMG				LR	LR	07 02 43.6	
	comp=Z,89nm,21.0s,baz=217,slow=29						
STKA	Stephens Creek	38.09	246	*e*P	P	06 51 47.0	+0.8
	1.8nm,0.6s,mb3.8						
STKA	Stephens Creek	38.09	246	P	P	06 51 47.2	+1.1
	4.0nm,0.8s,mb4.0,baz=99,slow=8.2,SNR=8.6						
ASAR	Alice Springs	45.28	258	P	P	06 52 44.8	+0.3
	5.3nm,0.8s,mb3.9,baz=93,slow=8.1,SNR=47						
ASAR				PcP	PcP	06 54 20.6	+0.3
	1.0nm,0.7s,baz=101,slow=4.7,SNR=4.9						
ASPA	Alice Springs	45.28	258	*e*P	P	06 52 45.5	+1.0
WB2	Warramunga Arr	45.54	264	*e*P	P	06 52 45.5	-1.0
WRAB	Tennant Creek	45.54	264	*e*P	P	06 52 46.9	+0.3
WRA	Warramunga Arr	45.55	264	P	P	06 52 45.5	-1.1
	2.9nm,0.6s,mb3.8,baz=99,slow=5.1,SNR=40						
WRA				sP	sP	06 53 56.9	-9.2
	2.7nm,0.8s,baz=80,slow=9.0,SNR=9.8						
FITZ	Fitzroy Crossi	53.98	263	*e*P	P	06 53 50.1	0.0
	2.9nm,0.6s,mb4.0						
MBWA	Marble Bar	58.62	258	*e*P	P	06 54 23.1	+0.2
YBH	Yreka Blue Hor	81.01	38	P	P	06 56 38.1	0.0
	1.0nm,0.6s,mb3.6,baz=207,slow=9.1,SNR=3.6						
NVAR	Mina Array Bea	81.57	43	P	P	06 56 41.7	+0.7
	0.5nm,0.8s,mb3.2,baz=234,slow=7.8,SNR=3.8						
TXAR	Lajitas Array	87.06	57	P	P	06 57 09.4	+0.8
	0.9nm,0.9s,mb3.5,baz=214,slow=4.5,SNR=6.8						
ILAR	Eielson Array	89.86	12	P	P	06 57 20.0	-0.9
	1.0nm,0.8s,mb3.7,baz=237,slow=5.5,SNR=4.7						
YKA	Yellowknife Ar	97.70	24	P	P	06 57 55.9	-0.9
	0.4nm,0.8s,mb3.8,baz=241,slow=4.0,SNR=7.0						
YKA	Yellowknife Ar	97.70	24	P	P	06 57 55.9	-0.9
AKASG	Malin Array Be	145.21	331	PKPbc	PKPbc	07 03 58.0	+0.1
	1.9nm,0.5s,baz=36,slow=4.1,SNR=14						
BRTR	Keskin Array B	148.96	311	PKPbc	PKPdf	07 04 09.9	+6.2
	3.0nm,0.8s,baz=136,slow=3.9,SNR=11						
CLL	Collm	150.13	348	*i* PKP1	PKPdf	07 04 12.9	+7.7
CLL				*i* PKP2	PKPab	07 04 17.5	-2.2
BRG	Berggiesshubel	150.34	346	*e*P	PKPdf	07 04 13.7	+8.2
GERES	GERESS Array B	152.30	345	PKPbc	PKPdf	07 04 16.1	+7.6
	1.0nm,0.9s,slow=4.0,SNR=4.8						

JMA 04 07:01:48.4±0.1**, 26.47N**×**141.60E, h108**^{km}**, M4.0, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHHJ	Haha-jima-NKT	0.54	73	P	P	07 02 05.4	-0.1
JHHJ				*e*S	S	07 02 18.0	-0.3
CBIJ	Chichi jima	0.81	40	P	P	07 02 07.7	-0.1
CBIJ				*e*S	S	07 02 22.3	-0.1
JRY	Ryogami san	9.79	347	P	P	07 04 03.6	-3.9
JAG	Ashikaga	10.09	350	P	P	07 04 06.5	-5.0
JHO	Hitachi	10.15	355	P	P	07 04 09.6	-2.7
JHO				*e*S	S	07 05 59.8	-4.9

MAN 04 07:44:00.6, 17.46N×**121.17E, h8**^{km}**, mb3.9, ML2.7, MS2.3, Luzon**

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*STR **04** 07:52:08.0±1.2, 48.04N×8.07E, h10^{km}±1^{km}, Ml1.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 04 07:52:08.7±0.2**, 48.08N**×**7.94E, h15**^{km}**, Md1.8**/1**, Ml2.2**/4**, Error ellipse: s-maj=4.1km s-min=3.8km az=105.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	Welschbruch	0.51	311	Pg	Pg	07 52 19.1	-0.2
WLS				Sg	Sg	07 52 28.6	+2.2
ECH	Echery	0.54	285	Pg	Pg	07 52 21.0	+1.2
CDF	Champ du Feu	0.55	307	*e*Pg	Pg	07 52 19.5	-0.6
CDF				*e*Pn	Pn	07 52 20.6	-1.1
CDF				*e*Sg	Sg	07 52 27.4	-0.3
	1.5nm,0.2s						
MOF	Molkenrain	0.58	248	Pg	Pg	07 52 20.0	-0.7
HINF	Hinteralfeld	0.77	251	*e*Pg	Pg	07 52 23.3	-1.1
HINF				*e*Pn	Pn	07 52 23.9	-1.0
HINF				*e*Sg	Sg	07 52 33.9	-0.9
	2.3nm,0.2s						
HAU	Haudompre	1.07	267	*e*Pn	Pn	07 52 27.6	-1.5
HAU				*e*Pg	Pg	07 52 28.5	-1.7
HAU				*e*Sg	Sg	07 52 42.6	-1.9
	6.4nm,0.2s						
RFYF	Reffroy	1.73	289	*e*Sg	Sg	07 53 03.3	-3.2
	4.0nm,0.3s						
SFTF	Sexfontaines	1.94	275	*e*Pn	Pn	07 52 39.8	-1.8
SFTF				*e*Sg	Sg	07 53 10.8	-2.8
	3.7nm,0.3s						

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*NIED **04** 07:53:00, 32.90N×141.90E, h32^{km}, Mw4.5 Best double couple: M$_0$6.13×10^{15} NP1:φ$_s$264°, δ84°, λ127°. NP2:φ$_s$1°, δ38°, λ9°.*

*IDC **04** 07:53:07.6±0.6, 32.87N×141.95E, mb4.0/16, mb1 4.2/18, mb1mx4.2/23, ML4.3/2, MS3.9/5, Ms1 4.0/5, ms1mx3.6/24, Error ellipse: s-maj=17.4km s-min=14.4km az=93.0*

*NEIC **04** 07:53:09.4±0.3, 32.86N×141.94E, h10^{km}, mb4.7/9, MW4.5(NIED), Error ellipse: s-maj=10.4km s-min=7.5km az=67.0*

*MOS **04** 07:53:10.9±1.2, 32.81N×142.10E, h41^{km}, mb4.7/11, MS4.2/7, Error ellipse: s-maj=22.4km s-min=11.8km az=118.1*

*BJI **04** 07:53:11.7, 32.98N×141.13E, h10^{km}, mB5.2, mb4.6, Ms4.6, Msz4.3*

*JMA **04** 07:53:11.1±0.5, 32.96N×141.89E, h31^{km}, M4.0*

ISC 04 07:53:07.8±1.5**, 32.81N**±0.04×**141.97E**±0.06**, h15**^{km}±10^{km}**, n87, σ1^{s}14**/90**, mb4.3**/33**, MS4.2**/13**, 1C-3D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	Mitsune	1.84	280	P	Pn	07 53 40.3	+1.1
JHJ	Hachijo jima 2	1.87	280	Pn	Pn	07 53 40.0	+0.4
	97nm,0.3s,baz=178,slow=6.6,SNR=29						
JHJ				Sn	Sn	07 54 03.6	+0.7
	133nm,0.3s,baz=252,slow=20,SNR=9.3						
BSO1	Boso 1	2.02	336	P	Pn	07 53 42.0	+0.3
BSO3	Boso 3	2.33	329	P	Pn	07 53 46.4	+0.2
BSO4	Boso 4	2.57	328	P	Pn	07 53 50.2	+0.6
JIZS	Izushimoda	3.21	307	P	Pn	07 53 58.8	+0.1
JOD2	Odawara 2	3.42	316	P	Pn	07 54 01.4	-0.4
JYN	Shimob	3.91	314	P	Pn	07 54 09.4	+0.7
JRY	Ryogami san	4.08	322	P	Pn	07 54 11.2	0.0
JAG	Ashikaga	4.16	331	P	Pn	07 54 12.0	-0.3
MAJO	Matsushiro	4.85	321	*e*P	Pn	07 54 22.1	+0.1
MAT	Matsushiro	4.85	321	P	Pn	07 54 20.4	-1.6
MAT				*e*S	Sn	07 55 13.2	-5.3
MAT	Matsushiro	4.85	321	P	Pn	07 54 22.1	+0.1
MAT	Matsushiro	4.85	321	*e*P	Pn	07 54 22.0	0.0
MAT				S	Sn	07 55 18.0	-0.5
JMM	Marumori	5.14	350	P	Pn	07 54 24.1	-2.0
JMM				*e*S	Sn	07 55 19.4	-6.4
JGM	Miyama	5.22	305	P	Pn	07 54 30.8	+3.6
JWZ	Kozaga	5.30	280	P	Pn	07 54 29.7	+1.4
CBIJ	Chichi jima	5.70	178	Pn	Pn	07 54 33.0	-1.0
	43nm,0.3s,baz=286,slow=22,SNR=11						
CBIJ				Sn	Sn	07 55 37.0	-2.8
	19nm,0.3s,baz=124,slow=22,SNR=3.7						
ASAJ	Asahikawa	11.30	2	Pn	P	07 55 47.4	-4.4
	1.4nm,0.3s,baz=192,slow=30,SNR=4.8						
ASAJ				Sn	S	07 57 47.5	-11
	0.6nm,0.3s,baz=122,slow=18,SNR=2.3						
CN2	Changchun	16.96	315	*e*P	P	07 57 06.9	+0.9
SSE	Sheshan	17.72	270	P	P	07 57 07.9	-7.7
SSE				S	S	08 00 17.7	-13
SSE				AMB	AMB		
	comp=Z,35nm,0.7s						
SSE				AMB	AMB		
	comp=Z,1μm,4.2s						
SSE				LR	LR		
	comp=Z,186nm,13.3s						
NJ2	Nanjing	19.53	274	*e*P	P	07 57 32.1	-5.4
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s						
PET	Petropavlovsk	23.50	26	*e*P	P	07 58 15.7	-1.9
HHC	Hu-ho-hao-te	25.54	297	*e*P	P	07 58 38.5	+1.1
HHC				AP	pP	07 58 42.9	+1.2
HHC				XP	sP	07 58 45.5	+1.8
HHC				PP	PP	07 59 17.3	+0.4
HHC				S	S	08 03 01.3	-0.4
HHC				XS		08 03 08.5	
HHC				SCP		08 05 50.0	
HHC				PCS		08 05 51.4	
HHC				AMB	AMB		
	comp=Z,35nm,0.7s,mb5.0						
HHC				LR	LR		
	comp=N,417nm,10.1s,MS4.4						
HHC				LR	LR		
	comp=E,454nm,11.2s,MS4.4						

HHC				LR	LR		
	comp=Z,527nm,11.6s,MS4.3						
TGY	**Tagaytay City**	**26.72**	**231**	LR	LR	08 09 25.6	
	comp=Z,111nm,18.2s,MS3.5,baz=102,slow=37						
XAN	**Xi'an**	**27.55**	**282**	P	**P**	**07 58 54.5**	**-1.5**
XAN				AMB	AMB		
	comp=Z,11nm,1.3s,mb4.3						
ULN	**Ulaanbaatar**	**30.27**	**310**	*e*P	**P**	**07 59 20.8**	**+0.5**
	comp=Z,10nm,1.0s,mb4.5						
YAK	**Yakutsk**	**30.29**	**349**	*e*P	**P**	**07 59 29.0**	**+8.7**
YAK				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.7						
YAK				MLR	MLR		
	comp=Z,700nm,16.0s,MS4.4						
SONM	**Songino Array**	**30.69**	**310**	P	**P**	**07 59 24.1**	**+0.2**
	comp=Z,3.5nm,0.8s,mb4.3,baz=116,slow=8.2,SNR=13						
BOD	**Bodaibo**	**31.40**	**331**	*e*P	**P**	**07 59 28.7**	**-1.4**
CD2	**Chengdu**	**32.40**	**277**	*e*P	**P**	**07 59 37.4**	**-1.7**
CD2				*e*S	**S**	**08 04 43.2**	**-8.5**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
CD2				AMB	AMB		
	comp=Z,370nm,5.4s						
CD2				LR	LR		
	comp=E,820nm,14.4s						
CD2				LR	LR		
	comp=Z,710nm,12.6s,MS4.6						
ZAK	**Zakamensk**	**33.38**	**313**	*e*P	**P**	**07 59 47.7**	**+0.3**
TLY	**Talaya**	**33.56**	**316**	*e*P	**P**	**07 59 51.6**	**+2.6**
TLY				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.5						
TLY				MLR	MLR		
	comp=Z,400nm,16.0s,MS4.2						
TIXI	**Tiksi**	**39.53**	**354**	*e*P	**P**	**08 00 45.5**	**+6.2**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.1						
CMAR	**Chiang Mai Arr**	**41.06**	**260**	P	**P**	**08 00 51.7**	**-0.7**
	comp=Z,0.8nm,0.4s,mb3.7,baz=36,slow=8.8,SNR=2.8						
CMAR				PcP	PcP	08 02 54.3	+1.5
	comp=Z,0.6nm,0.4s,baz=93,slow=0.3,SNR=4.1						
CMAR				LR	LR	08 20 30.0	
	comp=Z,259nm,18.2s,MS4.1,baz=75,slow=40						
CMAR	**Chiang Mai Arr**	**41.06**	**260**	P	**P**	**08 00 51.7**	**-0.7**
CMAR						08 02 54.3	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR				MLR	MLR		
	comp=Z,259nm,18.2s						
PMG	**Port Moresby**	**42.27**	**172**	LR	LR	08 16 44.2	
	comp=Z,58nm,19.1s,MS3.5,baz=333,slow=34						
WMQ	**Urumqi**	**43.28**	**301**	*e*P	**P**	**08 01 05.5**	**-4.8**
ZAL	**Zalesovo**	**45.19**	**316**	P	**P**	**08 01 25.4**	**-0.1**
	comp=Z,0.9nm,0.7s,mb3.7,baz=357,slow=9.5,SNR=5.3						
ZAL	**Zalesovo**	**45.19**	**316**	P	**P**	**08 01 25.4**	**-0.2**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ZAL	**Zalesovo**	**45.19**	**316**	P	**P**	**08 01 25.4**	**-0.1**
KURK	**Kurchatov**	**48.98**	**311**	⇓*i*P	**P**	**08 01 55.5**	**+0.2**
KURK	**Kurchatov**	**48.98**	**311**	*e*P	**P**	**08 01 54.4**	**-1.0**
	comp=Z,13nm,1.0s,mb4.9						
TKM2	**Tokmak 2**	**52.14**	**302**	*e*P	**P**	**08 02 21.2**	**+1.6**
	comp=Z,5.2nm,0.8s,mb4.5						
ILAR	**Eielson Array**	**52.85**	**31**	P	**P**	**08 02 24.1**	**-0.6**
	comp=Z,0.7nm,0.8s,mb3.6,baz=261,slow=6.9,SNR=5.5						
ILAR	**Eielson Array**	**52.85**	**31**	P	**P**	**08 02 24.1**	**-0.5**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRAB	**Tennant Creek**	**52.95**	**189**	*d i*P	**P**	**08 02 17.3**	**-8.6**
WRAB	**Tennant Creek**	**52.95**	**189**	*e*P	**P**	**08 02 25.8**	**-0.1**
	comp=Z,9.6nm,0.8s,mb4.8						
WB2	**Warramunga Arr**	**52.96**	**189**	*e*P	**P**	**08 02 25.9**	**-0.1**
WRA	**Warramunga Arr**	**52.96**	**189**	P	**P**	**08 02 25.8**	**-0.2**
	comp=Z,2.5nm,0.4s,mb4.5,baz=6.5,slow=7.6,SNR=28						
WRA	**Warramunga Arr**	**52.96**	**189**	P	**P**	**08 02 25.8**	**-0.2**
WRA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
FITZ	**Fitzroy Crossi**	**52.98**	**200**	*e*P	**P**	**08 02 26.7**	**+0.5**
	comp=Z,3.7nm,1.1s,mb4.2						
FITZ	**Fitzroy Crossi**	**52.98**	**200**	P	**P**	**08 02 26.8**	**+0.6**
	comp=Z,2.5nm,0.7s,mb4.3,baz=21,slow=11,SNR=9.0						
AAK	**Ala-Archa**	**52.99**	**301**	⇓*i*P	**P**	**08 02 25.3**	**-0.7**
AAK				pmax	pmax		
	comp=Z,300nm,16.0s						
AAK				MLR	MLR		
	comp=Z,300nm,19.0s,MS4.4						
CHKZ	**Chkalovo**	**53.59**	**316**	*e*P	**P**	**08 02 29.1**	**-1.1**
	comp=Z,7.9nm,1.1s,mb4.6						
AML	**Almayashu**	**53.68**	**301**	*e*P	**P**	**08 02 32.0**	**+1.0**
	comp=Z,8.0nm,0.8s,mb4.7						
ASAR	**Alice Springs**	**56.68**	**189**	P	**P**	**08 02 53.5**	**+0.4**
	comp=Z,0.8nm,0.6s,mb3.9,baz=14,slow=14,SNR=8.8						
ASPA	**Alice Springs**	**56.68**	**189**	*e*P	**P**	**08 02 55.9**	**+2.8**
ARU	**Arti**	**59.86**	**320**	⇑*i*P	**P**	**08 03 13.5**	**-1.4**
ARU				*e*		08 03 59.4	
ARU				*e*		08 05 24.2	
ARU				*e*S	**S**	**08 11 20.9**	**-3.3**
ARU				*e*		08 12 53.9	
ARU				*e*SS	SS	08 15 19.8	-2.0
ARU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
ARU				MLR	MLR		
	comp=N,100nm,16.0s,MS4.2						
ARU				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.0						
ARU				MLR	MLR		
	comp=E,100nm,17.0s,MS4.2						
ARU	**Arti**	**59.86**	**320**	*e*P	**P**	**08 03 14.2**	**-0.6**
	comp=E,11nm,1.0s,mb4.8						
STKA	**Stephens Creek**	**64.34**	**180**	P	**P**	**08 03 44.9**	**-0.3**
	comp=E,1.6nm,0.7s,mb4.2,baz=3.7,slow=16,SNR=3.6						
YKA	**Yellowknife Ar**	**67.24**	**29**	P	**P**	**08 04 02.9**	**-0.3**
	comp=E,0.2nm,0.6s,mb3.3,baz=291,slow=6.0,SNR=4.5						
OBN	**Obninsk**	**71.77**	**324**	*e*P	**P**	**08 04 32.7**	**+1.6**
OBN				*e*		08 04 51.0	
OBN				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
OBN				MLR	MLR		
	comp=Z,200nm,14.0s,MS4.5						
FINES	**FINESS Array B**	**72.77**	**333**	P	**P**	**08 04 36.7**	**-0.2**
	comp=Z,1.5nm,0.9s,mb3.9,baz=192,slow=27,SNR=3.8						
FINES	**FINESS Array B**	**72.77**	**333**	P	**P**	**08 04 36.7**	**-0.2**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KIV	**Kislovodsk**	**74.05**	**312**	*e*P	**P**	**08 04 45.9**	**+1.2**
KIV				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
CMB	**Columbia Colle**	**75.97**	**54**	P	**P**	**08 04 58.2**	**+2.4**
	comp=Z,6.0nm,1.2s,mb4.4						
SOC	**Sochi**	**76.08**	**313**	*e*P	**P**	**08 04 54.7**	**-1.6**
SOC				*e*S	S	08 14 39.7	+1.8
SOC				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.4						
SOC				pmax	pmax		
	comp=N,15nm,0.6s						
SOC				pmax	pmax		
	comp=E,32nm,1.1s						
SOC				MLR	MLR		
	comp=Z,125nm,15.0s,MS4.3						
SOC				MLR	MLR		
	comp=N,138nm,20.0s						
SOC				MLR	MLR		
	comp=E,145nm,14.0s						
ANN	**Anapa**	**76.81**	**315**	*e*P	**P**	**08 04 51.5**	**-8.9**
ANN				pmax	pmax		
	comp=Z,187nm,1.3s						
NVAR	**Mina Array Bea**	**77.17**	**53**	P	**P**	**08 05 01.9**	**-0.7**
	comp=Z,0.4nm,0.8s,mb3.4,baz=294,slow=44,SNR=3.3						
RAR	**Rarotonga**	**77.32**	**126**	LR	LR	08 31 58.0	
	comp=Z,65nm,21.4s,MS3.9,baz=176,slow=30						
AKASG	**Malin Array Be**	**77.93**	**323**	P	**P**	**08 05 06.5**	**+0.1**
	comp=Z,2.9nm,0.9s,mb4.2,baz=46,slow=5.8,SNR=5.4						
AKASG	**Malin Array Be**	**77.93**	**323**	P	**P**	**08 05 06.5**	**+0.1**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NB2	**NORSAR Subarra**	**78.26**	**338**	P	**P**	**08 05 08.4**	**+0.4**
	comp=Z,1.2nm,0.8s,mb3.9,baz=40,slow=5.0						
NOA	**NORSAR Array B**	**78.26**	**338**	P	**P**	**08 05 08.8**	**+0.8**
	comp=Z,2.9nm,1.0s,mb4.2,baz=60,slow=4.5,SNR=4.9						
NOA				LR	LR	08 45 51.5	
	comp=Z,134nm,18.3s,MS4.3,baz=355,slow=40						
PDAR	**Pinedale Array**	**80.31**	**45**	P	**P**	**08 05 21.2**	**+1.7**
	comp=Z,0.4nm,0.7s,mb3.5,baz=290,slow=2.1,SNR=4.1						
BRTR	**Keskin Array B**	**82.01**	**312**	P	**P**	**08 05 30.4**	**+1.8**
	comp=Z,1.8nm,0.8s,mb4.0,baz=117,slow=2.8,SNR=5.3						
BRTR	**Keskin Array B**	**82.01**	**312**	P	**P**	**08 05 30.4**	**+1.9**
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
PV10	**Paradox Valley**	**83.22**	**48**	*e*P	**P**	**08 05 37.1**	**+2.3**
PV01	**Paradox Valley**	**83.66**	**48**	P	**P**	**08 05 38.6**	**+1.6**
CLL	**Collm**	**84.99**	**331**	*e*P	**P**	**08 05 44.0**	**+0.6**
CLL	**Collm**	**84.99**	**331**	P	**P**	**08 05 44.0**	**+0.6**
CLL				*e*		08 06 44.0	
TXAR	**Lajitas Array**	**92.32**	**53**	P	**P**	**08 06 20.6**	**+1.7**
	comp=Z,0.5nm,0.7s,mb3.9,baz=283,slow=1.7,SNR=5.2						
SAML	**Samuel**	**146.77**	**50**	*e*PKPdf	PKPdf	08 12 51.8	+0.1
LPAZ	**La Paz**	**148.21**	**66**	PKPbc	PKPdf	08 12 57.3	+3.4
	comp=Z,1.6nm,0.7s,baz=287,slow=2.8,SNR=7.8						
LPAZ	**La Paz**	**148.21**	**66**	PKP2	PKPab	08 12 57.3	-1.5
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPAZ	**La Paz**	**148.21**	**66**	*e*PKPbc	PKPdf	08 12 57.1	+3.1

IDC 04 08:06:24.6±12.0**,18.51N**×**145.54E,h235**^{km}±125^{km}**,**
mb3.2/7**,mb1 3.5**/7**,mb1mx3.3**/20**,Error ellipse:**
s-maj=44.5km s-min=17.4km az=87.0,Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WB2	**Warramunga Arr**	**39.76**	**197**	*e*P	P	08 13 34.7	-1.6
WRA	**Warramunga Arr**	**39.76**	**197**	P	P	08 13 34.6	-1.7
	0.6nm,0.3s,baz=12,slow=8.6,SNR=15						
FITZ	**Fitzroy Crossi**	**41.30**	**209**	*e*P	P	08 13 47.6	-1.4
	2.0nm,1.5s						
FITZ	**Fitzroy Crossi**	**41.30**	**209**	P	P	08 13 47.8	-1.2
	0.6nm,0.3s,baz=15,slow=6.4,SNR=32						
SONM	**Songino Array**	**43.20**	**322**	P	P	08 14 03.2	-0.8
	0.3nm,0.4s,baz=117,slow=6.4,SNR=2.7						
ASAR	**Alice Springs**	**43.43**	**196**	P	P	08 14 03.8	-2.3
	0.4nm,0.9s,baz=13,slow=5.9,SNR=8.1						
ILAR	**Eielson Array**	**63.88**	**26**	P	P	08 16 31.2	-2.7
	0.2nm,0.5s,baz=255,slow=6.5,SNR=5.2						
NVAR	**Mina Array Bea**	**83.38**	**52**	P	P	08 18 26.9	+0.1
	0.8nm,0.7s,baz=273,slow=5.9,SNR=7.0						
FINES	**FINESS Array B**	**86.99**	**335**	P	P	08 18 41.5	-2.5
	4.9nm,1.2s,baz=90,slow=5.7,SNR=5.4						
LPAZ	**La Paz**	**147.82**	**91**	PKPbc	PKPdf	08 25 43.7	+4.5
	0.3nm,0.3s,baz=342,slow=3.8,SNR=3.5						

NAO ***04*** *08:50:02.9±3.8,67.54N×33.11E,ML2.3*
HEL 04 08:49:58.6±0.3**,67.68N**×**34.22E,ML2.2,ML2.3**(NAO)**,**
Explosion,Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	**Maaselka**	**2.71**	**232**	*e*P	Pn	08 50 43.5	-0.6
MSF				*e*S	Sn	08 51 15.2	-2.9
MSF				*e*SG	Sg	08 51 22.1	-6.6
MSF				MSG		08 51 25.8	
	comp=Z,9.2nm,0.3s						
SGF	**Sodankyl**	**2.96**	**269**	*e*P	Pn	08 50 46.2	-1.5
SGF				*e*S	Sn	08 51 21.9	-2.6
SGF				MSG		08 51 29.0	
	comp=Z,4.4nm,0.2s						
KEV	**Kevo**	**3.36**	**312**	*e*P	Pn	08 50 52.9	-0.5
KEV				*e*S	Sn	08 51 32.1	-2.5
KEV				MSG		08 51 41.7	
	comp=Z,9.3nm,0.2s						
ARA0	**ARCESS Array S**	**3.70**	**304**	Pn	Pn	08 50 57.1	-1.1
	baz=122,slow=16						
ARA0				Pg	Pg	08 51 05.2	-7.2
	baz=118,slow=16						
ARA0				Sn	Sn	08 51 39.0	-4.1
	baz=121,slow=28						
ARA0				Lg		08 51 51.2	
	baz=116,slow=28						
ARA0	**ARCESS Array S**	**3.70**	**304**	*e*P	Pn	08 50 57.1	-1.1
ARA0				*e*PG	Pg	08 51 05.2	-7.2
ARA0				*e*S	Sn	08 51 39.0	-4.1
ARA0				*e*SG		08 51 51.2	
OUL	**Oulu**	**4.24**	**236**	*e*PG	Pg	08 51 14.6	-8.6
OUL				*e*SG	Sg	08 52 09.6	-10
OUL				MSG		08 52 14.1	
	comp=Z,5.5nm,0.3s						
KTK1	**Kautokeino**	**4.28**	**293**	*e*S	Sn	08 51 53.4	-4.6
KTK1				*e*S	Sn	08 51 54.1	-3.9
KJN	**Kajaani**	**4.48**	**220**	*e*P	Pn	08 51 07.6	-1.8
KJN				*e*S	Sn	08 51 58.9	-4.2
KJN				MSG		08 52 18.9	
	comp=Z,3.8nm,0.3s						
JOF	**Joensuu**	**4.93**	**196**	*e*P	Pn	08 51 12.1	-3.6
JOF				*e*S	Sn	08 52 07.0	-7.3
JOF				MSG		08 52 34.5	
	comp=Z,2.3nm,0.3s						
SUF	**Sumiainen**	**6.02**	**218**	*e*S	Sn	08 52 35.8	-5.9
SUF				MSG		08 53 06.3	
	comp=Z,1.4nm,0.3s						
FIA0	**FINESS Array S**	**7.16**	**213**	Pn	Pn	08 51 43.1	-4.1
	baz=27,slow=16						
FIA0				Sn	Sn	08 53 02.9	-7.4
	baz=35,slow=22						
FIA0				Lg		08 53 33.9	
	baz=36,slow=28						
FIA0	**FINESS Array S**	**7.16**	**213**	*e*P	Pn	08 51 43.1	-4.1
FIA0				*e*S	Sn	08 53 02.9	-7.4

BJI ***04*** *09:00:09.6,3.41S×135.81E,h19*^{km}*,mB5.6,mb5.1,Ms4.8, Msz4.5*

IDC ***04*** *09:00:10.1±0.5,3.42S×135.46E,mb4.9/15,mb1 5.0/19, mb1mx5.0/21,ML4.6/4,MS4.3/12,Ms1 4.3/12, ms1mx4.1/23,Error ellipse: s-maj=23.4km s-min=11.8km az=70.0*

NEIC ***04*** *09:00:11.4±0.1,3.37S×135.51E,h10*^{km}*,mb5.3/36, MS4.9/46,Error ellipse: s-maj=5.5km s-min=4.2km az=69.0*

NEIC Felt [V] at Nabire.

HRVD ***04*** *09:00:11.4±0.3,3.45S×135.48E,h16*^{km}*,MW5.1/54, Centroid moment Tensor Solution. LP body waves: s32,c44;Mantle waves: s54,c89; Half duration: 0 Moment tensor: Scale 10*^{16}*Nm;* M_{rr}*-4.02±.19;* $M_{\theta\theta}$*3.14±.12;* $M_{\phi\phi}$*0.87±.15;* $M_{r\theta}$*0.04±.35;* $M_{\theta\phi}$*-2.34±.10;* $M_{\phi r}$*-2.20±.47; Best double couple:* M_0*4.87×10*^{16} *NP1:*ϕ_s*101°,δ41°, λ-125°. NP2:*ϕ_s*324°,δ57°,λ-63°. Principal axes: T 4.78, Plg8°, Azm35°; N .16, Plg22°, Azm128°; P -4.95, Plg66°, Azm285°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***04*** *09:00:11.3,3.37S×135.50E,h10*^{km}*,MB5.3*

MOS ***04*** *09:00:12.3±1.3,3.52S×135.49E,h33*^{km}*,mb5.1/13, MS4.3/5,Error ellipse: s-maj=17.4km s-min=8.2km az=109.5*

DJA ***04*** *09:00:14.6±0.2,3.31S×135.34E,h33*^{km}*,mb5.1/4,Error ellipse: s-maj=18.9km s-min=5.0km az=175.0*

ISC 04 09:00:09.1±1.4**,3.43S**±0.04×**135.53E**±0.05**,h9**^{km}±8^{km}**,**
h15^{km}±2.6^{km}**:pP-P,n243,**σ**1**^{s}**10**/168**,mb5.2**/67**,MS4.7**/61**,**
16C-11D,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SWI	**Sorong**	**4.97**	**301**	*e*Pn	**Pn**	**09 01 24.0**	**-1.8**
YOMI	**Yo Moklole**	**5.09**	**81**	⇑*e*P	**Pn**	**09 01 30.9**	**+3.5**
YOMI				*i* S	**Sn**	**09 02 35.7**	**+8.7**
YOMI	**Yo Moklole**	**5.09**	**81**	*e*P	**Pn**	**09 01 33.9**	**+6.5**
YOMI				⇓*i*Sn	**Sn**	**09 02 28.1**	**+1.1**
KAKA	**Kakadu**	**9.71**	**198**	*e*P	**P**	**09 02 30.6**	**-1.6**
	217nm,0.6s						
KAKA				*e*S	**Sn**	**09 04 16.2**	**-6.4**
PMG	**Port Moresby**	**12.99**	**118**	Pn	**P**	**09 03 16.4**	**-0.3**
	3.6nm,0.3s,baz=305,slow=11,SNR=10						
PMG				Sn	**S**	**09 05 34.4**	**-8.0**
	0.9nm,0.3s,baz=245,slow=17,SNR=1.8						
PMG				LR	LR	09 08 44.6	
	comp=Z,2µm,18.6s,baz=128,slow=39						
PMG	**Port Moresby**	**12.99**	**118**	P	**P**	**09 03 16.4**	**-0.3**
PMG						09 05 34.4	
PMG				pmax	pmax		
	comp=Z,4.0nm,0.3s						
PMG				smax			
	comp=N,1.0nm,0.3s						
PMG				MLR	MLR		
	comp=Z,2µm,18.7s						
PMG	**Port Moresby**	**12.99**	**118**	*e*P	**P**	**09 03 16.9**	**+0.2**
	comp=Z,58nm,0.8s						
MATI	**Mati**	**13.85**	**318**	*e*P	**P**	**09 03 45.7**	**+17**
BUKP	**Musuan**	**15.34**	**317**	*e*P	**P**	**09 03 53.2**	**+5.5**
NINI	**Niniconang**	**15.77**	**266**	⇑*i*P	**P**	**09 03 54.9**	**+1.6**
	comp=Z,387nm,1.4s						
WRAB	**Tennant Creek**	**16.44**	**184**	*c i*P	**P**	**09 03 58.4**	**-3.4**
WRAB	**Tennant Creek**	**16.44**	**184**	*e*P	**P**	**09 03 58.1**	**-3.7**
	comp=Z,25nm,0.5s						
WB2	**Warramunga Arr**	**16.45**	**184**	*e*P	**P**	**09 03 58.5**	**-3.5**
WB2				*e*		09 04 06.0	
WB2				*e*S	**S**	**09 06 53.4**	**-11**
WRA	**Warramunga Arr**	**16.45**	**184**	Pn	**P**	**09 03 59.1**	**-2.9**
	comp=Z,3.4nm,0.3s,slow=13,SNR=105						
WRA				Sn	**S**	**09 06 51.9**	**-12**
	comp=Z,5.9nm,0.3s,baz=7.6,slow=23,SNR=7.4						
WRA				Lg		09 08 54.0	
	baz=5.0,slow=28,SNR=3.2						
WRA	**Warramunga Arr**	**16.45**	**184**	P	**P**	**09 03 59.1**	**-2.9**
WRA						09 06 51.9	
WRA				pmax	pmax		
	comp=Z,3.0nm,0.3s						
WRA				smax			
	comp=N,6.0nm,0.3s						
MSLP	**Maasin**	**17.16**	**322**	*e*P	**P**	**09 04 16.5**	**+5.5**
FITZ	**Fitzroy Crossi**	**17.50**	**213**	*e*P	**P**	**09 04 13.2**	**-2.0**
	comp=N,33nm,0.9s						
FITZ				*e*S	**S**	**09 07 18.6**	**-10**
FITZ	**Fitzroy Crossi**	**17.50**	**213**	P	**P**	**09 04 13.6**	**-1.6**
	comp=N,2.0nm,0.3s,baz=27,slow=11,SNR=34						
FITZ				S	**S**	**09 07 17.2**	**-11**
	comp=N,6.3nm,0.3s,baz=199,slow=17,SNR=7.7						
FITZ				LR	LR	09 11 24.6	
	comp=N,260nm,18.8s,baz=60,slow=39						
BESP	**Borongan**	**17.99**	**326**	*e*P	**P**	**09 04 20.9**	**-0.4**
GUIM	**Jordan**	**19.00**	**317**	*e*P	**P**	**09 04 35.9**	**+2.2**
CNP	**Catarman**	**19.17**	**326**	*e*P	**P**	**09 04 34.9**	**-0.8**
CTA	**Charters Tower**	**19.58**	**149**	*e*P	**P**	**09 04 41.6**	**+1.1**
	comp=N,70nm,1.1s						
CTA				*e*S	**S**	**09 08 31.9**	**+16**
CTA	**Charters Tower**	**19.58**	**149**	P	**P**	**09 04 42.0**	**+1.5**
	comp=N,2.2nm,0.3s,baz=324,slow=12,SNR=36						
CTA				S	**S**	**09 08 18.7**	**+3.3**
	comp=N,0.7nm,0.3s,baz=222,slow=9.6,SNR=3.5						
CTA				Lg		09 10 32.9	
	comp=N,0.8nm,0.3s,baz=240,slow=20,SNR=3.5						
CTA				LR	LR	09 12 55.3	
	comp=N,2µm,19.4s,baz=327,slow=39						
CTA	**Charters Tower**	**19.58**	**149**	P	**P**	**09 04 42.0**	**+1.5**
CTA				S	**S**	**09 08 18.7**	**+3.3**
CTA				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CTA				smax			
	comp=N,1.0nm,0.3s						
CTA				MLR	MLR		
	comp=Z,2µm,19.4s						
CTAO	**Charters Tower**	**19.58**	**149**	*e*P	**P**	**09 04 40.8**	**+0.3**
	comp=Z,183nm,1.2s						
KEDI	**Kedomdong**	**19.95**	**255**	⇑*i*P	**P**	**09 04 44.8**	**+0.2**
	comp=Z,108nm,0.7s						
ASAR	**Alice Springs**	**20.18**	**184**	P	**P**	**09 04 48.0**	**+1.0**
	comp=Z,157nm,0.6s,baz=7.2,slow=11,SNR=1079						
ASAR				S	**S**	**09 08 20.2**	**-7.8**
	comp=Z,13nm,0.8s,baz=7.3,slow=24,SNR=2.5						
ASAR				Lg		09 10 49.9	
	comp=Z,30nm,1.1s,baz=5.4,slow=29,SNR=2.8						
ASAR				LR	LR	09 11 47.8	
	comp=Z,377nm,21.1s,MS3.7,baz=0.5,slow=35						
ASPA	**Alice Springs**	**20.18**	**184**	*e*P	**P**	**09 04 47.7**	**+0.8**
ASPA				*e*S	**S**	**09 08 23.6**	**-4.4**
PVCP	**Virac**	**20.34**	**327**	*e*P	**P**	**09 04 47.1**	**-1.5**
OTRP	**Odiongan**	**20.65**	**320**	*e*P	**P**	**09 04 54.3**	**+2.4**
SJMP	**San Jose**	**21.31**	**318**	*e*P	**P**	**09 05 00.8**	**+2.1**
KELI	**Kelakatan**	**21.45**	**256**	⇑*i*P	**P**	**09 05 00.3**	**+0.2**
	comp=Z,284nm,1.3s,mb5.1						
BOAC	**Boac**	**21.59**	**321**	*e*P	**P**	**09 05 01.2**	**-0.2**
ENPP	**El Nido**	**21.64**	**312**	*e*P	**P**	**09 05 02.2**	**+0.3**
SRDI	**Scrawed**	**21.85**	**256**	⇓*e*P	**P**	**09 05 04.6**	**+0.5**
	comp=Z,130nm,0.9s,mb5.0						
TGY	**Tagaytay City**	**22.65**	**321**	P	**P**	**09 05 13.8**	**+1.7**
	comp=Z,84nm,0.3s,mb5.6,baz=184,slow=13,SNR=1.9						
TGY	**Tagaytay City**	**22.65**	**321**	P	**P**	**09 05 13.8**	**+1.7**
TGY				pmax	pmax		
	comp=Z,84nm,0.4s						
LUBP	**Lubang**	**22.82**	**319**	*e*P	**P**	**09 05 16.0**	**+2.1**
LUBP	**Lubang**	**22.82**	**319**	*e*P	**P**	**09 05 16.0**	**+2.1**
MBWA	**Marble Bar**	**23.38**	**220**	*e*P	**P**	**09 05 20.6**	**+1.3**
	comp=Z,216nm,1.1s,mb5.5						
MBWA				LR	LR		
	comp=Z,1µm,20.0s,MS4.4						
FORT	**Forrest**	**28.10**	**194**	*e*P	**P**	**09 06 03.5**	**+0.1**
	comp=Z,110nm,1.0s,mb5.4						
STKA	**Stephens Creek**	**28.86**	**169**	*e*P	**P**	**09 06 09.6**	**-0.7**
	comp=Z,24nm,0.8s,mb5.0						
STKA	**Stephens Creek**	**28.86**	**169**	P	**P**	**09 06 09.5**	**-0.8**
	comp=Z,20nm,1.0s,mb4.8,baz=343,slow=8.5,SNR=34						
STKA				LR	LR	09 17 09.5	
	comp=Z,344nm,19.4s,MS4.0,baz=160,slow=35						
CBIJ	**Chichi jima**	**31.02**	**12**	LR	LR	09 16 15.6	
	comp=Z,336nm,21.1s,MS4.0,baz=113,slow=31						
KLBR	**Kellerberrin**	**32.62**	**209**	*e*P	**P**	**09 06 44.1**	**+0.5**
	comp=Z,33nm,0.8s,mb5.3						
NWAO	**Narrogin (SRO)**	**33.97**	**208**	P	**P**	**09 06 54.0**	**-1.2**
	comp=Z,31nm,1.1s,mb5.2,baz=36,slow=8.6,SNR=5.9						
NWAO	**Narrogin (SRO)**	**33.97**	**208**	P	**P**	**09 06 54.1**	**-1.2**
NWAO				pmax	pmax		
	comp=Z,31nm,1.1s						
NWAO	**Narrogin (SRO)**	**33.97**	**208**	*e*P	**P**	**09 06 53.7**	**-1.6**
	comp=Z,117nm,1.6s,mb5.6						
NWAO				LR	LR		
	comp=Z,337nm,19.0s,MS4.1						
TOO	**Toolangi**	**35.18**	**166**	*e*P	**P**	**09 07 06.9**	**+1.3**
	comp=Z,9.3nm,1.1s,mb4.6						
JHJ	**Hachijo jima 2**	**36.58**	**6**	LR	LR	09 20 44.7	
	comp=Z,594nm,18.3s,MS4.4,baz=339,slow=34						
SSE	**Sheshan**	**36.96**	**339**	*e*P	**P**	**09 07 19.8**	**-0.9**
SSE				XP	sP	09 07 35.8	+11
SSE				S	**S**	**09 13 05.7**	**+0.3**
SSE				AMB	AMB		
	comp=Z,33nm,1.0s,mb5.1						
SSE				AMB	AMB		
	comp=Z,236nm,3.5s						
SSE				LR	LR		
	comp=N,171nm,19.7s,MS3.9						
SSE				LR	LR		
	comp=E,73nm,19.8s,MS3.9						
SSE				LR	LR		
	comp=Z,263nm,19.4s,MS4.0						
WAKE	**Wake Island**	**38.03**	**52**	PFAKE		09 07 40.0	+10
WAKE				LR	LR		
	comp=Z,16µm,19.0s						
COCO	**West Island**	**39.26**	**255**	PFAKE		09 07 50.0	+10
COCO				LR	LR		
	comp=Z,110nm,19.0s,MS3.7						
WHN	**Wuhan**	**39.38**	**331**	⇑P	**P**	**09 07 42.5**	**+1.5**
MAJO	**Matsushiro**	**39.85**	**3**	*e*P	**P**	**09 07 43.4**	**-1.3**
	comp=Z,10nm,0.7s,mb4.7						
MAJO				LR	LR		
	comp=Z,552nm,20.0s,MS4.4						
MAT	**Matsushiro**	**39.85**	**3**	P	**P**	**09 07 43.4**	**-1.4**
MAT				S	**S**	**09 13 48.0**	**-1.1**
MAT	**Matsushiro**	**39.85**	**3**	*e*P	**P**	**09 07 44.0**	**-0.8**
	comp=Z,16nm,1.1s,mb4.7						
MAT				LR	LR		
	comp=Z,350nm,20.0s,MS4.2						
GYA	**Guiyang**	**40.77**	**318**	⇑*i*P	**P**	**09 07 53.2**	**+0.7**
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.7						
ENH	**Enshi**	**41.75**	**325**	*e*P	**P**	**09 08 00.4**	**-0.1**
	comp=Z,10nm,0.8s,mb4.5						
CMAR	**Chiang Mai Arr**	**42.09**	**302**	P	**P**	**09 08 03.2**	**-0.2**
	comp=Z,12nm,1.1s,mb4.4,baz=119,slow=6.0,SNR=24						
CMAR				PcP	PcP	09 09 59.6	+0.8
	comp=Z,4.3nm,1.0s,baz=184,slow=1.6,SNR=5.1						
CMAR	**Chiang Mai Arr**	**42.09**	**302**	P	**P**	**09 08 03.3**	**-0.2**
CMAR						09 09 59.7	
CMAR				pmax	pmax		
	comp=Z,12nm,1.2s						
CMAR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KMI	**Kunming**	**42.64**	**314**	*e*P	**P**	**09 08 08.4**	**+0.5**
KMI				AP	pP	09 08 16.1	+5.5
KMI				XP	sP	09 08 19.5	+7.8
KMI				S	**S**	**09 14 32.5**	**+1.7**
KMI				SS	SS	09 17 38.7	+3.9
KMI				AMB	AMB		
	comp=Z,26nm,1.4s,mb4.8						
XAN	**Xi'an**	**44.93**	**328**	P	**P**	**09 08 26.5**	**+0.2**

XAN				AP	pP	09 08 35.0	+6.0
XAN				AMB	AMB		
	comp=Z,26nm,2.1s,mb4.7						
CD2	**Chengdu**	**45.65**	**321**	*e*P	**P**	**09 08 32.4**	**+0.3**
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
ERM	**Erimo**	**45.76**	**8**	PFAKE		09 08 40.0	+7.2
ERM				LR	LR		
	comp=Z,6.0nm,22.0s						
BJT	**Baijiatuau**	**46.75**	**340**	*e*P	**P**	**09 08 40.5**	**-0.1**
	comp=Z,171nm,1.5s,mb5.8						
BJT				LR	LR		
	comp=Z,417nm,19.0s,MS4.4						
BJI	**Beijing**	**46.77**	**340**	P	**P**	**09 08 40.4**	**-0.4**
BJI				S	**S**	**09 15 20.9**	**-9.2**
BJI				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.9						
BJI				LR	LR		
	comp=N,398nm,15.2s,MS4.7						
BJI				LR	LR		
	comp=E,414nm,14.3s,MS4.7						
BJI				LR	LR		
	comp=Z,339nm,19.7s						
ASAJ	**Asahikawa**	**47.76**	**7**	P	**P**	**09 08 49.3**	**+0.7**
	comp=Z,14nm,1.0s,mb5.0,baz=267,slow=15,SNR=3.2						
ASAJ	**Asahikawa**	**47.76**	**7**	P	**P**	**09 08 49.3**	**+0.7**
ASAJ				pmax	pmax		
	comp=Z,14nm,1.0s						
CN2	**Changchun**	**47.89**	**350**	*e*P	**P**	**09 08 48.9**	**-0.7**
CN2				*e*S	**S**	**09 15 44.7**	**-1.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
CN2				LR	LR		
	comp=N,600nm,13.0s,MS4.9						
CN2				LR	LR		
	comp=E,700nm,13.0s,MS4.9						
CN2				LR	LR		
	comp=Z,500nm,15.0s,MS4.6						
MDJ	**Mudanjiang**	**48.13**	**354**	P	**P**	**09 08 51.3**	**-0.2**
MDJ				AP	pP	09 08 54.5	+0.3
MDJ				PP	PP	09 10 41.9	-1.3
MDJ				S	**S**	**09 15 53.3**	**+4.0**
MDJ				SCS	ScS	09 18 44.5	+2.4
MDJ				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,240nm,3.8s						
MDJ				LR	LR		
	comp=N,99nm,28.5s						
MDJ				LR	LR		
	comp=E,115nm,18.7s						
MDJ				LR	LR		
	comp=Z,155nm,18.7s						
MDJ	**Mudanjiang**	**48.13**	**354**	*e*P	**P**	**09 08 51.1**	**-0.4**
	comp=Z,31nm,1.2s,mb5.2						
IMP	**Imphal**	**49.17**	**307**	*e*	**P**	**09 08 51.5**	**-8.3**
HHC	**Hu-ho-hao-te**	**49.21**	**336**	*e*P	**P**	**09 09 00.5**	**+0.6**
HHC				AP	pP	09 09 05.0	+2.4
HHC				XP	sP	09 09 07.6	+3.9
HHC				PCP	PcP	09 10 23.8	+0.4
HHC				PP	PP	09 10 53.5	-0.6
HHC				S	**S**	**09 16 03.9**	**-0.7**
HHC				SCS	ScS	09 18 48.0	-1.4
HHC				SS	SS	09 19 29.7	-2.1
HHC				AMB	AMB		
	comp=Z,58nm,1.3s,mb5.5						
HHC				AMB	AMB		
	comp=Z,261nm,3.9s						
HHC				LR	LR		
	comp=N,135nm,16.7s						
HHC				LR	LR		
	comp=Z,145nm,15.5s,MS4.1						
LZH	**Lanzhou**	**49.22**	**326**	⇑P	**P**	**09 09 01.7**	**+1.7**
LZH				AP	pP	09 09 05.0	+2.3
LZH				XP	sP	09 09 06.3	+2.5
LZH				PP	PP	09 10 55.6	+1.4
LZH				*e*S	**S**	**09 16 06.2**	**+1.5**
LZH				XS		09 16 13.5	
LZH				SS	SS	09 19 33.7	+1.8
LZH				AMB	AMB		
	comp=Z,97nm,1.5s,mb5.6						
LZH				AMB	AMB		
	comp=Z,237nm,6.2s						
LZH				LR	LR		
	comp=N,2µm,13.5s						
LZH				LR	LR		
	comp=Z,2µm,16.8s,MS5.2						
RPZ	**Rata Peaks**	**50.95**	**147**	P	**P**	**09 09 13.9**	**+0.8**
	comp=Z,4.6nm,0.3s,mb4.8,baz=260,slow=6.3,SNR=3.4						
RPZ				LR	LR	09 30 20.4	
	comp=Z,766nm,19.8s,MS4.7,baz=304,slow=36						
SHL	**Shillong**	**51.18**	**307**	*e*P	**P**	**09 09 14.6**	**-0.5**
SHL				⇑*e*P		09 09 15.0	
SHL				AMb	AMB	09 09 16.9	
	comp=Z,64nm,0.5s,mb5.8						
URZ	**Urewera**	**51.36**	**138**	P	**P**	**09 09 16.9**	**+0.6**
	comp=Z,16nm,1.2s,mb4.8,baz=264,slow=4.0,SNR=3.7						
LSA	**Lhasa**	**53.74**	**311**	P	**P**	**09 09 36.0**	**+1.8**
GTA	**Gaotai**	**53.82**	**326**	P	**P**	**09 09 35.3**	**+0.7**
GTA				AP	pP	09 09 42.5	+5.1
GTA				XP	sP	09 09 45.8	+7.4
GTA				AMB	AMB		
	comp=Z,46nm,1.4s,mb5.2						
HIA	**Hailar**	**54.25**	**347**	*e*P	**P**	**09 09 37.0**	**-0.7**
HIA				LR	LR		
	comp=Z,356nm,19.0s,MS4.5						
ULN	**Ulaanbaatar**	**56.85**	**337**	*c* *i*P	**P**	**09 09 55.1**	**-1.4**
ULN	**Ulaanbaatar**	**56.85**	**337**	*e*P	**P**	**09 09 56.5**	**0.0**
	comp=Z,66nm,1.5s,mb5.4						
ULN				LR	LR		
	comp=Z,245nm,21.0s,MS4.3						
GUN	**Gumba**	**57.02**	**306**	*e*P	**P**	**09 09 58.0**	**-0.1**
SONM	**Songino Array**	**57.08**	**337**	P	**P**	**09 09 58.3**	**+0.2**
	comp=Z,9.2nm,1.1s,mb4.7,baz=149,slow=7.2,SNR=41						
PKI	**Pulchoki**	**57.26**	**306**	*e*P	**P**	**09 09 59.0**	**-0.7**
	comp=Z,133nm,1.1s,mb5.9						
KKN	**Kakani**	**57.45**	**306**	*e*P	**P**	**09 10 00.9**	**-0.2**
	comp=Z,212nm,1.0s,mb6.1						
DMN	**Daman**	**57.52**	**306**	*e*P	**P**	**09 10 01.2**	**-0.4**
	comp=Z,250nm,1.0s,mb6.2						
GKN	**Gorkha**	**58.06**	**306**	*e*P	**P**	**09 10 05.1**	**-0.2**
	comp=Z,368nm,1.0s,mb6.3						
KOLN	**Koldanda**	**58.81**	**305**	*e*P	**P**	**09 10 10.5**	**0.0**
	comp=Z,322nm,1.0s,mb6.3						
HYB	**Hyderabad**	**59.89**	**292**	⇑*e*P	**P**	**09 10 17.5**	**-0.6**
	comp=Z,70nm,1.0s,mb5.7						
HYB	**Hyderabad**	**59.89**	**292**	⇑*i*P	**P**	**09 10 17.5**	**-0.6**
	comp=Z,70nm,1.0s,mb5.7						
ZAK	**Zakamensk**	**60.34**	**337**	⇓*i*P	**P**	**09 10 20.5**	**-0.3**
TLY	**Talaya**	**61.24**	**338**	*d* *i*P	**P**	**09 10 26.2**	**-0.6**
TLY				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.2						
TLY				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.3						
TLY	**Talaya**	**61.24**	**338**	*e*P	**P**	**09 10 26.6**	**-0.2**
	comp=Z,53nm,1.7s,mb5.4						
TLY				LR	LR		
	comp=Z,46nm,19.0s,MS3.6						
AKL	**Akola**	**62.15**	**295**	*e*P	**P**	**09 10 32.3**	**-1.1**
AKL				AMb	AMB	09 10 34.6	
	comp=Z,48nm,0.5s,mb5.9						
LGTI	**Lohaghat**	**62.17**	**306**	⇑*i*P	**P**	**09 10 33.7**	**+0.2**
MOY	**Mondy**	**62.25**	**336**	*e*P	**P**	**09 10 34.7**	**+1.0**
BHPL	**Bhopal**	**62.49**	**298**	*e*P	**P**	**09 10 35.1**	**-0.6**
BHPL				*e*	pP	09 10 36.7	-1.8
	comp=Z,48nm,1.2s						
BOD	**Bodaibo**	**63.47**	**347**	*e*P	**P**	**09 10 39.8**	**-1.8**
WMQ	**Urumqi**	**63.64**	**323**	⇓P	**P**	**09 10 41.8**	**-1.2**
WMQ				AP	pP	09 10 46.5	+0.7
WMQ				PCP	PcP	09 11 18.0	-1.2
WMQ				PP	PP	09 13 03.3	-1.4
WMQ				S	**S**	**09 19 13.5**	**-2.0**
WMQ				AMB	AMB		
	comp=Z,87nm,1.1s,mb5.7						
WMQ				LR	LR		
	comp=N,11nm,18.0s,MS4.0						
WMQ				LR	LR		
	comp=E,97nm,16.0s,MS4.0						
WMQ				LR	LR		
	comp=Z,82nm,21.0s,MS3.9						
KAD	**Karad**	**63.91**	**291**	*e*P	**P**	**09 10 44.1**	**-1.1**
MA2	**Magadan**	**63.96**	**9**	*i* P	**P**	**09 10 43.3**	**-1.5**
DDI	**Dehra Dun**	**64.26**	**306**	*e*P	**P**	**09 10 46.8**	**-0.5**
NDI	**New Delhi**	**64.38**	**304**	*e*P	**P**	**09 10 46.0**	**-2.2**
NDI				*e*P	pP	09 10 47.2	-3.8
NDI				AMb	AMB	09 10 48.8	
	comp=Z,96nm,1.1s,mb5.8						
POO	**Poona**	**64.50**	**292**	⇓*i*P	**P**	**09 10 46.0**	**-3.0**
	comp=Z,50nm,1.0s,mb5.5						
CASY	**Casey**	**65.14**	**191**	PFAKE		09 11 00.0	+7.6
CASY				LR	LR		
	comp=Z,375nm,19.0s,MS4.6						
YAK	**Yakutsk**	**65.44**	**357**	⇑*i*P	**P**	**09 10 54.2**	**-0.2**
YAK				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.2						
YAK	**Yakutsk**	**65.44**	**357**	PFAKE		09 11 10.0	+16
YAK				LR	LR		
	comp=Z,452nm,20.0s,MS4.7						
SDNR	**Sundarnagar**	**65.55**	**307**	*e*P	**P**	**09 10 56.4**	**+0.8**
AJM	**Ajmer**	**65.86**	**301**	⇑*i*P	**P**	**09 10 56.0**	**-1.7**
MKAR	**Makanchi Array**	**68.45**	**324**	*e*P	**P**	**09 11 13.6**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,54nm,1.0s						
KSH	**Kashi**	**69.29**	**315**	⇑*i*P	**P**	**09 11 21.5**	**+2.4**
KSH				*e*AP	pP	09 11 25.8	+4.0
KSH				*e*XP	sP	09 11 28.5	+5.6
KSH				*e*PCP	PcP	09 11 47.6	+4.8
KSH				*e*PP	PP	09 13 57.4	+3.0
KSH				*e*S	S	09 20 24.8	+0.6
KSH				*e*SCS	ScS	09 21 17.2	+0.6
KSH				*e*SS	SS	09 24 52.5	-0.1
KSH				AMB	AMB		
	comp=Z,140nm,1.3s,mb5.7						
KSH				LR	LR		
	comp=N,290nm,6.2s						
KSH				LR	LR		
	comp=E,400nm,6.8s						
TKM2	**Tokmak 2**	**70.91**	**318**	P	**P**	**09 11 29.8**	**+1.0**
	SNR=7.5						
TKM2	**Tokmak 2**	**70.91**	**318**	*e*P	**P**	**09 11 28.8**	**0.0**
	comp=E,86nm,1.7s,mb5.4						
ZAL	**Zalesovo**	**71.00**	**331**	P	**P**	**09 11 29.6**	**+0.5**
	comp=E,16nm,1.0s,mb4.9,baz=6.4,slow=5.8,SNR=36						
ZAL	**Zalesovo**	**71.00**	**331**	P	**P**	**09 11 29.7**	**+0.5**
ZAL				pmax	pmax		
	comp=Z,17nm,1.0s						
UCH	**Uchtor**	**71.37**	**317**	P	**P**	**09 11 33.8**	**+2.2**
	SNR=19						
UCH	**Uchtor**	**71.37**	**317**	*e*P	**P**	**09 11 32.6**	**+1.0**
	comp=Z,103nm,1.6s,mb5.5						
UCH				LR	LR		
	comp=Z,155nm,22.0s,MS4.2						
POHA	**Pohakuloa**	**71.47**	**68**	PFAKE		09 11 40.0	+7.4
POHA				LR	LR		
	comp=Z,1.0nm,21.0s						
CHMS	**Chumysh**	**71.51**	**318**	P	**P**	**09 11 33.0**	**+0.6**
	SNR=6.4						
AAK	**Ala-Archa**	**71.54**	**317**	P	**P**	**09 11 33.8**	**+1.2**
	SNR=6.3						
AAK	**Ala-Archa**	**71.54**	**317**	*d* *i*P	**P**	**09 11 32.2**	**-0.4**
AAK				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
AAK				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.2						
AAK	**Ala-Archa**	**71.54**	**317**	*e*P	**P**	**09 11 32.0**	**-0.6**
	comp=Z,98nm,1.9s,mb5.4						
AAK				LR	LR		
	comp=Z,31nm,20.0s,MS3.6						
USP	**Ospenovka**	**71.78**	**318**	P	**P**	**09 11 34.9**	**+0.8**
	SNR=13						
AML	**Almayashu**	**71.89**	**316**	P	**P**	**09 11 36.8**	**+2.1**
	SNR=13						
AML	**Almayashu**	**71.89**	**316**	*e*P	**P**	**09 11 35.6**	**+0.8**
	comp=Z,46nm,1.1s,mb5.3						
EKS2	**Erkin-Say**	**72.04**	**317**	P	**P**	**09 11 37.0**	**+1.4**
	SNR=8.0						
EKS2	**Erkin-Say**	**72.04**	**317**	*e*P	**P**	**09 11 36.1**	**+0.4**
	comp=Z,83nm,1.7s,mb5.4						
NVS	**Novosibirsk**	**72.26**	**331**	*e*P	**P**	**09 11 34.2**	**-2.5**
NVS				pmax	pmax		
	comp=N,63nm,1.5s						
NVS				pmax	pmax		
	comp=E,46nm,1.5s						
NVS				pmax	pmax		
	comp=Z,86nm,1.5s,mb5.5						
KURK	**Kurchatov**	**72.51**	**326**	*d* *i*P	**P**	**09 11 37.9**	**-0.4**
KURK	**Kurchatov**	**72.51**	**326**	*e*P	**P**	**09 11 37.8**	**-0.4**
	comp=Z,20nm,0.9s,mb5.0						
TIXI	**Tiksi**	**75.07**	**358**	*i* P	**P**	**09 11 50.9**	**-1.9**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
TIXI	**Tiksi**	**75.07**	**358**	PFAKE		09 12 00.0	+7.2
TIXI				LR	LR		
	comp=Z,683nm,19.0s,MS5.0						
VNDA	**Vanda**	**75.36**	**174**	P	**P**	**09 11 54.8**	**+0.5**
	comp=Z,2.3nm,0.9s,baz=312,slow=4.6,SNR=3.9						
VNDA				LR	LR	09 44 29.0	
	comp=Z,503nm,18.4s,MS4.8,baz=352,slow=35						
VNDA	**Vanda**	**75.36**	**174**	P	**P**	**09 11 54.8**	**+0.4**
VNDA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
VNDA				MLR	MLR		
	comp=Z,503nm,18.4s						
VNDA	**Vanda**	**75.36**	**174**	*e*P	**P**	**09 11 53.3**	**-1.1**
	comp=Z,4.1nm,0.9s,mb4.4						
VNDA				LR	LR		
	comp=Z,561nm,19.0s,MS4.9						
SBA	**Scott Base**	**76.18**	**174**	PFAKE		09 12 10.0	+11
SBA				LR	LR		
	comp=Z,391nm,19.0s,MS4.7						
BVA0	**Borovoye Array**	**78.11**	**326**	*i* P	**P**	**09 12 10.5**	**+0.4**
BVA0				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
BVAR	**Borovoye Array**	**78.11**	**326**	P	**P**	**09 12 10.7**	**+0.6**
	comp=Z,17nm,0.8s,mb5.0,baz=124,slow=5.3,SNR=75						
BRVK	**Borovoye**	**78.18**	**326**	*e*P	**P**	**09 12 10.3**	**-0.1**
	comp=Z,30nm,1.0s,mb5.2						
CHKZ	**Chkalovo**	**78.23**	**327**	P	**P**	**09 12 10.6**	**-0.1**
CHKZ				pmax	pmax		
	comp=Z,147nm,2.2s,mb5.5						
CHKZ	**Chkalovo**	**78.23**	**327**	*e*P	**P**	**09 12 10.3**	**-0.5**
	comp=Z,94nm,1.6s,mb5.5						
MAW	**Mawson**	**80.27**	**202**	P	**P**	**09 12 22.4**	**+0.9**
	comp=Z,5.2nm,1.0s,mb4.4,baz=93,slow=12,SNR=4.8						
MAW				LR	LR	09 45 07.0	
	comp=Z,316nm,20.8s,MS4.6,baz=62,slow=34						
IMA	**Indian Mountai**	**85.43**	**23**	*e*P	**P**	**09 12 49.1**	**+1.1**
	comp=Z,96nm,1.3s,mb5.8						
FIB	**Fire Island**	**85.47**	**28**	PFAKE		09 13 00.0	+12
FIB				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
ARU	**Arti**	**85.66**	**327**	⇓*i*P	**P**	**09 12 49.0**	**-0.4**
ARU				*e*		09 16 09.9	
ARU				*e*S	S	09 23 11.2	-9.1
ARU				*e*SS	SS	09 29 01.7	+1.8
ARU				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.1						
ARU	**Arti**	**85.66**	**327**	*e*P	**P**	**09 12 48.9**	**-0.5**
	comp=Z,20nm,1.0s,mb5.3						
QSPA	**South Pole Qui**	**86.52**	**180**	*i* P	**P**	**09 12 54.2**	**+1.0**
	comp=Z,58nm,0.2s						
QSPA				LR	LR		
	comp=Z,1.0nm,19.0s						
MCK	**McKinley**	**86.69**	**26**	*e*P	**P**	**09 12 54.1**	**-0.2**
	comp=Z,8.3nm,1.0s,mb4.9						
COLA	**College**	**87.43**	**25**	*e*P	**P**	**09 12 57.7**	**-0.2**
	comp=Z,14nm,1.3s,mb5.0						
DIV	**Divide**	**87.54**	**28**	*e*P	**P**	**09 12 59.1**	**+0.6**
	comp=Z,110nm,1.2s,mb6.0						
ILAR	**Eielson Array**	**87.81**	**25**	P	**P**	**09 12 59.1**	**-0.6**
	comp=Z,3.0nm,0.5s,mb4.8,baz=272,slow=4.4,SNR=67						
ILAR				LR	LR	09 47 41.6	
	comp=Z,163nm,21.1s,MS4.4,baz=92,slow=32						
SYO	**Syowa Base**	**88.95**	**201**	⇑P	**P**	**09 13 05.4**	**+0.3**
SYO	**Syowa Base**	**88.95**	**201**	⇓PcP	PcP	09 13 10.5	+3.5
INK	**Inuvik**	**93.52**	**22**	P	**P**	**09 13 25.8**	**-0.4**
	comp=Z,3.1nm,1.0s,mb4.7,baz=347,slow=1.1,SNR=4.7						
INK	**Inuvik**	**93.52**	**22**	P	**P**	**09 13 25.8**	**-0.4**
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
OBN	**Obninsk**	**97.93**	**325**	⇓*i*P	**P**	**09 13 45.6**	**-1.0**
OBN				pmax	pmax		
	comp=Z,31nm,1.6s,mb5.6						
KMBO	**Kilima Mbogo**	**98.19**	**268**	LR	LR	09 57 17.2	
	comp=Z,75nm,20.3s,MS4.2,baz=84,slow=35						
ARCES	**ARCESS Array B**	**100.13**	**340**	P	P	09 13 56.5	+0.2
	comp=Z,5.4nm,1.0s,baz=90,slow=6.1,SNR=9.4						
ARCES	**ARCESS Array B**	**100.13**	**340**	P	P	09 13 56.6	+0.3
ARCES				pmax	pmax		
	comp=Z,5.0nm,1.0s						
HUMO	**Hull Mountain**	**100.79**	**47**	PFAKE		09 14 10.0	+10
HUMO				LR	LR		
	comp=Z,221nm,19.0s,MS4.7						
YBH	**Yreka Blue Hor**	**101.06**	**48**	PFAKE		09 14 10.0	+8.9
YBH				LR	LR		
	comp=Z,359nm,20.0s,MS4.9						
WDC	**Whiskeytown Da**	**101.29**	**49**	PFAKE		09 14 10.0	+7.8
WDC				LR	LR		
	comp=Z,409nm,22.0s,MS4.9						
BRTR	**Keskin Array B**	**101.33**	**310**	P	P	09 14 01.8	-0.6
	comp=Z,2.7nm,1.2s,baz=53,slow=7.2,SNR=3.7						
BRTR	**Keskin Array B**	**101.33**	**310**	P	P	09 14 01.8	-0.6
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.2s						
YKA	**Yellowknife Ar**	**102.13**	**27**	P	Pdif	09 14 05.8	+0.4
	comp=Z,0.2nm,0.8s,baz=288,slow=3.9,SNR=2.6						
YKA				PKiKP		09 18 29.8	
	comp=Z,0.1nm,0.4s,baz=288,slow=2.2,SNR=5.0						
SAO	**San Andreas Ge**	**102.48**	**53**	PFAKE		09 14 20.0	+12
SAO				LR	LR		
	comp=Z,809nm,19.0s,MS5.3						
HAWA	**Hanford**	**102.77**	**43**	PFAKE		09 14 20.0	+11
HAWA				LR	LR		
	comp=Z,635nm,19.0s,MS5.2						
AKASG	**Malin Array Be**	**102.95**	**321**	P	Pdif	09 14 08.2	-1.2
	comp=Z,0.4nm,0.6s,baz=67,slow=4.5,SNR=4.5						
BMO	**Blue Mountains**	**104.56**	**45**	PFAKE		09 14 30.0	+13
BMO				LR	LR		
	comp=Z,369nm,20.0s,MS4.9						
MNV	**Mina**	**104.90**	**51**	PFAKE		09 14 30.0	+12
MNV				LR	LR		
	comp=Z,417nm,19.0s,MS5.0						
BMN	**Battle Mountai**	**105.33**	**49**	PFAKE		09 18 50.0	
BMN				LR	LR		
	comp=Z,464nm,22.0s,MS5.0						
DAC	**Darwin (Calif)**	**105.62**	**53**	PFAKE		09 18 50.0	
DAC				LR	LR		
	comp=Z,423nm,19.0s,MS5.0						
TPH	**Tonopah**	**105.67**	**52**	PFAKE		09 18 50.0	
TPH				LR	LR		
	comp=Z,260nm,21.0s,MS4.8						
TPNV	**Topopah Spring**	**106.60**	**53**	PFAKE		09 18 50.0	
TPNV				LR	LR		
	comp=Z,206nm,19.0s,MS4.7						
BOZ	**Bozeman (W)**	**108.31**	**43**	PFAKE		09 18 50.0	
BOZ				LR	LR		
	comp=Z,632nm,20.0s,MS5.2						
HWUT	**Hardware Ranch**	**109.31**	**47**	PFAKE		09 18 50.0	
HWUT				LR	LR		
	comp=Z,464nm,21.0s,MS5.0						
MVU	**Marysvale**	**109.48**	**50**	PFAKE		09 18 50.0	
MVU				LR	LR		
	comp=Z,218nm,19.0s,MS4.8						
GERES	**GERESS Array B**	**113.10**	**322**	PKiKP		09 18 49.5	
	comp=Z,0.9nm,1.0s,baz=56,slow=3.5,SNR=4.0						
GERES	**GERESS Array B**	**113.10**	**322**	*i* PKIKP	PKPdf	09 18 49.5	-0.5
GERES				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ANMO	**Albuquerque**	**114.77**	**53**	PKP	PKPdf	09 18 54.0	+0.5
	comp=Z,1.4nm,1.1s,baz=251,slow=6.6,SNR=3.7						
SDCO	**Great Sand Dun**	**114.81**	**50**	PFAKE		09 19 00.0	+6.5
SDCO				LR	LR		
	comp=Z,240nm,22.0s,MS4.8						
DAVOX	**Davos**	**116.30**	**321**	PKP	PKPdf	09 18 55.4	-0.9
	comp=Z,3.3nm,0.8s,baz=32,slow=13,SNR=3.6						
HINF	**Hinteralfeld**	**117.67**	**324**	*e*PKP1	PKPdf	09 18 57.5	-1.3
GIVF	**Givet**	**117.69**	**327**	*e*PKP1	PKPdf	09 18 57.5	-1.3
BAIF	**Baives**	**118.05**	**327**	*e*PKP1	PKPdf	09 18 59.0	-0.5
LTX	**Lajitas**	**118.38**	**58**	PFAKE		09 19 10.0	+9.3
LTX				LR	LR		
	comp=Z,395nm,21.0s,MS5.0						
TXAR	**Lajitas Array**	**118.38**	**58**	PKP	PKPdf	09 18 59.2	-1.5
	comp=Z,0.7nm,0.9s,baz=135,slow=1.8,SNR=5.0						
CABF	**La Chapelle**	**118.70**	**323**	*e*PKP1	PKPdf	09 19 00.3	-0.6
	comp=Z,17nm,1.0s						
LPG	**La Plagne**	**118.81**	**321**	*e*PKP1	PKPdf	09 19 00.5	-0.7
	comp=Z,16nm,1.0s						
LPL	**La Plagne**	**118.82**	**321**	*e*PKP1	PKPdf	09 19 00.3	-0.9
SBF	**Sospel**	**119.11**	**319**	*e*PKP1	PKPdf	09 19 01.3	-0.5
MBDF	**Montbardon**	**119.15**	**320**	*e*PKP1	PKPdf	09 19 01.4	-0.4
	comp=Z,17nm,1.1s						
ORIF	**Oris-en-Rattie**	**119.63**	**321**	*e*PKP1	PKPdf	09 19 01.8	-0.8
	comp=Z,16nm,0.9s						
SSF	**Saint Saulge**	**120.02**	**324**	*e*PKP1	PKPdf	09 19 02.6	-0.7
SMF	**Signal de Mont**	**120.03**	**324**	*e*PKP1	PKPdf	09 19 02.5	-0.9
	comp=Z,12nm,1.0s						
AVF	**Avril sur Loir**	**120.25**	**324**	*e*PKP1	PKPdf	09 19 02.8	-1.0
SMRF	**Simiane la Rot**	**120.26**	**320**	*e*PKP1	PKPdf	09 19 03.3	-0.6
VIVF	**Saint-Julien-l**	**120.41**	**321**	*e*PKP1	PKPdf	09 19 03.5	-0.7
WMOK	**Wichita Mounta**	**120.89**	**51**	PFAKE		09 19 20.0	+15
WMOK				LR	LR		
	comp=Z,430nm,20.0s,MS5.1						
TCF	**Toulx Ste Croi**	**121.18**	**324**	*e*PKP1	PKPdf	09 19 05.0	-0.8
	comp=Z,25nm,1.2s						
LDF	**La Druitiere**	**121.22**	**327**	*e*PKP1	PKPdf	09 19 04.8	-1.0
LASF	**Ste Croix**	**121.30**	**321**	*e*PKP1	PKPdf	09 19 05.4	-0.7
FLN	**La Foliniere**	**121.32**	**327**	*e*PKP1	PKPdf	09 19 04.9	-1.1
GRR	**Gorron**	**121.74**	**327**	*e*PKP1	PKPdf	09 19 06.0	-0.8
CAF	**Calviac**	**121.98**	**323**	*e*PKP1	PKPdf	09 19 06.9	-0.4
RJF	**Les Rejaudoux**	**122.11**	**323**	*e*PKP1	PKPdf	09 19 06.8	-0.7
MFF	**Saint Martin d**	**122.38**	**325**	*e*PKP1	PKPdf	09 19 06.2	-1.7
SGMF	**Saint Gilles**	**122.73**	**328**	*e*PKP1	PKPdf	09 19 07.4	-1.1
	comp=Z,27nm,1.2s						
LFF	**La Frestale**	**122.77**	**323**	*e*PKP1	PKPdf	09 19 08.2	-0.5
ETSF	**Etsaut**	**124.67**	**322**	*e*PKP1	PKPdf	09 19 11.6	-1.0
	comp=Z,42nm,1.4s						
SJPF	**Ste Jean**	**124.96**	**322**	*e*PKP1	PKPdf	09 19 12.2	-1.0
	comp=Z,83nm,1.8s						
MIAR	**Mount Ida**	**124.97**	**50**	PFAKE		09 19 20.0	+6.6
MIAR				LR	LR		
	comp=Z,763nm,20.0s,MS5.4						
SCHQ	**Schefferville**	**125.64**	**16**	PKP	PKPdf	09 19 13.2	-1.0
	comp=Z,4.1nm,0.9s,baz=243,slow=11,SNR=3.7						
OXF	**Oxford**	**128.10**	**48**	PFAKE		09 19 30.0	+11
OXF				LR	LR		
	comp=Z,578nm,21.0s,MS5.2						
ACSO	**Alum Creek Sta**	**129.51**	**38**	PFAKE		09 19 30.0	+8.0
ACSO				LR	LR		
	comp=Z,994nm,20.0s,MS5.5						
ERPA	**Erie**	**130.11**	**34**	PFAKE		09 19 30.0	+6.9
ERPA				LR	LR		
	comp=Z,562nm,21.0s,MS5.2						
MYNC	**Murphy**	**131.64**	**44**	PFAKE		09 19 40.0	+14
MYNC				LR	LR		
	comp=Z,526nm,19.0s,MS5.3						
NCB	**Newcomb**	**131.83**	**29**	PFAKE		09 19 40.0	+14
NCB				LR	LR		
	comp=Z,938nm,21.0s,MS5.5						
BINY	**Binghamton**	**132.23**	**32**	PFAKE		09 19 40.0	+13
BINY				LR	LR		
	comp=Z,3µm,21.0s						
WVL	**Waterville**	**133.42**	**25**	PFAKE		09 19 40.0	+11
WVL				LR	LR		
	comp=Z,7µm,21.0s						
EMMW	**East Machias**	**134.18**	**23**	PFAKE		09 19 40.0	+9.4
EMMW				LR	LR		
	comp=Z,7µm,22.0s						
WES	**Weston**	**134.41**	**28**	PFAKE		09 19 40.0	+8.9
WES				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
JTS	**JuntasAbangare**	**139.27**	**78**	PFAKE		09 19 50.0	+9.2
JTS				LR	LR		
	comp=Z,32nm,20.0s,MS4.1						
DBIC	**Dimbokro**	**140.42**	**276**	PKhKP		09 19 34.0	
	comp=Z,4.3nm,0.8s,baz=304,slow=1.6,SNR=4.4						
DBIC				PKP	PKPdf	09 19 43.7	+0.8
	comp=Z,5.6nm,0.8s,baz=56,slow=3.1,SNR=5.3						
DBIC	**Dimbokro**	**140.42**	**276**	PKHKP		09 19 34.1	
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.9s						
DBIC				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NNA	**Nana**	**144.36**	**116**	*e*PKP	PKPdf	09 19 47.6	-2.1
LVC	**Limon Verde**	**144.79**	**138**	PKP	PKPdf	09 19 50.5	+0.2
	comp=Z,2.4nm,0.3s,baz=271,slow=6.6,SNR=11						
LVC	**Limon Verde**	**144.79**	**138**	*e*PKP	PKPdf	09 19 50.0	-0.4
OTAV	**Otavalo**	**145.90**	**95**	PKP	PKPdf	09 19 54.0	+1.5
OTAV				LR	LR		
	comp=Z,82nm,22.0s,MS4.5						
ARE	**Arequipa**	**146.78**	**127**	*e*P	PKPbc	09 19 56.0	+3.6
CPUP	**Villa Florida**	**147.90**	**158**	PKP	PKPdf	09 19 55.5	+0.1
	comp=Z,1µm,0.4s,baz=237,slow=15,SNR=4.0						
CPUP				PKPbc	PKPdf	09 19 58.5	+3.0
	comp=Z,1µm,0.4s,baz=203,slow=10,SNR=14						
CPUP	**Villa Florida**	**147.90**	**158**	PKP	PKPdf	09 19 55.5	+0.1
CPUP				PKPbc	PKPdf	09 19 58.5	+3.0

CPUP				LR	LR		
	comp=Z,93μm,19.0s						
LPAZ	**La Paz**	**149.49**	**131**	PKP	PKPdf	09 19 59.4	+1.2
	comp=Z,14nm,1.2s,baz=104,slow=0.7,SNR=12						
LPAZ				PKPbc	PKPdf	09 20 04.2	+6.0
	comp=Z,22nm,1.0s,baz=288,slow=4.0,SNR=42						
LPAZ	**La Paz**	**149.49**	**131**	PKHKP		09 19 59.4	
LPAZ						09 20 04.2	
LPAZ				pmax	pmax		
	comp=Z,14nm,1.2s						
LPAZ				pmax	pmax		
	comp=Z,22nm,1.0s						
LPAZ	**La Paz**	**149.49**	**131**	*e*PKPdf	PKPdf	09 19 58.9	+0.7
LPAZ				*e*PKPbc	PKPdf	09 20 03.8	+5.6
LPAZ				LR	LR		
	comp=Z,88nm,22.0s,MS4.5						
SDV	**Santo Domingo**	**153.44**	**77**	*e*PKPdf	PKPdf	09 20 03.6	-0.6
SDV				LR	LR		
	comp=Z,119nm,19.0s,MS4.7						
SJG	**San Juan**	**154.24**	**54**	PFAKE		09 20 20.0	+15
SJG				LR	LR		
	comp=Z,382nm,21.0s,MS5.2						
SAML	**Samuel**	**157.66**	**124**	*e*PKPdf	PKPdf	09 20 09.4	-0.4
SAML				LR	LR		
	comp=Z,125nm,21.0s,MS4.7						
BDFB	**Brasilia**	**160.73**	**170**	PKP	PKPdf	09 20 11.9	-1.3
	comp=Z,14nm,1.3s,baz=204,slow=7.9,SNR=3.6						
BDFB	**Brasilia**	**160.73**	**170**	PKIKP	PKPdf	09 20 11.9	-1.2
BDFB				pmax	pmax		
	comp=Z,14nm,1.3s						
RCBR	**Riachuelo**	**167.44**	**223**	PFAKE		09 20 30.0	+11
RCBR				LR	LR		
	comp=Z,1μm,20.0s						

WEL 04 09:10:18.8±0.2,37.34S×177.06E,h151^{km}±1^{km},ML3.5/6, 2C,Error ellipse: s-maj=2.2km s-min=1.7km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**0.92**	**178**	PN	P	09 10 43.0	-0.2
URZ				SN	S	09 11 01.5	-0.6
MXZ	**Matakaoa Point**	**1.01**	**103**	⇑PN	P	09 10 43.8	-0.1
MXZ				*e*SN	S	09 11 02.8	-0.5
MWZ	**Matawai**	**1.06**	**160**	PN	P	09 10 44.3	-0.1
MWZ				SN	S	09 11 04.0	-0.1
PUZ	**Puketiti**	**1.20**	**128**	⇑PN	P	09 10 45.4	-0.3
PUZ				SN	S	09 11 05.0	-1.4
KNZ	**Kokohu**	**1.75**	**164**	PN	P	09 10 51.2	-0.3
KNZ				*e*SN	S	09 11 15.3	-1.4
BKZ	**Black Stump Fm**	**1.88**	**194**	PN	P	09 10 52.5	-0.5
NGZ	**Ngauruhoe**	**2.17**	**212**	*e*PN	P	09 10 56.9	+0.6
WNVZ	**Wahianoa**	**2.30**	**210**	*e*PN	P	09 10 57.8	-0.1
TSZ	**Takapari Road**	**2.85**	**197**	PN	P	09 11 03.0	-1.9
TSZ				SN	S	09 11 37.2	-3.1
BFZ	**Birch Farm**	**3.40**	**191**	*e*PN	P	09 11 09.5	-2.6
MRZ	**Mangatainoka R**	**3.52**	**199**	*e*PN	P	09 11 10.1	-3.5
MRZ				SN	S	09 11 51.2	-4.4
KIW	**Kapiti Island**	**3.90**	**205**	*e*PN	P	09 11 15.3	-3.3
MTW	**Mount Morrison**	**4.00**	**197**	PN	P	09 11 15.9	-4.1
CAW	**Cannon Point**	**4.07**	**202**	PN	P	09 11 17.1	-3.7
MSWZ	**Moikau Station**	**4.31**	**198**	*e*SN	S	09 12 07.1	-7.0
TUWZ	**Tuamarina**	**4.75**	**210**	*e*PN	P	09 11 25.5	-4.3
NNZ	**Nelson**	**4.82**	**215**	*e*PN	P	09 11 26.4	-4.2
THZ	**Tophouse**	**5.47**	**215**	*e*PN	P	09 11 34.6	-4.6
KHZ	**Kahutara**	**5.75**	**207**	*e*PN	P	09 11 38.6	-4.4
LTZ	**Lake Taylor**	**6.56**	**213**	*e*PN	P	09 11 48.6	-5.3
MQZ	**McQueen's Vall**	**7.20**	**206**	*e*SN	S	09 13 11.1	-12

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*NEIC **04** 09:20:57.9±5.8,30.70S×179.00W,h148^{km}±42^{km},mb4.4/2, Error ellipse: s-maj=54.9km s-min=16.7km az=45.0*

*IDC **04** 09:20:58.6±6.7,30.80S×178.95W,h156^{km}±51^{km},mb3.6/7, mb1 3.8/9,mb1mx3.7/17,MS3.5/1,Ms1 3.5/1,ms1mx3.0/24, Error ellipse: s-maj=50.6km s-min=19.4km az=46.0*

ISC 04 09:21:07.3±1.4,31.26S±0.07×179.8W±0.1,h215^{km}±12^{km}, n30,σ1^{s}30/38,mb3.7/8,2C-2D,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**6.49**	**194**	*e*P	**P**	**09 22 42.0**	**+0.2**
MXZ				*e*S	**S**	**09 23 59.2**	**+3.7**
PUZ	**Puketiti**	**6.99**	**193**	*e*P	**P**	**09 22 48.1**	**-0.2**
PUZ				S	**S**	**09 24 10.0**	**+2.9**
MWZ	**Matawai**	**7.41**	**197**	P	**P**	**09 22 54.3**	**+0.7**
MWZ				*e*S	**S**	**09 24 19.2**	**+2.5**
URZ	**Urewera**	**7.45**	**199**	P	**P**	**09 22 54.5**	**+0.4**
	0.9nm,0.3s,baz=266,slow=12,SNR=11						
URZ				S	**S**	**09 24 21.7**	**+4.1**
	5.5nm,0.3s,baz=222,slow=20,SNR=12						
URZ	**Urewera**	**7.45**	**199**	*e*P	**P**	**09 22 54.3**	**+0.2**
KNZ	**Kokohu**	**8.03**	**194**	*e*S	**S**	**09 24 30.4**	**-0.7**
BKZ	**Black Stump Fm**	**8.47**	**200**	*e*P	**P**	**09 23 07.0**	**-0.4**
BKZ				⇑*e*S	**S**	**09 24 41.3**	**0.0**
TSZ	**Takapari Road**	**9.45**	**200**	*e*P	**P**	**09 23 17.5**	**-2.5**
BFZ	**Birch Farm**	**9.95**	**198**	*e*S	**S**	**09 25 16.8**	**+1.4**
MRZ	**Mangatainoka R**	**10.12**	**201**	*e*P	**P**	**09 23 25.2**	**-3.4**
MRZ				*e*S	**S**	**09 25 18.3**	**-1.0**
KIW	**Kapiti Island**	**10.51**	**203**	*e*P	**P**	**09 23 31.8**	**-1.9**
CAW	**Cannon Point**	**10.68**	**202**	*e*P	**P**	**09 23 32.3**	**-3.6**
NNZ	**Nelson**	**11.38**	**207**	*e*P	**P**	**09 23 45.4**	**+0.7**
NNZ				*e*S	**S**	**09 25 48.9**	**+0.4**
THZ	**Tophouse**	**12.03**	**207**	*e*P	**P**	**09 23 51.1**	**-1.8**
THZ				*e*S	**S**	**09 26 04.8**	**+1.4**
MQZ	**McQueen's Vall**	**13.80**	**204**	*e*S	**S**	**09 26 41.5**	**-2.1**
RPZ	**Rata Peaks**	**14.41**	**208**	P	**P**	**09 24 22.8**	**+0.2**
	0.3nm,0.3s,baz=328,slow=18,SNR=2.7						
RPZ				S	**S**	**09 26 55.0**	**-2.1**
	0.7nm,0.3s,baz=269,slow=16,SNR=7.9						
CTA	**Charters Tower**	**32.47**	**282**	P	**P**	**09 27 20.9**	**+1.3**
	3.9nm,0.5s,mb4.2,baz=112,slow=12,SNR=13						
CTAO	**Charters Tower**	**32.47**	**282**	*e*P	**P**	**09 27 20.2**	**+0.6**
	5.9nm,0.7s,mb4.2						
STKA	**Stephens Creek**	**32.82**	**259**	P	**P**	**09 27 25.0**	**+2.5**
	7.2nm,0.8s,mb4.3,baz=105,slow=9.4,SNR=11						
ASAR	**Alice Springs**	**41.57**	**269**	P	**P**	**09 28 36.0**	**+0.4**
	1.1nm,0.7s,mb3.4,baz=106,slow=7.2,SNR=14						
WB2	**Warramunga Arr**	**42.63**	**274**	*e*P	**P**	**09 28 44.3**	**+0.1**
WRAB	**Tennant Creek**	**42.63**	**274**	*e*P	**P**	**09 28 43.7**	**-0.5**
	4.5nm,0.6s,mb4.1						
WRA	**Warramunga Arr**	**42.64**	**274**	P	**P**	**09 28 44.3**	**0.0**
	2.1nm,0.4s,mb3.9,baz=112,slow=8.0,SNR=51						
VNDA	**Vanda**	**47.10**	**185**	P	**P**	**09 29 19.8**	**+1.0**
	0.9nm,1.0s,mb3.0,baz=1.0,slow=5.1,SNR=4.7						
FITZ	**Fitzroy Crossi**	**50.86**	**271**	P	**P**	**09 29 47.6**	**-0.6**
	0.9nm,0.6s,mb3.4,baz=187,slow=13,SNR=4.3						
FITZ				LR	LR	09 50 32.3	
	comp=Z,51nm,20.6s,baz=175,slow=34						
SNAA	**Sanae**	**77.34**	**179**	P	**P**	**09 32 37.5**	**-1.6**
	0.5nm,0.7s,mb3.2,baz=196,slow=7.4,SNR=9.3						
VNA3	**Neumayer Olymp**	**77.55**	**177**	⇓*i*	**P**	**09 32 40.8**	**+0.6**
VNA2	**Neumayer--Watz**	**77.96**	**177**	⇓*i*	**P**	**09 32 43.2**	**+0.7**
VNA1	**Neumayer--Stat**	**78.20**	**177**	⇑*i*	**P**	**09 32 38.3**	**-5.5**
FINES	**FINESS Array B**	**145.41**	**338**	PKPbc	PKPbc	09 40 15.5	-3.9
	3.1nm,0.9s,baz=57,slow=3.9,SNR=17						

IDC 04 09:27:49.9±1.9,4.73S×135.86E,mb3.3/1,mb1 3.8/5, mb1mx3.8/13,ML3.5/4,Error ellipse: s-maj=56.4km s-min=27.4km az=79.0,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WB2	**Warramunga Arr**	**15.19**	**185**	*e*P	P	09 31 31.7	+4.0
WRA	**Warramunga Arr**	**15.19**	**185**	Pn	P	09 31 24.5	-3.2
	0.1nm,0.3s,baz=7.3,slow=13,SNR=5.7						
WRA				Sn	S	09 34 22.6	+5.0
	0.1nm,0.3s,baz=7.4,slow=23,SNR=4.7						
FITZ	**Fitzroy Crossi**	**16.63**	**216**	Pn	P	09 31 43.8	-2.4
	0.2nm,0.3s,baz=3.2,slow=5.6,SNR=3.1						
FITZ				Sn	S	09 34 46.3	-4.9
	0.2nm,0.3s,baz=175,slow=15,SNR=2.4						
CTA	**Charters Tower**	**18.32**	**147**	P	P	09 32 05.3	-2.1
	0.1nm,0.3s,baz=22,slow=14,SNR=2.7						
ASAR	**Alice Springs**	**18.92**	**186**	P	P	09 32 13.6	-1.1
	0.7nm,0.3s,baz=9.1,slow=11,SNR=52						
ASPA	**Alice Springs**	**18.92**	**186**	*e*P	P	09 32 13.8	-0.9
SONM	**Songino Array**	**58.39**	**337**	P	P	09 37 47.3	-2.3
	0.2nm,0.4s,baz=153,slow=6.4,SNR=3.6						

DJA 04 09:28:05.8±0.8,9.30S×117.09E,h80^{km},MD4.7/3, ML5.2/4,3C-7D,Error ellipse: s-maj=25.7km s-min=16.8km az=8.0,Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	**1.26**	**310**	⇓*e*Pn	P	09 28 28.6	+0.3
	3μm,0.2s						
KEDI	**Kedomdong**	**1.26**	**310**	⇓*i*P	P	09 28 29.1	+0.8
KEDI				⇓*i*Sn	S	09 28 44.1	-1.2
RATI	**Rata**	**1.64**	**290**	⇓*e*Pn	P	09 28 33.0	-0.4
	3μm,0.2s						
RATI	**Rata**	**1.64**	**290**	⇓*i*P	P	09 28 33.4	0.0
RATI				⇑*i*Sn	S	09 28 53.0	-0.8
KELI	**Kelakatan**	**2.78**	**293**	⇓*e*Pn	P	09 28 48.3	-0.9
	656nm,0.2s						
KELI				⇓*i*Sn	S	09 29 19.0	-2.8
SRDI	**Scrawed**	**3.02**	**285**	⇑*e*Pn	P	09 28 51.7	-0.9
	1μm,0.2s						
SRDI				⇑*i*Sn	S	09 29 25.9	-1.8

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*NEIC **04** 09:33:37.4±0.6,15.87S×177.90W,h10^{km},mb4.7/3,Error ellipse: s-maj=67.9km s-min=9.8km az=163.0*

*IDC **04** 09:33:42.1±30.0,16.06S×178.65W,mb4.4/4,mb1 4.6/4, mb1mx4.0/15,MS2.7/2,Ms1 2.7/2,ms1mx2.5/25,Error ellipse: s-maj=574.0km s-min=135.8km az=82.0*

ISC 04 09:33:38.5±0.9,16.0S±0.6×177.8W±0.2,h33^{km},n13, σ0^{s}64/11,mb4.6/7,MS2.7/2,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**6.17**	**71**	*e*P	**P**	**09 35 09.6**	**0.0**
	117nm,0.6s						
CTA	**Charters Tower**	**34.39**	**258**	LR	LR	09 51 00.1	
	comp=Z,20nm,18.2s,MS2.9,baz=226,slow=31						
STKA	**Stephens Creek**	**40.09**	**239**	P	**P**	**09 41 13.2**	**+0.6**
	1.0nm,0.5s,mb3.8,baz=86,slow=11,SNR=5.5						
WB2	**Warramunga Arr**	**45.58**	**258**	*e*P	**P**	**09 41 57.8**	**+0.3**
WRAB	**Tennant Creek**	**45.58**	**258**	*e*P	**P**	**09 41 57.4**	**-0.1**
	6.0nm,0.6s,mb4.7						
WRA	**Warramunga Arr**	**45.59**	**258**	P	**P**	**09 41 57.5**	**-0.1**
	2.9nm,0.5s,mb4.5,baz=91,slow=7.2,SNR=78						
ASAR	**Alice Springs**	**45.91**	**252**	P	**P**	**09 42 00.0**	**-0.1**
	14nm,0.4s,mb5.2,baz=89,slow=7.8,SNR=226						
ASPA	**Alice Springs**	**45.91**	**252**	*e*P	**P**	**09 42 00.0**	**-0.1**
KAKA	**Kakadu**	**48.24**	**267**	*e*P	**P**	**09 42 18.4**	**-0.1**
	3.8nm,0.4s,mb4.8						
FORT	**Forrest**	**51.38**	**243**	*e*P	**P**	**09 42 38.9**	**-3.4**
	33nm,0.6s,mb5.4						
FITZ	**Fitzroy Crossi**	**53.95**	**259**	*e*P	**P**	**09 43 01.3**	**-0.3**
	1.3nm,0.5s,mb4.1						
FITZ	**Fitzroy Crossi**	**53.95**	**259**	P	**P**	**09 43 02.8**	**+1.2**
	1.2nm,0.5s,mb4.1,baz=82,slow=19,SNR=9.1						
NWAO	**Narrogin (SRO)**	**60.64**	**241**	LR	LR	10 05 19.7	
	comp=Z,3.2nm,21.2s,MS2.4,baz=304,slow=32						

IDC 04 10:11:35.5±8.7,4.94S×144.84E,h144^{km}±90^{km},mb3.3/3, mb1 3.4/5,mb1mx3.2/14,Error ellipse: s-maj=79.2km s-min=27.0km az=144.0,Near north coast of New Guinea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**5.00**	**153**	P	P	10 12 49.2	-0.6
	1.2nm,0.3s,baz=352,slow=19,SNR=5.4						
PMG				S	S	10 13 46.4	-0.7
	1.2nm,0.3s,baz=136,slow=23,SNR=8.3						
WB2	**Warramunga Arr**	**18.07**	**213**	*e*P	P	10 15 36.0	-2.7
WRA	**Warramunga Arr**	**18.08**	**214**	P	P	10 15 36.1	-2.7
	0.3nm,0.3s,baz=40,slow=10,SNR=14						
ASAR	**Alice Springs**	**21.39**	**208**	P	P	10 16 12.6	-0.2
	1.2nm,0.5s,baz=35,slow=11,SNR=5.9						
ASPA	**Alice Springs**	**21.40**	**208**	*e*P	P	10 16 18.1	+5.3
FITZ	**Fitzroy Crossi**	**22.87**	**234**	*e*P	P	10 16 26.9	-0.5
	4.5nm,1.4s						
FITZ	**Fitzroy Crossi**	**22.87**	**234**	P	P	10 16 26.4	-1.0
	1.5nm,0.4s,baz=50,slow=7.0,SNR=13						
ILAR	**Eielson Array**	**85.37**	**24**	P	P	10 23 56.2	-1.1
	0.3nm,0.6s,baz=254,slow=5.0,SNR=4.2						

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*IDC **04** 10:12:02.9±0.6,50.23N×155.72E,h78^{km}±5^{km},mb3.7/12, mb1 4.1/14,mb1mx3.9/23,Error ellipse: s-maj=20.6km s-min=13.2km az=144.0*

*KRSC **04** 10:12:05.9±1.4,49.89N×156.68E,h39^{km}±7^{km},ML4.5*

*MOS **04** 10:12:06.3±1.3,50.04N×156.98E,h16^{km},mb4.4/1,Error ellipse: s-maj=35.1km s-min=11.8km az=76.7*

*NEIC **04** 10:12:08.0±1.2,50.35N×155.72E,h122^{km}±11^{km},mb4.2/5, Error ellipse: s-maj=13.2km s-min=7.4km az=155.0*

ISC 04 10:12:06.8±0.6,50.23N±0.06×155.90E±0.09,h132^{km}±4^{km}, n57,σ1^{s}17/87,mb3.8/18,1D,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**0.48**	**17**	*i* P	**P**	**10 12 20.9**	**-5.2**
SKR				*i* S	**S**	**10 12 34.1**	**-6.7**
SKR	**Severo-Kuril's**	**0.48**	**17**	⇓*i*PN	**P**	**10 12 20.9**	**-5.2**
SKR				*i* S	**S**	**10 12 34.1**	**-6.7**
SKR				pmax	pmax		
	comp=N,3μm,0.2s						
SKR				pmax	pmax		
	comp=E,2μm,0.2s						
SKR				pmax	pmax		
	comp=Z,7μm,0.2s						
SKR				pmax	pmax		
	comp=N,2μm,0.4s						
SKR				pmax	pmax		
	comp=E,3μm,0.4s						
SKR				pmax	pmax		
	comp=Z,6μm,0.4s						
SKR				smax			
	comp=N,10μm,0.5s						
SKR				smax			
	comp=E,6μm,0.5s						
SKR				smax			
	comp=Z,3μm,0.5s						
SKR				smax			
	comp=N,12μm,0.8s						
SKR				smax			
	comp=E,5μm,0.8s						
ALID	**Alaid**	**0.68**	**341**	*i* P	**P**	**10 12 27.4**	**0.0**
ALID				*e*S	**S**	**10 12 43.2**	**+0.1**
PAU	**Pauzhetka**	**1.37**	**25**	*i* P	**P**	**10 12 33.6**	**-0.5**
PAU				*i* S	**S**	**10 12 53.2**	**-1.7**
MIPR	**Malaya Ipel'ka**	**2.12**	**14**	*e*P	**P**	**10 12 44.5**	**+1.6**
MIPR				*e*S	**S**	**10 13 12.0**	**+1.6**
GRL	**Gorelyy**	**2.70**	**30**	*i* P	**P**	**10 12 50.8**	**+0.4**
GRL				*i* S	**S**	**10 13 23.9**	**+0.4**
RUS	**Russkaya**	**2.75**	**36**	P	**P**	**10 12 49.4**	**-1.7**
RUS				S	**S**	**10 13 21.3**	**-3.5**
RUS	**Russkaya**	**2.75**	**36**	*e*P	**P**	**10 12 49.3**	**-1.8**
RUS				*i* S	**S**	**10 13 21.2**	**-3.6**
APC	**Apacha**	**2.82**	**16**	*e*P	**P**	**10 12 53.2**	**+1.3**
APC				*e*S	**S**	**10 13 28.1**	**+1.9**
APC				Smax			
	comp=E,100nm,1.2s						
PET	**Petropavlovsk**	**3.29**	**30**	P	**P**	**10 12 58.0**	**-0.1**
PET				S	**S**	**10 13 35.7**	**-1.6**
PET	**Petropavlovsk**	**3.29**	**30**	*e*P	**P**	**10 12 58.1**	**0.0**
PET				*e*S	**S**	**10 13 35.9**	**-1.4**
PET	**Petropavlovsk**	**3.29**	**30**	*e*PN	**P**	**10 12 57.6**	**-0.5**
PET				*e*S	**S**	**10 13 36.6**	**-0.7**
PET				pmax	pmax		
	comp=Z,29nm,0.4s						
PET				smax			
	comp=N,120nm,0.6s						
PET				smax			
	comp=E,112nm,0.6s						
PET	**Petropavlovsk**	**3.29**	**30**	*e*P	**P**	**10 12 57.2**	**-0.9**
UGLR	**Uglovaya**	**3.50**	**30**	*e*P	**P**	**10 13 01.3**	**+0.3**
UGLR				*e*S	**S**	**10 13 42.5**	**+0.2**
KOK	**Koryaka**	**3.51**	**28**	*e*P	**P**	**10 13 02.1**	**+1.0**
KOK				*e*S	**S**	**10 13 42.2**	**-0.4**
AVH	**Avacha**	**3.52**	**29**	*e*P	**P**	**10 13 01.6**	**+0.4**
AVH				*e*S	**S**	**10 13 42.4**	**-0.4**
SMAR	**Somma**	**3.54**	**30**	*e*P	**P**	**10 13 01.5**	**0.0**
SMAR				*e*S	**S**	**10 13 42.2**	**-1.0**
SDLR	**Sedlovina**	**3.58**	**30**	*e*P	**P**	**10 13 01.6**	**-0.4**
SDLR				*e*S	**S**	**10 13 42.0**	**-2.2**
NLC	**Nalytchevo**	**3.65**	**35**	P	**P**	**10 13 00.5**	**-2.4**
NLC				S	**S**	**10 13 40.2**	**-5.6**
NLC	**Nalytchevo**	**3.65**	**35**	*e*P	**P**	**10 13 00.4**	**-2.5**
NLC				*i* S	**S**	**10 13 40.8**	**-5.0**
GNL	**Ganaly**	**3.70**	**19**	*e*P	**P**	**10 13 04.4**	**+0.8**
GNL				*e*S	**S**	**10 13 46.4**	**-0.6**
SPN	**Mys Shipunski**	**3.86**	**40**	P	**P**	**10 13 04.0**	**-1.7**
SPN				S	**S**	**10 13 45.3**	**-5.5**
SPN	**Mys Shipunski**	**3.86**	**40**	*i* P	**P**	**10 13 04.2**	**-1.5**
SPN				*i* S	**S**	**10 13 45.3**	**-5.5**
KII	**Karymskiy**	**4.40**	**28**	P	**P**	**10 13 14.6**	**+1.6**
KII				S	**S**	**10 14 03.1**	**-0.7**
KII	**Karymskiy**	**4.40**	**28**	*e*P	**P**	**10 13 14.5**	**+1.5**
KII				*e*S	**S**	**10 14 02.8**	**-1.0**
TUMR	**Tumrok**	**5.69**	**25**	*e*P	**P**	**10 13 32.6**	**+2.5**
TUMR				*e*S	**S**	**10 14 36.5**	**+1.8**
KMNR	**Kamenistaya**	**6.13**	**24**	*e*P	**P**	**10 13 38.1**	**+2.0**
KMNR				*e*S	**S**	**10 14 44.8**	**-0.7**
ZLN	**Zelenaya**	**6.51**	**25**	*e*P	**P**	**10 13 43.2**	**+1.9**
ZLN				*e*S	**S**	**10 14 53.8**	**-0.9**
LGNR	**Loginova**	**6.54**	**24**	*e*P	**P**	**10 13 44.0**	**+2.3**
KBTR	**Krutoberegovo**	**7.29**	**32**	P	**P**	**10 13 52.0**	**+0.1**
KBTR	**Krutoberegovo**	**7.29**	**32**	*e*P	**P**	**10 13 51.7**	**-0.2**
KBTR				*e*S	**S**	**10 15 08.9**	**-4.7**
ASAJ	**Asahikawa**	**10.91**	**241**	P	**P**	**10 14 41.0**	**+1.0**
	comp=E,0.8nm,0.3s,baz=72,slow=12,SNR=5.7						
FX1	**Attu Island--F**	**11.08**	**69**	P	**P**	**10 14 41.1**	**-1.1**
	comp=E,8.8nm,0.3s,baz=107,slow=16,SNR=18						
FX1				S	**S**	**10 16 38.1**	**-5.8**
	comp=E,19nm,0.3s,baz=137,slow=20,SNR=15						
MAT	**Matsushiro**	**18.70**	**230**	P	**P**	**10 16 16.6**	**-0.7**
MAT				S	**S**	**10 19 46.0**	**+8.0**
MAT	**Matsushiro**	**18.70**	**230**	P	**P**	**10 16 17.0**	**-0.3**
JHJ	**Hachijo jima 2**	**20.83**	**221**	P	**P**	**10 16 37.1**	**-2.1**
	comp=E,106nm,0.8s,baz=27,slow=16,SNR=3.0						
HIA	**Hailar**	**23.24**	**282**	*e*P	**P**	**10 17 02.9**	**+0.3**
	comp=E,2.6nm,0.3s,mb4.1						
MCK	**McKinley**	**31.83**	**44**	P	**P**	**10 18 20.6**	**-0.1**
SONM	**Songino Array**	**32.07**	**285**	P	**P**	**10 18 22.1**	**-0.8**
	comp=E,0.3nm,0.7s,mb3.1,baz=55,slow=8.8,SNR=3.4						
COLA	**College**	**32.28**	**42**	*e*P	**P**	**10 18 24.8**	**+0.2**
	comp=E,5.7nm,0.8s,mb4.3						
ILAR	**Eielson Array**	**32.70**	**42**	P	**P**	**10 18 27.8**	**-0.4**
	comp=E,1.6nm,0.7s,mb3.9,baz=258,slow=6.0,SNR=19						
ZAL	**Zalesovo**	**42.17**	**304**	P	**P**	**10 19 47.6**	**+0.3**
	comp=E,0.9nm,0.3s,mb3.8,baz=342,slow=6.4,SNR=3.5						
KURK	**Kurchatov**	**47.03**	**302**	P	**P**	**10 20 24.9**	**-1.2**
	comp=E,1.7nm,0.5s,mb3.9						
YKA	**Yellowknife Ar**	**47.05**	**39**	P	**P**	**10 20 26.9**	**+0.9**
	comp=E,3.2nm,1.0s,mb3.9,baz=300,slow=7.7,SNR=16						
YKA	**Yellowknife Ar**	**47.05**	**39**	P	**P**	**10 20 26.9**	**+0.8**
CHKZ	**Chkalovo**	**49.65**	**309**	*e*P	**P**	**10 20 45.0**	**-1.3**
	comp=E,3.3nm,0.6s,mb4.1						
BVAR	**Borovoye Array**	**50.12**	**308**	P	**P**	**10 20 49.2**	**-0.7**
	comp=E,0.9nm,0.4s,mb3.8,baz=66,slow=8.2,SNR=9.4						
BRVK	**Borovoye**	**50.15**	**308**	*e*P	**P**	**10 20 48.8**	**-1.4**
	comp=E,1.6nm,0.7s,mb3.8						
CMAR	**Chiang Mai Arr**	**54.99**	**256**	P	**P**	**10 21 27.9**	**+1.3**
	comp=E,0.7nm,0.4s,mb3.8,baz=31,slow=6.8,SNR=5.7						
ARCES	**ARCESS Array B**	**55.17**	**341**	P	**P**	**10 21 24.8**	**-2.4**
	comp=E,6.1nm,1.0s,mb4.3,baz=40,slow=7.0,SNR=3.1						
NVAR	**Mina Array Bea**	**59.25**	**66**	P	**P**	**10 21 57.4**	**+1.1**
	comp=E,0.9nm,0.6s,mb3.8,baz=294,slow=8.2,SNR=6.8						
PDAR	**Pinedale Array**	**61.25**	**57**	P	**P**	**10 22 10.5**	**+0.6**
	comp=E,2.1nm,0.8s,mb4.0,baz=321,slow=2.9,SNR=15						
PV10	**Paradox Valley**	**64.58**	**60**	*e*P	**P**	**10 22 33.1**	**+1.3**
SCHQ	**Schefferville**	**69.38**	**25**	P	**P**	**10 23 01.6**	**+0.1**
	comp=E,3.0nm,0.9s,mb4.0,baz=352,slow=7.1,SNR=6.1						
WRA	**Warramunga Arr**	**72.41**	**201**	P	**P**	**10 23 20.0**	**-0.3**
	comp=E,0.6nm,0.8s,mb3.4,baz=18,slow=6.1,SNR=7.0						
WRA				sP	sP	10 23 49.1	-18
	comp=E,1.0nm,0.7s,baz=20,slow=6.8,SNR=6.2						
TXAR	**Lajitas Array**	**74.22**	**63**	P	**P**	**10 23 31.7**	**+1.0**
	comp=E,1.6nm,0.4s,mb4.1,baz=297,slow=5.1,SNR=54						
TXAR				sP	sP	10 24 01.2	-17
	comp=E,0.4nm,0.6s,baz=304,slow=5.0,SNR=3.0						
ASAR	**Alice Springs**	**76.10**	**201**	P	**P**	**10 23 41.6**	**+0.2**
	comp=E,0.3nm,0.6s,mb3.1,baz=13,slow=4.9,SNR=8.0						
ASAR				pP	pP	10 24 03.7	-11
	comp=E,0.3nm,0.7s,baz=10.0,slow=11,SNR=2.9						
ASAR				sP	sP	10 24 10.8	-18
	comp=E,1.1nm,0.6s,baz=11,slow=5.1,SNR=8.7						

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*NEIC **04** 10:16:24.2,39.93N×40.82E,h5^{km},mb4.4/8,ML4.4(ISK), After ISK.*

NEIC Felt in the Erzurum area.

*ISK **04** 10:16:24.4,39.92N×40.84E,h5^{km},MD4.2*

*CSEM **04** 10:16:24.4±0.1,39.93N×40.82E,h2^{km},mb4.4/8,Error ellipse: s-maj=1.9km s-min=1.5km az=163.0*

*MOS **04** 10:16:25.7±1.9,39.83N×40.74E,h10^{km},mb4.2/9,Error ellipse: s-maj=9.8km s-min=6.3km az=101.4*

*IDC **04** 10:16:26.9±0.7,39.91N×40.66E,mb3.9/13,mb1 4.1/21, mb1mx4.0/30,ML3.9/6,MS3.5/3,Ms1 3.5/3,ms1mx3.2/28, Error ellipse: s-maj=16.1km s-min=8.1km az=5.0*

ISC 04 10:16:25.5±0.2,39.93N±0.02×40.82E±0.03,h5^{km},n133, σ1^{s}37/150,mb4.0/20,MS3.5/3,1C,Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EZM	**Erzurum**	**0.41**	**93**	*i* PG	**Pg**	**10 16 33.5**	**-0.3**
ERZM	**Erzurum**	**0.42**	**93**	*i* P	**Pg**	**10 16 33.5**	**-0.4**
ERZM				*i* S	**Sg**	**10 16 47.8**	**+8.4**
EZC	**Erzincan**	**0.80**	**257**	*i* PN	**Pn**	**10 16 47.0**	**+3.9**
EZC	**Erzincan**	**0.80**	**257**	Pn	**Pn**	**10 16 47.0**	**+3.9**
VRT	**Varto**	**0.97**	**145**	*i* PG	**Pg**	**10 16 43.7**	**-1.1**
VRT	**Varto**	**0.97**	**145**	Pg	**Pg**	**10 16 43.7**	**-1.1**
BINT	**Bingol**	**1.08**	**194**	*i* PG	**Pg**	**10 16 45.8**	**-1.3**
GUMT	**Gumushane**	**1.16**	**298**	*i* PN	**Pn**	**10 16 47.5**	**-0.7**
GUMT	**Gumushane**	**1.16**	**298**	Pn	**Pn**	**10 16 47.5**	**-0.8**
PTK	**Pertek**	**1.52**	**227**	*i* PN	**Pn**	**10 16 53.5**	**+0.1**
BCA	**Borcka**	**1.63**	**22**	*i* PN	**Pn**	**10 16 55.0**	**0.0**
BCA	**Borcka**	**1.63**	**22**	Pn	**Pn**	**10 16 55.0**	**0.0**
BTMT	**Batman**	**1.81**	**163**	*i* PN	**Pn**	**10 16 58.6**	**+1.0**
KARS	**Kars**	**1.86**	**68**	*i* PN	**Pn**	**10 16 58.6**	**+0.2**
KARS	**Kars**	**1.86**	**68**	Pn	**Pn**	**10 16 58.5**	**+0.2**
KARS	**Kars**	**1.86**	**68**	Pn	**Pn**	**10 16 58.5**	**+0.1**
ELZG	**Elazig**	**2.02**	**226**	*i* P	**Pn**	**10 17 01.1**	**+0.5**
ELZG				*i* S	**Sn**	**10 17 43.0**	**+16**
BEST	**Besiri**	**2.06**	**170**	*i* P	**Pn**	**10 17 02.4**	**+1.2**
BEST				*i* S	**Sn**	**10 17 33.2**	**+5.5**
DIY	**Diyarbakir**	**2.08**	**193**	*e*PN	**Pn**	**10 17 02.2**	**+0.7**
DIY	**Diyarbakir**	**2.08**	**193**	Pn	**Pn**	**10 17 02.2**	**+0.7**
VANB	**Van**	**2.40**	**123**	*e*PN	**Pn**	**10 17 06.1**	**+0.1**
VANB	**Van**	**2.40**	**123**	Pn	**Pn**	**10 17 06.1**	**+0.1**
TVAN	**Van**	**2.44**	**124**	*i* P	**Pn**	**10 17 09.8**	**+3.2**
MYA	**Malataya**	**2.46**	**230**	PN	**Pn**	**10 17 07.0**	**+0.1**
MYA	**Malataya**	**2.46**	**230**	Pn	**Pn**	**10 17 07.0**	**+0.2**
LEN	**Leninakan**	**2.46**	**69**	*e*P	**Pn**	**10 17 09.0**	**+2.1**
LEN				*i*		10 17 48.0	
MALT	**Malatya**	**2.47**	**230**	PN	**Pn**	**10 17 07.2**	**+0.2**
MALT	**Malatya**	**2.47**	**230**	Pn	**Pn**	**10 17 07.2**	**+0.2**
MALT	**Malatya**	**2.47**	**230**	*i* P	**Pn**	**10 17 07.1**	**+0.2**
MALT				*i* S	**Sn**	**10 17 57.9**	**+20**
VANT	**Van**	**2.48**	**126**	PN	**Pn**	**10 17 06.7**	**-0.5**
VANT	**Van**	**2.48**	**126**	Pn	**Pn**	**10 17 06.7**	**-0.5**
URFA	**Urfa**	**2.94**	**213**	PN	**Pn**	**10 17 13.9**	**+0.2**
SVST	**Sivas**	**2.98**	**268**	*i* P	**Pn**	**10 17 18.5**	**+4.2**
SVST				*i* S	**Sg**	**10 18 07.8**	**+3.0**
GNI	**Garni**	**3.02**	**85**	Pn	**Pn**	**10 17 19.3**	**+4.5**
	15nm,0.3s,baz=304,slow=4.2,SNR=17						
GNI				Pg	**Pg**	**10 17 24.5**	**-1.1**
	15nm,0.3s,baz=272,slow=7.2,SNR=40						
GNI	**Garni**	**3.02**	**85**	P	**Pn**	**10 17 19.3**	**+4.5**
GNI				pmax	pmax		
	comp=Z,15nm,0.3s						
GNI				pmax	pmax		
	comp=Z,15nm,0.3s						
GNI	**Garni**	**3.02**	**85**	Pn	**Pn**	**10 17 19.3**	**+4.5**
GNI				Pg	**Pg**	**10 17 24.5**	**-1.2**
GNI	**Garni**	**3.02**	**85**	Pg	**Pg**	**10 17 24.5**	**-1.2**
HKR	**Hakkari**	**3.27**	**135**	*e*PN	**Pn**	**10 17 18.9**	**+0.4**
TOKT	**Tokat**	**3.30**	**278**	PN	**Pn**	**10 17 19.4**	**+0.5**
TOKT	**Tokat**	**3.30**	**278**	Pn	**Pn**	**10 17 19.4**	**+0.5**
TI2	**Plekhanov**	**3.48**	**58**	*i* P	**Pn**	**10 17 20.4**	**-1.0**
TI2				pmax	pmax		
	comp=Z,40nm,0.4s						
TI2				pmax	pmax		
	comp=Z,350nm,0.6s						
TI2	**Plekhanov**	**3.48**	**58**	*i* P	**Pn**	**10 17 20.2**	**-1.2**
GZT	**Gaziantep**	**3.62**	**226**	*i* P	**Pn**	**10 17 22.4**	**-1.0**
GZT				*i* S	**Sg**	**10 18 27.9**	**+1.8**
ZEI	**Tsey**	**3.66**	**38**	P	**Pn**	**10 17 24.5**	**+0.5**
ZEI				S	**Sn**	**10 18 06.5**	**-1.6**
SOC	**Sochi**	**3.74**	**348**	*i* P	**Pn**	**10 17 24.0**	**-1.1**
SOC				*e*S	**Sn**	**10 18 10.2**	**0.0**

```
SOC                                 pmax  pmax
      comp=Z,152nm,1.2s
SOC                                 pmax  pmax
      comp=N,128nm,0.8s
SOC                                 pmax  pmax
      comp=E,22nm,0.4s
SOC                                 MLR   MLR
      comp=Z,594nm,14.0s
SOC                                 MLR   MLR
      comp=N,729nm,11.0s
SOC                                 MLR   MLR
      comp=E,2μm,15.0s
KVT   Kavak             3.82 289  ePN   Pn     10 17 34.5 +8.3
BNN   Bunyan            4.00 256  ePN   Pn     10 17 29.4 +0.6
BNN   Bunyan            4.00 256   Pn   Pn     10 17 29.4 +0.5
KIV   Kislovodsk        4.25  18 ⇑eP    Pn     10 17 34.6 +2.2
KIV   Kislovodsk        4.25  18  eP    Pn     10 17 35.0 +2.6
CTKT  Corum             4.67 280  i P   Pb     10 17 49.2 +1.6
CTKT                              i S   Sn     10 18 38.8 +5.2
AVNT  Avonos            4.77 258  i P   Pn     10 17 41.6 +1.9
AVNT                              i S   Sg     10 19 08.3 +4.1
COBT  Iskenderun        4.95 228  i P   Pn     10 17 41.0 -1.4
COBT                              i S   Sg     10 19 01.8 -8.5
NIG   Nigde             5.17 251  ePN   Pn     10 17 45.6 +0.2
NIG   Nigde             5.17 251   Pn   Pn     10 17 45.6 +0.2
TOS   Tosya             5.30 284  ePN   Pn     10 17 47.3 +0.1
TOS   Tosya             5.30 284   Pn   Pn     10 17 47.3 +0.1
GOF   Gofitskoye        5.38  17  eP    Pn     10 17 52.0 +3.7
ANN   Anapa             5.48 334  eP    Pn     10 17 51.2 +1.5
ANN                               e            10 18 56.2
ANN                                 pmax  pmax
      comp=Z,190nm,1.7s
BRTR  Keskin Array B    5.54 270   Pn   Pn     10 17 50.1 -0.5
      comp=Z,0.4nm,0.3s,baz=92,slow=12,SNR=9.9
BRTR                               Lg          10 19 21.5
      baz=124,slow=26,SNR=2.2
ELDT  Eldivan           5.69 278  i P   Pb     10 18 03.0 -2.1
ELDT                              i S   Sg     10 19 29.1 -5.9
BALT  Daday             5.87 288  i P   Pn     10 18 03.2 +7.9
BALT                              i S   Sg     10 19 39.2 -1.8
SIM   Simferopol'       7.05 318    P   Pn     10 18 16.8 +4.9
SIM                                 S   Sn     10 19 35.4 +2.0
SIM                                 S   Sn     10 19 42.8 +9.4
SIM                                 pmax  pmax
      comp=Z,33nm,0.8s
ASF   Jabal al Asfar    8.37 204   Pn   P      10 18 27.5 -2.8
      comp=Z,0.4nm,0.3s,baz=249,slow=6.7,SNR=5.3
ASF                                Lg          10 20 51.4
      comp=Z,0.4nm,0.3s,baz=285,slow=22,SNR=3.5
ASF                                LR   LR     10 21 49.5
      comp=Z,227nm,18.6s,baz=258,slow=39
EIL   Elat             11.31 207   Pn   P      10 19 08.7 -2.1
      comp=Z,0.1nm,0.3s,baz=218,slow=37,SNR=3.1
EIL                                Lg          10 22 25.6
      comp=Z,0.2nm,0.3s,baz=62,slow=17,SNR=2.7
VRSR  Storozhevoye     11.34 355  eP    P      10 19 05.3 -5.9
VRSR                              eS    S      10 21 16.3 -3.2
VRSR                                pmax  pmax
      comp=N,5.0nm,0.5s
VRSR                                pmax  pmax
      comp=E,2.0nm,0.2s
VRSR                                pmax  pmax
      comp=Z,5.0nm,0.7s
VRSR                                smax
      comp=N,10.0nm,0.6s
VRSR                                smax
      comp=Z,4.0nm,0.6s
VRSR                                smax
      comp=E,20nm,1.1s
MLR   Muntele Rosu     12.27 302   Pn   P      10 19 23.8 +0.1
      comp=E,0.6nm,0.3s,baz=132,slow=5.2,SNR=8.7
MLR   Muntele Rosu     12.27 302    P   P      10 19 23.8 +0.1
MLR                                 pmax  pmax
      comp=Z,1.0nm,0.3s
IDI   Anoyia           13.45 255   Pn   P      10 19 38.3 -1.2
      comp=Z,0.2nm,0.3s,baz=42,slow=15,SNR=2.3
AKASG Malin Array Be   13.49 327   Pn   P      10 19 37.3 -2.7
      comp=Z,6.5nm,0.3s,baz=137,slow=12,SNR=19
AKASG Malin Array Be   13.49 327    P   P      10 19 37.3 -2.7
AKASG                               pmax  pmax
      comp=Z,7.0nm,0.3s
GVD   Gavdhos          14.24 254  eP    P      10 19 48.6 -1.2
      comp=Z,18nm,1.1s
GVD   Gavdhos          14.24 254  eP    P      10 19 48.6 -1.3
      comp=Z,18nm,1.1s
OBN   Obninsk          15.46 351  eP    P      10 20 06.4 +0.8
OBN                                 pmax  pmax
      comp=Z,24nm,1.4s
OBN                                 MLR   MLR
      comp=Z,200nm,14.0s
MOS   Moscow           15.96 353  eP    P      10 20 13.0 +0.9
MOS                               e            10 23 12.3
TIP   Timpagrande      18.57 275  eP    P      10 20 43.6 -1.4
TIP   Timpagrande      18.57 275  eP    P      10 20 43.6 -1.4
VRAC  Vranov           19.56 307    P   P      10 20 57.6 +0.9
      comp=Z,0.5nm,0.3s,baz=352,slow=16,SNR=2.4
VRAC  Vranov           19.56 307    P   P      10 20 57.6 +0.9
VRAC                                pmax  pmax
      comp=Z,1.0nm,0.3s
ARU   Arti             20.21  29  eP    P      10 21 01.0 -2.7
ARU                               eS    S      10 24 44.5 -1.0
ARU                                 MLR   MLR
      comp=Z,200nm,17.0s,MS3.5
ARU                                 MLR   MLR
      comp=N,50nm,15.0s,MS3.3
ARU                                 MLR   MLR
      comp=E,100nm,17.0s,MS3.3
ARU   Arti             20.21  29  eP    P      10 21 01.4 -2.3
      comp=E,15nm,0.8s
ARU   Arti             20.21  29  eP    P      10 21 01.4 -2.3
      comp=E,15nm,0.8s
VSU   Vasula           20.63 339  eP    P      10 21 10.4 +2.3
AQU   L'Aquila         20.76 286    P   P      10 21 08.8 -0.8
PRU   Pruhonice        21.04 307  eP    P      10 21 11.0 -1.4
GERES GERESS Array B   21.24 304    P   P      10 21 13.2 -1.3
      comp=E,1.0nm,0.7s,mb3.2,baz=106,slow=9.7,SNR=7.1
GERES GERESS Array B   21.24 304    P   P      10 21 13.2 -1.3
GERES                               pmax  pmax
      comp=Z,1.0nm,0.7s
KHC   Kasperske Hory   21.39 304  eP    P      10 21 12.0 -4.0
BRG   Berggiesshubel   21.69 309  eP    P      10 21 32.4  +13
CLL   Collm            22.40 310  eP    P      10 21 26.0 -0.1
CLL                               i            10 21 35.3
CLL   Collm            22.40 310    P   P      10 21 26.0 -0.1
CLL                               i            10 21 35.3
CLL                               e            10 21 40.0
GRA1  Grafenberg Arr   23.02 305  eP    P      10 21 33.6 +1.5
      comp=Z,8.0nm,1.1s,mb4.1
GRF   Grafenberg Arr   23.02 305  eP    P      10 21 33.6 +1.5
GRF                                 pmax  pmax
      comp=Z,8.0nm,1.1s,mb4.1
FINES FINESS Array B   23.37 342    P   P      10 21 35.8 +0.4
      comp=Z,2.2nm,0.7s,mb3.7,baz=201,slow=12,SNR=7.4
FINES FINESS Array B   23.37 342    P   P      10 21 35.8 +0.5
FINES                               pmax  pmax
      comp=Z,2.0nm,0.7s
DAVOX Davos            23.41 297    P   P      10 21 36.2 +0.3
      comp=Z,3.9nm,1.0s,mb3.8,baz=2.5,slow=8.2,SNR=3.4
DAVOX Davos            23.41 297    P   P      10 21 36.2 +0.2
BRVK  Borovoye         23.96  47  eP    P      10 21 43.6 +2.4
      comp=Z,9.0nm,0.9s,mb4.2
BVAR  Borovoye Array   24.01  47    P   P      10 21 45.0 +3.4
      comp=Z,3.7nm,0.8s,mb3.9,baz=233,slow=7.4,SNR=16
CHKZ  Chkalovo         24.37  46  eP    P      10 21 44.9 -0.3
      comp=Z,122nm,1.2s
CHKZ  Chkalovo         24.37  46  eP    P      10 21 44.9 -0.3
      comp=Z,122nm,1.2s
AAK   Ala-Archa        25.35  73  eP    P      10 21 54.4 -0.4
      comp=Z,9.9nm,1.3s,mb4.2
AAK   Ala-Archa        25.35  73  eP    P      10 21 54.3 -0.4
      comp=Z,9.9nm,1.3s,mb4.2
MBDF  Montbardon       25.51 292  eP    P      10 21 54.8 -1.4
      comp=Z,26nm,1.1s,mb4.3
LPG   La Plagne        25.52 294  eP    P      10 21 57.5 +1.2
      comp=Z,22nm,1.2s,mb4.3
LPL   La Plagne        25.53 294  eP    P      10 21 57.2 +0.8
CABF  La Chapelle      26.01 296  eP    P      10 21 57.4 -3.4
TKM2  Tokmak 2         26.13  72    P   P      10 22 02.1 +0.1
      comp=Z,7.3nm,1.1s,mb4.1
TKM2  Tokmak 2         26.13  72    P   P      10 22 02.1 +0.1
      comp=Z,7.3nm,1.1s,mb4.1
HFS   Hagfors          26.36 329    P   P      10 22 02.5 -1.4
      comp=Z,5.4nm,0.8s,mb4.1,baz=132,slow=8.5,SNR=5.8
HFS   Hagfors          26.36 329    P   P      10 22 02.5 -1.4
HFS                                 pmax  pmax
      comp=Z,5.0nm,0.8s
NOA   NORSAR Array B   27.89 329   LR   LR     10 33 09.1
      comp=Z,118nm,19.2s,MS3.5,baz=210,slow=36
KURK  Kurchatov        28.39  55  eP    P      10 22 23.7 +1.2
KURK  Kurchatov        28.39  55  eP    P      10 22 23.9 +1.5
      comp=Z,3.6nm,0.9s,mb4.0
KURK  Kurchatov        28.39  55  eP    P      10 22 23.9 +1.4
      comp=Z,3.5nm,0.9s,mb4.0
ARCES ARCESS Array B   30.76 350    P   P      10 22 46.8 +3.3
      comp=Z,3.1nm,0.8s,mb4.2,baz=165,slow=10,SNR=3.6
ARCES ARCESS Array B   30.76 350    P   P      10 22 46.8 +3.3
ARCES                               pmax  pmax
      comp=Z,3.0nm,0.9s
ZAL   Zalesovo         32.57  50   LR   LR     10 39 19.9
      comp=Z,82nm,18.1s,MS3.5,baz=32,slow=42
EKA   Eskdalemuir Ar   32.77 313    P   P      10 22 59.5 -1.8
      comp=Z,2.9nm,0.8s,mb4.3,baz=107,slow=9.0,SNR=6.2
EKA   Eskdalemuir Ar   32.77 313    P   P      10 22 59.5 -1.8
EKA                                 pmax  pmax
      comp=Z,3.0nm,0.8s
ESDC  Sonseca Array    34.13 284    P   P      10 23 11.2 -2.1
      comp=Z,0.9nm,0.6s,mb3.9,baz=64,slow=9.4,SNR=5.4
SONM  Songino Array    46.63  58    P   P      10 24 56.1 -0.1
      comp=Z,0.5nm,1.0s,mb3.4,baz=304,slow=5.2,SNR=2.7
BOD   Bodaibo          48.77  43  eP    P      10 25 10.3 -2.5
DBIC  Dimbokro         52.60 243    P   P      10 25 39.0 -3.5
      comp=Z,1.6nm,0.5s,mb4.2,baz=31,slow=8.8,SNR=6.0
DBIC  Dimbokro         52.60 243    P   P      10 25 39.1 -3.5
DBIC                                pmax  pmax
      comp=Z,2.0nm,0.5s
INK   Inuvik           72.00 358    P   P      10 27 53.9 +2.4
      comp=Z,0.9nm,0.4s,mb4.0,baz=333,slow=12,SNR=10.0
INK   Inuvik           72.00 358    P   P      10 27 53.9 +2.4
INK                                 pmax  pmax
      comp=Z,1.0nm,0.4s
ILAR  Eielson Array    75.46   3    P   P      10 28 14.2 +2.6
      comp=Z,0.7nm,1.1s,mb3.5,baz=311,slow=5.0,SNR=4.1
ILAR  Eielson Array    75.46   3    P   P      10 28 14.2 +2.6
ILAR                                pmax  pmax
      comp=Z,1.0nm,1.1s
ILAR  Eielson Array    75.46   3    P   P      10 28 14.1 +2.5
YKA   Yellowknife Ar   76.02 349    P   P      10 28 15.5 +0.7
      comp=Z,1.6nm,1.1s,mb3.9,baz=19,slow=6.0,SNR=8.0
YKA   Yellowknife Ar   76.02 349    P   P      10 28 15.5 +0.7
YKA                                 pmax  pmax
      comp=Z,2.0nm,1.1s
YKA   Yellowknife Ar   76.02 349    P   P      10 28 15.5 +0.7
```

MED_RC ***04*** *10:29:00.5±0.2,34.98N×2.99W,h15^{km},MW5.1/12, Moment Tensor Solution. Body waves: s12,c21; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.35±.10; M$_{\theta\theta}$-0.16±.07; M$_{\phi\phi}$2.51±.10; M$_{r\theta}$-0.05±.24; M$_{\theta\phi}$-4.49±.06; M$_{\phi r}$-1.71±.26; Best double couple: M$_0$5.13×10^{16} NP1:φ$_s$101°,δ60°,λ-162°. NP2:φ$_s$2°,δ74°, λ-31°. Principal axes: T 6.07, Plg9°, Azm54°; N -1.88, Plg56°, Azm158°; P -4.19, Plg33°, Azm318°; nsta1 refers to waves, cutoff=35s.*

CNRM ***04*** *10:29:58.7,34.85N×2.82W,h12^{km},MD5.0*

IDC ***04*** *10:29:59.1±0.5,35.09N×3.13W,mb4.6/30,mb1 4.7/34, mb1mx4.7/35,ML5.0/3,MS4.6/18,Ms1 4.6/18, ms1mx4.4/27,Error ellipse: s-maj=12.5km s-min=12.1km az=51.0*

MOS ***04*** *10:29:59.7±1.3,35.06N×3.03W,h17^{km},mb5.0/33, MS4.7/27,Error ellipse: s-maj=17.5km s-min=4.3km az=58.8*

MDD ***04*** *10:29:59.8±0.8,34.98N×2.97W,h6^{km}±3^{km},mb5.3/26, Error ellipse: s-maj=6.1km s-min=4.1km az=20.0,PRXIMO AftershockPLICA V NADOR IV MELILLA*

MDD EMS: VI EL AROUI SELOUANE SEGANGANE. DATOS DE INTENSIDAD EN MARRUECOS: ISRABAT-MSK1964.

SFS ***04*** *10:29:59.0,34.99N×2.99W,h6^{km},ML5.3*

INMG ***04*** *10:29:59.7±1.2,34.99N×2.97W,h13^{km}±4^{km},ML4.2,Error ellipse: s-maj=5.0km s-min=3.7km az=137.0*

NEIC ***04*** *10:30:00.5±0.2,35.04N×3.15W,h10^{km},mb5.0/50, MS4.9/15,Error ellipse: s-maj=3.6km s-min=2.6km az=161.0*

NEIC Felt [IV] at Melilla.

HRVD ***04*** *10:30:00.5±0.3,34.95N×2.89W,h12^{km},MW5.1/61, Centroid moment Tensor Solution. LP body waves: s43,c63;Mantle waves: s61,c116; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.70±.16; M$_{\theta\theta}$-0.19±.16; M$_{\phi\phi}$1.89±.15; M$_{r\theta}$-0.25±.40; M$_{\theta\phi}$-4.96±.11; M$_{\phi r}$-2.34±.36; Best double couple: M$_0$5.69×10^{16} NP1: φ$_s$98°,δ61°,λ-168°. NP2:φ$_s$2°,δ80°,λ-29°. Principal axes: T 6.27, Plg12°, Azm53°; N -1.18, Plg59°, Azm164°; P -5.1, Plg28°, Azm316°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ZUR_RM ***04*** *10:30:00,35.04N×3.15W,h12^{km},Mw5.2/17,Moment Tensor Solution. s17 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.12; M$_{\theta\theta}$-0.15; M$_{\phi\phi}$2.27; M$_{r\theta}$2.27; M$_{\theta\phi}$-5.28; M$_{\phi r}$-3.93; Best double couple: M$_0$6.62×10^{16} NP1:φ$_s$357°,δ83°,λ-43°. NP2:φ$_s$93°,δ47°,λ-170°. Principal axes: T 8.4, Plg23°, Azm53°; N -3.561, Plg46°, Azm169°; P -4.839, Plg35°, Azm306°;*

SYO ***04*** *10:30:00.7,35.05N×3.07W,h13^{km},MB5.0,MS4.9*

BJI ***04*** *10:30:00.0,35.52N×3.21W,h12^{km},mB5.6,mb5.1,Ms5.3, Msz5.2*

IAG ***04*** *10:30:00,34.99N×3.00W,h12^{km},Mw5.1,Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.27; M$_{\theta\theta}$0.04; M$_{\phi\phi}$0.24; M$_{r\theta}$-0.90; M$_{\theta\phi}$-4.10; M$_{\phi r}$-2.33; Best double couple: M$_0$4.81×10^{16} NP1:φ$_s$93°,δ61°,λ189°. NP2:φ$_s$359°,δ82°,λ-28°. Principal axes: T 5.07, Plg14°, Azm50°; N -.57, Plg60°, Azm165°; P -4.5, Plg26°, Azm313°;*

CSEM ***04*** *10:30:01.0,35.19N×3.10W,h15^{km},mb5.1*

LDG ***04*** *10:30:02.4,34.92N×2.98W,h30^{km}*

IGIL ***04*** *10:30:03.9,35.19N×3.10W,h15^{km},ML4.5*

ISC 04 10:30:01.5±0.3,**35.18N**±0.02×**3.07W**±0.02,**h25**^{km}±2^{km}, **h19**^{km}±2.6^{km}**:pP-P,n717,**σ**1^{s}28**/819,**mb4.9**/92,**MS4.7**/50, **32C-28D,Strait of Gibraltar**

```
Code  Station Name        Δ°  AZ°   Phase ID         Time     Res
                                   Op    ISC       h  m  s    ISC
EMEL  Melilla           0.15  37 ⇑P     Pb     10 30 05.5 -1.2
      7μm,0.2s,SNR=18
EMEL                               S    Sb     10 30 10.4 +0.2
      75μm,0.3s
EMLI  Melilla           0.15  38   P    Pb     10 30 05.5 -1.2
      7μm,0.2s,SNR=18
MELI  Melilla           0.16  43 ⇑P     Pb     10 30 05.4 -1.3
MELI                               S    Sb     10 30 10.8 +0.5
MELI  Melilla           0.16  43 i P    Pb     10 30 05.4 -1.3
TOU   Touzarine         0.60 249 i P    Pb     10 30 13.0 -0.4
TOU                              i S    Sb     10 30 23.0 +1.5
MPAL  Palemas           0.72 274 i P    Pb     10 30 16.5 +1.2
EBER  Berja             1.72   5   P    Pn     10 30 30.2 -0.2
EBER                               S    Sn     10 30 52.0 +0.2
EBER                               S    Sn     10 30 52.5 +0.8
EBER  Berja             1.72   5 ⇑P     Pn     10 30 30.3 -0.1
      152nm,0.3s,SNR=18
EBER                               S    Sn     10 30 52.5 +0.8
      12μm,0.9s,SNR=26
EBER  Berja             1.72   5   P    Pn     10 30 30.3 -0.1
      152nm,0.3s,SNR=18
EBER                               S    Sn     10 30 52.5 +0.7
      12μm,0.9s,SNR=26
DKH   Dar Kharkhour     1.90 280 i P    Pn     10 30 33.5 +0.6
ERON  Agron             1.93 342   P    Pn     10 30 33.4  0.0
ERON                               S    Sn     10 30 60.0 +2.9
ERON  Agron             1.93 342 ⇑P     Pn     10 30 33.6 +0.2
      99nm,0.2s,SNR=18
ERON                               S    Sn     10 30 60.0 +2.9
      342nm,0.4s,SNR=7.1
EMIJ  Mijas             1.96 315 ⇓P     Pn     10 30 33.4 -0.4
      103nm,0.1s,SNR=18
EMIJ                               S    Sn     10 30 59.5 +1.8
      1μm,0.4s,SNR=6.6
EMIJ  Mijas             1.96 315   P    Pn     10 30 33.4 -0.4
      103nm,0.1s,SNR=18
EMIJ                               S    Sn     10 30 58.9 +1.2
ELOJ  Sierra Loja       2.15 336   P    Pn     10 30 37.2 +0.7
ELOJ                               S    Sn     10 31 07.3 +4.6
ELOJ  Sierra Loja       2.15 336   P    Pn     10 30 37.2 +0.7
      66nm,0.2s,SNR=114
ELOJ                               S    Sn     10 31 05.4 +2.7
      200nm,0.4s,SNR=5.4
REAL  Reales            2.17 307 ⇑P     Pn     10 30 36.5 -0.3
REAL                               S    Sn     10 31 11.0 +7.8
REAL  Reales            2.17 307 i P    Pn     10 30 36.5 -0.4
LIJA  Lijar             2.56 313 ⇑P     Pn     10 30 45.0 +2.6
ELUQ  Luque             2.57 338   P    Pn     10 30 44.6 +2.1
ELUQ  Luque             2.57 338 ⇓P     Pn     10 30 44.7 +2.3
      97nm,0.4s,SNR=18
ELUQ  Luque             2.57 338   P    Pn     10 30 44.6 +2.1
EQES  Quesada           2.62 360   P    Pn     10 30 45.4 +2.2
EQES                               S    Sn     10 31 19.7 +5.1
EQES  Quesada           2.62 360   P    Pn     10 30 45.4 +2.2
      184nm,0.2s,SNR=440
EQES                               S    Sn     10 31 19.5 +5.0
      6μm,0.9s
EQES  Quesada           2.62 360   P    Pn     10 30 45.4 +2.2
      184nm,0.2s,SNR=440
EQES                               S    Sn     10 31 19.5 +4.9
      6μm,0.9s
CNIL  Conil             2.71 297 ⇓P     Pn     10 30 46.6 +2.2
CNIL                               S    Sn     10 31 23.0 +6.3
OJBR  Djebel Berber     2.82  81   P    Pn     10 30 42.8 -3.2
ESPR  Espera            2.82 308   P    Pn     10 30 47.6 +1.5
ESPR                               S    Sn     10 31 22.8 +3.2
ESPR  Espera            2.82 308 ⇓P     Pn     10 30 47.6 +1.5
      71nm,0.2s,SNR=18
ESPR  Espera            2.82 308   P    Pn     10 30 47.6 +1.5
      71nm,0.2s,SNR=18
ESPR                               S    Sn     10 31 22.8 +3.2
SFS   San Fernando      2.86 298 eP     Pn     10 30 48.0 +1.5
SFS   San Fernando      2.86 298 ⇓P     Pn     10 30 48.5 +1.9
SFS                                S    Sn     10 31 32.8  +12
SFS   San Fernando      2.86 298 eP     Pn     10 30 48.0 +1.4
GIBL  Gibalbin          2.87 306 ⇓P     Pn     10 30 48.3 +1.5
GIBL  Gibalbin          2.87 306 i P    Pn     10 30 48.3 +1.5
CART  Cartagena         2.93  34 eP     Pn     10 30 44.9 -2.7
CART  Cartagena         2.93  34 ⇑P     Pn     10 30 45.4 -2.2
CART                               S    Sn     10 31 17.9 -4.4
CART  Cartagena         2.93  34 eP     Pn     10 30 44.9 -2.7
OJGS  Djebel Guires     3.14  83   P    Pn     10 30 49.6 -1.0
OKGL  Djebel Kef Gue    3.14  73   P    Pn     10 30 47.6 -3.1
EADA  Adamuz            3.22 338   P    Pn     10 30 52.6 +0.9
EADA                               S    Sn     10 31 31.8 +2.0
EADA  Adamuz            3.22 338 ⇓P     Pn     10 30 52.6 +0.9
      194nm,0.4s,SNR=18
EADA                               S    Sn     10 31 30.6 +0.9
      591nm,0.5s,SNR=7.2
EADA  Adamuz            3.22 338   P    Pn     10 30 52.6 +0.8
      194nm,0.4s,SNR=18
EADA                               S    Sn     10 31 30.6 +0.8
      591nm,0.5s,SNR=7.2
EANR  'Ain N'Sour       3.48  76   P    Pn     10 30 53.0 -2.5
EVIA  Vianos            3.48   7   P    Pn     10 30 56.5 +1.0
EVIA                               S    Sn     10 31 36.6 +0.2
EVIA  Vianos            3.48   7   P    Pn     10 30 56.5 +1.0
      138nm,0.3s,SNR=43
EVIA  Vianos            3.48   7   P    Pn     10 30 56.5 +1.0
      138nm,0.3s,SNR=43
EVIA                               S    Sn     10 31 36.6 +0.2
ETRT  Tiaret            3.58  85   P    Pn     10 30 54.6 -2.2
ECHF  Ech Chlef         3.72  74   P    Pn     10 30 57.5 -1.3
ECHA  Ech Chlef         3.74  74   P    Pn     10 30 57.5 -1.6
EMIN  Mina Concepcio    3.89 313   P    Pn     10 31 01.0 -0.3
      71nm,0.2s,SNR=682
EMIN                               S    Sn     10 31 45.6 -1.1
      73nm,0.3s,SNR=5.7
EMIN  Mina Concepcio    3.89 313   P    Pn     10 31 01.0 -0.2
      71nm,0.2s,SNR=682
EMIN  Mina Concepcio    3.89 313   S    Sn     10 31 45.6 -1.0
      73nm,0.3s,SNR=5.7
EBNR  Beni Rached       3.90  72   P    Pn     10 31 03.0 +1.6
EBEN  Beniarda          4.19  32   P    Pn     10 31 03.9 -1.7
      45nm,0.4s,SNR=56
EBEN                               S    Sn     10 31 51.0 -3.4
      134nm,0.4s,SNR=7.9
EBEN  Beniarda          4.19  32   S    Sn     10 31 51.0 -3.3
      134nm,0.4s,SNR=7.9
EBEN  Beniarda          4.19  32   P    Pn     10 31 03.9 -1.7
      45nm,0.4s,SNR=56
PALC  Alcoutim          4.23 304 ePn    Pn     10 31 05.6 -0.5
PALC                             eSn    Sn     10 31 54.2 -1.1
      339nm,0.6s
PALC  Alcoutim          4.23 304   P    Pn     10 31 05.6 -0.5
PALC                               S    Sn     10 31 54.2 -1.1
      169nm,0.6s
ESDC  Sonseca Array     4.54 351   Pn   Pn     10 31 11.5 +1.0
      186nm,0.3s,baz=174,slow=12,SNR=553
ESDC                               Sn   Sn     10 32 04.0 +0.8
      38nm,0.3s,baz=173,slow=17,SNR=7.5
ESDC                               Lg          10 32 19.0
      47nm,0.3s,baz=171,slow=28,SNR=5.2
ESDC  Sonseca Array     4.54 351   P    Pn     10 31 11.5 +0.9
ESDC                               S    Sn     10 32 03.2  0.0
ESDC  Sonseca Array     4.54 351   P    Pn     10 31 11.3 +0.7
      110nm,0.3s,baz=172,slow=12,SNR=399
ESDC                               S    Sn     10 32 03.2  0.0
      70nm,0.6s,baz=8.3,slow=16,SNR=6.0
ESDC  Sonseca Array     4.54 351   P    Pn     10 31 11.3 +0.7
      110nm,0.3s,SNR=399
EBAD  Badajoz           4.77 320   P    Pn     10 31 13.5 -0.3
EBAD                               S    Sn     10 32 08.3 -0.6
EBAD  Badajoz           4.77 320   P    Pn     10 31 13.7  0.0
      83nm,0.3s,SNR=276
EBAD                               S    Sn     10 32 08.3 -0.6
      122nm,0.3s,SNR=4.6
EBAD  Badajoz           4.77 320   P    Pn     10 31 13.5 -0.2
EBAD                               S    Sn     10 32 08.3 -0.6
      122nm,0.3s,SNR=4.6
PBEJ  Beja              4.79 308 ePn    Pn     10 31 13.3 -0.8
PBEJ                             eSn    Sn     10 32 08.3 -1.3
      207nm,0.6s
PBEJ  Beja              4.79 308   P    Pn     10 31 13.3 -0.8
PBEJ                               S    Sn     10 32 08.3 -1.3
      104nm,0.6s
EMHD  Djebel Mahouad    5.00  76   P    Pn     10 31 14.0 -3.1
PTEO  Sao Teotonio      5.14 299 ePn    Pn     10 31 17.7 -1.3
PTEO                             eSn    Sn     10 32 17.0 -1.2
      252nm,1.0s
PTEO  Sao Teotonio      5.14 299   P    Pn     10 31 17.7 -1.3
PTEO                               S    Sn     10 32 17.0 -1.2
      126nm,1.0s
EVO   Evora             5.19 312 ePn    Pn     10 31 20.1 +0.4
EVO                              eSn    Sn     10 32 21.0 +1.5
      407nm,0.5s
EVO                              eR
      3μm,18.0s
ABA   Alger-Bouzarea    5.21  70   P    Pn     10 31 16.5 -3.4
EIBI  Ibiza             5.21  41   P    Pn     10 31 17.6 -2.4
      213nm,0.4s,SNR=44
EIBI                               S    Sn     10 32 14.7 -5.4
      139nm,0.5s,SNR=7.9
EIBI  Ibiza             5.21  41   P    Pn     10 31 17.6 -2.4
      213nm,0.4s,SNR=44
ADJB  Djebel Djouab     5.39  78   P    Pn     10 31 19.9 -2.5
MOE   Montemor          5.39 310 ePn    Pn     10 31 22.3 -0.2
MOE                              eSn    Sn     10 32 23.6 -1.0
EMOS  Mosqueruela       5.57  21   P    Pn     10 31 25.4 +0.4
      58nm,0.4s,SNR=60
EMOS                               S    Sn     10 32 25.6 -3.4
      78nm,0.7s,SNR=7.9
EMOS  Mosqueruela       5.57  21   P    Pn     10 31 25.4 +0.4
      58nm,0.4s,SNR=60
AKET  Djebel Ketaf      5.73  79   P    Pn     10 31 24.6 -2.7
PCBR  Castelo Branco    5.83 324 ePn    Pn     10 31 28.3 -0.3
PCBR                             eSn    Sn     10 32 33.7 -1.7
      138nm,0.7s
PCBR  Castelo Branco    5.83 324   P    Pn     10 31 28.3 -0.3
PCBR                               S    Sn     10 32 33.7 -1.7
      69nm,0.7s
LIS   Lisbon            6.02 308 eP     Pn     10 31 30.6 -0.7
LIS                              eS     Sn     10 32 31.6 -8.5
LIS                              eS     Sn     10 32 31.7 -8.5
LIS                                AML  AML    10 32 48.0
      comp=E,470nm,0.9s
PMST  Lisbon--Monsan    6.05 308   P    Pn     10 31 31.2 -0.6
PLOU  Loures            6.11 309 ePn    Pn     10 31 31.8 -0.9
PLOU                             eSn    Sn     10 32 40.3 -2.3
      comp=E,214nm,0.9s
PLOU  Loures            6.11 309   P    Pn     10 31 31.8 -0.9
PLOU                               S    Sn     10 32 40.3 -2.3
      comp=E,107nm,0.9s
PTOM  Tomar             6.14 318 ePn    Pn     10 31 31.1 -2.0
PTOM                             eSn    Sn     10 32 42.3 -1.0
      comp=E,196nm,0.3s
PTOM  Tomar             6.14 318   P    Pn     10 31 31.1 -2.0
PTOM                               S    Sn     10 32 42.3 -1.0
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      comp=E,98nm,0.3s
EBR   Ebro Roquetas     6.29  25 i PN    Pn   10 31 34.0 -1.3
EBR                              i SN    Sn   10 32 47.2  0.0
EBR                              i Rs         10 32 50.0
MTE   Manteigas         6.30 327 i Pn    Pn   10 31 34.9 -0.5
MTE                              eSn     Sn   10 32 46.0 -1.4
      comp=E,355nm,0.8s
MTE   Manteigas         6.30 327 eP      Pn   10 31 34.6 -0.7
      comp=E,64nm,0.9s
MTE   Manteigas         6.30 327 eP      Pn   10 31 34.6 -0.8
      comp=E,64nm,0.9s
ERTA  Horta de San J    6.36  24 ⇓P      Pn   10 31 35.8 -0.4
      comp=E,402nm,1.0s,SNR=18
ERTA                              S      Sn   10 32 45.5 -3.4
      comp=E,30nm,0.3s,SNR=7.9
ERTA  Horta de San J    6.36  24  P      Pn   10 31 35.8 -0.4
      comp=E,402nm,1.0s,SNR=18
PVIS  Viseu             6.71 327 ePn     Pn   10 31 40.9 -0.3
PVIS                             eSn     Sn   10 32 56.3 -1.4
      comp=E,146nm,0.2s
ESAC  San Caprasio      6.84  17  P      Pn   10 31 42.9 -0.1
      comp=E,55nm,0.5s,SNR=9.4
ESAC                              S      Sn   10 32 58.1 -2.8
      comp=E,559nm,1.0s,SNR=7.9
ESAC  San Caprasio      6.84  17  P      Pn   10 31 42.9 -0.1
      comp=E,55nm,0.5s,SNR=9.4
EPOB  Poblet            6.97  27  P      Pn   10 31 43.1 -1.7
EPOB                              S      Sn   10 33 00.5 -3.6
EPOB  Poblet            6.97  27  P      Pn   10 31 43.1 -1.7
      comp=E,21nm,0.3s,SNR=39
EPOB                              S      Sn   10 32 59.7 -4.4
      SNR=7.9
EPOB  Poblet            6.97  27  P      Pn   10 31 43.1 -1.7
      comp=E,21nm,0.3s,SNR=39
PVRL  Vila Real         7.10 330 ePn     Pn   10 31 46.4 -0.2
PVRL                             eSn     Sn   10 33 03.8 -3.5
      comp=E,174nm,0.8s
PBRG  Braganca          7.22 338 ePn     Pn   10 31 47.4 -0.8
PBRG                             eSn     Sn   10 33 06.7 -3.5
      comp=E,130nm,1.1s
CMER  Merouana          7.34  84  P      Pn   10 31 42.0 -7.9
ECAL  Calabor           7.34 338 ⇑P      Pn   10 31 49.6 -0.3
      comp=E,117nm,0.4s,SNR=18
ECAL                              S      Sn   10 33 08.6 -4.6
      comp=E,165nm,0.7s,SNR=4.9
ECAL  Calabor           7.34 338  P      Pn   10 31 49.6 -0.3
      comp=E,117nm,0.4s,SNR=18
EGRA  Graus             7.49  20 ⇑P      Pn   10 31 51.7 -0.3
      comp=E,61nm,0.6s,SNR=18
EMIR  Miracle           7.63  27  P      Pn   10 31 53.3 -0.6
EMIR                              S      Sn   10 33 16.9 -3.5
EMIR  Miracle           7.63  27  P      Pn   10 31 53.3 -0.6
      comp=E,51nm,0.5s,SNR=20
EMIR                              S      Sn   10 33 16.4 -4.1
      SNR=7.9
EMIR  Miracle           7.63  27  P      Pn   10 31 53.3 -0.7
      comp=E,51nm,0.5s,SNR=20
ELOB  Lobios            7.74 331  P      Pn   10 31 55.2 -0.4
ELOB                              S      Sn   10 33 19.9 -3.4
ELOB  Lobios            7.74 331  P      Pn   10 31 55.2 -0.4
      comp=E,81nm,0.4s,SNR=130
ELOB                              S      Sn   10 33 18.3 -5.0
      comp=E,84nm,0.5s,SNR=4.2
ELOB  Lobios            7.74 331  P      Pn   10 31 55.2 -0.3
      comp=E,81nm,0.4s,SNR=130
CTEI  Djebel Teioual    7.77  81  P      Pn   10 31 52.0 -3.9
CASM  Ain Smara         7.85  79  P      Pn   10 31 51.5 -5.5
ERUA  La Rua            7.87 337  P      Pn   10 31 57.1 -0.3
ERUA                              S      Sn   10 33 19.9 -6.7
ERUA  La Rua            7.87 337  P      Pn   10 31 56.4 -1.0
      comp=E,104nm,0.5s,SNR=56
ERUA                              S      Sn   10 33 19.9 -6.7
      comp=E,199nm,1.0s,SNR=6.2
ERUA  La Rua            7.87 337  P      Pn   10 31 57.1 -0.3
EBIE  Bielsa            7.90  17  P      Pn   10 31 57.7 -0.1
      comp=E,25nm,0.4s,SNR=59
EBIE                              S      Sn   10 33 20.6 -6.7
      SNR=4.0
EBIE  Bielsa            7.90  17  P      Pn   10 31 57.7 -0.1
      comp=E,25nm,0.4s,SNR=59
ETSF  Etsaut            7.95  13 ePn     Pn   10 31 57.6 -0.9
ETSF                             eSn     Sn   10 33 24.4 -4.2
      comp=E,522nm,1.4s
LARF  Larrau            8.01  11 eP      P    10 31 59.2 -0.1
ELAN  Lanestosa         8.05 358  P      P    10 31 59.3 -0.5
      comp=E,18nm,0.5s,SNR=33
ELAN                              S      Sn   10 33 26.0 -5.0
      SNR=4.0
ELAN  Lanestosa         8.05 358  P      P    10 31 59.3 -0.5
      comp=E,18nm,0.5s,SNR=33
SJPF  Ste Jean          8.05  10 ePn     P    10 31 59.9  0.0
SJPF                             eSn     Sn   10 33 26.7 -4.4
      comp=E,132nm,0.7s
VIEF  Viey              8.06  16 eP      P    10 31 59.4 -0.6
EALK  Alkurruntz        8.12   8  P      P    10 32 00.7 -0.1
      comp=E,46nm,0.4s,SNR=53
EALK                              S      Sn   10 33 27.4 -5.4
      comp=E,107nm,0.7s,SNR=4.5
REYF  Montagne du Re    8.15  14 eP      P    10 32 00.7 -0.5
EINC  Incio             8.18 337  P      P    10 32 01.1 -0.5
EINC                              S      Sn   10 33 30.1 -4.2
EINC  Incio             8.18 337  P      P    10 32 01.1 -0.5
      comp=E,49nm,0.4s,SNR=49
EINC                              S      Sn   10 33 28.6 -5.7
      comp=E,70nm,0.7s,SNR=4.6
EINC  Incio             8.18 337  P      P    10 32 01.1 -0.6
      comp=E,49nm,0.4s,SNR=49
OSSF  Osses             8.19   9 eP      P    10 32 01.8  0.0
ORDF  Ordiarp           8.19  11 eP      P    10 32 02.0 +0.2
CAEH  'Ain El Ouahch    8.20  76  P      P    10 31 57.0 -4.9
LABF  Labassere         8.23  16 eP      P    10 32 01.4 -0.9
EZAM  Zamans            8.23 329  P      P    10 32 02.2 -0.2
      comp=E,28nm,0.4s,SNR=14
EZAM                              S      Sn   10 33 29.6 -6.0
      SNR=7.9
MELF  Melles            8.24  20 eP      P    10 32 02.3 -0.2
SALF  Salau             8.26  22 eP      P    10 32 02.9 +0.1
EPF   Esparros          8.28  18 ePn     P    10 32 02.1 -0.9
EPF                              eSn     Sn   10 33 31.8 -4.9
      comp=E,81nm,0.6s
EARI  Arriondas         8.28 349  P      P    10 32 00.4 -2.6
EARI                              S      Sn   10 33 29.7 -7.1
EARI  Arriondas         8.28 349  P      P    10 32 02.4 -0.6
      comp=E,80nm,0.5s,SNR=76
EARI                              S      Sn   10 33 35.0 -1.8
      SNR=7.9
EARI  Arriondas         8.28 349  S      Sn   10 33 35.0 -1.8
      SNR=7.9
EARI  Arriondas         8.28 349  P      P    10 32 02.4 -0.7
      comp=E,80nm,0.5s,SNR=76
MLS   Moulis            8.41  21 eP      P    10 32 05.1 +0.2
CARF  Carcanieres       8.54  27 eP      P    10 32 06.3 -0.3
FILF  Fillols           8.58  29 eP      P    10 32 06.9 -0.3
EJON  La Jonquera       8.62  31  P      P    10 32 07.1 -0.7
EJON                              S      Sn   10 33 39.2 -6.0
EJON  La Jonquera       8.62  31  P      P    10 32 06.0 -1.8
      comp=E,28nm,0.7s,SNR=7.3
EJON                              S      Sn   10 33 39.2 -6.0
      SNR=7.9
EJON  La Jonquera       8.62  31  P      P    10 32 07.1 -0.6
CMAH  Djebel Manchou    8.63  77  P      P    10 32 03.5 -4.4
LPEF  Le Peyrat         8.67  25 eP      P    10 32 08.5 +0.1
EPON  Pontenova         8.73 340  P      P    10 32 09.3  0.0
EPON                              S      Sn   10 33 41.3 -6.6
EPON  Pontenova         8.73 340  P      P    10 32 08.8 -0.5
      comp=E,24nm,0.4s,SNR=46
EPON                              S      Sn   10 33 42.2 -5.7
      SNR=7.9
EPON  Pontenova         8.73 340  P      P    10 32 09.3  0.0
STS   Santiago          8.80 333  P      P    10 32 10.3 +0.1
STS                               S      Sn   10 33 45.3 -4.3
STS   Santiago          8.80 333  P      P    10 32 09.5 -0.7
      comp=E,17nm,0.2s,SNR=19
STS                               S      Sn   10 33 45.3 -4.3
      comp=E,112nm,1.0s,SNR=6.5
STS   Santiago          8.80 333  P      P    10 32 10.3 +0.1
LRDF  Laroque-de-Fa     8.89  28 eP      P    10 32 12.2 +0.7
EMAZ  Mazaricos         9.02 331  P      P    10 32 12.9 -0.3
      comp=E,23nm,0.3s,SNR=18
EMAZ                              S      Sn   10 33 50.2 -4.8
      SNR=7.9
EMAZ  Mazaricos         9.02 331  P      P    10 32 12.9 -0.3
MTLF  Montolieu         9.12  25 ePn     P    10 32 12.5 -2.2
MTLF                             eSn     Sn   10 33 49.3 -8.3
      comp=E,70nm,0.7s
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LFF   La Frestale      10.18  15 ePn     P    10 32 27.4 -1.8
LASF  Ste Croix        10.36  29 ePn     P    10 32 30.2 -1.5
CAF   Calviac          10.50  20 ePn     P    10 32 31.5 -2.1
RJF   Les Rejaudoux    10.70  18 ePn     P    10 32 33.6 -2.8
RJF                              eSn     S    10 34 27.4 -9.0
      comp=E,23nm,0.5s
RJF                              eR
      comp=E,6µm,18.8s
VSL   Villasalto       10.80  63 eP      P    10 32 32.5 -5.2
      comp=E,79nm,1.1s
TAVF  Tavernes         10.99  37 eP      P    10 32 40.0 -0.3
LMR   La Mourre        11.01  39 ePn     P    10 32 38.5 -2.1
LMR                              eSn     S    10 34 33.8  -10
SMRF  Simiane la Rot   11.02  35 ePn     P    10 32 37.4 -3.4
LBL   Lubilhac         11.14  24 eP      P    10 32 42.3  0.0
FRF   La Foret Royal   11.24  39 ePn     P    10 32 42.4 -1.4
FRF                              eSn     S    10 34 40.8 -8.9
      comp=E,19nm,0.6s
VIVF  Saint-Julien-l   11.34  29 ePn     P    10 32 44.1 -0.9
PYM   Petit Puy Mans   11.53  22 eP      P    10 32 47.4 -0.2
MFF   Saint Martin d   11.62  10 ePn     P    10 32 48.0 -0.9
MFF                              eSn     S    10 34 45.5  -13
      comp=E,37nm,0.9s
MFF   Saint Martin d   11.62  10 eSn     S    10 34 45.5  -13
      comp=E,18nm,0.9s
TCF   Toulx Ste Croi   11.79  18 ePn     P    10 32 48.9 -2.3
TCF                              eSn     S    10 34 55.9 -7.1
      comp=E,21nm,0.8s
AGO   Saint Agoulin    11.83  22 eP      P    10 32 51.1 -0.7
SBF   Sospel           11.87  40 ePn     P    10 32 47.6 -4.6
SBF                              eSn     S    10 34 54.0  -11
      comp=E,77nm,0.9s
SBF   Sospel           11.87  40 eP      P    10 32 50.9 -1.3
SBF                              eSn     S    10 34 54.0  -11
ORIF  Oris-en-Rattie   11.89  32 ePn     P    10 32 52.4 -0.2
ORIF                             eR
      comp=E,7µm,26.2s
PLDF  La Plantade      11.91  23 eP      P    10 32 53.0 +0.2
PGF   Pioggiola        11.93  48 ePn     P    10 32 51.5 -1.6
AUTN  L'Aution         11.95  39 eP      P    10 32 53.4  0.0
SURF  Saint Ours       11.99  36 eP      P    10 32 54.5 +0.6
SAOF  Saorge           12.01  40 eP      P    10 32 53.8 -0.4
STV   Sta Anna Valdi   12.07  38  P      P    10 32 55.8 +0.8
STV   Sta Anna Valdi   12.07  38  P      P    10 32 55.8 +0.8
STV2  Anna di Valdie   12.07  38  P      P    10 32 55.9 +0.9
STV2  Anna di Valdie   12.07  38  P      P    10 32 55.9 +0.9
ENR   Entracque        12.11  39  P      P    10 32 55.6 +0.1
ENR   Entracque        12.11  39  P      P    10 32 55.6 +0.1
IMI   Imperia          12.14  41  P      P    10 32 54.9 -0.9
IMI   Imperia          12.14  41  P      P    10 32 54.9 -1.0
PZZ   Prazzo           12.15  37  P      P    10 32 55.8 -0.2
PZZ   Prazzo           12.15  37  P      P    10 32 55.8 -0.2
MBDF  Montbardon       12.15  35 ePn     P    10 32 55.4 -0.7
MONE  Monesi           12.18  40  P      P    10 32 56.5 +0.1
BGF   Bois d'Agland    12.21  20 ePg     P    10 32 54.3 -2.5
BGF                              eSn     S    10 35 03.8 -9.4
      comp=E,27nm,0.6s
GDM   Grand'Maison     12.22  32 eP      P    10 32 58.7 +1.7
RRL   Cesana Torines   12.30  35  P      P    10 32 58.9 +0.8
RRL   Cesana Torines   12.30  35  P      P    10 32 58.9 +0.8
BNI   Bardonecchia     12.36  34 eP      P    10 32 58.4 -0.3
      comp=E,111nm,1.8s
BNI   Bardonecchia     12.36  34 eP      P    10 32 58.4 -0.4
      comp=E,111nm,1.8s
ROB   Roburent         12.39  39  P      P    10 32 59.1 -0.1
ROB   Roburent         12.39  39  P      P    10 32 59.1 -0.1
BHB   Bricherasio      12.47  36  P      P    10 33 01.7 +1.3
BHB   Bricherasio      12.47  36  P      P    10 33 01.7 +1.4
FIN   Finale Ligure    12.51  40 eP      P    10 33 01.8 +1.0
FIN   Finale Ligure    12.51  40 eP      P    10 33 01.8 +1.0
FENE  Fenestrelle      12.52  35  P      P    10 33 01.9 +1.0
FENE  Fenestrelle      12.52  35  P      P    10 33 01.9 +1.0
AVF   Avril sur Loir   12.57  21 ePn     P    10 32 59.2 -2.4
SMF   Signal de Mont   12.58  22 ePn     P    10 32 59.8 -2.0
RSP   Reno Superiore   12.70  35  P      P    10 33 04.8 +1.5
RSP   Reno Superiore   12.70  35  P      P    10 33 04.8 +1.4
QUIF  Quistinic        12.73 360 ePn     P    10 33 02.1 -1.6
QUIF                             eSn     S    10 35 16.8 -8.8
      comp=E,117nm,1.0s
LPG   La Plagne        12.73  33 ePn     P    10 33 02.7 -1.1
LPL   La Plagne        12.74  33 ePn     P    10 33 03.6 -0.2
HYF   Humbligny        12.81  18 ePn     P    10 33 02.8 -2.1
SSF   Saint Saulge     12.86  21 ePn     P    10 33 02.3 -3.2
LSD   Ceresole Reale   12.88  34  P      P    10 33 06.7 +0.9
LSD   Ceresole Reale   12.88  34  P      P    10 33 06.7 +0.9
PCP   Pian Castagno    12.91  40  P      P    10 33 06.8 +0.6
PCP   Pian Castagno    12.91  40  P      P    10 33 06.8 +0.6
SGMF  Saint Gilles     13.07   2 ePn     P    10 33 07.0 -1.3
SGMF                             eSn     S    10 35 25.9 -7.9
      comp=E,59nm,1.0s
ROSF  Rostrenen        13.15 359 ePn     P    10 33 08.0 -1.3
ROSF                             eSn     S    10 35 27.1 -8.6
      comp=E,38nm,0.8s
TRAV                   13.20  35  P      P    10 33 12.3 +2.4
TRAV                   13.20  35  P      P    10 33 12.3 +2.3
EMV   Vieux Emosson    13.24  32  P      P    10 33 12.7 +2.3
GRR   Gorron           13.30   6 ePn     P    10 33 09.3 -2.0
GRR                              eSn     S    10 35 30.2 -9.2
      comp=E,17nm,0.7s
CABF  La Chapelle      13.34  28 ePn     P    10 33 10.9 -1.0
ORO   Oropa            13.39  35  P      P    10 33 13.9 +1.3
ORX   Oropa            13.40  35  P      P    10 33 12.6  0.0
ORX   Oropa            13.40  35  P      P    10 33 12.6  0.0
DIX   Grande Dixence   13.47  33  P      P    10 33 14.7 +1.1
CODM                   13.53  43  P      P    10 33 13.8 -0.4
CODM                   13.53  43  P      P    10 33 13.8 -0.4
BOB   Bobbio (Coli)    13.54  41 eP      P    10 33 15.4 +1.0
BOB   Bobbio (Coli)    13.54  41 eP      P    10 33 15.4 +0.9
VINC  Vinca            13.54  45  P      P    10 33 14.5  0.0
VINC  Vinca            13.54  45  P      P    10 33 14.5  0.0
VINC  Vinca            13.54  45  P      P    10 33 14.5  0.0
BACM                   13.58  44  P      P    10 33 15.0  0.0
BACM                   13.58  44  P      P    10 33 15.0  0.0
LDF   La Druitiere     13.58   8 ePn     P    10 33 12.7 -2.3
MAIM                   13.61  46  P      P    10 33 14.6 -0.7
MAIM                   13.61  46  P      P    10 33 14.6 -0.7
MCGN  Macugnaga        13.64  35 eP      P    10 33 18.1 +2.3
MCGN  Macugnaga        13.64  35 eP      P    10 33 18.1 +2.3
VLC   Villacollemand   13.69  45  P      P    10 33 13.6 -2.8
MMK   Mattmark         13.70  34  P      P    10 33 19.4 +2.8
GRAM                   13.71  43  P      P    10 33 16.9 +0.2
GRAM                   13.71  43  P      P    10 33 16.9 +0.2
FLN   La Foliniere     13.71   7 ePn     P    10 33 15.5 -1.1
FLN                              eR
      comp=E,3µm,16.0s
VALM                   13.72  44  P      P    10 33 17.5 +0.7
VALM                   13.72  44  P      P    10 33 17.5 +0.6
BDI   Bagni Di Lucca   13.76  46 eP      P    10 33 17.6 +0.4
BDI   Bagni Di Lucca   13.76  46 eP      P    10 33 17.6 +0.3
LKBD  Leukerbad        13.80  33  P      P    10 33 20.7 +2.8
CSNT  Castellina Chi   13.85  49 eP      P    10 33 17.6 -0.9
CSNT  Castellina Chi   13.85  49 eP      P    10 33 17.6 -0.9
ERBM  Eremo            13.86  44 eP      P    10 33 20.4 +1.7
GSCL  Gusciola         13.92  45 eP      P    10 33 21.2 +1.8
GSCL  Gusciola         13.92  45 eP      P    10 33 21.2 +1.8
VAI   Varese           13.95  36 eP      P    10 33 21.8 +2.0
VAI   Varese           13.95  36 eP      P    10 33 21.8 +2.0
FNVD  Fontana Vidola   14.13  46 eP      P    10 33 23.3 +1.2
FNVD  Fontana Vidola   14.13  46 eP      P    10 33 23.3 +1.2
ZCCA  Zocca            14.15  45 eP      P    10 33 26.1 +3.7
MNS   Montasola        14.22  55 eP      P    10 33 21.4 -2.0
LOMF  Lomont           14.24  28 eP      P    10 33 25.0 +1.4
VMG   Vicchio          14.26  48 eP      P    10 33 25.1 +1.2
VMG   Vicchio          14.26  48 eP      P    10 33 25.1 +1.1
VAE   Valguarnera      14.28  76  Pn     P    10 33 26.4 +2.3
      comp=E,5.8nm,0.3s,baz=136,slow=6.5,SNR=2.1
VAE                               LR     LR   10 38 48.7
      comp=E,3µm,18.5s,baz=165,slow=37
PGD   Poggio Sodo      14.33  48 eP      P    10 33 26.4 +1.6
PGD   Poggio Sodo      14.33  48 eP      P    10 33 26.4 +1.6
CRE   Caprese Michel   14.33  49  P      P    10 33 25.9 +1.0
MURB  Monte Urbino     14.52  52  P      P    10 33 28.8 +1.5
BBS   Basel-Blauen     14.60  30 eP      P    10 33 28.8 +0.4
BBS   Basel-Blauen     14.60  30 eP      P    10 33 29.8 +1.4
HAU   Haudompre        14.61  26 ePn     P    10 33 29.3 +0.9
HAU                              eR
      comp=E,4µm,15.0s
MEZF  Maizieres J'vi   14.61  22 ePn     P    10 33 30.3 +1.8
      baz=204
HINF  Hinteralfeld     14.63  27 ePn     P    10 33 29.7 +0.9
TUE   Stuetta          14.66  36  P      P    10 33 31.2 +2.1
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THEF  They Montfort    14.67  25 eP      P    10 33 30.7 +1.5
AQU   L'Aquila         14.70  56 eP      P    10 33 28.0 -1.7
      comp=E,74nm,1.3s
AQU   L'Aquila         14.70  56 eP      P    10 33 28.0 -1.6
      comp=E,74nm,1.3s
MUO   Muotathal        14.70  33  P      P    10 33 31.6 +2.0
RFI   Roccamonfina     14.72  60 eP      P    10 33 32.4 +2.5
RFI   Roccamonfina     14.72  60 eP      P    10 33 32.4 +2.5
VDL   Val di Lei       14.73  36  P      P    10 33 31.5 +1.5
MOF   Molkenrain       14.77  28 eP      P    10 33 31.9 +1.4
SNTG  Esanatoglia      14.78  52  P      P    10 33 32.4 +1.7
FSSB  Fossombrone      14.89  50 eP      P    10 33 36.2 +4.1
ARV   Arcevia          14.90  51 eP      P    10 33 31.6 -0.7
ARV   Arcevia          14.90  51 eP      P    10 33 31.6 -0.6
SULZ  Sulz-Cheisache   14.90  31  P      P    10 33 33.3 +1.0
INTR  Introdacqua      14.91  58  P      P    10 33 33.5 +1.1
MABI  Malga Bissina    14.96  39  P      P    10 33 36.0 +3.0
RNI2  Rionero Sannit   14.97  59  P      P    10 33 34.5 +1.3
ECH   Echery           15.08  27 eP      P    10 33 34.5 -0.1
FELD  Feldberg         15.13  30⇓eP      P    10 33 35.7 +0.4
FELD  Feldberg         15.13  30 eP      P    10 33 36.1 +0.8
DAVOX Davos            15.14  36  Pn     P    10 33 36.5 +1.1
      comp=E,0.4nm,0.3s,baz=232,slow=11,SNR=9.8
WILA  Wila             15.16  33  P      P    10 33 38.3 +2.7
BRMO  Bormio           15.17  38 eP      P    10 33 38.7 +2.9
BRMO  Bormio           15.17  38 eP      P    10 33 38.7 +2.9
LIBD  Limburg          15.20  28 eP      P    10 33 36.6 +0.5
LIBD  Limburg          15.20  28 eP      P    10 33 36.5 +0.4
SLE   Schleitheim      15.25  31  P      P    10 33 37.3 +0.5
CDF   Champ du Feu     15.29  27 ePn     P    10 33 37.2 -0.1
WLS   Welschbruch      15.32  27 eP      P    10 33 38.4 +0.7
MTTG  Motta San Giov   15.33  74  P      P    10 33 40.7 +2.7
DAVA  Damuels          15.50  35⇓iP      P    10 33 40.6 +0.5
CTI   Castel Tesino    15.55  41 eP      P    10 33 40.9 +0.1
CTI   Castel Tesino    15.55  41 eP      P    10 33 40.9 +0.1
APPI  Appiano          15.61  39  P      P    10 33 41.9 +0.4
SOI   Samo             15.62  74 eP      P    10 33 43.9 +2.2
SOI   Samo             15.62  74 eP      P    10 33 43.9 +2.2
BFO   Black Forest     15.63  29 eP      P    10 33 42.7 +1.0
BFO                               pmax   pmax
      comp=Z,404nm,2.8s
BFO   Black Forest     15.63  29 eP      P    10 33 42.7 +1.0
      comp=Z,404nm,2.8s
FG5   Orsara di Pugl   15.63  62  P      P    10 33 44.8 +3.0
SPAK  Spaichingen      15.63  31  P      P    10 33 43.3 +1.5
GUT   Gutenstein       15.75  31⇓eP      P    10 33 43.6 +0.3
GUT   Gutenstein       15.75  31  P      P    10 33 43.9 +0.6
BAIF  Baives           15.79  17 ePn     P    10 33 42.5 -1.3
FAU   Forcella Aurin   15.85  41⇑eP      P    10 33 46.0 +1.5
UBR   Uberruh          15.90  34 eP      P    10 33 44.3 -0.9
UBR   Uberruh          15.90  34  P      P    10 33 46.0 +0.8
DOU   Dourbes          15.93  18  P      P    10 33 45.1 -0.4
      comp=Z,76nm,2.3s
LANF  Langenberg       15.96  27 eP      P    10 33 46.7 +0.8
WLF   Walferdange      15.98  22 eP      P    10 33 46.2  0.0
      comp=Z,73nm,0.9s
WLF   Walferdange      15.98  22 eP      P    10 33 46.2  0.0
      comp=Z,73nm,0.9s
GRI   Girifalco        15.99  71  P      P    10 33 48.8 +2.4
GIVF  Givet            15.99  19 ePn     P    10 33 45.7 -0.6
BRES  Bressanone       16.02  40  P      P    10 33 48.0 +1.3
CSO   Casso            16.06  42⇓eP      P    10 33 46.0 -1.3
LBG   Lerchenberg      16.08  29 eP      P    10 33 47.5  0.0
SQTA  Sankt Quirin     16.10  37⇑iP      P    10 33 48.6 +0.9
MOTA  Moosalm          16.13  37⇑iP      P    10 33 48.5 +0.3
AFL   Alpe Faloria     16.14  41⇓eP      P    10 33 51.0 +2.7
BUCH  Bad Urach        16.14  31⇓eP      P    10 33 48.8 +0.5
BUCH  Bad Urach        16.14  31  P      P    10 33 48.7 +0.4
ORI   Oriolo Calabro   16.21  67 eP      P    10 33 52.5 +3.3
TIP   Timpagrande      16.29  70 eP      P    10 33 48.4 -1.9
TIP   Timpagrande      16.29  70 eP      P    10 33 48.4 -1.9
RUP   Ruppelstein      16.30  24 eP      P    10 33 51.1 +0.8
RUP   Ruppelstein      16.30  24 eP      P    10 33 52.3 +2.0
STU   Stuttgart        16.33  30 eP      P    10 33 50.2 -0.4
      comp=Z,28nm,1.0s
STU   Stuttgart        16.33  30 eP      P    10 33 51.8 +1.1
      comp=Z,133nm,1.9s
KTD   Kalmit           16.34  27 eP      P    10 33 51.6 +0.8
KTD   Kalmit           16.34  27 eP      P    10 33 51.4 +0.6
WTTA  Wattenberg       16.34  38⇑iP      P    10 33 51.3 +0.5
WATA  Walderalm        16.36  38⇑iP      P    10 33 52.0 +0.9
CSMI  Casera Mimoias   16.39  42⇓eP      P    10 33 53.0 +1.6
FVI   Forni Avoltri    16.51  42 eP      P    10 33 55.0 +2.0
UCC   Uccle            16.52  17  P      P    10 33 54.5 +1.5
BOO   Bordano          16.52  43⇑eP      P    10 33 55.0 +1.9
LTRZ  Laterza          16.60  65  P      P    10 33 56.2 +2.1
HDH   Heidenheim       16.61  32 eP      P    10 33 54.0 -0.3
ABH   Alteburg         16.62  25⇓eP      P    10 33 55.3 +1.0
ABH   Alteburg         16.62  25 eP      P    10 33 55.1 +0.8
PLRO  Paularo          16.68  42⇑eP      P    10 33 57.0 +1.9
SWS   Schriesheim      16.70  28 eP      P    10 33 56.0 +0.6
PTCC  Patocco-Chiusa   16.71  43 eP      P    10 33 57.4 +1.9
PTCC  Patocco-Chiusa   16.71  43 eP      P    10 33 57.4 +1.9
MEM   Membach          16.77  20  P      P    10 33 57.7 +1.4
      comp=Z,52nm,2.0s
FUR   Furstenfeldbru   16.79  35 eP      P    10 33 56.2 -0.3
FUR                               pmax   pmax
      comp=Z,150nm,1.7s
FUR   Furstenfeldbru   16.79  35 eP      P    10 33 56.2 -0.3
      comp=Z,150nm,1.7s
VOY   Vojsko           16.80  45 ePn     P    10 33 54.5 -2.1
VOY                              e            10 33 56.7
VOY                              e            10 34 00.2
TOD   Tromm            16.84  28⇓eP      P    10 33 57.7 +0.6
TOD   Tromm            16.84  28 eP      P    10 33 57.9 +0.8
HGN   Heimansgroeve    16.89  20 eP      P    10 33 58.7 +0.9
      comp=Z,59nm,1.6s
HGN                              eS      S    10 37 16.0  +12
CEY   Cerknica         16.95  46 ePn     P    10 33 59.9 +1.4
CEY                              e            10 37 20.1
SIND  Sindeldorf       16.95  29⇓eP      P    10 33 58.4 -0.1
SIND  Sindeldorf       16.95  29  P      P    10 33 59.7 +1.2
KBA   Koelnbreinsper   17.11  41⇑iP      P    10 34 01.1 +0.6
LJU   Ljubljana        17.17  45 ePn     P    10 34 04.5 +3.2
BOJS  Bojanci          17.32  48 ePn     P    10 34 03.3 +0.1
OBKA  Obir             17.44  44⇑iP      P    10 34 07.5 +2.8
PDKS  Podkum           17.46  46  P      P    10 34 07.4 +2.5
CRES  Cresnjev         17.61  47  P      P    10 34 09.1 +2.3
PERS  Pernice          17.84  45  P      P    10 34 12.2 +2.6
GRA1  Grafenberg Arr   17.89  31 eP      P    10 34 10.5 +0.3
      comp=Z,78nm,1.4s
GRA1                             eS      S    10 37 35.4 +9.2
GRF   Grafenberg Arr   17.89  31 eP      P    10 34 10.5 +0.3
GRF                              eS      S    10 37 35.4 +9.2
GRF                               pmax   pmax
      comp=Z,78nm,1.4s
GRF                               MLR    MLR
      comp=Z,4µm,10.6s
GROS  Grobnik          17.97  46  P      P    10 34 13.4 +2.2
MOA   Molln            18.08  40⇑iP      P    10 34 11.6 -1.0
WTSB  Winterswijk      18.21  20 eP      P    10 34 16.7 +2.4
      comp=Z,127nm,2.2s
WTSB                             eS           10 37 51.7
DSB   Dublin           18.21 354 eP      P    10 34 14.9 +0.6
      comp=Z,206nm,1.8s
DSB   Dublin           18.21 354 eP      P    10 34 14.9 +0.6
      comp=Z,206nm,1.8s
UBBA  Unterbreizbach   18.28  27 eP      P    10 34 15.1  0.0
      comp=Z,114nm,2.4s
DLF   Lyons Farm       18.28 353⇑iP      P    10 34 16.5 +1.4
PDA   Ponta Delgada    18.35 285 i LR    LR   10 40 03.0
DCN   Croghan          18.41 352 eP      P    10 34 17.7 +1.1
ARSA  Arzberg          18.41  43⇑iP      P    10 34 17.0 +0.2
GEC2  GERESS Array S   18.43  37 eP      P    10 34 14.8 -2.2
GEC2                              pmax   pmax
      comp=Z,54nm,1.4s
GEC2  GERESS Array S   18.43  37 eP      P    10 34 14.8 -2.2
      comp=Z,54nm,1.4s
GERES GERESS Array B   18.43  37  P      P    10 34 15.4 -1.5
      comp=Z,0.3nm,0.3s,baz=221,slow=12,SNR=24
GERES                             PcP    PcP  10 38 47.3 -0.2
      comp=Z,0.1nm,0.3s,baz=207,slow=3.0,SNR=6.6
KHC   Kasperske Hory   18.56  36 eP      P    10 34 16.6 -1.9
KHC                               MLR    MLR
      comp=Z,4µm,19.3s
KHC   Kasperske Hory   18.56  36 eP      P    10 34 16.6 -1.9
KHC                              e            10 34 20.0
KHC   Kasperske Hory   18.56  36 eP      P    10 34 16.6 -1.9
KHC                               pP          10 34 20.0
KHC                               AMS    AMS  10 41 00.0
      comp=Z,4µm,19.3s
MOX   Moxa             18.77  30 eP      P    10 34 21.5 +0.4
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MOX				pmax	pmax		
	comp=Z,126nm,2.0s						
MOX				MLR	MLR		
	comp=Z,4µm,14.0s						
MOX	Moxa	18.77	30	iP	P	10 34 21.5	+0.4
	comp=Z,logA/T=1.8						
MOX				S	S	10 37 52.0	+5.8
MOX				L		10 42 24.0	
MOX	Moxa	18.77	30	eP	P	10 34 21.5	+0.4
	comp=Z,126nm,2.0s						
IBBN	Ibbenburen	18.79	21	eP	P	10 34 23.3	+2.1
	comp=Z,80nm,1.6s						
NKC	Novy Kostel	18.82	32	eP	P	10 34 22.2	+0.6
NKC				AMS	AMS	10 43 00.0	
	comp=Z,3µm,9.6s						
GUNZ	Gunzen	18.86	32	eP	P	10 34 22.9	+0.7
	comp=Z,73nm,1.7s						
DMUB	Kingscourt	18.91	353	eP	P	10 34 26.4	+3.7
WERD	Werda	18.92	32	eP	P	10 34 23.3	+0.5
	comp=Z,180nm,2.5s						
CLZ	Clausthal	19.25	26	eP	P	10 34 28.2	+1.5
	comp=Z,55nm,1.6s						
LKD	Levkas	19.27	72	eP	P	10 34 20.8	-6.2
RHK1	Bakonya	19.34	49	eP	P	10 34 27.4	-0.4
PRU	Pruhonice	19.60	36	eP	P	10 34 29.9	-0.8
PRU				AMS	AMS	10 41 50.0	
	comp=Z,4µm,17.0s						
PRA	Prague	19.61	35	AMS	AMS	10 43 30.0	
OHR	Ohrid	19.66	65	eP	P	10 34 29.8	-1.6
NRDL	Niedersach Rie	19.69	24	eP	P	10 34 33.0	+1.3
	comp=Z,100nm,1.7s						
PKS9	Tamasi	19.69	48	eP	P	10 34 31.9	+0.2
PKSM	Moragy	19.75	49	P	P	10 34 31.3	-1.0
MEV	Metsovon	19.80	69	eP	P	10 34 28.0	-5.0
DIVS	Divcibare	19.82	56⇓	iP	P	10 34 31.3	-1.9
ZST	Bratislava	19.83	43	eP	P	10 34 33.4	+0.2
CLL	Collm	19.85	31	iP	P	10 34 32.7	-0.8
CLL				eS	S	10 38 17.0	+6.9
CLL				pmax	pmax		
	comp=Z,91nm,1.7s						
CLL	Collm	19.85	31	iP	P	10 34 32.7	-0.8
	comp=Z,91nm,1.7s						
CLL				eS	S	10 38 17.0	+6.9
CLL	Collm	19.85	31	P	P	10 34 32.7	-0.8
	comp=Z,logA/T=1.7						
CLL				i		10 34 43.7	
CLL				ePP	PP	10 34 52.0	-0.3
CLL				i		10 35 05.1	
CLL				e		10 35 31.0	
CLL				e		10 37 04.0	
CLL				eS	S	10 38 17.0	+6.9
CLL				eL		10 38 38.0	
BRG	Berggiesshubel	19.94	33	iP	P	10 34 36.4	+1.9
BRG				pmax	pmax		
	comp=Z,114nm,1.5s						
BRG				MLR	MLR		
	comp=N,3µm,10.3s						
BRG				MLR	MLR		
	comp=E,2µm,10.3s						
BRG				MLR	MLR		
	comp=Z,2µm,10.3s						
BRG	Berggiesshubel	19.94	33	iP	P	10 34 36.4	+1.9
	comp=Z,114nm,1.5s						
BRG				LR	LR		
	comp=Z,2µm,10.3s						
BRG	Berggiesshubel	19.94	33	eP	P	10 34 34.7	+0.2
	comp=Z,115nm,1.5s						
PVCC	Panska Ves	19.98	34	eP	P	10 34 37.7	+2.8
PVCC				AMS	AMS	10 42 00.0	
	comp=Z,3µm,18.3s						
BIA	Bitola	20.03	66	iP	P	10 34 34.6	-0.8
FNA	Florina	20.04	67	eP	P	10 34 33.2	-2.2
FNA	Florina	20.04	67	eP	P	10 34 33.2	-2.3
ESK	Eskdalemuir	20.14	360	eP	P	10 34 35.7	-0.7
	comp=Z,34nm,0.9s						
ESK	Eskdalemuir	20.14	360	eP	P	10 34 35.7	-0.8
	comp=Z,34nm,0.9s						
PKSG		20.14	46⇑	eP	P	10 34 36.7	+0.1
EKA	Eskdalemuir Ar	20.16	360	P	P	10 34 36.6	0.0
	comp=Z,20nm,0.8s,baz=177,slow=10,SNR=32						
EKA	Eskdalemuir Ar	20.16	360	P	P	10 34 36.6	0.0
EKA				pmax	pmax		
	comp=Z,21nm,0.8s						
SMOL	Smolenice	20.18	42	eP	P	10 34 37.7	+0.7
VRAC	Vranov	20.20	40	P	P	10 34 35.4	-1.6
	comp=Z,17nm,0.7s,baz=247,slow=9.1,SNR=16						
VRAC	Vranov	20.20	40	P	P	10 34 35.4	-1.7
VRAC				pmax	pmax		
	comp=Z,17nm,0.7s						
PKS2	Kecel	20.22	49	eP	P	10 34 38.2	+0.8
GRUS	Gruza	20.25	57⇓	iP	P	10 34 35.0	-2.7
SKO	Skopje	20.29	63⇓	iP	P	10 34 37.3	-0.8
	comp=Z,0.1nm,0.9s						
SRO	Srobarova	20.31	45	iP	P	10 34 38.9	+0.6
BEO	Belgrade	20.37	55⇑	iP	P	10 34 38.7	-0.2
JAVC	Velka Javorina	20.51	42	P	P	10 34 41.3	+1.0
AGG	Agios Georgios	20.60	72	eP	P	10 34 39.6	-1.7
UPC	Upice	20.66	36	eP	P	10 34 41.0	-0.8
DPC	Dobruska-Polom	20.70	37	eP	P	10 34 43.1	+0.8
DPC				AMS	AMS	10 42 10.0	
	comp=Z,3µm,18.2s						
KOLL	Kolacno	20.76	43	P	P	10 34 43.9	+1.0
LIT	Litokhoron	20.80	69	eP	P	10 34 41.1	-2.3
GRG	Griva	20.83	66	eP	P	10 34 40.5	-3.2
VYHS	Vyhne	20.96	44	iP	P	10 34 44.2	-0.8
VYHS				eS	S	10 38 36.6	+4.2
MORC	Moravsky Berou	20.97	40	eP	P	10 34 44.1	-1.0
	comp=Z,165nm,1.7s						
MORC	Moravsky Berou	20.97	40	eP	P	10 34 44.1	-1.0
	comp=Z,165nm,1.7s						
BSEG	Bad Segeberg	20.97	22	eP	P	10 34 45.7	+0.6
BSEG				pmax	pmax		
	comp=Z,167nm,1.5s						
BSEG	Bad Segeberg	20.97	22	eP	P	10 34 45.7	+0.6
	comp=Z,167nm,1.5s						
VAY	Valandovo	21.01	65	iP	P	10 34 42.3	-3.2
VAY				i		10 34 45.5	
KSP	Ksiaz	21.01	36⇓	eP	P	10 34 45.0	-0.5
KSP				eS	S	10 38 36.0	+2.7
KSP				LR	LR		
	comp=Z,7µm,20.8s,MS5.0						
KSP	Ksiaz	21.01	36	eP	P	10 34 45.1	-0.4
KSP				epP		10 34 52.6	
KSP				eS	S	10 38 40.5	+7.2
KSP				MLR	MLR	10 42 19.2	
	comp=Z,6µm,20.8s,MS4.9						
RUE	Ruedersdorf	21.05	30	eP	P	10 34 45.5	-0.4
	comp=Z,254nm,1.6s,mb5.3						
RUE	Ruedersdorf	21.05	30	eP	P	10 34 46.1	+0.2
	comp=Z,125nm,1.3s,mb5.1						
BOLS	Boljevac	21.09	58⇓	iP	P	10 34 49.2	+2.8
KNT	Kendrikon	21.23	66	eP	P	10 34 46.1	-1.6
XOR	Xorichti	21.28	71	eP	P	10 34 45.6	-2.7
PSZ	Piszkesteto	21.29	46⇑	iP	P	10 34 49.1	+0.8
PSZ	Piszkesteto	21.29	46	eP	P	10 34 48.2	-0.1
	comp=Z,197nm,1.7s,mb5.2						
PSZ	Piszkesteto	21.29	46	eP	P	10 34 48.2	-0.1
	comp=Z,197nm,1.7s,mb5.2						
OKC	Ostrava-Krasne	21.32	40	eP	P	10 34 49.9	+1.2
KKB	Krupnik	21.48	64	eP	P	10 34 48.0	-2.2
RAC	Raciborz	21.49	40	eP	P	10 34 52.1	+1.8
RAC				MLR	MLR	10 41 57.2	
	comp=Z,1µm,23.0s,MS4.3						
RAC				MLR	MLR	10 43 44.2	
	comp=Z,2µm,15.8s						
SOH	Sokhos	21.53	67	eP	P	10 34 50.2	-0.6
PAIG	Paliouri	21.69	69	eP	P	10 34 49.2	-3.2
VTS	Vitosha	21.70	62	eP	P	10 34 50.0	-2.5
VTS	Vitosha	21.70	62	P	P	10 34 52.0	-0.5
SRS	Serrai	21.74	66	eP	P	10 34 48.7	-4.2
AOS	Alonnisos	21.81	71	eP	P	10 34 52.2	-1.3
AOS	Alonnisos	21.81	71	eP	P	10 34 52.2	-1.4
MMB	Musomiste	21.91	65	eP	P	10 34 52.0	-2.6
OUR	Ouranopolis	21.96	68	eP	P	10 34 52.9	-2.1
GVD	Gavdhos	22.22	83	eP	P	10 34 54.7	-3.1
	comp=Z,41nm,1.0s,mb4.8						
NIE	Niedzica	22.27	43	eP	P	10 34 58.9	+0.7
PGB	Panagyurishte	22.38	63	eP	P	10 34 58.0	-1.3
OJC	Ojcow	22.42	41	eP	P	10 35 00.1	+0.5
OJC				eS	S	10 39 05.6	+6.2
OJC				MLR	MLR	10 44 11.6	
	comp=Z,2µm,16.6s,MS4.6						
RZN	Rozhen	22.66	65	eP	P	10 35 00.0	-2.0
CRVS	Cervenica-Dubn	22.68	45	iP	P	10 35 02.8	+0.7
CRVS				eS	S	10 39 14.0	+10
IDI	Anoyia	22.81	82	P	P	10 35 02.7	-0.9
	comp=Z,47nm,0.9s,mb4.9,baz=289,slow=12,SNR=30						
IDI				PcP	PcP	10 38 56.7	+0.8
	comp=Z,12nm,0.8s,baz=358,slow=1.5,SNR=9.3						
MUD	Monsted U'grnd	22.86	18	iP	P	10 35 05.7	+1.9
MUD				pmax	pmax		
	comp=Z,30nm,0.9s,mb4.7						
MUD				MLR	MLR		
	comp=Z,1µm,14.0s,MS4.5						
MUD	Monsted U'grnd	22.86	18	iP	P	10 35 05.7	+1.9
	comp=Z,30nm,0.9s,mb4.7						
MUD				iS	S	10 39 14.7	+7.5
UZH	Uzhgorod	23.04	47	iP	P	10 35 07.0	+1.4
GKP	Gorka Klasztor	23.07	32	eP	P	10 35 07.2	+1.3
GKP				eS	S	10 39 14.7	+3.6
GKP				MLR	MLR	10 45 28.6	
	comp=Z,2µm,13.0s,MS4.8						
SANT	Santorini	23.14	79	eP	P	10 35 05.0	-1.8
	comp=Z,170nm,1.2s,mb5.3						
SANT	Santorini	23.14	79	eP	P	10 35 05.0	-1.8
	comp=Z,170nm,1.2s,mb5.3						
KOLS	Kolonicke sedl	23.16	46	iP	P	10 35 08.9	+2.1
KDZ	Kurdzhali	23.17	65	eP	P	10 35 06.0	-1.0
DIM	Dimitrovgrad	23.31	64	eP	P	10 35 09.0	+0.7
ALN	Alexandroupoli	23.57	67	eP	P	10 35 12.3	+1.4
KWP	Kalwaria	23.74	45	eP	P	10 35 13.3	+0.9
KWP				e*PP		10 35 20.9	
KWP				eS	S	10 39 22.4	-0.3
KWP				MLR	MLR		
	comp=Z,3µm,18.4s,MS4.8						
KWP	Kalwaria	23.74	45	eP	P	10 35 13.3	+0.9
KWP				epP		10 35 20.9	
KWP				eS	S	10 39 22.4	-0.3
KWP				esS		10 39 36.9	
KWP				MLR	MLR	10 45 01.2	
	comp=Z,3µm,18.4s,MS4.8						
WAR	Warsaw	24.20	38	eP	P	10 35 18.0	+1.1
WAR				eS	S	10 39 33.2	+2.6
WAR				MLR	MLR	10 43 58.7	
	comp=Z,2µm,23.9s,MS4.5						
MLR	Muntele Rosu	24.28	56	P	P	10 35 17.9	+0.2
	comp=Z,16nm,0.9s,mb4.4,baz=271,slow=8.9,SNR=19						
MLR				LR	LR	10 45 03.1	
	comp=Z,3µm,18.8s,MS4.8,baz=250,slow=37						
MLR	Muntele Rosu	24.28	56	P	P	10 35 17.9	+0.2
MLR				pmax	pmax		
	comp=Z,16nm,1.0s						
MLR				MLR	MLR		
	comp=Z,3µm,18.8s						
MLR	Muntele Rosu	24.28	56	P	P	10 35 17.9	+0.2
MLR				LR	LR	10 45 03.1	
PRD	Provadia	24.84	62	eP	P	10 35 22.0	-1.1
KMPD	K-Podol'skiy	25.55	49	P	P	10 35 30.0	+0.2
SUW	Suwalki	26.28	36	eP	P	10 35 35.4	-1.1
SUW				epP	pP	10 35 45.0	+1.1
SUW				eS	S	10 39 57.6	-7.9
SUW				MLR	MLR	10 45 47.4	
	comp=Z,2µm,20.2s,MS4.7						
KIS	Kishinev	26.59	54	eP	P	10 35 36.0	-3.4
KIS				MLR	MLR		
	comp=E,2µm,15.0s						
KIS				MLR	MLR		
	comp=Z,2µm,15.0s,MS4.9						
KIS				MLR	MLR		
	comp=Z,2µm,15.0s						
HFS	Hagfors	27.24	18	P	P	10 35 46.5	+1.2
	comp=Z,3.6nm,0.8s,mb4.0,baz=211,slow=8.6,SNR=9.8						
HFS	Hagfors	27.24	18	P	P	10 35 46.5	+1.3
HFS				pmax	pmax		
	comp=Z,4.0nm,0.8s						
NB2	NORSAR Subarra	27.45	15	P	P	10 35 45.4	-1.8
	comp=Z,9.1nm,1.2s,mb4.2,baz=208,slow=8.6						
NOA	NORSAR Array B	27.45	15	P	P	10 35 46.5	-0.7
	comp=Z,1.0nm,0.9s,baz=212,slow=7.4,SNR=3.1						
NOA				LR	LR	10 47 41.6	
	comp=Z,1µm,18.3s,MS4.6,baz=220,slow=39						
NOA	NORSAR Array B	27.45	15	P	P	10 35 46.5	-0.7
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NOA				MLR	MLR		
	comp=Z,1µm,18.3s						
AKASG	Malin Array Be	28.00	46	P	P	10 35 49.4	-2.8
	comp=Z,18nm,0.9s,mb4.7,baz=247,slow=10.0,SNR=14						
AKASG				PcP	PcP	10 39 06.5	-0.6
	comp=Z,1.5nm,0.6s,baz=265,slow=3.1,SNR=5.7						
AKASG	Malin Array Be	28.00	46	P	P	10 35 49.4	-2.8
AKASG						10 39 06.6	
AKASG				pmax	pmax		
	comp=Z,18nm,0.9s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
DBIC	Dimbokro	28.42	184	P	P	10 35 52.7	-3.7
	comp=Z,14nm,0.9s,mb4.6,baz=349,slow=9.9,SNR=21						
DBIC	Dimbokro	28.42	184	P	P	10 35 52.7	-3.7
DBIC				pmax	pmax		
	comp=Z,14nm,0.9s						
DBIC	Dimbokro	28.42	184	eP	P	10 35 52.4	-4.0
	comp=Z,73nm,1.6s,mb5.1						
DBIC	Dimbokro	28.42	184	eP	P	10 35 52.4	-4.0
	comp=Z,73nm,1.6s,mb5.1						
BRTR	Keskin Array B	29.36	70	P	P	10 36 03.4	-1.2
	comp=Z,3.3nm,0.9s,mb4.1,baz=281,slow=6.3,SNR=11						
BRTR				PcP	PcP	10 39 10.6	-0.1
	comp=Z,3.2nm,1.0s,baz=180,slow=3.7,SNR=5.4						
BRTR	Keskin Array B	29.36	70	P	P	10 36 03.4	-1.2
BRTR						10 39 10.6	
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRTR	Keskin Array B	29.36	70	P	P	10 36 03.3	-1.3
CSS	Prodhromos	29.69	80	P	P	10 36 06.1	-1.5
CSS	Prodhromos	29.69	80	P	P	10 36 06.1	-1.5
VSU	Vasula	30.51	31	iP	P	10 36 13.8	-0.8
FINES	FINESS Array B	32.14	26	P	P	10 36 27.6	-1.3
	comp=Z,1.9nm,0.8s,mb4.0,baz=202,slow=10,SNR=6.3						
FINES				PcP	PcP	10 39 17.2	-0.5
	comp=Z,1.6nm,0.7s,baz=180,slow=3.8,SNR=3.3						
FINES				LR	LR	10 49 32.3	
	comp=Z,378nm,21.5s,MS4.0,baz=229,slow=36						
FINES	FINESS Array B	32.14	26	P	P	10 36 27.6	-1.3
FINES						10 39 17.3	
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES				MLR	MLR		
	comp=Z,379nm,21.5s						
ANN	Anapa	32.20	60	iP	P	10 36 14.6	-15
ANN				pmax	pmax		
	comp=Z,317nm,1.6s,mb5.9						
EIL	Elat	32.42	89	P	P	10 36 31.0	-0.7
	comp=Z,17nm,0.8s,mb4.9,baz=319,slow=12,SNR=12						
EIL				PcP	PcP	10 39 19.4	+0.6
	comp=Z,8.1nm,0.9s,baz=18,slow=3.2,SNR=4.0						
EIL				LR	LR	10 51 55.4	
	comp=Z,946nm,18.4s,MS4.5,baz=287,slow=40						
EIL	Elat	32.42	89	P	P	10 36 31.0	-0.7
EIL				PcP	PcP	10 39 19.4	+0.6
EIL				LR	LR	10 51 55.4	
KAF	Kangasniemi	32.67	25	ep	P	10 36 28.5	-5.0
	comp=Z,4.9nm,0.9s,mb4.4						
KAF	Kangasniemi	32.67	25	eP	P	10 36 28.5	-5.0
KAF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
BDAS	Al Bad'	32.98	91	P	P	10 36 36.1	-0.5
MALT	Malatya	33.20	72	eP	P	10 36 37.9	-0.5
	comp=Z,37nm,1.0s,mb5.3						
MALT	Malatya	33.20	72	eP	P	10 36 37.9	-0.5
	comp=Z,37nm,1.0s,mb5.3						
ASF	Jabal al Asfar	33.24	84	P	P	10 36 39.4	+0.6
	comp=Z,10.0nm,0.9s,mb4.7,baz=185,slow=7.7,SNR=9.2						
ASF				PcP	PcP	10 39 21.8	+0.7
	comp=Z,2.4nm,0.8s,baz=60,slow=0.9,SNR=4.7						
JMQS	Jabal Moqyreh	33.45	90	P	P	10 36 41.3	+0.7
OBN	Obninsk	33.71	41	eP	P	10 36 42.6	0.0
OBN				e	pP	10 36 51.3	+1.2
OBN				e		10 39 21.5	
OBN				eS	S	10 42 08.7	+5.5
OBN				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
OBN				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.8						
SOC	Sochi	33.81	63	eP	P	10 36 40.6	-3.0
SOC				e		10 37 57.7	
SOC				eS	S	10 42 04.8	-0.1
SOC				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.2						
SOC				pmax	pmax		
	comp=N,40nm,0.8s						
SOC				pmax	pmax		
	comp=E,13nm,0.5s						
SOC				MLR	MLR		
	comp=Z,325nm,14.0s,MS4.2						
SOC				MLR	MLR		
	comp=N,241nm,15.0s,MS4.2						
SOC				MLR	MLR		
	comp=E,294nm,17.0s,MS4.2						
VRSR	Storozhevoye	34.19	49c	iP	P	10 36 45.7	-1.1
VRSR				e*SP	sP	10 36 57.7	+0.2
VRSR				e		10 37 57.2	
VRSR				e		10 39 23.6	
VRSR				eS	S	10 42 09.6	-1.1
VRSR				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
VRSR				pmax	pmax		
	comp=N,20nm,0.8s						
VRSR				pmax	pmax		
	comp=E,110nm,0.9s						
VRSR				smax			
	comp=N,7.0nm,0.7s						
VRSR				smax			
	comp=Z,1.0nm,0.5s						
VRSR				smax			
	comp=E,10.0nm,1.3s						
MOS	Moscow	34.48	41	eP	P	10 36 47.0	-2.3
MOS				e		10 37 59.2	
MOS				ePPP	PPP	10 38 16.8	-6.7
MOS				eS	S	10 42 12.4	-2.8
MOS				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.4						
MOS				MLR	MLR		
	comp=Z,1µm,15.1s,MS4.8						
MOS				MLR	MLR		
	comp=N,1µm,17.1s						
KIV	Kislovodsk	35.95	62d	iP	P	10 37 03.9	+2.0
KIV				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
KIV				MLR	MLR		
	comp=Z,600nm,16.0s,MS4.5						
UMJS	Umm Lajj	36.07	95	P	P	10 37 03.5	+0.4
GOF	Gofitskoye	36.18	60⇑	iP	P	10 37 03.0	-0.8
GOF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
KBRS	Khaybar	37.43	93	P	P	10 37 15.1	+0.6
GNI	Garni	37.81	68	P	P	10 37 18.3	+0.7
	comp=Z,4.3nm,0.5s,mb4.5,baz=100,slow=10,SNR=3.7						
GNI				LR	LR	10 53 52.9	
	comp=Z,199nm,21.2s,MS3.9,baz=159,slow=38						
GNI	Garni	37.81	68	P	P	10 37 18.3	+0.7
GNI				pmax	pmax		
	comp=Z,4.0nm,0.5s						
GNI				MLR	MLR		
	comp=Z,199nm,21.2s						
GNI	Garni	37.81	68	P	P	10 37 18.3	+0.7
GNI				LR	LR	10 53 52.9	
ARCES	ARCESS Array B	37.82	16	P	P	10 37 19.5	+2.1
	comp=Z,4.9nm,0.9s,mb4.2,baz=304,slow=4.4,SNR=6.1						
ARCES				LR	LR	10 53 06.3	
	comp=Z,2µm,20.5s,MS4.9,baz=235,slow=37						
ARCES	ARCESS Array B	37.82	16	P	P	10 37 19.5	+2.1
ARCES				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ARCES				MLR	MLR		
	comp=Z,2µm,20.5s						
AFFS	'Afif	41.29	93	P	P	10 37 47.1	+0.6
SUMG	Summit	41.58	345	eP	P	10 37 48.8	+0.4
	comp=Z,23nm,0.8s,mb4.9						
SUMG	Summit	41.58	345	eP	P	10 37 48.8	+0.5
	comp=Z,23nm,0.8s,mb4.9						
BLJS	Baljurashi	42.08	99	P	P	10 37 52.8	-0.4
TATS	Tathlith	43.77	98	P	P	10 38 07.1	+0.1
SOKR	Solikamsk	45.33	38⇓	iP	P	10 38 18.6	-0.3
SOKR				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,810nm,18.0s,MS4.7						
ARU	Arti	46.12	43⇑	iP	P	10 38 24.8	-0.4
ARU				e		10 39 54.9	
ARU				e		10 40 11.1	
ARU				ePPP	PPP	10 40 54.0	-3.7
ARU				eS	S	10 45 10.2	+1.4
ARU				e		10 48 15.5	
ARU				pmax	pmax		
	comp=Z,154nm,0.8s,mb6.0						
ARU				MLR	MLR		
	comp=Z,700nm,21.0s,MS4.6						
ARU				MLR	MLR		
	comp=E,500nm,25.0s						
ARU	Arti	46.12	43	eP	P	10 38 24.4	-0.9
	comp=E,143nm,0.8s,mb6.0						
ARU	Arti	46.12	43	eP	P	10 38 24.4	-0.8
	comp=E,143nm,0.8s,mb6.0						
SCHQ	Schefferville	47.37	315	P	P	10 38 34.9	-0.2
	comp=E,20nm,1.2s,mb4.9,baz=72,slow=7.6,SNR=8.5						
MBAR	Mbarara	47.57	131	eP	P	10 38 35.4	-1.9
	comp=E,13nm,1.1s,mb4.9						
MBAR	Mbarara	47.57	131	eP	P	10 38 35.4	-1.9
	comp=E,13nm,1.1s,mb4.9						
KMBO	Kilima Mbogo	52.17	125	P	P	10 39 12.6	0.0
	comp=E,7.4nm,0.9s,mb4.6,baz=328,slow=7.4,SNR=19						
KMBO				LR	LR	11 03 12.4	
	comp=E,442nm,21.0s,MS4.5,baz=284,slow=38						
KMBO	Kilima Mbogo	52.17	125	iP	P	10 39 13.1	+0.6
KMBO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KMBO	Kilima Mbogo	52.17	125	eP	P	10 39 11.6	-0.9
	comp=Z,14nm,1.1s,mb4.8						
KMBO				LR	LR		
	comp=Z,885nm,20.0s,MS4.8						
KMBO	Kilima Mbogo	52.17	125	eP	P	10 39 11.6	-0.9
	comp=Z,14nm,1.1s,mb4.8						
BRVK	Borovoye	53.21	46	eP	P	10 39 19.5	-0.2
	comp=Z,63nm,1.5s,mb5.3						
BRVK	Borovoye	53.21	46	eP	P	10 39 19.5	-0.2
	comp=Z,63nm,1.5s,mb5.3						
BVA0	Borovoye Array	53.28	46	iP	P	10 39 19.9	-0.3
BVA0				pmax	pmax		
	comp=Z,4.0nm,1.4s,mb4.2						
BVAR	Borovoye Array	53.28	46	P	P	10 39 20.1	0.0
	comp=Z,5.1nm,0.9s,mb4.4,baz=315,slow=8.4,SNR=3.7						
CHKZ	Chkalovo	53.28	45	iP	P	10 39 19.6	-0.6
CHKZ				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
CHKZ	Chkalovo	53.28	45	eP	P	10 39 19.4	-0.8
	comp=Z,32nm,1.2s,mb5.1						
LSZ	Lusaka	58.28	144	eP	P	10 39 55.2	-1.5
	comp=Z,23nm,1.1s,mb5.1						
LSZ	Lusaka	58.28	144	eP	P	10 39 55.2	-1.5
	comp=Z,23nm,1.1s,mb5.1						
EKS2	Erkin-Say	58.35	58	P	P	10 39 57.0	+0.2
	SNR=8.0						
EKS2	Erkin-Say	58.35	58	eP	P	10 39 56.8	0.0
	comp=Z,14nm,0.8s,mb5.0						
AML	Almayashu	58.48	58	eP	P	10 39 57.1	-0.6
	comp=Z,5.6nm,1.0s,mb4.5						
AML	Almayashu	58.48	58	eP	P	10 39 57.1	-0.6
	comp=Z,5.6nm,1.0s,mb4.5						
USP	Ospenovka	58.63	57	P	P	10 39 57.0	-1.8
	SNR=5.7						
KURK	Kurchatov	58.80	47d	iP	P	10 39 59.0	-0.9
KURK	Kurchatov	58.80	47	eP	P	10 39 58.7	-1.2
	comp=Z,37nm,0.9s,mb5.4						
KURK	Kurchatov	58.80	47	eP	P	10 39 58.7	-1.2
	comp=Z,37nm,0.9s,mb5.4						
AAK	Ala-Archa	58.85	57	P	P	10 40 00.5	+0.2
	SNR=7.2						
AAK	Ala-Archa	58.85	57c	iP	P	10 39 59.3	-1.0
AAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
AAK				MLR	MLR		
	comp=Z,300nm,14.0s,MS4.6						
AAK	Ala-Archa	58.85	57	eP	P	10 39 58.6	-1.8
	comp=Z,13nm,1.0s,mb4.9						
AAK	Ala-Archa	58.85	57	eP	P	10 39 58.6	-1.7
	comp=Z,13nm,1.0s,mb4.9						
CHMS	Chumysh	58.90	57	P	P	10 40 00.7	0.0
	SNR=8.5						
UCH	Uchtor	59.01	58	P	P	10 40 02.5	+1.1
	SNR=7.5						

UCH	Uchtor	59.01	58	eP	P	10 40 01.9	+0.4
	comp=Z,8.2nm,0.8s,mb4.8						
UCH	Uchtor	59.01	58	eP	P	10 40 01.9	+0.5
	comp=Z,8.2nm,0.8s,mb4.8						
NVS	Novosibirsk	60.11	42	eP	P	10 40 08.5	-0.3
NVS				pmax	pmax		
	comp=N,6.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,10.0nm,1.3s						
NVS				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.3						
KSH	Kashi	61.06	60	eP	P	10 40 16.3	+0.8
KSH				eAP	pP	10 40 20.8	-2.6
KSH				eXP	sP	10 40 23.7	-2.5
KSH				ePCP	PcP	10 41 01.0	+2.8
KSH				ePP	PP	10 42 32.0	-0.1
KSH				eSCP		10 44 59.5	
KSH				ePCS		10 45 01.1	
KSH				eS	S	10 48 30.3	-0.7
KSH				eSCS	ScS	10 50 02.0	+0.8
KSH				eSS	SS	10 52 30.5	-1.7
KSH				LR	LR		
	comp=N,520nm,9.4s						
KSH				LR	LR		
	comp=E,230nm,5.0s						
ZAL	Zalesovo	61.28	42	P	P	10 40 16.1	-0.7
	comp=E,6.9nm,0.8s,mb4.8,baz=185,slow=6.8,SNR=45						
ZAL				LR	LR	11 09 28.7	
	comp=E,543nm,18.5s,MS4.7,baz=172,slow=39						
ZAL	Zalesovo	61.28	42	i P	P	10 40 17.2	+0.4
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ZAL	Zalesovo	61.28	42	P	P	10 40 16.0	-0.8
ACSO	Alum Creek Sta	61.39	301	eP	P	10 40 17.2	-0.6
	comp=Z,34nm,0.9s,mb5.5						
ACSO	Alum Creek Sta	61.39	301	eP	P	10 40 17.2	-0.6
	comp=Z,34nm,0.9s,mb5.5						
NHSC	New Hope	62.28	292	eP	P	10 40 24.8	+1.0
NHSC	New Hope	62.28	292	eP	P	10 40 24.8	+1.0
MKAR	Makanchi Array	62.47	51	i P	P	10 40 23.4	-1.5
MKAR				pmax	pmax		
	comp=Z,15nm,0.8s						
EYMN	Ely	63.92	312	P	P	10 40 35.7	+1.3
ULM	Lac du Bonnet	65.55	315	P	P	10 40 44.9	0.0
	comp=Z,8.7nm,1.1s,mb4.7,baz=70,slow=7.3,SNR=3.7						
ULM	Lac du Bonnet	65.55	315	P	P	10 40 44.8	-0.1
KHET	Khetri	65.91	72	eP	P	10 40 45.6	-2.0
KHET				e		10 40 47.2	
	comp=Z,13nm,1.0s						
BDFB	Brasilia	66.11	228	P	P	10 40 47.7	-1.3
	comp=Z,1.5nm,0.4s,mb4.3,baz=108,slow=9.6,SNR=2.9						
BDFB				LR	LR	11 06 09.1	
	comp=Z,788nm,20.0s,MS4.9,baz=61,slow=33						
KUDL	Kundal	66.41	71	eP	P	10 40 44.9	-5.8
KUDL				e		10 40 50.6	
	comp=Z,6.2nm,0.7s						
SDV	Santo Domingo	66.61	264	eP	P	10 40 52.5	+0.2
	comp=Z,25nm,0.9s,mb5.2						
SONA	Sohna	66.82	71	eP	P	10 40 44.6	-8.8
SONA				e		10 40 46.4	
	comp=Z,4.0nm,0.2s						
WMQ	Urumqi	67.18	52	P	P	10 40 56.2	+0.8
WMQ				AP	pP	10 41 00.9	-2.4
WMQ				XP	sP	10 41 03.2	-3.0
WMQ				PCP	PcP	10 41 24.2	+0.9
WMQ				PP	PP	10 43 25.9	+0.7
WMQ				S	S	10 49 48.7	+1.9
WMQ				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
WMQ				LR	LR		
	comp=N,406nm,17.2s						
WMQ				LR	LR		
	comp=Z,348nm,19.0s,MS4.6						
YKA	Yellowknife Ar	68.39	332	P	P	10 41 01.2	-1.4
	comp=Z,5.5nm,0.7s,mb4.7,baz=59,slow=6.4,SNR=57						
YKA				LR	LR	11 08 35.4	
	comp=Z,714nm,18.9s,MS4.9,baz=75,slow=34						
YKA	Yellowknife Ar	68.39	332	i P	P	10 41 01.2	-1.4
YKA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
BHPL	Bhopal	69.54	76	eP	P	10 41 08.9	-1.5
BHPL				e		10 41 10.3	
	comp=Z,23nm,0.7s						
INK	Inuvik	70.44	343	P	P	10 41 13.8	-1.3
	comp=Z,11nm,1.2s,mb4.7,baz=53,slow=8.8,SNR=8.0						
INK	Inuvik	70.44	343	P	P	10 41 13.8	-1.3
INK				pmax	pmax		
	comp=Z,11nm,1.2s						
AKL	Akola	70.51	78	eP	P	10 41 16.0	-0.3
AKL				AMb	AMB	10 41 17.2	
	comp=Z,38nm,0.7s,mb5.4						
SUR	Sutherland	70.84	159	P	P	10 41 17.0	-1.2
	comp=Z,16nm,0.6s,mb5.1,baz=340,slow=5.0,SNR=27						
SUR	Sutherland	70.84	159	eP	P	10 41 16.8	-1.4
	comp=Z,25nm,0.8s,mb5.2						
SUR	Sutherland	70.84	159	eP	P	10 41 16.8	-1.4
	comp=Z,25nm,0.8s,mb5.2						
SAML	Samuel	71.66	244	eP	P	10 41 22.6	-0.8
	comp=Z,8.9nm,1.3s,mb4.5						
KOLN	Koldanda	72.06	68	eP	P	10 41 24.6	-1.0
	comp=Z,26nm,1.1s,mb5.1						
TLY	Talaya	72.41	39	i P	P	10 41 26.8	-0.4
TLY				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
TLY				MLR	MLR		
	comp=Z,900nm,13.0s,MS5.2						
TLY	Talaya	72.41	39	P	P	10 41 27.1	-0.2
TLY	Talaya	72.41	39	P	P	10 41 27.1	-0.1
GKN	Gorkha	72.73	68	eP	P	10 41 28.5	-1.0
	comp=Z,30nm,0.8s,mb5.3						
ZAK	Zakamensk	72.97	40	eP	P	10 41 30.6	+0.2
DMN	Daman	73.29	68	eP	P	10 41 32.4	-0.4
	comp=Z,94nm,1.4s,mb5.5						
KKN	Kakani	73.33	68	eP	P	10 41 32.3	-0.7
	comp=Z,33nm,0.9s,mb5.2						
BOD	Bodaibo	73.44	30	eP	P	10 41 31.3	-1.8
HYB	Hyderabad	73.47	80	i P	P	10 41 31.0	-3.0
HYB	Hyderabad	73.47	80	eP	P	10 41 31.0	-3.0
PKI	Pulchoki	73.54	68	eP	P	10 41 33.6	-0.7
	comp=Z,24nm,0.9s,mb5.1						
GUN	Gumba	73.72	67	eP	P	10 41 34.7	-0.6
	comp=Z,75nm,1.3s,mb5.5						
YAK	Yakutsk	75.90	21	⇓iP	P	10 41 48.4	+1.3
YAK				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
YAK	Yakutsk	75.90	21	P	P	10 41 47.5	+0.4
	comp=Z,23nm,0.9s,mb5.1						
YAK				LR	LR		
	comp=Z,544nm,19.0s,MS4.9						
YAK	Yakutsk	75.90	21	P	P	10 41 47.5	+0.4
	comp=Z,23nm,0.9s,mb5.1						
SONM	Songino Array	76.12	41	P	P	10 41 49.7	+1.0
	comp=Z,6.9nm,0.8s,mb4.7,baz=295,slow=6.8,SNR=56						
SONM				PP	PP	10 44 39.1	-2.3
	comp=Z,1.5nm,0.9s,baz=298,slow=9.4,SNR=4.3						
ILAR	Eielson Array	76.42	345	P	P	10 41 51.8	+1.7
	comp=Z,17nm,1.3s,mb4.8,baz=6.9,slow=4.9,SNR=23						
ILAR				LR	LR	11 14 54.6	
	comp=Z,279nm,21.8s,MS4.5,baz=206,slow=35						
ILAR	Eielson Array	76.42	345	P	P	10 41 51.8	+1.8
ILAR				pmax	pmax		
	comp=Z,17nm,1.3s						
ILAR				MLR	MLR		
	comp=Z,279nm,21.8s						
ULN	Ulaanbaatar	76.45	41	⇑iP	P	10 41 51.7	+1.2
ULN	Ulaanbaatar	76.45	41	eP	P	10 41 50.7	+0.2
	comp=Z,12nm,0.9s,mb4.8						
ULN				LR	LR		
	comp=Z,897nm,19.0s,MS5.1						
IMA	Indian Mountai	76.56	348	eP	P	10 41 51.8	+1.0
	comp=Z,140nm,1.0s,mb5.8						
IMA	Indian Mountai	76.56	348	eP	P	10 41 51.8	+1.0
	comp=Z,140nm,1.0s,mb5.8						
LSA	Lhasa	76.69	63	P	P	10 41 54.0	+1.8
ISCO	Idaho Springs	76.79	309	eP	P	10 41 52.8	+0.2
	comp=Z,9.4nm,1.3s,mb4.6						
ISCO	Idaho Springs	76.79	309	eP	P	10 41 52.8	+0.2
	comp=Z,9.4nm,1.3s,mb4.6						
GTA	Gaotai	77.22	51	eP	P	10 41 56.0	+1.0
GTA				AP	pP	10 42 01.5	-1.5
GTA				XP	sP	10 42 04.4	-1.4
GTA				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.0						
PDAR	Pinedale Array	77.48	314	P	P	10 41 55.2	-1.1
	comp=Z,4.1nm,0.7s,mb4.4,baz=64,slow=6.8,SNR=30						
PDAR				LR	LR	11 13 36.4	
	comp=Z,348nm,19.2s,MS4.7,baz=60,slow=34						
PDAR	Pinedale Array	77.48	314	P	P	10 41 55.2	-1.1
MOOW	Moose Ponds	77.59	315	P	P	10 41 57.8	+0.9
MOOW	Moose Ponds	77.59	315	P	P	10 41 57.8	+0.9
MCK	McKinley	77.77	345	eP	P	10 41 57.5	0.0
MCK	McKinley	77.77	345	eP	P	10 41 57.5	0.0
SDCO	Great Sand Dun	77.89	308	eP	P	10 42 00.2	+1.5
	comp=Z,5.8nm,1.0s,mb4.5						
SDCO	Great Sand Dun	77.89	308	eP	P	10 42 00.2	+1.5
	comp=Z,5.8nm,1.0s,mb4.5						
OTAV	Otavalo	77.93	262	eP	P	10 42 01.0	+1.6
	comp=Z,9.9nm,0.8s,mb4.8						
OTAV				LR	LR		
	comp=Z,209nm,20.0s,MS4.5						
JCT	Junction City	78.08	299	eP	P	10 41 58.6	-1.3
	comp=Z,9.8nm,0.9s,mb4.7						
NEW	Newport	78.25	321	LR	LR	11 16 10.7	
	comp=Z,288nm,19.4s,MS4.6,baz=17,slow=35						
SML	Sawmill	79.34	344	eP	P	10 42 08.1	+1.9
SML	Sawmill	79.34	344	eP	P	10 42 08.1	+2.0
SHL	Shillong	79.50	66	eP	P	10 42 07.5	-0.2
SHL				AMb	AMB	10 42 09.1	
	comp=Z,33nm,1.0s,mb5.2						
SHL	Shillong	79.50	66	⇑eP	P	10 42 07.5	-0.2
CPRX	Cap Rock	79.50	303	eP	P	10 42 09.6	+2.0
PV01	Paradox Valley	79.63	309	P	P	10 42 09.6	+1.4
PV10	Paradox Valley	79.78	310	eP	P	10 42 08.8	-0.3
PV10	Paradox Valley	79.78	310	eP	P	10 42 08.8	-0.2
CLNB	Carlsbad	79.95	302	eP	P	10 42 09.2	-0.8
LPAZ	La Paz	80.11	242	P	P	10 42 12.3	+1.2
	comp=Z,1.6nm,0.4s,mb4.3,baz=16,slow=4.6,SNR=4.4						
LPAZ				LR	LR	11 14 43.6	
	comp=Z,222nm,20.8s,MS4.5,baz=54,slow=34						
ANMO	Albuquerque	80.14	306	LR	LR	11 16 18.3	
	comp=Z,478nm,19.1s,MS4.9,slow=35						
SRU	San Rafael	80.26	311	eP	P	10 42 12.0	+0.4
BMO	Blue Mountains	80.57	319	eP	P	10 42 12.4	-0.6
	comp=Z,5.1nm,0.7s,mb4.6						
BGU	Big Grassy Mou	80.66	314	eP	P	10 42 13.1	-0.6
BNM	Barren Site	80.72	305	eP	P	10 42 14.2	+0.1
IMP	Imphal	81.47	66	eP	P	10 42 18.8	+0.6
TXAR	Lajitas Array	81.49	300	P	P	10 42 18.3	+0.1
	comp=Z,1.6nm,0.7s,mb4.1,baz=77,slow=5.2,SNR=21						
TXAR				LR	LR	11 15 33.7	
	comp=Z,431nm,21.0s,MS4.8,baz=25,slow=34						
MSU	Marysvale	81.65	311	eP	P	10 42 18.7	-0.1
LZH	Lanzhou	81.76	52	⇑P	P	10 42 21.0	+1.5
LZH				AP	pP	10 42 25.8	-1.8
LZH				XP	sP	10 42 28.2	-2.0
LZH				PP	PP	10 45 29.5	+0.7
LZH				eS	S	10 52 30.5	+1.1
LZH				XS		10 52 38.1	
LZH				SS	SS	10 57 50.0	-0.8
LZH				AMB	AMB		
	comp=Z,42nm,1.3s,mb5.2						
LZH				AMB	AMB		
	comp=Z,185nm,5.6s						
LZH				LR	LR		
	comp=N,1µm,15.2s						
LZH				LR	LR		
	comp=Z,2µm,17.8s,MS5.4						
HIA	Hailar	81.80	34	eP	P	10 42 20.8	+1.3
HIA				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
ELK	Elko	82.07	315	eP	P	10 42 21.5	+0.6
	comp=Z,9.6nm,1.0s,mb4.7						
ELK				LR	LR		
	comp=Z,232nm,20.0s,MS4.5						
HHC	Hu-ho-hao-te	83.42	44	eP	P	10 42 33.2	+5.3
HHC				AP	pP	10 42 37.4	+1.3
HHC				XP	sP	10 42 40.0	+1.3
HHC				PP	PP	10 45 46.4	+4.5
HHC				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.3						
HHC				AMB	AMB		
	comp=Z,169nm,3.8s						
NNA	Nana	83.94	251	P	P	10 42 30.6	-0.6
NNA				LR	LR		
	comp=Z,96nm,19.0s,MS4.2						
TUC	Tucson	84.61	306	eP	P	10 42 34.9	+0.7
	comp=Z,19nm,1.1s,mb5.1						
TUC				LR	LR		
	comp=Z,525nm,19.0s,MS4.9						
CD2	Chengdu	84.87	56	eP	P	10 42 36.9	+1.4
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.2						
TPH	Tonopah	84.97	314	eP	P	10 42 36.0	+0.2
	comp=Z,10.0nm,1.0s,mb4.9						
TPH				LR	LR		
	comp=Z,526nm,19.0s,MS4.9						
NEN	Nelson	85.11	311	eP	P	10 42 36.9	+0.3
TPNV	Topopah Spring	85.13	312	eP	P	10 42 38.3	+1.7
	comp=Z,2.6nm,0.8s,mb4.4						
TPNV				LR	LR		
	comp=Z,463nm,21.0s,MS4.8						
NVAR	Mina Array Bea	85.37	315	P	P	10 42 39.7	+1.9
	comp=Z,1.4nm,0.7s,mb4.2,baz=63,slow=3.8,SNR=11						
NVAR				LR	LR	11 18 22.2	
	comp=Z,132nm,20.7s,MS4.3,baz=265,slow=34						
NVAR	Mina Array Bea	85.37	315	P	P	10 42 39.7	+1.9
NVAR				LR	LR	11 18 22.2	
MTUM	Tungsten Hills	86.25	314	eP	P	10 42 43.2	+1.0
XAN	Xi’an	86.28	50	P	P	10 42 42.9	+0.5
XAN				AP	pP	10 42 52.9	+2.3
XAN				AMB	AMB		
	comp=Z,20nm,1.2s,mb5.2						
BJT	Baijiatuau	86.56	42	eP	P	10 42 45.0	+1.3
	comp=Z,24nm,1.1s,mb5.3						
BJT				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
OHCM	Honcut	86.58	317	eP	P	10 42 43.9	+0.2
CMB	Columbia Colle	86.85	315	eP	P	10 42 46.2	+1.1
	comp=Z,1.5nm,0.9s,mb4.2						
CMB				LR	LR		
	comp=Z,426nm,19.0s,MS4.9						
KMI	Kunming	87.72	61	eP	P	10 42 50.9	+1.3
KMI				AMB	AMB		
	comp=Z,12nm,1.3s,mb5.0						
KMI				LR	LR		
	comp=Z,3µm,10.0s						
CN2	Changchun	88.50	35	eP	P	10 42 53.3	+0.4
CN2				eXP	sP	10 43 00.3	-3.3
CN2				eS	S	10 53 35.4	+0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.2						
CN2				LR	LR		
	comp=N,1µm,19.0s,MS5.5						
CN2				LR	LR		
	comp=E,1µm,19.0s,MS5.5						
CN2				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
CHG	Chiang Mai	88.72	68	P	P	10 42 58.8	+4.3
CMAR	Chiang Mai Arr	88.93	68	P	P	10 42 56.4	+0.8
	comp=Z,6.8nm,1.1s,mb4.9,baz=305,slow=6.3,SNR=23						
CMAR	Chiang Mai Arr	88.93	68	P	P	10 42 56.4	+0.9
CMAR				pmax	pmax		
	comp=Z,7.0nm,1.1s						
GYA	Guiyang	89.64	58	P	P	10 42 59.9	+1.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.2						
MDJ	Mudanjiang	89.72	32	P	P	10 42 57.9	-0.7
MDJ				AMB	AMB		
	comp=Z,206nm,3.8s						
NANT	Nan	90.06	67	P	P	10 43 01.0	+0.2
NJ2	Nanjing	93.72	46	eP	P	10 43 17.6	+0.2
NJ2				AP	pP	10 43 22.4	-3.1
NJ2				XP	sP	10 43 24.6	-3.6
NJ2				PP	PP	10 47 07.6	+2.0
NJ2				S	S	10 54 21.0	-1.0
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.5						
SSE	Sheshan	95.79	45	P	P	10 43 24.0	-2.9
SSE				XP	sP	10 43 37.2	-0.5
SSE				S	S	10 54 38.9	-0.7
SSE				XS		10 54 56.9	
SSE				LR	LR		
	comp=N,373nm,14.6s,MS5.0						
SSE				LR	LR		
	comp=E,169nm,14.6s,MS5.0						
SSE				LR	LR		
	comp=Z,429nm,14.2s,MS5.1						
JOW	Kunigami	103.06	44	LR	LR	11 45 56.5	
	comp=Z,428nm,20.6s,MS5.0,baz=359,slow=39						
SYO	Syowa Base	108.54	165	⇑PKiKP		10 48 30.9	
QSPA	South Pole Qui	125.06	180	⇓iP	PKPdf	10 49 01.0	-2.4
FITZ	Fitzroy Crossi	131.63	83	eP	PKPdf	10 49 14.5	-3.0
	comp=Z,3.3nm,0.9s						
FITZ	Fitzroy Crossi	131.63	83	PKP	PKPdf	10 49 14.8	-2.7
	comp=Z,3.7nm,0.8s,baz=305,slow=4.1,SNR=8.2						
VNDA	Vanda	137.04	175	PKhKP		10 49 12.6	
	comp=Z,0.4nm,0.7s,baz=182,slow=24,SNR=3.5						
VNDA	Vanda	137.04	175	i PKHKP		10 49 12.6	
WRA	Warramunga Arr	139.62	79	PKhKP		10 49 21.8	
	comp=Z,0.9nm,0.8s,baz=303,slow=2.9,SNR=5.2						
WRA				PKP	PKPdf	10 49 29.6	-2.6
	comp=Z,4.5nm,0.8s,baz=303,slow=1.8,SNR=24						
WRA	Warramunga Arr	139.62	79	i PKHKP		10 49 21.8	
WRA						10 49 29.6	
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
WRA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
WB2	Warramunga Arr	139.63	79	eP		10 49 19.1	
ASPA	Alice Springs	141.07	85	eP		10 49 24.6	
ASAR	Alice Springs	141.08	85	PKhKP		10 49 24.6	
	comp=Z,1.8nm,0.8s,baz=297,slow=2.6,SNR=18						
ASAR				PP	PP	10 52 32.3	-3.2
	comp=Z,1.1nm,1.0s,baz=301,slow=7.4,SNR=5.2						
CTA	Charters Tower	149.09	69	eP	PKPdf	10 49 50.5	+2.1
	comp=Z,14nm,0.8s						
CTA	Charters Tower	149.09	69	PKPbc	PKPdf	10 49 50.2	+1.8
	comp=Z,18nm,0.8s,baz=319,slow=2.8,SNR=18						
CTA	Charters Tower	149.09	69	PKP2	PKPab	10 49 50.2	-4.2
CTA				pmax	pmax		
	comp=Z,18nm,0.8s						
CTAO	Charters Tower	149.09	69	ePKPdf	PKPdf	10 49 45.5	-2.9
CTAO				ePKPbc	PKPdf	10 49 49.7	+1.3
STKA	Stephens Creek	150.45	94	eP	PKPdf	10 49 52.3	+2.1
	comp=Z,34nm,0.9s						
STKA	Stephens Creek	150.45	94	PKPbc	PKPdf	10 49 52.6	+2.4
	comp=Z,38nm,0.8s,baz=326,slow=3.2,SNR=55						

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*NEIC **04** 10:50:41.2, 34.90N×2.90W, MG3.6(MDD), After MDD.*

MDD 04 10:50:41.4±1.5**, 34.92N×2.85W, mb3.6**/7**, 1C, Error ellipse: s-maj=18.0km s-min=9.3km az=95.0, PRXIMO AftershockPLICA, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.38	350	⇑P	Pg	10 50 44.9	-4.0
MELI				S	Sg	10 50 53.0	-0.9
EMEL	Melilla	0.39	347	P	Pg	10 50 48.8	-0.2
	148nm,0.1s,SNR=9.6						
EMEL				S	Sg	10 50 53.4	-0.8
	336nm,0.3s,SNR=5.1						
EBER	Berja	1.97	359	P	Pn	10 51 13.1	-3.2
	5.0nm,0.4s,SNR=8.6						
EBER				S	Sn	10 51 35.6	-6.5
	45nm,0.8s,SNR=6.9						
EMIJ	Mijas	2.26	317	P	Pn	10 51 17.2	-3.3
	2.0nm,0.2s,SNR=7.9						
EMIJ				S	Sn	10 51 42.5	-7.1
	12nm,0.4s,SNR=7.9						
LIJA	Lijar	2.86	314	P	Pn	10 51 27.5	-1.6
LIJA				S	Sn	10 52 03.0	-1.8
ELUQ	Luque	2.87	337	P	Pn	10 51 28.0	-1.2
	3.7nm,0.3s,SNR=7.9						
ELUQ				S	Sn	10 52 01.6	-3.4
	2.7nm,0.2s,SNR=7.9						
EQES	Quesada	2.88	357	P	Pn	10 51 28.7	-0.7
	4.4nm,0.3s,SNR=6.4						
EQES				S	Sn	10 52 02.2	-3.0
	11nm,0.5s						
ESPR	Espera	3.12	309	P	Pn	10 51 30.5	-2.2
	3.6nm,0.3s,SNR=7.9						
ESPR				S	Sn	10 52 07.4	-3.8
	5.5nm,0.4s,SNR=7.9						
EADA	Adamuz	3.52	337	P	Pn	10 51 35.4	-3.1
	2.0nm,0.2s,SNR=4.6						
EADA				S	Sn	10 52 16.2	-5.3
	3.4nm,0.5s						
EVIA	Vianos	3.72	4	S	Sn	10 52 22.4	-4.0
	8.6nm,0.4s,SNR=7.9						
EMIN	Mina Concepcio	4.19	314	P	Pn	10 51 44.2	-3.8
	1.4nm,0.2s,SNR=8.2						
EMIN				S	Sn	10 52 28.7	-10
	5.4nm,1.0s						
ESDC	Sonseca Array	4.83	350	P	Pn	10 51 54.7	-2.2
	1.1nm,0.3s,baz=173,slow=12,SNR=6.8						

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*IDC **04** 10:57:18.4±1.0, 13.71N×95.58E, mb3.8/7, mb1 4.0/8, mb1mx3.8/18, ML4.0/1, MS4.2/11, Ms1 4.3/11, ms1mx4.0/26, Error ellipse: s-maj=32.1km s-min=19.4km az=51.0*

*NEIC **04** 10:57:20.1±0.6, 13.69N×95.62E, h10km, mb4.0/1, Error ellipse: s-maj=14.8km s-min=11.6km az=198.0*

ISC 04 10:57:21.7±1.4**, 13.69N**±0.09×**95.65E**±0.07**, h36km**±14km**, n33, σ0.s88**/24**, mb3.8**/8**, MS4.3**/10**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	4.13	105	P	P	10 58 24.0	0.0
NST	Nakhon Sawan	4.77	65	P	P	10 58 16.2	-17
CMAR	Chiang Mai Arr	5.71	33	Pn	P	10 58 45.6	-0.6
	1.0nm,0.3s,baz=224,slow=15,SNR=13						
CMAR				LR	LR	11 01 17.0	
	comp=Z,1µm,19.3s,baz=215,slow=42						
KKTK	Khon Kaen	7.42	68	PN	Px	10 59 15.0	
KKTK				SG	Sx	11 01 35.0	
IMP	Imphal	11.16	352	⇑iP	P	11 00 02.9	+1.0
SHL	Shillong	12.34	344	eP	P	11 00 15.0	-2.8
VIS	Vishakhapatnam	12.52	290	eP	P	11 00 20.5	+0.2
PKI	Pulchoki	16.80	327	eP	P	11 01 15.6	-0.3
	36nm,0.9s						
GUN	Gumba	16.83	329	eP	P	11 01 17.9	+1.6
	21nm,0.6s						
HYB	Hyderabad	16.88	285	eP	P	11 01 17.0	0.0
HYB	Hyderabad	16.88	285	i P	P	11 01 17.0	0.0
KKN	Kakani	17.04	327	eP	P	11 01 18.9	0.0
	29nm,0.8s						
GKN	Gorkha	17.55	326	eP	P	11 01 26.1	+0.7
	23nm,0.5s						
KOLN	Koldanda	17.96	323	eP	P	11 01 30.4	0.0
	19nm,0.6s						
POO	Poona	21.48	286	eP	P	11 02 08.0	-1.4
TGY	Tagaytay City	24.55	86	LR	LR	11 13 19.2	
	comp=Z,380nm,18.1s,MS3.9,baz=46,slow=39						
JOW	Kunigami	33.18	62	P	P	11 03 56.5	-0.8
	36nm,0.3s,baz=158,slow=29,SNR=6.7						
SONM	Songino Array	35.20	13	P	P	11 04 15.3	+0.8
	0.2nm,0.5s,mb3.3,baz=188,slow=8.7,SNR=3.6						
ZAL	Zalesovo	41.06	350	P	P	11 05 03.0	-0.4
	1.4nm,0.8s,mb3.6,baz=233,slow=0.8,SNR=5.8						
FITZ	Fitzroy Crossi	43.27	136	LR	LR	11 23 32.1	
	comp=Z,130nm,20.6s,MS3.8,baz=291,slow=36						
CHKZ	Chkalovo	44.53	339	eP	P	11 05 31.9	+0.3
	1.4nm,0.6s,mb4.0						
WRA	Warramunga Arr	50.65	130	P	P	11 06 20.0	+0.1
	0.5nm,0.5s,mb3.7,baz=312,slow=8.2,SNR=9.0						
ASAR	Alice Springs	52.70	134	P	P	11 06 36.1	+0.9
	0.6nm,0.5s,mb3.8,baz=314,slow=7.0,SNR=16						
ASAR				LR	LR	11 32 12.7	
	comp=Z,196nm,19.9s,MS4.2,baz=301,slow=40						
ASF	Jabal al Asfar	56.48	300	LR	LR	11 35 17.9	
	comp=Z,199nm,19.2s,MS4.2,baz=146,slow=40						
EIL	Elat	58.01	297	LR	LR	11 37 18.8	
	comp=Z,166nm,18.5s,MS4.2,baz=291,slow=41						
KMBO	Kilima Mbogo	59.69	261	LR	LR	11 30 11.0	
	comp=Z,256nm,18.9s,MS4.4,baz=92,slow=33						
BRTR	Keskin Array B	59.90	308	P	P	11 07 25.2	-1.4
	0.8nm,0.6s,mb4.0,baz=123,slow=8.9,SNR=3.9						
STKA	Stephens Creek	63.16	137	LR	LR	11 35 58.5	
	comp=Z,527nm,21.9s,MS4.7,baz=111,slow=37						
FINES	FINESS Array B	68.33	331	P	P	11 08 21.0	-0.2
	4.1nm,1.1s,mb4.4,baz=135,slow=2.7,SNR=3.8						
FINES				LR	LR	11 40 16.9	
	comp=Z,237nm,20.1s,MS4.4,baz=103,slow=38						
FINES	FINESS Array B	68.33	331	P	P	11 08 21.0	-0.2
FINES				LR	LR	11 40 16.9	
ARCES	ARCESS Array B	70.36	339	LR	LR	11 44 22.9	
	comp=Z,316nm,19.7s,MS4.6,baz=197,slow=40						
GERES	GERESS Array B	74.55	317	P	P	11 08 59.5	+0.9
	0.3nm,0.5s,mb3.5,baz=96,slow=5.3,SNR=3.8						
NOA	NORSAR Array B	75.45	330	LR	LR	11 45 58.2	
	comp=Z,254nm,19.6s,MS4.5,baz=85,slow=39						

IDC 04 11:05:59.0±64.0**,19.44S**×**179.86W,h686**^{km}±476^{km}**, mb2.8**/4**,mb1 3.0**/4**,mb1mx2.9**/14**,Error ellipse: s-maj=693.0km s-min=161.5km az=73.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	36.69	243	P	P	11 12 11.9	-1.7
	1.9nm,0.8s,baz=83,slow=8.1,SNR=2.8						
WRA	Warramunga Arr	43.02	261	P	P	11 13 02.0	-2.0
	0.9nm,0.5s,baz=98,slow=6.7,SNR=24						
ASAR	Alice Springs	43.06	256	P	P	11 13 03.3	-1.0
	3.5nm,0.7s,baz=88,slow=8.9,SNR=55						
FITZ	Fitzroy Crossi	51.43	262	P	P	11 14 04.6	-2.1
	0.6nm,0.6s,baz=94,slow=16,SNR=3.8						

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*NEIC **04** 11:06:04.3±2.4,18.06S×178.24W,h591^{km}±26^{km}, mb4.2/11,Error ellipse: s-maj=15.6km s-min=13.0km az=53.0*

*SYO **04** 11:06:05.8,17.99S×178.40W,h600^{km},MB4.2*

*IDC **04** 11:06:07.7±1.8,18.29S×178.31W,h628^{km}±21^{km}, mb3.4/16,mb1 3.6/16,mb1mx3.5/21,Error ellipse: s-maj=15.8km s-min=11.1km az=166.0*

ISC 04 11:06:05.6±1.7**,18.2S**±0.1×**178.39W**±0.09**,h617**^{km}±22^{km}**, n90,**σ**1**^{s}**19**/43**,mb4.1**/24**,4C-5D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	20.39	190	P	P	11 10 01.2	-2.3
	7.5nm,0.7s,baz=330,slow=8.1,SNR=11						
RPZ	Rata Peaks	26.97	197	P	P	11 10 59.5	-2.3
	9.2nm,0.9s,mb4.4,baz=34,slow=22,SNR=3.3						
RPZ	Rata Peaks	26.97	197	P	P	11 10 59.5	-2.3
CTA	Charters Tower	33.42	261	P	P	11 11 57.5	+0.7
	3.4nm,0.4s,mb4.3,baz=82,slow=12,SNR=6.1						
CTAO	Charters Tower	33.42	261	*e*P	P	11 11 57.6	+0.9
PMG	Port Moresby	34.52	280	P	P	11 12 07.5	+1.5
	28nm,0.8s,mb4.9,baz=106,slow=7.4,SNR=12						
TOO	Toolangi	37.01	231	*e*P	P	11 12 28.3	+2.1
	2.5nm,0.8s,mb3.8						
STKA	Stephens Creek	38.51	241	⇓*i*P	P	11 12 40.1	+1.6
	3.6nm,0.6s,mb4.1						
STKA	Stephens Creek	38.51	241	P	P	11 12 40.1	+1.6
	6.6nm,0.7s,mb4.2,baz=85,slow=9.0,SNR=18						
STKA				PcP	PcP	11 14 35.4	+0.1
	1.8nm,0.8s,baz=83,slow=4.3,SNR=2.9						
WB2	Warramunga Arr	44.59	260	⇓*i*P	P	11 13 26.2	-0.4
WB2				*e*PCP	PcP	11 14 55.8	-0.2
WB2				*e*S	S	11 19 17.3	-2.1
WRAB	Tennant Creek	44.59	260	*e*P	P	11 13 26.1	-0.6
	11nm,0.5s,mb4.7						
WRA	Warramunga Arr	44.60	260	P	P	11 13 26.3	-0.4
	4.4nm,0.3s,mb4.5,baz=95,slow=7.4,SNR=125						
WRA				PcP	PcP	11 14 55.7	-0.3
	1.3nm,0.4s,baz=92,slow=3.3,SNR=7.7						
WRA				S	S	11 19 17.3	-2.3
	0.8nm,0.8s,baz=87,slow=11,SNR=7.2						
ASAR	Alice Springs	44.73	254	P	P	11 13 28.1	+0.4
	28nm,0.8s,mb4.9,baz=87,slow=8.6,SNR=158						
ASAR				PcP	PcP	11 14 56.0	-0.5
	2.9nm,0.5s,baz=103,slow=3.9,SNR=11						
ASAR				S	S	11 19 21.7	+0.3
	3.0nm,0.9s,baz=93,slow=18,SNR=19						
ASPA	Alice Springs	44.73	254	⇓*i*P	P	11 13 28.0	+0.3
ASPA				*e*PCP	PcP	11 14 56.2	-0.3
ASPA				*e*S	S	11 19 21.3	-0.2
KAKA	Kakadu	47.59	269	*e*P	P	11 13 49.3	-0.1
	13nm,0.4s,mb4.8						
FORT	Forrest	49.90	245	*e*P	P	11 14 05.7	-0.7
	32nm,0.5s,mb5.0						
FITZ	Fitzroy Crossi	53.00	261	*e*P	P	11 14 28.6	-0.1
	1.5nm,0.3s,mb3.8						
FITZ	Fitzroy Crossi	53.00	261	P	P	11 14 28.9	+0.2
	1.6nm,0.3s,mb3.8,baz=96,slow=4.1,SNR=18						
MBWA	Marble Bar	58.02	256	*e*P	P	11 15 02.7	-0.6
	4.1nm,0.4s,mb3.9						
KLBR	Kellerberrin	58.72	244	*e*P	P	11 15 07.5	-0.3
	7.8nm,0.6s,mb4.0						
MUN	Mundaring	60.01	243	*e*P	P	11 15 16.5	+0.2
	4.4nm,0.6s,mb3.9						
VNDA	Vanda	60.17	185	P	P	11 15 17.3	+0.4
	3.3nm,1.3s,mb3.4,baz=4.8,slow=6.4,SNR=4.0						
VNDA	Vanda	60.17	185	P	P	11 15 17.3	+0.4
MAT	Matsushiro	68.14	323	P	P	11 16 06.0	-1.3
MAT				*e*S	S	11 24 22.0	+2.1
MAT	Matsushiro	68.14	323	*e*P	P	11 16 06.0	-1.3
	5.3nm,0.6s,mb4.2						
YBH	Yreka Blue Hor	78.73	39	P	P	11 17 06.6	-0.2
	1.7nm,0.9s,mb3.4,baz=180,slow=6.1,SNR=3.1						
NVAR	Mina Array Bea	79.61	44	P	P	11 17 11.3	-0.2
	0.8nm,0.7s,mb3.1,baz=214,slow=8.4,SNR=5.1						
MAW	Mawson	83.61	200	P	P	11 17 31.7	+0.7
	3.0nm,0.7s,mb3.9,baz=249,slow=23,SNR=3.8						
ENH	Enshi	84.44	304	*e*P	P	11 17 36.8	+0.8
	7.0nm,0.7s,mb4.3						
TXAR	Lajitas Array	86.13	58	P	P	11 17 44.5	+0.3
	0.6nm,0.7s,mb3.4,baz=222,slow=6.8,SNR=8.8						
TXAR	Lajitas Array	86.13	58	P	P	11 17 44.5	+0.3
ILAR	Eielson Array	86.15	13	P	P	11 17 40.9	-2.5
	0.8nm,0.4s,mb3.7,baz=253,slow=4.0,SNR=26						
SYO	Syowa Base	88.89	193	⇑P	P	11 17 54.8	-1.4
SYO	Syowa Base	88.89	193	⇓PcP	PcP	11 18 00.4	+3.2
CMAR	Chiang Mai Arr	88.99	290	P	P	11 17 59.4	+1.6
	2.6nm,0.9s,mb4.1,baz=108,slow=2.6,SNR=14						
SNAA	Sanae	90.33	179	⇓*i*	P	11 18 02.5	-0.2
SNAA	Sanae	90.33	179	P	P	11 18 02.5	-0.2
	0.3nm,0.5s,mb3.4,baz=341,slow=6.6,SNR=11						
VNA3	Neumayer Olymp	90.47	176	⇑*i*	P	11 18 05.8	+2.4
VNA2	Neumayer--Watz	90.91	177	⇑*i*	P	11 18 07.9	+2.5
VNA1	Neumayer--Stat	91.14	177	⇑*i*	P	11 18 01.0	-5.4
CHKZ	Chkalovo	116.86	321	P	PKPdf	11 23 40.3	-0.6
BVAR	Borovoye Array	117.06	321	PKP	PKPdf	11 23 41.6	+0.2
	1.3nm,0.4s,baz=123,slow=2.2,SNR=12						
ARCES	ARCESS Array B	126.58	350	PKP	PKPdf	11 23 59.5	+0.1
	2.1nm,0.8s,baz=94,slow=0.8,SNR=12						
HFS	Hagfors	137.20	351	PKhKP		11 24 13.6	
	0.9nm,0.4s,baz=90,slow=2.9,SNR=4.5						
AKASG	Malin Array Be	140.81	332	PKhKP		11 24 20.6	
	0.4nm,0.4s,baz=33,slow=4.2,SNR=5.6						
AKASG				PKP	PKPdf	11 24 28.8	+2.7
	0.3nm,0.3s,baz=27,slow=2.1,SNR=4.5						
BSEG	Bad Segeberg	143.68	351	*e*PKPbc	PKPbc	11 24 30.9	+0.5
BRTR	Keskin Array B	144.98	315	PKPbc	PKPbc	11 24 35.7	+1.1
	3.8nm,0.7s,baz=127,slow=4.4,SNR=16						
KOLS	Kolonicke sedl	145.06	336	*i* PKP	PKPdf	11 24 36.0	+2.5
ASF	Jabal al Asfar	145.33	301	PKPbc	PKPbc	11 24 37.5	+1.8
	2.1nm,0.5s,baz=292,slow=2.1,SNR=6.0						
KSP	Ksiaz	145.38	344	*e*PKP	PKPdf	11 24 36.6	+2.6
CRVS	Cervenica-Dubn	145.39	337	*e*PKP	PKPdf	11 24 36.8	+2.7
CLZ	Clausthal	145.71	350	*e*PKPbc	PKPbc	11 24 37.5	+1.5
CLL	Collm	145.73	347	*i* PKP1	PKPbc	11 24 37.3	+1.2
UPC	Upice	145.75	344	*e*PKP	PKPdf	11 24 37.8	+3.1
DPC	Dobruska-Polom	145.81	343	*e*PKP	PKPdf	11 24 38.2	+3.4
BRG	Berggiesshubel	145.93	346	*e*P	PKPdf	11 24 38.0	+3.0
MLR	Muntele Rosu	146.07	329	PKPbc	PKPbc	11 24 38.6	+1.5
	4.0nm,0.7s,baz=90,slow=8.1,SNR=6.2						
PVCC	Panska Ves	146.11	345	*e*PKP	PKPdf	11 24 38.9	+3.6
PRU	Pruhonice	146.61	345	*e*PKP	PKPdf	11 24 39.8	+3.7
PRU				*e*x	x	11 24 42.8	
MOX	Moxa	146.64	348	*e*P	PKPdf	11 24 38.0	+1.9
VRAC	Vranov	146.67	342	PKPbc	PKPbc	11 24 40.5	+2.1
	2.7nm,0.7s,baz=303,slow=11,SNR=2.6						
VYHS	Vyhne	146.68	339	*i* PKP	PKPdf	11 24 40.8	+4.5
NKC	Novy Kostel	146.86	347	*e*PKP	PKPdf	11 24 40.7	+4.2
EIL	Elat	147.56	297	PKPbc	PKPdf	11 24 43.0	+4.7
	7.8nm,1.0s,baz=8.8,slow=11,SNR=3.2						
GRA1	Grafenberg Arr	147.63	348	*e*PKPbc	PKPdf	11 24 42.3	+4.5
KHC	Kasperske Hory	147.64	345	*e*PKP	PKPdf	11 24 42.8	+5.0
KHC				*e*x	x	11 24 47.6	
GEC2	GERESS Array S	147.88	345	*e*PKPbc	PKPdf	11 24 43.2	+5.0
GERES	GERESS Array B	147.88	345	PKPbc	PKPdf	11 24 43.5	+5.3
	2.6nm,0.5s,baz=27,slow=2.8,SNR=28						
GIVF	Givet	148.05	356	*e*PKP1	PKPdf	11 24 43.2	+4.8
	15nm,0.7s						
BAIF	Baives	148.13	357	*e*PKP1	PKPdf	11 24 43.5	+4.9
	10.0nm,0.6s						
BFO	Black Forest	149.43	351	*e*PKPbc	PKPdf	11 24 47.0	+6.4
FLN	La Foliniere	149.45	3	*e*PKP1	PKPdf	11 24 46.2	+5.6
CDF	Champ du Feu	149.50	353	*e*PKP1	PKPdf	11 24 46.9	+6.2
MEZF	Maizieres J'vi	149.63	355	*e*PKP1	PKPdf	11 24 47.4	+6.5
	11nm,0.7s						
LDF	La Druitiere	149.63	2	*e*PKP1	PKPdf	11 24 46.6	+5.7
	4.7nm,0.5s						
GRR	Gorron	149.80	3	*e*PKP1	PKPdf	11 24 47.2	+6.0
	11nm,0.6s						
SGMF	Saint Gilles	149.81	6	*e*PKP1	PKPdf	11 24 46.9	+5.7
HAU	Haudompre	150.00	354	*e*PKP1	PKPdf	11 24 47.9	+6.4
	6.9nm,0.6s						
PDKS	Podkum	150.06	341	*i* PKPbc	PKPdf	11 24 48.5	+6.8
LEGS	Legarje	150.06	341	*i* PKPbc	PKPdf	11 24 48.3	+6.6
HINF	Hinteralfeld	150.13	353	*e*PKP1	PKPdf	11 24 48.1	+6.4
	4.0nm,0.6s						
BOJS	Bojanci	150.48	340	*i* PKPbc	PKPdf	11 24 49.5	+7.2
DAVOX	Davos	150.67	348	PKPbc	PKPdf	11 24 49.9	+7.3
	6.6nm,0.6s,baz=205,slow=2.3,SNR=9.3						
SSF	Saint Saulge	151.16	357	*e*PKP1	PKPdf	11 24 50.7	+7.4
	7.3nm,0.7s						
CABF	La Chapelle	151.41	354	*e*PKP1	PKPdf	11 24 51.8	+8.1
AVF	Avril sur Loir	151.43	357	*e*PKP1	PKPdf	11 24 50.9	+7.2
MFF	Saint Martin d	151.62	3	*e*PKP1	PKPdf	11 24 51.3	+7.3
	5.5nm,0.7s						
BGF	Bois d'Agland	151.68	358	*e*PKP1	PKPdf	11 24 51.8	+7.8
TCF	Toulx Ste Croi	151.97	359	*e*PKP1	PKPdf	11 24 52.2	+7.8
IDI	Anoyia	153.22	314	PKPbc	PKPdf	11 24 56.4	+10
	2.6nm,0.6s,baz=90,slow=7.1,SNR=4.1						

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*NEIC **04** 11:19:51.5,35.01N×3.08W,MG3.3(MDD),After MDD.*

*CSEM **04** 11:19:52.9±0.6,35.21N×3.29W,h0^{km}±6^{km},mb3.3/6, Error ellipse: s-maj=8.7km s-min=3.4km az=28.0*

MDD 04 11:19:51.4±1.6**,35.00N**×**3.08W,mb3.3**/6**,Error ellipse: s-maj=17.6km s-min=7.4km az=136.0,PRXIMO AftershockPLICA,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZAI	Zaio	0.27	96	*i* S	Sg	11 20 16.0	+16
ZAI	Zaio	0.27	96	*i* P	Pg	11 20 14.0	+17
EMEL	Melilla	0.32	18	P	Pg	11 19 56.6	-1.1
	64nm,0.1s,SNR=7.9						
EMEL				S	Sg	11 20 01.8	-0.1
	558nm,0.2s,SNR=8.2						
MELI	Melilla	0.32	21	P	Pg	11 19 57.1	-0.6
MELI				S	Sg	11 20 01.5	-0.4
MELI	Melilla	0.32	21	*e*P	Pg	11 19 57.1	-0.6
EMLI	Melilla	0.32	19	P	Pg	11 19 56.6	-1.1
	64nm,0.1s,SNR=7.9						
EBER	Berja	1.90	4	P	Pn	11 20 23.3	-2.1
	4.5nm,0.6s,SNR=7.8						
EBER				S	Sn	11 20 43.0	-7.4
	21nm,0.6s						
EBER	Berja	1.90	4	P	Pn	11 20 23.3	-2.1
	4.5nm,0.6s,SNR=7.8						
EMIJ	Mijas	2.08	319	P	Pn	11 20 26.1	-2.0
	1.9nm,0.3s,SNR=7.9						
EMIJ				S	Sn	11 20 49.8	-5.3
	6.5nm,0.4s,SNR=7.9						
ELUQ	Luque	2.73	340	P	Pn	11 20 36.3	-1.0
	2.2nm,0.3s,SNR=7.9						
ELUQ				S	Sn	11 21 06.1	-5.4
	1.5nm,0.3s,SNR=7.9						
EQES	Quesada	2.80	0	P	Pn	11 20 37.2	-1.1
	2.4nm,0.2s,SNR=9.3						
EQES				S	Sn	11 21 09.9	-3.3
	8.3nm,0.4s,SNR=9.0						
EQES	Quesada	2.80	0	P	Pn	11 20 37.2	-1.0
	2.4nm,0.2s,SNR=9.3						
EQES				S	Sn	11 21 09.9	-3.3
	8.3nm,0.4s,SNR=9.0						
EHUE	Huescar	2.84	8	P	Pn	11 20 38.7	-0.1
EHUE	Huescar	2.84	8	P	Pn	11 20 38.7	0.0
	0.3nm,0.5s,SNR=4.0						
EADA	Adamuz	3.38	340	P	Pn	11 20 44.2	-2.4
EADA				S	Sn	11 21 22.5	-5.5
EADA	Adamuz	3.38	340	P	Pn	11 20 44.2	-2.4
	2.2nm,0.5s,SNR=8.4						
EADA				S	Sn	11 21 22.5	-5.5
	3.0nm,0.5s						
EADA	Adamuz	3.38	340	P	Pn	11 20 44.2	-2.4
	2.2nm,0.5s,SNR=8.4						
EADA				S	Sn	11 21 22.5	-5.5
	3.0nm,0.5s						
EMIN	Mina Concepcio	4.01	315	P	Pn	11 20 52.8	-2.6
	0.3nm,0.1s,SNR=8.5						
EMIN				S	Sn	11 21 38.9	-4.9
	0.3nm,0.2s						
EMIN	Mina Concepcio	4.01	315	P	Pn	11 20 52.8	-2.6
	0.3nm,0.1s,SNR=8.5						
EMIN				S	Sn	11 21 38.9	-4.9
ESDC	Sonseca Array	4.72	352	P	Pn	11 21 03.0	-2.5
	0.7nm,0.3s,baz=172,slow=12,SNR=4.5						
ESDC	Sonseca Array	4.72	352	P	Pn	11 21 03.0	-2.6

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*IDC **04** 11:23:55.8±1.2,52.63N×32.39W,mb3.9/18,mb1 4.1/19, mb1mx4.0/28,ML4.1/1,Error ellipse: s-maj=39.6km s-min=12.7km az=1.0*

*NEIC **04** 11:23:56.7±0.5,52.51N×32.32W,h10^{km},mb4.2/15,Error ellipse: s-maj=15.7km s-min=5.0km az=190.0*

ISC 04 11:23:55.1±0.6**,52.6N**±0.1×**32.36W**±0.09**,h10**^{km}**,n45,** σ**0**^{s}**84**/42**,mb4.0**/28**,Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EKA	Eskdalemuir Ar	17.35	69	P	P	11 27 58.6	0.0
	0.4nm,0.3s,baz=268,slow=10,SNR=14						
ROSF	Rostrenen	18.93	91	*e*P	P	11 28 13.6	-4.7
	15nm,1.0s						
QUIF	Quistinic	19.17	92	*e*P	P	11 28 16.6	-4.5
GRR	Gorron	20.39	89	*e*P	P	11 28 32.5	-2.0
	15nm,0.9s						
SCHQ	Schefferville	20.41	290	P	P	11 28 33.2	-1.6
	32nm,1.5s,baz=90,slow=13,SNR=2.5						
FLN	La Foliniere	20.47	88	*e*P	P	11 28 33.4	-2.0
	13nm,0.7s						
LDF	La Druitiere	20.75	88	*e*P	P	11 28 37.5	-0.8
	27nm,1.0s						
MFF	Saint Martin d	21.60	93	*e*P	P	11 28 46.3	-0.6
	14nm,1.0s,mb4.1						
FRB	Frobisher Bay	21.79	315	P	P	11 28 48.8	+0.1
	5.7nm,0.8s,mb4.0,baz=44,slow=8.7,SNR=4.4						
BAIF	Baives	22.84	82	*e*P	P	11 28 58.7	-0.4
	37nm,1.2s,mb4.4						
TCF	Toulx Ste Croi	23.18	92	*e*P	P	11 29 02.7	+0.2
GIVF	Givet	23.20	81	*e*P	P	11 29 02.1	-0.5
RJF	Les Rejaudoux	23.24	95	*e*P	P	11 29 03.6	+0.5
BGF	Bois d'Agland	23.44	91	*e*P	P	11 29 05.5	+0.4
	12nm,0.6s,mb4.2						
SSF	Saint Saulge	23.62	89	*e*P	P	11 29 06.3	-0.4
AVF	Avril sur Loir	23.64	90	*e*P	P	11 29 07.4	+0.4
	5.8nm,0.8s,mb3.8						
MEZF	Maizieres J'vi	23.94	85	*e*P	P	11 29 10.1	+0.3
	44nm,0.8s,mb4.6						
SMF	Signal de Mont	24.01	90	*e*P	P	11 29 10.9	+0.3
	14nm,0.8s,mb4.1						
NOA	NORSAR Array B	24.88	53	P	P	11 29 19.1	+0.2
	3.3nm,0.8s,mb3.9,baz=272,slow=9.2,SNR=4.4						
HAU	Haudompre	24.93	85	*e*P	P	11 29 19.2	-0.3
	22nm,1.0s,mb4.3						
HINF	Hinteralfeld	25.32	85	*e*P	P	11 29 22.8	-0.4
	14nm,0.8s,mb4.2						
CDF	Champ du Feu	25.33	83	*e*P	P	11 29 24.4	+1.2
	8.4nm,0.8s,mb4.0						
CABF	La Chapelle	25.40	88	*e*P	P	11 29 25.3	+1.4
	9.2nm,0.8s,mb4.1						
HFS	Hagfors	26.13	55	P	P	11 29 31.3	+0.7
	4.3nm,0.8s,mb4.0,baz=248,slow=7.8,SNR=3.4						
DAVOX	Davos	27.63	85	P	P	11 29 46.5	+2.1
	1.5nm,0.5s,mb3.9,baz=319,slow=18,SNR=3.0						
GERES	GERESS Array B	29.02	79	P	P	11 29 56.6	-0.4
	1.5nm,0.9s,mb3.7,baz=297,slow=9.0,SNR=7.5						
ARCES	ARCESS Array B	31.16	35	P	P	11 30 14.9	-0.9
	4.8nm,1.0s,mb4.3,baz=333,slow=5.4,SNR=4.0						
FINES	FINESS Array B	31.98	51	P	P	11 30 22.4	-0.7
	1.6nm,0.6s,mb4.0,baz=236,slow=6.9,SNR=7.4						
AKASG	Malin Array Be	37.25	68	P	P	11 31 07.5	-0.9
	0.2nm,0.3s,mb3.5,baz=298,slow=8.4,SNR=8.2						
OBN	Obninsk	39.25	58	P	P	11 31 25.0	0.0
YKA	Yellowknife Ar	42.28	317	P	P	11 31 50.0	+0.2
	0.4nm,0.8s,mb3.1,baz=60,slow=9.3,SNR=4.9						
YKA	Yellowknife Ar	42.28	317	P	P	11 31 50.0	+0.2
BRTR	Keskin Array B	45.92	79	P	P	11 32 20.7	+1.3
	10nm,1.1s,mb4.7,baz=306,slow=5.9,SNR=17						
ARU	Arti	49.22	47	*e*P	P	11 32 44.9	-0.1
	9.5nm,1.1s,mb4.7						
PDAR	Pinedale Array	50.54	292	P	P	11 32 54.7	-0.6
	0.6nm,0.5s,mb3.8,baz=55,slow=6.8,SNR=8.7						
ASF	Jabal al Asfar	52.91	84	P	P	11 33 13.5	+0.1
	3.2nm,0.9s,mb4.2,baz=351,slow=20,SNR=3.3						
PV10	Paradox Valley	53.11	287	*e*P	P	11 33 16.0	+1.2
TXAR	Lajitas Array	56.16	275	P	P	11 33 37.1	0.0
	0.2nm,0.7s,mb3.3,baz=50,slow=4.6,SNR=4.3						
BVAR	Borovoye Array	56.64	45	P	P	11 33 40.4	+0.2
	2.4nm,0.7s,mb4.3,baz=307,slow=7.4,SNR=16						
NVAR	Mina Array Bea	58.38	293	P	P	11 33 52.8	+0.1
	0.2nm,0.4s,mb3.5,baz=59,slow=5.3,SNR=2.9						
ZAL	Zalesovo	61.70	37	P	P	11 34 15.7	+0.5
	1.1nm,1.0s,mb4.0,baz=157,slow=4.1,SNR=4.9						
SONM	Songino Array	73.97	28	P	P	11 35 33.0	+1.1
	0.8nm,0.7s,mb3.7,baz=317,slow=4.8,SNR=5.8						
WRA	Warramunga Arr	145.83	23	PKPbc	PKPbc	11 43 35.8	+1.0
	0.7nm,0.7s,baz=347,slow=3.3,SNR=6.7						
ASAR	Alice Springs	149.29	25	PKPbc	PKPdf	11 43 45.4	+2.9
	0.4nm,0.8s,baz=352,slow=2.3,SNR=5.2						
STKA	Stephens Creek	158.85	14	PKPab	PKPab	11 44 32.3	+1.5
	1.2nm,0.7s,baz=243,slow=2.3,SNR=2.8						

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*IDC **04** 11:39:58.6±5.4,20.91N×120.53E,mb3.5/2,mb1 3.8/2, mb1mx3.4/18,MS3.7/1,Ms1 3.7/1,ms1mx2.7/24,Error ellipse: s-maj=482.0km s-min=52.1km az=82.0*

*MAN **04** 11:40:19.1,18.66N×119.86E,h12^{km},mb4.3,ML3.2, MS2.9*

ISC 04 11:40:13.9±1.8**,18.6N**±0.2×**119.53E**±0.09**,h10**^{km}**,n7,** σ**0**^{s}**91**/10**,mb3.4**/2**,1D,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PIP	Pasuquin	1.08	106	⇓*i*P	Pb	11 40 34.4	+0.2
PIP				*i* S	Sb	11 40 47.9	-0.1
ABRA	Dolores	1.49	131	*e*P	Pn	11 40 40.9	+0.1
ABRA				*e*S	Sb	11 41 00.4	+0.4
APYP	Conner	1.80	115	*e*P	Pn	11 40 45.4	+0.1
APYP				*e*S	Sn	11 41 06.8	-1.4
CVP	Callao Caves	2.37	113	*e*P	Pn	11 40 54.0	+0.6
CAUP	Cauayan	2.75	127	*e*P	Pn	11 41 01.7	+2.8
WRA	Warramunga Arr	40.99	158	P	P	11 47 57.9	-0.9
	0.9nm,1.0s,mb3.4,baz=340,slow=8.9,SNR=4.8						
ASAR	Alice Springs	44.32	161	P	P	11 48 25.6	-0.5
	0.5nm,0.7s,mb3.3,baz=347,slow=6.8,SNR=5.4						

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*NIED **04** 11:42:00,37.30N×141.20E,h62^{km},Mw3.8 Best double couple: $M_0$5.67$\times 10^{14}$ NP1:ϕ_s189°,δ89°,λ89°. NP2:ϕ_s31°, δ1°,λ113°.*

*JMA **04** 11:42:22.6±0.1,37.29N×141.15E,h64^{km}±1^{km},M4.0*

JMA Felt II J1.

ISC 04 11:42:22.1±1.3**,37.28N**±0.04×**141.19E**±0.09**,h63**^{km}±8^{km}**, n10,**σ**0**^{s}**34**/20**,6C-2D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JFK	Kawauchi	0.27	289	⇑P	P	11 42 32.7	+0.3
JFK				S	S	11 42 39.9	0.0
ONAJ	Iwakimizuishiy	0.36	240	⇑P	P	11 42 33.5	+0.4
ONAJ				S	S	11 42 41.4	+0.2
JMM	Marumori	0.66	332	P	P	11 42 36.5	+0.3
JMM				*e*S	S	11 42 46.9	+0.2
JFT	Otama	0.72	289	⇑P	P	11 42 37.3	+0.4
JFT				S	S	11 42 48.0	+0.1
JHO	Hitachi	0.83	217	⇑P	P	11 42 38.2	-0.1
JHO				S	S	11 42 49.6	-0.8
JOU	Okura	1.16	339	⇑P	P	11 42 42.7	0.0
JOU				*e*S	S	11 42 57.7	-0.3
JIO	Ouri	1.18	6	⇓P	P	11 42 42.9	0.0
JIO				S	S	11 42 57.8	-0.6
JFY	Yanaizu	1.19	276	⇑P	P	11 42 43.0	-0.1
JFY				*e*S	S	11 42 58.0	-0.7
JYS	Shirataka	1.29	317	⇓P	P	11 42 44.6	0.0
JYS				S	S	11 43 01.4	+0.2
MAT	Matsushiro	2.50	254	P	P	11 43 01.7	+0.3
MAT				*e*S	S	11 43 31.0	+0.2

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*IDC **04** 11:48:45.1±1.0,2.45S×139.86E,mb3.9/4,mb1 4.2/7, mb1mx4.0/15,ML3.7/3,Error ellipse: s-maj=34.8km s-min=15.5km az=100.0*

*NEIC **04** 11:48:46.6±0.5,2.36S×139.96E,h10^{km},mb3.9/2,Error ellipse: s-maj=12.2km s-min=7.7km az=103.0*

ISC 04 11:48:49.7±2.2**,2.56S**±0.07×**140.0E**±0.1**,h45**^{km}±22^{km}**, n19,**σ**1**^{s}**08**/23**,mb3.9**/3**,Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	9.88	134	Pn	P	11 51 10.8	-1.4
	0.4nm,0.3s,baz=311,slow=14,SNR=3.3						
PMG	Port Moresby	9.88	134	Pn	P	11 51 10.8	-1.4
KAKA	Kakadu	12.53	216	*e*P	P	11 51 47.9	-0.2
	17nm,0.4s						
KAKA				*e*S	S	11 54 05.3	-1.9
WRAB	Tennant Creek	18.12	197	*e*P	P	11 53 01.6	+1.8
	7.1nm,0.6s						
WB2	Warramunga Arr	18.12	197	*e*P	P	11 53 00.5	+0.5
WB2				*e*S	S	11 56 16.5	-1.0
WRA	Warramunga Arr	18.13	197	P	P	11 53 00.0	0.0
	0.9nm,0.3s,baz=16,slow=12,SNR=39						
WRA				S	S	11 56 16.4	-1.2
	0.1nm,0.3s,baz=5.0,slow=23,SNR=4.3						
CTA	Charters Tower	18.48	161	P	P	11 53 05.6	+1.2
	0.2nm,0.3s,baz=351,slow=13,SNR=2.9						
CTA	Charters Tower	18.48	161	P	P	11 53 05.6	+1.2
FITZ	Fitzroy Crossi	20.87	221	*e*P	P	11 53 31.4	+0.9
	2.8nm,0.6s						
FITZ				*e*S	S	11 57 18.1	+2.4
FITZ	Fitzroy Crossi	20.87	221	P	P	11 53 30.7	+0.2
	3.6nm,0.6s,baz=40,slow=10,SNR=12						
FITZ				S	S	11 57 17.2	+1.5
	4.5nm,1.0s,baz=180,slow=11,SNR=5.0						
ASAR	Alice Springs	21.79	195	P	P	11 53 41.0	+1.3
	4.5nm,0.8s,mb4.0,baz=25,slow=11,SNR=34						
ASAR				S	S	11 57 41.9	+9.1
	1.3nm,0.8s,baz=19,slow=24,SNR=5.2						
ASPA	Alice Springs	21.79	195	*e*P	P	11 53 40.9	+1.3
ASPA				*e*S	S	11 57 42.7	+10
MBWA	Marble Bar	27.01	225	P	P	11 54 30.1	+0.3
ERM	Erimo	44.46	3	*e*P	P	11 56 57.3	-1.0
BVAR	Borovoye Array	79.90	325	P	P	12 00 55.0	-0.4
	0.5nm,0.4s,mb3.8,baz=143,slow=7.2,SNR=3.7						
ILAR	Eielson Array	85.18	24	P	P	12 01 21.6	-0.7
	1.1nm,1.1s,mb3.9,baz=264,slow=4.5,SNR=6.4						
DBIC	Dimbokro	144.70	278	PKP	PKPdf	12 08 24.0	+1.3
	6.3nm,1.2s,baz=63,slow=2.3,SNR=4.8						
DBIC	Dimbokro	144.70	278	PKP	PKPdf	12 08 24.0	+1.3
LPAZ	La Paz	146.52	125	PKPbc	PKPbc	12 08 30.1	+3.0
	0.4nm,0.4s,baz=225,slow=1.4,SNR=2.3						

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*NEIC **04** 11:52:05.2,34.95N×2.98W,MG3.8(MDD),After MDD.*

*MDD **04** 11:52:05.4±1.3,34.95N×2.97W,mb3.8/9,Error ellipse: s-maj=12.8km s-min=6.7km az=123.0,PRXIMO AftershockPLICA*

*CSEM **04** 11:52:08.8±0.7,35.29N×2.83W,h15^{km},mb3.8/9,Error ellipse: s-maj=14.0km s-min=9.4km az=151.0*

ISC 04 11:52:05.6±1.2**,35.03N**±0.07×**3.13W**±0.05**,h10**^{km}**,n32,** σ**1**^{s}**16**/52**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EMEL	Melilla	0.30	28	P	Pg	11 52 11.6	-0.3
	213nm,0.1s,SNR=11						
EMEL				S	Sg	11 52 16.5	+0.4
	998nm,0.2s,SNR=9.8						
EMLI	Melilla	0.30	29	P	Pg	11 52 11.6	-0.3
	213nm,0.1s,SNR=11						
MELI	Melilla	0.31	31	P	Pg	11 52 12.7	+0.8
MELI				S	Sg	11 52 16.6	+0.4
MELI	Melilla	0.31	31	*e*P	Pg	11 52 12.7	+0.7
MELI				*i* S	Sg	11 52 16.6	+0.4
EBER	Berja	1.87	6	P	Pn	11 52 36.6	-1.5
	7.5nm,0.4s,SNR=8.6						
EBER				S	Sn	11 52 58.1	-3.8
	26nm,0.4s						
EBER	Berja	1.87	6	P	Pn	11 52 36.6	-1.4
	7.5nm,0.4s,SNR=8.6						
EBER				S	Sn	11 52 58.1	-3.8
	26nm,0.4s						
EMIJ	Mijas	2.03	319	P	Pn	11 52 40.5	+0.2
	2.3nm,0.1s,SNR=7.8						
EMIJ				S	Sn	11 53 05.6	-0.4
	8.6nm,0.2s						
EMIJ	Mijas	2.03	319	S	Sn	11 53 05.6	-0.3
	8.6nm,0.2s						

ELOJ	Sierra Loja	2.27	339	P	Pn	11 52 45.6	+1.9
ELOJ				S	Sn	11 53 13.1	+1.1
ELOJ	Sierra Loja	2.27	339	P	Pn	11 52 45.7	+1.9
	5.0nm,0.3s,SNR=6.2						
ELOJ				S	Sn	11 53 13.1	+1.1
	1.5nm,0.2s						
LIJA	Lijar	2.63	316	*i* P	Pn	11 52 51.0	+2.2
LIJA				*e*S	Sn	11 53 25.0	+3.9
ELUQ	Luque	2.69	340	P	Pn	11 52 51.0	+1.4
	4.4nm,0.3s,SNR=9.1						
EQES	Quesada	2.77	1	P	Pn	11 52 51.8	+1.0
	6.2nm,0.2s,SNR=28						
EQES				S	Sn	11 53 25.4	+0.8
	27nm,0.4s						
EQES	Quesada	2.77	1	P	Pn	11 52 51.8	+1.0
	6.2nm,0.2s,SNR=28						
ESPR	Espera	2.87	310	P	Pn	11 52 53.6	+1.2
	1.8nm,0.3s,SNR=7.9						
ESPR				S	Sn	11 53 29.4	+2.1
	2.5nm,0.3s,SNR=5.5						
ESPR	Espera	2.87	310	P	Pn	11 52 53.6	+1.2
	1.8nm,0.3s,SNR=7.9						
ESPR				S	Sn	11 53 29.4	+2.1
	2.5nm,0.3s,SNR=5.5						
EMUR	La Murta	3.19	28	P	Pn	11 52 55.1	-1.8
	9.5nm,0.3s,SNR=14						
EMUR				S	Sn	11 53 27.7	-7.6
	2.8nm,0.3s						
EMUR	La Murta	3.19	28	P	Pn	11 52 55.1	-1.8
	9.5nm,0.3s,SNR=14						
EADA	Adamuz	3.34	340	P	Pn	11 52 59.1	+0.2
	1.4nm,0.1s,SNR=18						
EADA				S	Sn	11 53 37.6	-1.6
	2.2nm,0.6s						
EADA	Adamuz	3.34	340	P	Pn	11 52 59.1	+0.1
	1.4nm,0.1s,SNR=18						
EADA				S	Sn	11 53 37.6	-1.5
	2.2nm,0.6s						
EMIN	Mina Concepcio	3.95	315	P	Pn	11 53 07.7	0.0
	2.1nm,0.2s,SNR=15						
EMIN				S	Sn	11 53 52.6	-2.1
	2.4nm,0.5s						
EMIN	Mina Concepcio	3.95	315	P	Pn	11 53 07.7	0.0
	2.1nm,0.2s,SNR=15						
ESDC	Sonseca Array	4.68	352	P	Pn	11 53 18.0	0.0
	2.4nm,0.2s,baz=172,slow=12,SNR=20						
ESDC				S	Sn	11 54 09.1	-4.0
	1.9nm,0.6s,baz=111,slow=29,SNR=4.4						
ESDC	Sonseca Array	4.68	352	P	Pn	11 53 18.0	0.0
	2.4nm,0.2s,SNR=20						
PBEJ	Beja	4.85	309	*e*Pn	Pn	11 53 20.5	+0.1
PBEJ				*e*Sn	Sn	11 54 16.3	-0.9
PBEJ	Beja	4.85	309	*e*Sn	Sn	11 54 16.3	-0.9
EBAD	Badajoz	4.85	321	P	Pn	11 53 19.2	-1.2
	2.4nm,0.3s,SNR=10.0						
EBAD				S	Sn	11 54 13.7	-3.6
	8.3nm,1.0s						
EBAD	Badajoz	4.85	321	P	Pn	11 53 19.2	-1.2
EBAD				S	Sn	11 54 13.7	-3.6
MOE	Montemor	5.45	311	*e*Pn	Pn	11 53 28.9	0.0
PCBR	Castelo Branco	5.92	326	*e*Pn	Pn	11 53 34.9	-0.6
PVRL	Vila Real	7.20	331	*e*Pn	Pn	11 53 52.5	-1.1
PBRG	Braganca	7.33	338	*e*Pn	Pn	11 53 54.0	-1.4

*IDC **04** 11:55:48.9±1.5,13.80N×96.58E,mb3.6/4,mb1 3.8/5, mb1mx3.5/18,ML3.7/1,Error ellipse: s-maj=59.6km s-min=22.7km az=61.0*

*NEIC **04** 11:55:50.2±0.9,13.83N×96.56E,h10^{km},mb3.9/2,Error ellipse: s-maj=27.0km s-min=13.7km az=67.0*

ISC 04 11:55:51.9±1.1,**13.9N**±0.1×**96.7E**±0.2,**h33**^{km},**n7,**σ**0**^{s}**66**/7, **mb3.7**/6,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	5.05	25	Pn	Pn	11 57 07.2	-0.3
	0.6nm,0.3s,baz=218,slow=15,SNR=7.5						
KURK	Kurchatov	39.55	342	P	P	12 03 21.2	-0.2
	1.4nm,0.8s,mb3.7						
ZAL	Zalesovo	41.05	349	P	P	12 03 35.1	+1.4
	1.1nm,0.8s,mb3.5,baz=319,slow=8.5,SNR=5.5						
CHKZ	Chkalovo	44.71	338	*e*P	P	12 04 03.1	-0.4
	2.1nm,0.8s,mb4.0						
WRA	Warramunga Arr	50.03	131	P	P	12 04 46.2	+0.6
	0.2nm,0.7s,mb3.3,baz=312,slow=8.2,SNR=4.0						
ASAR	Alice Springs	52.14	135	P	P	12 05 00.9	-0.5
	0.3nm,0.6s,mb3.4,baz=316,slow=6.4,SNR=6.1						
FINES	FINESS Array B	68.65	331	P	P	12 06 53.2	-0.4
	1.4nm,0.7s,mb4.0,baz=72,slow=8.8,SNR=4.4						

*NEIC **04** 12:05:17.5±2.4,6.14S×149.81E,h123^{km}±20^{km},mb4.1/2, Error ellipse: s-maj=56.8km s-min=17.8km az=120.0*

*IDC **04** 12:05:18.4±3.7,6.01S×149.53E,h124^{km}±32^{km},mb3.5/6, mb1 3.7/7,mb1mx3.6/15,Error ellipse: s-maj=60.5km s-min=25.6km az=119.0*

ISC 04 12:05:17.0±3.1,**6.0S**±0.3×**149.6E**±0.4,**h127**^{km}±26^{km},**n10,** σ**0**^{s}**78**/11,**mb3.6**/5,**1D,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.14	215	P	P	12 06 19.5	-0.1
	15nm,0.3s,baz=4.1,slow=4.4,SNR=46						
PMG				S	S	12 07 07.8	+0.2
	23nm,0.3s,baz=157,slow=23,SNR=9.0						
WRAB	Tennant Creek	20.27	226	*e*P	P	12 09 44.5	-0.1
	5.0nm,0.6s						
WB2	Warramunga Arr	20.27	226	⇓*i*P	P	12 09 44.5	-0.1
WRA	Warramunga Arr	20.28	226	P	P	12 09 44.2	-0.5
	1.8nm,0.4s,baz=48,slow=11,SNR=39						
ASAR	Alice Springs	23.15	219	P	P	12 10 14.3	+1.3
	1.8nm,0.5s,mb3.6,baz=53,slow=8.9,SNR=16						
FITZ	Fitzroy Crossi	26.28	241	*e*P	P	12 10 41.5	-1.1
	4.6nm,0.7s,mb4.0						
FITZ	Fitzroy Crossi	26.28	241	P	P	12 10 41.1	-1.5
	5.3nm,0.7s,mb4.1,baz=94,slow=3.2,SNR=26						
SONM	Songino Array	65.70	330	P	P	12 15 50.3	+0.1
	0.2nm,0.5s,mb3.2,baz=135,slow=4.1,SNR=2.8						
ILAR	Eielson Array	84.50	23	P	P	12 17 35.8	-0.8
	0.5nm,0.8s,mb3.4,baz=253,slow=5.3,SNR=4.9						
BVAR	Borovoye Array	88.31	324	P	P	12 17 56.7	+1.3
	0.2nm,0.3s,mb3.6,baz=90,slow=8.6,SNR=2.6						

*CNRM **04** 12:09:34.6,34.93N×2.73W,h16^{km},MD3.9*

*NEIC **04** 12:09:35.5,34.97N×3.05W,MG4.0(MDD),After MDD.*

*MDD **04** 12:09:35.4±1.2,34.97N×3.03W,mb4.1/12,Error ellipse: s-maj=11.0km s-min=5.5km az=142.0,PRXIMO AftershockPLICA*

*INMG **04** 12:09:35.7±1.0,35.01N×2.78W,h15^{km}±3^{km},ML2.7,Error ellipse: s-maj=6.2km s-min=4.7km az=118.0*

*CSEM **04** 12:09:35.6±0.3,34.96N×2.93W,h40^{km},MD3.9,Error ellipse: s-maj=7.6km s-min=4.0km az=108.0*

ISC 04 12:09:35.0±0.6,**34.97N**±0.03×**2.98W**±0.05,**h26**^{km}±4^{km}, **n52,**σ**1**^{s}**15**/88,**2C-3D,Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.33	7	⇓P	Pb	12 09 41.5	-0.9
MELI				S	Sb	12 09 46.5	-1.0
EMEL	Melilla	0.33	4	⇓P	Pb	12 09 41.6	-0.9
	672nm,0.4s,SNR=18						
EMEL				S	Sb	12 09 46.7	-0.9
	3μm,0.3s						
TOU	Touzarine	0.63	270	*i* P	Pb	12 09 50.5	+3.1
TOU				*i* S	Sb	12 10 02.5	+6.6
MPAL	Palemas	0.83	288	*i* P	Pb	12 09 53.0	+2.4
MPAL				*i* S	Sb	12 10 06.0	+4.7
EBER	Berja	1.93	2	P	Pn	12 10 06.7	0.0
	1.2nm,0.2s,SNR=8.5						
EBER				S	Sn	12 10 28.8	-1.5
	217nm,0.6s						
EBER	Berja	1.93	2	P	Pn	12 10 06.7	0.0
	1.2nm,0.2s,SNR=8.5						
EBER				S	Sn	12 10 28.8	-1.5
	217nm,0.6s						
ERON	Agron	2.15	342	P	Pn	12 10 09.6	-0.3
	4.7nm,0.3s,SNR=13						
ERON				S	Sn	12 10 36.4	+0.3
	11nm,0.3s						
EMIJ	Mijas	2.16	318	P	Pn	12 10 10.2	+0.2
	11nm,0.4s,SNR=10.0						
EMIJ				S	Sn	12 10 36.4	+0.2
	44nm,0.4s						
ODJA	Bouhanifia	2.35	80	P	Pn	12 10 21.0	+8.2
REAL	Reales	2.36	311	⇑P	Pn	12 10 14.0	+1.1
REAL				S	Sn	12 10 41.0	-0.3
REAL	Reales	2.36	311	*i* P	Pn	12 10 14.0	+1.1
REAL	Reales	2.36	311	*e*S	Sn	12 10 41.0	-0.3
ELOJ	Sierra Loja	2.37	337	P	Pn	12 10 14.3	+1.2
	12nm,0.4s,SNR=15						
ELOJ				S	Sn	12 10 41.4	-0.2
	4.7nm,0.4s,SNR=4.6						
ELOJ	Sierra Loja	2.37	337	S	Sn	12 10 41.4	-0.2
	4.7nm,0.4s,SNR=4.6						
MIF	Mishlifen	2.43	231	*i* P	Pn	12 10 15.0	+1.1
MIF				*i* S	Sn	12 10 42.0	-1.0
CZD	Col de Zad	2.58	222	*i* P	Pn	12 10 16.0	-0.1
CZD				*i* S	Sn	12 10 46.5	-0.4
LIJA	Lijar	2.76	315	⇓P	Pn	12 10 21.7	+3.1
LIJA				S	Sn	12 10 53.0	+1.6
LIJA	Lijar	2.76	315	*e*S	Sn	12 10 53.0	+1.6
LIJA	Lijar	2.76	315	*i* P	Pn	12 10 21.7	+3.1
ELUQ	Luque	2.79	339	P	Pn	12 10 21.1	+2.1
	16nm,0.3s,SNR=29						
ELUQ				S	Sn	12 10 51.8	-0.3
	13nm,0.4s						
EQES	Quesada	2.83	359	P	Pn	12 10 21.7	+2.1
	32nm,0.4s,SNR=42						
EQES				S	Sn	12 10 55.5	+2.3
	93nm,0.4s,SNR=23						
EQES	Quesada	2.83	359	P	Pn	12 10 21.7	+2.1
	32nm,0.4s,SNR=42						
EQES				S	Sn	12 10 55.5	+2.3
	93nm,0.4s,SNR=23						
ESPR	Espera	3.00	310	P	Pn	12 10 23.6	+1.5
	3.9nm,0.3s,SNR=12						
ESPR				S	Sn	12 10 57.7	+0.1
	5.9nm,0.3s						
ESPR	Espera	3.00	310	P	Pn	12 10 23.6	+1.5
	3.9nm,0.3s,SNR=12						
ESPR				S	Sn	12 10 57.7	0.0
	5.9nm,0.3s						
ZFT	Errachidia	3.14	202	*i* P	Pn	12 10 22.0	-2.0
ZFT				*i* S	Sn	12 11 00.0	-1.2
EMUR	La Murta	3.19	26	P	Pn	12 10 25.1	+0.3
	14nm,0.4s,SNR=24						
EMUR				S	Sn	12 10 58.3	-4.1
	65nm,0.9s						
EMUR	La Murta	3.19	26	P	Pn	12 10 25.1	+0.3
	14nm,0.4s,SNR=24						
EMUR				S	Sn	12 10 58.3	-4.1
	65nm,0.9s						
EADA	Adamuz	3.44	339	⇑P	Pn	12 10 29.2	+0.9
	11nm,0.4s,SNR=18						
EADA				S	Sn	12 11 07.5	-1.2
	9.7nm,0.4s						
EADA	Adamuz	3.44	339	P	Pn	12 10 29.2	+0.9
	11nm,0.4s,SNR=18						
EADA				S	Sn	12 11 07.5	-1.2
	9.7nm,0.4s						
EVIA	Vianos	3.68	6	P	Pn	12 10 34.3	+2.5
	13nm,0.5s,SNR=5.6						
EVIA				S	Sn	12 11 14.2	-0.6
	17nm,0.5s,SNR=6.8						
EVIA	Vianos	3.68	6	P	Pn	12 10 34.2	+2.5
EVIA				S	Sn	12 11 14.2	-0.6
	17nm,0.5s,SNR=6.8						
EMIN	Mina Concepcio	4.08	314	P	Pn	12 10 37.5	+0.1
EMIN				S	Sn	12 11 23.3	-1.7
EMIN	Mina Concepcio	4.08	314	P	Pn	12 10 37.5	+0.1
	11nm,0.4s,SNR=41						
EMIN				S	Sn	12 11 23.3	-1.6
	7.0nm,0.5s						
EMIN	Mina Concepcio	4.08	314	P	Pn	12 10 37.5	+0.1
	11nm,0.4s,SNR=41						
EMIN				S	Sn	12 11 23.3	-1.6
	7.0nm,0.5s						
ESDC	Sonseca Array	4.76	351	P	Pn	12 10 47.9	+0.9
	5.0nm,0.3s,baz=172,slow=12,SNR=61						
ESDC				S	Sn	12 11 41.4	-0.7
	baz=168,slow=38,SNR=7.9						
ESDC	Sonseca Array	4.76	351	P	Pn	12 10 47.9	+0.9
	5.0nm,0.3s,SNR=61						
ESDC				S	Sn	12 11 41.4	-0.7
	SNR=7.9						
EBAD	Badajoz	4.97	321	P	Pn	12 10 50.0	0.0
	7.3nm,0.4s,SNR=17						
EBAD				S	Sn	12 11 44.2	-3.1
	8.8nm,0.7s						
EBAD	Badajoz	4.97	321	S	Sn	12 11 44.2	-3.2
	8.8nm,0.7s						
EBAD	Badajoz	4.97	321	P	Pn	12 10 50.0	0.0
	7.3nm,0.4s,SNR=17						
PBEJ	Beja	4.98	309	*e*Pn	Pn	12 10 50.6	+0.5
PBEJ				*e*Sn	Sn	12 11 46.7	-0.8
	5.9nm,0.7s						
PBEJ	Beja	4.98	309	P	Pn	12 10 50.6	+0.5
PBEJ				S	Sn	12 11 46.7	-0.8
	3.0nm,0.7s						
PTEO	Sao Teotonio	5.30	301	*e*Pn	Pn	12 10 55.1	+0.4
PTEO				*e*Sn	Sn	12 11 55.0	-0.7
	8.2nm,0.7s						
PTEO	Sao Teotonio	5.30	301	P	Pn	12 10 55.1	+0.4
PTEO				S	Sn	12 11 55.0	-0.7
	4.1nm,0.7s						
MOE	Montemor	5.58	311	*e*Pn	Pn	12 10 58.8	+0.2
MOE				*e*Sn	Sn	12 12 01.8	-0.9
PCBR	Castelo Branco	6.04	325	*e*Pn	Pn	12 11 04.9	-0.1
	3.0nm,0.1s						
MTE	Manteigas	6.52	328	*e*Pn	Pn	12 11 11.5	-0.3
PVRL	Vila Real	7.32	331	*e*Pn	Pn	12 11 22.6	-0.4
PBRG	Braganca	7.43	338	*e*Pn	Pn	12 11 24.1	-0.6
EINC	Incio	8.40	337	P	P	12 11 35.8	-2.3
	3.3nm,0.4s,SNR=6.2						
EINC	Incio	8.40	337	P	P	12 11 35.8	-2.3
EARI	Arriondas	8.50	349	P	P	12 11 39.0	-0.5
	5.8nm,0.5s,SNR=9.9						
EARI	Arriondas	8.50	349	P	P	12 11 39.0	-0.5

*CSEM **04** 12:11:51.6±0.2,34.79N×2.97W,h15^{km},MD3.6,Error ellipse: s-maj=6.6km s-min=4.0km az=107.0*

*CNRM **04** 12:11:53.4,34.82N×2.79W,h19^{km},MD3.6*

*NEIC **04** 12:11:54.9,34.93N×3.02W,MG3.8(MDD),After MDD.*

*MDD **04** 12:11:55.1±1.5,34.93N×3.00W,h0^{km}±9^{km},mb3.8/9, Error ellipse: s-maj=16.9km s-min=9.2km az=106.0, PRXIMO AftershockPLICA*

ISC 04 12:11:52.8±0.8,**34.84N**±0.03×**2.92W**±0.06,**h21**^{km}±5^{km}, **n32,**σ**1**^{s}**32**/51,**Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.19	46	*i* P	Pb	12 11 58.0	0.0
MELI	Melilla	0.46	358	P	Pb	12 12 01.8	-0.3
MELI				S	Sb	12 12 06.9	-1.6
MELI	Melilla	0.46	358	*i* P	Pb	12 12 01.8	-0.3
EMEL	Melilla	0.46	356	P	Pb	12 12 01.6	-0.6
	108nm,0.1s						
EMEL				S	Sb	12 12 06.9	-1.7
	377nm,0.1s,SNR=8.4						
EMLI	Melilla	0.46	357	P	Pb	12 12 01.6	-0.6
	108nm,0.1s						
TOU	Touzarine	0.70	281	*i* P	Pb	12 12 08.0	+1.8
TOU				*i* S	Sb	12 12 18.0	+2.6
EBER	Berja	2.06	1	P	Pn	12 12 27.2	+0.3
	7.8nm,0.4s						
EBER				S	Sn	12 12 49.5	-2.6
	51nm,0.4s						
EBER	Berja	2.06	1	S	Sn	12 12 49.5	-2.6
	51nm,0.4s						
EBER	Berja	2.06	1	P	Pn	12 12 27.2	+0.3
	7.8nm,0.4s						
EMIJ	Mijas	2.29	319	P	Pn	12 12 30.6	+0.4
	2.1nm,0.1s						
EMIJ				S	Sn	12 12 55.5	-2.6
	17nm,0.4s						
ERON	Agron	2.29	342	P	Pn	12 12 30.8	+0.5
	4.3nm,0.3s						
ERON				S	Sn	12 12 57.7	-0.4
	6.1nm,0.4s,SNR=7.9						
MIF	Mishlifen	2.39	234	*e*P	Pn	12 12 30.0	-1.6
MIF				*i* S	Sn	12 13 00.0	-0.5
ELOJ	Sierra Loja	2.52	337	P	Pn	12 12 34.5	+1.2
	9.5nm,0.3s						
ELOJ				S	Sn	12 13 04.4	+0.7
	4.3nm,0.5s,SNR=7.5						
LIJA	Lijar	2.89	316	P	Pn	12 12 41.2	+2.5
ELUQ	Luque	2.93	339	P	Pn	12 12 40.9	+1.6
	11nm,0.3s,SNR=5.0						
ELUQ				S	Sn	12 13 13.6	-0.6
	1.8nm,0.2s,SNR=8.2						
EQES	Quesada	2.96	358	P	Pn	12 12 41.5	+1.7
	13nm,0.3s,SNR=6.8						
EQES				S	Sn	12 13 16.0	+0.9
	37nm,0.5s						
EQES	Quesada	2.96	358	P	Pn	12 12 41.5	+1.7
	13nm,0.3s,SNR=6.8						
EQES				S	Sn	12 13 16.0	+0.9
	37nm,0.5s						
ZFT	Errachidia	3.04	204	*e*P	Pn	12 12 40.0	-0.9
ZFT				*i* S	Sn	12 13 14.0	-3.1
ESPR	Espera	3.13	311	P	Pn	12 12 42.9	+0.8
	1.8nm,0.2s						
ESPR				S	Sn	12 13 19.0	-0.4
	10nm,0.6s						
ESPR	Espera	3.13	311	P	Pn	12 12 42.9	+0.7
	1.8nm,0.2s						
ESPR				S	Sn	12 13 19.0	-0.4
	10nm,0.6s						
EMUR	La Murta	3.29	24	P	Pn	12 12 45.4	+1.0
	10nm,0.3s,SNR=5.9						
EMUR				S	Sn	12 13 19.0	-4.4
	14nm,0.4s						
EMUR	La Murta	3.29	24	P	Pn	12 12 45.4	+1.0
	10nm,0.3s,SNR=5.9						
EADA	Adamuz	3.58	339	P	Pn	12 12 48.8	+0.2
	1.8nm,0.4s,SNR=4.8						
EADA				S	Sn	12 13 27.5	-3.2
	7.0nm,0.5s						
EADA	Adamuz	3.58	339	P	Pn	12 12 48.8	+0.2
	1.8nm,0.4s,SNR=4.8						
EADA				S	Sn	12 13 27.5	-3.3
	7.0nm,0.5s						
EVIA	Vianos	3.81	5	P	Pn	12 12 53.7	+1.9
	2.3nm,0.3s						
EMIN	Mina Concepcio	4.21	315	P	Pn	12 12 56.8	-0.7
	1.7nm,0.3s						
EMIN				S	Sn	12 13 42.1	-4.6
	1.5nm,0.4s						
EMIN	Mina Concepcio	4.21	315	S	Sn	12 13 42.1	-4.7
	1.5nm,0.4s						
EMIN	Mina Concepcio	4.21	315	P	Pn	12 12 56.8	-0.7
	1.7nm,0.3s						
ESDC	Sonseca Array	4.90	351	P	Pn	12 13 08.2	+0.9
	6.7nm,0.1s,baz=173,slow=12,SNR=5.5						
ESDC	Sonseca Array	4.90	351	P	Pn	12 13 08.2	+0.9
EBAD	Badajoz	5.11	321	P	Pn	12 13 09.4	-0.8
	1.6nm,0.1s,SNR=8.4						
EBAD				S	Sn	12 14 04.4	-5.0
	2.0nm,0.3s						
EBAD	Badajoz	5.11	321	P	Pn	12 13 09.4	-0.8

*IDC **04** 12:22:15.7±1.2,30.15N×139.17E,h399^{km}±15^{km}, mb3.3/11,mb1 3.4/14,mb1mx3.2/26,Error ellipse: s-maj=31.9km s-min=11.5km az=78.0*

*NEIC **04** 12:22:15.8±0.7,30.15N×139.13E,h400^{km}±9^{km},mb4.0/6, Error ellipse: s-maj=24.3km s-min=7.3km az=79.0*

*JMA **04** 12:22:15.1±0.1,30.15N×139.53E,h417^{km},M4.0*

ISC 04 12:22:14.7±0.4,**30.09N**±0.05×**139.3E**±0.1,**h410**^{km}±6^{km}, **n44,**σ**0**^{s}**89**/56,**mb3.8**/17,**1C,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	3.05	8	P	P	12 23 20.5	+1.1
JHJ2				*e*S	S	12 24 10.1	-0.3
JHJ	Hachijo jima 2	3.05	8	P	P	12 23 19.9	+0.4
	11nm,0.3s,baz=48,slow=15,SNR=8.6						
JHJ				S	S	12 24 07.8	-2.6
	63nm,0.3s,baz=62,slow=23,SNR=15						
CBIJ	Chichi jima	3.91	139	P	P	12 23 26.6	-0.4
	15nm,0.3s,baz=287,slow=21,SNR=8.3						
CBIJ				S	S	12 24 22.7	-1.3
	221nm,0.3s,baz=252,slow=22,SNR=8.5						
CBIJ	Chichi jima	3.91	139	P	P	12 23 27.5	+0.4
CBIJ				*e*S	S	12 24 22.8	-1.2
BSO1	Boso 1	4.77	17	P	P	12 23 35.8	+0.3
BSO1				*e*S	S	12 24 39.0	+0.1
BSO3	Boso 3	4.81	12	P	P	12 23 35.9	0.0
BSO3				*e*S	S	12 24 39.5	-0.1
JIE	Ise	4.82	334	P	P	12 23 37.3	+1.3
BSO4	Boso 4	4.97	10	P	P	12 23 40.1	+2.6
BSO4				*e*S	S	12 24 42.3	-0.1
JOD2	Odawara 2	5.17	358	P	P	12 23 39.5	0.0
JOD2				*e*S	S	12 24 46.2	+0.2
JNY	Yasuok	5.40	347	P	P	12 23 42.9	+1.0
JAO	Obara	5.45	342	P	P	12 23 43.6	+1.2
JEG	Eigenji	5.60	335	P	P	12 23 45.8	+1.8
JHU	Hanno	5.75	360	P	P	12 23 44.4	-1.2
JRY	Ryogami san	5.92	357	P	P	12 23 47.2	-0.3
JYT	Yasato	6.17	7	P	P	12 23 49.2	-1.0
JYT				*e*S	S	12 25 00.9	-4.4
MAJO	Matsushiro	6.50	352	*e*P	P	12 23 52.9	-0.9
	16nm,0.3s						
MAT	Matsushiro	6.50	352	P	P	12 23 52.9	-1.0
MAT				S	S	12 25 12.9	+0.9
MAT	Matsushiro	6.50	352	*e*P	P	12 23 53.0	-0.9
	7.0nm,0.5s						
MAT				*e*S	S	12 25 13.0	+1.0
JMK	Ichinoseki	8.99	10	P	P	12 24 22.5	+0.5
JMK				*e*S	S	12 26 01.5	-1.2
ASAJ	Asahikawa	14.25	10	P	P	12 25 22.1	+1.0
	0.5nm,0.3s,baz=180,slow=9.1,SNR=3.7						
CMAR	Chiang Mai Arr	38.38	262	P	P	12 28 59.6	-0.3
	1.1nm,0.7s,mb3.3,baz=61,slow=5.4,SNR=8.5						
GUN	Gumba	46.42	281	*e*P	P	12 30 04.0	-0.2
	19nm,0.7s,mb4.5						
PKI	Pulchoki	46.91	281	*e*P	P	12 30 07.0	-1.0
KKN	Kakani	46.96	281	*e*P	P	12 30 07.7	-0.7
	8.6nm,0.7s,mb4.2						
DMN	Daman	47.16	281	*e*P	P	12 30 09.7	-0.2
KOLN	Koldanda	48.39	282	*e*P	P	12 30 18.7	-0.6
	15nm,0.8s,mb4.4						
KURK	Kurchatov	49.09	313	*e*P	P	12 30 23.4	-0.8
FITZ	Fitzroy Crossi	49.68	197	⇑*i*P	P	12 30 29.8	+0.7
	2.8nm,0.8s,mb3.6						
FITZ	Fitzroy Crossi	49.68	197	P	P	12 30 29.3	+0.2
	3.0nm,0.8s,mb3.7,baz=351,slow=4.2,SNR=9.3						
WRAB	Tennant Creek	49.95	186	*e*P	P	12 30 31.3	+0.2
	2.9nm,0.7s,mb3.7						
WB2	Warramunga Arr	49.96	186	*e*P	P	12 30 31.5	+0.3
WRA	Warramunga Arr	49.97	186	P	P	12 30 31.4	+0.2
	1.2nm,0.4s,mb3.6,baz=0.1,slow=7.6,SNR=88						
WRA				PcP	PcP	12 31 44.5	0.0
	0.4nm,0.3s,baz=360,slow=4.1,SNR=6.8						
ASAR	Alice Springs	53.69	186	P	P	12 30 58.8	+0.2
	1.4nm,0.7s,mb3.3,baz=23,slow=11,SNR=23						
CHKZ	Chkalovo	53.96	317	*e*P	P	12 30 58.6	-1.4
BVAR	Borovoye Array	54.13	316	P	P	12 31 00.3	-1.0
	0.8nm,0.6s,mb3.1,baz=108,slow=9.1,SNR=3.1						
MBWA	Marble Bar	54.31	203	*e*P	P	12 31 02.5	-0.5
	4.8nm,0.8s,mb3.8						
STKA	Stephens Creek	61.66	178	P	P	12 31 53.8	+1.0
	1.7nm,0.8s,mb3.7,baz=12,slow=8.1,SNR=6.5						
NWAO	Narrogin (SRO)	66.06	200	*e*P	P	12 32 21.3	+0.3
	15nm,1.0s,mb4.6						
FINES	FINESS Array B	74.15	333	P	P	12 33 07.4	-1.2
	2.9nm,0.9s,mb3.9,baz=90,slow=1.9,SNR=4.2						
AKASG	Malin Array Be	78.71	322	P	P	12 33 34.0	+0.1
	0.4nm,0.3s,mb3.5,baz=54,slow=5.3,SNR=5.9						
HFS	Hagfors	79.67	336	P	P	12 33 39.3	+0.5
	1.6nm,0.8s,mb3.7,baz=288,slow=4.7,SNR=4.4						
NOA	NORSAR Array B	79.89	337	P	P	12 33 41.1	+1.2
	0.6nm,0.6s,mb3.4,baz=51,slow=4.6,SNR=2.7						
NOA	NORSAR Array B	79.89	337	P	P	12 33 41.1	+1.2
BRTR	Keskin Array B	82.12	311	P	P	12 33 52.9	+1.0
	1.8nm,0.8s,mb3.9,baz=94,slow=2.9,SNR=5.5						

*NEIC **04** 12:32:40.7,47.04N×1.48E,h4^{km},ML2.6(LDG), ML2.5(STR),After LDG.*

*CSEM **04** 12:32:40.7±0.0,47.04N×1.48E,h5^{km},ML2.7/22,Error ellipse: s-maj=0.7km s-min=0.5km az=27.0*

*STR **04** 12:32:42.7±0.5,46.95N×1.54E,h5^{km}±1^{km},Ml2.5,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 04 12:32:40.7±0.0,**47.04N×1.48E,h4**^{km},**Md2.9**/2,**Ml2.6**/24, **Error ellipse: s-maj=0.7km s-min=0.5km az=28.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYF	Humbligny	0.82	74	*e*Pg	Pg	12 32 56.1	-1.1

HYF				*e*Sg	Sg	12 33 07.3	-0.8
TCF	**Toulx Ste Croi**	**0.91**	**146**	*e*Pg	Pg	12 32 58.3	-0.5
TCF				*e*Pn	Pn	12 32 58.8	-1.2
TCF				*e*Sg	Sg	12 33 09.5	-1.4
	18nm,0.2s						
TCF	**Toulx Ste Croi**	**0.91**	**146**	*e*Pn	Pn	12 32 58.8	-1.2
TCF				*e*Sg	Sg	12 33 09.5	-1.4
	9.2nm,0.2s						
BGF	**Bois d'Agland**	**1.06**	**117**	*e*Pg	Pg	12 33 00.3	-1.5
BGF				*e*Pn	Pn	12 33 00.7	-1.4
BGF				*e*Sg	Sg	12 33 14.1	-1.8
	36nm,0.2s						
BGF	**Bois d'Agland**	**1.06**	**117**	*e*Pn	Pn	12 33 00.7	-1.4
BGF				*e*Sg	Sg	12 33 14.1	-1.8
	18nm,0.2s						
MFF	**Saint Martin d**	**1.20**	**249**	*e*Pn	Pn	12 33 02.5	-1.7
MFF				*e*Pg	Pg	12 33 03.9	-0.8
MFF				*e*Sg	Sg	12 33 18.7	-1.9
	19nm,0.2s						
MFF	**Saint Martin d**	**1.20**	**249**	*e*Pg	Pg	12 33 03.9	-0.8
MFF				*e*Sg	Sg	12 33 18.7	-1.9
	9.6nm,0.2s						
AVF	**Avril sur Loir**	**1.31**	**100**	*e*Pn	Pn	12 33 03.9	-1.9
AVF				*e*Pg	Pg	12 33 05.1	-1.7
AVF				*e*Sn	Sn	12 33 20.6	-3.2
AVF				*e*Sg	Sg	12 33 22.0	-2.3
	21nm,0.2s						
AVF	**Avril sur Loir**	**1.31**	**100**	*e*Pg	Pg	12 33 05.1	-1.7
AVF				*e*Sn	Sn	12 33 20.6	-3.2
AVF				*e*Sg	Sg	12 33 22.0	-2.3
	11nm,0.2s						
SSF	**Saint Saulge**	**1.39**	**88**	*e*Pn	Pn	12 33 05.2	-1.7
SSF				*e*Pg	Pg	12 33 06.6	-1.8
SSF				*e*Sn	Sn	12 33 22.8	-3.0
SSF				*e*Sg	Sg	12 33 24.5	-2.3
	17nm,0.3s						
SSF	**Saint Saulge**	**1.39**	**88**	*e*Pg	Pg	12 33 06.6	-1.8
SSF				*e*Sn	Sn	12 33 22.8	-3.0
SSF				*e*Sg	Sg	12 33 24.5	-2.3
	8.3nm,0.3s						
AGO	**Saint Agoulin**	**1.51**	**130**	Pg	Pg	12 33 09.7	-1.1
AGO				Sg	Sg	12 33 29.5	-1.4
SMF	**Signal de Mont**	**1.67**	**103**	*e*Pn	Pn	12 33 09.4	-1.5
SMF				*e*Pg	Pg	12 33 11.6	-2.4
SMF				*e*Sn	Sn	12 33 29.4	-3.6
SMF				*e*Sg	Sg	12 33 33.1	-3.2
	14nm,0.2s						
SMF	**Signal de Mont**	**1.67**	**103**	*e*Pg	Pg	12 33 11.6	-2.4
SMF	**Signal de Mont**	**1.67**	**103**	*e*Sn	Sn	12 33 29.4	-3.6
SMF				*e*Sg	Sg	12 33 33.1	-3.2
	6.8nm,0.2s						
PYM	**Petit Puy Mans**	**1.67**	**140**	Pg	Pg	12 33 12.6	-1.4
RJF	**Les Rejaudoux**	**1.74**	**179**	*e*Pn	Pn	12 33 09.9	-2.0
RJF				*e*Pg	Pg	12 33 13.1	-2.3
RJF				*e*Sn	Sn	12 33 31.0	-3.7
RJF				*e*Sg	Sg	12 33 35.4	-3.1
	20nm,0.3s						
RJF	**Les Rejaudoux**	**1.74**	**179**	*e*Pg	Pg	12 33 13.1	-2.3
RJF				*e*Sn	Sn	12 33 31.0	-3.7
RJF				*e*Sg	Sg	12 33 35.4	-3.1
	9.9nm,0.3s						
PLDF	**La Plantade**	**1.83**	**125**	Pg	Pg	12 33 15.2	-2.0
LDF	**La Druitiere**	**1.89**	**326**	*e*Pn	Pn	12 33 12.1	-2.0
LDF				*e*Sg	Sg	12 33 40.6	-3.1
	3.4nm,0.2s						
GRR	**Gorron**	**2.08**	**311**	*e*Pn	Pn	12 33 14.6	-2.1
GRR				*e*Pg	Pg	12 33 19.4	-2.8
GRR				*e*Sn	Sn	12 33 39.2	-4.2
GRR				*e*Sg	Sg	12 33 46.5	-3.3
	5.4nm,0.2s						
GRR	**Gorron**	**2.08**	**311**	*e*Pg	Pg	12 33 19.4	-2.8
GRR				*e*Sn	Sn	12 33 39.2	-4.2
GRR				*e*Sg	Sg	12 33 46.5	-3.3
	2.7nm,0.2s						
CAF	**Calviac**	**2.15**	**169**	*e*Pn	Pn	12 33 15.7	-2.2
CAF				*e*Pg	Pg	12 33 20.7	-3.0
CAF				*e*Sn	Sn	12 33 41.4	-4.0
CAF				*e*Sg	Sg	12 33 48.6	-3.8
	8.4nm,0.2s						
CAF	**Calviac**	**2.15**	**169**	*e*Pg	Pg	12 33 20.7	-3.0
CAF				*e*Sn	Sn	12 33 41.4	-4.0
CAF				*e*Sg	Sg	12 33 48.6	-3.8
	4.2nm,0.2s						
LFF	**La Frestale**	**2.16**	**194**	*e*Pg	Pg	12 33 20.7	-3.2
LFF				*e*Sg	Sg	12 33 48.7	-4.1
	14nm,0.4s						
FLN	**La Foliniere**	**2.17**	**323**	*e*Pn	Pn	12 33 16.0	-2.1
FLN				*e*Pg	Pg	12 33 21.0	-3.0
FLN				*e*Sg	Sg	12 33 48.6	-4.4
	3.6nm,0.2s						
FLN	**La Foliniere**	**2.17**	**323**	*e*Pg	Pg	12 33 21.0	-3.0
FLN				*e*Sg	Sg	12 33 48.6	-4.4
	1.8nm,0.2s						
LBL	**Lubilhac**	**2.19**	**145**	Pg	Pg	12 33 22.1	-2.3
MEZF	**Maizieres J'vi**	**2.82**	**57**	*e*Pn	Pn	12 33 24.8	-2.6
MEZF				*e*Pg	Pg	12 33 33.0	-4.0
MEZF				*e*Sn	Sn	12 33 56.7	-5.5
MEZF				*e*Sg	Sg	12 34 09.3	-5.2
	4.8nm,0.4s						
MEZF	**Maizieres J'vi**	**2.82**	**57**	*e*Pg	Pg	12 33 33.0	-4.0
MEZF				*e*Sn	Sn	12 33 56.7	-5.5
MEZF				*e*Sg	Sg	12 34 09.3	-5.2
	2.4nm,0.4s						
SGMF	**Saint Gilles**	**2.99**	**295**	*e*Pn	Pn	12 33 27.4	-2.4
SGMF				*e*Sn	Sn	12 34 00.6	-5.9
SGMF				*e*Sg	Sg	12 34 14.2	-5.9
	2.5nm,0.2s						
VIVF	**Saint-Julien-l**	**3.12**	**133**	*e*Pn	Pn	12 33 28.9	-2.8
VIVF				*e*Pg	Pg	12 33 39.0	-4.0
VIVF				*e*Sg	Sg	12 34 18.0	-6.6
	2.4nm,0.3s						
VIVF	**Saint-Julien-l**	**3.12**	**133**	*e*Pg	Pg	12 33 39.0	-4.0
VIVF				*e*Sg	Sg	12 34 18.0	-6.6
	1.2nm,0.3s						
CABF	**La Chapelle**	**3.19**	**96**	*e*Sn	Sn	12 34 05.8	-5.9
CABF				*e*Sg	Sg	12 34 21.3	-5.7
	2.0nm,0.3s						
QUIF	**Quistinic**	**3.27**	**287**	*e*Pn	Pn	12 33 30.4	-3.4
QUIF				*e*Sn	Sn	12 34 07.6	-6.1
QUIF				*e*Sg	Sg	12 34 23.3	-6.3
	2.6nm,0.2s						
LASF	**Ste Croix**	**3.40**	**150**	*e*Pn	Pn	12 33 32.7	-3.0
LASF				*e*Pg	Pg	12 33 43.7	-4.9
LASF	**Ste Croix**	**3.40**	**150**	*e*Pg	Pg	12 33 43.7	-4.9
HAU	**Haudompre**	**3.44**	**72**	*e*Pn	Pn	12 33 33.2	-3.0
HAU				*e*Pg	Pg	12 33 45.6	-3.7
HAU				*e*Sn	Sn	12 34 11.5	-6.4
HAU				*e*Sg	Sg	12 34 27.3	-7.8
	4.0nm,0.3s						
HAU	**Haudompre**	**3.44**	**72**	*e*Pg	Pg	12 33 45.6	-3.7
HAU				*e*Sn	Sn	12 34 11.5	-6.4
HAU				*e*Sg	Sg	12 34 27.3	-7.8
	2.0nm,0.3s						
ROSF	**Rostrenen**	**3.46**	**294**	*e*Pn	Pn	12 33 33.2	-3.3
ROSF				*e*Sn	Sn	12 34 12.1	-6.4
ROSF				*e*Sg	Sg	12 34 29.3	-6.7
	1.2nm,0.3s						
HINF	**Hinteralfeld**	**3.73**	**76**	*e*Sn	Sn	12 34 18.4	-6.9
HINF				*e*Sg	Sg	12 34 37.9	-7.0
	4.3nm,0.2s						
MTLF	**Montolieu**	**3.74**	**172**	*e*Sg	Sg	12 34 37.6	-7.5
	3.5nm,0.5s						
EPF	**Esparros**	**4.09**	**192**	*e*Pn	Pn	12 33 41.5	-3.9
EPF				*e*Sn	Sn	12 34 27.5	-6.9
	4.3nm,0.7s						
CDF	**Champ du Feu**	**4.15**	**69**	*e*Sg	Sg	12 34 50.8	-7.9
	1.9nm,0.3s						
ETSF	**Etsaut**	**4.39**	**200**	*e*Pn	Pn	12 33 46.7	-3.0
ETSF				*e*Pg	Pg	12 34 01.3	-7.0
ETSF	**Etsaut**	**4.39**	**200**	*e*Pg	Pg	12 34 01.3	-7.0

KRSC 04 12:33:33.4±0.7**, 56.21N**×**162.64E, h26**^{km}±2^{km}**, ML3.9, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KBTR	**Krutoberegovo**	**0.10**	**91**	*i* P	Pb	12 33 38.7	+0.5
KBTR				*e*S	Sb	12 33 42.4	+1.0
SVLR	**Shiveluch**	**0.87**	**296**	*i* P	Pb	12 33 49.6	-0.2
SVLR				*e*S	Sb	12 34 01.6	+0.5
ZLN	**Zelenaya**	**1.05**	**260**	*i* P	Pn	12 33 52.8	+0.3
ZLN				*i* S	Sb	12 34 07.1	+1.0
CIRR	**Tsirk**	**1.06**	**266**	*i* P	Pn	12 33 53.0	+0.2
CIRR				*e*S	Sb	12 34 06.3	-0.3
LGNR	**Loginova**	**1.10**	**264**	*i* P	Pn	12 33 53.7	+0.4
LGNR				*i* S	Sb	12 34 08.2	+0.6
KLY	**Klyuchi**	**1.11**	**276**	*i* P	Pn	12 33 51.6	-1.9
KLY				*i* S	Sb	12 34 04.8	-3.2
KRSR	**Krestovskiy**	**1.16**	**271**	*e*P	Pn	12 33 53.9	-0.2
KRSR				*e*S	Sn	12 34 08.1	-1.1
KPT	**Kopyto**	**1.38**	**261**	*e*P	Pn	12 33 57.6	+0.3
KPT				*e*S	Sn	12 34 15.7	+0.9
KMNR	**Kamenistaya**	**1.43**	**252**	*i* P	Pn	12 33 58.8	+0.8
KMNR				*e*S	Sn	12 34 17.1	+1.1
KOZ	**Kozyrevsk**	**1.56**	**266**	*i* P	Pn	12 34 00.9	+1.1
KOZ				*i* S	Sn	12 34 21.9	+2.6
SRDR	**Sredinnyy**	**1.63**	**275**	*e*P	Pn	12 34 02.0	+1.1
SRDR				*e*S	Sn	12 34 22.6	+1.3
TUMR	**Tumrok**	**1.69**	**238**	*i* P	Pn	12 34 02.9	+1.2
TUMR				*e*S	Sn	12 34 23.7	+1.0
ESO	**Esso**	**2.23**	**264**	*i* P	Pn	12 34 10.3	+0.9
ESO				*e*S	Sn	12 34 37.9	+1.5
ESO				Smax			
	120nm,0.8s						
SPN	**Mys Shipunski**	**3.47**	**207**	*e*P	Pn	12 34 26.3	-0.8
SPN				*e*S	Sn	12 35 05.1	-2.7
NLC	**Nalytchevo**	**3.60**	**213**	*e*P	Pn	12 34 29.1	+0.2
NLC				*i* S	Sn	12 35 09.5	-1.5
SDLR	**Sedlovina**	**3.66**	**218**	*e*P	Pn	12 34 30.0	+0.2
SDLR				*e*S	Sn	12 35 11.2	-1.4
SMAR	**Somma**	**3.70**	**219**	*e*P	Pn	12 34 31.0	+0.7
SMAR				*e*S	Sn	12 35 12.5	-1.1
GNL	**Ganaly**	**3.70**	**229**	*e*P	Pn	12 34 30.3	-0.1
GNL				*e*S	Sn	12 35 11.0	-2.7
AVH	**Avacha**	**3.72**	**219**	*e*P	Pn	12 34 31.2	+0.6
AVH				*e*S	Sn	12 35 14.0	-0.1
KOK	**Koryaka**	**3.73**	**220**	*e*P	Pn	12 34 32.1	+1.3
KOK				*e*S	Sn	12 35 14.6	+0.1
UGLR	**Uglovaya**	**3.73**	**218**	*e*P	Pn	12 34 31.3	+0.4
UGLR				*e*S	Sn	12 35 13.6	-0.9
PET	**Petropavlovsk**	**3.94**	**218**	*e*P	Pn	12 34 34.1	+0.2
PET				*e*S	Sn	12 35 19.0	-0.9
RUS	**Russkaya**	**4.49**	**214**	*e*P	Pn	12 34 41.3	-0.3
RUS				*e*S	Sn	12 35 30.0	-3.7
GRL	**Gorelyy**	**4.53**	**218**	*e*P	Pn	12 34 43.2	+1.0
GRL				*e*S	Sn	12 35 34.3	-0.5

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*IDC **04** 12:37:29.6±1.5, 13.66N×97.09E, mb3.9/4, mb1 3.9/5, mb1mx3.7/19, ML3.4/1, Error ellipse: s-maj=59.7km s-min=29.3km az=62.0*

ISC 04 12:37:42.4±2.0**, 15.7N**±0.3×**95.8E**±0.1**, h10**^{km}**, n13,** σ**0**^{s}**75**/12**, mb3.9**/3**, Near south coast of Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**4.06**	**47**	Pn	**Pn**	**12 38 47.0**	**+0.8**
	0.3nm,0.3s,baz=225,slow=15,SNR=3.8						
NST	**Nakhon Sawan**	**4.17**	**90**	P	**Pg**	**12 39 05.0**	**-0.7**
NNT	**Nongplab**	**4.91**	**129**	P	**Pn**	**12 38 53.5**	**-4.7**
NANT	**Nan**	**5.60**	**56**	P	**Sg**	**12 40 42.0**	**-6.9**
GUN	**Gumba**	**15.23**	**325**	*e*P	**P**	**12 41 19.1**	**-0.3**
PKI	**Pulchoki**	**15.24**	**322**	*e*P	**P**	**12 41 19.0**	**-0.6**
	3.7nm,0.4s						
KKN	**Kakani**	**15.48**	**323**	*e*P	**P**	**12 41 23.0**	**+0.3**
GKN	**Gorkha**	**16.02**	**322**	*e*P	**P**	**12 41 29.1**	**-0.5**
	9.4nm,0.3s						
KOLN	**Koldanda**	**16.50**	**319**	*e*P	**P**	**12 41 35.5**	**-0.1**
ZAL	**Zalesovo**	**39.11**	**350**	P	**P**	**12 45 17.9**	**+6.3**
	0.9nm,0.5s,mb3.7,baz=319,slow=5.3,SNR=4.3						
ASAR	**Alice Springs**	**54.02**	**136**	P	Px	12 46 38.9	
	0.4nm,0.9s,baz=315,slow=7.0,SNR=4.7						
HFS	**Hagfors**	**72.60**	**329**	P	**P**	**12 49 11.3**	**-0.4**
	6.6nm,1.1s,mb4.5,baz=90,slow=4.4,SNR=4.4						
GERES	**GERESS Array B**	**73.18**	**317**	P	**P**	**12 49 17.0**	**+1.7**
	0.8nm,0.9s,mb3.6,baz=76,slow=5.5,SNR=3.7						

DJA 04 12:38:56.6±0.9**, 8.60S**×**112.34E, h133**^{km}±13^{km}**, MD4.7**/4**, ML4.3**/4**, 6C-4D, Error ellipse: s-maj=62.2km s-min=18.8km az=4.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**1.78**	**86**	⇑*e*Pn	P	12 39 28.1	-0.4
	157nm,0.2s						
SRDI	**Scrawed**	**1.78**	**86**	⇑*i*P	P	12 39 28.8	+0.3
SRDI				⇑*i*Sn	S	12 39 50.8	-2.1
KELI	**Kelakatan**	**2.16**	**80**	⇑*i*Pn	P	12 39 33.1	-0.1
	111nm,0.2s						
KELI	**Kelakatan**	**2.16**	**80**	⇓*i*P	P	12 39 33.8	+0.6
KELI				⇑*i*Sn	S	12 39 59.5	-1.5
RATI	**Rata**	**3.15**	**93**	⇓*i*Pn	P	12 39 46.2	0.0
	225nm,0.2s						
RATI				⇓*i*Sn	S	12 40 22.8	-1.2
KEDI	**Kedomdong**	**3.73**	**89**	⇑*i*Pn	P	12 39 52.7	-1.1
	42nm,0.2s						
KEDI				⇓*i*Sn	S	12 40 34.0	-3.6

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*IDC **04** 12:50:11.3±6.8, 18.55S×177.72W, h467^{km}±80^{km}, mb3.3/12, mb1 3.5/12, mb1mx3.4/19, Error ellipse: s-maj=27.1km s-min=19.2km az=17.0*

*NEIC **04** 12:50:13.8±0.6, 18.63S×177.75W, h500^{km}, mb4.0/3, Error ellipse: s-maj=19.8km s-min=12.3km az=141.0*

ISC 04 12:50:08.8±0.6**, 18.6S**±0.1×**177.7W**±0.1**, h450**^{km}**, n22,** σ**0**^{s}**71**/19**, mb3.7**/13**, 2C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**20.12**	**192**	P	**P**	**12 54 10.9**	**-0.9**
	5.8nm,0.7s,baz=166,slow=5.8,SNR=3.7						
RPZ	**Rata Peaks**	**26.79**	**198**	P	**P**	**12 55 12.4**	**-0.2**
	15nm,1.1s,mb4.3,baz=303,slow=20,SNR=3.4						
CTA	**Charters Tower**	**33.97**	**261**	P	**P**	**12 56 14.3**	**-0.3**
	2.1nm,0.3s,mb4.0,baz=82,slow=9.2,SNR=3.5						
CTA	**Charters Tower**	**33.97**	**261**	P	**P**	**12 56 14.3**	**-0.3**
TOO	**Toolangi**	**37.25**	**232**	⇓*i*P	**P**	**12 56 43.0**	**+1.2**
	3.2nm,0.7s,mb3.9						
STKA	**Stephens Creek**	**38.88**	**242**	⇑*i*P	**P**	**12 56 56.6**	**+1.4**
	4.0nm,1.0s,mb3.8						
STKA	**Stephens Creek**	**38.88**	**242**	P	**P**	**12 56 56.0**	**+0.8**
	2.5nm,0.4s,mb4.0,baz=92,slow=10,SNR=13						
WB2	**Warramunga Arr**	**45.13**	**260**	*e*P	**P**	**12 57 45.1**	**-0.2**
WRAB	**Tennant Creek**	**45.13**	**260**	*e*P	**P**	**12 57 44.9**	**-0.4**
	4.2nm,0.5s,mb4.1						
WRA	**Warramunga Arr**	**45.14**	**260**	P	**P**	**12 57 44.9**	**-0.6**
	2.4nm,0.4s,mb4.0,baz=97,slow=8.0,SNR=32						
ASAR	**Alice Springs**	**45.23**	**255**	P	**P**	**12 57 46.4**	**+0.3**
	3.2nm,0.4s,mb4.1,baz=91,slow=7.6,SNR=62						
ASPA	**Alice Springs**	**45.23**	**255**	⇑*i*P	**P**	**12 57 46.3**	**+0.2**
FITZ	**Fitzroy Crossi**	**53.55**	**261**	P	**P**	**12 58 48.2**	**-0.1**
	0.6nm,0.3s,mb3.4,baz=249,slow=2.6,SNR=2.9						
VNDA	**Vanda**	**59.84**	**185**	P	**P**	**12 59 30.7**	**-0.2**
	0.6nm,0.6s,mb3.2,baz=129,slow=9.3,SNR=3.8						
VNDA	**Vanda**	**59.84**	**185**	P	**P**	**12 59 30.7**	**-0.2**
YBH	**Yreka Blue Hor**	**78.64**	**39**	P	**P**	**13 01 24.5**	**+0.4**
	1.1nm,0.8s,mb3.5,baz=87,slow=2.7,SNR=3.2						
NVAR	**Mina Array Bea**	**79.46**	**43**	P	**P**	**13 01 29.1**	**+0.5**
	0.4nm,0.6s,mb3.1,baz=225,slow=5.1,SNR=3.5						
TXAR	**Lajitas Array**	**85.81**	**57**	P	**P**	**13 02 01.6**	**+0.8**
	0.3nm,0.6s,mb3.1,baz=217,slow=7.0,SNR=5.0						
ILAR	**Eielson Array**	**86.39**	**13**	P	**P**	**13 02 00.9**	**-1.7**
	0.2nm,0.4s,mb3.1,baz=219,slow=4.7,SNR=13						
CLL	**Collm**	**146.25**	**348**	*e*PKP1	PKPbc	13 08 58.0	+0.9
KHC	**Kasperske Hory**	**148.18**	**346**	*e*PKP	PKPdf	13 09 02.0	+3.4
GERES	**GERESS Array B**	**148.41**	**346**	PKPbc	PKPdf	13 09 02.4	+3.4
	0.8nm,0.7s,baz=18,slow=4.2,SNR=6.2						

DJA 04 12:50:10.2±1.2**, 8.20S**×**114.79E, h200**^{km}±10^{km}**, MD4.7**/4**, ML4.0**/2**, 4C-4D, Error ellipse: s-maj=37.9km s-min=10.7km az=15.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KELI	**Kelakatan**	**0.30**	**267**	⇑*i*Pn	P	12 50 36.8	-0.2
	137nm,0.2s						
SRDI	**Scrawed**	**0.70**	**247**	⇓*e*Pn	P	12 50 38.1	-0.4
	255nm,0.2s						
SRDI				⇓*i*Sn	S	12 50 59.0	-1.3
RATI	**Rata**	**0.90**	**125**	⇓*e*Pn	P	12 50 39.7	+0.2
	286nm,0.2s						
RATI	**Rata**	**0.90**	**125**	⇓*i*P	P	12 50 39.8	+0.3
RATI				⇑*i*Sn	S	12 51 00.6	-1.6
KEDI	**Kedomdong**	**1.34**	**102**	⇑*i*Pn	P	12 50 42.7	-0.2
	125nm,0.2s						
KEDI	**Kedomdong**	**1.34**	**102**	⇑*i*P	P	12 50 42.8	-0.1

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*IDC **04** 12:52:24.1±36.0, 17.85S×171.55E, mb3.9/4, mb1 4.1/4, mb1mx3.9/14, Error ellipse: s-maj=636.0km s-min=119.2km az=78.0*

ISC 04 12:52:54.7±3.6**, 19.1S**±0.1×**168.3E**±0.5**, h33**^{km}**, n6,** σ**0**^{s}**52**/8**, mb3.8**/4**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**3.42**	**211**	*e*P	**P**	**12 53 46.5**	**-0.5**
DZM				*e*S	**S**	**12 54 27.1**	**+0.3**
NOUC	**Port Laguerre**	**3.51**	**212**	*e*P	**P**	**12 53 48.3**	**0.0**
NOUC				*e*S	**S**	**12 54 29.1**	**-0.2**
STKA	**Stephens Creek**	**27.18**	**237**	P	**P**	**12 58 38.1**	**+0.8**
	1.1nm,0.6s,mb3.6,baz=69,slow=8.6,SNR=4.0						
WRA	**Warramunga Arr**	**32.01**	**263**	P	**P**	**12 59 19.7**	**-0.8**
	0.3nm,0.5s,mb3.4,baz=90,slow=8.2,SNR=5.1						
ASAR	**Alice Springs**	**32.32**	**256**	P	**P**	**12 59 22.8**	**-0.4**
	1.7nm,0.6s,mb4.1,baz=83,slow=8.7,SNR=12						
FITZ	**Fitzroy Crossi**	**40.39**	**264**	P	**P**	**13 00 32.1**	**+0.7**
	2.1nm,0.7s,mb4.0,baz=124,slow=7.3,SNR=5.5						

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*CSEM **04** 12:58:34.6±0.5, 34.86N×2.88W, h16^{km}±2^{km}, MD3.3, Error ellipse: s-maj=13.0km s-min=6.2km az=153.0*

*CNRM **04** 12:58:34.6, 35.22N×2.72W, h1^{km}, MD3.3*

*NEIC **04** 12:58:38.7, 35.01N×3.00W, h9^{km}, MG3.4(MDD), After MDD.*

*MDD **04** 12:58:39.0±1.5, 35.05N×3.13W, mb3.4/4, Error ellipse: s-maj=14.8km s-min=5.6km az=157.0, PRXIMO AftershockPLICA*

ISC 04 12:58:36.2±0.9**, 34.94N**±0.05×**2.98W**±0.06**, h10**^{km}**, n29,** σ**1**^{s}**02**/47**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	**0.19**	**81**	*i* P	**Pg**	**12 58 40.0**	**-0.4**
MELI	**Melilla**	**0.35**	**5**	P	**Pg**	**12 58 44.8**	**+1.3**
MELI				S	**Sg**	**12 58 48.4**	**0.0**
MELI	**Melilla**	**0.35**	**5**	*e*S	**Sg**	**12 58 48.4**	**0.0**
MELI	**Melilla**	**0.35**	**5**	*e*P	**Pg**	**12 58 44.8**	**+1.3**
EMEL	**Melilla**	**0.36**	**3**	P	**Pg**	**12 58 44.1**	**+0.5**
	242nm,0.1s,SNR=11						
EMEL				S	**Sg**	**12 58 48.5**	**0.0**
	1µm,0.2s,SNR=7.0						
EMLI	**Melilla**	**0.36**	**3**	S	**Sg**	**12 58 48.5**	**0.0**
	1µm,0.2s,SNR=7.0						
EMLI	**Melilla**	**0.36**	**3**	P	**Pg**	**12 58 44.1**	**+0.5**
	242nm,0.1s,SNR=11						
TOU	**Touzarine**	**0.64**	**272**	*i* P	**Pb**	**12 58 50.0**	**+1.0**
TOU				*i* S	**Sg**	**12 59 03.0**	**+5.3**
EBER	**Berja**	**1.96**	**2**	P	**Pn**	**12 59 09.6**	**-0.2**
	1.0nm,0.3s,SNR=9.5						
EBER				S	**Sn**	**12 59 30.0**	**-4.6**
	7.2nm,0.3s						
EBER	**Berja**	**1.96**	**2**	P	**Pn**	**12 59 09.6**	**-0.2**
	1.0nm,0.3s,SNR=9.5						
EBER				S	**Sn**	**12 59 30.0**	**-4.6**
	7.2nm,0.3s						
EMIJ	**Mijas**	**2.18**	**318**	P	**Pn**	**12 59 11.9**	**-1.2**
	1.5nm,0.1s,SNR=12						
EMIJ				S	**Sn**	**12 59 37.2**	**-3.2**
	13nm,0.5s						
ELOJ	**Sierra Loja**	**2.40**	**337**	P	**Pn**	**12 59 17.1**	**+0.9**
	3.4nm,0.4s,SNR=5.5						
ELOJ				S	**Sn**	**12 59 44.2**	**-1.8**
	1.1nm,0.3s						
ELUQ	**Luque**	**2.82**	**339**	P	**Pn**	**12 59 23.8**	**+1.6**
	4.7nm,0.4s,SNR=7.6						
ELUQ				S	**Sn**	**12 59 57.6**	**+1.1**
	3.7nm,0.5s						
ELUQ	**Luque**	**2.82**	**339**	S	**Sn**	**12 59 57.6**	**+1.1**
	3.7nm,0.5s						
EQES	**Quesada**	**2.86**	**358**	P	**Pn**	**12 59 23.8**	**+1.1**
	0.4nm,0.2s,SNR=11						
EQES				S	**Sn**	**12 59 57.9**	**+0.4**
	5.0nm,0.2s						
EQES	**Quesada**	**2.86**	**358**	P	**Pn**	**12 59 23.8**	**+1.1**
	0.4nm,0.2s,SNR=11						
EQES				S	**Sn**	**12 59 57.9**	**+0.4**
	5.0nm,0.2s						
ESPR	**Espera**	**3.03**	**310**	P	**Pn**	**12 59 26.1**	**+0.9**
	0.4nm,0.1s,SNR=7.9						
ESPR				S	**Sn**	**13 00 02.2**	**+0.3**
	4.9nm,0.6s,SNR=7.9						
ESPR	**Espera**	**3.03**	**310**	P	**Pn**	**12 59 26.1**	**+1.0**
	0.4nm,0.1s,SNR=7.9						
ESPR				S	**Sn**	**13 00 02.2**	**+0.4**
	4.9nm,0.6s,SNR=7.9						
EMUR	**La Murta**	**3.22**	**25**	P	**Pn**	**12 59 26.3**	**-1.6**
	2.5nm,0.3s,SNR=10.0						
EMUR				S	**Sn**	**13 00 00.9**	**-5.7**
	5.6nm,0.6s						
EMUR	**La Murta**	**3.22**	**25**	S	**Sn**	**13 00 00.9**	**-5.7**
	5.6nm,0.6s						
EMUR	**La Murta**	**3.22**	**25**	P	**Pn**	**12 59 26.3**	**-1.5**
	2.5nm,0.3s,SNR=10.0						
EADA	**Adamuz**	**3.47**	**339**	P	**Pn**	**12 59 30.2**	**-1.2**
	0.6nm,0.1s,SNR=9.0						
EADA				S	**Sn**	**13 00 08.9**	**-4.1**
	0.6nm,0.2s						
EADA	**Adamuz**	**3.47**	**339**	P	**Pn**	**12 59 30.2**	**-1.2**
	0.6nm,0.1s,SNR=9.0						
EADA				S	**Sn**	**13 00 08.9**	**-4.1**
	0.6nm,0.2s						
EMIN	**Mina Concepcio**	**4.11**	**314**	P	**Pn**	**12 59 39.4**	**-1.1**
	0.6nm,0.1s,SNR=13						
EMIN				S	**Sn**	**13 00 24.1**	**-5.0**
	0.3nm,0.2s						
EMIN	**Mina Concepcio**	**4.11**	**314**	P	**Pn**	**12 59 39.4**	**-1.1**
EMIN				S	**Sn**	**13 00 24.1**	**-5.0**
ESDC	**Sonseca Array**	**4.79**	**351**	P	**Pn**	**12 59 49.8**	**-0.4**
	0.9nm,0.3s,baz=172,slow=12,SNR=5.6						
ESDC	**Sonseca Array**	**4.79**	**351**	P	**Pn**	**12 59 49.8**	**-0.4**
EBAD	**Badajoz**	**5.00**	**321**	P	**Pn**	**12 59 52.2**	**-0.9**
	1.1nm,0.3s,SNR=6.4						
EBAD				S	**Sn**	**13 00 45.2**	**-6.5**
	4.3nm,0.8s						
EBAD	**Badajoz**	**5.00**	**321**	P	**Pn**	**12 59 52.2**	**-0.9**

WEL 04 13:11:31.2±0.1**, 40.42S**×**176.22E, h29**^{km}±1^{km}**, ML3.6**/8**, 5C-2D, Error ellipse: s-maj=1.8km s-min=1.0km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BFZ	**Birch Farm**	**0.26**	**176**	⇑P*	Pb	13 11 38.3	+0.3
BFZ				*e*S*	Sb	13 11 42.7	-0.1
BFZ				*e*S*	Sb	13 11 43.2	+0.4
TSZ	**Takapari Road**	**0.41**	**331**	⇑P*	Pb	13 11 39.9	-0.3
TSZ				S*	Sb	13 11 46.5	+0.2
TSZ				S*	Sb	13 11 46.5	+0.2
MRZ	**Mangatainoka R**	**0.55**	**243**	⇑P*	Pb	13 11 42.5	+0.2
MRZ				S*	Sb	13 11 51.2	+1.2
PWZ	**Pawanui**	**0.62**	**52**	P*	Pb	13 11 43.4	-0.2
MTW	**Mount Morrison**	**0.92**	**216**	⇓P*	Pb	13 11 47.5	-1.1
MTW				S*	Sb	13 12 00.6	+0.2
MOVZ	**Moawhango**	**1.07**	**340**	⇑PN	Pn	13 11 50.5	+0.1
MOVZ				SN	Sn	13 12 05.2	+0.7
KIW	**Kapiti Island**	**1.09**	**246**	P*	Pb	13 11 50.5	-0.9
KIW				*e*S*	Sb	13 12 05.0	-0.4
CAW	**Cannon Point**	**1.12**	**231**	⇓P*	Pb	13 11 50.3	-1.5
CAW				*e*S*	Sb	13 12 04.8	-1.2
WAZ	**Wanganui**	**1.16**	**304**	PN	Pn	13 11 52.7	+1.0
WNVZ	**Wahianoa**	**1.19**	**336**	PN	Pn	13 11 52.7	+0.5
TUVZ	**Tukino**	**1.23**	**339**	PN	Pn	13 11 53.3	+0.7
BKZ	**Black Stump Fm**	**1.27**	**9**	⇑PN	Pn	13 11 52.4	-0.8
BKZ				SN	Sn	13 12 09.0	-0.4
FWVZ	**Far West T-bar**	**1.27**	**336**	PN	Pn	13 11 54.0	+0.7
WPVZ	**Whakapapa**	**1.32**	**336**	PN	Pn	13 11 54.5	+0.5
CNZ	**Chateau**	**1.32**	**337**	PN	Pn	13 11 54.6	+0.6
OTVZ	**Oturere**	**1.32**	**341**	PN	Pn	13 11 54.4	+0.3
NGZ	**Ngauruhoe**	**1.33**	**339**	*e*PN	Pn	13 11 54.6	+0.4
WTVZ	**West Tongariro**	**1.39**	**339**	*e*PN	Pn	13 11 55.6	+0.6
KAVZ	**Karewarewa**	**1.39**	**341**	PN	Pn	13 11 55.9	+0.9
TWVZ	**Taurewa**	**1.48**	**335**	*e*PN	Pn	13 11 56.7	+0.5
KATZ	**Kakaramea**	**1.50**	**344**	*e*PN	Pn	13 11 56.6	+0.1
MGZ	**Maungaku**	**1.51**	**339**	*e*PN	Pn	13 11 57.4	+0.7
RATZ	**Rangitukua**	**1.59**	**347**	PN	Pn	13 11 57.8	0.0

*NEIC **04** 13:12:08.8,40.40S×176.22E,h25^{km},ML4.0(WEL),After WEL.*

WEL 04 13:12:08.4±0.1,40.46S×176.23E,h26^{km}±1^{km},ML3.9/15, 2C,Error ellipse: s-maj=1.9km s-min=0.9km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BFZ	**Birch Farm**	0.22	177	P	Pb	13 12 15.5	+1.1
BFZ				S	Sb	13 12 21.2	+2.7
BFZ	**Birch Farm**	0.22	177	P*	Pb	13 12 15.1	+0.7
BFZ				eS*	Sb	13 12 19.6	+1.1
TSZ	**Takapari Road**	0.45	333	P	Pb	13 12 17.0	-0.7
TSZ				S	Sb	13 12 23.6	-0.5
TSZ	**Takapari Road**	0.45	333	P*	Pb	13 12 17.0	-0.7
TSZ				⇑P*	Pb	13 12 17.0	-0.7
TSZ				S*	Sb	13 12 23.6	-0.6
TSZ				S*	Sb	13 12 23.7	-0.5
TSZ				S*	Sb	13 12 23.8	-0.4
TSZ				S*	Sb	13 12 23.9	-0.3
MRZ	**Mangatainoka R**	0.54	247	P	Pb	13 12 19.8	+0.6
MRZ				S	Sb	13 12 28.4	+1.9
MRZ	**Mangatainoka R**	0.54	247	P*	Pb	13 12 19.8	+0.6
MRZ				S*	Sb	13 12 28.1	+1.5
PWZ	**Pawanui**	0.65	49	P	Pb	13 12 20.5	-0.5
PWZ				S	Sb	13 12 30.9	+1.2
PWZ	**Pawanui**	0.65	49	P*	Pb	13 12 20.4	-0.6
PWZ				S*	Sb	13 12 30.9	+1.2
MTW	**Mount Morrison**	0.89	218	P*	Pb	13 12 24.7	-0.4
MTW				S*	Sb	13 12 37.4	+0.8
KIW	**Kapiti Island**	1.08	248	P*	Pb	13 12 27.8	-0.5
KIW				S*	Sb	13 12 42.0	0.0
CAW	**Cannon Point**	1.09	233	P	Pn	13 12 27.7	-0.6
CAW	**Cannon Point**	1.09	233	⇑P*	Pb	13 12 27.7	-0.9
CAW				eS*	Sb	13 12 42.2	-0.3
PAWZ	**Paruwai Farm**	1.10	213	P*	Pb	13 12 27.7	-1.1
PAWZ				eS*	Sb	13 12 42.7	-0.1
MOVZ	**Moawhango**	1.11	341	P	Pn	13 12 27.8	-0.7
MOVZ	**Moawhango**	1.11	341	PN	Pn	13 12 27.7	-0.8
MOVZ				SN	Sn	13 12 42.9	-0.2
WAZ	**Wanganui**	1.19	306	ePN	Pn	13 12 29.4	-0.1
MSWZ	**Moikau Station**	1.21	218	P	Pn	13 12 28.5	-1.4
MSWZ	**Moikau Station**	1.21	218	eP*	Pb	13 12 28.6	-1.9
WNVZ	**Wahianoa**	1.23	337	PN	Pn	13 12 30.2	0.0
TUVZ	**Tukino**	1.27	339	PN	Pn	13 12 30.6	-0.1
BKZ	**Black Stump Fm**	1.31	9	P	Pn	13 12 29.7	-1.6
BKZ	**Black Stump Fm**	1.31	9	PN	Pn	13 12 29.5	-1.8
FWVZ	**Far West T-bar**	1.31	336	PN	Pn	13 12 31.4	0.0
WPVZ	**Whakapapa**	1.36	337	PN	Pn	13 12 32.0	0.0
CNZ	**Chateau**	1.36	337	PN	Pn	13 12 31.8	-0.2
OTVZ	**Oturere**	1.36	341	PN	Pn	13 12 31.9	-0.2
NGZ	**Ngauruhoe**	1.37	339	ePN	Pn	13 12 32.0	-0.2
WEL	**Wellington**	1.38	233	ePN	Pn	13 12 31.2	-1.2
MRW	**Makara Radio**	1.39	236	PN	Pn	13 12 32.0	-0.5
BHW	**Baring Head**	1.40	227	ePN	Pn	13 12 31.2	-1.4
WTVZ	**West Tongariro**	1.43	340	PN	Pn	13 12 32.9	-0.1
KAVZ	**Karewarewa**	1.43	341	ePN	Pn	13 12 33.1	0.0
TWVZ	**Taurewa**	1.51	336	PN	Pn	13 12 34.2	0.0
KATZ	**Kakaramea**	1.54	344	ePN	Pn	13 12 34.7	+0.1
MGZ	**Maungaku**	1.55	340	ePN	Pn	13 12 34.7	-0.1
RATZ	**Rangitukua**	1.63	347	PN	Pn	13 12 36.0	+0.2
WATZ	**Wairara**	1.79	347	ePN	Pn	13 12 36.5	-1.7
WHTZ	**Whakaora**	1.80	353	P	Pn	13 12 37.2	-1.2
WHTZ	**Whakaora**	1.80	353	ePN	Pn	13 12 37.0	-1.3
KNZ	**Kokohu**	1.82	38	PN	Pn	13 12 35.4	-3.2
RAEZ	**Rainy Point**	1.83	309	ePN	Pn	13 12 38.8	0.0
NNZ	**Nelson**	2.29	250	PN	Pn	13 12 42.7	-2.6
URZ	**Urewera**	2.30	18	PN	Pn	13 12 41.6	-3.9
MWZ	**Matawai**	2.35	26	PN	Pn	13 12 42.6	-3.6
QRZ	**Quartz Range**	2.84	261	PN	Pn	13 12 47.0	-6.2

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*CNRM **04** 13:16:26.8,34.98N×2.51W,h23^{km},MD4.3*

*CSEM **04** 13:16:27.5±0.1,34.88N×2.88W,h30^{km},MD4.3,Error ellipse: s-maj=2.8km s-min=2.0km az=102.0*

*NEIC **04** 13:16:28.7,34.93N×2.97W,MG4.3(MDD),After MDD.*

*MDD **04** 13:16:28.7±1.0,34.92N×2.98W,mb4.3/19,Error ellipse: s-maj=10.1km s-min=6.2km az=129.0,PRXIMO AftershockPLICA*

*LDG **04** 13:16:29.0±1.0,35.06N×2.71W,h10^{km},Ml3.9/1,Error ellipse: s-maj=22.3km s-min=10.7km az=171.0*

*INMG **04** 13:16:30.6±1.3,35.03N×2.92W,h17^{km}±4^{km},ML2.9,Error ellipse: s-maj=6.8km s-min=6.4km az=90.0*

ISC 04 13:16:27.4±0.5,34.95N±0.03×3.05W±0.04,h10^{km},n80, σ1^{s}23/116,1C-5D,Morocco

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.25	85	i P	Pg	13 16 32.0	-0.7
MELI	**Melilla**	0.36	15	⇓P	Pg	13 16 35.6	+0.8
MELI				S	Sg	13 16 40.8	+1.1
MELI	**Melilla**	0.36	15	i P	Pg	13 16 35.6	+0.9
EMEL	**Melilla** 785nm,0.1s,SNR=18	0.36	12	⇓P	Pg	13 16 35.7	+0.9
EMEL	4µm,0.2s			S	Sg	13 16 40.5	+0.9
EMLI	**Melilla** 785nm,0.1s,SNR=18	0.36	13	P	Pg	13 16 35.7	+0.9
TOU	**Touzarine**	0.58	271	i P	Pg	13 16 44.0	+4.9
MPAL	**Palemas**	0.78	291	i P	Pb	13 16 47.0	+4.4
EBER	**Berja** 66nm,0.9s,SNR=24	1.95	4	P	Pn	13 17 00.2	-0.7
EBER	414nm,0.6s,SNR=24			S	Sn	13 17 23.1	-2.6
EBER	**Berja** 66nm,0.9s,SNR=24	1.95	4	P	Pn	13 17 00.2	-0.7
EBER	414nm,0.6s,SNR=24			S	Sn	13 17 23.1	-2.5
EMIJ	**Mijas** 8.3nm,0.2s,SNR=28	2.13	319	P	Pn	13 17 03.9	+0.2
EMIJ	74nm,0.5s,SNR=5.2			S	Sn	13 17 29.5	-0.9
ERON	**Agron** 9.8nm,0.3s,SNR=16	2.15	344	P	Pn	13 17 03.7	-0.2
ERON	36nm,0.6s			S	Sn	13 17 31.0	+0.1
REAL	**Reales**	2.33	312	P	Pn	13 17 07.6	+1.2
REAL	**Reales**	2.33	312	i P	Pn	13 17 07.6	+1.2
ELOJ	**Sierra Loja** 25nm,0.4s,SNR=34	2.37	338	P	Pn	13 17 08.7	+1.8
ELOJ	19nm,0.4s			S	Sn	13 17 38.5	+2.2
MIF	**Mishlifen**	2.37	230	i P	Pn	13 17 09.0	+2.0
CZD	**Col de Zad**	2.53	221	i P	Pn	13 17 10.0	+0.7
CZD				i S	Sn	13 17 41.0	+0.6
LIJA	**Lijar**	2.73	316	⇓P	Pn	13 17 15.9	+3.7
LIJA				S	Sn	13 17 51.0	+5.5
LIJA	**Lijar**	2.73	316	eS	Sn	13 17 51.0	+5.5
ELUQ	**Luque** 50nm,0.5s,SNR=40	2.79	340	P	Pn	13 17 15.1	+2.2
ELUQ	27nm,0.4s			S	Sn	13 17 48.1	+1.2
EQES	**Quesada** 31nm,0.4s,SNR=18	2.85	360	⇓P	Pn	13 17 15.6	+1.8
EQES	92nm,0.3s,SNR=22			S	Sn	13 17 49.2	+0.7
EQES	**Quesada** 31nm,0.4s,SNR=18	2.85	360	P	Pn	13 17 15.6	+1.8
EQES	92nm,0.3s,SNR=22			S	Sn	13 17 49.2	+0.7
ESPR	**Espera** 6.2nm,0.3s,SNR=21	2.98	311	P	Pn	13 17 18.1	+2.5
ESPR	38nm,0.8s			S	Sn	13 17 52.7	+0.9
ESPR	**Espera** 6.2nm,0.3s,SNR=21	2.98	311	P	Pn	13 17 18.1	+2.5
ESPR	38nm,0.8s			S	Sn	13 17 52.7	+1.0
ZFT	**Errachidia**	3.10	201	i P	Pn	13 17 16.0	-1.4
ZFT				i S	Sn	13 17 52.0	-3.0
EMUR	**La Murta** 20nm,0.3s,SNR=47	3.23	26	P	Pn	13 17 19.1	-0.2
EMUR	30nm,0.6s			S	Sn	13 17 51.8	-6.5
EMUR	**La Murta** 30nm,0.6s	3.23	26	S	Sn	13 17 51.8	-6.5
EMUR	**La Murta** 20nm,0.3s,SNR=47	3.23	26	P	Pn	13 17 19.1	-0.2
EADA	**Adamuz** 9.9nm,0.3s,SNR=62	3.44	339	P	Pn	13 17 23.3	+1.1
EADA	23nm,0.5s			S	Sn	13 18 02.5	-0.9
EADA	**Adamuz** 9.9nm,0.3s,SNR=62	3.44	339	P	Pn	13 17 23.3	+1.1
EADA	23nm,0.5s			S	Sn	13 18 02.5	-0.9
EVIA	**Vianos** 27nm,0.7s,SNR=7.1	3.71	7	P	Pn	13 17 27.6	+1.6
EVIA	55nm,0.6s,SNR=5.9			S	Sn	13 18 09.6	-0.7
EMIN	**Mina Concepcio** 14nm,0.3s,SNR=18	4.06	315	⇓P	Pn	13 17 31.5	+0.5
EMIN	16nm,0.7s			S	Sn	13 18 16.8	-2.3
EMIN	**Mina Concepcio** 16nm,0.7s	4.06	315	S	Sn	13 18 16.8	-2.3
EMIN	**Mina Concepcio** 14nm,0.3s,SNR=18	4.06	315	P	Pn	13 17 31.5	+0.5
ESDC	**Sonseca Array** 23nm,0.2s,baz=172,slow=12,SNR=18	4.77	351	⇑P	Pn	13 17 41.9	+0.8
ESDC	1.9nm,0.5s,baz=160,slow=16,SNR=4.4			S	Sn	13 18 32.3	-4.9
ESDC	**Sonseca Array** 23nm,0.2s,baz=172,slow=12,SNR=18	4.77	351	P	Pn	13 17 41.9	+0.8
ESDC	1.9nm,0.5s,SNR=4.4			S	Sn	13 18 32.3	-4.9
PBEJ	**Beja**	4.95	310	ePn	Pn	13 17 43.9	+0.3
PBEJ	10nm,0.6s			eSn	Sn	13 18 39.6	-2.0
PBEJ	**Beja**	4.95	310	ePn	Pn	13 17 43.9	+0.3
PBEJ	10nm,0.6s			eSn	Sn	13 18 39.6	-2.0
EBAD	**Badajoz**	4.95	321	P	Pn	13 17 44.0	+0.3
EBAD				S	Sn	13 18 38.4	-3.3
EBAD	**Badajoz** 8.0nm,0.4s,SNR=34	4.95	321	P	Pn	13 17 43.9	+0.3
EBAD	9.2nm,0.4s,SNR=6.1			S	Sn	13 18 38.4	-3.3
EBAD	**Badajoz** 9.2nm,0.4s,SNR=6.1	4.95	321	S	Sn	13 18 38.4	-3.3
EBAD	**Badajoz** 8.0nm,0.4s,SNR=34	4.95	321	P	Pn	13 17 43.9	+0.2
PTEO	**Sao Teotonio** 16nm,0.7s	5.27	301	ePn	Pn	13 17 48.4	+0.3
EVO	**Evora**	5.35	313	ePn	Pn	13 17 50.4	+1.1
EVO	31nm,0.4s			eSg	Sn	13 18 50.6	-1.2
EIBI	**Ibiza** 3.5nm,0.2s,SNR=7.9	5.38	40	P	Pn	13 17 47.8	-1.9
EIBI	**Ibiza** 3.5nm,0.2s,SNR=7.9	5.38	40	P	Pn	13 17 47.8	-1.9
MOE	**Montemor**	5.55	312	ePn	Pn	13 17 52.9	+0.8
MOE				eSn	Sn	13 18 53.6	-3.2
EMOS	**Mosqueruela** 3.4nm,0.6s,SNR=7.9	5.78	20	P	Pn	13 17 53.8	-1.5
EMOS	**Mosqueruela** 3.4nm,0.6s,SNR=7.9	5.78	20	P	Pn	13 17 53.8	-1.5
PCBR	**Castelo Branco**	6.02	325	ePn	Pn	13 17 58.9	+0.2
PCBR	7.8nm,0.5s			eSn	Sn	13 19 04.2	-4.3
PCBR	**Castelo Branco**	6.02	325	Pn	Pn	13 17 58.9	+0.2
PCBR	3.9nm,0.5s			Sn	Sn	13 19 04.2	-4.3
PTOM	**Tomar**	6.32	319	ePn	Pn	13 18 02.2	-0.8
MTE	**Manteigas**	6.50	328	ePn	Pn	13 18 05.4	-0.2
MTE	11nm,0.6s			eSn	Sn	13 19 16.3	-4.3
MTE	**Manteigas**	6.50	328	Pn	Pn	13 18 05.4	-0.2
MTE	5.3nm,0.6s			Sn	Sn	13 19 16.3	-4.3
ERTA	**Horta de San J** 5.1nm,0.8s,SNR=12	6.56	23	P	Pn	13 18 04.0	-2.4
ERTA	**Horta de San J** 5.1nm,0.8s,SNR=12	6.56	23	P	Pn	13 18 04.0	-2.4
PVIS	**Viseu**	6.92	328	ePn	Pn	13 18 11.1	-0.2
PVRL	**Vila Real**	7.31	331	ePn	Pn	13 18 16.5	-0.4
PVRL	7.4nm,0.2s			eSn	Sn	13 19 35.0	-5.7
PVRL	**Vila Real**	7.31	331	Pn	Pn	13 18 16.5	-0.4
PVRL	3.7nm,0.2s			Sn	Sn	13 19 35.0	-5.7
PBRG	**Braganca**	7.43	338	ePn	Pn	13 18 17.9	-0.7
ECAL	**Calabor** 7.3nm,0.5s,SNR=7.6	7.55	339	P	Pn	13 18 19.1	-1.2
ECAL	11nm,0.7s			S	Sn	13 19 40.6	-6.3
ECAL	**Calabor** 7.3nm,0.5s,SNR=7.6	7.55	339	P	Pn	13 18 19.1	-1.2
ELOB	**Lobios** 4.7nm,0.3s,SNR=15	7.95	332	P	Pn	13 18 25.8	0.0
ELOB	2.3nm,0.4s			S	Sn	13 19 50.0	-6.7
ELOB	**Lobios** 4.7nm,0.3s,SNR=15	7.95	332	P	Pn	13 18 25.8	0.0
ERUA	**La Rua** 7.7nm,0.4s,SNR=10.0	8.09	338	P	P	13 18 27.5	-0.3
ETSF	**Etsaut**	8.17	13	ePn	P	13 18 24.0	-4.9
ETSF				eP		13 18 29.3	
ETSF	**Etsaut**	8.17	13	eP	P	13 18 29.3	+0.4
SJPF	**Ste Jean**	8.28	9	ePn	P	13 18 25.6	-4.8
SJPF				eP		13 18 30.1	
SJPF	**Ste Jean**	8.28	9	eP	P	13 18 30.1	-0.3
ELAN	**Lanestosa** 18nm,1.1s,SNR=7.0	8.28	358	P	P	13 18 30.7	+0.3
ELAN	**Lanestosa** 18nm,1.1s,SNR=7.0	8.28	358	P	P	13 18 30.7	+0.3
EALK	**Alkurruntz** 4.5nm,0.4s,SNR=8.1	8.35	8	P	P	13 18 30.9	-0.5
EINC	**Incio** 7.8nm,0.6s,SNR=8.7	8.40	338	P	P	13 18 30.1	-1.9
EINC	**Incio**	8.40	338	P	P	13 18 30.1	-2.0
EPF	**Esparros**	8.49	17	ePn	P	13 18 27.5	-5.8
EPF				eP		13 18 32.9	
EPF	**Esparros**	8.49	17	eP	P	13 18 32.9	-0.4
EARI	**Arriondas** 12nm,0.7s,SNR=12	8.51	349	P	P	13 18 32.7	-0.9
EARI	**Arriondas**	8.51	349	P	P	13 18 32.7	-0.9
EPON	**Pontenova** 9.1nm,0.7s,SNR=5.7	8.95	340	P	P	13 18 39.2	-0.5
EPON	**Pontenova**	8.95	340	P	P	13 18 39.2	-0.5
SMRF	**Simiane la Rot**	11.20	34	ePg	P	13 19 02.9	-7.8

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*CNRM **04** 13:25:21.9,34.24N×2.70W,h3^{km},MD3.4*

*CSEM **04** 13:25:23.8±0.2,34.96N×2.91W,h13^{km}±1^{km},mb3.5/7, Error ellipse: s-maj=5.7km s-min=3.8km az=95.0*

*NEIC **04** 13:25:25.6,34.95N×2.98W,MG3.5(MDD),After MDD.*

*MDD **04** 13:25:25.8±1.6,34.95N×3.01W,mb3.5/7,Error ellipse: s-maj=15.8km s-min=7.1km az=125.0,PRXIMO AftershockPLICA*

ISC 04 13:25:24.9±0.6,35.00N±0.03×2.95W±0.06,h10^{km},n30, σ1^{s}29/50,Morocco

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.17	99	i P	Pg	13 25 28.0	-0.8
MELI	**Melilla**	0.30	3	P	Pg	13 25 32.3	+1.1
MELI				S	Sg	13 25 37.0	+1.7
MELI	**Melilla**	0.30	3	eP	Pg	13 25 32.3	+1.1
MELI				eS	Sg	13 25 37.0	+1.7
EMEL	**Melilla** 122nm,0.1s,SNR=5.0	0.30	359	P	Pg	13 25 32.1	+0.9
EMEL	168nm,0.1s,SNR=10			S	Sg	13 25 36.9	+1.4
EMLI	**Melilla** 122nm,0.1s,SNR=5.0	0.30	0	P	Pg	13 25 32.1	+0.8
TOU	**Touzarine**	0.66	267	i P	Pb	13 25 38.0	-0.1
TOU				i S	Sb	13 25 51.5	+4.5
EBER	**Berja** 4.5nm,0.4s,SNR=12	1.90	2	P	Pn	13 25 57.2	-0.6
EBER	37nm,0.6s,SNR=5.4			S	Sn	13 26 19.2	-2.8
EBER	**Berja** 4.5nm,0.4s,SNR=12	1.90	2	P	Pn	13 25 57.2	-0.6
EMIJ	**Mijas** 0.8nm,0.1s,SNR=9.0	2.15	317	P	Pn	13 26 00.8	-0.7
EMIJ	8.9nm,0.5s			S	Sn	13 26 25.4	-3.0
ELOJ	**Sierra Loja** 0.5nm,0.2s,SNR=8.2	2.36	336	P	Pn	13 26 05.5	+1.2
ELOJ	0.5nm,0.2s			S	Sn	13 26 34.1	+0.5
ELUQ	**Luque** 1.7nm,0.3s,SNR=7.9	2.77	338	P	Pn	13 26 10.7	+0.5
ELUQ	1.9nm,0.3s			S	Sn	13 26 43.0	-1.1
EQES	**Quesada** 1.8nm,0.2s,SNR=24	2.80	358	P	Pn	13 26 12.2	+1.5
EQES	4.2nm,0.2s			S	Sn	13 26 45.9	+0.9
EQES	**Quesada** 1.8nm,0.2s,SNR=24	2.80	358	P	Pn	13 26 12.2	+1.5
EQES	4.2nm,0.2s			S	Sn	13 26 45.9	+1.0
ESPR	**Espera**	3.01	309	P	Pn	13 26 15.2	+1.6
ESPR				S	Sn	13 26 49.4	-0.7
ESPR	**Espera** 0.5nm,0.1s,SNR=7.9	3.01	309	P	Pn	13 26 15.2	+1.6
ESPR	3.1nm,0.4s,SNR=7.9			S	Sn	13 26 49.4	-0.7
ESPR	**Espera** 0.5nm,0.1s,SNR=7.9	3.01	309	P	Pn	13 26 15.2	+1.6
ESPR	3.1nm,0.4s,SNR=7.9			S	Sn	13 26 49.4	-0.7
EMUR	**La Murta** 3.6nm,0.4s,SNR=7.3	3.16	25	P	Pn	13 26 14.7	-1.1
EMUR	3.3nm,0.5s			S	Sn	13 26 48.8	-5.1
EMUR	**La Murta** 3.6nm,0.4s,SNR=7.3	3.16	25	P	Pn	13 26 14.7	-1.1
ZFT	**Errachidia**	3.18	202	eP	Pn	13 26 15.0	-1.0
ZFT				i S	Sn	13 26 56.0	+1.6
EADA	**Adamuz**	3.42	338	P	Pn	13 26 19.0	-0.6
EADA				S	Sn	13 26 57.5	-3.2
EADA	**Adamuz** 2.6nm,0.4s,SNR=11	3.42	338	P	Pn	13 26 19.0	-0.6
EADA	1.2nm,0.3s			S	Sn	13 26 57.5	-3.2
EADA	**Adamuz** 2.6nm,0.4s,SNR=11	3.42	338	P	Pn	13 26 19.0	-0.5
EMIN	**Mina Concepcio** 0.5nm,0.1s,SNR=11	4.08	314	P	Pn	13 26 28.2	-0.7
EMIN	1.5nm,0.5s			S	Sn	13 27 12.7	-4.6
EMIN	**Mina Concepcio** 0.5nm,0.1s,SNR=11	4.08	314	P	Pn	13 26 28.2	-0.7
EMIN				S	Sn	13 27 12.7	-4.6
ESDC	**Sonseca Array**	4.74	351	P	Pn	13 26 36.5	-1.7
ESDC	**Sonseca Array** 1.0nm,0.3s,baz=172,slow=12,SNR=8.9	4.74	351	P	Pn	13 26 36.5	-1.7
ESDC	**Sonseca Array**	4.74	351	P	Pn	13 26 36.5	-1.7
EBAD	**Badajoz** 1.8nm,0.6s,SNR=5.3	4.97	320	P	Pn	13 26 40.9	-0.6
EBAD	5.1nm,0.9s			S	Sn	13 27 35.1	-4.6
EBAD	**Badajoz**	4.97	320	S	Sn	13 27 35.1	-4.6
EBAD	**Badajoz**	4.97	320	P	Pn	13 26 40.9	-0.5

IDC 04 13:36:20.3±4.2,16.44S×177.38W,mb4.0/4,mb1 4.2/4, mb1mx3.9/14,Error ellipse: s-maj=190.0km s-min=30.6km az=137.0,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek** 1.3nm,0.7s,baz=50,slow=16,SNR=2.7	40.20	240	P	P	13 43 59.0	-1.2
WRA	**Warramunga Arr** 0.8nm,0.7s,baz=93,slow=7.7,SNR=6.1	45.88	258	P	P	13 44 44.8	-1.8
ASAR	**Alice Springs** 6.3nm,0.6s,baz=89,slow=8.2,SNR=76	46.15	253	P	P	13 44 46.5	-2.2
ILAR	**Eielson Array** 0.3nm,0.5s,baz=225,slow=5.5,SNR=13	84.25	13	P	P	13 48 53.5	-1.3

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*SYO **04** 13:41:12.5,34.10S×179.35E,h10^{km},MB4.9*

*NEIC **04** 13:41:16.9±4.2,34.04S×179.36E,h44^{km}±37^{km},mb4.8/15, Error ellipse: s-maj=12.9km s-min=10.0km az=162.0*

*IDC **04** 13:41:20.1±6.1,34.08S×179.47E,h82^{km}±54^{km},mb4.2/13, mb1 4.4/14,mb1mx4.4/17,ML4.9/2,MS4.3/11,Ms1 4.3/11, ms1mx4.1/18,Error ellipse: s-maj=22.5km s-min=17.5km az=173.0*

ISC 04 13:41:14.7±1.0,34.20S±0.05×179.22E±0.06,h37^{km}±8^{km}, n100,σ1^{s}26/96,mb4.7/23,MS4.3/11,16C-7D,South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	3.44	192	P	P	13 42 04.8	-2.5
MXZ				T		13 44 59.4	
WIZ	**White Island**	3.71	206	P	P	13 42 10.9	-0.2
KUZ	**Kuaotunu**	3.83	227	P	P	13 42 12.6	-0.1
KUZ				S	S	13 42 55.4	-1.8
PUZ	**Puketiti**	3.95	191	⇑P	P	13 42 14.0	-0.4
PUZ				S	S	13 42 59.4	-0.8
MARZ	**Manawahe**	4.31	208	P	P	13 42 21.2	+1.6
MWZ	**Matawai**	4.35	198	⇓P	P	13 42 19.3	-0.9
WCZ	**Waipu Caves**	4.36	245	P	P	13 42 19.4	-1.0
WCZ				S	S	13 43 08.3	-2.4
EDRZ	**Edgecumbe**	4.39	207	P	P	13 42 20.9	+0.1
URZ	**Urewera** 116nm,0.3s,baz=29,slow=6.2,SNR=152	4.40	202	P	P	13 42 19.4	-1.5
URZ	baz=310,slow=23,SNR=1.8			S	S	13 43 09.5	-2.1
URZ	**Urewera**	4.40	202	⇑P	P	13 42 19.8	-1.1
LIRZ	**Lichensteins R**	4.44	210	⇓P	P	13 42 22.6	+1.1
TAZ	**Tarawera**	4.59	208	⇑P	P	13 42 24.3	+0.8
TOZ	**Tahuroa Road**	4.64	219	⇑P	P	13 42 25.3	+1.0
UTU	**Utuhina**	4.67	211	P	P	13 42 26.3	+1.6
OUZ	**Omahuta**	4.75	256	⇓P	P	13 42 24.2	-1.6
OUZ				S	S	13 43 15.9	-4.4
PATZ	**Paeroa**	4.81	209	P	P	13 42 28.0	+1.2
KNZ	**Kokohu**	4.97	194	P	P	13 42 26.4	-2.6
WHTZ	**Whakaora**	5.18	210	P	P	13 42 33.0	+1.1
BKZ	**Black Stump Fm**	5.42	203	⇑P	P	13 42 34.1	-1.2
RATZ	**Rangitukua**	5.43	210	P	P	13 42 35.9	+0.6
HIZ	**Hauiti**	5.57	218	P	P	13 42 38.4	+1.1
MGZ	**Maungaku**	5.64	211	P	P	13 42 39.4	+1.1
KAVZ	**Karewarewa**	5.67	209	P	P	13 42 39.5	+0.7
NGZ	**Ngauruhoe**	5.76	209	⇑P	P	13 42 40.5	+0.5
CNZ	**Chateau**	5.80	210	P	P	13 42 41.4	+0.8
TUVZ	**Tukino**	5.82	208	P	P	13 42 39.5	-1.3
VRZ	**Vera Road**	6.09	215	P	P	13 42 46.5	+1.9
RAEZ	**Rainy Point**	6.39	216	P	P	13 42 50.9	+2.0
TSZ	**Takapari Road**	6.41	203	P	P	13 42 45.2	-3.9
WAZ	**Wanganui**	6.50	210	P	P	13 42 49.4	-1.1
NEZ	**North Egmont**	6.53	218	P	P	13 42 53.4	+2.6
DFE	**Dawson Falls**	6.56	217	P	P	13 42 54.2	+2.9
BFZ	**Birch Farm**	6.89	199	P	P	13 42 50.6	-5.3
MRZ	**Mangatainoka R**	7.08	203	P	P	13 42 53.1	-5.4
MRZ				S	S	13 44 14.4	-4.1
MTW	**Mount Morrison**	7.55	202	P	P	13 42 59.8	-5.3
CAW	**Cannon Point**	7.65	204	P	P	13 43 00.6	-5.8
QRZ	**Quartz Range**	8.49	217	⇓P	P	13 43 14.3	-3.8
QRZ				S	S	13 44 55.0	+1.3
THZ	**Tophouse**	9.05	212	P	P	13 43 20.0	-5.9
THZ				S	S	13 45 05.4	-2.3
DSZ	**Denniston Nort**	9.54	216	P	P	13 43 27.1	-5.6
DSZ				eE		13 43 35.2	
RPZ	**Rata Peaks** 3.7nm,0.3s,baz=72,slow=0.6,SNR=25	11.43	211	P	P	13 43 51.2	-7.2
RPZ	1.0nm,0.3s,baz=9.3,slow=7.9,SNR=3.8			S	S	13 45 58.7	-7.2
NOUC	**Port Laguerre**	16.56	313	eP	P	13 45 05.4	-0.4
RAR	**Rarotonga** 13nm,0.6s,mb4.5,baz=186,slow=9.8,SNR=2.4	22.60	61	P	P	13 46 10.6	-2.8
RAR	comp=Z,308nm,18.9s,MS3.8,baz=110,slow=30			LR	LR	13 52 35.6	
CNB	**Canberra Magne** 36nm,1.1s,mb4.8	24.52	259	eP	P	13 46 39.7	+7.7
TOO	**Toolangi** 9.1nm,1.8s,mb4.0	27.45	253	eP	P	13 47 03.7	+4.4
TBI	**Tubuai**	29.39	77	eLQ		13 52 57.1	
TBI	512nm,28.8s			eLR	LR	13 54 11.2	
STKA	**Stephens Creek** 6.5nm,0.8s,mb4.5	31.52	264	eP	P	13 47 38.2	+2.6
STKA	**Stephens Creek** 5.4nm,0.8s,mb4.4,baz=122,slow=14,SNR=6.7	31.52	264	P	P	13 47 37.6	+2.1
STKA	comp=Z,459nm,20.8s,MS4.1,baz=280,slow=32			LR	LR	13 58 08.8	
CTA	**Charters Tower** 12nm,1.0s,mb4.7	32.37	287	eP	P	13 47 43.6	+0.5
CTA	**Charters Tower** 7.9nm,0.7s,mb4.7,baz=106,slow=9.3,SNR=13	32.37	287	P	P	13 47 43.4	+0.3
CTAO	**Charters Tower** 10nm,0.8s,mb4.7	32.37	287	eP	P	13 47 43.6	+0.5
PPT	**Papeete** 818nm,29.0s	32.42	67	eLR	LR	13 55 28.0	
PMG	**Port Moresby** 8.7nm,1.0s,mb4.4,baz=77,slow=6.8,SNR=3.2	38.38	302	P	P	13 48 34.5	+0.2

PMG				LR	LR	14 02 22.1	
	comp=Z,611nm,18.3s,MS4.5,baz=142,slow=33						
PMG	Port Moresby	38.38	302	P	P	13 48 34.5	+0.2
PMG				LR	LR	14 02 22.1	
ASAR	Alice Springs	40.74	273	P	P	13 48 54.1	+0.3
	18nm,0.8s,mb4.7,baz=114,slow=7.3,SNR=81						
ASAR				LR	LR	14 05 10.2	
	comp=Z,291nm,18.5s,MS4.2,baz=308,slow=35						
ASPA	Alice Springs	40.74	273	*e*P	P	13 48 54.6	+0.8
ASPA				*i*	pP	13 49 03.5	-0.9
RKT	Rikitea	41.38	87	*e*LR	LR	13 59 47.6	
	194nm,21.8s						
WB2	Warramunga Arr	42.07	278	⇑*i*P	P	13 49 04.5	-0.3
WRAB	Tennant Creek	42.08	278	*e*P	P	13 49 04.8	-0.1
	59nm,1.1s,mb5.1						
WRA	Warramunga Arr	42.08	278	P	P	13 49 04.5	-0.4
	12nm,0.8s,mb4.5,baz=120,slow=7.6,SNR=34						
FORT	Forrest	42.93	260	*e*P	P	13 49 12.4	+0.7
	116nm,0.8s,mb5.7						
VNDA	Vanda	44.10	185	P	P	13 49 20.5	-0.1
	1.5nm,0.8s,mb3.8,baz=341,slow=7.1,SNR=7.5						
VNDA				LR	LR	14 03 42.6	
	comp=Z,324nm,21.4s,MS4.2,baz=23,slow=30						
VNDA	Vanda	44.10	185	*e*P	P	13 49 21.1	+0.5
	4.7nm,0.9s,mb4.2						
KAKA	Kakadu	47.49	285	*e*P	P	13 49 47.5	-0.8
	12nm,0.8s,mb4.9						
FITZ	Fitzroy Crossi	50.15	274	*e*P	P	13 50 09.1	+0.3
	11nm,0.9s,mb4.9						
FITZ				*e*		13 50 16.5	
FITZ	Fitzroy Crossi	50.15	274	P	P	13 50 09.3	+0.5
	14nm,0.9s,mb5.0,baz=168,slow=6.3,SNR=23						
FITZ				LR	LR	14 10 52.2	
	comp=Z,253nm,18.2s,MS4.3,baz=109,slow=35						
MUN	Mundaring	52.09	254	*e*P	P	13 50 24.5	+1.2
	30nm,3.5s						
MUN				*e*		13 50 30.5	
MBWA	Marble Bar	53.59	268	*e*P	P	13 50 33.9	-0.7
	17nm,0.9s,mb5.0						
QSPA	South Pole Qui	55.92	180	⇑*i*P	P	13 50 51.0	+0.2
	29nm,1.0s,mb5.3						
MAW	Mawson	67.93	202	P	P	13 52 10.6	-0.7
	3.6nm,0.9s,mb4.4,baz=144,slow=14,SNR=3.1						
MAW				LR	LR	14 21 56.0	
	comp=Z,302nm,18.1s,MS4.6,baz=248,slow=36						
SYO	Syowa Base	72.89	194	⇑P	P	13 52 41.8	+0.7
SYO	Syowa Base	72.89	194	⇑pP	pP	13 52 46.4	-5.9
SYO	Syowa Base	72.89	194	⇓PcP	PcP	13 52 56.4	-1.9
SNAA	Sanae	74.42	179	⇑*i*	P	13 52 48.8	-1.2
SNAA	Sanae	74.42	179	⇑*i*	P	13 52 56.9	+6.9
VNA3	Neumayer Olymp	74.67	177	⇓*i*	P	13 52 53.0	+1.5
VNA3	Neumayer Olymp	74.67	177	⇑*i*	P	13 52 59.9	+8.4
VNA2	Neumayer--Watz	75.07	178	⇓*i*	P	13 52 55.8	+2.0
VNA2	Neumayer--Watz	75.07	178	⇑*i*	P	13 53 02.7	+8.9
VNA1	Neumayer--Stat	75.31	177	⇑*i*	P	13 52 56.9	+1.7
VNA1	Neumayer--Stat	75.31	177	⇑*i*	P	13 53 04.3	+9.1
BAR	Barrett	89.73	49	*e*P	P	13 54 11.1	+0.5
CMB	Columbia Colle	91.14	43	*e*P	P	13 54 15.8	-1.2
MTUM	Tungsten Hills	91.72	45	*e*P	P	13 54 19.7	0.0
YBH	Yreka Blue Hor	92.45	39	P	P	13 54 22.6	-0.4
	4.2nm,1.1s,mb4.7,baz=241,slow=10,SNR=3.2						
CMAR	Chiang Mai Arr	92.48	291	P	P	13 54 22.7	-0.9
	0.4nm,0.4s,mb4.1,baz=117,slow=2.0,SNR=3.5						
NVAR	Mina Array Bea	92.60	44	P	P	13 54 21.4	-2.3
	2.0nm,0.9s,mb4.6,baz=207,slow=6.6,SNR=11						
NVAR				LR	LR	14 31 44.9	
	comp=Z,209nm,18.1s,MS4.6,baz=105,slow=33						
MNV	Mina	92.69	44	*e*P	P	13 54 23.7	-0.4
	3.2nm,1.1s,mb4.7						
TPNV	Topopah Spring	92.82	46	*e*P	P	13 54 24.6	-0.2
	4.3nm,1.1s,mb4.8						
TUC	Tucson	93.29	53	*e*P	P	13 54 28.2	+1.1
	4.7nm,0.8s,mb5.0						
LVC	Limon Verde	94.09	121	LR	LR	14 26 56.6	
	comp=Z,85nm,20.0s,MS4.2,baz=240,slow=29						
LVC	Limon Verde	94.09	121	P	P	13 54 32.5	+1.7
ELK	Elko	95.91	44	P	P	13 54 38.6	0.0
TXAR	Lajitas Array	96.39	59	P	P	13 54 38.5	-2.7
	0.3nm,0.3s,mb4.2,baz=180,slow=5.4,SNR=4.0						
TXAR				LR	LR	14 32 10.3	
	comp=Z,133nm,19.0s,MS4.4,baz=230,slow=32						
LPAZ	La Paz	98.66	116	LR	LR	14 30 57.1	
	comp=Z,91nm,19.4s,MS4.3,baz=5.7,slow=30						
PDAR	Pinedale Array	100.48	45	P	P	13 54 58.8	-0.7
	0.3nm,0.8s,baz=270,slow=2.7,SNR=3.2						
PDAR	Pinedale Array	100.48	45	P	P	13 54 58.8	-0.7
JOF	Joensuu	144.97	335	*e*p	PKPdf	14 00 46.4	-0.8
	4.8nm,0.9s						
FINES	FINESS Array B	147.77	336	PKPbc	PKPdf	14 00 52.4	+0.5
	1.4nm,0.6s,baz=63,slow=4.3,SNR=8.8						
DBIC	Dimbokro	152.35	171	PKPbc	PKPdf	14 01 07.7	+7.2
	18nm,1.2s,baz=264,slow=3.8,SNR=7.2						
DBIC				PKPab	PKPab	14 01 16.5	-3.3
	11nm,0.9s,baz=130,slow=3.6,SNR=6.6						
AKASG	Malin Array Be	152.65	316	PKPbc	PKPdf	14 01 06.5	+6.8
	0.3nm,0.3s,baz=49,slow=2.7,SNR=3.3						

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*NIED **04** 13:45:00,25.90N×124.20E,h200^{km},Mw4.7 Best double couple: M$_0$1.35×10^{16} NP1:φ$_s$189°,δ75°,λ-38°. NP2: φ$_s$291°,δ54°,λ-161°.*

*MOS **04** 13:45:05.9±1.1,26.17N×124.54E,h33^{km},mb4.6/17,Error ellipse: s-maj=22.5km s-min=10.5km az=119.6*

*BJI **04** 13:45:18.9,25.61N×124.82E,h177^{km},mB4.9,mb4.7*

*IDC **04** 13:45:23.5±0.8,26.01N×124.32E,h178^{km}±7^{km},mb3.8/22, mb1 4.0/23,mb1mx4.0/27,Error ellipse: s-maj=13.8km s-min=9.0km az=73.0*

*NEIC **04** 13:45:23.5±0.3,26.00N×124.39E,mb4.4/11,Error ellipse: s-maj=10.3km s-min=7.4km az=60.0*

*JMA **04** 13:45:26.5±0.3,25.95N×124.23E,h176^{km},M4.7*

ISC 04 13:45:24.1±0.2,**25.91N**±0.04×**124.38E**±0.03,**h198**^{km}±3^{km}, **h179**^{km}±5.7^{km}**:pP-P,n114,**σ1^{s}**12**/131,**mb4.2**/44,**3C-1D, Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTJ	Tarama	1.30	167	P	P	13 45 56.8	+0.6
JTJ				S	S	13 46 20.2	-0.8
JMJ	Miyako jima 2	1.37	143	P	P	13 45 58.4	+1.6
JMJ				S	S	13 46 22.5	+0.4
JOGS	Gusukube	1.47	141	P	P	13 45 59.7	+2.0
JOGS				S	S	13 46 24.6	+0.9
JIJ	Ishigaki jima	1.55	188	P	P	13 45 58.6	+0.1
JIJ				S	S	13 46 23.0	-2.0
IRIF	Iriomote-Funau	1.68	201	P	P	13 45 59.6	0.0
IRIF				S	S	13 46 25.9	-1.1
JKRS	Kuro-shima	1.70	192	P	P	13 46 00.3	+0.5
JKRS				S	S	13 46 26.1	-1.3
YOJ	Yonaguni jima	1.90	221	P	P	13 46 02.4	+0.6
YOJ				S	S	13 46 29.6	-1.3
HATJ	Hateruma jima	1.92	196	P	P	13 46 02.5	+0.6
HATJ				S	S	13 46 29.6	-1.5
JKE	Kume jima 2	2.20	79	P	P	13 46 06.6	+1.6
JKE				*e*S	S	13 46 36.7	+0.2
JAGN	Aguni-jima	2.66	75	P	P	13 46 11.3	+1.2
JAGN				*e*S	S	13 46 45.3	-0.4
TATO	Taipei	2.78	251	*e*P	P	13 46 12.8	+1.3
NAH1	Naha	2.99	84	P	P	13 46 15.6	+1.6
NAH1				*e*S	S	13 46 51.6	-1.0
JJT2	Tamagusuku 2	3.04	85	P	P	13 46 16.3	+1.7
JJT2				*e*S	S	13 46 53.8	+0.2
JIH	Iheya	3.40	70	P	P	13 46 19.8	+0.8
JIH				S	S	13 47 00.2	-1.3
JOW	Kunigami	3.61	74	P	P	13 46 21.9	+0.4
JOW				S	S	13 47 03.1	-2.9
	85nm,0.3s,baz=228,slow=11,SNR=7.8						
JOW	Kunigami	3.61	74	P	P	13 46 22.1	+0.5
JOW				S	S	13 47 03.2	-2.8
JTK	Tokunoshima	4.49	64	P	P	13 46 32.2	-0.4
JTK				*e*S	S	13 47 22.2	-3.5
JAM	Amami Oshima	5.28	61	P	P	13 46 41.2	-1.5
JAM				*e*S	S	13 47 39.5	-4.2
QZH	Quanzhou	5.32	261	⇑*i*P	P	13 46 43.9	+0.6
JMZ	Minamidaito 2	6.16	89	*e*S	S	13 48 00.8	-3.4
KS15	Wonju Array Si	11.88	14	*e*P	P	13 48 11.4	+3.2
ENH	Enshi	13.85	292	*e*P	P	13 48 36.4	+3.3
BJT	Baijiatuau	15.66	336	P	P	13 48 54.4	-1.0
	13nm,0.9s						
CBIJ	Chichi jima	15.98	82	P	P	13 49 01.7	+2.1
	9.5nm,0.3s,baz=274,slow=19,SNR=2.8						
CN2	Changchun	17.87	3	*e*P	P	13 49 21.9	+0.9
CN2				*e*S	S	13 52 31.7	+0.7
CN2				AMB	AMB		
	comp=Z,40nm,0.9s						
HHC	Hu-ho-hao-te	18.31	328	*e*P	P	13 49 25.9	+0.3
HHC				XS		13 52 44.4	
HHC				AMB	AMB		
	comp=Z,28nm,0.9s						
HHC				AMB	AMB		
	comp=Z,207nm,4.5s						
CD2	Chengdu	18.81	290	⇑*i*P	P	13 49 30.9	+0.2
CD2				AMB	AMB		
	comp=Z,50nm,0.6s						
MDJ	Mudanjiang	19.14	11	P	P	13 49 34.3	+0.3
MDJ				AMB	AMB		
	comp=Z,7.0nm,1.7s						
MDJ				AMB	AMB		
	comp=Z,180nm,4.7s						
KMI	Kunming	19.55	272	*e*P	P	13 49 41.5	+3.1
KMI				AMB	AMB		
	comp=Z,6.0nm,1.2s						
LZH	Lanzhou	20.28	305	*e*P	P	13 49 47.3	+1.5
LZH				PP	PP	13 50 19.5	+6.7
LZH				*e*S	S	13 53 18.5	+1.6
LZH				AMB	AMB		
	comp=Z,24nm,1.3s						
LZH				AMB	AMB		
	comp=Z,132nm,4.2s						
ASAJ	Asahikawa	23.41	35	P	P	13 50 16.1	-0.1
	comp=Z,7.2nm,0.5s,mb4.5,baz=236,slow=11,SNR=14						
ASAJ	Asahikawa	23.41	35	P	P	13 50 16.2	0.0
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.5s						
HIA	Hailar	23.60	352	*e*P	P	13 50 17.3	-0.6
	comp=Z,9.3nm,0.8s,mb4.5						
GTA	Gaotai	24.58	309	*e*P	P	13 50 27.2	-0.1
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.2						
CMAR	Chiang Mai Arr	24.67	258	P	P	13 50 28.5	+0.2
	comp=Z,1.5nm,0.6s,mb3.8,baz=58,slow=7.8,SNR=14						
CMAR				PcP	PcP	13 54 01.0	+0.1
	comp=Z,3.3nm,1.2s,baz=20,slow=1.5,SNR=6.6						
CMAR	Chiang Mai Arr	24.67	258	P	P	13 50 28.5	+0.2
CMAR						13 54 01.0	
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CMAR				pmax	pmax		
	comp=Z,3.0nm,1.2s						
ULN	Ulaanbaatar	25.81	333	⇑*i*P	P	13 50 38.0	-0.6
ULN	Ulaanbaatar	25.81	333	*e*P	P	13 50 38.1	-0.5
	comp=Z,4.2nm,0.4s,mb4.4						
SONM	Songino Array	26.07	332	P	P	13 50 39.7	-1.2
	comp=Z,5.0nm,0.7s,mb4.3,baz=152,slow=8.9,SNR=31						
SONM				PcP	PcP	13 54 03.6	-0.1
	comp=Z,1.6nm,0.6s,baz=154,slow=5.0,SNR=9.2						
GUN	Gumba	34.30	282	*e*P	P	13 51 53.7	+0.2
	comp=Z,11nm,0.3s,mb4.8						
WMQ	Urumqi	34.65	310	P	P	13 51 56.4	+0.1
WMQ				AP	pP	13 52 39.4	+1.5
WMQ				PP	PP	13 53 20.9	+0.9
WMQ				PCP	PcP	13 54 26.4	+0.3
WMQ				S	S	13 57 09.7	-0.7
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.4						
PKI	Pulchoki	34.75	282	*e*P	P	13 51 57.0	-0.3
	comp=Z,13nm,0.5s,mb4.7						
KKN	Kakani	34.84	282	*e*P	P	13 51 57.9	-0.2
	comp=Z,44nm,0.8s,mb5.0						
DMN	Daman	35.01	282	*e*P	P	13 51 59.3	-0.2
	comp=Z,23nm,0.8s,mb4.7						
GKN	Gorkha	35.38	282	*e*P	P	13 52 02.3	-0.4
	comp=Z,28nm,0.8s,mb4.8						
YAK	Yakutsk	36.29	4	*e*P	P	13 52 05.4	-4.5
YAK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.1						
KOLN	Koldanda	36.32	282	*e*P	P	13 52 10.6	+0.1
	comp=Z,25nm,0.9s,mb4.7						
MKAR	Makanchi Array	39.20	313	*i* P	P	13 52 33.8	-0.5
MKAR				pmax	pmax		
	comp=Z,13nm,0.5s						
ZAL	Zalesovo	40.46	325	P	P	13 52 44.0	-0.6
	comp=Z,6.6nm,0.6s,mb4.3,baz=0.3,slow=7.3,SNR=31						
ZAL				PcP	PcP	13 54 43.1	-0.7
	comp=Z,0.8nm,0.6s,baz=6.6,slow=7.8,SNR=3.4						
ZAL	Zalesovo	40.46	325	P	P	13 52 44.0	-0.6
ZAL						13 54 43.2	
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ZAL	Zalesovo	40.46	325	P	P	13 52 44.0	-0.6
ZAL				PcP	PcP	13 54 43.1	-0.7
PMG	Port Moresby	41.51	145	P	P	13 52 53.6	-0.1
	comp=Z,1.8nm,0.4s,mb3.9,baz=255,slow=6.1,SNR=3.4						
PMG	Port Moresby	41.51	145	P	P	13 52 53.6	0.0
PMG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
PMG	Port Moresby	41.51	145	P	P	13 52 53.6	-0.1
ULHL	Ulahol	42.49	305	P	P	13 53 02.3	+1.0
	SNR=12						
KURK	Kurchatov	42.70	318	*c i*P	P	13 53 01.9	-0.9
KURK				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.0						
KURK	Kurchatov	42.70	318	*e*P	P	13 53 02.0	-0.8
	comp=Z,5.3nm,0.4s,mb4.3						
TKM2	Tokmak 2	43.05	306	P	P	13 53 06.6	+0.9
	SNR=12						
TKM2	Tokmak 2	43.05	306	*e*P	P	13 53 06.0	+0.3
	comp=Z,11nm,0.5s,mb4.5						
KZA	Kyzart	43.21	305	P	P	13 53 08.7	+1.6
	SNR=8.3						
FITZ	Fitzroy Crossi	43.76	178	P	P	13 53 11.5	-0.3
	comp=Z,4.7nm,0.6s,mb4.0,baz=339,slow=3.9,SNR=7.4						
UCH	Uchtor	43.77	305	P	P	13 53 13.6	+2.0
	SNR=9.1						
UCH	Uchtor	43.77	305	*e*P	P	13 53 13.2	+1.6
	comp=Z,6.2nm,0.6s,mb4.1						
AML	Almayashu	44.37	305	P	P	13 53 17.8	+1.5
	SNR=7.1						
AML	Almayashu	44.37	305	*e*P	P	13 53 17.3	+1.0
	comp=Z,4.1nm,0.4s,mb4.1						
WRAB	Tennant Creek	46.59	167	*e*P	P	13 53 34.2	+0.2
	comp=Z,5.0nm,0.9s,mb3.8						
WRA	Warramunga Arr	46.59	167	P	P	13 53 34.3	+0.3
	comp=Z,1.6nm,0.4s,mb3.7,baz=348,slow=8.8,SNR=19						
WRA				pP	pP	13 54 14.4	-3.1
	comp=Z,1.1nm,0.6s,baz=349,slow=8.6,SNR=4.2						
WRA				PcP	PcP	13 55 04.9	-0.2
	comp=Z,0.7nm,0.7s,baz=347,slow=3.7,SNR=4.5						
WRA	Warramunga Arr	46.59	167	P	P	13 53 34.3	+0.2
WRA						13 55 04.9	
WRA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVA0	Borovoye Array	48.23	319	P	P	13 53 45.2	-1.1
BVAR	Borovoye Array	48.23	319	P	P	13 53 45.3	-1.0
	comp=Z,2.1nm,0.3s,mb3.9,baz=106,slow=9.5,SNR=13						
BVAR				PcP	PcP	13 55 10.0	-0.6
	comp=Z,2.7nm,0.8s,baz=108,slow=4.7,SNR=8.2						
CHKZ	Chkalovo	48.24	320	*i* P	P	13 53 45.1	-1.3
CHKZ				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.6						
CHKZ	Chkalovo	48.24	320	*e*P	P	13 53 45.2	-1.2
	comp=Z,3.3nm,0.6s,mb3.8						
BRVK	Borovoye	48.30	319	*e*P	P	13 53 45.5	-1.4
ASAR	Alice Springs	50.14	169	P	P	13 54 01.3	0.0
	comp=Z,0.8nm,0.6s,mb3.2,baz=354,slow=14,SNR=11						
ASAR				pP	pP	13 54 41.5	-3.8
	comp=Z,0.5nm,0.6s,baz=355,slow=11,SNR=1.7						
ARU	Arti	55.51	322	*e*P	P	13 54 38.9	-1.4
ARU	Arti	55.51	322	*e*P	P	13 54 39.3	-1.0
	comp=Z,14nm,0.6s,mb4.7						
STKA	Stephens Creek	59.77	163	P	P	13 55 10.1	-0.3
	comp=Z,0.9nm,0.5s,mb3.7,baz=4.2,slow=23,SNR=4.2						
ILAR	Eielson Array	66.35	28	P	P	13 55 51.1	-1.9
	comp=Z,0.5nm,0.5s,mb3.4,baz=263,slow=4.9,SNR=15						
ILAR	Eielson Array	66.35	28	P	P	13 55 51.1	-1.9
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KIV	Kislovodsk	66.76	309	*d i*P	P	13 55 56.2	+0.2
KIV				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.8						
KEV	Kevo	68.46	338	*e*p	P	13 56 04.3	-1.8
JOF	Joensuu	68.64	331	*e*p	P	13 56 05.2	-2.1
	comp=Z,0.9nm,0.3s,mb3.9						
JOF	Joensuu	68.64	331	*e*P	P	13 56 05.2	-2.1
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.9						
ARCES	ARCESS Array B	69.03	338	P	P	13 56 08.3	-1.3
	comp=Z,2.1nm,0.7s,mb3.9,baz=80,slow=9.2,SNR=12						
ARCES	ARCESS Array B	69.03	338	P	P	13 56 08.3	-1.2
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	69.03	338	P	P	13 56 08.3	-1.3
KAF	Kangasniemi	71.09	331	*e*p	P	13 56 20.6	-1.5
	baz=69,slow=6.4						
FINES	FINESS Array B	71.42	330	P	P	13 56 23.1	-1.1
	comp=Z,3.1nm,0.5s,mb4.2,baz=54,slow=6.1,SNR=46						
FINES	FINESS Array B	71.42	330	P	P	13 56 23.1	-1.0
FINES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MALT	Malatya	71.44	304	*e*P	P	13 56 25.9	+1.2
	comp=Z,11nm,0.7s,mb4.6						
AKASG	Malin Array Be	73.51	319	P	P	13 56 34.9	-1.7
	comp=Z,1.0nm,0.4s,mb3.8,baz=56,slow=6.6,SNR=9.1						
AKASG	Malin Array Be	73.51	319	P	P	13 56 34.9	-1.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRTR	Keskin Array B	74.48	307	P	P	13 56 41.9	-0.5
	comp=Z,5.4nm,0.7s,mb4.3,baz=87,slow=5.8,SNR=22						
BRTR	Keskin Array B	74.48	307	P	P	13 56 41.9	-0.5
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NB2	NORSAR Subarra	78.04	333	P	P	13 57 01.4	-0.4
	comp=Z,1.4nm,0.5s,mb3.9,baz=51,slow=5.8						
NOA	NORSAR Array B	78.04	333	P	P	13 57 01.0	-0.7
	comp=Z,2.5nm,0.6s,mb4.0,baz=56,slow=5.5,SNR=9.2						
NOA	NORSAR Array B	78.04	333	P	P	13 57 01.0	-0.8
NOA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NOA	NORSAR Array B	78.04	333	P	P	13 57 01.0	-0.8
OJC	Ojcow	79.20	321	*e*P	P	13 57 08.5	+0.2
YKA	Yellowknife Ar	80.25	24	P	P	13 57 13.6	+0.1
	comp=Z,1.6nm,0.6s,mb3.8,baz=302,slow=5.4,SNR=28						
YKA				pP	pP	13 57 55.6	-6.2
	comp=Z,0.1nm,0.5s,baz=272,slow=36,SNR=0.9						
CLL	Collm	82.40	324	P	P	13 57 26.0	+1.0
GERES	GERESS Array B	83.33	322	P	P	13 57 29.2	-0.6
	comp=Z,1.4nm,0.7s,mb3.8,baz=250,slow=38,SNR=7.1						
GERES	GERESS Array B	83.33	322	P	P	13 57 29.2	-0.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
DAVOX	Davos	86.62	321	P	P	13 57 47.0	+0.9
	comp=Z,2.1nm,0.6s,mb4.1,baz=149,slow=8.5,SNR=3.8						
DAVOX	Davos	86.62	321	P	P	13 57 47.0	+0.9
KMBO	Kilima Mbogo	87.90	268	P	P	13 57 53.5	+0.6
	comp=Z,1.1nm,0.5s,mb3.9,baz=32,slow=24,SNR=4.9						
KMBO	Kilima Mbogo	87.90	268	P	P	13 57 53.5	+0.6
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.5s						
NEW	Newport	87.93	36	P	P	13 57 54.3	+2.1
	comp=Z,5.8nm,0.5s,mb4.7						
NEW	Newport	87.93	36	P	P	13 57 54.3	+2.1
NEW				pmax	pmax		
	comp=Z,6.0nm,0.5s						
NVAR	Mina Array Bea	93.19	44	P	P	13 58 19.1	+2.2
	comp=Z,0.6nm,0.6s,mb3.8,baz=300,slow=6.6,SNR=4.7						
PDAR	Pinedale Array	95.53	37	P	P	13 58 28.4	+0.8
	comp=Z,0.4nm,0.5s,mb3.9,baz=132,slow=1.2,SNR=4.5						
DBIC	Dimbokro	121.05	296	PKP	PKPdf	14 03 55.2	+1.5
	comp=Z,2.2nm,0.8s,baz=93,slow=7.3,SNR=3.0						
DBIC	Dimbokro	121.05	296	PKIKP	PKPdf	14 03 55.2	+1.5
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.9s						
DBIC	Dimbokro	121.05	296	PKP	PKPdf	14 03 55.2	+1.5

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*LDG **04** 14:04:57.8±0.1,45.59N×3.79E,h15^{km},Md2.2/1,Ml1.8/7, Error ellipse: s-maj=3.3km s-min=1.5km az=58.0*

STR 04 14:04:59.0±0.2**,45.59N×3.75E,h5**^{km}±1^{km}**,Ml1.9,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0,France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLDF	La Plantade	0.39	347	Pg	Pg	14 05 06.7	-0.1
PLDF				Sg	Sg	14 05 12.2	+0.1
LBL	Lubilhac	0.50	225	Pg	Pg	14 05 08.8	-0.3
LBL				Sg	Sg	14 05 15.4	-0.4
AGO	Saint Agoulin	0.63	317	Pg	Pg	14 05 11.4	-0.3
AGO				Sg	Sg	14 05 20.0	-0.1
VIVF	Saint-Julien-l	0.98	138	*e*Pg	Pg	14 05 16.2	-2.4
VIVF				*e*Sg	Sg	14 05 28.5	-3.2
	2.0nm,0.2s						
SMF	Signal de Mont	1.06	3	*e*Sg	Sg	14 05 31.1	-3.1
	2.6nm,0.2s						
BGF	Bois d'Agland	1.15	327	*e*Pg	Pg	14 05 20.1	-2.0
AVF	Avril sur Loir	1.23	347	*e*Pg	Pg	14 05 21.0	-2.6
AVF				*e*Sg	Sg	14 05 36.6	-3.5
	1.1nm,0.2s						
TCF	Toulx Ste Croi	1.28	304	*e*Pg	Pg	14 05 22.3	-2.3
TCF				*e*Sn	Sn	14 05 36.3	-5.0
TCF				*e*Sg	Sg	14 05 38.4	-3.3
	1.0nm,0.2s						
SSF	Saint Saulge	1.48	354	*e*Sg	Sg	14 05 44.6	-3.7
	1.5nm,0.3s						
LASF	Ste Croix	1.52	177	*e*Sg	Sg	14 05 45.5	-4.0
	1.7nm,0.2s						

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*LDG **04** 14:14:16.8±0.1,42.48N×2.87E,h3^{km},Ml2.2/11,Error ellipse: s-maj=2.0km s-min=1.0km az=172.0*

MDD 04 14:14:15.2±0.7**,42.45N×2.91E,mbLg1.7**/13**,1C,Error ellipse: s-maj=5.1km s-min=3.5km az=93.0,PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EJON	La Jonquera	0.02	257	⇑Pg	Pg	14 14 15.4	-0.2
	120nm,0.1s,SNR=18						
EJON				Lg		14 14 16.2	
	1µm,0.1s,SNR=7.9						
SJAF	Saint Jean de	0.04	325	Pg	Pg	14 14 15.8	-0.2
FILF	Fillols	0.28	293	Pg	Pg	14 14 21.8	+1.0
FILF				Lg		14 14 27.5	
CBRU	Bruguera	0.57	253	Pg	Pg	14 14 26.1	-0.4
CARF	Carcanieres	0.65	294	Pg	Pg	14 14 27.9	-0.3
CARF				Lg		14 14 36.3	
CLLI	Llivia	0.69	272	Pg	Pg	14 14 28.4	-0.7
CFON	Fontmartina	0.78	207	Pg	Pg	14 14 30.4	-0.3
CFON				Lg		14 14 41.8	
	2.8nm,0.1s						
MTLF	Montolieu	1.02	330	*e*Pg	Pg	14 14 34.6	-1.1
MTLF				*e*Pn	Pn	14 14 35.3	-1.4
MTLF				*e*Sg	Sg	14 14 47.9	-1.4
	11nm,0.3s						
MTLF	Montolieu	1.02	330	Pg	Pg	14 14 34.6	-1.1
MTLF				Lg		14 14 47.9	
	5.3nm,0.3s						
EMIR	Miracle	1.16	243	Pg	Pg	14 14 37.4	-1.0
	8.3nm,0.2s,SNR=6.1						
EMIR				Lg		14 14 52.8	
	2.3nm,0.1s,SNR=5.0						
CORG	Organya	1.20	260	Pg	Pg	14 14 38.7	-0.5
CORG				Lg		14 14 54.5	
	1.1nm,0.1s						
CSOR	Sort	1.32	267	Pg	Pg	14 14 40.4	-1.1
CSOR				Lg		14 14 59.4	
	0.9nm,0.1s						
CAVN	Les Avellanes	1.70	251	Pg	Pg	14 14 46.8	-2.4
CAVN				Lg		14 15 09.4	
	1.4nm,0.1s						
EPOB	Poblet	1.75	232	Pg	Pg	14 14 48.0	-2.2
	1.9nm,0.1s,SNR=12						
EPOB				Lg		14 15 10.5	
	3.8nm,0.2s,SNR=5.0						
LASF	Ste Croix	1.76	23	*e*Pn	Pn	14 14 45.8	-1.4
LASF				*e*Pg	Pg	14 14 49.2	-1.2
LASF				*e*Sg	Sg	14 15 12.5	-1.4
	3.0nm,0.3s						
EGRA	Graus	1.94	263	Pg	Pg	14 14 49.1	-4.8
	1.5nm,0.3s,SNR=7.9						
EGRA				Lg		14 15 18.0	
	4.0nm,0.3s,SNR=6.4						
EPF	Esparros	1.98	288	*e*Pn	Pn	14 14 49.1	-1.2
EPF				*e*Pg	Pg	14 14 53.0	-1.8
EPF				*e*Sg	Sg	14 15 18.6	-2.6
	3.4nm,0.2s						
EBIE	Bielsa	2.06	277	Pg	Pg	14 14 53.5	-2.8
	0.8nm,0.2s,SNR=17						
EBIE				Lg		14 15 21.0	
	2.7nm,0.2s,SNR=5.0						

ERTA	Horta de San J	2.44	233	Lg		14 15 31.7	
	1.5nm,0.2s,SNR=7.9						
SMRF	Simiane la Rot	2.47	51	*e*Pn	Pn	14 14 56.1	-1.3
SMRF				*e*Pg	Pg	14 15 03.9	-0.6
SMRF				*e*Sg	Sg	14 15 34.8	-2.7
CAF	Calviac	2.55	346	*e*Pn	Pn	14 14 56.9	-1.6
CAF				*e*Pg	Pg	14 15 03.3	-2.8
CAF				*e*Sg	Sg	14 15 36.0	-4.0
	2.8nm,0.2s						
ETSF	Etsaut	2.60	281	*e*Pg	Pg	14 15 04.5	-2.6
ETSF				*e*Sg	Sg	14 15 36.8	-4.9
	4.3nm,0.3s						
VIVF	Saint-Julien-l	2.72	27	*e*Pn	Pn	14 14 59.7	-1.2
VIVF				*e*Pg	Pg	14 15 07.0	-2.5
VIVF				*e*Sn	Sn	14 15 31.2	-3.8
VIVF				*e*Sg	Sg	14 15 42.3	-3.5
	1.5nm,0.3s						
LMR	La Mourre	2.79	70	*e*Pn	Pn	14 15 00.4	-1.5
LMR				*e*Sn	Sn	14 15 33.7	-3.0
LMR				*e*Sg	Sg	14 15 44.9	-3.1
	1.5nm,0.2s						
LFF	La Frestale	2.94	328	*e*Sg	Sg	14 15 47.3	-5.9
	3.2nm,0.3s						
FRF	La Foret Royal	2.96	67	*e*Pn	Pn	14 15 02.7	-1.6
FRF				*e*Sn	Sn	14 15 37.4	-3.6
FRF				*e*Sg	Sg	14 15 50.2	-3.4
	0.9nm,0.2s						
RJF	Les Rejaudoux	3.02	341	*e*Pn	Pn	14 15 03.5	-1.8
RJF				*e*Pg	Pg	14 15 12.1	-3.5
RJF				*e*Sg	Sg	14 15 50.9	-5.0
	2.7nm,0.3s						
SJPF	Ste Jean	3.12	284	*e*Pg	Pg	14 15 14.1	-3.3
SJPF				*e*Sg	Sg	14 15 53.3	-5.7
	2.1nm,0.3s						

CASC 04 14:27:29.1±1.4**,12.72N×88.79W,h40^{km}**±101^{km}**,MD3.8, 8C-14D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VSM	San Miguel	0.86	35	*e*P	P	14 27 45.8	+1.0
VSM				*e*S	S	14 27 57.2	+0.8
SNVI	San Vicente	0.89	357⇓	*e*P	P	14 27 45.1	-0.1
SNVI				*e*S	S	14 27 58.2	+1.1
BLLM	Bellamira	0.90	37⇑	*i*P	P	14 27 45.4	+0.1
BLLM				*e*S	S	14 27 57.7	+0.5
LFRS	El Faro	0.94	343⇑	*e*P	P	14 27 45.7	-0.2
LFRS				*e*S	S	14 27 59.7	+1.4
LCBS	La Ceiba	0.95	349⇑	*e*P	P	14 27 45.9	-0.2
LCBS				*e*S	S	14 27 59.7	+1.0
LBRS	Las Brisas	1.04	346⇓	*e*P	P	14 27 47.5	+0.1
SNET	Serv Nac Est T	1.05	336⇑	*e*P	P	14 27 47.5	-0.1
SNET				*e*S	S	14 28 00.4	-0.9
LFU	La Fuente	1.07	343	*e*P	P	14 27 47.8	0.0
LFU				*e*S	S	14 28 01.6	-0.1
CNCH	Conchagua	1.08	59	*e*P	P	14 27 48.0	+0.1
CNCH				*e*S	S	14 28 03.0	+1.0
BOQS	Boqueron	1.12	335⇓	*e*P	P	14 27 48.7	+0.2
BOQS				*e*S	S	14 28 03.0	+0.1
CAHU	Cacacuatique	1.19	28⇓	*e*P	P	14 27 50.1	+0.7
CAHU				*e*S	S	14 28 06.4	+1.7
SBLS	San Blas	1.38	324⇓	*e*P	P	14 27 52.4	+0.1
SBLS				*e*S	S	14 28 10.3	+0.7
SNJE	San Jose	1.39	325	*e*P	P	14 27 52.5	0.0
SNJE				*e*S	S	14 28 10.3	+0.4
RTR	El Retiro	1.44	325⇓	*e*P	P	14 27 53.5	+0.3
RTR				*e*S	S	14 28 11.1	+0.1
RBDL	Robledal	1.64	328⇓	*e*P	P	14 27 56.1	+0.2
CRIN	San Cristobal	1.69	90⇓	*e*P	P	14 27 57.0	+0.3
CRIN				*e*S	S	14 28 17.8	+0.4
PYN	Poneloya	1.75	101⇑	*e*P	P	14 27 57.0	-0.6
PYN				*e*S	S	14 28 18.3	-0.6
MTO2	Montecristo 2	1.76	342⇑	*e*P	P	14 27 57.7	0.0
LEON	Leon	1.87	99⇓	*e*P	P	14 27 58.3	-1.0
TEL3	Telica 3	1.90	94⇓	*e*P	P	14 27 59.3	-0.4
TEL3				*e*S	S	14 28 22.2	-0.4
TELN	Telica	1.91	93⇓	*e*P	P	14 27 59.4	-0.4
TELN				*e*S	S	14 28 22.4	-0.5
MIRN	Miramar	2.04	98⇑	*e*P	P	14 28 01.4	-0.3
CNGN	Cerro Negro	2.05	96⇓	*e*P	P	14 28 01.5	-0.3
CNGN				*e*S	S	14 28 24.6	-1.7
COPN	Copaltepe	2.21	104⇓	*e*P	P	14 28 03.3	-0.8
COPN				*e*S	S	14 28 30.0	-0.3
MOMJ	Momotombo	2.21	98⇑	*e*P	P	14 28 03.9	-0.3
APYN	Apoyeque	2.43	101	*e*P	P	14 28 06.6	-0.6
TICN	Ticuantepe	2.59	105⇓	*e*P	P	14 28 08.9	-0.6

IDC 04 14:38:06.5±5.9**,20.90S×177.81W,h592^{km}**±75^{km}**, mb3.0**/7**,mb1 3.3**/8**,mb1mx3.1**/17**,Error ellipse: s-maj=45.6km s-min=25.2km az=178.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	17.85	193	P	P	14 41 40.8	-1.0
	1.6nm,0.3s,baz=332,slow=2.9,SNR=9.3						
CTA	Charters Tower	33.63	265	P	P	14 43 58.8	-2.0
	2.3nm,0.7s,baz=95,slow=12,SNR=5.4						
ASAR	Alice Springs	44.60	257	P	P	14 45 27.9	-1.1
	1.2nm,0.6s,baz=95,slow=7.4,SNR=25						
WRA	Warramunga Arr	44.72	262	P	P	14 45 28.0	-2.1
	0.9nm,0.3s,baz=96,slow=7.2,SNR=74						
FITZ	Fitzroy Crossi	53.15	263	P	P	14 46 31.1	-1.2
	1.3nm,0.7s,baz=160,slow=0.7,SNR=4.2						
YBH	Yreka Blue Hor	80.49	38	P	P	14 49 19.0	+0.1
	0.8nm,0.7s,baz=225,slow=5.7,SNR=2.5						
ILAR	Eielson Array	88.66	13	P	P	14 49 55.8	-2.5
	0.3nm,0.7s,baz=225,slow=5.0,SNR=5.8						
CMAR	Chiang Mai Arr	90.41	290	P	P	14 50 07.7	+0.3
	0.9nm,0.7s,baz=120,slow=2.9,SNR=8.2						
AKASG	Malin Array Be	143.45	331	PKP	PKPdf	14 56 31.9	-2.1
	2.3nm,0.5s,baz=40,slow=4.2,SNR=12						
GERES	GERESS Array B	150.63	344	PKPbc	PKPdf	14 56 51.9	+6.1
	0.1nm,0.4s,baz=45,slow=3.8,SNR=3.6						

*JMA **04** 14:39:36.9,26.59N×130.12E,h46^{km},M4.2*
*IDC **04** 14:39:39.9±5.5,26.49N×129.97E,h42^{km}±53^{km},mb3.7/5, mb1 4.0/5,mb1mx3.6/20,MS4.0/1,Ms1 4.0/1,ms1mx2.9/22, Error ellipse: s-maj=41.3km s-min=23.8km az=62.0*
ISC 04 14:39:37.1±0.6**,26.61N**±0.04×**130.09E**±0.04**,h46^{km},n19, σ1^{s}07**/28**,mb3.8**/5**,Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMZ	Minamidaito 2	1.29	127	P	P	14 39 58.3	-0.8
JMZ				S	S	14 40 13.7	-1.7
JTK	Tokunoshima	1.55	319	P	P	14 40 03.5	+0.7
JTK				S	S	14 40 21.5	-0.3
JOW	Kunigami	1.64	278	P	P	14 40 04.5	+0.5
	576nm,0.3s,baz=113,slow=21,SNR=461						
JOW				S	S	14 40 23.6	-0.4
	130nm,0.3s,baz=86,slow=29,SNR=6.6						
JOW	Kunigami	1.64	278	P	P	14 40 04.5	+0.5
JOW				S	S	14 40 23.9	-0.1
JZK	Kikaishima	1.70	357	*e*S	S	14 40 26.3	+0.7
JAM	Amami Oshima	1.84	347	P	P	14 40 07.3	+0.4
JAM				*e*S	S	14 40 28.3	-0.8
JIH	Iheya	1.94	283	P	P	14 40 08.8	+0.5
JIH				S	S	14 40 31.5	0.0
JJT2	Tamagusuku 2	2.15	258	P	P	14 40 11.8	+0.5
JJT2				*e*S	S	14 40 36.9	+0.1
NAH1	Naha	2.19	260	P	P	14 40 12.1	+0.3
NAH1				*e*S	S	14 40 37.7	-0.1
JAGN	Aguni-jima	2.55	270	P	P	14 40 17.1	+0.1
JAGN				*e*S	S	14 40 46.3	-0.6
JKE	Kume jima 2	2.97	265	P	P	14 40 22.6	-0.4
JKE				*e*S	S	14 40 55.9	-1.8
JNN	Nakanoshima	3.22	357	*e*S	S	14 41 01.6	-2.5
JKC	Kuchinoerabu	3.84	1	*e*S	S	14 41 16.2	-3.4
JHJ	Hachijo jima 2	10.62	50	LR	LR	14 46 05.6	
	comp=Z,863nm,20.5s,baz=75,slow=36						
SONM	Songino Array	28.17	325	P	P	14 45 30.2	+3.0
	0.4nm,0.8s,mb3.1,baz=130,slow=11,SNR=2.9						
WRA	Warramunga Arr	46.46	174	P	P	14 48 02.1	+0.5
	1.8nm,0.9s,mb4.0,baz=354,slow=8.4,SNR=8.0						
FINES	FINESS Array B	73.35	331	P	P	14 51 06.6	+1.1
	4.6nm,1.0s,mb4.4,baz=90,slow=1.9,SNR=6.2						
YKA	Yellowknife Ar	77.47	25	P	P	14 51 30.9	+1.9
	0.7nm,0.8s,mb3.6,baz=299,slow=5.5,SNR=9.3						
PDAR	Pinedale Array	91.82	39	P	P	14 52 45.1	+3.7
	0.5nm,0.8s,mb3.9,baz=326,slow=3.3,SNR=4.0						

*IDC **04** 14:45:55.6±2.6,25.79S×137.44E,mb1 3.2/4, mb1mx3.1/11,ML2.6/4,Error ellipse: s-maj=33.7km s-min=20.1km az=52.0*
*AUST **04** 14:45:57.9,25.45S×137.56E,ML1.8*
ISC 04 14:45:54.1±1.0**,25.61S**±0.06×**137.64E**±0.07**,h10^{km},n7, σ1^{s}36**/14**,Northern Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	3.91	299	Pn	Pn	14 46 58.0	+2.4
	0.2nm,0.3s,baz=127,slow=13,SNR=11						
ASAR				Pg	Pg	14 47 09.5	-2.6
	1.1nm,0.3s,baz=120,slow=16,SNR=24						
ASAR				Sn	Sn	14 47 42.0	0.0
	0.7nm,0.3s,baz=122,slow=22,SNR=7.8						
ASAR				Lg		14 47 59.2	
	1.1nm,0.3s,baz=124,slow=28,SNR=10.0						
ASPA	Alice Springs	3.91	299	*e*P	Pn	14 46 57.7	+2.1
ASPA				*e*S	Sn	14 47 42.5	+0.5
QIS	Mount Isa	5.34	20	*e*P	Pn	14 47 17.5	+1.6
QIS				*e*S	Sn	14 48 18.1	-0.1
	0.9nm,0.3s						
WB2	Warramunga Arr	6.40	331	*e*P	Pn	14 47 31.3	+0.5
WB2				*e*S	Sn	14 48 42.9	-1.8
WRA	Warramunga Arr	6.40	331	Pn	Pn	14 47 31.3	+0.4
	0.1nm,0.3s,baz=148,slow=12,SNR=9.5						
WRA				Sn	Sn	14 48 43.7	-1.2
	0.3nm,0.3s,baz=144,slow=22,SNR=6.5						
WRA				Lg		14 49 19.7	
	0.5nm,0.3s,baz=159,slow=28,SNR=5.4						
STKA	Stephens Creek	7.15	152	Pn	Pn	14 47 39.8	-1.5
	0.1nm,0.3s,baz=329,slow=14,SNR=2.5						
STKA				Sn	Sn	14 48 54.8	-8.7
	0.1nm,0.3s,baz=312,slow=12,SNR=2.6						
FITZ	Fitzroy Crossi	13.40	301	Pn	P	14 49 06.7	-0.3
	0.0nm,0.3s,baz=114,slow=12,SNR=3.8						

*ROM **04** 14:49:53.6±1.0,43.14N×15.41E,h10^{km},MD3.0/8, ML2.5/5,Error ellipse: s-maj=9.3km s-min=6.3km az=90.0*
*NEIC **04** 14:49:53.6,43.14N×15.41E,h10^{km},MD3.0(ROM), ML3.1(LDG),After ROM.*
*CSEM **04** 14:49:54.7±0.1,43.09N×15.45E,h40^{km},ML3.2/5,Error ellipse: s-maj=2.9km s-min=2.6km az=73.0*
*LDG **04** 14:49:57.3±0.4,43.23N×15.26E,h10^{km},Ml3.1/5,Error ellipse: s-maj=9.0km s-min=5.0km az=71.0*
ISC 04 14:49:52.6±0.5**,43.11N**±0.03×**15.45E**±0.05**,h10^{km},n49, σ1^{s}08**/52**,2C-1D,Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RGNG	Rignano Grg	1.44	176	*e*PN	Pn	14 50 18.6	-0.2
TERO	Teramo	1.44	251	*e*PN	Pn	14 50 18.8	-0.1
TERO	Teramo	1.44	251	*e*Pn	Pn	14 50 18.8	-0.1
FGMS	Monte Sant'Ang	1.45	165	*e*PN	Pn	14 50 21.3	+2.3
	148nm,0.6s						
FGMS	Monte Sant'Ang	1.45	165	*e*Pn	Pn	14 50 21.3	+2.3
FGMS	Monte Sant'Ang	1.45	165	*e*Pn	Pn	14 50 21.3	+2.3
	148nm,0.6s						
NVLJ	Novalja	1.52	344	*i* Pn	Pn	14 50 20.1	+0.1
NVLJ				*i* Pg	Pg	14 50 20.9	-2.1
NVLJ				*i* Sn	Sn	14 50 41.3	+1.5
NVLJ				*i* Sg	Sg	14 50 41.7	-1.5
NVLJ	Novalja	1.52	344	*i* Pn	Pn	14 50 20.0	0.0
NVLJ	Novalja	1.52	344	*i* Pg	Pg	14 50 20.8	-2.1
NVLJ				*i* Sn	Sn	14 50 41.3	+1.4
NVLJ				*i* Sg	Sg	14 50 41.6	-1.6
INTR	Introdacqua	1.58	227	*e*PN	Pn	14 50 21.9	+1.0
INTR	Introdacqua	1.58	227	*e*Pn	Pn	14 50 21.9	+1.0
CII	Carovilli	1.62	212	*e*P	Pn	14 50 25.5	+4.1
CII	Carovilli	1.62	212	*e*P	Pn	14 50 25.5	+4.0
CING	Cingoli	1.67	280	*e*PN	Pn	14 50 21.9	-0.3
CING	Cingoli	1.67	280	*e*Pn	Pn	14 50 21.9	-0.2
STON	Ston	1.67	97	*i* Pn	Pn	14 50 22.3	+0.1
STON				*i* Sg	Sg	14 50 46.2	-2.0
STON	Ston	1.67	97	*i* Pn	Pn	14 50 22.2	0.0
STON				*i* Sg	Sg	14 50 46.2	-2.1
AQU	L'Aquila	1.69	244	*e*P	Pn	14 50 23.3	+0.9
AQU	L'Aquila	1.69	244	*e*P	Pn	14 50 23.3	+0.9
SNTG	Esanatoglia	1.84	275	*e*PN	Pn	14 50 23.9	-0.7
	70nm,0.4s						
SNTG	Esanatoglia	1.84	275	*e*Pn	Pn	14 50 23.9	-0.7
	70nm,0.4s						
SDI	San Donato	1.85	222	*e*PN	Pn	14 50 24.6	-0.1
	66nm,0.6s						
SDI	San Donato	1.85	222	*e*Pn	Pn	14 50 24.6	-0.2
SDI	San Donato	1.85	222	*e*Pn	Pn	14 50 24.6	-0.1
	66nm,0.6s						
ARV	Arcevia	1.87	283	*e*PN	Pn	14 50 24.5	-0.6
	12nm,0.3s						
ARV	Arcevia	1.87	283	*e*Pn	Pn	14 50 24.4	-0.6
ARV	Arcevia	1.87	283	*e*Pn	Pn	14 50 24.5	-0.6
	12nm,0.3s						
FSSB	Fossombrone	2.03	288	*e*PN	Pn	14 50 27.0	-0.4
FSSB	Fossombrone	2.03	288	*e*Pn	Pn	14 50 27.0	-0.4
MURB	Monte Urbino	2.14	275	*e*PN	Pn	14 50 28.9	-0.1
MURB	Monte Urbino	2.14	275	*e*Pn	Pn	14 50 28.9	-0.1
MNS	Montasola	2.16	251	*e*PN	Pn	14 50 30.2	+1.0
	17nm,0.3s						
MNS	Montasola	2.16	251	*e*Pn	Pn	14 50 30.2	+1.0
	17nm,0.3s						
VBY	Vinica-Bojanci	2.40	357	*e*Pn	Pn	14 50 34.9	+2.2
VBY				*e*Sn	Sn	14 51 04.3	+1.9
VOY	Vojsko	3.13	340	*e*Pn	Pn	14 50 42.7	-0.3
VOY				*e*Sn	Sn	14 51 20.5	-0.3
OBKA	Obir	3.46	350⇑	*i*PN	Pn	14 50 48.3	+0.5
OBKA				*i* SN	Sn	14 51 30.1	+0.8
KBA	Koelnbreinsper	4.24	340⇑	*i*PN	Pn	14 50 58.3	-0.5
KBA				*i* SN	Sn	14 51 49.2	+0.2
PGF	Pioggiola	4.78	265	*e*Pn	Pn	14 51 04.8	-1.6
MOA	Molln	4.82	350⇓	*i*PN	Pn	14 51 07.2	+0.2
MOA				*i* SN	Sn	14 52 03.6	+0.1
SBF	Sospel	5.88	280	*e*Pn	Pn	14 51 20.3	-1.7
FRF	La Foret Royal	6.44	277	*e*Pn	Px	14 51 28.1	
MBDF	Montbardon	6.47	287	*e*Pn	Px	14 51 27.1	
MBDF				*e*Sn	Sx	14 52 36.5	
	1.2nm,0.3s						
LPG	La Plagne	6.68	294	*e*Pn	Px	14 51 30.5	
LPG				*e*Sn	Sx	14 52 42.0	
	3.5nm,0.4s						
LPL	La Plagne	6.70	294	*e*Pn	Px	14 51 30.2	
LPL				*e*Sn	Sx	14 52 42.2	
	5.2nm,0.4s						
ORIF	Oris-en-Rattie	7.13	288	*e*Pn	Px	14 51 37.1	
CABF	La Chapelle	7.52	301	*e*Pn	Px	14 51 41.8	
HINF	Hinteralfeld	7.66	311	*e*Pn	Px	14 51 44.0	
HINF				*e*Sn	Sx	14 53 04.4	
	2.4nm,0.3s						
CDF	Champ du Feu	7.80	316	*e*Pn	Px	14 51 45.4	
HAU	Haudompre	8.05	311	*e*Pn	Px	14 51 49.2	
HAU				*e*Sn	Sx	14 53 13.6	
	4.2nm,0.3s						

*NEIC **04** 14:54:10.6,34.92N×2.98W,MG3.5(MDD),After MDD.*
*MDD **04** 14:54:10.8±1.4,34.93N×3.00W,mb3.5/8,Error ellipse: s-maj=13.9km s-min=7.7km az=123.0,PRXIMO AftershockPLICA*
*CSEM **04** 14:54:10.1±0.2,35.00N×2.82W,h12^{km},MD3.4,Error ellipse: s-maj=4.7km s-min=3.3km az=91.0*
*CNRM **04** 14:54:10.5,35.10N×2.76W,h6^{km},MD3.4*
ISC 04 14:54:10.5±0.6**,35.02N**±0.03×**2.87W**±0.06**,h10^{km},n32, σ1^{s}37**/55**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.11	115	*i* P	Pg	14 54 13.0	-0.3
MELI	Melilla	0.28	349	P	Pg	14 54 17.9	+1.5
MELI				S	Sg	14 54 22.4	+2.0
MELI	Melilla	0.28	349	*i* P	Pg	14 54 17.9	+1.5
EMLI	Melilla	0.29	346	P	Pg	14 54 18.0	+1.4
	99nm,0.1s,SNR=13						
EMEL	Melilla	0.29	345	P	Pg	14 54 18.0	+1.4
	99nm,0.1s,SNR=13						
EMEL				S	Sg	14 54 22.3	+1.6
	466nm,0.2s						
TOU	Touzarine	0.73	266	*i* P	Pb	14 54 26.5	+1.7
TZK	Tazeka	1.43	230	*i* P	Pn	14 54 37.0	+0.5
TZK				*i* S	Sb	14 54 56.0	+1.2
EBER	Berja	1.88	359	P	Pn	14 54 42.7	-0.3
	9.2nm,0.9s,SNR=6.1						
EBER				S	Sn	14 55 04.5	-2.4
	31nm,0.4s						
EBER	Berja	1.88	359	P	Pn	14 54 42.7	-0.3
	9.2nm,0.9s,SNR=6.1						
EBER				S	Sn	14 55 04.5	-2.4
	31nm,0.4s						
EMIJ	Mijas	2.19	315	P	Pn	14 54 46.1	-1.3
	1.0nm,0.1s,SNR=6.9						
EMIJ				S	Sn	14 55 11.6	-3.2
	11nm,0.6s						
ELOJ	Sierra Loja	2.37	334	P	Pn	14 54 50.4	+0.4
	2.1nm,0.3s,SNR=7.3						
ELOJ				S	Sn	14 55 20.9	+1.5
	1.6nm,0.3s						
ELUQ	Luque	2.78	336	P	Pn	14 54 55.8	-0.1
ELUQ				S	Sn	14 55 29.5	-0.3
ELUQ	Luque	2.78	336	P	Pn	14 54 55.8	-0.1
	0.8nm,0.2s,SNR=7.3						
ELUQ				S	Sn	14 55 29.5	-0.3
	1.3nm,0.3s						
EQES	Quesada	2.79	357	P	Pn	14 54 57.1	+1.1
	3.8nm,0.3s,SNR=15						
EQES				S	Sn	14 55 31.0	+1.0
	6.0nm,0.2s						
EQES	Quesada	2.79	357	P	Pn	14 54 57.1	+1.1
	3.8nm,0.3s,SNR=15						
EQES				S	Sn	14 55 31.0	+1.0
	6.0nm,0.2s						
ESPR	Espera	3.05	308	P	Pn	14 54 59.4	-0.4
	0.3nm,0.1s,SNR=4.5						
ESPR				S	Sn	14 55 36.2	-0.5
	2.3nm,0.4s						
ESPR	Espera	3.05	308	P	Pn	14 54 59.4	-0.3
	0.3nm,0.1s,SNR=4.5						
ESPR				S	Sn	14 55 36.2	-0.5
	2.3nm,0.4s						
EMUR	La Murta	3.11	24	P	Pn	14 55 00.7	+0.1
	1.7nm,0.2s,SNR=9.2						
EMUR				S	Sn	14 55 33.8	-4.4
	4.0nm,0.5s						
EMUR	La Murta	3.11	24	S	Sn	14 55 33.8	-4.4
	4.0nm,0.5s						
EMUR	La Murta	3.11	24	P	Pn	14 55 00.7	+0.1
	1.7nm,0.2s,SNR=9.2						
ZFT	Errachidia	3.22	203	*i* P	Pn	14 55 01.0	-1.2
ZFT				*i* S	Sn	14 55 41.0	0.0
EADA	Adamuz	3.43	337	P	Pn	14 55 04.7	-0.5
EADA				S	Sn	14 55 43.5	-2.8
EADA	Adamuz	3.43	337	P	Pn	14 55 04.7	-0.5
	1.9nm,0.4s,SNR=9.8						
EADA				S	Sn	14 55 43.5	-2.8
	1.0nm,0.3s						
EADA	Adamuz	3.43	337	P	Pn	14 55 04.7	-0.5
	1.9nm,0.4s,SNR=9.8						
EADA				S	Sn	14 55 43.5	-2.9
	1.0nm,0.3s						
EVIA	Vianos	3.63	5	P	Pn	14 55 11.1	+3.2
	SNR=7.9						
EVIA				S	Sn	14 55 50.6	-0.7
	6.9nm,0.4s,SNR=5.0						
EVIA	Vianos	3.63	5	S	Sn	14 55 50.6	-0.7
	6.9nm,0.4s,SNR=5.0						
EMIN	Mina Concepcio	4.12	313	P	Pn	14 55 13.2	-1.8
	1.0nm,0.2s,SNR=11						
EMIN				S	Sn	14 55 58.9	-4.9
	0.7nm,0.2s						
EMIN	Mina Concepcio	4.12	313	P	Pn	14 55 13.2	-1.7
	1.0nm,0.2s,SNR=11						
ESDC	Sonseca Array	4.73	350	P	Pn	14 55 23.8	+0.2
	1.2nm,0.3s,baz=173,slow=12,SNR=9.0						
ESDC				S	Sn	14 56 16.3	-2.9
	0.7nm,0.3s,baz=168,slow=23,SNR=5.2						
ESDC	Sonseca Array	4.73	350	P	Pn	14 55 23.8	+0.2
ESDC				S	Sn	14 56 16.3	-2.9
EBAD	Badajoz	5.00	320	P	Pn	14 55 24.5	-2.9
	2.3nm,0.6s,SNR=5.3						
EBAD				S	Sn	14 56 20.6	-5.4
	2.2nm,0.3s						
EBAD	Badajoz	5.00	320	P	Pn	14 55 24.5	-2.9

*MOS **04** 15:00:27.8±0.3,42.25N×45.98E,h11^{km},mb3.8/1,Error ellipse: s-maj=53.2km s-min=19.9km az=135.2*
*TIF **04** 15:00:29.8,42.46N×46.41E,h15^{km}*
ISC 04 15:00:32.5±1.6**,42.41N**±0.06×**46.7E**±0.1**,h72^{km}**±14^{km}**,n8, σ0^{s}93**/16**,1D,Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UNCR	Uncukul	0.33	19	*i* PG	P	15 00 43.2	-1.0
UNCR				*i* S	S	15 00 51.8	-1.1
UNCR				pmax	pmax		
	comp=Z,29nm,0.2s						
KMKR	Kumukh	0.43	129	*i* PG	P	15 00 44.3	-0.7
KMKR				*i* S	S	15 00 54.0	-0.3
KMKR				pmax	pmax		
	comp=Z,103nm,0.2s						
KRNR	Karanay	0.46	24⇓	*i*PG	P	15 00 45.0	-0.3
KRNR				*i* S	S	15 00 54.8	+0.1
KRNR				pmax	pmax		
	comp=Z,53nm,0.2s						
BUJR	Buynaksk	0.54	39	*i* PG	P	15 00 47.5	+1.4
BUJR				*i* S	S	15 00 58.0	+2.0
BUJR				pmax	pmax		
	comp=Z,96nm,0.2s						
DBC	Dubki	0.63	12	*i* PG	P	15 00 47.0	0.0
DBC				*i* S	S	15 00 57.5	-0.2
DGRG	David-gareji	1.35	225	*i* P	P	15 00 56.3	+0.2
DGRG				*i* S	S	15 01 15.5	+1.9
DUS	Dusheti	1.48	258	*i* P	P	15 00 57.2	-0.7
DUS				*i* S	S	15 01 17.1	+0.6
MTA	Mtatsminda	1.56	243	*i* P	P	15 00 57.8	-1.1
MTA				*i* S	S	15 01 17.9	-0.4

*NEIC **04** 15:04:30.3,35.00N×3.10W,MG4.3(MDD),After MDD.*
*MDD **04** 15:04:30.5±1.2,35.00N×3.09W,mb4.3/15,Error ellipse: s-maj=11.8km s-min=4.7km az=151.0,PRXIMO AftershockPLICA*
*CNRM **04** 15:04:30.5,34.94N×2.79W,h16^{km},MD4.1*
*INMG **04** 15:04:31.4±1.2,35.07N×2.92W,h18^{km}±3^{km},ML3.0,Error ellipse: s-maj=6.9km s-min=5.2km az=135.0*
*LDG **04** 15:04:32.1±0.8,35.24N×2.81W,h10^{km},Ml3.6/1,Error ellipse: s-maj=15.8km s-min=8.2km az=173.0*
CSEM 04 15:04:27.4±0.3**,34.87N×2.82W,h12^{km},ML3.8**/5**,1C-3D, Error ellipse: s-maj=7.0km s-min=4.4km az=123.0, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.12	33	*i* P	Pg	15 04 32.5	+2.0
MELI	Melilla	0.43	348	P	Pg	15 04 36.7	+0.5
MELI				S	Sg	15 04 40.6	-1.5
MELI	Melilla	0.43	348	*e*P	Pg	15 04 36.7	+0.5
EMLI	Melilla	0.44	346	P	Pg	15 04 36.3	-0.1
	566nm,0.1s,SNR=23						
EMEL	Melilla	0.44	346	P	Pg	15 04 36.3	-0.2
	566nm,0.1s,SNR=23						
EMEL				S	Sg	15 04 40.3	-2.2
	4µm,0.2s						
TOU	Touzarine	0.77	277	*i* P	Pb	15 04 44.5	+2.3
TOU				*i* S	Sb	15 04 54.0	+1.6
MPAL	Palemas	0.98	291	*i* P	Pb	15 04 48.0	+2.1
MPAL				*i* S	Sb	15 05 01.0	+2.4
TZK	Tazeka	1.37	236	*i* P	Pn	15 04 55.0	+2.6
TZK				*i* S	Sb	15 05 13.0	+3.2
EBER	Berja	2.02	358	P	Pn	15 05 01.2	-0.6
	6.1nm,0.3s,SNR=9.4						
EBER				S	Sn	15 05 23.1	-4.0
	414nm,0.5s						
EBER	Berja	2.02	358	P	Pn	15 05 01.2	-0.5
	6.1nm,0.3s,SNR=9.4						
EBER				S	Sn	15 05 23.1	-4.0
	414nm,0.5s						
ERON	Agron	2.28	340	P	Pn	15 05 03.5	-2.0
	14nm,0.2s,SNR=14						
ERON				S	Sn	15 05 28.4	-5.3
	50nm,0.4s						
EMIJ	Mijas	2.32	317	P	Pn	15 05 03.8	-2.2
	8.1nm,0.1s,SNR=58						
EMIJ				S	Sn	15 05 28.8	-5.8
	195nm,0.5s,SNR=7.1						

MIF	**Mishlifen**	**2.47**	**234**	*i* P	Pn	15 05 08.0	-0.2
MIF				*i* S	Sn	15 05 38.0	-0.6
ELOJ	**Sierra Loja**	**2.51**	**335**	P	Pn	15 05 08.7	-0.1
	17nm,0.3s,SNR=27						
ELOJ				S	Sn	15 05 37.7	-1.9
	42nm,0.5s						
REAL	**Reales**	**2.52**	**310**	P	Pn	15 05 08.7	-0.2
REAL				S	Sn	15 05 31.0	-8.8
REAL	**Reales**	**2.52**	**310**	*i* P	Pn	15 05 08.7	-0.2
CZD	**Col de Zad**	**2.60**	**226**	*i* P	Pn	15 05 13.0	+2.9
CZD				*i* S	Sn	15 05 42.0	+0.1
LIJA	**Lijar**	**2.92**	**315**	⇓P	Pn	15 05 16.6	+2.1
LIJA				S	Sn	15 05 51.0	+1.2
LIJA	**Lijar**	**2.92**	**315**	*i* P	Pn	15 05 16.6	+2.1
LIJA				*e*S	Sn	15 05 51.0	+1.2
ELUQ	**Luque**	**2.92**	**337**	P	Pn	15 05 14.7	+0.1
	23nm,0.3s,SNR=41						
ELUQ				S	Sn	15 05 47.0	-3.0
	35nm,0.3s,SNR=5.4						
ELUQ	**Luque**	**2.92**	**337**	S	Sn	15 05 47.0	-3.0
	35nm,0.3s,SNR=5.4						
EQES	**Quesada**	**2.93**	**356**	⇓P	Pn	15 05 16.1	+1.4
	26nm,0.3s,SNR=18						
EQES				S	Sn	15 05 49.7	-0.5
	168nm,0.4s,SNR=19						
EQES	**Quesada**	**2.93**	**356**	P	Pn	15 05 16.1	+1.4
	26nm,0.3s,SNR=18						
EQES				S	Sn	15 05 49.7	-0.5
	168nm,0.4s,SNR=19						
ZFT	**Errachidia**	**3.11**	**205**	*e*P	Pn	15 05 18.0	+0.7
ZFT				*i* S	Sn	15 05 54.0	-0.7
ESPR	**Espera**	**3.17**	**310**	P	Pn	15 05 17.2	-0.9
ESPR				S	Sn	15 05 51.8	-4.3
ESPR	**Espera**	**3.17**	**310**	P	Pn	15 05 17.2	-0.9
	12nm,0.3s,SNR=46						
ESPR				S	Sn	15 05 51.8	-4.3
	14nm,0.3s,SNR=7.9						
ESPR	**Espera**	**3.17**	**310**	S	Sn	15 05 51.8	-4.4
	14nm,0.3s,SNR=7.9						
ESPR	**Espera**	**3.17**	**310**	P	Pn	15 05 17.2	-0.9
	12nm,0.3s,SNR=46						
EMUR	**La Murta**	**3.23**	**23**	P	Pn	15 05 18.7	-0.2
	21nm,0.4s,SNR=39						
EMUR				S	Sn	15 05 52.4	-5.3
	20nm,0.5s						
EMUR	**La Murta**	**3.23**	**23**	P	Pn	15 05 18.7	-0.2
	21nm,0.4s,SNR=39						
EADA	**Adamuz**	**3.58**	**337**	⇑P	Pn	15 05 23.4	-0.5
	18nm,0.3s,SNR=18						
EADA				S	Sn	15 06 01.1	-5.5
	42nm,0.5s						
EADA	**Adamuz**	**3.58**	**337**	P	Pn	15 05 23.4	-0.5
	18nm,0.3s,SNR=18						
EVIA	**Vianos**	**3.77**	**4**	P	Pn	15 05 30.1	+3.4
	19nm,0.6s,SNR=6.6						
EVIA				S	Sn	15 06 09.8	-1.6
	48nm,0.5s,SNR=7.5						
EVIA	**Vianos**	**3.77**	**4**	S	Sn	15 06 09.8	-1.5
	48nm,0.5s,SNR=7.5						
EMIN	**Mina Concepcio**	**4.24**	**314**	⇓P	Pn	15 05 31.4	-2.0
	19nm,0.3s,SNR=18						
EMIN				S	Sn	15 06 16.9	-6.5
	9.3nm,0.4s						
EMIN	**Mina Concepcio**	**4.24**	**314**	P	Pn	15 05 31.4	-2.0
	19nm,0.3s,SNR=18						
EBEN	**Beniarda**	**4.35**	**28**	P	Pn	15 05 36.8	+1.9
	7.9nm,0.5s,SNR=6.2						
EBEN				S	Sn	15 06 20.7	-5.6
	32nm,1.0s,SNR=7.9						
EBEN	**Beniarda**	**4.35**	**28**	P	Pn	15 05 36.8	+1.8
	7.9nm,0.5s,SNR=6.2						
ESDC	**Sonseca Array**	**4.88**	**350**	P	Pn	15 05 42.2	-0.2
	5.5nm,0.3s,baz=172,slow=12,SNR=57						
ESDC				S	Sn	15 06 34.6	-4.8
	6.5nm,0.6s,baz=177,slow=22,SNR=7.5						
ESDC	**Sonseca Array**	**4.88**	**350**	P	Pn	15 05 42.2	-0.2
	5.5nm,0.3s,SNR=57						
EBAD	**Badajoz**	**5.13**	**320**	P	Pn	15 05 43.9	-2.0
	8.4nm,0.2s,SNR=72						
EBAD				S	Sn	15 06 38.4	-7.4
	25nm,0.2s						
EBAD	**Badajoz**	**5.13**	**320**	P	Pn	15 05 43.9	-2.0
	8.4nm,0.2s,SNR=72						
PBEJ	**Beja**	**5.14**	**309**	*e*Pn	Pn	15 05 44.5	-1.6
PBEJ				*e*Sn	Sn	15 06 39.2	-6.9
	12nm,0.3s						
PBEJ	**Beja**	**5.14**	**309**	P	Pn	15 05 44.5	-1.6
PBEJ				S	Sn	15 06 39.2	-6.9
	6.0nm,0.3s						
PBEJ	**Beja**	**5.14**	**309**	*e*Sn	Sn	15 06 39.2	-6.9
	12nm,0.3s						
PTEO	**Sao Teotonio**	**5.46**	**301**	*e*Pn	Pn	15 05 48.7	-2.0
PTEO				*e*Sn	Sn	15 06 47.1	-7.1
	16nm,0.6s						
PTEO	**Sao Teotonio**	**5.46**	**301**	*e*Pn	Pn	15 05 48.7	-2.0
PTEO				*e*Sn	Sn	15 06 47.1	-7.1
	16nm,0.6s						
EVO	**Evora**	**5.54**	**313**	*e*Pn	Pn	15 05 50.3	-1.5
EVO				*e*Sn	Sn	15 06 48.4	-7.7
	18nm,0.4s						
MOE	**Montemor**	**5.74**	**311**	*e*Pn	Pn	15 05 52.7	-1.9
MOE				*e*Sn	Sn	15 06 54.2	-7.0
MOE	**Montemor**	**5.74**	**311**	*e*Sn	Sn	15 06 54.2	-7.0
PCBR	**Castelo Branco**	**6.19**	**325**	*e*Pn	Pn	15 05 58.9	-2.0
PCBR				*e*Sn	Sn	15 07 03.0	-9.4
	9.4nm,0.4s						
PCBR	**Castelo Branco**	**6.19**	**325**	*e*Sn	Sn	15 07 03.0	-9.4
	9.4nm,0.4s						
PLOU	**Loures**	**6.46**	**310**	*e*Pn	Pn	15 06 02.5	-2.2
PTOM	**Tomar**	**6.50**	**318**	*e*Pn	Pn	15 06 01.9	-3.4
PTOM				*e*Sn	Sn	15 07 10.5	-10
	13nm,0.7s						
PTOM	**Tomar**	**6.50**	**318**	*e*Pn	Pn	15 06 01.9	-3.4
PTOM				*e*Sn	Sn	15 07 10.5	-10
	13nm,0.7s						
ERTA	**Horta de San J**	**6.56**	**21**	P	Pn	15 06 07.2	+1.0
	4.7nm,0.4s,SNR=11						
ERTA	**Horta de San J**	**6.56**	**21**	P	Pn	15 06 07.2	+1.0
	4.7nm,0.4s,SNR=11						
MTE	**Manteigas**	**6.67**	**327**	*e*Pn	Pn	15 06 05.4	-2.2
MTE				*e*Sn	Sn	15 07 15.6	-8.7
	19nm,0.5s						
MTE	**Manteigas**	**6.67**	**327**	*e*Sn	Sn	15 07 15.6	-8.7
	19nm,0.5s						
PVIS	**Viseu**	**7.08**	**327**	*e*Pn	Pn	15 06 11.1	-2.3
PVIS				*e*Sn	Sn	15 07 24.5	-10
	6.2nm,0.4s						
PVRL	**Vila Real**	**7.46**	**330**	*e*Pn	Pn	15 06 16.6	-2.2
PVRL				*e*Sn	Sn	15 07 34.0	-10
	12nm,0.7s						
PBRG	**Braganca**	**7.57**	**337**	*e*Pn	Pn	15 06 18.2	-2.1
ECAL	**Calabor**	**7.70**	**338**	P	Pn	15 06 20.0	-2.0
	2.8nm,0.3s,SNR=6.9						
ECAL				S	Sn	15 07 40.0	-10
	7.9nm,0.3s						
ECAL	**Calabor**	**7.70**	**338**	P	Pn	15 06 20.0	-2.1
	2.8nm,0.3s,SNR=6.9						
EMIR	**Miracle**	**7.81**	**25**	P	Pn	15 06 23.7	0.0
	4.8nm,0.4s,SNR=7.9						
EMIR	**Miracle**	**7.81**	**25**	P	Pn	15 06 23.7	0.0
ELOB	**Lobios**	**8.10**	**331**	P	P	15 06 24.7	-3.1
ELOB				S	Sn	15 07 49.1	-11
ELOB	**Lobios**	**8.10**	**331**	P	P	15 06 24.7	-3.1
	6.2nm,0.4s,SNR=14						
ELOB				S	Sn	15 07 49.1	-11
	7.0nm,0.6s						
ETSF	**Etsaut**	**8.21**	**12**	*e*Pn	P	15 06 23.8	-5.4
ETSF				*e*P		15 06 30.0	
ETSF	**Etsaut**	**8.21**	**12**	*e*P	P	15 06 30.0	+0.8
ERUA	**La Rua**	**8.23**	**337**	P	P	15 06 27.8	-1.7
	7.3nm,0.6s,SNR=8.9						
ERUA				S	Sn	15 07 54.4	-9.0
	6.0nm,0.6s						
SJPF	**Ste Jean**	**8.32**	**8**	*e*Pn	P	15 06 25.0	-5.8
SJPF				*e*P		15 06 31.1	
SJPF	**Ste Jean**	**8.32**	**8**	*e*P	P	15 06 31.1	+0.3
EALK	**Alkurruntz**	**8.40**	**7**	S	Sn	15 07 55.1	-12
	9.1nm,0.9s						
EPF	**Esparros**	**8.51**	**16**	*e*Pn	P	15 06 27.7	-5.7
EPF				*e*P		15 06 33.4	
EPF	**Esparros**	**8.51**	**16**	*e*P	P	15 06 33.4	0.0
EINC	**Incio**	**8.54**	**337**	P	P	15 06 32.0	-1.8
	3.5nm,0.4s,SNR=4.0						
EINC				S	Sn	15 07 56.9	-14
EINC	**Incio**	**8.54**	**337**	P	P	15 06 32.0	-1.8

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*NEIC **04** 15:21:05.0,34.99N×3.15W,MG3.3(MDD),After MDD.*
*CSEM **04** 15:21:04.4±0.5,35.01N×2.84W,h25^{km},MD3.0,Error ellipse: s-maj=11.7km s-min=9.9km az=173.0*
*CNRM **04** 15:21:04.6,34.94N×2.68W,h14^{km},MD3.0*
*MDD **04** 15:21:05.6±1.6,35.02N×3.17W,mb3.3/7,Error ellipse: s-maj=15.0km s-min=6.2km az=157.0,PRXIMO AftershockPLICA*
ISC 04 15:21:05.5±1.0,**35.09N**±0.06×**2.81W**±0.06,**h27**^{km}±4^{km}, **n26**,σ**1^{s}24**/40,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	**Melilla**	**0.23**	**333**	P	**Pb**	**15 21 12.0**	**+0.3**
MELI				S	**Sb**	**15 21 15.7**	**-0.3**
MELI	**Melilla**	**0.23**	**333**	*e*S	**Sb**	**15 21 15.7**	**-0.3**
MELI	**Melilla**	**0.23**	**333**	*e*P	**Pb**	**15 21 12.0**	**+0.2**
EMLI	**Melilla**	**0.24**	**331**	P	**Pb**	**15 21 11.9**	**0.0**
	109nm,0.1s,SNR=8.8						
EMEL	**Melilla**	**0.24**	**330**	P	**Pb**	**15 21 11.9**	**-0.1**
	109nm,0.1s,SNR=8.8						
EMEL				S	**Sb**	**15 21 15.8**	**-0.5**
	434nm,0.2s						
TOU	**Touzarine**	**0.79**	**261**	*i* P	**Pb**	**15 21 20.0**	**-0.5**
TOU				*i* S	**Sb**	**15 21 32.0**	**+1.2**
EBER	**Berja**	**1.81**	**358**	P	**Pn**	**15 21 36.6**	**+1.1**
	2.7nm,0.4s,SNR=6.5						
EBER				S	**Sn**	**15 21 58.2**	**+0.5**
	65nm,1.0s						
EBER	**Berja**	**1.81**	**358**	P	**Pn**	**15 21 36.6**	**+1.2**
	2.7nm,0.4s,SNR=6.5						
EBER				S	**Sn**	**15 21 58.2**	**+0.5**
	65nm,1.0s						
EMIJ	**Mijas**	**2.17**	**313**	P	**Pn**	**15 21 39.1**	**-1.6**
	2.0nm,0.3s,SNR=6.4						
EMIJ				S	**Sn**	**15 22 04.1**	**-2.9**
	7.8nm,0.4s						
EMIJ	**Mijas**	**2.17**	**313**	S	**Sn**	**15 22 04.1**	**-2.9**
	7.8nm,0.4s						
ELOJ	**Sierra Loja**	**2.32**	**332**	P	**Pn**	**15 21 42.8**	**-0.1**
	0.4nm,0.1s,SNR=7.9						
ELOJ				S	**Sn**	**15 22 12.8**	**+1.9**
	1.3nm,0.3s,SNR=7.9						
EQES	**Quesada**	**2.71**	**356**	P	**Pn**	**15 21 51.0**	**+2.5**
	2.8nm,0.2s,SNR=12						
EQES				S	**Sn**	**15 22 24.5**	**+3.7**
	3.4nm,0.2s						
EQES	**Quesada**	**2.71**	**356**	P	**Pn**	**15 21 51.0**	**+2.5**
	2.8nm,0.2s,SNR=12						
EQES	**Quesada**	**2.71**	**356**	S	**Sn**	**15 22 24.5**	**+3.7**
	3.4nm,0.2s						
ELUQ	**Luque**	**2.73**	**335**	P	**Pn**	**15 21 49.8**	**+1.1**
ELUQ				S	**Sn**	**15 22 21.1**	**-0.1**
ELUQ	**Luque**	**2.73**	**335**	P	**Pn**	**15 21 49.8**	**+1.1**
	1.0nm,0.2s,SNR=7.9						
ELUQ				S	**Sn**	**15 22 21.1**	**-0.1**
	0.7nm,0.2s,SNR=7.9						
ELUQ	**Luque**	**2.73**	**335**	S	**Sn**	**15 22 21.1**	**-0.1**
	0.7nm,0.2s,SNR=7.9						
EMUR	**La Murta**	**3.02**	**24**	P	**Pn**	**15 21 53.8**	**+0.9**
	2.2nm,0.3s,SNR=6.8						
EMUR				S	**Sn**	**15 22 26.6**	**-2.0**
	1.9nm,0.4s						
EMUR	**La Murta**	**3.02**	**24**	P	**Pn**	**15 21 53.8**	**+1.0**
	2.2nm,0.3s,SNR=6.8						
EMUR				S	**Sn**	**15 22 26.6**	**-2.0**
	1.9nm,0.4s						
EADA	**Adamuz**	**3.38**	**336**	P	**Pn**	**15 21 57.3**	**-0.7**
	0.3nm,0.2s,SNR=7.9						
EADA				S	**Sn**	**15 22 36.5**	**-1.2**
	0.6nm,0.2s,SNR=6.9						
EADA	**Adamuz**	**3.38**	**336**	P	**Pn**	**15 21 57.3**	**-0.7**
	0.3nm,0.2s,SNR=7.9						
EADA				S	**Sn**	**15 22 36.5**	**-1.2**
	0.6nm,0.2s,SNR=6.9						
EMIN	**Mina Concepcio**	**4.10**	**312**	P	**Pn**	**15 22 05.3**	**-2.9**
	2.3nm,0.8s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.10**	**312**	P	**Pn**	**15 22 05.3**	**-2.9**
ESDC	**Sonseca Array**	**4.67**	**349**	P	**Pn**	**15 22 17.4**	**+1.2**
	0.3nm,0.3s,baz=172,slow=12,SNR=4.4						
ESDC	**Sonseca Array**	**4.67**	**349**	P	**Pn**	**15 22 17.4**	**+1.2**
SET	**Setif**	**6.78**	**78**	P	**Pn**	**15 22 45.0**	**-0.9**

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*IDC **04** 15:31:42.6±4.5,24.28S×179.55W,h464^{km}±34^{km},mb3.5/5, mb1 3.6/6,mb1mx3.4/15,Error ellipse: s-maj=50.9km s-min=37.0km az=53.0*
*NEIC **04** 15:31:48.3±2.3,24.72S×179.72W,h527^{km}±33^{km},mb4.5/7, Error ellipse: s-maj=27.0km s-min=18.2km az=164.0*
ISC 04 15:31:39.3±5.9,**24.3S**±0.1×**180.0W**±0.2,**h401**^{km}±80^{km}, **n16**,σ**0^{s}67**/16,**mb4.2**/8,**2D**,**South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**14.19**	**189**	P	**P**	**15 34 45.0**	**-0.5**
	0.3nm,0.3s,baz=24,slow=12,SNR=2.7						
URZ				S	**S**	**15 37 15.1**	**+0.4**
	0.2nm,0.3s,baz=305,slow=22,SNR=5.1						
CTA	**Charters Tower**	**31.51**	**271**	⇓*i*P	**P**	**15 37 29.5**	**+1.8**
	5.3nm,0.3s,mb4.3						
CTA	**Charters Tower**	**31.51**	**271**	P	**P**	**15 37 29.6**	**+1.9**
	7.3nm,0.4s,mb4.4,baz=95,slow=12,SNR=39						
CTAO	**Charters Tower**	**31.51**	**271**	*e*P	**P**	**15 37 29.4**	**+1.7**
	8.5nm,0.5s,mb4.3						
STKA	**Stephens Creek**	**34.63**	**249**	*e*P	**P**	**15 37 54.2**	**+0.2**
	4.3nm,1.7s,mb3.5						
STKA	**Stephens Creek**	**34.63**	**249**	P	**P**	**15 37 54.5**	**+0.4**
	1.8nm,0.4s,mb3.8,baz=94,slow=9.7,SNR=15						
ASAR	**Alice Springs**	**42.01**	**261**	P	**P**	**15 38 54.8**	**-0.1**
	1.1nm,0.4s,mb3.5,baz=88,slow=7.0,SNR=44						
ASPA	**Alice Springs**	**42.02**	**261**	*e*P	**P**	**15 38 54.5**	**-0.4**
WB2	**Warramunga Arr**	**42.41**	**267**	⇓*i*P	**P**	**15 38 57.7**	**-0.4**
WRAB	**Tennant Creek**	**42.41**	**267**	*e*P	**P**	**15 38 57.6**	**-0.5**
	14nm,1.1s,mb4.2						
WRA	**Warramunga Arr**	**42.42**	**267**	P	**P**	**15 38 57.9**	**-0.3**
	2.5nm,0.4s,mb3.9,baz=99,slow=7.0,SNR=54						
WRA				ScP		15 43 45.6	
	1.0nm,0.8s,baz=99,slow=3.9,SNR=7.3						
FITZ	**Fitzroy Crossi**	**50.84**	**266**	*e*P	**P**	**15 40 02.8**	**-0.3**
	2.1nm,0.6s,mb3.5						
FITZ	**Fitzroy Crossi**	**50.84**	**266**	P	**P**	**15 40 02.1**	**-0.9**
	3.2nm,0.7s,mb3.6,baz=179,slow=8.8,SNR=8.8						
MIDW	**Midway**	**52.22**	**3**	P	**P**	**15 40 13.5**	**+0.3**
	121nm,0.9s,mb5.1						
QIZ	**Qiongzhong**	**80.78**	**296**	P	**P**	**15 43 06.2**	**-4.8**
	164nm,1.7s,mb5.5						
HFS	**Hagfors**	**142.89**	**349**	PKP	PKPdf	15 50 22.0	-3.0
	1.3nm,0.4s,baz=39,slow=2.5,SNR=9.9						

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*IDC **04** 15:35:27.2±3.0,8.09S×103.51E,mb3.7/5,mb1 3.9/5, mb1mx3.7/16,Error ellipse: s-maj=124.0km s-min=23.0km az=55.0*
ISC 04 15:35:31.2±1.6,**8.0S**±0.4×**103.8E**±0.4,**h33**^{km},**n11**, σ**0^{s}80**/11,**mb4.0**/8,**Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**26.68**	**350**	P	**P**	**15 41 08.2**	**-1.3**
	1.4nm,0.6s,mb3.7,baz=180,slow=8.6,SNR=17						
WRA	**Warramunga Arr**	**31.91**	**115**	P	**P**	**15 41 55.8**	**-0.4**
	0.4nm,0.5s,mb3.5,baz=286,slow=12,SNR=5.5						
PKI	**Pulchoki**	**39.54**	**334**	*e*P	**P**	**15 43 01.1**	**+0.3**
GUN	**Gumba**	**39.63**	**335**	*e*P	**P**	**15 43 01.9**	**+0.3**
	10nm,0.6s,mb4.7						
DMN	**Daman**	**39.70**	**334**	*e*P	**P**	**15 43 02.7**	**+0.5**
KKN	**Kakani**	**39.78**	**334**	*e*P	**P**	**15 43 03.0**	**+0.1**
GKN	**Gorkha**	**40.25**	**333**	*e*P	**P**	**15 43 06.8**	**0.0**
	6.0nm,0.5s,mb4.6						
KOLN	**Koldanda**	**40.52**	**332**	*e*P	**P**	**15 43 09.2**	**+0.2**
	8.0nm,0.9s,mb4.3						
STKA	**Stephens Creek**	**42.45**	**129**	P	**P**	**15 43 25.3**	**+0.4**
	1.5nm,0.7s,mb3.7,baz=311,slow=11,SNR=4.0						
SONM	**Songino Array**	**55.60**	**2**	P	**P**	**15 45 07.6**	**+1.5**
	0.6nm,0.9s,mb3.6,baz=186,slow=8.5,SNR=4.5						
BVAR	**Borovoye Array**	**67.05**	**339**	P	**P**	**15 46 21.4**	**-1.7**
	0.2nm,0.3s,mb3.6,baz=135,slow=8.2,SNR=3.6						

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*IDC **04** 15:39:20.8±12.0,4.58N×126.47E,h222^{km}±128^{km}, mb3.4/7,mb1 3.5/7,mb1mx3.3/18,Error ellipse: s-maj=82.8km s-min=24.2km az=70.0*
ISC 04 15:39:08.3±1.2,**4.7N**±0.1×**126.5E**±0.1,**h114**^{km}±13^{km},**n12**, σ**0^{s}86**/13,**mb3.9**/8,**1D**,**Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	**2.21**	**355**	*e*P	**P**	**15 39 43.5**	**-1.3**
KCP	**Kidapawan**	**2.64**	**329**	⇓*e*P	**P**	**15 39 51.5**	**+1.0**
BUKP	**Musuan**	**3.42**	**336**	*e*P	**P**	**15 40 02.0**	**+1.0**
IPIL	**Ipil**	**4.91**	**308**	*e*P	**P**	**15 40 21.3**	**+0.1**
IPIL				*e*S	**S**	**15 41 16.3**	**-0.9**
FITZ	**Fitzroy Crossi**	**22.70**	**182**	P	**P**	**15 44 02.3**	**+1.3**
	1.5nm,0.3s,mb3.7,baz=15,slow=9.1,SNR=16						
WRA	**Warramunga Arr**	**25.71**	**163**	P	**P**	**15 44 29.5**	**-0.4**
	0.9nm,0.4s,mb3.5,baz=343,slow=10,SNR=12						
ASAR	**Alice Springs**	**29.14**	**166**	P	**P**	**15 45 00.2**	**-0.6**
	0.7nm,0.7s,mb3.4,baz=343,slow=6.9,SNR=14						
STKA	**Stephens Creek**	**39.15**	**159**	P	**P**	**15 46 26.0**	**-0.5**
	1.4nm,0.4s,mb4.1,baz=344,slow=6.1,SNR=6.4						
SONM	**Songino Array**	**46.27**	**341**	P	**P**	**15 47 25.4**	**+1.4**
	0.2nm,0.4s,mb3.2,baz=135,slow=7.0,SNR=3.6						
BVAR	**Borovoye Array**	**66.34**	**327**	P	**P**	**15 49 46.3**	**-0.5**
	0.8nm,0.7s,mb3.7,baz=121,slow=8.4,SNR=4.3						
ARCES	**ARCESS Array B**	**89.42**	**340**	P	**P**	**15 51 52.2**	**-0.7**
	21nm,1.3s,mb5.0,baz=63,slow=2.7,SNR=4.7						
FINES	**FINESS Array B**	**90.83**	**332**	P	**P**	**15 51 59.9**	**+0.2**
	4.8nm,1.2s,mb4.5,baz=153,slow=4.3,SNR=5.3						

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*CSEM **04** 15:40:51.0±0.1,34.94N×2.96W,h10^{km},MD3.1,Error ellipse: s-maj=2.6km s-min=2.4km az=128.0*
*CNRM **04** 15:40:51.1,34.68N×2.61W,MD3.1*
*NEIC **04** 15:40:53.3,34.97N×3.08W,MG3.3(MDD),After MDD.*
*MDD **04** 15:40:53.4±1.7,34.96N×3.09W,h1^{km}±12^{km},mb3.3/4, Error ellipse: s-maj=21.3km s-min=10.1km az=119.0, PRXIMO AftershockPLICA*
ISC 04 15:40:52.8±0.8,**34.99N**±0.04×**2.93W**±0.07,**h21**^{km}±5^{km}, **n26**,σ**1^{s}13**/41,**Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.15**	**97**	*i* P	**Pb**	**15 40 56.0**	**-1.5**
MELI	**Melilla**	**0.30**	**359**	P	**Pb**	**15 40 59.9**	**+0.3**
MELI				S	**Sb**	**15 41 04.8**	**+0.5**
MELI	**Melilla**	**0.30**	**359**	*i* S	**Sb**	**15 41 04.8**	**+0.5**
MELI	**Melilla**	**0.30**	**359**	*e*P	**Pb**	**15 40 59.9**	**+0.3**
EMEL	**Melilla**	**0.31**	**356**	P	**Pb**	**15 40 59.3**	**-0.5**
	39nm,0.1s,SNR=5.9						
EMEL				S	**Sb**	**15 41 04.6**	**+0.2**
	557nm,0.2s,SNR=6.2						
EMLI	**Melilla**	**0.31**	**357**	P	**Pb**	**15 40 59.3**	**-0.5**
	39nm,0.1s,SNR=5.9						
TZK	**Tazeka**	**1.37**	**229**	*i* P	**Pn**	**15 41 16.0**	**-1.0**
TZK				*i* S	**Sb**	**15 41 36.0**	**+1.2**
EBER	**Berja**	**1.91**	**1**	P	**Pn**	**15 41 26.0**	**+1.4**
	0.6nm,0.1s,SNR=7.9						
EBER				S	**Sn**	**15 41 46.8**	**-1.4**
	16nm,0.5s,SNR=8.7						
EBER	**Berja**	**1.91**	**1**	P	**Pn**	**15 41 26.0**	**+1.4**
	0.6nm,0.1s,SNR=7.9						
EBER				S	**Sn**	**15 41 46.8**	**-1.4**
	16nm,0.5s,SNR=8.7						
EMIJ	**Mijas**	**2.17**	**317**	P	**Pn**	**15 41 28.2**	**-0.2**
	0.9nm,0.2s,SNR=7.9						
EMIJ				S	**Sn**	**15 41 52.9**	**-2.1**
	3.7nm,0.4s,SNR=7.9						
ELOJ	**Sierra Loja**	**2.37**	**336**	P	**Pn**	**15 41 32.1**	**+0.8**
	0.7nm,0.2s,SNR=7.9						
ELOJ				S	**Sn**	**15 42 00.9**	**+0.9**
	0.2nm,0.1s,SNR=7.9						
ELUQ	**Luque**	**2.79**	**338**	P	**Pn**	**15 41 38.4**	**+1.2**
	SNR=7.9						
EQES	**Quesada**	**2.81**	**358**	P	**Pn**	**15 41 39.8**	**+2.3**
	2.8nm,0.3s,SNR=7.3						
EQES				S	**Sn**	**15 42 12.8**	**+1.7**
	15nm,0.4s,SNR=13						
EQES	**Quesada**	**2.81**	**358**	P	**Pn**	**15 41 39.8**	**+2.2**
	2.8nm,0.3s,SNR=7.3						
EQES				S	**Sn**	**15 42 12.8**	**+1.6**
	15nm,0.4s,SNR=13						
ESPR	**Espera**	**3.03**	**309**	P	**Pn**	**15 41 40.1**	**-0.6**
	0.4nm,0.2s,SNR=7.9						
ESPR				S	**Sn**	**15 42 16.7**	**0.0**
	1.4nm,0.3s,SNR=7.9						
ESPR	**Espera**	**3.03**	**309**	S	**Sn**	**15 42 16.7**	**0.0**
	1.4nm,0.3s,SNR=7.9						
ESPR	**Espera**	**3.03**	**309**	P	**Pn**	**15 41 40.1**	**-0.5**
	0.4nm,0.2s,SNR=7.9						
EMUR	**La Murta**	**3.16**	**25**	P	**Pn**	**15 41 42.8**	**+0.3**
EMUR				S	**Sn**	**15 42 16.8**	**-3.1**
EMUR	**La Murta**	**3.16**	**25**	P	**Pn**	**15 41 42.8**	**+0.3**
	1.5nm,0.4s,SNR=7.4						
EMUR				S	**Sn**	**15 42 16.8**	**-3.1**
	14nm,0.8s,SNR=7.9						
EMUR	**La Murta**	**3.16**	**25**	P	**Pn**	**15 41 42.8**	**+0.3**
	1.5nm,0.4s,SNR=7.4						
EMUR				S	**Sn**	**15 42 16.8**	**-3.1**
	14nm,0.8s,SNR=7.9						
EADA	**Adamuz**	**3.44**	**338**	P	**Pn**	**15 41 46.5**	**0.0**
	1.6nm,0.3s,SNR=6.5						
EADA				S	**Sn**	**15 42 24.8**	**-2.2**
	1.2nm,0.4s						
EADA	**Adamuz**	**3.44**	**338**	P	**Pn**	**15 41 46.5**	**0.0**
	1.6nm,0.3s,SNR=6.5						
EADA				S	**Sn**	**15 42 24.8**	**-2.3**
EMIN	**Mina Concepcio**	**4.10**	**314**	P	**Pn**	**15 41 55.0**	**-0.9**
	0.3nm,0.2s,SNR=8.2						
EMIN	**Mina Concepcio**	**4.10**	**314**	P	**Pn**	**15 41 55.0**	**-0.9**
ESDC	**Sonseca Array**	**4.75**	**350**	P	**Pn**	**15 42 05.7**	**+0.6**
	baz=172,slow=12,SNR=7.9						
ESDC	**Sonseca Array**	**4.75**	**350**	P	**Pn**	**15 42 05.7**	**+0.6**

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*NEIC **04** 15:42:09.5,34.96N×3.01W,MG4.6(MDD),After MDD.*
*MDD **04** 15:42:09.6±0.9,34.96N×3.02W,mb4.6/16,Error ellipse: s-maj=9.0km s-min=5.1km az=137.0,PRXIMO AftershockPLICA*
*CSEM **04** 15:42:09.9±0.1,35.12N×2.99W,h20^{km},MD4.2,Error ellipse: s-maj=2.6km s-min=1.5km az=116.0*
*CNRM **04** 15:42:10.4,35.01N×2.90W,h3^{km},MD4.2*
*INMG **04** 15:42:11.4±1.4,35.07N×2.95W,h15^{km}±4^{km},ML3.2,Error ellipse: s-maj=6.9km s-min=4.5km az=159.0*
*LDG **04** 15:42:11.1±0.5,35.23N×2.77W,h10^{km},Ml3.9/1,Error ellipse: s-maj=11.7km s-min=5.3km az=176.0*
ISC 04 15:42:10.6±0.4,**35.14N**±0.02×**3.05W**±0.03,**h20**^{km},**n97**, σ**1^{s}29**/162,**4C-5D**,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.18**	**25**	P	**Pb**	**15 42 16.0**	**+0.6**
	1μm,0.2s,SNR=36						
EMEL				S	**Sb**	**15 42 20.1**	**+1.4**
	5μm,0.3s,SNR=21						
EMLI	**Melilla**	**0.18**	**26**	P	**Pb**	**15 42 16.0**	**+0.5**
	1μm,0.2s,SNR=36						
EMLI				S	**Sb**	**15 42 20.1**	**+1.3**
	5μm,0.3s,SNR=21						
MELI	**Melilla**	**0.18**	**31**	⇓P	**Pb**	**15 42 15.9**	**+0.4**
MELI				S	**Sb**	**15 42 20.8**	**+2.0**
MELI	**Melilla**	**0.18**	**31**	*i* P	**Pb**	**15 42 15.9**	**+0.4**
MELI				*i* S	**Sb**	**15 42 20.8**	**+2.0**
TOU	**Touzarine**	**0.60**	**253**	*i* P	**Pb**	**15 42 23.5**	**+1.2**
TOU				*i* S	**Sb**	**15 42 33.0**	**+2.7**
MPAL	**Palemas**	**0.74**	**277**	*i* P	**Pb**	**15 42 27.5**	**+2.9**
MPAL				*i* S	**Sb**	**15 42 38.5**	**+4.3**
TZK	**Tazeka**	**1.40**	**222**	*i* P	**Pn**	**15 42 35.0**	**-0.3**
TZK				*i* S	**Sn**	**15 42 54.0**	**+0.6**
EBER	**Berja**	**1.76**	**4**	P	**Pn**	**15 42 41.4**	**+1.0**
	22nm,0.4s,SNR=14						
EBER				S	**Sn**	**15 43 03.2**	**+0.7**
	690nm,0.5s,SNR=33						
EBER	**Berja**	**1.76**	**4**	P	**Pn**	**15 42 41.4**	**+0.9**
	22nm,0.4s,SNR=14						
EBER				S	**Sn**	**15 43 03.2**	**+0.7**
	690nm,0.5s,SNR=33						
ERON	**Agron**	**1.98**	**342**	P	**Pn**	**15 42 43.8**	**+0.3**
	39nm,0.2s,SNR=18						
ERON				S	**Sn**	**15 43 08.9**	**+1.0**
	66nm,0.3s,SNR=8.0						
EMIJ	**Mijas**	**2.00**	**316**	⇓P	**Pn**	**15 42 43.9**	**+0.1**
	33nm,0.1s,SNR=18						
EMIJ				S	**Sn**	**15 43 09.1**	**+0.6**
	338nm,0.5s,SNR=7.9						
ELOJ	**Sierra Loja**	**2.20**	**336**	P	**Pn**	**15 42 48.0**	**+1.3**
	42nm,0.3s,SNR=40						
ELOJ				S	**Sn**	**15 43 18.5**	**+4.9**
	69nm,0.4s,SNR=10						
ELOJ	**Sierra Loja**	**2.20**	**336**	S	**Sn**	**15 43 18.5**	**+5.0**

	69nm,0.4s,SNR=10						
REAL	**Reales**	**2.21**	**308**	⇑P	**Pn**	**15 42 48.1**	**+1.2**
REAL	**Reales**	**2.21**	**308**	*i* P	**Pn**	**15 42 48.1**	**+1.2**
MIF	**Mishlifen**	**2.50**	**227**	*i* P	**Pn**	**15 42 51.0**	**0.0**
MIF				*i* S	**Sn**	**15 43 20.0**	**-1.1**
LIJA	**Lijar**	**2.60**	**313**	⇓P	**Pn**	**15 42 55.9**	**+3.4**
LIJA				S	**Sn**	**15 43 32.0**	**+8.2**
ELUQ	**Luque**	**2.61**	**338**	P	**Pn**	**15 42 55.0**	**+2.4**
	82nm,0.5s,SNR=53						
ELUQ				S	**Sn**	**15 43 28.2**	**+4.1**
	64nm,0.4s,SNR=4.8						
ELUQ	**Luque**	**2.61**	**338**	P	**Pn**	**15 42 55.0**	**+2.4**
	82nm,0.5s,SNR=53						
ELUQ				S	**Sn**	**15 43 28.1**	**+4.0**
EQES	**Quesada**	**2.66**	**360**	P	**Pn**	**15 42 56.4**	**+3.0**
	50nm,0.3s,SNR=99						
EQES				S	**Sn**	**15 43 30.0**	**+4.7**
	312nm,0.3s,SNR=18						
EQES	**Quesada**	**2.66**	**360**	S	**Sn**	**15 43 30.0**	**+4.7**
	312nm,0.3s,SNR=18						
CZD	**Col de Zad**	**2.67**	**219**	*i* P	**Pn**	**15 42 54.0**	**+0.5**
CZD				*i* S	**Sn**	**15 43 24.0**	**-1.6**
ESPR	**Espera**	**2.86**	**308**	P	**Pn**	**15 42 58.1**	**+2.0**
	24nm,0.3s,SNR=75						
ESPR				S	**Sn**	**15 43 33.0**	**+2.7**
	22nm,0.3s,SNR=4.6						
ESPR	**Espera**	**2.86**	**308**	P	**Pn**	**15 42 58.1**	**+2.0**
	24nm,0.3s,SNR=75						
ESPR				S	**Sn**	**15 43 33.0**	**+2.7**
	22nm,0.3s,SNR=4.6						
CART	**Cartagena**	**2.95**	**33**	*e*Pn	**Pn**	**15 42 55.4**	**-2.0**
CART				*e*Sn	**Sn**	**15 43 26.8**	**-5.9**
CART	**Cartagena**	**2.95**	**33**	*e*Pn	**Pn**	**15 42 55.4**	**-2.0**
CART				*e*Sn	**Sn**	**15 43 26.8**	**-5.9**
EMUR	**La Murta**	**3.07**	**28**	P	**Pn**	**15 42 58.8**	**-0.3**
	20nm,0.4s,SNR=63						
EMUR				S	**Sn**	**15 43 32.1**	**-3.5**
	48nm,0.4s,SNR=9.9						
EMUR	**La Murta**	**3.07**	**28**	S	**Sn**	**15 43 32.1**	**-3.5**
	48nm,0.4s,SNR=9.9						
EMUR	**La Murta**	**3.07**	**28**	P	**Pn**	**15 42 58.8**	**-0.3**
	20nm,0.4s,SNR=63						
EADA	**Adamuz**	**3.27**	**338**	P	**Pn**	**15 43 03.3**	**+1.5**
	22nm,0.2s,SNR=98						
EADA				S	**Sn**	**15 43 41.7**	**+1.1**
	64nm,0.4s,SNR=6.7						
EADA	**Adamuz**	**3.27**	**338**	P	**Pn**	**15 43 03.3**	**+1.4**
	22nm,0.2s,SNR=98						
EADA				S	**Sn**	**15 43 41.7**	**+1.1**
	64nm,0.4s,SNR=6.7						
ZFT	**Errachidia**	**3.28**	**200**	*i* P	**Pn**	**15 43 02.0**	**-0.1**
ZFT				*i* S	**Sn**	**15 43 38.0**	**-3.0**
EVIA	**Vianos**	**3.52**	**7**	P	**Pn**	**15 43 08.8**	**+3.3**
EVIA				S	**Sn**	**15 43 49.7**	**+2.6**
EVIA	**Vianos**	**3.52**	**7**	P	**Pn**	**15 43 08.9**	**+3.3**
	12nm,0.4s,SNR=7.4						
EVIA				S	**Sn**	**15 43 49.7**	**+2.6**
	96nm,0.5s,SNR=8.2						
EVIA	**Vianos**	**3.52**	**7**	S	**Sn**	**15 43 49.7**	**+2.6**
	96nm,0.5s,SNR=8.2						
EMIN	**Mina Concepcio**	**3.93**	**313**	⇓P	**Pn**	**15 43 11.5**	**+0.2**
	17nm,0.1s,SNR=18						
EMIN				S	**Sn**	**15 43 57.3**	**-0.1**
	20nm,0.4s						
EMIN	**Mina Concepcio**	**3.93**	**313**	P	**Pn**	**15 43 11.5**	**+0.2**
	17nm,0.1s,SNR=18						
EMIN				S	**Sn**	**15 43 57.3**	**-0.1**
	20nm,0.4s						
EBEN	**Beniarda**	**4.22**	**32**	P	**Pn**	**15 43 15.7**	**+0.2**
	7.1nm,0.3s,SNR=13						
EBEN				S	**Sn**	**15 44 01.7**	**-3.1**
	13nm,0.4s,SNR=7.9						
EBEN	**Beniarda**	**4.22**	**32**	P	**Pn**	**15 43 15.7**	**+0.3**
	7.1nm,0.3s,SNR=13						
EBEN				S	**Sn**	**15 44 01.7**	**-3.0**
	13nm,0.4s,SNR=7.9						
ESDC	**Sonseca Array**	**4.59**	**351**	P	**Pn**	**15 43 22.4**	**+1.7**
	0.9nm,0.2s,baz=172,slow=12,SNR=8.1						
ESDC				S	**Sn**	**15 44 13.5**	**-0.6**
	0.5nm,0.4s,baz=176,slow=22,SNR=3.8						
ESDC	**Sonseca Array**	**4.59**	**351**	P	**Pn**	**15 43 22.4**	**+1.7**
	0.9nm,0.2s,SNR=8.1						
ESDC				S	**Sn**	**15 44 13.5**	**-0.6**
	0.5nm,0.4s,SNR=3.8						
EBAD	**Badajoz**	**4.81**	**320**	⇓P	**Pn**	**15 43 23.9**	**+0.1**
	34nm,0.2s,SNR=18						
EBAD				S	**Sn**	**15 44 18.9**	**-0.8**
	45nm,0.3s,SNR=5.2						
EBAD	**Badajoz**	**4.81**	**320**	P	**Pn**	**15 43 23.9**	**+0.1**
	34nm,0.2s,SNR=18						
EBAD				S	**Sn**	**15 44 18.9**	**-0.8**
	45nm,0.3s,SNR=5.2						
PBEJ	**Beja**	**4.83**	**308**	*e*Pn	**Pn**	**15 43 23.8**	**-0.3**
PBEJ				*e*Sn	**Sn**	**15 44 19.6**	**-0.6**
	16nm,0.6s						
PBEJ	**Beja**	**4.83**	**308**	P	**Pn**	**15 43 23.8**	**-0.3**
PBEJ				S	**Sn**	**15 44 19.6**	**-0.6**
	8.2nm,0.6s						
PTEO	**Sao Teotonio**	**5.17**	**299**	*e*Pn	**Pn**	**15 43 28.7**	**-0.3**
PTEO				*e*Sn	**Sn**	**15 44 27.4**	**-1.4**
	22nm,0.3s						
PTEO	**Sao Teotonio**	**5.17**	**299**	P	**Pn**	**15 43 28.7**	**-0.3**
PTEO				S	**Sn**	**15 44 27.4**	**-1.4**
	11nm,0.3s						
EVO	**Evora**	**5.23**	**312**	*e*Pn	**Pn**	**15 43 30.4**	**+0.7**
EVO				*e*Sn	**Sn**	**15 44 29.2**	**-1.0**
	48nm,0.6s						
EIBI	**Ibiza**	**5.24**	**41**	P	**Pn**	**15 43 28.6**	**-1.2**
	18nm,0.4s,SNR=7.9						
EIBI				S	**Sn**	**15 44 26.7**	**-3.7**
	4.2nm,0.2s,SNR=7.9						
EIBI	**Ibiza**	**5.24**	**41**	P	**Pn**	**15 43 28.6**	**-1.2**
	18nm,0.4s,SNR=7.9						
EIBI				S	**Sn**	**15 44 26.7**	**-3.7**
	4.2nm,0.2s,SNR=7.9						
MOE	**Montemor**	**5.43**	**310**	*e*Pn	**Pn**	**15 43 32.8**	**+0.2**
MOE				*e*Sn	**Sn**	**15 44 33.0**	**-2.3**
EMOS	**Mosqueruela**	**5.60**	**21**	P	**Pn**	**15 43 35.1**	**+0.1**
	8.1nm,0.8s,SNR=5.8						
EMOS	**Mosqueruela**	**5.60**	**21**	P	**Pn**	**15 43 35.1**	**+0.1**
	8.1nm,0.8s,SNR=5.8						
PCBR	**Castelo Branco**	**5.87**	**324**	*e*Pn	**Pn**	**15 43 38.9**	**+0.2**
PCBR				*e*Sn	**Sn**	**15 44 43.1**	**-3.1**
	16nm,0.6s						
PCBR	**Castelo Branco**	**5.87**	**324**	P	**Pn**	**15 43 38.9**	**+0.2**
PCBR				S	**Sn**	**15 44 43.1**	**-3.1**
	8.2nm,0.6s						
PLOU	**Loures**	**6.15**	**309**	*i* Pn	**Pn**	**15 43 42.5**	**-0.3**
PLOU				*e*Sn	**Sn**	**15 44 51.1**	**-2.2**
	18nm,0.5s						
PLOU	**Loures**	**6.15**	**309**	⇑P	**Pn**	**15 43 42.5**	**-0.3**
PLOU				S	**Sn**	**15 44 51.1**	**-2.2**
	8.8nm,0.5s						
PTOM	**Tomar**	**6.18**	**318**	*e*Pn	**Pn**	**15 43 41.6**	**-1.6**
PTOM				*e*Sn	**Sn**	**15 44 49.8**	**-4.3**
	27nm,0.3s						
PTOM	**Tomar**	**6.18**	**318**	P	**Pn**	**15 43 41.6**	**-1.6**
PTOM				S	**Sn**	**15 44 49.8**	**-4.3**
	14nm,0.3s						
MTE	**Manteigas**	**6.35**	**327**	*i* Pn	**Pn**	**15 43 45.7**	**+0.2**
MTE				*e*Sn	**Sn**	**15 44 55.5**	**-2.7**
	24nm,0.5s						
MTE	**Manteigas**	**6.35**	**327**	⇑P	**Pn**	**15 43 45.7**	**+0.2**
MTE				S	**Sn**	**15 44 55.5**	**-2.7**
	12nm,0.5s						
ERTA	**Horta de San J**	**6.39**	**24**	P	**Pn**	**15 43 47.1**	**+0.9**
	8.8nm,0.4s,SNR=17						
ERTA	**Horta de San J**	**6.39**	**24**	P	**Pn**	**15 43 47.1**	**+0.9**
	8.8nm,0.4s,SNR=17						
PVIS	**Viseu**	**6.76**	**327**	*e*Pn	**Pn**	**15 43 51.2**	**-0.1**
PVIS				*e*Sn	**Sn**	**15 45 05.6**	**-2.9**
	11nm,0.3s						
PVIS	**Viseu**	**6.76**	**327**	P	**Pn**	**15 43 51.2**	**-0.1**
PVIS				S	**Sn**	**15 45 05.6**	**-2.9**
	5.6nm,0.3s						
PVRL	**Vila Real**	**7.14**	**330**	*i* Pn	**Pn**	**15 43 56.6**	**-0.1**
PVRL				*e*Sn	**Sn**	**15 45 14.1**	**-4.1**
	26nm,0.5s						
PVRL	**Vila Real**	**7.14**	**330**	⇑P	**Pn**	**15 43 56.6**	**-0.1**
PVRL				S	**Sn**	**15 45 14.1**	**-4.1**
	13nm,0.5s						
PBRG	**Braganca**	**7.26**	**338**	*e*Pn	**Pn**	**15 43 57.8**	**-0.5**
PBRG				*e*Sn	**Sn**	**15 45 16.2**	**-4.8**
	9.6nm,0.6s						
PBRG	**Braganca**	**7.26**	**338**	P	**Pn**	**15 43 57.8**	**-0.5**
PBRG				S	**Sn**	**15 45 16.2**	**-4.8**
	4.8nm,0.6s						
ECAL	**Calabor**	**7.38**	**338**	P	**Pn**	**15 43 59.7**	**-0.4**
	8.5nm,0.3s,SNR=7.9						
ECAL				S	**Sn**	**15 45 20.5**	**-3.6**
	15nm,0.5s,SNR=7.9						
ECAL	**Calabor**	**7.38**	**338**	P	**Pn**	**15 43 59.7**	**-0.4**
	8.5nm,0.3s,SNR=7.9						
ELOB	**Lobios**	**7.78**	**331**	P	**Pn**	**15 44 05.3**	**-0.4**
	12nm,0.3s,SNR=7.9						
ELOB				S	**Sn**	**15 45 28.0**	**-6.1**
	4.4nm,0.5s,SNR=7.9						
ELOB	**Lobios**	**7.78**	**331**	P	**Pn**	**15 44 05.3**	**-0.4**
	12nm,0.3s,SNR=7.9						
ERUA	**La Rua**	**7.92**	**337**	P	**Pn**	**15 44 07.6**	**+0.1**
	9.6nm,0.3s,SNR=25						
ERUA				S	**Sn**	**15 45 34.2**	**-3.3**
	8.0nm,0.5s,SNR=7.9						
ETSF	**Etsaut**	**7.99**	**13**	*e*Pn	**Pn**	**15 44 02.7**	**-5.8**
ETSF				*e*P		15 44 08.7	
ETSF	**Etsaut**	**7.99**	**13**	*e*P	**Pn**	**15 44 08.7**	**+0.2**
ELAN	**Lanestosa**	**8.09**	**358**	P	**P**	**15 44 09.7**	**-0.2**
	SNR=7.9						
ELAN				S	**Sn**	**15 45 37.2**	**-4.5**
	6.2nm,0.5s,SNR=7.9						
ELAN	**Lanestosa**	**8.09**	**358**	P	**P**	**15 44 09.7**	**-0.2**
	SNR=7.9						
SJPF	**Ste Jean**	**8.09**	**10**	*e*Pn	**P**	**15 44 04.0**	**-5.9**
SJPF				*e*P		15 44 10.2	
SJPF	**Ste Jean**	**8.09**	**10**	*e*P	**P**	**15 44 10.2**	**+0.3**
EALK	**Alkurruntz**	**8.16**	**8**	P	**P**	**15 44 10.2**	**-0.7**
EALK				S	**Sn**	**15 45 38.1**	**-5.4**
EALK	**Alkurruntz**	**8.16**	**8**	P	**P**	**15 44 10.2**	**-0.7**
	SNR=7.9						
EALK				S	**Sn**	**15 45 38.1**	**-5.4**
	7.0nm,0.5s,SNR=7.9						
EINC	**Incio**	**8.22**	**337**	P	**P**	**15 44 10.7**	**-1.1**
	8.2nm,0.4s,SNR=18						
EINC				S	**Sn**	**15 45 39.4**	**-5.8**
	2.5nm,0.5s,SNR=7.9						
EINC	**Incio**	**8.22**	**337**	P	**P**	**15 44 10.7**	**-1.1**
EPF	**Esparros**	**8.31**	**17**	*e*Pn	**P**	**15 44 06.9**	**-6.1**
EPF				*e*P		15 44 13.2	
EPF	**Esparros**	**8.31**	**17**	*e*P	**P**	**15 44 13.2**	**+0.2**
EARI	**Arriondas**	**8.32**	**349**	P	**P**	**15 44 13.1**	**-0.1**
EARI	**Arriondas**	**8.32**	**349**	P	**P**	**15 44 13.1**	**-0.1**
EPON	**Pontenova**	**8.77**	**340**	P	**P**	**15 44 19.7**	**+0.2**
EPON	**Pontenova**	**8.77**	**340**	P	**P**	**15 44 19.7**	**+0.3**
MTLF	**Montolieu**	**9.15**	**25**	*e*P	**P**	**15 44 24.1**	**-0.6**
MTLF	**Montolieu**	**9.15**	**25**	*e*P	**P**	**15 44 24.1**	**-0.6**
LMR	**La Mourre**	**11.04**	**39**	*e*P	**P**	**15 44 49.4**	**-1.1**
SMRF	**Simiane la Rot**	**11.05**	**34**	*e*Pn	**P**	**15 44 43.1**	**-7.6**
PGF	**Pioggiola**	**11.95**	**48**	*e*P	**P**	**15 45 01.8**	**-1.1**
QUIF	**Quistinic**	**12.77**	**360**	*e*P	**P**	**15 45 13.3**	**-0.5**
ROSF	**Rostrenen**	**13.19**	**359**	*e*Pn	**P**	**15 45 14.0**	**-5.4**

*IDC **04** 16:05:25.9±2.9, 5.90S×146.66E, h19^{km}±18^{km}, mb4.3/13, mb1 4.5/16, mb1mx4.4/18, ML3.9/3, MS3.9/11, Ms1 3.9/11, ms1mx3.9/17, Error ellipse: s-maj=17.9km s-min=9.3km az=109.0*

*BJI **04** 16:05:28.3, 5.90S×146.62E, h48^{km}, mB5.3, mb4.9, Ms4.7, Msz4.6*

*SYO **04** 16:05:28.5, 5.86S×146.62E, h36^{km}, MB4.7*

*NEIC **04** 16:05:29.7±1.4, 5.91S×146.61E, h49^{km}±13^{km}, mb4.7/25, Error ellipse: s-maj=11.2km s-min=8.4km az=85.0*

ISC 04 16:05:26.4±1.9**, 5.92S**±0.06×**146.66E**±0.08**, h33**^{km}±17^{km}**, n80, σ**$0^{s}.$**94**/73**, mb4.6**/39**, MS4.0**/11**, 1D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.50**	**172**	Pn	**P**	**16 06 20.6**	**+0.8**
	11nm,0.3s,baz=337,slow=7.2,SNR=64						
PMG				Pg	**P**	**16 06 30.3**	**+11**
	86nm,0.3s,baz=348,slow=13,SNR=72						
PMG				Sn	**S**	**16 07 00.0**	**-0.6**
	44nm,0.3s,baz=2.7,slow=17,SNR=8.2						
PMG				Lg		16 07 16.8	
	56nm,0.3s,baz=12,slow=22,SNR=11						
PMG				LR	LR	16 08 04.7	
	comp=Z,3µm,18.7s,baz=337,slow=45						
PMG	**Port Moresby**	**3.50**	**172**	*e*Pn	**P**	**16 06 20.2**	**+0.5**
PMG				*e*		16 06 23.8	
PMG				*e*Pb	**P**	**16 06 30.1**	**+10**
CTA	**Charters Tower**	**14.09**	**182**	*e*P	**P**	**16 08 48.7**	**+2.8**
	4.4nm,0.5s						
CTA	**Charters Tower**	**14.09**	**182**	Pn	**P**	**16 08 47.5**	**+1.6**
	0.8nm,0.3s,baz=358,slow=13,SNR=16						
CTA				LR	LR	16 13 55.5	
	comp=Z,782nm,21.0s,baz=13,slow=36						
CTAO	**Charters Tower**	**14.09**	**182**	*e*P	**P**	**16 08 48.2**	**+2.3**
	55nm,1.5s						
KAKA	**Kakadu**	**15.56**	**243**	*e*P	**P**	**16 09 06.0**	**+0.9**
	39nm,0.5s						
WRAB	**Tennant Creek**	**18.36**	**220**	*e*P	**P**	**16 09 39.8**	**-0.6**
	17nm,0.7s						
WB2	**Warramunga Arr**	**18.37**	**220**	*e*P	**P**	**16 09 39.7**	**-0.8**
WRA	**Warramunga Arr**	**18.38**	**220**	P	**P**	**16 09 39.9**	**-0.7**
	0.9nm,0.3s,baz=42,slow=11,SNR=49						
WRA				S	**S**	**16 13 05.1**	**+4.0**
	baz=37,slow=21,SNR=6.5						
WRA				PcP	PcP	16 14 11.4	+0.1
	0.5nm,0.3s,baz=26,slow=1.6,SNR=10						
ASAR	**Alice Springs**	**21.50**	**214**	P	**P**	**16 10 14.0**	**-0.4**
	3.3nm,0.6s,mb3.9,baz=52,slow=8.7,SNR=75						
ASAR				S	**S**	**16 14 13.6**	**+7.7**
	2.7nm,0.9s,baz=35,slow=20,SNR=7.0						
ASAR				LR	LR	16 19 34.9	
	comp=Z,465nm,18.2s,MS3.9,baz=34,slow=40						
ASPA	**Alice Springs**	**21.50**	**214**	*e*P	**P**	**16 10 14.1**	**-0.4**
ASPA				*e*S	**S**	**16 14 13.0**	**+7.1**
FITZ	**Fitzroy Crossi**	**23.82**	**238**	*e*P	**P**	**16 10 37.4**	**-0.1**
	14nm,0.5s,mb4.7						
FITZ	**Fitzroy Crossi**	**23.82**	**238**	P	**P**	**16 10 37.8**	**+0.3**
	28nm,0.8s,mb4.7,baz=67,slow=5.0,SNR=37						
FITZ				LR	LR	16 21 17.1	
	comp=Z,202nm,18.1s,MS3.6,baz=81,slow=40						
STKA	**Stephens Creek**	**26.26**	**190**	*e*P	**P**	**16 10 59.3**	**-1.3**
	2.5nm,0.5s,mb4.0						
STKA	**Stephens Creek**	**26.26**	**190**	P	**P**	**16 10 59.1**	**-1.4**
	6.2nm,1.0s,mb4.1,baz=21,slow=12,SNR=9.7						
STKA				LR	LR	16 22 14.3	
	comp=Z,533nm,18.8s,MS4.1,baz=279,slow=38						
MBWA	**Marble Bar**	**30.16**	**237**	*e*P	**P**	**16 11 35.2**	**-0.7**
	11nm,0.9s,mb4.6						
NWAO	**Narrogin (SRO)**	**38.36**	**222**	P	**P**	**16 12 46.7**	**+0.5**
	3.2nm,0.6s,mb4.3,baz=169,slow=17,SNR=4.9						
NWAO	**Narrogin (SRO)**	**38.36**	**222**	P	**P**	**16 12 46.7**	**+0.5**
URZ	**Urewera**	**42.42**	**144**	P	**P**	**16 13 19.5**	**-0.3**
	11nm,0.9s,mb4.5,baz=279,slow=4.8,SNR=6.2						
MAJO	**Matsushiro**	**42.97**	**350**	P	**P**	**16 13 23.4**	**-0.9**
	5.1nm,0.7s,mb4.4						
RPZ	**Rata Peaks**	**43.33**	**154**	P	**P**	**16 13 28.0**	**+0.9**
	9.4nm,0.8s,mb4.6,baz=190,slow=21,SNR=4.7						
KS15	**Wonju Array Si**	**46.56**	**339**	*e*P	**P**	**16 13 51.3**	**-1.6**
ENH	**Enshi**	**50.63**	**317**	*e*P	**P**	**16 14 24.8**	**+0.2**
	11nm,1.1s,mb4.7						
NANT	**Nan**	**51.52**	**300**	P	**P**	**16 14 32.0**	**+0.6**
MDJ	**Mudanjiang**	**52.59**	**345**	P	**P**	**16 14 39.5**	**+0.3**
MDJ				AMB	AMB		
	comp=Z,13nm,1.8s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,377nm,4.5s						
MDJ	**Mudanjiang**	**52.59**	**345**	P	**P**	**16 14 39.9**	**+0.8**
	comp=Z,6.9nm,0.7s,mb4.7						
YSS	**Yuzh-Sakhalins**	**52.75**	**357**	*e*P	**P**	**16 14 38.2**	**-2.1**
	comp=Z,18nm,1.1s,mb4.9						
CMAR	**Chiang Mai Arr**	**52.91**	**298**	P	**P**	**16 14 42.4**	**+0.5**
	comp=Z,5.6nm,0.8s,mb4.5,baz=119,slow=5.7,SNR=40						
CMAR				LR	LR	16 37 28.0	
	comp=Z,27nm,21.7s,MS3.3,baz=50,slow=36						
CHG	**Chiang Mai**	**53.05**	**299**	P	**P**	**16 14 43.7**	**+0.8**
CN2	**Changchun**	**53.07**	**341**	*e*P	**P**	**16 14 45.2**	**+2.5**
XAN	**Xi'an**	**53.40**	**321**	P	**P**	**16 14 45.2**	**-0.1**
XAN				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.9						
BJT	**Baijiatuau**	**53.65**	**331**	P	**P**	**16 14 47.2**	**+0.1**
	comp=Z,20nm,1.0s,mb5.0						
RAR	**Rarotonga**	**53.98**	**112**	LR	LR	16 33 00.4	
	comp=Z,68nm,18.4s,MS3.7,baz=238,slow=31						
HHC	**Hu-ho-hao-te**	**56.58**	**328**	*e*P	**P**	**16 15 09.0**	**+0.6**
HHC				AMB	AMB		
	comp=Z,17nm,0.6s,mb5.2						
HHC				AMB	AMB		
	comp=Z,109nm,3.9s						
LZH	**Lanzhou**	**57.93**	**319**	*e*P	**P**	**16 15 18.2**	**+0.3**
LZH				AP	pP	16 15 28.5	+0.4
LZH				XP	sP	16 15 32.5	+0.5
LZH				*e*PP	PP	16 17 28.3	+0.3
LZH				*e*S	**S**	**16 23 14.4**	**+0.6**
LZH				AMB	AMB		
	comp=Z,21nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,113nm,6.1s						
LZH				LR	LR		
	comp=N,351nm,15.2s						
LZH				LR	LR		
	comp=Z,456nm,17.8s,MS4.6						
HIA	**Hailar**	**59.76**	**340**	*e*P	**P**	**16 15 30.3**	**-0.2**
	comp=Z,20nm,1.1s,mb5.0						
PPT	**Papeete**	**63.24**	**107**	*e*LR	LR	16 36 02.5	
	comp=Z,96nm,22.8s						
TBI	**Tubuai**	**63.72**	**113**	*e*LR	LR	16 36 14.6	
	comp=Z,106nm,34.8s						
ULN	**Ulaanbaatar**	**63.87**	**331**	*e*P	**P**	**16 15 58.4**	**+0.3**
	comp=Z,7.0nm,0.8s,mb4.7						
SONM	**Songino Array**	**64.17**	**331**	P	**P**	**16 15 59.7**	**-0.3**
	comp=Z,3.2nm,1.0s,mb4.3,baz=135,slow=5.2,SNR=13						
CASY	**Casey**	**65.24**	**195**	P	**P**	**16 16 08.0**	**+1.3**
	comp=Z,40nm,1.1s,mb5.4						
MA2	**Magadan**	**65.37**	**2**	*e*P	**P**	**16 16 00.8**	**-6.7**
	comp=Z,397nm,1.9s						
GUN	**Gumba**	**67.54**	**303**	*e*P	**P**	**16 16 22.5**	**+0.7**
	comp=Z,8.2nm,0.5s,mb5.0						
PKI	**Pulchoki**	**67.81**	**303**	*e*P	**P**	**16 16 24.8**	**+1.2**
KKN	**Kakani**	**68.00**	**303**	*e*P	**P**	**16 16 25.0**	**+0.3**
DMN	**Daman**	**68.08**	**303**	*e*P	**P**	**16 16 25.3**	**+0.1**
GKN	**Gorkha**	**68.60**	**303**	*e*P	**P**	**16 16 27.6**	**-0.9**
YAK	**Yakutsk**	**69.01**	**352**	P	**P**	**16 16 30.9**	**+0.5**
	comp=Z,8.3nm,0.8s,mb4.7						
KOLN	**Koldanda**	**69.39**	**302**	*e*P	**P**	**16 16 32.5**	**-0.9**
	comp=Z,5.5nm,0.7s,mb4.6						
VNDA	**Vanda**	**72.01**	**177**	P	**P**	**16 16 48.2**	**-0.1**
	comp=Z,2.1nm,0.6s,mb4.2,baz=328,slow=7.2,SNR=21						
VNDA				LR	LR	16 48 55.1	
	comp=Z,59nm,18.5s,MS3.9,baz=339,slow=36						
VNDA	**Vanda**	**72.01**	**177**	*e*P	**P**	**16 16 48.1**	**-0.2**
	comp=Z,6.9nm,1.1s,mb4.5						
WMQ	**Urumqi**	**72.51**	**319**	P	**P**	**16 16 52.3**	**+0.5**
WMQ				AP	pP	16 17 02.8	+0.6
WMQ				XP	sP	16 17 06.9	+1.0
WMQ				PCP	PcP	16 17 10.3	+0.6
WMQ				PP	PP	16 19 35.3	+0.1
WMQ				*e*S	S	16 26 12.5	-0.1
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.6						
WMQ				LR	LR		
	comp=N,120nm,16.5s,MS4.3						
WMQ				LR	LR		
	comp=E,67nm,16.5s,MS4.3						
WMQ				LR	LR		
	comp=Z,46nm,17.8s,MS3.8						
RKT	**Rikitea**	**77.02**	**112**	*e*LR	LR	16 42 24.5	
	comp=Z,119nm,31.2s						
ZAL	**Zalesovo**	**78.77**	**328**	P	**P**	**16 17 26.3**	**-1.0**
	comp=Z,1.3nm,0.6s,mb4.1,baz=325,slow=2.8,SNR=5.7						
ZAL				LR	LR	16 52 14.5	
	comp=Z,78nm,19.8s,MS4.0,baz=273,slow=36						
TKM2	**Tokmak 2**	**80.35**	**315**	*e*P	**P**	**16 17 35.2**	**-0.8**
	comp=Z,18nm,1.4s,mb4.8						
UCH	**Uchtor**	**80.91**	**314**	P	**P**	**16 17 39.7**	**+0.6**
	comp=Z,4.3nm,1.1s,mb4.3						
KURK	**Kurchatov**	**80.94**	**323**	*e*P	**P**	**16 17 38.4**	**-0.7**
	comp=Z,5.1nm,1.1s,mb4.4						
AAK	**Ala-Archa**	**81.04**	**315**	*e*P	**P**	**16 17 38.1**	**-1.6**
	comp=Z,2.9nm,0.9s,mb4.2						
RSO	**Redoubt South**	**81.19**	**26**	P	**P**	**16 17 43.3**	**+3.2**
AML	**Almayashu**	**81.47**	**314**	*e*P	**P**	**16 17 43.4**	**+1.4**
	comp=Z,12nm,1.1s,mb4.7						
EKS2	**Erkin-Say**	**81.56**	**315**	P	**P**	**16 17 43.4**	**+1.0**
	comp=Z,22nm,1.7s,mb4.8						
MAW	**Mawson**	**82.19**	**203**	LR	LR	16 52 24.9	
	comp=Z,94nm,22.0s,MS4.1,baz=239,slow=34						
MCK	**McKinley**	**84.29**	**24**	*e*P	**P**	**16 17 56.0**	**+0.1**
	comp=Z,10nm,1.3s,mb4.8						
COLA	**College**	**85.21**	**23**	*e*P	**P**	**16 18 00.2**	**-0.2**
	comp=Z,4.4nm,0.8s,mb4.6						
ILAR	**Eielson Array**	**85.54**	**23**	P	**P**	**16 18 01.4**	**-0.6**
	comp=Z,2.8nm,0.7s,mb4.6,baz=264,slow=4.5,SNR=8.6						
CHKZ	**Chkalovo**	**86.54**	**325**	*e*P	**P**	**16 18 05.3**	**-1.9**
	comp=Z,2.4nm,1.0s,mb4.4						
BRVK	**Borovoye**	**86.57**	**324**	*e*P	**P**	**16 18 06.3**	**-1.1**
	comp=Z,2.3nm,0.9s,mb4.4						
SYO	**Syowa Base**	**90.55**	**200**	⇓P	**P**	**16 18 26.3**	**+0.3**
NVAR	**Mina Array Bea**	**97.59**	**52**	P	**P**	**16 19 00.2**	**+1.3**
	comp=Z,0.5nm,0.7s,mb4.2,baz=254,slow=4.9,SNR=4.2						
NVAR	**Mina Array Bea**	**97.59**	**52**	P	**P**	**16 19 00.2**	**+1.3**
YKA	**Yellowknife Ar**	**99.26**	**28**	P	**P**	**16 19 05.1**	**-0.8**
	comp=Z,0.6nm,1.0s,mb4.1,baz=274,slow=4.1,SNR=4.4						
YKA				LR	LR	17 03 04.1	
	comp=Z,91nm,18.7s,MS4.3,baz=245,slow=35						
GERES	**GERESS Array B**	**121.65**	**325**	PKP	PKPdf	16 24 17.3	+0.3
	comp=Z,0.2nm,0.5s,baz=37,slow=4.9,SNR=2.7						
LVC	**Limon Verde**	**135.12**	**130**	PKP	PKPdf	16 24 46.7	+3.2
	comp=Z,2.7nm,0.8s,baz=234,slow=6.7,SNR=4.1						
LVC	**Limon Verde**	**135.12**	**130**	*e*PKPdf	PKPdf	16 24 45.9	+2.5
LPAZ	**La Paz**	**139.12**	**123**	PKhKP		16 24 45.9	
	comp=Z,0.7nm,0.4s,baz=6.3,slow=1.8,SNR=4.8						
LPAZ				PKP	PKPdf	16 24 54.5	+3.7
	comp=Z,4.2nm,0.9s,baz=340,slow=3.7,SNR=9.1						
SDV	**Santo Domingo**	**142.91**	**83**	*e*PKP	PKPdf	16 24 55.4	-2.3
SDV				*e*PKPdf	PKPdf	16 24 58.2	+0.5
SAML	**Samuel**	**146.79**	**116**	*e*PKPdf	PKPdf	16 25 06.0	+1.6
DBIC	**Dimbokro**	**151.68**	**273**	PKPbc	PKPdf	16 25 19.6	+7.5
	comp=Z,9.3nm,0.7s,baz=90,slow=2.5,SNR=13						
DBIC	**Dimbokro**	**151.68**	**273**	*e*PKPdf	PKPdf	16 25 15.3	+3.2
DBIC				PKPbc	PKPdf	16 25 19.6	+7.5
DBIC				*e*PKPbc	PKPdf	16 25 20.3	+8.2
DBIC				*e*PKPab	PKPab	16 25 28.9	-0.6
DBIC				*e*SKP		16 28 39.4	
BDFB	**Brasilia**	**154.12**	**146**	PKP	PKPdf	16 25 17.1	+1.6
	comp=Z,1.7nm,0.6s,baz=257,slow=2.2,SNR=3.7						
BDFB				PKPbc	PKPdf	16 25 24.5	+9.1
	comp=Z,3.7nm,0.5s,baz=290,slow=1.9,SNR=6.2						

*IDC **04** 16:16:27.6±1.2, 21.05S×68.37W, h134^{km}±11^{km}, mb3.4/2, mb1 3.6/3, mb1mx3.3/14, Error ellipse: s-maj=64.5km s-min=10.0km az=96.0*

*GUC **04** 16:16:28.3±0.8, 21.50S×68.17W, h172^{km}±8^{km}, MD3.3, ML3.0*

ISC 04 16:16:26.9±0.8**, 21.08S**±0.06×**68.5W**±0.2**, h147**^{km}±9^{km}**, n10, σ**$0^{s}.$**70**/13**, mb3.5**/2**, 3C-1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**1.57**	**193**	P	**P**	**16 16 58.2**	**+0.9**
	94nm,0.3s,baz=18,slow=10,SNR=1201						
LVC				S	**S**	**16 17 20.9**	**+0.1**
	24nm,0.3s,baz=240,slow=19,SNR=9.4						
LVC	**Limon Verde**	**1.57**	**193**	⇑*i*P	**P**	**16 16 58.2**	**+0.8**
LVC				*i* S	**S**	**16 17 21.9**	**+1.1**
LVC				AMP		16 17 24.4	
	comp=E,181nm,0.2s						
SPCH	**San Pedro de A**	**1.84**	**171**	⇓*i*P	**P**	**16 16 59.6**	**-0.8**
SPCH				AMP		16 17 40.2	
	comp=N,132nm,0.6s						
ANCH	**Antofagasta**	**3.12**	**214**	⇑*i*P	**P**	**16 17 17.5**	**+1.0**
ANCH				*i* S	**S**	**16 17 54.0**	**-0.4**
CPN1	**Cerro Paranal**	**3.93**	**206**	⇑*i*P	**P**	**16 17 27.3**	**+0.2**
CPN1				*i* S	**S**	**16 18 12.1**	**-1.2**
LPAZ	**La Paz**	**4.78**	**4**	P	**P**	**16 17 38.0**	**-0.3**
	comp=N,3.1nm,0.3s,baz=175,slow=7.7,SNR=28						
LPAZ				S	**S**	**16 18 33.0**	**-0.4**
	comp=N,0.3nm,0.3s,baz=80,slow=19,SNR=2.1						
SNAA	**Sanae**	**62.55**	**161**	P	**P**	**16 26 36.7**	**-0.3**
	comp=N,0.4nm,1.0s,mb3.2,baz=294,slow=6.5,SNR=4.4						
YKA	**Yellowknife Ar**	**90.92**	**340**	P	**P**	**16 29 15.3**	**+0.7**
	comp=N,0.7nm,0.7s,mb3.8,baz=131,slow=4.4,SNR=9.2						
ASAR	**Alice Springs**	**130.45**	**207**	PKP	PKPdf	16 35 22.9	+2.1
	comp=N,1.5nm,1.3s,baz=123,slow=1.7,SNR=5.0						
WRA	**Warramunga Arr**	**133.50**	**210**	PKP	PKPdf	16 35 29.7	+3.2
	comp=N,0.6nm,1.1s,baz=152,slow=1.8,SNR=5.5						

*MDD **04** 16:18:23.9±1.6, 35.02N×3.10W, mb3.5/7, Error ellipse: s-maj=15.1km s-min=6.3km az=149.0, PRXIMO AftershockPLICA*

*CSEM **04** 16:18:23.2±0.1, 35.08N×3.09W, h8^{km}, MD3.2, Error*

ellipse: s-maj=4.3km s-min=2.8km az=103.0
*NEIC **04** 16:18:24.4, 35.04N×3.11W, MG3.5(MDD), After MDD.*
*CNRM **04** 16:18:24.1, 35.01N×2.74W, h7^{km}, MD3.2*
ISC 04 16:18:24.2±0.8**, 35.08N**±0.05×**3.1W**±0.1**, h14**^{km}±6^{km}**, n24, σ0^{s}85**/37**, 1C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	Melilla	0.25	29	P	Pg	16 18 29.2	-0.5
	116nm,0.1s,SNR=8.7						
EMEL				S	Sg	16 18 33.8	+0.4
	535nm,0.2s,SNR=5.6						
EMLI	Melilla	0.25	30	P	Pg	16 18 29.2	-0.6
	116nm,0.1s,SNR=8.7						
MELI	Melilla	0.25	33	⇑P	Pg	16 18 29.1	-0.7
MELI				S	Sg	16 18 34.1	+0.5
MELI	Melilla	0.25	33	i P	Pg	16 18 29.1	-0.7
TZK	Tazeka	1.33	222	i P	Pn	16 18 49.0	+0.4
EBER	Berja	1.82	5	P	Pn	16 18 55.3	-0.2
	1.4nm,0.3s,SNR=4.8						
EBER				S	Sn	16 19 15.6	-2.9
	23nm,0.6s						
EBER	Berja	1.82	5	P	Pn	16 18 55.3	-0.2
	1.4nm,0.3s,SNR=4.8						
EBER				S	Sn	16 19 15.6	-2.8
	23nm,0.6s						
EMIJ	Mijas	2.01	318	P	Pn	16 18 58.1	-0.1
	0.8nm,0.2s,SNR=6.7						
EMIJ				S	Sn	16 19 23.1	-0.1
	3.5nm,0.2s						
ELOJ	Sierra Loja	2.23	338	P	Pn	16 19 03.2	+1.8
	1.4nm,0.2s,SNR=6.8						
ELOJ				S	Sn	16 19 28.0	-0.9
	0.5nm,0.2s						
ELUQ	Luque	2.65	339	P	Pn	16 19 07.4	+0.1
	0.7nm,0.2s,SNR=5.7						
ELUQ				S	Sn	16 19 40.2	+0.7
	1.9nm,0.4s						
EQES	Quesada	2.71	1	P	Pn	16 19 09.5	+1.3
	5.4nm,0.3s,SNR=17						
EQES				S	Sn	16 19 43.0	+1.9
	19nm,0.5s						
EQES	Quesada	2.71	1	P	Pn	16 19 09.5	+1.2
	5.4nm,0.3s,SNR=17						
EQES				S	Sn	16 19 43.0	+1.8
	19nm,0.5s						
ESPR	Espera	2.86	309	P	Pn	16 19 10.0	-0.3
	0.4nm,0.1s,SNR=7.9						
ESPR	Espera	2.86	309	P	Pn	16 19 10.0	-0.3
	0.4nm,0.1s,SNR=7.9						
ZFT	Errachidia	3.22	199	i P	Pn	16 19 15.0	-0.4
EADA	Adamuz	3.30	339	P	Pn	16 19 16.9	+0.3
	3.6nm,0.3s,SNR=10						
EADA				S	Sn	16 19 55.4	-0.6
	1.2nm,0.3s						
EADA	Adamuz	3.30	339	P	Pn	16 19 16.9	+0.3
	3.6nm,0.3s,SNR=10						
EADA				S	Sn	16 19 55.4	-0.6
	1.2nm,0.3s						
EVIA	Vianos	3.58	8	S	Sn	16 20 02.4	-0.7
	3.6nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	3.93	314	P	Pn	16 19 25.1	-0.5
	0.5nm,0.1s,SNR=8.9						
EMIN				S	Sn	16 20 08.0	-4.0
	2.7nm,0.8s						
EMIN	Mina Concepcio	3.93	314	P	Pn	16 19 25.1	-0.5
	0.5nm,0.1s,SNR=8.9						
EMIN				S	Sn	16 20 08.0	-4.0
	2.7nm,0.8s						
ESDC	Sonseca Array	4.63	352	P	Pn	16 19 35.7	+0.2
	1.1nm,0.3s,baz=172,slow=12,SNR=10						
ESDC	Sonseca Array	4.63	352	P	Pn	16 19 35.7	+0.1
	1.1nm,0.3s,SNR=10						
EBAD	Badajoz	4.82	321	P	Pn	16 19 38.4	+0.1
	1.9nm,0.7s,SNR=4.6						
EBAD	Badajoz	4.82	321	P	Pn	16 19 38.4	+0.2

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*IDC **04** 16:33:38.7±0.8, 14.62N×146.66E, mb3.9/8, mb1 4.0/8, mb1mx3.9/21, MS3.3/1, Ms1 3.5/1, ms1mx2.5/29, Error ellipse: s-maj=32.2km s-min=19.7km az=75.0*
*NEIC **04** 16:33:47.7±3.0, 14.54N×146.60E, h68^{km}±25^{km}, mb4.3/7, Error ellipse: s-maj=30.5km s-min=13.8km az=68.0*
ISC 04 16:33:42.1±3.1**, 14.60N**±0.10×**147.0E**±0.2**, h49**^{km}±25^{km}**, n25, σ1^{s}02**/22**, mb4.2**/17**, MS3.3**/1**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.30	244	ePn	P	16 34 18.2	-0.2
GUMO				eSn	S	16 34 46.2	+0.6
MAJO	Matsushiro	23.22	342	eP	P	16 38 43.9	-1.8
	4.8nm,0.6s,mb4.1						
PMG	Port Moresby	23.85	180	P	P	16 38 49.3	-2.7
	11nm,0.9s,mb4.3						
WRA	Warramunga Arr	36.52	200	P	P	16 40 44.4	-0.6
	0.8nm,0.8s,mb3.6,baz=23,slow=9.6,SNR=6.9						
ASAR	Alice Springs	40.13	199	P	P	16 41 15.1	0.0
	0.3nm,0.6s,mb3.2,baz=24,slow=8.1,SNR=6.1						
CMAR	Chiang Mai Arr	46.13	282	P	P	16 42 03.5	-0.3
	1.4nm,1.1s,mb3.8,baz=75,slow=7.0,SNR=5.8						
CMAR				LR	LR	17 01 10.4	
	comp=Z,29nm,18.6s,MS3.3,baz=40,slow=36						
ULN	Ulaanbaatar	46.76	324	eP	P	16 42 10.9	+2.4
	2.8nm,0.9s,mb4.2						
SONM	Songino Array	47.13	323	P	P	16 42 11.8	+0.5
	1.1nm,0.7s,mb3.9,baz=134,slow=7.3,SNR=8.9						
GUN	Gumba	57.96	294	eP	P	16 43 32.8	+0.5
	17nm,0.7s,mb5.2						
PKI	Pulchoki	58.38	294	eP	P	16 43 34.6	-0.6
KKN	Kakani	58.49	294	eP	P	16 43 35.3	-0.7
GKN	Gorkha	59.06	294	eP	P	16 43 39.8	-0.1
	12nm,0.8s,mb5.0						
KOLN	Koldanda	59.98	294	eP	P	16 43 46.2	-0.1
ZAL	Zalesovo	62.03	324	P	P	16 43 59.8	+0.1
	0.7nm,0.7s,mb3.9,baz=6.9,slow=5.5,SNR=4.4						
RPZ	Rata Peaks	62.06	160	P	P	16 44 02.7	+2.6
	6.3nm,0.7s,mb4.9,baz=66,slow=14,SNR=3.1						
KURK	Kurchatov	65.15	319	eP	P	16 44 19.3	-0.9
	13nm,1.1s,mb4.9						
UCH	Uchtor	67.41	310	P	P	16 44 35.9	+1.2
	5.3nm,1.2s,mb4.5						
CHKZ	Chkalovo	70.31	322	eP	P	16 44 51.9	-0.4
	9.2nm,1.5s,mb4.5						
BVAR	Borovoye Array	70.42	321	P	P	16 44 52.7	-0.3
	4.4nm,1.0s,mb4.3,baz=90,slow=7.4,SNR=12						
BRVK	Borovoye	70.49	321	eP	P	16 44 53.1	-0.3
	4.2nm,0.9s,mb4.4						
YKA	Yellowknife Ar	81.01	28	P	P	16 45 54.1	+1.2
	0.5nm,0.8s,mb3.5,baz=286,slow=5.3,SNR=5.2						
DBIC	Dimbokro	144.99	305	PKP	PKPdf	16 53 16.4	+1.4
	2.8nm,0.7s,baz=124,slow=2.0,SNR=5.6						
DBIC	Dimbokro	144.99	305	PKP	PKPdf	16 53 16.4	+1.4
LVC	Limon Verde	145.12	109	PKPbc	PKPbc	16 53 20.8	+5.5
	1.3nm,0.7s,baz=70,slow=13,SNR=3.1						
LPAZ	La Paz	146.12	98	PKPbc	PKPbc	16 53 23.6	+5.7
	0.4nm,0.5s,baz=339,slow=6.4,SNR=2.2						

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*CSEM **04** 16:33:53.2±0.1, 35.13N×3.27W, h4^{km}±1^{km}, mb3.1/3, Error ellipse: s-maj=4.8km s-min=2.5km az=111.0*
*NEIC **04** 16:33:54.8, 35.10N×3.22W, MG3.1(MDD), After MDD.*
*MDD **04** 16:33:54.8±2.1, 35.10N×3.22W, mb3.1/3, Error ellipse: s-maj=22.5km s-min=7.1km az=171.0, PRXIMO AftershockPLICA*
ISC 04 16:33:54.7±1.1**, 35.16N**±0.07×**3.2W**±0.1**, h10**^{km}±13^{km}**, n11, σ0^{s}93**/18**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	Melilla	0.26	59	P	Pg	16 34 00.2	-0.1
	27nm,0.1s,SNR=9.4						
EMEL				S	Sg	16 34 04.2	+0.2
	200nm,0.2s,SNR=7.9						
EMLI	Melilla	0.27	60	P	Pg	16 34 00.2	-0.2
	27nm,0.1s,SNR=9.4						
TZK	Tazeka	1.33	216	i P	Pb	16 34 18.0	-1.3
TZK				i S	Sb	16 34 37.0	+0.8
EBER	Berja	1.75	9	P	Pn	16 34 25.5	+0.1
	3.8nm,0.6s						
EBER				S	Sn	16 34 45.8	-2.1
	6.3nm,0.7s,SNR=4.8						
EBER	Berja	1.75	9	P	Pn	16 34 25.5	+0.1
	3.8nm,0.6s						
EMIJ	Mijas	1.88	319	P	Pn	16 34 27.6	+0.4
	1.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	16 34 50.9	-0.1
	4.4nm,0.5s,SNR=10						
EMIJ	Mijas	1.88	319	P	Pn	16 34 27.6	+0.4
	1.3nm,0.1s,SNR=7.9						
EMIJ				S	Sn	16 34 51.0	0.0
EQES	Quesada	2.64	3	P	Pn	16 34 39.6	+1.6
	0.6nm,0.2s,SNR=4.5						
EQES				S	Sn	16 35 11.4	+1.0
	2.3nm,0.4s						
EQES	Quesada	2.64	3	P	Pn	16 34 39.6	+1.5
	0.6nm,0.2s,SNR=4.5						
EQES				S	Sn	16 35 11.4	+1.0
	2.3nm,0.4s						
EMIN	Mina Concepcio	3.80	314	P	Pn	16 34 53.8	-0.8
	0.6nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	3.80	314	P	Pn	16 34 53.8	-0.8

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*ISK **04** 16:35:00.5, 34.73N×25.33E, h5^{km}, MD3.5, ML3.6*
*ATH **04** 16:35:13.5, 35.27N×25.89E, h72^{km}±9^{km}*
*CSEM **04** 16:35:14.0±0.1, 35.29N×26.03E, h40^{km}, MD3.5, Error ellipse: s-maj=4.0km s-min=3.1km az=165.0*
ISC 04 16:35:15.0±1.0**, 35.41N**±0.06×**25.92E**±0.08**, h54**^{km}±22^{km}**, n15, σ0^{s}90**/19**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NPS	Neapolis	0.29	240	eP	P	16 35 25.0	+0.4
XRY	Khrisi	0.56	200	eP	P	16 35 26.2	-1.1
KARP	Karpathos	1.02	82	eP	P	16 35 34.0	+0.6
THR1	Thera Island	1.03	339	eP	P	16 35 34.3	+0.8
THR1				eS	S	16 35 47.8	+0.5
THR6	Thira Island,	1.04	336	eP	P	16 35 34.8	+1.1
THR6				eS	S	16 35 47.7	+0.3
THR3	Thira Island,	1.09	337	eP	P	16 35 35.1	+0.8
THR3				eS	S	16 35 46.6	-2.0
THR5	Thira Island,	1.11	335	eP	P	16 35 35.2	+0.6
THR5				eS	S	16 35 47.9	-1.2
VAM	Vamos	1.41	270	eP	P	16 35 39.0	+0.1
APE	Apeiranthos	1.69	349	PN	P	16 35 40.6	-2.1
APE	Apeiranthos	1.69	349	eP	P	16 35 44.0	+1.3
YER	Yerkesik	2.57	47	ePN	P	16 35 55.9	+0.7
DALT	Dalyan (Mudla)	2.58	57	ePN	P	16 35 55.4	0.0
VLI	Veliai	2.75	299	eP	P	16 35 57.7	-0.1
FETY	Fethiye	2.84	64	ePN	P	16 35 58.1	-0.9
ELL	Elmali	3.49	66	ePN	P	16 36 07.6	-0.7

OTT 04 16:36:41.9±0.4**, 42.23N**×**55.66W, h18**^{km}**, ML3.0**/9**, Atlantic Offshore 535km southeast from Louisbourg, Ns, North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HAL	Halifax	6.25	295	PN	Pn	16 38 12.3	-3.5
HAL				SN	Sn	16 39 19.4	-8.1
HAL				Trac		16 39 26.1	
	comp=Z,1.5nm,0.1s						
DRLN	Deer Lake	7.14	350	PN	Pn	16 38 24.7	-3.5
DRLN				SN	Sn	16 39 40.5	-9.2
DRLN				Trac		16 39 47.8	
	comp=Z,2.6nm,0.2s						
LMN	Caledonia Moun	7.52	302	PN	Pn	16 38 29.6	-3.8
LMN				SN	Sn	16 39 49.5	-10
LMN				Trac		16 39 57.2	
	comp=Z,1.5nm,0.1s						
GGN	Saint George	8.60	293	PN	P	16 38 44.0	-4.5
GGN				SN	Sn	16 40 14.9	-11
GGN				Trac		16 40 19.2	
	comp=Z,0.8nm,0.1s						
GSQ	Grosses Roches	10.43	314	PN	P	16 39 07.0	-6.7
GSQ				SN	S	16 40 59.2	-12
ICQ	Pointe Anglais	10.88	316	PN	P	16 39 15.1	-4.8
ICQ				SN	S	16 41 11.6	-11
ICQ				Trac		16 41 19.5	
	comp=Z,0.4nm,0.1s						
SMQ	Clarke City	11.05	320	PN	P	16 39 17.0	-5.2
SMQ				SN	S	16 41 12.5	-14
SMQ				Trac		16 41 22.2	
	comp=Z,1.0nm,0.3s						
CNQ	Baie Comeau	11.18	313	PN	P	16 39 18.9	-5.0
CNQ				SN	S	16 41 16.3	-13
CNQ				Trac		16 41 23.6	
	comp=Z,0.3nm,0.1s						
LMQ	La Malbaie	11.68	302	PN	P	16 39 22.5	-8.2
LMQ				SN	S	16 41 28.5	-13
LMQ				Trac		16 41 42.5	
	comp=Z,0.4nm,0.1s						
MNQ	Manicouagan	12.27	317	SN	S	16 41 39.4	-17
MNQ				Trac		16 41 48.9	
	comp=Z,0.2nm,0.1s						

IDC 04 17:06:56.0±0.8**, 17.71N**×**146.15E, mb3.6**/7**, mb1 3.9**/7**, mb1mx3.7**/20**, Error ellipse: s-maj=36.9km s-min=19.4km az=104.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	39.17	198	P	P	17 14 25.6	-1.9
	0.4nm,0.9s,baz=11,slow=8.8,SNR=4.6						
FITZ	Fitzroy Crossi	40.91	211	P	P	17 14 40.2	-1.7
	1.3nm,0.9s,baz=167,slow=19,SNR=4.3						
ASAR	Alice Springs	42.83	197	P	P	17 14 56.3	-1.4
	0.2nm,0.7s,baz=21,slow=7.0,SNR=3.1						
SONM	Songino Array	44.18	322	P	P	17 15 06.3	-2.0
	0.4nm,0.6s,baz=130,slow=7.2,SNR=3.5						
ZAL	Zalesovo	59.06	323	P	P	17 16 57.9	-2.3
	0.7nm,0.3s,baz=185,slow=5.0,SNR=2.4						
ILAR	Eielson Array	64.34	26	P	P	17 17 33.5	-2.0
	0.5nm,0.4s,baz=251,slow=6.2,SNR=11						
NVAR	Mina Array Bea	83.41	52	P	P	17 19 26.6	-0.2
	0.3nm,0.6s,baz=252,slow=4.8,SNR=3.8						
LPAZ	La Paz	147.22	93	PKPbc	PKPdf	17 26 41.0	-0.6
	0.7nm,0.3s,baz=46,slow=1.7,SNR=4.3						

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*NIED **04** 17:23:00, 45.10N×149.60E, h44^{km}, Mw4.0 Best double couple: M$_0$9.95×10^{14} NP1:φ$_s$5°, δ74°, λ76°. NP2:φ$_s$229°, δ21°, λ131°.*
*MOS **04** 17:23:44.1±2.3, 44.84N×149.82E, h33^{km}, mb4.0/3, Error ellipse: s-maj=34.8km s-min=24.8km az=162.8*
*IDC **04** 17:23:47.6±9.8, 44.78N×149.74E, h63^{km}±98^{km}, mb3.4/5, mb1 3.7/6, mb1mx3.4/22, ML3.6/1, Error ellipse: s-maj=129.0km s-min=18.7km az=124.0*
ISC 04 17:23:46.5±2.1**, 44.8N**±0.1×**149.6E**±0.2**, h74**^{km}±17^{km}**, n20, σ0^{s}77**/18**, mb3.9**/7**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUK	Yuzh-Kuril'sk	2.76	255	ePN	P	17 24 28.5	-1.1
YUK				pmax	pmax		
	comp=Z,220nm,0.3s						
ASAJ	Asahikawa	5.03	265	P	P	17 25 02.2	+1.0
	comp=Z,2.0nm,0.3s,baz=83,slow=11,SNR=13						
ASAJ	Asahikawa	5.03	265	PN	P	17 25 02.2	+1.0
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
YSS	Yuzh-Sakhalins	5.22	297	ePN	P	17 25 04.0	+0.3
ILAR	Eielson Array	39.61	37	P	P	17 31 12.0	+0.1
	comp=Z,0.8nm,1.0s,mb3.5,baz=263,slow=7.5,SNR=4.7						
ILAR	Eielson Array	39.61	37	P	P	17 31 12.0	+0.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
GUN	Gumba	52.68	274	eP	P	17 32 56.0	+0.6
	comp=Z,8.4nm,0.7s,mb4.9						
KKN	Kakani	53.17	274	eP	P	17 32 58.6	-0.6
PKI	Pulchoki	53.21	274	eP	P	17 33 00.0	+0.6
DMN	Daman	53.41	274	eP	P	17 33 01.7	+0.8
GKN	Gorkha	53.50	275	eP	P	17 32 59.4	-2.2
YKA	Yellowknife Ar	53.96	35	P	P	17 33 04.0	-0.4
	comp=Z,0.6nm,0.8s,mb3.7,baz=298,slow=6.4,SNR=6.3						
YKA	Yellowknife Ar	53.96	35	P	P	17 33 04.0	-0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
KOLN	Koldanda	54.38	275	eP	P	17 33 07.8	-0.2
	comp=Z,8.7nm,1.1s,mb4.7						
WRA	Warramunga Arr	65.91	196	P	P	17 34 27.3	+0.5
	comp=Z,1.0nm,0.8s,mb3.7,baz=13,slow=6.8,SNR=4.2						
WRA	Warramunga Arr	65.91	196	P	P	17 34 27.3	+0.5
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
PDAR	Pinedale Array	67.91	51	P	P	17 34 39.2	+0.2
	comp=Z,0.6nm,1.0s,mb3.4,baz=315,slow=1.3,SNR=3.1						
ASAR	Alice Springs	69.62	195	P	P	17 34 49.7	-0.1
	comp=Z,0.9nm,0.8s,mb3.6,baz=16,slow=6.6,SNR=4.6						
SNAA	Sanae	149.97	197	PKPbc	PKPdf	17 43 29.2	+7.3
	comp=Z,0.5nm,1.0s,baz=73,slow=4.5,SNR=4.3						
SNAA	Sanae	149.97	197	PKIKP	PKPdf	17 43 29.2	+7.3
SNAA				pmax	pmax		
	comp=Z,1.0nm,1.0s						

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*MOS **04** 17:27:28.5±2.1, 45.37N×148.91E, h33^{km}, mb4.4/3, Error ellipse: s-maj=42.4km s-min=27.0km az=144.1*
*IDC **04** 17:27:30.7±7.8, 44.83N×149.31E, h66^{km}±60^{km}, mb3.5/6, mb1 3.6/7, mb1mx3.4/22, ML3.6/1, Error ellipse: s-maj=63.5km s-min=24.6km az=85.0*
ISC 04 17:27:23.0±5.4**, 44.8N**±0.2×**149.7E**±0.2**, h26**^{km}±36^{km}**, n13, σ0^{s}73**/13**, mb3.8**/6**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUK	Yuzh-Kuril'sk	2.85	255	ePN	Pn	17 28 07.1	-0.8
YUK				S	Sn	17 28 42.0	+0.3
YUK				pmax	pmax		
	comp=Z,190nm,0.4s						
YUK				smax			
	comp=N,430nm,0.5s						
YUK				smax			
	comp=E,170nm,0.5s						
YUK				smax			
	comp=E,1μm,0.7s						
ASAJ	Asahikawa	5.12	265	P	Pn	17 28 41.0	+0.9
	comp=E,1.9nm,0.3s,baz=49,slow=14,SNR=8.1						
ASAJ	Asahikawa	5.12	265	PN	Pn	17 28 41.1	+1.0
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
SONM	Songino Array	29.76	291	P	P	17 33 29.2	-0.2
	comp=Z,0.4nm,0.6s,mb3.3,baz=90,slow=8.0,SNR=4.2						
CMAR	Chiang Mai Arr	49.57	255	P	P	17 36 12.7	-1.2
	comp=Z,0.4nm,0.7s,mb3.6,baz=41,slow=7.3,SNR=4.9						
FINES	FINESS Array B	64.74	334	P	P	17 37 59.9	-0.8
	comp=Z,2.7nm,0.8s,mb4.3,baz=45,slow=5.4,SNR=5.8						
FINES	FINESS Array B	64.74	334	P	P	17 37 59.9	-0.8
FINES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA	NORSAR Array B	69.25	340	P	P	17 38 30.1	+0.9
	comp=Z,1.3nm,0.7s,mb4.0,baz=32,slow=6.1,SNR=4.4						
NOA	NORSAR Array B	69.25	340	P	P	17 38 30.1	+0.9
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	69.66	195	P	P	17 38 32.9	+0.6
	comp=Z,0.4nm,0.9s,mb3.4,baz=14,slow=6.5,SNR=2.8						
AKASG	Malin Array Be	71.78	325	P	P	17 38 44.9	+0.2
	comp=Z,1.3nm,0.6s,mb4.0,baz=37,slow=5.8,SNR=8.0						
AKASG	Malin Array Be	71.78	325	P	P	17 38 44.9	+0.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SNAA	Sanae	150.01	197	PKPbc	PKPdf	17 47 11.8	+2.3
	comp=Z,0.4nm,0.9s,baz=1.3,slow=13,SNR=3.7						

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*NEIC **04** 17:40:52.5±5.8, 38.67N×138.57E, h23^{km}±38^{km}, mb4.4/3, Error ellipse: s-maj=39.3km s-min=12.3km az=65.0*
NEIC Recorded [2 JMA] in Niigata and [1 JMA] in Gumma Prefectures. Also recorded [2 JMA] on Sadoga-shima and [1 JMA] on Hegura-jima.
*JMA **04** 17:40:53.4±0.2, 38.57N×138.23E, h18^{km}±1^{km}, M4.4*
JMA Felt II J1.
*IDC **04** 17:41:00.8±4.1, 38.54N×138.09E, h78^{km}±49^{km}, mb3.4/3, mb1 3.8/5, mb1mx3.4/24, ML3.9/2, Error ellipse: s-maj=44.3km s-min=30.5km az=69.0*
*NIED **04** 17:41:00, 38.50N×138.20E, h20^{km}, Mw3.9 Best double couple: M$_0$7.09×10^{14} NP1:φ$_s$232°, δ79°, λ133°. NP2: φ$_s$334°, δ44°, λ16°.*
ISC 04 17:40:52.2±1.0**, 38.65N**±0.05×**138.19E**±0.06**, h23**^{km}±8^{km}**, n21, σ1^{s}16**/30**, mb4.0**/6**, 4C, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSD	Sado	0.62	175	⇑P	Pb	17 41 03.8	-0.5
JSD				eS	Sb	17 41 10.9	-1.6
JAW	Awa shima	0.85	103	⇑P	Pb	17 41 08.6	+0.4
JAW				eS	Sb	17 41 20.3	+1.1
JIZZ	Izumozaki	1.19	160	⇑P	Pn	17 41 13.0	-0.6
JIZZ				S	Sb	17 41 29.8	+0.8
JNS	Sasagawa	1.22	133	P	Pn	17 41 13.3	-0.7
JNS				eS	Sb	17 41 29.5	-0.2
JHG	Hegura jima	1.28	232	P	Pn	17 41 15.3	+0.3
JHG				eS	Sn	17 41 33.2	+1.7
JSZ	Suzu	1.37	209	⇑P	Pn	17 41 15.9	-0.3
JHK	Hiroka	1.55	155	eS	Sn	17 41 38.5	+0.3
MAJO	Matsushiro	2.11	180	ePn	Pn	17 41 25.8	-0.9
MAJO				eSn	Sn	17 41 44.4	-8.1
MAT	Matsushiro	2.11	180	P	Pn	17 41 26.0	-0.7
MAT				S	Sn	17 41 55.2	+2.7
MAT	Matsushiro	2.11	180	eP	Pn	17 41 26.0	-0.7
MAT				eS	Sn	17 41 55.0	+2.5
ASAJ	Asahikawa	6.38	30	P	Pn	17 42 33.9	+6.5
	0.8nm,0.3s,baz=198,slow=16,SNR=4.9						
KS15	Wonju Array Si	8.22	265	ePn	P	17 42 54.1	+1.0
KS15				eSn	Sn	17 44 24.5	-1.7
MDJ	Mudanjiang	8.77	316	ePn	P	17 43 01.0	+0.3
JOW	Kunigami	14.43	218	P	P	17 44 19.8	+2.7
	3.9nm,0.3s,baz=297,slow=28,SNR=3.5						
YAK	Yakutsk	23.98	350	P	P	17 45 57.2	-8.3
SONM	Songino Array	24.77	302	P	P	17 46 15.2	+1.9
	0.7nm,0.9s,mb3.2,baz=113,slow=11,SNR=4.3						
ENH	Enshi	25.02	259	P	P	17 46 16.2	+0.3
	6.6nm,0.9s,mb4.2						
EKS2	Erkin-Say	47.98	296	eP	P	17 49 29.9	-1.0
	3.8nm,1.1s,mb4.3						
ARU	Arti	53.45	317	P	P	17 50 08.8	-3.5
	6.9nm,1.2s,mb4.5						
WRA	Warramunga Arr	58.40	184	P	P	17 50 46.9	-1.5
	1.2nm,0.6s,mb4.1,baz=0.8,slow=7.6,SNR=18						
ASAR	Alice Springs	62.12	184	P	P	17 51 13.1	-0.7
	0.8nm,0.9s,mb3.8,baz=4.1,slow=7.1,SNR=8.9						

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*THR **04** 17:41:44.6±1.2, 32.65N×48.97E, h28^{km}±9^{km}, ML2.4*
*KISR **04** 17:41:44.1±1.0, 32.55N×49.18E, h7^{km}±999^{km}, ML2.2*
ISC 04 17:41:46.9±0.8**, 32.67N**±0.06×**49.0E**±0.1**, h28**^{km}**, n6, σ0^{s}81**/9**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAO	Ashtian	2.06	24	ePG	Pn	17 42 21.5	+1.2
ASAO				eSG	Sn	17 42 49.8	+4.5
ASAO				AMP		17 42 57.0	
	comp=E,37nm,0.7s						
ASAO				AMP		17 43 00.1	
	comp=N,29nm,0.6s						
SNGE	Sanandaj	2.78	331	ePN	Pn	17 42 29.8	-0.9
SNGE				AMP		17 43 16.2	
	comp=N,16nm,0.5s						
MIB	Mutribah	3.20	207	eP	Pn	17 42 36.9	+0.4
MIB				eS	Sn	17 43 14.9	+0.8
MIB				AML	AML	17 43 16.0	
	comp=Z,6.2nm,0.5s						
NASN	Na'in	3.21	87	ePN	Pn	17 42 36.1	-0.5
RST	Umm Al-Ruwaisa	3.60	209	eP	Pn	17 42 42.3	+0.1
RST				AML	AML	17 43 33.1	
	comp=Z,4.1nm,0.4s						
RDF	Al-Radifah	3.94	199	eP	Pn	17 42 45.9	-1.2
RDF				eS	Sn	17 43 32.9	0.0

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*NEIC **04** 17:44:53.2, 16.00N×98.25W, h15^{km}, MD3.7(MEX), After MEX.*
MEX 04 17:44:50.6±0.5**, 15.92N**×**98.15W, h2**^{km}±7^{km}**, MD3.7, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.47	3	eP	Pg	17 44 59.3	-0.8
PNIG				i S	Sg	17 45 06.0	-0.4
PNIG	Pinotepa	0.47	3	eP	Pg	17 44 59.3	-0.8
PNIG				i S	Sg	17 45 06.2	-0.2
VHO	Vista Hermosa	1.78	50	i P	Pn	17 45 21.6	-1.0
VHO				i S	Sn	17 45 44.5	-1.6
VHO	Vista Hermosa	1.78	50	i P	Pn	17 45 19.6	-3.1
VHO				i S	Sn	17 45 40.5	-5.6
OXX	Oaxaca	1.79	50	eP	Pn	17 45 24.5	+1.7
OXX				eS	Sn	17 45 52.5	+6.1

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
OXX	Oaxaca	1.79	50	eP	Pn	17 45 23.5	+0.7
ACX	Acapulco	1.94	299	eP	Pn	17 45 20.7	-4.2
ACX				eS	Sn	17 45 41.0	-9.2
ACX	Acapulco	1.94	299	eP	Pn	17 45 21.3	-3.6
CAIG	El Cayaco	2.32	299	eP	Pn	17 45 26.7	-3.7
CAIG				i S	Sn	17 45 54.0	-6.0
PPM	Popocatepetl	3.17	352	eP	Pn	17 45 43.5	+1.1
PPM				i S	Sn	17 46 18.6	-2.6
PPM	Popocatepetl	3.17	352	i S	Sn	17 46 18.6	-2.6
CMIG	Matias Romero	3.34	69	eP	Pn	17 45 46.6	+1.7
CMIG				eS	Sn	17 46 28.1	+2.3
CMIG	Matias Romero	3.34	69	i P	Pn	17 45 43.8	-1.2
CMIG				i S	Sn	17 46 18.1	-7.6

GUC 04 17:48:36.1±0.5, 30.74S×71.74W, h14^{km}±3^{km}, MD3.5, ML3.4, 1C, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	0.77	124⇑	iP	Pb	17 48 50.4	-0.4
CMCH				i S	Sb	17 49 01.2	+0.5
CMCH				AMP		17 49 07.0	
	comp=E,2μm,0.6s						
LSCH	La Serena	0.94	27	i P	Pb	17 48 52.7	-0.9
LSCH				i S	Sb	17 49 05.6	-0.1
JACH	Jahuel	2.17	154	i P	Pn	17 49 12.8	+0.5
JACH				i S	Sn	17 49 40.5	+1.4
ROCH	El Roble	2.31	165	i S	Sn	17 49 44.6	+1.8
PEL	Peldehue	2.56	160	i S	Sn	17 49 50.4	+1.3
PEL				AMP		17 50 02.0	
	comp=N,357nm,0.6s						
LCCH	Las Cruces	2.73	177	i S	Sn	17 49 54.0	+0.5
CLCH	Cerro Calan	2.83	159	i P	Pn	17 49 22.2	+0.3
CLCH				i S	Sn	17 49 57.3	+1.1
CLCH				AMP		17 50 10.8	
	comp=N,170nm,0.6s						
RCDM	Rinconada Maip	2.85	164	AMP		17 50 06.0	
	comp=E,108nm,0.2s						
FCH	Farellones	2.85	155	i P	Pn	17 49 22.0	-0.2
FCH				i S	Sn	17 49 57.6	+0.9
FCH				AMP		17 50 08.9	
	comp=N,100nm,0.3s						

IDC 04 17:48:55.6±3.2, 16.30N×148.19E, mb3.6/5, mb1 3.8/5, mb1mx3.6/20, Error ellipse: s-maj=100.0km s-min=24.6km az=81.0, Mariana Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	38.50	201	P	P	17 56 20.1	-1.5
	0.9nm,0.6s,baz=26,slow=9.1,SNR=15						
ASAR	Alice Springs	42.11	200	P	P	17 56 49.5	-1.9
	0.4nm,0.9s,baz=34,slow=6.6,SNR=5.5						
SONM	Songino Array	46.48	322	P	P	17 57 25.1	-1.2
	0.4nm,0.8s,baz=133,slow=8.6,SNR=2.7						
CMAR	Chiang Mai Arr	46.93	280	P	P	17 57 27.8	-2.5
	0.3nm,0.5s,baz=80,slow=7.0,SNR=4.2						
BVAR	Borovoye Array	69.82	321	P	P	18 00 07.7	-2.2
	0.5nm,0.4s,baz=101,slow=7.3,SNR=4.2						

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*NEIC **04** 17:49:43.0, 16.03N×98.37W, h3^{km}, MD3.7(MEX), After MEX.*

MEX 04 17:49:42.8±0.5, 16.03N×98.38W, h3^{km}±4^{km}, MD3.8, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.43	34	i P	Pg	17 49 50.6	-0.9
PNIG				i S	Sg	17 49 57.5	+0.2
ACX	Acapulco	1.69	300	eP	Pn	17 50 10.0	-3.5
ACX				eS	Sb	17 50 31.5	-4.5
VHO	Vista Hermosa	1.89	56	eP	Pn	17 50 13.1	-3.2
VHO				eS	Sn	17 50 35.9	-5.0
OXX	Oaxaca	1.90	56	eP	Pn	17 50 13.0	-3.5
CAIG	El Cayaco	2.08	299	eP	Pn	17 50 15.6	-3.3
CAIG				eS	Sn	17 50 40.4	-5.3
YAIG	Yautepec	2.89	347	eP	Pn	17 50 27.6	-3.1
YAIG				eS	Sn	17 51 00.9	-5.5
PPM	Popocatepetl	3.03	356	eP	Pn	17 50 30.1	-2.5
PPM				eS	Sn	17 51 04.0	-5.9
CMIG	Matias Romero	3.51	72	eP	Pn	17 50 44.8	+5.3
CMIG				eS	Sn	17 51 16.5	-5.6

IDC 04 18:15:06.7±8.7, 1.52N×124.91E, mb3.9/3, mb1 4.1/4, mb1mx3.6/17, ML3.9/1, Error ellipse: s-maj=137.0km s-min=109.8km az=135.0, Minahassa Peninsula, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.51	178	eP	P	18 19 37.0	-1.5
	1.4nm,0.6s						
FITZ	Fitzroy Crossi	19.51	178	P	P	18 19 36.0	-2.4
	0.2nm,0.3s,baz=358,slow=11,SNR=8.1						
WRA	Warramunga Arr	23.25	157	P	P	18 20 16.1	-0.7
	4.6nm,0.7s,baz=335,slow=11,SNR=36						
WB2	Warramunga Arr	23.25	157	eP	P	18 20 16.6	-0.3
ASAR	Alice Springs	26.52	161	P	P	18 20 46.0	-2.1
	0.6nm,0.5s,baz=342,slow=7.6,SNR=20						
ASPA	Alice Springs	26.52	161	eP	P	18 20 45.8	-2.2
STKA	Stephens Creek	36.79	156	P	P	18 22 16.3	-1.9
	0.9nm,0.5s,baz=299,slow=13,SNR=3.0						

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*JMA **04** 18:34:28.2±0.3, 24.93N×122.13E, h88^{km}, M3.0*

TAP 04 18:34:28.0, 24.83N×122.09E, h91^{km}±1^{km}, ML3.8, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.92	113	P	P	18 34 46.9	-0.1
YOJ				eS	S	18 35 01.3	0.0
IRIF	Iriomote-Funau	1.57	108	P	P	18 34 55.0	-0.2
IRIF				eS	S	18 35 15.0	-0.2
HATJ	Hateruma jima	1.74	116	P	P	18 34 57.6	+0.2
HATJ				eS	S	18 35 19.3	+0.3
JKRS	Kuro-shima	1.84	108	P	P	18 34 58.8	+0.1
JKRS				eS	S	18 35 21.4	+0.1
JIJ	Ishigaki jima	1.93	104	P	P	18 34 59.3	-0.4
JIJ				eS	S	18 35 22.1	-1.1
JTJ	Tarama	2.38	94	P	P	18 35 06.1	0.0

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*IDC **04** 18:37:16.6±1.4, 12.17N×122.64E, mb3.5/6, mb1 3.8/7, mb1mx3.6/20, ML4.2/1, MS3.4/1, Ms1 3.4/1, ms1mx2.6/18, Error ellipse: s-maj=65.6km s-min=18.4km az=60.0*

*MAN **04** 18:37:18.6, 12.22N×122.33E, h20^{km}, mb4.8, ML3.7, MS3.7*

*NEIC **04** 18:37:21.3±0.7, 12.14N×122.57E, h35^{km}, mb4.3/4, Error ellipse: s-maj=29.7km s-min=11.7km az=66.0*

ISC 04 18:37:20.3±0.4, 12.20N±0.03×122.42E±0.04, h38^{km}±7^{km}, n29, σ1^{s}21/36, mb3.8/10, 3C-3D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTRP	Odiongan	0.42	293	eP	P	18 37 26.3	-3.5
OTRP	Odiongan	0.42	293	eP	P	18 37 35.8	+6.0
KALP	Kalibo	0.52	189⇓	iP	P	18 37 30.2	-1.0
KALP				eS	S	18 37 39.8	+0.8
RCP	Roxas	0.71	153⇓	eP	P	18 37 33.0	-0.8
RCP				eS	S	18 37 44.3	+0.6
AUQP	San Andres	1.15	13	eP	P	18 37 39.2	-0.9
MMPH	Masbate	1.19	82⇑	eP	P	18 37 41.0	+0.4
MMPH				i S	S	18 37 55.0	-0.9
BOAC	Boac	1.37	336	eP	P	18 37 41.8	-1.6
BOAC				eS	S	18 38 01.6	+1.1
GUIM	Jordan	1.57	174	eP	P	18 37 46.7	+0.5
GQP	Guinayangan	1.70	1⇓	eP	P	18 37 46.6	-1.3
GQP				i S	S	18 38 07.5	-1.2
CUYO	Cuyo Island	1.92	226	eP	P	18 37 50.4	-0.7
CUYO				eS	S	18 38 13.4	-0.7
LQP	Lukban	2.09	336⇑	eP	P	18 37 52.7	-0.8
CNP	Catarman	2.22	82	eP	P	18 37 55.4	+0.1
CNP				eS	S	18 38 24.2	+2.4
TGY	Tagaytay City	2.38	323	Pn	P	18 37 59.3	+1.6
	47nm,0.3s,baz=155,slow=7.4,SNR=6.7						
LLP	Lapu-Lapu	2.41	141⇑	eP	P	18 37 59.5	+1.4
LLP				i S	S	18 38 32.2	+5.5
POLP	Polilio Island	2.56	350	eP	P	18 38 01.3	+1.0
LUBP	Lubang	2.61	306	eP	P	18 38 02.2	+1.2
LUBP	Lubang	2.61	306	eP	P	18 38 02.3	+1.3
BESP	Borongan	3.02	101	eP	P	18 38 06.9	+0.1
JOW	Kunigami	15.57	20	LR	LR	18 47 17.3	
	comp=Z,150nm,20.1s,baz=265,slow=39						
CMAR	Chiang Mai Arr	23.47	288	P	P	18 42 29.4	+2.0
	0.4nm,0.9s,mb2.9,baz=104,slow=7.4,SNR=3.2						
MAJO	Matsushiro	28.10	28	eP	P	18 43 10.5	-0.2
	21nm,1.2s,mb4.6						
FITZ	Fitzroy Crossi	30.27	174	P	P	18 43 30.7	+0.5
	0.9nm,0.6s,mb3.7,baz=151,slow=19,SNR=2.9						
WRAB	Tennant Creek	34.02	160	eP	P	18 43 59.5	-3.5
	4.3nm,0.9s,mb4.4						
WRA	Warramunga Arr	34.02	160	P	P	18 43 59.8	-3.2
	0.4nm,0.5s,mb3.6,baz=339,slow=9.6,SNR=4.2						
ASAR	Alice Springs	37.37	162	P	P	18 44 30.8	-0.6
	0.8nm,0.6s,mb3.7,baz=342,slow=7.2,SNR=7.4						
ULN	Ulaanbaatar	37.81	343	P	P	18 44 33.6	-1.2
	2.1nm,1.2s,mb3.7						
SONM	Songino Array	37.98	342	P	P	18 44 37.3	+1.2
	0.3nm,0.7s,mb3.1,baz=162,slow=9.1,SNR=3.0						
STKA	Stephens Creek	47.52	158	P	P	18 45 52.4	-1.6
	1.1nm,0.8s,mb4.0,baz=319,slow=11,SNR=3.1						
MALT	Malatya	77.87	307	P	P	18 49 18.0	+2.0
	4.0nm,1.3s,mb4.2						

IDC 04 18:38:31.1±18.0, 19.04S×172.82W, mb3.8/5, mb1 4.0/5, mb1mx3.8/17, Error ellipse: s-maj=343.0km s-min=148.9km az=83.0, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	38.51	261	P	P	18 45 55.6	-1.4
	2.1nm,0.6s,baz=118,slow=9.6,SNR=2.9						
STKA	Stephens Creek	42.81	243	P	P	18 46 30.8	-1.7
	1.0nm,0.8s,baz=100,slow=12,SNR=2.3						
ASAR	Alice Springs	49.61	255	P	P	18 47 24.4	-2.0
	1.2nm,1.0s,baz=96,slow=7.4,SNR=9.7						
WRA	Warramunga Arr	49.65	260	P	P	18 47 24.5	-2.3
	0.3nm,0.3s,baz=98,slow=7.1,SNR=11						
FITZ	Fitzroy Crossi	58.07	260	P	P	18 48 26.7	-2.1
	1.3nm,0.8s,baz=352,slow=24,SNR=3.6						

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*NEIC **04** 18:39:32.5±0.7, 6.77N×72.94W, h156^{km}±6^{km}, mb4.4/24, Error ellipse: s-maj=6.9km s-min=6.4km az=61.0*

*BJI **04** 18:39:32.5, 6.80N×72.90W, h155^{km}, mB5.0*

*IDC **04** 18:39:33.1±0.8, 6.80N×72.94W, h159^{km}±7^{km}, mb3.9/11, mb1 4.2/12, mb1mx3.9/20, Error ellipse: s-maj=23.0km s-min=13.5km az=60.0*

ISC 04 18:39:33.2±0.9, 6.79N±0.06×72.91W±0.06, h180^{km}±8^{km}, n70, σ0^{s}88/65, mb4.4/31, 1C-2D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDV	Santo Domingo	3.07	47	ePn	P	18 40 22.9	-0.4
SDV				eSn	S	18 41 01.8	-0.1
OTAV	Otavalo	8.54	221	ePn	P	18 41 30.9	-3.6
OTAV				eSn	S	18 42 58.9	-10
HOJ	Hope	11.76	342	eP	P	18 42 17.3	+0.8
STH	Stony Hill	11.85	342⇓	eP	P	18 42 17.7	+0.1
STH				eS	S	18 44 16.9	-10
TRN	Trinidad (W)	12.00	71	eP	P	18 42 22.5	+2.9
MCJ	Malvern	12.01	338⇓	eP	P	18 42 20.4	+0.7
MCJ				eS	S	18 44 25.4	-5.1
JTS	JuntasAbangare	12.40	287	eP	P	18 42 25.1	+0.4
	9.8nm,0.8s						
SJG	San Juan	13.04	30	P	P	18 42 28.6	-4.2
	1.6nm,0.3s,baz=334,slow=21,SNR=2.6						
SJG				S	S	18 44 53.7	-0.6
	0.7nm,0.3s,baz=258,slow=22,SNR=2.8						
SJG	San Juan	13.04	30	P	P	18 42 30.7	-2.1
SAML	Samuel	18.39	148	eP	P	18 43 37.1	-0.1
	12nm,0.5s						
SAML				e		18 44 03.9	
SAML				eS	S	18 47 01.7	+8.7
PAYG	Puerto Ayora	18.86	248	P	P	18 43 41.6	-0.5
	12nm,0.6s						
TEIG	Tepich	20.01	313	P	P	18 43 54.3	+0.4
	0.0nm,0.3s,baz=304,slow=24,SNR=4.0						
DWPF	Disney	22.69	340	P	P	18 44 22.2	+1.9
	69nm,1.3s,mb4.9						
LPAZ	La Paz	23.41	168	P	P	18 44 27.7	+0.4
	1.3nm,0.6s,mb3.6,baz=332,slow=10,SNR=4.9						
LPAZ				pP		18 45 01.0	
	6.8nm,0.7s,baz=343,slow=14,SNR=12						
LPAZ	La Paz	23.41	168	eP	P	18 44 27.8	+0.5
	9.0nm,0.8s,mb4.2						
LPAZ				e		18 45 00.7	
LVC	Limon Verde	29.48	172	pP	pP	18 45 57.3	-2.5
	2.5nm,0.8s,baz=65,slow=2.1,SNR=3.0						
OXF	Oxford	31.51	333	P	P	18 45 39.0	-1.5
	17nm,0.9s,mb4.8						
HKT	Hockley	31.55	320	P	P	18 45 40.0	-0.9
	4.0nm,0.8s,mb4.2						
WVT	Waverly	32.24	337	eP	P	18 45 46.7	-0.1
	33nm,0.9s,mb5.1						
MIAR	Mount Ida	33.56	328	eP	P	18 45 57.0	-1.2
	5.5nm,0.7s,mb4.4						
ACSO	Alum Creek Sta	34.50	346	P	P	18 46 02.1	-4.0
	10nm,0.7s,mb4.6						
CCM	Cathedral Cave	35.29	335	eP	P	18 46 12.6	-0.2
	33nm,0.7s,mb5.1						
WMOK	Wichita Mounta	36.63	323	eP	P	18 46 23.1	-1.0
	5.8nm,0.6s,mb4.4						
TXAR	Lajitas Array	36.64	312	P	P	18 46 24.1	-0.1
	2.3nm,0.5s,mb4.1,baz=128,slow=9.2,SNR=13						
KSU1	Kansas State U	38.62	330	eP	P	18 46 39.5	-1.1
CPRX	Cap Rock	38.82	316	eP	P	18 46 42.4	0.0
ANMO	Albuquerque	41.68	317	eP	P	18 47 06.5	+0.6
	1.2nm,0.6s,mb3.7						
SDCO	Great Sand Dun	42.70	321	eP	P	18 47 14.8	+0.6
	7.2nm,0.8s,mb4.3						
SDCO				e		18 48 04.7	
SDCO				ePP	PP	18 48 59.1	+1.3
PV01	Paradox Valley	44.89	319	eP	P	18 47 32.3	+0.7
ULM	Lac du Bonnet	47.39	340	P	P	18 47 50.4	-0.7
	11nm,0.4s,mb4.8,baz=136,slow=7.0,SNR=25						
MSU	Marysvale	47.47	318	eP	P	18 47 52.5	+0.6
MSU				e		18 47 59.3	
MSU				ePP	PP	18 49 47.5	+3.2
MVU	Marysvale	47.49	318	eP	P	18 47 52.8	+0.8
	9.4nm,0.9s,mb4.4						
SCHQ	Schefferville	48.16	5	P	P	18 47 57.3	+0.4
	5.4nm,0.6s,mb4.3,baz=188,slow=7.0,SNR=11						
PDAR	Pinedale Array	48.23	324	P	P	18 47 57.6	0.0
	2.5nm,0.5s,mb4.1,baz=127,slow=8.8,SNR=24						
PDAR				PcP	PcP	18 49 21.9	-0.4
	0.6nm,0.6s,baz=135,slow=5.1,SNR=3.2						
TCUT	Toone Canyon	48.38	321	eP	P	18 47 59.3	+0.5
HWUT	Hardware Ranch	48.76	321	eP	P	18 48 00.6	-1.1
	7.5nm,0.9s,mb4.3						
BGU	Big Grassy Mou	49.30	320	eP	P	18 48 05.8	-0.1
REDW	Red Top Meadow	49.34	324	eP	P	18 48 06.2	0.0
LOHW	Long Hollow	49.35	324	eP	P	18 48 06.8	+0.6
TPAW	Teton Pass	49.48	324	eP	P	18 48 07.3	+0.1
TPNV	Topopah Spring	49.54	314	eP	P	18 48 08.2	+0.4
	7.5nm,1.0s,mb4.3						
IMW	Indian Meadow	49.71	324	eP	P	18 48 08.8	-0.1
QLMT	Earthquake Lak	50.55	325	eP	P	18 48 16.2	+0.9
ELK	Elko	50.64	319	eP	P	18 48 16.0	0.0
	2.4nm,0.7s,mb3.9						
TPH	Tonopah	50.73	315	eP	P	18 48 17.1	+0.3
	7.8nm,1.0s,mb4.3						
BOZ	Bozeman (W)	51.16	326	eP	P	18 48 19.5	-0.3
	5.3nm,0.7s,mb4.3						
HLID	Hailey	51.59	322	eP	P	18 48 23.1	0.0
	4.9nm,0.8s,mb4.2						
NVAR	Mina Array Bea	51.65	315	P	P	18 48 24.0	+0.3
	3.5nm,0.9s,mb4.0,baz=119,slow=7.8,SNR=14						
NVAR				PcP	PcP	18 49 35.8	+0.9
	0.7nm,0.4s,baz=127,slow=4.5,SNR=5.9						
NEW	Newport	55.74	326	P	P	18 48 51.8	-1.6
	5.2nm,0.9s,mb4.4						
YKA	Yellowknife Ar	63.37	340	P	P	18 49 44.7	-0.6
	9.6nm,0.6s,mb4.8,baz=133,slow=6.6,SNR=270						
YKA	Yellowknife Ar	63.37	340	P	P	18 49 44.7	-0.6
DBIC	Dimbokro	67.53	86	P	P	18 50 12.7	0.0
	1.2nm,0.6s,mb3.8,baz=261,slow=9.1,SNR=5.0						
DBIC	Dimbokro	67.53	86	eP	P	18 50 12.5	-0.2
	1.9nm,0.6s,mb4.0						
BORG	Borgarnes	68.24	21	P	P	18 50 14.8	-1.4
	157nm,1.4s,mb5.5						
SUMG	Summit	68.98	11	eP	P	18 50 21.6	+1.0
	19nm,0.7s,mb4.9						
ILAR	Eielson Array	77.08	335	P	P	18 51 08.4	+0.6
	1.6nm,0.7s,mb3.7,baz=109,slow=3.4,SNR=15						
COLA	College	77.51	335	P	P	18 51 10.3	+0.2
STU	Stuttgart	79.73	42	P	P	18 51 20.0	-2.6
GERES	GERESS Array B	82.71	42	P	P	18 51 39.5	+1.4
	0.5nm,0.6s,mb3.4,baz=243,slow=3.0,SNR=4.9						
ARCES	ARCESS Array B	86.63	20	P	P	18 51 58.4	+1.3
	4.5nm,1.0s,mb4.2,baz=259,slow=4.6,SNR=4.0						
MDJ	Mudanjiang	124.96	341	PKP	PKPdf	18 58 14.2	+2.0
MDJ				PP	PP		
	comp=Z,209nm,5.1s						
SONM	Songino Array	125.61	1	PKP	PKPdf	18 58 16.4	+3.0
	comp=Z,0.3nm,0.4s,baz=308,slow=2.7,SNR=6.0						
WMQ	Urumqi	126.66	17	PKP	PKPdf	18 58 17.2	+1.7
WMQ				XPKP		18 59 16.2	
WMQ				PP	PP	19 00 20.2	+1.9
WMQ				PKS	PKS	19 01 52.5	+1.6
WMQ				PP	PP		
	comp=Z,31nm,7.9s						
LZH	Lanzhou	137.25	4	ePKP	PKPdf	18 58 35.6	0.0
LZH				XPKP		18 59 34.8	
SHL	Shillong	144.60	24⇑	eP	PKPbc	18 58 50.2	+1.2
ASAR	Alice Springs	149.26	234	PKP	PKPdf	18 58 59.4	+2.6
	comp=Z,2.0nm,0.5s,baz=115,slow=3.6,SNR=12						
ASAR				PKPbc	PKPdf	18 59 03.1	+6.4
	comp=Z,2.0nm,0.5s,baz=126,slow=3.0,SNR=56						
ASAR				pPKPbc		18 59 44.2	
	comp=Z,0.6nm,0.4s,baz=119,slow=3.2,SNR=2.8						
ASPA	Alice Springs	149.26	234	eP	PKPdf	18 59 02.5	+5.7
WB2	Warramunga Arr	150.49	241	eP	PKPdf	18 59 06.0	+7.3
WRA	Warramunga Arr	150.50	241	PKP	PKPdf	18 59 01.6	+2.8
	comp=Z,2.4nm,0.4s,baz=110,slow=2.3,SNR=7.6						
WRA				PKPbc	PKPdf	18 59 06.2	+7.5
	comp=Z,2.4nm,0.4s,baz=103,slow=3.3,SNR=134						
WRA				pPKPbc		18 59 48.2	
	comp=Z,1.4nm,0.6s,baz=112,slow=2.4,SNR=2.9						
CMAR	Chiang Mai Arr	153.66	18	PKPbc	PKPdf	18 59 14.2	+11
	comp=Z,2.1nm,0.8s,baz=327,slow=3.7,SNR=10.0						

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*NAO **04** 18:42:27.5±4.3, 68.33N×21.15E, ML2.1*

*BER **04** 18:42:27.9±3.3, 68.38N×20.77E, MD2.7, ML1.3, ML2.1(NAO), Suspected explosion*

HEL 04 18:42:23.9±0.1, 68.40N×20.08E, h4^{km}, ML1.8, ML1.7(UPP), ML1.3(BER), 1D, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.46	168⇓	iP	Pg	18 42 31.8	-1.3
KUA				i S	Sg	18 42 37.7	-1.6
NIKU	Nikkaluokta	0.67	217	i P	Pg	18 42 35.6	-1.6
MASU	Masugnsbyn	1.20	142	eP	Pb	18 42 45.3	-1.4
MASU				eS	Sb	18 43 00.0	-2.4
DUNU	Dundret	1.30	172	eP	Pb	18 42 46.8	-1.7
KTK1	Kautokeino	1.31	61	eP	Pb	18 42 47.2	-1.4
KTK1				eS	Sb	18 43 03.6	-2.0
KTK1				AML	AML	18 43 06.9	
	comp=Z,9.2nm,0.2s						
PAJU	Pajala	1.80	139	eP	Pn	18 42 55.6	-0.4
ARA0	ARCESS Array S	2.27	57	Pn	Pn	18 43 01.9	-0.7
	baz=239,slow=18						
ARA0				Lg		18 43 31.1	
	baz=235,slow=28						
ARA0	ARCESS Array S	2.27	57	eP	Pn	18 43 01.9	-0.7
ARA0				eSB	Sb	18 43 31.1	-2.3
SGF	Sodankyl	2.62	109	eP	Pn	18 43 07.0	-0.7
SGF				eS	Sn	18 43 39.2	-1.1
SGF				eSB	Sb	18 43 42.3	-1.4
SGF				MSG		18 43 44.0	
	comp=Z,3.1nm,0.1s						
KEV	Kevo	2.83	58	eP	Pn	18 43 09.7	-1.1
KEV				eSB	Sb	18 43 48.5	-1.5
KEV				MSG		18 43 50.8	
	comp=Z,2.6nm,0.2s						
SJUU	Sjulsmark	2.97	168	eP	Pn	18 43 12.3	-0.3
SJUU				eS	Sn	18 43 48.8	-0.4
SVAU	Svanoeiden	3.93	183	eP	Pn	18 43 25.7	-0.6
OUL	Oulu	4.05	143	eSB	Sb	18 44 25.0	-0.3
OUL				MSG		18 44 36.5	
	comp=Z,1.0nm,0.2s						
MSF	Maaselka	4.29	121	eS	Sn	18 44 18.3	-4.4
MSF				MSG		18 44 38.6	
	comp=Z,2.0nm,0.3s						
UMAU	Umeaa	4.55	177	eP	Pn	18 43 33.9	-1.2
BREU	Bredtraesk	4.57	188	eP	Pn	18 43 34.1	-1.4
VAF	Ylistaro	5.49	168	eP	Pn	18 43 46.8	-1.6
VAF				eS	Sn	18 44 46.9	-5.9
VAF				MSG		18 44 47.9	
	comp=Z,0.6nm,0.2s						
SUF	Sumiainen	6.24	153	eP	Pn	18 43 56.9	-2.1
KEF	Keuruu	6.57	160	eP	Pn	18 44 01.3	-2.4
KEF				eS	Sn	18 45 11.3	-8.7
KEF				MSG		18 45 17.4	
	comp=Z,0.4nm,0.2s						
KAF	Kangasniemi	6.83	155	eP	Pn	18 44 04.5	-2.9
KAF				eS	Sn	18 45 19.9	-6.5
FIA0	FINESS Array S	7.43	157	Pn	Pn	18 44 12.8	-3.0
	baz=349,slow=14						
FIA0				Sn	Sn	18 45 35.1	-6.4
	baz=351,slow=28						
FIA0				Lg		18 46 12.4	
	baz=0.1,slow=37						
FIA0	FINESS Array S	7.43	157	eP	Pn	18 44 12.8	-3.0
FIA0				eS	Sn	18 45 35.1	-6.4
FIA0				eSG		18 46 12.4	

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*SOF **04** 18:51:32.0, 39.89N×24.17E, h2^{km}, MD2.5*

*THE **04** 18:51:37.9, 40.11N×24.04E, h8^{km}, ML2.8*

*CSEM **04** 18:51:37.9±0.1, 40.11N×24.06E, h8^{km}, ML2.8, Error ellipse: s-maj=2.6km s-min=1.6km az=97.0*

ISC 04 18:51:36.8±0.6, 40.10N±0.03×24.10E±0.04, h8^{km}±5^{km}, n17, σ0^{s}77/26, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OUR	Ouranopolis	0.25	340	ePg	Pg	18 51 43.3	+1.3
OUR				eSg	Sg	18 51 46.2	+0.8
PAIG	Paliouri	0.36	242	ePg	Pg	18 51 44.1	0.0
SOH	Sokhos	0.92	322	ePg	Pg	18 51 54.7	-0.4
SOH				eSg	Sg	18 52 06.6	-0.8
AOS	Alonnisos	0.94	190	ePg	Pg	18 51 55.8	+0.2
AOS				eSg	Sg	18 52 09.7	+1.5
XOR	Xorichti	1.01	224	ePg	Pg	18 51 56.4	-0.5
XOR				eSg	Sg	18 52 10.3	-0.1
THE	Thessaloniki	1.02	302	ePg	Pg	18 51 56.1	-0.9
SRS	Serrai	1.09	340	ePg	Pg	18 51 58.0	-0.5
LIT	Litokhoron	1.23	271	ePb	Pb	18 51 59.8	-0.1
LIT				eSb	Sb	18 52 16.9	+1.1
KNT	Kendrikon	1.40	320	ePb	Pb	18 52 02.8	0.0
KNT				eSb	Sb	18 52 22.0	+1.2
MMB	Musomiste	1.52	349	i P	Pn	18 52 04.0	-0.4
GRG	Griva	1.55	304	ePb	Pb	18 52 04.6	-0.8
GRG				eSb	Sb	18 52 25.4	+0.3
RZN	Rozhen	1.66	16	i P	Pn	18 52 07.0	+0.6
ALN	Alexandroupoli	1.69	61	ePb	Pb	18 52 07.2	-0.5
ALN				eSb	Sb	18 52 29.5	+0.5
AGG	Agios Georgios	1.74	232	ePb	Pb	18 52 07.2	-1.4
AGG				eSb	Sb	18 52 30.2	-0.3
KDZ	Kurdzhali	1.85	32	i P	Pn	18 52 08.0	-1.1
KKB	Krupnik	1.93	337	i P	Pn	18 52 10.0	-0.3
VTS	Vitosha	2.58	345	i P	Pn	18 52 20.5	+0.9

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*THE **04** 19:36:22.4, 39.98N×19.79E, h10^{km}, ML3.5*

*CSEM **04** 19:36:22.4±0.1, 39.92N×19.77E, h8^{km}, ML3.5, Error ellipse: s-maj=2.0km s-min=1.4km az=19.0*

*NEIC **04** 19:36:24.7, 39.64N×19.92E, h8^{km}, MD3.6(ATH), After ATH.*

*ATH **04** 19:36:24.7, 39.64N×19.92E, h8^{km}, MD3.6/4*

ISC 04 19:36:20.6±0.7, 39.96N±0.03×19.69E±0.03, h1^{km}±5^{km}, n33, σ1^{s}07/50, Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRN	Sarande	0.25	108	i Pg	Pg	19 36 25.5	-0.1
SRN				i Sg	Sg	19 36 29.1	+0.2
SRN	Sarande	0.25	108	ePg	Pg	19 36 25.5	-0.1
SRN				i Sg	Sg	19 36 29.1	+0.2
KEK	Kerkira	0.26	162	ePG	Pg	19 36 27.5	+1.7
IGT	Igoumenitsa	0.65	131	ePg	Pg	19 36 33.4	-0.3
IGT				eSg	Sg	19 36 43.5	+1.2

LSK	Leskovik	0.72	74	*i* Pg	Pg	19 36 33.8	-1.2
LSK				*i* Sg	Sg	19 36 44.5	-0.2
LSK	Leskovik	0.72	74	*i* Sg	Sg	19 36 44.5	-0.2
JAN	Janina	0.94	108	*e*PG	Pg	19 36 38.0	-1.4
MEV	Metsovon	1.20	98	*e*Pg	Pg	19 36 43.9	-0.6
MEV				*e*Sg	Sg	19 37 00.0	-0.4
MEV	Metsovon	1.20	98	*e*Pg	Pg	19 36 43.8	-0.7
MEV				*e*Sg	Sg	19 37 00.0	-0.4
TIR	Tirane	1.39	5	*i* Pg	Pg	19 36 49.2	+0.8
LKD	Levkas	1.45	149	*e*Pb	Pb	19 36 48.9	+0.7
LKD				*e*Sb	Sb	19 37 09.6	+2.5
FNA	Florina	1.53	57	*e*Pb	Pb	19 36 49.3	-0.1
FNA				*e*Sb	Sb	19 37 10.2	+0.9
FNA	Florina	1.53	57	*e*Pb	Pb	19 36 49.3	-0.1
FNA				*e*Sb	Sb	19 37 10.1	+0.9
QSH	Qafa e Shtames	1.57	6	*i* Pn	Pn	19 36 53.0	+3.2
QSH				*i* Sn	Sn	19 37 13.0	+2.0
QSH	Qafa e Shtames	1.57	6	*i* Sn	Sn	19 37 13.0	+2.0
BIA	Bitola	1.63	49	*i* Pn	Pn	19 36 57.8	+7.1
BIA				*i*		19 37 14.0	
BIA				*i* Sg	Sg	19 37 16.5	+1.5
VLS	Valsamata	1.91	158	*e*PB	Pb	19 36 54.0	-2.0
EVR	Evrytania	1.94	122	*e*PB	Pb	19 36 56.0	-0.5
LIT	Litokhoron	2.15	85	*e*Pn	Pn	19 36 57.2	-0.9
AGG	Agios Georgios	2.25	114	*e*Pn	Pn	19 37 00.4	+1.0
AGG				*e*Sn	Sn	19 37 28.9	+0.8
GRG	Griva	2.29	63	*e*Pn	Pn	19 36 59.5	-0.7
GRG				*e*Sn	Sn	19 37 29.8	+0.4
TIP	Timpagrande	2.40	252	*e*Pn	Pn	19 37 00.8	-0.8
TIP				*e*Sn	Sn	19 37 32.0	0.0
TIP	Timpagrande	2.40	252	*e*Pn	Pn	19 37 00.8	-0.8
TIP				*e*Sn	Sn	19 37 32.0	-0.1
SKO	Skopje	2.41	33	*i* Pn	Pn	19 37 01.2	-0.5
SKO				*i*		19 37 07.5	
SKO				*e*Sn	Sn	19 37 30.0	-2.3
SKO				Lg		19 37 43.5	
	comp=Z,0.0nm,0.6s						
KNT	Kendrikon	2.72	63	*e*Pn	Pn	19 37 05.7	-0.5
XOR	Xorichti	2.77	101	*e*Pn	Pn	19 37 06.5	-0.3
GRI	Girifalco	2.78	247	*e*Pn	Pn	19 37 06.6	-0.5
GRI	Girifalco	2.78	247	*e*Pn	Pn	19 37 06.6	-0.5
SRS	Serrai	3.19	67	*e*Pn	Pn	19 37 13.2	+0.3
SRS				*e*Sn	Sn	19 37 50.6	-1.5
SOI	Samo	3.40	238	*e*Pn	Pn	19 37 14.8	-1.1
SOI	Samo	3.40	238	*e*Pn	Pn	19 37 14.8	-1.1
SGO	Sicignano	3.41	282	*e*Pn	Pn	19 37 16.7	+0.7
SGG	Gregorio Mates	4.29	291	*e*Pn	Pn	19 37 29.4	+0.9

IDC ***04*** *19:42:34.0±0.9, 11.37S×165.83E, mb4.3/10, mb1 4.5/10, mb1mx4.4/15, MS3.7/4, Ms1 3.7/4, ms1mx3.4/19, Error ellipse: s-maj=42.9km s-min=17.2km az=144.0*

NEIC ***04*** *19:42:39.3±0.7, 11.31S×165.71E, h35^{km}, mb4.5/8, Error ellipse: s-maj=31.8km s-min=10.5km az=145.0*

ISC 04 19:42:37.7±0.6**, 11.4S**±0.1×**165.6E**±0.1**, h33**^{km}**, n23, σ1^{s}03**/21**, mb4.3**/15**, MS3.6**/4**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	10.65	176	*e*P	P	19 45 11.5	+0.3
CTA	Charters Tower	20.55	243	*e*P	P	19 47 17.3	+1.1
	12nm,0.9s						
CTA	Charters Tower	20.55	243	P	P	19 47 17.7	+1.5
	14nm,0.9s,baz=63,slow=11,SNR=10						
CTA				LR	LR	19 54 08.2	
	comp=Z,211nm,19.3s,MS3.5,baz=51,slow=34						
CTAO	Charters Tower	20.55	243	*e*P	P	19 47 17.3	+1.1
	38nm,1.2s						
STKA	Stephens Creek	30.13	224	*e*P	P	19 48 48.0	+1.3
	2.2nm,0.5s,mb4.1						
STKA	Stephens Creek	30.13	224	P	P	19 48 48.1	+1.3
	3.0nm,0.6s,mb4.2,baz=34,slow=9.8,SNR=13						
STKA				LR	LR	20 01 17.6	
	comp=Z,132nm,18.2s,MS3.6,baz=22,slow=37						
WB2	Warramunga Arr	31.26	250	*e*P	P	19 48 56.1	-0.8
WRAB	Tennant Creek	31.26	250	*e*P	P	19 48 55.9	-1.0
	16nm,0.8s,mb4.9						
WRA	Warramunga Arr	31.27	250	P	P	19 48 56.3	-0.7
	12nm,1.0s,mb4.7,baz=82,slow=9.1,SNR=43						
ASAR	Alice Springs	32.55	244	P	P	19 49 07.3	-0.9
	2.6nm,0.7s,mb4.3,baz=74,slow=9.1,SNR=16						
ASAR				LR	LR	20 02 24.1	
	comp=Z,133nm,18.0s,MS3.7,baz=45,slow=36						
RAR	Rarotonga	34.53	111	LR	LR	20 00 57.0	
	comp=Z,127nm,18.1s,MS3.7,baz=288,slow=32						
FITZ	Fitzroy Crossi	39.20	255	*e*P	P	19 50 05.0	+0.4
	4.2nm,0.9s,mb4.2						
MBWA	Marble Bar	44.99	251	*e*P	P	19 50 50.6	-1.5
	14nm,0.8s,mb4.9						
CMAR	Chiang Mai Arr	72.15	294	P	P	19 54 02.5	+1.1
	2.5nm,1.0s,mb4.1,baz=113,slow=4.6,SNR=14						
ULN	Ulaanbaatar	78.51	324	P	P	19 54 38.7	+1.3
	4.5nm,1.2s,mb4.3						
SONM	Songino Array	78.88	324	P	P	19 54 41.3	+2.0
	0.1nm,0.3s,mb3.2,baz=108,slow=4.6,SNR=5.4						
TLY	Talaya	82.35	326	*e*P	P	19 54 57.0	-0.6
	12nm,1.3s,mb4.7						
ILAR	Eielson Array	83.86	19	P	P	19 55 04.2	-0.9
	1.6nm,0.7s,mb4.2,baz=231,slow=5.4,SNR=20						
YBH	Yreka Blue Hor	84.20	46	P	P	19 55 07.6	+0.3
	3.4nm,1.0s,mb4.4,baz=117,slow=21,SNR=3.5						
NVAR	Mina Array Bea	86.32	50	P	P	19 55 17.7	-0.1
	1.2nm,0.9s,mb4.1,baz=234,slow=6.0,SNR=3.9						
PDAR	Pinedale Array	93.86	47	P	P	19 55 53.5	+0.3
	0.5nm,0.9s,mb4.0,baz=270,slow=3.0,SNR=4.0						
YKA	Yellowknife Ar	95.32	27	P	P	19 55 57.6	-1.7
	0.4nm,0.8s,mb3.9,baz=258,slow=4.4,SNR=6.1						
LPAZ	La Paz	120.12	116	PKP	PKPdf	20 01 28.2	+2.0
	0.8nm,0.8s,baz=240,slow=8.1,SNR=2.6						

WAR ***04*** *20:01:05.4, 51.46N×16.13E, h1^{km}, ML2.7, Mining Induced*

PRU ***04*** *20:01:05.8, 51.40N×16.13E*

ISC 04 20:01:01.8±0.7**, 51.50N**±0.03×**16.13E**±0.05**, n12, σ1^{s}26**/26**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.66	171	*i* PG	Pg	20 01 16.8	+1.7
KSP				*e*SG	Sg	20 01 24.8	+0.9
UPC	Upice	0.99	184	*e*PG	Pg	20 01 22.9	+1.2
DPC	Dobruska-Polom	1.16	174	*e*PG	Pg	20 01 25.7	+0.8
DPC				*e*SG	Sg	20 01 40.4	+0.1
PVCC	Panska Ves	1.38	226	*e*PG	Pg	20 01 30.6	+1.2
PRU	Pruhonice	1.82	214	PN	Pn	20 01 35.4	+0.8
PRU				PG	Pg	20 01 37.4	-0.7
PRU				*i* x	x	20 01 41.3	
PRU				*e*x	x	20 01 54.7	
PRU				SG	Sg	20 02 00.2	-2.1
	6.0nm,0.4s						
CLL	Collm	1.97	266	*e*PG	Pg	20 01 42.0	+0.9
CLL				*e*SG	Sg	20 02 09.0	+1.7
OKC	Ostrava-Krasne	2.10	141	*e*PG	Pg	20 01 43.6	-0.2
OKC				*e*SG	Sg	20 02 10.2	-1.6
NKC	Novy Kostel	2.65	243	*e*PN	Pn	20 01 48.0	+1.4
NKC				*e*PG	Pg	20 01 54.6	-0.2
NKC				*e*SG	Sg	20 02 30.5	+0.4
KHC	Kasperske Hory	2.88	216	*e*PN	Pn	20 01 51.3	+1.5
KHC				*e*PG	Pg	20 01 57.1	-2.2
KHC				*e*SN	Sn	20 02 24.5	-1.1
KHC				*e*SG	Sg	20 02 35.8	-1.8
MOX	Moxa	2.97	255	Pg	Pg	20 02 01.0	-0.1
MOX				Sg	Sg	20 02 40.0	-0.7
MOX	Moxa	2.97	255	*e*Pg	Pg	20 02 00.8	-0.3
MOX				*e*Sg	Sg	20 02 39.5	-1.2
BSD	Bornholm Skovb	3.70	349	*i* P	Pn	20 02 00.9	-0.5
BSD				*i* S	Sn	20 02 43.5	-2.8

IDC 04 20:01:53.0±23.0**, 27.81S**×**177.54W, h252**^{km}±220^{km}**, mb3.2**/4**, mb1 3.4**/4**, mb1mx3.3**/12**, MS3.4**/2**, Ms1 3.4**/2**, ms1mx3.0**/8**, Error ellipse: s-maj=160.0km s-min=60.6km az=158.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	33.87	275	LR	LR	20 21 18.2	
	comp=Z,60nm,18.3s,baz=52,slow=34						
STKA	Stephens Creek	35.53	253	P	P	20 08 25.7	-2.0
	0.9nm,0.5s,baz=100,slow=12,SNR=2.7						
STKA				LR	LR	20 21 30.0	
	comp=Z,56nm,19.8s,baz=214,slow=33						
ASAR	Alice Springs	43.71	264	P	P	20 09 33.0	-2.0
	0.7nm,0.6s,baz=97,slow=6.3,SNR=8.7						
WRA	Warramunga Arr	44.47	269	P	P	20 09 40.3	-0.8
	1.3nm,0.9s,baz=108,slow=8.0,SNR=7.0						
NVAR	Mina Array Bea	86.07	43	P	P	20 14 05.6	-0.8
	0.4nm,0.5s,baz=221,slow=8.3,SNR=5.6						
FINES	FINESS Array B	142.84	341	PKP	PKPdf	20 20 54.8	-0.7
	16nm,1.3s,baz=90,slow=2.8,SNR=3.7						

IDC ***04*** *20:05:40.6±1.1, 3.34N×83.38W, mb4.0/10, mb1 4.2/11, mb1mx4.1/22, MS3.7/5, Ms1 3.7/5, ms1mx3.5/23, Error ellipse: s-maj=37.7km s-min=21.1km az=48.0*

NEIC ***04*** *20:05:41.7±0.6, 3.53N×82.82W, h10^{km}, mb4.5/16, Error ellipse: s-maj=20.1km s-min=8.4km az=222.0*

BJI ***04*** *20:05:43.6, 3.50N×82.80W, h10^{km}, mB5.0, Ms5.1, Msz4.7*

CASC ***04*** *20:05:44.8±2.4, 3.70N×82.87W, h36^{km}±999^{km}, MD4.4, MW4.2, mb4.5(NEIC)*

ISC 04 20:05:42.1±2.1**, 3.80N**±0.05×**82.83W**±0.06**, h13**^{km}±13^{km}**, n53, σ1^{s}29**/44**, mb4.2**/22**, MS4.0**/7**, 1C-2D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DVD	David	4.62	5	*e*P	Pn	20 06 53.4	0.0
CNI	Changuinola	5.59	3	*e*P	Pn	20 07 08.4	+1.3
OTAV	Otavalo	5.63	129	*e*Pn	Pn	20 07 02.7	-4.9
	11nm,0.3s						
URSC	Urasca	6.07	351	*e*P	Pn	20 07 13.7	-0.1
UPA	Univ. de Panam	6.10	32	⇓*e*P	Pn	20 07 16.7	+2.4
UPA				*e*S	Sn	20 08 23.6	-1.1
LAJ	Bijagual	6.16	348	*e*P	Pn	20 07 13.5	-1.6
ICR	Volcan Irazu	6.22	351	⇑*e*P	Pn	20 07 16.1	+0.1
PRS1	Puriscal	6.32	347	*e*P	Pn	20 07 15.1	-2.2
JEF	Cerro Jefe	6.39	32	⇓*e*P	Pn	20 07 19.8	+1.5
JEF				*e*S	Sn	20 08 31.2	-0.7
JTS	JuntasAbangare	6.78	342	*e*Pn	Pn	20 07 21.1	-2.8
	31nm,0.4s						
JTS				*e*Sn	Sn	20 08 36.9	-4.9
TRTC	Tortuguero	6.79	353	*e*P	Pn	20 07 24.5	+0.5
TRTC				*e*S	Sn	20 08 43.6	+1.7
PAYG	Puerto Ayora	8.67	239	P	P	20 07 37.9	-12
	43nm,1.0s						
SDV	Santo Domingo	13.13	67	*e*P	P	20 08 50.6	-0.6
	23nm,1.0s						
NNA	Nana	16.77	159	*e*P	P	20 09 39.2	+0.6
	94nm,1.3s						
SJG	San Juan	21.66	48	P	P	20 10 40.8	+6.2
	7.9nm,0.3s,mb4.6,baz=346,slow=23,SNR=3.2						
SJG				LR	LR	20 18 35.9	
	comp=Z,170nm,21.5s,MS3.4,baz=14,slow=35						
SJG	San Juan	21.66	48	P	P	20 10 40.9	+6.3
	36nm,1.2s,mb4.7						
SAML	Samuel	23.33	123	*e*P	P	20 10 48.0	-3.2
	27nm,1.0s,mb4.6						
SAML				*e*		20 10 55.1	
DWPF	Disney	24.21	3	P	P	20 10 59.7	0.0
	69nm,1.4s,mb4.9						
LPAZ	La Paz	24.69	144	P	P	20 11 03.5	-0.9
	6.0nm,0.9s,mb4.1,baz=320,slow=6.0,SNR=18						
LPAZ	La Paz	24.69	144	*e*P	P	20 11 02.9	-1.6
	25nm,1.3s,mb4.6						
LVC	Limon Verde	29.57	153	P	P	20 11 52.6	+3.5
	1.5nm,0.5s,mb4.0,baz=347,slow=9.0,SNR=3.2						
LVC				LR	LR	20 24 14.5	
	comp=Z,140nm,18.3s,MS3.6,baz=28,slow=38						
LVC	Limon Verde	29.57	153	P	P	20 11 51.7	+2.6
	7.9nm,1.2s,mb4.3						
ANMO	Albuquerque	37.95	328	P	P	20 13 02.7	+1.3
	0.6nm,0.5s,mb3.6,baz=138,slow=14,SNR=2.8						
ANMO	Albuquerque	37.95	328	P	P	20 13 02.2	+0.8
	2.5nm,0.9s,mb3.9						
BDFB	Brasilia	39.50	120	LR	LR	20 30 21.1	
	comp=Z,131nm,19.9s,MS3.8,baz=137,slow=37						
SDCO	Great Sand Dun	39.64	331	*e*P	P	20 13 16.8	+1.3
	12nm,1.0s,mb4.6						
TPNV	Topopah Spring	45.04	321	*e*P	P	20 13 59.8	+0.2
	4.7nm,1.1s,mb4.2						
PDAR	Pinedale Array	45.51	332	P	P	20 14 04.2	+0.9
	0.5nm,0.7s,mb3.6,baz=149,slow=8.6,SNR=4.6						
PDAR				PcP	PcP	20 15 45.0	+2.5
	0.4nm,0.7s,baz=124,slow=3.3,SNR=3.0						
PDAR				LR	LR	20 34 31.8	
	comp=Z,122nm,21.7s,MS3.8,baz=286,slow=38						
HWUT	Hardware Ranch	45.60	330	P	P	20 14 04.1	+0.2
	5.2nm,1.0s,mb4.4						
TPH	Tonopah	46.35	322	P	P	20 14 07.2	-2.7
	4.9nm,1.1s,mb4.3						
NVAR	Mina Array Bea	47.23	322	P	P	20 14 17.6	+0.6
	1.6nm,0.9s,mb4.0,baz=129,slow=7.4,SNR=8.6						
NVAR				PcP	PcP	20 15 46.4	-2.3
	0.4nm,0.8s,baz=158,slow=4.9,SNR=2.0						
NVAR				LR	LR	20 33 43.9	
	comp=Z,85nm,20.3s,MS3.7,baz=195,slow=36						
ULM	Lac du Bonnet	47.58	349	P	P	20 14 18.6	-0.9
	3.4nm,0.9s,mb4.4,baz=79,slow=5.2,SNR=1.8						
RCBR	Riachuelo	47.83	101	P	P	20 14 22.1	+0.1
	21nm,1.1s,mb5.1						
HLID	Hailey	48.46	329	P	P	20 14 26.4	-0.1
	0.7nm,0.7s,mb3.8						
YBH	Yreka Blue Hor	51.92	322	P	P	20 14 50.8	-2.1
	1.0nm,0.6s,mb3.9,baz=83,slow=8.1,SNR=2.5						
NEW	Newport	53.14	332	P	P	20 15 09.5	+7.5
	4.0nm,1.0s,mb4.3						
YKA	Yellowknife Ar	63.12	344	P	P	20 16 10.1	-1.5
	1.2nm,0.8s,mb4.1,baz=139,slow=6.5,SNR=22						
SUMG	Summit	73.88	13	*e*P	P	20 17 20.4	+2.1
	14nm,1.0s,mb4.9						
ILAR	Eielson Array	75.72	337	P	P	20 17 29.0	0.0
	0.6nm,0.8s,mb3.5,baz=133,slow=5.5,SNR=4.5						
MCK	McKinley	76.18	335	*e*P	P	20 17 32.2	+0.6
	3.7nm,1.0s,mb4.3						
ESDC	Sonseca Array	79.02	50	P	P	20 17 52.5	+4.8
	0.4nm,0.6s,mb3.6,baz=267,slow=5.0,SNR=5.2						
MDJ	Mudanjiang	123.74	333	PKP	PKPdf	20 24 43.2	-0.3
WMQ	Urumqi	131.84	9	PKP	PKPdf	20 24 56.8	-2.3
WMQ				PP	PP	20 27 22.8	+2.3
WMQ				PKS	PKS	20 28 31.8	+0.9
WMQ				PP	PP		
	comp=Z,54nm,7.4s						
WMQ				LR	LR		
	comp=N,35nm,18.8s,MS4.6						
WMQ				LR	LR		
	comp=E,101nm,15.5s,MS4.6						
WMQ				LR	LR		
	comp=Z,49nm,18.8s,MS4.2						
ASAR	Alice Springs	139.42	237	PKP	PKPdf	20 25 10.6	-3.0
	comp=Z,0.6nm,0.9s,baz=90,slow=0.9,SNR=4.4						
LZH	Lanzhou	139.84	352	*e*PKP	PKPdf	20 25 10.5	-3.5
LZH				LR	LR		
	comp=N,223nm,18.0s						
LZH				LR	LR		
	comp=Z,297nm,20.2s,MS5.0						
WRA	Warramunga Arr	140.38	243	PKP	PKPdf	20 25 11.8	-3.6
	comp=Z,0.7nm,1.0s,baz=100,slow=2.0,SNR=4.8						
KOLN	Koldanda	146.00	22	*e*P	PKPbc	20 25 25.5	+2.8
	comp=Z,25nm,1.5s						
GKN	Gorkha	146.16	20	*e*P	PKPbc	20 25 26.4	+3.3
	comp=Z,26nm,1.1s						
KKN	Kakani	146.57	19	*e*P	PKPbc	20 25 25.7	+1.7
	comp=Z,14nm,1.0s						
GUN	Gumba	146.65	18	*e*P	PKPbc	20 25 25.9	+1.7
DMN	Daman	146.68	20	*e*P	PKPbc	20 25 26.0	+1.7
	comp=Z,15nm,0.9s						
PKI	Pulchoki	146.81	19	*e*P	PKPbc	20 25 24.9	+0.3
CMAR	Chiang Mai Arr	157.82	356	PKPab	PKPab	20 26 12.7	-1.8
	comp=Z,0.3nm,0.8s,baz=333,slow=2.0,SNR=2.8						

NEIC ***04*** *20:37:59.6, 34.95N×3.00W, MG3.1(MDD), After MDD.*

CSEM ***04*** *20:38:01.7±0.3, 35.10N×3.24W, h10^{km}, ML4.3/1, Error ellipse: s-maj=5.7km s-min=3.6km az=165.0*

MDD 04 20:37:59.6±2.3**, 34.95N**×**3.00W, mb3.1**/4**, Error ellipse: s-maj=24.3km s-min=11.5km az=129.0, PRXIMO AftershockPLICA SOLUCIN POBRE, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	Melilla	0.35	6	P	Pg	20 38 04.9	-1.7
	19nm,0.1s,SNR=7.9						
EMEL				S	Sg	20 38 11.4	+0.2
	135nm,0.2s,SNR=4.0						
EBER	Berja	1.94	3	P	Pn	20 38 32.7	-1.5
	0.6nm,0.3s,SNR=7.9						
EBER				S	Sn	20 38 53.6	-6.1
	3.6nm,0.4s,SNR=7.9						
EBER	Berja	1.94	3	P	Pn	20 38 32.7	-1.5
	0.6nm,0.3s,SNR=7.9						
EMIJ	Mijas	2.16	319	P	Pn	20 38 35.2	-2.1
	0.3nm,0.1s,SNR=7.9						
ELOJ	Sierra Loja	2.38	337	P	Pn	20 38 40.3	-0.2
	0.4nm,0.2s,SNR=4.0						
EQES	Quesada	2.84	359	P	Pn	20 38 46.4	-0.7
	1.1nm,0.2s,SNR=6.6						
EQES				S	Sn	20 39 20.0	-2.5
	2.9nm,0.4s,SNR=7.1						
EQES	Quesada	2.84	359	P	Pn	20 38 46.4	-0.7
	1.1nm,0.2s,SNR=6.6						
EQES				S	Sn	20 39 20.0	-2.6
	2.9nm,0.4s,SNR=7.1						
EADA	Adamuz	3.45	339	P	Pn	20 38 54.1	-1.6
	0.4nm,0.1s,SNR=7.9						
EADA				S	Sn	20 39 32.8	-5.1
	0.4nm,0.2s,SNR=4.0						
EADA	Adamuz	3.45	339	P	Pn	20 38 54.1	-1.6
	0.4nm,0.1s,SNR=7.9						
EADA				S	Sn	20 39 32.8	-5.1
	0.4nm,0.2s,SNR=4.0						
EMIN	Mina Concepcio	4.08	315	P	Pn	20 39 01.6	-3.1
	0.3nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.08	315	P	Pn	20 39 01.6	-3.1
	0.3nm,0.2s,SNR=7.9						
ESDC	Sonseca Array	4.77	351	P	Pn	20 39 12.7	-1.9
	0.8nm,0.1s,baz=172,slow=12,SNR=5.3						
ESDC	Sonseca Array	4.77	351	P	Pn	20 39 12.7	-1.8
	0.8nm,0.1s,SNR=5.3						
EBAD	Badajoz	4.97	321	P	Pn	20 39 15.1	-2.3
	0.7nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.97	321	P	Pn	20 39 15.1	-2.3

PRU ***04*** *20:39:29.1, 42.89N×15.52E*

ROM ***04*** *20:39:33.5±0.4, 43.18N×15.48E, h10^{km}, MD3.2/16, ML2.9/9, Error ellipse: s-maj=4.1km s-min=1.9km az=90.0*

NEIC ***04*** *20:39:33.5, 43.18N×15.48E, h10^{km}, MD3.2(ROM), ML3.5(LDG), After ROM.*

CSEM ***04*** *20:39:33.7±0.1, 43.23N×15.41E, h10^{km}, ML2.9/9, Error ellipse: s-maj=2.1km s-min=1.3km az=104.0*

LDG ***04*** *20:39:37.7±0.4, 43.27N×15.13E, h10^{km}, Ml3.5/9, Error ellipse: s-maj=10.7km s-min=4.7km az=69.0*

ISC 04 20:39:32.5±0.3**, 43.16N**±0.02×**15.31E**±0.04**, h10**^{km}**, n107, σ1^{s}60**/140**, 9C-1D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TERO	Teramo	1.36	248	*e*PN	Pn	20 39 59.0	+1.4
TERO	Teramo	1.36	248	*e*Pn	Pn	20 39 59.0	+1.4
NVLJ	Novalja	1.44	348	*i* Pn	Pn	20 39 58.1	-0.7
NVLJ				*i* Sn	Sn	20 40 19.9	+2.0
NVLJ				*i* Sg	Sg	20 40 20.4	-0.2
NVLJ	Novalja	1.44	348	*i* Pn	Pn	20 39 58.1	-0.7
NVLJ				*i* Sn	Sn	20 40 19.8	+1.9
NVLJ				*i* Sg	Sg	20 40 20.4	-0.2
RGNG	Rignano Grg	1.49	172	*e*PN	Pn	20 39 58.7	-0.8
RGNG	Rignano Grg	1.49	172	*e*Pn	Pn	20 39 58.7	-0.8
FGMS	Monte Sant'Ang	1.52	161	*e*PN	Pn	20 40 01.4	+1.5
FGMS	Monte Sant'Ang	1.52	161	*e*Pn	Pn	20 40 01.4	+1.5
INTR	Introdacqua	1.54	223	*e*PN	Pn	20 40 02.3	+2.1
INTR	Introdacqua	1.54	223	*e*Pn	Pn	20 40 02.3	+2.2
CING	Cingoli	1.56	279	*e*PN	Pn	20 40 01.8	+1.4
CII	Carovilli	1.61	208	*e*PN	Pn	20 40 03.1	+1.9
	94nm,0.6s						
CII	Carovilli	1.61	208	*e*Pn	Pn	20 40 03.1	+2.0
CII	Carovilli	1.61	208	*e*Pn	Pn	20 40 03.1	+1.9
	94nm,0.6s						
AQU	L'Aquila	1.62	241	*e*PN	Pn	20 40 03.9	+2.7
AQU	L'Aquila	1.62	241	*e*Pn	Pn	20 40 03.9	+2.7
ARV	Arcevia	1.76	282	*e*PN	Pn	20 40 04.8	+1.5
ARV	Arcevia	1.76	282	*e*Pn	Pn	20 40 04.8	+1.5
STON	Ston	1.78	98	*i* Pn	Pn	20 40 02.7	-0.8
STON				*i* Sn	Sn	20 40 25.4	-1.0
STON				*i* Sg	Sg	20 40 26.5	-5.2
STON	Ston	1.78	98	*i* Sg	Sg	20 40 26.5	-5.2
STON	Ston	1.78	98	*i* Sn	Sn	20 40 25.3	-1.1
PTQR	Pietraquaria	1.81	232	*e*PN	Pn	20 40 06.3	+2.3
PTQR	Pietraquaria	1.81	232	*e*Pn	Pn	20 40 06.3	+2.4
SDI	San Donato	1.82	218	*e*PN	Pn	20 40 05.2	+1.0
	104nm,0.5s						
SDI	San Donato	1.82	218	*e*Pn	Pn	20 40 05.2	+1.0
SDI	San Donato	1.82	218	*e*Pn	Pn	20 40 05.2	+1.0
	104nm,0.5s						
SGG	Gregorio Mates	1.90	202	*e*PN	Pn	20 40 07.7	+2.5
SGG	Gregorio Mates	1.90	202	*e*Pn	Pn	20 40 07.7	+2.4
FSSB	Fossombrone	1.92	287	*e*PN	Pn	20 40 06.7	+1.1
	45nm,0.4s						
FSSB	Fossombrone	1.92	287	*e*Pn	Pn	20 40 06.7	+1.1
FSSB	Fossombrone	1.92	287	*e*Pn	Pn	20 40 06.7	+1.1
	45nm,0.4s						
MURB	Monte Urbino	2.04	274	*e*PN	Pn	20 40 08.9	+1.6
MURB	Monte Urbino	2.04	274	*e*Pn	Pn	20 40 08.9	+1.7
MNS	Montasola	2.08	249	*e*PN	Pn	20 40 09.5	+1.6
	35nm,0.6s						
MNS	Montasola	2.08	249	*e*Pn	Pn	20 40 09.5	+1.6
MNS	Montasola	2.08	249	*e*Pn	Pn	20 40 09.5	+1.6
	35nm,0.6s						
BLY	Banja Luka	2.09	40	Pn	Pn	20 40 10.0	+2.0
BOJS	Bojanci	2.35	359	*i* Pn	Pn	20 40 13.2	+1.5
CRE	Caprese Michel	2.49	282	*e*PN	Pn	20 40 15.8	+2.0
	16nm,0.4s						
CRE	Caprese Michel	2.49	282	*e*Pn	Pn	20 40 15.8	+2.0
	16nm,0.4s						
SGO	Sicignano	2.59	180	*e*PN	Pn	20 40 14.7	-0.5
	13nm,0.5s						
SGO	Sicignano	2.59	180	*e*Pn	Pn	20 40 14.7	-0.5
SGO	Sicignano	2.59	180	*e*Pn	Pn	20 40 14.7	-0.5
	13nm,0.5s						
PGD	Poggio Sodo	2.71	287	*e*PN	Pn	20 40 19.2	+2.4
	38nm,0.4s						
PGD	Poggio Sodo	2.71	287	*e*Pn	Pn	20 40 19.2	+2.4
PGD	Poggio Sodo	2.71	287	*e*Pn	Pn	20 40 19.2	+2.4
	38nm,0.4s						
GCIS	Gornji Cirnik	2.72	5	*i* Pn	Pn	20 40 17.9	+0.8
TRI	Trieste	2.78	337	*e*PN	Pn	20 40 18.3	+0.4
	56nm,0.4s						
TRI	Trieste	2.78	337	*e*Pn	Pn	20 40 18.3	+0.4
TRI	Trieste	2.78	337	*e*Pn	Pn	20 40 18.3	+0.4
	56nm,0.4s						
JAVS	Javornik	2.88	342	*i* Pn	Pn	20 40 19.7	+0.4
CSNT	Castellina Chi	2.95	278	*e*PN	Pn	20 40 22.5	+2.2
CSNT	Castellina Chi	2.95	278	*e*Pn	Pn	20 40 22.5	+2.3
VOY	Vojsko	3.05	341	*e*Pn	Pn	20 40 22.2	+0.5
VOY				*e*Sn	Sn	20 41 00.2	+1.6
OBKA	Obir	3.40	351	⇑*i*PN	Pn	20 40 27.5	+0.8
OBKA				*i* SN	Sn	20 41 10.8	+3.4
PTCC	Patocco-Chiusa	3.54	338	*e*PN	Pn	20 40 28.7	+0.1
	26nm,0.5s						
PTCC	Patocco-Chiusa	3.54	338	*e*Pn	Pn	20 40 28.7	+0.1
PTCC	Patocco-Chiusa	3.54	338	*e*Pn	Pn	20 40 28.7	+0.1
	26nm,0.5s						
RHK1	Bakonya	3.54	33	⇑*i*P	Pn	20 40 27.9	-0.8
RHK1				*e*S	Sn	20 41 09.3	-1.8
	2.8nm,0.3s						
PKSM	Moragy	3.87	37	⇓*e*P	Pn	20 40 33.4	0.0
PKSM				*e*S	Sn	20 41 20.4	+0.9
FVI	Forni Avoltri	3.88	333	*e*PN	Pn	20 40 33.5	0.0
	32nm,0.7s						
FVI	Forni Avoltri	3.88	333	*e*Pn	Pn	20 40 33.5	0.0
FVI	Forni Avoltri	3.88	333	*e*Pn	Pn	20 40 33.5	0.0
	32nm,0.7s						
CTI	Castel Tesino	3.90	319	*e*PN	Pn	20 40 33.4	-0.4
	17nm,0.6s						
CTI	Castel Tesino	3.90	319	*e*Pn	Pn	20 40 33.4	-0.4
CTI	Castel Tesino	3.90	319	*e*Pn	Pn	20 40 33.4	-0.4
	17nm,0.6s						
ARSA	Arzberg	4.10	2	⇑*i*PN	Pn	20 40 37.0	+0.4
ARSA				*i* SN	Sn	20 41 27.7	+2.5
KBA	Koelnbreinsper	4.16	341	⇑*i*PN	Pn	20 40 37.9	+0.4
KBA				*i* SN	Sn	20 41 28.6	+1.8
KBA	Koelnbreinsper	4.16	341	*e*Pn	Pn	20 40 38.1	+0.6
KBA				*i* Sn	Sn	20 41 28.6	+1.8
PGF	Pioggiola	4.68	265	*e*Pn	Pn	20 40 44.7	-0.1
MOA	Molln	4.75	352	⇑*i*PN	Pn	20 40 46.6	+0.7
MOA				*i* SN	Sn	20 41 42.4	+0.7
MOA	Molln	4.75	352	*e*Pn	Pn	20 40 46.5	+0.6
MOA				*i* Sn	Sn	20 41 42.4	+0.7
WTTA	Wattenberg	4.86	329	⇑*i*PN	Pn	20 40 47.5	+0.1
WTTA				*i* SN	Sn	20 41 46.6	+2.2
SQTA	Sankt Quirin	4.99	326	⇑*i*PN	Pn	20 40 49.8	+0.5

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SQTA				i SN	Sn	20 41 49.2	+1.4
DAVA	Damuels	5.63	319	⇑iPN	Pn	20 40 58.0	-0.4
DAVA				i SN	Sn	20 42 05.7	+1.8
DAVA	Damuels	5.63	319	i Sn	Sn	20 42 05.7	+1.8
PSZ	Piszkesteto	5.75	32	⇑eSn	Sn	20 42 13.4	+6.6
SBF	Sospel	5.77	280	ePn	Pn	20 40 59.2	-1.0
SBF				eSn	Sn	20 41 59.9	-7.4
	16nm,0.6s						
SBF	Sospel	5.77	280	eSn	Sn	20 41 59.9	-7.4
	8.1nm,0.6s						
GEC2	GERESS Array S	5.80	349	ePn	Pn	20 40 59.5	-1.2
GEC2				eSn	Sn	20 42 06.0	-2.1
KHC	Kasperske Hory	6.10	349	ePN	Pn	20 41 03.5	-1.4
KHC				ex	x	20 41 12.7	
KHC				eSN	Sn	20 42 13.4	-2.1
FRF	La Foret Royal	6.33	277	ePn	Pn	20 41 06.7	-1.4
MBDF	Montbardon	6.36	287	ePn	Pn	20 41 06.0	-2.6
MBDF				eSn	Sn	20 42 14.3	-7.8
	4.9nm,0.4s						
MBDF	Montbardon	6.36	287	eSn	Sn	20 42 14.3	-7.8
	2.5nm,0.4s						
LMR	La Mourre	6.43	275	ePn	Pn	20 41 08.2	-1.4
LPG	La Plagne	6.57	294	ePn	Pn	20 41 07.9	-3.6
LPG				eSn	Sn	20 42 18.8	-8.5
	8.4nm,0.5s						
LPG	La Plagne	6.57	294	eSn	Sn	20 42 18.8	-8.5
	4.2nm,0.5s						
LPL	La Plagne	6.59	294	ePn	Pn	20 41 09.0	-2.8
LPL				eSn	Sn	20 42 19.0	-8.7
	8.2nm,0.4s						
LPL	La Plagne	6.59	294	eSn	Sn	20 42 19.0	-8.7
	4.1nm,0.4s						
ORIF	Oris-en-Rattie	7.02	288	ePn	Pn	20 41 16.1	-1.8
ORIF				eSn	Sn	20 42 29.2	-9.4
	9.2nm,0.7s						
ORIF	Oris-en-Rattie	7.02	288	eSn	Sn	20 42 29.2	-9.4
	4.6nm,0.7s						
NKC	Novy Kostel	7.35	345	ePN	Pn	20 41 22.5	0.0
NKC				eSN	Sn	20 42 47.1	+0.3
CABF	La Chapelle	7.40	301	ePn	Pn	20 41 20.1	-3.2
CABF				eSn	Sn	20 42 39.3	-8.9
GUNZ	Gunzen	7.49	345	ePn	Pn	20 41 23.0	-1.5
HINF	Hinteralfeld	7.55	311	ePn	Pn	20 41 22.9	-2.4
HINF				eSn	Sn	20 42 42.9	-8.9
	10nm,0.5s						
CDF	Champ du Feu	7.69	316	ePn	Pn	20 41 25.6	-1.6
VIVF	Saint-Julien-l	7.85	286	ePn	Pn	20 41 27.3	-2.3
MOX	Moxa	7.91	343	i P	Pn	20 41 27.4	-2.9
MOX				S	Sn	20 42 54.0	-6.7
MOX	Moxa	7.91	343	ePn	Pn	20 41 27.4	-2.9
MOX				eSn	Sn	20 42 54.1	-6.6
MOX	Moxa	7.91	343	ePn	Pn	20 41 27.3	-3.0
HAU	Haudompre	7.94	311	ePn	Pn	20 41 26.7	-4.0
HAU				eSn	Sn	20 42 51.4	-10
	23nm,0.4s						
HAU	Haudompre	7.94	311	eSn	Sn	20 42 51.4	-10
SMF	Signal de Mont	8.85	297	ePn	P	20 41 39.7	-3.8
SMF				eSn	Sn	20 43 13.9	-10
	9.4nm,0.6s						
SMF	Signal de Mont	8.85	297	eSn	Sn	20 43 13.9	-10
	4.7nm,0.6s						
SSF	Saint Saulge	9.21	299	ePn	P	20 41 45.5	-2.9
AVF	Avril sur Loir	9.22	297	ePn	P	20 41 45.2	-3.3
BGF	Bois d'Agland	9.48	295	ePn	P	20 41 49.1	-3.0
BGF				eSn	Sn	20 43 28.3	-12
	6.6nm,0.5s						

DJA 04 21:01:02.7±1.0, **9.99S**×**113.73E**, **h33^{km}**, **MD4.8**/4, **ML4.0**/3, **5C-3D, Error ellipse: s-maj=23.6km s-min=14.4km az=36.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
SRDI	Scrawed	1.56	15	⇓iPn	Pn	21 01 26.7	-1.8
KELI	Kelakatan	1.92	23	⇑iPn	Pn	21 01 32.7	-1.0
	148nm,0.2s						
KELI	Kelakatan	1.92	23	⇑iP	P	21 01 33.6	+0.1
KELI				⇑iSn	Sn	21 01 54.4	-2.5
RATI	Rata	2.18	55	⇓iPn	Pn	21 01 36.1	-1.4
	146nm,0.2s						
RATI	Rata	2.18	55	⇓iP	P	21 01 36.4	-0.9
RATI				⇑iSn	Sn	21 01 59.6	-4.1
KEDI	Kedomdong	2.79	58	⇑iPn	Pn	21 01 45.2	-1.0
	27nm,0.2s						

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*NEIC **04** 21:02:34.0±5.0, 20.26S×169.67E, h181^{km}±45^{km}, mb4.0/3, Error ellipse: s-maj=28.1km s-min=12.5km az=220.0*

*IDC **04** 21:02:35.4±8.0, 20.38S×169.54E, h186^{km}±70^{km}, mb3.5/7, mb1 3.6/8, mb1mx3.5/16, Error ellipse: s-maj=47.8km s-min=18.7km az=45.0*

ISC 04 21:02:29.7±3.1, **20.5S**±0.2×**169.5E**±0.2, **h141**^{km}±21^{km}, **n16**, **$\sigma 0^{s}96$**/17, **mb3.8**/9, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.27	240	eP	P	21 03 21.5	+0.5
DZM				eS	S	21 04 00.1	-0.1
NOUC	Port Laguerre	3.40	241	eP	P	21 03 22.9	+0.3
NOUC				eS	S	21 04 02.2	-1.0
URZ	Urewera	18.93	161	P	P	21 06 42.4	+0.4
	0.3nm,0.3s,baz=75,slow=15,SNR=3.0						
CTA	Charters Tower	21.80	267	P	P	21 07 14.6	+3.5
	3.6nm,0.6s,mb4.0,baz=86,slow=9.9,SNR=6.8						
CTAO	Charters Tower	21.80	267	P	P	21 07 14.5	+3.4
	4.1nm,0.6s,mb4.0						
PMG	Port Moresby	24.18	294	P	P	21 07 35.0	+0.7
	4.5nm,0.7s,mb4.1,baz=339,slow=21,SNR=2.3						
STKA	Stephens Creek	27.42	240	P	P	21 08 05.5	+1.3
	1.0nm,0.5s,mb3.7,baz=113,slow=13,SNR=5.5						
WRAB	Tennant Creek	32.95	265	P	P	21 08 53.2	+0.2
	5.0nm,1.1s,mb4.2						
WRA	Warramunga Arr	32.96	265	P	P	21 08 51.9	-1.2
	0.2nm,0.3s,mb3.3,baz=92,slow=8.8,SNR=15						
ASAR	Alice Springs	33.09	258	P	P	21 08 54.0	-0.2
	4.1nm,0.7s,mb4.3,baz=83,slow=9.4,SNR=70						
ASPA	Alice Springs	33.09	258	eP	P	21 08 53.9	-0.3
FITZ	Fitzroy Crossi	41.37	266	eP	P	21 10 04.5	+1.0
	1.4nm,0.6s,mb3.8						
VNDA	Vanda	57.23	182	P	P	21 12 03.4	-0.7
	2.8nm,1.3s,mb3.9,baz=325,slow=7.7,SNR=2.6						
KS15	Wonju Array Si	69.65	326	eP	P	21 13 22.4	-3.5
SNAA	Sanae	87.97	182	P	P	21 15 03.8	-0.3
	0.4nm,0.8s,mb3.3,baz=218,slow=6.6,SNR=5.0						
GERES	GERESS Array B	145.66	331	PKPbc	PKPbc	21 21 52.0	+0.2
	0.4nm,0.6s,baz=45,slow=2.8,SNR=4.2						

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*PRU **04** 21:03:41.5, 43.00N×14.77E*

*ROM **04** 21:03:43.7±0.4, 43.10N×15.47E, h10^{km}, MD3.2/17, ML2.8/6, Error ellipse: s-maj=4.7km s-min=2.6km az=90.0*

*NEIC **04** 21:03:43.8, 43.10N×15.47E, h10^{km}, MD3.2(ROM), ML3.4(LDG), After ROM.*

*LDG **04** 21:03:45.3±0.3, 43.16N×15.43E, h10^{km}, Ml3.4/9, Error ellipse: s-maj=8.7km s-min=4.3km az=72.0*

*CSEM **04** 21:03:45.3±0.1, 43.12N×15.45E, h40^{km}, ML3.4/9, Error ellipse: s-maj=2.4km s-min=1.6km az=107.0*

ISC 04 21:03:43.3±0.4, **43.15N**±0.02×**15.37E**±0.05, **h10**^{km}, **n78**, **$\sigma 1^{s}21$**/75, **1D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
TERO	Teramo	1.40	249	ePN	Pn	21 04 09.2	+0.2
TERO	Teramo	1.40	249	ePn	Pn	21 04 09.2	+0.2
NVLJ	Novalja	1.46	346	i Pn	Pn	21 04 08.9	-1.0
NVLJ				i Sn	Sn	21 04 30.7	+1.5
NVLJ				i Sg	Sg	21 04 31.2	-0.9
NVLJ	Novalja	1.46	346	i Pn	Pn	21 04 08.9	-1.0
NVLJ				i Sn	Sn	21 04 30.6	+1.4
NVLJ				i Sg	Sg	21 04 31.2	-0.9
RGNG	Rignano Grg	1.48	174	ePN	Pn	21 04 08.4	-1.7
RGNG	Rignano Grg	1.48	174	ePn	Pn	21 04 08.4	-1.7
FGMS	Monte Sant'Ang	1.50	163	ePN	Pn	21 04 11.1	+0.7
FGMS	Monte Sant'Ang	1.50	163	ePn	Pn	21 04 11.1	+0.6
INTR	Introdacqua	1.57	224	ePN	Pn	21 04 10.8	-0.6
INTR	Introdacqua	1.57	224	ePn	Pn	21 04 10.8	-0.6
CING	Cingoli	1.61	279	ePN	Pn	21 04 12.2	+0.3
CII	Carovilli	1.63	209	ePN	Pn	21 04 12.5	+0.3
	161nm,0.7s						
CII	Carovilli	1.63	209	ePn	Pn	21 04 12.5	+0.3
	161nm,0.7s						
AQU	L'Aquila	1.65	242	ePN	Pn	21 04 12.9	+0.3
AQU	L'Aquila	1.65	242	ePn	Pn	21 04 12.9	+0.3
ARV	Arcevia	1.81	282	ePN	Pn	21 04 15.4	+0.6
ARV	Arcevia	1.81	282	ePn	Pn	21 04 15.4	+0.6
PTQR	Pietraquaria	1.84	233	ePN	Pn	21 04 16.2	+0.9
	47nm,0.6s						
PTQR	Pietraquaria	1.84	233	ePn	Pn	21 04 16.2	+0.9
PTQR	Pietraquaria	1.84	233	ePn	Pn	21 04 16.2	+0.9
	47nm,0.6s						
SDI	San Donato	1.84	219	ePN	Pn	21 04 14.1	-1.2
	98nm,0.5s						
SDI	San Donato	1.84	219	ePn	Pn	21 04 14.1	-1.3
SDI	San Donato	1.84	219	ePn	Pn	21 04 14.1	-1.2
	98nm,0.5s						
SGG	Gregorio Mates	1.91	203	ePN	Pn	21 04 16.0	-0.2
SGG	Gregorio Mates	1.91	203	ePn	Pn	21 04 16.0	-0.2
FSSB	Fossombrone	1.97	287	ePN	Pn	21 04 17.5	+0.4
	44nm,0.5s						
FSSB	Fossombrone	1.97	287	ePn	Pn	21 04 17.5	+0.4
FSSB	Fossombrone	1.97	287	ePn	Pn	21 04 17.5	+0.4
	44nm,0.5s						
BLY	Banja Luka	2.07	39	ePn	Pn	21 04 20.9	+2.3
MURB	Monte Urbino	2.08	274	ePN	Pn	21 04 20.1	+1.3
MURB	Monte Urbino	2.08	274	ePn	Pn	21 04 20.1	+1.3
MNS	Montasola	2.12	250	ePN	Pn	21 04 20.1	+0.8
MNS	Montasola	2.12	250	ePn	Pn	21 04 20.1	+0.8
CERT	Cerreto	2.13	237	ePN	Pn	21 04 19.7	+0.2
CERT	Cerreto	2.13	237	ePn	Pn	21 04 19.7	+0.2
VBY	Vinica-Bojanci	2.36	358	ePn	Pn	21 04 23.8	+1.1
VBY				eSn	Sn	21 04 54.8	+2.8
SISC	Sisak	2.43	17	i Pn	Pn	21 04 23.5	-0.3
SISC				i Sg	Sg	21 04 59.6	-4.7
CRE	Caprese Michel	2.54	282	ePN	Pn	21 04 26.8	+1.5
	21nm,0.4s						
CRE	Caprese Michel	2.54	282	ePn	Pn	21 04 26.8	+1.5
CRE	Caprese Michel	2.54	282	ePn	Pn	21 04 26.8	+1.5
	21nm,0.4s						
SGO	Sicignano	2.58	181	ePN	Pn	21 04 24.7	-1.2
	18nm,0.7s						
SGO	Sicignano	2.58	181	ePn	Pn	21 04 24.7	-1.2
SGO	Sicignano	2.58	181	ePn	Pn	21 04 24.7	-1.2
	18nm,0.7s						
PGD	Poggio Sodo	2.75	287	ePN	Pn	21 04 29.5	+1.2
VOY	Vojsko	3.07	340	ePn	Pn	21 04 33.3	+0.4
VOY				eSn	Sn	21 05 11.4	+1.3
OBKA	Obir	3.41	350	ePn	Pn	21 04 38.3	+0.6
DIVS	Divcibare	3.49	73	⇓iPn	Pn	21 04 43.0	+4.3
DIVS				Sn	Sn	21 05 22.7	+2.2
RHK1	Bakonya	3.52	32	eP	Pn	21 04 39.9	+0.6
RHK1				eS	Sn	21 05 19.2	-2.3
PTCC	Patocco-Chiusa	3.56	337	ePN	Pn	21 04 39.3	-0.5
	41nm,0.8s						
PTCC	Patocco-Chiusa	3.56	337	ePn	Pn	21 04 39.3	-0.5
PTCC	Patocco-Chiusa	3.56	337	ePn	Pn	21 04 39.3	-0.5
	41nm,0.8s						
PKSM	Moragy	3.85	36	eP	Pn	21 04 44.3	+0.4
PKSM				eS	Sn	21 05 28.5	-1.3
CTI	Castel Tesino	3.94	319	ePN	Pn	21 04 44.2	-0.9
	23nm,0.8s						
CTI	Castel Tesino	3.94	319	ePn	Pn	21 04 44.2	-1.0
CTI	Castel Tesino	3.94	319	ePn	Pn	21 04 44.2	-0.9
	23nm,0.8s						
ARSA	Arzberg	4.11	1	ePn	Pn	21 04 47.0	-0.6
KBA	Koelnbreinsper	4.19	341	ePn	Pn	21 04 48.9	+0.2
PGF	Pioggiola	4.72	265	ePn	Pn	21 04 55.1	-1.2
MOA	Molln	4.77	351	ePn	Pn	21 04 57.2	+0.2
GEC2	GERESS Array S	5.82	349	ePn	Pn	21 05 10.3	-1.5
GEC2				eSn	Sn	21 06 16.3	-3.0
SBF	Sospel	5.82	280	ePn	Pn	21 05 09.2	-2.6
SBF				eSn	Sn	21 06 13.8	-5.5
	9.8nm,0.5s						
KHC	Kasperske Hory	6.11	349	ePN	Pn	21 05 13.9	-2.1
KHC				ex	x	21 05 23.2	
KHC				eSN	Sn	21 06 22.8	-4.0
FRF	La Foret Royal	6.38	277	ePn	Px	21 05 17.7	
MBDF	Montbardon	6.41	287	ePn	Px	21 05 16.8	
MBDF				eSn	Sx	21 06 27.5	
	11nm,0.6s						
MBDF	Montbardon	6.41	287	eSn	Sx	21 06 27.5	
	5.3nm,0.6s						
LPG	La Plagne	6.62	294	ePn	Px	21 05 19.8	
LPG				eSn	Sx	21 06 32.7	
	12nm,0.6s						
LPG	La Plagne	6.62	294	eSn	Sx	21 06 32.7	
	6.2nm,0.6s						
LPL	La Plagne	6.63	294	ePn	Px	21 05 20.3	
LPL				eSn	Sx	21 06 32.9	
	7.0nm,0.5s						
ORIF	Oris-en-Rattie	7.07	288	ePn	Px	21 05 26.8	
ORIF				eSn	Sx	21 06 43.3	
	8.3nm,0.6s						
NKC	Novy Kostel	7.37	345	ePN	Px	21 05 32.0	
CABF	La Chapelle	7.45	301	ePn	Px	21 05 30.3	
CABF				eSn	Sx	21 06 51.3	
	4.1nm,0.6s						
HINF	Hinteralfeld	7.59	311	ePn	Px	21 05 33.2	
HINF				eSn	Sx	21 06 55.0	
	10nm,0.7s						
CDF	Champ du Feu	7.73	316	ePn	Px	21 05 36.4	
CDF				eSn	Sx	21 06 59.4	
	5.7nm,0.7s						
VIVF	Saint-Julien-l	7.90	286	ePn	Px	21 05 37.8	
MOX	Moxa	7.93	342	i P	Px	21 05 38.4	
MOX	Moxa	7.93	342	ePn	Px	21 05 38.4	
HAU	Haudompre	7.98	311	eSn	Sx	21 07 04.4	
	11nm,0.5s						
AVF	Avril sur Loir	9.27	297	ePn	Px	21 05 55.4	

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*NEIC **04** 21:04:35.3, 63.48N×149.01W, h6^{km}, mb4.8/43, MS4.2/1, ML4.9(PMR), ML4.8(AEIC), After AEIC.*

NEIC Felt [III] at Fairbanks, Fox and Salcha; [II] at North Pole.

*IDC **04** 21:04:36.4±2.3, 63.69N×149.10W, h10^{km}±13^{km}, mb4.3/18, mb1 4.5/23, mb1mx4.5/24, ML4.4/4, MS4.0/9, Ms1 4.0/9, ms1mx3.7/28, Error ellipse: s-maj=13.7km s-min=8.8km az=38.0*

*MOS **04** 21:04:36.2±0.9, 63.63N×149.04W, h24^{km}, mb4.7/20, MS4.1/8, Error ellipse: s-maj=27.1km s-min=7.8km az=85.9*

*BJI **04** 21:04:38.2, 64.33N×149.56W, h16^{km}, mB5.3, mb4.6, Ms4.7, Msz4.5*

ISC 04 21:04:35.8±0.5, **63.56N**±0.01×**149.13W**±0.04, **h22**^{km}±3^{km}, **h13**^{km}±.8^{km}**:pP-P**, **n252**, **$\sigma 0^{s}96$**/267, **mb4.6**/75, **MS4.2**/15, **5C, Central Alaska**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
MCK	McKinley	0.19	26	P	Pb	21 04 40.7	-0.3
RND	Reindeer	0.20	141	P	Pb	21 04 37.6	-3.5
HUR	Hurricane	0.63	202	P	Pb	21 04 45.9	-2.0
BWN	Browne	0.63	346	P	Pb	21 04 49.1	+1.0
DHY	Denali Highway	0.93	121	P	Pb	21 04 51.0	-2.1
NEA	Nenana	1.02	1	P	Pb	21 04 55.9	+1.2
CCB	Clear Creek Bu	1.24	27	P	Pn	21 04 58.7	+0.7
CUT	Chulitna	1.27	205	P	Pn	21 04 57.6	-1.0
HDA	Harding Lake	1.28	47	P	Pn	21 04 59.1	+0.4
COLA	College	1.43	22	P	Pn	21 05 01.8	+1.0
COLA				S	Sn	21 05 21.2	+2.1
COLA	College	1.43	22	P	Pn	21 05 01.9	+1.0
COLA				S	Sn	21 05 21.2	+2.1
MDM	Murphy Dome	1.46	15	P	Pn	21 05 02.5	+1.3
DDM	Donnelly Dome	1.47	80	P	Pn	21 05 01.6	+0.2
THY	Trims Highway	1.52	94	P	Pn	21 05 01.8	-0.3
THY				S	Sn	21 05 22.0	+0.6
ILAR	Eielson Array	1.56	38	Pg	Pn	21 05 03.1	+0.5
	603nm,0.3s,baz=224,slow=15,SNR=4965						
ILAR				Lg		21 05 23.8	
	1µm,0.3s,baz=232,slow=30,SNR=29						
IL1	Eielson Array	1.56	38	P	Pn	21 05 03.3	+0.6
IL1				S	Sn	21 05 24.0	+1.6
GLM	Gilmore Dome	1.62	27	P	Pn	21 05 04.4	+0.9
MLY	Manley	1.64	335	P	Pn	21 05 05.3	+1.6
PAX	Paxson	1.76	108	P	Pn	21 05 05.0	-0.5
PAX				S	Sn	21 05 27.2	-0.1
SML	Sawmill	1.80	168	P	Pn	21 05 04.7	-1.3
SML				S	Sn	21 05 27.7	-0.7
GHO	Glory Hole Cre	1.80	177	P	Pn	21 05 04.9	-1.1
SCM	Sheep Creek Mo	1.92	154	P	Pn	21 05 06.5	-1.3
PWA	Palmer West	1.95	191	P	Pn	21 05 07.3	-0.9
PMR	Palmer	1.98	180	P	Pn	21 05 07.6	-1.0
PMR				S	Sn	21 05 32.4	-0.5
KNK	Knik Glacier	2.18	171	P	Pn	21 05 10.9	-0.6
DOT	Dot Lake	2.27	85	P	Pn	21 05 12.6	-0.2
TZL	Tazlina	2.28	130	P	Pn	21 05 13.6	+0.6
STLK	Strandline Lak	2.42	212	P	Pn	21 05 14.8	-0.1
FIB	Fire Island	2.45	192	P	Pn	21 05 15.7	+0.3
RC01	Rabbit Creek A	2.50	187	P	Pn	21 05 15.6	-0.4
RC01				S	Sn	21 05 48.2	+2.0
PRP	Porcupine Dome	2.51	37	P	Pn	21 05 17.0	+0.8
CGLM	Capps Glacier	2.63	212	P	Pn	21 05 18.4	+0.5
VOGL	Vogel Lake	2.65	194	P	Pn	21 05 18.4	+0.3
CRP	Crater Peak	2.70	213	P	Pn	21 05 18.9	0.0
PWL	Port Wells	2.74	172	P	Pn	21 05 19.5	0.0
CKN	Chakachatna No	2.74	213	P	Pn	21 05 19.7	+0.2
SPU	Mount Spurr	2.75	211	eP	Pn	21 05 19.4	-0.3
BGL	Barrier Glacie	2.76	215	P	Pn	21 05 19.9	+0.1
VLZ	Valdez	2.76	151	P	Pn	21 05 19.3	-0.5
CKT	Bend	2.77	213	P	Pn	21 05 20.3	+0.4
JPK	Jack Peak	2.78	154	P	Pn	21 05 20.2	+0.2
GLI	Glacier Island	2.85	160	P	Pn	21 05 21.2	+0.1
DIV	Divide	2.90	146	P	Pn	21 05 21.6	-0.2
NKA	Nikishka	3.00	200	P	Pn	21 05 25.9	+2.7
FID	Port Fidalgo	3.08	155	P	Pn	21 05 24.1	-0.3
MPA	Moose Pass	3.08	182	P	Pn	21 05 24.2	-0.2
SLKM	Skilak Lake	3.11	190	P	Pn	21 05 24.8	0.0
IM3	Indian Mountai	3.14	323	P	Pn	21 05 26.7	+1.5
IMA	Indian Mountai	3.18	324	eP	Pn	21 05 27.0	+1.2
TT01	Tatalina	3.19	261	P	Pn	21 05 25.5	-0.4
GLB	Gilahina Butte	3.26	128	P	Pn	21 05 26.8	-0.1
BCA3	Beaver Creek A	3.35	95	P	Pn	21 05 27.4	-0.7
HIN	Hinchinbrook I	3.41	158	P	Pn	21 05 28.9	-0.1
EYAK	Cordova Ski Ar	3.42	151	P	Pn	21 05 29.1	0.0
CVA	Cordova	3.42	151	P	Pn	21 05 28.4	-0.7
DFR	Drift River	3.42	211	P	Pn	21 05 29.6	+0.4
FYU	Fort Yukon	3.44	27	P	Pn	21 05 30.3	+0.8
SEW	Seward	3.47	183	P	Pn	21 05 30.0	+0.1
NCT	North Crescent	3.50	212	P	Pn	21 05 30.6	+0.3
RDN	Redoubt North	3.50	211	P	Pn	21 05 30.6	+0.3
REF	Redoubt East F	3.51	210	P	Pn	21 05 30.8	+0.3
RSO	Redoubt South	3.55	210	eP	Pn	21 05 31.0	0.0
LTI	Latouche	3.58	170	P	Pn	21 05 30.7	-0.8
COLD	Coldfoot	3.71	354	P	Pn	21 05 34.5	+1.2
RAGM	Ragged Mountai	3.81	145	P	Pn	21 05 34.2	-0.5
BRLK	Bradley Lake	3.90	193	P	Pn	21 05 36.0	0.0
ILIM	Iliamna	3.94	209	P	Pn	21 05 37.1	+0.5
INE	Iliamna NE	3.98	210	P	Pn	21 05 37.3	+0.2
ILW	Iliamna West	3.99	210	P	Pn	21 05 37.9	+0.6
BALM	Baldy	4.05	126	P	Pn	21 05 38.3	+0.1
CNPM	China Poot	4.17	195	P	Pn	21 05 39.5	-0.4
BM3	Burnt Mountain	4.31	24	P	Pn	21 05 42.1	+0.3
OPT	Oil Point	4.38	208	P	Pn	21 05 43.2	+0.3
AUH	Augustine H	4.69	208	P	Pn	21 05 48.1	+0.9
AUW	Augustine West	4.69	208	P	Pn	21 05 46.7	-0.6
AUI	Augustine Isla	4.71	208	P	Pn	21 05 48.0	+0.5
YAH	Yahtse	4.73	129	P	Pn	21 05 47.1	-0.7
MCNL	McNeil River	5.05	212	P	Pn	21 05 52.9	+0.5
CHX	Chaix Hills	5.17	129	P	Pn	21 05 53.2	-0.8
SYI	Shuyak Island	5.21	199	P	Pn	21 05 54.8	+0.2
PCA	Pinnacle	5.45	126	P	Pn	21 05 56.5	-1.5
KAHC	Katmai Hardscr	5.69	213	P	Pn	21 06 01.2	-0.1
KAIC	Katmai Ikaglui	5.85	212	P	Pn	21 06 03.4	-0.1
KAWH	Katmai	5.88	211	P	Pn	21 06 03.9	-0.1
KDAK	Kodiak Island	6.04	198	P	Pn	21 06 04.7	-1.6
CAHL	Cahill	6.29	211	P	Pn	21 06 09.8	-0.1
ANM	Nome	7.20	285	eP	Pn	21 06 22.3	-0.2
INK	Inuvik	7.95	46	Pn	Pn	21 06 30.5	-2.5
	13nm,0.3s,baz=233,slow=16,SNR=230						
INK				Sn	Sn	21 07 58.3	-4.8
	9.4nm,0.3s,baz=144,slow=32,SNR=6.9						
INK				Lg		21 08 45.0	
	6.5nm,0.3s,baz=157,slow=3.8,SNR=6.6						
INK				LR	LR	21 09 11.5	
	comp=Z,751nm,19.6s,baz=239,slow=35						
INK	Inuvik	7.95	46	P	Pn	21 06 30.5	-2.5
INK						21 07 58.3	
INK				pmax	pmax		
	comp=Z,13nm,0.3s						
INK				smax			
	comp=N,9.0nm,0.3s						
INK				MLR	MLR		
	comp=Z,751nm,19.6s						
INK	Inuvik	7.95	46	Pn	Pn	21 06 30.5	-2.5
INK				Sn	Sn	21 07 58.3	-4.8
INK				Lg		21 08 45.0	
INK				LR	LR	21 09 11.5	
TNA	Tin City	8.33	292	P	P	21 06 38.0	-0.3
SIT	Sitka	9.44	127	P	P	21 06 50.6	-3.1
DLBC	Dease Lake	10.58	110	Pn	P	21 07 08.6	-0.5
	comp=Z,1.0nm,0.3s,baz=298,slow=13,SNR=18						
DLBC				Sn	S	21 09 06.2	-1.8
	comp=Z,0.7nm,0.3s,baz=291,slow=26,SNR=2.5						
DLBC				Lg		21 10 12.1	
	comp=Z,1.8nm,0.3s,baz=41,slow=27,SNR=7.3						
DLBC				LR	LR	21 11 30.5	
	comp=Z,586nm,19.0s,baz=86,slow=39						
DLBC	Dease Lake	10.58	110	Pn	P	21 07 08.6	-0.5
DLBC				Sn	S	21 09 06.2	-1.8
DLBC				Lg		21 10 12.1	
DLBC				LR	LR	21 11 30.5	
NIKO	Nikolski	14.76	233	P	P	21 08 06.5	+1.7
YKA	Yellowknife Ar	15.59	78	Pn	P	21 08 13.6	-1.9
	comp=Z,0.5nm,0.3s,baz=294,slow=13,SNR=31						
YKA				Sn	S	21 11 00.7	-7.3
	comp=Z,0.5nm,0.3s,baz=289,slow=23,SNR=4.4						
YKA				Lg		21 12 50.6	
	baz=290,slow=30,SNR=4.4						
YKA				ScP		21 16 50.8	
	comp=Z,0.0nm,0.3s,baz=299,slow=1.9,SNR=4.2						
YKA	Yellowknife Ar	15.59	78	P	P	21 08 13.6	-1.9
YKA						21 11 00.7	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
YKA				smax			
	comp=N,1.0nm,0.3s						
BBB	Bella Bella	15.86	126	Pn	P	21 08 23.8	+4.6
	comp=N,0.8nm,0.3s,baz=318,slow=9.4,SNR=8.6						
FX1	Attu Island--F	22.19	259	P	P	21 09 33.1	+1.2
	comp=N,19nm,0.8s,mb4.6,baz=112,slow=19,SNR=2.8						
FX1	Attu Island--F	22.19	259	P	P	21 09 33.1	+1.2
FX1				pmax	pmax		
	comp=Z,19nm,0.8s						
NEW	Newport	23.23	116	eP	P	21 09 42.8	+0.9
	comp=Z,26nm,1.0s,mb4.6						
CHMT	Chamberlain Mo	25.88	113	eP	P	21 10 07.3	-0.1
BMO	Blue Mountains	25.96	121	eP	P	21 10 08.4	+0.2
	comp=Z,30nm,1.4s,mb4.6						
HRY	Holter Researc	26.63	112	eP	P	21 10 14.7	+0.4
YBH	Yreka Blue Hor	26.74	132	P	P	21 10 17.2	+1.9
	comp=Z,1.3nm,0.7s,mb3.6,baz=308,slow=3.8,SNR=3.7						
YBH	Yreka Blue Hor	26.74	132	P	P	21 10 17.2	+1.9
YBH				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MOD	Modoc	27.41	129	eP	P	21 10 22.3	+0.9
	comp=Z,12nm,1.1s,mb4.3						
MCMT	McKenzie Canyo	27.74	115	eP	P	21 10 25.1	+0.7
MA2	Magadan	27.96	290	i P	P	21 10 29.7	+3.5
HLID	Hailey	28.17	119	eP	P	21 10 29.2	+0.9
	comp=Z,9.3nm,0.9s,mb4.4						
GCMT	Greycliff	28.27	110	eP	P	21 10 29.5	+0.3
QLMT	Earthquake Lak	28.32	113	eP	P	21 10 30.6	+1.0
YMR	Madison River	28.64	113	eP	P	21 10 33.6	+1.1
YFT	Old Faithful	28.87	113	eP	P	21 10 36.8	+2.2
LAO	LASA Array	29.04	105	eP	P	21 10 36.6	+0.5
	comp=Z,13nm,0.9s,mb4.7						
MOOW	Moose Ponds	29.49	114	eP	P	21 10 41.0	+0.9
TPAW	Teton Pass	29.62	114	eP	P	21 10 42.9	+1.5
LOHW	Long Hollow	29.66	114	eP	P	21 10 42.9	+1.2
SNOW	Snow King Moun	29.72	114	eP	P	21 10 43.7	+1.4
REDW	Red Top Meadow	29.76	114	eP	P	21 10 43.6	+0.9
TIXI	Tiksi	29.79	321	i P	P	21 10 39.6	-3.0
TIXI				pmax	pmax		
	comp=Z,7.0nm,1.9s,mb4.1						
TIXI				MLR	MLR		
	comp=Z,600nm,14.0s,MS4.4						
ELK	Elko	30.26	123	eP	P	21 10 47.9	+0.9
	comp=Z,6.0nm,0.9s,mb4.3						
BW06	Boulder Array	30.79	114	eP	P	21 10 51.8	+0.1
	comp=Z,22nm,0.9s,mb5.0						
PDAR	Pinedale Array	30.79	114	P	P	21 10 53.0	+1.4
	comp=Z,15nm,0.9s,mb4.8,baz=320,slow=5.9,SNR=88						
PDAR				LR	LR	21 24 07.2	
	comp=Z,321nm,21.6s,MS3.9,baz=324,slow=38						
HWUT	Hardware Ranch	30.95	117	eP	P	21 10 53.4	+0.3
	comp=Z,10.0nm,1.0s,mb4.6						
ULM	Lac du Bonnet	30.96	90	P	P	21 10 52.4	-0.8

	comp=Z,4.0nm,0.9s,mb4.2,baz=294,slow=8.7,SNR=4.0						
ULM				LR	LR	21 23 52.5	
	comp=Z,431nm,19.4s,MS4.1,baz=360,slow=37						
NVAR	**Mina Array Bea**	**31.19**	**129**	P	**P**	**21 10 56.5**	**+1.2**
	comp=Z,3.0nm,0.7s,mb4.2,baz=319,slow=6.9,SNR=22						
TCUT	**Toone Canyon**	**31.42**	**118**	*e*P	**P**	**21 10 58.4**	**+1.1**
TPH	**Tonopah**	**31.89**	**128**	*e*P	**P**	**21 11 01.9**	**+0.5**
	comp=Z,9.8nm,0.9s,mb4.6						
TMUT	**Trail Mountain**	**33.06**	**119**	*e*P	**P**	**21 11 11.6**	**-0.1**
TPNV	**Topopah Spring**	**33.24**	**127**	*e*P	**P**	**21 11 13.2**	**0.0**
	comp=Z,9.9nm,1.1s,mb4.7						
MVU	**Marysvale**	**33.36**	**121**	*e*P	**P**	**21 11 15.2**	**+1.0**
	comp=Z,13nm,0.9s,mb4.8						
MSU	**Marysvale**	**33.37**	**121**	*e*P	**P**	**21 11 15.3**	**+1.0**
SRU	**San Rafael**	**33.49**	**118**	*e*P	**P**	**21 11 16.2**	**+0.9**
ARUT	**Antelope Range**	**33.52**	**123**	*e*P	**P**	**21 11 16.0**	**+0.3**
EYMN	**Ely**	**34.61**	**89**	*e*P	**P**	**21 11 24.7**	**-0.2**
	comp=Z,15nm,0.7s,mb5.0						
PV10	**Paradox Valley**	**34.71**	**117**	*e*P	**P**	**21 11 26.9**	**+1.0**
YAK	**Yakutsk**	**34.83**	**305**	⇑*i*P	**P**	**21 11 28.3**	**+1.7**
YAK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
YAK	**Yakutsk**	**34.83**	**305**	*e*P	**P**	**21 11 28.6**	**+2.0**
	comp=Z,8.9nm,0.8s,mb4.8						
NEN	**Nelson**	**34.91**	**127**	*e*P	**P**	**21 11 28.1**	**+0.5**
PV01	**Paradox Valley**	**35.11**	**117**	*e*P	**P**	**21 11 29.6**	**+0.4**
SUMG	**Summit**	**36.39**	**28**	*e*P	**P**	**21 11 39.9**	**+0.1**
	comp=Z,22nm,1.1s,mb5.0						
DAG	**Danmarks Havn**	**36.56**	**17**	⇑*i*P	**P**	**21 11 41.6**	**+0.4**
DAG				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.7						
DAG	**Danmarks Havn**	**36.56**	**17**	⇑*i*P	**P**	**21 11 41.6**	**+0.4**
	comp=Z,12nm,1.0s,mb4.7						
SDCO	**Great Sand Dun**	**36.68**	**114**	*e*P	**P**	**21 11 43.2**	**+0.6**
	comp=Z,16nm,1.3s,mb4.7						
ANMO	**Albuquerque**	**38.71**	**117**	P	**P**	**21 12 01.1**	**+1.4**
	comp=Z,4.3nm,0.8s,mb4.2,baz=341,slow=8.3,SNR=9.0						
ANMO				LR	LR	21 27 26.6	
	comp=Z,240nm,19.3s,MS4.0,slow=35						
ANMO	**Albuquerque**	**38.71**	**117**	*e*P	**P**	**21 12 01.1**	**+1.4**
	comp=Z,7.1nm,1.0s,mb4.3						
LENM	**Lemitar**	**39.19**	**118**	*e*P	**P**	**21 12 05.0**	**+1.3**
KSU1	**Kansas State U**	**39.32**	**103**	*e*P	**P**	**21 12 05.4**	**+0.7**
BNM	**Barren Site**	**39.34**	**118**	*e*P	**P**	**21 12 05.4**	**+0.5**
TUC	**Tucson**	**39.38**	**124**	*e*P	**P**	**21 12 06.6**	**+1.3**
	comp=Z,8.0nm,1.2s,mb4.3						
SCHQ	**Schefferville**	**40.18**	**63**	P	**P**	**21 12 11.4**	**-0.2**
	comp=Z,3.7nm,0.9s,mb4.1,baz=326,slow=4.2,SNR=3.7						
CPRX	**Cap Rock**	**41.42**	**116**	*e*P	**P**	**21 12 22.8**	**+0.7**
GDL2	**Guadalupe Moun**	**41.95**	**117**	*e*P	**P**	**21 12 27.7**	**+1.3**
WMOK	**Wichita Mounta**	**42.06**	**109**	P	**P**	**21 12 28.2**	**+1.1**
CCM	**Cathedral Cave**	**42.54**	**99**	*e*P	**P**	**21 12 30.9**	**-0.2**
BOD	**Bodaibo**	**43.39**	**309**	*e*P	**P**	**21 12 33.2**	**-4.5**
MIAR	**Mount Ida**	**44.46**	**104**	*e*P	**P**	**21 12 45.8**	**-1.0**
	comp=Z,8.4nm,0.8s,mb4.5						
LTX	**Lajitas**	**44.77**	**118**	*e*P	**P**	**21 12 50.3**	**+1.0**
	comp=Z,4.6nm,0.6s,mb4.5						
TXAR	**Lajitas Array**	**44.77**	**118**	P	**P**	**21 12 50.8**	**+1.5**
	comp=Z,6.3nm,0.9s,mb4.5,baz=327,slow=6.2,SNR=13						
JCT	**Junction City**	**45.32**	**113**	*e*P	**P**	**21 12 53.8**	**+0.1**
	comp=Z,7.2nm,0.8s,mb4.5						
WVT	**Waverly**	**45.66**	**97**	*e*P	**P**	**21 12 55.8**	**-0.5**
	comp=Z,4.0nm,0.6s,mb4.5						
KEV	**Kevo**	**46.94**	**2**	*e*p	**P**	**21 13 04.6**	**-1.3**
ARCES	**ARCESS Array B**	**47.13**	**3**	P	**P**	**21 13 07.4**	**0.0**
	comp=Z,2.5nm,0.4s,mb4.5,baz=360,slow=8.2,SNR=33						
ARCES				PcP	PcP	21 14 38.0	-1.4
	comp=Z,3.9nm,0.9s,slow=3.6,SNR=4.3						
ARCES				LR	LR	21 30 49.0	
	comp=Z,134nm,21.8s,MS3.9,baz=19,slow=34						
ARCES	**ARCESS Array B**	**47.13**	**3**	P	**P**	**21 13 07.4**	**0.0**
ARCES						21 14 38.1	
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES				MLR	MLR		
	comp=Z,134nm,21.8s						
MDJ	**Mudanjiang**	**47.59**	**287**	P	**P**	**21 13 12.1**	**+0.7**
MDJ				PP	PP	21 15 02.2	-0.1
MDJ				S	**S**	**21 20 08.3**	**+3.8**
MDJ				AMB	AMB		
	comp=Z,11nm,1.4s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,266nm,4.8s						
MDJ				LR	LR		
	comp=N,174nm,18.9s,MS4.1						
MDJ				LR	LR		
	comp=E,140nm,22.4s,MS4.1						
MDJ				LR	LR		
	comp=Z,153nm,17.5s,MS4.0						
PWV	**Princeton**	**47.68**	**90**	*e*P	**P**	**21 13 11.7**	**-0.6**
ELN	**Prospectdale**	**47.91**	**89**	*e*P	**P**	**21 13 14.0**	**0.0**
HIA	**Hailar**	**47.95**	**298**	*e*P	**P**	**21 13 15.9**	**+1.8**
	comp=Z,3.1nm,0.5s,mb4.6						
CN2	**Changchun**	**50.01**	**290**	*e*P	**P**	**21 13 29.8**	**-0.3**
JOF	**Joensuu**	**53.83**	**360**	*e*p	**P**	**21 13 57.2**	**-1.3**
	comp=Z,5.8nm,0.4s,mb4.9						
JOF	**Joensuu**	**53.83**	**360**	*e*P	**P**	**21 13 57.2**	**-1.3**
JOF				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb4.9						
ULN	**Ulaanbaatar**	**53.91**	**306**	*i*P	**P**	**21 14 00.8**	**+1.6**
SONM	**Songino Array**	**54.17**	**306**	P	**P**	**21 14 02.7**	**+1.6**
	comp=Z,1.0nm,0.8s,mb3.8,baz=7.4,slow=5.9,SNR=5.0						
KAF	**Kangasniemi**	**54.59**	**3**	*e*p	**P**	**21 14 03.0**	**-1.1**
	comp=Z,2.0nm,0.5s,mb4.4						
KAF	**Kangasniemi**	**54.59**	**3**	*e*P	**P**	**21 14 03.0**	**-1.1**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
NB2	**NORSAR Subarra**	**54.83**	**12**	P	**P**	**21 14 04.4**	**-1.5**
	comp=Z,1.0nm,0.6s,mb4.0,baz=350,slow=7.0						
NOA	**NORSAR Array B**	**54.83**	**12**	P	**P**	**21 14 05.2**	**-0.7**
	comp=Z,5.4nm,1.0s,mb4.5,baz=350,slow=7.3,SNR=6.3						
NOA				LR	LR	21 35 44.4	
	comp=Z,122nm,18.4s,MS4.0,baz=350,slow=34						
NOA	**NORSAR Array B**	**54.83**	**12**	P	**P**	**21 14 05.2**	**-0.7**
NOA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
NOA				MLR	MLR		
	comp=Z,122nm,18.4s						
FINES	**FINESS Array B**	**55.26**	**3**	P	**P**	**21 14 08.0**	**-1.1**
	comp=Z,4.3nm,0.6s,mb4.6,baz=1.6,slow=8.1,SNR=48						
FINES				LR	LR	21 37 56.9	
	comp=Z,165nm,18.8s,MS4.1,baz=136,slow=36						
FINES	**FINESS Array B**	**55.26**	**3**	P	**P**	**21 14 08.0**	**-1.0**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES				MLR	MLR		
	comp=Z,165nm,18.8s						
FINES	**FINESS Array B**	**55.26**	**3**	P	**P**	**21 14 08.0**	**-1.1**
FINES				LR	LR	21 37 56.9	
ZAL	**Zalesovo**	**55.58**	**325**	P	**P**	**21 14 10.9**	**-0.5**
	comp=Z,1.3nm,0.4s,mb4.3,baz=104,slow=2.7,SNR=6.3						
ZAL				LR	LR	21 39 31.4	
	comp=Z,239nm,18.4s,MS4.3,baz=266,slow=38						
ZAL	**Zalesovo**	**55.58**	**325**	P	**P**	**21 14 10.9**	**-0.5**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZAL				MLR	MLR		
	comp=Z,239nm,18.4s						
VSU	**Vasula**	**58.26**	**3**	*e*P	**P**	**21 14 28.3**	**-2.1**
ARU	**Arti**	**58.45**	**342**	⇑*i*P	**P**	**21 14 30.2**	**-1.5**
ARU				*e*		21 15 23.1	
ARU				*e*		21 16 38.0	
ARU				*e*S	**S**	**21 22 23.9**	**-7.9**
ARU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
ARU	**Arti**	**58.45**	**342**	*e*P	**P**	**21 14 30.6**	**-1.1**
	comp=Z,5.3nm,0.6s,mb4.8						
BRVK	**Borovoye**	**59.72**	**334**	*e*P	**P**	**21 14 39.3**	**-1.3**
	comp=Z,3.4nm,0.6s,mb4.5						
BVAR	**Borovoye Array**	**59.73**	**334**	P	**P**	**21 14 39.6**	**-1.1**
	comp=Z,2.6nm,0.5s,mb4.5,baz=63,slow=9.7,SNR=20						
KURK	**Kurchatov**	**60.07**	**327**	*e*P	**P**	**21 14 42.1**	**-0.9**
OBN	**Obninsk**	**61.58**	**356**	*e*P	**P**	**21 14 52.5**	**-0.7**
OBN				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.2						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.0						
NJ2	**Nanjing**	**62.69**	**287**	*e*P	**P**	**21 15 05.5**	**+4.6**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.2						
GTA	**Gaotai**	**63.84**	**306**	*e*P	**P**	**21 15 09.1**	**+0.8**
GTA				AP	pP	21 15 12.6	-2.5
GTA				XP	sP	21 15 15.7	-1.9
GTA				S	**S**	**21 23 40.4**	**-0.3**
GTA				AMB	AMB		
	comp=Z,2.0nm,0.9s,mb4.2						
GTA				AMB	AMB		
	comp=Z,23nm,4.2s						
GTA				LR	LR		
	comp=Z,190nm,14.9s,MS4.4						
WMQ	**Urumqi**	**63.92**	**318**	P	**P**	**21 15 11.6**	**+2.9**
WMQ				AP	pP	21 15 16.1	+0.6
WMQ				XP	sP	21 15 18.6	+0.6
WMQ				PCP	PcP	21 15 47.1	+3.0
WMQ				PP	PP	21 17 33.6	+2.5
WMQ				S	**S**	**21 23 45.1**	**+3.5**
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,21nm,5.9s						
WMQ				LR	LR		
	comp=N,195nm,22.6s,MS4.6						
WMQ				LR	LR		
	comp=E,384nm,23.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,159nm,22.0s,MS4.2						
BAIF	**Baives**	**64.80**	**19**	*e*P	**P**	**21 15 13.6**	**-0.7**
	comp=Z,15nm,1.0s,mb4.7						
GIVF	**Givet**	**64.84**	**18**	*e*P	**P**	**21 15 13.7**	**-0.9**
BRG	**Berggiesshubel**	**65.14**	**12**	*e*P	**P**	**21 15 16.6**	**+0.1**
BRG				pmax	pmax		
	comp=Z,18nm,1.6s,mb4.8						
BRG	**Berggiesshubel**	**65.14**	**12**	*e*P	**P**	**21 15 16.6**	**+0.1**
	comp=Z,18nm,1.6s,mb4.8						
ROSF	**Rostrenen**	**65.24**	**24**	*e*P	**P**	**21 15 16.1**	**-1.1**
	comp=Z,24nm,1.1s,mb4.8						
FLN	**La Foliniere**	**65.32**	**22**	*e*P	**P**	**21 15 16.5**	**-1.3**
	comp=Z,7.2nm,0.6s,mb4.6						
FLN				*e*R			
	comp=Z,148nm,17.0s						
SGMF	**Saint Gilles**	**65.45**	**24**	*e*P	**P**	**21 15 17.6**	**-1.0**
LDF	**La Druitiere**	**65.55**	**22**	*e*P	**P**	**21 15 18.1**	**-1.1**
GRR	**Gorron**	**65.62**	**23**	*e*P	**P**	**21 15 18.7**	**-1.0**
	comp=Z,22nm,1.1s,mb4.8						
NKC	**Novy Kostel**	**65.63**	**13**	*e*P	**P**	**21 15 22.9**	**+3.2**
UPC	**Upice**	**65.68**	**10**	*e*P	**P**	**21 15 20.0**	**0.0**
DPC	**Dobruska-Polom**	**65.86**	**10**	*e*P	**P**	**21 15 21.0**	**-0.1**
PRU	**Pruhonice**	**66.07**	**11**	*e*P	**P**	**21 15 22.9**	**+0.4**
AKASG	**Malin Array Be**	**66.08**	**1**	P	**P**	**21 15 21.6**	**-0.9**
	comp=Z,3.2nm,0.5s,mb4.6,baz=359,slow=5.9,SNR=34						
AKASG	**Malin Array Be**	**66.08**	**1**	P	**P**	**21 15 21.6**	**-0.9**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MEZF	**Maizieres J'vi**	**66.44**	**18**	*e*P	**P**	**21 15 23.1**	**-1.8**
CDF	**Champ du Feu**	**66.83**	**17**	*e*P	**P**	**21 15 25.7**	**-1.7**
KHC	**Kasperske Hory**	**66.83**	**12**	*i*P	**P**	**21 15 27.2**	**-0.2**
KHC	**Kasperske Hory**	**66.83**	**12**	*e*P	**P**	**21 15 27.6**	**+0.2**
HAU	**Haudompre**	**67.10**	**18**	*e*P	**P**	**21 15 28.3**	**-0.8**
HAU				*e*R			
	comp=Z,155nm,17.2s						
GERES	**GERESS Array B**	**67.12**	**12**	P	**P**	**21 15 29.1**	**-0.1**
	comp=Z,1.7nm,0.9s,mb4.1,baz=360,slow=6.0,SNR=15						
GERES	**GERESS Array B**	**67.12**	**12**	P	**P**	**21 15 29.1**	**-0.2**
GERES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
HINF	**Hinteralfeld**	**67.36**	**17**	*e*P	**P**	**21 15 29.6**	**-1.1**
MFF	**Saint Martin d**	**67.47**	**23**	*e*P	**P**	**21 15 30.7**	**-0.8**
	comp=Z,7.6nm,0.7s,mb4.5						
SSF	**Saint Saulge**	**67.62**	**20**	*e*P	**P**	**21 15 30.6**	**-1.8**
	comp=Z,12nm,0.8s,mb4.7						
KOLS	**Kolonicke sedl**	**67.65**	**6**	*i*P	**P**	**21 15 32.9**	**+0.3**
AVF	**Avril sur Loir**	**67.86**	**20**	*e*P	**P**	**21 15 32.9**	**-1.0**
	comp=Z,15nm,0.9s,mb4.7						
VYHS	**Vyhne**	**67.89**	**9**	*i*P	**P**	**21 15 33.8**	**-0.3**
BGF	**Bois d'Agland**	**68.01**	**20**	*e*P	**P**	**21 15 33.7**	**-1.2**
SMF	**Signal de Mont**	**68.08**	**20**	*e*P	**P**	**21 15 34.1**	**-1.2**
	comp=Z,20nm,1.1s,mb4.8						
TCF	**Toulx Ste Croi**	**68.17**	**21**	*e*P	**P**	**21 15 34.8**	**-1.1**
CABF	**La Chapelle**	**68.44**	**18**	*e*P	**P**	**21 15 36.9**	**-0.6**
	comp=Z,8.5nm,0.6s,mb4.6						
AAK	**Ala-Archa**	**68.64**	**327**	*e*P	**P**	**21 15 38.1**	**-0.7**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.3						
AAK				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.4						
EKS2	**Erkin-Say**	**68.78**	**327**	*e*P	**P**	**21 15 39.6**	**-0.2**
	comp=Z,4.8nm,0.8s,mb4.5						
RJF	**Les Rejaudoux**	**69.01**	**22**	*e*P	**P**	**21 15 39.7**	**-1.4**
RJF				*e*R			
	comp=Z,154nm,20.8s						
LFF	**La Frestale**	**69.24**	**22**	*e*P	**P**	**21 15 41.8**	**-0.7**
	comp=Z,20nm,0.8s,mb4.8						
CAF	**Calviac**	**69.47**	**21**	*e*P	**P**	**21 15 42.9**	**-1.0**
	comp=Z,27nm,1.2s,mb4.7						
VIVF	**Saint-Julien-l**	**69.95**	**20**	*e*P	**P**	**21 15 45.8**	**-1.0**
ORIF	**Oris-en-Rattie**	**70.06**	**19**	*e*P	**P**	**21 15 46.7**	**-0.8**
	comp=Z,20nm,1.0s,mb4.7						
ORIF				*e*R			
	comp=Z,133nm,19.2s						
ETSF	**Etsaut**	**70.99**	**24**	*e*P	**P**	**21 15 52.8**	**-0.4**
EPF	**Esparros**	**71.02**	**23**	*e*P	**P**	**21 15 52.9**	**-0.5**
	comp=Z,13nm,1.1s,mb4.5						
SBF	**Sospel**	**71.32**	**18**	*e*P	**P**	**21 15 54.5**	**-0.6**
	comp=Z,52nm,1.0s,mb5.1						
KIV	**Kislovodsk**	**72.42**	**351**	⇑*i*P	**P**	**21 16 01.3**	**-0.4**
KIV				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
KIV				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.2						
ESDC	**Sonseca Array**	**73.44**	**27**	P	**P**	**21 16 07.5**	**-0.2**
	comp=Z,3.7nm,0.8s,mb4.4,baz=347,slow=6.4,SNR=12						
KMI	**Kunming**	**75.45**	**297**	*e*P	**P**	**21 16 20.7**	**+1.2**
KMI				AP	pP	21 16 24.7	-1.7
KMI				PP	PP	21 19 10.4	-0.3
KMI				S	S	21 25 59.0	+1.9
KMI				SS	SS	21 30 49.4	-0.9
KMI				AMB	AMB		
	comp=Z,2.0nm,1.0s,mb4.0						
KMI				LR	LR		
	comp=Z,207nm,15.9s,MS4.5						
BRTR	**Keskin Array B**	**77.04**	**358**	P	**P**	**21 16 28.2**	**+0.1**
	comp=Z,2.9nm,1.1s,mb4.1,baz=343,slow=2.8,SNR=5.8						
BRTR	**Keskin Array B**	**77.04**	**358**	P	**P**	**21 16 28.3**	**+0.1**
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
GUN	**Gumba**	**79.10**	**312**	*e*P	**P**	**21 16 38.2**	**-1.5**
KKN	**Kakani**	**79.41**	**313**	*e*P	**P**	**21 16 40.7**	**-0.7**
	comp=Z,8.7nm,0.6s,mb4.8						
GKN	**Gorkha**	**79.42**	**313**	*e*P	**P**	**21 16 40.9**	**-0.6**
	comp=Z,10nm,0.6s,mb4.9						
PKI	**Pulchoki**	**79.56**	**313**	*e*P	**P**	**21 16 41.9**	**-0.4**
DMN	**Daman**	**79.63**	**313**	*e*P	**P**	**21 16 41.4**	**-1.2**
	comp=Z,10nm,0.7s,mb4.9						
KOLN	**Koldanda**	**79.97**	**314**	*e*P	**P**	**21 16 44.4**	**0.0**
	comp=Z,8.7nm,0.8s,mb4.7						
GVD	**Gavdhos**	**81.79**	**6**	*e*P	**P**	**21 16 52.9**	**-1.0**
	comp=Z,4.4nm,0.6s,mb4.6						
CMAR	**Chiang Mai Arr**	**82.95**	**297**	P	**P**	**21 17 00.5**	**+0.3**
	comp=Z,2.0nm,0.8s,mb4.2,baz=9.3,slow=5.3,SNR=20						
CMAR	**Chiang Mai Arr**	**82.95**	**297**	P	**P**	**21 17 00.5**	**+0.3**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
VNDA	**Vanda**	**143.99**	**196**	PKP	PKPdf	21 24 07.4	-4.4
	comp=Z,4.2nm,1.1s,baz=313,slow=6.1,SNR=4.8						
VNDA	**Vanda**	**143.99**	**196**	PKIKP	PKPdf	21 24 07.4	-4.4
VNDA				pmax	pmax		
	comp=Z,4.0nm,1.1s						

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*CSEM **04** 21:11:52.9±0.2, 34.94N×2.83W, h5km, ML2.8/3, Error ellipse: s-maj=6.4km s-min=3.6km az=112.0*

*CNRM **04** 21:11:52.9, 35.16N×2.64W, h21km, MD3.6*

*NEIC **04** 21:11:54.9, 34.95N×3.07W, MG3.8(MDD), After MDD.*

*MDD **04** 21:11:55.5±1.2, 34.98N×3.05W, mb3.8/12, Error ellipse: s-maj=11.7km s-min=5.5km az=147.0, PRXIMO AftershockPLICA*

*INMG **04** 21:11:55.9±1.3, 35.01N×2.98W, h16km±5km, ML2.1, Error ellipse: s-maj=8.9km s-min=7.6km az=110.0*

ISC 04 21:11:54.1±0.6**, 34.98N**±0.03×**2.85W**±0.05**, h17**km±5km**, n52,** σ1ˢ.**26**/77**, 1C, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	**0.09**	**95**	*i*P	**Pb**	**21 11 57.0**	**-0.6**
MELI	**Melilla**	**0.32**	**348**	⇑P	**Pb**	**21 12 00.0**	**-1.0**
MELI				S	**Sb**	**21 12 05.4**	**-0.3**
MELI	**Melilla**	**0.32**	**348**	*i*P	**Pb**	**21 12 00.0**	**-1.1**
EMLI	**Melilla**	**0.33**	**346**	P	**Pb**	**21 12 01.6**	**+0.4**
	516nm,0.1s,SNR=26						
EMEL	**Melilla**	**0.33**	**345**	P	**Pb**	**21 12 01.6**	**+0.4**
	516nm,0.1s,SNR=26						
EMEL				S	**Sb**	**21 12 06.1**	**+0.1**
	746nm,0.1s,SNR=5.2						
TOU	**Touzarine**	**0.74**	**269**	*i*P	**Pb**	**21 12 09.0**	**+0.8**
TOU				*i*S	**Sb**	**21 12 21.0**	**+3.2**
TZK	**Tazeka**	**1.41**	**231**	*i*P	**Pn**	**21 12 20.0**	**+0.7**
TZK				*i*S	**Sb**	**21 12 39.0**	**+1.7**
EBER	**Berja**	**1.92**	**359**	P	**Pn**	**21 12 25.9**	**-0.5**
	6.9nm,0.3s,SNR=13						
EBER				S	**Sn**	**21 12 49.3**	**-1.0**
	38nm,0.4s						
EBER	**Berja**	**1.92**	**359**	P	**Pn**	**21 12 25.9**	**-0.6**
	6.9nm,0.3s,SNR=13						
EBER				S	**Sn**	**21 12 49.3**	**-1.0**
	38nm,0.4s						
EMIJ	**Mijas**	**2.22**	**316**	P	**Pn**	**21 12 29.1**	**-1.7**
	4.8nm,0.7s,SNR=16						
EMIJ				S	**Sn**	**21 12 54.2**	**-4.0**
	20nm,0.4s						
EMIJ	**Mijas**	**2.22**	**316**	P	**Pn**	**21 12 29.1**	**-1.8**
	4.8nm,0.7s,SNR=16						
ELOJ	**Sierra Loja**	**2.41**	**334**	P	**Pn**	**21 12 35.3**	**+1.8**
	2.4nm,0.2s,SNR=9.2						
ELOJ				S	**Sn**	**21 13 04.1**	**+1.3**
	2.6nm,0.3s						
MIF	**Mishlifen**	**2.52**	**232**	*e*P	**Pn**	**21 12 36.0**	**+1.0**
ELUQ	**Luque**	**2.82**	**337**	P	**Pn**	**21 12 40.3**	**+0.9**
	11nm,0.5s,SNR=12						
ELUQ				S	**Sn**	**21 13 13.7**	**+0.4**
	2.5nm,0.2s						
ELUQ	**Luque**	**2.82**	**337**	S	**Sn**	**21 13 13.7**	**+0.4**
	2.5nm,0.2s						
EQES	**Quesada**	**2.82**	**356**	P	**Pn**	**21 12 41.1**	**+1.6**
	9.9nm,0.4s,SNR=40						
EQES				S	**Sn**	**21 13 15.5**	**+2.1**
	14nm,0.4s						
EQES	**Quesada**	**2.82**	**356**	P	**Pn**	**21 12 41.1**	**+1.6**
	9.9nm,0.4s,SNR=40						
EQES	**Quesada**	**2.82**	**356**	S	**Sn**	**21 13 15.5**	**+2.1**
	14nm,0.4s						
LIJA	**Lijar**	**2.83**	**314**	P	**Pn**	**21 12 40.5**	**+1.0**
LIJA				S	**Sn**	**21 13 15.0**	**+1.6**
LIJA	**Lijar**	**2.83**	**314**	*i*P	**Pn**	**21 12 40.5**	**+1.0**
LIJA	**Lijar**	**2.83**	**314**	*e*S	**Sn**	**21 13 15.0**	**+1.6**
ESPR	**Espera**	**3.08**	**309**	P	**Pn**	**21 12 43.4**	**+0.3**
	2.3nm,0.2s,SNR=7.1						
ESPR				S	**Sn**	**21 13 20.3**	**+0.3**
	6.2nm,0.3s						
ESPR	**Espera**	**3.08**	**309**	S	**Sn**	**21 13 20.3**	**+0.4**
	6.2nm,0.3s						
ESPR	**Espera**	**3.08**	**309**	P	**Pn**	**21 12 43.4**	**+0.3**
	2.3nm,0.2s,SNR=7.1						
ZFT	**Errachidia**	**3.19**	**204**	*e*P	**Pn**	**21 12 44.0**	**-0.7**
ZFT				*i*S	**Sn**	**21 13 22.0**	**-0.7**
EADA	**Adamuz**	**3.47**	**337**	P	**Pn**	**21 12 48.4**	**-0.2**
	1.4nm,0.3s,SNR=13						
EADA				S	**Sn**	**21 13 27.0**	**-2.7**
	3.0nm,0.2s						
EADA	**Adamuz**	**3.47**	**337**	P	**Pn**	**21 12 48.4**	**-0.2**
	1.4nm,0.3s,SNR=13						
EADA				S	**Sn**	**21 13 27.0**	**-2.8**
	3.0nm,0.2s						
EVIA	**Vianos**	**3.66**	**4**	P	**Pn**	**21 12 53.5**	**+2.1**
	1.4nm,0.2s,SNR=7.9						
EVIA				S	**Sn**	**21 13 35.6**	**+1.0**
	2.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.15**	**313**	P	**Pn**	**21 12 56.4**	**-1.9**
	1.6nm,0.2s,SNR=14						
EMIN				S	**Sn**	**21 13 41.5**	**-5.5**
	2.1nm,0.2s						
EMIN	**Mina Concepcio**	**4.15**	**313**	P	**Pn**	**21 12 56.4**	**-1.9**
	1.6nm,0.2s,SNR=14						
EBEN	**Beniarda**	**4.27**	**29**	P	**Pn**	**21 13 01.0**	**+1.0**
	0.9nm,0.2s,SNR=7.9						
EBEN	**Beniarda**	**4.27**	**29**	P	**Pn**	**21 13 01.0**	**+0.9**
	0.9nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	**4.77**	**350**	P	**Pn**	**21 13 07.0**	**-0.1**
	2.1nm,0.2s,baz=172,slow=12,SNR=18						
ESDC				S	**Sn**	**21 14 12.9**	**+10**
	1.3nm,0.3s,baz=172,slow=12,SNR=3.9						
ESDC	**Sonseca Array**	**4.77**	**350**	P	**Pn**	**21 13 07.0**	**-0.1**
	2.1nm,0.2s,SNR=18						
EBAD	**Badajoz**	**5.03**	**320**	P	**Pn**	**21 13 08.9**	**-1.9**
	0.7nm,0.1s,SNR=10						
EBAD				S	**Sn**	**21 14 03.6**	**-5.7**
	3.6nm,0.2s						
EBAD	**Badajoz**	**5.03**	**320**	P	**Pn**	**21 13 08.9**	**-1.9**
	0.7nm,0.1s,SNR=10						
PBEJ	**Beja**	**5.05**	**308**	*e*Pn	**Pn**	**21 13 09.6**	**-1.5**
PBEJ				*e*Sn	**Sn**	**21 14 04.3**	**-5.5**
	0.9nm,0.3s						
PBEJ	**Beja**	**5.05**	**308**	*e*Pn	**Pn**	**21 13 09.6**	**-1.5**
PBEJ				*e*Sn	**Sn**	**21 14 04.3**	**-5.5**
	0.9nm,0.3s						
PTEO	**Sao Teotonio**	**5.39**	**300**	*e*Pn	**Pn**	**21 13 14.9**	**-0.9**
PTEO				*e*Sn	**Sn**	**21 14 11.6**	**-6.6**
	2.0nm,0.4s						
PTEO	**Sao Teotonio**	**5.39**	**300**	P	**Pn**	**21 13 14.9**	**-0.9**
PTEO				S	**Sn**	**21 14 11.6**	**-6.6**
	1.0nm,0.4s						
PTEO	**Sao Teotonio**	**5.39**	**300**	*e*Sn	**Sn**	**21 14 11.6**	**-6.6**
	2.0nm,0.4s						
EMOS	**Mosqueruela**	**5.70**	**19**	P	**Pn**	**21 13 21.0**	**+0.8**
	7.9nm,0.7s,SNR=7.9						
EMOS	**Mosqueruela**	**5.70**	**19**	P	**Pn**	**21 13 21.0**	**+0.8**
PCBR	**Castelo Branco**	**6.09**	**324**	*e*Pn	**Pn**	**21 13 23.8**	**-1.9**
PCBR				*e*Sn	**Sn**	**21 14 29.5**	**-6.2**
	1.0nm,0.4s						
PCBR	**Castelo Branco**	**6.09**	**324**	*e*Pn	**Pn**	**21 13 23.8**	**-1.9**
PCBR				*e*Sn	**Sn**	**21 14 29.5**	**-6.2**
	1.0nm,0.4s						
ERTA	**Horta de San J**	**6.48**	**22**	P	**Pn**	**21 13 31.6**	**+0.5**
	0.7nm,0.3s,SNR=7.9						
ERTA	**Horta de San J**	**6.48**	**22**	P	**Pn**	**21 13 31.6**	**+0.4**
EPOB	**Poblet**	**7.08**	**25**	P	**Pn**	**21 13 39.1**	**-0.5**
	0.5nm,0.2s,SNR=4.0						
EPOB	**Poblet**	**7.08**	**25**	P	**Pn**	**21 13 39.1**	**-0.5**
PVRL	**Vila Real**	**7.36**	**330**	*e*Pn	**Pn**	**21 13 41.8**	**-1.8**
PBRG	**Braganca**	**7.47**	**337**	*e*Pn	**Pn**	**21 13 42.8**	**-2.3**
ECAL	**Calabor**	**7.59**	**338**	P	**Pn**	**21 13 42.6**	**-4.1**
	2.0nm,0.3s,SNR=7.9						

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*NEIC **04** 21:11:53.8±0.6, 17.02S×167.55E, h10km, mb4.6/11, Error ellipse: s-maj=16.4km s-min=14.2km az=133.0*

*IDC **04** 21:11:59.5±0.8, 17.13S×167.67E, h51km±5km, mb3.8/10, mb1 4.0/10, mb1mx4.0/16, MS3.6/6, Ms1 3.6/6, ms1mx3.3/29, Error ellipse: s-maj=20.3km s-min=18.9km az=120.0*

ISC 04 21:11:58.2±0.6**, 17.25S**±0.05×**167.5E**±0.1**, h50**km**, h50**km±1.7km**:pP-P, n50,** σ0ˢ.**97**/38**, mb4.4**/18**, MS3.5**/6**, 7C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**4.90**	**191**	*e*P	**P**	**21 13 10.7**	**-0.6**
DZM				*e*S	**S**	**21 14 08.1**	**+0.8**
NOUC	**Port Laguerre**	**4.96**	**193**	*e*P	**P**	**21 13 11.5**	**-0.5**
NOUC				*e*S	**S**	**21 14 07.4**	**-1.3**
CTA	**Charters Tower**	**20.32**	**259**	*e*P	**P**	**21 16 34.9**	**+2.2**
	5.6nm,0.6s						
CTA	**Charters Tower**	**20.32**	**259**	P	**P**	**21 16 35.2**	**+2.5**
	7.8nm,0.6s,baz=86,slow=12,SNR=9.5						
CTA				LR	LR	21 23 02.9	
	comp=Z,148nm,20.9s,MS3.3,baz=230,slow=32						
CTAO	**Charters Tower**	**20.32**	**259**	*e*P	**P**	**21 16 28.3**	**-4.4**
	12nm,0.8s						
CTAO				*e*		21 16 34.8	
CTAO				*e*		21 16 38.1	
PMG	**Port Moresby**	**21.25**	**289**	LR	LR	21 24 09.8	
	comp=Z,138nm,19.1s,MS3.4,baz=270,slow=34						
URZ	**Urewera**	**22.57**	**160**	P	**P**	**21 16 56.9**	**+1.5**
	7.1nm,0.7s,mb4.2,baz=8.1,slow=17,SNR=4.2						
STKA	**Stephens Creek**	**27.60**	**233**	⇓*i*P	**P**	**21 17 44.1**	**+1.1**
	8.1nm,0.8s,mb4.4						
STKA	**Stephens Creek**	**27.60**	**233**	P	**P**	**21 17 44.5**	**+1.4**
	9.8nm,0.8s,mb4.5,baz=60,slow=6.6,SNR=23						
STKA				pP	pP	21 17 57.6	+2.0
	5.0nm,0.8s,baz=74,slow=10.0,SNR=5.0						
STKA				LR	LR	21 29 21.5	
	comp=Z,91nm,20.1s,MS3.4,baz=28,slow=38						
WB2	**Warramunga Arr**	**31.50**	**260**	*e*P	**P**	**21 18 17.1**	**-0.7**
WRAB	**Tennant Creek**	**31.50**	**260**	*e*P	**P**	**21 18 16.7**	**-1.1**
	5.5nm,0.9s,mb4.4						

WRA	Warramunga Arr	31.51	260	P	P	21 18 17.3	-0.5
	2.2nm,0.8s,mb4.0,baz=91,slow=8.7,SNR=12						
ASAR	Alice Springs	32.06	253	P	P	21 18 22.9	+0.3
	19nm,0.6s,mb5.1,baz=80,slow=8.7,SNR=294						
ASAR				pP	pP	21 18 36.1	+0.5
	7.2nm,0.6s,baz=79,slow=8.8,SNR=7.8						
ASAR				LR	LR	21 30 45.5	
	comp=Z,127nm,20.0s,MS3.6,baz=86,slow=35						
ASAR	Alice Springs	32.06	253	P	P	21 18 22.9	+0.3
ASAR				pP	pP	21 18 36.1	+0.5
ASAR				LR	LR	21 30 45.5	
ASPA	Alice Springs	32.06	253	⇓*i*P	P	21 18 22.6	-0.1
FITZ	Fitzroy Crossi	39.82	262	*e*P	P	21 19 27.9	-0.6
	3.8nm,0.7s,mb4.2						
FITZ	Fitzroy Crossi	39.82	262	LR	LR	21 35 28.2	
	comp=Z,60nm,21.1s,MS3.4,baz=114,slow=35						
MBWA	Marble Bar	45.14	257	*e*P	P	21 20 12.4	+0.4
	17nm,1.1s,mb4.8						
VNDA	Vanda	60.36	181	P	P	21 22 03.5	-0.7
	3.0nm,1.2s,mb4.2,baz=17,slow=8.0,SNR=3.4						
YSS	Yuzh-Sakhalins	67.67	342	P	P	21 22 48.2	-4.0
	51nm,1.3s,mb5.4						
QSPA	South Pole Qui	72.79	180	*i* P	P	21 23 22.9	+0.2
	5.0nm,0.6s,mb4.6						
CMAR	Chiang Mai Arr	76.17	295	P	P	21 23 44.0	+0.6
	0.5nm,0.6s,mb3.6,baz=140,slow=5.4,SNR=4.7						
CMAR				pP	pP	21 23 58.0	+0.3
	1.6nm,1.0s,baz=129,slow=4.4,SNR=6.4						
MA2	Magadan	77.75	351	*e*P	P	21 23 47.3	-4.0
	31nm,1.1s,mb5.2						
ULN	Ulaanbaatar	84.28	324	P	P	21 24 26.2	+0.2
	2.5nm,0.9s,mb4.3						
YAK	Yakutsk	84.49	343	P	P	21 24 26.9	+0.3
	24nm,1.9s,mb5.0						
SONM	Songino Array	84.64	324	P	P	21 24 28.1	+0.4
	0.6nm,0.9s,mb3.7,baz=124,slow=4.5,SNR=3.7						
SONM				pP	pP	21 24 42.7	+0.4
	0.7nm,0.6s,baz=151,slow=5.3,SNR=5.1						
NVAR	Mina Array Bea	88.75	49	P	P	21 24 47.0	-0.9
	0.3nm,0.7s,mb3.7,baz=219,slow=12,SNR=2.4						
NVAR				LR	LR	22 02 00.4	
	comp=Z,60nm,18.0s,MS4.1,baz=185,slow=34						
ILAR	Eielson Array	88.84	18	P	P	21 24 46.4	-1.4
	0.3nm,0.6s,mb3.8,baz=238,slow=5.2,SNR=7.1						
SNAA	Sanae	91.06	183	⇑*i*P	P	21 24 57.5	-0.6
SNAA	Sanae	91.06	183	⇑*i*	P	21 25 13.8	+16
SNAA	Sanae	91.06	183	P	P	21 24 57.7	-0.3
	0.5nm,0.6s,mb4.0,baz=187,slow=6.7,SNR=9.7						
SNAA				pP	pP	21 25 13.7	+0.9
	1.7nm,1.0s,baz=18,slow=0.6,SNR=6.0						
VNA3	Neumayer Olymp	91.72	181	⇑*i*P	P	21 25 03.1	+2.0
VNA3	Neumayer Olymp	91.72	181		P	21 25 18.7	+18
VNA2	Neumayer--Watz	91.98	182	⇑*i*P	P	21 25 05.1	+2.8
VNA2	Neumayer--Watz	91.98	182	⇑*i*	P	21 25 20.9	+19
VNA1	Neumayer--Stat	92.28	181	⇑*i*P	P	21 24 58.6	-5.1
VNA1	Neumayer--Stat	92.28	181	⇑*i*	P	21 25 13.0	+9.3
CHMT	Chamberlain Mo	95.30	43	P	P	21 25 22.5	+4.5
CHMT				*e*	pP	21 25 35.6	+2.9
ARCES	ARCESS Array B	122.73	345	PKP	PKPdf	21 30 49.4	+1.2
	2.7nm,1.0s,baz=45,slow=7.7,SNR=2.3						
ARCES				pPKP		21 31 03.5	
	1.0nm,0.5s,baz=34,slow=4.4,SNR=1.2						
FINES	FINESS Array B	128.12	338	pPKP		21 31 13.4	
	5.0nm,1.2s,baz=90,slow=1.9,SNR=1.4						
GERES	GERESS Array B	141.96	332	PKP	PKPdf	21 31 25.2	+0.6
	0.3nm,0.7s,baz=45,slow=1.4,SNR=2.4						
GERES				pPKP		21 31 37.4	
	0.3nm,0.5s,baz=90,slow=1.3,SNR=3.1						
CDF	Champ du Feu	144.97	337	*e*PKP1	PKPbc	21 31 32.6	+2.5
	6.1nm,0.9s						
HINF	Hinteralfeld	145.62	337	*e*PKP1	PKPbc	21 31 34.5	+2.8
HAU	Haudompre	145.65	337	*e*PKP1	PKPbc	21 31 34.9	+3.1
MEZF	Maizieres J’vi	145.69	339	*e*PKP1	PKPbc	21 31 35.3	+3.4
	7.3nm,0.7s						
FLN	La Foliniere	147.07	345	*e*PKP1	PKPdf	21 31 38.4	+5.0
LDF	La Druitiere	147.14	345	*e*PKP1	PKPdf	21 31 38.5	+5.0
SSF	Saint Saulge	147.46	339	*e*PKP1	PKPdf	21 31 40.2	+6.1
BGF	Bois d’Agland	148.12	340	*e*PKP1	PKPdf	21 31 41.9	+6.7
MFF	Saint Martin d	148.99	343	*e*PKP1	PKPdf	21 31 44.6	+8.0
	18nm,0.8s						

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*CSEM **04** 21:15:01.0±0.1, 35.00N×2.89W, h10^{km}, MD3.4, Error ellipse: s-maj=3.6km s-min=2.7km az=88.0*
*NEIC **04** 21:15:02.2, 34.97N×3.04W, MG3.5(MDD), After MDD.*
*MDD **04** 21:15:02.4±1.5, 34.98N×3.04W, mb3.5/9, Error ellipse: s-maj=15.2km s-min=6.3km az=133.0, PRXIMO AftershockPLICA*
*CNRM **04** 21:15:03.0, 34.81N×2.80W, h4^{km}, MD3.4*
ISC 04 21:15:02.0±0.6**, 35.04N**±0.03×**3.05W**±0.05**, h10^{km}, n34, σ1§35**/50**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.26	106	*i* P	Pg	21 15 05.0	-2.5
EMEL	Melilla	0.27	17	P	Pg	21 15 08.9	+1.2
	135nm,0.1s,SNR=7.8						
EMEL				S	Sg	21 15 12.8	+1.4
	569nm,0.2s,SNR=10.0						
MELI	Melilla	0.27	21	P	Pg	21 15 08.3	+0.7
MELI				S	Sg	21 15 12.6	+1.2
MELI	Melilla	0.27	21	*i* P	Pg	21 15 08.3	+0.7
EMLI	Melilla	0.27	18	P	Pg	21 15 08.9	+1.2
	135nm,0.1s,SNR=7.8						
TOU	Touzarine	0.58	262	*i* P	Pg	21 15 17.0	+3.2
TOU				*i* S	Sg	21 15 28.0	+6.3
TZK	Tazeka	1.34	225	*i* P	Pb	21 15 28.0	+1.3
TZK				*i* S	Sb	21 15 46.0	+2.3
EBER	Berja	1.85	4	P	Pn	21 15 33.4	-0.8
	0.7nm,0.1s,SNR=7.9						
EBER				S	Sn	21 15 55.4	-2.5
	9.3nm,0.3s						
EBER	Berja	1.85	4	P	Pn	21 15 33.4	-0.8
	0.7nm,0.1s,SNR=7.9						
EBER				S	Sn	21 15 55.4	-2.5
	9.3nm,0.3s						
EMIJ	Mijas	2.06	318	P	Pn	21 15 36.5	-0.7
	2.0nm,0.2s,SNR=9.8						
EMIJ				S	Sn	21 16 01.5	-1.7
	2.5nm,0.2s						
EMIJ	Mijas	2.06	318	S	Sn	21 16 01.5	-1.7
	2.5nm,0.2s						
ELOJ	Sierra Loja	2.28	337	P	Pn	21 15 40.9	+0.5
	1.0nm,0.2s,SNR=7.9						
ELOJ				S	Sn	21 16 11.3	+2.6
	1.1nm,0.3s,SNR=7.9						
MIF	Mishlifen	2.43	229	*i* P	Pn	21 15 42.0	-0.5
ELUQ	Luque	2.70	339	P	Pn	21 15 46.8	+0.5
	0.9nm,0.2s,SNR=7.9						
ELUQ				S	Sn	21 16 20.2	+0.9
	3.1nm,0.3s,SNR=7.9						
EQES	Quesada	2.75	360	P	Pn	21 15 48.5	+1.4
	2.1nm,0.2s,SNR=13						
EQES				S	Sn	21 16 22.3	+1.6
	9.9nm,0.4s						
EQES	Quesada	2.75	360	P	Pn	21 15 48.5	+1.4
	2.1nm,0.2s,SNR=13						
EQES				S	Sn	21 16 22.3	+1.6
	9.9nm,0.4s						
ESPR	Espera	2.92	309	P	Pn	21 15 50.8	+1.4
	1.3nm,0.2s,SNR=7.9						
ESPR				S	Sn	21 16 24.5	-0.3
	2.0nm,0.3s,SNR=5.4						
ESPR	Espera	2.92	309	S	Sn	21 16 24.5	-0.3
	2.0nm,0.3s,SNR=5.4						
ESPR	Espera	2.92	309	P	Pn	21 15 50.8	+1.4
	1.3nm,0.2s,SNR=7.9						
ZFT	Errachidia	3.19	200	*e*P	Pn	21 15 53.0	-0.3
EADA	Adamuz	3.35	339	P	Pn	21 15 55.8	+0.2
	0.7nm,0.2s,SNR=5.8						
EADA				S	Sn	21 16 32.6	-3.2
	1.9nm,0.3s						
EADA	Adamuz	3.35	339	P	Pn	21 15 55.8	+0.2
	0.7nm,0.2s,SNR=5.8						
EADA				S	Sn	21 16 32.6	-3.2
	1.9nm,0.3s						
EVIA	Vianos	3.61	7	S	Sn	21 16 42.5	0.0
	1.7nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	3.99	314	P	Pn	21 16 03.7	-0.9
	0.6nm,0.2s,SNR=11						
EMIN				S	Sn	21 16 49.1	-2.9
	0.6nm,0.3s						
EMIN	Mina Concepcio	3.99	314	P	Pn	21 16 03.7	-1.0
	0.6nm,0.2s,SNR=11						
EBAD	Badajoz	4.88	321	P	Pn	21 16 16.3	-1.0
	2.6nm,0.3s,SNR=7.7						
EBAD				S	Sn	21 17 10.3	-4.2
	1.4nm,0.2s						
EBAD	Badajoz	4.88	321	P	Pn	21 16 16.3	-1.0
PBEJ	Beja	4.89	309	*e*Pn	Pn	21 16 16.9	-0.5
PCBR	Castelo Branco	5.94	325	*e*Pn	Pn	21 16 31.1	-1.2
ERTA	Horta de San J	6.48	23	P	Pn	21 16 38.5	-1.3
	1.4nm,0.4s,SNR=4.0						
ERTA	Horta de San J	6.48	23	P	Pn	21 16 38.5	-1.3
PVIS	Viseu	6.83	327	*e*Pn	Pn	21 16 43.8	-1.1
PVRL	Vila Real	7.22	331	*e*Pn	Pn	21 16 49.2	-1.1
PBRG	Braganca	7.34	338	*e*Pn	Pn	21 16 51.0	-1.0

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*CSEM **04** 21:23:44.3±0.2, 34.98N×2.87W, h10^{km}, MD3.4, Error ellipse: s-maj=5.8km s-min=3.2km az=108.0*
*NEIC **04** 21:23:45.9, 35.01N×3.14W, MG3.2(MDD), After MDD.*
*MDD **04** 21:23:46.4±1.4, 35.04N×3.13W, mb3.2/3, Error ellipse: s-maj=14.8km s-min=6.9km az=152.0, PRXIMO AftershockPLICA*
*CNRM **04** 21:23:46.2, 35.02N×2.81W, h9^{km}, MD3.4*
ISC 04 21:23:45.1±0.9**, 35.01N**±0.04×**2.84W**±0.08**, h18^{km}**±5^{km}**, n19, σ1§15**/31**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	Zaio	0.08	117	*i* P	Pb	21 23 48.0	-0.7
MELI	Melilla	0.30	344	P	Pb	21 23 51.8	+0.1
MELI				S	Sb	21 23 55.3	-0.8
MELI	Melilla	0.30	344	*i* P	Pb	21 23 51.8	+0.1
EMLI	Melilla	0.31	342	P	Pb	21 23 52.0	+0.2
	25nm,0.1s,SNR=18						
EMEL	Melilla	0.31	341	P	Pb	21 23 52.0	+0.2
	25nm,0.1s,SNR=18						
EMEL				S	Sb	21 23 56.6	+0.2
	SNR=7.9						
TOU	Touzarine	0.76	267	*i* P	Pb	21 24 01.0	+1.6
TOU				*i* S	Sb	21 24 10.0	+0.8
TZK	Tazeka	1.44	231	*i* P	Pn	21 24 11.0	+0.4
TZK				*i* S	Sn	21 24 30.0	+0.9
EBER	Berja	1.89	359	P	Pn	21 24 16.5	-0.5
	7.4nm,1.0s,SNR=4.0						
EBER				S	Sn	21 24 41.5	+1.0
	7.5nm,0.4s,SNR=6.7						
EBER	Berja	1.89	359	P	Pn	21 24 16.5	-0.5
	7.4nm,1.0s,SNR=4.0						
EBER				S	Sn	21 24 41.5	+1.0
	7.5nm,0.4s,SNR=6.7						
EMIJ	Mijas	2.21	315	P	Pn	21 24 19.9	-1.7
	0.3nm,0.1s,SNR=7.0						
EMIJ				S	Sn	21 24 44.9	-3.9
	SNR=7.9						
CZD	Col de Zad	2.69	224	*e*P	Pn	21 24 28.0	-0.5
CZD				*i* S	Sn	21 25 00.0	-0.9
EQES	Quesada	2.80	356	P	Pn	21 24 31.9	+1.9
	2.0nm,0.2s,SNR=14						
EQES				S	Sn	21 25 06.1	+2.6
	6.3nm,0.4s,SNR=9.0						
EQES	Quesada	2.80	356	P	Pn	21 24 31.9	+1.9
	2.0nm,0.2s,SNR=14						
EQES				S	Sn	21 25 06.1	+2.5
	6.3nm,0.4s,SNR=9.0						
EADA	Adamuz	3.45	337	P	Pn	21 24 39.1	-0.2
	4.1nm,1.0s,SNR=6.4						
EADA				S	Sn	21 25 17.6	-2.5
	SNR=4.0						
EADA	Adamuz	3.45	337	P	Pn	21 24 39.1	-0.2
	4.1nm,1.0s,SNR=6.4						
EADA				S	Sn	21 25 17.6	-2.5
	SNR=4.0						
EMIN	Mina Concepcio	4.14	313	P	Pn	21 24 47.1	-2.0
	0.6nm,0.2s,SNR=7.0						
EMIN	Mina Concepcio	4.14	313	P	Pn	21 24 47.1	-2.0
	0.6nm,0.2s,SNR=7.0						
ESDC	Sonseca Array	4.75	349	P	Pn	21 24 58.0	+0.3
	0.2nm,0.2s,baz=172,slow=14,SNR=3.7						
ESDC	Sonseca Array	4.75	349	P	Pn	21 24 58.0	+0.4
	0.2nm,0.2s,baz=172,slow=14,SNR=3.7						

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*IDC **04** 21:53:21.4±0.7, 3.54S×135.52E, mb4.6/11, mb1 4.8/15, mb1mx4.8/17, ML4.3/4, MS4.2/7, Ms1 4.3/7, ms1mx4.0/13, Error ellipse: s-maj=33.5km s-min=14.2km az=78.0*
*BJI **04** 21:53:21.6, 3.80S×135.69E, h29^{km}, mB5.3, mb5.0, Ms4.7, Msz4.6*
*NEIC **04** 21:53:23.9±0.3, 3.59S×135.39E, h10^{km}, mb4.8/31, Error ellipse: s-maj=11.8km s-min=5.4km az=81.0*
*SYO **04** 21:53:23.7, 3.55S×135.44E, h10^{km}, MB4.9*
ISC 04 21:53:21.4±1.8**, 3.84S**±0.03×**135.56E**±0.08**, h24^{km}**±13^{km}**, h21^{km}**±2.2^{km}**:pP-P, n77, σ1§07**/86**, mb4.8**/48**, MS4.3**/10**, 4C-5D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.34	199	⇓*i*P	P	21 55 39.0	+1.3
	113nm,0.3s						
KAKA				*e*S	Sn	21 57 22.6	-0.5
PMG	Port Moresby	12.77	116	Pn	P	21 56 32.2	+7.6
	2.1nm,0.3s,baz=299,slow=9.8,SNR=13						
PMG	Port Moresby	12.77	116	*e*P	P	21 56 25.2	+0.6
	124nm,1.1s						
PMG				*e*		21 56 32.3	
PMG				*e*		21 56 41.7	
WRAB	Tennant Creek	16.04	184	*e*P	P	21 57 06.9	-0.5
	144nm,0.7s						
WRAB				*e*		21 57 14.9	
WRAB				*e*S	S	21 59 55.9	-8.4
WB2	Warramunga Arr	16.05	184	⇓*i*P	P	21 57 07.1	-0.4
WB2				*i*		21 57 15.4	
WB2				*e*S	S	22 00 03.0	-1.5
WRA	Warramunga Arr	16.05	184	Pn	P	21 57 06.9	-0.5
	0.7nm,0.3s,slow=13,SNR=61						
WRA				Sn	S	21 59 59.0	-5.6
	3.8nm,0.3s,baz=4.1,slow=23,SNR=6.0						
WRA				Lg		22 01 58.7	
	baz=6.6,slow=25,SNR=5.0						
FITZ	Fitzroy Crossi	17.18	214	*e*P	P	21 57 20.5	-1.3
	33nm,0.6s						
FITZ				*e*S	S	22 00 23.5	-7.2
FITZ	Fitzroy Crossi	17.18	214	P	P	21 57 22.3	+0.5
	3.3nm,0.3s,baz=24,slow=10,SNR=72						
FITZ				S	S	22 00 24.0	-6.7
	8.8nm,0.3s,baz=194,slow=12,SNR=7.1						
FITZ				LR	LR	22 03 38.8	
	comp=Z,214nm,19.5s,baz=63,slow=36						
CTA	Charters Tower	19.22	148	⇓*i*P	P	21 57 51.2	+4.4
	28nm,0.9s						
CTA	Charters Tower	19.22	148	P	P	21 57 51.3	+4.5
	1.4nm,0.3s,baz=322,slow=12,SNR=16						
CTA				S	S	22 01 16.5	-0.4
	0.5nm,0.3s,baz=262,slow=14,SNR=1.9						
CTA				Lg		22 03 25.6	
	0.5nm,0.3s,baz=35,slow=17,SNR=3.0						
CTAO	Charters Tower	19.22	148	*e*P	P	21 57 51.0	+4.2
	45nm,0.9s						
ASAR	Alice Springs	19.77	184	P	P	21 57 57.0	+3.9
	179nm,0.8s,baz=9.2,slow=11,SNR=817						
ASAR				S	S	22 01 33.3	+4.3
	28nm,1.2s,baz=3.7,slow=27,SNR=5.4						
ASAR				Lg		22 03 52.7	
	9.2nm,0.8s,baz=1.6,slow=32,SNR=2.5						
ASAR				LR	LR	22 06 47.8	
	comp=Z,267nm,18.4s,baz=253,slow=40						
ASPA	Alice Springs	19.77	185	⇑*i*P	P	21 57 56.4	+3.4
ASPA				*e*S	S	22 01 28.5	-0.5
MBWA	Marble Bar	23.09	220	*e*P	P	21 58 30.8	+4.1
	33nm,0.8s,mb4.8						
STKA	Stephens Creek	28.46	169	*e*P	P	21 59 18.8	+1.9
	6.5nm,0.7s,mb4.4						
STKA	Stephens Creek	28.46	169	P	P	21 59 19.2	+2.4
	5.1nm,0.6s,mb4.3,baz=338,slow=8.5,SNR=16						
STKA				Lg		22 08 44.6	
	8.4nm,1.1s,baz=42,slow=23,SNR=2.9						
STKA				LR	LR	22 11 37.8	
	comp=Z,830nm,21.6s,MS4.3,baz=347,slow=38						
NWAO	Narrogin (SRO)	33.63	209	P	P	22 00 06.3	+3.8
	21nm,0.9s,mb5.1,baz=33,slow=14,SNR=5.3						
NWAO	Narrogin (SRO)	33.63	209	P	P	22 00 01.7	-0.9
	32nm,1.1s,mb5.2						
QIZ	Qiongzhong	34.02	313	P	P	22 00 00.2	-5.8
	7.2nm,0.9s,mb4.6						
MAJO	Matsushiro	40.25	3	*e*P	P	22 00 56.3	-1.9
	13nm,0.8s,mb4.7						
GYA	Guiyang	41.10	319	⇑*i*P	P	22 01 05.6	+0.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
KS15	Wonju Array Si	41.69	351	P	P	22 01 12.4	+2.3
ENH	Enshi	42.10	325	*e*P	P	22 01 12.8	-0.8
	comp=Z,15nm,0.9s,mb4.6						
CMAR	Chiang Mai Arr	42.34	303	P	P	22 01 15.9	+0.3
	comp=Z,2.6nm,0.9s,mb3.9,baz=116,slow=6.1,SNR=15						
KMI	Kunming	42.95	314	*e*P	P	22 01 20.6	0.0
KMI				AP	pP	22 01 28.8	+1.1
KMI				XP	sP	22 01 32.3	+1.7
KMI				PP	PP	22 03 00.4	-2.3
KMI				S	S	22 07 48.8	+4.9
KMI				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.3						
KMI				LR	LR		
	comp=Z,166nm,34.1s,MS3.7						
XAN	Xi’an	45.29	328	P	P	22 01 38.4	-1.0
XAN				AP	pP	22 01 46.4	-0.1
XAN				AMB	AMB		
	comp=Z,11nm,1.5s,mb4.5						
CD2	Chengdu	45.99	321	*e*P	P	22 01 44.8	-0.1
CD2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
BJT	Baijiatuau	47.14	340	*e*P	P	22 01 53.4	-0.5
	comp=Z,27nm,0.8s,mb5.2						
BJT				*e*	pP	22 01 59.9	-1.3
ASAJ	Asahikawa	48.16	7	P	P	22 02 01.8	-0.1
	comp=Z,8.8nm,0.6s,mb5.0,baz=233,slow=5.1,SNR=5.3						
CN2	Changchun	48.29	350	*e*P	P	22 02 01.9	-1.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
MDJ	Mudanjiang	48.53	354	P	P	22 02 07.6	+2.9
MDJ				S	S	22 09 08.1	+4.5
MDJ				AMB	AMB		
	comp=Z,36nm,2.1s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,311nm,5.0s						
MDJ				LR	LR		
	comp=N,92nm,31.2s,MS3.7						
MDJ				LR	LR		
	comp=E,62nm,26.4s,MS3.7						
MDJ				LR	LR		
	comp=Z,134nm,19.2s						
MDJ	Mudanjiang	48.53	354	*e*P	P	22 02 03.3	-1.4
	comp=Z,23nm,0.9s,mb5.2						
LZH	Lanzhou	49.57	326	⇓P	P	22 02 13.5	+0.7
LZH				AP	pP	22 02 16.8	-3.3
LZH				PP	PP	22 04 07.5	-0.3
LZH				*e*S	S	22 09 19.5	+1.3
LZH				SS	SS	22 12 46.4	-0.3
LZH				AMB	AMB		
	comp=Z,39nm,1.3s,mb5.3						
LZH				AMB	AMB		
	comp=Z,157nm,5.7s						
LZH				LR	LR		
	comp=N,383nm,13.2s						
LZH				LR	LR		
	comp=Z,589nm,17.0s,MS4.7						
HHC	Hu-ho-hao-te	49.60	336	*e*P	P	22 02 12.9	-0.1
HHC				AP	pP	22 02 17.4	-2.8
HHC				PCP	PcP	22 03 36.8	+2.1
HHC				PP	PP	22 04 05.3	-2.7
HHC				S	S	22 09 16.1	-2.4
HHC				SS	SS	22 12 42.2	-4.8
HHC				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.3						
HHC				AMB	AMB		
	comp=Z,142nm,5.5s						
HHC				LR	LR		
	comp=N,171nm,11.9s						
HHC				LR	LR		
	comp=Z,208nm,13.1s,MS4.3						
YSS	Yuzh-Sakhalins	50.98	6	P	P	22 02 21.6	-1.8
	comp=Z,93nm,1.6s,mb5.5						
SHL	Shillong	51.45	307	*e*P	P	22 02 27.0	-0.3
AFI	Afiamalu	52.88	104	P	P	22 02 33.9	-4.2
	comp=Z,36nm,1.0s,mb5.2						
LSA	Lhasa	54.03	311	P	P	22 02 48.0	+1.6
GTA	Gaotai	54.18	326	⇓P	P	22 02 47.6	+0.3
GTA				AP	pP	22 02 54.9	+0.3
GTA				XP	sP	22 02 58.1	+0.7
GTA				AMB	AMB		
	comp=Z,22nm,1.0s,mb5.0						
HIA	Hailar	54.65	347	*e*P	P	22 02 49.7	-1.0
	comp=Z,12nm,1.3s,mb4.8						
ULN	Ulaanbaatar	57.23	338	*e*P	P	22 03 08.7	-0.7
	comp=Z,8.6nm,1.1s,mb4.7						
GUN	Gumba	57.29	307	*e*P	P	22 03 10.1	+0.1
	comp=Z,35nm,0.8s,mb5.5						
SONM	Songino Array	57.46	337	P	P	22 03 10.9	0.0
	comp=Z,1.4nm,0.5s,mb4.2,baz=155,slow=8.6,SNR=16						
PKI	Pulchoki	57.53	306	*e*P	P	22 03 11.5	-0.2
KKN	Kakani	57.72	306	*e*P	P	22 03 12.8	-0.2
	comp=Z,31nm,0.9s,mb5.3						
DMN	Daman	57.79	306	*e*P	P	22 03 13.3	-0.2
	comp=Z,27nm,0.8s,mb5.3						
GKN	Gorkha	58.33	306	*e*P	P	22 03 16.0	-1.3
	comp=Z,38nm,0.8s,mb5.5						
TLY	Talaya	61.62	338	*e*P	P	22 03 39.9	+0.4
	comp=Z,11nm,1.2s,mb4.9						
WMQ	Urumqi	63.98	323	⇑P	P	22 03 56.3	+0.9
WMQ				AP	pP	22 04 00.8	-2.0
WMQ				XP	sP	22 04 03.3	-2.1
WMQ				PCP	PcP	22 04 31.8	+1.3
WMQ				PP	PP	22 06 18.5	+0.6
WMQ				S	S	22 12 29.9	+1.5
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,47nm,8.0s						
WMQ				LR	LR		
	comp=N,95nm,17.6s,MS4.1						
WMQ				LR	LR		
	comp=E,34nm,16.6s,MS4.1						
WMQ				LR	LR		
	comp=Z,83nm,21.2s,MS3.9						
MA2	Magadan	64.36	9	P	P	22 03 53.8	-3.7
	comp=Z,26nm,1.1s,mb5.2						
DDI	Dehra Dun	64.53	306	*e*P	P	22 03 59.3	+0.2
YAK	Yakutsk	65.84	357	*e*P	P	22 04 06.3	-0.7
	comp=Z,17nm,0.9s,mb5.1						
TKM2	Tokmak 2	71.23	318	*e*P	P	22 04 40.2	-0.6
	comp=Z,5.4nm,0.7s,mb4.6						
ZAL	Zalesovo	71.37	331	P	P	22 04 40.5	-1.0
	comp=Z,1.8nm,0.5s,mb4.2,baz=11,slow=6.6,SNR=12						
ZAL	Zalesovo	71.37	331	P	P	22 04 40.5	-1.0
UCH	Uchtor	71.69	317	*e*P	P	22 04 44.6	+1.0
	comp=Z,6.8nm,0.9s,mb4.6						
UCH				*e*	pP	22 04 52.5	+1.5
AAK	Ala-Archa	71.86	317	*e*P	P	22 04 44.1	-0.4
	comp=Z,5.5nm,1.0s,mb4.4						
AML	Almayashu	72.21	316	*e*P	P	22 04 48.0	+1.3
	comp=Z,8.3nm,0.8s,mb4.7						
AML				*e*		22 04 53.1	
EKS2	Erkin-Say	72.36	317	*e*P	P	22 04 48.5	+0.9
	comp=Z,5.9nm,0.8s,mb4.6						
KURK	Kurchatov	72.86	326	*e*P	P	22 04 49.6	-0.7
	comp=Z,11nm,0.9s,mb4.8						
VNDA	Vanda	74.96	174	P	P	22 05 05.6	+3.5
	comp=Z,3.4nm,0.8s,mb4.3,baz=336,slow=6.5,SNR=9.0						
VNDA				LR	LR	22 36 32.8	
	comp=Z,574nm,19.6s,MS4.9,baz=348,slow=34						
VNDA	Vanda	74.96	174	*e*P	P	22 05 05.3	+3.2
	comp=Z,5.1nm,1.0s,mb4.4						
BVAR	Borovoye Array	78.46	326	P	P	22 05 22.8	+0.7
	comp=Z,5.1nm,0.7s,mb4.5,baz=121,slow=8.6,SNR=19						
BRVK	Borovoye	78.53	326	*e*P	P	22 05 22.8	+0.3
	comp=Z,9.7nm,0.9s,mb4.7						
CHKZ	Chkalovo	78.59	327	*e*P	P	22 05 22.4	-0.3
	comp=Z,4.7nm,0.9s,mb4.4						
MAW	Mawson	79.91	202	P	P	22 05 33.2	+3.6
	comp=Z,6.5nm,0.8s,mb4.6,baz=100,slow=7.7,SNR=5.6						
MAW				LR	LR	22 37 38.7	
	comp=Z,256nm,19.7s,MS4.6,baz=74,slow=33						
IMA	Indian Mountai	85.79	23	*e*P	P	22 06 06.1	+6.3
	comp=Z,88nm,1.3s,mb5.8						
ARU	Arti	86.02	327	*e*P	P	22 06 00.8	-0.5
	comp=Z,4.3nm,0.8s,mb4.7						
QSPA	South Pole Qui	86.11	180	*e*P	P	22 06 05.1	+3.9
	comp=Z,15nm,1.2s,mb5.1						
DIV	Divide	87.88	28	*e*P	P	22 06 12.1	+2.0
	comp=Z,57nm,0.9s,mb5.8						
ILAR	Eielson Array	88.16	25	P	P	22 06 11.5	+0.1
	comp=Z,1.3nm,0.5s,mb4.4,baz=262,slow=4.3,SNR=28						
ILAR				LR	LR	22 42 10.6	
	comp=Z,126nm,19.0s,MS4.3,baz=324,slow=33						
SYO	Syowa Base	88.59	201	⇑P	P	22 06 16.7	+3.4

KMBO	Kilima Mbogo	98.21	268	LR	LR	22 50 17.3	
	comp=Z,97nm,18.2s,MS4.3,baz=90,slow=35						
ARCES	ARCESS Array B	100.52	340	P	P	22 07 08.5	+0.5
	comp=Z,4.6nm,0.7s,baz=85,slow=5.9,SNR=12						
ARCES	ARCESS Array B	100.52	340	P	P	22 07 08.5	+0.5
LPAZ	La Paz	149.20	131	PKPbc	PKPdf	22 13 15.5	+6.3
	comp=Z,5.5nm,0.9s,baz=240,slow=1.2,SNR=11						
LPAZ	La Paz	149.20	131	PKPbc	PKPdf	22 13 15.5	+6.3

CASC 04 22:06:56.6±1.5,13.35N×87.95W,h0^{km}±4^{km},MD3.3, ML3.7,3C,Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNCH	Conchagua	0.14	124	⇑iP	Pg	22 06 59.8	+0.5
CNCH				eS	Sg	22 07 03.2	+2.0
BLLM	Bellamira	0.29	288	⇑eP	Pg	22 07 03.7	+1.3
BLLM				eS	Sg	22 07 09.2	+2.8
CAHU	Cacacuatique	0.48	329	eP	Pg	22 07 07.9	+1.6
CAHU				eS	Sg	22 07 15.9	+3.1
SNVI	San Vicente	0.90	287	eP	Pg	22 07 14.3	-0.3
SNVI				eS	Sg	22 07 30.0	+3.4
LCBS	La Ceiba	1.04	287	⇑eP	Pb	22 07 16.8	-0.4
LCBS				eS	Sb	22 07 31.9	+0.7
LFRS	El Faro	1.11	284	eP	Pb	22 07 18.1	-0.4
LFRS				eS	Sb	22 07 33.9	+0.6
TICN	Ticuantepe	2.13	128	eP	Pn	22 07 34.2	+0.4
MASN	Masaya	2.22	128	eP	Pn	22 07 34.9	-0.2
MASN				i		22 07 48.2	
	comp=Z,718nm,0.3s						

MAN 04 22:18:28.5,10.22N×125.00E,h11^{km},mb3.9,ML2.7, MS2.4,1C-1D,Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSLP	Maasin	0.16	239	eP	Pg	22 18 33.5	+1.3
MSLP				eS	Sg	22 18 37.8	+3.0
SCPH	Surigao	0.65	132	⇓eP	Pb	22 18 41.1	-0.2
SCPH				eS	Sb	22 18 47.4	-2.6
OCLP	Ormoc	0.91	335	eP	Pb	22 18 56.6	+11
PLP	Palo	0.94	359	eP	Pb	22 18 45.6	-0.7
PLP				i S	Sb	22 18 59.3	+0.7
LLP	Lapu-Lapu	1.02	276	⇑iP	Pb	22 18 47.1	-0.6
LLP				i S	Sb	22 19 01.0	0.0
TBP	Tagbilaran	1.24	245	eP	Pb	22 18 50.7	-0.7
BESP	Borongan	1.44	17	eP	Pn	22 18 54.1	-0.5
BESP				eS	Sb	22 19 13.7	+0.7
GUIM	Jordan	2.41	280	eP	Pn	22 19 08.3	-0.2

ROM ***04*** *22:20:50.0±0.3,45.94N×12.00E,h5^{km}±2^{km},MD3.3/14, ML3.1/12,Error ellipse: s-maj=1.2km s-min=1.1km az=0.0*
NEIC ***04*** *22:20:50.0,45.94N×12.00E,h5^{km},MD3.3(ROM), ML3.6(STR),ML3.6(VIE),ML3.5(FUR),ML3.4(SZGRF), ML3.4(LDG),After ROM.*
CSEM ***04*** *22:20:50.6±0.1,45.89N×12.01E,h12^{km},ML3.5/25,Error ellipse: s-maj=1.3km s-min=0.9km az=153.0*
ZUR ***04*** *22:20:51.1,45.78N×11.77E,h10^{km},ML3.4/12*
LDG ***04*** *22:20:52.3±0.2,45.96N×11.95E,h5^{km},Ml3.4/22,Error ellipse: s-maj=5.1km s-min=3.1km az=74.0*
STR ***04*** *22:20:58.3±0.2,46.02N×11.44E,h10^{km}±1^{km},Ml3.6,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 04 22:20:49.8±0.2,45.90N±0.01×11.96E±0.01,h12^{km}±1^{km}, n259,σ1^{s}34/409,20C-18D,Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CGRP	Cima Grappa	0.12	258	⇑ePg	Pg	22 20 53.5	+0.6
CGRP				eSg	Sg	22 20 55.7	+0.6
CGRP	Cima Grappa	0.12	258	⇑ePg	Pg	22 20 53.5	+0.5
CGRP				eSg	Sg	22 20 55.7	+0.6
CTI	Castel Tesino	0.26	304	ePG	Pg	22 20 55.9	+0.4
CTI				SG	Sg	22 21 00.8	+1.6
CTI	Castel Tesino	0.26	304	ePg	Pg	22 20 55.9	+0.4
CTI				eSg	Sg	22 21 00.8	+1.6
FAU	Forcella Aurin	0.33	2	⇓iPg	Pg	22 20 56.6	0.0
CAE	Caneva	0.35	72	⇑ePg	Pg	22 20 56.8	-0.3
CAE				eSg	Sg	22 21 01.8	-0.1
CSO	Casso	0.45	34	⇓ePg	Pg	22 20 58.1	-0.9
CSO				eSg	Sg	22 21 05.7	+0.6
MLNI	Malnisio	0.51	61	⇑ePg	Pg	22 20 59.9	-0.4
MLNI				eSg	Sg	22 21 08.0	+0.8
TEOL	Teolo	0.58	201	⇓ePg	Pg	22 21 02.0	+0.4
AFL	Alpe Faloria	0.65	13	⇑ePg	Pg	22 21 03.1	+0.2
AFL				eSg	Sg	22 21 12.7	+1.1
APPI	Appiano	0.77	319	⇓iPG	Pg	22 21 05.8	+0.5
APPI				SG	Sg	22 21 16.5	+0.9
APPI	Appiano	0.77	319	⇓iPg	Pg	22 21 05.8	+0.5
APPI				eSg	Sg	22 21 16.5	+0.8
CSMI	Casera Mimoias	0.77	38	⇓ePg	Pg	22 21 05.0	-0.4
CSMI				eSg	Sg	22 21 16.7	+0.9
CSMI	Casera Mimoias	0.77	38	eSg	Sg	22 21 16.7	+0.9
MPRI	Monte Prat	0.79	64	⇓ePg	Pg	22 21 05.9	+0.2
MPRI				eSg	Sg	22 21 17.7	+1.4
TLI	Talmassons	0.80	88	⇑ePg	Pg	22 21 05.8	0.0
BRES	Bressanone	0.81	349	ePG	Pg	22 21 06.6	+0.5
BRES	Bressanone	0.81	349	ePg	Pg	22 21 06.6	+0.5
BUA	Buia	0.87	68	⇑iPg	Pg	22 21 07.5	+0.3
BOO	Bordano	0.89	62	⇑ePg	Pg	22 21 06.9	-0.9
FVI	Forni Avoltri	0.90	39	ePG	Pg	22 21 07.8	0.0
FVI				SG	Sg	22 21 20.0	+0.2
FVI	Forni Avoltri	0.90	39	ePg	Pg	22 21 07.8	0.0
FVI				eSg	Sg	22 21 20.0	+0.2
BAD	Bernadia	0.95	69	⇑ePg	Pg	22 21 08.5	-0.4
BAD				eSg	Sg	22 21 22.6	+0.9
ZOU	Zoufplan	0.96	47	⇑ePg	Pg	22 21 09.0	0.0
ZOU				eSg	Sg	22 21 22.1	+0.2
COLI	Coloredo	1.01	76	⇓ePg	Pg	22 21 09.9	-0.2
COLI				eSg	Sg	22 21 24.4	+0.7
MABI	Malga Bissina	1.02	279	ePG	Pg	22 21 10.2	-0.1
MABI				SG	Sg	22 21 24.6	+0.6
MABI	Malga Bissina	1.02	279	ePg	Pg	22 21 10.2	-0.1
MABI				eSg	Sg	22 21 24.6	+0.6
PLRO	Paularo	1.05	51	⇑ePg	Pg	22 21 10.5	-0.3
PLRO				eSg	Sg	22 21 25.0	+0.2
SAL	Salo	1.05	254	ePN	Pn	22 21 11.3	+1.1
	510nm,0.3s						
SAL	Salo	1.05	254	ePg	Pg	22 21 11.3	+0.4
SAL	Salo	1.05	254	ePn	Pn	22 21 11.3	+1.1
	510nm,0.3s						
PTCC	Patocco-Chiusa	1.09	62	ePG	Pg	22 21 10.8	-0.8
PTCC				SG	Sg	22 21 26.7	+0.5
	191nm,0.3s						
PTCC	Patocco-Chiusa	1.09	62	ePg	Pg	22 21 10.8	-0.9
PTCC				eSg	Sg	22 21 26.7	+0.5
PTCC	Patocco-Chiusa	1.09	62	ePg	Pg	22 21 10.8	-0.8
	191nm,0.3s						
PTCC				Sg	Sg	22 21 26.7	+0.5
SCE	Schlegeis	1.15	351	ePg	Pg	22 21 12.5	-0.3
SCE				eSg	Sg	22 21 28.8	+0.6
SCE	Schlegeis	1.15	351	eSg	Sg	22 21 28.8	+0.6
DRE	Drenchia	1.20	76	⇑ePg	Pg	22 21 13.2	-0.7
DRE				eSg	Sg	22 21 30.0	+0.1
DRE	Drenchia	1.20	76	eSg	Sg	22 21 30.0	+0.1
LSR	Lussari	1.23	62	⇑ePg	Pg	22 21 13.6	-0.8
LSR				eSg	Sg	22 21 30.9	0.0
BRMO	Bormio	1.24	298	ePN	Pg	22 21 14.4	-0.3
BRMO				SN	Sg	22 21 30.7	-0.7
	271nm,0.3s						
BRMO	Bormio	1.24	298	ePg	Pg	22 21 14.4	-0.3
BRMO				eSg	Sg	22 21 30.7	-0.7
BRMO	Bormio	1.24	298	ePg	Pg	22 21 14.4	-0.3
BRMO				eSg	Sg	22 21 30.7	-0.7
TRI	Trieste	1.27	98	ePN	Pn	22 21 13.8	+0.4
TRI				SN	Sn	22 21 31.3	+0.8
	291nm,0.3s						
TRI	Trieste	1.27	98	ePg	Pg	22 21 13.8	-1.5
TRI				eSg	Sn	22 21 31.3	+0.8
TRI	Trieste	1.27	98	ePn	Pn	22 21 13.8	+0.4
	291nm,0.3s						
TRI				eSg	Sn	22 21 31.3	+0.8
CADS	Cadrg	1.28	75	i Pg	Pg	22 21 14.0	-1.4
CADS				eSg	Sg	22 21 31.8	-0.6
RAVA	Ravarino	1.29	208	ePN	Pn	22 21 15.7	+2.0
RAVA				SN	Sg	22 21 34.3	+1.3
RAVA	Ravarino	1.29	208	ePg	Pg	22 21 15.7	0.0
RAVA				eSg	Sg	22 21 34.3	+1.3
RAVA	Ravarino	1.29	208	eSg	Sg	22 21 34.3	+1.3
FIU	Minerbio Fiu	1.31	195	ePg	Pg	22 21 15.9	-0.1
FIU				eSg	Sg	22 21 34.1	+0.7
FIU	Minerbio Fiu	1.31	195	ePg	Pg	22 21 15.9	-0.1
FIU				eSg	Sg	22 21 34.2	+0.8
VOJS	Vojsko	1.35	84	i Pg	Pg	22 21 15.1	-1.7
VOY	Vojsko	1.35	84	eSg	Sg	22 21 33.5	-1.5
WTTA	Wattenberg	1.38	351	⇑iPN	Pn	22 21 17.0	+2.1
WTTA				i SG	Sg	22 21 37.0	+1.2
	298nm,0.4s						
FUORN	Ofenpass	1.38	302	⇓iP	Pn	22 21 16.6	+1.7
FUORN				eSg	Sg	22 21 34.9	-1.0
	37nm,0.4s						
SQTA	Sankt Quirin	1.42	339	⇑iPN	Pn	22 21 17.2	+1.8
SQTA				i SG	Sg	22 21 37.1	0.0
	365nm,0.3s						
BERNI	Berninapass	1.44	291	⇓iPg	Pg	22 21 17.8	-0.8
BERNI				eSg	Sg	22 21 36.7	-1.2
BERNI	Berninapass	1.44	291	eSg	Sg	22 21 36.8	-1.1
	35nm,0.5s						
WATA	Walderalm	1.46	350	⇓iPN	Pn	22 21 18.4	+2.4
WATA				i SG	Sg	22 21 39.6	+1.2
	134nm,0.4s						
JAVS	Javornik	1.47	90	i Pg	Pg	22 21 16.7	-2.5
KBA	Koelnbreinsper	1.51	39	⇑iPG	Pg	22 21 19.1	-1.0
KBA				i SG	Sg	22 21 39.5	-0.8
	147nm,0.3s						
MOTA	Moosalm	1.56	338	⇑iPN	Pn	22 21 19.9	+2.4
MOTA				i SN	Sn	22 21 41.5	+3.8
MDI	Monti di Nese	1.58	266	ePN	Pn	22 21 19.3	+1.5
DAVOX	Davos	1.69	302	⇓iP	Pn	22 21 22.1	+2.8
DAVOX				eSb	Sb	22 21 44.7	+3.3
	26nm,0.4s						
LJU	Ljubljana	1.79	85	ePn	Pn	22 21 23.0	+2.2
LJU				eSn	Sn	22 21 45.0	+1.4
VDL	Val di Lei	1.83	290	⇓iP*	Pb	22 21 24.5	+1.8
ERBM	Eremo	1.84	217	ePN	Pn	22 21 23.0	+1.4
	119nm,0.7s						
ERBM	Eremo	1.84	217	ePn	Pn	22 21 23.0	+1.5
ERBM	Eremo	1.84	217	ePn	Pn	22 21 23.0	+1.4
	119nm,0.7s						
BGLD	Berchtesgaden	1.89	22	⇓iPg	Pg	22 21 24.9	-2.7
OBKA	Obir	1.90	70	⇑iPN	Pn	22 21 23.7	+1.4
OBKA				i SG	Sg	22 21 52.1	-0.9
	63nm,0.4s						
SEI	Scarperia	1.90	193	ePN	Pn	22 21 24.6	+2.3
	255nm,0.3s						
SEI	Scarperia	1.90	193	ePn	Pn	22 21 24.6	+2.3
SEI	Scarperia	1.90	193	ePn	Pn	22 21 24.6	+2.3
	255nm,0.3s						
GRAM		1.95	224	P	Pn	22 21 24.4	+1.4
GRAM				S	Sn	22 21 46.4	-1.1
GRAM		1.95	224	P	Pn	22 21 24.4	+1.4
GRAM				S	Sn	22 21 46.4	-1.1
VMG	Vicchio	1.96	189	ePN	Pn	22 21 24.0	+0.7
	216nm,0.6s						
VMG	Vicchio	1.96	189	ePn	Pn	22 21 24.0	+0.7
	216nm,0.6s						
VALM		1.97	219	P	Pn	22 21 24.6	+1.2
VALM				S	Sn	22 21 46.6	-1.5
VALM		1.97	219	P	Pn	22 21 24.6	+1.2
VALM				S	Sn	22 21 46.6	-1.6
DAVA	Damuels	1.99	315	⇓iPn	Pn	22 21 26.8	+3.1
DAVA				i Sn	Sn	22 21 52.3	+3.6
DAVA				eSg	Sg	22 21 54.8	-1.5
SFI	Santa Sofia	2.00	182	ePN	Pn	22 21 23.7	-0.1
	91nm,0.5s						
SFI	Santa Sofia	2.00	182	ePn	Pn	22 21 23.7	-0.1
MUGIO	Muggio	2.04	272	⇓iPn	Pn	22 21 25.5	+1.2
BACM		2.11	220	P	Pn	22 21 27.7	+2.4
BACM				S	Sn	22 21 51.2	-0.4
BACM		2.11	220	P	Pn	22 21 27.7	+2.4
BACM				S	Sn	22 21 51.2	-0.4
PLONS	Plons	2.12	304	ePn	Pn	22 21 28.7	+3.2
	11nm,0.8s						
CODM		2.13	225	P	Pn	22 21 27.4	+1.8
CODM		2.13	225	P	Pn	22 21 27.4	+1.8
VINC	Vinca	2.18	217	P	Pn	22 21 28.4	+2.1
VINC				S	Sn	22 21 54.1	+0.7
VINC	Vinca	2.18	217	P	Pn	22 21 28.5	+2.1
VINC	Vinca	2.18	217	P	Pn	22 21 28.5	+2.1
VINC				S	Sn	22 21 54.1	+0.6
VINC				S	Sn	22 21 54.1	+0.6
LIENZ	Alp Oberkamor	2.20	310	eP	Pn	22 21 29.7	+3.1
VAI	Varese	2.23	270	ePN	Pn	22 21 28.3	+1.2
	182nm,0.7s						
VAI	Varese	2.23	270	ePn	Pn	22 21 28.3	+1.2
	182nm,0.7s						
MAIM		2.25	208	P	Pn	22 21 28.1	+0.8
MAIM				S	Sn	22 21 56.1	+1.0
MAIM		2.25	208	P	Pn	22 21 28.1	+0.8
MAIM				S	Sn	22 21 56.1	+0.9
LLS	Linth-Limmern	2.25	296	eP	Pn	22 21 31.2	+3.8
LLS	Linth-Limmern	2.25	296	ePn	Pn	22 21 30.7	+3.3
CRE	Caprese Michel	2.28	180	ePN	Pn	22 21 29.2	+1.4
	60nm,0.6s						
CRE	Caprese Michel	2.28	180	ePn	Pn	22 21 29.2	+1.4
CRE	Caprese Michel	2.28	180	ePn	Pn	22 21 29.2	+1.4
	60nm,0.6s						
FSSB	Fossombrone	2.29	165	ePN	Pn	22 21 27.7	-0.2
	70nm,0.4s						
FSSB	Fossombrone	2.29	165	ePn	Pn	22 21 27.7	-0.2
FSSB	Fossombrone	2.29	165	ePn	Pn	22 21 27.7	-0.2
	70nm,0.4s						
FUR	Furstenfeldbru	2.31	349	ePn	Pn	22 21 30.5	+2.3
VBY	Vinica-Bojanci	2.34	99	ePn	Pn	22 21 30.2	+1.5
VBY				ePg	Pg	22 21 35.3	-1.3
VBY				eSn	Sn	22 21 59.5	+1.9
VBY				eSg	Sg	22 22 06.3	-1.5
FUSIO	Fusio	2.36	285	ePn	Pn	22 21 31.2	+2.3
FUSIO	Fusio	2.36	285	eP	Pn	22 21 30.7	+1.8
NVLJ	Novalja	2.45	122	i Pn	Pn	22 21 30.2	-0.1
NVLJ				i Sn	Sn	22 21 58.6	-1.8
NVLJ	Novalja	2.45	122	i Sn	Sn	22 21 58.6	-1.8
CSNT	Castellina Chi	2.48	191	ePN	Pn	22 21 30.6	0.0
	71nm,0.6s						
CSNT	Castellina Chi	2.48	191	ePn	Pn	22 21 30.6	0.0
CSNT	Castellina Chi	2.48	191	ePn	Pn	22 21 30.6	0.0
	71nm,0.6s						
MOA	Molln	2.51	38	⇓iPN	Pn	22 21 32.5	+1.5
MOA				i SN	Sn	22 22 03.7	+1.9
MUO	Muotathal	2.53	296	ePn	Pn	22 21 34.7	+3.3
MUO	Muotathal	2.53	296	ePn	Pn	22 21 35.1	+3.7
	27nm,0.7s						
WILA	Wila	2.59	307	ePn	Pn	22 21 34.9	+2.7
WILA	Wila	2.59	307	ePn	Pn	22 21 34.7	+2.5
	36nm,0.5s						
WEIN	Weingarten	2.62	310	ePn	Pn	22 21 35.6	+3.0
WEIN	Weingarten	2.62	310	ePn	Pn	22 21 34.9	+2.3
	33nm,0.5s						
PCP	Pian Castagno	2.77	242	P	Pn	22 21 36.2	+1.3
PCP				S	Sn	22 22 09.0	+0.5
PCP	Pian Castagno	2.77	242	P	Pn	22 21 36.2	+1.4
PCP				S	Sn	22 22 09.0	+0.5
ORO	Oropa	2.80	266	ePN	Pn	22 21 34.9	-0.3
	100nm,0.3s						
ORO	Oropa	2.80	266	ePn	Pn	22 21 34.9	-0.3
ORO	Oropa	2.80	266	ePn	Pn	22 21 34.9	-0.3
	100nm,0.3s						
ORX	Oropa	2.80	266	P	Pn	22 21 34.7	-0.5
ORX				S	Sn	22 22 06.8	-2.4
ORX	Oropa	2.80	266	P	Pn	22 21 34.7	-0.5
ORX	Oropa	2.80	266	S	Sn	22 22 06.8	-2.4
ARSA	Arzberg	2.80	60	⇑iPN	Pn	22 21 35.5	+0.3
ARSA				i SN	Sn	22 22 10.4	+1.2
SISC	Sisak	3.12	96	i Pn	Pn	22 21 38.6	-1.1
SISC				i Sn	Sn	22 22 15.9	-1.4
SISC	Sisak	3.12	96	i Pn	Pn	22 21 38.6	-1.2
SISC				i Sn	Sn	22 22 15.8	-1.5
FIN	Finale Ligure	3.15	239	ePN	Pn	22 21 41.2	+0.9
	33nm,0.5s						
FIN	Finale Ligure	3.15	239	ePn	Pn	22 21 41.2	+1.0
FIN	Finale Ligure	3.15	239	ePn	Pn	22 21 41.2	+0.9
	33nm,0.5s						
GEC2	GERESS Array S	3.17	21	ePn	Pn	22 21 41.0	+0.5
ROB	Roburent	3.31	242	P	Pn	22 21 42.5	0.0
ROB				S	Sn	22 22 18.6	-3.6
ROB	Roburent	3.31	242	P	Pn	22 21 42.5	0.0
FELD	Feldberg	3.36	307	Pn	Pn	22 21 44.5	+1.4
RSP	Reno Superiore	3.39	259	P	Pn	22 21 41.8	-1.9
RSP				S	Sn	22 22 18.0	-6.2
RSP	Reno Superiore	3.39	259	P	Pn	22 21 41.8	-1.8
LSD	Ceresole Reale	3.40	264	P	Pn	22 21 45.4	+1.7
LSD	Ceresole Reale	3.40	264	P	Pn	22 21 45.4	+1.7
KHC	Kasperske Hory	3.41	18	ePN	Pn	22 21 44.3	+0.4
KHC				ePG	Pg	22 21 54.0	-3.9
KHC				eSN	Sn	22 22 24.4	-0.2
KHC				eSG	Sg	22 22 36.5	-6.9
KHC	Kasperske Hory	3.41	18	ePg	Pg	22 21 54.0	-3.9
KHC				eSn	Sn	22 22 24.4	-0.2
BBS	Basel-Blauen	3.44	299	Pn	Pn	22 21 45.7	+1.4
BBS				Pg	Pg	22 21 55.7	-2.8
BBS	Basel-Blauen	3.44	299	Pg	Pg	22 21 55.7	-2.8
BFO	Black Forest	3.47	316	ePn	Pn	22 21 45.7	+1.0
BFO				eSn	Sn	22 22 26.6	+0.4
BHB	Bricherasio	3.48	254	P	Pn	22 21 44.0	-0.9
BHB	Bricherasio	3.48	254	P	Pn	22 21 44.0	-0.8
MONE	Monesi	3.50	240	P	Pn	22 21 44.8	-0.3
MONE	Monesi	3.50	240	P	Pn	22 21 44.8	-0.3
IMI	Imperia	3.51	237	P	Pn	22 21 45.0	-0.4
IMI	Imperia	3.51	237	P	Pn	22 21 45.0	-0.4
FENE	Fenestrelle	3.56	258	P	Pn	22 21 44.8	-1.2
FENE	Fenestrelle	3.56	258	P	Pn	22 21 44.8	-1.2
ENR	Entracque	3.63	244	P	Pn	22 21 46.4	-0.6
ENR	Entracque	3.63	244	P	Pn	22 21 46.4	-0.6
NEGI	Negi	3.66	237	P	Pn	22 21 47.1	-0.3
NEGI	Negi	3.66	237	P	Pn	22 21 47.1	-0.3
LPG	La Plagne	3.67	266	eSn	Sn	22 22 29.3	-2.0
	31nm,0.6s						
LPG	La Plagne	3.67	266	ePn	Pn	22 21 48.3	+0.7
LPG				eSn	Sn	22 22 29.3	-2.0
	15nm,0.6s						
STV2	Anna di Valdie	3.68	245	P	Pn	22 21 46.9	-0.8
STV2	Anna di Valdie	3.68	245	P	Pn	22 21 46.9	-0.8
STV	Sta Anna Valdi	3.68	245	P	Pn	22 21 48.2	+0.5
STV	Sta Anna Valdi	3.68	245	P	Pn	22 21 48.2	+0.5
LPL	La Plagne	3.69	266	ePn	Pn	22 21 48.8	+1.0
LPL				eSn	Sn	22 22 29.4	-2.2
	18nm,0.3s						
PZZ	Prazzo	3.71	250	P	Pn	22 21 46.5	-1.7
PZZ	Prazzo	3.71	250	P	Pn	22 21 46.5	-1.6
LIBD	Limburg	3.73	309	Pn	Pn	22 21 50.2	+1.7
RSL	Roselend	3.74	269	Pn	Pn	22 21 49.7	+1.1
AUTN	L'Aution	3.74	241	Pn	Pn	22 21 50.6	+2.0
RRL	Cesana Torines	3.78	257	P	Pn	22 21 49.8	+0.7
RRL	Cesana Torines	3.78	257	P	Pn	22 21 49.8	+0.7
SBF	Sospel	3.81	239	eSn	Sn	22 22 32.5	-2.2
	42nm,0.3s						
SBF	Sospel	3.81	239	eSg	Sg	22 22 52.5	-4.2
SBF	Sospel	3.81	239	ePn	Pn	22 21 48.3	-1.3
SBF				ePg	Pg	22 22 00.0	-5.9
SBF				eSn	Sn	22 22 32.5	-2.2
SBF				eSg	Sg	22 22 52.5	-4.2
SBF	Sospel	3.81	239	ePg	Pg	22 22 00.0	-5.9
SBF				eSn	Sn	22 22 32.5	-2.2
	21nm,0.3s						
SBF				eSg	Sg	22 22 52.5	-4.2
LOMF	Lomont	3.82	294	Pn	Pn	22 21 50.9	+1.2
LOMF				Pg	Pg	22 22 03.2	-2.9
LOMF	Lomont	3.82	294	Pg	Pg	22 22 03.2	-2.9
GRA1	Grafenberg Arr	3.82	353	ePn	Pn	22 21 52.3	+2.5
MOF	Molkenrain	3.84	302	Pn	Pn	22 21 51.3	+1.3
TOUF	Mont Tournerai	3.84	242	Pn	Pn	22 21 51.5	+1.5
MBDF	Montbardon	3.85	254	eSn	Sn	22 22 32.7	-3.0
	26nm,0.4s						
MBDF	Montbardon	3.85	254	ePn	Pn	22 21 48.3	-1.8
MBDF				eSn	Sn	22 22 32.7	-3.0
AURF	Auriere	3.86	240	Pn	Pn	22 21 52.5	+2.2
PGF	Pioggiola	3.97	213	eSn	Sn	22 22 34.5	-4.4
	20nm,0.4s						
HINF	Hinteralfeld	3.99	300	ePn	Pn	22 21 52.7	+0.5
HINF				ePg	Pg	22 22 04.8	-4.7
HINF				eSn	Sn	22 22 35.2	-4.2
HINF				eSg	Sg	22 22 55.7	-7.1
	28nm,0.4s						
HINF	Hinteralfeld	3.99	300	ePg	Pg	22 22 04.8	-4.7
HINF				eSn	Sn	22 22 35.2	-4.2
HINF				eSg	Sg	22 22 55.7	-7.1
	14nm,0.4s						
ECH	Echery	4.02	307	Pn	Pn	22 21 53.2	+0.7
WLS	Welschbruch	4.02	310	Pn	Pn	22 21 53.5	+0.9
WLS				Sg	Sg	22 22 58.6	-5.2
CDF	Champ du Feu	4.06	310	ePn	Pn	22 21 53.9	+0.7
CDF				ePg	Pg	22 22 07.3	-3.6
CDF				eSn	Sn	22 22 37.2	-4.0
CDF				eSg	Sg	22 22 58.0	-7.1
	33nm,0.5s						
CDF	Champ du Feu	4.06	310	ePg	Pg	22 22 07.3	-3.6
CDF				eSn	Sn	22 22 37.2	-4.0
CDF				eSg	Sg	22 22 58.0	-7.1
	16nm,0.5s						
CABF	La Chapelle	4.14	282	ePn	Pn	22 21 54.8	+0.6
CABF				ePg	Pg	22 22 07.8	-4.6
CABF	La Chapelle	4.14	282	ePg	Pg	22 22 07.8	-4.6
LANF	Langenberg	4.17	319	Pn	Pn	22 21 54.9	+0.1
LANF				Sg	Sg	22 23 04.2	-4.6
RHK1	Bakonya	4.26	85	⇓eP	Pn	22 21 54.1	-1.9
TOD	Tromm	4.27	331	Pn	Pn	22 21 57.6	+1.4
TOD				Sg	Sg	22 23 09.3	-2.8
KTD	Kalmit	4.31	324	Pn	Pn	22 21 58.2	+1.5
KTD				Sg	Sg	22 23 09.1	-4.2
NKC	Novy Kostel	4.34	4	ePN	Pn	22 21 57.4	+0.2
NKC				ePG	Pg	22 22 12.9	-3.6
NKC				eSN	Sn	22 22 46.3	-2.0
NKC				eSG	Sg	22 23 09.7	-4.8
NKC	Novy Kostel	4.34	4	eSg	Sg	22 23 09.7	-4.8
NKC	Novy Kostel	4.34	4	ePn	Pn	22 21 57.4	+0.2
NKC				eSn	Sn	22 22 46.3	-2.0
HAU	Haudompre	4.38	301	ePn	Pn	22 21 57.8	+0.1
HAU				ePg	Pg	22 22 11.4	-5.9
HAU				eSn	Sn	22 22 44.6	-4.7
HAU				eSg	Sg	22 23 07.3	-8.4
HAU	Haudompre	4.38	301	ePg	Pg	22 22 11.4	-5.9
HAU				eSn	Sn	22 22 44.6	-4.7
HAU	Haudompre	4.38	301	eSg	Sg	22 23 07.3	-8.4
ORIF	Oris-en-Rattie	4.39	259	ePn	Pn	22 21 58.8	+0.9
ORIF				eSn	Sn	22 22 46.2	-3.4
	20nm,0.4s						
ORIF	Oris-en-Rattie	4.39	259	eSn	Sn	22 22 46.2	-3.4
	10nm,0.4s						
PRU	Pruhonice	4.44	22	ePN	Pn	22 21 59.1	+0.6
PRU				ePG	Pg	22 22 12.7	-5.7
PRU				eSN	Sn	22 22 49.8	-0.9
PRU				eSG	Sg	22 23 12.1	-5.5
	25nm,0.8s						
PRU	Pruhonice	4.44	22	ePg	Pg	22 22 12.7	-5.7
PRU				eSg	Sg	22 23 12.1	-5.5
	25nm,0.8s						
FRF	La Foret Royal	4.45	240	ePn	Pn	22 21 57.3	-1.4
FRF				eSn	Sn	22 22 47.8	-3.2
	9.8nm,0.2s						
TANN	Tannenbergstha	4.53	4	ePn	Pn	22 22 00.3	+0.5
SMOL	Smolenice	4.55	53	ePN	Pn	22 21 59.6	-0.5
PKSM	Moragy	4.66	84	⇑iP	Pn	22 21 59.3	-2.3
LMR	La Mourre	4.66	239	ePn	Pn	22 22 00.8	-0.9
LMR				eSn	Sn	22 22 52.6	-3.8
	9.7nm,0.3s						
THEF	They Montfort	4.70	302	Pn	Pn	22 22 02.6	+0.4
MOX	Moxa	4.75	357	i P	Pn	22 22 02.1	-0.8
MOX				Pg	Pg	22 22 20.0	-4.6
MOX				S	Sn	22 22 56.0	-2.6
MOX				Sg	Sg	22 23 23.0	-5.0
MOX	Moxa	4.75	357	ePn	Pn	22 22 02.1	-0.8
MOX				ePg	Pg	22 22 20.5	-4.1
MOX				eSn	Sn	22 22 56.4	-2.2
MOX				eSg	Sg	22 23 22.7	-5.3
MOX	Moxa	4.75	357	eSn	Sn	22 22 56.8	-1.8
MOX	Moxa	4.75	357	ePg	Pg	22 22 20.5	-4.1
SMRF	Simiane la Rot	4.93	249	ePn	Pn	22 22 05.7	+0.3
SMRF				eSn	Sn	22 22 59.5	-3.5
	5.2nm,0.2s						
PVCC	Panska Ves	4.95	20	eSG	Sg	22 23 27.8	-6.6
ABH	Alteburg	4.97	325	Pn	Pn	22 22 06.7	+0.7
STON	Ston	5.11	124	i Pn	Pn	22 22 06.6	-1.4
STON				i Sn	Sn	22 23 03.3	-4.2
STON	Ston	5.11	124	i Pn	Pn	22 22 06.5	-1.5
STON				i Sn	Sn	22 23 03.3	-4.2
BRG	Berggiesshubel	5.14	14	i Pn	Pn	22 22 08.8	+0.3
BRG				i Pg	Pg	22 22 27.4	-5.1
BRG				i Sn	Sn	22 23 05.4	-3.1
BRG				i Sg	Sg	22 23 36.8	-4.3
BRG	Berggiesshubel	5.14	14	ePn	Pn	22 22 08.4	-0.1
BRG	Berggiesshubel	5.14	14	i Pg	Pg	22 22 27.4	-5.1
VIVF	Saint-Julien-l	5.24	261	ePn	Pn	22 22 08.9	-1.0
VIVF				eSn	Sn	22 23 06.1	-4.8

	3.3nm,0.2s						
DPC	**Dobruska-Polom**	5.32	32	*e*PN	Pn	22 22 10.4	-0.6
DPC				*e*PG	Pg	22 22 31.0	-5.0
UPC	**Upice**	5.34	29	*e*SG	Sg	22 23 41.2	-6.5
VYHS	**Vyhne**	5.35	59	*e*PN	Pn	22 22 09.0	-2.4
MEZF	**Maizieres J’vi**	5.38	301	*e*Pn	Pn	22 22 10.6	-1.2
MEZF				*e*Pg	Pg	22 22 30.6	-6.6
MEZF				*e*Sn	Sn	22 23 07.6	-6.8
MEZF				*e*Sg	Sg	22 23 39.2	-10
	15nm,0.5s						
MEZF	**Maizieres J’vi**	5.38	301	*e*Pg	Pg	22 22 30.6	-6.6
MEZF				*e*Sn	Sn	22 23 07.6	-6.8
MEZF				*e*Sg	Sg	22 23 39.2	-10
	7.5nm,0.5s						
WLF	**Walferdange**	5.43	316	P	Pn	22 22 14.2	+1.7
CLL	**Collm**	5.45	7	*e*Pn	Pn	22 22 12.0	-0.8
CLL				*e*Pg	Pg	22 22 35.0	-3.6
CLL				*e*Sg	Sg	22 23 45.0	-6.3
CLL	**Collm**	5.45	7	*e*PN	Pn	22 22 12.0	-0.8
CLL				*e*PG	Pg	22 22 35.0	-3.6
CLL				*e*		22 22 57.0	
CLL				*e*		22 23 24.0	
CLL				*e*SG	Sg	22 23 45.0	-6.3
CLL	**Collm**	5.45	7	*e*Pg	Pg	22 22 35.0	-3.6
SMF	**Signal de Mont**	5.68	280	*e*Pn	Pn	22 22 15.4	-0.6
SMF				*e*Sn	Sn	22 23 15.6	-6.3
	20nm,0.5s						
OKC	**Ostrava-Krasne**	5.73	44	*e*SG	Sg	22 23 52.7	-7.8
PLDF	**La Plantade**	5.82	274	Pn	Pn	22 22 17.4	-0.6
SSF	**Saint Saulge**	5.95	284	*e*Pn	Pn	22 22 19.2	-0.7
SSF				*e*Pg	Pg	22 22 41.7	-7.0
SSF				*e*Sn	Sn	22 23 22.4	-6.4
	4.0nm,0.4s						
SSF	**Saint Saulge**	5.95	284	*e*Pg	Pg	22 22 41.7	-7.0
SSF				*e*Sn	Sn	22 23 22.4	-6.4
	2.0nm,0.4s						
AVF	**Avril sur Loir**	6.03	282	*e*Pn	Pn	22 22 19.8	-1.1
AVF				*e*Sn	Sn	22 23 24.5	-6.1
	5.2nm,0.5s						
AVF	**Avril sur Loir**	6.03	282	*e*Sn	Sn	22 23 24.5	-6.1
	2.6nm,0.5s						
LASF	**Ste Croix**	6.03	255	*e*Pn	Pn	22 22 19.9	-1.1
LASF				*e*Sn	Sn	22 23 25.8	-4.9
	5.3nm,0.3s						
LASF	**Ste Croix**	6.03	255	*e*Sn	Sn	22 23 25.8	-4.9
	2.7nm,0.3s						
LBL	**Lubilhac**	6.16	267	Pn	Pn	22 22 22.4	-0.4
MEM	**Membach**	6.16	322	P	Pn	22 22 23.3	+0.5
BGF	**Bois d’Agland**	6.36	279	*e*Pn	Pn	22 22 24.9	-0.7
BGF				*e*Sn	Sn	22 23 32.3	-6.6
	8.4nm,0.3s						
GIVF	**Givet**	6.37	314	*e*Sn	Sn	22 23 32.0	-7.2
	7.0nm,0.3s						
DOU	**Dourbes**	6.48	313	P	Pn	22 22 28.6	+1.2
HYF	**Humbligny**	6.57	285	*e*Pn	Pn	22 22 27.3	-1.3
HYF				*e*Sn	Sn	22 23 37.3	-6.9
BAIF	**Baives**	6.66	311	*e*Pn	Pn	22 22 27.6	-2.3
TCF	**Toulx Ste Croi**	6.79	277	*e*Pn	Pn	22 22 30.6	-1.1
TCF				*e*Sn	Sn	22 23 42.9	-6.8
	8.2nm,0.3s						
CAF	**Calviac**	7.04	266	*e*Pn	Pn	22 22 33.4	-1.7
RJF	**Les Rejaudoux**	7.35	269	*e*Pn	Pn	22 22 37.8	-1.8
LDF	**La Druitiere**	8.65	292	*e*Pn	P	22 22 54.5	-3.2
FLN	**La Foliniere**	8.92	293	*e*Pn	P	22 22 58.5	-3.0
GRR	**Gorron**	9.09	290	*e*Pn	P	22 23 00.9	-2.8

PRU ***04*** *22:41:38.9, 50.23N×18.81E*

WAR 04 22:41:38.1, 50.26N×18.86E, h0^{km}, ML2.4, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	0.47	248	*e*PG	Pg	22 41 48.0	+0.6
RAC				*e*SG	Sg	22 41 55.0	+1.4
OJC	**Ojcow**	0.60	94	*e*PG	Pg	22 41 50.0	-0.1
OJC				*e*SG	Sg	22 41 59.0	+0.9
OKC	**Ostrava-Krasne**	0.63	228	*e*PG	Pg	22 41 50.6	0.0
OKC				*e*SG	Sg	22 42 01.0	+2.0
NIE	**Niedzica**	1.26	131	*e*Pg	Pg	22 42 02.8	-0.5
NIE				*e*Sg	Sg	22 42 19.9	-0.2
DPC	**Dobruska-Polom**	1.63	274	*e*PG	Pg	22 42 07.6	-3.1
DPC				*e*SG	Sg	22 42 28.8	-3.6
KSP	**Ksiaz**	1.74	291	*e*PG	Pg	22 42 11.0	-1.8
KSP				*e*SG	Sg	22 42 34.0	-2.0
VYHS	**Vyhne**	1.77	181	*e*PG	Pg	22 42 09.7	-3.7
VYHS				*e*SG	Sg	22 42 32.5	-4.5
UPC	**Upice**	1.84	279	*e*PG	Pg	22 42 12.3	-2.6
UPC				*e*SG	Sg	22 42 35.6	-3.8
SMOL	**Smolenice**	1.98	209	*e*PG	Pg	22 42 13.4	-4.3
CRVS	**Cervenica-Dubn**	2.17	128	*e*PG	Pg	22 42 20.0	-1.4
CRVS				*e*SG	Sg	22 42 48.5	-1.9
PRU	**Pruhonice**	2.79	266	*e*SG	Sg	22 43 04.6	-6.5
	5.3nm,0.5s						
KHC	**Kasperske Hory**	3.61	254	*e*PG	Pg	22 42 46.0	-4.2
KHC				*e*x	x	22 43 26.5	
KHC				*e*SG	Sg	22 43 32.6	-5.8
CLL	**Collm**	3.86	288	*e*SG	Sg	22 43 42.0	-4.7

ROM ***04*** *22:45:39.7±0.2, 45.92N×11.96E, h9^{km}±1^{km}, MD3.0/4, ML2.1/5, Error ellipse: s-maj=1.4km s-min=0.9km az=0.0*

NEIC ***04*** *22:45:39.7, 45.92N×11.96E, h9^{km}, MD3.0(ROM), ML3.0(VIE), ML2.6(SZGRF), ML2.6(LDG), ML2.5(FUR), After ROM.*

CSEM ***04*** *22:45:39.6±0.1, 45.89N×11.97E, h12^{km}, ML2.8/12, Error ellipse: s-maj=2.1km s-min=1.3km az=178.0*

LDG ***04*** *22:45:41.2±0.4, 45.99N×12.03E, h5^{km}, Ml2.6/9, Error ellipse: s-maj=10.6km s-min=6.8km az=175.0*

ISC 04 22:45:38.8±0.3**, 45.88N**±0.02×**11.95E**±0.02**, h12^{km}, n77, σ1^{s}05**/136**, 22C-8D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CGRP	**Cima Grappa**	0.10	268	⇑*i*Pg	Pg	22 45 42.8	+0.9
CGRP				*i* Sg	Sg	22 45 45.3	+1.5
CTI	**Castel Tesino**	0.27	308	*e*PG	Pg	22 45 45.3	+0.7
CTI				SG	Sg	22 45 49.9	+1.5
	324nm,0.3s						
CTI	**Castel Tesino**	0.27	308	*e*Pg	Pg	22 45 45.3	+0.8
CTI				*e*Sg	Sg	22 45 49.9	+1.6
CTI	**Castel Tesino**	0.27	308	*e*Pg	Pg	22 45 45.3	+0.7
	324nm,0.3s						
CTI				Sg	Sg	22 45 49.9	+1.5
FAU	**Forcella Aurin**	0.35	4	⇑*i*Pg	Pg	22 45 45.8	-0.2
CAE	**Caneva**	0.36	70	⇑*e*Pg	Pg	22 45 45.9	-0.5
CAE				*e*Sg	Sg	22 45 51.4	0.0
CSO	**Casso**	0.47	34	⇓*e*Pg	Pg	22 45 47.8	-0.6
CSO				*e*Sg	Sg	22 45 55.4	+0.6
MLNI	**Malnisio**	0.53	60	⇓*e*Pg	Pg	22 45 50.5	+0.8
MLNI				*e*Sg	Sg	22 45 57.9	+1.0
TEOL	**Teolo**	0.56	201	⇑*e*Pg	Pg	22 45 51.1	+0.9
AFL	**Alpe Faloria**	0.67	14	⇓*i*Pg	Pg	22 45 52.7	+0.4
APPI	**Appiano**	0.78	320	⇓*i*PG	Pg	22 45 55.0	+0.5
APPI				SG	Sg	22 46 05.6	+0.6
APPI	**Appiano**	0.78	320	⇓*i*Pg	Pg	22 45 55.0	+0.5
APPI				*e*Sg	Sg	22 46 05.6	+0.6
CSMI	**Casera Mimoias**	0.80	38	⇑*e*Pg	Pg	22 45 54.3	-0.5
CSMI				*e*Sg	Sg	22 46 06.4	+0.9
CSMI	**Casera Mimoias**	0.80	38	*e*Sg	Sg	22 46 06.4	+0.8
TLI	**Talmassons**	0.81	87	⇑*e*Pg	Pg	22 45 55.3	+0.3
MPRI	**Monte Prat**	0.81	63	⇑*e*Pg	Pg	22 45 55.5	+0.4
MPRI				*e*Sg	Sg	22 46 07.6	+1.7
BRES	**Bressanone**	0.83	350	*e*PG	Pg	22 45 55.8	+0.3
BRES	**Bressanone**	0.83	350	*e*Pg	Pg	22 45 55.8	+0.2
BOO	**Bordano**	0.91	61	*e*Pg	Pg	22 45 57.3	+0.1
FVI	**Forni Avoltri**	0.92	39	*e*PG	Pg	22 45 57.2	-0.1
FVI				SG	Sg	22 46 10.7	+1.1
	42nm,0.2s						
FVI	**Forni Avoltri**	0.92	39	*e*Pg	Pg	22 45 57.1	-0.1
FVI				*e*Sg	Sg	22 46 10.7	+1.1
FVI	**Forni Avoltri**	0.92	39	*e*Pg	Pg	22 45 57.2	-0.1
	42nm,0.2s						
FVI	**Forni Avoltri**	0.92	39	Sg	Sg	22 46 10.7	+1.1
BAD	**Bernadia**	0.97	68	⇑*e*Pg	Pg	22 45 58.2	-0.1
BAD				*e*Sg	Sg	22 46 11.0	-0.2
ZOU	**Zoufplan**	0.98	46	⇑*e*Pg	Pg	22 45 58.2	-0.2
ZOU				*e*Sg	Sg	22 46 11.9	+0.3
MABI	**Malga Bissina**	1.02	280	*e*PG	Pg	22 45 59.9	+0.7
MABI				SG	Sg	22 46 13.9	+1.1
MABI	**Malga Bissina**	1.02	280	*e*Pg	Pg	22 45 59.9	+0.7
MABI				*e*Sg	Sg	22 46 13.9	+1.1
COLI	**Coloredo**	1.03	75	⇑*e*Pg	Pg	22 45 59.5	+0.1
COLI				*e*Sg	Sg	22 46 14.3	+1.1
SAL	**Salo**	1.03	255	*e*PN	Pn	22 46 00.7	+1.6
	83nm,0.4s						
SAL	**Salo**	1.03	255	*e*Pg	Pg	22 46 00.7	+1.1
PLRO	**Paularo**	1.07	51	⇑*e*Pg	Pg	22 45 59.6	-0.6
PLRO				*e*Sg	Sg	22 46 15.2	+0.7
PLRO	**Paularo**	1.07	51	*e*Sg	Sg	22 46 15.2	+0.7
PTCC	**Patocco-Chiusa**	1.11	61	*e*PN	Pn	22 46 00.7	+0.6
PTCC				SN	Sn	22 46 16.5	+1.2
	39nm,0.2s						
PTCC	**Patocco-Chiusa**	1.11	61	*e*Pg	Pg	22 46 00.7	-0.3
PTCC				*e*Sg	Sg	22 46 16.5	+0.6
PTCC	**Patocco-Chiusa**	1.11	61	*e*Pn	Pn	22 46 00.7	+0.6
	39nm,0.2s						
PTCC				Sn	Sn	22 46 16.5	+1.2
SCE	**Schlegeis**	1.17	352	*e*Pg	Pg	22 46 01.8	-0.4
SCE				*e*Sg	Sg	22 46 17.9	+0.1
DRE	**Drenchia**	1.22	76	⇑*e*Pg	Pg	22 46 02.4	-0.8
DRE				*e*Sg	Sg	22 46 19.9	+0.4
BRMO	**Bormio**	1.25	299	*e*PN	Pn	22 46 03.5	+1.4
	37nm,0.4s						
LSR	**Lussari**	1.25	61	⇓*e*Pg	Pg	22 46 03.1	-0.7
LSR				*e*Sg	Sg	22 46 20.3	-0.2
TRI	**Trieste**	1.28	97	⇑*i*PN	Pn	22 46 03.2	+0.6
TRI				SN	Sn	22 46 20.4	+0.6
	52nm,0.3s						
TRI	**Trieste**	1.28	97	⇑*i*Pg	Pg	22 46 03.2	-1.3
TRI				*e*Sg	Sg	22 46 20.4	-1.2
TRI	**Trieste**	1.28	97	⇑*i*Pn	Pn	22 46 03.2	+0.6
	52nm,0.3s						
TRI				Sn	Sn	22 46 20.4	+0.6
VOY	**Vojsko**	1.36	83	⇓*e*Pg	Pg	22 46 04.6	-1.6
VOY				*e*Sg	Sg	22 46 22.7	-1.7
WTTA	**Wattenberg**	1.40	351	⇑*i*PG	Pg	22 46 06.6	-0.2
WTTA				*i* SG	Sg	22 46 26.2	+0.7
	44nm,0.3s						
WTTA	**Wattenberg**	1.40	351	*e*Pg	Pg	22 46 06.5	-0.3
WTTA				*e*Sg	Sg	22 46 25.8	+0.3
SQTA	**Sankt Quirin**	1.43	339	⇑*i*PG	Pg	22 46 06.6	-0.9
SQTA				*i* SG	Sg	22 46 26.8	+0.2
	71nm,0.3s						
WATA	**Walderalm**	1.48	350	⇑*i*PG	Pg	22 46 07.9	-0.5
WATA				*i* SG	Sg	22 46 28.6	+0.5
	7.5nm,0.2s						
KBA	**Koelnbreinsper**	1.54	38	⇑*i*PG	Pg	22 46 08.5	-1.1
KBA				*i* SG	Sg	22 46 30.3	+0.2
	32nm,0.4s						
KBA	**Koelnbreinsper**	1.54	38	⇑*i*Pg	Pg	22 46 08.5	-1.1
KBA				*e*Sg	Sg	22 46 29.8	-0.3
MOTA	**Moosalm**	1.57	339	⇑*i*PG	Pg	22 46 09.2	-1.1
MOTA				*i* SG	Sg	22 46 31.0	-0.3
	25nm,0.3s						
BGLD	**Berchtesgaden**	1.91	22	⇓*i*Pg	Pg	22 46 14.4	-2.7
DAVA	**Damuels**	2.00	315	⇑*i*PG	Pg	22 46 16.4	-2.4
DAVA				*i* SG	Sg	22 46 44.2	-1.4
	22nm,0.4s						
VBY	**Vinica-Bojanci**	2.35	98	*e*Pn	Pn	22 46 25.1	+7.2
VBY				*e*		22 46 46.1	
VBY				*e*Sn	Sn	22 46 56.0	+9.1
NVLJ	**Novalja**	2.45	122	*i* Pn	Pn	22 46 19.4	+0.1
NVLJ				*i* Sn	Sn	22 46 47.8	-1.7
GEC2	**GERESS Array S**	3.19	21	*e*Pn	Pn	22 46 30.5	+0.6
KHC	**Kasperske Hory**	3.43	18	*e*Pn	Pn	22 46 33.5	+0.2
KHC				*e*		22 46 42.6	
KHC				*e*Sn	Sn	22 47 13.5	-0.8
KHC				*e*		22 47 28.5	
KHC				*e*		22 47 37.5	
KHC	**Kasperske Hory**	3.43	18	*e*PN	Pn	22 46 33.5	+0.2
KHC				*e*x	x	22 46 42.6	
KHC				*e*SN	Sn	22 47 13.5	-0.8
KHC				x	x	22 47 28.5	
KHC				x	x	22 47 37.5	
KHC	**Kasperske Hory**	3.43	18	*e*Pn	Pn	22 46 33.5	+0.2
KHC				*e*Sn	Sn	22 47 13.5	-0.8
LPG	**La Plagne**	3.66	266	*e*Pn	Pn	22 46 38.4	+1.8
LPG				*e*Sn	Sn	22 47 19.4	-0.8
	1.9nm,0.3s						
LPL	**La Plagne**	3.67	266	*e*Pn	Pn	22 46 38.9	+2.2
LPL				*e*Sn	Sn	22 47 19.7	-0.7
	2.5nm,0.3s						
SBF	**Sospel**	3.79	239	*e*Sn	Sn	22 47 22.8	-0.6
	11nm,0.4s						
MBDF	**Montbardon**	3.83	254	*e*Pn	Pn	22 46 38.0	-1.0
MBDF				*e*Sn	Sn	22 47 22.7	-1.8
	4.6nm,0.5s						
GRA1	**Grafenberg Arr**	3.84	353	*e*Pg	Pg	22 46 52.3	-3.3
HINF	**Hinteralfeld**	4.00	301	*e*Pn	Pn	22 46 42.4	+1.1
HINF				*e*Sn	Sn	22 47 25.5	-3.1
	2.9nm,0.3s						
HINF				*e*Sg	Sg	22 47 45.4	-6.5
HINF	**Hinteralfeld**	4.00	301	*e*Sn	Sn	22 47 25.5	-3.1
	1.5nm,0.3s						
HINF				*e*Sg	Sg	22 47 45.4	-6.5
CDF	**Champ du Feu**	4.07	310	*e*Pn	Pn	22 46 43.2	+0.8
CDF				*e*Sn	Sn	22 47 27.4	-3.1
CDF				*e*Sg	Sg	22 47 48.5	-5.9
	3.4nm,0.4s						
NKC	**Novy Kostel**	4.37	4	*e*SG	Sg	22 48 00.0	-4.2
ORIF	**Oris-en-Rattie**	4.38	259	*e*Pn	Pn	22 46 48.6	+1.8
ORIF				*e*Sn	Sn	22 47 36.3	-2.1
	1.4nm,0.3s						
HAU	**Haudompre**	4.38	301	*e*Pn	Pn	22 46 47.7	+0.9
HAU				*e*Pg	Pg	22 47 01.5	-4.9
HAU				*e*Sn	Sn	22 47 34.8	-3.6
HAU				*e*Sg	Sg	22 47 56.9	-7.9
	3.3nm,0.3s						
HAU	**Haudompre**	4.38	301	*e*Pg	Pg	22 47 01.5	-4.9
HAU				*e*Sn	Sn	22 47 34.8	-3.6
HAU				*e*Sg	Sg	22 47 56.9	-7.9
	1.6nm,0.3s						
MOX	**Moxa**	4.77	357	*i* P	Pn	22 46 51.2	-1.1
MOX				S	Sn	22 47 45.0	-3.2
MOX	**Moxa**	4.77	357	Pn	Pn	22 46 51.2	-1.1
MOX				*e*Sn	Sn	22 47 45.5	-2.7
VIVF	**Saint-Julien-l**	5.23	261	*e*Pn	Pn	22 46 59.1	+0.3
CLL	**Collm**	5.47	7	*e*SG	Sg	22 48 35.0	-6.1
SMF	**Signal de Mont**	5.67	281	*e*Pn	Pn	22 47 05.0	-0.1
SMF				*e*Sn	Sn	22 48 05.1	-5.8
	1.8nm,0.3s						
SMF	**Signal de Mont**	5.67	281	*e*Sn	Sn	22 48 05.1	-5.8
	0.9nm,0.3s						
BGF	**Bois d’Agland**	6.35	279	*e*Pn	Pn	22 47 14.2	-0.4

ROM ***04*** *22:47:59.3±0.1, 45.91N×11.99E, h4^{km}±1^{km}, MD3.2/3, ML2.4/4, Error ellipse: s-maj=0.7km s-min=0.4km az=0.0*

NEIC ***04*** *22:47:59.3, 45.91N×11.99E, h4^{km}, MD3.2(ROM), ML3.3(VIE), ML2.8(SZGRF), ML2.8(LDG), ML2.7(FUR), After ROM.*

CSEM ***04*** *22:47:59.8±0.1, 45.89N×11.97E, h12^{km}, ML3.0/12, Error ellipse: s-maj=1.8km s-min=1.2km az=174.0*

ZUR ***04*** *22:48:00.4, 45.84N×11.85E, h10^{km}, ML2.5/7*

LDG ***04*** *22:48:01.6±0.2, 45.98N×12.02E, h5^{km}, Ml2.8/11, Error ellipse: s-maj=7.2km s-min=4.3km az=7.0*

ISC 04 22:47:59.3±0.2**, 45.90N**±0.02×**11.95E**±0.02**, h12^{km}, n95, σ1^{s}12**/164**, 21C-10D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CGRP	**Cima Grappa**	0.10	260	⇑*i*Pg	Pg	22 48 03.1	+0.8
CGRP				*e*Sg	Sg	22 48 05.6	+1.3
CTI	**Castel Tesino**	0.26	306	*e*PG	Pg	22 48 05.6	+0.8
CTI				SG	Sg	22 48 09.7	+1.2
	544nm,0.4s						
CTI	**Castel Tesino**	0.26	306	*e*Pg	Pg	22 48 05.6	+0.8
CTI				*e*Sg	Sg	22 48 09.7	+1.2
CTI	**Castel Tesino**	0.26	306	*e*Pg	Pg	22 48 05.6	+0.8
	544nm,0.4s						
CTI				Sg	Sg	22 48 09.7	+1.2
FAU	**Forcella Aurin**	0.33	4	⇓*i*Pg	Pg	22 48 06.1	-0.1
CAE	**Caneva**	0.36	72	⇑*e*Pg	Pg	22 48 06.3	-0.5
CAE				*e*Sg	Sg	22 48 11.8	0.0
CSO	**Casso**	0.46	35	⇓*e*Pg	Pg	22 48 07.6	-1.0
CSO				*e*Sg	Sg	22 48 15.9	+1.0
MLNI	**Malnisio**	0.53	61	*e*Pg	Pg	22 48 09.5	-0.5
MLNI				*e*Sg	Sg	22 48 18.2	+1.0
TEOL	**Teolo**	0.57	200	⇑*e*Pg	Pg	22 48 11.4	+0.5
TEOL				*e*Sg	Sg	22 48 19.5	+0.9
AFL	**Alpe Faloria**	0.65	14	⇓*i*Pg	Pg	22 48 13.0	+0.6
CSMI	**Casera Mimoias**	0.79	38	⇑*e*Pg	Pg	22 48 14.6	-0.5
CSMI				*e*Sg	Sg	22 48 26.4	+0.7
MPRI	**Monte Prat**	0.80	64	⇑*e*Pg	Pg	22 48 15.4	0.0
MPRI				*e*Sg	Sg	22 48 27.9	+1.6
MPRI	**Monte Prat**	0.80	64	⇑*e*Pg	Pg	22 48 15.4	0.0
MPRI				*e*Sg	Sg	22 48 27.9	+1.7
TLI	**Talmassons**	0.81	88	⇓*e*Pg	Pg	22 48 15.4	-0.1
BRES	**Bressanone**	0.81	350	*e*PG	Pg	22 48 16.0	+0.3
BRES	**Bressanone**	0.81	350	*e*Pg	Pg	22 48 16.1	+0.4
BUA	**Buia**	0.88	68	⇓*e*Pg	Pg	22 48 17.0	0.0
BOO	**Bordano**	0.91	62	*e*Pg	Pg	22 48 16.5	-1.0
FVI	**Forni Avoltri**	0.91	39	*e*PG	Pg	22 48 17.3	-0.2
FVI				SG	Sg	22 48 30.9	+1.2
	88nm,0.3s						
FVI	**Forni Avoltri**	0.91	39	*e*Pg	Pg	22 48 17.2	-0.3
FVI				*e*Sg	Sg	22 48 30.9	+1.2
FVI	**Forni Avoltri**	0.91	39	*e*Pg	Pg	22 48 17.3	-0.2
	88nm,0.3s						
FVI				Sg	Sg	22 48 30.9	+1.2
BAD	**Bernadia**	0.96	69	*e*Pg	Pg	22 48 17.7	-0.9
BAD				*e*Sg	Sg	22 48 32.1	+0.6
ZOU	**Zoufplan**	0.97	47	⇑*e*Pg	Pg	22 48 18.6	-0.2
ZOU				*e*Sg	Sg	22 48 32.3	+0.5
ZOU	**Zoufplan**	0.97	47	⇑*e*Pg	Pg	22 48 18.5	-0.3
ZOU				*e*Sg	Sg	22 48 32.3	+0.5
MABI	**Malga Bissina**	1.01	279	*e*PG	Pg	22 48 20.1	+0.5
MABI	**Malga Bissina**	1.01	279	*e*Pg	Pg	22 48 20.1	+0.6
COLI	**Coloredo**	1.02	76	⇑*e*Pg	Pg	22 48 19.6	-0.2
SAL	**Salo**	1.04	254	*e*PG	Pg	22 48 20.9	+0.8
SAL				SG	Sg	22 48 36.5	+2.6
	109nm,0.4s						
SAL	**Salo**	1.04	254	*e*Pg	Pg	22 48 20.9	+0.9
SAL				*e*Sg	Sg	22 48 36.5	+2.5
SAL	**Salo**	1.04	254	*e*Pg	Pg	22 48 20.9	+0.8
	109nm,0.4s						
SAL	**Salo**	1.04	254	Sg	Sg	22 48 36.5	+2.6
PLRO	**Paularo**	1.06	52	⇑*e*Pg	Pg	22 48 20.0	-0.5
PLRO				*e*Sg	Sg	22 48 35.5	+0.8
PLRO	**Paularo**	1.06	52	*e*Sg	Sg	22 48 35.5	+0.8
PTCC	**Patocco-Chiusa**	1.10	62	*e*PG	Pg	22 48 21.0	-0.4
PTCC				SG	Sg	22 48 36.9	+0.8
	89nm,0.3s						
PTCC	**Patocco-Chiusa**	1.10	62	*e*Pg	Pg	22 48 21.0	-0.4
PTCC				*e*Sg	Sg	22 48 36.9	+0.7
PTCC	**Patocco-Chiusa**	1.10	62	*e*Pg	Pg	22 48 21.0	-0.4
	89nm,0.3s						
PTCC				Sg	Sg	22 48 36.9	+0.8
ROBS	**Robic**	1.14	72	*i* Pn	Pn	22 48 21.7	+0.6
SCE	**Schlegeis**	1.15	352	*e*Pg	Pg	22 48 22.2	-0.2
SCE				*e*Sg	Sg	22 48 38.0	+0.2
DRE	**Drenchia**	1.21	76	⇑*e*Pg	Pg	22 48 22.7	-0.9
DRE				*e*Sg	Sg	22 48 39.9	0.0
BRMO	**Bormio**	1.24	298	*e*PN	Pn	22 48 23.9	+1.5
	47nm,0.4s						
BRMO	**Bormio**	1.24	298	*e*Pg	Pg	22 48 23.9	-0.2
LSR	**Lussari**	1.24	62	*e*Pg	Pg	22 48 23.3	-0.9
LSR				*e*Sg	Sg	22 48 40.7	-0.1
TRI	**Trieste**	1.29	98	⇑*i*PN	Pn	22 48 23.5	+0.4
TRI				SN	Sn	22 48 41.1	+0.8
	121nm,0.2s						
TRI	**Trieste**	1.29	98	⇑*i*Pg	Pg	22 48 23.5	-1.5
TRI				*e*Sg	Sg	22 48 41.1	-1.1
TRI	**Trieste**	1.29	98	⇑*i*Pg	Pn	22 48 23.5	+0.4
TRI				*e*Sg	Sn	22 48 41.1	+0.8
CADS	**Cadrg**	1.29	75	*i* Pn	Pn	22 48 23.7	+0.6
CADS				*i* Pg	Pg	22 48 24.2	-0.9
CADS	**Cadrg**	1.29	75	*i* Pg	Pg	22 48 24.2	-0.9
VOY	**Vojsko**	1.36	84	*e*Pn	Pn	22 48 24.7	+0.5
VOY				*e*Sn	Sn	22 48 43.4	+1.1
FUORN	**Ofenpass**	1.37	302	⇓*i*Pg	Pg	22 48 26.1	-0.7
	9.1nm,0.5s						
FUORN				*e*Sg	Sg	22 48 44.2	-0.9
	9.1nm,0.5s						
WTTA	**Wattenberg**	1.38	351	⇑*i*PG	Pg	22 48 26.7	-0.2
WTTA				*i* SG	Sg	22 48 46.6	+1.2
	76nm,0.3s						
WTTA	**Wattenberg**	1.38	351	*e*Pg	Pg	22 48 26.7	-0.2
WTTA				*e*Sg	Sg	22 48 46.2	+0.8
SQTA	**Sankt Quirin**	1.42	339	⇓*i*PG	Pg	22 48 27.1	-0.5
SQTA				*i* SG	Sg	22 48 47.1	+0.5
	74nm,0.2s						
BERNI	**Berninapass**	1.43	292	⇓*i*Pg	Pg	22 48 27.3	-0.6
	8.0nm,0.5s						
BERNI				*e*Sg	Sg	22 48 46.2	-0.9
	8.0nm,0.5s						
WATA	**Walderalm**	1.46	350	⇓*i*PG	Pg	22 48 28.3	-0.2
WATA				*i* SG	Sg	22 48 48.9	+0.9
	11nm,0.2s						
KBA	**Koelnbreinsper**	1.53	39	⇑*i*PG	Pg	22 48 28.7	-1.1
KBA				*i* SG	Sg	22 48 50.5	+0.3
	44nm,0.3s						
KBA	**Koelnbreinsper**	1.53	39	⇑*i*Pg	Pg	22 48 28.7	-1.1
KBA				*e*Sg	Sg	22 48 49.9	-0.3
MOTA	**Moosalm**	1.56	338	⇑*i*PG	Pg	22 48 29.6	-0.9
MOTA				*i* SG	Sg	22 48 52.2	+0.9
	40nm,0.3s						
DAVOX	**Davos**	1.68	302	⇑*i*Pb	Pb	22 48 31.9	+2.2
	6.1nm,0.4s						
DAVOX				*e*Sb	Sb	22 48 54.8	+4.1
	6.1nm,0.4s						
VDL	**Val di Lei**	1.82	290	⇑*i*P*	Pb	22 48 34.1	+2.1
BGLD	**Berchtesgaden**	1.90	22	⇓*i*Pg	Pg	22 48 34.5	-2.8
OBKA	**Obir**	1.91	70	*e*Pn	Pn	22 48 33.4	+1.4
DAVA	**Damuels**	1.99	315	⇑*i*PG	Pg	22 48 37.0	-2.0
DAVA				*i* SG	Sg	22 49 04.5	-1.1
	30nm,0.3s						
PLONS	**Plons**	2.11	304	Pn	Pn	22 48 38.4	+3.5
LIENZ	**Alp Oberkamor**	2.19	310	*e*P	Pn	22 48 39.4	+3.3
LLS	**Linth-Limmern**	2.24	296	*e*Pn	Pn	22 48 40.9	+4.1
VBY	**Vinica-Bojanci**	2.35	98	*e*Pn	Pn	22 48 38.9	+0.5
VBY				*e*		22 48 44.2	
VBY				*e*Sn	Sn	22 49 07.1	-0.3
NVLJ	**Novalja**	2.46	122	*i* Pn	Pn	22 48 39.7	-0.2
NVLJ				*i* Sn	Sn	22 49 08.1	-2.0
MOA	**Molln**	2.52	38	*e*Pn	Pn	22 48 42.9	+2.2
MOA				*e*Sg	Sg	22 49 19.7	-3.5
ARSA	**Arzberg**	2.81	60	*e*Pn	Pn	22 48 45.0	0.0
GEC2	**GERESS Array S**	3.18	21	*e*Pn	Pn	22 48 50.4	+0.2
KHC	**Kasperske Hory**	3.42	18	*e*Pn	Pn	22 48 53.5	0.0
KHC				*e*Pg	Pg	22 49 03.5	-4.0
KHC				*e*Sn	Sn	22 49 32.5	-1.9
KHC				*e*		22 49 47.0	
KHC				*e*		22 49 58.0	
KHC	**Kasperske Hory**	3.42	18	*e*PN	Pn	22 48 53.5	0.0
KHC				*e*PG	Pg	22 49 03.5	-4.0
KHC				*e*SN	Sn	22 49 32.5	-1.9
KHC				x	x	22 49 47.0	
KHC				x	x	22 49 58.0	
KHC	**Kasperske Hory**	3.42	18	*e*Pg	Pg	22 49 03.5	-4.0
KHC				*e*Sn	Sn	22 49 32.5	-1.9
LPG	**La Plagne**	3.66	266	*e*Pn	Pn	22 48 58.4	+1.4
LPG				*e*Sn	Sn	22 49 39.6	-1.0
	7.3nm,0.6s						
LPL	**La Plagne**	3.67	266	*e*Pn	Pn	22 48 59.2	+2.0
LPL				*e*Sn	Sn	22 49 39.0	-1.8
	4.2nm,0.4s						
GRA1	**Grafenberg Arr**	3.83	353	*e*Pg	Pg	22 49 12.1	-3.6
GRA1				*e*Sg	Sg	22 50 03.1	-3.6
MBDF	**Montbardon**	3.83	254	*e*Pn	Pn	22 48 58.6	-0.8
MBDF				*e*Sn	Sn	22 49 42.7	-2.2
	12nm,0.6s						
HINF	**Hinteralfeld**	3.99	301	*e*Pn	Pn	22 49 02.3	+0.7
HINF				*e*Sn	Sn	22 49 45.5	-3.3
	5.4nm,0.3s						
HINF				*e*Sg	Sg	22 50 05.9	-6.1
CDF	**Champ du Feu**	4.06	310	*e*Pn	Pn	22 49 03.5	+0.9
CDF				*e*Sn	Sn	22 49 47.3	-3.3
CDF				*e*Sg	Sg	22 50 08.4	-6.0
	15nm,0.8s						
CABF	**La Chapelle**	4.13	282	*e*Pn	Pn	22 49 04.9	+1.3
HAU	**Haudompre**	4.38	301	*e*Pn	Pn	22 49 07.9	+0.8
HAU				*e*Sn	Sn	22 49 54.7	-3.9
HAU				*e*Sg	Sg	22 50 16.8	-8.1
	5.7nm,0.3s						
HAU	**Haudompre**	4.38	301	*e*Sn	Sn	22 49 54.7	-3.9
HAU				*e*Sg	Sg	22 50 16.8	-8.1
	2.8nm,0.3s						
ORIF	**Oris-en-Rattie**	4.38	259	*e*Pn	Pn	22 49 09.1	+1.8
ORIF				*e*Sn	Sn	22 49 56.6	-2.2
	3.8nm,0.4s						
MOX	**Moxa**	4.75	357	*i* P	Pn	22 49 12.0	-0.5
MOX				S	Sn	22 50 06.0	-2.2

MOX	**Moxa**	4.75	357	*e*Pg	Pg	22 49 28.8	-5.4
STON	**Ston**	5.11	124	*i* Pn	Pn	22 49 16.1	-1.5
STON				*i* Sn	Sn	22 50 12.6	-4.7
STON	**Ston**	5.11	124	*i* Sn	Sn	22 50 12.6	-4.7
STON	**Ston**	5.11	124	*i* Pn	Pn	22 49 16.0	-1.6
BRG	**Berggiesshubel**	5.15	14	*e*Pn	Pn	22 49 22.3	+4.2
BRG				*i* Pg	Pg	22 49 36.8	-5.4
BRG				*i*		22 50 18.3	
BRG				*i* Sg	Sg	22 50 46.0	-4.9
BRG	**Berggiesshubel**	5.15	14	*i* Pg	Pg	22 49 36.8	-5.4
VIVF	**Saint-Julien-l**	5.23	261	*e*Pn	Pn	22 49 18.7	-0.5
VIVF				*e*Sn	Sn	22 50 16.3	-3.9
	1.3nm,0.3s						
CLL	**Collm**	5.46	7	*e*PN	Pn	22 49 22.0	-0.5
CLL				*e*SG	Sg	22 50 55.0	-6.0
SMF	**Signal de Mont**	5.67	280	*e*Pn	Pn	22 49 25.3	-0.1
SMF				*e*Sn	Sn	22 50 26.1	-5.1
	2.7nm,0.4s						
SMF	**Signal de Mont**	5.67	280	*e*Sn	Sn	22 50 26.1	-5.1
	1.4nm,0.4s						
AVF	**Avril sur Loir**	6.02	282	*e*Pn	Pn	22 49 29.9	-0.4

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*KISR **04** 23:07:51.5±0.5, 34.11N×48.43E, h37^{km}±999^{km}, ML3.3*

THR 04 23:07:46.6±1.4**, 34.20N×48.02E, h14**^{km}±16^{km}**, ML3.1, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNGE	**Sanandaj**	1.05	329	*e*PG	Pg	23 08 06.3	-1.4
SNGE				AMP		23 08 27.3	
	comp=N,886nm,0.4s						
ASAO	**Ashtian**	1.70	78	*e*PG	Pg	23 08 17.2	-3.4
ASAO				AMP		23 08 45.9	
	comp=N,249nm,0.7s						
ASAO				AMP		23 08 54.0	
	comp=E,209nm,0.6s						
DAMV	**Damavand**	3.55	65	*e*PN	Pn	23 08 43.9	+1.4
NASN	**Na'in**	4.24	108	*e*PN	Pn	23 08 53.8	+1.5
RST	**Umm Al-Ruwaisa**	4.76	191	*e*P	Pn	23 09 02.8	+3.1
RST				*e*S	Sn	23 09 55.7	+0.4
RST				AML	AML	23 09 59.5	
	comp=Z,26nm,0.6s						
RDF	**Al-Radifah**	5.27	184	*e*P	Pn	23 09 09.2	+2.3
RDF				AML	AML	23 10 04.6	
	comp=Z,8.6nm,0.3s						
RDF				*e*S	Sn	23 10 07.2	-0.9
QRN	**Al-Qurain**	5.44	181	*e*P	Pn	23 09 11.6	+2.4
QRN				*e*S	Sn	23 10 10.3	-2.0
QRN				AML	AML	23 10 14.3	
	comp=Z,19nm,0.2s						

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*IDC **04** 23:12:22.8±1.1, 3.43S×135.30E, mb4.1/6, mb1 4.4/10, mb1mx4.3/15, ML3.9/4, Error ellipse: s-maj=44.9km s-min=20.6km az=70.0*

*NEIC **04** 23:12:24.4±0.5, 3.32S×135.24E, h10^{km}, mb4.3/11, Error ellipse: s-maj=17.3km s-min=8.8km az=83.0*

*BJI **04** 23:12:24.4, 3.30S×135.20E, h10^{km}, mB4.8, mb4.6, Ms4.5, Msz4.4*

ISC 04 23:12:21.0±0.4**, 3.56S**±0.04×**135.27E**±0.09**, h10**^{km}**, (h13**^{km}±1.1^{km}**:pP-P), n42,** σ**1**$\overset{s}{.}$**34**/46**, mb4.4**/20**, MS4.2**/2**, 1C-2D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	9.51	197	*e*P	P	23 14 42.0	+0.7
	25nm,0.6s						
KAKA				*e*S	Sn	23 16 29.7	+0.3
PMG	**Port Moresby**	13.16	117	Pn	P	23 15 31.2	+0.5
	0.8nm,0.3s,baz=293,slow=9.0,SNR=8.9						
PMG				Sn	S	23 17 47.3	-11
	0.5nm,0.3s,baz=194,slow=19,SNR=3.1						
PMG	**Port Moresby**	13.16	117	*e*P	P	23 15 31.1	+0.4
	49nm,1.1s						
WRAB	**Tennant Creek**	16.30	183	*e*P	P	23 16 10.1	-1.8
	55nm,0.9s						
WB2	**Warramunga Arr**	16.31	183	*e*P	P	23 16 10.5	-1.4
WB2				*i*		23 16 17.2	
WRA	**Warramunga Arr**	16.31	183	Pn	P	23 16 10.6	-1.4
	0.4nm,0.3s,baz=3.4,slow=13,SNR=19						
WRA				Sn	S	23 19 06.1	-6.6
	0.5nm,0.3s,baz=5.7,slow=23,SNR=6.7						
FITZ	**Fitzroy Crossi**	17.26	212	⇓*i*P	P	23 16 27.2	+3.2
	4.1nm,0.6s						
FITZ				*e*S	S	23 19 29.9	-4.6
FITZ	**Fitzroy Crossi**	17.26	212	P	P	23 16 26.5	+2.5
	0.4nm,0.3s,baz=14,slow=12,SNR=11						
CTA	**Charters Tower**	19.61	148	*e*P	P	23 16 53.1	+0.5
	6.3nm,0.8s						
CTA	**Charters Tower**	19.61	148	P	P	23 16 53.0	+0.4
	0.5nm,0.3s,baz=326,slow=13,SNR=6.9						
CTAO	**Charters Tower**	19.61	148	*e*P	P	23 16 50.4	-2.2
	12nm,1.0s						
ASAR	**Alice Springs**	20.03	184	P	P	23 16 59.8	+2.6
	44nm,0.7s,baz=9.3,slow=11,SNR=170						
ASPA	**Alice Springs**	20.03	184	⇓*i*P	P	23 16 59.0	+1.8
MBWA	**Marble Bar**	23.12	220	*e*P	P	23 17 33.7	+5.2
	15nm,0.9s,mb4.4						
STKA	**Stephens Creek**	28.79	169	*e*P	P	23 18 18.5	-2.9
	3.7nm,0.8s,mb4.2						
STKA	**Stephens Creek**	28.79	169	P	P	23 18 23.8	+2.4
	4.8nm,0.9s,mb4.2,baz=343,slow=12,SNR=9.6						
MAJO	**Matsushiro**	39.99	4	P	P	23 19 57.3	-0.4
CMAR	**Chiang Mai Arr**	41.94	303	P	P	23 20 24.7	+11
	0.7nm,0.7s,mb3.4,baz=105,slow=5.9,SNR=4.4						
BJT	**Baijiatuau**	46.78	340	P	P	23 21 00.2	+7.6
CN2	**Changchun**	47.97	350	*e*P	P	23 21 04.0	+2.0
MDJ	**Mudanjiang**	48.23	355	P	P	23 21 05.8	+1.8
MDJ				AMB	AMB		
	comp=Z,22nm,1.9s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,314nm,4.3s						
LZH	**Lanzhou**	49.18	326	*e*P	P	23 21 13.5	+2.1
LZH				AP	pP	23 21 16.7	+2.2
LZH				XP	sP	23 21 18.2	+2.5
LZH				PP	PP	23 23 07.6	+2.0
LZH				*e*S	S	23 28 18.4	+2.6
LZH				XS		23 28 24.6	
LZH				SS	SS	23 31 44.5	+1.6
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,102nm,5.5s						
LZH				LR	LR		
	comp=N,256nm,13.0s						
LZH				LR	LR		
	comp=Z,394nm,16.8s,MS4.5						
HHC	**Hu-ho-hao-te**	49.23	336	*e*P	P	23 21 11.1	-0.6
HHC				AP	pP	23 21 15.8	+1.0
HHC				XP	sP	23 21 18.0	+2.0
HHC				PCP	PcP	23 22 34.4	-0.7
HHC				PP	PP	23 23 05.2	-0.8
HHC				S	S	23 28 14.5	-1.9
HHC				SCS	ScS	23 30 58.6	-2.5
HHC				SS	SS	23 31 40.3	-3.4
HHC				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.7						
HHC				AMB	AMB		
	comp=Z,195nm,5.2s						
YSS	**Yuzh-Sakhalins**	50.73	7	*e*P	P	23 21 23.9	+0.7
	comp=Z,76nm,1.3s,mb5.5						
GTA	**Gaotai**	53.78	326	*e*P	P	23 21 51.0	+4.9
GTA				AP	pP	23 21 54.3	+5.1
GTA				XP	sP	23 21 57.0	+6.6
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.2						
GUN	**Gumba**	56.89	307	*e*P	P	23 22 07.5	-1.4
	comp=Z,18nm,1.1s,mb5.0						
SONM	**Songino Array**	57.09	337	P	P	23 22 11.9	+1.9
	comp=Z,1.5nm,1.2s,mb3.9,baz=161,slow=6.3,SNR=3.8						
PKI	**Pulchoki**	57.13	306	*e*P	P	23 22 10.1	-0.4
KKN	**Kakani**	57.32	306	*e*P	P	23 22 11.8	-0.1
DMN	**Daman**	57.39	306	*e*P	P	23 22 11.8	-0.6
GKN	**Gorkha**	57.93	306	*e*P	P	23 22 15.8	-0.3
	comp=Z,13nm,0.8s,mb5.0						
KOLN	**Koldanda**	58.67	306	*e*P	P	23 22 21.0	-0.3
	comp=Z,8.8nm,0.7s,mb4.9						
WMQ	**Urumqi**	63.59	323	⇑P	P	23 22 55.5	+1.1
WMQ				AP	pP	23 22 59.9	+2.4
WMQ				XP	sP	23 23 02.5	+3.8
WMQ				PCP	PcP	23 23 31.5	+0.8
WMQ				PP	PP	23 25 16.5	+0.5
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.5						
WMQ				AMB	AMB		
	comp=Z,23nm,8.0s						
WMQ				LR	LR		
	comp=N,42nm,17.6s,MS3.9						
WMQ				LR	LR		
	comp=E,71nm,20.0s,MS3.9						
WMQ				LR	LR		
	comp=Z,64nm,19.4s,MS3.8						
TKM2	**Tokmak 2**	70.83	318	P	P	23 23 39.6	-0.5
	comp=Z,4.0nm,0.9s,mb4.3						
AML	**Almayashu**	71.81	316	*e*P	P	23 23 46.1	0.0
	comp=Z,2.9nm,0.8s,mb4.3						
KURK	**Kurchatov**	72.47	326	*e*P	P	23 23 48.2	-1.6
	comp=Z,2.4nm,1.0s,mb4.1						
BVAR	**Borovoye Array**	78.07	326	P	P	23 24 21.5	-0.1
	comp=Z,1.4nm,0.9s,mb3.9,baz=117,slow=9.9,SNR=6.5						
BRVK	**Borovoye**	78.14	326	P	P	23 24 20.9	-1.1
	comp=Z,5.7nm,1.1s,mb4.4						
CHKZ	**Chkalovo**	78.19	327	*e*P	P	23 24 20.8	-1.5
	comp=Z,2.1nm,0.9s,mb4.1						
ILAR	**Eielson Array**	88.03	25	P	P	23 25 10.8	-1.7
	comp=Z,0.9nm,0.8s,mb4.0,baz=264,slow=4.5,SNR=7.8						
LPAZ	**La Paz**	149.60	131	PKPbc	PKPdf	23 32 16.4	+6.1
	comp=Z,1.9nm,0.7s,baz=237,slow=3.6,SNR=9.7						
LPAZ	**La Paz**	149.60	131	*e*PKPdf	PKPdf	23 32 10.8	+0.6
LPAZ				*e*PKPbc	PKPdf	23 32 15.1	+4.8
LPAZ				PKPbc	PKPdf	23 32 16.4	+6.1

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*NEIC **04** 23:18:58.6, 35.00N×3.09W, MG3.9(MDD), After MDD.*

*MDD **04** 23:18:58.8±1.1, 35.02N×3.09W, mb3.9/14, Error ellipse: s-maj=10.7km s-min=4.4km az=150.0, PRXIMO AftershockPLICA*

*INMG **04** 23:18:59.4±1.4, 35.04N×3.05W, h9^{km}±8^{km}, ML2.5, Error ellipse: s-maj=11.0km s-min=7.3km az=100.0*

*CNRM **04** 23:18:59.3, 34.03N×2.84W, h8^{km}, MD3.9*

CSEM 04 23:18:57.3±0.2**, 35.01N×2.90W, h8**^{km}±1^{km}**, ML3.2**/3**, 1C, Error ellipse: s-maj=5.3km s-min=3.1km az=116.0, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.14	108	*i* P	Pg	23 19 00.5	+0.1
MELI	**Melilla**	0.28	355	⇑P	Pg	23 19 04.5	+1.4
MELI				S	Sg	23 19 07.8	+0.7
EMLI	**Melilla**	0.29	352	P	Pg	23 19 04.4	+1.1
	223nm,0.1s,SNR=22						
EMEL	**Melilla**	0.29	351	P	Pg	23 19 04.4	+1.1
	223nm,0.1s,SNR=22						
EMEL				S	Sg	23 19 08.7	+1.5
	949nm,0.4s,SNR=16						
TOU	**Touzarine**	0.70	266	*i* P	Pb	23 19 12.5	+1.2
TOU				*i* S	Sg	23 19 23.5	+2.7
MPAL	**Palemas**	0.88	284	*i* P	Pb	23 19 16.0	+1.6
MPAL				*i* S	Sb	23 19 28.0	+2.0
TZK	**Tazeka**	1.40	229	*i* P	Pn	23 19 23.5	+0.3
TZK				*i* S	Sb	23 19 42.0	+0.8
EBER	**Berja**	1.88	0	P	Pn	23 19 29.6	-0.5
	2.0nm,0.2s,SNR=13						
EBER				S	Sn	23 19 51.9	-2.4
	244nm,0.8s,SNR=30						
EBER	**Berja**	1.88	0	P	Pn	23 19 29.6	-0.5
	2.0nm,0.2s,SNR=13						
ERON	**Agron**	2.13	340	P	Pn	23 19 32.1	-1.6
	3.3nm,0.2s,SNR=9.8						
ERON				S	Sn	23 19 57.9	-2.7
	24nm,0.4s,SNR=13						
EMIJ	**Mijas**	2.17	316	P	Pn	23 19 32.2	-2.0
	2.5nm,0.1s,SNR=41						
EMIJ				S	Sn	23 19 58.0	-3.6
	19nm,0.3s,SNR=8.2						
ELOJ	**Sierra Loja**	2.36	335	P	Pn	23 19 36.5	-0.5
	1.3nm,0.2s,SNR=24						
REAL	**Reales**	2.38	309	*i* P	Pn	23 19 35.0	-2.3
MIF	**Mishlifen**	2.50	231	*i* P	Pn	23 19 40.0	+1.0
MIF				*i* S	Sn	23 20 09.0	-1.1
CZD	**Col de Zad**	2.66	223	*i* P	Pn	23 19 43.0	+1.8
CZD				*i* S	Sn	23 20 14.0	+0.1
ELUQ	**Luque**	2.77	337	P	Pn	23 19 43.4	+0.6
	8.2nm,0.3s,SNR=26						
ELUQ				S	Sn	23 20 16.1	-0.8
	34nm,0.4s,SNR=8.2						
ELUQ	**Luque**	2.77	337	S	Sn	23 20 16.1	-0.8
	34nm,0.4s,SNR=8.2						
LIJA	**Lijar**	2.77	314	P	Pn	23 19 44.0	+1.1
LIJA				S	Sn	23 20 17.0	+0.1
LIJA	**Lijar**	2.77	314	*i* P	Pn	23 19 44.0	+1.1
LIJA	**Lijar**	2.77	314	*e*S	Sn	23 20 17.0	+0.1
EQES	**Quesada**	2.79	357	P	Pn	23 19 44.3	+1.3
	2.2nm,0.1s,SNR=30						
EQES				S	Sn	23 20 18.5	+1.2
	108nm,0.5s,SNR=17						
EQES	**Quesada**	2.79	357	P	Pn	23 19 44.3	+1.2
	2.2nm,0.1s,SNR=30						
EQES				S	Sn	23 20 18.5	+1.2
	108nm,0.5s,SNR=17						
ESPR	**Espera**	3.03	309	P	Pn	23 19 46.4	-0.1
	10nm,0.4s,SNR=27						
ESPR				S	Sn	23 20 21.0	-2.4
	SNR=7.9						
ESPR	**Espera**	3.03	309	P	Pn	23 19 46.4	-0.1
	10nm,0.4s,SNR=27						
ZFT	**Errachidia**	3.21	203	*i* S	Sn	23 20 24.0	-3.9
ZFT	**Errachidia**	3.21	203	*i* P	Pn	23 19 50.0	+1.0
EADA	**Adamuz**	3.43	337	P	Pn	23 19 51.4	-0.7
	2.0nm,0.1s,SNR=19						
EADA				S	Sn	23 20 30.0	-3.4
	SNR=7.9						
EADA	**Adamuz**	3.43	337	P	Pn	23 19 51.4	-0.7
	2.0nm,0.1s,SNR=19						
EVIA	**Vianos**	3.63	5	P	Pn	23 19 56.7	+1.6
	3.2nm,0.3s,SNR=7.9						
EVIA				S	Sn	23 20 38.9	+0.2
	SNR=7.9						
EMIN	**Mina Concepcio**	4.10	313	P	Pn	23 19 59.8	-2.0
	2.5nm,0.2s,SNR=42						
EMIN				S	Sn	23 20 45.1	-5.4
	SNR=7.9						
EMIN	**Mina Concepcio**	4.10	313	P	Pn	23 19 59.8	-1.9
	2.5nm,0.2s,SNR=42						
EBEN	**Beniarda**	4.26	29	P	Pn	23 20 04.5	+0.5
EBEN				S	Sn	23 20 54.4	-0.3
EBEN	**Beniarda**	4.26	29	P	Pn	23 20 04.5	+0.5
	39nm,1.1s,SNR=8.8						
EBEN				S	Sn	23 20 54.4	-0.3
	SNR=7.9						
EBEN	**Beniarda**	4.26	29	P	Pn	23 20 04.5	+0.5
	39nm,1.1s,SNR=8.8						
EBEN				S	Sn	23 20 54.4	-0.2
	SNR=7.9						
ESDC	**Sonseca Array**	4.73	350	P	Pn	23 20 10.6	-0.1
	1.6nm,0.3s,baz=171,slow=14,SNR=36						
ESDC	**Sonseca Array**	4.73	350	P	Pn	23 20 10.6	-0.1
	1.6nm,0.3s,SNR=36						
EBAD	**Badajoz**	4.98	320	P	Pn	23 20 12.1	-2.1
	4.2nm,0.2s,SNR=39						
EBAD				S	Sn	23 21 07.7	-5.0
	5.8nm,0.4s,SNR=5.7						
EBAD	**Badajoz**	4.98	320	P	Pn	23 20 12.1	-2.1
	4.2nm,0.2s,SNR=39						
PBEJ	**Beja**	5.00	308	*e*Pn	Pn	23 20 12.0	-2.5
PBEJ				*e*Sn	Sn	23 21 07.3	-6.0
	2.4nm,0.4s						
PBEJ	**Beja**	5.00	308	*e*Pn	Pn	23 20 12.0	-2.5
PBEJ				*e*Sn	Sn	23 21 07.3	-6.0
	2.4nm,0.4s						
PTEO	**Sao Teotonio**	5.34	300	*e*Pn	Pn	23 20 16.6	-2.7
PTEO				*e*Sn	Sn	23 21 16.6	-5.1
	2.7nm,0.3s						
PTEO	**Sao Teotonio**	5.34	300	P	Pn	23 20 16.6	-2.7
PTEO				S	Sn	23 21 16.6	-5.1
	1.4nm,0.3s						
PTEO	**Sao Teotonio**	5.34	300	*e*Sn	Sn	23 21 16.6	-5.1
	2.7nm,0.3s						
MOE	**Montemor**	5.60	310	*e*Pn	Pn	23 20 21.3	-1.7
MOE				*e*Sn	Sn	23 21 23.0	-5.4
PCBR	**Castelo Branco**	6.04	324	*e*Pn	Pn	23 20 27.2	-1.9
PCBR				*e*Sn	Sn	23 21 32.2	-7.1
	4.1nm,0.5s						
PCBR	**Castelo Branco**	6.04	324	P	Pn	23 20 27.2	-1.9
PCBR				S	Sn	23 21 32.2	-7.1
	2.0nm,0.5s						
PCBR	**Castelo Branco**	6.04	324	*e*Sn	Sn	23 21 32.2	-7.1
	4.1nm,0.5s						
PLOU	**Loures**	6.32	310	*e*Pn	Pn	23 20 30.9	-2.2
PTOM	**Tomar**	6.36	318	*e*Pn	Pn	23 20 30.0	-3.6
PTOM				*e*Sn	Sn	23 21 37.7	-9.5
	3.3nm,0.3s						
PTOM	**Tomar**	6.36	318	*e*Pn	Pn	23 20 30.0	-3.6
PTOM				*e*Sn	Sn	23 21 37.7	-9.5
	3.3nm,0.3s						
ERTA	**Horta de San J**	6.46	22	P	Pn	23 20 35.3	+0.2
	14nm,0.9s,SNR=9.3						
ERTA	**Horta de San J**	6.46	22	P	Pn	23 20 35.3	+0.2
	14nm,0.9s,SNR=9.3						
MTE	**Manteigas**	6.52	327	*e*Pn	Pn	23 20 34.1	-1.8
MTE				*e*Sn	Sn	23 21 45.3	-5.9
	5.0nm,0.4s						
	6.3nm,0.5s						
MTE	**Manteigas**	6.52	327	P	Pn	23 20 34.1	-1.8
MTE				S	Sn	23 21 45.3	-5.9
	2.5nm,0.4s						
PVIS	**Viseu**	6.93	327	*e*Pn	Pn	23 20 39.4	-2.3
PVIS				*e*Sn	Sn	23 21 53.9	-7.6
	1.8nm,0.3s						
PVIS	**Viseu**	6.93	327	P	Pn	23 20 39.4	-2.3
PVIS				S	Sn	23 21 53.9	-7.6
	0.9nm,0.3s						
PVRL	**Vila Real**	7.31	330	*e*Pn	Pn	23 20 44.9	-2.2
PVRL				*e*Sn	Sn	23 22 02.4	-8.7
	2.8nm,0.2s						
PVRL	**Vila Real**	7.31	330	P	Pn	23 20 44.9	-2.2
PVRL				S	Sn	23 22 02.4	-8.7
	1.4nm,0.2s						
PBRG	**Braganca**	7.42	337	*e*Pn	Pn	23 20 46.5	-2.1
ELOB	**Lobios**	7.95	331	P	Pn	23 20 53.0	-3.0
	3.5nm,0.4s,SNR=5.6						

MAN 04 23:53:07.0, 16.33N×120.47E, h18^{km}**, mb4.1, ML2.9, MS2.7, 2D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCPH	**Baguio City Da**	0.12	62	⇓*i*P	Pb	23 53 11.6	+0.7
BCPH				*i* S	Sb	23 53 15.5	+2.1
BOLP	**Bolinao**	0.54	276	*e*P	Pb	23 53 18.9	+1.3
BOLP				*e*S	Sb	23 53 28.8	+3.9
SCZP	**Santa Cruz**	0.77	225	*e*P	Pb	23 53 21.8	+0.3
PCPH	**Palayan**	0.97	142	⇓*e*P	Pb	23 53 23.2	-1.6
PCPH				*e*S	Sb	23 53 36.2	-1.0
BALP	**Baler**	1.21	119	*e*P	Pb	23 53 27.7	-1.3
BALP				*e*S	Sb	23 53 43.4	-0.8
ABRA	**Dolores**	1.34	10	*e*P	Pn	23 53 28.8	-2.1
CAUP	**Cauayan**	1.43	64	*e*P	Pn	23 53 32.1	-0.2
CAUP				*e*S	Sb	23 53 54.6	+4.0
APYP	**Conner**	1.70	26	*e*P	Pn	23 53 35.7	-0.3
APYP				*e*S	Sn	23 53 57.0	-0.4

IDC 05 00:15:49.7±2.4**, 21.08S×176.60W, mb4.0**/6**, mb1 4.4**/6**, mb1mx4.1**/13**, Error ellipse: s-maj=141.0km s-min=25.6km az=156.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	45.66	257	P	P	00 24 11.7	-2.5
	2.5nm,0.8s,baz=89,slow=8.2,SNR=18						
WRA	**Warramunga Arr**	45.82	262	P	P	00 24 13.4	-2.0
	0.4nm,0.3s,baz=92,slow=8.2,SNR=22						
TXAR	**Lajitas Array**	86.27	57	P	P	00 28 33.2	-1.8
	1.0nm,0.9s,baz=225,slow=3.8,SNR=5.9						
PDAR	**Pinedale Array**	88.49	43	P	P	00 28 45.9	+0.6
	2.3nm,1.3s,baz=194,slow=3.7,SNR=3.3						
ILAR	**Eielson Array**	88.59	12	P	P	00 28 42.0	-3.3
	0.7nm,0.9s,baz=222,slow=6.4,SNR=4.7						
CMAR	**Chiang Mai Arr**	91.54	289	P	P	00 29 00.6	+0.5
	0.8nm,0.6s,baz=131,slow=3.6,SNR=6.3						
AKASG	**Malin Array Be**	144.14	332	PKhKP		00 35 22.1	
	3.0nm,0.9s,baz=37,slow=4.1,SNR=7.0						
BRTR	**Keskin Array B**	148.19	313	PKPbc	PKPdf	00 35 38.0	+1.8
	0.2nm,0.4s,baz=72,slow=4.6,SNR=3.1						

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*NEIC **05** 00:24:42.9, 16.77N×99.72W, h10^{km}, MD3.6(MEX), After MEX.*

MEX 05 00:24:43.3±1.0**, 16.81N×99.73W, h8**^{km}±7^{km}**, MD3.6, 1C, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	0.18	287	*e*P	Pg	00 24 47.0	-0.3
ACX	**Acapulco**	0.18	287	*e*P	Pg	00 24 46.7	-0.6
CAIG	**El Cayaco**	0.56	295	*i* P	Pg	00 24 52.9	-1.8
CAIG				*i* S	Sg	00 25 01.8	-0.4
CAIG	**El Cayaco**	0.56	295	⇑*i*P	Pg	00 24 52.9	-1.7
CAIG				*i* S	Sg	00 25 01.8	-0.4
PLIG	**Platanillo**	1.59	8	*i* P	Pn	00 25 09.0	-2.8
PLIG				*i* S	Sb	00 25 27.0	-5.6
PPM	**Popocatepetl**	2.48	25	*e*P	Pn	00 25 21.8	-2.9
PPM				*i* S	Sn	00 25 52.2	-3.2
PPM	**Popocatepetl**	2.48	25	*i* P	Pn	00 25 23.2	-1.4
PPM				*i* S	Sn	00 25 52.2	-3.2

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*THR **05** 00:30:30.4±0.8, 29.36N×50.87E, h14^{km}±24^{km}, ML3.1*

*KISR **05** 00:30:32.8±0.9, 29.40N×51.17E, h33^{km}, ML3.0*

ISC 05 00:30:33.1±2.7**, 29.56N**±0.09×**51.02E**±0.07**, h10**^{km}±22^{km}**, n10,** σ**0**$\overset{s}{.}$**72**/13**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	**Ghir-Karzin**	2.14	126	*e*PG	Pn	00 31 09.3	-0.2
GHIR				AMP		00 31 52.9	
	comp=E,126nm,0.6s						
GHIR				AMP		00 32 00.7	
	comp=N,87nm,0.9s						
QRN	**Al-Qurain**	2.83	254	*e*P	Pn	00 31 19.7	+0.4
QRN				AML	AML	00 31 55.0	
	comp=Z,51nm,0.3s						
UMR	**Umm Al-Rimmam**	2.88	271	*e*P	Pn	00 31 20.1	+0.2
UMR				AML	AML	00 32 02.9	
	comp=Z,41nm,0.3s						
RDF	**Al-Radifah**	3.10	259	*e*P	Pn	00 31 22.6	-0.5
RDF				*e*S	Sn	00 31 59.9	-0.6
RDF				AML	AML	00 32 01.8	
	comp=Z,33nm,0.3s						
MIB	**Mutribah**	3.21	275	*e*P	Pn	00 31 25.0	+0.3
MIB				*e*S	Sn	00 32 04.4	+1.0
MIB				AML	AML	00 32 15.5	
	comp=Z,36nm,0.5s						
RST	**Umm Al-Ruwaisa**	3.50	270	*e*P	Pn	00 31 29.3	+0.5
RST				*e*S	Sn	00 32 10.4	-0.4
NASN	**Na'in**	3.57	25	*e*PN	Pn	00 31 30.9	+1.1
KRBR	**Kerman**	5.01	84	*e*PN	Pn	00 31 50.0	-0.2
ASAO	**Ashtian**	5.04	351	*e*PN	Pn	00 31 50.7	+0.1
SNGE	**Sanandaj**	6.33	332	*e*PN	Pn	00 32 06.9	-1.9

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*CSEM **05** 00:41:01.9±0.8, 38.69N×30.84E, h2^{km}, MD2.6, Error ellipse: s-maj=21.2km s-min=9.6km az=16.0*

ISK 05 00:41:02.2, 38.67N×30.84E, h6^{km}**, MD2.6, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALT	**Altintas**	0.69	304	PG	Pg	00 41 16.2	+0.2
ALT				SG	Sg	00 41 25.3	+0.1
KIZT	**Kizilcal**	0.84	75	*e*PG	Pg	00 41 18.4	-0.6
ESKT	**Eskisehir**	0.85	1	*e*PG	Pg	00 41 19.2	0.0
ESKT				*e*SG	Sg	00 41 31.4	+0.8
ASH	**Ashkhabad**	21.57	83	S	S	00 49 51.8	+2.9

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*KISR **05** 00:40:58.8±0.7, 30.42N×51.84E, h33^{km}, ML3.3*

*SNSN **05** 00:41:22.1, 29.75N×49.93E, h107^{km}*

*THR **05** 00:41:29.8±0.5, 31.72N×51.06E, h27^{km}±4^{km}, ML2.7*

ISC 05 00:41:07.8±0.8**, 29.88N**±0.09×**51.01E**±0.08**, h10**^{km}**, n15,** σ**1**$\overset{s}{.}$**47**/16**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UMR	**Umm Al-Rimmam**	2.88	264	*e*P	Pn	00 41 55.6	+0.9
UMR				AML	AML	00 42 34.0	
	comp=Z,40nm,0.4s						
QRN	**Al-Qurain**	2.93	248	*e*P	Pn	00 41 57.5	+2.1
RDF	**Al-Radifah**	3.17	253	*e*P	Pn	00 41 59.9	+1.1
RDF				AML	AML	00 42 47.4	
	comp=Z,38nm,0.4s						
MIB	**Mutribah**	3.19	269	*e*P	Pn	00 41 59.5	+0.4

MIB				*e*S	Sn	00 42 43.9	+6.3
MIB				AML	AML	00 42 51.8	
	comp=Z,49nm,0.5s						
NASN	Na’in	3.29	27	*e*PG	Pg	00 42 02.8	-11
RST	Umm Al-Ruwaisa	3.51	265	*e*P	Pn	00 42 03.7	+0.1
RST				AML	AML	00 42 55.7	
	comp=Z,30nm,0.5s						
ASAO	Ashtian	4.72	350	*e*PN	Pn	00 42 17.1	-3.8
KRBR	Kerman	4.99	87	*e*PN	Pg	00 42 48.3	+0.8
SNGE	Sanandaj	6.04	330	*e*PN	Pn	00 42 40.0	+0.5
MZLS	Mizel	7.80	223	P	Pn	00 43 03.6	-0.5
ARSS	Ar Rass	7.95	242	P	Pn	00 43 03.1	-3.1
HILS	Ha’il	8.47	255	P	P	00 43 09.1	-4.4
AFFS	‘Afif	9.29	232	P	P	00 43 22.5	-2.4
TATS	Tathlith	12.36	215	P	P	00 44 06.6	-0.2
TBKS	Tabuk	12.76	266	P	P	00 44 07.0	-5.1

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*NEIC **05** 00:46:41.2, 39.96N×40.73E, h5^{km}, MD3.3(ISK), After ISK.*
*ISK **05** 00:46:41.3, 39.96N×40.73E, h5^{km}, MD3.3*
*CSEM **05** 00:46:42.5±0.3, 39.95N×40.64E, h12^{km}, MD3.3, Error ellipse: s-maj=10.9km s-min=4.9km az=176.0*
ISC 05 00:46:42.3±0.7**, 39.97N**±0.07×**40.69E**±0.06**, h5^{km}, n17, σ1^{s}07**/18**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EZM	Erzurum	0.52	97	*i* PG	Pg	00 46 52.1	-0.7
ERZM	Erzurum	0.52	97	*i* P	Pg	00 46 51.9	-0.9
ERZM				*i* S	Sg	00 47 00.6	+0.8
EZC	Erzincan	0.71	252	*e*PG	Pg	00 47 02.8	+6.3
EZC	Erzincan	0.71	252	Pg	Pg	00 47 02.8	+6.2
GUMT	Gumushane	1.05	298	PN	Pn	00 47 03.1	-0.4
VRT	Varto	1.06	142	*i* PG	Pg	00 47 01.9	-1.7
VRT	Varto	1.06	142	Pg	Pg	00 47 01.9	-1.6
BINT	Bingol	1.11	188	*i* PN	Pn	00 47 03.6	-0.8
BINT	Bingol	1.11	188	Pn	Pn	00 47 03.6	-0.8
PTK	Pertek	1.48	223	*e*PN	Pn	00 47 10.2	+0.5
BCA	Borcka	1.63	25	*e*PN	Pn	00 47 12.6	+0.7
BCA	Borcka	1.63	25	Pn	Pn	00 47 12.6	+0.7
BTMT	Batman	1.88	160	*e*PN	Pn	00 47 16.4	+0.9
ELZG	Elazig	1.98	222	*i* P	Pn	00 47 18.1	+1.2
BEST	Besiri	2.13	168	*i* P	Pn	00 47 20.9	+1.9
MALT	Malatya	2.42	227	*e*Pn	Pn	00 47 21.6	-1.5
MALT	Malatya	2.42	227	*e*Pn	Pn	00 47 21.6	-1.5

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*KISR **05** 00:46:45.5±1.3, 30.21N×50.77E, h33^{km}, ML3.0*
*THR **05** 00:46:55.4±1.0, 31.21N×51.08E, h14^{km}±12^{km}, ML2.7*
ISC 05 00:46:42.2±1.2**, 30.03N**±0.06×**51.0E**±0.1**, h33^{km}, n13, σ1^{s}68**/19**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UMR	Umm Al-Rimmam	2.92	261	*e*P	P	00 47 29.7	+2.3
UMR				AML	AML	00 48 04.5	
	comp=Z,62nm,0.3s						
QRN	Al-Qurain	3.01	246	*e*P	P	00 47 31.2	+2.6
QRN				*e*S	S	00 48 05.8	+1.9
QRN				AML	AML	00 48 08.2	
	comp=Z,67nm,0.2s						
NASN	Na’in	3.15	28	*e*PG	P	00 47 34.6	+4.1
MIB	Mutribah	3.22	267	*e*P	P	00 47 33.0	+1.4
MIB				*e*S	S	00 48 08.0	-1.2
MIB				AML	AML	00 48 18.3	
	comp=Z,45nm,0.6s						
RDF	Al-Radifah	3.23	251	*e*P	P	00 47 33.5	+1.8
RDF				*e*S	S	00 48 09.0	-0.6
RDF				AML	AML	00 48 12.0	
	comp=Z,37nm,0.4s						
RST	Umm Al-Ruwaisa	3.55	262	*e*P	P	00 47 37.4	+1.1
RST				AML	AML	00 48 25.4	
	comp=Z,32nm,0.4s						
ASAO	Ashtian	4.58	350	*e*PN	Pn	00 47 51.5	+0.3
ASAO				*e*SG	S	00 48 42.8	-1.0
ASAO				AMP		00 48 48.0	
	comp=E,9.5nm,0.9s						
ASAO				AMP		00 48 58.0	
	comp=N,8.9nm,0.6s						
MZLS	Mizel	7.92	222	P	P	00 48 37.6	-0.2
ARSS	Ar Rass	8.04	241	P	P	00 48 36.8	-2.7
ARSS				S	S	00 50 03.9	-6.3
HILS	Ha’il	8.54	254	P	P	00 48 42.8	-3.6
HILS				S	S	00 50 12.2	-10
AFFS	‘Afif	9.40	232	P	P	00 48 56.0	-2.2
TATS	Tathlith	12.49	215	P	P	00 49 39.9	-0.6
TBKS	Tabuk	12.79	265	P	P	00 49 40.5	-4.0

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*KISR **05** 01:24:53.1±1.5, 30.11N×51.12E, h33^{km}, ML3.3*
*THR **05** 01:24:56.9±0.6, 30.25N×50.78E, h15^{km}, ML3.2*
*SNSN **05** 01:25:14.7, 29.43N×49.37E, h158^{km}*
ISC 05 01:24:58.7±0.7**, 30.24N**±0.07×**50.72E**±0.06**, h33^{km}, n14, σ0^{s}77**/16**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
UMR	Umm Al-Rimmam	2.69	256	*e*P	P	01 25 40.9	+0.3
UMR				AML	AML	01 26 26.1	
	comp=Z,124nm,0.4s						
GHIR	Ghir-Karzin	2.78	134	*e*PN	Pn	01 25 42.3	+0.3
GHIR				AMP		01 26 45.5	
	comp=E,105nm,0.7s						
GHIR				AMP		01 26 52.6	
	comp=N,119nm,0.6s						
QRN	Al-Qurain	2.86	239	*e*P	P	01 25 42.3	-0.6
QRN				*e*S	S	01 26 17.0	+0.4
QRN				AML	AML	01 26 24.4	
	comp=Z,71nm,0.3s						
MIB	Mutribah	2.96	262	*e*P	P	01 25 44.2	-0.2
MIB				AML	AML	01 26 32.3	
	comp=Z,74nm,0.5s						
RDF	Al-Radifah	3.05	245	*e*P	P	01 25 44.7	-1.0
RDF				*e*S	S	01 26 24.0	+2.5
RDF				AML	AML	01 26 28.5	
	comp=Z,68nm,0.3s						
NASN	Na’in	3.12	34	*e*PN	Pn	01 25 47.0	+0.2
RST	Umm Al-Ruwaisa	3.31	258	*e*P	P	01 25 48.5	-0.9
RST				AML	AML	01 26 41.9	
	comp=Z,57nm,0.5s						
ASAO	Ashtian	4.34	352	*e*PN	Pn	01 26 04.6	+0.4
ASAO				AMP		01 27 05.2	
	comp=N,15nm,0.7s						
KRBR	Kerman	5.24	91	*e*PN	Pn	01 26 16.9	0.0
SNGE	Sanandaj	5.62	330	*e*PN	Pn	01 26 22.2	+0.1
MZLS	Mizel	7.89	220	P	P	01 26 49.0	-4.9
ARSS	Ar Rass	7.90	239	P	P	01 26 48.1	-6.0
HILS	Ha’il	8.33	252	P	P	01 26 54.6	-5.4
AFFS	‘Afif	9.31	229	P	P	01 27 07.1	-6.5

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*IDC **05** 01:30:14.1±0.7, 3.63S×135.53E, mb4.1/7, mb1 4.4/11, mb1mx4.4/14, ML4.4/4, MS3.6/3, Ms1 3.6/3, ms1mx3.1/22, Error ellipse: s-maj=38.2km s-min=15.7km az=69.0*
*NEIC **05** 01:30:17.1±0.5, 3.68S×135.42E, h10^{km}, mb4.3/7, Error ellipse: s-maj=13.5km s-min=8.0km az=79.0*
*BJI **05** 01:30:17.1, 3.70S×135.40E, h10^{km}, mb4.5*
ISC 05 01:30:16.5±3.1**, 3.84S**±0.06×**135.5E**±0.1**, h31**^{km}±23^{km}**, n30, σ1^{s}34**/32**, mb4.2**/14**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	9.31	199	*e*P	P	01 32 32.6	+0.8
	51nm,0.4s						
PMG	Port Moresby	12.84	116	Pn	P	01 33 18.3	-1.4
	0.4nm,0.3s,baz=156,slow=7.5,SNR=3.0						
PMG				Lg		01 37 14.1	
	0.1nm,0.3s,baz=229,slow=7.9,SNR=1.7						
PMG	Port Moresby	12.84	116	*e*P	P	01 33 18.7	-1.0
PMG				Lg		01 37 14.1	
WRAB	Tennant Creek	16.03	184	*e*P	P	01 33 58.0	-3.5
	3.1nm,2.6s						
WB2	Warramunga Arr	16.04	184	*e*P	P	01 33 59.4	-2.2
WRA	Warramunga Arr	16.04	184	Pn	P	01 33 58.5	-3.1
	0.7nm,0.3s,baz=0.8,slow=13,SNR=33						
WRA				Sn	S	01 36 52.0	-6.2
	1.2nm,0.3s,baz=6.0,slow=22,SNR=5.3						
WRA				Lg		01 38 40.2	
	baz=5.3,slow=25,SNR=5.1						
FITZ	Fitzroy Crossi	17.14	214	*e*P	P	01 34 15.1	-0.5
	16nm,0.6s						
FITZ				*e*S	S	01 37 16.7	-6.8
FITZ	Fitzroy Crossi	17.14	214	P	P	01 34 14.4	-1.1
	0.8nm,0.3s,baz=30,slow=11,SNR=26						
FITZ				S	S	01 37 16.6	-7.0
	1.7nm,0.3s,baz=185,slow=11,SNR=7.4						
FITZ				Lg		01 39 27.2	
	0.3nm,0.3s,baz=14,slow=12,SNR=1.6						
FITZ				LR	LR	01 41 33.6	
	comp=Z,109nm,21.8s,baz=58,slow=39						
CTA	Charters Tower	19.26	148	*e*P	P	01 34 44.4	+3.0
	12nm,0.9s						
CTA	Charters Tower	19.26	148	P	P	01 34 43.9	+2.5
	0.8nm,0.3s,baz=326,slow=13,SNR=10						
CTA				S	S	01 38 35.3	+24
	0.3nm,0.3s,baz=212,slow=22,SNR=2.8						
CTA				Lg		01 40 21.8	
	0.3nm,0.3s,baz=228,slow=24,SNR=3.9						
CTA				LR	LR	01 41 48.8	
	comp=Z,352nm,19.1s,baz=280,slow=36						
CTAO	Charters Tower	19.26	148	*e*P	P	01 34 42.1	+0.7
	11nm,0.7s						
ASAR	Alice Springs	19.77	184	P	P	01 34 48.3	+1.2
	6.2nm,0.3s,baz=9.0,slow=10,SNR=224						
ASAR				S	S	01 38 21.0	-1.5
	0.2nm,0.3s,baz=6.7,slow=31,SNR=2.8						
ASAR				Lg		01 40 49.5	
	0.1nm,0.3s,baz=11,slow=28,SNR=3.1						
ASAR				LR	LR	01 43 35.7	
	comp=Z,221nm,20.3s,baz=3.7,slow=40						
ASPA	Alice Springs	19.77	184	*e*P	P	01 34 48.5	+1.4
MBWA	Marble Bar	23.04	220	*e*P	P	01 35 23.8	+3.5
	12nm,0.7s,mb4.4						
FORT	Forrest	27.69	194	*e*P	P	01 36 06.3	+2.2
	63nm,0.8s,mb5.3						
STKA	Stephens Creek	28.47	169	*e*P	P	01 36 11.7	+0.7
	3.3nm,0.8s,mb4.0						
STKA	Stephens Creek	28.47	169	P	P	01 36 12.1	+1.0
	4.4nm,0.9s,mb4.1,baz=338,slow=8.3,SNR=7.4						
CMAR	Chiang Mai Arr	42.28	303	P	P	01 38 09.2	-0.1
	0.6nm,0.3s,mb3.7,baz=128,slow=6.7,SNR=7.1						
KMI	Kunming	42.90	314	*e*P	P	01 38 13.2	-1.0
KMI				AMB	AMB		
	comp=Z,12nm,1.3s,mb4.5						
BJI	Beijing	47.14	340	*e*P	P	01 38 51.5	+3.6
BJI				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.4						
GTA	Gaotai	54.14	326	*e*P	P	01 39 45.8	+4.7
GTA				AP	pP	01 39 50.4	-0.3
GTA				XP	sP	01 39 53.2	-1.2
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
SONM	Songino Array	57.44	337	P	P	01 40 04.7	-0.1
	comp=Z,0.8nm,0.5s,mb4.0,baz=159,slow=8.2,SNR=8.0						
ZAL	Zalesovo	71.33	331	P	P	01 41 34.7	-0.5
	comp=Z,1.4nm,0.6s,mb4.0,baz=356,slow=7.4,SNR=5.7						
UCH	Uchtor	71.64	317	*e*P	P	01 41 38.0	+0.7
	comp=Z,1.8nm,0.7s,mb4.1						
VNDA	Vanda	74.96	174	P	P	01 41 57.3	+1.2
	comp=Z,1.0nm,0.8s,mb3.8,baz=303,slow=9.2,SNR=2.6						
BVAR	Borovoye Array	78.42	326	P	P	01 42 15.5	-0.3
	comp=Z,1.5nm,0.8s,mb4.0,baz=121,slow=8.6,SNR=8.3						
BRVK	Borovoye	78.50	326	*e*P	P	01 42 15.6	-0.6
	comp=Z,2.2nm,0.6s,mb4.3						
ILAR	Eielson Array	88.19	25	P	P	01 43 04.9	-0.6
	comp=Z,1.4nm,0.6s,mb4.4,baz=291,slow=4.0,SNR=15						
ARCES	ARCESS Array B	100.50	340	P	P	01 44 00.7	-1.2
	comp=Z,3.0nm,1.0s,baz=68,slow=6.5,SNR=11						
LPAZ	La Paz	149.25	131	PKPbc	PKPdf	01 50 07.8	+3.9
	comp=Z,1.2nm,0.7s,baz=203,slow=7.7,SNR=5.2						

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*NAO **05** 01:35:30.9±7.4, 60.08N×3.88E, h32^{km}±58^{km}, ML2.7*
*NEIC **05** 01:35:32.7, 60.69N×3.64E, h18^{km}, ML2.7(BER), After BER.*
*CSEM **05** 01:35:32.4±0.5, 60.67N×3.82E, h25^{km}, ML2.2, Error ellipse: s-maj=9.9km s-min=5.2km az=100.0*
BER 05 01:35:32.7±5.0**, 60.69N×3.64E, h18**^{km}±13^{km}**, MD2.4, ML2.2, ML2.7**(NAO)**, North Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SUE	Sulen	0.66	55	*e*P	Pb	01 35 43.1	-2.3
SUE				*e*Sg	Sb	01 35 51.8	-2.4
SUE				AML	AML	01 35 53.5	
	comp=Z,108nm,0.2s						
SUE	Sulen	0.66	55	*e*P	Pb	01 35 43.1	-2.3
	SNR=99						
SUE				*e*Sg	Sb	01 35 51.8	-2.4
	comp=Z,108nm,0.2s,SNR=99						
ASK	Askoy	0.79	104	*e*P	Pb	01 35 46.6	-1.1
ASK				*e*S	Sb	01 35 56.4	-1.6
ASK				AML	AML	01 35 58.8	
	comp=Z,259nm,0.3s						
ASK	Askoy	0.79	104	*e*P	Pb	01 35 46.6	-1.1
	SNR=96						
ASK				*e*S	Sb	01 35 56.4	-1.5
	comp=Z,259nm,0.3s,SNR=96						
EGD	Espegrend	0.89	117	*e*P	Pb	01 35 48.0	-1.3
EGD				*e*S	Sb	01 36 00.9	+0.2
EGD				AML	AML	01 36 01.9	
	comp=Z,134nm,0.2s						
EGD	Espegrend	0.89	117	*e*S	Sb	01 36 00.9	+0.2
	comp=Z,134nm,0.2s,SNR=96						
BER	Bergen	0.89	109	*e*P	Pb	01 35 48.7	-0.6
BER				*e*S	Sb	01 35 59.8	-1.0
BER				AML	AML	01 36 01.3	
	comp=Z,75nm,0.2s						
BER	Bergen	0.89	109	*e*P	Pb	01 35 48.7	-0.6
	SNR=96						
BER				*e*S	Sb	01 35 59.8	-0.9
	comp=Z,75nm,0.2s,SNR=96						
RUND	Rundenannen	0.90	107	*e*P	Pb	01 35 48.4	-1.0
RUND				*e*S	Sb	01 35 59.3	-1.6
RUND				AML	AML	01 36 02.2	
	comp=Z,321nm,0.2s						
RUND	Rundenannen	0.90	107	*e*P	Pb	01 35 48.4	-1.0
	SNR=96						
RUND				*e*S	Sb	01 35 59.3	-1.6
	comp=Z,321nm,0.2s,SNR=96						
HYA	Hoyanger	1.33	68	*e*P	Pn	01 35 54.7	-1.9
HYA				*e*S	Sb	01 36 11.6	-2.0
HYA				AML	AML	01 36 14.2	
	comp=Z,31nm,0.2s						
HYA	Hoyanger	1.33	68	*e*P	Pn	01 35 54.7	-1.9
	SNR=55						
HYA				*e*S	Sb	01 36 11.6	-2.0
	comp=Z,31nm,0.2s,SNR=55						
ODD1	Odda	1.68	116	*e*P	Pn	01 36 00.7	-0.8
ODD1				*e*S	Sn	01 36 18.5	-4.2
ODD1				AML	AML	01 36 30.1	
	comp=Z,50nm,0.4s						
ODD1	Odda	1.68	116	*e*P	Pn	01 36 00.7	-0.8
	SNR=55						
ODD1				*e*S	Sn	01 36 18.5	-4.2
	comp=Z,50nm,0.4s,SNR=55						
KMY	Karmoy	1.69	151	*e*P	Pn	01 35 59.2	-2.4
KMY				*e*S	Sn	01 36 20.0	-2.9
KMY				AML	AML	01 36 26.6	
	comp=Z,15nm,0.4s						
KMY	Karmoy	1.69	151	*e*P	Pn	01 35 59.2	-2.4
	SNR=55						
KMY				*e*S	Sn	01 36 20.0	-2.8
	comp=Z,15nm,0.4s,SNR=55						
BLS5	Blasjo	1.90	131	*e*P	Pn	01 36 03.5	-1.2
BLS5				*e*S	Sn	01 36 26.2	-2.0
BLS5				AML	AML	01 36 35.1	
	comp=Z,19nm,0.2s						
BLS5	Blasjo	1.90	131	*e*P	Pn	01 36 03.5	-1.1
	SNR=55						
BLS5				*e*S	Sn	01 36 26.2	-2.0
	comp=Z,19nm,0.2s,SNR=55						
MOL	Molde	2.66	43	*e*P	Pn	01 36 14.9	-0.7
MOL				*e*S	Sn	01 36 43.7	-3.8
MOL				AML	AML	01 36 57.0	
	comp=Z,21nm,0.5s						
MOL	Molde	2.66	43	*e*P	Pn	01 36 14.9	-0.6
	SNR=55						
MOL				*e*S	Sn	01 36 43.7	-3.9
	comp=Z,21nm,0.5s,SNR=55						
DOMB	Dombas	2.95	60	*e*P	Pn	01 36 18.3	-1.3
DOMB				*e*S	Sn	01 36 48.8	-6.0
DOMB				AML	AML	01 37 04.2	
	comp=Z,16nm,0.4s						
SNART	Snartemo	2.98	141	*e*S	Sn	01 36 50.1	-5.5
NB2	NORSAR Subarra	3.72	81	Pn	Pn	01 36 26.5	-4.1
NB2				Sn	Sn	01 37 08.6	-6.0
NB2				Lg		01 37 26.0	
TRON	Trondheim	4.24	46	*e*S	Sn	01 37 19.7	-7.8
HFS	Hagfors	5.02	92	Pn	Pn	01 36 44.0	-5.0
	baz=271,slow=14						
HFS				Sn	Sn	01 37 37.5	-10
	baz=274,slow=37						
HFS				Lg		01 38 07.1	
	baz=277,slow=37						
FIA0	FINESS Array S	10.88	76	Lg		01 41 16.1	
	baz=276,slow=28						
FIA0	FINESS Array S	10.88	76	Lg		01 41 16.1	
	baz=276,slow=28						

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*SOF **05** 01:38:04.0, 40.80N×22.62E, h6^{km}, MD3.0*
*THE **05** 01:38:08.7, 40.88N×22.71E, h12^{km}, ML3.2*
*CSEM **05** 01:38:08.8±0.1, 40.94N×22.71E, h20^{km}, ML3.2, Error ellipse: s-maj=2.0km s-min=1.7km az=4.0*
ISC 05 01:38:08.6±0.4**, 40.89N**±0.02×**22.71E**±0.03**, h16**^{km}±7^{km}**, n26, σ0^{s}95**/41**, 1D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GRG	Griva	0.25	286	*e*Pg	Pb	01 38 13.9	-0.3
GRG				*e*Sg	Sb	01 38 17.9	0.0
KNT	Kendrikon	0.31	27	*e*Pg	Pb	01 38 15.3	0.0
KNT				*e*Sg	Sb	01 38 19.8	+0.1
THE	Thessaloniki	0.32	143	*e*Pg	Pb	01 38 14.9	-0.6
THE				*e*Sg	Sb	01 38 19.5	-0.6
VAY	Valandovo	0.44	346	*i* Pg	Pb	01 38 17.1	-0.5
VAY				*i* Sg	Sb	01 38 23.3	-0.4
SOH	Sokhos	0.49	98	*e*Pg	Pb	01 38 18.5	+0.1
SRS	Serrai	0.70	71	*e*Pg	Pb	01 38 21.8	-0.2
SRS				*e*Sg	Sb	01 38 31.8	+0.6
LIT	Litokhoron	0.81	192	*e*Pg	Pb	01 38 23.9	+0.1
LIT				*e*Sg	Sb	01 38 35.6	+1.4
KKB	Krupnik	1.01	16	*i* P	Pb	01 38 26.5	-0.8
FNA	Florina	1.02	264	*e*Pg	Pb	01 38 27.4	0.0
FNA				*e*Sg	Sb	01 38 41.6	+1.2
MMB	Musomiste	1.04	47	*i* P	Pb	01 38 27.0	-0.7
BIA	Bitola	1.06	277	⇓*i*Pg	Pb	01 38 29.1	+1.0
BIA				*i* Sg	Sb	01 38 44.0	+2.5
OUR	Ouranopolis	1.11	119	*e*Pg	Pb	01 38 29.6	+0.6
OUR				*e*Sg	Sb	01 38 44.1	+1.0
PAIG	Paliouri	1.21	142	*e*Pb	Pb	01 38 31.1	+0.4
PAIG				*e*Sb	Sb	01 38 47.9	+1.9
PAIG	Paliouri	1.21	142	*e*Pb	Pb	01 38 31.0	+0.3
PAIG				*e*Sb	Sb	01 38 47.8	+1.9
SKO	Skopje	1.45	319	*i* Pn	Pn	01 38 34.0	-0.3
SKO				*i*		01 38 37.7	
XOR	Xorichti	1.56	166	*e*Pb	Pb	01 38 35.4	-1.4
XOR				*e*Sb	Sb	01 38 55.4	-0.8
XOR	Xorichti	1.56	166	*e*Pb	Pb	01 38 35.3	-1.4
RZN	Rozhen	1.71	61	*i* P	Pn	01 38 38.0	-0.1
VTS	Vitosha	1.74	12	*i* P	Pn	01 38 38.0	-0.6
AGG	Agios Georgios	1.89	189	*e*Pb	Pb	01 38 40.3	-1.9
AGG				*e*Sb	Sb	01 39 03.8	-1.7
PLD	Plovdiv	1.93	50	*i* P	Pn	01 38 45.0	+3.8
PGB	Panagyurishte	1.98	33	*i* P	Pn	01 38 41.0	-1.1
KDZ	Kurdzhali	2.17	69	*i* P	Pn	01 38 47.0	+2.2
IGT	Igoumenitsa	2.27	234	*e*Pn	Pn	01 38 46.0	-0.2
IGT				*e*Sn	Sn	01 39 13.6	-0.4
DIM	Dimitrovgrad	2.42	60	*i* P	Pn	01 38 54.0	+5.8
ALN	Alexandroupoli	2.53	89	*e*Pn	Pn	01 38 49.9	+0.1
ALN				*e*Sn	Sn	01 39 20.9	+0.4

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*NEIC **05** 01:38:26.2±0.3, 55.13N×162.87W, h111^{km}±2^{km}, mb3.5/1, Error ellipse: s-maj=13.8km s-min=3.7km az=154.0*
*IDC **05** 01:38:39.9±16.0, 55.48N×160.90W, h160^{km}±101^{km}, mb2.9/3, mb1 3.2/4, mb1mx3.0/21, Error ellipse: s-maj=203.0km s-min=68.2km az=79.0*
ISC 05 01:38:25.4±0.5**, 55.1N**±0.1×**162.8W**±0.1**, h118**^{km}±4^{km}**, n28, σ0^{s}53**/32**, mb3.4**/4**, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BALA	Baldy Mountain	0.07	26	P	P	01 38 41.8	0.0
DT1	Dutton Round H	0.32	93	P	P	01 38 41.8	-0.5
DT1				S	S	01 38 54.5	-0.7
DTNA	Dutton South F	0.34	86	P	P	01 38 42.0	-0.4
DRIA	Deer Island	0.37	116	P	P	01 38 42.6	0.0
FALS	False Pass	0.43	231	P	P	01 38 42.4	-0.4
DOL	Dolgoi Island	0.56	87	P	P	01 38 43.7	0.0
HAG	Hague Volcano	0.57	70	P	P	01 38 44.0	+0.3
PN7A	Pavlof North-7	0.57	57	P	P	01 38 43.9	+0.2
PN7A				S	S	01 38 57.8	+0.1
PN6	Pavlof North-6	0.62	58	P	P	01 38 44.5	+0.4
PN6				S	S	01 38 59.2	+0.9
PVV	Pavlof Volcano	0.65	67	P	P	01 38 44.5	+0.2
PS1A	Pavlof South-1	0.69	65	P	P	01 38 44.0	-0.7
SSLN	Shishaldin Nor	0.74	245	P	P	01 38 45.1	+0.1
SSLS	Shishaldin Sou	0.79	239	P	P	01 38 45.0	-0.4
SSLW	Shishaldin Wes	0.82	245	P	P	01 38 45.4	-0.4
WTUG	Tugumak	0.93	253	P	P	01 38 46.4	-0.6
WESN	West Dahl Nort	1.15	242	P	P	01 38 49.1	-0.1
WESE	West Dahl East	1.20	238	P	P	01 38 50.0	+0.2
WESE				S	S	01 39 09.9	+1.9
WPOG	Pogromni	1.22	245	P	P	01 38 49.8	-0.2
WFAR	Faris Peak	1.27	243	P	P	01 38 50.2	-0.2
WESS	West Dahl Sout	1.27	240	P	P	01 38 50.3	-0.2
AHB	Akutan Harbor	2.00	241	P	P	01 38 59.3	0.0
ILAR	Eielson Array	12.50	33	P	P	01 41 20.4	+0.4
	0.0nm,0.3s,baz=222,slow=13,SNR=2.7						
ILAR	Eielson Array	12.50	33	P	P	01 41 20.4	+0.4
YKA	Yellowknife Ar	25.49	54	P	P	01 43 42.7	-1.0
	0.8nm,0.8s,mb3.2,baz=273,slow=9.9,SNR=12						
YKA	Yellowknife Ar	25.49	54	P	P	01 43 42.7	-1.0
BW06	Boulder Array	36.23	87	*e*P	P	01 45 19.1	+0.8
	0.4nm,0.5s,mb3.6						
PDAR	Pinedale Array	36.23	87	P	P	01 45 18.5	+0.2
	0.3nm,0.5s,mb3.4,baz=284,slow=3.7,SNR=3.4						
TXAR	Lajitas Array	49.01	97	P	P	01 47 01.7	0.0
	0.2nm,0.5s,mb3.3,baz=308,slow=6.4,SNR=7.1						

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*IDC **05** 01:40:44.9±0.6, 3.64S×135.49E, mb4.8/10, mb1 5.0/14, mb1mx4.9/16, ML4.8/5, MS4.3/11, Ms1 4.3/11, ms1mx4.2/20, Error ellipse: s-maj=25.2km s-min=10.5km az=67.0*
*MOS **05** 01:40:46.6±1.1, 3.85S×135.49E, h33^{km}, mb5.0/15, MS4.5/4, Error ellipse: s-maj=29.2km s-min=11.1km az=110.5*
*NEIC **05** 01:40:46.5±0.3, 3.61S×135.35E, h10^{km}, mb5.0/27, MS4.3/4, Error ellipse: s-maj=14.3km s-min=7.2km az=83.0*
*HRVD **05** 01:40:46.5±0.4, 3.69S×135.61E, h15^{km}±2^{km}, MW5.0/57, Centroid moment Tensor Solution. LP body waves: s18,c24;Mantle waves: s57,c83; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.86±.17; $M_{\theta\theta}$-2.71±.16; $M_{\phi\phi}$1.85±.15; $M_{r\theta}$0.23±.29; $M_{\theta\phi}$2.56±.13; $M_{\phi r}$1.03±.34; Best double couple: $M_0 3.64\times10^{16}$ NP1:ϕ_s71°, δ73°, λ14°. NP2:ϕ_s337°, δ77°, λ162°. Principal axes: T 3.42, Plg22°, Azm293°; N .45, Plg68°, Azm121°; P -3.87, Plg3°, Azm25°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*SYO **05** 01:40:46.4, 3.59S×135.33E, h10^{km}, MB5.0, MS4.3*
*BJI **05** 01:40:47.8, 3.44S×135.09E, h10^{km}, mB5.4, mb4.9, Ms4.8, Msz4.5*
*DJA **05** 01:41:24.8±7.8, 4.94S×133.49E, h200^{km}, mb5.3/4, Error ellipse: s-maj=292.0km s-min=48.2km az=58.0*
ISC 05 01:40:44.8±0.3**, 3.75S**±0.03×**135.50E**±0.06**, h14**^{km}**, h14**^{km}±1.5^{km}**:pP-P, n133, σ1^{s}26**/125**, mb5.0**/59**, MS4.4**/24**, 12C-9D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	9.40	199	*e*P	P	01 43 03.3	+0.4
	150nm,0.3s						
PMG	Port Moresby	12.87	116	Pn	P	01 43 48.5	-1.7
	3.2nm,0.3s,baz=330,slow=5.5,SNR=15						
PMG				Lg		01 47 29.1	
	0.3nm,0.3s,baz=225,slow=16,SNR=2.8						
PMG	Port Moresby	12.87	116	⇓*i*P	P	01 43 48.9	-1.3
PMG	Port Moresby	12.87	116	*e*P	P	01 43 48.1	-2.1
	71nm,0.8s						
NINI	Niniconang	15.72	267	⇑*e*P	P	01 44 31.4	+3.8
	236nm,1.7s						
TANI	Tanete Lipujan	16.09	271	⇑*i*P	P	01 44 38.0	+5.6

WRAB	**Tennant Creek**	**16.12**	**184**	*e*P	**P**	**01 44 31.1**	**-1.7**
WRAB	**Tennant Creek**	**16.12**	**184**	*e*P	**P**	**01 44 30.9**	**-1.9**
WRAB				*e*S	**S**	**01 47 17.2**	**-14**
WB2	**Warramunga Arr**	**16.13**	**184**	*e*P	**P**	**01 44 31.2**	**-1.7**
WB2				*e*		01 44 39.4	
WB2				*e*S	**S**	**01 47 23.8**	**-7.7**
WRA	**Warramunga Arr**	**16.14**	**184**	Pn	**P**	**01 44 30.7**	**-2.3**
	3.9nm,0.3s,baz=360,slow=13,SNR=59						
WRA				Sn	**S**	**01 47 22.9**	**-8.6**
	2.9nm,0.3s,baz=2.6,slow=22,SNR=4.9						
WRA				Lg		01 49 16.5	
	0.4nm,0.3s,baz=360,slow=29,SNR=5.8						
WRA	**Warramunga Arr**	**16.14**	**184**	P	**P**	**01 44 30.7**	**-2.2**
WRA						01 47 22.9	
WRA				pmax	pmax		
	comp=Z,4.0nm,0.3s						
WRA				smax			
	comp=N,3.0nm,0.3s						
FITZ	**Fitzroy Crossi**	**17.23**	**213**	*e*P	**P**	**01 44 44.9**	**-1.8**
	comp=N,52nm,0.6s						
FITZ				*e*S	**S**	**01 47 46.1**	**-10**
FITZ	**Fitzroy Crossi**	**17.23**	**213**	P	**P**	**01 44 46.6**	**-0.1**
	comp=N,2.0nm,0.3s,baz=28,slow=10,SNR=35						
FITZ				S	**S**	**01 47 50.0**	**-6.5**
	comp=N,2.1nm,0.3s,baz=186,slow=18,SNR=3.5						
FITZ				Lg		01 49 52.3	
	comp=N,0.3nm,0.3s,baz=357,slow=20,SNR=1.5						
FITZ				LR	LR	01 52 03.5	
	comp=N,428nm,21.4s,baz=56,slow=39						
SNPH	**Sibulan**	**17.85**	**317**	*e*P	**P**	**01 44 56.5**	**+2.0**
CTA	**Charters Tower**	**19.33**	**148**	*e*P	**P**	**01 45 13.4**	**+0.9**
	comp=N,52nm,0.9s						
CTA				*e*S	**S**	**01 48 50.0**	**+5.7**
CTA	**Charters Tower**	**19.33**	**148**	P	**P**	**01 45 13.6**	**+1.0**
	comp=N,1.6nm,0.3s,baz=332,slow=13,SNR=19						
CTA				S	**S**	**01 48 52.6**	**+8.3**
	comp=N,0.5nm,0.3s,baz=62,slow=23,SNR=2.9						
CTA				Lg		01 50 46.6	
	comp=N,0.7nm,0.3s,baz=247,slow=13,SNR=6.1						
CTAO	**Charters Tower**	**19.33**	**148**	*e*P	**P**	**01 45 13.2**	**+0.7**
	comp=N,83nm,0.9s						
KEDI	**Kedomdong**	**19.84**	**255**	⇑*e*P	**P**	**01 45 20.2**	**+1.9**
	comp=N,141nm,0.7s						
ASAR	**Alice Springs**	**19.86**	**184**	P	**P**	**01 45 18.8**	**+0.3**
	comp=N,33nm,0.3s,baz=9.7,slow=9.7,SNR=197						
ASAR				S	**S**	**01 48 48.2**	**-7.6**
	baz=7.1,slow=22,SNR=2.7						
ASAR				Lg		01 51 03.5	
	baz=8.4,slow=31,SNR=2.5						
ASAR				LR	LR	01 53 36.9	
	comp=N,884nm,18.6s,baz=2.7,slow=39						
ASPA	**Alice Springs**	**19.86**	**184**	*e*P	**P**	**01 45 18.7**	**+0.2**
RATI	**Rata**	**20.45**	**255**	⇓*i*P	**P**	**01 45 24.6**	**-0.1**
	comp=N,183nm,1.0s						
KELI	**Kelakatan**	**21.35**	**257**	⇓*e*P	**P**	**01 45 34.8**	**+0.8**
	comp=N,259nm,1.4s,mb5.1						
TGY	**Tagaytay City**	**22.87**	**321**	P	**P**	**01 45 48.7**	**-0.6**
	comp=N,159nm,0.3s,mb5.9,baz=299,slow=23,SNR=1.8						
TGY	**Tagaytay City**	**22.87**	**321**	P	**P**	**01 45 48.7**	**-0.5**
TGY				pmax	pmax		
	comp=Z,159nm,0.3s						
MBWA	**Marble Bar**	**23.12**	**220**	*e*P	**P**	**01 45 54.0**	**+2.5**
	comp=Z,129nm,1.0s,mb5.3						
FORT	**Forrest**	**27.79**	**194**	*e*P	**P**	**01 46 39.4**	**+3.9**
	comp=Z,217nm,0.7s,mb5.9						
STKA	**Stephens Creek**	**28.56**	**169**	*e*P	**P**	**01 46 44.0**	**+1.6**
	comp=Z,13nm,0.7s,mb4.8						
STKA	**Stephens Creek**	**28.56**	**169**	P	**P**	**01 46 43.7**	**+1.3**
	comp=Z,25nm,1.1s,mb4.9,baz=323,slow=5.5,SNR=16						
STKA				LR	LR	02 00 11.2	
	comp=Z,648nm,21.0s,MS4.2,baz=343,slow=41						
CBIJ	**Chichi jima**	**31.34**	**12**	LR	LR	01 58 17.0	
	comp=Z,894nm,21.5s,MS4.4,baz=122,slow=34						
KLBR	**Kellerberrin**	**32.34**	**209**	*e*P	**P**	**01 47 19.2**	**+3.3**
	comp=Z,33nm,0.8s,mb5.2						
NWAO	**Narrogin (SRO)**	**33.68**	**208**	P	**P**	**01 47 27.6**	**0.0**
	comp=Z,14nm,0.8s,mb5.0,baz=63,slow=11,SNR=2.9						
NWAO	**Narrogin (SRO)**	**33.68**	**208**	P	**P**	**01 47 27.6**	**0.0**
NWAO				pmax	pmax		
	comp=Z,14nm,0.8s						
NWAO	**Narrogin (SRO)**	**33.68**	**208**	*e*P	**P**	**01 47 27.2**	**-0.4**
TOO	**Toolangi**	**34.88**	**166**	*e*P	**P**	**01 47 39.1**	**+1.2**
	comp=Z,4.2nm,0.8s,mb4.4						
SSE	**Sheshan**	**37.24**	**339**	P	**P**	**01 47 57.4**	**-0.5**
SSE				AP	pP	01 48 00.8	-1.4
SSE				S	**S**	**01 53 45.1**	**+1.2**
SSE				XS		01 53 52.8	
SSE				AMB	AMB		
	comp=Z,29nm,2.0s,mb4.8						
SSE				AMB	AMB		
	comp=Z,399nm,4.1s						
SSE				LR	LR		
	comp=N,138nm,33.7s,MS4.1						
SSE				LR	LR		
	comp=E,545nm,33.7s,MS4.1						
SSE				LR	LR		
	comp=Z,175nm,23.2s						
NJ2	**Nanjing**	**38.96**	**337**	*e*P	**P**	**01 48 13.5**	**+1.2**
NJ2				AP	pP	01 48 23.1	+6.5
NJ2				PP	PP	01 49 47.7	+2.1
NJ2				S	**S**	**01 54 12.0**	**+2.0**
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,1μm,4.8s						
NJ2				LR	LR		
	comp=N,1μm,19.1s,MS4.7						
NJ2				LR	LR		
	comp=E,480nm,23.4s,MS4.7						
NJ2				LR	LR		
	comp=Z,720nm,21.8s,MS4.5						
WHN	**Wuhan**	**39.64**	**331**	*e*P	**P**	**01 48 18.6**	**+0.7**
MAT	**Matsushiro**	**40.16**	**3**	P	**P**	**01 48 20.0**	**-2.2**
MAT	**Matsushiro**	**40.16**	**3**	*e*P	**P**	**01 48 20.0**	**-2.2**
	comp=Z,8.4nm,0.9s,mb4.5						
GYA	**Guiyang**	**40.99**	**319**	⇓*i*P	**P**	**01 48 28.9**	**-0.2**
GYA				AP	pP	01 48 33.8	+0.4
GYA				XP	sP	01 48 35.9	+0.7
GYA				PP	PP	01 50 06.5	-0.3
GYA				PCP	PcP	01 50 30.0	+0.2
GYA				S	**S**	**01 54 38.8**	**-1.6**
GYA				XS		01 54 46.6	
GYA				SCS	ScS	01 58 31.6	+0.1
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.7						
GYA				LR	LR		
	comp=N,1μm,16.8s,MS5.0						
GYA				LR	LR		
	comp=E,970nm,17.0s,MS5.0						
GYA				LR	LR		
	comp=Z,1μm,16.5s,MS4.9						
ENH	**Enshi**	**41.99**	**325**	*e*P	**P**	**01 48 36.0**	**-1.4**
	comp=Z,20nm,0.9s,mb4.7						
CMAR	**Chiang Mai Arr**	**42.23**	**303**	P	**P**	**01 48 39.5**	**+0.1**
	comp=Z,4.9nm,0.9s,mb4.1,baz=125,slow=6.5,SNR=22						
CMAR				LR	LR	02 05 29.0	
	comp=Z,146nm,19.7s,MS3.9,baz=135,slow=35						
CMAR	**Chiang Mai Arr**	**42.23**	**303**	P	**P**	**01 48 39.6**	**+0.1**
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CMAR				MLR	MLR		
	comp=Z,147nm,19.7s						
KMI	**Kunming**	**42.84**	**314**	*e*P	**P**	**01 48 44.8**	**+0.5**
KMI				XP	sP	01 48 52.8	+2.4
KMI				AMB	AMB		
	comp=Z,21nm,1.3s,mb4.7						
KMI				LR	LR		
	comp=Z,235nm,19.9s,MS4.1						
CD2	**Chengdu**	**45.88**	**321**	P	**P**	**01 49 09.0**	**+0.3**
CD2				*e*S	**S**	**01 55 52.7**	**+1.0**
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
CD2				AMB	AMB		
	comp=Z,280nm,4.8s						
CD2				LR	LR		
	comp=E,590nm,6.6s						
CD2				LR	LR		
	comp=Z,310nm,6.0s						
BJT	**Baijiatuau**	**47.03**	**340**	*e*P	**P**	**01 49 14.7**	**-3.1**
	comp=Z,15nm,0.7s,mb5.0						
BJI	**Beijing**	**47.05**	**340**	*e*P	**P**	**01 49 18.2**	**+0.3**
BJI				AMB	AMB		
	comp=Z,29nm,0.9s,mb5.2						
BJI				LR	LR		
	comp=N,458nm,22.1s,MS4.5						
BJI				LR	LR		
	comp=E,436nm,25.1s,MS4.5						
BJI				LR	LR		
	comp=Z,162nm,28.5s,MS3.8						
ASAJ	**Asahikawa**	**48.07**	**7**	P	**P**	**01 49 26.4**	**+0.5**
	comp=Z,15nm,0.6s,mb5.2,baz=305,slow=3.2,SNR=9.3						
ASAJ	**Asahikawa**	**48.07**	**7**	P	**P**	**01 49 26.4**	**+0.5**
ASAJ				pmax	pmax		
	comp=Z,15nm,0.6s						
CN2	**Changchun**	**48.19**	**350**	*e*P	**P**	**01 49 27.9**	**+1.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
MDJ	**Mudanjiang**	**48.44**	**354**	P	**P**	**01 49 29.9**	**+1.2**
MDJ				AMB	AMB		
	comp=Z,27nm,1.5s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,236nm,4.9s						
MDJ				LR	LR		
	comp=N,55nm,24.5s,MS4.1						
MDJ				LR	LR		
	comp=E,278nm,28.6s,MS4.1						
MDJ				LR	LR		
	comp=Z,158nm,26.6s,MS3.9						
MDJ	**Mudanjiang**	**48.44**	**354**	*e*P	**P**	**01 49 27.0**	**-1.6**
	comp=Z,23nm,1.0s,mb5.2						
LZH	**Lanzhou**	**49.46**	**326**	⇑P	**P**	**01 49 37.2**	**+0.5**
LZH				AP	pP	01 49 40.5	-0.6
LZH				XP	sP	01 49 41.9	-0.9
LZH				PP	PP	01 51 31.5	0.0
LZH				*e*S	**S**	**01 56 43.2**	**+0.9**
LZH				XS		01 56 49.6	
LZH				AMB	AMB		
	comp=Z,69nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,207nm,6.2s						
LZH				LR	LR		
	comp=N,589nm,13.4s						
LZH				LR	LR		
	comp=Z,983nm,17.0s,MS4.9						
HHC	**Hu-ho-hao-te**	**49.49**	**336**	*e*P	**P**	**01 49 39.6**	**+2.8**
HHC				AP	pP	01 49 44.2	+3.0
HHC				XP	sP	01 49 45.7	+2.8
HHC				PCP	PcP	01 51 00.3	+1.2
HHC				PP	PP	01 51 34.8	+3.1
HHC				PCS		01 54 56.9	
HHC				S	**S**	**01 56 45.5**	**+2.9**
HHC				XS		01 56 53.5	
HHC				SCS	ScS	01 59 28.0	+2.6
HHC				AMB	AMB		
	comp=Z,21nm,1.1s,mb5.1						
HHC				AMB	AMB		
	comp=Z,258nm,4.4s						
YSS	**Yuzh-Sakhalins**	**50.89**	**6**	*i* P	**P**	**01 49 47.6**	**+0.2**
SHL	**Shillong**	**51.34**	**307**	⇑*e*P	**P**	**01 49 51.0**	**-0.1**
GTA	**Gaotai**	**54.06**	**326**	P	**P**	**01 50 11.5**	**+0.3**
GTA				AP	pP	01 50 16.2	+0.6
GTA				XP	sP	01 50 19.0	+1.7
GTA				AMB	AMB		
	comp=Z,12nm,1.3s,mb4.7						
HIA	**Hailar**	**54.55**	**347**	PFAKE		01 50 30.0	+15
HIA				LR	LR		
	comp=Z,288nm,19.0s,MS4.4						
PALK	**Pallekele**	**55.77**	**281**	*e*P	**P**	**01 50 22.3**	**-1.7**
ULN	**Ulaanbaatar**	**57.12**	**338**	⇑*i*P	**P**	**01 50 33.4**	**+0.1**
ULN	**Ulaanbaatar**	**57.12**	**338**	*e*P	**P**	**01 50 34.6**	**+1.3**
	comp=Z,18nm,1.4s,mb4.9						
ULN				LR	LR		
	comp=Z,242nm,19.0s,MS4.3						
GUN	**Gumba**	**57.19**	**307**	*e*P	**P**	**01 50 33.5**	**-0.5**
	comp=Z,67nm,0.7s,mb5.8						
SONM	**Songino Array**	**57.35**	**337**	P	**P**	**01 50 35.8**	**+0.9**
	comp=Z,4.1nm,0.7s,mb4.5,baz=155,slow=8.0,SNR=17						
PKI	**Pulchoki**	**57.42**	**306**	*e*P	**P**	**01 50 34.7**	**-1.0**
KKN	**Kakani**	**57.62**	**306**	*e*P	**P**	**01 50 36.5**	**-0.5**
	comp=Z,36nm,0.8s,mb5.5						
DMN	**Daman**	**57.68**	**306**	*e*P	**P**	**01 50 37.1**	**-0.4**
GKN	**Gorkha**	**58.22**	**306**	*e*P	**P**	**01 50 40.7**	**-0.5**
	comp=Z,59nm,0.9s,mb5.6						
KOLN	**Koldanda**	**58.97**	**306**	*e*P	**P**	**01 50 45.5**	**-1.0**
	comp=Z,49nm,0.9s,mb5.5						
PET	**Petropavlovsk**	**59.84**	**16**	*i* P	**P**	**01 50 52.1**	**0.0**
ZAK	**Zakamensk**	**60.62**	**337**	⇑*e*P	**P**	**01 50 58.3**	**+0.8**
TLY	**Talaya**	**61.52**	**338**	*e*P	**P**	**01 51 02.8**	**-0.7**
TLY				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.8						
BOD	**Bodaibo**	**63.77**	**347**	*e*P	**P**	**01 51 16.4**	**-2.0**
WMQ	**Urumqi**	**63.87**	**323**	⇑P	**P**	**01 51 19.0**	**-0.3**
WMQ				AP	pP	01 51 23.3	-0.5
WMQ				XP	sP	01 51 25.9	+0.5
WMQ				PCP	PcP	01 51 55.0	0.0
WMQ				PP	PP	01 53 40.5	-1.2
WMQ				S	**S**	**01 59 51.0**	**-1.6**
WMQ				AMB	AMB		
	comp=Z,24nm,0.9s,mb5.2						
WMQ				LR	LR		
	comp=N,68nm,22.5s,MS3.9						
WMQ				LR	LR		
	comp=E,37nm,19.2s,MS3.9						
WMQ				LR	LR		
	comp=Z,109nm,19.6s,MS4.0						
MA2	**Magadan**	**64.28**	**9**	*i* P	**P**	**01 51 20.8**	**-0.9**
MA2				pmax	pmax		
	comp=Z,99nm,1.9s,mb5.5						
MA2				MLR	MLR		
	comp=Z,800nm,10.0s,MS5.2						
DDI	**Dehra Dun**	**64.42**	**306**	*e*P	**P**	**01 51 23.6**	**+0.4**
YAK	**Yakutsk**	**65.75**	**357**	*e*P	**P**	**01 51 31.9**	**+0.8**
YAK				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.3						
MK02	**Makanchi Array**	**68.67**	**324**	P	**P**	**01 51 49.5**	**-0.3**
MK02				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
KSH	**Kashi**	**69.49**	**315**	*e*P	**P**	**01 52 00.6**	**+5.5**
KSH				*e*AP	pP	01 52 04.8	+5.3
KSH				*e*XP	sP	01 52 07.2	+6.0
KSH				*e*PCP	PcP	01 52 24.4	+6.0
KSH				*e*SCP		01 56 25.5	
KSH				*e*PCS		01 56 27.0	
KSH				*e*S	S	02 01 07.0	+6.3
KSH				*e*XS		02 01 14.0	
KSH				AMB	AMB		
	comp=Z,80nm,1.9s,mb5.3						
TKM2	**Tokmak 2**	**71.12**	**318**	*e*P	**P**	**01 52 02.5**	**-2.5**
	comp=Z,8.5nm,0.7s,mb4.8						
ZAL	**Zalesovo**	**71.26**	**331**	P	**P**	**01 52 04.3**	**-1.2**
	comp=Z,6.4nm,1.0s,mb4.5,baz=360,slow=6.9,SNR=14						
ZAL				LR	LR	02 24 59.1	
	comp=Z,146nm,20.2s,MS4.2,baz=74,slow=37						
ZAL	**Zalesovo**	**71.26**	**331**	P	**P**	**01 52 04.3**	**-1.2**
ZAL				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ZAL				MLR	MLR		
	comp=Z,147nm,20.2s						
UCH	**Uchtor**	**71.58**	**317**	*e*P	**P**	**01 52 08.3**	**+0.7**
	comp=Z,12nm,0.8s,mb4.9						
AAK	**Ala-Archa**	**71.75**	**317**	⇑*i*P	**P**	**01 52 07.5**	**-1.2**
AAK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
AAK	**Ala-Archa**	**71.75**	**317**	*e*P	**P**	**01 52 07.9**	**-0.8**
	comp=Z,9.4nm,1.0s,mb4.7						
AML	**Almayashu**	**72.10**	**316**	*e*P	**P**	**01 52 11.0**	**+0.2**
	comp=Z,26nm,0.8s,mb5.2						
EKS2	**Erkin-Say**	**72.25**	**317**	*e*P	**P**	**01 52 10.3**	**-1.3**
	comp=Z,8.5nm,0.7s,mb4.8						
NVS	**Novosibirsk**	**72.52**	**331**	*i* P	**P**	**01 52 11.0**	**-2.0**
NVS				pmax	pmax		
	comp=N,21nm,1.5s						
NVS				pmax	pmax		
	comp=E,15nm,1.5s						
NVS				pmax	pmax		
	comp=Z,25nm,1.5s,mb4.9						
KURK	**Kurchatov**	**72.75**	**326**	⇓*i*P	**P**	**01 52 13.8**	**-0.7**
KURK	**Kurchatov**	**72.75**	**326**	*e*P	**P**	**01 52 11.8**	**-2.7**
	comp=Z,9.9nm,0.8s,mb4.8						
KURK				LR	LR		
	comp=Z,35nm,20.0s,MS3.6						
VNDA	**Vanda**	**75.05**	**174**	P	**P**	**01 52 30.0**	**+2.6**
	comp=Z,2.8nm,0.6s,mb4.3,baz=314,slow=6.5,SNR=13						
VNDA				LR	LR	02 25 22.5	
	comp=Z,496nm,18.3s,MS4.8,baz=352,slow=36						
VNDA	**Vanda**	**75.05**	**174**	P	**P**	**01 52 30.0**	**+2.6**
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
VNDA				MLR	MLR		
	comp=Z,496nm,18.3s						
VNDA	**Vanda**	**75.05**	**174**	*e*P	**P**	**01 52 29.9**	**+2.5**
	comp=Z,3.3nm,0.7s,mb4.4						
TIXI	**Tiksi**	**75.38**	**358**	*e*P	**P**	**01 52 27.1**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,276nm,18.0s,MS4.6						
BVA0	**Borovoye Array**	**78.35**	**326**	*i* P	**P**	**01 52 45.3**	**-0.9**
BVA0				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
BVAR	**Borovoye Array**	**78.35**	**326**	P	**P**	**01 52 45.6**	**-0.6**
	comp=Z,23nm,0.9s,mb5.1,baz=117,slow=6.6,SNR=31						
BRVK	**Borovoye**	**78.42**	**326**	*e*P	**P**	**01 52 45.9**	**-0.7**
	comp=Z,25nm,0.9s,mb5.1						
CHKZ	**Chkalovo**	**78.47**	**327**	P	**P**	**01 52 46.3**	**-0.6**
CHKZ				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
CHKZ	**Chkalovo**	**78.47**	**327**	*e*P	**P**	**01 52 45.8**	**-1.1**
	comp=Z,12nm,0.8s,mb4.9						
MAW	**Mawson**	**79.97**	**202**	P	**P**	**01 52 57.2**	**+2.5**
	comp=Z,13nm,1.0s,mb4.8,baz=58,slow=6.2,SNR=6.0						
MAW				LR	LR	02 26 58.0	
	comp=Z,264nm,21.6s,MS4.5,baz=72,slow=35						
SLKM	**Skilak Lake**	**85.56**	**29**	*e*P	**P**	**01 53 24.9**	**+1.3**
IMA	**Indian Mountai**	**85.73**	**23**	*e*P	**P**	**01 53 25.6**	**+1.2**
	comp=Z,97nm,1.4s,mb5.8						
ARU	**Arti**	**85.91**	**327**	⇓*i*P	**P**	**01 53 28.0**	**+2.6**
ARU				*e*		01 56 50.6	
ARU				*e*PPP	PPP	01 58 38.0	-5.8
ARU				*e*S	S	02 03 51.3	-5.5
ARU				*e*SS	SS	02 09 42.0	+4.1
ARU				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.2						
ARU	**Arti**	**85.91**	**327**	*e*P	**P**	**01 53 27.9**	**+2.5**
	comp=Z,15nm,1.0s,mb5.2						
QSPA	**South Pole Qui**	**86.20**	**180**	*e*P	**P**	**01 53 30.6**	**+4.2**
	comp=Z,14nm,1.0s,mb5.2						
MCK	**McKinley**	**86.99**	**26**	*e*P	**P**	**01 53 31.9**	**+1.3**
	comp=Z,5.1nm,0.7s,mb4.9						
COLA	**College**	**87.73**	**25**	*e*P	**P**	**01 53 35.7**	**+1.6**
COLA	**College**	**87.73**	**25**	*e*P	**P**	**01 53 34.8**	**+0.7**
	comp=Z,5.7nm,0.7s,mb4.9						
COLA				LR	LR		
	comp=Z,258nm,20.0s,MS4.6						
DIV	**Divide**	**87.83**	**28**	*e*P	**P**	**01 53 35.9**	**+1.2**
	comp=Z,46nm,0.7s,mb5.8						
ILAR	**Eielson Array**	**88.11**	**25**	P	**P**	**01 53 35.1**	**-0.7**
	comp=Z,4.1nm,0.5s,mb4.9,baz=267,slow=4.2,SNR=61						
ILAR				LR	LR	02 29 14.6	
	comp=Z,191nm,19.6s,MS4.5,baz=348,slow=33						
SYO	**Syowa Base**	**88.65**	**201**	⇑P	**P**	**01 53 41.7**	**+3.3**
SYO	**Syowa Base**	**88.65**	**201**	⇓PcP	PcP	01 53 42.7	+2.3
SYO	**Syowa Base**	**88.65**	**201**	⇑pP	pP	01 53 45.0	+2.0
VRSR	**Storozhevoye**	**96.86**	**321**	*e*P	**P**	**01 54 15.3**	**-1.4**
VRSR				pmax	pmax		
	comp=N,5.0nm,0.6s						
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb5.0						
VRSR				pmax	pmax		
	comp=E,6.0nm,0.8s						
BBB	**Bella Bella**	**96.87**	**38**	LR	LR	02 36 01.5	
	comp=E,281nm,18.4s,MS4.8,baz=129,slow=34						
KMBO	**Kilima Mbogo**	**98.15**	**268**	LR	LR	02 40 55.8	
	comp=E,52nm,18.2s,MS4.1,baz=94,slow=37						
OBN	**Obninsk**	**98.17**	**325**	P	**P**	**01 54 24.0**	**+1.5**
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.4						
SNAA	**Sanae**	**100.04**	**192**	⇓*i*Pdif	P	01 54 28.4	-2.2
SNAA				*e*		01 58 28.0	
ARCES	**ARCESS Array B**	**100.42**	**340**	P	P	01 54 33.5	+1.2
	comp=Z,4.3nm,0.6s,baz=80,slow=5.9,SNR=19						
ARCES	**ARCESS Array B**	**100.42**	**340**	P	P	01 54 33.6	+1.2
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
VNA2	**Neumayer--Watz**	**101.56**	**192**	*e*	PP	01 58 44.1	-6.1
VNA2	**Neumayer--Watz**	**101.56**	**192**	⇓*i*Pdif	P	01 54 34.9	-2.5
VNA2				*e*		01 58 44.1	
VNA3	**Neumayer Olymp**	**101.74**	**191**	*e*	PP	01 58 44.4	-7.1
VNA3	**Neumayer Olymp**	**101.74**	**191**	⇑*i*Pdif	P	01 54 35.2	-3.1
VNA3				*e*		01 58 44.4	
FINES	**FINESS Array B**	**102.50**	**332**	P	Pdif	01 54 42.5	+0.6
	comp=Z,2.0nm,0.9s,baz=90,slow=2.8,SNR=3.9						
FINES	**FINESS Array B**	**102.50**	**332**	P	Pdif	01 54 42.6	+0.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AKASG	**Malin Array Be**	**103.18**	**321**	Pdiff	Pdif	01 54 46.8	+1.6
	comp=Z,0.2nm,0.3s,baz=63,slow=4.2,SNR=5.1						
TXAR	**Lajitas Array**	**118.57**	**59**	PKP	PKPdf	01 59 36.7	+0.2
	comp=Z,0.2nm,0.5s,baz=242,slow=1.6,SNR=3.9						
JCT	**Junction City**	**121.55**	**56**	*e*PKPdf	PKPdf	01 59 42.4	+0.1
LVC	**Limon Verde**	**144.57**	**139**	*e*PKPdf	PKPdf	02 00 26.7	+1.4
OTAV	**Otavalo**	**145.90**	**95**	*e*PKPdf	PKPdf	02 00 27.5	-0.4
LPAZ	**La Paz**	**149.31**	**131**	PKPbc	PKPdf	02 00 37.5	+4.2
	comp=Z,94nm,1.6s,baz=251,slow=3.9,SNR=13						
LPAZ	**La Paz**	**149.31**	**131**	PKP2	PKPab	02 00 37.5	-3.5
LPAZ				pmax	pmax		
	comp=Z,94nm,1.6s						
LPAZ	**La Paz**	**149.31**	**131**	*e*PKPbc	PKPdf	02 00 37.7	+4.4

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*IDC **05** 01:47:59.2±1.1, 40.71N×124.03W, mb3.7/7, mb1 4.0/11, mb1mx4.0/22, ML4.0/3, MS3.4/6, Ms1 3.4/6, ms1mx3.3/26, Error ellipse: s-maj=14.3km s-min=10.1km az=106.0*

*BJI **05** 01:48:02.7, 40.70N×123.80W, h29^{km}, mB4.1, mb4.5, Ms4.6, Msz4.2*

*NEIC **05** 01:48:04.8, 40.74N×123.81W, h29^{km}, mb4.3/1, MW4.3(BRK), After NCEDC.*

NEIC Felt [IV] at Bayside, Hydesville, Kneeland and Rio Dell; [III] at Arcata, Blue Lake, Carlotta, Eureka, Ferndale, Fortuna, Loleta and Scotia; [II] at McKinleyville, Redcrest and Trinidad.

ISC 05 01:48:03.5±0.6**, 40.72N**±0.03×**123.78W**±0.06**, h35**^{km}±6^{km}**, n69,** σ**0^{s}.91**/69**, mb3.8**/6**, MS4.2**/3**, Northern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHMM	**Horse Mountain**	**0.16**	**15**	*e*P	**P**	**01 48 10.1**	**+0.1**
KRMB	**Red Mountain**	**0.80**	**353**	*e*P	**P**	**01 48 18.4**	**0.0**
WDC	**Whiskeytown Da**	**0.96**	**98**	*e*P	**P**	**01 48 21.5**	**+0.9**
YBH	**Yreka Blue Hor**	**1.29**	**38**	Pg	**P**	**01 48 26.0**	**+0.7**
	132nm,0.3s,baz=246,slow=11,SNR=654						
YBH				Lg		01 48 44.1	
	250nm,0.3s,baz=134,slow=13,SNR=19						
YBH	**Yreka Blue Hor**	**1.29**	**38**	*e*P	**P**	**01 48 26.1**	**+0.7**
KBO	**Bosley Butte**	**1.52**	**348**	*e*P	**P**	**01 48 28.3**	**-0.4**
HOPS	**Hopland**	**1.81**	**162**	*e*P	**P**	**01 48 33.0**	**+0.1**
HUMO	**Hull Mountain**	**1.98**	**18**	*e*P	**P**	**01 48 35.5**	**+0.2**
KEBM	**Edson Butte**	**2.19**	**349**	*e*P	**P**	**01 48 37.9**	**-0.3**
OHCM	**Honcut**	**2.24**	**127**	*e*P	**P**	**01 48 38.8**	**-0.2**
NSHM	**Saint Helena R**	**2.38**	**157**	*e*P	**P**	**01 48 40.5**	**-0.4**
BEKR	**Beckwourth**	**2.75**	**107**	*e*P	**P**	**01 48 47.1**	**+0.8**
MOD	**Modoc**	**2.87**	**65**	*e*P	**P**	**01 48 47.8**	**-0.2**
LKC	**Lake Chabot**	**3.27**	**155**	*e*P	**P**	**01 48 54.2**	**+0.6**
SAC	**San Andreas**	**3.31**	**161**	*e*P	**P**	**01 48 53.5**	**-0.8**
WCN	**Washoe City**	**3.40**	**113**	*e*P	**P**	**01 48 56.0**	**+0.5**
CMB	**Columbia Colle**	**3.76**	**134**	*e*P	**P**	**01 49 01.1**	**+0.5**
COR	**Corvallis**	**3.88**	**5**	*e*P	**P**	**01 49 02.1**	**-0.1**
SAO	**San Andreas Ge**	**4.36**	**154**	*e*P	**P**	**01 49 08.4**	**-0.6**
LRV	**Little Rabbit**	**4.81**	**152**	*e*P	**P**	**01 49 15.0**	**-0.5**
NVAR	**Mina Array Bea**	**4.81**	**117**	Pn	**P**	**01 49 15.9**	**+0.3**
	3.3nm,0.3s,baz=297,slow=13,SNR=74						
NVAR				Pg	**P**	**01 49 25.1**	**+10**
	4.5nm,0.3s,baz=295,slow=17,SNR=10						
NVAR				LR	LR	01 51 34.2	
	comp=Z,518nm,18.2s,baz=305,slow=43						
MNV	**Mina**	**4.91**	**116**	*e*P	**P**	**01 49 16.9**	**-0.1**
BMN	**Battle Mountai**	**5.00**	**91**	*e*P	**P**	**01 49 17.4**	**-0.9**
MTUM	**Tungsten Hills**	**5.28**	**128**	*e*P	**P**	**01 49 22.7**	**+0.7**
TPH	**Tonopah**	**5.73**	**115**	*e*P	**P**	**01 49 27.6**	**-0.8**
BMO	**Blue Mountains**	**6.30**	**47**	*e*P	**P**	**01 49 36.4**	**0.0**
HAWA	**Hanford**	**6.45**	**27**	*e*P	**P**	**01 49 38.6**	**+0.1**
ELK	**Elko**	**6.49**	**87**	*e*P	**P**	**01 49 38.6**	**-0.6**
TPNV	**Topopah Spring**	**6.98**	**120**	*e*P	**P**	**01 49 45.4**	**-0.6**
HLID	**Hailey**	**7.52**	**65**	*e*P	**P**	**01 49 53.6**	**+0.1**
BGU	**Big Grassy Mou**	**8.16**	**85**	*e*P	**P**	**01 50 03.2**	**+0.8**
ARUT	**Antelope Range**	**8.54**	**107**	*e*P	**P**	**01 50 07.6**	**-0.1**
SPUT	**South Promonto**	**8.59**	**82**	*e*P	**P**	**01 50 08.0**	**-0.4**
NEN	**Nelson**	**8.67**	**123**	*e*P	**P**	**01 50 08.6**	**-0.8**
LDFC	**Landfair**	**8.87**	**127**	*e*P	**P**	**01 50 12.2**	**-0.1**
NEW	**Newport**	**8.91**	**30**	Pn	**P**	**01 50 14.9**	**+2.0**
	0.4nm,0.3s,baz=204,slow=11,SNR=3.7						
NEW				LR	LR	01 54 32.1	
	comp=Z,93nm,18.6s,baz=218,slow=44						
NLU	**North Lily Min**	**8.98**	**91**	*e*P	**P**	**01 50 13.9**	**+0.2**

MCMT	McKenzie Canyo	9.03	59	*e*P	P	01 50 13.9	-0.4
MVU	Marysvale	9.20	100	*e*P	P	01 50 17.2	+0.3
MSU	Marysvale	9.22	100	*e*P	P	01 50 18.1	+1.0
HWUT	Hardware Ranch	9.26	81	*e*P	P	01 50 13.7	-4.0
MSO	Missoula	9.37	46	*e*P	P	01 50 19.2	0.0
TCUT	Toone Canyon	9.38	84	*e*P	P	01 50 19.6	+0.3
TMUT	Trail Mountain	9.75	94	*e*P	P	01 50 25.1	+0.7
TPAW	Teton Pass	9.93	70	*e*P	P	01 50 25.9	-1.0
QLMT	Earthquake Lak	9.96	62	P	P	01 50 27.9	+0.6
REDW	Red Top Meadow	9.97	70	*e*P	P	01 50 26.2	-1.3
IMW	Indian Meadow	10.03	67	*e*P	P	01 50 28.0	-0.2
BOZ	Bozeman (W)	10.14	57	*e*P	P	01 50 27.0	-2.8
SRU	San Rafael	10.31	95	P	P	01 50 30.6	-1.5
HRY	Holter Researc	10.51	51	*e*P	P	01 50 33.9	-0.9
PDAR	Pinedale Array	10.83	74	Pn	P	01 50 41.8	+2.7
	0.2nm,0.3s,baz=268,slow=9.5,SNR=18						
PDAR				LR	LR	01 55 30.0	
	comp=Z,299nm,19.2s,baz=354,slow=41						
PV10	Paradox Valley	11.62	97	P	P	01 50 50.0	+0.1
PV01	Paradox Valley	12.05	97	*e*P	P	01 50 55.4	-0.2
SDCO	Great Sand Dun	14.48	96	*e*P	P	01 51 29.1	+1.3
	11nm,1.2s						
ANMO	Albuquerque	14.84	107	Pn	P	01 51 34.7	+2.2
	baz=301,slow=12,SNR=6.8						
ANMO				LR	LR	01 58 11.1	
	comp=Z,177nm,18.4s,slow=41						
TXAR	Lajitas Array	19.96	118	P	P	01 52 34.6	-0.8
	0.3nm,0.6s,baz=296,slow=10,SNR=6.6						
TXAR				LR	LR	02 00 18.8	
	comp=Z,88nm,18.4s,baz=300,slow=37						
FFC	Flin Flon	20.16	39	*e*P	P	01 52 34.0	-3.4
	8.3nm,0.6s						
ULM	Lac du Bonnet	21.65	55	P	P	01 52 49.3	-3.2
	2.2nm,0.4s,mb3.9,baz=266,slow=12,SNR=6.9						
YKA	Yellowknife Ar	22.49	11	P	P	01 53 00.8	0.0
	0.8nm,0.7s,mb3.3,baz=194,slow=9.6,SNR=9.0						
YKA				LR	LR	02 02 30.5	
	comp=Z,141nm,19.8s,MS3.4,baz=210,slow=39						
SCHQ	Schefferville	39.66	49	P	P	01 55 32.4	-1.0
	2.8nm,0.8s,mb4.0,baz=170,slow=6.9,SNR=6.6						
LPAZ	La Paz	76.66	125	P	P	01 59 53.3	+0.5
	1.7nm,0.7s,mb4.1,baz=344,slow=5.1,SNR=6.5						
SONM	Songino Array	81.24	328	P	P	02 00 17.9	+0.9
	0.9nm,1.0s,mb3.6,baz=344,slow=9.0,SNR=4.3						
ZAL	Zalesovo	82.56	343	P	P	02 00 23.8	+0.1
	0.7nm,0.8s,mb3.7,baz=26,slow=11,SNR=3.3						
SSE	Sheshan	86.67	309	P	P	02 00 42.2	-2.5
NJ2	Nanjing	87.33	311	*e*P	P	02 00 49.3	+1.4
WMQ	Urumqi	91.19	338	P	P	02 01 09.8	+3.9
WMQ				AP	pP	02 01 14.1	-3.0
WMQ				AMB	AMB		
	comp=Z,8.0nm,6.9s						
WMQ				LR	LR		
	comp=N,106nm,18.0s,MS4.5						
WMQ				LR	LR		
	comp=E,106nm,17.0s,MS4.5						
WMQ				LR	LR		
	comp=Z,96nm,18.0s,MS4.3						
LZH	Lanzhou	91.94	323	*e*P	P	02 01 10.1	+0.6
LZH				LR	LR		
	comp=N,176nm,15.0s						
LZH				LR	LR		
	comp=Z,247nm,17.8s,MS4.7						
QSPA	South Pole Qui	130.53	180	*e*P	PKPdf	02 07 12.3	+2.8

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*NAO **05** 01:52:35.4±7.6,48.11N×8.23E,ML4.1*

*MOS **05** 01:52:36.4±0.9,48.18N×8.18E,h7^{km},mb4.1/5,Error ellipse: s-maj=6.8km s-min=4.3km az=54.5*

*BJI **05** 01:52:36.7,48.10N×8.10E,h10^{km},mB4.2,mb4.5,Ms4.4, Msz4.2*

*IDC **05** 01:52:37.6±0.9,48.20N×8.05E,mb3.9/8,mb1 4.1/17, mb1mx4.0/29,ML4.1/8,MS3.9/13,Ms1 3.9/13, ms1mx3.7/30,Error ellipse: s-maj=13.8km s-min=9.3km az=20.0*

*MED_RC **05** 01:52:37.2±0.2,48.08N×8.03E,h15^{km},MW4.5/23, Moment Tensor Solution. Body waves: s23,c41; Duration: 1^{s}0 Moment tensor: Scale 10^{15}Nm; M_{rr}-1.50±.25; $M_{\theta\theta}$-3.50±.17; $M_{\phi\phi}$5.01±.20; $M_{r\theta}$-4.09±.44; $M_{\theta\phi}$-5.74±.17; $M_{\phi r}$-0.90±.48; Best double couple: $M_0$8.36×10^{15} NP1:ϕ_s14°,δ64°,λ-17°. NP2:ϕ_s112°,δ75°, λ-153°. Principal axes: T 8.03, Plg7°, Azm241°; N .68, Plg59°, Azm139°; P -8.7, Plg30°, Azm335°; nsta1 refers to waves, cutoff=35s.*

*UCC **05** 01:52:37.0±1.3,48.03N×8.13E,ML4.2*

*CSEM **05** 01:52:37.2,48.11N×8.08E,h10^{km},ML5.1*

*NEIC **05** 01:52:37.2,48.12N×8.08E,h10^{km},mb4.2/6,ML5.5(VIE), ML5.4(LEDBW),ML5.4(FUR),ML4.9(STR),ML5.2(LDG), MW4.6(CSEM),After CSEM.*

NEIC Minor damage [V] in the Emmendingen-Freiburg im Breisgau-Waldkirch area. Felt [III] at Stuttgart. Felt [V] in Voralberg, Austria; [IV] in the Zurich area and [III] at Basel, Switzerland. Felt in parts of France and in other parts of Germany and Switzerland.

*HRVD **05** 01:52:37.2±0.9,48.03N×8.04E,h12^{km},MW4.8/38, Centroid moment Tensor Solution. LP body waves: s9,c10;Mantle waves: s38,c47; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.00±.12; $M_{\theta\theta}$-1.26±.13; $M_{\phi\phi}$1.26±.12; $M_{r\theta}$-0.93±.33; $M_{\theta\phi}$-0.56±.09; $M_{\phi r}$-0.31±.34; Best double couple: $M_0$1.64×10^{16} NP1:ϕ_s127°,δ66°, λ-164°. NP2:ϕ_s31°,δ75°,λ-24°. Principal axes: T 1.39, Plg6°, Azm80°; N .49, Plg62°, Azm182°; P -1.88, Plg27°, Azm347°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ZUR_RM **05** 01:52:37,48.12N×8.08E,h12^{km},Mw4.6/33,Moment Tensor Solution. s33 Moment tensor: Scale 10^{15}Nm; M_{rr}-1.37; $M_{\theta\theta}$-3.55; $M_{\phi\phi}$4.92; $M_{r\theta}$-2.33; $M_{\theta\phi}$-6.47; $M_{\phi r}$-1.38; Best double couple: $M_0$8.27×10^{15} NP1:ϕ_s14°, δ75°,λ-16°. NP2:ϕ_s109°,δ74°,λ-165°. Principal axes: T 8.42, Plg1°, Azm62°; N -.29, Plg68°, Azm153°; P -8.13, Plg22°, Azm331°;*

*ZUR **05** 01:52:38.6,48.08N×8.00E,h10^{km},ML5.1/10*

*IPEC **05** 01:52:38.3±3.5,48.16N×7.97E,h19^{km}±16^{km},ML5.1/2, Error ellipse: s-maj=19.3km s-min=12.6km az=79.0*

*BGR **05** 01:52:38.8±0.2,48.12N×8.04E,h10^{km},ML5.1,Error ellipse: s-maj=3.3km s-min=2.2km az=171.0*

*STR **05** 01:52:39.2±0.2,48.11N×8.00E,h10^{km}±1^{km},Ml5.3,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LEDBW **05** 01:52:39.2±0.1,48.08N×8.04E,h9^{km}±2^{km},ML5.4,Error ellipse: s-maj=1.2km s-min=1.0km az=115.0*

LEDBW Felt VI EMS.

*LDG **05** 01:52:39.1±0.1,48.07N×7.95E,h11^{km},Md4.7/3,Ml5.2/44, ms3.6/6,Error ellipse: s-maj=1.7km s-min=1.6km az=8.0*

*BNS **05** 01:52:40.4±0.8,48.15N×7.99E,h10^{km},ML5.1*

ISC 05 01:52:35.5±0.1**,48.104N**±0.007×**7.921E**±0.010**,h10^{km}, n712,**σ1^s**55**/1129**,mb4.1**/15**,MS4.0**/14**,93C-74D,France**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FBB	Freiburg	0.11	204	⇑*i*P	Pg	01 52 42.7	+4.3
FBB				S	Sg	01 52 45.3	+4.9
KIZ	Kirchzarten	0.15	181	P	Pg	01 52 42.6	+3.6
KIZ				*i* S	Sg	01 52 45.1	+3.8
KIZ	Kirchzarten	0.15	181	⇑*i*P	Pg	01 52 42.6	+3.6
KIZ				*i* S	Sg	01 52 45.0	+3.7
LIBD	Limburg	0.22	282	⇑*i*P	Pg	01 52 45.6	+5.3
LIBD				Sg	Sg	01 52 49.5	+6.1
FELD	Feldberg	0.23	166	⇓*i*P	Pg	01 52 43.7	+3.1
FELD				S	Sg	01 52 46.9	+3.0
BFO	Black Forest	0.35	50	*e*Pg	Pg	01 52 44.7	+1.9
BFO				*e*Sg	Sg	01 52 50.0	+2.2
BFO	Black Forest	0.35	50	⇑*i*P	Pg	01 52 45.5	+2.6
BFO				*e*S	Sg	01 52 49.7	+1.9
BFO	Black Forest	0.35	50	*e*Pg	Pg	01 52 44.7	+1.8
BFO				*e*Sg	Sg	01 52 49.8	+2.1
BFO				*e*Sg	Sg	01 52 50.0	+2.3
WLS	Welschbruch	0.49	309	⇓*i*P	Pg	01 52 50.3	+4.8
WLS	Welschbruch	0.49	309	Pg	Pg	01 52 50.1	+4.6
STR	Strasbourg	0.49	348	*e*Pg	Pg	01 52 49.9	+4.4
STR	Strasbourg	0.49	348	⇓*i*P	Pg	01 52 49.9	+4.4
STR				*i* S	Sg	01 52 57.5	+5.4
STR	Strasbourg	0.49	348	Pg	Pg	01 52 49.8	+4.3
SLE	Schleitheim	0.51	131	⇓*i*P	Pg	01 52 47.8	+1.8
SLE				*i* S	Sg	01 52 53.7	+0.9
SLE	Schleitheim	0.51	131	⇓*i*Pg	Pg	01 52 45.5	-0.4
SLE				*i* Sg	Sg	01 52 49.7	-3.2
SLE	Schleitheim	0.51	131	⇓*i*P	Pg	01 52 47.7	+1.8
SLE				*i* Sg	Sg	01 52 53.8	+0.9
	23µm,0.5s						
ECH	Echery	0.52	283	Pg	Pg	01 52 50.8	+4.7
ECH				*e*Sg	Sg	01 52 58.8	+5.6
ECH	Echery	0.52	283	⇑*i*P	Pg	01 52 50.8	+4.7
ECH	Echery	0.52	283	Pg	Pg	01 52 50.8	+4.7
ECH				Sg	Sg	01 52 58.5	+5.3
CDF	Champ du Feu	0.53	306	*e*Pg	Pg	01 52 50.9	+4.6
CDF				*e*P		01 52 51.4	
CDF				*e*Pn	Pn	01 52 51.6	+2.8
CDF				*e*Sg	Sg	01 52 57.8	+4.4
	16µm,0.2s						
CDF	Champ du Feu	0.53	306	*e*P	Pg	01 52 51.4	+5.1
CDF	Champ du Feu	0.53	306	*e*Pn	Pn	01 52 51.6	+2.8
CDF				*e*Sg	Sg	01 52 57.8	+4.4
	8µm,0.2s						
SPAK	Spaichingen	0.58	90	Pg	Pg	01 52 49.0	+1.8
SPAK	Spaichingen	0.58	90	⇑*i*P	Pg	01 52 49.1	+1.8
SPAK	Spaichingen	0.58	90	⇑*i*P	Pg	01 52 49.0	+1.8
SPAK	Spaichingen	0.58	90	Pg	Pg	01 52 48.9	+1.6
MOF	Molkenrain	0.59	245	Pg	Pg	01 52 51.6	+4.2
MOF	Molkenrain	0.59	245	⇑*i*P	Pg	01 52 51.6	+4.2
MOF	Molkenrain	0.59	245	Pg	Pg	01 52 51.5	+4.1
SULZ	Sulz-Cheisache	0.59	167	⇓*i*Pg	Pg	01 52 49.6	+2.1
SULZ				*i* Sg	Sg	01 52 56.4	+0.9
SULZ	Sulz-Cheisache	0.59	167	⇓*i*P	Pg	01 52 49.9	+2.4
SULZ				*i* Sg	Sg	01 52 57.4	+1.9
	3611µm,0.8s						
TRULL	Truellikon	0.69	131	⇓*i*Pg	Pg	01 52 49.9	+0.6
TRULL	Truellikon	0.69	131	⇓*i*P	Pb	01 52 51.0	+1.9
FLACH	Flaach	0.69	140	⇓*i*P	Pb	01 52 51.3	+2.1
FLACH				*e*Sg	Sg	01 52 59.8	+1.2
	11µm,0.4s						
BBS	Basel-Blauen	0.70	204	Pg	Pg	01 52 52.9	+3.3
BBS	Basel-Blauen	0.70	204	⇑*i*P	Pb	01 52 52.9	+3.6
STEIN	Stein am Rhein	0.77	124	⇓*i*Pg	Pg	01 52 51.3	+0.2
STEIN	Stein am Rhein	0.77	124	⇓*i*P	Pb	01 52 52.7	+2.1
HINF	Hinteralfeld	0.77	249	*e*Pg	Pg	01 52 54.3	+3.2
HINF				*e*Pn	Pn	01 52 55.3	+3.0
HINF				*e*Sg	Sg	01 53 04.7	+3.2
	26µm,0.4s						
HINF	Hinteralfeld	0.77	249	*e*Pn	Pn	01 52 55.3	+3.0
HINF				*e*Sg	Sg	01 53 04.7	+3.2
	13µm,0.4s						
BALST	Balsthal	0.78	191	⇑*i*Pg	Pg	01 52 59.8	+8.5
BALST	Balsthal	0.78	191	⇑*i*P	Pb	01 52 53.9	+3.1
GUT	Gutenstein	0.80	92	Pg	Pg	01 52 53.0	+1.4
GUT				Sg	Sg	01 53 02.6	+0.2
GUT	Gutenstein	0.80	92	⇑*i*P	Pb	01 52 53.0	+1.9
GUT				*e*S	Sb	01 53 02.8	+1.1
GUT	Gutenstein	0.80	92	⇑*i*P	Pb	01 52 53.0	+1.9
GUT				*e*S	Sb	01 53 02.6	+0.9
LBG	Lerchenberg	0.81	46	Pg	Pg	01 52 53.7	+1.8
LBG				Sg	Sg	01 53 04.0	+1.3
LBG	Lerchenberg	0.81	46	⇑*i*P	Pb	01 52 53.7	+2.4
LBG				*e*S	Sb	01 53 03.9	+1.9
LBG	Lerchenberg	0.81	46	⇑*i*P	Pb	01 52 53.6	+2.3
LBG				*e*S	Sb	01 53 03.8	+1.8
SISB	Singen-Sch Ber	0.82	120	Pg	Pg	01 52 53.5	+1.5
SISB				Sg	Sg	01 53 03.5	+0.6
SISB	Singen-Sch Ber	0.82	120	⇓*i*P	Pb	01 52 53.5	+2.1
SISB				*i* S	Sb	01 53 03.6	+1.4
BOURR	Bourrignon	0.85	214	⇑*i*Pg	Pg	01 52 53.9	+1.3
BOURR	Bourrignon	0.85	214	⇑*i*P	Pb	01 52 55.1	+3.2
ZUR	Zurich	0.86	149	⇓*i*P	Pb	01 52 54.5	+2.4
ZUR	Zurich	0.86	149	⇓*i*Pg	Pg	01 52 52.7	-0.1
LANF	Langenberg	0.88	355	⇓*i*P	Pb	01 52 55.8	+3.3
LANF	Langenberg	0.88	355	Pg	Pg	01 52 55.7	+2.5
LANF				Sg	Sg	01 53 09.1	+4.1
TUBL	Tuebingen Lnz	0.88	61	Pn	Pn	01 52 54.8	+0.9
TUBL				Sn	Sn	01 53 06.3	-0.4
TUBL	Tuebingen Lnz	0.88	61	⇑*i*P	Pb	01 52 54.7	+2.3
TUBL				⇓*i*P		01 52 55.5	
TUBL				S	Sb	01 53 05.9	+1.8
WEIN	Weingarten	0.92	128	⇓*e*P	Pb	01 52 55.4	+2.2
WEIN	Weingarten	0.92	128	⇓*i*Pg	Pg	01 52 54.6	+0.6
WEIN	Weingarten	0.92	128	⇓*i*P	Pb	01 52 55.4	+2.3
WILA	Wila	0.96	136	⇓*e*P	Pb	01 52 56.0	+2.2
WILA	Wila	0.96	136	⇓*i*Pg	Pg	01 52 55.1	+0.3
WILA	Wila	0.96	136	⇓*i*P	Pb	01 52 56.0	+2.2
KRW	Karlsruhe West	0.96	18	⇓*e*P	Pb	01 52 57.1	+3.2
KRW				S	Sb	01 53 12.3	+5.8
PEB	Petersbachel	0.97	352	⇓*i*P	Pb	01 52 57.0	+2.9
PEB				*i* S	Sb	01 53 11.4	+4.7
BUCH	Bad Urach	1.02	70	Pn	Pn	01 52 56.4	+0.7
BUCH				Sn	Sn	01 53 09.8	-0.4
BUCH	Bad Urach	1.02	70	⇑*i*P	Pb	01 52 56.4	+1.6
BUCH				S	Sb	01 53 09.9	+1.9
BUCH	Bad Urach	1.02	70	⇑*i*P	Pn	01 52 56.4	+0.7
BUCH				⇓*i*P		01 52 57.5	
LOMF	Lomont	1.05	225	Pn	Pn	01 52 58.1	+1.8
LOMF	Lomont	1.05	225	⇑*i*P	Pb	01 52 58.1	+2.6
LOMF				⇓*i*P		01 53 00.1	
LOMF	Lomont	1.05	225	Pg	Pg	01 52 59.7	+3.0
HAU	Haudompre	1.06	265	*e*Pn	Pn	01 52 58.5	+2.1
HAU				*e*Pg	Pg	01 52 59.9	+3.1
HAU				*e*Sg	Sg	01 53 13.9	+2.9
HAU				*e*Sn	Sn	01 53 14.8	+3.6
	32µm,0.3s						
HAU				*e*R			
	23µm,22.5s						
HAU	Haudompre	1.06	265	*e*Pg	Pg	01 52 59.9	+3.1
HAU				*e*Sg	Sg	01 53 13.9	+2.9
HAU				*e*Sn	Sn	01 53 14.8	+3.6
	16µm,0.3s						
STU	Stuttgart	1.08	51	*e*Pg	Pg	01 52 57.1	0.0
STU				*e*Sg	Sg	01 53 12.2	+0.6
STU	Stuttgart	1.08	51	⇑*i*P	Pb	01 52 57.1	+1.3
STU				⇑*i*P		01 52 58.5	
STU				S	Sb	01 53 11.7	+1.9
KTD	Kalmit	1.22	5	Pn	Pn	01 53 00.2	+1.5
KTD				*e*Pg	Pg	01 53 00.3	+0.3
KTD	Kalmit	1.22	5	⇓*i*P	Pb	01 53 00.3	+2.0
MUO	Muotathal	1.24	157	⇓*i*Pg	Pg	01 52 55.3	-5.0
MUO	Muotathal	1.24	157	⇓*i*P	Pb	01 53 00.5	+2.0
BNALP	Bannalp	1.28	164	⇓*i*Pg	Pg	01 52 56.2	-5.0
BNALP	Bannalp	1.28	164	⇓*i*Pg	Pg	01 53 01.2	0.0
	517µm,0.6s						
THEF	They Montfort	1.30	276	Pn	Pn	01 53 02.3	+2.4
THEF	They Montfort	1.30	276	⇓*i*P	Pb	01 53 02.2	+2.6
THEF	They Montfort	1.30	276	Pg	Pg	01 53 01.8	+0.2
THEF				Sg	Sg	01 53 22.4	+3.4
LIENZ	Alp Oberkamor	1.33	127	⇓*i*P	Pb	01 53 01.8	+1.6
HASLI	Hasliberg	1.36	173	⇑*i*Pg	Pg	01 53 00.5	-2.2
HASLI	Hasliberg	1.36	173	⇑*i*P	Pb	01 53 02.0	+1.4
HEI	Heidelberg	1.40	22	P	Pn	01 53 02.0	+0.7
PLONS	Plons	1.45	136	⇓*i*Pg	Pg	01 53 01.2	-3.3
PLONS	Plons	1.45	136	⇓*i*P	Pn	01 53 03.4	+1.5
WIMIS	Wimmis	1.45	188	⇑*i*P*	Pb	01 53 02.5	+0.2
WIMIS	Wimmis	1.45	188	⇑*i*P	Pn	01 53 03.3	+1.3
LLS	Linth-Limmern	1.46	149	⇓*i*P	Pn	01 53 03.7	+1.6
LLS	Linth-Limmern	1.46	149	⇓*i*P*	Pb	01 53 01.8	-0.5
SWS	Schriesheim	1.48	20	Pn	Pn	01 53 02.8	+0.5
SWS				Sn	Sn	01 53 20.4	-1.3
SWS	Schriesheim	1.48	20	*e*SG	Sg	01 53 24.8	+0.1
SWS	Schriesheim	1.48	20	⇓*e*P	Pn	01 53 02.8	+0.5
SWS				*e*S	Sb	01 53 20.3	-1.0
SWS				*e*S	Sb	01 53 24.4	+3.2
SWS	Schriesheim	1.48	20	⇓*e*P	Pn	01 53 02.8	+0.5
SWS				*e*S	Sb	01 53 20.3	-1.0
SWS				*e*Sg	Sg	01 53 24.8	+0.1
TORNY	Torny	1.48	206	⇑*i*Pn	Pn	01 53 03.3	+0.9
TORNY	Torny	1.48	206	⇑*i*P	Pn	01 53 03.7	+1.3
IMS	Imsbach	1.49	360	⇓*e*P	Pn	01 53 03.7	+1.2
IMS				P		01 53 07.5	
IMS				S	Sb	01 53 26.6	+4.8
DUP	Duppenweiler	1.51	331	⇓*e*P	Pn	01 53 05.4	+2.6
DUP				P		01 53 08.6	
BRANT	Les Verrieres	1.52	221	⇑*i*Pn	Pn	01 53 03.4	+0.4
BRANT	Les Verrieres	1.52	221	⇑*i*Pn	Pn	01 53 04.4	+1.4
	1µm,0.7s						
UBR	Uberruh	1.53	105	Pn	Pn	01 53 04.3	+1.2
UBR				Sn	Sn	01 53 21.7	-1.5
UBR	Uberruh	1.53	105	⇑*e*PN	Pn	01 53 04.4	+1.3
UBR				PG	Pg	01 53 07.3	+1.1
UBR				*e*SN	Sn	01 53 21.7	-1.5
UBR	Uberruh	1.53	105	⇑*i*P	Pn	01 53 04.3	+1.2
UBR				P		01 53 07.2	
UBR				*e*S	Sb	01 53 21.7	-1.3
UBR				*i* S	Sb	01 53 25.5	+2.6
UBR	Uberruh	1.53	105	⇑*e*Pn	Pn	01 53 04.4	+1.3
UBR	Uberruh	1.53	105	Pg	Pg	01 53 07.3	+1.1
DAVA	Damuels	1.56	121	⇑*i*PN	Pn	01 53 05.1	+1.6
DAVA				*i* PG	Pg	01 53 07.3	+0.6
DAVA				*i* SG	Sg	01 53 25.5	-1.9
	26µm,0.6s						
DAVA	Damuels	1.56	121	*e*Sg	Sg	01 53 26.9	-0.5
DAVA	Damuels	1.56	121	*i* Pg	Pg	01 53 07.3	+0.6
DAVA				*i* Sg	Sg	01 53 25.5	-1.9
	26µm,0.6s						
HDH	Heidenheim	1.60	72	Pn	Pn	01 53 04.2	+0.1
HDH				Sn	Sn	01 53 24.1	-0.8
HDH	Heidenheim	1.60	72	S	Sb	01 53 24.2	-0.7
HDH	Heidenheim	1.60	72	⇑*i*P	Pn	01 53 04.2	+0.1
HDH				⇑*i*P		01 53 08.0	
HDH				S	Sb	01 53 24.2	-0.7
HDH	Heidenheim	1.60	72	⇑*i*Pn	Pn	01 53 04.2	+0.1
HDH				*i* Pg	Pg	01 53 08.0	+0.5
HDH				S	Sb	01 53 24.2	-0.7
HDH	Heidenheim	1.60	72	⇑*i*Pn	Pn	01 53 04.2	+0.1
HDH	Heidenheim	1.60	72	*i* Pg	Pg	01 53 08.0	+0.5
TOD	Tromm	1.61	21	Pn	Pn	01 53 04.7	+0.5
TOD				Sn	Sn	01 53 29.8	+4.6
TOD	Tromm	1.61	21	⇓*e*P	Pn	01 53 04.7	+0.4
SIND	Sindeldorf	1.67	41	Pn	Pn	01 53 04.9	-0.2
SIND				Sn	Sn	01 53 29.5	+2.8
SIND	Sindeldorf	1.67	41	⇑*i*P	Pn	01 53 04.9	-0.2
SIND				⇓*e*P		01 53 09.7	
SIND				*e*S	Sn	01 53 29.6	+2.8
SIND	Sindeldorf	1.67	41	⇑*i*Pn	Pn	01 53 04.9	-0.2
SIND	Sindeldorf	1.67	41	*e*Pg	Pg	01 53 09.7	+0.7
RUP	Ruppelstein	1.70	341	Pn	Pn	01 53 07.7	+2.3
RUP				Sn	Sn	01 53 35.5	+8.1
RUP	Ruppelstein	1.70	341	*e*PG	Pg	01 53 12.0	+2.5
RUP	Ruppelstein	1.70	341	⇓*e*P	Pn	01 53 07.7	+2.3
RUP				*e*P		01 53 12.0	
RUP	Ruppelstein	1.70	341	⇓*e*P	Pn	01 53 07.7	+2.2
RUP				*e*Pg	Pg	01 53 12.0	+2.5
RUP	Ruppelstein	1.70	341	Pn	Pn	01 53 07.6	+2.1
RUP	Ruppelstein	1.70	341	Pg	Pg	01 53 11.9	+2.4
RUP				Sg	Sg	01 53 34.7	+2.6
RFYF	Reffroy	1.71	289	*e*Pn	Pn	01 53 08.5	+2.8
	baz=110						
RFYF				*e*Pg	Pg	01 53 11.7	+1.9
	baz=112						
RFYF				*e*Sn	Sn	01 53 30.3	+2.5
	baz=111						
RFYF				*e*Sg	Sg	01 53 34.7	+2.0
	5µm,0.2s						
RFYF	Reffroy	1.71	289	*e*Pg	Pg	01 53 11.7	+1.9
RFYF				*e*Sn	Sn	01 53 30.3	+2.5
RFYF				*e*Sg	Sg	01 53 34.7	+2.0
	3µm,0.2s						
FUSIO	Fusio	1.73	163	⇓*i*P*	Pb	01 53 03.7	-3.2
FUSIO	Fusio	1.73	163	⇓*i*P	Pn	01 53 07.9	+2.0
LKBD	Leukerbad	1.73	187	⇑*i*Pn	Pn	01 53 03.7	-2.2
LKBD	Leukerbad	1.73	187	⇑*i*P	Pn	01 53 07.4	+1.5
OBER	Oberstdorf	1.75	113	⇑*i*Pn	Pn	01 53 07.6	+1.4
RIVT	Riveris	1.78	335	⇓*e*P	Pn	01 53 08.7	+2.0
RIVT				⇑*e*P		01 53 13.1	
SENIN	Lac Senin	1.79	194	⇑*i*Pn	Pn	01 53 05.3	-1.5
SENIN	Lac Senin	1.79	194	⇑*i*P	Pn	01 53 08.1	+1.3
DAVOS	Davos	1.79	134	P	Pn	01 53 09.9	+3.0
DAVOS				S	Sn	01 53 31.3	+1.4
ABH	Alteburg	1.80	352	⇓*e*P	Pn	01 53 08.7	+1.8
DAVOX	Davos	1.88	134	Pn	Pn	01 53 09.9	+1.9
	baz=325,slow=17						
DAVOX				Pg	Pg	01 53 12.9	-0.1
	baz=310,slow=19						
DAVOX				Sn	Sn	01 53 31.3	-0.6
	baz=343,slow=19						
DAVOX				Lg		01 53 36.2	
DAVOX	Davos	1.88	134	⇓*i*Pn	Pn	01 53 07.4	-0.7
DAVOX	Davos	1.88	134	⇓*i*P	Pn	01 53 10.0	+1.9
AIGLE	Aigle	1.88	201	⇑*i*Pn	Pn	01 53 07.9	-0.2
AIGLE	Aigle	1.88	201	⇑*i*P	Pn	01 53 08.9	+0.8
NORI	Noerdlinger Ri	1.90	70	⇑*i*Pn	Pn	01 53 08.5	+0.1
VDL	Val di Lei	1.93	146	⇓*i*P*	Pb	01 53 07.7	-2.7
VDL	Val di Lei	1.93	146	⇓*i*P	Pn	01 53 11.2	+2.4
GIMEL	Gimel	1.93	216	⇑*i*Pn	Pn	01 53 08.9	0.0
GIMEL	Gimel	1.93	216	⇑*i*Pn	Pn	01 53 09.9	+1.0
	1µm,1.0s						
SFTF	Sexfontaines	1.93	274	*e*Pn	Pn	01 53 10.7	+1.8
	baz=96						
SFTF				*e*Pg	Pg	01 53 15.5	+1.3
	baz=99						
SFTF				*e*Sn	Sn	01 53 34.7	+1.3
SFTF				*e*Sg	Sg	01 53 41.1	+1.1
	4µm,0.2s						
SFTF	Sexfontaines	1.93	274	*e*Pg	Pg	01 53 15.5	+1.3
SFTF				*e*Sn	Sn	01 53 34.7	+1.3
SFTF				*e*Sg	Sg	01 53 41.1	+1.1
	2µm,0.2s						
GRYON	Gryon	1.94	197	⇑*i*Pn	Pn	01 53 08.1	-0.8
GRYON	Gryon	1.94	197	⇑*i*P	Pn	01 53 09.9	+1.0
CABF	La Chapelle	1.94	221	*e*Pn	Pn	01 53 10.2	+1.2
CABF				*e*Pg	Pg	01 53 15.5	+1.1
CABF				*e*Sn	Sn	01 53 33.8	+0.1
CABF				*e*Sg	Sg	01 53 39.5	-0.9
	9µm,0.6s						
CABF	La Chapelle	1.94	221	*e*Pg	Pg	01 53 15.5	+1.1
CABF				*e*Sn	Sn	01 53 33.8	+0.1
CABF				*e*Sg	Sg	01 53 39.5	-0.9
	4µm,0.6s						
WLF	Walferdange	1.95	324	*e*Pn	Pn	01 53 11.9	+2.8
WLF				*e*Pg	Pg	01 53 16.9	+2.3
WLF				*e*Sg	Sg	01 53 42.2	+1.6
WLF	Walferdange	1.95	324	⇓*i*P	Pn	01 53 11.9	+2.8
WLF				⇑*i*P		01 53 16.8	
WLF	Walferdange	1.95	324	*e*Pn	Pn	01 53 11.7	+2.6
WLF				*e*Pg	Pg	01 53 16.4	+1.9
WLF				*e*Sg	Sg	01 53 41.0	+0.4
WLF	Walferdange	1.95	324	S	Sn	01 53 41.9	+8.1
WLF	Walferdange	1.95	324	*e*Pn	Pn	01 53 11.7	+2.6
WLF	Walferdange	1.95	324	*e*Pg	Pg	01 53 16.5	+2.0
MEZF	Maizieres J'vi	1.96	283	*e*Pn	Pn	01 53 11.4	+2.2
	baz=106						
MEZF				*e*Pg	Pg	01 53 16.0	+1.4
	baz=105						
MEZF				*e*Sn	Sn	01 53 35.0	+1.0
	9µm,0.6s						
MEZF				*e*Sg	Sg	01 53 41.8	+1.1
	4µm,0.3s,baz=101						
MEZF	Maizieres J'vi	1.96	283	*e*Pg	Pg	01 53 16.0	+1.4
MEZF				*e*Sn	Sn	01 53 35.0	+1.0
	5µm,0.6s						
MEZF				*e*Sg	Sg	01 53 41.8	+1.1
	2µm,0.3s						
MMK	Mattmark	2.05	179	⇑*i*Pn	Pn	01 53 09.9	-0.7
MMK	Mattmark	2.05	179	⇑*i*P	Pn	01 53 12.5	+1.9
DIX	Grande Dixence	2.05	190	⇑*i*Pn	Pn	01 53 09.9	-0.7
DIX	Grande Dixence	2.05	190	⇑*i*P	Pn	01 53 12.3	+1.7
SALAN	Lac Salanfe	2.06	199	⇑*i*Pn	Pn	01 53 10.3	-0.5
SALAN	Lac Salanfe	2.06	199	⇑*i*P	Pn	01 53 11.7	+0.9
BGG	Burgeitz	2.14	350	⇓*e*Pg	Pg	01 53 13.4	-4.8
BGG				*e*Sg	Sg	01 53 39.9	-6.9
	4µm,0.5s						
MCGN	Macugnaga	2.15	179	*e*Pn	Pn	01 53 14.0	+2.0
MCGN	Macugnaga	2.15	179	*e*Pn	Pn	01 53 14.0	+2.1
EMV	Vieux Emosson	2.16	199	⇑*i*Pn	Pn	01 53 11.7	-0.4
EMV	Vieux Emosson	2.16	199	⇑*i*P	Pn	01 53 13.0	+0.9
FUORN	Ofenpass	2.18	132	⇓*i*Pn	Pn	01 53 11.2	-1.2
FUORN	Ofenpass	2.18	132	⇓*i*Pn	Pn	01 53 14.5	+2.1
	1µm,0.6s						
BERNI	Berninapass	2.22	139	⇓*i*Pn	Pn	01 53 11.8	-1.1
BERNI	Berninapass	2.22	139	⇓*i*Pn	Pn	01 53 15.3	+2.4
	812nm,0.9s						
FUR	Furstenfeldbru	2.25	87	⇑*i*P	Pn	01 53 14.0	+0.6
FUR				⇓*e*P		01 53 20.5	
FUR				*e*S	Sn	01 53 48.7	+7.3
FUR	Furstenfeldbru	2.25	87	*e*Pn	Pn	01 53 13.9	+0.5
FUR				*e*Sg	Sg	01 53 48.7	-1.8
FACH	Fachingen	2.25	1	⇓*e*P	Pn	01 53 14.3	+0.8
FACH				P		01 53 21.3	
MOTA	Moosalm	2.28	108	⇑*i*PN	Pn	01 53 14.9	+1.1
MOTA				*i* PG	Pg	01 53 20.6	-0.5
MOTA				*i* SG	Sg	01 53 49.2	-2.3
	3µm,0.3s						
MOTA	Moosalm	2.28	108	*i* Pg	Pg	01 53 20.6	-0.5
MOTA				*i* Sg	Sg	01 53 49.2	-2.3
	3µm,0.3s						

VAI	Varese	2.31	165	ePn	Pn	01 53 15.8	+1.5
VAI	Varese	2.31	165	ePn	Pn	01 53 15.8	+1.5
MUGIO	Muggio	2.31	160	⇑iPn	Pn	01 53 12.3	-2.0
MUGIO	Muggio	2.31	160	⇑iP	Pn	01 53 15.7	+1.4
BRMO	Bormio	2.33	133	ePn	Pn	01 53 16.7	+2.1
BRMO				eSn	Sn	01 53 43.0	-0.6
BRMO	Bormio	2.33	133	ePn	Pn	01 53 16.7	+2.1
BRMO				eSn	Sn	01 53 43.0	-0.6
BLI	Bleialf	2.38	334	⇓eP	Pn	01 53 17.1	+1.7
SQTA	Sankt Quirin	2.39	110	⇑iPN	Pn	01 53 17.0	+1.6
SQTA				i PG	Pg	01 53 22.8	-0.5
SQTA				i SG	Sg	01 53 52.9	-2.3
	4μm,0.3s						
SQTA	Sankt Quirin	2.39	110	i Pg	Pg	01 53 22.8	-0.5
SQTA				i Sg	Sg	01 53 52.9	-2.3
	4μm,0.3s						
ORX	Oropa	2.47	179	P	Pn	01 53 18.2	+1.6
ORX				S	Sn	01 53 44.5	-2.7
ORX	Oropa	2.47	179	P	Pn	01 53 18.2	+1.6
ORX				S	Sn	01 53 44.5	-2.6
ORO	Oropa	2.48	179	ePn	Pn	01 53 18.3	+1.6
ORO	Oropa	2.48	179	ePn	Pn	01 53 18.3	+1.6
WATA	Walderalm	2.58	106	⇑iPN	Pn	01 53 19.2	+1.0
WATA				i PG	Pg	01 53 26.9	-0.3
WATA				i SG	Sg	01 53 58.5	-3.2
	3μm,0.2s						
WATA	Walderalm	2.58	106	i Pg	Pg	01 53 26.9	-0.3
WATA				i Sg	Sg	01 53 58.5	-3.2
	3μm,0.2s						
STB	Steinbach	2.59	345	ePg	Pn	01 53 19.9	+1.6
STB				eSg	Sn	01 53 51.1	+1.0
TRAV		2.59	183	P	Pn	01 53 20.4	+2.0
TRAV				S	Sn	01 53 48.4	-1.8
TRAV		2.59	183	S	Sn	01 53 48.4	-1.8
TRAV		2.59	183	P	Pn	01 53 20.4	+2.1
BIW	Bindweide	2.63	359	⇓eP	Pn	01 53 19.5	+0.7
WTTA	Wattenberg	2.65	107	⇑iPN	Pn	01 53 20.4	+1.3
WTTA				i SN	Sn	01 53 50.0	-1.6
WTTA				i SG	Sg	01 54 01.4	-2.3
	11μm,0.6s						
WTTA	Wattenberg	2.65	107	i Sn	Sn	01 53 50.0	-1.6
WTTA	Wattenberg	2.65	107	⇑iPn	Pn	01 53 20.4	+1.3
WTTA				i Sg	Sg	01 54 01.4	-2.3
	11μm,0.6s						
GRFO	Grafenberg	2.69	53	⇑iP	Pn	01 53 18.8	-0.9
GRFO				P		01 53 28.8	
GRA1	Grafenberg Arr	2.70	53	ePn	Pn	01 53 18.9	-0.9
GRA1				eSg	Sg	01 54 01.2	-4.2
GRA1				eSg	Sg	01 54 01.5	-3.9
GRA1	Grafenberg Arr	2.70	53	eSg	Sg	01 54 01.2	-4.2
GRF	Grafenberg Arr	2.70	53	ePn	Pn	01 53 18.9	-0.9
GRF				eSg	Sg	01 54 01.5	-3.8
LSD	Ceresole Reale	2.70	192	P	Pn	01 53 21.7	+1.9
LSD	Ceresole Reale	2.70	192	P	Pn	01 53 21.7	+1.9
MABI	Malga Bissina	2.71	138	ePn	Pn	01 53 22.7	+2.7
MABI	Malga Bissina	2.71	138	ePn	Pn	01 53 22.7	+2.7
LPL	La Plagne	2.71	198	ePn	Pn	01 53 21.2	+1.2
LPL				ePg	Pg	01 53 28.2	-1.6
LPL				eSn	Sn	01 53 50.5	-2.8
LPL				eSg	Sg	01 54 01.9	-4.1
	3μm,0.5s						
LPL	La Plagne	2.71	198	ePg	Pg	01 53 28.2	-1.6
LPL				eSn	Sn	01 53 50.5	-2.8
LPL				eSg	Sg	01 54 01.9	-4.1
	2μm,0.5s						
LPG	La Plagne	2.73	198	ePn	Pn	01 53 21.5	+1.3
LPG				ePg	Pg	01 53 28.6	-1.4
LPG				eSn	Sn	01 53 51.6	-2.0
LPG				eSg	Sg	01 54 03.0	-3.4
	9μm,0.9s						
LPG	La Plagne	2.73	198	ePg	Pg	01 53 28.6	-1.4
LPG				eSn	Sn	01 53 51.6	-2.0
LPG				eSg	Sg	01 54 03.0	-3.4
	4μm,0.9s						
KLL	Kalltalsperre	2.75	338	ePg	Pn	01 53 22.5	+1.9
KLL				eSg	Sn	01 53 55.2	+0.9
APPI	Appiano	2.78	125	P	Pn	01 53 23.3	+2.4
MIL	Milan	2.78	161	ePg	Pg	01 53 27.0	-4.1
SCE	Schlegeis	2.78	111	ePn	Pn	01 53 22.6	+1.6
MEM	Membach	2.80	334	Pn	Pn	01 53 23.1	+1.8
HROE	Hohe Rhon--Fla	2.84	30	⇑iPn	Pn	01 53 20.8	-1.0
GIVF	Givet	2.85	316	ePn	Pn	01 53 24.5	+2.5
GIVF				ePg	Pg	01 53 32.1	-0.4
GIVF				eSn	Sn	01 53 56.6	-0.2
GIVF				eSg	Sg	01 54 09.8	-0.8
	2μm,0.6s						
GIVF	Givet	2.85	316	ePg	Pg	01 53 32.1	-0.4
GIVF				eSn	Sn	01 53 56.6	-0.2
GIVF				eSg	Sg	01 54 09.8	-0.8
	1μm,0.6s						
BNS	Bensberg	2.90	351	ePg	Pn	01 53 24.5	+1.7
BNS				eSg	Sn	01 53 58.7	+0.7
	5μm,0.7s						
BRES	Bressanone	2.95	117	P	Pn	01 53 26.2	+2.8
DOU	Dourbes	2.96	314	Pn	Pn	01 53 25.7	+2.2
HGN	Heimansgroeve	2.96	335	ePn	Pn	01 53 25.5	+1.9
HGN				ePg	Pg	01 53 34.6	-0.1
HGN				eSn	Sn	01 53 59.6	0.0
HGN				eSg	Sg	01 54 12.3	-1.9
HGN	Heimansgroeve	2.96	335	ePg	Pg	01 53 34.6	-0.1
HGN				eSn	Sn	01 53 59.6	+0.1
HGN				eSg	Sg	01 54 12.3	-1.9
JUE	Julich	2.98	341	⇑ePg	Pn	01 53 26.6	+2.8
RSP	Reno Superiore	2.99	189	P	Pn	01 53 25.6	+1.6
RSP				S	Sn	01 53 58.0	-2.2
RSP	Reno Superiore	2.99	189	S	Sn	01 53 58.0	-2.2
RSP	Reno Superiore	2.99	189	P	Pn	01 53 25.6	+1.7
UBBA	Unterbreizbach	3.04	26	ePn	Pn	01 53 23.0	-1.6
UBBA				eSg	Sg	01 54 13.2	-3.5
BEBN	Eben Emael	3.07	332	Pn	Pn	01 53 27.1	+2.0
SAL	Salo	3.07	143	ePn	Pn	01 53 27.4	+2.3
BAIF	Baives	3.13	310	ePn	Pn	01 53 28.2	+2.3
BAIF				ePg	Pg	01 53 36.7	-1.3
BAIF				eSn	Sn	01 54 03.2	-0.5
BAIF				eSg	Sg	01 54 18.2	-1.5
	3μm,0.8s						
BAIF	Baives	3.13	310	ePg	Pg	01 53 36.7	-1.3
BAIF				eSn	Sn	01 54 03.2	-0.5
BAIF				eSg	Sg	01 54 18.2	-1.5
	1μm,0.8s						
FENE	Fenestrelle	3.13	191	⇑P	Pn	01 53 27.5	+1.5
FENE	Fenestrelle	3.13	191	⇑P	Pn	01 53 27.5	+1.5
SMF	Signal de Mont	3.13	244	ePn	Pn	01 53 25.8	-0.2
SMF				ePg	Pg	01 53 38.4	+0.3
SMF				eSn	Sn	01 54 02.5	-1.4
SMF				eSg	Sg	01 54 17.4	-2.5
	3μm,0.3s						
SMF	Signal de Mont	3.13	244	ePg	Pg	01 53 38.4	+0.3
SMF				eSn	Sn	01 54 02.5	-1.4
SMF				eSg	Sg	01 54 17.4	-2.5
	2μm,0.3s						
GDM	Grand'Maison	3.16	204	Pg	Pg	01 53 38.4	-0.2
SSF	Saint Saulge	3.17	252	ePn	Pn	01 53 26.5	0.0
SSF				ePg	Pg	01 53 37.9	-0.9
SSF				eSn	Sn	01 54 04.1	-0.6
SSF				eSg	Sg	01 54 19.5	-1.5
	2μm,0.3s						
SSF	Saint Saulge	3.17	252	ePg	Pg	01 53 37.9	-0.9
SSF				eSn	Sn	01 54 04.1	-0.6
SSF				eSg	Sg	01 54 19.5	-1.5
	872nm,0.3s						
BNI	Bardonecchia	3.17	196	ePn	Pn	01 53 27.5	+1.0
BNI				ePg	Pg	01 53 37.7	-1.2
BNI				eSg	Sg	01 54 14.6	-6.6
BNI	Bardonecchia	3.17	196	ePn	Pn	01 53 27.5	+1.0
BNI	Bardonecchia	3.17	196	ePg	Pg	01 53 37.7	-1.2
GRN	Grenoble	3.23	208	Pg	Pg	01 53 40.7	+0.6
MZEK	Zeckenberg-Ebn	3.24	53	⇑iPn	Pn	01 53 26.0	-1.5
CTI	Castel Tesino	3.27	128	ePn	Pn	01 53 29.7	+1.7
CTI	Castel Tesino	3.27	128	ePn	Pn	01 53 29.7	+1.7
ROTZ	Rotzenmuhle	3.28	58	⇑iPn	Pn	01 53 26.7	-1.4
RRL	Cesana Torines	3.28	194	⇑P	Pn	01 53 29.3	+1.2
RRL				S	Sn	01 54 08.4	+0.8
MSBB	Schoenbrunner	3.29	53	⇑iPn	Pn	01 53 26.7	-1.5
BHB	Bricherasio	3.29	188	P	Pn	01 53 28.7	+0.4
BHB	Bricherasio	3.29	188	P	Pn	01 53 28.7	+0.4
RJOB	Jochberg	3.30	95	ePn	Pn	01 53 29.4	+1.0
MANZ	Manzenberg	3.34	54	⇑iPn	Pn	01 53 27.5	-1.4
MANZ				i Pg	Pg	01 53 40.2	-2.0
RMOA	Moar Alm	3.34	94	⇑iPn	Pn	01 53 30.3	+1.3
RNON	Nonn-Bad Reich	3.35	94	⇑iPn	Pn	01 53 30.1	+1.1
OG22	Abries	3.35	192	Pn	Pn	01 53 30.4	+1.3
OG22				Pn	Pn	01 53 30.6	+1.5
AVF	Avril sur Loir	3.37	249	ePn	Pn	01 53 28.9	-0.4
AVF				ePg	Pg	01 53 42.0	-0.8
AVF				eSn	Sn	01 54 08.7	-1.1
AVF				eSg	Sg	01 54 24.5	-3.2
	671nm,0.3s						
AVF	Avril sur Loir	3.37	249	ePg	Pg	01 53 42.0	-0.8
AVF				eSn	Sn	01 54 08.7	-1.1
AVF				eSg	Sg	01 54 24.5	-3.2
	335nm,0.3s						
BUG	Bochum--Univer	3.37	353	ePn	Pn	01 53 30.8	+1.4
BUG				eSg	Sg	01 54 25.6	-2.1
BUG	Bochum--Univer	3.37	353	⇓eP	Pn	01 53 30.2	+0.9
BUG	Bochum--Univer	3.37	353	ePn	Pn	01 53 30.6	+1.3
BUG				ePn	Pn	01 53 30.8	+1.5
BUG				eSg	Sg	01 54 25.6	-2.1
MGBB	Grossbuechelbe	3.39	55	⇑iPn	Pn	01 53 28.3	-1.3
MHAI	Haid-Arzberg	3.39	54	⇑iPn	Pn	01 53 38.4	+8.7
MROB	Rosenbuehl-Arz	3.43	53	⇑iPn	Pn	01 53 28.7	-1.5
VIEL	Selb-Vielitz	3.45	51	⇑iPn	Pn	01 53 28.9	-1.5
BGLD	Berchtesgaden	3.46	96	⇑iPn	Pn	01 53 31.3	+0.7
MBDF	Montbardon	3.47	194	ePn	Pn	01 53 31.8	+1.0
MBDF				ePg	Pg	01 53 42.3	-2.5
MBDF				eSn	Sn	01 54 10.2	-2.2
MBDF				eSg	Sg	01 54 26.5	-4.6
	2μm,0.5s						
MBDF	Montbardon	3.47	194	ePg	Pg	01 53 42.3	-2.5
MBDF				eSn	Sn	01 54 10.2	-2.2
MBDF				eSg	Sg	01 54 26.5	-4.6
	942nm,0.5s						
ORIF	Oris-en-Rattie	3.48	205	ePn	Pn	01 53 30.8	-0.2
ORIF				ePg	Pg	01 53 42.0	-3.1
ORIF				eSn	Sn	01 54 10.5	-2.2
ORIF				eSg	Sg	01 54 27.0	-4.6
	2μm,0.4s						
ORIF				eR			
	1μm,17.8s						
ORIF	Oris-en-Rattie	3.48	205	ePg	Pg	01 53 42.0	-3.1
ORIF				eSn	Sn	01 54 10.5	-2.2
ORIF				eSg	Sg	01 54 27.0	-4.6
	1μm,0.4s						
BOB	Bobbio (Coli)	3.50	162	ePn	Pn	01 53 33.0	+1.8
BOB	Bobbio (Coli)	3.50	162	ePn	Pn	01 53 33.0	+1.8
MOX	Moxa	3.51	42	ePn	Pn	01 53 29.5	-1.8
MOX				ePg	Pg	01 53 43.3	-2.3
MOX				eSg	Sg	01 54 27.6	-4.7
MOX	Moxa	3.51	42	⇑eP	Pn	01 53 29.6	-1.7
MOX	Moxa	3.51	42	eP	Pn	01 53 29.6	-1.7
MOX				MLR	MLR		
	comp=Z,2μm,11.0s						
MOX	Moxa	3.51	42	i P	Pn	01 53 29.6	-1.7
MOX				Pg	Pg	01 53 43.0	-2.6
MOX				Sg	Sg	01 54 28.0	-4.3
MOX				L		01 54 44.0	
MOX	Moxa	3.51	42	ePn	Pn	01 53 29.6	-1.7
MOX				ePg	Pg	01 53 42.9	-2.7
MOX				eSg	Sg	01 54 28.0	-4.3
MOX	Moxa	3.51	42	ePg	Pg	01 53 42.9	-2.7
CSO	Casso	3.52	120	⇑eP	Pn	01 53 33.0	+1.6
UCC	Uccle	3.56	321	Pn	Pn	01 53 33.9	+1.8
PCP	Pian Castagno	3.59	173	P	Pn	01 53 33.7	+1.2
PCP				S	Sn	01 54 12.8	-2.6
CSMI	Casera Mimoias	3.59	115	⇑iP	Pn	01 53 34.0	+1.5
DOI	San Damiano	3.63	188	ePn	Pn	01 53 33.0	-0.1
DOI	San Damiano	3.63	188	ePn	Pn	01 53 33.0	-0.1
FVI	Forni Avoltri	3.63	113	ePn	Pn	01 53 35.0	+2.0
FVI	Forni Avoltri	3.63	113	ePn	Pn	01 53 35.0	+1.9
PLDF	La Plantade	3.63	236	Pn	Pn	01 53 32.4	-0.7
PLDF				Pg	Pg	01 53 49.0	+0.9
PLDF	La Plantade	3.63	236	Pg	Pg	01 53 49.0	+0.9
PZZ	Prazzo	3.64	189	P	Pn	01 53 33.4	+0.1
PZZ				S	Sn	01 54 12.4	-4.4
NKC	Novy Kostel	3.66	53	ePN	Pn	01 53 31.8	-1.6
NKC				ePG	Pg	01 53 45.7	-2.8
NKC				eSG	Sg	01 54 30.8	-6.5
NKC	Novy Kostel	3.66	53	ePg	Pg	01 53 45.7	-2.8
NKC				eSg	Sg	01 54 30.8	-6.5
HYF	Humbligny	3.66	259	ePn	Pn	01 53 34.2	+0.7
HYF				ePg	Pg	01 53 47.0	-1.7
HYF				eSn	Sn	01 54 16.4	-0.9
HYF				eSg	Sg	01 54 35.1	-2.5
HYF	Humbligny	3.66	259	ePg	Pg	01 53 47.0	-1.7
HYF				eSn	Sn	01 54 16.4	-0.9
HYF				eSg	Sg	01 54 35.1	-2.5
GUNZ	Gunzen	3.67	50	ePn	Pn	01 53 31.9	-1.7
GUNZ				eSg	Sg	01 54 31.7	-6.1
SURF	Saint Ours	3.71	192	Pg	Pg	01 53 50.2	+0.7
WERD	Werda	3.71	49	ePn	Pn	01 53 32.3	-1.8
CAE	Caneva	3.73	123	⇑iP	Pn	01 53 36.0	+1.5
MLNI	Malnisio	3.75	120	⇑eP	Pn	01 53 37.0	+2.2
TANN	Tannenbergstha	3.77	50	ePn	Pn	01 53 33.5	-1.5
TANN				eSg	Sg	01 54 36.2	-4.8
GENL	Genova Univers	3.77	168	P	Pn	01 53 37.8	+2.8
GENL	Genova Univers	3.77	168	P	Pn	01 53 37.8	+2.8
BGF	Bois d'Agland	3.78	248	ePn	Pn	01 53 34.5	-0.7
BGF				ePg	Pg	01 53 48.4	-2.7
BGF				eSn	Sn	01 54 18.1	-2.2
BGF				eSg	Sg	01 54 38.4	-3.1
	comp=Z,3μm,0.5s						
BGF	Bois d'Agland	3.78	248	ePg	Pg	01 53 48.4	-2.7
BGF				eSn	Sn	01 54 18.1	-2.2
BGF				eSg	Sg	01 54 38.4	-3.1
	comp=Z,1μm,0.5s						
ROB	Roburent	3.81	181	P	Pn	01 53 36.6	+1.0
ROB	Roburent	3.81	181	P	Pn	01 53 36.6	+1.0
KBA	Koelnbreinsper	3.81	104	⇑iPN	Pn	01 53 37.2	+1.6
KBA				i SG	Sg	01 54 39.1	-3.4
	comp=Z,3μm,0.5s						
KBA	Koelnbreinsper	3.81	104	ePn	Pn	01 53 37.0	+1.4
AGO	Saint Agoulin	3.86	240	Pn	Pn	01 53 36.1	-0.3
AGO				Pg	Pg	01 53 53.5	+0.8
AGO	Saint Agoulin	3.86	240	Pg	Pg	01 53 53.5	+0.8
STV2	Anna di Valdie	3.88	186	P	Pn	01 53 36.1	-0.5
STV2	Anna di Valdie	3.88	186	P	Pn	01 53 36.1	-0.5
STV	Sta Anna Valdi	3.88	186	P	Pn	01 53 36.2	-0.5
STV	Sta Anna Valdi	3.88	186	P	Pn	01 53 36.2	-0.4
COLF	Collangettes	3.89	230	Pn	Pn	01 53 35.8	-0.9
KHC	Kasperske Hory	3.89	73c	iP	Pn	01 53 36.3	-0.5
KHC	Kasperske Hory	3.89	73	ePN	Pn	01 53 36.3	-0.5
KHC				ePG	Pg	01 53 50.0	-3.2
KHC				eSG	Sg	01 54 39.6	-5.5
KHC	Kasperske Hory	3.89	73	ePg	Pg	01 53 50.0	-3.2
KHC				eSg	Sg	01 54 39.6	-5.5
ENR	Entracque	3.89	185	P	Pn	01 53 36.5	-0.3
ENR	Entracque	3.89	185	P	Pn	01 53 36.5	-0.3
FIN	Finale Ligure	3.90	177	ePn	Pn	01 53 38.0	+1.1
FIN	Finale Ligure	3.90	177	P	Pn	01 53 38.1	+1.2
GRAM		3.91	157	P	Pn	01 53 37.9	+0.9
GRAM		3.91	157	P	Pn	01 53 37.8	+0.8
GEC2	GERESS Array S	3.92	77	ePn	Pn	01 53 36.9	-0.2
GEC2				eSg	Sg	01 54 40.0	-6.0
GEC2	GERESS Array S	3.92	77	⇑iP	Pn	01 53 36.8	-0.3
GEC2	GERESS Array S	3.92	77	ePn	Pn	01 53 36.9	-0.2
GEC2				eSg	Sg	01 54 40.0	-6.0
GEC2	GERESS Array S	3.92	77	eSg	Sg	01 54 40.0	-6.0
GERES	GERESS Array B	3.92	77	Pn	Pn	01 53 36.8	-0.4
	comp=Z,51nm,0.3s,baz=264,slow=13,SNR=1285						
GERES				Pg	Pg	01 53 43.2	-11
	comp=Z,114nm,0.3s,baz=266,slow=13,SNR=47						
GERES				Sn	Sn	01 54 20.1	-3.6
	comp=Z,134nm,0.3s,baz=254,slow=19,SNR=5.8						
GERES				Lg		01 54 39.8	
	comp=Z,227nm,0.3s,baz=255,slow=21,SNR=4.0						
GERES	GERESS Array B	3.92	77	P	Pn	01 53 36.8	-0.3
GERES						01 54 20.1	
GERES				pmax	pmax		
	comp=Z,51nm,0.3s						
GERES				pmax	pmax		
	comp=Z,114nm,0.3s						
GERES	GERESS Array B	3.92	77	ePn	Pn	01 53 36.7	-0.4
GERES	GERESS Array B	3.92	77	eSg	Sg	01 54 39.5	-6.5
WTSB	Winterswijk	3.93	350	ePn	Pn	01 53 38.8	+1.4
	comp=Z,203nm,0.4s						
WTSB				ex	x	01 53 45.5	
WTSB				ePg	Pg	01 53 52.7	-1.4
WTSB				ex	x	01 53 58.1	
WTSB				ex	x	01 54 21.1	
WTSB				eSg	Sg	01 54 39.7	-6.9
WTSB	Winterswijk	3.93	350	ePg	Pg	01 53 52.7	-1.4
WTSB				eSg	Sg	01 54 39.7	-6.8
CODM		3.95	159	⇓P	Pn	01 53 39.0	+1.5
CODM		3.95	159	⇓P	Pn	01 53 39.0	+1.4
VIVF	Saint-Julien-l	3.95	216	ePn	Pn	01 53 36.2	-1.4
VIVF				ePg	Pg	01 53 50.7	-3.7
VIVF				eSn	Sn	01 54 21.5	-3.0
VIVF				eSg	Sg	01 54 41.6	-5.4
	comp=Z,1μm,0.4s						
VIVF	Saint-Julien-l	3.95	216	ePg	Pg	01 53 50.7	-3.7
VIVF				eSn	Sn	01 54 21.5	-3.0
VIVF				eSg	Sg	01 54 41.6	-5.4
	comp=Z,733nm,0.4s						
BOO	Bordano	3.96	115	⇑iP	Pn	01 53 39.0	+1.3
BUA	Buia	4.02	116	⇑eP	Pn	01 53 40.0	+1.4
MONE	Monesi	4.03	182	P	Pn	01 53 39.2	+0.5
MONE	Monesi	4.03	182	P	Pn	01 53 39.2	+0.5
ERBM	Eremo	4.07	154	ePn	Pn	01 53 41.0	+1.7
PTCC	Patocco-Chiusa	4.07	113	ePn	Pn	01 53 40.9	+1.6
PTCC	Patocco-Chiusa	4.07	113	ePn	Pn	01 53 40.9	+1.6
BAD	Bernadia	4.08	115	⇓iP	Pn	01 53 40.0	+0.5
VALM		4.09	156	P	Pn	01 53 40.6	+1.0
VALM		4.09	156	P	Pn	01 53 40.6	+1.0
PYM	Petit Puy Mans	4.11	237	Pn	Pn	01 53 39.5	-0.3
BACM		4.11	158	P	Pn	01 53 41.5	+1.7
BACM		4.11	158	P	Pn	01 53 41.5	+1.7
TOUF	Mont Tournerai	4.12	187	Pn	Pn	01 53 40.9	+0.9
AUTN	L'Aution	4.12	185	Pn	Pn	01 53 39.6	-0.5
SAOF	Saorge	4.13	184	Pn	Pn	01 53 40.4	+0.3
TLI	Talmassons	4.16	120	⇓eP	Pn	01 53 42.0	+1.4
GSCL	Gusciola	4.18	153	ePn	Pn	01 53 42.5	+1.5
GSCL	Gusciola	4.18	153	ePn	Pn	01 53 42.5	+1.5
IMI	Imperia	4.20	180	ePn	Pn	01 53 42.0	+1.0
IMI	Imperia	4.20	180	P	Pn	01 53 42.0	+0.9
IBBN	Ibbenburen	4.21	359	ePn	Pn	01 53 42.1	+0.8
IBBN	Ibbenburen	4.21	359	⇓eP	Pn	01 53 41.8	+0.5
IBBN	Ibbenburen	4.21	359	ePn	Pn	01 53 41.7	+0.4
IBBN				ePn	Pn	01 53 42.1	+0.8
AURF	Auriere	4.24	186	Pn	Pn	01 53 42.5	+0.8
MVIF	Mont Vial	4.24	188	Pn	Pn	01 53 42.4	+0.6
SBF	Sospel	4.25	185	ePn	Pn	01 53 42.0	+0.1
SBF				ePg	Pg	01 53 55.6	-4.9
SBF				eSn	Sn	01 54 28.2	-4.1
SBF				eSg	Sg	01 54 49.1	-8.1
	comp=Z,1μm,0.5s						
SBF	Sospel	4.25	185	ePg	Pg	01 53 55.6	-4.9
SBF				eSn	Sn	01 54 28.2	-4.1
SBF				eSg	Sg	01 54 49.1	-8.1
	comp=Z,628nm,0.5s						
VINC	Vinca	4.26	158	P	Pn	01 53 43.0	+1.1
VINC	Vinca	4.26	158	P	Pn	01 53 43.0	+1.0
VINC	Vinca	4.26	158	P	Pn	01 53 43.0	+1.0
NEGI	Negi	4.26	182	P	Pn	01 53 42.8	+0.8
NEGI	Negi	4.26	182	P	Pn	01 53 42.8	+0.8
MOA	Molln	4.27	91	⇑iPN	Pn	01 53 42.1	-0.1
MOA				i PG	Pg	01 53 57.6	-3.2
MOA				i SG	Sg	01 54 52.8	-4.9
	comp=Z,632nm,0.2s						
MOA	Molln	4.27	91	eSg	Sg	01 54 50.9	-6.9
MOA	Molln	4.27	91	i Pg	Pg	01 53 57.6	-3.2
MOA	Molln	4.27	91	i Sg	Sg	01 54 52.8	-4.9
	comp=Z,632nm,0.2s						
TCF	Toulx Ste Croi	4.30	247	ePn	Pn	01 53 41.8	-0.7
TCF				ePg	Pg	01 53 59.7	-1.6
TCF				eSn	Sn	01 54 30.8	-2.5
TCF				eSg	Sg	01 54 53.8	-4.8
	comp=Z,3μm,0.6s						
TCF	Toulx Ste Croi	4.30	247	ePg	Pg	01 53 59.7	-1.6
TCF				eSn	Sn	01 54 30.8	-2.5
TCF				eSg	Sg	01 54 53.8	-4.8
	comp=Z,2μm,0.6s						
VLC	Villacollemand	4.30	156	ePn	Pn	01 53 42.0	-0.6
VLC				ePg	Pg	01 53 57.8	-3.6
VLC	Villacollemand	4.30	156	ePn	Pn	01 53 42.0	-0.6
VLC	Villacollemand	4.30	156	ePg	Pg	01 53 57.8	-3.6
ZCCA	Zocca	4.31	149	ePn	Pn	01 53 44.7	+2.0
LBL	Lubilhac	4.31	230	Pn	Pn	01 53 42.1	-0.7
STOF	St-Etienne Org	4.34	200	Pn	Pn	01 53 42.9	-0.2
STOF				Pg	Pg	01 54 00.5	-1.7
STOF	St-Etienne Org	4.34	200	Pg	Pg	01 54 00.5	-1.7
DRE	Drenchia	4.36	114	⇓iP	Pn	01 53 44.0	+0.6
REVF	Revere	4.38	185	Pn	Pn	01 53 45.4	+1.7
CADS	Cadrg	4.39	113	⇑iPn	Pn	01 53 44.5	+0.6
CADS				eSg	Sg	01 54 55.2	-6.5
CADS				e		01 54 59.6	
	comp=Z,4μm,0.9s						
CADS	Cadrg	4.39	113	Pn	Pn	01 53 44.5	+0.7
CADS				eSg	Sg	01 54 55.2	-6.5
	comp=Z,4μm,0.9s						
VERF	Verneugheol	4.41	240	Pn	Pn	01 53 43.1	-1.0
SMRF	Simiane la Rot	4.44	202	ePn	Pn	01 53 43.8	-0.8
SMRF				ePg	Pg	01 53 59.7	-4.5
SMRF				eSn	Sn	01 54 32.7	-4.2
SMRF				eSg	Sg	01 54 56.9	-6.5
	comp=Z,3μm,1.2s						
SMRF	Simiane la Rot	4.44	202	ePg	Pg	01 53 59.7	-4.5
SMRF				eSn	Sn	01 54 32.7	-4.2
SMRF				eSg	Sg	01 54 56.9	-6.5
	comp=Z,1μm,1.2s						
BDI	Bagni Di Lucca	4.45	154	ePn	Pn	01 53 46.3	+1.6
BDI	Bagni Di Lucca	4.45	154	ePn	Pn	01 53 46.3	+1.6
VILF	Villemus	4.52	201	Pg	Pg	01 54 05.2	-0.6
VILF				Sg	Sg	01 55 08.8	+2.7
FNVD	Fontana Vidola	4.52	149	ePn	Pn	01 53 46.8	+1.1
FNVD	Fontana Vidola	4.52	149	ePn	Pn	01 53 46.8	+1.1
MAIM		4.56	156	P	Pn	01 53 46.8	+0.5
MAIM				S	Sn	01 54 34.5	-5.4
MAIM		4.56	156	P	Pn	01 53 46.8	+0.6
VOY	Vojsko	4.58	115	⇑iPn	Pn	01 53 47.0	+0.5
CLL	Collm	4.60	44	i Pn	Pn	01 53 44.6	-2.2
CLL				i Pg	Pg	01 54 04.0	-3.4
CLL				i Sg	Sg	01 55 07.6	-1.1
CLL	Collm	4.60	44	i PN	Pn	01 53 44.6	-2.2
	comp=Z,logA/T=2.5						
CLL				i		01 53 57.5	
CLL				i PG	Pg	01 54 04.0	-3.4
CLL				e		01 54 46.0	
CLL				eSG	Sg	01 55 02.0	-6.7
CLL				i SG	Sg	01 55 07.6	-1.1
CLL				i L		01 55 20.0	
CLL	Collm	4.60	44	i Pg	Pg	01 54 04.0	-3.4
NRDL	Niedersach Rie	4.61	17	ePn	Pn	01 53 47.1	+0.1
FRF	La Foret Royal	4.63	192	ePn	Pn	01 53 46.6	-0.7
FRF				ePg	Pg	01 54 02.3	-5.7
FRF				eSn	Sn	01 54 35.9	-5.9
FRF				eSg	Sg	01 55 01.2	-8.5
	comp=Z,1μm,0.8s						
FRF	La Foret Royal	4.63	192	ePg	Pg	01 54 02.3	-5.7
FRF				eSn	Sn	01 54 35.9	-5.9
FRF				eSg	Sg	01 55 01.2	-8.5
	comp=Z,660nm,0.8s						
TRI	Trieste	4.67	119	ePn	Pn	01 53 48.0	+0.2
TRI	Trieste	4.67	119	ePn	Pn	01 53 48.0	+0.2
TAVF	Tavernes	4.67	197	Pn	Pn	01 53 50.6	+2.7
SEI	Scarperia	4.70	148	ePn	Pn	01 53 49.5	+1.2
SEI	Scarperia	4.70	148	ePn	Pn	01 53 49.5	+1.2
PRAF	Pradon	4.71	205	Pn	Pn	01 53 49.5	+1.1
PRAF				Pg	Pg	01 54 09.9	+0.3
PRAF	Pradon	4.71	205	Pg	Pg	01 54 09.9	+0.3
PRA	Prague	4.71	63	PG	Pg	01 54 05.0	-4.6
PII	Pisa	4.74	157	ePn	Pn	01 53 49.1	+0.2
PII				eSn	Sn	01 54 41.8	-2.8
PII	Pisa	4.74	157	ePn	Pn	01 53 49.1	+0.2
PII				eSn	Sn	01 54 41.8	-2.8
PRU	Pruhonice	4.75	64	i PN	Pn	01 53 47.3	-1.6
PRU				ePG	Pg	01 54 05.5	-4.8
PRU				eSG	Sg	01 55 05.5	-8.0
	comp=Z,2μm,0.7s						
PRU	Pruhonice	4.75	64	ePg	Pg	01 54 05.5	-4.8
PRU				eSg	Sg	01 55 05.5	-8.0
	comp=Z,2μm,0.7s						
JAVS	Javornik	4.75	115	⇑iPn	Pn	01 53 49.1	+0.2
JAVS				eSn	Sn	01 54 43.0	-1.8
JAVS				eSg	Sg	01 55 08.3	-5.3
	comp=Z,6μm,1.2s						
JAVS	Javornik	4.75	115	⇑iPn	Pn	01 53 49.2	+0.2
JAVS				eSn	Sn	01 54 43.0	-1.8
JAVS				eSg	Sg	01 55 08.4	-5.3
	comp=Z,6μm,1.2s						
OBKA	Obir	4.78	107	⇑iPN	Pn	01 53 50.0	+0.6
OBKA				i PG	Pg	01 54 09.0	-2.0
OBKA				i SG	Sg	01 55 09.8	-5.0
	comp=Z,2μm,0.7s						

OBKA	**Obir**	4.78	107	*e*Pn	Pn	01 53 50.1	+0.7
OBKA	**Obir**	4.78	107	*i* Pg	Pg	01 54 09.0	-2.0
OBKA				*e*Sg	Sg	01 55 08.7	-6.1
BRSN	**Barisano**	4.79	141	P	Pn	01 53 51.4	+1.9
BRG	**Berggiesshubel**	4.80	53	*i* Pn	Pn	01 53 47.9	-1.8
BRG				*i* Pg	Pg	01 54 09.1	-2.4
BRG				*i* Sn	Sn	01 54 43.8	-2.4
BRG				*i* Sg	Sg	01 55 07.0	-8.5
BRG	**Berggiesshubel**	4.80	53	*i* P	Pn	01 53 47.9	-1.8
BRG				*i*		01 54 43.8	
BRG				MLR	MLR		
	comp=Z,4µm,6.1s						
BRG				MLR	MLR		
	comp=N,3µm,9.1s						
BRG				MLR	MLR		
	comp=E,3µm,9.1s						
BRG	**Berggiesshubel**	4.80	53	*i* Pg	Pg	01 54 09.1	-2.4
TREF	**Trevaresse**	4.82	203	Pg	Pg	01 54 11.1	-0.6
VMG	**Vicchio**	4.85	147	*e*Pn	Pn	01 53 51.5	+1.1
VMG	**Vicchio**	4.85	147	*e*Pn	Pn	01 53 51.5	+1.1
LMR	**La Mourre**	4.87	192	*e*Pn	Pn	01 53 49.9	-0.8
LMR				*e*Pg	Pg	01 54 06.9	-5.9
LMR				*e*Sn	Sn	01 54 42.0	-5.9
	comp=E,99nm,0.2s						
LMR				*e*Sg	Sg	01 55 10.1	-7.7
	comp=E,2µm,1.2s						
LMR	**La Mourre**	4.87	192	*e*Pg	Pg	01 54 06.9	-5.9
LMR				*e*Sn	Sn	01 54 42.0	-5.9
	comp=E,49nm,0.2s						
LMR				*e*Sg	Sg	01 55 10.1	-7.7
	comp=E,815nm,1.2s						
LASF	**Ste Croix**	4.92	217	*e*Pn	Pn	01 53 49.4	-2.0
LASF				*e*Pg	Pg	01 54 09.3	-4.5
LASF				*e*Sn	Sn	01 54 45.1	-4.0
LASF				*e*Sg	Sg	01 55 11.9	-7.5
	comp=E,894nm,0.5s						
LASF	**Ste Croix**	4.92	217	*e*Pg	Pg	01 54 09.3	-4.5
LASF				*e*Sn	Sn	01 54 45.1	-4.0
LASF				*e*Sg	Sg	01 55 11.9	-7.5
	comp=E,447nm,0.5s						
LJU	**Ljubljana**	4.96	112	*i* Pn	Pn	01 53 51.7	-0.2
LJU				*e*Pg	Pg	01 54 15.0	+0.4
LJU				*e*Sg	Sg	01 55 14.6	-6.1
	comp=Z,5µm,1.0s						
LJU	**Ljubljana**	4.96	112	*i* Pn	Pn	01 53 51.7	-0.2
LJU				*e*Sg	Sg	01 55 14.6	-6.1
LJU	**Ljubljana**	4.96	112	*i* Pn	Pn	01 53 51.7	-0.3
LJU				*e*Sg	Sg	01 55 14.6	-6.2
PVCC	**Panska Ves**	4.98	58	*e*PN	Pn	01 53 50.4	-1.8
PVCC				*e*SG	Sg	01 55 15.3	-6.0
PVCC	**Panska Ves**	4.98	58	*e*Sg	Sg	01 55 15.3	-6.0
SFI	**Santa Sofia**	5.01	145	*e*Pn	Pn	01 53 53.8	+1.1
BERF	**Bertagne**	5.04	199	Pg	Pg	01 54 15.4	-0.8
CEY	**Cerknica**	5.05	116	*i* Pn	Pn	01 53 53.2	+0.1
CEY				*e*Sn	Sn	01 54 47.4	-4.9
CEY				*e*Sg	Sg	01 55 16.2	-7.4
	comp=Z,2µm,0.6s						
CEY	**Cerknica**	5.05	116⇑	*i*Pn	Pn	01 53 53.2	0.0
CEY				*e*Sn	Sn	01 55 17.1	+25
CEY				*e*Sg	Sg	01 55 24.8	+1.3
CEY	**Cerknica**	5.05	116⇑	*i*Pn	Pn	01 53 53.2	+0.1
PERS	**Pernice**	5.11	104⇑	*i*Pn	Pn	01 53 53.8	-0.2
CAF	**Calviac**	5.14	234	*e*Pn	Pn	01 53 53.8	-0.7
CAF				*e*Pg	Pg	01 54 13.5	-4.7
CAF				*e*Sn	Sn	01 54 50.4	-4.2
CAF				*e*Sg	Sg	01 55 20.1	-6.7
	comp=Z,1µm,0.8s						
CAF	**Calviac**	5.14	234	*e*Pg	Pg	01 54 13.5	-4.7
CAF				*e*Sn	Sn	01 54 50.4	-4.2
CAF				*e*Sg	Sg	01 55 20.1	-6.7
	comp=Z,611nm,0.8s						
CSNT	**Castellina Chi**	5.20	152	*e*Pn	Pn	01 53 55.3	+0.1
CSNT	**Castellina Chi**	5.20	152	*e*Pn	Pn	01 53 55.3	0.0
ARSA	**Arzberg**	5.21	97⇑	*i*PN	Pn	01 53 55.0	-0.4
ARSA				*i* SG	Sg	01 55 24.0	-4.9
	comp=Z,2µm,0.7s						
ARSA	**Arzberg**	5.21	97	*e*Pn	Pn	01 53 54.8	-0.6
ARSA	**Arzberg**	5.21	97⇑	*i*Pn	Pn	01 53 55.0	-0.4
	comp=Z,2µm,0.7s						
ARSA				*i* Sg	Sg	01 55 24.0	-4.9
ARSA	**Arzberg**	5.21	97	*i* Sg	Sg	01 55 24.0	-4.9
RJF	**Les Rejaudoux**	5.22	240	*e*Pn	Pn	01 53 54.3	-1.3
RJF				*e*Pg	Pg	01 54 15.4	-4.4
RJF				*e*Sn	Sn	01 54 52.8	-3.8
RJF				*e*Sg	Sg	01 55 22.7	-6.6
	comp=Z,766nm,0.5s						
RJF				*e*R			
	comp=Z,795nm,11.9s						
RJF	**Les Rejaudoux**	5.22	240	*e*Pg	Pg	01 54 15.4	-4.4
RJF				*e*Sn	Sn	01 54 52.8	-3.8
RJF				*e*Sg	Sg	01 55 22.7	-6.6
	comp=Z,383nm,0.5s						
RSM	**Repubblica di**	5.23	141	P	Pn	01 53 57.1	+1.3
CRE	**Caprese Michel**	5.29	146	*e*Pn	Pn	01 53 57.4	+0.8
CRE	**Caprese Michel**	5.29	146	*e*Pn	Pn	01 53 57.4	+0.8
LDF	**La Druitiere**	5.38	278	*e*Pn	Pn	01 53 57.4	-0.5
LDF				*e*Pg	Pg	01 54 17.8	-5.3
LDF				*e*Sn	Sn	01 54 56.5	-4.3
LDF				*e*Sg	Sg	01 55 28.5	-6.4
	comp=Z,1µm,0.6s						
LDF	**La Druitiere**	5.38	278	*e*Pg	Pg	01 54 17.8	-5.3
LDF				*e*Sn	Sn	01 54 56.5	-4.3
LDF				*e*Sg	Sg	01 55 28.5	-6.4
	comp=Z,665nm,0.6s						
LEGS	**Legarje**	5.50	110⇑	*i*Pn	Pn	01 53 58.7	-0.8
BADI	**Badiali**	5.50	145	P	Pn	01 54 00.3	+0.8
FSSB	**Fossombrone**	5.56	141	*e*Pn	Pn	01 54 00.5	+0.1
FSSB	**Fossombrone**	5.56	141	*e*Pn	Pn	01 54 00.5	+0.1
PGF	**Pioggiola**	5.61	172	*e*Pn	Pn	01 53 59.9	-1.2
PGF				*e*Sn	Sn	01 54 59.3	-7.0
	comp=Z,96nm,0.4s						
VKA	**Vienna**	5.62	85⇑	*i*PN	Pn	01 54 01.0	-0.2
VKA				*i* SN	Sn	01 55 02.7	-3.9
FLN	**La Foliniere**	5.63	280	*e*Pn	Pn	01 54 00.7	-0.7
	baz=103						
FLN				*e*Pg	Pg	01 54 23.7	-4.3
	baz=104						
FLN				*e*Sn	Sn	01 55 01.0	-5.9
FLN				*e*Sg	Sg	01 55 36.0	-7.1
	comp=Z,2µm,0.7s						
FLN				*e*R			
	comp=Z,829nm,14.8s						
FLN	**La Foliniere**	5.63	280	*e*Pg	Pg	01 54 23.7	-4.3
FLN				*e*Sn	Sn	01 55 01.0	-5.9
FLN				*e*Sg	Sg	01 55 36.0	-7.1
	comp=Z,897nm,0.7s						
VBY	**Vinica-Bojanci**	5.67	115	*e*Pn	Pn	01 54 01.5	-0.4
MFF	**Saint Martin d**	5.68	258	*e*Pn	Pn	01 54 01.3	-0.8
MFF				*e*Pg	Pg	01 54 24.5	-4.5
MFF				*e*Sn	Sn	01 55 04.2	-4.0
MFF				*e*Sg	Sg	01 55 37.8	-7.0
	comp=Z,1µm,0.7s						
MFF	**Saint Martin d**	5.68	258	*e*Pg	Pg	01 54 24.5	-4.5
MFF				*e*Sn	Sn	01 55 04.2	-4.0
MFF				*e*Sg	Sg	01 55 37.8	-7.0
	comp=Z,627nm,0.7s						
KRUC	**Moravsky**	5.71	77	P	Pn	01 54 01.2	-1.2
KRUC	**Moravsky**	5.71	77	*e*Pn	Pn	01 54 01.0	-1.4
KRUC				*e*Sg	Sg	01 55 35.6	-10
	comp=Z,2µm,0.6s						
RUE	**Ruedersdorf**	5.77	38	*e*Pn	Pn	01 54 00.7	-2.6
	comp=Z,20nm,0.4s						
RUE				*e*Pg	Pg	01 54 23.6	-7.1
RUE				*e*Sg	Sg	01 55 36.5	-11
RUE	**Ruedersdorf**	5.77	38	*e*Pn	Pn	01 54 00.7	-2.6
	comp=Z,20nm,0.4s						
ARV	**Arcevia**	5.79	141	*e*Pn	Pn	01 54 03.5	-0.1
ARV	**Arcevia**	5.79	141	*e*Pn	Pn	01 54 03.5	-0.1
UPC	**Upice**	5.81	63	*e*PN	Pn	01 54 02.4	-1.6
UPC				*e*PG	Pg	01 54 24.7	-6.9
UPC				*e*SG	Sg	01 55 39.5	-10
UPC	**Upice**	5.81	63	*e*Pg	Pg	01 54 24.7	-6.9
UPC				*e*Sg	Sg	01 55 39.5	-10
MURB	**Monte Urbino**	5.82	145	*e*Pn	Pn	01 54 04.2	+0.1
MURB	**Monte Urbino**	5.82	145	*e*Pn	Pn	01 54 04.2	+0.2
SOP	**Sopron**	5.83	91⇑	*e*Pn	Pn	01 54 03.3	-0.8
SOP	**Sopron**	5.83	91	P	Pn	01 54 03.4	-0.7
VRAC	**Vranov**	5.87	75	Pn	Pn	01 54 03.3	-1.4
	comp=Z,2.7nm,0.3s,baz=270,slow=14,SNR=35						
VRAC				Pg	Pg	01 54 26.2	-6.5
	comp=Z,159nm,0.3s,baz=267,slow=18,SNR=82						
VRAC				Sn	Sn	01 55 06.0	-6.8
	comp=Z,30nm,0.3s,baz=146,slow=21,SNR=3.2						
VRAC				Lg		01 55 38.7	
	comp=Z,135nm,0.3s,baz=333,slow=20,SNR=12						
VRAC	**Vranov**	5.87	75	P	Pn	01 54 03.3	-1.4
VRAC						01 55 06.0	
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.3s						
VRAC				pmax	pmax		
	comp=Z,159nm,0.3s						
VRAC	**Vranov**	5.87	75	*e*Pn	Pn	01 54 03.3	-1.4
VRAC	**Vranov**	5.87	75	Pg	Pg	01 54 26.2	-6.5
VRAC				*e*Sg	Sg	01 55 40.7	-10
	comp=Z,3µm,0.8s						
GRR	**Gorron**	5.87	276	*e*Pn	Pn	01 54 03.9	-0.9
GRR				*e*Pg	Pg	01 54 27.9	-4.9
GRR				*e*Sn	Sn	01 55 05.7	-7.3
GRR				*e*Sg	Sg	01 55 43.7	-7.4
	comp=Z,2µm,0.8s						
GRR	**Gorron**	5.87	276	*e*Pg	Pg	01 54 27.9	-4.9
GRR				*e*Sn	Sn	01 55 05.7	-7.3
GRR				*e*Sg	Sg	01 55 43.7	-7.4
	comp=Z,904nm,0.8s						
LFF	**La Frestale**	5.88	240	*e*Pn	Pn	01 54 03.2	-1.7
LFF				*e*Pg	Pg	01 54 26.8	-6.1
LFF				*e*Sn	Sn	01 55 09.0	-4.1
LFF				*e*Sg	Sg	01 55 42.9	-8.4
	comp=Z,2µm,0.6s						
LFF	**La Frestale**	5.88	240	*e*Pg	Pg	01 54 26.8	-6.1
LFF				*e*Sn	Sn	01 55 09.0	-4.1
LFF				*e*Sg	Sg	01 55 42.9	-8.4
	comp=Z,766nm,0.6s						
DPC	**Dobruska-Polom**	5.95	65	*e*PN	Pn	01 54 04.2	-1.6
DPC				*e*PG	Pg	01 54 27.0	-7.2
DPC				*e*SG	Sg	01 55 44.5	-9.0
DPC	**Dobruska-Polom**	5.95	65	*e*Pn	Pn	01 54 03.9	-1.9
DPC	**Dobruska-Polom**	5.95	65	*e*Pg	Pg	01 54 27.0	-7.2
DPC				*e*Sg	Sg	01 55 42.9	-11
NVLJ	**Novalja**	5.97	124	*i* Pn	Pn	01 54 05.7	-0.5
NVLJ	**Novalja**	5.97	124	*i* Pn	Pn	01 54 05.6	-0.6
BSEG	**Bad Segeberg**	6.03	14	*e*Pn	Pn	01 54 06.4	-0.6
LCHF	**La Chataignera**	6.05	260	Pn	Pn	01 54 06.0	-1.4
KSP	**Ksiaz**	6.11	60	*e*Pn	Pn	01 54 06.1	-2.0
KSP				*e*		01 54 06.8	
KSP				*e*Pg	Pg	01 54 30.3	-7.2
KSP				*e*Sn	Sn	01 55 19.5	+0.7
KSP				*e*Sg	Sg	01 55 49.5	-9.4
KSP	**Ksiaz**	6.11	60	*e*Pg	Pg	01 54 30.3	-7.2
KSP	**Ksiaz**	6.11	60	*e*Sg	Sg	01 55 49.5	-9.4
KSP	**Ksiaz**	6.11	60	*e*Pn	Pn	01 54 06.2	-1.9
KSP				*e*		01 54 31.8	
KSP				*e*Pg	Pg	01 54 38.7	+1.2
KSP				*e*Sn	Sn	01 55 20.0	+1.2
KSP				*e*S*	Sb	01 55 40.8	+5.0
KSP				*e*Sg	Sg	01 55 57.4	-1.5
ZST	**Bratislava**	6.15	86	*i* PN	Pn	01 54 07.1	-1.6
ZST				*e*SG	Sg	01 55 49.2	-11
ZST	**Bratislava**	6.15	86	*e*Sg	Sg	01 55 49.2	-11
MTLF	**Montolieu**	6.21	222	*e*Pn	Pn	01 54 07.5	-2.1
MTLF				*e*Pg	Pg	01 54 33.2	-6.4
MTLF				*e*Sn	Sn	01 55 15.0	-6.5
MTLF				*e*Sg	Sg	01 55 52.1	-10
	comp=Z,450nm,0.6s						
MTLF	**Montolieu**	6.21	222	*e*Pg	Pg	01 54 33.2	-6.4
MTLF				*e*Sn	Sn	01 55 15.0	-6.5
MTLF				*e*Sg	Sg	01 55 52.1	-10
	comp=Z,225nm,0.6s						
SMOL	**Smolenice**	6.36	83	*i* PN	Pn	01 54 10.5	-1.1
SMOL				*e*PG	Pg	01 54 37.5	-5.0
SMOL				*e*SG	Sg	01 55 59.4	-7.8
SISC	**Sisak**	6.37	111	*i* Pn	Pn	01 54 03.0	-8.8
LRDF	**Laroque-de-Fa**	6.40	218	Pg	Pg	01 54 39.3	-4.0
JAVC	**Velka Javorina**	6.53	80	P	Pn	01 54 14.0	0.0
MORC	**Moravsky Berou**	6.56	72	*e*Pn	Pn	01 54 12.7	-1.8
	comp=Z,20nm,0.4s						
MORC				Pg	Pg	01 54 39.0	-7.5
MORC				*e*Sb	Sb	01 55 49.0	+0.2
MORC				*e*Sg	Sg	01 56 03.0	-11
MORC	**Moravsky Berou**	6.56	72	*e*Pn	Pn	01 54 11.8	-2.7
MORC	**Moravsky Berou**	6.56	72	Pg	Pg	01 54 39.0	-7.4
LRYF	**La Roche-sur-Y**	6.61	260	Pn	Pn	01 54 13.5	-1.8
MNS	**Montasola**	6.63	148	*e*Pn	Pn	01 54 14.4	-1.1
MNS	**Montasola**	6.63	148	*e*Pn	Pn	01 54 14.4	-1.1
LPEF	**Le Peyrat**	6.66	222	Pg	Pg	01 54 46.5	-2.1
EJON	**La Jonquera**	6.68	214	P	Pn	01 54 13.9	-2.2
	comp=Z,155nm,2.2s						
FILF	**Fillols**	6.71	216	Pg	Pg	01 54 45.4	-4.0
CARF	**Carcanieres**	6.76	219	Pn	Pn	01 54 16.0	-1.4
TERO	**Teramo**	6.79	142	P	Pn	01 54 17.1	-0.6
AQU	**L'Aquila**	6.93	144	*e*Pn	Pn	01 54 19.4	-0.3
AQU	**L'Aquila**	6.93	144	*e*Pn	Pn	01 54 19.4	-0.3
SRO1	**Iza**	6.94	89	*i* PN	Pn	01 54 18.1	-1.7
SRO1				*e*SG	Sg	01 56 13.0	-14
OKC	**Ostrava-Krasne**	6.95	72	*e*SG	Sg	01 56 14.6	-12
OKC	**Ostrava-Krasne**	6.95	72	P	Pn	01 54 20.2	+0.2
OKC				Sg	Sg	01 56 14.6	-12
SRO	**Srobarova**	6.99	89	*i* PN	Pn	01 54 18.7	-1.8
KOLL	**Kolacno**	7.00	82	*i* Pn	Pn	01 54 18.6	-2.1
KOLL				*e*Sg	Sg	01 56 22.3	-6.4
KOLL	**Kolacno**	7.00	82	*e*SG	Sg	01 56 22.3	-6.4
SGMF	**Saint Gilles**	7.01	275	*e*Pn	Pn	01 54 19.2	-1.6
SGMF				*e*Pg	Pg	01 54 48.3	-7.2
SGMF				*e*Sn	Sn	01 55 34.2	-7.2
	comp=Z,157nm,0.4s						
SGMF				*e*Sg	Sg	01 56 19.1	-10
	comp=Z,2µm,0.8s						
SGMF	**Saint Gilles**	7.01	275	*e*Pg	Pg	01 54 48.3	-7.2
SGMF				*e*Sn	Sn	01 55 34.2	-7.2
	comp=Z,78nm,0.4s						
SGMF				*e*Sg	Sg	01 56 19.1	-10
	comp=Z,857nm,0.8s						
MLS	**Moulis**	7.03	225	Pg	Pg	01 54 50.7	-5.2
RAC	**Raciborz**	7.03	70	*e*Pn	Pn	01 54 18.8	-2.3
RAC				*e*Pg	Pg	01 54 49.0	-6.9
RAC				*e*Sg	Sg	01 56 17.3	-12
RAC	**Raciborz**	7.03	70	*e*Pg	Pg	01 54 49.0	-6.9
RAC	**Raciborz**	7.03	70	*e*Pn	Pn	01 54 18.8	-2.3
RAC				*e*P*	Pb	01 54 38.1	+0.4
RAC				*e*Pg	Pg	01 54 49.0	-6.9
RAC				*e*Sg	Sg	01 56 17.3	-12
SRO2	**Moca**	7.05	89	*i* PN	Pn	01 54 19.1	-2.2
SALF	**Salau**	7.14	224	Pg	Pg	01 54 53.8	-4.3
PTQR	**Pietraquaria**	7.21	145	*e*Pn	Pn	01 54 22.7	-1.0
BLY	**Banja Luka**	7.23	114	P	Pn	01 54 25.8	+1.9
MELF	**Melles**	7.26	227	Pg	Pg	01 54 54.8	-5.6
VYHS	**Vyhne**	7.29	83	*i* Pn	Pn	01 54 22.5	-2.3
VYHS				*e*Sg	Sg	01 56 36.2	-2.2
VYHS	**Vyhne**	7.29	83	*e*SG	Sg	01 56 36.2	-2.2
EPF	**Esparros**	7.35	229	*e*Pn	Pn	01 54 23.5	-2.1
EPF				*e*Pg	Pg	01 54 53.6	-8.7
EPF				*e*Sn	Sn	01 55 43.7	-6.2
EPF				*e*Sg	Sg	01 56 28.4	-12
	comp=Z,504nm,0.8s						
EPF	**Esparros**	7.35	229	*e*Pn	Pn	01 54 23.5	-2.1
EPF				*e*Pg	Pg	01 54 53.6	-8.7
EPF				Pg	Pg	01 54 54.6	-7.7
EPF				*e*Sn	Sn	01 55 43.7	-6.2
EPF				*e*Sg	Sg	01 56 28.4	-12
EPF	**Esparros**	7.35	229	*e*Sn	Sn	01 55 43.7	-6.2
GUAR	**Guarcino**	7.38	147	P	Pn	01 54 28.4	+2.4
QUIF	**Quistinic**	7.44	273	*e*Pn	Pn	01 54 25.3	-1.6
QUIF				*e*Pg	Pg	01 54 56.4	-7.7
QUIF				*e*Sn	Sn	01 55 43.5	-8.7
	comp=Z,262nm,0.6s						
QUIF				*e*Sg	Sg	01 56 31.4	-12
	comp=Z,2µm,0.8s						
QUIF	**Quistinic**	7.44	273	*e*Pg	Pg	01 54 56.4	-7.7
QUIF				*e*Sn	Sn	01 55 43.5	-8.7
	comp=Z,131nm,0.6s						
QUIF				*e*Sg	Sg	01 56 31.4	-12
	comp=Z,752nm,0.8s						
LABF	**Labassere**	7.47	230	Pg	Pg	01 55 01.8	-2.9
LIKS	**Likavka**	7.48	79	*e*SG	Sg	01 56 31.2	-13
ROSF	**Rostrenen**	7.48	276	*e*Pn	Pn	01 54 25.7	-1.8
ROSF				*e*Pg	Pg	01 54 57.3	-7.7
ROSF				*e*Sn	Sn	01 55 44.5	-8.8
	comp=Z,177nm,0.6s						
ROSF				*e*Sg	Sg	01 56 34.2	-11
	comp=Z,2µm,0.9s						
ROSF	**Rostrenen**	7.48	276	*e*Pg	Pg	01 54 57.3	-7.7
ROSF				*e*Sn	Sn	01 55 44.5	-8.8
	comp=Z,88nm,0.6s						
ROSF				*e*Sg	Sg	01 56 34.2	-11
	comp=Z,758nm,0.9s						
VIEF	**Viey**	7.62	230	Pg	Pg	01 55 02.0	-5.6
SDI	**San Donato**	7.64	145	*e*Pn	Pn	01 54 27.7	-1.9
SDI	**San Donato**	7.64	145	*e*Pn	Pn	01 54 27.7	-1.9
EMIR	**Miracle**	7.67	219	P	Pn	01 54 29.6	-0.4
	comp=Z,931nm,4.1s						
EBIE	**Bielsa**	7.70	228	P	Pn	01 54 32.2	+1.7
	comp=Z,108nm,2.7s						
EBIE				S	Sg	01 56 55.9	+4.0
EBIE	**Bielsa**	7.70	228	P	Pn	01 54 32.2	+1.7
	comp=Z,108nm,2.7s,SNR=19						
REYF	**Montagne du Re**	7.70	232	Pg	Pg	01 55 06.0	-3.3
CII	**Carovilli**	7.82	142	*e*Pn	Pn	01 54 31.8	-0.4
	comp=Z,22nm,1.0s						
CII	**Carovilli**	7.82	142	*e*Pn	Pn	01 54 31.8	-0.4
	comp=Z,22nm,1.0s						
GKP	**Gorka Klasztor**	7.86	45	*e*P	Pn	01 54 30.5	-2.2
GKP				*e*		01 55 59.1	
GKP	**Gorka Klasztor**	7.86	45	*e*P	Pn	01 54 30.5	-2.2
GKP				*e*P*	Pb	01 54 49.3	-2.5
GKP				*e*Pg	Pg	01 55 09.9	-2.5
GKP				*e*Sn	Sn	01 55 59.1	-3.4
GKP				*e*Sg	Sg	01 56 58.0	+0.9
ETSF	**Etsaut**	7.91	232	*e*Pn	Pn	01 54 31.3	-2.1
ETSF				*e*Pg	Pg	01 55 03.7	-10
ETSF				*e*Sn	Sn	01 55 57.1	-6.8
ETSF				*e*Sg	Sg	01 56 45.9	-13
	comp=Z,504nm,1.0s						
ETSF	**Etsaut**	7.91	232	*e*Sn	Sn	01 55 57.1	-6.8
PSZ	**Piszkesteto**	8.03	87⇓	*e*Pn	P	01 54 32.9	-2.3
PSZ				*e*Sn	Sn	01 56 06.4	-0.6
PSZ	**Piszkesteto**	8.03	87	*e*Pn	P	01 54 32.7	-2.5
	comp=Z,7.5nm,0.7s						
PSZ	**Piszkesteto**	8.03	87	*e*Pn	P	01 54 32.7	-2.5
	comp=Z,7.5nm,0.7s						
PSZ				*e*S	Sn	01 56 06.4	-0.6
OJC	**Ojcow**	8.07	70	*e*Pg	P	01 55 09.9	+34
OJC				*e*Sg	Sg	01 56 52.0	-12
OJC	**Ojcow**	8.07	70	*e*Pn	P	01 54 33.4	-2.3
OJC				*e*Pg	P	01 55 09.9	+34
OJC				*e*Sg	Sg	01 56 52.0	-12
COP	**Copenhagen**	8.09	18	*e*P	P	01 54 41.3	+5.4
COP				*i* S	rx	01 56 58.8	
COP				*i*		01 57 06.7	
COP	**Copenhagen**	8.09	18	*i* P	P	01 54 41.3	+5.4
COP				*i* S	rx	01 56 58.8	
COP				*i*		01 57 06.7	
SJPF	**Ste Jean**	8.12	235	*e*Pn	P	01 54 33.3	-3.1
SJPF				*e*Pg	P	01 55 07.8	+31
SJPF				*e*Sn	Sn	01 55 59.2	-10
SJPF				*e*Sg	Sg	01 56 51.7	-14
	comp=Z,453nm,0.9s						
SGG	**Gregorio Mates**	8.13	143	*e*Pn	P	01 54 35.4	-1.1
SGG	**Gregorio Mates**	8.13	143	*e*Pn	P	01 54 35.4	-1.2
EALK	**Alkurruntz**	8.21	237	P	P	01 54 41.7	+4.1
	comp=Z,418nm,3.4s						
EALK				S	rx	01 57 11.9	
EALK	**Alkurruntz**	8.21	237	P	P	01 54 41.7	+4.1
	comp=Z,418nm,3.4s,SNR=9.3						
BSD	**Bornholm Skovb**	8.26	29	*i* P	P	01 54 34.0	-4.2
BSD				*i*		01 56 05.6	
BSD	**Bornholm Skovb**	8.26	29	*i* P	P	01 54 34.0	-4.2
BSD				*i*		01 54 40.2	
BSD				*e*S	Sn	01 55 57.7	-15
BSD				*i*		01 56 05.6	
BSD				*i* S	rx	01 56 57.0	
NIE	**Niedzica**	8.29	76	*e*P	P	01 54 36.9	-1.9
NIE				*e*S	rx	01 56 53.3	
EPOB	**Poblet**	8.32	218	P	P	01 54 38.9	-0.2
	comp=Z,146nm,2.0s						
EPOB				S	rx	01 57 06.4	
MUD	**Monsted U'grnd**	8.40	5	*i* P	P	01 54 38.3	-2.0
MUD				*i* S	Sn	01 56 06.5	-10
MUD	**Monsted U'grnd**	8.40	5	*i* P	P	01 54 38.3	-2.0
MUD				*i*		01 54 45.7	
MUD				*i* S	Sn	01 56 06.5	-10
STON	**Ston**	8.63	124	*i* Pn	P	01 54 41.7	-1.8
STON				*i* Sn	Sn	01 56 13.8	-8.1
VSL	**Villasalto**	8.67	172	P	P	01 54 44.2	+0.2
VSL	**Villasalto**	8.67	172	P	P	01 54 44.2	+0.2
ESAC	**San Caprasio**	8.72	226	P	P	01 54 48.3	+3.5
	comp=Z,282nm,1.9s						
ESAC				S	rx	01 57 21.8	
ESAC	**San Caprasio**	8.72	226	P	P	01 54 48.3	+3.6
	comp=Z,282nm,1.9s,SNR=7.9						
ERTA	**Horta de San J**	8.96	220	P	P	01 54 48.9	+0.8
	comp=Z,1µm,5.1s						
ERTA				S	rx	01 57 26.1	
EBR	**Ebro Roquetas**	9.01	219	*e*SG	Sg	01 57 32.8	-2.7
CRVS	**Cervenica-Dubn**	9.03	80	*i* Pn	P	01 54 47.1	-1.9
CRVS				*e*Sg	Sg	01 57 29.8	-6.4
SGO	**Sicignano**	9.21	142	*e*Pn	P	01 54 49.6	-1.8
SGO	**Sicignano**	9.21	142	*e*Pn	P	01 54 49.7	-1.8
DIVS	**Divcibare**	9.29	111⇑	*i*Pn	P	01 54 50.6	-2.0
DIVS				Sn	Sn	01 56 33.4	-4.9
DIVS	**Divcibare**	9.29	111	Sn	Sn	01 56 33.4	-4.9
ELAN	**Lanestosa**	9.32	243	P	P	01 54 55.9	+2.9
	comp=Z,117nm,2.1s						
ELAN	**Lanestosa**	9.32	243	P	P	01 54 55.9	+2.9
	comp=Z,117nm,2.1s,SNR=12						
SLCN	**Sala Consilina**	9.49	142	P	P	01 54 55.9	+0.6
KOLS	**Kolonicke sedl**	9.56	80	*i* PN	P	01 54 54.3	-2.0
EMOS	**Mosqueruela**	9.80	221	P	P	01 55 01.4	+1.9
	comp=Z,410nm,3.2s						
EMOS	**Mosqueruela**	9.80	221	P	P	01 55 01.5	+2.0
	comp=Z,410nm,3.2s,SNR=7.9						
KWP	**Kalwaria**	9.87	76	P	P	01 54 58.5	-1.9
	comp=Z,28nm,1.2s						
KWP	**Kalwaria**	9.87	76	*e*P	P	01 55 01.5	+1.1
KWP				*e*Sg	rx	01 57 09.3	
EKA	**Eskdalemuir Ar**	9.97	321	Pn	P	01 55 00.5	-1.4
	comp=Z,19nm,0.3s,baz=140,slow=14,SNR=260						
EKA				Sn	Sn	01 56 50.1	-4.9
	comp=Z,2.0nm,0.3s,baz=138,slow=25,SNR=6.5						
EKA	**Eskdalemuir Ar**	9.97	321	P	P	01 55 00.5	-1.4
EKA						01 56 50.1	
EKA				pmax	pmax		
	comp=Z,19nm,0.3s						
EKA	**Eskdalemuir Ar**	9.97	321	Pn	P	01 55 00.4	-1.5
EKA				Sn	Sn	01 56 50.1	-4.9
ESK	**Eskdalemuir**	9.98	320	*e*Pn	P	01 55 00.4	-1.6
	comp=Z,80nm,0.8s						
ESK	**Eskdalemuir**	9.98	320	*e*Pn	P	01 55 00.4	-1.6
	comp=Z,80nm,0.8s						
EARI	**Arriondas**	10.36	247	P	P	01 55 10.3	+3.0
	comp=Z,96nm,1.7s						
EARI	**Arriondas**	10.36	247	P	P	01 55 10.3	+3.1
	comp=Z,96nm,1.7s,SNR=11						
DSB	**Dublin**	10.43	305	*e*P	P	01 55 06.2	-1.9
	comp=Z,46nm,0.9s						
DSB				*e*		01 55 15.9	
DLF	**Lyons Farm**	10.53	305⇑	*i*P	P	01 55 07.7	-1.8
DCN	**Croghan**	10.96	304⇑	*i*P	P	01 55 13.4	-2.0
DMUB	**Kingscourt**	10.99	307	*e*P	P	01 55 14.4	-1.4
SKO	**Skopje**	11.35	118	*e*Pn	P	01 55 22.0	+1.2
EPON	**Pontenova**	11.56	251	P	P	01 55 22.2	-1.5
	comp=Z,121nm,2.0s						
VAE	**Valguarnera**	11.63	154	LR	LR	01 59 47.2	
	comp=Z,426nm,19.0s,baz=67,slow=37						
ESDC	**Sonseca Array**	12.01	230	Pn	P	01 55 27.4	-2.3
	comp=Z,0.5nm,0.3s,baz=50,slow=14,SNR=5.9						
ESDC				Lg		01 59 00.9	
	comp=Z,0.6nm,0.3s,baz=38,slow=24,SNR=4.3						
ESDC	**Sonseca Array**	12.01	230	P	P	01 55 27.6	-2.0
EINC	**Incio**	12.03	249	P	P	01 55 29.1	-0.8
	comp=Z,326nm,3.0s						
ERUA	**La Rua**	12.05	247	P	P	01 55 29.0	-1.2
	comp=Z,35nm,1.6s						
ECAL	**Calabor**	12.05	245	P	P	01 55 29.5	-0.8
	comp=Z,94nm,2.5s						
VTS	**Vitosha**	12.08	111	*e*P	P	01 55 30.0	-0.6
PBRG	**Braganca**	12.14	244	*e*P	P	01 55 30.3	-1.1
KKB	**Krupnik**	12.40	115	*e*P	P	01 55 35.0	0.0
HFS	**Hagfors**	12.51	13	P	P	01 55 34.8	-1.6
	baz=200,slow=16						
HFS				Sn	S	01 57 46.1	-11
	baz=200,slow=28						
HFS	**Hagfors**	12.51	13	Pn	P	01 55 34.5	-1.9
	comp=Z,0.0nm,0.3s,baz=198,slow=14,SNR=9.9						
HFS				Sn	S	01 57 46.1	-11
	comp=Z,0.1nm,0.3s,baz=216,slow=27,SNR=2.8						
HFS				Lg		01 59 11.0	
	comp=Z,0.1nm,0.3s,baz=183,slow=26,SNR=2.2						
HFS	**Hagfors**	12.51	13	Pn	P	01 55 34.5	-1.9
HFS				Sn	S	01 57 46.1	-11

HFS				Lg		01 59 11.0	
MLR	**Muntele Rosu**	**12.62**	**95**	Pn	**P**	**01 55 37.6**	**-0.3**
	comp=Z,0.2nm,0.3s,baz=291,slow=12,SNR=4.2						
MLR				Sn	**S**	**01 57 52.5**	**-7.2**
	comp=Z,0.4nm,0.3s,baz=94,slow=18,SNR=2.8						
MLR				Lg		01 59 28.4	
	comp=Z,0.0nm,0.3s,baz=162,slow=16,SNR=2.0						
NAO01	**NORSAR Array S**	**12.88**	**7**	*e*Pn	**P**	**01 55 38.7**	**-2.6**
NAO01	**NORSAR Array S**	**12.88**	**7**	*e*Pn	**P**	**01 55 38.7**	**-2.6**
MMB	**Musomiste**	**12.96**	**114**	*e*P	**P**	**01 55 42.0**	**-0.4**
PVRL	**Vila Real**	**13.04**	**244**	*e*P	**P**	**01 55 42.4**	**-1.1**
NB2	**NORSAR Subarra**	**13.10**	**7**	P	**P**	**01 55 40.5**	**-3.7**
NB2				Sn	**S**	**01 57 58.8**	**-12**
NB2	**NORSAR Subarra**	**13.10**	**7**	P	**P**	**01 55 41.4**	**-2.8**
	comp=Z,1.4nm,0.6s,baz=191,slow=9.3						
NB2	**NORSAR Subarra**	**13.10**	**7**	Sn	**S**	**01 57 58.8**	**-12**
NOA	**NORSAR Array B**	**13.10**	**7**	Pn	**P**	**01 55 41.6**	**-2.6**
	comp=Z,0.7nm,0.3s,baz=193,slow=12,SNR=6.9						
NOA				Sn	**S**	**01 57 58.3**	**-13**
	comp=Z,0.9nm,0.3s,baz=233,slow=19,SNR=4.5						
NOA				Lg		01 59 35.4	
	baz=182,slow=21,SNR=2.2						
NOA	**NORSAR Array B**	**13.10**	**7**	P	**P**	**01 55 41.6**	**-2.6**
NOA						01 57 58.3	
NOA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
RZN	**Rozhen**	**13.51**	**112**	*e*P	**P**	**01 55 48.0**	**-1.6**
PCBR	**Castelo Branco**	**13.81**	**239**	*e*P	**P**	**01 55 54.4**	**+0.8**
MNK	**Minsk**	**13.98**	**55**	*e*P	**P**	**01 56 00.0**	**+4.3**
AKASG	**Malin Array Be**	**14.11**	**71**	Pn	**P**	**01 55 53.8**	**-3.6**
	comp=Z,0.4nm,0.3s,baz=264,slow=12,SNR=8.6						
AKASG				Lg		02 00 07.5	
	comp=Z,1.1nm,0.3s,baz=264,slow=28,SNR=4.4						
KIS	**Kishinev**	**14.16**	**87**	*e*P	**P**	**01 56 03.0**	**+4.9**
KIS				MLR	MLR		
	comp=Z,700nm,12.0s						
KIS				MLR	MLR		
	comp=Z,400nm,12.0s						
EVO	**Evora**	**15.01**	**236**	*e*Pn	**P**	**01 56 08.4**	**-0.9**
EVO				*e*Sg	rx	02 00 33.3	
	comp=Z,114nm,1.6s						
EVO				*e*R			
	comp=Z,296nm,19.5s						
BTOK	**Tokmak**	**16.68**	**113**	*i* P	**P**	**01 56 40.9**	**+10**
FIA0	**FINESS Array S**	**16.89**	**31**	P	**P**	**01 56 30.6**	**-2.6**
	baz=213,slow=12						
FIA0				Sn	**S**	**01 59 29.3**	**-11**
	baz=222,slow=22						
FINES	**FINESS Array B**	**16.89**	**31**	Pn	**P**	**01 56 30.0**	**-3.3**
	comp=Z,0.1nm,0.3s,baz=221,slow=15,SNR=5.0						
FINES				Lg		02 01 35.8	
	baz=222,slow=17,SNR=2.1						
FINES				LR	LR	02 02 21.1	
	comp=Z,125nm,18.1s,baz=227,slow=35						
FINES	**FINESS Array B**	**16.89**	**31**	P	**P**	**01 56 30.0**	**-3.3**
FINES				MLR	MLR		
	comp=Z,125nm,18.1s						
APE	**Apeiranthos**	**16.98**	**124**	*i* P	**P**	**01 56 35.5**	**+0.9**
KDAG	**Bornova**	**17.06**	**118**	*i* P	**P**	**01 56 45.5**	**+10**
KAF	**Kangasniemi**	**17.44**	**30**	*e*p	**P**	**01 56 41.3**	**+1.1**
HENT	**Hendek**	**17.90**	**105**	*i* P	**P**	**01 56 44.9**	**-1.2**
GVD	**Gavdhos**	**17.91**	**132**	*e*P	**P**	**01 56 47.6**	**+1.4**
	comp=Z,24nm,1.0s						
GVD	**Gavdhos**	**17.91**	**132**	*e*P	**P**	**01 56 47.6**	**+1.4**
	comp=Z,24nm,1.0s						
IDI	**Anoyia**	**17.96**	**129**	P	**P**	**01 56 48.4**	**+1.5**
	comp=Z,0.2nm,0.3s,baz=336,slow=12,SNR=4.4						
OBN	**Obninsk**	**19.03**	**58**	⇓*i*P	**P**	**01 56 57.0**	**-2.8**
OBN				pmax	pmax		
	comp=Z,34nm,1.4s						
OBN				MLR	MLR		
	comp=Z,1µm,9.0s						
OBN	**Obninsk**	**19.03**	**58**	*e*P	**P**	**01 56 56.4**	**-3.4**
	comp=Z,45nm,1.2s						
ISP	**Isparta**	**19.38**	**114**	*i* P	**P**	**01 57 03.3**	**-0.8**
JOF	**Joensuu**	**19.71**	**33**	*e*p	**P**	**01 57 11.2**	**+3.5**
ELDT	**Eldivan**	**19.72**	**103**	*i* P	**P**	**01 57 09.1**	**+1.1**
BRTR	**Keskin Array B**	**20.26**	**105**	P	**P**	**01 57 14.4**	**+0.7**
	comp=Z,4.3nm,0.9s,baz=304,slow=8.2,SNR=16						
BRTR	**Keskin Array B**	**20.26**	**105**	P	**P**	**01 57 14.5**	**+0.8**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BRTR	**Keskin Array B**	**20.26**	**105**	P	**P**	**01 57 14.4**	**+0.7**
VRSR	**Storozhevoye**	**20.40**	**69**	*e*P	**P**	**01 57 13.5**	**-1.6**
VRSR				*e*PPP	PPP	01 57 33.5	-11
VRSR				*e*S	**S**	**02 00 52.6**	**-5.8**
VRSR				*e*SS	SS	02 01 21.4	-6.7
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,8.0nm,0.6s						
VRSR				smax			
	comp=N,400nm,4.7s						
VRSR				smax			
	comp=Z,220nm,3.0s						
VRSR				smax			
	comp=E,170nm,3.4s						
CTKT	**Corum**	**20.54**	**101**	*i* P	**P**	**01 57 18.1**	**+1.4**
AVNT	**Avonos**	**21.57**	**106**	*i* P	**P**	**01 57 29.1**	**+1.9**
SOC	**Sochi**	**22.51**	**90**	*e*P	**P**	**01 57 43.3**	**+6.8**
SOC				*e*		01 58 19.3	
SOC				*e*S	**S**	**02 01 42.5**	**+4.1**
SOC				pmax	pmax		
	comp=Z,52nm,1.0s,mb4.9						
SOC				pmax	pmax		
	comp=N,32nm,1.1s						
SOC				pmax	pmax		
	comp=E,70nm,1.1s						
BORG	**Borgarnes**	**22.89**	**327**	LR	LR	02 07 22.9	
	comp=E,247nm,18.2s,MS3.7,baz=170,slow=39						
ARA0	**ARCESS Array S**	**23.16**	**16**	P	**P**	**01 57 43.5**	**+1.0**
	baz=213,slow=10						
ARCES	**ARCESS Array B**	**23.16**	**16**	P	**P**	**01 57 43.1**	**+0.6**
	comp=E,3.1nm,0.6s,mb3.9,baz=207,slow=8.1,SNR=9.7						
ARCES				LR	LR	02 06 39.0	
	comp=E,278nm,18.1s,MS3.8,baz=33,slow=36						
ARCES	**ARCESS Array B**	**23.16**	**16**	P	**P**	**01 57 43.2**	**+0.7**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,279nm,18.2s						
KAHT	**Ahir Dag**	**23.53**	**106**	*i* P	**P**	**01 57 49.3**	**+2.8**
LVZ	**Lovozero**	**24.01**	**25**	*i* P	**P**	**01 57 51.3**	**+0.5**
GZT	**Gaziantep**	**24.14**	**105**	*i* P	**P**	**01 57 55.4**	**+3.0**
MALT	**Malatya**	**24.15**	**103**	P	**P**	**01 57 53.8**	**+1.3**
	comp=Z,5.0nm,1.0s,mb3.9						
MALT	**Malatya**	**24.15**	**103**	P	**P**	**01 57 53.8**	**+1.3**
	comp=Z,5.0nm,1.0s,mb3.9						
KIV	**Kislovodsk**	**24.36**	**87**	*e*P	**P**	**01 57 55.3**	**+0.8**
KIV				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.9						
ASF	**Jabal al Asfar**	**27.06**	**115**	P	**P**	**01 58 22.7**	**+2.8**
	comp=Z,21nm,1.2s,mb4.5,baz=130,slow=4.5,SNR=7.3						
ASF				LR	LR	02 09 19.2	
	comp=Z,135nm,20.2s,MS3.5,baz=360,slow=37						
GNI	**Garni**	**27.39**	**93**	P	**P**	**01 58 23.4**	**+0.6**
	comp=Z,1.6nm,0.5s,mb3.8,baz=344,slow=19,SNR=2.4						
GNI				LR	LR	02 09 32.3	
	comp=Z,80nm,20.2s,MS3.3,baz=359,slow=37						
GNI	**Garni**	**27.39**	**93**	P	**P**	**01 58 23.4**	**+0.6**
GNI				pmax	pmax		
	comp=Z,2.0nm,0.5s						
GNI				MLR	MLR		
	comp=Z,80nm,20.2s						
ARU	**Arti**	**31.44**	**55**	*e*P	**P**	**01 58 58.8**	**0.0**
ARU				*e*		01 59 57.1	
ARU				*e*S	**S**	**02 04 07.2**	**+1.8**
ARU				*e*SS	SS	02 05 50.6	-2.3
ARU				*e*SSS	SSS	02 06 06.1	-9.2
ARU				*i*		02 09 32.9	
ARU				MLR	MLR		
	comp=Z,100nm,13.0s,MS3.7						
ARU				MLR	MLR		
	comp=N,40nm,12.0s,MS3.6						
ARU				MLR	MLR		
	comp=E,70nm,13.0s,MS3.6						
BRVK	**Borovoye**	**38.80**	**59**	P	**P**	**01 59 54.4**	**-7.4**
	comp=E,4.9nm,1.1s,mb4.2						
BVAR	**Borovoye Array**	**38.87**	**59**	P	**P**	**02 00 03.0**	**+0.6**
	comp=E,0.3nm,0.7s,mb3.2,baz=309,slow=9.2,SNR=2.3						
DBIC	**Dimbokro**	**42.70**	**199**	LR	LR	02 19 25.9	
	comp=E,116nm,18.6s,MS3.8,baz=357,slow=38						
KURK	**Kurchatov**	**44.46**	**59**	*e*P	**P**	**02 00 45.9**	**-2.3**
	comp=E,2.6nm,0.7s,mb4.1						
SCHQ	**Schefferville**	**44.99**	**308**	LR	LR	02 16 34.8	
	comp=E,124nm,18.4s,MS3.9,baz=45,slow=32						
WMQ	**Urumqi**	**53.26**	**63**	P	**P**	**02 01 57.5**	**+1.2**
WMQ				AP	pP	02 02 02.0	+2.7
WMQ				XP	sP	02 02 04.5	+4.0
WMQ				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.2						
WMQ				AMB	AMB		
	comp=Z,14nm,11.2s						
WMQ				LR	LR		
	comp=N,170nm,16.8s,MS4.2						
WMQ				LR	LR		
	comp=E,39nm,17.0s,MS4.2						
WMQ				LR	LR		
	comp=Z,77nm,17.0s,MS3.8						
SADO	**Sadowa**	**56.95**	**302**	LR	LR	02 25 04.4	
	comp=Z,119nm,20.4s,MS4.0,baz=77,slow=34						
YKA	**Yellowknife Ar**	**60.66**	**333**	P	**P**	**02 02 49.0**	**+0.5**
	comp=Z,1.4nm,0.8s,mb4.2,baz=46,slow=7.2,SNR=24						
YKA	**Yellowknife Ar**	**60.66**	**333**	P	**P**	**02 02 49.0**	**+0.4**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**60.66**	**333**	P	**P**	**02 02 49.0**	**+0.4**
SONM	**Songino Array**	**61.20**	**50**	P	**P**	**02 02 54.1**	**+1.7**
	comp=Z,0.4nm,0.6s,mb3.7,baz=298,slow=7.0,SNR=3.7						
COLA	**College**	**65.79**	**349**	P	**P**	**02 03 19.6**	**-2.7**
MCK	**McKinley**	**67.02**	**349**	P	**P**	**02 03 24.8**	**-5.3**
	comp=Z,0.6nm,0.4s,mb4.0						
LZH	**Lanzhou**	**67.72**	**61**	*e*P	**P**	**02 03 34.9**	**-0.1**
LZH				AP	pP	02 03 38.2	+0.1
LZH				PP	PP	02 06 05.1	-1.1
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,112nm,6.3s						
LZH				LR	LR		
	comp=N,263nm,15.0s						
LZH				LR	LR		
	comp=Z,395nm,17.6s,MS4.7						
NEW	**Newport**	**72.84**	**325**	LR	LR	02 36 10.4	
	comp=Z,174nm,18.9s,MS4.3,baz=8.1,slow=36						
CN2	**Changchun**	**73.29**	**42**	*e*P	**P**	**02 04 07.4**	**-1.1**
PDAR	**Pinedale Array**	**74.08**	**317**	LR	LR	02 33 54.4	
	comp=Z,144nm,21.6s,MS4.2,baz=300,slow=33						
ANMO	**Albuquerque**	**78.70**	**310**	LR	LR	02 36 59.1	
	comp=Z,129nm,21.3s,MS4.2,slow=34						
NJ2	**Nanjing**	**79.13**	**54**	*e*P	**P**	**02 04 40.5**	**-1.2**
TXAR	**Lajitas Array**	**81.58**	**305**	P	**P**	**02 04 56.9**	**+2.1**
	comp=Z,0.4nm,0.6s,mb3.5,baz=68,slow=3.3,SNR=7.2						
TXAR				LR	LR	02 39 07.3	
	comp=Z,171nm,19.8s,MS4.4,baz=220,slow=34						
TXAR	**Lajitas Array**	**81.58**	**305**	P	**P**	**02 04 56.9**	**+2.1**
TXAR				LR	LR	02 39 07.3	

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*FUNV **05** 01:57:20.3, 10.88N×61.37W, h104^{km}, MW2.7*

TRN 05 01:57:22.0, 10.49N×61.14W, h30^{km}, MD3.2, 2C-1D, Trinidad

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TBH	**Brigand Hill**	**0.07**	**94**	⇑*i*P	Pn	01 57 26.6	-0.2
TBH				*e*S	Sn	01 57 31.6	+2.0
TRN	**Trinidad (W)**	**0.31**	**301**	⇑*i*P	Pb	01 57 29.3	-0.2
TRN				*e*S	Sb	01 57 35.1	+0.4
TPP	**Pointe-a-Pierr**	**0.35**	**241**	*e*P	Pb	01 57 29.9	-0.3
TPP				*e*S	Sb	01 57 37.1	+1.3
TPR	**Prospect**	**0.78**	**27**	⇓*e*P	Pb	01 57 36.7	-0.2
TPR				*e*S	Sb	01 57 48.3	+1.1
BOT	**Bacolet**	**0.79**	**31**	*e*P	Pn	01 57 36.8	-0.3
BOT				*e*S	Sb	01 57 48.9	+1.4
GUIV	**Guiria**	**1.08**	**278**	*e*P	Pn	01 57 38.9	-2.4
GUIV				*e*S	Sn	01 57 53.3	-1.9
GRW	**Mount Saint Ca**	**1.74**	**343**	*e*P	Pn	01 57 50.6	-0.1
GUNV	**Guanoco**	**1.81**	**260**	*e*P	Pn	01 57 49.3	-2.3
GUNV				*e*S	Sn	01 58 09.8	-4.0
CRUV	**Carupano**	**2.07**	**275**	*e*P	Pn	01 57 49.8	-5.6
ITEV	**Isla Los Testi**	**2.14**	**294**	*e*P	Pn	01 57 49.8	-6.6
ITEV				*e*S	Sn	01 58 11.8	-10

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*LDG **05** 02:03:21.1±0.1, 44.18N×6.73E, h2^{km}, Md2.3/2, Ml2.3/8, Error ellipse: s-maj=1.5km s-min=1.2km az=46.0*

STR 05 02:03:21.4±0.1**, 44.18N×6.75E, h5^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SURF	**Saint Ours**	**0.30**	**9**	Pg	Pg	02 03 27.7	+0.2
SURF				Sg	Sg	02 03 32.1	+0.5
TOUF	**Mont Tournerai**	**0.40**	**115**	Pg	Pg	02 03 29.1	-0.2
TOUF				Sg	Sg	02 03 35.3	+0.6
MVIF	**Mont Vial**	**0.41**	**134**	Pg	Pg	02 03 29.4	-0.2
MVIF				Sg	Sg	02 03 36.0	+1.0
AURF	**Auriere**	**0.51**	**125**	Pg	Pg	02 03 31.3	-0.3
AURF				Sg	Sg	02 03 38.3	-0.1
AUTN	**L'Aution**	**0.52**	**110**	Pg	Pg	02 03 31.5	-0.4
AUTN				Sg	Sg	02 03 38.8	0.0
MBDF	**Montbardon**	**0.55**	**2**	*e*Pg	Pg	02 03 31.8	-0.6
MBDF				*e*Sg	Sg	02 03 39.4	-0.3
	6.2nm,0.2s						
SBF	**Sospel**	**0.59**	**122**	*e*Pg	Pg	02 03 32.6	-0.6
SBF				*e*Sg	Sg	02 03 40.1	-0.9
	16nm,0.3s						
SAOF	**Saorge**	**0.61**	**108**	Pg	Pg	02 03 32.5	-1.1
FRF	**La Foret Royal**	**0.62**	**187**	*e*Pg	Pg	02 03 32.2	-1.7
FRF				*e*Sg	Sg	02 03 40.5	-1.7
	13nm,0.3s						
STOF	**St-Etienne Org**	**0.63**	**254**	Pg	Pg	02 03 34.8	+0.7
TAVF	**Tavernes**	**0.75**	**222**	Pg	Pg	02 03 35.8	-0.7
VILF	**Villemus**	**0.81**	**247**	Pg	Pg	02 03 36.7	-1.0
LMR	**La Mourre**	**0.86**	**192**	*e*Pg	Pg	02 03 36.2	-2.5
LMR				*e*Sg	Sg	02 03 47.5	-2.7
	21nm,0.2s						
SMRF	**Simiane la Rot**	**0.87**	**257**	*e*Pg	Pg	02 03 37.5	-1.3
SMRF				*e*Sg	Sg	02 03 48.3	-2.1
	6.8nm,0.3s						
ORIF	**Oris-en-Rattie**	**0.96**	**320**	*e*Pg	Pg	02 03 39.0	-1.7
ORIF				*e*Sg	Sg	02 03 52.0	-1.6
	44nm,0.7s						
LPG	**La Plagne**	**1.32**	**0**	*e*Pg	Pg	02 03 46.0	-1.7
LPG				*e*Sg	Sg	02 04 02.8	-2.5
	7.9nm,0.5s						
LPL	**La Plagne**	**1.34**	**359**	*e*Pg	Pg	02 03 46.3	-1.8
LPL				*e*Sg	Sg	02 04 03.8	-2.1
	4.1nm,0.3s						
VIVF	**Saint-Julien-l**	**1.63**	**295**	*e*Pn	Pn	02 03 48.9	-2.1
VIVF				*e*Sn	Sn	02 04 09.2	-3.4
	1.2nm,0.2s						
LASF	**Ste Croix**	**2.09**	**268**	*e*Pn	Pn	02 03 54.4	-3.1
LASF				*e*Pg	Pg	02 03 59.5	-3.5
LASF				*e*Sn	Sn	02 04 19.5	-4.6
	0.6nm,0.3s						
PGF	**Pioggiola**	**2.31**	**134**	*e*Pn	Pn	02 03 58.2	-2.5
PGF				*e*Sn	Sn	02 04 25.5	-4.4
	3.3nm,0.2s						

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*LDG **05** 02:16:18.6±0.2, 48.07N×7.99E, h10^{km}, Md2.0/3, Ml2.0/10, Error ellipse: s-maj=3.2km s-min=2.0km az=117.0*

STR 05 02:16:19.3±0.2**, 48.05N×7.99E, h5^{km}±1^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ECH	**Echery**	**0.58**	**287**	Pg	Pg	02 16 30.0	-0.9
ECH				Sg	Sg	02 16 38.5	-0.2
CDF	**Champ du Feu**	**0.60**	**307**	*e*Pg	Pg	02 16 30.6	-0.7
CDF				*e*Pn	Pn	02 16 31.2	-2.9
CDF				*e*Sg	Sg	02 16 37.5	-1.8
	11nm,0.2s						
MOF	**Molkenrain**	**0.61**	**251**	Pg	Pg	02 16 31.4	-0.1
HINF	**Hinteralfeld**	**0.80**	**253**	*e*Pg	Pg	02 16 34.0	-1.3
HINF				*e*Pn	Pn	02 16 35.0	-2.0
HINF				*e*Sg	Sg	02 16 44.4	-1.6
	4.0nm,0.2s						
LOMF	**Lomont**	**1.05**	**229**	Pg	Pg	02 16 39.4	-0.9
LOMF				Sg	Sg	02 16 53.8	-0.5
HAU	**Haudompre**	**1.10**	**268**	*e*Pn	Pn	02 16 38.2	-3.1
HAU				*e*Pg	Pg	02 16 39.5	-1.8
HAU				*e*Sg	Sg	02 16 53.4	-2.7
	6.8nm,0.3s						
RFYF	**Reffroy**	**1.78**	**290**	*e*Pn	Pn	02 16 48.2	-2.7
RFYF				*e*Pg	Pg	02 16 51.4	-3.4
RFYF				*e*Sg	Sg	02 17 14.5	-3.9
	4.5nm,0.3s						
CABF	**La Chapelle**	**1.94**	**223**	*e*Pn	Pn	02 16 50.0	-3.2
CABF				*e*Pg	Pg	02 16 55.2	-2.8
CABF				*e*Sg	Sg	02 17 19.1	-4.7
	1.2nm,0.2s						
SFTF	**Sexfontaines**	**1.98**	**276**	*e*Pn	Pn	02 16 50.5	-3.4
SFTF				*e*Pg	Pg	02 16 55.3	-3.6
SFTF				*e*Sn	Sn	02 17 14.4	-5.0
SFTF				*e*Sg	Sg	02 17 20.9	-4.5
	1.7nm,0.2s						
MEZF	**Maizieres J'vi**	**2.01**	**284**	*e*Pn	Pn	02 16 51.3	-3.0
	baz=104						
MEZF				*e*Pg	Pg	02 16 55.7	-3.8
	baz=107						
MEZF				*e*Sn	Sn	02 17 14.6	-5.6
MEZF				*e*Sg	Sg	02 17 21.5	-4.9
	1.2nm,0.3s						
SMF	**Signal de Mont**	**3.15**	**245**	*e*Pg	Pg	02 17 18.0	-4.2
SMF				*e*Sg	Sg	02 17 57.1	-7.1
	1.1nm,0.3s						
SSF	**Saint Saulge**	**3.19**	**254**	*e*Pg	Pg	02 17 17.9	-5.2
SSF				*e*Sg	Sg	02 17 59.2	-6.4
	0.3nm,0.2s						
AVF	**Avril sur Loir**	**3.39**	**250**	*e*Pg	Pg	02 17 21.6	-5.4
AVF				*e*Sg	Sg	02 18 04.5	-7.7
	0.3nm,0.2s						

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*STR **05** 02:22:02.0±0.3, 48.06N×8.03E, h10^{km}±1^{km}, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **05** 02:22:02.2±0.2, 48.06N×7.97E, h11^{km}±1^{km}, Md2.2/3, Ml1.9/10, Error ellipse: s-maj=2.9km s-min=2.3km az=79.0*

ZUR 05 02:22:02.3, 48.06N×8.04E, h8^{km}, ML1.3/11**, 5D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BFO	**Black Forest**	**0.33**	**36**	*e*Pg	Pg	02 22 08.5	-0.7
BFO				*e*Sg	Sg	02 22 12.2	-1.5
SLE	**Schleitheim**	**0.43**	**134**	⇓*i*Pg	Pg	02 22 10.7	-0.2
SLE				*i* Sg	Sg	02 22 16.5	-0.2
SULZ	**Sulz-Cheisache**	**0.54**	**174**	⇓*i*Pg	Pg	02 22 12.9	-0.2
SULZ				*e*Sg	Sg	02 22 20.4	+0.1
WLS	**Welschbruch**	**0.58**	**308**	Pg	Pg	02 22 13.2	-0.7
WLS				Sg	Sg	02 22 21.3	-0.4
TRULL	**Truellikon**	**0.60**	**133**	*e*Pg	Pg	02 22 13.9	-0.4
ECH	**Echery**	**0.61**	**285**	Pg	Pg	02 22 13.2	-1.3
ECH				Sg	Sg	02 22 21.7	-1.0
CDF	**Champ du Feu**	**0.62**	**305**	*e*Pg	Pg	02 22 13.9	-0.8
CDF				*e*P		02 22 14.3	
CDF				*e*Pn	Pn	02 22 14.5	-2.5
CDF				*e*Sg	Sg	02 22 20.6	-2.4
	7.1nm,0.2s						
MOF	**Molkenrain**	**0.64**	**251**	Pg	Pg	02 22 14.9	-0.3
MOF				Sg	Sg	02 22 23.6	-0.2
STEIN	**Stein am Rhein**	**0.68**	**125**	*e*Pg	Pg	02 22 15.8	-0.2
BALST	**Balsthal**	**0.76**	**198**	*e*Pg	Pg	02 22 18.0	+0.5
ZUR	**Zurich**	**0.78**	**152**	⇓*i*Pg	Pg	02 22 17.5	-0.5
HINF	**Hinteralfeld**	**0.83**	**253**	*e*Pg	Pg	02 22 17.2	-1.8
HINF				*e*Pn	Pn	02 22 18.3	-1.8
HINF				*e*Sg	Sg	02 22 27.9	-2.2
	2.4nm,0.2s						
WEIN	**Weingarten**	**0.83**	**129**	⇓*i*Pg	Pg	02 22 18.5	-0.5
BOURR	**Bourrignon**	**0.86**	**220**	*e*Pg	Pg	02 22 19.0	-0.5
WILA	**Wila**	**0.87**	**137**	⇓*i*Pg	Pg	02 22 19.3	-0.5
HAU	**Haudompre**	**1.13**	**268**	*e*Pg	Pg	02 22 21.5	-3.5
HAU				*e*Pn	Pn	02 22 23.0	-1.4
HAU				*e*Sg	Sg	02 22 36.9	-3.2
	7.2nm,0.3s						
RFYF	**Reffroy**	**1.80**	**289**	*e*Pn	Pn	02 22 31.4	-2.6
RFYF				*e*Sg	Sg	02 22 57.8	-4.5
	3.0nm,0.2s						
CABF	**La Chapelle**	**1.96**	**223**	*e*Pg	Pg	02 22 38.6	-2.9
CABF				*e*Sg	Sg	02 23 02.6	-5.1
	0.4nm,0.2s						
SFTF	**Sexfontaines**	**2.01**	**275**	*e*Pn	Pn	02 22 33.7	-3.3
SFTF				*e*Sn	Sn	02 22 57.6	-5.0
SFTF				*e*Sg	Sg	02 23 04.2	-5.2
	1.8nm,0.2s						
MEZF	**Maizieres J'vi**	**2.04**	**284**	*e*Pn	Pn	02 22 34.3	-3.1
	baz=104						
MEZF				*e*Pg	Pg	02 22 39.0	-4.1
MEZF				*e*Sg	Sg	02 23 04.6	-5.7
	1.0nm,0.2s						
SMF	**Signal de Mont**	**3.18**	**245**	*e*Sg	Sg	02 23 41.0	-7.3
	0.9nm,0.2s						
SSF	**Saint Saulge**	**3.23**	**254**	*e*Pg	Pg	02 23 00.9	-5.8
SSF				*e*Sg	Sg	02 23 41.5	-8.2
	0.4nm,0.3s						
AVF	**Avril sur Loir**	**3.42**	**250**	*e*Pg	Pg	02 23 05.0	-5.7
AVF				*e*Sg	Sg	02 23 47.7	-8.6
	0.3nm,0.3s						
BGF	**Bois d'Agland**	**3.84**	**249**	*e*Pg	Pg	02 23 11.5	-7.4

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*STR **05** 02:23:16.3±0.5, 48.08N×8.08E, h10^{km}±1^{km}, Ml1.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 05 02:23:16.9±0.2**, 48.07N×8.00E, h10^{km}, Ml2.0**/10**, Error ellipse: s-maj=3.4km s-min=2.4km az=87.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	**Welschbruch**	**0.55**	**309**	Pg	Pg	02 23 28.0	0.0
WLS				Sg	Sg	02 23 35.5	+0.1
ECH	**Echery**	**0.58**	**285**	Pg	Pg	02 23 28.5	-0.1
ECH				Sg	Sg	02 23 36.5	+0.1
CDF	**Champ du Feu**	**0.59**	**306**	*e*Pg	Pg	02 23 28.7	-0.1
CDF				*e*P		02 23 29.0	
CDF				*e*Pn	Pn	02 23 29.5	-1.5
CDF				*e*Sg	Sg	02 23 35.5	-1.3
	10.0nm,0.2s						
MOF	**Molkenrain**	**0.62**	**250**	Pg	Pg	02 23 29.9	+0.5
MOF				Sg	Sg	02 23 39.5	+1.7
HINF	**Hinteralfeld**	**0.81**	**252**	*e*Pg	Pg	02 23 32.1	-1.1
HINF				*e*Pn	Pn	02 23 33.0	-1.2
HINF				*e*Sg	Sg	02 23 42.6	-1.4
	6.0nm,0.2s						
HAU	**Haudompre**	**1.11**	**267**	*e*Pn	Pn	02 23 36.2	-2.2
HAU				*e*Pg	Pg	02 23 38.0	-1.1
HAU				*e*Sn	Sn	02 23 52.5	-1.3
	11nm,0.2s						
RFYF	**Reffroy**	**1.77**	**289**	*e*Pn	Pn	02 23 46.2	-1.7
RFYF				*e*Sg	Sg	02 24 12.4	-3.6
	4.9nm,0.2s						
CABF	**La Chapelle**	**1.95**	**222**	*e*Pn	Pn	02 23 48.1	-2.4
CABF				*e*Pg	Pg	02 23 53.4	-2.6
CABF				*e*Sg	Sg	02 24 17.3	-4.7
	0.5nm,0.2s						
SFTF	**Sexfontaines**	**1.99**	**275**	*e*Pg	Pg	02 23 53.3	-3.3
SFTF				*e*Sn	Sn	02 24 12.5	-3.6
SFTF				*e*Sg	Sg	02 24 18.9	-4.2
	1.6nm,0.2s						
MEZF	**Maizieres J'vi**	**2.01**	**283**	*e*Pn	Pn	02 23 49.3	-2.1
	baz=107						
MEZF				*e*Pg	Pg	02 23 53.8	-3.3
	baz=105						
MEZF				*e*Sg	Sg	02 24 19.6	-4.4
	1.1nm,0.3s						
SMF	**Signal de Mont**	**3.16**	**245**	*e*Pg	Pg	02 24 16.3	-3.8
SMF				*e*Sg	Sg	02 24 55.3	-7.0
	0.9nm,0.2s						
SSF	**Saint Saulge**	**3.20**	**253**	*e*Sg	Sg	02 24 57.2	-6.4
	0.8nm,0.3s						
AVF	**Avril sur Loir**	**3.40**	**250**	*e*Pg	Pg	02 24 19.8	-5.0
AVF				*e*Sg	Sg	02 25 02.0	-8.2
	0.3nm,0.3s						

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*LDG **05** 02:27:00.5±0.2, 48.04N×7.96E, h14^{km}±1^{km}, Md1.9/3, Ml1.9/8, Error ellipse: s-maj=2.7km s-min=2.1km az=63.0*

STR 05 02:27:00.0±0.5**, 48.07N×8.07E, h10^{km}±1^{km}, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	**Welschbruch**	**0.59**	**306**	Pg	Pg	02 27 11.6	-0.3
WLS				Sg	Sg	02 27 19.6	-0.3
ECH	**Echery**	**0.63**	**284**	Pg	Pg	02 27 12.3	-0.4
ECH				Sg	Sg	02 27 20.1	-1.0
CDF	**Champ du Feu**	**0.63**	**303**	*e*Pg	Pg	02 27 12.4	-0.3
CDF				*e*Pn	Pn	02 27 12.8	-1.9
CDF				*e*Sg	Sg	02 27 19.1	-2.1
	4.8nm,0.2s						

MOF	**Molkenrain**	**0.67**	**251**	Pg	Pg	02 27 13.2	-0.2
MOF				Sg	Sg	02 27 22.7	+0.3
HINF	**Hinteralfeld**	**0.86**	**253**	*e*Pg	Pg	02 27 15.3	-1.9
HINF				*e*Pn	Pn	02 27 16.4	-1.5
HINF				*e*Sg	Sg	02 27 25.9	-2.8
	3.3nm,0.4s						
HAU	**Haudompre**	**1.16**	**267**	*e*Pn	Pn	02 27 19.6	-2.6
HAU				*e*Pg	Pg	02 27 21.3	-1.9
HAU				*e*Sg	Sg	02 27 35.0	-3.6
	3.7nm,0.2s						
RFYF	**Reffroy**	**1.82**	**289**	*e*Sg	Sg	02 27 55.8	-4.9
	2.8nm,0.3s						
CABF	**La Chapelle**	**1.99**	**223**	*e*Pg	Pg	02 27 36.6	-3.1
CABF				*e*Sg	Sg	02 28 00.6	-5.6
	0.5nm,0.2s						
SFTF	**Sexfontaines**	**2.04**	**275**	*e*Sg	Sg	02 28 02.3	-5.5
	0.5nm,0.2s						
MEZF	**Maizieres J'vi**	**2.06**	**283**	*e*Pg	Pg	02 27 37.2	-4.0
	baz=101						
MEZF				*e*Sg	Sg	02 28 03.0	-5.7
	2.5nm,0.4s						
SMF	**Signal de Mont**	**3.21**	**245**	*e*Sg	Sg	02 28 38.3	-8.6
	0.4nm,0.2s						

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*STR **05** 02:33:20.0±0.2, 48.08N×8.03E, h10^{km}±1^{km}, Ml1.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LEDBW **05** 02:33:20.5±0.1, 48.08N×8.03E, h11^{km}±2^{km}, ML2.0, Error ellipse: s-maj=3.2km s-min=1.8km az=127.0*

*ZUR **05** 02:33:20.7, 48.06N×8.03E, h9^{km}, ML1.8/10*

*LDG **05** 02:33:20.4±0.1, 48.09N×8.01E, h10^{km}, Md2.1/3, Ml2.2/9, Error ellipse: s-maj=1.4km s-min=0.9km az=162.0*

BGR 05 02:33:20.3±0.3**, 48.08N×8.06E, h10^{km}, ML1.4**/2**, 6C-8D, Error ellipse: s-maj=2.2km s-min=1.1km az=122.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIZ	**Kirchzarten**	**0.16**	**216**	⇓*i*Pg	Pg	02 33 24.0	+0.1
KIZ				*i* Sg	Sg	02 33 26.4	+0.1
FBB	**Freiburg**	**0.16**	**239**	S	Sg	02 33 26.4	0.0
FELD	**Feldberg**	**0.21**	**189**	⇓*i*Pg	Pg	02 33 25.1	+0.2
FELD				Sg	Sg	02 33 28.1	+0.2
FELD	**Feldberg**	**0.21**	**189**	⇓*i*P	Pg	02 33 25.1	+0.2
FELD				S	Sg	02 33 28.1	+0.2
BFO	**Black Forest**	**0.31**	**36**	⇑*i*Pg	Pg	02 33 26.9	+0.1
BFO				*e*Sg	Sg	02 33 31.1	+0.1
LIBD	**Limburg**	**0.31**	**283**	*e*Pg	Pg	02 33 26.9	+0.2
	SNR=1.4						
LIBD				*e*Sg	Sg	02 33 31.0	-0.1
	SNR=3.3						
LIBD	**Limburg**	**0.31**	**283**	S	Sg	02 33 31.5	+0.4
SLE	**Schleitheim**	**0.43**	**137**	⇓*i*Pg	Pg	02 33 29.1	0.0
SLE				*i* Sg	Sg	02 33 35.0	0.0
SPAK	**Spaichingen**	**0.49**	**87**	⇑*i*P	Pg	02 33 30.4	+0.2
SULZ	**Sulz-Cheisache**	**0.56**	**176**	⇓*i*Pg	Pg	02 33 31.3	-0.3
SULZ				*e*Sg	Sg	02 33 38.8	-0.3
WLS	**Welschbruch**	**0.57**	**306**	Pg	Pg	02 33 32.2	+0.3
WLS				*e*Sg	Sg	02 33 39.0	-0.7
	SNR=7.3						
WLS	**Welschbruch**	**0.57**	**306**	Pg	Pg	02 33 31.1	-0.8
WLS				Sg	Sg	02 33 38.6	-1.1
TRULL	**Truellikon**	**0.60**	**136**	*e*Pg	Pg	02 33 32.4	-0.1
ECH	**Echery**	**0.61**	**283**	Pg	Pg	02 33 32.2	-0.5
ECH				*e*Sg	Sg	02 33 39.9	-1.1
	SNR=5.7						
ECH	**Echery**	**0.61**	**283**	P	Pb	02 33 32.2	-0.5
ECH				S	Sg	02 33 40.2	-0.8
ECH	**Echery**	**0.61**	**283**	Pg	Pg	02 33 32.0	-0.7
ECH				Sg	Sg	02 33 40.0	-1.0
CDF	**Champ du Feu**	**0.62**	**303**	*e*Pg	Pg	02 33 32.3	-0.5
CDF				*e*P		02 33 32.8	
CDF				*e*Pn	Pn	02 33 33.0	-1.8
CDF				*e*Sg	Sg	02 33 39.0	-2.1
	12nm,0.2s						
MOF	**Molkenrain**	**0.66**	**250**	*e*Pg	Pg	02 33 33.1	-0.6
	SNR=4.0						
MOF				*e*Sg	Sg	02 33 41.7	-0.9
	SNR=2.2						
MOF	**Molkenrain**	**0.66**	**250**	Pg	Pg	02 33 33.2	-0.4
MOF				Sg	Sg	02 33 41.7	-0.8
STEIN	**Stein am Rhein**	**0.69**	**127**	*e*Pg	Pg	02 33 34.2	+0.1
GUT	**Gutenstein**	**0.71**	**91**	⇑*i*Pg	Pg	02 33 34.4	-0.2
GUT				*e*Sg	Sg	02 33 43.9	-0.3
GUT	**Gutenstein**	**0.71**	**91**	⇑*i*P	Pb	02 33 34.4	+0.1
GUT				P		02 33 34.8	
GUT				*e*S	Sb	02 33 44.0	+0.1
GUT				S	Sb	02 33 45.0	+1.2
BBS	**Basel-Blauen**	**0.72**	**211**	*e*Pg	Pg	02 33 34.3	-0.5
	SNR=2.7						
BBS				*e*Sg	Sg	02 33 43.5	-0.9
	SNR=5.0						
SISB	**Singen-Sch Ber**	**0.73**	**123**	Sg	Sg	02 33 44.8	+0.1
SISB	**Singen-Sch Ber**	**0.73**	**123**	P	Pb	02 33 34.7	+0.1
SISB				P		02 33 35.1	
SISB				S	Sb	02 33 44.9	+0.5
LBG	**Lerchenberg**	**0.77**	**40**	⇑*i*Pg	Pg	02 33 35.1	-0.6
LBG				PmP		02 33 38.2	
LBG				*e*Sg	Sg	02 33 45.0	-0.9
LBG	**Lerchenberg**	**0.77**	**40**	⇑*i*P	Pb	02 33 35.1	-0.1
LBG				*e*S	Sb	02 33 45.0	-0.4
LBG	**Lerchenberg**	**0.77**	**40**	⇑*i*P	Pb	02 33 35.1	-0.1
LBG				S	Sb	02 33 45.7	+0.3
BALST	**Balsthal**	**0.79**	**198**	⇑*i*Pg	Pg	02 33 35.4	-0.7
ZUR	**Zurich**	**0.80**	**153**	⇓*i*Pg	Pg	02 33 35.9	-0.4
TUBL	**Tuebingen Lnz**	**0.82**	**57**	Pg	Pg	02 33 36.5	-0.2
TUBL				Sg	Sg	02 33 47.6	-0.1
TUBL	**Tuebingen Lnz**	**0.82**	**57**	P	Pb	02 33 36.6	+0.5
TUBL				P		02 33 36.8	
TUBL				S	Sb	02 33 47.6	+0.7
WEIN	**Weingarten**	**0.84**	**131**	⇓*i*Pg	Pg	02 33 37.0	-0.1
HINF	**Hinteralfeld**	**0.85**	**252**	*e*Pg	Pg	02 33 35.6	-1.8
HINF				*e*Pn	Pn	02 33 36.6	-1.5
HINF				*e*Sg	Sg	02 33 46.2	-2.6
	3.9nm,0.2s						
WILA	**Wila**	**0.88**	**139**	⇓*i*Pg	Pg	02 33 37.7	-0.3
LANF	**Langenberg**	**0.92**	**350**	*e*Pg	Pg	02 33 38.1	-0.5
	SNR=2.5						
LANF	**Langenberg**	**0.92**	**350**	Pg	Pg	02 33 37.2	-1.5
BUCH	**Bad Urach**	**0.94**	**67**	⇑*i*Pn	Pn	02 33 38.7	-0.8
BUCH				*e*Sn	Sn	02 33 51.8	-1.2
BUCH	**Bad Urach**	**0.94**	**67**	⇑*i*P	Pb	02 33 38.7	+0.4
BUCH				*e*S	Sb	02 33 51.6	+1.0
BUCH				S	Sb	02 33 52.3	+1.7
STU	**Stuttgart**	**1.03**	**47**	*e*Pg	Pg	02 33 39.9	-1.0
	SNR=1.0						
STU				*e*Sg	Sg	02 33 53.3	-1.3
	SNR=3.3						
LOMF	**Lomont**	**1.11**	**229**	*e*Pn	Pn	02 33 40.6	-1.2
	SNR=8.7						
LOMF				*e*Pg	Pg	02 33 41.3	-1.1
	SNR=8.7						
LOMF				*e*Sg	Sg	02 33 55.8	-1.5
	SNR=3.5						
LOMF	**Lomont**	**1.11**	**229**	Pg	Pg	02 33 41.0	-1.5
LOMF				Sg	Sg	02 33 55.8	-1.4
HAU	**Haudompre**	**1.15**	**267**	*e*Pn	Pn	02 33 39.8	-2.6
HAU				*e*Pg	Pg	02 33 41.3	-2.0
HAU				*e*Sg	Sg	02 33 55.2	-3.4
HAU				*e*Sn	Sn	02 33 56.1	-2.1
	13nm,0.3s						
KTD	**Kalmit**	**1.24**	**1**	*e*Pg	Pg	02 33 44.0	-1.1
	SNR=1.9						
KTD				*e*Sg	Sg	02 34 00.4	-1.3
	SNR=1.5						
THEF	**They Montfort**	**1.39**	**277**	*e*Pn	Pn	02 33 43.7	-2.2
	SNR=1.6						
THEF	**They Montfort**	**1.39**	**277**	Pg	Pg	02 33 46.2	-2.0
THEF				Sg	Sg	02 34 04.1	-2.7
UBR	**Uberruh**	**1.44**	**105**	Sg	Sg	02 34 06.7	-1.7
HDH	**Heidenheim**	**1.52**	**70**	Pg	Pg	02 33 49.7	-1.1
HDH				Sg	Sg	02 34 09.1	-2.0
HDH	**Heidenheim**	**1.52**	**70**	S	Sb	02 34 09.5	+2.1
TOD	**Tromm**	**1.60**	**18**	*e*Sg	Sg	02 34 10.1	-3.7
	SNR=3.1						
SIND	**Sindeldorf**	**1.63**	**38**	Pn	Pn	02 33 51.3	+2.0
SIND				Sg	Sg	02 34 11.0	-3.7
SIND	**Sindeldorf**	**1.63**	**38**	SG	Sg	02 34 11.0	-3.7
SIND	**Sindeldorf**	**1.63**	**38**	P	Pn	02 33 51.3	+2.0
RUP	**Ruppelstein**	**1.75**	**338**	*e*Pg	Pg	02 33 53.2	-2.0
	SNR=0.1						
RUP				*e*Sg	Sg	02 34 16.1	-2.6
	SNR=1.6						
RFYF	**Reffroy**	**1.81**	**289**	*e*Pg	Pg	02 33 53.2	-3.2
RFYF				*e*Sn	Sn	02 34 11.5	-3.5
RFYF				*e*Sg	Sg	02 34 16.0	-4.5
	5.0nm,0.2s						
CABF	**La Chapelle**	**1.99**	**223**	*e*Pn	Pn	02 33 51.8	-2.6
CABF				*e*Pg	Pg	02 33 57.2	-2.9
CABF				*e*Sg	Sg	02 34 20.9	-5.7
	1.4nm,0.3s						
SFTF	**Sexfontaines**	**2.02**	**275**	*e*Pn	Pn	02 33 52.2	-2.7
SFTF				*e*Pg	Pg	02 33 56.9	-3.9
SFTF				*e*Sn	Sn	02 34 15.8	-4.7
SFTF				*e*Sg	Sg	02 34 22.5	-5.3
	2.4nm,0.2s						
MEZF	**Maizieres J'vi**	**2.05**	**283**	*e*Pn	Pn	02 33 52.9	-2.4
	baz=102						
MEZF				*e*Pg	Pg	02 33 57.4	-3.9
	baz=104						
MEZF				*e*Sn	Sn	02 34 16.4	-4.7
MEZF				*e*Sg	Sg	02 34 23.2	-5.4
	1.8nm,0.3s						
SMF	**Signal de Mont**	**3.20**	**245**	*e*Pg	Pg	02 34 19.9	-4.4
SMF				*e*Sg	Sg	02 34 58.8	-8.2
	1.6nm,0.3s						
SSF	**Saint Saulge**	**3.25**	**253**	*e*Pg	Pg	02 34 19.7	-5.4
SSF				*e*Sg	Sg	02 35 01.2	-7.2
	0.6nm,0.2s						
AVF	**Avril sur Loir**	**3.44**	**250**	*e*Pg	Pg	02 34 23.4	-5.7

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*NEIC **05** 02:33:22.7, 34.95N×3.03W, MG3.5(MDD), After MDD.*

*MDD **05** 02:33:22.3±1.4, 34.94N×3.01W, mb3.5/6, Error ellipse: s-maj=15.5km s-min=7.5km az=126.0, PRXIMO AftershockPLICA*

*CSEM **05** 02:33:23.2±0.2, 35.08N×3.07W, h5^{km}, ML3.9/1, Error ellipse: s-maj=6.9km s-min=3.4km az=112.0*

*CNRM **05** 02:33:23.6, 34.99N×2.69W, h5^{km}, MD3.3*

ISC 05 02:33:24.3±0.6**, 35.10N**±0.03×**3.10W**±0.05**, h10^{km}, n26,** σ**1$\overset{s}{.}$07**/39**, 1C-1D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	**0.23**	**30**	⇓P	**Pg**	**02 33 28.9**	**-0.3**
	96nm,0.2s,SNR=18						
EMEL				S	**Sg**	**02 33 34.4**	**+2.0**
	SNR=7.9						
EMLI	**Melilla**	**0.23**	**31**	P	**Pg**	**02 33 28.9**	**-0.4**
	96nm,0.2s,SNR=18						
MELI	**Melilla**	**0.23**	**35**	P	**Pg**	**02 33 28.7**	**-0.6**
MELI				S	**Sg**	**02 33 33.7**	**+1.1**
MELI	**Melilla**	**0.23**	**35**	*i* P	**Pg**	**02 33 28.7**	**-0.6**
TOU	**Touzarine**	**0.56**	**256**	*i* S	**Sg**	**02 33 51.0**	**+7.9**
TZK	**Tazeka**	**1.35**	**222**	*i* P	**Pb**	**02 33 49.0**	**-0.3**
TZK				*i* S	**Sb**	**02 34 09.0**	**+2.5**
EBER	**Berja**	**1.80**	**5**	⇑P	**Pn**	**02 33 55.7**	**0.0**
	0.3nm,0.1s,SNR=18						
EBER				S	**Sn**	**02 34 16.7**	**-2.1**
	SNR=7.9						
EBER	**Berja**	**1.80**	**5**	P	**Pn**	**02 33 55.7**	**0.0**
	0.3nm,0.1s,SNR=18						
EBER				S	**Sn**	**02 34 16.7**	**-2.1**
	SNR=7.9						
EMIJ	**Mijas**	**2.00**	**317**	P	**Pn**	**02 33 57.0**	**-1.5**
	1.8nm,0.4s,SNR=10						
EMIJ				S	**Sn**	**02 34 23.2**	**-0.6**
	SNR=7.9						
ELOJ	**Sierra Loja**	**2.21**	**338**	P	**Pn**	**02 34 02.5**	**+0.8**
ELOJ	**Sierra Loja**	**2.21**	**338**	P	**Pn**	**02 34 02.5**	**+0.8**
	0.2nm,0.2s,SNR=8.1						
CZD	**Col de Zad**	**2.62**	**219**	*e*P	**Pn**	**02 34 08.0**	**+0.5**
CZD				*i* S	**Sn**	**02 34 40.0**	**+0.3**
EQES	**Quesada**	**2.69**	**0**	P	**Pn**	**02 34 09.0**	**+0.5**
	2.9nm,0.3s,SNR=23						
EQES				S	**Sn**	**02 34 43.2**	**+1.6**
	16nm,0.5s,SNR=16						
EQES	**Quesada**	**2.69**	**0**	P	**Pn**	**02 34 09.0**	**+0.5**
	2.9nm,0.3s,SNR=23						
EQES				S	**Sn**	**02 34 43.2**	**+1.7**
	16nm,0.5s,SNR=16						
ESPR	**Espera**	**2.85**	**309**	P	**Pn**	**02 34 11.2**	**+0.5**
ESPR				S	**Sn**	**02 34 46.9**	**+1.5**
ESPR	**Espera**	**2.85**	**309**	P	**Pn**	**02 34 11.2**	**+0.5**
ESPR				S	**Sn**	**02 34 46.9**	**+1.5**
	SNR=7.9						
ZFT	**Errachidia**	**3.23**	**199**	*e*P	**Pn**	**02 34 15.0**	**-1.2**
EADA	**Adamuz**	**3.28**	**339**	P	**Pn**	**02 34 16.3**	**-0.6**
	0.9nm,0.2s,SNR=12						
EADA				S	**Sn**	**02 34 56.7**	**+0.3**
	SNR=7.9						
EADA	**Adamuz**	**3.28**	**339**	P	**Pn**	**02 34 16.3**	**-0.6**
	0.9nm,0.2s,SNR=12						
EADA				S	**Sn**	**02 34 56.7**	**+0.3**
	SNR=7.9						
EMIN	**Mina Concepcio**	**3.92**	**314**	P	**Pn**	**02 34 24.9**	**-1.0**
	1.2nm,0.3s,SNR=11						
EMIN	**Mina Concepcio**	**3.92**	**314**	P	**Pn**	**02 34 24.9**	**-1.1**
	1.2nm,0.3s,SNR=11						
ESDC	**Sonseca Array**	**4.62**	**352**	P	**Pn**	**02 34 35.4**	**-0.5**
	1.0nm,0.2s,baz=171,slow=14,SNR=13						
ESDC	**Sonseca Array**	**4.62**	**352**	P	**Pn**	**02 34 35.4**	**-0.4**
	1.0nm,0.2s,SNR=13						
EBAD	**Badajoz**	**4.81**	**320**	P	**Pn**	**02 34 36.9**	**-1.7**
	2.0nm,0.5s,SNR=11						
EBAD	**Badajoz**	**4.81**	**320**	P	**Pn**	**02 34 36.9**	**-1.7**
	2.0nm,0.5s,SNR=11						
EIBI	**Ibiza**	**5.29**	**41**	P	**Pn**	**02 34 44.8**	**-0.5**

DJA 05 02:33:28.5±0.7**, 8.66S×114.33E, h120^{km}**±6^{km}**, MD4.7**/4**, ML3.8**/2**, 2C-9D, Error ellipse: s-maj=16.3km s-min=7.7km az=18.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**0.26**	**315**	⇑*e*Pn	P	02 33 45.2	-0.1
	236nm,0.2s						
SRDI	**Scrawed**	**0.26**	**315**	⇓*i*P	P	02 33 45.7	+0.4
SRDI				⇓*i*Sn	S	02 33 56.0	-2.1
KELI	**Kelakatan**	**0.47**	**20**	⇓*e*Pn	P	02 33 47.5	+1.1
	412nm,0.2s						
KELI	**Kelakatan**	**0.47**	**20**	⇓*i*P	P	02 33 47.9	+1.5
KELI				⇓*i*Sn	S	02 33 58.9	-1.0
RATI	**Rata**	**1.19**	**93**	⇓*i*Pn	P	02 33 53.1	+0.2
	176nm,0.2s						
RATI				⇓*i*Sn	S	02 34 09.3	-1.8
KEDI	**Kedomdong**	**1.77**	**85**	⇓*i*Pn	P	02 33 58.3	-1.3
	54nm,0.2s						
KEDI	**Kedomdong**	**1.77**	**85**	⇑*i*P	P	02 33 59.1	-0.5
KEDI				⇓*i*Sn	S	02 34 20.7	-2.4

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*IDC **05** 02:36:19.8±7.6, 35.92N×70.83E, h108^{km}±69^{km}, mb3.5/10, mb1 3.7/11, mb1mx3.5/21, ML4.2/1, MS3.4/1, Ms1 3.4/1, ms1mx2.7/25, Error ellipse: s-maj=31.5km s-min=22.5km az=15.0*

*NEIC **05** 02:36:19.8±1.6, 35.98N×70.86E, h107^{km}±12^{km}, mb3.7/4, Error ellipse: s-maj=15.2km s-min=10.9km az=199.0*

*NNC **05** 02:36:22.3±4.6, 36.89N×69.77E, mpv4.0, Error ellipse: s-maj=89.8km s-min=31.5km az=139.0*

ISC 05 02:36:18.6±1.2**, 35.98N**±0.04×**71.0E**±0.1**, h115^{km}**±14^{km}**, n47,** σ**1$\overset{s}{.}$14**/54**, mb3.7**/10**, 3C-1D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THN	**Thein Dam**	**5.28**	**131**	*e*P	**P**	**02 37 37.8**	**+1.3**
THN				*e*S	**S**	**02 38 38.1**	**+1.5**
DLH	**Dalhousie**	**5.36**	**128**	*e*	**P**	**02 37 27.0**	**-11**
DLH				*e*S	**S**	**02 38 39.0**	**+0.4**
BHK	**Bhakra**	**6.42**	**134**	*e*S	**S**	**02 39 04.6**	**+0.3**
AML	**Almayashu**	**6.50**	**18**	P	**P**	**02 37 54.0**	**+0.9**
	SNR=19						
AML	**Almayashu**	**6.50**	**18**	*e*Pn	**P**	**02 37 53.9**	**+0.7**
AML				*e*S	**S**	**02 39 02.9**	**-3.4**
SDNR	**Sundarnagar**	**6.69**	**130**	*e*	**P**	**02 38 08.0**	**+12**
SDNR				*e*S	**S**	**02 39 08.6**	**-2.4**
UCH	**Uchtor**	**6.82**	**23**	P	**P**	**02 37 59.6**	**+2.0**
	SNR=12						
UCH	**Uchtor**	**6.82**	**23**	*e*P	**P**	**02 37 58.8**	**+1.2**
UCH				*e*S	**S**	**02 39 12.0**	**-2.1**
KZA	**Kyzart**	**6.94**	**27**	P	**P**	**02 38 00.6**	**+1.5**
	SNR=6.5						
EKS2	**Erkin-Say**	**7.02**	**17**	P	**P**	**02 38 01.1**	**+0.9**
	SNR=7.7						
EKS2	**Erkin-Say**	**7.02**	**17**	*e*P	**P**	**02 38 00.2**	**0.0**
EKS2				*e*S	**S**	**02 39 12.7**	**-6.3**
AAK	**Ala-Archa**	**7.18**	**21**	⇑P	**P**	**02 38 03.5**	**+1.0**
	5.9nm,0.6s						
AAK				⇑S	**S**	**02 39 22.9**	**-0.2**
	30nm,1.3s						
AAK	**Ala-Archa**	**7.18**	**21**	P	**P**	**02 38 03.9**	**+1.4**
	SNR=9.6						
AAK	**Ala-Archa**	**7.18**	**21**	*e*P	**P**	**02 38 02.0**	**-0.5**
CHMS	**Chumysh**	**7.59**	**21**	P	**P**	**02 38 08.1**	**0.0**
	SNR=7.2						
USP	**Ospenovka**	**7.77**	**19**	P	**P**	**02 38 08.1**	**-2.3**
	SNR=5.7						
TKM2	**Tokmak 2**	**7.80**	**26**	P	**P**	**02 38 12.7**	**+1.9**
	SNR=7.1						
TKM2	**Tokmak 2**	**7.80**	**26**	*e*P	**P**	**02 38 11.1**	**+0.2**
NDI	**New Delhi**	**8.98**	**142**	*e*	**P**	**02 38 34.0**	**+7.3**
NDI				*e*S	**S**	**02 40 01.0**	**-5.6**
KOLN	**Koldanda**	**13.48**	**124**	*e*P	**P**	**02 39 25.6**	**-0.5**
	4.4nm,0.4s						
GKN	**Gorkha**	**14.04**	**121**	*e*P	**P**	**02 39 33.7**	**+0.3**
DMN	**Daman**	**14.61**	**121**	*e*P	**P**	**02 39 39.9**	**-0.8**
	7.5nm,0.5s						
KKN	**Kakani**	**14.62**	**120**	*e*P	**P**	**02 39 39.4**	**-1.4**
PKI	**Pulchoki**	**14.85**	**120**	*e*P	**P**	**02 39 42.3**	**-1.4**
	11nm,0.6s						
GUN	**Gumba**	**14.97**	**118**	*e*P	**P**	**02 39 44.3**	**-1.0**
	5.4nm,0.4s						
KURK	**Kurchatov**	**15.73**	**18**	P	**P**	**02 39 56.2**	**+1.4**
	2.3nm,1.0s						
BVA0	**Borovoye Array**	**17.05**	**359**	⇑P	**P**	**02 40 10.3**	**-0.8**
	0.3nm,0.6s,baz=166,slow=14,SNR=16						
BVAR	**Borovoye Array**	**17.05**	**359**	P	**P**	**02 40 11.1**	**0.0**
	0.8nm,0.3s,baz=157,slow=9.1,SNR=15						
BRVK	**Borovoye**	**17.09**	**359**	*e*P	**P**	**02 40 11.3**	**-0.2**
	5.3nm,1.0s						
CHKZ	**Chkalovo**	**17.70**	**359**	⇓P	**P**	**02 40 19.0**	**-0.1**
	2.7nm,0.9s						
CHKZ	**Chkalovo**	**17.70**	**359**	*e*P	**P**	**02 40 17.9**	**-1.1**
	2.7nm,0.7s						
ZAL	**Zalesovo**	**20.38**	**24**	P	**P**	**02 40 49.0**	**+1.0**
	2.7nm,0.5s,baz=254,slow=7.1,SNR=11						
GNI	**Garni**	**21.05**	**289**	P	**P**	**02 40 55.1**	**+0.4**
	13nm,0.8s,mb4.3,baz=214,slow=0.1,SNR=12						
GNI	**Garni**	**21.05**	**289**	P	**P**	**02 40 55.1**	**+0.4**
ARU	**Arti**	**22.12**	**342**	P	**P**	**02 41 05.1**	**-0.2**
	5.0nm,0.8s,mb3.9						
BRTR	**Keskin Array B**	**29.58**	**289**	P	**P**	**02 42 13.8**	**-0.9**
	0.5nm,0.6s,mb3.3,baz=99,slow=7.6,SNR=2.9						
AKASG	**Malin Array Be**	**33.27**	**309**	P	**P**	**02 42 45.1**	**-1.7**
	1.9nm,0.9s,mb3.9,baz=81,slow=7.6,SNR=6.4						
FINES	**FINESS Array B**	**37.91**	**326**	P	**P**	**02 43 25.7**	**-0.3**
	1.7nm,0.7s,mb4.0,baz=117,slow=8.5,SNR=7.9						
FINES	**FINESS Array B**	**37.91**	**326**	P	**P**	**02 43 25.7**	**-0.3**
ARCES	**ARCESS Array B**	**41.62**	**338**	P	**P**	**02 43 57.5**	**+1.2**
	6.2nm,0.9s,mb4.3,baz=112,slow=6.5,SNR=10						
NB2	**NORSAR Subarra**	**44.79**	**323**	P	**P**	**02 44 21.2**	**-0.9**
	1.0nm,0.5s,mb3.8,baz=99,slow=7.9						
NOA	**NORSAR Array B**	**44.79**	**323**	P	**P**	**02 44 21.7**	**-0.4**
	1.7nm,1.0s,mb3.7,baz=106,slow=7.6,SNR=3.1						
KMBO	**Kilima Mbogo**	**48.47**	**228**	LR	LR	03 07 07.4	
	comp=Z,40nm,21.2s,baz=98,slow=38						
WRA	**Warramunga Arr**	**81.72**	**122**	P	**P**	**02 48 27.2**	**+1.1**
	0.4nm,0.7s,mb3.4,baz=324,slow=4.9,SNR=9.0						
YKA	**Yellowknife Ar**	**81.77**	**3**	P	**P**	**02 48 26.9**	**+1.5**
	0.2nm,0.7s,mb3.1,baz=349,slow=5.3,SNR=5.0						
YKA	**Yellowknife Ar**	**81.77**	**3**	P	**P**	**02 48 26.9**	**+1.5**
ASAR	**Alice Springs**	**83.97**	**125**	P	**P**	**02 48 38.1**	**+0.7**
	0.5nm,0.8s,mb3.4,baz=320,slow=4.5,SNR=5.0						

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*ZUR **05** 02:40:39.7, 48.06N×8.04E, h8^{km}, ML1.3/7*

LDG 05 02:40:40.0±0.2**, 48.06N×7.95E, h15^{km}, Md1.9**/3**, Ml1.9**/6**, 5D, Error ellipse: s-maj=3.4km s-min=2.5km az=115.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLE	**Schleitheim**	**0.47**	**129**	⇓*i*Pg	Pg	02 40 48.1	-1.7
SLE				*i* Sg	Sg	02 40 54.0	-2.4
SULZ	**Sulz-Cheisache**	**0.55**	**168**	⇓*i*Pg	Pg	02 40 50.3	-1.0
SULZ				*e*Sg	Sg	02 40 57.9	-0.9
CDF	**Champ du Feu**	**0.57**	**308**	*e*Pg	Pg	02 40 51.4	-0.3
CDF				*e*P		02 40 51.9	
CDF				*e*Sg	Sg	02 40 59.0	-0.5
	5.7nm,0.2s						
TRULL	**Truellikon**	**0.65**	**130**	*e*Pg	Pg	02 40 51.4	-1.8
HINF	**Hinteralfeld**	**0.78**	**252**	*e*Pg	Pg	02 40 54.8	-0.9
HINF				*e*Sg	Sg	02 41 05.3	-0.9
	1.4nm,0.2s						
HINF	**Hinteralfeld**	**0.78**	**252**	*e*Sg	Sg	02 41 05.3	-0.9
	0.7nm,0.2s						
ZUR	**Zurich**	**0.82**	**148**	⇓*i*Pg	Pg	02 40 55.2	-1.3
BOURR	**Bourrignon**	**0.83**	**216**	*e*Pg	Pg	02 40 56.5	-0.2
WEIN	**Weingarten**	**0.88**	**127**	⇓*i*Pg	Pg	02 40 56.0	-1.8
WILA	**Wila**	**0.92**	**135**	⇓*i*Pg	Pg	02 40 56.8	-1.7
HAU	**Haudompre**	**1.07**	**268**	*e*Pg	Pg	02 41 00.3	-1.3
HAU				*e*Sg	Sg	02 41 14.4	-1.7
	5.7nm,0.3s						
RFYF	**Reffroy**	**1.75**	**290**	*e*Sg	Sg	02 41 35.2	-3.1
	3.7nm,0.2s						
CABF	**La Chapelle**	**1.93**	**222**	*e*Pg	Pg	02 41 16.4	-2.2
CABF				*e*Sg	Sg	02 41 40.1	-4.2
	0.5nm,0.3s						
SFTF	**Sexfontaines**	**1.95**	**275**	*e*Sg	Sg	02 41 41.6	-3.6
	1.5nm,0.2s						
MEZF	**Maizieres J'vi**	**1.98**	**284**	*e*Sg	Sg	02 41 42.4	-3.8
	1.0nm,0.3s						

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*STR **05** 02:47:37.8±0.3, 48.07N×8.02E, h10^{km}±1^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **05** 02:47:37.9±0.3, 48.09N×7.99E, h10^{km}, Md1.9/3, Ml2.0/8, Error ellipse: s-maj=4.3km s-min=2.5km az=68.0*

ZUR 05 02:47:38.2, 48.06N×8.03E, h7^{km}, ML1.5/10**, 6D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLE	**Schleitheim**	**0.43**	**134**	⇓*i*Pg	Pg	02 47 46.7	-0.2
SLE				*i* Sg	Sg	02 47 52.6	-0.1
SULZ	**Sulz-Cheisache**	**0.54**	**174**	⇓*i*Pg	Pg	02 47 48.9	-0.1
SULZ				*i* Sg	Sg	02 47 56.4	+0.1
WLS	**Welschbruch**	**0.57**	**308**	Pg	Pg	02 47 49.5	-0.2
WLS				Sg	Sg	02 47 56.5	-0.9
TRULL	**Truellikon**	**0.60**	**133**	⇓*i*Pg	Pg	02 47 49.9	-0.4
ECH	**Echery**	**0.60**	**285**	Pg	Pg	02 47 49.0	-1.3
ECH				Sg	Sg	02 47 57.7	-0.7
CDF	**Champ du Feu**	**0.61**	**305**	*e*Pg	Pg	02 47 49.7	-0.8
CDF				*e*Pn	Pn	02 47 50.3	-2.7
CDF				*e*Sg	Sg	02 47 56.5	-2.2
	11nm,0.2s						
MOF	**Molkenrain**	**0.64**	**251**	Pg	Pg	02 47 50.6	-0.4
MOF				Sg	Sg	02 47 59.3	-0.3
STEIN	**Stein am Rhein**	**0.69**	**125**	*e*Pg	Pg	02 47 51.8	-0.2
BALST	**Balsthal**	**0.76**	**197**	*e*Pg	Pg	02 47 53.0	-0.5
ZUR	**Zurich**	**0.79**	**152**	⇓*i*Pg	Pg	02 47 53.6	-0.4
HINF	**Hinteralfeld**	**0.83**	**253**	*e*Pg	Pg	02 47 53.1	-1.7
HINF				*e*Pn	Pn	02 47 53.8	-2.3
HINF				*e*Sg	Sg	02 48 03.8	-2.1
	2.9nm,0.2s						
WEIN	**Weingarten**	**0.84**	**129**	⇓*i*Pg	Pg	02 47 54.5	-0.5
WILA	**Wila**	**0.88**	**137**	⇓*i*Pg	Pg	02 47 55.4	-0.4
LOMF	**Lomont**	**1.08**	**229**	Pg	Pg	02 47 58.9	-0.9
LOMF				Sg	Sg	02 48 12.5	-1.8
HAU	**Haudompre**	**1.13**	**268**	*e*Pn	Pn	02 47 57.2	-3.2
HAU				*e*Pg	Pg	02 47 58.8	-2.0
HAU				*e*Sn	Sn	02 48 13.6	-2.7
	13nm,0.3s						
THEF	**They Montfort**	**1.38**	**278**	Pg	Pg	02 48 03.6	-2.2
THEF				Sg	Sg	02 48 22.4	-1.8
RFYF	**Reffroy**	**1.80**	**289**	*e*Pn	Pn	02 48 07.3	-2.6
RFYF				*e*Pg	Pg	02 48 10.4	-3.7
RFYF				*e*Sn	Sn	02 48 28.7	-4.5
RFYF				*e*Sg	Sg	02 48 33.3	-4.8
	4.4nm,0.2s						
CABF	**La Chapelle**	**1.96**	**223**	*e*Pg	Pg	02 48 14.6	-2.9
CABF				*e*Sg	Sg	02 48 38.4	-5.3
	0.7nm,0.2s						
SFTF	**Sexfontaines**	**2.01**	**275**	*e*Pg	Pg	02 48 14.3	-4.0
SFTF				*e*Sn	Sn	02 48 33.4	-5.2
SFTF				*e*Sg	Sg	02 48 40.1	-5.1
	2.7nm,0.2s						
MEZF	**Maizieres J'vi**	**2.04**	**284**	*e*Pg	Pg	02 48 14.8	-4.1
MEZF				*e*Sg	Sg	02 48 41.0	-5.1

	3.0nm,0.3s						
SMF	**Signal de Mont**	**3.18**	**245**	*e*Pg	Pg	02 48 36.9	-4.9
SMF				*e*Sg	Sg	02 49 17.0	-7.2
	0.9nm,0.2s						
SSF	**Saint Saulge**	**3.23**	**254**	*e*Pg	Pg	02 48 36.7	-5.9
SSF				*e*Sg	Sg	02 49 18.2	-7.4
	0.4nm,0.2s						
AVF	**Avril sur Loir**	**3.42**	**250**	*e*Pg	Pg	02 48 40.7	-5.8
AVF				*e*Sg	Sg	02 49 23.8	-8.4
	0.2nm,0.3s						

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*CSEM **05** 02:49:09.2±0.1,34.80N×2.89W,h25^{km},MD4.0,Error ellipse: s-maj=4.3km s-min=2.1km az=123.0*

*CNRM **05** 02:49:10.2,34.86N×2.75W,h18^{km},MD4.0*

*NEIC **05** 02:49:11.8,34.95N×3.00W,MG3.8(MDD),After MDD.*

*MDD **05** 02:49:11.8±1.2,34.95N×2.98W,mb3.8/14,Error ellipse: s-maj=12.0km s-min=6.5km az=128.0,PRXIMO AftershockPLICA*

*SFS **05** 02:49:11.0,34.95N×3.00W,ML3.8*

*INMG **05** 02:49:12.6±1.6,35.02N×2.84W,h17^{km}±6^{km},ML2.4,Error ellipse: s-maj=12.5km s-min=10.4km az=91.0*

ISC 05 02:49:09.8±0.8,**34.90N**±0.03×**3.09W**±0.08,**h12**^{km}±6^{km},**n49,**σ**1**^{s}**16**/76,**1C-2D,Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MELI	**Melilla**	**0.41**	**17**	⇓P	**Pg**	**02 49 17.9**	**-0.4**
MELI				S	**Sg**	**02 49 22.9**	**-1.1**
MELI	**Melilla**	**0.41**	**17**	*i* P	**Pg**	**02 49 17.9**	**-0.4**
EMEL	**Melilla**	**0.42**	**15**	⇓P	**Pg**	**02 49 18.1**	**-0.2**
	143nm,0.1s,SNR=18						
EMEL				S	**Sg**	**02 49 23.3**	**-0.8**
	SNR=7.9						
EMLI	**Melilla**	**0.42**	**15**	P	**Pg**	**02 49 18.1**	**-0.3**
	143nm,0.1s,SNR=18						
TOU	**Touzarine**	**0.55**	**277**	*i* P	**Pb**	**02 49 26.0**	**+5.1**
TOU				*i* S	**Sb**	**02 49 36.0**	**+7.5**
EBER	**Berja**	**2.00**	**5**	P	**Pn**	**02 49 42.9**	**-1.0**
EBER				S	**Sn**	**02 50 05.5**	**-3.6**
EBER	**Berja**	**2.00**	**5**	P	**Pn**	**02 49 42.9**	**-1.0**
	8.6nm,0.5s,SNR=14						
EBER				S	**Sn**	**02 50 05.4**	**-3.6**
	90nm,0.7s,SNR=19						
EBER	**Berja**	**2.00**	**5**	S	**Sn**	**02 50 05.4**	**-3.6**
	90nm,0.7s,SNR=19						
EBER	**Berja**	**2.00**	**5**	P	**Pn**	**02 49 42.9**	**-1.0**
	8.6nm,0.5s,SNR=14						
EMIJ	**Mijas**	**2.16**	**321**	P	**Pn**	**02 49 46.8**	**+0.7**
	1.4nm,0.1s,SNR=14						
EMIJ				S	**Sn**	**02 50 12.4**	**-0.6**
	SNR=7.9						
EMIJ	**Mijas**	**2.16**	**321**	S	**Sn**	**02 50 12.4**	**-0.6**
	SNR=7.9						
ERON	**Agron**	**2.20**	**345**	P	**Pn**	**02 49 48.2**	**+1.6**
	1.8nm,0.2s,SNR=15						
ERON				S	**Sn**	**02 50 14.6**	**+0.6**
	SNR=4.0						
MIF	**Mishlifen**	**2.31**	**231**	*e*P	**Pn**	**02 49 48.0**	**-0.3**
MIF				*i* S	**Sn**	**02 50 16.0**	**-1.0**
REAL	**Reales**	**2.34**	**313**	P	**Pn**	**02 49 51.9**	**+3.2**
REAL	**Reales**	**2.34**	**313**	*e*P	**Pn**	**02 49 51.9**	**+3.2**
ELOJ	**Sierra Loja**	**2.41**	**339**	P	**Pn**	**02 49 51.3**	**+1.6**
	9.7nm,0.5s,SNR=31						
ELOJ				S	**Sn**	**02 50 20.9**	**+1.6**
	SNR=7.9						
CZD	**Col de Zad**	**2.47**	**222**	*e*P	**Pn**	**02 49 50.0**	**-0.6**
CZD				*i* S	**Sn**	**02 50 20.0**	**-0.9**
LIJA	**Lijar**	**2.75**	**317**	⇑P	**Pn**	**02 49 59.5**	**+5.0**
LIJA				S	**Sn**	**02 50 32.5**	**+4.5**
LIJA	**Lijar**	**2.75**	**317**	*e*S	**Sn**	**02 50 32.5**	**+4.5**
ELUQ	**Luque**	**2.83**	**341**	P	**Pn**	**02 49 57.6**	**+1.9**
	15nm,0.5s,SNR=25						
ELUQ				S	**Sn**	**02 50 29.2**	**-0.7**
	SNR=7.9						
EQES	**Quesada**	**2.90**	**0**	P	**Pn**	**02 49 58.4**	**+1.7**
	4.6nm,0.2s,SNR=52						
EQES				S	**Sn**	**02 50 32.8**	**+1.0**
	62nm,0.5s,SNR=16						
EQES	**Quesada**	**2.90**	**0**	P	**Pn**	**02 49 58.4**	**+1.7**
	4.6nm,0.2s,SNR=52						
EQES				S	**Sn**	**02 50 32.8**	**+1.0**
	62nm,0.5s,SNR=16						
ESPR	**Espera**	**2.99**	**312**	P	**Pn**	**02 50 01.0**	**+3.0**
	3.5nm,0.4s,SNR=7.9						
ESPR				S	**Sn**	**02 50 35.1**	**+1.1**
	SNR=7.9						
ESPR	**Espera**	**2.99**	**312**	P	**Pn**	**02 50 01.0**	**+3.0**
	3.5nm,0.4s,SNR=7.9						
ESPR				S	**Sn**	**02 50 35.1**	**+1.0**
	SNR=7.9						
EADA	**Adamuz**	**3.48**	**340**	P	**Pn**	**02 50 05.7**	**+0.8**
EADA				S	**Sn**	**02 50 44.7**	**-1.7**
EADA	**Adamuz**	**3.48**	**340**	P	**Pn**	**02 50 05.7**	**+0.8**
	5.7nm,0.4s,SNR=36						
EADA				S	**Sn**	**02 50 44.7**	**-1.7**
	SNR=7.9						
EADA	**Adamuz**	**3.48**	**340**	S	**Sn**	**02 50 44.7**	**-1.7**
	SNR=7.9						
EADA	**Adamuz**	**3.48**	**340**	P	**Pn**	**02 50 05.7**	**+0.8**
	5.7nm,0.4s,SNR=36						
EVIA	**Vianos**	**3.76**	**7**	P	**Pn**	**02 50 10.9**	**+2.0**
EVIA				S	**Sn**	**02 50 52.1**	**-1.6**
EVIA	**Vianos**	**3.76**	**7**	P	**Pn**	**02 50 10.9**	**+2.0**
	SNR=7.9						
EVIA				S	**Sn**	**02 50 52.1**	**-1.6**
	18nm,0.5s,SNR=5.6						
EMIN	**Mina Concepcio**	**4.07**	**316**	P	**Pn**	**02 50 14.0**	**+0.7**
	1.5nm,0.2s,SNR=24						
EMIN				S	**Sn**	**02 51 00.8**	**-0.7**
	SNR=7.9						
EMIN	**Mina Concepcio**	**4.07**	**316**	S	**Sn**	**02 51 00.8**	**-0.7**
	SNR=7.9						
EMIN	**Mina Concepcio**	**4.07**	**316**	P	**Pn**	**02 50 14.0**	**+0.6**
	1.5nm,0.2s,SNR=24						
ESDC	**Sonseca Array**	**4.82**	**352**	P	**Pn**	**02 50 24.3**	**+0.4**
	4.1nm,0.4s,baz=171,slow=13,SNR=46						
ESDC	**Sonseca Array**	**4.82**	**352**	P	**Pn**	**02 50 24.3**	**+0.3**
	4.1nm,0.4s,SNR=46						
PBEJ	**Beja**	**4.96**	**310**	*e*Pn	**Pn**	**02 50 26.9**	**+1.0**
PBEJ				*e*Sn	**Sn**	**02 51 22.6**	**-1.3**
	3.6nm,0.5s						
PBEJ	**Beja**	**4.96**	**310**	Pn	**Pn**	**02 50 26.9**	**+1.0**
PBEJ				Sn	**Sn**	**02 51 22.6**	**-1.3**
	1.8nm,0.5s						
EBAD	**Badajoz**	**4.97**	**322**	P	**Pn**	**02 50 26.6**	**+0.4**
	2.4nm,0.2s,SNR=9.4						
EBAD				S	**Sn**	**02 51 22.9**	**-1.4**
	SNR=7.9						
EBAD	**Badajoz**	**4.97**	**322**	P	**Pn**	**02 50 26.5**	**+0.3**
	2.4nm,0.2s,SNR=9.4						
EBAD				S	**Sn**	**02 51 22.9**	**-1.4**
	SNR=7.9						
PCBR	**Castelo Branco**	**6.05**	**326**	*e*Pn	**Pn**	**02 50 41.2**	**-0.1**
PCBR				*e*Sn	**Sn**	**02 51 47.2**	**-4.0**
	3.7nm,0.5s						
PCBR	**Castelo Branco**	**6.05**	**326**	Pn	**Pn**	**02 50 41.2**	**-0.1**
PCBR				Sn	**Sn**	**02 51 47.2**	**-4.0**
	1.9nm,0.5s						
ERTA	**Horta de San J**	**6.62**	**23**	P	**Pn**	**02 50 48.2**	**-1.3**
	21nm,1.2s,SNR=4.0						
ERTA	**Horta de San J**	**6.62**	**23**	P	**Pn**	**02 50 48.2**	**-1.2**
	21nm,1.2s,SNR=4.0						
PVRL	**Vila Real**	**7.34**	**332**	*e*Pn	**Pn**	**02 50 59.1**	**-0.3**
PBRG	**Braganca**	**7.47**	**338**	*e*Pn	**Pn**	**02 51 00.5**	**-0.8**
ELOB	**Lobios**	**7.98**	**332**	P	**Pn**	**02 51 07.3**	**-1.1**
	7.1nm,0.8s,SNR=5.8						
ELOB	**Lobios**	**7.98**	**332**	P	**Pn**	**02 51 07.3**	**-1.1**
ORO	**Oropa**	**13.63**	**35**	*e*Pn	**P**	**02 52 18.7**	**-6.6**
ORO				*e*Sn	rx	02 52 51.3	
ORO	**Oropa**	**13.63**	**35**	*e*Pn	**P**	**02 52 18.7**	**-6.6**

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*STR **05** 02:49:27.1±0.2,48.08N×8.02E,h10^{km}±1^{km},Ml1.9,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **05** 02:49:27.4±0.2,48.07N×7.99E,h10^{km},Md2.1/3,Ml2.1/13,Error ellipse: s-maj=3.4km s-min=1.8km az=69.0*

BGR 05 02:49:27.3±0.2,**48.09N×8.04E,h10**^{km}**,ML1.9**/1**,5C-1D,Error ellipse: s-maj=2.2km s-min=1.1km az=136.0,Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FBB	**Freiburg**	**0.15**	**235**	Pg	Pg	02 49 30.8	-0.1
KIZ	**Kirchzarten**	**0.16**	**211**	⇑*i*Pg	Pg	02 49 30.8	-0.1
KIZ				*i* Sg	Sg	02 49 33.3	-0.1
FELD	**Feldberg**	**0.21**	**186**	⇓*i*Pg	Pg	02 49 31.9	-0.1
FELD				*i* Sg	Sg	02 49 34.9	-0.2
LIBD	**Limburg**	**0.30**	**282**	*e*Pg	Pg	02 49 33.5	0.0
	SNR=1.6						
LIBD				Sg	Sg	02 49 38.4	+0.6
BFO	**Black Forest**	**0.31**	**39**	⇑*i*Pg	Pg	02 49 33.7	-0.1
BFO				*i* Sg	Sg	02 49 37.9	-0.2
SPAK	**Spaichingen**	**0.50**	**88**	Pg	Pg	02 49 37.1	-0.4
WLS	**Welschbruch**	**0.56**	**306**	Pg	Pg	02 49 38.6	-0.1
WLS				*e*Sg	Sg	02 49 45.4	-0.8
WLS	**Welschbruch**	**0.56**	**306**	Pg	Pg	02 49 38.5	-0.2
WLS				Sg	Sg	02 49 45.5	-0.8
ECH	**Echery**	**0.60**	**282**	Pg	Pg	02 49 39.0	-0.5
ECH				*e*Sg	Sg	02 49 46.7	-0.9
ECH	**Echery**	**0.60**	**282**	Pg	Pg	02 49 38.7	-0.8
ECH				Sg	Sg	02 49 46.9	-0.7
CDF	**Champ du Feu**	**0.60**	**303**	*e*Pg	Pg	02 49 39.1	-0.4
CDF				*e*Pn	Pn	02 49 39.8	-1.8
CDF				*e*Sg	Sg	02 49 46.0	-1.7
	20nm,0.2s						
CDF	**Champ du Feu**	**0.60**	**303**	*e*Pg	Pg	02 49 39.1	-0.4
	SNR=21						
CDF				*e*Sg	Sg	02 49 46.7	-1.0
MOF	**Molkenrain**	**0.65**	**249**	Pg	Pg	02 49 40.0	-0.5
MOF	**Molkenrain**	**0.65**	**249**	Pg	Pg	02 49 39.9	-0.6
BBS	**Basel-Blauen**	**0.72**	**210**	Pg	Pg	02 49 41.0	-0.8
BBS				*e*Sg	Sg	02 49 50.4	-1.1
GUT	**Gutenstein**	**0.72**	**91**	⇑*i*Pg	Pg	02 49 41.1	-0.7
GUT				Sg	Sg	02 49 50.7	-0.9
SISB	**Singen-Sch Ber**	**0.74**	**123**	Pg	Pg	02 49 41.6	-0.6
SISB				Sg	Sg	02 49 51.4	-0.8
LBG	**Lerchenberg**	**0.77**	**41**	⇑*i*Pg	Pg	02 49 41.9	-0.9
LBG				Sg	Sg	02 49 52.3	-0.8
HINF	**Hinteralfeld**	**0.84**	**252**	*e*Pg	Pg	02 49 42.5	-1.7
HINF				*e*Pn	Pn	02 49 43.6	-1.5
HINF				*e*Sg	Sg	02 49 53.0	-2.5
	8.5nm,0.3s						
HINF	**Hinteralfeld**	**0.84**	**252**	*e*Pg	Pg	02 49 42.5	-1.7
	SNR=9.2						
HINF				*e*Sg	Sg	02 49 54.2	-1.3
LANF	**Langenberg**	**0.91**	**350**	*e*Sg	Sg	02 49 56.8	-0.9
LANF	**Langenberg**	**0.91**	**350**	Pg	Pg	02 49 44.1	-1.4
LANF				Sg	Sg	02 49 57.3	-0.3
BUCH	**Bad Urach**	**0.95**	**67**	⇑*e*Pn	Pn	02 49 45.4	-1.1
BUCH				Sn	Sn	02 49 57.7	-2.5
STU	**Stuttgart**	**1.03**	**48**	*e*Sg	Sg	02 50 00.0	-1.7
LOMF	**Lomont**	**1.10**	**228**	*e*Pg	Pg	02 49 48.1	-1.3
	SNR=8.0						
LOMF				*e*Pn	Pn	02 49 48.1	-0.7
LOMF				*e*Sg	Sg	02 50 02.3	-1.8
LOMF				Sn	Sn	02 50 02.6	-1.4
LOMF	**Lomont**	**1.10**	**228**	Pg	Pg	02 49 47.6	-1.8
LOMF				Sg	Sg	02 50 02.3	-1.8
HAU	**Haudompre**	**1.14**	**266**	*e*Pn	Pn	02 49 46.6	-2.7
HAU				*e*Pg	Pg	02 49 48.1	-2.0
HAU				*e*Sg	Sg	02 50 02.1	-3.2
HAU				*e*Sn	Sn	02 50 03.1	-1.9
	16nm,0.2s						
HAU	**Haudompre**	**1.14**	**266**	*e*Pn	Pn	02 49 48.1	-1.1
	SNR=2.2						
HAU				*e*Pg	Pg	02 49 48.8	-1.3
	SNR=4.4						
HAU				*e*Sg	Sg	02 50 03.5	-1.8
THEF	**They Montfort**	**1.38**	**276**	*e*Sg	Sg	02 50 10.6	-2.8
THEF	**They Montfort**	**1.38**	**276**	Pg	Pg	02 49 53.2	-1.8
THEF				Sg	Sg	02 50 11.0	-2.4
UBR	**Uberruh**	**1.45**	**106**	Sn	Sn	02 50 13.5	+0.6
HDH	**Heidenheim**	**1.53**	**70**	Pn	Pn	02 49 56.1	+1.2
HDH				Sg	Sg	02 50 15.8	-2.5
HDH	**Heidenheim**	**1.53**	**70**	SG	Sg	02 50 15.8	-2.5
TOD	**Tromm**	**1.60**	**18**	*e*Sg	Sg	02 50 17.0	-3.7
SIND	**Sindeldorf**	**1.63**	**39**	Pn	Pn	02 49 53.5	-2.8
SIND				Sg	Sg	02 50 17.7	-4.1
SIND	**Sindeldorf**	**1.63**	**39**	SG	Sg	02 50 17.7	-4.1
RUP	**Ruppelstein**	**1.74**	**339**	*e*Pg	Pg	02 50 00.2	-1.8
	SNR=2.4						
RFYF	**Reffroy**	**1.79**	**288**	*e*Pn	Pn	02 49 56.7	-2.0
RFYF				*e*Pg	Pg	02 49 59.9	-3.3
RFYF				*e*Sn	Sn	02 50 18.5	-3.2
RFYF				*e*Sg	Sg	02 50 23.2	-3.9
	8.0nm,0.2s						
RFYF	**Reffroy**	**1.79**	**288**	*e*Sg	Sg	02 50 24.7	-2.5
CABF	**La Chapelle**	**1.99**	**223**	*e*Pn	Pn	02 49 58.4	-3.0
CABF				*e*Pg	Pg	02 50 04.0	-3.0
CABF				*e*Sg	Sg	02 50 27.9	-5.6
	1.7nm,0.3s						
WLF	**Walferdange**	**2.01**	**322**	*e*Sg	Sg	02 50 30.7	-3.6
SFTF	**Sexfontaines**	**2.01**	**274**	*e*Pn	Pn	02 49 58.8	-3.0
SFTF				*e*Pg	Pg	02 50 03.9	-3.7
SFTF				*e*Sn	Sn	02 50 22.7	-4.5
SFTF				*e*Sg	Sg	02 50 29.3	-5.1
	3.0nm,0.2s						
SFTF	**Sexfontaines**	**2.01**	**274**	*e*(Sn)	Sn	02 50 23.1	-4.1
SFTF				*e*Sg	Sg	02 50 31.3	-3.1
MEZF	**Maizieres J’vi**	**2.04**	**283**	*e*Pg	Pg	02 50 04.2	-3.8
	baz=104						
MEZF				*e*Sg	Sg	02 50 30.0	-5.2
	2.3nm,0.2s						
MEZF	**Maizieres J’vi**	**2.04**	**283**	*e*Sg	Sg	02 50 31.7	-3.5
GRF	**Grafenberg Arr**	**2.64**	**51**	*e*Pn	Pn	02 50 09.2	-1.6
	SNR=1.2						
GRF				*e*Pg	Pg	02 50 16.9	-3.2
	SNR=1.8						
GRF				*e*Sg	Sg	02 50 49.4	-5.9
LPL	**La Plagne**	**2.73**	**200**	*e*Pg	Pg	02 50 17.6	-4.2
LPL				*e*Sg	Sg	02 50 52.7	-5.4
	1.1nm,0.4s						
LPG	**La Plagne**	**2.74**	**199**	*e*Pg	Pg	02 50 18.2	-3.8
LPG				*e*Sg	Sg	02 50 52.5	-6.1
	0.9nm,0.4s						
SMF	**Signal de Mont**	**3.20**	**245**	*e*Pn	Pn	02 50 14.0	-4.7
SMF				*e*Pg	Pg	02 50 26.6	-4.6
SMF				*e*Sg	Sg	02 51 06.8	-7.0
	0.8nm,0.2s						
SSF	**Saint Saulge**	**3.24**	**253**	*e*Pg	Pg	02 50 26.5	-5.5
SSF				*e*Sg	Sg	02 51 07.7	-7.4
	0.7nm,0.2s						
AVF	**Avril sur Loir**	**3.44**	**250**	*e*Pg	Pg	02 50 30.7	-5.2
AVF				*e*Sg	Sg	02 51 13.6	-8.1
	0.3nm,0.2s						
ORIF	**Oris-en-Rattie**	**3.50**	**206**	*e*Sg	Sg	02 51 16.8	-7.2
	0.3nm,0.2s						
BGF	**Bois d’Agland**	**3.85**	**248**	*e*Pg	Pg	02 50 37.3	-6.9
BGF				*e*Sg	Sg	02 51 26.6	-8.9
	2.7nm,0.4s						

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*STR **05** 02:51:32.2±0.1,48.08N×8.03E,h10^{km}±1^{km},Ml1.7,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **05** 02:51:32.2,48.08N×8.03E,h10^{km},ML3.2(VIE),ML2.8(LDG),ML2.7(LEDBW),After STR.*

NEIC Felt in the epicentral area.

*LEDBW **05** 02:51:32.7±0.1,48.08N×8.05E,h8^{km}±3^{km},ML2.7,Error ellipse: s-maj=2.0km s-min=1.4km az=129.0*

*CSEM **05** 02:51:32.0±0.0,48.06N×8.02E,h15^{km},ML2.9/32,Error ellipse: s-maj=1.0km s-min=0.8km az=164.0*

*LDG **05** 02:51:32.2±0.1,48.06N×8.01E,h10^{km},Md2.9/3,Ml2.8/31,Error ellipse: s-maj=1.3km s-min=1.0km az=150.0*

BGR 05 02:51:31.8±0.2,**48.09N×8.08E,h10**^{km}**,ML2.3**/3**,15C-6D,Error ellipse: s-maj=2.2km s-min=1.1km az=137.0,Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIZ	**Kirchzarten**	**0.17**	**220**	⇑*i*Pg	Pg	02 51 36.1	+0.5
KIZ				Sg	Sg	02 51 38.6	+0.3
KIZ	**Kirchzarten**	**0.17**	**220**	⇑*i*P	Pg	02 51 36.1	+0.5
KIZ				*i* S	Sg	02 51 38.5	+0.3
KIZ	**Kirchzarten**	**0.17**	**220**	Sg	Sg	02 51 38.6	+0.4
FBB	**Freiburg**	**0.18**	**241**	⇑*i*Pg	Pg	02 51 36.2	+0.5
FBB				Sg	Sg	02 51 38.7	+0.3
FBB	**Freiburg**	**0.18**	**241**	⇑*i*P	Pg	02 51 36.3	+0.5
FBB				S	Sg	02 51 38.7	+0.3
FBB	**Freiburg**	**0.18**	**241**	Pg	Pg	02 51 36.2	+0.5
FBB	**Freiburg**	**0.18**	**241**	Sg	Sg	02 51 38.7	+0.3
FELD	**Feldberg**	**0.22**	**194**	⇓*i*Pg	Pg	02 51 37.1	+0.6
FELD				*e*Sg	Sg	02 51 40.1	+0.5
	SNR=34						
FELD	**Feldberg**	**0.22**	**194**	⇓*i*P	Pg	02 51 37.1	+0.6
FELD				S	Sg	02 51 40.3	+0.6
FELD	**Feldberg**	**0.22**	**194**	Pg	Pg	02 51 37.0	+0.5
FELD				Sg	Sg	02 51 39.9	+0.2
BFO	**Black Forest**	**0.29**	**34**	⇑*i*Pg	Pg	02 51 38.9	+1.0
BFO				*i* Sg	Sg	02 51 43.1	+1.1
BFO	**Black Forest**	**0.29**	**34**	⇑*i*P	Pg	02 51 38.9	+1.0
BFO				*i* S	Sg	02 51 43.3	+1.3
BFO	**Black Forest**	**0.29**	**34**	*e*Pg	Pg	02 51 38.2	+0.3
BFO				*e*Sg	Sg	02 51 43.1	+1.1
LIBD	**Limburg**	**0.33**	**281**	⇑*e*Pg	Pg	02 51 39.2	+0.6
LIBD				*e*Sg	Sg	02 51 43.1	0.0
	SNR=7.6						
LIBD	**Limburg**	**0.33**	**281**	⇑*i*P	Pg	02 51 39.2	+0.6
LIBD				S	Sg	02 51 43.7	+0.6
SPAK	**Spaichingen**	**0.47**	**88**	⇑*i*P	Pg	02 51 42.4	+1.0
SPAK				S	Sg	02 51 49.1	+1.3
SPAK	**Spaichingen**	**0.47**	**88**	Pg	Pg	02 51 42.3	+0.9
SPAK				Sg	Sg	02 51 48.6	+0.8
STR	**Strasbourg**	**0.54**	**337**	*e*Pg	Pg	02 51 43.2	+0.5
	SNR=3.4						
STR	**Strasbourg**	**0.54**	**337**	Pg	Pg	02 51 43.4	+0.7
WLS	**Welschbruch**	**0.58**	**304**	⇓*i*Pg	Pg	02 51 43.8	+0.2
WLS				*e*Sg	Sg	02 51 51.1	-0.5
	SNR=7.8						
WLS	**Welschbruch**	**0.58**	**304**	⇓*i*P	Pg	02 51 43.9	+0.2
WLS				P		02 51 45.3	
WLS				S	Sg	02 51 51.3	-0.2
WLS	**Welschbruch**	**0.58**	**304**	Pg	Pg	02 51 43.6	0.0
WLS				Sg	Sg	02 51 51.2	-0.3
WLS	**Welschbruch**	**0.58**	**304**	Pg	Pg	02 51 43.6	0.0
WLS				Sg	Sg	02 51 51.1	-0.4
	SNR=7.8						
CDF	**Champ du Feu**	**0.63**	**301**	*e*Pg	Pg	02 51 44.4	-0.1
CDF				*e*P		02 51 44.8	
CDF				*e*Pn	Pn	02 51 45.1	-1.4
CDF				*e*Sg	Sg	02 51 51.5	-1.4
	172nm,0.2s						
CDF	**Champ du Feu**	**0.63**	**301**	*e*Pn	Pn	02 51 45.1	-1.4
CDF				*e*Sg	Sg	02 51 51.5	-1.4
	86nm,0.2s						
ECH	**Echery**	**0.63**	**282**	⇑*i*Pg	Pg	02 51 44.3	-0.2
ECH				*e*Sg	Sg	02 51 52.1	-0.9
	SNR=9.6						
ECH	**Echery**	**0.63**	**282**	⇑*i*P	Pb	02 51 44.3	-0.1
ECH				S	Sg	02 51 52.5	-0.6
ECH	**Echery**	**0.63**	**282**	Pg	Pg	02 51 44.1	-0.4
ECH				Sg	Sg	02 51 51.4	-1.6
ECH	**Echery**	**0.63**	**282**	Pg	Pg	02 51 44.1	-0.4
ECH				Sg	Sg	02 51 52.1	-0.9
	SNR=9.6						
MOF	**Molkenrain**	**0.68**	**250**	Pg	Pg	02 51 45.1	-0.4
MOF				*e*Sg	Sg	02 51 54.2	-0.4
	SNR=7.4						
MOF	**Molkenrain**	**0.68**	**250**	P	Pb	02 51 45.4	+0.1
MOF	**Molkenrain**	**0.68**	**250**	Pg	Pg	02 51 45.3	-0.2
MOF				Sg	Sg	02 51 53.5	-1.1
MOF	**Molkenrain**	**0.68**	**250**	Pg	Pg	02 51 45.1	-0.4
MOF				Sg	Sg	02 51 53.5	-1.1
GUT	**Gutenstein**	**0.69**	**91**	⇑*i*Pg	Pg	02 51 46.4	+0.7
GUT				Sg	Sg	02 51 55.9	+0.8
GUT	**Gutenstein**	**0.69**	**91**	⇑*i*P	Pb	02 51 46.4	+0.9
GUT				P		02 51 47.3	
GUT				S	Sb	02 51 55.9	+1.0
GUT				S	Sb	02 51 57.6	+2.7
GUT	**Gutenstein**	**0.69**	**91**	Sg	Sg	02 51 55.9	+0.8
SISB	**Singen-Sch Ber**	**0.72**	**124**	⇓*i*Pg	Pg	02 51 46.9	+0.6
SISB				Sg	Sg	02 51 56.8	+1.0
SISB	**Singen-Sch Ber**	**0.72**	**124**	⇓*i*P	Pb	02 51 46.9	+1.0
SISB				P		02 51 47.8	
SISB				S	Sb	02 51 56.8	+1.3
SISB				S	Sb	02 51 58.5	+2.9
SISB	**Singen-Sch Ber**	**0.72**	**124**	Sg	Sg	02 51 56.8	+0.9
BBS	**Basel-Blauen**	**0.73**	**212**	⇑*i*Pg	Pg	02 51 46.4	-0.2
BBS				*e*Sg	Sg	02 51 56.0	-0.4
	SNR=7.9						
BBS	**Basel-Blauen**	**0.73**	**212**	⇑*i*P	Pb	02 51 46.4	+0.2
BBS				P		02 51 48.1	
BBS				S	Sb	02 51 56.3	+0.3
BBS	**Basel-Blauen**	**0.73**	**212**	Sg	Sg	02 51 56.0	-0.4
	SNR=7.9						
LBG	**Lerchenberg**	**0.75**	**39**	⇑*e*Pg	Pg	02 51 47.1	+0.3
LBG				Sg	Sg	02 51 57.1	+0.2
LBG	**Lerchenberg**	**0.75**	**39**	⇑*i*P	Pb	02 51 47.2	+0.7
LBG				P		02 51 48.0	
LBG				S	Sb	02 51 57.5	+1.1
LBG				S	Sb	02 51 58.7	+2.2
TUBL	**Tuebingen Lnz**	**0.80**	**57**	⇑*e*Pg	Pg	02 51 48.2	+0.4
TUBL				PmP		02 51 48.7	
TUBL				*e*Sg	Sg	02 51 59.2	+0.6
TUBL	**Tuebingen Lnz**	**0.80**	**57**	P	Pb	02 51 48.3	+1.0
TUBL				P		02 51 48.9	
TUBL				*e*S	Sb	02 51 59.3	+1.4
TUBL				S	Sb	02 52 00.6	+2.7
HINF	**Hinteralfeld**	**0.87**	**252**	*e*Pg	Pg	02 51 47.8	-1.4
HINF				*e*Pn	Pn	02 51 48.7	-1.2
HINF				*e*Sg	Sg	02 51 58.3	-2.6
	78nm,0.2s						
HINF	**Hinteralfeld**	**0.87**	**252**	*e*Pn	Pn	02 51 48.7	-1.2
HINF				*e*Sg	Sg	02 51 58.3	-2.6
	39nm,0.2s						
LANF	**Langenberg**	**0.91**	**349**	*e*Pg	Pg	02 51 49.1	-1.0
	SNR=22						
LANF				Pn	Pn	02 51 49.3	-1.2
LANF				*e*Sg	Sg	02 52 01.9	-0.4
	SNR=4.9						
LANF	**Langenberg**	**0.91**	**349**	P	Pb	02 51 49.7	+0.4
LANF				P		02 51 50.4	
LANF				S	Sb	02 52 01.8	+0.6
LANF				S	Sb	02 52 02.5	+1.2
LANF	**Langenberg**	**0.91**	**349**	Pg	Pg	02 51 49.8	-0.3
LANF				Sg	Sg	02 52 02.5	+0.2
BUCH	**Bad Urach**	**0.92**	**66**	⇑*e*Pn	Pn	02 51 49.8	-0.8
BUCH				*i* Pg	Pg	02 51 50.8	+0.4
BUCH				Sn	Sn	02 52 03.0	-1.0
BUCH	**Bad Urach**	**0.92**	**66**	*i* PG	Pg	02 51 50.8	+0.5
BUCH	**Bad Urach**	**0.92**	**66**	S	Sb	02 52 03.0	+1.5
BUCH	**Bad Urach**	**0.92**	**66**	⇑*e*P	Pb	02 51 50.0	+0.5
BUCH				*i* P		02 51 50.7	
BUCH				P		02 51 51.0	
BUCH				S	Sb	02 52 02.8	+1.3
BUCH				S	Sb	02 52 03.3	+1.8
BUCH				S	Sb	02 52 04.0	+2.4
BUCH	**Bad Urach**	**0.92**	**66**	⇑*e*P	Pb	02 51 49.8	+0.3
BUCH				*i* Pg	Pg	02 51 50.8	+0.5
BUCH				S	Sb	02 52 03.0	+1.5
BUCH	**Bad Urach**	**0.92**	**66**	*i* Pg	Pg	02 51 50.8	+0.5
STU	**Stuttgart**	**1.01**	**47**	*e*Pg	Pg	02 51 52.0	0.0
	SNR=14						
STU				*e*Sg	Sg	02 52 05.3	-0.2
	SNR=6.9						
LOMF	**Lomont**	**1.12**	**229**	*e*Pg	Pg	02 51 53.5	-0.8
	SNR=48						
LOMF				*e*Pn	Pn	02 51 53.5	0.0
LOMF				*e*Sg	Sg	02 52 07.7	-1.6
	SNR=4.9						
LOMF	**Lomont**	**1.12**	**229**	Pg	Pg	02 51 53.3	-1.0
LOMF				Sg	Sg	02 52 07.7	-1.6
HAU	**Haudompre**	**1.17**	**267**	*e*Pn	Pn	02 51 52.0	-2.1
HAU				*e*Pg	Pg	02 51 53.4	-1.7
HAU				*e*Sg	Sg	02 52 07.3	-3.4
HAU				*e*Sn	Sn	02 52 08.3	-1.9
	116nm,0.2s						
HAU	**Haudompre**	**1.17**	**267**	*e*Pg	Pg	02 51 53.4	-1.7
HAU				*e*Sg	Sg	02 52 07.3	-3.4
HAU				*e*Sn	Sn	02 52 08.3	-1.9
	58nm,0.2s						
KTD	**Kalmit**	**1.23**	**0**	Pn	Pn	02 51 56.0	+0.9
KTD				*e*Sg	Sg	02 52 12.1	-0.9
	SNR=3.7						
KTD	**Kalmit**	**1.23**	**0**	Pn	Pn	02 51 53.5	-1.6
KTD				Pg	Pg	02 51 56.1	-0.4
KTD	**Kalmit**	**1.23**	**0**	Pg	Pg	02 51 56.1	-0.4
THEF	**They Montfort**	**1.41**	**276**	Pn	Pn	02 51 55.4	-2.2
THEF				*e*Sg	Sg	02 52 16.2	-2.7
	SNR=4.1						
THEF	**They Montfort**	**1.41**	**276**	P	Pn	02 51 56.0	-1.6
THEF				S	Sb	02 52 16.5	+0.8
THEF	**They Montfort**	**1.41**	**276**	Pg	Pg	02 51 57.9	-2.1
THEF				Sg	Sg	02 52 16.4	-2.4
UBR	**Uberruh**	**1.42**	**106**	Pn	Pn	02 51 57.8	-0.1
UBR				Pg	Pg	02 52 00.5	+0.2
UBR				Sg	Sg	02 52 18.9	-0.4

UBR	**Uberruh**	**1.42**	**106**	SG	Sg	02 52 18.9	-0.4
UBR	**Uberruh**	**1.42**	**106**	P	Pn	02 51 57.8	-0.1
UBR				S	Sb	02 52 18.7	+2.7
UBR	**Uberruh**	**1.42**	**106**	P	Pn	02 51 57.8	0.0
UBR				Sg	Sg	02 52 18.9	-0.4
DAVA	**Damuels**	**1.46**	**123**	⇑*i*PG	Pg	02 52 00.6	-0.3
DAVA				*i* SG	Sg	02 52 18.9	-1.5
	16nm,0.2s						
SWS	**Schriesheim**	**1.46**	**16**	Sn	Sn	02 52 14.5	-3.0
SWS	**Schriesheim**	**1.46**	**16**	P	Pn	02 51 56.9	-1.4
SWS				S	Sb	02 52 14.5	-2.5
SWS				S	Sb	02 52 18.7	+1.7
HDH	**Heidenheim**	**1.50**	**70**	Pn	Pn	02 51 57.8	-1.2
HDH				Sn	Sn	02 52 16.8	-2.0
HDH	**Heidenheim**	**1.50**	**70**	P	Pn	02 51 57.8	-1.2
HDH				P		02 52 01.0	
HDH				P		02 52 01.7	
HDH				S	Sb	02 52 21.3	+2.9
TOD	**Tromm**	**1.59**	**17**	*e*Sg	Sg	02 52 22.2	-2.6
	SNR=5.5						
TOD	**Tromm**	**1.59**	**17**	Pg	Pg	02 52 03.1	-0.5
TOD				Sg	Sg	02 52 24.5	-0.4
SIND	**Sindeldorf**	**1.62**	**38**	Pn	Pn	02 51 58.4	-2.2
SIND				Pg	Pg	02 52 02.9	-1.2
SIND				Sn	Sn	02 52 16.9	-4.7
SIND				Sg	Sg	02 52 23.0	-2.7
SIND	**Sindeldorf**	**1.62**	**38**	SG	Sg	02 52 23.0	-2.7
SIND	**Sindeldorf**	**1.62**	**38**	P	Pn	02 51 58.7	-1.9
SIND				P		02 52 03.0	
SIND				S	Sn	02 52 23.0	+1.3
SIND	**Sindeldorf**	**1.62**	**38**	P	Pn	02 51 58.4	-2.2
SIND				Sg	Sg	02 52 23.0	-2.7
RUP	**Ruppelstein**	**1.75**	**338**	*e*Pg	Pg	02 52 05.1	-1.7
	SNR=28						
RUP				Pn	Pn	02 52 05.4	+2.9
RUP	**Ruppelstein**	**1.75**	**338**	P	Pn	02 52 05.4	+2.9
RUP	**Ruppelstein**	**1.75**	**338**	Pg	Pg	02 52 05.2	-1.6
RFYF	**Reffroy**	**1.82**	**288**	*e*Pn	Pn	02 52 02.1	-1.4
RFYF				*e*Pg	Pg	02 52 05.4	-2.8
RFYF				*e*Sn	Sn	02 52 23.9	-2.9
RFYF				*e*Sg	Sg	02 52 28.5	-4.0
	69nm,0.2s						
RFYF	**Reffroy**	**1.82**	**288**	*e*Pg	Pg	02 52 05.4	-2.8
RFYF				*e*Sn	Sn	02 52 23.9	-2.9
RFYF				*e*Sg	Sg	02 52 28.5	-4.0
	34nm,0.2s						
ABH	**Alteburg**	**1.83**	**349**	*e*Pg	Pg	02 52 06.5	-1.9
	SNR=19						
ABH				Pn	Pn	02 52 06.9	+3.3
ABH	**Alteburg**	**1.83**	**349**	P	Pn	02 52 06.9	+3.3
ABH	**Alteburg**	**1.83**	**349**	Pg	Pg	02 52 06.8	-1.6
CABF	**La Chapelle**	**2.00**	**223**	*e*Pn	Pn	02 52 03.8	-2.4
CABF				*e*Pg	Pg	02 52 09.2	-2.7
CABF				*e*Sn	Sn	02 52 26.8	-4.7
CABF				*e*Sg	Sg	02 52 33.4	-5.2
	11nm,0.2s						
CABF	**La Chapelle**	**2.00**	**223**	*e*Pg	Pg	02 52 09.2	-2.7
CABF				*e*Sn	Sn	02 52 26.8	-4.7
CABF				*e*Sg	Sg	02 52 33.4	-5.2
	5.4nm,0.2s						
WLF	**Walferdange**	**2.03**	**322**	*e*Pg	Pg	02 52 10.5	-1.8
	SNR=7.6						
WLF				*e*Sg	Sg	02 52 35.7	-3.7
	SNR=3.4						
WLF	**Walferdange**	**2.03**	**322**	S	Sn	02 52 35.8	+3.7
SFTF	**Sexfontaines**	**2.04**	**274**	*e*Pn	Pn	02 52 04.4	-2.3
SFTF				*e*Pg	Pg	02 52 09.0	-3.6
SFTF				*e*Sn	Sn	02 52 28.1	-4.3
SFTF				*e*Sg	Sg	02 52 34.9	-4.9
	27nm,0.2s						
SFTF	**Sexfontaines**	**2.04**	**274**	*e*Pg	Pg	02 52 09.0	-3.6
SFTF				*e*Sn	Sn	02 52 28.1	-4.3
SFTF				*e*Sg	Sg	02 52 34.9	-4.9
	14nm,0.2s						
MEZF	**Maizieres J’vi**	**2.06**	**283**	*e*Pn	Pn	02 52 04.9	-2.1
	baz=104						
MEZF				*e*Pg	Pg	02 52 09.7	-3.4
	baz=105						
MEZF				*e*Sn	Sn	02 52 28.2	-4.8
MEZF				*e*Sg	Sg	02 52 35.2	-5.4
	22nm,0.3s						
MEZF	**Maizieres J’vi**	**2.06**	**283**	*e*Pg	Pg	02 52 09.7	-3.4
MEZF				*e*Sn	Sn	02 52 28.2	-4.8
MEZF				*e*Sg	Sg	02 52 35.2	-5.4
	11nm,0.3s						
MCGN	**Macugnaga**	**2.13**	**182**	*e*Pn	Pn	02 52 12.3	+4.4
MCGN				*e*Sn	Sn	02 52 39.5	+4.8
MOTA	**Moosalm**	**2.17**	**109**	⇑*i*PN	Pn	02 52 08.6	+0.1
MOTA				*i* PG	Pg	02 52 13.8	-1.4
MOTA				*i* SG	Sg	02 52 42.3	-1.9
	9.7nm,0.2s						
MOTA	**Moosalm**	**2.17**	**109**	*i* Pg	Pg	02 52 13.8	-1.4
MOTA				*i* Sg	Sg	02 52 42.3	-1.9
	9.7nm,0.2s						
SQTA	**Sankt Quirin**	**2.29**	**111**	⇑*i*PN	Pn	02 52 09.7	-0.5
SQTA				*i* PG	Pg	02 52 15.7	-1.8
SQTA				*i* SG	Sg	02 52 46.3	-1.7
	34nm,0.3s						
SQTA	**Sankt Quirin**	**2.29**	**111**	*i* Pg	Pg	02 52 15.7	-1.8
SQTA				*i* Sg	Sg	02 52 46.3	-1.7
	34nm,0.3s						
LPL	**La Plagne**	**2.73**	**200**	*e*Pn	Pn	02 52 14.7	-1.9
LPL				*e*Pg	Pg	02 52 21.9	-4.5
LPL				*e*Sg	Sg	02 52 55.6	-7.3
	6.8nm,0.4s						
LPL	**La Plagne**	**2.73**	**200**	*e*Pg	Pg	02 52 21.9	-4.5
LPL				*e*Sg	Sg	02 52 55.6	-7.3
	3.4nm,0.4s						
LPG	**La Plagne**	**2.75**	**200**	*e*Pn	Pn	02 52 14.8	-2.0
LPG				*e*Pg	Pg	02 52 22.0	-4.7
LPG				*e*Sg	Sg	02 52 56.5	-6.8
	3.5nm,0.2s						
LPG	**La Plagne**	**2.75**	**200**	*e*Pg	Pg	02 52 22.0	-4.7
LPG				*e*Sg	Sg	02 52 56.5	-6.8
	1.8nm,0.2s						
GIVF	**Givet**	**2.94**	**314**	*e*Pn	Pn	02 52 17.9	-1.6
GIVF				*e*Pg	Pg	02 52 25.3	-5.2
GIVF				*e*Sn	Sn	02 52 50.5	-4.7
	6.0nm,0.2s						
GIVF				*e*Sg	Sg	02 53 03.2	-6.5
	4.5nm,0.2s						
GIVF	**Givet**	**2.94**	**314**	*e*Pg	Pg	02 52 25.3	-5.2
GIVF				*e*Sn	Sn	02 52 50.5	-4.7
	3.0nm,0.2s						
GIVF				*e*Sg	Sg	02 53 03.2	-6.5
	2.2nm,0.2s						
UBBA	**Unterbreizbach**	**3.01**	**24**	*e*Sg	Sg	02 53 05.7	-6.3
	SNR=4.9						
DOU	**Dourbes**	**3.05**	**313**	P	Pn	02 52 20.2	-0.8
BAIF	**Baives**	**3.22**	**309**	*e*Pn	Pn	02 52 21.7	-1.8
BAIF				*e*Pg	Pg	02 52 30.3	-5.8
BAIF				*e*Sn	Sn	02 52 56.6	-5.7
BAIF				*e*Sg	Sg	02 53 12.1	-7.0
	3.6nm,0.3s						
BAIF	**Baives**	**3.22**	**309**	*e*Pg	Pg	02 52 30.3	-5.8
BAIF	**Baives**	**3.22**	**309**	*e*Sn	Sn	02 52 56.6	-5.7
BAIF	**Baives**	**3.22**	**309**	*e*Sg	Sg	02 53 12.1	-7.0
	1.8nm,0.3s						
SMF	**Signal de Mont**	**3.22**	**245**	*e*Pn	Pn	02 52 19.7	-3.8
SMF				*e*Pg	Pg	02 52 31.6	-4.6
SMF				*e*Sg	Sg	02 53 11.6	-7.5
	11nm,0.2s						
SMF	**Signal de Mont**	**3.22**	**245**	*e*Pg	Pg	02 52 31.6	-4.6
SMF				*e*Sg	Sg	02 53 11.6	-7.5
	5.5nm,0.2s						
SSF	**Saint Saulge**	**3.26**	**253**	*e*Pn	Pn	02 52 20.0	-4.1
SSF				*e*Pg	Pg	02 52 31.3	-5.7
SSF				*e*Sn	Sn	02 52 57.6	-5.8
SSF				*e*Sg	Sg	02 53 12.7	-7.8
	7.0nm,0.3s						
SSF	**Saint Saulge**	**3.26**	**253**	*e*Pg	Pg	02 52 31.3	-5.7
SSF	**Saint Saulge**	**3.26**	**253**	*e*Sn	Sn	02 52 57.6	-5.8
SSF	**Saint Saulge**	**3.26**	**253**	*e*Sg	Sg	02 53 12.7	-7.8
	3.5nm,0.3s						
MOX	**Moxa**	**3.45**	**41**	*e*Pn	Pn	02 52 23.5	-3.2
MOX				*e*Pg	Pg	02 52 37.0	-3.6
MOX				*e*Sg	Sg	02 53 20.1	-6.5
	SNR=4.3						
MOX	**Moxa**	**3.45**	**41**	*e*Pg	Pg	02 52 37.0	-3.6
MOX				*e*Sg	Sg	02 53 20.3	-6.3
AVF	**Avril sur Loir**	**3.46**	**250**	*e*Pn	Pn	02 52 22.5	-4.4
AVF				*e*Pg	Pg	02 52 36.2	-4.7
AVF				*e*Sn	Sn	02 53 02.1	-6.3
AVF				*e*Sg	Sg	02 53 18.6	-8.5
	2.9nm,0.2s						
AVF	**Avril sur Loir**	**3.46**	**250**	*e*Pg	Pg	02 52 36.2	-4.7
AVF				*e*Sn	Sn	02 53 02.1	-6.3
AVF				*e*Sg	Sg	02 53 18.6	-8.5
	1.5nm,0.2s						
MBDF	**Montbardon**	**3.48**	**196**	*e*Pn	Pn	02 52 25.0	-2.2
MBDF				*e*Pg	Pg	02 52 35.9	-5.4
MBDF				*e*Sg	Sg	02 53 19.8	-8.0
	5.0nm,0.5s						
MBDF	**Montbardon**	**3.48**	**196**	*e*Pg	Pg	02 52 35.9	-5.4
MBDF				*e*Sg	Sg	02 53 19.8	-8.0
	2.5nm,0.5s						
ORIF	**Oris-en-Rattie**	**3.52**	**206**	*e*Pn	Pn	02 52 24.2	-3.5
ORIF				*e*Pg	Pg	02 52 35.5	-6.5
ORIF				*e*Sn	Sn	02 53 03.7	-6.1
ORIF				*e*Sg	Sg	02 53 20.6	-8.3
	5.5nm,0.4s						
ORIF	**Oris-en-Rattie**	**3.52**	**206**	*e*Pg	Pg	02 52 35.5	-6.5
ORIF				*e*Sn	Sn	02 53 03.7	-6.1
ORIF				*e*Sg	Sg	02 53 20.6	-8.3
	2.8nm,0.4s						
NKC	**Novy Kostel**	**3.58**	**52**	*e*SG	Sg	02 53 25.4	-5.6
WERD	**Werda**	**3.64**	**48**	*e*Pg	Pg	02 52 40.0	-4.5
	SNR=3.5						
TANN	**Tannenbergstha**	**3.69**	**49**	*e*Pg	Pg	02 52 40.6	-4.9
	SNR=5.1						
TANN				*e*Sg	Sg	02 53 28.6	-6.3
	SNR=3.9						
HYF	**Humbligny**	**3.77**	**259**	*e*Pn	Pn	02 52 27.8	-3.5
HYF				*e*Pg	Pg	02 52 41.0	-6.0
HYF				*e*Sn	Sn	02 53 09.7	-6.4
HYF				*e*Sg	Sg	02 53 28.4	-8.8
HYF	**Humbligny**	**3.77**	**259**	*e*Pg	Pg	02 52 41.0	-6.0
HYF				*e*Sn	Sn	02 53 09.7	-6.4
HYF				*e*Sg	Sg	02 53 28.4	-8.8
KHC	**Kasperske Hory**	**3.79**	**72**	*e*Pn	Pn	02 52 30.8	-0.8
KHC				*e*		02 52 35.5	
KHC	**Kasperske Hory**	**3.79**	**72**	*e*PN	Pn	02 52 30.8	-0.8
KHC				x	x	02 52 35.5	
KHC				*e*PG	Pg	02 52 43.5	-4.1
KHC				*e*SG	Sg	02 53 33.5	-4.6
KHC	**Kasperske Hory**	**3.79**	**72**	*e*Pg	Pg	02 52 43.5	-4.1
KHC				*e*Sg	Sg	02 53 33.5	-4.6
GEC2	**GERESS Array S**	**3.82**	**76**	*e*Pg	Pg	02 52 43.6	-4.4
	SNR=2.0						
BGF	**Bois d’Agland**	**3.88**	**249**	*e*Pn	Pn	02 52 28.2	-4.6
BGF				*e*Pg	Pg	02 52 42.1	-7.1
BGF				*e*Sn	Sn	02 53 12.1	-6.8
BGF				*e*Sg	Sg	02 53 31.7	-9.2
	13nm,0.4s						
BGF	**Bois d’Agland**	**3.88**	**249**	*e*Pg	Pg	02 52 42.1	-7.1
BGF				*e*Sn	Sn	02 53 12.1	-6.8
BGF				*e*Sg	Sg	02 53 31.7	-9.2
	6.4nm,0.4s						
VIVF	**Saint-Julien-l**	**4.00**	**217**	*e*Pn	Pn	02 52 29.9	-4.7
VIVF				*e*Pg	Pg	02 52 44.4	-7.3
VIVF				*e*Sn	Sn	02 53 14.1	-7.9
VIVF				*e*Sg	Sg	02 53 36.2	-8.8
	4.0nm,0.2s						
VIVF	**Saint-Julien-l**	**4.00**	**217**	*e*Pn	Pn	02 52 29.9	-4.7
VIVF				*e*Sn	Sn	02 53 14.1	-7.9
VIVF				*e*Sg	Sg	02 53 36.2	-8.8
	2.0nm,0.2s						
MOA	**Molln**	**4.16**	**91**	⇑*i*PN	Pn	02 52 35.9	-1.0
MOA				*i* PG	Pg	02 52 51.9	-3.0
MOA				*i*		02 53 23.5	
MOA				*i*		02 53 44.1	
MOA	**Molln**	**4.16**	**91**	*i* Pg	Pg	02 52 51.9	-3.0
TCF	**Toulx Ste Croi**	**4.39**	**248**	*e*Pn	Pn	02 52 35.6	-4.5
TCF				*e*Pg	Pg	02 52 53.2	-6.2
TCF				*e*Sn	Sn	02 53 24.1	-7.8
TCF				*e*Sg	Sg	02 53 47.7	-10
	4.3nm,0.3s						
TCF	**Toulx Ste Croi**	**4.39**	**248**	*e*Pn	Pn	02 52 35.6	-4.5
TCF				*e*Sn	Sn	02 53 24.1	-7.8
TCF				*e*Sg	Sg	02 53 47.7	-10
	2.2nm,0.3s						
SMRF	**Simiane la Rot**	**4.47**	**204**	*e*Sn	Sn	02 53 26.0	-7.9
	2.8nm,0.3s						
CLL	**Collm**	**4.54**	**43**	*e*Pg	Pg	02 52 59.0	-3.4
CLL				*e*Sg	Sg	02 53 54.0	-8.9
FRF	**La Foret Royal**	**4.64**	**193**	*e*Sn	Sn	02 53 30.7	-7.5
	0.9nm,0.3s						
BRG	**Berggiesshubel**	**4.73**	**52**	*e*Pg	Pg	02 53 00.9	-5.3
BRG				*e*Sg	Sg	02 54 00.5	-8.8
LMR	**La Mourre**	**4.88**	**194**	*e*Sn	Sn	02 53 35.1	-9.2
	0.6nm,0.3s						
LASF	**Ste Croix**	**4.97**	**218**	*e*Pn	Pn	02 52 43.1	-5.3
LASF				*e*Pg	Pg	02 53 03.0	-8.1
LASF				*e*Sn	Sn	02 53 38.6	-8.1
LASF				*e*Sg	Sg	02 54 05.5	-12
	8.9nm,0.6s						
LASF	**Ste Croix**	**4.97**	**218**	*e*Pg	Pg	02 53 03.0	-8.1
LASF				*e*Sn	Sn	02 53 38.6	-8.1
LASF				*e*Sg	Sg	02 54 05.5	-12
	4.4nm,0.6s						
CAF	**Calviac**	**5.22**	**235**	*e*Pg	Pg	02 53 07.3	-8.7
CAF				*e*Sg	Sg	02 54 13.5	-12
	0.6nm,0.2s						
RJF	**Les Rejaudoux**	**5.30**	**241**	*e*Pg	Pg	02 53 08.7	-9.0
RJF				*e*Sg	Sg	02 54 16.2	-12
	0.7nm,0.2s						
LDF	**La Druitiere**	**5.49**	**278**	*e*Pg	Pg	02 53 11.2	-10
LDF				*e*Sg	Sg	02 54 22.3	-12
	4.4nm,0.4s						
FLN	**La Foliniere**	**5.74**	**280**	*e*Pg	Pg	02 53 17.3	-9.1
FLN				*e*Sg	Sg	02 54 29.4	-14
	2.4nm,0.3s						
MFF	**Saint Martin d**	**5.79**	**258**	*e*Pn	Pn	02 52 55.4	-4.4
MFF				*e*Pg	Pg	02 53 18.3	-9.0
MFF				*e*Sn	Sn	02 53 57.4	-10
MFF				*e*Sg	Sg	02 54 31.2	-13
	1.8nm,0.4s						
MFF	**Saint Martin d**	**5.79**	**258**	*e*Pg	Pg	02 53 18.3	-9.0
MFF				*e*Sn	Sn	02 53 57.4	-10
MFF				*e*Sg	Sg	02 54 31.2	-13
	0.9nm,0.4s						
DPC	**Dobruska-Polom**	**5.86**	**64**	*e*SG	Sg	02 54 40.6	-6.1
GRR	**Gorron**	**5.98**	**276**	*e*Pn	Pn	02 52 57.8	-4.8
GRR				*e*Pg	Pg	02 53 21.7	-10
GRR				*e*Sg	Sg	02 54 37.4	-14
	2.3nm,0.3s						
GRR	**Gorron**	**5.98**	**276**	*e*Pn	Pn	02 52 57.8	-4.8
GRR				*e*Sg	Sg	02 54 37.4	-14
	1.1nm,0.3s						
SGMF	**Saint Gilles**	**7.12**	**275**	*e*Sn	Sn	02 54 27.6	-13
	0.6nm,0.2s						
SGMF				*e*Sg	Sg	02 55 12.7	-16
	0.6nm,0.3s						

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*CNRM **05** 02:57:42.6, 35.10N×2.72W, h10^{km}, MD3.7*
*NEIC **05** 02:57:43.4, 35.00N×3.04W, MG3.5(MDD), After MDD.*
*MDD **05** 02:57:43.1±1.3, 34.99N×3.04W, mb3.5/7, Error ellipse: s-maj=13.6km s-min=6.6km az=136.0, PRXIMO AftershockPLICA*
*CSEM **05** 02:57:43.2±0.1, 35.13N×3.18W, h5^{km}, MD3.7, Error ellipse: s-maj=3.4km s-min=2.1km az=115.0*
ISC 05 02:57:44.4±0.6, **35.11N**±0.03×**3.02W**±0.06, **h20**^{km}±4^{km}, **n32**, σ**1^{s}14**/50, **1D**, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.20**	**14**	⇓P	**Pb**	**02 57 48.9**	**-0.7**
	79nm,0.1s,SNR=18						
EMEL				S	**Sb**	**02 57 53.1**	**0.0**
	801nm,0.2s,SNR=9.6						
MELI	**Melilla**	**0.20**	**20**	P	**Pb**	**02 57 48.8**	**-0.8**
MELI				S	**Sb**	**02 57 53.6**	**+0.6**
MELI	**Melilla**	**0.20**	**20**	*i* S	**Sb**	**02 57 53.6**	**+0.6**
MELI	**Melilla**	**0.20**	**20**	*i* P	**Pb**	**02 57 48.8**	**-0.7**
EMLI	**Melilla**	**0.20**	**16**	S	**Sb**	**02 57 53.1**	**+0.1**
	801nm,0.2s,SNR=9.6						
EMLI	**Melilla**	**0.20**	**16**	P	**Pb**	**02 57 48.9**	**-0.7**
	79nm,0.1s,SNR=18						
TZK	**Tazeka**	**1.40**	**224**	*i* P	**Pn**	**02 58 09.0**	**-0.1**
TZK				*i* S	**Sn**	**02 58 27.0**	**-0.1**
EBER	**Berja**	**1.79**	**3**	P	**Pn**	**02 58 14.2**	**-0.5**
	0.8nm,0.2s,SNR=7.5						
EBER				S	**Sn**	**02 58 35.1**	**-1.8**
	92nm,0.8s						
EBER	**Berja**	**1.79**	**3**	S	**Sn**	**02 58 35.1**	**-1.8**
	92nm,0.8s						
EBER	**Berja**	**1.79**	**3**	P	**Pn**	**02 58 14.2**	**-0.4**
	0.8nm,0.2s,SNR=7.5						
EMIJ	**Mijas**	**2.04**	**316**	P	**Pn**	**02 58 17.3**	**-0.9**
	2.2nm,0.2s,SNR=12						
EMIJ				S	**Sn**	**02 58 42.9**	**-0.4**
	6.0nm,0.4s						
ELOJ	**Sierra Loja**	**2.23**	**336**	P	**Pn**	**02 58 22.8**	**+1.7**
	2.2nm,0.3s,SNR=5.0						
ELOJ				S	**Sb**	**02 58 52.6**	**+1.4**
	4.3nm,0.4s						
MIF	**Mishlifen**	**2.50**	**228**	*e*P	**Pn**	**02 58 24.0**	**-0.8**
MIF				*i* S	**Sn**	**02 58 55.0**	**0.0**
ELUQ	**Luque**	**2.65**	**338**	P	**Pn**	**02 58 28.2**	**+1.3**
	2.8nm,0.2s,SNR=5.6						
ELUQ				S	**Sn**	**02 59 01.9**	**+3.2**
	4.5nm,0.3s,SNR=5.3						
ELUQ	**Luque**	**2.65**	**338**	S	**Sn**	**02 59 01.9**	**+3.1**
	4.5nm,0.3s,SNR=5.3						
CZD	**Col de Zad**	**2.67**	**220**	*e*P	**Pn**	**02 58 28.0**	**+0.8**
CZD				*i* S	**Sn**	**02 59 00.0**	**+0.7**
EQES	**Quesada**	**2.69**	**359**	P	**Pn**	**02 58 29.0**	**+1.5**
	4.9nm,0.3s,SNR=27						
EQES				S	**Sn**	**02 59 03.0**	**+3.2**
	30nm,0.5s						
EQES	**Quesada**	**2.69**	**359**	S	**Sn**	**02 59 03.0**	**+3.2**
	30nm,0.5s						
EQES	**Quesada**	**2.69**	**359**	P	**Pn**	**02 58 29.0**	**+1.5**
	4.9nm,0.3s,SNR=27						
ESPR	**Espera**	**2.90**	**308**	P	**Pn**	**02 58 31.6**	**+1.1**
	2.0nm,0.2s,SNR=5.0						
ESPR				S	**Sn**	**02 59 08.5**	**+3.4**
	3.0nm,0.3s						
ESPR	**Espera**	**2.90**	**308**	S	**Sn**	**02 59 08.5**	**+3.4**
	3.0nm,0.3s						
ESPR	**Espera**	**2.90**	**308**	P	**Pn**	**02 58 31.6**	**+1.1**
	2.0nm,0.2s,SNR=5.0						
EADA	**Adamuz**	**3.30**	**338**	P	**Pn**	**02 58 36.5**	**+0.3**
	1.0nm,0.2s,SNR=12						
EADA				S	**Sn**	**02 59 14.7**	**-0.6**
	8.0nm,0.4s,SNR=4.7						
EADA	**Adamuz**	**3.30**	**338**	P	**Pn**	**02 58 36.5**	**+0.3**
	1.0nm,0.2s,SNR=12						
EADA				S	**Sn**	**02 59 14.7**	**-0.6**
	8.0nm,0.4s,SNR=4.7						
EVIA	**Vianos**	**3.55**	**7**	S	**Sn**	**02 59 22.6**	**+1.1**
	5.4nm,0.3s,SNR=4.7						
EMIN	**Mina Concepcio**	**3.96**	**313**	P	**Pn**	**02 58 44.6**	**-1.1**
	1.4nm,0.2s,SNR=16						
EMIN				S	**Sn**	**02 59 29.9**	**-2.2**
	0.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.96**	**313**	P	**Pn**	**02 58 44.6**	**-1.1**
	1.4nm,0.2s,SNR=16						
EMIN				S	**Sn**	**02 59 30.0**	**-2.1**
ESDC	**Sonseca Array**	**4.62**	**351**	P	**Pn**	**02 58 55.3**	**+0.4**
	1.5nm,0.2s,baz=172,slow=12,SNR=8.8						
ESDC				S	**Sb**	**03 00 00.2**	**-0.1**
	0.7nm,0.3s,baz=168,slow=28,SNR=5.0						
ESDC	**Sonseca Array**	**4.62**	**351**	P	**Pn**	**02 58 55.3**	**+0.4**
	1.5nm,0.2s,SNR=8.8						
EBAD	**Badajoz**	**4.85**	**320**	P	**Pn**	**02 58 57.0**	**-1.1**
	1.3nm,0.2s,SNR=5.9						
EBAD				S	**Sn**	**02 59 52.0**	**-2.5**
	1.6nm,0.2s						
EBAD	**Badajoz**	**4.85**	**320**	P	**Pn**	**02 58 57.0**	**-1.2**
EBAD				S	**Sn**	**02 59 52.0**	**-2.4**
EIBI	**Ibiza**	**5.24**	**40**	S	**Sn**	**03 00 03.3**	**-1.0**
	12nm,0.2s,SNR=4.0						

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*STR **05** 03:09:09.9±0.3, 48.07N×8.07E, h10^{km}±1^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*LDG **05** 03:09:10.2±0.1, 48.10N×7.98E, h10^{km}, Md2.5/3, Ml2.1/9, Error ellipse: s-maj=2.6km s-min=1.8km az=77.0*
ZUR 05 03:09:10.5, 48.07N×8.04E, h10^{km}**, ML1.4**/10**, 7D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLE	**Schleitheim**	**0.43**	**134**	⇓*i*Pg	Pg	03 09 19.5	+0.2
SLE				*e*Sg	Sg	03 09 24.9	-0.2
SULZ	**Sulz-Cheisache**	**0.54**	**174**	⇓*i*Pg	Pg	03 09 21.2	-0.3
SULZ				*e*Sg	Sg	03 09 28.7	-0.1
WLS	**Welschbruch**	**0.57**	**307**	Pg	Pg	03 09 21.7	-0.4
WLS				Sg	Sg	03 09 30.2	+0.4
TRULL	**Truellikon**	**0.60**	**134**	⇓*i*Pg	Pg	03 09 22.2	-0.5
ECH	**Echery**	**0.61**	**284**	Pg	Pg	03 09 22.0	-0.7
ECH				Sg	Sg	03 09 30.2	-0.7
CDF	**Champ du Feu**	**0.61**	**304**	*e*Pg	Pg	03 09 21.9	-1.0
CDF				*e*P		03 09 22.4	
CDF				*e*Pn	Pn	03 09 22.7	-2.3
CDF				*e*Sg	Sg	03 09 28.8	-2.4
	9.1nm,0.2s						
MOF	**Molkenrain**	**0.65**	**251**	Pg	Pg	03 09 23.1	-0.4
STEIN	**Stein am Rhein**	**0.69**	**125**	⇓*i*Pg	Pg	03 09 24.0	-0.3
ZUR	**Zurich**	**0.79**	**152**	⇓*i*Pg	Pg	03 09 25.8	-0.6
HINF	**Hinteralfeld**	**0.83**	**253**	*e*Pg	Pg	03 09 25.6	-1.7
HINF				*e*Sg	Sg	03 09 35.5	-3.0
	5.5nm,0.2s						
WEIN	**Weingarten**	**0.84**	**130**	⇓*i*Pg	Pg	03 09 26.8	-0.5
BOURR	**Bourrignon**	**0.87**	**219**	*e*Pg	Pg	03 09 27.3	-0.6
WILA	**Wila**	**0.88**	**138**	⇓*i*Pg	Pg	03 09 27.6	-0.5
LANF	**Langenberg**	**0.93**	**351**	Pg	Pg	03 09 27.4	-1.7
LANF				Sg	Sg	03 09 40.1	-1.4
LOMF	**Lomont**	**1.09**	**229**	Pg	Pg	03 09 30.7	-1.6
LOMF				Sg	Sg	03 09 45.5	-1.3
HAU	**Haudompre**	**1.14**	**267**	*e*Pg	Pg	03 09 31.0	-2.2
HAU				*e*Sg	Sg	03 09 44.8	-3.6
HAU				*e*Sn	Sn	03 09 46.0	-2.1
	9.4nm,0.2s						
RFYF	**Reffroy**	**1.80**	**289**	*e*Pg	Pg	03 09 42.6	-3.9
RFYF				*e*Sg	Sg	03 10 05.6	-4.9
	5.6nm,0.3s						
CABF	**La Chapelle**	**1.97**	**223**	*e*Pn	Pn	03 09 41.6	-2.7
CABF				*e*Pg	Pg	03 09 47.1	-2.8
CABF				*e*Sg	Sg	03 10 10.7	-5.5
	0.6nm,0.2s						
SFTF	**Sexfontaines**	**2.01**	**275**	*e*Pg	Pg	03 09 46.4	-4.3
SFTF				*e*Sg	Sg	03 10 12.1	-5.5
	2.6nm,0.3s						
MEZF	**Maizieres J’vi**	**2.04**	**283**	*e*Pg	Pg	03 09 47.0	-4.3
	baz=104						
MEZF				*e*Sn	Sn	03 10 05.5	-5.6
MEZF				*e*Sg	Sg	03 10 12.8	-5.7
	0.6nm,0.2s						
SMF	**Signal de Mont**	**3.19**	**245**	*e*Pg	Pg	03 10 09.2	-5.0
SMF				*e*Sg	Sg	03 10 48.4	-8.3
	1.0nm,0.2s						
SSF	**Saint Saulge**	**3.23**	**254**	*e*Sg	Sg	03 10 50.7	-7.3
	0.4nm,0.2s						

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*MDD **05** 03:20:38.9±1.0, 34.92N×3.00W, mb4.3/20, Error ellipse: s-maj=10.6km s-min=6.4km az=122.0, PRXIMO AftershockPLICA*
*SFS **05** 03:20:38.0, 34.91N×2.99W, ML4.3*
*NEIC **05** 03:20:39.4±3.7, 34.93N×3.04W, h10^{km}, MG4.3(MDD), Error ellipse: s-maj=42.7km s-min=8.7km az=174.0*
*INMG **05** 03:20:39.7±1.1, 35.00N×2.78W, h15^{km}±4^{km}, ML2.5, Error ellipse: s-maj=7.1km s-min=5.5km az=124.0*
*CSEM **05** 03:20:39.6±0.1, 35.06N×3.01W, h20^{km}, MD4.4, Error ellipse: s-maj=3.1km s-min=1.6km az=124.0*
*CNRM **05** 03:20:39.6, 35.01N×2.72W, h15^{km}, MD4.4*
*LDG **05** 03:20:40.9±0.6, 35.26N×3.04W, h10^{km}, Ml3.5/1, Error ellipse: s-maj=13.0km s-min=4.8km az=174.0*
ISC 05 03:20:40.2±0.5, **35.07N**±0.03×**3.02W**±0.04, **h20**^{km}, **n83**, σ**1^{s}03**/117, **1C-3D**, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	**Melilla**	**0.23**	**18**	⇓P	**Pb**	**03 20 45.7**	**-0.2**
MELI				S	**Sb**	**03 20 50.9**	**+1.2**
MELI	**Melilla**	**0.23**	**18**	*i* S	**Sb**	**03 20 50.9**	**+1.2**
MELI	**Melilla**	**0.23**	**18**	*i* P	**Pb**	**03 20 45.7**	**-0.1**
EMEL	**Melilla**	**0.24**	**13**	⇓P	**Pb**	**03 20 45.8**	**0.0**
	488nm,0.1s,SNR=18						
EMEL				S	**Sb**	**03 20 51.3**	**+1.6**
	4µm,0.2s,SNR=16						
EMLI	**Melilla**	**0.24**	**15**	S	**Sb**	**03 20 51.3**	**+1.6**
	4µm,0.2s,SNR=16						
EMLI	**Melilla**	**0.24**	**15**	P	**Pb**	**03 20 45.8**	**-0.1**
	488nm,0.1s,SNR=18						
TOU	**Touzarine**	**0.61**	**260**	*i* P	**Pb**	**03 20 55.0**	**+3.0**

TOU				iS	Sb	03 21 06.0	+5.9
TZK	**Tazeka**	**1.37**	**225**	iP	Pn	03 21 04.0	-0.4
TZK				iS	Sb	03 21 22.0	-0.1
EBER	**Berja**	**1.83**	**3**	P	Pn	03 21 10.6	-0.4
	18nm,0.3s,SNR=25						
EBER				S	Sn	03 21 33.2	-0.5
	397nm,0.7s,SNR=25						
EBER	**Berja**	**1.83**	**3**	P	Pn	03 21 10.6	-0.4
	18nm,0.3s,SNR=25						
EBER				S	Sn	03 21 33.2	-0.5
	397nm,0.7s,SNR=25						
ERON	**Agron**	**2.04**	**342**	P	Pn	03 21 13.9	-0.2
	12nm,0.3s,SNR=4.0						
ERON				S	Sn	03 21 43.6	+4.3
	31nm,0.6s,SNR=4.0						
ERON	**Agron**	**2.04**	**342**	S	Sn	03 21 43.6	+4.3
	31nm,0.6s,SNR=4.0						
EMIJ	**Mijas**	**2.06**	**317**	P	Pn	03 21 14.2	-0.2
	6.3nm,0.2s,SNR=46						
EMIJ				S	Sn	03 21 40.5	+0.8
	20nm,0.2s,SNR=5.2						
ELOJ	**Sierra Loja**	**2.27**	**337**	P	Pn	03 21 18.9	+1.6
	8.2nm,0.3s,SNR=31						
ELOJ				S	Sn	03 21 49.9	+5.0
	33nm,0.8s						
ELOJ	**Sierra Loja**	**2.27**	**337**	S	Sn	03 21 49.9	+5.0
	33nm,0.8s						
REAL	**Reales**	**2.27**	**309**	iP	Pn	03 21 18.0	+0.7
MIF	**Mishlifen**	**2.47**	**228**	iP	Pn	03 21 20.0	-0.1
MIF				iS	Sn	03 21 50.0	0.0
CZD	**Col de Zad**	**2.63**	**220**	iP	Pn	03 21 24.0	+1.5
CZD				iS	Sn	03 21 54.0	-0.2
LIJA	**Lijar**	**2.66**	**314**	S	Sn	03 22 01.0	+6.1
ELUQ	**Luque**	**2.68**	**338**	⇑P	Pn	03 21 25.2	+2.0
	7.2nm,0.2s,SNR=18						
ELUQ				S	Sn	03 21 59.2	+3.7
	38nm,0.7s,SNR=5.9						
EQES	**Quesada**	**2.73**	**359**	P	Pn	03 21 25.7	+1.9
	5.3nm,0.1s,SNR=92						
EQES				S	Sn	03 21 59.8	+3.2
	97nm,0.5s						
EQES	**Quesada**	**2.73**	**359**	S	Sn	03 21 59.8	+3.2
	97nm,0.5s						
EQES	**Quesada**	**2.73**	**359**	P	Pn	03 21 25.7	+1.8
	5.3nm,0.1s,SNR=92						
ESPR	**Espera**	**2.92**	**309**	P	Pn	03 21 28.3	+1.8
	3.0nm,0.2s,SNR=12						
ESPR				S	Sn	03 22 06.8	+5.4
	15nm,0.4s,SNR=5.4						
ESPR	**Espera**	**2.92**	**309**	P	Pn	03 21 28.3	+1.8
	3.0nm,0.2s,SNR=12						
EADA	**Adamuz**	**3.33**	**338**	P	Pn	03 21 33.1	+0.6
	13nm,0.3s,SNR=54						
EADA				S	Sn	03 22 11.9	-0.1
	38nm,0.5s						
EADA	**Adamuz**	**3.33**	**338**	P	Pn	03 21 33.1	+0.6
	13nm,0.3s,SNR=54						
EADA				S	Sn	03 22 11.9	-0.1
	38nm,0.5s						
EVIA	**Vianos**	**3.59**	**7**	P	Pn	03 21 39.0	+3.0
	25nm,0.6s,SNR=5.0						
EVIA				S	Sn	03 22 19.6	+1.3
	55nm,0.7s,SNR=6.1						
EVIA	**Vianos**	**3.59**	**7**	S	Sn	03 22 19.6	+1.3
	55nm,0.7s,SNR=6.1						
EMIN	**Mina Concepcio**	**3.99**	**314**	⇓P	Pn	03 21 41.7	-0.1
	7.5nm,0.3s,SNR=18						
EMIN				S	Sn	03 22 28.8	+0.3
	3.5nm,0.3s,SNR=5.6						
EMIN	**Mina Concepcio**	**3.99**	**314**	P	Pn	03 21 41.7	-0.1
	7.5nm,0.3s,SNR=18						
EMIN				S	Sn	03 22 28.8	+0.3
	3.5nm,0.3s,SNR=5.6						
EBEN	**Beniarda**	**4.26**	**31**	P	Pn	03 21 45.0	-0.7
	2.4nm,0.2s,SNR=12						
EBEN				S	Sn	03 22 30.4	-5.1
	24nm,0.9s,SNR=10.0						
EBEN	**Beniarda**	**4.26**	**31**	S	Sn	03 22 30.4	-5.1
	24nm,0.9s,SNR=10.0						
EBEN	**Beniarda**	**4.26**	**31**	P	Pn	03 21 45.0	-0.7
	2.4nm,0.2s,SNR=12						
ESDC	**Sonseca Array**	**4.66**	**351**	P	Pn	03 21 52.0	+0.8
ESDC				S	Sn	03 22 45.2	-0.3
ESDC				Sb	Sb	03 22 57.6	+0.4
ESDC	**Sonseca Array**	**4.66**	**351**	P	Pn	03 21 52.0	+0.8
	12nm,0.2s,baz=172,slow=12,SNR=40						
ESDC				S	Sn	03 22 45.2	-0.3
	2.5nm,0.6s,baz=179,slow=22,SNR=4.0						
ESDC				Sb	Sb	03 22 57.6	+0.4
	baz=169,slow=28,SNR=4.0						
ESDC	**Sonseca Array**	**4.66**	**351**	P	Pn	03 21 52.0	+0.7
	12nm,0.2s,SNR=40						
ESDC				S	Sn	03 22 45.2	-0.2
	2.5nm,0.6s,SNR=4.0						
EBAD	**Badajoz**	**4.87**	**320**	P	Pn	03 21 54.0	-0.3
	3.8nm,0.1s,SNR=33						
EBAD				S	Sn	03 22 49.4	-1.5
	7.1nm,0.2s						
EBAD	**Badajoz**	**4.87**	**320**	P	Pn	03 21 54.0	-0.3
	3.8nm,0.1s,SNR=33						
EBAD				S	Sn	03 22 49.4	-1.5
	7.1nm,0.2s						
PBEJ	**Beja**	**4.89**	**309**	ePn	Pn	03 21 54.8	+0.2
PBEJ				eSn	Sn	03 22 51.3	0.0
	2.9nm,0.5s						
PTEO	**Sao Teotonio**	**5.22**	**300**	ePn	Pn	03 21 59.8	+0.5
PTEO				eSn	Sn	03 22 59.1	-0.6
EIBI	**Ibiza**	**5.27**	**40**	P	Pn	03 21 59.7	-0.2
	14nm,0.4s,SNR=4.0						
EIBI	**Ibiza**	**5.27**	**40**	P	Pn	03 21 59.7	-0.2
	14nm,0.4s,SNR=4.0						
EVO	**Evora**	**5.29**	**312**	ePn	Pn	03 22 00.6	+0.4
EVO				eSn	Sn	03 22 59.7	-1.6
	15nm,0.4s						
MOE	**Montemor**	**5.49**	**310**	ePn	Pn	03 22 03.4	+0.4
EMOS	**Mosqueruela**	**5.66**	**20**	P	Pn	03 22 05.6	+0.2
	8.7nm,0.6s,SNR=7.9						
EMOS				S	Sn	03 23 09.9	-0.6
	11nm,0.9s,SNR=5.0						
EMOS	**Mosqueruela**	**5.66**	**20**	P	Pn	03 22 05.6	+0.2
	8.7nm,0.6s,SNR=7.9						
EMOS				S	Sn	03 23 09.9	-0.7
	11nm,0.9s,SNR=5.0						
PCBR	**Castelo Branco**	**5.94**	**325**	ePn	Pn	03 22 09.1	-0.2
PCBR				eSn	Sn	03 23 15.1	-2.4
	3.1nm,0.6s						
PLOU	**Loures**	**6.21**	**310**	ePn	Pn	03 22 12.8	-0.4
MTE	**Manteigas**	**6.41**	**327**	ePn	Pn	03 22 15.8	-0.3
ERTA	**Horta de San J**	**6.45**	**23**	P	Pn	03 22 16.3	-0.3
	5.2nm,0.4s,SNR=46						
ERTA				S	Sn	03 23 27.3	-2.9
	12nm,0.7s,SNR=6.8						
ERTA	**Horta de San J**	**6.45**	**23**	P	Pn	03 22 16.3	-0.2
	5.2nm,0.4s,SNR=46						
PVIS	**Viseu**	**6.83**	**327**	ePn	Pn	03 22 21.6	-0.2
EPOB	**Poblet**	**7.05**	**26**	P	Pn	03 22 23.3	-1.8
	0.8nm,0.2s,SNR=4.0						
EPOB	**Poblet**	**7.05**	**26**	P	Pn	03 22 23.3	-1.8
	0.8nm,0.2s,SNR=4.0						
PVRL	**Vila Real**	**7.21**	**331**	ePn	Pn	03 22 26.8	-0.5
PBRG	**Braganca**	**7.33**	**338**	ePn	Pn	03 22 28.1	-0.8
ECAL	**Calabor**	**7.45**	**338**	P	Pn	03 22 29.4	-1.2
	6.1nm,0.4s,SNR=4.5						
ECAL	**Calabor**	**7.45**	**338**	P	Pn	03 22 29.4	-1.2
	6.1nm,0.4s,SNR=4.5						
EMIR	**Miracle**	**7.71**	**26**	P	Pn	03 22 33.9	-0.3
	1.2nm,0.3s,SNR=4.0						
EMIR	**Miracle**	**7.71**	**26**	P	Pn	03 22 33.9	-0.3
	1.2nm,0.3s,SNR=4.0						
ELOB	**Lobios**	**7.85**	**331**	P	Pn	03 22 35.1	-1.1
	2.8nm,0.4s,SNR=7.3						
ELOB	**Lobios**	**7.85**	**331**	P	Pn	03 22 35.1	-1.1
	2.8nm,0.4s,SNR=7.3						
ERUA	**La Rua**	**7.99**	**337**	P	Pn	03 22 37.1	-1.0
	4.8nm,0.6s,SNR=7.9						
EBIE	**Bielsa**	**8.00**	**17**	P	Pn	03 22 37.1	-1.1
	3.4nm,0.8s,SNR=7.9						
EBIE	**Bielsa**	**8.00**	**17**	P	Pn	03 22 37.1	-1.1
	3.4nm,0.8s,SNR=7.9						
ETSF	**Etsaut**	**8.05**	**13**	ePn	P	03 22 34.2	-4.8
ETSF				eP		03 22 38.9	
ETSF	**Etsaut**	**8.05**	**13**	eP	P	03 22 38.9	-0.1
SJPF	**Ste Jean**	**8.15**	**9**	eP	P	03 22 40.3	-0.1
ELAN	**Lanestosa**	**8.16**	**358**	P	P	03 22 40.3	-0.2
	8.1nm,1.0s,SNR=7.9						
ELAN	**Lanestosa**	**8.16**	**358**	P	P	03 22 40.3	-0.2
EALK	**Alkurruntz**	**8.22**	**8**	P	P	03 22 42.3	+0.9
	10nm,1.2s,SNR=6.6						
EINC	**Incio**	**8.29**	**337**	P	P	03 22 41.5	-0.9
	9.8nm,0.8s,SNR=9.2						
EINC	**Incio**	**8.29**	**337**	P	P	03 22 41.5	-0.9
EPF	**Esparros**	**8.37**	**17**	eP	P	03 22 43.3	-0.1
EARI	**Arriondas**	**8.39**	**349**	P	P	03 22 42.7	-1.1
	5.5nm,0.7s,SNR=7.9						
EARI	**Arriondas**	**8.39**	**349**	P	P	03 22 42.7	-1.0
CAF	**Calviac**	**10.59**	**20**	eP	P	03 23 14.5	+0.6
QUIF	**Quistinic**	**12.84**	**360**	ePn	P	03 23 38.0	-6.3
SGMF	**Saint Gilles**	**13.18**	**1**	ePn	P	03 23 41.8	-7.0
ROSF	**Rostrenen**	**13.26**	**359**	ePn	P	03 23 43.7	-6.2
LDF	**La Druitiere**	**13.68**	**8**	ePn	P	03 23 47.5	-8.0
FLN	**La Foliniere**	**13.81**	**7**	ePn	P	03 23 55.0	-2.1

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*LDG **05** 03:30:12.1±0.1, 48.09N×7.97E, h10^{km}, Md2.0/3, Ml1.9/8, Error ellipse: s-maj=2.4km s-min=1.7km az=121.0*

ZUR 05 03:30:12.3, 48.06N×8.03E, h8^{km}, ML1.2/11, 4D, Germany

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLE	**Schleitheim**	**0.43**	**133**	⇓iPg	Pg	03 30 20.7	-0.2
SLE				iSg	Sg	03 30 26.6	-0.1
SULZ	**Sulz-Cheisache**	**0.54**	**174**	⇓iPg	Pg	03 30 22.9	-0.2
SULZ				eSg	Sg	03 30 30.5	+0.2
TRULL	**Truellikon**	**0.60**	**133**	ePg	Pg	03 30 24.1	-0.3
CDF	**Champ du Feu**	**0.62**	**305**	ePg	Pg	03 30 23.9	-0.8
CDF				eP		03 30 24.3	
CDF				ePn	Pn	03 30 24.6	-2.4
CDF				eSg	Sg	03 30 30.8	-2.2
	6.5nm,0.2s						
STEIN	**Stein am Rhein**	**0.69**	**124**	ePg	Pg	03 30 25.9	-0.2
BALST	**Balsthal**	**0.76**	**198**	ePg	Pg	03 30 27.7	+0.2
ZUR	**Zurich**	**0.78**	**152**	ePg	Pg	03 30 27.6	-0.4
HINF	**Hinteralfeld**	**0.83**	**253**	ePg	Pg	03 30 27.2	-1.7
HINF				ePn	Pn	03 30 28.3	-1.7
HINF				eSg	Sg	03 30 37.7	-2.3
	1.4nm,0.2s						
WEIN	**Weingarten**	**0.83**	**129**	⇓iPg	Pg	03 30 28.6	-0.4
BOURR	**Bourrignon**	**0.86**	**219**	ePg	Pg	03 30 29.0	-0.5
WILA	**Wila**	**0.88**	**137**	⇓iPg	Pg	03 30 29.4	-0.4
HAU	**Haudompre**	**1.13**	**268**	ePn	Pn	03 30 31.4	-3.0
HAU				ePg	Pg	03 30 32.7	-2.2
HAU				eSg	Sg	03 30 46.7	-3.3
HAU				eSn	Sn	03 30 47.7	-2.5
	5.2nm,0.3s						
RFYF	**Reffroy**	**1.80**	**289**	ePg	Pg	03 30 44.5	-3.7
RFYF				eSg	Sg	03 31 08.0	-4.2
	3.9nm,0.3s						
CABF	**La Chapelle**	**1.96**	**223**	ePg	Pg	03 30 48.7	-2.8
CABF				eSg	Sg	03 31 12.5	-5.1
	0.9nm,0.3s						
SFTF	**Sexfontaines**	**2.01**	**275**	ePg	Pg	03 30 48.6	-3.9
SFTF				eSg	Sg	03 31 14.1	-5.2
	1.4nm,0.2s						
MEZF	**Maizieres J'vi**	**2.04**	**284**	eSn	Sn	03 31 08.0	-5.2
MEZF				eSg	Sg	03 31 14.6	-5.6
	0.9nm,0.3s						
SSF	**Saint Saulge**	**3.22**	**254**	ePg	Pg	03 31 11.3	-5.3
SSF				eSg	Sg	03 31 51.9	-7.7
	0.3nm,0.2s						
TCF	**Toulx Ste Croi**	**4.35**	**248**	ePg	Pg	03 31 32.8	-6.3
TCF				eSg	Sg	03 32 27.2	-10
	0.2nm,0.2s						

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*LDG **05** 03:32:07.2±0.2, 45.40N×9.45E, h4^{km}, Md2.3/3, Ml1.9/10, Error ellipse: s-maj=3.9km s-min=2.1km az=101.0*

ROM 05 03:32:10.7±0.2, 45.75N×9.31E, h10^{km}, MD2.5/3, ML1.5/3, 1C-1D, Error ellipse: s-maj=5.6km s-min=0.9km az=0.0, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDI	**Monti di Nese**	**0.28**	**84**	ePG	Pg	03 32 17.0	+0.4
MDI				SG	Sg	03 32 21.9	+1.4
VAI	**Varese**	**0.40**	**287**	ePG	Pg	03 32 20.2	+1.3
VAI				SG	Sg	03 32 25.7	+1.4
	26nm,0.3s						
MABI	**Malga Bissina**	**0.89**	**70**	ePG	Pg	03 32 28.1	-0.5
ORO	**Oropa**	**0.94**	**263**	ePG	Pg	03 32 29.3	-0.3
ORO				SG	Sg	03 32 42.5	+0.3
	61nm,0.3s						
MCGN	**Macugnaga**	**0.95**	**283**	ePG	Pg	03 32 29.0	-0.7
MCGN				SG	Sg	03 32 41.8	-0.6
	5.0nm,0.2s						
DAVA	**Damuels**	**1.59**	**14**	⇑iPG	Pg	03 32 41.4	-1.0
DAVA				iSG	Sg	03 33 00.6	-3.0
	7.8nm,0.4s						
LPG	**La Plagne**	**1.81**	**263**	ePg	Pg	03 32 43.1	-3.9
LPG				eSg	Sg	03 33 07.4	-3.8
	2.0nm,0.2s						
LPL	**La Plagne**	**1.83**	**264**	ePg	Pg	03 32 43.3	-3.9
LPL				eSg	Sg	03 33 08.1	-3.5
	2.0nm,0.3s						
SQTA	**Sankt Quirin**	**1.97**	**41**	⇓iPG	Pg	03 32 48.3	-1.8
SQTA				iSG	Sg	03 33 13.7	-2.6
	1.1nm,0.2s						
MBDF	**Montbardon**	**2.07**	**241**	ePg	Pg	03 32 45.1	-6.9
MBDF				eSg	Sg	03 33 10.6	-9.0
	1.4nm,0.3s						
CABF	**La Chapelle**	**2.40**	**292**	ePg	Pg	03 32 55.9	-2.8
CABF				eSg	Sg	03 33 29.7	-1.0
	0.9nm,0.3s						
ORIF	**Oris-en-Rattie**	**2.56**	**252**	ePg	Pg	03 32 54.9	-6.9
ORIF				eSg	Sg	03 33 27.7	-8.3
	3.3nm,0.5s						
HINF	**Hinteralfeld**	**2.67**	**322**	ePn	Pn	03 32 54.0	-0.6
HINF				eSg	Sg	03 33 41.3	+1.6
	1.1nm,0.4s						
FRF	**La Foret Royal**	**2.90**	**222**	ePg	Pg	03 32 58.0	-11
FRF				eSg	Sg	03 33 32.4	-15
	0.4nm,0.2s						
LMR	**La Mourre**	**3.14**	**221**	ePg	Pg	03 33 01.3	-12
LMR				eSg	Sg	03 33 40.3	-15
	0.7nm,0.2s						
SMRF	**Simiane la Rot**	**3.19**	**238**	ePg	Pg	03 33 04.7	-10
SMRF				eSg	Sg	03 33 44.6	-13
	0.3nm,0.2s						
MEZF	**Maizieres J'vi**	**4.00**	**315**	ePn	Pn	03 33 11.3	-2.2
	baz=139						
MEZF				eSn	Sn	03 33 59.1	-2.0
	0.8nm,0.3s						

BJI 05 03:32:21.1, 24.05N×116.08E, h14^{km}, ML4.0, Near coast of southeastern China

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QZH	**Quanzhou**	**2.46**	**68**	P	Pn	03 33 02.6	+1.2
QZH				PG	Pg	03 33 07.3	-2.9
QZH				S	Sn	03 33 31.4	-0.1
QZH				SG	Sg	03 33 39.4	-3.5
QZH				Smax			
	comp=N,2μm,0.4s						
QZH				Smax			
	comp=E,900nm,0.3s						

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*LDG **05** 03:34:48.2±0.2, 48.08N×8.00E, h12^{km}±1^{km}, Md2.3/3, Ml2.1/13, Error ellipse: s-maj=3.6km s-min=2.3km az=80.0*

STR 05 03:34:48.9±0.3, 48.04N×8.00E, h10^{km}±1^{km}, Ml1.9, 2C-2D, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIZ	**Kirchzarten**	**0.10**	**213**	⇑iP	Pg	03 34 52.1	+0.5
KIZ				iS	Sg	03 34 54.4	+1.0
FELD	**Feldberg**	**0.16**	**179**	⇓iP	Pg	03 34 53.0	+0.4
SPAK	**Spaichingen**	**0.53**	**83**	P	Pg	03 34 58.4	-1.2
WLS	**Welschbruch**	**0.57**	**311**	Pg	Pg	03 35 00.5	+0.1
WLS				Sg	Sg	03 35 07.8	-0.4
ECH	**Echery**	**0.59**	**288**	Pg	Pg	03 35 00.8	0.0
ECH				Sg	Sg	03 35 08.5	-0.3
CDF	**Champ du Feu**	**0.61**	**308**	ePn	Pn	03 35 00.7	-2.6
CDF				eSg	Sg	03 35 06.9	-2.6
	27nm,0.2s						
MOF	**Molkenrain**	**0.61**	**252**	Pg	Pg	03 35 01.5	+0.2
BBS	**Basel-Blauen**	**0.66**	**210**	P	Pb	03 35 02.3	+0.2
GUT	**Gutenstein**	**0.75**	**87**	⇓iP	Pb	03 35 02.3	-1.3
GUT				iS	Sb	03 35 11.7	-1.9
HINF	**Hinteralfeld**	**0.80**	**254**	ePg	Pg	03 35 03.4	-1.6
HINF				ePn	Pn	03 35 04.2	-1.9
HINF				eSg	Sg	03 35 14.9	-0.9
	7.2nm,0.2s						
LBG	**Lerchenberg**	**0.82**	**40**	⇑iP	Pb	03 35 03.4	-1.4
LBG				iS	Sb	03 35 13.4	-2.3
LANF	**Langenberg**	**0.95**	**352**	Pg	Pg	03 35 06.9	-1.1
BUCH	**Bad Urach**	**0.99**	**65**	iPG	Pg	03 35 07.0	-1.8
LOMF	**Lomont**	**1.05**	**229**	Pg	Pg	03 35 09.2	-0.7
LOMF				Sg	Sg	03 35 23.1	-0.9
HAU	**Haudompre**	**1.11**	**269**	ePn	Pn	03 35 07.5	-2.9
HAU				ePg	Pg	03 35 08.9	-2.2
HAU				eSg	Sg	03 35 24.7	-1.3
	13nm,0.3s						
THEF	**They Montfort**	**1.36**	**279**	Pg	Pg	03 35 13.8	-2.3
THEF				Sg	Sg	03 35 32.8	-1.5
SIND	**Sindeldorf**	**1.69**	**38**	P	Pn	03 35 19.1	+0.4
SIND	**Sindeldorf**	**1.69**	**38**	SG	Sg	03 35 39.6	-5.6
RFYF	**Reffroy**	**1.79**	**290**	ePn	Pn	03 35 17.4	-2.7
RFYF				ePg	Pg	03 35 20.8	-3.8
RFYF				eSg	Sg	03 35 43.7	-4.7
	7.5nm,0.3s						
CABF	**La Chapelle**	**1.93**	**223**	ePn	Pn	03 35 19.7	-2.5
CABF				ePg	Pg	03 35 24.7	-2.8
CABF				eSg	Sg	03 35 48.8	-4.5
	1.1nm,0.2s						
SFTF	**Sexfontaines**	**1.99**	**276**	ePn	Pn	03 35 19.8	-3.2
SFTF				ePg	Pg	03 35 24.8	-3.9
SFTF				eSn	Sn	03 35 43.7	-4.5
SFTF				eSg	Sg	03 35 50.5	-4.8
	2.8nm,0.2s						
MEZF	**Maizieres J'vi**	**2.02**	**284**	ePg	Pg	03 35 25.0	-4.3
	baz=107						
MEZF				eSg	Sg	03 35 51.1	-5.2
	2.8nm,0.3s						
LPG	**La Plagne**	**2.68**	**199**	ePg	Pg	03 35 39.1	-3.4
LPG				eSg	Sg	03 36 13.3	-5.0
	0.6nm,0.3s						
SMF	**Signal de Mont**	**3.15**	**245**	eSg	Sg	03 36 26.5	-7.4
	1.0nm,0.2s						
SSF	**Saint Saulge**	**3.20**	**254**	ePg	Pg	03 35 47.1	-5.7
SSF				eSg	Sg	03 36 28.4	-7.0
	0.4nm,0.2s						
BAIF	**Baives**	**3.21**	**310**	eSg	Sg	03 36 27.9	-7.9
	2.1nm,0.4s						
AVF	**Avril sur Loir**	**3.39**	**250**	eSg	Sg	03 36 33.6	-8.3
	0.3nm,0.3s						
TCF	**Toulx Ste Croi**	**4.32**	**248**	eSg	Sg	03 37 03.6	-9.2
	0.3nm,0.2s						

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*STR **05** 03:47:34.0±0.1, 48.10N×8.05E, h10^{km}±1^{km}, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **05** 03:47:34.0, 48.10N×8.05E, h10^{km}, ML2.9(VIE), ML2.6(LDG), ML2.5(LEDBW), ML2.3(STR), After STR.*

*ZUR **05** 03:47:34.3, 48.07N×8.01E, h10^{km}, ML2.5/11*

*LDG **05** 03:47:34.1±0.1, 48.08N×8.00E, h10^{km}, Md2.5/3, Ml2.6/28, Error ellipse: s-maj=1.2km s-min=1.0km az=143.0*

*CSEM **05** 03:47:34.1±0.0, 48.10N×8.01E, h15^{km}, ML2.7/26*

*BGR **05** 03:47:34.2±0.2, 48.10N×8.05E, h10^{km}, ML2.2/3, Error ellipse: s-maj=1.1km s-min=1.1km az=143.0*

LEDBW 05 03:47:34.5±0.1, 48.08N×8.04E, h10^{km}±2^{km}, ML2.6, 19C-20D, Error ellipse: s-maj=2.2km s-min=1.4km az=129.0, Germany

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FBB	**Freiburg**	**0.15**	**238**	⇑iPg	Pg	03 47 38.1	+0.1
FBB				Sg	Sg	03 47 40.3	0.0
FBB	**Freiburg**	**0.15**	**238**	⇑iP	Pg	03 47 38.1	+0.1
FBB				S	Sg	03 47 40.5	+0.2
KIZ	**Kirchzarten**	**0.15**	**213**	⇓iPg	Pg	03 47 38.0	0.0
KIZ				iSg	Sg	03 47 40.4	+0.1
FELD	**Feldberg**	**0.21**	**187**	⇓iPg	Pg	03 47 39.1	0.0
FELD				eSg	Sg	03 47 42.0	0.0
	SNR=18						
FELD	**Feldberg**	**0.21**	**187**	⇓iP	Pg	03 47 39.1	0.0
FELD				S	Sg	03 47 42.2	+0.2
FELD	**Feldberg**	**0.21**	**187**	Pg	Pg	03 47 39.1	+0.1
FELD				Sg	Sg	03 47 42.9	+0.9
LIBD	**Limburg**	**0.30**	**284**	⇑iPg	Pg	03 47 41.0	+0.2
LIBD				Sg	Sg	03 47 45.0	0.0
LIBD	**Limburg**	**0.30**	**284**	⇑iP	Pg	03 47 41.0	+0.2
LIBD				S	Sg	03 47 45.5	+0.5
LIBD	**Limburg**	**0.30**	**284**	Pg	Pg	03 47 40.7	-0.1
LIBD	**Limburg**	**0.30**	**284**	⇑iP	Pg	03 47 41.0	+0.2
LIBD				Sg	Sg	03 47 45.0	0.0
BFO	**Black Forest**	**0.32**	**38**	⇑iPg	Pg	03 47 40.8	-0.2
BFO				iSg	Sg	03 47 45.0	-0.4
BFO	**Black Forest**	**0.32**	**38**	⇑iP	Pg	03 47 40.8	-0.2
BFO				iS	Sg	03 47 45.1	-0.4
BFO	**Black Forest**	**0.32**	**38**	ePg	Pg	03 47 40.1	-1.0
BFO				eSg	Sg	03 47 44.9	-0.5
SLE	**Schleitheim**	**0.44**	**136**	⇓iPg	Pg	03 47 43.1	-0.4
	20nm,0.6s						
SLE				iSg	Sg	03 47 49.0	-0.4
	20nm,0.6s						
SPAK	**Spaichingen**	**0.50**	**87**	⇑iPg	Pg	03 47 44.4	-0.3
SPAK	**Spaichingen**	**0.50**	**87**	Pg	Pg	03 47 44.2	-0.5
STR	**Strasbourg**	**0.54**	**340**	Pg	Pg	03 47 43.9	-1.5
SULZ	**Sulz-Cheisache**	**0.56**	**175**	⇓iPg	Pg	03 47 45.3	-0.5
	7.8nm,0.4s						
SULZ				eSg	Sg	03 47 52.8	-0.5
	7.8nm,0.4s						
WLS	**Welschbruch**	**0.57**	**306**	⇓iPg	Pg	03 47 45.7	-0.3
WLS				eSg	Sg	03 47 52.7	-0.9
	SNR=10						
WLS	**Welschbruch**	**0.57**	**306**	⇓iP	Pg	03 47 45.7	-0.3
WLS				P		03 47 46.3	
WLS				S	Sg	03 47 52.9	-0.7
WLS				S	Sg	03 47 55.2	+1.6
WLS	**Welschbruch**	**0.57**	**306**	Pg	Pg	03 47 45.4	-0.6
WLS				Sg	Sg	03 47 52.7	-0.9
ECH	**Echery**	**0.61**	**283**	⇑iPg	Pg	03 47 46.1	-0.6
ECH				eSg	Sg	03 47 53.9	-1.0
	SNR=7.5						
ECH	**Echery**	**0.61**	**283**	⇑iP	Pb	03 47 46.2	-0.6
ECH				S	Sg	03 47 54.2	-0.7
ECH	**Echery**	**0.61**	**283**	Pg	Pg	03 47 45.9	-0.8
ECH				Sg	Sg	03 47 54.2	-0.7
ECH	**Echery**	**0.61**	**283**	Sg	Sg	03 47 53.9	-1.0
	SNR=7.5						
CDF	**Champ du Feu**	**0.61**	**303**	ePg	Pg	03 47 46.2	-0.6
CDF				ePn	Pn	03 47 46.8	-2.1
CDF				eSg	Sg	03 47 53.1	-1.9
	66nm,0.2s						
CDF	**Champ du Feu**	**0.61**	**303**	ePn	Pn	03 47 46.8	-2.1
CDF				eSg	Sg	03 47 53.1	-1.9
	33nm,0.2s						
TRULL	**Truellikon**	**0.61**	**135**	⇓iPg	Pg	03 47 46.3	-0.6
	24nm,0.3s						
FLACH	**Flaach**	**0.62**	**145**	⇓iPg	Pg	03 47 46.6	-0.4
	18nm,0.3s						
FLACH				eSg	Sg	03 47 55.1	-0.3
	18nm,0.3s						
MOF	**Molkenrain**	**0.65**	**250**	⇑ePg	Pg	03 47 47.0	-0.6
MOF	**Molkenrain**	**0.65**	**250**	⇑eP	Pb	03 47 47.3	-0.3
MOF	**Molkenrain**	**0.65**	**250**	Pg	Pg	03 47 47.1	-0.5
MOF				Sg	Sg	03 47 56.5	+0.1
MOF	**Molkenrain**	**0.65**	**250**	Pg	Pg	03 47 47.0	-0.6
MOF				Sg	Sg	03 47 56.5	+0.1
STEIN	**Stein am Rhein**	**0.69**	**126**	⇓iPg	Pg	03 47 48.8	+0.3
STEIN				eSg	Sg	03 47 57.4	-0.4
STEIN	**Stein am Rhein**	**0.69**	**126**	⇓iPg	Pg	03 47 48.1	-0.4
	4.7nm,0.1s						
STEIN	**Stein am Rhein**	**0.69**	**126**	eSg	Sg	03 47 57.4	-0.4
	4.7nm,0.1s						
BBS	**Basel-Blauen**	**0.71**	**210**	⇑iPg	Pg	03 47 48.3	-0.6
BBS				eSg	Sg	03 47 57.5	-1.0
	SNR=7.1						
BBS	**Basel-Blauen**	**0.71**	**210**	⇑iP	Pb	03 47 48.3	-0.3
BBS				P		03 47 48.9	
BBS				S	Sb	03 47 58.0	-0.2
BBS				S	Sb	03 47 59.6	+1.5
BBS	**Basel-Blauen**	**0.71**	**210**	Sg	Sg	03 47 57.5	-1.0
	SNR=7.1						
BBS	**Basel-Blauen**	**0.71**	**210**	Pg	Pg	03 47 48.2	-0.7
GUT	**Gutenstein**	**0.72**	**90**	⇑iPg	Pg	03 47 48.4	-0.7
GUT				iSg	Sg	03 47 57.9	-0.8
GUT	**Gutenstein**	**0.72**	**90**	⇑iP	Pb	03 47 48.4	-0.3
GUT				P		03 47 48.8	
GUT				iS	Sb	03 47 57.9	-0.5

GUT				S	Sb	03 47 59.4	+1.0
SISB	**Singen-Sch Ber**	0.74	122	⇓ePg	Pg	03 47 48.9	-0.5
SISB				eSg	Sg	03 47 58.7	-0.5
SISB	**Singen-Sch Ber**	0.74	122	⇓eP	Pb	03 47 48.9	-0.1
SISB				P		03 47 49.8	
SISB				eS	Sb	03 47 58.9	+0.1
SISB				S	Sb	03 48 00.7	+1.8
SISB	**Singen-Sch Ber**	0.74	122	Pg	Pg	03 47 48.8	-0.5
LBG	**Lerchenberg**	0.77	40	⇑iPg	Pg	03 47 49.1	-1.0
LBG				eSg	Sg	03 47 59.3	-1.1
BALST	**Balsthal**	0.78	197	⇑iPg	Pg	03 47 49.4	-0.8
	7.2nm,0.2s						
ZUR	**Zurich**	0.80	153	⇓iPg	Pg	03 47 50.0	-0.6
	4.0nm,0.3s						
HINF	**Hinteralfeld**	0.84	252	ePg	Pg	03 47 49.7	-1.7
HINF				ePn	Pn	03 47 50.7	-1.5
HINF				eSg	Sg	03 48 00.1	-2.6
	18nm,0.2s						
HINF	**Hinteralfeld**	0.84	252	ePn	Pn	03 47 50.7	-1.5
HINF				eSg	Sg	03 48 00.1	-2.6
	9.2nm,0.2s						
WEIN	**Weingarten**	0.84	131	⇓iPg	Pg	03 47 50.6	-0.9
WEIN	**Weingarten**	0.84	131	⇓iP	Pb	03 47 50.9	+0.1
BOURR	**Bourrignon**	0.88	219	⇑iPg	Pg	03 47 50.9	-1.2
BOURR	**Bourrignon**	0.88	219	⇑iPg	Pg	03 47 50.6	-1.6
	4.2nm,0.3s						
WILA	**Wila**	0.89	138	⇓iPg	Pg	03 47 51.7	-0.6
LANF	**Langenberg**	0.91	350	ePg	Pg	03 47 51.9	-0.9
	SNR=11						
LANF	**Langenberg**	0.91	350	P	Pb	03 47 51.5	-0.5
LANF				P		03 47 52.1	
LANF				P		03 47 52.3	
LANF	**Langenberg**	0.91	350	Pg	Pg	03 47 51.3	-1.5
LANF				Sg	Sg	03 48 03.8	-1.3
BUCH	**Bad Urach**	0.95	67	⇓iPn	Pn	03 47 52.0	-1.8
BUCH				⇑ePg	Pg	03 47 52.7	-0.9
BUCH				Sn	Sn	03 48 04.7	-2.7
BUCH	**Bad Urach**	0.95	67	ePG	Pg	03 47 52.7	-0.9
BUCH	**Bad Urach**	0.95	67	S	Sb	03 48 04.7	-0.4
BUCH	**Bad Urach**	0.95	67	⇓iP	Pb	03 47 52.0	-0.7
BUCH				⇑iP		03 47 52.6	
BUCH				P		03 47 52.9	
BUCH				S	Sb	03 48 04.5	-0.6
BUCH				S	Sb	03 48 04.8	-0.2
BUCH				S	Sb	03 48 06.2	+1.1
BUCH	**Bad Urach**	0.95	67	i P	Pb	03 47 52.0	-0.7
BUCH				ePg	Pg	03 47 52.7	-0.9
BUCH				S	Sb	03 48 04.7	-0.4
BUCH	**Bad Urach**	0.95	67	ePg	Pg	03 47 52.7	-0.9
STU	**Stuttgart**	1.03	48	ePg	Pg	03 47 54.0	-1.2
	SNR=7.8						
STU				eSg	Sg	03 48 07.3	-1.8
	SNR=8.5						
LOMF	**Lomont**	1.10	229	ePg	Pg	03 47 55.3	-1.2
	SNR=29						
LOMF				Pn	Pn	03 47 55.3	-0.6
LOMF				eSg	Sg	03 48 09.7	-1.5
	SNR=2.7						
LOMF	**Lomont**	1.10	229	P	Pb	03 47 55.4	+0.3
LOMF				S	Sb	03 48 09.9	+0.6
LOMF	**Lomont**	1.10	229	Pg	Pg	03 47 55.3	-1.2
LOMF				Sg	Sg	03 48 10.5	-0.7
HAU	**Haudompre**	1.14	267	ePn	Pn	03 47 53.9	-2.6
HAU				ePg	Pg	03 47 55.3	-2.0
HAU				eSg	Sg	03 48 09.2	-3.3
HAU				eSn	Sn	03 48 10.1	-2.1
	102nm,0.3s						
HAU	**Haudompre**	1.14	267	ePg	Pg	03 47 55.3	-2.0
HAU				eSg	Sg	03 48 09.2	-3.3
HAU				eSn	Sn	03 48 10.1	-2.1
	51nm,0.3s						
KTD	**Kalmit**	1.24	1	ePn	Pn	03 47 55.6	-2.3
	SNR=3.2						
KTD				eSg	Sg	03 48 14.2	-1.8
	SNR=3.4						
KTD	**Kalmit**	1.24	1	Pn	Pn	03 47 55.7	-2.2
KTD				Pg	Pg	03 47 57.0	-2.4
KTD				Sg	Sg	03 48 14.2	-1.7
KTD	**Kalmit**	1.24	1	Pg	Pg	03 47 57.0	-2.4
KTD				Sg	Sg	03 48 14.2	-1.7
THEF	**They Montfort**	1.38	277	Pn	Pn	03 47 57.7	-2.2
THEF				ePg	Pg	03 48 00.8	-1.4
	SNR=3.0						
THEF				Sn	Sn	03 48 18.2	-0.2
THEF	**They Montfort**	1.38	277	P	Pn	03 47 57.8	-2.1
THEF	**They Montfort**	1.38	277	Pg	Pg	03 47 59.7	-2.5
THEF				Sg	Sg	03 48 19.0	-1.7
UBR	**Uberruh**	1.45	105	Pn	Pn	03 47 59.9	-1.0
UBR				i Pg	Pg	03 48 02.4	-1.1
UBR				i Sg	Sg	03 48 20.9	-1.9
UBR	**Uberruh**	1.45	105	i PG	Pg	03 48 02.4	-1.1
UBR				i SG	Sg	03 48 20.9	-1.9
UBR	**Uberruh**	1.45	105	P	Pn	03 47 59.5	-1.4
UBR				i P		03 48 01.9	
UBR				P		03 48 02.5	
UBR				i S	Sb	03 48 21.0	+1.5
SWS	**Schriesheim**	1.47	17	eSg	Sg	03 48 20.5	-3.1
SWS	**Schriesheim**	1.47	17	eS	Sb	03 48 20.6	+0.5
DAVA	**Damuels**	1.48	122	⇑iPG	Pg	03 48 02.7	-1.3
DAVA				i SG	Sg	03 48 21.8	-1.9
	7.1nm,0.2s						
HDH	**Heidenheim**	1.53	70	i P	Pn	03 48 03.1	+1.0
HDH				P		03 48 03.6	
HDH				S	Sb	03 48 18.1	-3.8
HDH	**Heidenheim**	1.53	70	i Pg	Pg	03 48 03.7	-1.4
TOD	**Tromm**	1.61	18	Pn	Pn	03 48 08.5	+5.4
TOD				eSg	Sg	03 48 24.2	-3.9
	SNR=5.9						
TOD	**Tromm**	1.61	18	Pg	Pg	03 48 03.9	-2.8
TOD				Sg	Sg	03 48 25.8	-2.3
SIND	**Sindeldorf**	1.64	39	Pn	Pn	03 48 00.8	-2.9
SIND				Sg	Sg	03 48 24.9	-4.3
SIND	**Sindeldorf**	1.64	39	SG	Sg	03 48 24.9	-4.3
SIND	**Sindeldorf**	1.64	39	P	Pn	03 48 00.8	-2.8
SIND				P		03 48 05.0	
SIND				S	Sn	03 48 25.1	+0.2
RUP	**Ruppelstein**	1.75	339	Pn	Pn	03 48 07.5	+2.3
RUP				ePg	Pg	03 48 07.5	-2.0
	SNR=16						
RUP				eSg	Sg	03 48 29.5	-3.2
	SNR=3.4						
RUP	**Ruppelstein**	1.75	339	Pg	Pg	03 48 07.4	-2.0
RFYF	**Reffroy**	1.80	289	ePn	Pn	03 48 03.7	-2.2
RFYF				ePg	Pg	03 48 07.1	-3.3
RFYF				eSn	Sn	03 48 25.4	-3.5
RFYF				eSg	Sg	03 48 29.8	-4.6
	36nm,0.2s						
RFYF	**Reffroy**	1.80	289	ePg	Pg	03 48 07.1	-3.3
RFYF				eSn	Sn	03 48 25.4	-3.5
RFYF				eSg	Sg	03 48 29.8	-4.6
	18nm,0.2s						
ABH	**Alteburg**	1.83	350	ePg	Pg	03 48 08.5	-2.6
	SNR=9.9						
ABH				⇑ePn	Pn	03 48 08.5	+2.1
ABH				Sn	Sn	03 48 31.8	+2.0
ABH				eSg	Sg	03 48 32.0	-3.6
	SNR=2.5						
ABH	**Alteburg**	1.83	350	eP	Pn	03 48 08.5	+2.1
ABH				S	Sn	03 48 31.8	+2.0
ABH	**Alteburg**	1.83	350	P	Pn	03 48 08.8	+2.4
ABH	**Alteburg**	1.83	350	Pg	Pg	03 48 08.1	-3.0
ABH				S	Sn	03 48 31.8	+2.0
ABH				Sg	Sg	03 48 33.3	-2.3
CABF	**La Chapelle**	1.98	223	ePn	Pn	03 48 05.6	-2.9
CABF				ePg	Pg	03 48 11.1	-3.0
CABF				eSn	Sn	03 48 29.2	-4.4
CABF				eSg	Sg	03 48 35.4	-5.1
	6.0nm,0.2s						
CABF	**La Chapelle**	1.98	223	ePg	Pg	03 48 11.1	-3.0
CABF				eSn	Sn	03 48 29.2	-4.4
CABF				eSg	Sg	03 48 35.4	-5.1
	3.0nm,0.2s						
SFTF	**Sexfontaines**	2.01	275	ePn	Pn	03 48 06.1	-2.9
SFTF				ePg	Pg	03 48 11.0	-3.8
SFTF				eSn	Sn	03 48 30.1	-4.3
SFTF				eSg	Sg	03 48 36.8	-4.8
	16nm,0.2s						
SFTF	**Sexfontaines**	2.01	275	ePg	Pg	03 48 11.0	-3.8
SFTF				eSn	Sn	03 48 30.1	-4.3
SFTF				eSg	Sg	03 48 36.8	-4.8
	8.1nm,0.2s						
WLF	**Walferdange**	2.02	323	ePg	Pg	03 48 12.4	-2.4
	SNR=6.7						
WLF				eSg	Sg	03 48 37.1	-4.6
	SNR=3.4						
WLF	**Walferdange**	2.02	323	S	Sn	03 48 37.3	+2.8
MEZF	**Maizieres J'vi**	2.04	283	ePn	Pn	03 48 07.1	-2.3
	baz=103						
MEZF				ePg	Pg	03 48 11.5	-3.8
	baz=103						
MEZF				eSn	Sn	03 48 30.2	-4.9
MEZF				eSg	Sg	03 48 37.3	-5.2
	14nm,0.3s						
MEZF	**Maizieres J'vi**	2.04	283	ePg	Pg	03 48 11.5	-3.8
MEZF				eSn	Sn	03 48 30.2	-4.9
MEZF				eSg	Sg	03 48 37.3	-5.2
	6.8nm,0.3s						
FUR	**Furstenfeldbru**	2.17	87	ePg	Pg	03 48 15.5	-2.4
	SNR=8.3						
FUR				eSg	Sg	03 48 43.7	-3.1
	SNR=6.3						
MOTA	**Moosalm**	2.20	108	⇓iPG	Pg	03 48 15.8	-2.6
MOTA				i SG	Sg	03 48 44.7	-3.0
	9.4nm,0.3s						
SQTA	**Sankt Quirin**	2.31	111	⇑iPG	Pg	03 48 18.6	-2.0
SQTA				i SG	Sg	03 48 49.3	-2.1
	16nm,0.2s						
GRA1	**Grafenberg Arr**	2.65	51	ePg	Pg	03 48 24.1	-3.3
GRA1				eSg	Sg	03 48 56.5	-6.2
GRF	**Grafenberg Arr**	2.65	51	ePg	Pg	03 48 24.1	-3.3
	SNR=9.2						
GRF				eSg	Sg	03 48 56.5	-6.2
	SNR=5.8						
LPL	**La Plagne**	2.72	200	ePg	Pg	03 48 24.1	-4.7
LPL				eSg	Sg	03 48 57.8	-7.3
	5.1nm,0.5s						
LPL	**La Plagne**	2.72	200	eSg	Sg	03 48 57.8	-7.3
	2.5nm,0.5s						
LPG	**La Plagne**	2.73	199	ePg	Pg	03 48 24.7	-4.4
LPG				eSg	Sg	03 48 58.4	-7.1
	3.7nm,0.3s						
LPG	**La Plagne**	2.73	199	eSg	Sg	03 48 58.4	-7.1
	1.9nm,0.3s						
GIVF	**Givet**	2.93	315	ePg	Pg	03 48 27.9	-5.1
GIVF				eSg	Sg	03 49 05.3	-6.7
	5.6nm,0.4s						
UBBA	**Unterbreizbach**	3.02	24	eSg	Sg	03 49 09.1	-6.2
	SNR=2.1						
SMF	**Signal de Mont**	3.19	245	ePn	Pn	03 48 21.3	-4.6
SMF				ePg	Pg	03 48 33.8	-4.5
SMF				eSg	Sg	03 49 13.4	-7.5
	5.0nm,0.2s						
SMF	**Signal de Mont**	3.19	245	ePg	Pg	03 48 33.8	-4.5
SMF	**Signal de Mont**	3.19	245	eSg	Sg	03 49 13.4	-7.5
	2.5nm,0.2s						
BAIF	**Baives**	3.20	310	ePn	Pn	03 48 23.6	-2.4
BAIF				ePg	Pg	03 48 32.0	-6.5
BAIF				eSn	Sn	03 48 58.6	-6.0
	3.6nm,0.4s						
BAIF				eSg	Sg	03 49 13.7	-7.5
	1.4nm,0.2s						
BAIF	**Baives**	3.20	310	ePg	Pg	03 48 32.0	-6.5
BAIF	**Baives**	3.20	310	eSn	Sn	03 48 58.6	-6.0
	1.8nm,0.4s						
BAIF	**Baives**	3.20	310	eSg	Sg	03 49 13.7	-7.5
	0.7nm,0.2s						
SSF	**Saint Saulge**	3.23	253	ePn	Pn	03 48 21.9	-4.5
SSF				ePg	Pg	03 48 33.7	-5.4
SSF				eSn	Sn	03 48 59.2	-6.2
SSF				eSg	Sg	03 49 14.5	-7.8
	3.1nm,0.2s						
SSF	**Saint Saulge**	3.23	253	ePg	Pg	03 48 33.7	-5.4
SSF				eSn	Sn	03 48 59.2	-6.2
SSF				eSg	Sg	03 49 14.5	-7.8
	1.5nm,0.2s						
AVF	**Avril sur Loir**	3.43	250	ePn	Pn	03 48 24.6	-4.6
AVF				ePg	Pg	03 48 37.9	-5.2
AVF				eSg	Sg	03 49 20.1	-8.8
	1.8nm,0.3s						
AVF	**Avril sur Loir**	3.43	250	ePg	Pg	03 48 37.9	-5.2
AVF				eSg	Sg	03 49 20.1	-8.8
	0.9nm,0.3s						
MBDF	**Montbardon**	3.47	195	ePn	Pn	03 48 26.9	-2.8
MBDF				ePg	Pg	03 48 38.4	-5.4
MBDF				eSg	Sg	03 49 21.8	-8.2
	0.7nm,0.3s						
MBDF	**Montbardon**	3.47	195	ePg	Pg	03 48 38.4	-5.4
MBDF				eSg	Sg	03 49 21.8	-8.2
	0.3nm,0.3s						
MOX	**Moxa**	3.47	41	ePg	Pg	03 48 39.3	-4.5
	SNR=1.6						
ORIF	**Oris-en-Rattie**	3.50	206	ePg	Pg	03 48 38.2	-6.2
ORIF				eSg	Sg	03 49 22.6	-8.4
	3.4nm,0.3s						
NKC	**Novy Kostel**	3.61	52	ePG	Pg	03 48 42.4	-4.1
NKC				eSG	Sg	03 49 27.2	-7.4
GUNZ	**Gunzen**	3.62	49	ePg	Pg	03 48 42.1	-4.8
	SNR=2.4						
GUNZ				e(Sg)	Sg	03 49 26.3	-8.9
	SNR=4.3						
WERD	**Werda**	3.66	48	ePn	Pn	03 48 28.3	-4.2
	SNR=1.1						
WERD				e(Sg)	Sg	03 49 28.2	-8.3
	SNR=2.2						
TANN	**Tannenbergstha**	3.72	49	ePg	Pg	03 48 43.9	-4.9
	SNR=4.0						
HYF	**Humbligny**	3.74	259	ePn	Pn	03 48 29.3	-4.3
HYF				ePg	Pg	03 48 42.6	-6.6
HYF				eSg	Sg	03 49 30.5	-8.5
HYF	**Humbligny**	3.74	259	ePg	Pg	03 48 42.6	-6.6
HYF				eSg	Sg	03 49 30.5	-8.5
KHC	**Kasperske Hory**	3.82	72	ePN	Pn	03 48 34.8	0.0
KHC				ePG	Pg	03 48 45.4	-5.4
KHC				eSG	Sg	03 49 34.6	-7.2
KHC	**Kasperske Hory**	3.82	72	ePg	Pg	03 48 45.4	-5.4
KHC				Sg	Sg	03 49 34.6	-7.2
GEC2	**GERESS Array S**	3.84	76	ePg	Pg	03 48 45.8	-5.5
	SNR=2.0						
GEC2				eSg	Sg	03 49 35.8	-6.7
	SNR=1.7						
BGF	**Bois d'Agland**	3.85	249	ePn	Pn	03 48 31.0	-4.1
BGF				ePg	Pg	03 48 44.1	-7.2
BGF				eSn	Sn	03 49 13.2	-7.7
BGF				eSg	Sg	03 49 33.4	-9.2
	3.4nm,0.2s						
BGF	**Bois d'Agland**	3.85	249	ePg	Pg	03 48 44.1	-7.2
BGF				eSn	Sn	03 49 13.2	-7.7
BGF				eSg	Sg	03 49 33.4	-9.2
	1.7nm,0.2s						
VIVF	**Saint-Julien-l**	3.98	217	ePg	Pg	03 48 47.0	-6.9
VIVF				eSn	Sn	03 49 16.2	-8.0
VIVF				eSg	Sg	03 49 37.3	-10
	2.6nm,0.3s						
CLZ	**Clausthal**	4.05	21	eSg	Sg	03 49 42.3	-7.2
	SNR=2.3						
TCF	**Toulx Ste Croi**	4.36	248	ePn	Pn	03 48 37.2	-5.2
TCF				ePg	Pg	03 48 55.1	-6.5
TCF				eSn	Sn	03 49 26.2	-7.7
TCF				eSg	Sg	03 49 49.3	-10
	1.5nm,0.3s						
TCF	**Toulx Ste Croi**	4.36	248	ePg	Pg	03 48 55.1	-6.5
TCF				eSn	Sn	03 49 26.2	-7.7
TCF				eSg	Sg	03 49 49.3	-10
	0.8nm,0.3s						
SMRF	**Simiane la Rot**	4.45	204	eSn	Sn	03 49 27.5	-8.7
	1.3nm,0.2s						
CLL	**Collm**	4.56	43	eSg	Sg	03 49 57.0	-9.4
FRF	**La Foret Royal**	4.62	193	eSn	Sn	03 49 32.8	-7.8
	2.1nm,0.3s						
PRU	**Pruhonice**	4.68	64	eSG	Sg	03 50 02.6	-7.9
BRG	**Berggiesshubel**	4.76	52	eSg	Sg	03 50 02.4	-10
LMR	**La Mourre**	4.87	193	eSn	Sn	03 49 37.2	-10
	0.5nm,0.3s						
LASF	**Ste Croix**	4.95	218	ePg	Pg	03 49 04.7	-8.7
LASF				eSg	Sg	03 50 07.2	-12
	1.5nm,0.3s						
LDF	**La Druitiere**	5.47	278	ePg	Pg	03 49 14.1	-10
LDF				eSg	Sg	03 50 23.7	-13
	1.6nm,0.4s						
FLN	**La Foliniere**	5.71	280	eSg	Sg	03 50 31.5	-13
	1.8nm,0.4s						
MFF	**Saint Martin d**	5.76	258	ePg	Pg	03 49 20.0	-9.5
MFF				eSn	Sn	03 49 59.4	-10
MFF				eSg	Sg	03 50 33.1	-13
	0.9nm,0.3s						
LFF	**La Frestale**	5.94	241	ePg	Pg	03 49 22.9	-10
SGMF	**Saint Gilles**	7.09	275	ePn	Pn	03 49 14.8	-6.1
QUIF	**Quistinic**	7.52	273	ePg	Pg	03 49 51.8	-13

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*STR **05** 04:10:57.8±0.1, 48.06N×8.15E, h10^{km}±1^{km}, Ml2.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **05** 04:10:57.8, 48.06N×8.15E, h10^{km}, ML3.1(VIE), ML2.8(LDG), ML2.7(LEDBW), ML2.5(STR), After STR.*

*CSEM **05** 04:10:57.6±0.0, 48.02N×8.13E, h15^{km}, ML2.7/22, Error ellipse: s-maj=0.9km s-min=0.6km az=158.0*

*LDG **05** 04:10:57.9±0.1, 48.04N×8.13E, h12^{km}, Md2.9/3, Ml2.8/30, Error ellipse: s-maj=1.6km s-min=1.4km az=162.0*

*ZUR **05** 04:10:58.0, 48.05N×8.13E, h10^{km}, ML2.5/11*

*BGR **05** 04:10:58.9±0.6, 48.11N×8.19E, h10^{km}, ML2.3/3, Error ellipse: s-maj=4.4km s-min=3.3km az=15.0*

LEDBW 05 04:10:58.5±0.1, 48.05N×8.16E, h10^{km}±2^{km}, ML2.7, 26C-23D, Error ellipse: s-maj=2.0km s-min=1.0km az=131.0, Germany

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KIZ	**Kirchzarten**	0.19	242	⇑iPg	Pg	04 11 02.6	0.0
KIZ				i Sg	Sg	04 11 05.4	0.0
KIZ	**Kirchzarten**	0.19	242	⇑iP	Pg	04 11 02.6	0.0
KIZ				i S	Sg	04 11 05.4	0.0
FELD	**Feldberg**	0.20	212	⇑iP	Pg	04 11 02.9	0.0
FELD				S	Sg	04 11 05.9	+0.1
FELD	**Feldberg**	0.20	212	⇑iP	Pg	04 11 02.9	0.0
FELD				Sg	Sg	04 11 06.7	+0.9
FBB	**Freiburg**	0.21	258	⇑iP	Pg	04 11 03.1	0.0
FBB				S	Sg	04 11 06.3	+0.1
BFO	**Black Forest**	0.31	21	⇑iPg	Pg	04 11 04.7	-0.2
BFO				i Sg	Sg	04 11 08.9	-0.3
BFO	**Black Forest**	0.31	21	ePg	Pg	04 11 04.0	-0.9
BFO				eSg	Sg	04 11 08.9	-0.2
SLE	**Schleitheim**	0.36	141	⇓iPg	Pg	04 11 04.6	-1.3
SLE				eSg	Sg	04 11 08.8	-2.0
SLE	**Schleitheim**	0.36	141	⇓iP	Pg	04 11 05.5	-0.4
SLE				eSg	Sg	04 11 10.5	-0.3
	20nm,0.5s						
LIBD	**Limburg**	0.39	286	⇑ePg	Pg	04 11 06.5	0.0
LIBD	**Limburg**	0.39	286	⇑eP	Pg	04 11 06.5	+0.1
LIBD				S	Sg	04 11 12.2	+0.3
LIBD	**Limburg**	0.39	286	⇑eP	Pg	04 11 06.5	0.0
LIBD				Sg	Sg	04 11 11.8	0.0
SPAK	**Spaichingen**	0.42	82	Pg	Pg	04 11 06.8	-0.3
SPAK	**Spaichingen**	0.42	82	Pg	Pg	04 11 06.8	-0.3
SPAK				Sg	Sg	04 11 12.5	-0.4
SULZ	**Sulz-Cheisache**	0.52	184	eSg	Pg	04 11 07.4	-1.6
SULZ				⇓iPg	rx	04 11 10.5	
SULZ	**Sulz-Cheisache**	0.52	184	⇓iP	Pg	04 11 08.4	-0.6
SULZ				eSg	Sg	04 11 15.5	-0.5
	18nm,0.3s						
TRULL	**Truellikon**	0.53	138	⇓iPg	Pg	04 11 08.4	-0.8
TRULL	**Truellikon**	0.53	138	⇓iP	Pg	04 11 08.6	-0.6
FLACH	**Flaach**	0.55	150	⇓iP	Pg	04 11 09.1	-0.5
STR	**Strasbourg**	0.60	334	Pg	Pg	04 11 09.0	-1.6
STEIN	**Stein am Rhein**	0.61	128	⇓iPg	Pg	04 11 08.6	-2.1
STEIN	**Stein am Rhein**	0.61	128	⇓iP	Pb	04 11 10.3	-0.4
GUT	**Gutenstein**	0.64	87	⇑iPg	Pg	04 11 10.7	-0.7
GUT				PmP		04 11 11.2	
GUT				i Sg	Sg	04 11 19.2	-0.8
GUT	**Gutenstein**	0.64	87	⇑iP	Pb	04 11 10.7	-0.6
GUT				i S	Sb	04 11 19.2	-0.8
GUT	**Gutenstein**	0.64	87	⇑iP	Pb	04 11 10.7	-0.6
GUT				P		04 11 11.2	
GUT				i S	Sb	04 11 19.2	-0.8
SISB	**Singen-Sch Ber**	0.65	123	⇓iPg	Pg	04 11 11.0	-0.6
SISB				eSg	Sg	04 11 19.8	-0.5
SISB	**Singen-Sch Ber**	0.65	123	⇓iP	Pb	04 11 11.0	-0.4
SISB				P		04 11 12.6	
SISB				eS	Sb	04 11 19.9	-0.4
SISB				S	Sb	04 11 20.2	-0.1
WLS	**Welschbruch**	0.65	305	⇓eP	Pb	04 11 11.3	-0.3
WLS				S	Sb	04 11 19.9	-0.5
WLS				S	Sb	04 11 21.2	+0.8
WLS	**Welschbruch**	0.65	305	Pg	Pg	04 11 10.1	-1.6
ECH	**Echery**	0.69	285	⇑iPg	Pg	04 11 11.8	-0.7
ECH	**Echery**	0.69	285	⇑iP	Pb	04 11 11.8	-0.5
ECH				P		04 11 12.6	
ECH				S	Sb	04 11 20.8	-0.8
ECH	**Echery**	0.69	285	Pg	Pg	04 11 11.3	-1.2
ECH				Sg	Sg	04 11 20.5	-1.3
CDF	**Champ du Feu**	0.70	302	ePg	Pg	04 11 11.8	-0.7
CDF				eSg	Sg	04 11 17.7	-4.2
	173nm,0.2s						
CDF	**Champ du Feu**	0.70	302	eSg	Sg	04 11 17.7	-4.2
	86nm,0.2s						
MOF	**Molkenrain**	0.72	255	Pg	Pg	04 11 12.1	-0.9
MOF	**Molkenrain**	0.72	255	P	Pb	04 11 12.2	-0.5
MOF	**Molkenrain**	0.72	255	Pg	Pg	04 11 12.0	-1.0
MOF				Sg	Sg	04 11 21.7	-0.9
MOF	**Molkenrain**	0.72	255	Sg	Sg	04 11 21.7	-0.9
BBS	**Basel-Blauen**	0.73	217	⇑iPg	Pg	04 11 12.2	-0.9
BBS	**Basel-Blauen**	0.73	217	⇑iP	Pb	04 11 12.3	-0.5
BBS				P		04 11 12.7	
BBS	**Basel-Blauen**	0.73	217	⇑iP	Pb	04 11 12.2	-0.6
BBS				Sg	Sg	04 11 21.9	-1.1
ZUR	**Zurich**	0.73	157	⇓iPg	Pg	04 11 09.8	-3.5
ZUR	**Zurich**	0.73	157	⇓iP	Pb	04 11 12.5	-0.4
LBG	**Lerchenberg**	0.75	34	⇑iPg	Pg	04 11 12.7	-0.9
LBG				i Sg	Sg	04 11 22.7	-1.0
LBG	**Lerchenberg**	0.75	34	⇑iP	Pb	04 11 12.7	-0.5
LBG				i S	Sb	04 11 22.4	-0.9
LBG				S	Sb	04 11 23.3	+0.1
LBG	**Lerchenberg**	0.75	34	Sg	Sg	04 11 22.7	-1.0
WEIN	**Weingarten**	0.76	133	⇓iPg	Pg	04 11 12.5	-1.3
WEIN	**Weingarten**	0.76	133	⇓iP	Pb	04 11 13.2	-0.1
BALST	**Balsthal**	0.78	204	⇑iPg	Pg	04 11 10.3	-3.8
BALST	**Balsthal**	0.78	204	⇑iP	Pb	04 11 12.9	-0.7
WILA	**Wila**	0.81	141	⇓iPg	Pg	04 11 12.9	-1.8
WILA	**Wila**	0.81	141	⇓iP	Pb	04 11 14.0	-0.2
BUCH	**Bad Urach**	0.89	63	⇑iPn	Pn	04 11 14.8	-2.2
BUCH				⇑ePg	Pg	04 11 15.5	-0.9
BUCH				Sn	Sn	04 11 27.0	-2.9
BUCH				Sg	Sg	04 11 27.9	-0.5
BUCH	**Bad Urach**	0.89	63	eP	Pb	04 11 15.5	-0.1
BUCH	**Bad Urach**	0.89	63	ePG	Pg	04 11 15.5	-0.9
BUCH	**Bad Urach**	0.89	63	S	Sb	04 11 27.0	-0.4
BUCH	**Bad Urach**	0.89	63	⇑iP	Pb	04 11 14.8	-0.9
BUCH				⇑iP		04 11 15.5	
BUCH				S	Sb	04 11 27.2	-0.2
BUCH				S	Sb	04 11 27.9	+0.5
BUCH	**Bad Urach**	0.89	63	⇑iP	Pb	04 11 14.8	-0.8
BUCH				eP		04 11 15.5	
BUCH				S	Sb	04 11 27.0	-0.4
BUCH	**Bad Urach**	0.89	63	Pg	Pg	04 11 15.5	-0.9
BUCH				Sn	Sn	04 11 27.0	-3.0
BUCH				Sg	Sg	04 11 27.9	-0.5
BOURR	**Bourrignon**	0.91	224	⇑iPn	Pn	04 11 13.2	-3.9
BOURR	**Bourrignon**	0.91	224	⇑iP	Pb	04 11 14.7	-1.2
HINF	**Hinteralfeld**	0.91	256	ePg	Pg	04 11 14.5	-2.3
HINF				ePn	Pn	04 11 15.3	-1.9
HINF				eSg	Sg	04 11 25.1	-3.8
	43nm,0.2s						
HINF	**Hinteralfeld**	0.91	256	ePn	Pn	04 11 15.3	-1.9
HINF				eSg	Sg	04 11 25.1	-3.8
	22nm,0.2s						
LANF	**Langenberg**	0.97	346	Pn	Pn	04 11 15.8	-2.2
LANF	**Langenberg**	0.97	346	P	Pb	04 11 16.1	-0.7
LANF				P		04 11 17.1	
LANF	**Langenberg**	0.97	346	Pg	Pg	04 11 15.6	-2.3
STU	**Stuttgart**	1.00	43	ePg	Pg	04 11 17.3	-1.3
	SNR=7.7						
STU				eSg	Sg	04 11 29.7	-2.3
MUO	**Muotathal**	1.12	163	⇑iPg	Pg	04 11 14.1	-6.9
MUO	**Muotathal**	1.12	163	⇑iP	Pb	04 11 19.7	+0.1
LOMF	**Lomont**	1.14	233	Pn	Pn	04 11 19.7	-0.8
LOMF	**Lomont**	1.14	233	P	Pb	04 11 19.8	-0.1
LOMF	**Lomont**	1.14	233	Pg	Pg	04 11 19.6	-1.7
LOMF				Sg	Sg	04 11 34.9	-1.6
LOMF	**Lomont**	1.14	233	Sg	Sg	04 11 34.9	-1.6
BNALP	**Bannalp**	1.19	171	ePn	Pn	04 11 14.7	-6.5
BNALP	**Bannalp**	1.19	171	eP	Pb	04 11 20.7	0.0
HAU	**Haudompre**	1.22	269	ePn	Pn	04 11 18.6	-3.0
HAU				ePg	Pg	04 11 19.8	-3.1
HAU				eSg	Sg	04 11 36.1	-3.1
	40nm,0.2s						
HAU	**Haudompre**	1.22	269	ePg	Pg	04 11 19.8	-3.1
HAU				eSg	Sg	04 11 36.1	-3.1

	20nm,0.2s						
UBR	**Uberruh**	**1.36**	**105**	*i* Pg	Pg	04 11 23.6	-2.1
UBR				*i* Sg	Sg	04 11 41.9	-2.0
DAVA	**Damuels**	**1.39**	**123**	⇑*i*PG	Pg	04 11 24.2	-2.1
DAVA				*i* SG	Sg	04 11 41.1	-3.7
	16nm,0.2s						
WIMIS	**Wimmis**	**1.43**	**195**	*e*Pn	Pn	04 11 17.2	-7.4
WIMIS	**Wimmis**	**1.43**	**195**	*e*P	Pn	04 11 22.1	-2.5
HDH	**Heidenheim**	**1.47**	**68**	⇓*i*Pn	Pn	04 11 22.5	-2.7
HDH				Pg	Pg	04 11 25.8	-2.0
HDH				Sn	Sn	04 11 40.1	-4.5
HDH				*e*Sg	Sg	04 11 44.9	-2.6
HDH	**Heidenheim**	**1.47**	**68**	*e*SG	Sg	04 11 44.9	-2.6
HDH	**Heidenheim**	**1.47**	**68**	⇓*i*P	Pn	04 11 22.5	-2.7
HDH				P		04 11 26.1	
HDH				*e*S	Sb	04 11 44.9	+0.8
HDH	**Heidenheim**	**1.47**	**68**	*i* P	Pn	04 11 22.5	-2.7
HDH				*e*Sg	Sg	04 11 44.9	-2.6
THEF	**They Montfort**	**1.47**	**278**	Pn	Pn	04 11 22.8	-2.4
THEF				Sg	Sg	04 11 45.0	-2.5
THEF	**They Montfort**	**1.47**	**278**	P	Pn	04 11 22.8	-2.4
THEF				P		04 11 25.8	
THEF				S	Sb	04 11 45.0	+0.9
THEF	**They Montfort**	**1.47**	**278**	Pn	Pn	04 11 22.7	-2.5
SWS	**Schriesheim**	**1.48**	**14**	Pg	Pg	04 11 22.4	-5.8
SWS				*e*Sg	Sg	04 11 44.7	-3.3
SWS	**Schriesheim**	**1.48**	**14**	*e*Sg	Sg	04 11 44.7	-3.3
TORNY	**Torny**	**1.51**	**213**	*e*Pn	Pn	04 11 30.2	+4.4
TORNY	**Torny**	**1.51**	**213**	*e*P	Pn	04 11 22.9	-2.9
BRANT	**Les Verrieres**	**1.59**	**227**	⇑*i*Pn	Pn	04 11 19.7	-7.3
BRANT	**Les Verrieres**	**1.59**	**227**	⇑*i*P	Pn	04 11 24.1	-2.9
SIND	**Sindeldorf**	**1.62**	**36**	Pn	Pn	04 11 23.9	-3.4
SIND				*e*Pg	Pg	04 11 28.5	-2.3
SIND				Sg	Sg	04 11 48.2	-4.2
SIND	**Sindeldorf**	**1.62**	**36**	*e*PG	Pg	04 11 28.5	-2.4
SIND				SG	Sg	04 11 48.2	-4.3
SIND	**Sindeldorf**	**1.62**	**36**	*e*P	Pn	04 11 28.5	+1.2
SIND				S	Sn	04 11 50.0	+1.6
SIND	**Sindeldorf**	**1.62**	**36**	P	Pn	04 11 23.9	-3.4
SIND				*e*Pg	Pg	04 11 28.5	-2.4
SIND				Sg	Sg	04 11 48.2	-4.3
LKBD	**Leukerbad**	**1.70**	**193**	⇑*i*Pn	Pn	04 11 20.7	-7.8
LKBD	**Leukerbad**	**1.70**	**193**	⇑*i*P	Pn	04 11 26.2	-2.3
SENIN	**Lac Senin**	**1.78**	**200**	⇓*i*Pn	Pn	04 11 22.7	-7.0
SENIN	**Lac Senin**	**1.78**	**200**	⇓*i*P	Pn	04 11 27.1	-2.6
RUP	**Ruppelstein**	**1.81**	**337**	Pg	Pg	04 11 31.4	-3.3
ABH	**Alteburg**	**1.88**	**348**	P	Pn	04 11 33.8	+2.7
ABH	**Alteburg**	**1.88**	**348**	Pg	Pg	04 11 33.7	-2.4
ABH				Sg	Sg	04 11 58.5	-2.8
RFYF	**Reffroy**	**1.89**	**289**	*e*Pn	Pn	04 11 29.1	-2.1
	baz=106						
RFYF				*e*Pg	Pg	04 11 32.5	-3.7
	baz=107						
RFYF				*e*Sn	Sn	04 11 50.0	-5.2
RFYF				*e*Sg	Sg	04 11 54.6	-6.8
	53nm,0.2s						
RFYF	**Reffroy**	**1.89**	**289**	*e*Pg	Pg	04 11 32.5	-3.7
RFYF				*e*Sn	Sn	04 11 50.0	-5.2
RFYF				*e*Sg	Sg	04 11 54.6	-6.8
	26nm,0.2s						
AIGLE	**Aigle**	**1.89**	**206**	*e*Pn	Pn	04 11 22.9	-8.4
AIGLE	**Aigle**	**1.89**	**206**	*e*P	Pn	04 11 28.1	-3.2
GIMEL	**Gimel**	**1.99**	**221**	*e*Pn	Pn	04 11 24.7	-7.9
GIMEL	**Gimel**	**1.99**	**221**	*e*P	Pn	04 11 29.3	-3.3
CABF	**La Chapelle**	**2.01**	**225**	*e*Pn	Pn	04 11 29.8	-3.2
CABF				*e*Pg	Pg	04 11 35.8	-2.9
CABF				*e*Sg	Sg	04 11 59.8	-5.8
	11nm,0.3s						
CABF	**La Chapelle**	**2.01**	**225**	*e*Pg	Pg	04 11 35.8	-2.9
CABF				*e*Sg	Sg	04 11 59.8	-5.8
	5.6nm,0.3s						
FUR	**Furstenfeldbru**	**2.09**	**86**	*e*Pg	Pg	04 11 38.3	-2.0
	SNR=4.2						
FUR				*e*Sg	Sg	04 12 04.8	-3.4
FUR	**Furstenfeldbru**	**2.09**	**86**	*e*Pg	Pg	04 11 38.3	-2.0
FUR				*e*Sg	Sg	04 12 04.8	-3.4
FUR	**Furstenfeldbru**	**2.09**	**86**	*e*Sg	Sg	04 12 04.8	-3.4
WLF	**Walferdange**	**2.10**	**321**	*e*Pg	Pg	04 11 37.7	-2.7
	SNR=3.0						
WLF				*e*Sg	Sg	04 12 04.1	-4.2
SFTF	**Sexfontaines**	**2.10**	**276**	*e*Pn	Pn	04 11 31.2	-3.0
	baz=104						
SFTF				*e*Pg	Pg	04 11 35.7	-4.7
	baz=98						
SFTF				*e*Sn	Sn	04 11 54.7	-5.9
SFTF				*e*Sg	Sg	04 12 01.5	-6.9
	22nm,0.3s						
SFTF	**Sexfontaines**	**2.10**	**276**	*e*Pg	Pg	04 11 35.7	-4.7
SFTF				*e*Sn	Sn	04 11 54.7	-5.9
SFTF				*e*Sg	Sg	04 12 01.5	-6.9
	11nm,0.3s						
MOTA	**Moosalm**	**2.11**	**108**	⇑*i*PG	Pg	04 11 38.1	-2.5
MOTA				*i* SG	Sg	04 12 05.4	-3.3
	6.0nm,0.1s						
MEZF	**Maizieres J'vi**	**2.13**	**284**	*e*Pn	Pn	04 11 32.0	-2.6
	baz=105						
MEZF				*e*Pg	Pg	04 11 37.2	-3.8
	baz=107						
MEZF				*e*Sn	Sn	04 11 55.5	-5.8
MEZF				*e*Sg	Sg	04 12 01.7	-7.7
	8.5nm,0.2s						
MEZF	**Maizieres J'vi**	**2.13**	**284**	*e*Pg	Pg	04 11 37.2	-3.8
MEZF	**Maizieres J'vi**	**2.13**	**284**	*e*Sn	Sn	04 11 55.5	-5.8
MEZF				*e*Sg	Sg	04 12 01.7	-7.7
	4.2nm,0.2s						
SQTA	**Sankt Quirin**	**2.22**	**111**	⇓*i*PG	Pg	04 11 40.2	-2.7
SQTA				*i* SG	Sg	04 12 09.2	-3.3
	17nm,0.2s						
GRA1	**Grafenberg Arr**	**2.61**	**50**	*e*Pg	Pg	04 11 47.2	-3.4
GRA1				*e*Sg	Sg	04 12 19.9	-5.5
GRF	**Grafenberg Arr**	**2.61**	**50**	*e*Pg	Pg	04 11 47.2	-3.4
	SNR=17						
GRF				*e*Sg	Sg	04 12 19.9	-5.5
LPL	**La Plagne**	**2.71**	**202**	*e*Pn	Pn	04 11 40.2	-2.8
LPL				*e*Pg	Pg	04 11 48.1	-4.6
LPL				*e*Sg	Sg	04 12 22.9	-6.0
	3.1nm,0.3s						
LPL	**La Plagne**	**2.71**	**202**	*e*Pg	Pg	04 11 48.1	-4.6
LPL				*e*Sg	Sg	04 12 22.9	-6.0
	1.5nm,0.3s						
LPG	**La Plagne**	**2.73**	**201**	*e*Pn	Pn	04 11 40.7	-2.5
LPG				*e*Pg	Pg	04 11 48.9	-4.1
LPG				*e*Sg	Sg	04 12 23.1	-6.2
	8.1nm,0.4s						
LPG	**La Plagne**	**2.73**	**201**	*e*Pg	Pg	04 11 48.9	-4.1
LPG				*e*Sg	Sg	04 12 23.1	-6.2
	4.1nm,0.4s						
GIVF	**Givet**	**3.01**	**314**	*e*Pn	Pn	04 11 43.9	-3.3
GIVF				*e*Sg	Sg	04 12 30.4	-8.3
	3.3nm,0.2s						
UBBA	**Unterbreizbach**	**3.02**	**23**	*e*Sg	Sg	04 12 32.6	-6.6
SMF	**Signal de Mont**	**3.25**	**246**	*e*Pn	Pn	04 11 45.8	-4.9
SMF				*e*Pg	Pg	04 11 58.0	-5.5
SMF				*e*Sg	Sg	04 12 38.3	-8.6
	5.4nm,0.2s						
SMF	**Signal de Mont**	**3.25**	**246**	*e*Pg	Pg	04 11 58.0	-5.5
SMF				*e*Sg	Sg	04 12 38.3	-8.6
	2.7nm,0.2s						
BAIF	**Baives**	**3.29**	**309**	*e*Pn	Pn	04 11 48.2	-3.0
BAIF				*e*Sg	Sg	04 12 40.1	-8.0
	2.6nm,0.3s						
SSF	**Saint Saulge**	**3.30**	**254**	*e*Pn	Pn	04 11 47.6	-3.8
SSF				*e*Pg	Pg	04 11 58.9	-5.6
SSF				*e*Sg	Sg	04 12 39.7	-8.8
	3.9nm,0.2s						
SSF	**Saint Saulge**	**3.30**	**254**	*e*Pg	Pg	04 11 58.9	-5.6
SSF				*e*Sg	Sg	04 12 39.7	-8.8
	2.0nm,0.2s						
MOX	**Moxa**	**3.44**	**40**	*e*Pg	Pg	04 12 02.5	-4.8
	SNR=1.8						
MOX				*e*Sg	Sg	04 12 45.7	-7.5
MOX	**Moxa**	**3.44**	**40**	*e*Pg	Pg	04 12 03.2	-4.1
MOX				*e*Sg	Sg	04 12 45.5	-7.7
MBDF	**Montbardon**	**3.46**	**197**	*e*Pn	Pn	04 11 51.4	-2.1
MBDF				*e*Pg	Pg	04 12 02.2	-5.3
MBDF				*e*Sg	Sg	04 12 46.8	-6.8
	5.3nm,0.5s						
MBDF	**Montbardon**	**3.46**	**197**	*e*Pg	Pg	04 12 02.2	-5.3
MBDF				*e*Sg	Sg	04 12 46.8	-6.8
	2.7nm,0.5s						
AVF	**Avril sur Loir**	**3.50**	**251**	*e*Pn	Pn	04 11 49.4	-4.7
AVF				*e*Pg	Pg	04 12 02.6	-5.8
AVF				*e*Sg	Sg	04 12 46.7	-8.3
	2.7nm,0.4s						
AVF	**Avril sur Loir**	**3.50**	**251**	*e*Pg	Pg	04 12 02.6	-5.8
AVF	**Avril sur Loir**	**3.50**	**251**	*e*Sg	Sg	04 12 46.7	-8.3
	1.4nm,0.4s						
ORIF	**Oris-en-Rattie**	**3.50**	**208**	*e*Pn	Pn	04 11 50.5	-3.7
ORIF				*e*Pg	Pg	04 12 02.7	-5.8
ORIF				*e*Sg	Sg	04 12 47.6	-7.5
	4.6nm,0.3s						
ORIF	**Oris-en-Rattie**	**3.50**	**208**	*e*Pg	Pg	04 12 02.7	-5.8
ORIF	**Oris-en-Rattie**	**3.50**	**208**	*e*Sg	Sg	04 12 47.6	-7.5
	2.3nm,0.3s						
NKC	**Novy Kostel**	**3.56**	**51**	*e*PG	Pg	04 12 04.5	-5.2
NKC				*e*SG	Sg	04 12 49.3	-8.0
GUNZ	**Gunzen**	**3.59**	**48**	*e*Pn	Pn	04 11 51.8	-3.6
	SNR=1.1						
GUNZ				*e*Pg	Pg	04 12 05.2	-5.0
	SNR=5.2						
GUNZ				*e*(Sg)	Sg	04 12 49.0	-8.9
WERD	**Werda**	**3.63**	**47**	*e*(Sg)	Sg	04 12 50.7	-8.6
TANN	**Tannenbergstha**	**3.68**	**48**	*e*Pg	Pg	04 12 07.0	-5.0
	SNR=7.3						
TANN				*e*Sg	Sg	04 12 54.1	-7.1
KHC	**Kasperske Hory**	**3.76**	**71**	*e*PN	Pn	04 12 00.0	+2.2
KHC				*e*PG	Pg	04 12 07.6	-5.9
KHC				*e*SG	Sg	04 12 56.6	-7.0
KHC	**Kasperske Hory**	**3.76**	**71**	*e*Pg	Pg	04 12 07.6	-5.9
KHC				Sg	Sg	04 12 56.6	-7.0
GEC2	**GERESS Array S**	**3.77**	**76**	*e*Pg	Pg	04 12 08.3	-5.6
	SNR=2.2						
GEC2				*e*Sg	Sg	04 12 57.0	-7.2
HYF	**Humbligny**	**3.81**	**260**	*e*Pn	Pn	04 11 54.3	-4.3
HYF				*e*Pg	Pg	04 12 08.1	-6.5
HYF				*e*Sg	Sg	04 12 55.1	-10
HYF	**Humbligny**	**3.81**	**260**	*e*Pg	Pg	04 12 08.1	-6.5
HYF				*e*Sg	Sg	04 12 55.1	-10
BGF	**Bois d'Agland**	**3.91**	**250**	*e*Pn	Pn	04 11 55.3	-4.7
BGF				*e*Pg	Pg	04 12 09.6	-7.0
BGF				*e*Sg	Sg	04 12 58.2	-11
	12nm,0.4s						
BGF	**Bois d'Agland**	**3.91**	**250**	*e*Pg	Pg	04 12 09.6	-7.0
BGF				*e*Sg	Sg	04 12 58.2	-11
	6.1nm,0.4s						
VIVF	**Saint-Julien-l**	**4.00**	**218**	*e*Pn	Pn	04 11 55.7	-5.6
VIVF				*e*Pg	Pg	04 12 12.5	-5.9
VIVF				*e*Sn	Sn	04 12 40.2	-8.5
VIVF				*e*Sg	Sg	04 13 02.9	-8.8
	2.3nm,0.2s						
VIVF	**Saint-Julien-l**	**4.00**	**218**	*e*Pg	Pg	04 12 12.5	-5.9
VIVF				*e*Sn	Sn	04 12 40.2	-8.5
VIVF				*e*Sg	Sg	04 13 02.9	-8.8
	1.1nm,0.2s						
TCF	**Toulx Ste Croi**	**4.42**	**249**	*e*Pn	Pn	04 12 03.7	-3.6
TCF				*e*Pg	Pg	04 12 19.3	-7.5
TCF				*e*Sn	Sn	04 12 51.5	-8.0
TCF				*e*Sg	Sg	04 13 14.9	-11
	3.2nm,0.4s						
TCF	**Toulx Ste Croi**	**4.42**	**249**	*e*Pg	Pg	04 12 19.3	-7.5
TCF				*e*Sn	Sn	04 12 51.5	-8.0
TCF				*e*Sg	Sg	04 13 14.9	-11
	1.6nm,0.4s						
SMRF	**Simiane la Rot**	**4.45**	**205**	*e*Sn	Sn	04 12 52.0	-8.2
	1.0nm,0.2s						
CLL	**Collm**	**4.53**	**42**	*i* Pg	Pg	04 12 23.6	-5.4
CLL				*i* Sg	Sg	04 13 19.6	-10
FRF	**La Foret Royal**	**4.61**	**194**	*e*Sn	Sn	04 12 57.1	-7.1
	0.8nm,0.2s						
PRU	**Pruhonice**	**4.63**	**63**	*e*SG	Sg	04 13 23.8	-8.8
BRG	**Berggiesshubel**	**4.71**	**51**	*e*Pg	Pg	04 12 26.9	-5.8
	SNR=2.0						
BRG				*e*Sg	Sg	04 13 26.8	-8.6
BRG	**Berggiesshubel**	**4.71**	**51**	*e*Pg	Pg	04 12 26.6	-6.0
BRG				*e*Sg	Sg	04 13 26.6	-8.9
LMR	**La Mourre**	**4.85**	**194**	*e*Sn	Sn	04 13 01.8	-8.5
	0.8nm,0.2s						
PVCC	**Panska Ves**	**4.87**	**57**	*e*SG	Sg	04 13 34.1	-6.7
LASF	**Ste Croix**	**4.97**	**219**	*e*Pn	Pn	04 12 08.9	-6.2
LASF				*e*Pg	Pg	04 12 29.2	-8.6
LASF				*e*Sn	Sn	04 13 03.9	-9.5
LASF				*e*Sg	Sg	04 13 32.9	-11
	0.9nm,0.3s						
LASF	**Ste Croix**	**4.97**	**219**	*e*Pg	Pg	04 12 29.2	-8.6
LASF				*e*Sn	Sn	04 13 03.9	-9.5
LASF				*e*Sg	Sg	04 13 32.9	-11
	0.4nm,0.3s						
LDF	**La Druitiere**	**5.55**	**279**	*e*Sg	Sg	04 13 50.7	-13
	8.1nm,0.7s						
UPC	**Upice**	**5.70**	**61**	*e*SG	Sg	04 13 59.5	-8.7
FLN	**La Foliniere**	**5.80**	**280**	*e*Sg	Sg	04 13 58.3	-13
	4.1nm,0.4s						
MFF	**Saint Martin d**	**5.83**	**259**	*e*Pn	Pn	04 12 22.0	-5.2
MFF				*e*Pg	Pg	04 12 45.2	-10
MFF				*e*Sn	Sn	04 13 23.9	-11
MFF				*e*Sg	Sg	04 13 57.4	-15
	0.8nm,0.2s						
GRR	**Gorron**	**6.04**	**277**	*e*Pn	Pn	04 12 26.1	-4.0
GRR				*e*Pg	Pg	04 12 47.9	-11
GRR				*e*Sg	Sg	04 14 05.9	-14
	4.0nm,0.4s						
SGMF	**Saint Gilles**	**7.18**	**276**	*e*Sg	Sg	04 14 39.0	-18
	3.2nm,0.5s						

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*IDC **05** 04:13:39.5±0.9,22.79S×69.00W,h98^{km}±7^{km},mb4.1/4,mb1 4.1/5,mb1mx3.6/14,MS2.7/1,Ms1 2.8/1,ms1mx2.7/15,Error ellipse: s-maj=39.3km s-min=27.1km az=121.0*

*NEIC **05** 04:13:40.1,22.74S×69.20W,h97^{km},mb3.8/1,After GUC.*

*GUC **05** 04:13:40.1±0.7,22.74S×69.20W,h97^{km}±6^{km},ML4.4*

ISC 05 04:13:38.8±0.7,**22.72S**±0.08×**69.21W**±0.08,**h111**^{km}±4^{km},**n21,**σ**0**^{s}**74**/24,**mb4.3**/4,**3C-6D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**0.30**	**69**	P	**P**	**04 13 55.2**	**+0.4**
	2μm,0.3s,baz=232,slow=2.8						
LVC				S	**S**	**04 14 05.9**	**-0.9**
	1μm,0.3s,baz=347,slow=23,SNR=86						
LVC	**Limon Verde**	**0.30**	**69**	⇓*i*P	**P**	**04 13 55.3**	**+0.5**
LVC				*i* S	**S**	**04 14 06.3**	**-0.5**
LVC				AMP		04 14 07.5	
	comp=N,12μm,0.4s						
SPCH	**San Pedro de A**	**0.95**	**101**	⇓*i*P	**P**	**04 14 00.4**	**+0.5**
SPCH				*i* S	**S**	**04 14 16.1**	**+0.4**
SPCH				AMP		04 14 16.6	
	comp=N,16μm,0.4s						
ANCH	**Antofagasta**	**1.46**	**229**	⇑*i*P	**P**	**04 14 05.8**	**+0.1**
ANCH				*i* S	**S**	**04 14 25.9**	**0.0**
ANCH				AMP		04 14 26.4	
	comp=N,7μm,0.2s						
CPN1	**Cerro Paranal**	**2.19**	**210**	⇓*i*P	**P**	**04 14 14.3**	**-0.5**
CPN1				*i* S	**S**	**04 14 41.5**	**-0.4**
CPN1				AMP		04 14 42.0	
	comp=E,4μm,0.3s						
LPAZ	**La Paz**	**6.48**	**9**	P	**P**	**04 15 14.5**	**+1.5**
	comp=E,2.4nm,0.3s,baz=196,slow=7.2,SNR=67						
LPAZ				LR	LR	04 18 18.0	
	comp=E,62nm,21.4s,baz=105,slow=43						
LPAZ	**La Paz**	**6.48**	**9**	*e*P	**P**	**04 15 13.3**	**+0.2**
	comp=E,10nm,0.5s						
SAML	**Samuel**	**14.87**	**24**	*e*P	**P**	**04 17 00.2**	**-4.3**
	comp=E,1.2nm,0.5s						
BDFB	**Brasilia**	**21.21**	**74**	P	**P**	**04 18 16.3**	**-0.7**
	comp=E,7.3nm,0.4s,mb4.3,baz=256,slow=11,SNR=40						
BAO	**Brasilia Array**	**21.23**	**74**	*e*P	**P**	**04 18 16.4**	**-0.9**
VNA3	**Neumayer Olymp**	**59.02**	**161**	⇑*i*	**P**	**04 23 29.5**	**+0.7**
VNA1	**Neumayer--Stat**	**59.23**	**160**	⇓*i*	**P**	**04 23 31.3**	**+1.0**
VNA2	**Neumayer--Watz**	**59.60**	**160**	⇓*i*	**P**	**04 23 33.9**	**+1.1**
SNAA	**Sanae**	**61.22**	**161**	⇓*i*	**P**	**04 23 42.3**	**-1.6**
SNAA	**Sanae**	**61.22**	**161**	P	**P**	**04 23 43.1**	**-0.8**
	comp=E,1.3nm,0.7s,mb4.1,baz=290,slow=7.0,SNR=27						
DBIC	**Dimbokro**	**69.35**	**73**	P	**P**	**04 24 35.7**	**-1.1**
	comp=E,3.8nm,0.8s,mb4.3,baz=142,slow=2.6,SNR=2.8						
DBIC	**Dimbokro**	**69.35**	**73**	*e*P	**P**	**04 24 36.0**	**-0.9**
	comp=E,0.9nm,0.5s,mb3.9						
SYO	**Syowa Base**	**75.46**	**159**	⇑P	**P**	**04 25 12.0**	**+0.2**
MAW	**Mawson**	**83.25**	**163**	P	**P**	**04 25 53.9**	**+0.2**
	comp=E,12nm,1.3s,mb4.6,baz=287,slow=15,SNR=2.5						
ASAR	**Alice Springs**	**128.71**	**207**	PKP	PKPdf	04 32 35.2	+1.5
	comp=E,0.6nm,0.7s,baz=136,slow=1.7,SNR=13						
WRA	**Warramunga Arr**	**131.76**	**210**	PKP	PKPdf	04 32 41.5	+1.9
	comp=E,0.7nm,0.5s,baz=154,slow=1.7,SNR=18						

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*CSEM **05** 04:24:23.7±0.1,34.97N×2.92W,h8^{km},MD3.8,Error ellipse: s-maj=3.7km s-min=2.1km az=106.0*

*NEIC **05** 04:24:25.1,34.96N×3.06W,MG3.7(MDD),After MDD.*

*MDD **05** 04:24:25.1±1.3,34.95N×3.03W,mb3.7/10,Error ellipse: s-maj=13.6km s-min=6.0km az=136.0,PRXIMO AftershockPLICA*

*CNRM **05** 04:24:25.5,35.09N×2.79W,h11^{km},MD3.8*

*INMG **05** 04:24:25.8±1.2,35.00N×2.92W,h14^{km}±7^{km},ML2.1,Error ellipse: s-maj=12.3km s-min=7.8km az=77.0*

ISC 05 04:24:26.3±0.6,**35.08N**±0.03×**3.09W**±0.07,**h19**^{km}±7^{km},**n40,**σ**1**^{s}**03**/63,**4C-5D,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	**0.25**	**26**	⇓P	**Pb**	**04 24 31.5**	**-0.6**
	185nm,0.2s,SNR=18						
EMEL				S	**Sb**	**04 24 36.3**	**+0.3**
	SNR=7.9						
EMLI	**Melilla**	**0.25**	**27**	P	**Pb**	**04 24 31.5**	**-0.6**
	185nm,0.2s,SNR=18						
MELI	**Melilla**	**0.25**	**30**	⇓P	**Pb**	**04 24 32.0**	**-0.1**
MELI				S	**Sb**	**04 24 36.1**	**0.0**
MELI	**Melilla**	**0.25**	**30**	*i* P	**Pb**	**04 24 32.0**	**-0.1**
ZAI	**Zaio**	**0.30**	**110**	*i* P	**Pb**	**04 24 28.0**	**-4.9**
TOU	**Touzarine**	**0.56**	**258**	*i* S	**Sb**	**04 24 50.0**	**+5.3**
TZK	**Tazeka**	**1.33**	**223**	*i* P	**Pn**	**04 24 51.0**	**+0.8**
TZK				*i* S	**Sb**	**04 25 09.0**	**+1.8**
EBER	**Berja**	**1.82**	**5**	P	**Pn**	**04 24 57.2**	**0.0**
	1.1nm,0.2s,SNR=13						
EBER				S	**Sn**	**04 25 19.0**	**-1.0**
	67nm,0.7s,SNR=12						
EBER	**Berja**	**1.82**	**5**	S	**Sn**	**04 25 19.0**	**-1.0**
	67nm,0.7s,SNR=12						
EBER	**Berja**	**1.82**	**5**	P	**Pn**	**04 24 57.2**	**0.0**
	1.1nm,0.2s,SNR=13						
EMIJ	**Mijas**	**2.02**	**318**	P	**Pn**	**04 24 59.4**	**-0.6**
	3.2nm,0.1s,SNR=44						
EMIJ				S	**Sn**	**04 25 24.8**	**-0.1**
	8.3nm,0.3s,SNR=8.6						
EMIJ	**Mijas**	**2.02**	**318**	S	**Sn**	**04 25 24.8**	**-0.1**
	8.3nm,0.3s,SNR=8.6						
ERON	**Agron**	**2.02**	**344**	P	**Pn**	**04 24 59.3**	**-0.7**
	3.6nm,0.2s,SNR=7.9						
ERON				S	**Sn**	**04 25 24.7**	**-0.3**
	8.7nm,0.3s,SNR=5.4						
ELOJ	**Sierra Loja**	**2.24**	**338**	P	**Pn**	**04 25 03.9**	**+0.8**
	1.3nm,0.2s,SNR=14						
ELOJ				S	**Sn**	**04 25 34.5**	**+3.9**
	4.6nm,0.3s,SNR=7.3						
MIF	**Mishlifen**	**2.43**	**227**	*i* P	**Pn**	**04 25 05.0**	**-0.8**
MIF				*i* S	**Sn**	**04 25 36.0**	**+0.7**
CZD	**Col de Zad**	**2.60**	**219**	*i* S	**Sn**	**04 25 41.0**	**+1.2**
ELUQ	**Luque**	**2.66**	**339**	⇑P	**Pn**	**04 25 10.6**	**+1.5**
	1.1nm,0.2s,SNR=18						
ELUQ				S	**Sn**	**04 25 43.9**	**+2.9**
	SNR=7.9						
EQES	**Quesada**	**2.72**	**0**	⇑P	**Pn**	**04 25 11.9**	**+1.9**
	4.7nm,0.2s,SNR=18						
EQES				S	**Sn**	**04 25 45.5**	**+2.7**
	34nm,0.4s,SNR=14						
EQES	**Quesada**	**2.72**	**0**	P	**Pn**	**04 25 11.9**	**+1.9**
	4.7nm,0.2s,SNR=18						
EQES				S	**Sn**	**04 25 45.5**	**+2.8**
	34nm,0.4s,SNR=14						
ESPR	**Espera**	**2.87**	**309**	P	**Pn**	**04 25 13.7**	**+1.6**
	0.7nm,0.1s,SNR=11						
ESPR				S	**Sn**	**04 25 47.1**	**+0.6**
	SNR=7.9						
ESPR	**Espera**	**2.87**	**309**	P	**Pn**	**04 25 13.7**	**+1.6**
	0.7nm,0.1s,SNR=11						
ESPR				S	**Sn**	**04 25 47.1**	**+0.6**
	SNR=7.9						
ZFT	**Errachidia**	**3.21**	**199**	*i* P	**Pn**	**04 25 15.0**	**-2.0**
ZFT				*i* S	**Sn**	**04 25 54.0**	**-1.2**
EADA	**Adamuz**	**3.31**	**339**	⇑P	**Pn**	**04 25 18.9**	**+0.6**
EADA				S	**Sn**	**04 25 57.1**	**-0.5**
EADA	**Adamuz**	**3.31**	**339**	⇑P	**Pn**	**04 25 19.0**	**+0.6**
	2.0nm,0.2s,SNR=18						
EADA				S	**Sn**	**04 25 57.1**	**-0.5**
	10.0nm,0.4s,SNR=7.9						
EADA	**Adamuz**	**3.31**	**339**	P	**Pn**	**04 25 19.0**	**+0.6**
	2.0nm,0.2s,SNR=18						
EADA				S	**Sn**	**04 25 57.1**	**-0.5**
	10.0nm,0.4s,SNR=7.9						
EVIA	**Vianos**	**3.59**	**7**	S	**Sn**	**04 26 05.9**	**+1.2**
	SNR=7.9						
EMIN	**Mina Concepcio**	**3.94**	**314**	⇓P	**Pn**	**04 25 26.9**	**-0.5**
	1.9nm,0.1s,SNR=18						
EMIN				S	**Sn**	**04 26 12.9**	**-0.8**
	SNR=7.9						
EMIN	**Mina Concepcio**	**3.94**	**314**	P	**Pn**	**04 25 26.9**	**-0.5**
	1.9nm,0.1s,SNR=18						
EMIN				S	**Sn**	**04 26 12.9**	**-0.8**
	SNR=7.9						
ESDC	**Sonseca Array**	**4.64**	**352**	P	**Pn**	**04 25 37.9**	**+0.6**
	1.1nm,0.3s,baz=172,slow=14,SNR=14						
ESDC	**Sonseca Array**	**4.64**	**352**	P	**Pn**	**04 25 37.9**	**+0.6**
	1.1nm,0.3s,SNR=14						
EBAD	**Badajoz**	**4.83**	**321**	⇓P	**Pn**	**04 25 39.4**	**-0.6**
	2.6nm,0.2s,SNR=18						
EBAD				S	**Sn**	**04 26 34.4**	**-1.8**
	SNR=7.9						
EBAD	**Badajoz**	**4.83**	**321**	⇓P	**Pn**	**04 25 39.4**	**-0.6**
EBAD				S	**Sn**	**04 26 34.4**	**-1.8**
PBEJ	**Beja**	**4.84**	**309**	*e*Pn	**Pn**	**04 25 40.0**	**-0.1**
PBEJ				*e*Sn	**Sn**	**04 26 36.1**	**-0.3**
	1.5nm,0.2s						
PBEJ	**Beja**	**4.84**	**309**	P	**Pn**	**04 25 40.0**	**-0.1**
PBEJ				S	**Sn**	**04 26 36.1**	**-0.3**
	0.8nm,0.2s						
PTEO	**Sao Teotonio**	**5.17**	**300**	*e*Pn	**Pn**	**04 25 44.7**	**-0.1**
PCBR	**Castelo Branco**	**5.90**	**325**	*e*Pn	**Pn**	**04 25 54.4**	**-0.6**
PLOU	**Loures**	**6.16**	**310**	*e*Pn	**Pn**	**04 25 57.8**	**-1.0**
MTE	**Manteigas**	**6.38**	**328**	*e*Pn	**Pn**	**04 26 01.1**	**-0.7**
PVRL	**Vila Real**	**7.18**	**331**	*e*Pn	**Pn**	**04 26 12.2**	**-0.9**
PBRG	**Braganca**	**7.30**	**338**	*e*Pn	**Pn**	**04 26 13.8**	**-1.0**

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*IDC **05** 04:25:47.7±1.2,14.43N×122.21E,mb4.1/4,mb1 4.3/4,mb1mx3.8/19,Error ellipse: s-maj=23.5km s-min=15.6km az=1.0*

*NEIC **05** 04:25:49.0±0.7,14.41N×122.11E,h10^{km},mb4.3/2,Error ellipse: s-maj=15.3km s-min=12.0km az=36.0*

*MAN **05** 04:25:52.9,13.60N×120.05E,h20^{km},mb4.0,ML2.8,MS2.5*

ISC 05 04:25:51.9±1.2,**13.55N**±0.05×**120.0E**±0.1,**h27**^{km}±8^{km},**n18,**σ**1**^{s}**13**/21,**mb4.2**/6,**1C-1D,Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	**Lubang**	**0.30**	**51**	*e*P	**Pb**	**04 25 59.4**	**+0.3**
LUBP				*e*S	**Sb**	**04 26 02.4**	**-1.5**
TGY	**Tagaytay City**	**1.06**	**58**	⇓*e*P	**Pn**	**04 26 11.7**	**+0.5**
TGY				*i* S	**Sb**	**04 26 30.3**	**+5.3**
TGY	**Tagaytay City**	**1.06**	**58**	Pg	**Pn**	**04 26 11.7**	**+0.5**
	396nm,0.3s,baz=240,slow=2.7,SNR=40						
TGY				Lg		04 26 29.2	
	986nm,0.3s,baz=279,slow=20,SNR=20						
NBP	**Mount Natib**	**1.25**	**18**	*e*P	**Pn**	**04 26 14.4**	**+0.5**
ARP	**Angono**	**1.49**	**48**	*e*P	**Pn**	**04 26 17.0**	**-0.3**
SJMP	**San Jose**	**1.53**	**135**	*e*P	**Pn**	**04 26 19.3**	**+1.4**
BOAC	**Boac**	**1.79**	**93**	*e*P	**Pn**	**04 26 22.1**	**+0.5**
PCPH	**Palayan**	**2.27**	**28**	⇑*e*P	**Pn**	**04 26 29.0**	**+0.5**
PCPH				*i* S	**Sn**	**04 26 55.8**	**-0.1**
ENPP	**El Nido**	**2.39**	**194**	*e*P	**Pn**	**04 26 32.6**	**+2.3**
BALP	**Baler**	**2.66**	**35**	*e*P	**Pn**	**04 26 36.0**	**+1.9**
CUYO	**Cuyo Island**	**2.86**	**160**	*e*P	**Pn**	**04 26 37.1**	**+0.2**
WRAB	**Tennant Creek**	**36.14**	**157**	*e*P	**P**	**04 32 51.9**	**-2.2**
	5.1nm,0.6s,mb4.6						
WRA	**Warramunga Arr**	**36.14**	**157**	P	**P**	**04 32 52.3**	**-1.9**
	3.7nm,0.7s,mb4.4,baz=336,slow=9.5,SNR=24						
ASAR	**Alice Springs**	**39.40**	**160**	P	**P**	**04 33 20.5**	**-1.0**
	1.5nm,0.5s,mb4.0,baz=339,slow=6.7,SNR=28						
KURK	**Kurchatov**	**49.95**	**327**	*e*P	**P**	**04 34 45.5**	**-0.1**
	1.4nm,0.7s,mb4.1						
BVAR	**Borovoye Array**	**55.52**	**326**	P	**P**	**04 35 27.3**	**+0.2**
	0.6nm,0.6s,mb3.8,baz=120,slow=12,SNR=4.3						
ARCES	**ARCESS Array B**	**78.99**	**339**	P	**P**	**04 37 53.5**	**-1.2**
	2.3nm,0.8s,mb4.1,baz=83,slow=7.3,SNR=4.6						
ARCES	**ARCESS Array B**	**78.99**	**339**	P	**P**	**04 37 53.5**	**-1.2**

IDC 05 04:34:13.9±31.0,**16.41S**×**176.72W,mb3.9**/4,**mb1 4.1**/4,**mb1mx3.8**/15,**Error ellipse: s-maj=605.0km**

s-min=159.3km az=85.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	40.76	240	P	P	04 41 56.9	-1.6
	0.5nm,0.4s,baz=104,slow=12,SNR=3.5						
WRA	**Warramunga Arr**	46.50	258	P	P	04 42 43.3	-1.8
	0.4nm,0.3s,baz=92,slow=7.5,SNR=5.7						
ASAR	**Alice Springs**	46.76	253	P	P	04 42 45.4	-1.7
	3.4nm,0.5s,baz=88,slow=8.5,SNR=33						
FITZ	**Fitzroy Crossi**	54.88	259	P	P	04 43 46.5	-2.4
	1.1nm,0.7s,baz=278,slow=7.1,SNR=3.2						

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*PRU **05** 04:47:32.3, 51.45N×16.07E*

WAR 05 04:47:31.5, 51.50N×16.09E, h1^{km}, ML2.6, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	0.67	169	ePG	Pg	04 47 44.0	-0.9
KSP				eSG	Sg	04 47 52.0	-1.9
UPC	**Upice**	1.00	183	ePG	Pg	04 47 50.6	-0.8
DPC	**Dobruska-Polom**	1.16	173	ePG	Pg	04 47 52.6	-2.1
DPC				eSG	Sg	04 48 07.8	-2.4
PVCC	**Panska Ves**	1.37	225	ePG	Pg	04 47 57.2	-1.6
PRU	**Pruhonice**	1.81	214	ePG	Pg	04 48 05.0	-2.6
PRU				ex	x	04 48 20.9	
PRU				SG	Sg	04 48 27.6	-4.1
	10nm,0.3s						
CLL	**Collm**	1.94	265	ePG	Pg	04 48 07.0	-3.3
CLL				e		04 48 28.0	
CLL				eSG	Sg	04 48 33.0	-3.2
OKC	**Ostrava-Krasne**	2.12	141	eSG	Sg	04 48 38.7	-3.3
NKC	**Novy Kostel**	2.63	243	ePN	Pn	04 48 15.4	-0.5
NKC				ePG	Pg	04 48 21.6	-2.5
NKC				eSG	Sg	04 48 55.0	-4.2
KHC	**Kasperske Hory**	2.87	215	ePG	Pg	04 48 25.5	-3.3
KHC				eSG	Sg	04 49 01.4	-5.6
MOX	**Moxa**	2.95	255	Pg	Pg	04 48 26.0	-4.4
MOX				Sg	Sg	04 49 06.0	-3.8

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*IDC **05** 04:53:47.8±10.0, 10.72S×77.33W, mb3.7/5, mb1 4.1/5, mb1mx3.9/16, MS3.5/1, Ms1 3.4/1, ms1mx2.4/22, Error ellipse: s-maj=265.0km s-min=127.2km az=7.0*

*NEIC **05** 04:53:57.6±0.6, 10.46S×77.79W, h50^{km}, mb4.2/2, Error ellipse: s-maj=22.3km s-min=9.8km az=225.0*

NEIC Felt [II] at Barranca and Huacho.

ISC 05 04:53:54.4±0.7**, 10.4S**±0.1×**77.8W**±0.2**, h33^{km}, n12, σ0^{s}79**/12**, mb3.9**/7**, MS3.4**/1**, 1D, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	1.87	148	⇓iPg	P	04 54 26.0	+1.5
NNA				eSg	S	04 54 46.2	-1.0
SAML	**Samuel**	14.52	86	eP	P	04 57 19.9	+0.3
TRN	**Trinidad (W)**	26.53	39	eP	P	04 59 36.0	+4.7
BDFB	**Brasilia**	29.51	103	LR	LR	05 12 19.2	
	comp=Z,83nm,18.6s,MS3.4,baz=318,slow=38						
TXAR	**Lajitas Array**	46.69	328	P	P	05 02 22.9	+0.8
	0.9nm,0.8s,mb3.8,baz=153,slow=9.7,SNR=12						
ANMO	**Albuquerque**	52.61	330	eP	P	05 03 07.8	+0.4
	3.3nm,1.1s,mb4.2						
SDCO	**Great Sand Dun**	54.44	333	eP	P	05 03 21.0	0.0
	1.7nm,0.8s,mb4.0						
PDAR	**Pinedale Array**	60.32	334	P	P	05 04 01.5	-1.0
	1.0nm,1.1s,mb3.8,baz=158,slow=4.9,SNR=3.4						
NVAR	**Mina Array Bea**	61.51	325	P	P	05 04 11.0	+0.4
	1.5nm,0.9s,mb4.1,baz=135,slow=6.4,SNR=7.9						
ULM	**Lac du Bonnet**	62.40	347	P	P	05 04 15.6	-0.8
	1.7nm,0.8s,mb4.2,baz=155,slow=7.0,SNR=3.6						
YKA	**Yellowknife Ar**	78.04	343	P	P	05 05 50.4	-0.7
	0.2nm,0.7s,mb3.2,baz=135,slow=6.0,SNR=6.9						
YKA	**Yellowknife Ar**	78.04	343	P	P	05 05 50.4	-0.7

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*STR **05** 04:58:32.8±0.4, 48.03N×8.13E, h10^{km}±1^{km}, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **05** 04:58:32.3±0.2, 48.03N×8.16E, h10^{km}, Md2.1/3, Ml1.9/11, Error ellipse: s-maj=3.5km s-min=2.4km az=49.0*

ZUR 05 04:58:32.5, 48.04N×8.14E, h10^{km}, ML1.2/9**, 5D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLE	**Schleitheim**	0.36	139	⇓iPg	Pg	04 58 39.7	-0.2
SULZ	**Sulz-Cheisache**	0.51	182	ePg	Pg	04 58 42.8	-0.1
SULZ				eSg	Sg	04 58 49.9	+0.1
TRULL	**Truellikon**	0.53	137	⇓iPg	Pg	04 58 42.9	-0.4
STEIN	**Stein am Rhein**	0.61	127	⇓iPg	Pg	04 58 44.5	-0.4
WLS	**Welschbruch**	0.65	306	Pg	Pg	04 58 45.7	+0.2
WLS				Sg	Sg	04 58 53.9	-0.3
ECH	**Echery**	0.68	285	Pg	Pg	04 58 45.7	-0.5
ECH				Sg	Sg	04 58 55.1	-0.3
CDF	**Champ du Feu**	0.69	303	ePg	Pg	04 58 46.1	-0.3
CDF				eSg	Sg	04 58 53.8	-1.8
	11nm,0.3s						
MOF	**Molkenrain**	0.70	255	Pg	Pg	04 58 46.4	-0.2
MOF				Sg	Sg	04 58 55.8	-0.3
BALST	**Balsthal**	0.77	203	ePg	Pg	04 58 47.4	-0.5
WEIN	**Weingarten**	0.77	132	⇓iPg	Pg	04 58 47.2	-0.7
WILA	**Wila**	0.81	140	⇓iPg	Pg	04 58 48.3	-0.5
HINF	**Hinteralfeld**	0.89	256	ePg	Pg	04 58 48.8	-1.6
HINF				eSg	Sg	04 59 00.6	-1.8
	4.1nm,0.2s						
HAU	**Haudompre**	1.20	269	ePg	Pg	04 58 55.1	-1.5
HAU				eSg	Sg	04 59 09.9	-2.8
	3.8nm,0.2s						
RFYF	**Reffroy**	1.88	289	ePg	Pg	04 59 07.8	-2.2
	3.7nm,0.2s,baz=104						
RFYF				eSg	Sg	04 59 30.8	-4.2
CABF	**La Chapelle**	2.00	225	ePg	Pg	04 59 09.7	-2.7
CABF				eSg	Sg	04 59 35.3	-3.8
	0.5nm,0.2s						
SFTF	**Sexfontaines**	2.08	276	ePg	Pg	04 59 11.2	-3.0
	baz=104						
SFTF				eSg	Sg	04 59 37.4	-4.6
	1.3nm,0.2s						
MEZF	**Maizieres J’vi**	2.12	284	ePg	Pg	04 59 11.7	-3.1
	baz=106						
MEZF				eSg	Sg	04 59 38.0	-5.0
	1.0nm,0.2s						
SMF	**Signal de Mont**	3.24	246	eSg	Sg	05 00 13.7	-6.7
	0.6nm,0.3s						
SSF	**Saint Saulge**	3.29	254	ePg	Pg	04 59 33.6	-4.6
SSF				eSg	Sg	05 00 14.2	-7.8
	0.7nm,0.3s						
AVF	**Avril sur Loir**	3.48	251	ePg	Pg	04 59 37.2	-4.9
AVF				eSg	Sg	05 00 20.9	-7.6
	0.2nm,0.3s						

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*LDG **05** 04:59:55.3±0.2, 48.07N×8.03E, h11^{km}±1^{km}, Md2.1/3, Ml2.0/8, Error ellipse: s-maj=3.8km s-min=2.4km az=82.0*

STR 05 04:59:55.0±0.4**, 48.07N×8.04E, h10^{km}**±1^{km}**, Ml1.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLS	**Welschbruch**	0.57	307	Pg	Pg	05 00 06.9	+0.3
WLS				Sg	Sg	05 00 13.7	-0.6
ECH	**Echery**	0.61	284	Pg	Pg	05 00 07.1	-0.2
ECH				Sg	Sg	05 00 14.9	-0.6
CDF	**Champ du Feu**	0.61	304	ePg	Pg	05 00 07.2	-0.2
CDF				eP		05 00 07.7	
CDF				eSg	Sg	05 00 14.7	-1.0
	8.3nm,0.2s						
MOF	**Molkenrain**	0.65	251	Pg	Pg	05 00 08.1	+0.1
MOF				Sg	Sg	05 00 17.5	+0.7
HINF	**Hinteralfeld**	0.84	253	ePg	Pg	05 00 10.7	-1.1
HINF				ePn	Pn	05 00 11.6	-1.0
HINF				eSg	Sg	05 00 21.6	-1.4
	6.6nm,0.4s						
LOMF	**Lomont**	1.09	229	Pg	Pg	05 00 16.1	-0.7
HAU	**Haudompre**	1.14	267	ePn	Pn	05 00 14.7	-2.2
HAU				ePg	Pg	05 00 16.2	-1.6
HAU				eSg	Sg	05 00 30.6	-2.4
	9.4nm,0.3s						
RFYF	**Reffroy**	1.80	289	ePn	Pn	05 00 25.4	-1.0
	baz=106						
RFYF				ePg	Pg	05 00 28.5	-2.5
	baz=106						
RFYF				eSn	Sn	05 00 46.8	-2.7
RFYF				eSg	Sg	05 00 51.5	-3.5
	3.2nm,0.2s						
CABF	**La Chapelle**	1.97	223	ePg	Pg	05 00 32.0	-2.4
CABF				eSg	Sg	05 00 57.2	-3.6
	0.8nm,0.3s						
SFTF	**Sexfontaines**	2.02	275	ePn	Pn	05 00 26.8	-2.7
	baz=103						
SFTF				ePg	Pg	05 00 32.7	-2.6
	baz=104						
SFTF				eSn	Sn	05 00 51.1	-3.8
SFTF				eSg	Sg	05 00 58.8	-3.4
	2.0nm,0.2s						
MEZF	**Maizieres J’vi**	2.04	283	ePn	Pn	05 00 28.0	-1.9
	baz=103						
MEZF				ePg	Pg	05 00 33.6	-2.2
	baz=103						
MEZF				eSg	Sg	05 00 58.5	-4.5
	1.2nm,0.3s						
SSF	**Saint Saulge**	3.23	253	ePg	Pg	05 00 54.9	-4.6
SSF				eSg	Sg	05 01 35.9	-6.7
	0.4nm,0.3s						

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*NAO **05** 05:04:48.9±6.1, 60.31N×4.68E, h19^{km}±34^{km}, ML2.5*

*CSEM **05** 05:04:50.1±0.4, 60.84N×4.73E, h12^{km}, ML1.7, Error ellipse: s-maj=10.2km s-min=5.5km az=96.0*

BER 05 05:04:51.5±3.0**, 60.87N×4.54E, h16^{km}**±8^{km}**, MD1.9, ML1.7, ML2.5**(NAO)**, 2C, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUE	**Sulen**	0.21	30	eP	Pb	05 04 55.9	-0.7
SUE				eS	Sb	05 04 59.1	-0.9
SUE				AML	AML	05 04 59.3	
	comp=Z,701nm,0.1s						
ASK	**Askoy**	0.51	140	eP	Pb	05 05 00.9	-0.6
ASK				eS	Sb	05 05 08.1	-0.3
ASK				AML	AML	05 05 08.3	
	comp=Z,74nm,0.2s						
ASK	**Askoy**	0.51	140	eP	Pb	05 05 00.9	-0.6
	SNR=99						
ASK				eS	Sb	05 05 08.1	-0.3
	comp=Z,74nm,0.2s,SNR=99						
RUND	**Rundenannen**	0.61	138	⇑iP	Pb	05 05 02.8	-0.7
RUND				eS	Sb	05 05 11.1	-0.5
RUND				AML	AML	05 05 12.3	
	comp=Z,76nm,0.2s						
RUND	**Rundenannen**	0.61	138	⇑iP	Pb	05 05 02.8	-0.6
	SNR=97						
RUND				eS	Sb	05 05 11.1	-0.4
	comp=Z,76nm,0.2s,SNR=97						
BER	**Bergen**	0.63	141	eP	Pb	05 05 02.8	-0.8
BER				eS	Sb	05 05 10.9	-0.9
BER				AML	AML	05 05 11.6	
	comp=Z,55nm,0.2s						
BER	**Bergen**	0.63	141	eP	Pb	05 05 02.8	-0.8
	SNR=96						
BER				eS	Sb	05 05 10.9	-1.0
	comp=Z,55nm,0.2s,SNR=96						
EGD	**Espegrend**	0.69	150	eP	Pb	05 05 04.0	-0.7
EGD				eS	Sb	05 05 13.4	-0.3
EGD				AML	AML	05 05 15.1	
	comp=Z,19nm,0.1s						
EGD	**Espegrend**	0.69	150	eP	Pb	05 05 04.0	-0.7
	SNR=95						
EGD				eS	Sb	05 05 13.4	-0.3
	comp=Z,19nm,0.1s,SNR=95						
FOO	**Floro**	0.77	18	eP	Pb	05 05 04.7	-1.4
FOO				eS	Sb	05 05 14.5	-1.4
FOO				AML	AML	05 05 15.1	
	comp=Z,36nm,0.2s						
FOO	**Floro**	0.77	18	eS	Sb	05 05 14.5	-1.5
	comp=Z,36nm,0.2s,SNR=94						
HYA	**Hoyanger**	0.85	69	eP	Pb	05 05 07.2	-0.3
HYA				eS	Sb	05 05 18.2	-0.3
HYA				AML	AML	05 05 20.5	
	comp=Z,22nm,0.2s						
HYA	**Hoyanger**	0.85	69	eP	Pb	05 05 07.2	-0.3
	SNR=94						
HYA				eS	Sb	05 05 18.2	-0.3
	comp=Z,22nm,0.2s,SNR=94						
ODD1	**Odda**	1.42	132	eP	Pn	05 05 14.2	-2.6
ODD1				eS	Sb	05 05 33.5	-1.2
ODD1				AML	AML	05 05 34.4	
	comp=Z,21nm,0.3s						
ODD1	**Odda**	1.42	132	eP	Pn	05 05 14.2	-2.5
	SNR=55						
ODD1				eS	Sb	05 05 33.5	-1.2
	comp=Z,21nm,0.3s,SNR=55						
KMY	**Karmoy**	1.70	168	eP	Pn	05 05 18.9	-2.0
KMY				eS	Sn	05 05 40.0	-2.4
MOL	**Molde**	2.23	39	eSg	Sn	05 06 00.9	+5.2
MOL				AML	AML	05 06 03.2	
	comp=Z,4.4nm,0.4s						
DOMB	**Dombas**	2.47	60	ePg	Pn	05 05 33.7	+1.8
DOMB				eSg	Sn	05 06 05.7	+3.8
DOMB				AML	AML	05 06 07.0	
	comp=Z,4.6nm,0.1s						
NB2	**NORSAR Subarra**	3.26	84	Pn	Pn	05 05 39.6	-3.5
NB2				Pg	Pn	05 05 46.5	+3.4
NB2				Sn	Sn	05 06 16.1	-5.9
NB2				Lg		05 06 32.4	
NB2	**NORSAR Subarra**	3.26	84	Pg	Pn	05 05 46.5	+3.4
NB2				Sn	Sn	05 06 16.0	-5.9
HFS	**Hagfors**	4.59	95	Pn	Pn	05 05 58.0	-3.9
	baz=276,slow=14						
HFS				Sn	Sn	05 06 48.1	-7.3
	baz=283,slow=16						
HFS				Lg		05 07 11.4	
	baz=270,slow=37						

MAN 05 05:06:28.9, 13.73N×120.47E, h95^{km}, mb3.7, ML2.5, MS2.0, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	**Lubang**	0.21	270	eP	P	05 06 44.2	+1.6
LUBP				eS	S	05 06 54.4	+1.5
TGY	**Tagaytay City**	0.58	51	eP	P	05 06 46.1	+1.0
TGY				eS	S	05 06 59.9	+2.8
NBP	**Mount Natib**	1.00	357	eP	P	05 06 49.4	+0.2
BOAC	**Boac**	1.37	101	eP	P	05 06 53.4	-0.3
SJMP	**San Jose**	1.42	153	eP	P	05 06 54.8	+0.5
SJMP				eS	S	05 07 12.8	-0.3
ENPP	**El Nido**	2.71	202	eP	P	05 07 12.2	+0.6
CUYO	**Cuyo Island**	2.92	169	eP	P	05 07 13.9	-0.6

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*IDC **05** 05:17:42.3±1.4, 16.41S×177.21W, mb4.2/8, mb1 4.5/8, mb1mx4.3/15, MS4.0/13, Ms1 4.0/13, ms1mx3.9/20, Error ellipse: s-maj=95.9km s-min=20.5km az=148.0*

*NEIC **05** 05:17:42.7±0.7, 17.04S×176.78W, h10^{km}, mb4.4/6, Error ellipse: s-maj=37.6km s-min=14.1km az=147.0*

ISC 05 05:17:44.8±0.7**, 17.1S**±0.2×**176.8W**±0.2**, h33^{km}, n25, σ1^{s}15**/15**, mb4.2**/12**, MS4.0**/12**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	**Rarotonga**	16.65	107	LR	LR	05 26 35.3	
	comp=Z,448nm,18.7s,baz=280,slow=31						
URZ	**Urewera**	21.79	193	LR	LR	05 29 18.0	
	comp=Z,410nm,20.3s,MS3.8,baz=75,slow=31						
RPZ	**Rata Peaks**	28.50	199	LR	LR	05 34 09.4	
	comp=Z,313nm,20.8s,MS3.9,baz=2.1,slow=34						
CTA	**Charters Tower**	35.07	259	eP	P	05 24 38.2	+1.2
	6.1nm,0.9s,mb4.5						
CTA	**Charters Tower**	35.07	259	P	P	05 24 38.2	+1.1
	8.1nm,0.9s,mb4.7,baz=77,slow=12,SNR=6.7						
CTA				LR	LR	05 37 10.5	
	comp=Z,479nm,19.2s,MS4.3,baz=50,slow=34						
PMG	**Port Moresby**	35.81	278	LR	LR	05 36 53.2	
	comp=Z,95nm,20.9s,MS3.5,baz=51,slow=32						
STKA	**Stephens Creek**	40.35	241	eP	P	05 25 23.2	+2.0
	5.1nm,0.9s,mb4.2						
STKA	**Stephens Creek**	40.35	241	P	P	05 25 22.8	+1.6
	4.7nm,0.8s,mb4.3,baz=88,slow=9.0,SNR=10						
STKA				LR	LR	05 39 30.8	
	comp=Z,141nm,21.4s,MS3.8,baz=31,slow=32						
WRA	**Warramunga Arr**	46.27	259	P	P	05 26 08.5	-0.8
	1.0nm,0.9s,mb3.7,baz=91,slow=8.8,SNR=4.3						
ASAR	**Alice Springs**	46.47	253	P	P	05 26 08.8	-2.1
	5.4nm,0.9s,mb4.5,baz=88,slow=8.5,SNR=20						
ASAR				LR	LR	05 44 29.0	
	comp=Z,368nm,19.1s,MS4.3,baz=93,slow=35						
ASPA	**Alice Springs**	46.47	253	eP	P	05 26 11.6	+0.8
VNDA	**Vanda**	61.43	185	LR	LR	05 52 11.0	
	comp=Z,61nm,18.9s,MS3.8,baz=8.2,slow=33						
QSPA	**South Pole Qui**	73.00	180	eP	P	05 29 11.2	-1.3
	9.0nm,1.1s,mb4.6						
NVAR	**Mina Array Bea**	77.77	43	P	P	05 29 40.5	0.0
	0.7nm,0.8s,mb3.6,baz=230,slow=9.0,SNR=3.7						
TPNV	**Topopah Spring**	78.35	45	eP	P	05 29 44.6	+0.9
	1.8nm,0.9s,mb4.0						
HLID	**Hailey**	83.00	40	eP	P	05 30 08.7	+0.6
	1.3nm,0.8s,mb4.0						
TXAR	**Lajitas Array**	84.27	57	P	P	05 30 16.5	+1.5
	2.4nm,1.2s,mb4.2,baz=214,slow=4.5,SNR=6.9						
TXAR				LR	LR	05 59 37.9	
	comp=Z,56nm,20.3s,MS3.9,baz=305,slow=30						
COLA	**College**	84.62	12	eP	P	05 30 15.0	-0.9
	11nm,1.0s,mb5.0						
ILAR	**Eielson Array**	84.72	12	P	P	05 30 15.0	-1.4
	5.0nm,1.0s,mb4.6,baz=226,slow=5.5,SNR=12						
ILAR				LR	LR	06 06 19.0	
	comp=Z,53nm,18.4s,MS4.0,baz=351,slow=35						
MAW	**Mawson**	85.17	199	LR	LR	06 06 51.7	
	comp=Z,89nm,18.1s,MS4.2,baz=248,slow=34						
PDAR	**Pinedale Array**	85.70	43	P	P	05 30 21.4	-0.3
	0.6nm,1.0s,mb3.8,baz=180,slow=5.4,SNR=2.7						
CMAR	**Chiang Mai Arr**	90.01	289	LR	LR	06 08 02.2	
	comp=Z,32nm,20.1s,MS3.7,baz=45,slow=34						
YKA	**Yellowknife Ar**	92.93	24	LR	LR	06 06 23.8	
	comp=Z,87nm,18.2s,MS4.2,baz=225,slow=32						
BRTR	**Keskin Array B**	145.21	317	PKP	PKPdf	05 37 20.8	+1.4
	5.4nm,0.9s,baz=63,slow=2.8,SNR=12						
MLR	**Muntele Rosu**	145.84	331	PKPbc	PKPbc	05 37 22.3	+1.2
	2.5nm,1.0s,baz=61,slow=0.7,SNR=3.7						

DJA 05 05:24:43.2±0.7**, 8.62S×114.73E, h128^{km}**±6^{km}**, MD4.8**/4**, ML4.0**/1**, 4C-7D, Error ellipse: s-maj=17.9km s-min=5.9km az=12.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KELI	**Kelakatan**	0.47	329	⇓ePn	P	05 25 02.7	+0.7
	1μm,0.2s						
KELI	**Kelakatan**	0.47	329	⇓iP	P	05 25 02.9	+0.9
KELI				⇓iSn	S	05 25 16.0	-0.2
SRDI	**Scrawed**	0.60	283	⇑ePn	P	05 25 03.0	+0.2
	253nm,0.2s						
SRDI	**Scrawed**	0.60	283	⇓iP	P	05 25 03.2	+0.4
SRDI				⇑iSn	S	05 25 15.9	-1.8
RATI	**Rata**	0.80	98	⇓iPn	P	05 25 04.0	-0.2
	701nm,0.2s						
RATI				⇑iSn	S	05 25 18.4	-1.9
KEDI	**Kedomdong**	1.37	85	⇑iPn	P	05 25 09.7	-0.4
	162nm,0.2s						
KEDI	**Kedomdong**	1.37	85	⇓iP	P	05 25 09.9	-0.2
KEDI				⇓iSn	S	05 25 27.7	-3.0

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*NIED **05** 05:26:00, 41.00N×142.00E, h59^{km}, Mw4.1 Best double couple: M$_0$1.63×10^{15} NP1:ϕ_s19°, δ71°, λ92°. NP2:ϕ_s194°, δ19°, λ85°.*

*MOS **05** 05:26:29.6±1.0, 40.84N×142.11E, h46^{km}, mb4.7/12, Error ellipse: s-maj=21.8km s-min=10.3km az=94.1*

*JMA **05** 05:26:33.6±0.1, 40.97N×142.01E, h56^{km}±2^{km}, M4.3*

JMA Felt II J1.

*IDC **05** 05:26:35.2±2.4, 40.94N×141.97E, h74^{km}±20^{km}, mb3.9/17, mb1 4.1/18, mb1mx4.0/25, MS3.2/2, Ms1 3.2/2, ms1mx2.6/31, Error ellipse: s-maj=17.7km s-min=13.8km az=105.0*

*NEIC **05** 05:26:36.6±0.9, 40.95N×141.91E, h87^{km}±8^{km}, mb4.5/20, MW4.1(NIED), Error ellipse: s-maj=8.0km s-min=6.5km az=217.0*

NEIC Recorded [2 JMA] in Aomori and Iwate Prefectures.

ISC 05 05:26:33.4±0.4**, 40.97N**±0.03×**141.90E**±0.06**, h69^{km}**±3^{km}**, n97, σ0^{s}77**/103**, mb4.3**/42**, 3C-10D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTM	**Tenmabayashi**	0.66	254	⇓P	P	05 26 48.1	+0.2
JTM				eS	S	05 26 58.3	-0.3
JANG	**Nango**	0.66	206	⇓P	P	05 26 47.6	-0.3
JANG				eS	S	05 26 57.2	-1.5
JOT	**Ohata**	0.77	303	⇓P	P	05 26 49.0	-0.1
JOT				eS	S	05 27 00.2	-0.6
JKB	**Kayabe**	1.13	325	⇓P	P	05 26 53.6	-0.2
JKB				eS	S	05 27 07.9	-1.0
JAH	**Hinai**	1.24	232	⇓P	P	05 26 55.9	+0.6
JAH				eS	S	05 27 12.6	+1.1
JSR	**Shiriuchi**	1.25	297	⇓P	P	05 26 55.8	+0.3
JSR				eS	S	05 27 11.5	-0.3
JEM	**Erimo**	1.41	42	P	P	05 26 57.1	-0.6
JNBK	**Urakawa-nobuka**	1.46	26	P	P	05 26 58.0	-0.3
JNBK				eS	S	05 27 18.4	+1.7
JIW	**Iwasaki**	1.49	256	P	P	05 26 59.0	+0.3
JOM	**Ohasama**	1.56	198	⇑P	P	05 26 59.7	0.0
JOM				eS	S	05 27 18.6	-0.5
ASAJ	**Asahikawa**	3.19	9	P	P	05 27 22.2	-0.2
	19nm,0.3s,baz=221,slow=7.6,SNR=30						
ASAJ				S	S	05 28 01.1	+1.7
	20nm,0.3s,baz=352,slow=28,SNR=8.5						
ASAJ				LR	LR	05 28 51.4	
	comp=Z,185nm,19.2s,baz=80,slow=42						
ASAJ	**Asahikawa**	3.19	9	P	P	05 27 22.3	-0.1
ASAJ				S	S	05 28 01.2	+1.8
ASAJ				pmax	pmax		
	comp=Z,19nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,185nm,19.2s						
MAJO	**Matsushiro**	5.28	214	ePn	P	05 27 53.3	+1.8
	comp=Z,10.0nm,0.4s						
MAT	**Matsushiro**	5.28	214	P	P	05 27 53.1	+1.6
MAT	**Matsushiro**	5.28	214	eP	P	05 27 53.0	+1.5
	comp=Z,6.7nm,0.6s						
KUR	**Kuril’sk**	6.10	44	⇑iP	P	05 27 58.0	-4.9
KUR				eS	S	05 29 03.6	-8.5
KUR				pmax	pmax		
	comp=N,100nm,0.6s						
KUR				pmax	pmax		
	comp=Z,170nm,0.6s						
KUR				smax			
	comp=N,170nm,0.7s						
KUR				smax			
	comp=E,90nm,0.7s						
KS15	**Wonju Array Si**	11.43	257	P	P	05 29 16.2	+0.4
HIA	**Hailar**	17.66	305	eP	P	05 30 36.4	+0.4
	comp=E,7.2nm,0.5s						
JOW	**Kunigami**	18.04	223	LR	LR	05 38 21.8	
	comp=E,153nm,18.5s,baz=306,slow=39						
ULN	**Ulaanbaatar**	25.67	297	eP	P	05 31 58.9	+0.6
	comp=E,2.5nm,0.8s,mb3.7						
SONM	**Songino Array**	26.11	297	P	P	05 32 02.6	+0.2
	comp=E,2.4nm,0.6s,mb3.8,baz=80,slow=8.3,SNR=11						
ZAL	**Zalesovo**	39.66	309	P	P	05 34 00.6	+0.8
	comp=E,3.9nm,0.4s,mb4.6,baz=30,slow=8.0,SNR=9.2						
ZAL	**Zalesovo**	39.66	309	P	P	05 34 00.6	+0.8
ZAL				pmax	pmax		
	comp=Z,4.0nm,0.4s						
ZAL	**Zalesovo**	39.66	309	P	P	05 34 00.6	+0.8
CMAR	**Chiang Mai Arr**	42.98	252	P	P	05 34 28.4	+0.9
	comp=Z,2.4nm,0.9s,mb3.9,baz=43,slow=7.6,SNR=11						
CMAR	**Chiang Mai Arr**	42.98	252	P	P	05 34 28.5	+1.0
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KURK	**Kurchatov**	43.90	305	eP	P	05 34 33.9	-0.6
	comp=Z,5.9nm,0.7s,mb4.4						
ILAR	**Eielson Array**	46.01	34	P	P	05 34 50.8	-0.4
	comp=Z,0.9nm,0.7s,mb3.6,baz=268,slow=5.7,SNR=21						
ILAR	**Eielson Array**	46.01	34	P	P	05 34 50.8	-0.4
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GUN	**Gumba**	47.26	272	eP	P	05 35 02.1	+0.5
	comp=Z,60nm,0.5s,mb5.5						
KKN	**Kakani**	47.78	273	eP	P	05 35 05.7	+0.1
	comp=Z,45nm,0.7s,mb5.4						
PKI	**Pulchoki**	47.79	272	eP	P	05 35 05.9	+0.1
CHKZ	**Chkalovo**	47.97	311	eP	P	05 35 06.2	-0.6
	comp=Z,3.4nm,0.3s,mb4.7						
DMN	**Daman**	48.00	272	eP	P	05 35 07.6	+0.2
GKN	**Gorkha**	48.15	273	eP	P	05 35 08.4	-0.1
	comp=Z,11nm,0.3s,mb5.2						
TKM2	**Tokmak 2**	48.19	296	eP	P	05 35 08.9	+0.4
	comp=Z,10nm,0.5s,mb4.9						
BVAR	**Borovoye Array**	48.28	310	P	P	05 35 08.9	-0.2

	comp=Z,6.0nm,0.3s,mb4.8,baz=78,slow=9.6,SNR=73						
BRVK	**Borovoye**	**48.33**	**310**	*e*P	**P**	**05 35 09.1**	**-0.5**
	comp=Z,1.9nm,0.4s,mb4.3						
AAK	**Ala-Archa**	**49.05**	**296**	*e*P	**P**	**05 35 13.8**	**-1.4**
	comp=Z,2.5nm,0.8s,mb4.2						
KOLN	**Koldanda**	**49.06**	**274**	*e*P	**P**	**05 35 15.7**	**+0.2**
	comp=Z,10.0nm,0.5s,mb5.0						
EKS2	**Erkin-Say**	**49.53**	**296**	*e*P	**P**	**05 35 18.2**	**-0.7**
AML	**Almayashu**	**49.79**	**295**	*e*P	**P**	**05 35 22.2**	**+1.3**
	comp=Z,2.7nm,0.5s,mb4.4						
ARU	**Arti**	**53.71**	**317**	*e*P	**P**	**05 35 50.3**	**+0.1**
KEV	**Kevo**	**59.91**	**339**	*e*p	**P**	**05 36 32.4**	**-1.6**
YKA	**Yellowknife Ar**	**60.24**	**31**	P	**P**	**05 36 34.7**	**-1.6**
	comp=Z,0.5nm,0.7s,mb3.6,baz=302,slow=6.5,SNR=5.6						
YKA	**Yellowknife Ar**	**60.24**	**31**	P	**P**	**05 36 34.7**	**-1.6**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**60.24**	**31**	P	**P**	**05 36 34.7**	**-1.6**
ARCES	**ARCESS Array B**	**60.47**	**339**	P	**P**	**05 36 36.7**	**-1.1**
	comp=Z,6.7nm,1.1s,mb4.6,baz=63,slow=8.1,SNR=10						
ARCES	**ARCESS Array B**	**60.47**	**339**	P	**P**	**05 36 36.7**	**-1.1**
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ARCES	**ARCESS Array B**	**60.47**	**339**	P	**P**	**05 36 36.7**	**-1.1**
WRA	**Warramunga Arr**	**61.00**	**188**	P	**P**	**05 36 40.1**	**-1.9**
	comp=Z,1.2nm,0.5s,mb4.2,baz=6.0,slow=7.1,SNR=20						
WRA	**Warramunga Arr**	**61.00**	**188**	P	**P**	**05 36 40.1**	**-2.0**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
JOF	**Joensuu**	**62.69**	**331**	*e*p	**P**	**05 36 51.4**	**-1.4**
ASAR	**Alice Springs**	**64.73**	**188**	P	**P**	**05 37 05.5**	**-1.2**
	comp=Z,0.5nm,0.5s,mb3.6,baz=15,slow=14,SNR=15						
KAF	**Kangasniemi**	**65.00**	**332**	*e*p	**P**	**05 37 06.8**	**-1.0**
	comp=Z,3.1nm,0.4s,mb4.5,baz=47,slow=6.2						
KAF	**Kangasniemi**	**65.00**	**332**	*e*P	**P**	**05 37 06.8**	**-1.0**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.5						
OBN	**Obninsk**	**65.20**	**322**	⇓*i*P	**P**	**05 37 08.6**	**-0.6**
OBN				*e*		05 37 47.6	
OBN				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.8						
FINES	**FINESS Array B**	**65.53**	**332**	P	**P**	**05 37 10.4**	**-0.8**
	comp=Z,7.2nm,0.4s,mb4.8,baz=47,slow=7.6,SNR=112						
FINES	**FINESS Array B**	**65.53**	**332**	P	**P**	**05 37 10.4**	**-0.8**
FINES				pmax	pmax		
	comp=Z,7.0nm,0.4s						
VRSR	**Storozhevoye**	**66.24**	**318**	*e*P	**P**	**05 37 15.1**	**-0.8**
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.6						
VRSR				pmax	pmax		
	comp=N,8.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,6.0nm,1.4s						
HFS	**Hagfors**	**70.67**	**335**	P	**P**	**05 37 42.6**	**-0.6**
	comp=E,3.5nm,0.3s,mb4.6,baz=34,slow=6.5,SNR=64						
HFS	**Hagfors**	**70.67**	**335**	P	**P**	**05 37 42.6**	**-0.5**
HFS				pmax	pmax		
	comp=Z,4.0nm,0.3s						
NB2	**NORSAR Subarra**	**70.72**	**337**	P	**P**	**05 37 42.8**	**-0.6**
	comp=Z,1.7nm,0.5s,mb4.1,baz=36,slow=6.2						
NOA	**NORSAR Array B**	**70.72**	**337**	P	**P**	**05 37 42.9**	**-0.5**
	comp=Z,3.0nm,0.7s,mb4.2,baz=38,slow=6.0,SNR=9.5						
NOA	**NORSAR Array B**	**70.72**	**337**	P	**P**	**05 37 42.9**	**-0.5**
NOA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AKASG	**Malin Array Be**	**71.44**	**322**	P	**P**	**05 37 47.3**	**-0.6**
	comp=Z,3.0nm,0.5s,mb4.4,baz=43,slow=6.2,SNR=26						
AKASG	**Malin Array Be**	**71.44**	**322**	P	**P**	**05 37 47.3**	**-0.6**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
NVAR	**Mina Array Bea**	**72.36**	**54**	P	**P**	**05 37 54.3**	**+0.7**
	comp=Z,0.4nm,0.7s,mb3.4,baz=282,slow=6.0,SNR=4.3						
BW06	**Boulder Array**	**74.66**	**46**	*e*P	**P**	**05 38 06.7**	**-0.2**
	comp=Z,0.8nm,0.8s,mb3.5						
PDAR	**Pinedale Array**	**74.66**	**46**	P	**P**	**05 38 07.2**	**+0.4**
	comp=Z,1.1nm,1.1s,mb3.5,baz=282,slow=2.4,SNR=5.8						
CLL	**Collm**	**77.88**	**330**	P	**P**	**05 38 25.0**	**+0.2**
PV10	**Paradox Valley**	**77.91**	**49**	*e*P	**P**	**05 38 26.0**	**+0.7**
KHC	**Kasperske Hory**	**79.40**	**328**	*e*P	**P**	**05 38 33.5**	**+0.3**
EKA	**Eskdalemuir Ar**	**79.56**	**341**	P	**P**	**05 38 33.7**	**-0.2**
	comp=Z,2.5nm,0.9s,mb4.0,baz=30,slow=4.6,SNR=4.6						
EKA	**Eskdalemuir Ar**	**79.56**	**341**	P	**P**	**05 38 33.7**	**-0.2**
EKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
GERES	**GERESS Array B**	**79.58**	**328**	P	**P**	**05 38 34.9**	**+0.7**
	comp=Z,0.9nm,0.5s,mb3.8,baz=36,slow=5.7,SNR=15						
GERES	**GERESS Array B**	**79.58**	**328**	P	**P**	**05 38 34.9**	**+0.7**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FLN	**La Foliniere**	**84.68**	**336**	*e*P	**P**	**05 39 00.2**	**-0.2**
LDF	**La Druitiere**	**84.72**	**336**	*e*P	**P**	**05 39 00.4**	**-0.2**
	comp=Z,3.6nm,0.5s,mb4.2						
SSF	**Saint Saulge**	**84.86**	**333**	*e*P	**P**	**05 39 01.5**	**+0.1**
	comp=Z,3.2nm,0.7s,mb4.1						
LPL	**La Plagne**	**85.02**	**330**	*e*P	**P**	**05 39 02.8**	**+0.6**
	comp=Z,4.2nm,0.7s,mb4.2						
LPG	**La Plagne**	**85.03**	**330**	*e*P	**P**	**05 39 03.0**	**+0.8**
	comp=Z,8.5nm,0.7s,mb4.5						
SMF	**Signal de Mont**	**85.11**	**332**	*e*P	**P**	**05 39 02.9**	**+0.3**
GRR	**Gorron**	**85.12**	**336**	*e*P	**P**	**05 39 02.7**	**+0.1**
AVF	**Avril sur Loir**	**85.15**	**333**	*e*P	**P**	**05 39 03.0**	**+0.2**
	comp=Z,8.3nm,0.8s,mb4.4						
MBDF	**Montbardon**	**85.67**	**330**	*e*P	**P**	**05 39 06.0**	**+0.6**
	comp=Z,15nm,1.0s,mb4.6						
SGMF	**Saint Gilles**	**85.76**	**337**	*e*P	**P**	**05 39 05.5**	**-0.2**
	comp=Z,8.1nm,0.8s,mb4.4						
ORIF	**Oris-en-Rattie**	**85.85**	**330**	*e*P	**P**	**05 39 06.6**	**+0.3**
	comp=Z,7.2nm,0.8s,mb4.4						
TCF	**Toulx Ste Croi**	**85.98**	**333**	*e*P	**P**	**05 39 07.4**	**+0.5**
VIVF	**Saint-Julien-l**	**86.35**	**331**	*e*P	**P**	**05 39 09.1**	**+0.4**
MFF	**Saint Martin d**	**86.48**	**335**	*e*P	**P**	**05 39 10.0**	**+0.7**
	comp=Z,12nm,0.8s,mb4.6						
CAF	**Calviac**	**87.22**	**333**	*e*P	**P**	**05 39 14.0**	**+1.0**
	comp=Z,11nm,0.8s,mb4.5						
LFF	**La Frestale**	**87.66**	**334**	*e*P	**P**	**05 39 16.0**	**+0.9**
SNAA	**Sanae**	**144.60**	**198**	⇓*i*	PKPbc	05 46 00.6	0.0
VNA2	**Neumayer--Watz**	**146.19**	**198**	⇑*i*	PKPdf	05 46 08.1	+4.6
VNA3	**Neumayer Olymp**	**146.45**	**196**	⇓*i*	PKPdf	05 46 08.4	+4.5
VNA1	**Neumayer--Stat**	**146.59**	**198**	⇓*i*	PKPdf	05 46 08.4	+4.2

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*CNRM **05** 05:28:09.8, 35.15N×2.78W, h4^{km}, MD3.8*

*CSEM **05** 05:28:11.9±0.2, 35.13N×3.09W, h20^{km}, MD3.8, Error ellipse: s-maj=6.5km s-min=2.8km az=103.0*

*NEIC **05** 05:28:12.4, 35.10N×3.16W, MG3.5(MDD), After MDD.*

*MDD **05** 05:28:13.6±1.2, 35.16N×3.19W, mb3.5/12, Error ellipse: s-maj=11.3km s-min=3.9km az=177.0, PRXIMO AftershockPLICA*

ISC 05 05:28:12.2±0.4, 35.15N±0.02×3.19W±0.04, h10^{km}, n34, σ1^{s}16/57, 1C, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	**0.24**	**51**	P	**Pg**	**05 28 17.1**	**-0.3**
	120nm,0.1s,SNR=5.0						
EMEL				S	**Sg**	**05 28 20.8**	**+0.1**
	633nm,0.2s,SNR=12						
EMLI	**Melilla**	**0.25**	**52**	P	**Pg**	**05 28 17.1**	**-0.3**
	120nm,0.1s,SNR=5.0						
MELI	**Melilla**	**0.25**	**55**	P	**Pg**	**05 28 19.1**	**+1.5**
MELI				S	**Sg**	**05 28 21.3**	**+0.2**
MELI	**Melilla**	**0.25**	**55**	*i* P	**Pg**	**05 28 19.1**	**+1.6**
TOU	**Touzarine**	**0.50**	**249**	*i* P	**Pg**	**05 28 25.0**	**+2.7**
TOU				*i* S	**Sg**	**05 28 36.0**	**+6.9**
TZK	**Tazeka**	**1.34**	**218**	*i* P	**Pb**	**05 28 36.0**	**-0.9**
TZK				*i* S	**Sb**	**05 28 55.0**	**+1.0**
EBER	**Berja**	**1.76**	**8**	P	**Pn**	**05 28 41.9**	**-1.1**
	1.7nm,0.3s,SNR=6.2						
EBER				S	**Sn**	**05 29 03.5**	**-2.3**
	79nm,0.6s,SNR=16						
EBER	**Berja**	**1.76**	**8**	P	**Pn**	**05 28 41.9**	**-1.2**
	1.7nm,0.3s,SNR=6.2						
EBER				S	**Sn**	**05 29 03.5**	**-2.2**
	79nm,0.6s,SNR=16						
EMIJ	**Mijas**	**1.91**	**318**	P	**Pn**	**05 28 44.7**	**-0.5**
	3.7nm,0.4s,SNR=11						
EMIJ				S	**Sn**	**05 29 09.6**	**+0.1**
	18nm,0.5s						
ERON	**Agron**	**1.93**	**345**	P	**Pn**	**05 28 44.9**	**-0.6**
	2.0nm,0.2s,SNR=4.0						
ERON				S	**Sn**	**05 29 10.1**	**+0.1**
	6.4nm,0.4s,SNR=7.9						
ELOJ	**Sierra Loja**	**2.14**	**339**	P	**Pn**	**05 28 49.4**	**+0.9**
	1.9nm,0.3s,SNR=7.4						
ELOJ				S	**Sn**	**05 29 16.1**	**+0.7**
	4.3nm,0.4s						
MIF	**Mishlifen**	**2.42**	**225**	*i* P	**Pn**	**05 28 52.0**	**-0.5**
MIF				*i* S	**Sn**	**05 29 24.0**	**+1.5**
ELUQ	**Luque**	**2.56**	**340**	P	**Pn**	**05 28 55.7**	**+1.2**
	2.8nm,0.2s,SNR=5.9						
ELUQ				S	**Sn**	**05 29 28.7**	**+2.7**
	6.4nm,0.4s						
ELUQ	**Luque**	**2.56**	**340**	S	**Sn**	**05 29 28.7**	**+2.7**
	6.4nm,0.4s						
CZD	**Col de Zad**	**2.61**	**217**	*e*P	**Pn**	**05 28 55.0**	**-0.2**
CZD				*i* S	**Sn**	**05 29 28.0**	**+0.7**
EQES	**Quesada**	**2.65**	**2**	⇑P	**Pn**	**05 28 57.0**	**+1.2**
	2.4nm,0.2s,SNR=18						
EQES				S	**Sn**	**05 29 30.7**	**+2.4**
	27nm,0.3s						
EQES	**Quesada**	**2.65**	**2**	S	**Sn**	**05 29 30.7**	**+2.4**
	27nm,0.3s						
EQES	**Quesada**	**2.65**	**2**	P	**Pn**	**05 28 57.0**	**+1.2**
	2.4nm,0.2s,SNR=18						
ESPR	**Espera**	**2.76**	**309**	P	**Pn**	**05 28 58.8**	**+1.4**
	1.3nm,0.1s,SNR=7.0						
ESPR				S	**Sn**	**05 29 31.5**	**+0.4**
	3.4nm,0.4s						
ESPR	**Espera**	**2.76**	**309**	P	**Pn**	**05 28 58.8**	**+1.4**
	1.3nm,0.1s,SNR=7.0						
ESPR				S	**Sn**	**05 29 31.5**	**+0.4**
	3.4nm,0.4s						
EADA	**Adamuz**	**3.21**	**340**	P	**Pn**	**05 29 04.0**	**+0.2**
	2.8nm,0.3s,SNR=13						
EADA				S	**Sn**	**05 29 41.8**	**-0.7**
	8.5nm,0.3s						
EADA	**Adamuz**	**3.21**	**340**	P	**Pn**	**05 29 04.0**	**+0.2**
	2.8nm,0.3s,SNR=13						
EADA	**Adamuz**	**3.21**	**340**	S	**Sn**	**05 29 41.8**	**-0.8**
	8.5nm,0.3s						
ZFT	**Errachidia**	**3.25**	**198**	*e*P	**Pn**	**05 29 03.0**	**-1.3**
ZFT	**Errachidia**	**3.25**	**198**	*i* S	**Sn**	**05 29 41.0**	**-2.5**
EVIA	**Vianos**	**3.53**	**9**	S	**Sn**	**05 29 50.7**	**+0.2**
	12nm,0.8s,SNR=4.0						
EMIN	**Mina Concepcio**	**3.84**	**314**	P	**Pn**	**05 29 12.1**	**-0.6**
	3.8nm,0.4s,SNR=11						
EMIN				S	**Sn**	**05 29 56.1**	**-2.3**
	1.7nm,0.5s						
EMIN	**Mina Concepcio**	**3.84**	**314**	P	**Pn**	**05 29 12.1**	**-0.5**
	3.8nm,0.4s,SNR=11						
EMIN				S	**Sn**	**05 29 56.1**	**-2.2**
	1.7nm,0.5s						
ESDC	**Sonseca Array**	**4.56**	**352**	P	**Pn**	**05 29 22.8**	**-0.1**
	1.4nm,0.2s,baz=172,slow=12,SNR=12						
ESDC				S	**Sn**	**05 30 14.7**	**-2.0**
	0.6nm,0.3s,baz=177,slow=22,SNR=4.2						
ESDC				Sb	**Sb**	**05 30 28.5**	**+1.0**
	baz=170,slow=28,SNR=9.4						
ESDC	**Sonseca Array**	**4.56**	**352**	P	**Pn**	**05 29 22.8**	**-0.1**
	1.4nm,0.2s,SNR=12						
ESDC				S	**Sn**	**05 30 14.7**	**-1.9**
	0.6nm,0.3s,SNR=4.2						
EBAD	**Badajoz**	**4.73**	**321**	P	**Pn**	**05 29 24.6**	**-0.7**
	1.9nm,0.3s,SNR=15						
EBAD				S	**Sn**	**05 30 19.5**	**-1.3**
	2.4nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	**4.73**	**321**	P	**Pn**	**05 29 24.6**	**-0.7**
EBAD				S	**Sn**	**05 30 19.5**	**-1.4**
PBEJ	**Beja**	**4.74**	**309**	*e*Pn	**Pn**	**05 29 25.1**	**-0.3**
PCBR	**Castelo Branco**	**5.79**	**325**	*e*Pn	**Pn**	**05 29 39.6**	**-0.7**

IDC 05 05:50:46.3±8.0, 6.73S×149.68E, h60^{km}±56^{km}, mb3.4/3, mb1 3.7/5, mb1mx3.5/14, ML3.6/2, Error ellipse: s-maj=60.3km s-min=52.9km az=140.0, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.65**	**223**	P	P	05 51 40.9	-0.8
	6.9nm,0.3s,baz=70,slow=6.7,SNR=18						
PMG				S	S	05 52 22.6	-1.2
	14nm,0.3s,baz=327,slow=23,SNR=10.0						
WB2	**Warramunga Arr**	**19.85**	**227**	*e*P	P	05 55 13.2	-1.9
WRA	**Warramunga Arr**	**19.86**	**227**	P	P	05 55 13.5	-1.7
	0.5nm,0.3s,baz=53,slow=11,SNR=26						
ASAR	**Alice Springs**	**22.66**	**220**	P	P	05 55 42.3	-1.2
	0.7nm,0.7s,baz=53,slow=9.8,SNR=13						
FITZ	**Fitzroy Crossi**	**26.02**	**242**	P	P	05 56 14.0	-1.8
	0.7nm,0.4s,baz=73,slow=11,SNR=9.1						
STKA	**Stephens Creek**	**26.13**	**196**	P	P	05 56 14.7	-2.0
	1.5nm,0.8s,baz=41,slow=12,SNR=3.8						

JMA 05 06:00:45.8±0.3, 44.00N×147.99E, h84^{km}, M3.8, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**1.75**	**250**	P	P	06 01 15.0	0.0
NEM2				*e*S	S	06 01 36.5	0.0
JRA	**Rausu**	**2.07**	**269**	P	P	06 01 19.3	-0.1
JRA				*e*S	S	06 01 45.0	+0.9
JNK	**Nakash**	**2.41**	**261**	P	P	06 01 23.6	-0.4
JNK				*e*S	S	06 01 52.3	-0.1
JAK	**Akkeshi**	**2.60**	**248**	P	P	06 01 26.4	-0.3
JAK				*e*S	S	06 01 56.8	-0.5
JTKR	**Abashiri--Toko**	**2.95**	**271**	P	P	06 01 30.8	-0.8
JAR	**Ashorobuto**	**3.14**	**259**	P	P	06 01 34.4	+0.1
JAR				*e*S	S	06 02 10.9	+0.1
JCH	**Churui**	**3.65**	**249**	P	P	06 01 41.2	-0.1
JCH				*e*S	S	06 02 22.4	-1.0
JNBK	**Urakawa-nobuka**	**4.20**	**248**	P	P	06 01 48.3	-0.6
JNBK				*e*S	S	06 02 34.3	-2.8
JKB	**Kayabe**	**5.53**	**250**	*e*S	S	06 03 05.7	-4.3
JOT	**Ohata**	**5.75**	**245**	*e*S	S	06 03 10.6	-4.8
JANG	**Nango**	**6.02**	**235**	*e*S	S	06 03 16.6	-5.6

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*NIED **05** 06:04:00, 42.90N×146.70E, h26^{km}, Mw4.2 Best double couple: M$_0$2.5×10^{15} NP1:ϕ_s64°, δ67°, λ111°. NP2:ϕ_s200°, δ31°, λ50°.*

*MOS **05** 06:04:32.1±1.1, 42.89N×146.76E, h33^{km}, mb4.5/13, Error ellipse: s-maj=21.0km s-min=8.9km az=111.3*

*SKHL **05** 06:04:32.5±0.8, 42.88N×146.88E, h46^{km}±11^{km}, mb5.2/2*

*JMA **05** 06:04:33.1±0.2, 42.86N×146.67E, h46^{km}±3^{km}, M4.4*

*NEIC **05** 06:04:36.6±1.2, 42.85N×146.40E, h50^{km}±11^{km}, mb4.4/5, Error ellipse: s-maj=10.4km s-min=8.6km az=157.0*

*BJI **05** 06:04:36.2, 42.58N×146.54E, h77^{km}, mb4.0*

*IDC **05** 06:04:37.4±3.7, 42.95N×146.45E, h53^{km}±32^{km}, mb3.8/19, mb1 4.0/20, mb1mx4.0/26, ML4.2/1, Error ellipse: s-maj=17.5km s-min=17.3km az=107.0*

ISC 05 06:04:34.4±0.9, 42.92N±0.05×146.59E±0.06, h46^{km}±6^{km}, n82, σ1^{s}01/89, mb4.1/26, 3C-4D, Off southeast coast of Hokkaido

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.76**	**306**	P	**P**	**06 04 48.9**	**0.0**
NEM2				*e*S	**S**	**06 05 00.0**	**+0.5**
YUK	**Yuzh-Kuril'sk**	**1.23**	**335**	⇑*i*PN	**P**	**06 04 54.0**	**-1.5**
YUK				*i* S	**S**	**06 05 11.0**	**-0.3**
YUK				pmax	pmax		
	comp=N,4µm,0.5s						
YUK				pmax	pmax		
	comp=E,2µm,0.5s						
YUK				pmax	pmax		
	comp=Z,3µm,0.5s						
YUK				pmax	pmax		
	comp=Z,10µm,1.0s						
YUK				pmax	pmax		
	comp=N,5µm,0.7s						
YUK				smax			
	comp=N,12µm,0.5s						
YUK				smax			
	comp=E,10µm,0.5s						
YUK				smax			
	comp=N,30µm,1.0s						
YUK				smax			
	comp=E,15µm,1.0s						
YUK	**Yuzh-Kuril'sk**	**1.23**	**335**	⇑*i*P	**P**	**06 04 54.0**	**-1.5**
YUK				⇑*i*P		06 04 54.0	
YUK				AMB	AMB	06 04 58.9	
	comp=E,4µm,0.5s						
YUK				AMB	AMB	06 04 58.9	
	comp=E,2µm,0.5s						
YUK				AMB	AMB	06 04 58.9	
	comp=E,3µm,0.5s						
YUK				AMB	AMB	06 04 59.0	
	comp=E,5µm,0.7s						
YUK				AMB	AMB	06 04 59.0	
	comp=E,10µm,1.0s						
YUK				*i* S	**S**	**06 05 11.0**	**-0.3**
YUK				A		06 05 14.5	
	comp=E,12µm,0.5s						
YUK				A		06 05 14.5	
	comp=E,10µm,0.5s						
YUK				A		06 05 15.8	
	comp=E,30µm,1.0s						
YUK				A		06 05 15.8	
	comp=E,15µm,1.0s						
JAK	**Akkeshi**	**1.39**	**274**	P	**P**	**06 04 57.4**	**-0.5**
JAK				*e*S	**S**	**06 05 15.4**	**+0.1**
JRA	**Rausu**	**1.48**	**314**	P	**P**	**06 04 59.1**	**+0.1**
JNK	**Nakash**	**1.52**	**297**	P	**P**	**06 04 59.2**	**-0.4**
JNK				*e*S	**S**	**06 05 18.5**	**+0.1**
JOB	**Onbets**	**2.02**	**270**	P	**P**	**06 05 06.3**	**-0.4**
JAR	**Ashorobuto**	**2.10**	**281**	P	**P**	**06 05 07.6**	**-0.2**
JAR				*e*S	**S**	**06 05 33.2**	**+0.4**
JTKR	**Abashiri--Toko**	**2.22**	**299**	P	**P**	**06 05 10.0**	**+0.5**
JTKR				*e*S	**S**	**06 05 37.7**	**+1.9**
JCH	**Churui**	**2.39**	**264**	P	**P**	**06 05 11.8**	**-0.3**
JCH				*e*S	**S**	**06 05 39.5**	**-0.8**
KUR	**Kuril'sk**	**2.49**	**21**	*e*PN	**P**	**06 05 09.8**	**-3.6**
KUR				*i* S	**S**	**06 05 41.3**	**-1.5**
KUR				pmax	pmax		
	comp=N,100nm,0.5s						
KUR				pmax	pmax		
	comp=E,90nm,0.5s						
KUR				pmax	pmax		
	comp=Z,170nm,0.5s						
KUR				smax			
	comp=N,680nm,0.6s						
KUR				smax			
	comp=E,480nm,0.6s						
KUR	**Kuril'sk**	**2.49**	**21**	*e*P	**P**	**06 05 09.8**	**-3.6**
KUR				AMB	AMB	06 05 15.0	
	comp=E,100nm,0.5s						
KUR				AMB	AMB	06 05 15.0	
	comp=E,90nm,0.5s						
KUR				AMB	AMB	06 05 15.0	
	comp=E,170nm,0.5s						
KUR				*i* S	**S**	**06 05 41.3**	**-1.5**
KUR				A		06 05 57.0	
	comp=E,680nm,0.6s						
KUR				A		06 05 57.0	
	comp=E,480nm,0.6s						
JMP	**Maruseppu**	**2.59**	**296**	P	**P**	**06 05 15.3**	**+0.5**
JMP				*e*S	**S**	**06 05 48.3**	**+3.0**
JEM	**Erimo**	**2.69**	**252**	P	**P**	**06 05 16.9**	**+0.6**
JNBK	**Urakawa-nobuka**	**2.90**	**259**	P	**P**	**06 05 18.8**	**-0.5**
JFR	**Furan**	**2.94**	**276**	P	**P**	**06 05 19.4**	**-0.4**
JKK2	**Kamakawa 2**	**2.96**	**290**	P	**P**	**06 05 21.9**	**+1.8**
JBT2	**Biratori 2**	**3.11**	**269**	P	**P**	**06 05 21.5**	**-0.7**
ASAJ	**Asahikawa**	**3.14**	**294**	P	**P**	**06 05 23.6**	**+1.0**
	comp=E,20nm,0.3s,baz=114,slow=13,SNR=26						
ASAJ				S	**S**	**06 06 05.7**	**+6.5**
	comp=E,19nm,0.3s,baz=14,slow=15,SNR=4.3						
ASAJ	**Asahikawa**	**3.14**	**294**	PN	**P**	**06 05 23.7**	**+1.0**
ASAJ				S	**S**	**06 06 05.7**	**+6.5**
ASAJ				pmax	pmax		
	comp=Z,20nm,0.3s						
YSS	**Yuzh-Sakhalins**	**4.87**	**327**	PN	**P**	**06 05 48.0**	**+1.0**
YSS				*e*		06 06 45.0	
YSS				MLR	MLR		
	comp=Z,2µm,17.0s						
YSS	**Yuzh-Sakhalins**	**4.87**	**327**	*e*P	**P**	**06 05 48.5**	**+1.5**
YSS	**Yuzh-Sakhalins**	**4.87**	**327**	*e*P	**P**	**06 05 48.0**	**+1.0**
TYV	**Tymovskoe**	**8.39**	**343**	*e*P	**P**	**06 06 35.0**	**-1.1**
MAJO	**Matsushiro**	**9.06**	**228**	*e*P	**P**	**06 06 41.4**	**-4.1**
FX1	**Attu Island--F**	**20.30**	**51**	*e*P	**P**	**06 09 09.5**	**+0.6**
BJI	**Beijing**	**22.91**	**273**	*e*P	**P**	**06 09 33.8**	**-1.1**
BJI				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.0						
ULN	**Ulaanbaatar**	**27.98**	**294**	*e*P	**P**	**06 10 22.5**	**-0.1**
	comp=Z,9.8nm,1.0s,mb4.4						
SONM	**Songino Array**	**28.42**	**294**	P	**P**	**06 10 26.6**	**0.0**
	comp=Z,11nm,0.7s,mb4.6,baz=88,slow=8.3,SNR=42						
ZAL	**Zalesovo**	**41.19**	**308**	P	**P**	**06 12 13.8**	**-2.1**
	comp=Z,1.4nm,0.6s,mb3.8,baz=25,slow=9.1,SNR=5.8						
ZAL				PcP	PcP	06 14 15.0	+0.1
	comp=Z,1.1nm,0.6s,baz=357,slow=5.3,SNR=3.6						
ZAL	**Zalesovo**	**41.19**	**308**	P	**P**	**06 12 13.8**	**-2.0**
ZAL						06 14 15.0	
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
COLA	**College**	**41.99**	**36**	*e*P	**P**	**06 12 23.4**	**+1.3**
WMQ	**Urumqi**	**42.02**	**292**	*e*P	**P**	**06 12 23.0**	**+0.3**
ILAR	**Eielson Array**	**42.40**	**36**	P	**P**	**06 12 25.9**	**+0.4**
	comp=Z,2.0nm,1.1s,mb3.7,baz=262,slow=9.0,SNR=12						
ILAR	**Eielson Array**	**42.40**	**36**	P	**P**	**06 12 26.0**	**+0.5**
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
MKAR	**Makanchi Array**	**44.61**	**298**	*e*P	**P**	**06 12 43.8**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
KURK	**Kurchatov**	**45.66**	**305**	P	**P**	**06 12 51.9**	**-0.1**
KURK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
KURK	**Kurchatov**	**45.66**	**305**	*e*P	**P**	**06 12 51.3**	**-0.6**
	comp=Z,4.7nm,0.8s,mb4.5						
CHKZ	**Chkalovo**	**49.36**	**310**	P	**P**	**06 13 20.0**	**-0.8**
CHKZ	**Chkalovo**	**49.36**	**310**	*e*P	**P**	**06 13 19.7**	**-1.2**
	comp=Z,2.0nm,0.4s,mb4.5						
BVAR	**Borovoye Array**	**49.72**	**310**	P	**P**	**06 13 23.5**	**0.0**
	comp=Z,2.6nm,0.4s,mb4.6,baz=86,slow=9.6,SNR=32						
BRVK	**Borovoye**	**49.76**	**310**	P	**P**	**06 13 25.0**	**+1.1**
BRVK	**Borovoye**	**49.76**	**310**	*e*P	**P**	**06 13 23.9**	**0.0**
AAK	**Ala-Archa**	**51.35**	**296**	*e*P	**P**	**06 13 35.0**	**-1.1**
	comp=Z,1.2nm,0.4s,mb4.2						
YKA	**Yellowknife Ar**	**56.72**	**33**	P	**P**	**06 14 14.9**	**-0.4**
	comp=Z,0.5nm,0.7s,mb3.7,baz=297,slow=6.6,SNR=8.1						
YKA	**Yellowknife Ar**	**56.72**	**33**	P	**P**	**06 14 14.9**	**-0.4**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ARCES	**ARCESS Array B**	**59.88**	**340**	P	**P**	**06 14 36.2**	**-1.1**
	comp=Z,2.3nm,0.7s,mb4.3,baz=50,slow=7.1,SNR=12						
ARCES	**ARCESS Array B**	**59.88**	**340**	P	**P**	**06 14 36.2**	**-1.1**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
JOF	**Joensuu**	**62.63**	**332**	*e*p	**P**	**06 14 54.4**	**-1.5**
WRA	**Warramunga Arr**	**63.56**	**193**	P	**P**	**06 15 01.7**	**-0.9**
	comp=Z,0.6nm,0.4s,mb3.9,baz=9.9,slow=6.9,SNR=9.6						
WRA	**Warramunga Arr**	**63.56**	**193**	P	**P**	**06 15 01.7**	**-0.9**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
KAF	**Kangasniemi**	**64.87**	**333**	*e*p	**P**	**06 15 08.5**	**-1.9**
	baz=52,slow=5.4						
FINES	**FINESS Array B**	**65.43**	**333**	P	**P**	**06 15 12.8**	**-1.2**
	comp=Z,5.4nm,0.8s,mb4.6,baz=40,slow=7.8,SNR=22						
FINES	**FINESS Array B**	**65.43**	**333**	P	**P**	**06 15 12.9**	**-1.1**
FINES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
OBN	**Obninsk**	**65.74**	**324**	*e*P	**P**	**06 15 14.4**	**-1.7**
OBN				*i*	pP	06 15 28.9	-0.5
OBN				pmax	pmax		
	comp=Z,36nm,2.1s,mb5.0						
ASAR	**Alice Springs**	**67.28**	**193**	P	**P**	**06 15 26.2**	**-0.1**
	comp=Z,0.6nm,0.7s,mb3.8,baz=10,slow=5.0,SNR=8.1						
BOZ	**Bozeman (W)**	**67.77**	**48**	*e*P	**P**	**06 15 30.0**	**+0.9**
	comp=Z,2.8nm,0.9s,mb4.3						
NVAR	**Mina Array Bea**	**68.37**	**57**	P	**P**	**06 15 34.8**	**+1.9**
	comp=Z,0.9nm,0.7s,mb3.9,baz=280,slow=9.1,SNR=8.2						
NB2	**NORSAR Subarra**	**70.23**	**339**	P	**P**	**06 15 43.6**	**-0.3**
	comp=Z,3.1nm,0.8s,mb4.3,baz=32,slow=6.2						
NOA	**NORSAR Array B**	**70.23**	**339**	P	**P**	**06 15 43.6**	**-0.3**
	comp=Z,4.9nm,0.9s,mb4.4,baz=35,slow=6.1,SNR=9.0						
NOA	**NORSAR Array B**	**70.23**	**339**	P	**P**	**06 15 43.6**	**-0.3**
NOA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
HFS	**Hagfors**	**70.30**	**337**	P	**P**	**06 15 44.1**	**-0.3**
	comp=Z,3.9nm,0.6s,mb4.5,baz=36,slow=8.2,SNR=19						
HFS	**Hagfors**	**70.30**	**337**	P	**P**	**06 15 44.1**	**-0.3**
HFS				pmax	pmax		
	comp=Z,4.0nm,0.6s						
PDAR	**Pinedale Array**	**70.76**	**49**	P	**P**	**06 15 48.1**	**+0.6**
	comp=Z,0.8nm,0.6s,mb3.8,baz=130,slow=1.1,SNR=7.1						
AKASG	**Malin Array Be**	**72.00**	**324**	P	**P**	**06 15 54.9**	**+0.1**
	comp=Z,1.1nm,0.3s,mb4.2,baz=40,slow=6.4,SNR=8.8						
AKASG	**Malin Array Be**	**72.00**	**324**	P	**P**	**06 15 54.9**	**+0.1**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						

PV10	**Paradox Valley**	73.97	52	*e*P	**P**	**06 16 08.7**	**+2.2**
MLR	**Muntele Rosu**	77.36	322	P	**P**	**06 16 26.9**	**+1.2**
	comp=Z,1.0nm,0.4s,mb4.1,baz=201,slow=22,SNR=7.6						
MLR	**Muntele Rosu**	77.36	322	P	**P**	**06 16 26.9**	**+1.2**
MLR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BRTR	**Keskin Array B**	77.82	313	P	**P**	**06 16 29.4**	**+1.0**
	comp=Z,0.8nm,0.8s,mb3.7,baz=108,slow=3.9,SNR=4.2						
BRTR	**Keskin Array B**	77.82	313	P	**P**	**06 16 29.4**	**+1.1**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
EKA	**Eskdalemuir Ar**	78.80	343	P	**P**	**06 16 34.0**	**+0.6**
	comp=Z,1.6nm,0.7s,mb4.1,baz=30,slow=5.2,SNR=9.5						
EKA	**Eskdalemuir Ar**	78.80	343	P	**P**	**06 16 34.0**	**+0.6**
EKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KHC	**Kasperske Hory**	79.49	331	*e*P	**P**	**06 16 37.5**	**+0.2**
KHC				*e*x	x	06 16 49.0	
GERES	**GERESS Array B**	79.68	331	P	**P**	**06 16 39.0**	**+0.6**
	comp=Z,0.3nm,0.4s,mb3.5,baz=37,slow=6.7,SNR=5.3						
TXAR	**Lajitas Array**	83.45	56	P	**P**	**06 17 00.7**	**+2.3**
	comp=Z,0.4nm,0.7s,mb3.6,baz=314,slow=2.2,SNR=5.0						
SNAA	**Sanae**	147.54	197	⇓*i*	PKPdf	06 24 26.7	+17
VNA2	**Neumayer--Watz**	149.07	196	⇓*i*	PKPdf	06 24 28.2	+16
VNA3	**Neumayer Olymp**	149.27	195	⇓*i*	PKPdf	06 24 25.8	+14
VNA1	**Neumayer--Stat**	149.47	196	⇓*i*	PKPdf	06 24 26.8	+14
BDFB	**Brasilia**	150.07	29	PKPbc	PKPdf	06 24 22.4	+7.2
	comp=Z,2.6nm,0.9s,baz=199,slow=1.5,SNR=4.1						
BDFB	**Brasilia**	150.07	29	PKIKP	PKPdf	06 24 22.4	+7.3
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.9s						

IDC 05 06:05:05.8±15.0**, 21.72S×178.79W, h537^{km}**±155^{km}**, mb3.3**/6**, mb1 3.4**/7**, mb1mx3.2**/16**, Error ellipse: s-maj=120.0km s-min=28.4km az=45.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	16.86	191	P	P	06 08 33.4	+0.1
	0.7nm,0.3s,baz=308,slow=11,SNR=2.8						
CTA	**Charters Tower**	32.66	266	P	P	06 10 54.4	-0.6
	4.8nm,0.7s,baz=101,slow=9.0,SNR=8.3						
STKA	**Stephens Creek**	36.60	245	P	P	06 11 26.8	-0.9
	1.9nm,0.7s,baz=106,slow=12,SNR=4.2						
ASAR	**Alice Springs**	43.53	258	P	P	06 12 22.1	-1.4
	2.6nm,0.6s,baz=96,slow=8.3,SNR=30						
WRA	**Warramunga Arr**	43.71	263	P	P	06 12 23.1	-1.8
	1.3nm,0.3s,baz=96,slow=7.8,SNR=25						
FITZ	**Fitzroy Crossi**	52.15	264	P	P	06 13 26.8	-1.7
	1.2nm,0.6s,baz=106,slow=7.4,SNR=4.9						
VNDA	**Vanda**	56.63	185	P	P	06 13 56.9	-2.2
	6.5nm,1.5s,baz=50,slow=7.9,SNR=2.3						
AKASG	**Malin Array Be**	143.71	330	PKP	PKPdf	06 23 39.4	+0.4
	0.5nm,0.5s,baz=37,slow=4.8,SNR=4.4						

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*STR **05** 06:13:50.4±0.4, 48.08N×8.07E, h10^{km}±1^{km}, Ml1.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **05** 06:13:51.2±0.2, 48.05N×7.96E, h14^{km}±1^{km}, Md2.1/3, Ml1.9/9, Error ellipse: s-maj=3.9km s-min=2.8km az=65.0*

ZUR 05 06:13:51.0, 48.06N×8.03E, h8^{km}, ML1.4/11**, 1C-4D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLE	**Schleitheim**	0.43	134	⇓*i*Pg	Pg	06 13 59.5	-0.2
SLE				*i* Sg	Sg	06 14 05.4	-0.1
SULZ	**Sulz-Cheisache**	0.54	174	⇓*i*Pg	Pg	06 14 01.7	-0.2
SULZ				*e*Sg	Sg	06 14 09.2	+0.1
WLS	**Welschbruch**	0.57	308	Pg	Pg	06 14 02.4	-0.1
WLS				Sg	Sg	06 14 10.7	+0.5
TRULL	**Truellikon**	0.60	133	*e*Pg	Pg	06 14 02.8	-0.3
ECH	**Echery**	0.60	285	Pg	Pg	06 14 02.4	-0.8
ECH				Sg	Sg	06 14 10.4	-0.9
CDF	**Champ du Feu**	0.61	305	*e*Pg	Pg	06 14 02.7	-0.6
CDF				*e*Sg	Sg	06 14 09.6	-2.0
	8.1nm,0.3s						
MOF	**Molkenrain**	0.64	251	Pg	Pg	06 14 03.6	-0.3
STEIN	**Stein am Rhein**	0.69	125	*e*Pg	Pg	06 14 04.6	-0.2
BALST	**Balsthal**	0.76	197	⇑*i*Pg	Pg	06 14 05.9	-0.4
ZUR	**Zurich**	0.79	152	⇓*i*Pg	Pg	06 14 06.4	-0.4
HINF	**Hinteralfeld**	0.83	253	*e*Pg	Pg	06 14 05.7	-1.9
HINF				*e*Sg	Sg	06 14 16.4	-2.3
	4.6nm,0.3s						
WEIN	**Weingarten**	0.84	129	*e*Pg	Pg	06 14 07.4	-0.4
BOURR	**Bourrignon**	0.86	219	*e*Pg	Pg	06 14 07.8	-0.5
WILA	**Wila**	0.88	137	⇓*i*Pg	Pg	06 14 08.2	-0.4
LANF	**Langenberg**	0.93	351	Pg	Pg	06 14 08.1	-1.5
LANF				Sg	Sg	06 14 20.6	-1.5
HAU	**Haudompre**	1.13	268	*e*Pg	Pg	06 14 11.5	-2.1
HAU				*e*Sg	Sg	06 14 25.2	-3.6
	9.1nm,0.3s						
THEF	**They Montfort**	1.38	278	Pg	Pg	06 14 15.8	-2.8
RFYF	**Reffroy**	1.80	289	*e*Pg	Pg	06 14 23.2	-3.7
	baz=108						
RFYF				*e*Sn	Sn	06 14 41.6	-4.2
RFYF				*e*Sg	Sg	06 14 46.1	-4.8
	2.6nm,0.2s						
CABF	**La Chapelle**	1.96	223	*e*Pn	Pn	06 14 21.8	-3.2
CABF				*e*Pg	Pg	06 14 27.6	-2.6
CABF				*e*Sg	Sg	06 14 51.1	-5.3
	0.6nm,0.3s						
SFTF	**Sexfontaines**	2.01	275	*e*Pn	Pn	06 14 22.6	-3.1
SFTF				*e*Sn	Sn	06 14 45.5	-5.7
SFTF				*e*Sg	Sg	06 14 52.8	-5.2
	1.8nm,0.2s						
MEZF	**Maizieres J'vi**	2.04	284	*e*Sn	Sn	06 14 46.0	-5.9
MEZF				*e*Sg	Sg	06 14 53.2	-5.7
	1.4nm,0.3s						
SMF	**Signal de Mont**	3.18	245	*e*Pg	Pg	06 14 48.8	-5.7
SMF				*e*Sg	Sg	06 15 29.0	-8.0
	0.7nm,0.3s						
SSF	**Saint Saulge**	3.22	254	*e*Pg	Pg	06 14 49.1	-6.3
SSF				*e*Sg	Sg	06 15 29.5	-8.9
	0.7nm,0.4s						

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*LDG **05** 06:16:27.3±0.2, 48.07N×8.01E, h10^{km}±1^{km}, Md1.9/3, Ml1.9/6, Error ellipse: s-maj=3.8km s-min=2.6km az=82.0*

STR 05 06:16:27.4±0.4**, 48.04N×7.98E, h10^{km}**±1^{km}**, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	**Welschbruch**	0.56	312	Pg	Pg	06 16 38.6	-0.1
WLS				Sg	Sg	06 16 45.7	-0.6
ECH	**Echery**	0.58	288	Pg	Pg	06 16 38.7	-0.4
ECH				Sg	Sg	06 16 46.8	-0.1
CDF	**Champ du Feu**	0.60	309	*e*Pg	Pg	06 16 38.9	-0.6
CDF				*e*Sg	Sg	06 16 46.5	-1.1
	3.4nm,0.2s						
HINF	**Hinteralfeld**	0.79	254	*e*Pg	Pg	06 16 42.5	-0.8
HINF				*e*Sg	Sg	06 16 53.3	-0.6
	1.7nm,0.2s						
HAU	**Haudompre**	1.10	269	*e*Pg	Pg	06 16 48.6	-0.8
HAU				*e*Sg	Sg	06 17 02.4	-1.6
	5.0nm,0.3s						
RFYF	**Reffroy**	1.77	290	*e*Pn	Pn	06 16 56.8	-1.6
	baz=105						
RFYF				*e*Pg	Pg	06 17 00.8	-2.0
	baz=106						
RFYF				*e*Sn	Sn	06 17 18.1	-3.1
RFYF				*e*Sg	Sg	06 17 23.4	-3.1
	1.3nm,0.2s						
CABF	**La Chapelle**	1.92	223	*e*Pg	Pg	06 17 04.3	-1.5
CABF				*e*Sg	Sg	06 17 28.1	-3.4
	1.6nm,0.4s						
SFTF	**Sexfontaines**	1.98	276	*e*Pg	Pg	06 17 04.1	-2.8
	baz=106						
SFTF				*e*Sg	Sg	06 17 30.2	-3.1
	1.4nm,0.2s						

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*LDG **05** 06:17:46.3±0.2, 48.08N×8.00E, h10^{km}, Md2.1/3, Ml2.1/11, Error ellipse: s-maj=3.4km s-min=2.3km az=95.0*

STR 05 06:17:46.0±0.4**, 48.07N×8.04E, h10^{km}**±1^{km}**, Ml1.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	**Welschbruch**	0.57	307	Pg	Pg	06 17 57.4	-0.2
ECH	**Echery**	0.61	284	Pg	Pg	06 17 57.6	-0.7
ECH				Sg	Sg	06 18 05.9	-0.6
CDF	**Champ du Feu**	0.61	304	*e*Pg	Pg	06 17 57.9	-0.5
CDF				*e*Sg	Sg	06 18 05.5	-1.2
	14nm,0.2s						
MOF	**Molkenrain**	0.65	251	Pg	Pg	06 17 59.1	+0.1
MOF				Sg	Sg	06 18 08.1	+0.3
HINF	**Hinteralfeld**	0.84	253	*e*Pg	Pg	06 18 01.4	-1.4
HINF				*e*Sg	Sg	06 18 12.2	-1.8
	14nm,0.4s						
LOMF	**Lomont**	1.09	229	Pg	Pg	06 18 07.1	-0.7
HAU	**Haudompre**	1.14	267	*e*Pg	Pg	06 18 07.2	-1.6
HAU				*e*Sg	Sg	06 18 21.4	-2.6
	18nm,0.3s						
RFYF	**Reffroy**	1.80	289	*e*Pn	Pn	06 18 15.9	-1.5
	baz=104						
RFYF				*e*Pg	Pg	06 18 19.6	-2.4
	baz=106						
RFYF				*e*Sn	Sn	06 18 36.1	-4.4
RFYF				*e*Sg	Sg	06 18 42.0	-4.0
	4.9nm,0.2s						
CABF	**La Chapelle**	1.97	223	*e*Pn	Pn	06 18 17.4	-2.5
CABF				*e*Pg	Pg	06 18 23.6	-1.8
CABF				*e*Sg	Sg	06 18 47.3	-4.5
	0.8nm,0.2s						
SFTF	**Sexfontaines**	2.02	275	*e*Pn	Pn	06 18 17.9	-2.6
	baz=105						
SFTF				*e*Pg	Pg	06 18 23.0	-3.3
	baz=104						
SFTF				*e*Sn	Sn	06 18 41.9	-4.0
SFTF				*e*Sg	Sg	06 18 48.8	-4.4
	2.9nm,0.2s						
MEZF	**Maizieres J'vi**	2.04	283	*e*Pn	Pn	06 18 18.7	-2.2
	baz=106						
MEZF				*e*Pg	Pg	06 18 24.7	-2.1
	baz=104						
MEZF				*e*Sn	Sn	06 18 42.5	-4.1
MEZF				*e*Sg	Sg	06 18 49.1	-4.9
	2.6nm,0.3s						
SMF	**Signal de Mont**	3.19	245	*e*Pg	Pg	06 18 45.8	-3.9
SMF				*e*Sg	Sg	06 19 25.2	-7.1
	1.2nm,0.3s						
SSF	**Saint Saulge**	3.23	253	*e*Pg	Pg	06 18 45.7	-4.8
SSF				*e*Sg	Sg	06 19 25.9	-7.7
	0.8nm,0.2s						
AVF	**Avril sur Loir**	3.43	250	*e*Pg	Pg	06 18 49.3	-5.2
AVF				*e*Sg	Sg	06 19 32.2	-8.0
	0.2nm,0.2s						
BGF	**Bois d'Agland**	3.84	249	*e*Pg	Pg	06 18 55.6	-7.1
BGF				*e*Sg	Sg	06 19 45.2	-8.8
	0.7nm,0.2s						

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*IDC **05** 06:21:16.5±2.7, 21.04S×178.60W, h608^{km}±33^{km}, mb3.3/8, mb1 3.6/9, mb1mx3.4/15, Error ellipse: s-maj=36.5km s-min=13.6km az=159.0*

*NEIC **05** 06:21:16.4±2.8, 20.97S×178.66W, h606^{km}±36^{km}, mb4.1/5, Error ellipse: s-maj=29.9km s-min=11.8km az=181.0*

ISC 05 06:21:12.3±1.4**, 20.8S**±0.2×**178.7W**±0.1**, h561^{km}**±20^{km}**, n26, σ0.^{s}72**/19**, mb3.8**/12**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	9.51	45	*e*P	**P**	**06 23 25.9**	**-0.2**
URZ	**Urewera**	17.76	191	P	**P**	**06 24 46.8**	**-0.9**
	1.1nm,0.3s,baz=10,slow=12,SNR=7.7						
CTA	**Charters Tower**	32.84	265	P	**P**	**06 27 01.1**	**-0.5**
	2.3nm,0.4s,mb4.1,baz=77,slow=8.2,SNR=6.1						
CTAO	**Charters Tower**	32.84	265	*e*P	**P**	**06 27 01.1**	**-0.5**
	2.5nm,0.4s,mb4.1						
ASAR	**Alice Springs**	43.84	257	P	**P**	**06 28 31.4**	**+0.5**
	1.9nm,0.5s,mb3.9,baz=95,slow=7.3,SNR=37						
ASAR				PcP	PcP	06 30 03.8	-1.3
	0.8nm,0.7s,baz=107,slow=3.4,SNR=7.0						
ASAR				S	**S**	**06 34 19.1**	**-2.9**
	0.8nm,0.7s,baz=89,slow=16,SNR=10						
ASPA	**Alice Springs**	43.84	257	*e*P	**P**	**06 28 31.6**	**+0.8**
WB2	**Warramunga Arr**	43.92	263	⇓*i*P	**P**	**06 28 31.7**	**+0.2**
WRAB	**Tennant Creek**	43.93	263	*e*P	**P**	**06 28 31.8**	**+0.3**
	3.1nm,0.4s,mb4.2						
WRA	**Warramunga Arr**	43.94	263	P	**P**	**06 28 32.0**	**+0.3**
	2.1nm,0.3s,mb4.2,baz=97,slow=7.4,SNR=120						
PTCN	**Pitcairn Islan**	44.75	105	*e*P	**P**	**06 28 38.7**	**+0.8**
KAKA	**Kakadu**	47.39	272	*e*P	**P**	**06 28 57.9**	**-0.3**
	1.9nm,0.2s,mb4.3						
NVAR	**Mina Array Bea**	81.69	44	P	**P**	**06 32 33.9**	**+0.4**
	0.6nm,0.5s,mb3.2,baz=215,slow=6.3,SNR=7.1						
TPNV	**Topopah Spring**	82.21	46	*e*P	**P**	**06 32 36.3**	**+0.2**
	2.2nm,1.0s,mb3.5						
TXAR	**Lajitas Array**	87.75	58	P	**P**	**06 33 03.7**	**+0.5**
	2.1nm,1.2s,mb3.7,baz=225,slow=7.1,SNR=6.6						
ILAR	**Eielson Array**	88.76	13	P	**P**	**06 33 05.8**	**-1.3**
	0.4nm,0.5s,mb3.5,baz=217,slow=5.0,SNR=16						
BW06	**Boulder Array**	89.62	43	*e*P	**P**	**06 33 11.0**	**-0.6**
	0.7nm,0.6s,mb3.7						
PDAR	**Pinedale Array**	89.62	43	P	**P**	**06 33 11.1**	**-0.6**
	0.7nm,0.6s,mb3.7,baz=222,slow=3.2,SNR=6.3						
CMAR	**Chiang Mai Arr**	89.63	290	P	**P**	**06 33 13.3**	**+1.2**
	0.5nm,0.4s,mb3.7,baz=154,slow=3.1,SNR=5.0						
ARCES	**ARCESS Array B**	129.12	349	PKP	PKPdf	06 39 15.3	-1.0
	4.1nm,0.9s,baz=45,slow=1.7,SNR=5.9						
ARCES	**ARCESS Array B**	129.12	349	PKP	PKPdf	06 39 15.3	-1.0
FINES	**FINESS Array B**	135.90	343	PKP	PKPdf	06 39 29.2	+0.2
	2.7nm,1.0s,baz=117,slow=4.3,SNR=3.5						
AKASG	**Malin Array Be**	142.98	330	PKP	PKPdf	06 39 39.7	-2.3
	2.6nm,0.4s,baz=41,slow=4.2,SNR=24						
BRTR	**Keskin Array B**	146.58	312	PKPbc	PKPbc	06 39 51.6	+1.1
	1.1nm,0.6s,baz=143,slow=6.2,SNR=5.4						
MLR	**Muntele Rosu**	148.14	326	PKPbc	PKPdf	06 39 55.2	+4.4
	1.1nm,0.4s,baz=314,slow=8.0,SNR=8.8						
GERES	**GERESS Array B**	150.33	343	PKPbc	PKPdf	06 40 00.4	+6.3
	1.4nm,0.8s,baz=27,slow=3.0,SNR=9.9						
DAVOX	**Davos**	153.18	347	PKPbc	PKPdf	06 40 06.8	+8.6
	1.7nm,0.5s,baz=282,slow=3.6,SNR=5.4						

DJA 05 06:25:44.8±1.0**, 9.49S×117.40E, h80^{km}, MD4.7**/4**, ML4.9**/4**, 4C-5D, Error ellipse: s-maj=34.1km s-min=20.3km az=22.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	1.61	308	⇓*i*Pn	P	06 26 11.8	-0.3
	1μm,0.2s						
KEDI				⇓*i*Sn	S	06 26 31.4	-0.8
RATI	**Rata**	1.99	292	⇑*i*Pn	P	06 26 16.5	-0.6
	985nm,0.2s						
RATI	**Rata**	1.99	292	⇑*i*P	P	06 26 17.0	-0.1
RATI				⇓*i*Sn	S	06 26 40.2	-0.8
KELI	**Kelakatan**	3.14	294	⇑*i*Pn	P	06 26 32.6	-0.6
	188nm,0.2s						
KELI				⇓*i*Sn	S	06 27 05.6	-4.0
SRDI	**Scrawed**	3.37	287	⇓*i*Pn	P	06 26 35.8	-0.6
	649nm,0.2s						
SRDI				⇑*i*Sn	S	06 27 12.3	-3.0

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*KISR **05** 06:29:08.9±1.2, 30.02N×50.96E, h33^{km}, ML3.2*

*THR **05** 06:29:09.3±0.7, 30.26N×50.59E, h15^{km}, ML3.2*

ISC 05 06:29:10.2±2.8**, 30.30N**±0.07×**50.65E**±0.07**, h11^{km}**±22^{km}**, n11, σ0.^{s}88**/14**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UMR	**Umm Al-Rimmam**	2.65	254	*e*P	**Pn**	**06 29 54.5**	**+0.9**
UMR				*e*S	**Sn**	**06 30 28.2**	**+2.1**
UMR				AML	AML	06 30 39.3	
	comp=Z,96nm,0.4s						
QRN	**Al-Qurain**	2.84	238	*e*P	**Pn**	**06 29 56.1**	**-0.2**
QRN				*e*S	**Sn**	**06 30 29.3**	**-1.5**
QRN				AML	AML	06 30 43.3	
	comp=Z,48nm,0.3s						
GHIR	**Ghir-Karzin**	2.86	134	*e*PN	**Pn**	**06 29 56.6**	**0.0**
GHIR				AMP		06 30 51.4	
	comp=E,67nm,0.5s						
GHIR				AMP		06 31 01.1	
	comp=N,72nm,0.5s						
MIB	**Mutribah**	2.91	261	*e*P	**Pn**	**06 29 57.9**	**+0.6**
MIB				AML	AML	06 30 46.9	
	comp=Z,55nm,0.4s						
RDF	**Al-Radifah**	3.02	244	*e*P	**Pn**	**06 29 58.5**	**-0.4**
RDF				*e*S	**Sn**	**06 30 35.2**	**-0.3**
RDF				AML	AML	06 30 46.0	
	comp=Z,72nm,0.5s						
NASN	**Na'in**	3.10	36	*e*PN	**Pn**	**06 30 01.0**	**+1.0**
RST	**Umm Al-Ruwaisa**	3.27	257	*e*P	**Pn**	**06 30 02.3**	**-0.1**
RST				AML	AML	06 30 57.1	
	comp=Z,70nm,0.5s						
ASAO	**Ashtian**	4.27	353	*e*PN	**Pn**	**06 30 16.8**	**+0.2**
KRBR	**Kerman**	5.30	92	*e*PN	**Pn**	**06 30 31.2**	**0.0**
DAMV	**Damavand**	5.43	11	*e*PN	**Pn**	**06 30 32.6**	**-0.5**
SNGE	**Sanandaj**	5.53	331	*e*PN	**Pn**	**06 30 32.9**	**-1.5**

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*NEIC **05** 06:47:06.1, 34.99N×3.03W, h5^{km}, MG3.5(MDD), After MDD.*

*CSEM **05** 06:47:06.6±0.5, 35.16N×3.09W, h10^{km}, mb3.5/9, Error ellipse: s-maj=9.9km s-min=6.4km az=2.0*

MDD 05 06:47:05.8±1.2**, 34.99N×3.08W, mb3.5**/9**, Error ellipse: s-maj=11.8km s-min=5.5km az=145.0, PRXIMO AftershockPLICA, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	0.33	18	P	Pg	06 47 11.8	-0.6
	102nm,0.1s,SNR=19						
EMEL				S	Sg	06 47 16.5	-0.3
	439nm,0.2s,SNR=15						
MELI	**Melilla**	0.33	22	P	Pg	06 47 11.7	-0.7
MELI				S	Sg	06 47 16.8	0.0
MELI	**Melilla**	0.33	22	*i* P	Pg	06 47 11.6	-0.8
MELI	**Melilla**	0.33	22	*i* S	Sg	06 47 16.8	+0.1
EMLI	**Melilla**	0.33	19	P	Pg	06 47 11.8	-0.6
	102nm,0.1s,SNR=19						
EBER	**Berja**	1.91	5	P	Pn	06 47 37.5	-2.4
	0.9nm,0.1s,SNR=9.1						
EBER				S	Sn	06 47 58.8	-6.3
	35nm,0.5s,SNR=6.2						
EBER	**Berja**	1.91	5	P	Pn	06 47 37.5	-2.5
	0.9nm,0.1s,SNR=9.1						
EBER				S	Sn	06 47 58.8	-6.3
	35nm,0.5s,SNR=6.2						
EMIJ	**Mijas**	2.09	319	P	Pn	06 47 40.7	-1.9
	0.6nm,0.1s,SNR=6.9						
EMIJ				S	Sn	06 48 06.7	-2.9
	2.3nm,0.2s,SNR=5.0						
ERON	**Agron**	2.11	344	P	Pn	06 47 39.8	-3.0
	1.9nm,0.2s,SNR=7.9						
ERON				S	Sn	06 48 06.7	-3.4
	1.9nm,0.2s,SNR=7.9						
ELOJ	**Sierra Loja**	2.32	338	P	Pn	06 47 44.8	-1.0
	1.9nm,0.2s,SNR=6.7						
ELOJ				S	Sn	06 48 12.8	-2.7
	1.9nm,0.5s,SNR=7.9						
ELUQ	**Luque**	2.74	340	P	Pn	06 47 50.1	-1.8
	2.1nm,0.2s,SNR=7.9						
ELUQ				S	Sn	06 48 21.9	-4.3
	1.0nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.81	0	P	Pn	06 47 51.5	-1.3
EQES				S	Sn	06 48 23.1	-4.8
EQES	**Quesada**	2.81	0	P	Pn	06 47 51.5	-1.3
	3.6nm,0.3s,SNR=23						
EQES				S	Sn	06 48 25.3	-2.6
	7.8nm,0.5s,SNR=17						
EQES	**Quesada**	2.81	0	P	Pn	06 47 51.5	-1.3
	3.6nm,0.3s,SNR=23						
EQES				S	Sn	06 48 23.0	-4.9
	7.8nm,0.5s,SNR=17						
ESPR	**Espera**	2.93	311	P	Pn	06 47 53.0	-1.5
	0.7nm,0.2s,SNR=4.0						
ESPR				S	Sn	06 48 25.9	-5.1
	1.7nm,0.4s,SNR=4.0						
ESPR	**Espera**	2.93	311	P	Pn	06 47 53.0	-1.5
	0.7nm,0.2s,SNR=7.9						
ESPR				S	Sn	06 48 25.9	-5.1
	1.7nm,0.4s,SNR=7.9						
EADA	**Adamuz**	3.39	340	P	Pn	06 47 59.1	-2.0
	2.1nm,0.2s,SNR=12						
EADA				S	Sn	06 48 37.6	-5.1
	4.3nm,0.4s,SNR=5.3						
EADA	**Adamuz**	3.39	340	P	Pn	06 47 59.1	-2.0
	2.1nm,0.2s,SNR=12						
EADA				S	Sn	06 48 37.6	-5.1
	4.3nm,0.4s,SNR=5.3						
EVIA	**Vianos**	3.67	7	S	Sn	06 48 43.1	-6.7
	1.8nm,0.2s,SNR=4.0						
EMIN	**Mina Concepcio**	4.01	315	P	Pn	06 48 07.2	-2.7
	1.0nm,0.2s,SNR=11						
EMIN				S	Sn	06 48 53.0	-5.3
	1.6nm,0.5s,SNR=4.0						
EMIN	**Mina Concepcio**	4.01	315	P	Pn	06 48 07.2	-2.7
	1.0nm,0.2s,SNR=11						
EMIN				S	Sn	06 48 53.0	-5.3
	1.6nm,0.5s,SNR=7.9						
ESDC	**Sonseca Array**	4.73	352	P	Pn	06 48 17.9	-2.2
	2.5nm,0.2s,baz=172,slow=12,SNR=14						
ESDC				S	Sn	06 49 08.0	-8.6
	0.4nm,0.3s,baz=206,slow=39,SNR=4.5						
ESDC	**Sonseca Array**	4.73	352	P	Pn	06 48 17.9	-2.2
	2.5nm,0.2s,SNR=14						
PBEJ	**Beja**	4.90	310	*e*Pn	Pn	06 48 20.8	-1.8
EBAD	**Badajoz**	4.91	321	P	Pn	06 48 20.1	-2.5
	0.7nm,0.1s,SNR=11						
EBAD				S	Sn	06 49 13.0	-7.9
	1.6nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	4.91	321	P	Pn	06 48 20.1	-2.5
	0.7nm,0.1s,SNR=11						
EBAD				S	Sn	06 49 13.0	-8.0
PCBR	**Castelo Branco**	5.97	325	*e*Pn	Pn	06 48 35.0	-2.7
PVIS	**Viseu**	6.87	328	*e*Pn	Pn	06 48 47.3	-3.0
PVRL	**Vila Real**	7.26	331	*e*Pn	Pn	06 48 52.6	-3.2
PBRG	**Braganca**	7.39	338	*e*Pn	Pn	06 48 54.2	-3.4

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*IDC **05** 07:42:23.8±0.9, 43.93N×150.81E, mb3.7/8, mb1 4.0/8, mb1mx3.7/23, Error ellipse: s-maj=29.2km s-min=24.5km az=105.0*

*NEIC **05** 07:42:29.0±0.6, 43.88N×150.66E, h35^{km}, mb4.3/2, Error ellipse: s-maj=20.0km s-min=13.9km az=135.0*

ISC 05 07:42:26.8±0.7**, 43.8N**±0.1×**150.6E**±0.2**, h33^{km}, n11, σ0.^{s}92**/11**, mb3.8**/10**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAJO	**Matsushiro**	11.94	237	*e*P	**P**	**07 45 16.4**	**-1.2**
YAK	**Yakutsk**	21.97	333	*e*P	**P**	**07 47 14.5**	**-4.6**
	11nm,0.4s,mb4.6						
BVAR	**Borovoye Array**	51.36	310	P	**P**	**07 51 30.1**	**+0.3**
	1.5nm,0.8s,mb4.0,baz=27,slow=6.6,SNR=5.9						
BRVK	**Borovoye**	51.40	310	*e*P	**P**	**07 51 30.0**	**-0.1**
	1.6nm,0.8s,mb4.0						
WRA	**Warramunga Arr**	65.20	197	P	**P**	**07 53 07.2**	**+0.2**
	0.3nm,0.6s,mb3.5,baz=17,slow=6.6,SNR=4.6						
NVAR	**Mina Array Bea**	65.40	60	P	**P**	**07 53 07.2**	**-0.9**
	0.3nm,0.7s,mb3.5,baz=257,slow=4.0,SNR=3.5						
FINES	**FINESS Array B**	65.90	334	P	**P**	**07 53 10.1**	**-0.7**
	2.1nm,0.7s,mb4.3,baz=11,slow=9.7,SNR=11						
PDAR	**Pinedale Array**	67.92	52	P	**P**	**07 53 23.4**	**-0.5**
	0.3nm,0.8s,mb3.4,slow=0.9,SNR=2.5						
ASAR	**Alice Springs**	68.90	196	P	**P**	**07 53 31.8**	**+1.5**
	0.3nm,0.7s,mb3.3,baz=17,slow=5.9,SNR=4.4						
HFS	**Hagfors**	70.54	339	P	**P**	**07 53 41.5**	**+1.8**
	4.4nm,1.1s,mb4.3,baz=90,slow=3.0,SNR=4.3						
TXAR	**Lajitas Array**	80.50	58	P	**P**	**07 54 36.8**	**-0.2**
	0.4nm,0.8s,mb3.4,baz=315,slow=4.6,SNR=4.7						

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*NEIC **05** 07:43:33.5, 50.56N×7.09E, h4^{km}, ML2.6(LDG), ML1.9(SZGRF), ML1.7(STR), After LDG.*

*BNS **05** 07:43:33.6±1.0, 50.58N×7.11E, h4^{km}, ML1.7*

*CSEM **05** 07:43:33.7±0.1, 50.56N×7.08E, h8^{km}, ML2.6/9, Error ellipse: s-maj=1.5km s-min=1.0km az=61.0*

*LDG **05** 07:43:33.5±0.1, 50.56N×7.09E, h4^{km}, Md2.5/3, Ml2.6/11, Error ellipse: s-maj=1.1km s-min=0.8km az=80.0*

*BGR **05** 07:43:34.6±0.5, 50.51N×7.19E, h10^{km}, ML1.9, Error ellipse: s-maj=16.7km s-min=4.4km az=117.0*

*UCC **05** 07:43:34.1±0.8, 50.54N×7.10E, h13^{km}±4^{km}, ML1.7*

*STR **05** 07:43:37.2±1.2, 50.42N×7.15E, h5^{km}±1^{km}, Ml1.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 05 07:43:32.9±0.4**, 50.48N**±0.02×**7.03E**±0.04**, h9^{km}**±3^{km}**, n36, σ1.^{s}21**/78**, 3C-1D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STB	**Steinbach**	0.17	312	⇑*i*Pg	**Pg**	**07 43 37.2**	**+0.7**
STB				*i* Sg	**Sg**	**07 43 39.2**	**+0.2**
	209nm,0.2s						
BGG	**Burgeitz**	0.34	145	⇑*i*Pg	**Pg**	**07 43 41.5**	**+1.7**
BGG				*e*Sg	**Sg**	**07 43 46.3**	**+1.9**
	84nm,0.1s						

KLL	**Kalltalsperre**	0.49	290	⇑ePg	Pg	07 43 43.2	+0.4
KLL				eSg	Sg	07 43 50.0	+0.6
	28nm,0.1s						
BNS	**Bensberg**	0.49	11	⇓iPg	Pg	07 43 41.5	-1.2
BNS				iSg	Sg	07 43 46.3	-3.1
BNS	**Bensberg**	0.49	11	Pg	Pg	07 43 41.5	-1.3
BNS				Sg	Sg	07 43 46.3	-3.1
MEM	**Membach**	0.67	281	P	Pg	07 43 46.5	+0.2
ABH	**Alteburg**	0.69	151	Pg	Pg	07 43 49.0	+2.3
ABH				Sg	Sg	07 43 57.2	+1.3
HGN	**Heimansgroeve**	0.76	292	ePg	Pg	07 43 48.1	+0.1
	4.7nm,0.1s,baz=93						
HGN				eSg	Sg	07 43 58.2	-0.1
RUP	**Ruppelstein**	0.78	179	Pg	Pg	07 43 50.0	+1.4
RUP				Sg	Sg	07 44 01.3	+2.3
BEBN	**Eben Emael**	0.92	291	P	Pb	07 43 51.6	+1.0
BEBN				S	Sb	07 44 04.1	+1.4
BUG	**Bochum--Univer**	0.97	9	ePg	Pg	07 43 51.8	-0.5
BUG				eSg	Sg	07 44 04.1	-1.2
WLF	**Walferdange**	1.00	215	ePg	Pg	07 43 53.6	+0.8
WLF				eSg	Sg	07 44 09.3	+3.2
WLF	**Walferdange**	1.00	215	ePg	Pg	07 43 53.5	+0.6
WLF				eSg	Sg	07 44 08.9	+2.8
WLF	**Walferdange**	1.00	215	S	Sb	07 44 07.6	+2.6
WLF	**Walferdange**	1.00	215	ePg	Pg	07 43 53.5	+0.7
WLF	**Walferdange**	1.00	215	P	Pb	07 43 53.7	+1.8
WLF				eSg	Sg	07 44 08.9	+2.7
TOD	**Tromm**	1.44	127	Pg	Pg	07 44 03.1	+1.4
TOD				Sg	Sg	07 44 20.5	-0.4
GIVF	**Givet**	1.47	256	ePg	Pg	07 44 01.6	-0.6
GIVF				eSn	Sn	07 44 19.0	-0.2
GIVF				eSg	Sg	07 44 21.8	0.0
	16nm,0.2s						
DOU	**Dourbes**	1.61	257	P	Pn	07 44 02.8	+1.0
DOU				S	Sb	07 44 24.1	+1.3
BAIF	**Baives**	1.86	258	eP	Pn	07 44 07.3	+1.9
BAIF				ePg	Pg	07 44 09.1	-1.0
BAIF				eSn	Sn	07 44 28.6	-0.6
	16nm,0.3s						
BAIF	**Baives**	1.86	258	ePg	Pg	07 44 09.1	-1.0
BAIF				eSn	Sn	07 44 28.6	-0.6
	7.9nm,0.3s						
CDF	**Champ du Feu**	2.08	176	ePn	Pn	07 44 08.4	-0.1
CDF				eP		07 44 10.0	
CDF				eSn	Sn	07 44 34.2	-0.5
CDF				eSg	Sg	07 44 41.5	-0.6
	6.1nm,0.4s						
CDF	**Champ du Feu**	2.08	176	eP	Pn	07 44 10.0	+1.5
CDF				eSn	Sn	07 44 34.2	-0.5
CDF				eSg	Sg	07 44 41.5	-0.6
	3.0nm,0.4s						
RFYF	**Reffroy**	2.12	209	ePn	Pn	07 44 08.9	-0.1
RFYF				ePg	Pg	07 44 14.1	-1.0
	baz=28						
RFYF				eSn	Sn	07 44 35.2	-0.5
RFYF				eSg	Sg	07 44 42.8	-0.6
	7.3nm,0.2s						
RFYF	**Reffroy**	2.12	209	ePg	Pg	07 44 14.1	-1.0
RFYF				eSn	Sn	07 44 35.2	-0.5
RFYF				eSg	Sg	07 44 42.8	-0.6
	3.7nm,0.2s						
MEZF	**Maizieres J'vi**	2.37	214	ePn	Pn	07 44 12.3	-0.3
MEZF				ePg	Pg	07 44 19.0	-1.2
	baz=35						
MEZF				eSg	Sg	07 44 50.6	-1.1
	5.5nm,0.3s						
MEZF	**Maizieres J'vi**	2.37	214	ePg	Pg	07 44 19.0	-1.2
MEZF				eSg	Sg	07 44 50.6	-1.1
	2.8nm,0.3s						
CLZ	**Clausthal**	2.50	56	ePg	Pg	07 44 17.7	-5.2
HAU	**Haudompre**	2.52	191	ePn	Pn	07 44 14.2	-0.6
HAU				ePg	Pg	07 44 21.0	-2.2
HAU				eSg	Sg	07 44 55.1	-1.7
	6.1nm,0.4s						
HAU	**Haudompre**	2.52	191	ePg	Pg	07 44 21.0	-2.2
HAU				eSg	Sg	07 44 55.1	-1.7
	3.0nm,0.4s						
SFTF	**Sexfontaines**	2.63	211	ePn	Pn	07 44 16.6	+0.3
SFTF				eSg	Sg	07 44 58.9	-1.5
	4.5nm,0.2s						
HINF	**Hinteralfeld**	2.67	183	ePn	Pn	07 44 16.9	0.0
HINF				ePg	Pg	07 44 24.7	-1.5
HINF				eSn	Sn	07 44 48.1	-1.7
HINF				eSg	Sg	07 44 59.9	-1.9
	3.6nm,0.3s						
HINF	**Hinteralfeld**	2.67	183	ePg	Pg	07 44 24.7	-1.5
HINF				eSn	Sn	07 44 48.1	-1.7
HINF				eSg	Sg	07 44 59.9	-1.9
	1.8nm,0.3s						
CABF	**La Chapelle**	3.92	190	ePn	Pn	07 44 34.7	-0.1
SSF	**Saint Saulge**	4.14	216	ePn	Pn	07 44 36.8	-1.1
SSF				eSg	Sg	07 45 45.6	-5.2
	0.7nm,0.3s						
SMF	**Signal de Mont**	4.39	210	ePn	Pn	07 44 40.0	-1.3

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*IDC **05** 07:48:34.4±7.3, 39.77S×177.00E, mb4.0/3, mb1 4.2/4, mb1mx4.0/11, ML3.6/1, MS3.4/2, Ms1 3.3/2, ms1mx2.9/19, Error ellipse: s-maj=142.0km s-min=26.4km az=120.0*

*NEIC **05** 07:48:39.1, 39.71S×177.03E, h31^{km}, mb4.3/1, ML4.7(WEL), After WEL.*

NEIC Felt at Hastings, Havelock North, Napier and in other parts of Hawke's Bay.

WEL 05 07:48:39.5±0.1**, 39.69S×177.05E, h26^{km}, ML4.4**/18**, 3C-2D, Error ellipse: s-maj=1.6km s-min=0.8km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PWZ	**Pawanui**	0.37	204	⇑P*	Pb	07 48 47.6	0.0
PWZ				S*	Sb	07 48 53.6	+0.5
BKZ	**Black Stump Fm**	0.68	320	P	Pb	07 48 52.1	-0.6
BKZ	**Black Stump Fm**	0.68	320	⇑P*	Pb	07 48 52.2	-0.6
BKZ				S*	Sb	07 49 01.7	-0.1
KNZ	**Kokohu**	0.82	36	⇑P*	Pb	07 48 54.5	-0.6
TSZ	**Takapari Road**	0.92	246	P	Pb	07 48 54.6	-2.1
TSZ	**Takapari Road**	0.92	246	⇓PN	Pn	07 48 54.6	-2.2
TSZ				SN	Sn	07 49 07.4	-1.9
MOVZ	**Moawhango**	1.04	285	PN	Pn	07 48 57.3	-1.4
MOVZ				SN	Sn	07 49 10.8	-1.7
TUVZ	**Tukino**	1.16	291	PN	Pn	07 48 59.8	-0.6
BFZ	**Birch Farm**	1.17	212	P	Pn	07 48 57.7	-2.7
BFZ	**Birch Farm**	1.17	212	PN	Pn	07 48 57.9	-2.5
RITZ	**Rihia Road**	1.17	307	PN	Pn	07 49 00.2	-0.2
WNVZ	**Wahianoa**	1.18	287	P	Pn	07 49 00.2	-0.4
WNVZ	**Wahianoa**	1.18	287	PN	Pn	07 49 00.2	-0.5
OTVZ	**Oturere**	1.20	296	PN	Pn	07 49 00.1	-0.7
DRZ	**Dome Shelter**	1.23	289	P	Pn	07 49 01.0	-0.2
DRZ	**Dome Shelter**	1.23	289	PN	Pn	07 49 00.9	-0.3
NGZ	**Ngauruhoe**	1.24	294	P	Pn	07 49 00.7	-0.7
NGZ	**Ngauruhoe**	1.24	294	PN	Pn	07 49 00.7	-0.7
FWVZ	**Far West T-bar**	1.24	290	P	Pn	07 49 00.8	-0.7
FWVZ	**Far West T-bar**	1.24	290	PN	Pn	07 49 00.3	-1.1
FWVZ				SN	Sn	07 49 16.5	-1.0
KAVZ	**Karewarewa**	1.24	298	P	Pn	07 48 59.6	-1.9
KAVZ	**Karewarewa**	1.24	298	PN	Pn	07 49 00.6	-0.9
CNZ	**Chateau**	1.27	292	P	Pn	07 49 01.7	-0.1
CNZ	**Chateau**	1.27	292	PN	Pn	07 49 01.3	-0.5
WPVZ	**Whakapapa**	1.27	292	P	Pn	07 49 01.7	-0.1
WPVZ	**Whakapapa**	1.27	292	PN	Pn	07 49 01.1	-0.7
WTVZ	**West Tongariro**	1.27	296	P	Pn	07 49 01.3	-0.6
WTVZ	**West Tongariro**	1.27	296	PN	Pn	07 49 01.4	-0.5
RATZ	**Rangitukua**	1.29	309	P	Pn	07 49 02.3	+0.1
RATZ	**Rangitukua**	1.29	309	PN	Pn	07 49 01.4	-0.8
WHTZ	**Whakaora**	1.33	320	P	Pn	07 49 03.7	+0.9
WHTZ	**Whakaora**	1.33	320	PN	Pn	07 49 02.9	+0.2
MGZ	**Maungaku**	1.36	300	P	Pn	07 49 03.4	+0.2
MGZ	**Maungaku**	1.36	300	PN	Pn	07 49 02.7	-0.5
TWVZ	**Taurewa**	1.40	296	P	Pn	07 49 03.0	-0.7
TWVZ	**Taurewa**	1.40	296	PN	Pn	07 49 03.6	-0.1
MWZ	**Matawai**	1.41	15	eP	Pn	07 49 02.4	-1.4
MWZ	**Matawai**	1.41	15	PN	Pn	07 49 02.2	-1.6
URZ	**Urewera**	1.43	2	Pn	Pn	07 49 02.8	-1.4
	70nm,0.3s,baz=217,slow=7.6,SNR=204						
URZ				Lg		07 49 12.0	
	453nm,0.3s,baz=219,slow=9.2,SNR=63						
URZ	**Urewera**	1.43	2	P	Pn	07 49 02.7	-1.5
URZ	**Urewera**	1.43	2	PN	Pn	07 49 02.7	-1.5
PATZ	**Paeroa**	1.45	334	P	Pn	07 49 06.9	+2.5
MRZ	**Mangatainoka R**	1.49	229	eP	Pn	07 49 02.0	-3.0
MRZ	**Mangatainoka R**	1.49	229	⇓PN	Pn	07 49 02.0	-3.0
TAZ	**Tarawera**	1.52	344	P	Pn	07 49 05.0	-0.4
TAZ	**Tarawera**	1.52	344	PN	Pn	07 49 04.1	-1.4
WAZ	**Wanganui**	1.60	267	eP	Pn	07 49 05.9	-0.6
WAZ	**Wanganui**	1.60	267	PN	Pn	07 49 05.7	-0.8
EDRZ	**Edgecumbe**	1.60	351	P	Pn	07 49 09.1	+2.5
UTU	**Utuhina**	1.66	336	P	Pn	07 49 07.5	+0.1
MARZ	**Manawahe**	1.73	350	P	Pn	07 49 12.6	+4.2
LIRZ	**Lichensteins R**	1.77	343	P	Pn	07 49 14.4	+5.4
VRZ	**Vera Road**	1.87	287	P	Pn	07 49 10.2	-0.2
VRZ	**Vera Road**	1.87	287	PN	Pn	07 49 09.2	-1.2
KIW	**Kapiti Island**	2.01	234	P	Pn	07 49 09.3	-3.2
KIW	**Kapiti Island**	2.01	234	PN	Pn	07 49 09.3	-3.2
CAW	**Cannon Point**	2.07	226	P	Pn	07 49 09.7	-3.7
CAW	**Cannon Point**	2.07	226	PN	Pn	07 49 09.6	-3.8
HIZ	**Hauiti**	2.08	304	P	Pn	07 49 12.6	-0.8
HIZ	**Hauiti**	2.08	304	PN	Pn	07 49 11.4	-2.1
PAWZ	**Paruwai Farm**	2.09	216	PN	Pn	07 49 09.3	-4.4
RAEZ	**Rainy Point**	2.10	280	P	Pn	07 49 15.7	+2.0
MSWZ	**Moikau Station**	2.20	218	PN	Pn	07 49 10.4	-4.8
DFE	**Dawson Falls**	2.31	278	P	Pn	07 49 19.2	+2.4
MRW	**Makara Radio**	2.36	229	P	Pn	07 49 13.4	-4.1
MRW	**Makara Radio**	2.36	229	PN	Pn	07 49 13.3	-4.2
NRZ	**Ngariki Road**	2.44	277	P	Pn	07 49 19.7	+1.1
TUWZ	**Tuamarina**	2.94	233	PN	Pn	07 49 20.6	-5.1
BSWZ	**Blackbirch Sta**	3.15	229	P	Pn	07 49 23.5	-5.2
BSWZ	**Blackbirch Sta**	3.15	229	PN	Pn	07 49 23.4	-5.3
NNZ	**Nelson**	3.19	240	eP	Pn	07 49 24.9	-4.4
NNZ	**Nelson**	3.19	240	PN	Pn	07 49 24.8	-4.5
QRZ	**Quartz Range**	3.64	250	P	Pn	07 49 30.9	-4.8
QRZ	**Quartz Range**	3.64	250	PN	Pn	07 49 30.9	-4.8
THZ	**Tophouse**	3.77	235	eP	Pn	07 49 31.8	-5.7
THZ	**Tophouse**	3.77	235	PN	Pn	07 49 31.4	-6.2
LTZ	**Lake Taylor**	4.75	228	eP	Pn	07 49 44.7	-6.7
MQZ	**McQueen's Vall**	5.19	218	eP	Pn	07 49 50.5	-7.1
MQZ	**McQueen's Vall**	5.19	218	PN	Pn	07 49 50.1	-7.6
MQZ				SN	Sn	07 50 44.1	-13
WVZ	**Waitaha Valley**	5.83	233	eP	Pn	07 49 59.5	-7.2
WVZ	**Waitaha Valley**	5.83	233	PN	Pn	07 49 59.3	-7.4
RPZ	**Rata Peaks**	6.03	226	Pn	Pn	07 50 03.4	-6.0
	1.7nm,0.3s,baz=50,slow=2.8,SNR=9.0						
RPZ				Sn	Sn	07 51 06.5	-12
	6.0nm,0.3s,baz=18,slow=24,SNR=15						
LBZ	**Lake Benmore**	6.94	225	eP	Pn	07 50 15.0	-7.3
LBZ	**Lake Benmore**	6.94	225	PN	Pn	07 50 14.6	-7.6
ODZ	**Otahua Downs**	7.15	219	eP	Pn	07 50 17.2	-8.0
ODZ	**Otahua Downs**	7.15	219	PN	Pn	07 50 17.2	-8.0
TUZ	**Tuapeka**	8.30	219	eP	P	07 50 34.4	-6.9
TUZ	**Tuapeka**	8.30	219	PN	P	07 50 33.2	-8.1
STKA	**Stephens Creek**	29.66	274	P	P	07 54 41.8	-3.5
	2.1nm,0.7s,baz=131,slow=11,SNR=5.3						
STKA				LR	LR	08 05 04.4	
	comp=Z,59nm,21.4s,baz=202,slow=33						
ASAR	**Alice Springs**	39.64	281	P	P	07 56 07.1	-3.9
	1.6nm,0.8s,baz=130,slow=8.9,SNR=13						
PMG	**Port Moresby**	40.24	310	LR	LR	08 10 22.5	
	comp=Z,61nm,18.0s,baz=262,slow=32						
WB2	**Warramunga Arr**	41.49	286	eP	P	07 56 22.7	-3.4
WRAB	**Tennant Creek**	41.49	286	eP	P	07 56 22.4	-3.8
	4.8nm,0.7s						
WRA	**Warramunga Arr**	41.49	286	P	P	07 56 22.8	-3.4
	1.7nm,0.8s,baz=126,slow=7.6,SNR=26						
FITZ	**Fitzroy Crossi**	49.15	281	P	P	07 57 24.2	-3.0
	1.8nm,0.8s,baz=153,slow=9.0						

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*NEIC **05** 07:48:49.9, 34.89N×2.83W, MG3.3(MDD), After MDD.*

*MDD **05** 07:48:50.6±1.7, 34.89N×2.87W, h4^{km}±8^{km}, mb3.5/3, Error ellipse: s-maj=23.0km s-min=11.1km az=86.0, PRXIMO AftershockPLICA SOLUCIN POBRE*

*CSEM **05** 07:48:51.1±0.3, 35.02N×2.89W, h12^{km}, MD2.9, Error ellipse: s-maj=7.3km s-min=7.1km az=77.0*

*CNRM **05** 07:48:53.3, 34.84N×2.78W, h2^{km}, MD2.9*

ISC 05 07:48:51.7±0.9**, 35.00N**±0.04×**2.79W**±0.07**, h22**^{km}±4^{km}**, n26, σ1^{s}27**/39**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.05	136	iP	Pb	07 48 55.0	-0.6
MELI	**Melilla**	0.31	337	P	Pb	07 48 59.5	+0.8
MELI				S	Sb	07 49 03.8	+0.3
MELI	**Melilla**	0.31	337	iP	Pb	07 48 59.5	+0.7
MELI				iS	Sb	07 49 03.8	+0.3
EMLI	**Melilla**	0.33	336	P	Pb	07 48 56.8	-2.1
	188nm,0.1s,SNR=12						
EMLI				S	Sb	07 49 03.9	+0.1
	209nm,0.1s,SNR=7.9						
EMEL	**Melilla**	0.33	335	P	Pb	07 48 56.8	-2.2
	188nm,0.1s,SNR=12						
EMEL				S	Sb	07 49 03.9	0.0
	209nm,0.1s,SNR=7.9						
TOU	**Touzarine**	0.80	267	iP	Pb	07 49 08.0	+1.2
TOU				iS	Sb	07 49 18.0	+0.9
MPAL	**Palemas**	0.97	283	iS	Sb	07 49 24.5	+2.3
TZK	**Tazeka**	1.47	232	iP	Pn	07 49 18.0	+0.8
TZK				iS	Sn	07 49 35.0	-0.9
EBER	**Berja**	1.89	357	S	Sn	07 49 47.6	+1.0
	8.0nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	2.24	315	P	Pn	07 49 27.6	-0.7
EMIJ				S	Sn	07 49 53.1	-2.5
EMIJ	**Mijas**	2.24	315	P	Pn	07 49 27.6	-0.7
	0.9nm,0.1s,SNR=12						
EMIJ				S	Sn	07 49 52.6	-3.0
	0.5nm,0.6s,SNR=7.9						
EMIJ	**Mijas**	2.24	315	P	Pn	07 49 27.6	-0.7
	0.9nm,0.1s,SNR=12						
EMIJ				S	Sn	07 49 53.1	-2.5
	0.5nm,0.6s,SNR=7.9						
ELOJ	**Sierra Loja**	2.41	333	S	Sn	07 50 00.1	+0.3
	0.8nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.80	355	P	Pn	07 49 39.5	+3.2
EQES				S	Sn	07 50 11.3	+1.6
EQES	**Quesada**	2.80	355	P	Pn	07 49 39.0	+2.7
	0.5nm,0.1s,SNR=7.6						
EQES				S	Sn	07 50 13.1	+3.3
	1.2nm,0.1s,SNR=7.9						
EQES	**Quesada**	2.80	355	S	Sn	07 50 11.3	+1.5
	1.2nm,0.1s,SNR=7.9						
EMUR	**La Murta**	3.10	23	P	Pn	07 49 41.6	+1.1
	0.7nm,0.2s,SNR=7.2						
EMUR	**La Murta**	3.10	23	P	Pn	07 49 41.6	+1.2
	0.7nm,0.2s,SNR=7.2						
ESPR	**Espera**	3.11	308	P	Pn	07 49 40.1	-0.5
ESPR	**Espera**	3.11	308	P	Pn	07 49 40.1	-0.5
	0.7nm,0.2s,SNR=7.9						
EADA	**Adamuz**	3.47	336	P	Pn	07 49 46.5	+0.8
	0.2nm,0.1s,SNR=7.9						
EADA				S	Sn	07 50 24.8	-1.9
	0.4nm,0.1s,SNR=7.9						
EADA	**Adamuz**	3.47	336	P	Pn	07 49 46.5	+0.7
	0.2nm,0.1s,SNR=7.9						
EADA				S	Sn	07 50 24.8	-1.9
	0.4nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	4.18	312	P	Pn	07 49 54.7	-1.1
	0.4nm,0.1s,SNR=8.9						
EMIN	**Mina Concepcio**	4.18	312	P	Pn	07 49 54.7	-1.1
EBAD	**Badajoz**	5.05	319	P	Pn	07 50 07.3	-0.8
	0.3nm,0.1s,SNR=6.2						
EBAD	**Badajoz**	5.05	319	P	Pn	07 50 07.3	-0.9

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*IDC **05** 07:49:35.2±1.0, 39.05N×106.87E, mb3.8/7, mb1 4.0/8, mb1mx3.7/19, ML4.3/1, Error ellipse: s-maj=44.1km s-min=15.9km az=69.0*

*BJI **05** 07:49:39.1, 38.87N×106.75E, h12^{km}, ML4.3, Ms3.9, Msz3.8*

*NEIC **05** 07:49:40.8±0.9, 39.11N×106.84E, h40^{km}±11^{km}, mb3.9/5, Error ellipse: s-maj=15.5km s-min=6.5km az=72.0*

ISC 05 07:49:34.8±0.3**, 39.11N**±0.04×**106.86E**±0.05**, h10**^{km}**, n37, σ1^{s}14**/50**, mb3.9**/13**, 1C, Western Nei Mongol**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTO	**Baotou**	2.85	57	ePG	Pg	07 50 32.0	+0.2
BTO				SG	Sg	07 51 09.5	-0.3
BTO				Smax			
	comp=N,483nm,0.3s						
BTO				Smax			
	comp=E,434nm,0.3s						
LZH	**Lanzhou**	3.86	219	P	Pn	07 50 37.8	+2.3
LZH				S	Sn	07 51 19.4	-2.0
LZH				SG	Sg	07 51 36.7	-6.5
LZH				Smax			
	comp=N,1μm,1.2s						
LZH				Smax			
	comp=E,1μm,1.2s						
LZH				LR	LR		
	comp=E,2μm,6.5s						
LZH				LR	LR		
	comp=Z,3μm,8.2s						
HHC	**Hu-ho-hao-te**	4.01	63	PG	Pg	07 50 55.8	+1.0
HHC				S	Sn	07 51 37.4	+12
HHC				SG	Sg	07 51 45.7	-2.5
HHC				Smax			
	comp=N,763nm,0.7s						
HHC				Smax			
	comp=E,784nm,0.5s						
TIY	**Taiyuan**	4.59	106	P	Pn	07 50 50.6	+4.6
TIY				S	Sn	07 51 45.8	+5.7
TIY				Smax			
	comp=N,2μm,1.2s						
TIY				Smax			
	comp=E,404nm,0.6s						
XAN	**Xi'an**	5.33	161	P	Pn	07 50 58.6	+2.2
XAN				SG	Sg	07 52 22.1	-10
XAN				Smax			
	comp=N,405nm,0.8s						
XAN				Smax			
	comp=E,218nm,0.8s						
GTA	**Gaotai**	5.48	275	P	Pn	07 50 58.9	+0.4
GTA				PG	Pg	07 51 15.2	-9.0
GTA				SG	Sg	07 52 26.8	-10
GTA				Smax			
	comp=N,230nm,0.7s						
GTA				Smax			
	comp=E,147nm,0.7s						
GTA				LR	LR		
	comp=N,474nm,8.4s						
GTA				LR	LR		
	comp=E,289nm,6.9s						
GTA				LR	LR		
	comp=Z,282nm,8.4s						
BJT	**Baijiatuau**	7.25	80	Pn	Pn	07 51 18.4	-5.0
BJT				ePg	Pg	07 51 50.8	-8.6
BJT				eSg	Sg	07 53 26.1	-10
BJI	**Beijing**	7.25	80	PG	Pg	07 51 50.5	-9.1
BJI				SG	Sg	07 53 22.3	-14
BJI				Smax			
	comp=N,73nm,0.8s						
BJI				Smax			
	comp=E,105nm,0.6s						
CD2	**Chengdu**	8.57	198	eP	P	07 51 43.2	+1.3
CD2				Smax			
	comp=N,29nm,1.2s						
CD2				Smax			
	comp=E,38nm,1.2s						
SONM	**Songino Array**	8.73	358	Pn	P	07 51 45.2	+1.2
	comp=E,0.8nm,0.3s,baz=186,slow=13,SNR=3.7						
SONM				Sn	Sn	07 53 18.5	-5.1
	comp=E,2.2nm,0.3s,baz=185,slow=27,SNR=4.1						
SONM				Lg		07 54 14.5	
	comp=E,2.3nm,0.3s,baz=171,slow=31,SNR=6.2						
ULN	**Ulaanbaatar**	8.75	1	ePn	P	07 51 43.6	-0.8
ULN				Sn	Sn	07 53 20.7	-3.5
ENH	**Enshi**	9.08	165	ePn	P	07 51 49.8	+0.8
WHN	**Wuhan**	10.53	142	eP	P	07 52 10.0	+1.2
GYA	**Guiyang**	12.62	181	⇑iP	P	07 52 36.7	-0.5
GYA				S	S	07 54 49.2	-10
GYA				LR	LR		
	comp=N,390nm,15.6s						
GYA				LR	LR		
	comp=E,480nm,15.0s						
GYA				LR	LR		
	comp=Z,620nm,15.4s						
TLY	**Talaya**	12.77	351	ePn	P	07 52 39.5	+0.3
GUN	**Gumba**	20.71	244	eP	P	07 54 17.5	-0.3
	comp=Z,31nm,0.9s						
ZAL	**Zalesovo**	21.09	322	P	P	07 54 21.8	+0.3
	comp=Z,2.3nm,0.6s,mb3.7,baz=350,slow=9.8,SNR=10						
KKN	**Kakani**	21.20	244	eP	P	07 54 20.7	-2.1
PKI	**Pulchoki**	21.25	244	eP	P	07 54 20.8	-2.5
DMN	**Daman**	21.43	244	eP	P	07 54 24.4	-0.8
GKN	**Gorkha**	21.53	246	eP	P	07 54 24.8	-1.3
CMAR	**Chiang Mai Arr**	21.70	201	P	P	07 54 27.9	-0.1
	comp=Z,1.7nm,0.8s,mb3.5,baz=10,slow=9.1,SNR=8.7						
KOLN	**Koldanda**	22.40	247	eP	P	07 54 34.5	-0.4
	comp=Z,7.4nm,0.7s,mb4.2						
KURK	**Kurchatov**	22.98	310	eP	P	07 54 40.6	+0.3
	comp=Z,2.8nm,0.5s,mb4.0						
KURK				e		07 54 54.0	
AAK	**Ala-Archa**	24.65	289	eP	P	07 54 57.4	+0.7
UCH	**Uchtor**	24.66	288	eP	P	07 54 57.7	+1.0
	comp=Z,3.6nm,0.8s,mb4.0						
EKS2	**Erkin-Say**	25.17	289	P	P	07 55 02.6	+1.0
	comp=Z,2.4nm,0.9s,mb3.7						
AML	**Almayashu**	25.27	288	eP	P	07 55 04.3	+1.8
	comp=Z,4.1nm,0.7s,mb4.1						
AML				e		07 55 20.7	
BVAR	**Borovoye Array**	28.53	311	P	P	07 55 32.5	+0.1
	comp=Z,0.7nm,0.4s,mb3.7,baz=124,slow=10,SNR=6.4						
CHKZ	**Chkalovo**	28.57	313	eP	P	07 55 32.3	-0.4
	comp=Z,0.7nm,0.5s,mb3.6						
FINES	**FINESS Array B**	52.35	323	P	P	07 58 48.9	+0.3
	comp=Z,2.0nm,0.9s,mb4.0,baz=96,slow=14,SNR=3.2						
FINES	**FINESS Array B**	52.35	323	P	P	07 58 48.9	+0.2
NOA	**NORSAR Array B**	59.23	326	P	P	07 59 37.6	-0.6
	comp=Z,2.2nm,1.1s,mb4.1,baz=69,slow=5.9,SNR=3.0						
ILAR	**Eielson Array**	61.68	28	pP	pP	08 00 04.3	+6.3
	comp=Z,0.2nm,0.6s,baz=283,slow=4.7,SNR=1.7						
WRA	**Warramunga Arr**	64.13	151	P	P	08 00 10.9	-0.8
	comp=Z,0.6nm,0.8s,mb3.7,baz=345,slow=6.9,SNR=9.0						
ASAR	**Alice Springs**	67.38	153	P	P	08 00 31.9	-0.6
	comp=Z,0.5nm,0.6s,mb3.7,baz=337,slow=6.3,SNR=8.5						
YKA	**Yellowknife Ar**	73.40	19	pP	pP	08 01 20.2	+8.9
	comp=Z,0.4nm,0.7s,baz=328,slow=5.3,SNR=4.9						

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*IDC **05** 07:58:29.4±12.0, 13.07N×143.63E, h138^{km}±113^{km}, mb3.9/12, mb1 4.1/12, mb1mx3.9/22, Error ellipse: s-maj=33.0km s-min=19.3km az=76.0*

*NEIC **05** 07:58:30.1±1.0, 13.01N×143.66E, h146^{km}±9^{km}, mb4.5/6, Error ellipse: s-maj=15.6km s-min=9.9km az=97.0*

ISC 05 07:58:28.2±1.1**, 13.01N**±0.09×**143.6E**±0.1**, h141**^{km}±11^{km}**, n24, σ0^{s}93**/21**, mb4.1**/18**, 1C, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	1.36	65	⇑iP	P	07 58 57.2	+1.3
GUMO				eS	S	07 59 16.4	-1.0
WRAB	**Tennant Creek**	33.98	196	eP	P	08 04 59.5	-0.8
	5.2nm,0.5s,mb4.5						
WRA	**Warramunga Arr**	33.99	196	P	P	08 05 00.2	-0.3
	3.0nm,0.6s,mb4.2,baz=11,slow=9.7,SNR=11						
FITZ	**Fitzroy Crossi**	35.63	210	P	P	08 05 14.2	-0.2
	1.9nm,0.5s,mb4.0,baz=21,slow=16,SNR=7.2						
ENH	**Enshi**	35.88	304	eP	P	08 05 16.6	+0.3
	7.6nm,0.9s,mb4.3						
BJT	**Baijiatuau**	36.14	323	eP	P	08 05 18.9	+0.5
	7.9nm,0.4s,mb4.7						
ASAR	**Alice Springs**	37.66	195	P	P	08 05 32.3	+0.9
	1.7nm,0.5s,mb3.9,baz=18,slow=13,SNR=7.5						
SONM	**Songino Array**	46.50	326	P	P	08 06 44.4	+1.5
	2.2nm,0.5s,mb4.0,baz=142,slow=7.8,SNR=4.6						
ZAL	**Zalesovo**	61.39	325	P	P	08 08 30.9	-0.5
	1.1nm,0.5s,mb3.9,baz=39,slow=4.0,SNR=3.5						
ZAL	**Zalesovo**	61.39	325	P	P	08 08 30.9	-0.5
KURK	**Kurchatov**	64.23	320	eP	P	08 08 49.4	-0.8
	4.4nm,0.8s,mb4.3						
BVAR	**Borovoye Array**	69.62	322	P	P	08 09 23.8	-0.2
	5.1nm,0.5s,mb4.5,baz=108,slow=7.7,SNR=30						
ILAR	**Eielson Array**	69.62	25	P	P	08 09 21.8	-2.0
	0.8nm,0.8s,mb3.5,baz=251,slow=5.8,SNR=14						
BRVK	**Borovoye**	69.68	322	eP	P	08 09 24.1	-0.3
	3.9nm,0.5s,mb4.4						
INK	**Inuvik**	75.37	22	P	P	08 09 57.2	-0.2
	1.8nm,1.0s,mb3.7,baz=238,slow=11,SNR=5.1						
YKA	**Yellowknife Ar**	83.94	27	P	P	08 10 43.9	+0.6
	0.6nm,0.6s,mb3.5,baz=289,slow=4.8,SNR=9.2						
NEW	**Newport**	86.48	41	P	P	08 10 56.5	+0.4
	1.4nm,0.6s,mb3.9						
ARCES	**ARCESS Array B**	87.25	342	P	P	08 10 59.3	0.0
	4.5nm,0.9s,mb4.3,baz=67,slow=5.1,SNR=7.1						
NVAR	**Mina Array Bea**	88.25	51	P	P	08 11 07.0	+2.1
	1.4nm,0.8s,mb3.9,baz=273,slow=4.4,SNR=11						
FINES	**FINESS Array B**	91.16	335	P	P	08 11 16.6	-1.3
	2.7nm,0.5s,mb4.5,baz=68,slow=4.8,SNR=36						
DBIC	**Dimbokro**	143.06	300	PKhKP		08 17 44.2	
	1.9nm,0.5s,baz=27,slow=4.4,SNR=7.7						
DBIC	**Dimbokro**	143.06	300	ePKPpre		08 17 43.9	

LPAZ	**La Paz**	**149.15**	**100**	PKPbc	PKPdf	08 18 03.9	+7.6
	2.4nm,0.6s,baz=270,slow=4.4,SNR=4.4						
LPAZ	**La Paz**	**149.15**	**100**	PKPdf	PKPdf	08 17 58.6	+2.3
LPAZ				*e*PKPbc	PKPdf	08 18 03.6	+7.3
LPAZ				PKPbc	PKPdf	08 18 03.9	+7.6
LPAZ				*e*PKPab	PKPab	08 18 07.3	-0.4

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*MOS **05** 08:04:19.0±1.1,43.43N×146.95E,h79^{km},mb4.3/2,Error ellipse: s-maj=39.8km s-min=28.4km az=100.4*

*SKHL **05** 08:04:23.1±1.7,43.72N×146.99E,h50^{km}±19^{km},mb5.3/2*

*JMA **05** 08:04:25.7±0.2,43.84N×146.51E,h79^{km}±2^{km},M3.8*

*IDC **05** 08:04:28.6±3.6,44.31N×146.28E,h105^{km}±44^{km},mb3.4/4,mb1 3.7/5,mb1mx3.4/22,Error ellipse: s-maj=83.0km s-min=39.0km az=3.0*

ISC 05 08:04:23.7±0.6**,43.88N**±0.07×**146.62E**±0.07**,h83**^{km}±5^{km}**,n23,**σ**0^{s}87**/38**,mb3.6**/5**,4C,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YUK	**Yuzh-Kuril'sk**	**0.57**	**286**	⇑*i*PN	**P**	**08 04 37.6**	**-0.9**
YUK				*i* S	**S**	**08 04 48.5**	**-1.0**
YUK				pmax	pmax		
	comp=Z,9µm,0.5s						
YUK				pmax	pmax		
	comp=N,1µm,0.3s						
YUK				pmax	pmax		
	comp=E,2µm,0.4s						
YUK				pmax	pmax		
	comp=Z,6µm,0.8s						
YUK				smax			
	comp=N,11µm,0.4s						
YUK				smax			
	comp=E,6µm,0.3s						
YUK				smax			
	comp=N,35µm,1.0s						
YUK				smax			
	comp=E,19µm,1.0s						
YUK	**Yuzh-Kuril'sk**	**0.57**	**286**	⇑*i*P	**P**	**08 04 37.6**	**-0.9**
YUK				AMB	AMB	08 04 38.5	
	comp=E,1µm,0.3s						
YUK				AMB	AMB	08 04 38.5	
	comp=E,2µm,0.3s						
YUK				AMB	AMB	08 04 38.5	
	comp=E,9µm,0.3s						
YUK				AMB	AMB	08 04 39.0	
	comp=E,6µm,1.0s						
YUK				*i* S	**S**	**08 04 48.5**	**-1.0**
YUK				A		08 04 51.5	
	comp=E,11µm,0.3s						
YUK				A		08 04 51.5	
	comp=E,6µm,0.3s						
YUK				A		08 04 53.2	
	comp=E,35µm,1.0s						
YUK				A		08 04 53.2	
	comp=E,19µm,1.0s						
NEM2	**Nemuro 2**	**0.82**	**231**	P	**P**	**08 04 41.8**	**+0.7**
NEM2				*e*S	**S**	**08 04 53.7**	**-0.4**
JRA	**Rausu**	**1.08**	**273**	P	**P**	**08 04 44.9**	**+0.7**
JRA				*e*S	**S**	**08 04 59.1**	**-0.4**
JNK	**Nakash**	**1.41**	**258**	P	**P**	**08 04 48.7**	**+0.2**
JNK				*e*S	**S**	**08 05 05.7**	**-1.1**
KUR	**Kuril'sk**	**1.62**	**33**	⇑*i*PN	**P**	**08 04 50.8**	**-0.4**
KUR				*i* S	**S**	**08 05 12.2**	**+0.7**
KUR				pmax	pmax		
	comp=N,110nm,0.5s						
KUR				pmax	pmax		
	comp=E,110nm,0.5s						
KUR				pmax	pmax		
	comp=Z,270nm,0.5s						
KUR				smax			
	comp=N,2µm,0.5s						
KUR				smax			
	comp=E,2µm,0.5s						
KUR	**Kuril'sk**	**1.62**	**33**	⇑*i*P	**P**	**08 04 50.8**	**-0.4**
KUR				AMB	AMB	08 04 51.3	
	comp=E,114nm,0.5s						
KUR				AMB	AMB	08 04 51.3	
	comp=E,266nm,0.5s						
KUR				*i* S	**S**	**08 05 12.2**	**+0.7**
KUR				A		08 05 13.0	
	comp=E,2µm,0.5s						
KUR				A		08 05 13.0	
	comp=E,2µm,0.5s						
JAK	**Akkeshi**	**1.66**	**238**	P	**P**	**08 04 51.9**	**+0.2**
JAK				*e*S	**S**	**08 05 11.0**	**-1.3**
JTKR	**Abashiri--Toko**	**1.96**	**274**	P	**P**	**08 04 56.1**	**+0.4**
JTKR				*e*S	**S**	**08 05 18.7**	**-0.6**
JAR	**Ashorobuto**	**2.15**	**255**	P	**P**	**08 04 59.4**	**+1.0**
JAR				*e*S	**S**	**08 05 24.6**	**+0.6**
JOB	**Onbets**	**2.25**	**245**	P	**P**	**08 05 00.5**	**+0.7**
JOB				*e*S	**S**	**08 05 26.3**	**-0.2**
JMP	**Maruseppu**	**2.36**	**274**	P	**P**	**08 05 01.6**	**+0.4**
JMP				*e*S	**S**	**08 05 28.8**	**-0.3**
JCH	**Churui**	**2.69**	**243**	P	**P**	**08 05 06.1**	**+0.1**
JCH				*e*S	**S**	**08 05 37.3**	**-0.3**
JKK2	**Kamakawa 2**	**2.80**	**271**	P	**P**	**08 05 08.1**	**+0.7**
JKK2				*e*S	**S**	**08 05 40.6**	**+0.5**
ASAJ	**Asahikawa**	**2.91**	**276**	P	**P**	**08 05 09.8**	**+0.8**
	comp=E,15nm,0.3s,baz=88,slow=9.2,SNR=38						
ASAJ				S	**S**	**08 05 45.8**	**+2.9**
	comp=E,3.4nm,0.3s,baz=163,slow=24,SNR=3.3						
ASAJ	**Asahikawa**	**2.91**	**276**	PN	**P**	**08 05 09.8**	**+0.8**
ASAJ				S	**S**	**08 05 45.8**	**+2.9**
ASAJ				pmax	pmax		
	comp=Z,15nm,0.3s						
INK	**Inuvik**	**46.48**	**30**	P	**P**	**08 12 42.5**	**-1.2**
	comp=Z,1.2nm,1.1s,mb3.6,baz=284,slow=8.3,SNR=3.8						
INK	**Inuvik**	**46.48**	**30**	P	**P**	**08 12 42.5**	**-1.2**
INK				pmax	pmax		
	comp=Z,1.0nm,1.1s						
YKA	**Yellowknife Ar**	**55.91**	**34**	pP	pP	08 14 15.4	-0.3
	comp=Z,0.3nm,0.7s,baz=306,slow=7.2,SNR=5.4						
OBN	**Obninsk**	**64.98**	**323**	*e*P	**P**	**08 14 55.3**	**-1.2**
OBN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
NVAR	**Mina Array Bea**	**67.84**	**58**	P	**P**	**08 15 15.8**	**+0.9**
	comp=Z,2.8nm,1.1s,mb4.0,baz=301,slow=5.5,SNR=8.4						
AKASG	**Malin Array Be**	**71.25**	**323**	P	**P**	**08 15 33.1**	**-2.2**
	comp=Z,0.1nm,0.3s,mb3.1,baz=39,slow=6.0,SNR=4.6						
TXAR	**Lajitas Array**	**82.90**	**56**	P	**P**	**08 16 41.2**	**+0.7**
	comp=Z,0.2nm,0.5s,mb3.2,baz=296,slow=3.6,SNR=9.2						
TXAR				pP	pP	08 17 04.7	+1.8
	comp=Z,0.2nm,0.6s,baz=301,slow=4.0,SNR=3.2						

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*IDC **05** 08:05:25.1±0.8,30.33S×75.66E,mb4.0/8,mb1 4.2/8,mb1mx4.0/16,MS4.0/10,Ms1 4.0/10,ms1mx3.8/24,Error ellipse: s-maj=35.1km s-min=22.3km az=88.0*

*NEIC **05** 08:05:26.6±0.5,30.29S×75.93E,h10^{km},mb4.4/7,Error ellipse: s-maj=22.8km s-min=14.3km az=106.0*

ISC 05 08:05:24.9±0.5**,30.33S**±0.09×**76.0E**±0.2**,h10**^{km}**,n31,**σ**0^{s}99**/21**,mb4.2**/14**,MS4.0**/10**,3C-2D,Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MAW	**Mawson**	**38.12**	**188**	LR	LR	08 25 04.0	
	comp=Z,222nm,19.5s,MS4.0,baz=66,slow=31						
FITZ	**Fitzroy Crossi**	**46.59**	**87**	*e*P	**P**	**08 13 53.3**	**-1.7**
	4.6nm,1.2s,mb4.3						
FITZ	**Fitzroy Crossi**	**46.59**	**87**	LR	LR	08 31 41.2	
	comp=Z,83nm,19.4s,MS3.7,baz=279,slow=34						
SUR	**Sutherland**	**46.70**	**253**	LR	LR	08 29 25.6	
	comp=Z,230nm,18.2s,MS4.2,baz=185,slow=31						
SUR	**Sutherland**	**46.70**	**253**	*e*P	**P**	**08 13 54.8**	**-0.9**
	1.7nm,0.6s,mb4.2						
ASPA	**Alice Springs**	**51.59**	**97**	*e*P	**P**	**08 14 27.5**	**-6.1**
ASAR	**Alice Springs**	**51.59**	**97**	LR	LR	08 35 43.2	
	comp=Z,124nm,18.1s,MS4.0,baz=250,slow=35						
CMAR	**Chiang Mai Arr**	**53.31**	**28**	P	**P**	**08 14 48.1**	**+1.5**
	1.8nm,0.7s,mb4.1,baz=203,slow=8.0,SNR=8.1						
CMAR				LR	LR	08 34 22.1	
	comp=Z,113nm,18.8s,MS4.0,baz=200,slow=32						
WRA	**Warramunga Arr**	**53.36**	**93**	P	**P**	**08 14 48.0**	**+1.1**
	2.5nm,0.9s,mb4.1,baz=252,slow=7.1,SNR=4.1						
STKA	**Stephens Creek**	**55.43**	**110**	LR	LR	08 35 28.1	
	comp=Z,85nm,20.3s,MS3.8,baz=204,slow=32						
SHL	**Shillong**	**57.63**	**17**	*e*P	**P**	**08 15 17.5**	**-0.2**
SNAA	**Sanae**	**58.01**	**201**	⇓*i*	**P**	**08 15 18.1**	**-1.6**
SNAA	**Sanae**	**58.01**	**201**	P	**P**	**08 15 18.9**	**-0.8**
	0.8nm,0.9s,mb3.8,baz=69,slow=9.4,SNR=6.8						
VNA2	**Neumayer--Watz**	**59.51**	**202**	⇑*i*	**P**	**08 15 31.7**	**+1.5**
VNDA	**Vanda**	**59.75**	**165**	P	**P**	**08 15 31.6**	**-0.2**
	2.0nm,0.9s,mb4.2,baz=281,slow=12,SNR=7.9						
VNDA				LR	LR	08 38 20.3	
	comp=Z,173nm,18.2s,MS4.2,baz=174,slow=33						
VNDA	**Vanda**	**59.75**	**165**	*e*P	**P**	**08 15 30.0**	**-1.7**
	2.4nm,0.8s,mb4.3						
VNDA				LR	LR	08 38 20.3	
QSPA	**South Pole Qui**	**59.82**	**180**	⇑*i*P	**P**	**08 15 31.6**	**-0.6**
	12nm,1.1s,mb4.8						
VNA1	**Neumayer--Stat**	**59.82**	**203**	⇑*i*	**P**	**08 15 34.2**	**+1.9**
VNA3	**Neumayer Olymp**	**60.22**	**202**	⇓*i*	**P**	**08 15 35.5**	**+0.5**
CTA	**Charters Tower**	**63.55**	**99**	LR	LR	08 42 34.7	
	comp=Z,87nm,20.1s,MS3.9,baz=225,slow=35						
PMG	**Port Moresby**	**69.12**	**89**	LR	LR	08 47 11.7	
	comp=Z,140nm,18.3s,MS4.2,baz=92,slow=36						
AAK	**Ala-Archa**	**72.61**	**359**	P	**P**	**08 16 53.6**	**-0.7**
	5.5nm,1.3s,mb4.3						
BRTR	**Keskin Array B**	**80.02**	**328**	P	**P**	**08 17 35.7**	**-0.3**
	0.7nm,0.9s,mb3.6,baz=124,slow=5.2,SNR=2.8						
KURK	**Kurchatov**	**80.72**	**2**	*e*P	**P**	**08 17 40.0**	**+0.5**
	1.1nm,0.4s,mb4.1						
BVAR	**Borovoye Array**	**83.14**	**357**	P	**P**	**08 17 51.9**	**-0.2**
	1.8nm,0.8s,mb4.2,baz=153,slow=9.9,SNR=6.3						
BRVK	**Borovoye**	**83.18**	**357**	*e*P	**P**	**08 17 51.8**	**-0.4**
	3.2nm,0.8s,mb4.4						
ZAL	**Zalesovo**	**84.26**	**5**	P	**P**	**08 17 57.9**	**+0.2**
	1.7nm,0.8s,mb4.2,baz=136,slow=3.0,SNR=4.9						
DBIC	**Dimbokro**	**85.46**	**280**	LR	LR	08 52 44.2	
	comp=Z,129nm,18.1s,MS4.4,baz=358,slow=33						
AKASG	**Malin Array Be**	**90.62**	**332**	P	**P**	**08 18 28.7**	**+0.2**
	0.3nm,0.4s,mb3.9,baz=166,slow=3.9,SNR=4.8						
YKA	**Yellowknife Ar**	**147.10**	**9**	PKPbc	PKPdf	08 25 08.0	-0.2
	1.1nm,0.9s,baz=342,slow=3.3,SNR=12						
YKA	**Yellowknife Ar**	**147.10**	**9**	PKPbc	PKPdf	08 25 08.0	-0.2

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*NEIC **05** 08:19:46.0±4.2,30.26N×50.49E,h25^{km}±31^{km},mb3.7/4,Error ellipse: s-maj=38.9km s-min=9.6km az=175.0*

*KISR **05** 08:19:45.9±0.5,30.14N×50.73E,h33^{km},ML3.3*

*CSEM **05** 08:19:47.5±0.1,30.27N×50.59E,h51^{km}±3^{km},mb3.7/4,Error ellipse: s-maj=12.4km s-min=2.3km az=162.0*

*IDC **05** 08:19:48.5±7.8,30.40N×50.45E,h37^{km}±68^{km},mb3.6/8,mb1 3.8/9,mb1mx3.6/22,ML3.9/1,Error ellipse: s-maj=92.5km s-min=30.1km az=174.0*

*THR **05** 08:19:55.8±0.5,31.15N×50.81E,h18^{km}±9^{km},ML3.4*

ISC 05 08:19:47.4±0.8**,30.23N**±0.05×**50.62E**±0.07**,h53**^{km}±10^{km}**,n34,**σ**1^{s}00**/40**,mb3.7**/12**,Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHGR	**Shooshtar-Gavs**	**2.44**	**321**	*e*PG	**P**	**08 20 31.6**	**+5.9**
SHGR				AMP		08 21 09.4	
	comp=E,258nm,0.4s						
SHGR				AMP		08 21 15.1	
	comp=N,393nm,0.6s						
UMR	**Umm Al-Rimmam**	**2.61**	**256**	*e*P	**P**	**08 20 29.1**	**+0.9**
UMR				AML	AML	08 21 06.7	
	comp=Z,172nm,0.3s						
QRN	**Al-Qurain**	**2.79**	**239**	*e*P	**P**	**08 20 30.7**	**0.0**
QRN				*e*S	**S**	**08 21 03.9**	**+0.7**
QRN				AML	AML	08 21 05.4	
	comp=Z,70nm,0.2s						
MIB	**Mutribah**	**2.88**	**262**	*e*P	**P**	**08 20 32.7**	**+0.7**
RDF	**Al-Radifah**	**2.98**	**245**	*e*P	**P**	**08 20 33.4**	**+0.1**
RDF				AML	AML	08 21 08.3	
	comp=Z,90nm,0.3s						
RDF				*e*S	**S**	**08 21 08.7**	**+0.6**
RDF	**Al-Radifah**	**2.98**	**245**	*e*P	**P**	**08 20 33.4**	**+0.1**
RDF				*e*S	**S**	**08 21 08.7**	**+0.7**
NASN	**Na'in**	**3.17**	**36**	*e*PN	**P**	**08 20 36.1**	**+0.1**
RST	**Umm Al-Ruwaisa**	**3.23**	**258**	*e*P	**P**	**08 20 37.1**	**+0.2**
RST				AML	AML	08 21 25.1	
	comp=Z,60nm,0.4s						
ASAO	**Ashtian**	**4.33**	**353**	*e*PN	**P**	**08 20 51.0**	**-1.5**
ASAO				*e*SG	**S**	**08 21 43.6**	**+1.3**
HASS	**Wahat al Ahsa'**	**5.09**	**190**	P	**P**	**08 21 02.8**	**-0.3**
HASS				S	**S**	**08 22 00.0**	**-1.2**
HASS	**Wahat al Ahsa'**	**5.09**	**190**	S	**S**	**08 22 00.0**	**-1.2**
DAMV	**Damavand**	**5.50**	**12**	*e*PN	**P**	**08 21 06.9**	**-1.9**
ARSS	**Ar Rass**	**7.83**	**238**	P	**P**	**08 21 36.7**	**-4.6**
ARSS				S	**S**	**08 23 02.2**	**-7.2**
MZLS	**Mizel**	**7.84**	**219**	P	**P**	**08 21 37.4**	**-3.9**
HILS	**Ha'il**	**8.25**	**252**	P	**P**	**08 21 42.3**	**-4.7**
AFFS	**'Afif**	**9.25**	**229**	P	**P**	**08 21 56.0**	**-4.8**
ASF	**Jabal al Asfar**	**11.91**	**283**	Pn	**P**	**08 22 31.6**	**-5.4**
	comp=Z,0.7nm,0.3s,baz=280,slow=5.6,SNR=3.3						
MALT	**Malatya**	**12.90**	**312**	P	**P**	**08 22 46.8**	**-3.4**
AML	**Almayashu**	**22.01**	**51**	*e*P	**P**	**08 24 39.2**	**+0.6**
	comp=Z,4.1nm,0.7s,mb4.0						
AML	**Almayashu**	**22.01**	**51**	*e*P	**P**	**08 24 39.2**	**+0.6**
	comp=Z,4.1nm,0.7s,mb4.0						
IDI	**Anoyia**	**22.19**	**290**	P	**P**	**08 24 40.6**	**+0.2**
	comp=Z,1.8nm,0.4s,mb3.9,baz=100,slow=11,SNR=6.1						
UCH	**Uchtor**	**22.61**	**51**	*e*P	**P**	**08 24 45.8**	**+1.3**
	comp=Z,1.5nm,0.6s,mb3.6						
UCH	**Uchtor**	**22.61**	**51**	*e*P	**P**	**08 24 45.8**	**+1.4**
	comp=Z,1.5nm,0.6s,mb3.6						
AAK	**Ala-Archa**	**22.76**	**51**	*e*P	**P**	**08 24 47.7**	**+1.7**
	comp=Z,1.3nm,0.5s,mb3.6						
AAK	**Ala-Archa**	**22.76**	**51**	*e*P	**P**	**08 24 47.7**	**+1.7**
	comp=Z,1.3nm,0.5s,mb3.6						
AKASG	**Malin Array Be**	**25.97**	**328**	P	**P**	**08 25 16.0**	**-0.6**
	comp=Z,0.2nm,0.2s,mb3.2,baz=132,slow=8.0,SNR=5.0						
BVAR	**Borovoye Array**	**26.97**	**27**	P	**P**	**08 25 26.1**	**+0.2**
	comp=Z,0.9nm,0.5s,mb3.5,baz=202,slow=8.0,SNR=4.6						
KURK	**Kurchatov**	**29.25**	**38**	*e*P	**P**	**08 25 46.6**	**+0.2**
	comp=Z,1.5nm,0.8s,mb3.8						
ZAL	**Zalesovo**	**34.17**	**36**	P	**P**	**08 26 29.7**	**+0.3**
	comp=Z,0.9nm,0.3s,mb4.1,baz=313,slow=4.9,SNR=2.9						
ZAL	**Zalesovo**	**34.17**	**36**	P	**P**	**08 26 29.7**	**+0.2**
FINES	**FINESS Array B**	**35.15**	**340**	P	**P**	**08 26 36.3**	**-1.5**
	comp=Z,3.7nm,1.0s,mb4.3,baz=149,slow=11,SNR=8.3						
HFS	**Hagfors**	**38.74**	**331**	P	**P**	**08 27 06.9**	**-0.9**
	comp=Z,1.0nm,0.3s,mb4.0,baz=129,slow=9.2,SNR=7.4						
NOA	**NORSAR Array B**	**40.26**	**331**	P	**P**	**08 27 19.4**	**-1.1**
	comp=Z,1.2nm,0.8s,mb3.6,baz=117,slow=8.7,SNR=2.4						
ILAR	**Eielson Array**	**84.33**	**7**	P	**P**	**08 32 15.2**	**+0.8**
	comp=Z,0.2nm,0.7s,mb3.4,baz=314,slow=4.6,SNR=4.1						

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*NEIC **05** 08:21:38.9,56.17N×153.04W,h33^{km},ML3.9(PMR),ML3.8(AEIC),After AEIC.*

*IDC **05** 08:21:43.0±5.9,56.46N×152.94W,h43^{km}±47^{km},mb3.6/9,mb1 3.9/12,mb1mx3.7/22,ML3.5/3,Error ellipse: s-maj=47.4km s-min=17.6km az=48.0*

ISC 05 08:21:35.8±3.5**,56.28N**±0.07×**153.1W**±0.1**,h10**^{km}±23^{km}**,n35,**σ**0^{s}74**/36**,mb3.9**/8**,1C,Kodiak Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KDAK	**Kodiak Island**	**1.53**	**10**	P	**Pn**	**08 22 04.5**	**+1.1**
KDAK				S	**Sb**	**08 22 24.2**	**+0.9**
CAHL	**Cahill**	**2.15**	**327**	P	**Pn**	**08 22 12.6**	**+0.2**
KJL	**Kejulik**	**2.24**	**324**	P	**Pn**	**08 22 13.9**	**+0.3**
MGLS	**Mageik LS**	**2.29**	**329**	P	**Pn**	**08 22 13.6**	**-0.7**
KAPH	**Katmai Pasha**	**2.42**	**344**	P	**Pn**	**08 22 17.1**	**+0.8**
OPT	**Oil Point**	**3.38**	**359**	P	**Pn**	**08 22 31.0**	**+1.1**
CNPM	**China Poot**	**3.40**	**16**	P	**Pn**	**08 22 30.5**	**+0.4**
BRLK	**Bradley Lake**	**3.68**	**17**	P	**Pn**	**08 22 33.8**	**-0.3**
ILW	**Iliamna West**	**3.79**	**359**	P	**Pn**	**08 22 36.0**	**+0.3**
ILIM	**Iliamna**	**3.81**	**1**	P	**Pn**	**08 22 36.6**	**+0.6**
RSO	**Redoubt South**	**4.20**	**2**	*e*P	**Pn**	**08 22 41.8**	**+0.3**
REF	**Redoubt East F**	**4.23**	**2**	P	**Pn**	**08 22 42.4**	**+0.5**
NCT	**North Crescent**	**4.29**	**1**	P	**Pn**	**08 22 43.2**	**+0.4**
DFR	**Drift River**	**4.33**	**2**	P	**Pn**	**08 22 43.6**	**+0.2**
SPU	**Mount Spurr**	**4.94**	**6**	*e*P	**Pn**	**08 22 51.6**	**-0.4**
STLK	**Strandline Lak**	**5.27**	**6**	P	**Pn**	**08 22 56.4**	**-0.3**
PWA	**Palmer West**	**5.63**	**16**	*e*P	**Pn**	**08 22 59.8**	**-2.0**
SCM	**Sheep Creek Mo**	**6.30**	**26**	P	**Pn**	**08 23 09.9**	**-1.4**
ILAR	**Eielson Array**	**9.04**	**17**	P	**P**	**08 23 48.5**	**-1.0**
	0.2nm,0.3s,baz=204,slow=13,SNR=18						
ILAR				S	**Sn**	**08 25 24.5**	**-8.0**
	0.7nm,0.3s,baz=17,slow=22,SNR=7.7						
IM3	**Indian Mountai**	**9.74**	**358**	P	**P**	**08 23 58.7**	**-0.3**
IMA	**Indian Mountai**	**9.83**	**359**	*e*P	**P**	**08 23 59.6**	**-0.6**
	0.5nm,0.3s						
DLBC	**Dease Lake**	**12.61**	**71**	P	**P**	**08 24 37.6**	**-0.4**
	0.3nm,0.3s,baz=239,slow=24,SNR=6.5						
INK	**Inuvik**	**15.00**	**29**	P	**P**	**08 25 13.7**	**+4.4**
	0.1nm,0.3s,baz=252,slow=13,SNR=3.3						
YKA	**Yellowknife Ar**	**20.30**	**56**	P	**P**	**08 26 13.9**	**-0.3**
	0.9nm,0.5s,baz=270,slow=12,SNR=8.6						
YKA				PcP	PcP	08 30 25.0	-2.5
	1.0nm,1.0s,baz=337,slow=3.3,SNR=11						
YKA	**Yellowknife Ar**	**20.30**	**56**	P	**P**	**08 26 13.9**	**-0.3**
YKA				PcP	PcP	08 30 25.1	-2.5
NVAR	**Mina Array Bea**	**29.12**	**113**	P	**P**	**08 27 39.7**	**+1.0**
	2.0nm,0.9s,mb3.8,baz=314,slow=8.4,SNR=9.4						
PDAR	**Pinedale Array**	**30.75**	**97**	P	**P**	**08 27 53.5**	**+0.3**
	0.6nm,0.5s,mb3.7,baz=313,slow=5.2,SNR=6.3						
TXAR	**Lajitas Array**	**43.82**	**107**	P	**P**	**08 29 44.6**	**+1.1**
	0.4nm,0.8s,mb3.2,baz=310,slow=6.5,SNR=7.4						
TXAR				PcP	PcP	08 31 29.1	-1.5
	0.2nm,0.6s,baz=334,slow=2.1,SNR=5.3						
SCHQ	**Schefferville**	**45.72**	**54**	P	**P**	**08 29 58.5**	**+0.1**
	2.3nm,0.9s,mb4.1,baz=296,slow=9.9,SNR=8.4						
SCHQ	**Schefferville**	**45.72**	**54**	P	**P**	**08 29 58.5**	**+0.1**
ARCES	**ARCESS Array B**	**54.49**	**1**	P	**P**	**08 31 04.0**	**-1.2**
	4.9nm,0.9s,mb4.4,baz=22,slow=6.5,SNR=5.3						
ZAL	**Zalesovo**	**60.40**	**325**	P	**P**	**08 31 47.1**	**-0.1**
	0.7nm,0.6s,mb3.9,baz=171,slow=14,SNR=2.8						
FINES	**FINESS Array B**	**62.62**	**0**	P	**P**	**08 32 01.7**	**-0.3**
	1.5nm,0.9s,mb4.1,baz=323,slow=6.9,SNR=2.8						
BVAR	**Borovoye Array**	**65.36**	**333**	P	**P**	**08 32 19.2**	**-0.8**
	0.7nm,0.5s,mb3.9,baz=45,slow=4.2,SNR=5.0						
QSPA	**South Pole Qui**	**146.07**	**180**	⇑*i*P	PKPbc	08 41 15.0	+0.7

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*BJI **05** 08:30:56.8,37.23N×2.48E,h30^{km},mB4.4,mb4.9,Ms4.6,Msz4.4*

*IDC **05** 08:30:58.0±0.8,36.84N×3.25E,mb4.1/16,mb1 4.3/22,mb1mx4.2/28,ML4.3/6,MS3.9/14,Ms1 3.9/14,ms1mx3.7/26,Error ellipse: s-maj=18.2km s-min=16.1km az=29.0*

*NEIC **05** 08:30:59.6±0.3,36.87N×3.42E,h10^{km},mb4.5/10,ML4.7(ALG),Error ellipse: s-maj=3.9km s-min=2.7km az=167.0*

NEIC Forty-six people injured in the Zemmouri area. Felt at Algiers.

*ZUR_RM **05** 08:30:59,36.87N×3.42E,h12^{km},Mw4.5/16,Moment Tensor Solution. s16 Moment tensor: Scale 10^{15}Nm; M_{rr}-2.47; $M_{\theta\theta}$-1.87; $M_{\phi\phi}$4.34; $M_{r\theta}$-1.27; $M_{\theta\phi}$-4.88; $M_{\phi r}$-2.15; Best double couple: $M_0$6.56×10^{15} NP1:ϕ_s11°, δ73°,λ-30°. NP2:ϕ_s110°,δ61°,λ-161°. Principal axes: T 7.196, Plg8°, Azm63°; N -1.266, Plg56°, Azm164°; P -5.93, Plg33°, Azm328°;*

*MED_RC **05** 08:30:59.6±0.3,36.79N×3.42E,h15^{km},MW4.4/16,Moment Tensor Solution. Body waves: s16,c22; Duration: 1^{s}0 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.12±.13; $M_{\theta\theta}$-2.52±.14; $M_{\phi\phi}$2.63±.11; $M_{r\theta}$-1.16±.43; $M_{\theta\phi}$-3.47±.10; $M_{\phi r}$-0.29±.36; Best double couple: $M_0$4.48×10^{15} NP1:ϕ_s17°,δ77°,λ-8°. NP2:ϕ_s109°,δ82°, λ-167°. Principal axes: T 4.4, Plg3°, Azm243°; N .17, Plg75°, Azm140°; P -4.57, Plg15°, Azm334°; nsta1 refers to waves, cutoff=35s.*

*MDD **05** 08:31:00.1±0.5,36.79N×3.44E,h16^{km}±5^{km},mb4.9/32 Error ellipse: s-maj=5.1km s-min=3.6km az=11.0, PRXIMO*

*CSEM **05** 08:31:00.2,37.11N×3.53E,h10^{km},mb4.5*

*MOS **05** 08:31:02.3±1.5,36.92N×3.46E,h38^{km},mb4.4/10,Error ellipse: s-maj=17.3km s-min=7.8km az=63.0*

*INMG **05** 08:31:02.5±1.6,36.83N×3.35E,h31^{km},ML3.1,Error ellipse: s-maj=7.5km s-min=4.2km az=137.0*

*LDG **05** 08:31:03.0±0.2,36.83N×3.46E,h30^{km},Ml4.1/14,ms3.5/7,Error ellipse: s-maj=3.9km s-min=2.2km az=159.0*

*STR **05** 08:31:12.4±0.8,37.80N×3.56E,h10^{km}±1^{km},Ml4.1,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 05 08:30:58.0±0.5**,36.92N**±0.02×**3.39E**±0.02**,h15**^{km}±5^{km}**,n340,**σ**1^{s}28**/409**,mb4.4**/31**,MS4.0**/16**,9C-2D,Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ADJB	**Djebel Djouab**	**0.76**	**177**	P	**Pb**	**08 31 11.7**	**-0.7**
AKET	**Djebel Ketaf**	**0.96**	**155**	P	**Pb**	**08 31 15.2**	**-0.6**
AKF	**Akfadou**	**0.99**	**107**	P	**Pb**	**08 31 16.6**	**+0.3**
SET	**Setif**	**1.77**	**113**	P	**Pn**	**08 31 28.5**	**+0.1**
ECHF	**Ech Chlef**	**1.82**	**246**	P	**Pn**	**08 31 28.5**	**-0.5**
CKHR	**Kef el Ahmar**	**1.94**	**117**	P	**Pn**	**08 31 30.0**	**-0.8**
DFRA	**Djebel Bou Aff**	**2.04**	**100**	P	**Pn**	**08 31 32.0**	**-0.2**
EANR	**'Ain N'Sour**	**2.08**	**243**	P	**Pn**	**08 31 32.3**	**-0.6**
ETRT	**Tiaret**	**2.28**	**228**	P	**Pn**	**08 31 32.6**	**-3.1**
OJGS	**Djebel Guires**	**2.56**	**237**	P	**Pn**	**08 31 38.5**	**-1.2**
CASM	**Ain Smara**	**2.58**	**104**	P	**Pn**	**08 31 38.5**	**-1.5**
EIBI	**Ibiza**	**2.65**	**323**	⇑P	**Pn**	**08 31 43.1**	**+2.2**
	172nm,0.3s,SNR=18						
EIBI				S	**Sn**	**08 32 13.9**	**+0.9**
	321nm,0.4s,SNR=12						
EIBI	**Ibiza**	**2.65**	**323**	Pn	**Pn**	**08 31 43.1**	**+2.1**
	172nm,0.3s,SNR=18						
EIBI				Sn	**Sn**	**08 32 13.9**	**+0.8**
	321nm,0.4s,SNR=12						
CAEH	**'Ain El Ouahch**	**2.78**	**92**	P	**Pn**	**08 31 41.7**	**-1.1**
CMAH	**Djebel Manchou**	**3.25**	**94**	P	**Pn**	**08 31 48.3**	**-1.2**
ODJA	**Bouhanifia**	**3.27**	**242**	P	**Pn**	**08 31 50.0**	**+0.2**
ABSA	**Djebel Ababsia**	**3.35**	**100**	P	**Pn**	**08 31 51.6**	**+0.6**
CABS	**Djebel Ababsia**	**3.35**	**100**	P	**Pn**	**08 31 51.6**	**+0.6**
EBEN	**Beniarda**	**3.37**	**303**	P	**Pn**	**08 31 52.6**	**+1.4**
	32nm,0.2s,SNR=88						
EBEN				S	**Sn**	**08 32 29.4**	**-1.9**
	92nm,0.4s,SNR=6.8						
EBEN	**Beniarda**	**3.37**	**303**	Sn	**Sn**	**08 32 29.4**	**-1.8**
	92nm,0.4s,SNR=6.8						
EBEN	**Beniarda**	**3.37**	**303**	Pn	**Pn**	**08 31 52.6**	**+1.4**
	32nm,0.2s,SNR=88						
CART	**Cartagena**	**3.56**	**282**	*e*P	**Pn**	**08 31 53.5**	**-0.5**
EMUR	**La Murta**	**3.80**	**285**	P	**Pn**	**08 31 58.5**	**+1.2**
	12nm,0.2s,SNR=54						
EMUR				S	**Sn**	**08 32 39.9**	**-2.2**
	90nm,0.6s,SNR=6.4						
EMUR	**La Murta**	**3.80**	**285**	Sn	**Sn**	**08 32 39.9**	**-2.2**
	90nm,0.6s,SNR=6.4						
EMUR	**La Murta**	**3.80**	**285**	Pn	**Pn**	**08 31 58.5**	**+1.2**
	12nm,0.2s,SNR=54						
BLIT	**Baltah**	**4.47**	**91**	*i* P	**Pn**	**08 32 05.0**	**-1.9**
EBR	**Ebro Roquetas**	**4.50**	**331**	*e*PN	**Pn**	**08 32 11.0**	**+3.7**
EBR				*e*SN	**Sn**	**08 33 04.0**	**+4.1**
EMOS	**Mosqueruela**	**4.58**	**320**	⇓P	**Pn**	**08 32 10.0**	**+1.7**
	25nm,0.3s,SNR=18						
EMOS				S	**Sn**	**08 32 59.8**	**-2.0**
	39nm,0.3s,SNR=15						
EMOS	**Mosqueruela**	**4.58**	**320**	Pn	**Pn**	**08 32 10.0**	**+1.7**
	25nm,0.3s,SNR=18						
EMOS				Sn	**Sn**	**08 32 59.8**	**-2.0**
	39nm,0.3s,SNR=15						
ERTA	**Horta de San J**	**4.68**	**330**	P	**Pn**	**08 32 10.8**	**+1.0**
	10nm,0.2s,SNR=30						
ERTA				S	**Sn**	**08 33 02.1**	**-2.4**
	42nm,0.3s,SNR=8.0						
ERTA	**Horta de San J**	**4.68**	**330**	Pn	**Pn**	**08 32 10.8**	**+1.0**
	10nm,0.2s,SNR=30						
ERTA				Sn	**Sn**	**08 33 02.1**	**-2.3**
	42nm,0.3s,SNR=8.0						
EPOB	**Poblet**	**4.77**	**339**	⇑P	**Pn**	**08 32 11.9**	**+0.7**
	38nm,0.3s,SNR=18						
EPOB				S	**Sn**	**08 33 04.8**	**-2.0**
	52nm,0.4s,SNR=17						
EPOB	**Poblet**	**4.77**	**339**	Pn	**Pn**	**08 32 11.9**	**+0.7**
	38nm,0.3s,SNR=18						
EPOB				Sn	**Sn**	**08 33 04.8**	**-2.0**
	52nm,0.4s,SNR=17						
EVIA	**Vianos**	**4.97**	**292**	P	**Pn**	**08 32 14.9**	**+0.9**
	43nm,0.3s,SNR=40						
EVIA				S	**Sn**	**08 33 08.8**	**-3.0**
	60nm,0.4s,SNR=6.2						
EVIA	**Vianos**	**4.97**	**292**	Sn	**Sn**	**08 33 08.8**	**-3.0**
	60nm,0.4s,SNR=6.2						
EBER	**Berja**	**5.03**	**272**	P	**Pn**	**08 32 14.3**	**-0.5**
	15nm,0.3s,SNR=21						
EBER				S	**Sn**	**08 33 09.8**	**-3.4**
	24nm,0.3s,SNR=6.5						
EBER	**Berja**	**5.03**	**272**	Sn	**Sn**	**08 33 09.8**	**-3.5**
	24nm,0.3s,SNR=6.5						
EBER	**Berja**	**5.03**	**272**	Pn	**Pn**	**08 32 14.3**	**-0.5**
	15nm,0.3s,SNR=21						
EMIR	**Miracle**	**5.19**	**344**	P	**Pn**	**08 32 19.0**	**+2.0**
	57nm,0.2s,SNR=170						
EMIR				S	**Sn**	**08 33 14.2**	**-3.0**
	203nm,0.3s,SNR=5.2						
EMIR	**Miracle**	**5.19**	**344**	Pn	**Pn**	**08 32 19.0**	**+2.0**
	57nm,0.2s,SNR=170						
EMIR				Sn	**Sn**	**08 33 14.2**	**-3.1**
	203nm,0.3s,SNR=5.2						
TROT	**Trozza**	**5.20**	**103**	*i* P	**Pn**	**08 32 16.0**	**-1.2**
EQES	**Quesada**	**5.22**	**282**	Pn	**Pn**	**08 32 18.8**	**+1.4**

EQES				Sn	Sn	08 33 14.8	-3.2
EQES	Quesada	5.22	282	P	Pn	08 32 18.8	+1.4
	64nm,0.4s,SNR=109						
EQES				S	Sn	08 33 18.1	+0.1
	78nm,0.3s,SNR=7.0						
EQES	Quesada	5.22	282	Pn	Pn	08 32 18.8	+1.4
	64nm,0.4s,SNR=109						
EQES				Sn	Sn	08 33 14.9	-3.1
KCHT	Kechabta	5.25	86	*i* P	Pn	08 32 17.0	-0.8
VSL	Villasalto	5.37	60	*e*Pn	Pn	08 32 17.2	-2.4
	40nm,0.4s						
VSL				*e*Sn	Sn	08 33 14.4	-7.5
VSL	Villasalto	5.37	60	*e*Pn	Pn	08 32 17.2	-2.4
	40nm,0.4s						
VSL				*e*Sn	Sn	08 33 14.4	-7.5
EMEL	Melilla	5.38	254	P	Pn	08 32 19.9	+0.1
	12nm,0.1s,SNR=7.9						
EMEL				S	Sn	08 33 16.9	-5.2
	33nm,0.3s,SNR=7.9						
ZGN	Zaghouan	5.43	94	*i* P	Pn	08 32 18.5	-1.8
EJON	La Jonquera	5.53	356	P	Pn	08 32 23.0	+1.2
	134nm,0.4s,SNR=202						
EJON				S	Sn	08 33 22.5	-3.4
	49nm,0.3s,SNR=5.7						
EJON	La Jonquera	5.53	356	Pn	Pn	08 32 23.0	+1.1
	134nm,0.4s,SNR=202						
EJON				Sn	Sn	08 33 22.5	-3.4
	49nm,0.3s,SNR=5.7						
SJAF	Saint Jean de	5.57	356	P	Pn	08 32 23.4	+1.0
VALF	Valcebollere	5.57	350	P	Pn	08 32 24.2	+1.8
ESAC	San Caprasio	5.65	329	⇑Pn	Pn	08 32 25.1	+1.7
ESAC				Sn	Sn	08 33 25.3	-3.5
ESAC	San Caprasio	5.65	329	⇑P	Pn	08 32 25.1	+1.7
	34nm,0.3s,SNR=18						
ESAC				S	Sn	08 33 26.7	-2.1
	144nm,0.3s,SNR=6.2						
ESAC	San Caprasio	5.65	329	Pn	Pn	08 32 25.1	+1.6
	34nm,0.3s,SNR=18						
ESAC				Sn	Sn	08 33 25.3	-3.5
	144nm,0.3s,SNR=6.2						
FILF	Fillols	5.67	354	P	Pn	08 32 25.2	+1.5
ERON	Agron	5.76	273	P	Pn	08 32 25.9	+0.8
	6.8nm,0.4s,SNR=11						
ERON				S	Sn	08 33 27.2	-4.4
	11nm,0.4s,SNR=4.0						
EGRA	Graus	5.78	337	⇑P	Pn	08 32 26.9	+1.6
	14nm,0.4s,SNR=18						
EGRA				S	Sn	08 33 28.4	-3.5
	30nm,0.6s,SNR=5.3						
MBZ	Menzel Bouzelf	5.85	90	*i* P	Pn	08 32 24.0	-2.3
CARF	Carcanieres	5.87	351	P	Pn	08 32 28.5	+1.9
ELOJ	Sierra Loja	6.04	274	P	Pn	08 32 30.0	+1.1
	12nm,0.6s,SNR=18						
ELOJ				S	Sn	08 33 33.5	-5.0
	18nm,0.6s,SNR=4.0						
LRDF	Laroque-de-Fa	6.04	354	P	Pn	08 32 30.2	+1.1
SALF	Salau	6.07	345	P	Pn	08 32 31.5	+2.1
LPEF	Le Peyrat	6.12	350	P	Pn	08 32 32.3	+2.1
ELUQ	Luque	6.14	278	P	Pn	08 32 31.6	+1.2
	6.3nm,0.2s,SNR=9.6						
ELUQ				S	Sn	08 33 36.0	-5.1
	7.6nm,0.3s,SNR=4.0						
EBIE	Bielsa	6.28	338	⇑Pn	Pn	08 32 34.0	+1.7
EBIE				Sn	Sn	08 33 40.1	-4.3
EBIE	Bielsa	6.28	338	⇑P	Pn	08 32 34.0	+1.7
	14nm,0.4s,SNR=18						
EBIE				S	Sn	08 33 41.7	-2.7
	17nm,0.3s,SNR=11						
EBIE	Bielsa	6.28	338	Pn	Pn	08 32 34.0	+1.7
	14nm,0.4s,SNR=18						
EBIE				Sn	Sn	08 33 40.1	-4.4
	17nm,0.3s,SNR=11						
MELF	Melles	6.28	342	P	Pn	08 32 34.3	+1.9
MLS	Moulis	6.28	344	P	Pn	08 32 34.7	+2.3
RESF	Ens	6.33	339	P	Pn	08 32 34.5	+1.4
ESDC	Sonseca Array	6.40	298	Pn	Pn	08 32 34.4	+0.3
	18nm,0.3s,baz=111,slow=13,SNR=142						
ESDC				Sn	Sn	08 33 45.3	-2.3
	16nm,0.3s,baz=110,slow=24,SNR=7.4						
ESDC	Sonseca Array	6.40	298	P	Pn	08 32 34.3	+0.2
	34nm,0.2s,baz=108,slow=14,SNR=175						
ESDC				S	Sn	08 33 43.4	-4.2
	8.2nm,0.3s,baz=113,slow=24,SNR=6.7						
ESDC	Sonseca Array	6.40	298	Sn	Sn	08 33 43.4	-4.2
	8.2nm,0.3s,SNR=6.7						
ESDC	Sonseca Array	6.40	298	Pn	Pn	08 32 34.3	+0.2
	34nm,0.2s,SNR=175						
EADA	Adamuz	6.45	284	P	Pn	08 32 34.4	-0.3
	7.3nm,0.3s,SNR=39						
EADA				S	Sn	08 33 43.1	-5.7
	14nm,0.5s,SNR=4.2						
EADA	Adamuz	6.45	284	Pn	Pn	08 32 34.5	-0.3
MTLF	Montolieu	6.47	352	*e*Pn	Pn	08 32 36.0	+0.9
MTLF				*e*Sn	Sn	08 33 43.8	-5.6
	12nm,0.3s						
MTLF	Montolieu	6.47	352	*e*Sn	Sn	08 33 43.8	-5.6
	5.9nm,0.3s						
VIEF	Viey	6.49	338	P	Pn	08 32 36.5	+1.1
EPF	Esparros	6.53	340	*e*Pn	Pn	08 32 37.3	+1.3
EPF				*e*Sn	Sn	08 33 46.4	-4.5
	35nm,0.4s						
EPF	Esparros	6.53	340	*e*Sn	Sn	08 33 46.4	-4.5
	17nm,0.4s						
EMIJ	Mijas	6.56	269	Pn	Pn	08 32 34.9	-1.5
EMIJ				Sn	Sn	08 33 44.9	-6.7
EMIJ	Mijas	6.56	269	P	Pn	08 32 34.4	-2.0
	6.1nm,0.3s,SNR=14						
EMIJ				S	Sn	08 33 44.9	-6.7
	6.2nm,0.3s,SNR=9.4						
EMIJ	Mijas	6.56	269	Pn	Pn	08 32 34.8	-1.6
	6.1nm,0.3s,SNR=14						
BERF	Bertagne	6.62	15	P	Pn	08 32 37.0	-0.2
BERF				S	Sn	08 33 47.9	-5.3
LABF	Labassere	6.62	338	P	Pn	08 32 38.8	+1.5
GELF	Grande-Etoile	6.64	13	P	Pn	08 32 37.2	-0.3
ETSF	Etsaut	6.70	334	*e*Pn	Pn	08 32 39.6	+1.4
ETSF				*e*Sn	Sn	08 33 50.6	-4.4
	23nm,0.3s						
LMR	La Mourre	6.84	20	*e*Pn	Pn	08 32 38.9	-1.3
LMR				*e*Sn	Sn	08 33 51.9	-6.6
	27nm,0.3s						
TAVF	Tavernes	6.99	16	P	Pn	08 32 42.4	0.0
TAVF				S	Sn	08 33 57.3	-5.1
PRAF	Pradon	7.01	11	P	Pn	08 32 44.0	+1.4
FRF	La Foret Royal	7.08	20	*e*Pn	Pn	08 32 42.4	-1.3
FRF				*e*Sn	Sn	08 33 58.2	-6.5
	31nm,0.2s						
PGF	Pioggiola	7.09	36	*e*Pn	Pn	08 32 42.7	-1.1
PGF				*e*Sn	Sn	08 33 56.4	-8.4
	45nm,0.5s						
PGF	Pioggiola	7.09	36	*e*Sn	Sn	08 33 56.4	-8.4
	22nm,0.5s						
SJPF	Ste Jean	7.12	332	*e*Pn	Pn	08 32 45.3	+1.0
SJPF				*e*Sn	Sn	08 34 01.4	-4.3
	32nm,0.4s						
SJPF	Ste Jean	7.12	332	*e*Sn	Sn	08 34 01.4	-4.3
	16nm,0.4s						
LASF	Ste Croix	7.16	3	*e*Pn	Pn	08 32 44.5	-0.2
LASF				*e*Sn	Sn	08 33 59.8	-6.7
	35nm,0.4s						
LASF	Ste Croix	7.16	3	*e*Sn	Sn	08 33 59.8	-6.7
	18nm,0.4s						
SMRF	Simiane la Rot	7.24	13	*e*Pn	Pn	08 32 46.7	+0.8
SMRF				*e*Sn	Sn	08 34 03.2	-5.4
	18nm,0.6s						
OSSF	Osses	7.26	332	P	Pn	08 32 47.2	+1.0
EALK	Alkurruntz	7.32	331	P	Pn	08 32 48.4	+1.3
	14nm,0.3s,SNR=39						
EALK				S	Sn	08 34 05.2	-5.4
	37nm,0.3s,SNR=7.1						
EALK	Alkurruntz	7.32	331	Sn	Sn	08 34 05.2	-5.5
	37nm,0.3s,SNR=7.1						
STOF	St-Etienne Org	7.33	14	P	Pn	08 32 47.8	+0.7
STOF				S	Sn	08 34 08.4	-2.3
ESPR	Espera	7.41	272	P	Pn	08 32 48.7	+0.5
	2.9nm,0.3s,SNR=5.4						
ESPR				S	Sn	08 34 06.8	-6.0
	6.8nm,0.7s,SNR=4.7						
ESPR	Espera	7.41	272	Pn	Pn	08 32 48.7	+0.5
	2.9nm,0.3s,SNR=5.4						
SBF	Sospel	7.59	23	*e*Pn	Pn	08 32 49.1	-1.7
SBF				*e*Sn	Sn	08 34 09.4	-7.9
	34nm,0.3s						
TOUF	Mont Tournerai	7.67	21	P	Pn	08 32 51.1	-0.8
TOUF				S	Sn	08 34 14.2	-5.1
AUTN	L'Aution	7.71	22	P	Pn	08 32 51.3	-1.1
IMI	Imperia	7.78	25	P	Pn	08 32 51.5	-1.9
IMI	Imperia	7.78	25	*e*Pn	Pn	08 32 52.1	-1.3
OCF	Saint Nazaire	7.79	10	P	Pn	08 32 53.9	+0.4
OG26	St.-Nazaire-De	7.79	10	P	Pn	08 32 53.9	+0.4
MONE	Monesi	7.88	24	P	Pn	08 32 53.0	-1.9
MONE	Monesi	7.88	24	P	Pn	08 32 53.0	-1.9
STV	Sta Anna Valdi	7.90	21	P	Pn	08 32 54.1	-1.0
STV	Sta Anna Valdi	7.90	21	P	Pn	08 32 54.1	-1.1
STV2	Anna di Valdie	7.91	21	P	Pn	08 32 54.0	-1.1
STV2	Anna di Valdie	7.91	21	P	Pn	08 32 54.0	-1.2
ENR	Entracque	7.92	22	P	Pn	08 32 54.5	-0.8
VIVF	Saint-Julien-l	7.99	7	*e*Pn	Pn	08 32 56.2	-0.1
EMIN	Mina Concepcio	8.06	279	P	P	08 32 56.2	-1.1
	7.0nm,0.3s,SNR=47						
EMIN				S	Sn	08 34 22.3	-6.7
	4.5nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	8.06	279	Pn	P	08 32 56.2	-1.1
	7.0nm,0.3s,SNR=47						
CAF	Calviac	8.06	353	*e*Pn	P	08 32 57.7	+0.4
PZZ	Prazzo	8.08	19	P	P	08 32 57.5	-0.2
PZZ	Prazzo	8.08	19	P	P	08 32 57.5	-0.2
ROB	Roburent	8.11	23	P	P	08 32 56.6	-1.5
DOI	San Damiano	8.12	20	*e*Pn	P	08 32 58.0	-0.2
DOI	San Damiano	8.12	20	*e*Pn	P	08 32 58.0	-0.2
FIN	Finale Ligure	8.15	25	*e*Pn	P	08 32 57.1	-1.5
FIN	Finale Ligure	8.15	25	P	P	08 32 56.6	-2.0
FIN	Finale Ligure	8.15	25	*e*Pn	P	08 32 57.1	-1.5
ELAN	Lanestosa	8.19	322	Pn	P	08 33 00.1	+1.0
ELAN				Sn	Sn	08 34 26.0	-6.2
ELAN	Lanestosa	8.19	322	P	P	08 33 00.1	+1.0
	9.3nm,0.3s,SNR=24						
ELAN				S	Sn	08 34 29.0	-3.3
	6.8nm,0.3s,SNR=4.6						
ELAN	Lanestosa	8.19	322	Sn	Sn	08 34 26.0	-6.2
	6.8nm,0.3s,SNR=4.6						
ELAN	Lanestosa	8.19	322	Pn	P	08 33 00.1	+1.0
	9.3nm,0.3s,SNR=24						
MBDF	Montbardon	8.21	17	*e*Sn	Sn	08 34 26.9	-5.9
	32nm,0.8s						
MBDF	Montbardon	8.21	17	*e*Pn	P	08 33 00.0	+0.6
MBDF				*e*Sn	Sn	08 34 26.9	-5.9
MBDF	Montbardon	8.21	17	P	P	08 33 00.0	+0.6
MBDF				S	Sn	08 34 26.9	-5.9
	16nm,0.8s						
ORIF	Oris-en-Rattie	8.21	13	*e*Pn	P	08 33 00.0	+0.6
LFF	La Frestale	8.26	347	*e*Pn	P	08 33 00.6	+0.5
RRL	Cesana Torines	8.39	17	P	P	08 33 02.6	+0.6
RRL	Cesana Torines	8.39	17	P	P	08 33 02.6	+0.6
EBAD	Badajoz	8.43	286	P	P	08 33 01.3	-1.2
	6.1nm,0.6s,SNR=9.2						
EBAD				S	Sn	08 34 30.6	-7.7
	3.3nm,0.3s,SNR=7.3						
EBAD	Badajoz	8.43	286	Pn	P	08 33 01.3	-1.2
	6.1nm,0.6s,SNR=9.2						
BHB	Bricherasio	8.44	19	P	P	08 33 02.3	-0.3
BHB	Bricherasio	8.44	19	P	P	08 33 02.3	-0.3
FRNF	Fournols	8.48	356	P	P	08 33 03.8	+0.6
RJF	Les Rejaudoux	8.49	351	*e*Pn	P	08 33 02.7	-0.7
RJF				*e*R			
	878nm,17.5s						
BNI	Bardonecchia	8.49	16	*e*Pn	P	08 33 03.5	+0.1
	22nm,1.1s						
BNI	Bardonecchia	8.49	16	*e*Pn	P	08 33 03.5	+0.1
	22nm,1.1s						
GRN	Grenoble	8.50	11	P	P	08 33 05.0	+1.5
GDM	Grand'Maison	8.53	13	P	P	08 33 04.8	+1.0
PCP	Pian Castagno	8.56	26	P	P	08 33 03.7	-0.6
FENE	Fenestrelle	8.56	18	P	P	08 33 04.8	+0.4
FENE	Fenestrelle	8.56	18	P	P	08 33 04.8	+0.5
COLF	Collangettes	8.59	1	P	P	08 33 04.6	-0.1
RSP	Reno Superiore	8.72	18	P	P	08 33 07.2	+0.6
RSP	Reno Superiore	8.72	18	P	P	08 33 07.2	+0.6
VAE	Valguarnera	8.82	83	LR	LR	08 37 06.3	
	comp=Z,1µm,18.0s,baz=155,slow=41						
MAIM		8.84	36	P	P	08 33 06.5	-1.6
MAIM		8.84	36	P	P	08 33 06.5	-1.6
VINC	Vinca	8.86	33	P	P	08 33 06.8	-1.7
VINC	Vinca	8.86	33	P	P	08 33 06.8	-1.6
VINC	Vinca	8.86	33	P	P	08 33 06.8	-1.6
CODM		8.93	31	P	P	08 33 08.4	-1.0
CODM		8.93	31	P	P	08 33 08.4	-1.0
BACM		8.93	33	P	P	08 33 11.0	+1.5
BACM		8.93	33	P	P	08 33 11.0	+1.5
LPG	La Plagne	8.93	15	*e*Pn	P	08 33 10.3	+0.8
LPL	La Plagne	8.95	15	*e*Pn	P	08 33 10.7	+1.0
LSD	Ceresole Reale	8.99	17	P	P	08 33 11.4	+1.1
LSD	Ceresole Reale	8.99	17	P	P	08 33 11.4	+1.2
MNS	Montasola	9.01	50	*e*Pn	P	08 33 09.0	-1.5
MNS	Montasola	9.01	50	*e*Pn	P	08 33 09.0	-1.5
PBEJ	Beja	9.02	280	*e*Pn	P	08 33 10.1	-0.5
PBEJ				*e*Sn	Sn	08 34 46.8	-6.0
	2.9nm,0.2s						
PBEJ	Beja	9.02	280	P	P	08 33 10.1	-0.5
PBEJ				S	Sn	08 34 46.8	-6.0
	1.4nm,0.2s						
PBEJ	Beja	9.02	280	*e*Pn	P	08 33 09.7	-0.9
PCBR	Castelo Branco	9.02	292	*e*Pn	P	08 33 11.3	+0.7
PCBR	Castelo Branco	9.02	292	*e*Pn	P	08 33 11.2	+0.6
PCBR				*e*Sn	Sn	08 34 45.4	-7.4
PCBR	Castelo Branco	9.02	292	*e*Sn	Sn	08 34 45.4	-7.4
VALM		9.06	33	P	P	08 33 10.9	-0.3
VALM		9.06	33	P	P	08 33 10.9	-0.4
GRAM		9.10	32	P	P	08 33 11.2	-0.6
GRAM		9.10	32	P	P	08 33 11.2	-0.6
EARI	Arriondas	9.16	317	P	P	08 33 12.6	0.0
	14nm,0.4s,SNR=50						
EARI				S	Sn	08 34 48.6	-7.8
	19nm,0.4s,SNR=4.0						
EARI	Arriondas	9.16	317	Pn	P	08 33 12.6	0.0
	14nm,0.4s,SNR=50						
EVO	Evora	9.18	284	*e*Pn	P	08 33 12.1	-0.7
EVO				*e*Sn	Sn	08 34 51.5	-5.3
	12nm,0.4s						
EVO				*e*R			
	488nm,13.0s						
MTE	Manteigas	9.23	295	*e*Pn	P	08 33 14.2	+0.7
MTE				*e*Sn	Sn	08 34 52.7	-5.4
	11nm,0.5s						
MTE	Manteigas	9.23	295	*e*P	P	08 33 13.3	-0.3
MTE				*e*S	Sn	08 34 48.5	-10
MTE	Manteigas	9.23	295	P	P	08 33 14.2	+0.7
MTE				S	Sn	08 34 52.7	-5.4
	5.6nm,0.5s						
PBRG	Braganca	9.23	305	*e*Pn	P	08 33 14.1	+0.5
ECAL	Calabor	9.30	306	⇑P	P	08 33 15.1	+0.6
	63nm,0.3s,SNR=18						
ECAL				S	Sn	08 34 52.2	-7.6
	20nm,0.3s,SNR=4.9						
ECAL	Calabor	9.30	306	Pn	P	08 33 15.1	+0.6
	63nm,0.3s,SNR=18						
ORX	Oropa	9.36	20	P	P	08 33 15.2	-0.2
ORX	Oropa	9.36	20	P	P	08 33 15.2	-0.2
TCF	Toulx Ste Croi	9.40	355	*e*Pn	P	08 33 16.8	+0.9
EMV	Vieux Emosson	9.50	15	P	P	08 33 18.1	+0.8
PVIS	Viseu	9.58	297	*e*Pn	P	08 33 18.8	+0.4
DIX	Grande Dixence	9.63	17	P	P	08 33 20.4	+1.3
BGF	Bois d'Agland	9.64	358	*e*Pn	P	08 33 19.6	+0.5
PVRL	Vila Real	9.66	300	*e*Pn	P	08 33 20.1	+0.6
PVRL				*e*Sn	Sn	08 35 03.6	-5.2
PTEO	Sao Teotonio	9.68	277	*e*Pn	P	08 33 18.2	-1.6
SMF	Signal de Mont	9.72	2	*e*Pn	P	08 33 20.3	0.0
ERUA	La Rua	9.78	307	P	P	08 33 22.0	+0.9
	12nm,0.3s,SNR=38						
ERUA				S	Sn	08 35 03.3	-8.4
	8.1nm,0.3s,SNR=4.0						
ERUA	La Rua	9.78	307	Sn	Sn	08 35 03.3	-8.4
	8.1nm,0.3s,SNR=6.0						
AVF	Avril sur Loir	9.86	360	*e*Pn	P	08 33 22.3	+0.1
CABF	La Chapelle	9.89	11	*e*Pn	P	08 33 21.8	-0.8
LKBD	Leukerbad	9.97	17	P	P	08 33 24.7	+0.9
MFF	Saint Martin d	10.02	346	*e*Pn	P	08 33 24.0	-0.5
MFF				*e*Sn	S	08 35 09.1	-8.6
	5.7nm,0.5s						
MFF	Saint Martin d	10.02	346	*e*Sn	S	08 35 09.1	-8.6
	2.8nm,0.5s						
EINC	Incio	10.05	308	P	P	08 33 25.2	+0.3
	7.6nm,0.4s,SNR=20						
EINC				S	S	08 35 08.8	-10
	7.9nm,0.3s,SNR=7.5						
EINC	Incio	10.05	308	Sn	S	08 35 08.8	-10
	7.9nm,0.3s,SNR=7.5						
EINC	Incio	10.05	308	Pn	P	08 33 25.2	+0.3
	7.6nm,0.4s,SNR=20						
SSF	Saint Saulge	10.13	0	*e*Pn	P	08 33 26.3	+0.3
ELOB	Lobios	10.14	303	P	P	08 33 26.5	+0.4
	8.6nm,0.4s,SNR=20						
ELOB				S	S	08 35 11.0	-10
	5.6nm,0.4s,SNR=8.0						
ELOB	Lobios	10.14	303	Pn	P	08 33 26.5	+0.4
	8.6nm,0.4s,SNR=20						
EPON	Pontenova	10.29	312	P	P	08 33 28.0	-0.1
	9.7nm,0.2s,SNR=28						
EPON				S	S	08 35 15.6	-8.6
	12nm,0.3s,SNR=4.0						
EPON	Pontenova	10.29	312	Pn	P	08 33 28.0	-0.1
	9.7nm,0.2s,SNR=28						
LOMF	Lomont	10.73	13	P	P	08 33 33.7	-0.4
DAVOX	Davos	10.97	24	Pn	P	08 33 38.0	+0.6
	0.5nm,0.3s,baz=299,slow=11,SNR=6.1						
SULZ	Sulz-Cheisache	11.16	17	P	P	08 33 39.2	-0.8
HINF	Hinteralfeld	11.18	12	*e*Pn	P	08 33 38.8	-1.5
MOF	Molkenrain	11.27	13	P	P	08 33 40.7	-0.8
HAU	Haudompre	11.29	10	*e*Pn	P	08 33 40.8	-1.0
HAU				*e*R			
	303nm,18.8s						
SFTF	Sexfontaines	11.34	6	*e*Pn	P	08 33 42.2	-0.3
	baz=183						
THEF	They Montfort	11.46	9	P	P	08 33 44.0	-0.1
ECH	Echery	11.62	13	P	P	08 33 45.2	-1.1
MEZF	Maizieres J'vi	11.64	5	*e*P	P	08 33 45.9	-0.6
CDF	Champ du Feu	11.83	13	*e*Pn	P	08 33 47.9	-1.2
WLS	Welschbruch	11.85	13	P	P	08 33 48.0	-1.3
GRR	Gorron	11.88	346	*e*Pn	P	08 33 48.4	-1.3
LDF	La Druitiere	11.95	349	*e*Pn	P	08 33 49.9	-0.8
QUIF	Quistinic	12.00	338	*e*Pn	P	08 33 51.4	0.0
QUIF				*e*Sn	S	08 35 57.2	-8.7
	7.1nm,0.5s						
QUIF	Quistinic	12.00	338	*e*Sn	S	08 35 57.2	-8.7
	3.5nm,0.5s						
SGMF	Saint Gilles	12.14	341	*e*Pn	P	08 33 52.4	-0.8
FLN	La Foliniere	12.17	348	*e*Pn	P	08 33 53.4	-0.2
	baz=174						
FLN				*e*R			
	527nm,24.5s						
ROSF	Rostrenen	12.41	339	*e*Pn	P	08 33 55.4	-1.5
WLF	Walferdange	12.89	8	P	P	08 34 05.0	+1.6
	16nm,1.6s						
BAIF	Baives	13.15	2	*e*Pn	P	08 34 08.4	+1.7
DOU	Dourbes	13.20	3	P	P	08 34 08.4	+1.0
	13nm,1.4s						
GIVF	Givet	13.22	4	*e*Pn	P	08 34 08.9	+1.3
HGN	Heimansgroeve	13.96	7	*e*P	P	08 34 18.5	+1.2
	21nm,1.2s						
HGN	Heimansgroeve	13.96	7	*e*P	P	08 34 18.5	+1.2
	21nm,1.2s						
GERES	GERESS Array B	14.10	29	Pn	P	08 34 21.5	+2.3
	0.2nm,0.3s,baz=221,slow=12,SNR=10						
KHC	Kasperske Hory	14.28	28	*e*P	P	08 34 22.6	+1.0
KHC				*e*		08 34 29.5	
KHC	Kasperske Hory	14.28	28	*e*P	P	08 34 22.6	+1.0
KHC				pP		08 34 29.5	
ITM	Ithomi	14.81	83	P	P	08 34 30.9	+2.3
BRG	Berggiesshubel	15.86	25	*e*P	P	08 34 49.5	+7.3
BRG				pmax	pmax		
	comp=Z,3.0nm,1.1s						
BRG	Berggiesshubel	15.86	25	*e*P	P	08 34 49.5	+7.3
	comp=Z,3.0nm,1.1s						
CLL	Collm	15.93	22	*i* P	P	08 34 49.9	+6.8
CLL				pmax	pmax		
	comp=Z,15nm,1.3s						
CLL	Collm	15.93	22	*i* P	P	08 34 49.9	+6.8
	comp=Z,15nm,1.3s						
CLL				*e*		08 35 10.0	
CLL	Collm	15.93	22	*i*	P	08 34 49.9	+6.8
CLL				*e*		08 35 10.0	
UPC	Upice	16.33	30	*e*P	P	08 34 48.5	+0.4
DPC	Dobruska-Polom	16.33	31	*e*P	P	08 34 55.9	+7.7
GVD	Gavdhos	16.91	91	P	P	08 34 55.5	0.0
	comp=Z,9.9nm,0.9s						
GVD	Gavdhos	16.91	91	P	P	08 34 55.5	0.0
	comp=Z,9.9nm,0.9s						
IDI	Anoyia	17.45	89	Pn	P	08 35 04.0	+1.6
	comp=Z,0.2nm,0.3s,baz=281,slow=14,SNR=8.8						
APE	Apeiranthos	17.69	83	*i* P	P	08 35 06.4	+1.1
APE	Apeiranthos	17.69	83	P	P	08 35 07.2	+1.9
SANT	Santorini	17.72	85	*e*P	P	08 35 04.4	-1.3
	comp=Z,28nm,1.4s						
SANT	Santorini	17.72	85	*e*P	P	08 35 04.4	-1.3
	comp=Z,28nm,1.4s						
LAST	Lasithi	17.95	89	P	P	08 35 11.0	+2.4
EKA	Eskdalemuir Ar	18.95	348	P	P	08 35 22.6	+1.9
	comp=Z,0.4nm,0.3s,baz=155,slow=14,SNR=8.8						
EKA	Eskdalemuir Ar	18.95	348	P	P	08 35 22.6	+1.9
MLR	Muntele Rosu	18.96	56	P	P	08 35 23.8	+2.8
	comp=Z,0.3nm,0.3s,baz=131,slow=10,SNR=11						
MLR				LR	LR	08 42 48.0	
	comp=Z,356nm,18.2s,baz=246,slow=37						
KMPD	K-Podol'skiy	20.47	48	P	P	08 35 40.0	+2.4
KIS	Kishinev	21.34	54	*e*P	P	08 35 46.0	-0.5
KIS				*e*		08 36 04.0	
ISP	Isparta	21.55	79	*i* P	P	08 35 49.8	+1.1
KIEV	Kiev	23.02	45	P	P	08 36 03.0	-0.2
AKASG	Malin Array Be	23.03	45	P	P	08 36 03.1	-0.1
	comp=Z,6.8nm,0.6s,mb4.2,baz=244,slow=10,SNR=13						
AKASG	Malin Array Be	23.03	45	P	P	08 36 03.2	-0.1
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HFS	Hagfors	24.15	13	P	P	08 36 14.7	+0.6
	comp=Z,3.4nm,0.7s,mb3.9,baz=198,slow=9.4,SNR=5.0						
HFS	Hagfors	24.15	13	P	P	08 36 14.7	+0.6
HFS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
CSS	Prodhromos	24.28	86	*e*P	P	08 36 13.7	-1.9
	comp=Z,15nm,1.0s,mb4.4						
CSS	Prodhromos	24.28	86	*e*P	P	08 36 13.7	-1.9
	comp=Z,15nm,1.0s,mb4.4						
NOA	NORSAR Array B	24.64	9	P	P	08 36 20.2	+1.4
	comp=Z,2.6nm,0.8s,mb3.8,baz=195,slow=9.8,SNR=4.1						
NOA				LR	LR	08 46 29.3	
	comp=Z,133nm,18.7s,MS3.5,baz=190,slow=38						
NOA	NORSAR Array B	24.64	9	P	P	08 36 20.2	+1.4
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,133nm,18.7s						
MALT	Malatya	27.69	76	*e*P	P	08 36 45.5	-1.9
	comp=Z,13nm,1.3s,mb4.4						
MALT	Malatya	27.69	76	*e*P	P	08 36 45.5	-1.9
	comp=Z,13nm,1.3s,mb4.4						
ASF	Jabal al Asfar	27.92	90	P	P	08 36 51.7	+2.2
	comp=Z,1.7nm,0.5s,mb3.9,baz=66,slow=0.6,SNR=4.6						
SOC	Sochi	28.35	65	*e*P	P	08 36 54.1	+0.9
SOC				*e*		08 40 00.8	
SOC				*e*S	S	08 41 39.0	+1.2
SOC				*e*SS	SS	08 42 58.5	-3.7
SOC				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.0						
SOC				pmax	pmax		
	comp=N,39nm,1.2s						
SOC				pmax	pmax		
	comp=E,33nm,1.1s						
FINES	FINESS Array B	28.38	23	P	P	08 36 56.1	+2.8
	comp=E,1.2nm,0.8s,mb3.6,baz=243,slow=8.5,SNR=3.6						
FINES	FINESS Array B	28.38	23	P	P	08 36 56.1	+2.8
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
OBN	Obninsk	28.96	40	*e*P	P	08 36 58.5	-0.2
OBN				pmax	pmax		
	comp=Z,27nm,1.7s,mb4.7						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS3.8						
DBIC	Dimbokro	31.04	196	P	P	08 37 15.9	-1.6
	comp=Z,5.9nm,1.1s,mb4.3,baz=35,slow=0.8,SNR=3.5						
DBIC	Dimbokro	31.04	196	P	P	08 37 16.0	-1.5
DBIC				pmax	pmax		
	comp=Z,6.0nm,1.1s						
DBIC	Dimbokro	31.04	196	P	P	08 37 15.7	-1.8
	comp=Z,11nm,1.2s,mb4.6						
DBIC	Dimbokro	31.04	196	P	P	08 37 15.7	-1.8
	comp=Z,11nm,1.2s,mb4.6						
BORG	Borgarnes	31.50	340	LR	LR	08 49 48.2	
	comp=Z,593nm,18.0s,MS4.3,baz=217,slow=36						
JMIC	Jan Mayen	34.70	353	LR	LR	08 50 41.4	
	comp=Z,92nm,21.5s,MS3.5,baz=281,slow=34						
ARCES	ARCESS Array B	34.81	13	P	P	08 37 49.5	-0.3
	comp=Z,49nm,1.4s,mb5.2,baz=207,slow=8.1,SNR=4.3						
ARCES	ARCESS Array B	34.81	13	P	P	08 37 49.5	-0.3
ARCES				pmax	pmax		
	comp=Z,49nm,1.4s						

ARU	**Arti**	**41.27**	**44**	⇑*i*P	**P**	**08 38 44.2**	**+0.3**
ARU				*e*S	**S**	**08 44 55.0**	**-2.1**
ARU				*e*SS	SS	08 47 57.4	+1.5
ARU				*e*		08 48 46.2	
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.3						
ARU				MLR	MLR		
	comp=Z,100nm,16.5s,MS3.8						
ARU				MLR	MLR		
	comp=N,80nm,18.0s,MS3.9						
ARU				MLR	MLR		
	comp=E,100nm,17.0s,MS3.9						
BRVK	**Borovoye**	**48.19**	**48**	*e*P	**P**	**08 39 40.1**	**+0.8**
	comp=E,6.6nm,0.9s,mb4.7						
BRVK	**Borovoye**	**48.19**	**48**	*e*P	**P**	**08 39 40.1**	**+0.7**
	comp=E,6.6nm,0.9s,mb4.7						
BVAR	**Borovoye Array**	**48.26**	**48**	P	**P**	**08 39 41.2**	**+1.3**
	comp=E,1.7nm,0.8s,mb4.1,baz=304,slow=5.3,SNR=7.6						
KMBO	**Kilima Mbogo**	**49.19**	**133**	P	**P**	**08 39 48.6**	**+1.0**
	comp=E,6.3nm,1.3s,mb4.5,baz=351,slow=7.3,SNR=4.5						
KMBO				LR	LR	09 02 54.9	
	comp=E,82nm,19.3s,MS3.7,baz=92,slow=39						
KMBO	**Kilima Mbogo**	**49.19**	**133**	*i* P	**P**	**08 39 50.3**	**+2.7**
KMBO				pmax	pmax		
	comp=Z,6.0nm,1.3s						
KMBO	**Kilima Mbogo**	**49.19**	**133**	*e*P	**P**	**08 39 48.9**	**+1.3**
KMBO	**Kilima Mbogo**	**49.19**	**133**	*e*P	**P**	**08 39 48.9**	**+1.3**
SCHQ	**Schefferville**	**49.85**	**315**	LR	LR	08 58 20.3	
	comp=Z,74nm,18.3s,MS3.7,baz=128,slow=33						
KURK	**Kurchatov**	**53.73**	**50**	*i* P	**P**	**08 40 21.7**	**+0.3**
KURK	**Kurchatov**	**53.73**	**50**	*e*P	**P**	**08 40 20.1**	**-1.3**
	comp=Z,7.8nm,0.8s,mb4.7						
KURK	**Kurchatov**	**53.73**	**50**	*e*P	**P**	**08 40 20.1**	**-1.3**
	comp=Z,7.8nm,0.8s,mb4.7						
NVS	**Novosibirsk**	**55.28**	**44**	*e*P	**P**	**08 40 32.0**	**-0.7**
NVS				*i*		08 42 31.7	
NVS				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
ZAL	**Zalesovo**	**56.42**	**45**	P	**P**	**08 40 42.7**	**+1.8**
	comp=Z,2.2nm,0.5s,mb4.4,baz=187,slow=7.2,SNR=8.4						
ZAL				LR	LR	09 04 02.4	
	comp=Z,73nm,19.5s,MS3.8,baz=275,slow=35						
ZAL	**Zalesovo**	**56.42**	**45**	*i* P	**P**	**08 40 41.7**	**+0.8**
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ZAL	**Zalesovo**	**56.42**	**45**	P	**P**	**08 40 42.7**	**+1.8**
ZAL				LR	LR	09 04 02.4	
WMQ	**Urumqi**	**61.95**	**55**	⇓P	**P**	**08 41 20.2**	**+0.8**
WMQ				AP	pP	08 41 24.7	+0.6
WMQ				PCP	PcP	08 42 01.2	+1.4
WMQ				PP	PP	08 43 38.7	+0.6
WMQ				S	**S**	**08 49 41.5**	**+0.4**
WMQ				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb4.5						
WMQ				AMB	AMB		
	comp=Z,13nm,6.8s						
WMQ				LR	LR		
	comp=N,150nm,20.6s,MS4.2						
WMQ				LR	LR		
	comp=E,98nm,17.0s,MS4.2						
WMQ				LR	LR		
	comp=Z,94nm,17.0s,MS4.0						
ULM	**Lac du Bonnet**	**67.93**	**317**	P	**P**	**08 41 57.6**	**-0.2**
	comp=Z,1.5nm,0.6s,mb4.2,baz=11,slow=7.0,SNR=3.1						
ULM				LR	LR	09 07 42.9	
	comp=Z,94nm,19.9s,MS4.0,baz=18,slow=32						
ZAK	**Zakamensk**	**68.20**	**43**	*e*P	**P**	**08 42 01.4**	**+1.8**
YKA	**Yellowknife Ar**	**69.20**	**334**	P	**P**	**08 42 06.2**	**+0.7**
	comp=Z,0.6nm,0.5s,mb3.8,baz=51,slow=6.2,SNR=16						
YKA				LR	LR	09 09 10.2	
	comp=Z,85nm,18.7s,MS4.0,baz=45,slow=33						
INK	**Inuvik**	**70.26**	**344**	LR	LR	09 13 14.6	
	comp=Z,131nm,18.6s,MS4.2,baz=21,slow=36						
BDFB	**Brasilia**	**71.25**	**233**	LR	LR	09 09 07.2	
	comp=Z,116nm,21.5s,MS4.1,baz=122,slow=32						
SONM	**Songino Array**	**71.31**	**44**	P	**P**	**08 42 18.4**	**-0.2**
	comp=Z,1.1nm,0.3s,mb4.2,baz=262,slow=10,SNR=3.8						
ULN	**Ulaanbaatar**	**71.66**	**44**	*e*P	**P**	**08 42 22.0**	**+1.2**
	comp=Z,6.7nm,1.3s,mb4.4						
ULN	**Ulaanbaatar**	**71.66**	**44**	*e*P	**P**	**08 42 22.0**	**+1.3**
	comp=Z,6.7nm,1.3s,mb4.4						
ILAR	**Eielson Array**	**75.99**	**347**	P	**P**	**08 42 47.9**	**+2.4**
	comp=Z,2.4nm,1.1s,mb4.0,baz=341,slow=6.4,SNR=5.9						
ILAR				LR	LR	09 21 09.0	
	comp=Z,62nm,19.1s,MS3.9,baz=358,slow=40						
ILAR	**Eielson Array**	**75.99**	**347**	P	**P**	**08 42 47.9**	**+2.4**
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
ILAR				MLR	MLR		
	comp=Z,62nm,19.1s						
ILAR	**Eielson Array**	**75.99**	**347**	P	**P**	**08 42 47.8**	**+2.3**
LZH	**Lanzhou**	**76.53**	**55**	*e*P	**P**	**08 42 50.1**	**+1.0**
LZH				PP	PP	08 45 43.2	+0.3
LZH				AMB	AMB		
	comp=Z,24nm,1.4s,mb4.9						
LZH				AMB	AMB		
	comp=Z,112nm,6.1s						
LZH				LR	LR		
	comp=N,223nm,15.0s						
LZH				LR	LR		
	comp=Z,368nm,17.9s,MS4.7						
PHWY	**Pilot Hill**	**78.56**	**313**	*e*P	**P**	**08 43 02.7**	**+2.4**
PHWY	**Pilot Hill**	**78.56**	**313**	*e*P	**P**	**08 43 02.7**	**+2.5**
PDAR	**Pinedale Array**	**79.94**	**316**	P	**P**	**08 43 09.2**	**+1.5**
	comp=Z,0.6nm,0.8s,mb3.6,baz=69,slow=5.9,SNR=4.6						
PDAR				LR	LR	09 14 22.7	
	comp=Z,96nm,18.7s,MS4.2,baz=162,slow=33						
PV10	**Paradox Valley**	**82.56**	**313**	*e*P	**P**	**08 43 23.9**	**+2.4**
PV10	**Paradox Valley**	**82.56**	**313**	*e*P	**P**	**08 43 23.9**	**+2.4**
BMO	**Blue Mountains**	**82.56**	**322**	*e*P	**P**	**08 43 24.0**	**+2.6**
	comp=Z,3.5nm,0.9s,mb4.4						
SRU	**San Rafael**	**82.93**	**314**	*e*P	**P**	**08 43 25.1**	**+1.7**
CMAR	**Chiang Mai Arr**	**83.42**	**72**	P	**P**	**08 43 28.4**	**+2.1**
	comp=Z,0.5nm,0.5s,mb3.8,baz=307,slow=6.8,SNR=4.4						
CMAR	**Chiang Mai Arr**	**83.42**	**72**	P	**P**	**08 43 28.5**	**+2.2**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CN2	**Changchun**	**84.00**	**38**	*e*P	**P**	**08 43 27.6**	**-1.1**
TXAR	**Lajitas Array**	**85.05**	**303**	P	**P**	**08 43 36.1**	**+1.8**
	comp=Z,0.7nm,0.8s,mb3.8,baz=88,slow=4.9,SNR=8.3						
NJ2	**Nanjing**	**88.67**	**50**	*e*P	**P**	**08 43 52.3**	**+0.4**
NJ2				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.8						
SSE	**Sheshan**	**90.76**	**49**	P	**P**	**08 44 00.2**	**-1.5**
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.7						
WRA	**Warramunga Arr**	**134.18**	**82**	PKP	PKPdf	08 50 19.3	+0.1
	comp=Z,0.5nm,0.9s,baz=321,slow=2.0,SNR=4.6						
WRA	**Warramunga Arr**	**134.18**	**82**	PKIKP	PKPdf	08 50 19.3	+0.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASAR	**Alice Springs**	**135.74**	**87**	PKP	PKPdf	08 50 21.1	-0.9
	comp=Z,0.5nm,0.7s,baz=290,slow=1.3,SNR=5.6						
STKA	**Stephens Creek**	**145.35**	**94**	PKPbc	PKPbc	08 50 36.9	+1.1
	comp=Z,8.3nm,0.9s,baz=321,slow=4.4,SNR=12						

MAN 05 08:35:17.9, 8.94N×123.07E, h12^{km}, mb4.2, ML3.0, MS2.7, 2C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNPH	**Sibulan**	**0.43**	**23**	⇑*e*P	Pg	08 35 27.2	+0.4
DCPH	**Dipolog City**	**0.46**	**142**	⇑*i*P	Pg	08 35 27.3	+0.1
DCPH				*i* S	Sg	08 35 34.8	+1.4
TBP	**Tagbilaran**	**1.08**	**46**	⇓*e*P	Pb	08 35 47.9	+10
TBP				*e*S	Sb	08 35 53.8	+1.8
IPIL	**Ipil**	**1.25**	**203**	*e*P	Pb	08 35 40.2	-0.7
IPIL				*e*S	Sb	08 35 59.5	+2.7
GUIM	**Jordan**	**1.74**	**344**	*e*P	Pn	08 35 47.4	-0.8
GUIM				*e*S	Sn	08 36 10.7	+0.2

*NEIC **05** 08:35:59.7, 45.39N×5.39E, h5^{km}, ML2.7(STR), ML2.6(LDG), After STR.*
*LDG **05** 08:35:59.2±0.0, 45.44N×5.46E, h2^{km}, Md2.6/3, Ml2.6/27, Error ellipse: s-maj=0.8km s-min=0.7km az=54.0*
*CSEM **05** 08:35:59.2±0.1, 45.44N×5.49E, h8^{km}, ML2.6/25, Error ellipse: s-maj=0.9km s-min=0.9km az=80.0*
STR 05 08:35:59.7±0.3**, 45.39N×5.39E, h5^{km}±1^{km}, Ml2.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRN	**Grenoble**	**0.29**	**120**	Pg	Pg	08 36 05.3	-0.3
GRN				Sg	Sg	08 36 09.7	+0.2
ORIF	**Oris-en-Rattie**	**0.58**	**144**	*e*Pg	Pg	08 36 10.8	-0.6
ORIF				*e*Sg	Sg	08 36 18.0	-1.2
	48nm,0.5s						
VIVF	**Saint-Julien-l**	**0.74**	**224**	*e*Pg	Pg	08 36 14.4	0.0
VIVF				*e*Sg	Sg	08 36 25.0	+0.7
VIVF				*e*Sn	Sn	08 36 27.3	-0.8
	77nm,0.2s						
LPL	**La Plagne**	**0.95**	**82**	*e*Pg	Pg	08 36 16.2	-2.6
LPL				*e*Sg	Sg	08 36 28.2	-3.3
	14nm,0.3s						
LPG	**La Plagne**	**0.96**	**83**	*e*Pg	Pg	08 36 16.6	-2.4
LPG				*e*Sg	Sg	08 36 28.8	-3.0
	29nm,0.2s						
MBDF	**Montbardon**	**1.18**	**124**	*e*Pg	Pg	08 36 21.1	-2.2
MBDF				*e*Sn	Sn	08 36 36.3	-3.2
	2.8nm,0.2s						
COLF	**Collangettes**	**1.20**	**277**	Pg	Pg	08 36 22.2	-1.5
COLF				Sg	Sg	08 36 38.4	-1.3
CABF	**La Chapelle**	**1.31**	**21**	*e*Pn	Pn	08 36 22.3	-2.4
CABF				*e*Sg	Sg	08 36 38.8	-4.7
	21nm,0.4s						
PLDF	**La Plantade**	**1.37**	**296**	Pn	Pn	08 36 24.4	-1.1
PLDF				Pg	Pg	08 36 25.9	-1.1
PLDF				Sg	Sg	08 36 43.8	-1.5
PLDF	**La Plantade**	**1.37**	**296**	Pg	Pg	08 36 25.9	-1.1
PLDF				Sg	Sg	08 36 43.8	-1.5
SMRF	**Simiane la Rot**	**1.42**	**175**	*e*Pg	Pg	08 36 26.5	-1.6
SMRF				*e*Sg	Sg	08 36 45.2	-1.8
	7.4nm,0.4s						
LBL	**Lubilhac**	**1.52**	**265**	Pn	Pn	08 36 26.8	-0.9
LBL				Pg	Pg	08 36 29.4	-0.7
LBL	**Lubilhac**	**1.52**	**265**	Pg	Pg	08 36 29.4	-0.7
SMF	**Signal de Mont**	**1.66**	**320**	*e*Pn	Pn	08 36 27.0	-2.6
SMF				*e*Sg	Sg	08 36 50.0	-4.8
	33nm,0.2s						
LASF	**Ste Croix**	**1.71**	**220**	*e*Pn	Pn	08 36 29.0	-1.4
LASF				*e*Pg	Pg	08 36 32.5	-1.3
LASF				*e*Sn	Sn	08 36 51.1	-1.7
LASF				*e*Sg	Sg	08 36 55.0	-1.6
	10nm,0.3s						
LASF	**Ste Croix**	**1.71**	**220**	*e*Pg	Pg	08 36 32.5	-1.3
LASF				*e*Sn	Sn	08 36 51.1	-1.7
LASF				*e*Sg	Sg	08 36 55.0	-1.6
	5.2nm,0.3s						
PYM	**Petit Puy Mans**	**1.71**	**283**	Pg	Pg	08 36 32.2	-1.7
AGO	**Saint Agoulin**	**1.72**	**294**	Pg	Pg	08 36 32.7	-1.3
AVF	**Avril sur Loir**	**1.99**	**315**	*e*Pn	Pn	08 36 32.4	-2.0
AVF				*e*Sg	Sg	08 37 00.2	-5.9
	15nm,0.4s						
FRF	**La Foret Royal**	**2.04**	**153**	*e*Pg	Pg	08 36 37.5	-2.9
FRF				*e*Sg	Sg	08 37 03.9	-3.7
	9.1nm,0.4s						
SBF	**Sospel**	**2.11**	**136**	*e*Pn	Pn	08 36 34.3	-1.9
SBF				*e*Sg	Sg	08 37 05.8	-4.2
	9.0nm,0.4s						
SSF	**Saint Saulge**	**2.12**	**323**	*e*Pn	Pn	08 36 33.9	-2.4
SSF				*e*Pg	Pg	08 36 38.5	-3.6
SSF				*e*Sn	Sn	08 37 00.0	-3.4
	9.6nm,0.2s						
SSF	**Saint Saulge**	**2.12**	**323**	*e*Pg	Pg	08 36 38.5	-3.6
SSF				*e*Sn	Sn	08 37 00.0	-3.4
	4.8nm,0.2s						
BGF	**Bois d’Agland**	**2.12**	**304**	*e*Pn	Pn	08 36 34.0	-2.3
BGF				*e*Pg	Pg	08 36 38.8	-3.3
BGF				*e*Sg	Sg	08 37 06.6	-3.8
	16nm,0.3s						
BGF	**Bois d’Agland**	**2.12**	**304**	*e*Pg	Pg	08 36 38.8	-3.3
BGF				*e*Sg	Sg	08 37 06.6	-3.8
	7.8nm,0.3s						
LMR	**La Mourre**	**2.21**	**158**	*e*Pn	Pn	08 36 35.5	-2.0
LMR				*e*Sn	Sn	08 37 02.2	-3.3
LMR				*e*Sg	Sg	08 37 09.4	-3.8
	2.3nm,0.3s						
TCF	**Toulx Ste Croi**	**2.40**	**293**	*e*Pn	Pn	08 36 38.4	-1.8
TCF				*e*Pg	Pg	08 36 44.1	-3.5
TCF				*e*Sn	Sn	08 37 06.3	-4.0
TCF				*e*Sg	Sg	08 37 15.5	-4.0
	2.3nm,0.2s						
TCF	**Toulx Ste Croi**	**2.40**	**293**	*e*Pg	Pg	08 36 44.1	-3.5
TCF				*e*Sn	Sn	08 37 06.3	-4.0
TCF				*e*Sg	Sg	08 37 15.5	-4.0
	1.1nm,0.2s						
CAF	**Calviac**	**2.40**	**260**	*e*Pn	Pn	08 36 38.5	-1.7
CAF				*e*Pg	Pg	08 36 44.9	-2.7
CAF				*e*Sn	Sn	08 37 07.6	-2.8
CAF				*e*Sg	Sg	08 37 16.6	-3.0
	4.4nm,0.3s						
CAF	**Calviac**	**2.40**	**260**	*e*Pg	Pg	08 36 44.9	-2.7
CAF				*e*Sn	Sn	08 37 07.6	-2.8
CAF				*e*Sg	Sg	08 37 16.6	-3.0
	2.2nm,0.3s						
HINF	**Hinteralfeld**	**2.63**	**22**	*e*Pn	Pn	08 36 38.7	-4.8
HINF				*e*Pg	Pg	08 36 46.0	-6.2
HINF				*e*Sg	Sg	08 37 19.6	-7.6
	3.6nm,0.3s						
HINF	**Hinteralfeld**	**2.63**	**22**	*e*Pg	Pg	08 36 46.0	-6.2
HINF				*e*Sg	Sg	08 37 19.6	-7.6
	1.8nm,0.3s						
HAU	**Haudompre**	**2.70**	**14**	*e*Pn	Pn	08 36 41.0	-3.5
HAU				*e*Pg	Pg	08 36 48.0	-5.6
HAU				*e*Sg	Sg	08 37 22.0	-7.5
	4.0nm,0.2s						
HAU	**Haudompre**	**2.70**	**14**	*e*Pg	Pg	08 36 48.0	-5.6
HAU				*e*Sg	Sg	08 37 22.0	-7.5
	2.0nm,0.2s						
RJF	**Les Rejaudoux**	**2.73**	**270**	*e*Pg	Pg	08 36 50.7	-3.6
RJF				*e*Sg	Sg	08 37 27.3	-3.4
	3.7nm,0.3s						
SFTF	**Sexfontaines**	**2.83**	**355**	*e*Pg	Pg	08 36 51.0	-5.1
SFTF				*e*Sg	Sg	08 37 26.8	-7.0
	3.7nm,0.2s						
MTLF	**Montolieu**	**3.06**	**229**	*e*Sg	Sg	08 37 35.0	-6.6
	4.8nm,0.4s						
MEZF	**Maizieres J’vi**	**3.12**	**356**	*e*Pn	Pn	08 36 47.2	-3.4
MEZF				*e*Pg	Pg	08 36 56.0	-6.0
MEZF				*e*Sg	Sg	08 37 35.9	-7.7
	7.9nm,0.5s						
MEZF	**Maizieres J’vi**	**3.12**	**356**	*e*Pg	Pg	08 36 56.0	-6.0
MEZF				*e*Sg	Sg	08 37 35.9	-7.7
	4.0nm,0.5s						
RFYF	**Reffroy**	**3.24**	**1**	*e*Pg	Pg	08 36 58.7	-5.7
RFYF				*e*Sg	Sg	08 37 39.3	-8.3
	3.4nm,0.2s						
CDF	**Champ du Feu**	**3.29**	**22**	*e*Pn	Pn	08 36 47.5	-5.4
CDF				*e*Sg	Sg	08 37 40.8	-8.4
	3.1nm,0.3s						
GRR	**Gorron**	**5.23**	**307**	*e*Sn	Sn	08 38 14.4	-7.6
	1.5nm,0.3s						
FLN	**La Foliniere**	**5.24**	**312**	*e*Sn	Sn	08 38 14.1	-8.2
	0.9nm,0.2s						

*CSEM **05** 08:41:40.6±0.4, 35.02N×2.87W, h15^{km}, MD3.1, Error ellipse: s-maj=9.1km s-min=7.1km az=114.0*
*CNRM **05** 08:41:40.3, 35.07N×2.60W, h13^{km}, MD3.1*
*NEIC **05** 08:41:41.6, 34.95N×3.08W, h5^{km}, MG3.5(MDD), After MDD.*
*MDD **05** 08:41:42.3±1.5, 35.01N×3.14W, mb3.4/4, Error ellipse: s-maj=15.1km s-min=6.2km az=154.0, PRXIMO AftershockPLICA*
ISC 05 08:41:41.3±0.7**, 35.00N**±0.03×**2.82W**±0.06**, h15^{km}, n25, σ1§12**/41**, 1D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	**0.07**	**119**	*i* P	**Pb**	**08 41 44.0**	**+0.1**
MELI	**Melilla**	**0.30**	**342**	⇓P	**Pb**	**08 41 48.2**	**+0.3**
MELI				S	**Sb**	**08 41 52.5**	**+0.2**
MELI	**Melilla**	**0.30**	**342**	*i* P	**Pb**	**08 41 48.2**	**+0.3**
MELI				*i* S	**Sb**	**08 41 52.5**	**+0.2**
EMLI	**Melilla**	**0.31**	**340**	S	**Sb**	**08 41 53.5**	**+0.9**
	412nm,0.2s,SNR=7.9						
EMLI	**Melilla**	**0.31**	**340**	P	**Pb**	**08 41 48.3**	**+0.3**
	260nm,0.2s,SNR=16						
EMEL	**Melilla**	**0.32**	**339**	P	**Pb**	**08 41 48.3**	**+0.3**
	260nm,0.2s,SNR=16						
EMEL				S	**Sb**	**08 41 53.1**	**+0.4**
	412nm,0.2s,SNR=7.9						
TOU	**Touzarine**	**0.77**	**267**	*i* P	**Pb**	**08 41 57.0**	**+1.2**
TOU				*i* S	**Sb**	**08 42 09.0**	**+3.2**
TZK	**Tazeka**	**1.45**	**231**	*i* P	**Pn**	**08 42 07.0**	**-0.1**
TZK				*i* S	**Sb**	**08 42 26.0**	**+0.5**
EBER	**Berja**	**1.89**	**358**	P	**Pn**	**08 42 13.4**	**0.0**
EBER				S	**Sn**	**08 42 38.3**	**+1.2**
EBER	**Berja**	**1.89**	**358**	P	**Pn**	**08 42 13.4**	**0.0**
	1.1nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**08 42 35.8**	**-1.3**
	2.6nm,0.2s,SNR=7.9						
EBER	**Berja**	**1.89**	**358**	P	**Pn**	**08 42 13.4**	**0.0**
	1.1nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**08 42 38.3**	**+1.2**
	2.6nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	**2.22**	**315**	P	**Pn**	**08 42 16.3**	**-1.9**
	2.3nm,0.2s,SNR=9.9						
EMIJ				S	**Sn**	**08 42 41.9**	**-3.7**
	1.7nm,0.2s,SNR=7.9						
EQES	**Quesada**	**2.80**	**356**	P	**Pn**	**08 42 28.1**	**+1.6**
	2.8nm,0.3s,SNR=9.7						
EQES				S	**Sn**	**08 43 01.0**	**+0.8**
	2.0nm,0.2s,SNR=7.9						
EQES	**Quesada**	**2.80**	**356**	P	**Pn**	**08 42 28.1**	**+1.7**
	2.8nm,0.3s,SNR=9.7						
EQES				S	**Sn**	**08 43 01.0**	**+0.8**
	2.0nm,0.2s,SNR=7.9						
EMUR	**La Murta**	**3.11**	**24**	P	**Pn**	**08 42 30.7**	**-0.1**
	1.0nm,0.3s,SNR=7.9						
EMUR				S	**Sn**	**08 43 07.9**	**0.0**
	0.4nm,0.2s,SNR=4.0						
EMUR	**La Murta**	**3.11**	**24**	P	**Pn**	**08 42 30.7**	**-0.1**
	1.0nm,0.3s,SNR=7.9						
EMUR				S	**Sn**	**08 43 07.9**	**0.0**
	0.4nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.46**	**336**	P	**Pn**	**08 42 35.4**	**-0.4**
	0.7nm,0.2s,SNR=6.7						
EADA				S	**Sn**	**08 43 13.6**	**-3.3**
	0.6nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.46**	**336**	P	**Pn**	**08 42 35.4**	**-0.4**
	0.7nm,0.2s,SNR=6.7						
EADA				S	**Sn**	**08 43 13.6**	**-3.3**
	0.6nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.16**	**313**	P	**Pn**	**08 42 43.4**	**-2.3**
	0.6nm,0.2s,SNR=10						
EMIN				S	**Sn**	**08 43 28.1**	**-6.4**
	0.5nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**4.16**	**313**	P	**Pn**	**08 42 43.4**	**-2.3**
	0.6nm,0.2s,SNR=10						
ESDC	**Sonseca Array**	**4.75**	**349**	P	**Pn**	**08 42 54.1**	**0.0**
	0.5nm,0.1s,baz=172,slow=12,SNR=5.1						
ESDC	**Sonseca Array**	**4.75**	**349**	P	**Pn**	**08 42 54.1**	**0.0**
	0.5nm,0.1s,SNR=5.1						
EBAD	**Badajoz**	**5.03**	**319**	P	**Pn**	**08 42 56.0**	**-2.1**
	0.6nm,0.1s,SNR=7.0						
EBAD	**Badajoz**	**5.03**	**319**	P	**Pn**	**08 42 56.0**	**-2.1**
	0.6nm,0.1s,SNR=7.0						
EJON	**La Jonquera**	**8.67**	**29**	P	**P**	**08 43 44.8**	**-4.3**

MAN 05 08:41:56.8, 12.60N×123.73E, h34^{km}, mb3.6, ML2.3, MS1.8, 1C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MMPH	**Masbate**	**0.26**	**203**	*e*P	P	08 42 06.0	+1.8
MMPH				*i* S	S	08 42 08.0	-1.4
PVCP	**Virac**	**1.07**	**23**	*e*P	P	08 42 15.6	0.0
AUQP	**San Andres**	**1.25**	**305**	*e*P	P	08 42 17.6	-0.5
AUQP				*e*S	S	08 42 33.0	-1.0
RCP	**Roxas**	**1.41**	**223**	⇑*e*P	P	08 42 20.2	-0.2
RCP				*e*S	S	08 42 38.0	-0.1
BOAC	**Boac**	**2.02**	**295**	*e*P	P	08 42 30.8	+1.6

*STR **05** 08:48:54.8±0.6, 41.57N×2.47E, h5^{km}±1^{km}, Ml2.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **05** 08:48:54.4, 41.56N×2.52E, h6^{km}, ML2.9(STR), ML2.8(LDG), ML2.2(MRB), MN2.4(MDD), After LDG.*
NEIC Felt [II] at Arenys de Mar.
*LDG **05** 08:48:54.4±0.1, 41.56N×2.52E, h6^{km}, Md2.8/3, Ml2.8/17, Error ellipse: s-maj=2.5km s-min=1.6km az=9.0*
*CSEM **05** 08:48:56.1±0.1, 41.62N×2.54E, h15^{km}, ML2.8/17, Error ellipse: s-maj=2.0km s-min=1.5km az=146.0*
MDD 05 08:48:55.5±0.5**, 41.59N×2.57E, h11^{km}, mbLg2.3**/23**, Error ellipse: s-maj=4.1km s-min=2.8km az=134.0, PRXIMO, Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CFON	**Fontmartina**	**0.20**	**330**	Pg	Pg	08 48 59.2	-0.7
CFON				Sg	Sg	08 49 02.2	-0.6
CFON	**Fontmartina**	**0.20**	**330**	Pg	Pg	08 48 59.2	-0.7
CFON				Lg		08 49 02.2	
	221nm,0.1s						
CFON	**Fontmartina**	**0.20**	**330**	Pg	Pg	08 48 59.2	-0.7
CFON				Sg	Sg	08 49 02.2	-0.6
CBRU	**Bruguera**	**0.75**	**338**	Pg	Pg	08 49 09.5	-1.1
EMIR	**Miracle**	**0.84**	**293**	Pg	Pg	08 49 11.1	-1.4
	4.8nm,0.1s,SNR=44						
EMIR				Lg		08 49 22.6	
	72nm,0.1s,SNR=7.9						
EMIR	**Miracle**	**0.84**	**293**	Pg	Pg	08 49 11.1	-1.4
	4.8nm,0.1s,SNR=44						
EJON	**La Jonquera**	**0.89**	**16**	Pg	Pg	08 49 12.3	-1.1
	28nm,0.1s,SNR=81						
EJON				Lg		08 49 24.1	
	38nm,0.2s,SNR=7.9						
EJON	**La Jonquera**	**0.89**	**16**	Pg	Pg	08 49 12.3	-1.1
	28nm,0.1s,SNR=81						
VALF	**Valcebollere**	**0.91**	**333**	Pg	Pg	08 49 12.2	-1.5
VALF				Sg	Sg	08 49 25.4	-0.5
VALF	**Valcebollere**	**0.91**	**333**	Pg	Pg	08 49 12.2	-1.5
VALF				Lg		08 49 25.4	
VALF	**Valcebollere**	**0.91**	**333**	Sg	Sg	08 49 25.4	-0.5
SJAF	**Saint Jean de**	**0.92**	**15**	Pg	Pg	08 49 12.7	-1.3
SJAF				Sg	Sg	08 49 25.7	-0.7
SJAF	**Saint Jean de**	**0.92**	**15**	Pg	Pg	08 49 12.9	-1.2
SJAF				Lg		08 49 25.5	
FILF	**Fillols**	**0.97**	**360**	Pg	Pg	08 49 13.7	-1.2
FILF				Sg	Sg	08 49 27.2	-0.7
FILF	**Fillols**	**0.97**	**360**	Pg	Pg	08 49 13.6	-1.3
FILF				Lg		08 49 26.7	
CLLI	**Llivia**	**0.99**	**334**	Pg	Pg	08 49 13.9	-1.5
CLLI				Lg		08 49 28.1	
	42nm,0.1s						
CGAR	**Garraf**	**1.12**	**255**	Pg	Pg	08 49 05.8	-12
CORG	**Organya**	**1.13**	**305**	Pg	Pg	08 49 16.4	-1.8
CORG				Lg		08 49 31.7	
	9.9nm,0.1s						
EPOB	**Poblet**	**1.14**	**258**	Pg	Pg	08 49 16.5	-1.9
	18nm,0.1s,SNR=7.9						
EPOB				Lg		08 49 31.7	
	28nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**1.14**	**258**	Pg	Pg	08 49 16.5	-1.9
	18nm,0.1s,SNR=7.9						
CARF	**Carcanieres**	**1.17**	**343**	Pg	Pg	08 49 17.7	-1.3
CARF				Sg	Sg	08 49 33.3	-1.4
CARF	**Carcanieres**	**1.17**	**343**	Pg	Pg	08 49 17.5	-1.5
CARF				Lg		08 49 32.8	
PAND	**Andorre**	**1.20**	**321**	Pg	Pg	08 49 17.9	-1.7
PAND				Lg		08 49 33.9	
CSOR	**Sort**	**1.32**	**307**	Pg	Pg	08 49 20.1	-1.9
CSOR				Lg		08 49 37.7	
	32nm,0.2s						
LRDF	**Laroque-de-Fa**	**1.34**	**359**	Lg		08 49 38.6	
CAVN	**Les Avellanes**	**1.39**	**283**	Pg	Pg	08 49 21.2	-2.1
CAVN				Lg		08 49 39.5	
	56nm,0.1s						
GRBF	**Gourbit**	**1.46**	**329**	Pg	Pg	08 49 22.6	-2.2
SALF	**Salau**	**1.55**	**319**	Pg	Pg	08 49 23.7	-2.9
SALF				Sg	Sg	08 49 44.4	-2.9
SALF	**Salau**	**1.55**	**319**	Pn	Pn	08 49 23.7	+0.5
SALF				Lg		08 49 44.5	
MLS	**Moulis**	**1.75**	**322**	Pg	Pg	08 49 27.1	-3.4
MLS	**Moulis**	**1.75**	**322**	Pg	Pg	08 49 27.4	-3.0
MLS				Lg		08 49 49.8	
MTLF	**Montolieu**	**1.77**	**352**	*e*Pn	Pn	08 49 24.3	-2.0
MTLF				*e*Pg	Pg	08 49 27.2	-3.6
MTLF				*e*Sn	Sn	08 49 45.4	-3.6
MTLF				*e*Sg	Sg	08 49 49.9	-4.5
	28nm,0.2s						
MTLF	**Montolieu**	**1.77**	**352**	*e*Pg	Pg	08 49 27.2	-3.6
MTLF				*e*Sn	Sn	08 49 45.4	-3.6
MTLF				*e*Sg	Sg	08 49 49.9	-4.5
	14nm,0.2s						
ERTA	**Horta de San J**	**1.80**	**250**	Pn	Pn	08 49 25.2	-1.6
ERTA				Pg	Pg	08 49 28.7	-2.8
ERTA				Sn	Sn	08 49 47.6	-2.2

ERTA				Lg		08 49 51.3	
ERTA	**Horta de San J**	**1.80**	**250**	Pn	Pn	08 49 25.2	-1.6
	1.0nm,0.1s,SNR=7.9						
ERTA				Pg	Pg	08 49 28.7	-2.8
	3.4nm,0.2s,SNR=123						
ERTA				Sn	Sn	08 49 47.9	-1.9
	3.2nm,0.1s,SNR=4.0						
ERTA				Lg		08 49 52.4	
	7.0nm,0.1s,SNR=7.9						
ERTA	**Horta de San J**	**1.80**	**250**	Pn	Pn	08 49 25.2	-1.6
	1.0nm,0.1s,SNR=7.9						
ERTA	**Horta de San J**	**1.80**	**250**	Pg	Pg	08 49 28.7	-2.8
	3.4nm,0.2s,SNR=123						
ERTA				Sn	Sn	08 49 47.6	-2.2
	3.2nm,0.1s,SNR=7.9						
MELF	**Melles**	**1.85**	**314**	Pg	Pg	08 49 28.4	-4.2
MELF				Sg	Sg	08 49 53.4	-3.9
MELF	**Melles**	**1.85**	**314**	Pg	Pg	08 49 28.5	-4.1
MELF				Lg		08 49 53.2	
RESF	**Ens**	**2.05**	**307**	Lg		08 49 59.9	
EBIE	**Bielsa**	**2.11**	**302**	Pg	Pg	08 49 31.9	-5.7
	0.4nm,0.1s,SNR=7.9						
EBIE				Lg		08 50 00.5	
	3.6nm,0.3s,SNR=7.9						
EBIE	**Bielsa**	**2.11**	**302**	Pg	Pg	08 49 32.0	-5.6
EPF	**Esparros**	**2.19**	**312**	*e*Pn	Pn	08 49 29.2	-3.2
EPF				*e*Pg	Pg	08 49 34.8	-4.5
EPF				*e*Sg	Sg	08 50 02.4	-6.1
	30nm,0.3s						
EPF	**Esparros**	**2.19**	**312**	*e*Pg	Pg	08 49 34.8	-4.5
EPF				*e*Sg	Sg	08 50 02.4	-6.1
	15nm,0.3s						
ESAC	**San Caprasio**	**2.28**	**274**	Pn	Pn	08 49 32.8	-0.9
ESAC				Pg	Pg	08 49 35.2	-5.8
ESAC				Lg		08 50 05.0	
ESAC	**San Caprasio**	**2.28**	**274**	Pn	Pn	08 49 32.8	-0.9
	0.7nm,0.1s,SNR=7.9						
ESAC				Pg	Pg	08 49 35.2	-5.9
	6.9nm,0.1s,SNR=13						
ESAC				Lg		08 50 06.0	
	24nm,0.2s,SNR=7.9						
ESAC	**San Caprasio**	**2.28**	**274**	Pn	Pn	08 49 32.8	-0.9
	0.7nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**2.28**	**274**	Pg	Pg	08 49 35.2	-5.8
	6.9nm,0.1s,SNR=13						
VIEF	**Viey**	**2.29**	**305**	Lg		08 50 04.7	
LABF	**Labassere**	**2.35**	**309**	Lg		08 50 08.9	
EMOS	**Mosqueruela**	**2.61**	**243**	Pn	Pn	08 49 36.6	-1.7
	0.2nm,0.1s,SNR=7.9						
EMOS				Pg	Pg	08 49 43.4	-4.3
	0.9nm,0.1s,SNR=7.9						
EMOS				Lg		08 50 17.1	
	0.6nm,0.2s,SNR=4.0						
EMOS	**Mosqueruela**	**2.61**	**243**	Pn	Pn	08 49 36.6	-1.8
	0.2nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	**2.61**	**243**	Pg	Pg	08 49 43.4	-4.2
	0.9nm,0.1s,SNR=7.9						
LASF	**Ste Croix**	**2.66**	**21**	*e*Pn	Pn	08 49 36.1	-3.0
LASF				*e*Sg	Sg	08 50 18.2	-5.9
	2.6nm,0.2s						
ETSF	**Etsaut**	**2.66**	**300**	*e*Pn	Pn	08 49 36.0	-3.2
ETSF				*e*Pg	Pg	08 49 43.6	-5.1
ETSF				*e*Sg	Sg	08 50 17.4	-6.8
	15nm,0.2s						
ETSF	**Etsaut**	**2.66**	**300**	*e*Pg	Pg	08 49 43.6	-5.1
ETSF				*e*Sg	Sg	08 50 17.4	-6.8
	7.6nm,0.2s						
SJPF	**Ste Jean**	**3.19**	**300**	*e*Pn	Pn	08 49 43.3	-3.4
SJPF				*e*Pg	Pg	08 49 52.8	-6.5
SJPF				*e*Sg	Sg	08 50 34.1	-7.8
	17nm,0.4s						
SJPF	**Ste Jean**	**3.19**	**300**	*e*Pg	Pg	08 49 52.8	-6.5
SJPF				*e*Sg	Sg	08 50 34.1	-7.8
	8.4nm,0.4s						
SMRF	**Simiane la Rot**	**3.25**	**42**	*e*Pn	Pn	08 49 45.0	-2.6
SMRF				*e*Sn	Sn	08 50 22.3	-4.4
	1.1nm,0.3s						
CAF	**Calviac**	**3.35**	**354**	*e*Pn	Pn	08 49 46.1	-2.9
CAF				*e*Pg	Pg	08 49 56.9	-5.6
CAF				*e*Sn	Sn	08 50 25.0	-4.2
CAF				*e*Sg	Sg	08 50 39.9	-7.3
	7.1nm,0.4s						
CAF	**Calviac**	**3.35**	**354**	*e*Pg	Pg	08 49 56.9	-5.6
CAF				*e*Sn	Sn	08 50 25.0	-4.2
CAF				*e*Sg	Sg	08 50 39.9	-7.3
	3.5nm,0.4s						
LMR	**La Mourre**	**3.40**	**58**	*e*Pn	Pn	08 49 46.3	-3.3
LMR				*e*Sn	Sn	08 50 25.6	-4.7
	12nm,0.9s						
LMR	**La Mourre**	**3.40**	**58**	*e*Sn	Sn	08 50 25.6	-4.7
	6.2nm,0.9s						
EALK	**Alkurruntz**	**3.43**	**300**	Pn	Pn	08 49 48.6	-1.5
EALK				Sn	Sn	08 50 24.9	-6.2
EALK				Lg		08 50 39.7	
EALK	**Alkurruntz**	**3.43**	**300**	Pn	Pn	08 49 48.6	-1.5
	0.1nm,0.2s,SNR=7.9						
EALK				Sn	Sn	08 50 24.9	-6.2
	1.4nm,0.2s,SNR=4.0						
EALK				Lg		08 50 42.8	
	2.9nm,0.1s,SNR=7.9						
FRF	**La Foret Royal**	**3.60**	**56**	*e*Pn	Pn	08 49 49.4	-3.1
FRF				*e*Sn	Sn	08 50 30.0	-5.4
	1.1nm,0.3s						
LFF	**La Frestale**	**3.60**	**339**	*e*Pn	Pn	08 49 48.9	-3.6
LFF				*e*Pg	Pg	08 50 00.7	-6.7
LFF				*e*Sg	Sg	08 50 47.5	-8.0
	12nm,0.4s						
LFF	**La Frestale**	**3.60**	**339**	*e*Pg	Pg	08 50 00.7	-6.7
LFF				*e*Sg	Sg	08 50 47.5	-8.0
	5.8nm,0.4s						
VIVF	**Saint-Julien-l**	**3.61**	**25**	*e*Pn	Pn	08 49 50.4	-2.2
VIVF				*e*Sn	Sn	08 50 30.0	-5.6
VIVF				*e*Sg	Sg	08 50 46.9	-8.8
	2.9nm,0.3s						
RJF	**Les Rejaudoux**	**3.79**	**349**	*e*Pn	Pn	08 49 51.6	-3.6
RJF				*e*Pg	Pg	08 50 03.8	-7.4
RJF				*e*Sg	Sg	08 50 54.0	-7.7
	4.0nm,0.3s						
RJF	**Les Rejaudoux**	**3.79**	**349**	*e*Pg	Pg	08 50 03.8	-7.4
RJF				*e*Sg	Sg	08 50 54.0	-7.7
	2.0nm,0.3s						
ORIF	**Oris-en-Rattie**	**4.11**	**35**	*e*Pn	Pn	08 49 56.6	-3.2
ORIF				*e*Sn	Sn	08 50 42.7	-5.7
	1.3nm,0.3s						
MBDF	**Montbardon**	**4.39**	**43**	*e*Pn	Pn	08 50 01.0	-2.7
TCF	**Toulx Ste Croi**	**4.70**	**357**	*e*Pg	Pg	08 50 21.7	-7.7
TCF				*e*Sg	Sg	08 51 22.4	-10
	3.1nm,0.4s						
PGF	**Pioggiola**	**4.88**	**77**	*e*Pn	Pn	08 50 06.9	-3.8
PGF				*e*Sn	Sn	08 51 00.6	-7.3
	2.3nm,0.2s						
BGF	**Bois d'Agland**	**4.97**	**2**	*e*Pg	Pg	08 50 27.1	-7.6
BGF				*e*Sg	Sg	08 51 30.7	-10
	6.7nm,0.4s						
MFF	**Saint Martin d**	**5.38**	**340**	*e*Pn	Pn	08 50 13.0	-4.7
MFF				*e*Pg	Pg	08 50 34.2	-8.7
MFF	**Saint Martin d**	**5.38**	**340**	*e*Pg	Pg	08 50 34.2	-8.7

*NIED **05** 08:50:00,27.30N×130.10E,h5^{km},Mw4.3 Best double couple: $M_0$3.11×10^{15} NP1:ϕ_s225°,δ65°,λ-101°. NP2: ϕ_s70°,δ27°,λ-68°.*

*BJI **05** 08:50:14.0,27.05N×130.46E,h40^{km},mB4.7,mb4.5, Ms4.2,Msz4.1*

*IDC **05** 08:50:16.0±0.5,27.30N×130.10E,mb4.4/23,mb1 4.5/23, mb1mx4.5/29,MS3.7/4,Ms1 3.8/4,ms1mx3.2/24,Error ellipse: s-maj=18.4km s-min=12.5km az=77.0*

*JMA **05** 08:50:18.0±0.1,27.34N×130.11E,h66^{km}±3^{km},M4.2*

*MOS **05** 08:50:19.0±1.1,27.42N×130.08E,h33^{km},mb4.3/6,Error ellipse: s-maj=28.6km s-min=13.4km az=115.6*

*NEIC **05** 08:50:21.8±0.3,27.28N×129.98E,h40^{km},mb4.6/14, MW4.3(NIED),Error ellipse: s-maj=12.2km s-min=7.5km az=69.0*

ISC 05 08:50:17.3±0.9**,27.31N**±0.03×**130.10E**±0.03**,h21**^{km}±6^{km}**, n103,**σ**1**^{s}**19**/104**,mb4.5**/42**,MS3.8**/8**,2C,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**1.01**	**354**	P	**Pb**	**08 50 36.3**	**+0.4**
JZK				*e*S	**Sb**	**08 50 49.6**	**+0.8**
JTK	**Tokunoshima**	**1.12**	**295**	P	**Pb**	**08 50 38.0**	**+0.2**
JTK				*e*S	**Sb**	**08 50 52.8**	**+0.8**
JAM	**Amami Oshima**	**1.18**	**339**	P	**Pn**	**08 50 38.5**	**-0.3**
JAM				S	**Sb**	**08 50 53.6**	**-0.2**
JOW	**Kunigami**	**1.69**	**254**	Pn	**Pn**	**08 50 46.5**	**+0.4**
	69nm,0.3s,baz=100,slow=18,SNR=31						
JOW				Sn	**Sn**	**08 51 10.2**	**+2.9**
	341nm,0.3s,baz=76,slow=25,SNR=16						
JOW	**Kunigami**	**1.69**	**254**	P	**Pn**	**08 50 46.4**	**+0.4**
JOW				*e*S	**Sn**	**08 51 07.2**	**0.0**
JMZ	**Minamidaito 2**	**1.79**	**146**	P	**Pn**	**08 50 47.4**	**-0.1**
JMZ				*e*S	**Sn**	**08 51 08.8**	**-1.0**
JIH	**Iheya**	**1.92**	**262**	P	**Pn**	**08 50 49.5**	**+0.3**
JIH				*e*S	**Sn**	**08 51 12.4**	**-0.5**
JJT2	**Tamagusuku 2**	**2.40**	**242**	*e*S	**Sn**	**08 51 24.9**	**-0.3**
NAH1	**Naha**	**2.42**	**243**	S	**Sn**	**08 51 25.4**	**-0.2**
JNN	**Nakanoshima**	**2.53**	**356**	*e*S	**Sn**	**08 51 25.2**	**-3.4**
JAGN	**Aguni-jima**	**2.65**	**255**	*e*S	**Sn**	**08 51 31.4**	**-0.1**
JKE	**Kume jima 2**	**3.11**	**252**	P	**Pn**	**08 51 05.5**	**-0.8**
JKC	**Kuchinoerabu**	**3.15**	**2**	P	**Pn**	**08 51 05.5**	**-1.3**
JKC				*e*S	**Sn**	**08 51 40.1**	**-4.0**
JTN	**Tanegashima 3**	**3.42**	**13**	P	**Pn**	**08 51 09.5**	**-1.3**
JTN				*e*S	**Sn**	**08 51 47.8**	**-3.4**
NJ2	**Nanjing**	**10.86**	**298**	*e*P	**P**	**08 52 54.1**	**-0.6**
NJ2				AP		08 53 01.2	
NJ2				PP	PP	08 53 03.3	+0.6
NJ2				XP		08 53 05.1	
NJ2				S	**S**	**08 54 55.0**	**-1.6**
NJ2				SS	SS	08 55 10.0	-0.5
NJ2				AMB	AMB		
	comp=Z,40nm,0.5s						
NJ2				AMB	AMB		
	comp=Z,62nm,4.2s						
NJ2				LR	LR		
	comp=N,2µm,15.8s						
NJ2				LR	LR		
	comp=E,1µm,13.5s						
NJ2				LR	LR		
	comp=Z,1µm,12.3s						
CN2	**Changchun**	**16.88**	**348**	*e*P	**P**	**08 54 16.8**	**+2.9**
BJT	**Baijiatuau**	**17.15**	**321**	*e*P	**P**	**08 54 17.1**	**-0.3**
	comp=Z,46nm,0.8s						
BJI	**Beijing**	**17.16**	**321**	*e*P	**P**	**08 54 20.0**	**+2.5**
BJI				AMB	AMB		
	comp=Z,55nm,0.8s						
ENH	**Enshi**	**18.30**	**284**	*e*P	**P**	**08 54 31.6**	**-0.1**
	comp=Z,10.0nm,0.5s						
XAN	**Xi'an**	**19.39**	**295**	P	**P**	**08 54 43.0**	**-1.7**
XAN				AP		08 54 48.7	
XAN				AMB	AMB		
	comp=Z,99nm,0.8s						
XAN				LR	LR		
	comp=N,359nm,12.7s						
XAN				LR	LR		
	comp=E,317nm,12.3s						
XAN				LR	LR		
	comp=Z,514nm,13.5s						
HHC	**Hu-ho-hao-te**	**20.39**	**316**	*e*P	**P**	**08 54 52.9**	**-2.6**
HHC				S	**S**	**08 58 42.1**	**+4.3**
HHC				AMB	AMB		
	comp=Z,21nm,0.8s						
HHC				AMB	AMB		
	comp=Z,153nm,5.7s						
HHC				LR	LR		
	comp=N,191nm,12.4s,MS3.8						
HHC				LR	LR		
	comp=E,180nm,13.5s,MS3.8						
HHC				LR	LR		
	comp=Z,165nm,14.1s,MS3.5						
GYA	**Guiyang**	**20.91**	**273**	⇑*i*P	**P**	**08 55 03.3**	**+2.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
SONM	**Songino Array**	**27.61**	**324**	P	**P**	**08 56 05.5**	**+0.5**
	comp=Z,3.3nm,0.6s,mb4.1,baz=135,slow=8.7,SNR=4.2						
GTA	**Gaotai**	**27.89**	**303**	*e*P	**P**	**08 56 05.1**	**-2.7**
GTA				AMB	AMB		
	comp=Z,3.0nm,0.5s,mb4.2						
GTA				AMB	AMB		
	comp=Z,261nm,6.1s						
GTA				LR	LR		
	comp=N,276nm,12.6s,MS4.2						
GTA				LR	LR		
	comp=E,280nm,13.8s,MS4.2						
GTA				LR	LR		
	comp=Z,420nm,13.8s,MS4.2						
CMAR	**Chiang Mai Arr**	**29.95**	**260**	P	**P**	**08 56 27.0**	**+0.5**
	comp=Z,1.6nm,0.7s,mb3.8,baz=49,slow=7.3,SNR=8.9						
CMAR				LR	LR	09 10 35.4	
	comp=Z,138nm,18.2s,MS3.6,baz=262,slow=41						
CMAR	**Chiang Mai Arr**	**29.95**	**260**	*i* P	**P**	**08 56 27.0**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SHL	**Shillong**	**34.17**	**276**	*e*P	**P**	**08 57 03.0**	**-0.3**
YAK	**Yakutsk**	**34.72**	**360**	*e*P	**P**	**08 57 05.9**	**-1.8**
YAK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
YAK	**Yakutsk**	**34.72**	**360**	*e*P	**P**	**08 57 06.6**	**-1.1**
	comp=Z,14nm,0.6s,mb5.1						
GUN	**Gumba**	**39.02**	**281**	*e*P	**P**	**08 57 45.0**	**+0.7**
	comp=Z,16nm,0.4s,mb5.2						
PKI	**Pulchoki**	**39.49**	**281**	*e*P	**P**	**08 57 48.3**	**+0.1**
	comp=Z,28nm,0.7s,mb5.1						
KKN	**Kakani**	**39.57**	**281**	*e*P	**P**	**08 57 49.6**	**+0.8**
	comp=Z,19nm,0.3s,mb5.3						
DMN	**Daman**	**39.75**	**281**	*e*P	**P**	**08 57 50.7**	**+0.4**
PMG	**Port Moresby**	**40.07**	**153**	LR	LR	09 10 52.0	
	comp=Z,94nm,20.6s,MS3.6,baz=211,slow=31						
GKN	**Gorkha**	**40.09**	**282**	*e*P	**P**	**08 57 53.5**	**+0.4**
	comp=Z,34nm,0.5s,mb5.4						
KOLN	**Koldanda**	**41.04**	**282**	*e*P	**P**	**08 58 01.4**	**+0.5**
ZAL	**Zalesovo**	**42.43**	**321**	P	**P**	**08 58 10.5**	**-1.5**
	comp=Z,1.3nm,0.5s,mb3.9,baz=15,slow=7.6,SNR=4.9						
ZAL	**Zalesovo**	**42.43**	**321**	*i* P	**P**	**08 58 11.0**	**-1.0**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TIXI	**Tiksi**	**44.39**	**359**	*e*P	**P**	**08 58 27.2**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.8						
TIXI				MLR	MLR		
	comp=Z,106nm,17.0s,MS3.8						
KURK	**Kurchatov**	**45.20**	**316**	*i* P	**P**	**08 58 31.9**	**-2.6**
KURK	**Kurchatov**	**45.20**	**316**	*e*P	**P**	**08 58 31.9**	**-2.6**
	comp=Z,2.4nm,0.8s,mb4.1						
FITZ	**Fitzroy Crossi**	**45.34**	**186**	P	**P**	**08 58 34.0**	**-2.0**
	comp=Z,2.4nm,0.7s,mb4.2,baz=305,slow=2.2,SNR=4.4						
WRAB	**Tennant Creek**	**47.14**	**175**	*i* P	**P**	**08 58 50.5**	**+0.3**
WRAB	**Tennant Creek**	**47.14**	**175**	*e*P	**P**	**08 58 49.6**	**-0.6**
	comp=Z,5.4nm,0.8s,mb4.5						
WRA	**Warramunga Arr**	**47.15**	**175**	P	**P**	**08 58 49.2**	**-1.1**
	comp=Z,3.0nm,0.7s,mb4.3,baz=353,slow=8.5,SNR=28						
WB2	**Warramunga Arr**	**47.15**	**175**	*e*P	**P**	**08 58 50.2**	**-0.1**
UCH	**Uchtor**	**47.23**	**303**	*e*P	**P**	**08 58 50.5**	**-0.1**
	comp=Z,2.3nm,0.7s,mb4.2						
AAK	**Ala-Archa**	**47.24**	**304**	*i* P	**P**	**08 58 50.8**	**+0.1**
AAK				pmax	pmax		
	comp=Z,5.0nm,1.9s,mb4.1						
AAK				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.8						
CTA	**Charters Tower**	**49.65**	**160**	*e*P	**P**	**08 59 10.1**	**+0.4**
	comp=Z,9.0nm,0.8s,mb4.8						
CTA	**Charters Tower**	**49.65**	**160**	P	**P**	**08 59 10.4**	**+0.7**
	comp=Z,16nm,0.9s,mb5.1,baz=343,slow=8.4,SNR=16						
CTA				LR	LR	09 17 57.2	
	comp=Z,46nm,18.9s,MS3.5,baz=49,slow=34						
CTAO	**Charters Tower**	**49.65**	**160**	*e*P	**P**	**08 59 10.1**	**+0.4**
	comp=Z,14nm,0.8s,mb5.0						
BVAR	**Borovoye Array**	**50.59**	**318**	P	**P**	**08 59 15.0**	**-1.5**
	comp=Z,2.4nm,0.6s,mb4.3,baz=82,slow=10,SNR=10						
BVAR				PcP	PcP	09 00 35.8	+1.5
	comp=Z,2.1nm,0.5s,baz=90,slow=3.0,SNR=5.8						
BRVK	**Borovoye**	**50.66**	**318**	*e*P	**P**	**08 59 15.2**	**-1.8**
	comp=Z,5.9nm,0.9s,mb4.5						
ASAR	**Alice Springs**	**50.81**	**175**	P	**P**	**08 59 18.7**	**+0.2**
	comp=Z,3.3nm,0.7s,mb4.4,baz=6.8,slow=14,SNR=60						
ASAR				PcP	PcP	09 00 35.1	-0.3
	comp=Z,1.3nm,0.7s,baz=5.5,slow=5.4,SNR=4.8						
ASPA	**Alice Springs**	**50.81**	**175**	*e*P	**P**	**08 59 18.5**	**0.0**
ARU	**Arti**	**57.59**	**321**	*e*P	**P**	**09 00 06.3**	**-1.5**
STKA	**Stephens Creek**	**59.87**	**169**	P	**P**	**09 00 23.4**	**-0.5**
	comp=Z,1.1nm,0.5s,mb4.2,baz=339,slow=9.3,SNR=3.2						
STKA	**Stephens Creek**	**59.87**	**169**	P	**P**	**09 00 23.4**	**-0.5**
INK	**Inuvik**	**67.24**	**24**	P	**P**	**09 01 11.8**	**-0.1**
	comp=Z,0.9nm,0.6s,mb4.0,baz=262,slow=6.4,SNR=6.5						
INK	**Inuvik**	**67.24**	**24**	P	**P**	**09 01 11.8**	**-0.1**
KEV	**Kevo**	**69.05**	**339**	*e*p	**P**	**09 01 21.5**	**-1.6**
ARCES	**ARCESS Array B**	**69.61**	**339**	P	**P**	**09 01 26.8**	**+0.2**
	comp=Z,9.5nm,1.1s,mb4.6,baz=53,slow=6.1,SNR=9.7						
VRSR	**Storozhevoye**	**69.76**	**318**	*e*P	**P**	**09 01 25.5**	**-2.3**
VRSR				*e*		09 01 49.1	
VRSR				*e*		09 03 56.1	
VRSR				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
VRSR				pmax	pmax		
	comp=N,7.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,5.0nm,0.9s						
KIV	**Kislovodsk**	**69.84**	**310**	*e*P	**P**	**09 01 28.8**	**+0.5**
KIV				pmax	pmax		
	comp=N,12nm,1.0s						
KIV				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
KIV	**Kislovodsk**	**69.84**	**310**	*e*P	**P**	**09 01 29.0**	**+0.6**
	comp=Z,23nm,1.1s,mb5.0						
JOF	**Joensuu**	**69.91**	**331**	*e*p	**P**	**09 01 29.3**	**+0.9**
OBN	**Obninsk**	**70.00**	**322**	P	**P**	**09 01 30.0**	**+0.9**
KAF	**Kangasniemi**	**72.36**	**331**	*e*p	**P**	**09 01 42.7**	**-0.5**
FINES	**FINESS Array B**	**72.75**	**331**	P	**P**	**09 01 45.2**	**-0.2**
	comp=Z,4.1nm,0.4s,mb4.7,baz=62,slow=6.0,SNR=54						
FINES	**FINESS Array B**	**72.75**	**331**	*e*P	**P**	**09 01 45.1**	**-0.3**
FINES	**FINESS Array B**	**72.75**	**331**	P	**P**	**09 01 45.2**	**-0.2**
ANN	**Anapa**	**73.08**	**312**	⇑*i*P	**P**	**09 01 51.4**	**+3.6**
ANN				pmax	pmax		
	comp=Z,86nm,1.4s,mb5.5						
MALT	**Malatya**	**74.85**	**305**	*e*P	**P**	**09 01 59.9**	**+1.7**
	comp=Z,10nm,1.1s,mb4.7						
AKASG	**Malin Array Be**	**75.79**	**320**	P	**P**	**09 02 03.3**	**0.0**
	comp=Z,1.2nm,0.4s,mb4.2,baz=58,slow=6.4,SNR=7.8						
YKA	**Yellowknife Ar**	**76.84**	**26**	P	**P**	**09 02 09.0**	**+0.1**
	comp=Z,1.0nm,0.6s,mb3.9,baz=302,slow=5.5,SNR=21						
YKA	**Yellowknife Ar**	**76.84**	**26**	*i* P	**P**	**09 02 09.0**	**+0.1**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	**Yellowknife Ar**	**76.84**	**26**	P	**P**	**09 02 09.0**	**+0.1**
BRTR	**Keskin Array B**	**77.68**	**308**	P	**P**	**09 02 15.2**	**+1.1**
	comp=Z,2.7nm,0.8s,mb4.2,baz=90,slow=4.9,SNR=7.8						
HFS	**Hagfors**	**78.64**	**333**	P	**P**	**09 02 20.8**	**+2.0**
	comp=Z,3.2nm,0.8s,mb4.3,baz=76,slow=6.1,SNR=12						
NB2	**NORSAR Subarra**	**79.08**	**334**	P	**P**	**09 02 20.6**	**-0.6**
	comp=Z,3.9nm,0.7s,mb4.5,baz=51,slow=5.8						
NOA	**NORSAR Array B**	**79.08**	**334**	P	**P**	**09 02 21.5**	**+0.3**
	comp=Z,3.6nm,0.7s,mb4.4,baz=50,slow=5.4,SNR=12						
NOA				LR	LR	09 41 50.4	
	comp=Z,60nm,18.1s,MS4.0,baz=295,slow=39						
NOA	**NORSAR Array B**	**79.08**	**334**	P	**P**	**09 02 21.5**	**+0.3**
NOA				LR	LR	09 41 50.4	
MLR	**Muntele Rosu**	**80.14**	**316**	P	**P**	**09 02 28.8**	**+1.5**
	comp=Z,2.0nm,0.9s,mb4.1,baz=80,slow=11,SNR=3.6						
OJC	**Ojcow**	**81.29**	**322**	*e*P	**P**	**09 02 37.2**	**+3.9**
NIE	**Niedzica**	**81.44**	**322**	*e*P	**P**	**09 02 39.5**	**+5.5**
VRAC	**Vranov**	**83.53**	**323**	P	**P**	**09 02 47.6**	**+2.8**
	comp=Z,7.1nm,1.2s,mb4.7,baz=73,slow=7.9,SNR=3.4						
CLL	**Collm**	**84.21**	**326**	*e**SP	sP	09 03 03.0	+5.9
GERES	**GERESS Array B**	**85.34**	**324**	P	**P**	**09 02 55.3**	**+1.4**
	comp=Z,1.2nm,0.7s,mb4.2,baz=50,slow=3.6,SNR=12						
GRA1	**Grafenberg Arr**	**86.10**	**325**	*e*P	**P**	**09 03 02.3**	**+4.6**
	comp=Z,7.0nm,0.9s,mb4.9						
GRA1				*e*pP	pP	09 03 13.6	+9.1
GRF	**Grafenberg Arr**	**86.10**	**325**	*e*P	**P**	**09 03 02.3**	**+4.6**
GRF				*e**PP	pP	09 03 13.6	+9.1
GRF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
GRF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
HLID	**Hailey**	**88.00**	**41**	P	**P**	**09 03 08.5**	**+1.5**
	comp=Z,1.7nm,1.0s,mb4.2						
EKA	**Eskdalemuir Ar**	**88.50**	**335**	P	**P**	**09 03 10.9**	**+1.8**
	comp=Z,1.4nm,0.6s,mb4.5,baz=21,slow=5.3,SNR=6.3						
DAVOX	**Davos**	**88.64**	**324**	P	**P**	**09 03 12.5**	**+2.4**
	comp=Z,5.4nm,0.6s,mb5.0,baz=354,slow=3.1,SNR=7.9						
BW06	**Boulder Array**	**91.28**	**39**	*e*P	**P**	**09 03 23.3**	**+0.8**
	comp=Z,1.6nm,0.9s,mb4.3						
PDAR	**Pinedale Array**	**91.28**	**39**	P	**P**	**09 03 24.0**	**+1.5**
	comp=Z,1.1nm,0.9s,mb4.2,baz=315,slow=2.1,SNR=7.8						
SNAA	**Sanae**	**128.66**	**197**	*e*	PKPdf	09 09 35.9	+9.2
SNAA	**Sanae**	**128.66**	**197**	*e*	PKPdf	09 09 35.9	+9.2
SNAA				*e*		09 11 46.9	
VNA2	**Neumayer--Watz**	**130.28**	**197**	*e*	PKPdf	09 09 25.6	-4.2
VNA2	**Neumayer--Watz**	**130.28**	**197**	*e*	PKPdf	09 09 25.6	-4.2
VNA2				*e*		09 11 36.8	
VNA3	**Neumayer Olymp**	**130.66**	**196**	*e*	PKPdf	09 09 25.9	-4.6
VNA3	**Neumayer Olymp**	**130.66**	**196**	*e*	PKPdf	09 09 25.9	-4.6
VNA3				*e*		09 11 36.9	
VNA1	**Neumayer--Stat**	**130.68**	**197**	*e*	PKPdf	09 09 26.1	-4.4
VNA1	**Neumayer--Stat**	**130.68**	**197**	*e*	PKPdf	09 09 26.1	-4.4
VNA1				*e*		09 11 37.1	

IDC 05 09:14:02.0±7.6**,32.22S**×**179.98W,h392**^{km}±91^{km}**, mb3.0**/3**,mb1 3.2**/4**,mb1mx3.1**/11**,Error ellipse: s-maj=104.0km s-min=36.9km az=1.0,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	**Urewera**	**6.48**	**201**	P	P	09 15 41.3	+0.9
	1.2nm,0.3s,baz=167,slow=14,SNR=6.8						
URZ				S	S	09 16 57.3	-0.5
	2.6nm,0.3s,baz=329,slow=22,SNR=19						
STKA	**Stephens Creek**	**32.45**	**260**	P	P	09 19 59.1	+0.2
	0.9nm,0.4s,baz=91,slow=10,SNR=8.2						
ASAR	**Alice Springs**	**41.36**	**270**	P	P	09 21 11.3	-1.5
	0.5nm,0.5s,baz=109,slow=7.4,SNR=9.5						
WRA	**Warramunga Arr**	**42.52**	**275**	P	P	09 21 20.0	-2.2
	0.5nm,0.3s,baz=112,slow=8.0,SNR=12						
FINES	**FINESS Array B**	**146.22**	**338**	PKPbc	PKPbc	09 32 55.4	-0.4
	2.1nm,1.0s,baz=56,slow=5.0,SNR=11						

IDC 05 09:48:02.1±2.9**,28.79N**×**139.73E,mb3.9**/4**,mb1 4.0**/4**, mb1mx3.6**/20**,MS3.3**/1**,Ms1 3.3**/1**,ms1mx2.8**/22**,Error ellipse: s-maj=153.0km s-min=23.6km az=77.0,Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOW	**Kunigami**	**10.33**	**262**	LR	LR	09 53 39.9	
	comp=Z,180nm,20.6s,baz=5.1,slow=33						
WRA	**Warramunga Arr**	**48.72**	**187**	P	P	09 56 48.7	-1.9
	0.4nm,0.3s,baz=0.4,slow=7.6,SNR=24						
ASAR	**Alice Springs**	**52.45**	**187**	P	P	09 57 16.3	-2.7
	0.2nm,0.7s,baz=1.5,slow=4.6,SNR=6.0						
BVAR	**Borovoye Array**	**55.33**	**317**	P	P	09 57 39.1	-0.7
	1.5nm,0.3s,baz=96,slow=7.5,SNR=15						
FINES	**FINESS Array B**	**75.47**	**333**	P	P	09 59 46.4	-3.0
	3.9nm,1.1s,baz=72,slow=4.4,SNR=10						

*CNRM **05** 09:50:43.2,35.15N×2.67W,h3^{km},MD3.2*

*NEIC **05** 09:50:46.5,35.02N×3.12W,MG3.5(MDD),After MDD.*

*MDD **05** 09:50:46.4±1.2,35.00N×3.10W,mb3.5/12,Error ellipse: s-maj=12.2km s-min=5.3km az=146.0,PRXIMO AftershockPLICA*

*CSEM **05** 09:50:46.1±0.2,35.07N×2.99W,h15^{km},MD3.2,Error ellipse: s-maj=5.5km s-min=3.1km az=128.0*

ISC 05 09:50:47.3±0.6**,35.13N**±0.03×**3.14W**±0.04**,h10**^{km}**,n40,** σ**1**^{s}**11**/70**,1D,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.23**	**43**	P	**Pg**	**09 50 52.1**	**-0.1**
	105nm,0.1s,SNR=11						
EMEL				S	**Sg**	**09 50 56.7**	**+1.4**
	626nm,0.2s,SNR=19						
EMLI	**Melilla**	**0.23**	**44**	P	**Pg**	**09 50 52.1**	**-0.1**
	105nm,0.1s,SNR=11						
EMLI				S	**Sg**	**09 50 56.7**	**+1.2**
	626nm,0.2s,SNR=19						
MELI	**Melilla**	**0.23**	**47**	⇓P	**Pg**	**09 50 51.9**	**-0.5**
MELI				S	**Sg**	**09 50 56.9**	**+1.2**
MELI	**Melilla**	**0.23**	**47**	*i* P	**Pg**	**09 50 51.8**	**-0.5**
MELI				*i* S	**Sg**	**09 50 56.9**	**+1.3**
TOU	**Touzarine**	**0.53**	**251**	*i* P	**Pg**	**09 50 59.0**	**+1.0**
TOU				*i* S	**Sg**	**09 51 11.5**	**+6.3**
MPAL	**Palemas**	**0.66**	**278**	*i* P	**Pb**	**09 51 02.0**	**+1.5**
MPAL				*i* S	**Sb**	**09 51 16.5**	**+7.1**
TZK	**Tazeka**	**1.35**	**220**	*i* P	**Pb**	**09 51 11.5**	**-0.8**
TZK				*i* S	**Sb**	**09 51 30.5**	**+1.0**
EBER	**Berja**	**1.77**	**7**	P	**Pn**	**09 51 17.9**	**-0.4**
EBER				S	**Sn**	**09 51 41.3**	**+0.2**
EBER	**Berja**	**1.77**	**7**	P	**Pn**	**09 51 17.9**	**-0.4**
	1.1nm,0.1s,SNR=7.2						
EBER				S	**Sn**	**09 51 39.3**	**-1.8**
	36nm,0.6s,SNR=11						
EBER	**Berja**	**1.77**	**7**	P	**Pn**	**09 51 17.9**	**-0.4**

	1.1nm,0.1s,SNR=7.2						
EBER				S	Sn	09 51 41.3	+0.2
	36nm,0.6s,SNR=11						
EMIJ	**Mijas**	1.95	318	P	Pn	09 51 20.7	-0.1
	1.0nm,0.1s,SNR=8.3						
EMIJ				S	Sn	09 51 45.9	+0.3
	2.3nm,0.5s,SNR=7.9						
EMIJ	**Mijas**	1.95	318	P	Pn	09 51 20.7	-0.1
	1.0nm,0.1s,SNR=8.3						
EMIJ				S	Sn	09 51 45.8	+0.3
	2.3nm,0.5s,SNR=7.9						
ERON	**Agron**	1.96	344	P	Pn	09 51 21.7	+0.7
	2.0nm,0.2s,SNR=7.9						
ERON				S	Sn	09 51 47.5	+1.7
	3.8nm,0.4s,SNR=4.0						
ELOJ	**Sierra Loja**	2.17	338	P	Pn	09 51 24.5	+0.5
	1.9nm,0.2s,SNR=6.5						
ELOJ				S	Sn	09 51 53.0	+1.9
	1.4nm,0.3s,SNR=4.0						
ELUQ	**Luque**	2.59	340	P	Pn	09 51 30.8	+0.8
	4.2nm,0.3s,SNR=7.1						
ELUQ				S	Sn	09 52 03.1	+1.3
	2.4nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.66	1	P	Pn	09 51 31.9	+0.8
	5.1nm,0.3s,SNR=17						
EQES				S	Sn	09 52 04.6	+0.8
	10nm,0.3s,SNR=9.6						
EQES	**Quesada**	2.66	1	P	Pn	09 51 31.9	+0.8
	5.1nm,0.3s,SNR=17						
EQES				S	Sn	09 52 04.6	+0.8
	10nm,0.3s,SNR=9.6						
ESPR	**Espera**	2.80	309	P	Pn	09 51 33.5	+0.5
ESPR				S	Sn	09 52 07.5	+0.4
ESPR	**Espera**	2.80	309	P	Pn	09 51 33.5	+0.5
	0.3nm,0.3s,SNR=5.1						
ESPR				S	Sn	09 52 11.0	+3.8
	6.2nm,0.6s,SNR=4.0						
ESPR	**Espera**	2.80	309	P	Pn	09 51 33.5	+0.5
	0.3nm,0.3s,SNR=5.1						
ESPR				S	Sn	09 52 07.5	+0.3
	6.2nm,0.6s,SNR=4.8						
EMUR	**La Murta**	3.11	29	P	Pn	09 51 35.7	-1.7
EMUR				S	Sn	09 52 12.4	-2.6
EMUR	**La Murta**	3.11	29	P	Pn	09 51 35.7	-1.7
	6.8nm,0.4s,SNR=8.5						
EMUR				S	Sn	09 52 08.0	-6.9
	7.2nm,0.4s,SNR=7.9						
EMUR	**La Murta**	3.11	29	P	Pn	09 51 35.7	-1.7
	6.8nm,0.4s,SNR=8.5						
EMUR				S	Sn	09 52 12.4	-2.6
	7.2nm,0.4s,SNR=7.9						
EADA	**Adamuz**	3.24	340	P	Pn	09 51 39.5	+0.2
	2.6nm,0.3s,SNR=8.6						
EADA				S	Sn	09 52 18.5	+0.2
	4.7nm,0.5s,SNR=4.6						
EADA	**Adamuz**	3.24	340	P	Pn	09 51 39.5	+0.2
	2.6nm,0.3s,SNR=8.6						
EADA				S	Sn	09 52 18.5	+0.2
	4.7nm,0.5s,SNR=4.6						
EVIA	**Vianos**	3.54	8	P	Pn	09 51 43.7	+0.2
	0.3nm,0.1s,SNR=4.0						
EVIA				S	Sn	09 52 24.5	-1.3
	7.1nm,0.4s,SNR=4.0						
EMIN	**Mina Concepcio**	3.87	314	P	Pn	09 51 47.6	-0.7
	0.6nm,0.2s,SNR=10						
EMIN				S	Sn	09 52 32.5	-1.9
	0.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	3.87	314	S	Sn	09 52 32.5	-1.9
	0.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	3.87	314	P	Pn	09 51 47.6	-0.7
	0.6nm,0.2s,SNR=10						
EBEN	**Beniarda**	4.26	32	P	Pn	09 51 52.7	-1.1
	1.1nm,0.3s,SNR=4.0						
EBEN	**Beniarda**	4.26	32	P	Pn	09 51 52.7	-1.1
	1.1nm,0.3s,SNR=7.9						
ESDC	**Sonseca Array**	4.58	352	P	Pn	09 51 58.3	0.0
	3.0nm,0.2s,baz=172,slow=12,SNR=12						
ESDC				S	Sn	09 52 49.8	-2.4
	0.5nm,0.3s,baz=185,slow=26,SNR=5.0						
ESDC	**Sonseca Array**	4.58	352	P	Pn	09 51 58.3	0.0
	3.0nm,0.2s,SNR=12						
ESDC				S	Sn	09 52 49.8	-2.4
	0.5nm,0.3s,SNR=5.0						
EBAD	**Badajoz**	4.76	321	P	Pn	09 52 00.1	-0.7
	1.0nm,0.2s,SNR=6.5						
EBAD				S	Sn	09 52 54.2	-2.6
	2.0nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	4.76	321	S	Sn	09 52 54.2	-2.6
	2.0nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	4.76	321	P	Pn	09 52 00.2	-0.7
	1.0nm,0.2s,SNR=6.5						
PBEJ	**Beja**	4.77	309	*e*Pn	Pn	09 52 00.6	-0.5
PCBR	**Castelo Branco**	5.83	325	*e*Pn	Pn	09 52 15.0	-0.9
PVRL	**Vila Real**	7.11	331	*e*Pn	Pn	09 52 32.7	-1.3
PBRG	**Braganca**	7.23	338	*e*Pn	Pn	09 52 34.5	-1.2

IDC 05 09:52:32.6±31.0, 17.10S×173.56W, mb4.0/4, mb1 4.1/4, mb1mx3.8/15, MS4.0/11, Ms1 4.0/11, ms1mx3.6/32, Error ellipse: s-maj=584.0km s-min=194.7km az=70.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	22.62	199	LR	LR	10 05 02.0	
	comp=Z,377nm,20.8s,baz=42,slow=33						
RPZ	**Rata Peaks**	29.56	203	LR	LR	10 09 58.4	
	comp=Z,402nm,18.2s,baz=9.0,slow=35						
CTA	**Charters Tower**	38.15	259	P	P	09 59 53.7	-1.9
	5.4nm,0.9s,baz=111,slow=4.0,SNR=3.7						
CTA				LR	LR	10 12 15.2	
	comp=Z,204nm,18.4s,baz=47,slow=31						
PMG	**Port Moresby**	38.94	276	LR	LR	10 13 19.1	
	comp=Z,84nm,18.8s,baz=299,slow=32						
STKA	**Stephens Creek**	43.08	241	P	P	10 00 35.1	-1.1
	2.2nm,0.9s,baz=131,slow=11,SNR=2.9						
WRA	**Warramunga Arr**	49.33	258	P	P	10 01 25.5	-0.3
	0.3nm,0.8s,baz=90,slow=7.0,SNR=2.8						
ASAR	**Alice Springs**	49.46	253	P	P	10 01 23.7	-3.2
	2.2nm,0.7s,baz=90,slow=7.4,SNR=13						
ASAR				LR	LR	10 19 34.7	
	comp=Z,148nm,19.8s,baz=111,slow=33						
FITZ	**Fitzroy Crossi**	57.73	259	LR	LR	10 24 39.6	
	comp=Z,84nm,20.2s,baz=92,slow=33						
VNDA	**Vanda**	61.68	186	LR	LR	10 23 40.7	
	comp=Z,53nm,19.1s,baz=344,slow=30						
ASAJ	**Asahikawa**	72.90	329	LR	LR	10 29 22.7	
	comp=Z,173nm,20.5s,baz=65,slow=30						
ILAR	**Eielson Array**	84.13	11	LR	LR	10 42 07.5	
	comp=Z,69nm,18.1s,baz=178,slow=35						
MAW	**Mawson**	86.15	199	LR	LR	10 42 49.6	
	comp=Z,87nm,19.9s,baz=239,slow=35						
YKA	**Yellowknife Ar**	91.70	23	LR	LR	10 39 53.2	
	comp=Z,84nm,18.5s,baz=255,slow=31						

TAP 05 10:06:39.7, 23.63N×121.26E, h17^{km}, ML3.6, Taiwan

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*BJI **05** 10:16:36.0, 13.82N×121.60E, h128^{km}, mb4.8*

*IDC **05** 10:16:38.2±0.5, 13.62N×121.09E, h123^{km}±3^{km}, mb3.7/11, mb1 3.9/11, mb1mx3.8/18, Error ellipse: s-maj=27.4km s-min=10.1km az=68.0*

*NEIC **05** 10:16:38.1±0.3, 13.58N×121.04E, mb4.3/12, Error ellipse: s-maj=13.5km s-min=5.4km az=62.0*

*MAN **05** 10:16:39.5, 13.59N×120.67E, h98^{km}, mb4.6, ML3.5, MS3.4*

ISC 05 10:16:38.1±0.3, 13.54N±0.04×120.80E±0.05, h132^{km}±3^{km}, h122^{km}±1.5^{km}:pP-P, n58, σ1^{s}11/64, mb4.2/27, 3C-2D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	**Lubang**	0.57	290	*e*P	P	10 16 56.7	-1.3
LUBP				*e*S	S	10 17 08.7	-4.5
TGY	**Tagaytay City**	0.57	14	⇑*e*P	P	10 16 57.9	-0.1
TGY				*i* S	S	10 17 09.9	-3.2
TGY	**Tagaytay City**	0.57	14	P	P	10 16 57.4	-0.6
	595nm,0.3s,baz=261,slow=1.3,SNR=49						
TGY				S	S	10 17 11.8	-1.3
	2µm,0.3s,baz=194,slow=18,SNR=43						
BOAC	**Boac**	1.02	95	*e*P	P	10 17 01.8	+0.2
BOAC				*e*S	S	10 17 19.6	+0.1
ARP	**Angono**	1.05	19	*e*P	P	10 17 01.2	-0.7
SJMP	**San Jose**	1.12	164	*e*P	P	10 17 02.8	+0.2
SJMP				*e*S	S	10 17 19.8	-1.4
NBP	**Mount Natib**	1.25	343	*e*P	P	10 17 02.8	-1.2
POLP	**Polilio Island**	1.62	43	*e*P	P	10 17 09.2	+1.1
GQP	**Guinayangan**	1.64	77	⇓*i*P	P	10 17 09.5	+1.2
OTRP	**Odiongan**	1.67	134	*e*P	P	10 17 09.2	+0.5
AUQP	**San Andres**	1.84	97	*e*P	P	10 17 13.5	+2.9
PCPH	**Palayan**	2.03	8	⇓*e*P	P	10 17 11.7	-1.3
PCPH				*i* S	S	10 17 43.2	+3.7
BALP	**Baler**	2.31	19	*e*P	P	10 17 17.4	+0.8
SCZP	**Santa Cruz**	2.38	339	*e*P	P	10 17 16.6	-0.9
ENPP	**El Nido**	2.68	210	*e*P	P	10 17 21.6	+0.1
CUYO	**Cuyo Island**	2.69	175	*e*P	P	10 17 22.0	+0.5
BCPH	**Baguio City Da**	2.83	356	⇑*i*P	P	10 17 22.9	-0.5
BCPH				*i* S	S	10 18 01.9	+4.1
BOLP	**Bolinao**	2.95	343	*e*P	P	10 17 24.4	-0.5
PVCP	**Virac**	3.26	89	*e*P	P	10 17 30.8	+1.8
GUIM	**Jordan**	3.39	149	*e*P	P	10 17 33.3	+2.6
CAUP	**Cauayan**	3.52	16	*e*P	P	10 17 33.5	+1.0
PPR	**Puerto Princes**	4.26	209	⇑*i*P	P	10 17 43.6	+1.3
ENH	**Enshi**	19.66	330	P	P	10 20 58.4	-0.4
	6.0nm,0.4s						
CM31	**Chiang Mai Arr**	21.56	286	*e*P	P	10 21 20.7	+2.6
	13nm,0.7s,mb4.5						
CMAR	**Chiang Mai Arr**	21.56	286	P	P	10 21 20.3	+2.2
	8.1nm,0.7s,mb4.3,baz=94,slow=7.9,SNR=50						
CMAR				PcP	PcP	10 25 16.2	-0.3
	0.5nm,0.6s,baz=90,slow=0.9,SNR=4.5						
SHL	**Shillong**	29.68	298	*e*P	P	10 22 33.5	-0.3
GTA	**Gaotai**	31.72	328	*e*P	P	10 22 51.5	-0.1
GTA				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.7						
MBWA	**Marble Bar**	34.50	182	*e*P	P	10 23 14.8	-0.8
	comp=Z,1.9nm,0.5s,mb4.0						
GUN	**Gumba**	35.50	299	*e*P	P	10 23 25.1	+1.1
	comp=Z,45nm,0.4s						
PKI	**Pulchoki**	35.81	299	*e*P	P	10 23 27.0	+0.4
	comp=Z,30nm,0.5s,mb5.1						
WRAB	**Tennant Creek**	35.84	158	*e*P	P	10 23 24.7	-2.2
	comp=Z,1.5nm,0.6s,mb3.8						
WRA	**Warramunga Arr**	35.84	158	P	P	10 23 25.6	-1.4
	comp=Z,0.5nm,0.3s,mb3.6,baz=339,slow=8.6,SNR=38						
WRA				pP	pP	10 23 52.8	-3.5
	comp=Z,3.3nm,0.8s,baz=334,slow=9.7,SNR=8.9						
WB2	**Warramunga Arr**	35.85	158	*e*P	P	10 23 25.2	-1.8
KKN	**Kakani**	35.98	299	*e*P	P	10 23 28.6	+0.6
	comp=Z,20nm,0.5s,mb5.0						
DMN	**Daman**	36.08	298	*e*P	P	10 23 29.3	+0.4
	comp=Z,20nm,0.5s,mb5.0						
ULN	**Ulaanbaatar**	36.09	344	*e*P	P	10 23 28.8	+0.1
	comp=Z,1.2nm,0.5s,mb3.8						
SONM	**Songino Array**	36.23	344	P	P	10 23 29.9	-0.1
	comp=Z,2.6nm,0.8s,mb3.9,baz=164,slow=10,SNR=2.9						
GKN	**Gorkha**	36.59	299	*e*P	P	10 23 33.3	+0.2
	comp=Z,15nm,0.5s,mb4.9						
KOLN	**Koldanda**	37.41	298	*e*P	P	10 23 40.6	+0.5
	comp=Z,13nm,0.6s,mb4.7						
ASAR	**Alice Springs**	39.14	161	P	P	10 23 53.9	-0.6
	comp=Z,0.7nm,0.4s,mb3.7,baz=335,slow=6.9,SNR=20						
ASAR				pP	pP	10 24 22.2	-1.9
	comp=Z,1.0nm,0.5s,baz=335,slow=6.4,SNR=4.5						
ASPA	**Alice Springs**	39.14	161	*e*P	P	10 23 54.0	-0.5
CTAO	**Charters Tower**	41.76	143	P	P	10 24 16.9	+0.8
	comp=Z,0.9nm,0.5s,mb3.7						
UCH	**Uchtor**	49.08	315	*e*P	P	10 25 15.1	+1.3
	comp=Z,6.2nm,0.9s,mb4.2						
ZAL	**Zalesovo**	49.24	333	P	P	10 25 14.1	-0.8
	comp=Z,2.6nm,0.4s,mb4.2,baz=344,slow=4.5,SNR=6.2						
STKA	**Stephens Creek**	49.37	157	P	P	10 25 14.3	-1.9
	comp=Z,0.7nm,0.4s,mb3.6,baz=354,slow=9.2,SNR=2.9						
STKA				pP	pP	10 25 42.5	-4.3
	comp=Z,1.0nm,0.5s,baz=333,slow=11,SNR=2.4						
STKA	**Stephens Creek**	49.37	157	P	P	10 25 14.3	-1.9
STKA				pP	pP	10 25 42.5	-4.3
AML	**Almayashu**	49.62	314	*e*P	P	10 25 19.0	+1.0
	comp=Z,9.4nm,1.2s,mb4.3						
EKS2	**Erkin-Say**	49.75	315	*e*P	P	10 25 19.2	+0.3
	comp=Z,3.0nm,0.6s,mb4.1						
KURK	**Kurchatov**	50.37	326	*e*P	P	10 25 23.4	-0.2
	comp=Z,20nm,0.7s,mb4.8						
BRVK	**Borovoye**	56.03	326	*e*P	P	10 26 04.5	-0.8
	comp=Z,4.0nm,0.8s,mb4.3						
CHKZ	**Chkalovo**	56.12	327	*e*P	P	10 26 04.8	-1.1
	comp=Z,1.1nm,0.5s,mb3.9						
ILAR	**Eielson Array**	78.85	26	P	P	10 28 26.2	-1.4
	comp=Z,0.2nm,0.8s,baz=284,slow=4.0,SNR=3.6						
ARCES	**ARCESS Array B**	79.27	339	P	P	10 28 29.2	-0.6
	comp=Z,10nm,1.1s,mb4.4,baz=53,slow=6.1,SNR=9.3						
FINES	**FINESS Array B**	80.47	331	P	P	10 28 36.3	-0.2
	comp=Z,4.4nm,1.1s,mb4.0,baz=90,slow=3.8,SNR=6.8						
KMBO	**Kilima Mbogo**	83.99	267	P	P	10 28 57.8	+2.2
	comp=Z,1.7nm,0.8s,mb3.8,baz=61,slow=13,SNR=6.4						
YKA	**Yellowknife Ar**	92.88	23	P	P	10 29 35.9	-0.8
	comp=Z,0.4nm,0.6s,mb3.8,baz=305,slow=3.7,SNR=9.5						
YKA	**Yellowknife Ar**	92.88	23	P	P	10 29 35.9	-0.8
TXAR	**Lajitas Array**	119.52	45	PKP	PKPdf	10 35 14.7	+2.1
	comp=Z,0.2nm,0.5s,baz=177,slow=1.5,SNR=4.9						

WEL 05 10:37:48.8±0.1, 38.19S×175.98E, h160^{km}±1^{km}, ML3.6/2, 1C-1D, Error ellipse: s-maj=2.1km s-min=1.6km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	0.89	95	⇑PN	P	10 38 13.6	-0.2
URZ				SN	S	10 38 32.8	-0.4
URZ				SN	S	10 38 32.9	-0.3
BKZ	**Black Stump Fm**	1.05	158	PN	P	10 38 15.2	+0.1
BKZ				SN	S	10 38 35.0	-0.4
BKZ				SN	S	10 38 35.1	-0.3
MWZ	**Matawai**	1.23	97	PN	P	10 38 16.5	-0.2
MWZ				SN	S	10 38 37.9	-0.4
MOVZ	**Moawhango**	1.23	188	PN	P	10 38 16.5	-0.2
MOVZ				SN	S	10 38 37.8	-0.5
MRZ	**Mangatainoka R**	2.49	187	⇓PN	P	10 38 28.3	-2.5
NNZ	**Nelson**	3.63	213	PN	P	10 38 41.0	-4.2
NNZ				SN	S	10 39 25.2	-3.5
QRZ	**Quartz Range**	3.75	224	PN	P	10 38 42.3	-4.5
THZ	**Tophouse**	4.28	213	PN	P	10 38 49.4	-4.4
LTZ	**Lake Taylor**	5.39	211	PN	P	10 39 02.9	-5.4

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*CNRM **05** 10:45:10.0, 35.05N×2.43W, h17^{km}, MD3.1*

*NEIC **05** 10:45:16.6, 35.16N×3.09W, h5^{km}, MG3.2(MDD), After MDD.*

*MDD **05** 10:45:16.4±1.3, 35.16N×3.16W, mb3.3/10, Error ellipse: s-maj=13.4km s-min=4.1km az=178.0, PRXIMO AftershockPLICA*

*CSEM **05** 10:45:17.1±0.2, 35.31N×3.12W, h10^{km}, mb3.2/10, Error ellipse: s-maj=4.6km s-min=3.9km az=47.0*

ISC 05 10:45:16.9±0.6, 35.29N±0.04×3.14W±0.03, h10^{km}, n32, σ1^{s}03/59, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	0.15	87	P	Pg	10 45 19.9	-0.6
	20nm,0.1s,SNR=12						
EMEL				S	Sg	10 45 22.9	+0.1
	202nm,0.3s,SNR=6.5						
EMLI	**Melilla**	0.16	87	P	Pg	10 45 19.9	-0.7
	20nm,0.1s,SNR=12						
MELI	**Melilla**	0.17	89	P	Pg	10 45 21.3	+0.5
MELI				S	Sg	10 45 24.2	+0.8
MELI	**Melilla**	0.17	89	*e*P	Pg	10 45 21.3	+0.5
MELI				*i* S	Sg	10 45 24.2	+0.9
TOU	**Touzarine**	0.60	237	*i* P	Pg	10 45 28.0	-1.0
MPAL	**Palemas**	0.66	264	*i* P	Pb	10 45 31.0	+1.0
MPAL				*i* S	Sb	10 45 46.0	+7.1
TZK	**Tazeka**	1.48	216	*i* P	Pn	10 45 38.5	-5.2
TZK				*i* S	Sb	10 45 57.0	-5.7
EBER	**Berja**	1.62	7	P	Pn	10 45 46.7	+1.0
EBER				S	Sn	10 46 07.0	+0.3
EBER	**Berja**	1.62	7	P	Pn	10 45 46.7	+1.0
	2.3nm,0.3s,SNR=12						
EBER				S	Sn	10 46 06.2	-0.5
	23nm,0.6s,SNR=5.5						
EBER	**Berja**	1.62	7	P	Pn	10 45 46.7	+1.0
	2.3nm,0.3s,SNR=12						
EBER				S	Sn	10 46 07.0	+0.3
	23nm,0.6s,SNR=5.5						
ERON	**Agron**	1.81	343	P	Pn	10 45 50.0	+1.6
	1.9nm,0.2s,SNR=7.9						
ERON				S	Sn	10 46 12.8	+1.3
	3.9nm,0.3s,SNR=4.0						
ERON	**Agron**	1.81	343	S	Sn	10 46 12.8	+1.3
	3.9nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	1.83	314	P	Pn	10 45 47.7	-1.1
	3.2nm,0.3s,SNR=8.6						
EMIJ				S	Sn	10 46 12.6	+0.4
	3.3nm,0.3s,SNR=6.6						
ELOJ	**Sierra Loja**	2.02	337	P	Pn	10 45 52.9	+1.3
	1.1nm,0.2s,SNR=7.9						
ELOJ				S	Sn	10 46 17.9	+0.8
	2.3nm,0.4s,SNR=4.0						
ELUQ	**Luque**	2.44	339	P	Pn	10 45 58.8	+1.3
	1.6nm,0.2s,SNR=7.9						
ELUQ				S	Sn	10 46 27.6	0.0
	0.7nm,0.1s,SNR=7.9						
EQES	**Quesada**	2.51	1	P	Pn	10 45 59.2	+0.8
EQES				S	Sn	10 46 28.5	-0.9
EQES	**Quesada**	2.51	1	P	Pn	10 45 59.2	+0.8
	2.2nm,0.3s,SNR=9.7						
EQES				S	Sn	10 46 32.9	+3.5
	15nm,0.4s,SNR=12						
EQES	**Quesada**	2.51	1	P	Pn	10 45 59.2	+0.7
	2.2nm,0.3s,SNR=9.7						
EQES				S	Sn	10 46 28.5	-0.9
	15nm,0.4s,SNR=12						
ESPR	**Espera**	2.70	306	P	Pn	10 46 01.7	+0.4
	0.6nm,0.1s,SNR=7.9						
ESPR				S	Sn	10 46 34.9	+0.6
	2.6nm,0.4s,SNR=4.0						
ESPR	**Espera**	2.70	306	P	Pn	10 46 01.7	+0.4
	0.6nm,0.1s,SNR=7.9						
ESPR				S	Sn	10 46 34.9	+0.6
	2.6nm,0.4s,SNR=7.9						
EMUR	**La Murta**	2.97	30	P	Pn	10 46 03.3	-1.8
EMUR				S	Sn	10 46 38.2	-2.9
EMUR	**La Murta**	2.97	30	P	Pn	10 46 03.3	-1.8
	3.2nm,0.3s,SNR=7.9						
EMUR				S	Sn	10 46 36.5	-4.6
	2.5nm,0.4s,SNR=4.0						
EMUR	**La Murta**	2.97	30	P	Pn	10 46 03.3	-1.8
	3.2nm,0.3s,SNR=7.9						
EMUR				S	Sn	10 46 38.2	-2.9
	2.5nm,0.4s,SNR=7.9						
EADA	**Adamuz**	3.09	339	P	Pn	10 46 07.6	+0.8
	1.4nm,0.4s,SNR=7.6						
EADA				S	Sn	10 46 44.2	0.0
	4.3nm,0.4s,SNR=6.2						
EADA	**Adamuz**	3.09	339	P	Pn	10 46 07.6	+0.8
	1.4nm,0.4s,SNR=7.6						
EADA				S	Sn	10 46 44.2	0.0
	4.3nm,0.4s,SNR=6.2						
EVIA	**Vianos**	3.38	9	S	Sn	10 46 50.8	-0.7
	0.5nm,0.1s,SNR=4.0						
EMIN	**Mina Concepcio**	3.77	312	P	Pn	10 46 15.0	-1.4
	1.3nm,0.4s,SNR=9.1						
EMIN				S	Sn	10 47 01.0	-0.2
	1.1nm,0.3s,SNR=4.0						
EMIN	**Mina Concepcio**	3.77	312	P	Pn	10 46 15.0	-1.4
	1.3nm,0.4s,SNR=9.1						
EMIN				S	Sn	10 47 01.0	-0.2
	1.1nm,0.3s,SNR=7.9						
ESDC	**Sonseca Array**	4.42	352	P	Pn	10 46 25.9	+0.2
	0.5nm,0.3s,baz=172,slow=12,SNR=4.7						
ESDC				S	Sn	10 47 16.8	-1.1
	0.9nm,0.5s,baz=182,slow=23,SNR=7.9						
ESDC	**Sonseca Array**	4.42	352	P	Pn	10 46 25.9	+0.2
	0.5nm,0.3s,SNR=4.7						
ESDC				S	Sn	10 47 16.8	-1.1
	0.9nm,0.5s,SNR=7.9						
EBAD	**Badajoz**	4.64	319	P	Pn	10 46 27.4	-1.4
	2.1nm,0.3s,SNR=13						
EBAD				S	Sn	10 47 21.0	-2.4
	5.1nm,0.4s,SNR=7.9						
EBAD	**Badajoz**	4.64	319	P	Pn	10 46 27.4	-1.4
	2.1nm,0.3s,SNR=13						

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*IDC **05** 10:56:07.6±4.9, 30.80S×71.40W, h38^{km}±41^{km}, mb4.2/9, mb1 4.3/12, mb1mx4.2/17, ML4.2/2, MS4.0/3, Ms1 3.9/3, ms1mx3.6/14, Error ellipse: s-maj=28.7km s-min=16.2km az=76.0*

*NEIC **05** 10:56:08.3, 30.81S×71.54W, h38^{km}, mb4.6/11, MD4.4(GUC), After GUC.*

*GUC **05** 10:56:08.3±1.1, 30.81S×71.54W, h38^{km}±6^{km}, MD4.4, ML4.6*

ISC 05 10:56:08.3±0.6, 30.79S±0.03×71.4W±0.1, h58^{km}±5^{km}, n56, σ0^{s}92/47, mb4.4/19, MS4.0/3, 7C-1D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	**Ovalle**	0.27	49	⇑*i*P	P	10 56 17.4	-0.5
OVCH				*i* S	S	10 56 23.7	-1.4
OVCH				AMP		10 56 24.5	
	comp=N,52µm,0.2s						
CMCH	**Combarbala**	0.54	136	⇑*i*P	P	10 56 20.5	-0.1
CMCH				*i* S	S	10 56 28.9	-0.7
CMCH				AMP		10 56 30.3	
	comp=E,144µm,0.7s						
LSCH	**La Serena**	0.89	11	*e*P	P	10 56 25.3	+0.4
LSCH				*i* S	S	10 56 37.8	+0.4
LSCH				AMP		10 56 43.2	
	comp=N,25µm,0.2s						
PACH	**Papudo**	1.75	180	*i* P	P	10 56 36.8	0.0
JACH	**Jahuel**	2.02	159	*i* P	P	10 56 41.6	+0.9
ROCH	**El Roble**	2.21	171	*i* P	P	10 56 44.5	+1.2
VACH	**Vallenar**	2.28	15	*i* P	P	10 56 45.5	+1.1
VACH				*i* S	S	10 57 13.6	+2.3
PEL	**Peldehue**	2.44	165	AMP		10 57 37.4	
	comp=N,4µm,0.7s						
LCCH	**Las Cruces**	2.68	182	*i* P	P	10 56 49.4	-0.7
DSCH	**Colegio Aleman**	2.71	164	AMP		10 57 41.6	
	comp=E,5µm,0.7s						
CLCH	**Cerro Calan**	2.71	164	AMP		10 57 39.3	
	comp=E,3µm,0.7s						
CLCH				AMP		10 57 39.8	
	comp=E,4µm,0.7s						
FCH	**Farellones**	2.71	159	AMP		10 57 46.2	
	comp=E,1µm,0.3s						
RCDM	**Rinconada Maip**	2.75	169	AMP		10 57 36.2	
	comp=E,1µm,0.3s						
FSR	**Penalolen**	2.79	164	AMP		10 57 40.8	
	comp=N,2µm,0.5s						
MDZ	**Mendoza**	3.04	134	*e*P	P	10 56 58.3	+3.2
MDZ				*i*		10 57 16.0	
MDZ				*i* S	S	10 57 39.1	+8.7
LMEL	**Las Melosas**	3.23	161	AMP		10 57 45.7	
	comp=N,1µm,1.0s						
LVC	**Limon Verde**	8.45	16	Pn	P	10 58 06.4	-4.0
	comp=N,0.9nm,0.3s,baz=186,slow=7.8,SNR=13						
LVC				Sn	S	10 59 36.3	-9.0
	comp=N,10nm,0.3s,baz=276,slow=22,SNR=6.4						
LVC				Lg		11 00 04.6	
	comp=N,9.0nm,0.3s,baz=158,slow=22,SNR=9.0						
LVC	**Limon Verde**	8.45	16	*e*Pn	P	10 58 06.8	-3.6
	comp=N,2.9nm,0.3s						
LVC				*e*		10 58 15.4	
LVC				*e*S	S	10 59 30.3	-15
LPAZ	**La Paz**	14.74	13	Pn	P	10 59 35.1	+0.1
	comp=N,0.2nm,0.3s,baz=184,slow=7.6,SNR=16						
LPAZ	**La Paz**	14.74	13	*e*P	P	10 59 35.8	+0.8
	comp=N,5.2nm,0.7s						
SAML	**Samuel**	23.05	21	*e*P	P	11 01 09.2	-0.2
	comp=N,7.8nm,1.3s,mb4.0						
USHA	**Ushuaia**	24.13	176	P	P	11 01 19.9	+0.4
	comp=N,11nm,0.7s,mb4.4,baz=324,slow=4.8,SNR=6.2						
BDFB	**Brasilia**	26.20	60	P	P	11 01 38.9	-0.6
	comp=N,13nm,0.7s,mb4.6,baz=237,slow=8.3,SNR=21						
BDFB				LR	LR	11 12 54.8	
	comp=N,112nm,19.1s,MS3.4,baz=278,slow=38						
BAO	**Brasilia Array**	26.22	60	*e*P	P	11 01 39.2	-0.4
PMSA	**Palmer Station**	34.32	174	*e*P	P	11 02 43.8	-7.1
	comp=N,2.1nm,0.4s,mb4.4						
SDV	**Santo Domingo**	39.45	1	*e*P	P	11 03 34.3	-0.2
	comp=N,3.2nm,0.7s,mb4.2						
SJG	**San Juan**	48.88	7	P	P	11 04 49.2	-1.1
	comp=N,24nm,1.0s,mb5.2,baz=316,slow=22,SNR=4.3						
VNA3	**Neumayer Olymp**	52.15	159		P	11 05 15.1	+0.6
VNA3	**Neumayer Olymp**	52.15	159	⇓*i*	pP	11 05 29.4	-0.5
VNA1	**Neumayer--Stat**	52.44	158		P	11 05 26.2	+10
VNA1	**Neumayer--Stat**	52.44	158	⇑*i*	sP	11 05 36.3	-2.4
VNA2	**Neumayer--Watz**	52.78	158	⇑*i*	P	11 05 22.5	+3.2
VNA2	**Neumayer--Watz**	52.78	158	⇑*i*	pP	11 05 33.7	-1.0
SNAA	**Sanae**	54.38	159	⇑*i*	P	11 05 30.4	-0.6
SNAA	**Sanae**	54.38	159	⇑*i*	pP	11 05 44.3	-2.2
SNAA	**Sanae**	54.38	159	P	P	11 05 30.3	-0.7

	comp=N,1.7nm,0.7s,mb4.1,baz=273,slow=7.3,SNR=31						
QSPA	**South Pole Qui**	59.44	180	*e*P	P	11 06 07.1	+0.3
	comp=N,3.0nm,0.7s,mb4.4						
JCT	**Junction City**	66.63	333	*e*P	P	11 06 55.3	+0.4
	comp=N,2.6nm,0.8s,mb4.3						
OXF	**Oxford**	67.12	344	*e*P	P	11 06 56.7	-1.2
	comp=N,12nm,0.7s,mb5.0						
TXAR	**Lajitas Array**	67.20	330	P	P	11 06 59.3	+0.8
	comp=N,1.6nm,0.9s,mb4.1,baz=150,slow=8.0,SNR=15						
VNDA	**Vanda**	67.34	191	LR	LR	11 37 22.7	
	comp=N,46nm,18.7s,MS3.7,baz=72,slow=37						
WVT	**Waverly**	68.32	346	*e*P	P	11 07 04.8	-0.6
	comp=N,7.3nm,0.9s,mb4.7						
CCM	**Cathedral Cave**	70.94	344	*e*P	P	11 07 20.7	-0.6
	comp=N,12nm,1.0s,mb4.8						
ACSO	**Alum Creek Sta**	71.47	351	*e*P	P	11 07 23.9	-0.6
	comp=N,12nm,0.7s,mb4.9						
ANMO	**Albuquerque**	73.23	331	P	P	11 07 36.1	+1.2
	comp=N,0.8nm,0.7s,mb3.7,baz=55,slow=6.8,SNR=3.8						
ANMO	**Albuquerque**	73.23	331	*e*P	P	11 07 36.4	+1.4
	comp=N,2.3nm,1.1s,mb4.0						
DBIC	**Dimbokro**	73.68	72	P	P	11 07 38.0	-0.1
	comp=N,13nm,0.6s,mb5.0,baz=210,slow=6.2,SNR=40						
DBIC	**Dimbokro**	73.68	72	*e*P	P	11 07 37.7	-0.3
	comp=N,6.4nm,0.5s,mb4.8						
MAW	**Mawson**	76.11	164	P	P	11 07 50.4	-0.5
	comp=N,0.8nm,0.4s,mb4.0,baz=329,slow=4.1,SNR=4.2						
PV10	**Paradox Valley**	77.23	331	*e*P	P	11 07 58.2	+0.4
PDAR	**Pinedale Array**	81.14	333	P	P	11 08 17.7	-1.2
	comp=N,0.4nm,0.7s,mb3.5,baz=135,slow=6.3,SNR=4.0						
ULM	**Lac du Bonnet**	83.54	344	P	P	11 08 30.4	-0.6
	comp=N,5.8nm,1.1s,mb4.6,baz=132,slow=3.7,SNR=6.7						
URZ	**Urewera**	86.20	227	LR	LR	11 39 14.4	
	comp=N,484nm,18.6s,MS4.9,baz=204,slow=30						
WRA	**Warramunga Arr**	123.81	209	PKP	PKPdf	11 15 00.9	+0.7
	comp=N,2.0nm,1.2s,baz=162,slow=1.4,SNR=9.1						
ZAL	**Zalesovo**	151.22	30	PKPbc	PKPdf	11 15 56.6	+8.2
	comp=N,4.5nm,0.7s,baz=165,slow=3.0,SNR=18						
CMAR	**Chiang Mai Arr**	164.94	142	PKPab	PKPab	11 17 03.6	-1.0
	comp=N,0.8nm,0.9s,baz=235,slow=5.8,SNR=5.1						

MAN 05 11:10:00.3,13.32N×121.05E,h8^{km},mb4.0,ML2.8,MS2.5, 1C,Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOAC	**Boac**	0.79	80	*e*P	Pb	11 10 14.4	-1.4
BOAC				*e*S	Sb	11 10 25.1	-1.4
TGY	**Tagaytay City**	0.79	352	⇑*i*P	Pb	11 10 16.2	+0.4
TGY				*e*S	Sb	11 10 27.8	+1.4
SJMP	**San Jose**	0.85	175	*e*P	Pb	11 10 18.2	+1.2
SJMP				*e*S	Sb	11 10 32.2	+3.8
LUBP	**Lubang**	0.88	298	*e*P	Pb	11 10 16.3	-1.2
LUBP				*e*S	Sb	11 10 28.8	-0.4
ARP	**Angono**	1.22	5	*e*P	Pb	11 10 21.9	-1.2
NBP	**Mount Natib**	1.54	337	*e*P	Pn	11 10 27.8	-0.5
POLP	**Polilio Island**	1.65	32	*e*P	Pn	11 10 29.5	-0.3
ENPP	**El Nido**	2.63	217	*e*P	Pn	11 10 43.5	-0.4

IDC 05 11:18:57.9±14.0,25.19S×178.56W,h438^{km}±111^{km}, mb3.1/5,mb1 3.3/6,mb1mx3.2/14,Error ellipse: s-maj=228.0km s-min=44.5km az=60.0,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	13.54	195	P	P	11 21 53.3	-2.3
	3.7nm,0.3s,baz=156,slow=7.1,SNR=19						
RPZ	**Rata Peaks**	20.34	202	P	P	11 23 03.1	-0.4
	9.1nm,0.7s,baz=38,slow=17,SNR=5.6						
CTA	**Charters Tower**	32.81	272	P	P	11 24 54.3	-0.4
	3.4nm,0.7s,baz=68,slow=11,SNR=6.1						
STKA	**Stephens Creek**	35.49	250	P	P	11 25 14.4	-2.6
	1.5nm,0.8s,baz=91,slow=13,SNR=5.0						
ASAR	**Alice Springs**	43.13	262	P	P	11 26 18.1	-1.4
	0.3nm,0.4s,baz=94,slow=8.0,SNR=15						
WRA	**Warramunga Arr**	43.64	267	P	P	11 26 22.4	-1.1
	0.3nm,0.5s,baz=102,slow=7.6,SNR=9.1						

JMA 05 11:34:34.3±0.5,22.49N×125.52E,h17^{km},M3.9, Southeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HATJ	**Hateruma jima**	2.22	315	P	Pn	11 35 11.0	0.0
HATJ				*e*S	Sn	11 35 37.6	-0.6
JKRS	**Kuro-shima**	2.23	322	P	Pn	11 35 12.0	+0.9
JKRS				*e*S	Sn	11 35 38.7	+0.3
JIJ	**Ishigaki jima**	2.25	326	P	Pn	11 35 12.0	+0.5
JIJ				S	Sn	11 35 38.1	-1.0
JOGS	**Gusukube**	2.26	357	P	Pn	11 35 11.7	+0.1
JOGS				*e*S	Sn	11 35 41.1	+1.8
JTJ	**Tarama**	2.27	341	P	Pn	11 35 12.2	+0.5
JTJ				*e*S	Sn	11 35 40.0	+0.5
JMJ	**Miyako jima 2**	2.32	355	P	Pn	11 35 12.7	+0.2
JMJ				*e*S	Sn	11 35 43.0	+2.1
IRIF	**Iriomote-Funau**	2.46	319	P	Pn	11 35 15.3	+0.8
IRIF				*e*S	Sn	11 35 44.6	+0.1
YOJ	**Yonaguni jima**	3.03	311	P	Pn	11 35 23.7	+1.2
YOJ				*e*S	Sn	11 35 57.6	-1.1
JKE	**Kume jima 2**	3.99	17	P	Pn	11 35 33.6	-2.6
JKE				*e*S	Sn	11 36 17.9	-5.1
JOW	**Kunigami**	5.00	30	*e*S	Sn	11 36 43.1	-5.4
JIH	**Iheya**	5.04	26	*e*S	Sn	11 36 43.4	-6.2

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*STR **05** 11:35:11.9±0.3,48.01N×8.12E,h10^{km}±1^{km},Ml1.7,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **05** 11:35:11.8±0.2,48.06N×7.96E,h10^{km},Md2.0/3,Ml2.0/8, Error ellipse: s-maj=3.6km s-min=3.1km az=60.0*

ZUR 05 11:35:11.1,48.05N×8.22E,h10^{km},ML1.4/9,6D, Germany

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLE	**Schleitheim**	0.34	146	⇓*i*Pg	Pg	11 35 18.0	-0.1
SLE				*e*Sg	Sg	11 35 22.7	0.0
TRULL	**Truellikon**	0.51	142	⇓*i*Pg	Pg	11 35 21.1	-0.3
SULZ	**Sulz-Cheisache**	0.52	188	⇓*i*Pg	Pg	11 35 21.4	-0.3
SULZ				*e*Sg	Sg	11 35 28.8	0.0
STEIN	**Stein am Rhein**	0.58	130	⇓*i*Pg	Pg	11 35 22.5	-0.3
WLS	**Welschbruch**	0.68	303	Pg	Pg	11 35 24.6	-0.3
ZUR	**Zurich**	0.72	160	*e*Pg	Pg	11 35 25.9	+0.3
CDF	**Champ du Feu**	0.73	301	*e*Pn	Pn	11 35 24.6	-2.6
CDF				*e*Sg	Sg	11 35 30.2	-5.3
	13nm,0.2s						
ECH	**Echery**	0.73	284	Pg	Pg	11 35 24.6	-1.2
ECH				Sg	Sg	11 35 34.5	-1.1
WEIN	**Weingarten**	0.73	135	⇓*i*Pg	Pg	11 35 25.4	-0.5
WILA	**Wila**	0.79	143	⇓*i*Pg	Pg	11 35 26.4	-0.5
HINF	**Hinteralfeld**	0.95	256	*e*Pn	Pn	11 35 27.7	-2.6
HINF				*e*Sg	Sg	11 35 37.2	-5.5
	3.1nm,0.2s						
HAU	**Haudompre**	1.25	269	*e*Pg	Pg	11 35 32.2	-4.0
HAU				*e*Sg	Sg	11 35 45.9	-7.1
HAU				*e*Sn	Sn	11 35 47.3	-4.4
	7.3nm,0.3s						
RFYF	**Reffroy**	1.92	289	*e*Pg	Pg	11 35 44.0	-5.5
	baz=104						
RFYF				*e*Sg	Sg	11 36 06.6	-8.5
	3.5nm,0.2s						
CABF	**La Chapelle**	2.04	226	*e*Sg	Sg	11 36 12.5	-6.6
	0.7nm,0.2s						
SFTF	**Sexfontaines**	2.13	275	*e*Pn	Pn	11 35 43.3	-4.0
SFTF				*e*Pg	Pg	11 35 48.2	-5.6
	baz=104						
SFTF				*e*Sg	Sg	11 36 14.3	-8.0
	1.3nm,0.2s						
MEZF	**Maizieres J'vi**	2.16	283	*e*Pn	Pn	11 35 44.0	-3.7
	baz=105						
MEZF				*e*Pg	Pg	11 35 48.6	-5.7
	baz=104						
MEZF				*e*Sg	Sg	11 36 14.7	-8.5
	1.3nm,0.3s						
SSF	**Saint Saulge**	3.34	255	*e*Pg	Pg	11 36 09.7	-8.1
SSF				*e*Sg	Sg	11 36 51.9	-10
	0.7nm,0.3s						

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*ORF **05** 11:46:33.4,24.99S×177.78E,h30^{km},mb5.9*

*IDC **05** 11:47:22.6±0.7,25.18S×178.87E,h526^{km}±6^{km},mb4.1/14, mb1 4.3/16,mb1mx4.3/18,Error ellipse: s-maj=14.0km s-min=10.3km az=153.0*

*BJI **05** 11:47:22.4,25.17S×179.43E,h554^{km},mB5.4,mb5.0*

*NEIC **05** 11:47:23.1±0.2,25.14S×178.86E,mb4.8/25,Error ellipse: s-maj=7.3km s-min=5.1km az=142.0*

ISC 05 11:47:23.5±0.6,25.29S±0.04×178.81E±0.05,h551^{km}±7^{km}, h529^{km}±6.2^{km}:pP-P,n199,σ1^{s}11/126,mb4.7/34,19C-4D, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAO	**Raoul Island**	4.91	144	⇓*e*P	P	11 48 51.4	-1.9
OUZ	**Omahuta**	10.87	203	P	P	11 49 53.5	+2.5
WCZ	**Waipu Caves**	11.29	199	*e*P	P	11 49 57.3	+2.1
KUZ	**Kuaotunu**	11.72	192	P	P	11 50 01.2	+1.6
KUZ				S	S	11 52 11.5	+6.4
DZM	**Mont Dzumac**	11.77	283	*e*P	P	11 50 00.7	+0.6
DZM				*e*S	S	11 52 12.8	+6.8
NOUC	**Port Laguerre**	11.89	283	*e*P	P	11 50 02.4	+1.1
NOUC	**Port Laguerre**	11.89	283	*e*S	S	11 52 15.1	+7.0
TOZ	**Tahuroa Road**	12.72	192	P	P	11 50 10.6	+0.9
PUZ	**Puketiti**	12.76	182	P	P	11 50 08.1	-2.0
PUZ				S	S	11 52 24.0	0.0
URZ	**Urewera**	13.01	186	P	P	11 50 10.4	-2.3
	21nm,0.3s,baz=16,slow=3.5,SNR=80						
URZ				S	S	11 52 25.5	-3.2
	8.1nm,0.3s,baz=166,slow=20,SNR=23						
MWZ	**Matawai**	13.05	184	P	P	11 50 11.5	-1.6
MWZ				S	S	11 52 28.7	-0.7
KNZ	**Kokohu**	13.73	184	S	S	11 52 37.2	-4.6
MGZ	**Maungaku**	13.95	191	P	P	11 50 23.2	+1.1
BKZ	**Black Stump Fm**	13.98	187	P	P	11 50 19.5	-2.8
BKZ				S	S	11 52 42.7	-3.6
NGZ	**Ngauruhoe**	14.11	190	P	P	11 50 23.8	+0.1
CNZ	**Chateau**	14.14	190	P	P	11 50 25.5	+1.5
TUVZ	**Tukino**	14.19	190	P	P	11 50 24.3	-0.2
AFI	**Afiamalu**	14.37	40	⇑*e*P	P	11 50 19.5	-7.0
	583nm,0.9s						
RAEZ	**Rainy Point**	14.45	194	P	P	11 50 29.5	+2.5
NEZ	**North Egmont**	14.50	195	P	P	11 50 30.7	+3.2
DFE	**Dawson Falls**	14.55	195	P	P	11 50 32.7	+4.7
MRZ	**Mangatainoka R**	15.57	189	P	P	11 50 36.1	-2.0
MRZ				S	S	11 53 10.5	-4.6
KIW	**Kapiti Island**	15.87	191	P	P	11 50 40.8	-0.2
CAW	**Cannon Point**	16.08	190	P	P	11 50 42.7	-0.4
MRW	**Makara Radio**	16.26	191	P	P	11 50 44.6	-0.2
MRW				S	S	11 53 26.5	-0.9
QRZ	**Quartz Range**	16.36	197	P	P	11 50 46.8	+1.1
QRZ				S	S	11 53 35.5	+6.5
NNZ	**Nelson**	16.52	195	P	P	11 50 47.3	0.0
NNZ				S	S	11 53 35.4	+3.6
THZ	**Tophouse**	17.14	195	P	P	11 50 53.3	0.0
THZ				S	S	11 53 42.3	-0.4
DSZ	**Denniston Nort**	17.41	198	P	P	11 50 57.3	+1.4
KHZ	**Kahutara**	17.63	193	P	P	11 50 57.3	-0.7
LTZ	**Lake Taylor**	18.26	196	P	P	11 51 04.2	+0.2
LTZ				S	S	11 54 04.4	+2.7
WVZ	**Waitaha Valley**	18.94	198	P	P	11 51 10.4	-0.1
WVZ				S	S	11 54 20.9	+7.7
MQZ	**McQueen's Vall**	19.05	194	P	P	11 51 11.4	-0.1
RPZ	**Rata Peaks**	19.45	197	P	P	11 51 14.7	-0.5
	25nm,0.3s,baz=299,slow=1.4,SNR=90						
RPZ				S	S	11 54 20.3	-1.3
	0.6nm,0.3s,baz=166,slow=12,SNR=2.2						
RPZ	**Rata Peaks**	19.45	197	P	P	11 51 14.6	-0.6
FOZ	**Fox Glacier**	19.70	200	P	P	11 51 16.8	-0.8
RAR	**Rarotonga**	20.09	83	P	P	11 51 21.4	0.0
	20nm,0.6s,baz=258,slow=18,SNR=4.1						
RAR	**Rarotonga**	20.09	83	P	P	11 51 17.6	-3.8
	37nm,0.9s						
LBZ	**Lake Benmore**	20.30	198	P	P	11 51 22.1	-1.1
JCZ	**Jackson Bay**	20.45	201	P	P	11 51 25.0	+0.5
ODZ	**Otahua Downs**	20.79	196	P	P	11 51 26.7	-0.9
WKZ	**Wanaka**	21.05	200	P	P	11 51 29.3	-0.7
MSZ	**Milford Sound**	21.26	202	P	P	11 51 32.1	+0.2
TUZ	**Tuapeka**	21.90	197	P	P	11 51 37.8	0.0
WHZ	**Wether Hill Ro**	22.34	200	P	P	11 51 41.9	+0.2
CNB	**Canberra Magne**	27.23	241	*e*P	P	11 52 25.8	+0.5
	203nm,1.2s,mb5.6						
CNB				*e*S	S	11 56 31.0	+4.5
CNB				*e*SCP		11 58 20.0	
CTA	**Charters Tower**	30.43	273	⇑*i*P	P	11 52 53.7	+0.7
	22nm,0.4s,mb5.0						
CTA				*e*S	S	11 57 17.3	+1.0
CTA				*e*SCP		11 58 31.0	
CTA	**Charters Tower**	30.43	273	P	P	11 52 53.1	+0.1
	30nm,0.5s,mb5.1,baz=97,slow=10,SNR=68						
CTA				S	S	11 57 16.4	+0.1
	1.5nm,0.3s,baz=195,slow=22,SNR=12						
CTA				ScP		11 58 28.6	
	12nm,1.1s,baz=101,slow=2.0,SNR=3.6						
CTAO	**Charters Tower**	30.43	273	*e*P	P	11 52 53.3	+0.3
	68nm,0.8s,mb5.2						
TOO	**Toolangi**	30.79	238	⇑*i*P	P	11 52 57.2	+1.3
	36nm,0.9s,mb4.9						
TOO				*e*pP		11 54 32.1	
TOO				*e*S	S	11 57 25.2	+3.4
STKA	**Stephens Creek**	33.21	250	⇑*i*P	P	11 53 17.4	+1.0
	49nm,1.0s,mb5.0						
STKA				*e*S	S	11 58 00.0	+1.1
STKA				*e*SCS	ScS	12 02 40.0	+3.5
STKA	**Stephens Creek**	33.21	250	P	P	11 53 17.2	+0.8
	51nm,0.9s,mb5.0,baz=90,slow=9.0,SNR=84						
STKA				ScP		11 58 38.9	
	5.3nm,1.0s,baz=257,slow=4.2,SNR=3.3						
PMG	**Port Moresby**	33.96	292	P	P	11 53 22.2	-0.7
	42nm,1.0s,mb4.9,baz=124,slow=3.5,SNR=17						
PMG	**Port Moresby**	33.96	292	*e*P	P	11 53 22.2	-0.6
ASAR	**Alice Springs**	40.76	262	P	P	11 54 18.7	+0.5
	124nm,1.1s,mb5.3,baz=88,slow=6.7,SNR=643						
ASAR				ScP		11 59 06.2	
	3.8nm,0.8s,baz=106,slow=4.9,SNR=6.6						
ASAR				S	S	11 59 50.2	-0.2
	9.2nm,0.9s,baz=96,slow=17,SNR=25						
ASPA	**Alice Springs**	40.76	262	⇑*i*P	P	11 54 18.7	+0.4
ASPA				*e*S	S	11 59 49.8	-0.7
ASPA				*e*SCS	ScS	12 03 21.9	+2.3
WB2	**Warramunga Arr**	41.24	268	⇑*i*P	P	11 54 21.9	-0.2
WB2				*e*S	S	11 59 55.4	-2.0
WRAB	**Tennant Creek**	41.24	268	*e*P	P	11 54 21.7	-0.5
	59nm,0.5s,mb5.4						
WRA	**Warramunga Arr**	41.25	268	P	P	11 54 21.7	-0.5
	32nm,0.4s,mb5.2,baz=103,slow=8.1,SNR=385						
WRA				PP	PP	11 56 12.7	+4.1
	2.0nm,0.5s,baz=102,slow=7.6,SNR=2.6						
WRA				ScP		11 59 08.4	
	6.3nm,0.8s,baz=103,slow=4.2,SNR=9.5						
WRA				S	S	11 59 54.4	-3.2
	24nm,1.0s,baz=101,slow=14,SNR=24						
WRA				PKiKP		12 03 13.0	
	1.1nm,1.2s,baz=37,slow=0.2,SNR=4.6						
FORT	**Forrest**	44.82	251	⇑*i*P	P	11 54 49.7	-0.5
	423nm,0.6s						
KAKA	**Kakadu**	45.38	277	*e*P	P	11 54 53.8	-0.9
	14nm,0.3s,mb5.0						
KAKA				*e*S	S	12 00 53.8	-2.1
FITZ	**Fitzroy Crossi**	49.66	267	⇑*i*P	P	11 55 26.5	-0.5
	52nm,1.1s,mb4.9						
FITZ				*e*S	S	12 01 55.9	+1.3
FITZ	**Fitzroy Crossi**	49.66	267	P	P	11 55 26.7	-0.3
	69nm,0.9s,mb5.1,baz=137,slow=4.6,SNR=203						
FITZ				PP	PP	11 57 24.7	-3.5
	3.3nm,0.5s,baz=171,slow=5.3,SNR=3.1						
FITZ				ScP		11 59 44.0	
	4.5nm,0.9s,baz=128,slow=4.1,SNR=3.3						
FITZ				S	S	12 01 55.0	+0.3
	22nm,1.3s,baz=306,slow=22,SNR=17						
VNDA	**Vanda**	52.91	185	P	P	11 55 50.4	+0.6
	5.6nm,0.7s,mb4.0,baz=198,slow=4.6,SNR=5.6						
VNDA				ScP		11 59 56.6	
	1.4nm,0.6s,baz=17,slow=3.6,SNR=6.8						
VNDA	**Vanda**	52.91	185	*e*P	P	11 55 50.4	+0.6
VNDA				ScP		11 59 56.6	
SBA	**Scott Base**	52.94	183	*e*P	P	11 55 51.8	+1.9
	56nm,1.0s,mb4.8						
KLBR	**Kellerberrin**	53.46	248	⇑*i*P	P	11 55 53.3	-1.0
	122nm,1.0s,mb5.2						
MBWA	**Marble Bar**	54.08	261	*e*P	P	11 55 57.7	-1.1
	64nm,1.3s,mb4.8						
MUN	**Mundaring**	54.69	248	*e*P	P	11 56 02.6	-0.3
	32nm,0.9s,mb4.5						
CASY	**Casey**	58.39	206	*e*P	P	11 56 27.3	-0.5
	97nm,1.1s,mb5.0						
QSPA	**South Pole Qui**	64.80	180	⇑*i*P	P	11 57 10.9	+1.7
	105nm,1.4s,mb5.1						
MAT	**Matsushiro**	72.44	327	P	P	11 57 53.9	-1.8
MAT	**Matsushiro**	72.44	327	*e*P	P	11 57 54.0	-1.7
	39nm,1.1s,mb4.8						
MAW	**Mawson**	76.07	201	⇑*i*P	P	11 58 16.4	+1.1
	15nm,1.0s,mb4.4						
MAW	**Mawson**	76.07	201	P	P	11 58 15.8	+0.5
	10nm,0.9s,mb4.2,baz=132,slow=5.1,SNR=14						
FX1	**Attu Island--F**	77.99	357	*e*P	P	11 58 24.1	-1.9
SYO	**Syowa Base**	81.41	194	⇓P	P	11 58 43.7	+0.2
MDJ	**Mudanjiang**	82.82	327	*e*P	P	11 58 51.4	+0.4
	39nm,1.1s,mb4.8						
SNAA	**Sanae**	83.30	179	⇑*i*	P	11 58 53.5	+0.6
VNA3	**Neumayer Olymp**	83.55	177	⇑*i*	P	11 58 59.4	+5.3
VNA2	**Neumayer--Watz**	83.95	178	⇑*i*	P	11 59 01.2	+5.1
YBH	**Yreka Blue Hor**	85.84	40	P	P	11 59 06.9	+1.0
	2.4nm,0.7s,mb4.0,baz=26,slow=9.2,SNR=6.5						
ENH	**Enshi**	86.36	306	*e*P	P	11 59 08.6	-0.1
	22nm,1.1s,mb4.7						
TPNV	**Topopah Spring**	86.97	47	*e*P	P	11 59 11.7	+0.4
	3.1nm,0.5s,mb4.2						
NEN	**Nelson**	87.18	48	P	P	11 59 11.4	-1.0
MOD	**Modoc**	87.36	41	*e*P	P	11 59 13.6	+0.6
	37nm,1.4s,mb4.8						
CMAR	**Chiang Mai Arr**	88.99	291	P	P	11 59 22.7	+1.5
	5.3nm,0.8s,mb4.4,baz=141,slow=3.4,SNR=35						
CMAR				pP	pP	12 01 17.0	-5.6
	1.4nm,0.9s,baz=134,slow=3.5,SNR=5.9						
CMAR				PP	PP	12 02 59.3	-3.2
	2.4nm,1.1s,baz=127,slow=4.5,SNR=3.3						
ARUT	**Antelope Range**	89.29	47	*e*P	P	11 59 23.2	+1.0
ELK	**Elko**	89.77	44	*e*P	P	11 59 24.8	+0.5
	7.3nm,1.2s,mb4.4						
MSU	**Marysvale**	90.52	47	*e*P	P	11 59 29.4	+1.5
TMUT	**Trail Mountain**	91.58	47	*e*P	P	11 59 33.8	+1.2
HLID	**Hailey**	91.85	42	*e*P	P	11 59 34.4	+0.6
	1.6nm,0.6s,mb4.2						
TXAR	**Lajitas Array**	92.08	59	P	P	11 59 36.0	+0.8
	1.0nm,0.7s,mb4.0,baz=212,slow=6.3,SNR=17						
TXAR				pP	pP	12 01 33.2	-3.9
	1.4nm,1.0s,baz=225,slow=3.9,SNR=5.7						
TXAR				PP	PP	12 03 26.7	+0.2
	0.8nm,1.0s,baz=220,slow=7.0,SNR=2.9						
MCK	**McKinley**	92.28	14	*e*P	P	11 59 34.1	-1.1
	0.9nm,0.6s,mb4.0						
PV01	**Paradox Valley**	92.75	49	*e*P	P	11 59 37.9	-0.2
ILAR	**Eielson Array**	93.63	14	P	P	11 59 39.6	-1.9
	1.2nm,0.6s,mb4.2,baz=223,slow=4.7,SNR=26						
ILAR				pP	pP	12 01 39.4	-4.2
	5.2nm,1.1s,baz=229,slow=3.4,SNR=13						
ILAR				PKiKP		12 04 22.1	
	0.9nm,1.1s,baz=288,slow=3.4,SNR=4.7						
BW06	**Boulder Array**	94.44	45	*e*P	P	11 59 45.5	-0.2
	0.6nm,0.5s,mb4.0						
PDAR	**Pinedale Array**	94.44	45	P	P	11 59 45.3	-0.4
	0.9nm,0.8s,mb3.9,baz=213,slow=3.0,SNR=7.2						
PDAR				pP	pP	12 01 45.4	-2.4
	1.0nm,0.9s,baz=252,slow=4.7,SNR=5.6						
PDAR				PP	PP	12 03 40.0	-4.0
	2.5nm,1.3s,baz=243,slow=4.0,SNR=3.5						
BOZ	**Bozeman (W)**	94.65	41	*e*P	P	11 59 45.4	-1.1
	1.3nm,0.5s,mb4.3						
ULN	**Ulaanbaatar**	97.08	320	*e*P	P	11 59 57.5	0.0
	6.2nm,1.1s,mb4.8						
CHKZ	**Chkalovo**	120.64	319	*e*PKPdf	PKPdf	12 05 12.5	+0.1
KEV	**Kevo**	132.53	347	*e*pkp	PKPdf	12 05 27.5	-7.3
ARCES	**ARCESS Array B**	133.01	348	PKhKP		12 05 27.3	
	6.1nm,1.0s,baz=94,slow=1.3,SNR=14						
ARCES				PKP	PKPdf	12 05 36.7	+1.1
	4.5nm,0.4s,baz=47,slow=1.3,SNR=34						
ARCES				SKPbc		12 08 15.9	
	9.9nm,0.7s,baz=31,slow=3.6,SNR=13						
KMBO	**Kilima Mbogo**	134.47	241	SKPbc		12 08 22.2	
	8.4nm,1.0s,baz=66,slow=2.4,SNR=14						
JOF	**Joensuu**	136.65	339	*e*pkp	PKPdf	12 05 34.6	-7.9
KAF	**Kangasniemi**	138.81	341	*e*pkp	PKPdf	12 05 38.5	-8.0
FINES	**FINESS Array B**	139.39	340	PKhKP		12 05 39.8	
	1.7nm,0.3s,baz=51,slow=3.3,SNR=37						
FINES				SKPbc		12 08 34.6	
	5.6nm,0.7s,baz=63,slow=4.3,SNR=7.8						
NB2	**NORSAR Subarra**	143.26	350	PKP	PKPdf	12 05 52.9	-1.3
	21nm,0.7s,baz=16,slow=3.1						
NB2	**NORSAR Subarra**	143.26	350	PKPa	PKPdf	12 05 52.9	-1.3
	baz=16,slow=3.2						
NOA	**NORSAR Array B**	143.26	350	PKhKP		12 05 52.9	
	20nm,0.7s,baz=16,slow=4.9,SNR=62						
NOA				SKPbc		12 08 42.3	
	8.5nm,1.1s,baz=16,slow=4.2,SNR=4.4						
NAO01	**NORSAR Array S**	143.50	350	*e*PKPdf	PKPdf	12 05 53.9	-0.7
ELZG	**Elazig**	143.71	301	*i* P	PKPbc	12 05 57.7	+2.6
MALT	**Malatya**	144.18	301	*e*PKPdf	PKPdf	12 05 58.5	+2.0
GZT	**Gaziantep**	145.00	300	*i* P	PKPdf	12 06 01.1	+3.1
SVST	**Sivas**	145.02	304	*i* P	PKPdf	12 06 02.4	+4.5
KAHT	**Ahir Dag**	145.50	300	*i* P	PKPdf	12 06 03.1	+4.2
AKASG	**Malin Array Be**	145.52	325	PKPbc	PKPbc	12 06 00.4	+0.7
	12nm,0.6s,baz=43,slow=3.9,SNR=68						
AKASG				SKPbc		12 08 50.5	
	9.3nm,1.1s,baz=35,slow=2.7,SNR=5.1						
ASF	**Jabal al Asfar**	146.03	291	PKPbc	PKPbc	12 06 04.3	+2.8
	8.9nm,0.6s,baz=355,slow=3.0,SNR=16						
SUW	**Suwalki**	146.06	334	*e*PKP	PKPdf	12 06 02.5	+3.3
COBT	**Iskenderun**	146.17	298	*i* P	PKPdf	12 06 04.7	+4.7
AVNT	**Avonos**	146.83	303	*i* P	PKPdf	12 06 05.6	+4.6
BALT	**Daday**	147.16	308	*i* P	PKPdf	12 06 06.9	+5.4
HMDT	**Nahal Hemdat**	147.19	291	P	PKPdf	12 06 06.6	+4.8
MMLI	**Mount Malkishu**	147.27	291	P	PKPdf	12 06 08.1	+6.2
ELDT	**Eldivan**	147.45	306	*i* P	PKPdf	12 06 07.5	+5.6
BRTR	**Keskin Array B**	147.51	305	PKPbc	PKPdf	12 06 07.2	+5.2
	3.9nm,0.6s,baz=133,slow=3.6,SNR=18						
ZFRI	**Zfri**	147.53	288	P	PKPdf	12 06 08.7	+6.3
PRNI	**Paran**	147.68	287	P	PKPdf	12 06 09.0	+6.4
EIL	**Elat**	147.72	286	P	PKPdf	12 06 09.0	+6.3
MEST	**Erdemli**	147.83	299	*i* P	PKPdf	12 06 08.3	+5.7
KZIT	**Kziot**	148.20	288	P	PKPdf	12 06 10.2	+6.8
SGKT	**Sivrigoynuk**	148.42	307	*i* P	PKPdf	12 06 09.2	+5.8
CSS	**Prodhromos**	148.75	296	*e*PKPdf	PKPdf	12 06 05.7	+1.6
CSS				*e*PKPbc	PKPdf	12 06 10.2	+6.0
GKP	**Gorka Klasztor**	148.81	338	*e*PKP	PKPdf	12 06 10.6	+7.0
KWP	**Kalwaria**	149.42	329	*e*PKP	PKPdf	12 06 12.0	+7.3
ESKT	**Eskisehir**	149.63	306	*i* P	PKPdf	12 06 12.9	+7.5
EKA	**Eskdalemuir Ar**	149.95	2	PKPbc	PKPdf	12 06 11.8	+6.3
	3.7nm,0.5s,baz=350,slow=3.4,SNR=33						
KOLS	**Kolonicke sedl**	150.11	328	*i* PKP	PKPdf	12 06 14.0	+8.1
OJC	**Ojcow**	150.29	332	*e*PKP	PKPdf	12 06 13.8	+7.7
MLR	**Muntele Rosu**	150.30	320	PKPbc	PKPdf	12 06 13.7	+7.4
	12nm,0.7s,baz=350,slow=4.2,SNR=26						
ISP	**Isparta**	150.38	303	*e*PKPbc	PKPdf	12 06 13.2	+6.5
CRVS	**Cervenica-Dubn**	150.51	329	*i* PKP	PKPdf	12 06 14.5	+8.0
CRVS				*i*		12 06 24.2	
NIE	**Niedzica**	150.66	331	*e*PKP	PKPdf	12 06 15.4	+8.7
ULDT	**Uludag**	150.67	308	*i* P	PKPdf	12 06 15.3	+8.3
DMUB	**Kingscourt**	151.11	7	*e*P	PKPdf	12 06 14.0	+6.8
KSP	**Ksiaz**	151.16	337	⇓*i*PKP	PKPdf	12 06 16.2	+8.8
KSP				*e*pPKP		12 06 26.5	
KSP	**Ksiaz**	151.16	337	*e*PKP	PKPdf	12 06 16.2	+8.8
OKC	**Ostrava-Krasne**	151.26	334	*e*PKPbc	PKPdf	12 06 16.4	+8.9
OKC				*e*PKPab	PKPab	12 06 27.0	-0.1
DNZL	**Cakiroluk**	151.53	303	*i* P	PKPdf	12 06 17.7	+9.4
UPC	**Upice**	151.54	337	*e*PKPbc	PKPdf	12 06 16.8	+8.9
UPC				*e*PKPab	PKPab	12 06 27.8	-0.4
DPC	**Dobruska-Polom**	151.55	336	*e*PKPbc	PKPdf	12 06 16.9	+9.0
DPC				*e*PKPab	PKPab	12 06 28.3	0.0
DCN	**Croghan**	151.61	8	*e*P	PKPdf	12 06 15.0	+7.1
MANT	**Manisa**	151.65	305	*i* P	PKPdf	12 06 17.5	+9.0
DLF	**Lyons Farm**	151.74	7	*e*P	PKPdf	12 06 15.2	+7.1
CLL	**Collm**	151.84	341	⇓*i*PKP1	PKPdf	12 06 17.1	+8.8
CLL				*i* PKP2	PKPab	12 06 28.3	-1.2
CLL				*e**PPKP		12 08 24.0	
CLL				*e*		12 09 22.0	
CLL				*e*PP	PP	12 10 21.0	+17
BRG	**Berggiesshubel**	151.93	339	*i* P	PKPdf	12 06 17.7	+9.3
BRG				*e*		12 06 29.6	
BRG				*e*		12 08 26.9	
PSZ	**Piszkesteto**	151.95	329	*e*P	PKPdf	12 06 18.0	+9.4
PSZ	**Piszkesteto**	151.95	329	*e*PKPbc	PKPdf	12 06 17.4	+8.8
PSZ				*e*PKPab	PKPab	12 06 29.5	-0.5
VYHS	**Vyhne**	152.00	331	*i* PKP	PKPdf	12 06 17.8	+9.2
VYHS				*i*		12 06 30.0	
PVCC	**Panska Ves**	152.02	338	*e*PKPbc	PKPdf	12 06 18.6	+10
PVCC				*e*PKPab	PKPab	12 06 30.6	+0.3
PRU	**Pruhonice**	152.49	338	*e*PKPbc	PKPdf	12 06 18.8	+10
PRU				*e*PKPab	PKPab	12 06 31.8	-0.4
SMOL	**Smolenice**	152.59	333	*i* PKP	PKPdf	12 06 20.0	+11
SMOL				*i*		12 06 33.2	

SRO	Srobarova	152.74	331	i PKP	PKPdf	12 06 20.0	+10
ZST	Bratislava	152.97	332	i PKP	PKPab	12 06 33.6	-0.7
KHC	Kasperske Hory	153.55	338	ePKPbc	PKPdf	12 06 20.9	+10
KHC				ePKPab	PKPab	12 06 36.4	-0.3
KHC				epPKP		12 08 18.0	
KHC				x	x	12 08 32.0	
GERES	GERESS Array B	153.75	337	PKP	PKPdf	12 06 12.4	+1.4
	1.1nm,0.8s,baz=45,slow=1.9,SNR=7.4						
GERES				PKPbc	PKPdf	12 06 20.9	+10
	2.1nm,0.7s,baz=40,slow=2.5,SNR=16						
GERES				PKPab	PKPab	12 06 36.7	-0.8
	2.3nm,0.7s,baz=45,slow=3.8,SNR=12						
GIVF	Givet	154.79	351	ePKP2	PKPab	12 06 40.6	-1.3
GIVF	Givet	154.79	351	ePKPab	PKPab	12 06 40.6	-1.3
BAIF	Baives	154.92	352	ePKP2	PKPab	12 06 40.8	-1.6
	13nm,1.0s						
BAIF	Baives	154.92	352	ePKPab	PKPab	12 06 40.8	-1.6
SKO	Skopje	154.97	317	i P	PKPab	12 06 44.0	+1.0
CDF	Champ du Feu	155.97	346	ePKP2	PKPab	12 06 46.1	-0.9
MEZF	Maizieres J'vi	156.31	350	ePKP2	PKPab	12 06 47.6	-0.9
HAU	Haudompre	156.56	347	ePKP2	PKPab	12 06 48.5	-1.0
	19nm,0.6s						
FLN	La Foliniere	156.56	359	ePKP2	PKPab	12 06 48.5	-1.0
HINF	Hinteralfeld	156.63	346	ePKP2	PKPab	12 06 48.7	-1.2
LDF	La Druitiere	156.72	358	ePKP2	PKPab	12 06 48.4	-1.8
	11nm,0.9s						
DAVOX	Davos	156.80	340	PKPab	PKPab	12 06 50.2	-0.4
	13nm,0.6s,baz=263,slow=1.2,SNR=12						
GRR	Gorron	156.94	359	ePKP2	PKPab	12 06 48.9	-2.3
SSF	Saint Saulge	157.95	351	⇑iPKP2	PKPab	12 06 54.7	-0.9
	39nm,0.8s						
AVF	Avril sur Loir	158.24	352	⇑iPKP2	PKPab	12 06 55.8	-1.0
	16nm,0.7s						
SMF	Signal de Mont	158.31	351	⇑iPKP2	PKPab	12 06 56.3	-0.8
	53nm,0.9s						
BGF	Bois d'Agland	158.53	352	ePKP2	PKPab	12 06 57.5	-0.6
	15nm,0.8s						
LPL	La Plagne	158.83	344	ePKP2	PKPab	12 06 59.6	+0.2
	30nm,1.1s						
LPG	La Plagne	158.84	344	ePKP2	PKPab	12 06 59.8	+0.3
	45nm,1.2s						
TCF	Toulx Ste Croi	158.87	353	⇑iPKP2	PKPab	12 06 58.6	-0.9
	19nm,1.0s						
TCF	Toulx Ste Croi	158.87	353	⇑iPKPab	PKPab	12 06 58.6	-0.9
MBDF	Montbardon	159.56	344	ePKP2	PKPab	12 07 02.1	-0.5
	14nm,0.6s						
ORIF	Oris-en-Rattie	159.59	345	ePKP2	PKPab	12 07 02.6	-0.1
	12nm,0.7s						
VIVF	Saint-Julien-l	159.91	348	ePKP2	PKPab	12 07 02.7	-1.4
	30nm,1.2s						
RJF	Les Rejaudoux	159.91	354	ePKP2	PKPab	12 07 03.4	-0.7
SBF	Sospel	160.18	341	ePKP2	PKPab	12 07 04.6	-0.7
	72nm,1.0s						
CAF	Calviac	160.23	353	ePKP2	PKPab	12 07 04.9	-0.5
	33nm,1.2s						
LFF	La Frestale	160.33	356	ePKP2	PKPab	12 07 04.9	-1.0
FRF	La Foret Royal	160.68	343	ePKP2	PKPab	12 07 06.9	-0.5
	86nm,1.4s						
LMR	La Mourre	160.92	343	ePKP2	PKPab	12 07 08.0	-0.5
	58nm,1.1s						
MTLF	Montolieu	161.78	352	ePKP2	PKPab	12 07 11.7	-0.5
SJPF	Ste Jean	162.22	0	ePKP2	PKPab	12 07 12.9	-1.3
	8.4nm,0.8s						
ESDC	Sonseca Array	165.47	9	PKPab	PKPab	12 07 27.2	-1.2
	1.7nm,0.7s,baz=342,slow=3.8,SNR=6.7						

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*STR **05** 12:05:28.5±0.3, 48.06N×8.01E, h10^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **05** 12:05:28.5, 48.08N×8.00E, h10^{km}, ML2.6(LDG), ML2.2(STR), ML2.2(LEDBW), After LDG.*

*ZUR **05** 12:05:28.5, 48.07N×8.02E, h15^{km}, ML2.4/10*

*LDG **05** 12:05:28.5±0.1, 48.08N×8.00E, h10^{km}, Md2.7/3, Ml2.6/15, Error ellipse: s-maj=1.4km s-min=1.1km az=165.0*

*CSEM **05** 12:05:28.4±0.0, 48.08N×8.02E, h15^{km}, ML2.5/13, Error ellipse: s-maj=0.9km s-min=0.7km az=2.0*

*BGR **05** 12:05:28.7±1.3, 48.14N×8.04E, h10^{km}, ML1.8/3, Error ellipse: s-maj=14.5km s-min=4.4km az=18.0*

LEDBW 05 12:05:28.7±0.1**, 48.08N×8.04E, h10^{km}, ML2.2, 10C-14D, Error ellipse: s-maj=1.8km s-min=1.0km az=132.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIZ	Kirchzarten	0.15	212	⇑iPg	Pg	12 05 32.1	0.0
KIZ				i Sg	Sg	12 05 34.6	+0.1
FELD	Feldberg	0.21	186	⇑iPg	Pg	12 05 33.2	0.0
FELD	Feldberg	0.21	186	Pg	Pg	12 05 33.2	0.0
FELD				Sg	Sg	12 05 35.9	-0.3
LIBD	Limburg	0.30	283	⇓iPg	Pg	12 05 35.0	+0.1
LIBD	Limburg	0.30	283	Pg	Pg	12 05 34.9	0.0
LIBD				Sg	Sg	12 05 39.1	+0.1
BFO	Black Forest	0.32	39	⇑iPg	Pg	12 05 35.0	-0.2
BFO				Sg	Sg	12 05 39.3	-0.3
BFO	Black Forest	0.32	39	ePg	Pg	12 05 34.9	-0.3
BFO				eSg	Sg	12 05 39.3	-0.3
SLE	Schleitheim	0.44	136	⇓iPg	Pg	12 05 37.3	-0.4
SLE				i Sg	Sg	12 05 43.2	-0.5
SLE	Schleitheim	0.44	136	⇓iPg	Pg	12 05 37.3	-0.4
	5.9nm,0.2s						
SLE				i Sg	Sg	12 05 43.3	-0.4
	5.9nm,0.2s						
SPAK	Spaichingen	0.50	88	⇓iPg	Pg	12 05 38.6	-0.3
SULZ	Sulz-Cheisache	0.56	174	⇑iPg	Pg	12 05 39.4	-0.6
	7.0nm,0.5s						
SULZ				eSg	Sg	12 05 47.0	-0.5
	7.0nm,0.5s						
WLS	Welschbruch	0.56	306	⇓Pg	Pg	12 05 39.7	-0.3
WLS	Welschbruch	0.56	306	Pg	Pg	12 05 39.6	-0.4
WLS				Sg	Sg	12 05 47.0	-0.6
ECH	Echery	0.60	283	⇓iPg	Pg	12 05 40.2	-0.6
ECH	Echery	0.60	283	Pg	Pg	12 05 40.0	-0.8
ECH				Sg	Sg	12 05 47.9	-1.0
ECH	Echery	0.60	283	Sg	Sg	12 05 47.9	-1.0
CDF	Champ du Feu	0.60	303	ePg	Pg	12 05 40.1	-0.8
CDF				eSg	Sg	12 05 47.5	-1.5
	23nm,0.2s						
TRULL	Truellikon	0.62	135	⇓iPg	Pg	12 05 40.5	-0.6
	9.6nm,0.2s						
FLACH	Flaach	0.63	145	⇓iPg	Pg	12 05 40.8	-0.5
	16nm,0.3s						
FLACH				i Sg	Sg	12 05 49.3	-0.4
	16nm,0.3s						
MOF	Molkenrain	0.65	249	Pg	Pg	12 05 41.4	-0.3
MOF	Molkenrain	0.65	249	Pg	Pg	12 05 41.2	-0.6
STEIN	Stein am Rhein	0.70	126	⇓iPg	Pg	12 05 42.3	-0.4
	2.9nm,0.2s						
BBS	Basel-Blauen	0.71	210	⇑iPg	Pg	12 05 42.3	-0.7
GUT	Gutenstein	0.72	91	⇓iPg	Pg	12 05 42.6	-0.7
GUT				Sg	Sg	12 05 52.2	-0.8
SISB	Singen-Sch Ber	0.74	122	⇓iPg	Pg	12 05 43.0	-0.5
SISB				Sg	Sg	12 05 53.0	-0.5
LBG	Lerchenberg	0.77	41	⇑ePg	Pg	12 05 43.2	-1.0
LBG				Sg	Sg	12 05 53.6	-0.9
LBG	Lerchenberg	0.77	41	Sg	Sg	12 05 53.7	-0.8
BALST	Balsthal	0.78	197	⇑iPg	Pg	12 05 43.4	-1.0
	2.2nm,0.3s						
TUBL	Tuebingen Lnz	0.83	58	Pg	Pg	12 05 44.8	-0.5
TUBL				Sg	Sg	12 05 55.7	-0.7
HINF	Hinteralfeld	0.84	252	ePg	Pg	12 05 43.8	-1.7
HINF				eSg	Sg	12 05 54.5	-2.2
	32nm,0.2s						
WEIN	Weingarten	0.85	131	⇓iPg	Pg	12 05 44.6	-1.1
WEIN	Weingarten	0.85	131	⇓iP	Pb	12 05 45.1	+0.1
BOURR	Bourrignon	0.88	218	⇑iPn	Pn	12 05 45.1	-1.8
BOURR	Bourrignon	0.88	218	⇑iPn	Pn	12 05 44.6	-2.3
	1.8nm,0.5s						
WILA	Wila	0.89	138	⇓iPg	Pg	12 05 45.9	-0.7
LANF	Langenberg	0.91	350	Pn	Pn	12 05 46.0	-1.4
LANF	Langenberg	0.91	350	Pg	Pg	12 05 45.9	-1.0
BUCH	Bad Urach	0.95	67	Pn	Pn	12 05 46.9	-1.1
BUCH				Sn	Sn	12 05 59.6	-2.1
STU	Stuttgart	1.03	48	ePg	Pg	12 05 48.3	-1.2
	SNR=1.2						
STU				eSg	Sg	12 06 01.4	-1.8
	SNR=5.2						
LOMF	Lomont	1.10	228	P	Pb	12 05 49.3	0.0
LOMF	Lomont	1.10	228	Pg	Pg	12 05 49.3	-1.3
LOMF				Sg	Sg	12 06 03.4	-1.9
HAU	Haudompre	1.14	267	ePn	Pn	12 05 48.2	-2.4
HAU				ePg	Pg	12 05 49.6	-1.8
HAU				eSg	Sg	12 06 03.4	-3.2
	29nm,0.2s						
HAU	Haudompre	1.14	267	ePg	Pg	12 05 49.6	-1.8
HAU				eSg	Sg	12 06 03.4	-3.2
	15nm,0.2s						
THEF	They Montfort	1.38	277	Pn	Pn	12 05 51.6	-2.5
THEF	They Montfort	1.38	277	Pg	Pg	12 05 51.4	-4.9
UBR	Uberruh	1.45	105	⇑iPg	Pg	12 05 56.7	-1.1
UBR				Sn	Sn	12 06 11.4	-2.9
HDH	Heidenheim	1.53	70	Sg	Sg	12 06 17.5	-2.3
SIND	Sindeldorf	1.64	39	Pn	Pn	12 05 54.4	-3.4
RFYF	Reffroy	1.79	289	ePn	Pn	12 05 57.7	-2.3
	baz=106						
RFYF				ePg	Pg	12 06 01.9	-2.6
	baz=110						
RFYF				eSn	Sn	12 06 18.8	-4.2
RFYF				eSg	Sg	12 06 24.6	-3.8
	6.6nm,0.2s						
RFYF	Reffroy	1.79	289	ePg	Pg	12 06 01.9	-2.6
RFYF				eSn	Sn	12 06 18.8	-4.2
RFYF				eSg	Sg	12 06 24.6	-3.8
	3.3nm,0.2s						
ABH	Alteburg	1.83	350	Pn	Pn	12 06 02.8	+2.3
CABF	La Chapelle	1.98	223	ePg	Pg	12 06 05.3	-3.0
CABF				eSg	Sg	12 06 29.1	-5.6
	4.7nm,0.2s						
SFTF	Sexfontaines	2.01	275	ePn	Pn	12 05 59.8	-3.3
SFTF				ePg	Pg	12 06 05.8	-3.0
	baz=99						
SFTF				eSg	Sg	12 06 31.5	-4.2
	4.3nm,0.2s						
SFTF	Sexfontaines	2.01	275	ePg	Pg	12 06 05.8	-3.0
SFTF				eSg	Sg	12 06 31.5	-4.2
	2.2nm,0.2s						
WLF	Walferdange	2.01	323	eSg	Sg	12 06 31.3	-4.4
	SNR=3.4						
MEZF	Maizieres J'vi	2.04	283	ePn	Pn	12 06 00.8	-2.7
	baz=106						
MEZF				ePg	Pg	12 06 06.6	-2.7
	baz=106						
MEZF				eSg	Sg	12 06 31.3	-5.2
	3.3nm,0.3s						
MEZF	Maizieres J'vi	2.04	283	ePg	Pg	12 06 06.6	-2.7
MEZF				eSg	Sg	12 06 31.3	-5.2
	1.6nm,0.3s						
FUR	Furstenfeldbru	2.17	87	eSg	Sg	12 06 37.6	-3.4
	SNR=1.9						
GRF	Grafenberg Arr	2.65	51	eSg	Sg	12 06 51.0	-5.8
	SNR=3.7						
LPL	La Plagne	2.72	200	ePg	Pg	12 06 18.1	-4.9
LPG	La Plagne	2.73	199	ePg	Pg	12 06 18.7	-4.6
GIVF	Givet	2.92	315	ePg	Pg	12 06 21.8	-5.2
GIVF				eSn	Sn	12 06 46.4	-5.2
GIVF				eSg	Sg	12 06 59.5	-6.5
	2.7nm,0.2s						
GIVF	Givet	2.92	315	ePg	Pg	12 06 21.8	-5.2
GIVF				eSn	Sn	12 06 46.4	-5.2
GIVF				eSg	Sg	12 06 59.5	-6.5
SMF	Signal de Mont	3.19	245	ePg	Pg	12 06 28.2	-4.2
SMF				eSg	Sg	12 07 06.8	-8.2
	7.4nm,0.3s						
BAIF	Baives	3.20	310	ePg	Pg	12 06 26.7	-5.9
BAIF				eSg	Sg	12 07 08.0	-7.2
	0.4nm,0.2s						
BAIF	Baives	3.20	310	ePg	Pg	12 06 26.7	-5.9
BAIF				eSg	Sg	12 07 08.0	-7.2
SSF	Saint Saulge	3.23	253	ePg	Pg	12 06 27.0	-6.2
SSF				eSg	Sg	12 07 08.8	-7.5
	1.3nm,0.2s						
AVF	Avril sur Loir	3.43	250	ePg	Pg	12 06 31.4	-5.8
AVF				eSg	Sg	12 07 13.3	-10
	2.4nm,0.4s						
MOX	Moxa	3.47	41	i P	Pn	12 06 19.2	-4.7
MOX				e		12 06 33.0	
MOX	Moxa	3.47	41	eP	Pn	12 06 19.2	-4.7
MOX				e		12 06 32.9	
HYF	Humbligny	3.74	259	ePn	Pn	12 06 23.6	-4.1
HYF				ePg	Pg	12 06 37.1	-6.2
HYF				eSg	Sg	12 07 24.7	-8.4
HYF	Humbligny	3.74	259	ePg	Pg	12 06 37.1	-6.2
HYF				eSg	Sg	12 07 24.7	-8.4
BGF	Bois d'Agland	3.84	249	ePn	Pn	12 06 25.1	-4.1
BGF				ePg	Pg	12 06 38.1	-7.4
BGF				eSg	Sg	12 07 27.7	-9.0
	7.0nm,0.3s						
BGF	Bois d'Agland	3.84	249	ePg	Pg	12 06 38.1	-7.4
BGF				eSg	Sg	12 07 27.7	-9.0
	3.5nm,0.3s						
GEC2	GERESS Array S	3.85	76	eSg	Sg	12 07 29.8	-7.0
	SNR=2.1						
TCF	Toulx Ste Croi	4.36	248	ePg	Pg	12 06 49.3	-6.4
TCF				eSg	Sg	12 07 43.1	-11
	1.6nm,0.3s						

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*NEIC **05** 12:13:59.7±1.1, 20.16S×177.85W, h490^{km}±11^{km}, mb4.6/21, Error ellipse: s-maj=12.1km s-min=7.1km az=143.0*

*BJI **05** 12:13:59.7, 20.20S×177.90W, h490^{km}, mB5.2, mb4.4*

*IDC **05** 12:14:00.9±3.8, 20.24S×177.83W, h502^{km}±39^{km}, mb3.9/11, mb1 4.1/12, mb1mx4.0/15, Error ellipse: s-maj=19.5km s-min=18.4km az=45.0*

ISC 05 12:13:57.5±1.4**, 20.21S**±0.08×**177.88W**±0.08**, h471^{km}**±15^{km}**, n117, σ1^{s}00**/53**, mb4.4**/30**, 3C-9D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.56	44	eP	P	12 16 00.7	+0.1
	70nm,0.7s						
URZ	Urewera	18.51	193	P	P	12 17 43.8	-0.1
	4.2nm,0.3s,baz=249,slow=2.8,SNR=26						
CNB	Canberra Magne	32.48	235	⇓iP	P	12 19 50.1	+0.9
	18nm,0.8s,mb4.6						
CTA	Charters Tower	33.63	264	eP	P	12 20 00.2	+1.2
	20nm,0.6s,mb4.7						
CTAO	Charters Tower	33.63	264	eP	P	12 20 00.0	+1.0
	27nm,0.8s,mb4.7						
PMG	Port Moresby	35.39	282	P	P	12 20 15.2	+1.5
	18nm,0.9s,mb4.5,baz=75,slow=5.5,SNR=7.7						
PMG	Port Moresby	35.39	282	P	P	12 20 15.2	+1.4
TOO	Toolangi	36.16	233	eP	P	12 20 20.4	+0.4
	8.1nm,0.7s,mb4.3						
STKA	Stephens Creek	38.02	244	eP	P	12 20 36.3	+0.9
	14nm,1.0s,mb4.4						
STKA	Stephens Creek	38.02	244	P	P	12 20 36.1	+0.8
	15nm,0.9s,mb4.4,baz=92,slow=9.5,SNR=29						
STKA				PcP	PcP	12 22 39.0	-0.8
	2.2nm,0.6s,baz=267,slow=16,SNR=3.5						
ASAR	Alice Springs	44.70	256	P	P	12 21 29.1	0.0
	63nm,1.0s,mb5.0,baz=97,slow=7.5,SNR=376						
ASAR				PcP	PcP	12 23 00.2	-1.8
	5.1nm,0.6s,baz=102,slow=4.2,SNR=8.3						
ASAR				S	S	12 27 25.8	-4.8
	1.4nm,0.9s,baz=91,slow=17,SNR=6.2						
ASPA	Alice Springs	44.70	256	⇓iP	P	12 21 29.0	-0.1
ASPA				eS	S	12 27 25.4	-5.2
WB2	Warramunga Arr	44.74	262	⇓iP	P	12 21 28.9	-0.5
WRAB	Tennant Creek	44.75	262	eP	P	12 21 28.8	-0.6
	54nm,1.0s,mb4.9						
WRA	Warramunga Arr	44.76	262	P	P	12 21 29.0	-0.6
	9.8nm,0.4s,mb4.6,baz=96,slow=7.6,SNR=322						
WRA				PcP	PcP	12 23 01.0	-1.3
	0.5nm,0.4s,baz=94,slow=4.3,SNR=4.7						
KAKA	Kakadu	48.12	271	⇓iP	P	12 21 54.7	-0.7
	15nm,0.4s,mb4.7						
FORT	Forrest	49.52	246	eP	P	12 22 04.7	-1.0
	109nm,0.6s,mb5.4						
FITZ	Fitzroy Crossi	53.18	262	⇓iP	P	12 22 32.1	-0.6
	8.0nm,0.5s,mb4.3						
MBWA	Marble Bar	58.03	257	eP	P	12 23 05.0	-1.3
	17nm,0.5s,mb4.6						
SBA	Scott Base	58.17	184	eP	P	12 23 06.4	-0.2
	17nm,1.3s,mb4.2						
VNDA	Vanda	58.21	185	P	P	12 23 06.9	+0.1
	1.7nm,0.7s,mb3.5,baz=358,slow=8.3,SNR=8.6						
VNDA	Vanda	58.21	185	eP	P	12 23 06.3	-0.5
	4.2nm,1.1s,mb3.7						
KLBR	Kellerberrin	58.28	245	⇓iP	P	12 23 06.6	-1.3
	37nm,1.0s,mb4.7						
NWAO	Narrogin (SRO)	58.60	243	P	P	12 23 09.1	-1.0
	16nm,0.8s,mb4.4,baz=187,slow=5.1,SNR=7.4						
NWAO	Narrogin (SRO)	58.60	243	eP	P	12 23 09.2	-0.9
MUN	Mundaring	59.56	244	⇑iP	P	12 23 15.7	-0.7
	17nm,1.1s,mb4.4						
QSPA	South Pole Qui	69.86	180	⇓iP	P	12 24 20.6	-0.2
	12nm,0.5s,mb4.7						
TPNV	Topopah Spring	81.26	45	eP	P	12 25 25.1	+0.5
	2.7nm,1.1s,mb3.7						
MAW	Mawson	81.88	200	P	P	12 25 26.4	-0.7
	5.0nm,0.8s,mb4.1,baz=146,slow=11,SNR=4.1						
ELK	Elko	83.99	43	eP	P	12 25 38.5	+0.2
	0.8nm,0.5s,mb3.5						
KKTK	Khon Kaen	85.90	289	P	P	12 25 49.5	+1.4
ENH	Enshi	85.97	304	eP	P	12 25 48.5	+0.3
	18nm,0.9s,mb4.7						
MCK	McKinley	86.66	12	eP	P	12 25 49.4	-1.3
	3.1nm,0.8s,mb4.1						
TXAR	Lajitas Array	86.80	57	P	P	12 25 53.0	+0.8
	1.7nm,0.7s,mb3.9,baz=220,slow=7.1,SNR=22						
PV10	Paradox Valley	86.89	47	eP	P	12 25 51.3	-1.1
PV01	Paradox Valley	87.10	48	eP	P	12 25 52.5	-0.8
MCMT	McKenzie Canyo	87.66	40	eP	P	12 25 56.5	+0.6
COLA	College	87.90	12	eP	P	12 25 55.1	-1.4
	8.8nm,0.7s,mb4.6						
ILAR	Eielson Array	88.00	13	P	P	12 25 55.5	-1.4
	2.0nm,0.5s,mb4.1,baz=219,slow=5.8,SNR=48						
XAN	Xi'an	88.05	307	P	P	12 25 58.9	+1.0
XAN				AMB	AMB		
	comp=Z,21nm,0.9s,mb4.9						
SNAA	Sanae	88.30	178		P	12 25 55.8	-2.4
VNA3	Neumayer Olymp	88.42	176	⇑i	P	12 26 01.3	+2.5
QLMT	Earthquake Lak	88.52	41	eP	P	12 26 00.4	+0.5
BW06	Boulder Array	88.67	43	eP	P	12 26 00.4	-0.3
PDAR	Pinedale Array	88.67	43	P	P	12 26 00.6	0.0
	comp=Z,1.7nm,0.6s,mb4.0,baz=214,slow=2.9,SNR=16						
NANT	Nan	88.70	290	P	P	12 26 02.0	+0.7
BOZ	Bozeman (W)	88.82	40	eP	P	12 26 02.0	+0.7
VNA2	Neumayer--Watz	88.87	177	⇓i	P	12 26 03.7	+2.8
VNA1	Neumayer--Stat	89.09	177	⇑i	P	12 26 05.1	+3.1
CMAR	Chiang Mai Arr	90.12	290	P	P	12 26 08.9	+1.0
	comp=Z,8.9nm,0.8s,mb4.6,baz=123,slow=3.0,SNR=59						
CHG	Chiang Mai	90.25	290	⇓P	P	12 26 09.5	+1.0
	comp=Z,19nm,0.8s,mb5.0						
ZAL	Zalesovo	110.35	321	PKiKP		12 31 33.8	
	comp=Z,1.3nm,0.9s,baz=306,slow=8.0,SNR=3.5						
BVAR	Borovoye Array	118.93	320	PKP	PKPdf	12 31 50.2	-1.1
	comp=Z,3.1nm,0.5s,baz=113,slow=1.3,SNR=26						
ARCES	ARCESS Array B	128.66	350	PKP	PKPdf	12 32 09.1	-0.6
	comp=Z,3.8nm,1.0s,slow=2.4,SNR=7.9						
ARCES	ARCESS Array B	128.66	350	PKP	PKPdf	12 32 09.1	-0.6
FINES	FINESS Array B	135.53	344	PKP	PKPdf	12 32 21.1	-1.6
	comp=Z,1.4nm,0.6s,baz=108,slow=4.4,SNR=10						
HFS	Hagfors	139.27	351	PKhKP		12 32 21.1	
	comp=Z,3.5nm,0.5s,baz=63,slow=3.3,SNR=20						
HFS	Hagfors	139.27	351	PKP	PKPdf	12 32 21.1	-8.5
AKASG	Malin Array Be	142.81	331	PKhKP		12 32 32.5	
	comp=Z,9.4nm,0.5s,baz=41,slow=4.3,SNR=69						
ELZG	Elazig	143.37	308	i P	PKPbc	12 32 37.3	+1.0
MALT	Malatya	143.84	308	ePKPbc	PKPbc	12 32 38.1	+0.4
EKA	Eskdalemuir Ar	144.70	5	PKP	PKPdf	12 32 38.8	-0.3
	comp=Z,2.4nm,0.5s,baz=337,slow=3.1,SNR=11						
GZT	Gaziantep	144.80	307	i P	PKPdf	12 32 41.4	+1.4
KAHT	Ahir Dag	145.23	307	i P	PKPdf	12 32 42.6	+1.9
DMUB	Kingscourt	145.66	9	eP	PKPdf	12 32 42.0	+1.2
BSEG	Bad Segeberg	145.75	351	ePKPbc	PKPbc	12 32 43.4	+1.1
COBT	Iskenderun	146.07	306	i P	PKPdf	12 32 44.4	+2.3
DCN	Croghan	146.14	10	eP	PKPdf	12 32 43.5	+1.9
AVNT	Avonos	146.27	310	i P	PKPdf	12 32 44.9	+2.6
DLF	Lyons Farm	146.30	9	eP	PKPdf	12 32 43.8	+1.9
ELDT	Eldivan	146.52	314	i P	PKPdf	12 32 45.7	+3.0
BRTR	Keskin Array B	146.73	313	PKP	PKPdf	12 32 43.7	+0.7
	comp=Z,6.0nm,0.6s,baz=144,slow=4.4,SNR=24						
BRTR				PKPbc	PKPbc	12 32 45.7	+0.6
	comp=Z,5.1nm,0.5s,baz=136,slow=4.6,SNR=24						
ASF	Jabal al Asfar	146.74	298	PKPbc	PKPbc	12 32 46.9	+1.6
	comp=Z,9.0nm,0.7s,baz=348,slow=3.2,SNR=12						
KOLS	Kolonicke sedl	147.10	335	i PKP	PKPdf	12 32 47.4	+4.1
SGKT	Sivrigoynuk	147.40	315	i P	PKPdf	12 32 47.6	+3.5
CRVS	Cervenica-Dubn	147.44	336	i PKP	PKPdf	12 32 48.3	+4.4
KSP	Ksiaz	147.45	343	eP	PKPdf	12 32 47.8	+4.0
MEST	Erdemli	147.64	307	i P	PKPdf	12 32 48.1	+3.5
CLZ	Clausthal	147.78	350	ePKPbc	PKPdf	12 32 49.0	+4.7
CLL	Collm	147.81	347	i PKP1	PKPdf	12 32 48.6	+4.2
CLL				i PKP2	PKPab	12 32 54.8	+0.4
UPC	Upice	147.83	343	ePKPbc	PKPdf	12 32 49.0	+4.6
UPC				ePKPab	PKPab	12 32 54.6	+0.1
DPC	Dobruska-Polom	147.88	343	ePKPbc	PKPdf	12 32 49.3	+4.8
DPC				ePKPab	PKPab	12 32 54.4	-0.4
BRG	Berggiesshubel	148.01	346	i P	PKPdf	12 32 49.0	+4.3
BRG				i		12 32 53.9	
MLR	Muntele Rosu	148.04	328	PKPbc	PKPdf	12 32 49.1	+4.2
	comp=Z,7.1nm,0.7s,baz=319,slow=7.0,SNR=12						
PVCC	Panska Ves	148.18	345	ePKPbc	PKPdf	12 32 50.5	+5.5
PRU	Pruhonice	148.68	345	ePKPbc	PKPdf	12 32 50.5	+4.7
	comp=Z,12nm,0.8s						
PRU				ePKPab	PKPab	12 32 57.1	-0.9
MOX	Moxa	148.71	348	eP	PKPdf	12 32 50.9	+5.0
ESKT	Eskisehir	148.72	314	i P	PKPdf	12 32 51.1	+4.9
VYHS	Vyhne	148.73	338	i PKP	PKPdf	12 32 51.1	+5.1
VRAC	Vranov	148.74	342	PKPbc	PKPdf	12 32 51.6	+5.7
	comp=Z,3.7nm,0.8s,baz=121,slow=20,SNR=3.8						
CSS	Prodhromos	148.83	305	ePKPbc	PKPdf	12 32 50.7	+4.1
CSS				ePKPab	PKPab	12 32 57.7	-1.4
EIL	Elat	148.87	294	PKPbc	PKPdf	12 32 52.3	+5.5
	comp=Z,9.1nm,0.8s,baz=334,slow=7.8,SNR=5.7						
NKC	Novy Kostel	148.94	347	ePKPbc	PKPdf	12 32 51.7	+5.5
NKC				ePKPab	PKPab	12 32 58.2	-0.9
ULDT	Uludag	149.53	317	i P	PKPdf	12 32 53.2	+5.7
GRA1	Grafenberg Arr	149.70	348	ePKPbc	PKPdf	12 32 53.2	+5.7
KHC	Kasperske Hory	149.72	345	ePKPbc	PKPdf	12 32 53.2	+5.7
KHC				ePKPab	PKPab	12 33 01.3	-1.0
ISP	Isparta	149.76	312	ePKPbc	PKPdf	12 32 52.3	+4.4
GEC2	GERESS Array S	149.95	345	ePKPbc	PKPdf	12 32 54.0	+6.1
GERES	GERESS Array B	149.95	345	PKPbc	PKPdf	12 32 53.9	+6.0
	comp=Z,5.9nm,0.9s,baz=45,slow=1.9,SNR=36						
GERES				PKPab	PKPab	12 33 01.9	-1.4
	comp=Z,1.0nm,0.6s,baz=34,slow=4.9,SNR=7.4						
GIVF	Givet	150.09	357	ePKP1	PKPdf	12 32 53.9	+5.8
	comp=Z,24nm,0.8s						
BAIF	Baives	150.17	357	ePKP1	PKPdf	12 32 54.2	+6.0
	comp=Z,42nm,1.1s						
MANT	Manisa	150.78	314	i P	PKPdf	12 32 55.8	+6.3
DNZL	Cakiroluk	150.85	312	i P	PKPdf	12 32 56.6	+7.0
FUR	Furstenfeldbru	151.14	347	ePKPbc	PKPdf	12 32 56.5	+6.8
FLN	La Foliniere	151.44	4	ePKP1	PKPdf	12 32 56.5	+6.4
	comp=Z,6.6nm,0.5s						
CDF	Champ du Feu	151.56	353	ePKP1	PKPdf	12 32 57.1	+6.8
	comp=Z,7.0nm,0.7s						
ROSF	Rostrenen	151.60	8	ePKP1	PKPdf	12 32 56.5	+6.1
LDF	La Druitiere	151.62	3	ePKP1	PKPdf	12 32 56.8	+6.4
	comp=Z,16nm,0.8s						
MEZF	Maizieres J'vi	151.67	356	ePKP1	PKPdf	12 32 57.6	+7.2
SGMF	Saint Gilles	151.77	7	ePKP1	PKPdf	12 32 57.1	+6.5
	comp=Z,20nm,0.9s						
GRR	Gorron	151.78	4	ePKP1	PKPdf	12 32 57.4	+6.8
	comp=Z,7.1nm,0.5s						
QUIF	Quistinic	152.03	8	ePKP1	PKPdf	12 32 57.6	+6.7
DAVOX	Davos	152.75	348	PKPbc	PKPdf	12 33 00.2	+8.2
	comp=Z,4.0nm,0.7s,baz=179,slow=4.2,SNR=5.7						
SSF	Saint Saulge	153.19	358	ePKP1	PKPdf	12 33 00.8	+8.2
CABF	La Chapelle	153.47	354	ePKP1	PKPdf	12 33 01.8	+8.8
MFF	Saint Martin d	153.61	4	ePKP1	PKPdf	12 33 01.3	+8.1
IDI	Anoyia	154.95	312	PKPab	PKPab	12 33 24.7	0.0
	comp=Z,2.0nm,0.6s,baz=51,slow=9.0,SNR=4.2						

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*SKHL **05** 12:37:01.4±3.5, 48.85N×155.44E, h40^{km}±9^{km}, mb4.9/3*

*MOS **05** 12:37:02.9±1.4, 48.91N×155.01E, h60^{km}, mb4.1/6, Error ellipse: s-maj=21.6km s-min=7.6km az=70.1*

*KRSC **05** 12:37:03.7±1.2, 48.70N×155.55E, h61^{km}±10^{km}, ML5.1*

*IDC **05** 12:37:04.8±0.5, 49.02N×154.70E, h58^{km}±4^{km}, mb3.7/13, mb1 3.9/15, mb1mx3.8/24, MS3.6/5, Ms1 3.6/5, ms1mx3.1/31, Error ellipse: s-maj=20.5km s-min=11.9km az=133.0*

*NEIC **05** 12:37:04.6±0.4, 48.97N×154.85E, mb4.3/6, Error ellipse: s-maj=12.9km s-min=7.3km az=153.0*

*BJI **05** 12:37:04.5, 49.00N×154.80E, h56^{km}, mB5.0, mb4.7*

ISC 05 12:37:03.1±0.3**, 48.96N**±0.04×**154.89E**±0.07**, h56^{km}, h56^{km}**±1.2^{km}**:pP-P, n104, σ1^{s}60**/138**, mb4.3**/26**, MS3.8**/4**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.90	24	ePN	P	12 37 31.0	-2.8
SKR				i S	S	12 37 53.2	-3.4
SKR				pmax	pmax		
	comp=N,90nm,0.5s						
SKR				pmax	pmax		
	comp=E,80nm,0.5s						

SKR				pmax	pmax		
	comp=Z,290nm,0.5s						
SKR				smax			
	comp=E,2µm,0.5s						
SKR				smax			
	comp=N,4µm,0.2s						
SKR				smax			
	comp=N,5µm,4.0s						
SKR				smax			
	comp=E,5µm,4.0s						
SKR	**Severo-Kuril’s**	**1.90**	**24**	*e*P	**P**	**12 37 31.0**	**-2.8**
SKR				AMB	AMB	12 37 32.5	
	comp=E,90nm,0.5s						
SKR				AMB	AMB	12 37 32.5	
	comp=E,80nm,0.5s						
SKR				AMB	AMB	12 37 32.5	
	comp=E,290nm,0.5s						
SKR				*i* S	**S**	**12 37 53.2**	**-3.4**
SKR				A		12 38 01.4	
	comp=E,2µm,0.5s						
SKR				A		12 38 01.4	
	comp=E,920nm,0.5s						
SKR				A		12 38 01.4	
	comp=E,4µm,0.2s						
SKR				A		12 38 13.0	
	comp=E,5µm,4.0s						
ALID	**Alaid**	**1.96**	**12**	*e*P	**P**	**12 37 37.9**	**+3.3**
ALID				*i* S	**S**	**12 38 01.2**	**+3.2**
PAU	**Pauzhetka**	**2.80**	**25**	*e*P	**P**	**12 37 47.9**	**+1.3**
PAU				*i* S	**S**	**12 38 21.0**	**+1.7**
PAU				Smax			
	comp=E,3µm,0.2s						
MIPR	**Malaya Ipel’ka**	**3.53**	**19**	*e*P	**P**	**12 37 59.9**	**+3.0**
MIPR				*e*S	**S**	**12 38 40.3**	**+2.6**
GRL	**Gorelyy**	**4.13**	**28**	*e*P	**P**	**12 38 07.4**	**+2.1**
GRL				*e*S	**S**	**12 38 54.3**	**+1.5**
RUS	**Russkaya**	**4.17**	**32**	P	**P**	**12 38 05.9**	**0.0**
RUS				S	**S**	**12 38 51.2**	**-2.7**
RUS	**Russkaya**	**4.17**	**32**	*e*P	**P**	**12 38 05.8**	**-0.1**
RUS				*i* S	**S**	**12 38 51.9**	**-2.0**
APC	**Apacha**	**4.22**	**19**	*e*P	**P**	**12 38 10.4**	**+3.8**
APC				*e*S	**S**	**12 38 59.4**	**+4.2**
APC				Smax			
	comp=E,190nm,0.8s						
KRMR	**Karymshinskiy**	**4.39**	**27**	*e*P	**P**	**12 38 11.5**	**+2.6**
KRMR				*e*S	**S**	**12 39 00.2**	**+0.9**
PET	**Petropavlovsk**	**4.72**	**29**	P	**P**	**12 38 14.6**	**+1.1**
PET				S	**S**	**12 39 05.9**	**-1.6**
PET	**Petropavlovsk**	**4.72**	**29**	*e*P	**P**	**12 38 14.5**	**+1.0**
PET				*e*S	**S**	**12 39 06.0**	**-1.5**
PET	**Petropavlovsk**	**4.72**	**29**	*e*PN	**P**	**12 38 15.3**	**+1.8**
PET				*e*S	**S**	**12 39 08.3**	**+0.8**
PET				pmax	pmax		
	comp=Z,144nm,0.8s						
PET				smax			
	comp=N,563nm,0.5s						
PET				smax			
	comp=E,438nm,0.6s						
PET	**Petropavlovsk**	**4.72**	**29**	*e*Pn	**P**	**12 38 14.0**	**+0.5**
PET				*e*Sn	**S**	**12 39 05.3**	**-2.2**
UGLR	**Uglovaya**	**4.93**	**29**	*e*P	**P**	**12 38 18.1**	**+1.6**
UGLR				*e*S	**S**	**12 39 13.1**	**+0.3**
KOK	**Koryaka**	**4.94**	**27**	*e*P	**P**	**12 38 19.3**	**+2.6**
KOK				*e*S	**S**	**12 39 14.0**	**+0.8**
AVH	**Avacha**	**4.95**	**28**	*e*P	**P**	**12 38 18.8**	**+2.0**
AVH				*e*S	**S**	**12 39 13.5**	**+0.2**
SMAR	**Somma**	**4.97**	**28**	*e*P	**P**	**12 38 18.6**	**+1.6**
SMAR				*e*S	**S**	**12 39 14.1**	**+0.3**
SDLR	**Sedlovina**	**5.01**	**29**	*e*P	**P**	**12 38 18.4**	**+0.8**
SDLR				*e*S	**S**	**12 39 13.2**	**-1.6**
NLC	**Nalytchevo**	**5.07**	**32**	*e*P	**P**	**12 38 17.7**	**-0.7**
NLC				*e*S	**S**	**12 39 12.1**	**-4.3**
GNL	**Ganaly**	**5.12**	**21**	*e*P	**P**	**12 38 21.6**	**+2.5**
GNL				*e*S	**S**	**12 39 18.2**	**+0.7**
SPN	**Mys Shipunski**	**5.26**	**36**	P	**P**	**12 38 20.7**	**-0.4**
SPN				S	**S**	**12 39 17.1**	**-4.1**
SPN	**Mys Shipunski**	**5.26**	**36**	*e*P	**P**	**12 38 20.4**	**-0.7**
SPN				*e*S	**S**	**12 39 17.0**	**-4.2**
KII	**Karymskiy**	**5.83**	**28**	P	**P**	**12 38 29.7**	**+0.8**
KII				S	**S**	**12 39 33.0**	**-2.3**
KII	**Karymskiy**	**5.83**	**28**	*e*P	**P**	**12 38 29.2**	**+0.3**
KII				*e*S	**S**	**12 39 32.6**	**-2.7**
KUR	**Kuril’sk**	**6.07**	**235**	*e*PN	**P**	**12 38 32.5**	**+0.2**
KUR				S	**S**	**12 39 44.8**	**+3.5**
KUR				pmax	pmax		
	comp=N,160nm,0.8s						
KUR				pmax	pmax		
	comp=E,170nm,0.8s						
KUR				pmax	pmax		
	comp=Z,270nm,0.8s						
KUR	**Kuril’sk**	**6.07**	**235**	*e*P	**P**	**12 38 32.5**	**+0.2**
KUR				AMB	AMB	12 38 35.8	
	comp=Z,160nm,0.8s						
KUR				AMB	AMB	12 38 35.8	
	comp=Z,170nm,0.8s						
KUR				AMB	AMB	12 38 35.8	
	comp=Z,270nm,0.8s						
KUR				*e*S	**S**	**12 39 44.8**	**+3.5**
TUMR	**Tumrok**	**7.11**	**25**	*e*P	**P**	**12 38 50.0**	**+3.0**
TUMR				*e*S	**S**	**12 40 06.6**	**-0.6**
KMNR	**Kamenistaya**	**7.55**	**24**	P	**P**	**12 38 54.0**	**+1.0**
KMNR				*e*S	**S**	**12 40 15.0**	**-3.1**
KOZ	**Kozyrevsk**	**7.73**	**21**	P	**P**	**12 38 56.8**	**+1.3**
KOZ	**Kozyrevsk**	**7.73**	**21**	*e*P	**P**	**12 38 56.7**	**+1.2**
KPT	**Kopyto**	**7.74**	**23**	*e*P	**P**	**12 38 57.0**	**+1.4**
KPT				*e*S	**S**	**12 40 19.5**	**-3.1**
KOZR	**Kozyr**	**7.75**	**21**	PN	**P**	**12 38 56.8**	**+1.1**
SRDR	**Sredinnyy**	**7.93**	**20**	*e*P	**P**	**12 38 59.3**	**+1.0**
SRDR				*e*S	**S**	**12 40 23.5**	**-4.0**
ZLN	**Zelenaya**	**7.94**	**25**	*e*P	**P**	**12 39 00.0**	**+1.7**
ZLN				*e*S	**S**	**12 40 24.5**	**-3.1**
LGNR	**Loginova**	**7.96**	**24**	*e*P	**P**	**12 39 00.2**	**+1.5**
LGNR				*e*S	**S**	**12 40 24.5**	**-3.7**
CIRR	**Tsirk**	**8.01**	**24**	*e*P	**P**	**12 39 00.7**	**+1.4**
CIRR				*e*S	**S**	**12 40 26.1**	**-3.2**
KRSR	**Krestovskiy**	**8.05**	**23**	*e*P	**P**	**12 39 01.1**	**+1.2**
KRSR				*e*S	**S**	**12 40 26.0**	**-4.4**
TYV	**Tymovskoe**	**8.12**	**288**	*e*P	**P**	**12 39 02.0**	**+1.1**
TYV				*e*rx	rx	12 39 12.4	
KLY	**Klyuchi**	**8.16**	**23**	*e*P	**P**	**12 39 02.6**	**+1.3**
KLY				*e*S	**S**	**12 40 29.4**	**-3.6**
YSS	**Yuzh-Sakhalins**	**8.39**	**261**	Pn	**P**	**12 39 02.2**	**-2.3**
YSS				*e*Sn	**S**	**12 40 35.0**	**-3.8**
YSS	**Yuzh-Sakhalins**	**8.39**	**261**	*e*rx	rx	12 40 39.0	
SVLR	**Shiveluch**	**8.54**	**24**	*e*P	**P**	**12 39 08.9**	**+2.3**
SVLR				*e*S	**S**	**12 40 40.6**	**-1.9**
KBG	**Krutoberegovo**	**8.72**	**30**	*e*S	**S**	**12 40 40.7**	**-6.2**
KBTR	**Krutoberegovo**	**8.72**	**31**	P	**P**	**12 39 08.4**	**-0.6**
KBTR	**Krutoberegovo**	**8.72**	**31**	*e*P	**P**	**12 39 07.8**	**-1.2**
KBTR				*e*S	**S**	**12 40 40.5**	**-6.4**
BKI	**Bering**	**9.25**	**43**	*e*P	**P**	**12 39 09.1**	**-7.3**
ASAJ	**Asahikawa**	**9.75**	**245**	P	**P**	**12 39 25.9**	**+2.7**
	comp=Z,4.5nm,0.3s,baz=81,slow=12,SNR=28						
ASAJ				LR	LR	12 42 53.1	
	comp=Z,109nm,20.9s,baz=191,slow=36						
ASAJ	**Asahikawa**	**9.75**	**245**	PN	**P**	**12 39 25.9**	**+2.8**
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,109nm,20.9s						
MA2	**Magadan**	**10.91**	**349**	*e*P	**P**	**12 39 39.5**	**+0.7**
GRNR	**Gornyy**	**12.05**	**286**	*e*rx	rx	12 42 53.2	
FX1	**Attu Island--F**	**12.18**	**64**	P	**P**	**12 39 53.9**	**-2.0**
	comp=Z,1.4nm,0.3s,baz=42,slow=21,SNR=8.4						
FX1	**Attu Island--F**	**12.18**	**64**	PN	**P**	**12 39 53.9**	**-2.1**
FX1				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FX1	**Attu Island--F**	**12.18**	**64**	*e*P	**P**	**12 39 54.0**	**-2.0**
SMY	**Shemya**	**12.71**	**65**	*e*P	**P**	**12 40 01.2**	**-1.8**
EKMR	**Ekimchan**	**14.39**	**295**	*e*P	**P**	**12 40 27.0**	**+2.1**
EKMR				AMB	AMB	12 40 32.2	
	comp=Z,11nm,0.6s						
MAT	**Matsushiro**	**17.39**	**231**	P	**P**	**12 41 04.7**	**+1.6**
MAT	**Matsushiro**	**17.39**	**231**	*e*P	**P**	**12 41 05.0**	**+1.9**
	comp=Z,20nm,1.1s						
YAK	**Yakutsk**	**19.20**	**322**	*i* P	**P**	**12 41 23.8**	**-0.9**
YAK				pmax	pmax		
	comp=Z,12nm,0.8s						
TIXI	**Tiksi**	**25.72**	**341**	*i* P	**P**	**12 42 32.3**	**+3.0**
TIXI				pmax	pmax		
	comp=Z,7.0nm,2.2s,mb3.8						
SSE	**Sheshan**	**31.03**	**247**	P	**P**	**12 43 15.9**	**-1.6**
SSE				AMB	AMB		
	comp=Z,27nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,335nm,5.0s						
NJ2	**Nanjing**	**31.81**	**251**	*e*P	**P**	**12 43 25.6**	**+1.3**
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
COLA	**College**	**33.67**	**40**	*i* P	**P**	**12 43 40.2**	**0.0**
ILAR	**Eielson Array**	**34.09**	**41**	P	**P**	**12 43 43.3**	**-0.4**
	comp=Z,0.4nm,0.5s,mb3.6,baz=260,slow=4.8,SNR=21						
ILAR				pP	pP	12 43 57.8	-0.4
	comp=Z,1.3nm,0.8s,baz=275,slow=6.6,SNR=7.3						
KURK	**Kurchatov**	**47.16**	**303**	*e*P	**P**	**12 45 29.5**	**-1.8**
	comp=Z,1.6nm,0.5s,mb4.2						
YKA	**Yellowknife Ar**	**48.45**	**38**	P	**P**	**12 45 41.4**	**+0.3**
	comp=Z,1.2nm,0.8s,mb4.0,baz=298,slow=7.4,SNR=12						
YKA				pP	pP	12 45 55.8	-0.1
	comp=Z,1.3nm,0.7s,baz=298,slow=7.7,SNR=8.6						
YKA	**Yellowknife Ar**	**48.45**	**38**	P	**P**	**12 45 41.4**	**+0.3**
YKA				*PP	pP	12 45 55.8	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**48.45**	**38**	P	**P**	**12 45 41.4**	**+0.3**
YKA				pP	pP	12 45 55.9	-0.1
BVAR	**Borovoye Array**	**50.39**	**309**	P	**P**	**12 45 54.3**	**-1.9**
	comp=Z,0.7nm,0.4s,mb4.0,baz=64,slow=6.1,SNR=7.3						
NANT	**Nan**	**52.68**	**255**	P	**P**	**12 46 13.0**	**-0.9**
CHG	**Chiang Mai**	**53.79**	**257**	P	**P**	**12 46 21.6**	**-0.6**
CMAR	**Chiang Mai Arr**	**54.05**	**256**	P	**P**	**12 46 23.8**	**-0.3**
	comp=Z,5.4nm,0.7s,mb4.6,baz=34,slow=7.2,SNR=44						
CMAR				pP	pP	12 46 38.0	-1.2
	comp=Z,1.9nm,1.0s,baz=45,slow=8.9,SNR=3.9						
CMAR	**Chiang Mai Arr**	**54.05**	**256**	P	**P**	**12 46 23.8**	**-0.3**
CMAR				*PP	pP	12 46 38.0	-1.2
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
GUN	**Gumba**	**56.00**	**275**	*e*P	**P**	**12 46 36.3**	**-1.8**
ARCES	**ARCESS Array B**	**56.16**	**341**	LR	LR	13 15 15.2	
	comp=Z,102nm,20.4s,MS3.9,baz=16,slow=41						
KKN	**Kakani**	**56.48**	**275**	*e*P	**P**	**12 46 39.0**	**-2.5**
PKI	**Pulchoki**	**56.54**	**275**	*e*P	**P**	**12 46 38.6**	**-3.3**
DMN	**Daman**	**56.71**	**275**	*e*P	**P**	**12 46 40.8**	**-2.4**
	comp=Z,14nm,0.8s,mb5.1						
GKN	**Gorkha**	**56.76**	**276**	*e*P	**P**	**12 46 42.1**	**-1.4**
	comp=Z,16nm,0.8s,mb5.1						
KOLN	**Koldanda**	**57.59**	**276**	*e*P	**P**	**12 46 48.6**	**-0.8**
	comp=Z,9.6nm,0.8s,mb4.9						
BOZ	**Bozeman (W)**	**59.48**	**54**	*e*P	**P**	**12 47 02.5**	**+0.2**
	comp=Z,3.8nm,0.7s,mb4.5						
BOZ				*e*pP	pP	12 47 18.1	+0.5
TPH	**Tonopah**	**61.25**	**64**	*e*P	**P**	**12 47 14.6**	**+0.2**
	comp=Z,2.9nm,0.9s,mb4.4						
TPH				pP	pP	12 47 29.1	-0.8
BW06	**Boulder Array**	**62.50**	**56**	*e*P	**P**	**12 47 22.4**	**-0.3**
	comp=Z,2.4nm,0.9s,mb4.3						
PDAR	**Pinedale Array**	**62.50**	**56**	P	**P**	**12 47 23.1**	**+0.4**
	comp=Z,2.1nm,0.8s,mb4.3,baz=329,slow=2.5,SNR=19						
PDAR				pP	pP	12 47 38.9	+0.7
	comp=Z,1.2nm,0.8s,baz=291,slow=3.0,SNR=5.6						
FINES	**FINESS Array B**	**62.55**	**335**	P	**P**	**12 47 20.6**	**-2.2**
	comp=Z,1.0nm,0.7s,mb4.1,baz=50,slow=7.7,SNR=7.7						
FINES				LR	LR	13 16 45.4	
	comp=Z,98nm,18.6s,MS4.0,baz=132,slow=38						
FINES	**FINESS Array B**	**62.55**	**335**	P	**P**	**12 47 20.6**	**-2.2**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES				MLR	MLR		
	comp=Z,98nm,18.6s						
TPNV	**Topopah Spring**	**62.58**	**64**	P	**P**	**12 47 22.1**	**-1.3**
	comp=Z,2.3nm,0.9s,mb4.3						
OBN	**Obninsk**	**64.16**	**326**	*e*P	**P**	**12 47 39.9**	**+6.6**
OBN				*e*		12 48 13.1	
OBN				pmax	pmax		
	comp=Z,47nm,2.5s,mb5.1						
SRU	**San Rafael**	**64.44**	**59**	*e*P	**P**	**12 47 35.8**	**+0.4**
NOA	**NORSAR Array B**	**66.52**	**342**	P	**P**	**12 47 47.0**	**-1.4**
	comp=Z,0.5nm,0.5s,mb3.8,baz=24,slow=7.2,SNR=2.6						
NOA	**NORSAR Array B**	**66.52**	**342**	P	**P**	**12 47 47.0**	**-1.4**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ANMO	**Albuquerque**	**69.67**	**60**	P	**P**	**12 48 09.4**	**+1.0**
	comp=Z,0.6nm,0.8s,mb3.6,baz=326,slow=7.9,SNR=4.0						
SCHQ	**Schefferville**	**70.81**	**24**	P	**P**	**12 48 14.7**	**-0.3**
	comp=Z,3.7nm,0.9s,mb4.3,baz=302,slow=9.2,SNR=4.5						
SCHQ				pP	pP	12 48 30.5	-0.2
	comp=Z,3.6nm,0.8s,baz=46,slow=7.8,SNR=2.8						
SCHQ	**Schefferville**	**70.81**	**24**	P	**P**	**12 48 14.7**	**-0.3**
SCHQ				pP	pP	12 48 30.5	-0.2
WRA	**Warramunga Arr**	**70.99**	**200**	P	**P**	**12 48 15.3**	**-1.4**
	comp=Z,0.9nm,0.6s,mb3.9,baz=16,slow=6.6,SNR=15						
WRA				pP	pP	12 48 32.2	-0.2
	comp=Z,1.5nm,0.9s,baz=16,slow=6.7,SNR=5.1						
WRA	**Warramunga Arr**	**70.99**	**200**	P	**P**	**12 48 15.3**	**-1.4**
WRA				*PP	pP	12 48 32.2	-0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GNI	**Garni**	**72.00**	**311**	LR	LR	13 23 24.2	
	comp=Z,40nm,20.6s,MS3.7,baz=239,slow=39						
EKA	**Eskdalemuir Ar**	**74.46**	**347**	P	**P**	**12 48 34.9**	**-1.4**
	comp=Z,0.5nm,0.6s,mb3.6,baz=16,slow=5.2,SNR=3.0						
EKA	**Eskdalemuir Ar**	**74.46**	**347**	P	**P**	**12 48 34.9**	**-1.5**
EKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
EKA	**Eskdalemuir Ar**	**74.46**	**347**	P	**P**	**12 48 34.9**	**-1.4**
ASAR	**Alice Springs**	**74.69**	**200**	P	**P**	**12 48 38.0**	**-0.3**
	comp=Z,0.8nm,0.6s,mb3.9,baz=14,slow=5.1,SNR=13						
ASAR				pP	pP	12 48 54.5	+0.3
	comp=Z,0.7nm,0.6s,baz=14,slow=5.4,SNR=4.2						
TXAR	**Lajitas Array**	**75.39**	**62**	P	**P**	**12 48 42.8**	**+0.6**
	comp=Z,1.0nm,0.5s,mb4.0,baz=299,slow=5.4,SNR=32						
TXAR				pP	pP	12 48 58.3	+0.2
	comp=Z,0.6nm,0.6s,baz=303,slow=4.3,SNR=4.5						
GERES	**GERESS Array B**	**76.98**	**335**	P	**P**	**12 48 51.3**	**+0.5**
	comp=Z,0.2nm,0.3s,mb3.5,baz=37,slow=6.7,SNR=5.5						
EIL	**Elat**	**85.18**	**311**	LR	LR	13 32 06.9	
	comp=Z,33nm,19.4s,MS3.7,baz=106,slow=39						

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*IDC **05** 12:41:32.8±1.2, 54.17N×162.68W, mb4.3/14, mb1 4.4/18, mb1mx4.3/24, ML3.9/4, MS3.6/6, Ms1 3.6/6, ms1mx3.2/31, Error ellipse: s-maj=30.4km s-min=15.8km az=169.0*

*MOS **05** 12:41:36.9±0.8, 54.74N×162.76W, h18^{km}, mb4.6/17, Error ellipse: s-maj=24.6km s-min=9.4km az=89.5*

*BJI **05** 12:41:37.3, 54.13N×162.81W, h37^{km}, mB5.4, mb4.8, Ms4.1*

*NEIC **05** 12:41:39.1±0.4, 54.16N×162.54W, h45^{km}±3^{km}, mb4.5/9, ML4.5(AEIC), Error ellipse: s-maj=7.8km s-min=2.5km az=158.0*

ISC 05 12:41:37.3±0.5, **54.10N**±0.05×**162.38W**±0.04, **h50**^{km}±3^{km}, **n154,** σ1^{s}**05**/161, **mb4.5**/35, **MS3.8**/9, **4D, Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRIA	**Deer Island**	**0.87**	**5**	P	**P**	**12 41 53.0**	**-0.4**
FALS	**False Pass**	**0.97**	**322**	P	**P**	**12 41 54.3**	**-0.5**
FALS				S	**S**	**12 42 07.7**	**0.0**
DT1	**Dutton Round H**	**1.01**	**3**	P	**P**	**12 41 55.1**	**-0.2**
DTNA	**Dutton South F**	**1.05**	**4**	P	**P**	**12 41 55.8**	**-0.2**
DOL	**Dolgoi Island**	**1.09**	**16**	P	**P**	**12 41 56.4**	**-0.1**
DOL				S	**S**	**12 42 12.5**	**+1.7**
BALA	**Baldy Mountain**	**1.12**	**348**	P	**P**	**12 41 57.8**	**+0.9**
SSLS	**Shishaldin Sou**	**1.12**	**303**	P	**P**	**12 41 56.9**	**-0.1**
SSLN	**Shishaldin Nor**	**1.18**	**308**	P	**P**	**12 41 58.1**	**+0.3**
SSLW	**Shishaldin Wes**	**1.22**	**304**	P	**P**	**12 41 58.1**	**-0.2**
HAG	**Hague Volcano**	**1.25**	**13**	P	**P**	**12 41 59.6**	**+0.9**
PVV	**Pavlof Volcano**	**1.32**	**15**	P	**P**	**12 42 00.5**	**+0.6**
WESE	**West Dahl East**	**1.34**	**287**	P	**P**	**12 41 59.7**	**-0.5**
PN7A	**Pavlof North-7**	**1.35**	**9**	P	**P**	**12 42 01.7**	**+1.4**
WESN	**West Dahl Nort**	**1.37**	**291**	P	**P**	**12 42 00.3**	**-0.3**
PS1A	**Pavlof South-1**	**1.37**	**15**	P	**P**	**12 42 01.9**	**+1.3**
PN6	**Pavlof North-6**	**1.38**	**11**	P	**P**	**12 42 02.6**	**+1.9**
WTUG	**Tugumak**	**1.39**	**303**	P	**P**	**12 42 00.8**	**0.0**
WESS	**West Dahl Sout**	**1.42**	**286**	P	**P**	**12 42 01.0**	**-0.3**
WESS				S	**S**	**12 42 19.8**	**+0.7**
WFAR	**Faris Peak**	**1.47**	**288**	P	**P**	**12 42 01.6**	**-0.3**
WFAR				S	**S**	**12 42 21.6**	**+1.4**
WPOG	**Pogromni**	**1.47**	**291**	P	**P**	**12 42 01.8**	**-0.2**
NAGA	**Nagai Island**	**1.57**	**55**	P	**P**	**12 42 06.0**	**+2.6**
BLHA	**Black Hill**	**1.61**	**6**	P	**P**	**12 42 05.6**	**+1.7**
BLHA				S	**S**	**12 42 27.1**	**+3.4**
AKA	**Akutan**	**1.99**	**272**	P	**P**	**12 42 09.4**	**+0.2**
AKA				S	**S**	**12 42 33.2**	**+0.1**
AHB	**Akutan Harbor**	**2.02**	**272**	P	**P**	**12 42 10.0**	**+0.3**
AKLV	**Akutan Long Va**	**2.10**	**273**	P	**P**	**12 42 11.1**	**+0.2**
AKGG	**Akutan Green G**	**2.12**	**274**	P	**P**	**12 42 11.4**	**+0.3**
LVA	**Lava Point**	**2.15**	**273**	P	**P**	**12 42 11.9**	**+0.4**
UNV	**Unalaska Valle**	**2.45**	**266**	P	**P**	**12 42 15.4**	**-0.4**
UNV				S	**S**	**12 42 44.7**	**+0.1**
MTBL	**Makushin Table**	**2.54**	**269**	P	**P**	**12 42 16.6**	**-0.5**
MNAT	**Makushin Natee**	**2.55**	**267**	P	**P**	**12 42 16.4**	**-0.9**
MSW	**Makushin Switc**	**2.60**	**268**	P	**P**	**12 42 17.4**	**-0.6**
MCIR	**Makushin Cirqu**	**2.66**	**269**	P	**P**	**12 42 18.6**	**-0.3**
MGOD	**Makushin Gods**	**2.67**	**265**	P	**P**	**12 42 18.5**	**-0.4**
MGOD				S	**S**	**12 42 50.0**	**-0.2**
OKCD	**Okmok Cone D**	**3.47**	**261**	P	**P**	**12 42 29.5**	**-0.7**
OKCE	**Okmok Cone E**	**3.50**	**261**	P	**P**	**12 42 30.2**	**-0.4**
KJL	**Kejulik**	**5.50**	**41**	P	**P**	**12 42 58.9**	**+0.3**
CNTC	**Contact Creek**	**5.53**	**38**	P	**P**	**12 42 59.6**	**+0.6**
CAHL	**Cahill**	**5.60**	**42**	P	**P**	**12 43 00.3**	**+0.2**
ANCK	**Angle Creek**	**5.63**	**40**	P	**P**	**12 43 00.9**	**+0.4**
MGLS	**Mageik LS**	**5.70**	**41**	P	**P**	**12 43 01.9**	**+0.4**
KAWH	**Katmai**	**6.02**	**42**	P	**P**	**12 43 05.8**	**-0.1**
KAHC	**Katmai Hardscr**	**6.12**	**39**	P	**P**	**12 43 07.8**	**+0.3**
KAPH	**Katmai Pasha**	**6.34**	**42**	P	**P**	**12 43 10.5**	**0.0**
KDAK	**Kodiak Island**	**6.62**	**52**	P	**P**	**12 43 13.8**	**-0.7**
MCNL	**McNeil River**	**6.75**	**38**	P	**P**	**12 43 16.4**	**+0.1**
SYI	**Shuyak Island**	**7.15**	**47**	P	**P**	**12 43 22.3**	**+0.4**
AGU	**Augustine-Summ**	**7.21**	**39**	P	**P**	**12 43 23.7**	**+1.1**
OPT	**Oil Point**	**7.48**	**38**	P	**P**	**12 43 27.1**	**+0.7**
ILW	**Iliamna West**	**7.81**	**36**	P	**P**	**12 43 31.0**	**+0.1**
INE	**Iliamna NE**	**7.83**	**37**	P	**P**	**12 43 29.7**	**-1.5**
CNPM	**China Poot**	**8.17**	**44**	P	**P**	**12 43 35.7**	**-0.3**
RSO	**Redoubt South**	**8.23**	**35**	*e*P	**P**	**12 43 37.4**	**+0.7**
NCT	**North Crescent**	**8.24**	**34**	P	**P**	**12 43 37.3**	**+0.3**
RDN	**Redoubt North**	**8.26**	**35**	P	**P**	**12 43 37.7**	**+0.5**
REF	**Redoubt East F**	**8.27**	**35**	P	**P**	**12 43 38.4**	**+1.1**
BRLK	**Bradley Lake**	**8.46**	**43**	P	**P**	**12 43 38.9**	**-1.0**
CKN	**Chakachatna No**	**8.98**	**33**	P	**P**	**12 43 48.0**	**+0.8**
SPU	**Mount Spurr**	**8.99**	**34**	*e*P	**P**	**12 43 46.9**	**-0.4**
SLKM	**Skilak Lake**	**9.18**	**41**	*e*P	**P**	**12 43 49.0**	**-0.8**
KIWB	**Kanaga Island**	**9.19**	**262**	P	**P**	**12 43 45.5**	**-4.6**
SEW	**Seward**	**9.25**	**44**	P	**P**	**12 43 50.1**	**-0.7**
STLK	**Strandline Lak**	**9.30**	**33**	P	**P**	**12 43 51.4**	**-0.1**
TT01	**Tatalina**	**9.43**	**18**	P	**P**	**12 43 53.0**	**-0.3**
RC01	**Rabbit Creek A**	**9.74**	**39**	P	**P**	**12 43 56.5**	**-0.8**
LTI	**Latouche**	**9.88**	**47**	P	**P**	**12 43 57.3**	**-2.1**
PWA	**Palmer West**	**10.06**	**36**	P	**P**	**12 44 00.6**	**-1.2**
ANM	**Nome**	**10.60**	**353**	P	**P**	**12 44 09.0**	**-0.2**
EYAK	**Cordova Ski Ar**	**11.05**	**48**	P	**P**	**12 44 13.1**	**-2.1**
VLZ	**Valdez**	**11.10**	**44**	P	**P**	**12 44 13.6**	**-2.3**
SCM	**Sheep Creek Mo**	**11.11**	**40**	P	**P**	**12 44 12.8**	**-3.2**
TRF	**Thorofare Moun**	**11.26**	**29**	P	**P**	**12 44 17.1**	**-0.9**
DIV	**Divide**	**11.33**	**45**	P	**P**	**12 44 16.7**	**-2.2**
MCK	**McKinley**	**11.86**	**30**	*e*P	**P**	**12 44 24.0**	**-2.2**
PAX	**Paxson**	**12.49**	**38**	P	**P**	**12 44 32.8**	**-1.8**
IM3	**Indian Mountai**	**12.65**	**16**	P	**P**	**12 44 37.0**	**+0.2**
THY	**Trims Highway**	**12.67**	**36**	P	**P**	**12 44 35.6**	**-1.3**
BALM	**Baldy**	**12.76**	**49**	P	**P**	**12 44 36.5**	**-1.7**
IL1	**Eielson Array**	**13.24**	**30**	P	**P**	**12 44 40.5**	**-4.0**
ILAR	**Eielson Array**	**13.24**	**30**	Pn	**P**	**12 44 40.4**	**-4.0**
	0.6nm,0.3s,baz=223,slow=13,SNR=29						
ILAR	**Eielson Array**	**13.24**	**30**	P	**P**	**12 44 40.4**	**-4.0**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PNL	**Peninsula**	**13.70**	**57**	P	**P**	**12 44 50.6**	**+0.2**
BCA3	**Beaver Creek A**	**13.93**	**42**	P	**P**	**12 44 52.0**	**-1.4**
FX1	**Attu Island--F**	**14.59**	**275**	Pn	**P**	**12 45 00.8**	**-1.2**
	comp=Z,0.7nm,0.3s,baz=69,slow=23,SNR=1.9						
FX1	**Attu Island--F**	**14.59**	**275**	P	**P**	**12 45 00.8**	**-1.2**
FX1				pmax	pmax		
	comp=Z,1.0nm,0.3s						
DLBC	**Dease Lake**	**18.37**	**63**	P	**P**	**12 45 52.8**	**+3.0**
	comp=Z,0.2nm,0.3s,baz=208,slow=18,SNR=3.6						
DLBC				LR	LR	12 52 28.0	
	comp=Z,75nm,19.1s,baz=104,slow=35						
INK	**Inuvik**	**19.61**	**32**	P	**P**	**12 46 00.9**	**-2.9**
	comp=Z,0.9nm,0.3s,baz=231,slow=11,SNR=21						
INK	**Inuvik**	**19.61**	**32**	P	**P**	**12 46 00.9**	**-2.9**
INK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
YKA	**Yellowknife Ar**	**25.90**	**52**	P	**P**	**12 47 06.2**	**+0.3**
	comp=Z,3.1nm,0.6s,mb4.0,baz=272,slow=9.1,SNR=49						
YKA				PcP	PcP	12 50 34.3	0.0
	comp=Z,0.3nm,0.5s,baz=285,slow=2.0,SNR=4.5						
YKA				LR	LR	12 58 22.4	
	comp=Z,114nm,18.4s,MS3.4,baz=230,slow=39						
YKA	**Yellowknife Ar**	**25.90**	**52**	P	**P**	**12 47 06.2**	**+0.3**
YKA						12 50 34.3	
YKA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,114nm,18.4s						
NEW	**Newport**	**28.57**	**83**	LR	LR	12 58 46.9	
	comp=Z,97nm,19.5s,MS3.4,baz=115,slow=36						
NEW	**Newport**	**28.57**	**83**	*e*P	**P**	**12 47 30.6**	**+0.3**
HLID	**Hailey**	**32.69**	**89**	P	**P**	**12 48 07.3**	**+0.6**
TIXI	**Tiksi**	**33.47**	**328**	*e*P	**P**	**12 48 11.2**	**-2.0**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
YAK	**Yakutsk**	**35.21**	**311**	*i* P	**P**	**12 48 26.3**	**-1.9**
YAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
YAK				MLR	MLR		
	comp=Z,100nm,19.0s,MS3.6						
TPNV	**Topopah Spring**	**35.84**	**99**	*e*P	**P**	**12 48 36.1**	**+2.3**
	comp=Z,2.4nm,0.9s,mb4.1						
ULM	**Lac du Bonnet**	**39.61**	**67**	P	**P**	**12 49 06.8**	**+1.6**
	comp=Z,4.6nm,0.5s,mb4.4,baz=299,slow=7.5,SNR=9.3						
ULM				pP	pP	12 49 18.4	-0.1
	comp=Z,1.7nm,0.6s,baz=305,slow=9.3,SNR=2.9						
ULM	**Lac du Bonnet**	**39.61**	**67**	P	**P**	**12 49 06.8**	**+1.6**
ULM				pP	pP	12 49 18.4	-0.1
MDJ	**Mudanjiang**	**43.69**	**287**	P	**P**	**12 49 38.9**	**+0.3**
MDJ				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,278nm,5.6s						
MDJ				LR	LR		
	comp=N,31nm,15.8s,MS3.7						
MDJ				LR	LR		
	comp=E,85nm,18.9s,MS3.7						
CN2	**Changchun**	**46.53**	**288**	*e*P	**P**	**12 50 03.0**	**+1.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
DAG	**Danmarks Havn**	**47.38**	**11**	⇓*e*P	**P**	**12 50 07.6**	**0.0**
DAG				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
DAG	**Danmarks Havn**	**47.38**	**11**	⇓*e*P	**P**	**12 50 07.6**	**0.0**
	comp=Z,6.7nm,0.6s,mb4.8						
DAG	**Danmarks Havn**	**47.38**	**11**	⇓*i*P	**P**	**12 50 07.6**	**0.0**
	comp=Z,6.7nm,0.6s,mb4.8						
TXAR	**Lajitas Array**	**48.63**	**96**	P	**P**	**12 50 19.8**	**+1.9**
	comp=Z,0.6nm,0.7s,mb3.7,baz=302,slow=5.3,SNR=3.9						
TXAR				LR	LR	13 10 10.9	
	comp=Z,44nm,18.6s,MS3.5,baz=255,slow=35						
TXAR	**Lajitas Array**	**48.63**	**96**	P	**P**	**12 50 19.8**	**+1.9**
TXAR				LR	LR	13 10 10.9	
SCHQ	**Schefferville**	**51.23**	**48**	P	**P**	**12 50 37.9**	**+0.5**
	comp=Z,0.7nm,0.5s,mb3.8,baz=224,slow=8.4,SNR=3.2						
SCHQ				LR	LR	13 12 31.0	
	comp=Z,85nm,18.1s,MS3.8,baz=35,slow=36						
SCO	**Scoresbysund**	**52.51**	**16**	*i* P	**P**	**12 50 47.5**	**+0.7**
KEV	**Kevo**	**56.26**	**356**	*e*p	**P**	**12 51 12.4**	**-1.8**
ARCES	**ARCESS Array B**	**56.54**	**357**	P	**P**	**12 51 14.9**	**-1.3**
	comp=Z,3.7nm,1.0s,mb4.4,baz=23,slow=6.4,SNR=9.1						
ARCES	**ARCESS Array B**	**56.54**	**357**	P	**P**	**12 51 14.9**	**-1.3**
ARCES				pmax	pmax		
	comp=Z,4.0nm,1.0s						
NJ2	**Nanjing**	**58.38**	**282**	*e*P	**P**	**12 51 26.2**	**-3.5**
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.5						
ZAL	**Zalesovo**	**58.89**	**320**	P	**P**	**12 51 31.2**	**-1.6**
	comp=Z,1.3nm,0.4s,mb4.3,baz=33,slow=4.8,SNR=4.9						
ZAL	**Zalesovo**	**58.89**	**320**	P	**P**	**12 51 31.3**	**-1.6**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
JOF	**Joensuu**	**62.83**	**353**	*e*p	**P**	**12 51 57.9**	**-1.6**
KURK	**Kurchatov**	**63.74**	**322**	*i* P	**P**	**12 52 05.5**	**-0.1**
KAF	**Kangasniemi**	**63.92**	**355**	*e*p	**P**	**12 52 05.6**	**-0.9**
	comp=Z,4.0nm,0.6s,mb4.6,baz=2.5,slow=6.2						
KAF	**Kangasniemi**	**63.92**	**355**	*e*P	**P**	**12 52 05.6**	**-0.9**
KAF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
CHKZ	**Chkalovo**	**63.98**	**328**	*e*P	**P**	**12 52 05.9**	**-1.1**
	comp=Z,1.9nm,0.5s,mb4.4						
FINES	**FINESS Array B**	**64.60**	**356**	P	**P**	**12 52 10.3**	**-0.6**
	comp=Z,4.1nm,0.6s,mb4.6,baz=22,slow=8.1,SNR=20						

FINES	FINESS Array B	64.60	356	P	P	12 52 10.3	-0.7
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES	FINESS Array B	64.60	356	P	P	12 52 10.3	-0.6
BVAR	Borovoye Array	64.61	328	P	P	12 52 11.3	+0.1
	comp=Z,6.1nm,0.6s,mb4.8,baz=37,slow=7.4,SNR=52						
BRVK	Borovoye	64.61	328	eP	P	12 52 10.7	-0.4
	comp=Z,9.4nm,0.9s,mb4.8						
ARU	Arti	64.86	336	⇓iP	P	12 52 11.5	-1.2
ARU				e		12 54 32.8	
ARU				ePPP	PPP	12 56 04.0	-7.6
ARU				eS	S	13 00 48.6	+0.1
ARU				eSS	SS	13 05 01.7	-0.7
ARU				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
NB2	NORSAR Subarra	65.09	3	P	P	12 52 14.2	+0.1
	comp=Z,2.2nm,0.8s,mb4.2,baz=357,slow=6.5						
NOA	NORSAR Array B	65.09	3	P	P	12 52 14.1	0.0
	comp=Z,3.3nm,0.8s,mb4.4,baz=356,slow=6.6,SNR=5.8						
NOA	NORSAR Array B	65.09	3	P	P	12 52 14.1	0.0
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
WMQ	Urumqi	65.65	312	P	P	12 52 22.0	+4.0
WMQ				PCP	PcP	12 52 53.5	+4.5
WMQ				PP	PP	12 54 48.5	+3.5
WMQ				S	S	13 01 05.5	+7.2
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.5s,mb4.8						
WMQ				LR	LR		
	comp=N,135nm,20.0s,MS4.2						
WMQ				LR	LR		
	comp=E,92nm,19.6s,MS4.2						
AAK	Ala-Archa	72.07	319	iP	P	12 52 57.4	-0.2
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
AAK				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.1						
AAK	Ala-Archa	72.07	319	eP	P	12 52 57.0	-0.6
	comp=Z,5.1nm,0.8s,mb4.5						
AML	Almayashu	72.80	320	eP	P	12 53 02.8	+0.9
	comp=Z,4.6nm,0.8s,mb4.5						
VRSR	Storozhevoye	73.51	346	eP	P	12 53 05.7	-0.1
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,7.0nm,1.0s						
CLL	Collm	74.89	3	eP	P	12 53 15.0	+1.2
CLL	Collm	74.89	3	P	P	12 53 15.0	+1.2
AKASG	Malin Array Be	75.11	352	P	P	12 53 14.8	-0.3
	comp=E,3.6nm,0.5s,mb4.6,baz=7.8,slow=5.7,SNR=20						
AKASG	Malin Array Be	75.11	352	P	P	12 53 14.8	-0.3
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.5s						
BRG	Berggiesshubel	75.35	2	eP	P	12 53 17.4	+1.0
BRG				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
BRG	Berggiesshubel	75.35	2	P	P	12 53 17.4	+1.0
	comp=Z,3.3nm,0.9s,mb4.3						
GRA1	Grafenberg Arr	76.44	4	eP	P	12 53 23.9	+1.3
	comp=Z,9.0nm,1.1s,mb4.6						
GRF	Grafenberg Arr	76.44	4	eP	P	12 53 23.9	+1.3
GRF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
KHC	Kasperske Hory	77.08	3	eP	P	12 53 27.5	+1.2
GERES	GERESS Array B	77.37	3	P	P	12 53 29.3	+1.4
	comp=Z,2.0nm,0.7s,mb4.2,slow=4.0,SNR=20						
GERES	GERESS Array B	77.37	3	P	P	12 53 29.3	+1.4
GERES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GUN	Gumba	79.44	303	eP	P	12 53 40.4	+0.7
	comp=Z,30nm,0.9s,mb5.2						
KKN	Kakani	79.83	304	eP	P	12 53 42.8	+1.0
PKI	Pulchoki	79.95	303	eP	P	12 53 42.8	+0.4
	comp=Z,23nm,1.0s,mb5.1						
GKN	Gorkha	79.97	304	eP	P	12 53 43.2	+0.7
DMN	Daman	80.07	304	eP	P	12 53 44.0	+0.9
	comp=Z,12nm,0.5s,mb5.0						
CMAR	Chiang Mai Arr	80.21	288	P	P	12 53 44.5	+0.5
	comp=Z,3.6nm,0.8s,mb4.4,baz=5.2,slow=5.8,SNR=26						
CMAR	Chiang Mai Arr	80.21	288	P	P	12 53 44.5	+0.5
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KOLN	Koldanda	80.67	305	eP	P	12 53 46.3	+0.1
	comp=Z,7.1nm,0.5s,mb4.9						
ESDC	Sonseca Array	84.77	17	P	P	12 54 09.3	+2.4
	comp=Z,0.4nm,0.5s,mb3.8,baz=358,slow=5.9,SNR=5.4						
ESDC				pP	pP	12 54 20.3	-1.1
	comp=Z,0.5nm,0.5s,baz=344,slow=3.2,SNR=3.1						
BRTR	Keskin Array B	85.53	348	P	P	12 54 12.5	+1.9
	comp=Z,2.0nm,0.7s,mb4.5,baz=38,slow=2.5,SNR=7.1						
BRTR	Keskin Array B	85.53	348	P	P	12 54 12.5	+1.9
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CTA	Charters Tower	86.00	227	LR	LR	13 32 02.3	
	comp=Z,70nm,18.1s,MS4.1,baz=51,slow=35						

*LDG **05** 12:52:28.5±0.2, 48.10N×7.98E, h10^{km}, Md2.2/3, Ml1.9/5, Error ellipse: s-maj=4.0km s-min=2.2km az=130.0*

STR 05 12:52:29.6±0.2**, 48.02N×7.92E, h5**^{km}±1^{km}**, Ml1.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLS	Welschbruch	0.55	316	Pg	Pg	12 52 40.0	-0.5
WLS				Sg	Sg	12 52 48.0	+0.1
ECH	Echery	0.55	291	Pg	Pg	12 52 39.8	-0.8
ECH				Sg	Sg	12 52 47.8	-0.1
CDF	Champ du Feu	0.58	313	ePg	Pg	12 52 40.1	-1.2
CDF				eSg	Sg	12 52 47.1	-2.0
	2.8nm,0.2s						
HINF	Hinteralfeld	0.75	255	ePg	Pg	12 52 43.7	-0.8
HINF				eSg	Sg	12 52 54.3	-0.2
	6.4nm,0.4s						
HAU	Haudompre	1.06	270	ePg	Pg	12 52 49.1	-1.6
HAU				eSg	Sg	12 53 03.4	-1.4
RFYF	Reffroy	1.74	291	ePn	Pn	12 52 57.7	-3.1
	baz=105						
RFYF				ePg	Pg	12 53 00.8	-3.6
	baz=105						
RFYF				eSg	Sg	12 53 24.1	-3.5
	2.3nm,0.2s						
SFTF	Sexfontaines	1.94	277	ePg	Pg	12 53 05.1	-3.2
SFTF				eSg	Sg	12 53 31.2	-3.0
	1.3nm,0.3s						
MEZF	Maizieres J’vi	1.98	285	eSg	Sg	12 53 30.5	-4.9
	0.6nm,0.2s						

*NIED **05** 12:53:00, 42.90N×145.50E, h41^{km}, Mw4.3 Best double couple: M$_0$2.98×10^{15} NP1:φ$_s$25°, δ68°, λ78°. NP2:φ$_s$236°, δ25°, λ118°.*
*MOS **05** 12:53:16.6±1.1, 42.81N×145.56E, h33^{km}, mb4.6/18, Error ellipse: s-maj=15.8km s-min=8.4km az=105.1*
*BJI **05** 12:53:19.8, 42.81N×145.66E, h72^{km}, mB5.4, mb4.5*
*IDC **05** 12:53:20.0±0.7, 42.99N×145.46E, h37^{km}±3^{km}, mb4.1/17, mb1 4.2/18, mb1mx4.2/23, ML4.6/1, MS3.5/3, Ms1 3.6/3, ms1mx2.8/28, Error ellipse: s-maj=17.4km s-min=13.6km az=152.0*
*JMA **05** 12:53:20.0±0.1, 42.94N×145.49E, h45^{km}±1^{km}, M4.3*
JMA Felt I J1.
*NEIC **05** 12:53:20.2±0.9, 42.92N×145.41E, h44^{km}±7^{km}, mb4.5/18, MW4.3(NIED), Error ellipse: s-maj=7.5km s-min=6.3km az=125.0*
NEIC Recorded [1 JMA] in eastern Hokkaido.
*SKHL **05** 12:53:20.5±0.1, 42.98N×145.42E, h50^{km}±19^{km}, mb4.8/4*

ISC 05 12:53:19.3±0.7**, 42.94N**±0.05×**145.47E**±0.05**, h50**^{km}±4^{km}**, h41**^{km}±4.9^{km}**:pP-P, n111, σ0**^{s}**85**/117**, mb4.5**/42**, MS3.6**/2**, 4C-7D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.47	25	⇑P	P	12 53 30.4	+0.2
NEM2				eS	S	12 53 37.7	-0.4
JAK	Akkeshi	0.57	276	⇓P	P	12 53 32.0	+0.6
JAK				eS	S	12 53 40.8	+0.7
JNK	Nakash	0.84	320	⇓P	P	12 53 35.6	+0.6
JNK				eS	S	12 53 46.5	-0.2
JRA	Rausu	1.03	346	⇓P	P	12 53 38.2	+0.6
JRA				eS	S	12 53 51.8	+0.6
YUK	Yuzh-Kuril’sk	1.13	15	⇑iPN	P	12 53 38.2	-0.8
YUK				iS	S	12 53 52.5	-1.2
YUK				pmax	pmax		
	comp=Z,2µm,0.5s						
YUK				pmax	pmax		
	comp=N,950nm,0.4s						
YUK				pmax	pmax		
	comp=E,770nm,0.3s						
YUK				pmax	pmax		
	comp=Z,3µm,0.6s						
YUK				smax			
	comp=N,34µm,0.7s						
YUK				smax			
	comp=E,27µm,0.7s						
YUK				smax			
	comp=N,20µm,0.5s						
YUK				smax			
	comp=E,10µm,0.5s						
YUK	Yuzh-Kuril’sk	1.13	15	⇑iP	P	12 53 38.2	-0.8
YUK				AMB	AMB	12 53 40.0	
	comp=E,3µm,0.6s						
YUK				AMB	AMB	12 53 40.0	
	comp=E,950nm,0.4s						
YUK				AMB	AMB	12 53 40.0	
	comp=E,770nm,0.4s						
YUK				AMB	AMB	12 53 40.0	
	comp=E,2µm,0.4s						
YUK				iS	S	12 53 52.5	-1.2
YUK				A		12 53 57.0	
	comp=E,34µm,1.0s						
YUK				A		12 53 57.0	
	comp=E,27µm,1.0s						
YUK				A		12 53 57.5	
	comp=E,20µm,0.5s						
YUK				A		12 53 57.5	
	comp=E,10µm,0.5s						
JOB	Onbets	1.20	269	⇓P	P	12 53 40.5	+0.6
JAR	Ashorobuto	1.29	287	⇓P	P	12 53 42.1	+0.7
JAR				eS	S	12 53 57.7	-0.1
JTKR	Abashiri--Toko	1.53	313	⇓P	P	12 53 45.9	+1.1
JCH	Churui	1.58	259	P	P	12 53 45.4	-0.1
JCH				eS	S	12 54 04.7	-0.2
ASAJ	Asahikawa	2.40	300	Pn	P	12 53 58.9	+1.9
	comp=E,90nm,0.3s,baz=106,slow=10,SNR=124						
ASAJ				Sn	S	12 54 21.1	-4.0
	comp=E,59nm,0.3s,baz=290,slow=29,SNR=6.9						
ASAJ				LR	LR	12 55 01.6	
	comp=E,689nm,18.1s,baz=194,slow=43						
KUR	Kuril’sk	2.87	36	eP	P	12 54 02.0	-1.8
KUR				AMB	AMB	12 54 10.0	
	comp=E,90nm,0.5s						
KUR				AMB	AMB	12 54 10.0	
	comp=E,80nm,0.5s						
KUR				AMB	AMB	12 54 10.0	
	comp=E,190nm,0.5s						
KUR				iS	S	12 54 32.0	-5.3
KUR				A		12 54 41.8	
	comp=E,610nm,0.6s						
KUR				A		12 54 41.8	
	comp=E,910nm,0.6s						
YSS	Yuzh-Sakhalins	4.45	335	eP	P	12 54 26.1	+0.1
YSS	Yuzh-Sakhalins	4.45	335	eP	P	12 54 27.0	+1.0
YSS				eS	S	12 55 09.8	-7.4
YSS				A		12 55 13.6	
	comp=E,110nm,1.2s						
TYV	Tymovskoe	8.16	347	eP	P	12 55 14.0	-3.7
MAJO	Matsushiro	8.49	224	eP	P	12 55 18.6	-3.6
	comp=E,15nm,0.6s						
MAT	Matsushiro	8.49	224	P	P	12 55 20.2	-2.0
MAT	Matsushiro	8.49	224	eP	P	12 55 20.0	-2.2
	comp=E,9.1nm,0.5s						
KLR	Kul’dur	11.41	308	eP	P	12 56 00.0	-2.1
HIA	Hailar	18.87	298	eP	P	12 57 36.7	-1.2
FX1	Attu Island--F	20.94	52	P	P	12 58 00.5	+0.7
	comp=E,26nm,0.9s,baz=300,slow=8.1,SNR=2.9						
FX1	Attu Island--F	20.94	52	P	P	12 58 00.5	+0.6
FX1				pmax	pmax		
	comp=Z,26nm,0.9s						
YAK	Yakutsk	21.29	339	P	P	12 57 58.9	-4.4
	comp=Z,7.4nm,0.5s,mb4.3						
BJT	Baijiatuau	22.09	272	eP	P	12 58 10.5	-1.0
	comp=Z,8.4nm,0.6s,mb4.3						
ULN	Ulaanbaatar	27.22	294	eP	P	12 58 59.2	-1.0
	comp=Z,2.9nm,0.8s,mb3.9						
SONM	Songino Array	27.66	294	P	P	12 59 04.6	+0.4
	comp=Z,7.3nm,0.7s,mb4.4,baz=76,slow=8.4,SNR=14						
SONM				pP	pP	12 59 14.1	-2.9
	comp=Z,4.8nm,0.8s,baz=91,slow=8.8,SNR=4.6						
SONM				sP	sP	12 59 19.7	-3.4
	comp=Z,3.2nm,0.7s,baz=90,slow=8.6,SNR=2.8						
ZAK	Zakamensk	29.57	299	eP	P	12 59 16.3	-4.9
XAN	Xi’an	29.76	265	P	P	12 59 23.1	-0.1
XAN				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.4						
ENH	Enshi	31.29	258	eP	P	12 59 36.1	-0.6
	comp=Z,3.3nm,0.4s,mb4.5						
CD2	Chengdu	35.10	264	eP	P	13 00 10.0	+0.3
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
IMA	Indian Mountai	40.04	34	eP	P	13 00 51.3	+0.7
	comp=Z,28nm,0.8s,mb5.0						
ZAL	Zalesovo	40.53	308	P	P	13 00 55.9	+1.0
	comp=Z,0.9nm,0.3s,mb3.8,baz=28,slow=7.8,SNR=3.9						
ZAL				PcP	PcP	13 02 57.5	+0.3
	comp=Z,1.8nm,0.7s,baz=38,slow=4.2,SNR=6.4						
ZAL				LR	LR	13 20 02.2	
	comp=Z,137nm,20.0s,MS3.8,baz=271,slow=40						
ZAL	Zalesovo	40.53	308	P	P	13 00 55.9	+1.1
ZAL						13 02 57.5	
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ZAL				MLR	MLR		
	comp=Z,137nm,20.0s						
ZAL	Zalesovo	40.53	308	P	P	13 00 55.9	+1.0
ZAL				PcP	PcP	13 02 57.5	+0.3
ZAL				LR	LR	13 20 02.2	
ILAR	Eielson Array	42.87	36	P	P	13 01 14.3	+0.5
	comp=Z,2.2nm,0.6s,mb4.1,baz=275,slow=6.8,SNR=29						
ILAR	Eielson Array	42.87	36	P	P	13 01 14.3	+0.5
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MKAR	Makanchi Array	43.87	298	iP	P	13 01 22.4	+0.2
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KURK	Kurchatov	44.97	304	iP	P	13 01 30.5	-0.4
KURK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
KURK	Kurchatov	44.97	304	eP	P	13 01 30.4	-0.5
	comp=Z,3.8nm,0.8s,mb4.3						
CMAR	Chiang Mai Arr	46.12	253	P	P	13 01 41.5	+1.0
	comp=Z,1.2nm,0.5s,mb4.1,baz=44,slow=7.6,SNR=13						
CMAR				sP	sP	13 01 56.5	-3.3
	comp=Z,0.5nm,0.7s,baz=44,slow=7.5,SNR=3.2						
CMAR				LR	LR	13 21 17.0	
	comp=Z,36nm,20.3s,MS3.3,baz=270,slow=36						
CMAR	Chiang Mai Arr	46.12	253	P	P	13 01 41.5	+1.0
CMAR				*SP	sP	13 01 56.5	-3.2
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CMAR				MLR	MLR		
	comp=Z,36nm,20.3s						
CHKZ	Chkalovo	48.72	310	iP	P	13 01 59.4	-0.9
CHKZ				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
CHKZ	Chkalovo	48.72	310	eP	P	13 01 59.3	-1.0
	comp=Z,2.5nm,0.6s,mb4.4						
BVAR	Borovoye Array	49.07	309	P	P	13 02 03.1	0.0
	comp=Z,4.8nm,0.4s,mb4.9,baz=79,slow=8.6,SNR=63						
BRVK	Borovoye	49.12	309	P	P	13 02 03.2	-0.2
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
BRVK	Borovoye	49.12	309	eP	P	13 02 03.4	-0.1
	comp=Z,2.9nm,0.6s,mb4.5						
GUN	Gumba	49.83	273	eP	P	13 02 09.5	+0.2
	comp=Z,21nm,0.6s,mb5.3						
KKN	Kakani	50.34	273	eP	P	13 02 12.7	-0.5
PKI	Pulchoki	50.37	273	eP	P	13 02 12.9	-0.5
DMN	Daman	50.57	273	eP	P	13 02 15.0	+0.1
	comp=Z,17nm,0.9s,mb5.0						
AAK	Ala-Archa	50.60	295	iP	P	13 02 13.7	-1.3
AAK	Ala-Archa	50.60	295	eP	P	13 02 13.4	-1.5
GKN	Gorkha	50.69	274	eP	P	13 02 15.6	-0.2
EKS2	Erkin-Say	51.06	296	eP	P	13 02 18.3	-0.1
	comp=Z,1.1nm,0.6s,mb4.0						
AML	Almayashu	51.35	295	eP	P	13 02 21.1	+0.4
	comp=Z,3.4nm,0.9s,mb4.3						
KOLN	Koldanda	51.58	274	eP	P	13 02 22.6	0.0
	comp=Z,7.3nm,0.4s,mb5.0						
YKA	Yellowknife Ar	57.16	33	P	P	13 03 02.1	-0.8
	comp=Z,1.0nm,0.6s,mb4.0,baz=303,slow=6.9,SNR=12						
YKA				pP	pP	13 03 13.6	-3.0
	comp=Z,1.4nm,0.9s,baz=300,slow=6.9,SNR=7.8						
YKA	Yellowknife Ar	57.16	33	P	P	13 03 02.1	-0.7
YKA				*PP	pP	13 03 13.6	-3.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KEV	Kevo	59.04	339	ep	P	13 03 14.8	-1.1
ARCES	ARCESS Array B	59.58	339	P	P	13 03 18.3	-1.3
	comp=Z,2.4nm,0.6s,mb4.4,baz=45,slow=6.9,SNR=6.6						
ARCES	ARCESS Array B	59.58	339	P	P	13 03 18.3	-1.3
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARCES	ARCESS Array B	59.58	339	P	P	13 03 18.3	-1.3
JOF	Joensuu	62.23	332	ep	P	13 03 35.9	-1.7
	comp=Z,3.9nm,0.5s,mb4.8						
JOF	Joensuu	62.23	332	eP	P	13 03 35.9	-1.7
JOF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.8						
WRA	Warramunga Arr	63.40	192	P	P	13 03 45.2	-0.9
	comp=Z,0.3nm,0.5s,mb3.7,baz=7.4,slow=6.7,SNR=6.6						
KAF	Kangasniemi	64.48	333	ep	P	13 03 51.3	-1.0
	baz=44,slow=6.2						
FINES	FINESS Array B	65.03	332	P	P	13 03 55.2	-0.8
	comp=Z,9.8nm,0.7s,mb5.0,baz=47,slow=8.0,SNR=82						
FINES	FINESS Array B	65.03	332	P	P	13 03 55.2	-0.7
FINES				pmax	pmax		
	comp=Z,10.0nm,0.7s						
FINES	FINESS Array B	65.03	332	P	P	13 03 55.2	-0.8
OBN	Obninsk	65.23	323	eP	P	13 03 56.5	-0.8
OBN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
VRSR	Storozhevoye	66.53	319c	iP	P	13 04 05.3	-0.4
VRSR				pmax	pmax		
	comp=Z,20nm,0.5s,mb5.4						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
ASAR	Alice Springs	67.12	192	P	P	13 04 10.1	+0.2
	comp=E,0.3nm,0.4s,mb3.6,baz=4.0,slow=6.6,SNR=10						
KIV	Kislovodsk	69.38	311	iP	P	13 04 24.5	+1.0
KIV	Kislovodsk	69.38	311	eP	P	13 04 24.1	+0.5
NB2	NORSAR Subarra	69.91	338	P	P	13 04 26.0	-0.4
	comp=E,2.2nm,0.3s,mb4.6,baz=33,slow=6.2						
NOA	NORSAR Array B	69.91	338	P	P	13 04 26.2	-0.2
	comp=E,3.2nm,0.4s,mb4.6,baz=34,slow=6.3,SNR=14						
NOA				pP	pP	13 04 37.3	-3.3
	comp=E,2.6nm,0.7s,baz=33,slow=6.2,SNR=4.3						
NOA				sP	sP	13 04 42.3	-3.7
	comp=E,0.5nm,0.6s,baz=50,slow=5.2,SNR=0.9						
NOA	NORSAR Array B	69.91	338	P	P	13 04 26.3	-0.1
NOA				*PP	pP	13 04 37.3	-3.3
NOA				*SP	sP	13 04 42.3	-3.7
NOA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
BW06	Boulder Array	71.37	49	eP	P	13 04 36.0	+0.4
PDAR	Pinedale Array	71.37	49	P	P	13 04 36.1	+0.5
	comp=Z,0.8nm,0.6s,mb3.8,baz=347,slow=1.0,SNR=8.0						
PDAR				pP	pP	13 04 47.1	-2.7
	comp=Z,0.7nm,0.6s,baz=272,slow=1.8,SNR=4.9						
AKASG	Malin Array Be	71.50	323	P	P	13 04 35.9	-0.3
	comp=Z,6.9nm,0.5s,mb4.9,baz=41,slow=6.2,SNR=52						
AKASG				sP	sP	13 04 52.1	-3.7
	comp=Z,2.0nm,0.5s,baz=38,slow=5.5,SNR=4.1						
AKASG	Malin Array Be	71.50	323	P	P	13 04 35.9	-0.3
AKASG				*SP	sP	13 04 52.1	-3.7
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.5s						
PV10	Paradox Valley	74.61	52	eP	P	13 04 56.2	+1.5
OJC	Ojcow	75.81	327	eP	P	13 05 02.0	+0.7
NIE	Niedzica	76.24	327	eP	P	13 05 05.5	+1.8
BRTR	Keskin Array B	77.20	313	P	P	13 05 10.2	+0.9
	comp=Z,4.2nm,1.1s,mb4.3,baz=86,slow=4.0,SNR=9.7						
BRTR	Keskin Array B	77.20	313	P	P	13 05 10.3	+0.9
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.1s						
CLL	Collm	77.46	332	iP	P	13 05 10.9	+0.4
CLL				i	pP	13 05 26.5	+1.6
CLL				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
CLL	Collm	77.46	332	iP	P	13 05 10.9	+0.4
	comp=Z,11nm,1.0s,mb4.7						
CLL				i	pP	13 05 26.5	+1.6
CLL	Collm	77.46	332	P	P	13 05 10.9	+0.4
	comp=Z,logA/T=1.0,mb4.7						
CLL				e*PP	pP	13 05 22.0	-2.9
CLL				i *SP	sP	13 05 26.5	-3.8
KHC	Kasperske Hory	79.06	330	eP	P	13 05 20.0	+0.6
KHC				e	pP	13 05 36.0	+2.2
KHC	Kasperske Hory	79.06	330	eP	P	13 05 20.0	+0.6
KHC				pP	pP	13 05 36.0	+2.2
GERES	GERESS Array B	79.25	330	P	P	13 05 21.0	+0.5
	comp=Z,1.0nm,0.7s,mb3.9,baz=27,slow=6.0,SNR=11						
GERES				pP	pP	13 05 32.5	-2.3
	comp=Z,0.9nm,0.8s,baz=34,slow=4.8,SNR=3.4						
GERES				sP	sP	13 05 37.3	-3.0
	comp=Z,0.8nm,0.6s,baz=34,slow=4.8,SNR=4.8						
GERES	GERESS Array B	79.25	330	P	P	13 05 21.0	+0.6
GERES				*PP	pP	13 05 32.5	-2.3
GERES				*SP	sP	13 05 37.3	-3.0
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GRA1	Grafenberg Arr	79.43	332	eP	P	13 05 22.4	+1.0
	comp=Z,7.0nm,1.1s,mb4.5						
GRF	Grafenberg Arr	79.43	332	eP	P	13 05 22.4	+1.0
GRF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
CDF	Champ du Feu	81.87	333	eP	P	13 05 34.0	-0.3
	comp=Z,7.3nm,0.9s,mb4.3						
HAU	Haudompre	82.53	334	eP	P	13 05 37.3	-0.4
TXAR	Lajitas Array	84.12	55	P	P	13 05 47.5	+1.3
	comp=Z,0.7nm,0.8s,mb3.8,baz=298,slow=3.6,SNR=7.6						
SSF	Saint Saulge	84.26	335	eP	P	13 05 47.1	+0.7
SMF	Signal de Mont	84.53	335	eP	P	13 05 47.8	0.0
	comp=Z,9.7nm,0.8s,mb4.7						
AVF	Avril sur Loir	84.55	335	eP	P	13 05 48.0	+0.1
	comp=Z,13nm,1.0s,mb4.7						
LPG	La Plagne	84.58	332	eP	P	13 05 48.7	+0.6
SGMF	Saint Gilles	84.92	339	eP	P	13 05 50.0	+0.4
	comp=Z,12nm,0.9s,mb4.7						
ORIF	Oris-en-Rattie	85.39	332	eP	P	13 05 52.5	+0.4
SBF	Sospel	85.77	331	eP	P	13 05 54.3	+0.3
	comp=Z,14nm,0.6s,mb5.0						
GVD	Gavdhos	85.90	315	eP	P	13 05 55.1	+0.3
	comp=Z,7.9nm,0.9s,mb4.9						
SNAA	Sanae	147.31	198	⇓i	PKPdf	13 12 58.0	+4.5
VNA2	Neumayer--Watz	148.86	197		PKPdf	13 13 05.9	+10
VNA3	Neumayer Olymp	149.07	195		PKPdf	13 13 06.8	+10
BDFB	Brasilia	150.44	27	PKPbc	PKPdf	13 13 07.3	+7.2
	comp=Z,0.9nm,0.4s,baz=77,slow=2.7,SNR=3.2						
BDFB	Brasilia	150.44	27	PKIKP	PKPdf	13 13 07.3	+7.2
BDFB				pmax	pmax		
	comp=Z,1.0nm,0.4s						

*MDD **05** 13:04:20.9±1.7, 34.94N×3.05W, h2^{km}±9^{km}, mb3.5/3, Error ellipse: s-maj=15.1km s-min=10.5km az=124.0, PRXIMO AftershockPLICA*
*NEIC **05** 13:04:21.4, 34.97N×3.06W, h2^{km}, MG3.5(MDD), After MDD.*
*CSEM **05** 13:04:21.4±0.4, 35.05N×3.05W, h12^{km}, mb3.5/4, Error ellipse: s-maj=10.6km s-min=5.5km az=116.0*

ISC 05 13:04:22.4±0.8**, 35.08N**±0.05×**3.10W**±0.10**, h18**^{km}±9^{km}**, n22, σ1**^{s}**02**/34**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	Melilla	0.25	28	P	Pb	13 04 27.6	-0.5
	80nm,0.1s,SNR=10						
EMEL				S	Sb	13 04 32.5	+0.5
	81nm,0.3s,SNR=5.1						
EMLI	Melilla	0.25	29	P	Pb	13 04 27.6	-0.6
	80nm,0.1s,SNR=10						
MELI	Melilla	0.25	32	P	Pb	13 04 27.3	-0.9
MELI				S	Sb	13 04 32.8	+0.8
MELI	Melilla	0.25	32	eP	Pb	13 04 27.3	-0.9
TZK	Tazeka	1.33	222	iP	Pn	13 04 47.0	+0.7
TZK				iS	Sb	13 05 03.0	-0.2
EBER	Berja	1.82	5	P	Pn	13 04 54.0	+0.7
	1.3nm,0.1s,SNR=7.9						

EBER				S	Sn	13 05 14.4	-1.7
	SNR=7.9						
EBER	Berja	1.82	5	P	Pn	13 04 54.0	+0.7
	1.3nm,0.1s,SNR=7.9						
EMIJ	Mijas	2.01	318	P	Pn	13 04 56.8	+0.8
	0.5nm,0.1s,SNR=7.9						
EMIJ				S	Sn	13 05 22.0	+1.0
	SNR=7.9						
EQES	Quesada	2.72	0	P	Pn	13 05 06.4	+0.2
	0.4nm,0.1s,SNR=5.8						
EQES				S	Sn	13 05 41.2	+2.3
	SNR=7.9						
EQES	Quesada	2.72	0	P	Pn	13 05 06.4	+0.2
	0.4nm,0.1s,SNR=5.8						
EQES				S	Sn	13 05 41.2	+2.3
	SNR=7.9						
EMUR	La Murta	3.14	28	P	Pn	13 05 10.8	-1.3
EMUR	La Murta	3.14	28	P	Pn	13 05 10.4	-1.7
	5.3nm,0.4s,SNR=7.6						
EMUR	La Murta	3.14	28	P	Pn	13 05 10.8	-1.3
	5.3nm,0.4s,SNR=7.6						
EADA	Adamuz	3.30	339	P	Pn	13 05 15.4	+1.0
	0.4nm,0.2s,SNR=7.9						
EADA				S	Sn	13 05 53.5	-0.2
	SNR=7.9						
EADA	Adamuz	3.30	339	P	Pn	13 05 15.4	+0.9
	SNR=7.9						
EADA				S	Sn	13 05 53.5	-0.2
	SNR=7.9						
EMIN	Mina Concepcio	3.94	314	P	Pn	13 05 23.8	+0.3
EMIN				S	Sn	13 06 07.8	-1.9
EMIN	Mina Concepcio	3.94	314	S	Sn	13 06 07.8	-1.9
	SNR=7.9						
EMIN	Mina Concepcio	3.94	314	P	Pn	13 05 23.8	+0.3
	SNR=7.9						
ESDC	Sonseca Array	4.64	352	P	Pn	13 05 33.9	+0.4
	0.4nm,0.2s,baz=171,slow=12,SNR=4.8						
ESDC	Sonseca Array	4.64	352	P	Pn	13 05 33.9	+0.5
	0.4nm,0.2s,SNR=4.8						
EBAD	Badajoz	4.83	321	P	Pn	13 05 35.2	-0.9
EBAD				S	Sn	13 06 28.5	-3.8
EBAD	Badajoz	4.83	321	P	Pn	13 05 35.2	-0.9
	SNR=7.9						
EBAD				S	Sn	13 06 28.5	-3.7

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*DMN **05** 13:04:33.6±0.7, 30.72N×81.30E, h10^{km}, Ml4.6/6, Error ellipse: s-maj=31.1km s-min=13.8km az=41.0*
*BJI **05** 13:04:36.7, 30.65N×81.23E, h10^{km}, mb3.9*
*NEIC **05** 13:04:38.1±0.5, 30.48N×81.24E, h10^{km}, mb4.2/6, Error ellipse: s-maj=14.4km s-min=7.3km az=63.0*
*MOS **05** 13:04:39.5±0.8, 30.43N×81.37E, h33^{km}, mb4.3/10, Error ellipse: s-maj=28.9km s-min=14.4km az=115.1*
*NDI **05** 13:04:39.6, 30.58N×81.46E, h10^{km}, MD3.7, ML3.8, mb4.2(NEIC)*
*IDC **05** 13:04:45.0±6.3, 30.52N×81.39E, h62^{km}±58^{km}, mb3.8/14, mb1 4.0/15, mb1mx3.8/22, ML4.1/1, Error ellipse: s-maj=30.0km s-min=13.4km az=45.0*
ISC 05 13:04:38.0±0.3**, 30.73N**±0.03×**81.39E**±0.03**, h10^{km}, n77,** σ**1^{s}37**/92**, mb4.0**/20**, 1D, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTH	Pithoragarh	1.56	221	eP	Pn	13 05 02.4	-3.5
PTH				eS	Sb	13 05 20.9	-5.2
LGTI	Lohaghat	1.62	218	⇓iPN	Pn	13 05 06.5	-0.3
LGTI				eSN	Sn	13 05 30.5	+2.7
DDI	Dehra Dun	2.90	263	eP	Pn	13 05 26.7	+1.5
KOLN	Koldanda	3.53	146	ePn	Pn	13 05 33.4	-0.7
KOLN				eSn	Sn	13 06 17.1	+0.7
	1μm,0.7s						
SDNR	Sundarnagar	3.86	283	eP	Pn	13 05 41.0	+2.2
SDNR				e		13 06 47.0	
	833nm,0.2s						
GKN	Gorkha	3.93	133	ePn	Pn	13 05 39.3	-0.5
GKN				eSn	Sn	13 06 28.4	+1.9
	650nm,0.6s						
KKR	Kurukshetra	4.02	260	eP	Pn	13 05 44.3	+3.2
NDI	New Delhi	4.16	242	ePN	Pn	13 05 42.0	-1.1
NDI				eSB	Sb	13 06 44.5	+2.7
NDI				e		13 07 17.0	
BHK	Bhakra	4.32	280	ePB	Pb	13 06 00.1	+6.4
BHK				eSB	Sb	13 06 56.3	+10
AYAN	Aya Nagar	4.33	240	ePB	Pb	13 05 56.4	+2.3
AYAN				eSB	Sb	13 06 51.8	+4.9
BHGR	Bahadurgarh	4.37	243	ePB	Pb	13 05 54.8	+0.1
KKN	Kakani	4.49	130	ePn	Pn	13 05 46.8	-1.0
KKN				eSn	Sn	13 06 41.6	+0.9
	549nm,0.8s						
SONA	Sohna	4.49	238	ePB	Pb	13 05 57.5	+0.8
SONA				eSB	Sb	13 06 56.1	+4.6
SONA				e		13 07 00.8	
	comp=N,146nm,0.7s						
SONA				e		13 07 00.8	
	comp=Z,131nm,0.8s						
DMN	Daman	4.50	133	ePn	Pn	13 05 46.9	-1.0
DMN				eSn	Sn	13 06 42.5	+1.5
	comp=Z,963nm,1.0s						
AGRA	Agra	4.61	222	e	Pn	13 06 02.1	+13
AGRA				e		13 06 41.8	
RTK	Rohtak	4.64	250	e	Pn	13 05 56.4	+6.5
PKI	Pulchoki	4.72	131	ePn	Pn	13 05 49.8	-1.2
PKI				eSn	Sn	13 06 46.8	+0.3
	comp=Z,528nm,1.0s						
GUN	Gumba	4.83	125	ePn	Pn	13 05 51.4	-1.1
GUN				eSn	Sn	13 06 49.1	-0.1
	comp=Z,385nm,0.8s						
DLH	Dalhousie	4.96	293	eP	Pn	13 05 54.0	-0.4
KUDL	Kundal	4.99	240	eP	Pn	13 05 54.9	0.0
THN	Thein Dam	5.13	291	ePB	Pb	13 06 11.7	+4.1
ALBI	Allahabad	5.42	176	eP	Pn	13 05 56.0	-4.8
KHET	Khetri	5.54	243	e	Pn	13 06 10.6	+8.0
KHET				e		13 07 15.9	
AJM	Ajmer	7.29	236	i P	Pn	13 06 23.0	-4.2
CHCP	Chirah Chowk	7.48	295	P	Pn	13 06 29.0	-0.8
THW	Thamme Wali	8.46	287	P	P	13 06 41.7	-1.9
LSA	Lhasa	8.51	94	P	P	13 06 46.2	+2.0
CEP	Cherat	8.60	293	P	P	13 06 45.0	-0.4
SBDP	Sheikh Budin	9.17	283	P	P	13 06 51.3	-2.0
DRP	Derazinda	9.63	279	P	P	13 06 58.0	-1.7
JASL	Jaisalmer	9.95	250	e	P	13 06 55.8	-8.3
SHL	Shillong	10.59	117	eP	P	13 07 07.5	-5.5
SHL				eS	S	13 09 00.5	-12
UCH	Uchtor	12.73	336	eP	P	13 07 40.9	-0.9
	comp=Z,12nm,0.8s						
AML	Almayashu	12.94	334	eP	P	13 07 42.4	-2.4
	comp=Z,5.3nm,0.6s						
VIS	Vishakhapatnam	13.07	172	e	S	13 10 12.5	-0.6
AAK	Ala-Archa	13.09	337	eP	P	13 07 46.5	-0.2
EKS2	Erkin-Say	13.37	335	P	P	13 07 49.2	-1.1
	comp=Z,4.6nm,0.8s						
HYB	Hyderabad	13.51	192	i P	P	13 07 45.0	-7.3
HYB				eS	S	13 10 05.0	-18
POO	Poona	13.94	211	e	P	13 07 50.0	-8.1
	comp=Z,20nm,1.0s						
POO				i S	x	13 10 18.0	
POO				e	S	13 10 32.0	-1.9
POO				e		13 10 44.0	
KAD	Karad	14.89	208	e	S	13 10 45.0	-11
KURK	Kurchatov	20.07	355	eP	P	13 09 13.7	-0.5
	comp=Z,16nm,0.8s						
CMAR	Chiang Mai Arr	20.07	123	P	P	13 09 11.2	-3.3
	comp=Z,0.2nm,0.3s,baz=308,slow=12,SNR=14						
ZAL	Zalesovo	23.32	5	P	P	13 09 49.2	+2.3
	comp=Z,3.0nm,0.6s,mb3.9,baz=271,slow=10.0,SNR=14						
ZAL	Zalesovo	23.32	5	P	P	13 09 49.2	+2.3
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ZAL	Zalesovo	23.32	5	P	P	13 09 49.2	+2.3
BVAR	Borovoye Array	23.68	343	P	P	13 09 52.1	+1.7
	comp=Z,2.0nm,0.4s,mb3.9,baz=151,slow=12,SNR=22						
BRVK	Borovoye	23.73	343	eP	P	13 09 52.5	+1.5
	comp=Z,5.0nm,0.6s,mb4.1						
CHKZ	Chkalovo	24.22	344	eP	P	13 09 56.8	+1.1
	comp=Z,2.6nm,0.6s,mb3.8						
ZAK	Zakamensk	25.56	34	eP	P	13 10 09.7	+1.2
SONM	Songino Array	25.64	41	P	P	13 10 11.6	+2.4
	comp=Z,3.1nm,0.7s,mb3.9,baz=236,slow=8.8,SNR=8.6						
ULN	Ulaanbaatar	26.03	42	eP	P	13 10 14.1	+1.1
	comp=Z,2.5nm,0.9s,mb3.7						
ARU	Arti	30.26	335	eP	P	13 10 52.0	+0.9
	comp=Z,2.2nm,0.6s,mb4.1						
BRTR	Keskin Array B	39.63	296	P	P	13 12 12.0	+0.5
	comp=Z,0.8nm,0.6s,mb3.6,baz=114,slow=11,SNR=4.3						
BRTR	Keskin Array B	39.63	296	P	P	13 12 12.0	+0.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
OBN	Obninsk	39.90	321	eP	P	13 12 24.2	+11
OBN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
AKASG	Malin Array Be	43.25	313	P	P	13 12 40.9	-0.2
	comp=Z,3.4nm,0.7s,mb4.2,baz=77,slow=7.2,SNR=11						
AKASG	Malin Array Be	43.25	313	P	P	13 12 40.9	-0.1
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
JOF	Joensuu	45.17	330	ep	P	13 12 56.3	0.0
FINES	FINESS Array B	47.04	327	P	P	13 13 12.0	+0.8
	comp=Z,2.4nm,0.8s,mb4.2,baz=106,slow=10,SNR=12						
FINES	FINESS Array B	47.04	327	P	P	13 13 12.0	+0.8
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KAF	Kangasniemi	47.11	328	ep	P	13 13 15.7	+4.0
ARCES	ARCESS Array B	49.77	338	P	P	13 13 32.3	+0.1
	comp=Z,2.4nm,0.6s,mb4.4,baz=80,slow=7.4,SNR=5.9						
ARCES	ARCESS Array B	49.77	338	P	P	13 13 32.3	0.0
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
HFS	Hagfors	52.86	324	P	P	13 13 55.4	-0.3
	comp=Z,4.2nm,0.5s,mb4.6,baz=101,slow=7.6,SNR=20						
HFS	Hagfors	52.86	324	P	P	13 13 55.4	-0.4
HFS				pmax	pmax		
	comp=Z,4.0nm,0.5s						
NB2	NORSAR Subarra	54.10	326	P	P	13 14 03.9	-1.0
	comp=Z,1.4nm,0.6s,mb4.1,baz=91,slow=7.0						
NOA	NORSAR Array B	54.10	326	P	P	13 14 04.2	-0.6
	comp=Z,2.3nm,0.7s,mb4.2,baz=91,slow=7.3,SNR=5.3						
NOA	NORSAR Array B	54.10	326	P	P	13 14 04.3	-0.6
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRA	Warramunga Arr	71.60	128	P	P	13 15 59.1	-2.7
	comp=Z,1.6nm,0.8s,mb4.0,baz=322,slow=6.1,SNR=12						
WRA	Warramunga Arr	71.60	128	P	P	13 15 59.1	-2.7
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ASAR	Alice Springs	73.89	131	P	P	13 16 12.6	-2.7
	comp=Z,1.2nm,0.8s,mb3.9,baz=318,slow=5.9,SNR=12						
COLA	College	77.30	19	eP	P	13 16 33.9	0.0
	comp=Z,2.9nm,0.8s,mb4.3						
ILAR	Eielson Array	77.65	19	P	P	13 16 35.1	-0.6
	comp=Z,1.1nm,0.9s,mb3.8,baz=304,slow=5.5,SNR=9.0						
ILAR	Eielson Array	77.65	19	P	P	13 16 35.1	-0.6
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
STKA	Stephens Creek	84.45	132	P	P	13 17 11.4	-0.9
	comp=Z,1.7nm,0.8s,mb4.2,baz=323,slow=5.1,SNR=2.6						
YKA	Yellowknife Ar	86.21	7	P	P	13 17 19.5	-0.8
	comp=Z,0.5nm,0.7s,mb3.9,baz=340,slow=4.9,SNR=9.4						
YKA	Yellowknife Ar	86.21	7	P	P	13 17 19.5	-0.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						

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*LDG **05** 13:11:53.8±0.3, 15.39S×168.14E, h10^{km}, Mb5.0/2, Error ellipse: s-maj=49.1km s-min=10.6km az=98.0*
*MOS **05** 13:11:55.0±0.9, 15.76S×168.27E, h33^{km}, mb5.0/13, Error ellipse: s-maj=27.1km s-min=17.8km az=177.2*
*BJI **05** 13:12:01.1, 15.19S×167.88E, h60^{km}, mB5.5, mb4.8, Ms5.0, Msz4.9*
*IDC **05** 13:12:02.4±8.2, 15.70S×168.14E, h81^{km}±71^{km}, mb4.5/18, mb1 4.6/18, mb1mx4.6/20, MS4.0/10, Ms1 3.9/10, ms1mx3.8/19, Error ellipse: s-maj=27.3km s-min=21.7km az=100.0*
*NEIC **05** 13:12:03.1±3.9, 15.59S×168.03E, h85^{km}±33^{km}, mb5.0/18, Error ellipse: s-maj=14.5km s-min=11.4km az=104.0*
*HRVD **05** 13:12:03.1±1.0, 15.70S×168.32E, h132^{km}±10^{km}, MW5.0/29, Centroid moment Tensor Solution. LP body waves: s10,c10; Mantle waves: s29,c37; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.71±.22; $M_{\theta\theta}$3.24±.27; $M_{\phi\phi}$-0.53±.22; $M_{r\theta}$0.42±.29; $M_{\theta\phi}$-1.69±.38; $M_{\phi r}$0.66±.20; Best double couple: $M_0$3.46×10^{16} NP1: ϕ_s132°, δ48°, λ-59°. NP2: ϕ_s270°, δ50°, λ-120°. Principal axes: T 3.89, Plg1°, Azm21°; N -.86, Plg22°, Azm290°; P -3.03, Plg68°, Azm114°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 05 13:11:55.6±0.3**, 15.69S**±0.04×**168.11E**±0.07**, h33^{km}, n113,** σ**0^{s}79**/76**, mb4.9**/39**, MS4.1**/13**, 18C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.54	194	eP	P	13 13 31.9	-0.1
DZM				eS	S	13 14 46.1	-0.2
NOUC	Port Laguerre	6.60	195	eP	P	13 13 32.8	0.0
NOUC				eS	S	13 14 47.5	-0.3
CTA	Charters Tower	21.25	255	eP	P	13 16 43.2	+2.0
	8.5nm,0.7s,mb4.2						
CTA	Charters Tower	21.25	255	P	P	13 16 43.3	+2.1
	9.7nm,0.7s,mb4.3,baz=76,slow=11,SNR=14						
CTA				LR	LR	13 23 41.3	
	comp=Z,432nm,20.4s,MS3.8,baz=58,slow=33						
CTA	Charters Tower	21.25	255	P	P	13 16 43.3	+2.1
CTA				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CTA				MLR	MLR		
	comp=Z,432nm,20.4s						
CTAO	Charters Tower	21.25	255	eP	P	13 16 42.0	+0.8
	comp=Z,30nm,1.2s,mb4.5						
PMG	Port Moresby	21.38	285	P	P	13 16 43.9	+1.4
	comp=Z,26nm,0.8s,mb4.6,baz=141,slow=6.7,SNR=14						
PMG				LR	LR	13 24 18.3	
	comp=Z,445nm,18.1s,MS3.9,baz=70,slow=34						
PMG	Port Moresby	21.38	285	c iP	P	13 16 44.1	+1.6
STKA	Stephens Creek	29.01	232	⇑iP	P	13 17 55.3	+0.6
	comp=Z,16nm,0.8s,mb4.8						
STKA	Stephens Creek	29.01	232	P	P	13 17 55.4	+0.7
	comp=Z,22nm,0.9s,mb4.9,baz=57,slow=7.2,SNR=32						
STKA				LR	LR	13 28 34.5	
	comp=Z,234nm,20.2s,MS3.8,baz=285,slow=34						
RAR	Rarotonga	30.92	105	LR	LR	13 27 22.8	
	comp=Z,258nm,18.3s,MS3.9,baz=9.7,slow=30						
WB2	Warramunga Arr	32.38	257	⇑iP	P	13 18 23.6	-1.1
WRAB	Tennant Creek	32.39	257	i P	P	13 18 24.3	-0.4
WRAB	Tennant Creek	32.39	257	eP	P	13 18 23.4	-1.3
	comp=Z,49nm,1.4s,mb5.1						
WRA	Warramunga Arr	32.40	257	P	P	13 18 23.7	-1.0
	comp=Z,11nm,0.8s,mb4.8,baz=88,slow=9.0,SNR=90						
WRA	Warramunga Arr	32.40	257	P	P	13 18 23.7	-1.1
WRA				pmax	pmax		
	comp=Z,11nm,0.8s						
ASAR	Alice Springs	33.11	251	P	P	13 18 30.5	-0.4
	comp=Z,23nm,0.7s,mb5.2,baz=77,slow=8.8,SNR=139						
ASPA	Alice Springs	33.11	251	⇑iP	P	13 18 30.5	-0.4
KAKA	Kakadu	34.68	270	⇑iP	P	13 18 44.0	-0.5
	comp=Z,13nm,0.4s,mb5.2						
FORT	Forrest	39.52	240	eP	P	13 19 25.9	+0.9
	comp=Z,106nm,0.7s,mb5.7						
FITZ	Fitzroy Crossi	40.65	260	⇑iP	P	13 19 35.0	+0.5
	comp=Z,74nm,0.8s,mb5.4						
FITZ	Fitzroy Crossi	40.65	260	P	P	13 19 35.0	+0.5
	comp=Z,124nm,0.9s,mb5.5,baz=100,slow=3.9,SNR=121						
FITZ				LR	LR	13 36 17.7	
	comp=Z,274nm,18.2s,MS4.2,baz=96,slow=36						
MBWA	Marble Bar	46.09	256	eP	P	13 20 19.0	+0.3
	comp=Z,23nm,0.7s,mb5.2						
NWAO	Narrogin (SRO)	48.96	240	P	P	13 20 41.2	+0.2
	comp=Z,34nm,0.9s,mb5.4,baz=88,slow=7.6,SNR=8.3						
NWAO	Narrogin (SRO)	48.96	240	P	P	13 20 41.2	+0.2
NWAO				pmax	pmax		
	comp=Z,35nm,1.0s						
NWAO	Narrogin (SRO)	48.96	240	eP	P	13 20 39.2	-1.7
	comp=Z,38nm,1.0s,mb5.4						
VNDA	Vanda	61.93	182	P	P	13 22 13.4	-0.6
	comp=Z,1.2nm,0.8s,mb4.1,baz=17,slow=8.2,SNR=5.8						
VNDA				LR	LR	13 45 09.2	
	comp=Z,61nm,18.6s,MS3.8,baz=347,slow=32						
VNDA	Vanda	61.93	182	eP	P	13 22 13.1	-0.9
	comp=Z,22nm,1.9s,mb5.0						
VNDA				LR	LR	13 45 09.2	
SBA	Scott Base	62.18	180	eP	P	13 22 16.2	+0.5
	comp=Z,18nm,1.2s,mb5.1						
SSE	Sheshan	64.77	316	P	P	13 22 32.5	-0.9
SSE				AMB	AMB		
	comp=Z,15nm,0.9s,mb5.0						
SSE				AMB	AMB		
	comp=Z,606nm,5.0s						
NJ2	Nanjing	66.93	316	eP	P	13 22 48.5	+1.4
NJ2				AP	pP	13 22 58.9	+1.5
NJ2				XP	sP	13 23 02.6	+1.5
NJ2				PP	PP	13 25 19.1	+2.7
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,1μm,5.8s						
NJ2				LR	LR		
	comp=N,280nm,19.6s,MS4.8						
NJ2				LR	LR		
	comp=E,510nm,20.1s,MS4.8						
NJ2				LR	LR		
	comp=Z,1μm,21.6s,MS5.1						
ENH	Enshi	72.60	309	eP	P	13 23 20.8	-1.0
	comp=Z,26nm,1.3s,mb5.0						
QSPA	South Pole Qui	74.34	180	eP	P	13 23 31.8	+0.7
	comp=Z,27nm,1.1s,mb5.1						
XAN	Xi'an	74.93	312	P	P	13 23 35.1	-0.3
XAN				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.7						
CMAR	Chiang Mai Arr	76.08	294	P	P	13 23 42.9	+0.7
	comp=Z,3.2nm,0.9s,mb4.3,baz=125,slow=3.6,SNR=18						
CMAR	Chiang Mai Arr	76.08	294	P	P	13 23 42.9	+0.7
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
HHC	Hu-ho-hao-te	76.84	319	eP	P	13 23 45.9	-0.2
HHC				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.8						
HHC				AMB	AMB		
	comp=Z,117nm,6.3s						
CD2	Chengdu	77.23	307	eP	P	13 23 48.4	-0.1
CD2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
LZH	Lanzhou	79.56	312	⇑P	P	13 24 01.5	+0.3
LZH				AMB	AMB		
	comp=Z,44nm,1.5s,mb5.2						
LZH				AMB	AMB		
	comp=Z,216nm,5.0s						
LZH				LR	LR		
	comp=N,255nm,13.7s						
LZH				LR	LR		
	comp=Z,423nm,17.8s,MS4.8						
MAW	Mawson	81.30	202	LR	LR	13 53 40.2	
	comp=Z,99nm,22.0s,MS4.1,baz=238,slow=31						
SLKM	Skilak Lake	82.96	19	eP	P	13 24 17.9	-0.5
YAK	Yakutsk	83.18	343	i P	P	13 24 18.4	-1.1
YAK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ULN	Ulaanbaatar	83.39	324	d iP	P	13 24 21.4	+0.6
ULN	Ulaanbaatar	83.39	324	eP	P	13 24 21.0	+0.2
	comp=Z,20nm,0.8s,mb5.2						
SONM	Songino Array	83.75	323	P	P	13 24 23.3	+0.6
	comp=Z,9.7nm,1.0s,mb4.9,baz=143,slow=6.2,SNR=21						
GTA	Gaotai	83.92	314	P	P	13 24 24.9	+1.1
GTA				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.9						
YBH	Yreka Blue Hor	85.52	45	P	P	13 24 32.6	+0.9
	comp=Z,5.9nm,0.9s,mb4.8,baz=316,slow=2.2,SNR=5.7						
YBH	Yreka Blue Hor	85.52	45	P	P	13 24 32.6	+0.9
YBH				pmax	pmax		
	comp=Z,6.0nm,0.9s						
IMA	Indian Mountai	86.37	15	eP	P	13 24 35.6	+0.4
	comp=Z,34nm,1.0s,mb5.5						
MTUM	Tungsten Hills	86.68	50	eP	P	13 24 38.0	+0.5
ZAK	Zakamensk	86.80	325	eP	P	13 24 37.4	-0.3
COLA	College	86.98	17	i P	P	13 24 37.0	-1.3
COLA	College	86.98	17	eP	P	13 24 36.5	-1.8
	comp=Z,5.7nm,0.7s,mb4.9						
ILAR	Eielson Array	87.19	18	P	P	13 24 37.8	-1.5
	comp=Z,5.6nm,0.7s,mb4.9,baz=238,slow=4.2,SNR=55						
ILAR	Eielson Array	87.19	18	P	P	13 24 37.8	-1.5
ILAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
TPNV	Topopah Spring	88.25	51	eP	P	13 24 45.8	+0.8
	comp=Z,6.9nm,1.0s,mb4.8						
ELK	Elko	90.33	48	eP	P	13 24 55.4	+0.6
	comp=Z,3.4nm,0.9s,mb4.7						
TIXI	Tiksi	91.07	348	i P	P	13 24 57.2	-0.3
TIXI				pmax	pmax		
	comp=Z,9.0nm,2.3s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.3						
NEW	Newport	91.77	40	P	P	13 25 01.5	+0.2
	comp=Z,2.3nm,0.8s,mb4.6,baz=140,slow=5.0,SNR=4.4						
NEW	Newport	91.77	40	P	P	13 25 01.5	+0.2
NEW				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SNAA	Sanae	92.64	183	⇑iP	P	13 25 04.0	-0.8
SNAA	Sanae	92.64	183		P	13 25 11.9	+7.1
SNAA	Sanae	92.64	183	⇑i	P	13 25 18.0	+13
SNAA	Sanae	92.64	183	P	P	13 25 04.2	-0.6
	comp=Z,2.9nm,1.0s,mb4.7,baz=163,slow=3.8,SNR=16						
SNAA	Sanae	92.64	183	i P	P	13 25 03.8	-1.0
VNA3	Neumayer Olymp	93.27	181	⇑iP	P	13 25 11.2	+3.5
VNA3	Neumayer Olymp	93.27	181	⇑i	P	13 25 20.6	+13
VNA3	Neumayer Olymp	93.27	181	⇑i	P	13 25 24.7	+17
VNA2	Neumayer--Watz	93.55	181	P	P	13 25 11.2	+2.3
VNA2	Neumayer--Watz	93.55	181	⇓i	P	13 25 20.7	+12
VNA2	Neumayer--Watz	93.55	181	⇑i	P	13 25 25.2	+16
PDAR	Pinedale Array	95.00	47	P	P	13 25 16.1	-0.1
	comp=Z,0.3nm,0.7s,mb3.8,baz=214,slow=5.3,SNR=3.5						
PDAR				LR	LR	14 04 25.7	
	comp=Z,75nm,19.5s,MS4.2,baz=144,slow=33						
USHA	Ushuaia	95.05	151	LR	LR	14 00 29.5	
	comp=Z,36nm,21.1s,MS3.8,baz=197,slow=31						
TXAR	Lajitas Array	96.02	61	P	P	13 25 21.4	+0.3
	comp=Z,0.5nm,0.6s,mb4.1,baz=215,slow=4.7,SNR=5.7						
YKA	Yellowknife Ar	98.02	27	P	P	13 25 28.8	-0.6
	comp=Z,3.5nm,0.8s,mb5.0,baz=254,slow=4.6,SNR=44						
YKA				LR	LR	14 03 13.3	
	comp=Z,48nm,19.2s,MS4.0,baz=285,slow=31						
ZAL	Zalesovo	98.65	324	P	P	13 25 31.8	-0.6
	comp=Z,1.9nm,0.8s,mb4.7,baz=350,slow=6.7,SNR=8.5						
ZAL	Zalesovo	98.65	324	P	P	13 25 31.8	-0.6
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES	ARCESS Array B	121.38	346	PKP	PKPdf	13 30 45.2	+0.1
	comp=Z,2.7nm,0.8s,baz=88,slow=2.6,SNR=8.8						
ARCES	ARCESS Array B	121.38	346	PKIKP	PKPdf	13 30 45.3	+0.1
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	FINESS Array B	126.91	338	PKP	PKPdf	13 30 56.9	+0.9
	comp=Z,4.9nm,1.1s,baz=265,slow=21,SNR=3.5						
FINES	FINESS Array B	126.91	338	PKIKP	PKPdf	13 30 56.9	+0.9
FINES				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BAIF	Baives	143.32	343	ePKP1	PKPbc	13 31 28.5	+3.7
CDF	Champ du Feu	143.76	338	ePKP1	PKPbc	13 31 26.6	+0.4
	comp=Z,9.3nm,0.9s						
HINF	Hinteralfeld	144.42	338	ePKP1	PKPbc	13 31 27.6	-0.5
	comp=Z,6.6nm,0.6s						
HAU	Haudompre	144.44	339	ePKP1	PKPbc	13 31 27.9	-0.2
	comp=Z,11nm,0.7s						
MEZF	Maizieres J'vi	144.44	341	ePKP1	PKPbc	13 31 28.3	+0.2
	comp=Z,22nm,1.0s						
VAI	Varese	145.29	334	ePKP	PKPdf	13 31 30.8	+0.8
MCGN	Macugnaga	145.53	335	ePKP	PKPdf	13 31 32.5	+2.1
GSCL	Gusciola	145.67	331	ePKP	PKPdf	13 31 32.5	+1.8
FLN	La Foliniere	145.72	347	ePKP1	PKPbc	13 31 31.9	+0.5
	comp=Z,46nm,0.9s						
CABF	La Chapelle	145.72	338	⇑iPKP1	PKPbc	13 31 32.9	+1.4
	comp=Z,68nm,1.0s						
LDF	La Druitiere	145.79	346	ePKP1	PKPbc	13 31 32.1	+0.5
	comp=Z,32nm,0.9s						
GRR	Gorron	146.15	347	ePKP1	PKPbc	13 31 33.5	+1.0
	comp=Z,44nm,1.0s						
SSF	Saint Saulge	146.20	341	⇑iPKP1	PKPbc	13 31 33.9	+1.2
	comp=Z,33nm,0.9s						
HYF	Humbligny	146.28	342	ePKP1	PKPbc	13 31 34.4	+1.5
LPL	La Plagne	146.40	336	ePKP1	PKPbc	13 31 34.9	+1.7
	comp=Z,21nm,0.8s						
LPG	La Plagne	146.41	336	ePKP1	PKPbc	13 31 35.1	+1.9
	comp=Z,19nm,0.7s						
SMF	Signal de Mont	146.47	340	⇑iPKP1	PKPbc	13 31 35.3	+2.0
	comp=Z,37nm,1.1s						
AVF	Avril sur Loir	146.49	341	⇑iPKP1	PKPbc	13 31 35.3	+1.9
	comp=Z,46nm,1.3s						
SGMF	Saint Gilles	146.63	349	ePKP1	PKPbc	13 31 34.7	+1.1
	comp=Z,23nm,0.9s						
ROSF	Rostrenen	146.68	350	ePKP1	PKPbc	13 31 34.7	+1.0
	comp=Z,66nm,1.4s						
BNI	Bardonecchia	146.80	336	ePKPbc	PKPbc	13 31 35.6	+1.5
BGF	Bois d'Agland	146.86	341	ePKP1	PKPbc	13 31 35.6	+1.4
	comp=Z,26nm,0.9s						
MBDF	Montbardon	147.03	335	ePKP1	PKPdf	13 31 37.4	+4.4
	comp=Z,34nm,1.0s						
QUIF	Quistinic	147.07	349	ePKP1	PKPdf	13 31 35.8	+2.8

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              comp=Z,30nm,1.1s
ORIF   Oris-en-Rattie    147.23 336  ePKP1     PKPdf     13 31 36.9 +3.5
              comp=Z,25nm,0.9s
TCF    Toulx Ste Croi    147.29 342⇑iPKP1     PKPdf     13 31 36.9 +3.5
              comp=Z,18nm,0.9s
SBF    Sospel            147.46 334  ePKP1     PKPdf     13 31 39.0 +5.2
              comp=Z,35nm,0.6s
MFF    Saint Martin d    147.66 345  ePKP1     PKPdf     13 31 37.8 +3.8
              comp=Z,27nm,0.8s
LMR    La Mourre         148.28 334  ePKP1     PKPdf     13 31 39.4 +4.3
              comp=Z,74nm,1.4s
RJF    Les Rejaudoux     148.39 342  ePKP1     PKPdf     13 31 39.9 +4.7
              comp=Z,36nm,1.2s
CAF    Calviac           148.56 341  ePKP1     PKPdf     13 31 40.5 +5.0
              comp=Z,31nm,1.3s
LFF    La Frestale       148.95 342  ePKP1     PKPdf     13 31 41.5 +5.4
```

ZUR ***05*** *13:12:59.6, 48.07N×8.01E, h10^{km}, ML2.2/11*

LDG ***05*** *13:12:59.7±0.1, 48.08N×8.02E, h10^{km}, Md2.8/3, Ml2.6/15, Error ellipse: s-maj=1.6km s-min=1.2km az=161.0*

CSEM ***05*** *13:12:59.7±0.0, 48.09N×8.01E, h12^{km}, ML2.6/13, Error ellipse: s-maj=1.0km s-min=0.7km az=169.0*

STR ***05*** *13:13:00.0±0.3, 48.06N×8.02E, h10^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

NEIC ***05*** *13:13:00.0, 48.06N×8.02E, h10^{km}, ML2.6(LDG), ML2.2(STR), ML2.3(LEDBW), After STR.*

BGR ***05*** *13:13:00.5±0.8, 48.13N×8.08E, h10^{km}, ML1.6/2, Error ellipse: s-maj=7.8km s-min=3.3km az=12.0*

LEDBW 05 13:13:00.1±0.1**, 48.08N×8.05E, h10**^{km}**, ML2.3, 11C-15D, Error ellipse: s-maj=2.6km s-min=1.2km az=128.0, Germany**

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Code   Station Name        Δ°   AZ°     Phase ID            Time     Res
                                        Op        ISC      h  m  s   ISC
KIZ    Kirchzarten        0.15 216⇑iPg       Pg       13 13 03.6  0.0
KIZ                                i Sg       Sg       13 13 06.0  0.0
FBB    Freiburg           0.15 240⇓iPg       Pg       13 13 03.7 +0.1
FBB                                  Sg       Sg       13 13 06.1 +0.1
FELD   Feldberg           0.21 189⇓iPg       Pg       13 13 04.6  0.0
FELD   Feldberg           0.21 189   Pg       Pg       13 13 04.4 -0.2
FELD                                 Sg       Sg       13 13 07.4 -0.2
LIBD   Limburg            0.31 283   Pg       Pg       13 13 06.6 +0.1
LIBD   Limburg            0.31 283   P        Pg       13 13 06.6 +0.1
LIBD                                 Sg       Sg       13 13 11.0 +0.2
BFO    Black Forest       0.31  37⇑iPg       Pg       13 13 06.3 -0.2
BFO                                  Sg       Sg       13 13 10.6 -0.3
BFO    Black Forest       0.31  37  ePg       Pg       13 13 06.0 -0.6
BFO                                 eSg       Sg       13 13 10.5 -0.4
SLE    Schleitheim        0.43 136⇓iPg       Pg       13 13 08.5 -0.4
       7.4nm,0.5s
SLE                                 eSg       Sg       13 13 14.3 -0.5
       7.4nm,0.5s
SPAK   Spaichingen        0.49  87⇑iPg       Pg       13 13 09.8 -0.3
SULZ   Sulz-Cheisache     0.56 176⇓iPg       Pg       13 13 10.7 -0.6
       4.7nm,0.3s
SULZ                                eSg       Sg       13 13 18.2 -0.6
       4.7nm,0.3s
WLS    Welschbruch        0.57 306⇓ePg       Pg       13 13 11.3 -0.3
WLS    Welschbruch        0.57 306   Pg       Pg       13 13 11.1 -0.6
WLS                                  Sg       Sg       13 13 18.6 -0.8
TRULL  Truellikon         0.60 135⇓iPg       Pg       13 13 11.7 -0.6
       10nm,0.3s
ECH    Echery             0.61 283⇑iPg       Pg       13 13 11.8 -0.6
ECH    Echery             0.61 283   Pg       Pg       13 13 11.8 -0.6
ECH                                  Sg       Sg       13 13 19.7 -1.0
ECH    Echery             0.61 283   Sg       Sg       13 13 19.7 -1.0
CDF    Champ du Feu       0.61 303  ePg       Pg       13 13 11.8 -0.7
CDF                                 eSg       Sg       13 13 19.1 -1.7
       42nm,0.2s
CDF    Champ du Feu       0.61 303  eSg       Sg       13 13 19.1 -1.7
       21nm,0.2s
FLACH  Flaach             0.62 145⇓iPg       Pg       13 13 12.0 -0.5
       2.9nm,0.2s
FLACH  Flaach             0.62 145  eSg       Sg       13 13 20.5 -0.3
       2.9nm,0.2s
MOF    Molkenrain         0.66 250   Pg       Pg       13 13 12.6 -0.7
STEIN  Stein am Rhein     0.69 126⇓iPg       Pg       13 13 13.4 -0.5
       2.6nm,0.1s
GUT    Gutenstein         0.71  90⇑iPg       Pg       13 13 13.8 -0.7
GUT                                  Sg       Sg       13 13 23.2 -0.8
BBS    Basel-Blauen       0.72 211⇑iPg       Pg       13 13 13.8 -0.7
BBS    Basel-Blauen       0.72 211⇑iP        Pb       13 13 13.8 -0.4
BBS                                  Sg       Sg       13 13 23.4 -0.7
SISB   Singen-Sch Ber     0.73 122   Sg       Sg       13 13 24.3 -0.3
LBG    Lerchenberg        0.77  40⇑iPg       Pg       13 13 14.6 -0.9
LBG                                 eSg       Sg       13 13 25.0 -0.8
LBG    Lerchenberg        0.77  40   Sg       Sg       13 13 25.0 -0.8
BALST  Balsthal           0.78 198⇑iPg       Pg       13 13 14.8 -1.0
       2.8nm,0.2s
ZUR    Zurich             0.80 153⇓iPg       Pg       13 13 15.4 -0.7
TUBL   Tuebingen Lnz      0.82  57   Pg       Pg       13 13 16.0 -0.5
TUBL                                 Sg       Sg       13 13 26.9 -0.6
WEIN   Weingarten         0.84 131⇓iPg       Pg       13 13 16.4 -0.5
WEIN   Weingarten         0.84 131⇓iP        Pb       13 13 16.3 +0.1
HINF   Hinteralfeld       0.85 252  ePg       Pg       13 13 15.2 -1.9
HINF                                ePn       Pn       13 13 16.3 -1.6
HINF                                eSg       Sg       13 13 25.5 -2.9
       23nm,0.3s
HINF   Hinteralfeld       0.85 252  ePn       Pn       13 13 16.3 -1.6
HINF                                eSg       Sg       13 13 25.5 -2.9
       12nm,0.3s
BOURR  Bourrignon         0.88 219⇑iPg       Pg       13 13 16.3 -1.5
BOURR  Bourrignon         0.88 219⇑iPg       Pg       13 13 16.0 -1.8
       1.8nm,0.3s
WILA   Wila               0.88 139⇓iPg       Pg       13 13 17.9 +0.1
WILA   Wila               0.88 139⇓iP        Pb       13 13 17.1 +0.1
BUCH   Bad Urach          0.94  66⇓iPn       Pn       13 13 17.3 -2.0
BUCH                                i Pg      Pg       13 13 18.1 -0.9
BUCH   Bad Urach          0.94  66  i PG      Pg       13 13 18.1 -0.9
BUCH   Bad Urach          0.94  66  i Pg      Pg       13 13 18.1 -0.9
STU    Stuttgart          1.03  47  eSg       Sg       13 13 32.5 -1.9
       SNR=2.8
STU    Stuttgart          1.03  47   Pg       Pg       13 13 19.5 -1.2
STU                                 eSg       Sg       13 13 33.0 -1.4
STU    Stuttgart          1.03  47   Pg       Pg       13 13 19.5 -1.2
STU                                 eSg       Sg       13 13 33.0 -1.5
LOMF   Lomont             1.10 229  ⇓Pn       Pn       13 13 20.8 -0.7
LOMF   Lomont             1.10 229   Pg       Pg       13 13 20.7 -1.4
LOMF                                 Sg       Sg       13 13 35.0 -1.9
HAU    Haudompre          1.15 267  ePg       Pg       13 13 20.4 -2.6
HAU                                 eSg       Sg       13 13 34.8 -3.5
HAU                                 eSn       Sn       13 13 35.9 -2.0
       41nm,0.2s
THEF   They Montfort      1.39 277   Sn       Sn       13 13 44.0 -0.1
THEF   They Montfort      1.39 277   Pg       Pg       13 13 23.2 -4.7
UBR    Uberruh            1.44 105   Pg       Pg       13 13 27.6 -1.2
UBR                                  Sg       Sg       13 13 46.1 -2.0
SWS    Schriesheim        1.47  17   Sg       Sg       13 13 45.6 -3.5
HDH    Heidenheim         1.52  70   Sn       Sn       13 13 44.3 -3.3
SIND   Sindeldorf         1.64  38   Pn       Pn       13 13 30.2 +1.0
SIND                                 Sg       Sg       13 13 50.6 -4.0
SIND   Sindeldorf         1.64  38   SG       Sg       13 13 50.6 -4.0
RFYF   Reffroy            1.80 289  ePn       Pn       13 13 29.3 -2.2
       baz=106
RFYF                                ePg       Pg       13 13 33.1 -3.0
       baz=107
RFYF                                eSn       Sn       13 13 51.2 -3.5
RFYF                                eSg       Sg       13 13 55.4 -4.8
       17nm,0.2s
RFYF   Reffroy            1.80 289  ePg       Pg       13 13 33.1 -3.0
RFYF                                eSn       Sn       13 13 51.2 -3.5
RFYF                                eSg       Sg       13 13 55.4 -4.8
       8.7nm,0.2s
ABH    Alteburg           1.83 350   Pn       Pn       13 13 34.4 +2.4
CABF   La Chapelle        1.99 223  ePn       Pn       13 13 31.0 -3.1
CABF                                ePg       Pg       13 13 36.6 -3.1
CABF                                eSg       Sg       13 14 00.5 -5.7
       3.9nm,0.2s
CABF   La Chapelle        1.99 223  ePg       Pg       13 13 36.6 -3.1
CABF                                eSg       Sg       13 14 00.5 -5.7
       2.0nm,0.2s
WLF    Walferdange        2.02 322  ePg       Pg       13 13 37.9 -2.5
       SNR=1.9
WLF                                 eSg       Sg       13 14 04.4 -3.1
       SNR=2.4
SFTF   Sexfontaines       2.02 275  ePn       Pn       13 13 31.4 -3.3
       baz=100
SFTF                                ePg       Pg       13 13 36.3 -4.2
       baz=101
SFTF                                eSn       Sn       13 13 55.5 -4.7
SFTF                                eSg       Sg       13 14 03.2 -4.2
       8.6nm,0.2s
SFTF   Sexfontaines       2.02 275  ePg       Pg       13 13 36.3 -4.2
SFTF                                eSn       Sn       13 13 55.5 -4.7
SFTF                                eSg       Sg       13 14 03.2 -4.2
       4.3nm,0.2s
MEZF   Maizieres J'vi     2.05 283  ePn       Pn       13 13 32.3 -2.7
       baz=104
MEZF                                ePg       Pg       13 13 38.0 -3.0
       baz=104
MEZF                                eSn       Sn       13 13 55.8 -5.0
MEZF                                eSg       Sg       13 14 03.2 -5.1
       4.8nm,0.2s
MEZF   Maizieres J'vi     2.05 283  ePg       Pg       13 13 38.0 -3.0
MEZF                                eSn       Sn       13 13 55.8 -5.0
MEZF                                eSg       Sg       13 14 03.2 -5.1
       2.4nm,0.2s
FUR    Furstenfeldbru     2.16  87  eSg       Sg       13 14 09.2 -2.9
       SNR=2.4
GRA1   Grafenberg Arr     2.64  51  ePg       Pg       13 13 49.4 -3.4
GRA1                                eSg       Sg       13 14 22.2 -5.9
GRF    Grafenberg Arr     2.64  51  ePg       Pg       13 13 49.4 -3.4
       SNR=2.8
GRF                                 eSg       Sg       13 14 22.2 -5.9
       SNR=3.1
LPG    La Plagne          2.73 200  ePg       Pg       13 13 50.2 -4.5
LPG                                 eSg       Sg       13 14 25.6 -5.5
       1.2nm,0.2s
UBBA   Unterbreizbach     3.02  24  eSg       Sg       13 14 35.1 -5.6
       SNR=1.4
SMF    Signal de Mont     3.20 245  ePn       Pn       13 13 46.6 -4.9
SMF                                 ePg       Pg       13 13 58.0 -6.0
SMF                                 eSg       Sg       13 14 38.7 -8.0
       4.0nm,0.2s
SMF    Signal de Mont     3.20 245  ePg       Pg       13 13 58.0 -6.0
SMF                                 eSg       Sg       13 14 38.7 -8.0
       2.0nm,0.2s
SSF    Saint Saulge       3.24 253  ePg       Pg       13 13 59.2 -5.6
SSF                                 eSg       Sg       13 14 40.0 -8.0
       1.0nm,0.2s
AVF    Avril sur Loir     3.44 250  ePn       Pn       13 13 51.0 -3.9
AVF                                 ePg       Pg       13 14 02.9 -5.9
AVF                                 eSg       Sg       13 14 45.4 -9.2
       1.1nm,0.3s
AVF    Avril sur Loir     3.44 250  ePg       Pg       13 14 02.9 -5.9
AVF                                 eSg       Sg       13 14 45.4 -9.2
       0.6nm,0.3s
MOX    Moxa               3.47  41  eSg       Sg       13 14 48.9 -6.6
       SNR=2.6
GUNZ   Gunzen             3.62  49  ePg       Pg       13 14 07.6 -4.7
       SNR=1.9
GUNZ                                eSg       Sg       13 14 53.7 -6.9
       SNR=2.1
TANN   Tannenbergstha     3.72  49  ePg       Pg       13 14 09.6 -4.7
       SNR=2.0
GEC2   GERESS Array S     3.84  76  eSg       Sg       13 15 00.8 -7.1
       SNR=2.4
BGF    Bois d'Agland      3.85 249  ePn       Pn       13 13 56.4 -4.4
BGF                                 ePg       Pg       13 14 10.5 -6.5
BGF                                 eSn       Sn       13 14 39.3 -7.3
       5.4nm,0.4s
BGF                                 eSg       Sg       13 14 58.8  -10
       7.1nm,0.4s
BGF    Bois d'Agland      3.85 249  ePg       Pg       13 14 10.5 -6.5
BGF                                 eSn       Sn       13 14 39.3 -7.3
       2.7nm,0.4s
BGF                                 eSg       Sg       13 14 58.8  -10
       3.5nm,0.4s
TCF    Toulx Ste Croi     4.37 248  ePg       Pg       13 14 20.5 -6.8
TCF                                 eSg       Sg       13 15 15.2  -10
       1.4nm,0.3s
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IDC ***05*** *13:51:45.9±1.2, 22.66S×169.77E, h54^{km}±6^{km}, mb3.8/8, mb1 4.0/8, mb1mx3.8/14, MS3.5/7, Ms1 3.5/7, ms1mx3.2/19, Error ellipse: s-maj=37.5km s-min=22.3km az=152.0*

NEIC ***05*** *13:51:48.3±0.7, 22.14S×169.37E, mb4.2/1, Error ellipse: s-maj=25.0km s-min=19.6km az=153.0*

ISC 05 13:51:43.3±2.8**, 22.2S**±0.2×**169.6E**±0.1**, h39**^{km}±21^{km}**, h60**^{km}±3.0^{km}**:pP-P, n26, σ1^{s}48**/17**, mb4.0**/8**, MS3.5**/7**, 3C-1D, Southeast of Loyalty Islands**

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Code   Station Name        Δ°   AZ°     Phase ID            Time     Res
                                        Op        ISC      h  m  s   ISC
DZM    Mont Dzumac        2.94 272  eP        P        13 52 28.3 -0.4
DZM                                 eS        S        13 53 03.9 +0.8
NOUC   Port Laguerre      3.07 271⇑eP        P        13 52 30.2 -0.3
NOUC                                eS        S        13 53 07.2 +0.8
CTA    Charters Tower    21.88 271  LR        LR       14 02 54.6
       comp=Z,37nm,19.4s,MS2.8,baz=31,slow=30
STKA   Stephens Creek    26.68 243  P         P        13 57 20.2 -0.5
       1.1nm,0.7s,mb3.5,baz=89,slow=14,SNR=4.5
STKA                                LR        LR       14 05 42.3
       comp=Z,97nm,20.9s,MS3.3,baz=25,slow=31
ASAR   Alice Springs     32.86 260  P         P        13 58 14.6 -1.2
       2.8nm,0.7s,mb4.3,baz=83,slow=9.1,SNR=32
ASAR                                PcP       PcP      14 00 58.5 -1.4
       0.6nm,0.8s,baz=104,slow=3.7,SNR=4.0
ASAR                                LR        LR       14 10 58.3
       comp=Z,63nm,19.9s,MS3.3,baz=100,slow=35
WRA    Warramunga Arr    32.95 267  P         P        13 58 14.9 -1.7
       0.6nm,0.6s,mb3.7,baz=96,slow=8.5,SNR=12
WRA                                 pP        pP       13 58 31.0 +3.5
       0.9nm,0.8s,baz=98,slow=7.9,SNR=4.7
FITZ   Fitzroy Crossi    41.38 267  P         P        13 59 27.7 +0.2
       1.9nm,0.8s,mb3.8,baz=138,slow=5.1,SNR=3.5
FITZ                                pP        pP       13 59 43.5 +5.0
       6.0nm,0.8s,baz=170,slow=3.9,SNR=5.3
FITZ                                LR        LR       14 17 21.9
       comp=Z,36nm,19.2s,MS3.3,baz=99,slow=37
NWAO   Narrogin (SRO)    47.23 245  P         P        14 00 11.9 -2.6
       10nm,0.8s,mb4.8,baz=93,slow=7.2,SNR=4.2
NWAO   Narrogin (SRO)    47.23 245  eP        P        14 00 11.7 -2.7
       1.9nm,0.6s,mb4.2
VNDA   Vanda             55.49 182  LR        LR       14 22 41.9
       comp=Z,50nm,19.6s,MS3.6,baz=323,slow=34
CMAR   Chiang Mai Arr    80.04 295  P         P        14 03 53.2 +2.3
       1.7nm,0.7s,mb4.1,baz=139,slow=4.2,SNR=10
CMAR                                pP        pP       14 04 08.6 +5.8
       3.9nm,1.3s,baz=125,slow=5.3,SNR=1.6
SNAA   Sanae             86.22 182⇓i          P        14 04 18.9 -2.4
SNAA   Sanae             86.22 182  P         P        14 04 19.5 -1.8
       1.6nm,0.8s,mb4.3,baz=192,slow=4.0,SNR=14
VNA3   Neumayer Olymp    86.80 180⇑i          P        14 04 26.2 +2.1
VNA2   Neumayer--Watz    87.10 181⇑i          P        14 04 27.9 +2.3
VNA1   Neumayer--Stat    87.38 181⇑i          P        14 04 29.2 +2.2
ILAR   Eielson Array     92.95  17  P         P        14 04 52.6 -0.5
       0.3nm,0.7s,mb3.8,baz=243,slow=5.3,SNR=5.1
ILAR                                LR        LR       14 40 54.6
       comp=Z,46nm,19.6s,MS3.9,baz=0.8,slow=32
TXAR   Lajitas Array     97.87  62  LR        LR       14 40 00.8
       comp=Z,48nm,18.9s,MS4.0,baz=115,slow=30
CLL    Collm            145.73 334  i *PPKP            14 11 33.8
EKA    Eskdalemuir Ar   146.48 353  PKPbc     PKPbc    14 11 21.9 +2.1
       1.1nm,0.6s,baz=358,slow=3.7,SNR=4.1
IDI    Anoyia           146.62 301  PKPbc     PKPbc    14 11 22.9 +2.1
       3.0nm,0.8s,baz=42,slow=6.8,SNR=4.7
KHC    Kasperske Hory   147.10 331  eP        PKPdf    14 11 23.5 +3.7
KHC                                 x         x        14 11 38.5
GERES  GERESS Array B   147.25 330  PKPbc     PKPdf    14 11 24.4 +4.3
       0.8nm,0.6s,baz=30,slow=2.0,SNR=10
GERES                               pPKPbc             14 11 38.1
       1.2nm,0.7s,baz=23,slow=2.4,SNR=5.8
GVD    Gavdhos          147.36 300  ePKPbc    PKPdf    14 11 24.2 +3.6
DAVOX  Davos            150.51 331  PKPbc     PKPdf    14 11 33.0 +7.7
       2.8nm,0.8s,baz=89,slow=1.7,SNR=4.0
DAVOX  Davos            150.51 331  PKPbc     PKPdf    14 11 33.0 +7.7
```

IDC 05 13:56:18.0±1.8**, 16.41S×178.59W, mb4.0**/5**, mb1 4.3**/5**, mb1mx4.1**/13**, 2D, Error ellipse: s-maj=100.0km s-min=24.8km az=146.0, Fiji Islands region**

```
Code   Station Name        Δ°   AZ°     Phase ID            Time     Res
                                        Op        ISC      h  m  s   ISC
STKA   Stephens Creek    39.22 239⇓iP        P        14 03 48.5 -1.4
       4.0nm,1.1s
STKA   Stephens Creek    39.22 239  P         P        14 03 48.6 -1.2
       2.2nm,0.5s,baz=78,slow=9.0,SNR=18
WB2    Warramunga Arr    44.74 258  eP        P        14 04 33.2 -2.1
WRA    Warramunga Arr    44.75 258  P         P        14 04 33.3 -2.1
       0.4nm,0.3s,baz=95,slow=7.9,SNR=42
ASAR   Alice Springs     45.05 253  P         P        14 04 35.6 -2.0
       5.4nm,0.4s,baz=89,slow=7.8,SNR=201
ASPA   Alice Springs     45.05 253⇓iP        P        14 04 35.5 -2.2
KAKA   Kakadu            47.46 268  eP        P        14 04 55.9 -0.9
       4.5nm,0.4s
ILAR   Eielson Array     84.47  13  P         P        14 08 52.2 -1.3
       0.3nm,0.4s,baz=226,slow=5.2,SNR=8.5
TXAR   Lajitas Array     85.34  58  P         P        14 08 57.5 -1.2
       0.3nm,0.7s,baz=225,slow=5.3,SNR=3.9
```

MAN 05 14:09:13.2, 8.53N×125.72E, h56^{km}**, mb4.0, ML2.8, MS2.5, 1C, Mindanao**

```
Code   Station Name        Δ°   AZ°     Phase ID            Time     Res
                                        Op        ISC      h  m  s   ISC
BUTP   Butuan             0.45 347  eP        P        14 09 26.1 +1.7
BIPH   Bislig             0.72 118⇑iP        P        14 09 27.8 +0.3
BIPH                                i S       S        14 09 37.7 -0.5
BUKP   Musuan             0.92 225  eP        P        14 09 30.7 +0.5
BUKP                                eS        S        14 09 43.4 +0.6
SCPH   Surigao            1.27 350  eP        P        14 09 35.8 +0.8
SCPH                                eS        S        14 09 43.3 -7.9
KCP    Kidapawan          1.64 203  eP        P        14 09 40.6 +0.4
KCP                                 i S       S        14 10 01.2 +1.0
MATI   Mati               1.66 161  eP        P        14 09 40.3 -0.2
MATI                                eS        S        14 10 01.9 +1.2
```

DJA 05 14:33:03.6±0.9**, 9.90S×113.82E, h33**^{km}**, MD5.0**/4**, ML4.5**/3**, 7C-2D, Error ellipse: s-maj=20.6km s-min=13.1km az=43.0, South of Jawa**

```
Code   Station Name        Δ°   AZ°     Phase ID            Time     Res
                                        Op        ISC      h  m  s   ISC
SRDI   Scrawed            1.45  13⇑ePn       Pn       14 33 26.4 -1.5
       313nm,0.2s
SRDI                              ⇓iSn       Sn       14 33 43.1 -2.8
KELI   Kelakatan          1.80  22⇓iP        P        14 33 31.6 -1.1
       409nm,0.2s
KELI   Kelakatan          1.80  22⇑ePn       Pn       14 33 32.6 -0.3
KELI                              ⇑iSn       Sn       14 33 52.0 -2.8
RATI   Rata               2.06  56⇑ePn       Pn       14 33 35.1 -1.5
       474nm,0.2s
RATI                              ⇑iSn       Sn       14 33 57.9 -3.5
KEDI   Kedomdong          2.67  58⇑iPn       Pn       14 33 43.7 -1.6
       140nm,0.2s
KEDI                              ⇑iSn       Sn       14 34 07.5 -9.4
```

IDC ***05*** *14:48:43.8±1.1, 21.05S×68.26W, h134^{km}±12^{km}, mb3.8/5, mb1 3.9/7, mb1mx3.7/13, Error ellipse: s-maj=22.6km s-min=15.8km az=94.0*

NEIC ***05*** *14:48:43.6±0.6, 21.03S×68.23W, h133^{km}±7^{km}, mb4.1/4, Error ellipse: s-maj=14.7km s-min=8.7km az=107.0*

GUC ***05*** *14:48:45.2±0.7, 21.11S×68.76W, h142^{km}±20^{km}, ML4.1*

ISC 05 14:48:43.1±0.7**, 21.12S**±0.08×**68.4W**±0.1**, h150**^{km}±8^{km}**, n21, σ1^{s}35**/24**, mb3.9**/7**, 1C-1D, Chile-Bolivia border region**

```
Code   Station Name        Δ°   AZ°     Phase ID            Time     Res
                                        Op        ISC      h  m  s   ISC
LVC    Limon Verde        1.57 198  P         P        14 49 15.2 +1.5
       77nm,0.3s,baz=23,slow=9.8,SNR=646
LVC                                 S         S        14 49 37.8 +0.4
       156nm,0.3s,baz=201,slow=19,SNR=89
LVC    Limon Verde        1.57 198⇑iP        P        14 49 15.2 +1.5
LVC                                 i S       S        14 49 38.4 +1.0
LVC                                 AMP                14 49 39.5
       comp=E,1μm,0.4s
SPCH   San Pedro de A     1.79 175  i P       P        14 49 19.3 +3.2
SPCH                                eS        S        14 49 46.0 +4.4
SPCH                                AMP                14 49 59.5
       comp=N,540nm,0.5s
ANCH   Antofagasta        3.17 216⇓iP        P        14 49 33.5 +0.1
ANCH                                i S       S        14 50 09.7 -2.1
ANCH                                AMP                14 50 13.0
       comp=E,1μm,0.1s
CPN1   Cerro Paranal      3.96 208  eP        P        14 49 43.2 -0.5
CPN1                                i S       S        14 50 28.4 -1.9
LPAZ   La Paz             4.81   3  P         P        14 49 55.5 +0.7
       comp=E,4.1nm,0.3s,baz=169,slow=8.2,SNR=73
LPAZ   La Paz             4.81   3  eP        P        14 49 54.5 -0.4
SAML   Samuel            13.09  23  eP        P        14 51 42.1 -2.2
BDFB   Brasilia          20.07  78  P         P        14 53 05.3 -1.4
       comp=E,1.3nm,0.3s,baz=251,slow=5.8,SNR=11
SNAA   Sanae             62.48 161  P         P        14 58 53.7 +1.4
       comp=E,0.3nm,0.7s,mb3.3,baz=278,slow=7.1,SNR=3.7
SNAA   Sanae             62.48 161  eP        P        14 58 53.3 +0.9
       comp=E,0.7nm,0.7s,mb3.6
CCM    Cathedral Cave    62.66 340  eP        P        14 58 53.1 -0.9
       comp=E,2.8nm,0.7s,mb4.2
DBIC   Dimbokro          68.15  73  P         P        14 59 28.8 -0.7
       comp=E,4.0nm,0.6s,mb4.3,baz=227,slow=9.3,SNR=10.0
DBIC   Dimbokro          68.15  73  eP        P        14 59 28.4 -1.1
       comp=E,3.8nm,0.6s,mb4.3
SDCO   Great Sand Dun    68.17 329  eP        P        14 59 30.7 +1.4
       comp=E,0.8nm,0.5s,mb3.7
PDAR   Pinedale Array    74.03 330  P         P        15 00 05.3 +1.2
       comp=E,0.4nm,0.6s,mb3.3,baz=130,slow=7.0,SNR=2.6
ULM    Lac du Bonnet     75.10 342  P         P        15 00 10.0 -0.1
       comp=E,4.8nm,0.6s,mb4.3,baz=165,slow=4.6,SNR=11
YKA    Yellowknife Ar    90.99 340  P         P        15 01 31.9 +1.1
       comp=E,1.7nm,0.8s,mb4.1,baz=133,slow=4.4,SNR=24
YKA    Yellowknife Ar    90.99 340  P         P        15 01 31.9 +1.1
ASAR   Alice Springs    130.48 207  PKP       PKPdf    15 07 39.5 +2.8
       comp=E,0.6nm,1.2s,baz=137,slow=1.9,SNR=4.0
SONM   Songino Array    153.01   8  PKPbc     PKPdf    15 08 25.8  +11
       comp=E,0.5nm,0.5s,slow=1.4,SNR=4.1
```

IDC ***05*** *14:50:34.9±0.7, 8.41S×124.67E, mb4.4/10, mb1 4.5/13, mb1mx4.5/18, ML4.3/3, MS3.7/6, Ms1 3.8/6, ms1mx3.7/13, Error ellipse: s-maj=28.3km s-min=16.1km az=57.0*

NEIC ***05*** *14:50:36.6±0.4, 8.39S×124.75E, h15^{km}, mb4.7/17, Error ellipse: s-maj=14.2km s-min=8.0km az=69.0*

BJI ***05*** *14:50:36.6, 8.40S×124.70E, h15^{km}, mB5.6, mb4.9*

MOS ***05*** *14:50:41.8±1.5, 8.34S×124.69E, h70^{km}, mb4.7/6, Error ellipse: s-maj=25.6km s-min=16.3km az=118.2*

DJA ***05*** *14:50:44.5±3.4, 7.96S×124.69E, h139^{km}±84^{km}, mb4.5/5, Error ellipse: s-maj=84.1km s-min=12.6km az=138.0*

ISC 05 14:50:37.8±1.0**, 8.63S**±0.04×**124.99E**±0.05**, h54**^{km}±10^{km}**, n76, σ1^{s}43**/85**, mb4.6**/33**, MS3.8**/4**, 4C-7D, Timor region**

```
Code   Station Name        Δ°   AZ°     Phase ID            Time     Res
                                        Op        ISC      h  m  s   ISC
NINI   Niniconang         6.67 308⇓eP        P        14 52 14.7 -0.8
       178nm,0.4s
BUNI   Buntu Taipa        6.77 317⇓eP        P        14 52 11.9 -5.1
       21nm,0.2s
TANI   Tanete Lipujan     7.59 312⇓eP        P        14 52 25.0 -3.3
       27nm,0.4s
KAKA   Kakadu             8.37 120⇓iP        P        14 52 39.2 +0.1
       45nm,0.4s
KAKA                                eS        S        14 54 13.2 +0.1
KEDI   Kedomdong          8.78 270  eP        P        14 52 45.3 +0.6
       44nm,0.3s
RATI   Rata               9.35 269⇓eP        P        14 52 54.6 +2.1
       132nm,0.5s
FITZ   Fitzroy Crossi     9.44 176  eP        P        14 52 54.8 +1.1
       24nm,0.7s
FITZ                                eS        S        14 54 38.9 -0.6
FITZ   Fitzroy Crossi     9.44 176  Pn        P        14 52 54.4 +0.7
       3.2nm,0.3s,baz=5.0,slow=10,SNR=79
FITZ                                Sn        S        14 54 39.2 -0.3
       8.0nm,0.3s,baz=165,slow=6.3,SNR=14
FITZ                                LR        LR       14 56 52.2
       comp=Z,146nm,21.6s,baz=14,slow=39
MBWA   Marble Bar        13.45 202  eP        P        14 53 48.4 +0.6
MBWA                                eS        S        14 56 15.6 -0.9
WRAB   Tennant Creek     14.44 142  i P       P        14 54 00.6 -0.2
WRAB   Tennant Creek     14.44 142  eP        P        14 53 58.5 -2.3
       43nm,0.8s
WRAB                                eS        S        14 56 30.7 -9.3
WRA    Warramunga Arr    14.44 142  Pn        P        14 53 58.7 -2.1
       1.9nm,0.3s,baz=318,slow=14,SNR=89
WRA                                 Sn        S        14 56 35.1 -4.9
       1.9nm,0.3s,baz=321,slow=24,SNR=6.9
WB2    Warramunga Arr    14.44 142  eP        P        14 53 59.1 -1.8
WB2                                 eS        S        14 56 29.4  -11
YOMI   Yo Moklole        16.59  70⇓eP        P        14 54 31.0 +2.6
ASPA   Alice Springs     17.22 151  eP        P        14 54 38.9 +2.7
ASPA                                eS        S        14 57 42.8 -1.4
ASAR   Alice Springs     17.22 151  P         P        14 54 37.4 +1.1
       0.9nm,0.3s,baz=320,slow=11,SNR=84
ASAR                                S         S        14 57 43.2 -1.1
       1.2nm,0.3s,baz=322,slow=22,SNR=6.5
ASAR                                LR        LR       15 02 11.7
       comp=Z,263nm,19.9s,baz=322,slow=40
```

PMG	**Port Moresby**	21.91	94	P	P	14 55 33.5	+5.3
	59nm,0.8s,mb5.1,baz=279,slow=3.8,SNR=28						
PMG	**Port Moresby**	21.91	94	*i* P	P	14 55 33.8	+5.6
FORT	**Forrest**	22.23	173	*e*P	P	14 55 37.1	+5.9
	84nm,0.7s,mb5.3						
CTA	**Charters Tower**	23.51	121	*e*P	P	14 55 50.7	+6.9
	9.7nm,0.9s,mb4.2						
CTA	**Charters Tower**	23.51	121	P	P	14 55 51.0	+7.2
	11nm,0.8s,mb4.3,baz=290,slow=14,SNR=11						
CTA				LR	LR	15 05 04.7	
	comp=Z,178nm,21.6s,MS3.5,baz=39,slow=36						
CTA	**Charters Tower**	23.51	121	P	P	14 55 51.0	+7.2
CTA				pmax	pmax		
	comp=Z,11nm,0.8s						
CTA				MLR	MLR		
	comp=Z,178nm,21.6s						
CTAO	**Charters Tower**	23.51	121	*e*P	P	14 55 50.2	+6.4
	comp=Z,28nm,1.3s,mb4.5						
NWAO	**Narrogin (SRO)**	25.22	195	P	P	14 56 03.5	+3.2
	comp=Z,13nm,1.0s,mb4.4,baz=59,slow=5.9,SNR=3.1						
NWAO	**Narrogin (SRO)**	25.22	195	P	P	14 56 03.5	+3.2
NWAO				pmax	pmax		
	comp=Z,13nm,1.0s						
STKA	**Stephens Creek**	27.81	149	*e*P	P	14 56 29.9	+5.7
	comp=Z,5.9nm,1.1s,mb4.1						
STKA	**Stephens Creek**	27.81	149	P	P	14 56 28.0	+3.8
	comp=Z,3.5nm,0.7s,mb4.1,baz=320,slow=5.6,SNR=6.9						
STKA				LR	LR	15 09 59.3	
	comp=Z,385nm,19.3s,MS4.0,baz=325,slow=41						
TOO	**Toolangi**	34.27	150	*e*P	P	14 57 28.4	+7.5
	comp=Z,4.1nm,0.9s,mb4.4						
CMAR	**Chiang Mai Arr**	37.21	316	P	P	14 57 46.0	-0.1
	comp=Z,4.4nm,0.7s,mb4.4,baz=143,slow=6.8,SNR=22						
CMAR				LR	LR	15 14 29.8	
	comp=Z,95nm,19.3s,MS3.6,baz=140,slow=39						
CMAR	**Chiang Mai Arr**	37.21	316	P	P	14 57 46.0	0.0
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CMAR				MLR	MLR		
	comp=Z,95nm,19.3s						
CMAR	**Chiang Mai Arr**	37.21	316	P	P	14 57 46.0	-0.1
CMAR				LR	LR	15 14 29.8	
CHG	**Chiang Mai**	37.46	317	⇑P	P	14 57 50.7	+2.6
	comp=Z,11nm,0.9s,mb4.7						
CHRT	**Chiangrai**	37.65	319	⇑P	P	14 57 50.0	+0.3
	comp=Z,118nm,1.1s,mb5.5						
SSE	**Sheshan**	39.66	355	P	P	14 58 07.7	+1.4
SSE				XP	sP	14 58 20.9	-6.0
SSE				S	S	15 04 13.4	+7.9
SSE				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.7						
SSE				AMB	AMB		
	comp=Z,470nm,5.3s						
KMI	**Kunming**	39.94	328	*e*P	P	14 58 11.1	+2.5
KMI				PP	PP	14 59 47.6	+2.8
KMI				S	S	15 04 17.5	+7.8
KMI				AMB	AMB		
	comp=Z,19nm,1.3s,mb4.7						
CD2	**Chengdu**	44.27	334	*e*P	P	14 58 46.8	+2.7
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.5						
MAT	**Matsushiro**	46.62	15	P	P	14 59 01.8	-0.8
MAT	**Matsushiro**	46.62	15	P	P	14 59 02.0	-0.6
	comp=Z,19nm,1.2s,mb4.9						
LSA	**Lhasa**	50.12	321	P	P	14 59 29.8	-0.2
GUN	**Gumba**	52.44	315	*e*P	P	14 59 46.4	-1.0
	comp=Z,17nm,0.8s,mb5.0						
PKI	**Pulchoki**	52.56	315	*e*P	P	14 59 47.0	-1.3
	comp=Z,6.7nm,0.5s,mb4.8						
KKN	**Kakani**	52.78	315	*e*P	P	14 59 48.9	-1.1
DMN	**Daman**	52.80	314	*e*P	P	14 59 48.8	-1.3
MDJ	**Mudanjiang**	53.16	4	P	P	14 59 52.7	+0.1
MDJ				AMB	AMB		
	comp=Z,23nm,1.2s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,420nm,5.5s						
MDJ	**Mudanjiang**	53.16	4	*e*P	P	14 59 52.7	+0.1
	comp=Z,13nm,0.8s,mb4.9						
GTA	**Gaotai**	53.20	336	*e*P	P	14 59 55.0	+2.0
GTA				AP	pP	15 00 01.2	-6.3
GTA				XP	sP	15 00 04.6	-9.0
GTA				AMB	AMB		
	comp=Z,5.0nm,1.4s,mb4.2						
GKN	**Gorkha**	53.36	314	*e*P	P	14 59 52.3	-2.1
KOLN	**Koldanda**	53.96	314	*e*P	P	14 59 57.0	-1.7
	comp=Z,8.3nm,0.7s,mb4.8						
ULN	**Ulaanbaatar**	58.45	346	*i* P	P	15 00 30.8	+0.3
ULN	**Ulaanbaatar**	58.45	346	*e*P	P	15 00 30.0	-0.5
	comp=Z,6.8nm,1.3s,mb4.5						
SONM	**Songino Array**	58.58	345	P	P	15 00 30.6	-0.8
	comp=Z,5.2nm,1.3s,mb4.4,baz=162,slow=7.8,SNR=8.5						
ZAK	**Zakamensk**	61.73	344	*e*P	P	15 00 49.8	-3.1
AAK	**Ala-Archa**	68.67	322	*i* P	P	15 01 36.6	-1.1
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
AAK	**Ala-Archa**	68.67	322	*e*P	P	15 01 36.6	-1.1
	comp=Z,2.5nm,0.7s,mb4.2						
AML	**Almayashu**	68.88	322	*e*P	P	15 01 39.0	0.0
	comp=Z,4.0nm,0.8s,mb4.4						
YAK	**Yakutsk**	70.54	2	*i* P	P	15 01 49.2	+0.4
YAK				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
YAK	**Yakutsk**	70.54	2	*e*P	P	15 01 48.6	-0.1
	comp=Z,12nm,1.0s,mb4.8						
KURK	**Kurchatov**	71.41	331	*i* P	P	15 01 54.0	-0.2
KURK	**Kurchatov**	71.41	331	*e*P	P	15 01 53.4	-0.8
	comp=Z,14nm,1.3s,mb4.7						
VNDA	**Vanda**	71.48	172	P	P	15 01 58.4	+4.1
	comp=Z,1.1nm,0.5s,mb4.0,baz=317,slow=8.5,SNR=12						
VNDA	**Vanda**	71.48	172	P	P	15 01 58.4	+4.1
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
VNDA	**Vanda**	71.48	172	P	P	15 01 58.4	+4.1
SBA	**Scott Base**	72.43	171	*e*P	P	15 02 00.8	+0.9
	comp=Z,40nm,1.8s,mb5.0						
BVAR	**Borovoye Array**	76.86	330	P	P	15 02 26.0	+0.2
	comp=Z,1.0nm,0.6s,mb3.9,baz=117,slow=3.3,SNR=6.0						
BRVK	**Borovoye**	76.94	330	P	P	15 02 26.6	+0.4
	comp=Z,7.8nm,1.3s,mb4.5						
CHKZ	**Chkalovo**	77.12	330	*e*P	P	15 02 26.6	-0.6
	comp=Z,3.7nm,1.0s,mb4.3						
TIXI	**Tiksi**	80.14	1	*e*P	P	15 02 43.3	-0.1
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
QSPA	**South Pole Qui**	81.36	180	*e*P	P	15 02 55.7	+6.0
	comp=Z,11nm,0.6s,mb5.0						
KMBO	**Kilima Mbogo**	87.59	269	P	P	15 03 24.5	+2.3
	comp=Z,0.4nm,0.4s,mb4.0,baz=53,slow=5.1,SNR=3.5						
SNAA	**Sanae**	92.89	194	P	P	15 03 50.2	+4.5
	comp=Z,0.8nm,0.6s,mb4.3,baz=202,slow=6.2,SNR=18						
SNAA	**Sanae**	92.89	194	*i* P	P	15 03 49.0	+3.3
SNAA	**Sanae**	92.89	194	⇓*i*P	P	15 03 50.4	+4.7
	comp=Z,0.1nm,0.6s						
ANN	**Anapa**	94.28	314	⇑*i*P	P	15 03 47.4	-5.2
ANN				pmax	pmax		
	comp=Z,64nm,1.4s						
VNA2	**Neumayer--Watz**	94.50	194	⇑*i*	P	15 04 02.8	+10
ILAR	**Eielson Array**	96.94	26	LR	LR	15 47 05.3	
	comp=Z,55nm,19.0s,MS4.1,baz=182,slow=35						
LPAZ	**La Paz**	152.05	152	PKPbc	PKPdf	15 10 36.5	+15
	comp=Z,1.6nm,0.5s,baz=154,slow=3.1,SNR=12						

DJA 05 15:08:40.7±0.9**, 8.95S**×**113.74E, h202**^{km}±10^{km}**, MD4.9**/4**, ML3.4**/3**, 2C-5D, Error ellipse: s-maj=64.2km s-min=16.5km az=7.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	0.61	41	⇓*i*Pn	P	15 09 08.7	-0.1
	152nm,0.3s						
SRDI				⇓*i*Sn	S	15 09 29.2	-1.4
KELI	**Kelakatan**	1.04	46	⇑*i*Pn	P	15 09 10.7	-0.5
	86nm,0.2s						
KELI				⇓*i*Sn	S	15 09 34.0	-0.8
RATI	**Rata**	1.79	83	⇓*i*Pn	P	15 09 17.0	-0.7
	31nm,0.2s						
RATI				⇑*i*Sn	S	15 09 45.4	-0.8
KEDI	**Kedomdong**	2.40	79	*e*Pn	P	15 09 24.8	+0.8
	7.9nm,0.2s						
KEDI				⇓*i*Sn	S	15 09 54.0	-3.5

MAN 05 15:23:12.3, 11.35N×**125.40E, h28**^{km}**, mb4.0, ML2.8, MS2.4, Samar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BESP	**Borongan**	0.25	8	*e*P	Pb	15 23 20.3	+1.4
BESP				*e*S	Sb	15 23 27.0	+3.5
PLP	**Palo**	0.46	246	*i* P	Pb	15 23 22.9	+1.0
PLP				*i* S	Sb	15 23 31.9	+3.4
OCLP	**Ormoc**	0.83	249	*e*P	Pb	15 23 30.2	+2.0
CNP	**Catarman**	1.36	328	*e*P	Pn	15 23 35.4	-0.4

IDC ***05*** *15:30:51.2±2.5, 20.22S×66.47E, mb3.8/7, mb1 4.0/7, mb1mx3.8/18, MS3.4/5, Ms1 3.5/5, ms1mx3.2/20, Error ellipse: s-maj=79.5km s-min=27.7km az=48.0*

NEIC ***05*** *15:30:54.2±0.9, 20.06S×66.71E, h10*^{km}*, mb4.2/1, Error ellipse: s-maj=29.6km s-min=19.8km az=93.0*

ISC 05 15:30:52.0±0.9**, 20.1S**±0.2×**66.7E**±0.2**, h10**^{km}**, n11,** σ0^{s}**54**/8**, mb3.9**/8**, MS3.4**/5**, Mauritius - Reunion region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	**Mawson**	47.59	182	LR	LR	15 55 12.5	
	comp=Z,51nm,18.8s,MS3.5,baz=247,slow=31						
CMAR	**Chiang Mai Arr**	49.67	42	P	P	15 39 46.7	+0.4
	0.7nm,0.9s,mb3.7,baz=238,slow=8.5,SNR=4.4						
CMAR				LR	LR	15 57 40.2	
	comp=Z,95nm,20.4s,MS3.8,baz=309,slow=32						
FITZ	**Fitzroy Crossi**	55.50	99	LR	LR	16 00 10.5	
	comp=Z,30nm,19.9s,MS3.4,baz=163,slow=32						
ASAR	**Alice Springs**	61.97	107	P	P	15 41 14.3	-0.5
	1.2nm,0.8s,mb4.0,baz=285,slow=5.5,SNR=11						
ASAR				LR	LR	16 05 04.0	
	comp=Z,4.4nm,18.2s,MS2.7,baz=33,slow=33						
WRA	**Warramunga Arr**	63.13	103	P	P	15 41 22.5	-0.1
	0.8nm,0.7s,mb3.9,baz=260,slow=5.3,SNR=6.0						
SNAA	**Sanae**	64.68	199	*e*P	P	15 41 32.3	+0.4
	1.8nm,0.9s,mb4.1						
VNDA	**Vanda**	71.67	167	LR	LR	16 09 09.0	
	comp=Z,56nm,19.8s,MS3.8,baz=249,slow=32						
BVAR	**Borovoye Array**	72.86	2	P	P	15 42 21.9	-0.9
	1.1nm,0.8s,mb3.9,baz=153,slow=6.4,SNR=4.7						
ZAL	**Zalesovo**	75.33	11	P	P	15 42 37.5	+0.4
	1.0nm,0.8s,mb3.8,baz=257,slow=3.7,SNR=3.8						
SONM	**Songino Array**	76.40	26	P	P	15 42 44.1	+0.8
	1.4nm,0.9s,mb3.9,baz=221,slow=2.4,SNR=10.0						
AKASG	**Malin Array Be**	77.81	337	P	P	15 42 50.7	-0.3
	0.4nm,0.6s,mb3.5,baz=136,slow=4.6,SNR=4.6						

IDC 05 15:42:03.9±0.9**, 20.57N**×**145.27E, mb3.6**/6**, mb1 3.9**/6**, mb1mx3.7**/20**, Error ellipse: s-maj=49.6km s-min=19.2km az=107.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	41.44	320	P	P	15 49 52.6	-1.3
	0.2nm,0.5s,baz=136,slow=7.6,SNR=5.0						
WRA	**Warramunga Arr**	41.66	196	P	P	15 49 54.7	-1.3
	0.2nm,0.3s,baz=16,slow=8.7,SNR=7.4						
FITZ	**Fitzroy Crossi**	42.99	208	P	P	15 50 04.7	-2.2
	1.0nm,0.4s,baz=42,slow=10,SNR=8.8						
ASAR	**Alice Springs**	45.34	195	P	P	15 50 23.6	-2.3
	0.6nm,1.1s,baz=13,slow=8.5,SNR=3.9						
ILAR	**Eielson Array**	62.16	27	P	P	15 52 26.4	-2.5
	0.6nm,0.7s,baz=258,slow=5.3,SNR=12						
YKA	**Yellowknife Ar**	76.53	28	P	P	15 53 55.8	-1.5
	0.9nm,0.5s,baz=291,slow=5.5,SNR=12						

STR ***05*** *16:14:09.6±0.5, 48.08N×8.02E, h10*^{km}*±1*^{km}*, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ZUR ***05*** *16:14:09.5, 48.08N×7.99E, h10*^{km}*, ML1.8/9*

BGR ***05*** *16:14:09.4±0.2, 48.08N×8.05E, h10*^{km}*, ML2.0/2, Error ellipse: s-maj=2.2km s-min=1.1km az=151.0*

CSEM ***05*** *16:14:09.5±0.1, 48.07N×8.04E, h15*^{km}*, ML2.6/4, Error ellipse: s-maj=1.8km s-min=1.3km az=14.0*

LDG ***05*** *16:14:09.8±0.1, 48.08N×8.01E, h10*^{km}*, Md2.3/3, Ml2.4/16, Error ellipse: s-maj=1.4km s-min=1.0km az=158.0*

LEDBW 05 16:14:09.9±0.1**, 48.08N**×**8.04E, h11**^{km}±1^{km}**, ML2.0, 8C-6D, Error ellipse: s-maj=4.8km s-min=1.2km az=123.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIZ	**Kirchzarten**	0.15	212	⇑*i*Pg	Pg	16 14 13.5	0.0
KIZ				*i* Sg	Sg	16 14 16.0	+0.1
FELD	**Feldberg**	0.21	186	⇓*i*Pg	Pg	16 14 14.5	0.0
FELD				*e*Sg	Sg	16 14 17.4	-0.1
	SNR=12						
LIBD	**Limburg**	0.30	283	Pg	Pg	16 14 16.1	0.0
LIBD				*e*Sg	Sg	16 14 19.8	-0.5
	SNR=8.0						
LIBD	**Limburg**	0.30	283	Pg	Pg	16 14 16.1	-0.1
LIBD				Sg	Sg	16 14 20.6	+0.3
BFO	**Black Forest**	0.32	38	⇑*i*Pg	Pg	16 14 16.3	-0.2
BFO				Sg	Sg	16 14 20.6	-0.4
SLE	**Schleitheim**	0.44	136	⇓*i*Pg	Pg	16 14 18.6	-0.3
SLE				*e*Sg	Sg	16 14 24.7	-0.3
SPAK	**Spaichingen**	0.50	88	Pg	Pg	16 14 19.8	-0.3
SULZ	**Sulz-Cheisache**	0.56	174	⇓*i*Pg	Pg	16 14 20.7	-0.5
SULZ				*e*Sg	Sg	16 14 28.2	-0.6
WLS	**Welschbruch**	0.56	306	Pg	Pg	16 14 20.9	-0.4
WLS				*e*Sg	Sg	16 14 28.4	-0.5
	SNR=8.8						
WLS	**Welschbruch**	0.56	306	Sg	Sg	16 14 28.4	-0.5
	SNR=8.8						
WLS	**Welschbruch**	0.56	306	Pg	Pg	16 14 20.8	-0.5
ECH	**Echery**	0.60	283	Pg	Pg	16 14 21.5	-0.6
ECH				*e*Sg	Sg	16 14 28.9	-1.3
	SNR=10						
ECH	**Echery**	0.60	283	Pg	Pg	16 14 21.3	-0.8
ECH				Sg	Sg	16 14 29.2	-1.0
ECH	**Echery**	0.60	283	Sg	Sg	16 14 29.2	-1.0
CDF	**Champ du Feu**	0.60	303	*e*Pg	Pg	16 14 21.5	-0.6
CDF				*e*Sg	Sg	16 14 29.1	-1.2
	18nm,0.2s						
CDF	**Champ du Feu**	0.60	303	*e*Pg	Pg	16 14 21.6	-0.6
	SNR=21						
CDF				*e*Sg	Sg	16 14 29.5	-0.8
	SNR=4.4						
TRULL	**Truellikon**	0.61	135	*e*Pg	Pg	16 14 21.8	-0.5
FLACH	**Flaach**	0.62	145	⇓*i*P	Pb	16 14 22.1	-0.2
MOF	**Molkenrain**	0.65	249	Pg	Pg	16 14 22.5	-0.5
MOF				*e*Sg	Sg	16 14 30.3	-1.4
	SNR=2.1						
MOF	**Molkenrain**	0.65	249	Sg	Sg	16 14 30.3	-1.4
	SNR=2.1						
MOF	**Molkenrain**	0.65	249	Pg	Pg	16 14 22.3	-0.7
STEIN	**Stein am Rhein**	0.70	126	*e*Pg	Pg	16 14 23.6	-0.4
BBS	**Basel-Blauen**	0.71	210	*e*Pg	Pg	16 14 23.2	-1.0
	SNR=4.7						
BBS	**Basel-Blauen**	0.71	210	Sg	Sg	16 14 34.0	+0.1
GUT	**Gutenstein**	0.72	91	⇑*i*Pg	Pg	16 14 23.9	-0.6
GUT				Sg	Sg	16 14 33.6	-0.6
GUT	**Gutenstein**	0.72	91	⇑*i*P	Pb	16 14 23.9	-0.2
GUT				P		16 14 24.2	
GUT				S	Sb	16 14 33.6	-0.1
SISB	**Singen-Sch Ber**	0.74	122	P	Pb	16 14 24.4	+0.1
SISB				S	Sb	16 14 34.5	+0.3
SISB				S	Sb	16 14 35.8	+1.6
LBG	**Lerchenberg**	0.77	41	⇑*e*Pg	Pg	16 14 24.5	-1.0
LBG				Sg	Sg	16 14 34.7	-1.1
BALST	**Balsthal**	0.78	197	⇑*i*Pg	Pg	16 14 24.6	-1.0
ZUR	**Zurich**	0.80	153	⇑*i*Pg	Pg	16 14 25.4	-0.7
TUBL	**Tuebingen Lnz**	0.83	57	Pg	Pg	16 14 26.0	-0.5
TUBL				Sg	Sg	16 14 36.6	-1.0
TUBL	**Tuebingen Lnz**	0.83	57	P	Pb	16 14 26.0	+0.3
TUBL				S	Sb	16 14 36.8	+0.1
HINF	**Hinteralfeld**	0.84	252	*e*Pg	Pg	16 14 24.9	-1.8
HINF				*e*Sg	Sg	16 14 35.7	-2.3
	11nm,0.2s						
HINF	**Hinteralfeld**	0.84	252	*e*Pg	Pg	16 14 25.0	-1.7
	SNR=14						
HINF				*e*Sg	Sg	16 14 36.1	-1.9
	SNR=3.7						
WEIN	**Weingarten**	0.85	131	⇓*i*Pg	Pg	16 14 26.4	-0.5
BOURR	**Bourrignon**	0.88	219	⇑*i*Pg	Pg	16 14 25.8	-1.7
WILA	**Wila**	0.89	138	⇓*i*Pg	Pg	16 14 27.2	-0.6
LANF	**Langenberg**	0.91	350	*e*Sg	Sg	16 14 39.2	-1.2
	SNR=2.9						
BUCH	**Bad Urach**	0.95	67	⇑*i*Pn	Pn	16 14 28.2	-0.9
BUCH				Sn	Sn	16 14 40.5	-2.2
BUCH	**Bad Urach**	0.95	67	⇑*i*P	Pb	16 14 28.2	+0.2
BUCH				S	Sb	16 14 41.0	+0.7
STU	**Stuttgart**	1.03	48	*e*Sg	Sg	16 14 42.7	-1.8
	SNR=3.0						
LOMF	**Lomont**	1.10	229	*e*Pg	Pg	16 14 30.3	-1.6
	SNR=7.0						
LOMF				Pn	Pn	16 14 30.5	-0.6
LOMF				*e*Sg	Sg	16 14 44.2	-2.4
	SNR=8.3						
LOMF	**Lomont**	1.10	229	P	Pb	16 14 30.5	+0.1
LOMF	**Lomont**	1.10	229	Pg	Pg	16 14 30.4	-1.5
LOMF				Sg	Sg	16 14 45.2	-1.3
HAU	**Haudompre**	1.14	267	*e*Pn	Pn	16 14 29.6	-2.1
HAU				*e*Pg	Pg	16 14 31.3	-1.3
HAU				*e*Sg	Sg	16 14 44.9	-2.9
	27nm,0.2s						
HAU	**Haudompre**	1.14	267	*e*Pn	Pn	16 14 30.6	-1.1
	SNR=10						
HAU				*e*Sg	Sg	16 14 45.9	-2.0
	SNR=4.4						
HAU	**Haudompre**	1.14	267	*e*Pg	Pg	16 14 31.3	-1.3
HAU				*e*Sg	Sg	16 14 44.9	-2.9
	14nm,0.2s						
THEF	**They Montfort**	1.38	277	*e*Pn	Pn	16 14 32.9	-2.3
	SNR=3.1						
THEF				*e*Sg	Sg	16 14 52.9	-3.0
	SNR=5.1						
UBR	**Uberruh**	1.45	105	Sg	Sg	16 14 56.2	-2.1
HDH	**Heidenheim**	1.53	70	Pn	Pn	16 14 39.1	+1.8
HDH				Sg	Sg	16 14 59.2	-1.9
HDH	**Heidenheim**	1.53	70	SG	Sg	16 14 59.2	-1.9
TOD	**Tromm**	1.61	18	*e*Sg	Sg	16 15 00.0	-3.4
	SNR=2.4						
SIND	**Sindeldorf**	1.64	39	Pn	Pn	16 14 40.8	+1.9
SIND				Sg	Sg	16 15 01.6	-3.0
SIND	**Sindeldorf**	1.64	39	SG	Sg	16 15 01.6	-3.0
SIND	**Sindeldorf**	1.64	39	P	Pn	16 14 40.8	+1.9
SIND				S	Sn	16 15 01.6	+1.5
RUP	**Ruppelstein**	1.74	339	*e*Pg	Pg	16 14 42.8	-2.0
	SNR=2.2						
RFYF	**Reffroy**	1.79	289	*e*Pn	Pn	16 14 39.4	-1.7
	baz=109						
RFYF				*e*Pg	Pg	16 14 43.4	-2.3
	baz=107						
RFYF				*e*Sn	Sn	16 14 59.9	-4.1
RFYF				*e*Sg	Sg	16 15 05.4	-4.3
	8.1nm,0.2s						
RFYF	**Reffroy**	1.79	289	*e*Pg	Pg	16 14 42.5	-3.2
	SNR=1.6						
RFYF				*e*(Sn)	Sn	16 15 00.5	-3.5
	SNR=1.9						
RFYF				*e*Sg	Sg	16 15 06.9	-2.8
	SNR=2.9						
RFYF	**Reffroy**	1.79	289	*e*Pg	Pg	16 14 43.4	-2.3
	baz=107						
RFYF				*e*Sn	Sn	16 14 59.9	-4.1
RFYF				*e*Sg	Sg	16 15 05.4	-4.3
	4.1nm,0.2s						
CABF	**La Chapelle**	1.98	223	*e*Pn	Pn	16 14 40.9	-2.9
CABF				*e*Pg	Pg	16 14 46.5	-3.0
CABF				*e*Sg	Sg	16 15 10.6	-5.3
	2.0nm,0.2s						
CABF	**La Chapelle**	1.98	223	*e*Pg	Pg	16 14 46.5	-3.0
CABF				*e*Sg	Sg	16 15 10.6	-5.3
	1.0nm,0.2s						
SFTF	**Sexfontaines**	2.01	275	*e*Pn	Pn	16 14 41.8	-2.4
SFTF				*e*Pg	Pg	16 14 46.6	-3.5
SFTF				*e*Sn	Sn	16 15 05.5	-4.0
SFTF				*e*Sg	Sg	16 15 12.3	-4.6
	4.0nm,0.2s						
SFTF	**Sexfontaines**	2.01	275	*e*(Sn)	Sn	16 15 05.4	-4.1
	SNR=1.8						
SFTF				*e*Sg	Sg	16 15 13.4	-3.5
	SNR=6.4						
SFTF	**Sexfontaines**	2.01	275	*e*Pg	Pg	16 14 46.6	-3.5
SFTF				*e*Sn	Sn	16 15 05.5	-4.0
SFTF				*e*Sg	Sg	16 15 12.3	-4.6
	2.0nm,0.2s						
WLF	**Walferdange**	2.01	323	*e*Sg	Sg	16 15 13.3	-3.6
	SNR=1.6						
MEZF	**Maizieres J’vi**	2.04	283	*e*Pn	Pn	16 14 42.4	-2.2
	baz=106						
MEZF				*e*Pg	Pg	16 14 48.5	-2.1
	baz=105						
MEZF				*e*Sn	Sn	16 15 06.1	-4.1
MEZF				*e*Sg	Sg	16 15 12.9	-4.8
	5.0nm,0.2s						
MEZF	**Maizieres J’vi**	2.04	283	*e*Sg	Sg	16 15 13.9	-3.8
	SNR=6.4						
MEZF	**Maizieres J’vi**	2.04	283	*e*Pg	Pg	16 14 48.5	-2.1
	baz=105						
MEZF				*e*Sn	Sn	16 15 06.1	-4.1
MEZF				*e*Sg	Sg	16 15 12.9	-4.8
	2.5nm,0.2s						
GRF	**Grafenberg Arr**	2.65	51	*e*Sg	Sg	16 15 33.6	-4.6
	SNR=2.0						
LPL	**La Plagne**	2.72	200	*e*Pg	Pg	16 14 59.9	-4.3
LPL				*e*Sg	Sg	16 15 33.9	-6.6
	1.0nm,0.4s						
LPG	**La Plagne**	2.73	199	*e*Pg	Pg	16 15 00.5	-4.0
LPG				*e*Sg	Sg	16 15 34.2	-6.7
	3.2nm,0.5s						
SMF	**Signal de Mont**	3.19	245	*e*Pn	Pn	16 14 56.4	-4.7
SMF				*e*Pg	Pg	16 15 09.1	-4.6
SMF				*e*Sg	Sg	16 15 48.6	-7.6
	2.9nm,0.2s						
SMF	**Signal de Mont**	3.19	245	*e*Pg	Pg	16 15 09.1	-4.6
SMF				*e*Sg	Sg	16 15 48.6	-7.6
	1.5nm,0.2s						
BAIF	**Baives**	3.20	310	*e*Sg	Sg	16 15 48.8	-7.7
	0.9nm,0.3s						
SSF	**Saint Saulge**	3.23	253	*e*Pn	Pn	16 14 57.9	-3.7
SSF				*e*Pg	Pg	16 15 09.8	-4.6
SSF				*e*Sg	Sg	16 15 49.3	-8.2
	2.2nm,0.3s						
SSF	**Saint Saulge**	3.23	253	*e*Pg	Pg	16 15 09.8	-4.6
SSF				*e*Sg	Sg	16 15 49.3	-8.2
	1.1nm,0.3s						
AVF	**Avril sur Loir**	3.43	250	*e*Pn	Pn	16 15 00.1	-4.4
AVF				*e*Pg	Pg	16 15 13.0	-5.4
AVF				*e*Sg	Sg	16 15 55.8	-8.4
	0.6nm,0.2s						
AVF	**Avril sur Loir**	3.43	250	*e*Pg	Pg	16 15 13.0	-5.4
AVF				*e*Sg	Sg	16 15 55.8	-8.4
	0.3nm,0.2s						
ORIF	**Oris-en-Rattie**	3.50	206	*e*Sg	Sg	16 15 58.4	-8.0
	0.8nm,0.2s						
WERD	**Werda**	3.66	48	*e*Sg	Sg	16 16 03.4	-8.6
	SNR=1.7						
HYF	**Humbligny**	3.73	259	*e*Pn	Pn	16 15 05.1	-3.7
HYF				*e*Pg	Pg	16 15 19.2	-5.3
HYF				*e*Sg	Sg	16 16 06.1	-8.2
HYF	**Humbligny**	3.73	259	*e*Pg	Pg	16 15 19.2	-5.3
HYF				*e*Sg	Sg	16 16 06.1	-8.2
BGF	**Bois d’Agland**	3.84	249	*e*Sg	Sg	16 16 08.9	-9.0
	4.9nm,0.5s						
GEC2	**GERESS Array S**	3.85	76	*e*Sg	Sg	16 16 11.2	-6.8
	SNR=2.3						
TCF	**Toulx Ste Croi**	4.36	248	*e*Sg	Sg	16 16 24.5	-11
	1.1nm,0.4s						

LDG ***05*** *16:56:57.3±0.2, 48.08N×7.98E, h10*^{km}*, Md1.8/3, Ml1.9/8, Error ellipse: s-maj=3.7km s-min=2.4km az=78.0*

STR 05 16:56:57.7±0.6**, 48.05N**×**7.98E, h10**^{km}±1^{km}**, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	**Welschbruch**	0.56	311	Pg	Pg	16 57 09.1	+0.2
WLS				Sg	Sg	16 57 15.7	-0.7
ECH	**Echery**	0.57	287	Pg	Pg	16 57 09.0	-0.3
ECH				Sg	Sg	16 57 17.0	-0.1
CDF	**Champ du Feu**	0.59	308	*e*Pg	Pg	16 57 08.9	-0.8
CDF				*e*Sg	Sg	16 57 16.5	-1.2
	4.3nm,0.2s						
HINF	**Hinteralfeld**	0.79	253	*e*Pg	Pg	16 57 12.6	-1.0
HINF				*e*Sg	Sg	16 57 23.2	-1.1
	4.6nm,0.3s						
HAU	**Haudompre**	1.10	268	*e*Pg	Pg	16 57 18.2	-1.5
HAU				*e*Sg	Sg	16 57 32.3	-2.0
	8.6nm,0.3s						
RFYF	**Reffroy**	1.77	290	*e*Pg	Pg	16 57 29.6	-3.5
	baz=107						
RFYF				*e*Sg	Sg	16 57 52.6	-4.1
	1.4nm,0.2s						
CABF	**La Chapelle**	1.93	222	*e*Pg	Pg	16 57 34.2	-2.1

CABF				eSg	Sg	16 57 58.2	-3.9
	2.5nm,0.5s						
MEZF	Maizieres J'vi	2.01	284	ePg	Pg	16 57 35.6	-2.2
	baz=102						
MEZF				eSg	Sg	16 58 00.1	-4.5
	1.0nm,0.2s						
SSF	Saint Saulge	3.19	254	ePg	Pg	16 57 55.9	-5.5
SSF				eSg	Sg	16 58 36.9	-7.0
	0.4nm,0.2s						
ORIF	Oris-en-Rattie	3.45	206	eSg	Sg	16 58 45.6	-7.1
	0.6nm,0.3s						

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*NEIC **05** 17:02:24.9±1.7,5.81S×146.96E,h96^{km}±14^{km},mb4.2/7, Error ellipse: s-maj=13.0km s-min=12.2km az=68.0*

*IDC **05** 17:02:31.0±3.1,5.93S×146.88E,h150^{km}±28^{km},mb3.7/7, mb1 3.9/10,mb1mx3.8/15,MS2.9/2,Ms1 2.9/2, ms1mx2.5/21,Error ellipse: s-maj=23.1km s-min=11.9km az=113.0*

ISC 05 17:02:21.0±1.7,**5.79S**±0.08×**147.0E**±0.1,**h76**^{km}±15^{km},**n28,**σ**0^{s}67**/29,**mb4.2**/13,**2C-3D,Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.59	178	P	P	17 03 16.7	+1.0
	75nm,0.3s,baz=356,slow=5.6,SNR=600						
PMG				S	S	17 03 55.6	-1.5
	14nm,0.3s,baz=132,slow=24,SNR=4.0						
PMG	Port Moresby	3.59	178	⇑iPn	P	17 03 16.7	+1.0
PMG				S	S	17 03 50.9	-6.3
CTA	Charters Tower	14.23	183	eP	P	17 05 43.5	+3.3
	4.1nm,0.8s						
CTA	Charters Tower	14.23	183	P	P	17 05 43.5	+3.3
	0.8nm,0.3s,baz=357,slow=13,SNR=24						
CTAO	Charters Tower	14.23	183	eP	P	17 05 43.7	+3.5
KAKA	Kakadu	15.97	244	eP	P	17 06 02.5	0.0
	12nm,0.6s						
WRAB	Tennant Creek	18.69	220	eP	P	17 06 35.1	-0.7
	30nm,0.6s						
WB2	Warramunga Arr	18.70	220	⇓iP	P	17 06 35.1	-0.8
WRA	Warramunga Arr	18.70	220	P	P	17 06 35.4	-0.5
	3.0nm,0.3s,baz=45,slow=12,SNR=146						
WRA				S	S	17 09 59.3	+0.8
	0.2nm,0.3s,baz=45,slow=21,SNR=4.5						
ASAR	Alice Springs	21.80	214	P	P	17 07 08.7	+0.4
	6.9nm,0.4s,mb4.3,baz=52,slow=8.8,SNR=244						
ASAR				S	S	17 10 59.7	+0.2
	1.9nm,0.8s,baz=29,slow=23,SNR=5.7						
ASAR				LR	LR	17 16 20.5	
	comp=Z,33nm,20.8s,baz=0.4,slow=38						
ASPA	Alice Springs	21.80	214	⇓iP	P	17 07 08.7	+0.4
FITZ	Fitzroy Crossi	24.19	238	eP	P	17 07 31.8	+0.2
	76nm,0.5s,mb5.3						
FITZ	Fitzroy Crossi	24.19	238	P	P	17 07 32.5	+0.8
	88nm,0.5s,mb5.3,baz=49,slow=5.3,SNR=357						
FITZ				LR	LR	17 17 16.5	
	comp=Z,31nm,18.5s,baz=12,slow=37						
STKA	Stephens Creek	26.44	190	eP	P	17 07 52.2	-0.6
	3.8nm,1.0s,mb3.8						
STKA	Stephens Creek	26.44	190	P	P	17 07 52.3	-0.5
	3.9nm,0.6s,mb4.0,baz=3.1,slow=8.6,SNR=20						
MBWA	Marble Bar	30.53	237	eP	P	17 08 28.8	-0.8
	5.7nm,0.7s,mb4.4						
KLBR	Kellerberrin	37.53	223	⇑iP	P	17 09 29.2	-0.3
	9.0nm,0.5s,mb4.9						
NWAO	Narrogin (SRO)	38.69	222	P	P	17 09 38.8	-0.4
	3.5nm,0.6s,mb4.4,baz=51,slow=14,SNR=5.6						
CMAR	Chiang Mai Arr	53.16	298	P	P	17 11 34.1	+0.3
	0.4nm,0.6s,mb3.6,baz=123,slow=5.9,SNR=7.1						
CMAR				pP	pP	17 12 05.2	+12
	1.2nm,0.9s,baz=120,slow=6.0,SNR=7.4						
ULN	Ulaanbaatar	63.93	331	eP	P	17 12 49.0	+0.7
	1.4nm,0.8s,mb3.8						
SONM	Songino Array	64.23	331	P	P	17 12 49.9	-0.4
	0.5nm,0.8s,mb3.4,baz=132,slow=5.2,SNR=4.8						
VNDA	Vanda	72.12	177	P	P	17 13 38.5	-0.2
	2.2nm,0.6s,mb4.2,baz=335,slow=7.3,SNR=14						
SBA	Scott Base	72.76	176	eP	P	17 13 42.9	+0.4
	0.6nm,0.6s,mb3.6						
QSPA	South Pole Qui	84.18	180	⇓iP	P	17 14 44.8	+0.2
	9.5nm,0.5s,mb4.9						
ILAR	Eielson Array	85.28	23	P	P	17 14 50.1	-0.2
	0.5nm,0.7s,mb3.6,baz=253,slow=4.8,SNR=11						
SAML	Samuel	146.53	116	ePKPbc	PKPbc	17 21 55.3	+0.7
DBIC	Dimbokro	152.03	273	PKPbc	PKPdf	17 22 09.7	+7.8
	2.2nm,0.6s,baz=72,slow=6.0,SNR=6.4						
BDFB	Brasilia	154.02	145	PKPbc	PKPdf	17 22 14.3	+10
	3.5nm,0.4s,baz=196,slow=1.5,SNR=7.5						

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*IDC **05** 17:07:00.1±1.2,3.40S×135.58E,mb3.9/3,mb1 4.2/6, mb1mx4.0/13,ML3.7/3,MS3.1/1,Ms1 3.1/1,ms1mx2.5/19, Error ellipse: s-maj=48.3km s-min=22.4km az=86.0*

*NEIC **05** 17:07:01.9±1.1,3.36S×135.50E,h10^{km},mb4.1/2,Error ellipse: s-maj=28.8km s-min=15.5km az=90.0*

ISC 05 17:07:02.6±3.6,**3.4S**±0.1×**135.5E**±0.2,**h33**^{km}±33^{km},**n15,**σ**1^{s}05**/18,**mb4.5**/6,**Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	Tennant Creek	16.43	184	eP	P	17 10 54.8	+2.4
	15nm,0.8s						
WB2	Warramunga Arr	16.44	184	eP	P	17 10 55.8	+3.2
WRA	Warramunga Arr	16.45	184	Pn	P	17 10 51.5	-1.0
	0.3nm,0.3s,baz=5.9,slow=13,SNR=3.7						
WRA				Sn	S	17 13 42.9	-10
	0.2nm,0.3s,baz=8.5,slow=22,SNR=4.7						
FITZ	Fitzroy Crossi	17.50	213	P	P	17 11 04.8	-1.0
	0.2nm,0.3s,baz=38,slow=12,SNR=3.0						
FITZ				S	S	17 14 07.6	-10
	0.2nm,0.3s,baz=193,slow=15,SNR=3.0						
CTA	Charters Tower	19.58	149	P	P	17 11 31.1	+0.4
	0.2nm,0.3s,baz=348,slow=9.3,SNR=3.0						
CTA				LR	LR	17 19 32.5	
	comp=Z,55nm,19.8s,baz=15,slow=38						
CTAO	Charters Tower	19.58	149	eP	P	17 11 30.4	-0.4
	11nm,1.2s						
ASAR	Alice Springs	20.17	184	P	P	17 11 37.4	+0.3
	17nm,0.8s,baz=9.9,slow=11,SNR=37						
ASAR				S	S	17 15 18.0	+1.2
	1.2nm,0.9s,baz=6.1,slow=25,SNR=3.9						
ASPA	Alice Springs	20.17	184	eP	P	17 11 37.3	+0.2
GUN	Gumba	57.03	306	eP	P	17 16 49.3	+1.3
SONM	Songino Array	57.08	337	P	P	17 16 49.0	+0.9
	0.6nm,0.7s,mb3.7,baz=143,slow=7.5,SNR=3.2						
KKN	Kakani	57.46	306	eP	P	17 16 51.8	+0.8
	5.8nm,0.8s,mb4.7						
DMN	Daman	57.53	306	eP	P	17 16 52.4	+0.9
	8.1nm,0.8s,mb4.8						
GKN	Gorkha	58.07	306	eP	P	17 16 55.0	-0.3
	7.7nm,0.7s,mb4.8						
KOLN	Koldanda	58.81	305	eP	P	17 17 01.4	+0.9
	10.0nm,0.8s,mb4.9						
ILAR	Eielson Array	87.81	25	P	P	17 19 49.5	+0.2
	0.4nm,0.6s,mb3.8,baz=260,slow=4.0,SNR=7.6						

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*NEIC **05** 17:10:36.8,39.28N×25.43E,h11^{km},ML3.6(ATH), ML3.5(ISK),After ISK.*

*ISK **05** 17:10:36.8,39.29N×25.42E,h11^{km},MD3.5,ML3.5*

*ATH **05** 17:10:37.4,39.28N×25.47E,h30^{km}±2^{km},MD3.7/15, ML3.6*

*CSEM **05** 17:10:37.5±0.1,39.21N×25.52E,h8^{km},ML3.6,Error ellipse: s-maj=1.4km s-min=1.1km az=2.0*

*THE **05** 17:10:39.1,39.29N×25.47E,h11^{km},ML3.6*

ISC 05 17:10:36.9±0.6,**39.26N**±0.02×**25.45E**±0.02,**h7**^{km}±5^{km},**n79,**σ**0^{s}88**/100,**1C,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.64	91	ePN	Pn	17 10 50.4	-1.7
LIA	Limnos Island	0.67	342	⇑iPN	Pn	17 10 50.7	-1.8
LOS	Limnos	0.73	337	ePg	Pg	17 10 52.5	+1.0
LOS				eSg	Sg	17 11 03.5	+2.2
BOZC	Bozcaada	0.75	39	i P	Pg	17 10 51.4	-0.4
BOZC				i S	Sg	17 11 02.5	+0.7
EZN	Ezine	0.88	50	i PG	Pg	17 10 54.2	-0.4
EZN				i SG	Sg	17 11 06.9	+0.5
EZN	Ezine	0.88	50	Pg	Pg	17 10 54.2	-0.4
EZN				Sg	Sg	17 11 06.2	-0.2
AYVA	Ayvalik	0.97	87	i P	Pb	17 10 56.3	+0.7
AYVA				i S	Sb	17 11 10.4	+2.1
AOS	Alonnisos	1.22	266	ePb	Pb	17 11 01.0	+1.0
AOS				eSb	Sb	17 11 19.0	+3.3
PAIG	Paliouri	1.52	297	ePb	Pb	17 11 05.3	+0.3
PAIG				eSb	Sb	17 11 26.2	+1.8
PAIG	Paliouri	1.52	297	ePb	Pb	17 11 05.3	+0.3
PAIG				eSb	Sb	17 11 26.2	+1.8
BLCB	Balcova	1.52	125	ePN	Pn	17 11 05.2	+0.5
BLCB	Balcova	1.52	125	Pn	Pn	17 11 05.2	+0.5
OUR	Ouranopolis	1.56	314	ePb	Pb	17 11 05.6	-0.1
IZM	Izmir	1.66	121	ePN	Pn	17 11 07.0	+0.4
IZM	Izmir	1.66	121	Pn	Pn	17 11 07.0	+0.4
KDAG	Bornova	1.66	120	i P	Pn	17 11 07.7	+1.1
KDAG				i S	Sn	17 11 34.1	+5.8
ALN	Alexandroupoli	1.70	15	ePb	Pb	17 11 06.7	-1.4
ALN				eSb	Sb	17 11 29.6	0.0
NEO	Neokhori	1.73	272	ePB	Pb	17 11 07.5	-1.1
PTL	Penteli	1.73	226	ePB	Pb	17 11 07.7	-1.0
MPAR	Parnis Oros	1.74	231	ePB	Pb	17 11 07.2	-1.6
XOR	Xorichti	1.75	274	ePb	Pb	17 11 08.2	-0.9
ATH	Athens Observa	1.87	227	ePB	Pb	17 11 10.0	-1.0
AKS	Akhisar	1.88	101	ePN	Pn	17 11 09.2	-0.6
AKS	Akhisar	1.88	101	Pn	Pn	17 11 09.2	-0.6
RDO	Rodhopi	1.89	2	ePN	Pn	17 11 09.1	-0.8
PLG	Polygyros	1.90	306	ePB	Pb	17 11 10.0	-1.6
BALB	Balikesir	1.92	78	ePN	Pn	17 11 10.7	+0.3
BALB	Balikesir	1.92	78	Pn	Pn	17 11 10.7	+0.3
LKR	Lokris	2.00	253	ePN	Pn	17 11 11.6	0.0
NSAL	Nisos Salamina	2.06	230	ePN	Pn	17 11 12.2	-0.2
BTOK	Tokmak	2.06	75	i P	Pn	17 11 16.8	+4.4
BTOK				i S	Sn	17 11 48.0	+9.4
NAIG	Nisos Aigina	2.15	226	ePN	Pn	17 11 13.5	-0.1
EDC	Edincik	2.15	59	ePN	Pn	17 11 13.2	-0.5
EDC	Edincik	2.15	59	Pn	Pn	17 11 13.2	-0.5
APE	Apeiranthos	2.19	178	ePN	Pn	17 11 14.6	+0.4
APE	Apeiranthos	2.19	178	ePN	Pn	17 11 13.0	-1.2
BNT	Bandirma	2.20	59	ePN	Pn	17 11 13.7	-0.7
SOH	Sokhos	2.24	315	ePn	Pn	17 11 15.5	+0.5
SRS	Serrai	2.34	323	ePn	Pn	17 11 16.1	-0.2
SRS				eSn	Sn	17 11 45.5	-0.1
THE	Thessaloniki	2.35	306	ePn	Pn	17 11 16.9	+0.4
NVR	Nevrokopi	2.41	330	ePN	Pn	17 11 17.2	-0.3
LIT	Litokhoron	2.43	291	ePn	Pn	17 11 18.3	+0.6
LIT				eSn	Sn	17 11 47.5	-0.5
AGG	Agios Georgios	2.44	265	ePn	Pn	17 11 18.0	+0.2
AGG				eSn	Sn	17 11 49.3	+1.2
KCT	Karacabey	2.46	65	ePN	Pn	17 11 18.7	+0.6
KCT	Karacabey	2.46	65	Pn	Pn	17 11 18.7	+0.6
DST	Dursunbey	2.49	81	ePN	Pn	17 11 18.7	+0.2
DST	Dursunbey	2.49	81	Pn	Pn	17 11 18.7	+0.2
AYDN	Tasoluk	2.49	129	i P	Pn	17 11 18.9	+0.3
AYDN				i S	Sg	17 11 59.9	+0.1
MANT	Manisa	2.55	107	i P	Pn	17 11 20.5	+1.2
MANT				i S	Sn	17 11 59.6	+8.6
BDRM	Kayabasi	2.70	144	i P	Pn	17 11 22.0	+0.5
BDRM				i S	Sg	17 12 07.6	+0.9
KNT	Kendrikon	2.72	315	ePn	Pn	17 11 22.2	+0.3
KNT				eSn	Sn	17 11 54.6	-0.9
KNT	Kendrikon	2.72	315	eSn	Sn	17 11 54.6	-0.9
EDRB	Edirne	2.77	21	ePN	Pn	17 11 22.3	-0.2
EDRB	Edirne	2.77	21	Pn	Pn	17 11 22.3	-0.2
ORLT	Orhaneli	2.78	72	ePN	Pn	17 11 23.2	+0.6
ORLT	Orhaneli	2.78	72	Pn	Pn	17 11 23.2	+0.6
EVR	Evrytania	2.85	264	ePN	Pn	17 11 24.0	+0.3
GRG	Griva	2.89	307	ePn	Pn	17 11 24.6	+0.4
ULDT	Uludag	2.98	72	i P	Pn	17 11 25.0	-0.6
ULDT				i S	Sg	17 12 13.8	-2.3
YER	Yerkesik	3.08	133	ePN	Pn	17 11 27.3	+0.3
YER	Yerkesik	3.08	133	Pn	Pn	17 11 27.3	+0.3
DENT	Denizli	3.19	117	ePN	Pn	17 11 28.7	+0.2
VLI	Veliai	3.22	219	ePN	Pn	17 11 28.0	-0.9
DNZL	Cakiroluk	3.23	118	i P	Pn	17 11 29.7	+0.6
DNZL				i S	Sg	17 12 23.6	-0.9
BADT	Buyukada	3.23	59	ePN	Pn	17 11 29.0	-0.2
BADT	Buyukada	3.23	59	Pn	Pn	17 11 29.0	-0.2
ISK	Istanbul-Kandi	3.30	56	ePN	Pn	17 11 29.9	-0.2
ISK	Istanbul-Kandi	3.30	56	Pn	Pn	17 11 29.9	-0.2
MEV	Metsovon	3.30	280	ePn	Pn	17 11 30.4	+0.3
FNA	Florina	3.48	297	ePn	Pn	17 11 33.5	+1.0
FNA	Florina	3.48	297	ePn	Pn	17 11 33.5	+0.9
HRT	Hereke	3.60	63	ePN	Pn	17 11 34.0	-0.3
HRT	Hereke	3.60	63	Pn	Pn	17 11 34.0	-0.2
ESKT	Eskisehir	4.19	85	Pn	Pn	17 11 43.3	+0.5
ESKT	Eskisehir	4.19	85	i P	Pn	17 11 43.3	+0.5
ESKT				i S	Sg	17 12 57.4	+0.8
ESKT	Eskisehir	4.19	85	ePn	Pn	17 11 43.3	+0.5
KIZT	Kizilcal	5.02	92	ePN	Pn	17 11 54.8	+0.3
KIZT	Kizilcal	5.02	92	Pn	Pn	17 11 54.8	+0.3
SGKT	Sivrigoynuk	5.25	73	i P	Pn	17 11 56.0	-1.7

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*IDC **05** 17:22:16.2±2.3,32.22N×122.29E,mb3.5/2,mb1 3.7/3, mb1mx3.4/21,ML3.7/1,MS3.6/2,Ms1 3.7/2,ms1mx2.8/19, Error ellipse: s-maj=66.5km s-min=34.4km az=132.0*

BJI 05 17:22:22.4,33.16N×120.57E,h26^{km}**,ML3.9, Southeastern China**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NJ2	Nanjing	1.82	233	eP	Pn	17 22 52.3	-0.3
NJ2				PG	Pn	17 22 56.0	+3.4
NJ2				S	Sn	17 23 16.7	+1.6
NJ2				SG	Sn	17 23 21.7	+6.6
NJ2				Smax			
	comp=N,2µm,0.4s						
NJ2				Smax			
	comp=E,2µm,0.5s						
SSE	Sheshan	2.12	166	P	Pn	17 22 55.1	-1.9
SSE				S	Sn	17 23 21.8	-1.0
SSE				Smax			
	comp=N,351nm,0.9s						
SSE				Smax			
	comp=E,584nm,0.8s						
TIA	Tai'an	4.16	318	P	Pn	17 23 24.3	-1.7
TIA				SG	Sn	17 24 34.5	+20
TIA				Smax			
	comp=N,184nm,0.6s						
TIA				Smax			
	comp=E,118nm,0.6s						
DL2	Dalian	5.80	8	ePG	Pn	17 24 06.2	+17
DL2				SG	Sn	17 25 22.2	+27
DL2				Smax			
	comp=N,90nm,0.7s						
DL2				Smax			
	comp=E,80nm,0.6s						
WHN	Wuhan	5.90	245	PG	Pn	17 24 03.0	+13
WHN				SG	Sn	17 25 30.5	+32
WHN				Smax			
	comp=N,140nm,1.0s						
WHN				Smax			
	comp=E,125nm,0.8s						
SONM	Songino Array	18.15	328	P	P	17 26 47.4	+13
	comp=E,0.1nm,0.3s,baz=146,slow=10,SNR=4.1						
CMAR	Chiang Mai Arr	24.29	238	P	P	17 27 42.6	+3.7
	comp=E,0.7nm,0.6s,baz=41,slow=9.6,SNR=5.8						
CMAR				LR	LR	17 38 25.5	
	comp=E,47nm,20.9s,baz=35,slow=39						
CTA	Charters Tower	58.35	151	LR	LR	17 56 18.2	
	comp=E,198nm,19.4s,baz=304,slow=36						
YKA	Yellowknife Ar	74.94	23	P	P	17 34 00.4	-2.1
	comp=E,0.3nm,0.8s,baz=318,slow=5.7,SNR=5.7						

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*CNRM **05** 17:23:39.8,35.06N×2.61W,h14^{km},MD3.0*

*CSEM **05** 17:23:40.0±0.1,35.01N×2.83W,h12^{km},MD3.0,Error ellipse: s-maj=2.8km s-min=2.3km az=117.0*

*NEIC **05** 17:23:41.1,34.96N×3.05W,h2^{km},MG3.5(MDD),After MDD.*

*MDD **05** 17:23:41.5±1.4,34.99N×3.09W,mb3.5/10,Error ellipse: s-maj=13.4km s-min=6.5km az=144.0,PRXIMO AftershockPLICA*

ISC 05 17:23:40.6±0.9,**35.02N**±0.04×**2.76W**±0.06,**h21**^{km}±4^{km},**n27,**σ**1^{s}20**/47,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.05	169	i P	Pb	17 23 43.5	-0.8
MELI	Melilla	0.31	332	P	Pb	17 23 47.4	-0.1
MELI				S	Sb	17 23 51.9	-0.3
MELI	Melilla	0.31	332	eP	Pb	17 23 47.4	-0.1
EMLI	Melilla	0.32	331	P	Pb	17 23 47.5	-0.2
	83nm,0.1s,SNR=20						
EMEL	Melilla	0.33	330	P	Pb	17 23 47.5	-0.2
	83nm,0.1s,SNR=20						
EMEL				S	Sb	17 23 52.2	-0.4
	331nm,0.3s,SNR=8.8						
TOU	Touzarine	0.82	266	i P	Pb	17 23 56.0	0.0
TOU				i S	Sb	17 24 08.0	+1.4
MPAL	Palemas	0.99	282	i P	Pb	17 23 59.0	0.0
MPAL				i S	Sb	17 24 13.0	+1.3
TZK	Tazeka	1.50	232	i P	Pn	17 24 06.5	-0.1
TZK				i S	Sn	17 24 25.0	-0.7
EBER	Berja	1.88	357	P	Pn	17 24 12.6	+0.6
	2.0nm,0.3s,SNR=7.4						
EBER				S	Sn	17 24 35.5	+0.1
	14nm,0.4s,SNR=11						
EBER	Berja	1.88	357	S	Sn	17 24 35.5	+0.1
	14nm,0.4s,SNR=11						
EBER	Berja	1.88	357	P	Pn	17 24 12.6	+0.5
	2.0nm,0.3s,SNR=7.4						
EMIJ	Mijas	2.25	314	P	Pn	17 24 15.5	-2.0
	1.2nm,0.1s,SNR=14						
EMIJ				S	Sn	17 24 40.5	-4.3
	5.0nm,0.3s,SNR=4.9						
ELOJ	Sierra Loja	2.41	332	P	Pn	17 24 20.8	+1.1
	1.4nm,0.2s,SNR=7.3						
ELOJ				S	Sn	17 24 49.0	+0.2
	2.3nm,0.4s						
EQES	Quesada	2.79	355	P	Pn	17 24 27.4	+2.3
	2.3nm,0.2s,SNR=18						
EQES				S	Sn	17 25 00.5	+2.0
	8.4nm,0.4s,SNR=7.8						
EQES	Quesada	2.79	355	P	Pn	17 24 27.4	+2.3
	2.3nm,0.2s,SNR=18						
EQES				S	Sn	17 25 00.5	+2.0
	8.4nm,0.4s,SNR=7.8						
ELUQ	Luque	2.82	335	P	Pn	17 24 27.1	+1.6
	3.9nm,0.4s,SNR=4.5						
ELUQ				S	Sn	17 24 59.5	+0.4
	4.6nm,0.3s						
EMUR	La Murta	3.07	23	P	Pn	17 24 29.8	+0.7
	2.2nm,0.2s,SNR=9.7						
EMUR				S	Sn	17 25 05.0	-0.6
	SNR=7.9						
EMUR	La Murta	3.07	23	P	Pn	17 24 29.8	+0.7
	2.2nm,0.2s,SNR=9.7						
EMUR				S	Sn	17 25 05.0	-0.6
	SNR=7.9						
EADA	Adamuz	3.47	336	P	Pn	17 24 34.5	-0.2
	0.7nm,0.1s,SNR=7.4						
EADA				S	Sn	17 25 12.4	-3.3
	32nm,1.5s						
EADA	Adamuz	3.47	336	P	Pn	17 24 34.5	-0.2
	0.7nm,0.1s,SNR=7.4						
EADA				S	Sn	17 25 12.4	-3.2
	32nm,1.5s						
EVIA	Vianos	3.62	3	P	Pn	17 24 39.0	+2.1
	1.6nm,0.2s,SNR=7.9						
EVIA				S	Sn	17 25 18.9	-0.6
	SNR=7.9						
EMIN	Mina Concepcio	4.18	312	P	Pn	17 24 42.6	-2.3
	0.8nm,0.1s,SNR=15						
EMIN				S	Sn	17 25 27.2	-6.6
	SNR=7.9						
EMIN	Mina Concepcio	4.18	312	P	Pn	17 24 42.6	-2.3
	0.8nm,0.1s,SNR=15						
ESDC	Sonseca Array	4.75	349	P	Pn	17 24 53.5	+0.7
	0.6nm,0.3s,baz=173,slow=12,SNR=9.0						
ESDC				S	Sn	17 25 45.7	-2.3
	0.5nm,0.4s,baz=172,slow=27,SNR=4.9						
ESDC	Sonseca Array	4.75	349	P	Pn	17 24 53.5	+0.6
	0.6nm,0.3s,SNR=9.0						
ESDC				S	Sn	17 25 45.7	-2.3
EBAD	Badajoz	5.05	319	P	Pn	17 24 55.2	-2.0
	2.0nm,0.2s,SNR=12						
EBAD				S	Sn	17 25 50.1	-5.7
	SNR=7.9						
EBAD	Badajoz	5.05	319	P	Pn	17 24 55.2	-2.0

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*NEIC **05** 17:27:05.8,33.41S×69.91W,h6^{km},ML2.6(GUC),After GUC.*

GUC 05 17:27:05.8±0.9,**33.41S×69.91W,h6**^{km}±2^{km},**MD3.6, ML2.6,3C-4D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FCH	Farellones	0.33	284	⇓iP	Pg	17 27 12.9	+0.4
FCH				i S	Sg	17 27 18.8	+1.8
FCH				AMP		17 27 19.0	
	comp=E,1µm,0.2s						
LMEL	Las Melosas	0.50	209	⇓iP	Pg	17 27 16.0	+0.1
LMEL				i S	Sg	17 27 24.1	+1.5
LMEL				AMP		17 27 27.0	
	comp=N,283nm,0.4s						
CLCH	Cerro Calan	0.53	271	⇓iP	Pg	17 27 16.7	+0.3
CLCH				i S	Sg	17 27 25.4	+2.0
CLCH				AMP		17 27 26.3	
	comp=N,656nm,0.3s						
CLCH				AMP		17 27 26.8	
	comp=N,795nm,0.4s						
PCH	Pirque	0.55	247	⇑iP	Pg	17 27 17.3	+0.5
DSCH	Colegio Aleman	0.55	271	⇑iP	Pg	17 27 17.3	+0.4
DSCH				eS	Sg	17 27 26.0	+1.7
DSCH				AMP		17 27 27.8	
	comp=N,624nm,0.7s						
PEL	Peldehue	0.70	292	i P	Pg	17 27 19.4	-0.5
PEL				i S	Sg	17 27 30.0	+0.7
PEL				AMP		17 27 30.6	
	comp=N,524nm,0.5s						
RCDM	Rinconada Maip	0.76	264	⇓iP	Pb	17 27 20.9	0.0
RCDM				i S	Sg	17 27 32.8	+1.8
RCDM				AMP		17 27 33.1	
	comp=N,502nm,0.2s						
CHCH	Chadas Angostu	0.81	230	i P	Pb	17 27 21.8	-0.1
CHCH				eS	Sb	17 27 33.1	+0.3
TACH	Talagante	0.89	254	eP	Pb	17 27 23.1	-0.2
TACH				i S	Sb	17 27 35.3	0.0
CACH	El Canelo	0.91	219	eP	Pb	17 27 24.2	+0.6
ROCH	El Roble	1.02	295	eP	Pb	17 27 24.8	-0.7
ROCH				i S	Sb	17 27 39.9	+0.9
LNV	Longovilo	1.37	246	i P	Pb	17 27 30.9	-0.4
LNV				i S	Sb	17 27 49.7	+0.7
LCCH	Las Cruces	1.39	267	eP	Pn	17 27 31.1	-0.7
PACH	Papudo	1.55	304	⇑iP	Pn	17 27 33.8	-0.3
PACH				eS	Sb	17 27 54.4	+0.1
CMCH	Combarbala	2.42	337	eP	Pn	17 27 46.9	+0.4
CMCH				eS	Sn	17 28 18.4	+1.8
CMCH				AMP		17 28 28.1	
	comp=E,340nm,0.6s						

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*IDC **05** 17:33:23.5±0.9,18.56S×173.82W,mb4.2/10,mb1 4.5/11, mb1mx4.3/19,ML4.7/1,MS3.9/6,Ms1 4.0/6,ms1mx3.5/24, Error ellipse: s-maj=48.4km s-min=17.2km az=145.0*

*NEIC **05** 17:33:24.2±1.1,18.97S×173.65W,h10^{km},mb4.5/4,Error ellipse: s-maj=61.9km s-min=10.5km az=151.0*

ISC 05 17:33:25.8±0.7,**19.1S**±0.2×**173.6W**±0.2,**h33**^{km}**,n31,**σ**0^{s}76**/20,**mb4.3**/11,**MS3.8**/6,**Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	5.44	19	eP	P	17 34 40.3	-6.4
RAR	Rarotonga	13.20	102	Pn	P	17 36 18.4	-15
	4.0nm,0.3s,baz=237,slow=6.9,SNR=7.0						
RAR				LR	LR	17 40 41.3	
	comp=Z,419nm,18.4s,baz=197,slow=32						
RAR	Rarotonga	13.20	102	eP	P	17 36 17.6	-16
RAR				LR	LR	17 40 41.3	
URZ	Urewera	20.74	201	P	P	17 38 05.8	-0.3
	6.7nm,0.6s,baz=269,slow=3.1,SNR=3.8						
PPT	Papeete	22.89	90	eLR	LR	17 43 17.8	
	184nm,20.5s						
TBI	Tubuai	22.93	105	eLR	LR	17 43 26.0	
	180nm,22.5s						
RPZ	Rata Peaks	27.73	204	P	P	17 39 17.9	+4.6
	9.3nm,0.6s,mb4.6,baz=129,slow=3.8,SNR=5.2						
RKT	Rikitea	36.23	103	eLR	LR	17 49 34.7	
	172nm,29.5s						
CTA	Charters Tower	37.74	262	eP	P	17 40 40.8	+0.3
	6.3nm,0.8s,mb4.4						
CTA	Charters Tower	37.74	262	P	P	17 40 41.0	+0.5
	5.8nm,0.6s,mb4.5,baz=108,slow=11,SNR=14						
CTAO	Charters Tower	37.74	262	eP	P	17 40 40.5	0.0
	5.4nm,0.6s,mb4.5						
STKA	Stephens Creek	42.09	243	P	P	17 41 17.7	+1.2
	1.4nm,0.5s,mb3.9,baz=100,slow=11,SNR=4.1						
ASAR	Alice Springs	48.84	255	P	P	17 42 10.1	-0.3

	5.3nm,0.8s,mb4.6,baz=92,slow=7.2,SNR=35						
ASAR				LR	LR	18 01 53.9	
	comp=Z,63nm,20.6s,MS3.6,baz=79,slow=35						
ASPA	Alice Springs	48.85	255	eP	P	17 42 10.5	+0.1
WB2	Warramunga Arr	48.87	260	eP	P	17 42 10.3	-0.2
WRAB	Tennant Creek	48.87	260	eP	P	17 42 10.5	0.0
	2.6nm,0.5s,mb4.5						
WRA	Warramunga Arr	48.88	260	P	P	17 42 09.7	-0.9
	1.6nm,0.6s,mb4.3,baz=96,slow=6.9,SNR=96						
FITZ	Fitzroy Crossi	57.30	260	eP	P	17 43 12.9	-0.2
JNU	Nakatsue	74.16	314	LR	LR	18 14 20.4	
	comp=Z,3.8nm,20.8s,MS2.7,baz=85,slow=33						
NVAR	Mina Array Bea	77.21	41	P	P	17 45 17.6	-0.8
	0.9nm,0.7s,mb3.8,baz=247,slow=6.9,SNR=5.3						
TXAR	Lajitas Array	82.85	56	P	P	17 45 49.8	+1.1
	1.9nm,1.1s,mb4.0,baz=217,slow=6.3,SNR=6.4						
TXAR				LR	LR	18 18 10.7	
	comp=Z,81nm,19.3s,MS4.1,baz=260,slow=32						
ANMO	Albuquerque	83.34	50	LR	LR	18 19 13.8	
	comp=Z,60nm,19.0s,MS4.0,slow=33						
NEW	Newport	83.87	34	LR	LR	18 18 20.7	
	comp=Z,232nm,18.4s,MS4.6,baz=214,slow=32						
PDAR	Pinedale Array	85.15	42	P	P	17 45 59.0	-1.0
	1.0nm,1.1s,mb3.9,baz=214,slow=3.3,SNR=3.4						
COLA	College	86.00	11	eP	P	17 46 04.9	+1.3
	12nm,1.2s,mb5.0						
ILAR	Eielson Array	86.08	11	P	P	17 46 03.8	-0.2
	0.8nm,0.8s,mb4.0,baz=225,slow=5.2,SNR=8.4						
LPAZ	La Paz	98.76	111	LR	LR	18 22 54.8	
	comp=Z,44nm,18.4s,MS4.0,baz=43,slow=30						
CLL	Collm	147.42	352	i PKP1	PKPdf	17 53 09.8	+6.2
CLL				i *PPKP		17 53 25.9	
BRG	Berggiesshubel	147.71	351	i P	PKPdf	17 53 11.1	+7.1
BRTR	Keskin Array B	148.77	317	PKPbc	PKPdf	17 53 13.2	+7.1
	4.8nm,1.2s,baz=90,slow=1.2,SNR=7.0						
GERES	GERESS Array B	149.72	350	PKPbc	PKPdf	17 53 15.3	+8.0
	1.0nm,0.9s,slow=1.3,SNR=6.6						

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*NEIC **05** 17:39:28.8±2.3, 23.55S×179.97W, h519^{km}±27^{km}, mb4.2/9, Error ellipse: s-maj=22.5km s-min=12.9km az=188.0*

*IDC **05** 17:39:29.2±1.9, 23.50S×179.96W, h520^{km}±16^{km}, mb3.5/9, mb1 3.8/10, mb1mx3.6/16, Error ellipse: s-maj=33.9km s-min=17.9km az=160.0*

ISC 05 17:39:30.3±2.1, **23.6S**±0.1×**179.87E**±0.10, **h544**^{km}±27^{km}, **n37**, σ**0^{s}88**/25, **mb4.0**/15, **4D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	14.80	189	P	P	17 42 36.2	-1.3
	10nm,0.3s,baz=308,slow=2.3,SNR=36						
URZ				S	S	17 45 08.6	+0.1
	0.6nm,0.3s,baz=217,slow=20,SNR=7.0						
CTA	Charters Tower	31.35	270	⇓iP	P	17 45 09.0	+1.0
	11nm,0.3s,mb4.9						
CTA	Charters Tower	31.35	270	P	P	17 45 09.1	+1.1
	14nm,0.3s,mb4.9,baz=95,slow=11,SNR=80						
CTAO	Charters Tower	31.35	270	eP	P	17 45 09.0	+0.9
	10nm,0.4s,mb4.7						
PMG	Port Moresby	34.28	289	P	P	17 45 33.0	+0.3
	16nm,0.7s,mb4.7,baz=74,slow=5.2,SNR=11						
STKA	Stephens Creek	34.72	248	⇓iP	P	17 45 37.2	+1.0
	1.0nm,0.4s,mb3.7						
STKA	Stephens Creek	34.72	248	P	P	17 45 37.2	+1.0
	1.3nm,0.6s,mb3.7,baz=81,slow=9.6,SNR=7.8						
STKA				PcP	PcP	17 47 55.5	+0.4
	0.6nm,0.4s,baz=80,slow=6.1,SNR=2.8						
ASAR	Alice Springs	41.96	260	P	P	17 46 35.5	+0.4
	4.4nm,0.6s,mb4.2,baz=88,slow=7.2,SNR=71						
ASAR				ScP		17 51 20.2	
	0.8nm,0.8s,baz=109,slow=4.3,SNR=4.9						
ASAR				S	S	17 52 15.2	-0.2
	0.7nm,0.7s,baz=97,slow=14,SNR=7.7						
ASPA	Alice Springs	41.97	260	eP	P	17 46 35.5	+0.3
WB2	Warramunga Arr	42.29	266	⇓iP	P	17 46 37.6	-0.2
WRAB	Tennant Creek	42.30	266	eP	P	17 46 37.2	-0.6
	4.3nm,0.5s,mb4.2						
WRA	Warramunga Arr	42.30	266	P	P	17 46 37.5	-0.4
	4.6nm,0.3s,mb4.5,baz=90,slow=6.2,SNR=368						
WRA				ScP		17 51 22.4	
	0.2nm,0.4s,baz=106,slow=3.9,SNR=2.9						
WRA				S	S	17 52 18.2	-2.1
	0.9nm,0.8s,baz=108,slow=13,SNR=5.5						
KAKA	Kakadu	46.20	275	⇓iP	P	17 47 07.2	-1.1
	5.6nm,0.3s,mb4.6						
FITZ	Fitzroy Crossi	50.73	265	eP	P	17 47 42.4	+0.3
	4.0nm,0.6s,mb3.9						
QSPA	South Pole Qui	66.48	180	eP	P	17 49 27.6	+0.6
	5.5nm,0.7s,mb4.2						
TPNV	Topopah Spring	85.11	46	eP	P	17 51 09.2	-0.7
	0.7nm,0.6s,mb3.4						
CMAR	Chiang Mai Arr	89.31	290	P	P	17 51 31.9	+1.7
	1.0nm,0.6s,mb3.8,baz=127,slow=3.2,SNR=10.0						
HLID	Hailey	89.95	42	eP	P	17 51 32.4	-0.1
	0.8nm,0.6s,mb3.7						
TXAR	Lajitas Array	90.38	58	P	P	17 51 36.0	+1.2
	0.3nm,0.5s,mb3.4,baz=210,slow=7.3,SNR=4.8						
ILAR	Eielson Array	91.77	14	P	P	17 51 38.6	-1.7
	0.5nm,0.6s,mb3.7,baz=210,slow=5.7,SNR=8.9						
PDAR	Pinedale Array	92.56	44	P	P	17 51 44.6	+0.1
	0.5nm,0.7s,mb3.6,baz=162,slow=2.9,SNR=3.1						
PDAR	Pinedale Array	92.56	44	P	P	17 51 44.6	0.0
BVAR	Borovoye Array	120.13	319	PKP	PKPdf	17 57 19.3	+0.3
	1.6nm,0.4s,baz=124,slow=1.4,SNR=17						
ARCES	ARCESS Array B	131.57	348	PKP	PKPdf	17 57 40.8	+0.3
	1.6nm,0.6s,baz=45,slow=1.7,SNR=6.9						
FINES	FINESS Array B	138.12	341	PKhKP		17 57 42.0	
	10nm,1.3s,baz=18,slow=4.4,SNR=8.1						
FINES				PKP	PKPdf	17 57 53.8	+1.0
	1.5nm,0.7s,baz=90,slow=4.2,SNR=8.5						
FINES				SKPbc		18 00 36.3	
	7.9nm,1.2s,slow=1.4,SNR=4.9						
NB2	NORSAR Subarra	141.77	351	PKP	PKPdf	17 57 55.5	-3.6
	1.5nm,0.7s,baz=17,slow=3.0						
NOA	NORSAR Array B	141.77	351	PKhKP		17 57 55.2	
	1.7nm,0.6s,baz=16,slow=4.4,SNR=5.1						
HFS	Hagfors	142.23	349	PKhKP		17 57 56.9	
	11nm,0.5s,baz=55,slow=3.0,SNR=102						
MALT	Malatya	144.10	303	ePKP	PKPdf	17 58 05.5	+1.7
AKASG	Malin Array Be	144.65	327	PKP	PKPdf	17 58 05.1	+0.7
	3.6nm,0.4s,baz=42,slow=4.0,SNR=37						
AKASG				SKPbc		18 00 55.4	
	0.1nm,0.3s,baz=46,slow=2.3,SNR=5.1						
ASF	Jabal al Asfar	146.31	293	PKPbc	PKPbc	17 58 12.8	+3.1
	1.1nm,0.3s,baz=320,slow=3.8,SNR=3.7						
BRTR	Keskin Array B	147.30	307	PKPbc	PKPdf	17 58 13.8	+4.6
	1.7nm,0.6s,baz=134,slow=4.6,SNR=5.4						
KSP	Ksiaz	149.97	339	ePKP	PKPdf	17 58 20.1	+7.0
CLL	Collm	150.53	343	ePKIKP	PKPdf	17 58 14.0	+0.1
CLL				i PKP1	PKPdf	17 58 21.4	+7.5
CLL				i PKP2	PKPab	17 58 30.0	-1.4
BRG	Berggiesshubel	150.66	342	i P	PKPdf	17 58 21.9	+7.7
KHC	Kasperske Hory	152.32	340	ePKPbc	PKPdf	17 58 25.0	+8.4
GERES	GERESS Array B	152.53	340	PKPbc	PKPdf	17 58 25.6	+8.7
	0.5nm,0.5s,slow=1.3,SNR=7.2						

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*IDC **05** 17:44:05.1±8.0, 38.76N×70.45E, h33^{km}±58^{km}, mb3.6/6, mb1 3.8/7, mb1mx3.4/20, ML3.7/1, Error ellipse: s-maj=39.7km s-min=28.2km az=62.0*

*NEIC **05** 17:44:06.6±1.1, 38.93N×70.38E, h40^{km}, Error ellipse: s-maj=21.1km s-min=12.3km az=156.0*

ISC 05 17:44:00.9±2.7, **38.64N**±0.04×**70.39E**±0.10, **h20**^{km}±21^{km}, **n27**, σ**0^{s}74**/32, **mb3.7**/6, **Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	4.31	35	P	Pn	17 45 07.6	+0.5
	SNR=12						
AML	Almayashu	4.31	35	ePn	Pn	17 45 07.2	+0.1
AML				eS	Sn	17 45 58.9	+1.5
UCH	Uchtor	4.77	40	P	Pn	17 45 14.3	+0.6
	SNR=22						
UCH	Uchtor	4.77	40	eP	Pn	17 45 14.3	+0.7
UCH				eS	Sn	17 46 08.6	-0.6
EKS2	Erkin-Say	4.78	32	P	Pn	17 45 13.8	0.0
	SNR=7.6						
EKS2	Erkin-Say	4.78	32	eP	Pn	17 45 13.6	-0.2
EKS2				eS	Sn	17 46 07.8	-1.4
KZA	Kyzart	5.06	46	P	Pn	17 45 18.5	+0.8
	SNR=28						
AAK	Ala-Archa	5.07	37	P	Pn	17 45 18.3	+0.4
	SNR=20						
AAK	Ala-Archa	5.07	37	eP	Pn	17 45 16.2	-1.6
AAK				eS	Sn	17 46 08.2	-8.4
KBK	Karagaybulak	5.31	39	P	Pn	17 45 22.1	+1.0
	SNR=38						
CHMS	Chumysh	5.47	36	P	Pn	17 45 23.7	+0.2
	SNR=9.7						
USP	Ospenovka	5.58	33	P	Pn	17 45 24.3	-0.6
	SNR=15						
TKM2	Tokmak 2	5.83	41	eP	Pn	17 45 28.1	-0.4
	10nm,0.4s						
BVAR	Borovoye Array	14.39	360	Pn	P	17 47 21.2	-4.2
	0.3nm,0.3s,baz=163,slow=12,SNR=9.0						
BVAR				Sn	S	17 49 51.8	-14
	0.1nm,0.3s,baz=144,slow=20,SNR=2.5						
KOLN	Koldanda	15.46	131	eP	P	17 47 40.2	+0.6
	4.6nm,0.7s						
GKN	Gorkha	15.93	128	eP	P	17 47 44.2	-1.4
	10nm,0.5s						
KKN	Kakani	16.48	127	eP	P	17 47 52.1	-0.5
DMN	Daman	16.50	127	eP	P	17 47 52.9	+0.1
	4.2nm,0.5s						
PKI	Pulchoki	16.71	127	eP	P	17 47 55.5	-0.1
GUN	Gumba	16.77	125	eP	P	17 47 56.5	+0.1
FINES	FINESS Array B	35.45	325	P	P	17 50 57.5	-0.1
	4.0nm,0.9s,mb4.3,baz=117,slow=8.5,SNR=4.1						
FINES	FINESS Array B	35.45	325	P	P	17 50 57.5	-0.1
ARCES	ARCESS Array B	38.99	337	P	P	17 51 26.8	-0.5
	2.9nm,1.1s,mb3.9,baz=127,slow=9.0,SNR=2.8						
NOA	NORSAR Array B	42.40	322	P	P	17 51 54.7	-0.6
	0.6nm,0.7s,mb3.4,baz=89,slow=7.3,SNR=3.0						
ESDC	Sonseca Array	56.05	296	P	P	17 53 41.2	+0.5
	0.5nm,0.6s,mb3.7,baz=54,slow=6.9,SNR=4.6						
YKA	Yellowknife Ar	79.14	2	P	P	17 56 05.4	+0.3
	0.2nm,0.5s,mb3.3,baz=351,slow=5.5,SNR=5.7						
WRA	Warramunga Arr	83.53	122	P	P	17 56 30.1	+1.0
	0.5nm,0.9s,mb3.6,baz=326,slow=5.1,SNR=5.3						

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*STR **05** 17:47:35.5±0.5, 48.07N×8.04E, h10^{km}±1^{km}, Ml1.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **05** 17:47:35.5±0.1, 48.10N×8.01E, h10^{km}, Md2.0/3, Ml2.1/8, Error ellipse: s-maj=2.5km s-min=1.6km az=85.0*

ZUR 05 17:47:36.0, 48.06N×8.04E, h10^{km}**, ML1.3**/9**, 4D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLE	Schleitheim	0.42	134	⇓iPg	Pg	17 47 44.3	-0.3
SLE				i Sg	Sg	17 47 50.3	-0.1
SULZ	Sulz-Cheisache	0.53	174	⇓iPg	Pg	17 47 46.5	-0.3
SULZ				eSg	Sg	17 47 54.3	+0.3
WLS	Welschbruch	0.58	308	Pg	Pg	17 47 46.8	-0.9
TRULL	Truellikon	0.60	133	ePg	Pg	17 47 47.6	-0.4
ECH	Echery	0.61	285	Pg	Pg	17 47 47.5	-0.8
ECH				Sg	Sg	17 47 55.5	-1.0
CDF	Champ du Feu	0.62	305	ePg	Pg	17 47 47.5	-1.0
CDF				eSg	Sg	17 47 54.6	-2.3
	7.0nm,0.2s						
STEIN	Stein am Rhein	0.68	125	ePg	Pg	17 47 49.3	-0.4
BALST	Balsthal	0.76	198	ePg	Pg	17 47 50.7	-0.6
WEIN	Weingarten	0.83	129	⇓iPg	Pg	17 47 52.2	-0.5
HINF	Hinteralfeld	0.83	254	ePg	Pg	17 47 51.2	-1.5
HINF				eSg	Sg	17 48 01.7	-2.2
	4.3nm,0.2s						
WILA	Wila	0.87	137	⇓iPg	Pg	17 47 53.0	-0.5
HAU	Haudompre	1.14	268	ePg	Pg	17 47 56.4	-2.4
HAU				eSg	Sg	17 48 10.4	-3.5
	6.5nm,0.2s						
RFYF	Reffroy	1.80	289	eSg	Sg	17 48 31.2	-4.9
	2.1nm,0.2s						
CABF	La Chapelle	1.96	223	ePg	Pg	17 48 12.8	-2.5
CABF				eSg	Sg	17 48 36.2	-5.3
	0.3nm,0.2s						
SFTF	Sexfontaines	2.02	275	ePg	Pg	17 48 12.2	-4.1
SFTF				eSn	Sn	17 48 31.7	-4.3
SFTF				eSg	Sg	17 48 38.3	-4.9
	1.7nm,0.2s						
MEZF	Maizieres J'vi	2.04	284	eSg	Sg	17 48 38.5	-5.6
	1.8nm,0.3s						

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*NEIC **05** 17:58:23.6, 39.28N×23.06E, h23^{km}, ML3.3(ATH), ML3.2(THE), After ATH.*

*ATH **05** 17:58:23.6, 39.28N×23.06E, h23^{km}, MD3.3/10, ML3.3*

*CSEM **05** 17:58:23.9±0.1, 39.30N×23.04E, h10^{km}, ML3.3, Error ellipse: s-maj=2.4km s-min=1.6km az=79.0*

*THE **05** 17:58:24.9, 39.34N×23.00E, h1^{km}, ML3.3*

ISC 05 17:58:23.8±0.6, **39.29N**±0.03×**23.04E**±0.04, **h11**^{km}±5^{km}, **n27**, σ**1^{s}03**/36, **Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XOR	Xorichti	0.14	57	P	Pg	17 58 28.2	+1.0
XOR	Xorichti	0.14	57	P	Pg	17 58 28.2	+1.0
NEO	Neokhori	0.15	83	ePB	Pb	17 58 28.3	+0.2
AGG	Agios Georgios	0.61	244	ePg	Pg	17 58 34.7	-1.4
AGG				eSg	Sg	17 58 43.9	-0.4
LKR	Lokris	0.64	183	ePN	Pn	17 58 36.0	-2.5
AOS	Alonnisos	0.67	100	ePg	Pg	17 58 37.7	+0.5
PAIG	Paliouri	0.81	38	ePg	Pg	17 58 40.6	+0.6
PAIG				eSg	Sg	17 58 52.1	+1.2
LIT	Litokhoron	0.91	333	ePg	Pg	17 58 41.0	-1.1
LIT				eSg	Sg	17 58 54.5	+0.1
EVR	Evrytania	1.02	249	ePN	Pn	17 58 43.5	-0.5
PLG	Polygyros	1.13	16	ePN	Pn	17 58 45.0	-0.5
MPAR	Parnis Oros	1.26	154	ePN	Pn	17 58 47.2	-0.2
OUR	Ouranopolis	1.27	35	ePb	Pb	17 58 47.9	+0.5
THE	Thessaloniki	1.34	358	ePb	Pb	17 58 48.2	-0.3
THE	Thessaloniki	1.34	358	P	Pb	17 58 48.2	-0.3
PTL	Penteli	1.40	152	ePN	Pn	17 58 50.0	+0.6
KZN	Kozani	1.41	317	ePN	Pn	17 58 50.0	+0.5
ATH	Athens Observa	1.42	158	ePN	Pn	17 58 50.0	+0.3
MEV	Metsovon	1.48	290	ePb	Pb	17 58 51.9	+1.0
MEV				eSb	Sb	17 59 11.6	+2.0
SOH	Sokhos	1.55	9	ePb	Pb	17 58 52.1	0.0
SOH				eSb	Sb	17 59 12.8	+1.1
NAIG	Nisos Aigina	1.57	167	ePN	Pn	17 58 51.5	-0.3
GRG	Griva	1.74	344	ePb	Pb	17 58 54.4	-0.9
GRG				eSb	Sb	17 59 16.7	-0.3
GRG	Griva	1.74	344	P	Pn	17 58 54.3	+0.1
GRG				eSb	Sb	17 59 16.7	-0.3
KNT	Kendrikon	1.87	357	ePb	Pb	17 58 56.7	-0.9
KNT				eSb	Sb	17 59 19.9	-1.1
LKD	Levkas	1.95	253	ePb	Pb	17 58 59.1	+0.2
LKD				eSb	Sb	17 59 26.0	+2.8
FNA	Florina	1.96	320	ePb	Pb	17 58 57.8	-1.4
IGT	Igoumenitsa	2.11	277	ePn	Pn	17 59 01.6	+2.1
NVR	Nevrokopi	2.15	17	ePB	Pb	17 59 00.5	-1.9

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*NEIC **05** 18:01:52.1, 17.44N×63.58W, h106^{km}, MD3.7(RSPR), After RSPR.*

RSPR 05 18:01:52.1, 17.44N×63.58W, h106^{km}±17^{km}**, MD3.7**/4**, MD3.7**/4**, 6C-5D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MTP	Monte Pirata	2.00	289	eS	S	18 02 48.8	-1.3
MTP	Monte Pirata	2.00	289	⇑eP	P	18 02 25.0	-0.3
MTP				eS	S	18 02 48.8	-1.3
CBYP	Canovanas	2.32	291	eS	S	18 02 58.1	+0.2
CBYP	Canovanas	2.32	291	⇑eP	P	18 02 29.0	-0.8
CBYP				eS	S	18 02 58.1	+0.2
SJG	San Juan	2.54	286	⇑eP	P	18 02 32.1	-0.6
CSB	Colonia Sabana	2.60	289	⇑eP	P	18 02 32.0	-1.5
ICM	Isla Caja Muer	2.84	280	⇓eP	P	18 02 36.5	-0.3
CELP	Cerrillos	2.93	283	⇓eP	P	18 02 37.0	-1.0
OBIP	Obispado Ponce	2.95	282	⇓eP	P	18 02 37.2	-1.1
PORP	Portuguez	2.98	282	⇑eP	P	18 02 37.6	-1.1
AOPR	Arecibo Observ	3.15	287	⇑eP	P	18 02 39.6	-1.4
MGP	Maguayo	3.40	280	⇓eP	P	18 02 42.6	-1.7
LSP	Las Mesas	3.42	283	⇓eP	P	18 02 43.2	-1.5
LSP				eS	S	18 03 24.1	-0.5

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*WAR **05** 18:14:46.9, 51.51N×16.08E, h1^{km}, ML2.6, Mining Induced*

*PRU **05** 18:14:46.8, 51.48N×16.10E*

ISC 05 18:14:44.0±1.3, **51.51N**±0.06×**16.06E**±0.06, **n9**, σ**1^{s}12**/18, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.69	168	ePG	Pg	18 14 59.0	+1.3
KSP				eSG	Sg	18 15 08.0	+1.2
UPC	Upice	1.01	182	ePG	Pg	18 15 05.4	+1.3
DPC	Dobruska-Polom	1.18	172	ePG	Pg	18 15 08.1	+0.7
DPC				eSG	Sg	18 15 23.0	-0.1
PVCC	Panska Ves	1.36	224	ePG	Pg	18 15 12.6	+1.4
PVCC				eSG	Sg	18 15 31.2	+1.8
PRU	Pruhonice	1.81	213	ePG	Pg	18 15 19.1	-0.9
PRU				SG	Sg	18 15 43.3	-0.8
	13nm,0.3s						
CLL	Collm	1.93	265	i PG	Pg	18 15 22.4	0.0
CLL				i SG	Sg	18 15 48.5	+0.4
OKC	Ostrava-Krasne	2.14	141	ePG	Pg	18 15 25.8	-0.9
OKC				eSG	Sg	18 15 53.9	-1.3
NKC	Novy Kostel	2.62	242	ePG	Pg	18 15 35.5	-0.8
NKC				eSG	Sg	18 16 10.6	-0.7
	10.0nm,0.3s						
KHC	Kasperske Hory	2.87	215	ePG	Pg	18 15 39.8	-1.4
KHC				eSN	Sn	18 16 08.2	+0.7
KHC				eSG	Sg	18 16 16.8	-2.6

IDC 05 18:25:15.1±16.0**, 23.28S×174.31W, mb4.0**/5**, mb1 4.1**/5**, mb1mx3.8**/15**, Error ellipse: s-maj=309.0km s-min=131.2km az=83.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	36.71	267	P	P	18 32 24.9	-1.0
	1.3nm,0.4s,baz=108,slow=11,SNR=4.1						
STKA	Stephens Creek	39.79	248	P	P	18 32 49.5	-2.2
	1.3nm,1.0s,baz=85,slow=11,SNR=2.7						
ASAR	Alice Springs	47.28	259	P	P	18 33 49.5	-2.9
	0.5nm,0.4s,baz=95,slow=7.0,SNR=26						
WRA	Warramunga Arr	47.66	264	P	P	18 33 53.1	-2.3
	0.8nm,0.3s,baz=102,slow=7.6,SNR=38						
FITZ	Fitzroy Crossi	56.09	263	P	P	18 34 57.6	-1.1
	3.5nm,1.0s,baz=104,slow=8.3,SNR=5.1						

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*CNRM **05** 18:30:59.5, 35.05N×2.55W, h16^{km}, MD3.0*

*CSEM **05** 18:31:00.3±0.1, 35.00N×2.84W, h14^{km}±1^{km}, MD3.0, Error ellipse: s-maj=4.5km s-min=2.9km az=103.0*

*NEIC **05** 18:31:02.0, 35.01N×3.09W, h3^{km}, MG3.5(MDD), After MDD.*

*MDD **05** 18:31:02.6±1.5, 35.04N×3.09W, h4^{km}±12^{km}, mb3.5/9, Error ellipse: s-maj=20.1km s-min=9.9km az=122.0, PRXIMO AftershockPLICA*

ISC 05 18:31:00.8±0.7, **35.02N**±0.04×**2.88W**±0.07, **h10**^{km}**, n27**, σ**1^{s}29**/42, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.12	116	i P	Pg	18 31 04.0	+0.2
MELI	Melilla	0.28	350	P	Pg	18 31 08.3	+1.6
MELI				S	Sg	18 31 11.3	+0.9
MELI	Melilla	0.28	350	eP	Pg	18 31 08.3	+1.7
EMLI	Melilla	0.28	348	P	Pg	18 31 07.7	+0.9
	43nm,0.1s,SNR=11						
EMEL	Melilla	0.29	346	P	Pg	18 31 07.7	+0.9
	43nm,0.1s,SNR=11						
EMEL				S	Sg	18 31 12.1	+1.3
	SNR=7.9						
TOU	Touzarine	0.72	266	i P	Pb	18 31 17.0	+1.9
TOU				i S	Sb	18 31 29.0	+4.2
MPAL	Palemas	0.90	283	i P	Pb	18 31 19.0	+1.0
MPAL				i S	Sb	18 31 34.0	+4.2
TZK	Tazeka	1.43	230	i P	Pn	18 31 26.5	-0.4
TZK				i S	Sb	18 31 45.5	+0.4
EBER	Berja	1.87	360	P	Pn	18 31 33.2	-0.1
	0.7nm,0.2s,SNR=4.7						
EBER				S	Sn	18 31 55.1	-2.1
	13nm,0.7s,SNR=4.6						
EBER	Berja	1.87	360	S	Sn	18 31 55.1	-2.0
	13nm,0.7s,SNR=4.6						
EBER	Berja	1.87	360	P	Pn	18 31 33.2	-0.1
	0.7nm,0.2s,SNR=4.7						
EMIJ	Mijas	2.18	315	P	Pn	18 31 35.5	-2.2
	2.7nm,0.1s,SNR=27						
EMIJ				S	Sn	18 32 00.9	-4.0
	2.0nm,0.3s,SNR=4.9						
EQES	Quesada	2.78	357	P	Pn	18 31 47.3	+1.1
	2.3nm,0.2s,SNR=13						
EQES				S	Sn	18 32 20.3	+0.1
	4.8nm,0.4s						
EQES	Quesada	2.78	357	P	Pn	18 31 47.3	+1.0
	2.3nm,0.2s,SNR=13						
EQES				S	Sn	18 32 20.3	+0.1
	4.8nm,0.4s						
ESPR	Espera	3.04	308	P	Pn	18 31 49.4	-0.6
	1.2nm,0.2s,SNR=7.9						
ESPR				S	Sn	18 32 21.5	-5.3
	SNR=7.9						
ESPR	Espera	3.04	308	P	Pn	18 31 49.4	-0.6
	1.2nm,0.2s,SNR=7.9						
EMUR	La Murta	3.11	25	P	Pn	18 31 51.1	+0.2
	1.3nm,0.2s,SNR=5.8						
EMUR				S	Sn	18 32 24.2	-4.3
	88nm,1.9s						
EMUR	La Murta	3.11	25	S	Sn	18 32 24.2	-4.3
	88nm,1.9s						
EMUR	La Murta	3.11	25	P	Pn	18 31 51.1	+0.2
	1.3nm,0.2s,SNR=5.8						
EADA	Adamuz	3.42	337	P	Pn	18 31 54.5	-0.9
	0.9nm,0.2s,SNR=7.7						
EADA				S	Sn	18 32 32.4	-4.2
	2.0nm,0.5s						
EADA	Adamuz	3.42	337	P	Pn	18 31 54.5	-0.9
	0.9nm,0.2s,SNR=7.7						
EADA				S	Sn	18 32 32.4	-4.1
	2.0nm,0.5s						
EMIN	Mina Concepcio	4.11	313	P	Pn	18 32 02.8	-2.4
	1.3nm,0.2s,SNR=24						
EMIN				S	Sn	18 32 44.2	-10
	9.3nm,1.2s						
EMIN	Mina Concepcio	4.11	313	P	Pn	18 32 02.8	-2.4
	1.3nm,0.2s,SNR=24						
ESDC	Sonseca Array	4.72	350	P	Pn	18 32 13.8	-0.1
	0.4nm,0.2s,baz=171,slow=12,SNR=9.2						
ESDC	Sonseca Array	4.72	350	P	Pn	18 32 13.8	-0.1
EBAD	Badajoz	4.99	320	P	Pn	18 32 15.4	-2.2
	1.2nm,0.1s,SNR=12						
EBAD				S	Sn	18 33 10.3	-5.8
	4.5nm,0.9s						
EBAD	Badajoz	4.99	320	P	Pn	18 32 15.4	-2.2

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*NEIC **05** 18:32:02.8, 47.48S×165.31E, h33^{km}, ML4.3(WEL), After WEL.*

WEL 05 18:32:02.7±0.7**, 47.40S×165.25E, h33**^{km}**, ML4.0**/6**, Error ellipse: s-maj=6.9km s-min=5.0km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLZ	Mavora Lakes	2.88	46	P	P	18 32 45.3	-2.0
MLZ				S	S	18 33 17.5	-3.7
MLZ	Mavora Lakes	2.88	46	ePN	Pn	18 32 45.1	-2.4
MLZ				SN	Sn	18 33 17.0	-4.4
MLZ				SN	Sn	18 33 17.9	-3.5
MSZ	Milford Sound	3.31	35	PN	Pn	18 32 51.0	-2.5
TUZ	Tuapeka	3.35	66	eP	P	18 32 52.0	-1.9
TUZ	Tuapeka	3.35	66	PN	Pn	18 32 52.0	-2.1
EAZ	Earnscleugh	3.55	54	P	P	18 32 54.8	-2.0
EAZ				S	S	18 33 35.7	-2.5
EAZ	Earnscleugh	3.55	54	PN	Pn	18 32 54.8	-2.2
EAZ				SN	Sn	18 33 34.1	-4.2
WKZ	Wanaka	3.67	47	P	P	18 32 57.1	-1.4
WKZ	Wanaka	3.67	47	PN	Pn	18 32 57.2	-1.5
JCZ	Jackson Bay	4.14	38	P	P	18 33 03.6	-1.5
JCZ	Jackson Bay	4.14	38	PN	Pn	18 33 03.5	-1.8
ODZ	Otahua Downs	4.42	60	PN	Pn	18 33 04.9	-4.4
LBZ	Lake Benmore	4.58	51	PN	Pn	18 33 07.0	-4.5
LBZ				SN	Sn	18 33 57.9	-6.4
FOZ	Fox Glacier	4.95	41	PN	Pn	18 33 14.3	-2.4
FOZ				SN	Sn	18 34 10.0	-3.5
FOZ				SN	Sn	18 34 10.3	-3.2
LTZ	Lake Taylor	6.78	50	PN	Pn	18 33 39.4	-3.2
THZ	Tophouse	7.85	47	PN	Pn	18 33 51.5	-6.0
QRZ	Quartz Range	8.40	41	PN	P	18 33 59.6	-5.4
KAVZ	Karewarewa	11.23	46	PN	P	18 34 38.2	-5.6

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*NEIC **05** 18:36:52.2, 36.40N×22.89E, h16^{km}, MD3.5(ATH), After*

ATH.

ATH 05 18:36:52.2,36.40N×22.89E,h16^{km}±3^{km},MD3.5/5**,1C,Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KYTH	**Kithira**	**0.17**	**135**	⇑*e*PB	Pb	18 36 56.6	0.0
VLI	**Veliai**	**0.32**	**7**	*e*PB	Pb	18 36 58.8	-0.3
ITM	**Ithomi**	**1.10**	**315**	*e*PN	Pn	18 37 12.8	-0.1
VAM	**Vamos**	**1.45**	**133**	*e*PN	Pn	18 37 19.0	+1.0
GVD	**Gavdhos**	**1.84**	**148**	*e*Pn	Pn	18 37 26.0	+2.5
NPS	**Neapolis**	**2.49**	**116**	*e*PB	Pb	18 37 34.3	-1.7

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*NEIC **05** 18:41:48.6,29.58S×71.08W,h30^{km},ML4.1(GUC),After GUC.*

GUC 05 18:41:48.6±0.6**,29.58S×71.08W,h30^{km}**±5^{km}**,MD4.0,ML4.1,1C-3D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSCH	**La Serena**	**0.36**	**203**	⇓*i*P	Pb	18 41 56.7	-0.3
LSCH				*i* S	Sb	18 42 02.7	0.0
LSCH				AMP		18 42 02.9	
	comp=N,9μm,0.2s						
VACH	**Vallenar**	**1.03**	**16**	⇓*i*P	Pn	18 42 07.3	+0.1
VACH				*i* S	Sn	18 42 20.9	+0.1
VACH				AMP		18 42 22.1	
	comp=E,16μm,0.3s						
CMCH	**Combarbala**	**1.59**	**178**	⇑*i*P	Pn	18 42 16.1	+0.9
CMCH				*i* S	Sn	18 42 36.6	+1.7
CMCH				AMP		18 42 45.5	
	comp=E,4μm,0.8s						
CPCH	**Copiapo**	**2.30**	**16**	⇓*i*P	Pn	18 42 25.9	+0.6
CPCH				*e*S	Sn	18 42 53.8	+0.9
CPCH				AMP		18 43 01.6	
	comp=N,2μm,0.1s						

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*NEIC **05** 19:24:32.0±1.2,15.69N×61.46W,mb4.0/1,Error ellipse: s-maj=25.1km s-min=14.6km az=93.0*

*TRN **05** 19:24:31.2,15.69N×61.34W,h18^{km},MD4.1*

*IDC **05** 19:24:32.1±0.8,15.69N×61.43W,h11^{km}±4^{km},mb3.7/7,mb1 4.1/8,mb1mx3.8/20,ML5.6/1,Error ellipse: s-maj=13.8km s-min=8.9km az=102.0*

ISC 05 19:24:32.9±0.4**,15.70N**±0.03×**61.50W**±0.06**,h24^{km}**±4^{km}**,h12^{km}**±.3^{km}**:pP-P,n28,σ1^{s}03**/39**,mb3.8**/7**,3C-5D,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	**Barber's Block**	**0.17**	**169**	⇓*i*P	**Pb**	**19 24 37.3**	**-0.8**
BBL				*e*S	**Sb**	**19 24 43.1**	**+1.4**
MGG	**Marie-Galante**	**0.28**	**40**	⇑*i*P	**Pb**	**19 24 39.1**	**-0.4**
MDN	**Morne-Daniel**	**0.39**	**164**	⇓*i*P	**Pb**	**19 24 41.1**	**-0.1**
MDN				*e*S	**Sb**	**19 24 47.5**	**+0.5**
DBCT	**Belle View Cho**	**0.45**	**160**	*e*P	**Pb**	**19 24 42.1**	**-0.1**
DBCT				*e*S	**Sb**	**19 24 48.1**	**-0.5**
DSTT	**Stowe**	**0.49**	**157**	*e*P	**Pb**	**19 24 42.8**	**0.0**
DSTT				*e*S	**Sb**	**19 24 49.0**	**-0.6**
DSHT	**Scott's Head**	**0.50**	**165**	⇓*i*P	**Pb**	**19 24 43.1**	**+0.1**
SEG	**Port Louis**	**0.70**	**360**	⇑*e*P	**Pb**	**19 24 46.4**	**+0.1**
DEG	**La Desirade**	**0.74**	**35**	⇑*e*P	**Pb**	**19 24 46.1**	**-0.9**
FDF	**Fort de France**	**1.02**	**160**	*e*P	**Pb**	**19 24 51.2**	**-0.5**
FDF				*e*S	**Sb**	**19 25 05.8**	**+1.1**
CRM	**Caravelle**	**1.10**	**149**	⇓*e*P	**Pn**	**19 24 52.6**	**-0.3**
CRM				*e*S	**Sb**	**19 25 07.2**	**+0.3**
BIM	**Bigot**	**1.25**	**160**	*e*P	**Pn**	**19 24 55.0**	**0.0**
BIM				*e*S	**Sn**	**19 25 12.9**	**+1.7**
MVM	**Montagne Vaucl**	**1.28**	**153**	⇓*e*P	**Pn**	**19 24 55.7**	**+0.2**
MVM				*e*S	**Sn**	**19 25 12.5**	**+0.5**
BPA	**Boggy Peak**	**1.38**	**346**	*e*P	**Pn**	**19 24 57.2**	**+0.3**
BPA				*e*S	**Sn**	**19 25 17.9**	**+3.3**
CPB	**Codrington**	**1.95**	**351**	*e*P	**Pn**	**19 25 06.0**	**+0.9**
CPB				*e*S	**Sn**	**19 25 31.8**	**+2.6**
SJG	**San Juan**	**5.05**	**299**	Pn	**Pn**	**19 25 47.6**	**-1.6**
	4.3nm,0.3s,baz=151,slow=16,SNR=6.1						
SJG				Sn	**Sn**	**19 26 49.7**	**+2.1**
	1.4nm,0.3s,baz=41,slow=18,SNR=2.1						
SJG	**San Juan**	**5.05**	**299**	*e*Pn	**Pn**	**19 25 47.2**	**-2.0**
SJG				Sn	**Sn**	**19 26 49.7**	**+2.1**
SDV	**Santo Domingo**	**11.20**	**234**	P	**P**	**19 27 13.0**	**-1.8**
LPAZ	**La Paz**	**32.45**	**192**	P	**P**	**19 31 02.6**	**-1.1**
	1.2nm,0.7s,mb3.9,baz=322,slow=3.6,SNR=6.4						
LPAZ	**La Paz**	**32.45**	**192**	*e*P	**P**	**19 31 02.3**	**-1.4**
	1.2nm,0.7s,mb3.8						
TXAR	**Lajitas Array**	**41.02**	**297**	P	**P**	**19 32 16.9**	**+0.9**
	0.3nm,0.8s,mb3.0,baz=124,slow=11,SNR=3.0						
ULM	**Lac du Bonnet**	**44.23**	**329**	P	**P**	**19 32 40.4**	**-1.6**
	2.0nm,0.5s,mb4.1,baz=135,slow=9.2,SNR=2.9						
PDAR	**Pinedale Array**	**49.00**	**313**	P	**P**	**19 33 19.9**	**+0.3**
	1.8nm,0.9s,mb4.1,baz=112,slow=8.0,SNR=5.1						
PDAR				pP	pP	19 33 23.6	-3.5
	1.5nm,0.8s,baz=116,slow=9.8,SNR=11						
JLU	**Jordanelle**	**49.74**	**310**	*e*P	**P**	**19 33 24.0**	**-1.4**
NVAR	**Mina Array Bea**	**54.50**	**306**	P	**P**	**19 34 01.6**	**+0.5**
	0.2nm,0.4s,mb3.5,baz=102,slow=10,SNR=3.9						
YKA	**Yellowknife Ar**	**59.56**	**334**	P	**P**	**19 34 35.2**	**-1.5**
	1.4nm,0.6s,mb4.2,baz=107,slow=7.3,SNR=24						
YKA				pP	pP	19 34 38.9	-5.3
	1.6nm,0.7s,baz=105,slow=7.5,SNR=19						
YKA	**Yellowknife Ar**	**59.56**	**334**	P	**P**	**19 34 35.2**	**-1.5**
YKA				pP	pP	19 34 38.9	-5.3
ILAR	**Eielson Array**	**73.97**	**334**	P	**P**	**19 36 07.8**	**0.0**
	0.8nm,1.0s,mb3.6,baz=120,slow=4.1,SNR=8.4						
ILAR				pP	pP	19 36 11.3	-4.1
	0.6nm,0.8s,baz=106,slow=3.8,SNR=5.7						
FINES	**FINESS Array B**	**75.20**	**30**	pP	pP	19 36 19.6	-3.1
	1.3nm,0.6s,baz=270,slow=4.2,SNR=1.7						

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*JMA **05** 19:31:21.0±0.2,24.80N×122.83E,h103^{km}±2^{km},M2.1*

TAP 05 19:31:20.8,24.59N×122.81E,h95^{km}±2^{km}**,ML3.0,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.22**	**125**	P	P	19 31 36.4	+1.9
YOJ				S	S	19 31 48.1	+3.2
IRIF	**Iriomote-Funau**	**0.88**	**107**	P	P	19 31 41.0	+1.2
IRIF				*e*S	S	19 31 56.1	+2.2
HATJ	**Hateruma jima**	**1.05**	**120**	P	P	19 31 43.7	+2.0
HATJ				*e*S	S	19 32 00.4	+3.0
JKRS	**Kuro-shima**	**1.15**	**108**	P	P	19 31 44.3	+1.3
JKRS				*e*S	S	19 32 01.8	+2.3
JIJ	**Ishigaki jima**	**1.23**	**100**	P	P	19 31 44.7	+0.7
JIJ				S	S	19 32 01.9	+0.6
JTJ	**Tarama**	**1.72**	**88**	P	P	19 31 50.7	+0.6
JTJ				*e*S	S	19 32 13.0	+1.3

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*NEIC **05** 19:39:09.1,35.00N×3.04W,h8^{km},MG3.3(MDD),After MDD.*

*CSEM **05** 19:39:09.2±0.6,35.16N×3.25W,h2^{km},mb3.3/9,Error ellipse: s-maj=13.6km s-min=7.5km az=10.0*

MDD 05 19:39:09.4±1.6**,35.02N×3.04W,h8^{km}**±7^{km}**,mb3.3**/9**,Error ellipse: s-maj=16.3km s-min=10.6km az=117.0,PRXIMO AftershockPLICA,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MELI	**Melilla**	**0.29**	**18**	P	Pg	19 39 14.8	-0.5
MELI				S	Sg	19 39 18.3	-1.0
MELI	**Melilla**	**0.29**	**18**	*e*P	Pg	19 39 14.8	-0.5
EMEL	**Melilla**	**0.29**	**14**	P	Pg	19 39 14.6	-0.7
	20nm,0.1s,SNR=9.2						
EMEL				S	Sg	19 39 19.7	+0.3
	153nm,0.5s						
EMLI	**Melilla**	**0.29**	**15**	P	Pg	19 39 14.6	-0.8
	20nm,0.1s,SNR=9.2						
EBER	**Berja**	**1.88**	**4**	P	Pn	19 39 39.9	-2.3
	0.8nm,0.2s,SNR=7.9						
EBER				S	Sn	19 40 01.5	-4.8
	7.8nm,0.5s,SNR=9.9						
EBER	**Berja**	**1.88**	**4**	P	Pn	19 39 39.9	-2.3
	0.8nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	**2.09**	**318**	P	Pn	19 39 42.7	-2.5
	1.3nm,0.1s,SNR=7.5						
EMIJ				S	Sn	19 40 07.0	-4.6
	1.7nm,0.4s						
EQES	**Quesada**	**2.78**	**360**	P	Pn	19 39 54.6	-0.5
	3.7nm,0.3s,SNR=15						
EQES				S	Sn	19 40 27.1	-2.0
	4.7nm,0.4s						
EQES	**Quesada**	**2.78**	**360**	P	Pn	19 39 54.6	-0.5
	3.7nm,0.3s,SNR=15						
EQES				S	Sn	19 40 27.1	-2.0
	4.7nm,0.4s						
EMUR	**La Murta**	**3.17**	**27**	P	Pn	19 39 58.9	-1.7
	1.2nm,0.3s,SNR=7.9						
EMUR				S	Sn	19 40 31.8	-7.2
	SNR=7.9						
EMUR	**La Murta**	**3.17**	**27**	P	Pn	19 39 58.9	-1.7
	1.2nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**3.38**	**339**	P	Pn	19 40 02.0	-1.6
	1.0nm,0.4s,SNR=4.7						
EADA				S	Sn	19 40 38.4	-5.9
	12nm,1.3s						
EADA	**Adamuz**	**3.38**	**339**	P	Pn	19 40 02.0	-1.6
	1.0nm,0.4s,SNR=4.7						
EADA				S	Sn	19 40 38.4	-5.9
	12nm,1.3s						
EMIN	**Mina Concepcio**	**4.01**	**314**	P	Pn	19 40 10.4	-2.2
	2.2nm,0.2s,SNR=11						
EMIN				S	Sn	19 40 55.0	-5.4
	5.2nm,1.0s						
EMIN	**Mina Concepcio**	**4.01**	**314**	P	Pn	19 40 10.4	-2.2
	2.2nm,0.2s,SNR=11						
EMIN				S	Sn	19 40 55.0	-5.4
	5.2nm,1.0s						
ESDC	**Sonseca Array**	**4.70**	**351**	P	Pn	19 40 21.0	-1.4
	0.4nm,0.3s,baz=172,slow=12,SNR=7.0						
ESDC				S	Sn	19 41 12.4	-5.5
	0.7nm,0.6s,baz=6.2,slow=31,SNR=4.3						
ESDC	**Sonseca Array**	**4.70**	**351**	P	Pn	19 40 21.0	-1.4
	0.4nm,0.3s,SNR=7.0						
ESDC				S	Sn	19 41 12.4	-5.5
	0.7nm,0.6s,SNR=4.3						
EBAD	**Badajoz**	**4.90**	**321**	P	Pn	19 40 22.8	-2.5
	1.7nm,0.2s,SNR=7.7						
EBAD				S	Sn	19 41 17.6	-5.3
	9.7nm,1.1s						
EBAD	**Badajoz**	**4.90**	**321**	P	Pn	19 40 22.8	-2.4
	1.7nm,0.2s,SNR=7.7						
EBAD				S	Sn	19 41 17.6	-5.3

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*IDC **05** 19:41:33.9±11.0,2.99S×101.74E,h123^{km}±90^{km},mb3.3/7,mb1 3.5/7,mb1mx3.3/17,Error ellipse: s-maj=128.0km s-min=15.1km az=58.0*

*NEIC **05** 19:41:37.9±1.0,2.74S×102.15E,h150^{km},mb3.9/2,Error ellipse: s-maj=44.7km s-min=14.9km az=59.0*

ISC 05 19:41:42.7±1.1**,2.6S**±0.2×**102.5E**±0.3**,h200^{km},n11,σ0^{s}69**/10**,mb3.4**/9**,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**21.23**	**351**	P	**P**	**19 46 13.7**	**-0.1**
	0.3nm,0.6s,mb3.0,baz=185,slow=10.0,SNR=7.5						
FITZ	**Fitzroy Crossi**	**27.43**	**126**	P	**P**	**19 47 11.5**	**-0.7**
	3.1nm,0.8s,mb4.0,baz=309,slow=6.5,SNR=4.3						
WRA	**Warramunga Arr**	**35.55**	**121**	P	**P**	**19 48 22.6**	**-0.1**
	0.5nm,0.3s,mb3.5,baz=317,slow=10,SNR=29						
WRA				PcP	PcP	19 50 47.5	0.0
	0.2nm,0.4s,baz=316,slow=2.4,SNR=6.7						
WRAB	**Tennant Creek**	**35.56**	**121**	*e*P	**P**	**19 48 23.1**	**+0.4**
	1.7nm,0.4s,mb3.9						
ASAR	**Alice Springs**	**36.90**	**127**	P	**P**	**19 48 34.0**	**0.0**
	1.4nm,0.5s,mb3.8,baz=300,slow=7.2,SNR=31						
ASAR				PcP	PcP	19 50 52.1	+0.6
	0.5nm,0.4s,baz=316,slow=2.5,SNR=7.3						
STKA	**Stephens Creek**	**46.90**	**133**	P	**P**	**19 49 55.2**	**+0.2**
	1.2nm,0.8s,mb3.3,baz=315,slow=10.0,SNR=6.2						
STKA	**Stephens Creek**	**46.90**	**133**	P	**P**	**19 49 55.2**	**+0.2**
SONM	**Songino Array**	**50.35**	**3**	P	**P**	**19 50 21.9**	**+0.7**
	0.3nm,0.7s,mb2.7,baz=181,slow=9.7,SNR=5.3						
BVAR	**Borovoye Array**	**61.63**	**339**	P	**P**	**19 51 37.9**	**-3.4**
	0.3nm,0.5s,mb3.2,baz=117,slow=6.6,SNR=4.4						
SNAA	**Sanae**	**92.32**	**198**	*e*P	**P**	**19 54 31.3**	**+0.3**
	0.2nm,0.3s,mb3.5						
TXAR	**Lajitas Array**	**143.62**	**40**	PKP	PKPdf	20 00 53.9	-0.4
	0.3nm,0.9s,baz=204,slow=0.7,SNR=3.9						

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*STR **05** 19:45:09.9±0.2,48.08N×8.07E,h10^{km}±1^{km},Ml2.6,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **05** 19:45:09.9,48.07N×8.03E,h14^{km},ML3.1(VIE),ML2.8(LDG),ML2.7(LEDBW),ML2.6(STR),After LDG.*

NEIC Felt in the epicentral area.

*LDG **05** 19:45:09.9±0.1,48.07N×8.03E,h14^{km},Md2.8/3,Ml2.8/32,Error ellipse: s-maj=1.4km s-min=1.2km az=156.0*

*ZUR **05** 19:45:10.1,48.07N×8.02E,h10^{km},ML2.5/11*

*CSEM **05** 19:45:10.2±0.0,48.08N×8.05E,h14^{km},ML2.8/20,Error ellipse: s-maj=0.8km s-min=0.6km az=160.0*

*BGR **05** 19:45:10.1±0.2,48.09N×8.07E,h10^{km},ML2.2/3,Error ellipse: s-maj=1.1km s-min=1.1km az=150.0*

LEDBW 05 19:45:10.5±0.1**,48.07N×8.06E,h10^{km}**±1^{km}**,ML2.7,21C-19D,Error ellipse: s-maj=2.0km s-min=1.2km az=129.0,Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIZ	**Kirchzarten**	**0.15**	**219**	⇑*i*Pg	Pg	19 45 14.0	0.0
KIZ				*i* Sg	Sg	19 45 16.4	+0.1
KIZ	**Kirchzarten**	**0.15**	**219**	Sg	Sg	19 45 16.4	0.0
FBB	**Freiburg**	**0.16**	**243**	⇑*i*Pg	Pg	19 45 14.2	+0.1
FBB				*i* Sg	Sg	19 45 16.6	+0.1
FBB	**Freiburg**	**0.16**	**243**	⇑*i*P	Pg	19 45 14.2	+0.1
FBB				*e*S	Sg	19 45 16.8	+0.3
FBB	**Freiburg**	**0.16**	**243**	Sg	Sg	19 45 16.6	+0.1
FELD	**Feldberg**	**0.20**	**191**	⇓*i*Pg	Pg	19 45 14.9	0.0
FELD				Sg	Sg	19 45 17.9	+0.1
FELD	**Feldberg**	**0.20**	**191**	⇓*i*P	Pg	19 45 14.9	0.0
FELD				*e*S	Sg	19 45 17.9	+0.1
FELD	**Feldberg**	**0.20**	**191**	Pg	Pg	19 45 14.9	0.0
FELD				Sg	Sg	19 45 17.8	0.0
BFO	**Black Forest**	**0.31**	**35**	⇑*i*Pg	Pg	19 45 16.7	-0.3
BFO				*i* Sg	Sg	19 45 20.9	-0.5
BFO	**Black Forest**	**0.31**	**35**	⇑*i*P	Pg	19 45 16.7	-0.3
BFO				S	Sg	19 45 20.9	-0.4
BFO	**Black Forest**	**0.31**	**35**	*e*Pg	Pg	19 45 16.5	-0.5
BFO				*e*Sg	Sg	19 45 20.8	-0.5
BFO	**Black Forest**	**0.31**	**35**	*e*Sg	Sg	19 45 20.8	-0.5
LIBD	**Limburg**	**0.32**	**284**	⇑*i*Pg	Pg	19 45 17.2	+0.1
LIBD				*i* Sg	Sg	19 45 21.9	+0.4
LIBD	**Limburg**	**0.32**	**284**	⇑*i*P	Pg	19 45 17.2	+0.1
LIBD				S	Sg	19 45 21.9	+0.5
LIBD	**Limburg**	**0.32**	**284**	Pg	Pg	19 45 17.0	-0.1
LIBD	**Limburg**	**0.32**	**284**	Sg	Sg	19 45 21.7	+0.3
SLE	**Schleitheim**	**0.42**	**136**	⇓*i*Pg	Pg	19 45 18.8	-0.3
SLE				*i* Sg	Sg	19 45 24.5	-0.4
SPAK	**Spaichingen**	**0.49**	**86**	⇑*i*Pg	Pg	19 45 20.1	-0.3
SPAK	**Spaichingen**	**0.49**	**86**	⇑*i*P	Pg	19 45 20.1	-0.3
SULZ	**Sulz-Cheisache**	**0.55**	**176**	⇓*i*Pg	Pg	19 45 21.8	+0.2
SULZ				*i* Sg	Sg	19 45 28.5	-0.5
WLS	**Welschbruch**	**0.58**	**306**	⇓*i*Pg	Pg	19 45 21.9	-0.4
WLS				Sg	Sg	19 45 29.4	-0.6
WLS	**Welschbruch**	**0.58**	**306**	⇓*i*P	Pg	19 45 21.9	-0.4
WLS				S	Sg	19 45 29.5	-0.6
WLS	**Welschbruch**	**0.58**	**306**	Pg	Pg	19 45 21.6	-0.6
WLS				Sg	Sg	19 45 29.2	-0.9
TRULL	**Truellikon**	**0.60**	**135**	⇓*i*Pg	Pg	19 45 22.0	-0.5
TRULL				*e*Sg	Sg	19 45 30.2	-0.4
ECH	**Echery**	**0.62**	**284**	⇑*i*Pg	Pg	19 45 22.3	-0.7
ECH				Sg	Sg	19 45 30.4	-1.0
ECH	**Echery**	**0.62**	**284**	⇑*i*P	Pb	19 45 22.4	-0.6
ECH				S	Sg	19 45 30.6	-0.8
ECH	**Echery**	**0.62**	**284**	Sg	Sg	19 45 30.4	-1.0
CDF	**Champ du Feu**	**0.62**	**303**	*e*Pg	Pg	19 45 22.2	-0.9
CDF				*e*Sg	Sg	19 45 29.6	-1.9
	115nm,0.2s						
CDF	**Champ du Feu**	**0.62**	**303**	*e*Sg	Sg	19 45 29.6	-1.9
	58nm,0.2s						
MOF	**Molkenrain**	**0.66**	**251**	⇑*e*Pg	Pg	19 45 23.1	-0.7
MOF	**Molkenrain**	**0.66**	**251**	⇑*e*P	Pb	19 45 23.3	-0.3
MOF	**Molkenrain**	**0.66**	**251**	Pg	Pg	19 45 22.9	-0.9
MOF				Sg	Sg	19 45 32.3	-0.4
MOF	**Molkenrain**	**0.66**	**251**	Pg	Pg	19 45 23.1	-0.7
MOF				Sg	Sg	19 45 32.3	-0.4
STEIN	**Stein am Rhein**	**0.68**	**126**	⇓*i*Pg	Pg	19 45 23.7	-0.5
GUT	**Gutenstein**	**0.71**	**90**	⇑*i*Pg	Pg	19 45 24.0	-0.7
GUT				PmP		19 45 24.4	
GUT				*i* Sg	Sg	19 45 33.4	-0.8
GUT	**Gutenstein**	**0.71**	**90**	⇑*i*P	Pb	19 45 24.0	-0.4
GUT				*i* S	Sb	19 45 33.4	-0.6
GUT	**Gutenstein**	**0.71**	**90**	⇑*i*P	Pb	19 45 24.1	-0.4
GUT				S	Sb	19 45 33.4	-0.6
GUT				S	Sb	19 45 34.5	+0.6
GUT	**Gutenstein**	**0.71**	**90**	Sg	Sg	19 45 33.4	-0.8
BBS	**Basel-Blauen**	**0.71**	**212**	⇑*i*Pg	Pg	19 45 24.2	-0.7
BBS				*e*Sg	Sg	19 45 33.7	-0.7
	SNR=4.7						
BBS	**Basel-Blauen**	**0.71**	**212**	⇑*i*P	Pb	19 45 24.2	-0.3
BBS				S	Sb	19 45 33.9	-0.3
BBS	**Basel-Blauen**	**0.71**	**212**	Sg	Sg	19 45 33.7	-0.8
SISB	**Singen-Sch Ber**	**0.72**	**122**	⇓*i*Pg	Pg	19 45 24.5	-0.5
SISB				Sg	Sg	19 45 34.2	-0.5
SISB	**Singen-Sch Ber**	**0.72**	**122**	⇓*i*P	Pb	19 45 24.5	-0.2
SISB				S	Sb	19 45 34.4	0.0
LBG	**Lerchenberg**	**0.77**	**39**	⇑*i*Pg	Pg	19 45 24.9	-1.0
LBG				*i* Sg	Sg	19 45 34.9	-1.4
LBG	**Lerchenberg**	**0.77**	**39**	⇑*i*P	Pb	19 45 24.9	-0.6
LBG				S	Sb	19 45 34.9	-0.9
LBG				S	Sb	19 45 36.5	+0.8
BALST	**Balsthal**	**0.78**	**199**	⇑*i*Pg	Pg	19 45 25.2	-0.9
ZUR	**Zurich**	**0.79**	**153**	⇓*i*Pg	Pg	19 45 25.7	-0.6
TUBL	**Tuebingen Lnz**	**0.82**	**56**	Pg	Pg	19 45 26.3	-0.6
TUBL				Sg	Sg	19 45 37.1	-0.8
WEIN	**Weingarten**	**0.83**	**131**	⇓*i*Pg	Pg	19 45 26.5	-0.6
HINF	**Hinteralfeld**	**0.85**	**253**	*e*Pg	Pg	19 45 25.6	-2.0
HINF				*e*Sg	Sg	19 45 36.3	-2.7
	48nm,0.2s						
WILA	**Wila**	**0.87**	**139**	⇓*i*Pg	Pg	19 45 27.4	-0.6
BOURR	**Bourrignon**	**0.88**	**220**	⇑*i*Pg	Pg	19 45 26.6	-1.6
LANF	**Langenberg**	**0.92**	**350**	Pn	Pn	19 45 27.2	-2.2
LANF				*e*Sg	Sg	19 45 39.8	-1.5
	SNR=5.9						
LANF	**Langenberg**	**0.92**	**350**	P	Pb	19 45 27.5	-0.6
LANF	**Langenberg**	**0.92**	**350**	Pg	Pg	19 45 27.0	-2.0
LANF	**Langenberg**	**0.92**	**350**	Pn	Pn	19 45 27.2	-2.2
LANF				Sg	Sg	19 45 39.8	-1.6
	SNR=5.9						
BUCH	**Bad Urach**	**0.94**	**66**	⇑*e*Pn	Pn	19 45 27.6	-2.1
BUCH				Pg	Pg	19 45 28.4	-1.0
BUCH				SmS		19 45 45.6	
BUCH	**Bad Urach**	**0.94**	**66**	PG	Pg	19 45 28.4	-1.0
BUCH	**Bad Urach**	**0.94**	**66**	⇓*i*P	Pb	19 45 27.7	-0.8
BUCH				⇑*i*P		19 45 28.4	
BUCH				P		19 45 28.6	
BUCH				S	Sb	19 45 41.3	+0.6
BUCH	**Bad Urach**	**0.94**	**66**	⇑*e*P	Pb	19 45 27.6	-0.9
BUCH				Pg	Pg	19 45 28.4	-1.0
BUCH	**Bad Urach**	**0.94**	**66**	Pg	Pg	19 45 28.4	-1.0
STU	**Stuttgart**	**1.03**	**47**	*e*Pg	Pg	19 45 29.8	-1.3
	SNR=6.5						
STU				*e*Sg	Sg	19 45 43.1	-1.8
	SNR=9.7						
LOMF	**Lomont**	**1.10**	**229**	*e*Pn	Pn	19 45 30.4	-1.5
	SNR=2.9						
LOMF				⇑*i*Pg	Pg	19 45 31.4	-1.2
LOMF	**Lomont**	**1.10**	**229**	⇑*i*P	Pb	19 45 31.4	+0.2
LOMF				S	Sb	19 45 45.3	-0.1
LOMF	**Lomont**	**1.10**	**229**	Pg	Pg	19 45 31.1	-1.5
HAU	**Haudompre**	**1.15**	**267**	*e*Pn	Pn	19 45 30.1	-2.5
HAU				*e*Pg	Pg	19 45 31.3	-2.2
HAU				*e*Sg	Sg	19 45 45.5	-3.4
	160nm,0.3s						
HAU	**Haudompre**	**1.15**	**267**	*e*Pg	Pg	19 45 31.3	-2.2
HAU				*e*Sg	Sg	19 45 45.5	-3.4
	80nm,0.3s						
MUO	**Muotathal**	**1.17**	**160**	⇓*i*Pn	Pn	19 45 32.7	-0.2
BNALP	**Bannalp**	**1.23**	**168**	*e*Pn	Pn	19 45 33.6	-0.1
KTD	**Kalmit**	**1.25**	**1**	*e*Pn	Pn	19 45 31.6	-2.4
	SNR=4.7						
KTD				*e*Sg	Sg	19 45 49.5	-2.6
	SNR=4.5						
KTD	**Kalmit**	**1.25**	**1**	Pg	Pg	19 45 33.7	-1.8
KTD				Sg	Sg	19 45 50.0	-2.1
HASLI	**Hasliberg**	**1.32**	**177**	⇑*i*Pg	Pg	19 45 34.6	-2.3
PLONS	**Plons**	**1.36**	**138**	*e*Pn	Pn	19 45 35.1	-0.5
THEF	**They Montfort**	**1.40**	**277**	Pn	Pn	19 45 33.7	-2.4
THEF				*e*Sg	Sg	19 45 54.5	-2.6
	SNR=4.0						
THEF	**They Montfort**	**1.40**	**277**	⇓*i*P	Pn	19 45 33.9	-2.2
UBR	**Uberruh**	**1.43**	**105**	Pg	Pg	19 45 38.1	-1.1
UBR				Sg	Sg	19 45 56.3	-2.0
DAVA	**Damuels**	**1.46**	**122**	⇑*i*PG	Pg	19 45 38.3	-1.4
DAVA				*i* SG	Sg	19 45 55.7	-3.5
	10.0nm,0.2s						
SWS	**Schriesheim**	**1.47**	**16**	Pg	Pg	19 45 34.2	-5.8
TORNY	**Torny**	**1.50**	**210**	*e*Pn	Pn	19 45 35.7	-1.9
HDH	**Heidenheim**	**1.52**	**70**	Pn	Pn	19 45 38.5	+0.6
HDH				Sn	Sn	19 45 54.5	-3.4
HDH	**Heidenheim**	**1.52**	**70**	⇑*i*P	Pn	19 45 35.5	-2.4
HDH				P		19 45 38.5	
HDH				P		19 45 39.4	
BRANT	**Les Verrieres**	**1.56**	**224**	⇑*i*Pn	Pn	19 45 35.8	-2.7
TOD	**Tromm**	**1.61**	**17**	*e*Sg	Sg	19 46 00.1	-4.1
	SNR=6.9						
SIND	**Sindeldorf**	**1.64**	**38**	Pn	Pn	19 45 36.5	-3.0
SIND				Sg	Sg	19 46 00.7	-4.3
SIND	**Sindeldorf**	**1.64**	**38**	SG	Sg	19 46 00.7	-4.3
SIND	**Sindeldorf**	**1.64**	**38**	P	Pn	19 45 36.9	-2.7
SIND				⇑*i*P		19 45 41.3	
SIND	**Sindeldorf**	**1.64**	**38**	P	Pn	19 45 36.5	-3.1
SIND				Sg	Sg	19 46 00.7	-4.3
FUSIO	**Fusio**	**1.67**	**166**	*e*Pn	Pn	19 45 38.7	-1.4
LKBD	**Leukerbad**	**1.71**	**190**	⇓*i*Pn	Pn	19 45 39.4	-1.3
RUP	**Ruppelstein**	**1.76**	**338**	Pn	Pn	19 45 43.2	+1.9
RUP	**Ruppelstein**	**1.76**	**338**	Pg	Pg	19 45 43.5	-2.1
SENIN	**Lac Senin**	**1.79**	**197**	⇑*i*Pn	Pn	19 45 39.5	-2.2
RFYF	**Reffroy**	**1.81**	**289**	*e*Pg	Pg	19 45 44.0	-2.7
	baz=106						
RFYF				*e*Sn	Sn	19 46 00.0	-5.3
RFYF				*e*Sg	Sg	19 46 05.9	-5.0
	48nm,0.2s						
ABH	**Alteburg**	**1.84**	**350**	*e*Pg	Pg	19 45 44.3	-2.9
	SNR=14						
ABH				Pn	Pn	19 45 44.5	+2.0
ABH				Sg	Sg	19 46 08.1	-3.7
ABH	**Alteburg**	**1.84**	**350**	SG	Sg	19 46 08.1	-3.7
ABH	**Alteburg**	**1.84**	**350**	P	Pn	19 45 44.5	+2.0
ABH				Sg	Sg	19 46 08.1	-3.7
ABH	**Alteburg**	**1.84**	**350**	Pg	Pg	19 45 44.6	-2.7
ABH				Sg	Sg	19 46 08.1	-3.7
VDL	**Val di Lei**	**1.86**	**148**	⇓*i*Pn	Pn	19 45 40.4	-2.3
AIGLE	**Aigle**	**1.89**	**204**	*e*Pn	Pn	19 45 41.3	-1.9
GIMEL	**Gimel**	**1.97**	**219**	*e*Pn	Pn	19 45 42.2	-2.1
CABF	**La Chapelle**	**1.98**	**223**	*e*Pn	Pn	19 45 41.8	-2.8
CABF				*e*Pg	Pg	19 45 47.4	-2.8
CABF				*e*Sg	Sg	19 46 11.2	-5.5
	18nm,0.4s						
CABF	**La Chapelle**	**1.98**	**223**	*e*Pg	Pg	19 45 47.4	-2.8
SFTF	**Sexfontaines**	**2.03**	**275**	*e*Pn	Pn	19 45 42.1	-3.1
	baz=102						
SFTF				*e*Pg	Pg	19 45 47.1	-3.9
	baz=105						
SFTF				*e*Sn	Sn	19 46 06.1	-4.7
SFTF				*e*Sg	Sg	19 46 12.9	-5.2
	25nm,0.2s						
SFTF	**Sexfontaines**	**2.03**	**275**	*e*Pg	Pg	19 45 47.1	-3.9
SFTF				*e*Sn	Sn	19 46 06.1	-4.7
SFTF				*e*Sg	Sg	19 46 12.9	-5.2
	13nm,0.2s						
WLF	**Walferdange**	**2.03**	**322**	*e*Pg	Pg	19 45 48.4	-2.6
	SNR=6.2						
WLF				*e*Sg	Sg	19 46 14.0	-4.1
	SNR=3.4						
MEZF	**Maizieres J'vi**	**2.05**	**283**	*e*Pn	Pn	19 45 42.7	-2.8
	baz=104						
MEZF				*e*Pg	Pg	19 45 48.5	-3.0
	baz=104						
MEZF				*e*Sn	Sn	19 46 06.4	-5.0
MEZF				*e*Sg	Sg	19 46 12.9	-6.0
	14nm,0.2s						
MEZF	**Maizieres J'vi**	**2.05**	**283**	*e*Pg	Pg	19 45 48.5	-3.0
MEZF				*e*Sn	Sn	19 46 06.4	-5.0
MEZF				*e*Sg	Sg	19 46 12.9	-6.0
	7.2nm,0.2s						
FUR	**Furstenfeldbru**	**2.16**	**86**	*e*Pg	Pg	19 45 51.5	-2.1
	SNR=5.7						
FUR				*e*Sg	Sg	19 46 18.3	-4.1
	SNR=8.0						
MOTA	**Moosalm**	**2.18**	**108**	⇑*i*PG	Pg	19 45 51.7	-2.4
MOTA				*i* SG	Sg	19 46 20.0	-3.2
	12nm,0.1s						
SQTA	**Sankt Quirin**	**2.29**	**111**	⇓*i*PG	Pg	19 45 54.0	-2.3
SQTA				*i* SG	Sg	19 46 23.6	-3.3

	30nm,0.2s						
ORO	**Oropa**	2.45	181	*e*Pn	Pn	19 45 52.6	+1.4
ORO				*e*Sn	Sn	19 46 27.9	+6.5
ORO	**Oropa**	2.45	181	*e*Pn	Pn	19 45 52.6	+1.4
GRA1	**Grafenberg Arr**	2.64	51	*e*Pg	Pg	19 45 59.8	-3.4
GRA1				*e*Sg	Sg	19 46 32.7	-5.8
GRF	**Grafenberg Arr**	2.64	51	*e*Pg	Pg	19 45 59.8	-3.5
	SNR=6.3						
GRF				*e*Sg	Sg	19 46 32.7	-5.8
	SNR=4.5						
LPL	**La Plagne**	2.72	200	*e*Pn	Pn	19 45 52.4	-2.6
LPL				*e*Pg	Pg	19 46 00.2	-4.5
LPL				*e*Sg	Sg	19 46 34.2	-6.8
	11nm,0.7s						
LPL	**La Plagne**	2.72	200	*e*Pg	Pg	19 46 00.2	-4.5
LPL				*e*Sg	Sg	19 46 34.2	-6.8
	5.7nm,0.7s						
LPG	**La Plagne**	2.73	200	*e*Pn	Pn	19 45 52.6	-2.6
LPG				*e*Pg	Pg	19 46 00.9	-4.1
LPG				*e*Sg	Sg	19 46 34.6	-6.8
	4.7nm,0.3s						
LPG	**La Plagne**	2.73	200	*e*Pg	Pg	19 46 00.9	-4.1
LPG				*e*Sg	Sg	19 46 34.6	-6.8
	2.3nm,0.3s						
GIVF	**Givet**	2.94	315	*e*Pn	Pn	19 45 55.3	-2.9
GIVF				*e*Pg	Pg	19 46 03.8	-5.4
GIVF				*e*Sg	Sg	19 46 40.6	-7.8
	2.6nm,0.2s						
GIVF	**Givet**	2.94	315	*e*Pg	Pg	19 46 03.8	-5.4
GIVF				*e*Sg	Sg	19 46 40.6	-7.8
	1.3nm,0.2s						
UBBA	**Unterbreizbach**	3.02	24	*e*Sg	Sg	19 46 44.6	-6.7
	SNR=3.9						
SMF	**Signal de Mont**	3.20	245	*e*Pg	Pg	19 46 09.7	-4.8
SMF				*e*Sg	Sg	19 46 49.1	-8.1
	5.7nm,0.2s						
BAIF	**Baives**	3.22	310	*e*Pn	Pn	19 45 59.4	-2.8
BAIF				*e*Sg	Sg	19 46 50.1	-7.6
	6.2nm,0.6s						
SSF	**Saint Saulge**	3.25	254	*e*Pn	Pn	19 45 58.7	-3.8
SSF				*e*Pg	Pg	19 46 09.9	-5.4
SSF				*e*Sg	Sg	19 46 49.6	-9.0
	5.3nm,0.2s						
SSF	**Saint Saulge**	3.25	254	*e*Pg	Pg	19 46 09.9	-5.4
SSF				*e*Sg	Sg	19 46 49.6	-9.0
	2.7nm,0.2s						
AVF	**Avril sur Loir**	3.44	250	*e*Pn	Pn	19 46 00.5	-4.9
AVF				*e*Pg	Pg	19 46 13.4	-5.9
AVF				*e*Sg	Sg	19 46 56.5	-8.7
	4.4nm,0.3s						
AVF	**Avril sur Loir**	3.44	250	*e*Pg	Pg	19 46 13.4	-5.9
AVF				*e*Sg	Sg	19 46 56.5	-8.7
	2.2nm,0.3s						
MBDF	**Montbardon**	3.46	195	*e*Pn	Pn	19 46 03.5	-2.2
MBDF				*e*Pg	Pg	19 46 14.6	-5.1
MBDF				*e*Sg	Sg	19 46 58.0	-7.9
	2.9nm,0.4s						
MBDF	**Montbardon**	3.46	195	*e*Pg	Pg	19 46 14.6	-5.1
MBDF	**Montbardon**	3.46	195	*e*Sg	Sg	19 46 58.0	-7.9
	1.5nm,0.4s						
MOX	**Moxa**	3.47	41	*e*Pg	Pg	19 46 14.8	-4.9
	SNR=1.9						
MOX				*e*Sg	Sg	19 46 58.4	-7.6
MOX	**Moxa**	3.47	41	*e*Pg	Pg	19 46 15.3	-4.4
MOX				*e*Sg	Sg	19 46 58.4	-7.6
MOX	**Moxa**	3.47	41	*e*Sg	Sg	19 46 58.4	-7.6
ORIF	**Oris-en-Rattie**	3.50	206	*e*Pn	Pn	19 46 02.3	-3.8
ORIF				*e*Pg	Pg	19 46 14.1	-6.2
ORIF				*e*Sn	Sn	19 46 41.4	-6.6
ORIF				*e*Sg	Sg	19 46 58.9	-8.1
	3.0nm,0.3s						
ORIF	**Oris-en-Rattie**	3.50	206	*e*Pg	Pg	19 46 14.1	-6.2
ORIF				*e*Sn	Sn	19 46 41.4	-6.6
ORIF				*e*Sg	Sg	19 46 58.9	-8.1
	1.5nm,0.3s						
NKC	**Novy Kostel**	3.60	51	*e*PN	Pn	19 46 17.5	+10
NKC				*e*SG	Sg	19 47 03.2	-7.2
GUNZ	**Gunzen**	3.62	49	*e*Pg	Pg	19 46 17.7	-5.0
	SNR=3.5						
GUNZ				*e*(Sg)	Sg	19 47 02.5	-8.4
	SNR=3.4						
WERD	**Werda**	3.66	48	*e*Pg	Pg	19 46 18.5	-5.0
	SNR=3.7						
WERD				*e*(Sg)	Sg	19 47 03.8	-8.5
	SNR=2.7						
TANN	**Tannenbergstha**	3.71	49	*e*Pg	Pg	19 46 19.8	-4.8
	SNR=4.0						
HYF	**Humbligny**	3.75	260	*e*Pg	Pg	19 46 19.7	-5.7
HYF				*e*Sg	Sg	19 47 06.5	-8.9
KHC	**Kasperske Hory**	3.81	72	*e*PN	Pn	19 46 14.0	+3.4
KHC				*e*PG	Pg	19 46 21.2	-5.4
KHC				*e*SN	Sn	19 46 50.0	-6.0
KHC				*e*SG	Sg	19 47 09.6	-7.8
KHC	**Kasperske Hory**	3.81	72	*e*Pg	Pg	19 46 21.2	-5.4
KHC				*e*Sg	Sg	19 47 09.6	-7.8
GEC2	**GERESS Array S**	3.83	76	*e*Pg	Pg	19 46 21.4	-5.7
	SNR=2.6						
GEC2				*e*Sg	Sg	19 47 11.2	-7.0
	SNR=2.4						
BGF	**Bois d'Agland**	3.86	249	*e*Pn	Pn	19 46 06.4	-4.8
BGF				*e*Pg	Pg	19 46 21.5	-6.0
BGF				*e*Sn	Sn	19 46 49.6	-7.5
BGF				*e*Sg	Sg	19 47 09.3	-10
	5.9nm,0.2s						
BGF	**Bois d'Agland**	3.86	249	*e*Pg	Pg	19 46 21.5	-6.0
BGF				*e*Sn	Sn	19 46 49.6	-7.5
BGF				*e*Sg	Sg	19 47 09.3	-10
	3.0nm,0.2s						
VIVF	**Saint-Julien-l**	3.98	217	*e*Pg	Pg	19 46 23.2	-6.8
VIVF				*e*Sg	Sg	19 47 12.9	-10
	4.5nm,0.3s						
CLZ	**Clausthal**	4.06	21	*e*Sg	Sg	19 47 17.7	-7.9
	SNR=2.3						
SBF	**Sospel**	4.23	186	*e*Pg	Pg	19 46 27.4	-7.6
SBF				*e*Sn	Sn	19 46 58.5	-8.2
	2.4nm,0.3s						
TCF	**Toulx Ste Croi**	4.37	248	*e*Pn	Pn	19 46 15.1	-3.4
TCF				*e*Pg	Pg	19 46 31.0	-6.8
TCF				*e*Sg	Sg	19 47 25.7	-10
	4.2nm,0.3s						
TCF	**Toulx Ste Croi**	4.37	248	*e*Pg	Pg	19 46 31.0	-6.8
TCF				*e*Sg	Sg	19 47 25.7	-10
	2.1nm,0.3s						
SMRF	**Simiane la Rot**	4.45	204	*e*Sn	Sn	19 47 03.9	-8.2
	3.3nm,0.3s						
CLL	**Collm**	4.56	43	*e*Pg	Pg	19 46 35.0	-6.5
CLL				*e*Sg	Sg	19 47 32.0	-10
FRF	**La Foret Royal**	4.62	193	*e*Sn	Sn	19 47 08.3	-8.2
	0.7nm,0.3s						
BRG	**Berggiesshubel**	4.75	52	*e*Pn	Pn	19 46 18.8	-5.1
	SNR=1.1						
BRG				*e*Sg	Sg	19 47 40.1	-8.6
	SNR=2.5						
LMR	**La Mourre**	4.86	193	*e*Sn	Sn	19 47 13.1	-9.5
	0.6nm,0.2s						
LASF	**Ste Croix**	4.95	218	*e*Pn	Pn	19 46 20.4	-6.4
LASF				*e*Pg	Pg	19 46 40.6	-8.8
LASF				*e*Sn	Sn	19 47 15.2	-10
LASF				*e*Sg	Sg	19 47 42.7	-13
	1.9nm,0.4s						
LASF	**Ste Croix**	4.95	218	*e*Sg	Sg	19 47 42.7	-13
	0.9nm,0.4s						
LASF	**Ste Croix**	4.95	218	*e*Pg	Pg	19 46 40.6	-8.8
LASF				*e*Sn	Sn	19 47 15.2	-10
CAF	**Calviac**	5.20	235	*e*Pg	Pg	19 46 45.4	-8.9
CAF				*e*Sg	Sg	19 47 51.8	-12
	0.4nm,0.2s						
RJF	**Les Rejaudoux**	5.29	241	*e*Sg	Sg	19 47 54.1	-12
	1.3nm,0.4s						
LDF	**La Druitiere**	5.48	278	*e*Pg	Pg	19 46 50.5	-9.4
LDF				*e*Sg	Sg	19 47 59.9	-13
	4.2nm,0.4s						
FLN	**La Foliniere**	5.73	280	*e*Sg	Sg	19 48 08.3	-13
	2.2nm,0.3s						
MFF	**Saint Martin d**	5.77	258	*e*Pn	Pn	19 46 33.0	-5.3
MFF				*e*Pg	Pg	19 46 55.8	-10
MFF				*e*Sg	Sg	19 48 08.4	-14
	1.9nm,0.4s						
GRR	**Gorron**	5.97	276	*e*Sn	Sn	19 47 37.8	-13
	1.6nm,0.3s						
GRR				*e*Sg	Sg	19 48 14.4	-15
	1.5nm,0.3s						

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*NIED **05** 19:45:00, 41.50N×142.10E, h50^{km}, Mw4.8 Best double couple: $M_0$1.63×10^{16} NP1:ϕ_s20°,δ71°,λ92°. NP2:ϕ_s195°, δ19°,λ86°.*

*MOS **05** 19:45:27.1±0.8, 41.45N×142.04E, h38^{km}, mb5.1/33, MS4.0/12, Error ellipse: s-maj=12.1km s-min=6.0km az=108.9*

*BJI **05** 19:45:30.3, 41.41N×142.05E, h78^{km}, mB5.2, mb4.9, Ms4.6, Msz4.2*

*JMA **05** 19:45:30.8±0.1, 41.49N×142.06E, h65^{km}±2^{km}, M4.6 Broadband fault plane solution: P waves. NP1:ϕ_s166°, δ10°,λ62°. NP2:ϕ_s14°,δ81°,λ95°. Principal axes: T Plg54°, Azm290°; N Plg5°, Azm193°; P Plg36°, Azm100°;*

JMA Felt III J1.

*IDC **05** 19:45:31.5±0.6, 41.45N×142.01E, h60^{km}±5^{km}, mb4.4/26, mb1 4.6/27, mb1mx4.5/29, MS4.0/15, Ms1 4.0/15, ms1mx3.7/27 Error ellipse: s-maj=13.9km s-min=7.5km az=99.0*

*NEIC **05** 19:45:32.5±0.6, 41.47N×141.99E, h69^{km}±5^{km}, mb5.0/59, MW4.8(NIED), Error ellipse: s-maj=4.7km s-min=4.0km az=121.0*

NEIC Recorded [3 JMA] in Aomori and [2 JMA] in Iwate Prefectures, Honshu. Recorded [1 JMA] in southwestern Hokkaido and south-central Hokkaido.

*HRVD **05** 19:45:32.5±0.6, 41.58N×142.19E, h59^{km}±2^{km}, MW4.8/43, Centroid moment Tensor Solution. LP body waves: s18,c24; Mantle waves: s43,c73; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.02±.16; $M_{\theta\theta}$-0.20±.11; $M_{\phi\phi}$-1.82±.10; $M_{r\theta}$0.58±.08; $M_{\theta\phi}$-0.34±.08; $M_{\phi r}$0.87±.07; Best double couple: $M_0$2.21×10^{16} NP1:ϕ_s183°,δ32°,λ75°. NP2:ϕ_s21°,δ59°,λ100°. Principal axes: T 2.31, Plg74°, Azm317°; N -.19, Plg8°, Azm196°; P -2.12, Plg13°, Azm104°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **05** 19:45:32.6, 41.48N×141.97E, h71^{km}, MB5.0*

ISC 05 19:45:30.7±0.3**, 41.47N**±0.03×**142.01E**±0.03**, h65**^{km}±2^{km}**, h65**^{km}±2.2^{km}**:pP-P, n325, σ0^{s}99**/331**, mb4.8**/112**, 20C-23D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOT	**Ohata**	0.73	263	⇓P	P	19 45 46.3	+0.6
JOT				*e*S	S	19 45 57.9	+1.0
JKB	**Kayabe**	0.84	300	⇓P	P	19 45 47.1	0.0
JKB				*e*S	S	19 45 59.7	+0.5
JNBK	**Urakawa-nobuka**	0.98	34	⇑P	P	19 45 48.0	-0.9
JTM	**Tenmabayashi**	0.99	226	⇓P	P	19 45 49.9	+0.9
JTM				*e*S	S	19 46 03.7	+1.1
JEM	**Erimo**	1.01	57	P	P	19 45 48.7	-0.7
JEM				*e*S	S	19 46 02.4	-0.9
JANG	**Nango**	1.16	199	⇓P	P	19 45 51.5	+0.2
JANG				S	S	19 46 06.5	-0.2
JSR	**Shiriuchi**	1.20	273	⇓P	P	19 45 52.3	+0.5
JSR				*e*S	S	19 46 09.3	+1.8
JNB	**Noboribetsu**	1.23	324	⇓P	P	19 45 51.8	-0.5
JNB				*e*S	S	19 46 07.7	-0.6
JBT2	**Biratori 2**	1.33	11	⇓P	P	19 45 53.5	-0.3
JBT2				*e*S	S	19 46 11.2	+0.4
JYM2	**Yakumo 2**	1.38	298	⇓P	P	19 45 55.2	+0.7
JEW	**Eniwo**	1.43	343	⇓P	P	19 45 55.1	0.0
JEW				S	S	19 46 13.2	+0.1
JCH	**Churui**	1.52	41	⇓P	P	19 45 56.2	-0.1
JCH				*e*S	S	19 46 15.2	-0.1
JFR	**Furan**	1.74	14	⇓P	P	19 45 59.0	-0.3
JOSM	**Okushiri--Mats**	1.99	289	⇓P	P	19 46 02.6	-0.1
ASAJ	**Asahikawa**	2.68	9	P	P	19 46 12.8	+0.3
	114nm,0.3s,baz=240,slow=11,SNR=146						
ASAJ				S	S	19 46 45.5	+1.8
	66nm,0.3s,baz=339,slow=29,SNR=14						
YUK	**Yuzh-Kuril'sk**	3.82	47	⇑*i*P	P	19 46 25.5	-3.0
YUK				*i* S	S	19 47 06.0	-6.5
YUK				pmax	pmax		
	comp=Z,3µm,0.6s						
YUK				pmax	pmax		
	comp=N,970nm,0.5s						
YUK				pmax	pmax		
	comp=Z,2µm,0.5s						
YUK				pmax	pmax		
	comp=E,710nm,0.4s						
YUK				smax			
	comp=N,3µm,0.5s						
YUK				smax			
	comp=E,11µm,0.5s						
YUK				smax			
	comp=N,4µm,0.5s						
YUK				smax			
	comp=E,8µm,0.5s						
YSS	**Yuzh-Sakhalins**	5.50	5	*e*P	P	19 46 50.0	-1.9
YSS				*e*S	S	19 47 52.0	-2.6
YSS				pmax	pmax		
	comp=N,90nm,1.0s						
YSS				pmax	pmax		
	comp=Z,70nm,1.0s						
YSS				smax			
	comp=N,120nm,1.0s						
YSS				smax			
	comp=E,90nm,1.0s						
YSS	**Yuzh-Sakhalins**	5.50	5	*e*P	P	19 46 51.5	-0.4
	comp=E,57nm,0.8s						
KUR	**Kuril'sk**	5.69	47	⇑*i*P	P	19 46 49.5	-4.9
KUR				*i* S	S	19 47 52.5	-6.7
KUR				pmax	pmax		
	comp=N,150nm,0.5s						
KUR				pmax	pmax		
	comp=E,150nm,0.5s						
KUR				pmax	pmax		
	comp=Z,230nm,0.5s						
KUR				smax			
	comp=N,530nm,0.6s						
KUR				smax			
	comp=E,270nm,0.6s						
MAJO	**Matsushiro**	5.75	212	*e*P	P	19 46 56.8	+1.6
	comp=E,32nm,0.4s						
MAT	**Matsushiro**	5.75	212	P	P	19 46 55.6	+0.4
MAT	**Matsushiro**	5.75	212	*e*P	P	19 46 56.0	+0.8
	comp=E,23nm,0.5s						
MDJ	**Mudanjiang**	9.62	293	P	P	19 47 50.2	+1.6
MDJ				AMB	AMB		
	comp=Z,75nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,334nm,4.8s						
MDJ				LR	LR		
	comp=N,179nm,22.5s						
MDJ				LR	LR		
	comp=E,583nm,26.0s						
MDJ				LR	LR		
	comp=Z,794nm,24.8s						
MDJ	**Mudanjiang**	9.62	293	*e*P	P	19 47 49.3	+0.6
	comp=Z,79nm,1.0s						
KS15	**Wonju Array Si**	11.64	254	*e*P	P	19 48 14.6	-1.4
CN2	**Changchun**	12.42	286	*e*P	P	19 48 25.8	-0.6
CN2				*e*S	S	19 50 41.7	-2.0
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s						
CN2				AMB	AMB		
	comp=Z,400nm,7.0s						
CN2				LR	LR		
	comp=N,1µm,16.0s						
CN2				LR	LR		
	comp=E,900nm,16.0s						
CN2				LR	LR		
	comp=Z,1µm,19.0s						
SNY	**Shenyang**	13.79	278	⇑P	P	19 48 46.2	+1.8
DL2	**Dalian**	15.79	267	P	P	19 49 11.0	+0.9
DL2				AMB	AMB		
	comp=Z,60nm,1.0s						
PET	**Petropavlovsk**	16.11	39	P	P	19 49 15.1	+0.9
HIA	**Hailar**	17.44	304	*e*P	P	19 49 29.1	-1.6
	comp=Z,25nm,0.9s						
JOW	**Kunigami**	18.47	222	LR	LR	19 56 50.3	
	comp=Z,422nm,20.4s,baz=312,slow=37						
MA2	**Magadan**	18.93	14	*e*P	P	19 49 46.8	-1.8
MA2				*e*S	S	19 53 08.7	-5.2
MA2				pmax	pmax		
	comp=Z,30nm,1.2s						
MA2				pmax	pmax		
	comp=N,70nm,1.9s						
MA2				MLR	MLR		
	comp=Z,160nm,22.0s						
MA2	**Magadan**	18.93	14	P	P	19 49 46.4	-2.2
	comp=Z,29nm,1.1s						
CLNS	**Chul'man**	18.93	330	*e*P	P	19 49 48.2	-0.5
CLNS				*e*S	S	19 53 18.1	+4.2
CLNS				pmax	pmax		
	comp=Z,44nm,0.8s						
CLNS				pmax	pmax		
	comp=N,23nm,0.9s						
CLNS				pmax	pmax		
	comp=E,10.0nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,22nm,0.8s						
CLNS				pmax	pmax		
	comp=N,28nm,1.0s						
CLNS				pmax	pmax		
	comp=E,40nm,0.9s						
CLNS				smax			
	comp=N,16nm,1.3s						
CLNS				smax			
	comp=Z,6.0nm,1.1s						
CLNS				smax			
	comp=E,9.0nm,1.0s						
CLNS				MLR	MLR		
	comp=N,300nm,15.0s						
CLNS				MLR	MLR		
	comp=Z,300nm,15.0s						
CLNS				MLR	MLR		
	comp=E,100nm,12.0s						
BJT	**Baijiatuau**	19.61	274	*e*P	P	19 49 53.3	-2.9
	comp=E,70nm,0.8s						
SSE	**Sheshan**	19.68	245	P	P	19 49 54.5	-2.5
SSE				AP		19 50 10.9	
SSE				XP		19 50 20.8	
SSE				S	S	19 53 27.6	-2.5
SSE				XS		19 53 54.7	
SSE				AMB	AMB		
	comp=Z,44nm,0.7s						
SSE				AMB	AMB		
	comp=Z,163nm,5.4s						
SSE				LR	LR		
	comp=N,120nm,24.4s						
SSE				LR	LR		
	comp=E,185nm,24.4s						
SSE				LR	LR		
	comp=Z,235nm,30.9s						
NJ2	**Nanjing**	20.75	250	*e*P	P	19 50 06.6	-1.5
NJ2				AP		19 50 20.4	
NJ2				PP	PP	19 50 30.5	-1.1
NJ2				PPP	PPP	19 50 39.6	-1.9
NJ2				S	S	19 53 40.0	-11
NJ2				AMB	AMB		
	comp=Z,80nm,0.7s						
NJ2				AMB	AMB		
	comp=Z,1µm,4.9s						
NJ2				LR	LR		
	comp=N,1µm,17.4s						
NJ2				LR	LR		
	comp=E,720nm,15.3s						
NJ2				LR	LR		
	comp=Z,1µm,17.6s						
YAK	**Yakutsk**	21.88	344	*e*P	P	19 50 15.7	-3.6
YAK				*e**PP		19 50 34.0	
YAK				*e*S	S	19 54 08.7	-3.2
YAK				*e*		19 54 14.5	
YAK				*e*		20 01 26.5	
YAK				pmax	pmax		
	comp=Z,27nm,0.9s,mb4.6						
YAK				pmax	pmax		
	comp=N,14nm,1.0s						
YAK				pmax	pmax		
	comp=E,6.0nm,0.9s						
YAK				smax			
	comp=N,12nm,1.1s						
YAK				smax			
	comp=E,10.0nm,1.4s						
YAK	**Yakutsk**	21.88	344	*e*P	P	19 50 15.1	-4.2
	comp=E,50nm,0.6s,mb5.0						
HHC	**Hu-ho-hao-te**	22.88	279	*e*P	P	19 50 27.0	-2.1
HHC				AP		19 50 43.1	
HHC				XP		19 50 53.2	
HHC				PP	PP	19 50 58.9	-1.4
HHC				PCP	PcP	19 54 18.4	-1.3
HHC				S	S	19 54 24.1	-5.7
HHC				SS	SS	19 55 12.1	-5.7
HHC				AMB	AMB		
	comp=Z,24nm,0.9s,mb4.5						
HHC				AMB	AMB		
	comp=Z,333nm,5.6s						
FX1	**Attu Island--F**	23.86	51	*e*P	P	19 50 40.2	+1.8
BTO	**Baotou**	24.08	279	*e*P	P	19 50 39.4	-1.3
BOD	**Bodaibo**	24.16	322	*e*P	P	19 50 39.6	-1.8
ULN	**Ulaanbaatar**	25.51	296	*i* P	P	19 50 53.7	-0.7
ULN	**Ulaanbaatar**	25.51	296	*e*P	P	19 50 53.1	-1.3
	comp=Z,25nm,1.0s,mb4.6						
SONM	**Songino Array**	25.95	296	P	P	19 50 58.0	-0.6
	comp=Z,24nm,0.9s,mb4.6,baz=85,slow=6.8,SNR=84						
XAN	**Xi'an**	27.07	265	P	P	19 51 06.8	-2.2
XAN				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.6						
IRK	**Irkutsk**	27.66	306	*e*P	P	19 51 13.1	-1.1
IRK				*e*		19 52 09.5	
TLY	**Talaya**	27.98	305	*e*P	P	19 51 15.7	-1.3
TLY				*e*S	S	19 55 55.6	+0.8
TLY				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.6						
TLY				MLR	MLR		
	comp=Z,348nm,20.0s						
ZAK	**Zakamensk**	28.10	302	⇑*i*P	P	19 51 16.9	-1.2
ENH	**Enshi**	28.47	257	*e*P	P	19 51 18.4	-3.3
	comp=Z,16nm,0.6s,mb4.7						
LZH	**Lanzhou**	30.06	272	⇑P	P	19 51 34.5	-1.3
LZH				AP	pP	19 51 52.4	+0.8
LZH				XP	sP	19 52 01.5	+2.1
LZH				PP	PP	19 52 34.6	-1.3
LZH				*e*S	S	19 56 25.5	-2.6
LZH				XS		19 56 56.7	
LZH				SS	SS	19 58 07.5	-2.0
LZH				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.8						
LZH				AMB	AMB		
	comp=Z,136nm,5.6s						
LZH				LR	LR		
	comp=N,1µm,13.2s						
LZH				LR	LR		
	comp=Z,2µm,17.0s						
TIXI	**Tiksi**	30.95	352	*i* P	P	19 51 41.5	-1.8
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.0						
TIXI				MLR	MLR		
	comp=Z,100nm,20.0s						
GTA	**Gaotai**	31.95	281	P	P	19 51 51.6	-0.7
GTA				PCP	PcP	19 54 41.4	+0.1
GTA				PCS		19 58 26.4	
GTA				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.8						
GTA				AMB	AMB		
	comp=Z,269nm,6.5s						
GTA				LR	LR		
	comp=N,240nm,18.6s						
GTA				LR	LR		
	comp=E,291nm,19.0s						
GTA				LR	LR		
	comp=Z,383nm,21.4s						
CD2	**Chengdu**	32.39	263	*e*P	P	19 51 53.9	-2.3
CD2				AP	pP	19 52 10.4	-1.8
CD2				XP	sP	19 52 21.8	+1.6
CD2				S	S	19 57 01.1	-3.5
CD2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.1						
CD2				AMB	AMB		
	comp=Z,160nm,6.6s						
CD2				LR	LR		
	comp=E,350nm,6.6s						
CD2				LR	LR		
	comp=Z,210nm,6.6s						
GYA	**Guiyang**	32.66	254	⇓*i*P	P	19 51 56.8	-1.9
GYA				AP	pP	19 52 14.6	-0.1
GYA				XP	sP	19 52 23.8	+1.1
GYA				PP	PP	19 53 07.2	-2.1
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
GYA				AMB	AMB		
	comp=Z,1µm,4.2s						
GYA				LR	LR		
	comp=N,1µm,16.4s						
GYA				LR	LR		
	comp=E,1µm,17.0s						

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GYA                               LR       LR
      comp=Z,1µm,16.0s
KMI   Kunming            36.30 256⇓eP      P        19 52 29.9 +0.1
KMI                               AP       pP       19 52 46.1 +0.1
KMI                               S        S        19 58 03.1 -2.0
KMI                               SS       SS       20 00 33.7 +0.9
KMI                               AMB      AMB
      comp=Z,9.0nm,1.3s,mb4.5
KMI                               AMB      AMB
      comp=Z,225nm,6.7s
KMI                               LR       LR
      comp=N,179nm,16.8s
KMI                               LR       LR
      comp=E,269nm,14.4s
KMI                               LR       LR
      comp=Z,261nm,21.4s
ZAL   Zalesovo           39.40 308  P      P        19 52 55.6 +0.3
      comp=Z,18nm,0.6s,mb5.0,baz=25,slow=8.9,SNR=80
ZAL                               PcP      PcP      19 55 03.0 -0.1
      comp=Z,4.2nm,0.8s,baz=7.4,slow=3.0,SNR=4.0
ZAL                               LR       LR       20 10 53.6
      comp=Z,323nm,19.1s,baz=89,slow=39
ZAL   Zalesovo           39.40 308  P      P        19 52 55.6 +0.3
ZAL                                                 19 55 03.0
ZAL                               pmax     pmax
      comp=Z,18nm,0.6s
ZAL                               pmax     pmax
      comp=Z,4.0nm,0.9s
ZAL                               MLR      MLR
      comp=Z,323nm,19.1s
WMQ   Urumqi             39.42 292 ⇑P      P        19 52 56.0 +0.4
WMQ                               AP       pP       19 53 14.3 +2.4
WMQ                               XP       sP       19 53 23.5 +3.8
WMQ                               PP       PP       19 54 32.0 +1.2
WMQ                               PCP      PcP      19 54 59.5 -3.8
WMQ                               S        S        19 58 52.0 -0.3
WMQ                               AMB      AMB
      comp=Z,47nm,0.9s,mb5.3
WMQ                               LR       LR
      comp=N,135nm,22.0s
WMQ                               LR       LR
      comp=E,198nm,18.8s
WMQ                               LR       LR
      comp=Z,250nm,18.4s
NVS   Novosibirsk        40.22 310⇑iP      P        19 53 00.9 -1.2
NVS                               pmax     pmax
      comp=Z,22nm,1.1s,mb4.9
NVS                               pmax     pmax
      comp=E,16nm,1.2s
CHRT  Chiangrai          41.70 252 ⇑P      P        19 53 15.0 +0.4
      comp=E,234nm,1.1s,mb5.8
NANT  Nan                41.75 250  P      P        19 53 15.0 -0.1
KKTK  Khon Kaen          41.95 245 ⇓P      P        19 53 17.0 +0.2
      comp=E,556nm,0.7s
MKAR  Makanchi Array     42.29 298 eP      P        19 53 18.9 -0.3
MKAR                              pmax     pmax
      comp=Z,29nm,0.8s
LSA   Lhasa              42.44 271  P      P        19 53 22.8 +2.2
IMA   Indian Mountai     42.67  33 eP      P        19 53 22.6 +0.6
      comp=Z,50nm,0.8s,mb5.3
CHG   Chiang Mai         42.99 252 ⇓P      P        19 53 26.0 +0.8
CMAR  Chiang Mai Arr     43.22 251  P      P        19 53 27.6 +0.4
      comp=Z,4.2nm,0.7s,mb4.3,baz=42,slow=7.4,SNR=25
CMAR                              PcP      PcP      19 55 16.3 +0.3
      comp=Z,2.7nm,0.9s,baz=27,slow=3.4,SNR=7.1
CMAR                              LR       LR       20 12 03.7
      comp=Z,112nm,18.9s,baz=65,slow=37
CMAR  Chiang Mai Arr     43.22 251  P      P        19 53 27.6 +0.5
CMAR                                                19 55 16.3
CMAR                              pmax     pmax
      comp=Z,4.0nm,0.7s
CMAR                              pmax     pmax
      comp=Z,3.0nm,1.0s
CMAR                              MLR      MLR
      comp=Z,112nm,18.9s
KURK  Kurchatov          43.67 305c iP     P        19 53 29.8 -0.6
KURK  Kurchatov          43.67 305 eP      P        19 53 29.5 -0.8
      comp=Z,59nm,0.9s,mb5.3
KURK                             ePcP      PcP      19 55 16.3 -0.8
SHL   Shillong           44.09 265 eP      P        19 53 34.0  0.0
NST   Nakhon Sawan       44.27 247  P      P        19 53 36.0 +0.4
MCK   McKinley           44.73  36 eP      P        19 53 38.6 -0.1
      comp=Z,4.5nm,0.9s,mb4.2
COLA  College            45.12  35 i P     P        19 53 42.3 +0.5
COLA  College            45.12  35 eP      P        19 53 41.6 -0.2
      comp=Z,31nm,0.9s,mb5.0
SML   Sawmill            45.20  39 eP      P        19 53 42.1 -0.3
ILAR  Eielson Array      45.54  35  P      P        19 53 44.6 -0.5
      comp=Z,14nm,0.9s,mb4.7,baz=271,slow=6.5,SNR=123
ILAR                              pP       pP       19 53 59.1 -2.5
      comp=Z,6.2nm,1.0s,baz=270,slow=8.1,SNR=9.7
ILAR                              LR       LR       20 15 48.3
      comp=Z,90nm,20.6s,baz=354,slow=40
ILAR  Eielson Array      45.54  35  P      P        19 53 44.7 -0.4
ILAR                              *PP      pP       19 53 59.1 -2.5
ILAR                              pmax     pmax
      comp=Z,14nm,0.9s
ILAR                              MLR      MLR
      comp=Z,90nm,20.6s
GUN   Gumba              47.33 272 eP      P        19 53 59.8 +0.1
      comp=Z,294nm,0.9s
CHKZ  Chkalovo           47.70 310  P      P        19 54 01.4 -0.9
CHKZ                              pmax     pmax
      comp=Z,19nm,1.0s,mb4.9
CHKZ  Chkalovo           47.70 310 eP      P        19 54 01.2 -1.1
      comp=Z,25nm,0.9s,mb5.0
KKN   Kakani             47.84 272 eP      P        19 54 03.5 -0.2
      comp=Z,158nm,0.9s,mb5.8
PKI   Pulchoki           47.86 272 eP      P        19 54 03.7 -0.2
      comp=Z,36nm,0.6s,mb5.3
BVAR  Borovoye Array     48.02 310  P      P        19 54 04.2 -0.5
      comp=Z,15nm,0.4s,mb5.2,baz=80,slow=9.3,SNR=319
BVAR                              PcP      PcP      19 55 31.6 -0.7
      comp=Z,5.1nm,0.6s,baz=67,slow=3.8,SNR=4.1
TKM2  Tokmak 2           48.04 295  P      P        19 54 05.6 +0.5
      SNR=23
DMN   Daman              48.06 272 eP      P        19 54 05.5  0.0
      comp=Z,98nm,1.0s,mb5.6
BRVK  Borovoye           48.07 310  P      P        19 54 04.4 -0.7
BRVK                              pmax     pmax
      comp=Z,4.0nm,0.6s,mb4.4
BRVK  Borovoye           48.07 310 eP      P        19 54 04.5 -0.7
      comp=Z,21nm,0.9s,mb5.0
BRVK                             ePcP      PcP      19 55 31.0 -1.4
GKN   Gorkha             48.21 273 eP      P        19 54 06.2 -0.4
      comp=Z,71nm,0.7s,mb5.6
KBK   Karagaybulak       48.59 295  P      P        19 54 09.4 +0.1
      SNR=59
CHMS  Chumysh            48.59 296  P      P        19 54 08.9 -0.4
      SNR=7.6
KZA   Kyzart             48.60 294  P      P        19 54 11.1 +1.6
      SNR=14
USP   Ospenovka          48.66 296  P      P        19 54 09.5 -0.3
      SNR=29
AAK   Ala-Archa          48.90 295  P      P        19 54 11.5 -0.2
      SNR=16
AAK   Ala-Archa          48.90 295d iP     P        19 54 10.8 -0.9
AAK                               pmax     pmax
      comp=Z,28nm,1.7s,mb4.9
AAK                               MLR      MLR
      comp=Z,100nm,17.0s
UCH   Uchtor             49.05 295  P      P        19 54 13.8 +0.9
      SNR=7.1
KOLN  Koldanda           49.11 273 eP      P        19 54 13.4 -0.1
      comp=Z,128nm,1.0s,mb5.8
KSH   Kashi              49.14 291  P      P        19 54 14.7 +1.1
KSH                              eAP       pP       19 54 33.0 +2.7
KSH                              eXP       sP       19 54 42.6 +4.9
KSH                              ePCP      PcP      19 55 37.7 +1.2
KSH                              ePP       PP       19 56 08.7 +0.7
KSH                              ePPP      PPP      19 57 03.4 +0.2
KSH                              eSCP               19 59 25.0
KSH                              ePCS               19 59 33.1
KSH                              eS        S        20 01 09.7 -3.1
KSH                              eXS                20 01 43.5
KSH                              eSCS      ScS      20 03 56.6 +0.1
KSH                              eSS       SS       20 04 37.4 -3.0
KSH                               AMB      AMB
      comp=Z,130nm,4.6s
KSH                               LR       LR
      comp=N,370nm,6.0s
KSH                               LR       LR
      comp=E,620nm,5.0s
EKS2  Erkin-Say          49.38 296  P      P        19 54 15.2 -0.2
      SNR=20
EKS2  Erkin-Say          49.38 296 eP      P        19 54 14.9 -0.5
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AML   Almayashu          49.65 295  P      P        19 54 18.0 +0.5
      SNR=22
LGTI  Lohaghat           50.74 277 eP      P        19 54 27.0 +1.0
PMG   Port Moresby       50.85 173  LR     LR       20 15 23.6
      comp=E,64nm,19.2s,baz=254,slow=35
DDI   Dehra Dun          51.92 279 eP      P        19 54 35.0 +0.1
SDNR  Sundarnagar        52.13 281 eP      P        19 54 36.0 -0.4
ARU   Arti               53.40 317⇓iP      P        19 54 44.9 -0.7
ARU                              e                  19 55 50.9
ARU                              e                  19 56 43.6
ARU                              eS        S        20 02 14.4 +3.4
ARU                              e                  20 04 29.8
ARU                              eSS       SS       20 05 59.3 +8.2
ARU                               pmax     pmax
      comp=Z,18nm,1.3s,mb4.9
ARU                               MLR      MLR
      comp=Z,300nm,18.5s
ARU                               MLR      MLR
      comp=N,100nm,18.0s
ARU                               MLR      MLR
      comp=E,300nm,18.0s
ARU   Arti               53.40 317 eP      P        19 54 44.2 -1.3
      comp=E,43nm,1.4s,mb5.3
NDI   New Delhi          53.40 278 eP      P        19 54 44.0 -2.0
HYB   Hyderabad          58.88 266 eP      P        19 55 24.5 -0.7
HYB   Hyderabad          58.88 266 i P     P        19 55 24.5 -0.7
HYB                              ePcP      PcP      19 56 13.0 -0.7
KEV   Kevo               59.47 339 ep      P        19 55 26.1 -2.5
YKA   Yellowknife Ar     59.76  32  P      P        19 55 29.5 -1.2
      comp=E,1.4nm,0.5s,mb4.3,baz=306,slow=6.7,SNR=35
YKA                               LR       LR       20 22 40.7
      comp=E,74nm,20.9s,baz=280,slow=37
YKA   Yellowknife Ar     59.76  32 i P     P        19 55 29.5 -1.2
YKA                               pmax     pmax
      comp=Z,1.0nm,0.5s
ARCES ARCESS Array B     60.02 339  P      P        19 55 31.0 -1.4
      comp=Z,6.7nm,0.9s,mb4.7,baz=56,slow=8.5,SNR=14
ARCES                             LR       LR       20 27 59.4
      comp=Z,106nm,18.3s,baz=198,slow=42
ARCES ARCESS Array B     60.02 339  P      P        19 55 31.0 -1.4
ARCES                             pmax     pmax
      comp=Z,7.0nm,0.9s
ARCES                             MLR      MLR
      comp=Z,106nm,18.3s
ARCES ARCESS Array B     60.02 339  P      P        19 55 31.0 -1.4
ARCES                             LR       LR       20 27 59.4
ARE0  ARCESS Array S     60.02 339 eP      P        19 55 31.1 -1.3
FITZ  Fitzroy Crossi     61.18 198  P      P        19 55 39.6 -1.3
      comp=Z,6.9nm,1.1s,mb4.6,baz=351,slow=7.3,SNR=6.9
CTA   Charters Tower     61.37 175  P      P        19 55 41.2 -1.1
      comp=Z,2.7nm,0.7s,mb4.4,baz=346,slow=4.5,SNR=6.4
CTA   Charters Tower     61.37 175  P      P        19 55 41.2 -1.0
CTA                               pmax     pmax
      comp=Z,3.0nm,0.7s
CTA   Charters Tower     61.37 175  P      P        19 55 41.2 -1.1
CTAO  Charters Tower     61.37 175 eP      P        19 55 41.1 -1.1
      comp=Z,2.1nm,0.6s,mb4.3
DAG   Danmarks Havn      61.40 355⇑iP      P        19 55 40.5 -1.2
DAG                               pmax     pmax
      comp=Z,6.0nm,0.8s,mb4.7
DAG   Danmarks Havn      61.40 355⇑iP      P        19 55 40.5 -1.2
      comp=Z,6.0nm,0.8s,mb4.7
WRAB  Tennant Creek      61.50 188 i P     P        19 55 41.7 -1.4
WRAB  Tennant Creek      61.50 188 eP      P        19 55 41.0 -2.1
      comp=Z,21nm,1.1s,mb5.1
WB2   Warramunga Arr     61.51 188⇑iP      P        19 55 41.0 -2.2
WRA   Warramunga Arr     61.51 188  P      P        19 55 41.1 -2.1
      comp=Z,4.5nm,0.4s,mb4.8,baz=5.8,slow=6.4,SNR=200
WRA                               pP       pP       19 55 58.2 -2.2
      comp=Z,3.6nm,0.5s,baz=5.9,slow=6.8,SNR=6.2
WRA   Warramunga Arr     61.51 188  P      P        19 55 41.1 -2.1
WRA                               *PP      pP       19 55 58.2 -2.3
WRA                               pmax     pmax
      comp=Z,5.0nm,0.4s
TRO   Tromso             61.68 341 eP      P        19 55 41.5 -2.1
TRO                              epP       pP       19 56 00.0 -0.9
POO   Poona              61.73 270 eP      P        19 55 43.8 -0.8
POO                               AMb      AMB      19 55 45.2
      comp=Z,26nm,0.8s,mb5.3
KAD   Karad              62.22 269⇓iP      P        19 55 46.5 -1.4
KAD                              eP                 19 55 47.1
KAD                               AMb      AMB      19 55 47.9
      comp=Z,39nm,0.7s,mb5.6
JOF   Joensuu            62.29 331 ep      P        19 55 46.0 -1.8
      comp=Z,6.0nm,0.5s,mb4.9
JOF   Joensuu            62.29 331 eP      P        19 55 46.0 -1.8
JOF                               pmax     pmax
      comp=Z,6.0nm,0.5s,mb4.9
MOS   Moscow             63.99 322 eP      P        19 55 50.8 -8.2
KAF   Kangasniemi        64.59 332 ep      P        19 56 01.1 -1.7
      comp=Z,11nm,0.7s,mb4.8,baz=48,slow=6.2
KAF   Kangasniemi        64.59 332 eP      P        19 56 01.1 -1.7
KAF                               pmax     pmax
      comp=Z,11nm,0.7s,mb4.8
OBN   Obninsk            64.85 322⇓iP      P        19 56 03.7 -0.9
OBN                              i         pP       19 56 21.1 -0.9
OBN                                                 19 56 37.0
OBN                               pmax     pmax
      comp=Z,36nm,1.4s,mb5.0
OBN                               MLR      MLR
      comp=Z,200nm,20.0s
FINES FINESS Array B     65.12 332  P      P        19 56 04.8 -1.4
      comp=Z,12nm,0.6s,mb4.9,baz=56,slow=7.0,SNR=113
FINES                             LR       LR       20 26 44.5
      comp=Z,238nm,18.5s,baz=215,slow=38
FINES FINESS Array B     65.12 332  P      P        19 56 04.8 -1.4
FINES                             pmax     pmax
      comp=Z,12nm,0.6s
FINES                             MLR      MLR
      comp=Z,238nm,18.5s
ASAR  Alice Springs      65.24 188  P      P        19 56 06.3 -1.3
      comp=Z,4.9nm,0.9s,mb4.3,baz=4.7,slow=7.8,SNR=46
ASAR                              pP       pP       19 56 23.1 -2.1
      comp=Z,5.3nm,1.0s,baz=2.6,slow=5.7,SNR=9.1
ASAR                              LR       LR       20 23 00.9
      comp=Z,59nm,18.3s,baz=15,slow=34
ASPA  Alice Springs      65.24 188 eP      P        19 56 06.8 -0.9
MOR8  Moi Rana           65.37 339 eP      P        19 56 05.3 -2.5
MOR8                              AMb      AMB      19 56 10.2
      comp=Z,36nm,1.6s,mb5.0
MOR8                             epP       pP       19 56 24.3 -1.0
MOR8  Moi Rana           65.37 339 eP      P        19 56 05.3 -2.5
      comp=Z,36nm,1.6s,mb5.0
VRSR  Storozhevoye       65.92 318 eP      P        19 56 10.1 -1.4
VRSR                             e*PP      pP       19 56 23.1 -5.9
VRSR                             e*SP      sP       19 56 30.6 -5.5
VRSR                             e                  19 56 41.7
VRSR                             eS        S        20 04 46.9 -5.2
VRSR                             eSS       SS       20 09 04.8 -4.7
VRSR                              pmax     pmax
      comp=N,20nm,0.6s
VRSR                              pmax     pmax
      comp=Z,20nm,0.6s,mb5.1
VRSR                              pmax     pmax
      comp=E,7.0nm,0.7s
VRSR                              smax
      comp=N,570nm,4.4s
VRSR                              smax
      comp=Z,710nm,4.3s
VRSR                              smax
      comp=E,130nm,5.4s
VRSR                              MLR      MLR
      comp=Z,120nm,18.0s
VRSR                              MLR      MLR
      comp=N,490nm,19.0s
VRSR                              MLR      MLR
      comp=E,190nm,20.0s
GOF   Gofitskoye         67.52 311 eP      P        19 56 21.5 -0.2
SCO   Scoresbysund       67.75 354 eP      pP       19 56 39.0 -1.3
SCO   Scoresbysund       67.75 354 i P     pP       19 56 39.0 -1.3
KIV   Kislovodsk         68.38 310c iP     P        19 56 27.5 +0.4
KIV                              e                  19 56 50.3
KIV                              eS        S        20 05 26.2 +4.2
KIV                              eSS       SS       20 09 48.7 +0.7
KIV                               pmax     pmax
      comp=N,53nm,1.2s
KIV                               pmax     pmax
      comp=E,34nm,1.2s
KIV                               pmax     pmax
      comp=Z,100nm,1.2s,mb5.5
KIV                               MLR      MLR
      comp=N,73nm,20.0s
KIV                               MLR      MLR
      comp=E,68nm,20.0s
KIV                               MLR      MLR
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      comp=Z,166nm,20.0s
KIV   Kislovodsk         68.38 310 eP      P        19 56 27.6 +0.5
      comp=Z,90nm,1.1s,mb5.5
NB2   NORSAR Subarra     70.28 337  P      P        19 56 37.3 -1.1
      comp=Z,8.6nm,0.6s,mb4.8,baz=36,slow=6.2
NB2   NORSAR Subarra     70.28 337  P      P        19 56 37.3 -1.1
      baz=36,slow=6.5
NOA   NORSAR Array B     70.28 337  P      P        19 56 37.5 -0.9
      comp=Z,5.4nm,0.5s,mb4.7,baz=36,slow=6.2,SNR=22
NOA                               LR       LR       20 30 27.2
      comp=Z,110nm,19.6s,baz=275,slow=38
NOA   NORSAR Array B     70.28 337  P      P        19 56 37.5 -0.9
NOA                               pmax     pmax
      comp=Z,5.0nm,0.5s
NOA                               MLR      MLR
      comp=Z,110nm,19.6s
ANN   Anapa              70.81 313 eP      P        19 56 41.4 -0.5
ANN                              i *PP     pP       19 56 58.3 -1.3
ANN                              i S       S        20 05 53.2 +2.8
ANN                               pmax     pmax
      comp=Z,43nm,1.3s,mb5.1
HLID  Hailey             71.05  48 eP      P        19 56 42.8 -0.6
AKASG Malin Array Be     71.09 322  P      P        19 56 42.5 -1.0
      comp=Z,12nm,0.5s,mb5.0,baz=43,slow=6.6,SNR=87
AKASG Malin Array Be     71.09 322  P      P        19 56 42.5 -1.0
AKASG                             pmax     pmax
      comp=Z,13nm,0.5s
BOZ   Bozeman (W)        71.23  45 eP      P        19 56 44.8 +0.4
      comp=Z,2.8nm,0.7s,mb4.2
NVAR  Mina Array Bea     72.00  54  P      P        19 56 49.9 +0.7
      comp=Z,1.9nm,0.7s,mb4.0,baz=304,slow=4.7,SNR=15
MNV   Mina               72.09  54  P      P        19 56 48.0 -1.6
      comp=Z,4.3nm,1.1s,mb4.2
ELK   Elko               72.37  51  P      P        19 56 50.7 -0.6
      comp=Z,0.6nm,0.5s
SIM   Simferopol’        72.51 315 eP      P        19 56 52.0 +0.1
SIM                               pmax     pmax
      comp=Z,34nm,0.8s,mb5.2
STKA  Stephens Creek     72.99 180  P      P        19 56 54.9 -0.2
      comp=Z,2.7nm,0.8s,mb4.1,baz=344,slow=7.7,SNR=4.9
STKA                              LR       LR       20 25 04.9
      comp=Z,93nm,21.3s,baz=25,slow=32
HWUT  Hardware Ranch     73.91  48 eP      P        19 57 01.0 +0.8
      comp=Z,14nm,1.5s,mb4.5
UMR   Umm Al-Rimmam      74.05 295 eP      P        19 57 01.0 -0.3
UMR                               AMb      AMB      19 57 02.2
      comp=Z,67nm,0.7s,mb5.5
MIB   Mutribah           74.15 296 eP      P        19 57 01.5 -0.4
MIB                               AMb      AMB      19 57 02.6
      comp=Z,82nm,0.6s,mb5.6
TPNV  Topopah Spring     74.19  55 eP      P        19 57 01.3 -0.7
PDAR  Pinedale Array     74.25  47  P      P        19 57 02.1 -0.1
      comp=Z,2.3nm,0.7s,mb4.0,baz=266,slow=2.4,SNR=21
PDAR                              LR       LR       20 28 52.0
      comp=Z,94nm,21.1s,baz=134,slow=35
PDAR  Pinedale Array     74.25  47  P      P        19 57 02.1 -0.1
PDAR                              LR       LR       20 28 52.0
QRN   Al-Qurain          74.42 295 eP      P        19 57 03.0 -0.5
QRN                               AMb      AMB      19 57 04.0
      comp=Z,85nm,0.5s,mb5.8
MALT  Malatya            74.42 307 eP      P        19 57 04.2 +0.9
      comp=Z,31nm,1.1s,mb5.0
RST   Umm Al-Ruwaisa     74.57 296 eP      P        19 57 03.5 -0.8
RST                               AMb      AMB      19 57 04.9
      comp=Z,65nm,0.6s,mb5.6
ARUT  Antelope Range     75.35  52 eP      P        19 57 07.0 -1.5
HASS  Wahat al Ahsa’     75.42 291  P      P        19 57 07.8 -1.4
KOLS  Kolonicke sedl     75.51 324 i P     P        19 57 10.0 +0.7
KOLS                             ePP       PP       19 59 57.4 -3.6
ULM   Lac du Bonnet      75.56  34  LR     LR       20 32 15.9
      comp=Z,77nm,19.0s,baz=1.0,slow=37
OJC   Ojcow              75.62 326 eP      P        19 57 10.2 +0.3
CANT  Cankiri            75.69 312 ePG     PcP      19 57 23.5 +0.2
CRVS  Cervenica-Dubn     75.89 324 i P     P        19 57 11.2 -0.2
NEN   Nelson             75.90  55 eP      P        19 57 12.2 +0.4
NIE   Niedzica           76.01 325 eP      P        19 57 13.0 +0.9
BRTR  Keskin Array B     76.27 311  P      P        19 57 14.0 +0.2
      comp=Z,4.8nm,0.6s,mb4.4,baz=70,slow=3.8,SNR=33
BRTR                              PP       PP       19 59 59.9 -7.4
      comp=Z,0.8nm,0.8s,baz=63,slow=5.5,SNR=3.7
BRTR  Keskin Array B     76.27 311  P      P        19 57 14.0 +0.2
BRTR                                                19 59 59.9
BRTR                              pmax     pmax
      comp=Z,5.0nm,0.6s
BRTR                              pmax     pmax
      comp=Z,1.0nm,0.8s
MLR   Muntele Rosu       76.31 319  P      P        19 57 14.6 +0.7
      comp=Z,2.7nm,0.5s,mb4.3,baz=127,slow=2.7,SNR=17
MLR   Muntele Rosu       76.31 319  P      P        19 57 14.6 +0.7
MLR                               pmax     pmax
      comp=Z,3.0nm,0.5s
BSEG  Bad Segeberg       76.32 333 eP      P        19 57 14.3 +0.6
BSEG                              pmax     pmax
      comp=Z,44nm,1.5s,mb5.0
KAMT  Kaman              76.47 311 i PG    P        19 57 15.8 +0.9
KSP   Ksiaz              76.58 328⇑eP      P        19 57 14.9 -0.4
KSP                              e                  19 57 26.1
KSP                              e*PP      pP       19 57 31.9 -1.3
OKC   Ostrava-Krasne     76.60 326 eP      P        19 57 16.1 +0.7
NIG   Nigde              76.81 309 ePG     P        19 57 19.1 +2.2
MORC  Moravsky Berou     76.90 327 eP      P        19 57 17.3 +0.2
      comp=Z,23nm,1.1s,mb4.8
DPC   Dobruska-Polom     76.95 328 eP      P        19 57 17.8 +0.4
UPC   Upice              76.95 328 eP      P        19 57 17.6 +0.2
VYHS  Vyhne              77.34 325 i P     P        19 57 20.2 +0.6
BRG   Berggiesshubel     77.47 329 eP      P        19 57 20.7 +0.4
BRG                               pmax     pmax
      comp=Z,5.0nm,1.0s,mb4.2
BRG   Berggiesshubel     77.47 329 eP      P        19 57 20.7 +0.4
      comp=Z,4.8nm,0.9s,mb4.2
CLL   Collm              77.48 330 i P     P        19 57 19.8 -0.5
CLL                               pmax     pmax
      comp=Z,17nm,1.0s,mb4.7
CLL   Collm              77.48 330 i P     P        19 57 19.8 -0.5
      comp=Z,17nm,1.0s,mb4.7
CLL   Collm              77.48 330  P      P        19 57 19.8 -0.5
      comp=Z,logA/T=1.2,mb4.7
PVCC  Panska Ves         77.51 329 eP      P        19 57 21.1 +0.6
VRAC  Vranov             77.66 327  P      P        19 57 21.7 +0.4
      comp=Z,8.4nm,0.7s,mb4.6,baz=39,slow=4.9,SNR=13
VRAC  Vranov             77.66 327  P      P        19 57 21.7 +0.4
VRAC                              pmax     pmax
      comp=Z,8.0nm,0.7s
KIZT  Kizilcal           77.84 311  PG     P        19 57 23.3 +0.7
SMOL  Smolenice          77.93 326 i P     P        19 57 24.2 +1.4
PRU   Pruhonice          77.94 328  P      P        19 57 23.3 +0.4
PRU                               pmax     pmax
      comp=Z,19nm,1.0s,mb4.8
PRU   Pruhonice          77.94 328  P      P        19 57 23.3 +0.4
      comp=Z,19nm,1.0s,mb4.8
CLZ   Clausthal          78.01 332 eP      P        19 57 23.3 +0.1
      comp=Z,25nm,1.1s,mb4.9
SRO   Srobarova          78.09 325 eP      P        19 57 25.0 +1.3
MOX   Moxa               78.54 330 i P     P        19 57 25.9 -0.2
      comp=Z,logA/T=0.9,mb4.5
NKC   Novy Kostel        78.56 330 eP      P        19 57 26.4 +0.2
KHC   Kasperske Hory     79.01 328 i P     P        19 57 29.4 +0.7
KHC   Kasperske Hory     79.01 328 eP      P        19 57 28.9 +0.2
EKA   Eskdalemuir Ar     79.11 341  P      P        19 57 28.8 -0.4
      comp=Z,3.3nm,0.7s,mb4.3,baz=29,slow=4.6,SNR=15
EKA   Eskdalemuir Ar     79.11 341  P      P        19 57 28.8 -0.3
EKA                               pmax     pmax
      comp=Z,3.0nm,0.7s
GEC2  GERESS Array S     79.19 328 eP      P        19 57 30.0 +0.3
GEC2                              pmax     pmax
      comp=Z,4.0nm,0.9s,mb4.2
GEC2  GERESS Array S     79.19 328 eP      P        19 57 30.0 +0.3
      comp=Z,4.0nm,0.9s,mb4.2
GERES GERESS Array B     79.19 328  P      P        19 57 29.8 +0.1
      comp=Z,2.1nm,0.5s,mb4.2,baz=41,slow=6.1,SNR=22
GERES GERESS Array B     79.19 328  P      P        19 57 29.8 +0.1
GERES                             pmax     pmax
      comp=Z,2.0nm,0.5s
MZLS  Mizel              79.30 292  P      P        19 57 30.4 -0.4
ISP   Isparta            79.34 311 i P     P        19 57 31.0 +0.2
ASF   Jabal al Asfar     79.43 304  P      P        19 57 31.7 +0.3
      comp=Z,8.6nm,0.8s,mb4.6,baz=24,slow=5.5,SNR=12
ARSS  Ar Rass            79.44 295  P      P        19 57 31.2 -0.4
GRA1  Grafenberg Arr     79.46 330 eP      P        19 57 31.3 +0.1
      comp=Z,44nm,1.3s,mb5.1
GRF   Grafenberg Arr     79.46 330 eP      P        19 57 31.3 +0.1
GRF                               pmax     pmax
      comp=Z,44nm,1.3s,mb5.1
GRFO  Grafenberg         79.46 330 eP      P        19 57 31.6 +0.4
KSHT  Keshet             79.56 305  P      P        19 57 32.8 +0.7
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RZN	Rozhen	79.69	317	eP	P	19 57 34.0	+1.4
CSS	Prodhromos	79.71	308	eP	P	19 57 32.1	-0.7
	comp=Z,22nm,0.8s,mb5.0						
VTS	Vitosha	79.77	319	i P	P	19 57 34.0	+1.0
HNTI	Hanita	79.88	305	P	P	19 57 34.3	+0.5
MMLI	Mount Malkishu	80.17	305	P	P	19 57 36.3	+0.9
HMDT	Nahal Hemdat	80.23	304	P	P	19 57 36.3	+0.6
MMB	Musomiste	80.26	318	i P	P	19 57 35.0	-0.6
OFRI	‘Ofer	80.31	305	P	P	19 57 36.4	+0.3
KKB	Krupnik	80.38	318	i P	P	19 57 37.0	+0.7
SLTI	Sal’it	80.54	305	P	P	19 57 37.9	+0.6
MKRJ	Makawir	80.63	304	P	P	19 57 38.6	+0.8
FUR	Furstenfeldbru	80.69	329	eP	P	19 57 38.3	+0.5
FUR				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.9						
FUR	Furstenfeldbru	80.69	329	eP	P	19 57 38.3	+0.5
	comp=Z,20nm,1.0s,mb4.9						
DRGI	Dragot	80.76	304	P	P	19 57 39.0	+0.5
AFFS	‘Afif	80.89	294	P	P	19 57 39.8	+0.5
SCHQ	Schefferville	80.95	16	P	P	19 57 39.1	+0.1
	comp=Z,8.1nm,0.9s,mb4.5,baz=344,slow=6.9,SNR=5.7						
SKO	Skopje	81.11	319	i P	P	19 57 41.3	+1.2
ZFRI	Zfri	81.60	303	P	P	19 57 43.6	+0.6
BAIF	Baives	81.63	334	eP	P	19 57 42.4	-0.2
BFO	Black Forest	81.66	331	eP	P	19 57 42.6	-0.3
BFO				pmax	pmax		
	comp=Z,24nm,1.5s,mb4.8						
BFO	Black Forest	81.66	331	eP	P	19 57 42.6	-0.3
	comp=Z,24nm,1.5s,mb4.8						
KZIT	Kziot	81.85	304	P	P	19 57 44.7	+0.5
PRNI	Paran	81.85	303	P	P	19 57 45.0	+0.8
CDF	Champ du Feu	81.97	331	eP	P	19 57 44.5	0.0
	comp=Z,35nm,1.3s,mb4.7						
KBRS	Khaybar	82.18	297	P	P	19 57 46.9	+0.8
KMTI	Karmit	82.20	303	P	P	19 57 46.5	+0.5
MBH	Mount Berech	82.29	303	P	P	19 57 47.2	+0.7
JMQS	Jabal Moqyreh	82.30	302	P	P	19 57 47.7	+1.1
TBKS	Tabuk	82.32	301	P	P	19 57 47.5	+0.9
EIL	Elat	82.35	303	P	P	19 57 47.5	+0.7
DAVOX	Davos	82.37	329	P	P	19 57 47.6	+1.1
	comp=Z,2.8nm,0.4s,mb4.4,baz=8.1,slow=7.1						
BRMO	Bormio	82.43	329	eP	P	19 57 47.9	+1.0
ALWS	Ilw as Safayha	82.53	303	P	P	19 57 48.7	+1.0
JMOS	Jabal al Moall	82.60	302	P	P	19 57 49.1	+1.0
HINF	Hinteralfeld	82.63	331	eP	P	19 57 47.6	-0.2
HAU	Haudompre	82.65	332	eP	P	19 57 47.9	0.0
HAU				eR			
	comp=Z,212nm,22.0s						
MEZF	Maizieres J’vi	82.68	333	eP	P	19 57 48.4	+0.3
	comp=Z,12nm,0.9s,mb4.4						
HAQS	Haql	82.79	302	P	P	19 57 50.0	+1.0
BDAS	Al Bad‘	83.11	302	P	P	19 57 51.6	+1.0
AYUS	‘Aynunah	83.17	302	P	P	19 57 52.0	+1.0
TAYS	Tayyib Ism	83.17	302	P	P	19 57 52.0	+1.0
DBAS	Duba	83.38	300	P	P	19 57 53.0	+0.9
TATS	Tathlith	83.44	290	P	P	19 57 53.7	+1.1
VAI	Varese	83.55	329	eP	P	19 57 52.6	+0.1
UMJS	Umm Lajj	83.86	298	P	P	19 57 55.6	+1.1
CABF	La Chapelle	83.93	331	eP	P	19 57 54.7	+0.3
YNBS	Yanbu‘ al Bahr	84.01	297	P	P	19 57 56.2	+0.9
PGD	Poggio Sodo	84.02	326	eP	P	19 57 56.6	+1.7
FLN	La Foliniere	84.25	336	eP	P	19 57 56.0	+0.1
	comp=Z,9.3nm,0.7s,mb4.4						
FLN				eR			
	comp=Z,192nm,20.2s						
LDF	La Druitiere	84.29	336	eP	P	19 57 56.2	+0.1
	comp=Z,10.0nm,0.7s,mb4.5						
IDI	Anoyia	84.31	313	P	P	19 57 55.9	-0.7
	baz=44,slow=3.6						
SSF	Saint Saulge	84.45	333	eP	P	19 57 57.2	+0.2
	comp=Z,15nm,0.9s,mb4.5						
BLJS	Baljurashi	84.53	292	P	P	19 57 59.3	+1.3
LPL	La Plagne	84.62	330	eP	P	19 57 58.8	+0.9
	comp=Z,40nm,1.0s,mb5.0						
LPG	La Plagne	84.63	330	eP	P	19 57 58.9	+1.0
	comp=Z,36nm,0.9s,mb5.0						
GRR	Gorron	84.69	336	eP	P	19 57 58.5	+0.3
	comp=Z,12nm,0.7s,mb4.6						
SMF	Signal de Mont	84.70	333	eP	P	19 57 58.5	+0.3
	comp=Z,47nm,1.2s,mb5.0						
AVF	Avril sur Loir	84.74	333	eP	P	19 57 58.9	+0.5
	comp=Z,66nm,1.1s,mb5.2						
BNI	Bardonecchia	85.03	330	eP	P	19 58 01.0	+1.1
	comp=Z,6.2nm,0.8s,mb4.6						
GVD	Gavdhos	85.08	313	eP	P	19 58 00.5	+0.1
	comp=Z,32nm,0.9s,mb5.2						
BGF	Bois d’Agland	85.11	333	eP	P	19 58 00.8	+0.5
MBDF	Montbardon	85.28	330	eP	P	19 58 01.4	+0.3
	comp=Z,30nm,0.9s,mb4.9						
SGMF	Saint Gilles	85.32	337	eP	P	19 58 02.0	+0.7
	comp=Z,33nm,1.1s,mb4.9						
ORIF	Oris-en-Rattie	85.45	330	eP	P	19 58 02.7	+0.7
	comp=Z,45nm,1.1s,mb5.0						
ORIF				eR			
	comp=Z,136nm,20.0s						
ROSF	Rostrenen	85.45	338	eP	P	19 58 02.8	+0.9
	comp=Z,55nm,1.1s,mb5.1						
TCF	Toulx Ste Croi	85.56	333	eP	P	19 58 03.3	+0.8
	comp=Z,20nm,1.1s,mb4.7						
URZ	Urewera	85.58	153	LR	LR	20 28 35.9	
	comp=Z,117nm,21.1s,baz=75,slow=30						
QUIF	Quistinic	85.80	337	eP	P	19 58 04.2	+0.6
	comp=Z,22nm,0.8s,mb4.8						
VIVF	Saint-Julien-l	85.94	331	eP	P	19 58 05.1	+0.7
	comp=Z,57nm,1.2s,mb5.1						
MFF	Saint Martin d	86.06	335	eP	P	19 58 05.9	+1.0
	comp=Z,39nm,1.0s,mb5.0						
SMRF	Simiane la Rot	86.36	330	eP	P	19 58 07.4	+0.9
	comp=Z,43nm,1.3s,mb4.9						
RJF	Les Rejaudoux	86.66	333	eP	P	19 58 08.8	+0.9
	comp=Z,30nm,1.0s,mb4.9						
RJF				eR			
	comp=Z,252nm,21.0s						
CAF	Calviac	86.81	333	eP	P	19 58 10.1	+1.5
	comp=Z,52nm,0.9s,mb5.2						
LASF	Ste Croix	86.91	331	eP	P	19 58 10.3	+1.1
	comp=Z,19nm,1.1s,mb4.7						
TXAR	Lajitas Array	87.06	53	P	P	19 58 11.0	+0.8
	comp=Z,0.5nm,0.5s,baz=301,slow=3.2,SNR=6.0						
TXAR				pP	pP	19 58 27.3	-1.2
	comp=Z,2.1nm,0.7s,baz=304,slow=3.0,SNR=5.0						
TXAR	Lajitas Array	87.06	53	P	P	19 58 11.0	+0.8
TXAR				pP	pP	19 58 27.3	-1.2
LFF	La Frestale	87.24	334	eP	P	19 58 11.9	+1.1
	comp=Z,50nm,1.0s,mb5.1						
MTLF	Montolieu	88.14	332	eP	P	19 58 16.1	+1.0
	comp=Z,23nm,1.1s,mb4.8						
RPZ	Rata Peaks	88.74	159	LR	LR	20 36 32.3	
	comp=Z,89nm,20.2s,baz=131,slow=34						
ETSF	Etsaut	89.49	333	eP	P	19 58 22.8	+1.3
SJPF	Ste Jean	89.52	334	eP	P	19 58 23.0	+1.4
	comp=Z,38nm,1.3s,mb5.1						
ESDC	Sonseca Array	93.50	334	P	P	19 58 40.3	+0.1
	comp=Z,1.6nm,0.7s,mb4.5,baz=20,slow=3.5,SNR=9.3						
KMBO	Kilima Mbogo	101.79	279	P	P	19 59 18.8	+0.5
	comp=Z,0.9nm,0.7s,baz=94,slow=4.7,SNR=4.5						
KMBO	Kilima Mbogo	101.79	279	P	P	19 59 18.8	+0.5
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.7s						
DBIC	Dimbokro	123.30	319	PKP	PKPdf	20 04 21.4	+0.7
	comp=Z,4.0nm,1.0s,baz=112,slow=5.4,SNR=3.0						
DBIC	Dimbokro	123.30	319	PKIKP	PKPdf	20 04 21.4	+0.7
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
SYO	Syowa Base	132.35	208	⇓PKiKP		20 04 42.7	
SNAA	Sanae	145.11	199	⇑i	PKPdf	20 05 00.1	+0.8
SNAA	Sanae	145.11	199	⇓i	PKPdf	20 05 19.6	+20
VNA2	Neumayer--Watz	146.69	198	⇓i	PKPdf	20 05 06.2	+4.2
VNA2	Neumayer--Watz	146.69	198	⇑i	PKPdf	20 05 08.2	+6.2
VNA2	Neumayer--Watz	146.69	198	⇑i	PKPdf	20 05 28.6	+27
VNA3	Neumayer Olymp	146.96	196	⇑i	PKPdf	20 05 07.8	+5.3
VNA3	Neumayer Olymp	146.96	196	⇑i	PKPdf	20 05 30.5	+28
BDFB	Brasilia	152.84	22	PKPbc	PKPdf	20 05 22.1	+8.9
	comp=Z,2.8nm,0.9s,baz=319,slow=12,SNR=4.0						
BDFB				PKPab	PKPab	20 05 33.5	-0.5
	comp=Z,3.0nm,0.5s,baz=16,slow=1.1,SNR=6.9						
BDFB	Brasilia	152.84	22	PKIKP	PKPdf	20 05 22.1	+9.0
BDFB						20 05 33.5	
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.5s						

NEIC 05 19:52:26.3±1.2, 43.05N×15.71E, h10^{km}, MD2.9(ROM), Error ellipse: s-maj=22.5km s-min=7.7km az=97.0

ROM 05 19:52:28.8±1.2, 42.94N×15.43E, h10^{km}, MD2.9/2, ML2.3/2, Error ellipse: s-maj=9.6km s-min=6.6km az=0.0

CSEM 05 19:52:28.6±0.1, 43.15N×15.49E, h30^{km}, ML2.3/2, Error ellipse: s-maj=3.0km s-min=2.3km az=84.0

ISC 05 19:52:25.1±1.0, **43.12N**±0.03×**15.44E**±0.05, **h1**^{km}±7^{km}, **n29**, σ**1^{s}00**/43, **3C, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RGNG	Rignano Grg	1.45	176	ePN	Pn	19 52 52.3	-0.2
RGNG	Rignano Grg	1.45	176	ePn	Pn	19 52 52.2	-0.3
NVLJ	Novalja	1.50	344	i Pn	Pn	19 52 52.6	-0.6
NVLJ				i Sn	Sn	19 53 14.1	+0.3
NVLJ				i Sg	Sg	19 53 14.4	-0.6
NVLJ	Novalja	1.50	344	i Pn	Pn	19 52 52.6	-0.6
NVLJ				i Sn	Sn	19 53 14.0	+0.3
NVLJ				i Sg	Sg	19 53 14.4	-0.6
INTR	Introdacqua	1.59	226	ePN	Pn	19 52 55.1	+0.6
INTR	Introdacqua	1.59	226	ePn	Pn	19 52 55.1	+0.7
FAGN	Fagnano	1.61	239	ePN	Pn	19 52 55.6	+0.7
CII	Carovilli	1.63	211	ePn	Pn	19 52 55.8	+0.7
CII				Sn	Sn	19 53 15.1	-2.0
STON	Ston	1.68	98	i Pn	Pn	19 52 56.7	+0.9
STON				i Sn	Sn	19 53 18.9	+0.7
STON				i Sg	Sg	19 53 19.8	-1.0
STON	Ston	1.68	98	i Pn	Pn	19 52 56.6	+0.9
STON				i Sn	Sn	19 53 18.9	+0.7
STON				i Sg	Sg	19 53 19.7	-1.1
AQU	L’Aquila	1.69	244	ePn	Pn	19 53 01.1	+5.2
SDI	San Donato	1.86	221	ePN	Pn	19 52 57.8	-0.5
	27nm,0.4s						
SDI	San Donato	1.86	221	ePn	Pn	19 52 57.8	-0.5
SDI	San Donato	1.86	221	ePn	Pn	19 52 57.8	-0.5
	27nm,0.4s						
SGG	Gregorio Mates	1.90	205	ePN	Pn	19 52 59.2	+0.2
SGG	Gregorio Mates	1.90	205	ePn	Pn	19 52 59.2	+0.2
MNS	Montasola	2.16	251	ePN	Pn	19 53 03.8	+1.1
	18nm,0.5s						
MNS	Montasola	2.16	251	ePn	Pn	19 53 03.8	+1.0
MNS	Montasola	2.16	251	ePn	Pn	19 53 03.8	+1.1
	18nm,0.5s						
CSSN	Cassano Irpino	2.28	188	ePN	Pn	19 53 03.6	-0.8
CSSN	Cassano Irpino	2.28	188	ePn	Pn	19 53 03.6	-0.8
BOJS	Bojanci	2.39	357	i Pn	Pn	19 53 07.6	+1.7
VOY	Vojsko	3.11	340	ePn	Pn	19 53 17.4	+1.1
VOY				e(Sn)	Sn	19 53 55.3	+0.6
VOY				e		19 54 07.7	
VOY	Vojsko	3.11	340	ePn	Pn	19 53 17.4	+1.1
VOY				Sn	Sn	19 53 55.3	+0.6
OBKA	Obir	3.45	350	⇑iPN	Pn	19 53 21.7	+0.7
OBKA				i SN	Sn	19 54 03.2	+0.1
KBA	Koelnbreinsper	4.23	340	⇑iPN	Pn	19 53 32.1	0.0
KBA				i SN	Sn	19 54 20.0	-2.9
MOA	Molln	4.80	350	⇑iPN	Pn	19 53 40.4	+0.1
MOA				i SN	Sn	19 54 36.6	-0.8
KHC	Kasperske Hory	6.15	348	eP	Pn	19 53 56.5	-2.8
KHC				e		19 54 06.5	
KHC	Kasperske Hory	6.15	348	eP	Pn	19 53 56.5	-2.8
KHC				x	x	19 54 06.5	

WEL 05 20:00:01.6±0.8, **35.23S×177.33E, h33**^{km}, **ML4.3**/1, **Error ellipse: s-maj=15.8km s-min=5.1km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	3.03	183	PN	Pn	20 00 47.4	-1.1
URZ				eSN	Sn	20 01 20.8	-3.3
URZ				SN	Sn	20 01 21.3	-2.7
MWZ	Matawai	3.10	177	PN	Pn	20 00 47.9	-1.6
MWZ				SN	Sn	20 01 21.5	-4.4
MWZ				SN	Sn	20 01 22.3	-3.6
BKZ	Black Stump Fm	3.99	189	PN	Pn	20 00 59.4	-2.7
BKZ				SN	Sn	20 01 44.1	-4.2

TRN 05 20:05:35.7, 15.68N×61.43W, h21^{km}, **MD3.8, 1C-6D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBL	Barber’s Block	0.15	193	⇓iP	Pb	20 05 41.8	+1.5
BBL	Barber’s Block	0.15	193	⇓iP	Pb	20 05 41.9	+1.6
BBL				eS	Sb	20 05 45.5	+2.1
MGG	Marie-Galante	0.27	25	⇑iP	Pb	20 05 43.7	+1.8
MDN	Morne-Daniel	0.36	174	⇓eP	Pb	20 05 45.6	+2.3
MDN				eS	Sb	20 05 51.6	+3.1
DBCT	Belle View Cho	0.41	168	eP	Pb	20 05 46.4	+2.2
DSTT	Stowe	0.44	164	eP	Pb	20 05 47.2	+2.4
DSTT				eS	Sb	20 05 53.5	+2.6
DSHT	Scott’s Head	0.46	173	⇓eP	Pb	20 05 47.6	+2.5
DSHT				eS	Sb	20 05 54.1	+2.7
SEG	Port Louis	0.73	355	eP	Pb	20 05 51.1	+1.6
FDF	Fort de France	0.97	164	eP	Pb	20 05 55.7	+2.0
FDF				eS	Sb	20 06 10.2	+4.0
CRM	Caravelle	1.04	151	⇓eP	Pb	20 05 57.1	+2.1
CRM				eS	Sb	20 06 11.2	+3.1
BIM	Bigot	1.20	163	eP	Pn	20 05 59.5	+1.9
BIM				eS	Sb	20 06 17.2	+4.4
MVM	Montagne Vaucl	1.23	155	⇓eP	Pn	20 06 00.2	+2.3
MVM				eS	Sb	20 06 16.9	+3.3
BPA	Boggy Peak	1.42	343	eP	Pn	20 06 02.4	+1.7
BPA				eS	Sn	20 06 21.3	+2.4
CPB	Codrington	1.99	349	eP	Pn	20 06 09.2	+0.4

IDC 05 20:07:38.1±1.6, 17.32S×174.80W, mb3.9/9, mb1 4.2/9, mb1mx4.1/15, MS3.4/1, Ms1 3.4/1, ms1mx3.0/15, Error ellipse: s-maj=94.7km s-min=18.4km az=150.0

NEIC 05 20:07:40.0±0.9, 17.16S×174.90W, h10^{km}, mb4.6/1, Error ellipse: s-maj=50.9km s-min=10.9km az=148.0

ISC 05 20:07:42.0±1.3, **17.1S**±0.4×**175.0W**±0.3, **h33**^{km}, **n22**, σ**0^{s}61**/12, **mb4.0**/10, **MS3.3**/1, **1C, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	4.43	45	eP	P	20 08 42.8	-5.8
CTA	Charters Tower	36.78	259	P	P	20 14 49.5	+0.8
	2.3nm,0.8s,mb4.0,baz=85,slow=11,SNR=3.9						
CTA				LR	LR	20 28 08.0	
	comp=Z,55nm,19.9s,MS3.3,baz=58,slow=33						
CTA	Charters Tower	36.78	259	P	P	20 14 49.5	+0.8
CTA				LR	LR	20 28 08.0	
STKA	Stephens Creek	41.87	241	P	P	20 15 31.1	+0.3
	5.0nm,1.1s,mb4.1,baz=47,slow=8.6,SNR=5.4						
WRA	Warramunga Arr	47.97	258	P	P	20 16 19.1	-0.7
	0.6nm,0.6s,mb3.8,baz=97,slow=7.2,SNR=9.2						
ASAR	Alice Springs	48.13	253	P	P	20 16 20.6	-0.5
	5.3nm,0.7s,mb4.7,baz=86,slow=8.6,SNR=45						
NVAR	Mina Array Bea	76.60	42	P	P	20 19 30.5	-0.7
	0.6nm,0.8s,mb3.5,baz=229,slow=8.5,SNR=4.1						
TXAR	Lajitas Array	82.82	56	P	P	20 20 05.0	+0.3
	0.5nm,0.9s,mb3.5,baz=194,slow=7.4,SNR=3.0						
COLA	College	84.29	11	P	P	20 20 10.7	-0.7
	3.4nm,0.8s,mb4.5						
ILAR	Eielson Array	84.38	12	P	P	20 20 12.3	+0.5
	0.8nm,0.7s,mb4.0,baz=223,slow=6.5,SNR=6.6						
PDAR	Pinedale Array	84.54	42	P	P	20 20 12.9	-0.2
	0.8nm,0.8s,mb3.9,baz=207,slow=3.3,SNR=5.9						
YKA	Yellowknife Ar	92.24	24	P	P	20 20 50.4	+1.0
	0.1nm,0.5s,mb3.4,baz=239,slow=4.4,SNR=3.8						
KSP	Ksiaz	145.12	347	eP	PKPdf	20 27 18.2	+2.3
CLL	Collm	145.25	351	⇑iPKP1	PKPbc	20 27 18.2	+1.6
BRG	Berggiesshubel	145.53	350	eP	PKPdf	20 27 19.2	+2.6
DPC	Dobruska-Polom	145.58	347	ePKP	PKPdf	20 27 19.5	+2.8
PRU	Pruhonice	146.27	349	ePKP	PKPdf	20 27 19.7	+1.8
NKC	Novy Kostel	146.38	351	ePKP	PKPdf	20 27 23.2	+5.1
BRTR	Keskin Array B	146.42	318	PKPbc	PKPbc	20 27 22.7	+2.9
	1.3nm,0.8s,baz=117,slow=2.8,SNR=7.0						
MLR	Muntele Rosu	146.69	333	PKPbc	PKPbc	20 27 23.3	+3.1
	2.3nm,1.1s,baz=7.6,slow=3.3,SNR=2.7						
KHC	Kasperske Hory	147.27	350	ePKP	PKPdf	20 27 24.6	+5.0
GERES	GERESS Array B	147.53	349	PKPbc	PKPdf	20 27 24.5	+4.4
	1.2nm,0.9s,slow=4.0,SNR=8.0						

DJA 05 21:02:28.9±1.3, **8.85S×117.52E, h128**^{km}±11^{km}, **MD4.5**/2, **ML3.8**/3, **4C-3D, Error ellipse: s-maj=82.7km s-min=34.2km az=177.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	1.43	284	⇑iPn	P	21 02 56.1	-0.5
	39nm,0.2s						
KEDI				⇑iSn	S	21 03 17.1	-0.6
RATI	Rata	1.97	273	⇑iPn	P	21 03 03.0	+0.2
	76nm,0.2s						
RATI				⇓iSn	S	21 03 26.7	-1.8
KELI	Kelakatan	3.06	282	⇑iPn	P	21 03 17.1	0.0
KELI				⇓iSn	S	21 03 41.4	-12
SRDI	Scrawed	3.36	276	⇓iPn	P	21 03 20.2	-0.9
	40nm,0.2s						

NEIC 05 21:10:52.3, 34.64N×25.31E, h19^{km}, MD3.5(ATH), After ATH.

ATH 05 21:10:52.3, 34.64N×25.31E, h19^{km}, **MD3.5**/4, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XRY	Khrisi	0.39	53	ePB	Pb	21 11 00.5	0.0
NPS	Neapolis	0.67	22	ePN	Pn	21 11 05.0	-1.6
GVD	Gavdhos	1.03	282	Pg	Pb	21 11 12.1	+0.9
VAM	Vamos	1.19	310	ePN	Pn	21 11 15.0	+0.9
KARP	Karpathos	1.77	59	ePN	Pn	21 11 24.0	+1.7

IDC 05 21:39:32.4±1.5, 35.24S×107.71W, mb3.9/4, mb1 4.3/4, mb1mx4.0/15, MS3.6/3, Ms1 3.6/3, ms1mx3.3/20, Error ellipse: s-maj=47.8km s-min=41.0km az=155.0

NEIC 05 21:39:34.9±0.6, 34.98S×107.85W, h10^{km}, mb4.2/1, Error ellipse: s-maj=33.5km s-min=16.9km az=76.0

ISC 05 21:39:33.6±1.0, **35.0S**±0.1×**107.7W**±0.3, **h10**^{km}, **n18**, σ**0^{s}89**/12, **mb3.9**/5, **MS3.6**/3, **5C, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
USHA	Ushuaia	33.51	138	LR	LR	21 56 16.8	
	comp=Z,144nm,20.5s,MS3.7,baz=212,slow=30						
LVC	Limon Verde	35.93	80	LR	LR	21 56 46.6	
	comp=Z,64nm,21.8s,MS3.4,baz=35,slow=29						
LPAZ	La Paz	39.91	72	P	P	21 47 09.7	+0.1
	1.6nm,0.8s,mb3.8,baz=203,slow=9.7,SNR=5.4						
VNDA	Vanda	56.20	195	LR	LR	22 07 56.8	
	comp=Z,55nm,18.4s,MS3.7,baz=198,slow=30						
VNA3	Neumayer Olymp	59.75	158	⇑i	P	21 49 41.2	+0.7
VNA3	Neumayer Olymp	59.75	158		P	21 49 50.6	+10
VNA1	Neumayer--Stat	60.39	158	⇑i	P	21 49 46.1	+1.2
VNA1	Neumayer--Stat	60.39	158	⇑i	P	21 49 55.3	+10
VNA2	Neumayer--Watz	60.56	158	⇑i	P	21 49 46.7	+0.7
VNA2	Neumayer--Watz	60.56	158	⇑i	P	21 49 56.3	+10
SNAA	Sanae	61.60	160		P	21 49 50.9	-2.2
TXAR	Lajitas Array	64.13	4	P	P	21 50 10.1	-0.4
	0.5nm,1.0s,mb3.5,baz=196,slow=6.6,SNR=2.9						
NVAR	Mina Array Bea	73.75	351	P	P	21 51 10.4	+0.8
	2.5nm,0.9s,mb4.1,baz=167,slow=8.4,SNR=5.7						
BW06	Boulder Array	77.44	359	eP	P	21 51 30.7	+0.2
	1.6nm,0.7s,mb4.1						
PDAR	Pinedale Array	77.44	359	P	P	21 51 30.0	-0.5
	1.4nm,0.8s,mb3.9,baz=146,slow=5.3,SNR=10						
CMAR	Chiang Mai Arr	151.19	242	PKPbc	PKPdf	21 59 28.1	+3.6
	1.0nm,0.8s,baz=190,slow=2.4,SNR=7.9						
ULN	Ulaanbaatar	151.24	307	ePKPab	PKPab	21 59 34.6	-2.3
SONM	Songino Array	151.68	307	PKPbc	PKPdf	21 59 27.6	+3.2
	0.8nm,0.8s,baz=155,slow=3.0,SNR=5.1						

JMA 05 21:40:35.2±0.6, 31.03N×139.41E, h306^{km}, M3.4

IDC 05 21:40:39.1±1.6, 31.12N×139.08E, h256^{km}±20^{km}, mb3.1/5, mb1 3.2/6, mb1mx3.0/21, Error ellipse: s-maj=66.4km s-min=21.5km az=79.0

ISC 05 21:40:40.0±1.2, **31.4N**±0.1×**139.4E**±0.2, **h280**^{km}±8^{km}, **n16**, σ**1^{s}09**/19, **mb3.2**/5, **Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	1.77	11	P	P	21 41 23.7	+0.4
JHJ	Hachijo jima 2	1.77	11	P	P	21 41 23.9	+0.5
	85nm,0.3s,baz=93,slow=22,SNR=7.9						
JHJ				S	S	21 41 57.6	+0.4
	27nm,0.3s,baz=52,slow=17,SNR=2.2						
TK04	Tokai 4	3.27	337	P	P	21 41 38.5	+1.0
BSO1	Boso 1	3.53	22	P	P	21 41 40.5	+0.1
JIE	Ise	3.77	324	P	P	21 41 42.9	-0.1
JWZ	Kozaga	3.79	306	P	P	21 41 41.5	-1.7
JOD2	Odawara 2	3.89	356	P	P	21 41 44.4	0.0
JNY	Yasuok	4.18	343	P	P	21 41 48.8	+1.2
JRY	Ryogami san	4.65	355	P	P	21 41 54.3	+1.2
JAG	Ashikaga	5.04	1	P	P	21 41 57.1	-0.6
JAG				eS	S	21 42 54.9	-3.7
JHO	Hitachi	5.32	10	P	P	21 42 00.6	-0.4
JHO				eS	S	21 43 02.3	-2.2
SONM	Songino Array	29.99	313	P	P	21 46 23.9	-0.8
	0.2nm,0.4s,mb3.0,baz=130,slow=9.4,SNR=6.8						
WRA	Warramunga Arr	51.25	186	P	P	21 49 14.8	-2.6
	0.2nm,0.8s,mb2.5,baz=2.6,slow=8.1,SNR=4.8						
ARCES	ARCESS Array B	68.71	340	P	P	21 51 16.0	+1.4
	1.0nm,0.7s,mb3.6,baz=72,slow=8.0,SNR=7.6						
FINES	FINESS Array B	73.05	333	P	P	21 51 41.2	+0.6
	0.8nm,0.5s,mb3.6,baz=67,slow=6.6,SNR=13						
BRTR	Keskin Array B	81.34	311	P	P	21 52 27.4	+0.8
	0.6nm,0.7s,mb3.5,baz=113,slow=4.8,SNR=4.0						

IDC 05 21:50:50.5±1.1, 10.31S×116.15E, mb4.0/6, mb1 4.1/8, mb1mx3.9/16, ML3.6/2, MS2.6/1, Ms1 2.6/1, ms1mx2.2/21, Error ellipse: s-maj=52.0km s-min=16.4km az=58.0

NEIC 05 21:50:52.1±0.5, 10.31S×116.22E, h10^{km}, mb4.4/4, Error ellipse: s-maj=21.1km s-min=8.0km az=58.0

DJA 05 21:50:53.7±1.7, 8.52S×116.13E, h267^{km}±14^{km}, MD4.6/4, Error ellipse: s-maj=25.6km s-min=14.0km az=27.0

ISC 05 21:50:51.1±1.1, **10.92S**±0.06×**115.78E**±0.09, **h37**^{km}±11^{km}, **n29**, σ**0^{s}84**/34, **mb4.3**/12, **7C-5D, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	Rata	2.20	354	⇓iP	P	21 51 24.4	-1.6
	1µm,0.5s						
RATI	Rata	2.20	354	⇑iPn	P	21 51 28.8	+2.8
RATI				⇑iSn	S	21 51 52.9	+0.7
KEDI	Kedomdong	2.44	8	⇓eP	P	21 51 27.6	-1.9
	3µm,0.3s						
KEDI	Kedomdong	2.44	8	⇓ePn	P	21 51 28.4	-1.1
KEDI				⇑iSn	S	21 51 58.5	+0.1
SRDI	Scrawed	2.92	326	⇑eP	P	21 51 36.5	+0.3
	229nm,0.2s						
SRDI	Scrawed	2.92	326	⇑iPn	P	21 51 37.5	+1.3
SRDI				⇑iSn	S	21 52 09.8	-0.6
KELI	Kelakatan	2.97	335	⇓iP	P	21 51 37.4	+0.3
	124nm,0.4s						
KELI	Kelakatan	2.97	335	⇓ePn	P	21 51 40.7	+3.6
KELI				⇑iSn	S	21 52 11.9	0.0
MBWA	Marble Bar	10.86	160	eP	P	21 53 26.4	-0.9
FITZ	Fitzroy Crossi	11.91	128	Pn	P	21 53 42.1	+0.6
	0.3nm,0.3s,baz=0.4,slow=11,SNR=11						
FITZ				Sn	S	21 55 45.1	-9.1
	0.7nm,0.3s,baz=180,slow=19,SNR=5.4						
FITZ				LR	LR	21 58 19.4	
	comp=Z,25nm,18.2s,baz=1.8,slow=37						
WRA	Warramunga Arr	19.99	119	P	P	21 55 24.3	+0.8
	0.2nm,0.3s,baz=291,slow=13,SNR=2.6						
WRAB	Tennant Creek	20.00	119	eP	P	21 55 23.3	-0.3
KLBR	Kellerberrin	20.65	175	eP	P	21 55 38.7	+8.4
	25nm,1.2s						
ASAR	Alice Springs	21.41	129	P	P	21 55 42.1	+4.0
	1.3nm,0.5s,mb3.5,baz=303,slow=10,SNR=14						
NWAO	Narrogin (SRO)	21.94	177	P	P	21 55 51.5	+8.3
	6.1nm,0.9s,mb4.0,baz=358,slow=8.6,SNR=3.1						
NWAO	Narrogin (SRO)	21.94	177	eP	P	21 55 51.6	+8.3
STKA	Stephens Creek	31.67	135	P	P	21 57 18.4	+4.9
	1.0nm,0.5s,mb3.9,baz=320,slow=7.9,SNR=3.4						
CMAR	Chiang Mai Arr	33.59	330	P	P	21 57 30.8	+0.5
	1.7nm,0.7s,mb4.1,baz=158,slow=7.6,SNR=14						
GUN	Gumba	48.26	324	eP	P	21 59 31.4	+0.6
	10nm,0.6s,mb5.1						
PKI	Pulchoki	48.28	323	eP	P	21 59 31.0	0.0
DMN	Daman	48.48	323	eP	P	21 59 32.8	+0.2
GKN	Gorkha	49.05	323	eP	P	21 59 37.0	+0.1
	5.1nm,0.3s,mb5.0						
KOLN	Koldanda	49.51	322	eP	P	21 59 40.5	+0.1
	8.1nm,0.8s,mb4.8						
ULN	Ulaanbaatar	59.04	353	eP	P	22 00 49.6	-0.2

	0.6nm,0.5s,mb3.9						
SONM	Songino Array	59.09	353	P	P	22 00 48.4	-1.8
	1.2nm,0.8s,mb4.0,baz=174,slow=8.4,SNR=10						
KURK	Kurchatov	69.37	336	eP	P	22 01 56.8	-0.4
	1.7nm,0.6s,mb4.2						
ZAL	Zalesovo	69.76	341	P	P	22 01 59.0	-0.5
	2.1nm,0.5s,mb4.4,baz=334,slow=5.8,SNR=7.2						
ZAL	Zalesovo	69.76	341	P	P	22 01 59.0	-0.5
CHKZ	Chkalovo	74.89	334	eP	P	22 02 30.6	+0.7
	1.6nm,0.4s,mb4.3						

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*CASC **05** 22:12:26.9±2.5, 13.97N×91.31W, h28^{km}±8^{km}, MD4.5, ML5.0, mb4.2(NEIC)*
*NEIC **05** 22:12:27.5±1.0, 14.19N×91.20W, h77^{km}±8^{km}, mb4.2/14, MD4.8(MEX), Error ellipse: s-maj=14.6km s-min=8.7km az=216.0*
*MEX **05** 22:12:27.5±0.4, 13.97N×91.62W, h99^{km}±36^{km}, MD4.8*
*IDC **05** 22:12:32.8±3.7, 14.38N×90.88W, h128^{km}±31^{km}, mb3.6/7, mb1 3.9/9, mb1mx3.7/20, MS3.7/10, Ms1 3.7/10, ms1mx3.4/19, Error ellipse: s-maj=29.3km s-min=17.6km az=43.0*
ISC 05 22:12:25.5±0.4**, 14.05N**±0.05×**91.36W**±0.04**, h81**^{km}±3^{km}**, n89, σ1^{s}20**/108**, mb4.0**/15**, 11C-20D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	Jato	0.38	315	eP	P	22 12 37.2	-1.3
JAT				eS	S	22 12 46.9	-1.3
JAT				AML	AML	22 12 47.6	
	comp=N,226µm,0.2s						
FUG	Fuego 3	0.64	52	⇓eP	P	22 12 39.8	-1.1
TP2	Tecpan 2	0.80	24	⇓eP	P	22 12 42.4	-0.2
TP2				eS	S	22 12 55.6	+0.3
TP2				AML	AML	22 12 56.6	
	comp=E,50µm,0.3s						
PCG	Pacaya	0.81	65	⇓eP	P	22 12 42.2	-0.5
PCG				eS	S	22 12 54.1	-1.3
IXG	Ixpaco	0.89	82	⇓eP	P	22 12 42.7	-0.8
IXG				eS	S	22 12 56.1	-1.0
IXG				AML	AML	22 12 58.7	
	comp=N,178µm,0.5s						
GCG	Guatemala City	0.96	56	⇓eP	P	22 12 45.2	+0.8
GCG				eS	S	22 12 59.4	+0.7
NBG	Las Nubes	1.12	61	⇓eP	P	22 12 46.8	+0.5
NBG				eS	S	22 13 03.5	+1.6
RBDL	Robledal	1.62	88	⇑iP	P	22 12 53.0	0.0
RBDL				eS	S	22 13 15.2	+1.9
RTR	El Retiro	1.67	95	⇓eP	P	22 12 54.1	+0.5
SBLS	San Blas	1.70	97	⇓eP	P	22 12 54.2	+0.2
SBLS				eS	S	22 13 15.6	+0.6
SNJE	San Jose	1.71	96	⇓eP	P	22 12 54.6	+0.4
MTO2	Montecristo 2	1.97	80	⇓eP	P	22 12 57.3	-0.3
BOQS	Boqueron	2.04	99	⇓eP	P	22 12 58.8	+0.1
BOQS				eS	S	22 13 23.5	+0.4
LFU	La Fuente	2.20	98	⇑eP	P	22 13 01.1	+0.2
LBRS	Las Brisas	2.27	98	⇑eP	P	22 13 02.2	+0.4
LFRS	El Faro	2.27	100	eP	P	22 13 01.7	-0.2
CCIG	Comitan	2.34	341	i P	P	22 13 03.5	+0.7
CCIG				i S	S	22 13 32.1	+1.5
LCBS	La Ceiba	2.35	99	⇑eP	P	22 13 03.2	+0.3
LCBS				eS	S	22 13 30.4	-0.3
SNVI	San Vicente	2.49	100	⇑eP	P	22 13 05.2	+0.4
SNVI				eP		22 13 05.3	
SNVI				eS	S	22 13 35.8	+1.6
SCX	San Cristobal	2.94	335	eP	P	22 13 11.5	+0.3
SCX				i S	S	22 13 52.0	+6.5
CAHU	Cacacuatique	3.07	95	⇑eP	P	22 13 12.8	-0.2
BLLM	Bellamira	3.09	101	⇑eP	P	22 13 13.2	-0.2
BLLM				eS	S	22 13 51.6	+2.4
CNCH	Conchagua	3.51	102	⇓eP	P	22 13 18.9	-0.2
CNCH				eS	S	22 14 01.7	+2.0
CRIN	San Cristobal	4.40	107	⇓eP	P	22 13 31.7	+0.2
PYN	Poneloya	4.54	111	⇑eP	P	22 13 31.8	-1.5
CMIG	Matias Romero	4.55	312	eP	P	22 13 31.9	-1.6
CMIG				i S	S	22 14 21.1	-4.4
TEL3	Telica 3	4.63	108	⇓eP	P	22 13 34.1	-0.6
TEL3				eS	S	22 14 28.3	+0.7
	comp=Z,1µm,0.6s						
TELN	Telica	4.64	108	eP	P	22 13 34.0	-0.7
LEON	Leon	4.64	110	eP	P	22 13 33.8	-1.0
CNGN	Cerro Negro	4.79	108	⇓eP	P	22 13 37.5	+0.7
MIRN	Miramar	4.80	109	⇑eP	P	22 13 36.6	-0.4
MIRN				eS	S	22 14 32.5	+0.7
HUIG	Huatulco	4.90	291	i S	S	22 14 27.7	-6.5
MOMJ	Momotombo	4.97	109	⇑eP	P	22 13 39.2	-0.1
MOMJ				eS	S	22 14 33.3	-2.6
COPN	Copaltepe	5.00	111	⇓eP	P	22 13 38.4	-1.4
COPN				eS	S	22 14 34.3	-2.5
APYN	Apoyeque	5.20	110	⇓eP	P	22 13 42.2	-0.3
APYN				eS	S	22 14 43.0	+1.2
XAVN	Gruta Xavier	5.26	110	⇓eP	P	22 13 43.5	+0.4
XAVN				eS	S	22 14 40.4	-2.6
MGAN	Managua	5.33	110	eP	P	22 13 44.5	+0.4
CRUN	El Crucero	5.34	112	⇓eP	P	22 13 44.8	+0.5
WILN	Americas 2	5.38	110	eP	P	22 13 46.0	+1.2
TICN	Ticuantepe	5.38	111	⇓eP	P	22 13 45.3	+0.4
MASN	Masaya	5.47	111	eP	P	22 13 49.2	+3.1
APON	Apoyo	5.58	112	⇑eP	P	22 13 47.5	-0.1
APON				eS	S	22 14 48.8	-2.2
EVV	El Vigia	5.82	319	eP	P	22 13 49.0	-1.9
OXX	Oaxaca	5.98	301	eP	P	22 13 54.0	+0.8
TEIG	Tepich	6.81	25	P	P	22 14 04.1	-0.7
	comp=Z,0.0nm,0.3s,baz=27,slow=24,SNR=72						
TEIG				S	S	22 15 15.8	-5.7
	comp=Z,0.0nm,0.3s,baz=289,slow=24,SNR=1.9						
JTS	JuntasAbangare	7.29	120	ePn	P	22 14 12.5	+1.1
	comp=Z,16nm,0.4s						
JTS				eS	S	22 15 29.4	-3.9
PPM	Popocatepetl	8.57	307	eP	P	22 14 30.8	+2.0
PPM				i S	S	22 15 48.1	-17
PPM	Popocatepetl	8.57	307	eP	P	22 14 30.8	+2.0
PPM				eP		22 14 31.5	
PPM				i S	S	22 15 57.8	-6.9
OTAV	Otavalo	18.75	136	eP	P	22 16 36.1	-4.6
	comp=Z,1.9nm,0.5s						
LTX	Lajitas	19.00	325	eP	P	22 16 44.3	+0.8
	comp=Z,2.8nm,0.7s						
TXAR	Lajitas Array	19.00	325	P	P	22 16 44.2	+0.8
	comp=Z,0.4nm,0.3s,baz=145,slow=13,SNR=24						
TXAR	Lajitas Array	19.00	325	P	P	22 16 44.2	+0.8
LRAL	Lakeview Retre	19.31	11	eP	P	22 16 45.9	-0.9
	comp=Z,35nm,1.1s						
OXF	Oxford	20.45	5	eP	P	22 16 56.4	-2.3
	comp=Z,9.2nm,0.7s						
MIAR	Mount Ida	20.50	355	eP	P	22 16 57.7	-1.6
	comp=Z,16nm,1.3s						
UALR	University of	20.66	358	eP	P	22 16 59.9	-0.9
	comp=Z,21nm,0.6s						
SDV	Santo Domingo	20.95	102	eP	P	22 17 01.0	-2.9
	comp=Z,9.5nm,0.6s						
NHSC	New Hope	21.53	26	eP	P	22 17 03.4	-6.3
	comp=Z,10nm,0.7s,mb4.3						
GDL2	Guadalupe Moun	21.63	329	eP	P	22 17 11.3	+0.7
WVT	Waverly	22.21	8	eP	P	22 17 15.7	-0.7
	comp=Z,2.9nm,0.8s,mb3.7						
CCM	Cathedral Cave	23.91	0	eP	P	22 17 31.6	-1.2
	comp=Z,16nm,0.6s,mb4.5						
BNM	Barren Site	24.33	328	eP	P	22 17 39.2	+2.3
LPM	Los Pinos Moun	24.45	328	eP	P	22 17 39.1	+1.0
WCI	Wyandotte Cave	24.50	10	eP	P	22 17 37.0	-1.5
	comp=Z,9.8nm,0.8s,mb4.2						
SJG	San Juan	24.55	77	LR	LR	22 26 28.4	
	comp=Z,66nm,19.0s,baz=268,slow=35						
ANMO	Albuquerque	24.87	329	P	P	22 17 43.9	+1.7
	comp=Z,1.8nm,0.8s,mb3.6,baz=159,slow=11,SNR=6.9						
ANMO				LR	LR	22 29 26.3	
	comp=Z,64nm,20.8s,slow=41						
ACSO	Alum Creek Sta	27.10	14	eP	P	22 18 01.2	-1.6
	comp=Z,5.3nm,0.5s,mb4.3						
ARUT	Antelope Range	30.72	324	eP	P	22 18 37.3	+2.1
PDAR	Pinedale Array	32.64	335	P	P	22 18 50.7	-1.1
	comp=Z,0.5nm,0.9s,mb3.4,baz=130,slow=12,SNR=3.5						
ELK	Elko	33.79	326	eP	P	22 19 03.5	+1.7
	comp=Z,3.5nm,0.8s,mb4.2						
NVAR	Mina Array Bea	34.02	321	P	P	22 19 06.1	+2.3
	comp=Z,5.4nm,0.8s,mb4.5,baz=129,slow=9.5,SNR=36						
NVAR				LR	LR	22 34 26.3	
	comp=Z,46nm,19.4s,baz=255,slow=39						
NVAR	Mina Array Bea	34.02	321	P	P	22 19 06.1	+2.2
NVAR				LR	LR	22 34 26.3	
MCMT	McKenzie Canyo	35.70	333	eP	P	22 19 18.9	+0.9
ULM	Lac du Bonnet	36.29	355	LR	LR	22 36 14.6	
	comp=Z,106nm,20.8s,baz=83,slow=40						
LPAZ	La Paz	37.89	142	P	P	22 19 38.0	+1.4
	comp=Z,1.0nm,0.7s,mb3.8,baz=332,slow=14,SNR=5.3						
LPAZ	La Paz	37.89	142	eP	P	22 19 37.5	+0.9
	comp=Z,0.9nm,0.5s,mb3.9						
YBH	Yreka Blue Hor	38.71	321	P	P	22 19 43.2	0.0
	comp=Z,2.8nm,0.9s,mb4.1,baz=51,slow=6.5,SNR=4.2						
NEW	Newport	40.23	333	P	P	22 19 56.5	+0.8
	comp=Z,1.7nm,0.7s,mb4.0						
NEW				LR	LR	22 39 15.9	
	comp=Z,79nm,18.6s,baz=304,slow=40						
NEW	Newport	40.23	333	P	P	22 19 56.5	+0.8
NEW				LR	LR	22 39 15.9	
SCHQ	Schefferville	44.96	20	P	P	22 20 32.1	-2.0
	comp=Z,8.0nm,1.1s,mb4.4,baz=197,slow=11,SNR=6.5						
SCHQ				LR	LR	22 40 16.1	
	comp=Z,119nm,20.4s,baz=312,slow=37						
YKA	Yellowknife Ar	51.12	346	P	P	22 21 20.1	-1.8
	comp=Z,2.3nm,0.8s,mb4.3,baz=150,slow=7.8,SNR=43						
YKA				PcP	PcP	22 22 35.1	-1.5
	comp=Z,1.1nm,0.6s,baz=149,slow=4.1,SNR=12						
YKA	Yellowknife Ar	51.12	346	P	P	22 21 20.1	-1.9
YKA				PcP	PcP	22 22 35.1	-1.5
BDFB	Brasilia	52.02	123	LR	LR	22 44 04.4	
	comp=Z,53nm,20.9s,baz=296,slow=36						
ESDC	Sonseca Array	79.20	52	P	P	22 24 19.7	-3.8
	comp=Z,0.5nm,0.7s,mb3.5,baz=298,slow=4.7,SNR=5.5						
NOA	NORSAR Array B	83.81	29	LR	LR	23 02 07.6	
	comp=Z,58nm,18.8s,baz=285,slow=36						
ARCES	ARCESS Array B	85.90	18	LR	LR	23 02 12.0	
	comp=Z,140nm,18.0s,baz=208,slow=35						
FINES	FINESS Array B	90.19	25	LR	LR	23 05 51.6	
	comp=Z,74nm,19.0s,baz=184,slow=36						
ASAR	Alice Springs	136.27	250	PKP	PKPdf	22 31 42.1	+3.6
	comp=Z,0.5nm,0.6s,baz=97,slow=2.0,SNR=6.0						
CMAR	Chiang Mai Arr	146.14	342	PKPbc	PKPbc	22 31 58.8	+1.4
	comp=Z,6.9nm,0.6s,baz=336,slow=3.3,SNR=53						

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*IDC **05** 22:14:13.0±0.9, 3.50S×135.54E, mb4.1/6, mb1 4.4/10, mb1mx4.3/15, ML4.1/4, MS3.7/1, Ms1 3.7/1, ms1mx2.8/15, Error ellipse: s-maj=38.7km s-min=18.6km az=71.0*
*NEIC **05** 22:14:14.9±0.4, 3.56S×135.41E, h10^{km}, mb4.2/8, Error ellipse: s-maj=11.8km s-min=7.5km az=74.0*
*BJI **05** 22:14:14.8, 3.60S×135.40E, h10^{km}, mb4.7*
ISC 05 22:14:17.6±1.6**, 3.81S**±0.04×**135.38E**±0.09**, h49**^{km}±15^{km}**, n32, σ1^{s}08**/37**, mb4.4**/16**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.31	198	eP	P	22 16 32.5	+0.6
	37nm,0.4s						
KAKA				eS	S	22 18 15.9	-0.5
PMG	Port Moresby	12.95	116	Pn	P	22 17 22.1	+0.8
	1.4nm,0.3s,baz=329,slow=6.2,SNR=22						
PMG	Port Moresby	12.95	116	eP	P	22 17 20.2	-1.0
WRAB	Tennant Creek	16.06	184	eP	P	22 18 00.6	-1.1
	7.1nm,0.8s						
WB2	Warramunga Arr	16.07	183	eP	P	22 17 59.6	-2.2
WB2				eS	S	22 20 48.3	-10
WRA	Warramunga Arr	16.07	184	Pn	P	22 17 59.7	-2.1
	0.6nm,0.3s,baz=0.1,slow=13,SNR=8.7						
WRA				Sn	S	22 20 49.5	-8.6
	1.0nm,0.3s,baz=5.2,slow=22,SNR=8.8						
WRA				Lg		22 22 49.2	
	baz=6.7,slow=29,SNR=3.0						
FITZ	Fitzroy Crossi	17.11	213	eP	P	22 18 15.4	+0.5
	4.1nm,0.4s						
FITZ				eS	S	22 21 15.8	-6.2
FITZ	Fitzroy Crossi	17.11	213	P	P	22 18 16.2	+1.3
	1.5nm,0.3s,baz=28,slow=9.2,SNR=24						
FITZ				S	S	22 21 17.4	-4.6
	2.1nm,0.3s,baz=188,slow=13,SNR=7.9						
CTA	Charters Tower	19.34	148	eP	P	22 18 43.3	+1.5
	9.0nm,0.7s						
CTA	Charters Tower	19.34	148	P	P	22 18 43.5	+1.7
	0.5nm,0.3s,baz=325,slow=12,SNR=18						
CTA				Lg		22 24 29.6	
	0.2nm,0.3s,baz=238,slow=18,SNR=3.9						
CTA				LR	LR	22 26 53.2	
	comp=Z,197nm,19.0s,baz=43,slow=39						
CTAO	Charters Tower	19.34	148	eP	P	22 18 42.9	+1.1
	16nm,0.9s						
ASAR	Alice Springs	19.79	184	P	P	22 18 49.2	+2.5
	27nm,0.8s,baz=9.0,slow=11,SNR=114						
ASAR				S	S	22 22 21.2	-0.6
	3.7nm,0.5s,baz=2.4,slow=28,SNR=7.4						
ASAR				Lg		22 24 50.5	
	3.7nm,0.8s,baz=6.9,slow=30,SNR=2.1						
ASPA	Alice Springs	19.79	184	eP	P	22 18 49.2	+2.5
ASPA				eS	S	22 22 21.5	-0.3
MBWA	Marble Bar	23.00	220	eP	P	22 19 22.7	+3.5
	29nm,1.4s,mb4.5						
STKA	Stephens Creek	28.53	169	P	P	22 20 12.2	+1.4
	2.6nm,0.8s,mb4.0,baz=347,slow=16,SNR=3.9						
CMAR	Chiang Mai Arr	42.16	303	P	P	22 22 07.5	+0.2
	2.1nm,0.9s,mb3.8,baz=125,slow=6.7,SNR=15						
KMI	Kunming	42.79	314	eP	P	22 22 13.6	+1.1
KMI				AMB	AMB		
	comp=Z,6.0nm,1.7s,mb4.0						
GTA	Gaotai	54.05	326	eP	P	22 23 39.7	+0.2
GTA				AP	pP	22 23 43.3	-10
GTA				XP	sP	22 23 46.5	-12
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.4						
GUN	Gumba	57.13	307	eP	P	22 24 01.9	0.0
	comp=Z,26nm,0.7s,mb5.4						
ULN	Ulaanbaatar	57.13	338	eP	P	22 24 00.8	-0.8
	comp=Z,1.6nm,0.9s,mb4.0						
PKI	Pulchoki	57.36	306	eP	P	22 24 02.8	-0.7
SONM	Songino Array	57.36	337	P	P	22 24 02.3	-0.9
	comp=Z,0.5nm,0.6s,mb3.8,baz=149,slow=7.2,SNR=6.3						
KKN	Kakani	57.56	306	eP	P	22 24 04.7	-0.2
	comp=Z,17nm,0.8s,mb5.1						
DMN	Daman	57.62	306	eP	P	22 24 05.2	-0.1
	comp=Z,12nm,0.6s,mb5.1						
GKN	Gorkha	58.16	306	eP	P	22 24 08.9	-0.2
	comp=Z,15nm,0.7s,mb5.1						
KOLN	Koldanda	58.91	306	eP	P	22 24 14.3	0.0
	comp=Z,14nm,0.8s,mb5.0						
AML	Almayashu	72.06	317	eP	P	22 25 39.6	+1.0
	comp=Z,1.5nm,0.5s,mb4.2						
BVAR	Borovoye Array	78.33	326	P	P	22 26 14.3	+0.1
	comp=Z,1.7nm,0.7s,mb4.1,baz=129,slow=9.5,SNR=11						
BRVK	Borovoye	78.40	326	eP	P	22 26 14.3	-0.3
	comp=Z,1.9nm,0.6s,mb4.2						
ILAR	Eielson Array	88.21	25	P	P	22 27 03.0	-1.2
	comp=Z,0.2nm,0.5s,mb3.6,baz=267,slow=4.4,SNR=9.4						
LPAZ	La Paz	149.35	131	PKPbc	PKPdf	22 34 05.5	+7.9
	comp=Z,1.1nm,0.7s,baz=241,slow=5.7,SNR=4.7						
LPAZ	La Paz	149.35	131	ePKPbc	PKPdf	22 34 06.1	+8.5

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*NIED **05** 22:20:00, 42.90N×145.40E, h32^{km}, Mw3.8 Best double couple: M$_0$6.35×10^{14} NP1:φ$_s$21°, δ73°, λ96°. NP2:φ$_s$182°, δ18°, λ71°.*
*NEIC **05** 22:20:10.0±1.0, 42.76N×145.25E, h40^{km}, mb4.0/1, Error ellipse: s-maj=25.9km s-min=13.3km az=134.0*
NEIC Recorded [1 JMA] in eastern Hokkaido.
*JMA **05** 22:20:10.3±0.1, 42.86N×145.35E, h44^{km}±1^{km}, M4.0*
JMA Felt I J1.
*IDC **05** 22:20:12.1±6.8, 42.62N×145.29E, h66^{km}±41^{km}, mb3.7/7, mb1 3.8/8, mb1mx3.6/23, ML4.0/1, MS3.4/1, Ms1 3.4/1, ms1mx2.2/30, Error ellipse: s-maj=67.6km s-min=24.1km az=176.0*
*MOS **05** 22:20:17.7±1.7, 44.54N×145.00E, h33^{km}, mb4.3/4, Error ellipse: s-maj=23.9km s-min=22.3km az=59.0*
ISC 05 22:20:09.3±1.0**, 42.83N**±0.07×**145.37E**±0.07**, h50**^{km}±6^{km}**, n27, σ0^{s}81**/35**, mb3.9**/8**, MS3.4**/1**, 5D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAK	Akkeshi	0.52	289	⇓P	P	22 20 21.3	+0.4
JAK				eS	S	22 20 29.2	-0.1
NEM2	Nemuro 2	0.60	27	P	P	22 20 22.1	+0.2
NEM2				eS	S	22 20 30.4	-0.7
JNK	Nakash	0.90	328	⇓P	P	22 20 26.0	+0.2
JNK				eS	S	22 20 36.8	-1.2
JRA	Rausu	1.13	351	P	P	22 20 29.3	+0.3
JRA				eS	S	22 20 43.4	-0.2
JOB	Onbets	1.13	274	⇓P	P	22 20 29.5	+0.4
JOB				eS	S	22 20 43.8	0.0
YUK	Yuzh-Kuril'sk	1.26	16	PN	P	22 20 31.3	+0.4
YUK				i S	S	22 20 47.5	+0.5
YUK				smax			
	comp=N,2µm,0.3s						
JAR	Ashorobuto	1.26	292	⇓P	P	22 20 31.4	+0.4
JAR				eS	S	22 20 45.9	-1.2
JCH	Churui	1.49	263	P	P	22 20 34.3	0.0
JTKR	Abashiri--Toko	1.56	318	⇓P	P	22 20 36.1	+0.8
JTKR				eS	S	22 20 55.2	+0.7
ASAJ	Asahikawa	2.40	304	P	P	22 20 48.8	+1.8
	comp=N,23nm,0.3s,baz=120,slow=12,SNR=33						
ASAJ				S	S	22 21 19.8	+4.5
	comp=N,29nm,0.3s,baz=39,slow=29,SNR=17						
KUR	Kuril'sk	3.01	36	ePN	P	22 20 54.3	-1.4
KUR				pmax	pmax		
	comp=N,110nm,0.5s						
KUR				pmax	pmax		
	comp=E,90nm,0.5s						
KUR				pmax	pmax		
	comp=Z,150nm,0.5s						
MAJO	Matsushiro	8.36	224	P	P	22 22 06.9	-3.5
ULN	Ulaanbaatar	27.20	294	eP	P	22 25 49.0	-1.0
	comp=Z,5.2nm,1.3s,mb3.9						
SONM	Songino Array	27.64	294	P	P	22 25 54.5	+0.4
	comp=Z,2.8nm,0.7s,mb4.0,baz=79,slow=8.4,SNR=24						
ZAL	Zalesovo	40.54	308	LR	LR	22 47 16.5	
	comp=Z,57nm,21.2s,MS3.4,baz=270,slow=40						
ILAR	Eielson Array	43.00	36	P	P	22 28 06.1	+1.3
	comp=Z,0.5nm,0.5s,mb3.5,baz=283,slow=8.9,SNR=19						
ILAR	Eielson Array	43.00	36	P	P	22 28 06.1	+1.3
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BVAR	Borovoye Array	49.09	309	P	P	22 28 53.3	+0.2
	comp=Z,0.8nm,0.4s,mb4.1,baz=83,slow=9.6,SNR=6.9						
YKA	Yellowknife Ar	57.29	33	P	P	22 29 54.5	+0.8
	comp=Z,0.2nm,0.6s,mb3.4,baz=303,slow=7.4,SNR=4.6						
KAF	Kangasniemi	64.55	333	ep	P	22 30 41.8	-1.0
FINES	FINESS Array B	65.10	332	P	P	22 30 45.6	-0.8
	comp=Z,1.5nm,0.5s,mb4.3,baz=44,slow=8.5,SNR=20						
FINES	FINESS Array B	65.10	332	P	P	22 30 45.6	-0.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NB2	NORSAR Subarra	69.99	338	P	P	22 31 16.7	-0.2
	comp=Z,1.2nm,0.5s,mb4.1,baz=33,slow=6.2						
NOA	NORSAR Array B	69.99	338	P	P	22 31 16.6	-0.3
	comp=Z,1.7nm,0.6s,mb4.2,baz=35,slow=6.1,SNR=5.6						
NOA	NORSAR Array B	69.99	338	P	P	22 31 16.6	-0.3
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
AKASG	Malin Array Be	71.55	323	P	P	22 31 26.2	-0.3
	comp=Z,1.2nm,0.3s,mb4.2,baz=41,slow=6.5,SNR=11						
AKASG	Malin Array Be	71.55	323	P	P	22 31 26.2	-0.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						

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*ZUR **05** 22:37:56.9, 48.08N×8.01E, h10^{km}, ML2.2/11*
*STR **05** 22:37:57.3±0.2, 48.07N×8.03E, h10^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **05** 22:37:57.2, 48.08N×8.03E, h10^{km}, ML2.7(FUR), ML2.5(LDG), ML2.5(VIE), ML2.2(STR), ML2.2(LEDBW), After LDG.*
*LDG **05** 22:37:57.2±0.1, 48.08N×8.03E, h10^{km}, Md2.5/3, Ml2.5/17*
*CSEM **05** 22:37:57.2±0.0, 48.08N×8.02E, h15^{km}, ML2.4/14, Error ellipse: s-maj=1.0km s-min=0.7km az=178.0*
*BGR **05** 22:37:59.9±0.8, 48.18N×8.08E, h10^{km}, ML1.8, Error ellipse: s-maj=12.2km s-min=4.4km az=14.0*
LEDBW 05 22:37:57.5±0.1**, 48.08N×8.05E, h10**^{km}±1^{km}**, ML2.2, 15C-20D, Error ellipse: s-maj=2.4km s-min=1.4km az=128.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIZ	Kirchzarten	0.15	217	⇑iPg	Pg	22 38 01.0	0.0
KIZ				i Sg	Sg	22 38 03.4	0.0
KIZ	Kirchzarten	0.15	217	Sg	Sg	22 38 03.4	+0.1
FBB	Freiburg	0.15	241	⇑iPg	Pg	22 38 01.1	0.0
FBB				Sg	Sg	22 38 03.5	0.0
FBB	Freiburg	0.15	241	⇑iP	Pg	22 38 01.1	+0.1
FBB				S	Sg	22 38 03.5	+0.1
FBB	Freiburg	0.15	241	Sg	Sg	22 38 03.5	+0.1
FELD	Feldberg	0.20	189	⇑iPg	Pg	22 38 02.0	0.0
FELD				eSg	Sg	22 38 04.9	0.0
FELD	Feldberg	0.20	189	⇑iP	Pg	22 38 02.0	0.0
FELD				S	Sg	22 38 05.0	+0.1
FELD	Feldberg	0.20	189	Pg	Pg	22 38 01.8	-0.2
FELD				Sg	Sg	22 38 04.9	0.0
LIBD	Limburg	0.31	284	i Sg	Sg	22 38 08.7	+0.4
LIBD	Limburg	0.31	284	P	Pg	22 38 04.3	+0.3
LIBD				P		22 38 06.7	
LIBD				S	Sg	22 38 08.7	+0.4
LIBD	Limburg	0.31	284	Pg	Pg	22 38 04.0	0.0
LIBD				Sg	Sg	22 38 08.5	+0.2
BFO	Black Forest	0.32	36	ePg	Pg	22 38 03.6	-0.5
BFO				eSg	Sg	22 38 08.0	-0.4
BFO	Black Forest	0.32	36	⇑iP	Pg	22 38 03.9	-0.3
BFO				S	Sg	22 38 08.1	-0.4
BFO	Black Forest	0.32	36	ePg	Pg	22 38 03.6	-0.5
BFO				eSg	Sg	22 38 08.0	-0.5
SLE	Schleitheim	0.43	136	⇓iPg	Pg	22 38 03.8	-2.5
SLE	Schleitheim	0.43	136	⇓iPg	Pg	22 38 06.0	-0.3
	45nm,0.1s						
SPAK	Spaichingen	0.49	87	⇑iP	Pg	22 38 07.3	-0.3
SPAK				S	Sg	22 38 13.8	-0.4
SULZ	Sulz-Cheisache	0.55	176	⇓iPg	Pg	22 38 07.3	-1.4
SULZ				eSg	Sg	22 38 14.2	-1.9
SULZ	Sulz-Cheisache	0.55	176	⇓iPg	Pg	22 38 08.2	-0.5
	5.2nm,0.3s						
SULZ	Sulz-Cheisache	0.55	176	eSg	Sg	22 38 15.6	-0.5
	5.2nm,0.3s						
WLS	Welschbruch	0.58	306	⇓iP	Pg	22 38 08.8	-0.4
WLS				S	Sg	22 38 16.3	-0.7
WLS				S	Sg	22 38 17.6	+0.6
WLS	Welschbruch	0.58	306	Pg	Pg	22 38 08.6	-0.6
WLS				Sg	Sg	22 38 16.1	-0.9
WLS	Welschbruch	0.58	306	Sg	Sg	22 38 16.1	-0.9
TRULL	Truellikon	0.60	135	⇓iPg	Pg	22 38 08.2	-1.5
TRULL	Truellikon	0.60	135	⇓iPg	Pg	22 38 09.2	-0.5
	33nm,0.1s						
FLACH	Flaach	0.61	145	⇓iPg	Pg	22 38 09.5	-0.4
	2.7nm,0.2s						
FLACH				eSg	Sg	22 38 17.9	-0.2
	2.7nm,0.2s						
ECH	Echery	0.61	284	P	Pb	22 38 09.3	-0.6
ECH				S	Sg	22 38 17.4	-0.8
ECH	Echery	0.61	284	Pg	Pg	22 38 09.2	-0.8
ECH				Sg	Sg	22 38 17.1	-1.1
CDF	Champ du Feu	0.62	303	ePg	Pg	22 38 09.3	-0.7
CDF				ePn	Pn	22 38 10.0	-2.1
CDF				eSg	Sg	22 38 16.5	-1.9
	29nm,0.2s						
CDF	Champ du Feu	0.62	303	ePg	Pg	22 38 09.3	-0.7
CDF				eSg	Sg	22 38 16.5	-1.9
	15nm,0.2s						
MOF	Molkenrain	0.66	250	Pg	Pg	22 38 10.1	-0.6
MOF	Molkenrain	0.66	250	eP	Pb	22 38 10.2	-0.5
MOF	Molkenrain	0.66	250	Pg	Pg	22 38 09.9	-0.9
STEIN	Stein am Rhein	0.68	126	⇓iPg	Pg	22 38 09.5	-1.8
STEIN	Stein am Rhein	0.68	126	⇓iPg	Pg	22 38 10.9	-0.4
	30nm,0.1s						
BBS	Basel-Blauen	0.71	211	⇑iP	Pb	22 38 11.2	-0.3
BBS				S	Sb	22 38 21.1	-0.1
BBS	Basel-Blauen	0.71	211	⇑iP	Pb	22 38 11.3	-0.3
BBS				Sg	Sg	22 38 21.0	-0.5
GUT	Gutenstein	0.71	90	⇑iPg	Pg	22 38 11.2	-0.6
GUT				i Sg	Sg	22 38 20.7	-0.7
GUT	Gutenstein	0.71	90	⇑iP	Pb	22 38 11.3	-0.3
GUT				P		22 38 12.0	
GUT				S	Sb	22 38 20.8	-0.4
GUT	Gutenstein	0.71	90	Pg	Pg	22 38 11.2	-0.7
GUT				Sg	Sg	22 38 20.7	-0.8
SISB	Singen-Sch Ber	0.73	122	⇓iPg	Pg	22 38 11.7	-0.5
SISB				Sg	Sg	22 38 21.6	-0.3
SISB	Singen-Sch Ber	0.73	122	⇓eP	Pb	22 38 11.7	-0.2
SISB				P		22 38 12.4	
LBG	Lerchenberg	0.77	40	⇑iP	Pb	22 38 12.1	-0.5
LBG				S	Sb	22 38 22.3	-0.6
LBG	Lerchenberg	0.77	40	⇑iP	Pb	22 38 12.1	-0.5
LBG				i P		22 38 22.7	
BALST	Balsthal	0.78	198	⇑iPg	Pg	22 38 17.9	+4.7
BALST	Balsthal	0.78	198	⇑iPg	Pg	22 38 12.3	-0.9
	26nm,2.0s						
ZUR	Zurich	0.79	153	⇓iPg	Pg	22 38 10.9	-2.6

ZUR				eSg	Sg	22 38 12.3	-12
ZUR	**Zurich**	0.79	153	⇓iPg	Pg	22 38 12.8	-0.7
	2.2nm,0.3s						
ZUR				eSg	Sg	22 38 23.4	-0.7
	2.2nm,0.3s						
WEIN	**Weingarten**	0.83	131	⇓iPg	Pg	22 38 12.8	-1.5
WEIN	**Weingarten**	0.83	131	⇓iPg	Pg	22 38 13.8	-0.5
	33nm,0.1s						
HINF	**Hinteralfeld**	0.85	253	ePg	Pg	22 38 12.7	-1.8
HINF				ePn	Pn	22 38 13.7	-1.6
HINF				eSg	Sg	22 38 23.6	-2.3
	33nm,0.2s						
HINF	**Hinteralfeld**	0.85	253	ePn	Pn	22 38 13.7	-1.6
HINF				eSg	Sg	22 38 23.6	-2.3
	16nm,0.2s						
WILA	**Wila**	0.88	139	⇓iPg	Pg	22 38 13.5	-1.7
WILA	**Wila**	0.88	139	⇓iPg	Pg	22 38 14.6	-0.6
	14nm,0.1s						
BOURR	**Bourrignon**	0.88	219	⇑iPg	Pg	22 38 23.4	+8.2
BOURR	**Bourrignon**	0.88	219	⇑iPg	Pg	22 38 13.5	-1.7
	8.6nm,0.1s						
LANF	**Langenberg**	0.92	350	Pg	Pg	22 38 15.1	-0.9
LANF	**Langenberg**	0.92	350	P	Pb	22 38 15.1	0.0
LANF				S	Sb	22 38 26.9	-0.3
LANF				S	Sb	22 38 27.8	+0.5
LANF	**Langenberg**	0.92	350	Pg	Pg	22 38 14.9	-1.1
BUCH	**Bad Urach**	0.95	66	⇓iPn	Pn	22 38 14.9	-1.9
BUCH				⇑iPg	Pg	22 38 15.6	-0.9
BUCH				Sn	Sn	22 38 27.0	-3.4
BUCH	**Bad Urach**	0.95	66	i PG	Pg	22 38 15.6	-0.9
BUCH	**Bad Urach**	0.95	66	P	Pb	22 38 14.8	-0.7
BUCH				⇑P		22 38 15.6	
BUCH				S	Sb	22 38 27.0	-0.9
BUCH				S	Sb	22 38 28.8	+0.8
BUCH	**Bad Urach**	0.95	66	i P	Pb	22 38 14.9	-0.7
BUCH				i Pg	Pg	22 38 15.6	-0.9
BUCH	**Bad Urach**	0.95	66	i Pg	Pg	22 38 15.6	-0.9
STU	**Stuttgart**	1.03	47	ePg	Pg	22 38 17.0	-1.3
STU				eSg	Sg	22 38 30.6	-1.5
LOMF	**Lomont**	1.10	229	⇑iPn	Pn	22 38 18.4	-0.6
LOMF	**Lomont**	1.10	229	Pg	Pg	22 38 18.2	-1.4
HAU	**Haudompre**	1.15	267	ePn	Pn	22 38 17.2	-2.4
HAU				ePg	Pg	22 38 18.4	-2.1
HAU				eSg	Sg	22 38 32.1	-3.7
	44nm,0.2s						
HAU	**Haudompre**	1.15	267	ePg	Pg	22 38 18.4	-2.1
HAU				eSg	Sg	22 38 32.1	-3.7
	22nm,0.2s						
THEF	**They Montfort**	1.39	277	Pn	Pn	22 38 19.5	-3.6
UBR	**Uberruh**	1.44	105	Sg	Sg	22 38 43.8	-1.8
UBR	**Uberruh**	1.44	105	S	Sb	22 38 43.8	+1.5
DAVA	**Damuels**	1.47	122	⇑iPG	Pg	22 38 24.9	-2.0
DAVA				i SG	Sg	22 38 43.4	-3.0
	2.2nm,0.2s						
SWS	**Schriesheim**	1.47	17	Sg	Sg	22 38 43.8	-2.9
HDH	**Heidenheim**	1.53	70	Pg	Pg	22 38 26.6	-1.5
HDH				Sn	Sn	22 38 41.8	-3.3
HDH	**Heidenheim**	1.53	70	P	Pn	22 38 25.9	+0.8
HDH				P		22 38 26.6	
HDH				S	Sb	22 38 41.8	-2.9
HDH				S	Sb	22 38 45.4	+0.6
HDH				S	Sb	22 38 46.6	+1.9
SIND	**Sindeldorf**	1.64	38	Pg	Pg	22 38 28.5	-1.8
SIND	**Sindeldorf**	1.64	38	P	Pn	22 38 28.1	+1.5
RFYF	**Reffroy**	1.81	289	ePn	Pn	22 38 27.0	-2.1
	baz=105						
RFYF				ePg	Pg	22 38 30.1	-3.6
	baz=107						
RFYF				eSn	Sn	22 38 47.4	-4.8
RFYF				eSg	Sg	22 38 53.4	-4.4
	14nm,0.2s						
RFYF	**Reffroy**	1.81	289	ePg	Pg	22 38 30.1	-3.6
RFYF				eSn	Sn	22 38 47.4	-4.8
RFYF				eSg	Sg	22 38 53.4	-4.4
	6.8nm,0.2s						
CABF	**La Chapelle**	1.98	223	ePn	Pn	22 38 28.4	-3.2
CABF				ePg	Pg	22 38 34.5	-2.7
CABF				eSg	Sg	22 38 58.2	-5.4
	2.9nm,0.3s						
CABF	**La Chapelle**	1.98	223	ePn	Pn	22 38 28.4	-3.2
CABF				eSg	Sg	22 38 58.2	-5.4
	1.5nm,0.3s						
SFTF	**Sexfontaines**	2.02	275	ePn	Pn	22 38 29.4	-2.8
	baz=100						
SFTF				ePg	Pg	22 38 33.9	-4.1
	baz=95						
SFTF				eSn	Sn	22 38 53.4	-4.3
SFTF				eSg	Sg	22 39 00.1	-4.9
	5.6nm,0.2s						
SFTF	**Sexfontaines**	2.02	275	ePg	Pg	22 38 33.9	-4.1
SFTF				eSn	Sn	22 38 53.4	-4.3
SFTF				eSg	Sg	22 39 00.1	-4.9
	2.8nm,0.2s						
WLF	**Walferdange**	2.03	322	ePg	Pg	22 38 35.3	-2.7
WLF				eSg	Sg	22 39 01.2	-3.8
MEZF	**Maizieres J'vi**	2.05	283	ePn	Pn	22 38 30.0	-2.5
	baz=104						
MEZF				ePg	Pg	22 38 34.6	-3.9
	baz=104						
MEZF				eSn	Sn	22 38 54.0	-4.4
MEZF				eSg	Sg	22 39 00.7	-5.1
	4.9nm,0.2s						
MEZF	**Maizieres J'vi**	2.05	283	ePg	Pg	22 38 34.6	-3.9
MEZF				eSn	Sn	22 38 54.0	-4.4
MEZF				eSg	Sg	22 39 00.7	-5.1
	2.5nm,0.2s						
FUR	**Furstenfeldbru**	2.16	86	ePg	Pg	22 38 38.9	-1.9
FUR				eSg	Sg	22 39 06.5	-3.1
MOTA	**Moosalm**	2.19	108	⇓iPG	Pg	22 38 38.7	-2.5
MOTA				i SG	Sg	22 39 07.1	-3.3
	2.2nm,0.2s						
SQTA	**Sankt Quirin**	2.30	111	⇑iPG	Pg	22 38 41.1	-2.4
SQTA				i SG	Sg	22 39 10.6	-3.5
	6.9nm,0.2s						
GRA1	**Grafenberg Arr**	2.65	51	ePg	Pg	22 38 46.8	-3.6
GRA1				eSg	Sg	22 39 22.2	-3.5
GRF	**Grafenberg Arr**	2.65	51	ePg	Pg	22 38 46.8	-3.5
GRF				eSg	Sg	22 39 22.2	-3.5
LPL	**La Plagne**	2.71	200	ePn	Pn	22 38 39.5	-2.6
LPL				ePg	Pg	22 38 48.4	-3.4
LPL				eSg	Sg	22 39 21.6	-6.4
	1.0nm,0.3s						
LPL	**La Plagne**	2.71	200	ePg	Pg	22 38 48.4	-3.4
LPL				eSg	Sg	22 39 21.6	-6.4
	0.5nm,0.3s						
LPG	**La Plagne**	2.73	200	ePn	Pn	22 38 40.4	-1.9
LPG				ePg	Pg	22 38 48.3	-3.8
LPG				eSg	Sg	22 39 22.3	-6.1
	1.2nm,0.3s						
LPG	**La Plagne**	2.73	200	ePg	Pg	22 38 48.3	-3.8
LPG				eSg	Sg	22 39 22.3	-6.1
	0.6nm,0.3s						
SMF	**Signal de Mont**	3.20	245	eSg	Sg	22 39 37.3	-6.8
	4.2nm,0.3s						
SSF	**Saint Saulge**	3.24	253	ePg	Pg	22 38 56.1	-6.2
SSF				eSg	Sg	22 39 36.6	-8.9
	1.2nm,0.2s						
AVF	**Avril sur Loir**	3.44	250	ePn	Pn	22 38 47.9	-4.4
AVF				ePg	Pg	22 39 00.7	-5.5
AVF				eSg	Sg	22 39 43.9	-8.2
	1.3nm,0.2s						
AVF	**Avril sur Loir**	3.44	250	ePg	Pg	22 39 00.7	-5.5
AVF				eSg	Sg	22 39 43.9	-8.2
	0.6nm,0.2s						
ORIF	**Oris-en-Rattie**	3.50	206	eSg	Sg	22 39 46.4	-7.6
	0.6nm,0.3s						
NKC	**Novy Kostel**	3.60	52	ePG	Pg	22 39 05.0	-4.5
NKC				eSG	Sg	22 39 51.5	-6.1
KHC	**Kasperske Hory**	3.82	72	ePG	Pg	22 39 08.4	-5.4
KHC				ex	x	22 39 47.5	
KHC				eSG	Sg	22 39 57.4	-7.2
KHC	**Kasperske Hory**	3.82	72	ePg	Pg	22 39 08.4	-5.4
KHC				eSg	Sg	22 39 57.4	-7.2
BGF	**Bois d'Agland**	3.85	249	ePg	Pg	22 39 08.4	-6.1
BGF				eSg	Sg	22 39 56.6	-9.2
	4.5nm,0.4s						
VIVF	**Saint-Julien-l**	3.98	217	eSg	Sg	22 40 00.9	-9.1
	1.0nm,0.3s						
TCF	**Toulx Ste Croi**	4.37	248	ePg	Pg	22 39 17.8	-6.9
TCF				eSg	Sg	22 40 12.0	-11
	0.8nm,0.3s						
ZAI	**Zaio**	15.37	215	i S	S	22 44 23.3	-3.6

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*JMA **05** 22:41:40.9±0.1, 36.38N×140.93E, h46^{km}±1^{km}, M3.6 Broadband fault plane solution: P waves. NP1:φs48°, δ26°, λ132°. NP2:φs183°, δ71°, λ72°. Principal axes: T Plg60°, Azm68°; N Plg17°, Azm189°; P Plg24°, Azm287°;*

ISC 05 22:41:40.9±1.9, **36.40N**±0.08×**141.0E**±0.1, **h38**^{km}±20^{km}, **n9**, σ**0**^{s}**61**/15, **1C-3D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	**Hitachi**	0.38	304	⇑P	P	22 41 50.2	+0.3
JHO				S	S	22 41 56.5	+0.3
JYT	**Yasato**	0.64	254	P	P	22 41 53.4	-0.1
JYT				S	S	22 42 01.7	-1.0
ONAJ	**Iwakimizuishiy**	0.71	350	P	P	22 41 54.3	-0.2
ONAJ				S	S	22 42 03.8	-0.5
JFK	**Kawauchi**	0.96	356	⇓P	P	22 41 57.6	-0.5
JFK				S	S	22 42 09.7	-1.1
JAG	**Ashikaga**	1.21	271	⇓P	P	22 42 01.5	-0.1
JFT	**Otama**	1.22	336	⇓P	P	22 42 02.6	+0.9
JFT				S	S	22 42 18.1	+0.8
JFY	**Yanaizu**	1.42	315	P	P	22 42 05.3	+0.7
JKT	**Katashina**	1.42	285	P	P	22 42 05.4	+0.7
MAT	**Matsushiro**	2.22	274	P	P	22 42 16.5	+0.4
MAT				S	S	22 42 42.1	-0.4

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*IDC **05** 22:53:21.4±1.1, 9.93N×123.02E, mb4.1/8, mb1 4.3/8, mb1mx4.0/20, MS3.5/3, Ms1 3.5/3, ms1mx2.9/31, Error ellipse: s-maj=143.0km s-min=15.9km az=69.0*

*NEIC **05** 22:53:22.9±0.6, 9.92N×123.08E, h10^{km}, mb4.5/4, Error ellipse: s-maj=87.4km s-min=8.9km az=67.0*

ISC 05 22:53:26.0±0.5, **9.59N**±0.03×**122.29E**±0.04, **h44**^{km}±6^{km}, **n37**, σ**1**^{s}**09**/42, **mb4.2**/12, **MS3.8**/2, **3C-1D, Negros**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAP	**Anini-y**	0.89	338	i P	P	22 53 40.0	-2.2
SNPH	**Sibulan**	0.96	105	⇑eP	P	22 53 42.7	-0.6
SNPH				i S	S	22 53 56.0	-0.1
GUIM	**Jordan**	1.07	16	eP	P	22 53 43.8	-1.0
GUIM				eS	S	22 53 56.8	-1.9
DCPH	**Dipolog City**	1.45	134	⇑eP	P	22 53 50.3	0.0
DCPH				eS	S	22 54 09.8	+1.5
TBP	**Tagbilaran**	1.55	86	eP	P	22 53 51.9	+0.2
TBP				i S	S	22 54 11.4	+0.6
CUYO	**Cuyo Island**	1.77	315	eP	P	22 53 55.5	+0.7
LLP	**Lapu-Lapu**	1.80	66	⇑eP	P	22 53 55.4	+0.2
LLP				i S	S	22 54 17.1	+0.2
IPIL	**Ipil**	1.81	171	eP	P	22 53 55.6	+0.3
IPIL				eS	S	22 54 15.8	-1.4
RCP	**Roxas**	2.01	13	⇓eP	P	22 53 59.9	+1.8
RCP				eS	S	22 54 26.7	+4.6
KALP	**Kalibo**	2.08	1	eP	P	22 54 18.9	+20
MSLP	**Maasin**	2.59	78	eP	P	22 54 07.5	+1.1
OCLP	**Ormoc**	2.70	57	eP	P	22 54 08.2	+0.2
OTRP	**Odiongan**	2.77	355	eP	P	22 54 10.0	+1.0
PLP	**Palo**	3.07	59	i P	P	22 54 13.1	-0.2
PLP				eS	S	22 54 47.8	-1.3
SJMP	**San Jose**	3.08	338	eP	P	22 54 12.4	-0.9
SCPH	**Surigao**	3.16	86	eP	P	22 54 07.7	-6.9
SCPH				eS	S	22 54 26.4	-25
ENPP	**El Nido**	3.24	300	eP	P	22 54 15.6	-0.1
PPR	**Puerto Princes**	3.52	273	eP	P	22 54 26.7	+7.1
LUBP	**Lubang**	4.58	334	eP	P	22 54 36.5	+1.9
TGY	**Tagaytay City**	4.68	344	LR	LR	22 56 39.4	
	comp=Z,124nm,19.3s,baz=127,slow=43						
KAKA	**Kakadu**	24.32	155	eP	P	22 58 41.0	+0.2
	13nm,0.7s,mb4.5						
FITZ	**Fitzroy Crossi**	27.71	173	P	P	22 59 15.0	+2.5
	3.8nm,1.1s,mb3.9,baz=1.6,slow=13,SNR=6.1						
WRAB	**Tennant Creek**	31.65	158	eP	P	22 59 46.0	-1.5
	10nm,1.1s,mb4.6						
WRA	**Warramunga Arr**	31.65	158	P	P	22 59 45.9	-1.6
	2.2nm,0.7s,mb4.1,baz=335,slow=9.6,SNR=11						
WB2	**Warramunga Arr**	31.66	158	eP	P	22 59 46.4	-1.2
ASPA	**Alice Springs**	34.95	161	eP	P	23 00 16.3	+0.3
ASAR	**Alice Springs**	34.95	161	P	P	23 00 16.1	+0.2
	4.2nm,0.6s,mb4.5,baz=341,slow=7.0,SNR=60						
CTA	**Charters Tower**	37.77	141	LR	LR	23 15 36.4	
	comp=Z,94nm,18.6s,MS3.6,baz=223,slow=36						
SONM	**Songino Array**	40.41	343	P	P	23 01 02.1	+0.6
	0.5nm,0.6s,mb3.5,baz=162,slow=10,SNR=4.3						
STKA	**Stephens Creek**	45.18	157	P	P	23 01 40.5	0.0
	3.9nm,0.5s,mb4.5,baz=319,slow=7.9,SNR=14						
ZAL	**Zalesovo**	53.41	333	P	P	23 02 41.4	-2.1
	0.8nm,0.3s,mb4.1,baz=160,slow=12,SNR=2.5						
KURK	**Kurchatov**	54.46	327	eP	P	23 02 52.2	+1.0
	1.7nm,0.5s,mb4.2						
BVAR	**Borovoye Array**	60.03	327	P	P	23 03 30.6	-0.1
	0.7nm,0.9s,mb3.7,baz=101,slow=7.3,SNR=3.6						
BRVK	**Borovoye**	60.11	327	eP	P	23 03 30.8	-0.3
	1.6nm,0.8s,mb4.1						
FINES	**FINESS Array B**	84.61	331	P	P	23 05 57.3	+1.5
	3.9nm,1.1s,mb4.5,baz=104,slow=5.7,SNR=3.9						
FINES	**FINESS Array B**	84.61	331	P	P	23 05 57.3	+1.5
VNDA	**Vanda**	89.78	172	LR	LR	23 44 50.5	
	comp=Z,54nm,18.0s,MS4.0,baz=74,slow=34						

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*IDC **05** 23:02:48.3±0.8, 3.09S×141.88E, mb4.2/10, mb1 4.4/13, mb1mx4.4/16, ML4.5/2, MS3.6/2, Ms1 3.6/2, ms1mx2.9/20, Error ellipse: s-maj=32.2km s-min=16.4km az=89.0*

*NEIC **05** 23:02:54.2±1.5, 3.12S×141.70E, h38^{km}±13^{km}, mb4.5/16, Error ellipse: s-maj=10.8km s-min=8.3km az=82.0*

*BJI **05** 23:02:54.1, 3.10S×141.70E, h37^{km}, mb4.8*

ISC 05 23:02:47.5±2.3, **3.08S**±0.04×**141.68E**±0.09, **h1**^{km}±14^{km}, **n53**, σ**0**^{s}**78**/55, **mb4.6**/30, **MS3.4**/2, **1D, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	8.31	139	Pn	P	23 04 53.2	+1.2
	0.9nm,0.3s,baz=282,slow=11,SNR=4.8						
KAKA	**Kakadu**	13.25	223	eP	P	23 05 58.3	-1.1
	53nm,0.4s						
KAKA				eS	S	23 08 18.7	-10
CTA	**Charters Tower**	17.48	166	P	P	23 06 53.4	-0.8
	0.2nm,0.3s,baz=30,slow=18,SNR=1.8						
CTA	**Charters Tower**	17.48	166	P	P	23 06 53.4	-0.8
WRAB	**Tennant Creek**	18.21	203	eP	P	23 07 03.7	+0.3
	33nm,0.6s						
WB2	**Warramunga Arr**	18.22	203	eP	P	23 07 03.6	+0.1
WRA	**Warramunga Arr**	18.22	203	P	P	23 07 03.7	+0.1
	4.5nm,0.3s,baz=24,slow=12,SNR=43						
WRA				S	S	23 10 25.1	+0.3
	0.2nm,0.3s,baz=9.8,slow=22,SNR=3.9						
WRA				Lg		23 12 19.5	
	baz=31,slow=26,SNR=2.8						
FITZ	**Fitzroy Crossi**	21.67	225	eP	P	23 07 41.5	-0.2
	10.0nm,0.7s,mb4.3						
FITZ				eS	S	23 11 37.0	-0.5
FITZ	**Fitzroy Crossi**	21.67	225	P	P	23 07 41.3	-0.5
	11nm,0.7s,mb4.4,baz=27,slow=8.7,SNR=20						
FITZ				S	S	23 11 36.4	-1.1
	7.2nm,0.8s,baz=177,slow=15,SNR=3.3						
FITZ				LR	LR	23 16 40.0	
	comp=Z,135nm,18.8s,MS3.4,baz=66,slow=38						
ASAR	**Alice Springs**	21.80	200	P	P	23 07 42.5	-0.5
	11nm,0.9s,mb4.3,baz=30,slow=10,SNR=38						
ASAR				S	S	23 11 40.2	+0.4
	0.6nm,0.7s,baz=350,slow=35,SNR=2.4						
ASAR				LR	LR	23 16 45.1	
	comp=Z,138nm,19.8s,MS3.4,baz=16,slow=38						
ASPA	**Alice Springs**	21.80	200	eP	P	23 07 43.4	+0.4
MBWA	**Marble Bar**	27.91	228	eP	P	23 08 40.6	-0.7
	6.4nm,0.7s,mb4.4						
STKA	**Stephens Creek**	28.64	180	eP	P	23 08 47.4	-0.4
	3.5nm,1.5s,mb3.9						
STKA	**Stephens Creek**	28.64	180	P	P	23 08 47.4	-0.4
	3.9nm,0.9s,mb4.2,baz=350,slow=8.4,SNR=5.1						
FORT	**Forrest**	30.40	204	eP	P	23 09 03.8	+0.2
	83nm,0.6s,mb5.6						
TOO	**Toolangi**	34.50	175	eP	P	23 09 40.3	+1.0
	8.7nm,1.1s,mb4.6						
NWAO	**Narrogin (SRO)**	37.49	215	P	P	23 10 04.9	+0.3
	1.0nm,0.5s,mb3.9						
ENH	**Enshi**	45.23	320	eP	P	23 11 08.7	+0.4
	7.1nm,0.9s,mb4.5						
CMAR	**Chiang Mai Arr**	47.20	299	P	P	23 11 24.1	0.0
	3.3nm,0.9s,mb4.3,baz=117,slow=6.5,SNR=13						
CMAR				PcP	PcP	23 12 56.7	+0.7
	1.3nm,0.9s,baz=146,slow=1.7,SNR=5.8						
GTA	**Gaotai**	57.16	322	eP	P	23 12 38.6	+0.2
GTA				AMB	AMB		
	comp=Z,12nm,0.8s,mb5.0						
ULN	**Ulaanbaatar**	59.08	334	eP	P	23 12 51.4	-0.3
	comp=Z,2.4nm,0.8s,mb4.3						
SONM	**Songino Array**	59.35	333	P	P	23 12 53.6	0.0
	comp=Z,0.7nm,0.8s,mb3.8,baz=154,slow=8.4,SNR=4.8						
GUN	**Gumba**	61.84	304	eP	P	23 13 10.0	-0.9
	comp=Z,22nm,0.8s,mb5.4						
PKI	**Pulchoki**	62.12	303	eP	P	23 13 12.5	-0.2
KKN	**Kakani**	62.30	304	eP	P	23 13 13.8	-0.1
	comp=Z,24nm,0.8s,mb5.4						
DMN	**Daman**	62.38	303	eP	P	23 13 14.6	+0.1
	comp=Z,20nm,0.7s,mb5.4						
GKN	**Gorkha**	62.91	304	eP	P	23 13 18.1	+0.2
	comp=Z,32nm,0.7s,mb5.6						
KOLN	**Koldanda**	63.70	303	eP	P	23 13 23.3	+0.1
	comp=Z,16nm,0.8s,mb5.1						
ZAL	**Zalesovo**	73.77	329	P	P	23 14 24.6	-0.5
	comp=Z,0.8nm,0.6s,mb3.8,baz=19,slow=8.2,SNR=3.1						
KZA	**Kyzart**	74.83	315	P	P	23 14 30.0	-1.6
	SNR=10						
TKM2	**Tokmak 2**	74.86	316	P	P	23 14 32.6	+0.9
	SNR=7.1						
VNDA	**Vanda**	75.16	176	P	P	23 14 31.7	-1.1
	comp=Z,0.8nm,0.7s,mb3.8,baz=34,slow=7.2,SNR=7.3						
VNDA	**Vanda**	75.16	176	P	P	23 14 31.7	-1.1
KBK	**Karagaybulak**	75.23	316	P	P	23 14 34.7	+0.9
	SNR=5.9						
UCH	**Uchtor**	75.40	315	P	P	23 14 36.9	+2.1
	SNR=9.8						
CHMS	**Chumysh**	75.47	316	P	P	23 14 35.9	+0.7
	SNR=5.2						
AAK	**Ala-Archa**	75.54	315	eP	P	23 14 34.2	-1.4
	comp=Z,7.0nm,1.3s,mb4.4						
USP	**Ospenovka**	75.73	316	P	P	23 14 37.4	+0.7
	SNR=14						
KURK	**Kurchatov**	75.74	324	eP	P	23 14 36.5	0.0
	comp=Z,3.9nm,0.9s,mb4.3						
AML	**Almayashu**	75.95	315	P	P	23 14 39.5	+1.6
	SNR=7.9						
AML	**Almayashu**	75.95	315	eP	P	23 14 39.1	+1.2
	comp=Z,11nm,0.9s,mb4.8						
EKS2	**Erkin-Say**	76.05	315	P	P	23 14 39.6	+1.1
	SNR=7.6						
EKS2	**Erkin-Say**	76.05	315	eP	P	23 14 39.4	+0.9
	comp=Z,8.4nm,0.9s,mb4.7						
BVAR	**Borovoye Array**	81.32	325	P	P	23 15 07.6	+0.7
	comp=Z,7.1nm,0.8s,mb4.7,baz=112,slow=8.0,SNR=45						
CHKZ	**Chkalovo**	81.38	325	eP	P	23 15 06.7	-0.6
	comp=Z,4.2nm,0.9s,mb4.4						
BRVK	**Borovoye**	81.39	325	eP	P	23 15 07.9	+0.5
	comp=Z,8.1nm,0.8s,mb4.7						
COLA	**College**	84.60	24	P	P	23 15 22.6	-1.0
	comp=Z,2.1nm,0.7s,mb4.4						
ILAR	**Eielson Array**	84.95	24	P	P	23 15 23.8	-1.5
	comp=Z,2.7nm,0.7s,mb4.5,baz=257,slow=4.6,SNR=59						
QSPA	**South Pole Qui**	86.86	180	⇓iP	P	23 15 34.8	+0.3
	comp=Z,13nm,1.1s,mb5.1						
YKA	**Yellowknife Ar**	99.05	27	P	P	23 16 30.1	-0.9
	comp=Z,0.3nm,0.8s,mb3.9,baz=281,slow=5.0,SNR=5.6						
YKA				PKKPbc		23 32 56.3	
	comp=Z,0.1nm,0.5s,baz=97,slow=2.6,SNR=4.7						
LPAZ	**La Paz**	144.81	124	PKP	PKPdf	23 22 28.8	-0.4
	comp=Z,5.5nm,0.8s,baz=257,slow=2.7,SNR=20						
DBIC	**Dimbokro**	146.47	277	PKPbc	PKPbc	23 22 32.5	+1.1
	comp=Z,9.0nm,0.7s,baz=121,slow=3.6,SNR=14						
SAML	**Samuel**	152.49	116	ePKPab	PKPab	23 22 56.1	-3.0

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*MOS **05** 23:02:56.8±1.5, 44.94N×146.98E, h136^{km}, mb4.0/4, Error ellipse: s-maj=33.9km s-min=21.6km az=72.1*

*IDC **05** 23:02:59.7±2.9, 44.94N×146.97E, h144^{km}±35^{km}, mb3.4/10, mb1 3.6/11, mb1mx3.4/23, Error ellipse: s-maj=69.3km s-min=21.2km az=176.0*

*NEIC **05** 23:03:06.1±1.9, 45.03N×146.94E, h200^{km}, mb3.9/2, Error ellipse: s-maj=54.0km s-min=13.4km az=173.0*

ISC 05 23:02:56.6±1.5, **44.9N**±0.4×**147.0E**±0.2, **h131**^{km}±31^{km}, **n20**, σ**0**^{s}**76**/21, **mb3.6**/12, **1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUK	**Yuzh-Kuril'sk**	1.22	224	⇑iPN	P	23 03 21.7	-0.4
YUK				i S	S	23 03 41.0	-0.5
YUK				pmax	pmax		
	comp=Z,1μm,0.4s						
YUK				pmax	pmax		
	comp=N,360nm,0.3s						
YUK				smax			
	comp=N,2μm,0.5s						
ASAJ	**Asahikawa**	3.28	257	P	P	23 03 49.3	+1.5
	comp=N,3.4nm,0.3s,baz=24,slow=14,SNR=4.9						
ASAJ	**Asahikawa**	3.28	257	PN	P	23 03 49.3	+1.5
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ULN	**Ulaanbaatar**	27.52	291	eP	P	23 08 32.8	+0.2
	comp=Z,1.2nm,0.5s,mb3.9						
SONM	**Songino Array**	27.97	291	P	P	23 08 36.9	+0.3
	comp=Z,0.6nm,0.4s,mb3.6,baz=79,slow=8.0,SNR=8.4						
ILAR	**Eielson Array**	40.60	37	P	P	23 10 25.1	+0.7
	comp=Z,0.2nm,0.4s,mb3.1,baz=277,slow=9.8,SNR=7.1						
KURK	**Kurchatov**	44.82	303	eP	P	23 10 58.6	-0.1
	comp=Z,2.0nm,0.5s,mb4.0						
BVAR	**Borovoye Array**	48.71	309	P	P	23 11 29.5	+0.4
	comp=Z,0.3nm,0.2s,mb3.5,baz=61,slow=9.4,SNR=7.2						
YKA	**Yellowknife Ar**	54.88	34	P	P	23 12 15.6	+0.5
	comp=Z,0.1nm,0.5s,mb2.8,baz=300,slow=7.0,SNR=4.1						
ARCES	**ARCESS Array B**	58.13	339	P	P	23 12 37.0	-1.0
	comp=Z,4.4nm,0.9s,mb4.3,baz=58,slow=8.5,SNR=3.8						
ARCES	**ARCESS Array B**	58.13	339	P	P	23 12 37.0	-1.0
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
FINES	**FINESS Array B**	63.80	333	P	P	23 13 14.8	-1.5
	comp=Z,2.0nm,0.5s,mb4.2,baz=47,slow=6.4,SNR=10						
FINES	**FINESS Array B**	63.80	333	P	P	23 13 14.8	-1.5
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NOA	**NORSAR Array B**	68.49	339	P	P	23 13 45.0	-1.0
	comp=Z,0.7nm,0.7s,mb3.5,baz=307,slow=4.4,SNR=3.3						
NOA	**NORSAR Array B**	68.49	339	P	P	23 13 45.0	-1.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
AKASG	**Malin Array Be**	70.60	323	P	P	23 13 58.4	-0.6
	comp=Z,0.4nm,0.3s,mb3.6,baz=41,slow=6.9,SNR=6.1						
CLL	**Collm**	76.25	332	P	P	23 14 32.0	+0.4
GERES	**GERESS Array B**	78.10	331	P	P	23 14 42.8	+0.8
	comp=Z,0.5nm,0.4s,mb3.5,baz=36,slow=5.9,SNR=9.6						
GERES	**GERESS Array B**	78.10	331	P	P	23 14 42.8	+0.8
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
TXAR	**Lajitas Array**	82.07	56	P	P	23 15 03.8	+0.3
	comp=Z,0.4nm,0.6s,mb3.2,baz=278,slow=4.4,SNR=5.6						

DJA 05 23:06:05.0±0.9, **8.71S**×**115.74E**, **h107**^{km}±6^{km}, **MD4.5**/1, **2C-6D, Error ellipse: s-maj=34.9km s-min=10.5km az=1.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	**Rata**	0.20	267	⇓ePn	P	23 06 20.1	-0.1
RATI				⇓iSn	S	23 06 30.4	-1.2
KEDI	**Kedomdong**	0.43	59	⇑iPn	P	23 06 20.8	-0.5
	81nm,0.2s						
KEDI				⇓iSn	S	23 06 32.3	-1.2
KELI	**Kelakatan**	1.33	292	⇓iPn	P	23 06 29.8	-0.2
KELI				⇓iSn	S	23 06 47.2	-1.6
SRDI	**Scrawed**	1.59	278	⇓iPn	P	23 06 32.3	-0.9
SRDI				⇑iSn	S	23 06 53.6	-0.8

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*NEIC **05** 23:29:48.7±1.2, 19.69S×177.72W, h531^{km}±10^{km}, mb4.3/9, Error ellipse: s-maj=40.9km s-min=7.6km az=154.0*

*IDC **05** 23:29:51.7±2.7, 19.89S×177.72W, h564^{km}±29^{km}, mb3.5/10, mb1 3.8/10, mb1mx3.6/17, Error ellipse: s-maj=50.2km s-min=12.9km az=156.0*

ISC 05 23:29:47.7±1.7, **19.5S**±0.4×**177.9W**±0.2, **h520**^{km}±15^{km}, **n34**, σ**0**^{s}**71**/24, **mb4.1**/14, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	8.05	48	P	P	23 31 46.5	+0.4
AFI				eS	S	23 33 19.5	-0.8
CTA	**Charters Tower**	33.69	263	eP	P	23 35 47.9	+1.3
	6.8nm,0.6s,mb4.3						
CTA	**Charters Tower**	33.69	263	P	P	23 35 47.8	+1.1
	8.0nm,0.5s,mb4.5,baz=98,slow=11,SNR=16						

CTAO	Charters Tower	33.69	263	eP	P	23 35 46.9	+0.2
	9.3nm,0.6s,mb4.5						
PMG	Port Moresby	35.20	281	P	P	23 36 02.3	+3.0
	12nm,0.7s,mb4.5,baz=72,slow=3.3,SNR=8.9						
PMG	Port Moresby	35.20	281	eP	P	23 36 01.8	+2.6
	12nm,0.7s,mb4.5						
STKA	Stephens Creek	38.33	243	eP	P	23 36 24.4	-0.4
	1.8nm,0.5s,mb3.9						
STKA	Stephens Creek	38.33	243	P	P	23 36 24.8	0.0
	2.8nm,0.7s,mb3.9,baz=93,slow=11,SNR=10						
WB2	Warramunga Arr	44.83	261	eP	P	23 37 16.8	+0.1
WRAB	Tennant Creek	44.83	261	eP	P	23 37 16.3	-0.4
	9.4nm,0.5s,mb4.6						
WRA	Warramunga Arr	44.84	261	P	P	23 37 16.6	-0.2
	7.6nm,0.6s,mb4.4,baz=98,slow=8.4,SNR=49						
ASAR	Alice Springs	44.85	256	P	P	23 37 16.8	-0.1
	9.0nm,0.7s,mb4.4,baz=93,slow=7.8,SNR=88						
ASAR				S	S	23 43 15.4	-1.2
	1.2nm,0.7s,baz=92,slow=16,SNR=8.1						
ASPA	Alice Springs	44.85	256	eP	P	23 37 16.7	-0.2
KAKA	Kakadu	48.09	270	eP	P	23 37 41.1	-0.6
	7.0nm,0.6s,mb4.4						
FITZ	Fitzroy Crossi	53.26	262	eP	P	23 38 19.5	-0.1
	2.8nm,0.4s,mb4.0						
FITZ	Fitzroy Crossi	53.26	262	P	P	23 38 19.4	-0.2
	2.7nm,0.4s,mb3.9,baz=154,slow=6.7,SNR=22						
NVAR	Mina Array Bea	80.20	43	P	P	23 41 05.8	+1.0
	0.9nm,0.6s,mb3.3,baz=213,slow=8.9,SNR=4.2						
TXAR	Lajitas Array	86.42	57	P	P	23 41 36.2	+0.2
	1.4nm,0.7s,mb3.7,baz=219,slow=6.7,SNR=20						
COLA	College	87.17	12	eP	P	23 41 37.6	-1.0
	2.7nm,0.6s,mb4.0						
ILAR	Eielson Array	87.27	13	P	P	23 41 39.3	+0.2
	0.8nm,0.4s,mb3.7,baz=217,slow=5.5,SNR=21						
BW06	Boulder Array	88.14	43	eP	P	23 41 43.5	-0.2
	1.5nm,0.6s,mb3.9						
PDAR	Pinedale Array	88.14	43	P	P	23 41 44.0	+0.3
	1.2nm,0.6s,mb3.8,baz=222,slow=2.7,SNR=11						
BVAR	Borovoye Array	118.33	320	PKP	PKPdf	23 47 34.5	-0.9
	0.5nm,0.4s,baz=90,slow=2.6,SNR=5.3						
ARCES	ARCESS Array B	127.91	350	PKP	PKPdf	23 47 53.1	-0.3
	3.9nm,0.9s,baz=63,slow=4.0,SNR=4.0						
FINES	FINESS Array B	134.79	344	PKP	PKPdf	23 48 07.5	+0.9
	2.8nm,0.9s,baz=108,slow=6.0,SNR=3.8						
FINES	FINESS Array B	134.79	344	PKP	PKPdf	23 48 07.5	+0.9
HFS	Hagfors	138.52	351	PKhKP		23 48 04.8	
	4.2nm,0.9s,baz=45,slow=2.0,SNR=4.4						
AKASG	Malin Array Be	142.13	332	PKhKP		23 48 16.7	
	0.7nm,0.3s,baz=44,slow=4.2,SNR=7.3						
EKA	Eskdalemuir Ar	143.95	5	PKP	PKPdf	23 48 23.3	+0.4
	0.9nm,0.7s,slow=1.7,SNR=3.8						
BRTR	Keskin Array B	146.19	314	PKPbc	PKPbc	23 48 30.8	+1.7
	0.7nm,0.4s,baz=152,slow=3.8,SNR=7.9						
CLL	Collm	147.06	347	i PKP1	PKPdf	23 48 32.8	+4.5
GERES	GERESS Array B	149.21	345	PKPbc	PKPdf	23 48 37.9	+6.0
	0.8nm,0.6s,baz=27,slow=3.0,SNR=9.4						
DAVOX	Davos	152.00	349	PKPbc	PKPdf	23 48 44.4	+8.3
	2.0nm,0.6s,baz=173,slow=22,SNR=7.6						
DAVOX	Davos	152.00	349	PKPbc	PKPdf	23 48 44.4	+8.3

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*NEIC **05** 23:29:50.7, 38.36N×21.83E, h2^{km}, MD3.4(ATH), After ATH.*
NEIC Felt at Agrinion.
*ATH **05** 23:29:50.7, 38.36N×21.83E, h2^{km}, MD3.4/9*
*THE **05** 23:29:51.3, 38.30N×21.84E, h10^{km}, ML3.4*
*CSEM **05** 23:29:51.3±0.1, 38.33N×21.88E, h2^{km}, MD3.4, Error ellipse: s-maj=2.1km s-min=1.7km az=128.0*

ISC 05 23:29:50.6±0.5**, 38.31N**±0.03×**21.85E**±0.04**, h2**^{km}**, n26, σ0**^{s}**98**/35**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RLS	Riolos of Patr	0.40	230	ePG	Pg	23 29 59.0	+0.5
EVR	Evrytania	0.60	357	ePG	Pg	23 30 01.5	-1.2
AGG	Agios Georgios	0.80	28	ePg	Pg	23 30 06.0	-0.6
AGG				eSg	Sg	23 30 18.7	+1.4
AGG	Agios Georgios	0.80	28	eSg	Sg	23 30 18.7	+1.4
LKR	Lokris	0.96	69	ePG	Pg	23 30 09.5	-0.3
VLS	Valsamata	1.00	263	ePG	Pg	23 30 08.8	-1.9
VLS				eSG	Sg	23 30 24.0	0.0
LKD	Levkas	1.02	293	ePg	Pg	23 30 09.1	-1.9
LKD				eSg	Sg	23 30 24.7	+0.1
ITM	Ithomi	1.13	177	ePB	Pb	23 30 13.0	+0.4
NEO	Neokhori	1.46	47	ePN	Pn	23 30 18.0	-0.1
XOR	Xorichti	1.48	44	ePb	Pb	23 30 18.4	-0.2
MEV	Metsovon	1.55	342	ePb	Pb	23 30 20.4	+0.6
JAN	Janina	1.55	330	ePB	Pb	23 30 20.0	+0.2
PTL	Penteli	1.61	99	ePB	Pb	23 30 20.0	-0.7
IGT	Igoumenitsa	1.70	316	ePb	Pb	23 30 22.3	0.0
IGT				eSb	Sb	23 30 45.9	+1.8
VLI	Veliai	1.81	151	ePB	Pb	23 30 26.3	+2.1
LIT	Litokhoron	1.85	15	ePb	Pb	23 30 24.1	-0.8
LIT				eSb	Sb	23 30 48.4	-0.1
KZN	Kozani	1.99	358	ePG	Pg	23 30 26.4	-4.0
LSK	Leskovik	2.08	332	ePn	Pn	23 30 29.1	+2.2
LSK				i Sn	Sn	23 30 52.9	-0.8
LSK	Leskovik	2.08	332	i Pn	Pn	23 30 29.1	+2.2
LSK				i Sn	Sn	23 30 52.9	-0.8
SRN	Sarande	2.13	318	ePn	Pn	23 30 27.7	+0.1
SRN				i Sn	Sn	23 30 50.5	-4.5
FNA	Florina	2.50	352	ePn	Pn	23 30 33.6	+0.8
FNA				eSn	Sn	23 31 04.7	+0.3
GRG	Griva	2.67	9	ePn	Pn	23 30 35.7	+0.2
SOH	Sokhos	2.76	24	ePn	Pn	23 30 35.8	-0.9
KNT	Kendrikon	2.96	16	ePn	Pn	23 30 40.0	+0.5
SRS	Serrai	3.11	25	ePn	Pn	23 30 40.5	-1.1
NVLJ	Novalja	8.15	322	i Sg	Sb	23 33 55.7	+4.3

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*IDC **05** 23:35:34.1±1.4, 34.36N×86.24E, mb3.7/7, mb1 4.0/9, mb1mx3.8/21, ML3.4/1, MS3.3/1, Ms1 3.3/1, ms1mx2.7/21, Error ellipse: s-maj=38.0km s-min=25.3km az=41.0*
*NEIC **05** 23:35:38.8±3.4, 34.37N×86.24E, h31^{km}±25^{km}, mb4.0/4, Error ellipse: s-maj=17.0km s-min=10.9km az=212.0*
*BJI **05** 23:35:41.1, 34.68N×86.24E, h31^{km}, mb4.1*

ISC 05 23:35:36.1±3.2**, 34.47N**±0.06×**86.3E**±0.1**, h21**^{km}±28^{km}**, n27, σ0**^{s}**88**/26**, mb3.8**/8**, MS3.4**/1**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	6.29	138	P	Pn	23 37 17.0	+6.9
GUN	Gumba	6.55	183	eP	Pn	23 37 14.6	+0.8
	31nm,0.6s						
GKN	Gorkha	6.61	193	eP	Pn	23 37 14.5	-0.1
	8.4nm,0.4s						
KKN	Kakani	6.72	188	eP	Pn	23 37 16.3	+0.1
	22nm,0.6s						
DMN	Daman	6.92	189	eP	Pn	23 37 19.3	+0.3
	22nm,0.6s						
PKI	Pulchoki	6.92	187	eP	Pn	23 37 19.4	+0.4
	40nm,0.7s						
KOLN	Koldanda	7.07	200	eP	Pn	23 37 21.0	-0.1
	41nm,0.8s						
DDI	Dehra Dun	8.11	242	e	P	23 37 44.9	+9.3
UCH	Uchtor	12.06	313	P	P	23 38 28.6	-1.1
AAK	Ala-Archa	12.31	315	eP	P	23 38 33.2	0.0
	3.2nm,0.9s						
AML	Almayashu	12.50	311	eP	P	23 38 34.3	-1.4
	11nm,1.1s						
EKS2	Erkin-Say	12.75	314	P	P	23 38 39.8	+0.7
KURK	Kurchatov	17.17	343	eP	P	23 39 36.3	0.0
	14nm,1.0s						
ZAL	Zalesovo	19.49	357	P	P	23 40 04.5	+0.1
	0.3nm,0.3s,baz=289,slow=9.3,SNR=6.5						
CMAR	Chiang Mai Arr	19.52	142	P	P	23 40 03.2	-1.9
	baz=324,slow=9.9,SNR=19						
SONM	Songino Array	20.10	42	P	P	23 40 11.7	+0.6
	3.5nm,0.8s,baz=238,slow=12,SNR=16						
ULN	Ulaanbaatar	20.48	43	eP	P	23 40 14.9	-0.2
	6.6nm,0.9s						
BVAR	Borovoye Array	21.73	333	P	P	23 40 28.4	+0.6
	2.2nm,0.8s,mb3.6,baz=148,slow=14,SNR=8.8						
BRVK	Borovoye	21.80	333	P	P	23 40 29.9	+1.4
	7.7nm,1.1s,mb4.0						
CHKZ	Chkalovo	22.17	335	eP	P	23 40 32.9	+0.7
	3.7nm,0.9s,mb3.8						
HFS	Hagfors	52.31	323	P	P	23 44 48.7	+0.6
	2.9nm,0.9s,mb4.2,baz=129,slow=9.2,SNR=2.9						
NOA	NORSAR Array B	53.44	324	P	P	23 44 54.8	-1.6
	0.6nm,0.8s,mb3.6,baz=74,slow=8.0,SNR=2.7						
GERES	GERESS Array B	54.12	309	P	P	23 45 01.0	-0.6
	0.5nm,0.6s,mb3.6,baz=90,slow=5.3,SNR=6.1						
KMBO	Kilima Mbogo	57.97	243	LR	LR	00 08 36.0	
	comp=Z,27nm,19.2s,MS3.4,baz=90,slow=34						
ILAR	Eielson Array	72.73	21	P	P	23 47 02.7	-1.2
	0.6nm,0.8s,mb3.5,baz=284,slow=3.7,SNR=6.7						
YKA	Yellowknife Ar	81.91	10	P	P	23 47 56.4	+1.6
	0.8nm,1.1s,mb3.6,baz=324,slow=5.8,SNR=5.5						
YKA	Yellowknife Ar	81.91	10	P	P	23 47 56.4	+1.6

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*NEIC **05** 23:41:07.9, 38.09N×23.54E, h24^{km}, ML3.2(ATH), After ATH.*
*ATH **05** 23:41:07.9, 38.09N×23.55E, h25^{km}±1^{km}, MD3.5/9, ML3.2*
*CSEM **05** 23:41:08.8±0.1, 38.10N×23.62E, h20^{km}, ML3.2, Error ellipse: s-maj=3.3km s-min=2.2km az=83.0*

ISC 05 23:41:08.3±0.5**, 38.09N**±0.04×**23.62E**±0.07**, h25**^{km}**, n20, σ0**^{s}**99**/21**, 2C-2D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPAR	Parnis Oros	0.11	58	⇓iPB	Pb	23 41 13.0	0.0
ATH	Athens Observa	0.14	147	⇓iPB	Pb	23 41 13.4	+0.1
PTL	Penteli	0.20	103	ePB	Pb	23 41 14.4	+0.4
NSAL	Nisos Salamina	0.22	213	⇑iPB	Pb	23 41 13.2	-1.1
NAIG	Nisos Aigina	0.35	197	⇑iPB	Pb	23 41 15.8	-0.3
NAIG				eSB	Sb	23 41 20.0	-1.4
LKR	Lokris	0.74	319	ePN	Pn	23 41 21.5	-1.7
NEO	Neokhori	1.25	346	ePN	Pn	23 41 31.0	+0.5
NEO	Neokhori	1.25	346	ePN	Pn	23 41 31.5	+1.0
NEO	Neokhori	1.25	346	ePn	Pn	23 41 31.5	+1.0
VLI	Veliai	1.48	202	ePN	Pn	23 41 34.4	+0.7
ITM	Ithomi	1.62	236	ePN	Pn	23 41 37.0	+1.2
EVR	Evrytania	1.64	301	ePN	Pn	23 41 37.1	+1.0
APE	Apeiranthos	1.83	123	ePB	Pb	23 41 39.5	-1.5
KYTH	Kithira	1.87	195	ePN	Pn	23 41 40.0	+0.7
PLG	Polygyros	2.28	357	ePN	Pn	23 41 45.3	+0.1
VLS	Valsamata	2.39	273	ePN	Pn	23 41 47.0	+0.2
JAN	Janina	2.67	307	ePb	Pb	23 41 54.0	-1.2
GVD	Gavdhos	3.27	173	ePn	Pn	23 42 01.4	+2.1
GVD	Gavdhos	3.27	173	ePn	Pn	23 42 01.4	+2.1
TIP	Timpagrande	5.48	284	ePn	Pn	23 42 30.5	-0.1

NNC 06 00:24:27.1±3.5**, 49.98N**×**87.70E, h16**^{km}±13^{km}**, mpv3.9, 5C-6D, Error ellipse: s-maj=22.2km s-min=16.3km az=90.0, Kazakhstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MK31	Makanchi Array	4.81	231	⇓Pn	Pn	00 25 41.3	+0.6
	11nm,0.5s,baz=57,slow=13,SNR=490						
MK31				⇓Pg	Pn	00 25 54.1	+13
MK31				⇑Sn	Sn	00 26 39.7	+3.0
	13nm,0.5s,baz=33,slow=26,SNR=8.1						
MK31				⇑Lg		00 27 00.9	
	22nm,0.5s,baz=52,slow=30,SNR=6.2						
KURK	Kurchatov	5.86	281	⇓Pn	Pn	00 25 54.9	-0.6
	6.7nm,0.7s,baz=100,slow=16,SNR=12						
KURK				⇑Sn	Sn	00 27 05.9	+2.8
	7.1nm,0.7s,baz=88,slow=17,SNR=4.7						
KURK				⇓Lg		00 27 32.6	
	27nm,0.9s,baz=178,slow=17,SNR=9.9						
CHKZ	Chkalovo	11.20	296	⇑Pn	P	00 27 06.0	-3.6
	9.3nm,2.6s						
CHKZ				⇑Sn	S	00 29 07.3	-8.1
	2.6nm,0.8s						
BVA0	Borovoye Array	11.21	292	Pn	P	00 27 06.5	-3.2
	0.2nm,0.7s,baz=112,slow=16,SNR=8.1						
BVA0				⇓Sn	S	00 29 09.6	-6.0
	0.5nm,0.6s,baz=106,slow=22,SNR=3.3						
AAK	Ala-Archa	11.71	236	⇓Pn	P	00 27 15.8	-0.7
	5.0nm,1.2s						
AAK				Sn	S	00 29 19.6	-8.2
	3.8nm,0.8s						

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*STR **06** 00:26:50.1±0.3, 48.08N×8.04E, h10^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*ZUR **06** 00:26:50.3, 48.08N×8.04E, h10^{km}, ML2.1/12*
*BGR **06** 00:26:50.2±0.2, 48.10N×8.04E, h10^{km}, ML1.6/3, Error ellipse: s-maj=1.1km s-min=1.1km az=142.0*
*LDG **06** 00:26:50.2±0.1, 48.07N×8.00E, h12^{km}±1^{km}, Md2.5/3, Ml2.4/15, Error ellipse: s-maj=1.5km s-min=1.1km az=152.0*
*PRU **06** 00:26:52.5, 48.13N×8.19E*

LEDBW 06 00:26:50.5±0.1**, 48.08N**×**8.04E, h10**^{km}±1^{km}**, ML2.2, 17C-10D, Error ellipse: s-maj=2.2km s-min=1.4km az=125.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FBB	Freiburg	0.15	238	Pg	Pg	00 26 54.0	+0.1
FBB	Freiburg	0.15	238	P	Pg	00 26 54.0	+0.1
FBB				S	Sg	00 26 56.3	0.0
KIZ	Kirchzarten	0.15	213	⇑iPg	Pg	00 26 54.0	0.0
KIZ				i Sg	Sg	00 26 56.3	0.0
FELD	Feldberg	0.21	187	⇑iPg	Pg	00 26 55.0	0.0
FELD				Sg	Sg	00 26 58.1	+0.1
FELD	Feldberg	0.21	187	⇓iP	Pg	00 26 55.0	0.0
FELD				S	Sg	00 26 58.1	+0.1
LIBD	Limburg	0.30	284	⇑iPg	Pg	00 26 56.9	+0.2
LIBD				eSg	Sg	00 27 00.5	-0.5
	SNR=1.6						
LIBD	Limburg	0.30	284	⇑iP	Pg	00 26 57.0	+0.2
BFO	Black Forest	0.32	38	⇑iPg	Pg	00 26 56.8	-0.3
BFO				i Sg	Sg	00 27 01.1	-0.3
BFO	Black Forest	0.32	38	⇑iP	Pg	00 26 56.8	-0.3
BFO				S	Sg	00 27 01.0	-0.4
SLE	Schleitheim	0.44	136	⇓iPg	Pg	00 26 59.7	+0.3
SLE				i Sg	Sg	00 27 05.8	+0.4
SPAK	Spaichingen	0.50	87	⇑iPg	Pg	00 27 00.4	-0.3
SPAK	Spaichingen	0.50	87	⇑iP	Pg	00 27 00.4	-0.3
SULZ	Sulz-Cheisache	0.56	175	⇓iPg	Pg	00 27 01.2	-0.5
SULZ				i Sg	Sg	00 27 08.7	-0.5
WLS	Welschbruch	0.57	306	Pg	Pg	00 27 01.9	0.0
WLS				eSg	Sg	00 27 08.6	-1.0
	SNR=1.7						
WLS	Welschbruch	0.57	306	S	Sg	00 27 08.9	-0.7
WLS	Welschbruch	0.57	306	Pg	Pg	00 27 01.6	-0.3
WLS				Sg	Sg	00 27 08.7	-0.9
ECH	Echery	0.61	283	⇑iPg	Pg	00 27 02.1	-0.6
ECH				eSg	Sg	00 27 09.8	-1.1
	SNR=1.9						
ECH	Echery	0.61	283	⇑iP	Pb	00 27 02.1	-0.6
ECH				S	Sg	00 27 09.8	-1.0
ECH	Echery	0.61	283	Pg	Pg	00 27 01.9	-0.8
ECH				Sg	Sg	00 27 09.9	-1.0
CDF	Champ du Feu	0.61	303	ePg	Pg	00 27 02.1	-0.7
CDF				eSg	Sg	00 27 09.3	-1.7
	26nm,0.2s						
TRULL	Truellikon	0.61	135	⇓iPg	Pg	00 27 02.3	-0.5
TRULL				i Sg	Sg	00 27 10.6	-0.5
MOF	Molkenrain	0.65	250	Pg	Pg	00 27 03.1	-0.5
MOF				eSg	Sg	00 27 12.2	-0.2
	SNR=1.5						
MOF	Molkenrain	0.65	250	P	Pb	00 27 03.1	-0.3
MOF				S	Sb	00 27 12.8	+0.5
MOF	Molkenrain	0.65	250	Pg	Pg	00 27 02.8	-0.8
MOF				Sg	Sg	00 27 12.6	+0.2
STEIN	Stein am Rhein	0.69	126	⇑iPg	Pg	00 27 04.1	-0.3
STEIN				eSg	Sg	00 27 13.4	-0.4
BBS	Basel-Blauen	0.71	210	⇑iPg	Pg	00 27 04.2	-0.6
BBS				eSg	Sg	00 27 13.4	-1.0
	SNR=1.3						
BBS	Basel-Blauen	0.71	210	⇑iP	Pb	00 27 04.3	-0.3
BBS				S	Sb	00 27 13.9	-0.2
GUT	Gutenstein	0.72	90	⇑iPg	Pg	00 27 04.3	-0.7
GUT				i Sg	Sg	00 27 13.9	-0.8
GUT	Gutenstein	0.72	90	⇑iP	Pb	00 27 04.3	-0.3
GUT				P		00 27 04.8	
GUT				i S	Sb	00 27 13.9	-0.4
SISB	Singen-Sch Ber	0.74	122	⇑iPg	Pg	00 27 04.9	-0.4
SISB				Sg	Sg	00 27 14.9	-0.3
SISB	Singen-Sch Ber	0.74	122	⇑iP	Pb	00 27 04.9	0.0
SISB				P		00 27 05.2	
SISB				S	Sb	00 27 14.9	+0.1
SISB				S	Sb	00 27 16.6	+1.8
LBG	Lerchenberg	0.77	40	⇑iPg	Pg	00 27 05.0	-1.0
LBG				Sg	Sg	00 27 15.6	-0.8
LBG	Lerchenberg	0.77	40	⇑iP	Pb	00 27 05.0	-0.5
LBG				S	Sb	00 27 15.7	-0.2
LBG				S	Sb	00 27 16.9	+1.0
BALST	Balsthal	0.78	197	⇑iPg	Pg	00 27 05.3	-0.9
ZUR	Zurich	0.80	153	⇓iPg	Pg	00 27 05.9	-0.7
ZUR				i Sg	Sg	00 27 16.6	-0.7
HINF	Hinteralfeld	0.84	252	ePg	Pg	00 27 05.9	-1.5
HINF				eSg	Sg	00 27 16.1	-2.5
	43nm,0.4s						
WEIN	Weingarten	0.84	131	⇓iPg	Pg	00 27 06.5	-0.9
WEIN				i Sg	Px	00 27 06.9	
BOURR	Bourrignon	0.88	219	⇑iPg	Sg	00 27 18.3	-1.6
WILA	Wila	0.89	138	⇓iPg	Pg	00 27 07.7	-0.6
WILA				eSg	Sg	00 27 19.7	-0.5
LANF	Langenberg	0.91	350	ePg	Pg	00 27 08.0	-0.9
	SNR=3.1						
LANF				Pn	Pn	00 27 08.1	-1.2
LANF				eSg	Sg	00 27 20.0	-1.1
	SNR=2.6						
LANF	Langenberg	0.91	350	P	Pb	00 27 08.0	+0.1
LANF	Langenberg	0.91	350	Pg	Pg	00 27 07.9	-0.9
LANF				Sg	Sg	00 27 20.0	-1.1
BUCH	Bad Urach	0.95	67	⇑iPg	Pg	00 27 08.6	-1.0
BUCH	Bad Urach	0.95	67	⇑iP	Pb	00 27 08.6	0.0
BUCH				S	Sb	00 27 21.7	+0.6
BUCH				S	Sb	00 27 22.2	+1.1
STU	Stuttgart	1.03	48	ePg	Pg	00 27 10.0	-1.2
	SNR=3.1						
STU				eSg	Sg	00 27 22.8	-2.2
	SNR=3.0						
LOMF	Lomont	1.10	229	ePg	Pg	00 27 11.3	-1.2
	SNR=23						
LOMF				⇑iPn	Pn	00 27 11.4	-0.5
LOMF				eSg	Sg	00 27 25.6	-1.5
	SNR=1.2						
LOMF	Lomont	1.10	229	⇑iP	Pb	00 27 11.4	+0.3
LOMF	Lomont	1.10	229	Pg	Pg	00 27 11.1	-1.4
HAU	Haudompre	1.14	267	ePg	Pg	00 27 11.0	-2.3
HAU				eSg	Sg	00 27 25.2	-3.3
	54nm,0.4s						
MUO	Muotathal	1.19	160	ePg	Pg	00 27 13.2	-1.0
KTD	Kalmit	1.24	1	ePn	Pn	00 27 11.6	-2.4
	SNR=2.4						
KTD				eSg	Sg	00 27 29.7	-2.2
	SNR=2.8						
THEF	They Montfort	1.38	277	ePn	Pn	00 27 13.7	-2.2
	SNR=2.7						
THEF				eSg	Sg	00 27 33.7	-2.9
	SNR=2.4						
UBR	Uberruh	1.45	105	Sg	Sg	00 27 36.8	-2.0
UBR	Uberruh	1.45	105	P	Pn	00 27 18.4	+1.6
SWS	Schriesheim	1.47	17	Sg	Sg	00 27 36.4	-3.2
DAVA	Damuels	1.48	122	⇑iPG	Pg	00 27 18.6	-1.4
DAVA				i SG	Sg	00 27 36.9	-2.8
	2.0nm,0.2s						
HDH	Heidenheim	1.53	70	⇓iPg	Pg	00 27 19.6	-1.5
HDH	Heidenheim	1.53	70	⇓eP	Pn	00 27 19.3	+1.2
TOD	Tromm	1.61	18	eSg	Sg	00 27 40.0	-4.0
	SNR=4.7						
SIND	Sindeldorf	1.64	39	Pg	Pg	00 27 20.9	-2.3
SIND				Sg	Sg	00 27 40.9	-4.2
RUP	Ruppelstein	1.75	339	eSg	Sg	00 27 44.9	-3.8
	SNR=3.0						
RFYF	Reffroy	1.80	289	ePn	Pn	00 27 19.3	-2.6
	baz=110						
RFYF				ePg	Pg	00 27 23.4	-3.0
RFYF				eSn	Sn	00 27 40.2	-4.7
RFYF				eSg	Sg	00 27 45.6	-4.8
	12nm,0.2s						
ABH	Alteburg	1.83	350	eSg	Sg	00 27 47.9	-3.7
	SNR=2.5						
CABF	La Chapelle	1.98	223	ePn	Pn	00 27 21.7	-2.8
CABF				ePg	Pg	00 27 27.0	-3.1
CABF				eSg	Sg	00 27 50.6	-5.9
	2.4nm,0.2s						
SFTF	Sexfontaines	2.01	275	ePn	Pn	00 27 22.1	-2.9
	baz=96						
SFTF				ePg	Pg	00 27 26.7	-4.0
	baz=98						
SFTF				eSn	Sn	00 27 46.1	-4.3
SFTF				eSg	Sg	00 27 52.6	-5.0
	6.6nm,0.2s						
WLF	Walferdange	2.02	323	ePg	Pg	00 27 28.3	-2.5
	SNR=1.4						
WLF				eSg	Sg	00 27 54.0	-3.6
	SNR=2.9						
MEZF	Maizieres J’vi	2.04	283	ePg	Pg	00 27 22.7	-8.5
	baz=105						
MEZF				eSn	Sn	00 27 46.3	-4.8
MEZF				eSg	Sg	00 27 53.0	-5.5
	5.8nm,0.3s						
FUR	Furstenfeldbru	2.17	87	ePg	Pg	00 27 31.4	-2.5
	SNR=2.3						
FUR				eSg	Sg	00 27 59.5	-3.3
	SNR=2.5						
MOTA	Moosalm	2.20	108	⇓iPG	Pg	00 27 31.8	-2.6
MOTA				i SG	Sg	00 28 00.2	-3.5
	1.9nm,0.1s						
SQTA	Sankt Quirin	2.31	111	⇑iPG	Pg	00 27 34.3	-2.3
SQTA				i SG	Sg	00 28 04.1	-3.3
	7.1nm,0.2s						
GRF	Grafenberg Arr	2.65	51	ePg	Pg	00 27 39.9	-3.5
GRF				eSg	Sg	00 28 13.1	-5.6
LPL	La Plagne	2.72	200	ePn	Pn	00 27 32.3	-2.7
LPL				ePg	Pg	00 27 39.9	-4.9
LPL				eSg	Sg	00 28 14.0	-7.0
	1.0nm,0.3s						
LPG	La Plagne	2.73	199	ePn	Pn	00 27 32.7	-2.5
LPG				ePg	Pg	00 27 40.7	-4.4
LPG				eSg	Sg	00 28 14.4	-7.1
	1.9nm,0.3s						
SMF	Signal de Mont	3.19	245	ePg	Pg	00 27 49.3	-5.0
SMF				eSg	Sg	00 28 28.9	-8.0
	3.9nm,0.3s						
SSF	Saint Saulge	3.23	253	ePg	Pg	00 27 49.1	-6.0
SSF				eSg	Sg	00 28 29.9	-8.3
	2.0nm,0.2s						
AVF	Avril sur Loir	3.43	250	ePg	Pg	00 27 53.3	-5.8
AVF				eSg	Sg	00 28 36.2	-8.6
	0.8nm,0.2s						
MOX	Moxa	3.47	41	eSg	Sg	00 28 40.0	-6.1
	SNR=2.2						
ORIF	Oris-en-Rattie	3.50	206	ePg	Pg	00 27 54.3	-6.0
ORIF				eSg	Sg	00 28 38.8	-8.2
	0.9nm,0.2s						
GUNZ	Gunzen	3.62	49	eSg	Sg	00 28 44.7	-6.4
	SNR=1.9						
WERD	Werda	3.66	48	ePn	Pn	00 27 44.8	-3.6
	SNR=1.1						
WERD				e(Sg)	Sg	00 28 44.2	-8.3
	SNR=2.5						
TANN	Tannenbergstha	3.72	49	ePg	Pg	00 28 00.4	-4.4
	SNR=2.2						
TANN				eSg	Sg	00 28 47.1	-7.3
	SNR=1.9						
HYF	Humbligny	3.74	259	ePg	Pg	00 27 59.3	-5.8
HYF				eSg	Sg	00 28 45.9	-9.1
KHC	Kasperske Hory	3.82	72	ex	x	00 28 01.5	
KHC				eSG	Sg	00 28 51.0	-6.8
BGF	Bois d’Agland	3.85	249	ePg	Pg	00 27 59.8	-7.5
BGF				eSg	Sg	00 28 49.2	-9.4
	2.8nm,0.3s						

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*MDD **06** 00:28:50.8±1.2, 34.97N×3.04W, mb3.8/11, Error ellipse: s-maj=11.8km s-min=5.4km az=138.0, PRXIMO AftershockPLICA*
*CSEM **06** 00:28:50.8±0.4, 35.12N×2.91W, h20^{km}, MD4.0, Error ellipse: s-maj=8.1km s-min=5.0km az=119.0*
*CNRM **06** 00:28:50.6, 35.01N×2.73W, h9^{km}, MD4.0*
*NEIC **06** 00:28:51.4, 35.01N×3.06W, h5^{km}, MG3.8(MDD), After MDD.*
*SFS **06** 00:28:51.0, 35.02N×3.12W, ML3.8*
*INMG **06** 00:28:51.4±1.1, 35.02N×2.89W, h16^{km}±4^{km}, ML2.5, Error ellipse: s-maj=7.9km s-min=5.7km az=100.0*

ISC 06 00:28:52.2±0.8**, 35.15N**±0.04×**2.96W**±0.05**, h28**^{km}±3^{km}**, n48, σ1**^{s}**20**/89**, 1C-1D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.14	8	⇑P	Pb	00 28 56.5	-1.2
MELI				S	Sb	00 29 01.2	-0.1
MELI	Melilla	0.14	8	i P	Pb	00 28 56.5	-1.1
MELI				i S	Sb	00 29 01.2	-0.1
EMEL	Melilla	0.15	1	P	Pb	00 28 57.1	-0.6
	552nm,0.2s,SNR=56						
EMEL				S	Sb	00 29 01.4	+0.1

	1µm,0.2s,SNR=14						
EMLI	**Melilla**	**0.15**	**3**	P	**Pb**	**00 28 57.1**	**-0.6**
	552nm,0.2s,SNR=56						
EMLI				S	**Sb**	**00 29 01.4**	**0.0**
	1µm,0.2s,SNR=14						
TOU	**Touzarine**	**0.68**	**254**	*i* P	**Pb**	**00 29 05.0**	**-0.4**
TOU				*i* S	**Sb**	**00 29 17.0**	**+2.5**
MPAL	**Palemas**	**0.81**	**276**	*i* P	**Pb**	**00 29 08.5**	**+0.9**
MPAL				*i* S	**Sb**	**00 29 22.0**	**+3.8**
EBER	**Berja**	**1.75**	**2**	P	**Pn**	**00 29 21.9**	**+0.7**
	1.0nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**00 29 43.1**	**+0.4**
	39nm,0.4s,SNR=7.9						
EBER	**Berja**	**1.75**	**2**	P	**Pn**	**00 29 21.9**	**+0.7**
	1.0nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**00 29 43.1**	**+0.4**
	39nm,0.4s,SNR=7.9						
ERON	**Agron**	**1.99**	**340**	P	**Pn**	**00 29 25.2**	**+0.6**
ERON				S	**Sn**	**00 29 50.6**	**+1.8**
ERON	**Agron**	**1.99**	**340**	P	**Pn**	**00 29 25.3**	**+0.6**
	2.1nm,0.2s,SNR=5.9						
ERON				S	**Sn**	**00 29 50.6**	**+1.8**
	16nm,0.4s						
ERON	**Agron**	**1.99**	**340**	P	**Pn**	**00 29 25.2**	**+0.6**
ERON				S	**Sn**	**00 29 50.6**	**+1.8**
	16nm,0.4s						
EMIJ	**Mijas**	**2.04**	**314**	P	**Pn**	**00 29 24.9**	**-0.6**
	4.0nm,0.2s,SNR=7.9						
EMIJ				S	**Sn**	**00 29 50.2**	**0.0**
	39nm,0.4s,SNR=7.9						
ELOJ	**Sierra Loja**	**2.22**	**335**	P	**Pn**	**00 29 29.6**	**+1.7**
	1.2nm,0.2s,SNR=26						
ELOJ				S	**Sn**	**00 29 57.6**	**+3.0**
	5.5nm,0.4s						
ELUQ	**Luque**	**2.63**	**337**	P	**Pn**	**00 29 35.8**	**+2.0**
	3.8nm,0.2s,SNR=14						
ELUQ				S	**Sn**	**00 30 09.6**	**+4.5**
	8.1nm,0.2s						
LIJA	**Lijar**	**2.65**	**312**	*i* P	**Pn**	**00 29 36.0**	**+1.9**
LIJA				*e*S	**Sn**	**00 30 07.0**	**+1.5**
EQES	**Quesada**	**2.65**	**358**	P	**Pn**	**00 29 36.8**	**+2.7**
	4.0nm,0.2s,SNR=7.9						
EQES				S	**Sn**	**00 30 10.3**	**+4.7**
	SNR=7.9						
EQES	**Quesada**	**2.65**	**358**	S	**Sn**	**00 30 10.3**	**+4.6**
	SNR=7.9						
CZD	**Col de Zad**	**2.73**	**220**	*i* P	**Pn**	**00 29 35.0**	**-0.2**
ESPR	**Espera**	**2.91**	**307**	P	**Pn**	**00 29 38.6**	**+0.8**
ESPR				S	**Sn**	**00 30 12.2**	**0.0**
ESPR	**Espera**	**2.91**	**307**	P	**Pn**	**00 29 38.6**	**+0.8**
	3.5nm,0.2s,SNR=7.9						
ESPR				S	**Sn**	**00 30 14.8**	**+2.5**
	0.9nm,0.2s,SNR=7.9						
ESPR	**Espera**	**2.91**	**307**	P	**Pn**	**00 29 38.6**	**+0.8**
	3.5nm,0.2s,SNR=7.9						
ESPR				S	**Sn**	**00 30 12.2**	**0.0**
EMUR	**La Murta**	**3.02**	**27**	P	**Pn**	**00 29 38.4**	**-1.0**
	4.2nm,0.2s,SNR=7.9						
EMUR				S	**Sn**	**00 30 13.1**	**-2.0**
	3.2nm,0.3s,SNR=7.9						
EMUR	**La Murta**	**3.02**	**27**	P	**Pn**	**00 29 38.5**	**-0.9**
EMUR				S	**Sn**	**00 30 13.1**	**-2.0**
	3.2nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**3.28**	**337**	P	**Pn**	**00 29 44.0**	**+0.9**
	3.1nm,0.1s,SNR=7.9						
EADA				S	**Sn**	**00 30 21.9**	**+0.3**
	19nm,0.4s,SNR=7.9						
EADA	**Adamuz**	**3.28**	**337**	P	**Pn**	**00 29 44.0**	**+0.9**
	3.1nm,0.1s,SNR=7.9						
EADA				S	**Sn**	**00 30 21.9**	**+0.3**
	19nm,0.4s,SNR=7.9						
EVIA	**Vianos**	**3.50**	**6**	P	**Pn**	**00 29 47.5**	**+1.3**
	0.4nm,0.1s,SNR=7.9						
EVIA				S	**Sn**	**00 30 27.6**	**+0.4**
	4.4nm,0.3s,SNR=5.3						
EVIA	**Vianos**	**3.50**	**6**	S	**Sn**	**00 30 27.6**	**+0.4**
	4.4nm,0.3s,SNR=5.3						
EMIN	**Mina Concepcio**	**3.97**	**312**	⇓P	**Pn**	**00 29 52.2**	**-0.7**
	SNR=18						
EMIN				S	**Sn**	**00 30 37.7**	**-1.4**
	1.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.97**	**312**	P	**Pn**	**00 29 52.2**	**-0.7**
	SNR=18						
EMIN				S	**Sn**	**00 30 37.7**	**-1.4**
	1.9nm,0.3s,SNR=7.9						
ESDC	**Sonseca Array**	**4.59**	**350**	P	**Pn**	**00 30 02.9**	**+1.3**
	1.7nm,0.2s,baz=172,slow=12,SNR=26						
ESDC				S	**Sn**	**00 30 55.6**	**+0.9**
	0.5nm,0.3s,baz=174,slow=22,SNR=5.3						
ESDC	**Sonseca Array**	**4.59**	**350**	P	**Pn**	**00 30 02.9**	**+1.3**
	1.7nm,0.2s,SNR=26						
ESDC				S	**Sn**	**00 30 55.6**	**+0.9**
	0.5nm,0.3s,SNR=5.3						
EBAD	**Badajoz**	**4.85**	**319**	P	**Pn**	**00 30 04.7**	**-0.6**
EBAD				S	**Sn**	**00 30 59.8**	**-1.4**
EBAD	**Badajoz**	**4.85**	**319**	P	**Pn**	**00 30 04.7**	**-0.6**
	SNR=7.9						
EBAD				S	**Sn**	**00 30 59.8**	**-1.4**
	5.3nm,0.4s,SNR=6.0						
EBAD	**Badajoz**	**4.85**	**319**	S	**Sn**	**00 30 59.8**	**-1.4**
PBEJ	**Beja**	**4.88**	**307**	*e*Pn	**Pn**	**00 30 05.3**	**-0.5**
PBEJ				*e*Sn	**Sn**	**00 31 00.7**	**-1.4**
	3.7nm,0.4s						
PBEJ	**Beja**	**4.88**	**307**	P	**Pn**	**00 30 05.3**	**-0.5**
PBEJ				S	**Sn**	**00 31 00.7**	**-1.4**
	1.9nm,0.4s						
PTEO	**Sao Teotonio**	**5.23**	**299**	*e*Pn	**Pn**	**00 30 09.4**	**-1.3**
PTEO				*e*Sn	**Sn**	**00 31 09.9**	**-1.0**
	5.1nm,0.6s						
PTEO	**Sao Teotonio**	**5.23**	**299**	P	**Pn**	**00 30 09.4**	**-1.3**
PTEO				S	**Sn**	**00 31 09.9**	**-1.0**
	2.5nm,0.6s						
MOE	**Montemor**	**5.48**	**309**	*e*Pn	**Pn**	**00 30 14.0**	**-0.2**
MOE				*e*Sn	**Sn**	**00 31 15.5**	**-1.6**
PVIS	**Viseu**	**6.79**	**326**	*e*Pn	**Pn**	**00 30 32.1**	**-0.6**
PVIS				*e*Sn	**Sn**	**00 31 47.0**	**-2.8**
PVRL	**Vila Real**	**7.17**	**330**	*e*Pn	**Pn**	**00 30 37.3**	**-0.7**
PVRL				*e*Sn	**Sn**	**00 31 54.7**	**-4.7**
	2.9nm,0.2s						
PVRL	**Vila Real**	**7.17**	**330**	P	**Pn**	**00 30 37.3**	**-0.7**
PVRL				S	**Sn**	**00 31 54.7**	**-4.7**
	1.4nm,0.2s						
PBRG	**Braganca**	**7.28**	**337**	*e*Pn	**Pn**	**00 30 38.6**	**-0.9**
PBRG				*e*Sn	**Sn**	**00 31 57.7**	**-4.3**
	2.4nm,0.6s						
PBRG	**Braganca**	**7.28**	**337**	P	**Pn**	**00 30 38.6**	**-0.9**
PBRG				S	**Sn**	**00 31 57.7**	**-4.3**
	1.2nm,0.6s						
ECAL	**Calabor**	**7.40**	**338**	P	**Pn**	**00 30 39.7**	**-1.5**
ECAL				S	**Sn**	**00 32 01.1**	**-4.0**
ECAL	**Calabor**	**7.40**	**338**	P	**Pn**	**00 30 39.7**	**-1.5**
ELOB	**Lobios**	**7.81**	**331**	P	**Pn**	**00 30 46.3**	**-0.6**
	4.9nm,0.7s,SNR=5.8						
ELOB	**Lobios**	**7.81**	**331**	P	**Pn**	**00 30 46.3**	**-0.6**

NEIC ***06*** *01:15:15.1, 15.60N×95.96W, h10^{km}, MD3.9(MEX), After MEX.*

MEX 06 01:15:14.8±0.4**, 15.59N×95.95W, h6^{km}±6^{km}, MD3.6, 1C, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**0.24**	**320**	⇑*i*P	Pg	01 15 19.1	-0.6
HUIG				*i* S	Sg	01 15 22.5	-0.4
VHO	**Vista Hermosa**	**1.66**	**333**	*i* P	Pn	01 15 43.6	-1.0
VHO				*i* S	Sn	01 15 59.9	-6.5
VHO	**Vista Hermosa**	**1.66**	**333**	*i* P	Pn	01 15 41.7	-2.9
VHO				*i* S	Sn	01 16 01.6	-4.9
OXX	**Oaxaca**	**1.66**	**334**	*e*P	Pn	01 15 43.5	-1.2
CMIG	**Matias Romero**	**1.81**	**34**	*e*P	Pn	01 15 42.4	-4.4
CMIG				*i* S	Sn	01 16 04.5	-5.8
CMIG	**Matias Romero**	**1.81**	**34**	*e*P	Pn	01 15 43.3	-3.5
CMIG				*i* S	Sn	01 16 04.9	-5.5
CAIG	**El Cayaco**	**4.39**	**290**	*i* P	Pn	01 16 22.8	-0.8
CAIG				*i* S	Sn	01 17 07.6	-8.2
CAIG	**El Cayaco**	**4.39**	**290**	*i* S	Sn	01 17 07.7	-8.0
PLIG	**Platanillo**	**4.40**	**310**	*i* S	Sn	01 17 09.7	-6.1

NEIC ***06*** *01:15:28.0, 18.20N×103.65W, h9^{km}, MD4.3(MEX), After MEX.*

MEX 06 01:15:27.0±0.8**, 18.17N×103.64W, h5^{km}, MD4.1, Near coast of Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CJM	**Chamela**	**1.87**	**315**	*e*P	Pn	01 15 55.0	-5.0
CJM				*i* S	Sn	01 16 19.5	-4.8
ZIIG	**Zihuatanejo**	**2.15**	**105**	*e*P	Pn	01 16 01.1	-2.9
ZIIG				*i* S	Sn	01 16 39.1	+7.8
ZIIG	**Zihuatanejo**	**2.15**	**105**	*e*P	Pn	01 16 01.1	-2.9
ZIIG				*i* S	Sn	01 16 27.0	-4.2
SFJM	**Santa Fe**	**2.37**	**14**	*i* P	Pn	01 16 04.0	-3.1
SFJM				*i* S	Sn	01 16 31.5	-5.5
CAIG	**El Cayaco**	**3.41**	**109**	*i* P	Pn	01 16 32.8	+11
CAIG				*i* S	Sn	01 16 55.0	-8.2
CAIG	**El Cayaco**	**3.41**	**109**	*i* S	Sn	01 16 56.6	-6.6
PLIG	**Platanillo**	**3.94**	**86**	*i* P	Pn	01 16 36.6	+7.1
PLIG				*i* S	Sn	01 17 12.8	-3.9
PLIG	**Platanillo**	**3.94**	**86**	*i* S	Sn	01 17 07.6	-9.1

JMA ***06*** *01:32:36.3±0.1, 41.51N×142.04E, h61^{km}±2^{km}, M3.4*

IDC ***06*** *01:32:38.7±7.1, 41.58N×141.97E, h81^{km}±45^{km}, mb3.6/7, mb1 3.7/8, mb1mx3.4/23, ML3.6/1, Error ellipse: s-maj=61.0km s-min=27.8km az=162.0*

ISC 06 01:32:35.7±0.4**, 41.50N**±0.03**×142.04E**±0.05**, h71^{km}**±4^{km}**, n24, σ0^{s}59**/35**, mb3.7**/7**, 5D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOT	**Ohata**	**0.75**	**261**	⇓P	**P**	**01 32 51.6**	**+0.2**
JOT				*e*S	**S**	**01 33 02.7**	**-0.4**
JKB	**Kayabe**	**0.85**	**298**	⇓P	**P**	**01 32 52.4**	**-0.1**
JKB				*e*S	**S**	**01 33 04.5**	**-0.5**
JNBK	**Urakawa-nobuka**	**0.95**	**34**	P	**P**	**01 32 53.5**	**-0.3**
JNBK				*e*S	**S**	**01 33 06.7**	**-0.5**
JEM	**Erimo**	**0.98**	**58**	P	**P**	**01 32 54.0**	**-0.3**
JEM				*e*S	**S**	**01 33 07.6**	**-0.5**
JTM	**Tenmabayashi**	**1.02**	**226**	⇓P	**P**	**01 32 55.1**	**+0.3**
JTM				*e*S	**S**	**01 33 08.5**	**-0.4**
JANG	**Nango**	**1.19**	**200**	P	**P**	**01 32 56.9**	**-0.1**
JANG				*e*S	**S**	**01 33 11.7**	**-1.2**
JSR	**Shiriuchi**	**1.22**	**272**	P	**P**	**01 32 57.6**	**+0.3**
JSR				*e*S	**S**	**01 33 13.7**	**+0.3**
JNB	**Noboribetsu**	**1.22**	**323**	⇓P	**P**	**01 32 57.1**	**-0.3**
JNB				*e*S	**S**	**01 33 12.8**	**-0.8**
JBT2	**Biratori 2**	**1.30**	**11**	P	**P**	**01 32 58.8**	**+0.2**
JYM2	**Yakumo 2**	**1.39**	**297**	⇓P	**P**	**01 33 00.4**	**+0.6**
JEW	**Eniwo**	**1.41**	**342**	P	**P**	**01 33 00.3**	**+0.3**
JEW				*e*S	**S**	**01 33 17.9**	**-0.1**
JCH	**Churui**	**1.49**	**41**	P	**P**	**01 33 01.5**	**+0.4**
JAH	**Hinai**	**1.69**	**220**	P	**P**	**01 33 04.5**	**+0.8**
JAH				*e*S	**S**	**01 33 25.7**	**+1.3**
JFR	**Furan**	**1.71**	**14**	P	**P**	**01 33 04.6**	**+0.5**
JOSM	**Okushiri--Mats**	**2.00**	**288**	P	**P**	**01 33 07.9**	**-0.1**
JOM	**Ohasama**	**2.10**	**196**	P	**P**	**01 33 09.9**	**+0.5**
ASAJ	**Asahikawa**	**2.65**	**9**	P	**P**	**01 33 18.1**	**+0.9**
	7.5nm,0.3s,baz=240,slow=10,SNR=19						
ASAJ				S	**S**	**01 33 49.5**	**+1.4**
	4.5nm,0.3s,baz=314,slow=25,SNR=7.1						
SONM	**Songino Array**	**25.96**	**296**	P	**P**	**01 38 03.2**	**+0.2**
	0.7nm,0.6s,mb3.3,baz=86,slow=8.7,SNR=5.5						
ZAL	**Zalesovo**	**39.40**	**308**	P	**P**	**01 39 59.1**	**-0.6**
	1.2nm,0.5s,mb4.0,baz=353,slow=4.8,SNR=4.3						
ILAR	**Eielson Array**	**45.51**	**35**	P	**P**	**01 40 49.5**	**+0.3**
	0.9nm,1.0s,mb3.5,baz=264,slow=5.7,SNR=11						
BVAR	**Borovoye Array**	**48.02**	**310**	P	**P**	**01 41 09.2**	**+0.1**
	0.9nm,0.4s,mb3.9,baz=85,slow=8.9,SNR=8.6						
FINES	**FINESS Array B**	**65.11**	**332**	P	**P**	**01 43 09.5**	**-1.0**
	2.9nm,0.9s,mb4.1,baz=90,slow=9.5,SNR=9.7						
NOA	**NORSAR Array B**	**70.27**	**337**	P	**P**	**01 43 42.2**	**-0.5**
	0.6nm,0.7s,mb3.5,baz=54,slow=4.9,SNR=3.5						
AKASG	**Malin Array Be**	**71.08**	**322**	P	**P**	**01 43 47.1**	**-0.7**
	0.6nm,0.3s,mb3.8,baz=44,slow=6.6,SNR=6.2						

ZUR ***06*** *01:38:20.9, 48.08N×8.04E, h10^{km}, ML2.3/14*

LDG ***06*** *01:38:20.8±0.1, 48.08N×8.01E, h14^{km}, Md2.7/3, Ml2.6/21, Error ellipse: s-maj=1.4km s-min=1.1km az=154.0*

CSEM ***06*** *01:38:20.9±0.0, 48.09N×8.01E, h15^{km}, ML2.5/18*

STR ***06*** *01:38:21.1±0.2, 48.07N×8.01E, h10^{km}±1^{km}, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

NEIC ***06*** *01:38:21.1, 48.07N×8.01E, h10^{km}, ML2.7(VIE), ML2.6(LDG), ML2.3(STR), ML2.3(LEDBW), After STR.*

BGR ***06*** *01:38:21.1±0.2, 48.09N×8.03E, h10^{km}, ML1.6/2, Error ellipse: s-maj=1.1km s-min=1.1km az=140.0*

LEDBW 06 01:38:21.3±0.1**, 48.08N×8.04E, h10^{km}**±1^{km}**, ML2.4, 20C-20D, Error ellipse: s-maj=1.8km s-min=1.0km az=130.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FBB	**Freiburg**	**0.15**	**237**	⇑*i*P	Pg	01 38 24.8	+0.1
FBB				*e*S	Sg	01 38 27.3	+0.3
KIZ	**Kirchzarten**	**0.15**	**212**	⇑*i*Pg	Pg	01 38 24.7	0.0
KIZ				*i* Sg	Sg	01 38 27.1	+0.1
FELD	**Feldberg**	**0.21**	**186**	⇓*i*Pg	Pg	01 38 25.8	0.0
FELD				*e*Sg	Sg	01 38 28.7	-0.1
	SNR=48						
FELD	**Feldberg**	**0.21**	**186**	⇓*i*P	Pg	01 38 25.8	0.0
FELD				S	Sg	01 38 28.9	+0.1
FELD	**Feldberg**	**0.21**	**186**	Pg	Pg	01 38 25.8	0.0
FELD				Sg	Sg	01 38 28.8	0.0
LIBD	**Limburg**	**0.30**	**283**	*e*Pg	Pg	01 38 27.5	0.0
	SNR=1.5						
LIBD				*i* Sg	Sg	01 38 32.1	+0.5
LIBD	**Limburg**	**0.30**	**283**	S	Sg	01 38 32.1	+0.5
LIBD	**Limburg**	**0.30**	**283**	Pg	Pg	01 38 27.6	+0.1
BFO	**Black Forest**	**0.32**	**38**	⇑*i*Pg	Pg	01 38 27.6	-0.2
BFO				Sg	Sg	01 38 31.9	-0.3
BFO	**Black Forest**	**0.32**	**38**	⇑*i*P	Pg	01 38 27.6	-0.2
BFO				S	Sg	01 38 32.0	-0.3
BFO	**Black Forest**	**0.32**	**38**	*e*Pg	Pg	01 38 27.3	-0.6
BFO				*e*Sg	Sg	01 38 31.8	-0.4
SLE	**Schleitheim**	**0.44**	**136**	⇓*i*Pg	Pg	01 38 29.9	-0.4
	90nm,0.2s						
SPAK	**Spaichingen**	**0.50**	**87**	⇑*i*Pg	Pg	01 38 31.2	-0.3
STR	**Strasbourg**	**0.53**	**340**	*e*Pg	Pg	01 38 31.9	-0.1
	SNR=1.3						
SULZ	**Sulz-Cheisache**	**0.56**	**174**	⇓*i*Pg	Pg	01 38 32.0	-0.6
	6.2nm,0.3s						
SULZ				*e*Sg	Sg	01 38 39.4	-0.7
	6.2nm,0.3s						
WLS	**Welschbruch**	**0.56**	**306**	⇓*i*Pg	Pg	01 38 32.3	-0.4
WLS				*e*Sg	Sg	01 38 39.2	-1.1
	SNR=4.9						
WLS	**Welschbruch**	**0.56**	**306**	⇓P	Pg	01 38 32.3	-0.4
WLS	**Welschbruch**	**0.56**	**306**	Pg	Pg	01 38 32.1	-0.6
WLS				Sg	Sg	01 38 39.4	-0.9
WLS	**Welschbruch**	**0.56**	**306**	Pg	Pg	01 38 32.1	-0.6
WLS				Sg	Sg	01 38 39.2	-1.1
	SNR=4.9						
ECH	**Echery**	**0.60**	**283**	⇑*i*Pg	Pg	01 38 32.9	-0.6
ECH				*i* Sg	Sg	01 38 40.8	-0.8
ECH	**Echery**	**0.60**	**283**	⇑*i*P	Pb	01 38 32.9	-0.6
ECH				S	Sg	01 38 40.8	-0.7
ECH	**Echery**	**0.60**	**283**	Pg	Pg	01 38 32.6	-0.8
ECH				Sg	Sg	01 38 40.5	-1.1
ECH	**Echery**	**0.60**	**283**	Sg	Sg	01 38 40.5	-1.1
CDF	**Champ du Feu**	**0.60**	**303**	*e*Pg	Pg	01 38 32.6	-0.9
CDF				*e*Sg	Sg	01 38 40.3	-1.4
	51nm,0.2s						
TRULL	**Truellikon**	**0.61**	**135**	⇓*i*Pg	Pg	01 38 33.7	0.0
TRULL				*e*Sg	Sg	01 38 41.6	-0.4
TRULL	**Truellikon**	**0.61**	**135**	⇓*i*Pg	Pg	01 38 33.1	-0.6
	4.0nm,0.3s						
TRULL				*e*Sg	Sg	01 38 41.6	-0.4
	4.0nm,0.3s						
FLACH	**Flaach**	**0.62**	**145**	⇓*i*Pg	Pg	01 38 33.4	-0.5
	5.1nm,0.2s						
FLACH				*i* Sg	Sg	01 38 41.8	-0.5
	5.1nm,0.2s						
MOF	**Molkenrain**	**0.65**	**250**	⇓*e*Pg	Pg	01 38 33.7	-0.6
MOF				*e*Sg	Sg	01 38 42.1	-1.0
	SNR=3.6						
MOF	**Molkenrain**	**0.65**	**250**	⇑*e*P	Pb	01 38 33.9	-0.4
MOF	**Molkenrain**	**0.65**	**250**	Pg	Pg	01 38 33.3	-1.0
MOF	**Molkenrain**	**0.65**	**250**	Sg	Sg	01 38 42.1	-1.0
	SNR=3.6						
STEIN	**Stein am Rhein**	**0.70**	**126**	⇓*i*Pg	Pg	01 38 34.8	-0.5
STEIN				*i* Sg	Sg	01 38 44.2	-0.5
STEIN	**Stein am Rhein**	**0.70**	**126**	⇓*i*Pg	Pg	01 38 34.8	-0.5
	6.1nm,0.3s						
STEIN	**Stein am Rhein**	**0.70**	**126**	*i* Sg	Sg	01 38 44.2	-0.5
	6.1nm,0.3s						
BBS	**Basel-Blauen**	**0.71**	**210**	⇑*i*Pg	Pg	01 38 34.9	-0.7
BBS				*e*Sg	Sg	01 38 44.4	-0.8
	SNR=6.0						
BBS	**Basel-Blauen**	**0.71**	**210**	Pg	Pg	01 38 34.8	-0.8
BBS				Sg	Sg	01 38 44.0	-1.2
GUT	**Gutenstein**	**0.72**	**90**	⇑*i*Pg	Pg	01 38 35.1	-0.7
GUT				Pn	Pn	01 38 35.5	-1.9
GUT				PmP		01 38 35.8	
GUT				Sg	Sg	01 38 44.7	-0.9
GUT	**Gutenstein**	**0.72**	**90**	⇑*i*P	Pb	01 38 35.2	-0.3
GUT				S	Sb	01 38 44.7	-0.5
GUT	**Gutenstein**	**0.72**	**90**	⇑*i*P	Pb	01 38 35.1	-0.4
GUT				P		01 38 35.8	
GUT				S	Sb	01 38 44.7	-0.5
GUT				S	Sb	01 38 46.4	+1.1
GUT	**Gutenstein**	**0.72**	**90**	Pn	Pn	01 38 35.5	-1.8
GUT				Sg	Sg	01 38 44.7	-0.9
SISB	**Singen-Sch Ber**	**0.74**	**122**	⇓*i*Pg	Pg	01 38 35.6	-0.6
SISB				Sg	Sg	01 38 45.5	-0.6
SISB	**Singen-Sch Ber**	**0.74**	**122**	⇓*i*P	Pb	01 38 35.6	-0.2
SISB				S	Sb	01 38 45.7	0.0
SISB				S	Sb	01 38 47.0	+1.3
LBG	**Lerchenberg**	**0.77**	**41**	⇑*i*Pg	Pg	01 38 35.8	-1.0
LBG				*i* Sg	Sg	01 38 46.2	-1.0
LBG	**Lerchenberg**	**0.77**	**41**	⇑*i*P	Pb	01 38 35.8	-0.5
LBG				S	Sb	01 38 46.2	-0.5
LBG				S	Sb	01 38 47.5	+0.8
LBG	**Lerchenberg**	**0.77**	**41**	*i* S	Sb	01 38 46.2	-0.5
BALST	**Balsthal**	**0.78**	**197**	⇑*i*Pg	Pg	01 38 36.0	-1.0
	27nm,2.0s						
ZUR	**Zurich**	**0.80**	**153**	⇓*i*Pg	Pg	01 38 36.7	-0.7
	2.2nm,0.2s						
ZUR				*i* Sg	Sg	01 38 47.3	-0.9
	2.2nm,0.2s						
HINF	**Hinteralfeld**	**0.84**	**252**	*e*Pg	Pg	01 38 36.2	-1.9
HINF				*e*Sg	Sg	01 38 46.9	-2.4
	46nm,0.2s						
WEIN	**Weingarten**	**0.85**	**130**	⇑*i*Pg	Pg	01 38 37.2	-1.1
WEIN				*e*Sg	Pg	01 38 37.5	-0.8
WEIN	**Weingarten**	**0.85**	**130**	⇑*i*Pg	Pg	01 38 37.5	-0.8
	4.5nm,0.2s						
WEIN				*e*Sg	Sg	01 38 49.0	-0.6
	4.5nm,0.2s						
BOURR	**Bourrignon**	**0.88**	**219**	⇑*i*Pg	Sg	01 38 49.0	-1.6
BOURR	**Bourrignon**	**0.88**	**219**	⇑*i*Pg	Pg	01 38 37.2	-1.7
	15nm,0.2s						
WILA	**Wila**	**0.89**	**138**	*e*Pg	Pg	01 38 38.3	-0.8
WILA				*e*Sg	Sg	01 38 50.5	-0.6
WILA	**Wila**	**0.89**	**138**	*e*Pg	Pg	01 38 38.3	-0.8
	2.2nm,0.2s						
WILA	**Wila**	**0.89**	**138**	*e*Sg	Sg	01 38 50.5	-0.6
	2.2nm,0.2s						
LANF	**Langenberg**	**0.91**	**350**	Pn	Pn	01 38 38.4	-1.6
LANF				*e*Pg	Pg	01 38 38.4	-1.2
	SNR=5.1						
LANF				*e*Sg	Sg	01 38 50.5	-1.3
	SNR=8.7						
LANF	**Langenberg**	**0.91**	**350**	Pg	Pg	01 38 38.5	-1.1
BUCH	**Bad Urach**	**0.95**	**67**	⇑*i*Pn	Pn	01 38 38.5	-2.1
BUCH				*i* Pg	Pg	01 38 39.5	-1.0
BUCH				Sg	Sg	01 38 52.4	-0.8
BUCH	**Bad Urach**	**0.95**	**67**	*i* PG	Pg	01 38 39.5	-0.9
BUCH				SG	Sg	01 38 52.4	-0.8
BUCH	**Bad Urach**	**0.95**	**67**	⇑*i*P	Pb	01 38 38.4	-1.0
BUCH				*i* P		01 38 39.5	
BUCH				S	Sb	01 38 52.5	+0.5
BUCH	**Bad Urach**	**0.95**	**67**	⇑*i*P	Pb	01 38 38.5	-1.0
BUCH				*i* Pg	Pg	01 38 39.5	-0.9
BUCH				Sg	Sg	01 38 52.4	-0.8
STU	**Stuttgart**	**1.04**	**48**	*e*Pg	Pg	01 38 40.8	-1.2
	SNR=5.9						
STU				*e*Sg	Sg	01 38 54.4	-1.5
	SNR=3.4						
LOMF	**Lomont**	**1.10**	**229**	*e*Pg	Pg	01 38 41.9	-1.3
	SNR=34						
LOMF				⇑*i*Pn	Pn	01 38 42.0	-0.6
LOMF				*e*Sg	Sg	01 38 56.4	-1.5
	SNR=3.0						
LOMF	**Lomont**	**1.10**	**229**	⇑*i*P	Pb	01 38 42.0	+0.1
LOMF	**Lomont**	**1.10**	**229**	Pg	Pg	01 38 41.9	-1.3
LOMF				Sg	Sg	01 38 56.3	-1.6
HAU	**Haudompre**	**1.14**	**267**	*e*Pg	Pg	01 38 41.8	-2.2
HAU				*e*Sg	Sg	01 38 56.1	-3.1
	62nm,0.2s						
KTD	**Kalmit**	**1.24**	**1**	*e*Sg	Sg	01 39 00.7	-2.0
	SNR=4.1						
LIENZ	**Alp Oberkamor**	**1.26**	**128**	⇑*i*P	Pb	01 38 44.0	-0.7
HASLI	**Hasliberg**	**1.33**	**177**	*e*Pg	Pg	01 38 45.5	-2.4
HASLI	**Hasliberg**	**1.33**	**177**	*e*Pg	Pg	01 38 46.3	-1.6
	20nm,2.0s						
PLONS	**Plons**	**1.38**	**138**	⇓*i*Pg	Pg	01 38 46.3	-2.5
PLONS	**Plons**	**1.38**	**138**	⇓*i*Pg	Pg	01 38 45.5	-3.3
	1.9nm,0.2s						
THEF	**They Montfort**	**1.38**	**277**	Pn	Pn	01 38 44.3	-2.3
THEF				*e*Sg	Sg	01 39 04.8	-2.5
	SNR=5.6						
UBR	**Uberruh**	**1.45**	**105**	Sg	Sg	01 39 07.6	-2.1
UBR	**Uberruh**	**1.45**	**105**	P	Pn	01 38 49.2	+1.5
UBR				S	Sb	01 39 07.6	+1.2
SWS	**Schriesheim**	**1.47**	**17**	Sg	Sg	01 39 06.3	-4.1
DAVA	**Damuels**	**1.48**	**122**	⇓*i*PG	Pg	01 38 49.1	-1.8
DAVA				*i* SG	Sg	01 39 07.3	-3.3
	3.0nm,0.2s						
HDH	**Heidenheim**	**1.53**	**70**	Pg	Pg	01 38 50.0	-2.0
HDH				Sg	Sg	01 39 09.7	-2.8
HDH	**Heidenheim**	**1.53**	**70**	P	Pn	01 38 50.0	+1.1
HDH				S	Sb	01 39 10.4	+1.6
SIND	**Sindeldorf**	**1.64**	**39**	Pn	Pn	01 38 47.1	-3.3
SIND				Sg	Sg	01 39 11.7	-4.3
SIND	**Sindeldorf**	**1.64**	**39**	P	Pn	01 38 47.1	-3.3
SIND				⇓*e*P		01 38 51.9	
RUP	**Ruppelstein**	**1.74**	**339**	*e*Pg	Pg	01 38 53.9	-2.2
	SNR=5.3						
RFYF	**Reffroy**	**1.79**	**289**	*e*Pn	Pn	01 38 49.9	-2.7
	baz=113						
RFYF				*e*Pg	Pg	01 38 54.9	-2.2
	baz=111						
RFYF				*e*Sg	Sg	01 39 16.7	-4.4
	20nm,0.2s						
RFYF	**Reffroy**	**1.79**	**289**	*e*Pg	Pg	01 38 54.9	-2.2
RFYF				*e*Sg	Sg	01 39 16.7	-4.4
	10nm,0.2s						
ABH	**Alteburg**	**1.83**	**350**	Pn	Pn	01 38 55.2	+2.1
ABH				*e*Pg	Pg	01 38 55.3	-2.5
	SNR=3.3						
CABF	**La Chapelle**	**1.98**	**223**	*e*Pn	Pn	01 38 52.2	-3.1
CABF				*e*Pg	Pg	01 38 57.6	-3.2
CABF				*e*Sg	Sg	01 39 21.4	-5.9
	4.1nm,0.3s						
CABF	**La Chapelle**	**1.98**	**223**	*e*Pg	Pg	01 38 57.6	-3.2
CABF				*e*Sg	Sg	01 39 21.4	-5.9
	2.0nm,0.3s						
SFTF	**Sexfontaines**	**2.01**	**275**	*e*Pn	Pn	01 38 52.5	-3.2
SFTF				*e*Pg	Pg	01 38 57.4	-4.1
SFTF				*e*Sn	Sn	01 39 17.0	-4.1
SFTF				*e*Sg	Sg	01 39 23.7	-4.6
	11nm,0.2s						
SFTF	**Sexfontaines**	**2.01**	**275**	*e*Pg	Pg	01 38 57.4	-4.1
SFTF				*e*Sn	Sn	01 39 17.0	-4.1
SFTF				*e*Sg	Sg	01 39 23.7	-4.6
	5.3nm,0.2s						
WLF	**Walferdange**	**2.01**	**323**	*e*Pg	Pg	01 38 58.8	-2.7
	SNR=3.6						
WLF				*e*Sg	Sg	01 39 24.3	-4.1
	SNR=1.6						
MEZF	**Maizieres J’vi**	**2.04**	**283**	*e*Pn	Pn	01 38 53.1	-3.0
MEZF				*e*Pg	Pg	01 38 58.8	-3.2
MEZF				*e*Sn	Sn	01 39 16.8	-5.0
MEZF				*e*Sg	Sg	01 39 23.7	-5.4
	7.7nm,0.3s						
MEZF	**Maizieres J’vi**	**2.04**	**283**	*e*Pg	Pg	01 38 58.8	-3.2
MEZF				*e*Sn	Sn	01 39 16.8	-5.0
MEZF				*e*Sg	Sg	01 39 23.7	-5.4
	3.8nm,0.3s						
FUR	**Furstenfeldbru**	**2.17**	**87**	*e*Sg	Sg	01 39 30.5	-3.1
	SNR=6.7						
MOTA	**Moosalm**	**2.20**	**108**	⇑*i*PG	Pg	01 39 02.5	-2.7
MOTA				*i* SG	Sg	01 39 31.0	-3.6
	4.0nm,0.1s						
SQTA	**Sankt Quirin**	**2.31**	**111**	⇓*i*PG	Pg	01 39 05.1	-2.4
SQTA				*i* SG	Sg	01 39 35.0	-3.3
	9.7nm,0.2s						
LPL	**La Plagne**	**2.72**	**200**	*e*Pg	Pg	01 39 11.2	-4.4

LPL				*e*Sg	Sg	01 39 45.5	-6.3
	1.6nm,0.3s						
LPL	**La Plagne**	**2.72**	**200**	*e*Sg	Sg	01 39 45.5	-6.3
	0.8nm,0.3s						
LPG	**La Plagne**	**2.73**	**199**	*e*Pg	Pg	01 39 11.9	-3.9
LPG				*e*Sg	Sg	01 39 45.5	-6.8
	2.4nm,0.4s						
GIVF	**Givet**	**2.92**	**315**	*e*Pg	Pg	01 39 13.5	-6.2
GIVF				*e*Sg	Sg	01 39 51.8	-6.8
	1.6nm,0.2s						
SMF	**Signal de Mont**	**3.19**	**245**	*e*Pg	Pg	01 39 20.1	-4.9
SMF				*e*Sg	Sg	01 40 00.1	-7.5
	8.2nm,0.3s						
BAIF	**Baives**	**3.20**	**310**	*e*Pn	Pn	01 39 10.7	-2.0
BAIF				*e*Sg	Sg	01 40 00.1	-7.8
	0.8nm,0.3s						
SSF	**Saint Saulge**	**3.23**	**253**	*e*Pn	Pn	01 39 09.2	-3.9
SSF				*e*Pg	Pg	01 39 20.1	-5.7
SSF				*e*Sg	Sg	01 40 01.0	-7.9
	3.4nm,0.2s						
SSF	**Saint Saulge**	**3.23**	**253**	*e*Pg	Pg	01 39 20.1	-5.7
SSF				*e*Sg	Sg	01 40 01.0	-7.9
	1.7nm,0.2s						
AVF	**Avril sur Loir**	**3.43**	**250**	*e*Pn	Pn	01 39 10.4	-5.6
AVF				*e*Pg	Pg	01 39 23.4	-6.4
AVF				*e*Sn	Sn	01 39 49.0	-8.1
AVF				*e*Sg	Sg	01 40 06.6	-8.9
	1.2nm,0.2s						
AVF	**Avril sur Loir**	**3.43**	**250**	*e*Pg	Pg	01 39 23.4	-6.4
AVF				*e*Sn	Sn	01 39 49.0	-8.1
AVF				*e*Sg	Sg	01 40 06.6	-8.9
	0.6nm,0.2s						
MBDF	**Montbardon**	**3.47**	**195**	*e*Sg	Sg	01 40 07.9	-8.9
	0.5nm,0.4s						
MOX	**Moxa**	**3.47**	**41**	*e*Pg	Pg	01 39 26.1	-4.5
	SNR=2.2						
MOX				*e*Sg	Sg	01 40 08.1	-8.8
MOX	**Moxa**	**3.47**	**41**	*e*Pg	Pg	01 39 26.2	-4.4
MOX				*e*Sg	Sg	01 40 08.1	-8.8
ORIF	**Oris-en-Rattie**	**3.50**	**206**	*e*Sg	Sg	01 40 08.8	-8.9
	3.8nm,0.5s						
NKC	**Novy Kostel**	**3.61**	**52**	*e*PG	Pg	01 39 27.8	-5.5
NKC				*e*SG	Sg	01 40 14.3	-7.2
TANN	**Tannenbergstha**	**3.72**	**50**	*e*Pg	Pg	01 39 31.3	-4.3
	SNR=2.3						
HYF	**Humbligny**	**3.73**	**259**	*e*Pn	Pn	01 39 16.5	-3.8
HYF				*e*Pg	Pg	01 39 29.8	-6.1
HYF				*e*Sg	Sg	01 40 17.3	-8.4
HYF	**Humbligny**	**3.73**	**259**	*e*Pg	Pg	01 39 29.8	-6.1
HYF				*e*Sg	Sg	01 40 17.3	-8.4
KHC	**Kasperske Hory**	**3.83**	**72**	*e*PG	Pg	01 39 32.4	-5.3
KHC				*e*x	x	01 40 00.0	
KHC				*e*SG	Sg	01 40 21.9	-6.8
KHC	**Kasperske Hory**	**3.83**	**72**	*e*Pg	Pg	01 39 32.4	-5.3
KHC				*e*Sg	Sg	01 40 21.9	-6.8
BGF	**Bois d’Agland**	**3.84**	**249**	*e*Pg	Pg	01 39 31.2	-6.8
BGF				*e*Sg	Sg	01 40 19.6	-10
	5.1nm,0.3s						
VIVF	**Saint-Julien-l**	**3.98**	**217**	*e*Pn	Pn	01 39 18.3	-5.4
VIVF				*e*Pg	Pg	01 39 33.4	-7.3
VIVF				*e*Sg	Sg	01 40 24.6	-9.1
	3.5nm,0.6s						
VIVF	**Saint-Julien-l**	**3.98**	**217**	*e*Pg	Pg	01 39 33.4	-7.3
VIVF				*e*Sg	Sg	01 40 24.6	-9.1
	1.8nm,0.6s						
TCF	**Toulx Ste Croi**	**4.36**	**248**	*e*Pg	Pg	01 39 41.3	-7.0
TCF				*e*Sg	Sg	01 40 35.6	-11
	1.3nm,0.2s						
SGMF	**Saint Gilles**	**7.09**	**275**	*e*Pg	Pg	01 40 32.2	-11
EPF	**Esparros**	**7.39**	**230**	*e*Sn	Sn	01 41 23.4	-13
	1.5nm,0.2s						

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*NEIC **06** 01:50:32.8, 48.08N×8.02E, h14^{km}, ML2.5(VIE), ML2.5(LDG), ML2.2(LEDBW), ML2.1(STR), After LDG.*

*LDG **06** 01:50:32.8±0.1, 48.08N×8.02E, h14^{km}, Md2.7/3, Ml2.5/13, Error ellipse: s-maj=1.9km s-min=1.2km az=162.0*

*CSEM **06** 01:50:32.7±0.1, 48.06N×8.05E, h15^{km}, ML2.5/11, Error ellipse: s-maj=1.6km s-min=0.9km az=178.0*

*STR **06** 01:50:33.1±0.2, 48.06N×8.04E, h10^{km}±1^{km}, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*BGR **06** 01:50:33.4±0.2, 48.08N×8.06E, h10^{km}, ML2.0/1, Error ellipse: s-maj=2.2km s-min=1.1km az=147.0*

LEDBW 06 01:50:33.2±0.1**, 48.08N×8.06E, h10**^{km}±1^{km}**, ML2.2, 13C-4D, Error ellipse: s-maj=2.2km s-min=1.2km az=137.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIZ	**Kirchzarten**	**0.15**	**218**	⇑*i*Pg	Pg	01 50 36.7	-0.1
KIZ				*i* Sg	Sg	01 50 39.2	0.0
KIZ	**Kirchzarten**	**0.15**	**218**	⇑*i*P	Pg	01 50 36.7	-0.1
KIZ				*i* S	Sg	01 50 39.2	0.0
KIZ	**Kirchzarten**	**0.15**	**218**	Sg	Sg	01 50 39.2	0.0
FBB	**Freiburg**	**0.16**	**241**	⇑*i*Pg	Pg	01 50 36.9	+0.1
FBB				*i* Sg	Sg	01 50 39.3	0.0
FBB	**Freiburg**	**0.16**	**241**	⇑*i*P	Pg	01 50 36.9	+0.1
FBB				*i* S	Sg	01 50 39.4	+0.1
FBB	**Freiburg**	**0.16**	**241**	Sg	Sg	01 50 39.3	0.0
FELD	**Feldberg**	**0.21**	**190**	⇓*i*Pg	Pg	01 50 37.7	-0.1
FELD				*e*Sg	Sg	01 50 40.1	-0.6
	SNR=24						
FELD	**Feldberg**	**0.21**	**190**	Pg	Pg	01 50 37.6	-0.1
FELD				Sg	Sg	01 50 40.1	-0.6
	SNR=24						
BFO	**Black Forest**	**0.31**	**36**	⇑*i*Pg	Pg	01 50 39.5	-0.2
BFO				*i* Sg	Sg	01 50 43.7	-0.3
LIBD	**Limburg**	**0.31**	**283**	⇑*i*Pg	Pg	01 50 40.0	+0.2
LIBD				*e*Sg	Sg	01 50 44.2	+0.1
	SNR=3.6						
LIBD	**Limburg**	**0.31**	**283**	⇑*i*P	Pg	01 50 40.0	+0.2
LIBD				S	Sg	01 50 44.6	+0.5
LIBD	**Limburg**	**0.31**	**283**	Pg	Pg	01 50 39.8	0.0
LIBD				Sg	Sg	01 50 44.2	+0.1
	SNR=3.6						
SPAK	**Spaichingen**	**0.49**	**87**	⇑*i*Pg	Pg	01 50 42.8	-0.3
SPAK	**Spaichingen**	**0.49**	**87**	⇑*i*P	Pg	01 50 42.8	-0.3
SPAK				S	Sg	01 50 49.3	-0.4
WLS	**Welschbruch**	**0.58**	**306**	⇓Pg	Pg	01 50 44.9	0.0
WLS				*e*Sg	Sg	01 50 52.2	-0.5
	SNR=20						
WLS	**Welschbruch**	**0.58**	**306**	⇓P	Pg	01 50 44.9	0.0
WLS				S	Sg	01 50 52.2	-0.5
WLS	**Welschbruch**	**0.58**	**306**	Pg	Pg	01 50 44.7	-0.2
WLS				Sg	Sg	01 50 52.2	-0.5
	SNR=20						
ECH	**Echery**	**0.62**	**283**	Pg	Pg	01 50 45.1	-0.6
ECH				*e*Sg	Sg	01 50 53.1	-1.0
	SNR=8.5						
ECH	**Echery**	**0.62**	**283**	P	Pb	01 50 45.1	-0.6
ECH				S	Sg	01 50 53.3	-0.7
ECH	**Echery**	**0.62**	**283**	Pg	Pg	01 50 44.5	-1.2
ECH				Sg	Sg	01 50 53.0	-1.0
CDF	**Champ du Feu**	**0.62**	**303**	*e*Pg	Pg	01 50 45.2	-0.5
CDF				*e*Sg	Sg	01 50 52.1	-2.0
	27nm,0.2s						
MOF	**Molkenrain**	**0.66**	**250**	Pg	Pg	01 50 46.1	-0.4
MOF				*e*Sg	Sg	01 50 55.5	0.0
	SNR=4.3						
MOF	**Molkenrain**	**0.66**	**250**	P	Pb	01 50 46.3	-0.2
MOF	**Molkenrain**	**0.66**	**250**	Pg	Pg	01 50 46.1	-0.5
MOF				Sg	Sg	01 50 55.1	-0.4
GUT	**Gutenstein**	**0.71**	**90**	⇑*i*Pg	Pg	01 50 46.8	-0.7
GUT				Pn	Pn	01 50 47.2	-1.9
GUT				PmP		01 50 47.5	
GUT				Sg	Sg	01 50 56.1	-0.9
GUT	**Gutenstein**	**0.71**	**90**	⇑*i*P	Pb	01 50 46.8	-0.4
GUT				P		01 50 47.5	
GUT				S	Sb	01 50 56.2	-0.5
GUT	**Gutenstein**	**0.71**	**90**	Pn	Pn	01 50 47.2	-1.8
GUT				Sg	Sg	01 50 56.1	-0.9
BBS	**Basel-Blauen**	**0.72**	**211**	⇑*i*Pg	Pg	01 50 46.9	-0.7
BBS				*e*Sg	Sg	01 50 56.6	-0.7
	SNR=10.0						
BBS	**Basel-Blauen**	**0.72**	**211**	⇑*i*P	Pb	01 50 47.0	-0.4
BBS	**Basel-Blauen**	**0.72**	**211**	Pg	Pg	01 50 46.9	-0.8
BBS				Sg	Sg	01 50 55.7	-1.6
SISB	**Singen-Sch Ber**	**0.72**	**122**	*e*Pg	Pg	01 50 47.2	-0.6
SISB				Sg	Sg	01 50 57.1	-0.4
SISB	**Singen-Sch Ber**	**0.72**	**122**	*e*P	Pb	01 50 47.2	-0.2
SISB				P		01 50 48.0	
SISB				S	Sb	01 50 57.1	-0.1
LBG	**Lerchenberg**	**0.77**	**40**	⇑*i*Pg	Pg	01 50 47.7	-1.0
LBG				Sg	Sg	01 50 58.2	-0.7
LBG	**Lerchenberg**	**0.77**	**40**	⇑*i*P	Pb	01 50 47.7	-0.5
LBG				S	Sb	01 50 58.3	-0.1
HINF	**Hinteralfeld**	**0.85**	**253**	*e*Pg	Pg	01 50 48.5	-1.8
HINF				*e*Sg	Sg	01 50 59.0	-2.8
	14nm,0.2s						
LANF	**Langenberg**	**0.92**	**350**	Sn	Sn	01 51 03.0	-2.3
LANF	**Langenberg**	**0.92**	**350**	S	Sb	01 51 02.9	+0.1
BUCH	**Bad Urach**	**0.94**	**66**	Pn	Pn	01 50 50.2	-2.1
BUCH				⇑*i*Pg	Pg	01 50 51.1	-0.9
BUCH	**Bad Urach**	**0.94**	**66**	*i* PG	Pg	01 50 51.2	-0.9
BUCH	**Bad Urach**	**0.94**	**66**	P	Pb	01 50 50.3	-0.9
BUCH				⇑*e*P		01 50 51.1	
BUCH				S	Sb	01 51 04.3	+0.8
BUCH	**Bad Urach**	**0.94**	**66**	P	Pb	01 50 50.2	-1.0
BUCH				*i* Pg	Pg	01 50 51.2	-0.9
BUCH	**Bad Urach**	**0.94**	**66**	*i* Pg	Pg	01 50 51.2	-0.9
STU	**Stuttgart**	**1.03**	**47**	*e*Pg	Pg	01 50 52.6	-1.2
	SNR=2.7						
STU				*e*Sg	Sg	01 51 06.1	-1.4
LOMF	**Lomont**	**1.11**	**229**	*e*Pg	Pg	01 50 54.1	-1.3
	SNR=14						
LOMF				⇑*i*Pn	Pn	01 50 54.1	-0.6
LOMF				*e*Sg	Sg	01 51 08.7	-1.4
	SNR=14						
LOMF	**Lomont**	**1.11**	**229**	Pg	Pg	01 50 53.7	-1.7
HAU	**Haudompre**	**1.15**	**267**	*e*Pg	Pg	01 50 53.8	-2.5
HAU				*e*Sg	Sg	01 51 07.8	-3.8
	35nm,0.3s						
KTD	**Kalmit**	**1.24**	**1**	*e*Sg	Sg	01 51 13.0	-1.7
THEF	**They Montfort**	**1.40**	**277**	*e*Sg	Sg	01 51 17.0	-2.8
UBR	**Uberruh**	**1.44**	**105**	Sg	Sg	01 51 19.0	-2.1
DAVA	**Damuels**	**1.46**	**122**	⇑*i*PG	Pg	01 51 00.8	-1.7
DAVA				*i* SG	Sg	01 51 19.5	-2.6
	1.1nm,0.1s						
SWS	**Schriesheim**	**1.47**	**17**	Sg	Sg	01 51 19.1	-3.1
HDH	**Heidenheim**	**1.52**	**70**	Pg	Pg	01 51 01.8	-1.8
HDH				Sn	Sn	01 51 17.1	-3.5
SIND	**Sindeldorf**	**1.63**	**38**	Pg	Pg	01 51 03.9	-1.9
SIND				Sg	Sg	01 51 23.5	-4.1
SIND	**Sindeldorf**	**1.63**	**38**	P	Pn	01 51 04.1	+1.8
RFYF	**Reffroy**	**1.81**	**289**	*e*Pn	Pn	01 51 02.5	-2.3
RFYF				*e*Pg	Pg	01 51 06.2	-3.2
RFYF				*e*Sn	Sn	01 51 23.7	-4.3
RFYF				*e*Sg	Sg	01 51 30.7	-2.9
	12nm,0.2s						
RFYF	**Reffroy**	**1.81**	**289**	*e*Pg	Pg	01 51 06.2	-3.2
RFYF				*e*Sn	Sn	01 51 23.7	-4.3
RFYF				*e*Sg	Sg	01 51 30.7	-2.9
	5.9nm,0.2s						
CABF	**La Chapelle**	**1.99**	**223**	*e*Pn	Pn	01 51 04.3	-3.0
CABF				*e*Pg	Pg	01 51 09.6	-3.4
CABF				*e*Sg	Sg	01 51 33.4	-6.1
	2.1nm,0.3s						
CABF	**La Chapelle**	**1.99**	**223**	*e*Pg	Pg	01 51 09.6	-3.4
CABF				*e*Sg	Sg	01 51 33.4	-6.1
	1.0nm,0.3s						
SFTF	**Sexfontaines**	**2.03**	**275**	*e*Pn	Pn	01 51 04.3	-3.6
SFTF				*e*Pg	Pg	01 51 09.8	-3.9
SFTF				*e*Sn	Sn	01 51 28.6	-4.9
SFTF				*e*Sg	Sg	01 51 35.6	-5.2
	6.3nm,0.2s						
SFTF	**Sexfontaines**	**2.03**	**275**	*e*Pg	Pg	01 51 09.8	-3.9
SFTF				*e*Sn	Sn	01 51 28.6	-4.9
SFTF				*e*Sg	Sg	01 51 35.6	-5.2
	3.2nm,0.2s						
MEZF	**Maizieres J’vi**	**2.05**	**283**	*e*Pn	Pn	01 51 05.4	-2.9
MEZF				*e*Pg	Pg	01 51 11.0	-3.2
MEZF				*e*Sn	Sn	01 51 28.5	-5.6
MEZF				*e*Sg	Sg	01 51 35.6	-6.0
	3.2nm,0.2s						
MEZF	**Maizieres J’vi**	**2.05**	**283**	*e*Pg	Pg	01 51 11.0	-3.2
MEZF				*e*Sn	Sn	01 51 28.5	-5.6
MEZF				*e*Sg	Sg	01 51 35.6	-6.0
	1.6nm,0.2s						
FUR	**Furstenfeldbru**	**2.16**	**87**	*e*Sg	Sg	01 51 42.2	-2.9
MOTA	**Moosalm**	**2.18**	**109**	⇑*i*PG	Pg	01 51 14.1	-2.8
MOTA				*i* SG	Sg	01 51 42.4	-3.6
	3.2nm,0.1s						
SQTA	**Sankt Quirin**	**2.30**	**111**	⇓*i*PG	Pg	01 51 16.6	-2.5
SQTA				*i* SG	Sg	01 51 46.2	-3.5
	5.4nm,0.2s						
SMF	**Signal de Mont**	**3.21**	**245**	*e*Pn	Pn	01 51 19.9	-4.8
SMF				*e*Pg	Pg	01 51 32.3	-5.0
SMF				*e*Sg	Sg	01 52 11.8	-8.2
	2.6nm,0.3s						
SMF	**Signal de Mont**	**3.21**	**245**	*e*Pg	Pg	01 51 32.3	-5.0
SMF				*e*Sg	Sg	01 52 11.8	-8.2
	1.3nm,0.3s						
SSF	**Saint Saulge**	**3.25**	**253**	*e*Pg	Pg	01 51 33.5	-4.6
SSF				*e*Sg	Sg	01 52 13.3	-8.0
	1.2nm,0.4s						
AVF	**Avril sur Loir**	**3.44**	**250**	*e*Pn	Pn	01 51 23.0	-5.1
AVF				*e*Pg	Pg	01 51 35.9	-6.1
AVF				*e*Sg	Sg	01 52 18.7	-9.2
	0.6nm,0.2s						
AVF	**Avril sur Loir**	**3.44**	**250**	*e*Pg	Pg	01 51 35.9	-6.1
AVF				*e*Sg	Sg	01 52 18.7	-9.2
	0.3nm,0.2s						
HYF	**Humbligny**	**3.75**	**260**	*e*Pg	Pg	01 51 41.6	-6.5
HYF				*e*Sg	Sg	01 52 28.5	-10
BGF	**Bois d’Agland**	**3.86**	**249**	*e*Pg	Pg	01 51 42.4	-7.9
BGF				*e*Sg	Sg	01 52 31.8	-10
	2.0nm,0.2s						
TCF	**Toulx Ste Croi**	**4.37**	**248**	*e*Pg	Pg	01 51 52.7	-7.8
TCF				*e*Sg	Sg	01 52 47.3	-12
	0.7nm,0.2s						

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*NEIC **06** 01:52:17.7, 47.40N×7.90E, h2^{km}, ML2.9(LDG), ML2.9(VIE), ML2.7(LEDBW), ML2.6(STR), ML2.5(ZUR), After LDG.*

NEIC Felt in the epicentral area.

*LDG **06** 01:52:17.7±0.0, 47.40N×7.90E, h2^{km}, Md3.1/3, Ml2.9/28, Error ellipse: s-maj=0.8km s-min=0.7km az=113.0*

*CSEM **06** 01:52:17.5±0.0, 47.39N×7.92E, h10^{km}, ML2.8/27, Error ellipse: s-maj=0.8km s-min=0.7km az=141.0*

*STR **06** 01:52:18.4±0.4, 47.44N×7.85E, h10^{km}±1^{km}, Ml2.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LEDBW **06** 01:52:18.3±0.2, 47.43N×7.91E, h9^{km}±4^{km}, ML2.7, Error ellipse: s-maj=6.0km s-min=2.0km az=130.0*

*BGR **06** 01:52:19.1±0.7, 47.50N×7.94E, h10^{km}, ML2.6/2, Error ellipse: s-maj=5.6km s-min=4.4km az=20.0*

ZUR 06 01:52:17.1, 47.43N×7.89E, h11^{km}**, ML2.5**/14**, 29C-12D, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BALST	**Balsthal**	**0.16**	**235**	⇑*i*Pg	Pg	01 52 21.7	+0.9
BALST				*i* Sg	Sg	01 52 24.2	+0.9
SULZ	**Sulz-Cheisache**	**0.19**	**57**	⇑*i*Pg	Pg	01 52 22.2	+0.9
SULZ				*e*Sg	Sg	01 52 25.1	+1.0
BBS	**Basel-Blauen**	**0.26**	**279**	⇑*i*Pg	Pg	01 52 23.7	+1.1
BBS				*i* Sg	Sg	01 52 27.6	+1.3
BOURR	**Bourrignon**	**0.45**	**266**	⇑*i*Pg	Pg	01 52 27.5	+1.3
BOURR	**Bourrignon**	**0.45**	**266**	⇑*i*P	Pg	01 52 27.0	+0.8
FELD	**Feldberg**	**0.46**	**10**	⇓*i*Pg	Pg	01 52 27.2	+0.7
FELD	**Feldberg**	**0.46**	**10**	⇓*i*P	Pg	01 52 27.1	+0.7
FELD				*e*S	Sg	01 52 33.2	+0.5
FELD	**Feldberg**	**0.46**	**10**	Pg	Pg	01 52 27.2	+0.8
FELD				Sg	Sg	01 52 33.2	+0.5
ZUR	**Zurich**	**0.48**	**97**	⇑*i*Pg	Pg	01 52 27.4	+0.6
FLACH	**Flaach**	**0.48**	**72**	⇑*i*P	Pg	01 52 27.6	+0.6
KIZ	**Kirchzarten**	**0.53**	**2**	⇓*i*Pg	Pg	01 52 28.4	+0.5
KIZ				*i* Sg	Sg	01 52 35.5	+0.4
SLE	**Schleitheim**	**0.53**	**50**	⇑*i*Pg	Pg	01 52 28.3	+0.4
FBB	**Freiburg**	**0.58**	**358**	⇑*i*Pg	Pg	01 52 29.4	+0.6
TRULL	**Truellikon**	**0.58**	**67**	⇑*i*Pg	Pg	01 52 29.2	+0.3
MOF	**Molkenrain**	**0.66**	**310**	Pg	Pg	01 52 31.1	+0.6
MOF				Sg	Sg	01 52 39.9	+0.5
MOF	**Molkenrain**	**0.66**	**310**	Sg	Sg	01 52 39.9	+0.5
BNALP	**Bannalp**	**0.67**	**146**	⇓*i*Pg	Pg	01 52 31.1	+0.5
MUO	**Muotathal**	**0.69**	**132**	⇑*i*Pg	Pg	01 52 31.5	+0.5
HASLI	**Hasliberg**	**0.69**	**165**	⇓*i*Pg	Pg	01 52 31.5	+0.4
WILA	**Wila**	**0.69**	**91**	⇑*i*Pg	Pg	01 52 31.6	+0.5
STEIN	**Stein am Rhein**	**0.71**	**70**	*e*Pg	Pg	01 52 31.8	+0.4
LOMF	**Lomont**	**0.72**	**264**	⇑*i*Pg	Pg	01 52 32.2	+0.6
LOMF	**Lomont**	**0.72**	**264**	Pg	Pg	01 52 32.1	+0.4
LIBD	**Limburg**	**0.75**	**345**	⇓Pg	Pg	01 52 33.3	+1.1
LIBD	**Limburg**	**0.75**	**345**	Pg	Pg	01 52 33.1	+0.9
LIBD				Sg	Sg	01 52 43.7	+1.4
WEIN	**Weingarten**	**0.75**	**82**	⇑*i*Pg	Pg	01 52 32.7	+0.4
SISB	**Singen-Sch Ber**	**0.78**	**70**	⇑*e*Pn	Pn	01 52 32.9	-0.8
SISB				Pg	Pg	01 52 33.5	+0.8
SISB				Sg	Sg	01 52 44.2	+1.1
SISB	**Singen-Sch Ber**	**0.78**	**70**	Pg	Pg	01 52 33.5	+0.8
SISB				Sg	Sg	01 52 44.2	+1.1
WIMIS	**Wimmis**	**0.78**	**193**	⇓*i*Pg	Pg	01 52 33.0	+0.2
HINF	**Hinteralfeld**	**0.80**	**300**	*e*Pg	Pg	01 52 33.2	0.0
HINF				*e*Pn	Pn	01 52 34.8	+0.7
HINF				*e*Sg	Sg	01 52 43.8	-0.1
	78nm,0.2s						
HINF	**Hinteralfeld**	**0.80**	**300**	*e*Pn	Pn	01 52 34.8	+0.7
HINF				*e*Sg	Sg	01 52 43.8	-0.1
	39nm,0.2s						
SPAK	**Spaichingen**	**0.91**	**42**	Pn	Pn	01 52 35.3	-0.4
SPAK				PmP		01 52 36.1	
SPAK	**Spaichingen**	**0.91**	**42**	Pg	Pg	01 52 35.9	+0.5
TORNY	**Torny**	**0.91**	**224**	⇑*i*Pg	Pg	01 52 35.6	+0.2
ECH	**Echery**	**0.93**	**328**	Pn	Pn	01 52 35.9	-0.1
ECH				Sn	Sn	01 52 48.3	-1.0
ECH	**Echery**	**0.93**	**328**	Pg	Pg	01 52 36.2	+0.4
ECH				Sn	Sn	01 52 48.3	-1.0
BFO	**Black Forest**	**0.95**	**18**	*e*Pg	Pg	01 52 35.7	-0.5
	SNR=38						
BFO				*e*Sg	Sg	01 52 48.5	-0.5
	SNR=18						
GUT	**Gutenstein**	**1.05**	**52**	⇑*e*Pn	Pn	01 52 37.1	-0.6
WLS	**Welschbruch**	**1.05**	**340**	P	Pb	01 52 38.1	+1.3
WLS	**Welschbruch**	**1.05**	**340**	Pg	Pg	01 52 38.3	+0.1
WLS				Sg	Sg	01 52 51.4	-0.8
CDF	**Champ du Feu**	**1.07**	**338**	*e*Pg	Pg	01 52 38.0	-0.5
CDF				*e*Pn	Pn	01 52 38.5	+0.5
CDF				*e*Sg	Sg	01 52 51.4	-1.4
	100nm,0.3s						
CDF	**Champ du Feu**	**1.07**	**338**	*e*Pn	Pn	01 52 38.5	+0.5
CDF	**Champ du Feu**	**1.07**	**338**	*e*Sg	Sg	01 52 51.4	-1.4
	50nm,0.3s						
BRANT	**Les Verrieres**	**1.08**	**244**	⇑*i*Pn	Pn	01 52 38.3	+0.2
PLONS	**Plons**	**1.09**	**110**	⇑*i*Pg	Pg	01 52 38.6	-0.3
LIENZ	**Alp Oberkamor**	**1.10**	**96**	⇑*i*P	Pb	01 52 39.2	+1.5
SENIN	**Lac Senin**	**1.14**	**201**	⇓*i*Pg	Pg	01 52 39.2	-0.7
HAU	**Haudompre**	**1.19**	**300**	*e*Pn	Pn	01 52 39.4	-0.3
HAU				*e*Pg	Pg	01 52 40.4	-0.5
HAU				*e*Sg	Sg	01 52 56.0	-0.8
	262nm,0.3s						
HAU	**Haudompre**	**1.19**	**300**	*e*Pg	Pg	01 52 40.4	-0.5
HAU				*e*Sg	Sg	01 52 56.0	-0.8
	131nm,0.3s						
DAVA	**Damuels**	**1.36**	**95**	⇓*i*PN	Pn	01 52 43.0	+0.8
DAVA				*i* PG	Pg	01 52 44.4	0.0
DAVA				*i* SG	Sg	01 53 02.6	0.0
	27nm,0.1s						
DAVA	**Damuels**	**1.36**	**95**	*i* Pg	Pg	01 52 44.4	0.0
LBG	**Lerchenberg**	**1.38**	**26**	⇑*i*Pn	Pn	01 52 41.2	-1.2
LBG				Pg	Pg	01 52 44.4	-0.4
LBG				Sg	Sg	01 53 01.9	-1.3
LBG	**Lerchenberg**	**1.38**	**26**	PG	Pg	01 52 44.4	-0.4
LBG				SG	Sg	01 53 01.9	-1.4
LBG	**Lerchenberg**	**1.38**	**26**	⇑*i*P	Pn	01 52 41.2	-1.2
LBG				Pg	Pg	01 52 44.4	-0.4
LBG				Sg	Sg	01 53 01.9	-1.4
LBG	**Lerchenberg**	**1.38**	**26**	Pg	Pg	01 52 44.4	-0.4
BUCH	**Bad Urach**	**1.42**	**43**	*e*Pn	Pn	01 52 41.9	-1.1
BUCH				Pg	Pg	01 52 45.2	-0.4
BUCH				Sg	Sg	01 53 03.8	-0.7
BUCH	**Bad Urach**	**1.42**	**43**	PG	Pg	01 52 45.2	-0.4
BUCH				SG	Sg	01 53 03.8	-0.8
BUCH	**Bad Urach**	**1.42**	**43**	*e*P	Pn	01 52 41.9	-1.1
BUCH				Pg	Pg	01 52 45.2	-0.4
BUCH				Sg	Sg	01 53 03.8	-0.8
BUCH	**Bad Urach**	**1.42**	**43**	Pg	Pg	01 52 45.2	-0.4
MCGN	**Macugnaga**	**1.47**	**177**	*e*Pg	Pg	01 52 45.7	-0.8
MCGN				*e*Sg	Sg	01 53 03.8	-2.3
MCGN	**Macugnaga**	**1.47**	**177**	*e*Pg	Pg	01 52 45.7	-0.8
CABF	**La Chapelle**	**1.48**	**237**	*e*Pn	Pn	01 52 43.5	-0.3
CABF				*e*Pg	Pg	01 52 45.8	-0.8
CABF				*e*Sg	Sg	01 53 04.3	-2.0
	34nm,0.2s						
CABF	**La Chapelle**	**1.48**	**237**	*e*Pg	Pg	01 52 45.8	-0.8
CABF				*e*Sg	Sg	01 53 04.3	-2.0
	17nm,0.2s						
EMS	**Emosson-Mur**	**1.51**	**206**	⇓*i*Pn	Pn	01 52 43.0	-1.2
EMS				*i* Sg	Sg	01 53 02.6	-4.8
	27nm,0.1s						
EMS	**Emosson-Mur**	**1.51**	**206**	*i* Pg	Pg	01 52 44.4	-2.8
THEF	**They Montfort**	**1.51**	**303**	⇑*i*Pn	Pn	01 52 46.0	+1.7
THEF				Sn	Sn	01 53 06.2	+2.2
THEF	**They Montfort**	**1.51**	**303**	Pg	Pg	01 52 45.8	-1.5
UBR	**Uberruh**	**1.53**	**80**	⇑*i*Pn	Pn	01 52 44.8	+0.3
UBR				Pg	Pg	01 52 47.2	-0.4
UBR	**Uberruh**	**1.53**	**80**	PG	Pg	01 52 47.3	-0.4
UBR	**Uberruh**	**1.53**	**80**	⇑*i*P	Pn	01 52 44.8	+0.3
UBR				Pg	Pg	01 52 47.3	-0.4
UBR	**Uberruh**	**1.53**	**80**	Pg	Pg	01 52 47.3	-0.4
LANF	**Langenberg**	**1.56**	**358**	⇑Pn	Pn	01 52 47.8	+2.9
LANF				Sn	Sn	01 53 08.0	+2.8
LANF	**Langenberg**	**1.56**	**358**	Pg	Pg	01 52 47.5	-0.7
STU	**Stuttgart**	**1.61**	**33**	*e*Sg	Sg	01 53 08.3	-2.4
	SNR=8.2						
STU	**Stuttgart**	**1.61**	**33**	*e*Pg	Pg	01 52 46.0	-3.3
STU				*e*Sg	Sg	01 53 08.3	-2.4
VAI	**Varese**	**1.67**	**158**	*e*Pg	Pg	01 52 47.6	-2.9
VAI				*e*Sg	Sg	01 53 11.8	-1.1
VAI	**Varese**	**1.67**	**158**	*e*Pg	Pg	01 52 47.7	-2.9
VAI				*e*Sg	Sg	01 53 11.9	-1.0
ORO	**Oropa**	**1.80**	**178**	*e*Pn	Pn	01 52 52.1	+3.7
ORO				*e*Sn	Sn	01 53 15.5	+4.1
HDH	**Heidenheim**	**1.94**	**53**	Pn	Pn	01 52 48.9	-1.5
HDH				Sg	Sg	01 53 20.0	-1.8
HDH	**Heidenheim**	**1.94**	**53**	S	Sn	01 53 20.0	+5.0
BRMO	**Bormio**	**1.95**	**118**	*e*Pn	Pn	01 52 55.1	+4.6
BRMO				*e*Sn	Sn	01 53 20.2	+4.9
RFYF	**Reffroy**	**2.02**	**308**	*e*Pn	Pn	01 52 51.8	+0.3
RFYF				*e*Pg	Pg	01 52 56.0	-1.4
	baz=127						
RFYF				*e*Sn	Sn	01 53 15.9	-1.0
RFYF				*e*Sg	Sg	01 53 22.3	-2.0
	47nm,0.3s,baz=133						
RFYF	**Reffroy**	**2.02**	**308**	*e*Pg	Pg	01 52 56.0	-1.4
RFYF	**Reffroy**	**2.02**	**308**	*e*Sn	Sn	01 53 15.9	-1.0
RFYF				*e*Sg	Sg	01 53 22.3	-2.0
	24nm,0.3s						
LPL	**La Plagne**	**2.07**	**203**	*e*Pn	Pn	01 52 51.7	-0.6
LPL				*e*Pg	Pg	01 52 56.3	-2.2
LPL				*e*Sg	Sg	01 53 22.0	-4.1
	5.8nm,0.2s						
LPL	**La Plagne**	**2.07**	**203**	*e*Pg	Pg	01 52 56.3	-2.2
LPL				*e*Sg	Sg	01 53 22.0	-4.1
	2.9nm,0.2s						
SFTF	**Sexfontaines**	**2.07**	**293**	*e*Pn	Pn	01 52 52.1	-0.2
SFTF				*e*Pg	Pg	01 52 56.9	-1.6
	baz=112						
SFTF				*e*Sn	Sn	01 53 16.8	-1.5
SFTF				*e*Sg	Sg	01 53 23.7	-2.4
	20nm,0.2s						
SFTF	**Sexfontaines**	**2.07**	**293**	*e*Pg	Pg	01 52 56.9	-1.6
SFTF				*e*Sn	Sn	01 53 16.8	-1.5
SFTF				*e*Sg	Sg	01 53 23.7	-2.4
	9.9nm,0.2s						
LPG	**La Plagne**	**2.08**	**203**	*e*Pn	Pn	01 52 52.0	-0.5
LPG				*e*Pg	Pg	01 52 56.5	-2.2
LPG				*e*Sg	Sg	01 53 23.5	-3.0
	7.1nm,0.2s						
LPG	**La Plagne**	**2.08**	**203**	*e*Pg	Pg	01 52 56.5	-2.2
LPG	**La Plagne**	**2.08**	**203**	*e*Sg	Sg	01 53 23.5	-3.0
	3.5nm,0.2s						
SWS	**Schriesheim**	**2.13**	**14**	Sg	Sg	01 53 25.9	-2.2
MEZF	**Maizieres J’vi**	**2.19**	**301**	*e*Pn	Pn	01 52 53.8	-0.2
	baz=118						
MEZF				*e*Pg	Pg	01 52 58.6	-2.2
	baz=124						
MEZF				*e*Sn	Sn	01 53 19.8	-1.4
MEZF				*e*Sg	Sg	01 53 28.0	-2.0
	20nm,0.3s						
MEZF	**Maizieres J’vi**	**2.19**	**301**	*e*Pg	Pg	01 52 58.6	-2.2
MEZF				*e*Sn	Sn	01 53 19.8	-1.4
MEZF				*e*Sg	Sg	01 53 28.0	-2.0
	10nm,0.3s						
MOTA	**Moosalm**	**2.19**	**91**	⇑*i*PN	Pn	01 52 54.3	+0.3
MOTA				*i* PG	Pg	01 52 59.2	-1.6
MOTA				*i* SG	Sg	01 53 28.4	-1.6

	3.8nm,0.1s						
MOTA	**Moosalm**	2.19	91	i Pg	Pg	01 52 59.2	-1.6
MOTA				i Sg	Sg	01 53 28.4	-1.6
	3.8nm,0.1s						
SIND	**Sindeldorf**	2.24	30	Pn	Pn	01 52 54.4	-0.3
SIND				Sg	Sg	01 53 28.6	-3.1
SIND	**Sindeldorf**	2.24	30	SG	Sg	01 53 28.6	-3.1
SQTA	**Sankt Quirin**	2.27	94	⇓i PN	Pn	01 52 55.7	+0.6
SQTA				i PG	Pg	01 53 00.8	-1.7
SQTA				i SG	Sg	01 53 30.7	-2.1
	7.8nm,0.2s						
SQTA	**Sankt Quirin**	2.27	94	i Pg	Pg	01 53 00.8	-1.7
SQTA				i Sg	Sg	01 53 30.7	-2.1
	7.8nm,0.2s						
FUR	**Furstenfeldbru**	2.40	71	ePg	Pg	01 53 03.4	-1.7
	SNR=9.8						
FUR				eSg	Sg	01 53 34.3	-2.8
	SNR=5.9						
ABH	**Alteburg**	2.47	355	P	Pn	01 53 04.5	+6.5
ABH				S	Sn	01 53 35.7	+7.3
WATA	**Walderalm**	2.51	91	⇑i PN	Pn	01 52 58.4	-0.2
WATA				i SN	Sn	01 53 29.0	-0.5
WATA				i SG	Sg	01 53 38.9	-1.8
	3.0nm,0.2s						
WATA	**Walderalm**	2.51	91	i Sn	Sn	01 53 29.0	-0.5
WATA	**Walderalm**	2.51	91	⇑i Pn	Pn	01 52 58.4	-0.2
WATA				i Sg	Sg	01 53 38.9	-1.8
	3.0nm,0.2s						
WLF	**Walferdange**	2.52	333	ePg	Pg	01 53 05.7	-1.7
	SNR=1.7						
WLF				eSg	Sg	01 53 37.3	-3.7
	SNR=4.9						
WTTA	**Wattenberg**	2.56	92	⇓i PN	Pn	01 52 59.5	+0.3
WTTA				i SN	Sn	01 53 30.6	0.0
WTTA				i SG	Sg	01 53 39.5	-2.8
	1.6nm,0.2s						
MBDF	**Montbardon**	2.81	196	ePn	Pn	01 53 02.7	-0.1
MBDF				ePg	Pg	01 53 09.9	-3.3
MBDF				eSg	Sg	01 53 45.4	-5.3
	4.3nm,0.4s						
MBDF	**Montbardon**	2.81	196	ePg	Pg	01 53 09.9	-3.3
MBDF				eSg	Sg	01 53 45.4	-5.3
	2.2nm,0.4s						
ORIF	**Oris-en-Rattie**	2.87	210	ePn	Pn	01 53 02.7	-1.0
ORIF				ePg	Pg	01 53 10.5	-3.9
ORIF				eSg	Sg	01 53 46.5	-6.2
	8.4nm,0.3s						
ORIF	**Oris-en-Rattie**	2.87	210	ePg	Pg	01 53 10.5	-3.9
ORIF				eSg	Sg	01 53 46.5	-6.2
	4.2nm,0.3s						
SMF	**Signal de Mont**	2.87	256	ePn	Pn	01 53 02.5	-1.3
SMF				ePg	Pg	01 53 10.9	-3.6
SMF				eSg	Sg	01 53 48.3	-4.5
	12nm,0.2s						
SMF	**Signal de Mont**	2.87	256	ePg	Pg	01 53 10.9	-3.6
SMF				eSg	Sg	01 53 48.3	-4.5
	5.8nm,0.2s						
SSF	**Saint Saulge**	3.00	265	ePn	Pn	01 53 05.0	-0.6
SSF				ePg	Pg	01 53 13.7	-3.4
SSF				eSg	Sg	01 53 52.6	-4.6
	5.1nm,0.2s						
SSF	**Saint Saulge**	3.00	265	ePg	Pg	01 53 13.7	-3.4
SSF				eSg	Sg	01 53 52.6	-4.6
	2.5nm,0.2s						
AVF	**Avril sur Loir**	3.16	260	ePn	Pn	01 53 06.7	-1.1
AVF				ePg	Pg	01 53 16.4	-3.8
AVF				eSg	Sg	01 53 56.6	-5.8
	2.3nm,0.2s						
AVF	**Avril sur Loir**	3.16	260	ePg	Pg	01 53 16.4	-3.8
AVF				eSg	Sg	01 53 56.6	-5.8
	1.1nm,0.2s						
GRA1	**Grafenberg Arr**	3.17	43	ePg	Pg	01 53 17.6	-2.8
GRA1				eSg	Sg	01 53 57.7	-5.0
GIVF	**Givet**	3.36	324	ePn	Pn	01 53 09.7	-0.9
GIVF				ePg	Pg	01 53 21.0	-3.2
GIVF				eSn	Sn	01 53 48.4	-2.5
GIVF				eSg	Sg	01 54 03.4	-5.5
	3.6nm,0.2s						
GIVF	**Givet**	3.36	324	ePg	Pg	01 53 21.0	-3.2
GIVF				eSn	Sn	01 53 48.4	-2.5
GIVF				eSg	Sg	01 54 03.4	-5.5
	1.8nm,0.2s						
VIVF	**Saint-Julien-l**	3.41	222	ePn	Pn	01 53 09.0	-2.3
VIVF				ePg	Pg	01 53 20.7	-4.4
VIVF				eSg	Sg	01 54 04.1	-6.4
	9.4nm,0.2s						
VIVF	**Saint-Julien-l**	3.41	222	ePg	Pg	01 53 20.7	-4.4
VIVF	**Saint-Julien-l**	3.41	222	eSg	Sg	01 54 04.1	-6.4
	4.7nm,0.2s						
BGF	**Bois d'Agland**	3.56	258	ePn	Pn	01 53 11.5	-2.0
BGF				ePg	Pg	01 53 23.5	-4.6
BGF				eSn	Sn	01 53 50.6	-5.3
BGF				eSg	Sg	01 54 09.5	-6.0
	8.2nm,0.3s						
BGF	**Bois d'Agland**	3.56	258	ePg	Pg	01 53 23.5	-4.6
BGF				eSn	Sn	01 53 50.6	-5.3
BGF				eSg	Sg	01 54 09.5	-6.0
	4.1nm,0.3s						
HYF	**Humbligny**	3.57	269	ePg	Pg	01 53 24.3	-4.1
HYF				eSg	Sg	01 54 09.6	-6.4
SBF	**Sospel**	3.58	185	ePn	Pn	01 53 12.1	-1.7
BAIF	**Baives**	3.59	319	ePn	Pn	01 53 13.9	0.0
BAIF				ePg	Pg	01 53 24.6	-4.1
BAIF				eSg	Sg	01 54 10.3	-6.3
	2.8nm,0.4s						
BAIF	**Baives**	3.59	319	ePg	Pg	01 53 24.6	-4.1
BAIF				eSg	Sg	01 54 10.3	-6.3
	1.4nm,0.4s						
UBBA	**Unterbreizbach**	3.67	21	eSg	Sg	01 54 12.7	-6.6
	SNR=1.8						
SMRF	**Simiane la Rot**	3.81	206	ePn	Pn	01 53 15.5	-1.6
FRF	**La Foret Royal**	3.96	193	ePn	Pn	01 53 17.4	-1.8
FRF				ePg	Pg	01 53 30.1	-6.1
FRF				eSn	Sn	01 54 01.2	-5.0
	0.4nm,0.2s						
FRF	**La Foret Royal**	3.96	193	ePg	Pg	01 53 30.1	-6.1
FRF				eSn	Sn	01 54 01.2	-5.0
	0.2nm,0.2s						
MOX	**Moxa**	4.05	36	ePg	Pg	01 53 33.1	-4.9
MOX				eSg	Sg	01 54 24.5	-7.5
	SNR=5.0						
MOX	**Moxa**	4.05	36	ePg	Pg	01 53 33.1	-4.9
MOX				eSg	Sg	01 54 24.2	-7.8
TCF	**Toulx Ste Croi**	4.06	256	ePn	Pn	01 53 18.8	-1.8
TCF				ePg	Pg	01 53 33.0	-5.1
TCF				eSn	Sn	01 54 03.8	-4.8
TCF				eSg	Sg	01 54 24.2	-8.0
	4.6nm,0.5s						
TCF	**Toulx Ste Croi**	4.06	256	ePg	Pg	01 53 33.0	-5.1
TCF				eSn	Sn	01 54 03.8	-4.8
TCF				eSg	Sg	01 54 24.2	-8.0
	2.3nm,0.5s						
GEC2	**GERESS Array S**	4.15	68	ePn	Pn	01 53 20.3	-1.6
	SNR=1.3						
GEC2				ePg	Pg	01 53 35.0	-4.9
	SNR=2.5						
GEC2				eSg	Sg	01 54 28.7	-6.4
	SNR=1.9						
GEC2	**GERESS Array S**	4.15	68	ePn	Pn	01 53 20.3	-1.5
GEC2				ePg	Pg	01 53 35.0	-4.9
GEC2				eSg	Sg	01 54 28.7	-6.5
GUNZ	**Gunzen**	4.15	43	ePg	Pg	01 53 35.8	-4.2
	SNR=1.7						
GUNZ				eSg	Sg	01 54 27.9	-7.5
	SNR=6.8						
KHC	**Kasperske Hory**	4.17	64	PG	Pg	01 53 35.5	-4.8
KHC				ex	x	01 54 07.5	
KHC				eSG	Sg	01 54 28.5	-7.4
KHC	**Kasperske Hory**	4.17	64	eSg	Sg	01 54 28.5	-7.4
WERD	**Werda**	4.20	42	ePg	Pg	01 53 36.5	-4.4
	SNR=1.5						
WERD				eSg	Sg	01 54 29.3	-7.6
	SNR=4.7						
LMR	**La Mourre**	4.21	194	ePn	Pn	01 53 20.6	-2.1
LMR				ePg	Pg	01 53 34.7	-6.4
LMR				eSn	Sn	01 54 06.5	-5.9
	0.4nm,0.2s						
LMR	**La Mourre**	4.21	194	ePg	Pg	01 53 34.7	-6.4
LMR				eSn	Sn	01 54 06.5	-5.9
	0.2nm,0.2s						
TANN	**Tannenbergstha**	4.25	44	ePg	Pg	01 53 38.1	-3.9
	SNR=1.8						
TANN				eSg	Sg	01 54 30.7	-7.9
	SNR=4.9						
LASF	**Ste Croix**	4.38	222	ePg	Pg	01 53 38.4	-6.1
LASF				eSg	Sg	01 54 34.1	-8.8
	2.9nm,0.2s						
CAF	**Calviac**	4.75	240	ePn	Pn	01 53 28.2	-2.3
CAF				ePg	Pg	01 53 45.8	-6.2
CAF				eSg	Sg	01 54 45.7	-10
	1.7nm,0.2s						
CAF	**Calviac**	4.75	240	ePg	Pg	01 53 45.8	-6.2
CAF				eSg	Sg	01 54 45.7	-10
	0.9nm,0.2s						
RJF	**Les Rejaudoux**	4.89	247	ePn	Pn	01 53 30.3	-2.1
CLL	**Collm**	5.12	39	eSg	Sg	01 55 01.0	-6.7
BRG	**Berggiesshubel**	5.26	47	eSg	Sg	01 55 03.1	-9.2
LDF	**La Druitiere**	5.50	285	ePn	Pn	01 53 38.7	-2.3
LDF				ePg	Pg	01 53 59.4	-7.5
LDF				eSg	Sg	01 55 10.1	-10
	3.1nm,0.4s						
MFF	**Saint Martin d**	5.55	264	ePn	Pn	01 53 39.4	-2.4
MTLF	**Montolieu**	5.71	226	ePg	Pg	01 54 03.2	-7.9
MTLF				eSg	Sg	01 55 16.1	-11
FLN	**La Foliniere**	5.76	286	eSg	Sg	01 55 18.6	-10
	5.0nm,0.5s						
GRR	**Gorron**	5.96	283	ePn	Pn	01 53 45.1	-2.4
GRR				ePg	Pg	01 54 07.9	-8.1
GRR				eSg	Sg	01 55 24.4	-11
	2.7nm,0.4s						
EPF	**Esparros**	6.90	233	ePn	Pn	01 53 57.5	-3.3
SGMF	**Saint Gilles**	7.08	281	ePn	Pn	01 54 00.4	-2.8
QUIF	**Quistinic**	7.48	278	ePn	Pn	01 54 05.4	-3.4

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*STR **06** 01:59:07.8±0.1, 42.85N×0.26W, h5^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **06** 01:59:08.1±0.1, 42.84N×0.26W, h2^{km}, Md2.0/3, Ml2.0/4, Error ellipse: s-maj=1.7km s-min=0.7km az=176.0*

MDD 06 01:59:08.6±0.2**, 42.85N×0.27W, mbLg1.7**/6**, 1C, Error ellipse: s-maj=2.5km s-min=1.2km az=25.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIEF	**Viey**	0.22	80	Pg	Pg	01 59 12.5	-0.4
VIEF				Sg	Sg	01 59 15.5	-0.3
VIEF	**Viey**	0.22	80	Pg	Pg	01 59 12.5	-0.4
VIEF				Lg		01 59 15.5	
ETSF	**Etsaut**	0.22	284	ePg	Pg	01 59 12.4	-0.6
ETSF				eSg	Sg	01 59 15.3	-0.6
	56nm,0.2s						
FDAF	**Les Forges d'A**	0.22	263	Pg	Pg	01 59 12.5	-0.5
FDAF				Sg	Sg	01 59 15.7	-0.3
FDAF	**Les Forges d'A**	0.22	263	Pg	Pg	01 59 12.5	-0.5
FDAF				Lg		01 59 15.8	
REYF	**Montagne du Re**	0.24	337	Pg	Pg	01 59 12.9	-0.5
REYF				Sg	Sg	01 59 16.3	-0.3
REYF	**Montagne du Re**	0.24	337	Pg	Pg	01 59 12.9	-0.5
REYF				Lg		01 59 16.4	
LABF	**Labassere**	0.32	51	Pg	Pg	01 59 14.4	-0.6
LABF				Sg	Sg	01 59 18.8	-0.4
LABF	**Labassere**	0.32	51	Pg	Pg	01 59 14.6	-0.4
LABF				Lg		01 59 18.9	
EBIE	**Bielsa**	0.34	118	⇑Pg	Pg	01 59 14.9	-0.5
	2.7nm,0.1s,SNR=18						
EBIE				Lg		01 59 19.5	
	16nm,0.1s,SNR=63						
RESF	**Ens**	0.45	95	Pg	Pg	01 59 16.6	-0.9
RESF				Sg	Sg	01 59 22.8	-0.6
RESF	**Ens**	0.45	95	Pg	Pg	01 59 16.7	-0.8
RESF				Lg		01 59 22.9	
EPF	**Esparros**	0.48	67	ePg	Pg	01 59 17.6	-0.6
EPF				eSg	Sg	01 59 23.4	-1.2
	22nm,0.2s						
LARF	**Larrau**	0.56	290	Pg	Pg	01 59 19.0	-0.8
LARF				Sg	Sg	01 59 26.8	-0.5
LARF	**Larrau**	0.56	290	Pg	Pg	01 59 18.9	-0.9
LARF				Lg		01 59 26.3	
ORDF	**Ordiarp**	0.61	307	Pg	Pg	01 59 20.1	-0.7
ORDF				Sg	Sg	01 59 28.3	-0.7
ORDF	**Ordiarp**	0.61	307	Pg	Pg	01 59 20.0	-0.8
ORDF				Lg		01 59 28.3	
SJPF	**Ste Jean**	0.75	291	ePg	Pg	01 59 22.6	-1.0
SJPF				eSg	Sg	01 59 32.1	-1.5
	10nm,0.2s						
MELF	**Melles**	0.75	88	Lg		01 59 32.8	
EALK	**Alkurruntz**	0.98	293	Pg	Pg	01 59 26.5	-1.7
	0.5nm,0.1s,SNR=8.4						
EALK				Lg		01 59 39.3	
	6.7nm,0.2s,SNR=5.0						
ESAC	**San Caprasio**	1.13	188	Pg	Pg	01 59 31.6	+0.4
	14nm,0.2s,SNR=10						
ESAC				Lg		01 59 47.4	
	80nm,0.2s,SNR=29						
EMIR	**Miracle**	1.62	124	Pg	Pg	01 59 39.4	-1.5
	0.5nm,0.1s,SNR=5.9						
EMIR				Lg		02 00 01.9	
	5.8nm,0.2s,SNR=8.0						
EPOB	**Poblet**	1.80	146	Pg	Pg	01 59 41.7	-2.7
	SNR=7.9						
EPOB				Lg		02 00 05.8	
	1.2nm,0.1s,SNR=6.7						
MTLF	**Montolieu**	1.89	74	ePg	Pg	01 59 43.3	-2.9
MTLF				eSg	Sg	02 00 07.3	-4.0
	2.6nm,0.3s						
ERTA	**Horta de San J**	1.94	166	Pg	Pg	01 59 44.4	-2.9
	135nm,1.6s,SNR=5.7						
ERTA				Lg		02 00 10.5	
	2.3nm,0.2s,SNR=6.7						
LFF	**La Frestale**	2.21	19	ePg	Pg	01 59 49.2	-3.6
LFF				eSg	Sg	02 00 17.3	-5.0
	2.8nm,0.3s						
ELAN	**Lanestosa**	2.35	280	Lg		02 00 23.4	
	SNR=4.0						
EJON	**La Jonquera**	2.36	99	Pn	Pn	01 59 44.7	-4.4
	SNR=4.0						
EJON				Pg	Pg	01 59 50.9	-4.8
	SNR=4.0						
EJON				Sn	Sn	02 00 16.4	-2.8
	SNR=4.0						
EJON				Lg		02 00 24.9	
	SNR=7.9						
EMOS	**Mosqueruela**	2.48	184	Pg	Pg	01 59 55.0	-3.1
	SNR=7.9						
EMOS				Lg		02 00 28.3	
	0.2nm,0.1s,SNR=4.0						
CAF	**Calviac**	2.68	38	ePn	Pn	01 59 51.6	-2.0
CAF				ePg	Pg	01 59 57.4	-4.6
CAF				eSn	Sn	02 00 21.3	-5.9
CAF				eSg	Sg	02 00 32.2	-5.4
	1.1nm,0.2s						
RJF	**Les Rejaudoux**	2.77	27	ePg	Pg	01 59 59.5	-4.4
RJF				eSg	Sg	02 00 35.3	-5.6
	1.5nm,0.2s						

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*THE **06** 02:01:18.8, 38.42N×21.66E, h1^{km}, ML2.9*

*NEIC **06** 02:01:19.8, 38.59N×21.58E, h18^{km}, MD3.2(ATH), After ATH.*

*ATH **06** 02:01:19.8, 38.59N×21.58E, h18^{km}±11^{km}, MD3.2/5*

*CSEM **06** 02:01:19.7±0.1, 38.49N×21.61E, h2^{km}, MD3.2, Error ellipse: s-maj=4.0km s-min=1.8km az=161.0*

ISC 06 02:01:18.3±1.0**, 38.45N**±0.05×**21.66E**±0.04**, h2**^{km}±8^{km}**, n19, σ0^{s}91**/25**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RLS	**Riolos of Patr**	0.42	201	ePN	Pn	02 01 31.1	+0.2
EVR	**Evrytania**	0.48	14	ePB	Pb	02 01 27.2	-1.9
AGG	**Agios Georgios**	0.78	42	ePg	Pg	02 01 33.5	-0.3
AGG				eSg	Sg	02 01 45.3	+1.2
LKD	**Levkas**	0.83	288	ePg	Pg	02 01 34.4	-0.6
LKD				eSg	Sg	02 01 47.3	+1.2
VLS	**Valsamata**	0.89	252	ePB	Pb	02 01 36.2	+0.2
LKR	**Lokris**	1.07	79	ePB	Pb	02 01 39.8	+0.6
JAN	**Janina**	1.36	333	ePN	Pn	02 01 43.5	-0.8
MEV	**Metsovon**	1.38	346	ePb	Pb	02 01 42.6	-1.8
NEO	**Neokhori**	1.49	54	ePN	Pn	02 01 48.0	+1.8
IGT	**Igoumenitsa**	1.50	317	ePb	Pb	02 01 46.6	+0.1
IGT				eSb	Sb	02 02 06.4	+0.6
XOR	**Xorichti**	1.50	52	ePb	Pb	02 01 47.1	+0.5
XOR				eSb	Sb	02 02 06.5	+0.4
LIT	**Litokhoron**	1.77	21	ePb	Pb	02 01 50.0	-1.1
LIT				eSb	Sb	02 02 13.8	0.0
AOS	**Alonnisos**	1.88	67	ePb	Pb	02 01 52.5	-0.5
PAIG	**Paliouri**	2.15	46	ePn	Pn	02 01 55.1	-0.6
FNA	**Florina**	2.34	355	ePn	Pn	02 01 59.3	+0.9
FNA				eSn	Sn	02 02 31.5	+3.4
GRG	**Griva**	2.57	13	ePn	Pn	02 02 01.5	-0.1
SOH	**Sokhos**	2.71	28	ePn	Pn	02 02 03.3	-0.3
KNT	**Kendrikon**	2.87	19	ePn	Pn	02 02 05.7	-0.3
SRS	**Serrai**	3.05	29	ePn	Pn	02 02 08.3	-0.2

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*IDC **06** 02:06:29.1±2.5, 7.70N×105.11W, mb3.7/7, mb1 4.1/7, mb1mx4.0/16, MS4.1/16, Ms1 4.1/16, ms1mx4.0/20, Error ellipse: s-maj=100.0km s-min=20.1km az=56.0*

*NEIC **06** 02:06:31.7±1.8, 7.84N×104.76W, h10^{km}, mb4.3/4, Error ellipse: s-maj=56.3km s-min=12.4km az=51.0*

ISC 06 02:06:28.5±0.6**, 7.66N**±0.09×**105.0W**±0.1**, h10**^{km}**, n29, σ1^{s}32**/18**, mb4.0**/11**, MS4.1**/16**, Northern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	21.60	3	P	P	02 11 19.3	-1.4
	1.8nm,0.9s,mb3.5,baz=180,slow=9.6,SNR=13						
TXAR				LR	LR	02 18 50.2	
	comp=Z,756nm,19.7s,MS4.1,baz=160,slow=34						
TXAR	**Lajitas Array**	21.60	3	P	P	02 11 19.3	-1.4
TXAR				LR	LR	02 18 50.2	
ANMO	**Albuquerque**	27.19	357	LR	LR	02 22 53.6	
	comp=Z,350nm,18.4s,MS4.0,slow=36						
OTAV	**Otavalo**	27.47	104	eP	P	02 12 18.6	+1.4
PV10	**Paradox Valley**	30.80	354	eP	P	02 12 47.2	+0.6
NVAR	**Mina Array Bea**	32.91	341	P	P	02 13 06.3	+1.2
	0.1nm,0.4s,mb3.1,baz=162,slow=5.7,SNR=2.4						
NVAR				LR	LR	02 24 19.1	
	comp=Z,219nm,21.1s,MS3.8,baz=150,slow=33						
SDV	**Santo Domingo**	34.02	85	eP	P	02 13 13.4	-1.7
	6.5nm,0.8s,mb4.6						
BW06	**Boulder Array**	35.20	354	eP	P	02 13 26.0	+1.1
	10nm,1.5s,mb4.5						
PDAR	**Pinedale Array**	35.20	354	P	P	02 13 26.1	+1.2
	1.9nm,1.0s,mb4.0,baz=167,slow=7.5,SNR=11						
PDAR				LR	LR	02 28 35.2	
	comp=Z,118nm,18.1s,MS3.7,baz=11,slow=38						
HLID	**Hailey**	36.70	349	P	P	02 13 37.9	+0.3
	3.4nm,1.3s,mb4.0						
NEW	**Newport**	41.75	348	LR	LR	02 31 01.7	
	comp=Z,192nm,18.6s,MS4.0,baz=15,slow=35						
RKT	**Rikitea**	42.37	223	eS	S	02 20 46.4	+0.4
RKT				eLR	LR	02 26 22.4	
	709nm,26.5s,baz=21						
ULM	**Lac du Bonnet**	43.13	9	LR	LR	02 32 06.1	
	comp=Z,314nm,18.2s,MS4.2,baz=342,slow=36						
LPAZ	**La Paz**	43.56	123	P	P	02 14 37.3	+2.6
	5.0nm,0.9s,mb4.2,baz=329,slow=8.0,SNR=15						
LPAZ	**La Paz**	43.56	123	eP	P	02 14 37.5	+2.7
SAML	**Samuel**	44.81	111	eP	P	02 14 43.1	-1.8
	2.7nm,0.8s,mb4.1						
LVC	**Limon Verde**	46.41	131	LR	LR	02 30 01.4	
	comp=Z,279nm,19.9s,MS4.2,baz=279,slow=30						
PPT	**Papeete**	50.67	240	eS	S	02 22 43.0	-1.1
PPT				eLR	LR	02 30 11.3	
	484nm,25.2s,baz=67						
TBI	**Tubuai**	53.27	233	eLR	LR	02 31 23.4	
	419nm,26.2s						
YKA	**Yellowknife Ar**	55.18	355	P	P	02 16 02.7	-0.8
	0.5nm,1.0s,mb3.5,baz=171,slow=7.2,SNR=4.9						
YKA				LR	LR	02 37 38.2	
	comp=Z,242nm,21.0s,MS4.2,baz=155,slow=34						
YKA	**Yellowknife Ar**	55.18	355	P	P	02 16 02.7	-0.8
YKA				LR	LR	02 37 38.2	
SCHQ	**Schefferville**	56.02	26	LR	LR	02 40 50.1	
	comp=Z,197nm,19.6s,MS4.2,baz=43,slow=37						
BDFB	**Brasilia**	61.00	113	P	P	02 16 45.2	+0.3
	3.1nm,1.0s,mb4.4,baz=277,slow=16,SNR=3.6						
BDFB				LR	LR	02 41 05.0	
	comp=Z,168nm,20.1s,MS4.2,baz=150,slow=34						
ILAR	**Eielson Array**	64.16	341	P	P	02 17 03.2	-2.1
	0.6nm,1.2s,mb3.5,baz=147,slow=4.1,SNR=3.3						
ILAR				LR	LR	02 46 45.9	
	comp=Z,63nm,19.0s,MS3.8,baz=359,slow=38						
FX1	**Attu Island--F**	79.01	322	LR	LR	02 46 23.4	
	comp=Z,26nm,18.5s,MS3.6,baz=284,slow=30						
NOA	**NORSAR Array B**	95.59	26	LR	LR	03 01 59.7	
	comp=Z,116nm,18.2s,MS4.4,baz=275,slow=35						
ARCES	**ARCESS Array B**	95.88	16	LR	LR	03 02 47.3	
	comp=Z,118nm,21.0s,MS4.3,baz=13,slow=35						
VNDA	**Vanda**	98.11	193	LR	LR	02 55 01.7	
	comp=Z,100nm,21.4s,MS4.3,baz=111,slow=30						
DBIC	**Dimbokro**	99.10	82	LR	LR	03 01 09.4	
	comp=Z,109nm,19.2s,MS4.4,baz=279,slow=33						

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*NEIC **06** 02:08:52.9, 38.13N×23.58E, h24^{km}, ML3.0(ATH), After ATH.*

*ATH **06** 02:08:52.9, 38.13N×23.58E, h24^{km}±3^{km}, MD3.3/8, ML3.0*

*CSEM **06** 02:08:54.1±0.1, 38.17N×23.53E, h10^{km}, ML3.0, Error ellipse: s-maj=2.4km s-min=1.7km az=38.0*

*THE **06** 02:08:58.3, 38.38N×23.57E, h23^{km}, ML3.0*

ISC 06 02:08:52.3±1.2**, 38.18N**±0.04×**23.57E**±0.07**, h4**^{km}±11^{km}**, n24, σ1^{s}01**/24**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPAR	**Parnis Oros**	0.14	101	ePB	Pb	02 08 57.8	+0.8
ATH	**Athens Observa**	0.24	150	ePB	Pb	02 08 57.8	-0.9
PTL	**Penteli**	0.27	118	ePB	Pb	02 08 59.8	+0.6
NSAL	**Nisos Salamina**	0.28	197	ePB	Pb	02 08 58.0	-1.5
LKR	**Lokris**	0.65	317	ePN	Pn	02 09 06.2	-1.7
AOS	**Alonnisos**	1.02	14	ePg	Pg	02 09 13.6	+0.9
NEO	**Neokhori**	1.16	347	ePN	Pn	02 09 16.2	+1.1
XOR	**Xorichti**	1.22	346	ePg	Pg	02 09 16.6	-0.1
AGG	**Agios Georgios**	1.28	311	ePg	Pg	02 09 17.7	-0.2
VLI	**Veliai**	1.54	199	ePN	Pn	02 09 20.0	-0.6
EVR	**Evrytania**	1.56	299	ePN	Pn	02 09 21.5	+0.6
ITM	**Ithomi**	1.64	233	ePN	Pn	02 09 22.8	+0.8
PAIG	**Paliouri**	1.75	3	ePb	Pb	02 09 23.7	-0.8
APE	**Apeiranthos**	1.91	125	ePB	Pb	02 09 24.0	-3.3
KYTH	**Kithira**	1.94	193	ePN	Pn	02 09 28.0	+1.7
LIT	**Litokhoron**	2.10	337	ePb	Pb	02 09 28.9	-1.6
OUR	**Ouranopolis**	2.18	8	ePn	Pn	02 09 29.9	+0.1
PLG	**Polygyros**	2.20	358	ePN	Pn	02 09 30.0	0.0
THR3	**Thira Island,**	2.29	140	ePn	Pn	02 09 36.4	+5.1
SOH	**Sokhos**	2.65	357	ePn	Pn	02 09 36.5	0.0
IGT	**Igoumenitsa**	2.87	299	ePn	Pn	02 09 41.2	+1.7
GRG	**Griva**	2.92	342	ePn	Pn	02 09 40.5	+0.2
SRS	**Serrai**	2.94	0	ePn	Pn	02 09 39.4	-1.1
KNT	**Kendrikon**	3.02	350	ePn	Pn	02 09 42.4	+0.5

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*CSEM **06** 02:32:25.7±0.1, 43.17N×15.49E, h10^{km}, ML3.2/5, Error ellipse: s-maj=2.9km s-min=1.9km az=20.0*

*ROM **06** 02:32:27.7±0.7, 43.16N×15.40E, h10^{km}, MD3.0/6, ML2.7/4, Error ellipse: s-maj=8.2km s-min=4.3km az=90.0*

*NEIC **06** 02:32:27.7, 43.16N×15.40E, h10^{km}, MD3.0(ROM), ML3.1(LDG), After ROM.*

*LDG **06** 02:32:28.4±0.5, 43.28N×15.51E, h10^{km}, Ml3.1/5, Error ellipse: s-maj=10.9km s-min=5.3km az=83.0*

ISC 06 02:32:26.1±1.3**, 43.17N**±0.03×**15.31E**±0.06**, h8**^{km}±9^{km}**, n46, σ1^{s}32**/62**, 2C, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVLJ	**Novalja**	1.43	347	i Pn	Pn	02 32 52.3	-0.2
NVLJ				i Sn	Sn	02 33 13.6	+2.0
NVLJ				i Sg	Sg	02 33 13.8	-0.1
NVLJ	**Novalja**	1.43	347	i Pn	Pn	02 32 52.3	-0.2
NVLJ				i Sn	Sn	02 33 13.5	+1.9
RGNG	**Rignano Grg**	1.51	172	ePN	Pn	02 32 52.2	-1.3
RGNG	**Rignano Grg**	1.51	172	ePn	Pn	02 32 52.2	-1.3
FGMS	**Monte Sant'Ang**	1.53	162	ePN	Pn	02 32 55.7	+1.8
	152nm,0.6s						
FGMS	**Monte Sant'Ang**	1.53	162	ePn	Pn	02 32 55.7	+1.8
FGMS	**Monte Sant'Ang**	1.53	162	ePn	Pn	02 32 55.7	+1.8
	152nm,0.6s						
INTR	**Introdacqua**	1.55	222	ePN	Pn	02 32 55.4	+1.2
INTR	**Introdacqua**	1.55	222	ePn	Pn	02 32 55.4	+1.2
AQU	**L'Aquila**	1.62	241	ePn	Pn	02 32 56.1	+0.9
AQU	**L'Aquila**	1.62	241	ePn	Pn	02 32 56.1	+0.9
CII	**Carovilli**	1.62	208	ePn	Pn	02 32 59.3	+4.1
ARV	**Arcevia**	1.76	282	ePN	Pn	02 32 58.3	+1.1
ARV	**Arcevia**	1.76	282	ePn	Pn	02 32 58.3	+1.2
STON	**Ston**	1.78	99	i Pn	Pn	02 32 56.2	-1.3
STON				i Sn	Sn	02 33 18.9	-1.5
STON				i Sg	Sg	02 33 20.1	-5.2

STON	**Ston**	1.78	99	*i* Pn	Pn	02 32 56.1	-1.3
STON				*i* Sn	Sn	02 33 18.8	-1.6
STON				*i* Sg	Sg	02 33 20.1	-5.3
SDI	**San Donato**	1.83	218	*e*PN	Pn	02 32 59.5	+1.3
	45nm,0.6s						
SDI	**San Donato**	1.83	218	*e*Pn	Pn	02 32 59.5	+1.3
SDI	**San Donato**	1.83	218	*e*Pn	Pn	02 32 59.5	+1.3
	45nm,0.6s						
SGG	**Gregorio Mates**	1.91	202	*e*PN	Pn	02 33 00.8	+1.5
SGG	**Gregorio Mates**	1.91	202	*e*Pn	Pn	02 33 00.8	+1.5
MNS	**Montasola**	2.09	249	*e*PN	Pn	02 33 03.6	+1.7
	15nm,0.5s						
MNS	**Montasola**	2.09	249	*e*Pn	Pn	02 33 03.6	+1.7
MNS	**Montasola**	2.09	249	*e*Pn	Pn	02 33 03.6	+1.7
	15nm,0.5s						
VBY	**Vinica-Bojanci**	2.34	359	*e*Pn	Pn	02 33 07.2	+1.7
VBY				*e*Sn	Sn	02 33 40.5	+5.8
VOY	**Vojsko**	3.04	341	*e*Pn	Pn	02 33 16.2	+0.8
VOY				*e*(Sn)	Sn	02 33 54.8	+2.4
VOY				*e*		02 34 07.7	
VOY	**Vojsko**	3.04	341	*e*Pn	Pn	02 33 16.2	+0.8
VOY				Sn	Sn	02 33 54.8	+2.4
OBKA	**Obir**	3.39	351	⇑*i*PN	Pn	02 33 21.7	+1.3
OBKA				*i* SN	Sn	02 34 01.0	-0.2
PTCC	**Patocco-Chiusa**	3.52	337	*e*PN	Pn	02 33 22.7	+0.3
	17nm,0.6s						
PTCC	**Patocco-Chiusa**	3.52	337	*e*Pn	Pn	02 33 22.7	+0.4
PTCC	**Patocco-Chiusa**	3.52	337	*e*Pn	Pn	02 33 22.7	+0.3
	17nm,0.6s						
PGF	**Pioggiola**	4.68	265	*e*Pn	Pn	02 33 39.1	+0.3
MOA	**Molln**	4.74	351	⇑*i*PN	Pn	02 33 40.6	+1.0
MOA				*i* SN	Sn	02 34 34.7	-0.8
SBF	**Sospel**	5.77	280	*e*Pn	Pn	02 33 53.5	-0.6
KHC	**Kasperske Hory**	6.08	349	*e*P	Pn	02 33 58.5	-0.1
KHC				*e*Sg	rx	02 35 19.5	
KHC	**Kasperske Hory**	6.08	349	PN	Pn	02 33 58.5	-0.1
KHC				*e*x	x	02 35 19.5	
FRF	**La Foret Royal**	6.33	277	*e*Pn	Pn	02 34 01.7	-0.3
FRF				*e*Sn	Sn	02 35 11.6	-3.7
	4.2nm,0.7s						
MBDF	**Montbardon**	6.36	287	*e*Pn	Pn	02 34 01.5	-1.0
LMR	**La Mourre**	6.43	274	*e*Pn	Pn	02 34 02.5	-1.0
LPG	**La Plagne**	6.56	294	*e*Pn	Pn	02 34 04.0	-1.4
LPG				*e*Sn	Sn	02 35 16.1	-5.1
	8.5nm,0.6s						
LPL	**La Plagne**	6.58	294	*e*Pn	Pn	02 34 03.9	-1.7
LPL				*e*Sn	Sn	02 35 16.1	-5.6
	6.2nm,0.5s						
ORIF	**Oris-en-Rattie**	7.02	288	*e*Pn	Pn	02 34 10.0	-1.7
SMRF	**Simiane la Rot**	7.12	280	*e*Pn	Pn	02 34 11.7	-1.4
CABF	**La Chapelle**	7.40	301	*e*Pn	Px	02 34 15.3	
HINF	**Hinteralfeld**	7.54	311	*e*Pn	Pn	02 34 16.9	-2.2
HINF				*e*Sn	Sn	02 35 36.8	-8.9
	0.9nm,0.3s						
HAU	**Haudompre**	7.93	311	*e*Pn	Pn	02 34 21.5	-3.0
HAU				*e*Sn	Sn	02 35 46.7	-8.7
	6.6nm,0.5s						

*NEIC **06** 02:39:01.0±0.4, 5.94S×147.99E, mb4.8/11, Error ellipse: s-maj=11.8km s-min=6.1km az=105.0*
*IDC **06** 02:39:01.1±0.7, 6.00S×147.87E, h75^{km}±6^{km}, mb4.4/10, mb1 4.6/13, mb1mx4.5/16, MS3.1/3, Ms1 3.1/3, ms1mx2.9/15, Error ellipse: s-maj=18.9km s-min=8.1km az=111.0*
ISC 06 02:38:58.7±1.6,**5.93S**±0.07×**147.9E**±0.1,**h69**^{km}±15^{km}, **h77**^{km}±3.3^{km}**:pP-P, n44,** σ**0**^{s}**70**/45, **mb4.5**/20, **5C-1D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	3.54	193	P	P	02 39 53.4	+0.8
	83nm,0.3s,baz=23,slow=4.2,SNR=73						
PMG				S	S	02 40 32.3	-1.1
	280nm,0.3s,baz=16,slow=22,SNR=14						
PMG	**Port Moresby**	3.54	193	*e*Pn	P	02 39 53.2	+0.6
PMG				S	S	02 40 32.3	-1.1
PMG				*e*Sn	S	02 40 33.1	-0.3
CTA	**Charters Tower**	14.16	186	P	P	02 42 17.6	+0.2
	0.3nm,0.3s,baz=7.6,slow=16,SNR=5.6						
CTA				LR	LR	02 47 36.1	
	comp=Z,59nm,18.2s,baz=224,slow=36						
CTAO	**Charters Tower**	14.16	186	*e*P	P	02 42 18.1	+0.7
	8.8nm,0.8s						
KAKA	**Kakadu**	16.74	245	⇓*i*P	P	02 42 50.0	-0.2
	33nm,0.6s						
WRAB	**Tennant Creek**	19.19	222	*e*P	P	02 43 18.8	-0.9
	74nm,0.6s						
WRAB				*e*S	S	02 46 41.8	-5.7
WB2	**Warramunga Arr**	19.19	222	⇑*i*P	P	02 43 18.9	-0.8
WB2				*e*S	S	02 46 47.7	+0.1
WRA	**Warramunga Arr**	19.20	222	P	P	02 43 19.0	-0.8
	6.7nm,0.3s,baz=49,slow=11,SNR=204						
WRA				S	S	02 46 47.6	-0.2
	0.5nm,0.3s,baz=43,slow=21,SNR=18						
WRA				PcP	PcP	02 47 40.5	-0.1
	0.6nm,0.3s,baz=29,slow=2.0,SNR=8.9						
ASAR	**Alice Springs**	22.21	216	P	P	02 43 52.1	+1.5
	56nm,0.5s,mb5.2,baz=52,slow=9.1,SNR=880						
ASAR				PcP	PcP	02 47 45.8	-0.4
	6.1nm,0.8s,baz=34,slow=2.8,SNR=13						
ASAR				S	S	02 47 51.5	+5.9
	8.6nm,0.7s,baz=36,slow=23,SNR=21						
ASAR				LR	LR	02 53 08.2	
	comp=Z,58nm,18.7s,baz=303,slow=38						
ASPA	**Alice Springs**	22.21	216	⇑*i*P	P	02 43 52.0	+1.4
ASPA				*e*S	S	02 47 50.2	+4.5
FITZ	**Fitzroy Crossi**	24.90	239	⇑*i*P	P	02 44 18.2	+1.3
	32nm,0.5s,mb5.0						
FITZ				*e*S	S	02 48 36.0	+3.7
FITZ	**Fitzroy Crossi**	24.90	239	P	P	02 44 18.2	+1.4
	90nm,1.0s,mb5.2,baz=54,slow=5.1,SNR=152						
FITZ				pP		02 44 34.5	
	39nm,0.6s,baz=57,slow=5.1,SNR=3.8						
FITZ				S	S	02 48 36.9	+4.5
	6.3nm,0.8s,baz=218,slow=9.6,SNR=3.8						
FITZ				LR	LR	02 54 26.3	
	comp=Z,50nm,21.3s,baz=79,slow=37						
STKA	**Stephens Creek**	26.48	192	*e*P	P	02 44 31.1	-0.4
	6.4nm,0.4s,mb4.4						
STKA	**Stephens Creek**	26.48	192	P	P	02 44 31.2	-0.3
	9.8nm,0.4s,mb4.5,baz=358,slow=6.7,SNR=15						
FORT	**Forrest**	30.98	215	⇑*i*P	P	02 45 11.5	-0.3
	45nm,0.5s,mb5.5						
MBWA	**Marble Bar**	31.24	238	*e*P	P	02 45 13.8	-0.4
	6.0nm,0.5s,mb4.6						
KLBR	**Kellerberrin**	38.07	224	⇑*i*P	P	02 46 12.5	+0.1
	7.1nm,0.2s,mb5.2						
ULN	**Ulaanbaatar**	64.50	331	*e*P	P	02 49 30.5	0.0
	1.8nm,0.5s,mb4.2						
SONM	**Songino Array**	64.80	330	P	P	02 49 32.7	+0.3
	2.3nm,0.6s,mb4.2,baz=146,slow=5.6,SNR=15						
GUN	**Gumba**	68.61	303	*e*P	P	02 49 57.3	+0.5
	5.7nm,0.4s,mb4.7						
PKI	**Pulchoki**	68.90	302	*e*P	P	02 49 59.1	+0.5
	3.8nm,0.4s,mb4.6						
KKN	**Kakani**	69.08	303	*e*P	P	02 49 59.6	-0.1
DMN	**Daman**	69.17	302	*e*P	P	02 50 00.3	+0.1
GKN	**Gorkha**	69.68	303	*e*P	P	02 50 03.4	0.0
	7.4nm,0.6s,mb4.7						
KOLN	**Koldanda**	70.48	302	*e*P	P	02 50 08.1	-0.1
	4.2nm,0.4s,mb4.6						
VNDA	**Vanda**	71.92	177	P	P	02 50 16.2	+0.2
	4.2nm,0.7s,mb4.4,baz=332,slow=6.7,SNR=24						
VNDA				pP	pP	02 50 35.2	+0.3
	1.5nm,0.7s,baz=330,slow=7.4,SNR=2.5						
VNDA	**Vanda**	71.92	177	*e*P	P	02 50 15.8	-0.3
	4.3nm,0.7s,mb4.4						
VNDA				pP	pP	02 50 35.2	+0.3
ZAL	**Zalesovo**	79.46	328	P	P	02 50 58.5	-0.7
	1.8nm,0.3s,mb4.3,baz=358,slow=2.7,SNR=5.3						
ZAL				pP	pP	02 51 19.6	+1.4
	1.0nm,0.9s,baz=30,slow=11,SNR=1.9						
KURK	**Kurchatov**	81.72	323	*e*P	P	02 51 11.3	+0.1
	1.4nm,0.7s,mb3.9						
MAW	**Mawson**	82.67	203	P	P	02 51 14.8	-1.0
	2.6nm,0.4s,mb4.4,baz=79,slow=17,SNR=6.5						
QSPA	**South Pole Qui**	84.03	180	*e*P	P	02 51 23.4	+1.0
	18nm,0.6s,mb5.1						
ILAR	**Eielson Array**	85.05	23	P	P	02 51 26.8	-1.0
	1.6nm,0.5s,mb4.2,baz=253,slow=4.9,SNR=46						
ILAR				pP	pP	02 51 48.8	+1.8
	1.1nm,0.8s,baz=252,slow=5.2,SNR=3.8						
BVAR	**Borovoye Array**	87.27	324	P	P	02 51 37.9	-0.9
	1.3nm,0.5s,mb4.1,baz=108,slow=5.6,SNR=11						
YKA	**Yellowknife Ar**	98.68	28	P	P	02 52 31.8	+0.6
	0.2nm,0.8s,mb3.7,baz=268,slow=6.2,SNR=3.7						
YKA				PKKPbc		03 08 57.8	
	0.2nm,0.6s,baz=95,slow=3.0,SNR=5.2						
YKA	**Yellowknife Ar**	98.68	28	P	P	02 52 31.8	+0.6
YKA				PKKPbc		03 08 57.8	
PDAR	**Pinedale Array**	103.18	48	Pdiff	Pdif	02 52 51.4	-0.5
	0.3nm,0.6s,baz=225,slow=2.1,SNR=3.6						
TXAR	**Lajitas Array**	108.91	61	PKKPbc		03 08 31.8	
	0.4nm,1.0s,baz=101,slow=5.9,SNR=3.9						
LPAZ	**La Paz**	138.03	122	PKP	PKPdf	02 58 19.3	+2.6
	1.8nm,0.7s,baz=338,slow=1.5,SNR=10						
LPAZ	**La Paz**	138.03	122	*e*PKPpre		02 58 08.1	
LPAZ				PKP	PKPdf	02 58 19.3	+2.6
LPAZ				*e*PKPdf	PKPdf	02 58 19.4	+2.8
SAML	**Samuel**	145.63	115	*e*PKPdf	PKPdf	02 58 31.8	+1.6
DBIC	**Dimbokro**	152.95	273	PKPbc	PKPdf	02 58 51.2	+9.5
	1.6nm,0.6s,baz=130,slow=9.4,SNR=6.3						
DBIC	**Dimbokro**	152.95	273	PKPbc	PKPdf	02 58 51.2	+9.5
BDFB	**Brasilia**	153.37	144	PKP	PKPdf	02 58 43.1	+0.9
	2.3nm,0.7s,baz=306,slow=6.9,SNR=5.1						
BDFB				PKPbc	PKPdf	02 58 52.1	+10
	11nm,0.6s,baz=247,slow=1.2,SNR=23						
BAO	**Brasilia Array**	153.39	144	*e*P	PKPdf	02 58 51.9	+10
BAO				*i*		02 59 04.4	
BAO				*i*		02 59 12.5	
BAO				*e*		02 59 21.2	
BAO				*e*		02 59 25.3	

*IDC **06** 02:56:58.6±0.9, 3.47S×135.62E, mb4.1/5, mb1 4.3/9, mb1mx4.1/15, ML3.8/4, MS3.5/3, Ms1 3.4/3, ms1mx2.9/18, Error ellipse: s-maj=39.4km s-min=20.1km az=75.0*
*NEIC **06** 02:57:02.4±0.5, 3.52S×135.40E, h10^{km}, mb4.2/3, Error ellipse: s-maj=11.3km s-min=8.0km az=90.0*
ISC 06 02:57:01.8±0.8,**3.79S**±0.06×**135.5E**±0.1,**h33**^{km}**, n18,** σ**1**^{s}**54**/24, **mb3.9**/4, **MS3.4**/1, **1D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	9.36	199	*e*P	P	02 59 18.3	+0.9
	9.4nm,0.3s						
KAKA				*e*S	S	03 01 02.1	-0.6
PMG	**Port Moresby**	12.86	116	Pn	P	03 00 03.0	-2.1
	0.7nm,0.3s,baz=319,slow=13,SNR=1.9						
PMG	**Port Moresby**	12.86	116	P	P	03 00 04.9	-0.2
WRAB	**Tennant Creek**	16.09	184	*e*P	P	03 00 45.7	-1.5
	30nm,0.9s						
WB2	**Warramunga Arr**	16.09	184	*e*P	P	03 00 46.6	-0.7
WB2				*e*S	S	03 03 43.0	-1.4
WRA	**Warramunga Arr**	16.09	184	Pn	P	03 00 45.8	-1.5
	0.5nm,0.3s,baz=7.3,slow=12,SNR=11						
WRA				Sn	S	03 03 41.7	-2.7
	0.6nm,0.3s,baz=8.8,slow=23,SNR=6.5						
FITZ	**Fitzroy Crossi**	17.19	213	*e*P	P	03 01 02.5	+1.4
	1.9nm,0.3s						
FITZ				*e*S	S	03 04 09.0	-0.6
FITZ	**Fitzroy Crossi**	17.19	213	P	P	03 01 02.6	+1.5
	0.7nm,0.3s,baz=11,slow=12,SNR=13						
FITZ				S	S	03 04 05.8	-3.8
	0.5nm,0.3s,baz=175,slow=13,SNR=6.8						
CTA	**Charters Tower**	19.30	148	*e*P	P	03 01 29.8	+2.9
	12nm,1.6s						
CTA	**Charters Tower**	19.30	148	P	P	03 01 28.8	+1.9
	0.2nm,0.3s,baz=333,slow=11,SNR=8.3						
CTA				LR	LR	03 09 31.0	
	comp=Z,135nm,19.4s,baz=225,slow=39						
CTAO	**Charters Tower**	19.30	148	*e*P	P	03 01 29.2	+2.3
	14nm,1.1s						
ASAR	**Alice Springs**	19.82	184	P	P	03 01 35.0	+2.5
	23nm,0.6s,baz=9.6,slow=11,SNR=137						
ASAR				S	S	03 05 10.1	+1.3
	0.7nm,0.6s,baz=13,slow=20,SNR=3.5						
ASAR				LR	LR	03 10 41.4	
	comp=Z,107nm,19.5s,baz=5.7,slow=41						
ASPA	**Alice Springs**	19.82	184	⇓*i*P	P	03 01 35.1	+2.5
ASPA				*e*S	S	03 05 12.8	+4.0
STKA	**Stephens Creek**	28.52	169	P	P	03 02 58.1	+1.6
	1.6nm,0.6s,mb3.9,baz=345,slow=11,SNR=4.0						
STKA				LR	LR	03 13 36.4	
	comp=Z,104nm,21.1s,MS3.4,baz=212,slow=35						
ZAL	**Zalesovo**	71.29	331	P	P	03 08 19.6	-0.1
	0.7nm,0.4s,mb3.9,baz=317,slow=5.6,SNR=4.6						
BVAR	**Borovoye Array**	78.38	326	P	P	03 09 00.0	-0.6
	0.5nm,0.5s,mb3.7,baz=108,slow=4.6,SNR=3.0						
ILAR	**Eielson Array**	88.15	25	P	P	03 09 48.3	-1.8
	0.5nm,0.6s,mb3.9,baz=262,slow=4.3,SNR=11						
LPAZ	**La Paz**	149.28	131	PKPbc	PKPdf	03 16 51.6	+7.8
	1.3nm,0.8s,baz=232,slow=2.0,SNR=4.2						

*IDC **06** 03:13:45.5±0.9, 3.11S×129.76E, mb4.0/8, mb1 4.1/10, mb1mx4.0/18, ML3.7/2, Error ellipse: s-maj=59.0km s-min=16.0km az=66.0*
*NEIC **06** 03:13:49.9±6.0, 3.16S×129.76E, h32^{km}±44^{km}, mb4.2/6, Error ellipse: s-maj=25.8km s-min=11.3km az=57.0*
ISC 06 03:13:47.3±7.6,**3.2S**±0.2×**129.7E**±0.2,**h28**^{km}±55^{km}**, n17,** σ**0**^{s}**79**/17, **mb4.0**/11, **Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	15.39	195	Pn	P	03 17 24.4	-0.1
	0.1nm,0.3s,baz=9.0,slow=19,SNR=2.9						
WRAB	**Tennant Creek**	17.28	165	P	P	03 17 48.0	-0.6
	4.7nm,0.7s						
WRA	**Warramunga Arr**	17.29	165	P	P	03 17 48.1	-0.5
	0.5nm,0.3s,baz=350,slow=12,SNR=11						
ASAR	**Alice Springs**	20.79	169	P	P	03 18 29.9	+0.8
	16nm,0.7s,baz=352,slow=10,SNR=140						
ASAR				PcP	PcP	03 22 37.5	-0.1
	0.5nm,0.5s,baz=359,slow=3.1,SNR=4.6						
CTA	**Charters Tower**	23.31	138	P	P	03 18 56.4	+2.2
	1.9nm,0.6s,mb3.7,baz=327,slow=11,SNR=4.4						
CTA	**Charters Tower**	23.31	138	P	P	03 18 56.4	+2.2
CTAO	**Charters Tower**	23.31	138	P	P	03 18 54.5	+0.2
	3.3nm,0.7s,mb3.9						
STKA	**Stephens Creek**	30.68	160	P	P	03 20 02.3	+0.2
	0.9nm,0.4s,mb4.0,baz=336,slow=9.3,SNR=3.5						
CMAR	**Chiang Mai Arr**	37.15	306	P	P	03 20 59.5	+1.5
	0.4nm,0.4s,mb3.6,baz=120,slow=6.2,SNR=4.1						
ULN	**Ulaanbaatar**	54.55	341	P	P	03 23 13.9	-1.4
	2.8nm,1.0s,mb4.2						
SONM	**Songino Array**	54.73	341	P	P	03 23 16.6	0.0
	0.4nm,0.7s,mb3.6,baz=146,slow=10,SNR=3.2						
ZAL	**Zalesovo**	68.04	333	P	P	03 24 46.5	0.0
	1.7nm,0.3s,mb4.5,baz=240,slow=1.3,SNR=3.5						
KURK	**Kurchatov**	69.12	328	*e*P	P	03 24 53.0	-0.1
	4.0nm,0.8s,mb4.4						
BVAR	**Borovoye Array**	74.69	327	P	P	03 25 26.4	+0.1
	1.6nm,0.9s,mb4.0,baz=129,slow=9.5,SNR=8.5						
BRVK	**Borovoye**	74.76	327	*e*P	P	03 25 26.6	-0.1
	1.7nm,0.7s,mb4.1						
VNDA	**Vanda**	76.28	173	P	P	03 25 35.1	+0.2
	0.4nm,0.7s,mb3.5,baz=340,slow=5.6,SNR=2.6						
SBA	**Scott Base**	77.16	172	*e*P	P	03 25 38.6	-1.2
	1.6nm,0.5s,mb4.2						

IDC 06 03:31:22.2±43.0,**24.08S**×**178.16W, mb4.2**/3,**mb1 4.4**/3, **mb1mx3.9**/13,**MS3.1**/1,**Ms1 3.1**/1,**ms1mx2.9**/16,**Error ellipse: s-maj=792.0km s-min=151.1km az=88.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	33.16	270	LR	LR	03 49 39.2	
	comp=Z,31nm,19.1s,baz=229,slow=33						
STKA	**Stephens Creek**	36.22	248	P	P	03 38 26.2	-2.6
	1.5nm,0.4s,baz=84,slow=11,SNR=7.1						
ASAR	**Alice Springs**	43.67	260	P	P	03 39 28.8	-1.8
	1.4nm,0.4s,baz=90,slow=7.6,SNR=25						
WRA	**Warramunga Arr**	44.08	266	P	P	03 39 33.0	-1.0
	1.5nm,0.4s,baz=103,slow=7.9,SNR=19						

*CSEM **06** 03:33:04.9±0.1, 39.56N×20.65E, h1^{km}±1^{km}, ML2.4, Error ellipse: s-maj=2.9km s-min=2.1km az=6.0*
*THE **06** 03:33:05.2, 39.54N×20.59E, h12^{km}, ML2.4*
ATH 06 03:33:05.1, 39.59N×**20.66E, h10**^{km}**, MD3.0**/3, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAN	**Janina**	0.16	66	*e*PG	Pg	03 33 08.5	-0.3
IGT	**Igoumenitsa**	0.26	257	*e*Pg	Pg	03 33 09.3	-1.3
IGT				*e*Sg	Sg	03 33 13.0	-1.2
MEV	**Metsovon**	0.48	66	*e*Pg	Pg	03 33 15.5	+0.6
MEV				*e*Sg	Sg	03 33 24.1	+2.7
LSK	**Leskovik**	0.56	355	*i* Pg	Pg	03 33 18.1	+1.7
LSK				*i* Sg	Sg	03 33 28.6	+4.6
LSK	**Leskovik**	0.56	355	*i* Sg	Sg	03 33 28.6	+4.6
SRN	**Sarande**	0.58	300	*i* Pg	Pg	03 33 16.7	-0.2
SRN				*i* Sg	Sg	03 33 27.2	+2.4
SRN	**Sarande**	0.58	300	*i* Sg	Sg	03 33 27.2	+2.4
KEK	**Kerkira**	0.68	281	*e*PB	Pb	03 33 17.9	-0.6
LKD	**Levkas**	0.88	180	*e*Pg	Pg	03 33 20.9	-1.9
LKD				*e*Sg	Sg	03 33 33.1	-1.5
FNA	**Florina**	1.31	24	*e*Pb	Pb	03 33 30.2	+0.8
FNA				*e*Sb	Sb	03 33 47.8	+1.7
VLS	**Valsamata**	1.41	182	*e*PB	Pb	03 33 32.0	+0.9
AGG	**Agios Georgios**	1.42	113	*e*Pb	Pb	03 33 30.8	-0.3

*MDD **06** 03:46:29.8±1.2, 35.37N×4.21W, mb3.2/6, Error ellipse: s-maj=13.4km s-min=6.0km az=25.0, PRXIMO*
*NEIC **06** 03:46:30.0, 35.38N×4.20W, MG3.2(MDD), After MDD.*
*CSEM **06** 03:46:30.1, 35.33N×2.90W, h8^{km}, MD2.9*
*CNRM **06** 03:46:30.1, 35.33N×2.90W, h8^{km}, MD2.9*
ISC 06 03:46:28.3±0.5,**35.32N**±0.03×**4.20W**±0.04,**h10**^{km}**, n18,** σ**1**^{s}**23**/32, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPAL	**Palemas**	0.23	114	*i* P	Pg	03 46 32.5	-0.7
MPAL				*i* S	Sg	03 46 34.5	-2.0
TOU	**Touzarine**	0.51	134	*i* P	Pg	03 46 37.5	-1.1
TOU				*i* S	Sg	03 46 42.5	-3.0
EMEL	**Melilla**	1.02	91	P	Pb	03 46 48.7	+1.1
	65nm,0.1s,SNR=7.9						
EMEL				S	Sb	03 47 01.3	+0.6
	127nm,0.2s,SNR=5.3						
TZK	**Tazeka**	1.23	179	*i* P	Pb	03 46 52.5	+1.4
TZK				*i* S	Sb	03 47 08.0	+1.1
EMIJ	**Mijas**	1.33	340	P	Pb	03 46 52.1	-0.8
	2.3nm,0.1s,SNR=23						
EMIJ				S	Sb	03 47 09.4	-0.4
	31nm,0.2s						
REAL	**Reales**	1.42	325	P	Pn	03 46 53.0	-1.3
ERON	**Agron**	1.73	11	P	Pn	03 46 59.4	+0.7
	3.4nm,0.3s,SNR=6.0						
ERON				S	Sn	03 47 19.8	-1.0
	3.9nm,0.2s,SNR=7.6						
ELOJ	**Sierra Loja**	1.82	1	P	Pn	03 47 00.4	+0.4
ELOJ	**Sierra Loja**	1.82	1	P	Pn	03 47 00.2	+0.2
	0.5nm,0.2s,SNR=6.6						
LIJA	**Lijar**	1.86	329	P	Pn	03 47 02.0	+1.4
EBER	**Berja**	1.90	34	P	Pn	03 47 00.8	-0.4
	1.0nm,0.2s,SNR=9.0						
EBER				S	Sn	03 47 25.5	+0.2
	4.4nm,0.2s						
ESPR	**Espera**	2.05	320	P	Pn	03 47 05.0	+1.7
	1.3nm,0.2s,SNR=6.9						
ESPR				S	Sn	03 47 29.2	+0.2
	5.9nm,0.3s,SNR=8.4						
ELUQ	**Luque**	2.24	359	P	Pn	03 47 09.6	+3.6
	2.6nm,0.2s,SNR=7.6						
ELUQ				S	Sn	03 47 35.9	+2.0
	5.0nm,0.3s,SNR=6.6						
EQES	**Quesada**	2.64	20	P	Pn	03 47 13.3	+1.6
	2.9nm,0.2s,SNR=28						
EQES				S	Sn	03 47 44.8	+0.7
	10nm,0.4s						
EADA	**Adamuz**	2.86	354	P	Pn	03 47 15.8	+0.9
	0.7nm,0.1s,SNR=14						
EADA				S	Sn	03 47 49.7	0.0
	4.3nm,0.3s						
EMIN	**Mina Concepcio**	3.15	322	P	Pn	03 47 18.0	-1.0
	0.5nm,0.2s,SNR=12						
EMIN				S	Sn	03 47 55.1	-2.0
	1.4nm,0.2s						
EBAD	**Badajoz**	4.10	328	P	Pn	03 47 31.5	-1.0
	0.6nm,0.1s,SNR=11						
EBAD				S	Sn	03 48 18.0	-3.2
	6.3nm,0.2s						
ESDC	**Sonseca Array**	4.35	2	P	Pn	03 47 35.9	-0.1
	0.6nm,0.3s,baz=180,slow=12,SNR=12						
ESDC				S	Sn	03 48 23.6	-3.8
	0.3nm,0.2s,baz=262,slow=36,SNR=6.5						

IDC 06 04:17:59.0±10.0,**6.46N**×**74.60W, mb3.6**/1,**mb1 4.0**/1, **mb1mx3.3**/19,**Error ellipse: s-maj=657.0km s-min=49.5km az=91.0, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKA	**Yellowknife Ar**	63.10	340	P	P	04 28 28.0	-2.4
	0.4nm,0.6s,baz=133,slow=6.7,SNR=10						
ASAR	**Alice Springs**	147.71	235	PKPbc	PKPdf	04 37 45.9	+0.4
	0.3nm,0.8s,baz=124,slow=3.8,SNR=4.0						
WRA	**Warramunga Arr**	148.88	242	PKPbc	PKPdf	04 37 49.1	+1.7
	0.3nm,0.4s,baz=108,slow=2.7,SNR=7.6						

IDC 06 04:27:44.5±24.0,**19.40S**×**176.73W, h473**^{km}±265^{km}, **mb3.3**/4,**mb1 3.4**/5,**mb1mx3.1**/16,**Error ellipse: s-maj=260.0km s-min=62.7km az=52.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	19.54	195	P	P	04 31 40.2	-0.5
	0.7nm,0.3s,baz=130,slow=12,SNR=4.7						
CTA	**Charters Tower**	34.80	263	P	P	04 33 54.7	-0.9
	2.2nm,0.8s,baz=80,slow=11,SNR=3.0						
STKA	**Stephens Creek**	39.34	243	P	P	04 34 31.7	-1.3
	3.7nm,0.9s,baz=90,slow=9.8,SNR=4.4						
ASAR	**Alice Springs**	45.94	256	P	P	04 35 24.1	-1.3
	2.5nm,0.8s,baz=92,slow=7.6,SNR=25						
WRA	**Warramunga Arr**	45.94	261	P	P	04 35 23.9	-1.5
	1.2nm,0.3s,baz=96,slow=7.5,SNR=48						

DJA 06 04:35:35.7±1.0,**9.06S**×**113.89E, h100**^{km}±14^{km},**MD5.3**/3, **ML3.5**/2,**6C, Error ellipse: s-maj=45.4km s-min=19.3km az=10.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	**Scrawed**	0.63	23	⇑*e*Pn	P	04 35 52.2	-0.5
	56nm,0.2s						
SRDI				⇑*i*Sn	S	04 36 04.6	-0.8
KELI	**Kelakatan**	1.03	35	⇑*i*Pn	P	04 35 56.0	-0.7
	61nm,0.2s						
KELI				⇑*i*Sn	S	04 36 12.0	-0.5
RATI	**Rata**	1.66	78	⇑*e*Pn	P	04 36 04.2	-0.1
	43nm,0.2s						
RATI				⇑*e*Sn	S	04 36 23.5	-2.1

*NEIC **06** 04:39:08.8±1.2, 15.58S×178.49W, h422^{km}±13^{km}, mb4.2/10, Error ellipse: s-maj=14.0km s-min=8.5km az=152.0*
*IDC **06** 04:39:13.3±2.0, 15.83S×178.46W, h475^{km}±23^{km}, mb3.6/15, mb1 3.7/16, mb1mx3.6/21, Error ellipse: s-maj=18.4km s-min=9.7km az=153.0*
ISC 06 04:39:07.6±1.3,**15.5S**±0.1×**178.60W**±0.08,**h419**^{km}±14^{km}, **n42,** σ**0**^{s}**97**/40, **mb4.1**/22, **4C-3D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	6.80	77	*e*Pn	P	04 40 49.3	-1.0
	738nm,0.6s						
URZ	**Urewera**	22.95	189	P	P	04 43 37.0	-1.9
	10nm,0.3s,mb4.7,baz=0.7,slow=4.8,SNR=22						
RPZ	**Rata Peaks**	29.43	195	P	P	04 44 38.1	+1.5
	7.5nm,0.5s,mb4.3,baz=12,slow=8.6,SNR=3.2						
CTA	**Charters Tower**	33.73	257	⇑*i*P	P	04 45 14.6	+1.0
	9.7nm,0.7s,mb4.2						
CTA	**Charters Tower**	33.73	257	P	P	04 45 14.7	+1.1
	31nm,1.1s,mb4.5,baz=88,slow=11,SNR=23						
CTAO	**Charters Tower**	33.73	257	*e*P	P	04 45 14.3	+0.7
	13nm,0.8s,mb4.3						
PMG	**Port Moresby**	33.95	276	P	P	04 45 17.7	+2.1
	18nm,0.8s,mb4.5,baz=61,slow=5.2,SNR=10						
STKA	**Stephens Creek**	39.65	239	*e*P	P	04 46 03.3	+0.6
	7.7nm,0.8s,mb4.1						
STKA	**Stephens Creek**	39.65	239	P	P	04 46 03.4	+0.7
	10nm,0.8s,mb4.2,baz=46,slow=6.7,SNR=10						
WB2	**Warramunga Arr**	44.92	257	⇑*i*P	P	04 46 44.7	-0.2

WRAB	**Tennant Creek**	**44.92**	**257**	*e*P	**P**	**04 46 44.6**	**-0.3**
	16nm,0.9s,mb4.3						
WRA	**Warramunga Arr**	**44.93**	**257**	P	**P**	**04 46 44.8**	**-0.2**
	3.2nm,0.3s,mb4.1,baz=77,slow=6.0,SNR=81						
WRA				S	**S**	**04 52 47.7**	**-3.6**
	1.1nm,1.1s,baz=83,slow=13,SNR=4.5						
ASAR	**Alice Springs**	**45.30**	**252**	P	**P**	**04 46 48.4**	**+0.5**
	71nm,0.5s,mb5.2,baz=84,slow=8.3,SNR=848						
ASAR				S	**S**	**04 52 54.9**	**-1.7**
	1.2nm,0.9s,baz=85,slow=15,SNR=4.6						
ASPA	**Alice Springs**	**45.30**	**252**	⇑*i*P	**P**	**04 46 48.3**	**+0.4**
ASPA				*e*S	**S**	**04 52 54.5**	**-2.1**
KAKA	**Kakadu**	**47.53**	**267**	*e*P	**P**	**04 47 05.0**	**-0.1**
	11nm,0.8s,mb4.2						
FORT	**Forrest**	**50.89**	**243**	*e*P	**P**	**04 47 29.5**	**-0.7**
	114nm,0.6s,mb5.3						
FITZ	**Fitzroy Crossi**	**53.27**	**259**	*e*P	**P**	**04 47 47.8**	**0.0**
	3.4nm,0.6s,mb3.8						
FITZ	**Fitzroy Crossi**	**53.27**	**259**	P	**P**	**04 47 47.9**	**+0.1**
	4.1nm,0.7s,mb3.8,baz=194,slow=2.7,SNR=7.1						
NWAO	**Narrogin (SRO)**	**60.18**	**241**	P	**P**	**04 48 34.6**	**-0.7**
	5.8nm,0.5s,mb4.2,baz=139,slow=11,SNR=3.5						
NWAO	**Narrogin (SRO)**	**60.18**	**241**	P	**P**	**04 48 33.1**	**-2.2**
	3.0nm,0.5s,mb4.0						
VNDA	**Vanda**	**62.77**	**185**	P	**P**	**04 48 48.2**	**-3.6**
	0.9nm,0.9s,mb3.3,baz=11,slow=5.2,SNR=3.1						
VNDA	**Vanda**	**62.77**	**185**	*e*P	**P**	**04 48 48.1**	**-3.7**
QSPA	**South Pole Qui**	**74.50**	**180**	*e*P	**P**	**04 50 03.3**	**+0.7**
	19nm,0.8s,mb4.8						
YBH	**Yreka Blue Hor**	**76.82**	**40**	P	**P**	**04 50 15.8**	**-0.4**
	1.0nm,0.4s,mb3.8,baz=220,slow=16,SNR=5.1						
NVAR	**Mina Array Bea**	**77.86**	**44**	P	**P**	**04 50 21.8**	**-0.1**
	0.6nm,0.6s,mb3.4,baz=237,slow=8.9,SNR=4.0						
NVAR	**Mina Array Bea**	**77.86**	**44**	P	**P**	**04 50 21.8**	**-0.1**
TPNV	**Topopah Spring**	**78.52**	**46**	*e*P	**P**	**04 50 25.5**	**0.0**
	0.3nm,0.4s,mb3.3						
ILAR	**Eielson Array**	**83.64**	**13**	P	**P**	**04 50 50.5**	**-0.7**
	0.6nm,0.4s,mb3.6,baz=231,slow=5.3,SNR=21						
ANMO	**Albuquerque**	**84.78**	**52**	P	**P**	**04 50 57.7**	**+0.1**
	0.3nm,0.4s,mb3.4,baz=198,slow=4.5,SNR=3.8						
ANMO	**Albuquerque**	**84.78**	**52**	*e*P	**P**	**04 50 57.9**	**+0.3**
	1.8nm,1.0s,mb3.8						
TXAR	**Lajitas Array**	**84.89**	**58**	P	**P**	**04 50 59.1**	**+0.9**
	0.4nm,0.5s,mb3.4,baz=216,slow=7.6,SNR=5.5						
PDAR	**Pinedale Array**	**85.77**	**44**	P	**P**	**04 51 02.1**	**-0.1**
	0.6nm,0.6s,mb3.5,baz=196,slow=2.9,SNR=5.5						
MAW	**Mawson**	**86.01**	**200**	P	**P**	**04 51 03.1**	**+0.3**
	4.3nm,0.7s,mb4.3,baz=126,slow=2.7,SNR=3.8						
SNAA	**Sanae**	**92.95**	**179**	⇓*i*	**P**	**04 51 34.6**	**-0.5**
VNA3	**Neumayer Olymp**	**93.10**	**176**	⇑*i*	**P**	**04 51 37.1**	**+1.3**
VNA2	**Neumayer--Watz**	**93.54**	**177**	⇓*i*	**P**	**04 51 39.2**	**+1.4**
VNA1	**Neumayer--Stat**	**93.77**	**177**	⇓*i*	**P**	**04 51 37.9**	**-0.9**
BVAR	**Borovoye Array**	**114.90**	**322**	PKP	PKPdf	04 56 59.6	+0.4
	0.6nm,0.4s,baz=84,slow=0.6,SNR=5.2						
ARCES	**ARCESS Array B**	**123.97**	**350**	PKP	PKPdf	04 57 17.0	+0.5
	1.0nm,0.5s,slow=2.4,SNR=7.1						
ARCES	**ARCESS Array B**	**123.97**	**350**	PKP	PKPdf	04 57 17.0	+0.5
BRTR	**Keskin Array B**	**142.97**	**317**	PKP	PKPdf	04 57 52.0	-0.4
	3.0nm,1.1s,baz=135,slow=1.7,SNR=9.3						
GERES	**GERESS Array B**	**145.29**	**346**	PKPbc	PKPbc	04 57 58.5	+1.5
	0.7nm,0.6s,baz=18,slow=4.2,SNR=6.8						

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*IDC **06** 05:11:21.4±12.0, 12.31S×167.05E, h159^{km}±110^{km}, mb3.5/9, mb1 3.8/9, mb1mx3.7/16, Error ellipse: s-maj=42.2km s-min=27.0km az=81.0*

*NEIC **06** 05:11:25.6±0.6, 12.33S×166.98E, h200^{km}, mb3.6/3, Error ellipse: s-maj=25.4km s-min=11.0km az=138.0*

ISC 06 05:11:24.0±0.9**, 12.4S**±0.2×**167.0E**±0.2**, h200**^{km}**, n14, σ0$\overset{s}{.}$84**/12**, mb3.7**/11**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**21.32**	**246**	P	**P**	**05 15 57.8**	**+1.8**
	1.6nm,0.4s,mb3.9,baz=75,slow=11,SNR=4.8						
STKA	**Stephens Creek**	**30.36**	**226**	P	**P**	**05 17 18.8**	**-0.5**
	1.3nm,0.3s,mb4.0,baz=61,slow=8.3,SNR=7.7						
WRAB	**Tennant Creek**	**32.20**	**252**	*e*P	**P**	**05 17 34.6**	**-0.9**
	0.8nm,0.6s,mb3.4						
WRA	**Warramunga Arr**	**32.21**	**252**	P	**P**	**05 17 34.4**	**-1.2**
	0.7nm,0.5s,mb3.4,baz=84,slow=9.6,SNR=8.3						
ASAR	**Alice Springs**	**33.33**	**246**	P	**P**	**05 17 44.5**	**-0.5**
	1.1nm,0.3s,mb3.9,baz=72,slow=9.3,SNR=14						
ASAR				pP	pP	05 18 28.7	+2.0
	1.1nm,0.6s,baz=72,slow=9.3,SNR=6.0						
FITZ	**Fitzroy Crossi**	**40.24**	**257**	P	**P**	**05 18 43.8**	**+0.8**
	1.5nm,0.7s,mb3.5,baz=63,slow=11,SNR=5.2						
VNDA	**Vanda**	**65.18**	**181**	P	**P**	**05 21 46.0**	**+0.6**
	0.5nm,0.8s,mb3.2,baz=334,slow=8.6,SNR=4.2						
VNDA	**Vanda**	**65.18**	**181**	*e*P	**P**	**05 21 45.9**	**+0.5**
	0.2nm,0.5s,mb3.0						
SONM	**Songino Array**	**80.47**	**323**	P	**P**	**05 23 15.8**	**+0.9**
	0.2nm,0.4s,mb3.1,baz=135,slow=5.9,SNR=4.4						
COLA	**College**	**84.18**	**18**	*e*P	**P**	**05 23 33.1**	**-0.4**
	3.3nm,0.8s,mb4.1						
ILAR	**Eielson Array**	**84.39**	**18**	P	**P**	**05 23 34.9**	**+0.2**
	3.0nm,0.6s,mb4.2,baz=244,slow=5.5,SNR=78						
YKA	**Yellowknife Ar**	**95.60**	**27**	P	**P**	**05 24 26.8**	**-0.5**
	0.2nm,0.4s,mb3.7,baz=256,slow=4.8,SNR=9.6						
ARCES	**ARCESS Array B**	**117.93**	**346**	PKP	PKPdf	05 29 47.6	+1.4
	1.0nm,0.4s,baz=72,slow=2.0,SNR=14						
ESDC	**Sonseca Array**	**151.67**	**345**	PKPbc	PKPdf	05 30 57.1	+8.9
	0.5nm,0.6s,baz=1.1,slow=3.2,SNR=6.4						
ESDC				PKPab	PKPab	05 31 07.2	+0.6
	0.6nm,0.4s,baz=8.3,slow=3.6,SNR=12						

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*STR **06** 05:14:09.9±0.3, 48.07N×8.04E, h10^{km}±1^{km}, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LEDBW **06** 05:14:10.3±0.1, 48.08N×8.04E, h9^{km}±1^{km}, ML2.2, Error ellipse: s-maj=1.8km s-min=1.0km az=138.0*

*ZUR **06** 05:14:10.0, 48.08N×8.04E, h10^{km}, ML2.0/14*

*LDG **06** 05:14:10.0±0.1, 48.07N×8.02E, h15^{km}, Md2.5/1, Ml2.4/13, Error ellipse: s-maj=1.4km s-min=1.1km az=157.0*

*PRU **06** 05:14:11.6, 48.17N×8.08E*

BGR 06 05:14:10.3±0.3**, 48.08N**×**8.04E, h10**^{km}**, ML2.1**/1**, 18C-8D, Error ellipse: s-maj=2.2km s-min=1.1km az=127.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FBB	**Freiburg**	**0.15**	**238**	⇑*i*Pg	Pg	05 14 13.8	0.0
FBB				Sg	Sg	05 14 15.9	-0.2
FBB	**Freiburg**	**0.15**	**238**	⇑*i*P	Pg	05 14 13.8	0.0
KIZ	**Kirchzarten**	**0.15**	**213**	⇑*i*Pg	Pg	05 14 13.7	-0.1
KIZ				*i* Sg	Sg	05 14 16.1	0.0
FELD	**Feldberg**	**0.21**	**187**	⇓*i*Pg	Pg	05 14 14.7	0.0
FELD				*i* Sg	Sg	05 14 17.8	0.0
LIBD	**Limburg**	**0.30**	**284**	⇑*i*Pg	Pg	05 14 16.6	+0.1
LIBD				*e*Sg	Sg	05 14 20.6	-0.2
	SNR=5.8						
LIBD	**Limburg**	**0.30**	**284**	⇑*e*P	Pg	05 14 16.7	+0.1
BFO	**Black Forest**	**0.32**	**38**	⇑*i*Pg	Pg	05 14 16.5	-0.3
BFO				*i* Sg	Sg	05 14 20.7	-0.5
BFO	**Black Forest**	**0.32**	**38**	⇑*i*P	Pg	05 14 16.5	-0.3
BFO				S	Sg	05 14 20.7	-0.5
SLE	**Schleitheim**	**0.44**	**136**	⇓*i*Pg	Pg	05 14 18.8	-0.4
SLE				*i* Sg	Sg	05 14 24.6	-0.6
SPAK	**Spaichingen**	**0.50**	**87**	⇑*i*Pg	Pg	05 14 20.1	-0.4
SULZ	**Sulz-Cheisache**	**0.56**	**175**	⇓*i*Pg	Pg	05 14 21.0	-0.5
SULZ				*i* Sg	Sg	05 14 28.4	-0.6
WLS	**Welschbruch**	**0.57**	**306**	⇓*e*Pg	Pg	05 14 21.4	-0.4
WLS				*e*Sg	Sg	05 14 28.5	-0.9
	SNR=2.2						
WLS	**Welschbruch**	**0.57**	**306**	⇓P	Pg	05 14 21.4	-0.4
WLS				P		05 14 22.0	
WLS				S	Sg	05 14 28.6	-0.8
WLS	**Welschbruch**	**0.57**	**306**	Pg	Pg	05 14 21.2	-0.5
WLS				Sg	Sg	05 14 28.5	-0.9
ECH	**Echery**	**0.61**	**283**	⇑*i*Pg	Pg	05 14 21.8	-0.7
ECH				Sg	Sg	05 14 29.7	-1.0
ECH	**Echery**	**0.61**	**283**	⇑*e*P	Pb	05 14 21.8	-0.7
ECH				S	Sg	05 14 29.7	-1.0
ECH	**Echery**	**0.61**	**283**	Pg	Pg	05 14 21.7	-0.8
ECH				Sg	Sg	05 14 29.6	-1.1
CDF	**Champ du Feu**	**0.61**	**303**	*e*Pg	Pg	05 14 22.0	-0.6
CDF				*e*Sg	Sg	05 14 29.6	-1.2
	32nm,0.2s						
CDF	**Champ du Feu**	**0.61**	**303**	*e*Pg	Pg	05 14 22.0	-0.5
	SNR=32						
CDF				*e*Sg	Sg	05 14 29.9	-0.9
	SNR=5.4						
TRULL	**Truellikon**	**0.61**	**135**	⇑*i*Pg	Pg	05 14 22.2	-0.4
TRULL				*e*Sg	Sg	05 14 30.4	-0.5
MOF	**Molkenrain**	**0.65**	**250**	P	Pb	05 14 23.0	-0.3
MOF	**Molkenrain**	**0.65**	**250**	Pg	Pg	05 14 22.6	-0.8
MOF				Sg	Sg	05 14 32.3	+0.1
STEIN	**Stein am Rhein**	**0.69**	**126**	⇑*e*Pg	Pg	05 14 23.8	-0.4
STEIN				*i* Sg	Sg	05 14 33.4	-0.2
BBS	**Basel-Blauen**	**0.71**	**210**	⇑*i*Pg	Pg	05 14 24.0	-0.7
BBS				*e*Sg	Sg	05 14 33.1	-1.1
	SNR=6.1						
BBS	**Basel-Blauen**	**0.71**	**210**	⇑*i*P	Pb	05 14 24.0	-0.3
GUT	**Gutenstein**	**0.72**	**90**	⇑*i*Pg	Pg	05 14 24.1	-0.7
GUT				*i* Sg	Sg	05 14 33.6	-0.9
SISB	**Singen-Sch Ber**	**0.74**	**122**	⇑*i*Pg	Pg	05 14 24.6	-0.5
SISB				Sg	Sg	05 14 34.5	-0.5
SISB	**Singen-Sch Ber**	**0.74**	**122**	⇑*i*P	Pb	05 14 24.6	-0.2
SISB				S	Sb	05 14 34.5	-0.1
LBG	**Lerchenberg**	**0.77**	**40**	⇑*i*Pg	Pg	05 14 24.8	-1.0
LBG				Sg	Sg	05 14 35.2	-1.0
LBG	**Lerchenberg**	**0.77**	**40**	⇑*i*P	Pb	05 14 24.8	-0.6
LBG				S	Sb	05 14 34.6	-1.0
BALST	**Balsthal**	**0.78**	**197**	⇑*i*Pg	Pg	05 14 25.8	-0.2
ZUR	**Zurich**	**0.80**	**153**	⇓*i*Pg	Pg	05 14 25.6	-0.8
HINF	**Hinteralfeld**	**0.84**	**252**	*e*Pg	Pg	05 14 25.4	-1.8
HINF				*e*Sg	Sg	05 14 36.4	-2.0
	21nm,0.3s						
HINF	**Hinteralfeld**	**0.84**	**252**	*e*Pg	Pg	05 14 25.5	-1.6
	SNR=15						
WEIN	**Weingarten**	**0.84**	**131**	⇓*i*Pg	Pg	05 14 26.4	-0.8
WEIN				*e*Sg	Sg	05 14 26.6	-12
BOURR	**Bourrignon**	**0.88**	**219**	*e*Pg	Pg	05 14 37.8	+10
WILA	**Wila**	**0.89**	**138**	⇓*i*Pg	Pg	05 14 27.4	-0.7
LANF	**Langenberg**	**0.91**	**350**	*e*Pg	Pg	05 14 27.7	-1.0
	SNR=5.3						
LANF				Pn	Pn	05 14 27.8	-1.2
LANF	**Langenberg**	**0.91**	**350**	P	Pb	05 14 27.8	0.0
LANF	**Langenberg**	**0.91**	**350**	Pg	Pg	05 14 27.6	-1.0
BUCH	**Bad Urach**	**0.95**	**67**	⇑*i*Pg	Pg	05 14 28.3	-1.0
BUCH				Sg	Sg	05 14 41.5	-0.6
STU	**Stuttgart**	**1.03**	**48**	*e*Sg	Sg	05 14 43.1	-1.7
	SNR=1.7						
LOMF	**Lomont**	**1.10**	**229**	*e*Pg	Pg	05 14 31.1	-1.2
	SNR=18						
LOMF				⇑*i*Pn	Pn	05 14 31.1	-0.6
LOMF				*e*Sg	Sg	05 14 45.3	-1.6
	SNR=4.4						
LOMF	**Lomont**	**1.10**	**229**	⇑*i*P	Pb	05 14 31.1	+0.2
LOMF	**Lomont**	**1.10**	**229**	Pg	Pg	05 14 30.9	-1.4
HAU	**Haudompre**	**1.14**	**267**	*e*Pg	Pg	05 14 30.9	-2.2
HAU				*e*Sg	Sg	05 14 44.9	-3.4
	42nm,0.3s						
HAU	**Haudompre**	**1.14**	**267**	*e*Pn	Pn	05 14 31.1	-1.2
	SNR=5.0						
HAU				*e*Pg	Pg	05 14 31.7	-1.4
	SNR=18						
HAU				*e*Sg	Sg	05 14 46.7	-1.6
	SNR=2.2						
MUO	**Muotathal**	**1.19**	**160**	⇑*i*Pg	Pg	05 14 33.6	-0.4
BNALP	**Bannalp**	**1.24**	**168**	⇑*i*Pg	Pg	05 14 33.7	-1.4
KTD	**Kalmit**	**1.24**	**1**	*e*Sg	Sg	05 14 49.7	-2.0
	SNR=3.5						
SWS	**Schriesheim**	**1.47**	**17**	Sg	Sg	05 14 56.1	-3.3
HDH	**Heidenheim**	**1.53**	**70**	*i* Pg	Pg	05 14 39.3	-1.6
HDH				Sn	Sn	05 14 54.4	-3.5
RUP	**Ruppelstein**	**1.75**	**339**	*e*Pg	Pg	05 14 43.1	-2.1
	SNR=5.8						
RFYF	**Reffroy**	**1.80**	**289**	*e*Pg	Pg	05 14 43.3	-2.9
RFYF				*e*Sg	Sg	05 15 07.4	-2.8
	13nm,0.2s						
RFYF	**Reffroy**	**1.80**	**289**	*e*(Sn)	Sn	05 15 00.5	-4.2
RFYF				*e*Sg	Sg	05 15 07.5	-2.7
	SNR=4.5						
ABH	**Alteburg**	**1.83**	**350**	Pn	Pn	05 14 44.5	+2.4
CABF	**La Chapelle**	**1.98**	**223**	*e*Pn	Pn	05 14 41.3	-3.0
CABF				*e*Pg	Pg	05 14 46.8	-3.1
CABF				*e*Sg	Sg	05 15 11.2	-5.1
	2.4nm,0.2s						
SFTF	**Sexfontaines**	**2.01**	**275**	*e*Pn	Pn	05 14 41.7	-3.1
SFTF				*e*Pg	Pg	05 14 48.3	-2.2
SFTF				*e*Sn	Sn	05 15 05.9	-4.3
SFTF				*e*Sg	Sg	05 15 12.6	-4.8
	6.8nm,0.2s						
SFTF	**Sexfontaines**	**2.01**	**275**	*e*Sg	Sg	05 15 14.1	-3.3
	SNR=2.1						
MEZF	**Maizieres J'vi**	**2.04**	**283**	*e*Pn	Pn	05 14 42.4	-2.7
MEZF				*e*Pg	Pg	05 14 48.3	-2.7
MEZF				*e*Sn	Sn	05 15 05.8	-5.1
MEZF				*e*Sg	Sg	05 15 12.6	-5.7
	5.8nm,0.3s						
MEZF	**Maizieres J'vi**	**2.04**	**283**	*e*Sg	Sg	05 15 14.4	-3.8
	SNR=2.9						
LPL	**La Plagne**	**2.72**	**200**	*e*Pg	Pg	05 14 59.8	-4.8
LPL				*e*Sg	Sg	05 15 33.8	-7.0
	1.2nm,0.3s						
LPG	**La Plagne**	**2.73**	**199**	*e*Pg	Pg	05 15 00.7	-4.2
LPG				*e*Sg	Sg	05 15 34.1	-7.2
	1.4nm,0.3s						
SMF	**Signal de Mont**	**3.19**	**245**	*e*Pn	Pn	05 14 57.6	-4.0
SMF				*e*Pg	Pg	05 15 09.0	-5.1
SMF				*e*Sg	Sg	05 15 48.8	-7.9
	1.9nm,0.2s						
SSF	**Saint Saulge**	**3.23**	**253**	*e*Pn	Pn	05 14 57.6	-4.6
SSF				*e*Pg	Pg	05 15 10.3	-4.6
SSF				*e*Sg	Sg	05 15 49.5	-8.5
	1.1nm,0.2s						
AVF	**Avril sur Loir**	**3.43**	**250**	*e*Pn	Pn	05 15 00.3	-4.7
AVF				*e*Pg	Pg	05 15 13.1	-5.8
AVF				*e*Sg	Sg	05 15 58.2	-6.4
	0.7nm,0.2s						
NKC	**Novy Kostel**	**3.61**	**52**	*e*SG	Sg	05 16 04.2	-6.2
HYF	**Humbligny**	**3.74**	**259**	*e*Pn	Pn	05 15 04.9	-4.4
HYF				*e*Pg	Pg	05 15 19.3	-5.6
HYF				*e*Sg	Sg	05 16 05.9	-8.9
KHC	**Kasperske Hory**	**3.82**	**72**	*e*PG	Pg	05 15 21.2	-5.4
KHC				*e*SG	Sg	05 16 11.8	-5.8
BGF	**Bois d'Agland**	**3.85**	**249**	*e*Pg	Pg	05 15 19.7	-7.4
VIVF	**Saint-Julien-l**	**3.98**	**217**	*e*Sg	Sg	05 16 12.9	-10
	1.3nm,0.2s						
TCF	**Toulx Ste Croi**	**4.36**	**248**	*e*Pg	Pg	05 15 29.9	-7.5

WEL 06 05:34:56.1±0.3**, 36.29S**×**177.66E, h219**^{km}±4^{km}**, ML3.9**/5**, Error ellipse: s-maj=5.4km s-min=4.6km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**1.38**	**158**	PN	P	05 35 30.5	-0.3
MXZ				SN	S	05 35 57.2	-0.5
PUZ	**Puketiti**	**1.85**	**165**	PN	P	05 35 34.6	-0.4
PUZ				SN	S	05 36 03.8	-1.1
URZ	**Urewera**	**2.02**	**192**	PN	P	05 35 36.5	-0.1
URZ				SN	S	05 36 07.5	-0.3
MWZ	**Matawai**	**2.05**	**183**	PN	P	05 35 36.9	0.0
MWZ				SN	S	05 36 08.1	-0.2
BKZ	**Black Stump Fm**	**3.02**	**197**	PN	P	05 35 46.6	-0.9
WNVZ	**Wahianoa**	**3.45**	**208**	PN	P	05 35 52.3	-0.2
TSZ	**Takapari Road**	**4.00**	**199**	PN	P	05 35 57.3	-1.9
BFZ	**Birch Farm**	**4.53**	**194**	PN	P	05 36 03.7	-2.1
MRZ	**Mangatainoka R**	**4.67**	**200**	PN	P	05 36 04.8	-2.7
KIW	**Kapiti Island**	**5.05**	**204**	PN	P	05 36 09.4	-2.9
MTW	**Mount Morrison**	**5.15**	**198**	PN	P	05 36 10.1	-3.4
CAW	**Cannon Point**	**5.23**	**202**	PN	P	05 36 11.2	-3.3
MRW	**Makara Radio**	**5.45**	**204**	SN	S	05 37 16.8	-3.8
NNZ	**Nelson**	**5.95**	**213**	SN	S	05 37 29.0	-3.1
MQZ	**McQueen's Vall**	**8.35**	**206**	SN	S	05 38 20.3	-7.1

IDC 06 05:35:10.6±4.8**, 0.52S**×**121.57E, h583**^{km}±66^{km}**, mb2.9**/4**, mb1 3.0**/5**, mb1mx2.8**/16**, Error ellipse: s-maj=74.6km s-min=21.2km az=75.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**17.92**	**167**	P	P	05 38 47.1	0.0
	0.3nm,0.3s,baz=17,slow=8.9,SNR=7.7						
WRA	**Warramunga Arr**	**23.00**	**148**	P	P	05 39 30.2	-3.5
	4.8nm,0.6s,baz=332,slow=11,SNR=31						
ASAR	**Alice Springs**	**25.93**	**153**	P	P	05 39 58.7	-1.0
	0.4nm,0.6s,baz=342,slow=7.9,SNR=4.7						
STKA	**Stephens Creek**	**36.48**	**151**	P	P	05 41 29.5	+0.7
	1.2nm,0.4s,baz=347,slow=8.1,SNR=4.5						
SONM	**Songino Array**	**49.94**	**347**	P	P	05 43 12.0	-1.7
	0.5nm,0.6s,baz=160,slow=7.6,SNR=4.5						
LPAZ	**La Paz**	**160.75**	**151**	PKP	PKPdf	05 54 05.8	+1.0
	2.2nm,0.8s,baz=219,slow=6.3,SNR=7.4						
BDFB	**Brasilia**	**160.92**	**212**	PKPab	PKPab	05 54 51.4	-2.5
	8.2nm,0.7s,baz=148,slow=10.0,SNR=12						

KRSC 06 05:38:20.5±0.7**, 48.77N**×**155.99E, h33**^{km}±21^{km}**, ML4.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.92**	**2**	*e*P	P	05 38 49.3	-2.0
SKR				*e*S	S	05 39 13.0	-1.5
PAU	**Pauzhetka**	**2.75**	**11**	*e*P	P	05 39 04.3	+1.0
PAU				*e*S	S	05 39 36.3	+0.6
RUS	**Russkaya**	**4.00**	**23**	*e*P	P	05 39 21.3	+0.2
RUS				*e*S	S	05 40 04.8	-2.7
GRL	**Gorelyy**	**4.01**	**18**	*e*P	P	05 39 22.3	+1.1
GRL				*e*S	S	05 40 06.7	-1.0
UGLR	**Uglovaya**	**4.79**	**21**	*e*P	P	05 39 30.1	-2.2
SDLR	**Sedlovina**	**4.87**	**21**	*e*P	P	05 39 32.7	-0.7
NLC	**Nalytchevo**	**4.89**	**24**	*e*S	S	05 40 23.1	-6.7
SPN	**Mys Shipunski**	**5.03**	**29**	*e*S	S	05 40 26.6	-6.7

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*IDC **06** 06:02:28.2±1.2, 14.65S×178.30W, mb4.1/13, mb1 4.3/13, mb1mx4.3/17, MS4.3/16, Ms1 4.4/16, ms1mx4.1/23, Error ellipse: s-maj=70.4km s-min=16.6km az=150.0*

*MOS **06** 06:02:29.5±2.1, 14.65S×178.39W, h10^{km}, mb4.4/5, Error ellipse: s-maj=37.1km s-min=24.0km az=148.0*

*NEIC **06** 06:02:30.1±0.3, 14.61S×178.37W, h10^{km}, mb4.8/5, Error ellipse: s-maj=20.6km s-min=11.0km az=142.0*

*BJI **06** 06:02:30.1, 14.60S×178.40W, h10^{km}, mB5.3, mb5.2, Ms4.9, Msz4.7*

ISC 06 06:02:32.4±0.4**, 14.7S**±0.1×**178.4W**±0.1**, h33**^{km}**, n73, σ1$\overset{s}{.}$39**/36**, mb4.4**/20**, MS4.4**/16**, 3C-3D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	**Rarotonga**	**18.84**	**113**	LR	LR	06 12 27.2	
	comp=Z,997nm,19.2s,baz=273,slow=32						
URZ	**Urewera**	**23.84**	**189**	LR	LR	06 15 31.4	
	comp=Z,932nm,18.5s,MS4.3,baz=35,slow=33						
RPZ	**Rata Peaks**	**30.33**	**195**	LR	LR	06 19 16.7	
	comp=Z,666nm,18.8s,MS4.3,baz=32,slow=33						
CTA	**Charters Tower**	**34.15**	**256**	P	**P**	**06 09 16.8**	**+0.1**
	3.5nm,0.9s,mb4.3,baz=91,slow=12,SNR=5.0						
CTA	**Charters Tower**	**34.15**	**256**	P	**P**	**06 09 16.8**	**+0.1**
CTA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
STKA	**Stephens Creek**	**40.30**	**238**	P	**P**	**06 10 07.7**	**-0.6**
	comp=Z,7.2nm,1.1s,mb4.3,baz=79,slow=7.0,SNR=3.8						
STKA				LR	LR	06 25 02.2	
	comp=Z,582nm,20.4s,MS4.4,baz=51,slow=34						
STKA	**Stephens Creek**	**40.30**	**238**	P	**P**	**06 10 07.7**	**-0.6**
STKA				LR	LR	06 25 02.2	
WRA	**Warramunga Arr**	**45.34**	**256**	P	**P**	**06 10 47.3**	**-2.3**
	comp=Z,0.9nm,1.0s,mb3.5,baz=90,slow=8.3,SNR=3.8						
WRA	**Warramunga Arr**	**45.34**	**256**	P	**P**	**06 10 47.3**	**-2.3**
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
ASAR	**Alice Springs**	**45.79**	**251**	P	**P**	**06 10 51.6**	**-1.5**
	comp=Z,2.2nm,0.8s,mb4.1,baz=83,slow=8.6,SNR=16						
ASAR				LR	LR	06 30 30.5	
	comp=Z,130nm,18.1s,MS3.9,baz=82,slow=37						
FITZ	**Fitzroy Crossi**	**53.66**	**258**	P	**P**	**06 11 55.9**	**+2.4**
	comp=Z,4.5nm,0.8s,mb4.5,baz=141,slow=7.6,SNR=7.5						
JHJ	**Hachijo jima 2**	**62.08**	**321**	LR	LR	06 38 37.2	
	comp=Z,196nm,18.5s,MS4.3,baz=144,slow=35						
VNDA	**Vanda**	**63.66**	**185**	LR	LR	06 37 09.3	
	comp=Z,81nm,18.1s,MS4.0,baz=26,slow=33						
ASAJ	**Asahikawa**	**68.47**	**331**	LR	LR	06 36 58.5	
	comp=Z,560nm,20.4s,MS4.8,baz=164,slow=30						
CASY	**Casey**	**69.09**	**204**	*e*P	**P**	**06 13 35.5**	**-1.2**
	comp=Z,3.1nm,0.4s,mb4.6						
SSE	**Sheshan**	**73.73**	**309**	P	**P**	**06 14 04.4**	**-0.9**
SSE				XP	sP	06 14 17.3	-2.0
SSE				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,94nm,4.5s						
SSE				LR	LR		
	comp=N,81nm,25.3s,MS4.3						
SSE				LR	LR		
	comp=E,167nm,25.3s,MS4.3						
SSE				LR	LR		
	comp=Z,205nm,26.0s,MS4.3						
QSPA	**South Pole Qui**	**75.37**	**180**	⇓*i*P	**P**	**06 14 13.8**	**0.0**
	comp=Z,7.0nm,1.0s,mb4.5						
YBH	**Yreka Blue Hor**	**76.01**	**40**	P	**P**	**06 14 16.2**	**-1.9**
	comp=Z,4.9nm,1.0s,mb4.4,baz=225,slow=2.9,SNR=4.5						
YBH	**Yreka Blue Hor**	**76.01**	**40**	P	**P**	**06 14 16.2**	**-1.9**
YBH				pmax	pmax		
	comp=Z,5.0nm,1.0s						
NVAR	**Mina Array Bea**	**77.08**	**44**	P	**P**	**06 14 23.6**	**-0.7**
	comp=Z,1.7nm,0.9s,mb4.0,baz=221,slow=8.3,SNR=6.0						
NVAR				LR	LR	06 40 18.1	
	comp=Z,217nm,20.1s,MS4.5,baz=55,slow=30						
COLA	**College**	**82.62**	**13**	*i* P	**P**	**06 14 56.8**	**+3.4**
ILAR	**Eielson Array**	**82.74**	**13**	P	**P**	**06 14 52.5**	**-1.5**
	comp=Z,2.1nm,0.9s,mb4.1,baz=221,slow=6.2,SNR=4.3						
ILAR				LR	LR	06 47 20.4	
	comp=Z,103nm,18.4s,MS4.2,baz=0.2,slow=32						
PV10	**Paradox Valley**	**83.51**	**48**	*e*P	**P**	**06 15 00.5**	**+1.9**
MCMT	**McKenzie Canyo**	**83.77**	**41**	*e*P	**P**	**06 14 58.4**	**-1.2**
ANMO	**Albuquerque**	**84.06**	**52**	*i* P	**P**	**06 15 01.5**	**+0.1**
LTX	**Lajitas**	**84.24**	**58**	*e*P	**P**	**06 15 03.7**	**+1.2**
	comp=Z,12nm,1.4s,mb4.8						
TXAR	**Lajitas Array**	**84.24**	**58**	P	**P**	**06 15 03.0**	**+0.6**
	comp=Z,2.2nm,0.8s,mb4.3,baz=224,slow=6.8,SNR=17						
TXAR				LR	LR	06 44 24.7	
	comp=Z,311nm,19.4s,MS4.7,baz=190,slow=30						
BW06	**Boulder Array**	**84.99**	**44**	P	**P**	**06 15 06.4**	**+0.6**
	comp=Z,4.9nm,1.1s,mb4.5						
PDAR	**Pinedale Array**	**84.99**	**44**	P	**P**	**06 15 03.6**	**-2.2**
	comp=Z,0.4nm,0.9s,mb3.5,baz=270,slow=4.5,SNR=3.1						
PDAR				LR	LR	06 46 02.4	
	comp=Z,225nm,18.6s,MS4.6,baz=216,slow=31						
PDAR	**Pinedale Array**	**84.99**	**44**	P	**P**	**06 15 03.6**	**-2.2**
PDAR				LR	LR	06 46 02.4	
HHC	**Hu-ho-hao-te**	**85.05**	**314**	*e*P	**P**	**06 15 09.0**	**+2.8**
HHC				AMB	AMB		
	comp=Z,14nm,0.8s,mb5.1						
HHC				AMB	AMB		
	comp=Z,188nm,4.6s						
HHC				LR	LR		
	comp=E,364nm,8.9s						
HHC				LR	LR		
	comp=Z,231nm,6.5s						
MAW	**Mawson**	**86.91**	**200**	LR	LR	06 48 19.4	
	comp=Z,151nm,20.7s,MS4.4,baz=253,slow=32						
CMAR	**Chiang Mai Arr**	**87.84**	**290**	P	**P**	**06 15 21.4**	**+1.1**
	comp=Z,0.5nm,0.5s,mb4.0,baz=104,slow=3.7,SNR=4.1						
CMAR				LR	LR	06 49 56.3	
	comp=Z,124nm,20.1s,MS4.3,baz=135,slow=32						
LZH	**Lanzhou**	**88.95**	**308**	*e*P	**P**	**06 15 27.5**	**+2.2**
LZH				AP	pP	06 15 37.5	+1.7
LZH				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.5						
LZH	**Lanzhou**	**88.95**	**308**	*e*P	**P**	**06 15 27.5**	**+2.2**
	comp=Z,30nm,1.3s,mb5.5						
LZH				pP	pP	06 15 37.5	+1.7
LZH				sP	sP	06 15 43.5	+4.2
ULN	**Ulaanbaatar**	**90.73**	**320**	⇑*e*P	**P**	**06 15 34.0**	**+0.7**
SONM	**Songino Array**	**91.13**	**319**	P	**P**	**06 15 34.9**	**-0.3**
	comp=Z,2.4nm,1.2s,mb4.4,baz=108,slow=3.9,SNR=7.5						
YKA	**Yellowknife Ar**	**91.39**	**25**	P	**P**	**06 15 35.2**	**-0.8**
	comp=Z,0.1nm,0.4s,mb3.5,baz=270,slow=5.6,SNR=3.5						
YKA				LR	LR	06 51 16.2	
	comp=Z,343nm,18.1s,MS4.8,baz=250,slow=32						
YKA	**Yellowknife Ar**	**91.39**	**25**	P	**P**	**06 15 35.2**	**-0.8**
YKA				LR	LR	06 51 16.2	
SNAA	**Sanae**	**93.82**	**179**	⇓*i*	**P**	**06 15 51.6**	**+4.7**
VNA3	**Neumayer Olymp**	**93.95**	**176**	⇑*i*	**P**	**06 15 50.1**	**+2.6**
VNA2	**Neumayer--Watz**	**94.39**	**177**	⇑*i*	**P**	**06 15 58.7**	**+9.2**
VNA1	**Neumayer--Stat**	**94.62**	**177**	⇓*i*	**P**	**06 15 50.7**	**+0.1**
ULM	**Lac du Bonnet**	**96.42**	**40**	LR	LR	06 51 14.5	
	comp=Z,145nm,20.0s,MS4.5,baz=44,slow=30						
BRTR	**Keskin Array B**	**142.48**	**318**	PKP	PKPdf	06 22 04.9	+2.7
	comp=Z,2.4nm,1.2s,baz=135,slow=1.7,SNR=4.0						
BRTR	**Keskin Array B**	**142.48**	**318**	PKIKP	PKPdf	06 22 04.9	+2.7
BRTR				pmax	pmax		
	comp=Z,2.0nm,1.2s						
GERES	**GERESS Array B**	**144.50**	**346**	PKP	PKPdf	06 22 07.6	+2.3
	comp=Z,0.9nm,0.9s,SNR=3.8						
GERES	**GERESS Array B**	**144.50**	**346**	PKIKP	PKPdf	06 22 07.6	+2.2
GERES				pmax	pmax		

	comp=Z,1.0nm,1.0s						
EIL	Elat	145.87	302	PKPbc	PKPbc	06 22 09.4	+0.1
	comp=Z,44nm,1.4s,baz=72,slow=4.9,SNR=4.4						
FLN	La Foliniere	145.96	3	*e*PKP1	PKPbc	06 22 08.5	-0.4
	comp=Z,69nm,1.1s						
CDF	Champ du Feu	146.03	353	*e*PKP1	PKPbc	06 22 09.4	+0.4
	comp=Z,46nm,1.2s						
LDF	La Druitiere	146.14	2	*e*PKP1	PKPbc	06 22 09.1	-0.2
	comp=Z,41nm,1.2s						
MEZF	Maizieres J'vi	146.15	356	*e*PKP1	PKPbc	06 22 09.9	+0.6
	comp=Z,45nm,1.1s						
ROSF	Rostrenen	146.19	6	*e*PKP1	PKPbc	06 22 09.3	-0.1
	comp=Z,50nm,1.4s						
GRR	Gorron	146.31	3	*e*PKP1	PKPbc	06 22 10.0	+0.3
	comp=Z,70nm,1.5s						
SGMF	Saint Gilles	146.33	5	*e*PKP1	PKPbc	06 22 09.7	0.0
	comp=Z,56nm,1.3s						
HAU	Haudompre	146.53	354	*e*PKP1	PKPbc	06 22 11.0	+0.8
	comp=Z,66nm,1.5s						
QUIF	Quistinic	146.61	6	*e*PKP1	PKPbc	06 22 10.4	0.0
	comp=Z,69nm,1.3s						
DAVOS	Davos	147.21	350	PKP2	PKPab	06 22 14.4	-1.7
DAVOX	Davos	147.25	350	PKPbc	PKPdf	06 22 14.4	+4.3
	comp=Z,13nm,1.2s,baz=169,slow=21,SNR=2.3						
SSF	Saint Saulge	147.67	358	*e*PKP1	PKPdf	06 22 14.2	+3.4
	comp=Z,45nm,1.3s						
CABF	La Chapelle	147.94	354	*e*PKP1	PKPdf	06 22 14.4	+3.2
	comp=Z,39nm,1.1s						
AVF	Avril sur Loir	147.94	358	*e*PKP1	PKPdf	06 22 14.5	+3.3
	comp=Z,35nm,1.3s						
SMF	Signal de Mont	148.07	357	*e*PKP1	PKPdf	06 22 15.0	+3.6
	comp=Z,14nm,1.0s						
MFF	Saint Martin d	148.13	2	*e*PKP1	PKPdf	06 22 15.2	+3.7
	comp=Z,106nm,1.7s						
BGF	Bois d'Agland	148.19	358	*e*PKP1	PKPdf	06 22 15.5	+3.9
	comp=Z,43nm,1.1s						
TCF	Toulx Ste Croi	148.47	359	*e*PKP1	PKPdf	06 22 16.1	+4.0
	comp=Z,24nm,1.1s						
LPL	La Plagne	148.95	353	*e*PKP1	PKPdf	06 22 17.3	+4.4
LPG	La Plagne	148.97	353	*e*PKP1	PKPdf	06 22 17.6	+4.7
	comp=Z,49nm,1.3s						
RJF	Les Rejaudoux	149.46	0	*e*PKP1	PKPdf	06 22 18.7	+5.0
	comp=Z,76nm,1.7s						
LFF	La Frestale	149.82	1	*e*PKP1	PKPdf	06 22 19.7	+5.4
	comp=Z,80nm,1.4s						
CAF	Calviac	149.84	359	*e*PKP1	PKPdf	06 22 20.0	+5.7
IDI	Anoyia	150.71	319	PKPbc	PKPdf	06 22 24.9	+8.9
	comp=Z,3.0nm,0.5s,baz=53,slow=7.1,SNR=2.5						

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*NEIC **06** 06:08:42.3,32.18N×116.13W,h6^{km},ML3.4(PAS),After PAS.*

*ECX **06** 06:08:43.0±0.5,32.20N×116.08W,h5^{km}±2^{km},MD3.4,ML3.6*

ISC 06 06:08:41.7±0.6**,32.22N**±0.02×**116.10W**±0.04**,h14**^{km}±5^{km}**,n23,**$\sigma 0\overset{s}{.}$**70**/30**,5C-5D,California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RDX	Rancho Dowling	0.31	156	⇓*i*P	Pg	06 08 48.3	-0.2
RDX				*i* S	Sg	06 08 52.4	-0.6
RDX				⇓*e*		06 08 53.1	
	comp=E,18µm,0.3s						
RDX				⇓*e*		06 08 53.6	
	comp=N,15µm,0.3s						
RMX	La Rumorosa	0.38	2	*e*P	Pg	06 08 50.2	+0.5
RMX				*e*S	Sg	06 08 55.8	+0.7
RMX				⇓*e*		06 08 56.1	
	comp=E,4µm,0.3s						
YUH	Yuha Desert	0.45	19	*e*P	Pb	06 08 51.2	+0.3
SGL	Mount Signal	0.53	36	⇑*e*P	Pb	06 08 52.7	+0.4
ENX	Ensenada	0.59	235	⇑*e*P	Pb	06 08 53.5	+0.3
ENX				*e*S	Sb	06 09 01.4	+0.3
ENX				*e*		06 09 03.3	
	comp=N,2µm,0.5s						
ENX				⇑*e*		06 09 06.9	
	comp=E,2µm,0.5s						
BAR	Barrett	0.67	314	⇑*i*P	Pb	06 08 54.9	+0.3
BAR	Barrett	0.67	314	*e*P	Pb	06 08 54.2	-0.5
CRR	Carrizo Plain	0.68	9	⇓*e*P	Pb	06 08 55.5	+0.7
CPBX	Cerro Prieto	0.70	73	*e*P	Pb	06 08 55.2	0.0
CPBX				*e*S	Sb	06 09 05.0	+0.6
ECNX	Esteban Cantu	0.70	217	⇑*e*P	Pb	06 08 55.4	+0.2
ECNX				*e*S	Sb	06 09 05.0	+0.5
ECBX	El Chinero	1.16	130	*e*P	Pb	06 09 02.7	-0.3
ECBX				*e*S	Sb	06 09 18.2	+0.4
SPX	San Pedro Mart	1.29	155	*e*P	Pb	06 09 05.2	0.0
SPX				*e*S	Sb	06 09 21.8	+0.3
PFO	Pinyon Flat Ob	1.42	348	*e*P	Pn	06 09 06.8	-0.4
MWC	Mount Wilson	2.59	321	*e*Pn	Pn	06 09 23.4	-0.6
LDFC	Landfair	2.97	16	Pn	Pn	06 09 30.6	+1.2
NEN	Nelson	3.58	17	*e*Pn	Pn	06 09 38.0	0.0
TUC	Tucson	4.50	87	Pn	Pn	06 09 47.7	-3.4
TPNV	Topopah Spring	4.72	359	*e*Pn	Pn	06 09 53.1	-1.1
TPH	Tonopah	5.92	351	Pn	Pn	06 10 12.1	+1.0
ARUT	Antelope Range	5.97	21	Pn	Pn	06 10 10.4	-1.5
SAO	San Andreas Ge	6.33	317	Pn	Pn	06 10 15.7	-1.2
MSU	Marysvale	7.05	26	*e*Pn	Pn	06 10 26.6	-0.5
PV01	Paradox Valley	8.53	44	Pn	P	06 10 47.3	-0.4

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*NEIC **06** 06:17:07.4,34.84N×23.73E,h25^{km},MD3.5(ATH),After ATH.*

*CSEM **06** 06:17:07.4,34.84N×23.73E,h25^{km},MD3.5/5*

ATH 06 06:17:07.6,34.86N×23.74E,h26^{km}±5^{km}**,MD3.4**/5**,Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GVD	Gavdhos	0.29	94	*e*PB	Pb	06 17 14.6	+0.1
VAM	Vamos	0.66	34	*e*PN	Pn	06 17 21.0	-0.3
KYTH	Kithira	1.53	338	*e*PN	Pn	06 17 36.0	+2.4
NPS	Neapolis	1.59	75	*e*PN	Pn	06 17 35.7	+1.2
VLI	Veliai	1.97	341	*e*PB	Pb	06 17 40.5	-2.1

IDC 06 06:29:45.8±6.5**,2.35S×104.44E,mb3.6**/4**,mb1 3.8**/4**,mb1mx3.6**/15**,Error ellipse: s-maj=255.0km s-min=30.7km az=64.0,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	34.04	123	P	P	06 36 31.8	-2.2
	0.2nm,0.5s,baz=301,slow=9.1,SNR=4.9						
ASAR	Alice Springs	35.52	129	P	P	06 36 44.5	-2.2
	0.4nm,0.5s,baz=300,slow=7.8,SNR=5.8						
STKA	Stephens Creek	45.66	134	P	P	06 38 08.8	-1.5
	0.9nm,0.3s,baz=320,slow=7.5,SNR=4.2						
SONM	Songino Array	50.01	2	P	P	06 38 42.0	-2.0
	0.5nm,0.6s,baz=186,slow=7.6,SNR=3.7						

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*CSEM **06** 06:31:12.7±0.5,38.57N×29.35W,h25^{km},ML2.9,Error ellipse: s-maj=15.0km s-min=7.1km az=164.0*

*PDA **06** 06:31:12.0±1.2,38.62N×29.71W,h10^{km},MD3.4,ML2.9, Error ellipse: s-maj=13.6km s-min=6.3km az=156.0*

SVSA 06 06:31:12.0±1.2**,38.62N×29.71W,h10**^{km}**,MD3.4,ML2.9, Error ellipse: s-maj=13.6km s-min=6.3km az=156.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	Cedros	0.79	89	*i* P	Pb	06 31 24.0	-3.3
PCED				*e*S	Sb	06 31 33.1	-4.7
	266nm,0.2s						
PCED	Cedros	0.79	89	*e*S	Sb	06 31 33.1	-4.7
	266nm,0.2s						
CALA	Caldeira	0.79	93	*e*P	Pb	06 31 24.9	-2.4
CALA				*e*S	Sb	06 31 33.3	-4.5
CALA	Caldeira	0.79	93	*e*S	Sb	06 31 33.3	-4.5
HOR	Horta	0.85	96	*e*P	Pb	06 31 24.9	-3.5
HOR				*e*S	Sb	06 31 34.0	-5.6
PICO	Pico	1.01	96	*e*P	Pb	06 31 27.2	-4.0
PICO				*e*S	Sb	06 31 39.1	-5.2
PPNO	Prainha do Nor	1.14	97	*e*P	Pb	06 31 29.0	-4.4
PPNO				*e*S	Sb	06 31 42.2	-5.9
	198nm,0.2s						
PPNO	Prainha do Nor	1.14	97	*e*P	Pb	06 31 29.0	-4.4
PPNO				*e*S	Sb	06 31 42.2	-5.9
	198nm,0.2s						
ROSA	Rosais	1.15	85	*e*P	Pb	06 31 29.7	-3.8
ROSA				*e*S	Sb	06 31 42.3	-6.1
PID	Ribeirinha	1.26	98	*e*P	Pb	06 31 31.1	-4.3
PMAN	Manadas	1.27	89	*e*S	Sb	06 31 45.4	-6.3
	118nm,0.2s						
PMAN	Manadas	1.27	89	*e*S	Sb	06 31 45.4	-6.3
	118nm,0.2s						
STGR	Santa Cruz	1.41	70	*e*S	Sb	06 31 48.4	-7.4
	16nm,0.1s						
STGR	Santa Cruz	1.41	70	*e*S	Sb	06 31 48.4	-7.4
	16nm,0.1s						
ASBA	Santa Barbara	1.87	86	*e*S	Sn	06 32 00.4	-7.8
	28nm,0.2s						
ASBA	Santa Barbara	1.87	86	*e*S	Sn	06 32 00.4	-7.8
	28nm,0.2s						
PSBA	Serra de Santa	1.87	85	*e*rx	Sn	06 31 59.5	-8.8
PPAD	Pico dos Padre	1.90	87	*e*P	Pn	06 31 39.9	-4.9
PPAD				*i* S	Sn	06 32 01.1	-7.8
	18nm,0.1s						
PBIS	Biscoitos	1.93	85	*e*S	Sn	06 32 01.6	-8.1
	18nm,0.3s						
RIB2	Ribeirinha	1.98	88	*e*P	Pn	06 31 41.1	-5.0
RIB2				*i* S	Sn	06 32 03.0	-8.2
	45nm,0.2s						
PVNV	Vila Nova	2.00	85	*e*S	Sn	06 32 03.8	-7.8
PFAV	Pico das Favas	2.06	87	*i* S	Sn	06 32 05.0	-8.0
	6.5nm,0.2s						
PFAV	Pico das Favas	2.06	87	*i* S	Sn	06 32 05.0	-8.0
	6.5nm,0.2s						
SET4	Mosteiros	3.17	102	*e*P	Pn	06 31 57.5	-5.4
SET2	Ginetes	3.17	103	*e*P	Pn	06 31 57.7	-5.2
PFET	Feteiras	3.19	103	*e*P	Pn	06 31 57.8	-5.4
PSAN	Santo Antonio	3.23	103	*e*P	Pn	06 31 57.9	-5.9
FAC	Faja de Cima	3.31	104	*e*P	Pn	06 31 59.9	-5.0
CML	Cha da Macela	3.39	103	*e*P	Pn	06 32 00.8	-5.2
PMAT	Coroa da Mata	3.43	102	*e*rx	Pn	06 32 02.2	-4.5
LFA	Lagoa do Fogo	3.43	103	*e*P	Pn	06 32 01.6	-5.1
PRCH	Ribeira Ch	3.45	104	*e*P	Pn	06 32 00.9	-6.0
MESC	Monte Escuro	3.46	103	*e*P	Pn	06 32 01.9	-5.2
FRA1	Furnas	3.54	103	*e*rx	Pn	06 32 03.8	-4.4
MIRA	Miradouro	3.59	102	*e*rx	Pn	06 32 04.0	-4.9

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*JMA **06** 06:36:53.6±0.1,34.49N×140.22E,h61^{km}±2^{km},M4.5*

JMA Felt I J1.

*IDC **06** 06:36:55.0±1.7,34.48N×140.02E,h68^{km}±15^{km},mb3.6/12, mb1 3.8/12,mb1mx3.7/22,Error ellipse: s-maj=25.7km s-min=14.1km az=81.0*

*NEIC **06** 06:36:55.1±0.4,34.48N×140.10E,mb4.4/5,Error ellipse: s-maj=15.2km s-min=7.3km az=71.0*

NEIC Recorded [1 JMA] in Chiba, Kanagawa and Tokyo Prefectures. Also recorded [1 JMA] on Miyake-jima.

*NIED **06** 06:37:00,34.50N×140.20E,h65^{km},Mw4.1 Best double couple: $M_0$1.6×10^{15} NP1:ϕ_s337°,δ82°,λ78°. NP2:ϕ_s215°,δ14°,λ147°.*

ISC 06 06:36:53.1±0.4**,34.49N**±0.03×**140.18E**±0.05**,h72**^{km}±3^{km}**,n43,**$\sigma 0\overset{s}{.}$**77**/52**,mb4.0**/17**,5C-8D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO3	Boso 3	0.41	41	⇑P	P	06 37 04.8	-0.5
BSO4	Boso 4	0.51	14	⇑P	P	06 37 06.1	-0.2
BSO4				S	S	06 37 16.5	+0.5
TATJ	Tateyama 2	0.59	336	⇑P	P	06 37 07.5	+0.3
TATJ				S	S	06 37 17.9	+0.5
JIM2	Oshima 3	0.66	290	⇓P	P	06 37 07.7	-0.1
JIM2				S	S	06 37 17.5	-1.3
BSO1	Boso 1	0.68	76	⇑P	P	06 37 07.1	-0.9
JMY	Miyakejima3	0.70	233	⇓P	P	06 37 08.7	+0.5
JMY				S	S	06 37 19.7	+0.2
JKO	Kozu shima	0.92	251	P	P	06 37 11.6	+0.7
JKO				S	S	06 37 24.5	+0.4
KTJJ	Kamata 2	1.02	295	⇓P	P	06 37 12.0	-0.2
KTJJ				S	S	06 37 24.9	-1.5
JIZS	Izushimoda	1.10	282	⇓P	P	06 37 13.5	+0.3
JIZS				S	S	06 37 28.3	+0.1
JOD2	Odawara 2	1.18	311	⇓P	P	06 37 14.1	-0.2
JOD2				S	S	06 37 28.8	-1.4
JHJ	Hachijo jima 2	1.41	194	P	P	06 37 18.2	+0.8
	351nm,0.3s,baz=32,slow=2.3,SNR=58						
JHJ				S	S	06 37 35.2	-0.2
	964nm,0.3s,baz=268,slow=23,SNR=47						
JHJ2	Mitsune	1.41	193	P	P	06 37 18.1	+0.6
JYN	Shimob	1.68	307	⇓P	P	06 37 21.5	+0.5
SHZ3	Shizuoka 3	1.72	290	⇓P	P	06 37 22.6	+1.0
MAJO	Matsushiro	2.60	322	⇓*e*Pn	P	06 37 34.9	+0.9
MAT	Matsushiro	2.60	322	P	P	06 37 34.4	+0.5
MAT				S	S	06 38 04.5	0.0
MAT	Matsushiro	2.60	322	*e*P	P	06 37 34.0	+0.1
MAT				*e*S	S	06 38 05.0	+0.5
SONM	Songino Array	28.47	308	P	P	06 42 42.7	-0.6
	3.2nm,1.3s,mb3.7,baz=110,slow=13,SNR=3.8						
KURK	Kurchatov	46.75	310	*e*P	P	06 45 16.9	+0.2
	4.0nm,0.8s,mb4.2						
AML	Almayashu	51.55	299	*e*P	P	06 45 54.8	+1.0
	3.8nm,0.6s,mb4.6						
BVAR	Borovoye Array	51.57	314	P	P	06 45 55.2	+1.4
	1.3nm,0.6s,mb4.1,baz=72,slow=9.4,SNR=5.3						
FITZ	Fitzroy Crossi	54.10	197	*e*P	P	06 46 12.9	-0.1
	3.0nm,1.0s,mb4.3						
FITZ	Fitzroy Crossi	54.10	197	P	P	06 46 13.1	+0.1
	1.7nm,0.6s,mb4.3,baz=11,slow=10,SNR=8.4						
WRAB	Tennant Creek	54.41	187	*e*P	P	06 46 14.0	-1.2
	7.2nm,0.4s,mb5.1						
WB2	Warramunga Arr	54.41	187	⇑*i*P	P	06 46 14.2	-1.1
WRA	Warramunga Arr	54.42	187	P	P	06 46 14.3	-1.0
	6.6nm,0.4s,mb5.0,baz=3.0,slow=7.6,SNR=193						
CTAO	Charters Tower	54.58	173	P	P	06 46 16.2	-0.3
	1.3nm,0.6s,mb4.1						
ASAR	Alice Springs	58.14	187	P	P	06 46 40.9	-1.0
	1.4nm,0.4s,mb4.4,baz=22,slow=12,SNR=24						
ASPA	Alice Springs	58.14	187	*e*P	P	06 46 42.5	+0.6
STKA	Stephens Creek	66.03	179	P	P	06 47 34.9	+0.4
	1.6nm,0.6s,mb4.0,baz=329,slow=9.5,SNR=5.1						
YKA	Yellowknife Ar	66.51	29	P	P	06 47 36.7	-0.1
	0.2nm,0.5s,mb3.2,baz=300,slow=6.5,SNR=4.3						
YKA	Yellowknife Ar	66.51	29	P	P	06 47 36.7	-0.1
JOF	Joensuu	67.73	332	*e*p	P	06 47 43.6	-0.9
KAF	Kangasniemi	70.11	333	*e*p	P	06 47 57.9	-1.3
FINES	FINESS Array B	70.59	332	P	P	06 48 01.8	-0.3
	0.7nm,0.4s,mb3.9,baz=63,slow=4.3,SNR=8.8						
AKASG	Malin Array Be	75.69	322	P	P	06 48 32.1	0.0
	0.4nm,0.3s,mb3.6,baz=47,slow=6.2,SNR=6.7						
NOA	NORSAR Array B	76.14	337	P	P	06 48 34.6	+0.2
	0.3nm,0.6s,mb3.2,baz=51,slow=5.4,SNR=2.7						
NVAR	Mina Array Bea	77.32	52	P	P	06 48 44.6	+3.1
	0.7nm,0.6s,mb3.6,baz=284,slow=7.3,SNR=7.1						
NVAR				pP	pP	06 49 02.8	+1.8
	1.2nm,0.8s,baz=306,slow=4.2,SNR=5.8						
GERES	GERESS Array B	84.33	328	P	P	06 49 19.0	+0.8
	0.2nm,0.3s,mb3.4,baz=27,slow=4.4,SNR=3.3						
TXAR	Lajitas Array	92.47	52	P	P	06 49 58.1	+0.6
	0.3nm,0.6s,mb3.7,baz=280,slow=2.6,SNR=4.9						
TXAR				pP	pP	06 50 19.2	+1.6
	0.4nm,0.8s,baz=315,slow=5.3,SNR=3.5						
TXAR	Lajitas Array	92.47	52	P	P	06 49 58.1	+0.6
TXAR				pP	pP	06 50 19.2	+1.6
SAML	Samuel	146.75	46	*e*PKPbc	PKPbc	06 56 29.5	+2.3
LPAZ	La Paz	148.81	62	PKPbc	PKPdf	06 56 36.7	+7.9
	0.4nm,0.3s,baz=351,slow=4.0,SNR=3.5						

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*IDC **06** 06:52:17.6±0.7,32.29N×93.00E,mb4.1/15,mb1 4.3/17, mb1mx4.2/21,ML4.0/2,Error ellipse: s-maj=23.8km s-min=15.1km az=53.0*

*MOS **06** 06:52:20.4±1.1,32.26N×93.02E,h33^{km},mb4.3/11,Error ellipse: s-maj=24.9km s-min=10.7km az=113.3*

*BJI **06** 06:52:22.8,32.48N×93.11E,h47^{km},mB5.2,mb4.5,ML4.2, Ms4.0,Msz3.7*

*NEIC **06** 06:52:26.0±1.6,32.53N×93.17E,h48^{km}±15^{km},mb4.6/22, Error ellipse: s-maj=19.0km s-min=9.3km az=221.0*

ISC 06 06:52:18.3±1.8**,32.30N**±0.04×**93.10E**±0.05**,h10**^{km}±11^{km}**,n84,**$\sigma 1\overset{s}{.}$**13**/89**,mb4.4**/36**,MS3.8**/1**,2C-2D,Xizang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	3.08	213	P	Pn	06 53 14.5	+6.6
LSA				S	Sn	06 53 58.5	+13
LSA				Smax			
	comp=N,430nm,1.0s						
LSA				Smax			
	comp=E,310nm,1.0s						
SHL	Shillong	6.79	189	*e*P	Pn	06 54 01.2	+0.8
SHL				*e*S	Sn	06 55 22.0	+3.5
IMP	Imphal	7.52	174	*e*	Pn	06 54 11.1	+0.5
GUN	Gumba	7.63	237	*e*P	Pn	06 54 12.0	-0.2
	comp=E,50nm,0.4s						
KKN	Kakani	8.13	238	*e*P	P	06 54 18.4	-0.7
	comp=E,44nm,0.4s						
PKI	Pulchoki	8.16	237	*e*P	P	06 54 19.2	-0.4
	comp=E,108nm,0.4s						
DMN	Daman	8.36	238	*e*P	P	06 54 21.6	-0.7
	comp=E,34nm,0.5s						
GKN	Gorkha	8.48	242	*e*P	P	06 54 23.1	-1.0
	comp=E,21nm,0.5s						
GTA	Gaotai	8.95	36	*e*P	P	06 54 31.6	+1.1
GTA				AP		06 54 35.4	
GTA				S	Sn	06 56 13.0	+0.6
GTA				LG2		06 57 14.6	
GTA				AMB	AMB		
	comp=Z,7.0nm,1.3s						
GTA				AMB	AMB		
	comp=Z,125nm,4.6s						
GTA				LR	LR		
	comp=N,436nm,11.8s						
GTA				LR	LR		
	comp=E,431nm,8.0s						
GTA				LR	LR		
	comp=Z,365nm,11.4s						
CD2	Chengdu	9.20	96	*e*P	P	06 54 36.4	+2.5
KOLN	Koldanda	9.38	244	*e*P	P	06 54 35.3	-1.3
	comp=Z,7.6nm,0.4s						
KMI	Kunming	11.07	128	*e*P	P	06 55 05.9	+6.2
KMI				S	S	06 56 58.4	-6.2
KMI				LR	LR		
	comp=N,531nm,9.3s						
KMI				LR	LR		
	comp=E,457nm,10.9s						
KMI				LR	LR		
	comp=Z,453nm,10.3s						
GYA	Guiyang	13.18	113	⇑*i*P	P	06 55 27.7	-0.4
GYA				S	S	06 57 53.6	-2.1
GYA				AMB	AMB		
	comp=Z,30nm,1.2s						
GYA				AMB	AMB		
	comp=Z,180nm,4.8s						
GYA				LR	LR		
	comp=N,480nm,9.0s						
GYA				LR	LR		
	comp=E,380nm,9.3s						
GYA				LR	LR		
	comp=Z,430nm,7.8s						
ENH	Enshi	14.16	94	*e*P	P	06 55 48.2	+7.2
	comp=Z,40nm,1.0s						
CMAR	Chiang Mai Arr	14.75	158	Pn	P	06 55 48.5	-0.4
	comp=Z,0.2nm,0.3s,baz=331,slow=12,SNR=12						
UCH	Uchtor	17.78	309	*e*P	P	06 56 27.1	-0.2
	comp=Z,7.3nm,1.0s						
AAK	Ala-Archa	17.98	310	⇑*e*P	P	06 56 30.8	+1.0
AAK	Ala-Archa	17.98	310	*e*P	P	06 56 29.9	+0.1
	comp=Z,7.6nm,1.1s						
AML	Almayashu	18.27	308	*e*P	P	06 56 33.7	+0.2
	comp=Z,5.4nm,0.8s						
EKS2	Erkin-Say	18.46	310	*e*P	P	06 56 36.3	+0.5
	comp=Z,7.3nm,1.1s						
SONM	Songino Array	18.52	29	P	P	06 56 35.5	-1.0
	comp=Z,0.2nm,0.3s,baz=212,slow=12,SNR=20						
ZAK	Zakamensk	19.59	20	*e*P	P	06 56 49.1	0.0
KURK	Kurchatov	21.29	334	⇓*e*P	P	06 57 05.0	-2.0
KURK	Kurchatov	21.29	334	*e*P	P	06 57 04.2	-2.8
	comp=Z,12nm,0.8s,mb4.3						
POO	Poona	22.09	236	*e*	P	06 57 17.0	+1.7
ZAL	Zalesovo	22.43	347	P	P	06 57 19.6	+1.2
	comp=Z,1.5nm,0.7s,mb3.5,baz=314,slow=9.9,SNR=10						
ZAL	Zalesovo	22.43	347	P	P	06 57 19.6	+1.2
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NVS	Novosibirsk	23.60	346	*e*P	P	06 57 28.1	-1.6
NVS				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.1						
NVS				pmax	pmax		
	comp=N,6.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,3.0nm,0.7s						
BVAR	Borovoye Array	26.41	328	P	P	06 57 57.0	+0.6
	comp=E,3.0nm,1.0s,mb3.8,baz=135,slow=10,SNR=7.7						
BRVK	Borovoye	26.48	328	*e*P	P	06 57 57.0	-0.1
	comp=E,2.0nm,0.6s,mb3.8						
CHKZ	Chkalovo	26.75	330	*e*P	P	06 57 58.7	-1.0
	comp=E,3.1nm,0.8s,mb3.9						
OBN	Obninsk	45.29	318	*e*P	P	07 00 36.2	-1.4
OBN				*e*S	S	07 07 16.0	-1.2
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s,MS3.8						
BRTR	Keskin Array B	47.91	296	P	P	07 00 58.0	-0.4
	comp=Z,1.3nm,0.8s,mb4.0,baz=124,slow=5.2,SNR=4.5						
BRTR	Keskin Array B	47.91	296	P	P	07 00 58.1	-0.4
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
AKASG	Malin Array Be	49.65	311	P	P	07 01 09.8	-1.9
	comp=Z,1.8nm,0.5s,mb4.4,baz=74,slow=7.0,SNR=8.1						
AKASG	Malin Array Be	49.65	311	P	P	07 01 09.9	-1.8
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
FINES	FINESS Array B	51.31	325	P	P	07 01 22.2	-2.0
	comp=Z,2.7nm,0.9s,mb4.2,baz=90,slow=7.6,SNR=11						
FINES	FINESS Array B	51.31	325	P	P	07 01 22.2	-2.0
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	NORSAR Array B	58.49	326	P	P	07 02 14.3	-2.2
	comp=Z,1.6nm,1.0s,mb4.0,baz=80,slow=6.7,SNR=3.2						
NOA	NORSAR Array B	58.49	326	P	P	07 02 14.3	-2.2
NOA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
NOA	NORSAR Array B	58.49	326	P	P	07 02 14.3	-2.2
GERES	GERESS Array B	59.86	311	P	P	07 02 24.7	-1.5
	comp=Z,1.2nm,0.6s,mb4.1,baz=72,slow=4.2,SNR=6.9						
GERES	GERESS Array B	59.86	311	P	P	07 02 24.7	-1.5
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KMBO	Kilima Mbogo	62.29	249	P	P	07 02 40.2	-2.9
	comp=Z,1.1nm,0.8s,mb4.0,baz=76,slow=4.2,SNR=2.2						
KMBO	Kilima Mbogo	62.29	249	P	P	07 02 40.3	-2.9
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.8s						
DAVOX	Davos	62.94	310	P	P	07 02 44.2	-2.8
	comp=Z,4.5nm,0.9s,mb4.6,baz=76,slow=8.3,SNR=3.9						
CDF	Champ du Feu	64.05	312	*e*P	P	07 02 54.7	+0.5
HINF	Hinteralfeld	64.52	312	*e*P	P	07 02 57.4	+0.1
WRA	Warramunga Arr	65.24	137	P	P	07 03 01.9	-0.5
	comp=Z,2.3nm,0.8s,mb4.3,baz=327,slow=7.5,SNR=16						
WRA	Warramunga Arr	65.24	137	P	P	07 03 01.9	-0.5
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRAB	Tennant Creek	65.24	137	⇓*e*P	P	07 03 03.5	+1.1
WRAB	Tennant Creek	65.24	137	*e*P	P	07 03 00.7	-1.7
	comp=Z,16nm,1.3s,mb4.9						
LPG	La Plagne	65.42	309	*e*P	P	07 03 04.6	+1.4
	comp=Z,13nm,0.7s,mb4.7						
LPL	La Plagne	65.43	310	*e*P	P	07 03 04.5	+1.3
	comp=Z,20nm,0.8s,mb4.9						
CABF	La Chapelle	65.44	311	*e*P	P	07 03 03.4	+0.1
MBDF	Montbardon	65.70	309	*e*P	P	07 03 05.8	+0.9
	comp=Z,18nm,1.0s,mb4.8						
ORIF	Oris-en-Rattie	66.21	309	*e*P	P	07 03 08.5	+0.3
	comp=Z,17nm,0.9s,mb4.8						
FRF	La Foret Royal	66.22	308	*e*P	P	07 03 08.6	+0.3
	comp=Z,35nm,1.1s,mb5.0						
SMRF	Simiane la Rot	66.78	308	*e*P	P	07 03 12.9	+1.0
	comp=Z,20nm,1.1s,mb4.8						
SMF	Signal de Mont	66.86	311	*e*P	P	07 03 12.8	+0.4
	comp=Z,14nm,1.0s,mb4.7						
SSF	Saint Saulge	66.91	312	*e*P	P	07 03 13.0	+0.3
VIVF	Saint-Julien-l	67.03	309	*e*P	P	07 03 14.1	+0.7
	comp=Z,8.7nm,0.8s,mb4.5						
AVF	Avril sur Loir	67.11	312	*e*P	P	07 03 14.4	+0.4
	comp=Z,14nm,1.0s,mb4.6						
LASF	Ste Croix	67.87	309	*e*P	P	07 03 19.7	+0.9
	comp=Z,23nm,0.9s,mb4.9						
ASAR	Alice Springs	67.94	140	P	P	07 03 19.5	0.0
	comp=Z,3.7nm,0.8s,mb4.5,baz=327,slow=6.2,SNR=28						
TCF	Toulx Ste Croi	68.04	312	*e*P	P	07 03 20.7	+0.9
	comp=Z,26nm,1.1s,mb4.9						
LDF	La Druitiere	68.53	315	*e*P	P	07 03 23.2	+0.4
FLN	La Foliniere	68.67	315	*e*P	P	07 03 24.9	+1.2
RJF	Les Rejaudoux	68.89	311	*e*P	P	07 03 26.4	+1.3
	comp=Z,17nm,1.0s,mb4.7						
GRR	Gorron	69.06	315	*e*P	P	07 03 27.3	+1.2
MTLF	Montolieu	69.26	309	*e*P	P	07 03 28.3	+0.9

ETSF	Etsaut	71.28	309	eP	P	07 03 41.1	+1.4
	comp=Z,11nm,0.8s,mb4.6						
SJPF	Ste Jean	71.62	310	eP	P	07 03 43.2	+1.5
	comp=Z,11nm,0.8s,mb4.5						
COLA	College	72.23	23	eP	P	07 03 44.1	-0.8
	comp=Z,4.9nm,0.7s,mb4.5						
ILAR	Eielson Array	72.61	23	P	P	07 03 45.8	-1.3
	comp=Z,1.9nm,0.8s,mb4.1,baz=311,slow=5.7,SNR=17						
ILAR	Eielson Array	72.61	23	P	P	07 03 45.8	-1.3
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ESDC	Sonseca Array	75.06	308	P	P	07 04 02.8	+0.9
	comp=Z,0.8nm,0.5s,mb4.0,baz=54,slow=6.0,SNR=9.0						
YKA	Yellowknife Ar	82.95	13	P	P	07 04 43.3	-0.9
	comp=Z,1.2nm,0.7s,mb4.0,baz=327,slow=5.0,SNR=17						
YKA	Yellowknife Ar	82.95	13	P	P	07 04 43.3	-0.9
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	82.95	13	P	P	07 04 43.3	-0.9
DBIC	Dimbokro	93.16	280	P	P	07 05 33.4	-0.9
	comp=Z,2.7nm,1.0s,mb4.6,baz=15,slow=4.1,SNR=3.6						
DBIC	Dimbokro	93.16	280	P	P	07 05 33.4	-0.9
DBIC				pmax	pmax		
	comp=Z,3.0nm,1.0s						
DBIC	Dimbokro	93.16	280	P	P	07 05 33.4	-0.9
SAML	Samuel	148.02	311	ePKPbc	PKPdf	07 12 05.1	+0.7

IDC 06 06:53:55.5±23.0, 19.32S×178.92W, h650^{km}±221^{km}, mb2.6/3, mb1 2.9/3, mb1mx2.7/13, Error ellipse: s-maj=304.0km s-min=50.8km az=132.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.91	261	P	P	07 01 07.9	-1.5
	0.2nm,0.3s,baz=96,slow=7.7,SNR=12						
ASAR	Alice Springs	43.95	256	P	P	07 01 07.7	-2.0
	1.3nm,1.0s,baz=97,slow=7.5,SNR=8.0						
ASAR				PcP	PcP	07 02 38.9	-1.8
	0.3nm,0.5s,baz=95,slow=3.6,SNR=4.4						
ILAR	Eielson Array	87.36	13	P	P	07 05 35.0	-1.1
	0.4nm,0.7s,baz=212,slow=5.4,SNR=4.5						
AKASG	Malin Array Be	141.57	331	PKP	PKPdf	07 12 11.7	-2.5
	0.4nm,0.3s,baz=38,slow=4.4,SNR=6.4						

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*MDD **06** 07:02:04.4±1.5, 34.95N×3.02W, mb3.5/10, Error ellipse: s-maj=13.8km s-min=6.7km az=135.0, PRXIMO AftershockPLICA*

*NEIC **06** 07:02:05.1, 34.98N×3.06W, MG3.5(MDD), After MDD.*

*CNRM **06** 07:02:05.0, 35.00N×2.68W, h12^{km}, MD3.4*

CSEM 06 07:02:06.3±0.4, 35.19N×3.08W, h8^{km}, MD3.4, 1D, Error ellipse: s-maj=9.0km s-min=6.6km az=160.0, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	Melilla	0.15	42	P	Pg	07 02 10.4	+0.8
	104nm,0.1s,SNR=7.9						
EMEL				S	Sg	07 02 16.1	+4.3
	733nm,0.1s,SNR=7.9						
EMLI	Melilla	0.15	44	P	Pg	07 02 10.4	+0.8
	104nm,0.1s,SNR=7.9						
MELI	Melilla	0.15	48	⇓P	Pg	07 02 09.8	+0.1
MELI				S	Sg	07 02 16.1	+4.1
MELI	Melilla	0.15	48	i P	Pg	07 02 09.8	+0.1
TOU	Touzarine	0.60	248	i P	Pg	07 02 20.0	+1.6
TOU	Touzarine	0.60	248	i S	Sg	07 02 31.0	+4.6
EBER	Berja	1.71	5	P	Pn	07 02 36.8	+0.2
EBER				S	Sn	07 03 00.3	+1.4
EBER	Berja	1.71	5	P	Pn	07 02 36.8	+0.2
	0.7nm,0.2s,SNR=7.9						
EBER				S	Sn	07 02 58.4	-0.5
	4.2nm,0.2s,SNR=7.9						
EBER	Berja	1.71	5	P	Pn	07 02 36.8	+0.1
	0.7nm,0.2s,SNR=7.9						
EBER				S	Sn	07 03 00.3	+1.4
EMIJ	Mijas	1.94	315	P	Pn	07 02 39.5	-0.5
EMIJ				S	Sn	07 03 06.5	+1.7
EMIJ	Mijas	1.94	315	P	Pn	07 02 39.5	-0.5
	3.3nm,0.2s,SNR=7.9						
EMIJ				S	Sn	07 03 05.0	+0.2
	4.2nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	2.14	336	P	Pn	07 02 43.9	+1.1
	1.3nm,0.2s,SNR=7.9						
ELOJ				S	Sn	07 03 13.5	+3.8
	0.8nm,0.2s,SNR=4.0						
ELOJ	Sierra Loja	2.14	336	S	Sn	07 03 13.5	+3.7
	0.8nm,0.2s,SNR=4.0						
ELUQ	Luque	2.55	338	P	Pn	07 02 50.6	+1.9
	1.6nm,0.2s,SNR=7.9						
ELUQ				S	Sn	07 03 22.7	+2.4
	1.8nm,0.2s,SNR=7.9						
EQES	Quesada	2.61	0	P	Pn	07 02 51.4	+1.9
	1.1nm,0.2s,SNR=7.9						
EQES				S	Sn	07 03 25.0	+3.4
	4.9nm,0.2s,SNR=7.9						
EQES	Quesada	2.61	0	P	Pn	07 02 51.4	+1.9
	1.1nm,0.2s,SNR=7.9						
EQES				S	Sn	07 03 25.0	+3.3
	4.9nm,0.2s,SNR=7.9						
ESPR	Espera	2.81	307	P	Pn	07 02 53.4	+1.1
	1.0nm,0.1s,SNR=7.9						
ESPR				S	Sn	07 03 26.7	0.0
	1.7nm,0.3s,SNR=4.0						
ESPR	Espera	2.81	307	P	Pn	07 02 53.4	+1.1
	1.0nm,0.1s,SNR=7.9						
ESPR				S	Sn	07 03 26.7	0.0
	1.7nm,0.3s,SNR=4.0						
EADA	Adamuz	3.21	338	P	Pn	07 02 58.8	+0.7
EADA				S	Sn	07 03 37.9	+1.1
EADA	Adamuz	3.21	338	P	Pn	07 02 58.7	+0.7
	0.9nm,0.2s,SNR=7.9						
EADA				S	Sn	07 03 36.7	-0.2
	0.7nm,0.2s,SNR=7.9						
EADA	Adamuz	3.21	338	P	Pn	07 02 58.7	+0.7
	0.9nm,0.2s,SNR=7.9						
EADA				S	Sn	07 03 37.9	+1.0
EMIN	Mina Concepcio	3.87	313	P	Pn	07 03 06.9	-0.6
	1.4nm,0.2s,SNR=7.9						
EMIN				S	Sn	07 03 52.1	-1.7
	0.4nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	3.87	313	P	Pn	07 03 06.9	-0.6
	1.4nm,0.2s,SNR=7.9						
EMIN				S	Sn	07 03 52.1	-1.6
	0.4nm,0.2s,SNR=7.9						
ESDC	Sonseca Array	4.53	351	P	Pn	07 03 17.7	+0.8
	1.0nm,0.3s,baz=173,slow=12,SNR=24						
ESDC	Sonseca Array	4.53	351	P	Pn	07 03 17.7	+0.9
	1.0nm,0.3s,SNR=24						
EBAD	Badajoz	4.75	320	P	Pn	07 03 19.3	-0.6
	1.3nm,0.2s,SNR=7.9						
EBAD				S	Sn	07 04 15.0	-1.0
	1.7nm,0.2s,SNR=7.9						
EBAD	Badajoz	4.75	320	P	Pn	07 03 19.3	-0.7
	1.3nm,0.2s,SNR=7.9						
EBAD				S	Sn	07 04 15.0	-1.0
PBEJ	Beja	4.78	308	ePn	Pn	07 03 19.7	-0.7
PVRL	Vila Real	7.09	330	ePn	Pn	07 03 52.0	-0.9
PBRG	Braganca	7.20	338	ePn	Pn	07 03 53.4	-1.1

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*IDC **06** 07:10:09.9±0.7, 32.27S×71.34W, h47^{km}±6^{km}, mb4.1/9, mb1 4.2/11, mb1mx4.0/15, MS3.6/1, Ms1 3.5/1, ms1mx2.9/15, Error ellipse: s-maj=24.1km s-min=19.1km az=75.0*

*NEIC **06** 07:10:10.2, 32.28S×71.38W, h43^{km}, mb4.3/3, After GUC.*

NEIC Felt [III] at La Calera, La Cruz, Panquehue and Quillota; [II] at Puchuncavi.

*GUC **06** 07:10:10.2±0.9, 32.28S×71.38W, h43^{km}±2^{km}, ML4.3*

*SYO **06** 07:10:10.2, 32.28S×71.38W, h43^{km}, MB4.3*

ISC 06 07:10:09.7±0.4, 32.24S±0.03×71.41W±0.07, h63^{km}±4^{km}, n55, σ0§79/63, mb4.3/11, 12C-11D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACH	Papudo	0.29	185	⇑iP	P	07 10 18.9	-1.2
ROCH	El Roble	0.80	155	⇑iP	P	07 10 25.3	-0.1
ROCH				i S	S	07 10 36.3	-0.8
IHA	Instituto Hidr	0.80	194	⇓iP	P	07 10 24.8	-0.7
IHA				i S	S	07 10 36.5	-0.7
JACH	Jahuel	0.82	123	⇑iP	P	07 10 25.6	0.0
PEL	Peldehue	1.08	146	⇑iP	P	07 10 29.5	+0.2
PEL				i S	S	07 10 43.5	-0.2
LCCH	Las Cruces	1.23	186	⇑iP	P	07 10 31.1	-0.2
LCCH				i S	S	07 10 47.8	+0.5
RCDM	Rinconada Maip	1.34	158	eP	P	07 10 32.7	-0.2
RCDM				i S	S	07 10 49.7	-0.3
DSCH	Colegio Aleman	1.35	149	⇑iP	P	07 10 33.2	+0.2
DSCH				i S	S	07 10 50.6	+0.3
DSCH				AMP		07 10 51.4	
	comp=N,18µm,0.4s						
STL	Santa Lucia	1.35	152	⇑iP	P	07 10 33.0	-0.1
STL				i S	S	07 10 50.5	+0.3
STL				AMP		07 10 57.0	
	comp=N,2µm,0.4s						
CLCH	Cerro Calan	1.36	148	⇓iP	P	07 10 33.4	+0.2
CLCH				i S	S	07 10 50.7	+0.1
CLCH				AMP		07 10 52.1	
	comp=N,16µm,0.4s						
CLCH				AMP		07 10 52.7	
	comp=N,18µm,0.4s						
FCH	Farellones	1.43	139	⇓iP	P	07 10 34.4	+0.3
FCH				i S	S	07 10 53.2	+1.0
FCH				AMP		07 10 58.9	
	comp=E,4µm,0.2s						
FSR	Penalolen	1.44	149	⇓iP	P	07 10 34.5	+0.3
FSR				i S	S	07 10 52.8	+0.5
FSR				AMP		07 10 53.6	
	comp=N,7µm,0.3s						
TACH	Talagante	1.46	164	⇓iP	P	07 10 34.5	0.0
PCH	Pirque	1.57	152	⇑iP	P	07 10 36.0	+0.1
OVCH	Ovalle	1.64	6	eP	P	07 10 38.2	+1.3
OVCH				i S	S	07 10 59.0	+2.0
OVCH				AMP		07 11 02.1	
	comp=E,5µm,0.4s						
SJCH	San Jose de Ma	1.65	148	eP	P	07 10 36.4	-0.7
SJCH				i S	S	07 10 57.0	-0.3
SJCH				AMP		07 11 00.5	
	comp=N,4µm,0.2s						
LNV	Longovilo	1.71	180	⇓iP	P	07 10 37.2	-0.6
CHCH	Chadas Angostu	1.80	160	⇓iP	P	07 10 39.6	+0.5
CHCH				i S	S	07 11 01.5	+0.7
LMEL	Las Melosas	1.89	148	⇓iP	P	07 10 41.1	+0.8
LMEL				AMP		07 11 11.2	
	comp=N,6µm,0.2s						
CACH	El Canelo	1.99	160	⇓iP	P	07 10 43.0	+1.3
LSCH	La Serena	2.33	3	eP	P	07 10 46.1	-0.5
SFDO	San Fernando	2.39	172	eP	P	07 10 47.5	+0.2
TALC	Talca	3.15	183	⇑iP	P	07 10 57.6	-0.6
VACH	Vallenar	3.70	9	⇑iP	P	07 11 05.5	-0.3
VACH				i S	S	07 11 49.0	+0.5
CCHI	Chillan	4.38	187	eP	P	07 11 14.6	-0.8
LVC	Limon Verde	9.85	14	P	P	07 12 25.3	-5.7
	comp=N,0.4nm,0.3s,baz=153,slow=8.3,SNR=4.8						
LVC				S	S	07 14 18.9	-2.0
	comp=N,0.8nm,0.3s,baz=270,slow=9.0,SNR=2.4						
LVC	Limon Verde	9.85	14	ePn	P	07 12 24.8	-6.2
	comp=N,4.5nm,0.9s						
LPAZ	La Paz	16.16	11	P	P	07 13 54.3	+0.1
	comp=N,0.2nm,0.3s,baz=188,slow=9.2,SNR=11						
LPAZ	La Paz	16.16	11	eP	P	07 13 54.4	+0.2
	comp=N,3.8nm,1.0s						
SAML	Samuel	24.40	20	eP	P	07 15 22.8	-0.7
	comp=N,5.7nm,0.5s,mb4.3						
BDFB	Brasilia	26.93	58	P	P	07 15 45.6	-1.6
	comp=N,4.2nm,0.8s,mb4.0,baz=229,slow=8.8,SNR=6.9						
BDFB				LR	LR	07 27 35.6	
	comp=N,118nm,18.8s,baz=298,slow=39						
BDFB	Brasilia	26.93	58	P	P	07 15 45.6	-1.6
BDFB				LR	LR	07 27 35.6	
BAO	Brasilia Array	26.95	58	eP	P	07 15 45.7	-1.7
VNA3	Neumayer Olymp	50.79	158	⇓i	P	07 19 06.0	+0.8
VNA2	Neumayer--Watz	51.43	158	⇓i	P	07 19 06.7	-3.3
SNAA	Sanae	53.01	158	⇑i	P	07 19 20.8	-1.1
SNAA	Sanae	53.01	158	P	P	07 19 21.7	-0.2
	comp=N,1.4nm,0.7s,mb4.0,baz=307,slow=5.8,SNR=12						
SYO	Syowa Base	67.30	159	⇑P	P	07 20 59.0	-0.4
TXAR	Lajitas Array	68.47	330	P	P	07 21 07.9	+0.6
	comp=N,1.4nm,0.8s,mb4.1,baz=153,slow=7.8,SNR=13						
WVT	Waverly	69.73	346	eP	P	07 21 14.1	-0.9
	comp=N,18nm,1.1s,mb4.9						
DBIC	Dimbokro	74.12	71	P	P	07 21 41.3	-0.2
	comp=N,6.0nm,0.8s,mb4.6,baz=220,slow=6.3,SNR=13						
MAW	Mawson	74.71	163	P	P	07 21 44.2	+0.4
	comp=N,5.9nm,1.2s,mb4.4,baz=259,slow=9.8,SNR=2.6						
RAR	Rarotonga	77.67	253	P	P	07 22 02.2	+0.8
	comp=N,9.6nm,0.6s,mb4.9,baz=140,slow=7.1,SNR=4.2						
RAR	Rarotonga	77.67	253	P	P	07 22 02.2	+0.8
PV10	Paradox Valley	78.51	331	eP	P	07 22 06.5	+0.8
PDAR	Pinedale Array	82.44	333	P	P	07 22 27.0	+0.5
	comp=N,1.0nm,0.9s,mb3.8,baz=135,slow=4.2,SNR=6.5						
NVAR	Mina Array Bea	82.75	325	P	P	07 22 30.1	+1.9
	comp=N,1.5nm,0.7s,mb4.1,baz=151,slow=6.4,SNR=12						
ULM	Lac du Bonnet	84.95	345	P	P	07 22 38.9	0.0
	comp=N,3.4nm,1.0s,mb4.4,baz=165,slow=9.1,SNR=3.6						
ASAR	Alice Springs	119.37	207	PKP	PKPdf	07 28 52.8	+0.4
	comp=N,0.2nm,0.4s,baz=104,slow=1.6,SNR=3.8						
WRA	Warramunga Arr	122.55	209	PKP	PKPdf	07 28 59.4	+0.8
	comp=N,0.9nm,0.6s,baz=154,slow=1.6,SNR=14						
WRA				pPKP		07 29 13.1	
	comp=N,0.6nm,0.8s,baz=163,slow=1.8,SNR=4.4						
CHKZ	Chkalovo	145.50	40	ePKPdf	PKPdf	07 29 41.8	+1.8
CHKZ				epPKPdf		07 29 55.6	
BRVK	Borovoye	145.56	41	ePKPdf	PKPdf	07 29 42.8	+2.6
BRVK				epPKPdf		07 29 55.9	
BVAR	Borovoye Array	145.63	41	PKPbc	PKPbc	07 29 43.2	+2.1
	comp=N,4.4nm,0.7s,baz=292,slow=3.8,SNR=28						
BVAR				pPKPbc		07 29 57.0	
	comp=N,2.1nm,0.5s,baz=297,slow=3.1,SNR=9.4						
AAK	Ala-Archa	151.18	59	ePKPbc	PKPdf	07 29 57.4	+7.8
ZAL	Zalesovo	152.46	31	PKPbc	PKPdf	07 30 00.6	+10
	comp=N,4.8nm,0.4s,baz=135,slow=1.6,SNR=10						
ZAL				pPKPbc		07 30 14.4	
	comp=N,5.7nm,0.5s,baz=155,slow=2.6,SNR=8.7						

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*NEIC **06** 07:13:52.4, 33.48S×71.62W, h46^{km}, MD3.6(GUC), After GUC.*

GUC 06 07:13:52.4±0.8, 33.48S×71.62W, h46^{km}±1^{km}, MD3.6, ML3.4, 8C-11D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCCH	Las Cruces	0.04	87	⇓iP	P	07 13 59.8	+0.3
IHA	Instituto Hidr	0.45	358	⇓iP	P	07 14 02.9	+0.1
IHA				i S	S	07 14 10.5	+0.3
LNV	Longovilo	0.51	160	⇑iP	P	07 14 03.5	0.0
TACH	Talagante	0.60	107	⇓iP	P	07 14 05.0	+0.3
TACH				i S	S	07 14 14.1	+0.5
RCDM	Rinconada Maip	0.68	91	⇓iP	P	07 14 06.0	+0.2
RCDM				i S	S	07 14 16.3	+0.6
RCDM				AMP		07 14 17.0	
	comp=N,6µm,0.3s						
ROCH	El Roble	0.72	46	⇑iP	P	07 14 06.7	+0.4
ROCH				i S	S	07 14 18.5	+2.0
SAN	Santiago	0.81	88	i P	P	07 14 08.2	+0.7
SAN				i S	S	07 14 19.8	+1.3
SAN				AMP		07 14 21.0	
	comp=N,5µm,0.3s						
STL	Santa Lucia	0.82	87	⇑iP	P	07 14 08.2	+0.5
STL				i S	S	07 14 20.3	+1.3
STL				AMP		07 14 20.8	
	comp=N,2µm,0.2s						
PEL	Peldehue	0.85	67	⇑iP	P	07 14 09.2	+1.0
PEL				i S	S	07 14 21.1	+1.3
DSCH	Colegio Aleman	0.89	85	⇑iP	P	07 14 09.6	+1.0
DSCH				i S	S	07 14 22.1	+1.6
DSCH				AMP		07 14 23.1	
	comp=N,3µm,0.4s						
CLCH	Cerro Calan	0.91	85	⇑iP	P	07 14 09.7	+0.7
CLCH				i S	S	07 14 22.8	+1.5
CLCH				AMP		07 14 24.3	
	comp=E,1µm,0.5s						
CLCH				AMP		07 14 24.9	
	comp=E,2µm,0.3s						
FSR	Penalolen	0.92	90	⇓iP	P	07 14 10.2	+1.1
FSR				i S	S	07 14 22.8	+1.4
FSR				AMP		07 14 24.1	
	comp=E,2µm,0.6s						
CHCH	Chadas Angostu	0.93	120	⇓iP	P	07 14 09.5	+0.3
PCH	Pirque	0.94	99	⇓iP	P	07 14 10.1	+0.7
PCH				i S	S	07 14 23.1	+1.3
PACH	Papudo	0.95	10	⇑iP	P	07 14 09.7	+0.1
PACH				i S	S	07 14 22.1	-0.1
CACH	El Canelo	1.06	127	⇓iP	P	07 14 12.3	+1.2
CACH				i S	S	07 14 27.1	+2.1
SJCH	San Jose de Ma	1.07	99	eP	P	07 14 11.2	0.0
SJCH				i S	S	07 14 25.7	+0.5
SJCH				AMP		07 14 27.8	
	comp=N,946nm,0.4s						
FCH	Farellones	1.12	83	⇓iP	P	07 14 13.1	+1.1
FCH				i S	S	07 14 28.2	+1.7
FCH				AMP		07 14 30.3	
	comp=E,2µm,0.2s						
JACH	Jahuel	1.18	48	⇓iP	P	07 14 13.5	+0.9
JACH				i S	S	07 14 29.1	+1.3
LMEL	Las Melosas	1.24	108	⇓iP	P	07 14 14.4	+0.8
LMEL				i S	S	07 14 30.7	+1.2
LMEL				AMP		07 14 33.9	
	comp=N,3µm,0.2s						
SFDO	San Fernando	1.24	156	⇑iP	P	07 14 15.1	+1.5
SFDO				i S	S	07 14 30.6	+1.2

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*STR **06** 08:24:47.3±0.6, 42.28N×2.08E, h5^{km}±1^{km}, Ml2.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **06** 08:24:47.4, 42.27N×2.10E, h5^{km}, ML2.6(STR), ML2.5(LDG), MN2.2(MDD), After LDG.*

*LDG **06** 08:24:47.4±0.1, 42.27N×2.10E, h5^{km}, Md2.5/2, Ml2.5/6, Error ellipse: s-maj=1.9km s-min=1.4km az=157.0*

*CSEM **06** 08:24:47.7±0.1, 42.28N×2.07E, h5^{km}, ML2.6/7, Error ellipse: s-maj=2.2km s-min=1.5km az=125.0*

MDD 06 08:24:47.9±0.2, 42.29N×2.09E, h10^{km}, mbLg2.0/20, 2C, Error ellipse: s-maj=1.8km s-min=1.7km az=153.0, PRXIMO, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBRU	Bruguera	0.07	92	Pg	Pg	08 24 49.7	-0.4
CBRU				Lg		08 24 51.3	
	229nm,0.1s						
VALF	Valcebollere	0.13	334	Pg	Pg	08 24 50.9	-0.1
VALF				Lg		08 24 53.2	
CLLI	Llivia	0.21	335	Pg	Pg	08 24 52.2	-0.3
CLLI				Lg		08 24 55.5	
	39nm,0.0s						
CARF	Carcanieres	0.43	1	Pg	Pg	08 24 56.2	-0.4
CARF				Sg	Sg	08 25 02.2	-0.3
CARF	Carcanieres	0.43	1	Pg	Pg	08 24 56.2	-0.4
CARF				Lg		08 25 02.1	
FILF	Fillols	0.44	52	Pg	Pg	08 24 54.7	-2.2
FILF				Sg	Sg	08 24 59.4	-3.5
FILF	Fillols	0.44	52	Pg	Pg	08 24 54.7	-2.1
FILF				Lg		08 24 59.9	
PAND	Andorre	0.47	300	Pg	Pg	08 24 56.4	-1.0
PAND				Lg		08 25 03.2	
EMIR	Miracle	0.56	229	Pg	Pg	08 24 58.1	-1.2
	5.0nm,0.0s,SNR=14						
EMIR				Lg		08 25 05.8	
	62nm,0.2s,SNR=10						
EMIR	Miracle	0.56	229	Pg	Pg	08 24 58.1	-1.2
	5.0nm,0.0s,SNR=14						
CORG	Organya	0.58	265	Pg	Pg	08 24 58.4	-1.2
CORG				Lg		08 25 07.1	
	4.1nm,0.0s						
CFON	Fontmartina	0.58	154	Pg	Pg	08 24 58.0	-1.7
CFON				Lg		08 25 09.5	
	25nm,0.1s						
EJON	La Jonquera	0.61	74	⇑Pg	Pg	08 24 59.1	-1.1
	8.2nm,0.1s,SNR=18						
EJON				Lg		08 25 06.8	
	17nm,0.2s,SNR=8.8						
EJON	La Jonquera	0.61	74	Pg	Pg	08 24 59.1	-1.1
	8.2nm,0.1s,SNR=18						
GRBF	Gourbit	0.69	324	Pg	Pg	08 25 00.8	-0.9
CSOR	Sort	0.72	277	Pg	Pg	08 25 01.2	-1.1
CSOR				Lg		08 25 10.7	
	5.3nm,0.1s						
LRDF	Laroque-de-Fa	0.73	27	Pg	Pg	08 25 01.9	-0.7
LRDF				Lg		08 25 11.7	
SALF	Salau	0.82	306	Pg	Pg	08 25 02.8	-1.5
SALF				Sg	Sg	08 25 13.7	-1.6
SALF	Salau	0.82	306	Pg	Pg	08 25 02.6	-1.7
SALF				Lg		08 25 13.7	
MTLF	Montolieu	1.06	5	ePg	Pg	08 25 07.9	-1.2
MTLF				eSg	Sg	08 25 21.4	-1.8
	18nm,0.4s						
CAVN	Les Avellanes	1.08	248	Pg	Pg	08 25 07.6	-1.9
CAVN				Lg		08 25 22.8	
	8.9nm,0.1s						
MELF	Melles	1.15	301	Pg	Pg	08 25 08.8	-2.0
MELF				Lg		08 25 23.8	
EPOB	Poblet	1.20	219	⇑Pg	Pg	08 25 09.7	-2.2
	5.7nm,0.1s,SNR=18						
EPOB				Lg		08 25 25.0	
	12nm,0.1s,SNR=20						
EPOB	Poblet	1.20	219	Pg	Pg	08 25 09.7	-2.3
	5.7nm,0.1s,SNR=18						
RESF	Ens	1.40	292	Lg		08 25 33.5	
EPF	Esparros	1.49	300	ePg	Pg	08 25 15.1	-2.6
EPF				eSn	Sn	08 25 32.6	-1.9
EPF				eSg	Sg	08 25 35.8	-1.8
	9.6nm,0.2s						
EPF	Esparros	1.49	300	eSn	Sn	08 25 32.6	-1.9
EPF				eSg	Sg	08 25 35.8	-1.8
	4.8nm,0.2s						
EBIE	Bielsa	1.50	286	Pn	Pn	08 25 16.2	+1.3
	1.3nm,0.2s,SNR=15						
EBIE				Lg		08 25 35.9	
	21nm,0.3s,SNR=26						
EBIE	Bielsa	1.50	286	Pn	Pn	08 25 16.2	+1.3
	1.3nm,0.2s,SNR=15						
VIEF	Viey	1.64	292	Lg		08 25 40.7	
ERTA	Horta de San J	1.87	225	Pg	Pg	08 25 21.1	-4.2
	2.9nm,0.1s,SNR=9.5						
ERTA				Lg		08 25 46.4	
	4.9nm,0.1s,SNR=7.9						
ERTA	Horta de San J	1.87	225	Pg	Pg	08 25 21.1	-4.2
	2.9nm,0.1s,SNR=9.5						
ESAC	San Caprasio	1.99	254	Pn	Pn	08 25 21.7	-0.3
	2.8nm,0.5s,SNR=10						
ESAC				Pg	Pg	08 25 24.7	-3.0
	8.4nm,0.1s,SNR=4.5						
ESAC				Sn	Sn	08 25 46.0	-1.1
	19nm,0.5s,SNR=4.0						
ESAC				Lg		08 25 50.8	
	6.4nm,0.1s,SNR=7.9						
ESAC	San Caprasio	1.99	254	Pn	Pn	08 25 21.7	-0.3
	2.8nm,0.5s,SNR=10						
ESAC	San Caprasio	1.99	254	Pg	Pg	08 25 24.7	-3.0
	8.4nm,0.1s,SNR=4.5						
ESAC				Sn	Sn	08 25 46.0	-1.2
	19nm,0.5s,SNR=4.0						
ETSF	Etsaut	2.05	288	ePg	Pg	08 25 25.1	-3.8
ETSF				eSn	Sn	08 25 45.6	-3.1
ETSF				eSg	Sg	08 25 52.1	-4.1
	13nm,0.3s						
ETSF	Etsaut	2.05	288	eSn	Sn	08 25 45.6	-3.1
ETSF	Etsaut	2.05	288	ePg	Pg	08 25 25.1	-3.8
ETSF				eSg	Sg	08 25 52.1	-4.1
	6.4nm,0.3s						
LASF	Ste Croix	2.20	35	eSg	Sg	08 25 57.2	-4.1
	2.1nm,0.2s						
SJPF	Ste Jean	2.58	290	ePg	Pg	08 25 35.3	-4.1
SJPF				eSg	Sg	08 26 09.4	-4.5
	3.3nm,0.3s						
CAF	Calviac	2.64	360	ePn	Pn	08 25 29.2	-2.0
CAF				eSn	Sn	08 26 00.6	-3.0
CAF				eSg	Sg	08 26 11.1	-4.6
	2.4nm,0.3s						
EMOS	Mosqueruela	2.73	226	Pn	Pn	08 25 31.1	-1.4
	SNR=7.9						
EMOS				Pg	Pg	08 25 36.7	-5.6
	SNR=7.9						
EMOS				Lg		08 26 13.5	
	10nm,0.6s,SNR=4.0						
EMOS	Mosqueruela	2.73	226	Pn	Pn	08 25 31.1	-1.4
	SNR=7.9						
EMOS	Mosqueruela	2.73	226	Pg	Pg	08 25 36.7	-5.6
	SNR=7.9						
EALK	Alkurruntz	2.81	291	Pn	Pn	08 25 34.3	+0.6
	0.3nm,0.1s,SNR=7.9						
EALK				Pg	Pg	08 25 40.9	-3.1
	0.7nm,0.2s,SNR=7.9						
EALK				Lg		08 26 17.6	
	6.2nm,0.4s,SNR=7.9						
EALK	Alkurruntz	2.81	291	Pg	Pg	08 25 40.9	-3.1
	0.7nm,0.2s,SNR=7.9						

SNSN ***06*** *08:27:39.6, 26.90N×34.91E, h10^{km}, Ml2.5*
CSEM ***06*** *08:27:39.8±0.1, 26.82N×34.77E, h35^{km}, ML3.1, Error ellipse: s-maj=2.6km s-min=1.9km az=64.0*
HLW ***06*** *08:27:40.2, 26.88N×34.80E, h20^{km}, Mb3.1*
ISC 06 08:27:38.7±0.9**, 26.85N**±0.04×**34.81E**±0.05**, h18**^{km}±11^{km}**, n24,** σ**0**^{s}**61**/27**, 2C-1D, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSFG		0.83	251	⇓P	Pb	08 27 55.5	+1.2
DBAS	Duba	1.11	70	P	Pb	08 27 58.6	-0.4
HHRG	Al Ghardaqah	1.16	289	⇑P	Pb	08 28 00.7	+0.7
HHRG				S	Sb	08 28 14.2	-0.5
SHRM		1.20	330	P	Pb	08 28 00.3	-0.3
SHRM				S	Sb	08 28 14.7	-1.1
TR1		1.38	327	⇑P	Pn	08 28 03.4	+0.1
AYUS	‘Aynunah	1.40	17	P	Pn	08 28 03.7	+0.1
ZEIT		1.52	312	P	Pn	08 28 04.7	-0.6
BDAS	Al Bad‘	1.60	9	P	Pn	08 28 07.2	+0.7
TAYS	Tayyib Ism	1.70	2	P	Pn	08 28 07.5	-0.4
TR2		1.81	328	P	Pn	08 28 09.9	+0.5
TR2		1.81	328	P	Pn	08 28 09.9	+0.5
EMRS	Mersa Alam	1.82	179	P	Pn	08 28 09.0	-0.6
TBKS	Tabuk	2.07	48	P	Pn	08 28 13.8	+0.6
HAQS	Haql	2.21	3	P	Pn	08 28 15.4	+0.3
JMQS	Jabal Moqyreh	2.25	25	P	Pn	08 28 16.4	+0.7
JMQS				S	Sn	08 28 42.5	-0.7
HEDF	Idfu	2.27	220	P	Pn	08 28 16.1	0.0
GRB	Gharib	2.29	309	P	Pn	08 28 15.7	-0.6
JMOS	Jabal al Moall	2.33	7	P	Pn	08 28 17.4	+0.5
HAGS	Hagol	2.46	176	P	Pn	08 28 18.4	-0.4
ALWS	Ilw as Safayha	2.47	5	P	Pn	08 28 19.8	+0.9
HSHJ	Hashim	2.62	11	*e*S	Sn	08 28 48.7	-4.0
	SNR=55						
UMJS	Umm Lajj	2.77	125	P	Pn	08 28 22.6	-0.6
YNBS	Yanbu‘ al Bahr	3.81	130	P	Pn	08 28 37.7	-0.2
KBRS	Khaybar	4.14	104	P	Pn	08 28 42.7	+0.1

IDC ***06*** *08:28:04.8±1.1, 21.61S×170.94E, mb4.4/9, mb1 4.5/9, mb1mx4.3/15, Error ellipse: s-maj=38.7km s-min=23.8km az=159.0*
NEIC ***06*** *08:28:06.8±0.6, 21.45S×170.83E, h10^{km}, mb4.5/9, Error ellipse: s-maj=21.3km s-min=14.0km az=172.0*
ISC 06 08:28:25.5±2.5**, 21.5S**±0.2×**170.2E**±0.2**, h160**^{km}±16^{km}**, n31,** σ**1**^{s}**15**/27**, mb4.3**/13**, 1C-2D, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.52	261	*e*P	P	08 29 20.4	-0.2
DZM				*e*S	S	08 30 02.9	+0.1
NOUC	Port Laguerre	3.65	261	*e*P	P	08 29 25.5	+3.2
NOUC				*e*S	S	08 30 02.7	-3.2
CTA	Charters Tower	22.41	269	*e*P	P	08 33 13.6	+2.2
	4.2nm,0.7s,mb4.0						
CTA	Charters Tower	22.41	269	P	P	08 33 13.6	+2.2
	2.7nm,0.4s,mb4.0,baz=100,slow=11,SNR=7.1						
CTAO	Charters Tower	22.41	269	*e*P	P	08 33 13.4	+2.0
	4.1nm,0.6s,mb4.0						
PMG	Port Moresby	25.22	295	P	P	08 33 39.0	+0.8
	6.6nm,0.6s,mb4.3,baz=132,slow=6.8,SNR=4.2						
PMG	Port Moresby	25.22	295	*e*P	P	08 33 39.2	+0.9
	4.9nm,0.6s,mb4.2						
STKA	Stephens Creek	27.46	242	*e*P	P	08 33 59.2	+0.5
	5.9nm,0.7s,mb4.3						
STKA	Stephens Creek	27.46	242	P	P	08 33 59.0	+0.3
	8.4nm,0.8s,mb4.4,baz=91,slow=9.6,SNR=13						
ASAR	Alice Springs	33.51	259	P	P	08 34 51.6	-0.3
	4.6nm,0.8s,mb4.3,baz=79,slow=8.4,SNR=43						
WB2	Warramunga Arr	33.51	266	*e*P	P	08 34 51.1	-0.8
WRAB	Tennant Creek	33.51	266	*e*P	P	08 34 50.9	-1.0
	3.1nm,0.5s,mb4.3						
ASPA	Alice Springs	33.51	259	*e*P	P	08 34 51.7	-0.2
WRA	Warramunga Arr	33.52	266	P	P	08 34 51.0	-0.9
	2.6nm,0.7s,mb4.1,baz=101,slow=7.9,SNR=26						
KAKA	Kakadu	37.09	277	*e*P	P	08 35 21.8	-0.4
	6.7nm,0.5s,mb4.5						
FORT	Forrest	38.73	247	*e*P	P	08 35 35.8	+0.1
	22nm,0.5s,mb5.0						
FITZ	Fitzroy Crossi	41.94	267	*e*P	P	08 36 03.0	+0.7
	9.8nm,0.9s,mb4.4						
FITZ	Fitzroy Crossi	41.94	267	P	P	08 36 03.1	+0.8
	12nm,0.8s,mb4.6,baz=160,slow=5.4,SNR=17						
KLBR	Kellerberrin	47.57	246	*e*P	P	08 36 46.3	-0.6
	8.3nm,0.4s,mb4.7						
CMAR	Chiang Mai Arr	80.25	294	P	P	08 40 21.9	+1.6
	1.1nm,0.4s,mb3.8,baz=125,slow=4.5,SNR=4.7						
SNAA	Sanae	86.91	182	⇑*i*	P	08 40 51.0	-1.7
SNAA	Sanae	86.91	182	P	P	08 40 51.2	-1.5
	0.7nm,0.6s,mb3.6,baz=103,slow=5.9,SNR=7.1						
VNA3	Neumayer Olymp	87.46	180	⇓*i*	P	08 40 56.6	+1.2
VNA2	Neumayer--Watz	87.77	181	⇓*i*	P	08 40 57.6	+0.7
ILAR	Eielson Array	92.16	17	P	P	08 41 15.4	-2.1
	0.7nm,0.8s,mb3.7,baz=235,slow=5.3,SNR=6.1						
ARCES	ARCESS Array B	127.51	345	PKP	PKPdf	08 47 10.4	-0.5
	2.0nm,0.7s,baz=45,slow=1.7,SNR=3.7						
FINES	FINESS Array B	133.05	337	PKP	PKPdf	08 47 20.6	-1.1
	14nm,1.4s,baz=153,slow=3.1,SNR=3.3						
BRG	Berggiesshubel	145.32	333	*e*P	PKPdf	08 47 45.6	+1.7
KHC	Kasperske Hory	146.78	332	*e*PKP	PKPdf	08 47 50.0	+3.6
GERES	GERESS Array B	146.93	331	PKPbc	PKPbc	08 47 50.5	+2.1
	2.3nm,0.5s,baz=29,slow=2.9,SNR=20						
DAVOX	Davos	150.18	332	PKPbc	PKPdf	08 47 58.3	+6.4
	baz=56,slow=7.3						

NEIC ***06*** *08:50:20.8, 15.97N×98.59W, h8^{km}, mb4.4/13, MD4.6(MEX), After MEX.*
MEX ***06*** *08:50:20.9±1.2, 15.96N×98.67W, h16^{km}±18^{km}, MD4.6*
BJI ***06*** *08:50:20.8, 16.00N×98.60W, h8^{km}, mB4.3, Ms4.7, Msz4.2*
IDC ***06*** *08:50:41.7±5.6, 17.24N×98.32W, h121^{km}±49^{km}, mb3.7/6, mb1 3.8/9, mb1mx3.6/20, MS3.7/2, Ms1 3.7/2, ms1mx2.9/19, Error ellipse: s-maj=65.1km s-min=30.4km az=32.0*
ISC 06 08:50:20.7±1.3**, 16.06N**±0.06×**98.57W**±0.04**, h23**^{km}±8^{km}**, n62,** σ**1**^{s}**20**/78**, mb4.2**/16**, MS3.9**/3**, 1D, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.54	52	*i* P	Pb	08 50 31.6	+0.2
PNIG				*i* S	Sb	08 50 40.0	+1.2
ACX	Acapulco	1.52	302	*i* P	Pn	08 50 43.5	-3.3
ACX				*i* S	Sn	08 51 05.5	-0.5
ACX	Acapulco	1.52	302	*i* P	Pn	08 50 43.5	-3.3
ACX				*i* S	Sn	08 51 01.6	-4.4
CAIG	El Cayaco	1.90	301	*e*P	Pn	08 50 50.0	-2.3
CAIG				*e*S	Sn	08 51 16.3	+0.6
CAIG	El Cayaco	1.90	301	*e*P	Pn	08 50 50.0	-2.3
CAIG				*e*S	Sn	08 51 10.1	-5.6
OXX	Oaxaca	2.05	60	*i* P	Pn	08 50 54.4	0.0
OXX				*i* S	Sn	08 51 26.5	+7.1
OXX	Oaxaca	2.05	60	*i* P	Pn	08 50 54.4	0.0
OXX				*i* S	Sn	08 51 18.1	-1.3
HUIG	Huatulco	2.39	97	*e*P	Pn	08 50 58.4	-0.9
HUIG				*i* S	Sn	08 51 25.0	-3.2
HUIG	Huatulco	2.39	97	*e*P	Pn	08 50 58.4	-0.9
HUIG				*i* S	Sn	08 51 24.7	-3.5
PPM	Popocatepetl	2.99	359	*i* P	Pn	08 51 07.0	-0.9
PPM				*i* S	Sn	08 51 45.4	+2.0
PPM				*e*S	Sn	08 51 50.8	+7.3
PPM	Popocatepetl	2.99	359	*i* P	Pn	08 51 07.0	-0.9
PPM				*e*P		08 51 09.6	
PPM				*i* S	Sn	08 51 43.0	-0.4
PPM				*i* S	Sn	08 51 45.4	+2.0
CHVM	Chichinautzin	3.06	350	*e*P	Pn	08 51 13.1	+4.2
CHVM				*i* S	Sn	08 51 51.5	+6.4
IISM	Ciudad Serdan	3.13	21	*e*P	Pn	08 51 11.9	+2.1
IISM				*i* S	Sn	08 51 45.8	-1.1
IISM	Ciudad Serdan	3.13	21	*e*P	Pn	08 51 09.3	-0.5
IISM				*i* S	Sn	08 51 45.8	-1.1
ZIIG	Zihuatanejo	3.17	299	*i* P	Pn	08 51 03.7	-6.7
ZIIG				*i* S	Sn	08 51 42.5	-5.4
UNM	Universidad Na	3.30	350	*e*P	Pn	08 51 12.0	-0.3
UNM				*i* P		08 51 20.4	
CRX	Cerrillo	3.49	343	*e*P	Pn	08 51 19.5	+4.5
IIO	Organos	3.52	358	*e*P	Pn	08 51 17.7	+2.4
PTVM	Pico Tres Padr	3.55	352	*e*P	Pn	08 51 15.5	-0.3
PTVM				*i* S	Sn	08 51 54.5	-3.1
CMIG	Matias Romero	3.69	73	*i* P	Pn	08 51 16.7	-1.0
CMIG				*e*S	Sn	08 52 01.4	+0.5
IIC	Rita Coyotepec	3.74	350	*e*P	Pn	08 51 18.2	-0.4
IIC				*i* S	Sn	08 51 49.8	-13
EVV	El Vigia	3.90	52	*i* P	Pn	08 51 26.4	+5.7
SFJM	Santa Fe	6.11	317	*e*P	Pn	08 51 49.4	-2.6
TXAR	Lajitas Array	14.02	341	P	P	08 53 40.4	0.0
	0.0nm,0.3s,baz=180,slow=12,SNR=5.4						
JCT	Junction City	14.40	356	*e*P	P	08 53 45.1	-0.2
JTS	JuntasAbangare	14.45	112	P	P	08 54 04.2	+18
	0.1nm,0.3s,baz=7.6,slow=15,SNR=1.9						
JTS	JuntasAbangare	14.45	112	*e*P	P	08 53 46.6	+0.6
	9.7nm,1.0s						
GDL2	Guadalupe Moun	16.91	343	P	P	08 54 17.9	+0.3
CPRX	Cap Rock	17.56	345	*e*P	P	08 54 27.6	+1.8
MIAR	Mount Ida	18.95	13	*e*P	P	08 54 39.3	-3.5
	6.2nm,0.9s						
LPM	Los Pinos Moun	19.57	340	*e*P	P	08 54 50.0	+0.1
ANMO	Albuquerque	20.10	341	P	P	08 54 55.7	0.0
	baz=150,slow=12,SNR=15						
ANMO				LR	LR	09 03 19.7	
	comp=Z,183nm,19.2s,MS3.4,slow=40						
ANMO	Albuquerque	20.10	341	*e*P	P	08 54 56.0	+0.3
	3.3nm,0.8s						
ANMO				*e*		08 55 01.3	
OXF	Oxford	20.14	22	*e*P	P	08 54 54.2	-1.9
	24nm,1.0s						
OXF				*e*		08 54 59.0	
GLAT	Glass	21.76	21	*e*P	P	08 55 13.6	+0.9
UTMT	University of	21.97	21	*e*P	P	08 55 15.3	+0.5
	87nm,1.2s,mb5.1						
WVT	Waverly	22.16	24	*e*P	P	08 55 17.2	+0.5
	26nm,0.9s,mb4.7						
SWET	Sewanee	22.18	28	*e*P	P	08 55 15.4	-1.5
SDCO	Great Sand Dun	22.45	346	*e*P	P	08 55 20.3	+0.7
	3.5nm,0.9s,mb3.8						
CCM	Cathedral Cave	22.84	15	*e*P	P	08 55 22.9	-0.6
	10nm,1.0s,mb4.2						
MYNC	Murphy	22.93	32	*e*P	P	08 55 23.9	-0.5
	6.4nm,0.6s,mb4.2						
FVM	French Village	22.99	17	*e*P	P	08 55 24.6	-0.3
	4.5nm,0.7s,mb4.0						
COW	Cow Castle Cre	23.62	40	*e*P	P	08 55 32.1	+1.1
PV01	Paradox Valley	23.69	340	*e*P	P	08 55 33.2	+1.5
PV10	Paradox Valley	24.06	340	*e*P	P	08 55 35.9	+0.5
ISCO	Idaho Springs	24.44	347	*e*P	P	08 55 40.3	+1.3
	48nm,1.8s,mb4.6						
ARUT	Antelope Range	25.31	332	*e*P	P	08 55 49.9	+2.6
BLO	Bloomington	25.33	22	*e*P	P	08 55 46.9	-0.6
	16nm,0.8s,mb4.6						
PHWY	Pilot Hill	25.85	348	*e*P	P	08 55 53.4	+1.1
SDV	Santo Domingo	28.17	101	*e*P	P	08 56 14.2	+0.4
	3.5nm,0.8s,mb4.0						
PDAR	Pinedale Array	28.23	343	P	P	08 56 14.9	+0.9
	1.8nm,0.9s,mb3.7,baz=143,slow=7.4,SNR=12						
NVAR	Mina Array Bea	28.24	326	P	P	08 56 16.4	+2.2
	1.5nm,0.8s,mb3.6,baz=141,slow=10,SNR=9.7						
ULM	Lac du Bonnet	34.17	3	P	P	08 57 04.9	-1.4
	4.6nm,1.1s,mb4.3,baz=190,slow=7.4,SNR=4.2						
NNA	Nana	35.20	141	*e*P	P	08 57 19.5	+4.0
	2.3nm,0.4s,mb4.5						
SCHQ	Schefferville	45.79	25	P	P	08 58 41.6	-0.7
	9.2nm,1.0s,mb4.7,baz=304,slow=3.0,SNR=4.1						
SCHQ				LR	LR	09 18 34.6	
	comp=Z,103nm,18.6s,MS3.8,baz=40,slow=38						
YKA	Yellowknife Ar	47.74	350	P	P	08 58 57.2	-0.4
	1.2nm,0.8s,mb4.0,baz=159,slow=7.4,SNR=12						
YKA	Yellowknife Ar	47.74	350	P	P	08 58 57.2	-0.4
ILAR	Eielson Array	58.50	338	P	P	09 00 17.5	+0.2
	1.3nm,0.9s,mb4.0,baz=138,slow=4.2,SNR=13						
SSE	Sheshan	119.52	321	*e*PKP	PKPdf	09 09 14.4	+0.9
WMQ	Urumqi	120.14	355	⇓PKP	PKPdf	09 09 14.1	-0.3
WMQ				XPKP		09 09 21.1	
WMQ				PP	PP	09 10 42.1	+2.8
WMQ				PP	PP		
	comp=Z,14nm,12.3s						
WMQ				LR	LR		
	comp=N,81nm,18.7s,MS4.5						
WMQ				LR	LR		
	comp=E,84nm,18.6s,MS4.5						
WMQ				LR	LR		
	comp=Z,54nm,18.6s,MS4.2						
NJ2	Nanjing	120.21	323	*e*PKP	PKPdf	09 09 10.2	-4.7
LZH	Lanzhou	123.97	338	*e*PKP	PKPdf	09 09 17.7	-4.4

WEL 06 08:54:25.3±0.2**, 38.42S**×**178.26E, h27**^{km}±1^{km}**, ML3.8**/4**, 4C, Error ellipse: s-maj=2.2km s-min=1.3km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	0.35	359	⇑P*	Pb	08 54 32.9	-0.3
PUZ				S*	Sb	08 54 38.1	-0.5
PUZ				S*	Sb	08 54 38.8	+0.2
MWZ	Matawai	0.58	278	⇑P*	Pb	08 54 36.6	-0.3
MWZ				S*	Sb	08 54 45.2	+0.3
KNZ	Kokohu	0.75	217	P*	Pb	08 54 39.3	-0.4
MXZ	Matakaoa Point	0.86	2	⇑PN	Pn	08 54 41.2	-0.5
URZ	Urewera	0.92	280	⇑PN	Pn	08 54 41.8	-0.7
WIZ	White Island	1.23	316	PN	Pn	08 54 45.9	-1.1
EDRZ	Edgecumbe	1.24	284	*e*PN	Pn	08 54 46.5	-0.6
MARZ	Manawahe	1.32	289	PN	Pn	08 54 48.1	-0.3
TAZ	Tarawera	1.39	277	*e*PN	Pn	08 54 48.6	-0.7
LIRZ	Lichensteins R	1.54	285	*e*PN	Pn	08 54 50.7	-0.7
BKZ	Black Stump Fm	1.57	241	PN	Pn	08 54 50.9	-0.9
PWZ	Pawanui	1.94	214	*e*PN	Pn	08 54 55.6	-1.5
PWZ				SN	Sn	08 55 18.4	-2.4
OTVZ	Oturere	2.16	249	*e*PN	Pn	08 54 59.7	-0.6
MOVZ	Moawhango	2.19	243	*e*PN	Pn	08 54 59.5	-1.2
WNVZ	Wahianoa	2.27	246	*e*PN	Pn	08 55 00.6	-1.2
TSZ	Takapari Road	2.42	227	*e*PN	Pn	08 55 01.6	-2.4
BFZ	Birch Farm	2.74	214	*e*PN	Pn	08 55 04.9	-3.7
WAZ	Wanganui	2.88	241	*e*PN	Pn	08 55 07.9	-2.6
MRZ	Mangatainoka R	3.05	222	*e*PN	Pn	08 55 08.5	-4.5
MRZ				SN	Sn	08 55 43.0	-6.0
MTW	Mount Morrison	3.46	217	*e*PN	Pn	08 55 13.6	-5.2
KIW	Kapiti Island	3.55	226	*e*PN	Pn	08 55 15.9	-4.2
CAW	Cannon Point	3.64	222	*e*PN	Pn	08 55 16.1	-5.2
PAWZ	Paruwai Farm	3.67	216	PN	Pn	08 55 16.5	-5.3
NNZ	Nelson	4.68	232	*e*PN	Pn	08 55 31.3	-4.9
THZ	Tophouse	5.29	229	*e*PN	Pn	08 55 38.8	-5.9
KHZ	Kahutara	5.38	221	SN	Sn	08 56 37.2	-11
DSZ	Denniston Nort	5.96	234	SN	Sn	08 56 53.5	-8.9
MQZ	McQueen’s Vall	6.77	217	SN	Sn	08 57 08.5	-14

IDC ***06*** *09:05:47.9±1.1, 32.10N×92.55E, mb3.8/8, mb1 4.0/10, mb1mx3.9/20, ML4.2/1, Error ellipse: s-maj=39.2km s-min=21.3km az=57.0*
NEIC ***06*** *09:05:49.5±3.7, 32.14N×92.70E, h4^{km}±24^{km}, mb4.3/9, Error ellipse: s-maj=15.8km s-min=8.4km az=217.0*
BJI ***06*** *09:05:50.8, 32.20N×92.86E, h4^{km}, mB4.6, mb4.4, ML4.2, Ms3.9, Msz3.7*
ISC 06 09:05:51.6±0.4**, 32.12N**±0.04×**92.72E**±0.06**, h33**^{km}**, n34,** σ**1**^{s}**20**/36**, mb4.0**/13**, 2C, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	2.76	210	P	P	09 06 37.8	+3.3
LSA				S	S	09 07 16.8	+10
SHL	Shillong	6.57	187	*e*P	P	09 07 28.5	+0.2
SHL				*e*S	S	09 08 44.0	+1.1
GUN	Gumba	7.26	237	*e*P	P	09 07 38.7	+0.7
	40nm,0.9s						
KKN	Kakani	7.76	238	*e*P	P	09 07 44.9	-0.1
	13nm,0.5s						
PKI	Pulchoki	7.80	236	*e*P	P	09 07 44.4	-1.1
	23nm,0.6s						
DMN	Daman	7.99	238	*e*P	P	09 07 46.9	-1.3
	14nm,0.6s						
GKN	Gorkha	8.12	242	*e*P	P	09 07 50.9	+1.0
	15nm,0.6s						
KOLN	Koldanda	9.02	244	*e*P	P	09 08 01.1	-1.3
	15nm,0.8s						
GTA	Gaotai	9.28	36	⇑P	P	09 08 05.4	-0.7
GTA				AP		09 08 08.5	
GTA				XP		09 08 11.3	
GTA				S	S	09 09 53.0	+2.6
GTA				LG1		09 10 38.6	
GTA				LG2		09 10 53.8	
GTA				AMB	AMB		
	comp=Z,11nm,1.1s						
GTA				AMB	AMB		
	comp=Z,115nm,4.2s						
GTA				LR	LR		
	comp=N,411nm,14.4s						
GTA				LR	LR		
	comp=E,400nm,8.7s						
GTA				LR	LR		
	comp=Z,315nm,9.9s						
GYA	Guiyang	13.41	111	⇑*i*P	P	09 08 59.7	-2.2
GYA				AMB	AMB		
	comp=Z,20nm,1.1s						
ENH	Enshi	14.47	93	P	P	09 09 16.9	+1.0
	comp=Z,16nm,0.6s						
CMAR	Chiang Mai Arr	14.71	156	Pn	P	09 09 17.8	-1.3
	baz=339,slow=12,SNR=3.2						
UCH	Uchtor	17.64	310	*e*P	P	09 09 55.7	-0.6
	comp=Z,8.7nm,1.2s						
AAK	Ala-Archa	17.86	311	*e*P	P	09 09 59.6	+0.7
	comp=Z,12nm,1.2s						
AML	Almayashu	18.14	309	*e*P	P	09 10 02.3	-0.2
	comp=Z,6.0nm,1.2s						
EKS2	Erkin-Say	18.33	310	*e*P	P	09 10 04.1	-0.8
	comp=Z,4.9nm,1.1s						
SONM	Songino Array	18.83	30	P	P	09 10 09.1	-1.9
	comp=Z,0.2nm,0.3s,baz=214,slow=12,SNR=9.1						
ZAL	Zalesovo	22.54	348	P	P	09 10 49.4	-0.2
	comp=Z,1.2nm,0.6s,mb3.5,baz=18,slow=17,SNR=3.5						
BVAR	Borovoye Array	26.39	329	P	P	09 11 26.4	-0.2
	comp=Z,0.5nm,0.6s,mb3.3,baz=135,slow=14,SNR=2.6						
FINES	FINESS Array B	51.27	326	P	P	09 14 51.9	-2.1
	comp=Z,2.4nm,1.0s,mb4.1,baz=207,slow=4.3,SNR=4.6						
NOA	NORSAR Array B	58.45	326	P	P	09 15 44.4	-1.8
	comp=Z,1.1nm,1.0s,mb3.9,baz=85,slow=6.3,SNR=2.9						
GERES	GERESS Array B	59.74	311	P	P	09 15 53.3	-2.0
	comp=Z,0.8nm,0.6s,mb3.9,baz=104,slow=5.5,SNR=4.5						
LPG	La Plagne	65.29	309	*e*P	P	09 16 33.8	+1.6
	comp=Z,8.2nm,0.7s,mb4.6						
LPL	La Plagne	65.30	309	*e*P	P	09 16 33.8	+1.6
	comp=Z,8.6nm,0.7s,mb4.6						
CABF	La Chapelle	65.32	311	*e*P	P	09 16 32.5	+0.1
MBDF	Montbardon	65.56	309	*e*P	P	09 16 35.5	+1.6
	comp=Z,5.3nm,0.7s,mb4.4						
ORIF	Oris-en-Rattie	66.08	309	*e*P	P	09 16 37.9	+0.7
SMF	Signal de Mont	66.74	311	*e*P	P	09 16 42.2	+0.8
VIVF	Saint-Julien-l	66.89	309	*e*P	P	09 16 43.3	+0.9
	comp=Z,8.6nm,0.7s,mb4.6						
TCF	Toulx Ste Croi	67.92	312	*e*P	P	09 16 50.0	+1.2
	comp=Z,4.3nm,0.7s,mb4.3						
ASAR	Alice Springs	68.01	139	P	P	09 16 49.5	-0.3
	comp=Z,1.6nm,0.9s,mb4.1,baz=323,slow=6.3,SNR=6.5						
ILAR	Eielson Array	72.90	23	P	P	09 17 19.2	+0.6
	comp=Z,1.1nm,0.9s,mb3.8,baz=295,slow=6.4,SNR=9.3						
YKA	Yellowknife Ar	83.19	12	P	P	09 18 15.9	+0.7
	comp=Z,0.5nm,0.6s,mb3.7,baz=330,slow=5.2,SNR=8.7						
TXAR	Lajitas Array	116.94	16	PKP	PKPdf	09 24 36.4	+3.2
	comp=Z,0.6nm,0.7s,baz=24,slow=1.2,SNR=8.4						

NEIC ***06*** *09:11:09.7, 15.94N×98.64W, h16^{km}, MD4.2(MEX), After MEX.*
MEX 06 09:11:09.7±1.5**, 15.94N**×**98.64W, h16**^{km}±18^{km}**, MD4.2, 1C, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.66	48	⇑*i*P	Pb	09 11 20.1	-2.2
PNIG				*i* S	Sb	09 11 28.3	-2.7
ACX	Acapulco	1.54	307	*i* P	Pn	09 11 32.0	-4.6
ACX				*i* S	Sn	09 11 50.5	-5.8
CAIG	El Cayaco	1.91	305	*e*P	Pn	09 11 39.1	-3.0
CAIG				*i* S	Sn	09 12 01.5	-4.4
OXX	Oaxaca	2.15	58	*i* P	Pn	09 11 43.0	-2.5
OXX				*i* S	Sn	09 12 09.0	-3.1
HUIG	Huatulco	2.44	94	*i* P	Pn	09 11 57.6	+8.1
HUIG				*i* S	Sn	09 12 13.4	-5.8
PLIG	Platanillo	2.57	341	*e*P	Pn	09 11 49.4	-2.0
PLIG				*i* S	Sn	09 12 24.1	+1.4
YAIG	Yautepec	2.93	352	*e*P	Pn	09 11 55.9	-0.7
YAIG				*i* S	Sn	09 12 26.7	-5.0
PPM	Popocatepetl	3.10	0	*e*P	Pn	09 11 56.3	-2.8
PPM				*i* S	Sn	09 12 33.4	-2.8
PPM				*i* S	Sn	09 12 39.2	+3.0
PPM	Popocatepetl	3.10	0	*e*P	Pn	09 11 56.3	-2.8
PPM				*e*P		09 12 02.5	
PPM				*i* S	Sn	09 12 33.4	-2.8
PPM				*i* S	Sn	09 12 39.2	+3.0
CHVM	Chichinautzin	3.16	351	*i* S	Sn	09 12 42.0	+4.4
ZIIG	Zihuatanejo	3.17	302	*i* S	Sn	09 12 41.2	+3.3
ZIIG				*i* S	Sn	09 12 45.6	+7.7
IISM	Ciudad Serdan	3.26	21	*e*P	Pn	09 12 02.5	+1.3
IIZ	Mezontepec	3.28	350	*i* P	Pn	09 12 27.3	+26
UNM	Universidad Na	3.41	351	*i* P	Pn	09 12 02.7	-0.7
UNM				*i* S	Sn	09 12 38.8	-5.0
UNM	Universidad Na	3.41	351	*e*P	Pn	09 12 02.5	-0.8
UNM				*i* P		09 12 02.7	
UNM				*i* S	Sn	09 12 38.8	-5.0
CRX	Cerrillo	3.58	344	*e*P	Pn	09 12 13.0	+7.1
IIO	Organos	3.63	359	*i* S	Sn	09 12 51.7	+2.3
PTVM	Pico Tres Padr	3.66	353	*i* S	Sn	09 12 41.0	-9.2
CMIG	Matias Romero	3.77	72	*i* P	Pn	09 12 04.8	-3.8
CMIG				*i* S	Sn	09 12 48.5	-4.6
IIC	Rita Coyotepec	3.85	351	*i* S	Sn	09 12 39.2	-16

IDC ***06*** *09:17:23.1±1.4, 26.69S×114.45W, mb4.1/7, mb1 4.4/7, mb1mx4.2/16, MS3.8/9, Ms1 3.8/9, ms1mx3.6/21, Error ellipse: s-maj=43.9km s-min=37.1km az=48.0*
NEIC ***06*** *09:17:24.7±0.4, 26.73S×114.50W, h10^{km}, mb4.6/9, Error ellipse: s-maj=20.7km s-min=11.3km az=88.0*
BJI ***06*** *09:17:24.6, 26.70S×114.50W, h10^{km}, mB4.8, Ms4.9, Msz4.9*
SYO ***06*** *09:17:24.3, 26.83S×114.45W, h10^{km}, MB4.6*
ISC 06 09:17:23.6±0.7**, 26.6S**±0.1×**114.5W**±0.2**, h10**^{km}**, (h11**^{km}±1.1^{km}**:pP-P), n62,** σ**0**^{s}**99**/39**, mb4.4**/15**, MS4.1**/12**, 4C-1D, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTAV	Otavalo	43.77	58	P	P	09 25 32.4	+1.0
	4.3nm,0.8s,mb4.2						
LPAZ	La Paz	44.17	86	P	P	09 25 34.8	+0.3
	1.6nm,0.9s,mb3.7,baz=280,slow=4.6,SNR=5.2						
LPAZ				LR	LR	09 39 46.1	
	comp=Z,42nm,21.5s,MS3.3,baz=73,slow=30						
LPAZ	La Paz	44.17	86	*e*P	P	09 25 34.5	0.0
	3.7nm,1.2s,mb4.0						
SDV	Santo Domingo	55.28	56	*e*P	P	09 26 57.4	-2.4
	11nm,1.2s,mb4.8						
TXAR	Lajitas Array	56.56	11	P	P	09 27 09.1	+0.3
	1.0nm,0.9s,mb3.8,baz=187,slow=10,SNR=7.1						
TXAR				LR	LR	09 47 01.4	
	comp=Z,68nm,19.0s,MS3.8,baz=85,slow=31						
TXAR	Lajitas Array	56.56	11	P	P	09 27 09.1	+0.3
TXAR				LR	LR	09 47 01.4	
JCT	Junction City	58.46	15	*e*P	P	09 27 22.4	+0.3
	19nm,0.8s,mb5.2						
TUC	Tucson	58.67	4	*e*P	P	09 27 24.1	+0.5
	3.4nm,1.0s,mb4.3						
CPRX	Cap Rock	60.14	10	*e*P	P	09 27 32.9	-0.8
LENM	Lemitar	60.83	7	*e*P	P	09 27 38.5	0.0
ANMO	Albuquerque	61.67	8	*e*P	P	09 27 44.3	+0.2
AMTX	Amarillo	62.32	12	*e*P	P	09 27 47.9	-0.6
	7.1nm,0.7s,mb4.9						
BDFB	Brasilia	62.40	94	LR	LR	09 49 33.9	
	comp=Z,79nm,20.9s,MS3.9,baz=291,slow=31						
VNDA	Vanda	62.87	194	LR	LR	09 52 05.8	
	comp=Z,39nm,18.2s,MS3.6,baz=140,slow=33						
TPNV	Topopah Spring	63.21	358	*e*P	P	09 27 55.5	+1.2
	4.6nm,1.1s,mb4.5						
SDCO	Great Sand Dun	64.54	8	*e*P	P	09 28 02.8	-0.2
	7.1nm,1.1s,mb4.6						
NVAR	Mina Array Bea	64.76	357	P	P	09 28 05.8	+1.3
	2.9nm,0.8s,mb4.3,baz=171,slow=8.8,SNR=15						
PV10	Paradox Valley	64.82	5	*e*P	P	09 28 04.2	-0.6
JLU	Jordanelle	66.90	3	*e*P	P	09 28 18.8	+0.7
ELK	Elko	66.98	359	*e*P	P	09 28 18.5	-0.2
	7.0nm,1.4s,mb4.5						
KSU1	Kansas State U	67.45	15	*e*P	P	09 28 21.2	-0.4
PDAR	Pinedale Array	69.15	4	P	P	09 28 31.7	-0.5
	2.2nm,0.8s,mb4.1,baz=175,slow=6.1,SNR=16						
VNA3	Neumayer Olymp	69.70	161	*e*	P	09 28 37.5	+2.4
VNA3	Neumayer Olymp	69.70	161	*e*	P	09 28 38.3	+3.2
VNA3	Neumayer Olymp	69.70	161	*e*	P	09 28 53.4	+18
VNA3	Neumayer Olymp	69.70	161	*e*S	S	09 37 39.5	-2.9
VNA3	Neumayer Olymp	69.70	161	⇓*i*P	P	09 28 34.7	-0.4

VNA3				*e*	pP	09 28 37.5	-0.7
VNA3				*e*	pP	09 28 38.3	+0.1
VNA3				*e*		09 28 53.4	
VNA3				*e*		09 30 59.0	
VNA3				*e*		09 34 38.6	
VNA3				*e*S	S	09 37 39.5	-2.9
VNA2	**Neumayer--Watz**	**70.51**	**161**	*e*	**P**	**09 28 43.2**	**+3.2**
VNA2	**Neumayer--Watz**	**70.51**	**161**	*e*	**P**	**09 28 44.0**	**+4.0**
VNA2	**Neumayer--Watz**	**70.51**	**161**	*e*	**P**	**09 28 59.2**	**+19**
VNA2	**Neumayer--Watz**	**70.51**	**161**	*e*S	S	09 37 44.7	-7.2
VNA2	**Neumayer--Watz**	**70.51**	**161**	⇑*i*P	**P**	**09 28 40.3**	**+0.3**
VNA2				*e*	pP	09 28 43.2	+0.1
VNA2				*e*	pP	09 28 44.0	+0.9
VNA2				*e*		09 28 59.2	
VNA2				*e*		09 31 04.7	
VNA2				*e*		09 34 44.4	
VNA2				*e*S	S	09 37 44.7	-7.2
MCMT	**McKenzie Canyo**	**71.08**	**1**	*e*P	**P**	**09 28 44.4**	**+0.5**
QLMT	**Earthquake Lak**	**71.12**	**2**	*e*P	**P**	**09 28 45.1**	**+1.0**
SNAA	**Sanae**	**71.49**	**162**	*e*	**P**	**09 28 47.1**	**+1.2**
SNAA	**Sanae**	**71.49**	**162**	*e*	**P**	**09 28 47.8**	**+1.9**
SNAA	**Sanae**	**71.49**	**162**	*e*	**P**	**09 29 02.9**	**+17**
SNAA	**Sanae**	**71.49**	**162**	*e*S	S	09 37 47.8	-15
SNAA	**Sanae**	**71.49**	**162**	⇑*i*P	**P**	**09 28 43.9**	**-2.0**
SNAA				*e*	pP	09 28 47.1	-1.9
SNAA				*e*	pP	09 28 47.8	-1.2
SNAA				*e*		09 29 02.9	
SNAA				*e*		09 31 08.3	
SNAA				*e*		09 34 47.6	
SNAA				*e*S	S	09 37 47.8	-15
ULM	**Lac du Bonnet**	**78.25**	**12**	P	**P**	**09 29 23.6**	**-1.4**
	3.3nm,0.7s,mb4.4,baz=209,slow=3.6,SNR=5.1						
CASY	**Casey**	**81.31**	**197**	*e*P	**P**	**09 29 38.8**	**-2.3**
SYO	**Syowa Base**	**82.83**	**171**	⇑P	**P**	**09 29 44.8**	**-4.1**
MAW	**Mawson**	**86.09**	**179**	LR	LR	10 06 46.1	
	comp=Z,58nm,18.1s,MS4.0,baz=61,slow=34						
STKA	**Stephens Creek**	**87.08**	**236**	LR	LR	10 03 43.1	
	comp=Z,92nm,20.3s,MS4.2,baz=204,slow=32						
YKA	**Yellowknife Ar**	**88.76**	**360**	P	**P**	**09 30 18.1**	**-0.1**
	1.2nm,0.7s,mb4.4,baz=174,slow=5.1,SNR=32						
CTA	**Charters Tower**	**89.03**	**248**	LR	LR	10 05 34.5	
	comp=Z,36nm,19.1s,MS3.8,baz=225,slow=32						
ILAR	**Eielson Array**	**94.47**	**347**	P	**P**	**09 30 43.9**	**-0.7**
	0.3nm,0.7s,mb3.8,baz=118,slow=3.7,SNR=4.5						
INK	**Inuvik**	**95.64**	**353**	LR	LR	10 09 17.0	
	comp=Z,76nm,21.2s,MS4.1,baz=22,slow=32						
ASAR	**Alice Springs**	**97.14**	**239**	LR	LR	10 08 48.9	
	comp=Z,71nm,18.2s,MS4.2,baz=309,slow=32						
CN2	**Changchun**	**129.16**	**306**	*e*PKP	PKPdf	09 36 29.6	-5.7
SSE	**Sheshan**	**131.42**	**289**	*e*PKP	PKPdf	09 36 39.2	-0.7
NJ2	**Nanjing**	**133.53**	**290**	*e*PKP	PKPdf	09 36 38.0	-5.8
NJ2				PP	PP	09 39 12.0	-1.1
NJ2				PP	PP		
	comp=Z,40nm,10.0s						
NJ2				LR	LR		
	comp=Z,462nm,19.2s,MS5.2						
SONM	**Songino Array**	**141.71**	**315**	PKP	PKPdf	09 36 55.0	-3.2
	comp=Z,1.4nm,0.8s,baz=112,slow=0.9,SNR=7.2						
LZH	**Lanzhou**	**146.07**	**296**	*e*PKP	PKPdf	09 37 00.0	-6.1
LZH				XPKP		09 37 13.1	
CMAR	**Chiang Mai Arr**	**148.13**	**262**	PKPbc	PKPdf	09 37 12.1	+2.1
	comp=Z,1.2nm,0.4s,baz=107,slow=0.8,SNR=9.1						
GTA	**Gaotai**	**148.68**	**303**	PKP	PKPdf	09 37 12.8	+2.5
GTA				APKP		09 37 16.9	
GTA				PKP2	PKPab	09 37 23.1	+6.2
GTA				PKS	PKS	09 40 47.1	+6.1
GTA				PP	PP		
	comp=Z,114nm,8.0s						
GTA				LR	LR		
	comp=N,83nm,17.9s,MS4.7						
GTA				LR	LR		
	comp=E,78nm,17.5s,MS4.7						
GTA				LR	LR		
	comp=Z,156nm,19.4s,MS4.8						
ZAL	**Zalesovo**	**149.16**	**338**	PKPbc	PKPdf	09 37 12.3	+1.7
	comp=Z,3.3nm,0.7s,baz=61,slow=3.5,SNR=3.4						
ARU	**Arti**	**149.76**	**8**	*e*PKPbc	PKPdf	09 37 13.9	+2.5
BRTR	**Keskin Array B**	**150.46**	**56**	PKPbc	PKPdf	09 37 16.1	+3.1
	comp=Z,3.8nm,0.9s,baz=225,slow=1.7,SNR=15						
CHKZ	**Chkalovo**	**152.66**	**353**	PKPdf	PKPdf	09 37 16.3	+0.4
CHKZ				*e*PKPbc	PKPdf	09 37 21.0	+5.1
CHKZ				*e*PKPab	PKPab	09 37 31.2	-1.8
KURK	**Kurchatov**	**153.89**	**341**	*e*PKPbc	PKPdf	09 37 23.1	+5.5
WMQ	**Urumqi**	**155.12**	**319**	⇑PKP	PKPdf	09 37 17.1	-2.4
WMQ				XPKP		09 37 24.3	
WMQ				*e*PP	PP	09 41 23.2	+2.5
WMQ				PP	PP		
	comp=Z,36nm,12.0s						
WMQ				LR	LR		
	comp=N,34nm,18.2s,MS4.5						
WMQ				LR	LR		
	comp=E,53nm,19.0s,MS4.5						
WMQ				LR	LR		
	comp=Z,45nm,18.4s,MS4.3						

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*IDC **06** 09:33:19.7±5.1, 6.08S×148.99E, h101^{km}±51^{km}, mb3.1/3, mb1 3.3/5, mb1mx3.2/14, MS3.4/2, Ms1 3.4/2, ms1mx2.7/9, Error ellipse: s-maj=95.8km s-min=31.5km az=133.0*

*NEIC **06** 09:33:19.4±2.9, 6.27S×149.18E, h104^{km}±23^{km}, mb3.4/1, Error ellipse: s-maj=47.6km s-min=24.8km az=134.0*

ISC 06 09:33:19.9±3.3, **6.3S**±0.3×**149.1E**±0.3, **h123**^{km}±25^{km}**, n10, σ1^{s}19**/10**, mb3.5**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.68**	**212**	P	**P**	**09 34 16.5**	**+0.3**
	2.9nm,0.3s,baz=21,slow=7.3,SNR=10						
PMG				S	**S**	**09 34 59.9**	**+0.6**
	3.9nm,0.3s,baz=49,slow=15,SNR=6.3						
PMG	**Port Moresby**	**3.68**	**212**	*e*P	**P**	**09 34 14.9**	**-1.3**
PMG				S	**S**	**09 34 59.9**	**+0.6**
CTA	**Charters Tower**	**14.02**	**191**	LR	LR	09 41 59.0	
	comp=Z,53nm,18.9s,baz=225,slow=37						
WRAB	**Tennant Creek**	**19.76**	**225**	*e*P	**P**	**09 37 40.6**	**-1.9**
	0.8nm,0.4s						
WRA	**Warramunga Arr**	**19.77**	**225**	P	**P**	**09 37 41.2**	**-1.5**
	0.1nm,0.3s,baz=49,slow=11,SNR=8.6						
ASAR	**Alice Springs**	**22.66**	**219**	P	**P**	**09 38 13.2**	**+1.7**
	0.2nm,0.6s,mb2.6,baz=42,slow=9.0,SNR=4.7						
FITZ	**Fitzroy Crossi**	**25.75**	**241**	P	**P**	**09 38 42.1**	**+1.1**
	1.2nm,0.5s,mb3.6,baz=49,slow=7.8,SNR=5.6						
JOW	**Kunigami**	**38.60**	**329**	LR	LR	09 53 19.3	
	comp=Z,136nm,21.0s,baz=134,slow=31						
SBA	**Scott Base**	**72.14**	**176**	*e*P	**P**	**09 44 32.4**	**-0.1**
	3.4nm,0.5s,mb4.4						
ILAR	**Eielson Array**	**84.90**	**23**	P	**P**	**09 45 42.1**	**+0.3**
	0.2nm,0.6s,mb3.2,baz=255,slow=4.8,SNR=5.1						

DJA 06 10:04:07.0±0.9**, 8.66S×116.31E, h143**^{km}±5^{km}**, MD4.6**/4**, ML3.8**/2**, 7C-1D, Error ellipse: s-maj=48.1km s-min=15.1km az=3.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	**0.26**	**311**	⇑*i*Pn	P	10 04 25.9	-1.1
	216nm,0.2s						
KEDI				⇑*i*Sn	S	10 04 42.2	-0.1
RATI	**Rata**	**0.78**	**265**	⇑*i*Pn	P	10 04 29.4	-0.2
	1µm,0.2s						
RATI				⇓*i*Sn	S	10 04 45.2	-1.8
KELI	**Kelakatan**	**1.86**	**284**	⇑*i*Pn	P	10 04 40.6	+0.2
	65nm,0.2s						
KELI				⇑*i*Sn	S	10 05 03.5	-2.5
SRDI	**Scrawed**	**2.16**	**275**	⇑*i*Pn	P	10 04 43.8	-0.2
	60nm,0.2s						
SRDI				⇑*i*Sn	S	10 05 10.3	-2.0

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*JMA **06** 10:41:07.3±0.1, 24.55N×122.76E, h73^{km}±1^{km}, M2.8*

TAP 06 10:41:06.6, 24.29N×122.76E, h49^{km}±1^{km}**, ML3.9, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.29**	**53**	P	P	10 41 18.6	+3.0
YOJ				S	S	10 41 26.9	+5.0
IRIF	**Iriomote-Funau**	**0.89**	**87**	P	P	10 41 24.8	+1.9
IRIF				S	S	10 41 37.8	+2.8
HATJ	**Hateruma jima**	**0.98**	**103**	P	P	10 41 27.4	+3.1
HATJ				S	S	10 41 41.4	+4.1
JKRS	**Kuro-shima**	**1.14**	**92**	P	P	10 41 28.3	+1.8
JKRS				S	S	10 41 44.4	+3.1
JIJ	**Ishigaki jima**	**1.26**	**86**	P	P	10 41 29.4	+1.1
JIJ				S	S	10 41 45.3	+0.9
JTJ	**Tarama**	**1.80**	**78**	P	P	10 41 36.5	+0.6
JTJ				S	S	10 41 58.7	+1.1
JMJ	**Miyako jima 2**	**2.37**	**77**	S	S	10 42 11.7	-0.1
JOGS	**Gusukube**	**2.46**	**78**	P	P	10 41 45.6	+0.4
JOGS				S	S	10 42 15.2	+1.1
JKE	**Kume jima 2**	**4.17**	**60**	P	P	10 42 08.1	-1.3

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*IDC **06** 10:49:58.9±0.6, 56.34S×26.35W, mb4.6/7, mb1 4.6/8, mb1mx4.5/12, ML3.6/1, MS4.0/9, Ms1 4.0/9, ms1mx3.7/13, Error ellipse: s-maj=27.9km s-min=18.5km az=46.0*

*NEIC **06** 10:50:12.8±2.7, 56.40S×26.52W, h114^{km}±24^{km}, mb4.8/6, Error ellipse: s-maj=19.2km s-min=10.8km az=225.0*

*BJI **06** 10:50:13.8, 56.40S×26.50W, h113^{km}*

ISC 06 10:50:12.2±4.2**, 56.4S**±0.1×**26.4W**±0.2**, h123**^{km}±41^{km}**, n55, σ0^{s}95**/33**, mb4.6**/13**, 3C-2D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**16.34**	**158**	⇓*i*	**P**	**10 53 57.6**	**+2.4**
VNA1	**Neumayer--Stat**	**16.34**	**158**	*e*	**P**	**10 54 06.9**	**+12**
VNA1	**Neumayer--Stat**	**16.34**	**158**	*e*	**P**	**10 54 11.0**	**+16**
VNA3	**Neumayer Olymp**	**16.55**	**161**	⇑*i*	**P**	**10 53 58.2**	**+0.4**
VNA3	**Neumayer Olymp**	**16.55**	**161**	*e*	**P**	**10 54 07.4**	**+10**
VNA3	**Neumayer Olymp**	**16.55**	**161**	*e*	**P**	**10 54 11.5**	**+14**
VNA2	**Neumayer--Watz**	**16.74**	**158**	⇓*i*	**P**	**10 53 59.8**	**-0.3**
VNA2	**Neumayer--Watz**	**16.74**	**158**	*e*	**P**	**10 54 09.1**	**+9.0**
VNA2	**Neumayer--Watz**	**16.74**	**158**	*e*	**P**	**10 54 13.2**	**+13**
SNAA	**Sanae**	**18.28**	**156**	⇑*i*	**P**	**10 54 14.4**	**-4.0**
SNAA	**Sanae**	**18.28**	**156**	*e*	**P**	**10 54 23.7**	**+5.3**
SNAA	**Sanae**	**18.28**	**156**	*e*	**P**	**10 54 27.8**	**+9.4**
SNAA	**Sanae**	**18.28**	**156**	P	**P**	**10 54 15.0**	**-3.4**
	0.2nm,0.3s,baz=309,slow=9.7,SNR=16						
SNAA				LR	LR	11 00 01.1	
	comp=Z,134nm,20.1s,baz=3.6,slow=33						
SNAA	**Sanae**	**18.28**	**156**	⇑*i*P	**P**	**10 54 14.4**	**-4.0**
USHA	**Ushuaia**	**23.55**	**256**	P	**P**	**10 55 11.7**	**+0.2**
	14nm,0.9s,mb4.3,baz=86,slow=9.2,SNR=4.0						
USHA				LR	LR	11 01 55.8	
	comp=Z,615nm,21.8s,baz=70,slow=30						
QSPA	**South Pole Qui**	**33.90**	**180**	*e*P	**P**	**10 56 44.2**	**-0.2**
	22nm,0.8s,mb5.0						
MAW	**Mawson**	**39.63**	**143**	P	**P**	**10 57 32.8**	**+0.1**
	5.5nm,0.8s,mb4.5,baz=220,slow=6.8,SNR=6.7						
MAW				LR	LR	11 11 29.4	
	comp=Z,223nm,21.7s,baz=244,slow=33						
BDFB	**Brasilia**	**43.85**	**329**	P	**P**	**10 58 07.4**	**-0.1**
	7.7nm,0.7s,mb4.6,baz=149,slow=6.1,SNR=4.5						
BDFB				LR	LR	11 13 40.7	
	comp=Z,185nm,19.5s,baz=122,slow=32						
BDFB	**Brasilia**	**43.85**	**329**	P	**P**	**10 58 07.4**	**-0.1**
BDFB				LR	LR	11 13 40.6	
SBA	**Scott Base**	**45.81**	**184**	*e*P	**P**	**10 58 21.0**	**-1.3**
	6.0nm,0.8s,mb4.4						
LVC	**Limon Verde**	**45.84**	**299**	P	**P**	**10 58 23.0**	**-0.4**
	24nm,0.8s,mb5.0						
LVC				PcP	PcP	11 00 00.4	+1.4
	7.4nm,0.8s,baz=90,slow=1.5,SNR=3.5						
LVC	**Limon Verde**	**45.84**	**299**	*e*P	**P**	**10 58 22.4**	**-0.9**
	26nm,0.9s,mb5.0						
LVC				*e*PcP	PcP	10 59 59.9	+0.9
LPAZ	**La Paz**	**50.92**	**305**	P	**P**	**10 59 02.5**	**-0.2**
	10.0nm,0.7s,mb4.9,baz=149,slow=5.5,SNR=24						
LPAZ				LR	LR	11 19 44.1	
	comp=Z,70nm,19.5s,baz=268,slow=35						
LPAZ	**La Paz**	**50.92**	**305**	P	**P**	**10 59 02.5**	**-0.2**
LPAZ				LR	LR	11 19 44.1	
ARE	**Arequipa**	**52.35**	**301**	*e*P	**P**	**10 59 14.0**	**+0.7**
SAML	**Samuel**	**55.34**	**314**	*e*P	**P**	**10 59 33.2**	**-2.1**
	16nm,1.0s,mb5.0						
LSZ	**Lusaka**	**58.06**	**68**	*e*P	**P**	**10 59 53.4**	**-1.1**
DBIC	**Dimbokro**	**65.26**	**24**	P	**P**	**11 00 42.6**	**-0.1**
	12nm,0.9s,mb4.8,baz=178,slow=7.6,SNR=15						
DBIC				LR	LR	11 22 35.7	
	comp=Z,140nm,20.0s,baz=176,slow=30						
OTAV	**Otavalo**	**70.20**	**303**	*e*P	**P**	**11 01 14.7**	**+1.2**
	13nm,0.9s,mb4.8						
SDV	**Santo Domingo**	**74.54**	**314**	*e*P	**P**	**11 01 38.8**	**-0.2**
	11nm,0.8s,mb4.6						
KMBO	**Kilima Mbogo**	**74.73**	**68**	LR	LR	11 32 42.3	
	comp=Z,162nm,18.5s,baz=91,slow=34						
JTS	**JuntasAbangare**	**82.06**	**302**	*e*P	**P**	**11 02 20.9**	**+1.0**
STKA	**Stephens Creek**	**91.53**	**170**	LR	LR	11 45 27.9	
	comp=Z,112nm,18.2s,baz=206,slow=36						
ESDC	**Sonseca Array**	**97.53**	**17**	P	**P**	**11 03 34.3**	**+1.7**
	0.5nm,0.7s,mb4.2,baz=198,slow=4.7,SNR=4.0						
ASAR	**Alice Springs**	**98.56**	**162**	P	**P**	**11 03 38.0**	**+0.3**
	1.1nm,0.9s,mb4.4,baz=189,slow=3.5,SNR=7.2						
ASAR				LR	LR	11 42 42.3	
	comp=Z,99nm,21.0s,baz=1.5,slow=32						
WRA	**Warramunga Arr**	**102.28**	**161**	P	Pdif	11 03 54.7	+0.3
	0.5nm,0.8s,baz=192,slow=3.9,SNR=5.1						
ULM	**Lac du Bonnet**	**120.78**	**316**	PKhKP		11 08 47.3	
	1.0nm,0.5s,baz=3.2,slow=2.2,SNR=2.8						
PDAR	**Pinedale Array**	**120.89**	**302**	PKP	PKPdf	11 08 50.4	+1.2
	0.4nm,0.5s,baz=131,slow=5.7,SNR=3.9						
NVAR	**Mina Array Bea**	**121.93**	**292**	PKP	PKPdf	11 08 54.0	+2.7
	0.4nm,0.5s,baz=162,slow=3.3,SNR=4.3						
NVAR	**Mina Array Bea**	**121.93**	**292**	PKP	PKPdf	11 08 54.0	+2.7
FINES	**FINESS Array B**	**124.44**	**28**	PKP	PKPdf	11 08 56.9	+1.4
	4.6nm,1.0s,baz=207,slow=4.3,SNR=8.4						
FINES	**FINESS Array B**	**124.44**	**28**	PKP	PKPdf	11 08 56.9	+1.4
CMAR	**Chiang Mai Arr**	**124.53**	**110**	PKP	PKPdf	11 08 59.2	+2.5
	3.3nm,0.9s,baz=227,slow=3.7,SNR=14						
ARCES	**ARCESS Array B**	**131.06**	**22**	PKP	PKPdf	11 09 10.4	+2.5
	3.2nm,0.8s,baz=45,slow=1.3,SNR=4.1						
BVAR	**Borovoye Array**	**134.56**	**57**	PKP	PKPdf	11 09 17.9	+3.0
	1.9nm,0.7s,baz=326,slow=5.3,SNR=7.7						
YKA	**Yellowknife Ar**	**136.70**	**317**	PKP	PKPdf	11 09 20.4	+2.0
	1.8nm,0.6s,baz=124,slow=2.4,SNR=31						
YKA	**Yellowknife Ar**	**136.70**	**317**	PKP	PKPdf	11 09 20.4	+2.0
GTA	**Gaotai**	**141.25**	**93**	*e*PKP	PKPdf	11 09 29.9	+2.6
ZAL	**Zalesovo**	**142.08**	**64**	PKP	PKPdf	11 09 30.1	+1.8
	0.8nm,0.7s,baz=214,slow=3.5,SNR=3.8						
XAN	**Xi'an**	**142.32**	**107**	PKP	PKPdf	11 09 28.0	-1.3
INK	**Inuvik**	**146.32**	**320**	PKPbc	PKPbc	11 09 39.0	+2.5
	14nm,0.6s,baz=102,slow=2.8,SNR=19						
HHC	**Hu-ho-hao-te**	**148.74**	**102**	*e*PKP	PKPdf	11 09 47.8	+7.9
SONM	**Songino Array**	**150.29**	**86**	PKPbc	PKPdf	11 09 50.8	+8.7
	16nm,1.1s,baz=222,slow=3.2,SNR=53						
BJI	**Beijing**	**150.65**	**108**	*e*PKP	PKPdf	11 09 51.5	+8.6
ILAR	**Eielson Array**	**150.66**	**311**	PKPbc	PKPdf	11 09 50.9	+8.7
	10nm,0.9s,baz=142,slow=1.8,SNR=93						

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*NEIC **06** 11:18:00.3, 32.25S×71.38W, h43^{km}, MD3.7(GUC), After GUC.*

GUC 06 11:18:00.3±0.9**, 32.25S×71.38W, h43**^{km}±2^{km}**, MD3.7, ML3.3, 12C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PACH	**Papudo**	**0.29**	**190**	⇑*i*P	P	11 18 09.3	+0.5
PACH				*i* S	S	11 18 15.8	+1.2
ROCH	**El Roble**	**0.78**	**157**	⇑*i*P	P	11 18 15.8	+0.8
ROCH				*i* S	S	11 18 27.2	+1.5
JACH	**Jahuel**	**0.79**	**123**	⇑*i*P	P	11 18 16.0	+0.9
JACH				*i* S	S	11 18 27.5	+1.6
IHA	**Instituto Hidr**	**0.80**	**196**	⇑*i*P	P	11 18 15.2	0.0
IHA				*i* S	S	11 18 27.2	+0.9
PEL	**Peldehue**	**1.06**	**147**	⇑*i*P	P	11 18 19.9	+1.0
PEL				*i* S	S	11 18 33.9	+1.0
CMCH	**Combarbala**	**1.12**	**17**	⇓*i*P	P	11 18 20.6	+0.9
CMCH				*i* S	S	11 18 35.7	+1.4
CMCH				AMP		11 18 38.3	
	comp=E,3µm,0.5s						
LCCH	**Las Cruces**	**1.23**	**187**	⇑*i*P	P	11 18 21.6	+0.3
LCCH				*i* S	S	11 18 38.2	+1.2
RCDM	**Rinconada Maip**	**1.32**	**159**	⇑*i*P	P	11 18 22.5	-0.3
RCDM				*i* S	S	11 18 40.0	+0.5
RCDM				AMP		11 18 43.3	
	comp=E,869nm,0.1s						
DSCH	**Colegio Aleman**	**1.33**	**149**	⇑*i*P	P	11 18 23.7	+0.8
DSCH				*i* S	S	11 18 41.1	+1.4
DSCH				AMP		11 18 42.9	
	comp=E,1µm,0.3s						
STL	**Santa Lucia**	**1.33**	**153**	*e*P	P	11 18 23.2	+0.3
STL				*i* S	S	11 18 40.9	+1.1
STL				AMP		11 18 42.8	
	comp=N,218nm,0.2s						
CLCH	**Cerro Calan**	**1.34**	**148**	⇓*i*P	P	11 18 23.8	+0.8
CLCH				*i* S	S	11 18 41.3	+1.3
CLCH				AMP		11 18 43.6	
	comp=E,812nm,0.3s						
CLCH				AMP		11 18 44.1	
	comp=E,1µm,0.2s						
FCH	**Farellones**	**1.41**	**140**	⇓*i*P	P	11 18 24.8	+0.8
FCH				*i* S	S	11 18 43.5	+1.9
FCH				AMP		11 18 44.8	
	comp=E,604nm,0.2s						
FSR	**Penalolen**	**1.42**	**150**	*i* S	S	11 18 43.5	+1.7
FSR				AMP		11 18 44.2	
	comp=N,605nm,0.3s						
TACH	**Talagante**	**1.45**	**165**	⇑*i*P	P	11 18 25.1	+0.6
TACH				*i* S	S	11 18 43.5	+1.0
PCH	**Pirque**	**1.55**	**152**	*i* P	P	11 18 26.6	+0.7
PCH				*i* S	S	11 18 46.8	+1.8
SJCH	**San Jose de Ma**	**1.63**	**148**	*e*P	P	11 18 26.7	-0.4
SJCH				*i* S	S	11 18 47.5	+0.5
SJCH				AMP		11 18 48.4	
	comp=E,367nm,0.2s						
LNV	**Longovilo**	**1.70**	**181**	⇑*i*P	P	11 18 27.8	-0.3
CHCH	**Chadas Angostu**	**1.79**	**160**	⇑*i*P	P	11 18 30.1	+0.9
CHCH				*i* S	S	11 18 53.5	+2.7
LMEL	**Las Melosas**	**1.87**	**149**	*i* P	P	11 18 31.4	+0.9
LMEL				AMP		11 18 59.1	
	comp=N,874nm,0.1s						
CACH	**El Canelo**	**1.97**	**161**	⇑*i*P	P	11 18 33.2	+1.4
CACH				*i* S	S	11 18 59.9	+4.4

MEX 06 11:25:09.4±0.6**, 16.03N×98.57W, h3**^{km}±10^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.55**	**50**	*i* P	Pg	11 25 19.6	-0.9
PNIG				*i* S	Sg	11 25 27.8	0.0
ACX	**Acapulco**	**1.54**	**303**	*e*P	Pn	11 25 35.5	-2.4
PLIG	**Platanillo**	**2.51**	**339**	*i* S	Sn	11 26 16.9	-6.5
CMIG	**Matias Romero**	**3.69**	**73**	*e*P	Pn	11 26 04.5	-4.0
CMIG				*e*S	Sn	11 26 47.4	-5.6

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*LDG **06** 11:34:24.1±0.2, 48.08N×8.01E, h10^{km}, Md2.0/1, Ml2.0/3, Error ellipse: s-maj=3.5km s-min=2.6km az=75.0*

STR 06 11:34:24.0±0.1**, 48.05N×8.00E, h10**^{km}±1^{km}**, Ml1.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WLS	**Welschbruch**	**0.56**	**310**	Pg	Pg	11 34 34.9	-0.5
ECH	**Echery**	**0.59**	**287**	Pg	Pg	11 34 35.5	-0.4
ECH				Sg	Sg	11 34 43.8	0.0
CDF	**Champ du Feu**	**0.60**	**307**	*e*Pg	Pg	11 34 35.9	-0.3
CDF				*e*Sg	Sg	11 34 43.0	-1.4
	4.2nm,0.2s						
HINF	**Hinteralfeld**	**0.81**	**254**	*e*Pg	Pg	11 34 39.8	-0.4
HINF				*e*Sg	Sg	11 34 50.2	-0.8
	4.1nm,0.3s						
HAU	**Haudompre**	**1.11**	**268**	*e*Pg	Pg	11 34 44.9	-1.3
HAU				*e*Sg	Sg	11 34 58.9	-2.2
	6.5nm,0.3s						
RFYF	**Reffroy**	**1.78**	**290**	*e*Sg	Sg	11 35 19.5	-3.9
	2.1nm,0.2s						
SSF	**Saint Saulge**	**3.20**	**254**	*e*Pn	Pn	11 35 11.8	-3.6

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*LDG **06** 11:40:28.2±0.2, 48.08N×8.01E, h16^{km}, Md2.1/1, Ml2.0/4, Error ellipse: s-maj=4.5km s-min=3.1km az=81.0*

STR 06 11:40:28.5±0.7**, 48.06N×8.01E, h10**^{km}±1^{km}**, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WLS	**Welschbruch**	**0.56**	**309**	Pg	Pg	11 40 39.7	-0.2
WLS				Sg	Sg	11 40 46.8	-0.7
ECH	**Echery**	**0.59**	**286**	Pg	Pg	11 40 40.0	-0.4
ECH				Sg	Sg	11 40 47.9	-0.5
CDF	**Champ du Feu**	**0.60**	**306**	*e*Pg	Pg	11 40 40.2	-0.5
CDF				*e*P		11 40 40.7	
CDF				*e*Sg	Sg	11 40 47.0	-1.8
	5.6nm,0.2s						
MOF	**Molkenrain**	**0.62**	**251**	Pg	Pg	11 40 41.3	+0.2
HINF	**Hinteralfeld**	**0.81**	**253**	*e*Pg	Pg	11 40 43.8	-1.1
HINF				*e*Pn	Pn	11 40 44.7	-1.1
HINF				*e*Sg	Sg	11 40 54.1	-1.7
	2.8nm,0.3s						
HAU	**Haudompre**	**1.12**	**268**	*e*Pn	Pn	11 40 47.6	-2.5
HAU				*e*Pg	Pg	11 40 49.0	-1.9
HAU				*e*Sg	Sg	11 41 02.7	-3.1
HAU				*e*Sn	Sn	11 41 03.9	-1.7
	7.4nm,0.3s						
RFYF	**Reffroy**	**1.79**	**290**	*e*Sg	Sg	11 41 23.5	-4.5
	1.8nm,0.2s						
CABF	**La Chapelle**	**1.95**	**223**	*e*Pn	Pn	11 40 59.3	-2.8
SSF	**Saint Saulge**	**3.21**	**254**	*e*Pn	Pn	11 41 15.1	-4.9

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*NEIC **06** 11:46:55.5±0.2, 12.44S×167.05E, mb4.7/37, Error ellipse: s-maj=11.4km s-min=7.7km az=138.0*

*BJI **06** 11:46:55.7, 12.09S×166.91E, h200^{km}, mB5.2, mb4.9*

*IDC **06** 11:46:56.7±0.7, 12.56S×166.99E, h216^{km}±5^{km}, mb4.4/19, mb1 4.5/21, mb1mx4.5/22, Error ellipse: s-maj=12.7km s-min=8.2km az=145.0*

*SYO **06** 11:47:01.6, 12.52S×166.91E, h263^{km}, MB4.7*

ISC 06 11:46:57.9±1.8**, 12.54S**±0.06×**166.92E**±0.05**, h238**^{km}±17^{km}**, h238**^{km}±8.6^{km}**:pP-P, n199, σ0^{s}84**/96**, mb4.7**/61**, 32C-5D, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**19.65**	**277**	P	**P**	**11 51 11.0**	**+0.5**
	1.4nm,0.3s,baz=81,slow=6.2,SNR=13						
PMG	**Port Moresby**	**19.65**	**277**	*e*P	**P**	**11 51 10.9**	**+0.4**
	54nm,1.1s						
CTA	**Charters Tower**	**21.19**	**247**	⇓*i*P	**P**	**11 51 27.7**	**+2.0**
	14nm,0.8s,mb4.5						
CTA	**Charters Tower**	**21.19**	**247**	P	**P**	**11 51 27.6**	**+1.8**
	15nm,0.5s,mb4.8,baz=78,slow=12,SNR=20						
CTAO	**Charters Tower**	**21.19**	**247**	*e*P	**P**	**11 51 27.5**	**+1.8**
	20nm,0.8s,mb4.7						
URZ	**Urewera**	**27.18**	**162**	P	**P**	**11 52 20.7**	**-0.9**
	9.0nm,0.7s,mb4.5,baz=321,slow=6.9,SNR=9.5						
CNB	**Canberra Magne**	**27.69**	**212**	⇓*i*P	**P**	**11 52 26.6**	**+0.3**
	30nm,1.5s,mb4.7						
STKA	**Stephens Creek**	**30.20**	**226**	⇑*i*P	**P**	**11 52 48.9**	**+0.4**
	7.4nm,0.3s,mb4.8						
STKA				*i* PCP	PcP	11 55 42.6	-0.7
STKA	**Stephens Creek**	**30.20**	**226**	P	**P**	**11 52 48.8**	**+0.2**
	8.4nm,0.3s,mb4.8,baz=51,slow=6.8,SNR=58						
STKA				PcP	PcP	11 55 42.5	-0.8
	6.5nm,0.6s,baz=70,slow=3.1,SNR=7.1						
RPZ	**Rata Peaks**	**31.27**	**174**	P	**P**	**11 52 56.0**	**-1.7**
	46nm,0.8s,mb5.2,baz=105,slow=3.8,SNR=14						
TOO	**Toolangi**	**31.44**	**214**	*e*P	**P**	**11 52 59.4**	**+0.2**
	6.4nm,0.6s,mb4.4						
WRAB	**Tennant Creek**	**32.08**	**252**	*e*P	**P**	**11 53 03.7**	**-1.3**
	5.3nm,0.4s,mb4.4						
WB2	**Warramunga Arr**	**32.08**	**252**	⇑*i*P	**P**	**11 53 04.0**	**-1.0**
WB2				*e*S	**S**	**11 57 57.0**	**-1.5**
WRA	**Warramunga Arr**	**32.09**	**252**	P	**P**	**11 53 04.2**	**-0.9**
	6.0nm,0.4s,mb4.4,baz=83,slow=9.0,SNR=70						
WRA				PcP	PcP	11 55 47.9	-0.6
	1.8nm,0.8s,baz=78,slow=3.2,SNR=5.0						
WRA				S	**S**	**11 57 57.2**	**-1.5**
	3.0nm,1.0s,baz=82,slow=14,SNR=5.3						
ASAR	**Alice Springs**	**33.20**	**246**	P	**P**	**11 53 13.6**	**-0.9**
	5.8nm,0.5s,mb4.3,baz=71,slow=9.2,SNR=112						
ASAR				pP	pP	11 53 58.6	-4.2
	4.4nm,0.7s,baz=71,slow=9.7,SNR=3.7						
ASAR				PcP	PcP	11 55 50.8	-0.7
	2.5nm,0.7s,baz=91,slow=3.5,SNR=7.5						
ASAR				S	**S**	**11 58 15.3**	**-0.4**
	0.9nm,0.9s,baz=68,slow=17,SNR=3.5						
ASAR				ScP		11 59 15.6	
	2.1nm,1.0s,baz=94,slow=3.2,SNR=8.0						
ASPA	**Alice Springs**	**33.20**	**246**	*e*P	**P**	**11 53 13.8**	**-0.7**
KAKA	**Kakadu**	**33.63**	**266**	⇑*i*P	**P**	**11 53 18.0**	**-0.3**
	9.3nm,0.4s,mb4.7						
FITZ	**Fitzroy Crossi**	**40.14**	**257**	*e*P	**P**	**11 54 12.7**	**+0.2**
	15nm,0.3s,mb4.9						
FITZ	**Fitzroy Crossi**	**40.14**	**257**	P	**P**	**11 54 12.9**	**+0.4**
	17nm,0.3s,mb4.9,baz=97,slow=3.9,SNR=195						
FORT	**Forrest**	**40.16**	**237**	*e*P	**P**	**11 54 12.3**	**-0.4**

	198nm,0.6s,mb5.7						
MBWA	Marble Bar	45.83	253	eP	P	11 54 58.2	-0.1
	16nm,0.9s,mb4.3						
NWAO	Narrogin (SRO)	49.61	237	P	P	11 55 26.8	-0.4
	8.1nm,0.6s,mb4.2,baz=86,slow=2.8,SNR=9.6						
NWAO	Narrogin (SRO)	49.61	237	eP	P	11 55 26.6	-0.7
	15nm,0.9s,mb4.3						
MUN	Mundaring	50.27	239	eP	P	11 55 32.1	-0.1
	7.0nm,1.0s,mb4.0						
MAJO	Matsushiro	55.82	332	eP	P	11 56 11.1	-1.6
	10nm,0.5s,mb4.6						
MAT	Matsushiro	55.82	332	P	P	11 56 11.4	-1.3
MAT	Matsushiro	55.82	332	eP	P	11 56 11.0	-1.7
	12nm,0.7s,mb4.5						
ASAJ	Asahikawa	60.58	340	P	P	11 56 45.5	0.0
	25nm,0.5s,mb5.1,baz=225,slow=4.5,SNR=34						
SSE	Sheshan	61.72	316	eP	P	11 56 52.8	-0.5
SSE				AMB	AMB		
	comp=Z,47nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,152nm,3.6s						
SSE	Sheshan	61.72	316	eP	P	11 56 52.8	-0.5
	comp=Z,47nm,0.8s,mb5.2						
YSS	Yuzh-Sakhalins	63.06	342	eP	P	11 57 01.8	-0.1
	comp=Z,34nm,0.9s,mb5.0						
NJ2	Nanjing	63.89	315	eP	P	11 57 07.9	+0.3
NJ2				PP	PP	11 59 33.4	+0.8
NJ2				S	S	12 05 22.0	-0.6
NJ2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.0						
NJ2				LR	LR		
	comp=Z,1µm,16.2s						
SBA	Scott Base	65.31	180	eP	P	11 57 16.7	+0.7
	comp=Z,16nm,0.8s,mb4.7						
SBA				ePcP	PcP	11 57 46.9	+0.5
CASY	Casey	65.42	202	eP	P	11 57 16.3	-0.5
	comp=Z,27nm,0.6s,mb5.0						
MDJ	Mudanjiang	66.20	332	eP	P	11 57 21.7	-0.4
	comp=Z,19nm,1.1s,mb4.6						
CN2	Changchun	67.61	329	⇑P	P	11 57 31.5	+0.5
CN2				eS	S	12 06 07.7	+0.3
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.8						
ENH	Enshi	69.73	309	eP	P	11 57 43.9	-0.2
	comp=Z,19nm,0.9s,mb4.7						
GYA	Guiyang	70.21	304	⇑iP	P	11 57 47.8	+0.7
GYA				PP	PP	12 00 28.7	+1.6
GYA				S	S	12 06 37.4	-0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.7						
BJT	Baijiatuau	70.35	321	eP	P	11 57 46.9	-0.9
	comp=Z,8.6nm,0.5s,mb4.6						
KMI	Kunming	72.88	301	⇑iP	P	11 58 04.8	+1.6
KMI				PCP	PcP	11 58 20.8	+1.6
KMI				S	S	12 07 07.9	-0.6
KMI				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.8						
KMI	Kunming	72.88	301	⇑iP	P	11 58 04.8	+1.6
	comp=Z,20nm,0.8s,mb4.8						
KMI				PcP	PcP	11 58 20.8	+1.6
KMI				pP	pP	11 59 05.0	+5.8
KMI				S	S	12 07 07.9	-0.6
HHC	Hu-ho-hao-te	73.71	319	eP	P	11 58 08.7	+1.0
HHC				PP	PP	12 00 59.4	+2.8
HHC				S	S	12 07 17.0	-0.4
HHC				SKS	SKS	12 07 44.0	-2.7
HHC				SS	SS	12 12 10.8	+1.9
HHC				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.5						
HHC				AMB	AMB		
	comp=Z,129nm,4.0s						
CMAR	Chiang Mai Arr	73.76	294	P	P	11 58 09.4	+1.0
	comp=Z,7.8nm,0.7s,mb4.5,baz=121,slow=4.5,SNR=44						
CMAR				pP	pP	11 58 58.4	-6.1
	comp=Z,0.4nm,0.6s,baz=339,slow=35,SNR=2.0						
HIA	Hailar	74.23	330	eP	P	11 58 10.4	-0.1
LZH	Lanzhou	76.61	312	⇑P	P	11 58 25.5	+1.3
LZH				PP	PP	12 01 23.5	+2.6
LZH				AMB	AMB		
	comp=Z,42nm,1.5s,mb4.8						
LZH	Lanzhou	76.61	312	⇑P	P	11 58 25.5	+1.3
	comp=Z,42nm,1.5s,mb4.8						
LZH				pP	pP	11 59 23.0	+2.4
LZH				sP	sP	11 59 55.0	+10
LZH				PP	PP	12 01 23.5	+2.6
QSPA	South Pole Qui	77.47	180	⇑iP	P	11 58 28.7	+0.6
	comp=Z,13nm,0.6s,mb4.7						
ULN	Ulaanbaatar	80.18	324	eP	P	11 58 43.6	+0.4
	comp=Z,22nm,1.4s,mb4.6						
SONM	Songino Array	80.55	324	P	P	11 58 45.8	+0.7
	comp=Z,2.8nm,0.5s,mb4.1,baz=130,slow=5.2,SNR=26						
GTA	Gaotai	80.92	314	eP	P	11 58 49.2	+2.0
GTA				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.5						
MCK	McKinley	83.19	18	eP	P	11 58 57.4	-1.0
	comp=Z,25nm,1.4s,mb4.8						
IMA	Indian Mountai	83.64	15	eP	P	11 59 01.4	+0.8
	comp=Z,8.8nm,0.4s,mb4.8						
MAW	Mawson	83.78	202	eP	P	11 59 02.0	+0.8
	comp=Z,11nm,1.2s,mb4.5						
MAW	Mawson	83.78	202	P	P	11 59 02.0	+0.8
	comp=Z,8.4nm,0.7s,mb4.6,baz=98,slow=7.3,SNR=9.9						
THY	Trims Highway	83.97	19	P	P	11 59 01.8	-0.5
YBH	Yreka Blue Hor	84.12	45	P	P	11 59 03.6	0.0
	comp=Z,6.7nm,0.9s,mb4.3,baz=325,slow=2.8,SNR=7.6						
COLA	College	84.34	18	eP	P	11 59 02.7	-1.4
	comp=Z,23nm,0.8s,mb5.0						
ILAR	Eielson Array	84.56	18	P	P	11 59 04.3	-0.9
	comp=Z,18nm,0.6s,mb5.0,baz=248,slow=5.1,SNR=286						
ILAR				pP	pP	11 59 56.0	-6.7
	comp=Z,5.5nm,1.1s,baz=237,slow=3.9,SNR=2.2						
MTUM	Tungsten Hills	85.56	50	eP	P	11 59 10.2	-0.7
NVAR	Mina Array Bea	86.11	49	P	P	11 59 13.6	+0.1
	comp=Z,2.9nm,0.8s,mb4.0,baz=235,slow=8.5,SNR=19						
NVAR				pP	pP	12 00 05.1	-6.1
	comp=Z,1.2nm,0.9s,baz=229,slow=7.6,SNR=3.2						
NVAR	Mina Array Bea	86.11	49	P	P	11 59 13.6	+0.1
NVAR				pP	pP	12 00 05.1	-6.1
TPNV	Topopah Spring	87.18	51	eP	P	11 59 18.6	-0.1
	comp=Z,27nm,1.8s,mb4.7						
GUN	Gumba	88.05	299	eP	P	11 59 23.8	+0.9
	comp=Z,27nm,0.7s,mb5.2						
PKI	Pulchoki	88.36	299	eP	P	11 59 25.1	+0.7
	comp=Z,26nm,0.6s,mb5.2						
KKN	Kakani	88.53	299	eP	P	11 59 25.9	+0.7
	comp=Z,31nm,0.7s,mb5.3						
DMN	Daman	88.63	299	eP	P	11 59 26.7	+1.0
	comp=Z,73nm,0.7s,mb5.6						
BMO	Blue Mountains	88.91	44	eP	P	11 59 25.9	-0.7
GKN	Gorkha	89.13	299	eP	P	11 59 28.0	0.0
	comp=Z,38nm,0.7s,mb5.3						
ARUT	Antelope Range	89.57	51	eP	P	11 59 30.6	+0.7
KOLN	Koldanda	89.96	298	eP	P	11 59 31.7	-0.3
NEW	Newport	90.12	40	eP	P	11 59 31.8	-0.4
	comp=Z,6.5nm,0.9s,mb4.5						
TUC	Tucson	90.22	57	eP	P	11 59 33.6	+0.6
	comp=Z,9.8nm,1.0s,mb4.6						
HLID	Hailey	90.49	45	eP	P	11 59 34.1	0.0
	comp=Z,12nm,1.4s,mb4.5						
SYO	Syowa Base	90.69	197	⇓P	P	11 59 34.6	+0.3
SYO	Syowa Base	90.69	197	⇑pP	PcP	11 59 36.9	+1.4
MSU	Marysvale	90.72	51	eP	P	11 59 36.1	+0.9
WMQ	Urumqi	90.96	315	P	P	11 59 37.1	+1.0
WMQ				PP	PP	12 03 19.9	+2.5
WMQ				SKS	SKS	12 09 42.7	-0.7
WMQ				eS	S	12 10 09.5	-0.5
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,21nm,5.1s						
WMQ				LR	LR		
	comp=N,65nm,12.2s						
WMQ				LR	LR		
	comp=E,62nm,15.0s						
WMQ				LR	LR		
	comp=Z,62nm,16.6s						
MCMT	McKenzie Canyo	91.93	45	eP	P	11 59 41.0	+0.3
BOZ	Bozeman (W)	92.97	44	eP	P	11 59 45.7	+0.2
	comp=Z,6.3nm,1.2s,mb4.5						
PV10	Paradox Valley	93.08	52	eP	P	11 59 46.1	0.0
PV01	Paradox Valley	93.38	52	eP	P	11 59 47.6	+0.1
PDAR	Pinedale Array	93.72	47	P	P	11 59 48.0	-0.9
	comp=Z,0.7nm,1.0s,mb3.6,baz=225,slow=1.3,SNR=3.2						
ANMO	Albuquerque	94.34	55	P	P	11 59 51.6	-0.3
	comp=Z,2.5nm,0.8s,mb4.3,baz=227,slow=4.9,SNR=14						
ANMO	Albuquerque	94.34	55	eP	P	11 59 51.8	-0.1
	comp=Z,3.6nm,1.0s,mb4.4						
ZAL	Zalesovo	95.44	324	P	P	11 59 57.0	+0.5
	comp=Z,2.4nm,0.7s,mb4.4,baz=3.4,slow=5.6,SNR=16						
LTX	Lajitas	95.53	61	eP	P	11 59 57.0	-0.4
	comp=Z,2.9nm,0.8s,mb4.6						
TXAR	Lajitas Array	95.53	61	P	P	11 59 57.1	-0.3
	comp=Z,5.2nm,1.1s,mb4.7,baz=226,slow=5.7,SNR=24						
SNAA	Sanae	95.70	183	e	pP	12 00 58.1	+2.7
SNAA	Sanae	95.70	183	⇑iP	P	11 59 56.9	-0.4
SNAA				e	pP	12 00 58.1	+2.7
SNAA				e		12 01 26.1	
SNAA				e		12 04 00.4	
SNAA				e		12 04 30.1	
YKA	Yellowknife Ar	95.77	27	P	P	11 59 56.3	-1.4
	comp=Z,2.5nm,0.6s,mb4.6,baz=259,slow=4.6,SNR=88						
YKA				pP	pP	12 00 49.0	-6.9
	comp=Z,0.5nm,0.6s,baz=257,slow=4.8,SNR=4.0						
YKA	Yellowknife Ar	95.77	27	P	P	11 59 56.3	-1.4
YKA				pP	pP	12 00 49.0	-6.9
VNA3	Neumayer Olymp	96.38	181	e	pP	12 01 03.1	+4.6
VNA3	Neumayer Olymp	96.38	181	⇓iP	P	12 00 02.3	+2.0
VNA3				e	pP	12 01 03.1	+4.6
VNA3				e		12 01 31.3	
VNA3				e		12 04 04.4	
VNA3				e		12 04 35.2	
VNA2	Neumayer--Watz	96.64	182	e	pP	12 01 04.8	+5.1
VNA2	Neumayer--Watz	96.64	182	⇓iP	P	12 00 03.8	+2.2
VNA2				e	pP	12 01 04.8	+5.1
VNA2				e		12 01 32.8	
VNA2				e		12 04 06.1	
VNA2				e		12 04 37.4	
KURK	Kurchatov	98.52	320	eP	P	12 00 09.7	-0.8
	comp=Z,1.2nm,0.6s,mb4.4						
KEV	Kevo	117.53	345	ep	PKPdf	12 05 14.9	0.0
ARCES	ARCESS Array B	118.06	346	PKP	PKPdf	12 05 17.1	+1.1
	comp=Z,7.3nm,0.4s,baz=83,slow=1.9,SNR=66						
LPAZ	La Paz	118.49	116	PKP	PKPdf	12 05 18.9	+0.8
	comp=Z,1.1nm,0.5s,baz=302,slow=1.5,SNR=4.7						
JOF	Joensuu	120.74	338	ep	PKPdf	12 05 20.6	-0.8
KAF	Kangasniemi	123.04	339	ep	PKPdf	12 05 23.6	-2.2
	baz=43,slow=1.9						
FINES	FINESS Array B	123.58	339	PKP	PKPdf	12 05 27.9	+1.0
	comp=Z,1.8nm,0.4s,baz=57,slow=2.5,SNR=25						
SUR	Sutherland	124.81	215	ePKPdf	PKPdf	12 05 31.4	+1.4
SAML	Samuel	125.83	111	ePKPdf	PKPdf	12 05 32.2	-0.2
MALT	Malatya	127.69	309	ePKPdf	PKPdf	12 05 37.0	+1.6
NB2	NORSAR Subarra	128.44	345	PKPdf	PKPdf	12 05 37.3	+1.1
	comp=Z,1.5nm,0.6s,baz=31,slow=1.9						
NOA	NORSAR Array B	128.44	345	PKP	PKPdf	12 05 37.6	+1.4
	comp=Z,1.4nm,1.0s,baz=56,slow=2.4,SNR=9.9						
AKASG	Malin Array Be	128.74	327	PKP	PKPdf	12 05 37.7	+0.6
	comp=Z,0.2nm,0.2s,baz=51,slow=2.3,SNR=6.1						
BDFB	Brasilia	135.51	128	PKP	PKPdf	12 05 51.3	+0.6
	comp=Z,5.1nm,0.9s,baz=198,slow=5.3,SNR=6.0						
CDF	Champ du Feu	140.43	339	⇑iPKP1	PKPdf	12 05 54.3	-4.4
	comp=Z,6.4nm,0.6s						
CABF	La Chapelle	142.38	338	ePKP1	PKPdf	12 06 00.9	-1.2
	comp=Z,7.8nm,0.6s						
FLN	La Foliniere	142.40	346	ePKP1	PKPdf	12 06 00.8	-1.3
ORX	Oropa	142.47	336	P	PKPdf	12 05 59.7	-2.6
LDF	La Druitiere	142.48	346	⇑iPKP1	PKPdf	12 06 00.9	-1.3
	comp=Z,14nm,0.7s						
GRAM		142.49	332	P	PKPdf	12 06 00.6	-1.8
VALM		142.52	332	P	PKPdf	12 06 00.5	-2.0
TIP	Timpagrande	142.57	320	ePKPdf	PKPdf	12 06 02.8	+0.1
BACM		142.66	332	P	PKPdf	12 06 01.0	-1.7
TRAV		142.67	336	P	PKPdf	12 06 01.0	-1.7
CODM		142.67	333	P	PKPdf	12 06 00.5	-2.2
VINC	Vinca	142.72	332	P	PKPdf	12 06 02.1	-0.7
MAIM		142.74	331	P	PKPdf	12 05 59.8	-3.1
GRR	Gorron	142.84	346	⇑iPKP1	PKPdf	12 06 01.8	-1.1
	comp=Z,17nm,0.5s						
SSF	Saint Saulge	142.87	341	⇑iPKP1	PKPdf	12 06 02.1	-0.9
	comp=Z,22nm,0.8s						
LSD	Ceresole Reale	142.95	336	P	PKPdf	12 06 02.8	-0.3
LPL	La Plagne	143.07	337	ePKP1	PKPbc	12 06 03.1	+1.4
	comp=Z,21nm,0.7s						
LPG	La Plagne	143.07	337	ePKP1	PKPbc	12 06 03.2	+1.5
	comp=Z,19nm,0.6s						
PCP	Pian Castagno	143.12	334	P	PKPbc	12 06 01.9	0.0
SMF	Signal de Mont	143.13	340	⇑iPKP1	PKPbc	12 06 03.3	+1.5
	comp=Z,10nm,0.6s						
AVF	Avril sur Loir	143.16	341	ePKP1	PKPbc	12 06 02.8	+0.9
RSP	Reno Superiore	143.16	336	P	PKPbc	12 06 01.9	0.0
SGMF	Saint Gilles	143.33	348	ePKP1	PKPbc	12 06 03.0	+0.6
	comp=Z,26nm,0.6s						
FENE	Fenestrelle	143.34	336	P	PKPbc	12 06 03.1	+0.6
ROSF	Rostrenen	143.39	349	ePKP1	PKPbc	12 06 02.9	+0.4
BHB	Bricherasio	143.41	335	P	PKPbc	12 06 02.5	-0.2
BNI	Bardonecchia	143.47	336	ePKPdf	PKPdf	12 06 04.4	+0.3
BGF	Bois d'Agland	143.52	341	ePKP1	PKPbc	12 06 04.0	+1.0
	comp=Z,42nm,0.8s						
FIN	Finale Ligure	143.53	334	P	PKPbc	12 06 03.0	-0.1
RRL	Cesana Torines	143.54	336	P	PKPbc	12 06 04.2	+1.1
ROB	Roburent	143.61	334	P	PKPbc	12 06 03.2	-0.2
MBDF	Montbardon	143.71	336	⇑iPKP1	PKPbc	12 06 04.5	+0.9
	comp=Z,33nm,0.7s						
PZZ	Prazzo	143.76	335	P	PKPbc	12 06 03.2	-0.6
QUIF	Quistinic	143.77	349	ePKP1	PKPbc	12 06 04.4	+0.7
	comp=Z,27nm,0.6s						
MONE	Monesi	143.83	334	P	PKPbc	12 06 03.9	-0.1
ENR	Entracque	143.85	335	P	PKPbc	12 06 03.3	-0.8
STV2	Anna di Valdie	143.88	335	P	PKPbc	12 06 03.3	-0.8
STV	Sta Anna Valdi	143.88	335	P	PKPbc	12 06 03.2	-0.9
ORIF	Oris-en-Rattie	143.90	337	⇑iPKP1	PKPbc	12 06 05.7	+1.5
	comp=Z,114nm,0.7s						
IMI	Imperia	143.91	334	P	PKPbc	12 06 04.5	+0.3
TCF	Toulx Ste Croi	143.96	342	⇑iPKP1	PKPbc	12 06 05.5	+1.2
	comp=Z,50nm,0.7s						
NEGI	Negi	144.04	334	P	PKPbc	12 06 04.7	+0.1
SBF	Sospel	144.14	334	ePKP1	PKPbc	12 06 05.8	+0.9
	comp=Z,198nm,0.8s						
MFF	Saint Martin d	144.34	345	⇑iPKP1	PKPbc	12 06 06.6	+1.2
	comp=Z,164nm,0.7s						
VIVF	Saint-Julien-l	144.40	338	⇑iPKP1	PKPbc	12 06 07.3	+1.7
	comp=Z,75nm,0.8s						
PGF	Pioggiola	144.49	331	⇑iPKP1	PKPbc	12 06 07.2	+1.3
	comp=Z,134nm,0.9s						
FRF	La Foret Royal	144.72	335	⇑iPKP1	PKPbc	12 06 07.8	+1.3
	comp=Z,144nm,0.8s						
SMRF	Simiane la Rot	144.81	336	⇑iPKP1	PKPbc	12 06 08.6	+1.8
	comp=Z,88nm,0.9s						
LMR	La Mourre	144.96	335	⇑iPKP1	PKPbc	12 06 08.6	+1.4
	comp=Z,62nm,0.6s						
RJF	Les Rejaudoux	145.06	342	⇑iPKP1	PKPbc	12 06 09.1	+1.7
CAF	Calviac	145.23	341	⇑iPKP1	PKPbc	12 06 09.8	+2.0
	comp=Z,24nm,0.8s						
LASF	Ste Croix	145.37	338	ePKP1	PKPbc	12 06 10.3	+2.1
	comp=Z,54nm,0.7s						
LFF	La Frestale	145.62	343	⇑iPKP1	PKPbc	12 06 10.7	+1.9
	comp=Z,75nm,0.6s						
MTLF	Montolieu	146.59	340	⇑iPKP1	PKPbc	12 06 13.8	+2.6
	comp=Z,66nm,0.7s						
EJON	La Jonquera	147.13	338	PKP	PKPdf	12 06 15.8	+5.3
EPF	Esparros	147.47	342	⇑iPKP1	PKPdf	12 06 15.8	+4.8
	comp=Z,12nm,0.7s						
EALK	Alkurruntz	147.84	344	PKP	PKPdf	12 06 16.7	+5.1
EBIE	Bielsa	147.85	342	PKP	PKPdf	12 06 18.4	+6.8
SJPF	Ste Jean	147.86	344	ePKP1	PKPdf	12 06 17.3	+5.7
	comp=Z,9.8nm,0.6s						
ETSF	Etsaut	147.87	343	⇑iPKP1	PKPdf	12 06 17.5	+5.9
	comp=Z,18nm,0.6s						
EMIR	Miracle	148.09	339	PKP	PKPdf	12 06 18.9	+6.9
ELAN	Lanestosa	148.30	347	PKP	PKPdf	12 06 17.8	+5.5
EARI	Arriondas	148.60	349	PKP	PKPdf	12 06 19.9	+7.1
EPOB	Poblet	148.74	339	PKP	PKPdf	12 06 20.5	+7.4
EPON	Pontenova	148.90	352	PKP	PKPdf	12 06 19.6	+6.3
ERTA	Horta de San J	149.34	340	PKP	PKPdf	12 06 20.7	+6.7
EMAZ	Mazaricos	149.49	354	PKP	PKPdf	12 06 21.1	+6.9
STS	Santiago	149.51	353	PKP	PKPdf	12 06 21.4	+7.2
EINC	Incio	149.58	352	PKP	PKPdf	12 06 21.6	+7.2
ERUA	La Rua	149.81	351	PKP	PKPdf	12 06 22.5	+7.7
EMOS	Mosqueruela	150.15	340	PKP	PKPdf	12 06 24.3	+9.0
ECAL	Calabor	150.19	350	PKP	PKPdf	12 06 22.8	+7.5
PBRG	Braganca	150.32	350	ePKPbc	PKPdf	12 06 22.9	+7.4
ELOB	Lobios	150.46	352	PKP	PKPdf	12 06 23.3	+7.6
PVRL	Vila Real	150.99	352	ePKPbc	PKPdf	12 06 24.9	+8.4
PVIS	Viseu	151.57	352	ePKPbc	PKPdf	12 06 25.9	+8.5
ESDC	Sonseca Array	151.80	345	PKPbc	PKPdf	12 06 26.2	+8.4
	comp=Z,7.6nm,0.7s,baz=16,slow=2.2,SNR=39						
ESDC				PKPab	PKPab	12 06 36.0	-0.8
	comp=Z,5.6nm,0.7s,baz=342,slow=4.6,SNR=13						
ESDC	Sonseca Array	151.80	345	PKP	PKPdf	12 06 26.6	+8.8
MTE	Manteigas	151.82	351	ePKPbc	PKPdf	12 06 26.8	+9.0
MTE	Manteigas	151.82	351	ePKPbc	PKPdf	12 06 26.1	+8.2
EVIA	Vianos	152.36	342	PKP	PKPdf	12 06 28.7	+10
EMUR	La Murta	152.68	339	PKP	PKPdf	12 06 30.1	+11
EQES	Quesada	153.30	342	PKP	PKPdf	12 06 30.3	+10
EBAD	Badajoz	153.34	349	PKP	PKPdf	12 06 29.1	+9.1
EADA	Adamuz	153.38	345	PKP	PKPdf	12 06 30.5	+10
ELUQ	Luque	153.87	344	PKP	PKPdf	12 06 31.6	+11
PBEJ	Beja	154.20	351	ePKPbc	PKPdf	12 06 31.8	+11
PBEJ				i -	PKPab	12 06 47.4	+0.5
EMIN	Mina Concepcio	154.23	348	PKP	PKPdf	12 06 32.5	+11
ERON	Agron	154.25	343	PKP	PKPdf	12 06 31.6	+10
PTEO	Sao Teotonio	154.80	352	i -	PKPab	12 06 51.5	+2.1

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*IDC **06** 11:51:52.7±10.0, 17.59N×99.25W, mb3.4/2, mb1 3.9/4, mb1mx3.6/19, ML3.3/1, Error ellipse: s-maj=189.0km s-min=123.2km az=102.0*

*NEIC **06** 11:52:11.9, 18.41N×100.49W, h22^{km}, MD4.2(MEX), After MEX.*

*MEX **06** 11:52:11.9±1.7, 18.28N×100.41W, h51^{km}±40^{km}, MD4.1*

ISC 06 11:52:09.1±0.6**, 18.22N**±0.06×**100.38W**±0.05**, h69**^{km}±10^{km}**, n16, **σ**1**^{s}**14**/24**, mb2.9**/2**, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLIG	Platanillo	0.85	78	i P	P	11 52 26.8	+0.9
PLIG				i S	S	11 52 38.2	-0.2
ZIIG	Zihuatanejo	1.20	239	i P	P	11 52 30.8	+0.4
ZIIG				i S	S	11 52 45.6	-0.7
ZIIG	Zihuatanejo	1.20	239	i P	P	11 52 31.1	+0.7
ZIIG				i S	S	11 52 45.6	-0.7
CRX	Cerrillo	1.35	29	i P	P	11 52 31.5	-1.1
ACX	Acapulco	1.42	162	i P	P	11 52 36.1	+2.6
ACX				i S	S	11 52 49.5	-2.0
ACX	Acapulco	1.42	162	i P	P	11 52 36.1	+2.6
ACX				i S	S	11 52 50.6	-0.9
UNM	Universidad Na	1.59	46	i P	P	11 52 35.9	+0.2
UNM				i S	S	11 52 53.4	-2.0
PPM	Popocatepetl	1.87	63	i P	P	11 52 40.5	+1.0
PPM				i S	S	11 53 06.1	+4.2
PPM	Popocatepetl	1.87	63	i P	P	11 52 40.3	+0.8
PPM				i P		11 52 40.5	
PPM				i S	S	11 53 03.7	+1.8
IISM	Ciudad Serdan	2.95	75	i P	P	11 52 56.0	+1.2
SFJM	Santa Fe	3.37	312	i P	P	11 53 01.4	+0.8
OXX	Oaxaca	3.67	107	i P	P	11 53 03.5	-1.3
TXAR	Lajitas Array	11.46	345	Pn	P	11 54 51.9	-0.1
	0.0nm,0.3s,baz=166,slow=16,SNR=8.5						
ANMO	Albuquerque	17.52	343	P	P	11 56 10.3	+0.1
	baz=152,slow=13,SNR=3.7						
NVAR	Mina Array Bea	25.49	326	P	P	11 57 33.4	+0.8
	0.1nm,0.4s,mb2.6,baz=149,slow=12,SNR=3.8						
PDAR	Pinedale Array	25.68	344	P	P	11 57 32.7	-1.6
	0.7nm,0.6s,mb3.3,baz=141,slow=9.5,SNR=8.8						

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*NEIC **06** 12:18:32.6±2.1, 17.63S×178.85W, h597^{km}±24^{km}, mb4.2/16, Error ellipse: s-maj=11.6km s-min=9.3km az=139.0*

*IDC **06** 12:18:34.0±2.3, 17.69S×178.80W, h614^{km}±28^{km}, mb3.6/14, mb1 3.8/14, mb1mx3.7/17, Error ellipse: s-maj=18.7km s-min=11.8km az=152.0*

ISC 06 12:18:31.9±2.4**, 17.7S**±0.1×**178.90W**±0.09**, h603**^{km}±31^{km}**, n50, **σ**0**^{s}**87**/47**, mb4.1**/26**, 4C-7D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	20.82	189	P	P	12 22 35.8	+1.5
	9.5nm,1.1s,baz=67,slow=11,SNR=5.1						
CTA	Charters Tower	33.02	260	⇓iP	P	12 24 20.7	+0.1
	9.1nm,0.7s,mb4.5						
CTAO	Charters Tower	33.02	260	eP	P	12 24 20.4	-0.1
	13nm,0.7s,mb4.7						
PMG	Port Moresby	33.95	279	P	P	12 24 30.1	+1.7
	43nm,0.8s,mb5.2,baz=86,slow=5.8,SNR=32						
PMG	Port Moresby	33.95	279	eP	P	12 24 29.7	+1.4
	53nm,0.9s,mb5.2						
STKA	Stephens Creek	38.34	241	⇓iP	P	12 25 04.8	+0.6
	13nm,0.6s,mb4.6						
STKA	Stephens Creek	38.34	241	P	P	12 25 04.9	+0.6
	17nm,0.5s,mb4.8,baz=90,slow=9.5,SNR=48						
WB2	Warramunga Arr	44.20	259	⇓iP	P	12 25 50.0	-0.8
WRAB	Tennant Creek	44.21	259	eP	P	12 25 49.8	-1.1
	88nm,1.5s,mb5.1						
WRA	Warramunga Arr	44.22	259	P	P	12 25 50.2	-0.7
	12nm,0.8s,mb4.5,baz=92,slow=7.0,SNR=113						
WRA				PcP	PcP	12 27 22.2	-0.1
	2.1nm,0.8s,baz=92,slow=3.6,SNR=5.5						
ASAR	Alice Springs	44.41	254	P	P	12 25 52.4	0.0
	92nm,0.6s,baz=88,slow=8.2,SNR=1260						
ASAR				PcP	PcP	12 27 21.7	-1.2
	2.1nm,0.5s,baz=108,slow=3.8,SNR=4.5						
ASAR				S	S	12 31 45.2	+0.4
	0.7nm,0.9s,baz=98,slow=10,SNR=4.6						
ASPA	Alice Springs	44.41	254	⇓iP	P	12 25 52.4	0.0
KAKA	Kakadu	47.12	269	⇓iP	P	12 26 13.1	0.0
	14nm,0.6s,mb4.7						
FORT	Forrest	49.69	244	eP	P	12 26 30.9	-1.2
	57nm,0.6s,mb5.2						
FITZ	Fitzroy Crossi	52.61	260	⇓iP	P	12 26 53.2	0.0
	4.4nm,0.6s,mb4.0						
MBWA	Marble Bar	57.68	256	eP	P	12 27 27.3	-1.0
	8.0nm,0.6s,mb4.0						
VNDA	Vanda	60.66	185	P	P	12 27 45.5	-1.8
	0.5nm,0.6s,baz=354,slow=6.9,SNR=5.8						
QSPA	South Pole Qui	72.40	180	⇓iP	P	12 28 58.7	-0.3
	5.2nm,0.6s,mb4.2						
YBH	Yreka Blue Hor	78.63	39	P	P	12 29 32.7	-1.1
	3.3nm,0.8s,mb3.7,baz=144,slow=1.5,SNR=6.3						
MTUM	Tungsten Hills	78.82	45	eP	P	12 29 34.7	-0.2
NVAR	Mina Array Bea	79.57	44	P	P	12 29 38.9	+0.1
	3.4nm,0.7s,mb3.8,baz=224,slow=8.8,SNR=22						
TPNV	Topopah Spring	80.18	46	eP	P	12 29 42.0	0.0
	1.7nm,0.6s,mb3.5						
TUC	Tucson	81.92	53	eP	P	12 29 51.1	+0.1
	2.9nm,1.0s,mb3.8						
ELK	Elko	82.80	43	eP	P	12 29 55.4	+0.3
	3.6nm,0.9s,mb3.9						
ENH	Enshi	83.74	304	eP	P	12 30 02.2	+2.1
MAW	Mawson	83.94	200	P	P	12 30 00.2	0.0
	4.1nm,0.8s,mb4.0,baz=134,slow=7.2,SNR=4.8						
MCK	McKinley	84.40	13	eP	P	12 30 01.9	-0.6
	1.8nm,0.7s,mb3.7						
HLID	Hailey	84.75	41	eP	P	12 30 05.0	+0.3
	2.9nm,0.8s,mb4.0						
NEW	Newport	85.58	36	P	P	12 30 07.8	-0.8
	1.5nm,0.7s,mb3.7,baz=175,slow=2.0,SNR=3.7						
NEW	Newport	85.58	36	eP	P	12 30 08.2	-0.5
ILAR	Eielson Array	85.75	13	P	P	12 30 08.2	-0.8
	0.6nm,0.4s,mb3.6,baz=220,slow=5.0,SNR=9.5						
TXAR	Lajitas Array	86.26	58	P	P	12 30 12.9	+0.6
	3.1nm,0.8s,mb4.0,baz=219,slow=6.2,SNR=35						
ANMO	Albuquerque	86.31	52	eP	P	12 30 12.3	-0.1
	2.5nm,1.0s,mb3.8						
MCMT	McKenzie Canyo	86.35	41	eP	P	12 30 12.9	+0.5
SNOW	Snow King Moun	87.03	43	eP	P	12 30 15.9	+0.4
MOOW	Moose Ponds	87.17	42	eP	P	12 30 16.5	+0.2
LOHW	Long Hollow	87.20	43	eP	P	12 30 16.4	0.0
BW06	Boulder Array	87.49	44	eP	P	12 30 17.7	-0.1
	1.9nm,0.6s,mb4.0						
PDAR	Pinedale Array	87.49	44	P	P	12 30 17.9	+0.1
	1.4nm,0.5s,mb3.9,baz=215,slow=3.1,SNR=14						
CMAR	Chiang Mai Arr	88.36	290	P	P	12 30 24.1	+1.7
	2.6nm,0.9s,mb3.9,baz=107,slow=3.1,SNR=12						
SNAA	Sanae	90.86	179	⇑i	P	12 30 30.5	-2.2
SNAA	Sanae	90.86	179	eP	P	12 30 31.6	-1.2
VNA3	Neumayer Olymp	91.02	177	⇑i	P	12 30 34.9	+1.4
VNA2	Neumayer--Watz	91.45	177	⇑i	P	12 30 37.0	+1.5
VNA1	Neumayer--Stat	91.68	177	⇑i	P	12 30 30.0	-6.5
YKA	Yellowknife Ar	94.30	25	P	P	12 30 47.8	-0.7
	0.5nm,0.8s,mb3.7,baz=246,slow=4.5,SNR=7.8						
BVAR	Borovoye Array	116.35	321	PKP	PKPdf	12 36 08.3	+0.6
	0.6nm,0.4s,baz=104,slow=2.6,SNR=6.4						
BRTR	Keskin Array B	144.27	315	PKP	PKPdf	12 37 02.5	+2.3
	2.8nm,0.8s,baz=135,slow=1.7,SNR=12						
ASF	Jabal al Asfar	144.64	301	PKP	PKPdf	12 37 04.0	+2.9
	8.1nm,1.1s,baz=357,slow=6.6,SNR=3.7						
GERES	GERESS Array B	147.25	345	PKPbc	PKPdf	12 37 09.9	+5.0
	0.7nm,0.5s,baz=315,slow=1.9,SNR=5.0						

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*MOS **06** 12:50:23.6±1.1, 38.29N×73.88E, h115^{km}, mb4.4/15, Error ellipse: s-maj=15.6km s-min=8.6km az=100.3*

*NNC **06** 12:50:25.1±10.0, 38.18N×73.17E, h46^{km}±186^{km}, mpv4.1, Error ellipse: s-maj=197.5km s-min=103.3km az=107.0*
*BJI **06** 12:50:25.7, 38.52N×73.95E, h141^{km}, mB4.7, mb4.4*
*NEIC **06** 12:50:27.1±0.9, 38.38N×74.01E, h134^{km}±7^{km}, mb4.2/7, Error ellipse: s-maj=10.4km s-min=8.0km az=218.0*
*IDC **06** 12:50:28.4±1.0, 38.29N×74.01E, h149^{km}±5^{km}, mb3.8/18, mb1 4.0/20, mb1mx3.9/27, Error ellipse: s-maj=22.8km s-min=12.4km az=15.0*
ISC 06 12:50:24.8±0.3, **38.23N**±0.02×**74.01E**±0.05, **h133**^{km}±4^{km}, **h147**^{km}±.7^{km}**:pP-P, n110,** σ**1**^{s}**20**/136, **mb4.0**/23, **15C-7D, Tajikistan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	2.00	49	⇑iP	P	12 51 01.6	+2.2
KSH				S	S	12 51 27.2	+1.5
KSH				Smax			
	comp=N,17µm,0.4s						
KSH				Smax			
	comp=E,16µm,0.2s						
AML	Almayashu	3.91	357	P	P	12 51 24.2	-0.2
	SNR=896						
AML	Almayashu	3.91	357	⇑iPn	P	12 51 24.2	-0.2
AML				eSn	S	12 52 04.8	-5.2
KZA	Kyzart	3.96	13	P	P	12 51 25.0	-0.1
	SNR=373						
UCH	Uchtor	4.01	5	P	P	12 51 26.0	+0.2
	SNR=241						
UCH	Uchtor	4.01	5	⇑iPn	P	12 51 26.0	+0.2
UCH				eSn	S	12 52 11.1	-1.5
ULHL	Ulahol	4.36	22	P	P	12 51 30.8	+0.3
	SNR=59						
AAK	Ala-Archa	4.42	5	⇑Pn	P	12 51 31.3	+0.1
	comp=E,19nm,0.5s						
AAK				Sn	S	12 52 18.1	-4.0
	comp=E,220nm,0.8s						
AAK	Ala-Archa	4.42	5	P	P	12 51 31.3	+0.2
	SNR=34						
AAK	Ala-Archa	4.42	5	⇑iPn	P	12 51 30.3	-0.9
AAK				eSn	S	12 52 21.3	-0.9
EKS2	Erkin-Say	4.43	358	P	P	12 51 31.4	0.0
	SNR=199						
EKS2	Erkin-Say	4.43	358	⇑ePn	P	12 51 31.3	-0.1
EKS2				eSn	S	12 52 18.6	-3.9
KBK	Karagaybulak	4.48	9	P	P	12 51 32.4	+0.3
	SNR=90						
CHCP	Chirah Chowk	4.60	188	⇑P	P	12 51 37.2	+3.5
CEP	Cherat	4.71	202	⇓P	P	12 51 37.9	+2.7
CHMS	Chumysh	4.80	7	P	P	12 51 36.2	-0.1
	SNR=38						
TKM2	Tokmak 2	4.84	14	P	P	12 51 37.0	+0.1
	SNR=28						
TKM2	Tokmak 2	4.84	14	⇑iPn	P	12 51 36.9	+0.1
USP	Ospenovka	5.05	4	P	P	12 51 39.5	-0.2
	SNR=26						
JMU	Jammu	5.55	172	⇑iS	S	12 52 49.0	-0.4
THW	Thamme Wali	5.73	200	⇑P	P	12 51 50.4	+1.7
DLH	Dalhousie	5.89	164	eP	P	12 51 50.0	-0.9
DLH				eS	S	12 52 55.0	-2.8
THN	Thein Dam	5.95	166	eP	P	12 51 53.0	+1.3
	comp=E,21nm,0.2s						
THN				eS	S	12 52 54.1	-5.0
SARP	Sargodha	6.39	190	P	P	12 51 58.8	+1.1
SARP				S	S	12 53 03.0	-6.7
PONG	Pong	6.46	165	eP	P	12 52 00.0	+1.4
PONG				eS	S	12 53 10.0	-1.5
SBDP	Sheikh Budin	6.47	205	⇑P	P	12 52 00.1	+1.3
BHK	Bhakra	7.08	163	e	P	12 52 10.5	+3.5
BHK				eS	S	12 53 22.1	-4.3
SDNR	Sundarnagar	7.14	159	eP	P	12 52 07.6	-0.3
SDNR				eS	S	12 53 22.0	-5.9
DRP	Derazinda	7.18	207	⇓P	P	12 52 10.1	+1.6
SMLA	Simla	7.54	159	eP	P	12 52 27.8	+15
SMLA				eS	S	12 53 45.2	+7.5
DDI	Dehra Dun	8.57	156	eP	P	12 52 26.3	-0.7
DDI				eS	S	12 53 56.7	-5.6
KKR	Kurukshetra	8.57	163	e	P	12 52 22.4	-4.6
RTK	Rohtak	9.39	167	eP	P	12 52 38.6	+0.7
BHGR	Bahadurgarh	9.82	165	eP	P	12 52 44.7	+1.0
NDI	New Delhi	9.89	163	e	P	12 52 43.0	-1.5
NDI				eS	S	12 54 25.0	-8.9
NDI				AML	AML	12 54 36.6	
	comp=N,133nm,0.1s						
NDI				AML	AML	12 54 36.8	
	comp=E,136nm,0.2s						
AYAN	Aya Nagar	10.06	164	eP	P	12 52 47.4	+0.6
AYAN				eS	S	12 54 31.1	-7.0
AYAN				e		12 54 32.9	
	comp=Z,111nm,0.6s						
PTH	Pithoragarh	10.07	147	eP	P	12 52 47.0	0.0
PTH				e		12 53 02.0	
PTH				e		12 53 31.0	
LGTI	Lohaghat	10.17	148	eP	P	12 52 48.0	-0.3
LGTI				eS	S	12 54 35.5	-5.1
KHET	Khetri	10.24	171	eP	P	12 52 46.8	-2.4
KHET				eS	S	12 54 34.4	-7.7
KHET				e		12 54 38.2	
	comp=N,78nm,0.4s						
KHET				e		12 54 39.1	
	comp=E,162nm,0.9s						
KUDL	Kundal	10.27	168	eP	P	12 52 49.1	-0.4
KUDL				eS	S	12 54 34.6	-8.3
KUDL				e		12 54 37.6	
	comp=Z,95nm,0.6s						
SONA	Sohna	10.28	165	eP	P	12 52 49.7	0.0
SONA				eS	S	12 54 35.4	-7.7
SONA				e		12 54 38.5	
	comp=E,155nm,0.4s						
SONA				e		12 54 41.0	
	comp=N,179nm,0.7s						
MK31	Makanchi Array	10.51	33	⇓P	P	12 52 53.0	+0.3
	comp=N,9.7nm,0.6s,baz=202,slow=13,SNR=40						
MKAR	Makanchi Array	10.51	33	i P	P	12 52 52.2	-0.5
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
WMQ	Urumqi	11.74	57	eP	P	12 53 08.0	-1.0
KURK	Kurchatov	12.91	13	⇓P	P	12 53 29.8	+5.6
	comp=Z,12nm,0.5s						
KURK				⇑S	S	12 55 56.3	+11
	comp=Z,12nm,1.5s						
KURK	Kurchatov	12.91	13	P	P	12 53 29.5	+5.4
KURK				pmax	pmax		
	comp=Z,6.0nm,0.5s						
KURK	Kurchatov	12.91	13	ePn	P	12 53 22.3	-1.8
	comp=Z,4.6nm,0.8s						
KOLN	Koldanda	13.16	140	eP	P	12 53 26.3	-1.2
	comp=Z,66nm,0.3s						
GKN	Gorkha	13.53	136	eP	P	12 53 30.5	-1.7
	comp=Z,104nm,0.3s						
KKN	Kakani	14.05	135	eP	P	12 53 37.5	-1.4
	comp=Z,59nm,0.5s						
DMN	Daman	14.09	135	eP	P	12 53 38.1	-1.3
	comp=Z,52nm,0.4s						
PKI	Pulchoki	14.29	135	eP	P	12 53 40.5	-1.5
	comp=Z,57nm,0.4s						
GUN	Gumba	14.30	133	eP	P	12 53 41.1	-1.0
	comp=Z,42nm,0.4s						
BVA0	Borovoye Array	15.01	352	⇑P	P	12 53 54.0	+3.2
	comp=Z,2.9nm,0.8s,baz=156,slow=11,SNR=85						
BVA0				⇓S	S	12 56 41.6	+7.9
	comp=Z,1.2nm,1.3s						
BVA0	Borovoye Array	15.01	352	P	P	12 53 53.7	+2.8
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BVAR	Borovoye Array	15.01	352	P	P	12 53 48.9	-2.0
	comp=Z,4.4nm,0.3s,baz=154,slow=11,SNR=48						
BRVK	Borovoye	15.05	351	ePn	P	12 53 51.1	-0.3
	comp=Z,22nm,0.8s						
CHKZ	Chkalovo	15.63	352	⇓P	P	12 53 59.7	+1.1
	comp=Z,3.4nm,0.6s						
CHKZ				⇑S	S	12 56 52.9	+5.2
	comp=Z,15nm,1.6s						
CHKZ	Chkalovo	15.63	352	P	P	12 53 56.7	-1.9
CHKZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CHKZ	Chkalovo	15.63	352	eP	P	12 53 56.2	-2.4
	comp=Z,5.0nm,0.6s						
ZAL	Zalesovo	17.37	22	P	P	12 54 19.2	-0.9
	comp=Z,8.7nm,0.3s,baz=257,slow=5.5,SNR=55						
ZAL	Zalesovo	17.37	22	P	P	12 54 19.2	-0.9
ZAL				pmax	pmax		
	comp=Z,9.0nm,0.3s						
ZAL	Zalesovo	17.37	22	P	P	12 54 19.2	-1.0
NVS	Novosibirsk	17.76	18	eP	P	12 54 22.6	-2.2
NVS				eS	S	12 57 37.7	+2.1
NVS				pmax	pmax		
	comp=Z,37nm,0.6s						
NVS				pmax	pmax		
	comp=N,38nm,0.7s						
NVS				smax			
	comp=N,37nm,1.9s						
POO	Poona	19.63	180	eP	P	12 54 45.0	-0.1
SHL	Shillong	19.70	125	eP	P	12 54 47.0	+1.2
GTA	Gaotai	20.12	79	⇓P	P	12 54 51.7	+1.6
GTA				AMB	AMB		
	comp=Z,13nm,0.8s						
GTA				AMB	AMB		
	comp=Z,137nm,4.2s						
GTA				LR	LR		
	comp=N,159nm,15.2s						
GTA				LR	LR		
	comp=E,172nm,15.6s						
GTA				LR	LR		
	comp=Z,142nm,15.6s						
KAD	Karad	20.84	180	e	S	12 58 48.5	+11
ARU	Arti	20.92	336	eP	P	12 54 57.5	-0.4
ARU	Arti	20.92	336	eP	P	12 54 57.3	-0.6
	comp=Z,9.2nm,0.8s						
HYB	Hyderabad	21.11	168	eP	P	12 55 02.5	+2.4
	comp=Z,46nm,0.8s,mb4.9						
HYB				eS	S	12 58 45.0	+2.9
HYB	Hyderabad	21.11	168	i P	P	12 55 02.5	+2.4
	comp=Z,46nm,0.8s,mb4.9						
HYB				epP		12 55 34.0	
HYB				eS	S	12 58 45.0	+2.9
IMP	Imphal	21.58	123	⇑iP	P	12 55 07.6	+2.9
GNI	Garni	22.72	284	P	P	12 55 22.6	+6.9
	comp=Z,2.8nm,0.3s,mb4.1,baz=84,slow=9.2,SNR=2.5						
GNI	Garni	22.72	284	P	P	12 55 22.6	+6.9
GNI				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MOY	Mondy	23.19	46	eP	P	12 55 22.9	+2.8
ZAK	Zakamensk	24.05	50	eP	P	12 55 29.9	+1.6
SONM	Songino Array	25.38	57	P	P	12 55 42.7	+1.7
	comp=Z,21nm,1.1s,mb4.6,baz=255,slow=10,SNR=73						
SONM				sP	sP	12 56 29.6	+5.2
	comp=Z,2.8nm,0.8s,baz=256,slow=10,SNR=3.0						
ULN	Ulaanbaatar	25.82	57	eP	P	12 55 45.7	+0.5
	comp=Z,7.0nm,0.8s,mb4.3						
OBN	Obninsk	30.27	316	eP	P	12 56 24.4	-0.7
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
BRTR	Keskin Array B	31.24	286	P	P	12 56 33.7	-0.1
	comp=Z,0.5nm,0.4s,mb3.6,baz=108,slow=4.6,SNR=3.3						
BRTR	Keskin Array B	31.24	286	P	P	12 56 33.7	-0.1
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	33.80	306	P	P	12 56 55.1	-0.5
	comp=Z,1.3nm,0.4s,mb4.0,baz=76,slow=7.4,SNR=6.1						
AKASG	Malin Array Be	33.80	306	P	P	12 56 55.2	-0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
JOF	Joensuu	35.63	328	ep	P	12 57 10.3	-0.8
	comp=Z,2.7nm,0.5s,mb4.1						
JOF	Joensuu	35.63	328	eP	P	12 57 10.3	-0.8
JOF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.2						
MLR	Muntele Rosu	36.08	297	P	P	12 57 16.7	+1.6
	comp=Z,1.4nm,0.5s,mb3.8,baz=5.0,slow=6.0,SNR=3.9						
MLR	Muntele Rosu	36.08	297	P	P	12 57 16.7	+1.6
MLR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	37.44	324	P	P	12 57 26.4	0.0
	comp=Z,2.4nm,0.3s,mb4.2,baz=113,slow=10,SNR=57						
FINES				pP	pP	12 57 59.1	+3.0
	comp=Z,2.5nm,0.7s,baz=98,slow=14,SNR=2.6						
KAF	Kangasniemi	37.53	325	ep	P	12 57 26.6	-0.5
	comp=Z,2.6nm,0.7s,mb4.0,baz=107,slow=8.6						
KAF	Kangasniemi	37.53	325	eP	P	12 57 26.6	-0.5
KAF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
KEV	Kevo	40.12	337	ep	P	12 57 47.6	-0.9
ARCES	ARCESS Array B	40.50	336	P	P	12 57 52.1	+0.5
	comp=Z,5.2nm,0.4s,mb4.5,baz=109,slow=8.1,SNR=56						
ARCES				pP	pP	12 58 24.3	+2.6
	comp=Z,1.4nm,0.5s,baz=109,slow=7.3,SNR=1.5						
HFS	Hagfors	43.22	321	P	P	12 58 13.8	-0.1
	comp=Z,6.5nm,0.4s,mb4.6,baz=98,slow=10,SNR=40						
HFS				pP	pP	12 58 46.6	+2.6
	comp=Z,3.0nm,0.5s,baz=108,slow=14,SNR=2.6						
GERES	GERESS Array B	43.92	304	P	P	12 58 20.6	+1.0
	comp=Z,0.3nm,0.4s,mb3.2,baz=72,slow=8.4,SNR=4.2						
GERES				pP	pP	12 58 54.1	+4.3
	comp=Z,0.8nm,0.6s,baz=45,slow=7.5,SNR=3.6						
NB2	NORSAR Subarra	44.48	322	P	P	12 58 23.5	-0.4
	comp=Z,2.4nm,0.5s,mb4.1,baz=92,slow=7.9						
NOA	NORSAR Array B	44.48	322	P	P	12 58 23.3	-0.5
	comp=Z,2.5nm,0.5s,mb4.1,baz=92,slow=7.7,SNR=9.0						
NOA	NORSAR Array B	44.48	322	P	P	12 58 23.3	-0.6
NOA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
DAVOX	Davos	46.86	302	P	P	12 58 43.0	+0.1
	comp=Z,2.9nm,0.4s,mb4.3,baz=89,slow=9.7,SNR=5.5						
DAVOS	Davos	46.90	302	P	P	12 58 43.0	-0.2
EKA	Eskdalemuir Ar	52.73	316	P	P	12 59 26.6	-0.9
	comp=Z,1.4nm,0.8s,mb3.7,baz=90,slow=5.8,SNR=4.7						
EKA	Eskdalemuir Ar	52.73	316	P	P	12 59 26.6	-0.9
EKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ESDC	Sonseca Array	58.77	298	P	P	13 00 09.7	-1.3
	comp=Z,0.3nm,0.4s,mb3.5,baz=51,slow=7.9,SNR=4.9						
INK	Inuvik	71.80	10	P	P	13 01 33.4	-0.6
	comp=Z,3.5nm,0.4s,mb4.4,baz=353,slow=5.8,SNR=37						
INK	Inuvik	71.80	10	P	P	13 01 33.4	-0.5
INK				pmax	pmax		
	comp=Z,4.0nm,0.4s						
ILAR	Eielson Array	72.44	17	P	P	13 01 37.1	-0.7
	comp=Z,5.5nm,1.2s,mb4.2,baz=322,slow=5.4,SNR=23						
ILAR				pP	pP	13 02 13.2	+2.2
	comp=Z,0.5nm,0.8s,baz=320,slow=5.4,SNR=3.1						
YKA	Yellowknife Ar	79.38	4	P	P	13 02 17.2	+0.5
	comp=Z,2.0nm,0.4s,mb4.1,baz=349,slow=5.6,SNR=71						
YKA				pP	pP	13 02 53.6	+3.2
	comp=Z,0.7nm,0.5s,baz=349,slow=5.4,SNR=3.6						
WRA	Warramunga Arr	80.92	124	P	P	13 02 26.1	+0.3
	comp=Z,0.8nm,0.6s,mb3.5,baz=325,slow=5.4,SNR=9.1						
WRA	Warramunga Arr	80.92	124	P	P	13 02 26.1	+0.3
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	83.32	127	P	P	13 02 39.0	+0.9
	comp=Z,0.2nm,0.6s,mb3.0,baz=288,slow=5.6,SNR=4.8						

*STR **06** 12:56:20.9±0.7, 48.09N×8.08E, h5^{km}±1^{km}, Ml1.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
LDG 06 12:56:21.3±0.4, **48.07N**×**8.00E, h10**^{km}**, Md2.0**/1, **Ml2.2**/2, **Error ellipse: s-maj=7.5km s-min=4.8km az=85.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ECH	Echery	0.58	285	Pg	Pg	12 56 32.6	-0.4
ECH				Sg	Sg	12 56 41.8	+0.9
CDF	Champ du Feu	0.59	305	ePg	Pg	12 56 33.2	0.0
CDF				eP		12 56 33.7	
CDF				eSg	Sg	12 56 40.6	-0.6
	2.8nm,0.2s						
HINF	Hinteralfeld	0.81	252	ePg	Pg	12 56 36.7	-0.9
HINF				eSg	Sg	12 56 47.7	-0.8
	1.8nm,0.2s						
HAU	Haudompre	1.11	267	ePn	Pn	12 56 40.7	-2.1
HAU				ePg	Pg	12 56 42.3	-1.2
HAU				eSg	Sg	12 56 56.1	-2.3
HAU				eSn	Sn	12 56 57.0	-1.3
	5.3nm,0.3s						
RFYF	Reffroy	1.77	289	eSg	Sg	12 57 16.8	-3.6
	5.3nm,0.2s						
CABF	La Chapelle	1.96	222	ePg	Pg	12 56 58.0	-2.4

IDC 06 12:59:40.9±3.6, **31.75S**×**177.87W, mb3.5**/3, **mb1 3.8**/3, **mb1mx3.6**/13, **Error ellipse: s-maj=232.0km s-min=35.5km az=166.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	43.17	268	P	P	13 07 43.5	-1.6
	0.7nm,1.0s,baz=106,slow=7.5,SNR=4.1						
WRA	Warramunga Arr	44.28	273	P	P	13 07 51.9	-2.3
	0.4nm,0.5s,baz=111,slow=8.1,SNR=6.1						
WRA				pP	pP	13 08 01.9	+7.7
	0.3nm,0.4s,baz=111,slow=8.1,SNR=3.2						
TXAR	Lajitas Array	93.02	57	P	P	13 12 55.6	-2.1
	0.1nm,0.8s,baz=249,slow=7.7,SNR=3.6						
FINES	FINESS Array B	146.45	339	PKPbc	PKPbc	13 19 24.4	+1.4
	2.2nm,1.0s,baz=63,slow=6.2,SNR=3.5						
AKASG	Malin Array Be	152.43	321	PKPbc	PKPdf	13 19 38.0	+4.7
	0.4nm,0.4s,baz=37,slow=4.6,SNR=4.1						

*NAO **06** 13:13:28.7±2.6, 60.99N×29.05E, ML2.3*
*BER **06** 13:13:30.3±3.2, 60.94N×28.97E, ML2.3(NAO), Suspected explosion*
HEL 06 13:13:28.6±0.2, **60.94N**×**29.13E, ML1.9, ML2.3**(NAO), **Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VJF	Virojoki	0.87	243	eP	Pg	13 13 44.4	-1.6
VJF				eS	Sg	13 13 55.8	-1.8
FIA0	FINESS Array S	1.56	290	Pn	Pn	13 13 56.0	-1.7
	baz=112,slow=18						
FIA0				Lg		13 14 16.8	
	baz=93,slow=28						
FIA0				Rg		13 14 24.1	
	baz=123,slow=37						
FIA0	FINESS Array S	1.56	290	eP	Pn	13 13 56.0	-1.7
FIA0				eS	Sb	13 14 16.6	-1.7
PVF	Pernaja	1.65	257	eP	Pn	13 13 57.4	-1.6
PVF				eS	Sb	13 14 19.3	-1.7
KAF	Kangasniemi	1.79	312	eP	Pn	13 14 00.2	-0.8
KAF				eS	Sn	13 14 23.1	-1.7
KAF				MSG		13 14 26.9	
	comp=Z,8.0nm,0.2s						
JOF	Joensuu	2.23	27	ePG	Pg	13 14 08.4	-4.8
JOF				eSG	Sg	13 14 37.5	-5.5
JOF				MSG		13 14 37.9	
	comp=Z,4.5nm,0.3s						
SUF	Sumiainen	2.27	323	MSG		13 14 39.9	
	comp=Z,6.2nm,0.3s						
KEF	Keuruu	2.38	303	MSG		13 14 42.5	
	comp=Z,6.5nm,0.3s						
HFS	Hagfors	7.66	271	Pn	Pn	13 15 20.1	-4.0
	baz=76,slow=14						
HFS				Sn	Sn	13 16 42.0	-11
	baz=81,slow=28						
HFS				Lg		13 17 25.1	
	baz=72,slow=37						
HFS	Hagfors	7.66	271	eP	Pn	13 15 20.1	-4.0
HFS				eS	Sn	13 16 42.0	-11
HFS				eSG		13 17 25.1	
ARA0	ARCESS Array S	8.76	352	Pn	P	13 15 35.4	-4.0
	baz=174,slow=14						
ARA0				Sn	Sn	13 17 11.2	-8.9
	baz=164,slow=28						
ARA0				Lg		13 18 00.3	
	baz=158,slow=37						
ARA0	ARCESS Array S	8.76	352	eP	P	13 15 35.4	-4.0
ARA0				eS	Sn	13 17 11.2	-8.9
ARA0				eSG		13 18 00.3	

*LDG **06** 13:50:20.3±0.1, 48.07N×7.94E, h15^{km}, Md2.2/1, Ml2.2/4, Error ellipse: s-maj=2.4km s-min=1.6km az=137.0*
STR 06 13:50:20.6±0.5, **48.05N**×**7.98E, h5**^{km}±1^{km}**, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLS	Welschbruch	0.56	311	Pg	Pg	13 50 31.5	-0.2
ECH	Echery	0.57	287	Pg	Pg	13 50 31.2	-0.9
ECH				Sg	Sg	13 50 39.3	-0.5
CDF	Champ du Feu	0.59	308	ePg	Pg	13 50 31.6	-0.9
CDF				eSg	Sg	13 50 38.9	-1.5
	5.9nm,0.2s						
MOF	Molkenrain	0.60	251	Pg	Pg	13 50 32.6	-0.1
HINF	Hinteralfeld	0.79	253	ePg	Pg	13 50 35.1	-1.4
HINF				eSg	Sg	13 50 45.6	-1.4
	5.4nm,0.3s						
HAU	Haudompre	1.10	268	ePg	Pg	13 50 40.5	-2.0
HAU				eSg	Sg	13 50 54.3	-2.8
	9.3nm,0.3s						
RFYF	Reffroy	1.77	290	eSn	Sn	13 51 09.3	-6.0
RFYF				eSg	Sg	13 51 15.1	-4.4
	4.3nm,0.2s						
MEZF	Maizieres J'vi	2.01	284	ePn	Pn	13 50 51.5	-4.0

*NEIC **06** 14:01:18.6±1.0, 17.51N×146.32E, h113^{km}±10^{km}, Error ellipse: s-maj=24.8km s-min=17.4km az=109.0*
*IDC **06** 14:01:30.9±15.0, 17.46N×146.21E, h231^{km}±148^{km}, mb3.0/10, mb1 3.3/10, mb1mx3.2/21, Error ellipse: s-maj=31.3km s-min=20.5km az=76.0*
ISC 06 14:01:17.6±1.1, **17.5N**±0.1×**146.3E**±0.2, **h116**^{km}±11^{km}, **n13,** σ**0**^{s}**98**/15, **mb3.5**/10, **2C, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SARN	Sarigan	0.95	210	⇑iP	P	14 01 39.2	+0.1
SARN				eS	S	14 01 54.0	-1.2
ANA2	Anatahan	1.29	204	⇑eP	P	14 01 43.4	+0.5
ANAT	Anatahan	1.31	207	eP	P	14 01 43.8	+0.8
ANAT				eS	S	14 02 02.5	+0.3
WRA	Warramunga Arr	39.03	198	P	P	14 08 30.0	-4.7
	0.7nm,1.0s,mb3.5,baz=17,slow=10,SNR=5.8						
FITZ	Fitzroy Crossi	40.81	211	P	P	14 08 49.2	-0.1
	1.6nm,0.9s,mb3.9,baz=21,slow=8.6,SNR=6.5						
ASAR	Alice Springs	42.69	197	P	P	14 09 04.7	0.0
	0.2nm,0.5s,mb3.1,baz=21,slow=6.6,SNR=6.5						
SONM	Songino Array	44.39	322	P	P	14 09 20.0	+1.8
	0.4nm,0.7s,mb3.3,baz=76,slow=5.9,SNR=2.8						
CMAR	Chiang Mai Arr	44.92	279	P	P	14 09 22.4	-0.4
	0.7nm,0.6s,mb3.6,baz=71,slow=6.4,SNR=6.8						
ILAR	Eielson Array	64.45	26	P	P	14 11 42.4	-1.2
	0.5nm,0.9s,mb3.4,baz=249,slow=5.9,SNR=10						
BVAR	Borovoye Array	67.72	321	P	P	14 12 02.3	-2.2
	0.4nm,0.4s,mb3.6,baz=112,slow=7.8,SNR=3.2						
YKA	Yellowknife Ar	78.77	28	P	P	14 13 08.1	-0.5
	0.2nm,0.4s,mb3.3,baz=290,slow=5.4,SNR=6.5						
NVAR	Mina Array Bea	83.44	52	P	P	14 13 34.3	+0.8
	0.2nm,0.4s,mb3.3,baz=266,slow=7.2,SNR=4.3						
FINES	FINESS Array B	88.17	335	P	P	14 13 57.3	+1.1
	0.3nm,0.4s,mb3.7,baz=76,slow=7.9,SNR=3.4						

*ATH **06** 14:14:30.8, 39.18N×20.60E, h5^{km}±3^{km}, MD3.5/7*
*THE **06** 14:14:32.2, 39.18N×20.53E, h4^{km}, ML3.4*
*CSEM **06** 14:14:32.1±0.1, 39.18N×20.48E, h20^{km}, ML3.4, Error ellipse: s-maj=3.0km s-min=2.1km az=71.0*
ISC 06 14:14:31.1±0.6, **39.18N**±0.03×**20.49E**±0.05, **h9**^{km}±5^{km}, **n25,** σ**0**^{s}**96**/35, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.37	341	ePg	Pg	14 14 39.1	+0.3
IGT				eSg	Sg	14 14 45.3	+1.5
LKD	Levkas	0.49	165	ePg	Pg	14 14 40.7	-0.3
LKD				eSg	Sg	14 14 49.4	+1.7
JAN	Janina	0.55	30	ePG	Pg	14 14 40.6	-1.7
KEK	Kerkira	0.75	315	ePB	Pb	14 14 46.4	+0.4
SRN	Sarande	0.79	332	i Pg	Pg	14 14 47.2	+0.1
SRN				i Sg	Sg	14 15 01.3	+3.6
MEV	Metsovon	0.83	43	ePg	Pg	14 14 46.3	-1.5
MEV				eSg	Sg	14 14 59.7	+0.8
VLS	Valsamata	1.00	176	ePB	Pb	14 14 50.0	-0.3
EVR	Evrytania	1.06	104	ePB	Pb	14 14 49.5	-1.7
AGG	Agios Georgios	1.44	96	ePb	Pb	14 14 57.1	-0.6
AGG				eSb	Sb	14 15 16.9	+0.8
KZN	Kozani	1.50	41	ePG	Pg	14 14 57.5	-3.5
FNA	Florina	1.74	23	ePb	Pb	14 15 02.7	-0.1
FNA				eSb	Sb	14 15 25.4	+0.7
LIT	Litokhoron	1.80	59	ePb	Pb	14 15 02.5	-1.3
LIT				eSb	Sb	14 15 26.9	+0.5
BIA	Bitola	1.94	19	i Sg	Sg	14 15 35.7	-0.2
XOR	Xorichti	2.10	84	ePn	Pn	14 15 07.9	+0.9
XOR				eSn	Sn	14 15 34.5	+1.0
NEO	Neokhori	2.13	86	ePN	Pn	14 15 08.2	+0.9
GRG	Griva	2.30	39	ePn	Pn	14 15 10.3	+0.5
PLG	Polygyros	2.57	61	ePN	Pn	14 15 13.5	-0.2
PAIG	Paliouri	2.58	72	ePn	Pn	14 15 13.1	-0.6
AOS	Alonnisos	2.63	89	ePn	Pn	14 15 14.2	-0.4
KNT	Kendrikon	2.71	42	ePn	Pn	14 15 15.5	-0.1

SOH	Sokhos	2.74	52	ePn	Pn	14 15 16.4	+0.3
SKO	Skopje	2.88	14	ePn	Pn	14 15 18.5	+0.4
OUR	Ouranopolis	2.93	66	ePn	Pn	14 15 18.6	-0.2
STON	Ston	4.25	331	iPn	Pn	14 15 35.6	-2.0
STON				iSn	Sn	14 16 23.2	-4.6
STON	Ston	4.25	331	iPn	Pn	14 15 35.5	-2.0
STON				iSn	Sn	14 16 23.2	-4.7

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*NIED **06** 14:15:00,42.80N×145.40E,h44^{km},Mw6.7 Best double couple: $M_0$1.41×10^{19} NP1:ϕ_s41°,δ64°,λ90°. NP2:ϕ_s222°,δ26°,λ90°.*

*BJI **06** 14:15:10.1,42.98N×145.18E,h32^{km},mB7.1,mb6.7,Ms6.8,Msz6.7*

*NIC **06** 14:15:11.0±0.9,42.98N×145.19E,h40^{km},Earthquake Hokkaido , Japan , Region 20 km S Hamanaka.*

*MOS **06** 14:15:11.9±0.8,43.11N×145.21E,h41^{km},mb6.6/88,MS7.0/43,Error ellipse: s-maj=6.9km s-min=4.2km az=99.2 Broadband fault plane solution: P waves. $M_0$4.1×10^{19} NP1:ϕ_s237°,δ36°,λ121°. NP2:ϕ_s20°,δ60°,λ69°. Principal axes: T Plg68°, Azm248°; N Plg18°, Azm31°; P Plg12°, Azm125°;*

MOS Fault plane solution: P-wave C269, D13 . Felt (IV) at Yuzhno-Kuril'sk; (III) at Malokurilskoe; (II-III) at Kuril'sk.

*BGS **06** 14:15:11.7,42.95N×145.66E,h33^{km},mb6.7*

*JMA **06** 14:15:11.8±0.1,42.85N×145.34E,h46^{km}±1^{km},M6.9 Broadband fault plane solution: P waves. NP1:ϕ_s207°,δ16°,λ81°. NP2:ϕ_s36°,δ74°,λ93°. Principal axes: T Plg61°, Azm310°; N Plg3°, Azm215°; P Plg29°, Azm124°;*

*SYO **06** 14:15:11.9,42.91N×145.20E,h35^{km},MB6.4,MS6.5*

*HRVD **06** 14:15:11.9±0.1,42.82N×145.41E,h36^{km},MW6.7/61, Centroid moment Tensor Solution. LP body waves: s61,c165;Mantle waves: s56,c126; Half duration: 5^{s}5 Moment tensor: Scale 10^{19}Nm; M_{rr}0.94±.01; $M_{\theta\theta}$-0.49±.01; $M_{\phi\phi}$-0.44±.01; $M_{r\theta}$0.49±.02; $M_{\theta\phi}$-0.64±.01; $M_{\phi r}$1.12±.02; Best double couple: $M_0$1.6×10^{19} NP1:ϕ_s246°,δ24°,λ125°. NP2:ϕ_s29°,δ71°,λ76°. Principal axes: T 1.57, Plg62°, Azm277°; N .06, Plg13°, Azm33°; P -1.63, Plg25°, Azm129°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to mantle waves, cutoff=125s.*

*SKHL **06** 14:15:11.9±0.8,42.96N×145.47E,h52^{km}±13^{km},mb7.2/10,mbh7.0/8,Ms6.6/4,msh6.8/5*

SKHL Felt (IV) at Yushno-Kurilsk, (III) at Malokurilskoe, (II-III) at Kurilsk.

*NEIC **06** 14:15:11.9±0.1,42.90N×145.23E,h35^{km},mb6.5/224,ME6.8,MS6.5/129,MW6.8,MW7.0(MOS),MW6.7(NIED), Error ellipse: s-maj=2.8km s-min=1.9km az=170.0 Broadband fault plane solution: P waves. NP1:ϕ_s35°,δ70°,λ80°. NP2:ϕ_s242°,δ22°,λ116°. Principal axes: T Plg64°, Azm289°; N Plg0°, Azm0°; P Plg24°, Azm133°; Moment Tensor Solution. s68 Moment tensor: Scale 10^{19} Nm; M_{rr}1.03; $M_{\theta\theta}$-0.46; $M_{\phi\phi}$-0.57; $M_{r\theta}$0.21; $M_{\theta\phi}$-0.69; $M_{\phi r}$0.95; Best double couple: $M_0$1.5×10^{19} NP1:ϕ_s23°,δ66°,λ71°. NP2:ϕ_s243°,δ30°,λ126°. Principal axes: T 1.48, Plg64°, Azm262°; N .02, Plg17°, Azm31°; P -1.5, Plg19°, Azm127°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC At least 4 people injured and power outages occurred in the Kushiro area. Felt at Obihiro. Also felt at Misawa and Sendai, Honshu. Felt [IV] at Yuzhno-Kuril'sk, Kunashir and [III] on Shikotan and at Kuril'sk, Iturup. Recorded [5U JMA] in the Kushiro area; [5L JMA] in the Obihiro area and in eastern Hokkaido; [4 JMA] in the Chitose-Tomakomai area and in south-central Hokkaido; [3 JMA] in southwestern and central Hokkaido; [2 JMA] in the Shibetsu area; [1 JMA] in northern Hokkaido. Also recorded [3 JMA] in Aomori and Miyagi; [2 JMA] in Akita, Iwate and Yamagata; [1 JMA] in Fukushima, Ibaraki, Niigata and Shizuoka Prefectures, Honshu.

*IDC **06** 14:15:16.2±1.6,42.88N×145.30E,h73^{km}±14^{km},mb5.7/24,mb1 5.9/27,mb1mx5.8/28,MS6.4/29,Ms1 6.4/29,ms1mx6.3/35 Error ellipse: s-maj=11.1km s-min=8.3km az=121.0*

ISC 06 14:15:10.2±0.1**,42.77N**±0.01×**145.25E**±0.02**,h36**^{km}**,h36**^{km}±1.1^{km}**:pP-P,n1639,**σ**0**^{s}**91**/1593**,mb6.5**/323**,MS6.6**/191**,674C-62D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAK	Akkeshi	0.46	299	⇓P	P	14 15 22.7	+2.4
JAK				eS	S	14 15 31.0	+3.6
NEM2	Nemuro 2	0.69	31	⇓P	P	14 15 23.9	+0.4
NEM2				S	S	14 15 32.7	-0.5
JNK	Nakash	0.90	335	⇓P	P	14 15 27.5	+1.1
JNK				eS	S	14 15 38.8	+0.4
JOB	Onbets	1.05	278	⇓P	P	14 15 30.9	+2.4
JRA	Rausu	1.17	356	⇓P	P	14 15 31.0	+0.8
JRA				eS	S	14 15 45.6	+0.4
JAR	Ashorobuto	1.20	296	⇓P	P	14 15 32.8	+2.1
JAR				eS	S	14 15 48.6	+2.4
YUK	Yuzh-Kuril'sk	1.34	19	⇓iP	P	14 15 31.5	-1.3
YUK				iS	S	14 15 47.0	-2.6
JCH	Churui	1.40	264	⇓P	P	14 15 35.6	+2.0
JCH				eS	S	14 15 54.3	+3.2
JTKR	Abashiri--Toko	1.54	321	⇓P	P	14 15 37.6	+1.9
JTKR				eS	S	14 15 57.3	+2.6
JFR	Furan	1.99	282	⇓P	P	14 15 44.0	+2.0
JKK2	Kamakawa 2	2.13	302	⇓P	P	14 15 46.6	+2.6
JAB	Ashibetsu	2.33	289	⇓P	P	14 15 50.2	+3.3
ASAJ	Asahikawa	2.35	306	P	P	14 15 50.7	+3.5
	5µm,0.3s,baz=132,slow=8.4,SNR=6227						
ASAJ				S	S	14 16 20.6	+5.4
	7µm,0.3s,baz=3.8,slow=25,SNR=13						
ASAJ				LR	LR	14 17 03.4	
	comp=Z,2979µm,20.8s,baz=71,slow=46						
ASAJ	Asahikawa	2.35	306	⇓P	P	14 15 50.0	+2.8
KUR	Kuril'sk	3.10	37	α iPN	P	14 15 55.5	-2.4
KUR				eS	S	14 16 32.0	-2.2
KUR				pmax	pmax		
	comp=N,2µm,0.6s						
KUR				pmax	pmax		
	comp=E,1µm,0.6s						
KUR				pmax	pmax		
	comp=Z,5µm,0.6s						
KUR				pmax	pmax		
	comp=N,45µm,2.5s						
KUR				pmax	pmax		
	comp=E,45µm,2.5s						
KUR				pmax	pmax		
	comp=Z,105µm,2.5s						
KUR				smax			
	comp=N,525µm,3.0s						
KUR				smax			
	comp=E,550µm,3.0s						
KUR	Kuril'sk	3.10	37	⇑iP	P	14 15 55.5	-2.4
KUR				⇑iP		14 15 55.5	
KUR				AMB	AMB	14 15 58.0	
	comp=E,50µm,3.0s						
KUR				AMB	AMB	14 15 58.0	
	comp=E,2µm,0.6s						
KUR				AMB	AMB	14 15 58.0	
	comp=E,1µm,0.6s						
KUR				AMB	AMB	14 15 58.0	
	comp=E,5µm,0.6s						
KUR				AMB	AMB	14 15 58.0	
	comp=E,45µm,3.0s						
KUR				AMB	AMB	14 15 58.0	
	comp=E,50µm,3.0s						
KUR				AMB	AMB	14 16 00.0	
	comp=E,82µm,3.0s						
KUR				AMB	AMB	14 16 00.0	
	comp=E,95µm,3.0s						
KUR				AMB	AMB	14 16 00.0	
	comp=E,105µm,3.0s						
KUR				eS	S	14 16 32.0	-2.2
KUR				A		14 16 48.0	
	comp=E,525µm,3.0s						
KUR				A		14 16 48.0	
	comp=E,550µm,3.0s						
JOT	Ohata	3.42	247	P	P	14 16 04.8	+2.4
JSR	Shiriuchi	3.80	253	⇑P	P	14 16 10.0	+2.2
JTH	Tanohata	3.81	223	⇑P	P	14 16 08.1	+0.2
JKZ	Kuzumaki	4.06	228	P	P	14 16 12.4	+0.9
MIYJ	Miyakonagasawa	4.11	220	P	P	14 16 12.6	+0.4
YSS	Yuzh-Sakhalins	4.54	338	κ iPN	P	14 16 18.0	-0.3
YSS				eS	S	14 17 07.6	-3.0
YSS				pmax	pmax		
	comp=E,2µm,1.0s						
YSS				pmax	pmax		
	comp=Z,3µm,1.0s						
YSS				pmax	pmax		
	comp=Z,146µm,8.0s						
YSS				pmax	pmax		
	comp=N,156µm,9.0s						
YSS				pmax	pmax		
	comp=E,63µm,9.0s						
YSS				MLR	MLR		
	comp=E,616µm,16.0s						
YSS				MLR	MLR		
	comp=Z,1098µm,16.0s						
YSS				MLR	MLR		
	comp=N,1046µm,15.0s						
YSS	Yuzh-Sakhalins	4.54	338	⇑iPn	P	14 16 18.5	+0.2
YSS	Yuzh-Sakhalins	4.54	338	⇓iP	P	14 16 18.0	-0.3
YSS				⇓iP		14 16 18.0	
YSS				⇓iP		14 16 18.0	
YSS				AMB	AMB	14 16 21.0	
	comp=N,2µm,1.0s						
YSS				AMB	AMB	14 16 21.0	
	comp=N,3µm,1.0s						
YSS				AMB	AMB	14 16 28.0	
	comp=N,46µm,8.0s						
YSS				AMB	AMB	14 16 28.0	
	comp=N,98µm,9.0s						
YSS				AMB	AMB	14 16 29.0	
	comp=N,49µm,6.0s						
YSS				AMB	AMB	14 16 29.0	
	comp=N,92µm,9.0s						
YSS				AMB	AMB	14 16 29.0	
	comp=N,108µm,9.0s						
YSS				AMB	AMB	14 16 30.0	
	comp=N,119µm,9.0s						
YSS				eS	S	14 17 09.5	-1.1
YSS				AMS	AMS	14 18 20.0	
	comp=N,1047µm,15.0s						
YSS				AMS	AMS	14 18 20.0	
	comp=N,616µm,16.0s						
YSS				AMS	AMS	14 18 20.0	
	comp=N,1098µm,16.0s						
JOU	Okura	5.62	220	P	P	14 16 33.4	-0.1
JMM	Marumori	5.97	216	P	P	14 16 37.0	-1.4
JAW	Awa shima	6.28	229	P	P	14 16 44.1	+1.3
JFK	Kawauchi	6.36	213	P	P	14 16 42.4	-1.5
ONAJ	Iwakimizuishiy	6.62	213	⇑P	P	14 16 45.8	-1.7
TEY	Ternei	6.64	293	⇑iP	P	14 16 45.0	-2.9
TEY				AMB	AMB	14 16 49.0	
	comp=N,15µm,5.0s						
TEY				AMB	AMB	14 16 49.0	
	comp=N,36µm,5.0s						
TEY				AMB	AMB	14 16 49.0	
	comp=N,44µm,7.0s						
TEY				iS	S	14 18 02.0	-1.2
UGL	Uglegorsk	6.68	342	κ iPN	P	14 16 45.0	-3.5
UGL				S	S	14 18 06.5	+2.2
UGL				pmax	pmax		
	comp=N,53µm,5.0s						
UGL				pmax	pmax		
	comp=E,18µm,5.0s						
UGL				pmax	pmax		
	comp=Z,71µm,5.0s						
UGL				pmax	pmax		
	comp=N,890nm,0.8s						
UGL				pmax	pmax		
	comp=E,2µm,0.8s						
UGL				pmax	pmax		
	comp=Z,3µm,0.8s						
UGL				smax			
	comp=N,1µm,1.4s						
UGL				smax			
	comp=E,9µm,1.4s						
UGL				smax			
	comp=Z,4µm,1.4s						
UGL	Uglegorsk	6.68	342	⇓iP	P	14 16 45.0	-3.5
UGL				⇓iP		14 16 46.0	
UGL				AMB	AMB	14 16 52.0	
	comp=Z,53µm,5.0s						
UGL				AMB	AMB	14 16 52.0	
	comp=Z,18µm,5.0s						
UGL				AMB	AMB	14 16 52.0	
	comp=Z,71µm,5.0s						
UGL				AMB	AMB	14 16 53.0	
	comp=Z,1µm,0.7s						
UGL				AMB	AMB	14 16 53.0	
	comp=Z,3µm,0.8s						
UGL				AMB	AMB	14 16 53.0	
	comp=Z,5µm,0.8s						
UGL				AMB	AMB	14 16 53.5	
	comp=Z,890nm,0.8s						
UGL				AMB	AMB	14 16 53.5	
	comp=Z,2µm,0.8s						
UGL				AMB	AMB	14 16 53.5	
	comp=Z,3µm,0.8s						
UGL				eS	S	14 17 56.5	-7.8
UGL				A		14 18 14.0	
	comp=Z,27µm,1.7s						
UGL				A		14 18 14.0	
	comp=Z,6µm,1.4s						
UGL				A		14 18 14.0	
	comp=Z,21µm,1.5s						
UGL				A		14 18 14.5	
	comp=Z,13µm,1.4s						
UGL				A		14 18 14.5	
	comp=Z,9µm,1.4s						
UGL				A		14 18 14.5	
	comp=Z,4µm,1.4s						
JNS	Sasagawa	6.71	224	P	P	14 16 49.2	+0.4
JSB	Shiboa	7.10	217	P	P	14 16 54.3	0.0
JSD	Sado	7.13	231	P	P	14 16 55.1	+0.4
JHO	Hitachi	7.13	212	P	P	14 16 52.3	-2.5
JIZZ	Izumozaki	7.24	226	P	P	14 16 57.8	+1.5
JHK	Hiroka	7.30	223	P	P	14 16 57.2	+0.1
JKT	Katashina	7.57	220	P	P	14 17 01.2	+0.4
JAG	Ashikaga	7.76	217	P	P	14 17 02.6	-0.8
JJN	Nakama	7.85	226	P	P	14 17 05.2	+0.5
JGK	Kuni	8.03	222	P	P	14 17 09.7	+2.5
JHG	Hegura jima	8.04	235	P	P	14 17 08.2	+0.8
JSZ	Suzu	8.05	231	P	P	14 17 08.2	+0.8
MAJO	Matsushiro	8.26	223	Pn	P	14 17 10.5	+0.1
MAJO	Matsushiro	8.26	223	⇑iP	P	14 17 10.2	-0.1
	comp=Z,1µm,0.9s						
MAT	Matsushiro	8.26	223	P	P	14 17 10.0	-0.4
MAT				S	S	14 18 39.7	-3.7
MAT	Matsushiro	8.26	223	eP	P	14 17 10.0	-0.4
	comp=Z,920nm,1.0s						
MAT				eS	S	14 18 40.0	-3.4
TOK	Tokyo	8.26	213	P	P	14 17 06.8	-3.6
TYV	Tymovskoe	8.29	349	eP	P	14 17 06.0	-4.8
TYV				AMB	AMB	14 17 13.9	
	comp=Z,1725µm,1.0s						
TYV				AMB	AMB	14 17 41.0	
	comp=Z,20µm,5.0s						
TYV				AMB	AMB	14 17 41.0	
	comp=Z,43µm,6.0s						
TYV				AMB	AMB	14 17 41.0	
	comp=Z,72µm,7.0s						
JRY	Ryogami san	8.34	218	P	P	14 17 10.1	-1.5
JNG	Nsakai	8.42	223	P	P	14 17 12.5	-0.1
BSO4	Boso 4	8.66	208	P	P	14 17 15.7	-0.3
JTT	Ttatey	8.67	227	P	P	14 17 16.6	+0.5
JJH	Hakui	8.74	231	P	P	14 17 17.7	+0.6
BSO1	Boso 1	8.77	204	P	P	14 17 15.3	-2.1
BSO3	Boso 3	8.78	206	P	P	14 17 15.9	-1.7
JNT	Takato	8.82	221	P	P	14 17 22.0	+3.9
JOD2	Odawara 2	8.90	215	P	P	14 17 17.6	-1.7
JYN	Shimob	8.94	218	P	P	14 17 19.6	-0.2
JGN	Niukaw	8.96	226	P	P	14 17 20.6	+0.5
JIM2	Oshima 3	9.23	211	P	P	14 17 20.0	-3.9
JNY	Yasuok	9.37	220	P	P	14 17 24.5	-1.2
JGF	Kuroka	9.42	223	P	P	14 17 26.0	-0.5
SHZ3	Shizuoka 3	9.45	218	P	P	14 17 25.8	-1.0
JIZS	Izushimoda	9.45	214	P	P	14 17 24.7	-2.3
JKG	Kaga	9.46	230	P	P	14 17 27.3	+0.3
JGM	Miyama	9.67	226	P	P	14 17 30.0	0.0
JYZW	Yoshizawa	9.72	219	P	P	14 17 32.2	+1.6
JAO	Obara	9.73	222	P	P	14 17 30.1	-0.7
JSG	Sagara	9.79	217	P	P	14 17 30.5	-1.0
VLA	Vladivostok	9.80	277	⇓iPN	P	14 17 34.0	+2.3
JKO	Kozu shima	9.82	211	P	P	14 17 31.5	-0.4
HMMJ	Hamamatsu 2	9.84	219	P	P	14 17 31.4	-0.9
GRNR	Gornyy	10.02	326	⇓iP	P	14 17 35.2	+0.5
GRNR				AMB	AMB	14 17 37.0	
	comp=Z,500nm,1.0s						
GRNR				AMB	AMB	14 17 37.0	
	comp=Z,840nm,1.0s						
GRNR				AMB	AMB	14 17 37.0	
	comp=Z,550nm,1.0s						
TK04	Tokai 4	10.17	217	P	P	14 17 36.7	0.0
JFM	Mihama	10.20	228	P	P	14 17 37.6	+0.4
JAA	Atsumi	10.30	221	P	P	14 17 37.3	-1.3
TK03	Tokai 3	10.31	216	P	P	14 17 39.1	+0.4
JHJ2	Mitsune	10.55	206	P	P	14 17 39.5	-2.5
JHJ	Hachijo jima 2	10.56	206	P	P	14 17 39.5	-2.6
	comp=Z,144nm,0.3s,baz=208,slow=23,SNR=18						
JHJ				S	S	14 19 31.1	-9.1
	comp=Z,793nm,0.3s,baz=64,slow=19,SNR=10						
JHJ				LR	LR	14 22 45.9	
	comp=Z,129µm,19.2s,baz=38,slow=42						
TK02	Tokai 2	10.59	216	P	P	14 17 41.2	-1.3
JKY	Yasaka	10.62	231	P	P	14 17 43.0	+0.1
JWT	Wachi	10.70	229	P	P	14 17 44.3	+0.3
JIE	Ise	10.70	221	P	P	14 17 42.6	-1.5
TK01	Tokai 1	10.82	216	P	P	14 17 43.6	-2.0
NKL	Nikolayevsk	10.82	345	⇓iP	P	14 17 41.0	-4.6
NKL				AMB	AMB	14 17 44.4	
	comp=Z,910nm,1.3s						
NKL				AMB	AMB	14 17 44.4	
	comp=Z,900nm,1.3s						
NKL				AMB	AMB	14 17 44.4	
	comp=Z,2µm,1.3s						
NKL				AMB	AMB	14 17 47.0	
	comp=Z,25µm,6.0s						
NKL				AMB	AMB	14 17 47.0	
	comp=Z,11µm,6.0s						
NKL				AMB	AMB	14 17 47.0	
	comp=Z,26µm,6.0s						
NKL				eS	S	14 19 43.0	-3.6
NKL				A		14 19 49.0	
	comp=Z,40µm,14.0s						
NKL				A		14 19 49.0	
	comp=Z,17µm,5.0s						
NKL				AMS	AMS	14 21 41.0	
	comp=Z,340µm,24.0s						
NKL				AMS	AMS	14 21 41.0	
	comp=Z,390µm,24.0s						
SKR	Severo-Kuril's	10.87	40	eP	P	14 17 41.4	-4.8
SKR				AMB	AMB	14 17 49.0	
	comp=Z,14µm,2.0s						
SKR				AMB	AMB	14 17 49.0	
	comp=Z,20µm,6.0s						
SKR				AMB	AMB	14 17 49.0	
	comp=Z,14µm,6.0s						
SKR				AMB	AMB	14 17 49.0	
	comp=Z,20µm,6.0s						
SKR				AMB	AMB	14 17 49.0	
	comp=Z,15µm,6.0s						
SKR				AMB	AMB	14 17 49.5	
	comp=Z,580nm,0.8s						
SKR				AMB	AMB	14 17 49.5	
	comp=Z,530nm,0.8s						
SKR				AMB	AMB	14 17 49.5	
	comp=Z,1µm,0.8s						
SKR				A		14 19 54.0	
	comp=Z,32µm,8.0s						
SKR				A		14 19 54.0	
	comp=Z,32µm,8.0s						
SKR				A		14 19 54.0	
	comp=Z,36µm,12.0s						
SKR				A		14 19 54.0	
	comp=Z,29µm,12.0s						
SKR				A		14 19 54.0	
	comp=Z,36µm,12.0s						
SKR				A		14 19 54.0	
	comp=Z,30µm,12.0s						
SKR				A		14 20 03.7	
	comp=Z,680nm,0.5s						
SKR				A		14 20 03.7	
	comp=Z,460nm,0.5s						
SKR				A		14 20 03.7	
	comp=Z,220nm,0.7s						
SKR				AMS	AMS	14 21 22.0	
	comp=Z,454µm,26.0s						
SKR				AMS	AMS	14 21 22.0	
	comp=Z,456µm,26.0s						
SKR				AMS	AMS	14 21 22.0	
	comp=Z,264µm,20.0s						
SKR				AMS	AMS	14 21 22.0	
	comp=Z,380µm,20.0s						
SKR				AMS	AMS	14 21 22.0	
	comp=Z,244µm,20.0s						
SKR				AMS	AMS	14 21 22.0	
	comp=Z,326µm,20.0s						
SKR				AMS	AMS	14 23 00.0	
	comp=Z,112µm,14.0s						
SKR				AMS	AMS	14 23 00.0	
	comp=Z,134µm,16.0s						
SKR				AMS	AMS	14 23 00.0	
	comp=Z,221µm,16.0s						
SKR				AMS	AMS	14 23 00.0	
	comp=Z,120µm,14.0s						
SKR				AMS	AMS	14 23 00.0	
	comp=Z,136µm,16.0s						
SKR				AMS	AMS	14 23 00.0	
	comp=Z,207µm,16.0s						
OKH	Okha	10.89	353	iPN	P	14 17 44.0	-2.6
OKH				iS	S	14 19 51.8	+3.5
OKH				pmax	pmax		
	comp=E,18µm,5.0s						
OKH				pmax	pmax		
	comp=Z,34µm,5.0s						
OKH				pmax	pmax		
	comp=N,28µm,6.0s						
OKH				smax			
	comp=E,82µm,11.0s						
OKH				smax			
	comp=N,103µm,18.0s						
OKH	Okha	10.89	353	⇓iP	P	14 17 44.0	-2.6
OKH				AMB	AMB	14 17 44.6	
	comp=N,18µm,5.0s						
OKH				AMB	AMB	14 17 44.6	
	comp=N,34µm,5.0s						
OKH				AMB	AMB	14 17 44.6	
	comp=N,28µm,6.0s						
OKH				AMB	AMB	14 17 47.0	
	comp=N,2µm,1.0s						
OKH				A		14 19 58.0	
	comp=N,103µm,18.0s						
OKH				A		14 19 58.0	
	comp=N,82µm,11.0s						
OKH				AMS	AMS	14 22 41.0	
	comp=N,141µm,14.0s						
OKH				AMS	AMS	14 22 41.0	
	comp=N,608µm,16.0s						
OKH				AMS	AMS	14 22 41.0	
	comp=N,410µm,16.0s						
JKSM	Kasumi	10.90	232	P	P	14 17 47.1	+0.3
JHE	Heguri	11.02	226	P	P	14 17 46.7	-1.7
JKS	Kasai	11.23	230	P	P	14 17 50.9	-0.3
JMIK	Miki	11.24	228	P	P	14 17 50.9	-0.5
KLR	Kul'dur	11.38	309	⇓iP	P	14 17 51.1	-2.2
KLR				⇓iP		14 17 51.5	
KLR				AMB	AMB	14 17 54.0	
	comp=N,30µm,10.0s						
MDJ	Mudanjiang	11.49	285	P	P	14 17 55.3	+0.6
MDJ				S	S	14 20 02.9	+0.2
MDJ				PCP	PcP	14 23 42.9	-2.0
MDJ				SCP		14 27 16.3	
MDJ				SCS	ScS	14 30 48.4	+0.7
MDJ				AMB	AMB		
	comp=Z,3µm,1.1s						
MDJ				LR	LR		
	comp=N,265µm,21.4s						
MDJ				LR	LR		
	comp=E,297µm,25.2s						
MDJ				LR	LR		
	comp=Z,394µm,21.4s						
MDJ	Mudanjiang	11.49	285	⇑ePn	P	14 17 55.6	+1.0
	comp=Z,3µm,1.1s						
JKR	Kurayoshi	11.54	234	P	P	14 17 55.9	+0.4
JAJ2	Tsuna	11.62	228	P	P	14 17 55.0	-1.6
JAD	Aida	11.64	231	P	P	14 17 56.5	-0.3
JNM	Ikuma	11.94	237	P	P	14 18 01.4	+0.6
JJS	Sakaide	12.19	230	P	P	14 18 02.7	-1.4
JAI	Aioi	12.33	227	P	P	14 18 04.0	-2.1
JJG	Jouge	12.45	233	P	P	14 18 07.0	-0.6
JGT	Gotsu	12.68	237	P	P	14 18 10.6	-0.1
JMN	Monobe	12.69	228	P	P	14 18 09.0	-1.9

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MRT2  Murotomisaki 2    12.81 227  P      P      14 18 09.8 -2.7
JHT   Toyohira          12.87 235  P      P      14 18 13.3  0.0
JET   Tanbara           13.12 231  P      P      14 18 15.1 -1.5
JHM   Kurahashi         13.16 233  P      P      14 18 16.1 -1.1
EKMR  Ekimchan          13.18 326 eP      P      14 18 14.0 -3.2
JHIK  Hikimi            13.26 236  P      P      14 18 18.4  0.0
JKU   Kubokawa          13.46 229  P      P      14 18 19.4 -1.6
JNA   Nagahama          13.61 232  P      P      14 18 21.3 -1.7
JKD   Kudamatsu         13.62 235  P      P      14 18 22.5 -0.5
PET   Petropavlovsk     13.62  37⇓ePN     P      14 18 19.9 -3.0
PET                                pmax   pmax
      comp=Z,245nm,0.8s
PET                                pmax   pmax
      comp=Z,25µm,6.0s
PET                                pmax   pmax
      comp=N,22µm,5.7s
PET                                pmax   pmax
      comp=Z,21µm,12.6s
PET                                pmax   pmax
      comp=N,16µm,12.5s
PET                                MLR    MLR
      comp=Z,272µm,18.0s
PET                                MLR    MLR
      comp=Z,223µm,17.0s
PET   Petropavlovsk     13.62  37 eP      P      14 18 19.0 -3.9
      comp=Z,28nm,0.6s
UWA2  Uwa jima 2        13.78 230  P      P      14 18 23.8 -1.3
JTY   Toyota            13.97 237  P      P      14 18 28.1 +0.4
JKI   Kunimi            14.09 234  P      P      14 18 28.7 -0.6
KS15  Wonju Array Si    14.31 254⇑iP      P      14 18 31.9 -0.2
JUS   Usuki             14.38 232  P      P      14 18 32.0 -1.1
OIT2  Oita 2            14.41 233  P      P      14 18 32.8 -0.6
CN2   Changchun         14.46 281 ⇑P      P      14 18 33.4 -0.7
CN2                               eAP            14 18 41.0
CN2                               eS      S      14 21 12.4 -1.6
CN2                                AMB    AMB
      comp=Z,1µm,1.1s
CN2                                AMB    AMB
      comp=Z,28µm,6.0s
CN2                                LR     LR
      comp=N,292µm,18.0s
CN2                                LR     LR
      comp=E,392µm,18.0s
CN2                                LR     LR
      comp=Z,477µm,19.0s
JFA   Akaike            14.50 236  P      P      14 18 34.0 -0.7
JTU   Tsushima          14.86 242  P      P      14 18 38.5 -0.8
JNU   Nakatsue          14.86 234  P      P      14 18 38.4 -0.9
JKIT  Kitakata          14.88 232  P      P      14 18 38.8 -0.8
JFI   Itaya             14.95 236  P      P      14 18 40.2 -0.3
JII   Iki               15.11 239  P      P      14 18 42.2 -0.4
JTSN  Tsuno             15.12 230  P      P      14 18 41.4 -1.4
JTA   Tamana            15.18 235  P      P      14 18 42.8 -0.7
INCN  Inchon            15.18 256⇑iP      P      14 18 43.1 -0.4
      comp=Z,1µm,1.1s
JIU2  Izumi 2           15.30 233  P      P      14 18 43.9 -1.2
JUR   Ureshino          15.44 236  P      P      14 18 46.5 -0.4
YASR  Yasnyy            15.58 318⇑iP      P      14 18 46.5 -2.0
YASR                               AMB    AMB    14 18 58.6
      comp=Z,360nm,1.1s
YASR                               AMB    AMB    14 18 58.6
      comp=Z,930nm,1.1s
YASR                               AMB    AMB    14 18 58.6
      comp=Z,2µm,1.1s
JTZ   Takazaki          15.62 231  P      P      14 18 48.6 -0.6
JZO   Okuchi            15.72 232  P      P      14 18 49.4 -1.1
JHD   Hondo             15.76 234  P      P      14 18 50.4 -0.6
JNAR  Kushima--Naru     15.79 229  P      P      14 18 50.7 -0.7
CBIJ  Chichi jima       15.84 190  P      P      14 18 51.5 -0.6
      comp=Z,46nm,0.3s,baz=36,slow=15,SNR=5.0
CBIJ                               S      S      14 21 36.1  -10
      comp=Z,74nm,0.3s,baz=90,slow=20,SNR=5.7
NGSJ  Nagasakinomoza    15.85 235  P      P      14 18 51.7 -0.4
SNY   Shenyang          16.06 274⇑iP      P      14 18 54.8  0.0
SNY                                S      S      14 21 55.0 +3.6
SNY                                AMB    AMB
      comp=Z,760nm,2.1s
SNY                                LR     LR
      comp=N,88µm,17.2s
SNY                                LR     LR
      comp=E,189µm,20.1s
SNY                                LR     LR
      comp=Z,264µm,29.1s
BMKR  Bomnak            16.07 324⇑iP      P      14 18 50.0 -4.7
ZEA   Zeya              16.20 319⇑iP      P      14 18 54.5 -1.9
ZEA                                AMB    AMB    14 19 01.0
      comp=Z,31µm,6.0s
ZEA                                AMB    AMB    14 19 01.0
      comp=Z,24µm,6.0s
ZEA                                AMB    AMB    14 19 01.0
      comp=Z,44µm,7.0s
ZEA                                AMB    AMB    14 19 06.6
      comp=Z,6µm,1.8s
ZEA                                AMB    AMB    14 19 06.6
      comp=Z,6µm,1.8s
ZEA                                AMB    AMB    14 19 06.6
      comp=Z,6µm,1.8s
ZEA                                A             14 22 11.0
      comp=Z,62µm,11.0s
ZEA                                A             14 22 11.0
      comp=Z,60µm,13.0s
JTSR  Tashiro 2         16.26 229  P      P      14 18 56.5 -0.9
JSU   Suzuyama          16.27 231  P      P      14 18 56.3 -1.2
JFU   Fukue jima 2      16.48 238  P      P      14 19 00.1  0.0
JSJ   Shimokoshiki      16.57 233  P      P      14 19 00.3 -1.0
JTN   Tanegashima 3     16.62 228  P      P      14 19 01.1 -0.8
KROS  Kirovskiy         16.74 320 eP      P      14 18 58.5 -4.7
KROS                               AMB    AMB    14 19 17.0
      comp=Z,46µm,3.5s
KROS                               AMB    AMB    14 19 17.0
      comp=Z,35µm,3.5s
KROS                               AMB    AMB    14 19 17.0
      comp=Z,69µm,3.5s
MA2   Magadan           17.17  10c iP     P      14 19 06.7 -1.9
MA2                                pmax   pmax
      comp=Z,747nm,1.4s
MA2   Magadan           17.17  10⇑iP      P      14 19 06.0 -2.6
      comp=Z,466nm,0.9s
JKC   Kuchinoerabu      17.20 229  P      P      14 19 08.0 -1.2
DL2   Dalian            18.27 266⇑iP      P      14 19 22.0 -0.5
DL2                                XP            14 19 34.3
DL2                                S      S      14 22 43.1 +1.2
DL2                                PCP    PcP    14 23 50.4 -3.9
DL2                                SCS    ScS    14 31 05.0 +0.1
DL2                                AMB    AMB
      comp=Z,2µm,0.9s
DL2                                AMB    AMB
      comp=Z,25µm,7.5s
DL2                                LR     LR
      comp=E,85µm,21.9s
DL2                                LR     LR
      comp=Z,110µm,20.9s
HIA   Hailar            18.81 299⇑eP      P      14 19 25.6 -3.5
      comp=Z,736nm,0.8s
JAM   Amami Oshima      19.12 226  P      P      14 19 31.3 -1.4
CLNS  Chul'man          19.14 324⇑iP      P      14 19 29.4 -3.5
CLNS                              eS      S      14 23 03.6 +2.1
CLNS                               pmax   pmax
      comp=N,186nm,1.1s
CLNS                               pmax   pmax
      comp=E,87nm,1.1s
CLNS                               pmax   pmax
      comp=Z,223nm,1.1s
CLNS                               pmax   pmax
      comp=Z,2µm,1.0s
CLNS                               pmax   pmax
      comp=N,3µm,1.1s
CLNS                               pmax   pmax
      comp=E,2µm,0.9s
CLNS                               smax
      comp=N,967nm,1.3s
CLNS                               smax
      comp=Z,238nm,1.2s
CLNS                               smax
      comp=E,534nm,1.6s
CLNS                               MLR    MLR
      comp=N,152µm,19.0s
CLNS                               MLR    MLR
      comp=Z,258µm,19.0s
CLNS                               MLR    MLR
      comp=E,124µm,15.0s
JTK   Tokunoshima       19.96 227  P      P      14 19 41.5 -0.5
SEY   Seymchan          20.62   9 i P     P      14 19 45.5 -3.2
SEY                               e              14 20 08.5
SEY                               ePPP    PPP    14 20 18.5 -1.1
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SEY                               i S     S      14 23 27.6 -4.7
SEY                               eSS     SS     14 23 54.1  -10
SEY                                              14 24 02.7
SEY                               eSSS    SSS    14 24 18.7 +0.3
SEY                                pmax   pmax
      comp=Z,2µm,1.2s
SEY                                pmax   pmax
      comp=N,700nm,1.1s
SEY                                pmax   pmax
      comp=E,600nm,1.1s
SEY                                smax
      comp=N,40µm,4.6s
SEY                                smax
      comp=E,15µm,4.1s
SEY                                MLR    MLR
      comp=N,483µm,17.0s
SEY                                MLR    MLR
      comp=Z,725µm,17.0s,MS7.1
JOW   Kunigami          21.08 226  S      S      14 23 46.1 +4.8
      comp=Z,42nm,0.7s,baz=225,slow=19,SNR=11
JOW                                LR     LR     14 28 46.3
      comp=Z,338µm,21.5s,MS6.7,baz=45,slow=38
FX1   Attu Island--F    21.17  52  P      P      14 19 54.3  0.0
      comp=Z,609nm,0.8s,mb6.0,baz=269,slow=3.7,SNR=41
FX1                                S      S      14 23 44.0 +1.3
      comp=Z,86nm,0.5s,baz=311,slow=20,SNR=6.4
FX1                                LR     LR     14 28 44.0
      comp=Z,3µm,18.7s,baz=280,slow=38
FX1   Attu Island--F    21.17  52 eP      P      14 19 54.0 -0.3
YAK   Yakutsk           21.39 340c iP     P      14 19 50.2 -6.3
YAK                               e              14 20 07.1
YAK                               eS      S      14 23 42.2 -4.6
YAK                               eSS     SS     14 24 07.8  -15
YAK                               e              14 31 11.3
YAK                                pmax   pmax
      comp=Z,372nm,0.8s,mb5.8
YAK                                pmax   pmax
      comp=N,67nm,0.9s
YAK                                pmax   pmax
      comp=E,24nm,0.9s
YAK                                smax
      comp=N,201nm,0.9s
YAK                                smax
      comp=Z,39nm,0.8s
YAK                                smax
      comp=E,127nm,1.1s
YAK                                MLR    MLR
      comp=Z,116µm,22.0s,MS6.2
YAK                                MLR    MLR
      comp=N,69µm,17.0s,MS6.3
YAK                                MLR    MLR
      comp=E,80µm,16.0s,MS6.3
YAK   Yakutsk           21.39 340⇑eP      P      14 19 50.2 -6.3
      comp=E,116nm,0.6s,mb5.4
YAK                                LR     LR
      comp=Z,203µm,21.0s,MS6.5
SMY   Shemya            21.67  53 eP      P      14 19 59.2 -0.1
SMY                                pmax   pmax
      comp=Z,10µm,1.5s,mb7.0
SMY   Shemya            21.67  53 eP      P      14 19 59.2 -0.1
      comp=Z,10µm,1.5s,mb7.0
BJI   Beijing           21.93 273  P      P      14 20 02.1 +0.1
BJI                                S      S      14 23 56.8 -0.2
BJI                                AMB    AMB
      comp=Z,6µm,0.9s,mb7.0
BJI                                AMB    AMB
      comp=Z,50µm,4.7s
BJI                                LR     LR
      comp=N,89µm,13.6s
BJI                                LR     LR
      comp=E,215µm,19.6s
BJI                                LR     LR
      comp=Z,298µm,27.6s
BJI   Beijing           21.93 273  P      P      14 20 02.1 +0.1
      comp=Z,6µm,0.9s,mb7.0
BJI                                S      S      14 23 56.8 -0.2
BJI                                LR     LR
      comp=Z,298µm,27.6s,MS6.6
BJT   Baijiatuau        21.94 273⇑iP      P      14 20 01.0 -1.2
      comp=Z,5µm,0.9s,mb6.9
SSE   Sheshan           22.41 247  P      P      14 20 07.2 +0.4
SSE                                S      S      14 24 06.9 +1.1
SSE                                XS            14 24 23.9
SSE                                AMB    AMB
      comp=Z,648nm,1.5s,mb5.8
SSE                                AMB    AMB
      comp=Z,55µm,10.6s
SSE                                LR     LR
      comp=N,148µm,21.1s,MS6.5
SSE                                LR     LR
      comp=E,102µm,21.0s,MS6.5
SSE                                LR     LR
      comp=Z,229µm,23.8s,MS6.5
SSE   Sheshan           22.41 247  P      P      14 20 07.2 +0.4
      comp=Z,648nm,1.5s,mb5.8
SSE                                S      S      14 24 06.9 +1.1
SSE                                sS            14 24 23.9
SSE                                LR     LR
      comp=Z,229µm,23.8s,MS6.5
TIA   Tai'an            22.61 263 ⇑P      P      14 20 08.9 +0.2
TIA                                S      S      14 24 12.3 +2.9
TIA                                LR     LR
      comp=N,35µm,14.0s,MS6.2
TIA                                LR     LR
      comp=E,57µm,14.0s,MS6.2
NJ2   Nanjing           23.45 252 ⇑P      P      14 20 17.5 +0.5
NJ2                                AP            14 20 27.4
NJ2                                XP            14 20 31.0
NJ2                                PP     PP     14 20 49.9 +0.6
NJ2                                PPP    PPP    14 21 00.1 +0.8
NJ2                                S      S      14 24 25.0 +0.7
NJ2                                XS            14 24 39.0
NJ2                                AMB    AMB
      comp=Z,12µm,1.2s,mb7.2
NJ2                                AMB    AMB
      comp=Z,41µm,7.4s
NJ2                                LR     LR
      comp=N,597µm,17.8s,MS7.2
NJ2                                LR     LR
      comp=E,468µm,18.0s,MS7.2
BOD   Bodaibo           24.70 318 eP      P      14 20 24.4 -4.5
HHC   Hu-ho-hao-te      25.09 277 ⇑P      P      14 20 33.7 +0.9
HHC                                AP     pP     14 20 43.0 +0.3
HHC                                XP     sP     14 20 47.0 +0.2
HHC                                PP     PP     14 21 10.2 -0.8
HHC                                PCP    PcP    14 24 12.0 +4.5
HHC                                S      S      14 24 48.5 -3.7
HHC                                XS            14 25 05.0
HHC                                PCS           14 27 50.2
HHC                                AMB    AMB
      comp=Z,2µm,1.1s,mb6.6
HHC                                AMB    AMB
      comp=Z,63µm,6.3s
HHC                                LR     LR
      comp=N,31µm,11.7s
HHC                                LR     LR
      comp=E,57µm,16.9s
HHC                                LR     LR
      comp=Z,74µm,16.1s,MS6.3
BTO   Baotou            26.28 277 eP      P      14 20 44.6 +0.6
BTO                                AMB    AMB
      comp=Z,5µm,1.3s,mb6.8
BTO                                LR     LR
      comp=N,9µm,5.6s
BTO                                LR     LR
      comp=E,38µm,12.0s
TATO  Taipei            26.40 235⇑eP      P      14 20 45.6 +0.4
      comp=E,6µm,1.5s,mb6.9
TATO                               LR     LR
      comp=Z,245µm,21.0s,MS6.7
KIWB  Kanaga Island     26.80  57 eP      P      14 20 48.9 +0.3
ULN   Ulaanbaatar       27.14 294  P      P      14 20 51.6 -0.1
ULN                                S      S      14 25 24.9 -0.9
ULN   Ulaanbaatar       27.14 294⇑iP      P      14 20 51.7  0.0
ULN   Ulaanbaatar       27.14 294⇑iP      P      14 20 51.6 -0.2
      comp=Z,852nm,0.8s,mb6.3
ULN                                LR     LR
      comp=Z,362µm,19.0s,MS7.0
WHN   Wuhan             27.47 254⇑iP      P      14 20 55.2 +0.2
WHN                                S      S      14 25 33.0 +1.6
WHN                                LR     LR
      comp=E,373µm,22.0s
WHN                                LR     LR
      comp=Z,412µm,21.6s,MS7.0
GSTR  Great Sitkin T    27.49  57 eP      P      14 20 54.8 -0.2
SONM  Songino Array     27.58 294  P      P      14 20 55.7 -0.1
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      comp=Z,2µm,0.8s,mb6.8,baz=87,slow=6.6,SNR=3326
SONM                               P3KP          14 54 25.4
      comp=Z,0.9nm,0.7s,baz=198,slow=3.9,SNR=3.7
QZH   Quanzhou          28.22 239⇑iP      P      14 21 03.8 +2.1
QZH                                AP     pP     14 21 14.8 +3.0
QZH                                PP     PP     14 21 54.5 +1.6
QZH                                S      S      14 25 40.2 -3.2
QZH                                AMB    AMB
      comp=Z,3µm,1.2s,mb6.8
QZH                                AMB    AMB
      comp=Z,63µm,10.2s
QZH                                LR     LR
      comp=N,212µm,24.3s
QZH                                LR     LR
      comp=E,200µm,16.9s
QZH                                LR     LR
      comp=Z,241µm,20.9s,MS6.8
IRK   Irkutsk           28.91 303⇑iP      P      14 21 05.3 -2.3
IRK                               e              14 22 03.7
IRK                               e              14 25 50.1
GUMO  Guam              29.08 181  PFAKE         14 21 20.0  +10
GUMO                               LR     LR
      comp=Z,60µm,19.0s,MS6.2
TLY   Talaya            29.27 302c iP     P      14 21 09.1 -1.8
TLY                               e              14 22 02.8
TLY                               ePPP    PPP    14 22 17.2 -2.4
TLY                               eS      S      14 25 59.4 -0.7
TLY                               eSS     SS     14 27 30.2 -2.1
TLY                                pmax   pmax
      comp=Z,11µm,3.9s
TLY                                MLR    MLR
      comp=Z,409µm,15.0s,MS7.2
TLY   Talaya            29.27 302⇑iP      P      14 21 10.5 -0.4
ZAK   Zakamensk         29.51 300⇓iP      P      14 21 12.2 -0.8
ZAK                               e              14 24 13.6
ZAK                               e              14 25 57.6
WAKE  Wake Island       29.58 136  PFAKE         14 21 30.0  +16
WAKE                               LR     LR
      comp=Z,11µm,19.0s
XAN   Xi'an             29.59 265  P      P      14 21 14.4 +0.6
XAN                                AP     pP     14 21 26.7 +2.7
XAN                                AMB    AMB
      comp=Z,1µm,1.4s,mb6.4
XAN                                LR     LR
      comp=N,35µm,16.6s,MS6.3
XAN                                LR     LR
      comp=E,49µm,18.2s,MS6.3
XAN                                LR     LR
      comp=Z,72µm,19.9s,MS6.3
BBP   Basco             29.63 229 eP      P      14 21 15.3 +0.9
TIXI  Tiksi             30.05 350⇑iP      P      14 21 11.0 -6.6
TIXI                               pmax   pmax
      comp=Z,48nm,0.8s
TIXI                               pmax   pmax
      comp=N,25nm,1.1s
TIXI                               pmax   pmax
      comp=E,19nm,1.3s
TIXI                               MLR    MLR
      comp=Z,89µm,15.0s,MS6.5
TIXI                               MLR    MLR
      comp=N,77µm,17.0s,MS6.5
TIXI                               MLR    MLR
      comp=E,22µm,13.0s,MS6.5
TIXI  Tiksi             30.05 350  PFAKE         14 21 30.0  +12
TIXI                               LR     LR
      comp=Z,147µm,22.0s,MS6.6
MOY   Mondy             30.93 302 eP      P      14 21 25.6  0.0
ENH   Enshi             31.10 258⇑eP      P      14 21 27.3  0.0
      comp=Z,41nm,0.4s,mb5.6
CVP   Callao Caves      31.95 226⇑iP      P      14 21 35.0 +0.1
      comp=Z,94µm,1.0s
PIP   Pasuquin          32.09 228⇓eP      P      14 21 36.3 +0.2
      comp=Z,24µm,1.6s,mb7.5
APYP  Conner            32.12 227 eP      P      14 21 34.6 -1.8
LZH   Lanzhou           32.42 272 ⇑P      P      14 21 39.8 +1.0
LZH                                PP     PP     14 22 46.0 -1.4
LZH                                S      S      14 26 50.2 +0.5
LZH                                XS            14 27 12.1
LZH                                SS     SS     14 28 48.0 +1.6
LZH                                AMB    AMB
      comp=Z,2µm,1.0s,mb6.9
LZH                                AMB    AMB
      comp=Z,12µm,5.0s
LZH                                LR     LR
      comp=N,143µm,13.0s
LZH                                LR     LR
      comp=Z,269µm,15.6s,MS7.0
LZH   Lanzhou           32.42 272 ⇑P      P      14 21 39.8 +1.0
      comp=Z,2µm,1.0s,mb6.9
LZH                                pP     pP     14 21 55.2 +6.1
LZH                                sP     sP     14 21 59.1 +5.3
LZH                                PP     PP     14 22 46.0 -1.4
LZH                                S      S      14 26 50.2 +0.5
LZH                                sS            14 27 12.1
LZH                                SS     SS     14 28 48.0 +1.6
LZH                                LR     LR
      comp=Z,269µm,15.6s,MS7.0
CAUP  Cauayan           32.58 225 eP      P      14 21 40.8 +0.4
ABRA  Dolores           32.59 227 eP      P      14 21 39.4 -1.1
HKC   Hong Kong         32.93 242⇑iP      P      14 21 46.0 +2.6
HKC                               i S     S      14 27 04.0 +6.2
UNV   Unalaska Valle    33.32  54  PFAKE         14 22 00.0  +14
UNV                                LR     LR
      comp=Z,111µm,20.0s,MS6.6
MIDW  Midway            33.43 103 eP      P      14 21 48.8 +1.1
MIDW                               LR     LR
      comp=Z,56µm,21.0s,MS6.3
BCPH  Baguio City Da    33.70 226⇑iP      P      14 21 50.9 +0.8
BALP  Baler             33.71 224 eP      P      14 21 50.7 +0.5
BOLP  Bolinao           34.06 227 eP      P      14 21 52.4 -0.7
GTA   Gaotai            34.09 280⇑iP      P      14 21 53.5 +0.3
GTA                                AP     pP     14 22 04.4 +0.8
GTA                                XP     sP     14 22 07.7 -0.5
GTA                                PP     PP     14 23 08.3 +0.2
GTA                                PPP    PPP    14 23 24.6 -1.5
GTA                                S      S      14 27 11.2 -4.4
GTA                                XS            14 27 29.5
GTA                                SCP           14 28 12.9
GTA                                PCS           14 28 17.2
GTA                                SS     SS     14 29 19.0 -5.9
GTA                                SCS    ScS    14 32 13.7 +1.8
GTA                                AMB    AMB
      comp=Z,613nm,1.0s,mb6.5
GTA                                AMB    AMB
      comp=Z,21µm,9.5s
GTA                                LR     LR
      comp=N,55µm,16.7s,MS6.7
GTA                                LR     LR
      comp=E,103µm,19.4s,MS6.7
GTA                                LR     LR
      comp=Z,148µm,19.0s,MS6.7
PCPH  Palayan           34.11 225⇑eP      P      14 21 55.0 +1.4
PVCP  Virac             34.31 218 eP      P      14 21 55.4 +0.1
POLP  Polilio Island    34.39 223 eP      P      14 21 56.0  0.0
TNA   Tin City          34.42  32⇑eP      P      14 21 54.9 -1.0
      comp=Z,195nm,0.9s,mb6.0
TNA                                LR     LR
      comp=Z,42µm,21.0s,MS6.2
SCZP  Santa Cruz        34.56 227 eP      P      14 21 56.0 -1.5
GQP   Guinayangan       34.84 221⇑iP      P      14 22 00.6 +0.7
      comp=Z,168µm,1.9s
CD2   Chengdu           34.92 264⇑iP      P      14 22 01.0 +0.5
CD2                                AP     pP     14 22 12.3 +1.5
CD2                                XP     sP     14 22 17.9 +2.4
CD2                                S      S      14 27 27.0 -1.6
CD2                                XS            14 27 47.4
CD2                                SS     SS     14 29 40.1 -4.0
CD2                                SCS    ScS    14 32 13.0 -3.4
CD2                                AMB    AMB
      comp=Z,2µm,1.0s,mb7.0
CD2                                AMB    AMB
      comp=Z,15µm,9.3s
CD2                                LR     LR
      comp=N,57µm,15.6s
CD2                                LR     LR
      comp=Z,50µm,19.2s,MS6.3
CNP   Catarman          35.04 217 eP      P      14 22 02.9 +1.3
LQP   Lukban            35.11 223 eP      P      14 22 03.6 +1.4
NBP   Mount Natib       35.15 225 eP      P      14 22 03.8 +1.2
ANM   Nome              35.19  35 eP      P      14 22 02.1 -0.3
AUQP  San Andres        35.24 220 eP      P      14 22 04.8 +1.6
GYA   Guiyang           35.33 255⇑iP      P      14 22 04.6 +0.6
GYA                                AP     pP     14 22 14.8 +0.5
GYA                                S      S      14 27 26.8 -8.1
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GYA				AMB	AMB		
	comp=Z,1μm,1.1s,mb6.8						
GYA				AMB	AMB		
	comp=Z,21μm,10.2s						
GYA				LR	LR		
	comp=N,82μm,20.3s,MS6.6						
GYA				LR	LR		
	comp=E,77μm,24.2s,MS6.6						
GYA				LR	LR		
	comp=Z,106μm,21.2s,MS6.6						
TGY	**Tagaytay City**	35.42	224	⇑*e*P	P	14 22 08.0	+3.1
TGY	**Tagaytay City**	35.42	224	P	P	14 22 07.3	+2.4
	comp=Z,4μm,1.1s,mb7.3,baz=325,slow=1.3,SNR=72						
BESP	**Borongan**	35.51	215	*e*P	P	14 22 06.0	+0.3
BOAC	**Boac**	35.52	222	*e*P	P	14 22 05.4	-0.3
LUBP	**Lubang**	36.09	224	*e*P	P	14 22 11.4	+0.9
LUBP	**Lubang**	36.09	224	*e*P	P	14 22 09.6	-1.0
PLP	**Palo**	36.10	215	*e*P	P	14 22 12.3	+1.7
	comp=Z,912μm,1.3s						
OCLP	**Ormoc**	36.36	216	*e*P	P	14 22 13.1	+0.3
OTRP	**Odiongan**	36.38	221	*e*P	P	14 22 13.2	+0.2
SJMP	**San Jose**	36.73	222	*e*P	P	14 22 16.2	+0.3
RCP	**Roxas**	36.74	219	*i* P	P	14 22 17.7	+1.7
KALP	**Kalibo**	36.83	220	*i* P	P	14 22 19.7	+3.0
MSLP	**Maasin**	37.08	215	*e*P	P	14 22 19.1	+0.3
SCPH	**Surigao**	37.13	214	*e*P	P	14 22 19.6	+0.3
SCPH				*e*S	Px	14 22 33.8	
LLP	**Lapu-Lapu**	37.29	216	⇑*e*P	P	14 22 22.2	+1.6
	comp=Z,282μm,1.0s						
GUIM	**Jordan**	37.63	218	*e*P	P	14 22 23.7	+0.2
BUTP	**Butuan**	37.82	213	*e*P	P	14 22 25.5	+0.5
TBP	**Tagbilaran**	37.90	216	*e*P	P	14 22 26.7	+1.0
QIZ	**Qiongzhong**	38.09	243	P	P	14 22 29.2	+1.9
QIZ				XP	sP	14 22 44.5	+2.3
QIZ				PP	PP	14 24 01.4	+3.4
QIZ				S	S	14 28 19.5	+2.3
QIZ				XS		14 28 34.8	
QIZ				SCS	ScS	14 32 37.8	+3.8
QIZ				AMB	AMB		
	comp=Z,24μm,8.0s						
QIZ				LR	LR		
	comp=E,132μm,22.2s						
QIZ				LR	LR		
	comp=Z,142μm,23.4s,MS6.7						
QIZ	**Qiongzhong**	38.09	243	⇑*i*P	P	14 22 29.9	+2.6
	comp=Z,1μm,1.5s,mb6.5						
CUYO	**Cuyo Island**	38.17	221	*e*P	P	14 22 28.5	+0.5
ENPP	**El Nido**	38.65	223	*e*P	P	14 22 32.4	+0.4
KMI	**Kunming**	38.95	257	⇑*i*P	P	14 22 36.1	+1.8
KMI				AP	pP	14 22 46.6	+1.9
KMI				XP	sP	14 22 51.2	+1.9
KMI				PP	PP	14 24 07.0	-0.8
KMI				PCP	PcP	14 24 44.7	-0.4
KMI				S	S	14 28 31.3	+1.1
KMI				PCS		14 28 36.2	
KMI				XS		14 28 49.1	
KMI				SS	SS	14 31 13.3	-1.3
KMI				SCS	ScS	14 32 43.5	+4.6
KMI				AMB	AMB		
	comp=Z,2μm,1.5s,mb6.7						
KMI				AMB	AMB		
	comp=Z,29μm,6.8s						
KMI				LR	LR		
	comp=N,58μm,22.9s,MS6.5						
KMI				LR	LR		
	comp=E,63μm,25.9s,MS6.5						
KMI				LR	LR		
	comp=Z,96μm,17.7s						
KMI	**Kunming**	38.95	257	⇑*i*P	P	14 22 36.1	+1.8
	comp=Z,2μm,1.5s,mb6.7						
KMI				pP	pP	14 22 46.6	+1.9
KMI				sP	sP	14 22 51.2	+1.9
KMI				PP	PP	14 24 07.0	-0.8
KMI				PcP	PcP	14 24 44.7	-0.4
KMI				S	S	14 28 31.3	+1.1
KMI				PcS		14 28 36.2	
KMI				sS		14 28 49.1	
KMI				SS	SS	14 31 13.3	-1.3
KMI				ScS	ScS	14 32 43.5	+4.6
KMI				LR	LR		
	comp=Z,96μm,17.7s,MS6.7						
BUKP	**Musuan**	39.03	213	*e*P	P	14 22 35.2	+0.1
DCPH	**Dipolog City**	39.11	216	⇓*e*P	P	14 22 37.1	+1.3
MATI	**Mati**	39.42	211	*e*P	P	14 22 37.8	-0.6
DAV	**Davao City (W)**	39.57	212	⇑*e*P	P	14 22 41.5	+1.9
DAV	**Davao City (W)**	39.57	212	*i* S	S	14 28 50.0	+10
KCP	**Kidapawan**	39.81	212	⇓*e*P	P	14 22 42.9	+1.3
CTBH	**Cotabato--PC H**	39.96	214	⇑*e*P	P	14 22 45.7	+2.9
CTBH				*i* S	Px	14 23 44.0	
IPIL	**Ipil**	40.16	216	*e*P	P	14 22 44.2	-0.3
PPR	**Puerto Princes**	40.22	223	*e*P	P	14 22 46.4	+1.4
IMA	**Indian Mountai**	40.27	34	*e*P	P	14 22 44.0	-0.9
ZAL	**Zalesovo**	40.50	308	P	P	14 22 47.5	+0.6
	comp=Z,220nm,0.9s,mb5.8,baz=30,slow=9.0,SNR=426						
ZAL				S	S	14 28 38.8	-14
	comp=Z,14nm,1.0s,baz=229,slow=20,SNR=5.0						
ZAL				LR	LR	14 41 45.9	
	comp=Z,150μm,18.7s,MS6.9,baz=16,slow=39						
RSO	**Redoubt South**	40.62	42	*e*P	P	14 22 47.5	-0.4
SPU	**Mount Spurr**	40.93	41	*e*P	P	14 22 50.6	+0.2
KDAK	**Kodiak Island**	40.93	46	*e*P	P	14 22 49.7	-0.8
KDAK				LR	LR		
	comp=Z,67μm,23.0s,MS6.4						
WMQ	**Urumqi**	41.16	292	⇑*i*P	P	14 22 53.3	+0.8
WMQ				AP	pP	14 23 03.3	+0.3
WMQ				XP	sP	14 23 07.2	-0.3
WMQ				PP	PP	14 24 31.6	+1.0
WMQ				PCP	PcP	14 24 53.1	+1.1
WMQ				S	S	14 29 03.3	+0.1
WMQ				AMB	AMB		
	comp=Z,2μm,0.9s,mb6.7						
WMQ				AMB	AMB		
	comp=Z,9μm,8.1s						
WMQ				LR	LR		
	comp=N,50μm,15.6s,MS6.9						
WMQ				LR	LR		
	comp=E,137μm,17.8s,MS6.9						
WMQ				LR	LR		
	comp=Z,181μm,20.0s,MS6.9						
NVS	**Novosibirsk**	41.25	309	⇑*i*P	P	14 22 51.2	-1.9
NVS				*i* S	S	14 28 59.0	-5.4
NVS				pmax	pmax		
	comp=Z,5μm,2.8s,mb6.7						
NVS				pmax	pmax		
	comp=E,7μm,3.2s						
NVS				smax			
	comp=N,3μm,2.2s						
BATP	**Bataraza**	41.53	223	*e*P	P	14 22 56.9	+1.1
FIB	**Fire Island**	41.84	41	PFAKE		14 23 10.0	+12
FIB				LR	LR		
	comp=Z,27μm,22.0s,MS6.1						
SLKM	**Skilak Lake**	41.87	42	P	P	14 22 57.0	-1.0
SLKM	**Skilak Lake**	41.87	42	*e*P	P	14 22 57.2	-0.8
MCK	**McKinley**	42.25	37	*e*P	P	14 23 00.4	-0.7
MCK				pmax	pmax		
	comp=Z,12nm,0.3s						
MCK	**McKinley**	42.25	37	⇑*e*P	P	14 23 00.7	-0.5
	comp=Z,12nm,0.3s						
MCK				LR	LR		
	comp=Z,25μm,22.0s						
PMR	**Palmer**	42.30	40	*e*P	P	14 23 00.7	-0.9
PMR				LR	LR		
	comp=Z,69μm,20.0s,MS6.5						
LKP	**Lekhapani**	42.51	265	*e*P	P	14 23 06.5	+2.8
LKP				*e*	pP	14 23 15.0	+0.8
SML	**Sawmill**	42.66	40	⇑*e*P	P	14 23 04.0	-0.5
COLA	**College**	42.68	35	*c* *i*P	P	14 23 04.8	+0.2
COLA	**College**	42.68	35	*e*P	P	14 23 04.3	-0.3
COLA				LR	LR		
	comp=Z,54μm,19.0s,MS6.5						
ILAR	**Eielson Array**	43.09	36	P	P	14 23 07.9	-0.1
	comp=Z,156nm,0.9s,mb5.7,baz=263,slow=6.0,SNR=339						
ILAR				LR	LR	14 41 12.0	
	comp=Z,26μm,21.1s,MS6.1,baz=286,slow=36						
ILAR				PKPPKP		14 55 02.8	
	comp=Z,2.0nm,1.0s,baz=74,slow=1.3,SNR=4.9						
MKAR	**Makanchi Array**	43.81	298	*i* P	P	14 23 13.7	-0.3
MKAR				pmax	pmax		
	comp=Z,1μm,0.7s						
MKAR	**Makanchi Array**	43.81	298	*i* P	P	14 23 13.8	-0.2
DIV	**Divide**	43.96	41	PFAKE		14 23 30.0	+15
DIV				LR	LR		
	comp=Z,124μm,20.0s,MS6.8						
UBT	**Ubonrachathani**	43.99	244	⇑P	P	14 23 18.0	+2.1
	comp=Z,972nm,1.7s,mb6.3						
EYAK	**Cordova Ski Ar**	44.06	42	⇑*e*P	P	14 23 15.7	-0.2
CHRT	**Chiangrai**	44.38	254	⇓P	P	14 23 17.5	-1.5
	comp=Z,3μm,0.8s,mb7.1						
KKTK	**Khon Kaen**	44.68	247	⇑P	P	14 23 22.9	+1.5
	comp=Z,7μm,0.9s,mb7.5						
LSA	**Lhasa**	44.83	271	⇑*i*P	P	14 23 23.8	+1.3
LSA				AP	pP	14 23 30.2	-2.8
LSA				XP	sP	14 23 35.0	-2.4
LSA				AMB	AMB		
	comp=Z,520nm,1.4s,mb6.2						
LSA				AMB	AMB		
	comp=Z,22μm,5.0s						
LSA				LR	LR		
	comp=N,50μm,16.0s,MS6.6						
LSA				LR	LR		
	comp=E,25μm,15.0s,MS6.6						
KURK	**Kurchatov**	44.93	304	*c* *i*P	P	14 23 22.3	-0.6
KURK				pmax	pmax		
	comp=Z,712nm,1.1s,mb6.4						
KURK	**Kurchatov**	44.93	304	⇑*i*P	P	14 23 22.3	-0.6
	comp=Z,737nm,0.8s,mb6.6						
KURK				LR	LR		
	comp=Z,47μm,19.0s,MS6.4						
IMP	**Imphal**	45.54	264	⇓*i*P	P	14 23 26.0	-2.2
IMP				*e*		14 23 56.0	
CHG	**Chiang Mai**	45.67	253	⇑P	P	14 23 30.6	+1.2
	comp=Z,150nm,1.0s,mb5.9						
CMAR	**Chiang Mai Arr**	45.91	253	P	P	14 23 32.8	+1.5
	comp=Z,219nm,0.8s,mb6.1,baz=43,slow=7.3,SNR=872						
CMAR				LR	LR	14 43 45.0	
	comp=Z,119μm,19.1s,MS6.8,baz=55,slow=37						
CMAR				PKPPKP		14 54 58.5	
	comp=Z,0.6nm,0.5s,baz=264,slow=3.3,SNR=4.9						
SHL	**Shillong**	46.59	266	⇑*e*P	P	14 23 37.0	+0.6
	comp=Z,930nm,1.0s,mb6.7						
SHL				*e*		14 30 31.5	
NST	**Nakhon Sawan**	46.98	249	⇓P	P	14 23 41.8	+2.1
	comp=Z,383nm,1.0s,mb6.3						
AGT	**Agartala**	48.04	265	⇑*i*P	P	14 23 51.0	+3.1
AGT				*i*		14 25 39.0	
SLGI	**Shiliguri**	48.49	270	*e*	P	14 23 59.1	+7.8
AAA	**Alma-Ata**	48.62	295	*c* *i*P	P	14 23 53.0	+0.9
AAA				*i*		14 25 48.0	
AAA				*i* S	S	14 30 53.0	+2.5
AAA				*e*SS	SS	14 34 22.0	+5.9
AAA				MLR	MLR		
	comp=Z,150μm,16.0s,MS7.1						
CHKZ	**Chkalovo**	48.70	310	*i* P	P	14 23 51.4	-1.2
CHKZ				pmax	pmax		
	comp=Z,866nm,1.3s,mb6.6						
CHKZ	**Chkalovo**	48.70	310	⇑*e*P	P	14 23 51.2	-1.4
	comp=Z,588nm,0.9s,mb6.6						
BVA0	**Borovoye Array**	49.05	309	P	P	14 23 54.5	-0.8
BVA0				pmax	pmax		
	comp=Z,99nm,1.0s,mb5.8						
BVAR	**Borovoye Array**	49.05	309	P	P	14 23 55.0	-0.2
	comp=Z,494nm,0.9s,mb6.5,baz=80,slow=9.0,SNR=724						
BVAR				PcP	PcP	14 25 19.2	+0.2
	comp=Z,140nm,0.7s,baz=45,slow=4.2,SNR=4.5						
BVAR				PKPPKP		14 54 55.3	
	comp=Z,1.5nm,0.8s,baz=315,slow=2.0,SNR=4.1						
BRVK	**Borovoye**	49.10	310	P	P	14 23 54.6	-1.0
BRVK				pmax	pmax		
	comp=Z,640nm,0.9s,mb6.7						
BRVK	**Borovoye**	49.10	310	⇑*i*P	P	14 23 55.1	-0.5
	comp=Z,643nm,0.8s,mb6.7						
BRVK				LR	LR		
	comp=Z,67μm,19.0s,MS6.7						
NNT	**Nongplab**	49.44	246	P	P	14 24 01.0	+2.2
ULHL	**Ulahol**	49.53	294	P	P	14 23 59.7	+0.6
	SNR=28						
TKM2	**Tokmak 2**	49.67	295	P	P	14 24 00.6	+0.4
	SNR=2675						
TKM2	**Tokmak 2**	49.67	295	⇑*i*P	P	14 24 00.6	+0.4
	comp=Z,86nm,0.4s,mb6.1						
TKM2				LR	LR		
	comp=Z,158μm,20.0s,MS7.0						
GUN	**Gumba**	49.68	273	*e*P	P	14 23 58.2	-2.3
	comp=Z,1μm,0.7s,mb7.1						
SIT	**Sitka**	50.17	44	P	P	14 24 04.5	+0.7
SIT				pmax	pmax		
	comp=Z,660nm,1.3s,mb6.5						
SIT	**Sitka**	50.17	44	*e*P	P	14 24 05.0	+1.2
SIT				LR	LR		
	comp=Z,43μm,23.0s,MS6.4						
KKN	**Kakani**	50.19	273	*e*P	P	14 24 02.9	-1.5
	comp=Z,3μm,1.1s,mb7.2						
CHMS	**Chumysh**	50.20	296	P	P	14 24 04.0	-0.3
	SNR=162						
PKI	**Pulchoki**	50.21	273	*e*P	P	14 24 03.1	-1.5
	comp=Z,2μm,1.0s,mb7.0						
KBK	**Karagaybulak**	50.21	295	P	P	14 24 04.6	+0.2
	SNR=2047						
USP	**Ospenovka**	50.25	296	P	P	14 24 04.5	-0.1
	SNR=1160						
KZA	**Kyzart**	50.26	295	P	P	14 24 05.9	+1.1
	SNR=1303						
FRU	**Bishkek**	50.36	296	*i* P	P	14 24 06.0	+0.5
FRU				*e*		14 31 16.0	
FRU				pmax	pmax		
	comp=Z,24μm,8.0s						
DMN	**Daman**	50.41	273	*e*P	P	14 24 04.5	-1.6
	comp=Z,2μm,1.0s,mb7.2						
AAK	**Ala-Archa**	50.53	295	P	P	14 24 06.7	0.0
	SNR=24						
AAK	**Ala-Archa**	50.53	295	*c* *i*P	P	14 24 05.6	-1.2
AAK				pmax	pmax		
	comp=Z,404nm,0.8s,mb6.4						
AAK				MLR	MLR		
	comp=Z,100μm,18.0s,MS6.9						
AAK	**Ala-Archa**	50.53	295	⇑*i*P	P	14 24 05.5	-1.3
	comp=Z,626nm,1.1s,mb6.5						
AAK				LR	LR		
	comp=Z,29μm,20.0s,MS6.3						
GKN	**Gorkha**	50.54	274	*e*P	P	14 24 05.2	-1.9
	comp=Z,3μm,1.4s,mb7.1						
UCH	**Uchtor**	50.69	295	P	P	14 24 08.5	+0.5
	SNR=289						
UCH	**Uchtor**	50.69	295	⇑*i*P	P	14 24 08.5	+0.5
	comp=Z,60nm,1.2s,mb5.4						
UCH				LR	LR		
	comp=Z,247μm,19.0s,MS7.2						
KSH	**Kashi**	50.92	291	⇑*i*P	P	14 24 11.0	+1.2
KSH				AP	pP	14 24 21.2	+0.8
KSH				XP	sP	14 24 25.0	+0.2
KSH				PCP	PcP	14 25 27.2	+1.1
KSH				PP	PP	14 26 08.7	+1.7
KSH				PPP	PPP	14 27 08.5	+1.7
KSH				SCP		14 29 19.1	
KSH				PCS		14 29 23.2	
KSH				S	S	14 31 25.3	+2.8
KSH				PS	PS	14 31 37.1	+1.2
KSH				XS		14 31 42.0	
KSH				SCS	ScS	14 33 56.6	+2.3
KSH				SS	SS	14 34 56.8	+1.6
KSH				AMB	AMB		
	comp=Z,15μm,4.9s						
KSH				LR	LR		
	comp=N,42μm,14.2s,MS6.8						
KSH				LR	LR		
	comp=E,48μm,13.6s,MS6.8						
CAL	**Calcutta**	50.99	266	*e*P	P	14 24 10.3	-0.2
CAL				*e*S	S	14 31 24.0	+0.4
EKS2	**Erkin-Say**	50.99	296	P	P	14 24 10.1	-0.2
	SNR=784						
EKS2	**Erkin-Say**	50.99	296	⇑*i*P	P	14 24 10.0	-0.2
	comp=E,380nm,0.6s,mb6.5						
EKS2				LR	LR		
	comp=Z,92μm,21.0s,MS6.8						
AML	**Almayashu**	51.28	295	P	P	14 24 13.0	+0.6
	SNR=738						
AML	**Almayashu**	51.28	295	⇑*i*P	P	14 24 12.9	+0.5
	comp=Z,340nm,0.6s,mb6.5						
AML				LR	LR		
	comp=Z,167μm,20.0s,MS7.1						
BUNI	**Buntu Taipa**	51.43	213	*e*P	P	14 24 15.3	+1.4
KOLN	**Koldanda**	51.43	274	*e*P	P	14 24 12.3	-1.5
	comp=Z,2μm,1.0s,mb7.1						
KIP	**Kipapa**	51.54	96	P	P	14 24 15.7	+1.0
KIP				pmax	pmax		
	comp=Z,250nm,1.1s,mb6.1						
KIP	**Kipapa**	51.54	96	*e*P	P	14 24 15.6	+0.9
	comp=Z,247nm,1.1s,mb6.0						
KIP				LR	LR		
	comp=Z,88μm,22.0s,MS6.7						
TANI	**Tanete Lipujan**	51.60	214	⇑*i*P	P	14 24 13.9	-1.4
	comp=Z,47nm,1.0s,mb5.4						
PMG	**Port Moresby**	51.95	178	P	P	14 24 18.3	+0.4
	comp=Z,27nm,0.8s,mb5.2,baz=1.8,slow=7.1,SNR=24						
PMG				LR	LR	14 43 09.0	
	comp=Z,27μm,21.8s,baz=171,slow=32						
PMG	**Port Moresby**	51.95	178	⇑*e*P	P	14 24 18.1	+0.2
	comp=Z,564nm,1.9s,mb6.2						
PMG				*e*S	S	14 31 39.8	+2.8
PMG				LR	LR		
	comp=Z,32μm,22.0s,MS6.3						
BOK	**Bokaro**	52.03	269	⇓*i*P	P	14 24 17.9	-0.5
BOK				*i*		14 32 04.7	
NINI	**Niniconang**	52.35	213	⇑*i*P	P	14 24 21.7	+0.9
	comp=Z,1μm,1.2s,mb6.7						
SNG	**Songkhla**	52.85	241	P	P	14 24 26.5	+1.9
	comp=Z,1μm,1.0s,mb6.8						
PTH	**Pithoragarh**	52.93	278	*e*P	P	14 24 24.0	-1.0
PTH				*e*S	S	14 31 49.0	-1.1
LGTI	**Lohaghat**	52.96	278	*i* P	P	14 24 26.0	+0.8
SOKR	**Solikamsk**	53.66	321	*c* *i*P	P	14 24 27.6	-2.4
SOKR				*e*	pP	14 24 39.2	-1.5
SOKR				*i* S	S	14 31 51.0	-8.7
SOKR				*i* SS	ScS	14 34 07.8	-5.2
SOKR				pmax	pmax		
	comp=Z,600nm,0.9s,mb6.5						
SOKR				MLR	MLR		
	comp=Z,77μm,19.0s,MS6.8						
DDI	**Dehra Dun**	54.08	280	⇑*e*P	P	14 24 31.5	-2.0
DDI				*e*		14 31 55.2	
ARU	**Arti**	54.11	317	⇑*i*P	P	14 24 31.8	-1.5
ARU				*i*		14 25 38.1	
ARU				*i*		14 26 31.9	
ARU				*i* PPP	PPP	14 27 40.7	-6.2
ARU				*i* S	S	14 32 02.1	-3.6
ARU				*i*		14 34 14.8	
ARU				pmax	pmax		
	comp=Z,546nm,0.8s,mb6.5						
ARU				MLR	MLR		
	comp=E,97μm,19.0s,MS6.9						
ARU				MLR	MLR		
	comp=Z,109μm,19.0s,MS6.9						
ARU				MLR	MLR		
	comp=N,38μm,18.0s,MS6.9						
ALBI	**Allahabad**	54.15	273	⇑*e*P	P	14 24 30.0	-4.1
SDNR	**Sundarnagar**	54.23	282	*e*P	P	14 24 34.0	-0.6
SDNR				*e*S	S	14 32 07.0	-0.7
SMLA	**Simla**	54.28	282	*e*	P	14 24 48.0	+13
	comp=N,553nm,0.9s,mb6.5						
SMLA				*e*		14 32 20.9	
	comp=N,774nm,0.9s						
DLH	**Dalhousie**	54.39	284	*e*P	P	14 24 35.0	-0.7
DLH				*e*		14 24 49.0	
DLH				*e*		14 32 09.0	
TAS	**Tashkent**	54.57	296	*i* P	P	14 24 25.0	-12
TAS				*e*S	S	14 32 06.0	-6.2
TAS				pmax	pmax		
	comp=Z,13μm,6.0s						
IPM	**Ipoh**	54.57	239	⇑*e*P	P	14 24 38.5	+1.2
	comp=Z,136nm,0.8s,mb6.0						
THN	**Thein Dam**	54.63	284	⇑*e*P	P	14 24 36.2	-1.3
THN				*e*		14 32 10.6	
BHK	**Bhakra**	54.67	282	*e*P	P	14 24 38.2	+0.4
BHK				*e*S	S	14 32 13.4	-0.2
PONG	**Pong**	54.72	283	*e*	PcP	14 25 38.0	-2.4
KGM	**Kluang**	55.17	234	⇑*i*P	P	14 24 43.1	+1.4
	comp=Z,2μm,1.3s,mb7.0						
NDI	**New Delhi**	55.59	279	*e*P	P	14 24 42.5	-2.0
NDI				*e*		14 32 23.0	
AYAN	**Aya Nagar**	55.77	279	*e*P	P	14 24 44.7	-1.0
BHGR	**Bahadurgarh**	55.79	279	*e*P	P	14 24 45.9	0.0
BLSP	**Bilaspur**	55.80	269	⇑*e*P	P	14 24 44.7	-1.4
BLSP				*e*		14 26 50.0	
AGRA	**Agra**	55.88	277	*e*P	P	14 24 45.5	-1.1
SONA	**Sohna**	55.93	279	*e*P	P	14 24 46.4	-0.6
BBB	**Bella Bella**	55.96	48	LR	LR	14 45 27.3	
	comp=Z,22μm,21.3s,MS6.2,baz=298,slow=32						
RTK	**Rohtak**	55.98	280	*e*P	P	14 24 46.5	-0.7
KUDL	**Kundal**	56.42	279	*e*P	P	14 24 50.3	-0.2
KAKA	**Kakadu**	56.45	195	⇑*i*P	P	14 24 50.3	-0.5
	comp=Z,289nm,0.9s,mb6.3						
HSP	**Hornsund**	56.45	348	*e*P	P	14 24 48.4	-1.6
JHNI	**Jhansi**	56.46	275	⇑*e*P	P	14 24 48.0	-2.8
JHNI				*e*	pP	14 25 00.0	-1.6
KHET	**Khetri**	56.96	279	*e*P	P	14 24 54.0	-0.4
YKA	**Yellowknife Ar**	57.38	33	P	P	14 24 55.4	-1.5
	comp=Z,68nm,0.8s,mb5.7,baz=303,slow=6.8,SNR=275						
YKA				LR	LR	14 53 09.6	
	comp=Z,40μm,19.8s,MS6.5,baz=290,slow=40						
YKA				PKPPKP		14 54 43.3	
	comp=Z,2.0nm,0.9s,baz=122,slow=2.5,SNR=5.7						
YKA				PKP2bc		14 54 54.6	
	comp=Z,6.6nm,1.1s,baz=109,slow=2.8,SNR=5.4						
YKA	**Yellowknife Ar**	57.38	33	P	P	14 24 55.4	-1.4
YKA				LR	LR	14 53 09.6	
YKA				P'P'		14 54 43.3	
YKA				⇑*e*		14 54 54.6	
KEDI	**Kedomdong**	57.52	215	⇑*i*P	P	14 24 57.1	-1.4
	comp=Z,400nm,1.2s,mb6.3						
BJO	**Bjornoya**	57.64	345	*e*P	P	14 24 57.6	-0.9
BJO				*e*		14 28 27.2	
BJO				*e*S	S	14 32 53.5	+1.1
BJO				AMS	AMS	14 52 51.3	
	comp=Z,28μm,25.8s,MS6.3						
VIS	**Vishakhapatnam**	57.65	265	*i* P	P	14 24 57.5	-1.8
VIS				*i*		14 27 05.0	
BJO1	**Bjornoya**	57.68	345	*e*P	P	14 24 57.6	-1.2
BJO1				*e*		14 28 27.2	
BJO1				LR	LR		
	comp=Z,28250μm,25.8s						
KELI	**Kelakatan**	57.98	217	⇑*i*P	P	14 24 59.5	-2.1
	comp=Z,936nm,2.0s,mb6.5						
RATI	**Rata**	57.98	215	⇑*i*P	P	14 24 59.1	-2.6
	comp=Z,555nm,1.7s,mb6.3						
LVZ	**Lovozero**	58.11	335	⇓*i*P	P	14 25 00.1	-1.8
LVZ				*e*PPP	PPP	14 28 26.7	-8.8
LVZ				*e*S	S	14 32 50.5	-8.2
LVZ				*e*SSS	SSS	14 39 11.0	-1.7
LVZ				pmax	pmax		
	comp=Z,391nm,1.1s,mb6.3						
LVZ				pmax	pmax		
	comp=N,74nm,1.0s						
LVZ				pmax	pmax		
	comp=E,52nm,0.9s						
LVZ				smax			
	comp=N,7μm,4.3s						
LVZ				smax			
	comp=Z,9μm,8.3s						
LVZ				smax			
	comp=E,5μm,4.0s						
LVZ				MLR	MLR		
	comp=Z,47μm,23.0s,MS6.5						
LVZ				MLR	MLR		
	comp=N,50μm,20.0s						
SRDI	**Scrawed**	58.36	217	⇑*i*P	P	14 25 01.2	-3.1
	comp=N,106nm,1.0s,mb5.8						
BHPL	**Bhopal**	58.59	274	⇑*i*P	P	14 25 04.8	-1.0
	comp=N,1μm,1.1s,mb6.9						
BHPL				*i*		14 33 03.8	
NGP	**Nagpur**	58.66	271	⇑*e*P	P	14 25 04.9	-1.5
NGP				*e*S	S	14 33 06.5	0.0
AJM	**Ajmer**	58.72	278	⇑*i*P	P	14 25 06.2	-0.5
KEV	**Kevo**	59.13	339	*e*p	P	14 25 07.0	-2.0
KEV	**Kevo**	59.13	339	P	P	14 25 07.4	-1.6
KEV				S	S	14 33 08.5	-3.6
ARCES	**ARCESS Array B**	59.67	339	P	P	14 25 11.0	-1.8
	comp=N,253nm,1.0s,mb6.2,baz=45,slow=6.9,SNR=96						
ARCES				LR	LR	14 54 56.4	
	comp=N,48μm,20.4s,MS6.6,baz=305,slow=40						
ARCES	**ARCESS Array B**	59.67	339	P	P	14 25 11.0	-1.7
ARCES				pmax	pmax		
	comp=Z,253nm,1.0s						
ARCES				MLR	MLR		
	comp=Z,48μm,20.4s						
ARE0	**ARCESS Array S**	59.67	339	⇑*e*P	P	14 25 11.1	-1.6
DAG	**Danmarks Havn**	60.30	356	⇓*i*P	P	14 25 14.1	-2.8
DAG				pmax	pmax		
	comp=Z,570nm,1.0s,mb6.6						
DAG				MLR	MLR		
	comp=Z,16μm,18.0s,MS6.2						
DAG				MLR	MLR		
	comp=N,23μm,23.0s,MS6.7						
DAG				MLR	MLR		
	comp=E,60μm,24.0s,MS6.7						

DAG	**Danmarks Havn**	**60.30**	**356**⇓	*i*P	**P**	**14 25 14.1**	**-2.8**
	comp=E,570nm,1.0s,mb6.6						
	comp=Z,16µm,18.0s						
OCWA	**Octopus Mounta**	**60.37**	**51**	*e*P	**P**	**14 25 17.2**	**-0.6**
	comp=Z,477nm,1.9s,mb6.2						
OCWA				LR	LR		
	comp=Z,42µm,22.0s,MS6.5						
AKL	**Akola**	**60.43**	**272**	*e*P	**P**	**14 25 18.6**	**0.0**
AKL				*e*		14 33 25.1	
	comp=Z,2µm,1.4s						
KTK1	**Kautokeino**	**60.62**	**339**⇑	*i*P	**P**	**14 25 18.5**	**-0.7**
KTK1				AMb	AMB	14 25 20.3	
	comp=Z,883nm,1.3s,mb6.7						
KTK1				*e*pP	pP	14 25 28.9	-1.1
KTK1	**Kautokeino**	**60.62**	**339**⇑	*i*P	**P**	**14 25 18.5**	**-0.7**
	comp=Z,883nm,1.3s,mb6.7						
PECR	**Pechory**	**61.16**	**321**⇑	*i*P	**P**	**14 25 21.0**	**-2.0**
PECR				*e*		14 29 07.0	
PECR				*e*S	**S**	**14 33 31.0**	**-7.2**
PECR				*i*		14 35 04.0	
PECR				pmax	pmax		
	comp=N,9µm,6.4s						
PECR				pmax	pmax		
	comp=Z,10µm,6.4s						
PECR				pmax	pmax		
	comp=E,9µm,6.0s						
PECR				smax			
	comp=N,32µm,12.0s						
PECR				smax			
	comp=E,7µm,12.0s						
PECR				MLR	MLR		
	comp=E,58µm,20.0s						
PECR				MLR	MLR		
	comp=Z,49µm,20.0s,MS6.7						
PECR				MLR	MLR		
	comp=N,42µm,14.0s						
TRO	**Tromso**	**61.24**	**341**⇑	*i*P	**P**	**14 25 20.5**	**-2.9**
TRO				AMb	AMB	14 25 22.4	
	comp=Z,1µm,1.3s,mb6.9						
TRO				*e*PP	PP	14 27 35.0	-5.5
TRO				*e*S	**S**	**14 33 36.7**	**-2.3**
TRO				*e*SS	SS	14 37 41.1	+0.1
TRO				AMS	AMS	14 55 07.4	
	comp=Z,55µm,18.7s,MS6.7						
TRO	**Tromso**	**61.24**	**341**⇑	*i*P	**P**	**14 25 20.5**	**-2.9**
	comp=Z,1µm,1.3s,mb6.9						
TRO				LR	LR		
	comp=Z,55008µm,18.7s						
HYB	**Hyderabad**	**61.35**	**268**⇑	*i*P	**P**	**14 25 23.5**	**-1.3**
	comp=Z,640nm,1.0s,mb6.7						
HYB				*e*	pP	14 25 36.0	+0.4
HYB				*e*S	**S**	**14 33 35.0**	**-6.2**
HYB				*e*P'P'		14 54 36.0	
HYB	**Hyderabad**	**61.35**	**268**⇑	*i*P	**P**	**14 25 23.5**	**-1.3**
	comp=Z,640nm,1.0s,mb6.7						
HYB				*e*pP	pP	14 25 36.0	+0.4
HYB				*e*PcP	PcP	14 26 04.0	-2.6
HYB				*e*PP	PP	14 27 40.0	-2.2
HYB				*e*PPP	PPP	14 29 16.0	+5.4
HYB				*e*ScP		14 30 09.0	
HYB				*e*S	**S**	**14 33 36.0**	**-5.2**
HYB				*e*ScS	ScS	14 35 03.0	-6.5
HYB				*e*SS	SS	14 37 48.0	+4.6
HYB				*e*		14 53 44.0	
HYB				*e*PKPPKP		14 54 44.0	
HYB				*e*		14 55 03.0	
LATR	**Latur**	**62.19**	**270**⇑	*i*P	**P**	**14 25 30.3**	**-0.1**
JOF	**Joensuu**	**62.30**	**332**	*e*p	**P**	**14 25 28.2**	**-2.3**
	comp=Z,289nm,0.8s,mb6.5						
JOF	**Joensuu**	**62.30**	**332**	*e*P	**P**	**14 25 28.2**	**-2.3**
JOF				pmax	pmax		
	comp=Z,289nm,0.8s,mb6.5						
NLW	**Nelson Butte**	**62.36**	**49**	P	**P**	**14 25 30.7**	**-0.4**
CTA	**Charters Tower**	**62.55**	**179**⇑	*i*P	**P**	**14 25 31.6**	**-1.2**
	comp=Z,44nm,0.9s,mb5.6						
CTA				*e*S	**S**	**14 33 56.4**	**+0.1**
CTA				*e*PKPPKP		14 54 38.3	
CTA	**Charters Tower**	**62.55**	**179**	P	**P**	**14 25 32.3**	**-0.5**
	comp=Z,146nm,1.2s,mb6.0,baz=2.8,slow=6.9,SNR=30						
CTA				LR	LR	14 49 20.0	
	comp=Z,24µm,21.1s,MS6.3,baz=1.0,slow=33						
CTA				PKP2bc		14 54 40.0	
	comp=Z,9.7nm,1.0s,baz=192,slow=1.1,SNR=4.6						
CTAO	**Charters Tower**	**62.55**	**179**⇑	*e*P	**P**	**14 25 32.1**	**-0.7**
	comp=Z,189nm,1.3s,mb6.1						
CTAO				LR	LR		
	comp=Z,27µm,22.0s,MS6.4						
COR	**Corvallis**	**62.61**	**54**	P	**P**	**14 25 32.3**	**-0.6**
COR				pmax	pmax		
	comp=Z,130nm,0.9s,mb6.1						
COR	**Corvallis**	**62.61**	**54**	*e*P	**P**	**14 25 31.6**	**-1.3**
	comp=Z,125nm,0.9s,mb6.0						
COR				LR	LR		
	comp=Z,4µm,20.0s						
WTV	**Waterville**	**62.79**	**49**	P	**P**	**14 25 33.1**	**-0.9**
NAC	**Naches**	**62.84**	**50**	P	**P**	**14 25 34.1**	**-0.3**
EBG	**Ellensburg**	**62.89**	**50**	P	**P**	**14 25 34.5**	**-0.2**
MDRS	**Chennai**	**62.92**	**263**	*e*P	**P**	**14 25 34.0**	**-1.3**
MDRS				*e*		14 27 53.0	
MDRS				*e*		14 34 01.0	
MDRS				*e*		14 37 48.0	
EPH	**Ephrata**	**63.18**	**49**	P	**P**	**14 25 35.7**	**-1.0**
WRAB	**Tennant Creek**	**63.20**	**191***c*	*i*P	**P**	**14 25 36.5**	**-0.6**
WRAB	**Tennant Creek**	**63.20**	**191**⇑	*i*P	**P**	**14 25 36.0**	**-1.1**
	comp=Z,264nm,1.0s,mb6.3						
WRAB				LR	LR		
	comp=Z,6µm,22.0s,MS5.7						
WB2	**Warramunga Arr**	**63.20**	**191**⇑	*i*P	**P**	**14 25 36.1**	**-1.1**
WB2				*e*S	**S**	**14 34 02.5**	**-1.9**
WB2				*e*PKPPKP		14 54 39.2	
WRA	**Warramunga Arr**	**63.21**	**192**	P	**P**	**14 25 35.9**	**-1.2**
	comp=Z,80nm,0.9s,mb5.9,baz=12,slow=6.8,SNR=155						
WRA				S	**S**	**14 34 03.0**	**-1.4**
	comp=Z,6.4nm,1.3s,baz=10.0,slow=13,SNR=4.7						
WRA				PKP2bc		14 54 39.9	
	comp=Z,14nm,1.0s,baz=175,slow=2.2,SNR=7.4						
WRA	**Warramunga Arr**	**63.21**	**192**	P	**P**	**14 25 35.9**	**-1.2**
WRA				S	**S**	**14 34 03.0**	**-1.5**
WRA			⇑	*e*		14 54 39.9	
FITZ	**Fitzroy Crossi**	**63.21**	**201**⇑	*i*P	**P**	**14 25 37.0**	**-0.2**
	comp=Z,158nm,1.1s,mb6.1						
FITZ				*e*S	**S**	**14 34 04.4**	**-0.1**
FITZ				*e*PKPPKP		14 54 32.5	
FITZ	**Fitzroy Crossi**	**63.21**	**201**	LR	LR	14 50 46.4	
	comp=Z,8µm,21.8s,MS5.9,baz=75,slow=34						
FITZ				PKPPKP		14 54 32.4	
	comp=Z,7.3nm,1.1s,baz=187,slow=2.8,SNR=4.9						
FITZ				PKP2bc		14 54 41.0	
	comp=Z,70nm,1.5s,baz=305,slow=0.9,SNR=5.3						
VFP	**Flag Point**	**63.28**	**52**	P	**P**	**14 25 37.2**	**-0.1**
BHV	**Bhavnagar**	**63.37**	**276**	*e*P	**P**	**14 25 37.3**	**-0.9**
WAH2	**Wahluke Slope**	**63.54**	**50**	P	**P**	**14 25 38.4**	**-0.6**
LOF	**Lofoten**	**63.65**	**342**	*e*P	**P**	**14 25 39.6**	**+0.3**
LOF				AMb	AMB	14 25 42.5	
	comp=Z,659nm,1.1s,mb6.6						
LOF	**Lofoten**	**63.65**	**342**	*e*P	**P**	**14 25 39.6**	**+0.3**
	comp=Z,659nm,1.1s,mb6.6						
OD2	**Odessa Site #2**	**63.65**	**49**	P	**P**	**14 25 38.7**	**-0.9**
VAN	**Vannovskaya**	**63.68**	**298**	P	**P**	**14 25 40.0**	**0.0**
VAN				S	**S**	**14 34 10.0**	**-0.1**
WRD	**Warden**	**63.75**	**50**	P	**P**	**14 25 39.0**	**-1.3**
HAWA	**Hanford**	**63.77**	**50**	*e*P	**P**	**14 25 40.2**	**-0.3**
	comp=Z,337nm,1.5s,mb6.2						
HAWA				LR	LR		
	comp=Z,23µm,22.0s,MS6.3						
HUMO	**Hull Mountain**	**63.94**	**55**⇑	*e*P	**P**	**14 25 41.7**	**+0.1**
	comp=Z,66nm,1.1s,mb5.6						
HUMO				LR	LR		
	comp=Z,25µm,20.0s,MS6.4						
KRMB	**Red Mountain**	**63.98**	**57**	*e*P	**P**	**14 25 42.2**	**+0.4**
NEW	**Newport**	**64.02**	**47**	P	**P**	**14 25 41.2**	**-0.8**
NEW				pmax	pmax		
	comp=Z,190nm,1.2s						
NEW	**Newport**	**64.02**	**47**⇑	*e*P	**P**	**14 25 41.3**	**-0.7**
	comp=Z,192nm,1.3s,mb6.0						
NEW				LR	LR		
	comp=Z,36µm,22.0s,MS6.5						
POO	**Poona**	**64.11**	**272**⇑	*i*P	**P**	**14 25 40.5**	**-2.6**
	comp=Z,630nm,1.0s,mb6.6						
POO				*i* PCP	PcP	14 26 18.5	+0.6
POO				*i* PP	PP	14 28 00.5	-5.5
POO				*i*		14 30 20.5	
POO				*i*		14 34 13.0	
POO				*i*		14 34 27.0	
POO				*i*		14 34 36.0	
POO				*i*		14 35 30.5	
POO				*i*		14 38 17.0	
POO				*i*		14 41 08.5	
BHJ	**Bhuj**	**64.27**	**279**⇓	*e*P	**P**	**14 25 42.6**	**-1.5**
	comp=Z,32µm,23.0s						
BHJ				*e*S	**S**	**14 34 18.5**	**+0.8**
	comp=Z,2µm,1.0s						
MOS	**Moscow**	**64.41**	**323**⇑	*i*P	**P**	**14 25 43.2**	**-1.2**
MOS				*e*		14 26 17.5	
MOS				*e*		14 28 02.5	
MOS				*e*PPP	PPP	14 29 36.8	-4.1
MOS				*i* S	**S**	**14 34 15.4**	**-3.4**
MOS				*e*PS	PS	14 34 50.2	+6.8
MOS				*e*		14 35 30.1	
MOS				*e*SS	SS	14 38 24.2	-6.5
MOS				pmax	pmax		
	comp=N,525nm,1.8s						
MOS				pmax	pmax		
	comp=E,377nm,1.8s						
MOS				pmax	pmax		
	comp=Z,2µm,1.8s,mb6.7						
MOS				pmax	pmax		
	comp=Z,18µm,4.4s						
MOS				pmax	pmax		
	comp=N,10µm,4.3s						
MOS				pmax	pmax		
	comp=E,7µm,4.3s						
MOS				smax			
	comp=N,19µm,5.0s						
MOS				smax			
	comp=E,8µm,4.5s						
MOS				MLR	MLR		
	comp=Z,74µm,15.7s,MS7.0						
MOS				MLR	MLR		
	comp=N,34µm,15.1s,MS6.9						
MOS				MLR	MLR		
	comp=E,48µm,15.9s,MS6.9						
KHMM	**Horse Mountain**	**64.46**	**57**	*e*P	**P**	**14 25 45.8**	**+0.8**
KAF	**Kangasniemi**	**64.56**	**333**	*e*p	**P**	**14 25 43.5**	**-1.7**
	comp=E,241nm,0.8s,mb6.3,baz=45,slow=6.2						
KAF	**Kangasniemi**	**64.56**	**333**	*e*P	**P**	**14 25 43.5**	**-1.7**
KAF				pmax	pmax		
	comp=Z,241nm,0.8s,mb6.3						
YBH	**Yreka Blue Hor**	**64.59**	**56**	P	**P**	**14 25 45.6**	**-0.2**
YBH				pmax	pmax		
	comp=Z,110nm,1.0s						
YBH	**Yreka Blue Hor**	**64.59**	**56**	*e*P	**P**	**14 25 46.4**	**+0.5**
	comp=Z,108nm,1.0s,mb5.8						
YBH				LR	LR		
	comp=Z,27µm,21.0s,MS6.4						
KAD	**Karad**	**64.64**	**271**⇑	*i*P	**P**	**14 25 45.7**	**-0.8**
	comp=Z,34µm,18.0s						
BOM	**Bombay**	**64.65**	**273**	*e*P	**P**	**14 25 47.5**	**+0.9**
BOM				*e*		14 28 12.5	
	comp=Z,1µm,1.0s						
PUL	**Pulkovo**	**64.75**	**330**⇓	*i*P	**P**	**14 25 45.4**	**-1.2**
PUL				*e*PPP	PPP	14 29 50.8	+6.2
PUL				*e*S	**S**	**14 34 15.0**	**-8.0**
PUL				pmax	pmax		
	comp=Z,714nm,0.9s,mb6.7						
PUL				pmax	pmax		
	comp=N,684nm,1.2s						
PUL				pmax	pmax		
	comp=E,927nm,1.2s						
PUL				smax			
	comp=E,7µm,4.3s						
PUL				smax			
	comp=Z,4µm,4.6s						
PUL				smax			
	comp=N,15µm,5.8s						
PUL				MLR	MLR		
	comp=E,121µm,19.0s,MS7.2						
PUL				MLR	MLR		
	comp=Z,198µm,19.0s,MS7.3						
PUL				MLR	MLR		
	comp=N,94µm,18.0s,MS7.2						
PUL	**Pulkovo**	**64.75**	**330**⇑	*i*P	**P**	**14 25 45.4**	**-1.2**
SUMG	**Summit**	**64.92**	**1**⇑	*i*P	**P**	**14 25 47.2**	**-0.3**
	comp=N,1µm,1.0s,mb6.9						
JMIC	**Jan Mayen**	**64.99**	**351**	LR	LR	14 55 42.7	
	comp=N,15µm,20.5s,MS6.2,baz=20,slow=37						
JMIC	**Jan Mayen**	**64.99**	**351**	*e*P	**P**	**14 25 46.3**	**-1.6**
JMIC				*e*PP	PP	14 28 09.0	-4.0
JMIC				*e*S	**S**	**14 34 26.4**	**+0.7**
JMIC				AMS	AMS	14 51 24.8	
	comp=Z,9µm,19.0s,MS6.0						
JMIC	**Jan Mayen**	**64.99**	**351**	*e*P	**P**	**14 25 46.3**	**-1.6**
JMIC				LR	LR		
	comp=Z,8626µm,19.0s						
MOR8	**Moi Rana**	**64.99**	**340**⇑	*i*P	**P**	**14 25 45.3**	**-2.7**
MOR8				AMb	AMB	14 25 46.9	
	comp=Z,2µm,1.4s,mb6.9						
MOR8	**Moi Rana**	**64.99**	**340**⇑	*i*P	**P**	**14 25 45.3**	**-2.7**
	comp=Z,2µm,1.4s,mb6.9						
FINES	**FINESS Array B**	**65.11**	**332**	P	**P**	**14 25 47.8**	**-1.0**
	comp=Z,416nm,0.7s,mb6.6,baz=56,slow=6.9,SNR=353						
FINES				LR	LR	14 56 59.3	
	comp=Z,77µm,18.3s,MS6.9,baz=53,slow=38						
FINES	**FINESS Array B**	**65.11**	**332**	P	**P**	**14 25 47.8**	**-1.0**
FINES				pmax	pmax		
	comp=Z,416nm,0.7s						
FINES				MLR	MLR		
	comp=Z,77µm,18.3s						
OBN	**Obninsk**	**65.27**	**323**α	*i*P	**P**	**14 25 48.7**	**-1.3**
OBN				*e**PP	pP	14 26 00.2	-0.8
OBN				*e*		14 26 04.7	
OBN				*e*		14 26 21.0	
OBN				*i* S	S	14 34 25.7	-3.7
OBN				*e*SS	SS	14 38 39.2	-5.0
OBN				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.8						
OBN				pmax	pmax		
	comp=Z,15µm,4.0s						
OBN				MLR	MLR		
	comp=Z,70µm,13.0s,MS7.0						
WDC	**Whiskeytown Da**	**65.37**	**57**	P	**P**	**14 25 50.8**	**-0.1**
WDC				pmax	pmax		
	comp=Z,160nm,1.1s,mb6.0						
WDC	**Whiskeytown Da**	**65.37**	**57**⇑	*e*P	**P**	**14 25 50.6**	**-0.3**
	comp=Z,161nm,1.2s,mb5.9						
WDC				LR	LR		
	comp=Z,13µm,22.0s,MS6.1						
BMO	**Blue Mountains**	**65.94**	**51**⇑	*e*P	**P**	**14 25 54.0**	**-0.4**
	comp=Z,109nm,1.2s,mb5.8						
BMO				LR	LR		
	comp=Z,23µm,22.0s,MS6.3						
MOD	**Modoc**	**65.95**	**55**⇑	*e*P	**P**	**14 25 54.5**	**-0.1**
	comp=Z,296nm,1.6s,mb6.1						
MOD				LR	LR		
	comp=Z,18µm,20.0s,MS6.3						
HOPS	**Hopland**	**65.97**	**59**	*e*P	**P**	**14 25 54.8**	**0.0**
	comp=Z,857nm,1.8s,mb6.5						
HOPS				LR	LR		
	comp=Z,25µm,19.0s,MS6.4						
GOA	**Goa**	**66.06**	**269**⇑	*i*	**P**	**14 26 00.1**	**+4.4**
	comp=Z,38µm,20.1s						
GOA				*i* S	S	14 34 43.5	+3.8
VOR	**Voronezh**	**66.22**	**319**⇑	*i*P	**P**	**14 25 55.0**	**-1.1**
VOR				pmax	pmax		
	comp=Z,4µm,2.5s,mb7.0						
NSHM	**Saint Helena R**	**66.55**	**59**	*e*P	**P**	**14 25 58.4**	**0.0**
VRSR	**Storozhevoye**	**66.55**	**319**	*e*P	**P**	**14 25 57.1**	**-1.1**
VRSR				*e**SP	sP	14 26 08.3	-4.9
VRSR				*e*		14 26 27.4	
VRSR				*e*		14 28 19.6	
VRSR				*e*S	S	14 34 41.8	-3.2
VRSR				*e**SS		14 34 59.9	
VRSR				*e*		14 35 47.8	
VRSR				*e*SS	SS	14 38 59.5	-4.5
VRSR				*e*SSS	SSS	14 41 57.4	-2.8
VRSR				pmax	pmax		
	comp=Z,1µm,0.9s,mb7.0						
VRSR				pmax	pmax		
	comp=N,1µm,1.0s						
VRSR				pmax	pmax		
	comp=E,710nm,1.0s						
VRSR				smax			
	comp=N,9µm,6.3s						
VRSR				smax			
	comp=Z,3µm,5.5s						
VRSR				smax			
	comp=E,5µm,4.0s						
VRSR				MLR	MLR		
	comp=E,34µm,15.0s,MS6.7						
VRSR				MLR	MLR		
	comp=Z,47µm,15.0s,MS6.8						
VRSR				MLR	MLR		
	comp=N,15µm,14.0s,MS6.7						
MSO	**Missoula**	**66.60**	**47**⇑	*e*P	**P**	**14 25 58.0**	**-0.6**
	comp=N,103nm,1.2s,mb5.7						
MSO				LR	LR		
	comp=Z,11µm,22.0s,MS6.0						
SCO	**Scoresbysund**	**66.67**	**355**	*i* P	**P**	**14 25 57.8**	**-0.9**
SCO				*i* S	S	14 34 46.4	+0.2
SCO				pmax	pmax		
	comp=Z,300nm,0.9s,mb6.3						
SCO	**Scoresbysund**	**66.67**	**355**	*i* P	**P**	**14 25 57.8**	**-0.9**
	comp=Z,301nm,0.9s,mb6.3						
SCO				*i* S	S	14 34 46.4	+0.2
OHCM	**Honcut**	**66.76**	**57**	*e*P	**P**	**14 25 59.4**	**-0.3**
CHMT	**Chamberlain Mo**	**66.92**	**47**	*e*P	**P**	**14 25 59.6**	**-1.0**
ASAR	**Alice Springs**	**66.93**	**191**	P	**P**	**14 26 01.1**	**0.0**
	comp=Z,150nm,0.9s,mb6.0,baz=7.6,slow=5.1,SNR=295						
ASAR				PKP2bc		14 54 26.7	
	comp=Z,3.7nm,0.9s,baz=196,slow=2.5,SNR=4.7						
ASAR				LR	LR	14 57 39.5	
	comp=Z,5µm,18.5s,MS5.7,baz=5.1,slow=38						
ASAR	**Alice Springs**	**66.93**	**191**	P	**P**	**14 26 01.1**	**0.0**
ASAR			⇑	*e*		14 54 26.7	
ASAR				LR	LR	14 57 39.5	
ASPA	**Alice Springs**	**66.93**	**191**⇑	*i*P	**P**	**14 26 01.2**	**+0.1**
ASPA				*e*S	S	14 34 50.5	+0.4
ASPA				*e*PKPPKP		14 54 26.6	
NSS	**Namsos**	**66.93**	**340**	*e*P	**P**	**14 25 58.0**	**-2.4**
NSS				AMb	AMB	14 25 59.7	
	comp=Z,822nm,1.2s,mb6.6						
NSS				*e*S	S	14 34 46.2	-3.2
NSS				*e*SS	SS	14 39 09.0	-0.9
NSS				AMS	AMS	14 59 35.1	
	comp=Z,63µm,19.7s,MS6.8						
NSS	**Namsos**	**66.93**	**340**	*e*P	**P**	**14 25 58.0**	**-2.4**
	comp=Z,822nm,1.2s,mb6.6						
MNGI	**Mangalore**	**66.98**	**266**	*i* P	**P**	**14 26 00.4**	**-1.1**
MNGI				*e*		14 34 46.6	
	comp=Z,26µm,20.8s						
BEKR	**Beckwourth**	**67.13**	**56**⇑	*e*P	**P**	**14 26 01.9**	**-0.2**
	comp=Z,165nm,1.0s,mb6.0						
SAC	**San Andreas**	**67.23**	**59**	*e*P	**P**	**14 26 07.9**	**+5.2**
SAC	**San Andreas**	**67.23**	**59**	*e*P	**P**	**14 26 02.3**	**-0.4**
MAK	**Makhachkala**	**67.25**	**308***d*	*i*P	**P**	**14 26 02.0**	**-0.8**
MAK				*i*		14 26 25.0	
MAK				*e*		14 28 26.0	
MAK				*e*PPP	PPP	14 30 04.0	-5.9
MAK				*i* S	S	14 34 53.0	-0.7
MAK				*i* PS	PS	14 35 17.0	-4.6
MAK				pmax	pmax		
	comp=N,9µm,8.0s						
MAK				pmax	pmax		
	comp=E,8µm,8.0s						
MAK				pmax	pmax		
	comp=Z,28µm,8.0s						
MAK				pmax	pmax		
	comp=Z,3µm,2.0s,mb6.9						
MAK				pmax	pmax		
	comp=N,816nm,1.7s						
MAK				pmax	pmax		
	comp=E,918nm,1.7s						
MAK				pmax	pmax		
	comp=Z,10µm,10.0s						
MAK				pmax	pmax		
	comp=N,2µm,6.0s						
MAK				pmax	pmax		
	comp=E,2µm,6.0s						
MAK				smax			
	comp=N,42µm,10.0s						
MAK				smax			
	comp=E,10µm,7.0s						
MAK				MLR	MLR		
	comp=N,95µm,16.0s,MS7.2						
MAK				MLR	MLR		
	comp=E,77µm,16.0s,MS7.2						
MAK				MLR	MLR		
	comp=Z,66µm,16.0s,MS7.0						
LKC	**Lake Chabot**	**67.36**	**59**	*e*P	**P**	**14 26 03.3**	**-0.2**
NOUC	**Port Laguerre**	**67.41**	**159**	*e*P	**P**	**14 26 05.9**	**+1.8**
DZM	**Mont Dzumac**	**67.42**	**159**	*e*P	**P**	**14 26 05.7**	**+1.6**
HRY	**Holter Researc**	**67.81**	**46**	*e*P	**P**	**14 26 06.0**	**-0.2**
MBWA	**Marble Bar**	**67.83**	**206**⇑	*i*P	**P**	**14 26 06.5**	**-0.3**
	comp=Z,119nm,0.8s,mb6.0						
MBWA				*e*pP	pP	14 26 17.6	-0.1
MBWA				LR	LR		
	comp=Z,10µm,21.0s,MS6.0						
WCN	**Washoe City**	**67.85**	**57**	P	**P**	**14 26 07.0**	**+0.4**
WCN				pmax	pmax		
	comp=Z,150nm,0.9s,mb6.0						
WCN	**Washoe City**	**67.85**	**57**⇑	*e*P	**P**	**14 26 06.9**	**+0.4**
	comp=Z,152nm,0.9s,mb6.0						
TRON	**Trondheim**	**68.20**	**340**⇑	*i*P	**P**	**14 26 08.5**	**+0.2**
TRON				*e*pP	pP	14 26 18.9	-0.5
CMB	**Columbia Colle**	**68.23**	**58**	P	**P**	**14 26 08.9**	**-0.1**
CMB				pmax	pmax		
	comp=Z,380nm,1.5s,mb6.2						
CMB	**Columbia Colle**	**68.23**	**58**⇑	*e*P	**P**	**14 26 08.7**	**-0.3**
	comp=Z,378nm,1.5s,mb6.2						
CMB				LR	LR		
	comp=Z,28µm,22.0s,MS6.5						
SAO	**San Andreas Ge**	**68.34**	**60**	P	**P**	**14 26 09.9**	**+0.2**
SAO				pmax	pmax		
	comp=Z,95nm,1.2s,mb5.7						
SAO	**San Andreas Ge**	**68.34**	**60**	*e*P	**P**	**14 26 09.1**	**-0.6**
	comp=Z,95nm,1.2s,mb5.7						
SAO				LR	LR		
	comp=Z,17µm,22.0s,MS6.2						
TRD	**Trivandrum**	**68.35**	**261**	*e*	**P**	**14 26 15.0**	**+4.9**
HLID	**Hailey**	**68.37**	**50**	*e*P	**P**	**14 26 09.3**	**-0.4**
	comp=Z,2µm,1.2s,mb7.0						
HLID				LR	LR		
	comp=Z,22µm,20.0s,MS6.4						
MCMT	**McKenzie Canyo**	**68.45**	**48**	*e*P	**P**	**14 26 09.6**	**-0.6**
GOF	**Gofitskoye**	**68.47**	**312**	*i* P	**P**	**14 26 10.0**	**-0.4**
GOF				*i* S	S	14 35 10.0	+1.8
GOF				pmax	pmax		
	comp=N,1µm,1.0s						
GOF				pmax	pmax		
	comp=E,320nm,1.0s						
GOF				pmax	pmax		
	comp=Z,3µm,1.0s,mb7.2						
GOF				smax			
	comp=E,880nm,1.1s						
BOZ	**Bozeman (W)**	**68.59**	**47**⇑	*e*P	**P**	**14 26 11.1**	**0.0**
	comp=E,122nm,0.7s,mb5.9						
BOZ				LR	LR		
	comp=Z,23µm,22.0s,MS6.4						
BMN	**Battle Mountai**	**68.69**	**54**⇑	*e*P	**P**	**14 26 12.2**	**+0.4**
	comp=Z,166nm,1.2s,mb5.8						
BMN				LR	LR		
	comp=Z,27µm,22.0s,MS6.4						
AFI	**Afiamalu**	**68.81**	**135**	PFAKE		14 26 30.0	+17
AFI				LR	LR		
	comp=Z,36µm,21.0s,MS6.6						
LRV	**Little Rabbit**	**68.82**	**60**	*e*P	**P**	**14 26 13.1**	**+0.4**
IZAR	**Zarasai**	**69.13**	**328**⇑	*i*P	**P**	**14 26 13.5**	**-0.8**
IZAR				AMPb	AMB	14 26 15.6	
	comp=Z,192nm,1.1s,mb6.0						
QLMT	**Earthquake Lak**	**69.23**	**48**	*e*P	**P**	**14 26 14.4**	**-0.6**
IDID	**Didziasalis**	**69.25**	**328**	*i* P	**P**	**14 26 14.4**	**-0.6**
IDID				AMPb	AMB	14 26 16.5	
	comp=Z,382nm,1.0s,mb6.3						
NVAR	**Mina Array Bea**	**69.28**	**57**	P	**P**	**14 26 15.8**	**+0.4**
	comp=Z,72nm,0.7s,mb5.7,baz=283,slow=6.9,SNR=236						
NVAR				LR	LR	14 53 56.4	
	comp=Z,17µm,21.2s,MS6.2,baz=300,slow=34						
NVAR				PKP2bc		14 54 20.3	
	comp=Z,4.4nm,0.9s,baz=152,slow=2.8,SNR=8.4						
NVAR	**Mina Array Bea**	**69.28**	**57**	P	**P**	**14 26 15.8**	**+0.4**
NVAR				LR	LR	14 53 56.4	
NVAR			⇑	*e*		14 54 20.3	
ISAL	**Salakas**	**69.31**	**328**⇑	*i*P	**P**	**14 26 14.8**	**-0.5**
ISAL				AMPb	AMB	14 26 16.9	
	comp=Z,438nm,1.1s,mb6.3						
MNV	**Mina**	**69.37**	**56**	*e*P	**P**	**14 26 16.0**	**0.0**
MNV				pmax	pmax		
	comp=Z,110nm,0.8s,mb5.8						
MNV	**Mina**	**69.37**	**56**⇑	*e*P	**P**	**14 26 16.2**	**+0.2**
	comp=Z,112nm,0.8s,mb5.8						
MNV				LR	LR		
	comp=Z,16µm,20.0s,MS6.3						
KIV	**Kislovodsk**	**69.37**	**311**	P	**P**	**14 26 16.1**	**+0.2**
	comp=Z,10µm,0.8s						
KIV	**Kislovodsk**	**69.37**	**311***c*	*i*P	**P**	**14 26 16.2**	**+0.3**
KIV				pmax	pmax		
	comp=Z,2µm,1.1s,mb6.9						

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KIV                                MLR     MLR
      comp=Z,88µm,20.0s,MS7.0
KIV   Kislovodsk       69.37 311⇑iP      P     14 26 16.2 +0.3
MNK   Minsk            69.40 326  P      P     14 26 13.0 -2.9
MNK                               S      S     14 35 12.0 -7.0
IIGN  Ignalina         69.43 328 iP      P     14 26 15.6 -0.5
IIGN                              AMPb   AMB   14 26 17.7
      comp=Z,525nm,1.0s,mb6.4
ZEI   Tsey             69.44 310 iP      P     14 26 16.0 -0.4
ZEI                              e             14 26 33.0
ZEI                              ePPP    PPP   14 30 36.0 +4.9
ZEI                              iS      S     14 35 18.0 -1.8
ZEI                              ePS     PS    14 36 05.0 +14
ZEI                               pmax   pmax
      comp=E,6µm,10.0s
ZEI                               pmax   pmax
      comp=Z,13µm,10.0s
ZEI                               pmax   pmax
      comp=N,8µm,8.0s
ZEI                               smax
      comp=N,14µm,16.0s
ZEI                               smax
      comp=E,4µm,18.0s
ZEI                               MLR    MLR
      comp=Z,130µm,17.0s,MS7.2
ZEI                               MLR    MLR
      comp=N,84µm,18.0s,MS7.2
ZEI                               MLR    MLR
      comp=E,80µm,18.0s,MS7.2
GCMT  Greycliff        69.55  46 eP      P     14 26 17.1 +0.1
GCMT                             epP     pP    14 26 27.0 -1.1
YMR   Madison River    69.58  48⇑eP      P     14 26 17.5 +0.3
TI2   Plekhanov        69.62 308⇑iP      P     14 26 18.0 +0.5
TI2                              iS      S     14 35 23.0 +1.2
TI2                              iSS     SKS   14 36 10.0 -0.8
MOL   Molde            69.67 341⇑iP      P     14 26 19.9 +2.5
MOL                               AMb    AMB   14 26 21.9
      comp=Z,960nm,1.2s,mb6.6
MOL   Molde            69.67 341⇑iP      P     14 26 19.9 +2.5
      comp=Z,960nm,1.2s,mb6.6
ELK   Elko             69.67  53  P      P     14 26 18.1 +0.3
ELK                               pmax   pmax
      comp=Z,290nm,1.8s
ELK   Elko             69.67  53⇑eP      P     14 26 18.2 +0.4
      comp=Z,293nm,1.8s,mb5.9
ELK                               LR     LR
      comp=Z,25µm,22.0s,MS6.4
YNR   Norris Junctio   69.71  48⇑eP      P     14 26 18.8 +0.9
DOMB  Dombas           69.73 340⇑iP      P     14 26 16.9 -0.9
DOMB                              AMb    AMB   14 26 18.8
      comp=Z,1µm,1.1s,mb6.8
DOMB                             epP     pP    14 26 28.1 -0.7
DOMB  Dombas           69.73 340⇑iP      P     14 26 16.9 -0.9
      comp=Z,1µm,1.1s,mb6.8
MTUM  Tungsten Hills   69.79  58 eP      P     14 26 18.6  0.0
YFT   Old Faithful     69.80  48 eP      P     14 26 20.0 +1.5
SFJ   Sondre           69.89   7  P      P     14 26 17.4 -1.3
SFJ                               S      S     14 35 20.1 -4.5
SFJ                               S            14 35 37.3
LKWY  Lake             69.96  47  P      P     14 26 22.1 +2.6
LKWY                              pmax   pmax
      comp=Z,83nm,0.9s,mb5.7
LKWY  Lake             69.96  47⇑eP      P     14 26 21.1 +1.6
      comp=Z,82nm,0.9s,mb5.7
LKWY                              LR     LR
      comp=Z,29µm,20.0s,MS6.5
NB2   NORSAR Subarra   70.00 338  P      P     14 26 18.7 -0.8
      comp=Z,514nm,0.8s,mb6.5,baz=34,slow=6.2
NB2   NORSAR Subarra   70.00 338  P      P     14 26 18.7 -0.8
      baz=34,slow=6.2
NOA   NORSAR Array B   70.00 338  P      P     14 26 18.4 -1.0
      comp=Z,536nm,0.7s,mb6.6,baz=35,slow=6.3,SNR=458
NOA                               LR     LR    15 01 45.6
      comp=Z,68µm,19.7s,MS6.9,baz=30,slow=40
NOA   NORSAR Array B   70.00 338  P      P     14 26 18.4 -1.1
NOA                               pmax   pmax
      comp=Z,536nm,0.7s
NOA                               MLR    MLR
      comp=Z,68µm,19.7s
NOA   NORSAR Array B   70.00 338  P      P     14 26 18.4 -1.0
NOA                               LR     LR    15 01 45.6
HFS   Hagfors          70.04 337  P      P     14 26 18.5 -1.2
      comp=Z,506nm,0.6s,mb6.6,baz=56,slow=5.3,SNR=252
HFS   Hagfors          70.04 337  P      P     14 26 18.5 -1.2
HFS                               pmax   pmax
      comp=Z,506nm,0.6s
IMW   Indian Meadow    70.10  48⇑eP      P     14 26 21.1 +0.7
TPH   Tonopah          70.16  56⇑eP      P     14 26 21.1 +0.2
      comp=Z,138nm,0.9s,mb5.9
TPH                               LR     LR
      comp=Z,25µm,22.0s,MS6.4
MOOW  Moose Ponds      70.30  48⇑eP      P     14 26 22.2 +0.7
TPAW  Teton Pass       70.36  49⇑eP      P     14 26 22.9 +1.0
COCO  West Island      70.37 231⇑iP      P     14 26 24.1 +1.6
      comp=Z,4µm,1.8s,mb7.0
COCO                              LR     LR
      comp=Z,8µm,22.0s,MS5.9
HVU   Hansel Valley    70.44  51  P      P     14 26 22.8 +0.3
HVU   Hansel Valley    70.44  51⇑eP      P     14 26 22.6 +0.2
WUWY  Wally Ulrich     70.44  48⇑eP      P     14 26 23.0 +0.6
LOHW  Long Hollow      70.47  48⇑eP      P     14 26 23.2 +0.6
SNOW  Snow King Moun   70.48  49⇑eP      P     14 26 23.4 +0.7
REDW  Red Top Meadow   70.49  49 eP      P     14 26 23.2 +0.4
DGMT  Dagmar           70.55  41⇑eP      P     14 26 22.3 -0.7
      comp=Z,168nm,0.8s,mb6.0
DGMT                              LR     LR
      comp=Z,51µm,22.0s,MS6.7
GNI   Garni            70.63 307 iP      P     14 26 25.0 +1.3
GNI   Garni            70.63 307  P      P     14 26 25.1 +1.4
      comp=Z,178nm,0.9s,mb6.0,baz=7.1,slow=1.0,SNR=164
GNI                               LR     LR    15 00 39.2
      comp=Z,99µm,18.6s,MS7.1,baz=242,slow=39
GNI   Garni            70.63 307  P      P     14 26 25.1 +1.4
GNI                               pmax   pmax
      comp=Z,178nm,0.9s
GNI                               MLR    MLR
      comp=Z,99µm,18.6s
GNI   Garni            70.63 307⇑iP      P     14 26 24.9 +1.3
      comp=Z,1µm,1.3s,mb6.7
GNI                               LR     LR
      comp=Z,84µm,20.0s,MS7.0
AHID  Auburn Hatcher   70.75  49⇑eP      P     14 26 24.2 -0.1
      comp=Z,145nm,1.1s,mb5.8
AHID                              LR     LR
      comp=Z,34µm,22.0s,MS6.5
LAO   LASA Array       70.75  44⇑eP      P     14 26 24.1 -0.2
      comp=Z,692nm,0.9s,mb6.6
LAO                               LR     LR
      comp=Z,26µm,20.0s,MS6.5
BGU   Big Grassy Mou   70.84  52⇑eP      P     14 26 25.0  0.0
SPUT  South Promonto   70.93  51⇑eP      P     14 26 25.7 +0.2
OSL   Oslo             71.06 338⇑iP      P     14 26 24.7 -1.2
OSL                               AMb    AMB   14 26 26.7
      comp=Z,151nm,1.3s,mb5.8
OSL                              epP     pP    14 26 36.4 -0.5
OSL   Oslo             71.06 338⇑iP      P     14 26 24.7 -1.2
      comp=Z,151nm,1.3s,mb5.8
DAC   Darwin (Calif)   71.07  58  P      P     14 26 26.9 +0.5
DAC                               pmax   pmax
      comp=Z,260nm,1.6s,mb5.9
DAC   Darwin (Calif)   71.07  58⇑eP      P     14 26 26.3 -0.1
      comp=Z,261nm,1.6s,mb5.9
DAC                               LR     LR
      comp=Z,16µm,20.0s,MS6.3
FOO   Floro            71.11 341⇑iP      P     14 26 25.6 -0.6
FOO                               AMb    AMB   14 26 27.3
      comp=Z,893nm,1.2s,mb6.6
FOO   Floro            71.11 341⇑iP      P     14 26 25.6 -0.6
      comp=Z,893nm,1.2s,mb6.6
HWUT  Hardware Ranch   71.24  50⇑eP      P     14 26 27.5 +0.2
      comp=Z,952nm,1.8s,mb6.4
HWUT                              LR     LR
      comp=Z,24µm,22.0s,MS6.4
SOC   Sochi            71.24 312 iP      P     14 26 27.0 -0.3
SOC                              i             14 26 46.5
SOC                              i             14 29 01.0
SOC                              iPPP    PPP   14 30 49.1 +0.3
SOC                              iS      S     14 35 39.8 -0.9
KARS  Kars             71.30 308 eP      P     14 26 19.9 -7.8
TPNV  Topopah Spring   71.47  57  P      P     14 26 28.8  0.0
TPNV                              pmax   pmax
      comp=Z,1µm,1.7s,mb6.5
TPNV  Topopah Spring   71.47  57⇑eP      P     14 26 28.9 +0.1
      comp=Z,1µm,1.8s,mb6.5
TPNV                              LR     LR
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      comp=Z,21µm,20.0s,MS6.4
AKASG Malin Array Be   71.53 323  P      P     14 26 27.9 -1.0
      comp=Z,382nm,0.7s,mb6.5,baz=40,slow=6.0,SNR=881
AKASG                             PKPPKP       14 54 19.7
      comp=Z,0.4nm,0.3s,baz=238,slow=3.9,SNR=6.9
NOQ   North Oquirrh    71.54  52⇑eP      P     14 26 29.5 +0.3
NOQ                              epP     pP    14 26 40.3 +0.1
KIEV  Kiev             71.55 323  P      P     14 26 28.0 -1.0
BCA   Borcka           71.59 310 iP      P     14 26 29.8 +0.4
BCA   Borcka           71.59 310  P      P     14 26 29.8 +0.4
BW06  Boulder Array    71.60  48⇑eP      P     14 26 28.9 -0.5
      comp=Z,214nm,1.4s,mb5.9
BW06                              LR     LR
      comp=Z,21µm,21.0s,MS6.4
PDAR  Pinedale Array   71.60  48  P      P     14 26 29.2 -0.2
      comp=Z,68nm,0.8s,mb5.6,baz=266,slow=1.8,SNR=265
PDAR                              PKPPKP       14 54 20.0
      comp=Z,3.0nm,1.1s,baz=270,slow=3.0,SNR=5.2
KONO  Kongsberg        71.61 338  PcP    Px    14 27 29.8
KONO                              pSKSac       14 36 44.9
KONO  Kongsberg        71.61 338  PFAKE        14 26 40.0 +11
KONO                              LR     LR
      comp=Z,87µm,20.0s,MS7.0
SUW   Suwalki          71.61 328⇑iP      P     14 26 28.3 -1.0
SUW                              e*PP    pP    14 26 36.5 -3.8
SUW                              e             14 26 45.0
SUW                              eS      S     14 35 41.3 -3.5
SUW                              e             14 36 22.4
SUW                              e             14 36 26.7
SUW                               pmax   pmax
      comp=Z,22µm,5.6s
SUW                               MLR    MLR
      comp=E,90µm,22.3s,MS7.2
SUW                               MLR    MLR
      comp=N,128µm,20.6s,MS7.2
SUW                               MLR    MLR
      comp=Z,178µm,20.3s,MS7.3
SUW   Suwalki          71.61 328⇑iP      P     14 26 28.3 -1.0
SUW                              epP     pP    14 26 36.5 -3.8
SUW                              ePcP    PcP   14 26 45.0 -3.7
SUW                              eS      S     14 35 41.3 -3.5
SUW                              eSS           14 36 02.7
SUW                              eSKS    SKS   14 36 22.4 -3.0
SUW                              eScS    ScS   14 36 26.7 -1.3
SUW   Suwalki          71.61 328 iP      P     14 26 28.3 -1.0
      comp=Z,22µm,5.6s
SUW                              epP     pP    14 26 36.5 -3.8
SUW                              ePcP    PcP   14 26 45.0 -3.7
SUW                              eS      S     14 35 41.3 -3.5
SUW                              esS           14 36 02.7
SUW                              eSKS    SKS   14 36 22.4 -3.0
SUW                              eScS    ScS   14 36 26.7 -1.3
SUW                               LME          14 59 44.7
      comp=Z,90µm,22.3s
SUW                               LMN          15 00 06.2
      comp=Z,128µm,20.6s
SUW                               MLR    MLR   15 00 12.2
      comp=Z,178µm,20.3s,MS7.3
SUE   Sulen            71.65 341⇑iP      P     14 26 29.1 -0.3
SUE                               AMb    AMB   14 26 30.9
      comp=Z,1µm,1.1s,mb6.8
SUE                              epP     pP    14 26 40.1 -0.3
SUE   Sulen            71.65 341⇑iP      P     14 26 29.1 -0.3
      comp=Z,1µm,1.1s,mb6.7
TCUT  Toone Canyon     71.65  51⇑eP      P     14 26 30.1 +0.4
TCUT                             epP     pP    14 26 41.2 +0.4
ANN   Anapa            71.65 314c iP     P     14 26 29.2 -0.5
ANN                              i*PP    pP    14 26 39.6 -1.1
ANN                              i             14 26 49.7
ANN                              iPPP    PPP   14 30 46.6 -5.9
ANN                              iS      S     14 35 44.2 -1.2
ANN                              iSP     SP    14 36 16.3 +0.9
ANN                              i             14 36 30.2
ANN                              eSS     SS    14 40 17.4 -5.7
ANN                               pmax   pmax
      comp=Z,968nm,1.3s,mb6.6
ANN                               pmax   pmax
      comp=N,190nm,1.5s
ANN                               pmax   pmax
      comp=E,235nm,1.7s
ANN                               pmax   pmax
      comp=Z,2µm,1.5s,mb6.9
ANN   Anapa            71.65 314⇑iP      P     14 26 29.0 -0.7
JLU   Jordanelle       71.96  51⇑eP      P     14 26 31.8 +0.2
NLU   North Lily Min   72.03  52⇑eP      P     14 26 32.4 +0.4
ASK   Askoy            72.04 340⇑iP      P     14 26 31.5 -0.2
ASK                               AMb    AMB   14 26 33.5
      comp=Z,9µm,1.1s
ASK   Askoy            72.04 340⇑iP      P     14 26 31.5 -0.2
      comp=Z,9µm,1.1s
RUND  Rundenannen      72.06 340⇑iP      P     14 26 31.9 +0.1
RUND                              AMb    AMB   14 26 33.5
      comp=Z,3µm,1.3s,mb7.0
MWC   Mount Wilson     72.08  60  P      P     14 26 32.0 -0.4
MWC   Mount Wilson     72.08  60⇑eP      P     14 26 32.4  0.0
BER   Bergen           72.09 340 eP      P     14 26 31.3 -0.7
DAU   Daniels Canyon   72.20  51 eP      P     14 26 33.5 +0.5
EGD   Espegrend        72.22 340⇑iP      P     14 26 32.5 -0.3
EGD                               AMb    AMB   14 26 34.5
      comp=Z,9µm,1.4s,mb7.5
EGD   Espegrend        72.22 340⇑iP      P     14 26 32.5 -0.3
      comp=Z,9µm,1.4s,mb7.5
MPU   Maple Canyon     72.24  52⇑eP      P     14 26 33.5 +0.3
BORG  Borgarnes        72.30 354 eP      P     14 26 34.1 +1.0
      comp=Z,977nm,1.1s,mb6.7
BORG                              LR     LR
      comp=Z,6µm,21.0s,MS5.9
VANB  Van              72.44 306 eP      P     14 26 35.9 +1.5
VANB  Van              72.44 306  P      P     14 26 35.9 +1.5
TVAN  Van              72.47 306 iP      P     14 26 36.0 +1.3
VANT  Van              72.53 306 eP      P     14 26 39.1 +4.1
VANT  Van              72.53 306  P      P     14 26 39.1 +4.1
ARUT  Antelope Range   72.64  54  P      P     14 26 35.9 +0.3
ARUT  Antelope Range   72.64  54 eP      P     14 26 35.8 +0.2
BLS5  Blasjo           72.64 339⇑iP      P     14 26 36.1 +0.9
BLS5                              AMb    AMB   14 26 37.9
      comp=Z,538nm,1.2s,mb6.3
BLS5  Blasjo           72.64 339⇑iP      P     14 26 36.1 +0.9
      comp=Z,538nm,1.2s,mb6.3
ERZM  Erzurum          72.75 309 iP      P     14 26 37.7 +1.4
EZM   Erzurum          72.76 309 iP      P     14 26 37.0 +0.7
HKR   Hakkari          72.89 305 iP      P     14 26 38.1 +0.9
MVU   Marysvale        72.90  53 eP      P     14 26 38.0 +0.8
      comp=Z,221nm,1.6s,mb5.8
MVU                               LR     LR
      comp=Z,23µm,22.0s,MS6.4
MSU   Marysvale        72.91  53  P      P     14 26 37.9 +0.6
MSU   Marysvale        72.91  53 eP      P     14 26 37.8 +0.5
TMUT  Trail Mountain   72.96  52⇑eP      P     14 26 37.9 +0.4
ULM   Lac du Bonnet    73.11  36  P      P     14 26 37.1 -1.1
      comp=Z,57nm,0.8s,mb5.6,baz=318,slow=6.9,SNR=56
ULM                               PKPPKP       14 54 17.9
      comp=Z,7.2nm,1.1s,baz=130,slow=1.2,SNR=3.0
ULM                               LR     LR    15 03 05.1
      comp=Z,21µm,18.9s,MS6.4,baz=72,slow=39
VRT   Varto            73.17 308 iP      P     14 26 40.6 +1.8
VRT   Varto            73.17 308  P      P     14 26 40.6 +1.8
NEN   Nelson           73.18  57 eP      P     14 26 38.9  0.0
STAV  Stavanger        73.26 339⇑iP      P     14 26 38.5 -0.4
STAV                              AMb    AMB   14 26 40.5
      comp=Z,1µm,1.2s,mb6.7
STAV                             epP     pP    14 26 49.9  0.0
STAV  Stavanger        73.26 339⇑iP      P     14 26 38.5 -0.4
      comp=Z,1µm,1.2s,mb6.7
SIM   Simferopol’      73.27 316c iP     P     14 26 39.0 -0.2
SIM                              e             14 29 21.0
SIM                              ePPP    PPP   14 31 05.0 -3.2
SIM                              iS      S     14 36 02.0 -1.8
SIM                               pmax   pmax
      comp=Z,617nm,1.1s,mb6.5
SIM                               MLR    MLR
      comp=Z,145µm,16.0s,MS7.3
SIM   Simferopol’      73.27 316⇑iP      P     14 26 39.0 -0.2
SNART Snartemo         73.38 338⇑iP      P     14 26 39.2 -0.4
SNART                             AMb    AMB   14 26 41.1
      comp=Z,9µm,1.2s
SNART Snartemo         73.38 338⇑iP      P     14 26 39.2 -0.4
      comp=Z,9µm,1.2s
LDFC  Landfair         73.39  58 eP      P     14 26 40.1  0.0
LDFC                             epP     pP    14 26 51.3 +0.1
GUMT  Gumushane        73.46 310 iP      P     14 26 41.4 +1.0
SRU   San Rafael       73.48  52  P      P     14 26 40.8 +0.2
SRU   San Rafael       73.48  52⇑eP      P     14 26 40.7 +0.1
PFO   Pinyon Flat Ob   73.50  59  P      P     14 26 40.6 -0.2
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PFO                               pmax   pmax
      comp=Z,700nm,1.8s,mb6.3
PFO   Pinyon Flat Ob   73.50  59⇑eP      P     14 26 40.7 -0.1
      comp=Z,702nm,1.8s,mb6.3
PFO                               LR     LR
      comp=Z,9µm,22.0s,MS6.0
RWWY  Rawlins          73.61  48⇑eP      P     14 26 41.0 -0.3
BSD   Bornholm Skovb   73.74 333⇑iP      P     14 26 40.9 -0.8
BSD                              iS      S     14 36 04.5 -4.4
BSD                               pmax   pmax
      comp=Z,1µm,1.0s,mb6.8
BSD                               MLR    MLR
      comp=Z,58µm,17.0s,MS6.9
BSD   Bornholm Skovb   73.74 333⇑iP      P     14 26 40.9 -0.8
      comp=Z,1µm,1.0s,mb6.8
BSD                              e             14 29 13.4
BSD                              iS      S     14 36 04.5 -4.4
BSD                              i             14 41 20.0
      comp=Z,58µm,17.0s
EZC   Erzincan         73.75 309 iP      P     14 26 45.0 +2.9
EZC   Erzincan         73.75 309  P      P     14 26 45.0 +2.9
WAR   Warsaw           73.80 328⇑iP      P     14 26 42.4 +0.2
WAR                              e*PP    pP    14 26 50.0 -3.2
WAR                              e       pP    14 26 54.4 +1.2
WAR                              eS      S     14 36 08.3 -1.3
WAR                              e             14 36 46.0
WAR                               MLR    MLR
      comp=N,114µm,22.8s,MS7.3
WAR                               MLR    MLR
      comp=Z,139µm,22.1s,MS7.2
WAR                               MLR    MLR
      comp=E,132µm,20.7s,MS7.3
WAR   Warsaw           73.80 328⇑iP      P     14 26 42.4 +0.2
      comp=E,33nm,5.3s
WAR                              epP     pP    14 26 50.0 -3.2
WAR                              ePcP    PcP   14 26 54.4 -3.5
WAR                              eS      S     14 36 08.3 -1.3
WAR                              eSS           14 36 27.2
WAR                              eScS    ScS   14 36 46.0 +0.6
WAR                               LR     LR
      comp=Z,139µm,22.1s,MS7.2
WAR   Warsaw           73.80 328 iP      P     14 26 42.4 +0.2
      comp=Z,33µm,5.3s
WAR                              epP     pP    14 26 50.0 -3.2
WAR                              ePcP    PcP   14 26 54.4 -3.5
WAR                              eS      S     14 36 08.3 -1.3
WAR                              esS           14 36 27.2
WAR                              eScS    ScS   14 36 46.0 +0.6
WAR                               LMN          15 00 45.4
      comp=Z,114µm,22.8s
WAR                               MLR    MLR   15 00 59.5
      comp=Z,139µm,22.1s,MS7.2
WAR                               LME          15 01 26.4
      comp=Z,132µm,20.7s
BTMT  Batman           73.82 307 iP      P     14 26 44.0 +1.4
BINT  Bingol           73.95 308 iP      P     14 26 44.8 +1.5
BINT  Bingol           73.95 308  P      P     14 26 44.8 +1.5
BAR   Barrett          73.96  60⇑eP      P     14 26 43.2 -0.2
COP   Copenhagen       74.08 334⇑iP      P     14 26 43.4 -0.3
COP                              e             14 31 09.9
COP                              iS      S     14 36 11.9 -0.8
COP                               pmax   pmax
      comp=Z,700nm,0.9s,mb6.6
COP                               MLR    MLR
      comp=Z,44µm,17.0s,MS6.8
COP   Copenhagen       74.08 334⇑iP      P     14 26 43.4 -0.3
      comp=Z,698nm,0.9s,mb6.6
COP                              i             14 29 16.3
COP                              e             14 31 09.9
COP                              iS      S     14 36 11.9 -0.8
      comp=Z,44µm,17.0s
BEST  Besiri           74.15 307 iP      P     14 26 45.7 +1.2
KMPD  K-Podol’skiy     74.32 323  P      P     14 26 44.0 -1.3
STKA  Stephens Creek   74.36 183⇑iP      P     14 26 46.1 +0.3
      comp=Z,61nm,0.9s,mb5.5
STKA                             eS      S     14 36 17.5 +1.2
STKA  Stephens Creek   74.36 183  P      P     14 26 46.4 +0.5
      comp=Z,100nm,1.0s,mb5.7,baz=352,slow=7.1,SNR=57
STKA                              LR     LR    14 57 11.1
      comp=Z,24µm,21.3s,MS6.5,baz=0.1,slow=34
KIS   Kishinev         74.40 320 iP      P     14 26 44.0 -1.7
KIS                              eS      S     14 36 10.0 -6.4
KIS                               MLR    MLR
      comp=Z,127µm,16.0s,MS7.3
GKP   Gorka Klasztor   74.42 331⇑iP      P     14 26 45.5 -0.2
GKP                              e*PP    pP    14 26 53.5 -3.2
GKP                              e       pP    14 26 57.4 +0.7
GKP                              eS      S     14 36 13.6 -2.9
GKP                               pmax   pmax
      comp=Z,26µm,5.8s
GKP                               MLR    MLR
      comp=N,179µm,21.1s,MS7.4
GKP                               MLR    MLR
      comp=Z,233µm,20.1s,MS7.5
GKP                               MLR    MLR
      comp=E,64µm,17.8s,MS7.4
GKP   Gorka Klasztor   74.42 331⇑iP      P     14 26 45.5 -0.2
      comp=E,26nm,5.8s
GKP                              epP     pP    14 26 53.5 -3.2
GKP                              ePcP    PcP   14 26 57.4 -3.2
GKP                              eS      S     14 36 13.6 -2.9
GKP                              eSS           14 36 31.4
GKP                               LR     LR
      comp=Z,233µm,20.1s,MS7.5
GKP   Gorka Klasztor   74.42 331 iP      P     14 26 45.5 -0.2
      comp=Z,26µm,5.8s
GKP                              epP     pP    14 26 53.5 -3.2
GKP                              ePcP    PcP   14 26 57.4 -3.2
GKP                              eS      S     14 36 13.6 -2.9
GKP                              esS           14 36 31.4
GKP                               LMN          15 02 16.9
      comp=Z,179µm,21.1s
GKP                               MLR    MLR   15 02 25.4
      comp=Z,233µm,20.1s,MS7.5
GKP                               LME          15 03 13.5
      comp=Z,64µm,17.8s
MUD   Monsted U’grnd   74.43 336⇑iP      P     14 26 45.5 -0.2
MUD                              i             14 31 16.3
MUD                              iS      S     14 36 15.2 -1.4
MUD                               pmax   pmax
      comp=Z,420nm,0.9s,mb6.4
MUD                               MLR    MLR
      comp=Z,95µm,19.0s,MS7.1
MUD   Monsted U’grnd   74.43 336⇑iP      P     14 26 45.5 -0.2
      comp=Z,418nm,0.9s,mb6.4
MUD                              i             14 31 16.3
MUD                              iS      S     14 36 15.2 -1.4
MUD                              i             14 44 51.6
      comp=Z,95µm,19.0s
LVV   L’vov            74.44 325c iP     P     14 26 46.2 +0.3
LVV                              iS      S     14 36 15.6 -1.1
LVV                               MLR    MLR
      comp=Z,54µm,16.0s,MS6.9
LVV   L’vov            74.44 325 iP      P     14 26 46.1 +0.2
PTK   Pertek           74.57 309 iP      P     14 26 48.5 +1.6
RGN   Rugen            74.73 333⇑eP      P     14 26 47.6 +0.1
      comp=Z,1µm,1.1s,mb6.8
DIY   Diyarbakir       74.76 308 iP      P     14 26 49.4 +1.4
PHWY  Pilot Hill       74.84  47⇑eP      P     14 26 48.2 -0.2
FORT  Forrest          74.88 195⇑iP      P     14 26 49.5 +0.7
      comp=Z,826nm,0.7s,mb6.8
FORT                             eS      S     14 36 24.4 +2.3
KVT   Kavak            74.94 312  P      P     14 26 50.1 +1.1
OWE   Westray          74.95 344⇑eP      P     14 26 47.6 -1.0
OST   Stronsay         75.06 343⇑eP      P     14 26 48.5 -0.8
ELZG  Elazig           75.07 309 iP      P     14 26 51.5 +1.7
KWP   Kalwaria         75.14 325⇑iP      P     14 26 50.3 +0.4
KWP                              eS      S     14 36 23.1 -1.5
KWP                              e             14 36 49.6
KWP                               MLR    MLR
      comp=N,135µm,16.7s,MS7.5
KWP                               MLR    MLR
      comp=E,125µm,16.3s,MS7.5
KWP                               MLR    MLR
      comp=Z,159µm,16.7s,MS7.4
KWP   Kalwaria         75.14 325⇑iP      P     14 26 50.3 +0.4
KWP                              eS      S     14 36 23.1 -1.5
KWP                              eSS           14 36 42.5
KWP                              eSKS    SKS   14 36 49.6 -1.6
KWP   Kalwaria         75.14 325 iP      P     14 26 50.3 +0.4
      comp=Z,31µm,5.1s
KWP                              eS      S     14 36 23.1 -1.5
KWP                              esS           14 36 42.5
KWP                              eSKS    SKS   14 36 49.6 -1.6
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KWP				LMN		15 03 19.5	
	comp=Z,135µm,16.7s						
KWP				LME		15 03 21.1	
	comp=Z,125µm,16.3s						
KWP				MLR	MLR	15 03 25.3	
	comp=Z,159µm,16.7s,MS7.4						
TOKT	Tokat	75.19	311	*i* P	P	14 26 51.5	+1.0
TOKT	Tokat	75.19	311	P	P	14 26 51.5	+1.0
SVST	Sivas	75.34	311	*i* P	P	14 26 51.7	+0.4
BYBT	Boyabat	75.36	313	*e*P	P	14 26 52.4	+1.0
BZK	Bozkurt	75.42	314	P	P	14 26 52.7	+1.0
OHO	Hoy	75.44	344	⇑*i*P	P	14 26 51.1	-0.3
MYA	Malataya	75.51	309	*i* P	P	14 26 53.9	+1.6
MYA	Malataya	75.51	309	P	P	14 26 53.9	+1.6
MALT	Malatya	75.52	309	*i* P	P	14 26 53.6	+1.2
MALT	Malatya	75.52	309	P	P	14 26 53.6	+1.2
MALT				pmax	pmax		
	comp=Z,740nm,1.2s,mb6.5						
MALT	Malatya	75.52	309	⇑*i*P	P	14 26 53.6	+1.2
	comp=Z,737nm,1.2s,mb6.5						
MALT				P		14 26 53.6	
OBR	Brabster	75.62	344	⇑*i*P	P	14 26 52.1	-0.4
UMR	Umm Al-Rimmam	75.64	297	*i* P	P	14 26 53.4	+0.1
UMR				AMb	AMB	14 26 55.3	
	comp=Z,1µm,0.7s,mb6.9						
ISCO	Idaho Springs	75.79	49	⇑*e*P	P	14 26 54.5	+0.6
	comp=Z,886nm,2.0s,mb6.3						
ISCO				LR	LR		
	comp=Z,31µm,22.0s,MS6.6						
ORE	Reay	75.81	344	⇑*i*P	P	14 26 53.3	-0.3
KOLS	Kolonicke sedl	75.86	325	*i* P	P	14 26 54.2	+0.2
KOLS				*e*S	S	14 36 30.9	-1.6
OJC	Ojcow	75.86	327	⇑*i*P	P	14 26 54.2	+0.1
OJC				*e*PcP	PcP	14 27 07.0	+0.2
OJC				*e*sP	sP	14 27 09.9	+0.8
OJC				*e*PP	PP	14 29 43.1	-3.2
OJC				*i* S	S	14 36 30.7	-1.9
OJC				LR	LR		
	comp=Z,138µm,22.0s,MS7.2						
OJC	Ojcow	75.86	327	*i* P	P	14 26 54.2	+0.1
OJC				*e*PcP	PcP	14 27 07.0	+0.2
OJC				*e*sP	sP	14 27 09.9	+0.8
OJC				*e*PP	PP	14 29 43.1	-3.2
OJC				*i* S	S	14 36 30.7	-1.9
OJC				MLR	MLR	15 02 42.6	
	comp=Z,138µm,22.0s,MS7.2						
URFA	Urfa	75.89	308	*i* P	P	14 26 56.1	+1.6
CTKT	Corum	75.94	313	*i* P	P	14 26 55.7	+1.0
QRN	Al-Qurain	76.04	296	*e*P	P	14 26 55.3	-0.2
QRN				AMb	AMB	14 26 56.8	
	comp=Z,1µm,0.6s,mb7.0						
BALT	Daday	76.05	314	*i* P	P	14 26 56.3	+1.0
CFR	Carcaliu	76.06	320	⇑*i*P	P	14 26 55.0	-0.3
CFR	Carcaliu	76.06	320	⇑*i*P	P	14 26 55.0	-0.3
NRS	Narsarsuaq	76.06	5	*i* P	P	14 26 48.5	-6.5
TOS	Tosya	76.06	313	*i* P	P	14 26 56.7	+1.3
UZH	Uzhgorod	76.08	325	*d* *i*P	P	14 26 55.4	+0.1
UZH				*i* S	S	14 36 28.0	-7.0
RST	Umm Al-Ruwaisa	76.15	297	*i* P	P	14 26 55.8	-0.4
RST				AMb	AMB	14 26 57.6	
	comp=Z,2µm,1.0s,mb6.9						
RDF	Al-Radifah	76.17	297	*i* P	P	14 26 55.9	-0.3
RDF				AMb	AMB	14 26 57.6	
	comp=Z,2µm,0.8s,mb7.1						
VRI	Vrincioaia	76.21	321	⇑*i*P	P	14 26 56.4	+0.2
VRI	Vrincioaia	76.21	321	⇑*i*P	P	14 26 56.3	+0.2
CRVS	Cervenica-Dubn	76.22	326	*e*P	P	14 26 57.1	+1.0
CRVS				*e*S	S	14 36 35.4	-1.1
CRVS				*e*sS		14 36 53.1	
CRVS				*e*		14 37 31.8	
BSEG	Bad Segeberg	76.22	334	*e*P	P	14 26 55.4	-0.6
BSEG				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.7						
RUE	Ruedersdorf	76.28	332	⇑*e*P	P	14 26 55.6	-0.8
	comp=Z,22nm,0.3s,mb5.6						
NIE	Niedzica	76.29	327	*i* P	P	14 26 57.2	+0.7
BRD	Bordesti	76.30	320	⇑*i*P	P	14 26 58.3	+1.6
BRD	Bordesti	76.30	320	⇑*i*P	P	14 26 58.3	+1.6
MVH1	Achvaich	76.47	344	⇑*i*P	P	14 26 56.9	-0.4
HARR	Harsova	76.51	319	⇑*i*P	P	14 26 58.0	+0.2
HARR	Harsova	76.51	319	⇑*i*P	P	14 26 58.0	+0.1
CANT	Cankiri	76.58	313	*e*P	P	14 26 59.6	+1.2
MCD	Coleburn Disti	76.59	343	⇑*i*P	P	14 26 57.8	-0.2
BNN	Bunyan	76.60	311	*i* P	P	14 26 59.5	+1.0
RAC	Raciborz	76.60	328	⇑*e*P	P	14 26 59.0	+0.7
RAC				*e*		14 29 50.1	
RAC				*e*S	S	14 36 39.5	-1.1
RAC				MLR	MLR		
	comp=Z,180µm,22.0s,MS7.3						
RAC				MLR	MLR		
	comp=N,170µm,21.1s,MS7.5						
RAC				MLR	MLR		
	comp=E,140µm,18.9s,MS7.5						
RAC	Raciborz	76.60	328	*e*P	P	14 26 59.0	+0.7
RAC				*e*PP	PP	14 29 50.1	-2.1
RAC				*e*S	S	14 36 39.5	-1.1
RAC				MLR	MLR	15 03 12.5	
	comp=E,180µm,22.0s,MS7.3						
RAC				LMN		15 03 18.2	
	comp=E,170µm,21.1s						
RAC				LME		15 03 41.0	
	comp=E,140µm,18.9s						
SAFT	Safranbolu	76.63	314	*e*P	P	14 26 59.5	+0.9
GZT	Gaziantep	76.67	309	*i* P	P	14 27 00.1	+1.2
KSP	Ksiaz	76.72	330	⇑*i*P	P	14 26 59.1	+0.2
KSP				*e**PP	pP	14 27 09.7	-0.3
KSP				*e*S	S	14 36 38.0	-3.9
KSP				*e*SS	SS	14 41 40.0	-0.9
KSP				MLR	MLR		
	comp=Z,353µm,21.9s,MS7.6						
KSP	Ksiaz	76.72	330	⇑*i*P	P	14 26 59.1	+0.2
KSP				*e*pP	pP	14 27 09.7	-0.3
KSP				*e*PP	PP	14 29 43.0	-10
KSP				*e*S	S	14 36 38.0	-3.9
KSP				*e*SS	SS	14 41 40.0	-0.9
KSP				LR	LR		
	comp=Z,353µm,21.9s,MS7.6						
KSP	Ksiaz	76.72	330	*i* P	P	14 26 59.1	+0.2
	comp=Z,30µm,5.8s						
KSP				*e*S	S	14 36 40.9	-1.0
KSP				*e*sS		14 36 55.2	
KSP				*e*SKS	SKS	14 37 04.2	+1.4
KSP				*e*ScS	ScS	14 37 11.0	+2.1
KSP				LMN		15 02 54.5	
	comp=Z,207µm,21.6s						
KSP				MLR	MLR	15 03 11.3	
	comp=Z,306µm,21.9s,MS7.6						
KSP				LME		15 03 28.6	
	comp=Z,126µm,20.7s						
EYMN	Ely	76.74	35	⇑*i*P	P	14 26 58.0	-1.1
	comp=Z,436nm,1.3s,mb6.2						
EYMN				LR	LR		
	comp=Z,32µm,22.0s,MS6.6						
ELDT	Eldivan	76.77	313	*i* P	P	14 27 00.1	+0.6
MME1	Meikle Cairn	76.78	343	⇑*i*P	P	14 26 58.4	-0.7
OKC	Ostrava-Krasne	76.82	328	⇑*i*P	P	14 26 59.6	+0.1
OKC				*e*S	S	14 36 42.0	-1.0
OKC				*e*XS		14 37 01.6	
OKC				AMS	AMS	15 03 20.0	
	comp=Z,139µm,21.5s						
ISR	Istrita	76.85	320	⇑*i*P	P	14 27 00.4	+0.6
ISR	Istrita	76.85	320	⇑*i*P	P	14 27 00.4	+0.6
MLR	Muntele Rosu	76.85	321	LR	LR	15 05 35.9	
	comp=Z,103µm,19.4s,MS7.2,baz=52,slow=39						
MLR	Muntele Rosu	76.85	321	⇑*i*P	P	14 27 00.1	+0.3
MLR	Muntele Rosu	76.85	321	⇑*i*P	P	14 27 00.2	+0.4
KAHT	Ahir Dag	76.87	309	*i* P	P	14 27 01.4	+1.3
MDO	Dochfour	76.95	344	⇑*i*P	P	14 26 59.7	-0.5
EDR	Drumtochty	77.05	343	⇑*i*P	P	14 27 00.3	-0.4
LIKS	Likavka	77.06	327	*i* P	P	14 27 01.4	+0.5
UPC	Upice	77.09	330	⇑*i*P	P	14 27 01.3	+0.2
UPC				*e*S	S	14 36 44.2	-1.8
UPC				*e*XS		14 37 02.2	
MORC	Moravsky Berou	77.10	328	*e*P	P	14 27 01.1	0.0
MORC				pmax	pmax		
	comp=Z,950nm,1.1s,mb6.6						
MORC	Moravsky Berou	77.10	328	⇑*i*P	P	14 27 01.2	+0.1
	comp=Z,946nm,1.1s,mb6.6						
DPC	Dobruska-Polom	77.11	329	⇑*i*P	P	14 27 01.8	+0.7
DPC				*e*S	S	14 36 44.5	-1.6
DPC				*e*XS		14 37 03.4	
DPC				AMS	AMS	15 03 30.0	
	comp=Z,169µm,21.2s						
PSN	Preselentsi	77.14	318	*i* P	P	14 27 02.0	+0.6
HASS	Wahat al Ahsa’	77.18	292	P	P	14 27 01.1	-1.0
BRTR	Keskin Array B	77.20	313	P	P	14 27 02.0	+0.1
	comp=Z,132nm,0.9s,mb5.9,baz=72,slow=3.9,SNR=384						
BRTR				PKPPKP		14 54 08.8	
	comp=Z,0.3nm,0.4s,baz=207,slow=2.8,SNR=4.1						
AVNT	Avonos	77.20	311	*i* P	P	14 27 02.3	+0.4
SDCO	Great Sand Dun	77.29	50	⇓*e*P	P	14 27 02.7	+0.2
	comp=Z,1µm,2.3s,mb6.5						
SDCO				LR	LR		
	comp=Z,23µm,21.0s,MS6.5						
KAMT	Kaman	77.41	312	*i* P	P	14 27 03.4	+0.3
SGKT	Sivrigoynuk	77.44	314	*i* P	P	14 27 04.0	+0.8
MTUR	Matau	77.46	321	⇓*i*P	P	14 27 04.0	+0.8
MTUR	Matau	77.46	321	⇓*i*P	P	14 27 04.0	+0.8
EDU	Dundee	77.49	343	⇑*e*P	P	14 27 02.7	-0.4
EDU				AMb	AMB	14 27 05.4	
	comp=Z,2µm,1.3s,mb6.8						
CLL	Collm	77.53	332	⇑*i*P	P	14 27 03.1	-0.3
CLL				*i*		14 27 17.8	
CLL				*e*S	S	14 36 48.0	-2.6
CLL				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.7						
CLL				MLR	MLR		
	comp=Z,126µm,17.3s,MS7.3						
CLL	Collm	77.53	332	⇑*i*P	P	14 27 03.1	-0.3
	comp=Z,1µm,1.2s,mb6.7						
CLL				*i*		14 27 17.8	
CLL				*e*S	S	14 36 48.0	-2.6
CLL				LR	LR		
	comp=Z,126µm,17.3s,MS7.3						
CLL	Collm	77.53	332	⇑P	P	14 27 03.1	-0.3
	comp=Z,logA/T=3.0,mb6.7						
CLL				*i* *PP	pP	14 27 11.3	-3.2
CLL				*i* *SP	sP	14 27 17.8	-0.7
CLL				*i*		14 27 24.8	
CLL				*e*PP	PP	14 29 57.0	-3.1
CLL				*e**PPP		14 30 11.0	
CLL				*e*PPP	PPP	14 31 44.0	-4.6
CLL				*e*S	S	14 36 48.0	-2.6
CLL				*e**SS		14 37 06.0	
CLL				*e*PS	PS	14 37 37.0	+1.7
CLL				*e*		14 39 31.0	
CLL				*e*SS	SS	14 42 24.0	+31
ANTO	Ankara	77.55	313	*i* P	P	14 27 02.2	-1.6
LOD	Lodumlu	77.55	313	*i* P	P	14 27 04.7	+0.9
BRG	Berggiesshubel	77.55	331	⇑*i*P	P	14 27 03.3	-0.3
BRG				*e*		14 29 58.0	
BRG				*i* S	S	14 36 52.0	+1.1
BRG				pmax	pmax		
	comp=Z,706nm,1.4s,mb6.4						
BRG				MLR	MLR		
	comp=N,108µm,19.5s,MS7.2						
BRG				MLR	MLR		
	comp=E,65µm,19.5s,MS7.2						
BRG				MLR	MLR		
	comp=Z,171µm,19.5s,MS7.4						
BRG	Berggiesshubel	77.55	331	⇑*i*P	P	14 27 03.3	-0.3
	comp=Z,706nm,1.4s,mb6.4						
BRG				*e*PP	PP	14 29 58.0	-2.3
BRG				*i* S	S	14 36 52.0	+1.1
BRG				*i* SS	SS	14 42 03.0	+10
BRG				*e*P’P’		14 54 04.0	
BRG				LR	LR		
	comp=Z,171µm,19.5s,MS7.4						
BUC	Bucharest	77.59	320	⇑*i*P	P	14 26 58.0	-5.9
PVCC	Panska Ves	77.61	330	⇑*i*P	P	14 27 04.0	+0.1
PVCC				*e*S	S	14 36 50.1	-1.4
PVCC				*e*SKS	SKS	14 37 09.4	+0.2
PVCC				AMS	AMS	15 04 20.0	
	comp=Z,193µm,18.3s						
VYHS	Vyhne	77.61	327	*i* P	P	14 27 04.6	+0.6
VYHS				*e*S	S	14 36 51.8	+0.2
PSZ	Piszkesteto	77.64	326	P	P	14 27 04.7	+0.6
PSZ				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.6						
PSZ	Piszkesteto	77.64	326	⇑*i*P	P	14 27 04.8	+0.7
PSZ	Piszkesteto	77.64	326	⇑*i*P	P	14 27 04.5	+0.4
	comp=Z,1µm,1.3s,mb6.6						
BUC1	Bucharest	77.67	320	⇑*i*P	P	14 26 58.0	-6.4
KOLL	Kolacno	77.72	327	*i* P	P	14 27 05.1	+0.5
KOLL				*e*pP	pP	14 27 16.7	+1.1
KOLL				*e*S	S	14 36 52.6	-0.2
JAVC	Velka Javorina	77.79	328	P	P	14 27 06.0	+1.1
CNB	Canberra Magne	77.81	177	⇑*i*P	P	14 27 06.3	+1.0
	comp=Z,142nm,1.4s,mb5.7						
NIG	Nigde	77.81	311	*i* P	P	14 27 06.5	+1.2
HENT	Hendek	77.86	315	*i* P	P	14 27 05.3	-0.2
PRD	Provadia	77.88	319	*i* P	P	14 27 06.0	+0.5
TUC	Tucson	77.91	57	P	P	14 27 06.5	+0.5
TUC				pmax	pmax		
	comp=Z,220nm,1.2s,mb6.0						
TUC	Tucson	77.91	57	⇑*e*P	P	14 27 06.4	+0.4
	comp=Z,215nm,1.3s,mb5.9						
TUC				LR	LR		
	comp=Z,16µm,20.0s,MS6.3						
CEYT	Ceyhan	77.95	310	*i* P	P	14 27 08.1	+2.1
CEYT	Ceyhan	77.95	310	P	P	14 27 08.1	+2.0
MDU	Mudurnu	77.96	315	*i* P	P	14 27 06.6	+0.6
CLZ	Clausthal	77.97	333	*e*P	P	14 27 05.6	-0.3
	comp=Z,1µm,1.2s,mb6.7						
ESY	Stoneypath	77.98	342	⇑*i*P	P	14 27 05.6	-0.2
ESY				AMb	AMB	14 27 07.5	
	comp=Z,1µm,1.2s,mb6.7						
COBT	Iskenderun	78.00	309	*i* P	P	14 27 07.4	+1.1
PRA	Prague	78.04	330	⇑P	P	14 27 05.0	-1.2
PRA				S	S	14 36 55.0	-1.1
PRA				AMS	AMS	15 05 25.0	
PRU	Pruhonice	78.06	330	⇑*i*P	P	14 27 06.4	0.0
PRU				*e*S	S	14 36 56.0	-0.4
PRU				*e*		14 37 14.2	
PRU	Pruhonice	78.06	330	⇑*i*P	P	14 27 06.4	0.0
PRU				*e*x	x	14 32 56.8	
PRU				*e*S	S	14 36 56.0	-0.4
PRU				*e*SKS	SKS	14 37 14.2	+1.7
PRU				AMS	AMS	15 04 50.0	
EDI	Edinburgh	78.11	342	⇑*i*P	P	14 27 06.0	-0.5
EDI				AMb	AMB	14 27 08.1	
	comp=Z,695nm,1.3s,mb6.4						
EAB	Aberfoyle	78.11	343	⇑*i*P	P	14 27 06.5	0.0
EAB				AMb	AMB	14 27 09.1	
	comp=Z,2µm,1.3s,mb6.9						
SMOL	Smolenice	78.16	328	*i* P	P	14 27 07.8	+0.8
SMOL				*e*S	S	14 36 57.3	-0.2
EBL	Broad Law	78.21	342	⇑*i*P	P	14 27 06.7	-0.3
EAU	Auchinoon	78.23	343	⇑*i*P	P	14 27 07.2	0.0
EAU				AMb	AMB	14 27 09.8	
	comp=Z,2µm,1.1s,mb7.0						
WIT	Witteveen	78.31	336	⇑*e*P	P	14 27 08.3	+0.6
MODS	Modra-Piesok	78.33	328	*i* P	P	14 27 08.7	+0.8
MODS				*e*sP	sP	14 27 21.9	-1.1
MODS				*e*S	S	14 36 59.8	+0.5
HTY	Hatay	78.35	309	*e*P	P	14 27 06.4	-1.9
SRO	Srobarova	78.37	327	*i* P	P	14 27 09.0	+0.9
SRO				*e*S	S	14 37 02.2	+2.5
SRO2	Moca	78.38	327	*i* P	P	14 27 08.8	+0.6
SRO2				*e*pP	pP	14 27 20.7	+1.4
EYL	Eskiyayla	78.44	315	*e*P	P	14 27 09.3	+0.6
EYL	Eskiyayla	78.44	315	P	P	14 27 09.3	+0.6
SRO1	Iza	78.44	327	*i* P	P	14 27 09.3	+0.8
SRO1				*e*S	S	14 37 01.4	+0.9
HRT	Hereke	78.50	316	*i* P	P	14 27 09.6	+0.6
HRT	Hereke	78.50	316	P	P	14 27 09.6	+0.6
SZH	Strazhica	78.54	319	*i* P	P	14 27 09.0	-0.1
ZST	Bratislava	78.55	328	*i* P	P	14 27 09.5	+0.4
ZST				*e**SP	sP	14 27 21.7	-2.5
ZST				*e*S	S	14 37 03.0	+1.4
ZST				*e*		14 37 22.1	
ZST				*e*		14 37 47.9	
ZST	Bratislava	78.55	328	*i* P	P	14 27 09.5	+0.4
ZST				*e*sP	sP	14 27 21.7	-2.5
ZST				*e*PP	PP	14 29 49.5	-19
ZST				*e*S	S	14 37 03.0	+1.4
ZST				*e*		14 37 22.1	
ZST				*e*		14 37 47.9	
MOX	Moxa	78.56	332	*e*P	P	14 27 08.8	-0.3
MOX				*e*		14 37 00.5	
MOX				pmax	pmax		
	comp=Z,887nm,1.6s,mb6.4						
MOX				MLR	MLR		
	comp=Z,67µm,18.0s,MS7.0						
MOX	Moxa	78.56	332	⇑*i*P	P	14 27 08.8	-0.3
	comp=Z,logA/T=2.7,mb6.4						
MOX				PP	PP	14 30 00.0	-8.9
MOX				S	S	14 37 00.0	-1.7
MOX				PPS	PPS	14 38 10.0	+3.1
MOX				SS	tx	14 42 55.0	
MOX				SSS	SSS	14 45 00.0	-27
MOX				LR	LR	14 52 00.0	
MOX				PKPPKP		14 54 00.0	
MOX				L		15 06 00.0	
MOX	Moxa	78.56	332	*e*P	P	14 27 08.8	-0.3
	comp=Z,887nm,1.6s,mb6.4						
MOX				*e*		14 37 00.5	
MOX				LR	LR		
	comp=Z,67µm,18.0s,MS7.0						
NKC	Novy Kostel	78.62	331	⇑*i*P	P	14 27 09.3	-0.1
NKC				*e*S	S	14 37 00.2	-2.1
NKC				*e*		14 37 19.0	
NKC	Novy Kostel	78.62	331	⇑*i*P	P	14 27 09.3	-0.1
NKC				*e*x	x	14 33 12.7	
NKC				*e*S	S	14 37 00.2	-2.1
NKC				*e*SKS	SKS	14 37 19.0	+2.6
NKC				AMS	AMS	15 05 30.0	
ISK	Istanbul-Kandi	78.63	316	*e*P	P	14 27 10.0	+0.3
ESK	Eskdalemuir	78.67	342	⇑*i*P	P	14 27 09.2	-0.4
ESK				AMb	AMB	14 27 11.4	
	comp=Z,864nm,1.1s,mb6.6						
ESK	Eskdalemuir	78.67	342	P	P	14 27 09.7	+0.1
ESK				pmax	pmax		
	comp=Z,580nm,1.1s,mb6.4						
ESK	Eskdalemuir	78.67	342	⇑*i*P	P	14 27 09.4	-0.2
	comp=Z,579nm,1.1s,mb6.4						
ESK				LR	LR		
	comp=Z,10µm,19.0s,MS6.2						
LAZ	Ladron	78.68	53	*e*P	P	14 27 10.9	+0.8
ANMO	Albuquerque	78.70	53	PKKPbc		14 46 04.8	
	comp=Z,3.1nm,0.7s,baz=163,slow=4.9,SNR=6.1						
ANMO				LR	LR	14 58 23.2	
	comp=Z,19µm,22.0s,MS6.4,slow=33						
ANMO	Albuquerque	78.70	53	⇑*e*P	P	14 27 10.9	+0.7
	comp=Z,296nm,1.4s,mb6.0						
ANMO				LR	LR		
	comp=Z,19µm,22.0s,MS6.4						
KIZT	Kizilcal	78.75	313	*i* P	P	14 27 10.7	+0.3
BADT	Buyukada	78.76	316	P	P	14 27 10.9	+0.5
BADT	Buyukada	78.76	316	P	P	14 27 10.9	+0.5
VKA	Vienna	78.80	328	⇑*i*P	P	14 27 11.0	+0.5
	comp=Z,17µm,6.0s						
VKA				MLRZ		15 05 00.0	
	comp=Z,51nm,20.0s						
LCP	Cassop	78.80	341	⇑*e*P	P	14 27 10.2	-0.1
JMB	Yambol	78.83	319	*i* P	P	14 27 10.0	-0.7
ESKT	Eskisehir	78.84	314	*i* P	P	14 27 10.8	-0.1
ESKT	Eskisehir	78.84	314	P	P	14 27 10.8	-0.1
ESKT	Eskisehir	78.84	314	*i* P	P	14 27 10.9	0.0
PVL	Pavlikeni	78.86	320	*i* P	P	14 27 11.0	+0.1
CTT	Catalca	78.89	317	*i* P	P	14 27 11.6	+0.4
CTT	Catalca	78.89	317	P	P	14 27 11.6	+0.4
LENM	Lemitar	78.94	54	*e*P	P	14 27 12.3	+0.7
LWH	Whinny Nab	78.97	340	⇑*i*P	P	14 27 11.4	+0.1
SCHQ	Schefferville	78.99	18	P	P	14 27 11.1	-0.4
	comp=Z,131nm,0.8s,mb5.9,baz=357,slow=5.5,SNR=57						
SCHQ				LR	LR	15 07 01.7	
	comp=Z,37µm,19.9s,MS6.7,baz=335,slow=39						
WTSB	Winterswijk	79.01	335	⇑*e*P	P	14 27 11.1	-0.5
	comp=Z,918nm,1.4s,mb6.5						
WTSB				*e*pP	pP	14 27 23.1	+0.4
WTSB				*e*SKS	S	14 37 03.9	-2.6
	comp=Z,250nm,4.3s						
MUN	Mundaring	79.02	205	⇑*i*P	P	14 27 12.6	+0.6
	comp=Z,104nm,1.2s,mb5.6						
MUN				*e*S	S	14 37 08.6	+1.7
LPM	Los Pinos Moun	79.04	53	*e*P	P	14 27 12.5	+0.4
KHC	Kasperske Hory	79.13	330	⇑*i*P	P	14 27 12.4	+0.2
KHC				*e*S	S	14 37 06.4	-1.3
KHC				*e*		14 37 25.6	
KHC				MLR	MLR		
	comp=Z,211µm,19.6s,MS7.5						
KHC	Kasperske Hory	79.13	330	⇑*i*P	P	14 27 12.4	+0.2
KHC				*e*x	x	14 33 14.2	
KHC				*e*S	S	14 37 06.4	-1.3
KHC				*e*SKS	SKS	14 37 25.6	+5.5
KHC				AMS	AMS	15 05 10.0	
	comp=Z,211µm,19.6s						
MEST	Erdemli	79.15	310	*i* P	P	14 27 13.0	+0.3
BNM	Barren Site	79.16	53	*e*P	P	14 27 13.3	+0.6
GMK	Mull of Kintyr	79.16	344	⇑*i*P	P	14 27 12.2	-0.1
KONT	Konya--Tatoy	79.17	312	*i* P	P	14 27 13.3	+0.6
SOP	Sopron	79.18	328	⇑*i*P	P	14 27 13.6	+1.0
EDRB	Edirne	79.21	318	*i* P	P	14 27 13.4	+0.5
EDRB	Edirne	79.21	318	P	P	14 27 13.4	+0.6
ULDT	Uludag	79.28	316	*i* P	P	14 27 13.6	+0.3
CKE	Keswick	79.32	342	⇑*i*P	P	14 27 13.4	+0.2
GEC2	GERESS Array S	79.32	330	*e*P	P	14 27 13.0	-0.3
GEC2				pmax	pmax		
	comp=Z,559nm,1.4s,mb6.3						
GEC2	GERESS Array S	79.32	330	*e*P	P	14 27 13.0	-0.3
	comp=Z,559nm,1.4s,mb6.3						
GERES	GERESS Array B	79.32	330	P	P	14 27 13.2	-0.1
	comp=Z,100nm,0.8s,mb5.8,baz=45,slow=3.8,SNR=289						
GERES				PKKPbc		14 46 03.7	
	comp=Z,1.5nm,0.8s,baz=180,slow=1.3,SNR=6.8						
GERES				PKPPKP		14 54 08.2	
	comp=Z,1.1nm,0.9s,baz=225,slow=1.9,SNR=4.1						
GAL1	Galloway	79.42	343	⇑*i*P	P	14 27 13.5	-0.2
XDE	Dent Fell	79.48	342	⇑*e*P	P	14 27 14.1	0.0
GRA1	Grafenberg Arr	79.50	332	*e*P	P	14 27 14.0	-0.3
	comp=Z,1µm,1.3s,mb6.8						
GRA1				*e*PP	PP	14 30 16.6	+0.2
GRA1				*e*S	S	14 37 12.8	+1.1
GRA1				*e*P’P’		14 53 55.3	
GRA1				LR	LR		
	comp=Z,94µm,22.0s,MS7.1						
GRF	Grafenberg Arr	79.50	332	*e*P	P	14 27 14.0	-0.3
GRF				*e*		14 30 16.6	
GRF				*e*S	S	14 37 12.8	+1.1
GRF				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.8						
GRF				MLR	MLR		
	comp=Z,94µm,22.0s,MS7.1						
GCL	Cushendall	79.52	344	⇑*i*P	P	14 27 14.3	0.0
HPK	Haverah Park	79.55	341	⇑*i*P	P	14 27 14.6	+0.2
ALT	Altintas	79.57	314	*i* P	P	14 27 15.5	+0.6
CDU1	Dunnerdale	79.57	342	⇑*e*P	P	14 27 14.2	-0.3
KCT	Karacabey	79.58	316	*e*P	P	14 27 16.6	+1.7
KCT	Karacabey	79.58	316	P	P	14 27 16.6	+1.7
NWAO	Narrogin (SRO)	79.59	204	LR	LR	15 03 09.6	
	comp=Z,54nm,20.1s,baz=23,slow=36						
NWAO	Narrogin (SRO)	79.59	204	⇑*i*P	P	14 27 15.8	+0.7
	comp=Z,794nm,1.5s,mb6.4						
NWAO				*e*pP	pP	14 27 26.8	+0.5
NWAO				LR	LR		
	comp=Z,9µm,22.0s,MS6.1						
DIM	Dimitrovgrad	79.65	319	*i* P	P	14 27 15.0	-0.2
IKL	Isikli	79.66	310	*i* P	P	14 27 15.5	+0.1
IKL	Isikli	79.66	310	P	P	14 27 15.5	+0.1
LDU	Leeds Universi	79.67	341	⇑*e*P	P	14 27 14.9	-0.2
LMK	Market Rasen	79.68	340	⇑*e*P	P	14 27 15.3	+0.1
LMI	Millom	79.70	342	⇑*i*P	P	14 27 15.1	-0.2
BNT	Bandirma	79.74	316	*i* P	P	14 27 15.7	-0.1
BNT	Bandirma	79.74	316	P	P	14 27 15.7	0.0
EDC	Edincik	79.78	316	*i* P	P	14 27 16.3	+0.3
EDC	Edincik	79.78	316	P	P	14 27 16.3	+0.4
AWI1	Witton	79.79	339	⇑*i*P	P	14 27 16.0	+0.3
HDMB	Hadim	79.81	311	*i* P	P	14 27 16.3	+0.1
ABA1	Baconsthorpe	79.81	339	⇑*e*P	P	14 27 15.4	-0.4
BEO	Belgrade	79.84	324	⇓*i*P	P	14 27 16.1	-0.1
SART	Tekirdag	79.86	317	*i* P	P	14 27 16.7	+0.2
GIM	North Isle of	79.90	343	⇑*i*P	P	14 27 16.1	-0.2
SVIS	Svilajnac	79.92	323	*e*P	P	14 27 16.0	-0.7
PGB	Panagyurishte	79.92	320	*i* P	P	14 27 17.0	+0.3
MOA	Molln	79.93	329	⇑*i*P	P	14 27 16.7	+0.1
	comp=Z,15µm,4.9s						
ARSA	Arzberg	79.94	328	⇑*i*P	P	14 27 17.1	+0.4
	comp=Z,14µm,5.2s						
DST	Dursunbey	79.94	315	P	P	14 27 16.9	+0.1
BOLS	Boljevac	79.95	322	⇓*i*P	P	14 27 15.9	-1.0
LHO	Holmfirth	79.98	341	⇑*i*P	P	14 27 16.7	-0.1
PLD	Plovdiv	80.01	319	*i* P	P	14 27 17.0	-0.2
KDZ	Kurdzhali	80.01	319	*i* P	P	14 27 18.0	+0.8
AEU	East Anglia Un	80.03	339	⇑*e*P	P	14 27 17.0	0.0
WIM	Isle of Man	80.08	343	⇑*i*P	P	14 27 17.2	-0.1
WIM				AMb	AMB	14 27 19.1	
	comp=Z,1µm,1.3s,mb6.7						
DUSS	Damascus Unive	80.10	307	*i* P	P	14 27 19.1	+1.3

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DUSS                          i P                14 27 19.2
DUSS                          i P                14 27 19.3
DUSS                          e                  14 27 22.9
      baz=46,slow=9.3
DUSS                          eS      S          14 37 16.6  -1.6
DUSS                           AMS    AMS        15 07 42.3
      comp=N,246µm,17.7s
DUSS                           AMS    AMS        15 07 42.6
      comp=Z,707µm,17.9s
DUSS                           AMS    AMS        15 07 48.1
      comp=E,769µm,19.1s
AWH   Whinburgh        80.10 339⇑iP   P          14 27 17.4   0.0
BTOK  Tokmak           80.13 316 i P  P          14 27 18.2  +0.3
ISP   Isparta          80.25 313 i P  P          14 27 18.3  -0.2
ISP   Isparta          80.25 313   P  P          14 27 18.5   0.0
ISP                            pmax   pmax
      comp=Z,430nm,1.1s,mb6.3
ISP   Isparta          80.25 313⇑iP   P          14 27 18.2  -0.3
      comp=Z,434nm,1.1s,mb6.3
GMM   Mts of Mourne    80.27 343⇑iP   P          14 27 17.9  -0.4
ALN   Alexandroupoli   80.27 318 eP   P          14 27 18.8  +0.2
BALB  Balikesir        80.30 316 eP   P          14 27 19.3  +0.6
BALB  Balikesir        80.30 316   P  P          14 27 19.3  +0.5
RZN   Rozhen           80.32 319 i P  P          14 27 19.0  +0.2
HGN   Heimansgroeve    80.33 335⇑eP   P          14 27 18.2  -0.4
      comp=Z,743nm,1.4s,mb6.4
HGN                           ePcP    PcP        14 27 24.8  -1.3
HGN                           epP     pP         14 27 30.8  +1.0
HGN                           esP     sP         14 27 34.8  +1.0
HGN                           ePP     PP         14 30 35.2   +12
HGN                           ePPP    PPP        14 32 29.5   +15
HGN                           ex      x          14 33 44.3
HGN                           eS      S          14 37 14.6  -5.6
HGN                           eSS     tx         14 43 41.4
RDO   Rodhopi          80.33 318 eP   P          14 27 19.5  +0.6
VTS   Vitosha          80.34 321 i P  P          14 27 19.5  +0.6
PHNC  Paralimni        80.35 309 ⇑P   P          14 27 18.0  -1.1
PHNC  Paralimni        80.35 309⇑eP   P          14 27 18.0  -1.1
SIND  Sindeldorf       80.35 332⇑eP   P          14 27 18.5  -0.3
SALA  Sala             80.40 306   P  Px         14 27 38.1
TOD   Tromm            80.40 333⇑eP   P          14 27 19.0  -0.1
TOD   Tromm            80.40 333⇑eP   P          14 27 19.1   0.0
KHL   Karahalli        80.42 314 i P  P          14 27 20.3  +0.9
KHL   Karahalli        80.42 314   P  P          14 27 20.3  +0.9
GRUS  Gruza            80.47 323⇑iP   P          14 27 19.8  +0.2
BCK   Bucak            80.48 313 eP   P          14 27 19.2  -0.6
BCK   Bucak            80.48 313   P  P          14 27 19.1  -0.6
SWS   Schriesheim      80.54 333⇑eP   P          14 27 19.7  -0.1
ABH   Alteburg         80.58 334⇑eP   P          14 27 19.9  -0.1
HRI   Mount Hermon     80.60 307   P  P          14 27 21.1  +0.6
DIVS  Divcibare        80.62 323⇓iP   P          14 27 20.0  -0.4
WME   Myndd Eilian     80.69 342⇑iP   P          14 27 20.3  -0.2
WME                            AMb    AMB        14 27 22.9
      comp=Z,1µm,1.6s,mb6.6
MAMC  Mammari          80.69 310   P  P          14 27 20.0  -0.9
WPM1  Penmaenmawr      80.73 342⇑iP   P          14 27 20.6  -0.1
WPM1                           AMb    AMB        14 27 23.3
      comp=Z,2µm,1.3s,mb6.9
KSHT  Keshet           80.75 307   P  P          14 27 22.0  +0.7
KSHT  Keshet           80.75 307 ⇑P   P          14 27 22.0  +0.7
WCB1  Church Bay       80.76 342⇑iP   P          14 27 20.1  -0.8
FUR   Furstenfeldbru   80.77 331 eP   P          14 27 20.7  -0.4
FUR                            pmax   pmax
      comp=Z,1µm,1.3s,mb6.7
FUR   Furstenfeldbru   80.77 331 eP   P          14 27 20.7  -0.4
      comp=Z,1µm,1.3s,mb6.7
CSS   Prodhromos       80.78 309 ⇑P   P          14 27 20.6  -0.8
      comp=Z,6.7nm,0.8s
CSS   Prodhromos       80.78 309⇑eP   P          14 27 20.6  -0.8
      comp=Z,6.7nm,0.8s
DMUB  Kingscourt       80.79 344⇑iP   P          14 27 21.2  +0.2
HDH   Heidenheim       80.80 332⇑eP   P          14 27 21.1  -0.1
MANT  Manisa           80.80 315 i P  P          14 27 21.8  +0.4
WLF1  Llynfaes         80.81 342⇑eP   P          14 27 21.0  -0.2
ANTB  Antalya          80.86 312 eP   P          14 27 19.8  -2.0
MMB   Musomiste        80.87 320 i P  P          14 27 22.0  +0.3
YRC   Rhoscolyn        80.89 342⇑iP   P          14 27 21.1  -0.5
KTD   Kalmit           80.89 333⇑eP   P          14 27 21.5  -0.2
KTD   Kalmit           80.89 333 eP   P          14 27 21.7   0.0
RUP   Ruppelstein      80.89 334⇑eP   P          14 27 21.6  -0.1
RUP   Ruppelstein      80.89 334⇑eP   P          14 27 21.7   0.0
AKS   Akhisar          80.90 315 i P  P          14 27 21.9  -0.1
AKS   Akhisar          80.90 315   P  P          14 27 21.9   0.0
YLL   Llanberis        80.90 342⇑iP   P          14 27 21.7  +0.1
LEF   Lefka            80.92 310 i P  P          14 27 22.2  +0.1
LEF   Lefka            80.92 310   P  P          14 27 22.2  +0.1
KBA   Koelnbreinsper   80.92 329⇑iP   P          14 27 22.1  +0.2
      comp=Z,8µm,3.5s
OBKA  Obir             80.93 328⇑iP   P          14 27 22.0  +0.1
      comp=Z,12µm,4.2s
HILS  Ha’il            80.95 299   P  P          14 27 23.2  +0.7
KKB   Krupnik          80.96 320 i P  P          14 27 22.5  +0.3
QURS  Qurayyt al Mil   80.97 305   P  P          14 27 23.9  +1.4
STU   Stuttgart        80.99 332   P  P          14 27 21.7  -0.5
STU                            pmax   pmax
      comp=Z,540nm,1.0s,mb6.4
STU   Stuttgart        80.99 332⇑iP   P          14 27 22.0  -0.2
      comp=Z,536nm,0.9s,mb6.5
MZLS  Mizel            80.99 294   P  P          14 27 23.1  +0.4
GLH   Golan-Tel Qazi   81.04 306   P  P          14 27 23.7  +0.9
GLH   Golan-Tel Qazi   81.04 306 ⇑P   P          14 27 23.7  +0.9
ARSS  Ar Rass          81.04 297   P  P          14 27 23.0   0.0
SISC  Sisak            81.05 326 i P  P          14 27 22.6   0.0
ALFC  Alevga           81.05 310 ⇑P   P          14 27 21.4  -1.4
      comp=Z,8.2nm,0.9s
ALFC  Alevga           81.05 310⇑eP   P          14 27 21.4  -1.4
HNTI  Hanita           81.06 307   P  P          14 27 23.7  +0.8
HNTI  Hanita           81.06 307 ⇑P   P          14 27 23.7  +0.8
BOZC  Bozcaada         81.07 317 i P  P          14 27 22.5  -0.3
KSU1  Kansas State U   81.10  44 eP   P          14 27 21.7  -1.3
DENT  Denizli          81.10 314   P  P          14 27 23.2  +0.2
DENT  Denizli          81.10 314   P  P          14 27 23.2  +0.2
YRE   Yr Eifl          81.11 342⇑iP   P          14 27 22.8  +0.1
YRE                            AMb    AMB        14 27 24.7
      comp=Z,1µm,1.2s,mb6.7
DNZL  Cakiroluk        81.14 314 i P  P          14 27 23.9  +0.7
AYVA  Ayvalik          81.15 316 i P  P          14 27 23.1  -0.1
HLM1  Long Mynd        81.17 341⇑iP   P          14 27 23.1   0.0
SZAC  Souni-Zanaja     81.18 310 ⇑P   P          14 27 22.7  -0.8
SZAC  Souni-Zanaja     81.18 310⇑eP   P          14 27 22.7  -0.8
BUCH  Bad Urach        81.21 332⇑eP   P          14 27 23.6  +0.2
LBG   Lerchenberg      81.21 332⇑eP   P          14 27 23.4   0.0
NVSS  Nova Varos 2     81.22 323⇓iP   P          14 27 24.4  +0.8
WLF   Walferdange      81.22 334   P  P          14 27 23.3  -0.1
WLF                            pmax   pmax
      comp=Z,180nm,0.9s,mb6.0
WLF   Walferdange      81.22 334⇑iP   P          14 27 23.2  -0.1
      comp=Z,175nm,0.9s,mb6.0
JFWS  Jewell Farm      81.22  38⇑iP   P          14 27 22.2  -1.4
      comp=Z,55nm,0.9s,mb5.5
JFWS                           LR     LR
      comp=Z,56µm,22.0s,MS6.9
GIVF  Givet            81.25 335⇑iP   P          14 27 23.0  -0.5
      comp=Z,1µm,1.5s,mb6.2
DLF   Lyons Farm       81.27 343⇑iP   P          14 27 23.8  +0.2
LANF  Langenberg       81.28 333   P  P          14 27 23.9  +0.2
DSB   Dublin           81.29 343⇑eP   P          14 27 23.8  +0.1
      comp=Z,490nm,1.3s,mb6.3
AKMC  Akamas           81.30 310 ⇑P   P          14 27 22.8  -1.3
AKMC  Akamas           81.30 310⇑eP   P          14 27 22.8  -1.3
SRS   Serrai           81.30 319 eP   P          14 27 24.1  +0.1
LJU   Ljubljana        81.32 328 eP   P          14 27 23.7  -0.3
LJU                           e                  14 33 38.7
LJU                           eS      S          14 37 28.2  -2.4
LJU                           e                  14 37 47.7
LJU                           eSS     tx         14 43 27.8
LJU                           eSSS    SSS        14 46 32.9   +21
SSP1  Stoney Pound     81.32 341⇑iP   P          14 27 24.0  +0.1
RAR   Rarotonga        81.32 129   LR LR         14 57 01.3
      comp=Z,33µm,22.0s,MS6.6,baz=314,slow=31
RAR   Rarotonga        81.32 129 eP   P          14 27 26.7  +2.2
      comp=Z,604nm,1.9s,mb6.2
RAR                            LR     LR
      comp=Z,31µm,22.0s,MS6.6
WATA  Walderalm        81.36 330⇑iP   P          14 27 24.6  +0.4
      comp=Z,842nm,1.3s,mb6.5
HAF   Haifa            81.36 307   P  P          14 27 25.0  +0.5
HAF   Haifa            81.36 307 ⇑P   P          14 27 25.0  +0.5
MMLI  Mount Malkishu   81.37 306   P  P          14 27 25.6  +1.0
MMLI  Mount Malkishu   81.37 306 ⇑P   P          14 27 25.6  +1.0
ELL   Elmali           81.38 313 i P  P          14 27 24.5   0.0
ELL   Elmali           81.38 313   P  P          14 27 24.4   0.0
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DCN   Croghan          81.39 344⇑iP   P          14 27 24.5  +0.3
SKP1  Kophill          81.39 339⇑eP   P          14 27 23.8  -0.4
PPCY  Paphos           81.39 310 ⇑P   P          14 27 23.5  -1.1
PPCY  Paphos           81.39 310⇑eP   P          14 27 23.5  -1.1
WTTA  Wattenberg       81.40 330⇑iP   P          14 27 24.9  +0.5
      comp=Z,8µm,2.9s,mb7.2
PRK   Paraskevi        81.41 317 eP   P          14 27 24.7  +0.1
SSW   Stow on the Wo   81.43 340⇑iP   P          14 27 24.6  +0.2
HMDT  Nahal Hemdat     81.44 306   P  P          14 27 25.8  +0.9
HMDT  Nahal Hemdat     81.44 306 ⇑P   P          14 27 25.8  +0.9
BAIF  Baives           81.47 336⇑iP   P          14 27 24.3  -0.4
      comp=Z,758nm,1.5s,mb6.1
BOJS  Bojanci          81.48 327 eP   P          14 27 24.7  -0.2
BOJS                          ePP     PP         14 30 29.8  -3.4
BOJS                          ePPP    PPP        14 32 20.4  -4.4
BOJS                          e                  14 33 50.1
BOJS                          e                  14 47 40.3
PTCC  Patocco-Chiusa   81.48 329 eP   P          14 27 24.0  -0.8
LOS   Limnos           81.48 318 eP   P          14 27 24.9   0.0
AMTX  Amarillo         81.49  50⇑eP   P          14 27 25.4  +0.3
      comp=Z,353nm,1.5s,mb6.1
AMTX                           LR     LR
      comp=Z,13µm,21.0s,MS6.2
PLE   Pljevlja         81.49 323⇑iP   P          14 27 25.9  +0.9
OFRI  ‘Ofer            81.50 307   P  P          14 27 25.7  +0.5
OFRI  ‘Ofer            81.50 307 ⇑P   P          14 27 25.7  +0.5
MOTA  Moosalm          81.53 330⇑iP   P          14 27 25.5  +0.4
      comp=Z,734nm,1.2s,mb6.5
HAE   Alders End       81.53 341⇑iP   P          14 27 25.0   0.0
HAE                            AMb    AMB        14 27 26.9
      comp=Z,1µm,1.2s,mb6.6
FVI   Forni Avoltri    81.53 329 eP   P          14 27 24.3  -0.8
KDAG  Bornova          81.54 315 i P  P          14 27 25.4  +0.1
IZM   Izmir            81.55 315 i P  P          14 27 25.6  +0.3
IZM   Izmir            81.55 315   P  P          14 27 25.6  +0.3
CPRX  Cap Rock         81.57  53 eP   P          14 27 25.4  -0.2
VOY   Vojsko           81.58 328⇑eP   P          14 27 24.3  -1.0
SQTA  Sankt Quirin     81.59 330⇑iP   P          14 27 25.9  +0.5
      comp=Z,1µm,1.6s,mb6.6
KNT   Kendrikon        81.59 320 eP   P          14 27 25.6  +0.1
UBR   Uberruh          81.60 331⇑eP   P          14 27 25.3  -0.1
CEY   Cerknica         81.61 328 i P  P          14 27 24.9  -0.6
CEY                           eS      S          14 37 33.0  -0.7
CEY                           eSS     SS         14 43 20.8   +26
GUT   Gutenstein       81.61 332⇑eP   P          14 27 25.5   0.0
SEST  Monte Rota       81.62 329   P  P          14 27 25.1  -0.4
VAY   Valandovo        81.63 320⇑iP   P          14 27 26.3  +0.6
VAY                           i                  14 28 46.1
VAY                           i S     S          14 37 33.6  -0.3
VAY                           i ScS   ScS        14 37 52.3  +3.2
MENF  Mencas           81.63 337⇑eP   P          14 27 25.3  -0.2
IVA   Berane           81.63 323⇑iP   P          14 27 25.5  -0.2
SOH   Sokhos           81.64 319 eP   P          14 27 25.6  -0.2
SKO   Skopje           81.64 321⇑iP   P          14 27 26.7  +0.9
      comp=Z,0.9nm,1.0s
SKO                          ⇓iS      S          14 37 34.5  +0.4
SKO                           i ScS   ScS        14 37 56.0  +6.8
SKO                            Lm                15 07 30.0
      comp=N,35nm,16.0s
SKO                            Lm                15 07 30.0
      comp=E,33nm,14.0s
BFO   Black Forest     81.66 333 eP   P          14 27 25.3  -0.4
BFO                            pmax   pmax
      comp=Z,805nm,1.5s,mb6.4
BFO   Black Forest     81.66 333 eP   P          14 27 25.3  -0.4
      comp=Z,805nm,1.5s,mb6.4
BLCB  Balcova          81.67 316 i P  P          14 27 24.8  -1.2
BLCB  Balcova          81.67 316   P  P          14 27 24.8  -1.2
HTR   Trewern Hill     81.67 341⇑iP   P          14 27 25.7   0.0
HTR                            AMb    AMB        14 27 27.8
      comp=Z,984nm,1.2s,mb6.6
MCH1  Michaelchurch    81.68 341⇑iP   P          14 27 25.8  +0.1
SPAK  Spaichingen      81.70 332⇑eP   P          14 27 26.1  +0.2
OUR   Ouranopolis      81.72 319 eP   P          14 27 26.1   0.0
SLTI  Sal’it           81.74 307   P  P          14 27 27.2  +0.7
SLTI  Sal’it           81.74 307 ⇑P   P          14 27 27.2  +0.7
AYDN  Tasoluk          81.78 315 i P  P          14 27 27.8  +1.2
UPM   Unac-Piva        81.81 323⇑iP   P          14 27 26.5  -0.1
PVY   Plav             81.82 322⇑iP   P          14 27 26.2  -0.5
SWN1  Swindon          81.83 340⇑iP   P          14 27 26.9  +0.3
OUZ   Omahuta          81.83 157   P  P          14 27 30.9  +4.0
BRES  Bressanone       81.84 330   P  P          14 27 26.5  -0.2
MKRJ  Makawir          81.87 306   P  P          14 27 28.1  +0.9
GDL2  Guadalupe Moun   81.88  53 eP   P          14 27 27.5  +0.4
TRI   Trieste          81.90 328 eP   P          14 27 26.1  -0.9
FETY  Fethiye          81.90 313 i P  P          14 27 27.3  +0.1
WLS   Welschbruch      81.92 333⇑eP   P          14 27 27.0   0.0
CDF   Champ du Feu     81.94 333⇑iP   P          14 27 27.0  -0.2
      comp=Z,500nm,0.8s,mb6.2
PLG   Polygyros        81.94 319 eP   P          14 27 27.5  +0.1
YER   Yerkesik         81.96 314 i P  P          14 27 28.6  +1.1
HGH   Gray Hill        81.96 341⇑iP   P          14 27 27.2   0.0
THE   Thessaloniki     81.97 319 eP   P          14 27 26.9  -0.6
DRGI  Dragot           81.99 306   P  P          14 27 28.4  +0.6
DRGI  Dragot           81.99 306 ⇑P   P          14 27 28.4  +0.6
GRG   Griva            81.99 320 eP   P          14 27 27.5  -0.1
KSL   Kastellorizon    81.99 313 eP   P          14 27 27.0  -0.7
DAVA  Damuels          82.02 331⇑iP   P          14 27 27.8  +0.2
      comp=Z,10µm,4.0s
DALT  Dalyan (Mudla)   82.04 314 i P  P          14 27 29.7  +1.7
STEIN Stein am Rhein   82.04 332⇑iP   P          14 27 27.7   0.0
STEIN Stein am Rhein   82.04 332⇑iP   P          14 27 27.6  -0.1
LIBD  Limburg          82.06 333⇑eP   P          14 27 27.9  +0.1
LIBD  Limburg          82.06 333⇑eP   P          14 27 28.0  +0.2
NKY   Niksic           82.08 323⇑iP   P          14 27 27.1  -0.9
SLE   Schleitheim      82.09 332⇑iP   P          14 27 27.6  -0.4
SLE   Schleitheim      82.09 332⇑iP   P          14 27 27.7  -0.3
MLSB  Milas            82.11 314 i P  P          14 27 29.2  +0.9
CLNB  Carlsbad         82.11  53 eP   P          14 27 28.4   0.0
WEIN  Weingarten       82.12 332⇑eP   P          14 27 27.8  -0.3
WEIN  Weingarten       82.12 332⇑eP   P          14 27 28.0  -0.1
TRULL Truellikon       82.13 332⇑iP   P          14 27 28.0  -0.1
TRULL Truellikon       82.13 332⇑iP   P          14 27 27.8  -0.3
LIENZ Alp Oberkamor    82.15 331⇑iP   P          14 27 28.2   0.0
ECH   Echery           82.15 333⇑eP   P          14 27 28.1  -0.2
FELD  Feldberg         82.16 333⇑eP   P          14 27 28.2  -0.1
PAIG  Paliouri         82.18 319 eP   P          14 27 28.5  -0.1
HSA   Swansea          82.19 341⇑eP   P          14 27 28.2  -0.1
BRY   Bratogost        82.21 324⇑iP   P          14 27 28.2  -0.5
MZDA  Masada           82.21 306   P  P          14 27 29.6  +0.7
MZDA  Masada           82.21 306 ⇑P   P          14 27 29.6  +0.7
APPI  Appiano          82.21 330   P  P          14 27 27.5  -1.1
FLACH Flaach           82.23 332⇑iP   P          14 27 28.6  -0.1
SMD   Mendips          82.25 340⇑iP   P          14 27 28.6  -0.1
WILA  Wila             82.25 332⇑eP   P          14 27 28.4  -0.4
WILA  Wila             82.25 332⇑eP   P          14 27 28.6  -0.2
TTG   Podgorica        82.27 323⇑iP   P          14 27 29.0   0.0
SWK   Warminster       82.28 340⇑eP   P          14 27 29.0  +0.2
SMG   Samos            82.28 315 eP   P          14 27 29.3  +0.1
PLONS Plons            82.40 331⇑iP   P          14 27 29.6  +0.1
PLONS Plons            82.40 331⇑iP   P          14 27 29.7  +0.2
ZUR   Zurich           82.40 332⇑iP   P          14 27 29.3  -0.3
NVLJ  Novalja          82.40 327 i P  P          14 27 28.5  -1.1
CTI   Castel Tesino    82.42 329 eP   P          14 27 29.0  -0.7
SULZ  Sulz-Cheisache   82.43 332⇑iP   P          14 27 29.7   0.0
SULZ  Sulz-Cheisache   82.43 332⇑iP   P          14 27 29.6  -0.1
FUORN Ofenpass         82.45 331⇑iP   P          14 27 30.6  +0.8
BIA   Bitola           82.45 321⇑iP   P          14 27 30.5  +0.6
BIA                           i PcP   PcP        14 27 37.3  +1.8
DAVOX Davos            82.45 331⇑iP   P          14 27 30.3  +0.5
BDRM  Kayabasi         82.45 314 i P  P          14 27 30.4  +0.3
MOF   Molkenrain       82.48 333⇑eP   P          14 27 23.7  -6.2
MOF   Molkenrain       82.48 333   P  P          14 27 30.0  +0.1
THEF  They Montfort    82.53 334⇑eP   P          14 27 30.2   0.0
BRMO  Bormio           82.53 330 eP   P          14 27 30.9  +0.6
AFFS  ‘Afif            82.53 296   P  P          14 27 31.2  +0.5
BUM   Brajici-Budva    82.53 323⇑iP   P          14 27 30.3  -0.1
DGAR  Diego Garcia     82.57 253⇑eP   P          14 27 30.5  -0.6
      comp=Z,1µm,1.4s,mb6.8
DGAR                          epP     pP         14 27 41.5  -0.8
DGAR                           LR     LR
      comp=Z,6µm,22.0s,MS5.9
MEZF  Maizieres J’vi   82.58 335⇑iP   P          14 27 30.5   0.0
      comp=Z,847nm,1.0s,mb6.4
HCY   Herceg Novi      82.59 323⇑iP   P          14 27 30.0  -0.6
STON  Ston             82.60 324⇑iP   P          14 27 29.7  -1.0
HINF  Hinteralfeld     82.60 333⇑iP   P          14 27 30.0  -0.6
      comp=Z,572nm,1.5s,mb6.1
HAU   Haudompre        82.60 334⇑iP   P          14 27 30.2  -0.4
      comp=Z,386nm,0.9s,mb6.1
HAU                           eR
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      comp=Z,145µm,21.5s
FNA   Florina          82.61 321 eP   P          14 27 30.6  -0.1
LIT   Litokhoron       82.62 319 eP   P          14 27 30.2  -0.6
OHR   Ohrid            82.62 321⇑iP   P          14 27 31.0  +0.2
OHR                           i PcP   PcP        14 27 38.3  +2.1
OHR                          ⇑iS      S          14 37 43.0  -1.0
ULC   Ulcinj           82.65 323⇑iP   P          14 27 30.8  -0.1
AOS   Alonnisos        82.66 318 eP   P          14 27 31.0  -0.1
BBS   Basel-Blauen     82.69 333⇑eP   P          14 27 31.2  +0.2
LLS   Linth-Limmern    82.70 331⇑iP   P          14 27 31.3  +0.2
BERNI Berninapass      82.71 331⇑iP   P          14 27 31.6  +0.4
WCZ   Waipu Caves      82.72 157   P  P          14 27 34.6  +3.2
MUO   Muotathal        82.73 332⇑iP   P          14 27 31.4  +0.2
ARG   Arkhangelos      82.73 313 eP   P          14 27 32.0  +0.5
HEX   Exmoor           82.73 341⇑iP   P          14 27 31.2   0.0
BALST Balsthal         82.73 332⇑iP   P          14 27 31.3   0.0
MASH  Mash‘abbe Sade   82.78 306   P  P          14 27 32.4  +0.6
KZN   Kozani           82.80 320 eP   P          14 27 31.0  -0.7
RTMM  Retamin          82.80 306   P  P          14 27 32.3  +0.4
RTMM  Retamin          82.80 306 ⇑P   P          14 27 32.3  +0.4
MABI  Malga Bissina    82.84 330   P  P          14 27 31.6  -0.2
BOURR Bourrignon       82.84 333⇑iP   P          14 27 31.8   0.0
VDL   Val di Lei       82.85 331⇑iP   P          14 27 32.3  +0.5
XOR   Xorichti         82.85 319 eP   P          14 27 31.4  -0.6
TIR   Tirane           82.86 322   P  P          14 27 32.2  +0.2
ZFRI  Zfri             82.86 305   P  P          14 27 33.1  +0.8
ZFRI  Zfri             82.86 305 ⇑P   P          14 27 33.1  +0.8
NEO   Neokhori         82.88 318 eP   P          14 27 32.0  -0.2
BNALP Bannalp          82.89 332⇑iP   P          14 27 32.2  +0.2
HTL   Hartland         82.96 341⇑iP   P          14 27 32.6  +0.3
LOMF  Lomont           83.02 333⇑eP   P          14 27 32.9  +0.2
KZIT  Kziot            83.08 306   P  P          14 27 34.0  +0.7
KZIT  Kziot            83.08 306 ⇑P   P          14 27 34.0  +0.7
HASLI Hasliberg        83.08 332⇑iP   P          14 27 33.0   0.0
HASLI Hasliberg        83.08 332⇑iP   P          14 27 33.5  +0.5
PRNI  Paran            83.11 305   P  P          14 27 34.5  +1.0
PRNI  Paran            83.11 305 ⇑P   P          14 27 34.5  +1.0
FUSIO Fusio            83.16 331⇑iP   P          14 27 33.8  +0.4
SAL   Salo             83.21 330 eP   P          14 27 33.4  -0.3
WIMIS Wimmis           83.34 332⇑eP   P          14 27 34.2  -0.2
SBD   Saint Breward    83.41 341⇑iP   P          14 27 22.0   -13
APE   Apeiranthos      83.44 316   P  P          14 27 32.0  -3.1
APE   Apeiranthos      83.44 316 eP   P          14 27 33.5  -1.6
APE   Apeiranthos      83.44 316   P  P          14 27 34.2  -0.9
KMTI  Karmit           83.45 305   P  P          14 27 35.9  +0.6
KMTI  Karmit           83.45 305 ⇑P   P          14 27 35.9  +0.6
MEV   Metsovon         83.46 320 eP   P          14 27 35.7  +0.5
TORNY Torny            83.47 333⇑iP   P          14 27 34.9  -0.1
TORNY Torny            83.47 333⇑iP   P          14 27 34.6  -0.4
MUGIO Muggio           83.48 331⇑iP   P          14 27 34.6  -0.5
MUGIO Muggio           83.48 331⇑iP   P          14 27 35.2  +0.1
BRANT Les Verrieres    83.49 333⇑iP   P          14 27 35.2  +0.1
BRANT Les Verrieres    83.49 333⇑iP   P          14 27 34.9  -0.2
MPAR  Parnis Oros      83.52 317 eP   P          14 27 34.7  -0.7
AQBJ  Aqaba            83.53 305   P  P          14 27 36.5  +0.8
AGG   Agios Georgios   83.53 319 eP   P          14 27 34.4  -1.1
PTL   Penteli          83.54 317 eP   P          14 27 34.8  -0.7
MBH   Mount Berech     83.56 305   P  P          14 27 36.7  +0.9
MBH   Mount Berech     83.56 305 ⇑P   P          14 27 36.7  +0.9
LKBD  Leukerbad        83.58 332⇑iP   P          14 27 35.6  +0.1
JMQS  Jabal Moqyreh    83.63 304   P  P          14 27 37.2  +1.0
VAI   Varese           83.63 331 eP   P          14 27 35.5  -0.3
EIL   Elat             83.63 305   P  P          14 27 37.0  +0.8
EIL   Elat             83.63 305 ⇑P   P          14 27 37.0  +0.8
ATH   Athens Observa   83.67 317 eP   P          14 27 35.5  -0.7
TBKS  Tabuk            83.68 303   P  P          14 27 37.5  +1.0
KBRS  Khaybar          83.69 299   P  P          14 27 37.6  +1.0
SENIN Lac Senin        83.71 332⇑iP   P          14 27 36.4  +0.2
PESA  Pesaro           83.73 328   P  P          14 27 37.0  +0.6
JAN   Janina           83.74 320 eP   P          14 27 36.9  +0.4
KARP  Karpathos        83.75 314 eP   P          14 27 36.5  -0.1
MMK   Mattmark         83.75 332⇑iP   P          14 27 36.9  +0.5
MMK   Mattmark         83.75 332⇑iP   P          14 27 36.8  +0.4
AOI   Ancona           83.76 327   P  P          14 27 36.6  +0.1
ALWS  Ilw as Safayha   83.82 304   P  P          14 27 38.2  +1.0
MCGN  Macugnaga        83.83 332 eP   P          14 27 37.2  +0.4
NSAL  Nisos Salamina   83.85 317 eP   P          14 27 35.5  -1.6
AIGLE Aigle            83.85 332⇑eP   P          14 27 36.8  -0.1
AIGLE Aigle            83.85 332⇑eP   P          14 27 36.9   0.0
EVR   Evrytania        83.87 319 eP   P          14 27 36.7  -0.5
GRYON Gryon            83.88 332⇓iP   P          14 27 37.2  +0.2
GRYON Gryon            83.88 332⇓iP   P          14 27 37.8  +0.8
KUZ   Kuaotunu         83.88 156   P  P          14 27 39.6  +2.3
MGER  Gerania Oros     83.89 318 eP   P          14 27 36.0  -1.3
JMOS  Jabal al Moall   83.89 304   P  P          14 27 38.3  +0.8
RSM   Repubblica di    83.90 328 eP   P          14 27 38.3  +1.1
CABF  La Chapelle      83.91 333⇑iP   P          14 27 37.3  +0.1
      comp=Z,282nm,0.9s,mb6.1
GIMEL Gimel            83.92 333⇑iP   P          14 27 37.1  -0.1
GIMEL Gimel            83.92 333⇑iP   P          14 27 37.2   0.0
DIX   Grande Dixence   83.92 332⇑iP   P          14 27 37.8  +0.5
PMOR  Pomariorio Ree   83.94 117 eP   P          14 27 40.3  +2.3
      comp=Z,306nm,1.5s,mb6.2
KAMS  Al Khamasin      83.94 292   P  P          14 27 38.2  +0.2
NAIG  Nisos Aigina     83.95 317 eP   P          14 27 35.5  -2.1
FSSB  Fossombrone      83.97 327 eP   P          14 27 38.0  +0.5
JLP   Les Platons      83.99 339⇑iP   P          14 27 37.7  +0.2
FLN   La Foliniere     83.99 338⇑iP   P          14 27 37.3  -0.2
      comp=Z,244nm,0.7s,mb6.1
FLN                           eR
      comp=Z,73µm,21.5s
JQE   Queens East      84.01 339⇑iP   P          14 27 37.7  +0.1
SANT  Santorini        84.02 315⇑iP   P          14 27 36.2  -1.7
      comp=Z,929nm,1.3s,mb6.8
THR1  Thera Island     84.02 315 eP   P          14 27 36.3  -1.7
SALAN Lac Salanfe      84.02 332⇑iP   P          14 27 37.9  +0.2
THR3  Thira Island,    84.02 315 eP   P          14 27 36.3  -1.7
JRS   Jersey           84.03 339 i P  P          14 27 37.9  +0.1
THR5  Thira Island,    84.04 315 eP   P          14 27 36.3  -1.8
JVM   Valle D.L. Mar   84.04 339⇑iP   P          14 27 37.9  +0.1
LDF   La Druitiere     84.05 338⇑iP   P          14 27 37.6  -0.2
      comp=Z,1µm,1.7s,mb6.5
JSA   Saint Aubin      84.06 339⇑iP   P          14 27 37.8   0.0
THR6  Thira Island,    84.06 315 eP   P          14 27 36.7  -1.5
ARV   Arcevia          84.06 327 eP   P          14 27 38.4  +0.3
CING  Cingoli          84.06 327 eP   P          14 27 38.2  +0.2
HAQS  Haql             84.08 304   P  P          14 27 39.3  +0.8
IGT   Igoumenitsa      84.09 320 eP   P          14 27 38.0  -0.3
ORX   Oropa            84.11 331 ⇑P   P          14 27 37.3  -0.9
ZCCA  Zocca            84.11 329 eP   P          14 27 39.8  +1.6
EMV   Vieux Emosson    84.11 332⇑iP   P          14 27 38.5  +0.3
ORO   Oropa            84.11 331   P  P          14 27 37.6  -0.6
SFI   Santa Sofia      84.15 328 eP   P          14 27 39.7  +1.2
KEK   Kerkira          84.19 321 eP   P          14 27 38.0  -0.8
KEK   Kerkira          84.19 321   P  P          14 27 38.8   0.0
FNVD  Fontana Vidola   84.21 329 eP   P          14 27 39.9  +1.1
SEI   Scarperia        84.22 329 eP   P          14 27 39.9  +1.1
VMG   Vicchio          84.22 328 eP   P          14 27 40.7  +1.8
PGD   Poggio Sodo      84.23 328 eP   P          14 27 40.2  +1.4
GSCL  Gusciola         84.26 329 eP   P          14 27 40.0  +1.0
ERBM  Eremo            84.27 329 eP   P          14 27 40.2  +1.2
SNTG  Esanatoglia      84.27 327 eP   P          14 27 39.5  +0.4
TRAV                   84.30 331 ⇑P   P          14 27 38.5  -0.6
FGMS  Monte Sant’Ang   84.30 324 eP   P          14 27 39.3   0.0
BOB   Bobbio (Coli)    84.33 330 eP   P          14 27 39.8  +0.5
BADI  Badiali          84.33 328   P  P          14 27 40.0  +0.6
GRAM                   84.33 330 ⇑P   P          14 27 39.7  +0.3
SSF   Saint Saulge     84.35 335⇑iP   P          14 27 39.3  -0.1
      comp=Z,331nm,0.9s,mb6.2
LTX   Lajitas          84.35  55⇑eP   P          14 27 40.3  +0.4
      comp=Z,183nm,1.0s,mb6.2
LTX                           epP     pP         14 27 51.4  +0.4
LTX                            LR     LR
      comp=Z,30µm,22.0s,MS6.6
TXAR  Lajitas Array    84.35  55   P  P          14 27 40.4  +0.6
      comp=Z,79nm,0.8s,mb5.9,baz=295,slow=2.8,SNR=166
TXAR                           PKKPbc            14 45 52.6
      comp=Z,7.8nm,1.0s,baz=146,slow=4.5,SNR=13
TXAR                           PKPPKP            14 53 58.0
      comp=Z,1.2nm,0.8s,baz=90,slow=1.3,SNR=5.7
TXAR  Lajitas Array    84.35  55   P  P          14 27 40.4  +0.6
TXAR                           PKKPbc            14 45 52.6
TXAR                           P’P’              14 53 58.0
CRE   Caprese Michel   84.35 328 eP   P          14 27 40.2  +0.7
VALM                   84.39 329 ⇑P   P          14 27 40.2  +0.5
MURB  Monte Urbino     84.43 327 eP   P          14 27 40.7  +0.8
BDAS  Al Bad‘          84.43 304   P  P          14 27 41.0  +0.7
HYF   Humbligny        84.43 335⇑iP   P          14 27 40.1  +0.3
BRT   Bari-Castellan   84.43 323   P  P          14 27 40.2  +0.2
GRR   Gorron           84.44 338⇑iP   P          14 27 39.9  +0.1
      comp=Z,2µm,1.5s,mb6.7
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LCI	Lecce	84.47	322	eP	P	14 27 40.4	+0.2
TAYS	Tayyib Ism	84.48	304	P	P	14 27 41.2	+0.7
RGNG	Rignano Grg	84.48	325	eP	P	14 27 40.1	-0.1
VLC	Villacollemand	84.50	329	⇑iP	P	14 27 40.3	+0.1
	comp=Z,835nm,1.3s,mb6.7						
AYUS	‘Aynunah	84.50	304	P	P	14 27 41.3	+0.7
BDI	Bagni Di Lucca	84.50	329	eP	P	14 27 39.8	-0.4
CODM		84.50	330	⇑P	P	14 27 40.5	+0.3
BACM		84.51	329	⇑P	P	14 27 40.5	+0.2
TERO	Teramo	84.53	326	eP	P	14 27 40.7	+0.3
LSD	Ceresole Reale	84.55	332	⇑P	P	14 27 41.2	+0.8
AAM	Ann Arbor	84.57	34	⇑eP	P	14 27 40.2	-0.4
	comp=Z,495nm,1.4s,mb6.5						
AAM				LR	LR		
	comp=Z,31µm,20.0s,MS6.7						
CCM	Cathedral Cave	84.58	41	P	P	14 27 40.4	-0.4
CCM				pmax	pmax		
	comp=Z,540nm,1.4s,mb6.5						
CCM	Cathedral Cave	84.58	41	⇑iP	P	14 27 40.4	-0.3
	comp=Z,535nm,1.4s,mb6.5						
CCM				epP	pP	14 27 52.1	+0.1
CCM				ePP	PP	14 30 56.2	-2.0
CCM				LR	LR		
	comp=Z,6µm,21.0s,MS5.9						
LKD	Levkas	84.59	320	eP	P	14 27 40.7	-0.1
VINC	Vinca	84.60	329	P	P	14 27 40.3	-0.4
SLM	Saint Louis	84.61	40	P	P	14 27 40.8	-0.1
SLM				pmax	pmax		
	comp=Z,700nm,1.5s,mb6.6						
SLM	Saint Louis	84.61	40	⇑eP	P	14 27 40.2	-0.7
	comp=Z,703nm,1.5s,mb6.6						
SLM				ePP	PP	14 30 56.3	-2.1
SMF	Signal de Mont	84.61	334	⇑iP	P	14 27 40.8	+0.1
	comp=Z,864nm,0.9s,mb6.6						
OG05	Jujurieux	84.62	333	⇑eP	P	14 27 41.2	+0.4
AVF	Avril sur Loir	84.64	335	⇑iP	P	14 27 40.9	+0.1
	comp=Z,555nm,0.8s,mb6.4						
LPL	La Plagne	84.65	332	⇑iP	P	14 27 41.6	+0.7
	comp=Z,556nm,1.0s,mb6.3						
LPG	La Plagne	84.66	332	⇑iP	P	14 27 41.8	+0.8
	comp=Z,778nm,1.0s,mb6.5						
MAIM		84.67	329	⇑P	P	14 27 40.3	-0.7
PPT	Papeete	84.73	120	eP	P	14 27 44.3	+2.4
	comp=Z,80nm,1.3s,mb5.7						
PPT	Papeete	84.73	120	eSS	SS	14 43 38.6	-2.1
PPT				eLR	LR	14 53 22.9	
	comp=Z,268µm,32.2s,baz=319						
CSNT	Castellina Chi	84.73	328	eP	P	14 27 40.9	-0.5
RSP	Reno Superiore	84.78	332	⇑P	P	14 27 40.7	-0.9
NPS	Neapolis	84.78	314	eP	P	14 27 41.0	-0.9
CIGN	Sant’Elia a Pi	84.79	325	P	P	14 27 42.2	+0.5
PAE	Paea	84.79	120	eP	P	14 27 44.3	+2.0
	comp=Z,122nm,1.4s,mb5.8						
GENL	Genova Univers	84.81	330	⇑P	P	14 27 40.0	-1.8
PII	Pisa	84.82	329	eP	P	14 27 40.9	-0.9
LTRZ	Laterza	84.83	323	eP	P	14 27 42.0	+0.1
AQU	L’Aquila	84.83	326	P	P	14 27 42.6	+0.7
AQU				pmax	pmax		
	comp=Z,920nm,1.2s,mb6.8						
AQU	L’Aquila	84.83	326	eP	P	14 27 42.6	+0.6
PCP	Pian Castagno	84.85	331	⇑P	P	14 27 41.5	-0.5
TIAR	Tiarei	84.87	119	eP	P	14 27 44.9	+2.3
	comp=Z,259nm,1.2s,mb6.2						
INTR	Introdacqua	84.91	326	eP	P	14 27 42.1	-0.2
FG5	Orsara di Pugl	84.94	325	eP	P	14 27 43.2	+0.7
FENE	Fenestrelle	84.95	332	⇑P	P	14 27 42.7	+0.2
FG4	Candela	84.96	324	eP	P	14 27 43.0	+0.4
CII	Carovilli	84.98	325	eP	P	14 27 43.4	+0.7
BGF	Bois d’Agland	85.00	335	⇑iP	P	14 27 42.8	+0.2
	comp=Z,270nm,0.8s,mb6.1						
SGMF	Saint Gilles	85.02	339	⇑iP	P	14 27 43.1	+0.4
	comp=Z,2µm,1.3s,mb6.8						
FIAM	Fiamignano	85.02	326	P	P	14 27 43.2	+0.3
FVM	French Village	85.03	41	P	P	14 27 43.0	0.0
FVM				pmax	pmax		
	comp=Z,340nm,1.4s,mb6.3						
FVM	French Village	85.03	41	⇑eP	P	14 27 42.8	-0.3
	comp=Z,339nm,1.4s,mb6.3						
VLI	Veliai	85.03	317	eP	P	14 27 41.0	-2.1
XRY	Khrisi	85.04	314	eP	P	14 27 43.0	-0.1
VLS	Valsamata	85.04	319	eP	P	14 27 43.0	-0.1
BHB	Bricherasio	85.05	331	⇑P	P	14 27 41.5	-1.4
RNI2	Rionero Sannit	85.07	325	P	P	14 27 43.9	+0.8
BNI	Bardonecchia	85.07	332	P	P	14 27 43.5	+0.5
BNI				pmax	pmax		
	comp=Z,330nm,1.0s,mb6.4						
BNI	Bardonecchia	85.07	332	⇑iP	P	14 27 43.5	+0.5
	comp=Z,333nm,1.0s,mb6.4						
MIDA	Miranda	85.07	325	P	P	14 27 42.9	-0.2
TVO	Taravao	85.09	120	eP	P	14 27 46.2	+2.5
	comp=Z,225nm,1.3s,mb6.1						
MNS	Montasola	85.10	327	eP	P	14 27 42.9	-0.3
PTQR	Pietraquaria	85.11	326	eP	P	14 27 43.7	+0.4
ROSF	Rostrenen	85.13	340	⇑iP	P	14 27 43.7	+0.5
	comp=Z,3µm,1.3s,mb6.9						
GDM	Grand’Maison	85.13	332	⇑eP	P	14 27 44.1	+0.8
GRFL	Gerfalco	85.13	328	eP	P	14 27 43.1	-0.3
IDI	Anoyia	85.14	315	P	P	14 27 42.5	-1.1
RRL	Cesana Torines	85.15	332	P	P	14 27 44.1	+0.7
ITM	Ithomi	85.18	318	eP	P	14 27 43.0	-0.8
ITM	Ithomi	85.18	318	P	P	14 27 43.2	-0.6
OG22	Abries	85.18	332	⇑eP	P	14 27 43.9	+0.3
PSB1	Pescosannita	85.19	325	P	P	14 27 43.8	+0.1
MRB1	Monte Rocchett	85.20	325	P	P	14 27 44.3	+0.5
TATS	Tathlith	85.22	292	P	P	14 27 45.7	+1.3
GRN	Grenoble	85.22	333	⇑eP	P	14 27 44.6	+0.8
FIN	Finale Ligure	85.26	331	eP	P	14 27 43.2	-0.8
MRLC	Muro Lucano	85.28	324	eP	P	14 27 44.0	-0.1
PLDF	La Plantade	85.28	334	⇑eP	P	14 27 45.8	+1.8
ROB	Roburent	85.31	331	⇑P	P	14 27 43.7	-0.5
MBDF	Montbardon	85.32	332	⇑iP	P	14 27 44.4	+0.1
	comp=Z,702nm,1.1s,mb6.4						
UMJS	Umm Lajj	85.33	300	P	P	14 27 45.8	+1.1
KYTH	Kithira	85.33	317	eP	P	14 27 43.5	-1.0
GUAR	Guarcino	85.34	326	P	P	14 27 44.2	-0.2
CERT	Cerreto	85.34	326	eP	P	14 27 44.0	-0.4
DOI	San Damiano	85.35	331	eP	P	14 27 42.8	-1.7
AGO	Saint Agoulin	85.36	335	⇑eP	P	14 27 46.2	+1.8
MTCE	Montecelio	85.38	327	P	P	14 27 44.0	-0.6
CSSN	Cassano Irpino	85.39	324	eP	P	14 27 44.3	-0.5
PZZ	Prazzo	85.40	331	⇑P	P	14 27 43.5	-1.2
VAM	Vamos	85.41	315	eP	P	14 27 44.0	-0.9
ORI	Oriolo Calabro	85.43	323	eP	P	14 27 45.9	+1.0
TCF	Toulx Ste Croi	85.44	335	⇑iP	P	14 27 45.3	+0.5
	comp=Z,1µm,1.5s,mb6.5						
ORIF	Oris-en-Rattie	85.46	332	⇑iP	P	14 27 45.6	+0.6
	comp=Z,763nm,1.1s,mb6.4						
ORIF				eR			
	comp=Z,142µm,22.2s						
RFI	Roccamonfina	85.47	325	eP	P	14 27 45.2	+0.1
QUIF	Quistinic	85.49	339	⇑iP	P	14 27 45.2	+0.2
	comp=Z,2µm,1.7s,mb6.7						
SLCN	Sala Consilina	85.52	324	eP	P	14 27 45.5	+0.2
SGO	Sicignano	85.52	324	eP	P	14 27 45.3	-0.1
SURF	Saint Ours	85.52	332	⇑eP	P	14 27 45.9	+0.6
YNBS	Yanbu‘ al Bahr	85.52	299	P	P	14 27 46.6	+0.9
ENR	Entracque	85.53	331	⇑P	P	14 27 43.7	-1.6
MONE	Monesi	85.53	331	⇑P	P	14 27 45.1	-0.2
STV2	Anna di Valdie	85.55	331	⇑P	P	14 27 43.8	-1.6
STV	Sta Anna Valdi	85.55	331	⇑P	P	14 27 43.7	-1.7
MA9	Marino	85.62	326	P	P	14 27 45.7	-0.1
IMI	Imperia	85.63	331	eP	P	14 27 45.7	-0.1
COLF	Collangettes	85.66	334	⇑eP	P	14 27 46.7	+0.8
PYM	Petit Puy Mans	85.67	335	⇑eP	P	14 27 47.9	+1.9
MAON	Monte Argentar	85.68	328	P	P	14 27 45.8	-0.3
SAOF	Saorge	85.69	331	⇑eP	P	14 27 46.0	-0.1
URZ	Urewera	85.69	155	LR	LR	15 01 39.9	
	comp=Z,30µm,21.1s,MS6.7,baz=348,slow=32						
AUTN	L’Aution	85.72	331	eP	P	14 27 46.4	+0.1
NEGI	Negi	85.75	331	⇑P	P	14 27 46.2	-0.2
MGR	Morigerati	85.76	324	eP	P	14 27 45.6	-0.9
TOUF	Mont Tournerai	85.77	331	⇑eP	P	14 27 46.6	+0.1
JCT	Junction City	85.79	52	⇑iP	P	14 27 46.9	0.0
	comp=Z,3µm,2.3s,mb7.1						
JCT				epP	pP	14 27 58.2	0.0
JCT				LR	LR		
	comp=Z,28µm,22.0s,MS6.6						
VERF	Verneugheol	85.84	335	⇑eP	P	14 27 47.0	+0.2
SBF	Sospel	85.84	331	⇑iP	P	14 27 46.5	-0.3
	comp=Z,1µm,1.0s,mb6.8						
AURF	Auriere	85.86	331	⇑eP	P	14 27 46.9	0.0
MFF	Saint Martin d	85.86	337	⇑iP	P	14 27 47.5	+0.6
	comp=Z,2µm,1.2s,mb6.8						
OG25	Le Caire	85.88	332	⇑eP	P	14 27 47.7	+0.7
BLO	Bloomington	85.90	38	P	P	14 27 47.3	0.0
BLO				pmax	pmax		
	comp=Z,770nm,1.8s,mb6.6						
BLO	Bloomington	85.90	38	⇑eP	P	14 27 47.1	-0.2
	comp=Z,768nm,1.8s,mb6.6						
PTN	Potsdam (NY)	85.91	28	P	P	14 27 47.0	-0.1
PTN	Potsdam (NY)	85.91	28	eP	P	14 27 46.4	-0.7
GVD	Gavdhos	85.91	315	eP	P	14 27 47.1	-0.3
MVIF	Mont Vial	85.91	331	⇑eP	P	14 27 47.4	+0.2
MEH	Mehetia	85.92	119	eP	P	14 27 50.4	+2.6
	comp=Z,101nm,1.3s,mb5.9						
VIVF	Saint-Julien-l	85.92	333	⇑iP	P	14 27 47.8	+0.6
	comp=Z,2µm,1.5s,mb6.8						
MON	Monaco	85.96	331	P	P	14 27 48.0	+0.6
OCF	Saint Nazaire	85.96	333	⇑eP	P	14 27 48.5	+1.1
OG26	St.-Nazaire-De	85.96	333	⇑eP	P	14 27 48.5	+1.1
LCHF	La Chataignera	85.97	337	⇑eP	P	14 27 48.0	+0.6
REVF	Revere	85.97	331	⇑eP	P	14 27 47.4	-0.1
TIP	Timpagrande	86.01	322	⇑iP	P	14 27 47.9	+0.1
LBL	Lubilhac	86.06	334	⇑eP	P	14 27 50.0	+2.1
VENT	Ventotene	86.13	325	P	P	14 27 47.8	-0.5
CALN	Calern	86.13	331	⇑eP	P	14 27 48.5	+0.3
FRNF	Fournols	86.14	335	⇑eP	P	14 27 49.5	+1.3
MIAR	Mount Ida	86.14	45	⇑iP	P	14 27 48.7	+0.1
	comp=Z,591nm,1.5s,mb6.6						
MIAR				epP	pP	14 27 59.8	-0.1
MIAR				LR	LR		
	comp=Z,22µm,21.0s,MS6.5						
ERPA	Erie	86.20	32	⇑iP	P	14 27 48.5	-0.1
	comp=Z,509nm,1.4s,mb6.6						
ERPA				LR	LR		
	comp=Z,28µm,22.0s,MS6.6						
STOF	St-Etienne Org	86.26	332	⇑eP	P	14 27 49.7	+0.8
BLJS	Baljurashi	86.26	294	P	P	14 27 50.9	+1.5
LRYF	La Roche-sur-Y	86.28	338	⇑eP	P	14 27 49.3	+0.4
USIN	University of	86.36	39	⇑eP	P	14 27 49.5	0.0
	comp=Z,467nm,1.5s,mb6.5						
USIN				ePP	PP	14 31 11.1	-1.7
USIN				eS	S	14 38 22.8	+1.8
FRF	La Foret Royal	86.38	331	⇑iP	P	14 27 49.3	-0.2
	comp=Z,1µm,1.2s,mb6.6						
SMRF	Simiane la Rot	86.39	332	⇑iP	P	14 27 50.2	+0.7
	comp=Z,1µm,1.5s,mb6.6						
PGF	Pioggiola	86.40	329	⇑iP	P	14 27 49.4	-0.2
	comp=Z,719nm,1.2s,mb6.5						
PARMO	Parma	86.41	41	⇑eP	P	14 27 50.1	+0.3
VILF	Villemus	86.45	332	⇑eP	P	14 27 50.7	+0.9
GRI	Girifalco	86.46	322	eP	P	14 27 50.2	+0.3
GENY	Geneseo	86.47	30	eP	P	14 27 49.1	-0.8
ALLY	Alegheny Colle	86.53	32	⇑eP	P	14 27 50.4	+0.1
RJF	Les Rejaudoux	86.54	335	⇑iP	P	14 27 50.9	+0.7
	comp=Z,1µm,1.2s,mb6.7						
RJF				eR			
	comp=Z,75µm,22.0s						
TAVF	Tavernes	86.54	332	⇑eP	P	14 27 51.0	+0.7
ACSO	Alum Creek Sta	86.57	35	⇑eP	P	14 27 50.1	-0.4
	comp=Z,509nm,1.4s,mb6.6						
ACSO				LR	LR		
	comp=Z,27µm,20.0s,MS6.7						
UALR	University of	86.60	44	⇑eP	P	14 27 50.7	-0.1
	comp=Z,3µm,2.7s,mb7.1						
LMR	La Mourre	86.63	331	⇑iP	P	14 27 50.7	0.0
	comp=Z,2µm,1.2s,mb6.9						
NCB	Newcomb	86.69	27	⇑eP	P	14 27 50.6	-0.4
	comp=Z,297nm,1.3s,mb6.4						
NCB				LR	LR		
	comp=Z,21µm,19.0s,MS6.5						
CAF	Calviac	86.71	335	⇑iP	P	14 27 52.2	+1.2
	comp=Z,2µm,1.0s,mb6.9						
TREF	Trevaresse	86.77	332	⇑eP	P	14 27 52.6	+1.2
WCI	Wyandotte Cave	86.77	38	P	P	14 27 51.9	+0.4
WCI				pmax	pmax		
	comp=Z,480nm,1.5s,mb6.5						
WCI	Wyandotte Cave	86.77	38	⇑iP	P	14 27 51.7	+0.2
	comp=Z,480nm,1.5s,mb6.5						
WCI				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
OLEF	Ile d’Oleron	86.80	337	⇑eP	P	14 27 51.9	+0.4
HBAR	Harrisburg	86.84	43	⇑eP	P	14 27 52.7	+0.7
LASF	Ste Croix	86.89	333	⇑iP	P	14 27 52.8	+0.9
	comp=Z,2µm,1.5s,mb6.7						
BERF	Bertagne	86.94	332	⇑eP	P	14 27 53.0	+0.8
GLAT	Glass	86.95	41	⇑eP	P	14 27 52.7	+0.2
GELF	Grande-Etoile	86.97	332	⇑eP	P	14 27 53.3	+0.9
UTMT	University of	87.09	41	⇑eP	P	14 27 53.5	+0.3
	comp=Z,471nm,1.1s,mb6.6						
LFF	La Frestale	87.10	336	⇑iP	P	14 27 53.9	+0.9
	comp=Z,2µm,1.3s,mb6.9						
CEL	Celeste	87.15	322	P	P	14 27 52.6	-0.8
HALT	Halls	87.21	41	eP	P	14 27 54.2	+0.5
HALT				epP	pP	14 28 06.8	+1.8
SOI	Samo	87.23	322	eP	P	14 27 53.7	-0.1
SCLL	Scilla	87.24	323	P	P	14 27 52.3	-1.5
GMB	Gambarie	87.26	322	P	P	14 27 54.2	+0.3
SLNA	Salina	87.37	323	P	P	14 27 53.7	-0.8
ACCN	Adirondack Com	87.40	27	⇑eP	P	14 27 54.1	-0.3
MTTG	Motta San Giov	87.45	322	eP	P	14 27 54.1	-0.7
MET	Memphis--Engin	87.54	42	⇑eP	P	14 27 55.4	+0.1
MET				epP	pP	14 28 06.6	-0.1
HNH	Hanover	87.57	26	⇑eP	P	14 27 55.5	+0.2
	comp=Z,20nm,1.4s						
HNH				epP	pP	14 28 07.8	+1.2
WVL	Waterville	87.62	24	⇑eP	P	14 27 55.5	+0.1
	comp=Z,1µm,1.3s,mb6.9						
WVL				LR	LR		
	comp=Z,92µm,19.0s,MS7.2						
BINY	Binghamton	87.63	29	⇑eP	P	14 27 55.4	-0.2
	comp=Z,554nm,1.8s,mb6.5						
BINY				LR	LR		
	comp=Z,21µm,19.0s,MS6.6						
WVT	Waverly	87.76	40	P	P	14 27 56.5	+0.1
WVT				pmax	pmax		
	comp=Z,550nm,1.7s,mb6.5						
WVT	Waverly	87.76	40	⇑iP	P	14 27 56.4	0.0
	comp=Z,549nm,1.7s,mb6.5						
WVT				ePP	PP	14 31 23.0	-1.7
WVT				LR	LR		
	comp=Z,27µm,21.0s,MS6.6						
MNO	Monte Soro	87.96	323	P	P	14 27 56.4	-0.9
USI	Ustica	87.97	324	eP	P	14 27 56.9	-0.4
FFD	Franklin Falls	87.98	26	⇑eP	P	14 27 57.7	+0.5
	comp=Z,646nm,1.4s,mb6.7						
DGI	Dorgali Grotta	88.08	328	P	P	14 27 57.7	-0.1
MTLF	Montolieu	88.08	334	⇑iP	P	14 27 58.7	+1.0
	comp=Z,2µm,1.5s,mb6.7						
FRSS	Farasan al Kab	88.09	291	P	P	14 27 59.7	+1.4
EMMW	East Machias	88.13	23	⇑eP	P	14 27 58.0	+0.1
	comp=Z,1µm,1.3s,mb7.0						
EMMW				LR	LR		
	comp=Z,155µm,20.0s,MS7.4						
CSLB	Castelbuono	88.23	323	eP	P	14 27 57.3	-1.3
AGST	Augusta-Monte	88.28	322	eP	P	14 27 58.2	-0.6
SSPA	Standing Stone	88.28	31	⇑iP	P	14 27 59.0	+0.2
	comp=Z,678nm,1.5s,mb6.7						
SSPA				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
OXF	Oxford	88.29	42	P	P	14 27 59.0	+0.1
OXF				pmax	pmax		
	comp=Z,810nm,1.4s,mb6.8						
OXF	Oxford	88.29	42	⇑iP	P	14 27 58.8	-0.1
	comp=Z,814nm,1.4s,mb6.8						
OXF				LR	LR		
	comp=Z,30µm,22.0s,MS6.7						
LRDF	Laroque-de-Fa	88.33	334	⇑eP	P	14 28 00.2	+1.3
MCWV	Mont Chateau	88.35	33	⇑iP	P	14 27 59.6	+0.5
	comp=Z,730nm,1.4s,mb6.7						
MCWV				LR	LR		
	comp=Z,32µm,19.0s,MS6.8						
SSY	Sortino	88.43	322	P	P	14 27 59.4	-0.2
HKT	Hockley	88.45	49	P	P	14 28 00.8	+1.0
HKT				pmax	pmax		
	comp=Z,210nm,1.5s,mb6.2						
HKT	Hockley	88.45	49	⇑eP	P	14 27 59.9	+0.1
	comp=Z,205nm,1.5s,mb6.1						
HKT				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
VAE	Valguarnera	88.46	323	LR	LR	15 13 03.1	
	comp=Z,63µm,18.6s,MS7.1,baz=62,slow=39						
WVZ	Waitaha Valley	88.48	162	eP	P	14 28 01.4	+1.8
LPEF	Le Peyrat	88.53	334	⇑eP	P	14 28 00.9	+1.0
MEU	Monte Lauro	88.54	322	eP	P	14 28 00.4	+0.3
PZI	Palazzolo	88.57	322	eP	P	14 28 00.3	+0.1
SJAF	Saint Jean de	88.63	333	⇑eP	P	14 28 00.9	+0.5
EJON	La Jonquera	88.66	333	P	P	14 28 00.7	+0.2
	comp=Z,9µm,4.8s						
FILF	Fillols	88.67	333	⇑eP	P	14 28 01.2	+0.7
CARF	Carcanieres	88.67	334	⇑eP	P	14 28 01.6	+1.0
MLS	Moulis	88.78	335	⇑eP	P	14 28 01.7	+0.6
ERC	Erice	88.79	324	eP	P	14 28 00.7	-0.6
VSL	Villasalto	88.87	327	⇑eP	P	14 28 01.2	-0.4
	comp=Z,161nm,1.1s,mb6.3						
HRV	Harvard--Oak R	88.88	26	P	P	14 28 01.7	+0.1
HRV				pmax	pmax		
	comp=Z,430nm,1.4s,mb6.6						
HRV	Harvard--Oak R	88.88	26	eP	P	14 28 01.2	-0.3
	comp=Z,427nm,1.4s,mb6.6						
HRV				LR	LR		
	comp=Z,26µm,21.0s,MS6.6						
SALF	Salau	88.93	334	⇑eP	P	14 28 02.3	+0.5
LVI	Isola Levanzo	88.94	325	eP	P	14 28 01.6	-0.4
EPF	Esparros	88.95	335	⇑iP	P	14 28 02.0	+0.1
	comp=Z,638nm,1.5s,mb6.4						
MELF	Melles	88.97	335	⇑eP	P	14 28 02.3	+0.3
JCZ	Jackson Bay	88.99	163	P	P	14 28 05.3	+3.2
WES	Weston	89.07	26	⇑iP	P	14 28 02.7	+0.2
	comp=Z,856nm,1.4s,mb6.9						
WES				LR	LR		
	comp=Z,31µm,21.0s,MS6.7						
TBI	Tubuai	89.07	123	eP	P	14 28 05.6	+2.7
	comp=Z,177nm,1.3s,mb6.2						
TBI				eSS	SS	14 44 46.5	+2.8
TBI				eLR	LR	14 55 26.9	
	comp=Z,74µm,34.0s,baz=310						
REYF	Montagne du Re	89.14	336	⇑eP	P	14 28 02.8	0.0
RESF	Ens	89.16	335	⇑eP	P	14 28 04.3	+1.4
RPZ	Rata Peaks	89.16	162	LR	LR	15 02 38.8	
	comp=Z,30µm,21.9s,MS6.7,baz=335,slow=32						
ORDF	Ordiarp	89.18	336	⇑eP	P	14 28 02.9	-0.1
VIEF	Viey	89.18	335	⇑eP	P	14 28 04.3	+1.3
OSSF	Osses	89.23	336	⇑eP	P	14 28 02.9	-0.3
EBIE	Bielsa	89.33	335	P	P	14 28 05.0	+1.3
	comp=Z,12µm,5.1s						
EALK	Alkurruntz	89.34	336	P	P	14 28 03.8	+0.1
	comp=Z,8µm,5.0s						
ETSF	Etsaut	89.35	336	⇑iP	P	14 28 04.6	+0.8
	comp=Z,282nm,0.7s,mb6.4						
LARF	Larrau	89.35	336	⇑eP	P	14 28 04.1	+0.3
SJPF	Ste Jean	89.35	336	⇑iP	P	14 28 03.9	+0.1
	comp=Z,109nm,0.9s,mb5.9						
SWET	Sewanee	89.40	40	⇑iP	P	14 28 03.9	-0.4
BRYW	Bryant College	89.41	27	⇑eP	P	14 28 04.0	-0.1
	comp=Z,575nm,1.4s,mb6.7						
PAL	Palisades	89.42	29	P	P	14 28 04.2	0.0
PAL				pmax	pmax		
	comp=Z,520nm,1.4s,mb6.7						
PAL	Palisades	89.42	29	⇑iP	P	14 28 04.2	0.0
	comp=Z,519nm,1.5s,mb6.6						
PAL				epP	pP	14 28 16.3	+0.8
FDAF	Les Forges d’A	89.42	336	⇑eP	P	14 28 05.4	+1.3
BRNJ	Basking Ridge	89.47	29	⇑iP	P	14 28 04.4	0.0
EMIR	Miracle	89.58	334	P	P	14 28 05.4	+0.5
	comp=Z,12µm,4.8s						
CPNY	Central Park	89.59	29	⇑eP	P	14 28 04.9	-0.1
LBZ	Lake Benmore	89.60	162	P	P	14 28 07.3	+2.4
LBZ				sP	sP	14 28 22.9	+2.9
PWV	Princeton	89.82	35	eP	P	14 28 06.3	+0.1
CPCT	Cooper Cave	89.86	39	⇑eP	P	14 28 06.2	-0.2
ELAN	Lanestosa	89.88	338	P	P	14 28 06.2	-0.1
	comp=Z,6µm,3.9s						
ELN	Prospectdale	90.04	35	eP	P	14 28 06.6	-0.6
BLA	Blacksburg	90.19	35	P	P	14 28 07.9	0.0
BLA				pmax	pmax		
	comp=Z,410nm,1.5s,mb6.5						
BLA	Blacksburg	90.19	35	⇑iP	P	14 28 07.8	-0.1
	comp=Z,407nm,1.5s,mb6.5						
BLA				ePP	PP	14 31 41.0	-3.2
BLA				LR	LR		
	comp=Z,31µm,21.0s,MS6.7						
EPOB	Poblet	90.23	334	P	P	14 28 07.9	-0.1
	comp=Z,7µm,4.1s						
EARI	Arriondas	90.30	339	P	P	14 28 07.3	-0.9
	comp=Z,3µm,3.5s						
MYNC	Murphy	90.35	39	P	P	14 28 08.8	+0.1
MYNC				pmax	pmax		
	comp=Z,280nm,1.4s,mb6.4						
MYNC	Murphy	90.35	39	⇑iP	P	14 28 08.5	-0.2
	comp=Z,285nm,1.5s,mb6.4						
MYNC				LR	LR		
	comp=Z,33µm,19.0s,MS6.8						
ESAC	San Caprasio	90.39	335	P	P	14 28 09.6	+0.9
	comp=Z,5µm,2.4s,mb7.4						
CJM	Chamela	90.56	63	i P	P	14 28 09.2	-0.8
CBN	Corbin	90.58	32	⇑eP	P	14 28 09.6	-0.1
	comp=Z,64nm,0.6s,mb6.1						
CBN				LR	LR		
	comp=Z,30µm,20.0s,MS6.7						
LRAL	Lakeview Retre	90.66	42	⇑eP	P	14 28 09.4	-0.8
	comp=Z,62nm,1.2s,mb5.8						
LRAL				LR	LR		
	comp=Z,30µm,21.0s,MS6.7						
EPON	Pontenova	90.78	340	P	P	14 28 09.6	-0.9
	comp=Z,1µm,2.0s,mb6.8						
ERTA	Horta de San J	90.83	334	P	P	14 28 10.6	-0.2
	comp=Z,1µm,1.7s,mb7.0						
EBR	Ebro Roquetas	90.90	334	eP	P	14 28 11.0	-0.1
TUZ	Tuapeka	90.97	163	P	P	14 28 13.8	+2.5
SFJM	Santa Fe	91.14	61	i P	P	14 28 13.0	+0.3
EINC	Incio	91.45	340	P	P	14 28 12.7	-1.0
	comp=Z,821nm,1.8s,mb6.8						
STS	Santiago	91.53	341	P	P	14 28 13.1	-0.9
	comp=Z,140nm,1.4s,mb6.1						
EMAZ	Mazaricos	91.58	341	P	P	14 28 12.7	-1.5
	comp=Z,879nm,2.2s,mb6.7						
EMOS	Mosqueruela	91.63	334	P	P	14 28 14.9	+0.4
	comp=Z,3µm,3.0s						
ERUA	La Rua	91.65	340	P	P	14 28 13.9	-0.7
	comp=Z,227nm,1.4s,mb6.3						
COLM	Colima	91.67	62	i P	P	14 28 14.8	-0.3
ECAL	Calabor	91.97	339	P	P	14 28 15.0	-1.0
	comp=Z,1µm,2.3s,mb6.8						
PBRG	Braganca	92.10	339	i P	P	14 28 16.0	-0.6
	comp=Z,241nm,1.4s,mb6.3						
PBRG				ePP	PP	14 31 55.0	-4.3
PBRG				eS	S	14 39 08.3	-5.2
EIBI	Ibiza	92.24	333	P	P	14 28 17.8	+0.4
	comp=Z,4µm,3.8s						
EZAM	Zamans	92.27	341	P	P	14 28 16.4	-1.0
	comp=Z,83nm,1.0s,mb6.0						
ELOB	Lobios	92.38	340	P	P	14 28 16.6	-1.2
	comp=Z,577nm,1.8s,mb6.6						
PVRL	Vila Real	92.85	340	i P	P	14 28 19.5	-0.6
	comp=Z,342nm,1.2s,mb6.7						
PVRL				ePP	PP	14 32 01.5	-3.8
PVRL				eS	S	14 39 12.5	-7.5
EBEN	Beniarda	93.06	334	P	P	14 28 21.4	+0.3
	comp=Z,1µm,2.1s,mb7.0						
COW	Cow Castle Cre	93.32	37	eP	P	14 28 21.8	-0.6
ESDC	Sonseca Array	93.32	337	P	P	14 28 22.2	-0.1
	comp=Z,41nm,0.6s,mb6.0,baz=17,slow=4.0,SNR=161						
ESDC				PKKPbc		14 45 30.0	
	comp=Z,1.1nm,0.8s,baz=184,slow=2.5,SNR=6.0						
ESDC	Sonseca Array	93.32	337	P	P	14 28 22.0	-0.3
	comp=Z,220nm,1.6s,mb6.3						
PVIS	Viseu	93.42	340	i P	P	14 28 21.9	-0.8
	comp=Z,235nm,1.2s,mb6.5						
PVIS				ePP	PP	14 32 06.6	-3.3
PVIS				eS	S	14 39 16.1	-8.9
PAB	San Pablo	93.55	337	P	P	14 28 23.0	-0.3
PAB				pSKSac		14 39 16.2	
MTE	Manteigas	93.63	340	i P	P	14 28 23.3	-0.3
	comp=Z,306nm,1.4s,mb6.5						
MTE				ePP	PP	14 32 08.4	-3.2
MTE				eS	S	14 39 16.1	-11
MTE				eLQ		14 52 16.0	
MTE				eLR	LR	14 58 54.7	
	comp=Z,47µm,17.7s						
MTE	Manteigas	93.63	340	⇑iP	P	14 28 22.9	-0.7
	comp=Z,206nm,1.2s,mb6.4						
NHSC	New Hope	93.78	37	eP	P	14 28 24.4	-0.1
	comp=Z,292nm,1.5s,mb6.5						
NHSC				LR	LR		
	comp=Z,41µm,22.0s,MS6.8						
EVIA	Vianos	93.84	335	P	P	14 28 25.3	+0.6
	comp=Z,417nm,1.3s,mb6.7						
EMUR	La Murta	94.17	334	P	P	14 28 25.5	-0.6
	comp=Z,2µm,3.6s						
ZIIG	Zihuatanejo	94.26	61	i P	P	14 28 27.5	+0.5
CART	Cartagena	94.32	334	⇑iP	P	14 28 25.8	-1.1
	comp=Z,107nm,1.1s,mb6.2						
EQES	Quesada	94.78	335	P	P	14 28 29.0	0.0

	comp=Z,4µm,3.6s						
EADA	**Adamuz**	**94.90**	**337**	P	**P**	**14 28 29.3**	**-0.2**
	comp=Z,2µm,3.2s						
PPM	**Popocatepetl**	**94.99**	**58**	*i* P	**P**	**14 28 31.0**	**+0.7**
EBAD	**Badajoz**	**95.03**	**339**	P	**P**	**14 28 29.1**	**-1.0**
	comp=Z,1µm,3.0s						
ELUQ	**Luque**	**95.37**	**336**	P	**P**	**14 28 31.7**	**+0.1**
	comp=Z,211nm,1.3s,mb6.4						
PLOU	**Loures**	**95.47**	**340**	*e*P	**P**	**14 28 31.3**	**-0.7**
	comp=Z,156nm,1.2s,mb6.3						
PLOU				*e*S	S	14 39 26.6	-16
EVO	**Evora**	**95.51**	**339**	*e*P	**P**	**14 28 31.0**	**-1.2**
	comp=Z,435nm,1.6s,mb6.3						
EVO				*e*R			
	comp=Z,43µm,22.2s						
EBER	**Berja**	**95.56**	**335**	P	**P**	**14 28 31.6**	**-0.9**
	comp=Z,2µm,4.1s						
MOE	**Montemor**	**95.60**	**339**	*e*P	**P**	**14 28 32.3**	**-0.4**
LIS	**Lisbon**	**95.62**	**340**	*e*P	**P**	**14 28 33.2**	**+0.4**
LIS				*e*S	SKS	14 39 08.8	+4.1
LIS				*e*S	SKS	14 39 09.0	+4.4
LIS				AMS	AMS	15 17 27.8	
	comp=Z,41µm,14.8s,MS7.0						
LIS	**Lisbon**	**95.62**	**340**	*e*P	**P**	**14 28 33.2**	**+0.4**
LIS				*e*S	SKS	14 39 08.8	+4.2
	comp=Z,41µm,14.8s						
ELOJ	**Sierra Loja**	**95.72**	**336**	P	**P**	**14 28 32.7**	**-0.5**
	comp=Z,75nm,1.3s,mb6.0						
ERON	**Agron**	**95.73**	**336**	P	**P**	**14 28 32.3**	**-1.0**
	comp=Z,38nm,0.8s,mb5.9						
EMIN	**Mina Concepcio**	**95.86**	**338**	P	**P**	**14 28 33.1**	**-0.8**
	comp=Z,1µm,2.9s,mb6.9						
PBEJ	**Beja**	**95.94**	**339**	*i* P	**P**	**14 28 33.8**	**-0.4**
	comp=Z,174nm,1.4s,mb6.3						
PBEJ				*e*PP	PP	14 32 25.5	-3.7
PBEJ				*e*S		14 39 29.4	
EMIJ	**Mijas**	**96.44**	**336**	P	**P**	**14 28 35.0**	**-1.5**
	comp=Z,2µm,4.6s						
ESPR	**Espera**	**96.47**	**337**	P	**P**	**14 28 36.8**	**+0.1**
	comp=Z,2µm,2.6s,mb7.0						
PTEO	**Sao Teotonio**	**96.62**	**339**	*i* P	**P**	**14 28 36.9**	**-0.4**
	comp=Z,359nm,1.5s,mb6.6						
PTEO				*e*PP	PP	14 32 31.1	-3.5
PTEO				*e*S		14 39 33.2	
SFS	**San Fernando**	**96.95**	**337**	*e*P	**P**	**14 28 38.9**	**+0.1**
DWPF	**Disney**	**97.42**	**40**	PFAKE		14 28 50.0	+8.8
DWPF				LR	LR		
	comp=Z,6µm,20.0s,MS6.0						
RKT	**Rikitea**	**98.27**	**114**	*e*SKSac		14 39 20.9	
RKT				*e*SP	SP	14 41 35.0	-0.6
RKT				*e*SS	SS	14 46 57.6	+3.1
RKT				*e*LR	LR	14 59 49.5	
	comp=Z,120µm,30.0s,baz=309						
ADH	**Angra Heroismo**	**98.67**	**354**	*i* PP	PP	14 33 12.5	+22
ADH				*i*		14 42 00.0	
ADH				*i* SS	SS	14 47 05.0	+5.4
ADH	**Angra Heroismo**	**98.67**	**354**	*i* LR	LR	15 02 30.0	
CMIG	**Matias Romero**	**98.81**	**57**	*i* P	**P**	**14 28 47.1**	**-0.6**
PDA	**Ponta Delgada**	**99.43**	**353**	*i* S	tx	14 40 51.0	
PDA				*i*		14 41 49.0	
PDA	**Ponta Delgada**	**99.43**	**353**	*e*LR	LR	15 01 52.0	
BBSR	**BB Station**	**100.33**	**25**	*e*Pdif	P	14 28 53.8	-0.6
	comp=Z,44nm,1.3s						
BBSR				LR	LR		
	comp=Z,12µm,19.0s,MS6.4						
PTCN	**Pitcairn Islan**	**102.88**	**112**	PFAKE		14 29 20.0	+14
PTCN				LR	LR		
	comp=Z,26µm,20.0s,MS6.8						
KMBO	**Kilima Mbogo**	**103.92**	**282**	Pdiff	Pdif	14 29 12.3	+1.6
	comp=Z,47nm,1.2s,baz=25,slow=6.8,SNR=65						
KMBO				PP	PP	14 33 28.6	-2.0
	comp=Z,20nm,0.9s,baz=37,slow=9.1,SNR=6.3						
KMBO	**Kilima Mbogo**	**103.92**	**282**	P	Pdif	14 29 12.3	+1.6
KMBO						14 33 28.6	
KMBO				pmax	pmax		
	comp=Z,47nm,1.2s						
KMBO				pmax	pmax		
	comp=Z,20nm,0.9s						
KMBO	**Kilima Mbogo**	**103.92**	**282**	⇑*i*Pdif	Pdif	14 29 11.9	+1.2
	comp=Z,112nm,1.4s						
KMBO				LR	LR		
	comp=Z,58µm,19.0s,MS7.1						
MBAR	**Mbarara**	**108.21**	**287**	PFAKE		14 33 50.0	
MBAR				LR	LR		
	comp=Z,7µm,22.0s,MS6.2						
DRV	**Dumont d'Urvil**	**109.18**	**182**	Pdif	Pdif	14 29 31.0	-1.5
DRV	**Dumont d'Urvil**	**109.18**	**182**	PP	PP	14 34 09.0	-0.1
DRV				SKS	SKS	14 39 59.0	-9.2
DRV				SP	SP	14 43 16.0	-9.4
DRV				SS	SS	14 49 16.0	-7.2
DRV				L		14 59 00.0	
DRV				R		15 06 00.0	
JTS	**JuntasAbangare**	**110.11**	**54**	PFAKE		14 33 50.0	+12
JTS				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
CASY	**Casey**	**111.96**	**194**	PFAKE		14 33 50.0	+9.4
CASY				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
SJG	**San Juan**	**112.87**	**33**	PFAKE		14 34 00.0	+17
SJG				LR	LR		
	comp=Z,15µm,21.0s,MS6.5						
PAYG	**Puerto Ayora**	**115.12**	**66**	PFAKE		14 34 00.0	+12
PAYG				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
SDV	**Santo Domingo**	**119.06**	**41**	⇑*e*PKPdf	PKPdf	14 33 56.6	+1.0
SDV				LR	LR		
	comp=Z,15µm,22.0s,MS6.6						
LSZ	**Lusaka**	**120.03**	**277**	PKIKP	PKPdf	14 33 59.5	+2.0
LSZ	**Lusaka**	**120.03**	**277**	⇑*i*PKPdf	PKPdf	14 33 59.1	+1.7
LSZ				*e*PP	PP	14 35 22.4	-3.9
LSZ				LR	LR		
	comp=Z,48µm,19.0s,MS7.2						
VNDA	**Vanda**	**120.46**	**176**	PKP	PKPdf	14 33 58.4	+1.5
	comp=Z,14nm,1.1s,baz=316,slow=3.9,SNR=26						
VNDA				PKKPbc		14 44 05.5	
	comp=Z,17nm,1.1s,baz=204,slow=3.6,SNR=13						
VNDA	**Vanda**	**120.46**	**176**	PKPdf	PKPdf	14 33 58.3	+1.4
VNDA				SKSac		14 40 54.3	
VNDA	**Vanda**	**120.46**	**176**	⇑*i*PKPdf	PKPdf	14 33 58.3	+1.3
VNDA				LR	LR		
	comp=Z,23µm,22.0s,MS6.8						
SBA	**Scott Base**	**121.08**	**175**	PKIKP	PKPdf	14 34 00.5	+2.4
SBA	**Scott Base**	**121.08**	**175**	*e*PKPdf	PKPdf	14 33 59.3	+1.2
SBA				LR	LR		
	comp=Z,15µm,22.0s,MS6.6						
OTAV	**Otavalo**	**121.98**	**55**	*e*PKPdf	PKPdf	14 34 05.5	+4.2
OTAV				LR	LR		
	comp=Z,8µm,22.0s,MS6.3						
DBIC	**Dimbokro**	**123.78**	**323**	PKP	PKPdf	14 34 05.3	+0.5
	comp=Z,30nm,0.8s,baz=9.6,slow=2.2,SNR=28						
DBIC				PP	PP	14 35 48.2	-4.3
	comp=Z,61nm,0.9s,baz=8.5,slow=9.2,SNR=7.1						
DBIC				PKKPbc		14 43 53.5	
	comp=Z,4.8nm,0.9s,baz=182,slow=5.8,SNR=4.7						
DBIC	**Dimbokro**	**123.78**	**323**	PKPdf	PKPdf	14 34 05.3	+0.5
DBIC				PKPdf	PKPdf	14 34 05.3	+0.5
DBIC				PP	PP	14 35 45.6	-7.0
DBIC				PP	PP	14 35 45.7	-6.9
DBIC	**Dimbokro**	**123.78**	**323**	PKIKP	PKPdf	14 34 05.3	+0.5
DBIC						14 35 48.3	
DBIC				pmax	pmax		
	comp=Z,30nm,0.8s						
DBIC				pmax	pmax		
	comp=Z,61nm,0.9s						
DBIC	**Dimbokro**	**123.78**	**323**	⇑*e*PKPdf	PKPdf	14 34 05.1	+0.3
DBIC				*e*PP	PP	14 35 46.8	-5.8
DBIC				LR	LR		
	comp=Z,48µm,21.0s,MS7.1						
MAW	**Mawson**	**125.98**	**208**	⇑*i*P	PKPdf	14 34 09.6	+2.0
	comp=Z,54nm,0.9s						
MAW	**Mawson**	**125.98**	**208**	PKP	PKPdf	14 34 09.8	+2.2
	comp=Z,70nm,1.1s,baz=38,slow=1.9,SNR=39						
MAW	**Mawson**	**125.98**	**208**	PKIKP	PKPdf	14 34 09.8	+2.2
MAW				pmax	pmax		
	comp=Z,71nm,1.1s						
LBTB	**Lobatse**	**127.95**	**270**	PKIKP	PKPdf	14 34 12.6	0.0
LBTB	**Lobatse**	**127.95**	**270**	⇑*i*PKPdf	PKPdf	14 34 14.1	+1.5
LBTB				LR	LR		
	comp=Z,18µm,22.0s,MS6.7						
NNA	**Nana**	**132.40**	**63**	⇑*i*PKPdf	PKPdf	14 34 21.8	+0.6
NNA				*e*SKPbc		14 37 44.5	
QSPA	**South Pole Qui**	**132.51**	**180**	⇓*i*P	PKPdf	14 34 07.8	-12
SYO	**Syowa Base**	**134.65**	**209**	⇓PKPdf	PKPdf	14 34 25.5	+1.5
SUR	**Sutherland**	**135.47**	**264**	⇑*e*PKPdf	PKPdf	14 34 27.7	+1.2
SUR				LR	LR		
	comp=Z,5µm,21.0s,MS6.2						
SAML	**Samuel**	**138.10**	**45**	*e*PKPpre		14 34 22.1	
SAML				*e*PKPdf	PKPdf	14 34 33.5	+1.7
SAML				LR	LR		
	comp=Z,12µm,22.0s,MS6.6						
ARE	**Arequipa**	**139.18**	**61**	*e*P	PKPdf	14 34 31.0	-2.6
ARE				*e*		14 34 37.0	
LPAZ	**La Paz**	**141.18**	**57**	PKhKP		14 34 32.5	
	comp=Z,4.0nm,0.6s,baz=356,slow=5.2,SNR=12						
LPAZ				PKP	PKPdf	14 34 39.7	+2.5
	comp=Z,22nm,0.7s,baz=240,slow=4.4,SNR=26						
LPAZ	**La Paz**	**141.18**	**57**	PKHKP		14 34 32.5	
LPAZ						14 34 39.7	
LPAZ				pmax	pmax		
	comp=Z,22nm,0.7s						
LPAZ	**La Paz**	**141.18**	**57**	*e*PKPpre		14 34 31.4	
LPAZ				PKP	PKPdf	14 34 39.8	+2.5
LPAZ				*e*PKPdf	PKPdf	14 34 40.0	+2.7
LPAZ				LR	LR		
	comp=Z,11µm,22.0s,MS6.6						
RCBR	**Riachuelo**	**143.19**	**2**	*e*PKPdf	PKPdf	14 34 38.6	-2.2
RCBR				LR	LR		
	comp=Z,12µm,21.0s,MS6.6						
NVL	**N'lazarevskaya**	**143.72**	**204**	⇑*e*PKHKP		14 34 37.0	
NVL				pmax	pmax		
	comp=Z,4µm,2.7s						
NVL				MLR	MLR		
	comp=Z,12µm,20.0s,MS6.7						
MAIT	**Maitri**	**143.74**	**204**	*e*PKP	PKPdf	14 34 36.8	-3.2
LVC	**Limon Verde**	**145.25**	**66**	PKPbc	PKPbc	14 34 46.9	+2.3
	comp=Z,173nm,0.8s,baz=303,slow=3.4,SNR=153						
LVC	**Limon Verde**	**145.25**	**66**	*e*PKPbc	PKPbc	14 34 46.7	+2.2
LVC				LR	LR		
	comp=Z,25µm,22.0s,MS7.0						
SNAA	**Sanae**	**147.10**	**198**		PKPdf	14 34 50.8	+5.0
SNAA	**Sanae**	**147.10**	**198**	⇓*i*	PKPdf	14 34 52.6	+6.8
SNAA	**Sanae**	**147.10**	**198**	⇑*i*	PKPdf	14 35 00.6	+15
SNAA	**Sanae**	**147.10**	**198**		PKPdf	14 35 01.9	+16
SNAA	**Sanae**	**147.10**	**198**	⇑*i*	PKPdf	14 35 03.6	+18
SNAA	**Sanae**	**147.10**	**198**		PKPdf	14 35 05.9	+20
SNAA	**Sanae**	**147.10**	**198**	⇑*i*	PKPdf	14 35 07.4	+22
SNAA	**Sanae**	**147.10**	**198**	⇑*i*		14 38 26.1	
SNAA	**Sanae**	**147.10**	**198**	PKPbc	PKPdf	14 34 48.0	+2.2
	comp=Z,48nm,1.0s,baz=105,slow=1.8,SNR=60						
SNAA				PP	PP	14 38 16.5	-0.6
	comp=Z,15nm,1.1s,baz=155,slow=6.4,SNR=3.5						
SNAA	**Sanae**	**147.10**	**198**	PKIKP	PKPdf	14 34 48.0	+2.2
SNAA						14 38 16.5	
SNAA				pmax	pmax		
	comp=Z,48nm,1.0s						
SNAA				pmax	pmax		
	comp=Z,15nm,1.1s						
SNAA	**Sanae**	**147.10**	**198**	⇑*i*PKPdf	PKPdf	14 34 47.4	+1.6
SNAA				P		14 34 50.8	
VNA2	**Neumayer--Watz**	**148.65**	**197**	⇑*i*	PKPdf	14 34 57.4	+9.1
VNA2	**Neumayer--Watz**	**148.65**	**197**	⇑*i*	PKPdf	14 34 59.0	+11
VNA2	**Neumayer--Watz**	**148.65**	**197**	⇑*i*	PKPdf	14 35 01.2	+13
VNA2	**Neumayer--Watz**	**148.65**	**197**		PKPdf	14 35 07.6	+19
VNA2	**Neumayer--Watz**	**148.65**	**197**	⇑*i*	PKPdf	14 35 13.5	+25
VNA2	**Neumayer--Watz**	**148.65**	**197**	⇑*i*		14 38 28.3	
VNA2	**Neumayer--Watz**	**148.65**	**197**	⇑*i*PKPdf	PKPdf	14 34 52.9	+4.6
VNA2				⇑*i*P		14 34 57.4	
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇑*i*	PKPdf	14 34 57.0	+8.3
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇑*i*	PKPdf	14 34 59.5	+11
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇓*i*	PKPdf	14 35 01.3	+13
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇓*i*	PKPdf	14 35 03.4	+15
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇓*i*	PKPdf	14 35 07.4	+19
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇓*i*	PKPdf	14 35 11.1	+22
VNA3	**Neumayer Olymp**	**148.87**	**195**		PKPdf	14 35 15.4	+27
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇑*i*		14 38 28.4	
VNA3	**Neumayer Olymp**	**148.87**	**195**			14 38 31.6	
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇑*i*		14 38 34.8	
VNA3	**Neumayer Olymp**	**148.87**	**195**	⇑*i*PKPdf	PKPdf	14 34 52.9	+4.2
VNA3				⇑*i*P		14 34 59.5	
VNA1	**Neumayer--Stat**	**149.05**	**197**	⇑*i*	PKPdf	14 34 58.0	+9.0
VNA1	**Neumayer--Stat**	**149.05**	**197**	⇑*i*	PKPdf	14 34 59.5	+11
VNA1	**Neumayer--Stat**	**149.05**	**197**		PKPdf	14 35 01.9	+13
VNA1	**Neumayer--Stat**	**149.05**	**197**	⇑*i*	PKPdf	14 35 05.0	+16
VNA1	**Neumayer--Stat**	**149.05**	**197**	⇑*i*	PKPdf	14 35 08.4	+19
VNA1	**Neumayer--Stat**	**149.05**	**197**		PKPdf	14 35 15.9	+27
VNA1	**Neumayer--Stat**	**149.05**	**197**		PP	14 38 28.0	+0.2
VNA1	**Neumayer--Stat**	**149.05**	**197**	⇑*i*PKPdf	PKPdf	14 34 53.7	+4.7
VNA1				⇑*i*P		14 34 59.5	
PEL	**Peldehue**	**150.27**	**83**	⇓*i*P	PKPdf	14 34 53.5	+1.4
CLCH	**Cerro Calan**	**150.50**	**83**	⇑*i*P	PKPdf	14 34 54.2	+1.8
FCH	**Farellones**	**150.65**	**83**	⇑*i*P	PKPdf	14 34 54.5	+1.9
BDFB	**Brasilia**	**150.67**	**27**	PKP	PKPdf	14 34 54.9	+1.8
	comp=Z,64nm,1.1s,baz=6.0,slow=4.0,SNR=28						
BDFB				PKPbc	PKPdf	14 35 00.5	+7.4
	comp=Z,126nm,0.8s,baz=348,slow=4.1,SNR=63						
BAO	**Brasilia Array**	**150.67**	**27**	PKP	PKPdf	14 34 54.9	+1.8
BAO				*i*		14 35 00.5	
BAO				*i*		14 35 08.1	
BAO				*i*		14 35 11.6	
BAO				*e*		14 35 19.7	
BAO				*e*		14 35 22.3	
BAO				*e*		14 38 34.1	
BAO				*e*		14 38 45.4	
BAO				*e*		14 38 57.1	
CCHI	**Chillan**	**150.79**	**90**	⇑*i*P	PKPdf	14 34 54.2	+1.5
LMEL	**Las Melosas**	**150.97**	**84**	⇑*i*P	PKPdf	14 34 54.7	+1.6
MDZ	**Mendoza**	**151.48**	**81**	PKP	PKPdf	14 35 02.5	+8.6
MDZ				PKS	PKS	14 38 38.1	+11
MDZ				SKKS		14 44 20.1	
MDZ				PcPP'		14 48 29.6	
PMSA	**Palmer Station**	**152.44**	**153**	*e*PKPbc	PKPdf	14 35 03.6	+9.4
PMSA				LR	LR		
	comp=Z,9µm,20.0s,MS6.6						
USHA	**Ushuaia**	**155.01**	**131**	PKPbc	PKPdf	14 35 08.7	+11
	comp=Z,28nm,1.1s,baz=314,slow=4.2,SNR=3.5						
USHA				PKPab	PKPab	14 35 24.9	0.0
	comp=Z,22nm,0.9s,baz=238,slow=5.0,SNR=3.1						
CPUP	**Villa Florida**	**155.32**	**56**	*e*PKPdf	PKPdf	14 35 01.3	+2.0
VAO	**Valinhos**	**157.82**	**31**	⇑*i*P	PKPdf	14 35 04.6	+1.8
VAO				*i*		14 35 16.7	
VAO				*i*		14 35 37.2	
VAO				*i*		14 35 49.7	
VAO				*i*		14 35 57.6	
VAO	**Valinhos**	**157.82**	**31**	⇑*i*P	PKPdf	14 35 04.6	+1.8
VAO				*i*		14 35 16.7	
VAO				*i*		14 35 37.2	
VAO				*i*		14 35 49.7	
VAO				*i*		14 35 57.6	
CAM4	**Nova Friburgo**	**158.62**	**20**	⇑*i*P	PKPdf	14 35 05.7	+1.9
CAM4				*i*		14 35 18.2	
CAM4				*i*		14 35 40.6	
CAM4				*i*		14 35 55.2	
CAM4				*i*		14 36 10.2	
CAM4	**Nova Friburgo**	**158.62**	**20**	⇑*i*P	PKPdf	14 35 05.7	+1.9
CAM4				*i*		14 35 18.2	
CAM4				*i*		14 35 40.6	
CAM4				*i*		14 35 55.2	
CAM4				*i*		14 36 10.2	
LPA	**La Plata**	**160.35**	**74**	*ce*PKP	PKPdf	14 35 06.0	+0.7
LPA				*e*pPKP		14 35 15.0	
LPA				*e*sPKP		14 35 23.0	
LPA				*e*pPKP		14 35 59.0	
LPA				*e*sPKP		14 36 03.0	
LPA				*e*PP	PP	14 39 29.0	-2.7
LPA				*e*SKKS		14 46 16.0	
LPA				*e*SKKS		14 49 14.0	
	comp=Z,37µm,24.0s						
TRIS	**Tristan da Cun**	**161.89**	**281**	PFAKE		14 35 20.0	+13
TRIS				LR	LR		
	comp=Z,30µm,21.0s						
EFI	**East Falkland**	**161.90**	**128**	*e*PKPdf	PKPdf	14 35 06.8	+0.5
EFI				LR	LR		
	comp=Z,5µm,22.0s						

PRU ***06*** *14:23:42.7, 51.38N×16.15E*

WAR 06 14:23:41.9, 51.45N×16.17E, h1^{km}, ML2.7, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.61**	**173**	*e*PG	Pg	14 23 53.0	-1.1
KSP				*e*SG	Sg	14 24 02.0	-0.3
UPC	**Upice**	**0.95**	**186**	*e*PG	Pg	14 23 59.2	-1.6
DPC	**Dobruska-Polom**	**1.11**	**175**	*e*PG	Pg	14 24 01.9	-2.1
DPC				*e*SG	Sg	14 24 16.6	-2.1
PVCC	**Panska Ves**	**1.37**	**228**	*e*PG	Pg	14 24 07.4	-1.8
PVCC				*e*SG	Sg	14 24 25.8	-1.7
PRU	**Pruhonice**	**1.79**	**216**	*e*PG	Pg	14 24 14.2	-3.5
PRU				*e*SG	Sg	14 24 37.9	-3.7
CLL	**Collm**	**1.99**	**267**	*e*PG	Pg	14 24 20.0	-1.6
CLL				*e*SG	Sg	14 24 46.0	-2.2
OKC	**Ostrava-Krasne**	**2.05**	**141**	*e*SG	Sg	14 24 47.2	-2.9
NKC	**Novy Kostel**	**2.66**	**244**	*e*SG	Sg	14 25 05.7	-4.6
KHC	**Kasperske Hory**	**2.85**	**217**	*e*PG	Pg	14 24 33.0	-5.9
KHC				*e*SN	Sn	14 25 01.5	-3.4
KHC				*e*SG	Sg	14 25 11.2	-5.8

CNRM ***06*** *14:27:08.4, 35.13N×2.73W, h14^{km}, MD3.2*
NEIC ***06*** *14:27:10.9, 35.06N×3.12W, MG3.2(MDD), After MDD.*
MDD ***06*** *14:27:10.8±1.4, 35.05N×3.15W, mb3.3/5, Error ellipse: s-maj=15.5km s-min=6.7km az=155.0, PRXIMO AftershockPLICA*
CSEM ***06*** *14:27:10.1±0.2, 35.07N×3.08W, h15^{km}, MD3.2, Error ellipse: s-maj=5.8km s-min=3.1km az=127.0*

ISC 06 14:27:11.3±0.7**, 35.13N**±0.04×**3.16W**±0.05**, h10^{km}, n17, σ0^{s}.91**/26**, 1C, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.24**	**45**	⇑P	**Pg**	**14 27 15.9**	**-0.4**
	SNR=18						
EMEL				S	**Sg**	**14 27 20.1**	**+0.3**
	107nm,0.1s,SNR=6.9						
EMLI	**Melilla**	**0.24**	**46**	P	**Pg**	**14 27 15.9**	**-0.5**
	20nm,0.1s,SNR=18						
MELI	**Melilla**	**0.25**	**49**	P	**Pg**	**14 27 17.3**	**+0.7**
MELI				S	**Sg**	**14 27 20.9**	**+0.8**
MELI	**Melilla**	**0.25**	**49**	*i* P	**Pg**	**14 27 17.3**	**+0.8**
TOU	**Touzarine**	**0.51**	**251**	*i* P	**Pg**	**14 27 24.0**	**+2.4**
TOU				*i* S	**Sg**	**14 27 34.0**	**+5.4**
TZK	**Tazeka**	**1.34**	**219**	*i* P	**Pb**	**14 27 34.5**	**-1.5**
TZK				*i* S	**Sb**	**14 27 53.0**	**0.0**
EBER	**Berja**	**1.78**	**7**	P	**Pn**	**14 27 42.1**	**-0.3**
	0.3nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**14 28 04.5**	**-0.6**
	7.4nm,0.4s,SNR=7.9						
EBER	**Berja**	**1.78**	**7**	P	**Pn**	**14 27 42.1**	**-0.2**
	0.3nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**14 28 04.5**	**-0.7**
	7.4nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	**1.94**	**318**	P	**Pn**	**14 27 44.5**	**-0.2**
	1.0nm,0.1s,SNR=8.1						
EMIJ				S	**Sn**	**14 28 09.6**	**+0.3**
	1.9nm,0.2s,SNR=6.3						
EQES	**Quesada**	**2.67**	**2**	P	**Pn**	**14 27 56.5**	**+1.5**
	1.4nm,0.3s,SNR=4.6						
EQES	**Quesada**	**2.67**	**2**	P	**Pn**	**14 27 56.5**	**+1.4**
	1.4nm,0.3s,SNR=4.6						
EMUR	**La Murta**	**3.12**	**29**	P	**Pn**	**14 28 00.0**	**-1.5**
	2.0nm,0.4s,SNR=7.9						
EMUR	**La Murta**	**3.12**	**29**	P	**Pn**	**14 28 00.0**	**-1.5**
	2.0nm,0.4s,SNR=7.9						
EADA	**Adamuz**	**3.24**	**340**	P	**Pn**	**14 28 03.6**	**+0.4**
	0.9nm,0.3s,SNR=7.9						
EADA				S	**Sn**	**14 28 41.4**	**-0.8**
	2.8nm,0.3s,SNR=4.0						
EADA	**Adamuz**	**3.24**	**340**	P	**Pn**	**14 28 03.6**	**+0.4**
	0.9nm,0.3s,SNR=7.9						
EADA				S	**Sn**	**14 28 41.4**	**-0.8**
	2.8nm,0.3s,SNR=4.0						
EMIN	**Mina Concepcio**	**3.86**	**314**	P	**Pn**	**14 28 11.9**	**-0.2**
	1.1nm,0.2s,SNR=12						
EMIN	**Mina Concepcio**	**3.86**	**314**	P	**Pn**	**14 28 11.9**	**-0.2**
	1.1nm,0.2s,SNR=12						

NEIC ***06*** *14:39:48.1±0.7, 52.65N×169.71W, h63^{km}±6^{km}, ML3.6(AEIC), Error ellipse: s-maj=17.0km s-min=5.7km az=159.0*
IDC ***06*** *14:39:51.1±3.8, 52.73N×169.93W, h94^{km}±35^{km}, mb3.4/10, mb1 3.7/12, mb1mx3.5/26, Error ellipse: s-maj=26.9km s-min=14.8km az=165.0*

ISC 06 14:39:47.3±0.7**, 52.7N**±0.1×**169.76W**±0.09**, h69^{km}**±6^{km}**, n33, σ0^{s}.95**/37**, mb3.7**/11**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIKO	**Nikolski**	**0.63**	**61**	P	**P**	**14 39 58.5**	**-2.9**
NIKO				S	**S**	**14 40 07.0**	**-4.9**
OKCE	**Okmok Cone E**	**1.22**	**52**	P	**P**	**14 40 08.4**	**-0.5**
OKCE				S	**S**	**14 40 25.4**	**+0.3**
OKCD	**Okmok Cone D**	**1.25**	**52**	P	**P**	**14 40 08.8**	**-0.5**
OKER	**East Rim**	**1.29**	**52**	P	**P**	**14 40 09.5**	**-0.4**
MGOD	**Makushin Gods**	**2.07**	**56**	P	**P**	**14 40 20.1**	**-0.3**
MSW	**Makushin Switc**	**2.18**	**54**	P	**P**	**14 40 21.5**	**-0.5**
MSW				S	**S**	**14 40 48.7**	**+0.9**
MTBL	**Makushin Table**	**2.26**	**54**	P	**P**	**14 40 23.5**	**+0.3**
UNV	**Unalaska Valle**	**2.28**	**58**	P	**P**	**14 40 22.9**	**-0.6**
UNV				S	**S**	**14 40 49.5**	**-0.9**
AKLV	**Akutan Long Va**	**2.72**	**55**	P	**P**	**14 40 30.2**	**+0.5**
AKGG	**Akutan Green G**	**2.72**	**54**	P	**P**	**14 40 30.0**	**+0.2**
ATKA	**Atka Island**	**2.75**	**262**	P	**P**	**14 40 30.4**	**+0.3**
AHB	**Akutan Harbor**	**2.77**	**57**	P	**P**	**14 40 30.6**	**+0.2**
GSIG	**Igitkin Island**	**3.84**	**262**	P	**P**	**14 40 46.1**	**+0.7**
GSMY	**Great Sitkin M**	**3.91**	**263**	P	**P**	**14 40 46.8**	**+0.5**
GSTD	**Great Sitkin T**	**3.96**	**263**	P	**P**	**14 40 47.5**	**+0.5**
SPIA	**Saint Paul Isl**	**4.52**	**357**	P	**P**	**14 40 55.3**	**+0.5**
FX1	**Attu Island--F**	**10.35**	**278**	P	**P**	**14 42 15.5**	**+0.6**
	2.4nm,0.3s,baz=282,slow=20,SNR=2.9						
PWA	**Palmer West**	**13.98**	**42**	*e*P	**P**	**14 43 04.0**	**+1.0**
	1.5nm,0.3s						
ILAR	**Eielson Array**	**16.83**	**35**	P	**P**	**14 43 39.5**	**+0.2**
	0.2nm,0.3s,baz=235,slow=10,SNR=6.7						
DLBC	**Dease Lake**	**22.93**	**60**	P	**P**	**14 44 48.4**	**+2.8**
	1.1nm,0.7s,mb3.3,baz=345,slow=17,SNR=3.5						
INK	**Inuvik**	**23.22**	**34**	P	**P**	**14 44 49.3**	**+1.1**
	1.1nm,0.6s,mb3.4,baz=204,slow=3.4,SNR=5.7						
YKA	**Yellowknife Ar**	**30.22**	**49**	P	**P**	**14 45 52.0**	**-0.9**
	0.3nm,0.5s,mb3.2,baz=274,slow=7.6,SNR=6.7						
YKA	**Yellowknife Ar**	**30.22**	**49**	P	**P**	**14 45 52.0**	**-0.9**
NEW	**Newport**	**33.17**	**76**	P	**P**	**14 46 19.1**	**+0.2**
	2.5nm,0.5s,mb4.3						
NVAR	**Mina Array Bea**	**37.91**	**91**	P	**P**	**14 47 00.7**	**+1.6**
	0.6nm,0.9s,mb3.4,baz=281,slow=4.6,SNR=2.3						
PDAR	**Pinedale Array**	**40.58**	**79**	P	**P**	**14 47 21.9**	**+0.6**
	1.1nm,0.7s,mb3.8,baz=302,slow=3.3,SNR=7.0						
ARCES	**ARCESS Array B**	**57.59**	**354**	P	**P**	**14 49 31.2**	**-0.3**
	2.4nm,0.9s,mb4.2,baz=6.3,slow=8.2,SNR=2.6						
BVAR	**Borovoye Array**	**63.31**	**324**	P	**P**	**14 50 09.4**	**-1.3**
	0.2nm,0.5s,mb3.4,baz=45,slow=2.1,SNR=5.2						
TGY	**Tagaytay City**	**66.37**	**262**	P	**P**	**14 50 28.4**	**-2.5**
	189nm,0.3s,baz=241,slow=21,SNR=3.7						
HFS	**Hagfors**	**67.51**	**358**	P	**P**	**14 50 35.5**	**-1.8**
	1.7nm,0.8s,mb3.9,baz=27,slow=6.4,SNR=4.4						
HFS	**Hagfors**	**67.51**	**358**	P	**P**	**14 50 35.5**	**-1.8**
WRA	**Warramunga Arr**	**87.01**	**231**	P	**P**	**14 52 25.0**	**-1.0**
	0.6nm,0.7s,mb3.6,baz=35,slow=5.7,SNR=4.9						
ASAR	**Alice Springs**	**90.41**	**230**	P	**P**	**14 52 42.2**	**+0.2**
	0.8nm,0.7s,mb4.0,baz=32,slow=4.3,SNR=9.8						

STR ***06*** *14:41:00.8±0.1, 44.48N×6.78E, h5^{km}±1^{km}, Ml2.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
NEIC ***06*** *14:41:00.8, 44.48N×6.78E, h5^{km}, ML2.4(STR), ML2.8(GEN), ML2.7(LDG), After STR.*
LDG ***06*** *14:41:00.8±0.1, 44.48N×6.77E, h2^{km}, Md2.7/2, Ml2.7/11, Error ellipse: s-maj=1.6km s-min=0.9km az=64.0*
CSEM ***06*** *14:41:00.6±0.1, 44.48N×6.78E, h12^{km}, ML2.6/12, Error ellipse: s-maj=1.3km s-min=0.9km az=65.0*
GEN ***06*** *14:41:00.4, 44.47N×6.78E, ML2.8*
MDD ***06*** *14:41:01.0±0.4, 44.47N×6.76E, mbLg1.9/10, Error ellipse: s-maj=4.4km s-min=2.6km az=84.0*

ISC 06 14:40:59.7±0.3**, 44.47N**±0.01×**6.74E**±0.02**, h11^{km}**±2^{km}**, n60, σ0^{s}.81**/92**, 4C-6D, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SURF	**Saint Ours**	**0.06**	**79**	Pg	**Pg**	**14 41 02.1**	**+0.1**
MBDF	**Montbardon**	**0.26**	**5**	*e*Pg	**Pg**	**14 41 05.7**	**+0.5**
MBDF				*e*Sg	**Sg**	**14 41 09.6**	**+0.7**
	248nm,0.3s						
PZZ	**Prazzo**	**0.26**	**82**	P	**Pg**	**14 41 05.8**	**+0.5**
PZZ				S	**Sg**	**14 41 09.2**	**+0.2**
PZZ	**Prazzo**	**0.26**	**82**	P	**Pg**	**14 41 05.8**	**+0.5**
DOI	**San Damiano**	**0.37**	**84**	*e*Pg	**Pg**	**14 41 07.4**	**+0.1**
DOI				*e*Sg	**Sg**	**14 41 13.0**	**+0.6**
DOI	**San Damiano**	**0.37**	**84**	*e*Pg	**Pg**	**14 41 07.4**	**+0.1**

DOI				*e*Sg	Sg	14 41 13.0	+0.7
OG22	Abries	0.38	23	Pg	Pg	14 41 08.0	+0.4
OG22				Sg	Sg	14 41 13.4	+0.5
RRL	Cesana Torines	0.45	4	⇓P	Pg	14 41 09.4	+0.5
RRL				S	Sg	14 41 16.3	+1.2
RRL	Cesana Torines	0.45	4	S	Sg	14 41 16.3	+1.2
RRL	Cesana Torines	0.45	4	⇓P	Pg	14 41 09.4	+0.5
STV	Sta Anna Valdi	0.48	118	⇑P	Pg	14 41 09.6	+0.1
STV				S	Sg	14 41 15.6	-0.3
STV	Sta Anna Valdi	0.48	118	⇑P	Pg	14 41 09.6	+0.2
STV2	Anna di Valdie	0.48	118	⇑P	Pg	14 41 09.5	0.0
STV2				S	Sg	14 41 15.6	-0.4
STV2	Anna di Valdie	0.48	118	⇑P	Pg	14 41 09.5	+0.1
OG25	Le Caire	0.49	258	Pg	Pg	14 41 10.7	+1.1
BHB	Bricherasio	0.53	45	⇓P	Pg	14 41 10.5	+0.1
BHB				S	Sg	14 41 17.1	-0.5
BHB	Bricherasio	0.53	45	⇓P	Pg	14 41 10.5	+0.1
ENR	Entracque	0.55	116	P	Pb	14 41 10.8	0.0
ENR				S	Sg	14 41 18.0	-0.2
ENR	Entracque	0.55	116	P	Pb	14 41 10.8	0.0
TOUF	Mont Tournerai	0.59	141	Pg	Pg	14 41 11.7	+0.1
FENE	Fenestrelle	0.61	22	P	Pb	14 41 12.1	+0.3
FENE				S	Sb	14 41 20.4	+0.3
FENE	Fenestrelle	0.61	22	P	Pb	14 41 12.1	+0.3
FENE				S	Sb	14 41 20.4	+0.4
MVIF	Mont Vial	0.65	152	Pg	Pg	14 41 12.9	+0.1
MVIF				Sg	Sg	14 41 22.4	+0.9
AUTN	L’Aution	0.69	133	Pg	Pg	14 41 13.5	0.0
AUTN				Sg	Sg	14 41 23.2	+0.4
AURF	Auriere	0.72	144	Pg	Pg	14 41 14.3	+0.1
CALN	Calern	0.73	171	Pg	Pg	14 41 14.8	+0.5
ORIF	Oris-en-Rattie	0.76	307	*e*Pg	Pg	14 41 15.3	+0.3
ORIF				*e*Sg	Sg	14 41 24.4	-0.8
	28nm,0.2s						
SAOF	Saorge	0.76	129	Pg	Pg	14 41 14.9	-0.1
SAOF				Sg	Sg	14 41 24.2	-1.1
SAOF	Saorge	0.76	129	Sg	Sg	14 41 24.2	-1.1
RSP	Reno Superiore	0.78	28	P	Pb	14 41 16.2	+1.5
RSP	Reno Superiore	0.78	28	P	Pb	14 41 16.2	+1.5
SBF	Sospel	0.79	140	*e*Pg	Pg	14 41 15.4	-0.1
SBF				*e*Sg	Sg	14 41 25.5	-0.6
	85nm,0.4s						
MONE	Monesi	0.83	118	⇓P	Pb	14 41 16.0	+0.4
MONE				S	Sb	14 41 26.7	+0.2
MONE	Monesi	0.83	118	S	Sb	14 41 26.7	+0.2
MONE	Monesi	0.83	118	⇓P	Pb	14 41 16.0	+0.4
ROB	Roburent	0.83	102	P	Pb	14 41 16.2	+0.5
ROB	Roburent	0.83	102	P	Pb	14 41 16.2	+0.6
FRF	La Foret Royal	0.91	184	*e*Pn	Pn	14 41 18.4	+0.1
FRF				*e*Sg	Sg	14 41 30.2	0.0
	44nm,0.2s						
NEGI	Negi	0.93	131	P	Pb	14 41 18.1	+0.7
NEGI	Negi	0.93	131	P	Pb	14 41 18.1	+0.7
SMRF	Simiane la Rot	0.97	240	*e*Pg	Pg	14 41 20.6	+1.4
SMRF				*e*Sg	Sg	14 41 33.4	+1.2
	27nm,0.2s						
IMI	Imperia	1.00	124	*e*Pg	Pg	14 41 19.2	-0.5
IMI	Imperia	1.00	124	*e*Pg	Pg	14 41 19.2	-0.6
LPG	La Plagne	1.03	1	*e*Pg	Pg	14 41 20.1	-0.2
LPG				*e*Sg	Sg	14 41 33.3	-0.8
	17nm,0.3s						
LSD	Ceresole Reale	1.03	17	P	Pb	14 41 20.0	+0.9
LSD				S	Sb	14 41 34.3	+1.9
LSD	Ceresole Reale	1.03	17	P	Pb	14 41 20.0	+0.9
LSD				S	Sb	14 41 34.3	+1.9
LPL	La Plagne	1.05	360	*e*Pg	Pg	14 41 20.5	-0.2
LPL				*e*Sg	Sg	14 41 32.8	-1.9
	23nm,0.4s						
FIN	Finale Ligure	1.09	103	*e*Pg	Pg	14 41 20.6	-0.9
FIN	Finale Ligure	1.09	103	*e*Pg	Pg	14 41 20.6	-0.9
FIN				S	Sb	14 41 32.0	-2.0
LMR	La Mourre	1.15	188	*e*Pg	Pg	14 41 22.6	-0.1
LMR				*e*Sg	Sg	14 41 37.4	-0.6
	35nm,0.2s						
PCP	Pian Castagno	1.30	86	P	Pb	14 41 24.1	+0.5
PCP				S	Sb	14 41 39.6	-0.5
PCP	Pian Castagno	1.30	86	P	Pb	14 41 24.0	+0.4
PCP				S	Sb	14 41 39.6	-0.5
VIVF	Saint-Julien-l	1.52	285	*e*Pg	Pg	14 41 28.9	-1.3
VIVF				*e*Sg	Sg	14 41 48.9	-1.6
	12nm,0.3s						
LASF	Ste Croix	2.11	260	*e*Pn	Pn	14 41 36.8	+1.5
LASF				*e*Sn	Sn	14 42 01.4	-0.3
	2.1nm,0.2s						
CABF	La Chapelle	2.19	348	*e*Pg	Pg	14 41 41.4	-2.0
CABF				*e*Sg	Sg	14 42 10.8	-1.9
	4.6nm,0.4s						
PGF	Pioggiola	2.53	139	*e*Pn	Pn	14 41 41.6	+0.2
PGF				*e*Sn	Sn	14 42 11.1	-1.4
	5.3nm,0.2s						
SMF	Signal de Mont	2.98	318	*e*Sg	Sg	14 42 33.7	-5.2
	5.8nm,0.4s						
AVF	Avril sur Loir	3.32	316	*e*Sg	Sg	14 42 45.2	-5.1
	2.3nm,0.3s						
BGF	Bois d’Agland	3.44	309	*e*Pn	Pn	14 41 53.9	-0.5
EJON	La Jonquera	3.45	236	Pn	Pn	14 41 53.9	-0.6
	SNR=7.9						

IDC 06 14:55:08.1±6.2**,32.31S**×**70.21E,mb3.7**/2**,mb1 4.0**/2**,mb1mx3.6**/13**,Error ellipse: s-maj=345.0km s-min=54.2km az=27.0,Low Confidence Location, South Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	56.20	98	P	P	15 04 50.1	-2.2
	0.3nm,0.5s,baz=245,slow=6.1,SNR=9.1						
WRA	Warramunga Arr	58.13	95	P	P	15 05 03.8	-2.3
	1.2nm,0.7s,baz=243,slow=7.0,SNR=6.4						
YKA	Yellowknife Ar	149.64	4	PKPbc	PKPdf	15 14 58.4	+2.5
	0.3nm,0.7s,baz=334,slow=3.3,SNR=5.5						

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*IDC **06** 15:47:52.8±1.1, 9.07S×157.70E, mb3.8/6, mb1 4.1/6, mb1mx4.0/13, Error ellipse: s-maj=45.2km s-min=23.0km az=134.0*

*NEIC **06** 15:47:58.0±0.9, 9.16S×157.71E, h35^{km}, mb4.3/1, Error ellipse: s-maj=37.8km s-min=17.5km az=140.0*

ISC 06 15:47:56.4±1.3**,9.0S**±0.3×**157.6E**±0.3**,h33^{km},n9,σ0^{s}88**/8**,mb3.9**/8**,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRAB	Tennant Creek	24.95	242	*e*P	P	15 53 18.5	0.0
	7.3nm,0.9s,mb4.2						
WRA	Warramunga Arr	24.96	242	P	P	15 53 18.4	-0.2
	3.3nm,1.0s,mb3.8,baz=68,slow=9.9,SNR=9.1						
WRA				PcP	PcP	15 56 54.1	-0.2
	0.4nm,0.6s,baz=66,slow=2.8,SNR=6.6						
ASAR	Alice Springs	26.93	234	P	P	15 53 37.0	0.0
	0.6nm,0.8s,mb3.2,baz=60,slow=9.0,SNR=4.2						
ASAR				PcP	PcP	15 56 58.5	-0.2
	0.6nm,1.0s,baz=75,slow=1.9,SNR=3.6						
FX1	Attu Island--F	63.06	11	P	P	15 58 21.8	-0.9
	17nm,0.8s,mb5.2,baz=310,slow=7.9,SNR=4.1						
CMAR	Chiang Mai Arr	63.96	296	P	P	15 58 28.6	-0.6
	0.9nm,0.8s,mb3.8,baz=131,slow=5.6,SNR=7.0						
SONM	Songino Array	72.41	327	P	P	15 59 23.1	+1.9
	0.1nm,0.4s,mb3.1,baz=120,slow=12,SNR=3.0						
ILAR	Eielson Array	84.31	21	P	P	16 00 25.1	-0.9
	1.2nm,1.2s,mb3.9,baz=242,slow=7.5,SNR=4.6						
NVAR	Mina Array Bea	90.95	51	P	P	16 00 59.6	+0.9
	0.8nm,0.8s,mb4.1,baz=234,slow=4.1,SNR=4.8						
BDFB	Brasilia	144.75	134	PKP	PKPdf	16 07 32.1	+1.2
	1.8nm,0.5s,baz=206,slow=2.8,SNR=6.8						

IDC 06 15:48:12.1±7.5**,5.30S**×**101.48E,mb3.1**/3**,mb1 3.4**/3**,mb1mx3.3**/15**,Error ellipse: s-maj=258.0km s-min=30.6km az=60.0,Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	23.73	354	P	P	15 53 26.2	-0.7
	0.3nm,0.5s,baz=185,slow=9.1,SNR=4.1						
WRA	Warramunga Arr	35.11	117	P	P	15 55 08.7	-0.8
	0.3nm,0.9s,baz=299,slow=8.8,SNR=2.9						
ASAR	Alice Springs	36.17	124	P	P	15 55 15.6	-2.9
	0.2nm,0.6s,baz=290,slow=7.4,SNR=5.5						

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*CNRM **06** 15:50:13.2, 35.13N×2.80W, h9^{km}, MD3.3*

*NEIC **06** 15:50:15.2, 35.05N×3.17W, MG3.6(MDD), After MDD.*

*MDD **06** 15:50:15.7±1.4, 35.08N×3.19W, mb3.6/7, Error ellipse: s-maj=14.2km s-min=5.2km az=168.0, PRXIMO AftershockPLICA*

*CSEM **06** 15:50:15.2±0.3, 35.13N×3.15W, h15^{km}, MD3.3, Error ellipse: s-maj=8.7km s-min=5.9km az=118.0*

ISC 06 15:50:15.9±0.6**,35.18N**±0.04×**3.22W**±0.04**,h10^{km},n22,σ1^{s}06**/39**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	Melilla	0.25	60	P	Pg	15 50 20.6	-0.5
	39nm,0.1s,SNR=15						
EMEL				S	Sg	15 50 24.9	+0.3
	274nm,0.6s,SNR=9.4						
EMLI	Melilla	0.25	61	P	Pg	15 50 20.6	-0.6
	39nm,0.1s,SNR=15						
MELI	Melilla	0.26	63	P	Pg	15 50 22.3	+0.9
MELI				S	Sg	15 50 25.2	+0.1
MELI	Melilla	0.26	63	*i* P	Pg	15 50 22.3	+0.9
TOU	Touzarine	0.49	244	*i* P	Pg	15 50 28.0	+2.2
TOU				*i* S	Sg	15 50 38.0	+5.5
TZK	Tazeka	1.35	217	*i* P	Pb	15 50 39.0	-1.8
TZK				*i* S	Sb	15 50 58.0	+0.1
EBER	Berja	1.74	9	P	Pn	15 50 44.7	-1.7
	1.6nm,0.3s,SNR=6.9						
EBER				S	Sn	15 51 07.7	-1.1
	29nm,0.7s						
EBER	Berja	1.74	9	P	Pn	15 50 44.7	-1.7
	1.6nm,0.3s,SNR=6.9						
EBER				S	Sn	15 51 07.7	-1.1
	29nm,0.7s						
EMIJ	Mijas	1.87	318	P	Pn	15 50 48.3	-0.1
	2.6nm,0.1s,SNR=21						
EMIJ				S	Sn	15 51 13.4	+1.2
	2.3nm,0.3s,SNR=4.6						
ELOJ	Sierra Loja	2.11	339	P	Pn	15 50 51.5	-0.2
	0.5nm,0.2s,SNR=7.9						
ELOJ				S	Sn	15 51 18.6	+0.4
	SNR=7.9						
EQES	Quesada	2.62	3	P	Pn	15 51 00.5	+1.4
	5.3nm,0.2s,SNR=15						
EQES				S	Sn	15 51 33.7	+2.4
	11nm,0.5s,SNR=7.3						
EQES	Quesada	2.62	3	P	Pn	15 51 00.5	+1.4
	5.3nm,0.2s,SNR=15						
EQES				S	Sn	15 51 33.7	+2.4
	11nm,0.5s,SNR=7.3						
EADA	Adamuz	3.18	340	P	Pn	15 51 07.6	+0.7
	1.2nm,0.2s,SNR=13						
EADA				S	Sn	15 51 45.2	-0.1
	1.2nm,0.3s						
EADA	Adamuz	3.18	340	P	Pn	15 51 07.6	+0.6
	1.2nm,0.2s,SNR=13						
EADA				S	Sn	15 51 45.2	-0.1
	1.2nm,0.3s						
EMIN	Mina Concepcio	3.80	314	P	Pn	15 51 15.6	-0.2
EMIN				S	Sn	15 51 59.5	-1.6
EMIN	Mina Concepcio	3.80	314	P	Pn	15 51 15.6	-0.2
	1.9nm,0.1s,SNR=7.9						
EMIN				S	Sn	15 51 59.5	-1.6
	SNR=7.9						
EMIN	Mina Concepcio	3.80	314	P	Pn	15 51 15.6	-0.2
	1.9nm,0.1s,SNR=7.9						
EMIN				S	Sn	15 51 59.5	-1.5
	SNR=7.9						
ESDC	Sonseca Array	4.53	353	P	Pn	15 51 26.6	+0.4
ESDC				S	Sn	15 52 18.0	-1.5
ESDC	Sonseca Array	4.53	353	P	Pn	15 51 26.6	+0.4
	0.9nm,0.3s,baz=172,slow=12,SNR=7.3						
ESDC	Sonseca Array	4.53	353	P	Pn	15 51 26.6	+0.4
ESDC				S	Sn	15 52 18.0	-1.5
EBAD	Badajoz	4.69	321	P	Pn	15 51 28.3	-0.2
	1.3nm,0.1s,SNR=10.0						
EBAD	Badajoz	4.69	321	P	Pn	15 51 28.3	-0.1

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*NEIC **06** 16:11:30.9, 32.58S×71.49W, h34^{km}, ML2.8(GUC), After GUC.*

GUC 06 16:11:30.9±0.7**,32.58S**×**71.49W,h34^{km}**±2^{km}**,MD3.5,ML2.8,8C-3D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	Papudo	0.07	46	⇓*i*P	P	16 11 36.6	0.0
PACH				*i* S	S	16 11 41.0	+0.3
ROCH	El Roble	0.56	134	⇑*i*P	P	16 11 42.6	+0.3
ROCH				*i* S	S	16 11 51.4	+0.9
JACH	Jahuel	0.77	98	⇑*i*P	P	16 11 45.7	+0.5
JACH				*i* S	S	16 11 57.2	+1.5
PEL	Peldehue	0.88	130	⇑*i*P	P	16 11 47.5	+0.7
PEL				*i* S	S	16 12 00.5	+1.9
LCCH	Las Cruces	0.89	184	⇑*i*P	P	16 11 47.3	+0.3
LCCH				*i* S	S	16 11 59.6	+0.6
RCDM	Rinconada Maip	1.07	148	*i* P	P	16 11 50.0	+0.4
RCDM				*i* S	S	16 12 04.7	+1.2
RCDM				AMP		16 12 05.3	
	comp=N,1μm,0.1s						
CLCH	Cerro Calan	1.14	136	*e*P	P	16 11 51.2	+0.6
CLCH				*i* S	S	16 12 06.5	+1.2
CLCH				AMP		16 12 13.6	
	comp=N,240nm,0.5s						
TACH	Talagante	1.17	157	⇑*i*P	P	16 11 51.5	+0.5
TACH				*i* S	S	16 12 07.1	+1.2
FCH	Farellones	1.25	127	⇓*i*P	P	16 11 53.1	+0.9
FCH				*i* S	S	16 12 10.3	+2.2
FCH				AMP		16 12 12.1	
	comp=N,207nm,0.3s						
PCH	Pirque	1.32	142	*i* P	P	16 11 54.0	+0.8
PCH				*i* S	S	16 12 12.2	+2.4
LNV	Longovilo	1.37	177	⇑*i*P	P	16 11 54.6	+0.6
LNV				*i* S	S	16 12 11.7	+0.6
CMCH	Combarbala	1.47	17	⇑*i*P	P	16 11 56.3	+1.1
CMCH				*i* S	S	16 12 15.6	+2.2
CMCH				AMP		16 12 18.4	
	comp=N,510nm,0.7s						
CHCH	Chadas Angostu	1.52	153	*e*P	P	16 11 57.5	+1.4
CHCH				*i* S	S	16 12 17.2	+2.3
LMEL	Las Melosas	1.66	140	⇑*i*P	P	16 11 59.2	+1.2
LMEL				*i* S	S	16 12 20.8	+2.4
LMEL				AMP		16 12 23.5	
	comp=N,170nm,0.1s						
CACH	El Canelo	1.70	154	⇓*i*P	P	16 12 00.6	+2.0

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*MOS **06** 16:26:25.0±1.1, 18.38S×178.06W, h405^{km}, mb5.6/7, Error ellipse: s-maj=27.4km s-min=14.5km az=106.7*

*NEIC **06** 16:26:29.0±0.1, 18.48S×178.08W, mb5.3/73, Error ellipse: s-maj=5.2km s-min=2.9km az=115.0*

*BGS **06** 16:26:28.8±3.0, 18.42S×178.13W, h440^{km}*

*BJI **06** 16:26:28.5, 18.22S×177.40W, h451^{km}, mB5.4, mb5.2*

*IDC **06** 16:26:29.6±0.4, 18.48S×178.08W, h440^{km}±3^{km}, mb4.9/21, mb1 4.9/23, mb1mx4.9/23, Error ellipse: s-maj=9.9km s-min=7.5km az=161.0*

*HRVD **06** 16:26:29.0±2.2, 18.84S×178.27W, h466^{km}±6^{km}, MW6.1/17, Centroid moment Tensor Solution. LP body waves: s17,c25; Half duration: 2^{s}3 Moment tensor: Scale 10^{18}Nm; M_{rr}0.59±.12; $M_{\theta\theta}$0.07±.19; $M_{\phi\phi}$-0.66±.20; $M_{r\theta}$-0.89±.20; $M_{\theta\phi}$-0.95±.18; $M_{\phi r}$0.69±.21; Best double couple: $M_0$1.55×10^{18} NP1:ϕ_s250°,δ59°,λ148°. NP2: ϕ_s358°,δ63°,λ36°. Principal axes: T 1.78, Plg43°, Azm216°; N -.47, Plg47°, Azm30°; P -1.31, Plg3°, Azm123°; nsta1 refers to body waves, cutoff=40s.*

*SYO **06** 16:26:29.0, 18.42S×178.13W, h440^{km}, MB5.1*

ISC 06 16:26:28.2±0.1**,18.52S**±0.02×**178.08W**±0.03**,h440^{km},h440^{km}**±.7^{km}**:pP-P,n768,σ1^{s}15**/327**,mb5.2**/106**,71C-36D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	7.59	54	*e*Pn	P	16 28 15.0	-5.2
	1μm,0.7s						
AFI				*e*Sn	S	16 29 39.5	-9.2
DZM	Mont Dzumac	14.94	254	*e*P	P	16 29 41.3	+0.9
DZM				*e*S	S	16 32 10.8	-4.6
NOUC	Port Laguerre	15.08	254	⇑*i*P	P	16 29 42.5	+0.7
RAR	Rarotonga	17.43	102	P	P	16 30 06.2	+0.6
	2.7nm,0.3s,baz=245,slow=8.7,SNR=21						
RAR	Rarotonga	17.43	102	*e*P	P	16 30 06.1	+0.5
	82nm,0.8s						
OUZ	Omahuta	18.20	202	*e*P	P	16 30 15.8	+2.6
OUZ	Omahuta	18.20	202	P	P	16 30 15.8	+2.6
WCZ	Waipu Caves	18.60	200	*e*P	P	16 30 19.6	+2.5
WCZ	Waipu Caves	18.60	200	P	P	16 30 19.4	+2.3
WCZ				S	S	16 33 29.6	+7.6
KUZ	Kuaotunu	18.96	195	*e*P	P	16 30 22.1	+1.5
KUZ	Kuaotunu	18.96	195	⇑P	P	16 30 22.1	+1.5
KUZ				S	S	16 33 35.1	+6.8
MTAZ	Motutapu	19.22	197	P	P	16 30 24.7	+1.7
MXZ	Matakaoa Point	19.24	189	P	P	16 30 23.8	+0.6
MXZ	Matakaoa Point	19.24	189	P	P	16 30 22.2	-1.0
OTAZ	Otara	19.36	197	P	P	16 30 26.9	+2.4
MKAZ	Moumakai	19.45	196	⇑P	P	16 30 27.3	+2.0
WTAZ	Waiatarua	19.45	198	P	P	16 30 28.1	+2.8
WTAZ	Waiatarua	19.45	198	P	P	16 30 27.9	+2.6
PUZ	Puketiti	19.74	189	*e*P	P	16 30 27.7	-0.4
PUZ	Puketiti	19.74	189	*e*P	P	16 30 27.4	-0.7
PUZ				S	S	16 33 41.9	+0.2
TGRZ	Tauranga	19.77	193	P	P	16 30 29.9	+1.5
TOZ	Tahuroa Road	19.95	195	*e*P	P	16 30 32.0	+1.9
TOZ	Tahuroa Road	19.95	195	P	P	16 30 32.0	+1.9
LIRZ	Lichensteins R	20.01	193	P	P	16 30 31.9	+1.3
EDRZ	Edgecumbe	20.03	192	P	P	16 30 31.0	+0.1
EDRZ	Edgecumbe	20.03	192	P	P	16 30 31.1	+0.2
URZ	Urewera	20.11	191	P	P	16 30 28.8	-2.9
	229nm,0.8s,baz=354,slow=3.8,SNR=75						
URZ				S	S	16 33 43.7	-4.3
	57nm,0.8s,baz=15,slow=20,SNR=3.0						
URZ	Urewera	20.11	191	*e*P	P	16 30 29.3	-2.3
URZ	Urewera	20.11	191	P	P	16 30 28.7	-2.9
MWZ	Matawai	20.11	190	*e*P	P	16 30 30.2	-1.4
MWZ	Matawai	20.11	190	P	P	16 30 30.0	-1.6
MWZ				S	S	16 33 43.6	-4.4
TAZ	Tarawera	20.20	192	P	P	16 30 33.1	+0.6
TAZ	Tarawera	20.20	192	P	P	16 30 32.9	+0.4
UTU	Utuhina	20.21	193	P	P	16 30 34.4	+1.8
UTU	Utuhina	20.21	193	P	P	16 30 34.0	+1.4
PATZ	Paeroa	20.40	193	P	P	16 30 34.9	+0.6
PATZ	Paeroa	20.40	193	P	P	16 30 34.7	+0.4
RATZ	Rangitukua	20.97	194	P	P	16 30 39.4	-0.4
RATZ	Rangitukua	20.97	194	*e*P	P	16 30 38.4	-1.4
BKZ	Black Stump Fm	21.11	192	*e*P	P	16 30 38.2	-2.9
MGZ	Maungaku	21.15	194	P	P	16 30 41.0	-0.5
MGZ	Maungaku	21.15	194	P	P	16 30 41.2	-0.3
NGZ	Ngauruhoe	21.30	194	P	P	16 30 42.0	-0.9
NGZ	Ngauruhoe	21.30	194	P	P	16 30 41.5	-1.4
CNZ	Chateau	21.34	194	P	P	16 30 42.3	-1.0
CNZ	Chateau	21.34	194	P	P	16 30 42.0	-1.3
TUVZ	Tukino	21.38	193	P	P	16 30 42.0	-1.7
TUVZ	Tukino	21.38	193	P	P	16 30 41.7	-2.0
DRZ	Dome Shelter	21.41	194	P	P	16 30 44.1	+0.2
DRZ	Dome Shelter	21.41	194	P	P	16 30 44.2	+0.3
VRZ	Vera Road	21.45	195	*e*P	P	16 30 46.7	+2.3
RAEZ	Rainy Point	21.70	196	*e*P	P	16 30 48.3	+1.6
RAEZ	Rainy Point	21.70	196	*e*P	P	16 30 48.2	+1.5
NEZ	North Egmont	21.76	197	*e*P	P	16 30 49.4	+2.1
NEZ	North Egmont	21.76	197	P	P	16 30 48.4	+1.1
DFE	Dawson Falls	21.81	196	P	P	16 30 49.5	+1.8
DFE	Dawson Falls	21.81	196	*e*P	P	16 30 49.4	+1.7
NWEZ	Newall Road	21.83	197	P	P	16 30 49.3	+1.4
NWEZ	Newall Road	21.83	197	*e*P	P	16 30 48.8	+0.9
MRZ	Mangatainoka R	22.73	193	*e*P	P	16 30 53.5	-2.7
MRZ	Mangatainoka R	22.73	193	*e*P	P	16 30 53.2	-3.0
MRZ				S	S	16 34 26.9	-4.8
CAW	Cannon Point	23.27	193	P	P	16 30 58.2	-2.8
MRW	Makara Radio	23.46	194	P	P	16 31 00.6	-2.2
MSWZ	Moikau Station	23.52	193	P	P	16 31 01.7	-1.6
QRZ	Quartz Range	23.65	198	P	P	16 31 04.2	-0.3
QRZ				*e*E		16 31 33.5	
NNZ	Nelson	23.78	196	*e*P	P	16 31 03.9	-1.7
NNZ	Nelson	23.78	196	P	P	16 31 03.5	-2.1
THZ	Tophouse	24.41	196	*e*P	P	16 31 09.6	-1.8
THZ	Tophouse	24.41	196	P	P	16 31 09.4	-2.0
THZ				S	S	16 34 53.7	-5.2
DSZ	Denniston Nort	24.71	198	*e*P	P	16 31 13.0	-1.0
DSZ	Denniston Nort	24.71	198	P	P	16 31 13.0	-1.0
KHZ	Kahutara	24.86	195	P	P	16 31 13.4	-2.0
KHZ	Kahutara	24.86	195	P	P	16 31 13.2	-2.2
LTZ	Lake Taylor	25.53	197	P	P	16 31 18.9	-2.5
LTZ	Lake Taylor	25.53	197	P	P	16 31 19.1	-2.3
LTZ				S	S	16 35 31.8	+15
WVZ	Waitaha Valley	26.25	199	P	P	16 31 26.4	-1.4
WVZ				S	S	16 35 48.6	+20
RPZ	Rata Peaks	26.74	198	P	P	16 31 30.4	-1.7
	75nm,0.5s,mb5.4,baz=45,slow=2.9,SNR=55						
RPZ				PcP	PcP	16 34 41.3	-0.9
	35nm,0.7s,baz=314,slow=5.1,SNR=5.7						
RPZ				ScP		16 37 39.3	
	25nm,0.8s,baz=79,slow=5.2,SNR=4.3						
RPZ	Rata Peaks	26.74	198	*e*P	P	16 31 30.4	-1.8
RPZ	Rata Peaks	26.74	198	P	P	16 31 30.2	-2.0
FOZ	Fox Glacier	27.02	200	P	P	16 31 31.7	-2.9
PAE	Paea	27.09	93	*e*P	P	16 31 34.4	-1.2
	194nm,0.9s,mb5.5						
PPT	Papeete	27.11	93	P	P	16 31 35.3	-0.4
	87nm,0.9s,mb5.2,baz=259,slow=2.8,SNR=5.6						
PPT	Papeete	27.11	93	*e*P	P	16 31 34.7	-1.0
	62nm,1.0s,mb5.0						
TBI	Tubuai	27.13	105	*e*P	P	16 31 35.1	-0.8
	172nm,0.8s,mb5.5						
TBI				*e*pP		16 32 47.2	
TIAR	Tiarei	27.33	93	*e*P	P	16 31 36.6	-1.0
	237nm,0.8s,mb5.7						
TVO	Taravao	27.39	93	*e*P	P	16 31 37.1	-1.1
	125nm,0.7s,mb5.4						
LBZ	Lake Benmore	27.60	198	*e*P	P	16 31 37.4	-2.4
LBZ	Lake Benmore	27.60	198	P	P	16 31 37.3	-2.5
JCZ	Jackson Bay	27.77	201	*e*P	P	16 31 40.1	-1.2
JCZ	Jackson Bay	27.77	201	P	P	16 31 39.8	-1.5
JCZ				PcP	PcP	16 34 45.0	+0.3
JCZ				S	S	16 35 47.5	-4.6
WKZ	Wanaka	28.36	200	*e*P	P	16 31 44.9	-1.5
WKZ	Wanaka	28.36	200	P	P	16 31 44.2	-2.2
MSZ	Milford Sound	28.58	201	P	P	16 31 46.8	-1.6
EAZ	Earnscleugh	28.63	199	*e*P	P	16 31 47.7	-1.1
EAZ	Earnscleugh	28.63	199	P	P	16 31 47.7	-1.1
MLZ	Mavora Lakes	29.10	200	*e*P	P	16 31 52.4	-0.4
MLZ	Mavora Lakes	29.10	200	P	P	16 31 52.4	-0.4
PMOR	Pomariorio Ree	29.10	88	*e*P	P	16 31 52.1	-1.0
	166nm,0.9s,mb5.4						
TUZ	Tuapeka	29.19	198	*e*P	P	16 31 53.0	-0.7
TUZ	Tuapeka	29.19	198	P	P	16 31 52.6	-1.1
TUZ				PcP	PcP	16 34 48.4	+0.1
CNB	Canberra Magne	33.31	233	⇑*i*P	P	16 32 30.4	+1.4
	2μm,1.7s,mb6.1						
CTA	Charters Tower	33.66	261	⇑*i*P	P	16 32 32.5	+0.4
	186nm,0.6s,mb5.6						
CTA				*e*S	S	16 37 20.9	-2.6
CTA	Charters Tower	33.66	261	P	P	16 32 32.5	+0.5
	184nm,0.5s,mb5.6,baz=93,slow=10,SNR=249						
CTA				PcP	PcP	16 35 00.3	-0.4
	25nm,0.9s,baz=101,slow=8.8,SNR=3.1						
CTA				S	S	16 37 21.4	-2.0
	8.7nm,0.9s,baz=192,slow=19,SNR=4.1						
CTA				ScP		16 38 05.2	
	22nm,1.0s,baz=59,slow=2.5,SNR=3.9						
CTAO	Charters Tower	33.66	261	*e*P	P	16 32 31.9	-0.2
	415nm,1.0s,mb5.7						
PMG	Port Moresby	34.87	280	P	P	16 32 43.3	+1.0
	140nm,1.0s,mb5.2,baz=80,slow=5.6,SNR=40						
PMG				PcP	PcP	16 35 04.2	-0.1
	75nm,1.2s,baz=55,slow=2.2,SNR=3.0						
PMG				S	S	16 37 41.2	-0.8
	11nm,0.8s,baz=248,slow=19,SNR=8.1						
PMG				ScP		16 38 09.8	
	31nm,1.0s,baz=153,slow=4.5,SNR=3.6						
PMG	Port Moresby	34.87	280	*e*P	P	16 32 42.7	+0.4
	127nm,0.9s,mb5.2						
TOO	Toolangi	37.03	232	⇑*i*P	P	16 33 01.4	+1.3
	261nm,0.8s,mb5.6						
STKA	Stephens Creek	38.62	242	⇑*i*P	P	16 33 14.5	+1.3
	569nm,1.0s,mb5.9						
STKA	Stephens Creek	38.62	242	P	P	16 33 14.5	+1.4
	289nm,0.6s,mb5.8,baz=91,slow=9.6,SNR=768						
STKA				PcP	PcP	16 35 15.8	+0.3
	64nm,1.1s,baz=72,slow=6.4,SNR=2.6						
STKA				ScP		16 38 22.9	
	14nm,0.8s,baz=31,slow=5.9,SNR=3.5						
STKA				S	S	16 38 34.5	-3.4
	12nm,1.1s,baz=295,slow=18,SNR=3.0						
MCQ	Macquarie Isla	40.00	201	*e*P	P	16 33 25.5	+1.3
RKT	Rikitea	40.45	104	*e*P	P	16 33 28.2	0.0
	222nm,0.8s,mb5.5						
YOMI	Yo Moklole	43.46	286	⇓*e*P	P	16 33 53.3	+0.8
KIP	Kipapa	44.29	27	*e*P	P	16 33 57.4	-1.6

	352nm,1.0s,mb5.7						
WB2	**Warramunga Arr**	**44.82**	**260**	⇑iP	**P**	**16 34 02.1**	**-1.0**
WB2				i S	**S**	**16 40 02.9**	**-4.5**
WB2				eSCS	ScS	16 43 11.5	+1.7
WRAB	**Tennant Creek**	**44.82**	**260**	c iP	**P**	**16 34 02.1**	**-1.0**
WRAB	**Tennant Creek**	**44.82**	**260**	eP	**P**	**16 34 01.9**	**-1.2**
	175nm,0.7s,mb5.5						
WRA	**Warramunga Arr**	**44.83**	**260**	P	**P**	**16 34 01.9**	**-1.3**
	93nm,0.6s,mb5.3,baz=98,slow=6.4,SNR=648						
WRA				PcP	PcP	16 35 36.2	-0.3
	102nm,1.3s,baz=88,slow=4.2,SNR=8.6						
WRA				S	**S**	**16 40 03.1**	**-4.4**
	19nm,0.8s,baz=93,slow=14,SNR=10						
ASAR	**Alice Springs**	**44.93**	**255**	P	**P**	**16 34 03.6**	**-0.3**
	757nm,0.6s,mb6.2,baz=91,slow=8.3						
ASAR				PcP	PcP	16 35 36.4	-0.5
	33nm,0.6s,baz=94,slow=4.3,SNR=6.7						
ASAR				ScP		16 38 50.3	
	5.6nm,0.6s,baz=111,slow=3.3,SNR=3.6						
ASAR				S	**S**	**16 40 06.2**	**-2.6**
	26nm,0.7s,baz=89,slow=17,SNR=18						
ASPA	**Alice Springs**	**44.93**	**255**	⇑iP	**P**	**16 34 03.8**	**-0.1**
ASPA				i S	**S**	**16 40 06.2**	**-2.7**
ASPA				i SCS	ScS	16 43 12.5	+2.0
KAKA	**Kakadu**	**47.89**	**269**	⇑iP	**P**	**16 34 26.1**	**-0.7**
	111nm,0.4s,mb5.5						
KAKA				eS	**S**	**16 40 47.8**	**-2.4**
GUMO	**Guam**	**48.50**	**309**	eP	**P**	**16 34 30.3**	**-1.0**
	500nm,0.8s,mb5.9						
FITZ	**Fitzroy Crossi**	**53.24**	**261**	⇑iP	**P**	**16 35 06.1**	**-0.3**
	105nm,0.6s,mb5.2						
FITZ				eS	**S**	**16 42 02.0**	**-0.6**
FITZ	**Fitzroy Crossi**	**53.24**	**261**	PP	PP	16 37 14.2	+1.6
	19nm,0.8s,baz=177,slow=6.4,SNR=4.3						
FITZ				S	**S**	**16 42 02.5**	**-0.2**
	6.7nm,1.0s,baz=302,slow=20,SNR=7.2						
MBWA	**Marble Bar**	**58.23**	**256**	eP	**P**	**16 35 40.1**	**-1.0**
	194nm,0.8s,mb5.5						
NWAO	**Narrogin (SRO)**	**59.20**	**242**	P	**P**	**16 35 47.1**	**-0.3**
	149nm,0.7s,mb5.4,baz=102,slow=6.2,SNR=159						
NWAO	**Narrogin (SRO)**	**59.20**	**242**	eP	**P**	**16 35 46.4**	**-1.0**
	123nm,0.8s,mb5.3						
CBIJ	**Chichi jima**	**59.51**	**319**	P	**P**	**16 35 48.8**	**-0.7**
	152nm,0.9s,mb5.5,baz=288,slow=19,SNR=5.0						
SBA	**Scott Base**	**59.83**	**184**	eP	**P**	**16 35 52.5**	**+1.4**
	214nm,0.9s,mb5.6						
VNDA	**Vanda**	**59.87**	**185**	P	**P**	**16 35 52.4**	**+1.0**
	60nm,0.8s,mb5.1,baz=352,slow=7.4,SNR=350						
VNDA				ScP		16 39 52.4	
	15nm,0.8s,baz=350,slow=4.5,SNR=4.9						
VNDA				PKPPKP		17 04 58.5	
	1.4nm,0.9s,baz=284,slow=3.8,SNR=5.7						
VNDA	**Vanda**	**59.87**	**185**	eP	**P**	**16 35 52.1**	**+0.8**
	0.6nm,0.4s						
MUN	**Mundaring**	**60.13**	**243**	⇑iP	**P**	**16 35 53.2**	**-0.4**
	128nm,0.8s,mb5.4						
BUNI	**Buntu Taipa**	**61.94**	**276**	⇓eP	**P**	**16 36 06.5**	**+0.7**
NINI	**Niniconang**	**62.23**	**275**	⇑eP	**P**	**16 36 08.1**	**+0.4**
	258nm,0.9s,mb5.8						
TANI	**Tanete Lipujan**	**62.90**	**276**	eP	**P**	**16 36 11.4**	**-0.7**
KEDI	**Kedomdong**	**64.47**	**269**	eP	**P**	**16 36 21.1**	**-1.2**
	98nm,0.5s,mb5.6						
RATI	**Rata**	**64.96**	**269**	eP	**P**	**16 36 24.6**	**-0.7**
	557nm,0.4s						
JHJ	**Hachijo jima 2**	**65.24**	**322**	P	**P**	**16 36 26.6**	**-0.2**
	1µm,1.0s,baz=177,slow=7.7,SNR=15						
CASY	**Casey**	**65.72**	**205**	⇑iP	**P**	**16 36 29.3**	**+0.1**
KELI	**Kelakatan**	**66.09**	**269**	⇑eP	**P**	**16 36 31.0**	**-1.4**
	400nm,0.4s						
SRDI	**Scrawed**	**66.34**	**269**	⇑eP	**P**	**16 36 32.5**	**-1.5**
	131nm,0.7s,mb5.7						
MAJO	**Matsushiro**	**68.58**	**323**	eP	**P**	**16 36 46.2**	**-1.1**
	141nm,0.8s,mb5.7						
MAT	**Matsushiro**	**68.58**	**323**	P	**P**	**16 36 46.3**	**-1.0**
MAT				S	S	16 45 27.0	+13
MAT	**Matsushiro**	**68.58**	**323**	eP	**P**	**16 36 46.0**	**-1.3**
	172nm,0.8s,mb5.7						
JOW	**Kunigami**	**68.85**	**310**	P	**P**	**16 36 49.5**	**+0.4**
	68nm,0.9s,mb5.3,baz=146,slow=4.8,SNR=8.1						
ERM	**Erimo**	**70.07**	**330**	eP	**P**	**16 36 56.8**	**+0.6**
	5.1nm,0.8s						
KIWB	**Kanaga Island**	**70.07**	**1**	eP	**P**	**16 36 54.0**	**-2.0**
FX1	**Attu Island--F**	**71.51**	**354**	eP	**P**	**16 37 01.8**	**-2.6**
QSPA	**South Pole Qui**	**71.54**	**180**	⇑iP	**P**	**16 37 05.6**	**+1.4**
	329nm,0.6s,mb6.0						
NIKO	**Nikolski**	**71.64**	**6**	eP	**P**	**16 37 02.4**	**-2.8**
SKR	**Severo-Kuril's**	**72.55**	**343**	eP	**P**	**16 37 06.0**	**-4.5**
SKR				pmax	pmax		
	comp=Z,110nm,0.7s,mb5.5						
SKR				pmax	pmax		
	comp=N,220nm,1.0s						
UNV	**Unalaska Valle**	**72.75**	**7**	eP	**P**	**16 37 08.4**	**-3.2**
	comp=N,191nm,0.8s,mb5.7						
PET	**Petropavlovsk**	**74.04**	**346**	eP	**P**	**16 37 17.6**	**-1.4**
PET				pmax	pmax		
	comp=Z,102nm,0.8s,mb5.5						
PET	**Petropavlovsk**	**74.04**	**346**	eP	**P**	**16 37 17.1**	**-1.9**
	comp=Z,53nm,0.6s,mb5.3						
YSS	**Yuzh-Sakhalins**	**74.10**	**333**	⇓iP	**P**	**16 37 18.9**	**-0.6**
YSS				e		16 37 36.4	
YSS				pmax	pmax		
	comp=E,70nm,1.0s						
YSS				pmax	pmax		
	comp=Z,220nm,1.0s,mb5.7						
YSS	**Yuzh-Sakhalins**	**74.10**	**333**	eP	**P**	**16 37 19.0**	**-0.5**
	comp=Z,216nm,1.0s,mb5.7						
QZH	**Quanzhou**	**75.27**	**303**	⇓iP	**P**	**16 37 26.8**	**+0.3**
QZH				S	S	16 46 31.0	+2.1
QZH				AMB	AMB		
	comp=Z,160nm,0.8s,mb5.7						
KS15	**Wonju Array Si**	**75.38**	**318**	eP	**P**	**16 37 27.4**	**+0.6**
INCN	**Inchon**	**76.20**	**318**	eP	**P**	**16 37 31.8**	**+0.3**
SSE	**Sheshan**	**76.37**	**310**	P	**P**	**16 37 33.3**	**+0.8**
SSE				XP	sP	16 39 56.3	+0.9
SSE				PP	PP	16 40 29.9	-1.9
SSE				S	S	16 46 42.5	+2.0
SSE				XS		16 49 33.7	
SSE				AMB	AMB		
	comp=Z,34nm,1.0s,mb4.9						
SSE				AMB	AMB		
	comp=Z,348nm,10.9s						
SSE	**Sheshan**	**76.37**	**310**	P	**P**	**16 37 33.3**	**+0.8**
	comp=Z,34nm,1.0s,mb4.9						
SSE				sP	sP	16 39 56.3	+0.9
SSE				PP	PP	16 40 29.9	-1.9
SSE				S	S	16 46 42.5	+2.0
SSE				sS		16 49 33.7	
SSE				LR	LR		
	comp=Z,1µm,26.4s						
LRV	**Little Rabbit**	**76.73**	**44**	eP	**P**	**16 37 34.3**	**0.0**
MWC	**Mount Wilson**	**77.52**	**47**	eP	**P**	**16 37 38.4**	**-0.3**
BAR	**Barrett**	**77.68**	**49**	eP	**P**	**16 37 40.3**	**+0.6**
CMB	**Columbia Colle**	**78.07**	**43**	eP	**P**	**16 37 41.2**	**-0.4**
	comp=Z,17nm,0.8s,mb4.7						
CMB				epP	pP	16 39 19.1	-0.4
NJ2	**Nanjing**	**78.57**	**309**	eP	**P**	**16 37 45.2**	**+0.9**
NJ2				PP	PP	16 40 52.5	+2.3
NJ2				S	S	16 47 08.0	+4.3
NJ2				SCS	ScS	16 47 28.0	+5.9
NJ2				AMB	AMB		
	comp=Z,140nm,0.9s,mb5.6						
YBH	**Yreka Blue Hor**	**78.80**	**39**	eP	**P**	**16 37 45.5**	**+0.1**
	comp=Z,15nm,0.8s,mb4.7						
YBH				epP	pP	16 39 23.1	-0.4
MDJ	**Mudanjiang**	**78.86**	**325**	P	**P**	**16 37 46.8**	**+1.2**
MDJ				PP	PP	16 40 49.5	-2.7
MDJ				S	S	16 47 09.8	+3.4
MDJ				XS		16 50 00.0	
MDJ				SS	SS	16 52 28.4	+2.3
MDJ				AMB	AMB		
	comp=Z,209nm,0.9s,mb5.8						
MDJ				AMB	AMB		
	comp=Z,371nm,5.7s						
MDJ	**Mudanjiang**	**78.86**	**325**	eP	**P**	**16 37 46.5**	**+0.9**
	comp=Z,200nm,0.9s,mb5.8						
MTUM	**Tungsten Hills**	**78.88**	**44**	eP	**P**	**16 37 45.9**	**0.0**
MTUM				epP	pP	16 39 23.3	-0.7
KDAK	**Kodiak Island**	**78.92**	**14**	eP	**P**	**16 37 44.2**	**-1.4**
	comp=Z,48nm,0.6s,mb5.3						
BEKR	**Beckwourth**	**79.14**	**41**	eP	**P**	**16 37 47.0**	**-0.2**
	comp=Z,19nm,0.9s,mb4.7						
HUMO	**Hull Mountain**	**79.19**	**38**	eP	**P**	**16 37 47.6**	**+0.2**
	comp=Z,34nm,1.0s,mb4.9						
WCN	**Washoe City**	**79.20**	**42**	eP	**P**	**16 37 47.3**	**-0.2**
	comp=Z,16nm,0.9s,mb4.7						
WCN				epP	pP	16 39 25.1	-0.7
NVAR	**Mina Array Bea**	**79.65**	**44**	P	**P**	**16 37 50.5**	**+0.6**
	comp=Z,18nm,0.8s,mb4.8,baz=225,slow=7.7,SNR=60						
NVAR				pP	pP	16 39 27.6	-0.7
	comp=Z,18nm,1.0s,baz=221,slow=7.1,SNR=5.3						
NVAR				PKKPbc		16 56 35.3	
	comp=Z,1.1nm,0.4s,baz=51,slow=4.6,SNR=6.8						
NVAR				PKPPKP		17 04 33.3	
	comp=Z,0.7nm,0.7s,baz=53,slow=4.5,SNR=4.3						
MNV	**Mina**	**79.75**	**44**	eP	**P**	**16 37 50.4**	**0.0**
	comp=Z,27nm,1.0s,mb4.8						
MNV				epP	pP	16 39 28.4	-0.4
LDFC	**Landfair**	**80.03**	**48**	eP	**P**	**16 37 52.1**	**+0.1**
LDFC				epP	pP	16 39 29.8	-0.6
TPH	**Tonopah**	**80.17**	**44**	eP	**P**	**16 37 52.6**	**0.0**
	comp=Z,16nm,1.0s,mb4.6						
TPH				epP	pP	16 39 30.6	-0.4
TPNV	**Topopah Spring**	**80.22**	**46**	eP	**P**	**16 37 52.9**	**-0.1**
	comp=Z,8.4nm,0.6s,mb4.5						
TPNV				epP	pP	16 39 31.0	-0.4
DL2	**Dalian**	**80.25**	**317**	P	**P**	**16 37 54.6**	**+1.6**
DL2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.3						
MOD	**Modoc**	**80.35**	**40**	eP	**P**	**16 37 53.4**	**-0.1**
	comp=Z,21nm,0.6s,mb5.0						
NEN	**Nelson**	**80.51**	**48**	eP	**P**	**16 37 54.5**	**+0.1**
NEN				epP	pP	16 39 32.9	-0.2
CN2	**Changchun**	**80.69**	**322**	⇑P	**P**	**16 37 56.0**	**+0.8**
CN2				eAP	pP	16 39 35.0	+1.2
CN2				eS	S	16 47 26.2	+1.0
CN2				AMB	AMB		
	comp=Z,140nm,0.6s,mb5.9						
CN2				AMB	AMB		
	comp=Z,1µm,5.0s						
WHN	**Wuhan**	**81.22**	**306**	P	**P**	**16 38 00.0**	**+1.8**
RSO	**Redoubt South**	**81.33**	**12**	eP	**P**	**16 37 56.5**	**-1.6**
TRCR	**Troy Canyon**	**81.40**	**45**	eP	**P**	**16 37 59.3**	**+0.3**
BMN	**Battle Mountai**	**81.44**	**42**	eP	**P**	**16 37 59.2**	**+0.1**
	comp=Z,25nm,0.8s,mb5.0						
VFP	**Flag Point**	**81.68**	**37**	P	**P**	**16 38 00.6**	**+0.3**
VIPM	**Ingram Point**	**81.69**	**38**	P	**P**	**16 38 00.5**	**+0.2**
OOW	**Octopus West**	**81.69**	**33**	P	**P**	**16 38 01.1**	**+0.8**
OCWA	**Octopus Mounta**	**81.70**	**33**	eP	**P**	**16 38 00.8**	**+0.4**
	comp=Z,42nm,0.8s,mb5.2						
TUC	**Tucson**	**81.83**	**52**	eP	**P**	**16 38 02.6**	**+1.3**
	comp=Z,23nm,0.9s,mb4.9						
TUC				epP	pP	16 39 40.5	+0.3
MA2	**Magadan**	**81.86**	**345**	d iP	**P**	**16 37 59.6**	**-1.3**
MA2				pmax	pmax		
	comp=Z,82nm,1.0s,mb5.4						
MA2	**Magadan**	**81.86**	**345**	eP	**P**	**16 37 59.7**	**-1.2**
	comp=Z,74nm,0.9s,mb5.4						
SLKM	**Skilak Lake**	**81.91**	**14**	eP	**P**	**16 37 59.6**	**-1.5**
OSD	**Olympics--Snow**	**82.00**	**34**	P	**P**	**16 38 02.5**	**+0.7**
SPU	**Mount Spurr**	**82.13**	**12**	eP	**P**	**16 37 60.0**	**-2.2**
HDW	**Hoodsport**	**82.23**	**34**	P	**P**	**16 38 03.4**	**+0.4**
WPW	**White Pass**	**82.47**	**35**	P	**P**	**16 38 04.1**	**-0.1**
ARUT	**Antelope Range**	**82.57**	**46**	eP	**P**	**16 38 04.8**	**-0.2**
GSM	**Grass Mountain**	**82.64**	**35**	P	**P**	**16 38 05.1**	**0.0**
IPM	**Ipoh**	**82.84**	**277**	⇑eP	**P**	**16 38 07.6**	**+0.8**
	comp=Z,41nm,1.0s,mb5.1						
ELK	**Elko**	**82.89**	**43**	eP	**P**	**16 38 06.4**	**-0.1**
	comp=Z,18nm,0.9s,mb4.8						
ELK				epP	pP	16 39 45.3	-0.3
EYAK	**Cordova Ski Ar**	**83.01**	**15**	eP	**P**	**16 38 05.2**	**-1.4**
PMR	**Palmer**	**83.12**	**13**	eP	**P**	**16 38 06.0**	**-1.2**
PMSA	**Palmer Station**	**83.13**	**157**	eP	**P**	**16 38 08.5**	**+1.3**
	comp=Z,281nm,0.9s,mb6.0						
TBM	**Table Mountain**	**83.27**	**35**	P	**P**	**16 38 08.5**	**+0.3**
MAW	**Mawson**	**83.39**	**200**	⇑iP	**P**	**16 38 09.2**	**+0.7**
	comp=Z,49nm,0.5s,mb5.5						
MAW	**Mawson**	**83.39**	**200**	P	**P**	**16 38 09.3**	**+0.9**
	comp=Z,56nm,0.5s,mb5.5,baz=127,slow=6.5,SNR=155						
ANM	**Nome**	**83.40**	**5**	eP	**P**	**16 38 08.3**	**-0.2**
HAWA	**Hanford**	**83.41**	**36**	eP	**P**	**16 38 08.9**	**-0.1**
	comp=Z,43nm,0.9s,mb5.2						
HAWA				epP	pP	16 39 47.9	-0.4
SML	**Sawmill**	**83.49**	**14**	eP	**P**	**16 38 07.6**	**-1.4**
MVU	**Marysvale**	**83.76**	**46**	eP	**P**	**16 38 11.5**	**+0.5**
	comp=Z,9.1nm,1.0s,mb4.5						
MSU	**Marysvale**	**83.79**	**46**	eP	**P**	**16 38 12.0**	**+0.9**
MSU				epP	pP	16 39 50.7	+0.2
BMO	**Blue Mountains**	**83.82**	**39**	eP	**P**	**16 38 10.4**	**-0.7**
	comp=Z,12nm,0.9s,mb4.6						
EPH	**Ephrata**	**83.93**	**36**	P	**P**	**16 38 11.6**	**0.0**
WTV	**Waterville**	**83.93**	**35**	P	**P**	**16 38 11.2**	**-0.4**
CBSW	**Chelan Butte S**	**83.95**	**35**	P	**P**	**16 38 11.4**	**-0.3**
TNA	**Tin City**	**84.17**	**4**	eP	**P**	**16 38 12.1**	**-0.2**
	comp=Z,24nm,0.8s,mb5.0						
BJT	**Baijiatuau**	**84.43**	**315**	eP	**P**	**16 38 15.0**	**+0.7**
	comp=Z,88nm,0.9s,mb5.5						
BJI	**Beijing**	**84.44**	**315**	eP	**P**	**16 38 15.2**	**+0.9**
BJI				AMB	AMB		
	comp=Z,103nm,0.8s,mb5.6						
BJI	**Beijing**	**84.44**	**315**	eP	**P**	**16 38 15.2**	**+0.9**
	comp=Z,103nm,0.8s,mb5.6						
SEY	**Seymchan**	**84.44**	**347**	eP	**P**	**16 38 14.2**	**+0.5**
SEY				*SP	sP	16 40 25.8	-12
SEY				e		16 41 40.1	
SEY				eS	S	16 48 04.4	+2.6
SEY				eSS	SS	16 53 53.2	+5.7
SEY				pmax	pmax		
	comp=Z,400nm,0.8s,mb6.2						
SEY				pmax	pmax		
	comp=N,90nm,0.7s						
SEY				pmax	pmax		
	comp=E,70nm,0.7s						
SEY				smax			
	comp=N,5µm,19.4s						
SEY				smax			
	comp=E,800nm,16.9s						
OD2	**Odessa Site #2**	**84.44**	**36**	P	**P**	**16 38 14.2**	**+0.1**
TMUT	**Trail Mountain**	**84.83**	**46**	eP	**P**	**16 38 16.8**	**+0.6**
ENH	**Enshi**	**84.87**	**304**	eP	**P**	**16 38 17.8**	**+1.2**
	comp=E,111nm,0.8s,mb5.6						
HLID	**Hailey**	**84.88**	**41**	eP	**P**	**16 38 16.5**	**+0.2**
	comp=E,11nm,0.8s,mb4.6						
HVU	**Hansel Valley**	**85.01**	**43**	eP	**P**	**16 38 17.5**	**+0.5**
HVU				epP	pP	16 39 56.6	-0.1
MCK	**McKinley**	**85.07**	**13**	eP	**P**	**16 38 15.3**	**-1.4**
	comp=E,35nm,0.8s,mb5.1						
KKTK	**Khon Kaen**	**85.18**	**289**	P	**P**	**16 38 19.5**	**+1.1**
	comp=E,309nm,0.9s,mb6.0						
SRU	**San Rafael**	**85.21**	**46**	eP	**P**	**16 38 17.2**	**-0.8**
SRU				epP	pP	16 39 57.8	0.0
JLU	**Jordanelle**	**85.30**	**45**	eP	**P**	**16 38 18.7**	**+0.3**
JLU				epP	pP	16 39 58.0	-0.2
DAU	**Daniels Canyon**	**85.34**	**45**	eP	**P**	**16 38 19.6**	**+1.0**
DAU				epP	pP	16 39 58.3	-0.1
THY	**Trims Highway**	**85.48**	**14**	eP	**P**	**16 38 18.0**	**-0.8**
TCUT	**Toone Canyon**	**85.58**	**44**	eP	**P**	**16 38 20.5**	**+0.8**
TCUT				epP	pP	16 40 00.1	+0.4
GYA	**Guiyang**	**85.61**	**300**	⇑iP	**P**	**16 38 21.5**	**+1.2**
GYA				AP	pP	16 40 02.8	+2.7
GYA				XP	sP	16 40 46.6	+1.9
GYA				PP	PP	16 41 50.2	+3.2
GYA				S	S	16 48 16.4	+2.5
GYA				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
GYA				AMB	AMB		
	comp=Z,180nm,4.6s						
BNM	**Barren Site**	**85.76**	**52**	eP	**P**	**16 38 21.3**	**+0.4**
BNM				epP	pP	16 40 01.4	+0.7
NEW	**Newport**	**85.82**	**36**	eP	**P**	**16 38 20.1**	**-0.7**
	comp=Z,12nm,0.8s,mb4.7						
LPM	**Los Pinos Moun**	**85.83**	**52**	eP	**P**	**16 38 21.1**	**0.0**
LPM				epP	pP	16 40 01.8	+0.7
LTX	**Lajitas**	**86.06**	**57**	eP	**P**	**16 38 23.3**	**+1.0**
	comp=Z,56nm,1.1s,mb5.2						
TXAR	**Lajitas Array**	**86.06**	**57**	P	**P**	**16 38 23.6**	**+1.2**
	comp=Z,25nm,0.8s,mb5.0,baz=217,slow=6.3,SNR=112						
TXAR				pP	pP	16 40 03.3	+1.0
	comp=Z,7.2nm,1.2s,baz=230,slow=7.0,SNR=1.9						
TXAR				PKKPbc		16 56 19.3	
	comp=Z,1.4nm,0.7s,baz=90,slow=1.3,SNR=4.9						
ANMO	**Albuquerque**	**86.23**	**51**	P	**P**	**16 38 23.4**	**+0.4**
	comp=Z,15nm,1.1s,mb4.6,baz=218,slow=6.1,SNR=16						
ANMO				pP	pP	16 40 04.0	+1.0
	comp=Z,16nm,1.0s,baz=215,slow=4.5,SNR=9.4						
ANMO				PKKPbc		16 56 18.2	
	comp=Z,0.7nm,0.4s,baz=321,slow=2.9,SNR=3.2						
ANMO	**Albuquerque**	**86.23**	**51**	i P	**P**	**16 38 22.5**	**-0.5**
ANMO	**Albuquerque**	**86.23**	**51**	eP	**P**	**16 38 23.1**	**0.0**
	comp=Z,13nm,1.0s,mb4.6						
ANMO				epP	pP	16 40 03.2	+0.2
COLA	**College**	**86.30**	**12**	d iP	**P**	**16 38 21.2**	**-1.4**
COLA	**College**	**86.30**	**12**	eP	**P**	**16 38 21.1**	**-1.5**
COLA				LR	LR		
	comp=Z,2µm,21.0s						
IMA	**Indian Mountai**	**86.32**	**10**	eP	**P**	**16 38 22.0**	**-0.7**
ILAR	**Eielson Array**	**86.41**	**13**	P	**P**	**16 38 21.6**	**-1.6**
	comp=Z,18nm,0.6s,mb5.0,baz=224,slow=4.9,SNR=279						
ILAR				pP	pP	16 40 02.7	-0.5
	comp=Z,42nm,1.1s,baz=232,slow=5.5,SNR=7.2						
ILAR				PP	PP	16 41 47.2	-5.6
	comp=Z,15nm,1.1s,baz=223,slow=8.1,SNR=5.3						
ILAR				PKiKP		16 43 26.4	
	comp=Z,1.0nm,0.5s,baz=261,slow=3.2,SNR=6.0						
ILAR				S	SKS	16 48 04.2	-1.3
	comp=Z,2.7nm,0.9s,baz=213,slow=6.6,SNR=5.5						
ILAR				PKKP	PKKP	16 56 17.0	+54
	comp=Z,1.0nm,0.4s,baz=327,slow=2.9,SNR=13						
ILAR				PKPPKP		17 04 14.6	
	comp=Z,0.6nm,0.8s,baz=333,slow=4.0,SNR=4.1						
MCMT	**McKenzie Canyo**	**86.50**	**40**	eP	**P**	**16 38 24.6**	**+0.5**
MSO	**Missoula**	**86.87**	**38**	eP	**P**	**16 38 27.3**	**+1.5**
	comp=Z,5.3nm,0.6s,mb4.5						
XAN	**Xi'an**	**86.88**	**307**	P	**P**	**16 38 27.3**	**+1.1**
XAN				AMB	AMB		
	comp=Z,91nm,1.2s,mb5.4						
TPAW	**Teton Pass**	**87.03**	**42**	eP	**P**	**16 38 27.2**	**+0.5**
TPAW				epP	pP	16 40 07.5	+0.7
REDW	**Red Top Meadow**	**87.03**	**42**	eP	**P**	**16 38 26.7**	**0.0**
REDW				epP	pP	16 40 07.8	+1.0
HIA	**Hailar**	**87.05**	**325**	eP	**P**	**16 38 27.4**	**+0.9**
	comp=Z,30nm,1.0s,mb5.0						
SNOW	**Snow King Moun**	**87.14**	**42**	eP	**P**	**16 38 27.9**	**+0.7**
IMW	**Indian Meadow**	**87.23**	**42**	eP	**P**	**16 38 28.2**	**+0.6**
IMW				epP	pP	16 40 08.7	+0.8
LOHW	**Long Hollow**	**87.31**	**42**	eP	**P**	**16 38 28.1**	**+0.1**
LOHW				epP	pP	16 40 08.4	+0.2
CHMT	**Chamberlain Mo**	**87.32**	**38**	eP	**P**	**16 38 27.2**	**-0.7**
QLMT	**Earthquake Lak**	**87.38**	**41**	eP	**P**	**16 38 29.1**	**+0.9**
BW06	**Boulder Array**	**87.58**	**43**	eP	**P**	**16 38 29.2**	**-0.1**
	comp=Z,12nm,0.9s,mb4.6						
BW06				epP	pP	16 40 09.3	-0.3
PDAR	**Pinedale Array**	**87.58**	**43**	P	**P**	**16 38 29.0**	**-0.3**
	comp=Z,7.7nm,0.7s,mb4.5,baz=209,slow=2.4,SNR=38						
PDAR				pP	pP	16 40 09.6	0.0
	comp=Z,10.0nm,0.9s,baz=225,slow=4.2,SNR=9.5						
PDAR				PP	PP	16 41 59.9	-3.3
	comp=Z,3.5nm,1.1s,baz=225,slow=6.4,SNR=4.0						
PDAR				PKKPbc		16 56 15.9	
	comp=Z,2.2nm,0.7s,baz=102,slow=5.0,SNR=11						
PDAR				PKPPKP		17 04 14.5	
	comp=Z,0.3nm,0.5s,baz=63,slow=4.0,SNR=3.1						
YMR	**Madison River**	**87.59**	**41**	eP	**P**	**16 38 30.2**	**+1.0**
YMR				epP	pP	16 40 10.5	+0.9
BOZ	**Bozeman (W)**	**87.65**	**40**	eP	**P**	**16 38 29.4**	**-0.2**
	comp=Z,14nm,1.0s,mb4.6						
BOZ				epP	pP	16 40 10.0	+0.1
YNR	**Norris Junctio**	**87.79**	**41**	eP	**P**	**16 38 32.3**	**+2.1**
HHC	**Hu-ho-hao-te**	**87.92**	**314**	eP	**P**	**16 38 32.8**	**+1.9**
HHC				AP	pP	16 40 14.3	+3.0
HHC				XP	sP	16 40 59.7	+3.9
HHC				PP	PP	16 42 09.3	+3.4
HHC				SKS	SKS	16 48 15.8	+0.1
HHC				S	S	16 48 38.2	+3.2
HHC				PS	PS	16 50 45.0	+2.1
HHC				XS		16 51 34.3	
HHC				SS	SS	16 54 40.2	+1.4
HHC				AMB	AMB		
	comp=Z,88nm,1.1s,mb5.4						
NANT	**Nan**	**87.93**	**290**	P	**P**	**16 38 31.0**	**-0.5**
HRY	**Holter Researc**	**88.06**	**39**	eP	**P**	**16 38 31.4**	**0.0**
SDCO	**Great Sand Dun**	**88.12**	**49**	eP	**P**	**16 38 32.0**	**+0.1**
	comp=Z,6.3nm,0.8s,mb4.4						
SDCO				epP	pP	16 40 12.0	-0.4
KMI	**Kunming**	**88.39**	**297**	⇓iP	**P**	**16 38 36.0**	**+2.5**
KMI				AP	pP	16 40 15.8	+1.9
KMI				XP	sP	16 41 02.7	+4.3
KMI				PP	PP	16 42 12.1	+2.2
KMI				SKS	SKS	16 48 20.1	+1.2
KMI				S	S	16 48 42.5	+2.9
KMI				AMB	AMB		
	comp=Z,29nm,1.2s,mb4.9						
KMI				AMB	AMB		
	comp=Z,432nm,12.8s						
KMI	**Kunming**	**88.39**	**297**	⇓iP	**P**	**16 38 36.0**	**+2.5**
	comp=Z,29nm,1.2s,mb4.9						
KMI				pP	pP	16 40 15.8	+1.9
KMI				sP	sP	16 41 02.7	+4.3
KMI				PP	PP	16 42 12.1	+2.2
KMI				SKS	SKS	16 48 20.1	+1.2
KMI				S	S	16 48 42.5	+2.9
KMI				SS	SS	16 54 43.1	-2.6
KMI				LR	LR		
	comp=Z,880nm,25.4s						
SYO	**Syowa Base**	**88.63**	**193**	⇓P	**P**	**16 38 33.4**	**-0.2**
SYO	**Syowa Base**	**88.63**	**193**	⇓P	**P**	**16 38 33.7**	**+0.1**
SYO	**Syowa Base**	**88.63**	**193**	SH	S	16 48 39.9	-0.9
CLNS	**Chul'man**	**88.85**	**333**	eP	**P**	**16 38 35.5**	**+0.6**
CLNS				e		16 48 21.9	
CLNS				pmax	pmax		
	comp=Z,86nm,0.9s,mb5.5						
CLNS				pmax	pmax		
	comp=N,49nm,1.2s						
CLNS				pmax	pmax		
	comp=E,32nm,1.1s						
CLNS				pmax	pmax		
	comp=N,39nm,2.0s						
CLNS				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,37nm,1.0s						
BTO	**Baotou**	**88.87**	**314**	eP	**P**	**16 38 37.5**	**+2.1**
BTO				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.9						
CMAR	**Chiang Mai Arr**	**89.38**	**290**	P	**P**	**16 38 39.5**	**+1.3**
	comp=Z,16nm,0.9s,mb4.8,baz=109,slow=2.7,SNR=59						
CMAR				pP	pP	16 40 18.3	-0.6
	comp=Z,1.7nm,0.8s,baz=91,slow=3.0,SNR=1.7						
CMAR				PP	PP	16 42 16.1	-1.8
	comp=Z,2.1nm,0.9s,baz=138,slow=4.3,SNR=3.5						
CMAR				PKiKP		16 43 33.2	
	comp=Z,0.9nm,0.7s,baz=153,slow=2.0,SNR=4.5						
CMAR				PKKPbc		16 56 11.8	
	comp=Z,4.4nm,0.7s,baz=287,slow=4.6,SNR=18						
CHG	**Chiang Mai**	**89.50**	**290**	⇓P	**P**	**16 38 39.7**	**+0.9**
	comp=Z,20nm,0.9s,mb5.0						
JCT	**Junction City**	**89.59**	**58**	eP	**P**	**16 38 38.8**	**-0.2**
	comp=Z,19nm,0.9s,mb4.9						
CD2	**Chengdu**	**89.66**	**303**	eP	**P**	**16 38 41.0**	**+1.7**
AMTX	**Amarillo**	**89.79**	**53**	eP	**P**	**16 38 39.5**	**-0.3**
	comp=Z,14nm,0.9s,mb4.8						
SNAA	**Sanae**	**89.98**	**178**	⇑iP	**P**	**16 38 39.7**	**-0.1**
SNAA	**Sanae**	**89.98**	**178**	⇑i	SKS	16 48 28.3	+1.0
SNAA	**Sanae**	**89.98**	**178**	P	**P**	**16 38 39.9**	**+0.1**
	comp=Z,28nm,0.6s,mb5.3,baz=208,slow=6.5,SNR=372						
SNAA				S	SKS	16 48 27.2	-0.1
	comp=Z,1.7nm,0.8s,baz=178,slow=23,SNR=14						
SNAA	**Sanae**	**89.98**	**178**	c iP	**P**	**16 38 39.8**	**0.0**
VNA3	**Neumayer Olymp**	**90.11**	**176**	⇑iP	**P**	**16 38 43.1**	**+2.7**
VNA3	**Neumayer Olymp**	**90.11**	**176**	⇑i	**P**	**16 38 43.8**	**+3.4**
VNA3	**Neumayer Olymp**	**90.11**	**176**	⇑i		16 43 34.9	
VNA3	**Neumayer Olymp**	**90.11**	**176**	⇑i	SKS	16 48 30.7	+2.6
YAK	**Yakutsk**	**90.26**	**338**	d iP	**P**	**16 38 40.0**	**-1.2**
YAK				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.2						
YAK	**Yakutsk**	**90.26**	**338**	eP	**P**	**16 38 40.0**	**-1.2**
	comp=Z,29nm,0.7s,mb5.2						
VNA2	**Neumayer--Watz**	**90.56**	**177**	⇑iP	**P**	**16 38 45.3**	**+2.9**
VNA2	**Neumayer--Watz**	**90.56**	**177**	⇑i		16 43 36.5	
VNA2	**Neumayer--Watz**	**90.56**	**177**	⇑i	SKS	16 48 34.2	+3.6
MAIT	**Maitri**	**90.68**	**183**	⇑iP	**P**	**16 38 43.4**	**+0.4**
NVL	**N'lazarevskaya**	**90.68**	**183**	⇓eP	**P**	**16 38 42.0**	**-1.0**
NVL				pmax	pmax		
	comp=Z,195nm,0.6s,mb6.1						
VNA1	**Neumayer--Stat**	**90.78**	**177**	⇑iP	**P**	**16 38 46.7**	**+3.2**
VNA1	**Neumayer--Stat**	**90.78**	**177**	⇑i	**P**	**16 38 47.4**	**+3.9**
VNA1	**Neumayer--Stat**	**90.78**	**177**	⇑i	SKS	16 48 35.8	+3.9
LAO	**LASA Array**	**91.47**	**41**	eP	**P**	**16 38 47.9**	**+0.7**
	comp=Z,20nm,0.9s,mb5.0						
LAO				epP	pP	16 40 29.3	+1.2
LZH	**Lanzhou**	**91.51**	**308**	⇑P	**P**	**16 38 49.4**	**+1.7**
LZH				AP	pP	16 40 32.6	+4.0
LZH				XP	sP	16 41 12.6	-0.4
LZH				SKS	SKS	16 48 39.0	+2.2
LZH				S	S	16 49 15.0	+8.0

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LZH                                AMB      AMB
       comp=Z,100nm,1.0s,mb5.7
LZH                                AMB      AMB
       comp=Z,530nm,4.1s
LZH    Lanzhou          91.51 308 ⇑P        P         16 38 49.4 +1.7
       comp=Z,100nm,1.0s,mb5.7
LZH                                pP       pP        16 40 32.6 +4.0
LZH                                sP       sP        16 41 12.6 -0.4
LZH                                PP       PP        16 42 43.0 +8.6
LZH                                SKS      SKS       16 48 39.0 +2.2
LZH                                S        S         16 49 15.0 +8.0
LZH                                PS       PS        16 51 35.0  +13
LZH                                sS                 16 52 16.0
LZH                                SS       SS        16 55 49.2  +20
LZH                                LR       LR
       comp=Z,3µm,20.0s
DGMT   Dagmar           93.46  40 eP        P         16 38 56.4  0.0
       comp=Z,37nm,0.9s,mb5.3
DGMT                              epP       pP        16 40 37.6 +0.2
ULN    Ulaanbaatar      93.82 319 eP        P         16 38 58.5 +0.5
       comp=Z,37nm,1.0s,mb5.4
SONM   Songino Array    94.22 319  P        P         16 39 00.5 +0.8
       comp=Z,8.0nm,0.8s,mb4.8,baz=131,slow=4.4,SNR=61
SONM                               PP       PP        16 42 46.3 -8.9
       comp=Z,2.9nm,0.7s,baz=129,slow=8.8,SNR=4.3
SONM                               S                  16 48 53.3
       comp=Z,0.6nm,0.9s,baz=184,slow=17,SNR=5.6
SONM                               PKKP     PKKP      16 55 57.6  +47
       comp=Z,2.2nm,0.9s,baz=275,slow=3.9,SNR=8.9
SONM                               PKPPKP             17 03 58.0
       comp=Z,0.4nm,0.8s,baz=225,slow=2.0,SNR=3.9
BOD    Bodaibo          94.35 330⇓iP        P         16 38 59.4 -0.7
YKA    Yellowknife Ar   94.75  25  P        P         16 39 00.9 -0.9
       comp=Z,6.8nm,0.6s,mb4.9,baz=243,slow=4.4,SNR=129
YKA                                pP       pP        16 40 42.9 -0.1
       comp=Z,6.9nm,1.1s,baz=241,slow=4.2,SNR=5.4
YKA                                PP       PP        16 42 43.7  -15
       comp=Z,0.9nm,0.8s,baz=242,slow=7.4,SNR=2.8
YKA                                PKiKP              16 43 41.0
       comp=Z,0.7nm,0.6s,baz=262,slow=1.4,SNR=11
YKA                                PKKPbc             16 55 55.6
       comp=Z,2.0nm,0.4s,baz=42,slow=2.2,SNR=27
YKA                                PKPPKP             17 04 11.4
       comp=Z,2.3nm,1.0s,baz=53,slow=3.0,SNR=14
YKA    Yellowknife Ar   94.75  25  P        P         16 39 00.9 -0.9
YKA                                pP       pP        16 40 42.9 -0.1
YKA                                PP       PP        16 42 43.7  -15
KSU1   Kansas State U   95.09  51 eP        P         16 39 04.3 +0.3
GTA    Gaotai           95.66 310 eP        P         16 39 07.6 +1.0
GTA                                AP       pP        16 40 50.2 +2.5
GTA                                XP       sP        16 41 34.5 +2.5
GTA                                PP       PP        16 43 07.7 +1.6
GTA                                SKS      SKS       16 49 00.3 +1.0
GTA                                S        S         16 49 44.0 +1.6
GTA                                PS       PS        16 52 06.6 +2.0
GTA                                XS                 16 52 45.0
GTA                                SS       SS        16 56 29.7 +1.9
GTA                                AMB      AMB
       comp=Z,15nm,0.9s,mb5.1
GTA                                AMB      AMB
       comp=Z,167nm,4.6s
TIXI   Tiksi            96.82 345⇑iP        P         16 39 10.1 -1.0
TIXI                               pmax     pmax
       comp=Z,13nm,0.8s,mb5.1
TIXI                               MLR      MLR
       comp=Z,1µm,22.0s
TIXI   Tiksi            96.82 345⇓iP        P         16 39 09.7 -1.4
SHL    Shillong         97.82 294 eP        P         16 39 19.0 +2.3
ULM    Lac du Bonnet    99.17  40  PP       PP        16 43 27.2 -5.3
       comp=Z,4.2nm,0.8s,baz=244,slow=6.3,SNR=4.4
ULM                                PKKPbc             16 55 43.5
       comp=Z,3.0nm,0.8s,baz=223,slow=3.3,SNR=3.4
LVC    Limon Verde      99.62 118  P        P         16 39 26.4 +1.5
       comp=Z,9.1nm,1.2s,mb5.1,baz=274,slow=9.7,SNR=4.9
LVC                                PKKPbc             16 55 45.0
       comp=Z,2.7nm,0.7s,baz=22,slow=2.9,SNR=3.4
LVC    Limon Verde      99.62 118 ePdif     P         16 39 26.2 +1.3
       comp=Z,5.5nm,0.9s,mb5.0
LPAZ   La Paz          102.88 112  P        Pdif      16 39 43.5 +4.2
       comp=Z,4.1nm,0.8s,baz=246,slow=3.8,SNR=19
LPAZ                               PKKPbc             16 55 36.1
       comp=Z,0.7nm,0.7s,baz=78,slow=8.9,SNR=3.7
LPAZ   La Paz          102.88 112 ePdif     Pdif      16 39 42.4 +3.0
       comp=Z,4.5nm,0.8s
KOLN   Koldanda        105.55 294 eP                  16 44 00.8
       comp=Z,7.8nm,0.6s
ZAL    Zalesovo        108.92 322  Pdiff    Pdif      16 40 06.3 +1.3
       comp=Z,0.7nm,0.7s,baz=355,slow=9.8,SNR=6.1
ZAL                                PKiKP              16 44 06.8
       comp=Z,2.3nm,0.5s,baz=329,slow=2.7,SNR=11
ZAL                                PP       PP        16 44 41.9 -3.6
       comp=Z,5.1nm,1.0s,baz=26,slow=8.8,SNR=9.7
ZAL                                PKKPbc             16 55 16.4
       comp=Z,2.5nm,0.8s,baz=228,slow=3.2,SNR=11
ZAL                                PKKP     PKKP      16 55 31.0  +47
       comp=Z,2.9nm,1.1s,baz=245,slow=2.8,SNR=5.3
ZAL    Zalesovo        108.92 322  Pdif     Pdif      16 40 06.3 +1.2
ZAL                                PKPdf              16 44 06.8
ZAL                                PP       PP        16 44 41.9 -3.6
ZAL                                PKKPbc             16 55 16.4
ZAL                                PKKP     PKKP      16 55 31.0  +47
SDV    Santo Domingo   109.24  87 ePKP                16 44 08.1
SAML   Samuel          110.23 107 ePKP      PKPdf     16 44 09.4 +0.1
KURK   Kurchatov       112.49 318 i PKIKP   PKPdf     16 44 13.1 +0.2
KURK   Kurchatov       112.49 318 ePKP      PKPdf     16 44 12.9  0.0
KSH    Kashi           113.69 306 ePKP      PKPdf     16 44 16.5 +1.0
KSH                               ePKS      PKS       16 47 51.7 +1.0
KSH                               eSKS      SKS       16 50 42.0  +22
TKM2   Tokmak 2        114.21 309  P        PKPdf     16 44 17.2 +0.7
       SNR=16
TKM2   Tokmak 2        114.21 309 ePKP      PKPdf     16 44 17.1 +0.6
KZA    Kyzart          114.42 308  P        PKPdf     16 44 16.0 -0.9
       SNR=13
KBK    Karagaybulak    114.68 309  P        PKPdf     16 44 18.3 +0.9
       SNR=11
CHMS   Chumysh         114.84 309  P        PKPdf     16 44 18.2 +0.5
       SNR=9.1
UCH    Uchtor          114.97 309  P        PKPdf     16 44 19.7 +1.7
       SNR=15
UCH    Uchtor          114.97 309 ePKPdf    PKPdf     16 44 19.5 +1.5
AAK    Ala-Archa       115.01 309  P        PKPdf     16 44 19.0 +0.9
       SNR=7.0
AAK    Ala-Archa       115.01 309 i PKIKP   PKPdf     16 44 18.2 +0.1
AAK    Ala-Archa       115.01 309 ePKPdf    PKPdf     16 44 17.5 -0.5
USP    Ospenovka       115.03 310  P        PKPdf     16 44 18.7 +0.6
       SNR=14
EKS2   Erkin-Say       115.54 309  P        PKPdf     16 44 20.0 +0.9
       SNR=13
EKS2   Erkin-Say       115.54 309 ePKPdf    PKPdf     16 44 19.6 +0.5
AML    Almayashu       115.58 308  P        PKPdf     16 44 20.6 +1.4
       SNR=13
AML    Almayashu       115.58 308 ePKPdf    PKPdf     16 44 20.2 +1.0
SJG    San Juan        115.76  78  PKP      PKPdf     16 44 20.6 +0.5
       comp=Z,15nm,0.3s,baz=306,slow=18,SNR=6.6
SJG    San Juan        115.76  78  PKP      PKPdf     16 44 20.6 +0.5
CHKZ   Chkalovo        117.31 321  PKIKP    PKPdf     16 44 22.3 +0.1
CHKZ                               pmax     pmax
       comp=Z,17nm,1.0s
CHKZ   Chkalovo        117.31 321 ePKPdf    PKPdf     16 44 22.1 -0.2
BVA0   Borovoye Array  117.51 321  PKIKP    PKPdf     16 44 23.2 +0.6
BVA0                               pmax     pmax
       comp=Z,4.0nm,1.1s
BVAR   Borovoye Array  117.51 321  PKP      PKPdf     16 44 23.0 +0.3
       comp=Z,12nm,0.4s,baz=117,slow=2.0,SNR=114
BVAR                               PP       PP        16 45 40.1 -5.7
       comp=Z,6.1nm,0.8s,baz=90,slow=7.4,SNR=5.0
BVAR                               PKKPbc             16 54 47.2
       comp=Z,1.2nm,0.6s,baz=315,slow=4.2,SNR=5.9
BVAR                               PKKPab             16 54 52.9
       comp=Z,2.6nm,0.7s,baz=270,slow=4.4,SNR=11
BRVK   Borovoye        117.57 321 ePKPdf    PKPdf     16 44 22.8 +0.1
BDFB   Brasilia        120.25 121  PKP      PKPdf     16 44 29.8 +1.0
       comp=Z,11nm,0.7s,baz=250,slow=2.2,SNR=17
BDFB                               SKP                16 47 23.0
       comp=Z,1.7nm,0.4s,baz=169,slow=3.9,SNR=3.8
BAO    Brasilia Array  120.28 121  PKP      PKPdf     16 44 29.6 +0.7
BAO                               e                   16 44 35.9
DAG    Danmarks Havn   120.78   5⇓ePKIKP    PKPdf     16 44 28.0 -0.5
DAG                                pmax     pmax
       comp=Z,9.0nm,0.8s
DAG    Danmarks Havn   120.78   5⇓iP        PKPdf     16 44 28.0 -0.5
       comp=Z,9.0nm,0.8s
SOKR   Solikamsk       123.34 330⇓iPKIKP    PKPdf     16 44 32.3 -1.5
SOKR                               pmax     pmax
       comp=Z,70nm,1.0s
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ARU    Arti            123.53 326⇑iPKIKP    PKPdf     16 44 34.6 +0.4
ARU                               i                   16 46 21.1
ARU                                pmax     pmax
       comp=Z,54nm,1.1s
ARU    Arti            123.53 326 ePKPdf    PKPdf     16 44 34.3 +0.1
SUR    Sutherland      126.25 200  PKP      PKPdf     16 44 41.6 +1.5
       comp=Z,69nm,0.8s,baz=177,slow=2.2,SNR=40
SUR    Sutherland      126.25 200 ePKPdf    PKPdf     16 44 41.9 +1.9
LVZ    Lovozero        126.46 345⇑iPKIKP    PKPdf     16 44 40.7 +1.2
KEV    Kevo            126.52 349 epkp      PKPdf     16 44 37.8 -1.8
ARCES  ARCESS Array B  126.97 350  PKhKP              16 44 26.9
       comp=Z,3.2nm,0.8s,baz=56,slow=3.3,SNR=3.1
ARCES                              PKP      PKPdf     16 44 41.0 +0.6
       comp=Z,22nm,0.5s,baz=34,slow=1.3,SNR=65
ARCES                              PKKPbc             16 54 11.0
       comp=Z,3.6nm,0.7s,baz=225,slow=3.1,SNR=13
ARCES                              PKKP     PKKP      16 54 54.8  +45
       comp=Z,3.9nm,0.7s,slow=0.9,SNR=8.1
ARCES  ARCESS Array B  126.97 350  PKHKP              16 44 26.8
ARCES  ARCESS Array B  126.97 350  PKP                16 44 26.9
ARCES                              PKP      PKPdf     16 44 41.0 +0.5
ARCES                              PKKPbc             16 54 11.0
ARCES                              PKKP     PKKP      16 54 54.8  +45
LBTB   Lobatse         130.97 209 ePKPdf    PKPdf     16 44 50.1 +0.8
LBTB                              eSKPbc              16 47 34.8
JOF    Joensuu         131.23 343 epkp      PKPdf     16 44 46.8 -2.0
KAF    Kangasniemi     133.24 345 epkp      PKPdf     16 44 49.8 -2.7
FINES  FINESS Array B  133.86 344  PKhKP              16 44 39.6
       comp=Z,1.2nm,0.5s,baz=59,slow=3.1,SNR=9.6
FINES                              PKP      PKPdf     16 44 55.0 +1.3
       comp=Z,12nm,0.6s,baz=80,slow=3.6,SNR=23
FINES                              SKPbc              16 47 42.4
       comp=Z,15nm,1.1s,baz=59,slow=11,SNR=9.0
FINES                              SKP                16 47 49.1
       comp=Z,21nm,0.8s,baz=72,slow=6.0,SNR=11
FINES                              PKKP     PKKP      16 54 40.2  +44
       comp=Z,4.7nm,1.1s,baz=135,slow=2.0,SNR=4.6
FINES  FINESS Array B  133.86 344  PKP                16 44 39.6
FINES                              PKP      PKPdf     16 44 55.0 +1.3
FINES                              SKPbc              16 47 42.4
FINES                              SKP                16 47 49.1
FINES                              PKKP     PKKP      16 54 40.2  +44
PUL    Pulkovo         134.00 340⇓iPKIKP    PKPdf     16 44 55.0 +1.0
MOS    Moscow          134.12 333 ePKIKP    PKPdf     16 44 56.4 +2.1
MOS                               e                   16 46 29.9
OBN    Obninsk         134.98 332 ePKHKP              16 44 49.1
OBN                               i                   16 44 56.6
OBN                               e                   16 47 33.8
OBN                                pmax     pmax
       comp=Z,8.0nm,1.3s
OBN                                pmax     pmax
       comp=Z,22nm,0.9s
OBN                                MLR      MLR
       comp=Z,400nm,22.0s
OBN    Obninsk         134.98 332 i PKP     PKPdf     16 44 56.7 +0.8
VRSR   Storozhevoye    136.09 327 ePKIKP    PKPdf     16 44 59.1 +1.0
VRSR                              e                   16 47 42.7
VRSR                               pmax     pmax
       comp=Z,40nm,1.1s
VRSR                               pmax     pmax
       comp=N,10.0nm,1.0s
VRSR                               pmax     pmax
       comp=E,10.0nm,1.0s
QRN    Al-Qurain       136.88 292 eP        PKPdf     16 45 01.8 +1.6
QRN                                AMb      AMB       16 45 04.1
       comp=Z,68nm,0.5s
TI2    Plekhanov       136.90 312 ePKIKP    PKPdf     16 45 01.2 +1.3
TI2                               i                   16 47 53.0
UMR    Umm Al-Rimmam137.00 294 eP           PKPdf     16 45 01.9 +1.5
UMR                                AMb      AMB       16 45 04.7
       comp=Z,32nm,0.4s
NB2    NORSAR Subarra137.02 353  PKP                  16 44 50.4
       comp=Z,7.4nm,0.6s,baz=12,slow=3.8
NOA    NORSAR Array B137.02 353  PKhKP                16 44 51.2
       comp=Z,3.7nm,0.8s,baz=11,slow=2.3,SNR=6.2
NOA                                PKP      PKPdf     16 45 00.3 +0.8
       comp=Z,7.4nm,0.6s,baz=14,slow=4.1,SNR=15
NOA                                SKP                16 47 52.7
       comp=Z,15nm,1.0s,baz=11,slow=4.5,SNR=13
NOA                                SKPab              16 48 00.9
       comp=Z,14nm,1.0s,baz=11,slow=3.0,SNR=7.8
NOA    NORSAR Array B137.02 353  PKP                  16 44 51.2
NOA                                PKP      PKPdf     16 45 00.3 +0.8
NOA                                SKP                16 47 52.7
NOA                                SKPab              16 48 00.9
RDF    Al-Radifah      137.19 293 eP        PKPdf     16 45 01.1 +0.4
RDF                                AMb      AMB       16 45 04.2
       comp=Z,69nm,0.7s
GNI    Garni           137.41 310  PKP      PKPdf     16 45 02.2 +1.4
       comp=Z,11nm,0.9s,baz=348,slow=7.4,SNR=5.7
GNI                                SKP                16 47 55.9
       comp=Z,19nm,1.0s,baz=213,slow=16,SNR=4.0
GNI                                SKPab              16 48 03.9
       comp=Z,10nm,0.7s,baz=215,slow=9.1,SNR=5.5
GNI    Garni           137.41 310 i PKIKP   PKPdf     16 45 02.0 +1.2
GNI    Garni           137.41 310  PKP      PKPdf     16 45 02.2 +1.4
GNI                                SKP                16 47 55.9
GNI                                SKPab              16 48 03.9
KIV    Kislovodsk      137.51 316d iPKIKP   PKPdf     16 45 02.4 +1.5
KIV    Kislovodsk      137.51 316 ePKPdf    PKPdf     16 45 02.1 +1.2
HFS    Hagfors         137.58 351  PKhKP              16 44 49.9
       comp=Z,4.0nm,0.4s,baz=117,slow=3.3,SNR=25
HFS                                PKP      PKPdf     16 45 01.6 +1.0
       comp=Z,54nm,1.1s,SNR=13
HFS                                SKP                16 47 54.4
       comp=Z,25nm,0.8s,slow=1.5,SNR=12
HFS                                SKPab              16 48 03.3
       comp=Z,33nm,1.2s,slow=3.0,SNR=3.7
ERZM   Erzurum         139.94 311 i P       PKPdf     16 45 07.6 +2.3
EZM    Erzurum         139.94 311 eP        PKPdf     16 45 06.6 +1.2
KMBO   Kilima Mbogo    140.15 244  PKhKP              16 45 02.3
       comp=Z,11nm,1.0s,baz=63,slow=3.5,SNR=21
KMBO                               PKP      PKPdf     16 45 10.7 +4.3
       comp=Z,11nm,0.7s,baz=61,slow=2.3,SNR=14
KMBO                               SKPbc              16 48 03.6
       comp=Z,10.0nm,1.1s,baz=63,slow=4.7,SNR=6.8
ANN    Anapa           140.50 319 i PKIKP   PKPdf     16 45 05.0 -1.3
ANN                                pmax     pmax
       comp=Z,66nm,1.6s
SUW    Suwalki         140.97 340 ePKP      PKPdf     16 45 06.8  0.0
AKASG  Malin Array Be  141.25 332  PKhKP              16 45 02.4
       comp=Z,2.9nm,0.3s,baz=41,slow=4.0,SNR=21
AKASG                              PKP      PKPdf     16 45 10.2 +2.8
       comp=Z,5.4nm,0.4s,baz=33,slow=3.5,SNR=23
AKASG                              SKPbc              16 48 03.5
       comp=Z,6.1nm,0.8s,baz=34,slow=2.9,SNR=6.6
PTK    Pertek          141.73 310 eP        PKPdf     16 45 06.2 -2.4
BSD    Bornholm Skovb  142.15 348 i PKHKP             16 45 04.7
BSD                                pmax     pmax
       comp=Z,63nm,1.0s
BSD    Bornholm Skovb  142.15 348 i P       PKPdf     16 45 04.7 -4.1
       comp=Z,63nm,1.0s
ELZG   Elazig          142.17 310 i P       PKPdf     16 45 08.5 -0.9
HILS   Ha’il           142.37 291  P        PKPdf     16 45 07.6 -2.4
SIM    Simferopol’     142.42 322 i PKIKP   PKPdf     16 45 08.5 -1.1
SIM                                pmax     pmax
       comp=Z,30nm,0.8s
MALT   Malatya         142.64 310 ePKPdf    PKPdf     16 45 09.8 -0.4
MALT                              eSKPdf              16 48 08.2
EKA    Eskdalemuir Ar  143.05   5  PKhKP              16 45 08.1
       comp=Z,12nm,0.7s,baz=334,slow=3.1,SNR=29
EKA                                SKPbc              16 48 09.2
       comp=Z,6.5nm,0.9s,baz=342,slow=2.2,SNR=4.6
SVST   Sivas           143.13 312 i P       PKPbc     16 45 11.6 +2.1
WAR    Warsaw          143.16 340 ePKP      PKPdf     16 45 11.3 +0.7
GKP    Gorka Klasztor  143.33 345 ePKP      PKPdf     16 45 10.5 -0.3
GZT    Gaziantep       143.63 308 i P       PKPbc     16 45 12.2 +1.2
BYBT   Boyabat         143.84 316 i P       PKPbc     16 45 14.2 +2.6
GIM    North Isle of   143.96   6 eP        PKPbc     16 45 11.3 -0.2
DMUB   Kingscourt      144.03   9 eP        PKPbc     16 45 10.0 -1.7
DMUB   Kingscourt      144.03   9⇑iP        PKPbc     16 45 11.8 +0.1
DMUB   Kingscourt      144.03   9⇑iP        PKPbc     16 45 11.8 +0.1
KAHT   Ahir Dag        144.04 309 i P       PKPbc     16 45 13.6 +1.3
BSEG   Bad Segeberg    144.06 352 ePKIKP    PKPdf     16 45 12.0 -0.1
WIM    Isle of Man     144.08   7 eP        PKPbc     16 45 10.4 -1.5
WIM                                AMb      AMB       16 45 14.2
       comp=Z,190nm,2.6s
LMI    Millom          144.14   5 eP        PKPbc     16 45 12.1 +0.1
LWH    Whinny Nab      144.20   3 eP        PKPbc     16 45 12.4 +0.2
CTKT   Corum           144.23 315 i P       PKPbc     16 45 14.3 +1.6
BNN    Bunyan          144.29 312 eP        PKPbc     16 45 13.7 +0.7
DCN    Croghan         144.52  10 eP        PKPdf     16 45 11.7 -1.2
DCN    Croghan         144.52  10⇑iP        PKPdf     16 45 13.5 +0.6
DCN    Croghan         144.52  10⇑iP        PKPdf     16 45 13.5 +0.6
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HPK    Haverah Park    144.52   4 eP        PKPdf     16 45 12.4 -0.4
DLF    Lyons Farm      144.68   9⇑iP        PKPdf     16 45 12.7 -0.5
BALT   Daday           144.70 317 i P       PKPdf     16 45 15.5 +1.9
KWP    Kalwaria        144.75 336 ePKP      PKPdf     16 45 15.7 +2.3
WCB1   Church Bay      144.85   7 eP        PKPdf     16 45 13.2 -0.3
WCB1                               AMb      AMB       16 45 15.4
       comp=Z,139nm,0.8s
RUE    Ruedersdorf     144.86 347 ePKPdf    PKPdf     16 45 14.3 +0.8
WME    Myndd Eilian    144.86   6 eP        PKPdf     16 45 11.9 -1.6
WME                                AMb      AMB       16 45 16.8
       comp=Z,103nm,0.9s
COBT   Iskenderun      144.91 308 i P       PKPdf     16 45 16.2 +2.1
LHO    Holmfirth       144.92   4 eP        PKPdf     16 45 14.0 +0.4
YRC    Rhoscolyn       144.97   7 eP        PKPdf     16 45 12.9 -0.8
YRC                                AMb      AMB       16 45 15.8
       comp=Z,201nm,0.8s
CANT   Cankiri         145.02 316 eP        PKPdf     16 45 15.1 +0.9
AVNT   Avonos          145.02 312 i P       PKPdf     16 45 15.5 +1.3
WPM1   Penmaenmawr     145.04   6 eP        PKPdf     16 45 12.9 -0.9
WPM1                               AMb      AMB       16 45 17.6
       comp=Z,236nm,0.9s
LMK    Market Rasen    145.09   2 eP        PKPdf     16 45 12.7 -1.2
CEYT   Ceyhan          145.10 309 eP        PKPdf     16 45 15.5 +1.0
YLL    Llanberis       145.12   6 eP        PKPdf     16 45 13.0 -0.9
YLL                                AMb      AMB       16 45 16.9
       comp=Z,194nm,1.1s
HTY    Hatay           145.14 307 eP        PKPdf     16 45 16.4 +1.8
ELDT   Eldivan         145.20 316 i P       PKPdf     16 45 16.1 +1.6
OJC    Ojcow           145.29 340 ePKP      PKPdf     16 45 16.7 +2.4
SAFT   Safranbolu      145.31 317 eP        PKPdf     16 45 15.1 +0.4
BRTR   Keskin Array B  145.43 314  PKPbc    PKPbc     16 45 15.4 -0.5
       comp=Z,37nm,0.8s,baz=148,slow=3.3,SNR=50
BRTR                               pPKPbc             16 47 03.5
       comp=Z,19nm,1.1s,baz=90,slow=1.2,SNR=3.7
BRTR                               SKPbc              16 48 12.5
       comp=Z,6.8nm,0.9s,baz=145,slow=4.6,SNR=2.8
NIG    Nigde           145.49 311 i P       PKPdf     16 45 19.1 +4.0
KOLS   Kolonicke sedl  145.49 336 ePKP      PKPdf     16 45 16.7 +2.0
KOLS                              e                   16 45 19.6
KOLS                              ePP       PP        16 48 27.6  -15
KAMT   Kaman           145.55 314 eP        PKPdf     16 45 16.0 +0.9
WIT    Witteveen       145.58 355 ePKP      PKPdf     16 45 18.3 +3.6
CFR    Carcaliu        145.62 326⇓iP        PKPdf     16 45 18.0 +3.0
CFR    Carcaliu        145.62 326⇓iP        PKPdf     16 45 18.0 +2.9
ASF    Jabal al Asfar  145.76 300  PKPbc    PKPbc     16 45 15.7 -1.3
       comp=Z,16nm,0.8s,baz=336,slow=2.6,SNR=18
ASF                                pPKPbc             16 47 04.6
       comp=Z,9.3nm,1.0s,baz=360,slow=2.9,SNR=3.2
ASF                                SKPbc              16 48 18.0
       comp=Z,7.8nm,0.8s,baz=20,slow=1.4,SNR=3.4
KSP    Ksiaz           145.78 344 i PKP2    PKPab     16 45 20.5  0.0
KSP    Ksiaz           145.78 344 ePKP      PKPdf     16 45 16.7 +1.5
KSP                               ePKPdf    PKPdf     16 45 20.5 +5.3
KSP                               epPKP               16 47 03.6
KSP                               e                   16 48 16.1
KSP    Ksiaz           145.78 344 ePKP      PKPdf     16 45 17.2 +2.0
NIE    Niedzica        145.80 338 ePKP      PKPdf     16 45 18.1 +2.9
CRVS   Cervenica-Dubn  145.82 337 ePKP      PKPdf     16 45 18.0 +2.7
CRVS                              e                   16 45 19.6
CRVS                              e                   16 45 25.2
CRVS                              e                   16 47 04.9
VRI    Vrincioaia      145.86 329⇓iP        PKPdf     16 45 18.6 +3.1
VRI    Vrincioaia      145.86 329⇓iP        PKPdf     16 45 18.6 +3.1
HLM1   Long Mynd       145.86   5 eP        PKPdf     16 45 16.1 +0.8
HLM1                               AMb      AMB       16 45 18.8
       comp=Z,115nm,0.8s
MBAR   Mbarara         145.89 239 i PKIKP   PKPdf     16 45 19.2 +2.7
MBAR   Mbarara         145.89 239 ePKPbc    PKPbc     16 45 19.2 +1.3
BRD    Bordesti        145.93 328⇓iP        PKPdf     16 45 20.1 +4.5
BRD    Bordesti        145.93 328⇓iP        PKPdf     16 45 20.1 +4.5
LOD    Lodumlu         145.94 315 eP        PKPdf     16 45 16.4 +0.6
SSP1   Stoney Pound    145.94   6 eP        PKPdf     16 45 17.6 +2.2
HARR   Harsova         146.05 326⇓iP        PKPdf     16 45 19.3 +3.5
HARR   Harsova         146.05 326⇓iP        PKPdf     16 45 19.3 +3.5
SGKT   Sivrigoynuk     146.06 317 i P       PKPdf     16 45 17.2 +1.2
CLZ    Clausthal       146.09 351 ePKPdf    PKPdf     16 45 17.4 +1.8
CLZ                               ePKPbc    PKPbc     16 45 19.3 +2.1
CLL    Collm           146.13 347 i PKIKP   PKPdf     16 45 17.4 +1.7
CLL                               i                   16 45 19.1
CLL                                pmax     pmax
       comp=Z,32nm,1.2s
CLL                                pmax     pmax
       comp=Z,205nm,0.9s
CLL    Collm           146.13 347 i PKP     PKPdf     16 45 17.4 +1.7
CLL                               epPKP               16 47 06.0
CLL    Collm           146.13 347⇓iPKIKP    PKPdf     16 45 17.4 +1.7
       comp=Z,logA/T=1.4
CLL                               i PKP1    PKPbc     16 45 19.1 +1.8
CLL                               i PKP2    PKPab     16 45 21.8  0.0
CLL                               e*PPKP              16 47 06.0
CLL                               ePP       PP        16 48 47.0 +0.2
CLL                               ePPP      PPP       16 52 18.0  +11
OKC    Ostrava-Krasne  146.15 341 ePKIKP    PKPdf     16 45 17.6 +1.8
OKC    Ostrava-Krasne  146.15 341⇑ePKPB               16 45 17.6
UPC    Upice           146.16 344 ePKPDF    PKPdf     16 45 17.7 +1.9
UPC                              ⇑ePKPB               16 45 19.7
DPC    Dobruska-Polom  146.22 343 ePKPDF    PKPdf     16 45 17.4 +1.5
DPC                              ⇑ePKPB               16 45 19.8
DPC                               epPKP               16 47 05.0
HTR    Trewern Hill    146.26   6 eP        PKPdf     16 45 17.0 +1.1
HTR                                AMb      AMB       16 45 20.1
       comp=Z,73nm,1.2s
BRG    Berggiesshubel  146.33 346 i PKIKP   PKPdf     16 45 17.4 +1.3
BRG                               i                   16 45 20.0
BRG                                pmax     pmax
       comp=Z,82nm,0.9s
BRG    Berggiesshubel  146.33 346 i PKP     PKPdf     16 45 17.4 +1.3
BRG                               i                   16 45 20.0
BRG                               i                   16 45 21.9
BRG                               i pPKP              16 47 05.3
BRG                               i SKP               16 48 15.6
BRG                               e                   16 56 07.0
HAE    Alders End      146.37   5 eP        PKPdf     16 45 17.7 +1.6
HAE                                AMb      AMB       16 45 20.7
       comp=Z,139nm,1.2s
MCH1   Michaelchurch   146.37   5 eP        PKPdf     16 45 16.3 +0.2
MORC   Moravsky Berou  146.39 342 ePKPdf    PKPdf     16 45 17.8 +1.6
WTSB   Winterswijk     146.41 355 ePKP      PKPdf     16 45 17.8 +1.6
       comp=Z,142nm,1.0s
KSHT   Keshet          146.42 302  P        PKPdf     16 45 17.0 +0.2
MEST   Erdemli         146.45 309 i P       PKPdf     16 45 17.0 +0.3
ISR    Istrita         146.48 328⇑iP        PKPdf     16 45 20.4 +3.9
ISR    Istrita         146.48 328⇑iP        PKPdf     16 45 20.4 +3.9
PVCC   Panska Ves      146.51 345 ePKPDF    PKPdf     16 45 18.1 +1.7
PVCC                             ⇑ePKPB               16 45 20.6
MLR    Muntele Rosu    146.51 329  PKPbc    PKPbc     16 45 17.4 -1.0
       comp=Z,80nm,1.1s,baz=348,slow=5.1,SNR=25
MLR                                pPKPbc             16 47 07.2
       comp=Z,58nm,1.4s,baz=88,slow=2.4,SNR=1.8
GLH    Golan-Tel Qazi  146.62 302  P        PKPdf     16 45 17.7 +0.6
MDU    Mudurnu         146.66 317 eP        PKPdf     16 45 20.0 +3.0
HENT   Hendek          146.67 318 i P       PKPdf     16 45 17.7 +0.8
HGH    Gray Hill       146.74   5 eP        PKPdf     16 45 17.1 +0.4
HGH                                AMb      AMB       16 45 21.0
       comp=Z,108nm,0.8s
HMDT   Nahal Hemdat    146.85 301  P        PKPdf     16 45 18.2 +0.7
TBKS   Tabuk           146.88 293  P        PKPdf     16 45 18.8 +1.1
MMLI   Mount Malkishu  146.89 301  P        PKPdf     16 45 18.4 +0.8
HNTI   Hanita          146.90 303  P        PKPdf     16 45 18.4 +0.8
IKL    Isikli          146.93 309 eP        PKPdf     16 45 20.4 +2.9
MKRJ   Makawir         146.95 300  P        PKPdf     16 45 18.4 +0.7
PRU    Pruhonice       147.01 345 ePKPDF    PKPdf     16 45 18.7 +1.5
PRU                              ⇑ePKPB               16 45 21.5
PRU                               epPKP               16 47 07.7
MOX    Moxa            147.03 349 ePKIKP    PKPdf     16 45 18.9 +1.7
MOX                                pmax     pmax
       comp=Z,56nm,1.0s
MOX    Moxa            147.03 349 ePKP      PKPdf     16 45 18.9 +1.7
MOX                               e                   16 47 07.2
KIZT   Kizilcal        147.03 314 eP        PKPdf     16 45 19.1 +1.5
VRAC   Vranov          147.09 342  PKP      PKPdf     16 45 18.8 +1.5
       comp=Z,31nm,1.1s,baz=5.4,slow=2.5,SNR=9.5
VRAC                               PKPbc    PKPdf     16 45 22.1 +4.8
       comp=Z,51nm,0.7s,baz=12,slow=2.2,SNR=13
VRAC                               pPKPbc             16 47 07.8
       comp=Z,113nm,1.6s,baz=283,slow=8.7,SNR=2.0
VYHS   Vyhne           147.10 339 ePKP      PKPdf     16 45 18.6 +1.2
VYHS                              e                   16 45 22.4
VYHS                              e                   16 45 25.9
VYHS                              e                   16 47 09.8
DRGI   Dragot          147.14 300  P        PKPdf     16 45 18.7 +0.7
KOLL   Kolacno         147.17 340 ePKP      PKPdf     16 45 19.6 +2.1
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KOLL				e		16 45 22.8	
KOLL				e		16 45 27.2	
OFRI	‘Ofer	147.19	302	P	PKPdf	16 45 18.6	+0.5
PSZ	Piszkesteto	147.22	337	⇓ePKP/F		16 45 22.6	
PSZ				i		16 47 10.7	
PSZ	Piszkesteto	147.22	337	ePKPdf	PKPdf	16 45 18.9	+1.3
PSZ				ePKPbc	PKPdf	16 45 21.9	+4.3
MZDA	Masada	147.24	299	P	PKPdf	16 45 19.0	+0.8
SLTI	Sal’it	147.25	301	P	PKPdf	16 45 19.0	+0.8
NKC	Novy Kostel	147.26	347	ePKPDF	PKPdf	16 45 18.6	+1.0
NKC				⇑ePKPB		16 45 22.2	
NKC				epPKP		16 47 08.3	
PRD	Provadia	147.32	324	eP	PKPdf	16 45 23.0	+5.1
JMQS	Jabal Moqyreh	147.34	295	P	PKPdf	16 45 23.6	+5.2
ESKT	Eskisehir	147.40	316	eP	PKPdf	16 45 23.9	+5.7
ESKT	Eskisehir	147.40	316	i P	PKPdf	16 45 19.3	+1.1
HRT	Hereke	147.45	319	eP	PKPdf	16 45 22.2	+4.0
SMOL	Smolenice	147.54	341	ePKP	PKPdf	16 45 23.8	+5.7
SMOL				e		16 45 28.0	
ZFRI	Zfri	147.58	298	P	PKPdf	16 45 20.1	+1.3
SBD	Saint Breward	147.60	8	eP	PKPdf	16 45 14.9	-3.2
HGN	Heimansgroeve	147.67	355	ePKP	PKPdf	16 45 22.8	+4.6
	comp=Z,63nm,1.0s						
CSS	Prodhromos	147.70	307	ePKPdf	PKPdf	16 45 19.6	+0.8
CSS				ePKPbc	PKPdf	16 45 23.2	+4.4
MODS	Modra-Piesok	147.71	341	ePKP	PKPdf	16 45 24.5	+6.1
MODS				e		16 47 12.5	
PRNI	Paran	147.78	298	P	PKPdf	16 45 20.6	+1.5
SRO	Srobarova	147.86	339	ePKP	PKPdf	16 45 24.6	+6.0
ZST	Bratislava	147.92	341	ePKP	PKPdf	16 45 24.7	+6.0
ZST				e		16 45 43.2	
JMOS	Jabal al Moall	147.95	296	P	PKPdf	16 45 25.0	+5.6
ALWS	Ilw as Safayha	147.96	296	P	PKPdf	16 45 25.1	+5.7
LEF	Lefka	147.97	307	i P	PKPdf	16 45 24.5	+5.3
EIL	Elat	147.98	297	P	PKPdf	16 45 21.0	+1.6
EIL	Elat	147.98	297	ePKPdf	PKPdf	16 45 20.1	+0.7
EIL				ePKPbc	PKPdf	16 45 24.6	+5.2
AYUS	‘Aynunah	148.00	294	P	PKPdf	16 45 22.5	+3.0
CTT	Catalca	148.02	320	eP	PKPdf	16 45 23.1	+4.0
GRA1	Grafenberg Arr	148.02	349	ePKPdf	PKPdf	16 45 20.6	+1.8
GRA1				ePKPbc	PKPdf	16 45 24.6	+5.8
GRA1				epPKPbc		16 47 13.2	
GRF	Grafenberg Arr	148.02	349	ePKP2	PKPdf	16 45 24.6	+5.8
KHC	Kasperske Hory	148.04	345	ePKPDF	PKPdf	16 45 20.2	+1.3
KHC				⇑ePKPB		16 45 24.7	
KHC				epPKP		16 47 13.6	
KMTI	Karmit	148.07	297	P	PKPdf	16 45 20.9	+1.4
BDAS	Al Bad‘	148.10	294	P	PKPdf	16 45 21.7	+2.1
VKA	Vienna	148.10	342	⇑iPKP	PKPdf	16 45 20.4	+1.4
VKA				i		16 45 25.1	
HAQS	Haql	148.12	295	P	PKPdf	16 45 25.2	+5.5
KZIT	Kziot	148.14	299	P	PKPdf	16 45 21.4	+1.8
ULDT	Uludag	148.17	318	i P	PKPdf	16 45 20.6	+1.3
JMB	Yambol	148.26	324	eP	PKPdf	16 45 25.0	+5.5
TAYS	Tayyib Ism	148.27	294	P	PKPdf	16 45 23.1	+3.2
GEC2	GERESS Array S	148.28	345	ePKP2	PKPdf	16 45 25.2	+5.9
GEC2	GERESS Array S	148.28	345	ePKPdf	PKPdf	16 45 20.9	+1.6
GEC2				ePKPbc	PKPdf	16 45 25.2	+5.9
GEC2				epPKPbc		16 47 14.7	
GERES	GERESS Array B	148.28	345	PKP	PKPdf	16 45 20.9	+1.6
	comp=Z,43nm,0.8s,baz=90,slow=1.3,SNR=33						
GERES				PKPbc	PKPdf	16 45 25.0	+5.7
	comp=Z,82nm,1.0s,baz=27,slow=2.2,SNR=131						
GERES				pPKPbc		16 47 11.3	
	comp=Z,13nm,1.1s,baz=45,slow=1.9,SNR=4.3						
GERES	GERESS Array B	148.28	345	PKHKP		16 45 20.8	
ABH	Alteburg	148.39	353	eP	PKPdf	16 45 21.0	+1.6
ABH	Alteburg	148.39	353	PKP	PKPdf	16 45 21.7	+2.3
GIVF	Givet	148.41	356	ePKIKP	PKPdf	16 45 20.6	+1.2
BAIF	Baives	148.48	357	ePKIKP	PKPdf	16 45 20.8	+1.2
TOD	Tromm	148.50	351	eP	PKPdf	16 45 20.9	+1.3
TOD	Tromm	148.50	351	PKP	PKPdf	16 45 21.3	+1.7
SOP	Sopron	148.55	341	ePKP/F		16 45 26.3	
EDRB	Edirne	148.57	323	eP	PKPdf	16 45 26.4	+6.4
RUP	Ruppelstein	148.62	354	eP	PKPdf	16 45 21.5	+1.7
RUP	Ruppelstein	148.62	354	PKP	PKPdf	16 45 22.1	+2.3
SIND	Sindeldorf	148.63	350	eP	PKPdf	16 45 20.7	+0.9
SWS	Schriesheim	148.63	351	eP	PKPdf	16 45 21.7	+1.9
WLF	Walferdange	148.74	355	ePKPdf	PKPdf	16 45 21.9	+1.9
WLF				ePKPbc	PKPdf	16 45 26.5	+6.5
BNT	Bandirma	148.80	320	eP	PKPdf	16 45 26.5	+6.1
KTD	Kalmit	148.88	352	eP	PKPdf	16 45 21.5	+1.3
KTD	Kalmit	148.88	352	PKP	PKPdf	16 45 22.1	+1.9
SART	Tekirdag	149.05	321	i P	PKPdf	16 45 26.5	+5.7
MOA	Molln	149.06	344	⇑iP	PKPdf	16 45 26.8	+6.2
BTOK	Tokmak	149.08	319	i P	PKPdf	16 45 21.7	+0.9
DIM	Dimitrovgrad	149.12	324	eP	PKPdf	16 45 27.0	+6.2
JLP	Les Platons	149.18	5	eP	PKPdf	16 45 21.6	+0.9
JVM	Valle D.L. Mar	149.20	5	eP	PKPdf	16 45 21.7	+1.0
JQE	Queens East	149.23	5	eP	PKPdf	16 45 21.9	+1.1
LANF	Langenberg	149.24	352	PKP	PKPdf	16 45 22.8	+2.0
ARSA	Arzberg	149.25	342	⇓iP	PKPdf	16 45 27.3	+6.4
STU	Stuttgart	149.25	351	ePKPdf	PKPdf	16 45 21.9	+1.1
STU				ePKPbc	PKPdf	16 45 27.3	+6.5
HDH	Heidenheim	149.27	349	eP	PKPdf	16 45 22.0	+1.1
LBG	Lerchenberg	149.42	351	eP	PKPdf	16 45 22.5	+1.4
ELL	Elmali	149.44	312	eP	PKPdf	16 45 26.2	+4.7
KDZ	Kurdzhali	149.45	324	eP	PKPdf	16 45 27.0	+5.6
MANT	Manisa	149.46	316	i P	PKPdf	16 45 22.9	+1.4
FUR	Furstenfeldbru	149.46	348	ePKP2	PKPdf	16 45 28.1	+6.9
FUR	Furstenfeldbru	149.46	348	ePKPdf	PKPdf	16 45 22.7	+1.5
FUR				ePKPbc	PKPdf	16 45 28.1	+6.9
FUR				epPKPbc		16 47 17.8	
PGB	Panagyurishte	149.51	327	eP	PKPdf	16 45 28.0	+6.5
PLD	Plovdiv	149.53	325	eP	PKPdf	16 45 27.0	+5.5
BUCH	Bad Urach	149.54	350	eP	PKPdf	16 45 22.8	+1.5
DNZL	Cakiroluk	149.56	314	i P	PKPdf	16 45 28.6	+6.8
ALN	Alexandroupoli	149.58	322	eP	PKPdf	16 45 27.6	+5.9
BOLS	Boljevac	149.66	331	⇑iP	PKPdf	16 45 27.9	+6.2
RDO	Rodhopi	149.71	323	eP	PKPdf	16 45 28.3	+6.5
FLN	La Foliniere	149.77	3	ePKIKP	PKPdf	16 45 22.5	+0.8
	comp=Z,83nm,0.9s						
RZN	Rozhen	149.81	325	eP	PKPdf	16 45 29.0	+7.0
BFO	Black Forest	149.81	351	ePKP2	PKPab	16 45 36.6	0.0
BFO	Black Forest	149.81	351	ePKPdf	PKPdf	16 45 22.8	+1.0
BFO				ePKPbc	PKPdf	16 45 28.7	+6.9
BFO				ePKPab	PKPab	16 45 36.6	0.0
BFO				epPKPbc		16 47 18.6	
WLS	Welschbruch	149.86	353	PKP	PKPdf	16 45 23.7	+1.9
CDF	Champ du Feu	149.87	353	ePKIKP	PKPdf	16 45 22.8	+1.0
	comp=Z,32nm,1.1s						
BST	Brest	149.90	8	PKP	PKPdf	16 45 22.8	+0.9
PERS	Pernice	149.92	342	ePKPbc	PKPdf	16 45 28.3	+6.4
GUT	Gutenstein	149.95	350	eP	PKPdf	16 45 22.9	+0.9
LDF	La Druitiere	149.96	3	ePKIKP	PKPdf	16 45 22.8	+0.8
	comp=Z,64nm,1.0s						
ROSF	Rostrenen	149.96	7	ePKIKP	PKPdf	16 45 22.6	+0.6
	comp=Z,27nm,1.0s						
SPAK	Spaichingen	149.97	351	eP	PKPdf	16 45 22.7	+0.7
VTS	Vitosha	149.97	328	eP	PKPdf	16 45 29.0	+6.8
MEZF	Maizieres J’vi	149.99	356	ePKIKP	PKPdf	16 45 23.4	+1.4
	comp=Z,76nm,1.2s						
KBA	Koelnbreinsper	150.01	344	⇑iP	PKPdf	16 45 28.7	+6.6
FETY	Fethiye	150.07	313	eP	PKPdf	16 45 28.8	+6.3
ECH	Echery	150.07	353	PKP	PKPdf	16 45 23.7	+1.5
LIBD	Limburg	150.09	352	eP	PKPdf	16 45 23.4	+1.2
EZN	Ezine	150.09	320	eP	PKPdf	16 45 27.5	+5.0
SGMF	Saint Gilles	150.12	6	ePKIKP	PKPdf	16 45 22.9	+0.7
	comp=Z,49nm,1.0s						
GRR	Gorron	150.12	4	ePKIKP	PKPdf	16 45 23.1	+0.9
	comp=Z,79nm,1.2s						
UBR	Uberruh	150.16	349	eP	PKPdf	16 45 22.3	0.0
GRUS	Gruza	150.18	332	⇑iP	PKPdf	16 45 23.3	+0.9
AYVA	Ayvalik	150.18	319	i P	PKPdf	16 45 23.3	+0.7
THEF	They Montfort	150.19	355	PKP	PKPdf	16 45 24.1	+1.8
WATA	Walderalm	150.19	347	⇓iP	PKPdf	16 45 23.8	+1.4
WATA				i		16 45 29.4	
OBKA	Obir	150.21	342	⇑iP	PKPdf	16 45 28.9	+6.5
WTTA	Wattenberg	150.25	347	⇑iP	PKPdf	16 45 24.9	+2.4
WTTA				i		16 45 29.8	
BOZC	Bozcaada	150.25	321	i P	PKPdf	16 45 28.9	+6.2
MOTA	Moosalm	150.28	347	⇓iP	PKPdf	16 45 23.5	+1.0
MOTA				i		16 45 29.6	
MOTA				i		16 45 36.4	
FELD	Feldberg	150.30	352	eP	PKPdf	16 45 23.9	+1.4
DIVS	Divcibare	150.33	333	⇓iP	PKPdf	16 45 23.3	+0.6
KDAG	Bornova	150.35	317	i P	PKPdf	16 45 29.3	+6.4
IZM	Izmir	150.35	317	i P	PKPdf	16 45 30.7	+7.8
AYDN	Tasoluk	150.36	315	i P	PKPdf	16 45 29.4	+6.4
HAU	Haudompre	150.37	354	ePKIKP	PKPdf	16 45 23.5	+0.9
	comp=Z,23nm,0.9s						
SQTA	Sankt Quirin	150.38	347	⇓iP	PKPdf	16 45 24.2	+1.5
SQTA				i		16 45 30.1	
QUIF	Quistinic	150.39	7	ePKIKP	PKPdf	16 45 23.3	+0.6
	comp=Z,50nm,1.2s						
MMB	Musomiste	150.41	326	eP	PKPdf	16 45 29.0	+6.1
MOF	Molkenrain	150.44	353	PKP	PKPdf	16 45 24.5	+1.8
PRK	Paraskevi	150.48	319	eP	PKPdf	16 45 30.0	+6.9
HINF	Hinteralfeld	150.50	353	ePKIKP	PKPdf	16 45 23.7	+0.9
	comp=Z,34nm,1.1s						
NVR	Nevrokopi	150.51	325	eP	PKPdf	16 45 29.9	+6.8
KKB	Krupnik	150.56	327	eP	PKPdf	16 45 30.0	+6.9
MLSB	Milas	150.62	315	eP	PKPdf	16 45 29.7	+6.3
LJU	Ljubljana	150.63	342	ePKPdf	PKPdf	16 45 24.0	+0.9
LJU				ePKPbc	PKPdf	16 45 30.4	+7.3
LJU				e		16 47 18.0	
LOS	Limnos	150.77	322	eP	PKPdf	16 45 30.2	+6.7
BBS	Basel-Blauen	150.77	352	eP	PKPdf	16 45 23.9	+0.7
BBS	Basel-Blauen	150.77	352	PKP	PKPdf	16 45 24.7	+1.5
SRS	Serrai	150.82	325	eP	PKPdf	16 45 23.0	-0.5
VOY	Vojsko	150.83	343	ePKPdf	PKPdf	16 45 24.3	+0.9
VOY				ePKPbc	PKPdf	16 45 30.7	+7.3
BOJS	Bojanci	150.90	341	ePKPbc	PKPdf	16 45 31.4	+7.9
BOJS				e		16 47 18.4	
CEY	Cerknica	150.94	342	i PKPdf	PKPdf	16 45 25.1	+1.5
CEY				ePKPbc	PKPdf	16 45 31.1	+7.6
CEY				ePKPab	PKPab	16 45 40.3	-1.1
LOMF	Lomont	150.97	353	PKP	PKPdf	16 45 25.8	+2.3
SMG	Samos	151.02	316	eP	PKPdf	16 45 30.6	+6.7
OUR	Ouranopolis	151.14	324	eP	PKPdf	16 45 31.0	+7.0
KNT	Kendrikon	151.16	326	eP	PKPdf	16 45 30.7	+6.7
PLE	Pljevlja	151.20	333	⇑iPKP	PKPdf	16 45 32.2	+8.2
SKO	Skopje	151.31	329	⇓iPKHKP		16 45 32.2	
	comp=Z,0.1nm,1.0s						
SKO				i PKP2	PKPab	16 45 43.0	-0.1
SKO				i pPKHKP		16 47 19.5	
HYF	Humbligny	151.32	359	ePKIKP	PKPdf	16 45 25.6	+1.6
IVA	Berane	151.34	332	⇑iPKP	PKPdf	16 45 32.6	+8.4
SSF	Saint Saulge	151.51	358	ePKIKP	PKPdf	16 45 25.7	+1.4
	comp=Z,46nm,1.1s						
UPM	Unac-Piva	151.51	333	⇑iPKP	PKPdf	16 45 32.2	+7.7
PVY	Plav	151.53	331	⇑iPKP	PKPdf	16 45 32.5	+8.0
GRG	Griva	151.57	326	eP	PKPdf	16 45 31.8	+7.2
PAIG	Paliouri	151.58	323	eP	PKPdf	16 45 31.6	+6.9
CABF	La Chapelle	151.78	354	ePKIKP	PKPdf	16 45 26.6	+1.9
	comp=Z,107nm,1.5s						
AVF	Avril sur Loir	151.78	358	ePKIKP	PKPdf	16 45 25.7	+1.0
	comp=Z,30nm,1.2s						
NKY	Niksic	151.79	333	⇑iPKP	PKPdf	16 45 33.0	+8.1
LCHF	La Chataignera	151.84	4	PKP	PKPdf	16 45 26.5	+1.7
SMF	Signal de Mont	151.91	357	ePKIKP	PKPdf	16 45 25.9	+1.0
	comp=Z,60nm,1.4s						
BRY	Bratogost	151.91	333	⇑iPKP	PKPdf	16 45 32.8	+7.8
MFF	Saint Martin d	151.94	3	ePKIKP	PKPdf	16 45 25.9	+1.0
	comp=Z,66nm,1.0s						
KARP	Karpathos	151.96	312	eP	PKPdf	16 45 33.4	+8.1
AOS	Alonnisos	151.97	322	eP	PKPdf	16 45 32.4	+7.2
TTG	Podgorica	151.98	332	⇑iPKP	PKPdf	16 45 33.1	+8.0
OG01	Vacheresse	151.99	353	PKP	PKPdf	16 45 26.5	+1.5
BGF	Bois d’Agland	152.03	359	ePKIKP	PKPdf	16 45 26.4	+1.4
	comp=Z,21nm,0.9s						
FNA	Florina	152.23	327	eP	PKPdf	16 45 33.7	+8.2
XOR	Xorichti	152.24	323	eP	PKPdf	16 45 33.1	+7.5
BUM	Brajici-Budva	152.25	332	⇑iPKP	PKPdf	16 45 33.6	+8.1
NEO	Neokhori	152.26	323	eP	PKPdf	16 45 23.5	-2.1
HCY	Herceg Novi	152.30	333	⇑iPKP	PKPdf	16 45 33.8	+8.2
TCF	Toulx Ste Croi	152.31	360	ePKIKP	PKPdf	16 45 26.6	+1.2
	comp=Z,65nm,1.1s						
ULC	Ulcinj	152.36	331	⇑iPKP	PKPdf	16 45 33.9	+8.3
OG05	Jujurieux	152.40	355	PKP	PKPdf	16 45 28.8	+3.2
ORX	Oropa	152.50	351	P	PKPdf	16 45 24.4	-1.3
AGO	Saint Agoulin	152.53	358	PKP	PKPdf	16 45 28.9	+3.1
PLDF	La Plantade	152.59	357	PKP	PKPdf	16 45 29.1	+3.2
TRAV		152.65	351	P	PKPdf	16 45 26.2	+0.3
SANT	Santorini	152.69	315	ePKPbc	PKPdf	16 45 33.7	+7.4
THR1	Thera Island	152.69	315	eP	PKPdf	16 45 34.0	+7.7
THR3	Thira Island,	152.70	316	eP	PKPdf	16 45 34.2	+7.9
THR5	Thira Island,	152.73	316	eP	PKPdf	16 45 33.7	+7.3
THR6	Thira Island,	152.74	315	eP	PKPdf	16 45 34.5	+8.1
LPL	La Plagne	152.78	353	ePKIKP	PKPdf	16 45 28.2	+2.1
	comp=Z,31nm,1.2s						
LSD	Ceresole Reale	152.79	352	P	PKPdf	16 45 28.0	+1.8
LPG	La Plagne	152.80	353	ePKIKP	PKPdf	16 45 28.3	+2.1
	comp=Z,20nm,1.1s						
PYM	Petit Puy Mans	152.83	358	PKP	PKPdf	16 45 29.4	+3.2
AGG	Agios Georgios	152.96	323	eP	PKPdf	16 45 34.8	+8.2
MEV	Metsovon	153.03	326	eP	PKPdf	16 45 28.4	+1.7
RSP	Reno Superiore	153.07	352	P	PKPdf	16 45 26.6	+0.1
ZCCA	Zocca	153.15	346	ePKP	PKPdf	16 45 29.2	+2.6
NPS	Neapolis	153.19	313	eP	PKPdf	16 45 36.7	+10
ERBM	Eremo	153.21	346	ePKP	PKPdf	16 45 28.8	+2.0
FENE	Fenestrelle	153.22	352	P	PKPdf	16 45 28.2	+1.4
GRAM		153.22	347	P	PKPdf	16 45 27.4	+0.7
BNI	Bardonecchia	153.25	352	ePKPdf	PKPdf	16 45 28.3	+1.5
BNI				ePKPbc	PKPdf	16 45 36.9	+10
RJF	Les Rejaudoux	153.29	1	ePKIKP	PKPdf	16 45 28.0	+1.2
	comp=Z,72nm,1.1s						
VALM		153.32	347	P	PKPdf	16 45 27.1	+0.2
LBL	Lubilhac	153.34	358	PKP	PKPdf	16 45 30.3	+3.4
SFI	Santa Sofia	153.35	344	ePKP	PKPdf	16 45 28.7	+1.8
CODM		153.36	347	P	PKPdf	16 45 27.7	+0.7
RRL	Cesana Torines	153.37	352	P	PKPdf	16 45 28.5	+1.6
BHB	Bricherasio	153.38	351	P	PKPdf	16 45 26.9	-0.1
ARV	Arcevia	153.42	342	ePKP	PKPdf	16 45 28.6	+1.5
BACM		153.42	347	P	PKPdf	16 45 27.3	+0.3
PCP	Pian Castagno	153.47	349	P	PKPdf	16 45 27.1	0.0
ORIF	Oris-en-Rattie	153.47	354	ePKIKP	PKPdf	16 45 28.6	+1.5
GENL	Genova Univers	153.52	349	P	PKPdf	16 45 27.6	+0.4
VINC	Vinca	153.54	347	P	PKPdf	16 45 27.0	-0.2
MBDF	Montbardon	153.56	352	ePKIKP	PKPdf	16 45 28.8	+1.6
	comp=Z,30nm,1.1s						
LFF	La Frestale	153.64	2	ePKIKP	PKPdf	16 45 28.6	+1.3
	comp=Z,21nm,0.8s						
SNTG	Esanatoglia	153.64	342	ePKP	PKPdf	16 45 29.0	+1.6
VIVF	Saint-Julien-l	153.64	356	ePKIKP	PKPdf	16 45 29.2	+1.9
	comp=Z,35nm,1.1s						
CAF	Calviac	153.67	360	ePKIKP	PKPdf	16 45 29.0	+1.6
	comp=Z,62nm,1.3s						
IDI	Anoyia	153.67	314	PKP	PKPdf	16 45 29.6	+1.9
	comp=Z,14nm,0.9s,baz=114,slow=3.3,SNR=9.5						
IDI				PKPbc	PKPdf	16 45 38.4	+11
	comp=Z,17nm,0.6s,baz=54,slow=4.2,SNR=19						
MAIM		153.68	346	P	PKPdf	16 45 27.3	-0.1
IGT	Igoumenitsa	153.69	327	eP	PKPdf	16 45 36.8	+9.2
PZZ	Prazzo	153.73	352	P	PKPdf	16 45 29.1	+1.6
ROB	Roburent	153.82	350	P	PKPdf	16 45 27.9	+0.3
FIN	Finale Ligure	153.85	350	P	PKPdf	16 45 27.5	-0.1
STV2	Anna di Valdie	153.95	351	P	PKPdf	16 45 27.7	-0.1
STV	Sta Anna Valdi	153.96	351	P	PKPdf	16 45 28.5	+0.7
ENR	Entracque	153.96	351	P	PKPdf	16 45 27.8	+0.1
MONE	Monesi	154.05	350	P	PKPdf	16 45 28.5	+0.6
VAM	Vamos	154.07	315	eP	PKPdf	16 45 30.6	+2.4
EPON	Pontenova	154.11	15	PKP	PKPdf	16 45 29.8	+1.8
STS	Santiago	154.14	18	PKP	PKPdf	16 45 29.7	+1.7
IMI	Imperia	154.19	350	P	PKPdf	16 45 29.3	+1.2
GRFL	Gerfalco	154.28	345	ePKP	PKPdf	16 45 29.4	+1.1
NEGI	Negi	154.28	350	P	PKPdf	16 45 28.5	+0.3
SBF	Sospel	154.31	351	ePKIKP	PKPdf	16 45 29.5	+1.2
AQU	L’Aquila	154.31	340	ePKPab	PKPab	16 45 54.4	-1.3
SMRF	Simiane la Rot	154.44	354	ePKIKP	PKPdf	16 45 30.3	+1.9
	comp=Z,70nm,1.5s						
LASF	Ste Croix	154.47	357	ePKIKP	PKPdf	16 45 30.1	+1.6
	comp=Z,78nm,1.3s						
EARI	Arriondas	154.57	12	PKP	PKPdf	16 45 30.2	+1.6
PTQR	Pietraquaria	154.61	340	ePKP	PKPdf	16 45 30.2	+1.4
EINC	Incio	154.68	16	PKP	PKPdf	16 45 31.5	+2.7
FRF	La Foret Royal	154.72	352	ePKIKP	PKPdf	16 45 30.0	+1.2
ELAN	Lanestosa	154.95	9	PKP	PKPdf	16 45 31.6	+2.5
LMR	La Mourre	154.96	352	ePKIKP	PKPdf	16 45 30.1	+0.9
	comp=Z,29nm,1.2s						
ERUA	La Rua	154.99	16	PKP	PKPdf	16 45 31.2	+2.0
EALK	Alkurruntz	155.21	6	PKP	PKPdf	16 45 31.2	+1.7
ELOB	Lobios	155.22	18	PKP	PKPdf	16 45 30.7	+1.1
MTLF	Montolieu	155.25	359	ePKIKP	PKPdf	16 45 31.0	+1.4
	comp=Z,47nm,1.2s						
PGF	Pioggiola	155.31	347	ePKIKP	PKPdf	16 45 30.7	+1.1
	comp=Z,101nm,1.1s						
ECAL	Calabor	155.51	16	PKP	PKPdf	16 45 30.9	+1.0
EPF	Esparros	155.53	3	ePKIKP	PKPdf	16 45 31.5	+1.6
	comp=Z,66nm,1.4s						
ETSF	Etsaut	155.61	4	ePKIKP	PKPdf	16 45 31.7	+1.7
	comp=Z,40nm,1.1s						
PBRG	Braganca	155.64	16	ePKPab	PKPab	16 45 59.9	-1.5
TIP	Timpagrande	155.72	331	ePKPdf	PKPdf	16 45 31.4	+1.1
TIP				ePKPab	PKPab	16 46 00.8	-1.0
EBIE	Bielsa	155.86	3	PKP	PKPdf	16 45 28.0	-2.4
PVIS	Viseu	156.32	19	ePKPab	PKPab	16 46 02.9	-1.5
EMIR	Miracle	156.68	1	PKP	PKPdf	16 45 33.4	+2.0
MTE	Manteigas	156.72	19	ePKPdf	PKPdf	16 45 33.2	+1.6
MTE				ePKPab	PKPab	16 46 04.4	-1.7
MTE	Manteigas	156.72	19	ePKPdf	PKPdf	16 45 32.7	+1.1
PTOM	Tomar	157.15	21	ePKPab	PKPab	16 46 04.3	-3.7
EVO	Evora	158.26	21	ePKIKP	PKPdf	16 45 34.8	+1.2
	comp=Z,84nm,1.4s						
ESDC	Sonseca Array	158.31	12	PKP	PKPdf	16 45 35.7	+2.0
	comp=Z,2.7nm,0.8s,baz=351,slow=3.4,SNR=19						
ESDC				PKPab	PKPab	16 46 11.4	-1.6
	comp=Z,9.5nm,0.8s,baz=343,slow=3.9,SNR=18						
EBAD	Badajoz	158.39	19	PKP	PKPdf	16 45 34.9	+1.1
PBEJ	Beja	158.77	22	ePKPdf	PKPdf	16 45 36.7	+2.5
PBEJ				ePKPab	PKPab	16 46 13.2	-1.8
PTEO	Sao Teotonio	158.88	24	ePKPdf	PKPdf	16 45 35.2	+0.8
EMIN	Mina Concepcio	159.40	20	PKP	PKPdf	16 45 37.0	+2.1
EVIA	Vianos	159.59	10	PKP	PKPdf	16 45 36.8	+1.7
EADA	Adamuz	159.62	15	PKP	PKPdf	16 45 36.5	+1.4
ELUQ	Luque	160.27	15	PKP	PKPdf	16 45 37.6	+1.8
EQES	Quesada	160.30	12	PKP	PKPdf	16 45 37.5	+1.6
CCAN	Las Canadas	160.47	57	PKP	PKPdf	16 45 39.4	+3.1
ESPR	Espera	160.48	19	PKP	PKPdf	16 45 38.7	+2.6
ELOJ	Sierra Loja	160.69	15	PKP	PKPdf	16 45 37.6	+1.3
ERON	Agron	160.90	14	PKP	PKPdf	16 45 38.6	+2.1
EMIJ	Mijas	161.08	17	PKP	PKPdf	16 45 39.5	+2.8
EBER	Berja	161.21	12	PKP	PKPdf	16 45 40.1	+3.4
DBIC	Dimbokro	166.50	150	PKP	PKPdf	16 45 43.2	+0.8
	comp=Z,34nm,0.6s,baz=140,slow=1.2,SNR=86						
DBIC				PKPab	PKPab	16 46 48.9	-0.3
	comp=Z,31nm,0.8s,baz=185,slow=5.8,SNR=11						
DBIC	Dimbokro	166.50	150	ePKPdf	PKPdf	16 45 43.1	+0.7
DBIC				ePKPab	PKPab	16 46 48.6	-0.6

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*CNRM **06** 16:33:47.8, 35.10N×2.67W, h13^{km}, MD3.3*
*NEIC **06** 16:33:49.3, 35.00N×3.13W, MG3.4(MDD), After MDD.*
*MDD **06** 16:33:49.8±1.6, 35.02N×3.15W, mb3.4/5, Error ellipse: s-maj=15.7km s-min=6.0km az=157.0, PRXIMO AftershockPLICA*
*CSEM **06** 16:33:50.3±0.3, 35.16N×3.02W, h20^{km}, MD3.3, Error ellipse: s-maj=8.2km s-min=4.8km az=135.0*
ISC 06 16:33:50.4±0.9**, 35.12N**±0.05×**2.93W**±0.07**, h29**^{km}±3^{km}**, n26,** σ1^{s}**03**/43**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.17	359	P	Pb	16 33 56.2	0.0
MELI				S	Sb	16 33 59.9	-0.2
MELI	Melilla	0.17	359	i S	Sb	16 33 59.9	-0.2
MELI	Melilla	0.17	359	eP	Pb	16 33 56.2	+0.1
EMLI	Melilla	0.18	355	P	Pb	16 33 55.3	-0.9
	96nm,0.1s,SNR=10						
EMLI	Melilla	0.18	355	S	Sb	16 34 00.0	-0.2
	145nm,0.3s,SNR=6.4						
EMEL	Melilla	0.18	353	P	Pb	16 33 55.3	-0.9
	96nm,0.1s,SNR=10						
EMEL				S	Sb	16 33 60.0	-0.3
	145nm,0.3s,SNR=6.4						
TOU	Touzarine	0.69	257	i P	Pb	16 34 04.0	+0.1
TOU				i S	Sb	16 34 16.0	+2.8
MPAL	Palemas	0.84	277	eP	Pb	16 34 07.0	+0.8
MPAL				i S	Sb	16 34 18.0	+0.9
TZK	Tazeka	1.46	225	i P	Pn	16 34 14.0	-1.2
TZK				i S	Sn	16 34 33.0	-0.5
EBER	Berja	1.77	1	P	Pn	16 34 20.4	+0.7
EBER				S	Sn	16 34 41.0	-0.4
EBER	Berja	1.77	1	P	Pn	16 34 20.4	+0.7
	1.1nm,0.2s,SNR=11						
EBER				S	Sn	16 34 43.7	+2.3
	11nm,0.6s						
EBER	Berja	1.77	1	S	Sn	16 34 41.0	-0.4
	11nm,0.6s						
EBER	Berja	1.77	1	P	Pn	16 34 20.4	+0.7
	1.1nm,0.2s,SNR=11						
EMIJ	Mijas	2.08	314	P	Pn	16 34 23.8	-0.3
	1.6nm,0.1s,SNR=23						
EMIJ				S	Sn	16 34 48.7	-0.5
	2.7nm,0.3s						
ELOJ	Sierra Loja	2.25	334	P	Pn	16 34 27.9	+1.4
	1.3nm,0.2s,SNR=6.4						
EQES	Quesada	2.68	358	P	Pn	16 34 35.2	+2.6
	2.1nm,0.2s,SNR=9.6						
EQES				S	Sn	16 35 08.9	+4.4
	7.0nm,0.4s,SNR=7.6						
EQES	Quesada	2.68	358	P	Pn	16 34 35.2	+2.6
	2.1nm,0.2s,SNR=9.6						
EQES				S	Sn	16 35 08.9	+4.5
	7.0nm,0.4s,SNR=7.6						
EADA	Adamuz	3.31	337	P	Pn	16 34 42.4	+0.7
	0.6nm,0.1s,SNR=6.8						
EADA				S	Sn	16 35 20.6	+0.1
	15nm,1.5s						
EADA	Adamuz	3.31	337	P	Pn	16 34 42.4	+0.7
	0.6nm,0.1s,SNR=6.8						
EADA				S	Sn	16 35 20.6	0.0
	15nm,1.5s						
EMIN	Mina Concepcio	4.01	312	P	Pn	16 34 50.8	-0.7
	0.5nm,0.1s,SNR=12						
EMIN				S	Sn	16 35 34.7	-3.4
	6.3nm,0.4s						
EMIN	Mina Concepcio	4.01	312	S	Sn	16 35 34.7	-3.5
	6.3nm,0.4s						
EMIN	Mina Concepcio	4.01	312	P	Pn	16 34 50.8	-0.7
	0.5nm,0.1s,SNR=12						
ESDC	Sonseca Array	4.62	350	P	Pn	16 35 00.8	+0.6
	0.6nm,0.3s,baz=173,slow=12,SNR=5.2						
ESDC				S	Sn	16 35 53.6	+0.1
	0.3nm,0.4s,baz=165,slow=27,SNR=4.3						
ESDC	Sonseca Array	4.62	350	P	Pn	16 35 00.8	+0.6
	0.6nm,0.3s,SNR=5.2						
ESDC				S	Sn	16 35 53.6	+0.1
	0.3nm,0.4s,SNR=4.3						
EBAD	Badajoz	4.88	319	P	Pn	16 35 03.1	-0.8
	0.9nm,0.1s,SNR=7.9						
EBAD				S	Sn	16 35 58.1	-2.1
	SNR=7.9						
EBAD	Badajoz	4.88	319	P	Pn	16 35 03.1	-0.8
	0.9nm,0.1s,SNR=7.9						
EBAD				S	Sn	16 35 58.1	-2.1

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*IDC **06** 16:48:37.2±1.0, 2.79S×136.48E, mb4.3/5, mb1 4.5/9, mb1mx4.3/16, ML4.0/4, Error ellipse: s-maj=46.9km s-min=21.7km az=87.0*
*NEIC **06** 16:48:39.0±0.4, 2.80S×136.53E, h10^{km}, mb4.4/11, Error ellipse: s-maj=12.5km s-min=7.2km az=72.0*
ISC 06 16:48:41.1±2.8**, 3.01S**±0.07×**136.30E**±0.07**, h37**^{km}±26^{km}**, n31,** σ1^{s}**18**/40**, mb4.4**/16**, 2D, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	10.37	202	⇓iP	P	16 51 11.0	+0.3
	54nm,0.5s						
KAKA				eS	S	16 53 07.7	+0.9
PMG	Port Moresby	12.52	121	Pn	P	16 51 41.4	+1.6
	0.8nm,0.3s,baz=274,slow=4.1,SNR=8.9						
PMG				Sn	S	16 53 58.0	-0.9
	0.5nm,0.3s,baz=187,slow=19,SNR=3.1						
PMG	Port Moresby	12.52	121	ePn	P	16 51 35.7	-4.0
PMG				Sn	S	16 53 58.0	-0.9
WRAB	Tennant Creek	16.93	186	eP	P	16 52 33.8	-3.2
	30nm,0.8s						
WRAB				eS	S	16 55 36.1	-6.6
WB2	Warramunga Arr	16.94	186	eP	P	16 52 35.5	-1.6
WB2				eS	S	16 55 39.0	-3.9
WRA	Warramunga Arr	16.94	186	P	P	16 52 35.5	-1.6
	0.6nm,0.3s,baz=1.0,slow=13,SNR=30						
WRA				S	S	16 55 36.7	-6.2
	0.7nm,0.3s,baz=5.0,slow=22,SNR=9.7						
FITZ	Fitzroy Crossi	18.28	214	eP	P	16 52 56.6	+2.7
	7.0nm,0.6s						
FITZ				eS	S	16 56 10.6	-2.8
FITZ	Fitzroy Crossi	18.28	214	P	P	16 52 54.8	+0.9
	0.8nm,0.3s,baz=23,slow=8.2,SNR=23						
FITZ				S	S	16 56 11.2	-2.2
	1.7nm,0.3s,baz=205,slow=11,SNR=7.2						
CTA	Charters Tower	19.56	151	P	P	16 53 09.7	+0.9
	0.5nm,0.3s,baz=328,slow=12,SNR=6.5						
CTAO	Charters Tower	19.56	151	eP	P	16 53 08.1	-0.7

	25nm,1.1s						
ASAR	Alice Springs	20.67	186	P	P	16 53 22.1	+1.6
	21nm,0.6s,baz=11,slow=12,SNR=192						
ASAR				S	S	16 57 10.3	+5.9
	8.9nm,1.0s,baz=16,slow=13,SNR=6.3						
ASPA	Alice Springs	20.67	186	⇓*i*P	P	16 53 22.4	+1.9
ASPA				*e*S	S	16 57 08.3	+3.9
MBWA	Marble Bar	24.20	220	*e*P	P	16 53 57.9	+2.4
	8.8nm,0.6s,mb4.4						
STKA	Stephens Creek	29.14	171	P	P	16 54 41.5	+0.3
	6.0nm,1.1s,mb4.2,baz=306,slow=15,SNR=4.0						
GUN	Gumba	57.40	306	*e*P	P	16 58 27.8	-0.9
PKI	Pulchoki	57.64	305	*e*P	P	16 58 30.0	-0.5
KKN	Kakani	57.84	306	*e*P	P	16 58 30.9	-0.9
	7.5nm,0.7s,mb4.8						
DMN	Daman	57.91	305	*e*P	P	16 58 31.4	-0.9
	9.5nm,0.8s,mb4.9						
GKN	Gorkha	58.44	306	*e*P	P	16 58 35.9	-0.1
	18nm,1.1s,mb5.0						
KOLN	Koldanda	59.20	305	*e*P	P	16 58 40.8	-0.5
	18nm,1.1s,mb5.0						
TKM2	Tokmak 2	71.12	317	*e*P	P	16 59 58.4	+0.4
	1.8nm,0.7s,mb4.1						
UCH	Uchtor	71.59	316	*e*P	P	17 00 01.6	+0.8
	7.8nm,1.0s,mb4.6						
AAK	Ala-Archa	71.76	317	*e*P	P	17 00 01.3	-0.5
	1.4nm,0.6s,mb4.1						
AML	Almayashu	72.13	316	*e*P	P	17 00 05.1	+1.2
	9.8nm,0.9s,mb4.7						
EKS2	Erkin-Say	72.26	317	*e*P	P	17 00 05.5	+0.8
	4.2nm,0.9s,mb4.4						
KURK	Kurchatov	72.59	326	*e*P	P	17 00 06.0	-0.6
	1.6nm,0.7s,mb4.1						
VNDA	Vanda	75.71	174	P	P	17 00 25.4	+1.2
	0.7nm,0.6s,mb3.8,baz=328,slow=6.9,SNR=3.8						
BVAR	Borovoye Array	78.19	326	P	P	17 00 38.7	+0.2
	1.9nm,0.7s,mb4.1,baz=117,slow=6.6,SNR=7.7						
BRVK	Borovoye	78.26	326	*e*P	P	17 00 38.5	-0.4
	3.4nm,1.0s,mb4.2						
ILAR	Eielson Array	87.10	25	P	P	17 01 23.8	-0.3
	1.8nm,0.9s,mb4.3,baz=257,slow=5.2,SNR=12						
LPAZ	La Paz	149.17	129	PKPbc	PKPdf	17 08 27.1	+4.7
	1.3nm,0.8s,baz=292,slow=3.1,SNR=3.8						

*NEIC **06** 16:53:32.5±0.7,7.14N×127.19E,h55^{km},mb4.3/8,Error ellipse: s-maj=43.7km s-min=7.7km az=71.0*

*IDC **06** 16:53:36.0±11.0,7.10N×127.13E,h88^{km}±108^{km},mb4.0/8, mb1 4.1/8,mb1mx3.7/21,Error ellipse: s-maj=65.8km s-min=17.2km az=73.0*

ISC 06 16:53:30.2±2.2,**7.20N**±0.09×**127.3E**±0.2,**h55**^{km}±17^{km}, **n21**,σ**0^{s}.80**/23,**mb4.2**/16,**1D,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	1.10	257	*e*P	P	16 53 49.4	-0.3
BIPH	Bislig	1.37	315	⇓*i*P	P	16 53 52.1	-1.4
BIPH				*i* S	S	16 54 10.2	-0.7
BUKP	Musuan	2.35	287	*e*P	P	16 54 08.3	+1.1
BUTP	Butuan	2.44	316	*e*P	P	16 54 10.3	+1.7
BUTP				*e*S	S	16 54 42.2	+4.9
FITZ	Fitzroy Crossi	25.20	184	P	P	16 58 51.6	-0.9
	3.6nm,0.6s,mb4.1,baz=359,slow=11,SNR=3.5						
WRAB	Tennant Creek	27.83	166	P	P	16 59 16.2	-0.5
	11nm,0.8s,mb4.5						
WRA	Warramunga Arr	27.84	166	P	P	16 59 18.0	+1.2
	7.2nm,0.8s,mb4.3,baz=344,slow=11,SNR=4.7						
ASAR	Alice Springs	31.34	168	P	P	16 59 49.2	+1.3
	1.0nm,0.5s,mb3.9,baz=352,slow=8.0,SNR=3.0						
ASAR				PcP	PcP	17 02 40.2	-0.7
	0.3nm,0.4s,baz=347,slow=2.6,SNR=4.2						
NWAO	Narrogin (SRO)	41.05	193	P	P	17 01 10.1	+0.1
	7.6nm,0.6s,mb4.5,baz=22,slow=8.7,SNR=16						
STKA	Stephens Creek	41.17	161	P	P	17 01 09.8	-1.3
	2.7nm,0.4s,mb4.2,baz=336,slow=9.1,SNR=12						
STKA	Stephens Creek	41.17	161	P	P	17 01 09.8	-1.3
ULN	Ulaanbaatar	44.05	340	*e*P	P	17 01 34.7	+0.4
	9.5nm,1.4s,mb4.3						
SONM	Songino Array	44.24	340	P	P	17 01 36.6	+0.7
	0.8nm,0.6s,mb3.6,baz=154,slow=8.4,SNR=7.2						
TKM2	Tokmak 2	57.60	317	P	P	17 03 16.6	-0.4
	1.3nm,0.6s,mb4.1						
ZAL	Zalesovo	57.81	332	P	P	17 03 18.0	-0.3
	0.5nm,0.3s,mb4.0,baz=225,slow=4.4,SNR=3.2						
UCH	Uchtor	58.08	316	*e*P	P	17 03 20.8	+0.4
	1.6nm,0.6s,mb4.2						
AML	Almayashu	58.61	315	*e*P	P	17 03 23.9	-0.2
	2.4nm,0.6s,mb4.4						
EKS2	Erkin-Say	58.74	316	*e*P	P	17 03 24.5	-0.4
	1.8nm,0.6s,mb4.3						
BVAR	Borovoye Array	64.78	326	P	P	17 04 05.3	0.0
	4.6nm,1.2s,mb4.4,baz=124,slow=5.2,SNR=4.4						
BRVK	Borovoye	64.85	326	*e*P	P	17 04 05.6	-0.1
	1.4nm,0.8s,mb4.0						
CHKZ	Chkalovo	64.91	327	*e*P	P	17 04 05.7	-0.3
	1.2nm,0.8s,mb4.0						

*IDC **06** 17:06:52.6±6.1,9.95S×113.56E,mb3.6/3,mb1 3.9/4, mb1mx3.6/15,ML3.2/1,Error ellipse: s-maj=176.0km s-min=84.1km az=29.0*

*DJA **06** 17:06:59.5±0.8,9.49S×113.99E,h33^{km},MD4.7/4, ML4.7/3,Error ellipse: s-maj=18.6km s-min=9.9km az=40.0*

ISC 06 17:06:59.5±2.2,**9.4S**±0.2×**114.06E**±0.10,**h63**^{km}±34^{km},**n9**, σ**0^{s}.57**/14,**mb3.6**/3,**4C,South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	0.89	5	⇑*e*Pn	P	17 07 16.0	-0.4
	1μm,0.2s						
SRDI				*e*Sn	S	17 07 28.3	-0.6
KELI	Kelakatan	1.22	20	⇑*e*Pn	P	17 07 21.9	+1.0
	2μm,0.2s						
KELI				*e*Sn	S	17 07 37.0	+0.2
RATI	Rata	1.59	66	⇑*e*Pn	P	17 07 26.0	0.0
RATI	Rata	1.59	66	*e*P	P	17 07 26.8	+0.8
RATI				*e*Sn	S	17 07 44.9	-0.7
KEDI	Kedomdong	2.21	67	⇑*e*Pn	P	17 07 34.9	+0.3
	285nm,0.2s						
KEDI				*e*Sn	S	17 08 00.7	0.0
FITZ	Fitzroy Crossi	14.20	129	Pn	P	17 10 13.9	-5.0
	0.1nm,0.3s,baz=279,slow=19,SNR=3.3						
FITZ				Sn	S	17 12 41.6	-14
	0.1nm,0.3s,baz=186,slow=19,SNR=2.5						
WRA	Warramunga Arr	22.23	120	P	P	17 11 52.6	+0.5
	0.4nm,0.4s,mb3.2,baz=293,slow=12,SNR=7.4						
ASAR	Alice Springs	23.70	129	P	P	17 12 06.5	+0.1
	1.6nm,0.6s,mb3.6,baz=303,slow=9.2,SNR=35						
STKA	Stephens Creek	33.96	135	P	P	17 13 38.1	-0.9
	0.7nm,0.4s,mb4.0,baz=322,slow=8.3,SNR=4.2						

*JMA **06** 17:09:12.7±0.4,25.33N×121.84E,h14^{km}*

TAP 06 17:09:14.7,24.20N×121.68E,h5^{km}±1^{km},ML3.3,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	1.24	78	P	Pb	17 09 37.4	-0.8
YOJ				*e*S	Sb	17 09 54.9	+0.5
IRIF	Iriomote-Funau	1.88	85	P	Pn	17 09 46.2	-1.5
IRIF				*e*S	Sn	17 10 11.2	-0.8
HATJ	Hateruma jima	1.95	94	P	Pn	17 09 49.4	+0.7
JKRS	Kuro-shima	2.13	89	P	Pn	17 09 50.7	-0.6
JKRS				*e*S	Sn	17 10 19.2	+0.8
JIJ	Ishigaki jima	2.25	85	P	Pn	17 09 51.1	-2.0
JIJ				*e*S	Sn	17 10 19.6	-2.0

*BJI **06** 17:10:55.4,50.07N×88.51E,h29^{km},ML4.1*

*IDC **06** 17:10:56.2±1.4,50.00N×88.41E,mb3.8/5,mb1 3.9/8, mb1mx3.7/23,ML3.6/3,Error ellipse: s-maj=22.9km s-min=16.2km az=40.0*

*MOS **06** 17:10:56.2±2.1,49.86N×88.18E,h10^{km},mb4.0/4,Error ellipse: s-maj=16.2km s-min=9.6km az=111.1*

*NEIC **06** 17:10:58.1±0.6,50.00N×88.28E,h10^{km},mb4.0/2,Error ellipse: s-maj=9.9km s-min=7.7km az=158.0*

*NNC **06** 17:11:03.1±3.2,49.92N×87.80E,h22^{km}±14^{km},mpv4.3, Error ellipse: s-maj=25.6km s-min=15.3km az=114.0*

ISC 06 17:10:56.6±0.5,**50.00N**±0.03×**88.24E**±0.06,**h10**^{km},**n37**, σ**1^{s}.16**/53,**mb3.8**/6,**12C-2D,Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKAR	Aktash	0.51	309	*e*PG	Pg	17 11 07.2	+0.2
AKAR				*e*S	Sg	17 11 14.8	+0.8
UKR	Ust'-Kan	2.41	294	*e*PN	Pn	17 11 41.6	+4.9
UKR				*e*S	Sn	17 12 14.3	+7.8
TASR	Tashtagol	2.77	355	*e*PN	Pn	17 11 47.9	+5.9
TASR				*e*S	Sn	17 12 25.4	+10
CERR	Cheremushki	3.48	34	*e*PN	Pn	17 11 54.3	+2.3
CERR				*e*		17 12 00.8	
CERR				*e*S	Sn	17 12 45.8	+12
ZAL	Zalesovo	4.48	333	Pn	Pn	17 12 07.6	+1.3
	5.7nm,0.3s,baz=328,slow=10,SNR=27						
ZAL				Sn	Sn	17 13 00.7	+1.6
	6.2nm,0.3s,baz=339,slow=9.1,SNR=4.8						
ZAL				Lg		17 13 19.8	
	10nm,0.3s,baz=225,slow=16,SNR=14						
MK31	Makanchi Array	5.10	233	⇓Pn	Pn	17 12 16.3	+1.3
	33nm,0.6s,baz=52,slow=14,SNR=278						
MK31				⇑Pg	Pg	17 12 29.9	-8.5
	35nm,0.3s,baz=58,slow=16,SNR=8.0						
MK31				⇑Sn	Sn	17 13 14.6	0.0
	83nm,0.8s,baz=60,slow=22,SNR=11						
MK31				⇑Lg		17 13 37.3	
	37nm,0.5s,baz=56,slow=29,SNR=4.5						
MKAR	Makanchi Array	5.10	233	PN	Pn	17 12 16.2	+1.2
MKAR						17 13 14.0	
MKAR				pmax	pmax		
	comp=Z,13nm,0.4s						
NVS	Novosibirsk	5.74	330	*e*PN	Pn	17 12 24.0	+0.1
NVS				*e*		17 12 43.9	
NVS				*e*		17 13 56.5	
WMQ	Urumqi	6.19	184	*e*PG	Pb	17 12 45.8	+1.4
WMQ				S	Sn	17 13 43.0	+1.0
WMQ				Smax			
	comp=N,52nm,0.8s						
WMQ				Smax			
	comp=E,86nm,1.0s						
KURK	Kurchatov	6.20	280	⇑Pn	Pn	17 12 31.3	+0.8
	comp=E,11nm,0.6s,baz=96,slow=9.8,SNR=69						
KURK				⇑Sn	Sn	17 13 41.5	-0.8
	comp=E,6.7nm,0.5s,baz=239,slow=16,SNR=4.7						
KURK				⇑Lg		17 14 10.9	
	comp=E,41nm,0.8s,baz=172,slow=17,SNR=7.4						
KURK	Kurchatov	6.20	280	*i* PN	Pn	17 12 31.4	+0.9
KURK				pmax	pmax		
	comp=Z,6.0nm,0.6s						
KURK	Kurchatov	6.20	280	*e*Pn	Pn	17 12 29.9	-0.6
	comp=Z,28nm,0.8s						
KURK				*e*Sn	Sn	17 13 41.1	-1.2
KURK				*e*Sb	Sb	17 14 00.9	+1.3
KURK				*e*Sg	Sg	17 14 13.6	-10
TKM2	Tokmak 2	11.22	236	*e*Pn	P	17 13 37.7	-2.4
	comp=Z,2.1nm,0.4s						
CHKZ	Chkalovo	11.50	295	⇑Pn	P	17 13 41.3	-2.6
	comp=Z,3.2nm,1.1s						
CHKZ				⇑Sn	S	17 15 45.1	-8.4
	comp=Z,2.1nm,0.7s						
CHKZ	Chkalovo	11.50	295	P	P	17 13 41.2	-2.7
CHKZ				pmax	pmax		
	comp=Z,4.0nm,1.2s						
CHKZ	Chkalovo	11.50	295	*e*Pn	P	17 13 41.1	-2.8
	comp=Z,1.5nm,0.5s						
BVA0	Borovoye Array	11.53	292	⇑Pn	P	17 13 42.5	-1.7
	comp=Z,0.5nm,0.7s,baz=104,slow=14,SNR=27						
BVA0				⇑Sn	S	17 15 44.9	-9.2
	comp=Z,0.9nm,0.8s,baz=101,slow=20,SNR=6.2						
BVA0	Borovoye Array	11.53	292	P	P	17 13 42.4	-1.8
BVAR	Borovoye Array	11.53	292	Pn	P	17 13 42.5	-1.7
	comp=Z,1.1nm,0.3s,baz=107,slow=15,SNR=28						
BVAR				Sn	S	17 15 48.3	-5.8
	comp=Z,0.7nm,0.3s,baz=101,slow=23,SNR=6.1						
BRVK	Borovoye	11.60	292	*e*Pn	P	17 13 44.2	-1.0
	comp=Z,3.0nm,0.7s						
AAK	Ala-Archa	12.01	237	⇑Pn	P	17 13 50.7	-0.1
	comp=Z,1.8nm,0.4s						
AAK				⇓Sn	S	17 15 59.3	-6.6
	comp=Z,3.4nm,0.6s						
AAK				⇑Lg		17 17 15.5	
	comp=Z,28nm,1.9s						
AAK	Ala-Archa	12.01	237	*e*Pn	P	17 13 49.0	-1.8
	comp=Z,3.7nm,0.4s						
SONM	Songino Array	12.14	93	Pn	P	17 13 51.0	-1.5
	comp=Z,0.1nm,0.3s,baz=287,slow=15,SNR=5.3						
SONM				Lg		17 17 17.9	
	comp=Z,0.2nm,0.3s,baz=283,slow=27,SNR=6.8						
UCH	Uchtor	12.28	236	*e*Pn	P	17 13 55.2	+0.7
AML	Almayashu	12.79	238	Pn	P	17 14 01.6	+0.4
	comp=Z,12nm,0.4s						
BOD	Bodaibo	17.00	53	*e*P	P	17 14 56.0	+0.3
ARU	Arti	18.80	301	*e*P	P	17 15 17.8	-0.3
	comp=Z,2.5nm,0.5s						
YAK	Yakutsk	25.61	46	*e*P	P	17 16 26.6	-0.7
	comp=Z,5.0nm,0.6s,mb4.2						
FINES	FINESS Array B	35.44	313	P	P	17 17 54.0	-0.5
	comp=Z,1.3nm,0.8s,mb3.9,baz=117,slow=4.3,SNR=5.4						
FINES	FINESS Array B	35.44	313	P	P	17 17 54.0	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	39.23	276	P	P	17 18 26.6	-0.1
	comp=Z,0.6nm,0.5s,mb3.6,baz=78,slow=5.8,SNR=3.1						
BRTR	Keskin Array B	39.23	276	P	P	17 18 26.6	0.0
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
HFS	Hagfors	41.63	313	P	P	17 18 45.9	-0.1
	comp=Z,1.3nm,0.6s,mb3.8,baz=106,slow=10,SNR=4.7						
HFS	Hagfors	41.63	313	P	P	17 18 45.9	-0.1
HFS				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	42.45	315	P	P	17 18 52.7	-0.1
	comp=Z,0.7nm,0.8s,mb3.4,baz=67,slow=6.9,SNR=2.9						
NOA	NORSAR Array B	42.45	315	P	P	17 18 52.7	0.0
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ESDC	Sonseca Array	62.19	299	P	P	17 21 19.4	-0.9
	comp=Z,0.8nm,0.7s,mb4.0,baz=42,slow=6.5,SNR=5.4						

*MOS **06** 18:12:19.0±1.0,33.42N×137.06E,h289^{km},mb4.0/10, Error ellipse: s-maj=42.5km s-min=16.5km az=103.2*

*BJI **06** 18:12:23.1,33.59N×137.54E,h336^{km},mB4.4,mb4.2*

*IDC **06** 18:12:25.8±1.2,33.55N×137.57E,h350^{km}±15^{km}, mb3.4/14,mb1 3.5/15,mb1mx3.4/26,Error ellipse: s-maj=25.6km s-min=10.4km az=79.0*

*JMA **06** 18:12:25.2±0.2,33.58N×137.41E,h349^{km}±2^{km},M3.3*

*NEIC **06** 18:12:25.0±0.6,33.54N×137.46E,h341^{km}±7^{km},mb3.9/10, Error ellipse: s-maj=16.5km s-min=6.9km az=74.0*

ISC 06 18:12:24.4±0.3,**33.57N**±0.05×**137.52E**±0.06,**h351**^{km}±2^{km}, **n65**,σ**0^{s}.80**/74,**mb3.7**/23,**Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK02	Tokai 2	0.43	28	P	P	18 13 09.5	+0.7
TK02				S	S	18 13 45.0	+1.3
TK03	Tokai 3	0.70	32	S	S	18 13 46.9	+2.1
JIE	Ise	1.06	321	P	P	18 13 11.1	+0.4
JIE				S	S	18 13 46.5	-0.5
JAA	Atsumi	1.10	344	P	P	18 13 11.5	+0.6
JWZ	Kozaga	1.51	269	P	P	18 13 12.6	-0.4
JWZ				S	S	18 13 49.4	-1.7
JWY	Kouya	1.73	293	P	P	18 13 14.5	+0.2
JWY				S	S	18 13 52.6	-0.8
JHJ	Hachijo jima 2	1.95	103	P	P	18 13 16.6	+0.8
	44nm,0.3s,baz=219,slow=15,SNR=11						
JIM2	Oshima 3	1.96	54	P	P	18 13 16.1	+0.3
JHJ2	Mitsune	1.98	103	P	P	18 13 17.1	+1.2
JYN	Shimob	2.10	23	P	P	18 13 17.5	+0.6
JOD2	Odawara 2	2.13	37	P	P	18 13 17.8	+0.7
JGM	Miyama	2.23	343	P	P	18 13 18.3	+0.5
JWT	Wachi	2.45	315	P	P	18 13 19.5	0.0
JAI	Aioi	2.57	276	P	P	18 13 20.2	-0.3
JRY	Ryogami san	2.69	25	P	P	18 13 22.8	+1.3
JRY				S	S	18 14 06.1	-0.2
JKG	Kaga	2.87	340	P	P	18 13 23.2	+0.1
MAJO	Matsushiro	3.02	11	*e*Pn	P	18 13 24.2	-0.1
MAJO				*e*S	S	18 14 10.3	-1.1
MAT	Matsushiro	3.02	11	P	P	18 13 24.4	0.0
MAT				S	S	18 14 10.3	-1.1
MAT	Matsushiro	3.02	11	*e*P	P	18 13 24.0	-0.4
MAT				*e*S	S	18 14 10.0	-1.4
JMN	Monobe	3.04	274	P	P	18 13 24.6	+0.1
BSO1	Boso 1	3.07	68	P	P	18 13 23.1	-1.7
BSO1				S	S	18 14 10.1	-2.1
JHS	Saijyo	3.91	293	P	P	18 13 33.3	+0.3
JTO	Tosashimizu	4.02	261	P	P	18 13 33.8	-0.2
ASAJ	Asahikawa	11.25	19	P	P	18 14 57.5	-0.7
	0.9nm,0.3s,baz=237,slow=11,SNR=5.8						
ASAJ	Asahikawa	11.25	19	P	P	18 14 57.5	-0.7
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
WHN	Wuhan	19.86	268	P	P	18 16 31.7	+0.8
HIA	Hailar	20.50	325	*e*P	P	18 16 36.3	-0.7
	comp=Z,5.4nm,0.8s						
ENH	Enshi	23.99	270	*e*P	P	18 17 08.2	-1.7
	comp=Z,17nm,0.7s,mb4.4						
ULN	Ulaanbaatar	26.94	311	*e*P	P	18 17 37.1	+0.7
	comp=Z,2.1nm,0.6s,mb3.5						
SONM	Songino Array	27.34	311	P	P	18 17 40.9	+0.9
	comp=Z,2.0nm,0.8s,mb3.4,baz=102,slow=8.2,SNR=12						
CMAR	Chiang Mai Arr	37.55	256	P	P	18 19 07.8	+0.3
	comp=Z,1.5nm,0.5s,mb3.5,baz=46,slow=8.1,SNR=12						
CMAR	Chiang Mai Arr	37.55	256	P	P	18 19 07.9	+0.3
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ZAL	Zalesovo	42.02	315	P	P	18 19 44.1	+0.5
	comp=Z,1.0nm,0.3s,mb3.4,baz=24,slow=8.2,SNR=4.5						
ZAL	Zalesovo	42.02	315	P	P	18 19 44.1	+0.5
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KURK	Kurchatov	45.65	310	*e*P	P	18 20 12.0	-0.5
	comp=Z,3.0nm,0.3s,mb3.9						
AML	Almayashu	50.07	299	*e*P	P	18 20 46.7	+0.4
	comp=Z,1.8nm,0.4s,mb3.6						
CHKZ	Chkalovo	50.41	315	*e*P	P	18 20 48.1	-0.7
	comp=Z,3.4nm,0.9s,mb3.6						
BVAR	Borovoye Array	50.61	314	P	P	18 20 50.1	-0.1
	comp=Z,0.8nm,0.4s,mb3.4,baz=106,slow=9.1,SNR=12						
BRVK	Borovoye	50.67	314	*e*P	P	18 20 50.4	-0.2
	comp=Z,1.3nm,0.5s,mb3.4						
FITZ	Fitzroy Crossi	52.62	194	P	P	18 21 05.3	-0.2
	comp=Z,1.5nm,1.0s,mb3.3,baz=67,slow=13,SNR=4.3						
WRAB	Tennant Creek	53.29	184	*e*P	P	18 21 09.4	-0.9
	comp=Z,2.7nm,0.4s,mb3.9						
WB2	Warramunga Arr	53.30	184	*e*P	P	18 21 09.7	-0.6
WRA	Warramunga Arr	53.30	184	P	P	18 21 09.7	-0.7
	comp=Z,1.1nm,0.5s,mb3.5,baz=0.8,slow=7.7,SNR=31						
WRA	Warramunga Arr	53.30	184	P	P	18 21 09.7	-0.6
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ARU	Arti	56.88	319	*e*P	P	18 21 34.3	-0.8
	comp=Z,2.9nm,0.5s,mb3.9						
ASAR	Alice Springs	57.02	184	P	P	18 21 36.2	-0.3
	comp=Z,0.5nm,0.3s,mb3.3,baz=358,slow=3.8,SNR=35						
ASPA	Alice Springs	57.02	184	*e*P	P	18 21 36.4	-0.2
ARCES	ARCESS Array B	66.10	339	P	P	18 22 36.5	+0.8
	comp=Z,4.8nm,0.9s,mb4.2,baz=60,slow=9.8,SNR=5.5						
ARCES	ARCESS Array B	66.10	339	P	P	18 22 36.5	+0.8
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	ARCESS Array B	66.10	339	P	P	18 22 36.5	+0.8
JOF	Joensuu	67.50	332	*e*p	P	18 22 44.0	-0.5
KAF	Kangasniemi	69.90	332	*e*p	P	18 22 59.0	-0.1
	comp=Z,2.2nm,0.4s,mb4.2						
KAF	Kangasniemi	69.90	332	*e*P	P	18 22 59.0	-0.1
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
FINES	FINESS Array B	70.37	332	P	P	18 23 02.3	+0.4
	comp=Z,2.4nm,0.4s,mb4.3,baz=58,slow=6.4,SNR=53						
FINES	FINESS Array B	70.37	332	P	P	18 23 02.3	+0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG	Malin Array Be	75.04	321	P	P	18 23 29.4	0.0
	comp=Z,0.6nm,0.3s,mb3.8,baz=50,slow=5.6,SNR=7.2						
AKASG	Malin Array Be	75.04	321	P	P	18 23 29.4	0.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
HFS	Hagfors	75.89	335	P	P	18 23 34.4	+0.5
	comp=Z,4.2nm,0.9s,mb4.2,baz=90,slow=3.0,SNR=9.6						
HFS	Hagfors	75.89	335	P	P	18 23 34.4	+0.5
HFS				pmax	pmax		
	comp=Z,4.0nm,0.9s						
NB2	NORSAR Subarra	76.10	336	P	P	18 23 35.5	+0.4
	comp=Z,0.2nm,0.7s,mb3.0,baz=50,slow=5.8						
NOA	NORSAR Array B	76.10	336	P	P	18 23 35.8	+0.7
	comp=Z,1.2nm,0.6s,mb3.8,baz=45,slow=5.6,SNR=4.4						
NOA	NORSAR Array B	76.10	336	P	P	18 23 35.8	+0.7
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRTR	Keskin Array B	78.70	310	P	P	18 23 50.5	+0.8
	comp=Z,0.7nm,0.7s,mb3.5,baz=108,slow=3.9,SNR=5.2						
BRTR	Keskin Array B	78.70	310	P	P	18 23 50.5	+0.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	GERESS Array B	83.90	326	P	P	18 24 17.4	+1.1
	comp=Z,0.3nm,0.4s,mb3.5,baz=22,slow=7.2,SNR=4.1						

IDC 06 18:13:57.0±7.0,**18.64S**×**173.72W**,**mb3.8**/2,**mb1 4.1**/2, **mb1mx3.8**/15,**Error ellipse: s-maj=381.0km s-min=45.6km az=147.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	48.88	260	P	P	18 22 45.5	-1.2
	0.4nm,0.7s,baz=99,slow=7.4,SNR=3.9						
ASAR	Alice Springs	48.89	255	P	P	18 22 44.1	-2.6
	2.6nm,0.8s,baz=84,slow=8.4,SNR=20						
BRTR	Keskin Array B	148.40	317	PKPbc	PKPdf	18 33 46.0	+2.2
	0.5nm,0.6s,baz=90,slow=2.9,SNR=5.2						
GERES	GERESS Array B	149.27	350	PKPbc	PKPdf	18 33 46.5	+1.5
	0.3nm,0.7s,baz=18,slow=4.2,SNR=4.2						

*IDC **06** 18:19:03.5±3.4,16.02N×98.23W,mb4.2/6,mb1 4.4/8, mb1mx4.1/19,MS3.7/4,Ms1 3.6/4,ms1mx3.3/19,Error ellipse: s-maj=65.9km s-min=44.7km az=29.0*

*NEIC **06** 18:19:06.6,15.98N×98.54W,h10^{km},mb4.6/13, MD4.6(MEX),After MEX.*

*MEX **06** 18:19:06.5±1.3,15.97N×98.54W,h10^{km},MD4.6*

*BJI **06** 18:19:06.6,16.00N×98.50W,h10^{km},mB4.7,Ms4.5, Msz4.5*

ISC 06 18:19:06.0±0.9,**15.96N**±0.05×**98.47W**±0.03,**h29**^{km}±5^{km}, **n75**,σ**1^{s}.30**/92,**mb4.4**/15,**MS3.6**/4,**Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.54	37	*i* P	Pb	18 19 16.2	-0.8
PNIG				*i* S	Sb	18 19 24.6	+0.1
ACX	Acapulco	1.66	303	*e*P	Pn	18 19 30.1	-3.6
ACX				*i* S	Sn	18 19 50.5	-3.6
ACX	Acapulco	1.66	303	*e*P	Pn	18 19 29.6	-4.0
ACX				*i* S	Sn	18 19 50.5	-3.6
VHO	Vista Hermosa	2.00	56	*i* P	Pn	18 19 39.0	+0.5
VHO				*i* S	Sn	18 20 04.8	+2.0
VHO				*i* S	Sn	18 20 06.6	+3.8
VHO	Vista Hermosa	2.00	56	*i* P	Pn	18 19 39.0	+0.5
VHO				*i* S	Sn	18 20 02.5	-0.3
OXX	Oaxaca	2.01	56	*i* P	Pn	18 19 39.5	+0.8
OXX				*i* S	Sn	18 20 11.2	+8.1
CAIG	El Cayaco	2.04	302	*e*P	Pn	18 19 35.4	-3.7
CAIG				*i* S	Sn	18 20 01.9	-1.9
HUIG	Huatulco	2.28	94	*e*P	Pn	18 19 49.6	+7.1
HUIG				*i* S	Sn	18 20 17.1	+7.1
YAIG	Yautepec	2.94	349	*e*P	Pn	18 19 53.6	+1.6
YAIG				*i* S	Sn	18 20 28.0	+1.2
IIB	San Bernardino	2.99	2	*i* P	Pn	18 19 57.2	+4.5
PPM	Popocatepetl	3.09	357	*e*P	Pn	18 19 54.6	+0.5
PPM				*i* S	Sn	18 20 29.7	-0.8
PPM	Popocatepetl	3.09	357	*e*P	Pn	18 19 54.6	+0.5
PPM				*e*P		18 19 56.9	
PPM				*i* S	Sn	18 20 29.7	-0.8
IISM	Ciudad Serdan	3.19	19	*i* P	Pn	18 20 00.4	+5.0
ZIIG	Zihuatanejo	3.31	300	*e*P	Pn	18 20 00.7	+3.6
ZIIG				*i* S	Sn	18 20 30.5	-5.4
UNM	Universidad Na	3.42	349	*i* P	Pn	18 19 57.7	-1.1
UNM				*i* S	Sn	18 20 41.4	+2.6
UNM	Universidad Na	3.42	349	*i* P	Pn	18 19 57.7	-1.1
UNM				*e*P		18 20 02.8	
UNM				*e*P		18 20 04.5	
UNM				*i* S	Sn	18 20 41.4	+2.6
UNM				*i* S	Sn	18 20 42.3	+3.6
PBVM	Pinon	3.51	350	*e*P	Pn	18 20 02.6	+2.5
PBVM				*i* S	Sn	18 20 43.2	+2.1
CMIG	Matias Romero	3.62	71	*e*P	Pn	18 20 01.2	-0.3
CMIG				*i* S	Sn	18 20 43.6	-0.2
CRX	Cerrillo	3.62	342	*i* P	Pn	18 20 06.0	+4.4

EVV	El Vigia	3.88	50	eP	Pb	18 20 13.9	+0.4
LVIG	Laguna Verde	4.22	27	eP	Pn	18 20 06.5	-3.7
LVIG				i S	Sn	18 21 06.0	+6.8
TUIG	Tuzandepetl	4.39	61	eP	Pn	18 20 12.3	-0.2
TUIG				eS	Sn	18 21 01.5	-1.8
COLM	Colima	5.92	304	i P	Pb	18 20 49.3	+0.8
COLM				i S	Sn	18 21 39.8	-2.0
CGX	Ciudad Guzman	6.07	308	eP	Pb	18 20 50.0	-0.9
CCIG	Comitan	6.09	86	eP	Pn	18 20 39.6	+3.0
CCIG				i S	Sn	18 21 44.5	-1.6
SFJM	Santa Fe	6.26	317	eP	Pn	18 20 23.0	-16
TEIG	Tepich	10.58	65	Sn	S	18 23 29.0	-8.5
	0.0nm,0.3s,baz=176,slow=24,SNR=3.8						
TEIG	Tepich	10.58	65	P	P	18 21 36.0	-3.0
TXAR	Lajitas Array	14.15	341	Pn	P	18 22 26.9	+0.2
	baz=185,slow=15,SNR=4.2						
TXAR				Lg		18 26 29.6	
	0.4nm,0.3s,baz=124,slow=20,SNR=4.0						
TXAR				LR	LR	18 27 36.7	
	comp=Z,640nm,19.2s,baz=240,slow=36						
JTS	JuntasAbangare	14.31	112	eP	P	18 22 33.9	+4.9
	33nm,1.2s						
JCT	Junction City	14.51	355	P	P	18 22 27.9	-3.5
GDL2	Guadalupe Moun	17.03	343	eP	P	18 23 04.7	+0.9
AMTX	Amarillo	19.07	352	P	P	18 23 24.8	-4.1
	15nm,1.0s						
BNM	Barren Site	19.55	339	eP	P	18 23 34.7	+0.3
LPM	Los Pinos Moun	19.70	340	eP	P	18 23 35.5	-0.6
LRAL	Lakeview Retre	19.92	29	eP	P	18 23 36.0	-2.5
	16nm,1.0s						
LAZ	Ladron	19.95	339	eP	P	18 23 38.4	-0.5
OXF	Oxford	20.19	22	eP	P	18 23 38.7	-2.5
	40nm,1.0s						
ANMO	Albuquerque	20.23	341	P	P	18 23 41.2	-0.4
	2.4nm,0.5s,baz=149,slow=10,SNR=9.6						
ANMO				LR	LR	18 31 57.1	
	comp=Z,675nm,21.2s,MS4.0,slow=38						
ANMO	Albuquerque	20.23	341	eP	P	18 23 40.2	-1.4
	47nm,1.8s						
UTMT	University of	22.03	21	eP	P	18 24 00.6	+0.6
WVT	Waverly	22.21	23	eP	P	18 24 01.0	-0.8
	43nm,1.0s,mb4.8						
SDCO	Great Sand Dun	22.57	345	eP	P	18 24 04.2	-1.2
	14nm,1.3s,mb4.2						
MYNC	Murphy	22.97	31	eP	P	18 24 08.3	-0.9
	52nm,1.2s,mb4.8						
RW3	Ridgway	23.64	342	eP	P	18 24 17.9	+2.2
NHSC	New Hope	23.77	41	P	P	18 24 16.4	-0.7
USIN	University of	23.90	21	eP	P	18 24 18.1	-0.2
	123nm,1.2s,mb5.2						
PV10	Paradox Valley	24.19	339	eP	P	18 24 20.3	-0.8
ISCO	Idaho Springs	24.56	347	eP	P	18 24 25.1	+0.5
	34nm,1.5s,mb4.7						
SRU	San Rafael	25.37	338	eP	P	18 24 33.1	+0.7
MSU	Marysvale	25.50	334	eP	P	18 24 34.8	+1.2
TMUT	Trail Mountain	25.79	337	eP	P	18 24 37.1	+0.8
TPNV	Topopah Spring	26.19	326	eP	P	18 24 40.9	+0.9
	29nm,1.6s,mb4.5						
DAU	Daniels Canyon	26.78	338	eP	P	18 24 45.6	+0.1
HWUT	Hardware Ranch	27.95	339	eP	P	18 24 57.2	+1.1
	3.9nm,0.8s,mb4.1						
SDV	Santo Domingo	28.05	101	eP	P	18 24 59.5	+2.2
OMM	Old Mammoth Mi	28.18	324	P	P	18 25 00.3	+2.1
MNV	Mina	28.30	326	eP	P	18 24 59.5	+0.2
	58nm,2.2s,mb4.8						
BW06	Boulder Array	28.36	343	eP	P	18 24 59.2	-0.5
	6.7nm,1.2s,mb4.2						
PDAR	Pinedale Array	28.36	343	P	P	18 24 59.5	-0.1
	1.9nm,1.0s,mb3.7,baz=150,slow=7.3,SNR=9.7						
PDAR				LR	LR	18 38 34.3	
	comp=Z,17nm,21.6s,MS2.6,baz=344,slow=41						
NVAR	Mina Array Bea	28.38	326	P	P	18 25 01.0	+1.1
	6.1nm,1.2s,mb4.1,baz=133,slow=9.4,SNR=12						
ELK	Elko	28.66	333	P	P	18 25 03.3	+0.8
ULM	Lac du Bonnet	34.27	3	P	P	18 25 52.0	+0.3
	1.9nm,0.5s,mb4.3,baz=191,slow=15,SNR=2.3						
ULM				LR	LR	18 41 49.2	
	comp=Z,168nm,18.9s,MS3.8,baz=290,slow=40						
ULM	Lac du Bonnet	34.27	3	P	P	18 25 52.0	+0.3
ULM				LR	LR	18 41 49.2	
SAML	Samuel	42.81	123	P	P	18 27 04.5	+1.1
SCHQ	Schefferville	45.84	25	P	P	18 27 25.4	-1.8
	12nm,1.2s,mb4.7,baz=281,slow=5.2,SNR=2.8						
SCHQ	Schefferville	45.84	25	P	P	18 27 25.4	-1.8
YKA	Yellowknife Ar	47.85	350	P	P	18 27 41.9	-1.1
	0.8nm,0.8s,mb3.8,baz=160,slow=7.3,SNR=9.7						
YKA	Yellowknife Ar	47.85	350	P	P	18 27 41.9	-1.1
ILAR	Eielson Array	58.63	338	P	P	18 29 01.9	-0.7
	4.1nm,1.2s,mb4.3,baz=136,slow=4.5,SNR=17						
SSE	Sheshan	119.66	321	ePKP	PKPdf	18 37 58.2	-0.6
WMQ	Urumqi	120.25	355	PKP	PKPdf	18 37 58.1	-1.5
WMQ				PP	PP	18 39 26.4	+1.9
WMQ				PP	PP		
	comp=Z,59nm,10.8s						
WMQ				LR	LR		
	comp=N,23nm,21.0s,MS3.9						
WMQ				LR	LR		
	comp=E,18nm,20.8s,MS3.9						
WMQ				LR	LR		
	comp=Z,113nm,21.0s,MS4.5						
NJ2	Nanjing	120.35	323	ePKP	PKPdf	18 37 59.1	-1.0
GTA	Gaotai	122.33	343	PKP	PKPdf	18 38 03.0	-0.8
LZH	Lanzhou	124.10	338	ePKP	PKPdf	18 38 06.3	-1.0
LZH				sPKP		18 38 20.7	

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*NEIC **06** 18:47:56.9±0.9, 17.92S×178.24W, h559^{km}±10^{km}, mb4.5/18, Error ellipse: s-maj=15.1km s-min=7.7km az=148.0*

*IDC **06** 18:47:57.6±3.4, 17.98S×178.20W, h563^{km}±40^{km}, mb3.6/14, mb1 3.9/14, mb1mx3.8/17, Error ellipse: s-maj=19.7km s-min=16.2km az=164.0*

ISC 06 18:47:56.3±0.8, **18.0S**±0.1×**178.32W**±0.09, **h564**^{km}±12^{km}, **n93**, σ**1^{s}05**/40, **mb4.2**/27, **2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	7.46	58	eP	P	18 49 48.8	-1.1
	31nm,0.5s						
AFI				eS	S	18 51 20.6	+0.1
URZ	Urewera	20.62	190	P	P	18 51 56.6	-1.9
	29nm,0.9s,baz=3.1,slow=4.2,SNR=8.9						
CNB	Canberra Magne	33.47	232	eP	P	18 53 52.4	+1.7
	12nm,0.5s,mb4.7						
CTA	Charters Tower	33.53	261	eP	P	18 53 52.1	+0.8
	8.7nm,0.7s,mb4.4						
CTAO	Charters Tower	33.53	261	eP	P	18 53 51.5	+0.2
	12nm,0.7s,mb4.5						
PMG	Port Moresby	34.55	280	P	P	18 54 01.6	+1.7
	45nm,0.8s,mb5.0,baz=82,slow=5.8,SNR=36						
PMG	Port Moresby	34.55	280	eP	P	18 54 01.0	+1.1
	56nm,0.9s,mb5.1						
TOO	Toolangi	37.21	231	eP	P	18 54 23.3	+1.8
	7.7nm,0.9s,mb4.2						
STKA	Stephens Creek	38.69	241	eP	P	18 54 35.2	+1.6
	13nm,0.9s,mb4.5						
STKA	Stephens Creek	38.69	241	P	P	18 54 35.5	+1.9
	13nm,0.7s,mb4.5,baz=86,slow=9.2,SNR=18						
WB2	Warramunga Arr	44.70	260	eP	P	18 55 21.1	-0.4
WB2				eS	S	19 01 14.2	-3.6
WRAB	Tennant Creek	44.70	260	eP	P	18 55 20.8	-0.7
	8.8nm,0.6s,mb4.5						
WRAB				ePcP	PcP	18 56 49.9	-2.0
WRA	Warramunga Arr	44.71	260	P	P	18 55 21.3	-0.2
	14nm,0.8s,mb4.5,baz=95,slow=7.1,SNR=143						
WRA				PcP	PcP	18 56 51.6	-0.4
	1.3nm,0.5s,baz=93,slow=3.5,SNR=5.9						
WRA				S	S	19 01 12.6	-5.3
	0.6nm,0.9s,baz=104,slow=21,SNR=3.1						
ASAR	Alice Springs	44.87	254	P	P	18 55 22.9	+0.2
	59nm,0.7s,mb5.2,baz=88,slow=8.4,SNR=695						
ASAR				PcP	PcP	18 56 52.0	-0.5
	2.4nm,0.5s,baz=111,slow=3.0,SNR=8.0						
ASAR				S	S	19 01 17.5	-2.5
	1.4nm,0.9s,baz=92,slow=17,SNR=7.3						
ASPA	Alice Springs	44.87	254	⇓iP	P	18 55 22.9	+0.2
ASPA				eS	S	19 01 17.4	-2.7
KAKA	Kakadu	47.71	269	eP	P	18 55 43.5	-1.0
	17nm,0.6s,mb4.8						
FORT	Forrest	50.07	245	eP	P	18 56 00.9	-1.0
	37nm,0.6s,mb5.0						
FITZ	Fitzroy Crossi	53.11	261	eP	P	18 56 23.8	-0.1
	2.8nm,0.7s,mb3.7						
MBWA	Marble Bar	58.15	256	eP	P	18 56 57.7	-1.1
	8.2nm,0.6s,mb4.1						
VNDA	Vanda	60.41	185	P	P	18 57 13.8	+0.7
	1.0nm,0.7s,mb3.2,baz=331,slow=5.7,SNR=6.5						
VNDA	Vanda	60.41	185	eP	P	18 57 13.3	+0.3
	1.3nm,0.6s,mb3.4						
MAJO	Matsushiro	68.00	323	eP	P	18 58 00.8	-0.6
	5.0nm,0.4s,mb4.4						
YBH	Yreka Blue Hor	78.50	39	P	P	18 59 01.6	+0.9
	2.5nm,0.7s,mb3.6,baz=135,slow=2.9,SNR=3.4						
NVAR	Mina Array Bea	79.39	44	P	P	18 59 06.3	+0.8
	1.4nm,0.8s,mb3.4,baz=210,slow=7.3,SNR=3.2						
ENH	Enshi	84.37	304	eP	P	18 59 31.7	+0.8
	48nm,1.3s,mb4.9						
MCK	McKinley	84.56	13	eP	P	18 59 29.5	-1.5
	1.2nm,0.4s,mb3.8						
ILAR	Eielson Array	85.91	13	P	P	18 59 36.4	-1.2
	1.5nm,0.5s,mb3.9,baz=221,slow=5.1,SNR=36						
TXAR	Lajitas Array	85.94	58	P	P	18 59 39.8	+1.2
	0.4nm,0.3s,mb3.5,baz=217,slow=6.3,SNR=6.0						
BW06	Boulder Array	87.32	43	eP	P	18 59 44.3	-0.4
	1.1nm,0.6s,mb3.7						
PDAR	Pinedale Array	87.32	43	P	P	18 59 45.0	+0.3
	1.5nm,0.9s,mb3.6,baz=217,slow=2.9,SNR=8.4						
CMAR	Chiang Mai Arr	88.98	290	P	P	18 59 54.5	+1.5
	3.9nm,0.9s,mb4.3,baz=107,slow=3.0,SNR=23						
SNAA	Sanae	90.55	179	P	P	18 59 58.6	-0.5
	1.9nm,0.9s,mb4.0						
ULN	Ulaanbaatar	93.25	319	eP	P	19 00 11.8	-0.2
	2.6nm,1.0s,mb4.2						
SONM	Songino Array	93.64	319	P	P	19 00 14.7	+1.0
	0.5nm,0.7s,mb3.8,baz=97,slow=2.9,SNR=4.4						
YKA	Yellowknife Ar	94.33	25	P	P	19 00 15.9	-0.6
	0.5nm,0.6s,mb3.8,baz=245,slow=4.3,SNR=8.3						
AML	Almayashu	115.05	309	ePKPdf	PKPdf	19 05 34.8	+1.1
CHKZ	Chkalovo	116.73	322	ePKPdf	PKPdf	19 05 35.9	-0.6
BRVK	Borovoye	117.00	321	ePKPdf	PKPdf	19 05 36.9	-0.1
ARU	Arti	122.94	326	ePKPdf	PKPdf	19 05 48.6	+0.1
ARCES	ARCESS Array B	126.38	350	PKP	PKPdf	19 05 54.6	-0.2
	4.6nm,0.9s,SNR=6.3						
FINES	FINESS Array B	133.26	344	PKP	PKPdf	19 06 07.5	-0.5
	1.3nm,0.9s,slow=1.9,SNR=4.3						
FINES	FINESS Array B	133.26	344	PKP	PKPdf	19 06 07.5	-0.5
BSEG	Bad Segeberg	143.47	351	ePKPbc	PKPbc	19 06 26.2	+0.6
BRTR	Keskin Array B	144.88	315	PKP	PKPdf	19 06 31.2	+1.9
	7.6nm,0.9s,baz=135,slow=3.5,SNR=29						
KOLS	Kolonicke sedl	144.88	336	ePKP	PKPdf	19 06 31.4	+2.3
KSP	Ksiaz	145.18	344	eP	PKPdf	19 06 31.6	+2.1
CRVS	Cervenica-Dubn	145.21	337	ePKP	PKPdf	19 06 31.8	+2.1
CLZ	Clausthal	145.50	350	ePKPbc	PKPbc	19 06 32.8	+1.5
CLL	Collm	145.53	347	⇓iPKP1	PKPbc	19 06 32.6	+1.2
UPC	Upice	145.56	344	ePKP	PKPdf	19 06 33.3	+3.1
DPC	Dobruska-Polom	145.62	343	ePKP	PKPdf	19 06 33.3	+3.0
BRG	Berggiesshubel	145.73	346	eP	PKPdf	19 06 33.2	+2.7
MORC	Moravsky Berou	145.78	342	ePKPdf	PKPdf	19 06 33.2	+2.6
PVCC	Panska Ves	145.91	345	ePKP	PKPdf	19 06 34.2	+3.4
PRU	Pruhonice	146.41	345	ePKP	PKPdf	19 06 35.4	+3.8
MOX	Moxa	146.43	349	eP	PKPdf	19 06 38.0	+6.3
VYHS	Vyhne	146.49	339	ePKP	PKPdf	19 06 35.8	+4.0
PSZ	Piszkesteto	146.61	338	ePKPdf	PKPdf	19 06 35.9	+3.9
NKC	Novy Kostel	146.66	347	ePKP	PKPdf	19 06 36.0	+3.9
GRA1	Grafenberg Arr	147.42	348	ePKPbc	PKPdf	19 06 38.1	+4.8
KHC	Kasperske Hory	147.44	345	ePKP	PKPdf	19 06 38.2	+4.8
GEC2	GERESS Array S	147.68	345	ePKPbc	PKPdf	19 06 38.5	+4.8
GERES	GERESS Array B	147.68	345	PKPbc	PKPdf	19 06 38.7	+5.0
	6.7nm,0.7s,baz=21,slow=3.1,SNR=51						
GIVF	Givet	147.83	356	ePKP1	PKPdf	19 06 38.9	+5.0
BAIF	Baives	147.91	357	ePKP1	PKPdf	19 06 39.2	+5.1
	13nm,0.7s						
WLF	Walferdange	148.16	354	ePKPbc	PKPdf	19 06 39.9	+5.4
FLN	La Foliniere	149.22	3	ePKP1	PKPdf	19 06 42.0	+5.8
BFO	Black Forest	149.22	351	ePKPbc	PKPdf	19 06 42.2	+6.0
CDF	Champ du Feu	149.28	353	ePKP1	PKPdf	19 06 42.6	+6.3
	11nm,0.6s						
LDF	La Druitiere	149.40	2	ePKP1	PKPdf	19 06 42.3	+5.8
	7.1nm,0.5s						
MEZF	Maizieres J'vi	149.41	356	ePKP1	PKPdf	19 06 43.0	+6.5
GRR	Gorron	149.57	3	ePKP1	PKPdf	19 06 42.9	+6.2
	11nm,0.5s						
SGMF	Saint Gilles	149.58	6	ePKP1	PKPdf	19 06 42.7	+5.9
HAU	Haudompre	149.78	354	ePKP1	PKPdf	19 06 43.6	+6.5
	13nm,0.6s						
PDKS	Podkum	149.87	341	ePKPbc	PKPdf	19 06 43.7	+6.4
HINF	Hinteralfeld	149.92	353	ePKP1	PKPdf	19 06 43.7	+6.4
VISS	Visnje	150.15	341	i PKPdf	PKPdf	19 06 44.5	+6.8
VISS				i		19 06 53.0	
BOJS	Bojanci	150.29	341	ePKPbc	PKPdf	19 06 45.1	+7.1
HYF	Humbligny	150.75	359	ePKP1	PKPdf	19 06 46.3	+7.7
SSF	Saint Saulge	150.93	357	ePKP1	PKPdf	19 06 46.4	+7.5
	8.6nm,0.6s						
CABF	La Chapelle	151.19	354	ePKP1	PKPdf	19 06 47.5	+8.2
AVF	Avril sur Loir	151.21	358	ePKP1	PKPdf	19 06 46.5	+7.2
	4.7nm,0.7s						
MFF	Saint Martin d	151.39	3	ePKP1	PKPdf	19 06 47.1	+7.6
BGF	Bois d'Agland	151.46	358	ePKP1	PKPdf	19 06 47.5	+7.9
	9.2nm,0.7s						
TCF	Toulx Ste Croi	151.74	359	ePKP1	PKPdf	19 06 47.9	+7.9
	11nm,0.9s						
LPL	La Plagne	152.20	352	ePKP1	PKPdf	19 06 49.4	+8.7
LPG	La Plagne	152.21	352	ePKP1	PKPdf	19 06 50.1	+9.4
	4.9nm,0.7s						
BNI	Bardonecchia	152.66	352	ePKPbc	PKPdf	19 06 50.4	+9.1
RJF	Les Rejaudoux	152.73	0	ePKP1	PKPdf	19 06 50.2	+8.8
ORIF	Oris-en-Rattie	152.89	353	ePKP1	PKPdf	19 06 51.0	+9.3
	6.1nm,0.7s						
MBDF	Montbardon	152.97	352	ePKP1	PKPdf	19 06 51.0	+9.2
VIVF	Saint-Julien-l	153.06	355	ePKP1	PKPdf	19 06 51.3	+9.4
ESDC	Sonseca Array	157.81	12	PKPab	PKPab	19 07 25.7	-1.4
	0.3nm,0.6s,baz=335,slow=5.7,SNR=4.6						

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*CSEM **06** 19:19:16.6±0.1, 40.61N×51.89E, h5^{km}, mb3.8/8, Error ellipse: s-maj=4.5km s-min=2.3km az=10.0*

*MOS **06** 19:19:21.5±1.2, 40.75N×51.99E, h33^{km}, mb4.2/7, Error ellipse: s-maj=13.6km s-min=10.3km az=114.2*

*IDC **06** 19:19:22.9±3.6, 40.58N×51.94E, h36^{km}±33^{km}, mb3.8/12, mb1 3.9/16, mb1mx3.8/24, ML3.3/4, MS2.8/1, Ms1 2.8/1, ms1mx2.4/26, Error ellipse: s-maj=28.4km s-min=17.1km az=11.0*

*NEIC **06** 19:19:24.3±1.0, 40.71N×52.03E, h45^{km}±11^{km}, mb3.7/8, Error ellipse: s-maj=13.1km s-min=5.8km az=178.0*

*BJI **06** 19:19:24.3, 40.70N×52.00E, h44^{km}, mb4.2*

*NNC **06** 19:19:35.2±2.2, 41.26N×53.72E, Error ellipse: s-maj=36.2km s-min=21.0km az=114.0*

*THR **06** 19:19:37.6±0.3, 39.17N×50.61E, h14^{km}±13^{km}, ML3.4*

ISC 06 19:19:22.3±0.9, **40.65N**±0.07×**52.00E**±0.05, **h46**^{km}±12^{km}, **n70**, σ**1^{s}16**/80, **mb3.8**/14, **7C-2D, Turkmenistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRMI	Germi	3.66	241	ePG	P	19 20 16.7	-1.2
GRMI				AMP		19 20 58.8	
	comp=N,208nm,0.4s						
DAMV	Damavand	5.01	180	ePN	P	19 20 36.5	-0.4
DAMV				AMP		19 21 32.9	
	comp=E,67nm,0.3s						
DAMV				AMP		19 21 33.2	
	comp=N,97nm,0.6s						
GNI	Garni	5.56	267	Pn	P	19 20 45.1	+0.4
	comp=N,1.3nm,0.3s,baz=342,slow=18,SNR=4.7						
GNI				LR	LR	19 23 11.6	
	comp=N,100nm,20.3s,baz=195,slow=42						
GNI	Garni	5.56	267	P	P	19 20 45.1	+0.4
GNI				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GNI				MLR	MLR		
	comp=Z,100nm,20.3s						
GNI	Garni	5.56	267	ePn	P	19 20 44.8	+0.2
ASAO	Ashtian	6.29	195	ePN	P	19 20 49.5	-5.2
ASAO				eSG	S	19 22 01.2	-4.9
VRSR	Storozhevoye	13.81	324	eP	P	19 22 39.5	+2.4
VRSR				eS	S	19 25 16.3	+6.5
VRSR				pmax	pmax		
	comp=Z,9.0nm,0.6s						
VRSR				pmax	pmax		
	comp=N,5.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.8s						
VRSR				smax			
	comp=N,20nm,0.6s						
VRSR				smax			
	comp=Z,20nm,2.1s						
VRSR				smax			
	comp=E,20nm,0.8s						
VRSR				MLR	MLR		
	comp=Z,680nm,23.0s						
VRSR				MLR	MLR		
	comp=N,490nm,25.0s						
VRSR				MLR	MLR		
	comp=E,50nm,15.0s						
BRTR	Keskin Array B	14.07	272	Pn	P	19 22 42.1	+1.4
	comp=E,0.1nm,0.3s,baz=59,slow=8.4,SNR=2.4						
BRTR	Keskin Array B	14.07	272	Pn	P	19 22 42.0	+1.3
AML	Almayashu	16.34	78	eP	P	19 23 11.9	+2.0
	comp=E,3.7nm,0.8s						
AML	Almayashu	16.34	78	eP	P	19 23 11.9	+2.0
	comp=E,3.7nm,0.8s						
ARU	Arti	16.37	13	⇑iP	P	19 23 09.2	-0.9
ARU				eS	S	19 26 01.4	-8.3
ARU				pmax	pmax		
	comp=Z,12nm,1.1s						
ARU	Arti	16.37	13	eP	P	19 23 08.1	-2.0
	comp=Z,16nm,1.1s						
ARU	Arti	16.37	13	eP	P	19 23 08.1	-2.0
	comp=Z,16nm,1.1s						
EKS2	Erkin-Say	16.40	76	eP	P	19 23 11.4	+0.8
	comp=Z,4.2nm,0.8s						
EKS2	Erkin-Say	16.40	76	eP	P	19 23 11.4	+0.9
	comp=Z,4.2nm,0.8s						
AAK	Ala-Archa	16.93	76	⇑P	P	19 23 14.9	-2.2
	comp=Z,3.7nm,0.9s						
AAK	Ala-Archa	16.93	76	i P	P	19 23 17.7	+0.5
AAK				pmax	pmax		
	comp=Z,4.0nm,1.3s						
AAK	Ala-Archa	16.93	76	eP	P	19 23 16.4	-0.8
	comp=Z,4.7nm,1.1s						
AAK	Ala-Archa	16.93	76	eP	P	19 23 16.4	-0.8
	comp=Z,4.7nm,1.1s						
UCH	Uchtor	16.95	77	eP	P	19 23 17.9	+0.4
UCH	Uchtor	16.95	77	eP	P	19 23 17.9	+0.4
BRVK	Borovoye	17.55	39	eP	P	19 23 24.6	-0.4
	comp=Z,7.3nm,0.8s						
BRVK				eS	S	19 26 25.7	-11
BRVK	Borovoye	17.55	39	eP	P	19 23 24.6	-0.4
	comp=Z,7.3nm,0.8s						
BVA0	Borovoye Array	17.59	39	⇑P	P	19 23 26.0	+0.6
	comp=Z,1.2nm,0.8s,baz=230,slow=14,SNR=47						
BVA0				⇑S	S	19 26 27.1	-10
	comp=Z,1.7nm,0.7s,baz=234,slow=23,SNR=11						
BVAR	Borovoye Array	17.59	39	P	P	19 23 24.9	-0.6
	comp=Z,1.4nm,0.3s,baz=236,slow=11,SNR=40						
BVAR				S	S	19 26 30.7	-6.7
	comp=Z,2.3nm,0.3s,baz=229,slow=22,SNR=12						
TKM2	Tokmak 2	17.73	75	eP	P	19 23 27.5	+0.2
	comp=Z,4.8nm,0.7s						
TKM2	Tokmak 2	17.73	75	eP	P	19 23 27.5	+0.2
	comp=Z,4.8nm,0.7s						
OBN	Obninsk	17.73	330	P	P	19 23 35.9	+8.6
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s						
OBN				MLR	MLR		
	comp=Z,300nm,5.0s						
CHKZ	Chkalovo	18.09	38	⇓P	P	19 23 30.8	-0.9
	comp=Z,2.9nm,0.8s						
CHKZ				⇑S	S	19 26 38.8	-10
	comp=Z,21nm,1.5s						
CHKZ	Chkalovo	18.09	38	eP	P	19 23 30.3	-1.4
	comp=Z,3.3nm,0.7s						
CHKZ	Chkalovo	18.09	38	eP	P	19 23 30.3	-1.4
	comp=Z,3.3nm,0.7s						
AKASG	Malin Array Be	18.76	310	P	P	19 23 37.2	-2.6
	comp=Z,3.8nm,0.3s,baz=111,slow=11,SNR=33						
AKASG				S	S	19 27 05.4	+1.6
	comp=Z,0.3nm,0.3s,baz=113,slow=23,SNR=4.0						
AKASG	Malin Array Be	18.76	310	P	P	19 23 37.2	-2.6
AKASG				S	S	19 27 05.4	+1.5
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.3s						
SOKR	Solikamsk	19.18	7	⇓eP	P	19 23 42.3	-2.3
SOKR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KURK	Kurchatov	21.04	52	⇑P	P	19 24 05.1	+0.8
	comp=Z,4.8nm,0.9s,mb3.8,baz=91,slow=17,SNR=3.7						
KURK				⇑S	S	19 27 48.9	-2.1
	comp=Z,7.2nm,2.3s,baz=275,slow=17,SNR=26						
KURK	Kurchatov	21.04	52	i P	P	19 24 03.8	-0.5
KURK	Kurchatov	21.04	52	eP	P	19 24 04.8	+0.5
	comp=Z,9.0nm,0.8s,mb4.2						
MK31	Makanchi Array	22.65	64	P	P	19 24 22.8	+2.5
	comp=Z,2.2nm,0.7s,mb3.7,baz=238,slow=6.8,SNR=7.2						
JOF	Joensuu	25.48	338	ep	P	19 24 47.4	-0.1
ZAL	Zalesovo	25.65	48	P	P	19 24 50.9	+1.7
	comp=Z,1.2nm,0.5s,mb3.7,baz=216,slow=8.2,SNR=8.7						
ZAL	Zalesovo	25.65	48	P	P	19 24 50.9	+1.8
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ZAL	Zalesovo	25.65	48	P	P	19 24 50.8	+1.7
FINES	FINESS Array B	26.12	332	P	P	19 24 54.0	+0.6
	comp=Z,1.3nm,0.3s,mb3.9,baz=141,slow=11,SNR=22						
FINES	FINESS Array B	26.12	332	P	P	19 24 54.0	+0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
KAF	Kangasniemi	26.49	333	ep	P	19 24 58.2	+1.4
GERES	GERESS Array B	28.17	300	P	P	19 25 12.1	-0.2
	comp=Z,0.6nm,0.4s,mb3.5,baz=89,slow=8.9,SNR=9.7						
GERES	GERESS Array B	28.17	300	P	P	19 25 12.1	-0.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
HFS	Hagfors	30.62	322	P	P	19 25 32.7	-1.3
	comp=Z,1.7nm,0.3s,mb4.3,baz=127,slow=7.2,SNR=9.7						
HFS	Hagfors	30.62	322	P	P	19 25 32.7	-1.3
HFS				pmax	pmax		
	comp=Z,2.0nm,0.4s						
DAVOX	Davos	30.77	296	P	P	19 25 34.9	-0.6
	comp=Z,2.5nm,0.8s,mb4.1,baz=144,slow=14,SNR=3.5						
DAVOX	Davos	30.77	296	P	P	19 25 34.8	-0.7
DAVOS	Davos	30.83	296	P	P	19 25 34.9	-1.0
NB2	NORSAR Subarra	32.09	323	P	P	19 25 45.9	-1.0
	comp=Z,0.9nm,0.6s,mb3.8,baz=95,slow=7.4						
NOA	NORSAR Array B	32.09	323	P	P	19 25 45.8	-1.1
	comp=Z,1.1nm,0.6s,mb3.9,baz=112,slow=8.4,SNR=5.3						
NOA	NORSAR Array B	32.09	323	P	P	19 25 45.8	-1.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARCES	ARCESS Array B	32.12	343	P	P	19 25 47.1	+0.1
	comp=Z,2.6nm,0.9s,mb4.1,baz=146,slow=9.8,SNR=4.3						
ARCES	ARCESS Array B	32.12	343	P	P	19 25 47.1	0.0
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	32.12	343	P	P	19 25 47.2	+0.1
EKA	Eskdalemuir Ar	38.66	311	P	P	19 26 42.9	+0.1
	comp=Z,4.0nm,0.5s,mb4.4,baz=94,slow=8.2,SNR=18						
EKA	Eskdalemuir Ar	38.66	311	P	P	19 26 42.9	+0.1
EKA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ESDC	Sonseca Array	42.16	288	P	P	19 27 12.5	+0.7
	comp=Z,0.2nm,0.4s,mb3.1,baz=64,slow=8.4,SNR=4.1						
CMAR	Chiang Mai Arr	45.79	105	P	P	19 27 41.5	+0.2
	comp=Z,0.4nm,0.6s,mb3.6,baz=301,slow=7.8,SNR=4.8						
CMAR	Chiang Mai Arr	45.79	105	P	P	19 27 41.5	+0.1
NJ2	Nanjing	53.37	77	eP	P	19 28 44.8	+5.4
YKA	Yellowknife Ar	76.65	354	P	P	19 31 09.3	0.0
	comp=Z,0.1nm,0.4s,mb3.1,baz=3.8,slow=5.4,SNR=5.7						
YKA	Yellowknife Ar	76.65	354	i P	P	19 31 09.7	+0.4
YKA	Yellowknife Ar	76.65	354	P	P	19 31 09.4	+0.1
WRA	Warramunga Arr	97.15	110	P	P	19 32 50.5	-0.6
	comp=Z,0.6nm,1.1s,mb3.9,baz=318,slow=4.0,SNR=5.7						
WRA	Warramunga Arr	97.15	110	P	P	19 32 50.5	-0.7
WRA				pmax	pmax		
	comp=Z,1.0nm,1.1s						

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*IDC **06** 19:31:54.2±1.7, 43.69N×105.37W, mb1 3.7/4, mb1mx3.4/20, ML3.4/4, Error ellipse: s-maj=43.2km s-min=8.8km az=149.0*

NEIC 06 19:31:53.7±0.6, **43.63N**×**105.14W, ML3.2, Error ellipse: s-maj=7.7km s-min=5.8km az=108.0, Suspected Mining explosion., Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PHWY	Pilot Hill	2.34	186	ePn	Pn	19 32 33.2	-0.7
PHWY				ePg	Pg	19 32 37.5	-2.9
PHWY				eSn	Sn	19 33 02.0	-1.8
PHWY				eSg	Sg	19 33 09.0	-2.6
RWWY	Rawlins	2.47	219	ePg	Pg	19 32 38.9	-4.1
RWWY				eSg	Sg	19 33 12.0	-3.9
LAO	LASA Array	3.15	346	ePn	Pn	19 32 43.9	-1.7
BW06	Boulder Array	3.34	257	ePn	Pn	19 32 48.2	-0.1
BW06				eSn	Sn	19 33 28.1	-1.2
PDAR	Pinedale Array	3.34	257	Pn	Pn	19 32 48.3	0.0

	2.7nm,0.3s,baz=71,slow=16,SNR=47						
PDAR				Lg		19 33 33.9	
	9.9nm,0.3s,baz=77,slow=33,SNR=11						
ISCO	**Idaho Springs**	**3.84**	**185**	Pn	Pn	19 32 54.7	-0.7
ISCO				*e*Pg	Pg	19 33 06.1	-4.3
ISCO				*e*Sg	Sg	19 33 56.8	-4.9
GCMT	**Greycliff**	**3.88**	**305**	*e*Pn	Pn	19 32 55.0	-0.9
LOHW	**Long Hollow**	**3.97**	**272**	Pn	Pn	19 32 56.1	-1.0
LOHW				*e*Pb	Pb	19 33 03.3	-1.0
LOHW				*e*Sg	Sg	19 33 59.3	-6.5
SNOW	**Snow King Moun**	**4.09**	**270**	*e*Pn	Pn	19 32 58.3	-0.5
YNR	**Norris Junctio**	**4.13**	**287**	*e*Pb	Pb	19 33 07.5	+0.4
REDW	**Red Top Meadow**	**4.17**	**268**	*e*Pb	Pb	19 33 06.3	-1.4
IMW	**Indian Meadow**	**4.21**	**276**	*e*Pn	Pn	19 32 59.7	-0.9
TPAW	**Teton Pass**	**4.23**	**270**	*e*Pn	Pn	19 32 60.0	-0.8
TPAW				*e*Pb	Pb	19 33 08.9	+0.2
YMR	**Madison River**	**4.32**	**286**	*e*Pb	Pb	19 33 09.0	-1.3
QLMT	**Earthquake Lak**	**4.68**	**287**	Pn	Pn	19 33 06.7	-0.5
QLMT				*e*Pb	Pb	19 33 17.0	+0.5
DGMT	**Dagmar**	**4.88**	**7**	*e*Pn	Pn	19 33 09.6	-0.6
BOZ	**Bozeman (W)**	**5.05**	**296**	*e*Pb	Pb	19 33 22.5	-0.4
	2.1nm,0.6s						
HWUT	**Hardware Ranch**	**5.16**	**249**	*e*Pn	Pn	19 33 12.9	-1.1
	4.4nm,0.4s						
HWUT				*e*Sg	Sg	19 34 35.7	-10
DAU	**Daniels Canyon**	**5.58**	**237**	*e*Pn	Pn	19 33 20.0	+0.1
HRY	**Holter Researc**	**5.64**	**305**	*e*Pn	Pn	19 33 17.9	-2.9
MCMT	**McKenzie Canyo**	**5.67**	**285**	*e*Pn	Pn	19 33 19.2	-2.0
SPUT	**South Promonto**	**5.88**	**249**	*e*Pn	Pn	19 33 23.2	-1.0
SPUT				*e*Pg	Pg	19 33 44.6	-6.5
SRU	**San Rafael**	**6.07**	**224**	*e*Pn	Pn	19 33 26.2	-0.6
TMUT	**Trail Mountain**	**6.29**	**229**	*e*Pn	Pn	19 33 30.1	+0.1
TMUT				*e*Sg	Sg	19 35 13.6	-9.4
BGU	**Big Grassy Mou**	**6.45**	**248**	*e*Pn	Pn	19 33 30.7	-1.5
CHMT	**Chamberlain Mo**	**6.60**	**303**	*e*Pn	Pn	19 33 31.6	-2.7
HLID	**Hailey**	**6.74**	**273**	*e*Pn	Pn	19 33 36.6	+0.4
MSU	**Marysvale**	**7.38**	**228**	*e*Pn	Pn	19 33 45.1	-0.1
MVU	**Marysvale**	**7.40**	**229**	*e*Pn	Pn	19 33 43.3	-2.3
	1.8nm,0.4s						
ULM	**Lac du Bonnet**	**9.16**	**40**	Pn	P	19 34 06.1	-4.0
	1.6nm,0.3s,baz=227,slow=10,SNR=9.9						
ULM				Lg		19 36 39.4	
	0.4nm,0.3s,baz=131,slow=16,SNR=3.8						
NVAR	**Mina Array Bea**	**11.22**	**247**	Pn	P	19 34 38.3	0.0
	0.1nm,0.3s,baz=54,slow=12,SNR=4.3						
YKA	**Yellowknife Ar**	**19.69**	**347**	P	P	19 36 23.5	-3.5
	0.1nm,0.3s,baz=161,slow=12,SNR=5.6						

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*NEIC **06** 19:46:39.2, 15.99N×98.58W, h15^{km}, MD4.3(MEX), After MEX.*

MEX 06 19:46:39.2±1.4**, 15.98N×98.58W, h15**^{km}±26^{km}**, MD4.3, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.59**	**47**	*i* P	Pb	19 46 48.4	-2.3
PNIG				*i* S	Sb	19 46 56.1	-2.5
ACX	**Acapulco**	**1.56**	**305**	*i* P	Pn	19 47 02.6	-3.9
ACX				*i* S	Sn	19 47 21.9	-4.6
CAIG	**El Cayaco**	**1.94**	**303**	*e*P	Pn	19 47 09.5	-2.5
CAIG				*i* S	Sn	19 47 30.6	-5.6
VHO	**Vista Hermosa**	**2.07**	**58**	*i* P	Pn	19 47 11.0	-3.0
VHO				*i* S	Sn	19 47 36.1	-3.6
OXX	**Oaxaca**	**2.09**	**58**	*i* P	Pn	19 47 11.8	-2.4
HUIG	**Huatulco**	**2.38**	**95**	*i* P	Pn	19 47 15.7	-2.7
HUIG				*i* S	Sn	19 47 41.9	-5.7
PLIG	**Platanillo**	**2.55**	**340**	*e*P	Pn	19 47 17.3	-3.5
YAIG	**Yautepec**	**2.90**	**351**	*e*P	Pn	19 47 23.8	-2.0
YAIG				*i* S	Sn	19 47 59.6	-1.1
PPM	**Popocatepetl**	**3.07**	**359**	*i* P	Pn	19 47 27.8	-0.4
PPM				*i* S	Sn	19 48 10.3	+5.4
PPM	**Popocatepetl**	**3.07**	**359**	*i* P	Pn	19 47 27.8	-0.4
PPM				*e*P		19 47 28.7	
PPM				*i* S	Sn	19 48 10.3	+5.4
PPM				*i* S	Sn	19 48 11.9	+7.0
IISM	**Ciudad Serdan**	**3.20**	**21**	*i* P	Pn	19 47 30.7	+0.6
IISM				*i* S	Sn	19 48 14.2	+6.0
ZIIG	**Zihuatanejo**	**3.20**	**301**	*i* P	Pn	19 47 35.4	+5.3
ZIIG				*i* S	Sn	19 48 10.3	+2.0
UNM	**Universidad Na**	**3.38**	**350**	*e*P	Pn	19 47 37.5	+5.0
UNM				*i* S	Sn	19 48 17.2	+4.5
CRX	**Cerrillo**	**3.56**	**343**	*e*P	Pn	19 47 39.0	+3.8
CMIG	**Matias Romero**	**3.71**	**72**	*e*P	Pn	19 47 32.4	-4.8
CMIG				*i* S	Sn	19 48 15.8	-5.3
EVV	**El Vigia**	**3.94**	**51**	*i* P	Pn	19 47 36.4	-4.2
LVIG	**Laguna Verde**	**4.25**	**29**	*i* P	Pn	19 47 55.2	+10
LVIG				*i* S	Sn	19 48 30.0	-4.9
CCIG	**Comitan**	**6.20**	**86**	*i* P	Pn	19 48 57.0	+45

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*IDC **06** 19:46:59.8±1.4, 11.41S×161.43E, mb4.0/8, mb1 4.3/8, mb1mx4.2/15, MS3.7/3, Ms1 3.7/3, ms1mx3.4/18, Error ellipse: s-maj=59.7km s-min=22.7km az=146.0*

*NEIC **06** 19:47:02.0±0.9, 11.20S×161.33E, h10^{km}, mb4.7/3, Error ellipse: s-maj=35.5km s-min=14.9km az=142.0*

ISC 06 19:47:04.1±1.3**, 11.2S**±0.2×**161.2E**±0.2**, h33**^{km}**, n16, σ1**^{s}**03**/11**, mb4.0**/11**, MS3.6**/2**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**16.86**	**237**	LR	LR	19 56 37.5	
	comp=Z,212nm,18.0s,baz=288,slow=34						
WRA	**Warramunga Arr**	**27.25**	**248**	P	**P**	**19 52 47.4**	**-0.1**
	5.0nm,0.9s,mb4.0,baz=73,slow=9.7,SNR=5.0						
STKA	**Stephens Creek**	**27.38**	**218**	LR	LR	20 03 08.0	
	comp=Z,266nm,18.5s,MS3.9,baz=29,slow=35						
ASAR	**Alice Springs**	**28.76**	**241**	P	**P**	**19 52 59.7**	**-1.3**
	1.2nm,0.9s,mb3.6,baz=61,slow=9.9,SNR=3.7						
ASAR				LR	LR	20 04 26.6	
	comp=Z,95nm,19.3s,MS3.4,baz=140,slow=36						
FITZ	**Fitzroy Crossi**	**35.03**	**255**	P	**P**	**19 53 56.7**	**+0.7**
	1.6nm,0.6s,mb4.2,baz=30,slow=6.8,SNR=5.8						
CMAR	**Chiang Mai Arr**	**68.13**	**295**	P	**P**	**19 58 05.0**	**+1.6**
	0.8nm,0.8s,mb3.8,baz=120,slow=5.0,SNR=5.1						
HIA	**Hailar**	**70.40**	**333**	*e*P	**P**	**19 58 16.0**	**-0.7**
	4.4nm,0.8s,mb4.4						
ULN	**Ulaanbaatar**	**75.89**	**326**	*e*P	**P**	**19 58 49.2**	**+0.2**
	3.0nm,0.8s,mb4.3						
SONM	**Songino Array**	**76.23**	**325**	P	**P**	**19 58 51.7**	**+0.7**
	2.5nm,0.8s,mb4.2,baz=140,slow=5.2,SNR=20						
YAK	**Yakutsk**	**77.08**	**345**	*e*P	**P**	**19 58 54.1**	**-1.4**
	7.0nm,0.7s,mb4.7						
ILAR	**Eielson Array**	**85.15**	**20**	P	**P**	**19 59 36.9**	**-1.0**
	0.2nm,0.5s,mb3.5,baz=237,slow=5.2,SNR=4.2						
NVAR	**Mina Array Bea**	**89.57**	**51**	P	**P**	**20 00 01.5**	**+1.6**
	0.7nm,0.7s,mb4.1,baz=256,slow=6.1,SNR=4.6						
YKA	**Yellowknife Ar**	**97.20**	**28**	P	**P**	**20 00 33.9**	**-0.3**
	0.1nm,0.4s,mb3.6,baz=257,slow=4.5,SNR=4.5						
ARCES	**ARCESS Array B**	**115.35**	**344**	PKP	PKPdf	20 05 43.0	+1.0
	14nm,1.3s,baz=27,slow=2.0,SNR=5.4						
AKASG	**Malin Array Be**	**124.52**	**325**	PKP	PKPdf	20 06 01.2	+1.0
	0.2nm,0.3s,baz=40,slow=2.3,SNR=4.6						
NOA	**NORSAR Array B**	**125.63**	**343**	PKP	PKPdf	20 06 02.2	+0.2
	1.2nm,0.8s,baz=19,slow=5.2,SNR=3.4						

MOS 06 20:06:12.9±2.7**, 43.23N×46.73E, h9**^{km}**, mb3.9**/1**, 2D, Error ellipse: s-maj=25.1km s-min=13.6km az=113.1, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UKTR	**Uchkent**	**0.28**	**114**	*e*PG	Pg	20 06 16.0	-2.7
BUJR	**Buynaksk**	**0.49**	**145**	⇓*i*PG	Pg	20 06 24.0	+1.2
BUJR				*i* S	Sg	20 06 29.5	0.0
BUJR				pmax	pmax		
	comp=Z,147nm,0.1s						
UNCR	**Uncukul**	**0.52**	**175**	⇓*i*PG	Pg	20 06 24.7	+1.3
UNCR				*i* S	Sg	20 06 31.7	+1.3
UNCR				pmax	pmax		
	comp=Z,144nm,0.2s						
MAK	**Makhachkala**	**0.63**	**115**	*e*PG	Pg	20 06 32.0	+6.5
MAK				*e*		20 06 39.0	
MAK				smax			
	comp=N,1μm,0.7s						
MAK				smax			
	comp=E,680nm,0.7s						
XNZR	**Khunzakh**	**0.69**	**182**	*e*PG	Pg	20 06 28.8	+2.1
XNZR				*i* S	Sb	20 06 36.8	+0.8
KMKR	**Kumukh**	**1.13**	**166**	*i* PG	Pg	20 06 36.0	+0.5
KMKR				*e*S	Sb	20 06 51.0	+2.2
KMKR				pmax	pmax		
	comp=Z,64nm,0.2s						
ZEI	**Tsey**	**2.13**	**258**	PN	Pn	20 06 54.5	+5.4
ZEI				S	Sn	20 07 27.6	+12
KIV	**Kislovodsk**	**3.03**	**285**	*e*PN	Pn	20 07 16.0	+14
KIV				*e*		20 07 59.3	
KIV				pmax	pmax		
	comp=N,6.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s						

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*NAO **06** 20:25:55.4±4.4, 61.16N×4.66E, ML2.9*

*CSEM **06** 20:25:55.1±0.3, 62.31N×4.57E, h25^{km}, ML3.8/2, Error ellipse: s-maj=6.2km s-min=3.0km az=126.0*

*BER **06** 20:25:58.0±5.2, 62.19N×5.01E, MD2.5, ML2.3, ML2.9(NAO)*

ISC 06 20:25:55.7±1.2**, 62.21N**±0.05×**4.8E**±0.1**, h10**^{km}**, n24, σ1**^{s}**24**/43**, 2D, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FOO	**Floro**	**0.63**	**170**	⇓*i*P	**Pb**	**20 26 09.2**	**+0.9**
FOO				*e*Sg	**Sg**	**20 26 19.0**	**+2.3**
FOO				AML	AML	20 26 23.6	
	comp=Z,89nm,0.2s						
FOO	**Floro**	**0.63**	**170**	⇓*i*P	**Pb**	**20 26 09.2**	**+1.0**
	SNR=90						
FOO				*e*Sg	**Sg**	**20 26 19.0**	**+2.3**
	comp=Z,89nm,0.2s,SNR=90						
SUE	**Sulen**	**1.16**	**181**	*e*P	**Pb**	**20 26 18.3**	**+0.9**
SUE				*e*S	**Sb**	**20 26 34.4**	**+2.1**
SUE				AML	AML	20 26 40.6	
	comp=Z,47nm,0.3s						
SUE	**Sulen**	**1.16**	**181**	*e*P	**Pb**	**20 26 18.3**	**+0.9**
	SNR=90						
SUE				*e*S	**Sb**	**20 26 34.4**	**+2.1**
	comp=Z,47nm,0.3s,SNR=90						
HYA	**Hoyanger**	**1.24**	**147**	*e*P	**Pb**	**20 26 19.0**	**+0.3**
HYA				*e*Sg	**Sg**	**20 26 36.9**	**0.0**
HYA				AML	AML	20 26 38.1	
	comp=Z,102nm,0.1s						
HYA	**Hoyanger**	**1.24**	**147**	*e*P	**Pb**	**20 26 19.0**	**+0.3**
	SNR=90						
HYA				*e*Sg	**Sg**	**20 26 36.9**	**-0.1**
	comp=Z,102nm,0.1s,SNR=90						
MOL	**Molde**	**1.32**	**73**	*e*P	**Pb**	**20 26 22.4**	**+2.2**
MOL				*e*S	**Sb**	**20 26 38.1**	**+1.1**
MOL				AML	AML	20 26 42.5	
	comp=Z,64nm,0.4s						
MOL	**Molde**	**1.32**	**73**	*e*S	**Sb**	**20 26 38.1**	**+1.1**
	comp=Z,64nm,0.4s,SNR=70						
ASK	**Askoy**	**1.75**	**174**	*e*P	**Pn**	**20 26 26.4**	**+0.2**
ASK				*e*S	**Sn**	**20 26 48.4**	**-0.4**
ASK				AML	AML	20 26 57.0	
	comp=Z,89nm,0.4s						
ASK	**Askoy**	**1.75**	**174**	*e*P	**Pn**	**20 26 26.5**	**+0.2**
	SNR=50						
ASK				*e*S	**Sn**	**20 26 48.4**	**-0.3**
	comp=Z,89nm,0.4s,SNR=50						
RUND	**Rundenannen**	**1.82**	**171**	*e*P	**Pn**	**20 26 27.6**	**+0.1**
RUND				*e*S	**Sn**	**20 26 50.9**	**+0.1**
RUND				AML	AML	20 26 52.1	
	comp=Z,36nm,0.4s						
RUND	**Rundenannen**	**1.82**	**171**	*e*P	**Pn**	**20 26 27.6**	**+0.2**
	SNR=50						
RUND				*e*S	**Sn**	**20 26 50.9**	**+0.1**
	comp=Z,36nm,0.4s,SNR=50						
BER	**Bergen**	**1.85**	**172**	*e*S	**Sn**	**20 26 51.6**	**+0.1**
BER				AML	AML	20 26 55.2	
	comp=Z,91nm,0.2s						
BER	**Bergen**	**1.85**	**172**	*e*S	**Sn**	**20 26 51.6**	**+0.1**
	comp=Z,91nm,0.2s,SNR=50						
EGD	**Espegrend**	**1.96**	**174**	*e*P	**Pn**	**20 26 29.2**	**-0.1**
EGD				*e*S	**Sn**	**20 26 53.8**	**-0.3**
EGD				AML	AML	20 27 03.0	
	comp=Z,114nm,0.4s						
EGD	**Espegrend**	**1.96**	**174**	*e*P	**Pn**	**20 26 29.2**	**-0.1**
	SNR=50						
EGD				*e*S	**Sn**	**20 26 53.8**	**-0.4**
	comp=Z,114nm,0.4s,SNR=50						
DOMB	**Dombas**	**2.00**	**93**	*e*P	**Pn**	**20 26 29.7**	**-0.3**
DOMB				*e*S	**Sn**	**20 26 56.6**	**+1.3**
DOMB				AML	AML	20 26 57.3	
	comp=Z,62nm,0.3s						
DOMB	**Dombas**	**2.00**	**93**	*e*P	**Pn**	**20 26 29.7**	**-0.3**
	SNR=50						
DOMB				*e*S	**Sn**	**20 26 56.6**	**+1.3**
	comp=Z,62nm,0.3s,SNR=50						
ODD1	**Odda**	**2.47**	**158**	*e*P	**Pn**	**20 26 35.5**	**-1.2**
ODD1				*e*S	**Sn**	**20 27 05.6**	**-1.6**
ODD1				AML	AML	20 27 17.2	
	comp=Z,18nm,0.4s						
ODD1	**Odda**	**2.47**	**158**	*e*S	**Sn**	**20 27 05.6**	**-1.6**
	comp=Z,18nm,0.4s,SNR=50						
KMY	**Karmoy**	**3.02**	**176**	*e*P	**Pn**	**20 26 43.8**	**-0.7**
KMY				*e*S	**Sn**	**20 27 18.0**	**-3.1**
KMY	**Karmoy**	**3.02**	**176**	*e*S	**Sn**	**20 27 18.0**	**-3.1**
	SNR=50						
NB2	**NORSAR Subarra**	**3.27**	**108**	Pn	**Pn**	**20 26 46.1**	**-2.0**
NB2				Sn	**Sn**	**20 27 26.3**	**-1.3**
NB2				Lg		20 27 33.5	
HFS	**Hagfors**	**4.78**	**112**	Pn	**Pn**	**20 27 06.9**	**-2.6**
	baz=284,slow=14						
HFS				Sn	**Sn**	**20 27 59.7**	**-5.9**
	baz=286,slow=28						
HFS				Lg		20 28 18.9	
	baz=293,slow=37						

CASC 06 20:25:59.1±2.5**, 13.86N×92.20W, h71**^{km}±35^{km}**, MD4.0, 4C-4D, Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	**0.71**	**50**	⇓*e*P	P	20 26 14.1	-0.3
JAT				*e*S	S	20 26 26.8	+1.1
FUG	**Fuego 3**	**1.44**	**66**	⇓*e*P	P	20 26 23.1	-0.7
TP2	**Tecpan 2**	**1.47**	**51**	⇓*e*P	P	20 26 24.2	0.0
IXG	**Ixpaco**	**1.72**	**79**	⇑*e*P	P	20 26 26.6	-1.0
IXG				*e*S	S	20 26 50.0	+1.5
NBG	**Las Nubes**	**1.94**	**68**	⇓*e*P	P	20 26 31.6	+1.1
NBG				*e*S	S	20 26 58.0	+4.4
RBDL	**Robledal**	**2.45**	**84**	⇑*e*P	P	20 26 38.4	+0.6
RBDL				*e*S	S	20 27 06.1	-0.5
RTR	**El Retiro**	**2.48**	**89**	*e*P	P	20 26 38.6	+0.5
RTR				*e*S	S	20 27 07.8	+0.6
SBLS	**San Blas**	**2.50**	**90**	*e*P	P	20 26 38.5	+0.1
SBLS				*e*S	S	20 27 08.1	+0.3
SNJE	**San Jose**	**2.52**	**89**	⇑*e*P	P	20 26 39.1	+0.5
LFRS	**El Faro**	**3.05**	**94**	⇑*e*P	P	20 26 46.2	0.0
LFRS				*e*S	S	20 27 21.4	-0.3
LCBS	**La Ceiba**	**3.13**	**93**	*e*P	P	20 26 47.4	+0.1
LCBS				*e*S	S	20 27 23.5	-0.2

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*NEIC **06** 20:30:48.5±0.5, 3.26S×138.96E, h10^{km}, mb4.1/1, Error ellipse: s-maj=16.0km s-min=7.7km az=94.0*

*IDC **06** 20:30:52.6±4.3, 3.33S×138.89E, h38^{km}±36^{km}, mb3.7/7, mb1 4.1/11, mb1mx4.0/15, ML3.9/4, MS3.0/3, Ms1 3.0/3, ms1mx2.9/18, Error ellipse: s-maj=31.1km s-min=12.9km az=92.0*

ISC 06 20:30:54.4±2.3**, 3.51S**±0.07×**138.81E**±0.07**, h74**^{km}±22^{km}**, n18, σ1**^{s}**00**/26**, mb3.7**/6**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**10.15**	**126**	Pn	**P**	**20 33 24.1**	**+4.5**
	0.5nm,0.3s,baz=315,slow=14,SNR=2.7						
PMG				Sn	**S**	**20 35 11.5**	**-1.1**
	0.1nm,0.3s,baz=290,slow=18,SNR=2.1						
PMG	**Port Moresby**	**10.15**	**126**	Pn	**P**	**20 33 24.1**	**+4.5**
PMG				Sn	**S**	**20 35 11.5**	**-1.1**
KAKA	**Kakadu**	**11.11**	**214**	*e*P	**P**	**20 33 31.4**	**-1.1**
	46nm,0.7s						
KAKA				*e*S	**S**	**20 35 35.3**	**-0.4**
WB2	**Warramunga Arr**	**16.90**	**195**	*e*P	**P**	**20 34 49.4**	**+1.8**
WB2				*e*S	**S**	**20 37 48.3**	**-3.5**
WRA	**Warramunga Arr**	**16.90**	**195**	P	**P**	**20 34 47.4**	**-0.3**
	1.2nm,0.3s,baz=4.5,slow=13,SNR=42						
WRA				S	**S**	**20 37 50.9**	**-1.0**
	0.6nm,0.3s,baz=15,slow=22,SNR=5.2						
CTA	**Charters Tower**	**18.00**	**157**	P	**P**	**20 35 01.6**	**+0.3**
	0.3nm,0.3s,baz=308,slow=5.1,SNR=3.6						
CTA				LR	LR	20 42 29.2	
	comp=Z,50nm,18.6s,baz=45,slow=38						
FITZ	**Fitzroy Crossi**	**19.41**	**221**	*e*P	**P**	**20 35 18.1**	**+0.7**
	6.4nm,0.6s						
FITZ				*e*S	**S**	**20 38 46.1**	**-1.2**
FITZ	**Fitzroy Crossi**	**19.41**	**221**	P	**P**	**20 35 17.4**	**+0.1**
	0.7nm,0.3s,baz=24,slow=10,SNR=23						
FITZ				S	**S**	**20 38 47.7**	**+0.4**
	1.1nm,0.3s,baz=183,slow=14,SNR=5.9						
FITZ				LR	LR	20 42 29.5	
	comp=Z,32nm,19.6s,baz=60,slow=36						
ASAR	**Alice Springs**	**20.59**	**193**	P	**P**	**20 35 31.6**	**+1.8**
	11nm,0.5s,baz=17,slow=10,SNR=82						
ASAR				S	**S**	**20 39 21.4**	**+11**
	5.6nm,0.9s,baz=15,slow=25,SNR=6.4						
ASAR				LR	LR	20 44 02.2	
	comp=Z,65nm,18.4s,baz=22,slow=38						
ASPA	**Alice Springs**	**20.59**	**193**	*e*P	**P**	**20 35 31.5**	**+1.8**
ASPA				*e*S	**S**	**20 39 19.1**	**+8.4**
CMAR	**Chiang Mai Arr**	**44.92**	**301**	P	**P**	**20 39 04.0**	**-0.1**
	1.9nm,0.5s,mb4.1,baz=118,slow=6.3,SNR=18						
SONM	**Songino Array**	**58.48**	**335**	P	**P**	**20 40 44.4**	**-0.8**
	0.2nm,0.6s,mb3.3,baz=154,slow=6.4,SNR=2.7						
KURK	**Kurchatov**	**74.43**	**325**	P	**P**	**20 42 25.8**	**-0.5**
VNDA	**Vanda**	**74.97**	**175**	P	**P**	**20 42 29.9**	**+0.9**
	1.0nm,0.8s,mb3.6,baz=312,slow=6.7,SNR=4.5						
BVAR	**Borovoye Array**	**80.02**	**325**	P	**P**	**20 42 57.0**	**-0.5**
	0.8nm,0.6s,mb3.7,baz=112,slow=8.0,SNR=6.9						
ILAR	**Eielson Array**	**86.52**	**24**	P	**P**	**20 43 30.6**	**+0.5**
	0.2nm,0.6s,mb3.2,baz=265,slow=4.2,SNR=4.1						
INK	**Inuvik**	**92.38**	**22**	P	**P**	**20 43 57.1**	**-0.6**
	0.8nm,0.6s,mb4.1,baz=144,slow=10,SNR=4.5						
LPAZ	**La Paz**	**146.89**	**127**	PKPbc	PKPbc	20 50 32.5	+3.5
	1.4nm,0.7s,baz=284,slow=1.6,SNR=7.3						

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*CSEM **06** 20:51:27.9±0.1, 35.00N×2.85W, h10^{km}±1^{km}, MD3.4, Error ellipse: s-maj=5.0km s-min=2.7km az=103.0*

*CNRM **06** 20:51:28.6, 35.12N×2.68W, h10^{km}, MD3.4*

*NEIC **06** 20:51:29.2, 34.95N×3.01W, MG3.6(MDD), After MDD.*

*MDD **06** 20:51:29.4±1.2, 34.96N×2.99W, mb3.6/7, Error ellipse: s-maj=13.4km s-min=6.5km az=123.0, PRXIMO AftershockPLICA*

ISC 06 20:51:28.2±0.6**, 35.01N**±0.02×**2.84W**±0.05**, h10**^{km}**, n38, σ1**^{s}**36**/63**, 1D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	**0.08**	**116**	*i* P	**Pg**	**20 51 31.0**	**+0.4**
MELI	**Melilla**	**0.30**	**344**	P	**Pg**	**20 51 34.9**	**+0.5**
MELI				S	**Sg**	**20 51 39.3**	**+0.7**
MELI	**Melilla**	**0.30**	**344**	*i* P	**Pg**	**20 51 34.9**	**+0.5**
EMLI	**Melilla**	**0.31**	**342**	P	**Pg**	**20 51 35.6**	**+1.0**
	151nm,0.2s,SNR=18						
EMEL	**Melilla**	**0.31**	**341**	⇓P	**Pg**	**20 51 35.6**	**+1.0**
	151nm,0.2s,SNR=18						
EMEL				S	**Sg**	**20 51 40.5**	**+1.5**
	280nm,0.1s,SNR=15						
TOU	**Touzarine**	**0.76**	**267**	*i* P	**Pb**	**20 51 45.0**	**+2.0**
TOU				*i* S	**Sb**	**20 51 56.0**	**+2.9**
MPAL	**Palemas**	**0.93**	**284**	*i* P	**Pb**	**20 51 47.5**	**+1.5**
MPAL				*i* S	**Sb**	**20 52 00.5**	**+2.3**
TZK	**Tazeka**	**1.44**	**231**	*i* P	**Pn**	**20 51 55.0**	**+0.5**
TZK				*i* S	**Sb**	**20 52 14.0**	**+1.0**
EBER	**Berja**	**1.89**	**359**	P	**Pn**	**20 52 00.8**	**0.0**
	2.6nm,0.3s,SNR=13						
EBER				S	**Sn**	**20 52 22.6**	**-2.3**
	32nm,0.5s,SNR=13						
EBER	**Berja**	**1.89**	**359**	P	**Pn**	**20 52 00.8**	**-0.1**
	2.6nm,0.3s,SNR=13						
EBER				S	**Sn**	**20 52 22.6**	**-2.3**
	32nm,0.5s,SNR=13						
EMIJ	**Mijas**	**2.21**	**315**	P	**Pn**	**20 52 03.9**	**-1.6**
	3.3nm,0.4s,SNR=12						
EMIJ				S	**Sn**	**20 52 31.7**	**-1.5**
	4.5nm,0.2s						
ELOJ	**Sierra Loja**	**2.39**	**334**	P	**Pn**	**20 52 08.8**	**+0.7**
	4.0nm,0.5s,SNR=9.9						
ELOJ				S	**Sn**	**20 52 37.5**	**-0.1**
	1.3nm,0.3s						
ELOJ	**Sierra Loja**	**2.39**	**334**	P	**Pn**	**20 52 08.8**	**+0.8**
	4.0nm,0.5s,SNR=9.9						
ELOJ				S	**Sn**	**20 52 37.5**	**-0.1**
	1.3nm,0.3s						
MIF	**Mishlifen**	**2.54**	**232**	*i* P	**Pn**	**20 52 10.0**	**-0.3**
MIF				*i* S	**Sn**	**20 52 40.0**	**-1.6**
CZD	**Col de Zad**	**2.69**	**224**	*i* P	**Pn**	**20 52 14.0**	**+1.7**
CZD				*i* S	**Sn**	**20 52 44.0**	**-1.3**
EQES	**Quesada**	**2.80**	**356**	P	**Pn**	**20 52 15.6**	**+1.8**
	9.6nm,0.4s,SNR=48						
EQES				S	**Sn**	**20 52 49.4**	**+1.4**
	40nm,0.5s						
EQES	**Quesada**	**2.80**	**356**	P	**Pn**	**20 52 15.6**	**+1.7**
	9.6nm,0.4s,SNR=48						
EQES	**Quesada**	**2.80**	**356**	S	**Sn**	**20 52 49.4**	**+1.4**
	40nm,0.5s						
ELUQ	**Luque**	**2.80**	**336**	P	**Pn**	**20 52 14.8**	**+0.9**
	2.3nm,0.3s,SNR=13						
ELUQ				S	**Sn**	**20 52 47.7**	**-0.3**
	0.9nm,0.2s,SNR=7.9						
ELUQ	**Luque**	**2.80**	**336**	S	**Sn**	**20 52 47.7**	**-0.4**
	0.9nm,0.2s,SNR=7.9						
ESPR	**Espera**	**3.08**	**308**	P	**Pn**	**20 52 18.0**	**+0.2**
	2.5nm,0.3s,SNR=6.3						
ESPR				S	**Sn**	**20 52 54.4**	**-0.7**
	3.4nm,0.3s						
ESPR	**Espera**	**3.08**	**308**	P	**Pn**	**20 52 18.0**	**+0.2**
	2.5nm,0.3s,SNR=6.3						
ESPR				S	**Sn**	**20 52 54.4**	**-0.7**
	3.4nm,0.3s						
ZFT	**Errachidia**	**3.22**	**204**	*e*P	**Pn**	**20 52 21.0**	**+1.1**
ZFT				*e*S	**Sn**	**20 52 57.0**	**-1.8**
EADA	**Adamuz**	**3.45**	**337**	P	**Pn**	**20 52 22.9**	**-0.3**
	9.7nm,0.5s,SNR=20						
EADA				S	**Sn**	**20 53 01.8**	**-2.8**
	4.3nm,0.4s						
EADA	**Adamuz**	**3.45**	**337**	P	**Pn**	**20 52 22.9**	**-0.3**
	9.7nm,0.5s,SNR=20						
EADA				S	**Sn**	**20 53 01.8**	**-2.8**
	4.3nm,0.4s						
EVIA	**Vianos**	**3.64**	**4**	P	**Pn**	**20 52 28.9**	**+3.1**
	0.9nm,0.2s,SNR=7.9						
EVIA				S	**Sn**	**20 53 09.7**	**+0.5**
	6.6nm,0.3s,SNR=5.4						
EVIA	**Vianos**	**3.64**	**4**	S	**Sn**	**20 53 09.7**	**+0.5**
	6.6nm,0.3s,SNR=5.4						
EMIN	**Mina Concepcio**	**4.14**	**313**	P	**Pn**	**20 52 31.4**	**-1.7**
	0.7nm,0.1s,SNR=15						
EMIN				S	**Sn**	**20 53 17.5**	**-4.6**
	2.0nm,0.3s						
EMIN	**Mina Concepcio**	**4.14**	**313**	P	**Pn**	**20 52 31.4**	**-1.6**
	0.7nm,0.1s,SNR=15						
EMIN				S	**Sn**	**20 53 17.5**	**-4.6**
	2.0nm,0.3s						
ESDC	**Sonseca Array**	**4.75**	**349**	P	**Pn**	**20 52 42.0**	**+0.4**
ESDC				S	**Sn**	**20 53 33.6**	**-3.8**
ESDC	**Sonseca Array**	**4.75**	**349**	P	**Pn**	**20 52 42.0**	**+0.4**
	0.7nm,0.2s,baz=173,slow=12,SNR=28						
ESDC				S	**Sn**	**20 53 33.6**	**-3.8**
	0.2nm,0.1s,baz=166,slow=27,SNR=4.0						
ESDC	**Sonseca Array**	**4.75**	**349**	P	**Pn**	**20 52 42.0**	**+0.5**
	0.7nm,0.2s,SNR=28						
EBAD	**Badajoz**	**5.02**	**319**	P	**Pn**	**20 52 43.7**	**-1.7**
	2.9nm,0.3s,SNR=9.6						
EBAD				S	**Sn**	**20 53 39.2**	**-5.1**
	1.9nm,0.2s						
EBAD	**Badajoz**	**5.02**	**319**	P	**Pn**	**20 52 43.7**	**-1.7**
PBEJ	**Beja**	**5.05**	**308**	*e*Pn	**Pn**	**20 52 44.5**	**-1.3**
PCBR	**Castelo Branco**	**6.08**	**324**	*e*Pn	**Pn**	**20 52 58.8**	**-1.5**
PVRL	**Vila Real**	**7.34**	**330**	*e*Pn	**Pn**	**20 53 16.5**	**-1.7**
PBRG	**Braganca**	**7.45**	**337**	*e*Pn	**Pn**	**20 53 18.0**	**-1.6**

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*NNC **06** 20:52:40.2±2.5, 42.33N×79.16E, mpv3.0, Error ellipse: s-maj=31.6km s-min=7.3km az=158.0*

BJI 06 20:52:35.7, 41.58N×79.49E, h15^{km}**, ML3.0, 3C, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**3.38**	**234**	PG	Pg	20 53 37.3	-5.9
KSH				SG	Sg	20 54 17.8	-11
KSH				Smax			
	comp=N,60nm,0.9s						
KSH				Smax			
	comp=E,60nm,0.8s						

AAK	Ala-Archa	3.86	287	⇑Pn	Pn	20 53 36.4	+0.5
	comp=E,2.3nm,0.3s						
AAK				⇑Lg		20 54 30.0	
	comp=E,18nm,0.6s						
MK31	Makanchi Array	5.59	20	Pn	Pn	20 53 58.9	-1.4
	comp=E,0.7nm,0.4s,baz=201,slow=14,SNR=29						
MK31				⇑Sn	Sn	20 55 01.8	-3.2
	comp=E,7.3nm,1.1s,baz=206,slow=25,SNR=4.0						

*BJI **06** 20:54:13.7, 3.15S×135.94E, h11^{km}, mB4.9, mb4.4*
*IDC **06** 20:54:14.0±0.7, 3.32S×135.55E, mb4.2/8, mb1 4.4/12, mb1mx4.3/15, ML4.1/4, MS3.6/2, Ms1 3.6/2, ms1mx2.9/17, Error ellipse: s-maj=33.7km s-min=15.5km az=70.0*
*NEIC **06** 20:54:15.7±0.5, 3.42S×135.41E, h10^{km}, mb4.3/6, Error ellipse: s-maj=13.0km s-min=8.4km az=74.0*
ISC 06 20:54:14.4±3.0, **3.55S**±0.05×**135.46E**±0.10, **h15**^{km}±22^{km}, **n38**, σ**1**^{s}**18**/44, **mb4.5**/19, **MS3.5**/1, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.58	198	eP	P	20 56 34.3	-0.7
	28nm,0.6s						
PMG	Port Moresby	12.99	117	Pn	P	20 57 21.9	+0.6
	1.0nm,0.3s,baz=309,slow=14,SNR=4.3						
PMG				Sn	S	20 59 38.4	-8.2
	0.1nm,0.3s,baz=307,slow=21,SNR=2.3						
PMG	Port Moresby	12.99	117	Pn	P	20 57 21.9	+0.6
PMG				Sn	S	20 59 38.4	-8.2
WRAB	Tennant Creek	16.32	184	eP	P	20 58 01.8	-3.0
	37nm,0.8s						
WB2	Warramunga Arr	16.33	184	eP	P	20 58 01.7	-3.2
WB2				e		20 58 09.3	
WB2				eS	S	21 00 58.1	-7.3
WRA	Warramunga Arr	16.33	184	Pn	P	20 58 01.0	-3.9
	0.6nm,0.3s,baz=5.4,slow=13,SNR=24						
WRA				Sn	S	21 00 55.9	-10
	1.0nm,0.3s,baz=7.0,slow=22,SNR=9.0						
FITZ	Fitzroy Crossi	17.37	213	eP	P	20 58 17.8	-0.3
	8.2nm,0.8s						
FITZ				eS	S	21 01 20.5	-8.8
FITZ	Fitzroy Crossi	17.37	213	P	P	20 58 17.6	-0.5
	0.7nm,0.3s,baz=28,slow=12,SNR=19						
FITZ				S	S	21 01 20.1	-9.2
	0.6nm,0.3s,baz=180,slow=14,SNR=4.4						
CTA	Charters Tower	19.52	148	eP	P	20 58 46.0	+1.8
	16nm,1.3s						
CTA	Charters Tower	19.52	148	P	P	20 58 44.8	+0.6
	1.0nm,0.3s,baz=319,slow=13,SNR=5.8						
CTA				LR	LR	21 06 47.3	
	comp=Z,205nm,18.3s,baz=222,slow=38						
CTAO	Charters Tower	19.52	148	eP	P	20 58 44.3	+0.1
	30nm,1.1s						
ASAR	Alice Springs	20.05	184	P	P	20 58 51.2	+1.1
	72nm,0.7s,baz=9.5,slow=10,SNR=305						
ASAR				S	S	21 02 28.6	-0.7
	6.1nm,0.9s,baz=6.6,slow=28,SNR=4.3						
ASPA	Alice Springs	20.05	184	eP	P	20 58 51.2	+1.1
ASPA				eS	S	21 02 28.0	-1.4
MBWA	Marble Bar	23.25	220	P	P	20 59 24.4	+2.1
STKA	Stephens Creek	28.76	169	P	P	21 00 14.1	+0.3
	4.1nm,0.8s,mb4.2,baz=7.8,slow=12,SNR=4.8						
STKA				LR	LR	21 12 10.1	
	comp=Z,117nm,21.4s,MS3.5,baz=194,slow=37						
STKA	Stephens Creek	28.76	169	P	P	21 00 14.1	+0.3
STKA				LR	LR	21 12 10.1	
NWAO	Narrogin (SRO)	33.84	208	P	P	21 01 00.8	+2.3
	9.8nm,0.8s,mb4.8,baz=7.1,slow=11,SNR=4.1						
CMAR	Chiang Mai Arr	42.10	303	P	P	21 02 07.7	-0.2
	1.0nm,0.7s,mb3.5,baz=124,slow=7.5,SNR=8.5						
XAN	Xi'an	44.99	328	P	P	21 02 33.6	+2.4
XAN				AMB	AMB		
	comp=Z,4.0nm,1.3s,mb4.1						
HHC	Hu-ho-hao-te	49.30	336	eP	P	21 03 03.6	-1.3
HHC				AP	pP	21 03 08.4	-1.1
HHC				XP	sP	21 03 11.8	+0.5
HHC				AMB	AMB		
	comp=Z,12nm,0.7s,mb5.0						
HHC				AMB	AMB		
	comp=Z,67nm,4.2s						
SHL	Shillong	51.20	307	e	P	21 03 20.0	+0.4
GTA	Gaotai	53.88	326	eP	P	21 03 39.4	0.0
GTA				AP	pP	21 03 44.6	+0.6
GTA				XP	sP	21 03 47.4	+1.6
GTA				AMB	AMB		
	comp=Z,6.0nm,1.5s,mb4.3						
GUN	Gumba	57.04	307	eP	P	21 04 03.1	+0.6
	comp=Z,24nm,0.7s,mb5.3						
SONM	Songino Array	57.16	337	P	P	21 04 02.4	-0.7
	comp=Z,1.4nm,0.8s,mb4.1,baz=154,slow=6.6,SNR=9.8						
PKI	Pulchoki	57.28	306	eP	P	21 04 03.9	-0.3
	comp=Z,9.5nm,0.9s,mb4.8						
KKN	Kakani	57.47	306	eP	P	21 04 05.5	0.0
	comp=Z,21nm,0.9s,mb5.2						
DMN	Daman	57.54	306	eP	P	21 04 06.5	+0.5
	comp=Z,32nm,1.0s,mb5.3						
GKN	Gorkha	58.08	306	eP	P	21 04 10.1	+0.3
	comp=Z,31nm,0.8s,mb5.4						
KOLN	Koldanda	58.82	305	eP	P	21 04 15.4	+0.4
	comp=Z,32nm,0.8s,mb5.4						
DDI	Dehra Dun	64.28	306	e	P	21 04 51.4	-0.4
TKM2	Tokmak 2	70.95	318	eP	P	21 05 33.8	+0.4
	comp=Z,2.1nm,0.6s,mb4.2						
ZAL	Zalesovo	71.07	331	P	P	21 05 33.3	-0.6
	comp=Z,1.6nm,0.8s,mb4.0,baz=314,slow=16,SNR=8.2						
KURK	Kurchatov	72.57	326	eP	P	21 05 41.8	-1.1
	comp=Z,2.2nm,0.8s,mb4.1						
VNDA	Vanda	75.25	174	P	P	21 05 59.6	+1.5
	comp=Z,0.6nm,0.7s,mb3.6,baz=326,slow=1.8,SNR=3.8						
BVAR	Borovoye Array	78.17	326	P	P	21 06 13.8	-1.0
	comp=Z,2.4nm,0.7s,mb4.2,baz=112,slow=8.0,SNR=18						
ILAR	Eielson Array	87.94	25	P	P	21 07 03.0	-1.7
	comp=Z,1.0nm,0.5s,mb4.3,baz=264,slow=4.5,SNR=22						
ARCES	ARCESS Array B	100.22	340	P	P	21 08 00.8	-0.2
	comp=Z,4.8nm,1.1s,baz=90,slow=2.7,SNR=4.2						
LPAZ	La Paz	149.46	131	PKPbc	PKPdf	21 14 08.4	+5.3
	comp=Z,3.1nm,0.8s,baz=319,slow=1.7,SNR=13						

*NEIC **06** 21:10:15.6, 32.60S×71.34W, h18^{km}, ML3.4(GUC), After GUC.*
GUC 06 21:10:15.6±0.7, **32.60S×71.34W, h18**^{km}±7^{km}, **MD3.7, ML3.4, 12C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACH	Papudo	0.10	306	⇑iP	Pb	21 10 19.8	+0.4
ROCH	El Roble	0.47	144	⇓iP	Pb	21 10 25.1	+0.1
ROCH				iS	Sb	21 10 32.0	+0.6
IHA	Instituto Hidr	0.50	211	⇓iP	Pb	21 10 25.1	-0.4
IHA				iS	Sb	21 10 32.0	-0.2
JACH	Jahuel	0.64	98	⇓iP	Pb	21 10 27.6	-0.3
JACH				iS	Sb	21 10 36.6	+0.3
PEL	Peldehue	0.78	135	⇓iP	Pb	21 10 30.0	-0.3
PEL				iS	Sb	21 10 40.9	+0.6
LCCH	Las Cruces	0.90	192	⇑iP	Pb	21 10 31.7	-0.6
LCCH				iS	Sb	21 10 43.4	-0.4
RCDM	Rinconada Maip	1.00	153	eP	Pb	21 10 33.2	-0.8
RCDM				iS	Sb	21 10 46.4	-0.3
RCDM				AMP		21 10 46.9	
	comp=N,5µm,0.1s						
STL	Santa Lucia	1.02	145	⇑iP	Pb	21 10 33.9	-0.6
STL				iS	Sb	21 10 47.7	+0.2
STL				AMP		21 10 49.1	
	comp=N,589nm,0.3s						
SAN	Santiago	1.03	146	iS	Sb	21 10 47.9	+0.3
DSCH	Colegio Aleman	1.03	141	eP	Pb	21 10 33.6	-1.0
DSCH				iS	Sb	21 10 47.8	+0.1
DSCH				AMP		21 10 48.8	
	comp=N,3µm,0.2s						
CLCH	Cerro Calan	1.04	140	⇑iP	Pb	21 10 34.4	-0.4
CLCH				iS	Sb	21 10 48.3	+0.2
CLCH				AMP		21 10 49.5	
	comp=N,4µm,0.6s						
CLCH				AMP		21 10 50.1	
	comp=N,4µm,0.6s						
TACH	Talagante	1.11	162	⇑iP	Pb	21 10 35.0	-0.9
TACH				iS	Sb	21 10 49.6	-0.3
FSR	Penalolen	1.11	142	⇓iP	Pb	21 10 35.6	-0.4
FSR				iS	Sb	21 10 50.6	+0.5
FSR				AMP		21 10 51.1	
	comp=N,1µm,0.5s						
FCH	Farellones	1.14	130	⇑iP	Pb	21 10 35.8	-0.7
FCH				iS	Sb	21 10 51.5	+0.5
FCH				AMP		21 10 52.5	
	comp=N,1µm,0.2s						
PCH	Pirque	1.23	146	⇓iP	Pb	21 10 37.1	-0.9
PCH				iS	Sb	21 10 53.5	0.0
SJCH	San Jose de Ma	1.33	142	⇑iP	Pn	21 10 38.0	-1.4
SJCH				iS	Sb	21 10 55.5	-0.9
SJCH				AMP		21 10 56.4	
	comp=E,583nm,0.1s						
LNV	Longovilo	1.36	182	⇑iP	Pn	21 10 39.0	-0.9
CMCH	Combarbala	1.45	12	⇑iP	Pn	21 10 40.5	-0.6
CMCH				iS	Sb	21 10 59.4	-0.3
CMCH				AMP		21 11 05.2	
	comp=E,2µm,0.8s						
CHCH	Chadas Angostu	1.45	157	⇑iP	Pn	21 10 40.8	-0.4
CHCH				iS	Sn	21 10 59.6	-0.2
LMEL	Las Melosas	1.57	143	⇑iP	Pn	21 10 42.7	-0.2
LMEL				iS	Sn	21 11 03.2	+0.3
LMEL				AMP		21 11 05.4	
	comp=N,909nm,0.1s						
CACH	El Canelo	1.64	158	eP	Pn	21 10 44.7	+0.8
CACH				iS	Sn	21 11 06.1	+1.5
CICH	Cipreses	1.88	156	⇑iP	Pn	21 10 47.8	+0.4
CICH				iS	Sn	21 11 11.9	+1.2
SFDO	San Fernando	2.03	172	eP	Pn	21 10 50.8	+1.3

IDC 06 21:33:43.1±1.3, **21.19S×68.70W, h116**^{km}±12^{km}, **mb3.5**/3, **mb1 3.6**/4, **mb1mx3.4**/14, **Error ellipse: s-maj=35.4km s-min=17.2km az=98.0, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.43	188	P	P	21 34 09.3	-0.7
	23nm,0.3s,baz=2.9,slow=8.9,SNR=140						
LVC				S	S	21 34 30.1	-0.2
	112nm,0.3s,baz=235,slow=18,SNR=70						
LPAZ	La Paz	4.90	6	P	P	21 34 56.3	+0.4
	1.1nm,0.3s,baz=174,slow=5.9,SNR=18						
BDFB	Brasilia	20.38	78	P	P	21 38 10.4	-2.3
	3.8nm,0.4s,baz=246,slow=8.9,SNR=7.7						
SNAA	Sanae	62.51	161	P	P	21 43 54.5	-1.8
	0.5nm,0.7s,baz=264,slow=8.5,SNR=7.8						
YKA	Yellowknife Ar	90.95	341	P	P	21 46 32.9	-1.8
	0.3nm,0.5s,baz=129,slow=4.3,SNR=6.9						
YKA				pP	pP	21 47 03.3	-1.9
	0.2nm,0.5s,baz=135,slow=4.7,SNR=3.9						
WRA	Warramunga Arr	133.32	210	PKP	PKPdf	21 52 46.1	-0.2
	0.4nm,1.1s,baz=157,slow=1.6,SNR=4.7						

*LDG **06** 21:36:31.4±0.3, 48.07N×8.01E, h13^{km}±1^{km}, Md2.1/2, Ml2.0/5, Error ellipse: s-maj=5.7km s-min=2.8km az=51.0*
STR 06 21:36:31.5±0.6, **48.05N×8.01E, h10**^{km}±1^{km}, **Ml1.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WLS	Welschbruch	0.57	310	Pg	Pg	21 36 43.0	0.0
WLS				Sg	Sg	21 36 49.8	-0.9
ECH	Echery	0.59	287	Pg	Pg	21 36 43.0	-0.5
ECH				Sg	Sg	21 36 51.1	-0.4
CDF	Champ du Feu	0.61	307	ePg	Pg	21 36 43.2	-0.6
CDF				ePn	Pn	21 36 43.7	-2.2
CDF				eSg	Sg	21 36 50.1	-1.9
	5.4nm,0.2s						
MOF	Molkenrain	0.62	252	Pg	Pg	21 36 44.1	+0.1
HINF	Hinteralfeld	0.81	254	ePg	Pg	21 36 46.5	-1.3
HINF				ePn	Pn	21 36 47.5	-1.3
HINF				eSg	Sg	21 36 57.2	-1.5
	1.4nm,0.2s						
HAU	Haudompre	1.12	268	ePg	Pg	21 36 52.1	-1.8
HAU				eSn	Sn	21 37 06.9	-1.7
	3.8nm,0.2s						
RFYF	Reffroy	1.79	290	eSg	Sg	21 37 27.4	-3.7
	2.8nm,0.2s						
SFTF	Sexfontaines	2.00	276	eSg	Sg	21 37 33.8	-4.2
	2.2nm,0.4s						
MEZF	Maizieres J'vi	2.03	284	eSg	Sg	21 37 33.2	-5.9
	2.5nm,0.3s						

*NIED **06** 21:37:00, 42.90N×145.50E, h32^{km}, Mw4.1 Best double couple: $M_0$1.72×10^{15} NP1:ϕ_s27°, δ65°, λ74°. NP2:ϕ_s240°, δ30°, λ120°.*
*MOS **06** 21:37:29.4±1.6, 42.77N×145.61E, h33^{km}, mb4.6/5, Error ellipse: s-maj=25.9km s-min=16.6km az=87.6*
*NEIC **06** 21:37:31.7±0.6, 43.00N×145.35E, h25^{km}, mb4.4/2, Error ellipse: s-maj=16.3km s-min=8.8km az=142.0*
*JMA **06** 21:37:32.7±0.1, 42.90N×145.48E, h44^{km}±1^{km}, M3.9*
*IDC **06** 21:37:37.2±4.2, 43.07N×145.29E, h69^{km}±30^{km}, mb3.7/9, mb1 3.9/10, mb1mx3.6/23, ML3.8/1, MS3.2/3, Ms1 3.2/3, ms1mx2.6/29, Error ellipse: s-maj=48.6km s-min=20.3km az=164.0*
ISC 06 21:37:31.6±1.0, **42.86N**±0.08×**145.53E**±0.08, **h48**^{km}±6^{km}, **n44**, σ**0**^{s}**85**/46, **mb4.3**/17, **MS3.1**/1, **1C-5D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.53	17	⇑P	P	21 37 43.5	+0.4
NEM2				eS	S	21 37 51.2	-0.1
JAK	Akkeshi	0.63	283	⇓P	P	21 37 44.6	+0.3
JAK				eS	S	21 37 53.6	0.0
JNK	Nakash	0.94	321	⇓P	P	21 37 48.5	-0.1
JRA	Rausu	1.12	345	⇓P	P	21 37 51.4	+0.3
JRA				eS	S	21 38 05.7	+0.1
JOB	Onbets	1.25	273	P	P	21 37 53.2	+0.3
JAR	Ashorobuto	1.36	289	⇓P	P	21 37 54.7	0.0
JCH	Churui	1.62	262	P	P	21 37 58.5	+0.3
JTKR	Abashiri--Toko	1.62	314	⇓P	P	21 37 58.8	+0.5
ASAJ	Asahikawa	2.48	301	P	P	21 38 11.7	+1.2
	16nm,0.3s,baz=119,slow=10,SNR=49						
ASAJ				LR	LR	21 39 16.1	
	comp=Z,503nm,19.1s,baz=135,slow=45						
ASAJ	Asahikawa	2.48	301	PN	P	21 38 11.7	+1.3
ASAJ				pmax	pmax		
	comp=Z,16nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,503nm,19.2s						
KUR	Kuril'sk	2.91	35	ePN	P	21 38 15.0	-1.6
KUR				eS	S	21 38 50.0	-0.6
KUR				pmax	pmax		
	comp=Z,150nm,0.6s						
KUR				smax			
	comp=N,230nm,0.5s						
KUR				smax			
	comp=E,380nm,0.5s						
MAJO	Matsushiro	8.46	224	eP	P	21 39 32.3	-2.0
JHJ	Hachijo jima 2	10.73	207	LR	LR	21 45 20.2	
	comp=E,82nm,18.6s,baz=166,slow=43						
JOW	Kunigami	21.29	227	LR	LR	21 51 08.2	
	comp=E,79nm,18.4s,MS3.1,baz=144,slow=38						
YAK	Yakutsk	21.38	339	P	P	21 42 14.2	-2.5
SONM	Songino Array	27.74	294	P	P	21 43 17.0	-0.4
	comp=E,1.9nm,0.7s,mb3.8,baz=84,slow=7.8,SNR=15						
IMA	Indian Mountai	40.08	34	eP	P	21 45 03.8	+0.3
	comp=E,13nm,0.6s,mb4.8						
ILAR	Eielson Array	42.90	36	P	P	21 45 27.8	+1.2
	comp=E,24nm,0.3s,mb5.4,baz=275,slow=8.4,SNR=1.2						
ILAR	Eielson Array	42.90	36	P	P	21 45 27.8	+1.2
ILAR				pmax	pmax		
	comp=Z,24nm,0.3s						
KURK	Kurchatov	45.05	304	eP	P	21 45 43.6	-0.5
	comp=Z,1.1nm,0.7s,mb3.8						
CMAR	Chiang Mai Arr	46.14	253	P	P	21 45 53.8	+0.6
	comp=Z,1.0nm,1.0s,mb3.7,baz=47,slow=6.9,SNR=4.4						
CMAR	Chiang Mai Arr	46.14	253	P	P	21 45 53.8	+0.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
INK	Inuvik	47.77	30	P	P	21 46 06.1	+0.8
	comp=Z,1.6nm,0.7s,mb4.2,baz=274,slow=5.0,SNR=5.0						
INK	Inuvik	47.77	30	P	P	21 46 06.1	+0.8
INK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BVAR	Borovoye Array	49.16	309	P	P	21 46 16.2	0.0
	comp=Z,0.5nm,0.4s,mb3.9,baz=79,slow=7.7,SNR=3.6						
TKM2	Tokmak 2	49.82	295	eP	P	21 46 21.5	0.0
GUN	Gumba	49.88	273	eP	P	21 46 22.9	+0.7
KKN	Kakani	50.39	273	eP	P	21 46 26.3	+0.2
	comp=Z,4.9nm,0.7s,mb4.7						
PKI	Pulchoki	50.42	273	eP	P	21 46 26.2	-0.1
DMN	Daman	50.62	273	eP	P	21 46 27.3	-0.5
	comp=Z,7.2nm,0.8s,mb4.7						
GKN	Gorkha	50.74	274	eP	P	21 46 28.4	-0.3
	comp=Z,4.2nm,0.6s,mb4.5						
KOLN	Koldanda	51.63	274	eP	P	21 46 35.6	+0.1
	comp=Z,6.1nm,0.7s,mb4.7						
YKA	Yellowknife Ar	57.20	33	P	P	21 47 16.3	+0.7
	comp=Z,0.2nm,0.3s,mb3.6,baz=302,slow=6.4,SNR=5.3						
KAF	Kangasniemi	64.57	333	ep	P	21 48 03.2	-2.3
FINES	FINESS Array B	65.13	333	P	P	21 48 08.5	-0.6
	comp=Z,3.4nm,0.6s,mb4.5,baz=44,slow=7.5,SNR=23						
FINES	FINESS Array B	65.13	333	P	P	21 48 08.5	-0.5
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
OBN	Obninsk	65.33	323	eP	P	21 48 09.9	-0.5
OBN				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
NVAR	Mina Array Bea	69.06	57	P	P	21 48 35.9	+1.7
	comp=Z,0.8nm,0.8s,mb3.7,baz=289,slow=5.1,SNR=4.6						
NB2	NORSAR Subarra	70.00	338	P	P	21 48 39.6	+0.1
	comp=Z,1.7nm,0.7s,mb4.1,baz=36,slow=6.2						
NOA	NORSAR Array B	70.00	338	P	P	21 48 38.8	-0.7
	comp=Z,2.4nm,0.7s,mb4.2,baz=35,slow=6.1,SNR=7.0						
NOA	NORSAR Array B	70.00	338	P	P	21 48 38.8	-0.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	71.59	323	P	P	21 48 49.1	-0.2
	comp=Z,2.0nm,0.5s,mb4.3,baz=42,slow=6.1,SNR=11						
AKASG	Malin Array Be	71.59	323	P	P	21 48 49.1	-0.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
CLL	Collm	77.55	332	P	P	21 49 25.0	+1.4

*IDC **06** 21:47:09.6±1.0, 39.82N×97.34E, mb3.9/9, mb1 4.1/11, mb1mx3.9/22, ML4.1/2, Error ellipse: s-maj=25.0km s-min=22.1km az=78.0*
*BJI **06** 21:47:09.1, 39.72N×97.18E, h10^{km}, ML4.1, Ms3.5, Msz3.5*
*MOS **06** 21:47:11.8±1.3, 39.74N×97.33E, h33^{km}, mb4.1/5, Error ellipse: s-maj=63.0km s-min=18.1km az=111.6*
*NEIC **06** 21:47:11.1±0.5, 39.73N×97.26E, h10^{km}, mb3.9/5, Error ellipse: s-maj=12.0km s-min=8.9km az=54.0*
ISC 06 21:47:09.3±1.5, **39.88N**±0.06×**97.43E**±0.06, **h11**^{km}±10^{km}, **n31**, σ**1**^{s}**17**/35, **mb3.9**/11, **Gansu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTA	Gaotai	1.90	103	PG	Pg	21 47 46.7	-0.6
GTA				SG	Sg	21 48 11.8	-0.8
GTA				Smax			
	comp=N,934nm,0.5s						
GTA				Smax			
	comp=E,712nm,0.6s						
LZH	Lanzhou	6.32	125	PG	Pb	21 49 00.8	+1.6
LZH				SG	Sg	21 50 33.8	-6.0
LZH				Smax			
	comp=N,110nm,0.6s						
LZH				Smax			
	comp=E,100nm,0.8s						
LZH				LR	LR		
	comp=N,362nm,8.2s						
LZH				LR	LR		
	comp=Z,523nm,9.7s						
WMQ	Urumqi	8.27	302	P	P	21 49 12.6	+0.5
WMQ				S	Sn	21 50 44.4	-2.1
WMQ				Smax			
	comp=N,133nm,1.0s						
WMQ				Smax			
	comp=E,207nm,1.0s						
SONM	Songino Array	10.25	36	Pn	P	21 49 41.0	+1.5
	comp=E,2.8nm,0.3s,baz=221,slow=15,SNR=67						
SONM				Sn	S	21 51 34.5	-1.0
	comp=E,1.0nm,0.3s,baz=216,slow=27,SNR=5.2						
SONM				Lg		21 52 37.3	
	comp=E,1.1nm,0.3s,baz=218,slow=30,SNR=5.9						
ULN	Ulaanbaatar	10.58	38	P	P	21 49 42.8	-1.1
	comp=E,3.1nm,0.6s						
ZAL	Zalesovo	16.46	333	Pn	P	21 51 04.3	+2.6
	comp=E,0.6nm,0.3s,baz=326,slow=11,SNR=14						
ZAL				Lg		21 55 51.2	
	comp=E,0.1nm,0.3s,baz=181,slow=9.6,SNR=5.5						
TKM2	Tokmak 2	16.66	288	eP	P	21 51 00.3	-4.0
	comp=E,4.0nm,0.7s						
KURK	Kurchatov	17.06	316	eP	P	21 51 06.3	-2.9
	comp=E,14nm,1.1s						
UCH	Uchtor	17.44	285	eP	P	21 51 12.7	-1.4
	comp=E,5.2nm,1.1s						
NVS	Novosibirsk	17.74	332	eP	P	21 51 17.4	-0.4
CMAR	Chiang Mai Arr	21.38	176	P	P	21 51 58.0	-1.1
	comp=E,1.5nm,1.2s,mb3.2,baz=3.2,slow=7.5,SNR=3.4						
CMAR	Chiang Mai Arr	21.38	176	P	P	21 51 58.1	-1.1
CMAR				pmax	pmax		
	comp=Z,2.0nm,1.2s						
BVAR	Borovoye Array	22.64	314	P	P	21 52 12.8	+1.4
	comp=Z,4.8nm,0.7s,mb4.1,baz=106,slow=11,SNR=26						
BRVK	Borovoye	22.71	314	eP	P	21 52 13.6	+1.5
	comp=Z,14nm,1.1s,mb4.3						
CHKZ	Chkalovo	22.80	316	eP	P	21 52 13.9	+0.9
	comp=Z,5.0nm,0.8s,mb4.0						
ARCES	ARCESS Array B	47.02	333	P	P	21 55 42.6	+0.6
	comp=Z,2.3nm,0.9s,mb4.1,baz=70,slow=6.6,SNR=5.8						
ARCES	ARCESS Array B	47.02	333	P	P	21 55 42.6	+0.6
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	FINESS Array B	47.29	322	P	P	21 55 44.5	+0.2
	comp=Z,1.7nm,0.6s,mb4.2,baz=76,slow=7.9,SNR=12						
FINES				PcP	PcP	21 57 14.2	-1.5
	comp=Z,1.2nm,0.8s,baz=90,slow=3.8,SNR=5.8						
FINES	FINESS Array B	47.29	322	P	P	21 55 44.5	+0.2
FINES						21 57 14.2	
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	48.04	291	P	P	21 55 50.2	-0.3
	comp=Z,1.5nm,0.8s,mb4.1,baz=112,slow=6.7,SNR=7.4						
BRTR	Keskin Array B	48.04	291	P	P	21 55 50.2	-0.3
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NB2	NORSAR Subarra	54.37	323	P	P	21 56 37.2	-0.8
	comp=Z,0.3nm,0.5s,mb3.5,baz=70,slow=7.4						
NOA	NORSAR Array B	54.37	323	P	P	21 56 37.4	-0.6
	comp=Z,0.6nm,0.4s,mb3.9,baz=74,slow=6.4,SNR=2.8						
NOA	NORSAR Array B	54.37	323	P	P	21 56 37.4	-0.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	Inuvik	65.64	18	P	P	21 57 55.0	0.0
WRAB	Tennant Creek	68.75	143	P	P	21 58 14.3	-1.2
ESDC	Sonseca Array	73.22	308	P	P	21 58 42.2	+0.1
	comp=Z,0.4nm,0.5s,mb3.6,baz=42,slow=5.8,SNR=5.5						
YKA	Yellowknife Ar	74.77	15	P	P	21 58 51.0	+0.4
	comp=Z,0.5nm,0.8s,mb3.5,baz=332,slow=5.9,SNR=4.4						
YKA	Yellowknife Ar	74.77	15	P	P	21 58 51.0	+0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	74.77	15	P	P	21 58 51.0	+0.4
STKA	Stephens Creek	82.29	143	P	P	21 59 33.6	+1.3
	comp=Z,2.7nm,0.9s,mb4.2,baz=318,slow=12,SNR=3.0						

*PRU **06** 21:57:42.9, 50.20N×19.15E*
WAR 06 21:57:40.9, 50.17N×19.30E, h0^{km}**, ML2.5, Mining Induced, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.32	81	ePG	Pg	21 57 48.0	+0.6
OJC				eSG	Sg	21 57 53.0	+1.3
OKC	Ostrava-Krasne	0.81	246	ePG	Pg	21 57 57.3	+0.1
OKC				eSG	Sg	21 58 07.7	-0.3
NIE	Niedzica	1.00	138	ePg	Pg	21 58 00.5	-0.3
NIE				e		21 58 01.9	
NIE				eSg	Sg	21 58 15.6	+1.5
LIKS	Likavka	1.13	187	ePN	Pn	21 58 05.6	+1.8
LIKS				eSN	Sn	21 58 19.4	-0.7
VYHS	Vyhne	1.70	190	iPN	Pn	21 58 11.4	-0.6
VYHS				eSN	Sn	21 58 34.8	0.0
CRVS	Cervenica-Dubn	1.90	131	ePN	Pn	21 58 17.4	+2.7
CRVS				eSN	Sn	21 58 43.0	+3.4
DPC	Dobruska-Polom	1.92	277	ePG	Pg	21 58 14.3	-4.9
DPC				eSG	Sg	21 58 41.6	-3.2
KSP	Ksiaz	2.04	291	ePN	Pn	21 58 16.0	-0.7
KSP				ePG	Pg	21 58 19.0	-2.5
KSP				eSN	Sn	21 58 45.0	+1.8
SMOL	Smolenice	2.06	217	ePN	Pn	21 58 21.6	+4.5
UPC	Upice	2.13	280	ePG	Pg	21 58 19.7	-3.8
KOLS	Kolonicke sedl	2.30	121	ePN	Pn	21 58 24.8	+4.3

KOLS				*e*SN	Sn	21 58 53.2	+3.3
PRU	**Pruhonice**	**3.07**	**268**	*e*SG	Sg	21 59 15.9	-7.2
KHC	**Kasperske Hory**	**3.86**	**257**	*e*PN	Pn	21 58 40.0	-2.8
KHC				*e*PG	Pg	21 58 52.5	-5.5
KHC				*e*SG	Sg	21 59 43.9	-5.5
CLL	**Collm**	**4.16**	**288**	*e*SG	Sg	21 59 55.0	-4.4

IDC 06 22:12:48.5±8.4**, 6.37S×147.92E, h61**^{km}±56^{km}**, mb4.0**/3**, mb1 4.1**/5**, mb1mx3.7**/14**, ML3.7**/2**, MS3.0**/4**, Ms1 3.0**/4**, ms1mx2.9**/18**, Error ellipse: s-maj=69.8km s-min=48.6km az=61.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.11**	**194**	P	P	22 13 35.0	-1.4
	22nm,0.3s,baz=31,slow=4.5,SNR=32						
PMG				S	S	22 14 12.1	-0.5
	7.2nm,0.3s,baz=333,slow=12,SNR=3.7						
PMG				LR	LR	22 15 03.0	
	comp=Z,192nm,19.7s,baz=344,slow=43						
CTA	**Charters Tower**	**13.74**	**187**	LR	LR	22 19 53.5	
	comp=Z,31nm,20.4s,baz=43,slow=31						
WRA	**Warramunga Arr**	**18.87**	**223**	P	P	22 17 03.3	-3.2
	0.6nm,0.3s,baz=50,slow=10,SNR=26						
ASAR	**Alice Springs**	**21.85**	**217**	P	P	22 17 35.9	-1.7
	3.4nm,0.5s,baz=52,slow=8.8,SNR=35						
ASAR				LR	LR	22 26 09.4	
	comp=Z,46nm,18.8s,baz=45,slow=37						
ASPA	**Alice Springs**	**21.86**	**217**	*e*P	P	22 17 34.1	-3.5
FITZ	**Fitzroy Crossi**	**24.66**	**240**	*e*P	P	22 18 03.9	-1.2
	7.8nm,0.6s						
FITZ	**Fitzroy Crossi**	**24.66**	**240**	P	P	22 18 03.6	-1.5
	6.5nm,0.4s,baz=50,slow=5.2,SNR=36						
STKA	**Stephens Creek**	**26.06**	**192**	P	P	22 18 16.9	-1.2
	1.3nm,0.4s,baz=15,slow=9.8,SNR=6.6						
STKA				LR	LR	22 29 07.3	
	comp=Z,80nm,19.3s,baz=22,slow=38						

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*NIED **06** 22:38:00, 36.10N×139.90E, h44^{km}, Mw3.4 Best double couple: M₀1.61×10^{14} NP1:φs30°, δ78°, λ44°. NP2:φs288°, δ47°, λ164°.*

*JMA **06** 22:38:10.5±0.1, 36.07N×139.87E, h47^{km}±1^{km}, M3.4 Broadband fault plane solution: P waves. NP1:φs269°, δ16°, λ138°. NP2:φs40°, δ79°, λ78°. Principal axes: T Plg54°, Azm295°; N Plg12°, Azm42°; P Plg33°, Azm140°;*

JMA Felt II J1.

ISC 06 22:38:10.9±1.6**, 36.08N**±0.06×**139.9E**±0.1**, h41**^{km}±24^{km}**, n10, σ0**^{s}**30**/14**, 1C-6D, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYT	**Yasato**	**0.32**	**63**	⇑P	**P**	**22 38 19.4**	**-0.1**
JYT				S	**S**	**22 38 25.6**	**+0.1**
JAG	**Ashikaga**	**0.47**	**317**	⇓P	**P**	**22 38 21.6**	**+0.3**
JHU	**Hanno**	**0.51**	**244**	⇓P	**P**	**22 38 21.6**	**-0.3**
JRY	**Ryogami san**	**0.77**	**265**	⇓P	**P**	**22 38 25.2**	**-0.2**
JRY				S	**S**	**22 38 35.7**	**-0.3**
JKT	**Katashina**	**0.84**	**325**	⇓P	**P**	**22 38 26.3**	**-0.1**
JOD2	**Odawara 2**	**1.02**	**217**	P	**P**	**22 38 28.7**	**-0.3**
JOD2				S	**S**	**22 38 42.5**	**+0.1**
JYN	**Shimob**	**1.21**	**242**	P	**P**	**22 38 32.5**	**+0.9**
JFY	**Yanaizu**	**1.33**	**355**	⇓P	**P**	**22 38 33.4**	**0.0**
JHK	**Hiroka**	**1.34**	**330**	⇓P	**P**	**22 38 33.5**	**-0.1**
MAT	**Matsushiro**	**1.40**	**290**	P	**P**	**22 38 34.4**	**-0.1**
MAT				S	**S**	**22 38 52.2**	**+0.2**

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*IDC **06** 23:44:24.3±0.5, 6.72S×76.69W, h127^{km}±3^{km}, mb4.2/13, mb1 4.4/14, mb1mx4.3/18, MS3.2/3, Ms1 3.2/3, ms1mx2.8/22, Error ellipse: s-maj=18.3km s-min=11.1km az=63.0*

*NEIC **06** 23:44:24.1±0.2, 6.72S×76.66W, mb4.7/38, Error ellipse: s-maj=8.4km s-min=4.8km az=71.0*

NEIC Felt [II] at Mendoza.

*BJI **06** 23:44:27.1, 6.70S×76.70W, h126^{km}*

ISC 06 23:44:20.1±1.3**, 6.62S**±0.06×**76.66W**±0.08**, h98**^{km}±12^{km}**, h126**^{km}±1.3^{km}**:pP-P, n100, σ0**^{s}**73**/78**, mb4.7**/48**, 4C-4D, Northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**5.34**	**182**	*e*P	**P**	**23 45 38.3**	**-0.5**
	76nm,0.5s						
OTAV	**Otavalo**	**7.04**	**345**	*e*P	**P**	**23 46 07.4**	**+5.2**
	43nm,0.8s						
LPAZ	**La Paz**	**12.73**	**140**	P	**P**	**23 47 17.9**	**-0.8**
	0.2nm,0.3s,baz=337,slow=11,SNR=3.8						
LPAZ				LR	LR	23 53 12.2	
	comp=Z,94nm,20.1s,baz=298,slow=42						
LPAZ	**La Paz**	**12.73**	**140**	P	**P**	**23 47 17.9**	**-0.8**
LPAZ				LR	LR	23 53 12.2	
SAML	**Samuel**	**13.55**	**101**	*e*P	**P**	**23 47 26.0**	**-3.4**
	9.6nm,0.6s						
SDV	**Santo Domingo**	**16.53**	**21**	*e*P	**P**	**23 48 09.2**	**+1.9**
	38nm,0.8s						
LVC	**Limon Verde**	**17.57**	**156**	P	**P**	**23 48 21.3**	**+1.0**
	0.6nm,0.3s,baz=314,slow=9.4,SNR=15						
JTS	**JuntasAbangare**	**18.72**	**334**	P	**P**	**23 48 34.7**	**+1.0**
	0.1nm,0.3s,baz=338,slow=19,SNR=2.7						
SJG	**San Juan**	**26.67**	**23**	P	**P**	**23 49 52.3**	**+0.3**
	51nm,0.7s,mb5.2,baz=219,slow=5.7,SNR=14						
SJG				pP	pP	23 50 19.8	+6.2
	36nm,0.7s,baz=185,slow=6.2,SNR=3.6						
SJG				LR	LR	00 00 35.6	
	comp=Z,45nm,21.4s,baz=223,slow=36						
SJG	**San Juan**	**26.67**	**23**	P	**P**	**23 49 52.3**	**+0.3**
SJG				pP	pP	23 50 19.8	+6.2
SJG				LR	LR	00 00 35.6	
BDFB	**Brasilia**	**29.46**	**110**	P	**P**	**23 50 16.1**	**-1.1**
	11nm,0.7s,mb4.6,baz=282,slow=11,SNR=19						
BDFB				LR	LR	00 02 44.5	
	comp=Z,73nm,20.5s,baz=294,slow=37						
BAO	**Brasilia Array**	**29.48**	**110**	P	**P**	**23 50 16.8**	**-0.5**
NHSC	**New Hope**	**39.65**	**355**	*e*P	**P**	**23 51 45.0**	**+1.0**
	147nm,1.3s,mb5.7						
LRAL	**Lakeview Retre**	**40.64**	**347**	*e*P	**P**	**23 51 51.6**	**-0.5**
	13nm,0.9s,mb4.8						
SWET	**Sewanee**	**42.52**	**349**	*e*P	**P**	**23 52 06.9**	**-0.7**
OXF	**Oxford**	**42.65**	**344**	*e*P	**P**	**23 52 08.3**	**-0.3**
ELN	**Prospectdale**	**43.78**	**355**	*e*P	**P**	**23 52 18.8**	**+1.0**
TXAR	**Lajitas Array**	**44.19**	**325**	P	**P**	**23 52 21.7**	**+0.5**
	0.9nm,0.6s,mb3.7,baz=150,slow=8.7,SNR=11						
TXAR				pP	pP	23 52 51.4	+6.9
	0.9nm,0.6s,baz=148,slow=9.9,SNR=4.6						
TXAR	**Lajitas Array**	**44.19**	**325**	P	**P**	**23 52 21.7**	**+0.5**
TXAR				pP	pP	23 52 51.4	+6.9
FVM	**French Village**	**46.19**	**345**	*e*P	**P**	**23 52 36.1**	**-0.8**
	5.8nm,0.8s,mb4.4						
ANMO	**Albuquerque**	**50.00**	**328**	*e*P	**P**	**23 53 06.9**	**+0.3**
	2.1nm,0.8s,mb4.1						
PDAR	**Pinedale Array**	**57.54**	**332**	P	**P**	**23 54 01.1**	**-0.7**
	1.5nm,0.6s,mb4.2,baz=128,slow=9.1,SNR=12						
PDAR				pP	pP	23 54 31.8	+5.8
	1.1nm,0.7s,baz=146,slow=11,SNR=4.0						
BW06	**Boulder Array**	**57.54**	**332**	*e*P	**P**	**23 54 00.8**	**-1.0**
HWUT	**Hardware Ranch**	**57.64**	**329**	*e*P	**P**	**23 54 02.0**	**-0.5**
	6.2nm,0.6s,mb4.8						
ELK	**Elko**	**58.96**	**326**	*e*P	**P**	**23 54 11.2**	**-0.4**
ULM	**Lac du Bonnet**	**59.04**	**346**	P	**P**	**23 54 10.7**	**-1.4**
	17nm,0.8s,mb5.2,baz=158,slow=6.5,SNR=20						
NVAR	**Mina Array Bea**	**59.19**	**323**	P	**P**	**23 54 13.7**	**+0.4**
	1.7nm,0.8s,mb4.1,baz=139,slow=7.6,SNR=6.7						
NVAR				pP	pP	23 54 43.6	+5.9
	2.7nm,0.7s,baz=136,slow=7.6,SNR=7.7						
SCHQ	**Schefferville**	**61.77**	**6**	P	**P**	**23 54 29.9**	**-0.7**
	4.3nm,0.7s,mb4.6,baz=226,slow=4.1,SNR=3.7						
DBIC	**Dimbokro**	**72.84**	**81**	P	**P**	**23 55 40.6**	**-0.1**
	22nm,0.9s,mb5.0,baz=246,slow=5.4,SNR=38						
YKA	**Yellowknife Ar**	**74.79**	**343**	P	**P**	**23 55 50.4**	**-0.6**
	2.8nm,0.5s,mb4.3,baz=138,slow=6.0,SNR=90						
YKA				pP	pP	23 56 21.8	+5.2
	1.8nm,0.8s,baz=136,slow=5.9,SNR=3.8						
YKA	**Yellowknife Ar**	**74.79**	**343**	P	**P**	**23 55 50.4**	**-0.6**
YKA				pP	pP	23 56 21.8	+5.2
VNA3	**Neumayer Olymp**	**76.47**	**162**	⇑*i*	**P**	**23 56 02.0**	**+1.6**
VNA1	**Neumayer--Stat**	**76.71**	**161**	⇑*i*	**P**	**23 56 03.8**	**+2.0**
VNA2	**Neumayer--Watz**	**77.07**	**162**	⇓*i*	**P**	**23 56 04.8**	**+1.0**
EVO	**Evora**	**77.72**	**48**	*e*P	**P**	**23 56 06.8**	**-1.2**
	14nm,0.9s,mb4.4						
SNAA	**Sanae**	**78.69**	**162**		**P**	**23 56 11.3**	**-1.3**
SNAA	**Sanae**	**78.69**	**162**	P	**P**	**23 56 11.7**	**-0.9**
	2.4nm,0.7s,mb4.1,baz=284,slow=6.0,SNR=26						
SNAA				pP	pP	23 56 43.8	+5.5
	1.9nm,1.0s,baz=285,slow=7.7,SNR=3.8						
SNAA	**Sanae**	**78.69**	**162**	P	**P**	**23 56 11.3**	**-1.3**
ESDC	**Sonseca Array**	**81.07**	**48**	P	**P**	**23 56 26.5**	**+0.5**
	8.6nm,1.1s,mb4.5,baz=261,slow=4.9,SNR=21						
ESDC				pP	pP	23 56 57.1	+5.3
	1.3nm,0.8s,baz=258,slow=6.0,SNR=2.9						
QSPA	**South Pole Qui**	**83.48**	**180**	⇓*i*P	**P**	**23 56 37.7**	**0.0**
	22nm,1.3s,mb4.8						
QUIF	**Quistinic**	**83.96**	**40**	*e*P	**P**	**23 56 40.8**	**+0.1**
	36nm,1.1s,mb4.8						
SJPF	**Ste Jean**	**83.97**	**45**	*e*P	**P**	**23 56 41.8**	**+1.0**
	93nm,1.2s,mb5.2						
ROSF	**Rostrenen**	**84.01**	**40**	*e*P	**P**	**23 56 41.1**	**+0.2**
	6.6nm,0.5s,mb4.4						
ETSF	**Etsaut**	**84.39**	**46**	*e*P	**P**	**23 56 43.9**	**+1.0**
	21nm,1.0s,mb4.6						
SGMF	**Saint Gilles**	**84.45**	**40**	*e*P	**P**	**23 56 43.3**	**+0.2**
	25nm,1.0s,mb4.7						
EPF	**Esparros**	**85.06**	**46**	*e*P	**P**	**23 56 47.2**	**+0.9**
	79nm,1.4s,mb5.2						
GRR	**Gorron**	**85.58**	**40**	*e*P	**P**	**23 56 49.0**	**+0.3**
	8.6nm,0.5s,mb4.6						
MFF	**Saint Martin d**	**85.59**	**42**	*e*P	**P**	**23 56 49.2**	**+0.4**
	8.2nm,0.6s,mb4.5						
LFF	**La Frestale**	**85.79**	**44**	*e*P	**P**	**23 56 50.2**	**+0.4**
	16nm,0.8s,mb4.7						
FLN	**La Foliniere**	**85.91**	**40**	*e*P	**P**	**23 56 50.2**	**-0.1**
	7.3nm,0.5s,mb4.6						
LDF	**La Druitiere**	**86.10**	**40**	*e*P	**P**	**23 56 51.0**	**-0.2**
	13nm,0.9s,mb4.6						
RJF	**Les Rejaudoux**	**86.41**	**44**	*e*P	**P**	**23 56 52.6**	**-0.2**
MTLF	**Montolieu**	**86.47**	**46**	*e*P	**P**	**23 56 53.0**	**-0.2**
	11nm,0.8s,mb4.5						
CAF	**Calviac**	**86.70**	**44**	*e*P	**P**	**23 56 54.1**	**-0.2**
TCF	**Toulx Ste Croi**	**87.10**	**43**	*e*P	**P**	**23 56 55.6**	**-0.6**
	13nm,1.1s,mb4.5						
BGF	**Bois d'Agland**	**87.59**	**43**	*e*P	**P**	**23 56 58.3**	**-0.2**
	28nm,1.1s,mb4.9						
HYF	**Humbligny**	**87.60**	**42**	*e*P	**P**	**23 56 58.4**	**-0.2**
ILAR	**Eielson Array**	**87.67**	**336**	P	**P**	**23 56 58.1**	**-0.4**
	4.6nm,0.9s,mb4.5,baz=127,slow=3.2,SNR=35						
ILAR				pP	pP	23 57 30.9	+6.2
	2.1nm,0.9s,baz=126,slow=3.7,SNR=4.9						
AVF	**Avril sur Loir**	**87.98**	**43**	*e*P	**P**	**23 56 59.7**	**-0.7**
	8.9nm,0.8s,mb4.5						
SSF	**Saint Saulge**	**88.14**	**42**	*e*P	**P**	**23 57 00.3**	**-0.8**
	3.2nm,0.7s,mb4.1						
SMF	**Signal de Mont**	**88.28**	**43**	*e*P	**P**	**23 57 01.4**	**-0.4**
	28nm,1.1s,mb4.9						
VIVF	**Saint-Julien-l**	**88.51**	**45**	*e*P	**P**	**23 57 03.0**	**+0.1**
	40nm,1.3s,mb5.0						
SMRF	**Simiane la Rot**	**88.98**	**46**	*e*P	**P**	**23 57 05.5**	**+0.3**
	54nm,1.4s,mb5.1						
BAIF	**Baives**	**89.19**	**40**	*e*P	**P**	**23 57 05.7**	**-0.3**
	23nm,1.1s,mb4.8						
ORIF	**Oris-en-Rattie**	**89.36**	**45**	*e*P	**P**	**23 57 07.5**	**+0.6**
	26nm,1.1s,mb4.9						
DAG	**Danmarks Havn**	**89.44**	**11**	⇑*e*P	**P**	**23 57 06.6**	**0.0**
	5.5nm,0.7s,mb4.7						
DAG	**Danmarks Havn**	**89.44**	**11**	⇑*i*P	**P**	**23 57 06.6**	**0.0**
	5.5nm,0.7s,mb4.7						
MEZF	**Maizieres J'vi**	**89.44**	**41**	*e*P	**P**	**23 57 07.0**	**-0.2**
LMR	**La Mourre**	**89.54**	**46**	*e*P	**P**	**23 57 07.4**	**-0.4**
GIVF	**Givet**	**89.59**	**40**	*e*P	**P**	**23 57 07.9**	**+0.1**
	23nm,1.0s,mb5.0						
FRF	**La Foret Royal**	**89.68**	**46**	*e*P	**P**	**23 57 08.4**	**0.0**
	77nm,1.2s,mb5.4						
CABF	**La Chapelle**	**89.80**	**43**	*e*P	**P**	**23 57 08.9**	**0.0**
	21nm,1.0s,mb4.9						
LPL	**La Plagne**	**90.06**	**44**	*e*P	**P**	**23 57 11.0**	**+0.8**
	5.7nm,0.8s,mb4.5						
LPG	**La Plagne**	**90.07**	**44**	*e*P	**P**	**23 57 11.1**	**+0.9**
	14nm,1.0s,mb4.7						
VNDA	**Vanda**	**90.07**	**191**	P	**P**	**23 57 09.6**	**0.0**
	0.3nm,0.5s,mb3.7,baz=187,slow=8.2,SNR=4.0						
VNDA				pP	pP	23 57 42.1	+6.2
	0.7nm,0.7s,baz=288,slow=2.3,SNR=2.4						
VNDA	**Vanda**	**90.07**	**191**	P	**P**	**23 57 09.6**	**0.0**
VNDA				pP	pP	23 57 42.1	+6.2
HAU	**Haudompre**	**90.20**	**42**	*e*P	**P**	**23 57 10.2**	**-0.6**
CDF	**Champ du Feu**	**90.88**	**42**	*e*P	**P**	**23 57 13.7**	**-0.3**
	8.5nm,0.9s,mb4.6						
ARCES	**ARCESS Array B**	**100.42**	**20**	P	P	23 57 56.8	-0.1
	3.6nm,0.8s,baz=7.1,slow=9.8,SNR=3.6						
BVAR	**Borovoye Array**	**126.50**	**24**	PKP	PKPdf	00 03 12.8	+1.0
	2.4nm,0.7s,baz=270,slow=3.0,SNR=13						
STKA	**Stephens Creek**	**127.13**	**221**	PKP	PKPdf	00 03 13.9	+0.3
	1.8nm,0.8s,baz=218,slow=21,SNR=3.0						
ZAL	**Zalesovo**	**130.48**	**14**	PKP	PKPdf	00 03 20.3	+0.9
	4.3nm,0.9s,baz=184,slow=2.2,SNR=24						
ZAL				pPKP		00 03 54.7	
	2.9nm,0.8s,baz=197,slow=1.6,SNR=6.2						
ASAR	**Alice Springs**	**137.62**	**224**	PKhKP		00 03 24.1	
	0.4nm,0.6s,baz=127,slow=2.6,SNR=5.3						
ASAR				PKP	PKPdf	00 03 33.1	-0.4
	1.6nm,0.8s,baz=117,slow=2.1,SNR=8.6						
SONM	**Songino Array**	**138.85**	**357**	PKP	PKPdf	00 03 35.1	0.0
	0.5nm,0.7s,slow=1.4,SNR=4.6						
SONM				pPKP		00 04 10.7	
	0.9nm,0.7s,baz=334,slow=2.1,SNR=3.7						
WB2	**Warramunga Arr**	**139.66**	**228**	*e*P	PKPdf	00 03 39.0	+1.7
WRA	**Warramunga Arr**	**139.67**	**228**	PKP	PKPdf	00 03 36.9	-0.4
	0.9nm,0.3s,baz=116,slow=2.2,SNR=15						
WRA				pPKP		00 04 11.7	
	1.3nm,0.5s,baz=121,slow=2.1,SNR=4.1						
HHC	**Hu-ho-hao-te**	**145.13**	**349**	*e*PKP	PKPdf	00 03 47.0	+0.7
KAKA	**Kakadu**	**145.29**	**236**	*e*P	PKPdf	00 03 46.9	-0.4
	5.3nm,0.6s						
FITZ	**Fitzroy Crossi**	**147.02**	**222**	*e*P	PKPdf	00 03 50.5	+0.3
	5.8nm,0.8s						
FITZ				*e*		00 04 25.9	
FITZ	**Fitzroy Crossi**	**147.02**	**222**	PKPbc	PKPdf	00 03 50.7	+0.5
	5.1nm,0.5s,baz=173,slow=4.5,SNR=21						
FITZ				pPKPbc		00 04 25.1	
	6.1nm,0.6s,baz=173,slow=5.7,SNR=4.9						
GTA	**Gaotai**	**147.20**	**5**	⇓PKP	PKPdf	00 03 53.5	+3.6
GTA				APKP		00 04 27.8	
LZH	**Lanzhou**	**150.67**	**359**	⇓PKP	PKPdf	00 04 02.5	+7.0
LZH				APKP		00 04 31.0	
KOLN	**Koldanda**	**151.84**	**39**	*e*P	PKPdf	00 04 04.6	+7.1
	22nm,0.7s						
GKN	**Gorkha**	**152.31**	**38**	*e*P	PKPdf	00 04 06.1	+7.9
	40nm,0.7s						
KKN	**Kakani**	**152.85**	**37**	*e*P	PKPdf	00 04 07.1	+8.2
	19nm,0.7s						
DMN	**Daman**	**152.88**	**38**	*e*P	PKPdf	00 04 07.2	+8.2
PKI	**Pulchoki**	**153.09**	**37**	*e*P	PKPdf	00 04 07.4	+8.2
	18nm,0.9s						
GUN	**Gumba**	**153.12**	**36**	*e*P	PKPdf	00 04 08.5	+9.2
	4.2nm,0.4s						
HYB	**Hyderabad**	**153.52**	**64**	*e*P	PKPab	00 04 21.0	-2.1
CMAR	**Chiang Mai Arr**	**167.47**	**20**	PKP	PKPdf	00 04 15.8	+0.7
	0.7nm,0.4s,baz=233,slow=1.4,SNR=5.4						
CMAR				PKPab	PKPab	00 05 22.7	-0.5
	2.0nm,0.5s,baz=324,slow=5.1,SNR=8.9						

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*NEIC **06** 23:49:15.1, 44.48N×6.79E, h5^{km}, ML2.6(GEN), ML2.4(LDG), ML2.3(STR), After STR.*

*LDG **06** 23:49:15.0±0.0, 44.48N×6.79E, h2^{km}, Md2.5/3, Ml2.4/16, Error ellipse: s-maj=1.2km s-min=0.7km az=58.0*

STR 06 23:49:15.1±0.1**, 44.48N×6.79E, h5**^{km}±1^{km}**, Ml2.3, 5C-1D, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SURF	**Saint Ours**	**0.02**	**87**	Pg	Pg	23 49 16.3	+0.2
SURF				Sg	Sg	23 49 17.0	+0.3
PZZ	**Prazzo**	**0.22**	**83**	⇑P	Pg	23 49 20.0	+0.3
PZZ				S	Sg	23 49 23.7	+0.9
MBDF	**Montbardon**	**0.25**	**357**	*e*Pg	Pg	23 49 20.0	-0.1
MBDF				*e*Sg	Sg	23 49 23.0	-0.5
	195nm,0.3s						
DOI	**San Damiano**	**0.33**	**86**	*e*Pg	Pg	23 49 21.5	-0.2
DOI				*e*Sg	Sg	23 49 27.1	+0.9
OG22	**Abries**	**0.36**	**18**	Pg	Pg	23 49 22.1	-0.2
OG22				Sg	Sg	23 49 27.6	+0.4
RRL	**Cesana Torines**	**0.44**	**359**	⇑P	Pg	23 49 23.8	-0.1
RRL				S	Sg	23 49 30.2	+0.4
STV	**Sta Anna Valdi**	**0.45**	**121**	⇑P	Pg	23 49 23.8	-0.3
STV				S	Sg	23 49 29.9	-0.3
STV2	**Anna di Valdie**	**0.45**	**121**	⇑P	Pg	23 49 23.7	-0.5
STV2				S	Sg	23 49 29.5	-0.6
BHB	**Bricherasio**	**0.49**	**43**	P	Pg	23 49 24.8	-0.2
BHB				S	Sg	23 49 31.8	+0.1
ENR	**Entracque**	**0.52**	**119**	P	Pg	23 49 25.0	-0.5
ENR				S	Sg	23 49 32.1	-0.3
OG25	**Le Caire**	**0.53**	**258**	Pg	Pg	23 49 25.0	-0.6
TOUF	**Mont Tournerai**	**0.57**	**145**	Pg	Pg	23 49 25.8	-0.7
FENE	**Fenestrelle**	**0.58**	**19**	P	Pg	23 49 26.2	-0.5
FENE				S	Sg	23 49 34.5	-0.1
MVIF	**Mont Vial**	**0.64**	**156**	Pg	Pg	23 49 27.3	-0.6
MVIF				Sg	Sg	23 49 36.6	+0.2
AUTN	**L'Aution**	**0.67**	**136**	Pg	Pg	23 49 27.8	-0.6
AUTN				Sg	Sg	23 49 37.1	-0.2
AURF	**Auriere**	**0.71**	**147**	Pg	Pg	23 49 28.7	-0.6
SAOF	**Saorge**	**0.74**	**132**	Pg	Pg	23 49 29.0	-0.9
SAOF				Sg	Sg	23 49 38.8	-1.0
RSP	**Reno Superiore**	**0.75**	**26**	P	Pg	23 49 30.4	+0.3
RSP				S	Sg	23 49 40.7	+0.6
SBF	**Sospel**	**0.77**	**143**	*e*Pg	Pg	23 49 29.5	-1.0
SBF				*e*Sg	Sg	23 49 39.8	-1.0
	50nm,0.3s						
ORIF	**Oris-en-Rattie**	**0.78**	**304**	*e*Pg	Pg	23 49 29.3	-1.5
ORIF				*e*Sg	Sg	23 49 39.6	-1.6
	20nm,0.3s						
ROB	**Roburent**	**0.80**	**103**	P	Pg	23 49 30.3	-0.7
ROB				S	Sg	23 49 40.6	-1.0
MONE	**Monesi**	**0.80**	**120**	⇓P	Pg	23 49 30.1	-1.0
MONE				S	Sg	23 49 41.0	-0.8
NEGI	**Negi**	**0.91**	**134**	P	Pb	23 49 32.4	-0.6
NEGI				S	Sb	23 49 44.2	-1.0
FRF	**La Foret Royal**	**0.93**	**186**	*e*Pg	Pg	23 49 32.3	-1.3
FRF				*e*Sg	Sg	23 49 44.8	-1.1
	19nm,0.3s						
IMI	**Imperia**	**0.97**	**125**	⇑P	Pb	23 49 33.4	-0.7
SMRF	**Simiane la Rot**	**1.01**	**240**	*e*Pn	Pn	23 49 34.7	-1.1
SMRF				*e*Sg	Sg	23 49 48.5	-0.2
	26nm,0.4s						
LSD	**Ceresole Reale**	**1.01**	**15**	P	Pb	23 49 34.8	0.0
LSD				S	Sb	23 49 48.5	+0.4
LPG	**La Plagne**	**1.02**	**358**	*e*Pg	Pg	23 49 34.2	-1.2
LPG				*e*Sg	Sg	23 49 46.6	-2.4
	13nm,0.3s						
LPL	**La Plagne**	**1.04**	**358**	*e*Pn	Pn	23 49 34.5	-1.7
LPL				*e*Sg	Sg	23 49 48.1	-1.6
	20nm,0.4s						
FIN	**Finale Ligure**	**1.05**	**104**	P	Pb	23 49 34.6	-0.8
FIN				S	Sb	23 49 49.1	-0.2
LMR	**La Mourre**	**1.16**	**190**	*e*Pg	Pg	23 49 36.5	-1.8
LMR				*e*Sg	Sg	23 49 51.2	-2.7
	21nm,0.3s						
PCP	**Pian Castagno**	**1.26**	**87**	P	Pb	23 49 38.2	-0.7
VIVF	**Saint-Julien-l**	**1.56**	**285**	*e*Pn	Pn	23 49 42.0	-1.6
VIVF				*e*Sg	Sg	23 50 02.9	-4.1
	12nm,0.4s						
LASF	**Ste Croix**	**2.15**	**260**	*e*Pn	Pn	23 49 49.5	-2.5
LASF				*e*Sn	Sn	23 50 15.7	-3.6
	5.1nm,0.5s						
CABF	**La Chapelle**	**2.19**	**347**	*e*Pn	Pn	23 49 50.3	-2.3
CABF				*e*Sg	Sg	23 50 23.9	-4.0
	1.8nm,0.3s						
PGF	**Pioggiola**	**2.51**	**139**	*e*Pn	Pn	23 49 55.3	-2.0
PGF				*e*Sn	Sn	23 50 24.0	-4.7
	6.9nm,0.4s						
SMF	**Signal de Mont**	**3.00**	**317**	*e*Pn	Pn	23 50 01.5	-2.7
SMF				*e*Pg	Pg	23 50 10.5	-4.4
SMF				*e*Sn	Sn	23 50 36.3	-4.6
SMF				*e*Sg	Sg	23 50 48.9	-6.0
	8.1nm,0.6s						
AVF	**Avril sur Loir**	**3.34**	**315**	*e*Pn	Pn	23 50 08.0	-1.1
AVF				*e*Pg	Pg	23 50 17.2	-4.6
AVF				*e*Sg	Sg	23 50 59.6	-6.7
	2.2nm,0.4s						
CAF	**Calviac**	**3.40**	**279**	*e*Pn	Pn	23 50 07.4	-2.5
CAF				*e*Sn	Sn	23 50 45.4	-5.7
	1.2nm,0.3s						
SSF	**Saint Saulge**	**3.46**	**319**	*e*Pn	Pn	23 50 08.0	-2.7
SSF				*e*Sg	Sg	23 51 03.1	-7.1
	2.6nm,0.4s						
BGF	**Bois d'Agland**	**3.46**	**308**	*e*Pn	Pn	23 50 07.8	-3.0
BGF				*e*Sg	Sg	23 51 03.7	-6.7
	5.1nm,0.5s						
MTLF	**Montolieu**	**3.50**	**253**	*e*Pn	Pn	23 50 08.6	-2.7
MTLF				*e*Sn	Sn	23 50 47.6	-5.9
	1.6nm,0.4s						
TCF	**Toulx Ste Croi**	**3.70**	**301**	*e*Pn	Pn	23 50 12.1	-2.1
TCF				*e*Sg	Sg	23 51 11.0	-7.3
	1.2nm,0.3s						

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*IDC **07** 00:02:51.6±10.0, 12.10N×87.30W, mb3.6/4, mb1 4.1/4, mb1mx3.8/18, Error ellipse: s-maj=242.0km s-min=90.1km az=12.0*

*CASC **07** 00:02:52.7±2.8, 11.00N×88.11W, h34^{km}±57^{km}, MD4.0, ML3.4*

ISC 07 00:02:51.3±0.9**, 10.98N**±0.04×**88.17W**±0.05**, h37**^{km}±12^{km}**, n27, σ0**^{s}**88**/47**, mb3.6**/4**, 5C-8D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYN	**Poneloya**	**1.79**	**39**	⇑*e*P	**P**	**00 03 19.5**	**-0.8**
PYN				*e*S	**S**	**00 03 42.5**	**+0.5**
LEON	**Leon**	**1.90**	**41**	⇓*e*P	**P**	**00 03 20.9**	**-0.9**
LEON				*e*S	**S**	**00 03 45.0**	**+0.3**
COPN	**Copaltepe**	**1.95**	**52**	⇑*e*P	**P**	**00 03 21.9**	**-0.7**
COPN				*e*S	**S**	**00 03 46.2**	**+0.1**
CRIN	**San Cristobal**	**2.03**	**33**	*e*P	**P**	**00 03 23.2**	**-0.5**
MIRN	**Miramar**	**2.04**	**44**	⇑*i*P	**P**	**00 03 22.8**	**-1.0**
MIRN				*e*S	**S**	**00 03 47.7**	**-0.5**
TELN	**Telica**	**2.08**	**39**	*e*P	**P**	**00 03 23.4**	**-1.0**
TELN				*e*S	**S**	**00 03 49.5**	**+0.1**
CNGN	**Cerro Negro**	**2.09**	**44**	⇓*e*P	**P**	**00 03 23.4**	**-1.2**
CNGN				*e*S	**S**	**00 03 50.5**	**+1.0**
XAVN	**Gruta Xavier**	**2.15**	**57**	*e*P	**P**	**00 03 25.5**	**+0.1**
XAVN				*e*S	**S**	**00 03 51.7**	**+0.6**
TICN	**Ticuantepe**	**2.17**	**61**	*e*P	**P**	**00 03 25.9**	**+0.2**
TICN				*e*S	**S**	**00 03 51.7**	**+0.1**
APYN	**Apoyeque**	**2.18**	**55**	⇓*e*P	**P**	**00 03 25.7**	**-0.1**
APYN				*e*S	**S**	**00 03 52.2**	**+0.4**
MGAN	**Managua**	**2.21**	**58**	*e*P	**P**	**00 03 26.3**	**-0.1**
MGAN				*e*S	**S**	**00 03 53.1**	**+0.4**
	comp=N,371nm,0.4s						
APON	**Apoyo**	**2.26**	**66**	*e*P	**P**	**00 03 26.9**	**-0.2**
APON				*e*S	**S**	**00 03 54.6**	**+0.6**
WILN	**Americas 2**	**2.27**	**59**	*e*P	**P**	**00 03 27.8**	**+0.6**
WILN				*e*S	**S**	**00 03 54.5**	**+0.3**
PYTN	**Playitas**	**2.58**	**53**	*e*P	**P**	**00 03 30.3**	**-1.4**
PYTN				*e*S	**S**	**00 04 03.2**	**+1.1**
CGA2	**Cerro Gallo 2**	**3.77**	**104**	⇓*e*P	**P**	**00 03 49.7**	**+1.2**
CGA2				*e*S	**S**	**00 04 31.3**	**-0.9**
PRS1	**Puriscal**	**3.92**	**104**	⇓*e*P	**P**	**00 03 51.4**	**+0.6**
PRS1				*e*S	**S**	**00 04 35.1**	**-1.1**
VPS2	**Volcan Poas 2**	**3.95**	**101**	*e*P	**P**	**00 03 52.7**	**+1.7**
LAJ	**Bijagual**	**4.14**	**105**	⇓*e*P	**P**	**00 03 49.3**	**-4.4**
LAJ				*e*S	**S**	**00 04 29.9**	**-12**
LCR2	**La Lucha 2**	**4.28**	**106**	⇑*e*P	**P**	**00 03 57.1**	**+1.3**
LCR2				*e*S	**S**	**00 04 44.4**	**-0.8**
TRTC	**Tortuguero**	**4.40**	**95**	*e*P	**P**	**00 03 57.0**	**-0.5**
TRTC				*e*S	**S**	**00 04 47.3**	**-0.9**
URSC	**Urasca**	**4.47**	**104**	⇓*e*P	**P**	**00 04 00.0**	**+1.6**
URSC				*e*S	**S**	**00 04 50.0**	**0.0**
BUS	**Buena Vista**	**4.57**	**108**	⇓*e*P	**P**	**00 04 01.0**	**+1.1**
BUS				*e*S	**S**	**00 04 50.9**	**-1.5**
ACR	**Cerro Adams**	**5.45**	**115**	⇑*e*P	**P**	**00 04 13.3**	**+1.1**
TXAR	**Lajitas Array**	**23.30**	**324**	P	**P**	**00 07 57.9**	**+1.0**
	comp=N,1.0nm,0.9s,mb3.2,baz=126,slow=12,SNR=8.4						
NVAR	**Mina Array Bea**	**38.36**	**321**	P	**P**	**00 10 11.2**	**+0.6**
	comp=N,1.2nm,0.7s,mb3.7,baz=125,slow=11,SNR=4.4						
YKA	**Yellowknife Ar**	**54.84**	**345**	P	**P**	**00 12 17.3**	**-2.7**
	comp=N,0.3nm,0.5s,mb3.6,baz=138,slow=7.2,SNR=8.8						
ILAR	**Eielson Array**	**67.07**	**337**	P	**P**	**00 13 42.4**	**-0.4**
	comp=N,0.9nm,0.9s,mb3.8,baz=135,slow=6.4,SNR=4.4						

IDC 07 00:13:01.2±2.8**, 20.55S×174.21E, mb4.0**/4**, mb1 4.2**/4**, mb1mx3.9**/13**, Error ellipse: s-maj=130.0km s-min=31.0km az=146.0, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**31.24**	**242**	P	P	00 19 22.4	-2.5
	1.9nm,0.8s,baz=60,slow=3.3,SNR=2.7						
WRA	**Warramunga Arr**	**37.34**	**264**	P	P	00 20 16.2	-1.2
	0.7nm,0.5s,baz=98,slow=7.7,SNR=12						

ASAR	Alice Springs	37.38	258	P	P	00 20 15.3	-2.4
	1.5nm,0.5s,baz=97,slow=7.4,SNR=28						
ILAR	Eielson Array	90.16	16	P	P	00 26 01.2	-3.0
	0.5nm,0.8s,baz=223,slow=5.6,SNR=4.7						
ARCES	ARCESS Array B	127.47	347	PKP	PKPdf	00 32 09.3	-0.3
	4.2nm,1.1s,baz=25,slow=2.0,SNR=5.4						

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*NEIC **07** 00:25:35.4±4.5, 20.95S×178.43W, h577^{km}±57^{km}, mb4.2/8, Error ellipse: s-maj=31.3km s-min=17.4km az=191.0*
*SYO **07** 00:25:36.0, 20.50S×178.67W, h570^{km}, MB4.2*
*IDC **07** 00:25:37.5±2.0, 21.03S×178.50W, h601^{km}±24^{km}, mb3.7/11, mb1 3.9/13, mb1mx3.7/18, Error ellipse: s-maj=28.2km s-min=10.5km az=159.0*
ISC 07 00:25:35.0±2.1, **20.8S**±0.1×**178.59W**±0.09, **h577**^{km}±27^{km}, **n45**, σ**0**^{s}**96**/30, **mb4.2**/18, **1C-3D**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	17.76	191	P	P	00 29 08.2	-1.7
	1.3nm,0.3s,baz=8.1,slow=7.1,SNR=5.9						
ARMA	Armidale	28.43	244	*e*P	P	00 30 47.1	+1.3
CTA	Charters Tower	32.91	265	*e*P	P	00 31 24.7	+0.7
	7.6nm,0.6s,mb4.5						
CTA	Charters Tower	32.91	265	P	P	00 31 24.8	+0.8
	6.5nm,0.3s,mb4.7,baz=100,slow=10,SNR=13						
PMG	Port Moresby	34.88	284	P	P	00 31 41.4	+0.9
	13nm,0.8s,mb4.6,baz=100,slow=5.6,SNR=10.0						
PMG	Port Moresby	34.88	284	P	P	00 31 41.4	+0.9
STKA	Stephens Creek	37.15	244	*e*P	P	00 31 59.7	+0.8
	3.5nm,0.4s,mb4.2						
STKA	Stephens Creek	37.15	244	P	P	00 31 58.9	0.0
	4.7nm,0.5s,mb4.3,baz=83,slow=11,SNR=13						
ASAR	Alice Springs	43.90	257	P	P	00 32 53.2	+0.2
	7.2nm,0.4s,mb4.5,baz=95,slow=7.7,SNR=102						
ASAR				PcP	PcP	00 34 25.8	-0.8
	1.3nm,0.5s,baz=98,slow=4.4,SNR=6.5						
ASAR				S	S	00 38 43.5	-0.2
	0.7nm,0.6s,baz=91,slow=16,SNR=8.0						
ASPA	Alice Springs	43.91	257	*e*P	P	00 32 52.9	-0.2
WB2	Warramunga Arr	44.00	263	*e*P	P	00 32 53.3	-0.5
WRAB	Tennant Creek	44.00	263	*e*P	P	00 32 53.3	-0.5
	9.8nm,0.3s,mb4.8						
WRA	Warramunga Arr	44.01	263	P	P	00 32 53.3	-0.5
	3.9nm,0.3s,mb4.5,baz=97,slow=7.3,SNR=174						
WRA				S	S	00 38 42.7	-2.5
	1.0nm,0.9s,baz=103,slow=16,SNR=3.5						
KAKA	Kakadu	47.43	272	*e*P	P	00 33 19.8	-0.3
	4.9nm,0.3s,mb4.5						
FITZ	Fitzroy Crossi	52.44	263	*e*P	P	00 33 56.4	-0.4
	1.7nm,0.3s,mb3.9						
YBH	Yreka Blue Hor	80.89	39	P	P	00 36 51.1	+0.5
	5.3nm,0.7s,mb4.1,baz=101,slow=2.8,SNR=7.0						
NVAR	Mina Array Bea	81.65	44	P	P	00 36 54.5	-0.1
	2.4nm,0.6s,mb3.9,baz=218,slow=7.0,SNR=13						
TPNV	Topopah Spring	82.17	46	*e*P	P	00 36 57.0	-0.3
	4.2nm,0.7s,mb4.1						
HLID	Hailey	86.94	41	*e*P	P	00 37 20.8	+0.5
	4.2nm,1.0s,mb4.1						
MCK	McKinley	87.42	13	*e*P	P	00 37 20.9	-1.1
	1.8nm,0.7s,mb3.9						
TXAR	Lajitas Array	87.70	58	P	P	00 37 25.0	+0.8
	3.9nm,1.1s,mb4.1,baz=218,slow=5.8,SNR=21						
VNA3	Neumayer Olymp	87.85	176	⇑*i*	P	00 37 25.4	+1.5
ANMO	Albuquerque	88.04	51	P	P	00 37 25.7	0.0
	0.2nm,0.3s,mb3.3,baz=258,slow=5.4,SNR=3.2						
VNA2	Neumayer--Watz	88.28	177	⇓*i*	P	00 37 27.7	+1.7
VNA1	Neumayer--Stat	88.51	177	⇓*i*	P	00 37 25.5	-1.6
ILAR	Eielson Array	88.76	13	P	P	00 37 27.1	-1.3
	1.3nm,0.4s,mb4.1,baz=223,slow=5.6,SNR=19						
PDAR	Pinedale Array	89.58	43	P	P	00 37 32.1	-0.6
	2.1nm,0.5s,mb4.2,baz=209,slow=3.2,SNR=23						
CMAR	Chiang Mai Arr	89.70	290	P	P	00 37 35.6	+1.8
	1.2nm,0.4s,mb4.1,baz=136,slow=4.5,SNR=5.9						
BVAR	Borovoye Array	118.98	320	PKP	PKPdf	00 43 18.1	-0.1
	2.2nm,0.3s,baz=116,slow=2.0,SNR=28						
ARCES	ARCESS Array B	129.15	349	PKP	PKPdf	00 43 37.1	-0.3
	1.1nm,0.4s,baz=63,slow=2.7,SNR=13						
FINES	FINESS Array B	135.93	343	PKhKP		00 43 36.7	
	2.1nm,0.9s,baz=315,slow=2.0,SNR=3.5						
FINES				PKP	PKPdf	00 43 51.7	+1.5
	1.1nm,0.7s,baz=90,slow=1.4,SNR=5.2						
HFS	Hagfors	139.78	351	PKhKP		00 43 50.0	
	1.2nm,0.3s,slow=3.0,SNR=16						
AKASG	Malin Array Be	143.03	330	PKP	PKPdf	00 44 01.5	-1.7
	6.3nm,0.4s,baz=40,slow=4.2,SNR=59						
MALT	Malatya	143.69	307	*e*PKP	PKPdf	00 44 05.8	+1.1
EKA	Eskdalemuir Ar	145.38	5	PKPbc	PKPbc	00 44 08.8	+0.6
	3.0nm,0.9s,baz=336,slow=1.4,SNR=4.9						
ASF	Jabal al Asfar	146.44	297	PKPbc	PKPbc	00 44 13.0	+1.5
	3.9nm,0.8s,baz=295,slow=4.2,SNR=4.5						
BRTR	Keskin Array B	146.65	312	PKPbc	PKPbc	00 44 13.2	+1.4
	2.2nm,0.7s,baz=134,slow=4.9,SNR=12						
KOLS	Kolonicke sedl	147.37	334	*e*PKP	PKPdf	00 44 15.3	+4.8
MLR	Muntele Rosu	148.20	326	PKPbc	PKPdf	00 44 16.3	+4.3
	7.3nm,0.8s,baz=153,slow=16,SNR=4.4						
CLL	Collm	148.26	346	⇓*i*PKP1	PKPdf	00 44 17.3	+5.5
CLL				*i* PKP2	PKPab	00 44 22.5	-1.4
VYHS	Vyhne	149.06	337	*e*PKP	PKPdf	00 44 19.8	+6.6
PRU	Pruhonice	149.10	343	*e*PKPbc	PKPdf	00 44 19.5	+6.3
KHC	Kasperske Hory	150.14	344	*e*PKPbc	PKPdf	00 44 22.0	+7.1
KHC				PKPab	PKPab	00 44 31.0	-0.7
GERES	GERESS Array B	150.37	343	PKPbc	PKPdf	00 44 22.5	+7.2
	2.1nm,0.7s,baz=34,slow=2.5,SNR=23						
GERES				PKPab	PKPab	00 44 32.0	-0.7
	0.5nm,0.5s,slow=4.0,SNR=4.5						
DAVOX	Davos	153.21	347	PKPbc	PKPdf	00 44 28.8	+9.5
	3.1nm,0.5s,baz=244,slow=4.9,SNR=8.1						
DAVOX				PKPab	PKPab	00 44 43.9	-0.8
	2.1nm,0.6s,baz=105,slow=11,SNR=3.1						

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*STR **07** 00:28:25.6±0.2, 43.10N×0.22W, h2^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
LDG 07 00:28:25.6±0.1, **43.08N**×**0.25W**, **h2**^{km}, **Md1.7**/2, **Ml1.8**/2, **Error ellipse: s-maj=2.9km s-min=1.7km az=174.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REYF	Montagne du Re	0.11	266	Pg	Pg	00 28 28.3	+0.5
REYF				Sg	Sg	00 28 30.4	+1.2
VIEF	Viey	0.28	134	Pg	Pg	00 28 31.1	0.0
VIEF				Sg	Sg	00 28 34.9	+0.1
ETSF	Etsaut	0.29	232	*e*Pg	Pg	00 28 31.3	-0.1
ETSF				*e*Sg	Sg	00 28 34.7	-0.6
	14nm,0.2s						
EPF	Esparros	0.43	96	*e*Pg	Pg	00 28 34.0	-0.2
EPF				*e*Sg	Sg	00 28 40.0	0.0
	1.8nm,0.2s						
SJPF	Ste Jean	0.72	273	*e*Pg	Pg	00 28 37.9	-2.0
SJPF				*e*Sg	Sg	00 28 48.0	-1.5
	1.1nm,0.3s						
LFF	La Frestale	1.99	21	*e*Sg	Sg	00 29 28.1	-3.9
	2.6nm,0.4s						
CAF	Calviac	2.49	41	*e*Sg	Sg	00 29 43.5	-5.0
	0.6nm,0.2s						

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*IDC **07** 00:48:04.6±0.7, 30.47S×177.56W, mb4.5/8, mb1 4.6/11, mb1mx4.5/18, ML4.4/3, MS4.3/8, Ms1 4.3/8, ms1mx3.9/22, Error ellipse: s-maj=23.0km s-min=19.5km az=126.0*
*MOS **07** 00:48:05.6±1.9, 30.54S×177.61W, h10^{km}, mb4.4/4, Error ellipse: s-maj=27.5km s-min=23.0km az=138.5*
*BJI **07** 00:48:05.5, 29.88S×177.01W, h7^{km}, mB5.3, mb5.1, Ms5.1, Msz4.9*
*NEIC **07** 00:48:06.4±0.4, 30.48S×177.62W, h10^{km}, mb5.0/12, Error ellipse: s-maj=12.2km s-min=10.1km az=126.0*
*SYO **07** 00:48:06.3, 30.44S×177.55W, h10^{km}, MB5.0*
*HRVD **07** 00:48:06.4±0.8, 30.44S×177.27W, h24^{km}±2^{km}, MW5.0/31, Centroid moment Tensor Solution. LP body waves: s20,c25;Mantle waves: s31,c43; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.84±.36; $M_{\theta\theta}$-0.83±.27; $M_{\phi\phi}$-2.01±.24; $M_{r\theta}$-0.89±.44; $M_{\theta\phi}$-0.96±.20; $M_{\phi r}$1.69±.33; Best double couple: $M_0$3.22×10^{16} NP1:ϕ_s225°,δ37°,λ124°. NP2:ϕ_s5°,δ60°,λ67°. Principal axes: T 3.66, Plg66°, Azm232°; N -.88, Plg20°, Azm16°; P -2.78, Plg13°, Azm111°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 07 00:48:09.1±0.5, **30.71S**±0.05×**177.78W**±0.10, **h33**^{km}, **n84**, σ**1**^{s}**13**/48, **mb4.8**/21, **MS4.5**/9, **6C-4D**, **Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	Raoul Island	1.46	355	*e*Pn	Pn	00 48 29.8	-3.8
PUZ	Puketiti	8.04	203	P	P	00 49 59.8	-6.5
PUZ				S	S	00 51 36.5	-0.6
OUZ	Omahuta	8.53	236	P	P	00 50 20.8	+7.7
MWZ	Matawai	8.53	206	P	P	00 50 09.1	-4.1
MWZ				S	S	00 51 49.8	+0.4
URZ	Urewera	8.63	208	Pn	P	00 50 12.9	-1.7
	2.2nm,0.3s,baz=187,slow=6.0,SNR=6.8						
URZ				Sn	Sn	00 51 50.8	-1.1
	11nm,0.3s,baz=115,slow=21,SNR=9.0						
URZ	Urewera	8.63	208	P	P	00 50 09.1	-5.4
MRZ	Mangatainoka R	11.30	207	S	S	00 52 50.2	-7.1
RPZ	Rata Peaks	15.71	211	Pn	P	00 51 49.2	-0.3
	1.7nm,0.3s,baz=226,slow=9.9,SNR=4.5						
RPZ				Sn	S	00 54 30.6	-12
	0.8nm,0.3s,baz=43,slow=17,SNR=2.6						
RAR	Rarotonga	18.73	64	P	P	00 52 22.3	-5.2
	2.0nm,0.3s,baz=120,slow=13,SNR=3.5						
RAR				S	S	00 55 25.1	-27
	0.8nm,0.3s,baz=86,slow=23,SNR=3.1						
RAR				LR	LR	00 57 39.7	
	comp=Z,483nm,18.7s,baz=266,slow=31						
CTA	Charters Tower	34.04	280	*e*P	P	00 54 53.5	+1.2
	28nm,0.8s,mb5.2						
CTA	Charters Tower	34.04	280	LR	LR	01 07 23.2	
	comp=Z,792nm,18.4s,MS4.5,baz=48,slow=34						
CTAO	Charters Tower	34.04	280	*e*P	P	00 54 54.0	+1.6
	46nm,0.8s,mb5.5						
STKA	Stephens Creek	34.60	257	*e*P	P	00 54 59.4	+2.4
	38nm,0.9s,mb5.3						
STKA	Stephens Creek	34.60	257	P	P	00 54 59.2	+2.2
	35nm,0.8s,mb5.3,baz=100,slow=9.4,SNR=45						
STKA				LR	LR	01 07 53.6	
	comp=Z,599nm,18.9s,MS4.4,baz=286,slow=34						
PMG	Port Moresby	38.91	296	P	P	00 55 32.3	-1.3
	2.7nm,0.7s,mb4.1,baz=249,slow=18,SNR=3.2						
PMG				LR	LR	01 08 56.6	
	comp=Z,321nm,19.9s,MS4.2,baz=37,slow=32						
ASAR	Alice Springs	43.29	267	P	P	00 56 09.8	+0.3
	8.9nm,0.7s,mb4.6,baz=108,slow=7.7,SNR=68						
ASAR				PcP	PcP	00 57 57.7	-1.0
	1.7nm,0.7s,baz=122,slow=4.0,SNR=5.2						
ASAR				ScP		01 01 48.9	
	0.9nm,0.7s,baz=129,slow=4.7,SNR=4.5						
ASAR				LR	LR	01 13 54.8	
	comp=Z,445nm,19.4s,MS4.4,baz=90,slow=36						
ASPA	Alice Springs	43.29	267	*e*P	P	00 56 10.2	+0.7
WB2	Warramunga Arr	44.29	272	*e*P	P	00 56 17.4	-0.3
WRAB	Tennant Creek	44.30	272	*e*P	P	00 56 18.1	+0.4
	50nm,0.8s,mb5.3						
WRA	Warramunga Arr	44.30	272	P	P	00 56 17.6	-0.2
	25nm,0.8s,mb5.0,baz=112,slow=7.8,SNR=77						
WRA	Warramunga Arr	44.30	272	P	P	00 56 17.6	-0.2
WRA				pmax	pmax		
	comp=Z,25nm,0.8s						
VNDA	Vanda	47.80	186	P	P	00 56 46.0	+1.2
	comp=Z,1.3nm,0.8s,mb4.0,baz=37,slow=3.8,SNR=5.3						
VNDA	Vanda	47.80	186	P	P	00 56 46.0	+1.2
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
KAKA	Kakadu	49.18	280	*e*P	P	00 56 55.0	-1.2
	comp=Z,5.9nm,0.8s,mb4.7						
FITZ	Fitzroy Crossi	52.55	270	*e*P	P	00 57 21.0	-0.7
	comp=Z,11nm,0.8s,mb4.8						
FITZ	Fitzroy Crossi	52.55	270	LR	LR	01 20 05.7	
	comp=Z,200nm,18.2s,MS4.2,baz=98,slow=36						
MBWA	Marble Bar	56.38	264	P	P	00 57 48.3	-1.4
	comp=Z,3.8nm,0.6s,mb4.6						
QSPA	South Pole Qui	59.40	180	⇑*i*P	P	00 58 12.1	+2.0
	comp=Z,29nm,0.9s,mb5.3						
MAW	Mawson	72.08	201	P	P	00 59 32.2	+0.9
	comp=Z,6.3nm,1.0s,mb4.5,baz=82,slow=7.6,SNR=4.4						
MAW	Mawson	72.08	201	P	P	00 59 32.2	+0.9
MAW				pmax	pmax		
	comp=Z,6.0nm,1.0s						
SYO	Syowa Base	76.86	193	⇑pP	P	00 59 59.4	+0.5
SYO	Syowa Base	76.86	193	⇓sP	pP	01 00 05.1	-4.1
SNAA	Sanae	77.84	178	P	P	01 00 04.8	+0.5
	comp=Z,1.7nm,0.9s,mb4.0,baz=220,slow=5.6,SNR=8.7						
SNAA	Sanae	77.84	178	P	P	01 00 04.8	+0.5
SNAA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SNAA	Sanae	77.84	178	*e*P	P	01 00 04.6	+0.3
	comp=Z,14nm,1.2s,mb4.8						
VNA3	Neumayer Olymp	77.98	176	*e*	pP	01 00 08.4	-7.0
VNA3	Neumayer Olymp	77.98	176	⇑*i*P	P	01 00 02.5	-2.6
VNA3				*e*		01 00 08.4	
VNA2	Neumayer--Watz	78.42	177	*e*	pP	01 00 18.6	+0.8
VNA2	Neumayer--Watz	78.42	177	⇑*i*P	P	01 00 10.4	+2.9
VNA2				*e*		01 00 18.6	
VNA1	Neumayer--Stat	78.65	176	*e*	pP	01 00 20.2	+1.1
VNA1	Neumayer--Stat	78.65	176	⇓*i*P	P	01 00 12.0	+3.3
VNA1				*e*		01 00 20.2	
NJ2	Nanjing	86.59	310	*e*P	P	01 00 51.2	+0.8
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.3						
NVAR	Mina Array Bea	88.34	43	P	P	01 00 57.6	-1.0
	comp=Z,1.2nm,0.7s,mb4.2,baz=214,slow=7.1,SNR=6.9						
NVAR				LR	LR	01 36 17.8	
	comp=Z,146nm,18.0s,MS4.4,baz=90,slow=33						
TPNV	Topopah Spring	88.58	45	*e*P	P	01 00 59.1	-0.8
	comp=Z,3.5nm,0.8s,mb4.7						
MDJ	Mudanjiang	88.99	325	P	P	01 01 02.6	+1.0
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.8s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,107nm,4.7s						
TUC	Tucson	89.16	51	*e*P	P	01 01 02.1	-0.6
	comp=Z,3.0nm,0.9s,mb4.6						
CN2	Changchun	90.51	323	*e*P	P	01 01 08.5	-0.3
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.5						
GYA	Guiyang	91.87	300	P	P	01 01 20.3	+4.8
GYA				AP	pP	01 01 25.2	-0.9
GYA				XP	sP	01 01 27.4	-2.1
GYA				S	S	01 12 22.8	+11
GYA				PS	PS	01 13 40.3	+9.4
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.1						
GYA				AMB	AMB		
	comp=Z,120nm,4.2s						
GYA				LR	LR		
	comp=N,840nm,21.6s,MS5.3						
GYA				LR	LR		
	comp=E,980nm,22.8s,MS5.3						
GYA				LR	LR		
	comp=Z,970nm,20.5s,MS5.2						
ENH	Enshi	91.94	304	*e*P	P	01 01 16.2	+0.4
	comp=Z,11nm,0.8s,mb5.2						
HLID	Hailey	93.92	41	*e*P	P	01 01 23.7	-0.7
PDAR	Pinedale Array	96.23	43	LR	LR	01 40 57.2	
	comp=Z,132nm,18.2s,MS4.5,baz=15,slow=33						
WMQ	Urumqi	113.57	308	⇓PKP	PKPdf	01 06 45.4	+1.6
WMQ				XPKP		01 06 52.6	
WMQ				PP	PP	01 07 42.4	+1.4
WMQ				PP	PP		
	comp=Z,57nm,7.0s						
WMQ				LR	LR		
	comp=N,118nm,17.8s,MS4.7						
WMQ				LR	LR		
	comp=E,97nm,17.0s,MS4.7						
WMQ				LR	LR		
	comp=Z,83nm,17.8s,MS4.4						
KEV	Kevo	138.47	347	*e*pkp	PKPdf	01 07 35.4	+4.8
JOF	Joensuu	142.78	338	*e*pkp	PKPdf	01 07 37.2	-1.1
GNI	Garni	144.38	297	*e*PKPdf	PKPdf	01 07 39.2	-2.6
KAF	Kangasniemi	144.91	341	*e*pkp	PKPdf	01 07 40.1	-1.9
	baz=37,slow=3.2						
GOF	Gofitskoye	145.14	306	⇓*i*PKIKP	PKPdf	01 07 44.0	+1.1
GOF				pmax	pmax		
	comp=Z,60nm,1.0s						
FINES	FINESS Array B	145.50	340	PKPbc	PKPbc	01 07 42.9	-0.8
	comp=Z,11nm,0.6s,baz=50,slow=4.3,SNR=86						
FINES	FINESS Array B	145.50	340	PKP2	PKPab	01 07 42.9	-2.5
FINES				pmax	pmax		
	comp=Z,11nm,0.6s						
OBN	Obninsk	145.54	325*c*	*i*PKIKP	PKPdf	01 07 43.4	+0.1
OBN				pmax	pmax		
	comp=Z,65nm,0.9s						
OBN	Obninsk	145.54	325	*e*PKP	PKPdf	01 07 43.4	+0.1
KIV	Kislovodsk	145.56	304	*e*PKIKP	PKPdf	01 07 44.9	+1.2
KIV				pmax	pmax		
	comp=N,12nm,1.4s						
KIV				pmax	pmax		
	comp=E,6.0nm,1.4s						
KIV				pmax	pmax		
	comp=Z,18nm,1.4s						
KIV	Kislovodsk	145.56	304	*e*PKPdf	PKPdf	01 07 44.2	+0.5
VRSR	Storozhevoye	145.88	318*c*	*i*PKP2	PKPab	01 07 45.0	-2.2
VRSR				pmax	pmax		
	comp=N,20nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,60nm,0.8s						
VRSR				pmax	pmax		
	comp=E,30nm,0.9s						
NB2	NORSAR Subarra	149.09	351	PKP	PKPdf	01 07 52.9	+4.0
	comp=E,2.6nm,0.8s,baz=15,slow=2.7						
NOA	NORSAR Array B	149.09	351	PKPbc	PKPdf	01 07 52.4	+3.4
	comp=E,4.3nm,0.8s,baz=14,slow=4.3,SNR=9.7						
NOA	NORSAR Array B	149.09	351	PKIKP	PKPdf	01 07 52.4	+3.5
NOA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MALT	Malatya	149.37	294	*e*PKPbc	PKPdf	01 07 56.4	+6.2
ASF	Jabal al Asfar	150.46	282	PKPbc	PKPdf	01 07 59.3	+7.2
	comp=Z,10nm,0.9s,baz=302,slow=1.2,SNR=16						
ASF				PKPab	PKPab	01 08 05.5	-0.7
	comp=Z,2.6nm,0.5s,baz=303,slow=1.0,SNR=5.9						
AKASG	Malin Array Be	151.67	323	PKPbc	PKPdf	01 07 59.5	+6.3
	comp=Z,2.4nm,0.4s,baz=47,slow=2.8,SNR=31						
AKASG				PKPab	PKPab	01 08 07.7	-2.9
	comp=Z,2.5nm,0.5s,baz=45,slow=3.1,SNR=11						
AKASG	Malin Array Be	151.67	323	PKIKP	PKPdf	01 07 59.5	+6.3
AKASG						01 08 07.7	
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
EIL	Elat	151.75	276	PKPbc	PKPdf	01 08 01.9	+7.8
	comp=Z,10nm,0.9s,baz=328,slow=5.1,SNR=8.0						
EIL	Elat	151.75	276	*e*PKPdf	PKPdf	01 07 55.2	+1.1
EIL				PKPbc	PKPdf	01 08 01.9	+7.9
EIL				*e*PKPbc	PKPdf	01 08 02.0	+8.0
BRTR	Keskin Array B	152.92	298	PKPbc	PKPdf	01 08 03.3	+7.9
	comp=Z,4.1nm,1.0s,baz=124,slow=4.5,SNR=15						
BRTR				PKPab	PKPab	01 08 15.2	-1.1
	comp=Z,2.3nm,0.8s,baz=96,slow=3.5,SNR=7.1						
BRTR	Keskin Array B	152.92	298	PKIKP	PKPdf	01 08 03.3	+7.9
BRTR						01 08 15.2	
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CSS	Prodhromos	153.58	288	PKPbc	PKPdf	01 08 05.1	+8.6
CRVS	Cervenica-Dubn	156.70	327	*e*PKP	PKPab	01 08 30.7	-1.3
DPC	Dobruska-Polom	157.72	336	*e*PKPab	PKPab	01 08 34.8	-1.5
BRG	Berggiesshubel	158.05	340	*e*PKP2	PKPab	01 08 36.2	-1.5
BRG				pmax	pmax		
	comp=Z,5.0nm,1.1s						
VYHS	Vyhne	158.19	329	*e*PKP	PKPab	01 08 37.3	-1.1
PRU	Pruhonice	158.63	338	*e*PKPab	PKPab	01 08 38.6	-1.7
KHC	Kasperske Hory	159.69	338	*e*PKPab	PKPab	01 08 43.4	-1.4
GERES	GERESS Array B	159.90	338	PKPab	PKPab	01 08 43.8	-1.9
	comp=Z,1.3nm,0.8s,baz=14,slow=5.5,SNR=7.6						
GERES	GERESS Array B	159.90	338	PKP2	PKPab	01 08 43.8	-2.0
GERES				pmax	pmax		
	comp=Z,1.0nm,0.9s						

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*NEIC **07** 01:26:01.5, 35.07N×4.05W, MG3.3(MDD), After MDD.*
*MDD **07** 01:26:01.6±1.7, 35.08N×4.05W, mb3.2/6, Error ellipse: s-maj=18.3km s-min=6.8km az=16.0, PRXIMO*
*CSEM **07** 01:26:01.2±0.1, 35.11N×3.93W, h12^{km}, MD2.8, Error ellipse: s-maj=3.6km s-min=2.3km az=73.0*
*CNRM **07** 01:26:03.0, 35.13N×3.89W, h9^{km}, MD2.8*
ISC 07 01:26:01.6±0.8, **35.16N**±0.03×**4.06W**±0.04, **h12**^{km}±5^{km}, **n31**, σ**1**^{s}**33**/50, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPAL	Palemas	0.12	56	*i* P	Pg	01 26 05.0	+0.3
TOU	Touzarine	0.32	128	*i* P	Pg	01 26 06.5	-1.8
EMEL	Melilla	0.91	81	P	Pb	01 26 18.4	-0.4
	SNR=9.5						
EMEL				S	Sb	01 26 31.4	+0.7
	156nm,0.2s,SNR=5.4						
EMLI	Melilla	0.92	81	P	Pb	01 26 18.4	-0.5
	137nm,0.7s,SNR=9.5						
EMLI				S	Sb	01 26 31.4	+0.5
	156nm,0.2s,SNR=5.4						
TZK	Tazeka	1.07	186	*i* P	Pb	01 26 22.0	+0.4
TZK				*i* S	Sb	01 26 37.0	+1.6
ZAI	Zaio	1.09	100	*i* P	Pb	01 26 21.0	-0.9
ZAI				*i* S	Sb	01 26 33.0	-2.9
EMIJ	Mijas	1.52	338	P	Pn	01 26 28.3	-0.4
	1.2nm,0.1s,SNR=18						
EMIJ				S	Sb	01 26 47.6	-0.6
	5.7nm,0.1s						
EMIJ	Mijas	1.52	338	S	Sb	01 26 47.6	-0.6
	5.7nm,0.1s						
EBER	Berja	1.98	28	P	Pn	01 26 34.1	-1.2
EBER				S	Sn	01 26 59.3	-0.8
EBER	Berja	1.98	28	P	Pn	01 26 34.1	-1.2
	1.1nm,0.2s,SNR=6.0						
EBER				S	Sn	01 26 59.3	-0.8
	12nm,0.3s						
EBER	Berja	1.98	28	S	Sn	01 26 59.3	-0.8
	12nm,0.3s						
EBER	Berja	1.98	28	P	Pn	01 26 34.1	-1.2
	1.1nm,0.2s,SNR=6.0						
ELOJ	Sierra Loja	1.98	358	P	Pn	01 26 38.8	+3.4
	1.0nm,0.2s,SNR=4.0						
ELOJ				S	Sn	01 27 02.5	+2.2
	2.3nm,0.4s,SNR=6.1						
ELOJ	Sierra Loja	1.98	358	S	Sn	01 27 02.5	+2.2
	2.3nm,0.4s,SNR=6.1						
ESPR	Espera	2.24	320	P	Pn	01 26 40.5	+1.4
	0.5nm,0.2s,SNR=5.0						
ESPR				S	Sn	01 27 11.0	+4.1
	2.5nm,0.2s,SNR=4.0						
ESPR	Espera	2.24	320	P	Pn	01 26 40.5	+1.4
	0.5nm,0.2s,SNR=5.0						
ESPR				S	Sn	01 27 11.0	+4.1
	2.5nm,0.2s,SNR=4.0						
ELUQ	Luque	2.40	356	P	Pn	01 26 43.5	+2.1
	1.9nm,0.2s,SNR=8.2						
ELUQ				S	Sn	01 27 12.7	+1.8
	2.6nm,0.4s,SNR=4.0						
EQES	Quesada	2.75	17	P	Pn	01 26 48.0	+1.6
	0.9nm,0.1s,SNR=20						
EQES				S	Sn	01 27 20.9	+1.0
	8.4nm,0.3s						
EQES	Quesada	2.75	17	P	Pn	01 26 48.0	+1.6
	0.9nm,0.1s,SNR=20						
EQES				S	Sn	01 27 20.9	+1.0
	8.4nm,0.3s						
EADA	Adamuz	3.03	352	P	Pn	01 26 51.4	+1.1
	0.7nm,0.1s,SNR=11						
EADA				S	Sn	01 27 26.7	-0.1
	0.6nm,0.1s						
EADA	Adamuz	3.03	352	P	Pn	01 26 51.4	+1.1
	0.7nm,0.1s,SNR=11						
EADA				S	Sn	01 27 26.7	-0.2
	0.6nm,0.1s						
EMIN	Mina Concepcio	3.35	322	P	Pn	01 26 54.9	0.0
	0.3nm,0.1s,SNR=10.0						
EMIN				S	Sn	01 27 33.4	-1.5
	0.2nm,0.1s,SNR=4.0						
EMIN	Mina Concepcio	3.35	322	S	Sn	01 27 33.4	-1.5
	0.2nm,0.1s,SNR=4.0						
EMIN	Mina Concepcio	3.35	322	P	Pn	01 26 54.9	+0.1
	0.3nm,0.1s,SNR=10.0						
PBEJ	Beja	4.19	314	*e*Sn	Sn	01 27 54.6	-1.7
	1.0nm,0.2s						
PBEJ	Beja	4.19	314	*e*Sn	Sn	01 27 54.6	-1.7
	1.0nm,0.2s						
EBAD	Badajoz	4.30	327	P	Pn	01 27 08.4	0.0
	0.7nm,0.3s,SNR=11						
EBAD				S	Sn	01 27 55.9	-3.0
	2.2nm,0.2s						
EBAD	Badajoz	4.30	327	P	Pn	01 27 08.4	+0.1
PTEO	Sao Teotonio	4.45	304	*e*Sn	Sn	01 28 01.6	-1.3
ESDC	Sonseca Array	4.51	1	P	Pn	01 27 11.6	+0.3
	0.6nm,0.2s,baz=178,slow=11,SNR=11						
ESDC				S	Sn	01 28 01.8	-2.5
	0.4nm,0.2s,baz=186,slow=22,SNR=7.9						
ESDC	Sonseca Array	4.51	1	P	Pn	01 27 11.6	+0.3
ESDC				S	Sn	01 28 01.8	-2.5

CASC 07 01:29:05.7±2.4**, 13.24N×90.41W, h19^{km}±6^{km}, MD4.0, 9C-5D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IXG	**Ixpaco**	**0.93**	**357**	eP	Pb	01 29 23.1	0.0
IXG				eS	Sb	01 29 35.6	+0.7
SBLS	**San Blas**	**0.97**	**52**	⇓eP	Pb	01 29 23.7	+0.1
SBLS				eS	Sb	01 29 37.8	+1.8
RTR	**El Retiro**	**0.99**	**48**	⇓eP	Pb	01 29 24.2	+0.2
RTR				eS	Sb	01 29 37.7	+1.2
SNJE	**San Jose**	**1.00**	**51**	⇓eP	Pb	01 29 24.1	-0.1
SNJE				eS	Sb	01 29 37.2	+0.4
RBDL	**Robledal**	**1.11**	**39**	⇑eP	Pb	01 29 26.3	+0.1
RBDL				eS	Sb	01 29 41.9	+1.7
BOQS	**Boqueron**	**1.20**	**66**	⇑eP	Pb	01 29 27.0	-0.6
BOQS				eS	Sb	01 29 44.3	+1.6
FUG	**Fuego 3**	**1.27**	**341**	eP	Pn	01 29 28.4	-0.4
FUG				eS	Sb	01 29 44.6	-0.3
NBG	**Las Nubes**	**1.34**	**2**	⇑eP	Pn	01 29 30.3	+0.6
NBG				eS	Sb	01 29 50.9	+4.1
LFU	**La Fuente**	**1.35**	**68**	⇑eP	Pn	01 29 29.8	0.0
LFU				eS	Sb	01 29 50.7	+3.5
LFRS	**El Faro**	**1.36**	**74**	⇑eP	Pn	01 29 29.0	-1.0
LFRS				eS	Sb	01 29 48.6	+1.2
LBRS	**Las Brisas**	**1.42**	**69**	⇓eP	Pn	01 29 30.3	-0.4
LBRS				eS	Sb	01 29 48.8	-0.1
LCBS	**La Ceiba**	**1.45**	**73**	⇑eP	Pn	01 29 30.5	-0.7
LCBS				eS	Sn	01 29 47.2	-2.5
MTO2	**Montecristo 2**	**1.54**	**41**	⇓eP	Pn	01 29 32.4	-0.1
MTO2				eS	Sn	01 29 52.9	+0.8
SNVI	**San Vicente**	**1.57**	**76**	eP	Pn	01 29 32.2	-0.7
SNVI				⇑eP		01 29 33.4	
SNVI				eS	Sn	01 29 53.8	+0.9
JAT	**Jato**	**1.61**	**312**	⇑eP	Pn	01 29 33.0	-0.5
JAT				eS	Sn	01 29 53.8	-0.1
TP2	**Tecpan 2**	**1.65**	**339**	eP	Pn	01 29 34.2	+0.1
TP2				eS	Sn	01 29 55.5	+0.7
VSM	**San Miguel**	**2.08**	**85**	eP	Pn	01 29 40.4	+0.1
VSM				eS	Sn	01 30 06.2	+0.3
BLLM	**Bellamira**	**2.12**	**84**	eP	Pn	01 29 40.6	-0.2
BLLM				eS	Sn	01 30 07.1	+0.2
CAHU	**Cacacuatique**	**2.20**	**76**	⇑eP	Pn	01 29 41.1	-0.8
CNCH	**Conchagua**	**2.50**	**89**	eP	Pn	01 29 45.6	-0.7
CNCH				eS	Sn	01 30 16.7	+0.1

DJA 07 01:37:35.9±0.9**, 9.66S×115.30E, h33^{km}, MD4.4**/1**, ML4.0**/3**, 1C-2D, Error ellipse: s-maj=22.0km s-min=12.2km az=165.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	**Rata**	**0.96**	**14**	⇑ePn	Pn	01 37 52.1	-1.1
	739nm,0.2s						
RATI				eSn	Sn	01 38 03.0	-2.9
SRDI	**Scrawed**	**1.64**	**316**	⇓iPn	Pn	01 38 01.5	-1.4
	55nm,0.2s						
SRDI	**Scrawed**	**1.64**	**316**	eP	P	01 38 02.4	-0.3
SRDI				eSn	Sn	01 38 20.1	-2.9
KELI	**Kelakatan**	**1.64**	**331**	⇓iPn	Pn	01 38 02.2	-0.8
	58nm,0.2s						
KELI				eSn	Sn	01 38 20.8	-2.4

SYO ***07*** *01:42:36.8, 21.49S×68.51W, h85^{km}, MB5.2*

GUC ***07*** *01:42:37.4±0.7, 21.40S×69.09W, h85^{km}±11^{km}, ML5.2*

IDC ***07*** *01:42:38.8±0.4, 21.43S×68.88W, h95^{km}±4^{km}, mb4.5/13, mb1 4.6/15, mb1mx4.6/16, Error ellipse: s-maj=17.3km s-min=7.9km az=90.0*

NEIC ***07*** *01:42:38.4±0.2, 21.53S×68.75W, mb5.1/28, Error ellipse: s-maj=9.5km s-min=5.2km az=84.0*

NEIC Felt [IV] at Maria Elena and [III] at Calama.

HRVD ***07*** *01:42:38.4±0.6, 21.68S×69.17W, h96^{km}±7^{km}, MW4.9/29, Centroid moment Tensor Solution. LP body waves: s11,c12;Mantle waves: s29,c33; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.02±.20; M$_{\theta\theta}$-0.28±.21; M$_{\phi\phi}$2.30±.26; M$_{r\theta}$-0.34±.12; M$_{\theta\phi}$0.09±.19; M$_{\phi r}$-0.87±.20; Best double couple: M$_0$2.36×10^{16} NP1:φ$_s$173°,δ35°, λ-105°. NP2:φ$_s$11°,δ57°,λ-80°. Principal axes: T 2.48, Plg11°, Azm93°; N -.24, Plg8°, Azm185°; P -2.24, Plg76°, Azm311°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***07*** *01:42:40.3, 21.50S×68.80W, h95^{km}, mB5.7*

ISC 07 01:42:36.6±0.6**, 21.36S**±0.03×**68.85W**±0.07**, h85^{km}±5^{km}, h98^{km}±1.9^{km}:pP-P, n134, σ1^{s}07**/110**, mb5.0**/38**, 3C-8D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**1.25**	**183**	P	**P**	**01 43 00.7**	**+1.4**
	baz=356,slow=14						
LVC				S	**S**	**01 43 17.3**	**+0.9**
	5μm,0.3s,baz=122,slow=19,SNR=100						
LVC	**Limon Verde**	**1.25**	**183**	ePn	**P**	**01 43 00.1**	**+0.7**
LVC				eSn	**S**	**01 43 16.9**	**+0.4**
LVC	**Limon Verde**	**1.25**	**183**	⇓iP	**P**	**01 43 00.6**	**+1.3**
LVC				i S	**S**	**01 43 17.6**	**+1.2**
LVC				AMP		01 43 18.6	
	comp=E,60μm,0.3s						
SPCH	**San Pedro de A**	**1.66**	**159**	eP	**P**	**01 43 06.8**	**+2.1**
SPCH				i S	**S**	**01 43 29.4**	**+4.1**
SPCH				AMP		01 43 37.0	
	comp=E,28μm,0.6s						
ANCH	**Antofagasta**	**2.73**	**212**	eP	**P**	**01 43 18.2**	**-1.1**
ANCH				i S	**S**	**01 43 48.8**	**-2.5**
ANCH				AMP		01 44 02.0	
	comp=N,13μm,0.5s						
CPN1	**Cerro Paranal**	**3.56**	**203**	eP	**P**	**01 43 30.7**	**-0.1**
CPN1				i S	**S**	**01 44 11.5**	**-0.3**
LPAZ	**La Paz**	**5.09**	**8**	P	**P**	**01 43 56.1**	**+4.2**
	comp=N,19nm,0.3s,baz=190,slow=5.9,SNR=254						
ARE	**Arequipa**	**5.47**	**332**	⇓iP	**P**	**01 43 56.5**	**-0.6**
ARE				i		01 44 06.9	
ARE				S	**S**	**01 45 00.0**	**+0.6**
CPCH	**Copiapo**	**6.13**	**193**	eP	**P**	**01 44 06.3**	**+0.1**
CPCH				i S	**S**	**01 45 14.7**	**-0.9**
VACH	**Vallenar**	**7.39**	**193**	eP	**P**	**01 44 19.2**	**-4.5**
CMCH	**Combarbala**	**9.97**	**191**	eP	**P**	**01 44 53.8**	**-4.9**
NNA	**Nana**	**12.05**	**319**	P	**P**	**01 45 31.5**	**+4.8**
SAML	**Samuel**	**13.49**	**25**	eP	**P**	**01 45 46.5**	**+0.9**
TRQA	**Tornquist**	**17.67**	**162**	eP	**P**	**01 46 35.1**	**-3.5**
	comp=N,31nm,0.7s						
TRQA				e		01 46 56.9	
TRQA				e		01 47 12.9	
BDFB	**Brasilia**	**20.55**	**77**	P	**P**	**01 47 09.8**	**-0.6**
	comp=N,22nm,0.5s,baz=259,slow=9.1,SNR=83						
BAO	**Brasilia Array**	**20.57**	**77**	eP	**P**	**01 47 10.4**	**-0.2**
BAO				i		01 47 17.0	
BAO				i		01 47 33.9	
BAO				e		01 47 51.5	
BAO				e		01 48 19.2	
OTAV	**Otavalo**	**23.42**	**335**	eP	**P**	**01 47 43.2**	**+4.3**
	comp=N,38nm,1.0s,mb4.7						
SDV	**Santo Domingo**	**30.10**	**356**	eP	**P**	**01 48 38.6**	**-1.8**
	comp=N,8.0nm,0.6s,mb4.5						
SJG	**San Juan**	**39.31**	**4**	P	**P**	**01 49 57.4**	**-1.5**
	comp=N,40nm,0.7s,mb5.3,baz=158,slow=4.5,SNR=11						
SJG				pP	pP	01 50 21.3	+1.9
	comp=N,21nm,0.5s,baz=105,slow=2.8,SNR=4.3						
SJG	**San Juan**	**39.31**	**4**	eP	**P**	**01 49 56.5**	**-2.4**
	comp=N,45nm,0.7s,mb5.4						
SJG				e	pP	01 50 20.8	+1.4
NHSC	**New Hope**	**55.23**	**348**	eP	**P**	**01 52 02.5**	**-0.7**
	comp=N,94nm,0.9s,mb5.8						
COW	**Cow Castle Cre**	**55.59**	**348**	eP	**P**	**01 52 04.5**	**-1.4**
SWET	**Sewanee**	**58.55**	**344**	eP	**P**	**01 52 24.8**	**-1.8**
ELN	**Prospectdale**	**59.34**	**349**	eP	**P**	**01 52 31.9**	**-0.1**
PWV	**Princeton**	**59.50**	**349**	eP	**P**	**01 52 32.4**	**-0.8**
JCT	**Junction City**	**59.51**	**329**	eP	**P**	**01 52 32.1**	**-1.2**
	comp=N,22nm,0.7s,mb5.3						
WVT	**Waverly**	**59.93**	**342**	eP	**P**	**01 52 33.8**	**-2.3**
	comp=N,16nm,0.8s,mb5.1						
WVT				e	pP	01 52 59.6	+1.7
VNA3	**Neumayer Olymp**	**60.19**	**161**	e	pP	01 52 53.9	-5.3
VNA3	**Neumayer Olymp**	**60.19**	**161**	e	sP	01 53 02.5	-6.4
VNA3	**Neumayer Olymp**	**60.19**	**161**	e	PcP	01 53 17.2	-4.7
VNA3	**Neumayer Olymp**	**60.19**	**161**	⇑iP	**P**	**01 52 38.8**	**+1.3**
VNA3				e		01 52 53.9	
VNA3				e	pP	01 53 02.5	+3.3
VNA3				e		01 53 17.2	
VNA3				e		01 54 39.5	
VNA3				e		01 59 23.6	
MIAR	**Mount Ida**	**60.36**	**337**	eP	**P**	**01 52 37.6**	**-1.5**
	comp=N,14nm,0.7s,mb5.1						
VNA1	**Neumayer--Stat**	**60.40**	**160**	⇓iP	**P**	**01 52 42.4**	**+3.5**
VNA1	**Neumayer--Stat**	**60.40**	**160**	e	pP	01 52 57.5	-3.1
VNA1	**Neumayer--Stat**	**60.40**	**160**	e	sP	01 53 05.7	-4.7
VNA1	**Neumayer--Stat**	**60.40**	**160**	e	PcP	01 53 20.4	-2.3
TXAR	**Lajitas Array**	**60.54**	**325**	P	**P**	**01 52 39.5**	**-0.9**
	comp=N,2.3nm,0.7s,mb4.3,baz=150,slow=7.8,SNR=32						
VNA2	**Neumayer--Watz**	**60.77**	**161**	e	pP	01 52 57.8	-5.4
VNA2	**Neumayer--Watz**	**60.77**	**161**	e	sP	01 53 06.5	-6.4
VNA2	**Neumayer--Watz**	**60.77**	**161**	e	PcP	01 53 21.1	-3.1
VNA2	**Neumayer--Watz**	**60.77**	**161**	⇑iP	**P**	**01 52 42.7**	**+1.3**
VNA2				e		01 52 57.8	
VNA2				e	pP	01 53 06.5	+3.3
VNA2				e		01 53 21.1	
VNA2				e		01 54 43.6	
VNA2				e		01 59 27.7	
WCI	**Wyandotte Cave**	**61.49**	**344**	eP	**P**	**01 52 44.5**	**-2.2**
	comp=N,29nm,0.9s,mb5.3						
MCWV	**Mont Chateau**	**61.56**	**350**	eP	**P**	**01 52 46.9**	**-0.2**
	comp=N,55nm,0.7s,mb5.7						
SNAA	**Sanae**	**62.40**	**161**	⇑iP	**P**	**01 52 51.2**	**-1.1**
SNAA	**Sanae**	**62.40**	**161**	e	pP	01 53 06.4	-7.8
SNAA	**Sanae**	**62.40**	**161**	e	sP	01 53 14.8	-9.0
SNAA	**Sanae**	**62.40**	**161**	e	PcP	01 53 29.1	-1.6
SNAA	**Sanae**	**62.40**	**161**	P	**P**	**01 52 51.3**	**-1.0**
	comp=N,2.4nm,0.7s,mb4.3,baz=274,slow=6.9,SNR=34						
SNAA				pP	pP	01 53 14.7	+0.5
	comp=N,7.2nm,0.8s,baz=297,slow=5.8,SNR=13						
SNAA	**Sanae**	**62.40**	**161**	eP	**P**	**01 52 50.8**	**-1.5**
	comp=N,6.2nm,0.7s,mb4.8						
SNAA				epP	pP	01 53 14.7	+0.5
FVM	**French Village**	**62.41**	**341**	eP	**P**	**01 52 50.8**	**-2.1**
	comp=N,44nm,0.9s,mb5.5						
FVM				e	pP	01 53 17.7	+2.9
BLO	**Bloomington**	**62.44**	**345**	eP	**P**	**01 52 50.0**	**-3.0**
	comp=N,30nm,0.6s,mb5.5						
CCM	**Cathedral Cave**	**62.73**	**340**	eP	**P**	**01 52 53.2**	**-1.8**
	comp=N,22nm,0.9s,mb5.1						
CLNB	**Carlsbad**	**62.98**	**327**	eP	**P**	**01 52 56.1**	**-0.6**
GDL2	**Guadalupe Moun**	**63.17**	**327**	eP	**P**	**01 52 57.3**	**-0.8**
GDL2				e		01 53 31.5	
ALLY	**Alegheny Colle**	**63.55**	**351**	eP	**P**	**01 52 59.3**	**-1.1**
CPRX	**Cap Rock**	**63.58**	**327**	eP	**P**	**01 52 60.0**	**-0.7**
ERPA	**Erie**	**63.99**	**351**	eP	**P**	**01 53 01.2**	**-2.0**
	comp=N,70nm,0.8s,mb5.5						
BNM	**Barren Site**	**65.88**	**326**	eP	**P**	**01 53 15.5**	**0.0**
LPM	**Los Pinos Moun**	**66.00**	**326**	eP	**P**	**01 53 16.0**	**-0.3**
LPM				e		01 53 52.5	
ANMO	**Albuquerque**	**66.41**	**327**	P	**P**	**01 53 18.0**	**-0.9**
	comp=N,6.9nm,0.8s,mb4.5,baz=137,slow=8.3,SNR=33						
SDCO	**Great Sand Dun**	**68.15**	**329**	eP	**P**	**01 53 29.9**	**+0.3**
	comp=N,16nm,0.7s,mb5.0						
DBIC	**Dimbokro**	**68.64**	**73**	P	**P**	**01 53 31.9**	**-1.3**
	comp=N,7.4nm,0.4s,mb4.8,baz=222,slow=6.7,SNR=43						
DBIC				pP	pP	01 53 56.9	+1.5
	comp=N,14nm,0.8s,baz=224,slow=8.9,SNR=5.8						
QSPA	**South Pole Qui**	**68.83**	**180**	⇓iP	**P**	**01 53 33.1**	**-0.2**
	comp=N,12nm,0.6s,mb4.9						
RW3	**Ridgway**	**69.61**	**328**	eP	**P**	**01 53 39.1**	**+0.5**
ISCO	**Idaho Springs**	**69.85**	**331**	eP	**P**	**01 53 40.1**	**0.0**
	comp=N,9.2nm,0.7s,mb4.7						
PV01	**Paradox Valley**	**69.95**	**328**	eP	**P**	**01 53 41.5**	**+0.7**
PV10	**Paradox Valley**	**70.38**	**327**	eP	**P**	**01 53 43.5**	**+0.2**
LDFC	**Landfair**	**71.25**	**321**	eP	**P**	**01 53 49.9**	**+1.3**
NEN	**Nelson**	**71.50**	**322**	eP	**P**	**01 53 50.3**	**+0.2**
SRU	**San Rafael**	**71.69**	**327**	⇓eP	**P**	**01 53 51.6**	**+0.5**
MSU	**Marysvale**	**72.09**	**326**	eP	**P**	**01 53 54.7**	**+1.1**
MVU	**Marysvale**	**72.11**	**326**	eP	**P**	**01 53 54.6**	**+0.9**
	comp=N,32nm,0.9s,mb5.2						
TMUT	**Trail Mountain**	**72.17**	**327**	eP	**P**	**01 53 54.3**	**+0.3**
ARUT	**Antelope Range**	**72.24**	**324**	eP	**P**	**01 53 56.3**	**+1.9**
MPU	**Maple Canyon**	**72.93**	**327**	eP	**P**	**01 53 59.2**	**+0.8**
DAU	**Daniels Canyon**	**73.04**	**327**	eP	**P**	**01 54 00.2**	**+1.2**
NLU	**North Lily Min**	**73.11**	**327**	eP	**P**	**01 54 00.3**	**+0.8**
TPNV	**Topopah Spring**	**73.21**	**322**	eP	**P**	**01 54 01.0**	**+0.8**
	comp=N,20nm,0.9s,mb4.9						
JLU	**Jordanelle**	**73.28**	**327**	eP	**P**	**01 54 01.0**	**+0.5**
TCUT	**Toone Canyon**	**73.64**	**328**	eP	**P**	**01 54 03.2**	**+0.6**
PDAR	**Pinedale Array**	**74.01**	**330**	P	**P**	**01 54 04.8**	**0.0**
	comp=N,3.6nm,0.6s,mb4.3,baz=132,slow=7.2,SNR=38						
HWUT	**Hardware Ranch**	**74.09**	**328**	eP	**P**	**01 54 05.6**	**+0.3**
	comp=N,28nm,0.8s,mb5.0						
SPUT	**South Promonto**	**74.31**	**327**	eP	**P**	**01 54 06.9**	**+0.4**
TPH	**Tonopah**	**74.55**	**322**	eP	**P**	**01 54 08.4**	**+0.5**
	comp=N,15nm,0.9s,mb4.7						
MTUM	**Tungsten Hills**	**74.84**	**321**	eP	**P**	**01 54 10.3**	**+0.7**
REDW	**Red Top Meadow**	**75.08**	**330**	eP	**P**	**01 54 11.5**	**+0.6**
SNOW	**Snow King Moun**	**75.11**	**330**	eP	**P**	**01 54 11.9**	**+0.9**
LOHW	**Long Hollow**	**75.15**	**330**	eP	**P**	**01 54 11.7**	**+0.4**
ULM	**Lac du Bonnet**	**75.20**	**342**	P	**P**	**01 54 10.4**	**-0.9**
	comp=N,13nm,0.5s,mb4.9,baz=152,slow=5.9,SNR=28						
TPAW	**Teton Pass**	**75.22**	**330**	eP	**P**	**01 54 12.1**	**+0.5**
MOOW	**Moose Ponds**	**75.32**	**330**	eP	**P**	**01 54 11.9**	**-0.3**
NVAR	**Mina Array Bea**	**75.41**	**322**	P	**P**	**01 54 13.2**	**+0.4**
	comp=N,7.3nm,0.9s,mb4.4,baz=148,slow=7.0,SNR=25						
IMW	**Indian Meadow**	**75.53**	**330**	eP	**P**	**01 54 14.3**	**+0.9**
LAO	**LASA Array**	**75.68**	**334**	eP	**P**	**01 54 14.2**	**0.0**
	comp=N,49nm,0.9s,mb5.2						
SCHQ	**Schefferville**	**75.89**	**1**	P	**P**	**01 54 14.9**	**-0.3**
	comp=N,13nm,0.8s,mb4.7,baz=148,slow=3.6,SNR=11						
YFT	**Old Faithful**	**75.90**	**330**	eP	**P**	**01 54 17.6**	**+2.1**
YNR	**Norris Junctio**	**76.03**	**331**	eP	**P**	**01 54 18.1**	**+1.9**
YMR	**Madison River**	**76.13**	**330**	eP	**P**	**01 54 18.1**	**+1.3**
DGMT	**Dagmar**	**76.36**	**337**	eP	**P**	**01 54 18.1**	**+0.1**
	comp=N,71nm,0.8s,mb5.5						
GCMT	**Greycliff**	**76.41**	**332**	eP	**P**	**01 54 18.9**	**+0.6**
QLMT	**Earthquake Lak**	**76.47**	**330**	eP	**P**	**01 54 19.4**	**+0.7**
SYO	**Syowa Base**	**76.62**	**159**	⇓P	**P**	**01 54 18.0**	**-1.1**
SYO	**Syowa Base**	**76.62**	**159**	⇓PcP	PcP	01 54 27.4	-3.1
SYO	**Syowa Base**	**76.62**	**159**	⇓sP	sP	01 54 43.1	-7.9
HLID	**Hailey**	**76.95**	**328**	eP	**P**	**01 54 22.8**	**+1.4**
	comp=N,38nm,1.0s,mb5.1						
VNDA	**Vanda**	**77.00**	**190**	P	**P**	**01 54 21.7**	**+0.6**
	baz=90,slow=20						
MCMT	**McKenzie Canyo**	**77.13**	**330**	eP	**P**	**01 54 23.7**	**+1.4**
HRY	**Holter Researc**	**78.08**	**331**	eP	**P**	**01 54 28.3**	**+0.7**
MSO	**Missoula**	**79.13**	**330**	eP	**P**	**01 54 33.8**	**+0.5**
	comp=N,15nm,1.1s,mb4.7						
BMO	**Blue Mountains**	**79.32**	**327**	eP	**P**	**01 54 34.9**	**+0.4**
	comp=N,28nm,0.9s,mb5.1						
YBH	**Yreka Blue Hor**	**80.13**	**322**	P	**P**	**01 54 38.3**	**-0.6**
	comp=N,7.0nm,1.0s,mb4.5,baz=110,slow=7.2,SNR=4.9						
MAW	**Mawson**	**84.45**	**163**	P	**P**	**01 55 00.4**	**-0.1**
	comp=N,4.3nm,0.6s,mb4.5,baz=213,slow=8.3,SNR=10						
MAW				pP	pP	01 55 26.1	+2.7
	comp=N,9.9nm,0.6s,baz=209,slow=4.9,SNR=9.0						
ESDC	**Sonseca Array**	**85.69**	**44**	P	**P**	**01 55 08.2**	**+1.0**
	comp=N,3.7nm,1.0s,mb4.3,baz=239,slow=5.0,SNR=15						
ESDC				pP	pP	01 55 33.0	+2.7
	comp=N,3.7nm,0.9s,baz=241,slow=5.0,SNR=7.7						
LSZ	**Lusaka**	**90.88**	**107**	eP	**P**	**01 55 29.0**	**-3.5**
	comp=N,8.4nm,1.1s,mb4.8						
YKA	**Yellowknife Ar**	**91.07**	**341**	P	**P**	**01 55 32.4**	**+0.1**
	comp=N,13nm,0.7s,mb5.2,baz=134,slow=4.5,SNR=352						
YKA				pP	pP	01 55 57.7	+2.1
	comp=N,1.6nm,0.6s,baz=132,slow=4.6,SNR=2.8						
YKA	**Yellowknife Ar**	**91.07**	**341**	P	**P**	**01 55 32.4**	**+0.1**
YKA				pP	pP	01 55 57.7	+2.1
ASAR	**Alice Springs**	**130.07**	**208**	PKP	PKPdf	02 01 38.0	+0.6
	comp=N,4.1nm,0.8s,baz=147,slow=2.4,SNR=27						
ASAR				pPKP		02 02 04.1	
	comp=N,3.2nm,0.7s,baz=145,slow=1.8,SNR=9.7						
WRA	**Warramunga Arr**	**133.11**	**210**	PKP	PKPdf	02 01 44.1	+0.9
	comp=N,3.5nm,0.6s,baz=158,slow=1.8,SNR=36						
WRA				pPKP		02 02 10.1	
	comp=N,2.6nm,0.6s,baz=158,slow=1.7,SNR=6.2						
WRAB	**Tennant Creek**	**133.11**	**211**	ePKPdf	PKPdf	02 01 43.6	+0.5
BVAR	**Borovoye Array**	**135.64**	**34**	PKP	PKPdf	02 01 48.7	+1.7
	comp=N,1.4nm,0.6s,baz=270,slow=3.0,SNR=11						
FITZ	**Fitzroy Crossi**	**138.30**	**201**	PKP	PKPdf	02 01 54.1	+1.4
	comp=N,4.2nm,0.7s,baz=186,slow=7.9,SNR=9.5						
FITZ				pPKP		02 02 20.9	
	comp=N,4.6nm,0.7s,baz=168,slow=4.7,SNR=4.5						
ZAL	**Zalesovo**	**141.80**	**25**	PKhKP		02 01 55.0	
	comp=N,1.7nm,0.6s,baz=170,slow=3.6,SNR=6.3						
ZAL				PKP	PKPdf	02 02 00.1	+2.1
	comp=N,3.4nm,0.6s,baz=190,slow=2.9,SNR=19						
UCH	**Uchtor**	**142.94**	**47**	ePKPdf	PKPdf	02 02 01.7	+1.4
KSH	**Kashi**	**144.97**	**51**	ePKP	PKPdf	02 02 06.7	+2.8
KSH				ePKP2	PKPab	02 02 11.5	+6.0
KSH				eAPKP		02 02 33.5	
KSH				eXPKP		02 02 43.4	
KSH				ePKS	PKS	02 05 41.4	+3.0
KSH				ePPP	PPP	02 09 01.1	+19
KSH				eSKS	SKS	02 09 03.6	+1.0
KSH				PP	PP		
	comp=Z,340nm,6.1s						
KSH				LR	LR		
	comp=N,410nm,6.4s						
KSH				LR	LR		
	comp=E,510nm,8.7s						
WMQ	**Urumqi**	**150.32**	**36**	PKP	PKPdf	02 02 12.1	-0.4
WMQ				PKP2	PKPab	02 02 25.7	-0.9
WMQ				APKP		02 02 38.6	
WMQ				XPKP		02 02 49.1	
WMQ				PKS	PKS	02 05 45.5	-0.8
WMQ				PP	PP	02 05 55.5	-1.5
WMQ				LR	LR		
	comp=N,103nm,17.2s						
WMQ				LR	LR		
	comp=E,153nm,17.0s						
WMQ				LR	LR		
	comp=Z,113nm,18.8s						
MAT	**Matsushiro**	**152.03**	**309**	PKP	PKPdf	02 02 23.3	+8.0
MDJ	**Mudanjiang**	**152.25**	**331**	PKP	PKPdf	02 02 15.3	-0.1
SONM	**Songino Array**	**153.31**	**7**	PKP	PKPdf	02 02 19.4	+2.7
	comp=Z,1.9nm,0.8s,baz=285,slow=0.7,SNR=14						
SONM				PKPbc	PKPdf	02 02 26.4	+10
	comp=Z,2.3nm,0.6s,baz=306,slow=1.4,SNR=14						
CN2	**Changchun**	**154.66**	**335**	ePKP	PKPdf	02 02 17.8	-0.9
CN2				PP	PP	02 06 21.0	-0.3
CN2				PP	PP		
	comp=Z,200nm,7.0s						
GTA	**Gaotai**	**159.55**	**26**	PKP	PKPdf	02 02 27.4	+2.4
GTA				APKP		02 02 54.1	
GTA				XPKP		02 03 04.7	
GTA				PKP2	PKPab	02 03 08.7	+2.7
GTA				PKS	PKS	02 05 59.1	+1.5
GTA				PP	PP	02 06 51.2	+3.2
GTA				SKKS		02 13 27.0	
GTA				PP	PP		
	comp=Z,303nm,7.2s						
GTA				LR	LR		
	comp=N,183nm,17.1s						
GTA				LR	LR		
	comp=E,165nm,18.6s						
GTA				LR	LR		
	comp=Z,130nm,15.6s						
SSE	**Sheshan**	**166.77**	**319**	ePKP	PKPdf	02 02 31.0	-1.2
NJ2	**Nanjing**	**167.32**	**329**	ePKP	PKPdf	02 02 31.3	-1.2
NJ2				APKP		02 02 58.2	
NJ2				XPKP		02 03 07.8	
NJ2				PKP2	PKPab	02 03 41.0	+1.0
NJ2				PP	PP	02 07 28.0	-1.1
NJ2				SKS	SKS	02 09 25.0	-1.0
NJ2				PP	PP		
	comp=Z,460nm,5.3s						
NJ2				LR	LR		
	comp=N,580nm,25.1s						
NJ2				LR	LR		
	comp=E,430nm,23.5s						
NJ2				LR	LR		
	comp=Z,560nm,27.4s						
CMAR	**Chiang Mai Arr**	**168.16**	**102**	PKP	PKPdf	02 02 34.8	+1.4
	comp=Z,0.7nm,0.7s,baz=288,slow=2.9,SNR=4.1						
KMI	**Kunming**	**171.41**	**63**	ePKP	PKPdf	02 02 35.9	+0.7
KMI				LR	LR		
	comp=Z,53nm,17.3s						

IDC ***07*** *01:57:39.0±3.7, 23.76N×91.10E, mb4.1/3, mb1 4.2/4, mb1mx3.7/19, ML3.8/1, Error ellipse: s-maj=109.0km s-min=30.6km az=80.0*

NEIC ***07*** *01:57:51.0±1.6, 24.41N×92.43E, h72^{km}±17^{km}, mb4.3/3, Error ellipse: s-maj=17.6km s-min=13.5km az=157.0*

BJI ***07*** *01:58:01.3, 25.40N×93.09E, h72^{km}, mb3.9*

ISC 07 01:57:46.1±0.8**, 24.31N**±0.08×**92.12E**±0.08**, h58^{km}±12^{km}, n21, σ0^{s}94**/17**, mb4.2**/5**, 1C-2D, India-Bangladesh border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGT	**Agartala**	**0.90**	**242**	⇑iS	**P**	**01 58 03.0**	**+0.2**
AGT				i		01 59 05.0	
SHL	**Shillong**	**1.27**	**350**	⇓iPG	Px	01 57 56.0	
SHL				eS	Sx	01 58 10.0	
IMP	**Imphal**	**1.72**	**74**	⇓iS	**P**	**01 58 14.0**	**-0.3**
IMP				e		01 58 16.5	
CAL	**Calcutta**	**3.90**	**244**	e	**P**	**01 58 45.5**	**+0.5**
CAL				e		01 59 55.2	
LSA	**Lhasa**	**5.44**	**351**	eP	**P**	**01 59 07.4**	**+0.9**
BOK	**Bokaro**	**5.72**	**266**	e	**P**	**01 59 07.8**	**-2.6**
BOK				e		01 59 52.8	
BWNR	**Bhubaneshwar**	**7.08**	**237**	e	**P**	**01 59 17.4**	**-12**
CMAR	**Chiang Mai Arr**	**8.62**	**131**	Pn	**P**	**01 59 51.6**	**+1.0**
	0.3nm,0.3s,baz=305,slow=14,SNR=3.9						
BLSP	**Bilaspur**	**9.44**	**259**	eP	rx	01 59 43.6	
BLSP				AMb	AMB	02 00 04.9	
	comp=Z,10nm,0.8s						
DDI	**Dehra Dun**	**13.86**	**299**	e	rx	02 02 53.5	
NDI	**New Delhi**	**14.03**	**291**	e	rx	02 02 15.0	
HYB	**Hyderabad**	**14.41**	**244**	eP	**P**	**02 01 15.0**	**+6.6**
HYB	**Hyderabad**	**14.41**	**244**	i P	**P**	**02 01 15.0**	**+6.6**
GTA	**Gaotai**	**16.40**	**22**	eP	**P**	**02 01 34.0**	**+0.1**
GTA				AMB	AMB		
	comp=Z,5.0nm,0.7s						
ENH	**Enshi**	**16.54**	**65**	eP	**P**	**02 01 33.7**	**-1.9**
	comp=Z,13nm,0.6s						
WMQ	**Urumqi**	**19.80**	**351**	eP	**P**	**02 02 20.0**	**+5.6**
SONM	**Songino Array**	**26.07**	**22**	P	**P**	**02 03 22.3**	**+6.3**
	comp=Z,2.2nm,0.8s,mb3.8,baz=203,slow=8.7,SNR=6.0						
ULN	**Ulaanbaatar**	**26.33**	**23**	P	**P**	**02 03 19.2**	**+0.8**
	comp=Z,3.7nm,0.8s,mb4.0						
WRA	**Warramunga Arr**	**60.21**	**133**	P	**P**	**02 07 51.0**	**+0.1**
	comp=Z,1.6nm,0.5s,mb4.3,baz=321,slow=7.3,SNR=22						
WRAB	**Tennant Creek**	**60.21**	**133**	eP	**P**	**02 07 50.3**	**-0.5**
	comp=Z,4.5nm,0.6s,mb4.7						
ASAR	**Alice Springs**	**62.59**	**137**	P	**P**	**02 08 07.1**	**+0.3**
	comp=Z,1.0nm,0.5s,mb4.2,baz=316,slow=6.7,SNR=18						

NEIC ***07*** *02:11:02.7±1.9, 14.00N×91.15W, h80^{km}±12^{km}, mb3.9/4, MD4.7(MEX), Error ellipse: s-maj=26.0km s-min=13.8km az=187.0*

CASC ***07*** *02:11:02.7±1.8, 14.08N×91.35W, h63^{km}±12^{km}, MD4.2, mb3.9(NEIC)*

IDC ***07*** *02:11:17.7±10.0, 15.04N×90.79W, h174^{km}±60^{km}, mb3.3/3, mb1 3.6/4, mb1mx3.2/18, MS3.0/1, Ms1 3.0/1, ms1mx2.2/14, Error ellipse: s-maj=114.0km s-min=45.4km az=10.0*

ISC 07 02:11:02.0±0.6**, 14.01N**±0.06×**91.38W**±0.04**, h75^{km}±5^{km}, n42, σ0^{s}98**/60**, mb4.0**/6**, 11C-8D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	**0.39**	**321**	⇑eP	**P**	**02 11 13.6**	**-0.8**
JAT				eS	**S**	**02 11 23.4**	**-0.3**
FUG	**Fuego 3**	**0.68**	**50**	⇓iP	**P**	**02 11 16.3**	**-1.0**
PCG	**Pacaya**	**0.84**	**63**	⇓eP	**P**	**02 11 18.6**	**-0.5**
PCG				eS	**S**	**02 11 31.2**	**-0.6**
TP2	**Tecpan 2**	**0.85**	**24**	⇓eP	**P**	**02 11 18.9**	**-0.2**
TP2				eS	**S**	**02 11 31.5**	**-0.3**
IXG	**Ixpaco**	**0.92**	**80**	⇓eP	**P**	**02 11 19.2**	**-0.7**
IXG				eS	**S**	**02 11 32.9**	**-0.5**
GCG	**Guatemala City**	**1.00**	**55**	⇓eP	**P**	**02 11 20.9**	**-0.2**
GCG				eS	**S**	**02 11 36.0**	**+0.7**
NBG	**Las Nubes**	**1.16**	**60**	⇓eP	**P**	**02 11 23.3**	**+0.3**
NBG				eS	**S**	**02 11 39.2**	**+0.5**
RBDL	**Robledal**	**1.65**	**86**	⇑eP	**P**	**02 11 29.4**	**-0.2**
RBDL				eS	**S**	**02 11 49.9**	**-0.2**
RTR	**El Retiro**	**1.69**	**94**	⇑eP	**P**	**02 11 30.5**	**+0.3**
RTR				eS	**S**	**02 11 51.5**	**+0.5**
SBLS	**San Blas**	**1.72**	**95**	⇑eP	**P**	**02 11 30.7**	**+0.1**
SBLS				eS	**S**	**02 11 52.0**	**+0.4**
SNJE	**San Jose**	**1.73**	**94**	⇑eP	**P**	**02 11 31.1**	**+0.4**
SNJE				eS	**S**	**02 11 52.6**	**+0.7**
MTO2	**Montecristo 2**	**2.00**	**79**	⇑eP	**P**	**02 11 33.6**	**-0.7**
BOQS	**Boqueron**	**2.06**	**97**	⇑eP	**P**	**02 11 35.3**	**+0.1**
BOQS				eS	**S**	**02 11 59.5**	**-0.2**
LFU	**La Fuente**	**2.22**	**96**	⇓eP	**P**	**02 11 37.5**	**0.0**
LFRS	**El Faro**	**2.29**	**99**	⇓eP	**P**	**02 11 38.8**	**+0.3**
LFRS				eS	**S**	**02 12 05.5**	**0.0**
LBRS	**Las Brisas**	**2.29**	**96**	⇑eP	**P**	**02 11 38.3**	**-0.1**
LCBS	**La Ceiba**	**2.36**	**98**	⇑eP	**P**	**02 11 39.4**	**-0.1**

CCIG	Comitan	2.37	342	*i* P	P	02 11 40.2	+0.6
CCIG				*i* S	S	02 12 09.0	+1.3
SNVI	San Vicente	2.50	99	*e*P	P	02 11 41.7	+0.2
SNVI				*e*S	S	02 12 12.5	+1.6
SCX	San Cristobal	2.97	336	*e*P	P	02 11 50.5	+2.5
VSM	San Miguel	3.08	100	*e*P	P	02 11 49.4	-0.1
VSM				*e*S	S	02 12 25.4	+0.1
BLLM	Bellamira	3.11	100	⇑*e*P	P	02 11 49.7	-0.2
BLLM				*e*S	S	02 12 27.1	+1.1
CNCH	Conchagua	3.53	101	⇑*e*P	P	02 11 55.1	-0.7
CNCH				*e*S	S	02 12 35.8	-0.7
CMIG	Matias Romero	4.56	313	*i* P	P	02 12 07.4	-2.7
CMIG				*i* S	S	02 12 56.4	-5.9
OXX	Oaxaca	5.98	301	*e*P	P	02 12 30.5	+0.8
VHO	Vista Hermosa	5.99	301	*i* P	P	02 12 30.6	+0.8
VHO				*i* S	S	02 13 31.1	-6.7
TEIG	Tepich	6.86	25	P	P	02 12 40.4	-1.5
	0.0nm,0.3s,baz=27,slow=24,SNR=22						
JTS	JuntasAbangare	7.29	120	*e*P	P	02 12 51.7	+3.7
PPM	Popocatepetl	8.57	307	*i* P	P	02 13 08.1	+2.7
PPM				*i* S	S	02 14 22.8	-19
TXAR	Lajitas Array	19.02	325	P	P	02 15 20.7	+0.1
	0.2nm,0.3s,baz=144,slow=9.6,SNR=7.8						
LRAL	Lakeview Retre	19.36	11	P	P	02 15 19.7	-4.5
	4.5nm,0.6s						
SDV	Santo Domingo	20.96	102	*e*P	P	02 15 37.4	-3.6
	3.4nm,0.5s						
SJG	San Juan	24.58	77	LR	LR	02 24 55.1	
	comp=Z,36nm,19.5s,baz=90,slow=34						
TUC	Tucson	25.42	319	*e*P	P	02 16 24.4	+0.1
	1.1nm,0.6s,mb3.5						
MSU	Marysvale	30.57	327	P	P	02 17 10.0	-0.8
TPNV	Topopah Spring	31.84	320	P	P	02 17 23.8	+1.8
	1.9nm,0.8s,mb3.9						
NVAR	Mina Array Bea	34.04	321	P	P	02 17 42.3	+1.3
	2.1nm,0.7s,mb4.1,baz=130,slow=9.1,SNR=8.4						
DGMT	Dagmar	35.96	345	P	P	02 17 52.5	-4.8
	22nm,0.8s,mb5.1						
YKA	Yellowknife Ar	51.16	346	P	P	02 19 56.3	-3.0
	0.6nm,0.6s,mb3.8,baz=151,slow=7.8,SNR=20						
YKA	Yellowknife Ar	51.16	346	P	P	02 19 56.3	-3.0
ILAR	Eielson Array	63.07	337	P	P	02 21 21.1	-2.4
	0.3nm,0.6s,mb3.4,baz=112,slow=5.4,SNR=6.5						
CMAR	Chiang Mai Arr	146.17	342	PKPbc	PKPbc	02 30 34.9	+0.2
	2.0nm,0.5s,baz=341,slow=3.6,SNR=7.8						

IDC 07 02:15:19.6±16.0**, 12.01S**×**162.29E, h247**^{km}±124^{km}**, mb3.5**/4**, mb1 3.5**/6**, mb1mx3.4**/16**, MS3.0**/1**, Ms1 3.0**/1**, ms1mx2.2**/15**, Error ellipse: s-maj=108.0km s-min=50.9km az=76.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	15.09	278	P	P	02 18 39.6	-2.9
	0.5nm,0.3s,baz=140,slow=4.1,SNR=3.8						
CTA	Charters Tower	17.37	240	P	P	02 19 07.7	-0.4
	0.4nm,0.3s,baz=69,slow=12,SNR=4.7						
STKA	Stephens Creek	27.46	221	P	P	02 20 41.5	-3.6
	4.2nm,0.8s,baz=41,slow=11,SNR=5.0						
WRA	Warramunga Arr	27.97	250	P	P	02 20 48.6	-1.3
	1.4nm,0.7s,baz=79,slow=9.1,SNR=9.1						
WRA				PcP	PcP	02 23 57.0	-1.4
	0.8nm,0.5s,baz=82,slow=3.1,SNR=8.6						
ASAR	Alice Springs	29.34	243	P	P	02 21 00.2	-1.7
	2.0nm,0.8s,baz=72,slow=9.8,SNR=13						
ASAR				PcP	PcP	02 23 59.2	-2.6
	1.2nm,0.9s,baz=75,slow=2.6,SNR=5.6						
FITZ	Fitzroy Crossi	35.86	256	P	P	02 21 55.0	-2.9
	1.3nm,0.6s,baz=97,slow=9.1,SNR=5.4						
FITZ				LR	LR	02 35 06.7	
	comp=Z,21nm,19.9s,baz=274,slow=33						

*ROM **07** 02:19:35.8±0.1, 46.10N×12.35E, h5^{km}, MD3.2/7, ML2.6/11, Error ellipse: s-maj=1.2km s-min=1.2km az=90.0*

*NEIC **07** 02:19:35.8, 46.10N×12.35E, h5^{km}, MD3.2(ROM), ML3.5(VIE), ML3.2(CSEM), ML3.3(STR), ML3.2(SZGRF), ML3.1(LDG), After ROM.*

NEIC Felt in Belluno and Treviso Provinces.

*CSEM **07** 02:19:36.3±0.1, 46.01N×12.38E, h2^{km}, ML3.2/23, Error ellipse: s-maj=1.5km s-min=1.1km az=170.0*

*LDG **07** 02:19:38.0±0.1, 46.09N×12.48E, h10^{km}, Ml3.1/24, Error ellipse: s-maj=3.3km s-min=2.5km az=57.0*

*STR **07** 02:19:42.0±0.3, 46.28N×12.02E, h10^{km}±1^{km}, Ml3.3, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 07 02:19:35.8±0.2**, 46.06N**±0.01×**12.28E**±0.01**, h13**^{km}±1^{km}**, n179,** σ**1§22**/268**, 12C-8D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAE	Caneva	0.12	115	⇑*i*Pg	Pg	02 19 39.1	0.0
CAE				*i* Sg	Sg	02 19 41.3	-0.1
CSO	Casso	0.22	9	⇓*i*Pg	Pg	02 19 40.5	-0.2
CSO				*i* Sg	Sg	02 19 43.6	-0.4
CSO	Casso	0.22	9	*i* Sg	Sg	02 19 43.6	-0.4
FAU	Forcella Aurin	0.27	310	⇓*i*Pg	Pg	02 19 41.9	+0.3
CGRP	Cima Grappa	0.38	242	⇓*i*Pg	Pg	02 19 43.8	+0.2
CGRP				*i* Sg	Sg	02 19 50.4	+1.5
CTI	Castel Tesino	0.44	269	*e*PG	Pg	02 19 44.8	0.0
CTI				SG	Sg	02 19 53.4	+2.6
	438nm,0.3s						
CTI	Castel Tesino	0.44	269	*e*Pg	Pg	02 19 44.8	0.0
CTI				*e*Sg	Sg	02 19 53.4	+2.6
CTI	Castel Tesino	0.44	269	*e*Pg	Pg	02 19 44.8	0.0
	438nm,0.3s						
CTI	Castel Tesino	0.44	269	Sg	Sg	02 19 53.4	+2.6
CSMI	Casera Mimoias	0.52	30	⇑*i*Pg	Pg	02 19 45.4	-1.0
CSMI				*i* Sg	Sg	02 19 54.0	+0.4
MPRI	Monte Prat	0.53	69	⇑*e*Pg	Pg	02 19 46.0	-0.5
MPRI				*e*Sg	Sg	02 19 54.8	+1.1
TLI	Talmassons	0.59	103	*e*Pg	Pg	02 19 47.1	-0.7
BUA	Buia	0.61	74	⇓*e*Pg	Pg	02 19 47.5	-0.6
FVI	Forni Avoltri	0.64	33	*e*PG	Pg	02 19 48.6	-0.2
FVI				SG	Sg	02 19 57.5	0.0
FVI	Forni Avoltri	0.64	33	*e*Pg	Pg	02 19 48.6	-0.2
FVI				*e*Sg	Sg	02 19 57.5	0.0
SEST	Monte Rota	0.69	357	*e*PG	Pg	02 19 49.6	-0.2
SEST				SG	Sg	02 20 00.4	+1.3
SEST	Monte Rota	0.69	357	*e*Pg	Pg	02 19 49.6	-0.2
SEST				*e*Sg	Sg	02 20 00.4	+1.2
ZOU	Zoufplan	0.69	44	*e*Pg	Pg	02 19 50.2	+0.4
ZOU				*e*Sg	Sg	02 19 59.7	+0.5
ZOU	Zoufplan	0.69	44	*e*Sg	Sg	02 19 59.7	+0.5
BAD	Bernadia	0.69	75	*e*Pg	Pg	02 19 48.6	-1.2
BAD				*e*Sg	Sg	02 19 59.4	+0.2
BRES	Bressanone	0.74	330	*e*PG	Pg	02 19 50.5	-0.3
BRES	Bressanone	0.74	330	*e*Pg	Pg	02 19 50.5	-0.3
COLI	Coloredo	0.77	84	*e*Pg	Pg	02 19 50.1	-1.2
COLI				*e*Sg	Sg	02 20 02.6	+1.0
PLRO	Paularo	0.78	51	⇓*e*Pg	Pg	02 19 50.4	-1.1
PLRO				*e*Sg	Sg	02 20 02.5	+0.5
TEOL	Teolo	0.82	212	⇑*e*Pg	Pg	02 19 52.8	+0.6
PTCC	Patocco-Chiusa	0.82	65	*e*PG	Pg	02 19 51.2	-1.2
	118nm,0.2s						
PTCC	Patocco-Chiusa	0.82	65	*e*Pg	Pg	02 19 51.1	-1.2
PTCC	Patocco-Chiusa	0.82	65	*e*Pg	Pg	02 19 51.2	-1.2
	118nm,0.2s						
APPI	Appiano	0.84	300	*e*PG	Pg	02 19 52.6	-0.1
ROBS	Robic	0.88	77	*i* Pg	Pg	02 19 52.3	-1.1
ROBS				*e*Sg	Sg	02 20 07.3	+2.1
	comp=Z,78nm,0.1s						
ROBS	Robic	0.88	77	*i* Pg	Pg	02 19 52.3	-1.1
ROBS				*e*Sg	Sg	02 20 07.3	+2.1
	comp=Z,78nm,0.1s						
DRE	Drenchia	0.96	83	⇓*e*Pg	Pg	02 19 54.4	-0.6
LSR	Lussari	0.96	64	⇑*e*Pg	Pg	02 19 53.7	-1.4
LSR				*e*Sg	Sg	02 20 08.1	+0.1
CADS	Cadrg	1.03	80	*e*Pg	Pg	02 19 54.6	-1.8
CADS				*e*Sg	Sg	02 20 11.8	+1.5
	comp=Z,286nm,0.3s						
CADS	Cadrg	1.03	80	*e*Pg	Pg	02 19 54.6	-1.8
CADS				*e*Sg	Sg	02 20 11.8	+1.6
	comp=Z,286nm,0.3s						
SCE	Schlegeis	1.06	338	⇓*i*Pg	Pg	02 19 56.5	-0.5
SCE				*i* Sg	Sg	02 20 11.7	+0.6
TRI	Trieste	1.10	108	*e*PG	Pg	02 19 56.7	-1.1
TRI				SG	Sg	02 20 12.5	0.0
	comp=Z,219nm,0.4s						
TRI	Trieste	1.10	108	*e*Pg	Pg	02 19 56.7	-1.1
TRI				*e*Sg	Sg	02 20 12.5	0.0
TRI	Trieste	1.10	108	*e*Pg	Pg	02 19 56.7	-1.1
	comp=Z,219nm,0.4s						
TRI				Sg	Sg	02 20 12.5	0.0
VOJS	Vojsko	1.12	91	*i* Pg	Pg	02 19 57.0	-1.2
VOJS				*i* Sg	Sg	02 20 13.4	+0.1
VOJS	Vojsko	1.12	91	*i* Pg	Pg	02 19 57.0	-1.2
VOJS				*i* Sg	Sg	02 20 13.4	+0.2
MABI	Malga Bissina	1.23	270	*e*Pg	Pg	02 20 00.6	+0.3
MABI				*e*Sg	Sg	02 20 18.4	+1.6
MABI	Malga Bissina	1.23	270	*e*Pg	Pg	02 20 00.6	+0.2
MABI				*e*Sg	Sg	02 20 18.4	+1.6
JAVS	Javornik	1.26	97	*i* Pg	Pg	02 19 59.5	-1.4
JAVS				*i* Sg	Sg	02 20 17.1	-0.7
	comp=Z,107nm,0.2s						
JAVS	Javornik	1.26	97	*i* Pg	Pg	02 19 59.5	-1.5
JAVS				*i* Sg	Sg	02 20 17.0	-0.8
	comp=Z,107nm,0.2s						
KBA	Koelnbreinsper	1.26	35	⇑*i*PG	Pg	02 20 00.5	-0.5
KBA				*i* SG	Sg	02 20 17.9	+0.1
	comp=Z,76nm,0.3s						
WTTA	Wattenberg	1.28	340	⇑*i*PG	Pg	02 20 01.0	-0.5
WTTA				*i* SG	Sg	02 20 19.9	+1.2
	comp=Z,87nm,0.3s						
SAL	Salo	1.30	250	*e*PN	Pn	02 20 02.2	+2.5
	comp=Z,201nm,0.3s						
SAL	Salo	1.30	250	*e*Pg	Pg	02 20 02.2	+0.3
SAL	Salo	1.30	250	*e*Pn	Pn	02 20 02.2	+2.5
	comp=Z,201nm,0.3s						
WATA	Walderalm	1.37	340	⇑*i*PG	Pg	02 20 02.5	-0.6
WATA				*i* SG	Sg	02 20 22.5	+1.1
	comp=Z,54nm,0.2s						
SQTA	Sankt Quirin	1.38	328	⇓*i*PG	Pg	02 20 02.7	-0.6
SQTA				*i* SG	Sg	02 20 22.8	+1.1
	comp=Z,90nm,0.2s						
BRMO	Bormio	1.39	288	*e*PN	Pn	02 20 03.0	+2.1
	comp=Z,107nm,0.5s						
BRMO	Bormio	1.39	288	*e*Pg	Pg	02 20 03.0	-0.5
MOTA	Moosalm	1.52	328	*i* PG	Pg	02 20 05.7	-0.5
MOTA				*i* SG	Sg	02 20 27.0	+0.5
	comp=Z,103nm,0.4s						
CEY	Cerknica	1.54	101	*i* Pn	Pn	02 20 03.6	+0.5
KNDS	Knezji Dol	1.56	109	*i* Pn	Pn	02 20 04.2	+0.7
LJU	Ljubljana	1.57	90	*e*Pn	Pn	02 20 00.8	-2.7
LJU				*e*Sg	Sg	02 20 25.4	-2.7
LJU	Ljubljana	1.57	90	*e*Pn	Pn	02 20 04.7	+1.2
LJU	Ljubljana	1.57	90	*e*Pn	Pn	02 20 04.7	+1.2
OBKA	Obir	1.64	73	⇑*i*PG	Pg	02 20 06.4	-2.2
OBKA				*i* SG	Sg	02 20 28.4	-2.1
	comp=Z,72nm,0.3s						
VISS	Visnje	1.81	97	*i* Pn	Pn	02 20 07.8	+0.9
VISS				*e*Sn	Sn	02 20 30.8	+1.0
MDI	Monti di Nese	1.81	262	*e*PN	Pn	02 20 09.3	+2.3
PDKS	Podkum	1.90	89	*i* Pn	Pn	02 20 09.1	+0.9
PDKS				*i* Sn	Sn	02 20 33.0	+1.0
DAVA	Damuels	2.06	308	⇑*i*PG	Pg	02 20 15.1	-1.8
DAVA				*i* SG	Sg	02 20 44.1	-0.3
	comp=Z,122nm,0.5s						
SEI	Scarperia	2.11	198	*e*PN	Pn	02 20 13.1	+1.9
	comp=Z,46nm,0.2s						
SEI	Scarperia	2.11	198	*e*Pg	Pn	02 20 13.2	+1.9
SEI	Scarperia	2.11	198	*e*Pn	Pn	02 20 13.1	+1.9
	comp=Z,46nm,0.2s						
LEGS	Legarje	2.12	92	*e*Pg	Pn	02 20 12.2	+0.8
BOJS	Bojanci	2.15	104	*i* Pn	Pn	02 20 12.6	+0.7
VMG	Vicchio	2.16	194	*e*PN	Pn	02 20 13.2	+1.2
	comp=Z,25nm,0.3s						
VMG	Vicchio	2.16	194	*e*Pg	Pn	02 20 13.2	+1.2
VMG	Vicchio	2.16	194	*e*Pn	Pn	02 20 13.2	+1.2
	comp=Z,25nm,0.3s						
SFI	Santa Sofia	2.17	188	*e*PN	Pn	02 20 12.6	+0.4
	comp=Z,21nm,0.3s						
SFI	Santa Sofia	2.17	188	*e*Pg	Pn	02 20 12.6	+0.4
FUR	Furstenfeldbru	2.22	342	*e*Pn	Pn	02 20 15.6	+2.8
FUR				*e*Sg	Sg	02 20 48.7	-0.9
FUR	Furstenfeldbru	2.22	342	*e*Sg	Sg	02 20 48.7	-0.9
PGD	Poggio Sodo	2.22	190	*e*PN	Pn	02 20 13.6	+0.8
	comp=Z,15nm,0.5s						
PGD	Poggio Sodo	2.22	190	*e*Pg	Pn	02 20 13.6	+0.7
PGD	Poggio Sodo	2.22	190	*e*Pn	Pn	02 20 13.6	+0.8
	comp=Z,15nm,0.5s						
DOBS	Dobrina	2.22	86	*i* Pn	Pn	02 20 13.3	+0.4
CRES	Cresnjev	2.23	95	*e*Pn	Pn	02 20 13.3	+0.3
MOA	Molln	2.25	37	⇑*i*PN	Pn	02 20 15.4	+2.1
MOA				*i* SN	Sn	02 20 45.6	+4.5
VLC	Villacollemand	2.32	216	*e*Pn	Pn	02 20 17.1	+2.8
VLC	Villacollemand	2.32	216	*e*Pn	Pn	02 20 17.1	+2.8
GOLS	Golise	2.33	90	*i* Pn	Pn	02 20 14.9	+0.5
GCIS	Gornji Cirnik	2.34	93	*e*Pn	Pn	02 20 15.2	+0.6
NVLJ	Novalja	2.36	128	*i* Pn	Pn	02 20 15.4	+0.5
NVLJ				*i* Sn	Sn	02 20 44.4	+0.5
NVLJ	Novalja	2.36	128	*i* Pn	Pn	02 20 15.3	+0.4
NVLJ	Novalja	2.36	128	*i* Sn	Sn	02 20 44.4	+0.4
FSSB	Fossombrone	2.39	171	*e*PN	Pn	02 20 15.6	+0.3
	comp=Z,25nm,0.3s						
FSSB	Fossombrone	2.39	171	*e*Pn	Pn	02 20 15.6	+0.3
	comp=Z,25nm,0.3s						
CRE	Caprese Michel	2.45	186	*e*PN	Pn	02 20 17.2	+1.1
	comp=Z,18nm,0.3s						
CRE	Caprese Michel	2.45	186	*e*Pn	Pn	02 20 17.2	+1.1
CRE	Caprese Michel	2.45	186	*e*Pn	Pn	02 20 17.2	+1.1
	comp=Z,18nm,0.3s						
ARSA	Arzberg	2.53	61	⇑*i*PN	Pn	02 20 17.9	+0.6
ARSA				*i* SN	Sn	02 20 50.0	+1.7
ARSA	Arzberg	2.53	61	*i* Sn	Sn	02 20 50.0	+1.7
GEC2	GERESS Array S	2.95	19	*e*Pn	Pn	02 20 24.0	+0.7
GEC2				*e*Sn	Sn	02 21 00.2	+1.3
GEC2	GERESS Array S	2.95	19	*e*Sn	Sn	02 21 00.2	+1.3
KHC	Kasperske Hory	3.20	16	*e*PN	Pn	02 20 27.5	+0.7
KHC				*e*PG	Pg	02 20 35.2	-4.4
KHC				*e*SN	Sn	02 21 05.7	+0.6
KHC				*e*SG	Sg	02 21 18.2	-4.1
KHC	Kasperske Hory	3.20	16	*e*Sn	Sn	02 21 05.7	+0.6
KHC	Kasperske Hory	3.20	16	*e*Pg	Pg	02 20 35.2	-4.4
KHC				*e*Sg	Sg	02 21 18.2	-4.1
BFO	Black Forest	3.52	312	*e*Pn	Pn	02 20 33.0	+1.6
BFO				*e*Sn	Sn	02 21 15.8	+2.5
BFO	Black Forest	3.52	312	*e*Sn	Sn	02 21 15.8	+2.5
BBS	Basel-Blauen	3.57	295	P	Pn	02 20 33.7	+1.7
GRA1	Grafenberg Arr	3.71	349	*e*Pn	Pn	02 20 34.6	+0.6
GRA1				*e*Sn	Sn	02 21 17.3	-0.6
GRA1	Grafenberg Arr	3.71	349	*e*Sn	Sn	02 21 17.3	-0.6
GRF	Grafenberg Arr	3.71	349	*e*Pn	Pn	02 20 34.6	+0.6
GRF				*e*Sn	Sn	02 21 17.3	-0.6
GRF	Grafenberg Arr	3.71	349	*e*Sn	Sn	02 21 17.3	-0.6
AQU	L’Aquila	3.79	167	*e*Pn	Pn	02 20 35.0	-0.2
AQU	L’Aquila	3.79	167	*e*Pn	Pn	02 20 35.0	-0.2
LPG	La Plagne	3.91	264	*e*Pn	Pn	02 20 38.8	+2.0
LPG				*e*Sn	Sn	02 21 22.9	-0.1
	comp=Z,4.7nm,0.3s						
LPL	La Plagne	3.92	264	*e*Pn	Pn	02 20 38.1	+1.1
LPL				*e*Sn	Sn	02 21 23.4	+0.1
	comp=Z,3.1nm,0.3s						
MOF	Molkenrain	3.95	299	P	Pn	02 20 38.9	+1.4
BNI	Bardonecchia	4.06	258	*e*Pn	Pn	02 20 41.1	+2.1
BNI	Bardonecchia	4.06	258	*e*Pn	Pn	02 20 41.1	+2.1
SBF	Sospel	4.08	239	*e*Pn	Pn	02 20 39.5	+0.2
SBF				*e*Sn	Sn	02 21 26.2	-1.2
	comp=Z,12nm,0.3s						
WLS	Welschbruch	4.10	307	P	Pn	02 20 41.1	+1.5
MBDF	Montbardon	4.10	253	*e*Pn	Pn	02 20 38.8	-0.8
MBDF				*e*Sn	Sn	02 21 26.6	-1.4
	comp=Z,2.8nm,0.3s						
ECH	Echery	4.11	304	P	Pn	02 20 40.9	+1.2
ECH				S	Sn	02 21 29.6	+1.5
ECH	Echery	4.11	304	S	Sn	02 21 29.6	+1.5
HINF	Hinteralfeld	4.11	297	*e*Pn	Pn	02 20 40.9	+1.1
HINF				*e*Sn	Sn	02 21 25.6	-2.6
	comp=Z,17nm,0.3s						
HINF	Hinteralfeld	4.11	297	*e*Sn	Sn	02 21 25.6	-2.6
	comp=Z,8.6nm,0.3s						
CDF	Champ du Feu	4.14	306	*e*Pn	Pn	02 20 41.2	+1.0
CDF				*e*Pg	Pg	02 20 54.3	-4.2
CDF				*e*Sn	Sn	02 21 26.3	-2.7
	comp=Z,5.2nm,0.4s						
CDF				*e*Sg	Sg	02 21 48.2	-5.5
	comp=Z,11nm,0.4s						
CDF	Champ du Feu	4.14	306	*e*Pg	Pg	02 20 54.3	-4.2
CDF				*e*Sn	Sn	02 21 26.3	-2.7
	comp=Z,2.6nm,0.4s						
CDF	Champ du Feu	4.14	306	*e*Sg	Sg	02 21 48.2	-5.5
	comp=Z,5.4nm,0.4s						
NKC	Novy Kostel	4.18	2	*e*PN	Pn	02 20 41.2	+0.5
NKC				*e*PG	Pg	02 20 53.8	-5.4
NKC				*e*SN	Sn	02 21 29.1	-0.9
NKC				*e*SG	Sg	02 21 50.4	-4.6
NKC	Novy Kostel	4.18	2	*e*Sn	Sn	02 21 29.1	-0.9
NKC	Novy Kostel	4.18	2	*e*Pg	Pg	02 20 53.8	-5.4
NKC	Novy Kostel	4.18	2	*e*Sg	Sg	02 21 50.4	-4.6
PRU	Pruhonice	4.22	20	*e*SN	Sn	02 21 30.4	-0.5
PRU				*e*SG	Sg	02 21 47.8	-8.4
PGF	Pioggiola	4.22	215	*e*Pn	Pn	02 20 42.8	+1.4
PGF				*e*Sn	Sn	02 21 28.6	-2.5
	comp=Z,4.8nm,0.2s						
PGF	Pioggiola	4.22	215	*e*Sn	Sn	02 21 28.6	-2.5
	comp=Z,2.4nm,0.2s						
TOD	Tromm	4.25	328	P	Pn	02 20 42.8	+1.1
CABF	La Chapelle	4.32	280	*e*Pn	Pn	02 20 44.2	+1.4
CABF				*e*Sn	Sn	02 21 32.2	-1.4
	comp=Z,4.5nm,0.3s						
TANN	Tannenbergstha	4.36	2	*e*Pn	Pn	02 20 44.2	+0.9
HAU	Haudompre	4.50	298	*e*Pn	Pn	02 20 46.2	+1.0
HAU				*e*Sn	Sn	02 21 34.5	-3.5
	comp=Z,13nm,0.2s						
CII	Carovilli	4.58	161	Pn	Pn	02 20 45.2	-1.1
CII	Carovilli	4.58	161	Pn	Pn	02 20 45.2	-1.1
MOX	Moxa	4.61	355	*i* P	Pn	02 20 46.1	-0.8
MOX				Pg	Pg	02 21 06.0	-1.8
MOX				S	Sn	02 21 38.0	-2.9
MOX				Sg	Sg	02 22 05.0	-4.3
MOX	Moxa	4.61	355	*e*Pn	Pn	02 20 46.1	-0.8
MOX				*e*Pg	Pg	02 21 06.2	-1.6
MOX				*e*Sn	Sn	02 21 38.5	-2.4
MOX				*e*Sg	Sg	02 22 04.8	-4.5
MOX	Moxa	4.61	355	*e*Sn	Sn	02 21 39.8	-1.1
MOX	Moxa	4.61	355	*e*Pg	Pg	02 21 06.2	-1.6
ORIF	Oris-en-Rattie	4.64	258	*e*Pn	Pn	02 20 49.0	+1.7
ORIF				*e*Sn	Sn	02 21 42.1	+0.5
	comp=Z,7.3nm,0.5s						
FRF	La Foret Royal	4.72	240	*e*Pn	Pn	02 20 48.2	-0.2
FRF				*e*Sn	Sn	02 21 41.6	-2.0
	comp=Z,2.3nm,0.2s						
THEF	They Montfort	4.81	299	P	Pn	02 20 50.9	+1.2
LMR	La Mourre	4.93	239	*e*Pn	Pn	02 20 51.1	-0.3
LMR				*e*Sn	Sn	02 21 47.2	-1.8
	comp=Z,1.5nm,0.2s						
BRG	Berggiesshubel	4.95	12	*e*Sn	Sn	02 21 46.1	-3.2
STON	Ston	5.02	127	*i* Pn	Pn	02 20 51.8	-0.9
STON				*i* Sn	Sn	02 21 47.5	-3.7
STON	Ston	5.02	127	*i* Sn	Sn	02 21 47.5	-3.7
STON	Ston	5.02	127	*i* Pn	Pn	02 20 51.7	-0.9
DPC	Dobruska-Polom	5.08	31	*e*SG	Sg	02 22 15.9	-8.9
UPC	Upice	5.10	28	*e*SN	Sn	02 21 50.9	-2.4
SMRF	Simiane la Rot	5.19	249	*e*Pn	Pn	02 20 55.0	0.0
SMRF				*e*Sn	Sn	02 21 53.9	-1.5
	comp=Z,4.4nm,0.4s						
CLL	Collm	5.28	5	*e*Pn	Pn	02 20 56.0	-0.2
CLL				*i* Sg	Sg	02 22 30.4	-1.0
CLL	Collm	5.28	5	*e*PN	Pn	02 20 56.0	-0.2
CLL				*e*		02 22 24.0	
CLL				*i* SG	Sg	02 22 30.4	-1.0
WLF	Walferdange	5.48	313	Pn	Pn	02 21 01.4	+2.3
WLF	Walferdange	5.48	313	P	Pn	02 21 01.7	+2.6
VIVF	Saint-Julien-l	5.48	260	*e*Pn	Pn	02 20 58.0	-1.2
VIVF				*e*Sn	Sn	02 22 00.6	-2.2
	comp=Z,3.2nm,0.4s						
MEZF	Maizieres J’vi	5.49	299	*e*Pn	Pn	02 20 58.1	-1.2
MEZF				*e*Sn	Sn	02 21 58.4	-4.6
	comp=Z,7.0nm,0.4s						
SMF	Signal de Mont	5.87	279	*e*Pn	Pn	02 21 04.6	0.0
SMF				*e*Sn	Sn	02 22 08.5	-4.0
	comp=Z,3.4nm,0.3s						
SSF	Saint Saulge	6.13	283	*e*Pn	Pn	02 21 07.9	-0.4
SSF				*e*Sn	Sn	02 22 15.1	-4.0
	comp=Z,0.6nm,0.3s						
MEM	Membach	6.18	320	P	Pn	02 21 10.1	+1.1
AVF	Avril sur Loir	6.21	280	*e*Pn	Pn	02 21 09.3	-0.2
LASF	Ste Croix	6.28	255	*e*Pn	Pn	02 21 09.8	-0.7
LASF				*e*Sn	Sn	02 22 19.2	-3.7
	comp=Z,4.2nm,0.5s						
GIVF	Givet	6.43	312	*e*Pn	Pn	02 21 11.3	-1.2
DOU	Dourbes	6.54	311	P	Pn	02 21 15.9	+1.8
BGF	Bois d’Agland	6.55	278	*e*Pn	Pn	02 21 14.1	-0.2
BGF				*e*Sn	Sn	02 22 26.3	-3.3
	comp=Z,6.9nm,0.4s						
BAIF	Baives	6.73	309	*e*Pn	Pn	02 21 14.2	-2.5
HYF	Humbligny	6.74	284	*e*Pn	Pn	02 21 16.8	-0.1
TCF	Toulx Ste Croi	7.00	276	*e*Pn	Pn	02 21 19.8	-0.7
TCF				*e*Sn	Sn	02 22 36.8	-3.8
	comp=Z,3.2nm,0.4s						
CAF	Calviac	7.27	265	*e*Pn	Pn	02 21 23.3	-1.0
RJF	Les Rejaudoux	7.58	268	*e*Pn	Pn	02 21 28.6	0.0
MTLF	Montolieu	7.66	253	*e*Pn	Pn	02 21 28.9	-1.0
LFF	La Frestale	8.18	266	*e*Pn	P	02 21 34.8	-2.3
MFF	Saint Martin d	8.62	278	*e*Pn	P	02 21 41.4	-1.7
LDF	La Druitiere	8.80	291	*e*Pn	P	02 21 44.1	-1.5
FLN	La Foliniere	9.07	292	*e*Pn	P	02 21 47.4	-1.9
GRR	Gorron	9.24	289	*e*Pn	P	02 21 49.6	-2.1

*NEIC **07** 02:27:41.9, 35.68N×4.68W, h77^{km}, MG2.7(MDD), After MDD.*

*INMG **07** 02:27:42.8±0.8, 35.79N×4.73W, h80^{km}±4^{km}, ML1.7, Error ellipse: s-maj=5.3km s-min=3.3km az=160.0*

*CSEM **07** 02:27:42.2±0.3, 35.87N×4.80W, h71^{km}±3^{km}, mb2.7/4, Error ellipse: s-maj=7.2km s-min=3.6km az=173.0*

MDD 07 02:27:41.9±1.9**, 35.69N**×**4.68W, h78**^{km}±20^{km}**, mb2.7**/4**, 2C, Error ellipse: s-maj=19.0km s-min=11.3km az=173.0, PRXIMO, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMIJ	Mijas	0.88	355	⇑P	P	02 27 58.6	-0.9
	1.7nm,0.1s,SNR=18						
EMIJ				S	S	02 28 11.3	-1.5
	4.8nm,0.1s						
ESPR	Espera	1.52	321	P	P	02 28 07.1	-0.7
	1.0nm,0.1s,SNR=4.0						
ESPR				S	S	02 28 26.6	-0.4
	1.0nm,0.2s,SNR=4.0						
ESPR	Espera	1.52	321	P	P	02 28 07.1	-0.8
	1.0nm,0.1s,SNR=4.0						
ELUQ	Luque	1.90	10	S	S	02 28 35.2	-0.6
	7.6nm,0.2s,SNR=4.0						
EQES	Quesada	2.47	31	P	P	02 28 19.9	-1.0
EQES				S	S	02 28 48.4	-1.7
EQES	Quesada	2.47	31	P	P	02 28 20.0	-1.0
	SNR=7.9						
EQES				S	S	02 28 48.4	-1.7
	1.2nm,0.5s,SNR=4.0						
EQES	Quesada	2.47	31	P	P	02 28 20.0	-1.0
	SNR=7.9						
EQES				S	S	02 28 48.4	-1.7
	1.2nm,0.5s,SNR=4.0						
EADA	Adamuz	2.48	2	P	P	02 28 19.5	-1.5
	0.4nm,0.0s,SNR=15						
EADA				S	S	02 28 46.6	-3.6
	5.2nm,0.1s						
EADA	Adamuz	2.48	2	P	P	02 28 19.5	-1.5
	0.4nm,0.0s,SNR=15						
EADA				S	S	02 28 46.6	-3.6
	5.2nm,0.1s						
EMIN	Mina Concepcio	2.62	323	⇑P	P	02 28 21.3	-1.8
	2.9nm,0.1s,SNR=18						
EMIN				S	S	02 28 50.1	-3.8
	0.5nm,0.0s,SNR=7.9						
EMIN	Mina Concepcio	2.62	323	P	P	02 28 21.3	-1.8
	2.9nm,0.1s,SNR=18						
EMIN				S	S	02 28 50.1	-3.7
	0.5nm,0.0s,SNR=7.9						
PBEJ	Beja	3.46	313	*e*P	P	02 28 32.7	-2.1
PBEJ				*e*S	S	02 29 10.8	-4.0
	1.0nm,0.1s						
PBEJ	Beja	3.46	313	*e*P	P	02 28 32.7	-2.1
PBEJ				*e*S	S	02 29 10.8	-4.0
	1.0nm,0.1s						
EBAD	Badajoz	3.59	329	P	P	02 28 34.4	-2.1
	1.8nm,0.1s,SNR=7.5						
EBAD				S	S	02 29 13.1	-4.7
	2.9nm,0.2s,SNR=6.5						
EBAD	Badajoz	3.59	329	P	P	02 28 34.4	-2.1
	1.8nm,0.1s,SNR=7.5						
EBAD				S	S	02 29 13.1	-4.7
	2.9nm,0.2s,SNR=6.5						
PTEO	Sao Teotonio	3.75	301	*e*P	P	02 28 36.8	-1.9
PTEO				*e*S	S	02 29 17.4	-4.5

ESDC	**Sonseca Array**	**4.02**	**8**	S	S	02 29 22.0	-6.7
	0.9nm,0.1s,baz=188,slow=23,SNR=6.5						
PCBR	**Castelo Branco**	**4.70**	**333**	*e*P	P	02 28 49.3	-2.7
PCBR				*e*S	S	02 29 39.0	-6.7

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*NIED **07** 02:31:00, 42.90N×145.10E, h41^{km}, Mw4.2 Best double couple: M$_0$2.45×10^{15} NP1:φ$_s$29°, δ71°, λ81°. NP2:φ$_s$235°, δ21°, λ114°.*
*MOS **07** 02:31:33.9±1.0, 42.88N×145.20E, h57^{km}, mb4.5/14, Error ellipse: s-maj=17.6km s-min=10.8km az=98.3*
*BJI **07** 02:31:34.0, 42.88N×145.21E, h57^{km}, mB4.9, mb4.6, Ms4.1, Msz4.0*
*IDC **07** 02:31:35.5±0.7, 42.87N×145.15E, h49^{km}±6^{km}, mb3.9/18, mb1 4.2/19, mb1mx4.1/24, MS3.6/1, Ms1 3.7/1, ms1mx2.8/18, Error ellipse: s-maj=13.9km s-min=9.2km az=25.0*
*JMA **07** 02:31:35.2±0.1, 42.88N×145.12E, h48^{km}±1^{km}, M4.3*
JMA Felt II J1.
*NEIC **07** 02:31:35.2±0.3, 42.89N×145.06E, mb4.5/11, MW4.2(NIED), Error ellipse: s-maj=7.8km s-min=6.4km az=145.0*
*SKHL **07** 02:31:35.9±0.3, 42.97N×145.09E, h65^{km}±11^{km}, mb5.2/2*
ISC 07 02:31:34.0±0.6**, 42.88N**±0.05×**145.16E**±0.05**, h53**^{km}±3^{km}**, h48**^{km}±2.7^{km}**:pP-P, n95, σ0^{s}96**/99**, mb4.4**/35**, MS4.0**/3**, 7C-12D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.36**	**289**	⇓P	**P**	**02 31 44.4**	**+0.4**
JAK				*e*S	**S**	**02 31 50.9**	**-0.4**
NEM2	**Nemuro 2**	**0.65**	**41**	⇑P	**P**	**02 31 48.0**	**+0.8**
NEM2				*e*S	**S**	**02 31 57.1**	**+0.1**
JNK	**Nakash**	**0.78**	**336**	⇓P	**P**	**02 31 49.6**	**+0.7**
JNK				*e*S	**S**	**02 31 59.5**	**-0.5**
JOB	**Onbets**	**0.98**	**272**	⇓P	**P**	**02 31 52.0**	**+0.4**
JRA	**Rausu**	**1.06**	**358**	⇓P	**P**	**02 31 53.7**	**+0.9**
JRA				*e*S	**S**	**02 32 07.1**	**+0.3**
JAR	**Ashorobuto**	**1.10**	**293**	⇓P	**P**	**02 31 53.9**	**+0.5**
YUK	**Yuzh-Kuril'sk**	**1.26**	**24**	⇑*i*PN	**P**	**02 31 55.8**	**+0.1**
YUK				*i* S	**S**	**02 32 10.5**	**-1.3**
YUK				pmax	pmax		
	comp=N,810nm,0.3s						
YUK				pmax	pmax		
	comp=E,450nm,0.3s						
YUK				pmax	pmax		
	comp=Z,2μm,0.3s						
YUK				pmax	pmax		
	comp=Z,2μm,0.4s						
YUK				smax			
	comp=N,13μm,0.4s						
YUK				smax			
	comp=E,9μm,0.3s						
YUK				smax			
	comp=N,26μm,0.7s						
YUK				smax			
	comp=E,23μm,1.0s						
YUK	**Yuzh-Kuril'sk**	**1.26**	**24**	⇑*i*P	**P**	**02 31 55.8**	**+0.1**
YUK				AMB	AMB	02 31 56.1	
	comp=E,810nm,0.3s						
YUK				AMB	AMB	02 31 56.1	
	comp=E,450nm,0.3s						
YUK				AMB	AMB	02 31 56.1	
	comp=E,2μm,0.3s						
YUK				AMB	AMB	02 31 56.3	
	comp=E,2μm,0.4s						
YUK				*i* rx	rx	02 32 07.7	
YUK				*i* S	**S**	**02 32 10.5**	**-1.3**
YUK				A		02 32 13.7	
	comp=E,13μm,0.3s						
YUK				A		02 32 13.7	
	comp=E,9μm,0.3s						
YUK				A		02 32 14.0	
	comp=E,26μm,1.0s						
YUK				A		02 32 14.0	
	comp=E,23μm,1.0s						
JCH	**Churui**	**1.35**	**259**	⇓P	**P**	**02 31 56.7**	**-0.3**
JCH				*e*S	**S**	**02 32 13.7**	**-0.4**
JTKR	**Abashiri--Toko**	**1.42**	**321**	⇓P	**P**	**02 31 59.1**	**+1.1**
JTKR				*e*S	**S**	**02 32 16.8**	**+1.0**
ASAJ	**Asahikawa**	**2.24**	**304**	P	**P**	**02 32 11.1**	**+1.7**
	comp=E,123nm,0.3s,baz=129,slow=9.2,SNR=112						
ASAJ				S	**S**	**02 32 37.9**	**+1.9**
	comp=E,36nm,0.3s,baz=71,slow=18,SNR=3.6						
ASAJ	**Asahikawa**	**2.24**	**304**	PN	**P**	**02 32 11.1**	**+1.7**
ASAJ				S	**S**	**02 32 37.9**	**+2.0**
ASAJ				pmax	pmax		
	comp=Z,123nm,0.3s						
KUR	**Kuril'sk**	**3.06**	**39**	⇓*i*PN	**P**	**02 32 20.0**	**-1.1**
KUR				*e*S	**S**	**02 32 54.5**	**-2.1**
KUR				pmax	pmax		
	comp=Z,180nm,0.6s						
KUR				smax			
	comp=N,300nm,0.6s						
KUR				smax			
	comp=E,380nm,0.6s						
KUR	**Kuril'sk**	**3.06**	**39**	⇓*i*P	**P**	**02 32 20.0**	**-1.1**
KUR				AMB	AMB	02 32 37.7	
	comp=E,180nm,0.6s						
KUR				*e*S	**S**	**02 32 54.5**	**-2.1**
KUR				A		02 32 58.2	
	comp=E,300nm,0.6s						
KUR				A		02 32 58.2	
	comp=E,380nm,0.6s						
YSS	**Yuzh-Sakhalins**	**4.42**	**338**	Pn	**P**	**02 32 40.5**	**+0.3**
YSS	**Yuzh-Sakhalins**	**4.42**	**338**	*e*P	**P**	**02 32 39.6**	**-0.6**
YSS				*e*S	**S**	**02 33 22.0**	**-9.0**
YSS				A		02 33 23.0	
	comp=E,50nm,0.9s						
TYV	**Tymovskoe**	**8.17**	**349**	*e*P	**P**	**02 33 31.0**	**-1.5**
MAJO	**Matsushiro**	**8.29**	**223**	*e*P	**P**	**02 33 32.3**	**-1.8**
MDJ	**Mudanjiang**	**11.40**	**284**	P	**P**	**02 34 13.2**	**-3.3**
MDJ				AMB	AMB		
	comp=Z,7.0nm,1.7s						
MDJ				AMB	AMB		
	comp=Z,126nm,6.2s						
CN2	**Changchun**	**14.38**	**280**	*e*P	**P**	**02 34 56.7**	**+0.8**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
BMKR	**Bomnak**	**15.95**	**324**	*e*P	**P**	**02 35 14.5**	**-1.5**
HIA	**Hailar**	**18.71**	**299**	P	**P**	**02 35 48.8**	**-1.5**
	comp=Z,4.9nm,0.5s						
ULN	**Ulaanbaatar**	**27.04**	**294**	*e*P	**P**	**02 37 12.2**	**-0.7**
	comp=Z,3.6nm,0.6s,mb4.1						
SONM	**Songino Array**	**27.48**	**294**	P	**P**	**02 37 16.8**	**-0.2**
	comp=Z,5.8nm,0.8s,mb4.2,baz=79,slow=7.8,SNR=46						
SONM				pP	pP	02 37 28.8	-1.5
	comp=Z,1.7nm,0.7s,baz=94,slow=8.0,SNR=3.1						
ENH	**Enshi**	**31.06**	**258**	P	**P**	**02 37 47.9**	**-1.1**
	comp=Z,5.8nm,0.4s,mb4.8						
CD2	**Chengdu**	**34.87**	**264**	P	**P**	**02 38 22.0**	**0.0**
GYA	**Guiyang**	**35.30**	**255**	⇑*i*P	**P**	**02 38 26.3**	**+0.6**
GYA				AP	pP	02 38 41.4	+1.8
GYA				S	**S**	**02 43 54.5**	**-0.6**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
GYA				LR	LR		
	comp=N,1μm,15.8s,MS4.9						
GYA				LR	LR		
	comp=E,1μm,16.4s,MS4.9						
GYA				LR	LR		
	comp=Z,1μm,16.0s,MS4.8						
KMI	**Kunming**	**38.91**	**257**	*e*P	**P**	**02 38 57.0**	**+1.0**
KMI				AP	pP	02 39 08.8	-1.2
KMI				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.7						
KMI	**Kunming**	**38.91**	**257**	*e*P	**P**	**02 38 57.0**	**+1.0**
	comp=Z,13nm,0.8s,mb4.7						
KMI				pP	pP	02 39 08.8	-1.2
ZAL	**Zalesovo**	**40.39**	**308**	P	**P**	**02 39 07.9**	**0.0**
	comp=Z,1.3nm,0.3s,mb4.1,baz=41,slow=5.8,SNR=4.3						
ZAL	**Zalesovo**	**40.39**	**308**	P	**P**	**02 39 07.9**	**-0.1**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WMQ	**Urumqi**	**41.07**	**292**	P	**P**	**02 39 14.7**	**+1.0**
WMQ				AP	pP	02 39 29.9	+2.2
WMQ				XP	sP	02 39 37.7	+3.6
WMQ				PP	PP	02 40 53.2	+1.3
WMQ				PCP	PcP	02 41 14.8	+1.5
WMQ				S	**S**	**02 45 22.2**	**-0.1**
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.1						
WMQ				AMB	AMB		
	comp=Z,24nm,5.7s						
WMQ				LR	LR		
	comp=N,105nm,16.8s,MS3.9						
WMQ				LR	LR		
	comp=E,93nm,16.9s,MS3.9						
WMQ				LR	LR		
	comp=Z,54nm,18.0s,MS3.5						
COLA	**College**	**42.63**	**35**	*e*P	**P**	**02 39 26.5**	**+0.3**
	comp=Z,7.3nm,0.7s,mb4.5						
ILAR	**Eielson Array**	**43.05**	**36**	P	**P**	**02 39 30.5**	**+1.0**
	comp=Z,1.3nm,0.5s,mb3.9,baz=271,slow=7.3,SNR=29						
ILAR				pP	pP	02 39 43.2	-0.4
	comp=Z,1.5nm,0.6s,baz=283,slow=9.5,SNR=6.7						
ILAR				LR	LR	02 58 44.2	
	comp=Z,75nm,18.5s,MS3.6,baz=178,slow=38						
ILAR	**Eielson Array**	**43.05**	**36**	P	**P**	**02 39 30.5**	**+0.9**
ILAR				*PP	pP	02 39 43.2	-0.4
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ILAR				MLR	MLR		
	comp=Z,75nm,18.5s						
MKAR	**Makanchi Array**	**43.70**	**298**	*i* P	**P**	**02 39 35.1**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.4s						
KURK	**Kurchatov**	**44.82**	**304**	P	**P**	**02 39 44.1**	**+0.1**
KURK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.1						
KURK	**Kurchatov**	**44.82**	**304**	*e*P	**P**	**02 39 43.0**	**-1.1**
	comp=Z,5.7nm,0.6s,mb4.6						
CMAR	**Chiang Mai Arr**	**45.88**	**253**	P	**P**	**02 39 53.5**	**+0.5**
	comp=Z,3.6nm,0.9s,mb4.3,baz=45,slow=6.5,SNR=7.8						
CMAR	**Chiang Mai Arr**	**45.88**	**253**	P	**P**	**02 39 53.5**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
INK	**Inuvik**	**47.88**	**30**	P	**P**	**02 40 08.6**	**+0.5**
	comp=Z,3.7nm,0.4s,mb4.7,baz=279,slow=4.5,SNR=34						
INK	**Inuvik**	**47.88**	**30**	P	**P**	**02 40 08.6**	**+0.6**
INK				pmax	pmax		
	comp=Z,4.0nm,0.4s						
CHKZ	**Chkalovo**	**48.59**	**310**	P	**P**	**02 40 13.0**	**-0.6**
CHKZ				pmax	pmax		
	comp=Z,14nm,1.9s,mb4.7						
CHKZ	**Chkalovo**	**48.59**	**310**	*e*P	**P**	**02 40 12.6**	**-1.1**
	comp=Z,5.8nm,0.9s,mb4.6						
BVA0	**Borovoye Array**	**48.93**	**309**	P	**P**	**02 40 16.3**	**0.0**
BVAR	**Borovoye Array**	**48.93**	**309**	P	**P**	**02 40 16.0**	**-0.3**
	comp=Z,2.4nm,0.3s,mb4.7,baz=81,slow=9.8,SNR=17						
BRVK	**Borovoye**	**48.98**	**309**	*e*P	**P**	**02 40 16.9**	**+0.2**
	comp=Z,3.8nm,0.6s,mb4.6						
TKM2	**Tokmak 2**	**49.57**	**295**	*e*P	**P**	**02 40 21.2**	**-0.2**
	comp=Z,7.5nm,0.7s,mb4.8						
GUN	**Gumba**	**49.61**	**273**	*e*P	**P**	**02 40 22.1**	**+0.2**
	comp=Z,16nm,0.5s,mb5.3						
KKN	**Kakani**	**50.12**	**273**	*e*P	**P**	**02 40 26.1**	**+0.3**
PKI	**Pulchoki**	**50.15**	**273**	*e*P	**P**	**02 40 26.7**	**+0.7**
DMN	**Daman**	**50.35**	**273**	*e*P	**P**	**02 40 27.0**	**-0.5**
	comp=Z,7.5nm,0.6s,mb4.9						
GKN	**Gorkha**	**50.47**	**274**	*e*P	**P**	**02 40 28.3**	**-0.2**
	comp=Z,7.0nm,0.4s,mb5.0						
EKS2	**Erkin-Say**	**50.89**	**296**	*e*P	**P**	**02 40 30.9**	**-0.5**
	comp=Z,2.3nm,0.4s,mb4.5						
KOLN	**Koldanda**	**51.36**	**274**	*e*P	**P**	**02 40 33.6**	**-1.6**
	comp=Z,14nm,0.7s,mb5.0						
YKA	**Yellowknife Ar**	**57.33**	**33**	P	**P**	**02 41 18.2**	**-0.1**
	comp=Z,1.2nm,0.8s,mb4.0,baz=300,slow=7.0,SNR=14						
YKA	**Yellowknife Ar**	**57.33**	**33**	P	**P**	**02 41 18.2**	**-0.2**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
JOF	**Joensuu**	**62.18**	**332**	*e*p	**P**	**02 41 49.7**	**-1.9**
	comp=Z,0.7nm,0.3s,mb4.3						
JOF	**Joensuu**	**62.18**	**332**	*e*P	**P**	**02 41 49.7**	**-1.9**
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.4						
WRA	**Warramunga Arr**	**63.30**	**191**	P	**P**	**02 41 58.7**	**-0.9**
	comp=Z,0.8nm,0.6s,mb4.0,baz=9.3,slow=6.6,SNR=5.7						
WRA				pP	pP	02 42 12.8	-1.7
	comp=Z,0.5nm,0.6s,baz=8.9,slow=6.8,SNR=3.3						
WRA	**Warramunga Arr**	**63.30**	**191**	P	**P**	**02 41 58.7**	**-0.9**
WRA				*PP	pP	02 42 12.8	-1.6
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KAF	**Kangasniemi**	**64.44**	**333**	*e*p	**P**	**02 42 04.1**	**-2.2**
	comp=Z,0.5nm,0.4s,mb3.9,baz=45,slow=6.2						
KAF	**Kangasniemi**	**64.44**	**333**	*e*P	**P**	**02 42 04.1**	**-2.2**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
FINES	**FINESS Array B**	**64.98**	**332**	P	**P**	**02 42 09.0**	**-0.9**
	comp=Z,2.4nm,0.4s,mb4.6,baz=48,slow=8.5,SNR=35						
FINES	**FINESS Array B**	**64.98**	**332**	P	**P**	**02 42 09.0**	**-0.9**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ASAR	**Alice Springs**	**67.02**	**191**	P	**P**	**02 42 23.9**	**+0.4**
	comp=Z,0.9nm,0.7s,mb3.9,baz=2.5,slow=5.6,SNR=8.7						
NVAR	**Mina Array Bea**	**69.27**	**57**	P	**P**	**02 42 39.2**	**+2.0**
	comp=Z,0.7nm,0.5s,mb3.8,baz=294,slow=5.2,SNR=3.6						
NB2	**NORSAR Subarra**	**69.88**	**338**	P	**P**	**02 42 40.3**	**-0.3**
	comp=Z,2.2nm,0.5s,mb4.3,baz=33,slow=6.2						
NOA	**NORSAR Array B**	**69.88**	**338**	P	**P**	**02 42 40.5**	**-0.1**
	comp=Z,2.8nm,0.5s,mb4.5,baz=34,slow=6.2,SNR=12						
NOA	**NORSAR Array B**	**69.88**	**338**	P	**P**	**02 42 40.5**	**-0.1**
NOA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
NOA	**NORSAR Array B**	**69.88**	**338**	P	**P**	**02 42 40.5**	**-0.1**
AKASG	**Malin Array Be**	**71.41**	**323**	P	**P**	**02 42 49.5**	**-0.4**
	comp=Z,2.5nm,0.5s,mb4.4,baz=41,slow=5.8,SNR=22						
AKASG	**Malin Array Be**	**71.41**	**323**	P	**P**	**02 42 49.5**	**-0.5**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
PDAR	**Pinedale Array**	**71.58**	**48**	P	**P**	**02 42 52.0**	**+0.9**
	comp=Z,0.8nm,0.6s,mb3.8,baz=262,slow=2.6,SNR=7.6						
PV10	**Paradox Valley**	**74.82**	**52**	*e*P	**P**	**02 43 12.1**	**+2.0**
PV10				*e*	pP	02 43 24.4	-0.9
CLL	**Collm**	**77.41**	**332**	*i* P	**P**	**02 43 24.7**	**+0.2**
CLL	**Collm**	**77.41**	**332**	P	**P**	**02 43 24.7**	**+0.2**
PRU	**Pruhonice**	**77.94**	**330**	*e*P	**P**	**02 43 28.4**	**+0.9**
SCHQ	**Schefferville**	**78.91**	**18**	P	**P**	**02 43 32.9**	**+0.1**
	comp=Z,3.5nm,0.9s,mb4.3,baz=32,slow=9.5,SNR=3.8						
KHC	**Kasperske Hory**	**79.00**	**330**	*e*P	**P**	**02 43 34.3**	**+1.0**
GERES	**GERESS Array B**	**79.20**	**330**	P	**P**	**02 43 34.1**	**-0.2**
	comp=Z,0.4nm,0.4s,mb3.7,baz=45,slow=5.7,SNR=5.6						
TXAR	**Lajitas Array**	**84.34**	**55**	P	**P**	**02 44 03.5**	**+2.0**
	comp=Z,0.5nm,0.7s,mb3.8,baz=292,slow=3.9,SNR=5.8						
TXAR				pP	pP	02 44 16.3	-0.6
	comp=Z,3.1nm,1.1s,baz=293,slow=3.7,SNR=11						
TXAR	**Lajitas Array**	**84.34**	**55**	P	**P**	**02 44 03.5**	**+2.0**
TXAR				pP	pP	02 44 16.3	-0.6
ESDC	**Sonseca Array**	**93.20**	**337**	P	**P**	**02 44 44.2**	**+0.8**
	comp=Z,0.4nm,0.5s,mb4.1,baz=17,slow=4.3,SNR=6.1						
LVC	**Limon Verde**	**145.27**	**65**	PKPdf	PKPdf	02 51 06.6	+0.9
SNAA	**Sanae**	**147.18**	**198**	⇓*i*	PKPdf	02 51 12.9	+5.4
SNAA	**Sanae**	**147.18**	**198**	PKPbc	PKPdf	02 51 12.5	+5.0
	comp=Z,0.5nm,0.5s,baz=78,slow=1.4,SNR=7.8						
SNAA	**Sanae**	**147.18**	**198**	PKP2	PKPab	02 51 12.5	-1.2
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SNAA	**Sanae**	**147.18**	**198**	*e*PKPbc	PKPdf	02 51 11.7	+4.2
VNA2	**Neumayer--Watz**	**148.73**	**197**	⇓*i*	PKPdf	02 51 19.1	+9.1
VNA3	**Neumayer Olymp**	**148.95**	**195**	⇑*i*	PKPdf	02 51 18.5	+8.1
VNA3	**Neumayer Olymp**	**148.95**	**195**	⇓*i*P	PKPdf	02 51 12.9	+2.5
VNA3				⇑*i*P		02 51 18.5	
VNA1	**Neumayer--Stat**	**149.13**	**197**	⇑*i*	PKPdf	02 51 17.3	+6.6
BDFB	**Brasilia**	**150.60**	**27**	PKPbc	PKPdf	02 51 22.1	+7.5
	comp=Z,3.7nm,0.9s,baz=167,slow=3.5,SNR=6.8						
BDFB	**Brasilia**	**150.60**	**27**	PKIKP	PKPdf	02 51 22.1	+7.5
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.9s						

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*NIED **07** 02:59:00, 35.60N×140.10E, h77^{km}, Mw3.6 Best double couple: M$_0$2.59×10^{14} NP1:φ$_s$355°, δ70°, λ94°. NP2:φ$_s$164°, δ20°, λ79°.*
*JMA **07** 02:59:42.9±0.2, 35.65N×140.06E, h70^{km}±2^{km}, M3.6*
JMA Felt I J1.
ISC 07 02:59:42.4±1.0**, 35.63N**±0.04×**140.09E**±0.06**, h75**^{km}±8^{km}**, n14, σ0^{s}85**/24**, 3C-4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JCN	**Nagara**	**0.23**	**156**	⇑P	**P**	**02 59 54.4**	**+0.6**
JCN				*e*S	**S**	**03 00 03.4**	**+1.2**
TOK	**Tokyo**	**0.27**	**282**	P	**P**	**02 59 54.8**	**+0.8**
TOK				*e*S	**S**	**03 00 03.2**	**+0.5**
JYO	**Yokosk**	**0.53**	**221**	⇓P	**P**	**02 59 56.6**	**+0.5**
JYO				S	**S**	**03 00 06.4**	**+0.2**
JYT	**Yasato**	**0.60**	**8**	⇑P	**P**	**02 59 56.4**	**-0.4**
JYT				S	**S**	**03 00 06.1**	**-1.3**
TATJ	**Tateyama 2**	**0.62**	**195**	P	**P**	**02 59 57.5**	**+0.5**
TATJ				S	**S**	**03 00 08.2**	**+0.5**
CHOJ	**Chosi**	**0.63**	**83**	P	**P**	**02 59 57.7**	**+0.6**
JHU	**Hanno**	**0.69**	**289**	⇓P	**P**	**02 59 58.0**	**+0.3**
JHU				S	**S**	**03 00 08.7**	**-0.5**
JOD2	**Odawara 2**	**0.90**	**246**	⇓P	**P**	**02 59 59.7**	**-0.3**
JOD2				*e*S	**S**	**03 00 11.6**	**-1.7**
BSO3	**Boso 3**	**0.90**	**157**	⇑P	**P**	**02 59 59.8**	**-0.3**
JAG	**Ashikaga**	**0.94**	**327**	P	**P**	**03 00 00.6**	**-0.1**
JRY	**Ryogami san**	**1.04**	**292**	⇓P	**P**	**03 00 02.3**	**+0.5**
JHO	**Hitachi**	**1.05**	**22**	P	**P**	**03 00 01.8**	**-0.2**
JHO				S	**S**	**03 00 15.8**	**-0.9**
JIM2	**Oshima 3**	**1.06**	**211**	P	**P**	**03 00 01.2**	**-0.9**
JIM2				*e*S	**S**	**03 00 14.9**	**-1.9**
MAT	**Matsushiro**	**1.77**	**301**	P	**P**	**03 00 12.2**	**+0.5**
MAT				S	**S**	**03 00 35.1**	**+1.8**

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*BJI **07** 03:16:54.7, 51.65N×174.52W, h37^{km}, mB5.4, mb5.0, Ms4.8, Msz4.6*
*NEIC **07** 03:16:56.9±0.2, 51.40N×174.38W, mb4.9/64, ML4.2(AEIC), Error ellipse: s-maj=7.3km s-min=3.1km az=182.0*
*IDC **07** 03:16:57.0±0.6, 51.55N×174.33W, h44^{km}±4^{km}, mb4.2/23, mb1 4.4/25, mb1mx4.3/27, ML4.3/2, MS4.2/3, Ms1 4.2/3, ms1mx3.5/28, Error ellipse: s-maj=14.6km s-min=10.3km az=156.0*
*MOS **07** 03:16:58.0±1.1, 52.22N×174.35W, h33^{km}, mb4.8/15, Error ellipse: s-maj=20.5km s-min=9.3km az=93.1*
ISC 07 03:16:54.7±0.6**, 51.34N**±0.05×**174.32W**±0.04**, h39**^{km}±4^{km}**, h46**^{km}±.9^{km}**:pP-P, n224, σ1^{s}03**/231**, mb4.8**/103**, MS4.4**/7**, 11C, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	**Atka Island**	**0.87**	**5**	P	**P**	**03 17 10.7**	**+0.2**
ATKA				S	**S**	**03 17 21.6**	**-0.6**
GSIG	**Igitkin Island**	**1.19**	**304**	P	**P**	**03 17 15.0**	**-0.1**
GSIG				S	**S**	**03 17 29.9**	**-0.5**
GSMY	**Great Sitkin M**	**1.29**	**304**	P	**P**	**03 17 16.5**	**0.0**
GSTR	**Great Sitkin T**	**1.32**	**306**	P	**P**	**03 17 17.4**	**+0.3**
GSTD	**Great Sitkin T**	**1.35**	**303**	P	**P**	**03 17 17.4**	**+0.1**
GSTD				S	**S**	**03 17 35.1**	**+0.8**
GSSP	**Great Sitkin S**	**1.38**	**304**	P	**P**	**03 17 18.2**	**+0.3**
ADAG	**Mount Adagdak**	**1.56**	**295**	P	**P**	**03 17 20.8**	**+0.4**
KIRH	**Kanaga Island**	**1.82**	**289**	P	**P**	**03 17 24.8**	**+0.7**
KIWB	**Kanaga Island**	**1.84**	**287**	P	**P**	**03 17 24.7**	**+0.3**
KINC	**Kanaga Island**	**1.85**	**290**	P	**P**	**03 17 25.3**	**+0.8**
KIKV	**Kanaga Island**	**1.86**	**288**	P	**P**	**03 17 25.0**	**+0.3**
KIMD	**Kanaga Island**	**1.87**	**284**	P	**P**	**03 17 24.8**	**0.0**
NIKO	**Nikolski**	**3.74**	**62**	P	**P**	**03 17 52.8**	**+1.4**
MCIR	**Makushin Cirqu**	**5.22**	**57**	P	**P**	**03 18 12.7**	**+0.3**
UNV	**Unalaska Valle**	**5.38**	**59**	P	**P**	**03 18 15.4**	**+0.8**
FX1	**Attu Island--F**	**7.86**	**286**	P	**P**	**03 18 49.5**	**+0.2**
	3.3nm,0.3s,baz=104,slow=19,SNR=3.8						
FX1	**Attu Island--F**	**7.86**	**286**	P	**P**	**03 18 49.5**	**+0.2**
FX1				pmax	pmax		
	comp=Z,3.0nm,0.3s						
FX1	**Attu Island--F**	**7.86**	**286**	*e*P	**P**	**03 18 45.9**	**-3.4**
DOL	**Dolgoi Island**	**8.38**	**58**	P	**P**	**03 18 55.6**	**-0.9**
SLKM	**Skilak Lake**	**16.24**	**46**	*e*P	**P**	**03 20 39.0**	**-2.1**
IMA	**Indian Mountai**	**18.10**	**28**	*e*P	**P**	**03 21 02.7**	**-1.8**
	comp=Z,64nm,1.0s						
MCK	**McKinley**	**18.26**	**37**	*e*P	**P**	**03 21 04.5**	**-2.0**
	comp=Z,11nm,0.8s						
SKR	**Severo-Kuril's**	**18.56**	**280**	*e*P	**P**	**03 21 14.7**	**+4.4**
COLA	**College**	**19.27**	**35**	*e*P	**P**	**03 21 14.9**	**-3.4**
	comp=Z,12nm,0.8s						
THY	**Trims Highway**	**19.37**	**40**	*e*P	**P**	**03 21 17.7**	**-1.8**
ILAR	**Eielson Array**	**19.57**	**36**	P	**P**	**03 21 17.1**	**-4.6**
	comp=Z,3.9nm,0.3s,baz=245,slow=9.1,SNR=94						
ILAR				S	**S**	**03 24 55.5**	**+0.7**
	comp=Z,0.1nm,0.3s,baz=223,slow=16,SNR=3.7						
INK	**Inuvik**	**25.91**	**34**	P	**P**	**03 22 21.8**	**-2.5**
	comp=Z,4.5nm,0.6s,mb4.2,baz=241,slow=8.4,SNR=26						
INK	**Inuvik**	**25.91**	**34**	P	**P**	**03 22 21.8**	**-2.5**
INK				pmax	pmax		
	comp=Z,5.0nm,0.6s						
DLBC	**Dease Lake**	**26.03**	**57**	P	**P**	**03 22 26.8**	**+1.2**
	comp=Z,9.8nm,0.9s,mb4.3,baz=291,slow=8.8,SNR=18						
YKA	**Yellowknife Ar**	**33.21**	**47**	P	**P**	**03 23 27.3**	**-2.2**
	comp=Z,0.5nm,0.4s,mb3.8,baz=278,slow=6.6,SNR=17						
YKA				PcP	PcP	03 26 10.7	-0.9
	comp=Z,1.2nm,0.6s,baz=287,slow=3.0,SNR=11						
YKA				LR	LR	03 38 36.4	
	comp=Z,348nm,19.9s,MS4.1,baz=270,slow=39						
YKA	**Yellowknife Ar**	**33.21**	**47**	P	**P**	**03 23 27.3**	**-2.2**
YKA						03 26 10.7	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,348nm,19.9s						
YKA	**Yellowknife Ar**	**33.21**	**47**	P	**P**	**03 23 27.3**	**-2.2**
YKA				PcP	PcP	03 26 10.7	-0.9
YKA				LR	LR	03 38 36.4	
NEW	**Newport**	**36.25**	**72**	*e*P	**P**	**03 23 56.1**	**+0.5**
	comp=Z,7.6nm,1.0s,mb4.6						
MAT	**Matsushiro**	**36.57**	**265**	P	**P**	**03 23 58.4**	**-0.1**
MAT	**Matsushiro**	**36.57**	**265**	*e*P	**P**	**03 23 58.0**	**-0.5**
	comp=Z,15nm,1.1s,mb4.7						
MDJ	**Mudanjiang**	**37.34**	**282**	P	**P**	**03 24 03.6**	**-1.2**
MDJ				AMB	AMB		
	comp=Z,23nm,1.1s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,267nm,4.5s						
MDJ	**Mudanjiang**	**37.34**	**282**	*e*P	**P**	**03 24 03.3**	**-1.5**
MSO	**Missoula**	**38.82**	**72**	*e*P	**P**	**03 24 16.4**	**-0.7**
	comp=Z,3.8nm,1.0s,mb4.1						
CHMT	**Chamberlain Mo**	**39.19**	**72**	*e*P	**P**	**03 24 19.7**	**-0.5**
CMB	**Columbia Colle**	**39.69**	**88**	*e*P	**P**	**03 24 24.8**	**+0.3**
HRY	**Holter Researc**	**40.14**	**71**	*e*P	**P**	**03 24 28.0**	**-0.1**
HLID	**Hailey**	**40.23**	**77**	*e*P	**P**	**03 24 28.9**	**+0.1**
BOD	**Bodaibo**	**40.24**	**308**	*e*P	**P**	**03 24 26.4**	**-2.4**
CN2	**Changchun**	**40.30**	**284**	*e*P	**P**	**03 24 28.8**	**-0.7**
CN2				*e*AP	pP	03 24 41.6	+1.1
CN2				*e*S	**S**	**03 30 31.6**	**-2.6**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
CN2				LR	LR		
	comp=N,500nm,15.0s,MS4.6						
CN2				LR	LR		
	comp=E,500nm,15.0s,MS4.6						
CN2				LR	LR		
	comp=Z,700nm,16.0s,MS4.6						
MCMT	**McKenzie Canyo**	**40.50**	**74**	*e*P	**P**	**03 24 30.2**	**-0.9**
NVAR	**Mina Array Bea**	**40.76**	**86**	P	**P**	**03 24 34.5**	**+1.2**
	comp=Z,1.5nm,0.8s,mb3.7,baz=316,slow=8.0,SNR=5.4						
NVAR	**Mina Array Bea**	**40.76**	**86**	P	**P**	**03 24 34.5**	**+1.2**
MNV	**Mina**	**40.85**	**86**	*e*P	**P**	**03 24 34.1**	**+0.1**
HIA	**Hailar**	**40.89**	**294**	*e*P	**P**	**03 24 33.0**	**-1.3**
	comp=Z,12nm,1.0s,mb4.5						
MTUM	**Tungsten Hills**	**41.25**	**87**	*e*P	**P**	**03 24 38.2**	**+0.9**
ELK	**Elko**	**41.30**	**81**	*e*P	**P**	**03 24 38.6**	**+0.9**
	comp=Z,2.4nm,0.8s,mb3.9						
FFC	**Flin Flon**	**41.86**	**56**	*e*P	**P**	**03 24 41.7**	**-0.3**
	comp=Z,16nm,0.9s,mb4.6						
BW06	**Boulder Array**	**43.62**	**75**	*e*P	**P**	**03 24 56.5**	**-0.1**
	comp=Z,3.5nm,0.6s,mb4.3						
PDAR	**Pinedale Array**	**43.62**	**75**	P	**P**	**03 24 57.0**	**+0.3**
	comp=Z,3.0nm,0.7s,mb4.1,baz=308,slow=3.9,SNR=26						
NLU	**North Lily Min**	**43.72**	**80**	*e*P	**P**	**03 24 57.3**	**-0.1**
DAU	**Daniels Canyon**	**43.95**	**79**	*e*P	**P**	**03 25 00.1**	**+0.8**
TMUT	**Trail Mountain**	**44.65**	**80**	*e*P	**P**	**03 25 05.2**	**+0.2**
LDFC	**Landfair**	**44.85**	**87**	*e*P	**P**	**03 25 05.8**	**-0.8**
SRU	**San Rafael**	**45.19**	**80**	*e*P	**P**	**03 25 08.9**	**-0.3**
PV10	**Paradox Valley**	**46.55**	**80**	*e*P	**P**	**03 25 20.0**	**0.0**
PV01	**Paradox Valley**	**46.99**	**79**	*e*P	**P**	**03 25 23.0**	**-0.5**
ULM	**Lac du Bonnet**	**47.33**	**59**	P	**P**	**03 25 25.4**	**-0.6**
	comp=Z,2.8nm,0.5s,mb4.5,baz=326,slow=14,SNR=7.2						
RW3	**Ridgway**	**47.46**	**79**	*e*P	**P**	**03 25 26.3**	**-1.0**
BJT	**Baijiatuau**	**48.13**	**285**	*e*P	**P**	**03 25 31.7**	**-0.8**
	comp=Z,9.6nm,0.6s,mb5.0						
ULN	**Ulaanbaatar**	**48.77**	**299**	*e*P	**P**	**03 25 36.5**	**-0.7**
	comp=Z,6.9nm,0.9s,mb4.7						
SDCO	**Great Sand Dun**	**49.12**	**78**	*e*P	**P**	**03 25 39.4**	**-0.7**
SONM	**Songino Array**	**49.15**	**299**	P	**P**	**03 25 40.0**	**-0.1**
	comp=Z,3.8nm,0.7s,mb4.5,baz=45,slow=8.2,SNR=29						
ZAK	**Zakamensk**	**49.36**	**303**	*e*P	**P**	**03 25 40.9**	**-0.8**

ANMO	**Albuquerque**	**50.33**	**81**	P	**P**	**03 25 50.2**	**+0.8**
	comp=Z,1.0nm,0.9s,mb3.8,baz=300,slow=8.1,SNR=2.5						
ANMO	**Albuquerque**	**50.33**	**81**	*e*P	**P**	**03 25 49.0**	**-0.4**
	comp=Z,5.7nm,1.3s,mb4.4						
HHC	**Hu-ho-hao-te**	**50.38**	**289**	*e*P	**P**	**03 25 50.1**	**+0.4**
HHC				AMB	AMB		
	comp=Z,18nm,1.3s,mb4.9						
SSE	**Sheshan**	**50.81**	**273**	*e*P	**P**	**03 25 50.5**	**-2.6**
SSE				AMB	AMB		
	comp=Z,18nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,93nm,6.6s						
SSE	**Sheshan**	**50.81**	**273**	*e*P	**P**	**03 25 50.5**	**-2.6**
	comp=Z,18nm,0.7s,mb5.1						
NJ2	**Nanjing**	**51.62**	**275**	*e*P	**P**	**03 25 58.5**	**-0.7**
NJ2				AP	pP	03 26 13.6	+3.2
NJ2				XP	sP	03 26 17.3	+2.2
NJ2				PP	PP	03 27 54.0	-3.5
NJ2				S	**S**	**03 33 14.0**	**-2.0**
NJ2				XS		03 33 35.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,330nm,6.7s						
NJ2				LR	LR		
	comp=N,520nm,24.3s						
NJ2				LR	LR		
	comp=E,500nm,17.4s						
NJ2				LR	LR		
	comp=Z,450nm,16.6s						
CPRX	**Cap Rock**	**53.21**	**81**	*e*P	**P**	**03 26 11.9**	**+0.8**
WMOK	**Wichita Mounta**	**55.19**	**76**	*e*P	**P**	**03 26 24.3**	**-1.3**
	comp=Z,2.1nm,0.8s,mb4.2						
LTX	**Lajitas**	**55.87**	**84**	*e*P	**P**	**03 26 30.8**	**+0.2**
	comp=Z,4.3nm,0.8s,mb4.5						
TXAR	**Lajitas Array**	**55.87**	**84**	P	**P**	**03 26 29.2**	**-1.3**
	comp=Z,1.0nm,0.8s,mb3.9,baz=290,slow=4.5,SNR=11						
TXAR				pP	pP	03 26 42.6	+0.6
	comp=Z,3.9nm,0.9s,baz=313,slow=4.2,SNR=14						
JCT	**Junction City**	**57.48**	**81**	P	**P**	**03 26 42.2**	**+0.2**
	comp=Z,6.6nm,0.8s,mb4.7						
JMIC	**Jan Mayen**	**57.56**	**5**	P	**P**	**03 26 38.4**	**-3.6**
	comp=Z,257nm,0.4s,baz=172,slow=3.2,SNR=6.4						
LZH	**Lanzhou**	**58.08**	**289**	*e*P	**P**	**03 26 46.0**	**-0.1**
LZH				AP	pP	03 26 59.5	+2.0
LZH				*e*S	**S**	**03 34 41.0**	**-1.4**
LZH				XS		03 35 01.6	
LZH				*e*SS	SS	03 38 32.6	-3.0
LZH				AMB	AMB		
	comp=Z,42nm,1.2s,mb5.3						
LZH				AMB	AMB		
	comp=Z,242nm,5.3s						
LZH				LR	LR		
	comp=E,732nm,15.9s						
LZH				LR	LR		
	comp=Z,991nm,16.9s,MS5.0						
LZH	**Lanzhou**	**58.08**	**289**	*e*P	**P**	**03 26 46.0**	**-0.1**
	comp=Z,42nm,1.2s,mb5.3						
LZH				pP	pP	03 26 59.5	+2.0
LZH				sP	sP	03 27 04.5	+2.4
LZH				PP	PP	03 29 06.1	+10
LZH				*e*S	**S**	**03 34 41.0**	**-1.4**
LZH				sS		03 35 01.6	
LZH				*e*SS	SS	03 38 32.6	-3.0
LZH				LR	LR		
	comp=Z,990nm,16.9s,MS5.0						
GTA	**Gaotai**	**58.17**	**295**	*e*P	**P**	**03 26 46.0**	**-0.7**
GTA				AP	pP	03 26 57.9	-0.2
GTA				XP	sP	03 27 03.6	+0.9
GTA				PP	PP	03 28 58.9	+1.6
GTA				S	**S**	**03 34 46.1**	**+2.5**
GTA				AMB	AMB		
	comp=Z,13nm,0.6s,mb5.1						
GTA				AMB	AMB		
	comp=Z,147nm,5.3s						
GTA				LR	LR		
	comp=N,197nm,15.2s,MS4.6						
GTA				LR	LR		
	comp=E,318nm,15.6s,MS4.6						
GTA				LR	LR		
	comp=Z,211nm,16.3s,MS4.3						
KEV	**Kevo**	**58.22**	**351**	*e*p	**P**	**03 26 44.0**	**-2.6**
	comp=Z,1.4nm,0.4s,mb4.3						
KEV	**Kevo**	**58.22**	**351**	*e*P	**P**	**03 26 44.0**	**-2.6**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
SCHQ	**Schefferville**	**58.25**	**40**	P	**P**	**03 26 45.3**	**-1.8**
	comp=Z,4.2nm,0.6s,mb4.6,baz=269,slow=12,SNR=6.2						
MIAR	**Mount Ida**	**58.47**	**73**	*e*P	**P**	**03 26 45.3**	**-3.6**
	comp=Z,7.4nm,0.8s,mb4.8						
ARCES	**ARCESS Array B**	**58.57**	**352**	P	**P**	**03 26 46.8**	**-2.3**
	comp=Z,5.0nm,0.6s,mb4.7,baz=5.4,slow=5.9,SNR=22						
ARCES				pP	pP	03 26 59.7	-0.8
	comp=Z,5.0nm,0.7s,baz=11,slow=6.2,SNR=4.1						
ARCES				PcP	PcP	03 27 37.6	-1.2
	comp=Z,7.7nm,0.7s,baz=23,slow=2.8,SNR=8.2						
ARCES	**ARCESS Array B**	**58.57**	**352**	P	**P**	**03 26 46.8**	**-2.3**
ARCES				*PP	pP	03 26 59.7	-0.8
ARCES						03 27 37.6	
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ENH	**Enshi**	**58.66**	**280**	*e*P	**P**	**03 26 50.1**	**-0.1**
KURK	**Kurchatov**	**61.04**	**316**	*e*P	**P**	**03 27 02.4**	**-4.0**
	comp=Z,3.7nm,0.5s,mb4.8						
WMQ	**Urumqi**	**61.69**	**305**	P	**P**	**03 27 10.5**	**-0.3**
WMQ				AP	pP	03 27 23.5	+1.2
WMQ				PCP	PcP	03 27 51.8	+0.2
WMQ				PP	PP	03 29 28.0	-0.9
WMQ				S	**S**	**03 35 26.5**	**-2.4**
WMQ				AMB	AMB		
	comp=Z,12nm,0.9s,mb5.0						
WMQ				LR	LR		
	comp=N,162nm,21.4s,MS4.2						
WMQ				LR	LR		
	comp=E,23nm,20.6s,MS4.2						
WMQ				LR	LR		
	comp=Z,91nm,14.2s						
CD2	**Chengdu**	**61.72**	**285**	P	**P**	**03 27 11.0**	**-0.1**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb5.0						
BVAR	**Borovoye Array**	**62.69**	**322**	P	**P**	**03 27 15.5**	**-1.8**
	comp=Z,5.4nm,0.5s,mb5.0,baz=54,slow=6.5,SNR=45						
BVAR				PcP	PcP	03 27 54.8	-0.8
	comp=Z,7.6nm,0.6s,baz=63,slow=3.3,SNR=14						
BRVK	**Borovoye**	**62.71**	**322**	*e*P	**P**	**03 27 14.3**	**-3.1**
	comp=Z,3.3nm,0.6s,mb4.6						
BINY	**Binghamton**	**63.02**	**56**	*e*P	**P**	**03 27 18.8**	**-0.9**
	comp=Z,9.5nm,0.6s,mb5.1						
GYA	**Guiyang**	**63.11**	**279**	P	**P**	**03 27 20.7**	**+0.2**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.8						
SSPA	**Standing Stone**	**63.14**	**58**	*e*P	**P**	**03 27 19.0**	**-1.6**
	comp=Z,5.7nm,0.6s,mb4.9						
PWV	**Princeton**	**63.78**	**63**	*e*P	**P**	**03 27 21.9**	**-2.7**
ELN	**Prospectdale**	**64.02**	**62**	P	**P**	**03 27 25.5**	**-0.8**
JOF	**Joensuu**	**64.31**	**347**	*e*p	**P**	**03 27 23.6**	**-4.0**
	comp=Z,0.8nm,0.4s,mb4.1						
JOF	**Joensuu**	**64.31**	**347**	*e*P	**P**	**03 27 23.6**	**-4.0**
JOF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
KAF	**Kangasniemi**	**65.72**	**350**	*e*p	**P**	**03 27 33.2**	**-3.5**
	comp=Z,0.9nm,0.5s,mb4.1,baz=11,slow=6.0						
KAF	**Kangasniemi**	**65.72**	**350**	*e*P	**P**	**03 27 33.2**	**-3.5**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
FINES	**FINESS Array B**	**66.39**	**349**	P	**P**	**03 27 39.0**	**-2.0**
	comp=Z,2.9nm,0.6s,mb4.5,baz=18,slow=6.2,SNR=14						
FINES				PcP	PcP	03 28 09.6	-0.9
	comp=Z,2.9nm,0.6s,baz=49,slow=3.8,SNR=9.6						
FINES	**FINESS Array B**	**66.39**	**349**	P	**P**	**03 27 39.1**	**-1.9**
FINES						03 28 09.6	
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
FINES	**FINESS Array B**	**66.39**	**349**	P	**P**	**03 27 39.0**	**-2.0**
FINES				PcP	PcP	03 28 09.6	-0.9
NB2	**NORSAR Subarra**	**67.89**	**357**	P	**P**	**03 27 49.1**	**-1.3**
	comp=Z,2.8nm,0.7s,mb4.4,baz=4.0,slow=6.2						
NOA	**NORSAR Array B**	**67.89**	**357**	P	**P**	**03 27 48.9**	**-1.5**
	comp=Z,8.7nm,1.0s,mb4.8,baz=2.6,slow=6.3,SNR=12						
NOA				pP	pP	03 28 02.0	-0.1
	comp=Z,3.1nm,0.7s,baz=1.8,slow=6.3,SNR=4.7						
NOA				LR	LR	03 57 44.0	
	comp=Z,196nm,18.9s,MS4.4,baz=315,slow=36						
NOA	**NORSAR Array B**	**67.89**	**357**	P	**P**	**03 27 48.9**	**-1.5**
NOA				*PP	pP	03 28 02.0	-0.1
NOA				pmax	pmax		
	comp=Z,9.0nm,1.0s						
NOA				MLR	MLR		
	comp=Z,196nm,18.9s						
HFS	**Hagfors**	**68.70**	**356**	P	**P**	**03 27 54.0**	**-1.5**
	comp=Z,6.5nm,0.6s,mb4.8,baz=27,slow=3.2,SNR=14						
HFS				pP	pP	03 28 07.0	-0.2
	comp=Z,5.3nm,0.5s,baz=56,slow=5.3,SNR=4.8						
HFS	**Hagfors**	**68.70**	**356**	P	**P**	**03 27 54.0**	**-1.5**
HFS				*PP	pP	03 28 07.0	-0.2
HFS				pmax	pmax		
	comp=Z,7.0nm,0.6s						
AAK	**Ala-Archa**	**69.01**	**313**	*e*P	**P**	**03 27 56.5**	**-1.2**
	comp=Z,8.7nm,0.9s,mb4.7						
EKS2	**Erkin-Say**	**69.32**	**313**	*e*P	**P**	**03 27 59.1**	**-0.5**
	comp=Z,8.5nm,0.9s,mb4.7						
AML	**Almayashu**	**69.77**	**313**	P	**P**	**03 28 01.7**	**-0.7**
	comp=Z,9.5nm,1.0s,mb4.7						
SHL	**Shillong**	**72.74**	**289**	⇑*e*P	**P**	**03 28 19.7**	**-0.7**
CMAR	**Chiang Mai Arr**	**73.80**	**279**	P	**P**	**03 28 27.4**	**+0.6**
	comp=Z,4.7nm,0.9s,mb4.4,baz=28,slow=7.0,SNR=6.8						
CMAR	**Chiang Mai Arr**	**73.80**	**279**	P	**P**	**03 28 27.4**	**+0.6**
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
VRSR	**Storozhevoye**	**73.95**	**339**	*e*P	**P**	**03 28 26.7**	**-0.3**
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
VRSR				pmax	pmax		
	comp=N,7.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,9.0nm,0.8s						
GUN	**Gumba**	**74.45**	**295**	⇑*i*P	**P**	**03 28 31.4**	**+1.0**
	comp=E,83nm,0.7s,mb5.8						
KKN	**Kakani**	**74.88**	**295**	⇑*i*P	**P**	**03 28 33.6**	**+0.7**
	comp=E,56nm,0.9s,mb5.5						
PKI	**Pulchoki**	**74.98**	**295**	⇑*i*P	**P**	**03 28 34.2**	**+0.8**
	comp=E,92nm,1.1s,mb5.6						
BSEG	**Bad Segeberg**	**75.03**	**357**	*e*P	**P**	**03 28 33.5**	**+0.3**
BSEG				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
GKN	**Gorkha**	**75.08**	**296**	⇑*i*P	**P**	**03 28 34.6**	**+0.6**
	comp=Z,95nm,0.9s,mb5.7						
DMN	**Daman**	**75.12**	**295**	⇑*i*P	**P**	**03 28 35.0**	**+0.8**
	comp=Z,77nm,1.0s,mb5.6						
KOLN	**Koldanda**	**75.84**	**297**	⇑*i*P	**P**	**03 28 38.9**	**+0.5**
	comp=Z,71nm,1.0s,mb5.6						
AKASG	**Malin Array Be**	**76.39**	**345**	P	**P**	**03 28 39.6**	**-1.3**
	comp=Z,2.9nm,0.6s,mb4.4,baz=16,slow=5.9,SNR=10						
AKASG	**Malin Array Be**	**76.39**	**345**	P	**P**	**03 28 39.7**	**-1.3**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CLZ	**Clausthal**	**77.12**	**357**	*e*P	**P**	**03 28 45.6**	**+0.5**
	comp=Z,27nm,0.9s,mb5.2						
CLL	**Collm**	**77.54**	**355**	⇑*i*P	**P**	**03 28 47.0**	**-0.5**
CLL				*e*	pP	03 29 00.0	+0.8
CLL				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
CLL	**Collm**	**77.54**	**355**	⇑*i*P	**P**	**03 28 47.0**	**-0.5**
	comp=Z,12nm,0.8s,mb4.9						
CLL				*e*	pP	03 29 00.0	+0.8
CLL	**Collm**	**77.54**	**355**	⇑P	**P**	**03 28 47.0**	**-0.5**
	comp=Z,logA/T=1.2,mb4.9						
CLL				*e**PP	pP	03 29 00.0	+0.8
KSP	**Ksiaz**	**77.80**	**353**	*e*P	**P**	**03 28 48.6**	**-0.3**
BRG	**Berggiesshubel**	**77.92**	**355**	*e*P	**P**	**03 28 49.1**	**-0.4**
BRG				*e*	pP	03 29 02.9	+1.6
BRG				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
BRG	**Berggiesshubel**	**77.92**	**355**	*e*P	**P**	**03 28 49.1**	**-0.4**
	comp=Z,13nm,1.0s,mb4.8						
BRG				*e*	pP	03 29 02.9	+1.6
UPC	**Upice**	**78.15**	**353**	*e*P	**P**	**03 28 50.9**	**+0.1**
MOX	**Moxa**	**78.27**	**356**	*e*P	**P**	**03 28 51.3**	**-0.1**
MOX				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
MOX	**Moxa**	**78.27**	**356**	*i* P	**P**	**03 28 51.3**	**-0.1**
	comp=Z,logA/T=1.1,mb4.8						
MOX	**Moxa**	**78.27**	**356**	*e*P	**P**	**03 28 51.3**	**-0.1**
	comp=Z,10.0nm,0.9s,mb4.8						
HGN	**Heimansgroeve**	**78.28**	**360**	*e*P	**P**	**03 28 51.9**	**+0.5**
	comp=Z,16nm,1.2s,mb4.8						
DPC	**Dobruska-Polom**	**78.29**	**353**	*e*P	**P**	**03 28 51.4**	**-0.1**
NKC	**Novy Kostel**	**78.64**	**356**	*e*P	**P**	**03 28 53.4**	**-0.1**
NKC				*e*pP	pP	03 29 06.6	+1.3
PRU	**Pruhonice**	**78.77**	**354**	*e*P	**P**	**03 28 54.1**	**-0.1**
GIVF	**Givet**	**78.94**	**1**	*e*P	**P**	**03 28 55.3**	**+0.2**
	comp=Z,26nm,1.0s,mb4.8						
BAIF	**Baives**	**78.97**	**1**	*e*P	**P**	**03 28 55.7**	**+0.4**
	comp=Z,25nm,0.9s,mb4.8						
KOLS	**Kolonicke sedl**	**79.11**	**349**	*e*P	**P**	**03 28 54.1**	**-2.0**
ABH	**Alteburg**	**79.15**	**359**	*e*P	**P**	**03 28 56.8**	**+0.5**
GRA1	**Grafenberg Arr**	**79.24**	**356**	*e*P	**P**	**03 28 57.3**	**+0.5**
	comp=Z,24nm,0.9s,mb5.1						
GRF	**Grafenberg Arr**	**79.24**	**356**	*e*P	**P**	**03 28 57.3**	**+0.5**
GRF				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
GRF	**Grafenberg Arr**	**79.24**	**356**	*e*P	**P**	**03 28 57.3**	**+0.5**
	comp=Z,24nm,0.9s,mb5.1						
TOD	**Tromm**	**79.40**	**358**	*e*P	**P**	**03 28 58.1**	**+0.4**
KHC	**Kasperske Hory**	**79.68**	**355**	*e*P	**P**	**03 28 59.3**	**+0.1**
KHC				*e*pP	pP	03 29 12.6	+1.6
GEC2	**GERESS Array S**	**79.96**	**355**	*e*P	**P**	**03 29 00.4**	**-0.3**
GEC2				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
GEC2	**GERESS Array S**	**79.96**	**355**	*e*P	**P**	**03 29 00.4**	**-0.3**
	comp=Z,7.0nm,1.0s,mb4.5						
GERES	**GERESS Array B**	**79.96**	**355**	P	**P**	**03 29 00.6**	**-0.1**
	comp=Z,3.4nm,0.8s,mb4.3,baz=18,slow=4.2,SNR=17						
LANF	**Langenberg**	**80.04**	**359**	*e*P	**P**	**03 29 02.0**	**+0.9**
FLN	**La Foliniere**	**80.14**	**4**	*e*P	**P**	**03 29 01.5**	**-0.2**
	comp=Z,36nm,1.0s,mb4.9						
LDF	**La Druitiere**	**80.32**	**4**	*e*P	**P**	**03 29 02.4**	**-0.2**
	comp=Z,27nm,0.8s,mb5.0						
ROSF	**Rostrenen**	**80.41**	**6**	*e*P	**P**	**03 29 03.2**	**+0.1**
	comp=Z,76nm,1.5s,mb5.1						
GRR	**Gorron**	**80.50**	**4**	*e*P	**P**	**03 29 03.6**	**0.0**
	comp=Z,23nm,0.8s,mb4.8						
SGMF	**Saint Gilles**	**80.54**	**6**	*e*P	**P**	**03 29 03.9**	**+0.1**
	comp=Z,12nm,0.7s,mb4.7						
MEZF	**Maizieres J'vi**	**80.54**	**0**	*e*P	**P**	**03 29 04.3**	**+0.5**
	comp=Z,32nm,1.0s,mb4.9						
WLS	**Welschbruch**	**80.62**	**359**	*e*P	**P**	**03 29 04.8**	**+0.6**
CDF	**Champ du Feu**	**80.62**	**359**	*e*P	**P**	**03 29 04.6**	**+0.4**
	comp=Z,24nm,0.9s,mb4.8						
BFO	**Black Forest**	**80.69**	**358**	*e*P	**P**	**03 29 04.9**	**+0.3**
BFO				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
BFO	**Black Forest**	**80.69**	**358**	*e*P	**P**	**03 29 04.9**	**+0.3**
	comp=Z,14nm,1.2s,mb4.8						
THEF	**They Montfort**	**80.81**	**360**	*e*P	**P**	**03 29 05.9**	**+0.7**
ECH	**Echery**	**80.82**	**359**	*e*P	**P**	**03 29 06.1**	**+0.8**
QUIF	**Quistinic**	**80.83**	**6**	*e*P	**P**	**03 29 05.4**	**0.0**
	comp=Z,44nm,1.3s,mb4.9						
HAU	**Haudompre**	**81.03**	**360**	*e*P	**P**	**03 29 06.8**	**+0.4**
	comp=Z,38nm,1.0s,mb5.0						
MOF	**Molkenrain**	**81.18**	**359**	*e*P	**P**	**03 29 07.6**	**+0.4**
HINF	**Hinteralfeld**	**81.22**	**359**	*e*P	**P**	**03 29 07.6**	**+0.2**
	comp=Z,13nm,0.8s,mb4.6						
HYF	**Humbligny**	**81.74**	**2**	*e*P	**P**	**03 29 10.8**	**+0.7**
SSF	**Saint Saulge**	**81.96**	**2**	*e*P	**P**	**03 29 11.8**	**+0.5**
	comp=Z,34nm,0.8s,mb5.0						
DAVOS	**Davos**	**82.14**	**357**	P	**P**	**03 29 13.9**	**+1.7**
DAVOX	**Davos**	**82.20**	**357**	P	**P**	**03 29 13.9**	**+1.4**
	comp=Z,3.2nm,0.7s,mb4.4,slow=11						
AVF	**Avril sur Loir**	**82.23**	**2**	*e*P	**P**	**03 29 13.0**	**+0.4**
	comp=Z,40nm,0.9s,mb5.0						
MFF	**Saint Martin d**	**82.31**	**4**	*e*P	**P**	**03 29 13.6**	**+0.5**
	comp=Z,44nm,0.9s,mb5.1						
SMF	**Signal de Mont**	**82.39**	**1**	*e*P	**P**	**03 29 13.9**	**+0.5**
	comp=Z,40nm,0.9s,mb5.0						
CABF	**La Chapelle**	**82.43**	**360**	*e*P	**P**	**03 29 14.7**	**+1.0**
	comp=Z,46nm,1.1s,mb5.0						
BGF	**Bois d'Agland**	**82.45**	**2**	*e*P	**P**	**03 29 14.3**	**+0.5**
	comp=Z,37nm,1.0s,mb5.0						
TCF	**Toulx Ste Croi**	**82.71**	**2**	*e*P	**P**	**03 29 15.5**	**+0.4**
	comp=Z,27nm,1.0s,mb5.0						
AGO	**Saint Agoulin**	**82.97**	**2**	*e*P	**P**	**03 29 19.2**	**+2.8**
PLDF	**La Plantade**	**83.06**	**1**	*e*P	**P**	**03 29 19.4**	**+2.5**
PYM	**Petit Puy Mans**	**83.27**	**2**	*e*P	**P**	**03 29 20.4**	**+2.5**
LPL	**La Plagne**	**83.52**	**359**	*e*P	**P**	**03 29 21.0**	**+1.9**
LPG	**La Plagne**	**83.54**	**359**	*e*P	**P**	**03 29 20.9**	**+1.7**
RJF	**Les Rejaudoux**	**83.67**	**3**	*e*P	**P**	**03 29 20.4**	**+0.5**
WRAB	**Tennant Creek**	**83.98**	**228**	P	**P**	**03 29 20.9**	**-1.2**
WRA	**Warramunga Arr**	**84.00**	**228**	P	**P**	**03 29 21.3**	**-0.9**
	comp=Z,1.0nm,0.7s,mb4.0,baz=32,slow=5.7,SNR=7.4						
WRA	**Warramunga Arr**	**84.00**	**228**	P	**P**	**03 29 21.3**	**-0.8**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LFF	**La Frestale**	**84.01**	**4**	*e*P	**P**	**03 29 22.6**	**+1.0**
	comp=Z,42nm,1.0s,mb5.2						
CAF	**Calviac**	**84.07**	**3**	*e*P	**P**	**03 29 22.9**	**+1.0**
	comp=Z,48nm,1.2s,mb5.2						
ORIF	**Oris-en-Rattie**	**84.12**	**360**	*e*P	**P**	**03 29 23.9**	**+1.7**
	comp=Z,27nm,1.1s,mb5.0						
VIVF	**Saint-Julien-l**	**84.18**	**1**	*e*P	**P**	**03 29 23.8**	**+1.3**
MBDF	**Montbardon**	**84.31**	**359**	*e*P	**P**	**03 29 25.1**	**+1.9**
	comp=Z,11nm,0.7s,mb4.8						
LASF	**Ste Croix**	**84.95**	**1**	*e*P	**P**	**03 29 27.8**	**+1.4**
	comp=Z,47nm,1.3s,mb5.2						
SMRF	**Simiane la Rot**	**85.07**	**0**	*e*P	**P**	**03 29 28.8**	**+1.9**
	comp=Z,75nm,1.2s,mb5.4						
SBF	**Sospel**	**85.17**	**359**	*e*P	**P**	**03 29 28.2**	**+0.8**
	comp=Z,48nm,0.8s,mb5.3						
FRF	**La Foret Royal**	**85.48**	**359**	*e*P	**P**	**03 29 30.0**	**+1.0**
MTLF	**Montolieu**	**85.65**	**3**	*e*P	**P**	**03 29 31.1**	**+1.3**
LMR	**La Mourre**	**85.71**	**359**	*e*P	**P**	**03 29 31.1**	**+1.0**
	comp=Z,72nm,1.2s,mb5.5						
SJPF	**Ste Jean**	**85.74**	**5**	*e*P	**P**	**03 29 31.8**	**+1.5**
	comp=Z,8.0nm,0.7s,mb4.8						
EPF	**Esparros**	**85.90**	**4**	*e*P	**P**	**03 29 31.5**	**+0.5**
ETSF	**Etsaut**	**85.99**	**5**	*e*P	**P**	**03 29 32.3**	**+0.8**
	comp=Z,47nm,1.3s,mb5.2						
SKO	**Skopje**	**86.06**	**348**	*e*P	**P**	**03 29 32.8**	**+0.9**
BRTR	**Keskin Array B**	**86.08**	**339**	P	**P**	**03 29 32.0**	**0.0**
	comp=Z,3.8nm,1.0s,mb4.6,baz=48,slow=2.0,SNR=12						
BRTR	**Keskin Array B**	**86.08**	**339**	P	**P**	**03 29 32.0**	**0.0**
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
MALT	**Malatya**	**86.23**	**335**	*e*P	**P**	**03 29 33.3**	**+0.5**
PGF	**Pioggiola**	**86.45**	**358**	*e*P	**P**	**03 29 35.7**	**+1.9**
PBRG	**Braganca**	**86.61**	**9**	*e*P	**P**	**03 29 35.4**	**+0.9**
FITZ	**Fitzroy Crossi**	**86.71**	**236**	*e*P	**P**	**03 29 36.2**	**+0.6**
	comp=Z,6.9nm,0.9s,mb4.9						
HYB	**Hyderabad**	**86.83**	**294**	*e*P	**P**	**03 29 35.0**	**-1.2**
HYB				*e*	pP	03 29 49.0	+0.8
HYB	**Hyderabad**	**86.83**	**294**	*i* P	**P**	**03 29 35.0**	**-1.2**
HYB				*e*pP	pP	03 29 49.0	+0.8
PVRL	**Vila Real**	**87.03**	**10**	*e*P	**P**	**03 29 37.6**	**+1.0**
ASAR	**Alice Springs**	**87.42**	**226**	P	**P**	**03 29 38.9**	**-0.1**
	comp=Z,3.4nm,0.8s,mb4.6,baz=32,slow=4.8,SNR=24						
ASAR				pP	pP	03 29 52.9	+1.9
	comp=Z,2.4nm,0.9s,baz=33,slow=4.4,SNR=5.4						
PVIS	**Viseu**	**87.56**	**10**	*e*P	**P**	**03 29 39.8**	**+0.6**
POO	**Poona**	**88.59**	**298**	⇑*i*P	**P**	**03 29 43.0**	**-1.6**
	comp=Z,33nm,0.9s,mb5.7						
ESDC	**Sonseca Array**	**88.97**	**7**	P	**P**	**03 29 46.1**	**+0.1**
	comp=Z,3.2nm,0.8s,mb4.7,baz=348,slow=4.4,SNR=17						
ESDC				pP	pP	03 29 59.4	+1.3
	comp=Z,0.9nm,0.6s,baz=345,slow=3.7,SNR=5.4						
STKA	**Stephens Creek**	**91.49**	**216**	P	**P**	**03 29 58.4**	**+0.5**
	comp=Z,3.5nm,1.0s,mb4.6,baz=312,slow=9.0,SNR=3.3						
STKA	**Stephens Creek**	**91.49**	**216**	P	**P**	**03 29 58.4**	**+0.5**
ASF	**Jabal al Asfar**	**92.42**	**334**	LR	LR	04 14 28.4	
	comp=Z,73nm,19.1s,MS4.1,baz=13,slow=37						
MAW	**Mawson**	**148.17**	**218**	PKPbc	PKPdf	03 36 36.3	+4.9
	comp=Z,5.4nm,0.9s,baz=152,slow=5.9,SNR=4.8						
MAW	**Mawson**	**148.17**	**218**	PKHKP		03 36 36.3	
MAW				pmax	pmax		
	comp=Z,5.0nm,0.9s						

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*NNC **07** 03:50:55.3±1.4, 42.11N×76.72E, mpv2.8, Error ellipse: s-maj=45.9km s-min=11.4km az=12.0*

KNET 07 03:50:54.1±0.5**, 42.10N**×**76.76E, h22**^{km}±1^{km}**, ml2.6, 18C-2D, Error ellipse: s-maj=3.9km s-min=2.7km az=32.0, Lake Issyk-Kul region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ULHL	**Ulahol**	**0.41**	**291**	⇑P	Pb	03 51 03.0	+0.2
	90nm,0.1s,SNR=887						
ULHL				⇓S	Sb	03 51 09.9	+1.3
	426nm,0.1s						
KZA	**Kyzart**	**1.13**	**269**	⇑P	Pn	03 51 15.2	+0.4
	10.0nm,0.1s,SNR=34						
KZA				⇓S	Sb	03 51 31.2	+2.2
	46nm,0.2s						
TKM2	**Tokmak 2**	**1.19**	**314**	⇑P	Pn	03 51 16.2	+0.5
	22nm,0.1s,SNR=104						
TKM2				⇑S	Sb	03 51 33.2	+2.3
	175nm,0.1s						
KBK	**Karagaybulak**	**1.46**	**293**	⇑P	Pn	03 51 21.2	+1.7
	13nm,0.1s,SNR=21						
KBK				⇑S	Sn	03 51 42.1	+4.0
	37nm,0.1s						
UCH	**Uchtor**	**1.68**	**275**	⇑P	Pn	03 51 25.1	+2.4
	3.5nm,0.2s,SNR=11						
UCH				⇑S	Sn	03 51 48.5	+4.8
	26nm,0.3s						
CHMS	**Chumysh**	**1.74**	**302**	⇑P	Pn	03 51 25.5	+2.0
	6.0nm,0.1s,SNR=12						
CHMS				⇑S	Sn	03 51 49.6	+4.4
	29nm,0.2s						
AAK	**Ala-Archa**	**1.77**	**288**	⇑P	Pn	03 51 26.5	+2.6
	3.3nm,0.4s						
AAK				⇑S	Sn	03 51 50.1	+4.2
	25nm,0.5s						
AAK	**Ala-Archa**	**1.77**	**288**	⇑P	Pn	03 51 26.5	+2.6
	6.2nm,0.2s,SNR=17						
AAK				⇑S	Sn	03 51 50.5	+4.6
	44nm,0.3s						
USP	**Ospenovka**	**2.04**	**306**	⇑P	Pn	03 51 30.0	+2.2
	8.8nm,0.2s,SNR=37						
USP				⇑S	Sn	03 51 58.0	+5.1
	28nm,0.2s						
MK31	**Makanchi Array**	**6.14**	**38**	⇑Pn	Pn	03 52 32.1	+6.1
	0.3nm,0.3s,baz=223,slow=16,SNR=12						
MK31				Sn	Sn	03 53 46.1	+10
	1.4nm,0.5s,baz=210,slow=25,SNR=4.0						
MK31				⇑Lg		03 54 02.4	
	7.2nm,0.9s,baz=232,slow=28,SNR=2.9						

ISC 07 04:03:15.4±2.4**, 3.80S**±0.06×**134.8E**±0.2**, h84**^{km}±21^{km}**, n10, σ0.**^{s}**67**/14**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.15**	**195**	*e*P	**P**	**04 05 25.6**	**-0.9**
	10nm,0.4s						
KAKA				*e*S	**S**	**04 07 10.2**	**+1.5**
WB2	**Warramunga Arr**	**16.05**	**181**	*e*P	**P**	**04 06 56.7**	**-0.8**
WB2				*e*S	**S**	**04 09 45.8**	**-6.7**
FITZ	**Fitzroy Crossi**	**16.80**	**212**	*e*P	**P**	**04 07 07.6**	**+0.8**
	9.1nm,1.2s						
FITZ				*e*S	**S**	**04 10 08.5**	**-1.1**
ASPA	**Alice Springs**	**19.77**	**182**	*e*P	**P**	**04 07 41.4**	**0.0**
ASPA				*e*S	**S**	**04 11 14.5**	**+0.1**
GUN	**Gumba**	**56.65**	**307**	*e*P	**P**	**04 12 52.4**	**-0.2**
	10nm,0.8s						
PKI	**Pulchoki**	**56.88**	**306**	*e*P	**P**	**04 12 54.2**	**0.0**
KKN	**Kakani**	**57.08**	**307**	*e*P	**P**	**04 12 55.4**	**-0.2**
DMN	**Daman**	**57.14**	**306**	*e*P	**P**	**04 12 56.3**	**+0.2**
	11nm,0.8s						
GKN	**Gorkha**	**57.68**	**307**	*e*P	**P**	**04 12 59.9**	**0.0**
	10nm,0.6s						
KOLN	**Koldanda**	**58.42**	**306**	*e*P	**P**	**04 13 05.5**	**+0.5**
	9.4nm,0.8s						

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*LDG **07** 04:37:46.9±0.5, 21.36S×156.78E, h10^{km}, Mb5.6/3, Error ellipse: s-maj=83.7km s-min=7.8km az=13.0*

*IDC **07** 04:37:48.1±0.7, 20.02S×156.72E, mb4.9/8, mb1 5.0/11, mb1mx4.9/14, ML4.4/3, MS3.9/7, Ms1 3.9/7, ms1mx3.6/17, Error ellipse: s-maj=28.5km s-min=14.7km az=168.0*

*BJI **07** 04:37:51.7, 19.33S×156.63E, h11^{km}, mB5.3, mb5.1, Ms5.4, Msz4.8*

*MOS **07** 04:37:52.4±1.0, 19.93S×156.55E, h33^{km}, mb4.9/12, Error ellipse: s-maj=23.1km s-min=16.1km az=17.0*

*SYO **07** 04:37:52.3, 20.04S×156.75E, h30^{km}, MB5.1*

*HRVD **07** 04:37:52.5±0.9, 20.21S×156.93E, h25^{km}±2^{km}, MW4.9/29, Centroid moment Tensor Solution. LP body waves: s8,c10;Mantle waves: s29,c41; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.83±.25; M$_{\theta\theta}$-1.53±.16; M$_{\phi\phi}$-0.30±.17; M$_{r\theta}$2.28±.38; M$_{\theta\phi}$1.02±.14; M$_{\phi r}$0.60±.37; Best double couple: M$_0$3.06×10^{16} NP1:ϕ_s322°,δ29°,λ139°. NP2:ϕ_s89°,δ71°,λ68°. Principal axes: T 3.26, Plg58°, Azm329°; N -.41, Plg21°, Azm97°; P -2.85, Plg23°,* *Azm196°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

NEIC ***07*** *04:37:52.5±0.3,20.02S×156.74E,mb5.1/22 Error ellipse: s-maj=7.9km s-min=6.6km az=152.0*

ISC 07 04:37:51.4±0.4**,20.04S**±0.06×**156.64E**±0.06**,h29**^{km}**, h29**^{km}±1.0^{km}**:pP-P,n134,**σ**1**^{s}**13**/91**,mb5.1**/35**,MS4.3**/9**, 30C-6D,East of Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EIDS	Eidsvold	7.38	223	eP	Pn	04 39 38.1	-1.9
	37nm,0.7s						
EIDS				eS	Sn	04 40 55.4	-8.2
DZM	Mont Dzumac	9.38	104	eP	P	04 39 59.8	-8.0
RMQ	Roma	9.68	227	eP	P	04 40 15.1	+3.1
	40nm,0.8s						
CTA	Charters Tower	9.76	268	eP	P	04 40 11.5	-1.6
	9.7nm,0.3s						
CTA				eS	Sn	04 42 00.0	-2.8
CTA	Charters Tower	9.76	268	Pn	P	04 40 11.6	-1.5
	1.7nm,0.3s,baz=94,slow=16,SNR=13						
CTA				Sn	Sn	04 42 07.0	+4.2
	3.0nm,0.3s,baz=186,slow=23,SNR=3.6						
CTA				LR	LR	04 43 38.6	
	comp=Z,566nm,20.1s,baz=52,slow=36						
CTA	Charters Tower	9.76	268	P	P	04 40 11.6	-1.5
CTA						04 42 07.0	
CTA				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CTA				smax			
	comp=N,3.0nm,0.3s						
CTA				MLR	MLR		
	comp=Z,566nm,20.1s						
CTAO	Charters Tower	9.76	268	eP	P	04 40 11.5	-1.6
MTSU	Mount Surprise	11.79	277	eP	P	04 40 40.4	-0.5
	comp=Z,20nm,0.4s						
MTSU				eS	S	04 42 48.0	-4.5
QLP	Quilpie	13.12	238	eP	P	04 41 00.0	+1.4
	comp=Z,89nm,1.0s						
PMG	Port Moresby	13.98	318	Pn	P	04 41 09.0	-1.1
	comp=Z,1.6nm,0.3s,baz=144,slow=7.4,SNR=24						
PMG				LR	LR	04 45 56.8	
	comp=Z,390nm,18.5s,baz=94,slow=35						
PMG	Port Moresby	13.98	318	P	P	04 41 09.0	-1.0
PMG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PMG				MLR	MLR		
	comp=Z,390nm,18.5s						
PMG	Port Moresby	13.98	318	eP	P	04 41 08.9	-1.1
PMG				e		04 41 18.7	
COEN	Coen	14.22	293	eP	P	04 41 14.6	+1.5
	comp=Z,19nm,0.9s						
CMSA	Cobar Meteorol	15.10	218	eP	P	04 41 30.9	+6.3
	comp=Z,37nm,0.8s						
STKA	Stephens Creek	17.92	226	eP	P	04 42 00.3	0.0
	comp=Z,36nm,0.6s						
STKA	Stephens Creek	17.92	226	P	P	04 42 00.2	-0.1
	comp=Z,2.5nm,0.3s,baz=50,slow=12,SNR=34						
STKA				LR	LR	04 48 50.4	
	comp=Z,787nm,19.2s,baz=41,slow=37						
TOO	Toolangi	19.99	207	eP	P	04 42 21.2	-3.4
	comp=Z,8.9nm,0.6s						
WB2	Warramunga Arr	20.94	266	⇑iP	P	04 42 34.6	+0.1
WB2				eS	S	04 46 22.9	+1.4
WRAB	Tennant Creek	20.95	266	⇑iP	P	04 42 34.6	+0.1
	comp=Z,234nm,0.8s						
WRA	Warramunga Arr	20.95	266	P	P	04 42 34.9	+0.2
	comp=Z,102nm,0.7s,baz=91,slow=10,SNR=247						
WRA				S	S	04 46 28.7	+7.0
	comp=Z,2.9nm,1.1s,baz=90,slow=21,SNR=4.1						
WRA	Warramunga Arr	20.95	266	P	P	04 42 34.9	+0.3
WRA				S	S	04 46 28.7	+7.0
WRA				pmax	pmax		
	comp=Z,102nm,0.7s						
WRA				smax			
	comp=N,3.0nm,1.1s						
ASAR	Alice Springs	21.40	256	P	P	04 42 39.0	-0.2
	comp=N,32nm,1.1s,mb4.6,baz=79,slow=11,SNR=67						
ASAR				PcP	PcP	04 46 41.4	-1.1
	comp=N,3.4nm,0.8s,baz=85,slow=6.3,SNR=4.6						
ASAR				LR	LR	04 50 56.9	
	comp=N,304nm,19.6s,MS3.7,baz=86,slow=37						
ASPA	Alice Springs	21.40	256	⇑iP	P	04 42 38.4	-0.7
ASPA				e		04 43 01.4	
ASPA				eS	S	04 46 28.2	-1.9
KAKA	Kakadu	24.31	284	⇑iP	P	04 43 08.4	+0.5
	comp=N,117nm,0.6s,mb5.5						
RPZ	Rata Peaks	26.52	156	LR	LR	04 53 18.1	
	comp=N,282nm,18.1s,MS3.9,baz=318,slow=35						
FORT	Forrest	27.87	242	eP	P	04 43 40.8	0.0
	comp=N,181nm,0.6s,mb5.9						
FORT				epP	pP	04 43 49.3	0.0
FITZ	Fitzroy Crossi	29.34	269	⇑iP	P	04 43 49.3	-4.9
	comp=N,15nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	29.34	269	P	P	04 43 53.0	-1.1
	comp=N,20nm,0.9s,mb4.8,baz=136,slow=6.0,SNR=21						
FITZ				LR	LR	04 55 56.2	
	comp=N,150nm,20.1s,MS3.6,baz=97,slow=37						
FITZ	Fitzroy Crossi	29.34	269	⇑iP	P	04 43 49.3	-4.9
FITZ				P		04 43 53.0	
MBWA	Marble Bar	34.52	262	eP	P	04 44 38.8	-0.6
	comp=N,15nm,1.0s,mb4.9						
NWAO	Narrogin (SRO)	37.32	242	P	P	04 45 02.5	-0.5
	comp=N,11nm,0.8s,mb4.8,baz=114,slow=13,SNR=3.8						
NWAO	Narrogin (SRO)	37.32	242	P	P	04 45 02.5	-0.5
NWAO				pmax	pmax		
	comp=Z,11nm,0.8s						
NWAO	Narrogin (SRO)	37.32	242	eP	P	04 45 02.9	-0.2
	comp=Z,25nm,1.0s,mb5.0						
SBA	Scott Base	58.07	177	P	P	04 47 43.7	-0.2
	comp=Z,19nm,1.0s,mb5.1						
MAJO	Matsushiro	58.91	343	eP	P	04 47 46.9	-3.4
	comp=Z,21nm,0.8s,mb5.2						
NJ2	Nanjing	63.18	324	eP	P	04 48 18.9	-0.4
NJ2				AP	pP	04 48 29.1	+0.7
NJ2				XP	sP	04 48 33.0	+1.3
NJ2				PP	PP	04 50 40.2	+0.4
NJ2				S	S	04 56 45.0	-2.1
NJ2				XS		04 57 01.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.4						
NJ2				LR	LR		
	comp=N,320nm,16.8s,MS4.8						
NJ2				LR	LR		
	comp=E,430nm,19.3s,MS4.8						
NJ2				LR	LR		
	comp=Z,340nm,19.4s,MS4.5						
WHN	Wuhan	64.67	320	⇓P	P	04 48 29.0	-0.1
GYA	Guiyang	66.97	312	P	P	04 48 43.4	-0.5
GYA				AP	pP	04 48 51.2	-1.9
GYA				XP	sP	04 48 54.6	-1.7
GYA				PP	PP	04 51 12.8	-0.3
GYA				S	S	04 57 33.9	+0.1
GYA				AMB	AMB		
	comp=Z,10.0nm,1.4s,mb4.7						
GYA				LR	LR		
	comp=N,1µm,22.0s,MS5.2						
GYA				LR	LR		
	comp=E,1µm,24.1s,MS5.2						
GYA				LR	LR		
	comp=Z,2µm,23.8s,MS5.2						
NANT	Nan	67.06	302	P	P	04 48 43.0	-1.6
ENH	Enshi	67.52	317	eP	P	04 48 46.3	-1.0
	comp=Z,4.7nm,0.5s,mb4.8						
CMAR	Chiang Mai Arr	68.30	300	P	P	04 48 53.4	+1.0
	comp=Z,7.2nm,0.7s,mb4.8,baz=123,slow=4.8,SNR=28						
CMAR	Chiang Mai Arr	68.30	300	P	P	04 48 53.4	+1.0
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
CHG	Chiang Mai	68.48	301	⇑P	P	04 48 53.5	0.0
	comp=Z,12nm,0.9s,mb4.9						
MDJ	Mudanjiang	68.92	340	P	P	04 48 56.7	+0.9
MDJ				AMB	AMB		
	comp=Z,142nm,6.8s						
KMI	Kunming	69.00	308	eP	P	04 48 57.8	+1.2
KMI				AP	pP	04 49 07.2	+1.5
KMI				AMB	AMB		
	comp=Z,15nm,0.8s,mb5.0						
KMI				LR	LR		
	comp=Z,443nm,18.7s,MS4.7						
KMI	Kunming	69.00	308	eP	P	04 48 57.8	+1.2
	comp=Z,15nm,0.8s,mb5.0						
KMI				pP	pP	04 49 07.2	+1.5
QSPA	South Pole Qui	70.02	180	⇑iP	P	04 49 01.7	-0.2
	comp=Z,18nm,0.8s,mb5.0						
BJT	Baijiatuau	70.66	328	eP	P	04 49 06.1	-0.4
	comp=Z,16nm,0.7s,mb5.1						
CD2	Chengdu	71.72	314	P	P	04 49 13.6	+0.5
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
MAW	Mawson	73.09	204	P	P	04 49 20.6	+0.1
	comp=Z,7.5nm,1.1s,mb4.5,baz=344,slow=2.2,SNR=4.7						
MAW				LR	LR	05 17 20.0	
	comp=Z,59nm,20.8s,MS3.8,baz=63,slow=32						
HHC	Hu-ho-hao-te	73.63	326	eP	P	04 49 24.5	+0.4
HHC				AP	pP	04 49 32.3	-1.0
HHC				XP	sP	04 49 36.2	-0.3
HHC				PCP	PcP	04 49 41.0	+0.9
HHC				PP	PP	04 52 09.7	-0.5
HHC				S	S	04 58 50.6	-0.6
HHC				XS		04 59 03.0	
HHC				SKS	SKS	04 59 23.8	-8.3
HHC				PS	PS	04 59 27.2	-1.0
HHC				SCS	ScS	04 59 28.6	+1.0
HHC				SS	SS	05 03 35.9	-1.1
HHC				AMB	AMB		
	comp=Z,23nm,0.6s,mb5.3						
HHC				AMB	AMB		
	comp=Z,170nm,4.5s						
HHC				LR	LR		
	comp=N,202nm,12.3s,MS4.9						
HHC				LR	LR		
	comp=E,293nm,12.5s,MS4.9						
HHC				LR	LR		
	comp=Z,218nm,11.6s,MS4.7						
BTO	Baotou	74.28	325	eP	P	04 49 27.9	0.0
LZH	Lanzhou	74.88	318	eP	P	04 49 32.5	+1.0
LZH				AMB	AMB		
	comp=Z,42nm,1.2s,mb5.2						
LZH	Lanzhou	74.88	318	eP	P	04 49 32.5	+1.0
	comp=Z,42nm,1.2s,mb5.2						
LZH				pP	pP	04 49 46.5	+5.8
LZH				sP	sP	04 49 52.0	+8.1
HIA	Hailar	76.39	336	eP	P	04 49 38.6	-1.2
	comp=Z,33nm,1.3s,mb5.1						
SHL	Shillong	77.52	303	⇑eP	P	04 49 49.2	+2.7
SYO	Syowa Base	80.58	199	⇑P	P	04 50 01.2	-1.0
SYO	Syowa Base	80.58	199	⇓PcP	PcP	04 50 05.2	-4.2
SYO	Syowa Base	80.58	199	⇓pP	pP	04 50 10.8	-0.7
SYO	Syowa Base	80.58	199	⇓sP	sP	04 50 18.4	+3.8
ULN	Ulaanbaatar	80.87	329	⇑iP	P	04 50 05.2	+1.0
	comp=Z,27nm,0.8s,mb5.2						
ULN				epP	pP	04 50 14.6	+1.1
GUN	Gumba	83.36	303	⇑iP	P	04 50 19.2	+1.7
	comp=Z,78nm,1.0s,mb5.7						
PKI	Pulchoki	83.58	302	⇑iP	P	04 50 20.1	+1.4
	comp=Z,77nm,1.1s,mb5.7						
KKN	Kakani	83.78	302	⇑iP	P	04 50 21.2	+1.5
	comp=Z,103nm,1.1s,mb5.9						
DMN	Daman	83.84	302	⇑iP	P	04 50 21.6	+1.6
	comp=Z,142nm,1.2s,mb6.0						
GKN	Gorkha	84.38	302	⇑iP	P	04 50 23.7	+0.9
	comp=Z,134nm,1.0s,mb6.0						
YAK	Yakutsk	84.56	348	eP	P	04 50 21.2	-1.6
YAK				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.1						
KOLN	Koldanda	85.11	302	⇑iP	P	04 50 27.3	+0.9
	comp=Z,80nm,0.9s,mb5.8						
BOD	Bodaibo	85.27	339	eP	P	04 50 25.1	-1.3
SNAA	Sanae	87.45	186	⇑i	P	04 50 36.0	-0.9
SNAA	Sanae	87.45	186	e	P	04 50 44.9	+8.0
SNAA	Sanae	87.45	186	⇑eP	P	04 50 35.9	-1.0
	comp=Z,4.6nm,0.8s,mb4.8						
SNAA				e	pP	04 50 45.1	-1.2
VNA3	Neumayer Olymp	88.47	184	e	P	04 50 51.8	+10
VNA3	Neumayer Olymp	88.47	184	⇑iP	P	04 50 43.0	+1.3
VNA3				e	pP	04 50 51.8	+0.7
VNA2	Neumayer--Watz	88.60	185	e	P	04 50 52.6	+10
VNA2	Neumayer--Watz	88.60	185	⇑iP	P	04 50 43.8	+1.4
VNA2				e	pP	04 50 52.6	+0.8
VNA1	Neumayer--Stat	88.94	185	e	P	04 50 54.8	+11
VNA1	Neumayer--Stat	88.94	185	⇓iP	P	04 50 46.1	+2.1
VNA1				e	pP	04 50 54.8	+1.4
WMQ	Urumqi	89.45	318	⇓P	P	04 50 48.3	+1.3
WMQ				AP	pP	04 50 58.8	+2.4
WMQ				XP	sP	04 51 02.5	+3.1
WMQ				PP	PP	04 54 22.3	+1.6
WMQ				LR	LR		
	comp=N,184nm,20.0s,MS4.5						
WMQ				LR	LR		
	comp=E,23nm,17.2s,MS4.5						
WMQ				LR	LR		
	comp=Z,100nm,19.2s,MS4.3						
MCK	McKinley	93.53	21	eP	P	04 51 04.8	-0.6
	comp=Z,6.2nm,1.1s,mb5.0						
MCK				e	pP	04 51 14.7	-0.1
COLA	College	94.63	21	eP	P	04 51 08.8	-1.6
	comp=Z,13nm,0.9s,mb5.4						
COLA				e	pP	04 51 17.9	-1.9
ILAR	Eielson Array	94.89	21	P	P	04 51 10.1	-1.5
	comp=Z,3.5nm,0.9s,mb4.8,baz=258,slow=4.6,SNR=24						
ILAR	Eielson Array	94.89	21	P	P	04 51 10.1	-1.5
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ZAL	Zalesovo	95.82	326	P	P	04 51 16.3	+0.2
	comp=Z,3.1nm,1.1s,mb4.7,baz=348,slow=4.3,SNR=12						
ZAL	Zalesovo	95.82	326	P	P	04 51 16.3	+0.2
ZAL				pmax	pmax		
	comp=Z,3.0nm,1.1s						
KURK	Kurchatov	97.98	321	P	P	04 51 25.3	-0.6
	comp=Z,0.9nm,0.6s,mb4.5						
YKA	Yellowknife Ar	106.99	29	Pdiff	Pdif	04 52 06.1	+0.4
	comp=Z,0.6nm,0.7s,baz=256,slow=4.7,SNR=13						
YKA				PKiKP		04 56 14.3	
	comp=Z,0.4nm,0.6s,baz=249,slow=1.3,SNR=10						
TXAR	Lajitas Array	107.71	65	PKiKP		04 56 17.7	
	comp=Z,0.4nm,0.9s,baz=135,slow=1.8,SNR=3.7						
ULM	Lac du Bonnet	116.26	43	PKP	PKPdf	04 56 31.9	-5.2
	comp=Z,1.4nm,0.5s,baz=192,slow=2.1,SNR=3.3						
ULM	Lac du Bonnet	116.26	43	PKP	PKPdf	04 56 31.9	-5.2
ARCES	ARCESS Array B	122.43	342	PKP	PKPdf	04 56 44.3	-4.2
	comp=Z,7.2nm,1.1s,baz=59,slow=7.1,SNR=4.5						
ARCES	ARCESS Array B	122.43	342	PKIKP	PKPdf	04 56 44.3	-4.3
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
LPAZ	La Paz	123.10	126	PKP	PKPdf	04 56 48.1	-2.9
	comp=Z,1.0nm,0.6s,baz=84,slow=2.1,SNR=5.7						
LPAZ	La Paz	123.10	126	PKIKP	PKPdf	04 56 48.2	-2.9
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	126.33	333	PKP	PKPdf	04 56 52.3	-3.9
	comp=Z,2.3nm,0.7s,baz=90,slow=1.4,SNR=3.3						
FINES	FINESS Array B	126.33	333	PKIKP	PKPdf	04 56 52.3	-3.9
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SAML	Samuel	131.37	123	ePKPdf	PKPdf	04 57 02.2	-5.0
SAML				e		04 57 10.8	
SANT	Santorini	134.48	302	ePKPdf	PKPdf	04 57 05.9	-6.5
BDFB	Brasilia	137.06	144	PKP	PKPdf	04 57 13.3	-4.3
	comp=Z,1.7nm,0.9s,baz=74,slow=13,SNR=3.8						
BDFB	Brasilia	137.06	144	PKIKP	PKPdf	04 57 13.3	-4.3
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GERES	GERESS Array B	138.70	323	PKP	PKPdf	04 57 15.5	-4.3
	comp=Z,1.1nm,0.7s,baz=63,slow=2.2,SNR=7.2						
GERES	GERESS Array B	138.70	323	PKIKP	PKPdf	04 57 15.5	-4.3
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPG	La Plagne	144.50	323	ePKP1	PKPbc	04 57 25.5	+0.8
	comp=Z,49nm,0.9s						
LPL	La Plagne	144.50	323	ePKP1	PKPbc	04 57 25.5	+0.8
	comp=Z,57nm,1.0s						
PGF	Pioggiola	144.72	317	ePKP1	PKPbc	04 57 26.1	+0.7
	comp=Z,43nm,0.9s						
BNI	Bardonecchia	144.80	322	ePKPdf	PKPdf	04 57 25.8	-4.8
SBF	Sospel	145.02	320	ePKP1	PKPbc	04 57 27.4	+1.2
	comp=Z,95nm,0.9s						
SSF	Saint Saulge	145.28	327	⇑iPKP1	PKPbc	04 57 27.8	+1.1
	comp=Z,93nm,1.5s						
ORIF	Oris-en-Rattie	145.34	322	ePKP1	PKPbc	04 57 27.9	+0.9
	comp=Z,71nm,1.5s						
SMF	Signal de Mont	145.38	326	⇑iPKP1	PKPbc	04 57 27.9	+0.9
	comp=Z,69nm,1.0s						
AVF	Avril sur Loir	145.54	327	⇑iPKP1	PKPbc	04 57 28.2	+0.8
	comp=Z,56nm,1.5s						
HYF	Humbligny	145.58	328	ePKP1	PKPbc	04 57 29.2	+1.7
FRF	La Foret Royal	145.66	320	ePKP1	PKPbc	04 57 28.9	+1.1
	comp=Z,33nm,1.0s						
LMR	La Mourre	145.87	320	ePKP1	PKPbc	04 57 29.3	+0.9
LDF	La Druitiere	145.92	332	⇑iPKP1	PKPbc	04 57 29.4	+1.1
	comp=Z,26nm,0.9s						
FLN	La Foliniere	145.95	333	ePKP1	PKPbc	04 57 29.3	+0.9
	comp=Z,89nm,1.4s						
BGF	Bois d'Agland	145.95	327	ePKP1	PKPbc	04 57 29.9	+1.5
	comp=Z,16nm,0.8s						
VIVF	Saint-Julien-l	146.06	323	⇑iPKP1	PKPbc	04 57 30.1	+1.3
	comp=Z,20nm,0.9s						
SMRF	Simiane la Rot	146.07	321	ePKP1	PKPbc	04 57 30.5	+1.7
GRR	Gorron	146.40	333	⇑iPKP1	PKPbc	04 57 31.0	+1.6
	comp=Z,47nm,1.1s						
TCF	Toulx Ste Croi	146.46	327	⇑iPKP1	PKPbc	04 57 31.4	+1.8
	comp=Z,58nm,1.1s						
SGMF	Saint Gilles	147.22	334	⇑iPKP1	PKPdf	04 57 33.2	-1.4
	comp=Z,53nm,1.0s						
MFF	Saint Martin d	147.40	330	ePKP1	PKPdf	04 57 33.9	-1.0
ROSF	Rostrenen	147.44	335	ePKP1	PKPdf	04 57 33.8	-1.1
	comp=Z,47nm,1.2s						
CAF	Calviac	147.45	325	ePKP1	PKPdf	04 57 34.5	-0.6
	comp=Z,37nm,1.1s						
RJF	Les Rejaudoux	147.48	326	ePKP1	PKPdf	04 57 34.4	-0.7
	comp=Z,50nm,1.0s						
QUIF	Quistinic	147.73	334	ePKP1	PKPdf	04 57 34.4	-1.0
	comp=Z,42nm,1.3s						
LFF	La Frestale	148.13	327	ePKP1	PKPdf	04 57 36.2	0.0
	comp=Z,19nm,0.8s						
MTLF	Montolieu	148.39	323	ePKP1	PKPdf	04 57 36.6	0.0
	comp=Z,55nm,1.2s						
EPF	Esparros	149.64	324	ePKP1	PKPdf	04 57 40.0	+1.4
	comp=Z,26nm,1.2s						
ETSF	Etsaut	150.22	325	⇑iPKP1	PKPdf	04 57 41.9	+2.3
	comp=Z,14nm,0.7s						
SJPF	Ste Jean	150.42	326	ePKP1	PKPdf	04 57 42.1	+2.2
	comp=Z,10nm,0.7s						
DBIC	Dimbokro	157.66	236	PKPab	PKPab	04 58 19.8	-0.6
	comp=Z,2.6nm,0.7s,baz=123,slow=8.1,SNR=6.9						
DBIC	Dimbokro	157.66	236	PKP2	PKPab	04 58 19.8	-0.6
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.7s						

NIED ***07*** *04:44:00,42.90N×145.10E,h38*^{km}*,Mw4.1 Best double couple: M*$_0$*1.69×10*^{15} *NP1:*ϕ_s*34°,δ69°,λ83°. NP2:*ϕ_s*233°, δ22°,λ108°.*

MOS ***07*** *04:44:19.9±1.4,43.12N×144.77E,h33*^{km}*,mb4.2/10,Error ellipse: s-maj=26.3km s-min=13.6km az=71.9*

NEIC ***07*** *04:44:21.0±0.5,42.94N×144.97E,h35*^{km}*,mb4.4/6,Error ellipse: s-maj=14.7km s-min=9.5km az=141.0*

NEIC Recorded [1 JMA] in eastern Hokkaido.

JMA ***07*** *04:44:22.0±0.1,42.88N×145.11E,h47*^{km}*±1*^{km}*,M4.0*

JMA Felt I J1.

IDC ***07*** *04:44:25.6±3.2,43.04N×144.99E,h73*^{km}*±27*^{km}*,mb3.7/13, mb1 4.0/14,mb1mx3.8/23,MS3.2/2,Ms1 3.3/2, ms1mx2.6/31,Error ellipse: s-maj=22.9km s-min=16.8km az=142.0*

ISC 07 04:44:21.1±0.7**,42.91N**±0.06×**145.12E**±0.06**,h53**^{km}±4^{km}**, n52,**σ**0**^{s}**99**/56**,mb4.1**/19**,MS3.1**/2**,1C-7D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	Akkeshi	0.33	286	⇓P	P	04 44 31.1	+0.3
JAK				eS	S	04 44 37.6	-0.2
NEM2	Nemuro 2	0.64	45	P	P	04 44 34.8	+0.5
NEM2				eS	S	04 44 43.9	-0.2
JNK	Nakash	0.74	337	⇓P	P	04 44 36.3	+0.8
JNK				eS	S	04 44 46.0	-0.2
JOB	Onbets	0.95	270	⇓P	P	04 44 38.7	+0.4
JOB				eS	S	04 44 50.3	-0.9
JRA	Rausu	1.03	360	⇓P	P	04 44 40.4	+0.9
JRA				eS	S	04 44 53.3	+0.1
JAR	Ashorobuto	1.07	292	⇓P	P	04 44 40.6	+0.6
JAR				eS	S	04 44 53.7	-0.4
YUK	Yuzh-Kuril'sk	1.25	25	⇑iPN	P	04 44 42.5	-0.1
YUK				i S	S	04 44 57.2	-1.4
YUK				pmax	pmax		
	comp=N,210nm,0.3s						
YUK				pmax	pmax		
	comp=E,190nm,0.3s						
YUK				pmax	pmax		
	comp=Z,910nm,0.3s						
YUK				smax			
	comp=N,7µm,0.8s						
YUK				smax			
	comp=E,16µm,0.8s						
YUK				smax			
	comp=N,7µm,0.5s						
YUK				smax			
	comp=E,3µm,0.4s						
JCH	Churui	1.33	258	⇓P	P	04 44 43.4	-0.4
JCH				eS	S	04 44 59.4	-1.3
JTKR	Abashiri--Toko	1.38	321	⇓P	P	04 44 45.8	+1.2
JTKR				eS	S	04 45 03.8	+1.8
ASAJ	Asahikawa	2.20	304	P	P	04 44 57.9	+1.9
	comp=E,72nm,0.3s,baz=128,slow=9.3,SNR=79						
ASAJ	Asahikawa	2.20	304	PN	P	04 44 57.9	+1.9
ASAJ				pmax	pmax		
	comp=Z,72nm,0.3s						
KUR	Kuril'sk	3.05	39	ePN	P	04 45 07.0	-1.1
KUR				eS	S	04 45 41.8	-1.8
KUR				pmax	pmax		
	comp=Z,170nm,0.7s						
KUR				smax			
	comp=N,300nm,0.6s						
MAJO	Matsushiro	8.29	222	eP	P	04 46 16.5	-4.8
JOW	Kunigami	21.11	226	LR	LR	04 57 46.2	
	comp=N,74nm,20.8s,MS3.0,baz=283,slow=38						
SONM	Songino Array	27.45	294	P	P	04 50 03.9	+0.2
	comp=N,15nm,0.8s,mb4.6,baz=82,slow=8.9,SNR=32						
ENH	Enshi	31.04	258	eP	P	04 50 35.0	-1.0
	comp=N,4.8nm,0.5s,mb4.6						
IMA	Indian Mountai	40.20	34	eP	P	04 51 54.4	+1.0
ZAL	Zalesovo	40.35	307	P	P	04 51 52.8	-1.9
	comp=N,0.8nm,0.5s,mb3.7,baz=27,slow=9.0,SNR=3.7						
ZAL	Zalesovo	40.35	307	P	P	04 51 52.8	-2.0
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ILAR	Eielson Array	43.04	36	P	P	04 52 17.4	+0.7
	comp=Z,0.6nm,0.5s,mb3.6,baz=267,slow=6.4,SNR=15						
ILAR	Eielson Array	43.04	36	P	P	04 52 17.4	+0.8
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KURK	Kurchatov	44.78	304	eP	P	04 52 30.2	-0.6
	comp=Z,4.5nm,0.6s,mb4.5						
CMAR	Chiang Mai Arr	45.87	253	P	P	04 52 41.0	+1.0
	comp=Z,1.5nm,0.6s,mb4.1,baz=38,slow=7.1,SNR=5.4						
CMAR				LR	LR	05 14 19.8	
	comp=Z,28nm,19.2s,MS3.2,baz=150,slow=39						
CMAR	Chiang Mai Arr	45.87	253	P	P	04 52 41.0	+1.1
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CMAR				MLR	MLR		
	comp=Z,28nm,19.3s						
INK	Inuvik	47.87	30	P	P	04 52 54.6	-0.5
	comp=Z,1.9nm,0.4s,mb4.5,baz=272,slow=6.5,SNR=16						
INK	Inuvik	47.87	30	P	P	04 52 54.6	-0.5
INK				pmax	pmax		
	comp=Z,2.0nm,0.4s						
CHKZ	Chkalovo	48.55	310	eP	P	04 52 59.3	-1.2
	comp=Z,1.5nm,0.6s,mb4.2						
BRVK	Borovoye	48.94	309	eP	P	04 53 02.9	-0.6
	comp=Z,2.4nm,0.6s,mb4.4						
YKA	Yellowknife Ar	57.32	33	P	P	04 54 05.2	-0.2
	comp=Z,0.5nm,0.8s,mb3.6,baz=300,slow=6.9,SNR=6.0						
YKA	Yellowknife Ar	57.32	33	P	P	04 54 05.2	-0.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CTAO	Charters Tower	62.69	179	P	P	04 54 49.5	+6.7
	comp=Z,1.9nm,0.3s,mb4.7						
WRA	Warramunga Arr	63.32	191	P	P	04 54 47.1	+0.2
	comp=Z,0.6nm,0.7s,mb3.9,baz=9.5,slow=6.6,SNR=3.8						
WRA	Warramunga Arr	63.32	191	P	P	04 54 47.1	+0.2
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
KAF	Kangasniemi	64.40	333	ep	P	04 54 50.0	-3.2
	comp=Z,0.4nm,0.4s,mb3.8						
FINES	FINESS Array B	64.94	332	P	P	04 54 55.5	-1.2
	comp=Z,1.9nm,0.6s,mb4.3,baz=57,slow=6.4,SNR=11						
FINES	FINESS Array B	64.94	332	P	P	04 54 55.6	-1.2
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NB2	NORSAR Subarra	69.84	338	P	P	04 55 26.7	-0.8
	comp=Z,1.2nm,0.5s,mb4.1,baz=33,slow=6.2						
NOA	NORSAR Array B	69.84	338	P	P	04 55 27.2	-0.2
	comp=Z,2.3nm,0.7s,mb4.2,baz=34,slow=6.3,SNR=6.2						
NOA	NORSAR Array B	69.84	338	P	P	04 55 27.2	-0.3

NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	71.37	323	P	P	04 55 36.4	-0.5
	comp=Z,3.9nm,0.7s,mb4.4,baz=40,slow=5.9,SNR=11						
AKASG	Malin Array Be	71.37	323	P	P	04 55 36.4	-0.5
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
PDAR	Pinedale Array	71.58	48	P	P	04 55 39.1	+0.9
	comp=Z,0.5nm,0.6s,mb3.6,baz=357,slow=1.8,SNR=5.1						
PV10	Paradox Valley	74.82	52	P	P	04 55 59.0	+1.7
KHC	Kasperske Hory	78.97	330	eP	P	04 56 21.0	+0.8
GERES	GERESS Array B	79.16	330	P	P	04 56 21.8	+0.5
	comp=Z,0.5nm,0.5s,mb3.8,baz=34,slow=4.8,SNR=5.9						
GERES	GERESS Array B	79.16	330	P	P	04 56 21.8	+0.5
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TXAR	Lajitas Array	84.35	55	P	P	04 56 50.2	+1.6
	comp=Z,0.5nm,0.9s,mb3.7,baz=299,slow=2.9,SNR=5.0						
SNAA	Sanae	147.20	198	PKPbc	PKPdf	05 03 58.6	+3.9
	comp=Z,1.5nm,1.3s,baz=353,slow=7.8,SNR=5.4						
SNAA	Sanae	147.20	198	PKP2	PKPab	05 03 58.6	-2.3
SNAA				pmax	pmax		
	comp=Z,2.0nm,1.3s						
SNAA	Sanae	147.20	198	ePKPbc	PKPdf	05 03 58.4	+3.8
BDFB	Brasilia	150.59	26	PKPbc	PKPdf	05 04 09.5	+7.8
	comp=Z,1.6nm,0.7s,baz=288,slow=3.9,SNR=4.4						
BDFB	Brasilia	150.59	26	PKIKP	PKPdf	05 04 09.5	+7.8
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.7s						

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*IDC **07** 05:06:18.7±2.2,11.16S×163.17E,mb4.0/5,mb1 4.2/5, mb1mx4.0/14,Error ellipse: s-maj=85.6km s-min=31.3km az=135.0*

*NEIC **07** 05:06:27.0±7.4,11.10S×163.02E,h58^{km}±61^{km},mb4.1/3, Error ellipse: s-maj=55.4km s-min=21.9km az=117.0*

ISC 07 05:06:22.1±1.6,11.2S±0.2×163.2E±0.2,h33^{km},n9, σ0^{s}55/9,mb3.9/6,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	15.84	275	eP	P	05 10 04.3	-0.1
	6.5nm,0.8s						
CTAO	Charters Tower	18.49	239	P	P	05 10 38.9	+1.2
	19nm,0.8s						
STKA	Stephens Creek	28.60	221	P	P	05 12 17.4	-0.2
	3.6nm,0.9s,mb4.1,baz=41,slow=9.3,SNR=4.0						
STKA	Stephens Creek	28.60	221	P	P	05 12 17.4	-0.2
WRAB	Tennant Creek	29.02	249	eP	P	05 12 21.0	-0.4
	3.9nm,0.8s,mb4.2						
WRA	Warramunga Arr	29.04	249	P	P	05 12 21.4	-0.2
	1.2nm,0.7s,mb3.8,baz=78,slow=9.0,SNR=8.4						
ASAR	Alice Springs	30.45	242	P	P	05 12 33.3	-0.8
	1.9nm,0.7s,mb4.0,baz=72,slow=9.3,SNR=16						
FITZ	Fitzroy Crossi	36.88	255	P	P	05 13 29.7	+0.1
	1.5nm,0.8s,mb3.9,baz=95,slow=11,SNR=3.9						
ILAR	Eielson Array	84.50	19	P	P	05 18 53.0	+0.3
	0.4nm,0.9s,mb3.6,baz=243,slow=6.0,SNR=4.2						

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*IDC **07** 05:11:39.1±1.1,12.75N×124.26E,mb4.0/7,mb1 4.3/8, mb1mx4.0/18,ML4.8/1,MS3.5/1,Ms1 3.5/1,ms1mx2.7/20, Error ellipse: s-maj=35.7km s-min=24.8km az=45.0*

*MAN **07** 05:11:40.0,12.57N×123.47E,h8^{km},mb5.0,ML3.9,MS4.0*

*NEIC **07** 05:11:47.3±3.2,12.53N×123.68E,h69^{km}±30^{km},mb4.6/2, Error ellipse: s-maj=51.4km s-min=18.3km az=64.0*

ISC 07 05:11:39.0±0.5,12.65N±0.04×123.71E±0.08,h10^{km},n29, σ1^{s}33/33,mb4.1/9,MS3.5/1,3C-1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MMPH	Masbate	0.30	195	⇑iP	Pg	05 11 46.0	+0.7
RCP	Roxas	1.44	221	⇓eP	Pn	05 12 01.9	-3.3
KALP	Kalibo	1.65	234	⇑eP	Pn	05 12 07.0	-1.3
GQP	Guinayangan	1.75	316	eP	Pn	05 12 09.1	-0.6
GQP				iS	Sn	05 12 33.1	+1.0
PLP	Palo	1.93	140	eP	Pn	05 12 14.0	+1.6
PLP				iS	Sn	05 12 41.7	+4.8
LLP	Lapu-Lapu	2.33	174	⇑eP	Pn	05 12 18.1	0.0
LLP				eS	Sn	05 12 44.9	-2.2
LQP	Lukban	2.56	305	eP	Pn	05 12 20.7	-0.6
LQP				iS	Sn	05 12 58.0	+5.2
MSLP	Maasin	2.75	156	eP	Pn	05 12 25.9	+1.9
MSLP				eS	Sn	05 13 07.7	+10
AAP	Anini-y	2.81	218	eP	Pn	05 12 28.0	+3.1
LBPH	Los Banos	2.88	302	eP	Pn	05 12 28.6	+2.8
TBP	Tagbilaran	2.95	177	eP	Pn	05 12 26.6	-0.3
TBP				eS	Sn	05 13 02.6	-0.1
TGY	Tagaytay City	3.06	298	iS	Pn	05 12 33.2	+4.8
TGY	Tagaytay City	3.06	298	Pn	Pn	05 12 34.1	+5.7
	82nm,0.3s,baz=85,slow=4.2,SNR=11						
ARP	Angono	3.11	307	eP	Pn	05 12 32.2	+3.0
NBP	Mount Natib	3.81	303	eP	Pn	05 12 39.5	+0.4
PCPH	Palayan	3.84	319	eP	Pn	05 12 38.0	-1.5
BUKP	Musuan	4.93	164	eP	Pn	05 12 55.9	+0.9
CMAR	Chiang Mai Arr	24.53	287	P	P	05 17 06.8	+6.7
	0.7nm,0.3s,mb3.7,baz=96,slow=8.2,SNR=3.3						
ASAJ	Asahikawa	35.30	24	LR	LR	05 33 24.6	
	comp=Z,79nm,19.7s,MS3.5,baz=358,slow=37						
SONM	Songino Array	37.94	341	P	P	05 18 58.9	+0.5
	0.9nm,0.8s,mb3.5,baz=151,slow=5.7,SNR=5.8						
STKA	Stephens Creek	47.48	159	P	P	05 20 14.2	-2.1
	3.4nm,0.7s,mb4.4,baz=335,slow=10,SNR=5.4						
ZAL	Zalesovo	51.35	332	P	P	05 20 44.9	-0.8
	0.8nm,0.3s,mb4.1,baz=344,slow=8.4,SNR=3.9						
KURK	Kurchatov	52.69	326	eP	P	05 20 54.1	-1.7
	4.5nm,0.6s,mb4.6						
BRVK	Borovoye	58.36	325	eP	P	05 21 36.8	+0.1
	2.6nm,0.5s,mb4.5						
ILAR	Eielson Array	78.41	26	P	P	05 23 40.0	-1.1
	1.2nm,1.2s,mb3.7,baz=257,slow=3.8,SNR=4.7						
FINES	FINESS Array B	82.61	331	P	P	05 24 03.2	-0.3
	5.4nm,1.1s,mb4.5,baz=304,slow=6.9,SNR=3.4						
YKA	Yellowknife Ar	92.60	23	P	P	05 24 52.2	+0.5
	0.3nm,0.6s,mb3.9,baz=302,slow=4.4,SNR=6.5						
YKA	Yellowknife Ar	92.60	23	P	P	05 24 52.2	+0.5
TXAR	Lajitas Array	118.11	47	PKP	PKPdf	05 30 28.7	-1.2
	0.3nm,0.7s,baz=342,slow=2.9,SNR=4.1						

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*IDC **07** 05:13:38.3±7.1,4.05S×135.56E,mb4.2/1,mb1 4.4/6, mb1mx4.1/13,ML3.9/5,Error ellipse: s-maj=100.0km s-min=41.9km az=163.0*

*NEIC **07** 05:13:43.5±2.9,4.09S×135.55E,h48^{km}±26^{km},mb3.9/4, Error ellipse: s-maj=25.7km s-min=17.9km az=160.0*

ISC 07 05:13:41.1±2.6,4.1S±0.1×135.6E±0.1,h45^{km}±27^{km},n13, σ0^{s}78/18,mb3.8/2,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	9.12	200	eP	P	05 15 53.9	+0.9
	23nm,0.4s						
KAKA				eS	S	05 17 40.4	+4.9
PMG	Port Moresby	12.67	115	Pn	P	05 16 41.5	+0.2
	0.6nm,0.3s,baz=271,slow=6.0,SNR=6.5						
PMG	Port Moresby	12.67	115	Pn	P	05 16 41.5	+0.2
WRAB	Tennant Creek	15.81	184	eP	P	05 17 21.3	-1.0
	45nm,0.9s						
WB2	Warramunga Arr	15.82	184	eP	P	05 17 21.5	-0.9
WB2				e		05 17 28.5	
WB2				eS	S	05 20 16.7	+0.5
WRA	Warramunga Arr	15.82	184	Pn	P	05 17 21.6	-0.8
	0.4nm,0.3s,baz=1.5,slow=13,SNR=18						
WRA				Sn	S	05 20 21.4	+5.2
	0.4nm,0.3s,baz=11,slow=22,SNR=6.5						
FITZ	Fitzroy Crossi	17.00	214	eP	P	05 17 37.7	+0.5
	2.1nm,0.3s						
FITZ				eS	S	05 20 42.9	-0.4
FITZ	Fitzroy Crossi	17.00	214	P	P	05 17 37.8	+0.5
	0.8nm,0.3s,baz=16,slow=8.6,SNR=26						
FITZ				S	S	05 20 42.6	-0.7
	0.9nm,0.3s,baz=173,slow=11,SNR=14						
CTA	Charters Tower	19.02	148	P	P	05 18 02.0	-0.1
	0.3nm,0.3s,baz=330,slow=12,SNR=4.9						
CTAO	Charters Tower	19.02	148	eP	P	05 18 01.1	-1.0
	10nm,0.9s						
ASAR	Alice Springs	19.54	185	P	P	05 18 09.5	+1.6
	1.0nm,0.3s,baz=7.9,slow=11,SNR=79						
STKA	Stephens Creek	28.23	169	P	P	05 19 32.3	+0.2
	1.6nm,0.5s,mb3.9,baz=336,slow=10.0,SNR=4.4						
CHKZ	Chkalovo	78.78	327	eP	P	05 25 40.5	-0.1
	0.8nm,0.7s,mb3.8						

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*IDC **07** 05:19:44.6±0.6,2.96S×100.68E,mb4.6/18,mb1 4.8/18, mb1mx4.7/19,MS4.1/5,Ms1 4.1/5,ms1mx3.8/16,Error ellipse: s-maj=30.1km s-min=12.2km az=45.0*

*BJI **07** 05:19:45.8,3.61S×100.68E,h65^{km},mB5.1,mb5.0,Ms4.9, Msz4.7*

*MOS **07** 05:19:47.9±0.8,2.78S×100.85E,h33^{km},mb5.1/21, MS4.4/5,Error ellipse: s-maj=22.6km s-min=9.1km az=112.4*

*CSEM **07** 05:19:48.0,2.71S×100.91E,h33^{km},mb5.7*

*SYO **07** 05:19:48.5,3.05S×100.64E,h30^{km},MB5.1*

*NEIC **07** 05:19:49.5±1.1,3.09S×100.62E,h37^{km}±9^{km},mb5.0/26, Error ellipse: s-maj=10.4km s-min=6.4km az=63.0*

NEIC Felt [III] at Kapahiang.

*HRVD **07** 05:19:49.5±1.4,3.12S×100.97E,h31^{km}±2^{km},MW4.8/26, Centroid moment Tensor Solution. LP body waves: s13,c17;Mantle waves: s26,c30; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.86±.23; M$_{\theta\theta}$-0.39±.13; M$_{\phi\phi}$-1.47±.24; M$_{r\theta}$0.75±.12; M$_{\theta\phi}$0.43±.11; M$_{\phi r}$0.12±.24; Best double couple: M$_0$1.86×10^{16} NP1:φ$_s$357°,δ45°,λ115°. NP2:φ$_s$143°,δ50°,λ67°. Principal axes: T 2.1, Plg72°, Azm347°; N -.48, Plg18°, Azm159°; P -1.62, Plg2°, Azm249°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*DJA **07** 05:19:52.0±1.1,3.03S×101.03E,h80^{km},mb4.6/5 Error ellipse: s-maj=41.4km s-min=8.7km az=63.0*

ISC 07 05:19:48.6±0.9,3.03S±0.05×100.74E±0.06,h44^{km}±8^{km}, h38^{km}±3.0^{km}:pP-P,n150,σ1^{s}11/145,mb4.9/62,MS4.3/19, 6C-9D,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PPI	Padang Panjang	2.58	352	eP	P	05 20 32.0	+3.1
PPI				eS	S	05 21 05.0	+5.8
PENI	Pendagan	5.08	120	eP	P	05 21 08.3	+4.1
PENI				eS	rx	05 21 16.0	
KGM	Kluang	5.63	27	⇓eP	P	05 21 13.2	+1.3
	391nm,0.9s						
PASI	Pasiripis	6.04	127	eP	P	05 21 16.0	-1.6
PULI	Pulasari	6.17	122	eP	P	05 21 20.1	+0.7
PACI	Pancar Gunung	7.09	120	eP	P	05 21 33.5	+1.1
IPM	Ipoh	7.56	2	⇓eP	P	05 21 39.5	+0.6
SINI	Singah	7.81	121	eP	P	05 21 42.4	+0.1
COCO	West Island	9.89	203	eP	P	05 22 06.2	-4.9
SRDI	Scrawed	14.38	113	⇓eP	P	05 23 10.8	-0.6
	108nm,0.2s						
KELI	Kelakatan	14.62	111	⇑eP	P	05 23 13.8	-0.6
	52nm,0.2s						
RATI	Rata	15.76	112	⇓iP	P	05 23 24.7	-4.5
	140nm,0.2s						
KEDI	Kedomdong	16.22	110	eP	P	05 23 30.0	-5.0
	47nm,0.2s						
NINI	Niniconang	19.02	95	⇑eP	P	05 24 07.3	-2.4
	210nm,0.9s						
CMAR	Chiang Mai Arr	21.43	355	P	P	05 24 32.9	-2.1
	5.7nm,0.6s,mb4.1,baz=185,slow=9.4,SNR=20						
CMAR				LR	LR	05 33 39.6	
	comp=Z,322nm,18.7s,MS3.8,baz=175,slow=39						
CMAR	Chiang Mai Arr	21.43	355	P	P	05 24 32.9	-2.1
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
CMAR				MLR	MLR		
	comp=Z,322nm,18.7s						
TGY	Tagaytay City	26.28	49	LR	LR	05 36 38.3	
	comp=Z,227nm,20.2s,MS3.7,baz=193,slow=39						
KMI	Kunming	28.05	4	eP	P	05 25 41.1	+3.0
KMI				S	S	05 30 22.8	+4.8
KMI				SS	SS	05 31 46.6	+4.3
KMI				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.5						
KMI				LR	LR		
	comp=N,406nm,19.9s,MS4.2						
KMI				LR	LR		
	comp=E,327nm,15.1s,MS4.2						
KMI				LR	LR		
	comp=Z,512nm,17.0s,MS4.2						
KMI	Kunming	28.05	4	eP	P	05 25 41.1	+3.0
	comp=Z,7.0nm,0.6s,mb4.5						
KMI				S	S	05 30 22.8	+4.8
KMI				sS		05 30 41.2	
KMI				SS	SS	05 31 46.6	+4.3
IMP	Imphal	28.43	347	⇑iP	P	05 25 40.7	-0.8
FITZ	Fitzroy Crossi	28.62	123	eP	P	05 25 43.0	-0.3
	comp=Z,7.8nm,0.8s,mb4.5						
FITZ	Fitzroy Crossi	28.62	123	P	P	05 25 43.3	0.0
	comp=Z,3.2nm,0.6s,mb4.2,baz=183,slow=4.5,SNR=6.8						
SHL	Shillong	29.70	344	⇑eP	P	05 25 52.2	-0.6
GYA	Guiyang	29.87	11	⇓iP	P	05 25 53.9	-0.4
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.7						
GYA				AMB	AMB		
	comp=Z,130nm,6.1s						
PKI	Pulchoki	33.83	335	eP	P	05 26 29.3	+0.4
	comp=Z,16nm,0.5s,mb5.2						
GUN	Gumba	33.93	336	eP	P	05 26 30.7	+0.9
	comp=Z,117nm,0.5s,mb6.1						
DMN	Daman	33.99	335	eP	P	05 26 30.8	+0.5
	comp=Z,14nm,0.5s,mb5.2						
POO	Poona	34.06	310	eP	P	05 26 29.5	-1.5
KKN	Kakani	34.07	335	eP	P	05 26 31.5	+0.5
	comp=Z,40nm,0.5s,mb5.6						
ENH	Enshi	34.15	14	eP	P	05 26 29.9	-1.8
	comp=Z,11nm,0.6s,mb5.0						
GKN	Gorkha	34.53	334	eP	P	05 26 35.4	+0.4
KOLN	Koldanda	34.79	333	eP	P	05 26 37.8	+0.6
	comp=Z,58nm,0.8s,mb5.6						
WRA	Warramunga Arr	36.84	120	P	P	05 26 55.0	+0.4
	comp=Z,4.0nm,0.6s,mb4.4,baz=301,slow=9.0,SNR=31						
WRA				PcP	PcP	05 29 17.0	+0.7
	comp=Z,2.3nm,0.6s,baz=305,slow=2.1,SNR=5.5						
WRA	Warramunga Arr	36.84	120	P	P	05 26 55.0	+0.4
WRA						05 29 17.0	
WRA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WRAB	Tennant Creek	36.84	120	eP	P	05 26 54.6	0.0
	comp=Z,11nm,0.6s,mb4.8						
WB2	Warramunga Arr	36.85	120	eP	P	05 26 54.7	0.0
XAN	Xi’an	37.67	11	P	P	05 27 00.0	-1.4
XAN				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.9						
LGTI	Lohaghat	37.80	330	eP	P	05 27 03.3	+0.7
ASPA	Alice Springs	38.05	126	eP	P	05 27 07.8	+3.1
ASAR	Alice Springs	38.05	126	P	P	05 27 06.0	+1.3
	comp=Z,7.9nm,0.9s,mb4.4,baz=302,slow=8.0,SNR=20						
ASAR				PcP	PcP	05 29 20.9	+1.0
	comp=Z,3.0nm,0.5s,baz=305,slow=2.4,SNR=12						
NDI	New Delhi	38.79	326	eP	P	05 27 14.0	+3.2
NJ2	Nanjing	38.90	25	eP	P	05 27 15.2	+3.5
NJ2				AP	pP	05 27 25.4	+1.6
NJ2				PP	PP	05 28 50.3	+5.1
NJ2				S	S	05 33 11.0	+4.4
NJ2				AMB	AMB		
	comp=Z,40nm,1.3s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,390nm,5.8s						
NJ2				LR	LR		
	comp=N,950nm,18.2s,MS4.7						
NJ2				LR	LR		
	comp=E,880nm,23.0s,MS4.7						
NJ2				LR	LR		
	comp=Z,930nm,14.2s						
LZH	Lanzhou	39.02	4	eP	P	05 27 12.0	-0.7
LZH				PP	PP	05 28 47.1	+0.6
LZH				eS	S	05 33 16.1	+7.7
LZH				eSS	SS	05 35 58.1	+4.2
LZH				AMB	AMB		
	comp=Z,30nm,1.5s,mb4.8						
LZH				AMB	AMB		
	comp=Z,130nm,4.9s						
LZH				LR	LR		
	comp=N,1μm,14.0s						
LZH				LR	LR		
	comp=Z,2μm,16.0s,MS5.0						
LZH	Lanzhou	39.02	4	eP	P	05 27 12.0	-0.7
	comp=Z,30nm,1.5s,mb4.8						
LZH				pP	pP	05 27 23.5	-1.3
LZH				sP	sP	05 27 28.0	-2.3
LZH				PP	PP	05 28 47.1	+0.6
LZH				eS	S	05 33 16.1	+7.7
LZH				sS		05 33 26.0	
LZH				eSS	SS	05 35 58.1	+4.2
SSE	Sheshan	39.13	28	P	P	05 27 14.4	+0.8
SSE				S	S	05 33 14.6	+4.5
SSE				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.8						
SSE				AMB	AMB		
	comp=Z,78nm,7.7s						
SSE				LR	LR		
	comp=N,130nm,20.2s,MS3.8						
SSE				LR	LR		
	comp=E,88nm,20.2s,MS3.8						
SSE				LR	LR		
	comp=Z,130nm,19.3s,MS3.8						
SSE	Sheshan	39.13	28	P	P	05 27 14.4	+0.8
	comp=Z,16nm,0.8s,mb4.8						
SSE				pP	pP	05 27 23.3	-2.5
SSE				sP	sP	05 27 27.2	-4.0
SSE				S	S	05 33 14.6	+4.5
SSE				sS		05 33 29.2	
DDI	Dehra Dun	39.62	328	eP	P	05 27 18.1	+0.4
SDNR	Sundarnagar	41.12	328	eP	P	05 27 30.4	+0.3
GTA	Gaotai	42.24	359	eP	P	05 27 39.3	0.0
GTA				PP	PP	05 29 21.0	+0.7
GTA				S	S	05 33 57.4	+1.1
GTA				SS	SS	05 37 00.3	+0.6
GTA				AMB	AMB		
	comp=Z,63nm,5.3s						
GTA				LR	LR		
	comp=N,207nm,17.1s,MS4.2						
GTA				LR	LR		
	comp=E,189nm,19.0s,MS4.2						
GTA				LR	LR		
	comp=Z,389nm,20.2s,MS4.3						
HHC	Hu-ho-hao-te	44.77	12	eP	P	05 28 00.3	+0.5
HHC				PCP	PcP	05 29 42.1	+0.3
HHC				PP	PP	05 29 45.9	+0.3
HHC				S	S	05 34 35.7	+2.6
HHC				SS	SS	05 37 47.2	+1.4
HHC				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.0						
HHC				AMB	AMB		
	comp=Z,223nm,4.5s						
HHC				LR	LR		
	comp=N,321nm,12.0s,MS4.6						
HHC				LR	LR		
	comp=E,341nm,12.9s,MS4.6						
HHC				LR	LR		
	comp=Z,287nm,13.5s,MS4.4						
BJI	Beijing	45.14	17	eP	P	05 28 02.5	-0.2
BJI				S	S	05 34 42.8	+4.4
BJI				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.6						
BJI				LR	LR		
	comp=N,647nm,13.0s,MS4.8						
BJI				LR	LR		
	comp=E,211nm,13.6s,MS4.8						
BJI				LR	LR		
	comp=Z,359nm,17.1s,MS4.4						
BJI	Beijing	45.14	17	eP	P	05 28 02.5	-0.2
	comp=Z,11nm,1.0s,mb4.6						
BJI				S	S	05 34 42.8	+4.4
CTA	Charters Tower	47.49	115	P	P	05 28 22.4	+0.9
	comp=Z,12nm,0.7s,mb4.9,baz=283,slow=9.6,SNR=9.8						
CTA	Charters Tower	47.49	115	P	P	05 28 22.4	+0.9
CTA				pmax	pmax		
	comp=Z,12nm,0.7s						
CTA	Charters Tower	47.49	115	P	P	05 28 22.4	+0.9
CTAO	Charters Tower	47.49	115	eP	P	05 28 22.0	+0.5
	comp=Z,14nm,0.9s,mb4.9						
STKA	Stephens Creek	47.91	131	eP	P	05 28 26.1	+1.4
	comp=Z,5.5nm,0.6s,mb4.8						
STKA	Stephens Creek	47.91	131	P	P	05 28 26.3	+1.6
	comp=Z,4.7nm,0.6s,mb4.7,baz=295,slow=6.5,SNR=7.9						
STKA				LR	LR	05 48 33.5	
	comp=Z,233nm,21.1s,MS4.1,baz=295,slow=36						
KSH	Kashi	48.08	334	P	P	05 28 25.2	-0.7
KSH				ePCP	PcP	05 29 54.1	+0.6
KSH				ePP	PP	05 30 16.6	-1.0
KSH				ePCS		05 33 47.1	
KSH				eS	S	05 35 17.7	-2.4
KSH				eSCS	ScS	05 38 13.0	+0.8
KSH				eSS	SS	05 38 41.2	-3.0
KSH				AMB	AMB		
	comp=Z,390nm,6.9s						
KSH				LR	LR		
	comp=N,650nm,6.0s						
KSH				LR	LR		
	comp=E,620nm,6.6s						
WMQ	Urumqi	48.09	347	P	P	05 28 26.8	+0.9
WMQ				AP	pP	05 28 36.8	-1.4
WMQ				PCP	PcP	05 29 54.8	+1.3
WMQ				PP	PP	05 30 18.3	+0.6
WMQ				S	S	05 35 22.1	+1.9
WMQ				AMB	AMB		
	comp=Z,26nm,0.8s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,100nm,8.4s						
WMQ				LR	LR		
	comp=N,146nm,19.0s,MS4.1						
WMQ				LR	LR		
	comp=E,128nm,19.6s,MS4.1						
WMQ				LR	LR		
	comp=Z,108nm,18.2s,MS3.9						
KZA	Kyzart	50.51	335	P	P	05 28 45.6	+1.1
	SNR=9.4						
SONM	Songino Array	50.90	5	P	P	05 28 47.9	+0.5
	comp=Z,55nm,0.8s,mb5.6,baz=186,slow=8.6,SNR=357						
UCH	Uchtor	50.94	335	P	P	05 28 48.8	+1.0
	SNR=12						
UCH	Uchtor	50.94	335	eP	P	05 28 48.5	+0.7
	comp=Z,8.0nm,0.7s,mb4.8						
ULN	Ulaanbaatar	50.98	5	eP	P	05 28 48.1	+0.1
	comp=Z,64nm,1.0s,mb5.5						
TKM2	Tokmak 2	51.07	336	P	P	05 28 49.3	+0.6
	SNR=35						
TKM2	Tokmak 2	51.07	336	eP	P	05 28 49.0	+0.2
	comp=Z,45nm,0.5s,mb5.7						
AML	Almayashu	51.21	334	P	P	05 28 50.8	+1.0
	SNR=8.2						
AML	Almayashu	51.21	334	eP	P	05 28 50.4	+0.5
	comp=Z,22nm,0.7s,mb5.2						
AAK	Ala-Archa	51.28	335	P	P	05 28 51.0	+0.7
	SNR=8.0						
AAK	Ala-Archa	51.28	335	c iP	P	05 28 49.9	-0.5
AAK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
AAK				MLR	MLR		
	comp=Z,200nm,15.0s,MS4.3						
AAK	Ala-Archa	51.28	335	eP	P	05 28 49.9	-0.5
	comp=Z,9.0nm,0.7s,mb4.8						
FRU	Bishkek	51.39	336	eP	P	05 28 52.0	+0.8
FRU				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.2						
CHMS	Chumysh	51.48	336	P	P	05 28 52.0	+0.2
	SNR=11						
EKS2	Erkin-Say	51.61	335	P	P	05 28 53.7	+0.9
	SNR=20						
EKS2	Erkin-Say	51.61	335	eP	P	05 28 53.3	+0.5
	comp=Z,43nm,0.7s,mb5.5						
CN2	Changchun	51.63	23	⇓P	P	05 28 52.3	-0.7
CN2				eS	S	05 36 11.4	+2.0
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,600nm,14.0s,MS4.9						
CN2				LR	LR		
	comp=E,500nm,14.0s,MS4.9						
CN2				LR	LR		
	comp=Z,700nm,16.0s,MS4.8						
USP	Ospenovka	51.80	336	P	P	05 28 54.3	+0.1
	SNR=23						
MKAR	Makanchi Array	52.22	344	iP	P	05 28 56.7	-0.6
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ZAK	Zakamensk	53.25	2	eP	P	05 29 04.7	-0.3
MDJ	Mudanjiang	53.99	25	P	P	05 29 09.8	-0.7
MDJ				AMB	AMB		
	comp=Z,138nm,3.8s						
TLY	Talaya	54.56	2	iP	P	05 29 13.2	-1.4
TLY				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.4						
TLY				MLR	MLR		
	comp=Z,200nm,13.0s,MS4.4						
KURK	Kurchatov	56.80	343	P	P	05 29 29.8	-0.9
KURK				pmax	pmax		

	comp=Z,14nm,1.2s,mb4.9						
KURK	Kurchatov	56.80	343	*e*P	P	05 29 29.7	-1.0
	comp=Z,16nm,0.8s,mb5.1						
ZAL	Zalesovo	58.31	349	P	P	05 29 40.9	-0.4
	comp=Z,18nm,0.7s,mb5.2,baz=300,slow=6.4,SNR=69						
ZAL	Zalesovo	58.31	349	*i* P	P	05 29 40.6	-0.7
ZAL				pmax	pmax		
	comp=Z,18nm,0.7s						
NVS	Novosibirsk	59.47	348	⇓*i*P	P	05 29 47.4	-1.9
NVS				*e*	pP	05 30 00.5	-1.5
NVS				pmax	pmax		
	comp=N,12nm,1.1s						
NVS				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
BVA0	Borovoye Array	61.40	340	*i* P	P	05 30 01.2	-1.3
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb4.0						
BVAR	Borovoye Array	61.40	340	P	P	05 30 01.2	-1.4
	comp=Z,12nm,0.6s,mb5.2,baz=145,slow=8.9,SNR=52						
BRVK	Borovoye	61.47	340	*e*P	P	05 30 01.4	-1.5
	comp=Z,11nm,0.6s,mb5.2						
BOD	Bodaibo	61.59	8	*e*P	P	05 30 01.9	-1.8
CHKZ	Chkalovo	61.86	340	P	P	05 30 04.6	-1.0
CHKZ				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.3						
CHKZ	Chkalovo	61.86	340	⇑*e*P	P	05 30 04.4	-1.2
	comp=Z,21nm,0.8s,mb5.3						
KMBO	Kilima Mbogo	63.47	270	P	P	05 30 17.6	+0.7
	comp=Z,1.0nm,0.7s,mb4.1,baz=67,slow=13,SNR=5.0						
KMBO	Kilima Mbogo	63.47	270	*i* P	P	05 30 18.1	+1.2
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.7s						
KMBO	Kilima Mbogo	63.47	270	P	P	05 30 17.1	+0.2
	comp=Z,4.4nm,1.1s,mb4.5						
ARU	Arti	68.44	336	*i* P	P	05 30 47.2	-0.7
ARU				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.1						
ARU	Arti	68.44	336	*e*P	P	05 30 47.1	-0.8
	comp=Z,21nm,1.1s,mb5.1						
YAK	Yakutsk	68.55	14	*i* P	P	05 30 47.2	-1.3
YAK				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.4						
YAK				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.6						
YAK	Yakutsk	68.55	14	*e*P	P	05 30 46.9	-1.6
	comp=Z,65nm,0.9s,mb5.6						
MAW	Mawson	69.48	195	LR	LR	05 55 00.1	
	comp=Z,145nm,19.4s,MS4.2,baz=274,slow=30						
ASF	Jabal al Asfar	69.79	306	P	P	05 30 57.6	+0.9
	comp=Z,2.8nm,0.5s,mb4.5,baz=98,slow=5.3,SNR=5.0						
KIV	Kislovodsk	69.80	319	*e*P	P	05 30 55.1	-1.4
KIV				*e*		05 31 16.4	
KIV				*e*		05 33 29.7	
KIV				*e*S	S	05 39 58.3	-2.9
KIV				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
MALT	Malatya	70.58	312	*e*P	P	05 31 01.8	+0.5
	comp=Z,12nm,1.0s,mb4.8						
EIL	Elat	70.70	303	*e*P	P	05 31 02.3	+0.1
	comp=Z,12nm,0.6s,mb5.0						
EIL				*e*	pP	05 31 11.8	-3.4
SOC	Sochi	71.61	318	*e*P	P	05 31 05.8	-1.6
SOC				*e*		05 31 24.9	
SOC				*e*		05 33 54.6	
SOC				*e*S	S	05 40 18.7	-3.5
SOC				*e*		05 41 02.5	
SOC				*e*SS	SS	05 44 53.8	-6.2
SOC				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.3						
SOC				pmax	pmax		
	comp=N,20nm,0.9s						
SOC				pmax	pmax		
	comp=E,50nm,1.0s						
ANN	Anapa	73.59	318	*e*P	P	05 31 26.4	+7.3
ANN				pmax	pmax		
	comp=Z,244nm,1.1s,mb6.0						
RPZ	Rata Peaks	73.73	135	LR	LR	06 01 52.9	
	comp=Z,183nm,18.6s,MS4.4,baz=228,slow=34						
BRTR	Keskin Array B	74.56	313	P	P	05 31 24.4	-0.4
	comp=Z,5.3nm,0.8s,mb4.5,baz=126,slow=7.2,SNR=21						
BRTR	Keskin Array B	74.56	313	P	P	05 31 24.5	-0.4
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
VRSR	Storozhevoye	75.03	325	*e*P	P	05 31 26.8	-0.5
VRSR				*e*	pP	05 31 40.8	+0.5
VRSR				*e*S	S	05 40 58.0	-2.6
VRSR				*e*SS	SS	05 45 49.4	-2.6
VRSR				*e*SSS	SSS	05 49 03.5	-2.7
VRSR				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
VRSR				pmax	pmax		
	comp=N,9.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,7.0nm,0.7s						
VRSR				smax			
	comp=N,7.0nm,1.0s						
VRSR				smax			
	comp=Z,2.0nm,0.4s						
VRSR				smax			
	comp=E,4.0nm,0.5s						
TIXI	Tiksi	76.75	9	*e*P	P	05 31 34.4	-2.3
TIXI				*e*S	S	05 41 09.8	-9.3
TIXI				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,172nm,17.0s,MS4.4						
SYO	Syowa Base	77.14	199	⇓PcP	PcP	05 31 54.1	+4.2
OBN	Obninsk	78.06	328	*de*P	P	05 31 44.3	+0.1
OBN				pmax	pmax		
	comp=Z,56nm,1.6s,mb5.2						
OBN				MLR	MLR		
	comp=Z,200nm,13.0s,MS4.6						
IDI	Anoyia	80.24	306	P	P	05 31 57.6	+1.1
	comp=Z,7.1nm,0.8s,mb4.7,baz=83,slow=4.1,SNR=6.0						
AKASG	Malin Array Be	80.75	322	P	P	05 31 58.4	-0.5
	comp=Z,1.4nm,0.6s,mb4.1,baz=83,slow=4.2,SNR=11						
AKASG	Malin Array Be	80.75	322	P	P	05 31 58.4	-0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
JOF	Joensuu	83.46	334	*e*p	P	05 32 12.2	-0.4
	comp=Z,5.2nm,0.7s,mb4.7						
JOF	Joensuu	83.46	334	*e*P	P	05 32 12.2	-0.4
JOF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
FINES	FINESS Array B	85.36	332	P	P	05 32 23.2	+1.0
	comp=Z,3.4nm,0.7s,mb4.6,baz=108,slow=6.0,SNR=14						
FINES	FINESS Array B	85.36	332	P	P	05 32 23.2	+1.1
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	85.36	332	P	P	05 32 23.2	+1.0
KAF	Kangasniemi	85.43	333	*e*p	P	05 32 21.0	-1.5
	comp=Z,4.0nm,0.7s,mb4.7,baz=97,slow=4.4						
KAF	Kangasniemi	85.43	333	*e*P	P	05 32 21.0	-1.5
KAF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.7						
KEV	Kevo	87.24	340	*e*p	P	05 32 31.1	-0.1
	comp=Z,0.4nm,0.4s,mb4.0						
ARCES	ARCESS Array B	87.69	340	P	P	05 32 34.7	+1.4
	comp=Z,4.5nm,0.5s,mb4.9,baz=96,slow=6.4,SNR=38						
ARCES	ARCESS Array B	87.69	340	P	P	05 32 34.7	+1.4
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ARCES	ARCESS Array B	87.69	340	P	P	05 32 34.7	+1.4
BRG	Berggiesshubel	90.31	321	*e*P	P	05 32 47.6	+1.5
BRG				pmax	pmax		
	comp=Z,41nm,2.1s,mb5.4						
BRG	Berggiesshubel	90.31	321	*e*P	P	05 32 47.6	+1.5
	comp=Z,41nm,2.1s,mb5.4						
GERES	GERESS Array B	90.31	319	P	P	05 32 47.5	+1.3
	comp=Z,2.9nm,0.9s,mb4.6,baz=72,slow=4.2,SNR=16						
GERES	GERESS Array B	90.31	319	P	P	05 32 47.5	+1.3
GERES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	NORSAR Array B	92.40	331	P	P	05 32 56.3	+0.7
	comp=Z,3.2nm,0.9s,mb4.6,baz=94,slow=5.0,SNR=4.4						
NOA	NORSAR Array B	92.40	331	P	P	05 32 56.3	+0.7
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	Yellowknife Ar	115.13	17	PKP	PKPdf	05 38 26.2	+1.4
	comp=Z,0.5nm,0.9s,baz=314,slow=1.1,SNR=5.9						
YKA	Yellowknife Ar	115.13	17	PKIKP	PKPdf	05 38 26.2	+1.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
NVAR	Mina Array Bea	129.91	40	PKP	PKPdf	05 38 57.8	+3.8
	comp=Z,0.3nm,0.4s,baz=0.6,slow=1.5,SNR=3.6						
ULM	Lac du Bonnet	130.89	14	PKP	PKPdf	05 38 57.8	+2.2
	comp=Z,1.8nm,0.8s,baz=97,slow=5.2,SNR=3.1						
PDAR	Pinedale Array	132.10	30	PKP	PKPdf	05 38 59.6	+1.5
	comp=Z,0.5nm,0.8s,baz=146,slow=5.3,SNR=3.5						
CPUP	Villa Florida	143.92	215	PKP	PKPdf	05 39 21.4	+1.5
	comp=Z,153nm,0.7s,baz=226,slow=15,SNR=3.1						
CPUP	Villa Florida	143.92	215	PKIKP	PKPdf	05 39 21.4	+1.5
CPUP				pmax	pmax		
	comp=Z,153nm,0.7s						
BDFB	Brasilia	143.95	238	PKP	PKPdf	05 39 21.2	+1.0
	comp=Z,3.5nm,1.1s,baz=171,slow=8.5,SNR=3.3						
BDFB	Brasilia	143.95	238	PKIKP	PKPdf	05 39 21.2	+1.0
BDFB				pmax	pmax		
	comp=Z,4.0nm,1.1s						
LTX	Lajitas	145.05	39	*e*PKPdf	PKPdf	05 39 23.9	+2.1
TXAR	Lajitas Array	145.05	39	PKPbc	PKPbc	05 39 24.1	+2.0
	comp=Z,14nm,0.8s,baz=250,slow=1.1,SNR=164						
PWV	Princeton	145.82	3	*e*PKPdf	PKPdf	05 39 24.8	+1.9
MIAR	Mount Ida	145.93	21	*e*PKPdf	PKPdf	05 39 25.3	+2.1
MIAR				*e*		05 39 40.5	
ELN	Prospectdale	145.94	2	*e*PKPdf	PKPdf	05 39 24.6	+1.5
WVT	Waverly	146.12	13	*e*PKPdf	PKPdf	05 39 26.0	+2.6
WVT				*e*		05 39 40.7	
JCT	Junction City	146.49	33	*e*PKPbc	PKPbc	05 39 28.0	+2.4

CASC 07 05:35:51.0±2.6**,12.25N**×**88.99W,h32**^{km}±23^{km}**,MD4.1, 4C-1D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VSM	San Miguel	1.36	31	*e*P	Pn	05 36 13.8	-0.2
SNVI	San Vicente	1.36	6	*e*P	Pn	05 36 16.0	+1.9
LFRS	El Faro	1.37	357	*e*P	Pn	05 36 12.9	-1.3
LFRS				*e*S	Sn	05 36 30.3	-1.0
BLLM	Bellamira	1.39	32	⇓*e*P	Pn	05 36 14.0	-0.5
BLLM				*e*P		05 36 14.3	
BLLM				*e*S	Sn	05 36 33.9	+2.0
LCBS	La Ceiba	1.40	0	*e*P	Pn	05 36 13.3	-1.3
LBRS	Las Brisas	1.48	358	*e*P	Pn	05 36 15.4	-0.4
LFU	La Fuente	1.49	355	*e*P	Pn	05 36 15.5	-0.5
BOQS	Boqueron	1.50	349	*e*P	Pn	05 36 16.0	-0.1
CNCH	Conchagua	1.52	48	⇑*e*P	Pn	05 36 16.6	+0.3
CAHU	Cacacuatique	1.69	26	⇑*e*P	Pn	05 36 18.5	-0.3
SBLS	San Blas	1.70	339	*e*P	Pn	05 36 18.8	-0.1
RTR	El Retiro	1.76	339	*e*P	Pn	05 36 20.1	+0.3
RTR				*e*S	Sn	05 36 41.0	-0.3
PYN	Poneloya	1.92	86	⇑*e*P	Pn	05 36 20.3	-1.8
PYN				*e*S	Sn	05 36 46.3	+0.9
RBDL	Robledal	1.97	340	*e*P	Pn	05 36 23.4	+0.5
LEON	Leon	2.05	85	*e*P	Pn	05 36 22.4	-1.5
LEON				*e*S	Sn	05 36 47.5	-1.3
MIRN	Miramar	2.23	85	*e*P	Pn	05 36 24.2	-2.3
MIRN				*e*S	Sn	05 36 53.0	-0.2
APYN	Apoyeque	2.58	90	*e*P	Pn	05 36 30.4	-1.1
APYN				*e*S	Sn	05 37 00.5	-1.6
MGAN	Managua	2.68	92	⇑*e*P	Pn	05 36 30.9	-2.0
MGAN				*e*S	Sn	05 37 02.4	-2.2
TICN	Ticuantepe	2.70	94	*e*P	Pn	05 36 32.0	-1.3
JCR	Jicaral	4.49	122	*e*P	Pn	05 36 57.2	-1.4
PRS1	Puriscal	5.11	116	*e*P	Pn	05 37 07.7	+0.3
PRS1				*e*S	Sn	05 38 05.5	-0.6
LAJ	Bijagual	5.33	116	*e*P	Pn	05 37 06.2	-4.3
URSC	Urasca	5.65	115	*e*P	Pn	05 37 15.5	+0.5
URSC				*e*S	Sn	05 38 18.4	-1.1

*IDC **07** 05:45:08.6±3.1,6.43S×146.36E,h121^{km}±31^{km},mb3.7/6, mb1 3.8/9,mb1mx3.7/15,Error ellipse: s-maj=31.5km s-min=23.8km az=124.0*

*NEIC **07** 05:45:08.8±2.3,6.43S×146.21E,h120^{km}±23^{km},mb4.0/2, Error ellipse: s-maj=29.2km s-min=15.6km az=129.0*

ISC 07 05:45:07.0±2.8**,6.4S**±0.2×**146.1E**±0.2**,h113**^{km}±29^{km}**,n16,** σ**0^{s}92**/16**,mb4.0**/5**,Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	3.13	161	P	P	05 45 56.9	+1.1
	22nm,0.3s,baz=7.6,slow=3.8,SNR=61						
PMG				S	S	05 46 32.3	-0.3
	74nm,0.3s,baz=149,slow=21,SNR=27						
PMG	Port Moresby	3.13	161	*e*Pn	P	05 45 56.7	+1.0
CTA	Charters Tower	13.58	180	P	P	05 48 22.2	+6.1
	0.5nm,0.3s,baz=7.1,slow=16,SNR=4.5						
CTA	Charters Tower	13.58	180	P	P	05 48 22.2	+6.1
CTAO	Charters Tower	13.58	180	*e*P	P	05 48 22.2	+6.2
	3.0nm,0.5s						
WRAB	Tennant Creek	17.64	219	*e*P	P	05 49 05.5	-1.6
	5.3nm,0.6s						
WB2	Warramunga Arr	17.65	219	*e*P	P	05 49 06.1	-1.1
WRA	Warramunga Arr	17.66	219	P	P	05 49 06.8	-0.5
	0.3nm,0.3s,baz=44,slow=12,SNR=12						
ASAR	Alice Springs	20.79	213	P	P	05 49 41.9	+1.0
	1.0nm,0.5s,baz=40,slow=9.6,SNR=9.6						
ASPA	Alice Springs	20.79	213	*e*P	P	05 49 41.6	+0.7
FITZ	Fitzroy Crossi	23.12	238	P	P	05 50 05.0	+1.2
	6.8nm,0.9s,mb4.0,baz=91,slow=4.4,SNR=12						
STKA	Stephens Creek	25.67	189	P	P	05 50 28.2	+0.1
	2.2nm,0.4s,mb3.9,baz=356,slow=8.3,SNR=8.4						
CMAR	Chiang Mai Arr	52.70	299	P	P	05 54 13.1	+0.7
	3.6nm,0.7s,mb4.5,baz=121,slow=5.6,SNR=9.8						
ILAR	Eielson Array	86.21	23	P	P	05 57 35.2	-1.2
	0.6nm,0.5s,mb3.8,baz=250,slow=5.0,SNR=18						
BVAR	Borovoye Array	86.61	324	P	P	05 57 38.7	0.0
	0.6nm,0.5s,mb3.8,baz=101,slow=7.3,SNR=4.7						
DBIC	Dimbokro	151.18	272	PKPbc	PKPdf	06 04 49.9	+8.0
	3.0nm,0.8s,baz=27,slow=3.9,SNR=5.9						

*IDC **07** 05:52:55.9±5.3,6.11S×148.86E,h66^{km}±47^{km},mb3.8/3, mb1 4.1/5,mb1mx3.8/13,ML3.8/2,MS2.8/1,Ms1 2.8/1, ms1mx2.6/12,Error ellipse: s-maj=57.2km s-min=31.7km az=134.0*

*NEIC **07** 05:52:56.7±2.7,5.97S×148.67E,h71^{km}±23^{km},mb4.2/3, Error ellipse: s-maj=43.1km s-min=16.8km az=142.0*

ISC 07 05:52:55.3±4.3**,6.0S**±0.3×**148.5E**±0.4**,h65**^{km}±42^{km}**,n12,** σ**0^{s}67**/13**,mb3.9**/4**,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	3.69	201	P	P	05 53 51.8	+0.6
	15nm,0.3s,baz=38,slow=5.6,SNR=74						
PMG				S	S	05 54 33.1	-0.7
	25nm,0.3s,baz=19,slow=20,SNR=14						
PMG				LR	LR	05 55 23.4	
	comp=Z,121nm,20.1s,baz=338,slow=40						
PMG	Port Moresby	3.69	201	P	P	05 53 51.8	+0.5
PMG				S	S	05 54 33.1	-0.7
WRAB	Tennant Creek	19.56	223	*e*P	P	05 57 20.2	-0.3
	7.6nm,0.6s						
WB2	Warramunga Arr	19.56	223	*e*P	P	05 57 20.3	-0.4
WRA	Warramunga Arr	19.57	223	P	P	05 57 20.4	-0.4
	0.8nm,0.3s,baz=51,slow=11,SNR=31						
ASAR	Alice Springs	22.53	217	P	P	05 57 51.5	+0.7
	2.0nm,0.5s,mb3.7,baz=53,slow=9.2,SNR=26						
ASPA	Alice Springs	22.54	217	*e*P	P	05 57 52.3	+1.4
FITZ	Fitzroy Crossi	25.37	240	*e*P	P	05 58 18.7	+0.4
	3.7nm,0.4s,mb4.2						
FITZ	Fitzroy Crossi	25.37	240	P	P	05 58 18.8	+0.5
	5.5nm,0.5s,mb4.3,baz=36,slow=8.5,SNR=32						
MBWA	Marble Bar	31.70	239	*e*P	P	05 59 14.6	-0.7
	3.9nm,0.7s,mb4.2						
ILAR	Eielson Array	84.85	23	P	P	06 05 23.2	-0.6
	0.6nm,0.7s,mb3.6,baz=252,slow=5.1,SNR=8.0						
BDFB	Brasilia	153.03	143	PKPbc	PKPdf	06 12 46.8	+7.9
	1.0nm,0.7s,baz=212,slow=0.6,SNR=4.3						

*IDC **07** 06:21:34.9±1.1,4.48S×119.22E,mb4.0/7,mb1 4.2/8, mb1mx4.1/16,ML3.2/1,MS3.4/1,Ms1 3.6/1,ms1mx2.7/18, Error ellipse: s-maj=105.0km s-min=16.2km az=58.0*

*NEIC **07** 06:21:41.3±3.0,4.57S×119.11E,h51^{km}±32^{km},mb4.3/3, Error ellipse: s-maj=55.4km s-min=10.9km az=55.0*

ISC 07 06:21:40.7±5.7**,4.5S**±0.3×**119.2E**±0.4**,h65**^{km}±60^{km}**,n13,** σ**0^{s}45**/11**,mb4.0**/10**,Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	14.91	155	Pn	P	06 25 09.1	-0.2
	0.1nm,0.3s,baz=6.3,slow=9.2,SNR=2.4						
WRA	Warramunga Arr	21.30	137	P	P	06 26 24.0	+0.1
	4.4nm,1.0s,mb3.7,baz=315,slow=11,SNR=12						
WRAB	Tennant Creek	21.30	137	*e*P	P	06 26 23.7	-0.2
	12nm,0.8s,mb4.3						
ASAR	Alice Springs	23.76	145	P	P	06 26 48.6	+0.6
	2.1nm,0.7s,mb3.6,baz=316,slow=8.2,SNR=17						
CMAR	Chiang Mai Arr	30.31	319	P	P	06 27 48.6	+0.3
	0.9nm,0.3s,mb3.8,baz=138,slow=9.1,SNR=5.3						
CMAR				LR	LR	06 42 28.3	
	comp=Z,61nm,19.1s,baz=238,slow=41						
STKA	Stephens Creek	34.40	145	P	P	06 28 23.6	-0.2
	6.0nm,0.6s,mb4.6,baz=304,slow=8.1,SNR=14						
ENH	Enshi	35.82	346	*e*P	P	06 28 35.8	-0.1
	9.1nm,0.7s,mb4.8						
SONM	Songino Array	53.33	349	P	P	06 30 55.8	+0.2
	0.7nm,0.6s,mb3.9,baz=167,slow=8.9,SNR=7.6						
ZAL	Zalesovo	64.95	338	P	P	06 32 15.9	+0.1
	0.7nm,0.3s,mb3.9,baz=32,slow=8.1,SNR=4.1						
BVAR	Borovoye Array	70.46	331	P	P	06 32 50.7	+0.6
	0.6nm,0.7s,mb3.5,baz=135,slow=8.4,SNR=3.8						
CHKZ	Chkalovo	70.75	332	*e*P	P	06 32 50.7	-1.2
	0.7nm,0.5s,mb3.8						
TXAR	Lajitas Array	132.58	54	PKP	PKPdf	06 40 52.4	+3.6
	0.3nm,0.8s,baz=333,slow=4.0,SNR=4.0						
TXAR	Lajitas Array	132.58	54	PKP	PKPdf	06 40 52.4	+3.6

*CSEM **07** 07:11:49.3±0.2,34.98N×2.79W,h20^{km},MD3.1,Error ellipse: s-maj=6.7km s-min=6.0km az=114.0*

*CNRM **07** 07:11:51.0,34.98N×2.71W,h16^{km},MD3.1*

*NEIC **07** 07:11:52.1,35.08N×3.19W,MG3.3(MDD),After MDD.*

*MDD **07** 07:11:53.0±1.7,35.14N×3.20W,mb3.2/4,Error ellipse: s-maj=18.8km s-min=5.4km az=173.0,PRXIMO AftershockPLICA*

ISC 07 07:11:52.3±1.0**,35.14N**±0.05×**2.96W**±0.09**,h29**^{km}±4^{km}**, n18,**σ**1^{s}11**/28**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MELI	Melilla	0.16	8	P	Pb	07 11 58.2	+0.2
MELI				S	Sb	07 12 01.1	-0.8
MELI	Melilla	0.16	8	*i* P	Pb	07 11 58.2	+0.2
EMEL	Melilla	0.16	2	P	Pb	07 11 57.6	-0.5
	70nm,0.1s,SNR=7.9						
EMEL				S	Sb	07 12 01.6	-0.4
	154nm,0.1s,SNR=7.9						
EMLI	Melilla	0.16	4	P	Pb	07 11 57.6	-0.5
	70nm,0.1s,SNR=7.9						
ZAI	Zaio	0.24	133	*i* P	Pb	07 11 53.0	-6.0
TOU	Touzarine	0.67	255	*i* P	Pb	07 12 07.0	+1.5
TOU				*i* S	Sb	07 12 16.5	+2.0
TZK	Tazeka	1.45	224	*i* P	Pn	07 12 15.5	-1.4
TZK				*i* S	Sn	07 12 34.5	-0.6
EBER	Berja	1.76	2	P	Pn	07 12 22.3	+0.9
	9.1nm,0.4s,SNR=7.4						
EBER				S	Sn	07 12 43.6	+0.7
	1.3nm,0.3s,SNR=7.9						
EBER	Berja	1.76	2	S	Sn	07 12 43.6	+0.7
	1.3nm,0.3s,SNR=7.9						
EBER	Berja	1.76	2	P	Pn	07 12 22.3	+1.0
	9.1nm,0.4s,SNR=7.4						
EMIJ	Mijas	2.05	315	P	Pn	07 12 25.1	-0.4
	1.5nm,0.3s,SNR=7.4						
EMIJ				S	Sn	07 12 49.7	-0.6
	1.8nm,0.2s,SNR=7.9						
EQES	Quesada	2.66	358	P	Pn	07 12 36.9	+2.6
	0.9nm,0.2s,SNR=7.9						
EQES				S	Sn	07 13 10.6	+4.7
	0.8nm,0.3s,SNR=7.9						
EQES	Quesada	2.66	358	S	Sn	07 13 10.6	+4.7
	0.8nm,0.3s,SNR=7.9						
EQES	Quesada	2.66	358	P	Pn	07 12 36.9	+2.6
	0.9nm,0.2s,SNR=7.9						
EADA	Adamuz	3.29	337	P	Pn	07 12 43.9	+0.7
	0.3nm,0.1s,SNR=4.8						
EADA				S	Sn	07 13 22.1	+0.2
	0.3nm,0.2s,SNR=7.9						
EADA	Adamuz	3.29	337	P	Pn	07 12 43.9	+0.7
	0.3nm,0.1s,SNR=4.8						
EADA				S	Sn	07 13 22.1	+0.3
	0.3nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	3.98	312	P	Pn	07 12 52.1	-0.9
	0.6nm,0.1s,SNR=8.8						
EMIN				S	Sn	07 13 36.7	-2.5
	0.3nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	3.98	312	P	Pn	07 12 52.1	-0.9

*NEIC **07** 07:25:46.2,16.14N×95.00W,h15^{km},MD4.2(MEX),After MEX.*

MEX 07 07:25:46.2±0.8**,16.14N**×**95.00W,h15**^{km}±10^{km}**,MD4.3, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.96	7	*i* P	Pb	07 26 01.2	-2.8
CMIG				*i* S	Sb	07 26 12.6	-3.6
HUIG	Huatulco	1.12	251	*i* P	Pb	07 26 03.3	-3.4
HUIG				*i* S	Sb	07 26 16.7	-4.2
OXX	Oaxaca	1.90	300	*i* P	Pn	07 26 15.5	-2.9
OXX				*i* S	Sn	07 26 37.0	-5.2
VHO	Vista Hermosa	1.90	300	*i* P	Pn	07 26 15.0	-3.5
VHO				*i* S	Sn	07 26 37.5	-4.8
EVV	El Vigia	2.33	352	*e*P	Pn	07 26 25.0	+0.4
SCX	San Cristobal	2.35	75	*e*P	Pn	07 26 29.0	+4.1
CCIG	Comitan	2.76	87	*i* P	Pn	07 26 28.1	-2.7
CCIG				*i* S	Sn	07 27 00.2	-3.8
IISM	Ciudad Serdan	3.63	322	*e*P	Pn	07 26 42.5	-0.6
PPM	Popocatepetl	4.52	311	*i* P	Pn	07 26 53.6	-2.2
PPM				*e*P		07 27 03.5	
PPM				*i* S	Sn	07 27 45.5	-3.1
ZIIG	Zihuatanejo	6.36	284	*i* S	Sn	07 28 35.7	+1.0

*IDC **07** 07:34:44.2±1.0,0.19S×17.27W,mb3.8/8,mb1 4.1/9, mb1mx3.9/20,ML4.6/1,MS3.7/4,Ms1 3.6/4,ms1mx3.4/21, Error ellipse: s-maj=44.5km s-min=19.3km az=150.0*

*NEIC **07** 07:34:46.3±0.8,0.10S×17.26W,h10^{km},mb4.4/3,Error ellipse: s-maj=37.5km s-min=11.2km az=155.0*

ISC 07 07:34:44.1±0.8**,0.1S**±0.2×**17.2W**±0.1**,h10**^{km}**,n15,** σ**1^{s}00**/14**,mb4.0**/10**,MS3.7**/3**,North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DBIC	Dimbokro	14.05	61	Pn	P	07 38 04.6	-1.1
	3.0nm,0.3s,baz=231,slow=15,SNR=49						
DBIC				LR	LR	07 42 15.8	
	comp=Z,233nm,21.0s,baz=246,slow=32						
RCBR	Riachuelo	19.50	253	*e*P	P	07 39 14.6	+0.2
	14nm,0.9s						
BDFB	Brasilia	34.09	242	P	P	07 41 29.9	-1.4
	0.9nm,0.4s,mb4.0,baz=14,slow=6.5,SNR=4.2						
BDFB				LR	LR	07 53 23.0	
	comp=Z,77nm,19.1s,MS3.5,baz=253,slow=33						
SAML	Samuel	46.61	258	*e*P	P	07 43 15.3	+0.6
	7.4nm,1.2s,mb4.5						
LPAZ	La Paz	52.70	250	P	P	07 44 00.6	-0.9
	0.2nm,0.3s,mb3.5,baz=41,slow=4.4,SNR=3.1						
LPAZ				LR	LR	08 05 31.0	
	comp=Z,55nm,18.7s,MS3.6,baz=79,slow=35						
LPAZ	La Paz	52.70	250	P	P	07 44 00.6	-0.9
SDV	Santo Domingo	53.96	281	*e*P	P	07 44 10.8	0.0
	2.5nm,0.7s,mb4.2						
KMBO	Kilima Mbogo	54.46	91	P	P	07 44 15.1	+0.7
	0.4nm,0.5s,mb3.6,baz=260,slow=14,SNR=1.6						
KMBO	Kilima Mbogo	54.46	91	P	P	07 44 16.8	+2.3
GERES	GERESS Array B	55.60	24	P	P	07 44 21.7	-0.6
	0.3nm,0.3s,mb3.8,baz=297,slow=6.0,SNR=7.4						
ASF	Jabal al Asfar	60.27	52	LR	LR	08 10 12.9	
	comp=Z,106nm,19.3s,MS4.0,baz=227,slow=35						
BRTR	Keskin Array B	60.96	43	P	P	07 45 01.1	+1.2
	1.6nm,0.7s,mb4.3,baz=233,slow=6.2,SNR=5.0						
AKASG	Malin Array Be	64.12	31	P	P	07 45 19.9	-0.9
	0.1nm,0.2s,mb3.4,baz=231,slow=6.7,SNR=4.9						
FINES	FINESS Array B	69.65	21	P	P	07 45 55.8	+0.1
	1.1nm,0.5s,mb4.1,baz=225,slow=5.4,SNR=7.9						
TXAR	Lajitas Array	86.98	299	P	P	07 47 33.0	+1.7
	1.3nm,0.9s,mb4.1,baz=121,slow=7.3,SNR=9.8						

*NEIC **07** 07:38:13.6,16.51N×99.30W,h16^{km},MD4.0(MEX),After MEX.*

MEX 07 07:38:13.7±1.2**,16.51N**×**99.30W,h16**^{km}±16^{km}**,MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACX	Acapulco	0.69	301	*i* P	Pb	07 38 24.5	-2.5
ACX				*i* S	Sb	07 38 32.5	-3.5

CAIG	**El Cayaco**	**1.07**	**300**	*i*P	Pb	07 38 30.9	-2.5
CAIG				*i*S	Sb	07 38 43.6	-3.4
PNIG	**Pinotepa**	**1.13**	**96**	*i*P	Pb	07 38 31.8	-2.5
PNIG				*i*S	Sb	07 38 43.1	-5.5
PLIG	**Platanillo**	**1.89**	**354**	*i*P	Pn	07 38 44.3	-1.4
VHO	**Vista Hermosa**	**2.52**	**77**	*i*P	Pn	07 38 50.7	-4.1
VHO				*i*S	Sn	07 39 20.1	-5.2
VHO				*i*S	Sn	07 39 21.8	-3.5
OXX	**Oaxaca**	**2.53**	**77**	*e*P	Pn	07 38 56.5	+1.6
PPM	**Popocatepetl**	**2.63**	**14**	*i*P	Pn	07 38 52.5	-3.8
PPM				*i*S	Sn	07 39 26.5	-1.6
CMIG	**Matias Romero**	**4.27**	**82**	*i*P	Pn	07 39 17.6	-2.0
CMIG				*i*S	Sn	07 40 03.4	-6.2

IDC 07 07:42:05.8±46.0**,15.49S**×**172.71W,mb4.1**/3**,mb1 4.2**/3**, mb1mx3.8**/14**,Error ellipse: s-maj=889.0km s-min=195.0km az=79.0,Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**44.57**	**240**	P	P	07 50 19.5	-2.0
	2.2nm,0.8s,baz=83,slow=6.4,SNR=2.9						
WRA	**Warramunga Arr**	**50.47**	**257**	P	P	07 51 06.1	-1.8
	0.3nm,0.5s,baz=91,slow=7.0,SNR=6.6						
ASAR	**Alice Springs**	**50.72**	**252**	P	P	07 51 07.5	-2.1
	4.7nm,0.5s,baz=89,slow=8.2,SNR=72						

CASC 07 08:15:16.7±2.2**,9.51N**×**84.18W,h12**^{km}±5^{km}**,mb5.5, MD4.1,MW4.7,5C-12D,Fault plane solution: NP1:** ϕ_s21.26°,δ63.4°,λ33.79°.**,Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LCR2	**La Lucha 2**	**0.29**	**36**	*e*P	Pg	08 15 23.4	+0.5
LAJ	**Bijagual**	**0.36**	**9**	⇓*i*P	Pg	08 15 25.7	+1.6
BUS	**Buena Vista**	**0.42**	**83**	⇑*i*P	Pg	08 15 25.8	+0.5
SJS	**Escuela Geolog**	**0.45**	**16**	⇓*i*P	Pg	08 15 25.1	-0.8
SJS				*e*S	Sg	08 15 32.0	0.0
PRS1	**Puriscal**	**0.49**	**345**	⇓*i*P	Pg	08 15 25.2	-1.5
URSC	**Urasca**	**0.51**	**50**	*i*P	Pg	08 15 27.3	+0.2
CGA2	**Cerro Gallo 2**	**0.58**	**331**	⇓*i*P	Pb	08 15 28.0	-0.3
ICR	**Volcan Irazu**	**0.58**	**36**	⇑*i*P	Pb	08 15 28.7	+0.3
VPS2	**Volcan Poas 2**	**0.68**	**355**	⇑*i*P	Pb	08 15 30.2	+0.1
JCR	**Jicaral**	**0.98**	**290**	⇓*i*P	Pb	08 15 34.5	-0.6
JCR				*e*S	Sb	08 15 48.8	+0.9
FORC	**Fortuna**	**1.07**	**333**	⇓*i*P	Pb	08 15 35.5	-1.3
FORC				⇓*i*P		08 15 36.7	
FORC				*i*S	Sb	08 15 50.1	-0.5
FORC				*e*S	Sb	08 15 51.1	+0.6
TRTC	**Tortuguero**	**1.16**	**23**	⇓*i*P	Pb	08 15 38.2	0.0
LIO	**Limon**	**1.23**	**66**	⇑*e*P	Pb	08 15 38.7	-0.8
ACR	**Cerro Adams**	**1.31**	**130**	*e*P	Pb	08 15 40.7	-0.2
VCR	**Vista de Mar**	**1.56**	**293**	⇓*e*P	Pn	08 15 44.3	-0.2
VCR				*e*S	Sb	08 16 05.3	+0.6
CNI	**Changuinola**	**1.64**	**93**	⇓*e*P	Pn	08 15 45.0	-0.6
CNI				*e*S	Sn	08 16 07.0	+0.2
DVD	**David**	**2.01**	**122**	⇓*e*P	Pn	08 15 49.5	-1.5
TICN	**Ticuantepe**	**3.22**	**321**	*e*P	Pn	08 16 08.1	-0.1
MGAN	**Managua**	**3.32**	**322**	*e*P	Pn	08 16 08.8	-0.8
APYN	**Apoyeque**	**3.45**	**322**	*e*P	Pn	08 16 11.2	-0.3
COPN	**Copaltepe**	**3.56**	**318**	*e*P	Pn	08 16 11.9	-1.1
MOMJ	**Momotombo**	**3.70**	**321**	*e*P	Pn	08 16 13.8	-1.2
MIRN	**Miramar**	**3.83**	**320**	*e*P	Pn	08 16 16.3	-0.6
CNGN	**Cerro Negro**	**3.87**	**320**	*e*P	Pn	08 16 16.7	-0.8
LEON	**Leon**	**3.93**	**318**	*e*P	Pn	08 16 17.4	-0.9
PYN	**Poneloya**	**4.00**	**316**	*e*P	Pn	08 16 18.2	-1.0
UPA	**Univ. de Panam**	**4.62**	**96**	⇑*e*P	Pn	08 16 25.4	-2.6
	comp=Z,121nm,0.3s						
JEF	**Cerro Jefe**	**4.75**	**93**	⇓*i*P	Pn	08 16 28.0	-1.9
JEF				*i*S	Sn	08 17 21.7	-3.9
CNCH	**Conchagua**	**5.18**	**317**	*e*P	Pn	08 16 34.9	-1.2
LCBS	**La Ceiba**	**6.25**	**312**	*e*P	Pn	08 16 50.7	-0.4
LFRS	**El Faro**	**6.29**	**311**	*e*P	Pn	08 16 51.5	-0.3
SBLS	**San Blas**	**6.85**	**309**	*e*P	Pn	08 16 59.6	-0.1
RTR	**El Retiro**	**6.91**	**310**	*e*P	Pn	08 17 02.4	+2.0

DJA 07 09:12:30.6±0.9**,9.53S**×**115.18E,h12**^{km}±4^{km}**,ML3.8**/4**, 1C-7D,Error ellipse: s-maj=17.8km s-min=8.5km az=175.0,South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RATI	**Rata**	**0.87**	**23**	⇓*e*Pg	Pg	09 12 45.8	-2.3
	261nm,0.2s						
RATI				⇓*e*Sg	Sg	09 12 56.6	-3.1
KEDI	**Kedomdong**	**1.38**	**42**	⇓*e*Pn	Pn	09 12 53.1	-2.8
	44nm,0.2s						
KEDI				⇓*e*Sn	Sn	09 13 08.8	-5.4
SRDI	**Scrawed**	**1.46**	**315**	⇓*e*Pn	Pn	09 12 53.9	-3.1
	127nm,0.2s						
SRDI				⇓*e*Sn	Sn	09 13 11.3	-4.9
KELI	**Kelakatan**	**1.47**	**332**	⇓*e*Pn	Pn	09 12 54.7	-2.4
	136nm,0.2s						
KELI				⇑*e*Sn	Sn	09 13 12.4	-4.0

IDC ***07*** *09:16:13.2±2.1,12.57N×87.46W,mb3.9/6,mb1 4.3/7, mb1mx4.1/19,MS3.8/1,Ms1 3.7/1,ms1mx2.6/21,Error ellipse: s-maj=76.6km s-min=41.4km az=51.0*

CASC ***07*** *09:16:17.4±2.4,12.05N×88.23W,h30*^{km}*±12*^{km}*,MD4.4, ML3.3,mb4.4(NEIC)*

NEIC ***07*** *09:16:18.6±1.9,12.45N×87.68W,h39*^{km}*±19*^{km}*,mb4.4/10, Error ellipse: s-maj=28.2km s-min=9.7km az=49.0*

ISC 07 09:16:16.8±0.6**,11.99N**±0.04×**88.26W**±0.04**,h51**^{km}±5^{km}**, n65,**σ1^{s}**09**/82**,mb4.2**/15**,MS3.8**/1**,13C-9D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PYN	**Poneloya**	**1.27**	**72**	*e*P	**P**	**09 16 38.1**	**-0.5**
CNCH	**Conchagua**	**1.34**	**18**	⇑*e*P	**P**	**09 16 39.1**	**-0.6**
CNCH				*e*S	**S**	**09 16 56.2**	**-0.5**
CRIN	**San Cristobal**	**1.38**	**59**	*e*P	**P**	**09 16 39.7**	**-0.5**
LEON	**Leon**	**1.40**	**72**	*e*P	**P**	**09 16 39.6**	**-0.9**
VSM	**San Miguel**	**1.43**	**359**	⇑*e*P	**P**	**09 16 40.5**	**-0.4**
BLLM	**Bellamira**	**1.44**	**1**	⇑*e*P	**P**	**09 16 40.3**	**-0.8**
BLLM				*e*S	**S**	**09 16 60.0**	**+0.9**
TELN	**Telica**	**1.52**	**66**	*e*P	**P**	**09 16 41.2**	**-0.9**
MIRN	**Miramar**	**1.58**	**73**	*e*P	**P**	**09 16 42.1**	**-0.8**
CNGN	**Cerro Negro**	**1.61**	**71**	*e*P	**P**	**09 16 42.8**	**-0.6**
COPN	**Copaltepe**	**1.64**	**83**	*e*P	**P**	**09 16 43.4**	**-0.4**
SNVI	**San Vicente**	**1.71**	**341**	*e*P	**P**	**09 16 45.2**	**+0.4**
MOMJ	**Momotombo**	**1.73**	**76**	*e*P	**P**	**09 16 44.5**	**-0.6**
CAHU	**Cacacuatique**	**1.77**	**1**	⇑*e*P	**P**	**09 16 45.6**	**-0.1**
CAHU				*e*S	**S**	**09 17 08.7**	**+1.7**
LCBS	**La Ceiba**	**1.80**	**337**	⇑*e*P	**P**	**09 16 45.1**	**-0.9**
LCBS				*e*S	**S**	**09 17 09.1**	**+1.4**
LFRS	**El Faro**	**1.80**	**334**	⇑*e*P	**P**	**09 16 45.1**	**-1.0**
LFRS				*e*S	**S**	**09 17 08.8**	**+0.9**
APYN	**Apoyeque**	**1.88**	**82**	*e*P	**P**	**09 16 47.0**	**-0.2**
APYN				*e*S	**S**	**09 17 10.2**	**+0.4**
LBRS	**Las Brisas**	**1.90**	**336**	⇓*e*P	**P**	**09 16 47.1**	**-0.4**
LFU	**La Fuente**	**1.94**	**335**	⇓*e*P	**P**	**09 16 47.4**	**-0.5**
LFU				*e*S	**S**	**09 17 10.5**	**-0.7**
MGAN	**Managua**	**1.97**	**85**	⇑*e*P	**P**	**09 16 47.9**	**-0.6**
MGAN				*e*P		09 16 48.1	
MGAN				*e*S	**S**	**09 17 12.5**	**+0.5**
	comp=E,311nm,0.3s						
TICN	**Ticuantepe**	**1.98**	**89**	*e*P	**P**	**09 16 48.6**	**0.0**
TICN				*e*S	**S**	**09 17 13.9**	**+1.7**
BOQS	**Boqueron**	**2.00**	**330**	⇓*e*P	**P**	**09 16 48.4**	**-0.5**
BOQS				*e*S	**S**	**09 17 13.0**	**+0.3**
WILN	**Americas 2**	**2.03**	**85**	*e*P	**P**	**09 16 48.8**	**-0.5**
WILN				*e*S	**S**	**09 17 13.8**	**+0.3**
APON	**Apoyo**	**2.15**	**92**	*e*P	**P**	**09 16 50.7**	**-0.2**
PYTN	**Playitas**	**2.22**	**76**	*e*P	**P**	**09 16 51.6**	**-0.4**
SBLS	**San Blas**	**2.27**	**324**	⇑*e*P	**P**	**09 16 52.1**	**-0.6**
SBLS				*e*S	**S**	**09 17 20.5**	**+0.9**
SNJE	**San Jose**	**2.28**	**325**	⇓*e*P	**P**	**09 16 52.4**	**-0.6**
SNJE				*e*S	**S**	**09 17 19.9**	**0.0**
RTR	**El Retiro**	**2.33**	**325**	⇑*e*P	**P**	**09 16 53.1**	**-0.5**
RBDL	**Robledal**	**2.53**	**327**	⇓*e*P	**P**	**09 16 56.3**	**-0.2**
RBDL				*e*S	**S**	**09 17 28.4**	**+2.3**
MTO2	**Montecristo 2**	**2.63**	**336**	⇓*e*P	**P**	**09 16 58.1**	**+0.3**
MTO2				*e*S	**S**	**09 17 28.9**	**+0.3**
JTS	**JuntasAbangare**	**3.66**	**117**	*e*Pn	**P**	**09 17 10.2**	**-2.1**
JCR	**Jicaral**	**3.75**	**124**	⇑*e*P	**P**	**09 17 14.0**	**+0.3**
JCR				*e*S	**S**	**09 17 55.4**	**-1.7**
CGA2	**Cerro Gallo 2**	**4.21**	**117**	⇑*e*P	**P**	**09 17 22.2**	**+2.1**
PRS1	**Puriscal**	**4.36**	**117**	*e*P	**P**	**09 17 24.5**	**+2.2**
PRS1				*e*S	**S**	**09 18 12.2**	**-0.2**
LAJ	**Bijagual**	**4.58**	**117**	⇑*e*P	**P**	**09 17 22.9**	**-2.5**
LCR2	**La Lucha 2**	**4.74**	**118**	⇓*e*P	**P**	**09 17 29.3**	**+1.7**
LCR2				*e*S	**S**	**09 18 23.7**	**+1.8**
ICR	**Volcan Irazu**	**4.78**	**114**	*e*P	**P**	**09 17 29.7**	**+1.5**
URSC	**Urasca**	**4.89**	**116**	⇓*e*P	**P**	**09 17 32.5**	**+2.7**
BUS	**Buena Vista**	**5.04**	**118**	⇑*e*P	**P**	**09 17 33.7**	**+1.9**
BUS				*e*S	**S**	**09 18 30.2**	**+0.8**
ACR	**Cerro Adams**	**6.01**	**123**	⇓*e*P	**P**	**09 17 46.4**	**+1.1**
ACR				*e*S	**S**	**09 18 51.3**	**-2.3**
SDV	**Santo Domingo**	**17.61**	**98**	P	**P**	**09 20 13.6**	**-6.7**
	comp=E,2.8nm,0.8s						
LRAL	**Lakeview Retre**	**20.98**	**3**	P	**P**	**09 20 54.8**	**-3.3**
	comp=E,11nm,0.9s						
JCT	**Junction City**	**21.28**	**332**	*e*P	**P**	**09 20 59.2**	**-2.0**
	comp=E,15nm,0.7s,mb4.4						
LTX	**Lajitas**	**22.44**	**323**	*e*P	**P**	**09 21 12.8**	**+0.2**
	comp=E,9.2nm,0.8s,mb4.3						
TXAR	**Lajitas Array**	**22.44**	**323**	P	**P**	**09 21 14.1**	**+1.4**
	comp=E,3.6nm,0.8s,mb3.9,baz=146,slow=12,SNR=28						
MIAR	**Mount Ida**	**22.97**	**349**	*e*P	**P**	**09 21 18.6**	**+0.8**
	comp=E,31nm,0.9s,mb4.7						
MIAR				*e*		09 21 29.2	
WMOK	**Wichita Mounta**	**24.58**	**339**	*e*P	**P**	**09 21 33.6**	**+0.1**
	comp=E,10nm,1.0s,mb4.3						
CPRX	**Cap Rock**	**25.36**	**328**	*e*P	**P**	**09 21 41.2**	**+0.3**
AMTX	**Amarillo**	**25.85**	**334**	*e*P	**P**	**09 21 45.2**	**-0.3**
	comp=E,35nm,1.2s,mb4.8						
ANMO	**Albuquerque**	**28.21**	**327**	P	**P**	**09 22 07.4**	**+0.4**
	comp=E,0.9nm,0.8s,mb3.4,baz=197,slow=3.9,SNR=4.1						
PV10	**Paradox Valley**	**32.15**	**328**	*e*P	**P**	**09 22 42.3**	**+0.4**
SAML	**Samuel**	**32.47**	**129**	*e*P	**P**	**09 22 44.8**	**-0.1**
	comp=E,3.9nm,0.9s,mb4.2						
PDAR	**Pinedale Array**	**35.81**	**333**	P	**P**	**09 23 12.3**	**-1.0**
	comp=E,0.8nm,1.0s,mb3.6,baz=90,slow=3.0,SNR=3.5						
PDAR				PcP	PcP	09 25 42.6	+2.3
	comp=E,0.7nm,0.8s,baz=145,slow=3.6,SNR=5.5						
HWUT	**Hardware Ranch**	**35.86**	**330**	*e*P	**P**	**09 23 14.4**	**+0.6**
	comp=E,2.8nm,0.8s,mb4.2						
REDW	**Red Top Meadow**	**36.86**	**332**	*e*P	**P**	**09 23 22.9**	**+0.7**
SNOW	**Snow King Moun**	**36.90**	**332**	*e*P	**P**	**09 23 21.9**	**-0.5**
NVAR	**Mina Array Bea**	**37.53**	**320**	P	**P**	**09 23 30.8**	**+2.9**
	comp=E,0.7nm,0.6s,mb3.6,baz=129,slow=13,SNR=2.9						
ULM	**Lac du Bonnet**	**38.66**	**352**	P	**P**	**09 23 34.9**	**-2.2**
	comp=E,7.4nm,0.7s,mb4.6,baz=168,slow=9.9,SNR=13						
DGMT	**Dagmar**	**38.72**	**343**	*e*P	**P**	**09 23 35.6**	**-2.0**
	comp=E,17nm,0.6s,mb5.0						
MCMT	**McKenzie Canyo**	**38.91**	**332**	*e*P	**P**	**09 23 40.6**	**+1.4**
BDFB	**Brasilia**	**48.37**	**124**	LR	LR	09 45 16.8	
	comp=E,88nm,18.8s,MS3.8,baz=203,slow=36						
YKA	**Yellowknife Ar**	**53.85**	**345**	P	**P**	**09 25 35.5**	**-1.3**
	comp=E,1.8nm,0.7s,mb4.1,baz=138,slow=7.9,SNR=41						
YKA				PcP	PcP	09 26 42.0	+0.2
	comp=E,0.9nm,0.8s,baz=143,slow=4.2,SNR=11						
YKA	**Yellowknife Ar**	**53.85**	**345**	P	**P**	**09 25 35.5**	**-1.3**
YKA				PcP	PcP	09 26 42.0	+0.2
ILAR	**Eielson Array**	**66.12**	**336**	P	**P**	**09 27 00.3**	**-0.4**
	comp=E,1.0nm,1.0s,mb3.8,baz=133,slow=4.0,SNR=6.6						
ASAR	**Alice Springs**	**138.37**	**248**	PKP	PKPdf	09 35 43.3	+5.8
	comp=E,0.4nm,0.7s,baz=156,slow=1.5,SNR=4.6						
CMAR	**Chiang Mai Arr**	**148.92**	**347**	PKPbc	PKPdf	09 36 01.2	+5.4
	comp=E,1.7nm,0.6s,baz=328,slow=3.2,SNR=8.8						

NIED ***07*** *09:30:00,42.90N×145.00E,h44*^{km}*,Mw4.4 Best double couple: M*$_0$*4.97×10*^{15} *NP1:*ϕ_s*27°,δ64°,λ78°. NP2:*ϕ_s*234°, δ28°,λ114°.*

BJI ***07*** *09:30:21.7,42.69N×145.45E,h43*^{km}*,mB5.3,mb4.8, Ms4.3,Msz4.1*

MOS ***07*** *09:30:25.6±1.0,42.87N×145.11E,h54*^{km}*,mb4.6/20, MS4.2/4,Error ellipse: s-maj=15.3km s-min=7.8km az=110.9*

NEIC ***07*** *09:30:27.5±0.8,43.01N×144.89E,h44*^{km}*±7*^{km}*,mb4.8/24, MW4.4(NIED),Error ellipse: s-maj=6.3km s-min=5.3km az=117.0*

NEIC Recorded [3 JMA] in the Bekkai area and [2 JMA] in eastern Hokkaido.

IDC ***07*** *09:30:28.4±0.6,42.96N×144.97E,h54*^{km}*±5*^{km}*,mb4.1/19, mb1 4.4/20,mb1mx4.3/23,MS3.5/3,Ms1 3.6/3, ms1mx3.2/26,Error ellipse: s-maj=13.6km s-min=12.3km az=108.0*

SKHL ***07*** *09:30:28.5±1.0,43.00N×145.07E,h69*^{km}*±10*^{km}*,mb4.8/5*

JMA ***07*** *09:30:28.0±0.1,42.94N×145.02E,h51*^{km}*±1*^{km}*,M4.5*

JMA Felt III J1.

ISC 07 09:30:26.6±0.4**,42.93N**±0.03×**145.01E**±0.04**,h56**^{km}±2^{km}**, h50**^{km}±4.2^{km}**:pP-P,n172,**σ**0**^{s}**98**/164**,mb4.7**/63**,MS4.0**/7**, 25C-11D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.24**	**286**	⇓P	**P**	**09 30 36.7**	**+0.8**
JAK				S	**S**	**09 30 42.9**	**+0.3**
JNK	**Nakash**	**0.69**	**342**	⇓P	**P**	**09 30 41.3**	**+0.8**
JNK				*e*S	**S**	**09 30 50.5**	**-0.4**
NEM2	**Nemuro 2**	**0.69**	**51**	⇑P	**P**	**09 30 41.1**	**+0.5**
NEM2				*e*S	**S**	**09 30 50.4**	**-0.6**
JOB	**Onbets**	**0.86**	**268**	⇓P	**P**	**09 30 43.9**	**+1.1**
JOB				S	**S**	**09 30 55.4**	**+0.5**
JAR	**Ashorobuto**	**0.98**	**292**	⇓P	**P**	**09 30 45.6**	**+1.2**
JAR				*e*S	**S**	**09 30 58.0**	**+0.4**
JRA	**Rausu**	**1.01**	**5**	⇓P	**P**	**09 30 45.8**	**+0.9**
JRA				*e*S	**S**	**09 30 58.6**	**+0.2**
JCH	**Churui**	**1.25**	**256**	⇓P	**P**	**09 30 48.7**	**+0.5**
JCH				*e*S	**S**	**09 31 04.2**	**-0.1**
YUK	**Yuzh-Kuril'sk**	**1.27**	**29**	⇑*i*PN	**P**	**09 30 48.2**	**-0.3**
YUK				*i*S	**S**	**09 31 03.6**	**-1.1**
YUK				pmax	pmax		
	comp=Z,5µm,0.8s						
YUK				pmax	pmax		
	comp=Z,3µm,0.3s						
YUK				pmax	pmax		
	comp=N,2µm,0.5s						
YUK				pmax	pmax		
	comp=E,1µm,0.3s						
YUK				smax			
	comp=N,22µm,0.5s						
YUK				smax			
	comp=E,11µm,0.4s						
YUK				smax			
	comp=N,30µm,0.8s						
YUK				smax			
	comp=E,35µm,1.0s						
YUK	**Yuzh-Kuril'sk**	**1.27**	**29**	⇑*i*P	**P**	**09 30 48.2**	**-0.3**
YUK				⇑*i*P		09 30 48.2	
YUK				AMB	AMB	09 30 48.8	
	comp=E,5µm,0.8s						
YUK				AMB	AMB	09 30 49.2	
	comp=E,2µm,0.4s						
YUK				AMB	AMB	09 30 49.2	
	comp=E,1µm,0.4s						
YUK				AMB	AMB	09 30 49.2	
	comp=E,3µm,0.4s						
YUK				*i*S	**S**	**09 31 03.6**	**-1.1**
YUK				A		09 31 05.0	
	comp=E,22µm,0.5s						
YUK				A		09 31 05.0	
	comp=E,11µm,0.5s						
YUK				A		09 31 06.0	
	comp=E,30µm,1.0s						
YUK				A		09 31 06.0	
	comp=E,35µm,1.0s						
JTKR	**Abashiri--Toko**	**1.31**	**323**	⇓P	**P**	**09 30 50.5**	**+1.3**
JTKR				*e*S	**S**	**09 31 07.7**	**+1.8**
ASAJ	**Asahikawa**	**2.11**	**305**	P	**P**	**09 31 02.4**	**+2.0**
	comp=E,274nm,0.3s,baz=130,slow=8.9,SNR=440						
ASAJ				S	**S**	**09 31 21.8**	**-3.6**
	comp=E,144nm,0.3s,baz=13,slow=23,SNR=6.2						
ASAJ	**Asahikawa**	**2.11**	**305**	PN	**P**	**09 31 02.4**	**+2.1**
ASAJ				S	**S**	**09 31 21.8**	**-3.6**
ASAJ				pmax	pmax		
	comp=Z,274nm,0.3s						
KUR	**Kuril'sk**	**3.09**	**41**	⇑*i*PN	**P**	**09 31 12.8**	**-1.4**
KUR				*e*S	**S**	**09 31 48.2**	**-1.9**
KUR				pmax	pmax		
	comp=Z,240nm,54.0s						
KUR				smax			
	comp=N,1µm,0.6s						
KUR				smax			
	comp=E,1µm,0.6s						
KUR	**Kuril'sk**	**3.09**	**41**	⇑*i*P	**P**	**09 31 12.8**	**-1.4**
KUR				AMB	AMB	09 31 13.4	
	comp=E,240nm,0.5s						
KUR				*e*S	**S**	**09 31 48.2**	**-1.9**
KUR				A		09 32 02.0	
	comp=E,1µm,0.6s						
KUR				A		09 32 02.0	
	comp=E,1µm,0.6s						
YSS	**Yuzh-Sakhalins**	**4.33**	**339**	*e*Pn	**P**	**09 31 29.5**	**-2.1**
YSS	**Yuzh-Sakhalins**	**4.33**	**339**	*e*P	**P**	**09 31 32.0**	**+0.4**
YSS				*e*S	**S**	**09 32 21.2**	**-0.1**
YSS				A		09 32 22.0	
	comp=E,70nm,0.8s						
TYV	**Tymovskoe**	**8.09**	**349**	*e*P	**P**	**09 32 22.0**	**-2.0**
MAJO	**Matsushiro**	**8.25**	**222**	*e*P	**P**	**09 32 24.3**	**-1.9**
MAT	**Matsushiro**	**8.25**	**222**	P	**P**	**09 32 24.7**	**-1.5**
MAT				*e*S	**S**	**09 33 57.6**	**-1.4**
MAT	**Matsushiro**	**8.25**	**222**	*e*P	**P**	**09 32 25.0**	**-1.2**
	comp=E,18nm,0.7s						
MAT				S	**S**	**09 33 58.0**	**-1.0**
GRNR	**Gornyy**	**9.79**	**326**	*e*P	**P**	**09 32 47.1**	**-0.1**
JHJ	**Hachijo jima 2**	**10.62**	**204**	LR	LR	09 36 51.9	
	comp=E,186nm,18.1s,baz=120,slow=36						
SKR	**Severo-Kuril's**	**10.86**	**41**	*e*P	**P**	**09 33 02.0**	**+0.3**
KLR	**Kul'dur**	**11.15**	**309**	*e*P	**P**	**09 33 05.7**	**+0.1**
EKMR	**Ekimchan**	**12.94**	**326**	*e*P	**P**	**09 33 28.2**	**-1.5**
EKMR				AMB	AMB	09 33 31.7	
	comp=E,14nm,0.9s						
CN2	**Changchun**	**14.26**	**280**	*e*P	**P**	**09 33 46.9**	**+0.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
YASR	**Yasnyy**	**15.34**	**318**	*e*P	**P**	**09 34 01.2**	**+0.4**
YASR				AMB	AMB	09 34 06.0	
	comp=Z,1.0nm,0.7s						
YASR				AMB	AMB	09 34 06.0	
	comp=Z,3.0nm,0.7s						
YASR				AMB	AMB	09 34 06.0	
	comp=Z,5.0nm,0.7s						
BMKR	**Bomnak**	**15.83**	**324**	*e*P	**P**	**09 34 05.2**	**-1.9**
BMKR				AMB	AMB	09 34 06.0	
	comp=Z,11nm,0.7s						
KROS	**Kirovskiy**	**16.50**	**320**	*e*P	**P**	**09 34 14.5**	**-1.0**
HIA	**Hailar**	**18.58**	**299**	*e*P	**P**	**09 34 38.6**	**-2.6**
	comp=Z,7.2nm,0.4s						
JOW	**Kunigami**	**21.07**	**226**	LR	LR	09 43 42.7	
	comp=Z,177nm,20.1s,MS3.4,baz=67,slow=38						
YAK	**Yakutsk**	**21.18**	**340**	*i*P	**P**	**09 35 09.5**	**+0.5**
YAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.2						
BJI	**Beijing**	**21.75**	**272**	*e*P	**P**	**09 35 14.4**	**-0.4**
BJI				AMB	AMB		
	comp=Z,30nm,0.6s,mb4.9						
BJI	**Beijing**	**21.75**	**272**	*e*P	**P**	**09 35 14.4**	**-0.4**
	comp=Z,30nm,0.6s,mb4.9						
BJT	**Baijiatuau**	**21.76**	**272**	*e*P	**P**	**09 35 13.2**	**-1.7**
	comp=Z,22nm,0.4s,mb5.0						
SSE	**Sheshan**	**22.31**	**246**	*e*P	**P**	**09 35 14.5**	**-5.9**
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb4.8						
SSE				AMB	AMB		
	comp=Z,151nm,10.0s						
SSE	**Sheshan**	**22.31**	**246**	*e*P	**P**	**09 35 14.5**	**-5.9**
	comp=Z,25nm,0.7s,mb4.8						
NJ2	**Nanjing**	**23.33**	**251**	*e*P	**P**	**09 35 26.2**	**-4.2**
NJ2				AP		09 35 35.3	
NJ2				XP		09 35 40.0	
NJ2				PP	PP	09 35 58.1	-5.0
NJ2				PPP	PPP	09 36 08.8	-4.8
NJ2				S	**S**	**09 39 38.0**	**+2.7**
NJ2				XS		09 39 54.0	
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
NJ2				AMB	AMB		
	comp=Z,600nm,4.3s						
NJ2				LR	LR		
	comp=N,370nm,12.3s,MS4.2						
NJ2				LR	LR		
	comp=E,430nm,13.7s,MS4.2						
NJ2				LR	LR		
	comp=Z,290nm,13.1s,MS3.9						
HHC	**Hu-ho-hao-te**	**24.89**	**277**	*e*P	**P**	**09 35 43.9**	**-1.5**
HHC				AMB	AMB		
	comp=Z,24nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,308nm,5.2s						
BTO	**Baotou**	**26.09**	**277**	*e*P	**P**	**09 35 57.3**	**+0.7**
BTO				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.7						
ULN	**Ulaanbaatar**	**26.91**	**294**	*e*P	**P**	**09 36 04.0**	**-0.2**
	comp=Z,8.5nm,0.9s,mb4.3						
WHN	**Wuhan**	**27.35**	**253**	*e*P	**P**	**09 36 09.0**	**+0.7**
SONM	**Songino Array**	**27.36**	**294**	P	**P**	**09 36 07.9**	**-0.3**
	comp=Z,12nm,0.7s,mb4.5,baz=82,slow=7.9,SNR=62						
TLY	**Talaya**	**29.04**	**302**	*i*P	**P**	**09 36 24.4**	**+1.1**
TLY				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
TLY				MLR	MLR		
	comp=Z,200nm,19.0s,MS3.8						
ZAK	**Zakamensk**	**29.27**	**299**	*e*P	**P**	**09 36 25.1**	**-0.3**
XAN	**Xi'an**	**29.42**	**265**	P	**P**	**09 36 26.7**	**-0.2**
XAN				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.4						
ENH	**Enshi**	**30.96**	**258**	P	**P**	**09 36 38.7**	**-1.8**
	comp=Z,8.8nm,0.6s,mb4.8						
LZH	**Lanzhou**	**32.24**	**272**	*e*P	**P**	**09 36 52.0**	**+0.3**
LZH				AP	pP	09 36 59.5	-6.4
LZH				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.1						
LZH	**Lanzhou**	**32.24**	**272**	*e*P	**P**	**09 36 52.0**	**+0.3**
	comp=Z,30nm,1.0s,mb5.1						
LZH				pP	pP	09 36 59.5	-6.4
LZH				sP	sP	09 37 02.0	-11
GTA	**Gaotai**	**33.89**	**280**	*e*P	**P**	**09 37 05.6**	**-0.3**
GTA				PCP	PcP	09 39 44.8	+1.1
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.4						
CD2	**Chengdu**	**34.76**	**264**	P	**P**	**09 37 13.0**	**-0.5**
CD2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
KMI	**Kunming**	**38.81**	**257**	*e*P	**P**	**09 37 48.8**	**+1.3**
KMI				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.8						
KMI	**Kunming**	**38.81**	**257**	*e*P	**P**	**09 37 48.8**	**+1.3**
	comp=Z,19nm,1.0s,mb4.8						
ZAL	**Zalesovo**	**40.26**	**307**	P	**P**	**09 37 59.5**	**+0.1**
	comp=Z,1.6nm,0.5s,mb4.0,baz=35,slow=7.3,SNR=5.5						
ZAL				pP	pP	09 38 14.3	+0.4
	comp=Z,1.3nm,0.5s,baz=28,slow=6.3,SNR=3.1						
ZAL				PcP	PcP	09 40 02.6	-0.3
	comp=Z,4.7nm,0.5s,baz=16,slow=3.1,SNR=12						
ZAL	**Zalesovo**	**40.26**	**307**	P	**P**	**09 37 59.5**	**+0.2**
ZAL				*PP	pP	09 38 14.3	+0.4
ZAL						09 40 02.6	
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ZAL	**Zalesovo**	**40.26**	**307**	P	**P**	**09 37 59.5**	**+0.1**
ZAL				pP	pP	09 38 14.3	+0.4
ZAL				PcP	PcP	09 40 02.6	-0.3
COLA	**College**	**42.65**	**36**	*e*P	**P**	**09 38 19.4**	**+0.7**
	comp=Z,8.9nm,0.7s,mb4.6						
ILAR	**Eielson Array**	**43.07**	**36**	P	**P**	**09 38 22.4**	**+0.3**
	comp=Z,3.2nm,0.7s,mb4.1,baz=262,slow=6.0,SNR=63						
ILAR				LR	LR	09 59 03.3	
	comp=Z,57nm,19.4s,MS3.5,baz=87,slow=40						
ILAR	**Eielson Array**	**43.07**	**36**	P	**P**	**09 38 22.4**	**+0.3**
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ILAR				MLR	MLR		
	comp=Z,57nm,19.4s						
MKAR	**Makanchi Array**	**43.58**	**298**	*i*P	**P**	**09 38 26.5**	**0.0**
MKAR				pmax	pmax		
	comp=Z,18nm,0.7s						
KURK	**Kurchatov**	**44.69**	**304**	P	**P**	**09 38 35.1**	**-0.3**
KURK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.3						
KURK	**Kurchatov**	**44.69**	**304**	⇑*e*P	**P**	**09 38 34.9**	**-0.5**
	comp=Z,9.9nm,0.8s,mb4.7						
KURK				*e*PcP	PcP	09 40 17.1	-0.5
CHG	**Chiang Mai**	**45.55**	**253**	⇑P	**P**	**09 38 43.4**	**+0.7**
	comp=Z,14nm,0.6s,mb5.0						
CMAR	**Chiang Mai Arr**	**45.79**	**252**	P	**P**	**09 38 45.2**	**+0.6**
	comp=Z,5.8nm,0.9s,mb4.5,baz=46,slow=7.2,SNR=18						
CMAR	**Chiang Mai Arr**	**45.79**	**252**	P	**P**	**09 38 45.2**	**+0.6**
CMAR				pmax	pmax		

	comp=Z,6.0nm,0.9s						
CHKZ	**Chkalovo**	48.47	310	P	P	09 39 04.2	-0.9
CHKZ				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
CHKZ	**Chkalovo**	48.47	310	eP	P	09 39 03.8	-1.3
	comp=Z,5.1nm,0.7s,mb4.7						
BVA0	**Borovoye Array**	48.81	309	P	P	09 39 07.6	-0.1
BRVK	**Borovoye**	48.86	309	eP	P	09 39 07.7	-0.4
	comp=Z,7.4nm,0.8s,mb4.8						
BRVK				ePcP	PcP	09 40 31.9	-0.4
TKM2	**Tokmak 2**	49.44	295	eP	P	09 39 12.4	-0.3
	comp=Z,15nm,0.7s,mb5.1						
GUN	**Gumba**	49.49	273	eP	P	09 39 13.6	+0.2
	comp=Z,35nm,0.6s,mb5.5						
KKN	**Kakani**	50.00	273	eP	P	09 39 17.6	+0.3
	comp=Z,18nm,0.6s,mb5.3						
PKI	**Pulchoki**	50.03	272	eP	P	09 39 17.4	-0.1
	comp=Z,9.3nm,0.6s,mb5.0						
DMN	**Daman**	50.23	273	eP	P	09 39 19.1	+0.1
	comp=Z,14nm,0.6s,mb5.2						
AAK	**Ala-Archa**	50.30	295	d iP	P	09 39 18.3	-1.0
AAK				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
AAK				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.2						
GKN	**Gorkha**	50.35	273	eP	P	09 39 19.6	-0.4
	comp=Z,14nm,0.5s,mb5.2						
EKS2	**Erkin-Say**	50.76	296	eP	P	09 39 21.7	-1.1
	comp=Z,6.1nm,0.5s,mb4.8						
EKS2				ePcP	PcP	09 40 38.5	-0.8
KOLN	**Koldanda**	51.24	274	eP	P	09 39 26.8	+0.1
	comp=Z,20nm,0.5s,mb5.3						
ARU	**Arti**	53.87	317	iP	P	09 39 44.9	-1.0
ARU				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.2						
ARU				MLR	MLR		
	comp=Z,400nm,20.0s,MS4.5						
NDI	**New Delhi**	55.39	279	e	P	09 39 55.0	-2.3
YKA	**Yellowknife Ar**	57.34	33	P	P	09 40 10.2	-0.6
	comp=Z,2.2nm,0.9s,mb4.2,baz=303,slow=6.6,SNR=28						
YKA	**Yellowknife Ar**	57.34	33	P	P	09 40 10.2	-0.6
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA	**Yellowknife Ar**	57.34	33	P	P	09 40 10.2	-0.6
KEV	**Kevo**	58.92	339	ep	P	09 40 19.7	-2.0
	comp=Z,0.5nm,0.3s,mb4.0						
KEV	**Kevo**	58.92	339	eP	P	09 40 19.7	-2.0
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
ARCES	**ARCESS Array B**	59.46	339	P	P	09 40 25.1	-0.3
	comp=Z,4.5nm,1.0s,mb4.5,baz=37,slow=6.1,SNR=4.4						
ARCES	**ARCESS Array B**	59.46	339	P	P	09 40 25.1	-0.4
ARCES				pmax	pmax		
	comp=Z,5.0nm,1.0s						
JOF	**Joensuu**	62.07	332	ep	P	09 40 39.7	-3.5
	comp=Z,1.3nm,0.3s,mb4.5						
JOF	**Joensuu**	62.07	332	eP	P	09 40 39.7	-3.5
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.4						
FITZ	**Fitzroy Crossi**	63.29	201	P	P	09 40 51.9	-0.1
	comp=Z,4.2nm,0.9s,mb4.6,baz=153,slow=1.7,SNR=5.8						
WRA	**Warramunga Arr**	63.33	191	P	P	09 40 51.3	-0.9
	comp=Z,3.2nm,0.9s,mb4.4,baz=11,slow=7.1,SNR=18						
WRA	**Warramunga Arr**	63.33	191	P	P	09 40 51.3	-0.9
WRA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KAF	**Kangasniemi**	64.33	333	ep	P	09 40 56.2	-1.8
	comp=Z,0.6nm,0.3s,mb4.1,baz=43,slow=6.2						
KAF	**Kangasniemi**	64.33	333	eP	P	09 40 56.2	-1.8
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
FINES	**FINESS Array B**	64.88	332	P	P	09 41 00.6	-1.0
	comp=Z,5.7nm,0.5s,mb4.9,baz=49,slow=7.9,SNR=47						
FINES	**FINESS Array B**	64.88	332	P	P	09 41 00.6	-1.0
FINES				pmax	pmax		
	comp=Z,6.0nm,0.5s						
OBN	**Obninsk**	65.04	323	⇓eP	P	09 41 01.7	-1.0
OBN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
OBN				MLR	MLR		
	comp=Z,200nm,12.0s,MS4.5						
BMO	**Blue Mountains**	65.97	51	eP	P	09 41 09.8	+0.9
	comp=Z,6.5nm,0.8s,mb4.7						
VRSR	**Storozhevoye**	66.31	319	c iP	P	09 41 10.3	-0.6
VRSR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,5.0nm,0.6s						
ASAR	**Alice Springs**	67.05	191	P	P	09 41 15.9	-0.1
	comp=E,3.6nm,0.6s,mb4.6,baz=8.6,slow=5.7,SNR=43						
ASAR				pP	pP	09 41 30.5	-1.1
	comp=E,1.5nm,0.7s,baz=3.1,slow=5.1,SNR=5.6						
KIV	**Kislovodsk**	69.13	311	eP	P	09 41 29.5	+0.9
KIV				pmax	pmax		
	comp=N,6.0nm,0.8s						
KIV				pmax	pmax		
	comp=E,10.0nm,0.8s						
KIV				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
KIV	**Kislovodsk**	69.13	311	eP	P	09 41 28.2	-0.4
	comp=Z,17nm,0.6s,mb5.2						
NVAR	**Mina Array Bea**	69.34	56	P	P	09 41 31.1	+1.1
	comp=Z,3.0nm,0.7s,mb4.3,baz=303,slow=3.6,SNR=10						
NVAR				pP	pP	09 41 45.5	-0.1
	comp=Z,2.0nm,0.7s,baz=286,slow=7.5,SNR=3.4						
NB2	**NORSAR Subarra**	69.79	338	P	P	09 41 31.7	-0.6
	comp=Z,3.9nm,0.5s,mb4.6,baz=33,slow=6.2						
NOA	**NORSAR Array B**	69.79	338	P	P	09 41 31.7	-0.6
	comp=Z,4.4nm,0.5s,mb4.6,baz=34,slow=6.3,SNR=16						
NOA	**NORSAR Array B**	69.79	338	P	P	09 41 31.7	-0.6
NOA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
SOC	**Sochi**	71.00	312	eP	P	09 41 38.2	-1.8
SOC				e	pP	09 41 51.4	-4.3
SOC				e		09 44 22.5	
SOC				ePPP	PPP	09 45 59.2	-2.0
SOC				e		09 51 37.7	
SOC				eSS	SS	09 55 33.4	+7.0
SOC				eSSS	SSS	09 58 27.1	-5.6
SOC				pmax	pmax		
	comp=Z,2µm,1.4s						
SOC				pmax	pmax		
	comp=N,2µm,1.2s						
SOC				pmax	pmax		
	comp=E,786nm,0.7s						
AKASG	**Malin Array Be**	71.30	323	P	P	09 41 41.0	-0.6
	comp=E,7.2nm,0.6s,mb4.8,baz=40,slow=6.0,SNR=29						
AKASG	**Malin Array Be**	71.30	323	P	P	09 41 41.0	-0.7
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ANN	**Anapa**	71.41	314	eP	P	09 41 35.5	-7.0
ANN				pmax	pmax		
	comp=Z,222nm,2.1s,mb5.7						
PDAR	**Pinedale Array**	71.63	48	P	P	09 41 44.5	+0.7
	comp=Z,1.9nm,0.4s,mb4.3,baz=0.5,slow=1.1,SNR=28						
STKA	**Stephens Creek**	74.51	183	P	P	09 42 01.6	+0.8
	comp=Z,2.1nm,0.7s,mb4.2,baz=320,slow=18,SNR=3.1						
PV10	**Paradox Valley**	74.88	52	eP	P	09 42 04.3	+1.5
KOLS	**Kolonicke sedl**	75.62	325	iP	P	09 42 08.1	+1.3
OJC	**Ojcow**	75.63	327	eP	P	09 42 07.4	+0.5
CRVS	**Cervenica-Dubn**	75.99	325	iP	P	09 42 09.5	+0.6
DPC	**Dobruska-Polom**	76.88	329	eP	P	09 42 14.8	+0.9
BRTR	**Keskin Array B**	76.96	313	P	P	09 42 15.3	+0.7
	comp=Z,1.2nm,0.8s,mb3.9,baz=29,slow=4.3,SNR=3.2						
BRTR	**Keskin Array B**	76.96	313	P	P	09 42 15.4	+0.8
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CLL	**Collm**	77.30	331	⇑iP	P	09 42 16.2	-0.1
CLL				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
CLL	**Collm**	77.30	331	⇑iP	P	09 42 16.2	-0.1
	comp=Z,9.0nm,0.6s,mb4.9						
CLL	**Collm**	77.30	331	⇑P	P	09 42 16.2	-0.1
	comp=Z,logA/T=1.2,mb4.9						
VYHS	**Vyhne**	77.38	327	iP	P	09 42 17.8	+1.0
PRU	**Pruhonice**	77.84	330	eP	P	09 42 19.6	+0.4
MOX	**Moxa**	78.34	332	eP	P	09 42 20.0	-2.0
KHC	**Kasperske Hory**	78.90	330	eP	P	09 42 25.4	+0.3
GERES	**GERESS Array B**	79.09	330	P	P	09 42 26.6	+0.5
	comp=Z,1.4nm,0.5s,mb4.2,baz=34,slow=4.8,SNR=11						
GERES	**GERESS Array B**	79.09	330	P	P	09 42 26.6	+0.4
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GROS	**Grobnik**	80.36	327	iP	P	09 42 33.4	+0.4
LEGS	**Legarje**	80.86	327	iP	P	09 42 35.8	+0.1
ROBS	**Robic**	81.32	328	i	P	09 42 33.0	-5.1
CDF	**Champ du Feu**	81.72	333	eP	P	09 42 40.3	+0.2
	comp=Z,20nm,1.1s,mb4.7						
LDF	**La Druitiere**	83.83	338	eP	P	09 42 51.5	+0.7
SSF	**Saint Saulge**	84.13	335	eP	P	09 42 53.5	+1.2
GRR	**Gorron**	84.22	338	eP	P	09 42 53.8	+1.0
SMF	**Signal de Mont**	84.39	334	eP	P	09 42 54.1	+0.5
	comp=Z,15nm,0.8s,mb4.8						
TXAR	**Lajitas Array**	84.40	55	P	P	09 42 55.1	+1.0
	comp=Z,0.9nm,0.6s,mb4.1,baz=295,slow=3.5,SNR=16						
TXAR				pP	pP	09 43 10.3	+0.1
	comp=Z,2.9nm,1.0s,baz=292,slow=3.9,SNR=9.7						
TXAR	**Lajitas Array**	84.40	55	P	P	09 42 55.1	+1.0
TXAR				pP	pP	09 43 10.3	+0.1
AVF	**Avril sur Loir**	84.42	335	eP	P	09 42 54.3	+0.5
	comp=Z,18nm,1.0s,mb4.8						
LPL	**La Plagne**	84.42	332	eP	P	09 42 54.9	+1.1
SGMF	**Saint Gilles**	84.80	339	eP	P	09 42 56.4	+0.7
ROSF	**Rostrenen**	84.92	339	eP	P	09 42 57.1	+0.9
	comp=Z,49nm,1.1s,mb5.2						
MBDF	**Montbardon**	85.10	332	eP	P	09 42 58.9	+1.7
TCF	**Toulx Ste Croi**	85.22	335	eP	P	09 42 58.6	+0.8
SBF	**Sospel**	85.61	331	eP	P	09 43 00.6	+0.8
MFF	**Saint Martin d**	85.64	337	eP	P	09 43 00.8	+0.9
CAF	**Calviac**	86.49	335	eP	P	09 43 05.6	+1.6
	comp=Z,10nm,0.8s,mb4.8						
ESDC	**Sonseca Array**	93.11	337	P	P	09 43 35.4	+0.1
	comp=Z,0.6nm,0.5s,mb4.2,baz=10,slow=4.6,SNR=5.9						
SVV	**Soufriere Volc**	119.08	29	eT		09 45 27.6	
LVC	**Limon Verde**	145.35	65	PKPbc	PKPbc	09 50 01.8	+3.1
	comp=Z,4.9nm,0.8s,baz=274,slow=3.2,SNR=7.2						
SNAA	**Sanae**	147.20	198	⇑iP	PKPdf	09 50 00.6	+0.7
SNAA	**Sanae**	147.20	198		PKPdf	09 50 02.8	+2.9
SNAA	**Sanae**	147.20	198	⇓i	PKPab	09 50 04.8	-1.3
SNAA	**Sanae**	147.20	198			09 50 06.2	
SNAA	**Sanae**	147.20	198		PKPdf	09 50 11.9	+12
SNAA	**Sanae**	147.20	198		PKPdf	09 50 18.7	+19
VNA2	**Neumayer--Watz**	148.75	197		PKPdf	09 50 15.2	+13
VNA2	**Neumayer--Watz**	148.75	197	⇑i	PKPdf	09 50 22.3	+20
VNA2	**Neumayer--Watz**	148.75	197	⇑i	PKPdf	09 50 26.5	+24
VNA2	**Neumayer--Watz**	148.75	197	⇑i	PKPdf	09 50 27.8	+25
VNA2	**Neumayer--Watz**	148.75	197	PKPdf	PKPdf	09 50 11.5	+9.1
VNA2				P		09 50 15.2	
VNA3	**Neumayer Olymp**	148.97	196	⇓iP	PKPab	09 50 11.9	-1.3
VNA3	**Neumayer Olymp**	148.97	196	⇑i	PKPdf	09 50 16.1	+13
VNA3	**Neumayer Olymp**	148.97	196	⇑i	PKPdf	09 50 22.8	+20
VNA3	**Neumayer Olymp**	148.97	196	⇑i	PKPdf	09 50 27.8	+25
VNA3	**Neumayer Olymp**	148.97	196	⇑iPKPdf	PKPdf	09 50 00.6	-2.1
VNA1	**Neumayer--Stat**	149.15	197	⇑i	PKPdf	09 50 18.2	+15
VNA1	**Neumayer--Stat**	149.15	197	⇑i	PKPdf	09 50 24.7	+22
VNA1	**Neumayer--Stat**	149.15	197	⇑i	PKPdf	09 50 29.9	+27
VNA1	**Neumayer--Stat**	149.15	197	⇑iPKPdf	PKPdf	09 50 13.7	+11
VNA1				⇑iP		09 50 18.2	
BDFB	**Brasilia**	150.60	26	PKPbc	PKPdf	09 50 14.5	+7.6
	comp=Z,5.6nm,0.7s,baz=211,slow=0.9,SNR=7.0						
BDFB	**Brasilia**	150.60	26	PKIKP	PKPdf	09 50 14.5	+7.6
BDFB				pmax	pmax		
	comp=Z,6.0nm,0.7s						

MAN 07 09:38:21.2, 11.87N×124.68E, h93^{km}, mb3.9, ML2.6, MS2.3, 1D, Leyte

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLP	**Palo**	0.77	157	eP	P	09 38 40.0	+1.1
PLP				iS	S	09 38 53.7	+1.8
BESP	**Borongan**	0.79	110	eP	P	09 38 40.4	+1.2
BESP				eS	S	09 38 55.2	+2.8
OCLP	**Ormoc**	0.82	185	eP	P	09 38 38.9	-0.6
LLP	**Lapu-Lapu**	1.70	204	eP	P	09 38 50.5	+0.4
LLP				eS	S	09 39 11.6	+0.2
MSLP	**Maasin**	1.74	174	eP	P	09 38 56.5	+5.9
RCP	**Roxas**	1.92	261	⇓eP	P	09 38 52.4	-0.5
RCP				eS	S	09 39 16.8	+0.5
GUIM	**Jordan**	2.39	239	eP	P	09 38 59.9	+0.4
OTRP	**Odiongan**	2.64	281	eP	P	09 38 56.1	-6.8

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*IDC **07** 09:42:55.2±0.9, 15.60N×61.61W, mb3.8/6, mb1 4.2/7, mb1mx3.9/21, ML6.3/1, MS3.2/1, Ms1 3.3/1, ms1mx2.4/21, Error ellipse: s-maj=12.4km s-min=10.4km az=108.0*

*TRN **07** 09:42:55.2, 15.66N×61.31W, h21^{km}, MD4.2*

*NEIC **07** 09:42:56.7±1.2, 15.57N×61.64W, h10^{km}, mb3.9/2, Error ellipse: s-maj=25.0km s-min=14.8km az=87.0*

NEIC Felt in Saint John and Saint Peter, Dominica.

ISC 07 09:42:56.6±0.7, 15.62N±0.03×61.60W±0.08, h21^{km}±8^{km}, n32, σ1^{s}17/43, mb3.7/8, MS3.1/1, 6C-2D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	**Barber's Block**	0.16	125	⇑iP	Pb	09 42 58.8	-2.5
BBL	**Barber's Block**	0.16	125	⇑iP	Pb	09 43 00.9	-0.5
MDN	**Morne-Daniel**	0.36	146	eP	Pb	09 43 04.8	+0.5
MDN	**Morne-Daniel**	0.36	146	i	Pb	09 43 06.3	+2.0
MDN				eS	Sb	09 43 10.2	+0.7
MGG	**Marie-Galante**	0.41	42	⇑iP	Pb	09 43 03.4	-1.7
DBCT	**Belle View Cho**	0.42	144	eP	Pb	09 43 06.0	+0.6
DSHT	**Scott's Head**	0.46	151	eP	Pb	09 43 07.0	+1.0
DSHT				eS	Sb	09 43 14.2	+1.9
DSTT	**Stowe**	0.47	142	eP	Pb	09 43 05.4	-0.7
DSTT				eS	Sb	09 43 12.6	0.0
SEG	**Port Louis**	0.79	7	⇑iP	Pb	09 43 10.9	-0.6
SEG				eS	Sb	09 43 21.8	+0.1
FDF	**Fort de France**	0.98	154	⇓eP	Pb	09 43 14.2	-0.6
FDF				eS	Sb	09 43 28.0	+0.7
CRM	**Caravelle**	1.08	142	⇑eP	Pb	09 43 14.8	-1.8
CRM				⇑eS	Sb	09 43 29.8	-0.5
BIM	**Bigot**	1.21	155	eP	Pb	09 43 18.0	-0.7
MVM	**Montagne Vaucl**	1.26	147	⇓eP	Pn	09 43 18.0	-1.2
MVM				eS	Sb	09 43 34.9	-0.4
BPA	**Boggy Peak**	1.44	350	eP	Pn	09 43 22.0	+0.2
BPA				eS	Sb	09 43 42.7	+2.1
CPB	**Codrington**	2.02	354	eP	Pn	09 43 30.3	+0.2
CPB				eS	Sn	09 43 58.6	+3.6
SVV	**Soufriere Volc**	2.31	171	eP	Pn	09 43 32.5	-1.8
SABT	**Saba**	2.54	322	eP	Pn	09 43 38.4	+0.9
SABT				eS	Sn	09 44 12.2	+4.1
GRW	**Mount Saint Ca**	3.44	181	eP	Pn	09 43 51.7	+1.4
TRN	**Trinidad (W)**	4.94	178	eP	Pn	09 44 13.0	+1.3
TRN				eS	Sn	09 45 13.0	+4.1
SJG	**San Juan**	5.01	300	Pn	Pn	09 44 12.9	+0.3
	24nm,0.3s,baz=335,slow=23,SNR=10.0						
SJG				Sn	Sn	09 45 09.6	-1.0
	8.0nm,0.3s,baz=66,slow=21,SNR=3.5						
SDV	**Santo Domingo**	11.07	234	eP	P	09 45 34.1	-3.0
	7.3nm,0.6s						
SAML	**Samuel**	24.46	184	eP	P	09 48 15.9	+0.4
	2.6nm,0.6s,mb3.8						
LPAZ	**La Paz**	32.35	192	LR	LR	10 04 19.7	
	comp=Z,39nm,18.9s,MS3.1,baz=247,slow=40						
WMOK	**Wichita Mounta**	38.37	307	P	P	09 50 17.1	-1.1
	1.3nm,0.6s,mb3.8						
TXAR	**Lajitas Array**	40.98	297	P	P	09 50 38.9	-0.9
	0.7nm,0.8s,mb3.3,baz=101,slow=6.4,SNR=6.5						
ULM	**Lac du Bonnet**	44.25	329	P	P	09 51 06.3	0.0
	1.9nm,0.6s,mb4.0,baz=136,slow=7.5,SNR=2.8						
ULM	**Lac du Bonnet**	44.25	329	P	P	09 51 06.3	0.0
PDAR	**Pinedale Array**	48.99	314	P	P	09 51 44.5	+0.7
	1.2nm,0.9s,mb3.9,baz=111,slow=7.7,SNR=7.3						
NVAR	**Mina Array Bea**	54.48	306	P	P	09 52 26.6	+1.5
	0.4nm,0.5s,mb3.6,baz=99,slow=9.9,SNR=3.3						
YKA	**Yellowknife Ar**	59.59	335	P	P	09 52 59.7	-1.4
	0.6nm,0.5s,mb3.9,baz=106,slow=7.3,SNR=12						
YKA	**Yellowknife Ar**	59.59	335	P	P	09 52 59.7	-1.4
ILAR	**Eielson Array**	74.00	334	P	P	09 54 32.6	+0.4
	0.5nm,0.7s,mb3.5,baz=104,slow=3.7,SNR=4.8						

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*NEIC **07** 10:22:11.4, 35.06S×70.26W, h15^{km}, ML2.6(GUC), After GUC.*

GUC 07 10:22:11.4±0.7, 35.06S×70.26W, h15^{km}±28^{km}, MD4.0, ML2.6, 2C-3D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFDO	**San Fernando**	0.77	305	⇓iP	Pb	10 22 25.2	-0.7
SFDO				iS	Sb	10 22 35.8	-0.1
CACH	**El Canelo**	0.99	343	⇓iP	Pb	10 22 28.6	-1.1
CACH				iS	Sb	10 22 41.7	-0.5
CHCH	**Chadas Angostu**	1.17	344	⇓iP	Pb	10 22 32.1	-0.8
CHCH				iS	Sb	10 22 48.0	+0.3
LMEL	**Las Melosas**	1.21	2	⇑iP	Pb	10 22 32.8	-0.7
LMEL				iS	Sb	10 22 48.8	-0.1
LMEL	**Las Melosas**	1.21	2	eP	Pb	10 22 32.7	-0.9
LMEL				⇑iP		10 22 32.8	
LMEL				iS	Sb	10 22 48.8	-0.1
LMEL				AMP		10 22 50.6	
	comp=N,168nm,0.2s						
PCH	**Pirque**	1.45	351	eP	Pn	10 22 36.7	-0.6
PCH				iS	Sb	10 22 55.7	-0.1
LNV	**Longovilo**	1.46	319	eP	Pn	10 22 36.7	-0.7
LNV				iS	Sb	10 22 55.6	-0.4
CLCH	**Cerro Calan**	1.68	352	eP	Pn	10 22 40.1	-0.4
CLCH				AMP		10 23 04.8	
	comp=E,198nm,0.4s						
FCH	**Farellones**	1.73	359	eP	Pn	10 22 42.1	+0.8
FCH				iS	Sn	10 23 05.0	+1.8
FCH				AMP		10 23 07.2	
	comp=N,114nm,0.2s						

BJI 07 10:36:43.6, 40.43N×98.40E, h19^{km}, ML3.8, Ms3.4, Msz3.5, Western Nei Mongol

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTA	**Gaotai**	1.49	133	PG	Pn	10 37 10.8	+1.1
GTA				SG	Sn	10 37 30.3	+1.6
GTA				Smax			
	comp=N,531nm,0.5s						
GTA				Smax			
	comp=E,824nm,0.5s						
LZH	**Lanzhou**	6.09	134	P	Pn	10 38 15.3	+0.2
LZH				S	Sn	10 39 24.6	-0.5
LZH				SG	Sn	10 39 58.8	+34
LZH				Smax			
	comp=N,110nm,0.6s						
LZH				Smax			
	comp=E,60nm,0.5s						
LZH				LR	LR		
	comp=N,250nm,7.4s						
LZH				LR	LR		
	comp=Z,369nm,8.5s						

IDC 07 10:38:43.0±4.3, 20.40S×67.27W, h234^{km}±18^{km}, mb3.1/2, mb1 3.4/4, mb1mx3.2/13, Error ellipse: s-maj=114.0km s-min=11.3km az=99.0, Southern Bolivia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	2.68	214	P	P	10 39 31.4	0.0
	0.8nm,0.3s,baz=42,slow=8.7,SNR=28						
LVC				S	S	10 40 09.7	+0.7
	2.5nm,0.3s,baz=312,slow=19,SNR=18						
LPAZ	**La Paz**	4.17	349	P	P	10 39 49.3	+0.6
	5.9nm,0.3s,baz=169,slow=9.3,SNR=43						
LPAZ				S	S	10 40 41.1	+1.4
	baz=246,slow=20,SNR=2.8						
PDAR	**Pinedale Array**	73.94	329	P	P	10 49 53.2	-1.3
	0.2nm,0.4s,baz=127,slow=9.0,SNR=3.5						
YKA	**Yellowknife Ar**	90.67	340	P	P	10 51 18.1	-1.6
	0.2nm,0.4s,baz=130,slow=5.0,SNR=5.0						

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*JMA **07** 10:39:31.4±0.2, 44.54N×141.72E, h236^{km}±2^{km}, M3.2*

*IDC **07** 10:39:34.9±1.7, 44.51N×143.48E, h210^{km}±22^{km}, mb3.4/4, mb1 3.7/4, mb1mx3.2/22, Error ellipse: s-maj=110.0km s-min=48.9km az=161.0*

ISC 07 10:39:31.0±0.6, 44.51N±0.05×141.7E±0.1, h236^{km}±4^{km}, n23, σ0^{s}72/37, mb3.7/4, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSS	**Shosan**	0.17	133	P	P	10 40 02.4	+0.5
JSS				eS	S	10 40 25.9	+0.2
JYG	**Yagishiri**	0.20	245	P	P	10 40 02.0	+0.1
JRR	**Rishiri**	0.68	337	P	P	10 40 03.5	+0.3
ASAJ	**Asahikawa**	0.77	121	P	P	10 40 03.5	-0.1
	10nm,0.3s,baz=254,slow=7.8,SNR=65						
ASAJ				S	S	10 40 27.8	-1.1
	1.4nm,0.3s,baz=148,slow=21,SNR=5.4						
ASAJ	**Asahikawa**	0.77	121	P	P	10 40 03.6	0.0
ASAJ				eS	S	10 40 28.6	-0.3
JHR	**Hokuryu**	0.77	178	P	P	10 40 04.3	+0.7
JSE	**Soyaes**	0.78	55	P	P	10 40 03.4	-0.2
JSE				eS	S	10 40 28.0	-1.0
JWK2	**Keihoku**	0.82	11	P	P	10 40 03.8	0.0
JWK2				eS	S	10 40 28.8	-0.5
JKK2	**Kamakawa 2**	1.00	130	P	P	10 40 05.1	+0.4
JKK2				eS	S	10 40 31.1	+0.1
JAB	**Ashibetsu**	1.08	159	P	P	10 40 05.7	+0.4
JMP	**Maruseppu**	1.30	112	P	P	10 40 07.4	+0.5
JMP				eS	S	10 40 34.6	-0.1
JSK	**Shakotan**	1.45	217	P	P	10 40 08.2	+0.2
JFR	**Furan**	1.50	154	P	P	10 40 08.3	-0.1
JFR				S	S	10 40 36.5	-0.8
JEW	**Eniwo**	1.68	186	P	P	10 40 10.6	+0.7
JEW				S	S	10 40 41.0	+1.1
JTKR	**Abashiri--Toko**	1.69	108	P	P	10 40 10.5	+0.6
JTKR				eS	S	10 40 40.3	+0.3
JAR	**Ashorobuto**	1.94	128	P	P	10 40 12.8	+0.7
JAR				S	S	10 40 45.2	+1.4
JCH	**Churui**	2.26	147	P	P	10 40 14.2	-1.0
JCH				eS	S	10 40 46.4	-3.0
JNBK	**Urakawa-nobuka**	2.36	160	P	P	10 40 16.5	+0.2
JNBK				eS	S	10 40 51.3	-0.1
JKB	**Kayabe**	2.67	191	P	P	10 40 18.8	-0.7
JKB				eS	S	10 40 55.9	-1.2
FX1	**Attu Island--F**	22.25	57	P	P	10 44 03.8	-4.9
	42nm,0.9s,mb5.0,baz=243,slow=16,SNR=3.4						
ILAR	**Eielson Array**	43.20	36	P	P	10 47 08.7	-1.1
	0.2nm,0.4s,mb2.9,baz=247,slow=6.2,SNR=4.5						
YKA	**Yellowknife Ar**	57.31	32	P	P	10 48 55.3	-0.4
	0.7nm,0.7s,mb3.4,baz=306,slow=6.8,SNR=14						
PDAR	**Pinedale Array**	72.35	47	P	P	10 50 33.1	+0.7
	0.6nm,0.4s,mb3.6,baz=294,slow=1.9,SNR=7.0						

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*IDC **07** 10:51:43.1±0.8, 14.14N×120.71E, h140^{km}±5^{km}, mb3.4/6, mb1 3.6/6, mb1mx3.4/17, MS3.1/1, Ms1 3.1/1, ms1mx2.4/12, Error ellipse: s-maj=38.5km s-min=16.3km az=64.0*

*MAN **07** 10:51:44.4, 14.18N×120.50E, h106^{km}, mb3.9, ML2.7, MS2.5*

ISC 07 10:51:41.2±0.6, 14.15N±0.05×120.36E±0.10, h140^{km}±4^{km}, n24, σ1^{s}06/31, mb3.6/5, 3C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	**Lubang**	0.43	194	eP	P	10 52 04.0	+2.3
LUBP	**Lubang**	0.43	194	eP	P	10 52 02.8	+1.2
LUBP				eS	S	10 52 16.4	-0.8
TGY	**Tagaytay City**	0.56	95	iS	P	10 52 02.7	+0.4
TGY	**Tagaytay City**	0.56	95	P	P	10 52 02.1	-0.2
	178nm,0.3s,baz=68,slow=0.1,SNR=10						
TGY				S	S	10 52 18.1	-0.3
	352nm,0.3s,baz=326,slow=22,SNR=17						
NBP	**Mount Natib**	0.59	6	eP	P	10 52 02.9	+0.5
LBPH	**Los Banos**	0.80	90	⇑eP	P	10 52 00.3	-3.5
QVPH	**Quezon City--P**	0.84	54	⇑eP	P	10 52 03.6	-0.4
QVPH				iS	S	10 52 17.3	-4.2
ARP	**Angono**	0.86	64	⇑eP	P	10 52 03.7	-0.5
ARP	**Angono**	0.86	64	eP	P	10 52 03.5	-0.7
LQP	**Lukban**	1.15	92	eP	P	10 52 06.9	+0.2
LQP				iS	S	10 52 31.4	+5.2
PCPH	**Palayan**	1.57	27	⇓eP	P	10 52 10.4	-0.8
PCPH				iS	S	10 52 32.4	-1.8
BOAC	**Boac**	1.60	115	eP	P	10 52 12.9	+1.4
BOAC				eS	S	10 52 36.4	+1.6
POLP	**Polilio Island**	1.64	69	eP	P	10 52 12.2	+0.3
POLP				eS	S	10 52 20.4	-15
SCZP	**Santa Cruz**	1.67	345	eP	P	10 52 12.9	+0.7
SJMP	**San Jose**	1.84	156	eP	P	10 52 15.1	+0.9
SJMP				eS	S	10 52 38.4	-1.1
BALP	**Baler**	1.97	37	eP	P	10 52 16.6	+0.9
OTRP	**Odiongan**	2.41	138	eP	P	10 52 31.2	+10
JOW	**Kunigami**	14.63	29	LR	LR	11 00 33.4	
	comp=Z,85nm,21.8s,baz=140,slow=37						
CMAR	**Chiang Mai Arr**	20.99	285	P	P	10 56 19.6	+4.7
	1.0nm,0.5s,baz=104,slow=7.4,SNR=4.6						
SONM	**Songino Array**	35.53	344	P	P	10 58 27.5	+1.0
	0.9nm,0.7s,mb3.5,baz=166,slow=9.9,SNR=7.6						
WRA	**Warramunga Arr**	36.57	158	P	P	10 58 33.7	-1.7

	0.8nm,0.6s,mb3.5,baz=341,slow=9.4,SNR=5.1						
ASAR	**Alice Springs**	**39.85**	**160**	P	**P**	**10 59 01.8**	**-1.0**
	0.9nm,0.4s,mb3.7,baz=334,slow=7.1,SNR=16						
STKA	**Stephens Creek**	**50.09**	**156**	P	**P**	**11 00 23.8**	**-0.3**
	1.4nm,0.8s,mb3.6,baz=350,slow=6.1,SNR=2.1						
YKA	**Yellowknife Ar**	**92.49**	**22**	P	**P**	**11 04 37.5**	**+0.3**
	0.3nm,0.6s,mb3.5,baz=305,slow=4.4,SNR=6.5						

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*IDC **07** 11:07:10.8±0.9, 13.93N×144.90E, mb4.1/9, mb1 4.3/9, mb1mx4.1/21, Error ellipse: s-maj=65.5km s-min=15.9km az=110.0*

*NEIC **07** 11:07:25.4±0.6, 13.79N×144.68E, h121^{km}±6^{km}, mb4.3/7, Error ellipse: s-maj=23.4km s-min=7.9km az=102.0*

ISC 07 11:07:23.8±0.7**, 13.75N**±0.08×**144.7E**±0.2**, h118**^{km}±6^{km}**, n25, σ1^{s}06**/24**, mb4.0**/13**, 2D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	**Guam**	**0.26**	**128**	⇓*i*Pg	**P**	**11 07 40.8**	**+0.4**
GUMO				*e*Sg	**S**	**11 07 51.2**	**-1.8**
ANAT	**Anatahan**	**2.76**	**20**	*e*P	**P**	**11 08 09.3**	**+1.5**
SARN	**Sarigan**	**3.12**	**20**	⇓*e*P	**P**	**11 08 14.3**	**+1.6**
PMG	**Port Moresby**	**23.14**	**174**	P	**P**	**11 12 20.5**	**+0.1**
	1.5nm,0.5s,mb3.6,baz=4.1,slow=14,SNR=3.2						
PMG	**Port Moresby**	**23.14**	**174**	P	**P**	**11 12 20.5**	**+0.1**
CTA	**Charters Tower**	**33.66**	**177**	P	**P**	**11 13 55.6**	**+0.1**
	6.8nm,1.1s,mb4.4,baz=252,slow=13,SNR=5.4						
CTAO	**Charters Tower**	**33.66**	**177**	*e*P	**P**	**11 13 55.1**	**-0.4**
	3.8nm,0.7s,mb4.3						
WRAB	**Tennant Creek**	**34.97**	**197**	*e*P	**P**	**11 14 06.3**	**-0.3**
	4.0nm,0.6s,mb4.4						
WB2	**Warramunga Arr**	**34.98**	**197**	*e*P	**P**	**11 14 07.1**	**+0.4**
WRA	**Warramunga Arr**	**34.98**	**197**	P	**P**	**11 14 07.0**	**+0.2**
	3.5nm,0.6s,mb4.4,baz=18,slow=9.2,SNR=22						
FITZ	**Fitzroy Crossi**	**36.79**	**211**	*e*P	**P**	**11 14 23.0**	**+1.0**
	1.3nm,0.2s,mb4.5						
FITZ	**Fitzroy Crossi**	**36.79**	**211**	P	**P**	**11 14 23.1**	**+1.1**
	2.1nm,0.3s,mb4.5,baz=31,slow=8.3,SNR=38						
ASAR	**Alice Springs**	**38.64**	**196**	P	**P**	**11 14 37.8**	**+0.4**
	1.1nm,0.5s,mb4.0,baz=20,slow=13,SNR=14						
ASPA	**Alice Springs**	**38.64**	**196**	*e*P	**P**	**11 14 38.3**	**+0.9**
MBWA	**Marble Bar**	**42.46**	**216**	*e*P	**P**	**11 15 09.3**	**+0.4**
	3.0nm,0.5s,mb4.3						
STKA	**Stephens Creek**	**45.46**	**184**	*e*P	**P**	**11 15 32.9**	**0.0**
	3.9nm,1.0s,mb4.1						
STKA	**Stephens Creek**	**45.46**	**184**	P	**P**	**11 15 32.0**	**-0.8**
	3.7nm,1.0s,mb4.1,baz=313,slow=20,SNR=5.0						
KURK	**Kurchatov**	**64.33**	**320**	P	**P**	**11 17 46.1**	**-2.8**
	1.6nm,0.6s,mb4.0						
ILAR	**Eielson Array**	**68.51**	**25**	P	**P**	**11 18 12.6**	**-2.6**
	0.5nm,0.6s,mb3.5,baz=254,slow=5.5,SNR=6.2						
ILAR				PcP	PcP	11 18 39.6	+0.1
	0.2nm,0.4s,baz=253,slow=5.9,SNR=3.0						
CHKZ	**Chkalovo**	**69.59**	**322**	P	**P**	**11 18 21.4**	**-0.6**
	0.3nm,0.4s,mb3.5						
YKA	**Yellowknife Ar**	**82.81**	**27**	P	**P**	**11 19 35.3**	**-0.6**
	0.6nm,0.6s,mb3.6,baz=286,slow=5.1,SNR=11						
YKA	**Yellowknife Ar**	**82.81**	**27**	P	**P**	**11 19 35.3**	**-0.6**
NVAR	**Mina Array Bea**	**86.98**	**51**	P	**P**	**11 19 57.1**	**+0.1**
	1.1nm,0.5s,mb4.0,baz=270,slow=4.4,SNR=5.8						
SNAA	**Sanae**	**118.90**	**191**	*e*P	PKPdf	11 25 59.4	+1.6
LPAZ	**La Paz**	**148.25**	**99**	PKPbc	PKPdf	11 26 59.8	+6.5
	2.3nm,0.6s,baz=278,slow=3.5,SNR=11						

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*PRU **07** 11:24:07.3, 50.13N×18.42E*

WAR 07 11:24:07.2, 50.07N×18.46E, h0^{km}**, ML2.7, 1C, Mining Induced, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	**Raciborz**	**0.17**	**276**	*e*PG	Pg	11 24 11.0	+0.4
RAC				*i* SG	Sg	11 24 14.9	+2.0
OKC	**Ostrava-Krasne**	**0.31**	**221**	*e*PG	Pg	11 24 13.5	+0.2
OKC				*e*SG	Sg	11 24 18.5	+1.1
OJC	**Ojcow**	**0.88**	**79**	*e*Pg	Pg	11 24 23.8	-0.9
OJC				*e*Sg	Sg	11 24 36.0	-0.3
LIKS	**Likavka**	**1.10**	**157**	*e*SN	Sn	11 24 45.8	0.0
NIE	**Niedzica**	**1.37**	**118**	*e*Pg	Pg	11 24 33.7	-0.8
NIE				*e*Sg	Sg	11 24 53.3	+0.6
DPC	**Dobruska-Polom**	**1.40**	**282**	*e*PG	Pg	11 24 33.2	-2.0
DPC				*e*SG	Sg	11 24 51.7	-2.2
	124nm,0.6s						
KSP	**Ksiaz**	**1.59**	**300**	*e*PN	Pn	11 24 35.0	-1.7
KSP				*e*SG	Sg	11 24 57.0	-3.1
VYHS	**Vyhne**	**1.59**	**171**	*e*PN	Pn	11 24 35.7	-1.0
VYHS				*e*SN	Sn	11 24 58.8	+0.5
UPC	**Upice**	**1.63**	**287**	*e*PG	Pg	11 24 37.0	-2.8
UPC				*e*SG	Sg	11 24 58.1	-3.4
SMOL	**Smolenice**	**1.69**	**204**	*e*SN	Sn	11 25 00.8	-0.1
MODS	**Modra-Piesok**	**1.86**	**205**	*e*PN	Pn	11 24 40.2	-0.4
CRVS	**Cervenica-Dubn**	**2.28**	**120**	*e*PG	Pg	11 24 50.6	-2.1
PSZ	**Piszkesteto**	**2.35**	**156**	⇑*e*P	Pn	11 24 48.1	+0.6
PRU	**Pruhonice**	**2.53**	**270**	*e*PG	Pg	11 24 52.3	-5.4
PRU				*e*SG	Sg	11 25 24.8	-6.6
KOLS	**Kolonicke sedl**	**2.73**	**113**	*e*PN	Pn	11 24 54.0	+1.0
KHC	**Kasperske Hory**	**3.31**	**255**	*e*PG	Pg	11 25 08.6	-4.7
KHC				*e*SG	Sg	11 25 53.4	-4.0
MOA	**Molln**	**3.54**	**233**	*i*	Pn	11 25 09.9	+5.3
MOA	**Molln**	**3.54**	**233**	*i* SG	Sg	11 25 58.3	-6.9
	12nm,0.5s						
CLL	**Collm**	**3.69**	**292**	*e*SG	Sg	11 26 04.0	-5.9

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*CSEM **07** 11:45:02.9±0.4, 35.00N×2.72W, h20^{km}, MD3.1, Error ellipse: s-maj=11.0km s-min=3.8km az=102.0*

*CNRM **07** 11:45:04.4, 34.97N×2.65W, h13^{km}, MD3.1*

*NEIC **07** 11:45:07.8, 35.24N×3.20W, MG3.2(MDD), After MDD.*

*MDD **07** 11:45:07.3±1.6, 35.20N×3.22W, mb3.2/2, Error ellipse: s-maj=19.2km s-min=5.2km az=2.0, PRXIMO AftershockPLICA*

ISC 07 11:45:06.3±0.7**, 35.16N**±0.04×**3.19W**±0.04**, h10**^{km}**, n16, σ0^{s}62**/26**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.24**	**54**	P	**Pg**	**11 45 11.6**	**+0.2**
	91nm,0.1s,SNR=6.7						
EMEL				S	**Sg**	**11 45 14.9**	**+0.1**
	271nm,0.1s,SNR=8.0						
EMLI	**Melilla**	**0.24**	**54**	P	**Pg**	**11 45 11.6**	**+0.1**
	91nm,0.1s,SNR=6.7						
MELI	**Melilla**	**0.25**	**57**	P	**Pg**	**11 45 11.6**	**0.0**
MELI				S	**Sg**	**11 45 15.7**	**+0.5**
MELI	**Melilla**	**0.25**	**57**	*i* S	**Sg**	**11 45 15.7**	**+0.5**
MELI	**Melilla**	**0.25**	**57**	*e*P	**Pg**	**11 45 11.6**	**0.0**
ZAI	**Zaio**	**0.41**	**117**	*i* P	**Pg**	**11 45 06.5**	**-8.2**
TOU	**Touzarine**	**0.50**	**247**	*i* P	**Pg**	**11 45 21.0**	**+4.6**
TOU				*i* S	**Sg**	**11 45 32.0**	**+8.8**
TZK	**Tazeka**	**1.34**	**218**	*i* P	**Pb**	**11 45 30.0**	**-1.1**
TZK				*i* S	**Sb**	**11 45 49.0**	**+0.8**
EBER	**Berja**	**1.75**	**8**	P	**Pn**	**11 45 36.6**	**-0.5**
	0.1nm,0.1s,SNR=6.0						
EBER				S	**Sn**	**11 45 58.4**	**-1.2**
	7.0nm,0.5s,SNR=4.7						
EBER	**Berja**	**1.75**	**8**	P	**Pn**	**11 45 36.6**	**-0.4**
	0.1nm,0.1s,SNR=6.0						
EBER				S	**Sn**	**11 45 58.5**	**-1.1**
EMIJ	**Mijas**	**1.90**	**318**	P	**Pn**	**11 45 39.3**	**+0.1**
	0.8nm,0.1s,SNR=7.9						
EMIJ				S	**Sn**	**11 46 03.3**	**0.0**
	2.2nm,0.4s,SNR=7.9						
EADA	**Adamuz**	**3.20**	**340**	P	**Pn**	**11 45 58.2**	**+0.4**
	0.2nm,0.2s,SNR=8.1						
EADA				S	**Sn**	**11 46 36.9**	**+0.5**
	0.2nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**3.20**	**340**	P	**Pn**	**11 45 58.2**	**+0.5**
	0.2nm,0.2s,SNR=8.1						
EADA				S	**Sn**	**11 46 36.9**	**+0.5**
	0.2nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.83**	**314**	P	**Pn**	**11 46 05.7**	**-0.9**
	0.1nm,0.1s,SNR=7.9						
EMIN				S	**Sn**	**11 46 53.0**	**+0.8**
	1.3nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.83**	**314**	S	**Sn**	**11 46 53.0**	**+0.8**
EMIN	**Mina Concepcio**	**3.83**	**314**	P	**Pn**	**11 46 05.7**	**-0.9**

WEL 07 12:06:12.5±0.5**, 36.91S×177.00E, h262**^{km}±5^{km}**, ML3.7**/8**, 1C, Error ellipse: s-maj=8.2km s-min=8.0km az=0.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**1.23**	**123**	PN	P	12 06 49.9	-0.5
MXZ				SN	S	12 07 19.9	-0.1
URZ	**Urewera**	**1.35**	**176**	PN	P	12 06 50.7	-0.5
URZ				SN	S	12 07 20.8	-0.6
MWZ	**Matawai**	**1.49**	**164**	PN	P	12 06 52.1	-0.1
MWZ				SN	S	12 07 22.2	-0.8
PUZ	**Puketiti**	**1.54**	**140**	⇑PN	P	12 06 52.4	-0.1
PUZ				SN	S	12 07 22.4	-1.3
KNZ	**Kokohu**	**2.18**	**166**	PN	P	12 06 57.9	0.0
BKZ	**Black Stump Fm**	**2.29**	**190**	PN	P	12 06 58.5	-0.5
BKZ				SN	S	12 07 34.7	-0.4
MGZ	**Maungaku**	**2.39**	**208**	PN	P	12 07 00.5	+0.6
NGZ	**Ngauruhoe**	**2.52**	**205**	*e*PN	P	12 07 01.8	+0.6
CNZ	**Chateau**	**2.56**	**206**	PN	P	12 07 01.8	+0.2
TUVZ	**Tukino**	**2.59**	**204**	*e*PN	P	12 07 02.0	+0.2
WNVZ	**Wahianoa**	**2.66**	**204**	*e*PN	P	12 07 02.6	0.0
TSZ	**Takapari Road**	**3.25**	**194**	PN	P	12 07 07.9	-1.0
TSZ				SN	S	12 07 51.4	-1.4
WAZ	**Wanganui**	**3.26**	**208**	PN	P	12 07 08.5	-0.5
MRZ	**Mangatainoka R**	**3.91**	**196**	PN	P	12 07 14.5	-1.8
MRZ				SN	S	12 08 03.8	-2.2
KIW	**Kapiti Island**	**4.27**	**202**	PN	P	12 07 18.6	-1.9
KIW				*e*SN	S	12 08 11.3	-2.3
MTW	**Mount Morrison**	**4.40**	**195**	PN	P	12 07 19.8	-2.3
CAW	**Cannon Point**	**4.46**	**199**	PN	P	12 07 20.5	-2.2
MRW	**Makara Radio**	**4.67**	**202**	*e*PN	P	12 07 23.0	-2.3
MSWZ	**Moikau Station**	**4.70**	**196**	*e*PN	P	12 07 23.2	-2.4
NNZ	**Nelson**	**5.14**	**212**	PN	P	12 07 28.4	-2.5
NNZ				SN	S	12 08 30.0	-2.3
QRZ	**Quartz Range**	**5.24**	**220**	PN	P	12 07 29.3	-2.9
THZ	**Tophouse**	**5.79**	**212**	PN	P	12 07 36.1	-2.8
KHZ	**Kahutara**	**6.12**	**205**	PN	P	12 07 40.7	-2.2
DSZ	**Denniston Nort**	**6.29**	**218**	PN	P	12 07 43.1	-1.9
LTZ	**Lake Taylor**	**6.90**	**210**	PN	P	12 07 50.0	-2.8
ODZ	**Otahua Downs**	**9.44**	**209**	*e*PN	P	12 08 21.2	-3.5

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*NEIC **07** 12:23:59.8, 34.66N×24.80E, h39^{km}, MD3.5(ATH), After ATH.*

*CSEM **07** 12:23:59.8, 34.66N×24.80E, h39^{km}, MD3.5/5, After ATH*

ATH 07 12:23:59.7, 34.63N×24.80E, h43^{km}±3^{km}**, MD3.5**/5**, 1C, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	**Gavdhos**	**0.62**	**290**	*e*Pn	P	12 24 14.8	+2.6
XRY	**Khrisi**	**0.78**	**71**	*e*P	P	12 24 15.1	+0.8
XRY				*e*S	S	12 24 26.8	+1.8
VAM	**Vamos**	**0.92**	**328**	*e*P	P	12 24 17.5	+1.2
NPS	**Neapolis**	**0.92**	**46**	⇑*i*P	P	12 24 16.5	+0.2
NPS				*e*S	S	12 24 29.5	+0.9
APE	**Apeiranthos**	**2.50**	**13**	*e*P	P	12 24 39.5	+0.6
VLI	**Veliai**	**2.58**	**324**	*e*P	P	12 24 40.9	+0.9

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*JMA **07** 12:25:53.7±0.2, 24.13N×122.55E, h36^{km}, M3.0*

TAP 07 12:25:52.5, 24.03N×122.76E, h20^{km}±1^{km}**, ML3.7, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.49**	**28**	P	Pb	12 26 04.5	+2.3
YOJ				*e*S	Sb	12 26 12.3	+3.4
IRIF	**Iriomote-Funau**	**0.94**	**71**	P	Pb	12 26 12.8	+2.9
IRIF				*e*S	Sb	12 26 27.3	+5.5
HATJ	**Hateruma jima**	**0.96**	**88**	P	Pb	12 26 13.7	+3.5
HATJ				*e*S	Sb	12 26 28.1	+5.7
JKRS	**Kuro-shima**	**1.16**	**79**	P	Pb	12 26 16.9	+3.2
JKRS				*e*S	Sb	12 26 34.7	+6.4
JIJ	**Ishigaki jima**	**1.31**	**75**	P	Pn	12 26 18.1	+2.3
JIJ				*e*S	Sb	12 26 36.2	+3.7
JTJ	**Tarama**	**1.87**	**71**	P	Pn	12 26 26.4	+2.5

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*CSEM **07** 13:48:19.1±0.1, 35.44N×3.85W, h10^{km}, MD2.6, Error ellipse: s-maj=5.0km s-min=3.0km az=90.0*

*MDD **07** 13:48:20.6±1.2, 35.55N×3.80W, mb2.7/5, Error ellipse: s-maj=17.1km s-min=5.7km az=33.0, PRXIMO*

*CNRM **07** 13:48:20.7, 35.44N×3.96W, h1^{km}, MD2.6*

ISC 07 13:48:18.9±0.5**, 35.50N**±0.03×**3.88W**±0.04**, h10**^{km}**, n16, σ1^{s}08**/24**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPAL	**Palemas**	**0.28**	**191**	*i* P	**Pg**	**13 48 25.0**	**+0.2**
TOU	**Touzarine**	**0.55**	**169**	*i* P	**Pg**	**13 48 30.0**	**0.0**
EMEL	**Melilla**	**0.78**	**104**	P	**Pb**	**13 48 34.6**	**+0.5**
	82nm,0.1s,SNR=7.9						
EMEL				S	**Sb**	**13 48 43.4**	**-1.1**
	211nm,0.2s,SNR=7.9						
EMLI	**Melilla**	**0.78**	**104**	P	**Pb**	**13 48 34.6**	**+0.4**
	82nm,0.1s,SNR=7.9						
EMLI				S	**Sb**	**13 48 43.4**	**-1.2**
	211nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	**1.29**	**326**	P	**Pb**	**13 48 43.8**	**+1.0**
	0.3nm,0.1s,SNR=7.9						
EMIJ				S	**Sb**	**13 48 58.7**	**-0.5**
	2.2nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	**1.29**	**326**	S	**Sb**	**13 48 58.7**	**-0.5**
	2.2nm,0.1s,SNR=7.9						
TZK	**Tazeka**	**1.43**	**190**	*i* P	**Pn**	**13 48 45.0**	**0.0**
TZK				*i* S	**Sb**	**13 49 03.5**	**+0.2**
EBER	**Berja**	**1.61**	**30**	P	**Pn**	**13 48 48.3**	**+0.7**
	0.5nm,0.3s,SNR=7.9						
EBER				S	**Sn**	**13 49 07.2**	**-1.4**
	1.2nm,0.1s,SNR=7.9						
EBER	**Berja**	**1.61**	**30**	S	**Sn**	**13 49 07.2**	**-1.4**
	1.2nm,0.1s,SNR=7.9						
EBER	**Berja**	**1.61**	**30**	P	**Pn**	**13 48 48.3**	**+0.7**
	0.5nm,0.3s,SNR=7.9						
ESPR	**Espera**	**2.10**	**311**	P	**Pn**	**13 48 56.0**	**+1.3**
	0.5nm,0.1s,SNR=4.0						
ESPR				S	**Sn**	**13 49 19.2**	**-2.0**
	1.0nm,0.1s,SNR=6.3						
ESPR	**Espera**	**2.10**	**311**	S	**Sn**	**13 49 19.2**	**-1.9**
	1.0nm,0.1s,SNR=6.3						
ESPR	**Espera**	**2.10**	**311**	P	**Pn**	**13 48 56.0**	**+1.3**
	0.5nm,0.1s,SNR=4.0						
EQES	**Quesada**	**2.39**	**16**	P	**Pn**	**13 49 00.4**	**+1.6**
	0.7nm,0.1s,SNR=7.9						
EQES				S	**Sn**	**13 49 30.1**	**+1.7**
	2.0nm,0.2s,SNR=7.9						
EQES	**Quesada**	**2.39**	**16**	P	**Pn**	**13 49 00.4**	**+1.6**
	0.7nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.19**	**316**	P	**Pn**	**13 49 10.3**	**+0.1**
	0.1nm,0.1s,SNR=4.0						
EMIN				S	**Sn**	**13 49 46.6**	**-2.1**
	0.2nm,0.2s,SNR=4.0						

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*NEIC **07** 13:51:59.9, 34.09S×71.32W, h51^{km}, MD4.3(GUC), After GUC.*

NEIC Felt [II] at San Antonio and Santiago.

GUC 07 13:51:59.9±0.5**, 34.09S×71.32W, h51**^{km}±4^{km}**, MD4.3, ML4.0, 4C-7D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LNV	**Longovilo**	**0.15**	**329**	⇑*i*P	P	13 52 08.2	+0.2
TACH	**Talagante**	**0.53**	**36**	⇓*i*P	P	13 52 12.0	+0.4
CHCH	**Chadas Angostu**	**0.57**	**75**	*e*P	P	13 52 12.6	+0.5
CHCH				*i* S	S	13 52 22.0	+1.0
SFDO	**San Fernando**	**0.58**	**155**	⇓*i*P	P	13 52 12.7	+0.4
CACH	**El Canelo**	**0.60**	**93**	⇑*i*P	P	13 52 13.5	+1.1
CACH				*i* S	S	13 52 23.5	+2.0
LCCH	**Las Cruces**	**0.64**	**341**	⇓*i*P	P	13 52 12.9	-0.1
CICH	**Cipreses**	**0.78**	**108**	⇓*i*P	P	13 52 15.4	+0.6
CICH				*i* S	S	13 52 26.9	+1.1
PCH	**Pirque**	**0.81**	**56**	⇑*i*P	P	13 52 15.7	+0.5
PCH				*i* S	S	13 52 27.6	+1.0
SAN	**Santiago**	**0.83**	**41**	*e*P	P	13 52 15.7	+0.2
SAN				*i* S	S	13 52 27.8	+0.7
DSCH	**Colegio Aleman**	**0.93**	**43**	⇑*i*P	P	13 52 17.3	+0.5
DSCH				*i* S	S	13 52 30.4	+1.0
DSCH				AMP		13 52 31.1	
	comp=N,7μm,0.4s						
CLCH	**Cerro Calan**	**0.95**	**44**	⇓*i*P	P	13 52 17.6	+0.5
CLCH				*i* S	S	13 52 31.1	+1.3
CLCH				AMP		13 52 31.7	
	comp=E,7μm,0.3s						
LMEL	**Las Melosas**	**0.96**	**76**	⇓*i*P	P	13 52 17.9	+0.7
LMEL				*i* S	S	13 52 31.6	+1.5
LMEL				AMP		13 52 32.0	
	comp=N,12μm,0.3s						
PEL	**Peldehue**	**1.08**	**30**	*e*P	P	13 52 19.4	+0.5
PEL				*i* S	S	13 52 34.2	+1.2
PEL				AMP		13 52 37.7	
	comp=N,5μm,0.2s						
IHA	**Instituto Hidr**	**1.09**	**346**	*e*P	P	13 52 19.4	+0.3
ROCH	**El Roble**	**1.14**	**13**	*e*P	P	13 52 20.4	+0.7
ROCH				*i* S	S	13 52 35.8	+1.3
FCH	**Farellones**	**1.14**	**49**	⇓*i*P	P	13 52 20.4	+0.6
FCH				*i* S	S	13 52 36.0	+1.4
FCH				AMP		13 52 38.7	
	comp=E,4μm,0.2s						
TALC	**Talca**	**1.33**	**191**	*e*P	P	13 52 22.5	-0.2
TALC				*i* S	S	13 52 40.0	+0.4
TALC				AMP		13 52 43.0	
	comp=E,7μm,0.4s						
JACH	**Jahuel**	**1.52**	**24**	*e*P	P	13 52 25.4	+0.1
PACH	**Papudo**	**1.55**	**356**	*e*P	P	13 52 25.9	+0.3
CCHI	**Chillan**	**2.59**	**194**	*e*P	P	13 52 39.6	-0.7
CCHI				*i* S	S	13 53 10.3	-0.4
CCHI				AMP		13 53 25.1	
	comp=E,916nm,0.3s						
TRQA	**Tornquist**	**8.54**	**120**	*e*P	P	13 53 59.6	-3.9

IDC 07 14:31:34.8±4.3**, 1.60N×122.99E, mb3.7**/4**, mb1 3.9**/5**, mb1mx3.7**/17**, ML3.8**/1**, Error ellipse: s-maj=136.0km s-min=69.5km az=59.0, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**19.75**	**173**	P	P	14 36 05.6	-3.7
	0.2nm,0.3s,baz=9.0,slow=13,SNR=6.2						
WRA	**Warramunga Arr**	**24.13**	**153**	P	P	14 36 52.1	-1.5
	1.0nm,0.7s,baz=336,slow=9.8,SNR=19						
ASAR	**Alice Springs**	**27.27**	**158**	P	P	14 37 20.9	-2.0
	0.2nm,0.7s,baz=329,slow=8.5,SNR=5.3						
STKA	**Stephens Creek**	**37.68**	**154**	P	P	14 38 52.9	-0.9
	3.1nm,0.8s,baz=328,slow=9.5,SNR=5.9						
VNDA	**Vanda**	**81.82**	**172**	P	P	14 43 55.5	-1.2
	1.3nm,0.9s,baz=323,slow=5.1,SNR=4.1						

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*BJI **07** 14:32:43.8, 39.82N×19.83E, h13^{km}*

*IDC **07** 14:32:44.7±0.8, 40.00N×19.62E, mb4.0/14, mb1 4.2/24, mb1mx4.2/31, ML4.0/9, Error ellipse: s-maj=15.9km s-min=13.7km az=30.0*

*NEIC **07** 14:32:45.9, 39.94N×19.67E, h15^{km}, mb4.2/8, ML4.6(ATH), ML4.3(PDG), After ATH.*

*ZUR_RM **07** 14:32:45, 39.94N×19.67E, h12^{km}, Mw4.2/20, Moment Tensor Solution. s20 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.84; $M_{\theta\theta}$0.40; $M_{\phi\phi}$0.45; $M_{r\theta}$0.96; $M_{\theta\phi}$0.03; $M_{\phi r}$-2.20; Best double couple: $M_0$2.48×10^{15} NP1:ϕ_s337°,δ83°,λ-91°. NP2:ϕ_s165°,δ7°,λ-82°. Principal axes: T 2.267, Plg38°, Azm68°; N .428, Plg1°, Azm337°; P -2.696, Plg52°, Azm246°;*

*THE **07** 14:32:45.4, 39.88N×19.51E, h7^{km}, ML4.3*

*ATH **07** 14:32:45.9, 39.94N×19.67E, h15^{km}±2^{km}, MD4.3/11, ML4.6*

*PDG **07** 14:32:46.7±0.6, 39.95N×19.67E, h9^{km}±1^{km}*

*TIR **07** 14:32:46.6, 39.99N×19.85E, h17^{km}*

*MOS **07** 14:32:47.7±1.5, 40.04N×19.64E, h33^{km}, mb4.2/13, Error ellipse: s-maj=13.7km s-min=7.3km az=83.1*

*CSEM **07** 14:32:48.1±0.1, 40.08N×19.77E, h15^{km}, ML4.0, Error ellipse: s-maj=1.9km s-min=1.3km az=26.0*

*LDG **07** 14:32:49.8±0.1, 39.89N×19.67E, h10^{km}, Ml4.3/7, Error ellipse: s-maj=4.0km s-min=3.2km az=26.0*

ISC 07 14:32:45.3±0.4**, 39.96N**±0.01×**19.65E**±0.02**, h8**^{km}±2^{km}**, n244, σ1^{s}42**/299**, mb4.1**/20**, 20C-6D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	**Kerkira**	**0.27**	**154**	⇑*i*PB	**Pb**	**14 32 51.2**	**-0.8**
SRN	**Sarande**	**0.28**	**106**	*i* Pg	**Pg**	**14 32 50.9**	**-0.2**
SRN				*i* Sg	**Sg**	**14 32 54.5**	**-0.5**
TPE	**Tepelena**	**0.44**	**40**	*i* Pg	**Pg**	**14 32 52.7**	**-1.4**
TPE				*i* Sg	**Sg**	**14 32 59.2**	**-0.8**
VLO	**Vlora**	**0.52**	**347**	*i* Pg	**Pg**	**14 32 58.7**	**+2.9**
IGT	**Igoumenitsa**	**0.68**	**129**	*e*Pg	**Pg**	**14 32 58.6**	**-0.3**
IGT				*e*Sg	**Sg**	**14 33 09.7**	**+1.7**
JAN	**Janina**	**0.98**	**108**	*e*PN	**Pn**	**14 33 04.0**	**-1.2**
KBN	**Korca**	**1.10**	**52**	*i* Pg	**Pg**	**14 33 07.2**	**0.0**
KBN				*i* Sg	**Sg**	**14 33 22.1**	**+0.2**
MEV	**Metsovon**	**1.23**	**98**	*e*Pb	**Pb**	**14 33 08.8**	**+0.4**
MEV				*e*Sb	**Sb**	**14 33 27.7**	**+3.4**
MEV	**Metsovon**	**1.23**	**98**	*e*Sb	**Sb**	**14 33 27.7**	**+3.4**
LCI	**Lecce**	**1.23**	**288**	*e*Pn	**Pn**	**14 33 10.3**	**+1.5**
LCI	**Lecce**	**1.23**	**288**	*e*Pn	**Pn**	**14 33 10.4**	**+1.5**
TIR	**Tirane**	**1.40**	**7**	⇓*i*Pg	**Pg**	**14 33 13.2**	**0.0**
TIR				*i* Sg	**Sg**	**14 33 35.4**	**+3.5**
OHR	**Ohrid**	**1.45**	**37**	*e*Pn	**Pn**	**14 33 12.7**	**+0.8**
OHR				*i*		14 33 13.9	
OHR				*e*Sn	**Sn**	**14 33 35.6**	**+4.3**
PRZA	**Preza**	**1.47**	**1**	*i* Pg	**Pg**	**14 33 14.0**	**-0.7**
PRZA				*i* Sg	**Sg**	**14 33 36.0**	**+1.7**
LKD	**Levkas**	**1.47**	**148**	*e*Pb	**Pb**	**14 33 11.5**	**-1.1**
LKD				*e*Sb	**Sb**	**14 33 30.9**	**-0.4**
FNA	**Florina**	**1.56**	**58**	*e*Pb	**Pb**	**14 33 14.0**	**0.0**
FNA				*e*Sb	**Sb**	**14 33 37.8**	**+4.0**
QSH	**Qafa e Shtames**	**1.57**	**7**	*i* Pg	**Pg**	**14 33 14.8**	**-1.9**
BIA	**Bitola**	**1.66**	**50**	*i* Pn	**Pn**	**14 33 16.3**	**+1.3**
BIA				*i*		14 33 17.5	
BIA				*i*		14 33 22.8	
BIA				*i* Sn	**Sn**	**14 33 41.6**	**+4.9**
KZN	**Kozani**	**1.67**	**77**	*e*PN	**Pn**	**14 33 17.0**	**+1.9**
PHP	**Peshkopia**	**1.83**	**19**	*i* Pn	**Pn**	**14 33 18.5**	**+1.2**
VLS	**Valsamata**	**1.93**	**157**	*e*PN	**Pn**	**14 33 20.0**	**+1.2**
EVR	**Evrytania**	**1.97**	**121**	⇑*i*PN	**Pn**	**14 33 21.0**	**+1.6**
ULC	**Ulcinj**	**2.02**	**352**	⇑*i*Pn	**Pn**	**14 33 22.2**	**+2.1**
ULC				*e*Sn	**Sn**	**14 33 50.0**	**+4.0**
BRT	**Bari-Castellan**	**2.08**	**297**	*e*Pn	**Pg**	**14 33 25.5**	**-1.3**
BRT				*e*Sn	**Sg**	**14 33 56.7**	**+2.2**
BRT	**Bari-Castellan**	**2.08**	**297**	*e*Pn	**Pg**	**14 33 25.5**	**-1.3**
PUK	**Puka**	**2.09**	**5**	*i* Pn	**Pn**	**14 33 22.2**	**+1.1**
PUK				*i* Sn	**Sg**	**14 33 57.2**	**+2.3**
SDA	**Shkodra**	**2.09**	**357**	*i* pn?	**Pn**	**14 33 17.9**	**-3.3**
LIT	**Litokhoron**	**2.19**	**85**	*e*Pn	**Pn**	**14 33 23.7**	**+1.2**
LIT				*e*Sn	**Sn**	**14 33 52.4**	**+2.3**
LIT	**Litokhoron**	**2.19**	**85**	*e*Sn	**Sn**	**14 33 52.4**	**+2.3**
LTRZ	**Laterza**	**2.26**	**287**	*e*Pn	**Pn**	**14 33 25.9**	**+2.4**
LTRZ	**Laterza**	**2.26**	**287**	*e*Pn	**Pn**	**14 33 25.9**	**+2.4**
AGG	**Agios Georgios**	**2.28**	**113**	*e*Pn	**Pn**	**14 33 25.6**	**+1.7**
AGG				*e*Sn	**Sn**	**14 33 54.4**	**+2.0**
GRG	**Griva**	**2.33**	**64**	*e*Pn	**Pn**	**14 33 25.4**	**+0.9**
GRG				*e*Sn	**Sn**	**14 33 56.5**	**+2.8**
TIP	**Timpagrande**	**2.36**	**252**	*e*Pn	**Pn**	**14 33 25.9**	**+0.8**
BUM	**Brajici-Budva**	**2.41**	**347**	⇑*i*Pn	**Pn**	**14 33 27.0**	**+1.3**
BUM				*e*Sn	**Sn**	**14 33 59.4**	**+3.7**
SKO	**Skopje**	**2.43**	**33**	⇑*i*Pn	**Pn**	**14 33 26.6**	**+0.7**
SKO				*i* Pb	**Pb**	**14 33 30.3**	**+1.4**
SKO				*i* Pg	**Pg**	**14 33 33.7**	**-0.1**
SKO				*i* Sn	**Sn**	**14 33 57.5**	**+1.3**
SKO				*i* Sb	**Sb**	**14 34 02.9**	**+3.9**
SKO				*i* Sg	**Sg**	**14 34 05.2**	**-0.9**
SKO				Lg		14 34 10.5	
	comp=Z,0.7nm,0.7s						
SKO	**Skopje**	**2.43**	**33**	⇑*i*Pn	**Pn**	**14 33 26.6**	**+0.7**
SKO				*i* Sn	**Sn**	**14 33 57.5**	**+1.3**
TTG	**Podgorica**	**2.48**	**353**	⇑*i*Pn	**Pn**	**14 33 28.5**	**+1.7**
TTG				*e*Sn	**Sn**	**14 34 01.4**	**+3.7**
VAY	**Valandovo**	**2.61**	**58**	*i* Pn	**Pn**	**14 33 28.9**	**+0.4**
VAY				*e*Sn	**Sn**	**14 34 00.4**	**-0.4**
THE	**Thessaloniki**	**2.63**	**74**	*e*Pn	**Pn**	**14 33 29.1**	**+0.3**
HCY	**Herceg Novi**	**2.63**	**341**	⇑*i*Pn	**Pn**	**14 33 30.5**	**+1.6**
HCY				*e*Sn	**Sn**	**14 34 04.6**	**+3.3**
PVY	**Plav**	**2.65**	**5**	⇑*i*Pn	**Pn**	**14 33 30.5**	**+1.4**
PVY				*e*Sn	**Sn**	**14 34 04.7**	**+3.0**
GRI	**Girifalco**	**2.75**	**247**	*e*Pn	**Pn**	**14 33 31.5**	**+1.0**
GRI	**Girifalco**	**2.75**	**247**	*e*Pn	**Pn**	**14 33 31.5**	**+1.0**
KNT	**Kendrikon**	**2.75**	**63**	*e*Pn	**Pn**	**14 33 30.9**	**+0.3**
XOR	**Xorichti**	**2.80**	**101**	*e*Pn	**Pn**	**14 33 32.7**	**+1.4**
NEO	**Neokhori**	**2.84**	**102**	*e*PN	**Pn**	**14 33 32.8**	**+1.0**
NKY	**Niksic**	**2.89**	**351**	*e*Pn	**Pn**	**14 33 34.3**	**+1.7**
NKY				*e*Sn	**Sn**	**14 34 11.3**	**+3.3**
IVA	**Berane**	**2.92**	**4**	⇑*i*Pn	**Pn**	**14 33 34.5**	**+1.5**

IVA				*e*Sn	Sn	14 34 11.6	+3.0
TREB	**Trebinje**	2.92	341	Sn	Sn	14 34 08.6	-0.1
TREB	**Trebinje**	2.92	341	Pn	Pn	14 33 33.1	+0.1
PLG	**Polygyros**	2.94	81	*e*PN	Pn	14 33 33.4	+0.1
SOH	**Sokhos**	2.96	72	*e*Pn	Pn	14 33 34.2	+0.7
SOH	**Sokhos**	2.96	72	*e*Pn	Pn	14 33 34.2	+0.6
BRY	**Bratogost**	3.05	345⇑	*i*Pn	Pn	14 33 36.7	+1.8
BRY				*e*Sn	Sn	14 34 15.0	+3.0
PAIG	**Paliouri**	3.10	89	*e*Pn	Pn	14 33 35.2	-0.3
SLCN	**Sala Consilina**	3.10	279	*e*Pn	Pn	14 33 37.2	+1.6
SLCN	**Sala Consilina**	3.10	279	*e*Pn	Pn	14 33 37.2	+1.6
MGR	**Morigerati**	3.15	275	*e*Pn	Pn	14 33 37.7	+1.5
MGR	**Morigerati**	3.15	275	*e*Pn	Pn	14 33 37.7	+1.5
KKB	**Krupnik**	3.23	53	*i* P	Pn	14 33 38.0	+0.6
STON	**Ston**	3.26	334	*i* Pn	Pn	14 33 37.1	-0.7
STON				*i* Sn	Sn	14 34 16.0	-1.2
MRLC	**Muro Lucano**	3.27	285	*e*Pn	Pn	14 33 40.6	+2.6
MRLC	**Muro Lucano**	3.27	285	*e*Pn	Pn	14 33 40.6	+2.6
UPM	**Unac-Piva**	3.29	351⇑	*i*Pn	Pn	14 33 39.8	+1.6
UPM				*e*Sn	Sn	14 34 20.8	+2.8
FGMS	**Monte Sant'Ang**	3.30	303	*e*Pn	Pn	14 33 39.5	+1.1
FGMS	**Monte Sant'Ang**	3.30	303	*e*Pn	Pn	14 33 39.5	+1.1
ITM	**Ithomi**	3.30	146	*e*PN	Pn	14 33 40.0	+1.6
OUR	**Ouranopolis**	3.34	82	*e*Pn	Pn	14 33 39.2	+0.2
AOS	**Alonnisos**	3.37	102	*e*Pn	Pn	14 33 39.7	+0.4
SOI	**Samo**	3.37	237	*e*Pn	Pn	14 33 40.0	+0.6
SOI	**Samo**	3.37	237	*e*Pn	Pn	14 33 40.0	+0.6
PLE	**Pljevlja**	3.37	357⇑	*i*Pn	Pn	14 33 40.9	+1.4
PLE				*e*Sn	Sn	14 34 22.8	+2.7
SGO	**Sicignano**	3.37	282	*e*Pn	Pn	14 33 40.8	+1.4
SGO	**Sicignano**	3.37	282	*e*Pn	Pn	14 33 40.8	+1.4
SCLL	**Scilla**	3.50	242	*e*Pn	Pn	14 33 41.8	+0.5
SCLL	**Scilla**	3.50	242	*e*Pn	Pn	14 33 41.8	+0.6
MMB	**Musomiste**	3.50	61	*i* P	Pn	14 33 41.0	-0.2
RGNG	**Rignano Grg**	3.52	300	*e*Pn	Pn	14 33 43.0	+1.5
RGNG	**Rignano Grg**	3.52	300	*e*Pn	Pn	14 33 43.0	+1.4
NVSS	**Nova Varos 2**	3.55	1⇓	*i*Pn	Pn	14 33 41.5	-0.4
NVSS				Sn	Sn	14 34 27.4	+2.9
FG5	**Orsara di Pugl**	3.58	293	*e*Pn	Pn	14 33 44.7	+2.3
FG5	**Orsara di Pugl**	3.58	293	*e*Pn	Pn	14 33 44.7	+2.3
NSAL	**Nisos Salamina**	3.61	123	*e*PN	Pn	14 33 43.6	+0.8
CSSN	**Cassano Irpino**	3.64	286	*e*Pn	Pn	14 33 45.0	+1.8
CSSN	**Cassano Irpino**	3.64	286	*e*Pn	Pn	14 33 45.0	+1.8
MTTG	**Motta San Giov**	3.65	239	*e*Pn	Pn	14 33 43.7	+0.4
MTTG	**Motta San Giov**	3.65	239	*e*Pn	Pn	14 33 43.7	+0.4
MPAR	**Parnis Oros**	3.66	118	*e*PN	Pn	14 33 44.5	+1.0
NAIG	**Nisos Aigina**	3.72	125	*e*PN	Pn	14 33 45.0	+0.7
ATH	**Athens Observa**	3.74	121	*e*PN	Pn	14 33 44.7	0.0
VTS	**Vitosha**	3.76	44	*i* P	Pn	14 33 45.0	+0.1
PTL	**Penteli**	3.80	119	*e*PN	Pn	14 33 45.5	0.0
GRUS	**Gruza**	4.01	11⇓	*i*Pn	Pn	14 33 47.5	-0.9
GRUS				Sn	rx	14 35 05.7	
VLI	**Veliai**	4.14	140	*e*PN	Pn	14 33 51.9	+1.5
DIVS	**Divcibare**	4.14	3⇑	*i*Pn	Pn	14 33 49.0	-1.4
DIVS				Sg	Sg	14 35 04.0	+0.7
RZN	**Rozhen**	4.22	64	*i* P	Pn	14 33 51.0	-0.4
BOLS	**Boljevac**	4.24	23⇓	*i*Pn	Pn	14 33 50.8	-0.9
BOLS				Sn	Sg	14 35 02.8	-3.5
SGG	**Gregorio Mates**	4.25	291	*e*Pn	Pn	14 33 54.6	+2.7
SGG	**Gregorio Mates**	4.25	291	*e*Pn	Pn	14 33 54.7	+2.8
PGB	**Panagyurishte**	4.28	51	*e*P	Pn	14 33 50.0	-2.3
AGST	**Augusta-Monte**	4.39	233	*e*Pn	Pn	14 33 51.0	-2.9
AGST	**Augusta-Monte**	4.39	233	*e*Pn	Pn	14 33 51.0	-2.9
CII	**Carovilli**	4.42	295	*e*Pn	Pn	14 33 57.0	+2.7
CII	**Carovilli**	4.42	295	*e*Pn	Pn	14 33 57.0	+2.7
SVIS	**Svilajnac**	4.49	15	*e*Pn	Pn	14 33 53.1	-2.2
SVIS				Sn	Sn	14 34 38.2	-10
KYTH	**Kithira**	4.54	143	*e*PN	Pn	14 33 57.0	+1.0
RDO	**Rodhopi**	4.64	73	*e*PN	Pn	14 33 57.0	-0.5
MEU	**Monte Lauro**	4.67	234	*e*Pn	Pn	14 33 55.7	-2.1
MEU	**Monte Lauro**	4.67	234	*e*Pn	Pn	14 33 55.7	-2.2
KDZ	**Kurdzhali**	4.69	67	*i* P	Pn	14 33 56.0	-2.2
VAE	**Valguarnera**	4.78	240	Pn	Pn	14 34 05.4	+5.9
	comp=Z,3.1nm,0.3s,baz=125,slow=5.0,SNR=3.8						
VAE				Sn	Sb	14 35 08.9	+1.5
	comp=Z,4.5nm,0.3s,baz=278,slow=23,SNR=2.7						
INTR	**Introdacqua**	4.80	297	*e*Pn	Pn	14 34 00.6	+0.8
INTR	**Introdacqua**	4.80	297	*e*Pn	Pn	14 34 00.6	+0.8
ALN	**Alexandroupoli**	4.97	77	*e*Pn	Pn	14 34 01.3	-0.8
PRK	**Paraskevi**	5.17	96	*e*PN	Pn	14 34 06.0	+1.1
TERO	**Teramo**	5.27	302	*e*Pn	Pn	14 34 07.2	+0.8
TERO	**Teramo**	5.27	302	*e*Pn	Pn	14 34 07.2	+0.9
AQU	**L'Aquila**	5.29	299	*e*Pn	Pn	14 34 07.2	+0.7
AQU	**L'Aquila**	5.29	299	*e*Pn	Pn	14 34 07.2	+0.7
APE	**Apeiranthos**	5.44	120	*e*PN	Pn	14 34 08.0	-0.8
SZH	**Strazhica**	5.75	53	*i* P	Pn	14 34 13.0	-0.2
JMB	**Yambol**	5.80	62	*e*P	Pn	14 34 13.0	-0.8
VAM	**Vamos**	5.80	140	*e*PN	Pn	14 34 13.0	-0.8
CING	**Cingoli**	5.91	307	*e*Pn	Pn	14 34 14.6	-0.8
CING	**Cingoli**	5.91	307	*e*Pn	Pn	14 34 14.6	-0.8
SNTG	**Esanatoglia**	6.01	305	*e*Pn	Pn	14 34 16.1	-0.6
SNTG	**Esanatoglia**	6.01	305	*e*Pn	Pn	14 34 16.1	-0.6
ARV	**Arcevia**	6.14	307	*e*Pn	Pn	14 34 17.6	-1.0
ARV	**Arcevia**	6.14	307	*e*Pn	Pn	14 34 17.6	-0.9
GVD	**Gavdhos**	6.21	144	Pn	Pn	14 34 15.7	-4.0
GVD	**Gavdhos**	6.21	144	Pn	Pn	14 34 15.7	-3.9
IDI	**Anoyia**	6.25	137	Pn	Pn	14 34 18.1	-2.1
	comp=Z,3.0nm,0.3s,baz=302,slow=16,SNR=16						
IDI				Sn	Sn	14 35 27.5	-5.1
	comp=Z,11nm,0.3s,baz=314,slow=18,SNR=12						
MURB	**Monte Urbino**	6.28	304	*e*Pn	Pn	14 34 21.3	+0.8
PKSM	**Moragy**	6.29	354	*e*P	Pn	14 34 18.9	-1.9
FSSB	**Fossombrone**	6.34	308	*e*Pn	Pn	14 34 20.4	-1.0
FSSB	**Fossombrone**	6.34	308	*e*Pn	Pn	14 34 20.5	-1.0
BOJS	**Bojanci**	6.42	331	*i* Pn	Pn	14 34 21.6	-0.9
BOJS				*i*		14 34 25.0	
NPS	**Neapolis**	6.66	133	*e*PN	Pn	14 34 26.4	+0.4
CRE	**Caprese Michel**	6.81	305	*e*Pn	Pn	14 34 28.3	+0.2
CRE	**Caprese Michel**	6.81	305	*e*Pn	Pn	14 34 28.3	+0.2
CEY	**Cerknica**	6.93	328	*i* Pn	Pn	14 34 27.7	-2.1
SFI	**Santa Sofia**	7.02	307	*e*Pn	Pn	14 34 31.6	+0.6
SFI	**Santa Sofia**	7.02	307	*e*Pn	Pn	14 34 31.6	+0.5
PGD	**Poggio Sodo**	7.09	306	*e*Pn	Pn	14 34 32.9	+1.0
PGD	**Poggio Sodo**	7.09	306	*e*Pn	Pn	14 34 32.9	+1.0
LJU	**Ljubljana**	7.14	330	*e*Pn	Pn	14 34 30.5	-2.2
MLR	**Muntele Rosu**	7.21	38	Pn	Pn	14 34 33.3	-0.4
	comp=Z,1.6nm,0.3s,baz=228,slow=2.4,SNR=9.7						
MLR				Sn	Sn	14 36 03.1	+6.4
	comp=Z,0.5nm,0.3s,baz=291,slow=17,SNR=1.8						
MLR	**Muntele Rosu**	7.21	38	P	Pn	14 34 33.3	-0.4
MLR						14 36 03.1	
MLR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
VMG	**Vicchio**	7.24	306	*e*Pn	Pn	14 34 35.0	+0.9
VMG	**Vicchio**	7.24	306	*e*Pn	Pn	14 34 35.0	+0.9
VOY	**Vojsko**	7.39	327	*e*Pn	Pn	14 34 34.3	-1.9
VOY				*e*		14 34 37.8	
OBKA	**Obir**	7.53	332⇑	*i*PN	Pn	14 34 35.5	-2.6
OBKA				*i* SN	Sn	14 35 58.4	-6.2
HARR	**Harsova**	7.75	50⇑	*i*P	Pn	14 34 40.2	-1.0
VRI	**Vrincioaia**	7.86	39⇑	*i*P	Pn	14 34 43.2	+0.4
ARSA	**Arzberg**	7.88	339⇓	*i*PN	Pn	14 34 40.4	-2.6
ARSA				*i* SN	Sn	14 36 07.2	-6.1
PTCC	**Patocco-Chiusa**	7.91	327	*e*Pn	Pn	14 34 41.2	-2.3
PTCC	**Patocco-Chiusa**	7.91	327	*e*Pn	Pn	14 34 41.2	-2.3
PSZ	**Piszkesteto**	7.96	1	*e*P	Pn	14 34 44.9	+0.8
PSZ				*e*S	Sn	14 36 09.4	-5.9
PSZ	**Piszkesteto**	7.96	1	Pn	Pn	14 34 40.6	-3.5
PSZ	**Piszkesteto**	7.96	1	Pn	Pn	14 34 40.6	-3.5
PSZ	**Piszkesteto**	7.96	1	*e*P	Pn	14 34 44.9	+0.8
PGF	**Pioggiola**	8.43	291	*e*Pn	P	14 34 50.0	-0.6
MOA	**Molln**	8.79	336⇑	*i*PN	P	14 34 53.3	-2.4
MOA				*i* SN	Sn	14 36 29.5	-6.5
WTTA	**Wattenberg**	9.33	324⇓	*i*PN	P	14 35 01.7	-1.4
WTTA				*i* SN	Sn	14 36 44.0	-5.3
WATA	**Walderalm**	9.41	324⇑	*i*PN	P	14 35 02.4	-1.8
WATA				*i* SN	Sn	14 36 46.9	-4.4
MOTA	**Moosalm**	9.63	323⇑	*i*PN	P	14 35 05.4	-1.8
MOTA				*i* SN	Sn	14 36 52.0	-4.8
DAVOX	**Davos**	9.85	317	Pn	P	14 35 12.7	+2.4
	comp=Z,1.4nm,0.3s,baz=158,slow=20,SNR=7.7						
DAVOX				Sn	Sn	14 36 58.6	-3.5
	comp=Z,0.9nm,0.3s,baz=334,slow=24,SNR=3.6						
GERES	**GERESS Array B**	9.85	336	Pn	P	14 35 07.2	-3.0
	comp=Z,0.4nm,0.3s,baz=160,slow=16,SNR=14						
GERES				Sn	Sn	14 37 01.9	-0.2
	comp=Z,1.1nm,0.3s,baz=156,slow=23,SNR=5.4						
SBF	**Sospel**	9.90	297	*e*Pn	P	14 35 10.2	-0.8
DAVOS	**Davos**	9.93	317	P	P	14 35 12.7	+1.3
DAVOS				S	Sn	14 36 58.6	-5.5
KHC	**Kasperske Hory**	10.14	337	*e*P	P	14 35 11.2	-3.0
KHC				*e*		14 35 24.0	
KHC	**Kasperske Hory**	10.14	337	*e*P	P	14 35 11.2	-3.0
KHC				x	x	14 35 24.0	
DPC	**Dobruska-Polom**	10.65	348	*e*P	Px	14 35 37.0	
MBDF	**Montbardon**	10.65	301	*e*Pn	P	14 35 20.9	-0.4
MBDF				*e*Sn	S	14 37 13.1	-8.8
	comp=Z,9.1nm,0.6s						
BRTR	**Keskin Array B**	10.77	87	Pn	P	14 35 22.3	-0.6
	comp=Z,0.2nm,0.3s,baz=276,slow=13,SNR=3.2						
LPG	**La Plagne**	10.98	304	*e*Pn	P	14 35 25.2	-0.5
LPG				*e*Sn	S	14 37 19.5	-10
	comp=Z,23nm,0.7s						
LPL	**La Plagne**	11.00	305	*e*Pn	P	14 35 24.9	-1.1
LPL				*e*Sn	S	14 37 22.2	-8.1
	comp=Z,14nm,0.5s						
CABF	**La Chapelle**	11.90	308	*e*Pn	P	14 35 36.6	-1.7
CSS	**Prodhromos**	11.96	110	P	P	14 35 36.1	-3.0
MOX	**Moxa**	12.08	335	*e*P	P	14 35 40.0	-0.7
HINF	**Hinteralfeld**	12.11	315	*e*Pn	P	14 35 40.2	-0.9
HINF				*e*Sn	S	14 37 48.2	-9.2
	comp=Z,10nm,0.5s						
CDF	**Champ du Feu**	12.24	318	*e*Pn	P	14 35 43.1	+0.2
LASF	**Ste Croix**	12.44	294	*e*Pn	P	14 35 44.6	-0.9
HAU	**Haudompre**	12.49	314	*e*Pn	P	14 35 45.9	-0.3
HAU				*e*Sn	S	14 37 58.0	-8.7
	comp=Z,12nm,0.5s						
AKASG	**Malin Array Be**	12.67	29	Pn	P	14 35 46.8	-1.7
	comp=Z,0.5nm,0.3s,baz=221,slow=11,SNR=2.7						
AKASG	**Malin Array Be**	12.67	29	P	P	14 35 46.8	-1.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SMF	**Signal de Mont**	13.30	305	*e*Pn	P	14 35 56.8	-0.1
SMF				*e*Sn	S	14 38 16.4	-10
	comp=Z,6.0nm,0.4s						
AVF	**Avril sur Loir**	13.66	305	*e*Pn	P	14 36 01.4	-0.3
BGF	**Bois d'Agland**	13.89	304	*e*Pn	P	14 36 04.3	-0.4
ANN	**Anapa**	14.00	64	*e*P	P	14 36 04.6	-1.6
ANN				pmax	pmax		
	comp=Z,40nm,0.8s						
GIVF	**Givet**	14.56	319	*e*Pn	P	14 36 14.0	+0.6
EIL	**Elat**	16.20	125	Pn	P	14 36 35.9	+0.9
	comp=Z,0.6nm,0.3s,baz=350,slow=11,SNR=4.6						
EIL	**Elat**	16.20	125	*e*P	P	14 36 33.1	-1.9
	comp=Z,11nm,0.9s						
EIL	**Elat**	16.20	125	*e*P	P	14 36 33.1	-1.9
	comp=Z,11nm,0.9s						
VRSR	**Storozhevoye**	17.65	44	*e*P	P	14 36 47.1	-5.9
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
VRSR				pmax	pmax		
	comp=N,7.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.8s						
ESDC	**Sonseca Array**	18.13	277	P	P	14 36 58.8	-0.4
	comp=E,0.3nm,0.3s,baz=76,slow=10,SNR=14						
OBN	**Obninsk**	18.90	31	*e*P	P	14 37 04.4	-4.1
OBN				pmax	pmax		
	comp=Z,9.0nm,0.6s						
OBN				MLR	MLR		
	comp=Z,300nm,12.0s						
VSU	**Vasula**	19.07	11	*i* P	P	14 37 10.2	-0.2
GNI	**Garni**	19.20	81	P	P	14 37 11.0	-1.1
	comp=Z,0.6nm,0.3s,baz=155,slow=1.6,SNR=5.6						
GNI	**Garni**	19.20	81	P	P	14 37 11.0	-1.1
GNI				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GNI	**Garni**	19.20	81	*e*P	P	14 37 10.4	-1.7
	comp=Z,16nm,0.9s						
GNI	**Garni**	19.20	81	*e*P	P	14 37 10.4	-1.7
	comp=Z,16nm,0.9s						
MOS	**Moscow**	19.77	31	*e*P	P	14 37 19.6	+1.1
HFS	**Hagfors**	20.54	351	P	P	14 37 24.1	-2.5
	comp=Z,3.3nm,0.4s,baz=164,slow=11,SNR=19						
HFS	**Hagfors**	20.54	351	P	P	14 37 24.1	-2.5
HFS				pmax	pmax		
	comp=Z,3.0nm,0.4s						
EKA	**Eskdalemuir Ar**	21.59	323	P	P	14 37 36.3	-1.1
	comp=Z,7.5nm,1.0s,mb4.1,baz=119,slow=7.6,SNR=8.6						
EKA	**Eskdalemuir Ar**	21.59	323	P	P	14 37 36.3	-1.1
EKA				pmax	pmax		
	comp=Z,8.0nm,1.0s						
NB2	**NORSAR Subarra**	21.74	349	P	P	14 37 36.4	-2.5
	comp=Z,14nm,0.8s,mb4.4,baz=165,slow=10						
NOA	**NORSAR Array B**	21.74	349	P	P	14 37 37.0	-1.8
	comp=Z,6.0nm,0.7s,mb4.1,baz=166,slow=10,SNR=12						
NOA	**NORSAR Array B**	21.74	349	P	P	14 37 37.0	-1.9
NOA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
FINES	**FINESS Array B**	21.87	8	P	P	14 37 37.6	-2.6
	comp=Z,3.2nm,0.5s,mb4.0,baz=172,slow=11,SNR=28						
FINES	**FINESS Array B**	21.87	8	P	P	14 37 37.6	-2.6
FINES				pmax	pmax		
	comp=Z,3.0nm,0.5s						
KAF	**Kangasniemi**	22.55	8	*e*p	P	14 37 44.9	-1.9
	comp=Z,1.8nm,0.4s,mb3.9						
KAF	**Kangasniemi**	22.55	8	*e*P	P	14 37 44.9	-1.9
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb3.9						
JOF	**Joensuu**	24.04	13	*e*p	P	14 37 59.4	-1.9
	comp=Z,1.3nm,0.3s,mb3.8						
JOF	**Joensuu**	24.04	13	*e*P	P	14 37 59.4	-1.9
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.7						
ARCES	**ARCESS Array B**	29.80	4	P	P	14 38 50.8	-3.7
	comp=Z,2.4nm,0.6s,mb4.1,baz=189,slow=10,SNR=19						
ARCES	**ARCESS Array B**	29.80	4	P	P	14 38 50.8	-3.7
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KEV	**Kevo**	30.11	5	*e*p	P	14 38 54.2	-3.0
	comp=Z,1.3nm,0.4s,mb4.0						
KEV	**Kevo**	30.11	5	*e*P	P	14 38 54.2	-3.0
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
BRVK	**Borovoye**	36.46	52	*e*P	P	14 39 48.5	-3.9
	comp=Z,4.9nm,0.5s,mb4.7						
BRVK	**Borovoye**	36.46	52	*e*P	P	14 39 48.5	-3.8
	comp=Z,4.9nm,0.5s,mb4.7						
BVAR	**Borovoye Array**	36.52	52	P	P	14 39 49.9	-3.0
	comp=Z,0.9nm,0.4s,mb3.9,baz=288,slow=14,SNR=12						
CHKZ	**Chkalovo**	36.66	51	*e*P	P	14 39 51.4	-2.7
	comp=Z,4.3nm,0.9s,mb4.3						
CHKZ	**Chkalovo**	36.66	51	*e*P	P	14 39 51.4	-2.7
	comp=Z,4.3nm,0.9s,mb4.3						
DBIC	**Dimbokro**	39.78	220	P	P	14 40 17.7	-2.8
	comp=Z,1.5nm,0.8s,mb3.8,baz=98,slow=8.5,SNR=2.7						
DBIC	**Dimbokro**	39.78	220	P	P	14 40 17.7	-2.8
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
DBIC	**Dimbokro**	39.78	220	P	P	14 40 17.7	-2.9
EKS2	**Erkin-Say**	40.17	68	*e*P	P	14 40 21.5	-2.0
	comp=Z,7.3nm,0.9s,mb4.4						
MBAR	**Mbarara**	41.62	163	P	P	14 40 34.4	-1.4
	comp=Z,2.1nm,0.5s,mb4.0						
ZAL	**Zalesovo**	45.02	49	P	P	14 41 00.7	-2.1
	comp=Z,2.6nm,0.4s,mb4.4,baz=190,slow=6.3,SNR=12						
ZAL	**Zalesovo**	45.02	49	P	P	14 41 00.7	-2.1
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM	**Songino Array**	59.86	51	P	P	14 42 50.8	-2.8
	comp=Z,1.5nm,1.1s,mb4.0,baz=279,slow=5.6,SNR=6.0						
CMAR	**Chiang Mai Arr**	70.32	82	P	P	14 44 02.3	+0.7
	comp=Z,0.8nm,0.9s,mb3.6,baz=293,slow=6.9,SNR=2.8						
CMAR	**Chiang Mai Arr**	70.32	82	P	P	14 44 02.3	+0.7
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	**Yellowknife Ar**	71.49	339	P	P	14 44 06.8	-1.1
	comp=Z,0.8nm,0.6s,mb3.8,baz=37,slow=5.3,SNR=17						
YKA	**Yellowknife Ar**	71.49	339	P	P	14 44 06.8	-1.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CN2	**Changchun**	73.16	47	*e*P	P	14 44 17.6	-0.5
ILAR	**Eielson Array**	75.07	354	P	P	14 44 28.7	0.0
	comp=Z,0.7nm,0.7s,mb3.7,slow=4.5,SNR=7.9						
ILAR	**Eielson Array**	75.07	354	P	P	14 44 28.7	0.0
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
PDAR	**Pinedale Array**	85.70	325	P	P	14 45 26.9	+1.1
	comp=Z,1.0nm,1.1s,mb4.0,baz=58,slow=12,SNR=4.2						
TXAR	**Lajitas Array**	93.26	313	P	P	14 46 03.2	+1.5
	comp=Z,2.6nm,1.2s,mb4.5,baz=104,slow=5.2,SNR=4.3						
ASAR	**Alice Springs**	123.02	95	PKP	PKPdf	14 51 42.3	-3.0
	comp=Z,0.3nm,0.5s,baz=294,slow=1.4,SNR=6.6						

MAN 07 14:45:34.6,9.82N×122.40E,h1^{km},mb4.1,ML2.9,MS2.6,1C,Negros

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAP	**Anini-y**	0.74	323	*i* P	Pg	14 45 49.0	-0.5
GUIM	**Jordan**	0.82	13	*e*P	Pg	14 45 50.0	-1.0
GUIM				*e*S	Sg	14 45 59.3	-2.7
TBP	**Tagbilaran**	1.45	95	*i* P	Pn	14 46 03.1	+1.1
TBP				*i* S	Sb	14 46 21.7	+0.7
DCPH	**Dipolog City**	1.55	142⇑	*i*P	Pn	14 46 03.9	+0.4
DCPH				*i* S	Sb	14 46 24.2	+0.3
LLP	**Lapu-Lapu**	1.62	72	*i* P	Pn	14 46 04.8	+0.3
LLP				*e*S	Sb	14 46 23.7	-2.3
CUYO	**Cuyo Island**	1.70	307	*e*P	Pn	14 46 06.9	+1.3
MSLP	**Maasin**	2.44	82	*e*P	Pn	14 46 17.2	+0.9
OTRP	**Odiongan**	2.55	352	*e*P	Pn	14 46 17.3	-0.5

IDC 07 14:52:34.6±7.5,30.64S×177.15W,mb3.4/2,mb1 3.7/2, mb1mx3.6/13,MS3.1/1,Ms1 3.1/1,ms1mx2.8/10,Error ellipse: s-maj=315.0km s-min=59.6km az=155.0, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	34.56	279	LR	LR	15 09 20.1	
	comp=Z,35nm,21.7s,baz=133,slow=29						
ASAR	**Alice Springs**	43.83	267	P	P	15 00 42.0	-2.2
	0.4nm,0.8s,baz=114,slow=7.5,SNR=3.5						
WRA	**Warramunga Arr**	44.84	272	P	P	15 00 51.2	-1.3
	0.6nm,0.7s,baz=110,slow=8.0,SNR=8.5						
FINES	**FINESS Array B**	145.62	340	PKPbc	PKPbc	15 12 13.6	-1.2
	5.0nm,0.9s,baz=34,slow=5.0,SNR=4.4						

LDG ***07*** *14:57:08.6±0.2,48.01N×7.95E,h17^{km},Md1.8/1,Ml1.9/2, Error ellipse: s-maj=4.2km s-min=3.3km az=51.0*

STR 07 14:57:09.0±0.2,48.00N×7.93E,h10^{km}±1^{km},Ml1.7,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0,France

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MOF	**Molkenrain**	0.56	255	Pg	Pg	14 57 19.9	-0.3
ECH	**Echery**	0.56	293	Pg	Pg	14 57 19.9	-0.4
ECH				Sg	Sg	14 57 27.5	-0.4
WLS	**Welschbruch**	0.57	317	Pg	Pg	14 57 20.3	-0.1
WLS				Sg	Sg	14 57 27.7	-0.4
CDF	**Champ du Feu**	0.60	314	*e*Pg	Pg	14 57 20.6	-0.5
CDF				*e*Sg	Sg	14 57 27.0	-2.2
	6.2nm,0.2s						
HINF	**Hinteralfeld**	0.75	256	*e*Pg	Pg	14 57 22.7	-1.3
HINF				*e*Sg	Sg	14 57 33.0	-1.1
	4.6nm,0.2s						
HAU	**Haudompre**	1.06	271	*e*Pn	Pn	14 57 27.8	-2.1
HAU				*e*Pg	Pg	14 57 29.2	-1.1
HAU				*e*Sg	Sg	14 57 42.8	-1.7
HAU				*e*Sn	Sn	14 57 43.9	-0.8
	3.6nm,0.2s						

THE ***07*** *14:59:00.2,39.88N×19.57E,h5^{km},ML3.8*
PDG ***07*** *14:59:01.1±0.3,39.95N×19.78E,h6^{km}±1^{km}*
NEIC ***07*** *14:59:01.2,39.76N×19.65E,h21^{km},MD3.4(PDG), ML4.1(ATH),After ATH.*
ATH ***07*** *14:59:01.0,39.77N×19.64E,h20^{km}±1^{km},MD3.8/5,ML4.2*
CSEM ***07*** *14:59:01.4±0.1,39.75N×19.66E,h2^{km},ML4.1,Error ellipse: s-maj=2.2km s-min=1.4km az=33.0*
IDC ***07*** *14:59:26.0±5.6,42.52N×20.58E,mb1 3.8/5, mb1mx3.5/21,ML3.3/5,Error ellipse: s-maj=110.0km s-min=29.2km az=30.0*

ISC 07 14:59:00.1±0.3,39.87N±0.02×19.69E±0.03,h5^{km},n70, σ1^{s}21/110,mb2.8/2,7C,Greece-Albania border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	**Kerkira**	0.18	152	*e*PB	Pb	14 59 06.0	+0.5
SRN	**Sarande**	0.24	88	*i* Pg	Pg	14 59 04.8	-0.1
SRN				*i* Sg	Sg	14 59 08.5	+0.3
TPE	**Tepelena**	0.49	30	*i* Pg	Pg	14 59 07.2	-2.7
TPE				*i* Sg	Sg	14 59 14.6	-1.9
IGT	**Igoumenitsa**	0.60	124	*e*Pg	Pg	14 59 12.6	+0.5
IGT				*e*Sg	Sg	14 59 23.2	+3.1
JAN	**Janina**	0.92	103	*e*PB	Pb	14 59 18.0	-0.1
JAN				*e*SN	Sn	14 59 32.0	-1.2
KBN	**Korca**	1.13	48	*i* Pg	Pg	14 59 09.6	-13
MEV	**Metsovon**	1.19	94	*e*Pb	Pb	14 59 22.8	0.0
MEV				*e*Sb	Sb	14 59 42.2	+3.9
LCI	**Lecce**	1.30	291	*e*Pn	Pn	14 59 25.0	+0.1
LKD	**Levkas**	1.38	147	*e*Pb	Pb	14 59 27.4	+1.3
LKD				*e*Sb	Sb	14 59 45.0	+1.2
OHR	**Ohrid**	1.50	34	*e*Pn	Pn	14 59 26.6	-1.2
OHR				*e*		14 59 27.7	
OHR				*e*Sg	Sg	14 59 48.5	-1.6
OHR				*e*		14 59 51.0	
OHR	**Ohrid**	1.50	34	*e*Pn	Pn	14 59 26.6	-1.2
OHR				*e*Sg	Sg	14 59 48.5	-1.6
FNA	**Florina**	1.58	54	*e*Pb	Pb	14 59 28.0	-1.4
FNA				*e*Sb	Sb	14 59 52.3	+2.7
FNA	**Florina**	1.58	54	*e*Sb	Sb	14 59 52.3	+2.7
KZN	**Kozani**	1.65	74	*e*PB	Pb	14 59 31.2	+0.5
KZN				*e*SN	Sn	14 59 55.6	+3.8
QSH	**Qafa e Shtames**	1.66	6	*i* Pn	Pn	14 59 29.0	-1.1
QSH				*i* Sn	Sn	14 59 53.0	+1.1
QSH	**Qafa e Shtames**	1.66	6	*i* Sn	Sn	14 59 53.0	+1.1
BIA	**Bitola**	1.69	47	*i* Pn	Pn	14 59 30.7	+0.1
BIA				*i* Pg	Pg	14 59 33.1	-0.8
BIA				*i*		14 59 36.8	
BIA				*i* Sn	Sn	14 59 54.6	+1.7
BIA	**Bitola**	1.69	47	*i* Pn	Pn	14 59 30.7	+0.1
BIA				*i* Sn	Sn	14 59 54.6	+1.7
BIA	**Bitola**	1.69	47	*i* Pg	Pg	14 59 33.1	-0.8
VLS	**Valsamata**	1.83	157	*e*PN	Pn	14 59 33.3	+0.8
VLS				*e*SN	Sn	14 59 56.0	-0.3
ULC	**Ulcinj**	2.12	351	*e*Pn	Pn	14 59 37.7	+1.0
ULC				*e*Sn	Sn	15 00 05.8	+2.2
LIT	**Litokhoron**	2.16	83	*e*Pn	Pn	14 59 38.0	+0.7
PUK	**Puka**	2.17	4	*i* Pn	Pn	14 59 35.9	-1.6
PUK				*i* Sn	Sn	15 00 08.1	+3.0
PUK	**Puka**	2.17	4	*e*Pn	Pn	14 59 35.9	-1.6
PUK				*i* Sn	Sn	15 00 08.1	+3.0
AGG	**Agios Georgios**	2.21	112	*e*Pn	Pn	14 59 39.7	+1.7
LTRZ	**Laterza**	2.32	289	*e*Pn	Pn	14 59 43.6	+4.1
LTRZ	**Laterza**	2.32	289	*e*Pn	Pn	14 59 43.7	+4.2
GRG	**Griva**	2.33	61	*e*Pn	Pn	14 59 39.2	-0.6
GRG				*e*Sn	Sn	15 00 09.9	+0.7
SKO	**Skopje**	2.48	32⇑	*i*Pn	Pn	14 59 40.7	-1.2
SKO				*i* Pb	Pb	14 59 45.0	+0.1
SKO				*i* Pg	Pg	14 59 47.5	-2.2
	comp=Z,0.1nm,0.6s						
SKO				*i* Sn	Sn	15 00 14.4	+1.5
SKO				*i* Sb	Sb	15 00 19.2	+3.4
SKO				*i* Sg	Sg	15 00 21.0	-1.8
SKO				Lg		15 00 23.0	
	comp=Z,0.1nm,0.6s						
SKO	**Skopje**	2.48	32⇑	*i*Pn	Pn	14 59 40.7	-1.2
SKO				*i* Sn	Sn	15 00 14.4	+1.5
SKO				*i* Sg	Sg	15 00 21.0	-1.8
SKO	**Skopje**	2.48	32	*i* Pg	Pg	14 59 47.5	-2.2
	comp=Z,67nm,0.6s						
BUM	**Brajici-Budva**	2.50	346⇑	*i*Pn	Pn	14 59 42.4	+0.3
BUM				*e*Sn	Sn	15 00 15.1	+1.7
TTG	**Podgorica**	2.58	353	*e*Pn	Pn	14 59 43.6	+0.4
TTG				*e*Sn	Sn	15 00 16.7	+1.3
HCY	**Herceg Novi**	2.73	341	*e*Pn	Pn	14 59 45.8	+0.4
HCY				*e*Sn	Sn	15 00 20.9	+1.8
PVY	**Plav**	2.73	4	*e*Pn	Pn	14 59 45.1	-0.3
PVY				*e*Sn	Sn	15 00 19.4	+0.2
GRI	**Girifalco**	2.75	249	*e*Pn	Pn	14 59 45.4	-0.3
GRI	**Girifalco**	2.75	249	*e*Pn	Pn	14 59 45.4	-0.2
XOR	**Xorichti**	2.75	99	*e*Pn	Pn	14 59 46.4	+0.7
XOR				*e*Sn	Sn	15 00 20.8	+1.1
NEO	**Neokhori**	2.79	101	*e*PB	Pb	14 59 48.5	-1.6
PLG	**Polygyros**	2.92	79	*e*PN	Pn	14 59 49.0	+0.9
PLG				*e*SN	Sn	15 00 25.0	+0.9
SOH	**Sokhos**	2.96	70	*e*Pn	Pn	14 59 48.5	-0.1
SOH				*e*Sn	Sn	15 00 26.9	+2.0
NKY	**Niksic**	2.99	350⇑	*i*Pn	Pn	14 59 49.5	+0.4
NKY				*e*Sn	Sn	15 00 26.2	+0.5
IVA	**Berane**	3.00	3⇑	*i*Pn	Pn	14 59 48.7	-0.6
IVA				*e*Sn	Sn	15 00 26.2	+0.1
PAIG	**Paliouri**	3.07	88	*e*Pn	Pn	14 59 49.4	-0.8

BRY	**Bratogost**	3.15	344	*e*Pn	Pn	14 59 51.2	-0.2
BRY				*e*Sn	Sn	15 00 30.4	+0.6
MGR	**Morigerati**	3.19	276	*e*Pn	Pn	14 59 52.6	+0.6
MGR	**Morigerati**	3.19	276	*e*Pn	Pn	14 59 52.6	+0.6
KKB	**Krupnik**	3.25	51	*i* P	Pn	14 59 51.0	-1.9
OUR	**Ouranopolis**	3.32	81	*e*Pn	Pn	14 59 53.3	-0.6
SOI	**Samo**	3.36	239	*e*Pn	Pn	14 59 52.5	-1.9
SOI	**Samo**	3.36	239	*e*Pn	Pn	14 59 52.5	-1.8
FGMS	**Monte Sant'Ang**	3.38	304	*e*Pn	Pn	14 59 56.1	+1.4
FGMS	**Monte Sant'Ang**	3.38	304	*e*Pn	Pn	14 59 56.1	+1.4
UPM	**Unac-Piva**	3.38	350	⇑*i*Pn	Pn	14 59 55.2	+0.5
UPM				*e*Sn	Sn	15 00 36.3	+0.6
PLE	**Pljevlja**	3.46	356	⇑*i*Pn	Pn	14 59 55.9	+0.1
PLE				*e*Sn	Sn	15 00 37.1	-0.7
MMB	**Musomiste**	3.51	59	*i* P	Pn	14 59 55.0	-1.6
NSAL	**Nisos Salamina**	3.54	122	*e*PN	Pn	14 59 56.5	-0.4
MPAR	**Parnis Oros**	3.59	117	*e*PN	Pn	14 59 58.0	+0.4
MPAR				*e*SN	Sn	15 00 39.5	-1.4
NAIG	**Nisos Aigina**	3.64	124	*e*Pn	Pn	14 59 56.2	-2.1
ATH	**Athens Observa**	3.67	120	*e*PN	Pn	14 59 58.5	-0.2
VTS	**Vitosha**	3.80	43	*e*P	Pn	14 59 59.0	-1.6
RZN	**Rozhen**	4.22	63	*e*P	Pn	15 00 05.0	-1.6
ARV	**Arcevia**	6.22	308	*e*Pn	Pn	15 00 35.1	+0.3
ARV	**Arcevia**	6.22	308	*e*Pn	Pn	15 00 35.2	+0.4
MLR	**Muntele Rosu**	7.26	37	Pn	Pn	15 00 49.2	-0.3
	comp=Z,0.3nm,0.3s,baz=151,slow=8.3,SNR=3.9						
VOY	**Vojsko**	7.48	327	*e*Pn	Pn	15 00 47.9	-4.7
VOY				*e*Sn	Sn	15 02 17.0	-1.8
GERES	**GERESS Array B**	9.94	336	Pn	P	15 01 23.9	-2.8
	comp=Z,0.2nm,0.3s,baz=138,slow=12,SNR=6.1						
BRTR	**Keskin Array B**	10.73	86	Pn	P	15 01 54.1	+17
	comp=Z,0.1nm,0.3s,baz=289,slow=14,SNR=3.9						
NOA	**NORSAR Array B**	21.83	349	P	P	15 03 54.0	-1.0
	comp=Z,0.2nm,0.3s,mb3.0,baz=165,slow=11,SNR=2.8						
FINES	**FINESS Array B**	21.95	8	P	P	15 03 51.2	-5.0
	comp=Z,0.1nm,0.3s,mb2.7,baz=187,slow=11,SNR=5.2						

*KISR **07** 14:59:05.9±0.9, 32.82N×50.12E, h33^{km}, ML3.1*

THR 07 14:59:07.0±1.0, 32.68N×50.08E, h14^{km}±9^{km}, ML3.0, Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHGR	**Shooshtar-Gavs**	1.22	243	*e*SG	Sg	14 59 46.4	-1.4
ASAO	**Ashtian**	1.87	359	*e*PG	Pg	14 59 41.1	-3.2
NASN	**Na'in**	2.31	86	*e*PN	Pn	14 59 46.9	+1.7
NASN				*e*SG	Sg	15 00 19.8	-4.1
NASN				AMP		15 00 23.1	
	comp=E,102nm,0.6s						
NASN				AMP		15 00 24.2	
	comp=N,57nm,0.8s						
SNGE	**Sanandaj**	3.31	317	*e*PN	Pn	15 00 00.9	+1.4
SNGE				AMP		15 01 00.7	
	comp=N,53nm,0.6s						
MIB	**Mutribah**	3.70	220	*e*P	Pn	15 00 04.8	-0.2
MIB				*e*S	Sn	15 00 48.8	-0.1
MIB				AML	AML	15 00 50.7	
	comp=Z,28nm,0.4s						
UMR	**Umm Al-Rimmam**	3.71	214	*e*P	Pn	15 00 04.9	-0.4
UMR				*e*S	Sn	15 00 48.2	-1.0
RST	**Umm Al-Ruwaisa**	4.12	221	*e*P	Pn	15 00 10.0	-1.0
RST				*e*S	Sn	15 00 58.5	-1.1
RST				AML	AML	15 01 06.0	
	comp=Z,21nm,0.6s						
RDF	**Al-Radifah**	4.32	211	*e*P	Pn	15 00 14.2	+0.3
RDF				*e*S	Sn	15 01 03.6	-1.0
RDF				AML	AML	15 01 06.2	
	comp=Z,26nm,0.4s						

KRSC 07 15:04:57.6±0.8, 48.83N×155.44E, h41^{km}±44^{km}, ML4.1, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALID	**Alaid**	2.04	2	*e*P	P	15 05 29.6	-0.6
ALID				*e*S	S	15 05 52.8	-1.8
PAU	**Pauzhetka**	2.78	18	*e*P	P	15 05 40.8	0.0
PAU				*e*S	S	15 06 13.0	-0.5
PAU				Smax			
	280nm,0.4s						
GRL	**Gorelyy**	4.08	23	*e*P	P	15 05 59.3	+0.1
GRL				*e*S	S	15 06 44.9	-1.5
RUS	**Russkaya**	4.10	27	*e*P	P	15 05 58.2	-1.3
RUS				*e*S	S	15 06 42.9	-4.0
PET	**Petropavlovsk**	4.67	25	*e*P	P	15 06 06.7	-0.8
PET				*e*S	S	15 06 56.8	-4.2
UGLR	**Uglovaya**	4.88	25	*e*P	P	15 06 08.8	-1.6
UGLR				*e*S	S	15 07 02.0	-4.4
KOK	**Koryaka**	4.90	23	*e*P	P	15 06 11.2	+0.4
KOK				*e*S	S	15 07 04.5	-2.5
AVH	**Avacha**	4.90	24	*e*P	P	15 06 11.6	+0.8
AVH				*e*S	S	15 07 04.6	-2.5
SMAR	**Somma**	4.92	24	*e*P	P	15 06 12.0	+1.0
SMAR				*e*S	S	15 07 06.0	-1.4
SDLR	**Sedlovina**	4.96	25	*e*P	P	15 06 11.1	-0.4
SDLR				*e*S	S	15 07 04.7	-3.6
GNL	**Ganaly**	5.12	17	*e*P	P	15 06 13.8	0.0
GNL				*e*S	S	15 07 09.8	-2.7
SPN	**Mys Shipunski**	5.16	32	*e*P	P	15 06 14.3	-0.1
SPN				*e*S	S	15 07 10.6	-2.9
KBTR	**Krutoberegovo**	8.65	29	*e*P	P	15 07 01.0	-2.0

*NEIC **07** 15:08:56.4, 38.55S×175.89E, h163^{km}, After WEL.*

WEL 07 15:08:57.4±0.3, 38.58S×175.88E, h154^{km}±2^{km}, ML3.6/9, 2C-4D, Error ellipse: s-maj=1.9km s-min=1.7km az=0.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGZ	**Maungaku**	0.50	212	P	P	15 09 19.5	-0.1
MGZ	**Maungaku**	0.50	212	PN	P	15 09 19.5	0.0
NGZ	**Ngauruhoe**	0.64	200	P	P	15 09 20.2	-0.1
NGZ	**Ngauruhoe**	0.64	200	*e*PN	P	15 09 20.3	0.0
CNZ	**Chateau**	0.67	203	P	P	15 09 20.4	-0.1
CNZ	**Chateau**	0.67	203	PN	P	15 09 20.4	-0.1
TUVZ	**Tukino**	0.71	195	P	P	15 09 20.7	0.0
TUVZ	**Tukino**	0.71	195	PN	P	15 09 20.7	0.0
TUVZ				SN	S	15 09 37.9	-0.7
FWVZ	**Far West T-bar**	0.72	201	P	P	15 09 20.8	0.0
FWVZ	**Far West T-bar**	0.72	201	PN	P	15 09 20.8	0.0
FWVZ				SN	S	15 09 38.4	-0.3
BKZ	**Black Stump Fm**	0.76	141	P	P	15 09 21.0	+0.1
BKZ				S	S	15 09 38.4	-0.7
BKZ	**Black Stump Fm**	0.76	141	⇓PN	P	15 09 21.0	0.0
BKZ				SN	S	15 09 38.4	-0.7
WNVZ	**Wahianoa**	0.78	196	P	P	15 09 21.1	0.0
WNVZ	**Wahianoa**	0.78	196	PN	P	15 09 21.1	0.0
HIZ	**Hauiti**	0.81	274	*e*P	P	15 09 20.8	-0.5
HIZ	**Hauiti**	0.81	274	PN	P	15 09 20.8	-0.5
MOVZ	**Moawhango**	0.83	187	P	P	15 09 21.1	-0.3
MOVZ	**Moawhango**	0.83	187	PN	P	15 09 21.1	-0.3
MOVZ				SN	S	15 09 38.3	-1.6
URZ	**Urewera**	1.01	72	⇓PN	P	15 09 22.3	-0.4
URZ				SN	S	15 09 41.8	-0.5
MWZ	**Matawai**	1.31	80	P	P	15 09 25.3	-0.3
MWZ	**Matawai**	1.31	80	⇓PN	P	15 09 25.3	-0.3
MWZ				SN	S	15 09 46.0	-1.4
RAEZ	**Rainy Point**	1.36	238	P	P	15 09 25.9	-0.2
RAEZ	**Rainy Point**	1.36	238	PN	P	15 09 25.9	-0.2
WAZ	**Wanganui**	1.37	210	*e*P	P	15 09 25.3	-0.9
WAZ	**Wanganui**	1.37	210	PN	P	15 09 25.3	-0.9
KNZ	**Kokohu**	1.47	108	PN	P	15 09 27.2	0.0
TSZ	**Takapari Road**	1.48	178	P	P	15 09 26.8	-0.5
TSZ	**Takapari Road**	1.48	178	⇑PN	P	15 09 26.8	-0.6
TSZ				SN	S	15 09 48.1	-2.3
NEZ	**North Egmont**	1.56	243	P	P	15 09 27.8	-0.3
NEZ	**North Egmont**	1.56	243	PN	P	15 09 27.8	-0.3
DFE	**Dawson Falls**	1.58	241	P	P	15 09 27.1	-1.2
DFE	**Dawson Falls**	1.58	241	PN	P	15 09 27.1	-1.2
PWZ	**Pawanui**	1.64	153	*e*P	P	15 09 28.7	-0.3
PWZ	**Pawanui**	1.64	153	PN	P	15 09 28.7	-0.2
PWZ				SN	S	15 09 52.0	-1.4
NWEZ	**Newall Road**	1.72	246	P	P	15 09 28.9	-1.0
NWEZ	**Newall Road**	1.72	246	PN	P	15 09 28.9	-1.0
PUZ	**Puketiti**	1.93	76	*e*P	P	15 09 31.4	-0.9
PUZ	**Puketiti**	1.93	76	PN	P	15 09 31.4	-0.8
PUZ				SN	S	15 09 56.7	-2.4
MRZ	**Mangatainoka R**	2.09	186	P	P	15 09 32.4	-1.8
MRZ	**Mangatainoka R**	2.09	186	⇑PN	P	15 09 32.4	-1.8
MRZ				SN	S	15 09 58.8	-3.7
BFZ	**Birch Farm**	2.12	173	P	P	15 09 33.0	-1.5
BFZ	**Birch Farm**	2.12	173	PN	P	15 09 33.0	-1.5
MXZ	**Matakaoa Point**	2.16	63	P	P	15 09 33.5	-1.5
MXZ	**Matakaoa Point**	2.16	63	PN	P	15 09 34.6	-0.5
MXZ				SN	S	15 10 02.6	-1.4
KIW	**Kapiti Island**	2.40	198	P	P	15 09 35.4	-2.6
KIW	**Kapiti Island**	2.40	198	PN	P	15 09 35.4	-2.6
MTW	**Mount Morrison**	2.59	186	P	P	15 09 37.5	-2.9
MTW	**Mount Morrison**	2.59	186	PN	P	15 09 37.5	-2.9
CAW	**Cannon Point**	2.60	194	P	P	15 09 37.8	-2.7
CAW	**Cannon Point**	2.60	194	PN	P	15 09 37.8	-2.7
MRW	**Makara Radio**	2.80	199	P	P	15 09 40.0	-3.0
MRW	**Makara Radio**	2.80	199	PN	P	15 09 40.0	-3.0
PAWZ	**Paruwai Farm**	2.82	187	PN	P	15 09 40.2	-3.0
MSWZ	**Moikau Station**	2.88	190	P	P	15 09 40.7	-3.3
MSWZ	**Moikau Station**	2.88	190	⇓PN	P	15 09 40.7	-3.2
NNZ	**Nelson**	3.27	215	P	P	15 09 45.1	-3.9
NNZ	**Nelson**	3.27	215	PN	P	15 09 45.1	-3.9
NNZ				SN	S	15 10 23.8	-4.8
QRZ	**Quartz Range**	3.43	228	*e*P	P	15 09 46.4	-4.7
QRZ	**Quartz Range**	3.43	228	PN	P	15 09 46.4	-4.6
QRZ				SN	S	15 10 26.6	-5.7
THZ	**Tophouse**	3.92	215	*e*P	P	15 09 53.2	-4.2
THZ	**Tophouse**	3.92	215	PN	P	15 09 53.2	-4.2
KHZ	**Kahutara**	4.23	204	*e*P	P	15 09 57.4	-4.2
KHZ	**Kahutara**	4.23	204	PN	P	15 09 57.4	-4.2
DSZ	**Denniston Nort**	4.45	223	*e*P	P	15 09 59.1	-5.3
DSZ	**Denniston Nort**	4.45	223	PN	P	15 09 59.1	-5.4
LTZ	**Lake Taylor**	5.02	212	P	P	15 10 06.2	-5.7
LTZ	**Lake Taylor**	5.02	212	PN	P	15 10 06.2	-5.7
MQZ	**McQueen's Vall**	5.67	204	*e*P	P	15 10 14.4	-6.2
MQZ	**McQueen's Vall**	5.67	204	PN	P	15 10 14.4	-6.2
ODZ	**Otahua Downs**	7.55	210	*e*P	P	15 10 39.6	-6.2
ODZ	**Otahua Downs**	7.55	210	PN	P	15 10 39.6	-6.1

*NEIC **07** 15:11:24.1±4.5, 29.03S×178.95W, h283^{km}±40^{km}, mb3.7/1, Error ellipse: s-maj=44.4km s-min=28.3km az=206.0*

*IDC **07** 15:11:31.9±9.1, 29.77S×179.07W, h359^{km}±96^{km}, mb3.0/2, mb1 3.3/3, mb1mx3.1/13, Error ellipse: s-maj=92.3km s-min=35.2km az=9.0*

ISC 07 15:11:33.6±2.3, 30.03S±0.09×179.1W±0.4, h400^{km}, n14, σ0^{s}96/15, mb3.7/4, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	**Puketiti**	8.32	195	P	**P**	**15 13 33.4**	**+0.3**
PUZ				S	**S**	**15 15 07.6**	**+0.2**
MWZ	**Matawai**	8.74	198	P	**P**	**15 13 38.7**	**+0.6**
URZ	**Urewera**	8.79	200	P	**P**	**15 13 39.4**	**+0.8**
	1.5nm,0.3s,baz=166,slow=9.5,SNR=18						
URZ				S	**S**	**15 15 19.8**	**+2.5**
	0.6nm,0.3s,baz=327,slow=7.2,SNR=10						
URZ	**Urewera**	8.79	200	P	**P**	**15 13 38.9**	**+0.3**
BKZ	**Black Stump Fm**	9.81	201	P	**P**	**15 13 49.6**	**-0.9**
BFZ	**Birch Farm**	11.29	198	P	**P**	**15 14 08.3**	**+0.7**
MRZ	**Mangatainoka R**	11.46	201	P	**P**	**15 14 07.6**	**-2.0**
MRZ				S	**S**	**15 16 12.3**	**-1.3**
THZ	**Tophouse**	13.38	207	P	**P**	**15 14 31.0**	**-0.1**
ASAR	**Alice Springs**	42.19	267	P	**P**	**15 18 51.2**	**+0.6**
	0.3nm,0.4s,mb2.9,baz=98,slow=6.6,SNR=9.2						
WRAB	**Tennant Creek**	43.14	272	*e*P	**P**	**15 18 57.8**	**-0.5**
	2.7nm,0.6s,mb3.8						
WRA	**Warramunga Arr**	43.15	272	P	**P**	**15 18 58.5**	**+0.2**
	1.1nm,0.4s,mb3.5,baz=110,slow=7.8,SNR=22						
CASY	**Casey**	55.03	208	*e*P	**P**	**15 20 33.1**	**+5.9**
	13nm,0.5s,mb4.4						
FINES	**FINESS Array B**	144.48	339	PKP	PKPdf	15 30 23.6	+1.6
	0.6nm,0.3s,baz=39,slow=3.8,SNR=7.7						
NOA	**NORSAR Array B**	148.24	350	PKPbc	PKPdf	15 30 34.3	+6.0
	0.6nm,0.9s,baz=14,slow=4.5,SNR=2.3						

*ISK **07** 15:33:25.7, 35.79N×30.78E, h30^{km}, MD3.3, ML3.2*

*CSEM **07** 15:33:25.7, 35.79N×30.78E, h30^{km}, MD3.3, After ISK*

*IDC **07** 15:33:28.8±4.1, 37.13N×29.79E, mb4.0/2, mb1 3.8/4, mb1mx3.5/18, ML3.1/2, Error ellipse: s-maj=91.4km s-min=23.7km az=144.0*

ISC 07 15:33:25.8±1.6, 35.9N±0.1×30.79E±0.08, h93^{km}±10^{km}, n12, σ0^{s}80/16, mb3.8/2, Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANTB	**Antalya**	1.00	354	PN	**P**	**15 33 45.5**	**-0.5**
BCK	**Bucak**	1.56	354	PN	**P**	**15 33 53.8**	**+0.8**
FETY	**Fethiye**	1.56	298	PN	**P**	**15 33 53.2**	**+0.2**
FETY				SN	**S**	**15 34 12.1**	**-0.9**
HDMB	**Hadim**	1.73	52	PN	**P**	**15 33 55.0**	**-0.1**
HDMB				SN	**S**	**15 34 17.5**	**+0.9**
DALT	**Dalyan (Mudla)**	1.94	297	PN	**P**	**15 33 58.2**	**+0.3**
ISP	**Isparta**	1.95	353	*e*PN	**P**	**15 33 58.6**	**+0.6**
DENT	**Denizli**	2.33	323	*e*PN	**P**	**15 34 04.5**	**+1.3**
YER	**Yerkesik**	2.37	302	*e*PN	**P**	**15 34 04.0**	**+0.3**
BRTR	**Keskin Array B**	4.43	30	Pn	**P**	**15 34 30.5**	**-1.7**
	0.5nm,0.3s,baz=218,slow=14,SNR=10.0						
BRTR				Sn	**S**	**15 35 21.9**	**-1.0**
	0.5nm,0.3s,baz=199,slow=23,SNR=6.5						
IDI	**Anoyia**	4.85	264	Pn	**P**	**15 34 37.0**	**-0.9**
	2.2nm,0.3s,baz=82,slow=7.1,SNR=12						
IDI				Sn	**S**	**15 35 28.1**	**-5.2**
	6.8nm,0.3s,baz=124,slow=24,SNR=9.0						
FINES	**FINESS Array B**	25.74	355	P	**P**	**15 38 49.2**	**+0.3**
	1.5nm,0.5s,mb3.7,baz=159,slow=11,SNR=8.3						
ARCES	**ARCESS Array B**	33.81	357	P	**P**	**15 40 00.9**	**+0.3**
	2.3nm,0.9s,mb4.0,baz=174,slow=9.1,SNR=4.1						

*IDC **07** 15:59:29.1±2.6, 7.17S×156.34E, h56^{km}±21^{km}, mb3.9/11, mb1 4.1/13, mb1mx4.1/17, ML3.9/2, MS3.6/6, Ms1 3.6/6, ms1mx3.3/21, Error ellipse: s-maj=21.5km s-min=17.5km az=95.0*

*NEIC **07** 15:59:34.1±2.7, 7.23S×156.08E, h99^{km}±22^{km}, mb4.4/6, Error ellipse: s-maj=18.8km s-min=13.3km az=85.0*

*SYO **07** 15:59:41.6, 7.11S×155.41E, h134^{km}, MB4.4*

ISC 07 15:59:32.0±3.8, 7.3S±0.1×156.1E±0.2, h94^{km}±32^{km}, n30, σ0^{s}83/26, mb4.2/16, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	9.09	256	P	**P**	**16 01 41.4**	**-0.6**
	4.6nm,0.3s,baz=48,slow=8.9,SNR=30						
PMG				S	**S**	**16 03 31.6**	**+8.2**
	0.8nm,0.3s,baz=295,slow=23,SNR=4.7						
PMG				LR	LR	16 04 57.7	
	comp=Z,283nm,20.2s,baz=234,slow=35						
PMG	**Port Moresby**	9.09	256	*e*P	**P**	**16 01 41.2**	**-0.8**
CTA	**Charters Tower**	15.92	216	P	**P**	**16 03 13.1**	**+1.3**
	0.5nm,0.3s,baz=34,slow=15,SNR=11						
CTA				LR	LR	16 07 26.7	
	comp=Z,75nm,20.6s,baz=49,slow=30						
CTAO	**Charters Tower**	15.92	216	*e*P	**P**	**16 03 15.6**	**+3.8**
	8.5nm,0.6s						
KAKA	**Kakadu**	23.90	255	*e*P	**P**	**16 04 38.7**	**+0.5**
	31nm,0.6s,mb4.8						
WRAB	**Tennant Creek**	24.56	237	*e*P	**P**	**16 04 44.9**	**+0.4**
	39nm,0.6s,mb5.0						
WB2	**Warramunga Arr**	24.56	237	*e*P	**P**	**16 04 45.2**	**+0.7**
WRA	**Warramunga Arr**	24.57	237	P	**P**	**16 04 45.4**	**+0.8**
	22nm,0.8s,mb4.7,baz=60,slow=9.5,SNR=118						
WRA				ScP		16 11 57.2	
	0.9nm,0.7s,baz=66,slow=3.1,SNR=5.2						
ASAR	**Alice Springs**	26.82	230	P	**P**	**16 05 04.7**	**-0.9**
	1.1nm,0.5s,mb3.6,baz=58,slow=9.9,SNR=22						
ASAR				PcP	PcP	16 08 26.7	+0.3
	0.4nm,0.6s,baz=64,slow=2.8,SNR=5.5						
ASAR				ScP		16 12 01.6	
	0.3nm,0.7s,baz=7.6,slow=11,SNR=6.9						
ASAR				LR	LR	16 15 15.0	
	comp=Z,92nm,20.9s,baz=35,slow=35						
ASPA	**Alice Springs**	26.82	230	*e*P	**P**	**16 05 04.8**	**-0.8**
STKA	**Stephens Creek**	27.97	207	P	**P**	**16 05 15.7**	**-0.3**
	1.8nm,0.6s,mb3.8,baz=30,slow=15,SNR=3.5						
STKA				LR	LR	16 15 44.6	
	comp=Z,123nm,19.1s,baz=29,slow=35						
FITZ	**Fitzroy Crossi**	31.55	247	*e*P	**P**	**16 05 46.6**	**-1.1**
	5.2nm,0.7s,mb4.4						
MBWA	**Marble Bar**	37.74	245	P	**P**	**16 06 39.9**	**-0.7**
	3.5nm,0.7s,mb4.3						
RPZ	**Rata Peaks**	38.60	163	P	**P**	**16 06 48.6**	**+1.2**
	15nm,1.1s,mb4.8,slow=8.1,SNR=3.7						
CMAR	**Chiang Mai Arr**	61.88	295	P	**P**	**16 09 44.7**	**+0.6**
	0.9nm,0.7s,mb3.9,baz=123,slow=5.3,SNR=5.8						
CMAR				LR	LR	16 36 39.2	
	comp=Z,71nm,19.0s,baz=66,slow=36						
ULN	**Ulaanbaatar**	69.82	327	P	**P**	**16 10 35.4**	**+1.1**
SONM	**Songino Array**	70.15	327	P	**P**	**16 10 37.0**	**+0.6**
	1.3nm,0.6s,mb3.9,baz=146,slow=6.7,SNR=19						
VNDA	**Vanda**	70.28	179	P	**P**	**16 10 35.9**	**-0.8**
	1.2nm,1.0s,mb3.7,baz=350,slow=6.0,SNR=3.3						
VNDA	**Vanda**	70.28	179	P	**P**	**16 10 35.9**	**-0.8**
ILAR	**Eielson Array**	83.23	21	P	**P**	**16 11 47.1**	**-1.9**
	0.2nm,0.5s,mb3.2,baz=250,slow=4.5,SNR=6.7						
ILAR				LR	LR	16 48 17.3	
	comp=Z,63nm,18.9s,baz=90,slow=35						
ZAL	**Zalesovo**	85.02	326	P	**P**	**16 11 58.1**	**0.0**
	1.7nm,0.4s,mb4.3,baz=355,slow=7.2,SNR=6.6						
KURK	**Kurchatov**	87.72	322	*e*P	**P**	**16 12 11.8**	**+0.4**
	1.3nm,0.5s,mb4.2						
KURK				*e*		16 12 27.0	
BVAR	**Borovoye Array**	93.17	323	P	**P**	**16 12 36.6**	**-0.2**
	1.0nm,0.6s,mb4.4,baz=117,slow=3.2,SNR=5.5						
YKA	**Yellowknife Ar**	96.07	28	P	**P**	**16 12 49.7**	**+0.1**
	0.1nm,0.4s,mb3.6,baz=267,slow=4.6,SNR=4.1						
YKA	**Yellowknife Ar**	96.07	28	P	**P**	**16 12 49.7**	**+0.1**
GERES	**GERESS Array B**	127.84	329	PKP	PKPdf	16 18 29.4	+2.4
	0.5nm,0.4s,baz=90,slow=2.7,SNR=6.3						
LPAZ	**La Paz**	130.37	118	PKP	PKPdf	16 18 35.3	+2.7
	0.7nm,0.7s,baz=256,slow=4.2,SNR=4.5						
BDFB	**Brasilia**	147.01	134	PKPbc	PKPdf	16 19 05.3	+2.7
	9.9nm,0.8s,baz=233,slow=1.7,SNR=11						
BAO	**Brasilia Array**	147.03	134	PKP	PKPdf	16 19 06.7	+4.1
DBIC	**Dimbokro**	161.08	269	PKPab	PKPab	16 20 08.0	0.0
	0.8nm,0.5s,baz=113,slow=2.0,SNR=3.6						

*NEIC **07** 16:09:27.9±0.9, 13.04N×143.60E, h204^{km}±12^{km}, mb4.2/7, Error ellipse: s-maj=23.1km s-min=9.3km az=86.0*

*IDC **07** 16:09:35.0±9.9, 12.96N×143.48E, h274^{km}±102^{km}, mb3.5/13, mb1 3.7/13, mb1mx3.6/22, Error ellipse: s-maj=29.5km s-min=16.1km az=61.0*

ISC 07 16:09:26.8±0.9, 13.03N±0.07×143.4E±0.2, h205^{km}±10^{km}, n23, σ0^{s}80/24, mb3.9/19, 1D, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	1.50	68	Pn	**P**	**16 10 00.6**	**-0.8**
GUMO				Sn	**S**	**16 10 28.6**	**+0.5**
PMG	**Port Moresby**	22.59	170	P	**P**	**16 14 11.5**	**+0.5**
	2.2nm,0.4s,mb4.0,baz=12,slow=6.1,SNR=5.1						
PMG	**Port Moresby**	22.59	170	P	**P**	**16 14 11.0**	**0.0**
	5.5nm,0.8s,mb4.1						
CTA	**Charters Tower**	33.03	175	P	**P**	**16 15 45.5**	**+0.5**
	1.9nm,0.6s,mb3.8,baz=4.4,slow=13,SNR=2.4						
WRAB	**Tennant Creek**	33.95	195	*e*P	**P**	**16 15 52.5**	**-0.3**
	14nm,0.5s,mb4.8						
WB2	**Warramunga Arr**	33.96	195	⇓*i*P	**P**	**16 15 52.6**	**-0.3**
WRA	**Warramunga Arr**	33.97	195	P	**P**	**16 15 52.7**	**-0.2**
	7.5nm,0.6s,mb4.4,baz=17,slow=9.4,SNR=84						
FITZ	**Fitzroy Crossi**	35.57	210	*e*P	**P**	**16 16 06.5**	**0.0**
	4.8nm,1.2s,mb3.9						
ASAR	**Alice Springs**	37.64	194	P	**P**	**16 16 24.1**	**+0.2**
	2.7nm,0.7s,mb3.9,baz=18,slow=13,SNR=30						
ASPA	**Alice Springs**	37.64	194	*e*P	**P**	**16 16 24.5**	**+0.7**
MBWA	**Marble Bar**	41.19	215	*e*P	**P**	**16 16 52.6**	**-0.4**
	3.6nm,0.8s,mb3.9						
CMAR	**Chiang Mai Arr**	43.08	283	P	**P**	**16 17 09.2**	**+0.7**
	0.4nm,1.0s,mb2.8,baz=85,slow=7.2,SNR=4.4						
STKA	**Stephens Creek**	44.68	182	P	**P**	**16 17 19.1**	**-2.1**
	1.7nm,0.5s,mb3.6,baz=9.8,slow=9.3,SNR=8.5						
FORT	**Forrest**	46.00	198	*e*P	**P**	**16 17 32.5**	**+1.0**
	32nm,0.6s,mb4.8						
SONM	**Songino Array**	46.40	326	P	**P**	**16 17 35.3**	**+0.9**
	0.6nm,0.4s,mb3.2,baz=143,slow=8.5,SNR=11						
CHKZ	**Chkalovo**	69.43	323	*e*P	**P**	**16 20 08.5**	**-5.9**
	1.1nm,0.5s,mb3.7						
BVAR	**Borovoye Array**	69.50	322	P	**P**	**16 20 14.8**	**0.0**
	2.0nm,0.4s,mb4.1,baz=103,slow=8.2,SNR=16						
BRVK	**Borovoye**	69.57	322	*e*P	**P**	**16 20 14.4**	**-0.8**
	2.0nm,0.5s,mb4.0						
ILAR	**Eielson Array**	69.67	25	P	**P**	**16 20 14.2**	**-1.4**
	0.5nm,0.5s,mb3.4,baz=250,slow=5.8,SNR=11						
YKA	**Yellowknife Ar**	83.99	27	P	**P**	**16 21 35.5**	**+0.6**
	0.8nm,0.7s,mb3.5,baz=291,slow=5.4,SNR=7.7						
ARCES	**ARCESS Array B**	87.18	342	P	**P**	**16 21 50.2**	**-0.1**
	0.6nm,0.5s,mb3.6,baz=67,slow=6.9,SNR=4.6						
NVAR	**Mina Array Bea**	88.36	51	P	**P**	**16 21 58.1**	**+1.5**
	1.6nm,0.9s,mb3.9,baz=256,slow=5.0,SNR=5.5						
FINES	**FINESS Array B**	91.07	335	P	**P**	**16 22 07.8**	**-0.9**
	11nm,1.3s,mb4.6,baz=74,slow=5.1,SNR=11						

*IDC **07** 16:40:37.3±0.8, 15.71N×61.52W, mb3.9/8, mb1 4.1/9, mb1mx3.9/22, ML5.8/1, Error ellipse: s-maj=15.5km s-min=9.8km az=104.0*

*TRN **07** 16:40:37.6, 15.75N×61.43W, h26^{km}*

*NEIC **07** 16:40:39.1±0.7, 15.77N×61.53W, h10^{km}, mb3.9/1, Error ellipse: s-maj=18.0km s-min=13.9km az=204.0*

ISC 07 16:40:38.5±0.7, 15.74N±0.04×61.57W±0.07, h20^{km}±6^{km}, n24, σ0^{s}74/29, mb3.9/9, 2C-4D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	**Barber's Block**	0.23	157	⇓*i*P	**Pb**	**16 40 44.4**	**+0.2**
MGG	**Marie-Galante**	0.30	54	⇑*i*P	**Pb**	**16 40 44.9**	**-0.1**
SEG	**Port Louis**	0.66	5	⇑*e*P	**Pb**	**16 40 52.2**	**+1.1**
DEG	**La Desirade**	0.75	41	*e*P	**Pb**	**16 40 52.0**	**-0.6**
FDF	**Fort de France**	1.08	158	⇓*e*P	**Pb**	**16 40 58.7**	**+0.4**
FDF				*e*S	**Sb**	**16 41 11.7**	**-0.3**
CRM	**Caravelle**	1.17	147	⇓*e*P	**Pb**	**16 40 59.1**	**-0.6**
CRM				*e*S	**Sb**	**16 41 14.1**	**-0.4**
BIM	**Bigot**	1.31	158	*e*P	**Pn**	**16 41 02.4**	**+0.5**
MVM	**Montagne Vaucl**	1.35	151	⇓*e*P	**Pn**	**16 41 02.2**	**-0.2**
MVM				*e*S	**Sb**	**16 41 19.7**	**0.0**
GRW	**Mount Saint Ca**	3.56	181	*e*P	**Pn**	**16 41 38.0**	**+3.9**
SJG	**San Juan**	4.98	299	Pn	**Pn**	**16 41 54.6**	**+0.4**
	7.9nm,0.3s,baz=144,slow=14,SNR=5.6						
SJG				Sn	**Sn**	**16 42 50.7**	**-1.2**
	7.9nm,0.3s,baz=79,slow=19,SNR=4.7						
SJG	**San Juan**	4.98	299	Pn	**Pn**	**16 41 54.6**	**+0.4**
SJG				Sn	**Sn**	**16 42 50.7**	**-1.2**
SDV	**Santo Domingo**	11.17	233	Pn	**P**	**16 43 27.7**	**+7.3**
JTS	**JuntasAbangare**	23.41	259	P	**P**	**16 46 04.6**	**+17**
SAML	**Samuel**	24.58	184	*e*P	**P**	**16 45 59.5**	**+0.7**
	1.7nm,0.6s,mb3.8						
PDAR	**Pinedale Array**	48.93	313	P	**P**	**16 49 26.0**	**+0.6**
	0.3nm,0.4s,mb3.6,baz=113,slow=6.9,SNR=3.7						
PDAR	**Pinedale Array**	48.93	313	P	**P**	**16 49 25.9**	**+0.6**
DBIC	**Dimbokro**	56.21	92	P	**P**	**16 50 20.1**	**+0.1**
	2.4nm,0.9s,mb4.2,baz=259,slow=6.0,SNR=4.1						
EKA	**Eskdalemuir Ar**	59.37	34	P	**P**	**16 50 40.2**	**-1.5**
	3.0nm,1.1s,mb4.2,baz=270,slow=5.8,SNR=4.6						
YKA	**Yellowknife Ar**	59.49	334	P	**P**	**16 50 41.9**	**-0.6**
	0.9nm,0.7s,mb3.9,baz=104,slow=7.4,SNR=8.2						
NOA	**NORSAR Array B**	68.02	30	P	**P**	**16 51 39.5**	**+1.1**
	1.0nm,0.8s,mb3.9,baz=132,slow=9.8,SNR=2.3						
GERES	**GERESS Array B**	68.64	43	P	**P**	**16 51 42.9**	**+0.4**
	0.5nm,0.8s,mb3.5,baz=293,slow=7.5,SNR=3.0						
ARCES	**ARCESS Array B**	74.35	21	P	**P**	**16 52 15.0**	**-1.2**
	1.2nm,0.7s,mb4.0,baz=284,slow=5.0,SNR=4.4						
FINES	**FINESS Array B**	75.20	30	P	**P**	**16 52 22.2**	**+0.9**
	2.3nm,0.7s,mb4.2,baz=288,slow=4.4,SNR=7.6						
FINES	**FINESS Array B**	75.20	30	P	**P**	**16 52 22.2**	**+0.9**

OTT 07 16:59:12.4±0.3, 52.74N×67.37W, MN2.9/7, Blast, Mount Wright, Qc Mining explosion., Northern Quebec

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCHQ	**Schefferville**	2.12	8	PN	Pn	16 59 48.0	-1.4
SCHQ				SN	Sn	17 00 16.4	-0.5
SCHQ				Trac		17 00 18.7	
	comp=Z,16nm,0.1s						
MNQ	**Manicouagan**	2.38	202	PN	Pn	16 59 53.1	-0.1
MNQ				Trac		17 00 28.6	
	comp=Z,21nm,0.2s						
SMQ	**Clarke City**	2.56	170	PN	Pn	16 59 53.8	-2.0
SMQ				Trac		17 00 31.8	
	comp=Z,34nm,0.2s						
ICQ	**Pointe Anglais**	3.23	179	PN	Pn	17 00 02.7	-2.6
ICQ				SN	Sn	17 00 40.0	-5.0
ICQ				Trac		17 00 51.6	
	comp=Z,17nm,0.2s						
CNQ	**Baie Comeau**	3.47	188	PN	Pn	17 00 08.2	-0.6
CNQ				Trac		17 00 58.7	

	comp=Z,12nm,0.2s						
GSQ	**Grosses Roches**	**3.84**	**177**	PN	Pn	17 00 11.8	-2.2
GSQ				Trac		17 01 11.9	
	comp=Z,7.3nm,0.2s						
LG4Q	**La Grande 4**	**4.14**	**285**	PN	Pn	17 00 15.5	-2.8
LG4Q				SN	Sn	17 01 05.1	-3.1
LG4Q				SG	Sg	17 01 17.6	-13
LG4Q				Trac		17 01 26.4	
	comp=Z,5.4nm,0.2s						
LMQ	**La Malbaie**	**5.54**	**201**	PN	Pn	17 00 35.1	-2.9
LMN	**Caledonia Moun**	**7.10**	**165**	PN	Pn	17 00 55.2	-4.8
DRLN	**Deer Lake**	**7.13**	**115**	PN	Pn	17 00 56.5	-4.1
VLDQ	**Val d'Or**	**7.93**	**238**	PN	Pn	17 01 08.9	-2.8
VIMO	**Victor Mine**	**9.93**	**277**	PN	P	17 01 33.5	-5.8
SILO	**Sutton Inlier**	**10.57**	**286**	PN	P	17 01 42.0	-6.0

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*NEIC **07** 17:20:53.8, 38.89S×175.49E, h120^{km}, After WEL.*

WEL 07 17:20:53.9±0.2**, 38.89S×175.48E, h119**^{km}±2^{km}**, ML3.7**/11**, 7C-2D, Error ellipse: s-maj=1.4km s-min=1.2km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGZ	**Maungaku**	**0.12**	**158**	P	P	17 21 10.4	0.0
MGZ	**Maungaku**	**0.12**	**158**	⇑PN	P	17 21 10.4	0.0
TWVZ	**Taurewa**	**0.19**	**191**	P	P	17 21 10.3	-0.1
TWVZ	**Taurewa**	**0.19**	**191**	⇑PN	P	17 21 10.3	-0.2
KATZ	**Kakaramea**	**0.19**	**118**	P	P	17 21 10.3	-0.1
KATZ	**Kakaramea**	**0.19**	**118**	PN	P	17 21 10.3	-0.2
RATZ	**Rangitukua**	**0.23**	**85**	P	P	17 21 10.3	-0.2
RATZ	**Rangitukua**	**0.23**	**85**	⇑PN	P	17 21 10.3	-0.2
WTVZ	**West Tongariro**	**0.24**	**160**	P	P	17 21 10.5	-0.1
WTVZ	**West Tongariro**	**0.24**	**160**	PN	P	17 21 10.5	-0.1
KAVZ	**Karewarewa**	**0.25**	**149**	P	P	17 21 10.5	-0.1
WATZ	**Wairara**	**0.27**	**48**	P	P	17 21 10.7	0.0
WATZ	**Wairara**	**0.27**	**48**	⇑PN	P	17 21 10.7	+0.1
NGZ	**Ngauruhoe**	**0.30**	**162**	P	P	17 21 10.7	-0.1
NGZ	**Ngauruhoe**	**0.30**	**162**	PN	P	17 21 10.7	0.0
OTVZ	**Oturere**	**0.31**	**153**	PN	P	17 21 11.0	+0.2
CNZ	**Chateau**	**0.32**	**171**	P	P	17 21 10.8	-0.1
CNZ	**Chateau**	**0.32**	**171**	PN	P	17 21 10.8	0.0
WPVZ	**Whakapapa**	**0.32**	**171**	P	P	17 21 10.8	-0.1
WPVZ	**Whakapapa**	**0.32**	**171**	PN	P	17 21 10.9	0.0
FWVZ	**Far West T-bar**	**0.37**	**172**	⇓PN	P	17 21 11.2	+0.1
DRZ	**Dome Shelter**	**0.39**	**171**	P	P	17 21 11.8	+0.6
DRZ	**Dome Shelter**	**0.39**	**171**	PN	P	17 21 11.6	+0.3
TUVZ	**Tukino**	**0.40**	**161**	P	P	17 21 11.3	0.0
TUVZ	**Tukino**	**0.40**	**161**	PN	P	17 21 11.3	0.0
WNVZ	**Wahianoa**	**0.45**	**168**	P	P	17 21 11.6	0.0
WNVZ	**Wahianoa**	**0.45**	**168**	⇑PN	P	17 21 11.6	0.0
HATZ	**Hinemaiaia**	**0.48**	**91**	P	P	17 21 11.3	-0.4
HATZ	**Hinemaiaia**	**0.48**	**91**	PN	P	17 21 11.3	-0.4
MOVZ	**Moawhango**	**0.56**	**158**	P	P	17 21 11.8	-0.4
MOVZ				S	S	17 21 25.8	-0.4
MOVZ	**Moawhango**	**0.56**	**158**	⇑PN	P	17 21 11.8	-0.5
MOVZ				SN	S	17 21 25.6	-0.6
VRZ	**Vera Road**	**0.61**	**247**	P	P	17 21 12.1	-0.5
VRZ	**Vera Road**	**0.61**	**247**	PN	P	17 21 12.1	-0.4
VRZ				SN	S	17 21 26.6	-0.2
HIZ	**Hauiti**	**0.62**	**307**	P	P	17 21 12.2	-0.4
HIZ				S	S	17 21 26.1	-0.8
HIZ	**Hauiti**	**0.62**	**307**	⇓PN	P	17 21 12.2	-0.4
HIZ				SN	S	17 21 26.1	-0.8
BKZ	**Black Stump Fm**	**0.83**	**110**	P	P	17 21 14.1	-0.4
BKZ	**Black Stump Fm**	**0.83**	**110**	⇑PN	P	17 21 14.1	-0.4
BKZ				SN	S	17 21 29.6	-0.4
WAZ	**Wanganui**	**0.95**	**204**	P	P	17 21 15.4	-0.2
WAZ	**Wanganui**	**0.95**	**204**	PN	P	17 21 15.4	-0.3
NEZ	**North Egmont**	**1.14**	**250**	P	P	17 21 17.5	-0.2
NEZ	**North Egmont**	**1.14**	**250**	PN	P	17 21 17.5	-0.2
DFE	**Dawson Falls**	**1.16**	**247**	P	P	17 21 17.5	-0.3
DFE	**Dawson Falls**	**1.16**	**247**	PN	P	17 21 17.5	-0.3
PKE	**Pukeiti**	**1.20**	**255**	P	P	17 21 17.7	-0.6
PKE	**Pukeiti**	**1.20**	**255**	PN	P	17 21 17.7	-0.7
PKE				SN	S	17 21 36.0	-0.6
TSZ	**Takapari Road**	**1.23**	**163**	P	P	17 21 18.4	-0.2
TSZ	**Takapari Road**	**1.23**	**163**	PN	P	17 21 18.4	-0.2
TSZ				SN	S	17 21 41.1	+4.1
NRZ	**Ngariki Road**	**1.28**	**249**	PN	P	17 21 18.1	-1.1
NWEZ	**Newall Road**	**1.31**	**252**	P	P	17 21 18.8	-0.8
NWEZ	**Newall Road**	**1.31**	**252**	PN	P	17 21 18.8	-0.8
URZ	**Urewera**	**1.42**	**64**	*e*P	P	17 21 20.3	-0.5
URZ	**Urewera**	**1.42**	**64**	PN	P	17 21 20.0	-0.8
URZ				SN	S	17 21 39.9	-1.3
PWZ	**Pawanui**	**1.56**	**137**	P	P	17 21 22.1	-0.3
PWZ	**Pawanui**	**1.56**	**137**	PN	P	17 21 22.1	-0.4
PWZ				SN	S	17 21 43.4	-0.6
MWZ	**Matawai**	**1.69**	**72**	*e*P	P	17 21 24.2	+0.2
MWZ	**Matawai**	**1.69**	**72**	PN	P	17 21 24.2	+0.2
MWZ				SN	S	17 21 46.5	-0.2
KNZ	**Kokohu**	**1.71**	**95**	PN	P	17 21 23.8	-0.4
MRZ	**Mangatainoka R**	**1.77**	**178**	P	P	17 21 23.7	-1.2
MRZ	**Mangatainoka R**	**1.77**	**178**	PN	P	17 21 23.7	-1.2
MRZ				SN	S	17 21 45.0	-3.4
BFZ	**Birch Farm**	**1.89**	**162**	P	P	17 21 25.3	-1.0
BFZ	**Birch Farm**	**1.89**	**162**	PN	P	17 21 25.3	-1.0
BFZ				SN	S	17 21 47.7	-3.1
KIW	**Kapiti Island**	**2.02**	**192**	PN	P	17 21 26.3	-1.7
KIW				SN	S	17 21 51.0	-2.8
CAW	**Cannon Point**	**2.24**	**188**	P	P	17 21 29.0	-1.9
CAW	**Cannon Point**	**2.24**	**188**	PN	P	17 21 29.0	-1.9
CAW				*e*SN	S	17 21 55.7	-3.1
MTW	**Mount Morrison**	**2.27**	**180**	PN	P	17 21 29.1	-2.2
MRW	**Makara Radio**	**2.41**	**194**	P	P	17 21 30.8	-2.4
MRW	**Makara Radio**	**2.41**	**194**	PN	P	17 21 30.8	-2.4
WEL	**Wellington**	**2.46**	**193**	P	P	17 21 31.3	-2.5
WEL	**Wellington**	**2.46**	**193**	PN	P	17 21 31.3	-2.4
PAWZ	**Paruwai Farm**	**2.49**	**181**	PN	P	17 21 31.7	-2.5
MSWZ	**Moikau Station**	**2.53**	**184**	P	P	17 21 32.2	-2.6
MSWZ	**Moikau Station**	**2.53**	**184**	PN	P	17 21 32.2	-2.6
BHW	**Baring Head**	**2.56**	**190**	P	P	17 21 32.4	-2.8
BHW	**Baring Head**	**2.56**	**190**	PN	P	17 21 32.4	-2.8
MXZ	**Matakaoa Point**	**2.59**	**60**	*e*P	P	17 21 35.0	-0.5
MXZ	**Matakaoa Point**	**2.59**	**60**	PN	P	17 21 35.0	-0.6
NNZ	**Nelson**	**2.83**	**214**	*e*P	P	17 21 36.3	-2.5
NNZ	**Nelson**	**2.83**	**214**	PN	P	17 21 36.3	-2.5
QRZ	**Quartz Range**	**2.98**	**229**	P	P	17 21 38.0	-2.8
QRZ	**Quartz Range**	**2.98**	**229**	PN	P	17 21 38.0	-2.9
QRZ				SN	S	17 22 12.1	-4.4
BSWZ	**Blackbirch Sta**	**3.08**	**203**	*e*PN	P	17 21 39.6	-2.5
THZ	**Tophouse**	**3.48**	**214**	*e*P	P	17 21 44.5	-3.0
THZ	**Tophouse**	**3.48**	**214**	PN	P	17 21 44.3	-3.2
KHZ	**Kahutara**	**3.82**	**202**	*e*P	P	17 21 48.2	-3.9
KHZ	**Kahutara**	**3.82**	**202**	PN	P	17 21 48.2	-3.9
KHZ				SN	S	17 22 31.2	-5.4
DSZ	**Denniston Nort**	**4.01**	**223**	*e*P	P	17 21 50.4	-4.2
DSZ	**Denniston Nort**	**4.01**	**223**	PN	P	17 21 50.4	-4.2
DSZ				SN	S	17 22 35.0	-6.0
LTZ	**Lake Taylor**	**4.59**	**211**	*e*P	P	17 21 54.3	-8.1
LTZ	**Lake Taylor**	**4.59**	**211**	PN	P	17 21 54.3	-8.2
MQZ	**McQueen's Vall**	**5.26**	**203**	*e*P	P	17 22 05.4	-6.1
MQZ	**McQueen's Vall**	**5.26**	**203**	PN	P	17 22 05.4	-6.1
ODZ	**Otahua Downs**	**7.13**	**209**	*e*P	P	17 22 31.0	-5.9
ODZ	**Otahua Downs**	**7.13**	**209**	PN	P	17 22 31.0	-5.9

IDC 07 17:28:18.8±20.0**, 3.99S×119.12E, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.5**/15**, Error ellipse: s-maj=467.0km s-min=208.5km az=20.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**21.72**	**138**	P	P	17 33 11.3	-2.4
	0.9nm,0.4s,baz=311,slow=12,SNR=33						
WB2	**Warramunga Arr**	**21.73**	**138**	*e*P	P	17 33 11.2	-2.6
ASAR	**Alice Springs**	**24.22**	**145**	P	P	17 33 37.8	-0.6
	0.7nm,0.3s,baz=325,slow=8.2,SNR=27						
STKA	**Stephens Creek**	**34.86**	**145**	P	P	17 35 11.9	-2.0
	1.1nm,0.6s,baz=322,slow=11,SNR=4.4						

WEL 07 17:55:03.6±0.1**, 36.02S×178.41E, h61**^{km}±4^{km}**, ML3.7**/6**, Error ellipse: s-maj=5.1km s-min=1.6km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**1.55**	**183**	P*	P	17 55 29.1	-0.4
MXZ				S*	S	17 55 48.0	-0.6
MXZ				S*	S	17 55 48.2	-0.4
PUZ	**Puketiti**	**2.06**	**183**	PN	P	17 55 35.5	-1.0
PUZ				SN	S	17 55 59.3	-1.7
PUZ				SN	S	17 55 59.4	-1.5
MWZ	**Matawai**	**2.42**	**197**	P*	P	17 55 41.1	-0.6
MWZ				S*	S	17 56 09.8	-0.3
MWZ				S*	S	17 56 09.9	-0.2
URZ	**Urewera**	**2.47**	**205**	P*	P	17 55 42.0	-0.4
URZ				S*	S	17 56 10.7	-0.7
KNZ	**Kokohu**	**3.06**	**191**	PN	P	17 55 47.7	-3.0
BKZ	**Black Stump Fm**	**3.50**	**205**	P*	P	17 55 54.5	-2.4
NGZ	**Ngauruhoe**	**3.86**	**214**	P*	P	17 56 00.9	-1.1
CNZ	**Chateau**	**3.91**	**215**	P*	P	17 56 01.6	-1.0
TUVZ	**Tukino**	**3.92**	**213**	*e*P*	P	17 56 01.1	-1.6
WNVZ	**Wahianoa**	**3.99**	**213**	*e*P*	P	17 56 01.9	-1.9
TSZ	**Takapari Road**	**4.48**	**205**	PN	P	17 56 05.9	-4.7
BFZ	**Birch Farm**	**4.96**	**199**	*e*PN	P	17 56 11.4	-6.0
MRZ	**Mangatainoka R**	**5.14**	**205**	PN	P	17 56 13.5	-6.4
MRZ				SN	S	17 57 09.6	-9.1
KIW	**Kapiti Island**	**5.56**	**209**	*e*PN	P	17 56 19.4	-6.3
MTW	**Mount Morrison**	**5.62**	**203**	*e*PN	P	17 56 19.3	-7.1
CAW	**Cannon Point**	**5.72**	**206**	*e*PN	P	17 56 21.1	-6.7
NNZ	**Nelson**	**6.52**	**216**	*e*PN	P	17 56 32.7	-6.4
QRZ	**Quartz Range**	**6.66**	**222**	PN	P	17 56 34.9	-6.1
THZ	**Tophouse**	**7.17**	**215**	PN	P	17 56 41.1	-7.0
KHZ	**Kahutara**	**7.42**	**209**	*e*PN	P	17 56 43.9	-7.8
LTZ	**Lake Taylor**	**8.26**	**213**	*e*PN	P	17 56 54.1	-9.0

DJA 07 18:10:05.0±0.9**, 2.50S×121.44E, h33**^{km}**, ML4.6**/2**, 5C-2D, Error ellipse: s-maj=22.9km s-min=19.4km az=123.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUNI	**Buntu Taipa**	**1.60**	**224**	*e*Pn	Pn	18 10 29.6	-1.9
	604nm,0.2s						
BUNI				⇓*e*Sn	Sn	18 10 47.3	-4.0
TANI	**Tanete Lipujan**	**2.26**	**246**	⇑*e*Pn	Pn	18 10 39.2	-1.7
	277nm,0.3s						
TANI	**Tanete Lipujan**	**2.26**	**246**	⇑*e*P	P	18 10 40.3	-0.4
TANI				⇓*e*Sn	Sn	18 11 05.8	-2.1
NINI	**Niniconang**	**2.55**	**221**	⇑*e*Pn	Pn	18 10 43.9	-1.1
NINI	**Niniconang**	**2.55**	**221**	⇑*e*P	P	18 10 45.8	+1.0
NINI				⇑*e*Sn	Sn	18 11 11.8	-3.4

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*CSEM **07** 19:03:59.9±0.8, 34.75N×4.09W, h10^{km}, MD3.0, Error ellipse: s-maj=19.7km s-min=10.0km az=13.0*

*NEIC **07** 19:04:02.6, 34.92N×4.27W, MG2.9(MDD), After MDD.*

*MDD **07** 19:04:02.6±2.4, 34.92N×4.27W, mb2.9/2, Error ellipse: s-maj=22.8km s-min=9.0km az=16.0, PRXIMO SOLUCIN POBRE*

*CNRM **07** 19:04:03.3, 34.83N×3.96W, h15^{km}, MD3.0*

ISC 07 19:04:01.6±1.5**, 34.93N**±0.08×**4.31W**±0.06**, h10**^{km}**, n20, σ1^{s}19**/31**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAL	**Palemas**	**0.42**	**46**	*i* P	**Pg**	**19 04 10.5**	**+0.3**
TOU	**Touzarine**	**0.46**	**86**	*i* P	**Pg**	**19 04 07.5**	**-3.4**
EMEL	**Melilla**	**1.17**	**71**	P	**Pb**	**19 04 23.0**	**-0.4**
	SNR=7.9						
EMEL				S	**Sb**	**19 04 38.8**	**+0.3**
	SNR=7.9						
EMLI	**Melilla**	**1.18**	**71**	P	**Pb**	**19 04 23.0**	**-0.5**
	SNR=7.9						
EMLI				S	**Sb**	**19 04 38.8**	**+0.2**
	SNR=7.9						
ZAI	**Zaio**	**1.29**	**88**	*e*P	**Pb**	**19 04 22.0**	**-3.4**
EMIJ	**Mijas**	**1.67**	**347**	P	**Pn**	**19 04 31.2**	**0.0**
	0.8nm,0.1s,SNR=7.9						
EMIJ				S	**Sn**	**19 04 52.1**	**-0.7**
	4.0nm,0.2s,SNR=7.9						
ELOJ	**Sierra Loja**	**2.22**	**3**	P	**Pn**	**19 04 44.3**	**+5.3**
ELOJ	**Sierra Loja**	**2.22**	**3**	P	**Pn**	**19 04 44.3**	**+5.3**
	SNR=7.9						
EBER	**Berja**	**2.28**	**30**	P	**Pn**	**19 04 40.1**	**+0.3**
	0.4nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**19 05 09.2**	**+1.0**
	1.9nm,0.2s,SNR=7.9						
EBER	**Berja**	**2.28**	**30**	P	**Pn**	**19 04 40.1**	**+0.3**
	0.4nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**19 05 09.2**	**+1.0**
	1.9nm,0.2s,SNR=7.9						
EQES	**Quesada**	**3.04**	**19**	P	**Pn**	**19 04 51.6**	**+1.0**
	1.0nm,0.3s,SNR=7.9						
EQES				S	**Sn**	**19 05 27.8**	**+0.4**
	0.5nm,0.2s,SNR=7.9						
EQES	**Quesada**	**3.04**	**19**	P	**Pn**	**19 04 51.6**	**+0.9**
	1.0nm,0.3s,SNR=7.9						
EQES				S	**Sn**	**19 05 27.8**	**+0.3**
	0.5nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.24**	**356**	P	**Pn**	**19 04 54.6**	**+1.1**
EADA				S	**Sn**	**19 05 30.9**	**-1.7**
EADA	**Adamuz**	**3.24**	**356**	P	**Pn**	**19 04 54.7**	**+1.1**
	0.1nm,0.2s,SNR=7.9						
EADA				S	**Sn**	**19 05 30.9**	**-1.7**
	0.5nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**3.24**	**356**	P	**Pn**	**19 04 54.7**	**+1.2**
	0.1nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.41**	**327**	P	**Pn**	**19 04 57.1**	**+1.1**
	0.1nm,0.1s,SNR=7.9						
EMIN				S	**Sn**	**19 05 34.5**	**-2.5**
	0.0nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.41**	**327**	P	**Pn**	**19 04 57.1**	**+1.1**
	0.1nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**4.39**	**331**	P	**Pn**	**19 05 12.8**	**+2.9**
	0.1nm,0.1s,SNR=7.9						
EBAD				S	**Sn**	**19 06 01.5**	**-0.2**
	0.7nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**4.39**	**331**	P	**Pn**	**19 05 12.8**	**+2.9**
SRN	**Sarande**	**19.91**	**68**	*i* Sg	**S**	**19 12 08.8**	**-5.7**

IDC 07 19:07:46.6±2.8**, 10.18S×161.67E, mb4.0**/5**, mb1 4.1**/5**, mb1mx4.0**/15**, MS3.3**/2**, Ms1 3.2**/2**, ms1mx2.9**/20**, Error ellipse: s-maj=93.1km s-min=27.5km az=132.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**17.83**	**235**	LR	LR	19 16 46.6	
	comp=Z,54nm,18.1s,baz=235,slow=30						
WRA	**Warramunga Arr**	**28.07**	**247**	P	P	19 13 40.6	-1.6
	0.6nm,0.6s,baz=76,slow=8.9,SNR=5.3						
STKA	**Stephens Creek**	**28.48**	**218**	LR	LR	19 24 41.0	
	comp=Z,77nm,18.4s,baz=24,slow=36						
ASAR	**Alice Springs**	**29.68**	**240**	P	P	19 13 54.0	-2.5
	0.9nm,0.9s,baz=66,slow=8.9,SNR=4.0						
FITZ	**Fitzroy Crossi**	**35.76**	**253**	P	P	19 14 47.5	-2.1
	2.1nm,0.9s,baz=28,slow=4.5,SNR=5.6						
SONM	**Songino Array**	**75.63**	**325**	P	P	19 19 33.9	-1.4
	3.3nm,0.7s,baz=140,slow=5.6,SNR=26						
ILAR	**Eielson Array**	**84.01**	**20**	P	P	19 20 18.6	-1.4
	0.6nm,0.8s,baz=244,slow=4.7,SNR=7.0						

DJA 07 19:15:09.4±1.1**, 2.29S×121.41E, h33**^{km}**, ML4.7**/3**, 3C-4D, Error ellipse: s-maj=25.1km s-min=24.0km az=169.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUNI	**Buntu Taipa**	**1.74**	**219**	⇑*e*Pn	Pn	19 15 34.8	-3.0
	623nm,0.2s						
TANI	**Tanete Lipujan**	**2.32**	**241**	⇑*e*Pn	Pn	19 15 44.9	-1.3
	408nm,0.2s						
TANI	**Tanete Lipujan**	**2.32**	**241**	⇓*e*P	P	19 15 45.6	-0.4
TANI				⇓*e*Sn	Sn	19 16 10.2	-3.7
NINI	**Niniconang**	**2.68**	**218**	⇓*e*Pn	Pn	19 15 50.6	-0.8
	270nm,0.2s						
NINI	**Niniconang**	**2.68**	**218**	⇑*e*P	P	19 15 52.2	+1.0
NINI				⇓*e*Sn	Sn	19 16 19.8	-3.3

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*KRSC **07** 19:28:37.5±0.9, 48.65N×155.91E, h40^{km}±10^{km}, ML4.0*

*IDC **07** 19:28:58.9±4.9, 47.81N×153.67E, h177^{km}±46^{km}, mb3.1/3, mb1 3.5/4, mb1mx3.1/22, Error ellipse: s-maj=66.3km s-min=28.5km az=147.0*

ISC 07 19:28:41.2±1.4**, 49.0N**±0.1×**155.7E**±0.2**, h124**^{km}±16^{km}**, n15, σ0^{s}90**/26**, mb3.5**/2**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALID	**Alaid**	**1.90**	**358**	*e*P	**P**	**19 29 13.3**	**-0.6**
ALID				*e*S	**S**	**19 29 39.5**	**+0.7**
PAU	**Pauzhetka**	**2.60**	**16**	*e*P	**P**	**19 29 23.1**	**0.0**
PAU				*e*S	**S**	**19 29 55.2**	**+0.3**
PAU				Smax			
	200nm,0.3s						
GRL	**Gorelyy**	**3.89**	**22**	*e*P	**P**	**19 29 40.0**	**-0.4**
GRL				*e*S	**S**	**19 30 25.8**	**+0.1**
RUS	**Russkaya**	**3.91**	**27**	*e*P	**P**	**19 29 38.9**	**-1.7**
RUS				*e*S	**S**	**19 30 25.0**	**-1.0**
UGLR	**Uglovaya**	**4.68**	**24**	*e*P	**P**	**19 29 51.6**	**+0.6**
UGLR				*e*S	**S**	**19 30 45.4**	**+0.7**
KOK	**Koryaka**	**4.71**	**22**	*e*P	**P**	**19 29 51.8**	**+0.4**
KOK				*e*S	**S**	**19 30 46.2**	**+0.9**
AVH	**Avacha**	**4.71**	**23**	*e*P	**P**	**19 29 51.2**	**-0.2**
AVH				*e*S	**S**	**19 30 45.3**	**-0.1**
SMAR	**Somma**	**4.72**	**24**	*e*P	**P**	**19 29 52.9**	**+1.3**
SMAR				*e*S	**S**	**19 30 47.3**	**+1.6**
SDLR	**Sedlovina**	**4.76**	**24**	*e*P	**P**	**19 29 51.7**	**-0.4**
SDLR				*e*S	**S**	**19 30 45.4**	**-1.2**
GNL	**Ganaly**	**4.94**	**16**	*e*P	**P**	**19 29 53.9**	**-0.5**
GNL				*e*S	**S**	**19 30 49.9**	**-0.9**
SPN	**Mys Shipunski**	**4.96**	**32**	*e*P	**P**	**19 29 54.1**	**-0.6**
SPN				*e*S	**S**	**19 30 50.7**	**-0.7**
TUMR	**Tumrok**	**6.89**	**22**	*e*P	**P**	**19 30 22.7**	**+1.8**
ASAJ	**Asahikawa**	**10.23**	**247**	P	**P**	**19 30 59.4**	**-6.2**
	1.5nm,0.3s,baz=86,slow=13,SNR=7.7						
CMAR	**Chiang Mai Arr**	**54.56**	**257**	P	**P**	**19 37 57.4**	**-1.3**
	1.1nm,0.6s,mb4.1,baz=28,slow=7.7,SNR=6.6						
ASAR	**Alice Springs**	**74.88**	**201**	P	**P**	**19 40 11.1**	**+1.3**
	0.2nm,0.7s,mb3.0,baz=14,slow=5.2,SNR=4.0						

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*NEIC **07** 19:41:29.9±1.2, 62.39S×151.41E, h10^{km}, mb4.6/4, Error ellipse: s-maj=86.5km s-min=11.8km az=76.0*

*IDC **07** 19:41:33.6±1.2, 62.76S×145.36E, mb3.9/3, mb1 4.4/4, mb1mx4.1/11, ML4.4/1, MS3.6/5, Ms1 3.6/5, ms1mx3.5/11, Error ellipse: s-maj=68.6km s-min=23.6km az=91.0*

ISC 07 19:41:27.8±1.1**, 62.4S**±0.1×**15 2E**± **, h10**^{km}**, n21, σ1^{s}48**/14**, mb4.4**/5**, MS3.5**/4**, 3C, Balleny Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	**Vanda**	**15.53**	**172**	Pn	**P**	**19 45 09.6**	**+1.6**
	1.4nm,0.3s,baz=326,slow=12,SNR=86						
VNDA				Sn	**S**	**19 47 50.6**	**-10**
	0.2nm,0.3s,baz=109,slow=10,SNR=1.9						
VNDA				LR	LR	19 51 46.4	
	comp=Z,234nm,18.1s,baz=329,slow=39						
SBA	**Scott Base**	**16.23**	**169**	*e*P	**P**	**19 45 19.6**	**+2.6**
	18nm,0.8s						
RPZ	**Rata Peaks**	**21.90**	**40**	LR	LR	19 54 37.9	
	comp=Z,93nm,18.1s,MS3.2,baz=220,slow=32						
STKA	**Stephens Creek**	**31.23**	**343**	LR	LR	19 58 55.5	
	comp=Z,165nm,18.3s,MS3.7,baz=206,slow=34						
MAW	**Mawson**	**34.79**	**222**	LR	LR	20 00 17.2	
	comp=Z,92nm,18.5s,MS3.6,baz=240,slow=34						
ASAR	**Alice Springs**	**40.55**	**335**	P	**P**	**19 49 09.0**	**+0.4**
	1.8nm,0.8s,mb3.8,baz=164,slow=9.0,SNR=12						
ASAR				LR	LR	20 04 33.6	
	comp=Z,63nm,19.1s,MS3.5,baz=213,slow=35						
WB2	**Warramunga Arr**	**44.09**	**336**	*e*P	**P**	**19 49 38.0**	**+0.5**
WRA	**Warramunga Arr**	**44.09**	**336**	P	**P**	**19 49 37.4**	**-0.1**
	2.5nm,0.7s,mb4.0,baz=170,slow=7.2,SNR=15						
WRAB	**Tennant Creek**	**44.10**	**336**	*e*P	**P**	**19 49 37.5**	**-0.1**
	31nm,1.3s,mb4.9						
SNAA	**Sanae**	**45.04**	**191**	⇑*i*	**P**	**19 49 42.3**	**-2.2**
SNAA	**Sanae**	**45.04**	**191**	P	**P**	**19 49 42.5**	**-2.0**
	0.5nm,0.5s,mb3.6,baz=175,slow=10,SNR=11						
SNAA	**Sanae**	**45.04**	**191**	*e*P	**P**	**19 49 42.5**	**-2.1**
	1.5nm,0.6s,mb4.0						
VNA3	**Neumayer Olymp**	**45.99**	**188**		**P**	**19 49 53.8**	**+1.7**
VNA2	**Neumayer--Watz**	**46.14**	**189**	⇑*i*	**P**	**19 49 54.2**	**+0.9**
VNA1	**Neumayer--Stat**	**46.48**	**189**	⇑*i*	**P**	**19 49 51.7**	**-4.2**
PMSA	**Palmer Station**	**50.39**	**161**	P	**P**	**19 50 25.0**	**-1.4**
	18nm,0.6s,mb5.3						
YKA	**Yellowknife Ar**	**142.94**	**50**	PKPbc		20 01 11.0	
	1.0nm,0.8s,baz=234,slow=3.0,SNR=10						
AKASG	**Malin Array Be**	**147.32**	**276**	PKP	PKPdf	20 01 08.0	-2.8
	0.3nm,0.4s,baz=131,slow=2.5,SNR=6.0						
ESDC	**Sonseca Array**	**152.87**	**224**	PKPbc	PKPdf	20 01 26.4	+6.7
	1.4nm,0.7s,baz=161,slow=1.7,SNR=8.7						
GERES	**GERESS Array B**	**153.22**	**259**	PKPbc	PKPdf	20 01 24.5	+4.7
	1.4nm,1.0s,baz=180,slow=2.7,SNR=7.2						
GERES				PKPab	PKPab	20 01 31.6	-6.9
	1.3nm,1.1s,baz=104,slow=4.0,SNR=2.6						
FINES	**FINESS Array B**	**154.99**	**292**	PKPbc	PKPdf	20 01 30.2	+8.3
	2.2nm,0.8s,baz=90,slow=5.7,SNR=4.3						

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*CSEM **07** 19:48:35.5±0.3, 46.31N×7.51E, h0^{km}±2^{km}, ML0.9/9, Error ellipse: s-maj=2.6km s-min=1.2km az=146.0*

ZUR 07 19:48:35.5, 46.33N×7.49E, h6^{km}**, ML0.9**/9**, 8C-3D, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKBD	**Leukerbad**	**0.11**	**58**	⇑*i*Pg	Pg	19 48 38.3	+0.3
LKBD				*e*Sg	Sg	19 48 40.1	+0.4
LKBD	**Leukerbad**	**0.11**	**58**	⇑*i*Pg	Pg	19 48 38.3	+0.3
	0.7nm,0.2s						
LKBD				*i* Sg	Sg	19 48 40.0	+0.3
	0.7nm,0.2s						
SENIN	**Lac Senin**	**0.14**	**285**	⇓*i*Pg	Pg	19 48 38.7	+0.3
SENIN				*e*Sg	Sg	19 48 41.0	+0.6
SENIN	**Lac Senin**	**0.14**	**285**	⇓*i*Pg	Pg	19 48 38.7	+0.3
	0.8nm,0.1s						
SENIN				*i* Sg	Sg	19 48 41.0	+0.6
	0.8nm,0.1s						
DIX	**Grande Dixence**	**0.25**	**192**	⇑*i*Pg	Pg	19 48 41.1	+0.4
DIX				*e*Sg	Sg	19 48 44.7	+0.5
DIX	**Grande Dixence**	**0.25**	**192**	⇑*i*Pg	Pg	19 48 41.2	+0.5
	0.7nm,0.2s						
DIX				*i* Sg	Sg	19 48 44.6	+0.4
	0.7nm,0.2s						
GRYON	**Gryon**	**0.27**	**254**	*e*Pg	Pg	19 48 41.2	+0.1
GRYON				*e*Sg	Sg	19 48 45.0	+0.2
GRYON	**Gryon**	**0.27**	**254**	*e*Pg	Pg	19 48 41.2	+0.1
	0.8nm,0.4s						
GRYON				*i* Sg	Sg	19 48 44.9	+0.1
	0.8nm,0.4s						
WIMIS	**Wimmis**	**0.35**	**15**	⇓*i*Pg	Pg	19 48 42.5	-0.1
	0.4nm,0.6s						
WIMIS				*e*Sg	Sg	19 48 47.3	0.0
	0.4nm,0.6s						
AIGLE	**Aigle**	**0.37**	**272**	⇑*i*Pg	Pg	19 48 43.2	+0.2
AIGLE	**Aigle**	**0.37**	**272**	⇑*i*Pg	Pg	19 48 43.0	0.0
AIGLE				*e*Sg	Sg	19 48 48.2	+0.2
SALAN	**Lac Salanfe**	**0.40**	**243**	*e*Pg	Pg	19 48 43.6	0.0
	1.5nm,0.1s						
MMK	**Mattmark**	**0.43**	**130**	⇑*i*Pg	Pg	19 48 44.2	0.0
	2.4nm,0.1s						
EMV	**Vieux Emosson**	**0.49**	**237**	⇑*i*Pg	Pg	19 48 45.2	-0.1
	2.7nm,0.1s						

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*INMG **07** 19:51:01.5±1.0, 36.51N×7.65W, h31^{km}, ML2.2, Error ellipse: s-maj=6.7km s-min=3.4km az=40.0*

MDD 07 19:51:00.2±1.6**, 36.54N×7.65W, h21**^{km}±18^{km}**, mbLg2.4**/16**, Error ellipse: s-maj=21.0km s-min=6.1km az=26.0, PRXIMO, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	**Sao Teotonio**	**1.32**	**320**	*e*P	Pn	19 51 22.5	-1.2
PTEO				*e*S	Sb	19 51 38.8	-1.9
	10.0nm,0.1s						
PTEO	**Sao Teotonio**	**1.32**	**320**	P	Pn	19 51 22.5	-1.2
PTEO				S	Sb	19 51 38.8	-1.9
	5.0nm,0.1s						
EMIN	**Mina Concepcio**	**1.45**	**32**	P	Pn	19 51 24.2	-1.4
	1.0nm,0.1s,SNR=18						
EMIN				S	Sn	19 51 41.4	-2.7
	2.6nm,0.1s,SNR=7.9						
ESPR	**Espera**	**1.48**	**77**	P	Pn	19 51 24.6	-1.3
	4.0nm,0.1s,SNR=19						
ESPR				S	Sn	19 51 42.0	-2.8
	54nm,0.3s,SNR=7.9						
PBEJ	**Beja**	**1.49**	**353**	*e*P	Pn	19 51 25.3	-0.9
PBEJ				*e*S	Sn	19 51 43.2	-2.0
	7.9nm,0.1s						
PBEJ	**Beja**	**1.49**	**353**	P	Pn	19 51 25.3	-0.9
PBEJ				S	Sn	19 51 43.2	-2.0
	4.0nm,0.1s						
MOE	**Montemor**	**2.06**	**344**	*e*S	Sn	19 51 56.3	-3.2

EBAD	**Badajoz**	**2.27**	**13**	P	Pn	19 51 35.5	-1.8
	1.6nm,0.1s,SNR=16						
EBAD				S	Sn	19 52 02.8	-2.1
	4.4nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	**2.32**	**89**	S	Sn	19 51 59.7	-6.4
	1.1nm,0.2s,SNR=7.9						
PLOU	**Loures**	**2.63**	**333**	*e*S	Sn	19 52 10.9	-3.1
	13nm,0.2s						
PLOU	**Loures**	**2.63**	**333**	S	Sn	19 52 10.9	-3.1
	6.4nm,0.2s						
ELOJ	**Sierra Loja**	**2.87**	**77**	S	Sn	19 52 16.6	-3.5
	0.6nm,0.1s,SNR=7.9						
ELUQ	**Luque**	**2.89**	**68**	P	Pn	19 51 43.7	-2.4
	0.9nm,0.1s,SNR=7.9						
ELUQ				S	Sn	19 52 16.3	-4.3
	2.0nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**2.94**	**56**	P	Pn	19 51 44.9	-1.9
	1.5nm,0.1s,SNR=18						
EADA				S	Sn	19 52 17.8	-4.1
	4.9nm,0.1s,SNR=7.9						
PTOM	**Tomar**	**3.13**	**349**	*e*Pn	Pn	19 51 45.7	-3.8
PTOM				*e*Sn	Sn	19 52 20.4	-6.3
	7.8nm,0.2s						
PTOM	**Tomar**	**3.13**	**349**	P	Pn	19 51 45.7	-3.8
PTOM				S	Sn	19 52 20.4	-6.3
	3.9nm,0.2s						
PCBR	**Castelo Branco**	**3.30**	**2**	*e*Pn	Pn	19 51 50.0	-1.9
PCBR				*e*Sn	Sn	19 52 26.3	-4.6
	3.8nm,0.2s						
PCBR	**Castelo Branco**	**3.30**	**2**	P	Pn	19 51 50.0	-1.9
PCBR				S	Sn	19 52 26.3	-4.6
	1.9nm,0.2s						
EBER	**Berja**	**3.84**	**83**	S	Sn	19 52 40.5	-4.2
	SNR=7.9						
MTE	**Manteigas**	**3.85**	**1**	*e*Pn	Pn	19 51 57.5	-2.3
MTE				*e*Sn	Sn	19 52 40.0	-5.0
	6.5nm,0.3s						
MTE	**Manteigas**	**3.85**	**1**	P	Pn	19 51 57.5	-2.3
MTE				S	Sn	19 52 40.0	-5.0
	3.2nm,0.3s						
EQES	**Quesada**	**3.87**	**70**	P	Pn	19 51 57.3	-2.7
	0.3nm,0.2s,SNR=7.9						
EQES				S	Sn	19 52 40.4	-4.9
	0.8nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	**4.27**	**42**	P	Pn	19 52 03.2	-2.5
	2.5nm,0.1s,baz=225,slow=13,SNR=15						
EVIA	**Vianos**	**4.59**	**61**	S	Sn	19 52 57.0	-6.7
	3.0nm,0.2s,SNR=7.9						
PVRL	**Vila Real**	**4.73**	**359**	*e*Sn	Sn	19 53 01.1	-6.1
	6.0nm,0.1s						
PVRL	**Vila Real**	**4.73**	**359**	S	Sn	19 53 01.1	-6.1
	3.0nm,0.1s						
PBRG	**Braganca**	**5.30**	**7**	*e*Pn	Pn	19 52 17.4	-3.0
PBRG				*e*Sn	Sn	19 53 14.3	-7.3
	1.7nm,0.2s						
PBRG	**Braganca**	**5.30**	**7**	P	Pn	19 52 17.4	-3.0
PBRG				S	Sn	19 53 14.3	-7.3
	0.9nm,0.2s						
ELOB	**Lobios**	**5.33**	**357**	P	Pn	19 52 17.9	-2.8
	0.4nm,0.1s,SNR=7.9						
ELOB				S	Sn	19 53 15.4	-6.8
	0.9nm,0.1s,SNR=7.9						
ECAL	**Calabor**	**5.44**	**7**	P	Pn	19 52 19.4	-2.9
	1.7nm,0.2s,SNR=10						
ECAL				S	Sn	19 53 18.2	-6.8
	4.4nm,0.2s,SNR=7.9						
ERUA	**La Rua**	**5.86**	**4**	P	Pn	19 52 25.2	-3.0
	SNR=4.0						
ERUA				S	Sn	19 53 30.5	-5.0
	SNR=7.9						

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*CSEM **07** 20:02:09.2±0.7,38.47N×29.27W,h7^{km}±10^{km},ML2.4, Error ellipse: s-maj=12.0km s-min=7.8km az=124.0,After PDA*

*PDA **07** 20:02:09.2±0.7,38.47N×29.27W,h7^{km}±10^{km},MD3.4, ML2.4,Error ellipse: s-maj=12.0km s-min=7.8km az=124.0*

SVSA 07 20:02:09.2±0.7**,38.47N×29.27W,h7**^{km}±10^{km}**,MD3.4, ML2.4,Error ellipse: s-maj=12.0km s-min=7.8km az=124.0,Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CALA	**Caldeira**	**0.46**	**76**	*e*P	Pg	20 02 17.0	-1.4
CALA				*e*S	Sg	20 02 23.2	-1.4
PCED	**Cedros**	**0.47**	**71**	*i* P	Pg	20 02 17.1	-1.6
PCED				*e*S	Sg	20 02 23.6	-1.4
	158nm,0.4s						
PCED	**Cedros**	**0.47**	**71**	*e*S	Sg	20 02 23.6	-1.4
	158nm,0.4s						
	158nm,0.4s						
HOR	**Horta**	**0.50**	**84**	*e*P	Pg	20 02 17.7	-1.6
HOR				*e*S	Sg	20 02 24.0	-2.1
PICO	**Pico**	**0.66**	**87**	*e*P	Pg	20 02 20.4	-2.1
PICO				*e*S	Sg	20 02 28.6	-2.8
PPNO	**Prainha do Nor**	**0.79**	**90**	*e*P	Pb	20 02 21.9	-2.9
ROSA	**Rosais**	**0.84**	**73**	*e*P	Pb	20 02 22.7	-3.0
ROSA				*e*S	Sb	20 02 32.4	-4.6
PID	**Ribeirinha**	**0.90**	**92**	*e*P	Pb	20 02 23.4	-3.4
PMAN	**Manadas**	**0.94**	**80**	*e*S	Sb	20 02 34.8	-5.0
	22nm,0.3s						
PMAN	**Manadas**	**0.94**	**80**	*e*S	Sb	20 02 34.8	-5.0
	22nm,0.3s						
PSBA	**Serra de Santa**	**1.55**	**78**	*e*S	Sb	20 02 49.8	-7.8
	18nm,0.2s						

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*INMG **07** 20:24:35.0±0.9,36.99N×9.67W,h16^{km}±4^{km},ML1.3,Error ellipse: s-maj=8.6km s-min=5.7km az=91.0*

MDD 07 20:24:34.2±2.6**,37.04N×9.75W,h17**^{km}±10^{km}**,mbLg1.8**/4**, Error ellipse: s-maj=19.9km s-min=12.9km az=62.0, PRXIMO,Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	**Sao Teotonio**	**0.96**	**58**	*e*P	Pb	20 24 51.7	-0.4
PTEO				*e*S	Sb	20 25 04.7	+0.3
	3.2nm,0.1s						
PTEO	**Sao Teotonio**	**0.96**	**58**	P	Pb	20 24 51.7	-0.4
PTEO				S	Sb	20 25 04.7	+0.3
	1.6nm,0.1s						
PBEJ	**Beja**	**1.80**	**56**	*e*Pn	Pn	20 25 03.0	-1.8
PBEJ				*e*Sn	Sn	20 25 24.2	-3.2
	1.1nm,0.1s						
PBEJ	**Beja**	**1.80**	**56**	P	Pn	20 25 03.0	-1.8
PBEJ				S	Sn	20 25 24.2	-3.2
	0.6nm,0.1s						
MOE	**Montemor**	**1.85**	**36**	*e*Sn	Sn	20 25 27.0	-1.8
PLOU	**Loures**	**1.91**	**14**	*e*Sn	Sn	20 25 28.8	-1.4
EMIN	**Mina Concepcio**	**2.56**	**72**	P	Pn	20 25 13.5	-2.3
	0.4nm,0.1s,SNR=9.9						
EMIN				S	Sn	20 25 42.4	-4.3
	1.0nm,0.5s,SNR=9.1						
EBAD	**Badajoz**	**2.76**	**51**	P	Pn	20 25 17.5	-1.2
	1.2nm,0.1s,SNR=7.9						
EBAD				S	Sn	20 25 48.6	-3.4
	0.5nm,0.1s,SNR=7.9						
ESPR	**Espera**	**3.12**	**92**	S	Sn	20 25 56.5	-4.6
	4.7nm,0.3s,SNR=7.9						
PCBR	**Castelo Branco**	**3.32**	**32**	*e*Sn	Sn	20 26 02.3	-3.8
EADA	**Adamuz**	**4.26**	**73**	P	Pn	20 25 36.9	-3.0
	0.2nm,0.1s,SNR=7.9						
EADA				S	Sn	20 26 24.1	-5.8
	0.8nm,0.1s,SNR=7.9						
ELOB	**Lobios**	**5.00**	**15**	S	Sn	20 26 42.2	-6.3
	0.4nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	**5.26**	**58**	P	Pn	20 25 50.6	-3.4
	0.9nm,0.1s,baz=243,slow=13,SNR=5.6						

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*IDC **07** 20:25:50.1±3.2,24.86S×179.90W,h474^{km}±32^{km},mb3.6/8, mb1 3.7/8,mb1mx3.5/16,Error ellipse: s-maj=30.1km s-min=25.1km az=53.0*

*NEIC **07** 20:25:57.0±4.7,25.05S×179.88E,h564^{km}±60^{km},mb4.3/7, Error ellipse: s-maj=29.5km s-min=18.4km az=213.0*

ISC 07 20:25:51.4±1.3**,24.9S**±0.2×**179.9E**±0.2**,h500**^{km}**,n17, σ0**^{s}**.64**/17**,mb4.1**/11**,1C-1D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	**20.11**	**199**	P	**P**	**20 29 51.6**	**+0.1**
	5.4nm,0.4s,baz=38,slow=4.6,SNR=3.0						
CTA	**Charters Tower**	**31.42**	**272**	P	**P**	**20 31 33.5**	**+1.2**
	9.0nm,0.4s,mb4.6,baz=98,slow=10,SNR=19						
CTAO	**Charters Tower**	**31.42**	**272**	*e*P	**P**	**20 31 32.7**	**+0.5**
	12nm,0.5s,mb4.6						
STKA	**Stephens Creek**	**34.29**	**249**	*e*P	**P**	**20 31 57.4**	**+1.1**
	4.0nm,1.0s,mb3.8						
STKA	**Stephens Creek**	**34.29**	**249**	P	**P**	**20 31 57.3**	**+1.0**
	2.3nm,0.4s,mb3.9,baz=92,slow=9.3,SNR=14						
PMG	**Port Moresby**	**34.76**	**291**	P	**P**	**20 32 01.1**	**+0.6**
	3.5nm,0.7s,mb3.9,baz=106,slow=6.2,SNR=3.1						
ASAR	**Alice Springs**	**41.80**	**262**	P	**P**	**20 32 58.3**	**+0.4**
	2.3nm,0.5s,mb3.9,baz=95,slow=7.3,SNR=56						
ASPA	**Alice Springs**	**41.81**	**262**	⇑*i*P	**P**	**20 32 58.0**	**+0.1**
WB2	**Warramunga Arr**	**42.26**	**267**	⇓*i*P	**P**	**20 33 01.1**	**-0.5**
WRAB	**Tennant Creek**	**42.27**	**267**	*e*P	**P**	**20 33 01.0**	**-0.6**
	5.7nm,0.4s,mb4.3						
WRA	**Warramunga Arr**	**42.27**	**267**	P	**P**	**20 33 01.6**	**0.0**
	8.0nm,0.5s,mb4.4,baz=100,slow=7.2,SNR=58						
WRA				ScP		20 37 49.7	
	1.9nm,0.9s,baz=98,slow=4.0,SNR=6.4						
KAKA	**Kakadu**	**46.33**	**276**	*e*P	**P**	**20 33 32.9**	**-0.5**
	11nm,1.1s,mb4.2						
FITZ	**Fitzroy Crossi**	**50.68**	**266**	*e*P	**P**	**20 34 05.0**	**-1.1**
	5.2nm,0.7s,mb4.0						
FITZ	**Fitzroy Crossi**	**50.68**	**266**	P	**P**	**20 34 06.4**	**+0.3**
	5.2nm,0.6s,mb4.0,baz=130,slow=4.1,SNR=12						
MBWA	**Marble Bar**	**55.13**	**261**	*e*P	**P**	**20 34 36.7**	**-1.2**
	1.7nm,0.3s,mb3.9						
PMSA	**Palmer Station**	**78.02**	**157**	P	**P**	**20 36 51.0**	**-7.2**
	36nm,0.4s,mb5.2						
NVAR	**Mina Array Bea**	**85.53**	**44**	P	**P**	**20 37 37.0**	**+0.1**
	0.4nm,0.5s,mb3.3,baz=217,slow=9.0,SNR=3.7						

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*CNRM **07** 20:30:19.6,35.37N×2.87W,h16^{km},MD3.2*

*NEIC **07** 20:30:22.3,35.03N×3.17W,MG3.4(MDD),After MDD.*

*MDD **07** 20:30:22.4±1.4,35.03N×3.16W,mb3.4/7,Error ellipse: s-maj=13.9km s-min=5.8km az=160.0,PRXIMO AftershockPLICA*

*CSEM **07** 20:30:22.4±0.3,35.14N×3.02W,h20^{km},mb3.4/7,Error ellipse: s-maj=7.7km s-min=4.7km az=118.0*

ISC 07 20:30:23.4±0.7**,35.14N**±0.04×**3.04W**±0.07**,h24**^{km}±4^{km}**, n25,σ0**^{s}**.97**/46**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	**0.18**	**24**	P	**Pb**	**20 30 28.2**	**-0.5**
	172nm,0.4s,SNR=18						
EMEL				S	**Sb**	**20 30 33.1**	**+0.8**
	465nm,0.2s,SNR=7.9						
EMLI	**Melilla**	**0.18**	**25**	P	**Pb**	**20 30 28.2**	**-0.5**
	172nm,0.4s,SNR=18						
MELI	**Melilla**	**0.18**	**30**	P	**Pb**	**20 30 27.9**	**-0.8**
MELI				S	**Sb**	**20 30 32.1**	**-0.2**
MELI	**Melilla**	**0.18**	**30**	*e*P	**Pb**	**20 30 27.9**	**-0.8**
MELI				*e*S	**Sb**	**20 30 32.1**	**-0.2**
ZAI	**Zaio**	**0.29**	**124**	*i* P	**Pb**	**20 30 24.0**	**-6.3**
TOU	**Touzarine**	**0.61**	**254**	*i* P	**Pb**	**20 30 36.5**	**+1.2**
TOU				*i* S	**Sb**	**20 30 48.5**	**+5.0**
TZK	**Tazeka**	**1.41**	**222**	*i* P	**Pn**	**20 30 47.0**	**-0.9**
TZK				*i* S	**Sn**	**20 31 06.0**	**+0.2**
EBER	**Berja**	**1.76**	**4**	P	**Pn**	**20 30 53.1**	**+0.2**
	5.4nm,0.5s,SNR=5.0						
EBER				S	**Sn**	**20 31 15.1**	**+0.2**
	23nm,0.4s,SNR=7.9						
EBER	**Berja**	**1.76**	**4**	P	**Pn**	**20 30 53.1**	**+0.1**
	5.4nm,0.5s,SNR=5.0						
EBER				S	**Sn**	**20 31 15.1**	**+0.3**
	23nm,0.4s,SNR=7.9						
ERON	**Agron**	**1.98**	**342**	P	**Pn**	**20 30 55.7**	**-0.3**
	SNR=7.9						
ERON				S	**Sn**	**20 31 21.2**	**+0.9**
	SNR=7.9						
EMIJ	**Mijas**	**2.00**	**316**	P	**Pn**	**20 30 56.2**	**-0.2**
EMIJ				S	**Sn**	**20 31 20.4**	**-0.5**
EMIJ	**Mijas**	**2.00**	**316**	P	**Pn**	**20 30 56.2**	**-0.2**
	1.8nm,0.2s,SNR=8.2						
EMIJ				S	**Sn**	**20 31 22.2**	**+1.3**
	8.0nm,0.3s,SNR=7.9						
EMIJ	**Mijas**	**2.00**	**316**	P	**Pn**	**20 30 56.2**	**-0.2**
	1.8nm,0.2s,SNR=8.2						
EMIJ				S	**Sn**	**20 31 20.4**	**-0.5**
	8.0nm,0.3s,SNR=7.9						
ELUQ	**Luque**	**2.61**	**338**	P	**Pn**	**20 31 07.7**	**+2.6**
	1.5nm,0.2s,SNR=7.9						
ELUQ				S	**Sn**	**20 31 42.8**	**+6.4**
	5.5nm,0.4s,SNR=7.9						
EQES	**Quesada**	**2.66**	**360**	P	**Pn**	**20 31 08.3**	**+2.5**
	0.9nm,0.1s,SNR=12						
EQES				S	**Sn**	**20 31 41.5**	**+3.9**
	17nm,0.4s,SNR=7.9						
EMUR	**La Murta**	**3.07**	**28**	P	**Pn**	**20 31 10.6**	**-1.0**
	2.8nm,0.3s,SNR=6.0						
EMUR				S	**Sn**	**20 31 47.1**	**-0.8**
	SNR=7.9						
EMUR	**La Murta**	**3.07**	**28**	P	**Pn**	**20 31 10.6**	**-1.0**
	2.8nm,0.3s,SNR=6.0						
EMUR				S	**Sn**	**20 31 47.1**	**-0.8**
	SNR=7.9						
EADA	**Adamuz**	**3.27**	**338**	P	**Pn**	**20 31 15.3**	**+0.9**
	1.0nm,0.3s,SNR=6.4						
EADA				S	**Sn**	**20 31 52.8**	**-0.2**
	3.0nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**3.27**	**338**	P	**Pn**	**20 31 15.3**	**+0.9**
	1.0nm,0.3s,SNR=6.4						
EADA				S	**Sn**	**20 31 52.8**	**-0.2**
EMIN	**Mina Concepcio**	**3.93**	**313**	P	**Pn**	**20 31 23.2**	**-0.6**
	0.6nm,0.2s,SNR=11						
EMIN				S	**Sn**	**20 32 08.2**	**-1.6**
	SNR=7.9						
EMIN	**Mina Concepcio**	**3.93**	**313**	P	**Pn**	**20 31 23.2**	**-0.6**
EMIN				S	**Sn**	**20 32 08.2**	**-1.6**
ESDC	**Sonseca Array**	**4.59**	**351**	P	**Pn**	**20 31 34.2**	**+1.0**
	0.9nm,0.1s,baz=172,slow=12,SNR=5.4						
ESDC	**Sonseca Array**	**4.59**	**351**	P	**Pn**	**20 31 34.2**	**+1.0**
EBAD	**Badajoz**	**4.81**	**320**	P	**Pn**	**20 31 36.0**	**-0.4**
	1.9nm,0.3s,SNR=7.2						
EBAD				S	**Sn**	**20 32 30.9**	**-1.1**
	1.9nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**4.81**	**320**	P	**Pn**	**20 31 36.0**	**-0.4**
EBAD				S	**Sn**	**20 32 30.9**	**-1.2**

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*CNRM **07** 20:39:56.6,35.05N×2.77W,h11^{km},MD2.8*

*MDD **07** 20:39:58.8±2.2,35.10N×3.23W,mb3.1/3,Error ellipse: s-maj=23.0km s-min=6.2km az=171.0,PRXIMO AftershockPLICA*

*CSEM **07** 20:39:58.1±0.4,35.12N×3.13W,h20^{km},MD2.8,Error ellipse: s-maj=9.4km s-min=6.8km az=121.0*

*NEIC **07** 20:39:59.3,35.09N×3.15W,h10^{km},MG3.0(MDD),After MDD.*

ISC 07 20:39:59.1±0.9**,35.14N**±0.07×**3.2W**±0.1**,h23**^{km}±9^{km}**,n15, σ0**^{s}**.85**/26**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	**0.23**	**45**	P	**Pb**	**20 40 04.5**	**-0.4**
	41nm,0.2s,SNR=7.9						
EMEL				S	**Sb**	**20 40 08.5**	**-0.3**
	152nm,0.1s,SNR=7.9						
EMLI	**Melilla**	**0.23**	**46**	P	**Pb**	**20 40 04.5**	**-0.4**
	41nm,0.2s,SNR=7.9						
TOU	**Touzarine**	**0.53**	**251**	*i* P	**Pb**	**20 40 11.5**	**+1.8**
TOU				*i* S	**Sb**	**20 40 22.0**	**+5.2**
TZK	**Tazeka**	**1.35**	**219**	*i* P	**Pn**	**20 40 22.0**	**-0.9**
EBER	**Berja**	**1.77**	**7**	P	**Pn**	**20 40 29.4**	**+0.5**
	0.5nm,0.1s,SNR=7.9						
EBER				S	**Sn**	**20 40 50.7**	**-0.2**
	7.7nm,0.4s,SNR=7.9						
EBER	**Berja**	**1.77**	**7**	P	**Pn**	**20 40 29.4**	**+0.5**
	0.5nm,0.1s,SNR=7.9						
EBER				S	**Sn**	**20 40 50.7**	**-0.2**
	7.7nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	**1.94**	**318**	P	**Pn**	**20 40 30.7**	**-0.6**
	0.8nm,0.1s,SNR=7.9						
EMIJ				S	**Sn**	**20 40 55.2**	**0.0**
	1.9nm,0.3s,SNR=7.9						
EQES	**Quesada**	**2.66**	**1**	P	**Pn**	**20 40 42.9**	**+1.3**
	0.4nm,0.2s,SNR=7.9						
EQES				S	**Sn**	**20 41 17.0**	**+3.5**
	4.4nm,0.4s,SNR=7.9						
EQES	**Quesada**	**2.66**	**1**	P	**Pn**	**20 40 42.9**	**+1.3**
	0.4nm,0.2s,SNR=7.9						
EQES				S	**Sn**	**20 41 17.0**	**+3.5**
	4.4nm,0.4s,SNR=7.9						
ESPR	**Espera**	**2.79**	**309**	P	**Pn**	**20 40 43.5**	**0.0**
	0.9nm,0.1s,SNR=7.9						
ESPR	**Espera**	**2.79**	**309**	P	**Pn**	**20 40 43.5**	**0.0**
	0.9nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**3.23**	**340**	P	**Pn**	**20 40 50.3**	**+0.5**
	0.2nm,0.1s,SNR=7.9						
EADA				S	**Sn**	**20 41 28.2**	**+0.2**
	0.9nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**3.23**	**340**	P	**Pn**	**20 40 50.3**	**+0.5**
	0.2nm,0.1s,SNR=7.9						
EADA				S	**Sn**	**20 41 28.2**	**+0.2**
	0.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.87**	**314**	P	**Pn**	**20 40 58.1**	**-0.7**
	SNR=7.9						
EMIN				S	**Sn**	**20 41 42.8**	**-1.2**
	0.2nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.87**	**314**	P	**Pn**	**20 40 58.1**	**-0.7**
	SNR=7.9						
EMIN				S	**Sn**	**20 41 42.8**	**-1.2**

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*IDC **07** 20:40:43.2±3.0,8.44S×119.52E,mb3.9/3,mb1 4.1/5, mb1mx3.9/16,ML4.0/2,Error ellipse: s-maj=176.0km s-min=22.3km az=62.0*

*DJA **07** 20:40:51.4±1.0,9.32S×118.49E,h179^{km}±11^{km},mb5.1/2, MD4.7/4,ML5.7/2,Error ellipse: s-maj=39.9km s-min=9.2km az=149.0*

*NEIC **07** 20:40:52.3±0.8,9.40S×118.57E,h100^{km}±17^{km},mb4.2/1, Error ellipse: s-maj=14.6km s-min=11.1km az=58.0*

ISC 07 20:40:51.4±0.8**,9.41S**±0.08×**118.63E**±0.07**,h114**^{km}±19^{km}**, n14,σ1**^{s}**.28**/22**,mb3.9**/2**,5C-4D,Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	**2.65**	**290**	*e*Pn	**P**	**20 41 34.4**	**+0.7**
	3μm,0.2s						
KEDI				⇑*e*Sn	**S**	**20 42 06.4**	**+0.8**
RATI	**Rata**	**3.13**	**282**	⇓*e*Pn	**P**	**20 41 41.0**	**+0.8**
RATI				*e*Sn	**S**	**20 42 18.5**	**+1.3**
RATI	**Rata**	**3.13**	**282**	⇓*e*Pn	**P**	**20 41 41.0**	**+0.8**
	4μm,0.2s						
RATI				⇓*e*Sn	**S**	**20 42 17.0**	**-0.2**
KELI	**Kelakatan**	**4.25**	**286**	⇑*e*P	**P**	**20 41 54.5**	**-0.9**
	341nm,0.3s						
SRDI	**Scrawed**	**4.53**	**281**	⇑*e*P	**P**	**20 41 58.1**	**-0.9**
	540nm,0.2s						
SRDI				⇓*e*S	**S**	**20 42 49.8**	**-1.2**
NINI	**Niniconang**	**5.08**	**13**	⇑*e*P	**P**	**20 42 06.7**	**+0.2**
	1μm,0.4s						
BUNI	**Buntu Taipa**	**5.96**	**17**	⇑*e*P	**P**	**20 42 18.1**	**-0.3**
	96nm,0.3s						
FITZ	**Fitzroy Crossi**	**11.00**	**143**	Pn	**P**	**20 43 26.8**	**+0.3**
	0.8nm,0.3s,baz=351,slow=11,SNR=24						
FITZ				Sn	**S**	**20 45 19.4**	**-8.4**
	0.9nm,0.3s,baz=185,slow=20,SNR=11						
MBWA	**Marble Bar**	**11.73**	**175**	*e*Pn	**P**	**20 43 34.5**	**-1.6**
MBWA				*e*Sn	**S**	**20 45 38.9**	**-6.3**
WRA	**Warramunga Arr**	**18.44**	**126**	P	**P**	**20 45 00.8**	**+0.2**
	0.6nm,0.3s,baz=303,slow=13,SNR=13						
WRA				S	**S**	**20 48 17.1**	**-2.1**
	0.3nm,0.3s,baz=303,slow=25,SNR=5.6						
WRAB	**Tennant Creek**	**18.44**	**126**	*e*P	**P**	**20 45 00.2**	**-0.5**
	6.8nm,0.5s						
ASAR	**Alice Springs**	**20.35**	**136**	P	**P**	**20 45 23.1**	**+2.3**
	2.1nm,0.6s,baz=319,slow=11,SNR=36						
ASAR				S	**S**	**20 49 00.2**	**+2.8**
	0.2nm,0.5s,baz=244,slow=38,SNR=2.5						
STKA	**Stephens Creek**	**30.88**	**140**	P	**P**	**20 47 01.6**	**+2.3**
	2.2nm,0.9s,mb3.9,baz=328,slow=9.5,SNR=4.1						
SONM	**Songino Array**	**58.02**	**350**	P	**P**	**20 50 32.5**	**-2.1**
	0.7nm,0.5s,mb4.0,baz=169,slow=8.5,SNR=13						

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*NNC **07** 20:46:01.3±21.0,37.17N×71.80E,h116^{km}±999^{km},mpv4.1, Error ellipse: s-maj=2603.1km s-min=246.3km az=108.0*

ISC 07 20:46:02.3±1.2**,37.18N**±0.05×**72.3E**±0.2**,h155**^{km}±16^{km}**, n23,σ0**^{s}**.99**/32**,1C-2D,Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	**Almayashu**	**5.06**	**12**	P	**P**	**20 47 16.2**	**-1.2**
	SNR=140						
UCH	**Uchtor**	**5.32**	**18**	P	**P**	**20 47 20.8**	**0.0**
	SNR=14						
KZA	**Kyzart**	**5.39**	**24**	P	**P**	**20 47 22.8**	**+1.0**
	SNR=9.6						
THN	**Thein Dam**	**5.50**	**148**	*e*P	**P**	**20 47 22.2**	**-1.0**
	2.3nm,0.1s						
THN				*e*S	**S**	**20 48 25.9**	**0.0**
DLH	**Dalhousie**	**5.51**	**146**	*e*P	**P**	**20 47 26.0**	**+2.6**
DLH				*e*S	**S**	**20 48 26.0**	**-0.3**
EKS2	**Erkin-Say**	**5.59**	**11**	P	**P**	**20 47 23.0**	**-1.4**
	SNR=11						
AAK	**Ala-Archa**	**5.70**	**16**	⇓P	**P**	**20 47 25.6**	**-0.2**
	7.7nm,0.4s						
AAK				⇑S	**S**	**20 48 32.0**	**+1.2**
	9.6nm,0.6s						
AAK	**Ala-Archa**	**5.70**	**16**	P	**P**	**20 47 25.6**	**-0.2**
	SNR=18						
CHMS	**Chumysh**	**6.11**	**17**	P	**P**	**20 47 30.6**	**-0.7**
	SNR=17						
TKM2	**Tokmak 2**	**6.26**	**23**	P	**P**	**20 47 33.6**	**+0.2**
	SNR=8.3						
USP	**Ospenovka**	**6.31**	**15**	P	**P**	**20 47 32.5**	**-1.5**
	SNR=6.0						
SDNR	**Sundarnagar**	**6.85**	**144**	*e*	Sx	20 48 54.6	
SDNR				*e*S	**S**	**20 48 58.6**	**+0.4**
SMLA	**Simla**	**7.25**	**145**	⇓*i*P	**P**	**20 47 58.7**	**+12**
SMLA				*i* S	**S**	**20 49 17.7**	**+10**
AJM	**Ajmer**	**10.85**	**169**	*e*P	**P**	**20 48 26.9**	**-7.3**
AJM				AMb	AMB	20 48 35.2	
	comp=Z,4.1nm,0.7s						
MK31	**Makanchi Array**	**12.13**	**34**	P	**P**	**20 48 53.4**	**+2.7**
	comp=Z,0.5nm,0.6s,baz=225,slow=14,SNR=6.2						
KOLN	**Koldanda**	**13.36**	**131**	*e*P	**P**	**20 49 06.8**	**+0.1**
	comp=Z,9.3nm,0.3s						
KOLN				*e*S	**S**	**20 51 31.1**	**-0.8**
GKN	**Gorkha**	**13.83**	**128**	*e*P	**P**	**20 49 13.5**	**+0.8**
	comp=Z,7.1nm,0.3s						
GKN				*e*S	**S**	**20 51 41.8**	**-0.9**
KKN	**Kakani**	**14.38**	**127**	*e*P	**P**	**20 49 19.8**	**+0.1**
	comp=Z,6.4nm,0.5s						
KKN				*e*S	**S**	**20 51 54.7**	**-0.8**
DMN	**Daman**	**14.40**	**128**	*e*P	**P**	**20 49 19.8**	**-0.1**
	comp=Z,4.6nm,0.3s						
DMN				*e*S	**S**	**20 51 55.3**	**-0.5**
BHPL	**Bhopal**	**14.57**	**161**	*e*S	**S**	**20 51 50.6**	**-9.1**
PKI	**Pulchoki**	**14.62**	**127**	*e*P	**P**	**20 49 23.6**	**+0.9**
	comp=Z,7.4nm,0.4s						
PKI				*e*S	**S**	**20 52 00.9**	**+0.1**
GUN	**Gumba**	**14.69**	**125**	*e*P	**P**	**20 49 25.3**	**+1.7**
	comp=Z,17nm,0.6s						
BVA0	**Borovoye Array**	**15.90**	**356**	P	**P**	**20 49 38.2**	**-0.3**
	baz=163,slow=14,SNR=8.3						

NEIC 07 20:54:45.0,34.27N×119.68W,h0^{km}**,ML3.5**(PAS)**,After PAS.,Southern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MWC	**Mount Wilson**	**1.35**	**92**	*e*P	Pb	20 55 07.8	-3.0
LRV	**Little Rabbit**	**2.41**	**333**	*e*P	Pn	20 55 23.1	-3.1
DAC	**Darwin (Calif)**	**2.63**	**40**	Pn	Pn	20 55 27.0	-2.4
PFO	**Pinyon Flat Ob**	**2.76**	**103**	*e*P	Pn	20 55 27.1	-4.1
SAO	**San Andreas Ge**	**2.87**	**330**	Pn	Pn	20 55 29.6	-3.3
BAR	**Barrett**	**2.98**	**121**	Pn	Pn	20 55 32.9	-1.4
MTUM	**Tungsten Hills**	**3.21**	**16**	*e*Pn	Pn	20 55 35.9	-1.7
CMB	**Columbia Colle**	**3.80**	**352**	*e*Pn	Pn	20 55 42.5	-3.5
TPNV	**Topopah Spring**	**3.87**	**45**	*e*Pn	Pn	20 55 44.6	-2.4
NEN	**Nelson**	**4.21**	**70**	*e*Pn	Pn	20 55 48.3	-3.4
TPH	**Tonopah**	**4.29**	**27**	Pn	Pn	20 55 52.7	-0.2
MNV	**Mina**	**4.33**	**16**	*e*Pn	Pn	20 55 52.1	-1.4
OHCM	**Honcut**	**5.26**	**345**	Pn	Pn	20 56 03.7	-2.9
ARUT	**Antelope Range**	**6.16**	**53**	Pn	Pn	20 56 19.0	-0.3
MVU	**Marysvale**	**7.36**	**53**	Pn	Pn	20 56 33.8	-2.4
HVU	**Hansel Valley**	**9.26**	**34**	Pn	P	20 56 59.4	-3.4

JMA 07 21:32:12.5±0.1**,43.00N×145.37E,h48**^{km}±1^{km}**,M3.5, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.46**	**37**	P	P	21 32 22.9	-0.2
NEM2				*e*S	S	21 32 30.0	-0.7
JAK	**Akkeshi**	**0.49**	**270**	P	P	21 32 23.6	0.0
JAK				*e*S	S	21 32 31.5	0.0

JNK	Nakash	0.75	321	P	P	21 32 26.7	-0.2
JNK				eS	S	21 32 36.6	-0.9
JRA	Rausu	0.95	349	P	P	21 32 29.7	0.0
JRA				eS	S	21 32 42.3	-0.2
JOB	Onbets	1.13	266	P	P	21 32 31.9	-0.3
JOB				eS	S	21 32 46.2	-0.7
JAR	Ashorobuto	1.21	285	P	P	21 32 33.3	0.0
JTKR	Abashiri--Toko	1.44	313	P	P	21 32 36.9	+0.2
JCH	Churui	1.53	256	P	P	21 32 37.0	-0.9
JCH				eS	S	21 32 55.1	-1.6

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*IDC **07** 22:04:14.1±1.1, 56.42S×25.25W, mb4.2/2, mb1 4.3/3, mb1mx3.9/12, ML3.5/1, Error ellipse: s-maj=63.4km s-min=26.9km az=62.0*

*NEIC **07** 22:04:15.1±0.8, 56.35S×26.04W, h10^{km}, mb4.8/3, Error ellipse: s-maj=25.1km s-min=13.8km az=75.0*

ISC 07 22:04:11.8±1.2, **56.2S**±0.1×**26.3W**±0.3, **h10^{km}, n14, σ0^{s}85**/10, **mb4.5**/4, **5C-1D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	16.45	159	⇑i	P	22 08 04.9	+1.0
VNA3	Neumayer Olymp	16.66	161	⇑iP	P	22 08 06.6	0.0
VNA3				⇑iP		22 08 26.0	
VNA2	Neumayer--Watz	16.85	158	⇑i	P	22 08 09.6	+0.7
SNAA	Sanae	18.38	156	⇑i	P	22 08 26.0	-2.2
SNAA	Sanae	18.38	156	P	P	22 08 25.6	-2.5
	0.2nm,0.3s,baz=325,slow=14,SNR=23						
PMSA	Palmer Station	20.18	230	P	P	22 08 48.7	-0.2
	65nm,1.2s						
QSPA	South Pole Qui	34.03	180	⇓iP	P	22 10 57.4	0.0
	8.0nm,0.6s,mb4.8						
VNDA	Vanda	46.43	182	P	P	22 12 40.0	+0.4
	1.5nm,0.7s,mb4.1,baz=187,slow=7.9,SNR=10						
LPAZ	La Paz	50.89	304	P	P	22 13 22.4	+7.4
	2.0nm,0.3s,mb4.5,baz=138,slow=5.5,SNR=6.7						
DBIC	Dimbokro	65.11	24	P	P	22 14 54.9	0.0
	9.8nm,1.2s,mb4.7						
YKA	Yellowknife Ar	136.64	317	PKP	PKPdf	22 23 37.5	+1.5
	0.1nm,0.5s,baz=133,slow=1.7,SNR=4.3						
YKA	Yellowknife Ar	136.64	317	PKP	PKPdf	22 23 37.5	+1.5
SONM	Songino Array	150.23	86	PKPbc	PKPdf	22 24 04.5	+4.7
	1.1nm,0.7s,baz=218,slow=3.5,SNR=9.4						
ILAR	Eielson Array	150.61	311	PKPbc	PKPdf	22 24 07.3	+7.5
	0.9nm,0.8s,baz=90,slow=1.8,SNR=8.7						
ILAR				PKPab	PKPab	22 24 14.2	+2.8
	0.5nm,0.9s,baz=123,slow=3.6,SNR=5.8						

IDC 07 22:11:46.8±8.5, **7.03S**×**149.73E, h58^{km}**±59^{km}, **mb3.7**/3, **mb1 4.0**/5, **mb1mx3.6**/14, **ML3.7**/2, **Error ellipse: s-maj=59.7km s-min=54.1km az=174.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.47	227	P	P	22 12 38.6	-1.1
	5.6nm,0.3s,baz=52,slow=11,SNR=15						
PMG				S	S	22 13 19.0	-0.9
	12nm,0.3s,baz=152,slow=21,SNR=24						
WB2	Warramunga Arr	19.68	228	eP	P	22 16 11.1	-2.9
WRA	Warramunga Arr	19.69	228	P	P	22 16 11.3	-2.7
	1.0nm,0.3s,baz=53,slow=11,SNR=43						
ASAR	Alice Springs	22.47	221	P	P	22 16 40.4	-1.8
	1.0nm,0.5s,baz=52,slow=9.4,SNR=14						
STKA	Stephens Creek	25.86	196	P	P	22 17 13.0	-1.8
	3.9nm,1.1s,baz=22,slow=15,SNR=4.8						
FITZ	Fitzroy Crossi	25.93	243	eP	P	22 17 14.6	-1.0
	4.1nm,1.1s						
FITZ	Fitzroy Crossi	25.93	243	P	P	22 17 14.3	-1.2
	2.1nm,0.4s,baz=46,slow=6.8,SNR=16						

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*IDC **07** 22:13:00.0±1.8, 18.98S×168.56E, mb4.3/10, mb1 4.5/10, mb1mx4.3/16, MS3.6/4, Ms1 3.6/4, ms1mx3.2/21, Error ellipse: s-maj=53.4km s-min=24.8km az=142.0*

*NEIC **07** 22:13:15.1±0.9, 18.78S×168.03E, h100^{km}, mb4.3/7, Error ellipse: s-maj=27.3km s-min=16.3km az=152.0*

*SYO **07** 22:13:16.1, 18.81S×167.87E, h100^{km}, MB4.3*

ISC 07 22:13:09.0±2.8, **18.9S**±0.1×**168.0E**±0.2, **h52^{km}**±22^{km}, **n30, σ0^{s}82**/23, **mb4.4**/13, **MS3.4**/4, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.48	204	eP	P	22 14 01.4	-0.7
DZM				eS	S	22 14 43.0	+0.5
NOUC	Port Laguerre	3.57	206	eP	P	22 14 03.3	0.0
NOUC				eS	S	22 14 44.7	+0.2
CTA	Charters Tower	20.52	263	P	P	22 17 46.8	+1.3
	9.7nm,0.8s,baz=90,slow=12,SNR=6.6						
CTA				LR	LR	22 24 59.4	
	comp=Z,205nm,18.4s,MS3.5,baz=47,slow=34						
CTAO	Charters Tower	20.52	263	eP	P	22 17 46.4	+0.9
	19nm,1.0s						
PMG	Port Moresby	22.25	292	P	P	22 18 04.4	+1.4
	6.5nm,0.7s,mb4.2,baz=144,slow=6.8,SNR=5.5						
PMG				LR	LR	22 25 13.7	
	comp=Z,96nm,20.9s,MS3.2,baz=255,slow=32						
PMG	Port Moresby	22.25	292	eP	P	22 18 03.6	+0.6
	7.1nm,0.7s,mb4.2						
STKA	Stephens Creek	27.04	236	eP	P	22 18 50.1	+1.6
	7.2nm,0.9s,mb4.2						
STKA	Stephens Creek	27.04	236	P	P	22 18 48.1	-0.4
	4.0nm,0.6s,mb4.2,baz=74,slow=12,SNR=10						
STKA				LR	LR	22 29 18.7	
	comp=Z,119nm,20.5s,MS3.4,baz=294,slow=36						
WB2	Warramunga Arr	31.70	262	eP	P	22 19 28.8	-1.4
WRAB	Tennant Creek	31.70	262	eP	P	22 19 28.9	-1.3
	12nm,1.0s,mb4.7						
WRA	Warramunga Arr	31.71	262	P	P	22 19 28.9	-1.4
	5.5nm,0.9s,mb4.4,baz=93,slow=9.0,SNR=13						
ASAR	Alice Springs	32.06	255	P	P	22 19 32.9	-0.4
	16nm,0.7s,mb5.0,baz=83,slow=8.8,SNR=119						
ASAR				LR	LR	22 32 27.3	
	comp=Z,114nm,18.2s,MS3.6,baz=31,slow=36						
ASPA	Alice Springs	32.06	255	eP	P	22 19 32.9	-0.4
FITZ	Fitzroy Crossi	40.09	264	P	P	22 20 42.0	+0.7
	26nm,0.7s,mb5.1,baz=153,slow=6.3,SNR=27						
MBWA	Marble Bar	45.25	259	eP	P	22 21 23.8	+0.4
	6.1nm,0.7s,mb4.5						
NWAO	Narrogin (SRO)	47.32	242	P	P	22 21 39.4	-0.2
	5.8nm,0.8s,mb4.5,baz=79,slow=9.4,SNR=3.7						
CMAR	Chiang Mai Arr	77.27	295	P	P	22 25 00.6	+0.5
	0.4nm,0.6s,mb3.5,baz=138,slow=3.0,SNR=5.2						
ULN	Ulaanbaatar	85.87	324	eP	P	22 25 45.0	+0.6
	2.0nm,0.8s,mb4.4						
SONM	Songino Array	86.22	324	P	P	22 25 46.3	+0.2
	0.3nm,0.5s,mb3.8,baz=127,slow=5.8,SNR=4.1						
SNAA	Sanae	89.46	183	P	P	22 26 01.2	+0.1
	4.4nm,1.3s,mb4.6						
ILAR	Eielson Array	90.25	18	P	P	22 26 00.8	-4.1
	0.3nm,0.5s,mb3.9,baz=240,slow=4.8,SNR=7.4						
ARCES	ARCESS Array B	124.42	345	PKP	PKPdf	22 32 00.9	-1.1
	2.0nm,0.8s,baz=63,slow=4.0,SNR=3.6						
CDF	Champ du Feu	146.65	336	ePKP1	PKPbc	22 32 44.7	0.0
HAU	Haudompre	147.33	337	ePKP1	PKPdf	22 32 47.1	+2.7
SSF	Saint Saulge	149.14	339	ePKP1	PKPdf	22 32 51.8	+4.5
LPL	La Plagne	149.22	334	ePKP1	PKPdf	22 32 53.4	+5.9
LPG	La Plagne	149.22	334	ePKP1	PKPdf	22 32 53.5	+6.0
MBDF	Montbardon	149.83	333	ePKP1	PKPdf	22 32 52.2	+3.7
	10nm,0.9s						
ORIF	Oris-en-Rattie	150.06	334	ePKP1	PKPdf	22 32 54.5	+5.7
	12nm,0.9s						
SBF	Sospel	150.21	331	ePKP1	PKPdf	22 32 54.7	+5.6
	62nm,1.2s						

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*DJA **07** 22:26:58.6±1.3, 5.62S×118.28E, h33^{km}, ML4.7/1, Error ellipse: s-maj=62.3km s-min=26.1km az=117.0*

*IDC **07** 22:27:15.1±3.5, 8.03S×118.48E, mb3.9/3, mb1 3.9/5, mb1mx3.8/16, ML3.5/2, Error ellipse: s-maj=202.0km s-min=22.5km az=62.0*

ISC 07 22:27:16.8±1.0, **8.2S**±0.2×**118.29E**±0.10, **h33^{km}, n8, σ0^{s}91**/11, **mb3.9**/3, **2C-3D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	2.17	263	⇓ePn	Pn	22 27 50.9	-0.5
	186nm,0.5s						
KEDI				⇓eSn	Sn	22 28 29.9	+12
RATI	Rata	2.77	260	⇓ePn	Pn	22 28 00.5	+0.5
RATI				⇑eSn	Sn	22 28 44.3	+12
KELI	Kelakatan	3.76	270	⇑eP	P	22 28 06.7	-7.2
FITZ	Fitzroy Crossi	12.14	145	Pn	P	22 30 09.2	-1.3
	0.4nm,0.3s,baz=347,slow=9.0,SNR=8.9						
FITZ				Sn	S	22 32 19.8	-5.8
	0.1nm,0.3s,baz=1.8,slow=21,SNR=1.8						
WRA	Warramunga Arr	19.42	129	P	P	22 31 42.8	-0.4
	0.1nm,0.3s,baz=301,slow=12,SNR=3.2						
ASAR	Alice Springs	21.44	138	P	P	22 32 04.7	+0.4
	1.5nm,0.7s,mb3.4,baz=313,slow=9.8,SNR=9.2						
STKA	Stephens Creek	31.99	141	P	P	22 33 44.3	+1.9
	2.9nm,0.9s,mb4.1,baz=320,slow=7.9,SNR=2.9						
SONM	Songino Array	56.80	350	P	P	22 36 59.9	-0.3
	1.5nm,0.9s,mb4.0,baz=167,slow=6.2,SNR=12						

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*NEIC **07** 22:37:27.4, 38.20N×21.75E, h2^{km}, MD3.2(ATH), After ATH.*

*ATH **07** 22:37:27.3, 38.18N×21.72E, h5^{km}, MD3.2/9*

*THE **07** 22:37:28.1, 38.18N×21.89E, h10^{km}, ML2.8*

*CSEM **07** 22:37:28.0±0.1, 38.22N×21.77E, h1^{km}±1^{km}, MD3.2, Error ellipse: s-maj=3.2km s-min=2.3km az=73.0*

ISC 07 22:37:27.2±0.6, **38.20N**±0.04×**21.72E**±0.05, **h5^{km}, n23, σ1^{s}52**/31, **Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EVR	Evrytania	0.72	5	ePB	Pb	22 37 40.8	-1.0
VLS	Valsamata	0.89	269	ePG	Pg	22 37 44.2	-0.9
AGG	Agios Georgios	0.95	30	ePg	Pg	22 37 44.6	-1.5
AGG				eSg	Sg	22 37 57.4	-1.3
LKD	Levkas	0.98	301	ePg	Pg	22 37 45.1	-1.7
LKD				eSg	Sg	22 38 05.6	+5.7
ITM	Ithomi	1.03	171	ePN	Pn	22 37 47.1	-1.1
NSAL	Nisos Salamina	1.41	102	ePB	Pb	22 37 54.0	+0.5
NAIG	Nisos Aigina	1.46	107	ePB	Pb	22 37 55.5	+1.0
JAN	Janina	1.60	335	ePB	Pb	22 37 59.5	+2.6
MEV	Metsovon	1.63	346	ePb	Pb	22 37 59.7	+2.4
MEV				eSb	Sb	22 38 23.4	+5.3
XOR	Xorichti	1.63	44	ePb	Pb	22 37 57.5	+0.1
XOR				eSb	Sb	22 38 19.2	+1.0
XOR	Xorichti	1.63	44	ePb	Pb	22 37 57.5	+0.1
XOR				eSb	Sb	22 38 19.2	+0.9
PTL	Penteli	1.69	95	ePB	Pb	22 37 56.5	-2.0
IGT	Igoumenitsa	1.72	321	ePb	Pb	22 38 00.2	+1.4
IGT				eSb	Sb	22 38 25.1	+4.5
IGT	Igoumenitsa	1.72	321	ePb	Pb	22 38 00.2	+1.4
IGT				eSb	Sb	22 38 25.1	+4.4
VLI	Veliai	1.77	147	ePN	Pn	22 38 01.0	+2.3
AOS	Alonnisos	1.94	60	ePb	Pb	22 38 03.6	+0.9
AOS				eSb	Sb	22 38 22.7	-4.6
LIT	Litokhoron	1.99	17	ePb	Pb	22 38 00.4	-3.1
KEK	Kerkira	2.13	316	ePG	Pg	22 38 08.0	-1.7
FNA	Florina	2.59	354	ePn	Pn	22 38 10.8	+0.3
GRG	Griva	2.80	11	ePn	Pn	22 38 15.7	+2.2
GRG	Griva	2.80	11	ePn	Pn	22 38 15.6	+2.1
SOH	Sokhos	2.90	25	ePn	Pn	22 38 13.6	-1.3
KNT	Kendrikon	3.09	17	ePn	Pn	22 38 16.8	-0.8

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*IDC **07** 22:42:25.6±0.5, 4.46S×138.33E, mb4.9/13, mb1 5.0/18, mb1mx5.0/19, ML4.4/5, MS4.3/9, Ms1 4.3/9, ms1mx4.2/15, Error ellipse: s-maj=22.8km s-min=12.7km az=69.0*

*NEIC **07** 22:42:26.9±0.2, 4.54S×138.30E, h10^{km}, mb5.1/27, MS4.4/7, Error ellipse: s-maj=8.6km s-min=4.8km az=87.0*

*BJI **07** 22:42:26.3, 4.76S×138.57E, h32^{km}, mB5.4, mb5.0, Ms4.9, Msz4.5*

*HRVD **07** 22:42:26.9±0.4, 4.62S×138.37E, h19^{km}±1^{km}, MW5.0/45, Centroid moment Tensor Solution. LP body waves: s33,c46;Mantle waves: s45,c77; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.66±.23; M$_{\theta\theta}$-3.42±.15; M$_{\phi\phi}$-0.25±.18; M$_{r\theta}$1.69±.32; M$_{\theta\phi}$1.89±.10; M$_{\phi r}$-0.54±.39; Best double couple: M$_0$4.36×10^{16} NP1:φ$_s$299°,δ33°,λ96°. NP2:φ$_s$111°,δ57°,λ86°. Principal axes: T 4.05, Plg78°, Azm8°; N .62, Plg3°, Azm114°; P -4.67, Plg12°, Azm204°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **07** 22:42:27.0, 4.49S×138.20E, h10^{km}, MB5.1, MS4.4*

ISC 07 22:42:25.4±1.3, **4.63S**±0.03×**138.23E**±0.06, **h9^{km}**±7^{km}, **h16^{km}**±2.0^{km}**:pP-P, n134, σ1^{s}12**/113, **mb5.1**/51, **MS4.5**/22, **9C-9D, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.86	215	⇓iP	P	22 44 50.7	+0.3
	444nm,0.7s						
KAKA				eS	Sn	22 46 41.1	-1.2
PMG	Port Moresby	10.05	119	Pn	P	22 44 52.1	-1.1
	2.2nm,0.3s,baz=312,slow=11,SNR=13						
PMG				Sn	S	22 46 37.0	-10
	1.8nm,0.3s,baz=337,slow=14,SNR=1.8						
PMG				Lg		22 47 43.0	
	0.3nm,0.3s,baz=334,slow=17,SNR=1.9						
PMG	Port Moresby	10.05	119	eP	P	22 44 51.8	-1.4
WRAB	Tennant Creek	15.67	194	P	P	22 46 07.7	-0.5
	315nm,0.9s						
WB2	Warramunga Arr	15.68	194	eP	P	22 46 07.8	-0.5
WB2				eS	S	22 48 59.7	-2.8
WRA	Warramunga Arr	15.68	194	Pn	P	22 46 07.6	-0.7
	1.5nm,0.3s,baz=17,slow=13,SNR=17						
WRA				Sn	S	22 48 55.7	-7.0
	4.8nm,0.3s,baz=10,slow=22,SNR=5.6						
WRA				Lg		22 50 40.8	
	1.3nm,0.3s,baz=17,slow=28,SNR=2.9						
CTA	Charters Tower	17.23	154	eP	P	22 46 32.6	+4.5
	26nm,0.7s						
CTA	Charters Tower	17.23	154	P	P	22 46 31.2	+3.1
	2.3nm,0.3s,baz=329,slow=12,SNR=17						
CTA				Lg		22 51 32.4	
	1.1nm,0.3s,baz=62,slow=23,SNR=5.0						
CTAO	Charters Tower	17.23	154	eP	P	22 46 32.1	+4.0
	67nm,0.9s						
FITZ	Fitzroy Crossi	18.19	222	eP	P	22 46 39.8	-0.2
	24nm,0.4s						
FITZ				eS	S	22 49 52.0	-8.2
FITZ	Fitzroy Crossi	18.19	222	P	P	22 46 39.1	-0.9
	2.0nm,0.3s,baz=32,slow=9.0,SNR=26						
FITZ				S	S	22 49 52.0	-8.2
	5.3nm,0.3s,baz=172,slow=12,SNR=8.6						
FITZ				Lg		22 51 55.4	
	0.4nm,0.3s,baz=63,slow=3.4,SNR=1.4						
FITZ				LR	LR	22 54 47.6	
	comp=Z,468nm,19.4s,baz=63,slow=40						
ASAR	Alice Springs	19.38	192	P	P	22 46 56.1	+1.8
	6.0nm,0.3s,baz=20,slow=10.0,SNR=145						
ASAR				S	S	22 50 24.8	-2.2
	0.8nm,0.3s,baz=8.4,slow=28,SNR=4.0						
ASAR				Lg		22 52 37.0	
	0.5nm,0.3s,baz=131,slow=39,SNR=2.3						
ASAR				LR	LR	22 54 19.9	
	comp=Z,345nm,19.9s,baz=13,slow=36						
ASPA	Alice Springs	19.38	192	⇓iP	P	22 46 55.5	+1.2
ASPA				eS	S	22 50 27.1	0.0
MBWA	Marble Bar	24.34	226	eP	P	22 47 47.6	+2.8
	62nm,0.8s,mb5.1						
MBWA				LR	LR		
	comp=Z,1μm,20.0s,MS4.3						
STKA	Stephens Creek	27.29	174	P	P	22 48 12.8	+0.5
	comp=Z,2.7nm,0.5s,mb4.0,baz=126,slow=23,SNR=9.9						
STKA				LR	LR	22 59 58.9	
	comp=Z,983nm,19.0s,MS4.4,baz=348,slow=38						
STKA	Stephens Creek	27.29	174	P	P	22 48 12.8	+0.5
STKA				LR	LR	22 59 58.9	
FORT	Forrest	27.72	199	eP	P	22 48 17.8	+1.6
	comp=Z,93nm,0.6s,mb5.6						
NWAO	Narrogin (SRO)	34.30	212	P	P	22 49 15.4	+1.1
	comp=Z,13nm,1.0s,mb4.8,baz=215,slow=17,SNR=3.4						
SSE	Sheshan	39.08	336	P	P	22 49 55.7	+1.0
SSE				AP	pP	22 49 58.8	+1.4
SSE				S	S	22 55 55.1	+1.3
SSE				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.3						
SSE				LR	LR		
	comp=N,146nm,23.3s,MS3.9						
SSE				LR	LR		
	comp=E,150nm,23.5s,MS3.9						
SSE				LR	LR		
	comp=Z,229nm,24.1s,MS3.9						
SSE	Sheshan	39.08	336	P	P	22 49 55.7	+1.0
	comp=Z,50nm,0.8s,mb5.3						
SSE				pP	pP	22 49 58.8	+1.4
SSE				sP	sP	22 50 00.3	+1.8
SSE				S	S	22 55 55.1	+1.3
SSE				sS		22 56 00.0	
SSE				SS	SS	22 58 48.4	+11
SSE				LR	LR		
	comp=Z,230nm,24.1s,MS3.9						
NJ2	Nanjing	40.88	335	eP	P	22 50 09.8	+0.3
NJ2				AP	pP	22 50 14.3	+2.1
NJ2				PP	PP	22 51 47.6	+0.6
NJ2				S	S	22 56 21.0	+0.3
NJ2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,400nm,5.6s						
NJ2				LR	LR		
	comp=N,670nm,14.5s,MS4.7						
NJ2				LR	LR		
	comp=E,620nm,17.6s,MS4.7						
NJ2				LR	LR		
	comp=Z,880nm,14.8s,MS4.8						
MAJO	Matsushiro	40.96	360	eP	P	22 50 08.1	-2.0
	comp=Z,16nm,0.7s,mb4.8						
GYA	Guiyang	43.46	317	P	P	22 50 32.2	+1.4
GYA				S	S	22 57 00.7	+1.8
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.7						
GYA				AMB	AMB		
	comp=Z,120nm,3.8s						
GYA				LR	LR		
	comp=N,1μm,17.6s,MS5.1						
GYA				LR	LR		
	comp=E,1μm,18.4s,MS5.1						
GYA				LR	LR		
	comp=Z,2μm,16.8s,MS5.0						
NANT	Nan	43.69	303	P	P	22 50 32.0	-0.7
ENH	Enshi	44.29	323	eP	P	22 50 36.6	-0.9
	comp=Z,15nm,0.8s,mb4.8						
CHRT	Chiangrai	44.95	304	⇓P	P	22 50 39.5	-3.5
	comp=Z,158nm,1.2s,mb5.7						
CMAR	Chiang Mai Arr	45.00	302	P	P	22 50 44.0	+0.6
	comp=Z,21nm,0.8s,mb5.0,baz=122,slow=6.2,SNR=102						
CMAR				PcP	PcP	22 52 25.4	+0.5
	comp=Z,2.4nm,0.6s,baz=135,slow=2.2,SNR=4.4						
CMAR				LR	LR	23 10 58.6	
	comp=Z,116nm,20.2s,MS3.8,baz=310,slow=38						
CHG	Chiang Mai	45.16	302	⇓P	P	22 50 45.4	+0.8
	comp=Z,31nm,0.9s,mb5.1						
KMI	Kunming	45.42	312	eP	P	22 50 47.8	+1.2
KMI				AP	pP	22 50 55.6	+6.3
KMI				S	S	22 57 29.0	+1.7
KMI				AMB	AMB		
	comp=Z,14nm,1.3s,mb4.6						
KMI				LR	LR		
	comp=N,225nm,6.3s						
KMI				LR	LR		
	comp=E,154nm,4.8s						
KMI				LR	LR		
	comp=Z,299nm,16.7s,MS4.3						
KMI	Kunming	45.42	312	eP	P	22 50 47.8	+1.2
	comp=Z,14nm,1.3s,mb4.6						
KMI				pP	pP	22 50 55.6	+6.3
KMI				S	S	22 57 29.0	+1.7
KMI				LR	LR		
	comp=Z,300nm,16.7s,MS4.3						
XAN	Xi'an	47.38	326	P	P	22 51 01.0	-1.0
XAN				AP	pP	22 51 07.2	+2.5
JCZ	Jackson Bay	47.59	150	P	P	22 51 05.8	+2.3
CD2	Chengdu	48.30	319	P	P	22 51 09.0	-0.2
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.8						
RPZ	Rata Peaks	48.50	148	P	P	22 51 12.0	+1.4
	comp=Z,57nm,0.9s,mb5.6,baz=60,slow=1.5,SNR=20						
LBZ	Lake Benmore	48.52	150	P	P	22 51 11.4	+0.7
URZ	Urewera	48.68	139	P	P	22 51 11.7	-0.3
	comp=Z,3.5nm,0.3s,mb4.8,baz=247,slow=11,SNR=3.4						
URZ				LR	LR	23 10 24.9	
	comp=Z,465nm,21.0s,MS4.5,baz=345,slow=34						
BJT	Baijiatuau	48.85	337	eP	P	22 51 11.2	-2.1
	comp=Z,39nm,0.9s,mb5.4						
BJT				LR	LR		
	comp=Z,573nm,21.0s,MS4.5						
BJI	Beijing	48.86	337	eP	P	22 51 12.5	-0.9
BJI				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.4						
BJI				LR	LR		
	comp=N,433nm,21.4s,MS4.5						
BJI				LR	LR		
	comp=E,219nm,22.0s,MS4.5						
BJI				LR	LR		
	comp=Z,341nm,21.0s,MS4.3						
BJI	Beijing	48.86	337	eP	P	22 51 12.5	-0.9
	comp=Z,38nm,1.0s,mb5.4						
BJI				S	tx	22 59 00.5	
BJI				LR	LR		
	comp=Z,340nm,21.0s,MS4.3						
CN2	Changchun	49.57	348	eP	P	22 51 18.6	-0.2
CN2				eAP	pP	22 51 23.2	+1.6
CN2				eS	S	22 58 24.5	-1.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.8						
CN2				AMB	AMB		
	comp=Z,300nm,6.0s						
CN2				LR	LR		
	comp=N,500nm,14.0s,MS4.7						
CN2				LR	LR		
	comp=E,300nm,14.0s,MS4.7						
CN2				LR	LR		
	comp=Z,400nm,16.0s,MS4.5						
MDJ	Mudanjiang	49.63	352	P	P	22 51 18.9	-0.4
MDJ				PCP	PcP	22 52 39.1	-1.9
MDJ				SCP		22 56 34.8	
MDJ				PCS		22 56 37.2	
MDJ				S	S	22 58 28.0	+1.4
MDJ				AMB	AMB		
	comp=Z,16nm,0.9s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,148nm,5.6s						
MDJ				LR	LR		
	comp=N,88nm,19.4s,MS3.9						
MDJ				LR	LR		
	comp=E,90nm,19.4s,MS3.9						
MDJ				LR	LR		
	comp=Z,175nm,22.2s,MS4.0						
MDJ	Mudanjiang	49.63	352	eP	P	22 51 18.1	-1.1
	comp=Z,13nm,0.8s,mb5.0						
MDJ				LR	LR		
	comp=Z,301nm,20.0s,MS4.3						
HHC	Hu-ho-hao-te	51.43	334	eP	P	22 51 34.0	+1.0
HHC				AP	pP	22 51 38.5	+2.7
HHC				XP	sP	22 51 41.3	+4.5
HHC				PCP	PcP	22 52 47.3	-0.4
HHC				PP	PP	22 53 30.9	-0.2
HHC				S	S	22 58 50.7	-0.7
HHC				SS	SS	23 02 24.9	-0.3
HHC				AMB	AMB		
	comp=Z,22nm,1.2s,mb5.0						
HHC				AMB	AMB		
	comp=Z,274nm,6.1s						
HHC				LR	LR		
	comp=N,302nm,18.8s,MS4.5						
HHC				LR	LR		
	comp=E,295nm,19.2s,MS4.5						
HHC				LR	LR		
	comp=Z,385nm,22.2s,MS4.4						
LZH	Lanzhou	51.74	324	⇓P	P	22 51 36.5	+1.1
LZH				AP	pP	22 51 49.0	+11
LZH				XP	sP	22 51 53.0	+14
LZH				PP	PP	22 53 35.0	+1.1
LZH				eS	S	22 58 59.0	+3.3
LZH				eSS	SS	23 02 31.2	+1.0
LZH				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,291nm,6.2s						
LZH				LR	LR		
	comp=N,610nm,14.0s						
LZH				LR	LR		
	comp=Z,960nm,17.0s,MS4.9						
LZH	Lanzhou	51.74	324	⇓P	P	22 51 36.5	+1.1
	comp=Z,40nm,1.2s,mb5.2						
LZH				pP	pP	22 51 49.0	+11
LZH				sP	sP	22 51 53.0	+14
LZH				PP	PP	22 53 35.0	+1.1
LZH				eS	S	22 58 59.0	+3.3
LZH				sS		22 59 06.5	
LZH				eSS	SS	23 02 31.2	+1.0
LZH				LR	LR		
	comp=Z,960nm,17.0s,MS4.9						

IMP	Imphal	52.04	306	⇓iP	P	22 51 37.5	-0.4
SHL	Shillong	54.05	306	⇑eP	P	22 51 52.8	+0.1
HIA	Hailar	56.04	345	eP	P	22 52 05.3	-1.6
	comp=Z,16nm,1.2s,mb4.9						
HIA				LR	LR		
	comp=Z,228nm,19.0s,MS4.3						
GTA	Gaotai	56.34	325	eP	P	22 52 10.0	+0.8
GTA				AP	pP	22 52 14.1	+2.2
GTA				PCP	PcP	22 53 04.9	-1.4
GTA				PP	PP	22 54 18.1	+1.9
GTA				S	S	23 00 03.0	+5.3
GTA				XS		23 00 10.0	
GTA				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.7						
GTA				AMB	AMB		
	comp=Z,161nm,3.6s						
GTA				LR	LR		
	comp=N,178nm,15.2s,MS4.5						
GTA				LR	LR		
	comp=E,252nm,17.1s,MS4.5						
GTA				LR	LR		
	comp=Z,313nm,17.9s,MS4.5						
LSA	Lhasa	56.56	310	eP	P	22 52 11.4	+0.5
ULN	Ulaanbaatar	59.01	336	eP	P	22 52 27.5	-0.4
	comp=Z,17nm,1.0s,mb5.0						
ULN				LR	LR		
	comp=Z,389nm,20.0s,MS4.5						
SONM	Songino Array	59.25	336	P	P	22 52 29.0	-0.6
	comp=Z,3.0nm,0.8s,mb4.3,baz=151,slow=7.2,SNR=17						
GUN	Gumba	59.90	306	⇑iP	P	22 52 34.5	+0.2
	comp=Z,93nm,0.7s,mb5.9						
PKI	Pulchoki	60.15	305	⇑iP	P	22 52 35.6	-0.4
	comp=Z,34nm,0.8s,mb5.4						
KKN	Kakani	60.34	306	⇑iP	P	22 52 37.3	0.0
	comp=Z,84nm,0.8s,mb5.8						
DMN	Daman	60.41	305	⇑iP	P	22 52 37.9	+0.1
	comp=Z,59nm,0.7s,mb5.7						
GKN	Gorkha	60.94	306	⇑iP	P	22 52 41.4	0.0
	comp=Z,109nm,0.8s,mb6.1						
KOLN	Koldanda	61.70	305	⇑iP	P	22 52 46.7	+0.2
	comp=Z,89nm,0.8s,mb5.9						
RAR	Rarotonga	62.26	111	P	P	22 52 50.3	-0.1
	comp=Z,15nm,1.0s,mb5.1,baz=18,slow=7.1,SNR=3.3						
HYB	Hyderabad	62.83	292	eP	P	22 52 53.0	-1.2
HYB	Hyderabad	62.83	292	i P	P	22 52 53.0	-1.2
FX1	Attu Island--F	64.44	23	P	P	22 53 02.4	-1.9
	comp=Z,44nm,0.7s,mb5.6,baz=80,slow=18,SNR=5.1						
WMQ	Urumqi	66.22	322	P	P	22 53 16.8	+0.9
WMQ				AP	pP	22 53 21.3	+2.6
WMQ				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
DDI	Dehra Dun	67.14	306	eP	P	22 53 21.7	-0.4
NDI	New Delhi	67.28	304	eP	P	22 53 20.5	-2.5
POO	Poona	67.44	292	eP	P	22 53 21.5	-2.6
SDNR	Sundarnagar	68.42	306	eP	P	22 53 29.0	-1.1
KSH	Kashi	72.06	314	eP	P	22 53 53.0	+1.0
KSH				eAP	pP	22 53 57.0	+2.2
KSH				ePCP	PcP	22 54 11.3	+0.6
KSH				ePP	PP	22 56 34.5	+0.7
KSH				ePPP	PPP	22 58 19.6	+3.8
KSH				eS	S	23 03 12.7	+0.2
KSH				eSKS	SKS	23 03 52.7	-3.7
KSH				eSCS	ScS	23 03 55.8	+1.2
KSH				AMB	AMB		
	comp=Z,220nm,3.2s						
ZAL	Zalesovo	73.36	330	P	P	22 53 58.0	-1.3
	comp=Z,3.2nm,0.4s,mb4.6,baz=344,slow=2.4,SNR=16						
KZA	Kyzart	73.53	316	P	P	22 54 01.8	+1.2
	SNR=13						
TKM2	Tokmak 2	73.61	317	P	P	22 54 01.5	+0.4
	SNR=7.2						
TKM2	Tokmak 2	73.61	317	eP	P	22 54 01.2	+0.1
	comp=Z,9.9nm,0.7s,mb4.8						
TKM2				LR	LR		
	comp=Z,508nm,20.0s,MS4.8						
VNDA	Vanda	73.92	175	P	P	22 54 02.1	-0.1
	comp=Z,5.0nm,0.9s,mb4.4,baz=322,slow=8.0,SNR=16						
VNDA				LR	LR	23 26 43.0	
	comp=Z,835nm,18.6s,MS5.0,baz=258,slow=36						
UCH	Uchtor	74.09	316	P	P	22 54 05.2	+1.3
	SNR=8.8						
UCH	Uchtor	74.09	316	eP	P	22 54 05.0	+1.1
	comp=Z,12nm,0.8s,mb4.9						
USP	Ospenovka	74.48	317	P	P	22 54 05.9	-0.2
	SNR=11						
AML	Almayashu	74.62	316	P	P	22 54 08.1	+1.1
	SNR=12						
AML	Almayashu	74.62	316	eP	P	22 54 07.4	+0.5
	comp=Z,22nm,0.7s,mb5.2						
SBA	Scott Base	74.70	174	P	P	22 54 07.1	+0.4
	comp=Z,19nm,1.0s,mb5.0						
EKS2	Erkin-Say	74.76	316	P	P	22 54 08.9	+1.1
	SNR=6.8						
EKS2	Erkin-Say	74.76	316	eP	P	22 54 07.7	0.0
	comp=Z,8.4nm,0.7s,mb4.8						
KURK	Kurchatov	75.01	325	eP	P	22 54 07.8	-1.3
	comp=Z,11nm,0.9s,mb4.8						
MAW	Mawson	80.17	202	P	P	22 54 38.1	+0.9
	comp=Z,17nm,1.0s,mb4.9,baz=60,slow=7.1,SNR=12						
MAW				LR	LR	23 30 51.8	
	comp=Z,305nm,18.5s,MS4.7,baz=334,slow=36						
BVAR	Borovoye Array	80.61	325	P	P	22 54 39.8	0.0
	comp=Z,20nm,0.8s,mb5.1,baz=117,slow=6.6,SNR=68						
BRVK	Borovoye	80.68	325	eP	P	22 54 39.9	-0.3
	comp=Z,24nm,0.7s,mb5.2						
CHKZ	Chkalovo	80.71	326	eP	P	22 54 39.4	-1.0
	comp=Z,12nm,0.8s,mb4.9						
QSPA	South Pole Qui	85.33	180	⇑iP	P	22 55 05.1	+1.6
	comp=Z,32nm,1.0s,mb5.4						
IMA	Indian Mountai	85.50	22	eP	P	22 55 05.4	+0.8
	comp=Z,58nm,1.2s,mb5.7						
COLA	College	87.40	24	eP	P	22 55 13.3	-0.7
	comp=Z,18nm,0.9s,mb5.3						
ILAR	Eielson Array	87.77	24	P	P	22 55 14.1	-1.6
	comp=Z,17nm,0.8s,mb5.3,baz=264,slow=4.5,SNR=86						
ILAR				LR	LR	23 35 03.5	
	comp=Z,85nm,18.2s,MS4.2,baz=183,slow=36						
SYO	Syowa Base	88.80	201	⇑P	P	22 55 22.0	+1.4
SYO	Syowa Base	88.80	201	⇓PcP	PcP	22 55 23.5	+1.0
SYO	Syowa Base	88.80	201	⇓pP	pP	22 55 25.8	+2.3
DAWY	Dawson	90.80	26	eP	P	22 55 30.6	+0.6
SNAA	Sanae	99.74	192		P	22 56 07.0	-3.7
SNAA	Sanae	99.74	192	LR	LR	23 41 24.4	
	comp=Z,163nm,19.4s,MS4.5,baz=183,slow=35						
KMBO	Kilima Mbogo	100.85	268	P	P	22 56 18.7	+1.6
	comp=Z,0.4nm,0.5s,baz=81,slow=20,SNR=6.7						
KMBO	Kilima Mbogo	100.85	268	Pdif	P	22 56 18.6	+1.5
YKA	Yellowknife Ar	101.99	27	P	P	22 56 19.8	-1.2
	comp=Z,0.5nm,0.9s,baz=284,slow=4.8,SNR=5.1						
ARCES	ARCESS Array B	102.15	341	P	Pdif	22 56 19.1	-2.5
	comp=Z,3.2nm,0.9s,baz=14,slow=5.0,SNR=4.9						
NVAR	Mina Array Bea	103.42	52	Pdiff	Pdif	22 56 27.9	0.0
	comp=Z,0.3nm,0.6s,baz=277,slow=7.3,SNR=2.3						
NVAR	Mina Array Bea	103.42	52	Pdif	Pdif	22 56 27.9	0.0
AKASG	Malin Array Be	105.56	321	Pdiff	Pdif	22 56 35.3	-1.8
	comp=Z,0.4nm,0.4s,baz=65,slow=4.8,SNR=4.7						
GERES	GERESS Array B	115.69	323	PKP	PKPdf	23 01 09.1	-2.1
	comp=Z,0.7nm,0.7s,baz=90,slow=1.0,SNR=5.9						
LEGS	Legarje	115.81	319	ePKPdf	PKPdf	23 01 10.2	-1.4
BOJS	Bojanci	116.01	319	ePKPdf	PKPdf	23 01 10.9	-1.1
VISS	Visnje	116.17	319	ePKPdf	PKPdf	23 01 11.1	-1.2
GIVF	Givet	120.16	327	ePKP1	PKPdf	23 01 18.1	-1.7
HINF	Hinteralfeld	120.22	324	ePKP1	PKPdf	23 01 17.7	-2.3
	comp=Z,7.5nm,0.8s						
HAU	Haudompre	120.42	325	ePKP1	PKPdf	23 01 18.2	-2.2
BAIF	Baives	120.52	327	ePKP1	PKPdf	23 01 17.8	-2.7
CABF	La Chapelle	121.28	323	ePKP1	PKPdf	23 01 20.5	-1.7
	comp=Z,31nm,1.1s						
LPG	La Plagne	121.42	322	ePKP1	PKPdf	23 01 20.7	-1.8
	comp=Z,9.2nm,0.8s						
LPL	La Plagne	121.43	322	ePKP1	PKPdf	23 01 20.7	-1.8
	comp=Z,8.7nm,0.7s						
SBF	Sospel	121.77	320	ePKP1	PKPdf	23 01 20.8	-2.4
	comp=Z,39nm,0.9s						
MBDF	Montbardon	121.78	321	ePKP1	PKPdf	23 01 22.1	-1.1
	comp=Z,60nm,1.5s						
ORIF	Oris-en-Rattie	122.24	322	ePKP1	PKPdf	23 01 21.7	-2.3
	comp=Z,27nm,1.2s						
SSF	Saint Saulge	122.55	325	ePKP1	PKPdf	23 01 22.7	-1.8
	comp=Z,19nm,1.2s						
SMF	Signal de Mont	122.58	324	ePKP1	PKPdf	23 01 22.5	-2.0
	comp=Z,22nm,1.2s						
AVF	Avril sur Loir	122.79	325	ePKP1	PKPdf	23 01 22.7	-2.2
VIVF	Saint-Julien-l	123.02	322	ePKP1	PKPdf	23 01 23.5	-1.9
	comp=Z,21nm,1.1s						
BGF	Bois d'Agland	123.21	325	ePKP1	PKPdf	23 01 24.1	-1.7
	comp=Z,7.2nm,0.7s						
LDF	La Druitiere	123.67	328	ePKP1	PKPdf	23 01 24.6	-2.1
TCF	Toulx Ste Croi	123.72	325	ePKP1	PKPdf	23 01 25.1	-1.8
	comp=Z,23nm,1.0s						
FLN	La Foliniere	123.76	328	ePKP1	PKPdf	23 01 24.8	-2.1
	comp=Z,4.9nm,0.6s						
GRR	Gorron	124.19	328	ePKP1	PKPdf	23 01 25.8	-1.9
MFF	Saint Martin d	124.88	326	ePKP1	PKPdf	23 01 27.1	-2.0
	comp=Z,13nm,0.9s						
LFF	La Frestale	125.33	324	ePKP1	PKPdf	23 01 28.5	-1.5
ESDC	Sonseca Array	131.21	321	PKP	PKPdf	23 01 40.8	-0.6
	comp=Z,0.3nm,0.6s,baz=45,slow=4.2,SNR=4.0						
OTAV	Otavalo	143.10	96	ePKPdf	PKPdf	23 01 59.3	-4.6
DBIC	Dimbokro	143.21	275	PKhKP		23 01 59.5	
	comp=Z,11nm,0.9s,baz=83,slow=3.7,SNR=14						
BBSR	BB Station	145.05	35	ePKPdf	PKPdf	23 02 02.8	-3.9
LPAZ	La Paz	146.66	129	PKPbc	PKPbc	23 02 11.2	+2.8
	comp=Z,11nm,0.9s,baz=242,slow=1.4,SNR=34						
BDFB	Brasilia	158.93	163	PKPab	PKPab	23 03 03.1	-0.1
	comp=Z,4.3nm,0.9s,baz=174,slow=9.2,SNR=2.0						

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*NIED **07** 22:44:00, 33.10N×137.20E, h11^{km}, Mw3.9 Best double couple: M$_0$8.35×10^{14} NP1:ϕ_s91°, δ51°, λ75°. NP2:ϕ_s294°, δ41°, λ108°.*

*JMA **07** 22:44:59.5±0.2, 33.09N×137.23E, h32^{km}±3^{km}, M4.1*

ISC 07 22:44:59.6±0.8, **33.09N**±0.05×**137.23E**±0.03, **h50**^{km}±17^{km}, **n18,** σ**0^{s}61**/36, **9D, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TK01	Tokai 1	0.74	24	P	P	22 45 13.1	-0.8
TK01				eS	S	22 45 23.8	-0.6
TK02	Tokai 2	0.96	27	⇓P	P	22 45 17.3	+0.3
TK02				eS	S	22 45 29.8	-0.1
TK03	Tokai 3	1.24	29	⇓P	P	22 45 21.1	+0.3
TK03				S	S	22 45 37.1	+0.4
JWZ	Kozaga	1.35	290	⇓P	P	22 45 22.5	0.0
JWZ				eS	S	22 45 38.2	-1.3
JIE	Ise	1.37	342	⇓P	P	22 45 23.5	+0.6
JIE				S	S	22 45 40.6	+0.5
TK04	Tokai 4	1.40	22	⇓P	P	22 45 23.7	+0.5
TK04				S	S	22 45 41.2	+0.4
JWM	Minabe	1.75	296	P	P	22 45 28.4	+0.4
JWM				eS	S	22 45 48.7	-0.4
TSUJ	Tsu 2	1.75	338	⇓P	P	22 45 28.7	+0.5
TSUJ				eS	S	22 45 49.3	-0.1
JWY	Kouya	1.77	310	⇓P	P	22 45 29.5	+1.1
JWY				eS	S	22 45 49.7	-0.2
JHE	Heguri	2.03	321	⇓P	P	22 45 32.7	+0.7
JHE				eS	S	22 45 56.1	0.0
JIZS	Izushimoda	2.13	40	P	P	22 45 33.1	-0.3
JIZS				eS	S	22 45 58.8	+0.2
SHZ3	Shizuoka 3	2.13	22	⇓P	P	22 45 33.6	+0.1
SHZ3				eS	S	22 45 57.8	-1.1
JMY	Miyakejima3	2.14	62	P	P	22 45 34.1	+0.5
JMY				eS	S	22 45 59.2	+0.2
JHJ2	Mitsune	2.17	89	P	P	22 45 34.3	+0.3
JHJ2				eS	S	22 45 58.4	-1.3
JAI	Aioi	2.43	288	P	P	22 45 38.0	+0.3
JAI				eS	S	22 46 05.0	-1.4
JIM2	Oshima 3	2.45	48	P	P	22 45 38.0	0.0
JIM2				eS	S	22 46 06.1	-0.7
JGM	Miyama	2.64	351	P	P	22 45 41.3	+0.5
JGM				eS	S	22 46 11.7	0.0
MAT	Matsushiro	3.54	13	P	P	22 45 54.4	+0.9
MAT				S	S	22 46 33.9	-0.6

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*JMA **07** 23:16:51.5±0.2, 24.00N×122.55E, M2.3*

TAP 07 23:16:50.6, 23.88N×122.58E, h18^{km}±1^{km}**, ML3.0, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.70	34	P	Pb	23 17 04.1	+0.1
YOJ				eS	Sb	23 17 12.9	-0.2
HATJ	Hateruma jima	1.13	81	P	Pb	23 17 13.7	+2.3
HATJ				eS	Sb	23 17 30.1	+4.4
IRIF	Iriomote-Funau	1.14	66	P	Pb	23 17 13.3	+1.8
IRIF				eS	Sb	23 17 29.1	+3.1
JKRS	Kuro-shima	1.35	74	eS	Sb	23 17 34.8	+2.8
JIJ	Ishigaki jima	1.51	71	P	Pn	23 17 19.9	+2.9
JIJ				eS	Sn	23 17 38.0	+1.8

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*IDC **07** 23:29:01.3±1.9, 9.12S×113.32E, mb4.2/6, mb1 4.3/7, mb1mx4.1/15, ML4.2/1, MS3.6/1, Ms1 3.5/1, ms1mx2.6/14, Error ellipse: s-maj=86.4km s-min=14.1km az=48.0*

*NEIC **07** 23:29:04.1±0.6, 9.32S×113.08E, h25^{km}, mb4.3/4, Error ellipse: s-maj=27.4km s-min=10.0km az=50.0*

*DJA **07** 23:29:06.0±1.0, 9.69S×112.92E, h77^{km}±23^{km}, MD4.6/4, ML5.3/2, Error ellipse: s-maj=46.4km s-min=24.6km az=3.0*

ISC 07 23:29:09.1±2.2, **9.4S**±0.1×**113.0E**±0.1, **h88**^{km}±20^{km}, **n17,** σ**0^{s}91**/22, **mb4.2**/10, **4C-3D, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	Scrawed	1.41	53	⇑ePn	P	23 29 33.5	-0.6
	1μm,0.2s						
SRDI				⇑eSn	S	23 29 53.8	+1.2
KELI	Kelakatan	1.84	53	⇑ePn	P	23 29 39.8	+0.1
	2μm,0.3s						
KELI				⇑eSn	S	23 30 04.2	+2.0
RATI	Rata	2.57	76	⇓ePn	P	23 29 48.1	-1.5
RATI				⇓eSn	S	23 30 18.8	-1.1
KEDI	Kedomdong	3.18	75	⇓eP	P	23 29 57.4	-0.8
	215nm,0.2s						
MBWA	Marble Bar	13.41	152	eP	P	23 32 07.3	-10
FITZ	Fitzroy Crossi	15.04	127	Pn	P	23 32 33.0	-5.0
	0.7nm,0.3s,baz=338,slow=11,SNR=13						
FITZ				Sn	S	23 35 07.5	-15
	0.5nm,0.3s,baz=176,slow=20,SNR=6.3						
WRA	Warramunga Arr	23.14	119	P	P	23 34 08.3	-0.1
	1.1nm,0.7s,mb3.3,baz=290,slow=12,SNR=6.2						
WRA				S	S	23 38 20.4	+11
	0.7nm,0.7s,baz=294,slow=20,SNR=5.0						
WRAB	Tennant Creek	23.15	119	eP	P	23 34 08.6	+0.1
	5.7nm,0.8s,mb4.0						
ASAR	Alice Springs	24.53	128	P	P	23 34 22.1	+0.3
	3.7nm,0.8s,mb3.8,baz=302,slow=8.6,SNR=24						
CMAR	Chiang Mai Arr	30.92	333	P	P	23 35 19.9	0.0
	1.0nm,0.4s,mb3.9,baz=164,slow=7.2,SNR=4.4						
STKA	Stephens Creek	34.71	134	P	P	23 35 52.8	+0.3
	36nm,1.6s,mb5.0,baz=312,slow=12,SNR=3.3						
STKA				LR	LR	23 50 03.2	
	comp=Z,94nm,20.2s,baz=26,slow=36						
STKA	Stephens Creek	34.71	134	P	P	23 35 52.8	+0.3
CASY	Casey	56.88	181	eP	P	23 38 47.2	+0.4
	9.6nm,0.5s,mb5.1						
SONM	Songino Array	57.23	355	P	P	23 38 49.7	+0.2
	2.3nm,0.7s,mb4.3,baz=172,slow=8.6,SNR=23						
EKS2	Erkin-Say	62.94	328	P	P	23 39 27.4	-1.2
	2.7nm,0.8s,mb4.2						
ZAL	Zalesovo	67.41	342	P	P	23 39 56.5	-0.7
	1.2nm,0.6s,mb3.9,baz=317,slow=3.0,SNR=8.7						
SNAA	Sanae	89.03	197	eP	P	23 41 56.5	+1.6
	0.8nm,0.6s,mb3.9						

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*FUNV **08** 00:03:16.5, 10.67N×61.12W, h18^{km}, MW2.8*

TRN 08 00:03:19.0, 10.56N×61.13W, h24^{km}**, MD3.3, 2C, Trinidad**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TBH	Brigand Hill	0.10	143	⇑iP	Pb	00 03 22.9	-0.4
TBH				eS	Sb	00 03 27.4	+1.0
TRN	Trinidad (W)	0.29	288	⇑iP	Pb	00 03 25.3	-0.4
TRN				eS	Sb	00 03 30.7	+0.4
TPP	Pointe-a-Pierr	0.40	233	eP	Pb	00 03 27.8	+0.3
TPP				eS	Sb	00 03 34.0	+0.7
TPR	Prospect	0.71	29	eP	Pb	00 03 32.1	-0.5
TPR				eS	Sb	00 03 44.0	+2.1
BOT	Bacolet	0.72	34	eP	Pb	00 03 32.2	-0.6
BOT				eS	Sb	00 03 43.9	+1.6
GUIV	Guiria	1.08	275	eP	Pn	00 03 36.4	-2.4
GUIV				eS	Sb	00 03 50.6	-2.1
GRW	Mount Saint Ca	1.68	342	eP	Pn	00 03 47.9	+0.6
GUNV	Guanoco	1.83	258	eP	Pn	00 03 46.8	-2.7
GUNV				eS	Sn	00 04 10.7	-1.5
CRUV	Carupano	2.08	273	eP	Pn	00 03 49.4	-3.7
CRUV				eS	Sn	00 04 12.5	-6.0
ITEV	Isla Los Testi	2.12	292	eP	Pn	00 03 50.0	-3.7
ITEV				eS	Sn	00 04 15.6	-4.1

MAN 08 00:18:18.0, 17.92N×121.73E, h34^{km}**, mb4.1, ML3.0, MS2.7, 1C-1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVP	Callao Caves	0.23	157	⇓iP	P	00 18 26.8	+1.8
CVP				i S	S	00 18 43.5	+14
SGCP	Mt. Cagua	0.44	43	eP	P	00 18 29.4	+1.7
SGCP				eS	S	00 18 36.8	+2.1
APYP	Conner	0.47	264	eP	P	00 18 26.9	-1.2
APYP				eS	S	00 18 32.3	-2.9
ABRA	Dolores	1.00	255	i P	P	00 18 36.0	+0.2
ABRA				eS	S	00 18 48.5	-0.4
PIP	Pasuquin	1.13	291	⇑iP	P	00 18 37.7	+0.2
PIP				eS	S	00 18 52.0	-0.2

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*INMG **08** 00:20:40.7±0.8, 37.35N×8.53W, h10^{km}±3^{km}, ML1.7, Error ellipse: s-maj=4.8km s-min=2.5km az=66.0*

MDD 08 00:20:40.1±0.8, **37.36N×8.46W, h7**^{km}±6^{km}, **mbLg1.9**/6, **1D, Error ellipse: s-maj=7.6km s-min=4.1km az=17.0, PRXIMO, Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	Sao Teotonio	0.28	312	i Pg	Pg	00 20 45.5	-0.4
PTEO				eSg		00 20 49.3	
	32nm,0.3s						
PTEO	Sao Teotonio	0.28	312	⇓Pg	Pg	00 20 45.5	-0.4
PTEO				Lg		00 20 49.3	
	16nm,0.3s						
PBEJ	Beja	0.82	35	eP	Pb	00 20 56.0	-0.2
PBEJ				eS		00 21 07.7	
	13nm,0.1s						
PBEJ	Beja	0.82	35	Pg	Pg	00 20 56.0	-0.5
PBEJ				Lg		00 21 07.7	
	6.5nm,0.1s						
MOE	Montemor	1.17	4	eP	Pb	00 21 01.5	-0.7
MOE				eS	Sb	00 21 17.6	+0.2
EMIN	Mina Concepcio	1.48	73	Pg	Pg	00 21 05.6	-4.1
	1.0nm,0.1s,SNR=18						
EMIN				Lg		00 21 27.0	
	7.9nm,0.1s,SNR=15						
PLOU	Loures	1.62	341	eSg	Sg	00 21 32.4	-1.8
	7.1nm,0.2s						
PLOU	Loures	1.62	341	Lg		00 21 32.4	
	3.5nm,0.2s						
EBAD	Badajoz	1.81	39	Pn	Pn	00 21 09.8	-2.1
	0.4nm,0.1s,SNR=7.9						
EBAD				Pg	Pg	00 21 12.9	-3.2
	1.6nm,0.1s,SNR=15						
EBAD				Lg		00 21 34.8	
	4.3nm,0.1s						
ESPR	Espera	2.14	102	Pn	Pn	00 21 15.5	-1.2
	0.5nm,0.1s,SNR=7.9						
ESPR				Pg	Pg	00 21 20.0	-2.8
	2.9nm,0.2s,SNR=13						
ESPR				Lg		00 21 47.6	
	4.3nm,0.2s						
PCBR	Castelo Branco	2.60	17	ePn	Pn	00 21 21.2	-2.1
PCBR				eSn	Sn	00 21 51.6	-3.8
	2.3nm,0.4s						
PCBR	Castelo Branco	2.60	17	Pn	Pn	00 21 21.2	-2.1
PCBR				Sn	Sn	00 21 51.6	-3.8
	1.1nm,0.4s						
MTE	Manteigas	3.12	13	eSn	Sn	00 22 04.3	-4.4
	3.7nm,0.4s						
MTE	Manteigas	3.12	13	Sn	Sn	00 22 04.3	-4.4
	1.9nm,0.4s						
EADA	Adamuz	3.18	74	Pn	Pn	00 21 30.0	-1.6
	0.3nm,0.2s,SNR=6.7						
EADA				Sn	Sn	00 22 06.4	-3.8
	10nm,0.5s,SNR=5.3						
EADA				Lg		00 22 18.4	
	2.9nm,0.5s,SNR=7.9						
ESDC	Sonseca Array	4.22	55	Pn	Pn	00 21 43.6	-2.7
	0.3nm,0.1s,baz=83,slow=12,SNR=7.9						
ESDC				Sn	Sn	00 22 31.0	-5.5
	1.5nm,0.2s,baz=241,slow=24,SNR=13						
ESDC				Lg		00 22 52.0	
	0.8nm,0.5s,baz=234,slow=29,SNR=3.9						
EQES	Quesada	4.30	82	Pn	Pn	00 21 44.7	-2.8
	0.3nm,0.2s,SNR=7.9						
EQES				Sn	Sn	00 22 32.4	-6.2
	2.6nm,0.5s,SNR=7.9						

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*NEIC **08** 00:24:43.2, 15.76N×98.62W, h18^{km}, MD3.9(MEX), After MEX.*

MEX 08 00:24:44.1±0.7, **15.83N×98.64W, h16**^{km}±56^{km}, **MD3.9, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.75	41	i P	Pb	00 24 55.9	-2.4
PNIG				i S	Sb	00 25 05.4	-2.5
ACX	Acapulco	1.60	310	eP	Pn	00 25 08.0	-4.1
VHO	Vista Hermosa	2.21	56	i P	Pn	00 25 21.9	+1.2
VHO				i S	Sn	00 25 41.3	-6.6
VHO	Vista Hermosa	2.21	56	i P	Pn	00 25 18.5	-2.2
VHO				i S	Sn	00 25 41.3	-6.6
OXX	Oaxaca	2.22	56	eP	Pn	00 25 16.0	-4.9
OXX	Oaxaca	2.22	56	eP	Pn	00 25 18.7	-2.2
PPM	Popocatepetl	3.22	0	eP	Pn	00 25 32.5	-2.7
PPM				i S	Sn	00 26 09.8	-3.8
PPM	Popocatepetl	3.22	0	eP	Pn	00 25 32.5	-2.7
PPM				eP		00 25 40.0	
PPM				i S	Sn	00 26 12.8	-0.8

CASC 08 00:53:36.3±1.3, **13.79N×90.45W, h79**^{km}±7^{km}, **MD3.6, ML3.4, 3C-6D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IXG	Ixpaco	0.38	359	eP	P	00 53 49.2	+0.1
IXG				eS	S	00 53 59.4	+0.8
PCG	Pacaya	0.62	345	eP	P	00 53 51.5	+0.3
PCG				eS	S	00 54 03.4	+1.1
FUG	Fuego 3	0.76	330	⇓eP	P	00 53 52.4	-0.3
FUG				eS	S	00 54 05.3	+0.5
RTR	El Retiro	0.79	82	⇓eP	P	00 53 53.2	+0.1
RTR				eS	S	00 54 06.5	+1.0
NBG	Las Nubes	0.80	7	eP	P	00 53 54.0	+0.8
NBG				eS	S	00 54 07.9	+2.2
SBLS	San Blas	0.80	87	⇓eP	P	00 53 53.3	+0.1
SBLS				eS	S	00 54 06.7	+0.9
RBDL	Robledal	0.80	67	⇑eP	P	00 53 53.4	+0.1
RBDL				eS	S	00 54 07.3	+1.4
SNJE	San Jose	0.82	85	⇓eP	P	00 53 53.4	0.0
SNJE				eS	S	00 54 06.7	+0.5
TP2	Tecpan 2	1.13	331	⇓eP	P	00 53 57.8	+0.6
TP2				eS	S	00 54 15.0	+2.2
BOQS	Boqueron	1.14	93	eP	P	00 53 57.0	-0.2
SNET	Serv Nac Est T	1.19	95	eP	P	00 53 57.1	-0.7
SNET				i		00 54 19.4	
	comp=Z,690nm,0.2s						
MTO2	Montecristo 2	1.21	60	eP	P	00 53 58.6	+0.4
MTO2				eS	S	00 54 14.8	+0.1
JAT	Jato	1.27	295	⇓eP	P	00 53 58.6	-0.3
JAT				eS	S	00 54 17.6	+1.7
LFU	La Fuente	1.30	92	eP	P	00 53 59.5	+0.2
LFRS	El Faro	1.36	97	eP	P	00 54 00.0	-0.2
LFRS				eS	S	00 54 18.0	0.0
LBRS	Las Brisas	1.36	92	eP	P	00 53 60.0	-0.4
LBRS				eS	S	00 54 19.2	+1.1
LCBS	La Ceiba	1.43	95	⇑eP	P	00 54 00.8	-0.4
LCBS				eS	S	00 54 20.4	+0.8
SNVI	San Vicente	1.57	96	⇑eP	P	00 54 03.0	-0.1
SNVI				eS	S	00 54 23.6	+0.8
BLLM	Bellamira	2.18	99	eP	P	00 54 11.5	+0.3
CNCH	Conchagua	2.59	101	eP	P	00 54 16.2	-0.8
CNCH				eS	S	00 54 48.7	+1.2

IDC 08 01:00:51.3±13.0, **18.37S×172.53W, mb4.2**/5, **mb1 4.4**/5, **mb1mx4.0**/17, **MS3.2**/1, **Ms1 3.2**/1, **ms1mx2.7**/24, **Error ellipse: s-maj=341.0km s-min=38.1km az=38.0, Tonga**

Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**38.89**	**261**	P	P	01 08 19.2	-1.3
	1.5nm,0.3s,baz=73,slow=11,SNR=3.4						
WRA	**Warramunga Arr**	**50.04**	**259**	P	P	01 09 47.8	-2.2
	0.4nm,0.3s,baz=97,slow=7.3,SNR=10						
ASAR	**Alice Springs**	**50.05**	**254**	P	P	01 09 48.2	-1.8
	1.0nm,0.5s,baz=91,slow=7.6,SNR=14						
FITZ	**Fitzroy Crossi**	**58.46**	**260**	P	P	01 10 49.2	-2.5
	3.3nm,1.1s,baz=149,slow=5.4,SNR=3.2						
FITZ				LR	LR	01 35 18.8	
	comp=Z,23nm,21.8s,baz=110,slow=35						
VNDA	**Vanda**	**60.52**	**186**	P	P	01 11 02.8	-2.4
	4.3nm,0.4s,baz=7.3,slow=4.6,SNR=67						

WEL 08 01:10:24.1±0.7**,36.89S**×**177.18E,h192**^{km}±7^{km}**,ML3.6**/2**, Error ellipse: s-maj=11.3km s-min=6.2km az=90.0,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWZ	**Matawai**	**1.47**	**169**	PN	P	01 10 56.7	-0.5
MWZ				SN	S	01 11 22.5	-0.3
MWZ				SN	S	01 11 22.6	-0.1
KNZ	**Kokohu**	**2.16**	**170**	PN	P	01 11 03.9	-0.3
KNZ				SN	S	01 11 33.5	-1.6
BKZ	**Black Stump Fm**	**2.34**	**193**	PN	P	01 11 06.9	+0.7
BFZ	**Birch Farm**	**3.86**	**191**	PN	P	01 11 24.0	-0.4
MRZ	**Mangatainoka R**	**3.97**	**198**	PN	P	01 11 25.3	-0.6
KIW	**Kapiti Island**	**4.35**	**203**	PN	P	01 11 29.8	-0.8

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*NEIC **08** 01:49:21.0,16.99N×100.49W,h1^{km},MD3.8(MEX),After MEX.*

MEX 08 01:49:21.2±0.7**,16.96N**×**100.48W,h4**^{km}±10^{km}**,MD3.8,1D, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.22**	**66**	⇓*i*P	Pg	01 49 25.0	-0.7
CAIG				*i* S	Sg	01 49 28.5	-0.2
ACX	**Acapulco**	**0.55**	**99**	*i* P	Pg	01 49 31.5	-0.6
ACX				*i* S	Sg	01 49 39.5	+0.1
ZIIG	**Zihuatanejo**	**1.14**	**305**	*i* P	Pb	01 49 39.5	-3.7
ZIIG				*i* S	Sb	01 49 54.7	-3.4
PLIG	**Platanillo**	**1.71**	**33**	*i* P	Pn	01 49 48.4	-3.4
PLIG				*i* S	Sn	01 50 07.2	-7.1
PLIG				*i* S	Sn	01 50 10.3	-4.0
PLIG	**Platanillo**	**1.71**	**33**	*i* P	Pn	01 49 48.4	-3.4
PLIG				*i* S	Sn	01 50 10.3	-4.0
PPM	**Popocatepetl**	**2.74**	**40**	*e*P	Pn	01 50 03.5	-3.2
PPM				*i* P		01 50 04.3	
PPM				*e*S	Sn	01 50 36.0	-4.6
VHO	**Vista Hermosa**	**3.58**	**88**	*i* S	Sn	01 50 55.0	-7.0

ISC 08 01:51:41.1±0.9**,46.39N**±0.05×**15.10E**±0.06**,n5,**σ**0**^{s}**61**/9**, 2C,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PERS	**Pernice**	**0.25**	**3**	*i* Pg	**Pg**	**01 51 45.9**	**-0.2**
PERS				*e*Sg	**Sg**	**01 51 50.3**	**+0.8**
	comp=Z,6.0nm,0.2s						
GROS	**Grobnik**	**0.29**	**75**	*i* Pg	**Pg**	**01 51 47.1**	**+0.1**
GROS				*e*Sg	**Sg**	**01 51 51.4**	**+0.6**
OBKA	**Obir**	**0.40**	**288**	⇑*i*PG	**Pg**	**01 51 49.0**	**0.0**
OBKA				*i* SG	**Sg**	**01 51 54.7**	**+0.4**
	comp=Z,13nm,0.5s						
LEGS	**Legarje**	**0.46**	**160**	*i* Pg	**Pg**	**01 51 50.4**	**0.0**
ARSA	**Arzberg**	**0.91**	**19**	⇑*i*PG	**Pg**	**01 51 57.9**	**-1.4**
ARSA				*i* SG	**Sg**	**01 52 11.2**	**-0.3**
	comp=Z,1.3nm,0.3s						

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*NNC **08** 02:40:06.2±12.0,39.24N×76.37E,mpv3.9,Error ellipse: s-maj=163.0km s-min=57.8km az=37.0*

*IDC **08** 02:40:10.0±2.5,39.40N×76.95E,mb3.7/5,mb1 3.9/7, mb1mx3.7/21,ML3.4/2,Error ellipse: s-maj=47.0km s-min=28.5km az=168.0*

*MOS **08** 02:40:14.4±0.2,39.66N×76.96E,h33^{km},mb4.0/3,Error ellipse: s-maj=46.3km s-min=26.7km az=85.6*

*BJI **08** 02:40:14.0,39.58N×76.87E,h53^{km},ML4.5*

*NEIC **08** 02:40:18.2±3.1,39.55N×76.91E,h56^{km}±17^{km},mb3.7/1, Error ellipse: s-maj=37.9km s-min=14.2km az=178.0*

ISC 08 02:40:14.9±0.5**,39.46N**±0.02×**77.16E**±0.06**,h58**^{km}±9^{km}**, n57,**σ**1**^{s}**23**/65**,mb3.6**/5**,4C-4D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**0.92**	**274**	⇑*i*P	**P**	**02 40 28.8**	**-3.2**
KSH				S	**S**	**02 40 40.8**	**-3.9**
KSH				Smax			
	comp=N,21μm,0.4s						
KSH				Smax			
	comp=E,10μm,0.3s						
ULHL	**Ulahol**	**2.87**	**346**	P	**P**	**02 41 00.3**	**+0.9**
	SNR=211						
KZA	**Kyzart**	**2.99**	**332**	P	**P**	**02 41 02.1**	**+1.0**
	SNR=65						
UCH	**Uchtor**	**3.42**	**325**	P	**P**	**02 41 07.1**	**0.0**
	SNR=47						
UCH	**Uchtor**	**3.42**	**325**	*e*P	**P**	**02 41 06.8**	**-0.3**
KBK	**Karagaybulak**	**3.61**	**333**	P	**P**	**02 41 10.8**	**+1.1**
	SNR=15						
TKM2	**Tokmak 2**	**3.66**	**342**	P	**P**	**02 41 11.1**	**+0.6**
	SNR=144						
TKM2	**Tokmak 2**	**3.66**	**342**	*e*P	**P**	**02 41 10.8**	**+0.4**
AML	**Almayashu**	**3.75**	**317**	P	**P**	**02 41 10.9**	**-0.8**
	SNR=61						
AML	**Almayashu**	**3.75**	**317**	*e*P	**P**	**02 41 10.7**	**-1.0**
AAK	**Ala-Archa**	**3.76**	**328**	⇓Pg	**P**	**02 41 11.9**	**+0.1**
	comp=E,54nm,0.6s						
AAK				⇑Lg		02 42 04.1	
	comp=E,898nm,1.1s						
AAK	**Ala-Archa**	**3.76**	**328**	P	**P**	**02 41 12.6**	**+0.7**
	SNR=18						
AAK	**Ala-Archa**	**3.76**	**328**	*e*P	**P**	**02 41 10.6**	**-1.2**
AAA	**Alma-Ata**	**3.82**	**358**	*i* PN	**P**	**02 41 19.2**	**+6.5**
AAA				*i*		02 42 07.7	
AAA				pmax	pmax		
	comp=Z,216nm,0.4s						
AAA				smax			
	comp=E,844nm,0.7s						
FRU	**Bishkek**	**3.88**	**331**	*e*PN	**P**	**02 41 15.0**	**+1.4**
FRU				*i* S	**S**	**02 42 10.0**	**+12**
FRU				pmax	pmax		
	comp=Z,150nm,1.3s						
FRU				smax			
	comp=E,2μm,1.8s						
CHMS	**Chumysh**	**3.98**	**334**	P	**P**	**02 41 16.1**	**+1.1**
	SNR=11						
EKS2	**Erkin-Say**	**4.10**	**322**	P	**P**	**02 41 16.7**	**+0.1**
	SNR=14						
EKS2	**Erkin-Say**	**4.10**	**322**	*e*P	**P**	**02 41 16.3**	**-0.3**
USP	**Ospenovka**	**4.30**	**333**	P	**P**	**02 41 20.1**	**+0.6**
	SNR=19						
CHCP	**Chirah Chowk**	**6.58**	**210**	⇓P	**P**	**02 41 53.1**	**+1.8**
CHCP				S	**S**	**02 43 06.0**	**+0.3**
DLH	**Dalhousie**	**6.97**	**188**	*e*P	**P**	**02 41 59.0**	**+2.3**
DLH				*e*		02 43 16.0	
CEP	**Cherat**	**7.03**	**218**	P	**P**	**02 41 58.2**	**+0.6**
CEP				S	**S**	**02 43 15.0**	**-1.8**
THN	**Thein Dam**	**7.10**	**190**	*e*P	**P**	**02 42 00.0**	**+1.4**
	comp=E,3.8nm,0.2s						
THN				*e*		02 43 20.0	
SDNR	**Sundarnagar**	**7.94**	**181**	*e*P	**P**	**02 42 12.0**	**+1.9**
	comp=E,417nm,0.2s						
SDNR				*e*S	**S**	**02 43 38.8**	**-0.6**
THW	**Thamme Wali**	**7.96**	**215**	P	**P**	**02 42 10.7**	**+0.3**
MK31	**Makanchi Array**	**8.24**	**25**	⇓P	**P**	**02 42 12.6**	**-1.6**
	comp=E,0.4nm,0.2s,baz=207,slow=12,SNR=58						
SMLA	**Simla**	**8.31**	**180**	*i* P	**P**	**02 42 30.0**	**+15**
	comp=E,921nm,0.2s						
SMLA				*i* S	**S**	**02 43 59.8**	**+11**
SARP	**Sargodha**	**8.36**	**207**	P	**P**	**02 42 15.5**	**-0.3**
SBDP	**Sheikh Budin**	**8.80**	**218**	P	**P**	**02 42 21.7**	**-0.3**
WMQ	**Urumqi**	**9.01**	**58**	P	**P**	**02 42 25.0**	**+0.1**
WMQ				Smax			
	comp=N,63nm,1.0s						
WMQ				Smax			
	comp=E,58nm,1.0s						
DDI	**Dehra Dun**	**9.14**	**175**	*e*P	**P**	**02 42 31.9**	**+5.2**
DDI				*e*S	**S**	**02 44 05.9**	**-3.2**
NDI	**New Delhi**	**10.75**	**180**	*e*P	**P**	**02 42 49.0**	**+0.5**
NDI				*e*S	**S**	**02 44 40.0**	**-8.2**
KURK	**Kurchatov**	**11.31**	**5**	⇓P	**P**	**02 42 53.5**	**-2.6**
	comp=E,2.2nm,1.2s,baz=260,slow=16,SNR=27						
KURK	**Kurchatov**	**11.31**	**5**	*e*P	**P**	**02 42 53.2**	**-2.8**
KOLN	**Koldanda**	**12.83**	**153**	*e*P	**P**	**02 43 15.8**	**-0.7**
	comp=E,4.5nm,0.3s						
GKN	**Gorkha**	**13.00**	**149**	*e*P	**P**	**02 43 18.6**	**-0.2**
	comp=E,14nm,0.3s						
KKN	**Kakani**	**13.45**	**147**	*e*P	**P**	**02 43 23.7**	**-0.9**
DMN	**Daman**	**13.54**	**148**	*e*P	**P**	**02 43 25.1**	**-0.7**
	comp=E,13nm,0.4s						
GUN	**Gumba**	**13.60**	**145**	*e*P	**P**	**02 43 26.9**	**+0.3**
	comp=E,21nm,0.4s						
PKI	**Pulchoki**	**13.70**	**147**	*e*P	**P**	**02 43 26.6**	**-1.3**
	comp=E,10.0nm,0.4s						
BVAR	**Borovoye Array**	**14.35**	**343**	Pn	**P**	**02 43 33.1**	**-3.1**
	comp=E,0.1nm,0.3s,baz=156,slow=15,SNR=5.6						
BVAR				Lg		02 47 38.7	
	comp=E,0.4nm,0.3s,baz=153,slow=29,SNR=7.9						
BRVK	**Borovoye**	**14.40**	**343**	⇑P	**P**	**02 43 35.0**	**-1.9**
	comp=E,2.9nm,0.7s						
BRVK	**Borovoye**	**14.40**	**343**	*e*P	**P**	**02 43 34.0**	**-2.9**
	comp=E,7.8nm,0.8s						
BRVK				*e*		02 43 39.0	
CHKZ	**Chkalovo**	**14.91**	**345**	⇑P	**P**	**02 43 39.5**	**-3.9**
	comp=E,0.9nm,0.6s						
CHKZ	**Chkalovo**	**14.91**	**345**	*e*P	**P**	**02 43 40.8**	**-2.7**
	comp=E,1.5nm,0.6s						
ZAL	**Zalesovo**	**15.39**	**17**	Pn	**P**	**02 43 48.4**	**-1.2**
	comp=E,0.5nm,0.3s,baz=263,slow=12,SNR=8.4						
ZAL	**Zalesovo**	**15.39**	**17**	P	**P**	**02 43 48.4**	**-1.2**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ARU	**Arti**	**20.95**	**330**	P	**P**	**02 44 54.8**	**-0.1**
	comp=Z,2.0nm,0.5s						
ZAK	**Zakamensk**	**21.37**	**51**	*e*P	**P**	**02 45 00.8**	**+1.6**
SONM	**Songino Array**	**22.65**	**59**	P	**P**	**02 45 15.8**	**+4.0**
	comp=Z,0.7nm,0.8s,mb3.1,baz=258,slow=11,SNR=4.4						
BRTR	**Keskin Array B**	**33.29**	**285**	P	**P**	**02 46 49.0**	**0.0**
	comp=Z,0.8nm,0.7s,mb3.8,baz=98,slow=8.7,SNR=4.3						
BRTR	**Keskin Array B**	**33.29**	**285**	P	**P**	**02 46 49.0**	**0.0**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	**FINESS Array B**	**37.93**	**323**	P	**P**	**02 47 28.1**	**+0.1**
	comp=Z,0.7nm,0.5s,mb3.7,baz=110,slow=9.9,SNR=6.8						
FINES	**FINESS Array B**	**37.93**	**323**	P	**P**	**02 47 28.1**	**+0.1**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ARCES	**ARCESS Array B**	**40.41**	**335**	P	**P**	**02 47 48.6**	**+0.1**
	comp=Z,1.5nm,0.7s,mb3.8,baz=96,slow=8.2,SNR=3.6						
ARCES	**ARCESS Array B**	**40.41**	**335**	P	**P**	**02 47 48.6**	**0.0**
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
YKA	**Yellowknife Ar**	**77.96**	**6**	P	**P**	**02 52 09.2**	**+1.4**
	comp=Z,0.4nm,0.5s,mb3.6,baz=345,slow=5.6,SNR=6.0						

IGQ 08 02:55:02.2,3.18S×**79.41W,h12**^{km}±6^{km}**,mb4.1,1D,Error ellipse: s-maj=14.6km s-min=6.5km az=30.4,Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGUA	**Igualata**	**1.85**	**25**	P	Pn	02 55 35.8	+1.7
IGUA				S	Sn	02 56 01.2	+3.7
ARRY	**Arrayan**	**1.92**	**30**	⇓P	Pn	02 55 37.0	+2.0
ARRY				S	Sn	02 56 02.7	+3.4
PATA	**Patacocha**	**1.93**	**30**	P	Pn	02 55 38.0	+2.7
PISA	**Pisayambo**	**2.34**	**26**	P	Pn	02 55 43.6	+2.4
VC1	**Cotopaxi 1**	**2.72**	**22**	P	Pn	02 55 50.0	+3.5
ANTI	**Antisana**	**2.99**	**25**	P	Pn	02 55 53.2	+2.9
JUA2	**San Juan 2**	**3.06**	**15**	P	Pn	02 55 53.6	+2.3
CGGP	**Crater GGP**	**3.09**	**15**	P	Pn	02 55 53.1	+1.3
PINO	**Pino**	**3.11**	**15**	P	Pn	02 55 54.2	+2.2
YANA	**Yana**	**3.16**	**15**	P	Pn	02 55 54.6	+1.8
COTA	**Cotacachi**	**3.65**	**17**	P	Pn	02 56 02.2	+2.4

IDC 08 02:59:54.2±1.1**,40.74S**×**44.55E,mb3.7**/2**,mb1 3.9**/2**, mb1mx3.6**/16**,MS3.5**/4**,Ms1 3.5**/4**,ms1mx3.3**/17**,2C-1D, Error ellipse: s-maj=45.7km s-min=39.6km az=111.0, Southwest Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAW	**Mawson**	**28.73**	**165**	LR	LR	03 14 33.4	
	comp=Z,111nm,18.4s,baz=260,slow=31						
SNAA	**Sanae**	**38.79**	**202**	P	P	03 07 20.1	-1.7
	0.9nm,1.3s,baz=9.5,slow=6.1,SNR=3.1						
VNA2	**Neumayer--Watz**	**39.83**	**204**	⇑*i*	P	03 07 32.2	+1.7
KMBO	**Kilima Mbogo**	**39.98**	**349**	LR	LR	03 21 23.8	
	comp=Z,39nm,21.7s,baz=327,slow=32						
VNA1	**Neumayer--Stat**	**40.01**	**204**	⇓*i*	P	03 07 32.4	+0.4
VNA3	**Neumayer Olymp**	**40.64**	**204**	⇑*i*	P	03 07 36.5	-0.6
NWAO	**Narrogin (SRO)**	**57.19**	**107**	LR	LR	03 27 48.1	
	comp=Z,20nm,18.1s,baz=125,slow=29						
DBIC	**Dimbokro**	**65.41**	**304**	LR	LR	03 34 36.2	
	comp=Z,67nm,19.1s,baz=70,slow=32						
WRA	**Warramunga Arr**	**77.11**	**105**	P	P	03 11 49.8	-1.5
	1.0nm,0.9s,baz=224,slow=4.7,SNR=6.7						
ULM	**Lac du Bonnet**	**150.98**	**303**	PKPbc	PKPdf	03 19 46.3	+2.1
	1.3nm,0.7s,baz=104,slow=3.2,SNR=3.7						
TXAR	**Lajitas Array**	**151.75**	**256**	PKPbc	PKPdf	03 19 51.5	+5.5
	0.6nm,0.8s,baz=141,slow=5.8,SNR=5.9						
YKA	**Yellowknife Ar**	**154.89**	**337**	PKPab	PKPab	03 20 12.2	-1.7
	0.3nm,0.6s,baz=48,slow=4.4,SNR=5.4						

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*CSEM **08** 03:02:04.9±0.5,40.03N×19.62E,h1^{km}±3^{km},ML3.2,Error ellipse: s-maj=5.3km s-min=4.6km az=98.0*

*TIR **08** 03:02:05.6,40.00N×19.88E,h9^{km}*

*THE **08** 03:02:05.7,40.00N×19.72E,h10^{km},ML3.2*

*ATH **08** 03:02:06.3,39.94N×19.80E,h7^{km},MD3.5/4*

*NEIC **08** 03:02:07.9,39.83N×19.88E,h10^{km},MD3.5(ATH),After ATH.*

ISC 08 03:02:05.4±0.5**,39.98N**±0.03×**19.68E**±0.04**,h10**^{km}**,n30,** σ**1**^{s}**44**/45**,Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRN	**Sarande**	**0.27**	**111**	*i* Pg	**Pg**	**03 02 09.0**	**-2.1**
SRN				*i* Sg	**Sg**	**03 02 13.2**	**-1.6**
KEK	**Kerkira**	**0.28**	**160**	*e*PG	**Pg**	**03 02 10.7**	**-0.6**
TPE	**Tepelena**	**0.41**	**39**	*i* Pg	**Pg**	**03 02 11.7**	**-2.1**
TPE				*i* Sg	**Sg**	**03 02 18.4**	**-0.9**
TPE	**Tepelena**	**0.41**	**39**	*e*Pg	**Pg**	**03 02 11.7**	**-2.1**
TPE				*i* Sg	**Sg**	**03 02 18.4**	**-0.9**
IGT	**Igoumenitsa**	**0.67**	**131**	*e*Pg	**Pg**	**03 02 16.8**	**-2.2**
IGT				*e*Sg	**Sg**	**03 02 28.4**	**+0.3**
LSK	**Leskovik**	**0.73**	**76**	*e*Pg	**Pg**	**03 02 17.3**	**-2.8**
LSK				*i* Sg	**Sg**	**03 02 28.2**	**-1.7**
JAN	**Janina**	**0.96**	**109**	*e*PB	**Pb**	**03 02 22.5**	**-1.2**
MEV	**Metsovon**	**1.21**	**99**	*e*Pb	**Pb**	**03 02 27.9**	**0.0**
MEV				*e*Sb	**Sb**	**03 02 44.8**	**+1.3**
TIR	**Tirane**	**1.38**	**6**	*i* Pn	**Pn**	**03 02 32.5**	**+1.7**
LKD	**Levkas**	**1.48**	**149**	*e*Pb	**Pb**	**03 02 33.4**	**+0.9**
LKD				*e*Sb	**Sb**	**03 02 54.1**	**+2.8**
FNA	**Florina**	**1.53**	**58**	*e*Pb	**Pb**	**03 02 32.4**	**-1.0**
FNA				*e*Sb	**Sb**	**03 02 54.7**	**+2.0**
QSH	**Qafa e Shtames**	**1.55**	**6**	*i* pn?	**Pn**	**03 02 36.0**	**+2.7**
QSH				*i* Sn	**Sn**	**03 02 54.4**	**+0.8**
BIA	**Bitola**	**1.63**	**50**	*i* Pn	**Pn**	**03 02 36.5**	**+2.1**
BIA				*i*		03 02 41.5	
BIA				*i* Sn	**Sn**	**03 02 59.8**	**+4.2**
BIA	**Bitola**	**1.63**	**50**	*i* Pn	**Pn**	**03 02 36.5**	**+2.1**
BIA				*i* Sn	**Sn**	**03 02 59.8**	**+4.2**
VLS	**Valsamata**	**1.93**	**158**	*e*PN	**Pn**	**03 02 41.5**	**+2.7**
EVR	**Evrytania**	**1.96**	**122**	*e*PN	**Pn**	**03 02 40.0**	**+0.8**
PUK	**Puka**	**2.07**	**4**	*i* pn?	**Pn**	**03 02 40.4**	**-0.3**
PUK	**Puka**	**2.07**	**4**	*e*Pn	**Pn**	**03 02 40.4**	**-0.3**
LIT	**Litokhoron**	**2.16**	**86**	*e*Pn	**Pn**	**03 02 42.4**	**+0.4**
LIT				*e*Sn	**Sn**	**03 03 10.7**	**+1.6**
AGG	**Agios Georgios**	**2.27**	**114**	*e*Pn	**Pn**	**03 02 43.9**	**+0.4**
AGG				*e*Sn	**Sn**	**03 03 12.7**	**+1.0**
AGG	**Agios Georgios**	**2.27**	**114**	*e*Pn	**Pn**	**03 02 43.8**	**+0.3**
AGG				*e*Sn	**Sn**	**03 03 12.7**	**+1.0**
LTRZ	**Laterza**	**2.27**	**287**	*e*Pn	**Pn**	**03 02 48.2**	**+4.6**
GRG	**Griva**	**2.30**	**64**	*e*Pn	**Pn**	**03 02 43.8**	**-0.2**
SKO	**Skopje**	**2.40**	**33**	*i* Pn	**Pn**	**03 02 44.3**	**-1.1**
SKO				*i*		03 02 49.0	
BCI	**Bajram Curri**	**2.40**	**7**	*e*Pn	**Pn**	**03 02 46.9**	**+1.4**
BCI				*i* Sn	**Sn**	**03 03 11.8**	**-3.5**
KNT	**Kendrikon**	**2.72**	**63**	*e*Pn	**Pn**	**03 02 49.5**	**-0.6**
GRI	**Girifalco**	**2.77**	**246**	*e*Pn	**Pn**	**03 02 49.7**	**-1.1**
GRI	**Girifalco**	**2.77**	**246**	*e*Pn	**Pn**	**03 02 49.7**	**-1.1**
SLCN	**Sala Consilina**	**3.12**	**279**	*e*Pn	**Pn**	**03 02 55.8**	**+0.1**
SOI	**Samo**	**3.40**	**237**	*e*Pn	**Pn**	**03 02 58.1**	**-1.6**

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*IDC **08** 03:12:48.4±4.0,6.04S×102.00E,mb4.0/7,mb1 4.2/7, mb1mx3.9/16,Error ellipse: s-maj=158.0km s-min=18.3km az=57.0*

*NEIC **08** 03:12:53.7±1.8,6.03S×102.06E,h35^{km},mb4.3/1,Error ellipse: s-maj=79.5km s-min=11.2km az=54.0*

ISC 08 03:12:50.8±2.2**,6.1S**±0.4×**101.9E**±0.5**,h33**^{km}**,n10,** σ**0**^{s}**58**/9**,mb4.0**/8**,Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**24.57**	**353**	P	**P**	**03 18 09.3**	**+0.2**
	2.1nm,0.5s,mb4.0,baz=185,slow=8.5,SNR=8.8						
FITZ	**Fitzroy Crossi**	**26.02**	**119**	P	**P**	**03 18 22.2**	**-0.7**
	2.1nm,0.8s,mb3.7,baz=333,slow=6.8,SNR=2.9						
WRA	**Warramunga Arr**	**34.34**	**117**	P	**P**	**03 19 37.1**	**+0.3**
	0.6nm,0.9s,mb3.5,baz=288,slow=12,SNR=4.9						
ASAR	**Alice Springs**	**35.35**	**123**	P	**P**	**03 19 46.5**	**+1.0**
	0.5nm,0.8s,mb3.5,baz=294,slow=8.9,SNR=3.5						
STKA	**Stephens Creek**	**45.03**	**130**	P	**P**	**03 21 04.8**	**-0.6**
	2.0nm,0.8s,mb4.0,baz=300,slow=11,SNR=4.0						
SONM	**Songino Array**	**53.83**	**4**	P	**P**	**03 22 12.7**	**0.0**
	3.7nm,0.9s,mb4.3,baz=181,slow=8.9,SNR=23						
KURK	**Kurchatov**	**60.05**	**343**	*e*P	**P**	**03 22 56.6**	**-0.3**
	1.6nm,0.7s,mb4.2						
ZAL	**Zalesovo**	**61.52**	**349**	P	**P**	**03 23 06.1**	**-0.6**
	2.5nm,0.3s,mb4.8,baz=303,slow=1.8,SNR=3.7						
CHKZ	**Chkalovo**	**65.12**	**340**	*e*P	**P**	**03 23 31.2**	**+0.7**
TXAR	**Lajitas Array**	**146.55**	**43**	PKPbc	PKPbc	03 32 33.0	+3.7
	0.6nm,0.6s,baz=292,slow=0.5,SNR=11						

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*NEIC **08** 03:15:56.5,16.91N×100.47W,h5^{km},MD4.1(MEX),After MEX.*

MEX 08 03:15:56.6±0.6**,16.94N**×**100.48W,h5**^{km}**,MD4.1,Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.23**	**61**	*i* P	Pg	03 16 00.9	-0.4
CAIG				*e*S	Sg	03 16 04.7	+0.2
CAIG	**El Cayaco**	**0.23**	**61**	*i* P	Pg	03 16 00.8	-0.5
CAIG				*i* S	Sg	03 16 04.3	-0.1
ACX	**Acapulco**	**0.54**	**97**	*i* P	Pg	03 16 06.5	-1.0
ACX				*i* S	Sg	03 16 13.9	-0.8
ACX	**Acapulco**	**0.54**	**97**	*i* P	Pg	03 16 06.7	-0.7
ACX				*i* S	Sg	03 16 14.2	-0.5
ZIIG	**Zihuatanejo**	**1.15**	**305**	*e*P	Pb	03 16 15.8	-2.8
ZIIG				*e*S	Sb	03 16 30.7	-3.1
ZIIG	**Zihuatanejo**	**1.15**	**305**	*e*P	Pb	03 16 15.3	-3.4
ZIIG				*e*S	Sb	03 16 30.7	-3.1
PLIG	**Platanillo**	**1.72**	**33**	*e*P	Pn	03 16 24.4	-3.0
PLIG				*e*S	Sn	03 16 44.9	-5.2
PNIG	**Pinotepa**	**2.32**	**103**	*e*P	Pn	03 16 35.0	-1.1
PNIG				*e*S	Sn	03 17 03.1	-2.1
PNIG	**Pinotepa**	**2.32**	**103**	*i* P	Pn	03 16 33.4	-2.6
PNIG				*i* S	Sn	03 17 03.1	-2.1
YAIG	**Yautepec**	**2.34**	**35**	*e*P	Pn	03 16 32.2	-4.2
YAIG				*e*S	Sn	03 17 01.4	-4.4
CHVM	**Chichinautzin**	**2.49**	**30**	*e*P	Pn	03 16 45.1	+6.7
CRX	**Cerrillo**	**2.57**	**17**	*e*P	Pn	03 16 36.5	-3.1
UNM	**Universidad Na**	**2.68**	**27**	*e*P	Pn	03 16 37.6	-3.6
UNM				*e*S	Sn	03 17 23.0	+8.6
UNM	**Universidad Na**	**2.68**	**27**	*e*P	Pn	03 16 37.0	-4.2
UNM				*e*P		03 16 37.2	
UNM				*i* S	Sn	03 17 10.4	-4.0
PPM	**Popocatepetl**	**2.76**	**39**	*e*P	Pn	03 16 44.7	+2.5
PPM	**Popocatepetl**	**2.76**	**39**	*e*P	Pn	03 16 37.0	-5.2
PPM				*e*P		03 16 44.7	
MDVM	**Presa Madin**	**2.84**	**24**	*e*P	Pn	03 16 42.1	-1.3
PTVM	**Pico Tres Padr**	**2.94**	**26**	*e*P	Pn	03 16 45.1	+0.1
IIC	**Rita Coyotepec**	**3.04**	**22**	*i* P	Pn	03 16 43.0	-3.4
IIO	**Organos**	**3.12**	**32**	*i* P	Pn	03 16 42.5	-5.0
VHO	**Vista Hermosa**	**3.59**	**87**	*e*P	Pn	03 16 52.0	-2.1
VHO				*e*S	Sn	03 17 34.1	-3.3
VHO	**Vista Hermosa**	**3.59**	**87**	*e*P	Pn	03 16 51.2	-2.8
VHO				*e*S	Sn	03 17 34.1	-3.3
IISM	**Ciudad Serdan**	**3.59**	**55**	*i* P	Pn	03 16 52.6	-1.5
COLM	**Colima**	**3.78**	**307**	*e*P	Pn	03 16 53.1	-3.7
COLM				*e*S	Sn	03 17 35.9	-6.5
SFJM	**Santa Fe**	**4.29**	**326**	*e*P	Pn	03 17 01.5	-2.4
HUIG	**Huatulco**	**4.35**	**105**	*i* S	Sn	03 17 51.6	-5.2
CMIG	**Matias Romero**	**5.36**	**88**	*e*P	Pn	03 17 15.6	-3.6
CMIG				*e*S	Sn	03 18 44.5	+22
CMIG	**Matias Romero**	**5.36**	**88**	*e*P	Pn	03 17 15.6	-3.6
CMIG				*i* S	Sn	03 18 17.1	-4.9

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*NEIC **08** 04:02:34.4,32.13S×71.90W,h23^{km},ML3.8(GUC),After GUC.*

GUC 08 04:02:34.4±0.7**,32.13S**×**71.90W,h23**^{km}±4^{km}**,MD4.0, ML3.8,10C-6D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACH	**Papudo**	**0.56**	**136**	⇓*i*P	Pb	04 02 45.1	-0.4
IHA	**Instituto Hidr**	**0.92**	**166**	⇓*i*P	Pb	04 02 51.0	-0.5
IHA				*i* S	Sb	04 03 03.6	+0.4
ROCH	**El Roble**	**1.12**	**138**	⇑*i*P	Pn	04 02 54.4	-0.6
ROCH				*i* S	Sb	04 03 09.9	+0.7
CMCH	**Combarbala**	**1.23**	**39**	⇑*i*P	Pn	04 02 56.2	-0.2
CMCH				*i* S	Sb	04 03 12.2	0.0
CMCH				AMP		04 03 18.9	
	comp=N,11μm,0.9s						
JACH	**Jahuel**	**1.23**	**117**	⇑*i*P	Pn	04 02 56.1	-0.4
JACH				*i* S	Sb	04 03 12.1	-0.3
LCCH	**Las Cruces**	**1.37**	**168**	⇓*i*P	Pn	04 02 57.8	-0.6
LCCH				*i* S	Sn	04 03 15.5	-0.4
PEL	**Peldehue**	**1.44**	**135**	⇓*i*P	Pn	04 02 59.6	+0.2
PEL				*i* S	Sn	04 03 18.2	+0.5
RCDM	**Rinconada Maip**	**1.64**	**146**	⇓*i*P	Pn	04 03 02.2	-0.1
RCDM				*i* S	Sn	04 03 23.2	+0.4
RCDM				AMP		04 03 25.1	
	comp=E,1μm,0.2s						
STL	**Santa Lucia**	**1.68**	**141**	⇑*i*P	Pn	04 03 02.9	0.0
STL				*i* S	Sn	04 03 24.7	+0.9
STL				AMP		04 03 28.5	
	comp=N,384nm,0.2s						
DSCH	**Colegio Aleman**	**1.69**	**139**	*e*P	Pn	04 03 03.1	+0.1
DSCH				*i* S	Sn	04 03 24.7	+0.6
DSCH				AMP		04 03 28.2	
	comp=E,3μm,0.2s						
CLCH	**Cerro Calan**	**1.71**	**138**	⇑*i*P	Pn	04 03 03.3	+0.1
CLCH				*i* S	Sn	04 03 25.8	+1.3
CLCH				AMP		04 03 31.8	
	comp=E,2μm,0.4s						
CLCH				AMP		04 03 32.2	
	comp=E,2μm,0.7s						
TACH	**Talagante**	**1.72**	**152**	⇑*i*P	Pn	04 03 03.9	+0.4
FSR	**Penalolen**	**1.77**	**140**	*e*P	Pn	04 03 04.3	+0.1
FSR				*i* S	Sn	04 03 27.6	+1.5
FSR				AMP		04 03 37.0	
	comp=N,1μm,0.4s						
FCH	**Farellones**	**1.81**	**132**	⇑*i*P	Pn	04 03 04.9	+0.2
FCH				*i* S	Sn	04 03 28.5	+1.4
FCH				AMP		04 03 31.0	
	comp=E,1μm,0.2s						
LNV	**Longovilo**	**1.86**	**167**	*e*P	Pn	04 03 07.1	+1.6
LNV				*i* S	Sn	04 03 30.9	+2.4
PCH	**Pirque**	**1.89**	**142**	⇑*i*P	Pn	04 03 06.2	+0.3
PCH				*i* S	Sn	04 03 31.4	+2.3
SJCH	**San Jose de Ma**	**1.99**	**140**	*i* P	Pn	04 03 07.0	-0.3
SJCH				*i* S	Sn	04 03 32.2	+0.5
CHCH	**Chadas Angostu**	**2.08**	**150**	⇑*i*P	Pn	04 03 09.1	+0.5
LMEL	**Las Melosas**	**2.23**	**141**	⇑*i*P	Pn	04 03 11.5	+0.8
LMEL				*i* S	Sn	04 03 39.9	+2.1
LMEL				AMP		04 03 44.7	
	comp=N,826nm,0.2s						
CACH	**El Canelo**	**2.26**	**151**	⇓*i*P	Pn	04 03 12.3	+1.1

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*IDC **08** 04:23:44.3±1.6,15.59S×177.88W,mb4.4/7,mb1 4.5/8,* *mb1mx4.2/18, Error ellipse: s-maj=90.4km s-min=22.1km az=146.0*

ISC 08 04:23:48.0±1.5**, 15.6S**±0.5×**178.0W**±0.4**, h33^{km}, n8, σ1^{s}02**/8**, mb4.4**/8**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**34.29**	**257**	P	**P**	**04 30 34.6**	**+1.2**
	2.0nm,0.5s,mb4.3,baz=81,slow=13,SNR=2.5						
STKA	**Stephens Creek**	**40.14**	**239**	P	**P**	**04 31 23.4**	**+0.8**
	11nm,1.4s,mb4.4,baz=90,slow=13,SNR=3.6						
WRA	**Warramunga Arr**	**45.49**	**257**	P	**P**	**04 32 05.0**	**-1.4**
	0.6nm,0.4s,mb3.8,baz=94,slow=6.9,SNR=19						
ASAR	**Alice Springs**	**45.85**	**252**	P	**P**	**04 32 08.6**	**-0.5**
	12nm,0.4s,mb5.2,baz=84,slow=8.5,SNR=227						
FITZ	**Fitzroy Crossi**	**53.84**	**259**	P	**P**	**04 33 09.2**	**-1.1**
	2.0nm,0.7s,mb4.2,baz=122,slow=9.5,SNR=3.7						
NWAO	**Narrogin (SRO)**	**60.68**	**241**	P	**P**	**04 33 59.3**	**+0.8**
	9.8nm,0.3s,mb5.4,baz=109,slow=11,SNR=19						
ILAR	**Eielson Array**	**83.52**	**13**	P	**P**	**04 36 14.8**	**+1.2**
	0.4nm,0.4s,mb3.9,baz=226,slow=4.8,SNR=12						
ANMO	**Albuquerque**	**84.33**	**52**	P	**P**	**04 36 17.4**	**-1.0**
	1.8nm,0.8s,mb4.2,baz=216,slow=6.1,SNR=5.7						

SKHL 08 04:46:23.2±0.7**, 54.92N×135.48E, h9^{km}**±1^{km}**, mb4.4**/6**, 1C, Southeastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EKMR	**Ekimchan**	**2.38**	**220**	*e*Pn	Pn	04 47 00.5	-2.5
EKMR				pPn		04 47 04.0	
EKMR				*e*Pg	Pg	04 47 05.4	-5.3
EKMR				AMB	AMB	04 47 07.9	
	58nm,0.5s						
EKMR				AMB	AMB	04 47 07.9	
	85nm,0.5s						
EKMR				AMB	AMB	04 47 07.9	
	130nm,0.5s						
EKMR				*e*Sg	Sg	04 47 36.6	-5.9
EKMR				A		04 47 39.5	
	470nm,0.6s						
EKMR				A		04 47 39.5	
	130nm,0.6s						
EKMR				A		04 47 39.5	
	140nm,0.6s						
NKL	**Nikolayevsk**	**3.54**	**118**	*e*rx	rx	04 47 14.3	
NKL				*e*Pg	Pg	04 47 27.2	-6.7
NKL				*e*Sg	Sg	04 48 12.1	-9.1
NKL				A		04 48 12.9	
	260nm,0.8s						
BMKR	**Bomnak**	**3.85**	**270**	⇑*i*Pn	Pn	04 47 21.0	-2.9
BMKR				pPn		04 47 25.0	
BMKR				*e*Pg	Pg	04 47 31.7	-8.3
BMKR				AMB	AMB	04 47 32.2	
	45nm,0.5s						
BMKR				AMB	AMB	04 47 32.2	
	200nm,0.5s						
BMKR				AMB	AMB	04 47 32.2	
	166nm,0.5s						
BMKR				*e*Sn	Sn	04 48 07.9	-1.9
BMKR				*e*Sg	Sg	04 48 21.1	-10
BMKR				A		04 48 22.4	
	283nm,0.5s						
BMKR				A		04 48 22.4	
	213nm,0.5s						
BMKR				A		04 48 22.4	
	214nm,0.5s						
GRNR	**Gornyy**	**4.20**	**172**	*e*Pn	Pn	04 47 28.9	0.0
GRNR				*e*Pg	Pg	04 47 40.0	-7.0
GRNR				AMB	AMB	04 47 41.1	
	38nm,0.5s						
GRNR				pPg		04 47 44.0	
GRNR				*e*Sg	Sg	04 48 35.0	-8.0
GRNR				A		04 48 38.2	
	82nm,0.4s						
OKH	**Okha**	**4.58**	**104**	*e*Sg	Sg	04 48 45.0	-11
OKH				A		04 48 54.5	
	421nm,0.9s						
YASR	**Yasnyy**	**4.71**	**253**	*e*rx	rx	04 47 38.9	
YASR				*e*Pg	Pg	04 47 49.3	-7.9
YASR				AMB	AMB	04 47 52.5	
	13nm,0.7s						
YASR				*e*Sg	Sg	04 48 49.9	-10
YASR				A		04 49 05.7	
	50nm,0.7s						
YASR				A		04 49 05.7	
	8.0nm,0.7s						
ZEA	**Zeya**	**4.96**	**260**	*e*rx	rx	04 47 46.1	
ZEA				*e*Pg	Pg	04 47 52.4	-10
ZEA				AMB	AMB	04 47 53.1	
	15nm,0.3s						
ZEA				*e*Sg	Sg	04 48 57.1	-11
ZEA				A		04 48 59.3	
	50nm,0.8s						
ZEA				A		04 48 59.3	
	83nm,0.8s						
KROS	**Kirovskiy**	**4.96**	**268**	*e*Pn	Pn	04 47 36.0	-3.7
KROS				pPn		04 47 39.5	
KROS				*e*Pg	Pg	04 47 51.2	-11
KROS				AMB	AMB	04 47 52.9	
	26nm,0.5s						
KROS				AMB	AMB	04 47 52.9	
	21nm,0.5s						
KROS				*e*rx	rx	04 47 56.6	
KROS				*e*Sg	Sg	04 48 56.6	-12
KROS				A		04 49 01.5	
	100nm,0.5s						
KROS				A		04 49 01.5	
	75nm,0.5s						
KROS				A		04 49 01.5	
	71nm,0.5s						
TYV	**Tymovskoe**	**5.95**	**130**	*e*Sg	Sg	04 49 28.0	-13

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*NIED **08** 04:50:00, 43.00N×145.00E, h29^{km}, Mw3.5 Best double couple: $M_0$1.83×10^{14} NP1:ϕ_s34°, δ56°, λ72°. NP2:ϕ_s244°, δ38°, λ115°.*

JMA 08 04:50:56.8±0.1**, 42.97N×145.00E, h53^{km}**±1^{km}**, M3.6, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.22**	**277**	P	P	04 51 05.7	+0.1
JAK				S	S	04 51 12.1	+0.1
JNK	**Nakash**	**0.65**	**342**	P	P	04 51 09.6	-0.5
JNK				S	S	04 51 18.9	-1.0
NEM2	**Nemuro 2**	**0.67**	**54**	P	P	04 51 09.9	-0.4
NEM2				S	S	04 51 19.0	-1.4
JOB	**Onbets**	**0.86**	**266**	P	P	04 51 12.7	-0.1
JOB				S	S	04 51 24.1	-0.7
JAR	**Ashorobuto**	**0.96**	**290**	P	P	04 51 14.1	-0.1
JAR				S	S	04 51 27.1	-0.1
JRA	**Rausu**	**0.97**	**5**	P	P	04 51 14.3	-0.1
JRA				S	S	04 51 26.9	-0.6
JCH	**Churui**	**1.26**	**254**	P	P	04 51 17.6	-0.8
JCH				*e*S	S	04 51 33.0	-1.5
JTKR	**Abashiri--Toko**	**1.28**	**322**	P	P	04 51 18.8	+0.1
JTKR				*e*S	S	04 51 35.6	+0.6

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*CNRM **08** 05:11:36.0, 35.15N×2.60W, h17^{km}, MD3.9*
*MDD **08** 05:11:37.4±0.9, 34.97N×3.02W, mb3.7/12, Error ellipse: s-maj=8.8km s-min=5.6km az=136.0, PRXIMO AftershockPLICA*
*NEIC **08** 05:11:38.4, 35.04N×3.10W, MG3.7(MDD), After MDD.*
*SFS **08** 05:11:38.0, 35.03N×3.10W, ML3.7*
*INMG **08** 05:11:40.2±1.0, 35.14N×3.06W, h14^{km}±5^{km}, ML2.6, Error ellipse: s-maj=9.2km s-min=4.8km az=120.0*

CSEM 08 05:11:36.7±0.2**, 34.99N×2.86W, h15^{km}, ML3.5**/3**, 1C, Error ellipse: s-maj=4.2km s-min=3.0km az=111.0, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	**0.10**	**101**	*i*P	Pb	05 11 40.5	+0.7
MELI	**Melilla**	**0.31**	**349**	⇑P	Pb	05 11 43.4	0.0
MELI				S	Sb	05 11 48.0	+0.1
MELI	**Melilla**	**0.31**	**349**	*i*P	Pb	05 11 43.4	0.0
EMLI	**Melilla**	**0.32**	**347**	P	Pb	05 11 43.8	+0.3
	64nm,0.1s,SNR=24						
EMEL	**Melilla**	**0.32**	**346**	P	Pb	05 11 43.8	+0.2
	64nm,0.1s,SNR=24						
EMEL				S	Sb	05 11 47.6	-0.6
	2µm,0.7s,SNR=9.9						
TOU	**Touzarine**	**0.73**	**268**	*i*P	Pb	05 11 52.5	+1.9
TOU				*i*S	Sb	05 12 03.0	+2.8
MPAL	**Palemas**	**0.92**	**285**	*i*P	Pb	05 11 55.5	+1.7
MPAL				*i*S	Sb	05 12 07.5	+2.0
TZK	**Tazeka**	**1.41**	**231**	*i*P	Pn	05 12 02.5	+0.5
TZK				*i*S	Sb	05 12 21.5	+1.6
OTSS	**Djebel Tessala**	**1.72**	**80**	P	Pn	05 12 08.0	+1.6
EBER	**Berja**	**1.91**	**359**	P	Pn	05 12 09.5	+0.5
	0.5nm,0.1s,SNR=13						
EBER				S	Sn	05 12 31.0	-1.9
	66nm,0.5s,SNR=13						
EBER	**Berja**	**1.91**	**359**	P	Pn	05 12 09.5	+0.4
	0.5nm,0.1s,SNR=13						
EBER				S	Sn	05 12 31.0	-1.9
	66nm,0.5s,SNR=13						
ERON	**Agron**	**2.17**	**340**	P	Pn	05 12 13.3	+0.5
	4.2nm,0.4s,SNR=7.9						
ERON				S	Sn	05 12 37.4	-2.1
	14nm,0.5s,SNR=6.5						
ERON	**Agron**	**2.17**	**340**	S	Sn	05 12 37.4	-2.1
	14nm,0.5s,SNR=6.5						
EMIJ	**Mijas**	**2.21**	**316**	P	Pn	05 12 11.8	-1.7
	2.3nm,0.1s,SNR=56						
EMIJ				S	Sn	05 12 36.3	-4.3
	12nm,0.4s,SNR=6.9						
ELOJ	**Sierra Loja**	**2.40**	**335**	P	Pn	05 12 16.0	-0.1
	0.2nm,0.1s,SNR=11						
ELOJ				S	Sn	05 12 46.0	+0.7
	19nm,0.5s						
MIF	**Mishlifen**	**2.52**	**232**	*i*P	Pn	05 12 20.0	+2.2
MIF				*i*S	Sn	05 12 49.0	+0.6
CZD	**Col de Zad**	**2.66**	**223**	*i*P	Pn	05 12 22.0	+2.1
CZD				*i*S	Sn	05 12 52.0	-0.1
ELUQ	**Luque**	**2.81**	**337**	P	Pn	05 12 22.8	+0.9
	1.5nm,0.2s,SNR=12						
ELUQ				S	Sn	05 12 55.3	-0.5
	18nm,0.5s						
ELUQ	**Luque**	**2.81**	**337**	S	Sn	05 12 55.3	-0.5
	18nm,0.5s						
LIJA	**Lijar**	**2.81**	**314**	P	Pn	05 12 22.8	+0.7
LIJA				S	Sn	05 12 55.8	-0.2
LIJA	**Lijar**	**2.81**	**314**	*i*P	Pn	05 12 22.8	+0.8
LIJA	**Lijar**	**2.81**	**314**	*e*S	Sn	05 12 55.8	-0.1
EQES	**Quesada**	**2.81**	**357**	P	Pn	05 12 23.8	+1.8
	2.6nm,0.1s,SNR=43						
EQES				S	Sn	05 12 56.9	+1.0
	42nm,0.5s						
EQES	**Quesada**	**2.81**	**357**	P	Pn	05 12 23.8	+1.8
	2.6nm,0.1s,SNR=43						
EQES	**Quesada**	**2.81**	**357**	S	Sn	05 12 56.9	+0.9
	42nm,0.5s						
ESPR	**Espera**	**3.07**	**309**	P	Pn	05 12 24.7	-1.0
	0.3nm,0.1s,SNR=8.7						
ESPR				S	Sn	05 13 00.9	-1.6
	12nm,0.5s,SNR=5.3						
ESPR	**Espera**	**3.07**	**309**	S	Sn	05 13 00.9	-1.5
	12nm,0.5s,SNR=5.3						
ESPR	**Espera**	**3.07**	**309**	P	Pn	05 12 24.7	-1.0
	0.3nm,0.1s,SNR=8.7						
ZFT	**Errachidia**	**3.20**	**203**	*i*P	Pn	05 12 28.0	+0.5
EADA	**Adamuz**	**3.46**	**337**	P	Pn	05 12 30.9	-0.3
	0.6nm,0.1s,SNR=17						
EADA				S	Sn	05 13 08.4	-3.9
	22nm,0.6s						
EADA	**Adamuz**	**3.46**	**337**	S	Sn	05 13 08.4	-3.9
	22nm,0.6s						
EADA	**Adamuz**	**3.46**	**337**	P	Pn	05 12 30.9	-0.3
	0.6nm,0.1s,SNR=17						
EMIN	**Mina Concepcio**	**4.14**	**313**	P	Pn	05 12 38.9	-2.0
	1.3nm,0.1s,SNR=36						
EMIN				S	Sn	05 13 23.4	-6.2
	7.5nm,0.7s						
EMIN	**Mina Concepcio**	**4.14**	**313**	P	Pn	05 12 38.9	-2.0
	1.3nm,0.1s,SNR=36						
ESDC	**Sonseca Array**	**4.76**	**350**	P	Pn	05 12 49.5	-0.2
	1.1nm,0.3s,baz=172,slow=12,SNR=14						
ESDC				S	Sn	05 13 42.0	-3.2
	8.2nm,0.6s,baz=175,slow=23,SNR=15						
ESDC	**Sonseca Array**	**4.76**	**350**	S	Sn	05 13 42.0	-3.2
	8.2nm,0.6s,SNR=15						
ESDC	**Sonseca Array**	**4.76**	**350**	P	Pn	05 12 49.5	-0.2
	1.1nm,0.3s,SNR=14						
EBAD	**Badajoz**	**5.02**	**320**	P	Pn	05 12 51.5	-1.8
	1.4nm,0.1s,SNR=23						
EBAD				S	Sn	05 13 44.8	-7.0
	3.3nm,0.6s						
EBAD	**Badajoz**	**5.02**	**320**	P	Pn	05 12 51.5	-1.9
	1.4nm,0.1s,SNR=23						
PBEJ	**Beja**	**5.04**	**308**	*e*Pn	Pn	05 12 52.0	-1.7
PTEO	**Sao Teotonio**	**5.38**	**300**	*e*Pn	Pn	05 12 56.6	-1.8
MOE	**Montemor**	**5.64**	**310**	*e*Pn	Pn	05 13 00.4	-1.7
PCBR	**Castelo Branco**	**6.08**	**324**	*e*Pn	Pn	05 13 06.2	-2.1
PCBR				*e*Sn	Sn	05 14 10.6	-7.7
	4.1nm,0.6s						
PCBR	**Castelo Branco**	**6.08**	**324**	Pn	Pn	05 13 06.2	-2.1
PCBR				Sn	Sn	05 14 10.6	-7.7
	2.0nm,0.6s						
PCBR	**Castelo Branco**	**6.08**	**324**	*e*Sn	Sn	05 14 10.6	-7.7
	4.1nm,0.6s						
PLOU	**Loures**	**6.36**	**310**	*e*Pn	Pn	05 13 09.9	-2.4
ERTA	**Horta de San J**	**6.47**	**22**	P	Pn	05 13 14.5	+0.7
ERTA	**Horta de San J**	**6.47**	**22**	P	Pn	05 13 14.5	+0.7
	SNR=7.9						
MTE	**Manteigas**	**6.55**	**327**	*e*Pn	Pn	05 13 13.1	-1.9
MTE				*e*Sn	Sn	05 14 21.8	-8.3
	6.5nm,0.5s						
MTE	**Manteigas**	**6.55**	**327**	Pn	Pn	05 13 13.1	-1.9
MTE				Sn	Sn	05 14 21.8	-8.3
	3.2nm,0.5s						
MTE	**Manteigas**	**6.55**	**327**	*e*Sn	Sn	05 14 21.8	-8.3
	6.5nm,0.5s						
PVIS	**Viseu**	**6.96**	**327**	*e*Pn	Pn	05 13 18.3	-2.5
PVRL	**Vila Real**	**7.35**	**330**	*e*Pn	Pn	05 13 24.0	-2.2
PVRL				*e*Sn	Sn	05 14 40.9	-9.2
	4.6nm,0.4s						
PVRL	**Vila Real**	**7.35**	**330**	Pn	Pn	05 13 24.0	-2.2
PVRL				Sn	Sn	05 14 40.9	-9.2
	2.3nm,0.4s						
PVRL	**Vila Real**	**7.35**	**330**	*e*Sn	Sn	05 14 40.9	-9.2
	4.6nm,0.4s						
PBRG	**Braganca**	**7.46**	**337**	*e*Pn	Pn	05 13 25.7	-1.9
PBRG				*e*Sn	Sn	05 14 43.5	-9.2
	2.3nm,0.8s						
PBRG	**Braganca**	**7.46**	**337**	Pn	Pn	05 13 25.7	-1.9
PBRG				Sn	Sn	05 14 43.5	-9.2
	1.1nm,0.8s						
ECAL	**Calabor**	**7.58**	**338**	P	Pn	05 13 26.3	-3.1
ECAL				S	Sn	05 14 48.4	-7.3
ELOB	**Lobios**	**7.99**	**331**	P	Pn	05 13 33.6	-1.4
	5.0nm,0.6s,SNR=5.3						
ELOB				S	Sn	05 14 55.3	-11
	35nm,1.5s						
ELOB	**Lobios**	**7.99**	**331**	P	Pn	05 13 33.7	-1.4
ERUA	**La Rua**	**8.11**	**337**	P	P	05 13 34.6	-2.2
	0.3nm,0.1s,SNR=7.9						
ERUA				S	Sn	05 14 59.1	-10
	SNR=7.9						

IDC 08 05:31:06.1±2.2**, 2.44S×69.69E, mb3.8**/4**, mb1 4.1**/4**, mb1mx3.7**/17**, MS3.4**/2**, Ms1 3.5**/2**, ms1mx3.0**/26**, Error ellipse: s-maj=60.1km s-min=36.0km az=70.0, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**35.50**	**53**	P	P	05 38 06.2	-0.7
	0.4nm,0.4s,baz=243,slow=10,SNR=3.9						
CMAR				LR	LR	05 50 45.9	
	comp=Z,32nm,21.9s,baz=250,slow=33						
GNI	**Garni**	**48.15**	**334**	LR	LR	05 59 29.5	
	comp=Z,90nm,18.3s,baz=160,slow=35						
SONM	**Songino Array**	**59.44**	**28**	P	P	05 41 09.5	-3.6
	1.2nm,0.8s,baz=225,slow=7.2,SNR=6.8						
WRA	**Warramunga Arr**	**65.37**	**111**	P	P	05 41 50.1	-3.0
	0.9nm,0.7s,baz=287,slow=6.1,SNR=8.4						
ASAR	**Alice Springs**	**65.46**	**115**	P	P	05 41 52.0	-1.6
	0.9nm,0.6s,baz=280,slow=6.4,SNR=8.2						
TXAR	**Lajitas Array**	**152.52**	**347**	PKPbc	PKPdf	05 51 06.1	+6.2
	1.2nm,1.1s,baz=27,slow=2.8,SNR=5.8						

CASC 08 06:01:01.6±2.2**, 10.54N×87.21W, h37^{km}**±999^{km}**, MD3.9, 6C-9D, Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COPN	**Copaltepe**	**1.74**	**20**	⇓*e*P	P	06 01 29.5	-0.5
COPN				*e*S	S	06 01 50.7	-0.4
TICN	**Ticuantepe**	**1.77**	**33**	⇓*e*P	P	06 01 29.7	-0.7
APON	**Apoyo**	**1.77**	**39**	*e*P	P	06 01 28.9	-1.4
XAVN	**Gruta Xavier**	**1.82**	**28**	⇓*e*P	P	06 01 30.2	-0.8
PYN	**Poneloya**	**1.84**	**6**	⇑*e*P	P	06 01 31.6	+0.2
PYN				*e*S	S	06 01 55.0	+1.3
APYN	**Apoyeque**	**1.89**	**27**	⇑*e*P	P	06 01 31.3	-0.7
APYN				*e*S	S	06 01 54.6	-0.1
LEON	**Leon**	**1.89**	**10**	⇑*e*P	P	06 01 31.9	-0.1
LEON				*e*S	S	06 01 55.3	+0.4
MIRN	**Miramar**	**1.95**	**15**	⇓*e*P	P	06 01 32.5	-0.4
MIRN				*e*S	S	06 01 56.8	+0.4
MOMJ	**Momotombo**	**1.97**	**19**	⇓*e*P	P	06 01 32.5	-0.8
CNGN	**Cerro Negro**	**2.02**	**14**	⇑*e*P	P	06 01 33.1	-0.7
TELN	**Telica**	**2.09**	**10**	*e*P	P	06 01 34.4	-0.4
CRIN	**San Cristobal**	**2.16**	**4**	⇓*e*P	P	06 01 36.0	+0.2
CRIN				*e*S	S	06 02 03.0	+1.4
CNCH	**Conchagua**	**2.79**	**347**	⇓*e*P	P	06 01 44.3	-0.6
CNCH				*e*S	S	06 02 15.2	-2.5
PRS1	**Puriscal**	**2.91**	**101**	*e*P	P	06 01 44.6	-1.9
VSM	**San Miguel**	**3.06**	**340**	*e*P	P	06 01 49.3	+0.6
BLLM	**Bellamira**	**3.06**	**341**	*e*P	P	06 01 48.3	-0.4
BLLM				*e*S	S	06 02 24.1	-0.3
LAJ	**Bijagual**	**3.12**	**102**	⇑*e*P	P	06 01 42.2	-7.4
LCR2	**La Lucha 2**	**3.26**	**104**	*e*P	P	06 01 50.2	-1.4
ICR	**Volcan Irazu**	**3.38**	**99**	*e*P	P	06 01 53.3	+0.1
SNVI	**San Vicente**	**3.44**	**333**	*e*P	P	06 01 54.0	-0.2
SNVI				*e*S	S	06 02 32.2	-2.1
URSC	**Urasca**	**3.45**	**101**	*e*P	P	06 01 53.5	-0.8
LCBS	**La Ceiba**	**3.55**	**331**	⇓*e*P	P	06 01 55.0	-0.6
LCBS				*e*S	S	06 02 34.0	-2.9
LFRS	**El Faro**	**3.56**	**330**	⇑*e*P	P	06 01 55.0	-0.8
LFRS				*e*S	S	06 02 35.5	-1.8
LFU	**La Fuente**	**3.69**	**330**	⇓*e*P	P	06 01 57.5	-0.3
SBLS	**San Blas**	**4.04**	**325**	*e*P	P	06 02 02.7	+0.1
SNJE	**San Jose**	**4.05**	**325**	*e*P	P	06 02 03.1	+0.3
SNJE				*e*S	S	06 02 47.8	-1.9
RTR	**El Retiro**	**4.10**	**325**	*e*P	P	06 02 03.8	+0.3

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*IDC **08** 06:03:48.9±0.4, 30.81S×71.30W, mb5.5/11, mb1 5.6/13, mb1mx5.6/14, ML4.9/2, MS5.1/11, Ms1 5.0/11, ms1mx4.9/16, Error ellipse: s-maj=22.6km s-min=13.1km az=85.0*
*MOS **08** 06:03:53.6±0.9, 30.55S×71.05W, h33^{km}, mb5.9/28, Error ellipse: s-maj=37.4km s-min=8.5km az=108.9*
*GUC **08** 06:03:54.1±0.4, 30.85S×71.64W, h33^{km}±2^{km}, ML5.5*
*BJI **08** 06:03:54.0, 31.08S×71.97W, h44^{km}, mB5.6, Ms5.6, Msz5.4*
*NEIC **08** 06:03:55.6±0.1, 30.84S×71.22W, mb5.7/109, ME5.4, MS5.0/18, MW5.8, Error ellipse: s-maj=5.2km s-min=3.3km az=79.0 Broadband fault plane solution: P waves. NP1: ϕ_s175°, δ55°, λ90°. NP2:ϕ_s355°, δ35°, λ90°. Principal axes: T Plg80°, Azm85°; N Plg0°, Azm0°; P Plg10°, Azm265°; Moment Tensor Solution. s36 Moment tensor: Scale 10^{17} Nm; M_{rr}4.83; $M_{\theta\theta}$1.12; $M_{\phi\phi}$-5.96; $M_{r\theta}$0.55; $M_{\theta\phi}$-0.06; $M_{\phi r}$-1.05; Best double couple: $M_0$5.5×10^{17} NP1:ϕ_s9°, δ40°, λ103°. NP2:ϕ_s173°, δ51°, λ80°. Principal axes: T 5.01, Plg80°, Azm34°; N 1.06, Plg8°, Azm179°; P -6.06, Plg6°, Azm270°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*
NEIC Felt [V] at Ovalle; [IV] at Freirina and Vallenar; [III] at Copiapo, Coquimbo, Huasco, Illapel and La Serena; [II] at Santiago, Valparaiso and Vina del Mar. Also felt [IV] at Mendoza, Argentina.
*HRVD **08** 06:03:55.6±0.2, 30.97S×71.75W, h52^{km}, MW5.7/56, Centroid moment Tensor Solution. LP body waves: s56,c111; Mantle waves: s50,c101; Half duration: 1^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}3.16±.06; $M_{\theta\theta}$0.41±.05; $M_{\phi\phi}$-3.56±.05; $M_{r\theta}$0.09±.05; $M_{\theta\phi}$0.17±.04; $M_{\phi r}$-1.42±.06; Best double couple: $M_0$3.65×10^{17} NP1:ϕ_s358°, δ34°, λ91°. NP2:ϕ_s177°, δ56°, λ89°. Principal axes: T 3.45, Plg79°, Azm85°; N .41, Plg1°, Azm177°; P -3.86, Plg11°, Azm267°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*SYO **08** 06:03:55.2, 30.85S×71.11W, h44^{km}, MB5.7, MS5.0*

ISC 08 06:03:55.1±0.4**, 30.80S**±0.02×**71.26W**±0.05**, h52^{km}**±3^{km}**, h45^{km}**±1.2^{km}**:pP-P, n455, σ1^{s}00**/300**, mb5.7**/116**, MS5.0**/31**, 15C-16D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	**Ovalle**	**0.20**	**14**	*e*P	**P**	**06 04 03.6**	**-0.1**
OVCH				*i*S	**S**	**06 04 10.8**	**+1.0**
OVCH				AMP		06 04 13.8	
	comp=N,393µm,0.5s						
PACH	**Papudo**	**1.73**	**185**	*e*P	**P**	**06 04 23.0**	**-0.5**
JACH	**Jahuel**	**1.96**	**163**	*i*P	**P**	**06 04 27.6**	**+1.1**
ROCH	**El Roble**	**2.17**	**175**	*i*P	**P**	**06 04 30.0**	**+0.4**
IHA	**Instituto Hidr**	**2.24**	**188**	⇓*i*P	**P**	**06 04 29.3**	**-1.3**
IHA				*i*S	**S**	**06 04 55.6**	**-1.4**
VACH	**Vallenar**	**2.26**	**11**	*e*P	**P**	**06 04 32.1**	**+1.2**
VACH				*e*S	**S**	**06 05 01.4**	**+3.8**
PEL	**Peldehue**	**2.38**	**168**	*i*P	**P**	**06 04 33.1**	**+0.5**
PEL				*i*S	**S**	**06 05 02.5**	**+1.8**
PEL				AMP		06 05 10.2	
	comp=N,57µm,0.4s						
MDZ	**Mendoza**	**2.91**	**136**	⇓*i*P	**P**	**06 04 44.3**	**+4.1**
MDZ				*i*		06 04 59.0	
MDZ				*i*S	**S**	**06 05 20.5**	**+6.3**
LNV	**Longovilo**	**3.15**	**182**	*e*P	**P**	**06 04 41.8**	**-1.7**
CPCH	**Copiapo**	**3.52**	**13**	*e*P	**P**	**06 04 48.8**	**0.0**
CPCH				*i*S	**S**	**06 05 30.8**	**+1.3**
LVC	**Limon Verde**	**8.42**	**15**	Pn	**P**	**06 05 53.3**	**-3.8**
	comp=N,4.8nm,0.3s,baz=165,slow=9.5,SNR=30						
LVC				Sn	**S**	**06 07 29.6**	**-2.2**
	comp=N,121nm,0.3s,baz=199,slow=8.7,SNR=4.3						
LVC	**Limon Verde**	**8.42**	**15**	*e*Pn	**P**	**06 05 53.0**	**-4.1**
	comp=N,10nm,0.4s						
LVC				*e*Sn	**S**	**06 07 40.3**	**+8.5**
MOCB	**Mochara**	**10.77**	**29**	*e*Pn	**P**	**06 06 26.9**	**-2.4**
LPA	**La Plata**	**11.93**	**114**	α*e*P	**P**	**06 06 41.0**	**-3.9**
	comp=N,716nm,0.8s						
LPA				*e*PP	PP	06 06 50.0	-4.6
LPA				*e*sP		06 06 53.0	
LPA				*e*S	**S**	**06 08 52.0**	**-5.3**
CPUP	**Villa Florida**	**13.02**	**73**	Pn	**P**	**06 06 55.3**	**-4.2**
ARE	**Arequipa**	**14.28**	**359**	*e*P	**P**	**06 07 17.0**	**+1.0**
ARE				*e*S	rx	06 10 59.0	
LPAZ	**La Paz**	**14.73**	**12**	Pn	**P**	**06 07 21.3**	**-0.6**
	comp=N,1.2nm,0.3s,baz=186,slow=9.1,SNR=83						
SAML	**Samuel**	**23.01**	**21**	*e*P	**P**	**06 08 56.6**	**+0.1**
	comp=N,387nm,1.3s,mb5.7						
EFI	**East Falkland**	**23.02**	**159**	*e*P	**P**	**06 08 56.5**	**+0.3**
EFI				pmax	pmax		
	comp=Z,270nm,0.9s,mb5.7						
EFI	**East Falkland**	**23.02**	**159**	*e*P	**P**	**06 08 56.5**	**+0.3**
	comp=Z,266nm,0.8s,mb5.7						
USHA	**Ushuaia**	**24.10**	**176**	P	**P**	**06 09 06.7**	**+0.1**
	comp=Z,157nm,0.7s,mb5.6,baz=337,slow=8.6,SNR=78						
USHA				LR	LR	06 18 59.8	
	comp=Z,5µm,21.5s,MS5.0,baz=340,slow=38						
BDFB	**Brasilia**	**26.07**	**60**	P	**P**	**06 09 24.7**	**-1.0**
	comp=Z,501nm,0.6s,mb6.2,baz=238,slow=8.3,SNR=704						
BDFB				LR	LR	06 20 51.2	
	comp=Z,12µm,20.7s,MS5.4,baz=236,slow=39						
BAO	**Brasilia Array**	**26.09**	**60**	*e*P	**P**	**06 09 25.8**	**-0.1**
OTAV	**Otavalo**	**31.62**	**346**	*e*P	**P**	**06 10 16.3**	**+0.8**
	comp=Z,28nm,1.3s,mb4.9						
SDV	**Santo Domingo**	**39.47**	**1**	*e*P	**P**	**06 11 20.0**	**-2.1**
	comp=Z,100nm,0.9s,mb5.5						
RCBR	**Riachuelo**	**41.45**	**60**	*e*P	**P**	**06 11 38.7**	**+0.2**
	comp=Z,264nm,1.1s,mb5.8						
JTS	**JuntasAbangare**	**42.92**	**340**	*e*P	**P**	**06 11 51.2**	**+0.6**
JTS				LR	LR		
	comp=Z,265nm,20.0s,MS4.1						
BIM	**Bigot**	**46.11**	**14**	⇓*e*P	**P**	**06 12 15.1**	**-1.1**
MVM	**Montagne Vaucl**	**46.18**	**14**	⇓*e*P	**P**	**06 12 15.2**	**-1.6**
FDF	**Fort de France**	**46.30**	**14**	*e*P	**P**	**06 12 15.6**	**-2.1**
CRM	**Caravelle**	**46.37**	**14**	⇓*e*P	**P**	**06 12 16.4**	**-1.9**
SJG	**San Juan**	**48.88**	**6**	*e*P	**P**	**06 12 36.3**	**-1.5**
SJG				pmax	pmax		
	comp=Z,560nm,1.0s						
SJG	**San Juan**	**48.88**	**6**	*e*P	**P**	**06 12 36.3**	**-1.5**

	comp=Z,561nm,1.0s,mb6.5						
CCIG	Comitan	50.94	334	*i* P	P	06 12 53.6	0.0
VNA3	Neumayer Olymp	52.08	159	⇓*i*P	P	06 13 03.4	+2.0
VNA3	Neumayer Olymp	52.08	159	*e*	P	06 13 07.9	+6.5
VNA3	Neumayer Olymp	52.08	159	*e*	P	06 13 09.9	+8.5
VNA3	Neumayer Olymp	52.08	159	*e*	PcP	06 14 14.5	+1.5
VNA3	Neumayer Olymp	52.08	159	*e*	PP	06 15 00.1	-0.6
VNA3	Neumayer Olymp	52.08	159	*e*S	S	06 20 27.0	+7.0
VNA1	Neumayer--Stat	52.36	158	⇑*i*P	P	06 13 06.2	+2.6
VNA1	Neumayer--Stat	52.36	158	*e*	P	06 13 11.1	+7.5
VNA1	Neumayer--Stat	52.36	158	*e*	P	06 13 13.1	+9.5
VNA1	Neumayer--Stat	52.36	158	*e*	PcP	06 14 16.2	+2.1
VNA1	Neumayer--Stat	52.36	158	*e*	PP	06 15 01.6	-1.9
VNA1	Neumayer--Stat	52.36	158	*e*S	S	06 20 27.5	+3.6
VNA2	Neumayer--Watz	52.71	158	⇓*i*P	P	06 13 07.5	+1.3
VNA2	Neumayer--Watz	52.71	158	*e*	P	06 13 14.3	+8.1
VNA2	Neumayer--Watz	52.71	158	*e*	P	06 13 16.3	+10
VNA2	Neumayer--Watz	52.71	158	*e*	PcP	06 14 17.2	+1.8
VNA2	Neumayer--Watz	52.71	158	*e*	PP	06 15 02.8	-4.2
VNA2	Neumayer--Watz	52.71	158	*e*S	S	06 20 28.7	+0.1
CMIG	Matias Romero	52.76	331	*i* P	P	06 13 07.1	-0.2
TEIG	Tepich	53.31	340	P	P	06 13 09.9	-1.4
	comp=Z,0.0nm,0.3s,baz=156,slow=24,SNR=6.0						
VHO	Vista Hermosa	53.54	329	*i* P	P	06 13 14.1	+1.1
SNAA	Sanae	54.30	159	⇑*i*P	P	06 13 16.6	-1.3
SNAA	Sanae	54.30	159	*e*	P	06 13 21.4	+3.5
SNAA	Sanae	54.30	159	*e*	P	06 13 23.4	+5.5
SNAA	Sanae	54.30	159	*e*	PcP	06 14 20.7	-0.7
SNAA	Sanae	54.30	159	*e*	PP	06 15 06.3	-15
SNAA	Sanae	54.30	159	*e*S	S	06 20 32.2	-18
SNAA	Sanae	54.30	159	P	P	06 13 16.5	-1.4
	comp=Z,44nm,0.7s,mb5.5,baz=279,slow=6.7,SNR=233						
SNAA				LR	LR	06 36 09.5	
	comp=Z,546nm,19.1s,MS4.6,baz=293,slow=36						
SNAA	Sanae	54.30	159	*e*P	P	06 13 16.1	-1.8
SNAA				pmax	pmax		
	comp=Z,210nm,1.0s						
SNAA	Sanae	54.30	159	*e*P	P	06 13 16.1	-1.9
	comp=Z,206nm,1.0s,mb6.0						
CAIG	El Cayaco	55.16	326	*i* P	P	06 13 24.4	-0.4
PPM	Popocatepetl	56.13	328	*i* P	P	06 13 33.6	+1.7
RKT	Rikitea	56.65	261	*e*S	S	06 21 12.0	-10
RKT				*e*LR	LR	06 29 58.8	
	comp=Z,3µm,28.5s						
COLM	Colima	58.67	324	*i* P	P	06 13 50.8	+1.0
MAIT	Maitri	58.97	157	*e*P	P	06 13 50.1	-1.0
NVL	N'lazarevskaya	59.00	157	⇑*e*P	P	06 13 49.0	-2.3
NVL				*e*		06 14 38.0	
NVL				*e*S	S	06 21 50.0	-2.2
NVL				pmax	pmax		
	comp=Z,348nm,1.6s,mb6.1						
DWPF	Disney	59.38	350	*e*P	P	06 13 53.5	-1.1
	comp=Z,121nm,1.1s,mb5.8						
SFJM	Santa Fe	59.44	325	*i* P	P	06 13 55.0	-0.1
BBSR	BB Station	63.14	6	*e*P	P	06 14 18.7	-1.2
	comp=Z,169nm,1.3s,mb6.0						
RGRS	Roger Stewart	63.93	352	*e*P	P	06 14 24.0	-1.0
HBF	Harts Bluff	63.98	351	*e*P	P	06 14 24.8	-0.6
HBF	Harts Bluff	63.98	351	*e*P	P	06 14 25.0	-0.4
NHSC	New Hope	64.12	352	*e*P	P	06 14 25.5	-0.8
	comp=Z,504nm,1.1s,mb6.5						
COW	Cow Castle Cre	64.46	351	*e*P	P	06 14 27.0	-1.5
HKT	Hockley	64.78	336	P	P	06 14 30.4	-0.3
HKT				pmax	pmax		
	comp=Z,89nm,1.3s,mb5.6						
HKT	Hockley	64.78	336	*e*P	P	06 14 30.6	-0.1
	comp=Z,89nm,1.3s,mb5.6						
HKT				*e*pP	pP	06 14 42.3	-3.0
HKT				LR	LR		
	comp=Z,131nm,20.0s,MS4.1						
LRAL	Lakeview Retre	65.22	345	*e*P	P	06 14 32.0	-1.4
	comp=Z,91nm,1.1s,mb5.7						
LRAL				LR	LR		
	comp=Z,995nm,19.0s,MS5.0						
NATX	Nacogdoches	66.06	338	*e*P	P	06 14 39.0	+0.2
	comp=Z,263nm,1.1s,mb6.2						
NATX				LR	LR		
	comp=Z,834nm,21.0s,MS4.9						
SBA	Scott Base	66.33	191	P	P	06 14 36.7	-3.1
SBA	Scott Base	66.33	191	*e*P	P	06 14 37.0	-2.8
SBA				LR	LR		
	comp=Z,460nm,21.0s,MS4.7						
JCT	Junction City	66.71	333	P	P	06 14 42.0	-1.0
JCT				pmax	pmax		
	comp=Z,180nm,1.2s,mb6.0						
JCT	Junction City	66.71	333	*e*P	P	06 14 41.7	-1.2
	comp=Z,123nm,1.1s,mb5.8						
CPCT	Cooper Cave	67.07	348	*e*P	P	06 14 43.8	-1.4
SWET	Sewanee	67.11	347	*e*P	P	06 14 43.5	-1.8
OXF	Oxford	67.18	344	P	P	06 14 45.1	-0.7
OXF				pmax	pmax		
	comp=Z,510nm,1.0s,mb6.5						
OXF	Oxford	67.18	344	*e*P	P	06 14 45.0	-0.9
	comp=Z,717nm,1.1s,mb6.6						
LTX	Lajitas	67.30	330	P	P	06 14 45.9	-0.7
LTX				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.5						
LTX	Lajitas	67.30	330	*e*P	P	06 14 45.9	-0.7
	comp=Z,63nm,1.3s,mb5.5						
TXAR	Lajitas Array	67.30	330	P	P	06 14 45.4	-1.3
	comp=Z,13nm,0.8s,mb5.0,baz=140,slow=2.4,SNR=145						
TXAR				LR	LR	06 39 37.7	
	comp=Z,1µm,20.1s,MS5.2,baz=130,slow=32						
TXAR				PKPPKP		06 43 12.1	
	comp=Z,3.2nm,1.0s,baz=270,slow=1.3,SNR=19						
TXAR	Lajitas Array	67.30	330	P	P	06 14 45.4	-1.3
TXAR				LR	LR	06 39 37.7	
TXAR				P'P'		06 43 12.1	
VNDA	Vanda	67.36	191	P	P	06 14 46.1	-0.1
	comp=Z,11nm,0.8s,mb4.9,baz=138,slow=5.5,SNR=20						
VNDA				PKPPKP		06 43 09.2	
	comp=Z,4.2nm,1.0s,baz=280,slow=7.1,SNR=5.9						
MET	Memphis--Engin	67.89	344	*e*P	P	06 14 50.1	-0.2
UALR	University of	68.19	341	*e*P	P	06 14 51.4	-0.7
	comp=Z,78nm,1.2s,mb5.6						
BLA	Blacksburg	68.20	352	*e*P	P	06 14 51.3	-0.9
BLA				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.5						
BLA	Blacksburg	68.20	352	*e*P	P	06 14 51.3	-0.8
	comp=Z,49nm,0.9s,mb5.5						
ELN	Prospectdale	68.26	352	*e*P	P	06 14 51.5	-1.0
MIAR	Mount Ida	68.32	340	*e*P	P	06 14 52.2	-0.7
MIAR				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.8						
MIAR	Mount Ida	68.32	340	*e*P	P	06 14 52.2	-0.8
	comp=Z,108nm,1.1s,mb5.8						
WVT	Waverly	68.38	346	P	P	06 14 49.4	-3.9
WVT				pmax	pmax		
	comp=Z,390nm,1.1s,mb6.3						
WVT	Waverly	68.38	346	*e*P	P	06 14 52.0	-1.2
	comp=Z,393nm,1.1s,mb6.3						
WVT				*e*pP	pP	06 15 03.2	-4.8
PWV	Princeton	68.40	352	*e*P	P	06 14 51.8	-1.6
HBAR	Harrisburg	68.48	343	*e*P	P	06 14 53.6	-0.4
HBAR				*e*PcP	PcP	06 15 17.0	-1.9
HALT	Halls	68.50	344	*e*P	P	06 14 53.6	-0.4
SYO	Syowa Base	68.59	159	⇓P	P	06 14 51.8	-2.2
SYO	Syowa Base	68.59	159	⇑pP	pP	06 15 03.2	-5.6
SYO	Syowa Base	68.59	159	⇓PcP	PcP	06 15 14.3	-4.6
TBI	Tubuai	68.75	255	*e*S	S	06 23 42.3	-12
TBI				*e*LR	LR	06 35 37.9	
	comp=Z,3µm,28.8s,baz=104						
UTMT	University of	68.81	345	*e*P	P	06 14 55.7	-0.2
	comp=Z,1µm,1.1s,mb6.7						
GLAT	Glass	68.83	344	*e*P	P	06 14 55.8	-0.3
CBN	Corbin	68.89	355	*e*P	P	06 14 56.6	+0.2
	comp=Z,185nm,1.3s,mb5.8						
CBN				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
PVMO	Portageville	69.07	344	*e*P	P	06 14 57.3	-0.3
PARMO	Parma	69.32	344	*e*P	P	06 14 58.6	-0.5
CLNB	Carlsbad	69.92	331	*e*P	P	06 15 03.2	+0.4
SDMD	Soldier's Deli	70.05	355	*e*P	P	06 15 04.3	+0.9
GDL2	Guadalupe Moun	70.07	330	*e*P	P	06 15 03.9	+0.2
WCI	Wyandotte Cave	70.10	347	*e*P	P	06 15 01.6	-2.2
WCI				pmax	pmax		
	comp=Z,99nm,0.8s,mb5.8						
WCI	Wyandotte Cave	70.10	347	*e*P	P	06 15 01.5	-2.3
	comp=Z,99nm,0.8s,mb5.8						
WCI				*e*pP	pP	06 15 15.7	-2.9
WCI				LR	LR		
	comp=Z,234nm,20.0s,MS4.4						
USIN	University of	70.11	346	*e*P	P	06 15 02.6	-1.3
	comp=Z,258nm,1.0s,mb6.1						
WMOK	Wichita Mounta	70.16	336	P	P	06 15 03.6	-0.6
WMOK				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.5						
WMOK	Wichita Mounta	70.16	336	*e*P	P	06 15 03.5	-0.7
	comp=Z,61nm,1.1s,mb5.5						
WMOK				LR	LR		
	comp=Z,635nm,19.0s,MS4.9						
MCWV	Mont Chateau	70.56	353	*e*P	P	06 15 05.4	-1.1
	comp=Z,136nm,1.1s,mb5.8						
CPRX	Cap Rock	70.58	331	*e*P	P	06 15 05.7	-1.1
FVM	French Village	70.74	344	P	P	06 15 06.2	-1.5
FVM				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.0						
FVM	French Village	70.74	344	*e*P	P	06 15 06.3	-1.4
	comp=Z,220nm,1.0s,mb6.0						
CCM	Cathedral Cave	71.00	343	P	P	06 15 07.2	-2.1
CCM				pmax	pmax		
	comp=Z,320nm,1.0s,mb6.2						
CCM	Cathedral Cave	71.00	343	*e*P	P	06 15 07.3	-1.9
	comp=Z,154nm,0.7s,mb6.0						
CCM				*e*pP	pP	06 15 20.8	-3.2
BLO	Bloomington	71.05	348	P	P	06 15 07.1	-2.5
BLO				pmax	pmax		
	comp=Z,120nm,0.8s,mb5.9						
BLO	Bloomington	71.05	348	*e*P	P	06 15 07.0	-2.5
	comp=Z,99nm,0.7s,mb5.8						
BLO				*e*PcP	PcP	06 15 29.6	-0.2
BRNJ	Basking Ridge	71.19	357	*e*P	P	06 15 11.2	+0.8
SLM	Saint Louis	71.31	344	P	P	06 15 09.9	-1.2
SLM				pmax	pmax		
	comp=Z,210nm,1.0s,mb6.0						
SLM	Saint Louis	71.31	344	*e*P	P	06 15 10.6	-0.5
	comp=Z,296nm,1.2s,mb6.1						
SSPA	Standing Stone	71.34	355	*e*P	P	06 15 11.4	+0.1
	comp=Z,88nm,1.1s,mb5.6						
AMTX	Amarillo	71.34	334	*e*P	P	06 15 11.4	0.0
	comp=Z,66nm,0.8s,mb5.6						
AMTX				LR	LR		
	comp=Z,438nm,19.0s,MS4.7						
PPT	Papeete	71.40	260	*e*P	P	06 15 00.0	-12
PPT				*e*S	S	06 24 13.0	-12
PPT				*e*LR	LR	06 36 42.9	
	comp=Z,3µm,25.0s,baz=119						
ACSO	Alum Creek Sta	71.51	351	*e*P	P	06 15 10.2	-2.0
	comp=Z,220nm,0.8s,mb6.1						
ACSO				*e*pP	pP	06 15 24.7	-2.4
ACSO				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
BRYW	Bryant College	72.36	360	*e*P	P	06 15 17.9	+0.7
ALLY	Alegheny Colle	72.56	353	*e*P	P	06 15 18.0	-0.5
BNM	Barren Site	72.71	330	*e*P	P	06 15 20.5	+1.0
LPM	Los Pinos Moun	72.85	330	*e*P	P	06 15 20.7	+0.4
LENM	Lemitar	72.88	330	*e*P	P	06 15 21.4	+1.0
ERPA	Erie	73.00	353	*e*P	P	06 15 21.2	+0.2
	comp=Z,240nm,1.1s,mb6.0						
TUC	Tucson	73.08	326	P	P	06 15 21.6	-0.1
TUC				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
TUC	Tucson	73.08	326	*e*P	P	06 15 22.2	+0.4
	comp=Z,44nm,1.5s,mb5.2						
TUC				LR	LR		
	comp=Z,757nm,20.0s,MS5.0						
LAZ	Ladron	73.15	330	*e*P	P	06 15 23.4	+1.3
ANMO	Albuquerque	73.32	330	LR	LR	06 43 16.6	
	comp=Z,1µm,20.9s,MS5.2,slow=32						
ANMO	Albuquerque	73.32	330	*c i*P	P	06 15 24.2	+1.1
ANMO	Albuquerque	73.32	330	*e*P	P	06 15 23.6	+0.5
	comp=Z,82nm,1.5s,mb5.4						
ANMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
KSU1	Kansas State U	73.44	340	*e*P	P	06 15 22.6	-1.1
GENY	Geneseo	73.46	355	*e*P	P	06 15 23.9	+0.2
DBIC	Dimbokro	73.54	72	P	P	06 15 24.0	-0.8
	comp=Z,257nm,0.6s,mb6.3,baz=212,slow=6.3,SNR=376						
DBIC				LR	LR	06 44 53.1	
	comp=Z,2µm,20.8s,MS5.5,baz=211,slow=34						
AAM	Ann Arbor	73.63	350	P	P	06 15 24.6	-0.1
AAM				pmax	pmax		
	comp=Z,180nm,1.3s,mb5.8						
AAM	Ann Arbor	73.63	350	*e*P	P	06 15 24.2	-0.5
	comp=Z,108nm,1.1s,mb5.7						
AAM				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
ACCN	Adirondack Com	73.86	358	*e*P	P	06 15 25.3	-0.8
FFD	Franklin Falls	73.91	360	*e*P	P	06 15 26.8	+0.5
HNH	Hanover	74.15	359	*e*P	P	06 15 28.4	+0.7
	comp=Z,12nm,1.2s,mb4.7						
NCB	Newcomb	74.46	358	*e*P	P	06 15 29.4	-0.2
	comp=Z,92nm,1.3s,mb5.5						
SDCO	Great Sand Dun	75.33	333	*e*P	P	06 15 33.5	-1.1
	comp=Z,82nm,1.3s,mb5.5						
JFWS	Jewell Farm	75.40	346	*e*P	P	06 15 34.2	-0.7
JFWS				pmax	pmax		
	comp=Z,220nm,1.1s,mb6.0						
JFWS	Jewell Farm	75.40	346	*e*P	P	06 15 34.2	-0.7
	comp=Z,222nm,1.1s,mb6.0						
MSNY	Massena	75.51	357	*e*P	P	06 15 35.6	+0.2
MSNY				*e*pP	pP	06 15 48.8	-1.6
SADO	Sadowa	75.55	354	LR	LR	06 51 56.4	
	comp=Z,580nm,21.5s,MS4.8,baz=184,slow=38						
SUR	Sutherland	75.80	119	*e*P	P	06 15 36.7	-0.7
	comp=Z,72nm,0.8s,mb5.7						
SUR				*e*	pP	06 15 52.2	-0.1
MAW	Mawson	76.05	164	*e*P	P	06 15 37.3	-0.8
	comp=Z,52nm,0.6s,mb5.6						
MAW	Mawson	76.05	164	P	P	06 15 37.7	-0.4
	comp=Z,61nm,0.6s,mb5.7,baz=218,slow=7.0,SNR=113						
MAW				LR	LR	06 49 46.9	
	comp=Z,2µm,20.3s,MS5.4,baz=232,slow=36						
BAR	Barrett	76.38	322	*e*P	P	06 15 40.5	-0.2
PV01	Paradox Valley	76.92	331	*e*P	P	06 15 44.6	+0.9
PFO	Pinyon Flat Ob	76.98	323	P	P	06 15 44.1	0.0
PFO				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.5						
PFO	Pinyon Flat Ob	76.98	323	*e*P	P	06 15 45.4	+1.3
	comp=Z,63nm,1.1s,mb5.5						
ISCO	Idaho Springs	77.15	334	*e*P	P	06 15 44.7	-0.2
ISCO				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.6						
ISCO	Idaho Springs	77.15	334	*e*P	P	06 15 44.7	-0.2
	comp=Z,87nm,1.3s,mb5.5						
CHIE	El Hierro	77.29	47	P	P	06 15 46.5	+0.6
	comp=Z,154nm,1.4s,mb5.7						
PV10	Paradox Valley	77.32	330	*e*P	P	06 15 45.0	-0.9
LDFC	Landfair	77.44	324	*e*P	P	06 15 47.8	+1.1
NEN	Nelson	77.76	325	*e*P	P	06 15 48.6	+0.3
EHIG	Higuera	77.97	46	P	P	06 15 49.7	+0.1
	comp=Z,302nm,1.6s,mb6.0						
EGOM	La Gomera	78.06	47	P	P	06 15 50.5	+0.3
	comp=Z,160nm,0.9s,mb6.0						
MWC	Mount Wilson	78.30	322	P	P	06 15 52.7	+1.4
MWC	Mount Wilson	78.30	322	*e*P	P	06 15 52.3	+0.9
PHWY	Pilot Hill	78.40	334	*e*P	P	06 15 51.3	-0.4
SRU	San Rafael	78.57	330	P	P	06 15 52.1	-0.6
SRU	San Rafael	78.57	330	*e*P	P	06 15 51.8	-1.0
ARUT	Antelope Range	78.80	327	P	P	06 15 55.4	+1.4
ARUT	Antelope Range	78.80	327	*e*P	P	06 15 55.5	+1.5
MSU	Marysvale	78.81	328	P	P	06 15 54.3	+0.3
MSU	Marysvale	78.81	328	*e*P	P	06 15 54.0	-0.1
MVU	Marysvale	78.82	328	*e*P	P	06 15 55.3	+1.2
	comp=Z,61nm,1.2s,mb5.4						
EBAJ	Bajamar	78.87	47	P	P	06 15 54.9	+0.2
	comp=Z,240nm,1.5s,mb5.9						
TMUT	Trail Mountain	79.02	329	*e*P	P	06 15 56.0	+0.7
EOSO	Osorio	79.05	48	P	P	06 15 56.3	+0.7
	comp=Z,0.8nm,0.2s						
RWWY	Rawlins	79.39	333	*e*P	P	06 15 58.2	+1.0
TPNV	Topopah Spring	79.48	325	P	P	06 15 58.6	+0.8
TPNV				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.5						
TPNV	Topopah Spring	79.48	325	*e*P	P	06 15 58.4	+0.6
	comp=Z,63nm,1.2s,mb5.4						
TPNV				LR	LR		
	comp=Z,781nm,19.0s,MS5.1						
DAC	Darwin (Calif)	79.64	324	P	P	06 16 00.4	+1.8
DAC				*e*	pP	06 16 15.0	+1.4
DAC				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
DAC	Darwin (Calif)	79.64	324	*e*P	P	06 15 59.8	+1.2
	comp=Z,65nm,1.3s,mb5.4						
DAC				*e*pP	pP	06 16 12.3	-1.2
MPU	Maple Canyon	79.80	330	*e*P	P	06 15 59.0	-0.4
NLU	North Lily Min	79.94	329	*e*P	P	06 15 59.6	-0.6
DRV	Dumont d'Urvil	79.96	192	S	S	06 26 09.0	+11
DAU	Daniels Canyon	79.97	330	P	P	06 16 01.5	+1.2
DAU	Daniels Canyon	79.97	330	*e*P	P	06 16 01.3	+1.1
DAU				*e*pP	pP	06 16 15.4	+0.2
JLU	Jordanelle	80.20	330	*e*P	P	06 16 00.9	-0.7
TRCR	Troy Canyon	80.26	326	*e*P	P	06 16 01.8	-0.2
EYMN	Ely	80.47	346	*e*P	P	06 16 02.4	-0.4
	comp=Z,145nm,1.0s,mb5.9						
TCUT	Toone Canyon	80.61	330	*e*P	P	06 16 03.8	+0.1
TPH	Tonopah	80.85	325	P	P	06 16 06.0	+1.0
TPH				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.5						
TPH	Tonopah	80.85	325	*e*P	P	06 16 06.0	+1.0
	comp=Z,74nm,1.3s,mb5.5						
TPH				*e*pP	pP	06 16 18.3	-1.7
MTUM	Tungsten Hills	80.96	324	*e*P	P	06 16 06.7	+1.1
MTUM				*e*pP	pP	06 16 19.4	-1.2
BOSA	Boshof	80.97	118	P	P	06 16 05.8	-0.1
EFAM	Famara	81.07	48	P	P	06 16 07.4	+1.0
	comp=Z,143nm,1.1s,mb5.8						
HWUT	Hardware Ranch	81.08	331	*e*P	P	06 16 05.2	-0.9
	comp=Z,82nm,1.0s,mb5.6						
BGU	Big Grassy Mou	81.16	329	*e*P	P	06 16 06.9	+0.3
BGU				*e*pP	pP	06 16 19.2	-2.4
SPUT	South Promonto	81.22	330	*e*P	P	06 16 07.4	+0.5
PDAR	Pinedale Array	81.23	332	P	P	06 16 07.2	+0.3
	comp=Z,13nm,0.8s,mb4.9,baz=146,slow=5.3,SNR=65						
PDAR				PKKPbc		06 34 41.7	
	comp=Z,1.4nm,0.8s,baz=262,slow=0.8,SNR=9.4						
PDAR				PKPPKP		06 42 46.6	
	comp=Z,0.8nm,1.1s,SNR=3.6						
PDAR				LR	LR	06 48 56.7	
	comp=Z,927nm,21.5s,MS5.1,baz=143,slow=33						
MNV	Mina	81.58	325	*e*P	P	06 16 09.0	+0.1
MNV				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
MNV	Mina	81.58	325	*e*P	P	06 16 09.0	+0.1
	comp=Z,29nm,1.2s,mb5.1						
NVAR	Mina Array Bea	81.66	324	P	P	06 16 09.9	+0.7
	comp=Z,48nm,1.2s,mb5.3,baz=138,slow=5.7,SNR=62						
NVAR				PKKPbc		06 34 42.5	
	comp=Z,1.8nm,0.8s,baz=336,slow=1.6,SNR=6.3						
NVAR				LR	LR	06 46 03.9	
	comp=Z,546nm,20.5s,MS4.9,baz=170,slow=31						
HVU	Hansel Valley	81.74	330	*e*P	P	06 16 09.2	-0.4
AHID	Auburn Hatcher	81.85	332	*e*P	P	06 16 10.6	+0.5
	comp=Z,62nm,1.2s,mb5.4						
ELK	Elko	82.00	328	*e*P	P	06 16 10.1	-0.9
	comp=Z,52nm,1.0s,mb5.4						
ELK				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
REDW	Red Top Meadow	82.24	332	*e*P	P	06 16 12.6	+0.5
SNOW	Snow King Moun	82.29	332	*e*P	P	06 16 12.6	+0.3
WUWY	Wally Ulrich	82.35	332	*e*P	P	06 16 13.1	+0.4
LOHW	Long Hollow	82.35	332	*e*P	P	06 16 12.8	+0.1
TPAW	Teton Pass	82.39	332	*e*P	P	06 16 13.3	+0.4
CMB	Columbia Colle	82.42	323	P	P	06 16 13.9	+0.7
CMB				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
CMB	Columbia Colle	82.42	323	*e*P	P	06 16 13.6	+0.4
	comp=Z,26nm,1.1s,mb5.1						
MOOW	Moose Ponds	82.52	332	*e*P	P	06 16 13.7	+0.2
IMW	Indian Meadow	82.72	332	*e*P	P	06 16 15.3	+0.8
LBTB	Lobatse	83.04	115	P	P	06 16 16.1	-0.4
LBTB	Lobatse	83.04	115	*e*P	P	06 16 16.1	-0.4
	comp=Z,103nm,0.7s,mb6.0						
YFT	Old Faithful	83.14	333	*e*P	P	06 16 18.3	+1.6
CASY	Casey	83.22	181	*e*P	P	06 16 18.2	+1.6
LAO	LASA Array	83.35	337	*e*P	P	06 16 17.7	0.0
	comp=Z,115nm,1.0s,mb5.9						
YMR	Madison River	83.38	333	*e*P	P	06 16 18.9	+1.0
ULM	Lac du Bonnet	83.60	344	P	P	06 16 17.4	-1.4
	comp=Z,142nm,0.9s,mb6.1,baz=159,slow=4.2,SNR=108						
ULM				PKKPbc		06 34 36.4	
	comp=Z,4.2nm,1.0s,baz=6.6,slow=5.1,SNR=4.0						
QLMT	Earthquake Lak	83.70	332	*e*P	P	06 16 20.7	+1.3
QLMT				*e*pP	pP	06 16 33.0	-1.5
HLID	Hailey	83.89	330	*e*P	P	06 16 20.6	+0.1
	comp=Z,47nm,1.1s,mb5.5						
HLID				*e*pP	pP	06 16 35.0	-0.6
HLID				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
NSHM	Saint Helena R	83.94	322	*e*P	P	06 16 22.0	+1.2
NSHM				*e*pP	pP	06 16 34.7	-1.3
DGMT	Dagmar	84.25	339	*e*P	P	06 16 21.8	-0.3
	comp=Z,330nm,0.9s,mb6.5						
MCMT	McKenzie Canyo	84.27	332	*e*P	P	06 16 22.8	+0.5
BOZ	Bozeman (W)	84.45	333	*e*P	P	06 16 23.3	+0.1
	comp=Z,9.5nm,0.9s,mb4.9						
BOZ				LR	LR		
	comp=Z,918nm,19.0s,MS5.2						
MOD	Modoc	85.30	326	*e*P	P	06 16 28.6	+1.1
	comp=Z,10nm,1.1s,mb4.9						
SCHQ	Schefferville	85.37	3	P	P	06 16 27.6	0.0
	comp=Z,182nm,1.3s,mb6.0,baz=168,slow=4.4,SNR=29						
SCHQ				LR	LR	06 54 09.1	
	comp=Z,508nm,20.1s,MS4.9,baz=15,slow=35						
HRY	Holter Researc	85.41	333	*e*P	P	06 16 27.2	-0.8
WDC	Whiskeytown Da	85.43	323	P	P	06 16 28.6	+0.4
WDC				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.3						
WDC	Whiskeytown Da	85.43	323	*e*P	P	06 16 25.6	-2.6
	comp=Z,25nm,1.1s,mb5.3						
BMO	Blue Mountains	86.18	329	*e*P	P	06 16 32.0	+0.2
	comp=Z,30nm,1.3s,mb5.4						
MSO	Missoula	86.34	332	*e*P	P	06 16 31.4	-1.1
	comp=Z,46nm,1.6s,mb5.5						
VIPM	Ingram Point	87.42	327	P	P	06 16 39.9	+2.1
BSMT	Bassoo Peak	87.50	332	P	P	06 16 38.9	+0.7
CROR	Criterion Ridg	87.95	327	P	P	06 16 42.0	+1.6
WALA	Waterton Lakes	88.14	334	*e*P	P	06 16 40.9	-0.2
	comp=Z,124nm,1.2s,mb6.0						
WIW	Wooded Island	88.28	329	P	P	06 16 43.2	+1.3
PRW	Prosser	88.29	329	P	P	06 16 43.6	+1.6
HAWA	Hanford	88.36	329	*e*P	P	06 16 42.4	+0.1
	comp=Z,40nm,1.1s,mb5.6						
RSW	Rattlesnake Hi	88.39	329	P	P	06 16 43.9	+1.5
WAH2	Wahluke Slope	88.65	329	P	P	06 16 44.7	+1.0
OD2	Odessa Site #2	88.77	330	P	P	06 16 44.7	+0.5
FFC	Flin Flon	89.20	343	*e*P	P	06 16 45.7	-0.3
	comp=Z,90nm,1.2s,mb6.0						
TBM	Table Mountain	89.43	329	P	P	06 16 48.6	+1.3
PTEO	Sao Teotonio	89.64	45	*e*P	P	06 16 49.8	+1.2
	comp=Z,79nm,1.1s,mb6.0						
PLOU	Loures	90.25	44	*e*P	P	06 16 51.9	+0.5
PBEJ	Beja	90.47	45	*e*P	P	06 16 53.4	+0.9
	comp=Z,22nm,1.1s,mb5.4						
EVO	Evora	90.70	44	*e*P	P	06 16 53.7	+0.2
	comp=Z,68nm,1.3s,mb5.5						
EVO				*e*R			
	comp=Z,2µm,23.0s						
ESPR	Espera	90.98	47	P	P	06 16 56.1	+1.2
	comp=Z,48nm,1.3s,mb5.7						
EMIN	Mina Concepcio	91.04	46	P	P	06 16 56.1	+1.0
	comp=Z,48nm,1.3s,mb5.7						
FCC	Fort Churchill	91.24	348	P	P	06 16 55.0	-0.5
FCC				pmax	pmax		
	comp=Z,130nm,1.0s,mb6.2						
FCC	Fort Churchill	91.24	348	*e*P	P	06 16 55.9	+0.4
	comp=Z,133nm,1.0s,mb6.2						
FCC				*e*pP	pP	06 17 08.3	-2.6
EBAD	Badajoz	91.45	45	P	P	06 16 57.5	+0.5
	comp=Z,15nm,1.1s,mb5.2						
EMIJ	Mijas	91.48	48	P	P	06 16 59.0	+1.8
	comp=Z,42nm,1.4s,mb5.6						
PCBR	Castelo Branco	91.86	44	*e*P	P	06 16 58.9	0.0
	comp=Z,21nm,1.3s,mb5.3						
PVIS	Viseu	92.17	43	*e*P	P	06 17 00.6	+0.3
	comp=Z,22nm,1.3s,mb5.3						
MTE	Manteigas	92.17	43	*e*P	P	06 17 00.6	+0.3
	comp=Z,27nm,1.1s,mb5.5						
MTE	Manteigas	92.17	43	*e*P	P	06 17 00.4	+0.1
ELOJ	Sierra Loja	92.23	47	P	P	06 17 02.1	+1.4
	comp=Z,4.9nm,0.9s,mb4.8						
ELUQ	Luque	92.41	47	P	P	06 17 02.7	+1.3
	comp=Z,22nm,1.1s,mb5.4						
EADA	Adamuz	92.58	46	P	P	06 17 02.9	+0.7
	comp=Z,7.3nm,1.0s,mb5.1						
PVRL	Vila Real	92.63	42	*e*P	P	06 17 02.9	+0.5
	comp=Z,37nm,1.2s,mb5.7						
ELOB	Lobios	92.81	42	P	P	06 17 02.3	-0.9
	comp=Z,42nm,1.5s,mb5.6						
EQES	Quesada	93.31	47	P	P	06 17 07.3	+1.8
	comp=Z,10nm,1.0s,mb5.2						
PBRG	Braganca	93.53	43	*e*P	P	06 17 06.9	+0.4
	comp=Z,18nm,1.3s,mb5.3						
ECAL	Calabor	93.62	42	P	P	06 17 06.2	-0.6
	comp=Z,48nm,1.4s,mb5.7						

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ERUA  La Rua             93.67  42  P        P        06 17 06.2 -0.9
      comp=Z,20nm,1.4s,mb5.4
EINC  Incio              93.72  42  P        P        06 17 06.4 -0.9
      comp=Z,20nm,1.2s,mb5.4
ESDC  Sonseca Array      93.88  46  P        P        06 17 09.1 +1.0
      comp=Z,6.6nm,0.9s,mb5.1,baz=248,slow=4.0,SNR=24
ESDC  Sonseca Array      93.88  46  P        P        06 17 09.1 +1.0
      comp=Z,6.0nm,0.9s,mb5.0
EVIA  Vianos             94.17  47  P        P        06 17 11.0 +1.6
      comp=Z,20nm,1.0s,mb5.5
EARI  Arriondas          95.35  42  P        P        06 17 13.9 -0.8
      comp=Z,47nm,1.5s,mb5.7
ELAN  Lanestosa          96.34  43  P        P        06 17 18.7 -0.5
      comp=Z,38nm,1.0s,mb5.8
EMOS  Mosqueruela        96.45  47  P        P        06 17 21.2 +1.5
      comp=Z,144nm,1.8s,mb6.1
EIBI  Ibiza              96.84  48  P        P        06 17 23.9 +2.3
      comp=Z,36nm,0.8s,mb5.8
ERTA  Horta de San J     97.29  46  P        P        06 17 25.5 +1.9
      comp=Z,138nm,1.4s,mb6.2
SJPF  Ste Jean           97.57  44  eP       P        06 17 25.6 +0.8
      comp=Z,64nm,1.1s,mb5.8
ETSF  Etsaut             97.85  44  eP       P        06 17 25.3 -0.8
      comp=Z,48nm,1.1s,mb5.6
YKA   Yellowknife Ar     99.25 341  P        P        06 17 31.9  0.0
      comp=Z,5.7nm,0.7s,mb5.2,baz=144,slow=4.6,SNR=67
YKA                                 PKKPbc            06 33 56.3
      comp=Z,0.3nm,0.4s,baz=322,slow=3.9,SNR=7.3
YKA   Yellowknife Ar     99.25 341  P        P        06 17 31.9  0.0
YKA                                 PKKPbc            06 33 56.3
QUIF  Quistinic          99.27  39  eP       P        06 17 32.0 -0.3
      comp=Z,34nm,1.0s,mb5.5
YKW3  Yellowknife Ar     99.31 341  eP       P        06 17 32.1 -0.1
YKW3                                epP      pP       06 17 45.9 -1.7
ROSF  Rostrenen          99.46  39  eP       P        06 17 32.9 -0.3
      comp=Z,59nm,1.2s,mb5.7
LFF   La Frestale        99.78  43  eP       P        06 17 35.0 +0.2
      comp=Z,58nm,1.1s,mb5.6
MTLF  Montolieu          99.78  45  eP       P        06 17 34.3 -0.5
MFF   Saint Martin d    100.19  42  eP       P        06 17 36.7 +0.1
      comp=Z,52nm,1.1s
RJF   Les Rejaudoux     100.44  43  eP       P        06 17 37.6 -0.1
RJF                                 eR
      comp=Z,3µm,22.8s
CAF   Calviac           100.56  44  eP       P        06 17 37.8 -0.5
      comp=Z,30nm,1.1s
GRR   Gorron            100.80  40  eP       P        06 17 38.7 -0.6
      comp=Z,30nm,0.9s
FLN   La Foliniere      101.22  40  eP       P        06 17 40.9 -0.2
      comp=Z,29nm,1.0s
FLN                                 eR
      comp=Z,1µm,22.2s
LDF   La Druitiere      101.32  40  eP       P        06 17 41.2 -0.4
      comp=Z,38nm,1.1s
TCF   Toulx Ste Croi    101.38  43  eP       P        06 17 41.7 -0.2
VIVF  Saint-Julien-l    102.09  45  eP       Pdif     06 17 45.8 +0.7
      comp=Z,95nm,1.8s
AVF   Avril sur Loir    102.32  43  eP       Pdif     06 17 46.4 +0.3
SMF   Signal de Mont    102.53  43  eP       Pdif     06 17 47.3 +0.3
      comp=Z,29nm,0.9s
SSF   Saint Saulge      102.55  43  eP       Pdif     06 17 46.6 -0.5
      comp=Z,42nm,1.4s
ORIF  Oris-en-Rattie    102.85  45  eP       Pdif     06 17 49.5 +1.0
      comp=Z,36nm,1.1s
ORIF                                eR
      comp=Z,2µm,19.2s
MBDF  Montbardon        103.31  46  eP       Pdif     06 17 50.6 +0.1
LPL   La Plagne         103.68  45  eP       Pdif     06 17 53.6 +1.5
      comp=Z,11nm,0.9s
LPG   La Plagne         103.68  45  eP       Pdif     06 17 53.5 +1.4
      comp=Z,20nm,1.1s
CABF  La Chapelle       103.84  44  eP       Pdif     06 17 53.2 +0.4
      comp=Z,22nm,1.1s
HAU   Haudompre         104.69  43  eP       Pdif     06 17 56.5  0.0
HAU                                 eR
      comp=Z,901nm,21.8s
GIVF  Givet             104.86  40  eP       Pdif     06 17 57.5 +0.3
      comp=Z,28nm,1.2s
HINF  Hinteralfeld      104.89  43  eP       Pdif     06 17 57.4  0.0
CDF   Champ du Feu      105.43  43  eP       Pdif     06 17 59.9 +0.2
MOX   Moxa              108.96  42  eP                06 22 22.0
      comp=Z,logA/T=1.2
MOX                                 PP       PP       06 22 44.0 -7.4
MOX                                 L                 07 07 25.0
GERES GERESS Array B    109.42  44  PKiKP             06 22 21.2
      comp=Z,1.1nm,0.7s,baz=180,slow=1.3,SNR=7.3
GERES                               PKKPbc            06 33 26.2
      comp=Z,0.4nm,0.6s,baz=34,slow=4.8,SNR=5.4
CLL   Collm             110.04  42  ePP      PP       06 22 53.0 -6.0
CLL   Collm             110.04  42  e*PPKP            06 22 36.0
CLL                                 ePP      PP       06 22 53.0 -6.0
STKA  Stephens Creek    110.32 209  PKKPbc            06 33 21.4
      comp=Z,1.7nm,0.7s,baz=288,slow=22,SNR=3.0
ILAR  Eielson Array     111.64 333  Pdiff    Pdif     06 18 27.0 +0.3
      comp=Z,1.0nm,1.0s,baz=158,slow=4.1,SNR=5.9
ILAR                                PKiKP             06 22 24.1
      comp=Z,1.2nm,0.9s,baz=169,slow=0.6,SNR=6.5
ILAR                                PKKPbc            06 33 17.7
      comp=Z,2.6nm,1.1s,baz=314,slow=3.7,SNR=12
SKO   Skopje            111.70  53  ePKP     PP       06 23 06.5 -4.3
DAG   Danmarks Havn     112.06  11⇓iP      PP       06 23 08.0 -4.6
      comp=Z,4.2nm,0.9s
COLA  College           112.06 333  i PKIKP  PKPdf    06 22 25.4 +1.5
MLR   Muntele Rosu      115.98  51  PKP      PKPdf    06 22 33.5 +1.4
      comp=Z,24nm,1.4s,baz=30,slow=4.6
MLR                                 PP       PP       06 23 37.3 -4.4
      comp=Z,27nm,1.1s,baz=320,slow=5.3,SNR=9.1
MLR                                 PKKPab            06 33 11.7
      comp=Z,4.7nm,1.1s,baz=123,slow=9.5,SNR=3.8
AKASG Malin Array Be    119.52  46  PKP      PKPdf    06 22 39.0 +0.2
      comp=Z,3.1nm,0.6s,baz=268,slow=2.7,SNR=20
AKASG                               PP       PP       06 23 59.9 -6.0
      comp=Z,1.4nm,0.8s,baz=251,slow=8.7,SNR=4.6
AKASG                               PKKPab            06 32 51.6
      comp=Z,1.0nm,0.6s,baz=60,slow=4.1,SNR=5.2
BRTR  Keskin Array B    119.67  59  PKP      PKPdf    06 22 40.6 +1.2
      comp=Z,2.1nm,0.9s,baz=180,slow=1.2,SNR=4.8
BRTR                                PP       PP       06 24 02.9 -4.1
      comp=Z,8.4nm,1.1s,baz=233,slow=6.2,SNR=8.5
FINES FINESS Array B    119.98  33  PKKPbc            06 32 50.1
      comp=Z,1.4nm,0.6s,baz=90,slow=3.8,SNR=8.4
ASAR  Alice Springs     120.71 207  PKP      PKPdf    06 22 41.9 +0.1
      comp=Z,7.2nm,0.8s,baz=152,slow=2.3,SNR=41
ASAR                                PKKPbc            06 32 47.9
      comp=Z,2.9nm,0.7s,baz=338,slow=3.3,SNR=19
ASPA  Alice Springs     120.71 207  eP       PKPdf    06 22 41.8  0.0
ARCES ARCESS Array B    120.84  24  PKKPbc            06 32 46.8
      comp=Z,4.3nm,0.6s,baz=76,slow=5.0,SNR=21
ANN   Anapa             123.65  54  i PKIKP  PKPdf    06 22 42.7 -4.3
ANN                                 pmax     pmax
      comp=Z,56nm,1.7s
WB2   Warramunga Arr    123.86 209  eP       PKPdf    06 22 48.4 +0.4
WRA   Warramunga Arr    123.87 209  PKP      PKPdf    06 22 48.8 +0.9
      comp=Z,21nm,1.0s,baz=157,slow=1.6,SNR=59
WRA                                 PKKPbc            06 32 34.5
      comp=Z,2.5nm,0.7s,baz=340,slow=4.4,SNR=16
WRA                                 PKKP     PKKP     06 33 07.0 +0.7
      comp=Z,0.9nm,0.9s,baz=334,slow=4.2,SNR=4.7
WRA                                 PKPPKP            06 41 27.4
      comp=Z,0.6nm,0.7s,baz=340,slow=11,SNR=4.5
WRAB  Tennant Creek     123.87 209  PKIKP    PKPdf    06 22 48.5 +0.5
WRAB                                e                 06 23 02.5
WRAB  Tennant Creek     123.87 209  eP       PKPdf    06 22 47.8 -0.2
WRAB                                epP               06 23 02.3
OBN   Obninsk           124.64  42  i PKIKP  PKPdf    06 22 49.4 +0.9
OBN                                 i                 06 23 02.6
OBN                                 pmax     pmax
      comp=Z,47nm,1.3s
OBN                                 MLR      MLR
      comp=Z,1µm,20.0s,MS5.5
SOC   Sochi             125.02  56  i PKIKP  PKPdf    06 22 52.1 +2.5
SOC                                 e                 06 24 43.8
SOC                                 ePPP     PPP      06 27 22.1 -1.2
SOC                                 eSS      SS       06 41 54.2  +22
SOC                                 eSSS     SSS      06 46 16.6 +4.9
SOC                                 pmax     pmax
      comp=Z,25nm,1.0s
SOC                                 pmax     pmax
      comp=N,35nm,1.2s
SOC                                 pmax     pmax
      comp=E,39nm,1.1s
PMG   Port Moresby      125.63 229  PKP      PKPdf    06 22 52.9 +1.4
      comp=E,22nm,1.0s,baz=202,slow=3.5,SNR=12
PMG   Port Moresby      125.63 229  ePKPdf   PKPdf    06 22 52.5 +1.0
VRSR  Storozhevoye      125.82  47  ePKIKP   PKPdf    06 22 51.0 +0.1
VRSR                                e                 06 24 45.5
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VRSR                                eSS      SS       06 41 46.1 +4.5
VRSR                                pmax     pmax
      comp=Z,20nm,1.3s
VRSR                                pmax     pmax
      comp=N,7.0nm,0.7s
VRSR                                pmax     pmax
      comp=E,10.0nm,1.4s
KIV   Kislovodsk        127.20  56  i PKIKP  PKPdf    06 22 54.0 +0.2
KIV                                 e                 06 24 57.2
KIV                                 e                 06 29 58.3
KIV                                 pmax     pmax
      comp=N,9.0nm,1.2s
KIV                                 pmax     pmax
      comp=E,17nm,1.2s
KIV                                 pmax     pmax
      comp=Z,19nm,1.2s
MBWA  Marble Bar        127.27 193  ePKPdf   PKPdf    06 22 54.3 -0.2
SMY   Shemya            128.51 315  P        Pdif     06 19 40.7 -0.5
FITZ  Fitzroy Crossi    128.73 201  eP       PKPdf    06 22 58.0 +0.6
      comp=Z,23nm,0.9s
KAKA  Kakadu            131.10 211  eP       PKPdf    06 23 03.3 +1.3
      comp=Z,36nm,1.2s
ARU   Arti              136.87  39  i PKIKP  PKPdf    06 23 12.6 +1.0
ARU                                 eSS      SS       06 43 59.3 +2.7
ARU                                 MLR      MLR
      comp=Z,1µm,21.0s,MS5.5
ARU                                 MLR      MLR
      comp=N,100nm,22.0s,MS5.3
ARU                                 MLR      MLR
      comp=E,600nm,23.0s,MS5.3
ARU   Arti              136.87  39  eP       PKPdf    06 23 13.1 +1.5
TIXI  Tiksi             137.67 351  i PKIKP  PKPdf    06 23 13.8 +1.1
TIXI                                pmax     pmax
      comp=Z,12nm,1.0s
MA2   Magadan           139.81 328  ePKHKP            06 22 54.9
MA2                                 e                 06 36 44.7
CHKZ  Chkalovo          144.32  39  PKIKP    PKPdf    06 23 24.2 -0.6
CHKZ                                pmax     pmax
      comp=Z,229nm,1.4s
CHKZ  Chkalovo          144.32  39  eP       PKPbc    06 23 23.9 -0.5
BRVK  Borovoye          144.38  40  ePKIKP   PKPdf    06 23 24.7 -0.2
BVA0  Borovoye Array    144.46  40  i PKIKP  PKPdf    06 23 24.8 -0.3
BVA0                                pmax     pmax
      comp=Z,6.0nm,0.7s
BOM   Bombay            145.45 102  ePKP     PKPdf    06 23 30.4 +2.6
BOM                                 e                 06 27 28.5
      comp=Z,130nm,1.2s
KAD   Karad             145.85 105⇑iPKP    PKPdf    06 23 31.7 +3.2
YAK   Yakutsk           145.92 343  ePKIKP   PKPdf    06 23 27.0 -0.3
YAK                                 e*PP              06 23 42.0
YAK                                 eS       PP       06 26 50.0 -3.5
YAK                                 pmax     pmax
      comp=Z,215nm,0.9s
YAK   Yakutsk           145.92 343  ePKPdf   PKPdf    06 23 28.3 +1.0
YAK                                 ePKPbc   PKPbc    06 23 29.1 +0.8
POO   Poona             146.16 103⇑iPKP    PKPdf    06 23 29.5 +0.5
      comp=Z,320nm,1.0s
JASL  Jaisalmer         146.74  87  ePKP     PKPdf    06 23 28.6 -1.2
MDRS  Chennai           148.36 118  e        PKPdf    06 23 37.0 +4.3
YSS   Yuzh-Sakhalins    149.30 311⇓iPKP2   PKPab    06 23 39.0 -5.6
HYB   Hyderabad         149.50 109⇑eP      PKPdf    06 23 40.5 +6.0
HYB   Hyderabad         149.50 109⇑iPKP    PKPdf    06 23 40.5 +6.0
      comp=Z,150nm,1.0s
HYB                                 ePKPAB   PKPab    06 23 46.0 -0.3
HYB                                 epPKP             06 23 54.0
HYB                                 esPKP             06 24 00.0
HYB                                 ePP      tx       06 24 16.0
EKS2  Erkin-Say         149.79  57  P        PKPdf    06 23 41.8 +7.5
      SNR=29
EKS2  Erkin-Say         149.79  57  ePKPdf   PKPdf    06 23 36.3 +2.0
EKS2                                ePKPbc   PKPdf    06 23 41.2 +6.9
EKS2                                e                 06 27 13.8
AKL   Akola             149.80 102⇑iPKP    PKPdf    06 23 41.0 +6.1
      comp=Z,130nm,1.3s
AKL                                 i                 06 23 48.0
AML   Almayashu         149.83  58  P        PKPdf    06 23 41.9 +7.6
      SNR=20
AML   Almayashu         149.83  58  ePKPdf   PKPdf    06 23 36.7 +2.3
AML                                 ePKPbc   PKPdf    06 23 41.5 +7.1
AML                                 ePKPab   PKPab    06 23 46.9 -0.1
AJM   Ajmer             149.83  90⇑iPKP    PKPdf    06 23 41.0 +6.2
NVS   Novosibirsk       149.87  30  i PKP2   PKPab    06 23 39.8 -6.9
NVS                                 pmax     pmax
      comp=Z,220nm,1.1s
NVS                                 pmax     pmax
      comp=N,12nm,0.9s
NVS                                 pmax     pmax
      comp=E,60nm,1.3s
KURK  Kurchatov         150.05  40  i PKHKP           06 23 35.8
KURK  Kurchatov         150.05  40  ePKPdf   PKPdf    06 23 35.8 +1.4
KURK                                ePKPbc   PKPdf    06 23 41.1 +6.7
KURK                                ePKPab   PKPab    06 23 47.8 +0.3
USP   Ospenovka         150.18  56  P        PKPdf    06 23 37.4 +2.6
      SNR=27
ASAJ  Asahikawa         150.25 306  PKPbc    PKPdf    06 23 42.0 +7.1
      comp=E,53nm,1.0s,baz=247,slow=6.2,SNR=7.1
AAK   Ala-Archa         150.31  57  P        PKPdf    06 23 43.2 +8.1
      SNR=41
AAK   Ala-Archa         150.31  57  ePKIKP   PKPdf    06 23 36.4 +1.3
AAK                                 e                 06 23 41.8
AAK                                 e                 06 23 48.5
FRU   Bishkek           150.36  57⇑iPKIKP  PKPdf    06 23 43.0 +7.9
FRU                                 pmax     pmax
      comp=Z,390nm,2.3s
UCH   Uchtor            150.41  58  P        PKPdf    06 23 37.8 +2.5
      SNR=5.9
UCH   Uchtor            150.41  58  ePKPdf   PKPdf    06 23 37.9 +2.6
UCH                                 ePKPbc   PKPdf    06 23 42.9 +7.7
CHMS  Chumysh           150.42  56  P        PKPdf    06 23 42.9 +7.7
      SNR=25
CBIJ  Chichi jima       150.57 271  PKPbc    PKPdf    06 23 41.1 +5.2
      comp=Z,146nm,0.9s,baz=306,slow=21,SNR=4.6
KZA   Kyzart            150.97  58  P        PKPdf    06 23 44.9 +8.8
      SNR=19
TKM2  Tokmak 2          151.04  56  P        PKPdf    06 23 38.6 +2.5
      SNR=5.8
TKM2  Tokmak 2          151.04  56  ePKPdf   PKPdf    06 23 37.8 +1.6
TKM2                                ePKPbc   PKPdf    06 23 43.8 +7.7
TKM2                                ePKPab   PKPab    06 23 51.5 -0.5
TKM2                                ePP      PP       06 27 22.3 -1.5
ZAL   Zalesovo          151.15  30  PKP      PKPdf    06 23 37.9 +1.9
      comp=Z,4.2nm,0.8s,baz=224,slow=2.2,SNR=18
ZAL                                 PKPbc    PKPdf    06 23 44.0 +8.1
      comp=Z,82nm,0.7s,baz=176,slow=2.7,SNR=150
ZAL   Zalesovo          151.15  30  PKIKP    PKPdf    06 23 37.8 +1.9
ZAL                                 P                 06 23 44.0
BHPL  Bhopal            151.17  97  ePKP     PKPdf    06 23 40.0 +3.0
BHPL                                e                 06 35 40.4
BHPL                                e                 06 48 09.2
BHPL                                e                 07 39 10.7
      comp=Z,416nm,20.8s
KHET  Khetri            151.24  87  ePKP     PKPdf    06 23 38.5 +1.5
ULHL  Ulahol            151.66  57  P        PKPdf    06 23 46.7  +10
      SNR=17
THN   Thein Dam         151.89  78  ePKPb    PKPdf    06 23 44.8 +7.0
      comp=Z,1.4nm,1.4s
THN                                 e                 06 27 12.5
KSH   Kashi             151.96  63  ePKP     PKPdf    06 23 40.2 +2.6
KSH                                 ePKP2    PKPab    06 24 01.3 +5.4
KSH                                 ePKS     PKS      06 27 12.7 +1.5
KSH                                 ePP      PP       06 27 35.8 +7.3
KSH                                 eSKS     SKS      06 30 42.3 +4.5
KSH                                 ePPP     PPP      06 31 05.3 +8.6
KSH                                 PP       PP
      comp=Z,460nm,7.2s
RTK   Rohtak            151.97  85  ePKP     PKPdf    06 23 39.9 +1.9
BHK   Bhakra            152.37  80  e        PKPab    06 23 57.7 -0.2
SONA  Sohna             152.38  87⇓iPKP    PKPdf    06 23 40.6 +2.0
AYAN  Aya Nagar         152.47  87⇓iPKP    PKPdf    06 23 40.9 +2.1
NDI   New Delhi         152.59  86  e        PKPdf    06 23 46.0 +7.1
      comp=Z,80nm,1.0s
NDI                                 e                 06 27 33.0
BOD   Bodaibo           152.75 354  ePKIKP   PKPdf    06 23 45.4 +7.2
BOD                                 e                 06 23 56.2
SDNR  Sundarnagar       152.84  80  ePKPb             06 23 47.2
AGRA  Agra              152.88  90  ePKP     PKPdf    06 23 41.2 +1.9
AGRA                                e                 06 23 59.2
IPM   Ipoh              152.92 163⇓eP      PKPdf    06 23 48.0 +8.2
      comp=Z,39nm,0.7s
VIS   Vishakhapatnam    153.50 114  ePKPb             06 24 02.5
DDI   Dehra Dun         153.61  83  ePKP     PKPdf    06 23 41.6 +1.4
KLP   Kalpa             153.94  80⇓iPKP    PKPdf    06 23 44.1 +3.4
KALG  Kalgarh           154.07  85  ePKP     PKPdf    06 23 39.0 -1.9
MKAR  Makanchi Array    154.09  44  i PKIKP  PKPdf    06 23 41.6 +1.3
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MKAR                                pmax     pmax
      comp=Z,94nm,1.1s
MAJO  Matsushiro        154.88 291  ePKP2    PKPab    06 24 07.9 -0.4
MAT   Matsushiro        154.88 291  PKP      PKPdf    06 23 40.0 -1.7
MAT   Matsushiro        154.88 291  ePKP     PKPdf    06 23 40.0 -1.7
SNG   Songkhla          155.29 160  P        PKPab    06 24 09.0 -1.7
      comp=Z,372nm,1.0s
PTH   Pithoragarh       155.33  86  ePKPb             06 23 52.2
PTH                                 e                 06 27 48.0
KOLN  Koldanda          157.88  92  eP       PKPdf    06 23 47.4 +1.5
      comp=Z,56nm,1.5s
MOY   Mondy             158.38  13  ePKP2    PKPab    06 24 23.4 +0.5
MDJ   Mudanjiang        158.58 316  PKP      PKPdf    06 23 47.5 +1.2
MDJ                                 PP       PP       06 28 02.1 -3.4
MDJ                                 LR       LR
      comp=N,290nm,26.1s,MS5.0
MDJ                                 LR       LR
      comp=E,168nm,27.8s,MS5.0
MDJ                                 LR       LR
      comp=Z,463nm,26.1s,MS5.2
TLY   Talaya            158.80   9  i PKP2   PKPab    06 24 24.6 -0.1
TLY                                 e                 06 28 01.4
TLY                                 pmax     pmax
      comp=Z,22nm,1.0s
GKN   Gorkha            158.82  91  eP       PKPdf    06 23 48.6 +1.5
      comp=Z,67nm,1.4s
GKN   Gorkha            158.82  91  ePKPdf   PKPdf    06 23 48.4 +1.3
WMQ   Urumqi            158.88  46  PKP      PKPdf    06 23 48.4 +1.7
WMQ                                 PKP2     PKPab    06 24 27.0 +1.7
WMQ                                 PP       PP       06 28 08.9 +1.9
WMQ                                 PP       PP
      comp=Z,235nm,10.9s
WMQ                                 LR       LR
      comp=N,793nm,29.2s,MS5.5
WMQ                                 LR       LR
      comp=E,705nm,30.2s,MS5.5
WMQ                                 LR       LR
      comp=Z,523nm,28.4s,MS5.2
DMN   Daman             159.13  93  eP       PKPdf    06 23 48.6 +1.1
KKN   Kakani            159.32  92  eP       PKPdf    06 23 48.3 +0.6
PKI   Pulchoki          159.38  93  eP       PKPdf    06 23 49.3 +1.6
      comp=Z,60nm,1.6s
GUN   Gumba             159.87  92  eP       PKPdf    06 23 50.1 +1.8
      comp=Z,137nm,1.8s
ZAK   Zakamensk         160.02  10  ePKIKP   PKPdf    06 23 49.6 +1.9
CN2   Changchun         161.47 319  ePKP     PKPdf    06 23 51.8 +2.4
CN2                                 PP       PP       06 28 23.2 +2.3
CN2                                 LR       LR
      comp=N,390nm,19.0s
CN2                                 LR       LR
      comp=E,550nm,19.0s
CN2                                 LR       LR
      comp=Z,660nm,20.0s
SONM  Songino Array     162.90   5  PKP      PKPdf    06 23 51.1 +0.4
      comp=Z,1.4nm,0.8s,baz=45,slow=1.7,SNR=6.8
SONM                                PKPab    PKPab    06 24 43.0 +0.5
      comp=Z,11nm,0.9s,baz=326,slow=4.5,SNR=17
SONM                                PP       PP       06 28 27.7 -0.2
      comp=Z,13nm,1.1s,baz=315,slow=1.7,SNR=13
ULN   Ulaanbaatar       162.91   4  ePKIKP   PKPdf    06 23 52.1 +1.4
NST   Nakhon Sawan      163.00 150  P        PKPab    06 24 43.0 -0.9
SHL   Shillong          164.25 105  ePKP     PKPdf    06 23 54.7 +2.0
CMAR  Chiang Mai Arr    164.83 142  PKP      PKPdf    06 23 55.5 +2.1
      comp=Z,2.7nm,0.8s,baz=262,slow=1.9,SNR=16
CMAR                                PKPab    PKPab    06 24 51.0 -0.8
      comp=Z,23nm,1.1s,baz=227,slow=4.5,SNR=22
CHG   Chiang Mai        165.12 141 ⇓P       PKPab    06 24 52.5 -0.6
      comp=Z,53nm,1.2s
IMP   Imphal            165.59 111⇑i       PKPab    06 24 56.0 +1.0
NANT  Nan               166.00 147  P        PKPab    06 24 56.0 -0.9
QIZ   Qiongzhong        168.23 185  PKP      PKPdf    06 23 57.8 +1.8
QIZ                                 LR       LR
      comp=E,327nm,24.0s
QIZ                                 LR       LR
      comp=Z,462nm,23.0s
GTA   Gaotai            168.73  38  ePKP     PKPdf    06 23 57.6 +1.9
GTA                                 PKP2     PKPab    06 25 09.4 +1.2
GTA                                 PKS      PKS      06 27 28.7 +1.3
GTA                                 PP       PP       06 28 59.5 +1.1
GTA                                 SKS      SKS      06 30 56.3 +3.9
GTA                                 PP       PP
      comp=Z,343nm,6.5s
GTA                                 LR       LR
      comp=N,484nm,24.3s
GTA                                 LR       LR
      comp=E,542nm,24.3s
GTA                                 LR       LR
      comp=Z,633nm,24.3s
BJI   Beijing           168.97 329  PKP      PKPdf    06 23 56.9 +1.1
BJI                                 PKP2     PKPab    06 25 07.4 -1.9
BJI                                 PP       PP       06 28 59.0 -0.6
BJI                                 LR       LR
      comp=N,555nm,19.7s
BJI                                 LR       LR
      comp=E,482nm,21.6s
BJI                                 LR       LR
      comp=Z,926nm,23.5s
SSE   Sheshan           169.31 275  PKP      PKPdf    06 23 57.0 +0.7
SSE                                 PP       PP
      comp=Z,151nm,5.9s
SSE                                 LR       LR
      comp=N,295nm,25.3s
SSE                                 LR       LR
      comp=E,178nm,25.3s
SSE                                 LR       LR
      comp=Z,568nm,25.9s
QZH   Quanzhou          169.51 239  ePKP     PKPdf    06 23 54.3 -2.3
NJ2   Nanjing           171.27 281  ePKP     PKPdf    06 23 58.9 +1.4
NJ2                                 SKS      SKS      06 30 57.0 +3.2
NJ2                                 LR       LR
      comp=Z,1µm,27.8s
KMI   Kunming           172.24 135  ePKP     PKPdf    06 23 59.1 +0.9
KMI                                 PKP2     PKPab    06 25 20.7 -3.5
KMI                                 PP       PP       06 29 12.0 -4.4
KMI                                 LR       LR
      comp=N,279nm,22.9s
KMI                                 LR       LR
      comp=E,389nm,26.9s
KMI                                 LR       LR
      comp=Z,748nm,29.9s
KMI   Kunming           172.24 135  ePKP     PKPdf    06 23 59.1 +0.9
KMI                                 pPKP              06 24 08.6
KMI                                 sPKP              06 24 11.8
KMI                                 PKPab    PKPab    06 25 20.7 -3.5
KMI                                 PP       PP       06 29 12.0 -4.4
KMI                                 SKKS              06 35 54.7
KMI                                 SS       SS       06 50 11.8 -7.2
KMI                                 SSS      SSS      06 56 58.6  -12
KMI                                 LR       LR
      comp=Z,750nm,29.9s
LZH   Lanzhou           173.33  37  PKP      PKPdf    06 24 01.1 +2.7
LZH                                 PKP2     PKPab    06 25 29.5 +0.8
LZH                                 LR       LR
      comp=N,2µm,19.0s
LZH                                 LR       LR
      comp=Z,2µm,21.0s
LZH   Lanzhou           173.33  37  PKP      PKPdf    06 24 01.1 +2.7
LZH                                 pPKP              06 24 16.5
LZH                                 sPKP              06 24 27.9
GYA   Guiyang           175.30 157  PKP      PKPdf    06 24 01.1 +1.9
GYA                                 PKP2     PKPab    06 25 30.8 -7.0
GYA                                 PP       PP
      comp=Z,450nm,7.5s
GYA                                 LR       LR
      comp=N,2µm,25.5s
GYA                                 LR       LR
      comp=E,2µm,24.9s
GYA                                 LR       LR
      comp=Z,890nm,24.3s
CD2   Chengdu           175.71  87  PKP      PKPdf    06 24 01.2 +2.0
CD2                                 PKP2     PKPab    06 25 39.9 +0.5
CD2                                 PP       PP       06 29 31.4 -2.1
CD2                                 PPP      PPP      06 33 50.3  0.0
CD2                                 SKKS              06 36 19.9
CD2                                 PP       PP
      comp=Z,600nm,9.6s
CD2                                 LR       LR
      comp=N,230nm,22.2s
CD2                                 LR       LR
      comp=Z,400nm,26.4s
XAN   Xi’an             176.77 357  PKP      PKPdf    06 24 01.0 +1.6
ENH   Enshi             179.17 231  eP       PKPdf    06 24 01.2 +1.4
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*NEIC **08** 06:32:53.3, 15.29N×94.27W, h16^{km}, MD4.2(MEX), After MEX.*

MEX 08 06:32:53.0±1.4**, 15.22N×94.27W, h16^{km}**±24^{km}**, MD4.2, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	1.86	287	iP	Pn	06 33 20.9	-3.7
HUIG				iS	Sn	06 33 41.4	-6.4
CMIG	Matias Romero	1.96	343	iP	Pn	06 33 22.9	-3.1
CMIG				iS	Sn	06 33 42.0	-8.4
CMIG	Matias Romero	1.96	343	iP	Pn	06 33 23.3	-2.7
CMIG				iS	Sn	06 33 43.8	-6.6
SCX	San Cristobal	2.18	46	iP	Pn	06 33 27.0	-2.2
CCIG	Comitan	2.31	62	iP	Pn	06 33 26.9	-4.1
CCIG				iS	Sn	06 33 53.2	-6.2

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*NEIC **08** 06:39:18.7, 17.20N×100.63W, h20^{km}, MD3.9(MEX), After MEX.*

MEX 08 06:39:18.7±1.3**, 17.21N×100.62W, h20^{km}**±37^{km}**, MD3.9, 2C, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.37	115	⇑iP	Pb	06 39 25.1	-1.4
CAIG				iS	Sb	06 39 31.2	-0.6
CAIG	El Cayaco	0.37	115	⇑iP	Pb	06 39 25.1	-1.4
CAIG				iS	Sb	06 39 31.0	-0.8
ACX	Acapulco	0.75	117	iP	Pb	06 39 31.7	-1.3
ACX				iS	Sb	06 39 39.2	-3.5
ZIIG	Zihuatanejo	0.90	296	iP	Pb	06 39 32.9	-2.6
ZIIG				iS	Sb	06 39 42.9	-4.1
PLIG	Platanillo	1.59	42	iP	Pn	06 39 42.3	-3.8
PLIG				iS	Sn	06 40 02.0	-4.1
PLIG				iS	Sn	06 40 03.3	-2.8
CRX	Cerrillo	2.36	22	eP	Pn	06 39 58.0	+0.9
UNM	Universidad Na	2.51	33	eP	Pn	06 39 57.5	-1.8
PPM	Popocatepetl	2.65	45	eP	Pn	06 39 57.5	-3.7
PPM				iS	Sn	06 40 30.7	-2.4
PPM	Popocatepetl	2.65	45	eP	Pn	06 39 56.4	-4.8
PPM				eP		06 39 56.9	
PPM				eP		06 39 57.5	
PPM				iS	Sn	06 40 30.7	-2.4
VHO	Vista Hermosa	3.72	92	iP	Pn	06 40 24.2	+7.7
VHO				iS	Sn	06 40 55.7	-4.5
OXX	Oaxaca	3.73	91	eP	Pn	06 40 20.0	+3.4

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*NIED **08** 06:56:00, 42.10N×144.30E, h29^{km}, Mw3.8 Best double couple: M$_0$5.95×10^{14} NP1:φ$_s$37°, δ62°, λ65°. NP2:φ$_s$262°, δ37°, λ128°.*

JMA 08 06:56:23.6±0.1**, 42.14N×144.31E, h53^{km}**±2^{km}**, M3.5, 3D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOB	Onbets	0.84	335	⇓P	P	06 56 39.8	+0.4
JCH	Churui	0.85	304	⇓P	P	06 56 39.8	+0.3
JCH				eS	S	06 56 51.0	-0.3
JEM	Erimo	0.87	262	P	P	06 56 39.9	+0.2
JAK	Akkeshi	0.90	18	P	P	06 56 40.4	+0.2
JAK				eS	S	06 56 52.1	-0.5
JNBK	Urakawa-nobuka	1.17	277	P	P	06 56 43.8	-0.1
JAR	Ashorobuto	1.22	341	⇓P	P	06 56 44.8	+0.1
JAR				eS	S	06 57 00.9	+0.5
JNK	Nakash	1.48	12	P	P	06 56 47.8	-0.6
JNK				eS	S	06 57 06.0	-0.7
JBT2	Biratori 2	1.57	295	P	P	06 56 49.0	-0.7
NEM2	Nemuro 2	1.62	40	P	P	06 56 50.4	+0.1
NEM2				eS	S	06 57 09.5	-0.6
JFR	Furan	1.63	310	P	P	06 56 50.5	0.0

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*NEIC **08** 07:03:14.6, 25.52S×71.07W, h22^{km}, ML4.0(GUC), After GUC.*

GUC 08 07:03:14.6±1.0**, 25.52S×71.07W, h22^{km}**±13^{km}**, ML4.0, 4C-1D, Off coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	Cerro Paranal	1.08	34	⇑iP	Pb	07 03 34.2	-0.2
CPN1				iS	Sb	07 03 48.4	+0.4
CPN1				AMP		07 03 51.9	
	comp=E,5µm,0.5s						
ANCH	Antofagasta	1.93	18	⇑iP	Pn	07 03 44.0	-2.7
ANCH				iS	Sn	07 04 06.3	-4.1
CPCH	Copiapo	1.94	161	⇑iP	Pn	07 03 47.1	+0.2
CPCH				iS	Sn	07 04 12.9	+2.0
CPCH				AMP		07 04 21.5	
	comp=E,2µm,0.1s						
VACH	Vallenar	3.06	175	⇑iP	Pn	07 04 04.1	+1.3
LVC	Limon Verde	3.50	35	⇓iP	Pn	07 04 10.4	+1.3
LVC				AMP		07 05 09.1	
	comp=N,421nm,0.6s						

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*NEIC **08** 07:09:17.2, 16.97N×94.35W, h139^{km}, MD4.0(MEX), After MEX.*

MEX 08 07:09:16.7±1.0**, 17.01N×94.36W, h143^{km}**±12^{km}**, MD4.0, 1D, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.51	279	⇓iP	P	07 09 36.4	-1.5
CMIG				iS	S	07 09 50.6	-3.4
EVV	El Vigia	1.72	327	iP	P	07 09 45.0	-3.5
EVV	El Vigia	1.72	327	iP	P	07 09 45.2	-3.3
HUIG	Huatulco	2.08	234	iP	P	07 09 50.3	-2.5
HUIG				iS	S	07 10 18.6	-1.9
HUIG	Huatulco	2.08	234	iP	P	07 09 50.3	-2.5
HUIG				iS	S	07 10 18.6	-1.9
OXX	Oaxaca	2.26	272	iP	P	07 09 54.5	-0.6
OXX				iS	S	07 10 21.0	-3.4
OXX	Oaxaca	2.26	272	iP	P	07 09 54.5	-0.6
OXX				iS	S	07 10 21.7	-2.7
VHO	Vista Hermosa	2.27	272	iP	P	07 09 54.0	-1.2
VHO				iS	S	07 10 22.1	-2.5

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*CNRM **08** 07:09:45.1, 35.27N×2.62W, h30^{km}, MD3.7*

*MDD **08** 07:09:47.9±1.6, 34.91N×3.07W, mb3.4/8, Error ellipse: s-maj=14.1km s-min=6.9km az=142.0, PRXIMO AftershockPLICA*

*NEIC **08** 07:09:48.1, 34.93N×3.07W, MG3.4(MDD), After MDD.*

*CSEM **08** 07:09:48.1±0.2, 34.99N×3.12W, h10^{km}, MD3.7, Error ellipse: s-maj=6.0km s-min=3.5km az=113.0*

ISC 08 07:09:49.0±0.7**, 35.00N**±0.03×**3.04W**±0.06**, h21^{km}**±5^{km}**, n27, σ1^{s}06**/46**, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.31	17	P	Pb	07 09 55.1	-0.8
MELI				S	Sb	07 10 01.1	+0.5
MELI	Melilla	0.31	17	iP	Pb	07 09 55.2	-0.7
EMEL	Melilla	0.31	13	P	Pb	07 09 55.1	-0.8
	41nm,0.2s,SNR=7.9						
EMEL				S	Sb	07 10 00.6	0.0
	448nm,0.1s,SNR=7.9						
EMLI	Melilla	0.31	14	P	Pb	07 09 55.1	-0.9
	41nm,0.2s,SNR=7.9						
TOU	Touzarine	0.58	267	iP	Pb	07 10 00.0	-0.4
TOU				iS	Sb	07 10 13.0	+4.7
MPAL	Palemas	0.77	287	iP	Pb	07 10 03.0	-0.6
MPAL				iS	Sb	07 10 15.0	+1.4
TZK	Tazeka	1.31	226	iP	Pn	07 10 12.0	-0.2
TZK				iS	Sb	07 10 31.0	+1.9
EBER	Berja	1.90	4	P	Pn	07 10 19.9	-0.9
	1.4nm,0.2s,SNR=7.9						
EBER				S	Sn	07 10 44.9	+0.6
	SNR=7.9						
EBER	Berja	1.90	4	P	Pn	07 10 19.9	-0.9
	1.4nm,0.2s,SNR=7.9						
EBER				S	Sn	07 10 44.9	+0.6
	SNR=7.9						
EMIJ	Mijas	2.10	319	P	Pn	07 10 23.0	-0.7
	3.4nm,0.2s,SNR=7.9						
EMIJ				S	Sn	07 10 49.0	-0.5
	5.8nm,0.2s,SNR=7.9						
ELOJ	Sierra Loja	2.33	338	P	Pn	07 10 27.9	+1.0
	0.8nm,0.2s,SNR=9.3						
MIF	Mishlifen	2.41	229	iP	Pn	07 10 28.0	0.0
MIF				iS	Sn	07 10 56.0	-1.1
CZD	Col de Zad	2.57	221	iP	Pn	07 10 31.0	+0.7
CZD				iS	Sn	07 11 01.5	+0.3
ELUQ	Luque	2.74	339	P	Pn	07 10 33.9	+1.1
	0.9nm,0.4s,SNR=8.0						
ELUQ				S	Sn	07 11 07.8	+2.1
	1.5nm,0.2s,SNR=7.9						
EQES	Quesada	2.80	360	P	Pn	07 10 35.0	+1.4
	2.8nm,0.2s,SNR=24						
EQES				S	Sn	07 11 08.9	+1.8
	2.4nm,0.3s,SNR=7.9						
EQES	Quesada	2.80	360	P	Pn	07 10 35.0	+1.4
	2.8nm,0.2s,SNR=24						
EQES				S	Sn	07 11 08.9	+1.8
	2.4nm,0.3s,SNR=7.9						
ESPR	Espera	2.95	310	S	Sn	07 11 12.1	+1.2
	SNR=7.9						
ESPR	Espera	2.95	310	S	Sn	07 11 12.1	+1.2
	SNR=7.9						
ZFT	Errachidia	3.15	201	iP	Pn	07 10 38.0	-0.6
EADA	Adamuz	3.40	339	P	Pn	07 10 42.3	+0.2
	1.0nm,0.1s,SNR=18						
EADA				S	Sn	07 11 21.1	-1.1
	0.6nm,0.1s,SNR=7.9						
EADA	Adamuz	3.40	339	P	Pn	07 10 42.3	+0.2
	1.0nm,0.1s,SNR=18						
EADA				S	Sn	07 11 21.1	-1.1
	0.6nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	4.03	314	P	Pn	07 10 50.3	-0.8
	1.2nm,0.1s,SNR=33						
EMIN				S	Sn	07 11 35.9	-2.3
	SNR=7.9						
EMIN	Mina Concepcio	4.03	314	P	Pn	07 10 50.3	-0.8
	1.2nm,0.1s,SNR=33						
EMIN				S	Sn	07 11 35.9	-2.3
	SNR=7.9						
ESDC	Sonseca Array	4.73	351	P	Pn	07 11 01.1	+0.1
	2.6nm,0.2s,baz=172,slow=12,SNR=9.3						
ESDC	Sonseca Array	4.73	351	P	Pn	07 11 01.1	+0.1
	2.6nm,0.2s,baz=172,slow=12,SNR=9.3						
EBAD	Badajoz	4.92	321	P	Pn	07 11 02.9	-0.8
	1.7nm,0.2s,SNR=23						
EBAD				S	Sn	07 11 58.2	-2.5
	SNR=7.9						
EBAD	Badajoz	4.92	321	P	Pn	07 11 02.9	-0.8
	1.7nm,0.2s,SNR=23						
EBAD				S	Sn	07 11 58.2	-2.5
	SNR=7.9						

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*ATH **08** 07:17:07.5, 40.12N×19.47E, h6^{km}±3^{km}, MD3.6/4*

*NEIC **08** 07:17:09.2, 40.09N×19.59E, h7^{km}, MD3.5(ATH), After ATH.*

*CSEM **08** 07:17:10.6±0.1, 40.06N×19.70E, h2^{km}, MD3.5, Error ellipse: s-maj=2.1km s-min=1.5km az=36.0*

*THE **08** 07:17:11.2, 39.99N×19.67E, h10^{km}, ML3.2*

ISC 08 07:17:10.6±0.4**, 40.00N**±0.03×**19.63E**±0.03**, h6^{km}, n34, σ1^{s}32**/52**, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	Kerkira	0.32	156	ePB	Pb	07 17 16.5	-1.7
KEK				eSB	Sb	07 17 23.8	+0.5
TPE	Tepelena	0.41	44	iPg	Pg	07 17 17.5	-1.4
TPE				iSg	Sg	07 17 24.1	-0.3
TPE	Tepelena	0.41	44	ePg	Pg	07 17 17.5	-1.4
TPE				iSg	Sg	07 17 24.1	-0.3
IGT	Igoumenitsa	0.71	131	ePg	Pg	07 17 23.2	-1.7
IGT				eSg	Sg	07 17 33.8	-0.7
LSK	Leskovik	0.76	78	iPg	Pg	07 17 22.8	-2.9
LSK				iSg	Sg	07 17 34.2	-1.6
LSK	Leskovik	0.76	78	ePg	Pg	07 17 22.8	-2.9
LSK				iSg	Sg	07 17 34.2	-1.6
JAN	Janina	1.00	110	ePg	Pg	07 17 28.8	-1.8
JAN				eSb	Sb	07 17 42.7	-0.4
LCI	Lecce	1.21	286	ePn	Pn	07 17 35.0	+0.9
LCI				eSn	Sn	07 17 53.9	+2.9
LCI	Lecce	1.21	286	ePn	Pn	07 17 35.0	+0.9
LCI				eSn	Sn	07 17 53.9	+3.0
MEV	Metsovon	1.25	100	ePb	Pb	07 17 33.3	-0.9
MEV				eSb	Sb	07 17 52.5	+2.3
TIR	Tirane	1.36	7	ePn	Pn	07 17 35.0	-1.1
OHR	Ohrid	1.42	38	ePn	Pn	07 17 36.8	-0.2
OHR				eSn	Sn	07 17 59.2	+3.0
OHR	Ohrid	1.42	38	eSn	Sn	07 17 59.2	+3.0
LKD	Levkas	1.51	148	ePb	Pb	07 17 39.2	+0.5
LKD				eSb	Sb	07 17 59.3	+1.2
QSH	Qafa e Shtames	1.53	8	ePn	Pn	07 17 40.0	+1.4
QSH				iSn	Sn	07 18 03.0	+4.0
QSH	Qafa e Shtames	1.53	8	iPn	Pn	07 17 40.0	+1.4
QSH				iSn	Sn	07 18 03.0	+4.0
FNA	Florina	1.54	59	ePb	Pb	07 17 38.3	-0.9
FNA				eSb	Sb	07 18 00.6	+1.7
KZN	Kozani	1.67	79	ePN	Pn	07 17 41.6	+1.1
KZN				eSN	Sn	07 18 05.0	+2.6
EVR	Evrytania	2.00	122	ePN	Pn	07 17 46.3	+0.9
EVR				eSN	Sn	07 18 14.7	+3.7
LIT	Litokhoron	2.19	87	ePn	Pn	07 17 48.5	+0.4
AGG	Agios Georgios	2.30	114	ePn	Pn	07 17 50.4	+0.8
AGG				eSn	Sn	07 18 19.3	+0.6
AGG	Agios Georgios	2.30	114	eSn	Sn	07 18 19.3	+0.6
GRG	Griva	2.32	65	ePn	Pn	07 17 50.3	+0.4
TIP	Timpagrande	2.37	251	eP	Pn	07 17 50.7	+0.1
TIP	Timpagrande	2.37	251	eP	Pn	07 17 50.7	+0.1
SKO	Skopje	2.40	34	ePn	Pn	07 17 51.2	+0.2
KNT	Kendrikon	2.74	64	ePn	Pn	07 17 55.7	-0.2
PAIG	Paliouri	3.11	90	ePn	Pn	07 17 59.6	-1.6
SGO	Sicignano	3.36	281	ePn	Pn	07 18 05.8	+1.1
SGO	Sicignano	3.36	281	ePn	Pn	07 18 05.8	+1.1
ARV	Arcevia	6.10	307	ePn	Pn	07 18 42.1	-1.5
ARV	Arcevia	6.10	307	ePn	Pn	07 18 42.1	-1.5
FSSB	Fossombrone	6.31	308	ePn	Pn	07 18 44.3	-2.1
FSSB	Fossombrone	6.31	308	ePn	Pn	07 18 44.3	-2.2

CASC 08 07:26:05.5±2.5**, 14.17N×91.31W, h74^{km}**±16^{km}**, MD3.6, 3C-2D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	Jato	0.35	295	⇑eP	P	07 26 17.4	-0.1
JAT				eS	S	07 26 28.1	+1.7
FUG	Fuego 3	0.53	59	⇓eP	P	07 26 18.6	-0.5
IXG	Ixpaco	0.83	90	⇓eP	P	07 26 21.5	-0.9
IXG				eS	S	07 26 34.8	-0.2
NBG	Las Nubes	1.02	66	⇑eP	P	07 26 25.0	+0.3
NBG				eS	S	07 26 42.0	+2.9
RBDL	Robledal	1.58	92	eP	P	07 26 33.8	+1.7
RBDL				eS	S	07 26 52.6	+0.8
SBLS	San Blas	1.67	101	eP	P	07 26 32.6	-0.8
SBLS				eS	S	07 26 55.3	+1.4
SNJE	San Jose	1.68	100	eP	P	07 26 33.1	-0.5
SNJE				eS	S	07 26 56.1	+1.9
BOQS	Boqueron	2.02	102	eP	P	07 26 38.5	+0.4
LFRS	El Faro	2.25	104	eP	P	07 26 40.9	-0.5
LFRS				eS	S	07 27 09.5	+1.4
LCBS	La Ceiba	2.32	102	⇑eP	P	07 26 42.4	0.0
LCBS				eS	S	07 27 11.9	+2.1

IDC 08 07:58:38.3±7.9**, 7.02S×155.17E, h168^{km}**±58^{km}**, mb3.6**/5**, mb1 3.8**/6**, mb1mx3.6**/15**, MS3.6**/1**, Ms1 3.6**/1**, ms1mx2.9**/13**, Error ellipse: s-maj=71.4km s-min=24.9km az=94.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	8.27	253	P	P	08 00 35.3	-0.8
	2.5nm,0.3s,baz=55,slow=9.4,SNR=12						
WRA	Warramunga Arr	23.94	236	P	P	08 03 37.9	-0.5
	3.1nm,0.5s,baz=61,slow=9.7,SNR=24						
ASAR	Alice Springs	26.28	229	P	P	08 03 57.3	-2.9
	0.7nm,0.5s,baz=59,slow=9.7,SNR=11						
STKA	Stephens Creek	27.78	205	P	P	08 04 11.6	-2.1
	4.0nm,1.1s,baz=51,slow=9.3,SNR=2.7						
FITZ	Fitzroy Crossi	30.80	246	P	P	08 04 39.1	-1.6
	1.8nm,0.7s,baz=174,slow=5.7,SNR=5.5						
URZ	Urewera	36.90	151	LR	LR	08 18 55.6	
	comp=Z,78nm,18.8s,baz=262,slow=33						
SONM	Songino Array	69.45	327	P	P	08 09 28.5	-1.8
	1.1nm,0.5s,baz=141,slow=6.0,SNR=9.5						

IDC 08 08:02:48.0±2.5**, 2.87S×135.95E, mb3.5**/2**, mb1 3.9**/3**, mb1mx3.8**/12**, ML3.6**/1**, Error ellipse: s-maj=114.0km s-min=29.2km az=84.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.04	185	P	P	08 06 47.8	-1.6
	0.2nm,0.3s,baz=6.8,slow=12,SNR=7.0						
ASAR	Alice Springs	20.77	185	P	P	08 07 30.7	-2.5
	1.3nm,0.5s,baz=9.1,slow=11,SNR=8.3						
SONM	Songino Array	56.73	337	P	P	08 12 33.7	-2.3
	0.7nm,0.9s,baz=148,slow=12,SNR=4.7						

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*NEIC **08** 08:43:01.1, 16.72N×99.50W, h5^{km}, MD4.0(MEX), After MEX.*

MEX 08 08:43:01.1±1.3**, 16.72N×99.49W, h5^{km}, MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	0.43	290	iP	Pg	08 43 08.8	-0.9
ACX				iS	Sg	08 43 14.4	-1.1
CAIG	El Cayaco	0.81	294	iP	Pb	08 43 15.7	-1.6
CAIG				iS	Sg	08 43 26.7	-1.4
CAIG	El Cayaco	0.81	294	iP	Pb	08 43 15.7	-1.6
CAIG				iS	Sg	08 43 26.7	-1.4
PNIG	Pinotepa	1.35	104	iP	Pb	08 43 22.5	-4.0
PNIG				iS	Sb	08 43 40.0	-3.9
PLIG	Platanillo	1.66	360	iP	Pn	08 43 27.4	-3.7
PLIG				iS	Sb	08 43 46.8	-6.2
PLIG	Platanillo	1.66	360	iP	Pn	08 43 27.4	-3.7
PLIG				iS	Sb	08 43 47.1	-6.0
ZIIG	Zihuatanejo	2.08	295	iP	Pn	08 43 33.9	-3.2
ZIIG				iS	Sn	08 43 59.8	-3.9
YAIG	Yautepec	2.17	11	iP	Pn	08 43 34.8	-3.5
YAIG				iS	Sn	08 44 00.9	-5.1
PPM	Popocatepetl	2.48	19	eP	Pn	08 43 41.4	-1.4
PPM	Popocatepetl	2.48	19	iP	Pn	08 43 36.9	-5.9
PPM				eP		08 43 41.4	
PPM				iS	Sn	08 44 06.2	-7.5
UNM	Universidad Na	2.61	7	eP	Pn	08 43 40.0	-4.7
UNM				iP		08 43 41.1	
UNM				iS	Sn	08 44 14.9	-2.3
UNM	Universidad Na	2.61	7	eP	Pn	08 43 40.0	-4.7
UNM				iP		08 43 41.1	
UNM				eP		08 43 41.6	
UNM				eS	Sn	08 44 13.4	-3.8
UNM				iS	Sn	08 44 14.9	-2.3
VHO	Vista Hermosa	2.67	82	eP	Pn	08 43 37.9	-7.6
VHO				iS	Sn	08 44 10.3	-8.2
OXX	Oaxaca	2.68	82	eP	Pn	08 43 44.3	-1.3
CRX	Cerrillo	2.68	356	eP	Pn	08 43 46.0	+0.4
IISM	Ciudad Serdan	3.02	41	eP	Pn	08 43 30.5	-20
HUIG	Huatulco	3.39	106	iP	Pn	08 43 48.2	-7.5
HUIG				iS	Sn	08 44 28.6	-8.2
CMIG	Matias Romero	4.43	85	iP	Pn	08 44 06.4	-4.1
CMIG				iS	Sn	08 44 44.3	-19
CMIG	Matias Romero	4.43	85	iP	Pn	08 44 04.2	-6.3
CMIG				iS	Sn	08 44 56.0	-7.2

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*IDC **08** 08:50:30.5±0.7, 7.25S×30.45E, mb4.1/15, mb1 4.3/16, mb1mx4.2/20, ML4.4/1, MS4.0/12, Ms1 4.0/12, ms1mx3.9/19, Error ellipse: s-maj=22.3km s-min=16.7km az=100.0*

*NEIC **08** 08:50:31.8±0.4, 7.39S×30.44E, h10^{km}, mb4.9/4, Error ellipse: s-maj=14.4km s-min=7.9km az=101.0*

ISC 08 08:50:29.8±0.4**, 7.38S**±0.06×**30.4E**±0.1**, h10^{km}, n39, σ0^{s}95**/31**, mb4.2**/18**, MS4.0**/12**, Lake Tanganyika region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBAR	Mbarara	6.74	3	eP	Pn	08 52 12.3	+1.1
	15nm,0.6s						
LSZ	Lusaka	8.16	196	eP	P	08 52 29.5	-1.6
	8.1nm,0.4s						
KMBO	Kilima Mbogo	9.20	48	Pn	P	08 52 43.9	-1.6
	4.2nm,0.3s,baz=225,slow=15,SNR=99						
KMBO				Sn	Sn	08 54 21.3	-8.9
	12nm,0.3s,baz=274,slow=22,SNR=12						
KMBO				Lg		08 55 19.9	
	15nm,0.3s,baz=194,slow=17,SNR=4.9						
KMBO	Kilima Mbogo	9.20	48	eP	P	08 52 44.4	-1.2
	41nm,0.8s						
LBTB	Lobatse	18.14	194	eP	P	08 54 39.2	-4.5
	5.4nm,1.0s						
BOSA	Boshof	21.69	192	eP	P	08 55 22.3	-0.6
	16nm,1.0s,mb4.4						
SUR	Sutherland	26.44	199	LR	LR	09 06 54.8	
	comp=Z,381nm,19.5s,MS4.0,baz=145,slow=37						
DBIC	Dimbokro	37.87	291	P	P	08 57 48.5	-0.5
	2.3nm,0.9s,mb3.9,baz=105,slow=9.9,SNR=4.2						
DBIC				LR	LR	09 13 01.0	
	comp=Z,212nm,19.0s,MS4.0,baz=44,slow=36						
DBIC	Dimbokro	37.87	291	P	P	08 57 48.5	-0.5
ASF	Jabal al Asfar	39.80	9	LR	LR	09 14 42.5	
	comp=Z,80nm,18.4s,MS3.6,baz=283,slow=37						
BRTR	Keskin Array B	46.95	3	P	P	08 59 02.5	-0.3
	4.2nm,0.9s,mb4.4,baz=180,slow=7.4,SNR=14						
GNI	Garni	49.10	15	LR	LR	09 22 33.0	
	comp=Z,78nm,18.5s,MS3.7,baz=167,slow=39						
CEY	Cerknica	54.79	346	eP	P	09 00 02.6	+0.5
JAVS	Javornik	55.02	346	eP	P	09 00 04.2	+0.3
ESDC	Sonseca Array	56.60	329	P	P	09 00 16.0	+0.7
	0.2nm,0.4s,mb3.5,baz=140,slow=8.6,SNR=3.2						
AKASG	Malin Array Be	57.85	359	P	P	09 00 23.2	-0.7
	0.2nm,0.3s,mb3.6,baz=182,slow=6.3,SNR=10						
GERES	GERESS Array B	57.88	347	P	P	09 00 24.2	0.0
	1.6nm,0.6s,mb4.2,baz=170,slow=8.1,SNR=12						
KHC	Kasperske Hory	58.18	347	eP	P	09 00 26.0	-0.3
GRA1	Grafenberg Arr	59.25	346	eP	P	09 00 34.2	+0.4
	13nm,1.4s,mb4.8						
GRA1				e		09 00 45.2	
GRF	Grafenberg Arr	59.25	346	eP	P	09 00 34.2	+0.4
	13nm,1.4s,mb4.8						
GRF				e		09 00 45.2	
MOX	Moxa	60.04	346	eP	P	09 00 36.0	-3.2
MOX				pP	pP	09 00 50.0	+7.6
MAW	Mawson	63.98	167	P	P	09 01 06.9	+1.6
	12nm,0.8s,mb5.0,baz=309,slow=7.1,SNR=15						
SNAA	Sanae	67.46	191	P	P	09 01 28.8	+1.2
	0.5nm,1.0s,mb3.5,baz=56,slow=0.4,SNR=4.2						
FINES	FINESS Array B	68.69	358	P	P	09 01 34.2	-1.3
	4.4nm,1.2s,mb4.3,baz=162,slow=6.0,SNR=4.9						
FINES				LR	LR	09 37 20.2	
	comp=Z,127nm,18.6s,MS4.2,baz=224,slow=41						
FINES	FINESS Array B	68.69	358	P	P	09 01 34.2	-1.3
BVAR	Borovoye Array	69.04	25	P	P	09 01 36.5	-1.3
	2.7nm,1.1s,mb4.1,baz=225,slow=4.2,SNR=6.1						
NOA	NORSAR Array B	69.86	350	P	P	09 01 42.6	+0.1
	1.4nm,0.7s,mb4.0,baz=138,slow=25,SNR=2.3						
KURK	Kurchatov	71.21	30	eP	P	09 01 51.8	+0.8
	15nm,1.5s,mb4.7						
CMAR	Chiang Mai Arr	72.25	68	P	P	09 01 57.6	-0.1
	1.6nm,0.7s,mb4.1,baz=264,slow=7.4,SNR=9.3						
CMAR				LR	LR	09 32 35.2	
	comp=Z,40nm,18.5s,MS3.7,baz=175,slow=35						
ZAL	Zalesovo	76.18	30	LR	LR	09 40 42.4	
	comp=Z,150nm,18.4s,MS4.3,baz=323,slow=40						
ARCES	ARCESS Array B	76.81	358	P	P	09 02 22.9	-0.2
	3.7nm,0.8s,mb4.3,baz=198,slow=3.8,SNR=8.9						
BDFB	Brasilia	76.97	256	P	P	09 02 25.6	+0.5
	1.5nm,0.7s,mb4.0,baz=131,slow=9.3,SNR=3.2						
BDFB				LR	LR	09 31 55.7	
	comp=Z,96nm,18.2s,MS4.2,baz=114,slow=32						
SONM	Songino Array	86.10	41	P	P	09 03 14.0	+1.7
	0.5nm,0.6s,mb4.0,baz=225,slow=7.0,SNR=5.9						
VNDA	Vanda	91.05	171	LR	LR	09 44 40.4	
	comp=Z,107nm,20.1s,MS4.3,baz=57,slow=36						
LPAZ	La Paz	96.11	253	LR	LR	09 48 05.0	
	comp=Z,47nm,18.7s,MS4.0,baz=110,slow=36						
SJG	San Juan	98.49	287	LR	LR	09 43 42.2	
	comp=Z,70nm,20.4s,MS4.2,baz=92,slow=32						
ASAR	Alice Springs	99.25	115	P	P	09 04 14.4	+0.6
	0.6nm,0.7s,mb4.2,baz=264,slow=4.5,SNR=6.1						
ASAR				LR	LR	09 43 06.1	
	comp=Z,117nm,20.4s,MS4.4,baz=216,slow=32						
YKA	Yellowknife Ar	119.37	342	PKP	PKPdf	09 09 19.2	-3.1
	0.1nm,0.5s,baz=32,slow=2.2,SNR=4.6						
YKA	Yellowknife Ar	119.37	342	PKP	PKPdf	09 09 19.2	-3.2

NIED ***08*** *08:55:00,43.20N×146.80E,h50^{km},Mw3.9 Best double couple: M$_0$9.05×10^{14} NP1:ϕ_s72°,δ74°,λ95°. NP2:ϕ_s233°, δ16°,λ72°.*
MOS ***08*** *08:55:37.0±1.1,43.37N×146.87E,h62^{km},mb4.3/10,Error ellipse: s-maj=22.6km s-min=12.4km az=115.1*
MOS Felt (II) at Malokurilskoe.
JMA ***08*** *08:55:37.9±0.1,43.17N×146.76E,h57^{km}±2^{km},M4.2*
SKHL ***08*** *08:55:37.9±0.9,43.27N×146.93E,h46^{km}±10^{km},mb5.4/2*
SKHL Felt (II) at Malokurilskoe.
IDC ***08*** *08:55:41.0±3.5,43.41N×146.72E,h79^{km}±30^{km},mb3.8/14, mb1 4.0/15,mb1mx3.9/23,MS2.9/1,Ms1 2.9/1, ms1mx2.3/25,Error ellipse: s-maj=23.5km s-min=18.0km az=173.0*
NEIC ***08*** *08:55:42.2±1.6,43.40N×146.71E,h88^{km}±12^{km},mb4.8/4, Error ellipse: s-maj=14.8km s-min=8.9km az=169.0*
NEIC Felt [II] on Shikotan.
ISC 08 08:55:37.4±0.8,**43.32N**±0.05×**146.79E**±0.07,**h64**^{km}±6^{km}, **n54,**σ**0^{s}88**/68,**mb4.2**/20,**2C-3D,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NEM2	**Nemuro 2**	**0.77**	**273**	P	**P**	**08 55 53.0**	**+0.2**
NEM2				*e*S	**S**	**08 56 03.8**	**-0.4**
YUK	**Yuzh-Kuril'sk**	**0.98**	**317**	⇓*i*PN	**P**	**08 55 55.6**	**0.0**
YUK				*i* S	**S**	**08 56 08.5**	**-0.5**
YUK				pmax	pmax		
	comp=N,3μm,0.2s						
YUK				pmax	pmax		
	comp=E,3μm,0.2s						
YUK				pmax	pmax		
	comp=Z,7μm,0.2s						
YUK				smax			
	comp=E,11μm,0.5s						
YUK				smax			
	comp=N,8μm,0.3s						
YUK	**Yuzh-Kuril'sk**	**0.98**	**317**	⇓*i*P	**P**	**08 55 55.6**	**0.0**
YUK				AMB	AMB	08 55 57.1	
	comp=N,3μm,0.2s						
YUK				AMB	AMB	08 55 57.1	
	comp=N,3μm,0.2s						
YUK				AMB	AMB	08 55 57.1	
	comp=N,7μm,0.2s						
YUK				*i* rx	rx	08 56 02.4	
YUK				*i* rx	rx	08 56 06.5	
YUK				*i* S	**S**	**08 56 08.5**	**-0.5**
YUK				A		08 56 12.0	
	comp=N,8μm,0.5s						
YUK				A		08 56 12.0	
	comp=N,11μm,0.5s						
JRA	**Rausu**	**1.36**	**297**	P	**P**	**08 56 01.9**	**+1.1**
JRA				*e*S	**S**	**08 56 19.8**	**+1.7**
JNK	**Nakash**	**1.53**	**281**	P	**P**	**08 56 03.1**	**-0.1**
JNK				*e*S	**S**	**08 56 21.7**	**-0.5**
JAK	**Akkeshi**	**1.57**	**259**	P	**P**	**08 56 03.2**	**-0.4**
JAK				*e*S	**S**	**08 56 21.8**	**-1.2**
KUR	**Kuril'sk**	**2.06**	**22**	⇓*i*PN	**P**	**08 56 09.0**	**-1.4**
KUR				*i* S	**S**	**08 56 33.5**	**-1.3**
KUR				pmax	pmax		
	comp=Z,110nm,0.6s						
KUR				smax			
	comp=N,270nm,0.7s						
KUR				smax			
	comp=E,860nm,0.7s						
KUR	**Kuril'sk**	**2.06**	**22**	⇑*i*P	**P**	**08 56 09.0**	**-1.4**
KUR				AMB	AMB	08 56 10.0	
	comp=E,110nm,0.6s						
KUR				*i* S	**S**	**08 56 33.5**	**-1.3**
KUR				A		08 56 36.5	
	comp=E,270nm,0.7s						
KUR				A		08 56 36.5	
	comp=E,860nm,0.7s						
JTKR	**Abashiri--Toko**	**2.19**	**288**	P	**P**	**08 56 13.5**	**+1.2**
JTKR				*e*S	**S**	**08 56 40.5**	**+2.3**
JOB	**Onbets**	**2.21**	**260**	P	**P**	**08 56 12.1**	**-0.4**
JOB				*e*S	**S**	**08 56 37.6**	**-0.9**
JAR	**Ashorobuto**	**2.21**	**270**	P	**P**	**08 56 12.6**	**+0.1**
JAR				*e*S	**S**	**08 56 38.9**	**+0.3**
JMP	**Maruseppu**	**2.58**	**287**	P	**P**	**08 56 19.0**	**+1.2**
JCH	**Churui**	**2.62**	**255**	P	**P**	**08 56 17.3**	**-1.0**
JCH				*e*S	**S**	**08 56 46.7**	**-2.2**
JEM	**Erimo**	**2.98**	**245**	P	**P**	**08 56 24.0**	**+0.5**
JKK2	**Kamakawa 2**	**2.99**	**282**	P	**P**	**08 56 24.8**	**+1.2**
JFR	**Furan**	**3.07**	**268**	P	**P**	**08 56 25.2**	**+0.5**
JFR				*e*S	**S**	**08 56 59.8**	**-0.6**
ASAJ	**Asahikawa**	**3.14**	**286**	P	**P**	**08 56 26.9**	**+1.2**
	comp=E,6.1nm,0.3s,baz=106,slow=11,SNR=22						
ASAJ	**Asahikawa**	**3.14**	**286**	PN	**P**	**08 56 27.0**	**+1.3**
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.3s						
YSS	**Yuzh-Sakhalins**	**4.62**	**323**	⇑*i*PN	**P**	**08 56 47.4**	**+1.0**
YSS				*e*S	**S**	**08 57 38.0**	**-1.2**
YSS				smax			
	comp=N,50nm,0.6s						
YSS	**Yuzh-Sakhalins**	**4.62**	**323**	*e*P	**P**	**08 56 48.0**	**+1.6**
YSS	**Yuzh-Sakhalins**	**4.62**	**323**	*i* P	**P**	**08 56 47.4**	**+1.0**
YSS				*e*S	**S**	**08 57 38.0**	**-1.2**
YSS				A		08 57 41.5	
	comp=N,50nm,0.6s						
JHJ	**Hachijo jima 2**	**11.58**	**211**	LR	LR	09 02 26.1	
	comp=N,56nm,18.3s,baz=121,slow=35						
SONM	**Songino Array**	**28.40**	**293**	P	**P**	**09 01 27.5**	**-0.2**
	comp=N,3.4nm,0.5s,mb4.2,baz=88,slow=8.4,SNR=24						
IMA	**Indian Mountai**	**39.18**	**34**	*e*P	**P**	**09 03 01.7**	**+1.5**
	comp=N,64nm,1.0s,mb5.3						
ILAR	**Eielson Array**	**41.99**	**36**	P	**P**	**09 03 23.5**	**+0.3**
	comp=N,1.4nm,0.7s,mb3.7,baz=267,slow=5.3,SNR=25						
ILAR	**Eielson Array**	**41.99**	**36**	P	**P**	**09 03 23.5**	**+0.3**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MKAR	**Makanchi Array**	**44.55**	**298**	*i* P	**P**	**09 03 44.7**	**+0.4**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KURK	**Kurchatov**	**45.55**	**304**	P	**P**	**09 03 52.1**	**-0.1**
KURK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
KURK	**Kurchatov**	**45.55**	**304**	*e*P	**P**	**09 03 52.1**	**-0.1**
	comp=Z,3.7nm,0.4s,mb4.7						
INK	**Inuvik**	**46.90**	**30**	*e*P	**P**	**09 04 03.4**	**+0.8**
	comp=Z,8.1nm,0.8s,mb4.7						
CHKZ	**Chkalovo**	**49.21**	**310**	P	**P**	**09 04 20.3**	**-0.5**
CHKZ				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
CHKZ	**Chkalovo**	**49.21**	**310**	*e*P	**P**	**09 04 20.1**	**-0.7**
BVA0	**Borovoye Array**	**49.57**	**310**	*i* P	**P**	**09 04 23.6**	**0.0**
BVAR	**Borovoye Array**	**49.57**	**310**	P	**P**	**09 04 23.3**	**-0.3**
	comp=Z,1.7nm,0.5s,mb4.4,baz=81,slow=8.9,SNR=14						
RES	**Resolute Bay**	**55.45**	**17**	*e*P	**P**	**09 05 06.4**	**-0.8**
	comp=Z,7.1nm,0.6s,mb4.9						
YKA	**Yellowknife Ar**	**56.30**	**33**	P	**P**	**09 05 12.9**	**-0.5**
	comp=Z,1.0nm,0.6s,mb4.0,baz=297,slow=6.5,SNR=16						
YKA	**Yellowknife Ar**	**56.30**	**33**	P	**P**	**09 05 12.9**	**-0.5**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARCES	**ARCESS Array B**	**59.56**	**340**	P	**P**	**09 05 35.2**	**-0.8**
	comp=Z,2.8nm,0.8s,mb4.3,baz=57,slow=5.4,SNR=6.6						
ARCES	**ARCESS Array B**	**59.56**	**340**	P	**P**	**09 05 35.2**	**-0.8**
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	**FINESS Array B**	**65.14**	**333**	P	**P**	**09 06 12.2**	**-1.0**
	comp=Z,2.4nm,0.6s,mb4.4,baz=45,slow=8.1,SNR=9.1						
FINES	**FINESS Array B**	**65.14**	**333**	P	**P**	**09 06 12.2**	**-1.0**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ASAR	**Alice Springs**	**67.70**	**193**	P	**P**	**09 06 30.3**	**+0.3**
	comp=Z,0.4nm,0.8s,mb3.5,baz=126,slow=37,SNR=3.2						
NVAR	**Mina Array Bea**	**68.03**	**58**	P	**P**	**09 06 32.4**	**+0.6**
	comp=Z,1.2nm,0.5s,mb4.2,baz=304,slow=6.2,SNR=3.9						
NB2	**NORSAR Subarra**	**69.91**	**339**	P	**P**	**09 06 42.6**	**-0.4**
	comp=Z,2.2nm,0.4s,mb4.4,baz=32,slow=6.5						
NOA	**NORSAR Array B**	**69.91**	**339**	P	**P**	**09 06 42.3**	**-0.7**
	comp=Z,1.1nm,0.4s,mb4.1,baz=21,slow=5.2,SNR=8.2						
NOA	**NORSAR Array B**	**69.91**	**339**	P	**P**	**09 06 42.3**	**-0.7**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
PDAR	**Pinedale Array**	**70.39**	**49**	P	**P**	**09 06 46.6**	**+0.4**
	comp=Z,0.5nm,0.5s,mb3.7,baz=151,slow=0.6,SNR=4.8						
AKASG	**Malin Array Be**	**71.77**	**324**	P	**P**	**09 06 53.4**	**-0.9**
	comp=Z,1.4nm,0.3s,mb4.3,baz=40,slow=6.5,SNR=11						
AKASG	**Malin Array Be**	**71.77**	**324**	P	**P**	**09 06 53.4**	**-1.0**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CLL	**Collm**	**77.57**	**332**	P	**P**	**09 07 27.7**	**+0.1**
	comp=Z,logA/T=0.9,mb4.6						
BRTR	**Keskin Array B**	**77.65**	**313**	P	**P**	**09 07 29.2**	**+0.9**
	comp=Z,0.9nm,0.7s,mb3.8,baz=90,slow=4.9,SNR=3.6						
BRTR	**Keskin Array B**	**77.65**	**313**	P	**P**	**09 07 29.2**	**+0.9**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES	**GERESS Array B**	**79.40**	**331**	P	**P**	**09 07 37.5**	**-0.3**
	comp=Z,0.4nm,0.4s,mb3.7,baz=34,slow=4.8,SNR=3.9						
TXAR	**Lajitas Array**	**83.11**	**56**	P	**P**	**09 07 58.0**	**+0.6**
	comp=Z,1.6nm,0.5s,mb4.3,baz=293,slow=3.6,SNR=22						

NIED ***08*** *09:09:00,42.90N×145.50E,h44^{km},Mw3.7 Best double couple: M$_0$4.3×10^{14} NP1:ϕ_s21°,δ67°,λ69°. NP2:ϕ_s246°, δ31°,λ131°.*
JMA ***08*** *09:09:07.6±0.1,42.90N×145.46E,h44^{km}±1^{km},M3.7*
IDC ***08*** *09:09:08.2±7.3,42.66N×145.44E,h57^{km}±46^{km},mb3.5/4, mb1 3.6/5,mb1mx3.3/22,ML4.0/1,Error ellipse: s-maj=75.1km s-min=32.6km az=1.0*
ISC 08 09:09:07.1±1.2,**42.90N**±0.08×**145.46E**±0.08,**h49**^{km}±7^{km}, **n13,**σ**0^{s}60**/21,**mb3.6**/4,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NEM2	**Nemuro 2**	**0.51**	**24**	P	**P**	**09 09 18.5**	**0.0**
NEM2				S	**S**	**09 09 26.0**	**-0.6**
JAK	**Akkeshi**	**0.57**	**280**	P	**P**	**09 09 19.4**	**+0.2**
JAK				*e*S	**S**	**09 09 28.1**	**+0.1**
JNK	**Nakash**	**0.88**	**322**	P	**P**	**09 09 23.4**	**+0.1**
JNK				*e*S	**S**	**09 09 34.3**	**-0.9**
JRA	**Rausu**	**1.07**	**347**	P	**P**	**09 09 26.3**	**+0.3**
JRA				*e*S	**S**	**09 09 40.1**	**+0.1**
JOB	**Onbets**	**1.20**	**271**	P	**P**	**09 09 27.8**	**+0.1**
JOB				*e*S	**S**	**09 09 42.8**	**-0.3**
JAR	**Ashorobuto**	**1.30**	**288**	P	**P**	**09 09 29.5**	**+0.1**
JAR				*e*S	**S**	**09 09 45.9**	**0.0**
JTKR	**Abashiri--Toko**	**1.56**	**314**	P	**P**	**09 09 33.7**	**+0.7**
JCH	**Churui**	**1.57**	**260**	P	**P**	**09 09 32.9**	**-0.2**
JCH				*e*S	**S**	**09 09 51.9**	**-0.5**
ASAJ	**Asahikawa**	**2.42**	**301**	P	**P**	**09 09 46.1**	**+1.1**
	20nm,0.3s,baz=101,slow=11,SNR=37						
ASAJ				S	**S**	**09 10 17.2**	**+3.7**
	8.4nm,0.3s,baz=24,slow=29,SNR=6.0						
SONM	**Songino Array**	**27.68**	**294**	P	**P**	**09 14 52.2**	**-0.1**
	1.0nm,0.8s,mb3.5,baz=84,slow=7.8,SNR=7.2						
ILAR	**Eielson Array**	**42.90**	**36**	P	**P**	**09 17 02.8**	**+0.8**
	0.2nm,0.6s,mb3.0,baz=276,slow=8.2,SNR=4.8						
FINES	**FINESS Array B**	**65.07**	**333**	P	**P**	**09 19 43.1**	**-1.0**
	1.0nm,0.5s,mb4.1,baz=37,slow=6.9,SNR=9.8						
AKASG	**Malin Array Be**	**71.53**	**323**	P	**P**	**09 20 23.7**	**-0.6**
	0.5nm,0.3s,mb3.9,baz=42,slow=5.5,SNR=5.6						

NIED ***08*** *09:38:00,30.40N×137.70E,h540^{km},Mw4.9 Best double couple: M$_0$2.78×10^{16} NP1:ϕ_s278°,δ86°,λ20°. NP2:ϕ_s187°, δ70°,λ176°.*
JMA ***08*** *09:38:49.7±0.3,30.37N×137.68E,h524^{km}±4^{km},M4.8*
IDC ***08*** *09:38:51.6±0.6,30.44N×137.35E,h489^{km}±6^{km},mb4.1/28, mb1 4.2/32,mb1mx4.2/35,Error ellipse: s-maj=10.1km s-min=6.7km az=86.0*
NEIC ***08*** *09:38:51.3±0.1,30.45N×137.34E,mb4.6/47, MW4.9(NIED),Error ellipse: s-maj=4.7km s-min=4.0km az=80.0*
BJI ***08*** *09:38:51.2,30.39N×137.38E,h500^{km},mB4.8,mb4.9*
SYO ***08*** *09:38:51.5,30.41N×137.33E,h484^{km},MB4.6*
MOS ***08*** *09:38:52.5±0.9,30.42N×137.30E,h519^{km},mb4.5/24, Error ellipse: s-maj=16.5km s-min=8.7km az=104.0*
ISC 08 09:38:51.4±0.3,**30.43N**±0.03×**137.41E**±0.03,**h500**^{km}±2^{km}, **h500**^{km}±5.1^{km}**:pP-P,n205,**σ**1^{s}11**/229,**mb4.5**/80,**11C-11D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TK01	**Tokai 1**	**3.32**	**3**	P	**P**	**09 40 06.5**	**+1.2**
JHJ	**Hachijo jima 2**	**3.35**	**36**	P	**P**	**09 40 03.4**	**-2.1**
	42nm,0.3s,baz=95,slow=13,SNR=54						
JHJ				S	**S**	**09 40 58.5**	**-5.7**
	123nm,0.3s,baz=243,slow=17,SNR=7.2						
JHJ2	**Mitsune**	**3.36**	**37**	P	**P**	**09 40 05.2**	**-0.4**
JHJ2				*e*S	**S**	**09 41 04.3**	**0.0**
JWZ	**Kozaga**	**3.41**	**335**	P	**P**	**09 40 06.8**	**+0.9**
JWZ				*e*S	**S**	**09 41 06.7**	**+1.8**
TK02	**Tokai 2**	**3.51**	**5**	P	**P**	**09 40 08.1**	**+1.4**
JIE	**Ise**	**3.99**	**352**	P	**P**	**09 40 11.4**	**+1.0**
JIE				S	**S**	**09 41 15.2**	**+2.2**
JWY	**Kouya**	**4.08**	**338**	P	**P**	**09 40 12.6**	**+1.5**
JWY				*e*S	**S**	**09 41 16.1**	**+1.9**
JIM2	**Oshima 3**	**4.60**	**21**	P	**P**	**09 40 14.5**	**-1.1**
JIM2				*e*S	**S**	**09 41 20.0**	**-2.2**
JTO	**Tosashimizu**	**4.62**	**303**	P	**P**	**09 40 17.5**	**+1.8**
JTO				*e*S	**S**	**09 41 24.6**	**+2.1**
JOD2	**Odawara 2**	**5.02**	**16**	P	**P**	**09 40 18.3**	**-1.0**
JOD2				S	**S**	**09 41 28.1**	**-0.8**
BSO1	**Boso 1**	**5.17**	**35**	P	**P**	**09 40 18.3**	**-2.5**
BSO1				S	**S**	**09 41 26.5**	**-5.0**
CBIJ	**Chichi jima**	**5.35**	**127**	P	**P**	**09 40 19.7**	**-2.7**
	38nm,0.3s,baz=117,slow=23,SNR=21						
CBIJ				S	**S**	**09 41 29.2**	**-5.2**
	139nm,0.3s,baz=282,slow=23,SNR=19						
CBIJ	**Chichi jima**	**5.35**	**127**	P	**P**	**09 40 19.5**	**-2.9**
CBIJ				*e*S	**S**	**09 41 30.2**	**-4.2**
JRY	**Ryogami san**	**5.71**	**12**	P	**P**	**09 40 24.8**	**-1.0**
JRY				S	**S**	**09 41 37.6**	**-2.9**
JHS	**Saijyo**	**5.82**	**323**	P	**P**	**09 40 27.8**	**+0.9**
JHS				*e*S	**S**	**09 41 44.5**	**+2.1**
MAJO	**Matsushiro**	**6.13**	**6**	*e*P	**P**	**09 40 28.6**	**-1.3**
	396nm,0.5s						
MAT	**Matsushiro**	**6.13**	**6**	P	**P**	**09 40 28.3**	**-1.6**
MAT				S	**S**	**09 41 44.6**	**-3.3**
MAT	**Matsushiro**	**6.13**	**6**	*e*P	**P**	**09 40 28.0**	**-1.9**
	450nm,1.0s						
MAT				*e*S	**S**	**09 41 45.0**	**-2.9**
SAI	**Saigo**	**6.69**	**330**	P	**P**	**09 40 36.1**	**+0.7**
JSJ	**Shimokoshiki**	**6.72**	**283**	P	**P**	**09 40 36.8**	**+1.0**
JAM	**Amami Oshima**	**7.10**	**255**	P	**P**	**09 40 40.4**	**+0.8**
JTU	**Tsushima**	**7.90**	**303**	P	**P**	**09 40 48.4**	**+0.5**
JOW	**Kunigami**	**8.79**	**248**	P	**P**	**09 40 56.5**	**-0.7**
	10nm,0.3s,baz=74,slow=7.7,SNR=27						
JOW	**Kunigami**	**8.79**	**248**	P	**P**	**09 40 57.5**	**+0.2**
JMK	**Ichinoseki**	**9.05**	**19**	P	**P**	**09 40 58.9**	**-1.1**
JMK				S	**S**	**09 42 39.6**	**-2.7**
JOT	**Ohata**	**11.31**	**14**	P	**P**	**09 41 23.5**	**-0.2**
INCN	**Inchon**	**11.38**	**311**	*e*P	**P**	**09 41 23.7**	**-0.7**
	53nm,0.7s						
JOSM	**Okushiri--Mats**	**11.74**	**8**	P	**P**	**09 41 26.9**	**-1.3**
JOSM				*e*S	**S**	**09 43 34.4**	**+0.3**
JKB	**Kayabe**	**11.80**	**13**	P	**P**	**09 41 28.2**	**-0.5**
JKB				*e*S	**S**	**09 43 34.3**	**-0.8**
SSE	**Sheshan**	**13.97**	**277**	P	**P**	**09 41 50.0**	**-1.4**
SSE				XP		09 43 39.4	
SSE				S	**S**	**09 44 15.0**	**-1.3**
SSE				AMB	AMB		
	comp=Z,29nm,0.8s						
SSE				AMB	AMB		
	comp=Z,89nm,11.0s						
SSE	**Sheshan**	**13.97**	**277**	P	**P**	**09 41 50.0**	**-1.4**
	comp=Z,29nm,0.8s						
SSE				sP		09 43 39.4	
SSE				S	**S**	**09 44 15.0**	**-1.3**
ASAJ	**Asahikawa**	**14.26**	**15**	P	**P**	**09 41 54.6**	**+0.4**
	comp=Z,4.1nm,0.3s,baz=214,slow=13,SNR=15						
ASAJ				S	**S**	**09 44 19.7**	**-2.0**
	comp=Z,1.2nm,0.3s,baz=120,slow=31,SNR=2.5						
ASAJ	**Asahikawa**	**14.26**	**15**	P	**P**	**09 41 54.6**	**+0.4**
ASAJ				S	**S**	**09 44 19.7**	**-2.0**
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
TATO	**Taipei**	**15.11**	**253**	*e*P	**P**	**09 42 02.6**	**-0.4**
	comp=Z,97nm,0.8s						
MDJ	**Mudanjiang**	**15.44**	**339**	P	**P**	**09 42 06.7**	**+0.6**
MDJ				S	**S**	**09 44 47.4**	**+3.8**
MDJ				PCP	PcP	09 46 36.5	-0.4
MDJ				AMB	AMB		
	comp=Z,52nm,1.3s						
MDJ				AMB	AMB		
	comp=Z,208nm,7.0s						
MDJ	**Mudanjiang**	**15.44**	**339**	*e*P	**P**	**09 42 05.7**	**-0.4**
	comp=Z,33nm,0.7s						
SNY	**Shenyang**	**15.92**	**319**	⇑P	**P**	**09 42 11.9**	**+1.0**
SNY				S	**S**	**09 44 54.6**	**+2.3**
SNY				AMB	AMB		
	comp=Z,120nm,1.0s						
NJ2	**Nanjing**	**15.96**	**281**	*e*P	**P**	**09 42 11.1**	**-0.2**
NJ2				XP		09 44 02.5	
NJ2				S	**S**	**09 44 54.0**	**+1.0**
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s						
CN2	**Changchun**	**16.38**	**328**	*e*P	**P**	**09 42 15.8**	**+0.4**
CN2				*e*XP		09 44 09.5	
CN2				*e*S	**S**	**09 45 01.0**	**+0.5**
CN2				AMB	AMB		
	comp=Z,80nm,0.6s						
CN2				AMB	AMB		
	comp=Z,320nm,5.0s						
YSS	**Yuzh-Sakhalins**	**17.01**	**13**	*e*P	**P**	**09 42 22.5**	**+0.9**
YSS				pmax	pmax		
	comp=Z,60nm,1.0s						
YSS				pmax	pmax		
	comp=N,30nm,1.0s						
YSS	**Yuzh-Sakhalins**	**17.01**	**13**	*e*P	**P**	**09 42 22.9**	**+1.3**
	comp=N,63nm,0.5s						
QZH	**Quanzhou**	**17.54**	**256**	P	**P**	**09 42 26.8**	**-0.2**
QZH				AMB	AMB		
	comp=Z,90nm,0.8s						
GUMO	**Guam**	**18.12**	**156**	*e*P	**P**	**09 42 34.5**	**+1.7**
	comp=Z,596nm,0.9s						
BJT	**Baijiatuau**	**19.78**	**305**	*e*P	**P**	**09 42 47.6**	**-0.8**
	comp=Z,34nm,1.1s						
BJI	**Beijing**	**19.78**	**305**	*e*P	**P**	**09 42 47.7**	**-0.7**
BJI				S	**S**	**09 46 05.6**	**+6.2**
BJI				AMB	AMB		
	comp=Z,25nm,1.0s						
BJI	**Beijing**	**19.78**	**305**	*e*P	**P**	**09 42 47.7**	**-0.7**
	comp=Z,25nm,1.0s						
BJI				S	**S**	**09 46 05.6**	**+6.2**
WHN	**Wuhan**	**19.88**	**276**	⇑P	**P**	**09 42 50.5**	**+1.1**
TGY	**Tagaytay City**	**22.24**	**227**	P	**P**	**09 43 11.3**	**-0.1**
	comp=Z,220nm,0.9s,baz=269,slow=15,SNR=2.6						
TGY	**Tagaytay City**	**22.24**	**227**	P	**P**	**09 43 11.3**	**-0.1**
TGY				pmax	pmax		
	comp=Z,221nm,0.9s						
HIA	**Hailar**	**23.09**	**330**	*e*P	**P**	**09 43 18.6**	**-0.3**
	comp=Z,15nm,0.7s,mb4.5						
HHC	**Hu-ho-hao-te**	**23.36**	**303**	*e*P	**P**	**09 43 22.8**	**+1.4**
HHC				PCP	PcP	09 46 56.3	+4.9
HHC				S	**S**	**09 47 01.6**	**+3.3**
HHC				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.2						
HHC				AMB	AMB		
	comp=Z,201nm,4.5s						
ENH	**Enshi**	**24.08**	**277**	*e*P	**P**	**09 43 27.5**	**-0.5**
	comp=Z,48nm,0.6s,mb5.1						
XAN	**Xi'an**	**24.33**	**286**	P	**P**	**09 43 30.0**	**-0.2**
XAN				AMB	AMB		
	comp=Z,41nm,1.0s,mb4.8						
GYA	**Guiyang**	**27.28**	**269**	⇓*i*P	**P**	**09 43 55.9**	**-0.6**
GYA				S	**S**	**09 47 57.4**	**-3.1**
GYA				AMB	AMB		
	comp=Z,50nm,1.0s,mb4.9						
LZH	**Lanzhou**	**28.54**	**290**	*e*P	**P**	**09 44 07.0**	**-0.4**
LZH				*e*S	**S**	**09 48 20.0**	**-0.1**
LZH				AMB	AMB		
	comp=Z,30nm,1.5s,mb4.5						
LZH				AMB	AMB		
	comp=Z,130nm,5.0s						
LZH	**Lanzhou**	**28.54**	**290**	*e*P	**P**	**09 44 07.0**	**-0.4**
	comp=Z,30nm,1.5s,mb4.5						
LZH				pP		09 45 30.0	
LZH				sP	sP	09 46 23.5	-6.4
LZH				*e*S	**S**	**09 48 20.0**	**-0.1**
LZH				ScS	tx	09 54 53.1	
CD2	**Chengdu**	**28.89**	**280**	⇓*i*P	**P**	**09 44 10.0**	**-0.5**
CD2				XP	sP	09 46 27.9	-5.2
CD2				S	**S**	**09 48 33.0**	**+7.4**
CD2				AMB	AMB		
	comp=Z,60nm,0.5s,mb5.3						
ULN	**Ulaanbaatar**	**29.02**	**315**	*i* P	**P**	**09 44 11.2**	**-0.2**
ULN	**Ulaanbaatar**	**29.02**	**315**	*e*P	**P**	**09 44 11.5**	**+0.1**
	comp=Z,6.3nm,1.1s,mb4.0						
SONM	**Songino Array**	**29.41**	**315**	P	**P**	**09 44 14.7**	**-0.1**
	comp=Z,2.9nm,0.7s,mb3.8,baz=126,slow=8.8,SNR=12						
SONM				pP		09 45 36.3	
	comp=Z,5.3nm,1.0s,baz=130,slow=7.9,SNR=3.2						
SONM				PcP	PcP	09 47 05.1	-0.5
	comp=Z,1.2nm,0.5s,baz=141,slow=2.4,SNR=5.3						
SONM				ScP		09 49 58.7	
	comp=Z,3.0nm,0.8s,baz=147,slow=3.2,SNR=11						
KMI	**Kunming**	**31.05**	**269**	*e*P	**P**	**09 44 28.4**	**-0.7**
	comp=Z,17nm,1.0s,mb4.4						
KMI				pP		09 45 52.3	
KMI				SS	SS	09 51 36.1	-3.0
KMI				LR	LR		
	comp=Z,270nm,19.0s						
GTA	**Gaotai**	**31.91**	**297**	P	**P**	**09 44 36.7**	**+0.4**
GTA				AP		09 46 05.0	
GTA				PP	PP	09 46 06.5	+4.4
GTA				XP	sP	09 46 57.5	-3.2
GTA				S	**S**	**09 49 09.2**	**-3.0**
GTA				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.4						
GTA				AMB	AMB		
	comp=Z,148nm,5.3s						
YAK	**Yakutsk**	**32.01**	**353**	*d* *i*P	**P**	**09 44 36.2**	**-0.6**
YAK				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.6						
ZAK	**Zakamensk**	**32.34**	**318**	*e*P	**P**	**09 44 38.8**	**-0.9**
TLY	**Talaya**	**32.71**	**320**	*i* P	**P**	**09 44 43.4**	**+0.6**
TLY				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.3						
TLY	**Talaya**	**32.71**	**320**	*e*P	**P**	**09 44 43.6**	**+0.8**
	comp=Z,11nm,0.7s,mb4.4						
NANT	**Nan**	**35.18**	**259**	⇓P	**P**	**09 45 04.5**	**+0.6**
	comp=Z,156nm,0.5s						
CHRT	**Chiangrai**	**35.50**	**262**	⇓P	**P**	**09 45 07.5**	**+1.0**
	comp=Z,297nm,0.8s						
CMAR	**Chiang Mai Arr**	**36.83**	**260**	P	**P**	**09 45 18.2**	**+0.7**
	comp=Z,22nm,0.8s,mb4.7,baz=54,slow=6.0,SNR=79						
CMAR				ScP		09 50 26.6	
	comp=Z,0.7nm,0.4s,baz=48,slow=3.3,SNR=5.2						
CMAR	**Chiang Mai Arr**	**36.83**	**260**	P	**P**	**09 45 18.2**	**+0.7**
CMAR						09 50 26.6	
CMAR				pmax	pmax		
	comp=Z,22nm,0.8s						
SHL	**Shillong**	**40.29**	**275**	*e*P	**P**	**09 45 45.5**	**-0.1**
PMG	**Port Moresby**	**40.70**	**165**	P	**P**	**09 45 48.7**	**-0.3**
	comp=Z,31nm,0.9s,mb4.7,baz=41,slow=4.2,SNR=26						
PMG	**Port Moresby**	**40.70**	**165**	P	**P**	**09 45 48.7**	**-0.3**
PMG				pmax	pmax		
	comp=Z,31nm,0.9s						
PMG	**Port Moresby**	**40.70**	**165**	*e*P	**P**	**09 45 48.6**	**-0.4**
	comp=Z,20nm,0.6s,mb4.7						
WMQ	**Urumqi**	**41.24**	**303**	⇑P	**P**	**09 45 53.9**	**+0.8**
WMQ				AP	pP	09 47 27.9	+2.4
WMQ				XP	sP	09 48 22.2	+1.5
WMQ				AMB	AMB		
	comp=Z,16nm,0.6s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,25nm,6.0s						
TIXI	**Tiksi**	**41.53**	**356**	*i* P	**P**	**09 45 54.4**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb3.9						
KAKA	**Kakadu**	**43.16**	**187**	⇓*i*P	**P**	**09 46 08.0**	**-0.7**
	comp=Z,35nm,0.6s,mb5.0						
ZAL	**Zalesovo**	**44.23**	**318**	P	**P**	**09 46 15.9**	**-0.7**
	comp=Z,1.0nm,0.5s,mb3.5,baz=337,slow=7.7,SNR=3.9						
ZAL				PcP	PcP	09 47 49.8	-1.1
	comp=Z,2.3nm,0.7s,baz=329,slow=3.1,SNR=7.9						
ZAL	**Zalesovo**	**44.23**	**318**	P	**P**	**09 46 15.9**	**-0.7**
ZAL					pP	09 47 49.8	-0.5
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GUN	**Gumba**	**44.75**	**280**	*e*P	**P**	**09 46 21.6**	**+0.6**
	comp=Z,103nm,0.6s,mb5.4						
GUN	**Gumba**	**44.75**	**280**	*e*P	**P**	**09 46 21.9**	**+0.9**
	comp=Z,31nm,0.4s,mb5.1						
PKI	**Pulchoki**	**45.25**	**280**	*e*P	**P**	**09 46 25.1**	**+0.2**
	comp=Z,17nm,0.5s,mb4.7						
KKN	**Kakani**	**45.30**	**280**	*e*P	**P**	**09 46 25.5**	**+0.3**
	comp=Z,77nm,0.8s,mb5.2						
DMN	**Daman**	**45.50**	**280**	*e*P	**P**	**09 46 27.0**	**+0.2**
	comp=Z,29nm,0.5s,mb5.0						
GKN	**Gorkha**	**45.78**	**281**	*e*P	**P**	**09 46 29.2**	**+0.2**
	comp=Z,30nm,0.4s,mb5.0						
KOLN	**Koldanda**	**46.73**	**281**	*e*P	**P**	**09 46 36.5**	**+0.3**
	comp=Z,81nm,0.8s,mb5.2						
KURK	**Kurchatov**	**47.66**	**313**	*i* P	**P**	**09 46 41.8**	**-1.2**

KURK	Kurchatov	47.66	313	eP	P	09 46 41.7	-1.3
	comp=Z,6.3nm,0.6s,mb4.1						
FITZ	Fitzroy Crossi	49.57	195	eP	P	09 46 57.6	-0.2
	comp=Z,10nm,0.6s,mb4.3						
FITZ	Fitzroy Crossi	49.57	195	P	P	09 46 57.7	0.0
	comp=Z,11nm,0.6s,mb4.4,baz=8.8,slow=7.8,SNR=21						
TKM2	Tokmak 2	50.09	302	eP	P	09 47 01.2	-0.1
	comp=Z,5.6nm,0.5s,mb4.2						
WRAB	Tennant Creek	50.16	184	c iP	P	09 47 01.5	-0.6
WRAB	Tennant Creek	50.16	184	eP	P	09 47 01.5	-0.7
	comp=Z,78nm,0.7s,mb5.2						
WB2	Warramunga Arr	50.17	184	⇓iP	P	09 47 01.4	-0.8
WB2				eS	S	09 53 33.8	-2.1
WRA	Warramunga Arr	50.17	184	P	P	09 47 00.7	-1.5
	comp=Z,46nm,0.5s,mb5.1,baz=0.1,slow=7.7,SNR=365						
WRA	Warramunga Arr	50.17	184	P	P	09 47 00.7	-1.5
WRA				pmax	pmax		
	comp=Z,46nm,0.5s						
AAK	Ala-Archa	50.93	302	d iP	P	09 47 06.0	-1.5
AAK				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb3.8						
CTA	Charters Tower	50.95	169	eP	P	09 47 07.4	-0.5
	comp=Z,11nm,0.7s,mb4.3						
CTA	Charters Tower	50.95	169	P	P	09 47 07.5	-0.4
	comp=Z,21nm,0.9s,mb4.5,baz=344,slow=8.4,SNR=18						
CTA	Charters Tower	50.95	169	P	P	09 47 07.5	-0.4
CTA				pmax	pmax		
	comp=Z,21nm,0.9s						
CTAO	Charters Tower	50.95	169	eP	P	09 47 07.3	-0.6
	comp=Z,22nm,0.8s,mb4.5						
UCH	Uchtor	50.97	302	eP	P	09 47 08.7	+0.9
	comp=Z,8.8nm,0.9s,mb4.1						
AML	Almayashu	51.59	302	eP	P	09 47 12.4	+0.1
	comp=Z,8.9nm,0.6s,mb4.3						
NDI	New Delhi	51.84	284	eP	P	09 47 13.0	-1.4
	comp=Z,42nm,0.7s,mb4.9						
CHKZ	Chkalovo	52.59	316	eP	P	09 47 17.9	-1.4
	comp=Z,90nm,1.1s,mb5.0						
BVAR	Borovoye Array	52.75	316	P	P	09 47 19.5	-1.0
	comp=Z,8.0nm,0.4s,mb4.4,baz=94,slow=7.2,SNR=75						
BVAR				PcP	PcP	09 48 21.1	-0.9
	comp=Z,3.6nm,0.5s,baz=88,slow=3.1,SNR=8.4						
BVAR				pP	pP	09 48 55.8	-2.7
	comp=Z,3.6nm,0.9s,baz=90,slow=8.9,SNR=2.5						
BVAR				ScP		09 51 29.0	
	comp=Z,1.0nm,0.5s,baz=72,slow=4.6,SNR=3.9						
BRVK	Borovoye	52.81	316	eP	P	09 47 20.1	-0.9
BRVK				ePcP	PcP	09 48 20.9	-1.3
BHPL	Bhopal	53.48	278	eP	P	09 47 25.3	-0.8
BHPL				e		09 47 26.0	
	comp=Z,17nm,0.4s						
ASAR	Alice Springs	53.90	184	P	P	09 47 28.3	-0.8
	comp=Z,22nm,0.8s,mb4.6,baz=23,slow=11,SNR=90						
ASAR				ScP		09 51 36.6	
	comp=Z,1.8nm,0.8s,slow=5.4,SNR=5.3						
ASPA	Alice Springs	53.90	184	⇑iP	P	09 47 28.4	-0.7
RSO	Redoubt South	54.17	35	eP	P	09 47 31.0	+0.4
ILAR	Eielson Array	56.85	30	P	P	09 47 48.2	-0.9
	comp=Z,4.4nm,0.5s,mb4.1,baz=267,slow=5.8,SNR=47						
ILAR	Eielson Array	56.85	30	P	P	09 47 48.3	-0.8
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
POO	Poona	58.40	274	eP	P	09 47 59.6	-0.6
POO				e		09 48 01.0	
	comp=Z,24nm,0.3s						
KAD	Karad	58.62	273	eP	P	09 48 01.0	-0.7
KAD				e		09 48 01.9	
	comp=Z,22nm,0.6s						
DZM	Mont Dzumac	59.19	148	eP	P	09 48 06.8	+1.3
ARU	Arti	59.21	321	⇑iP	P	09 48 04.1	-1.1
ARU				e		09 48 44.2	
ARU				e	pP	09 49 45.8	-1.0
ARU				e		09 50 21.2	
ARU				eS	S	09 55 33.6	-0.2
ARU				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.2						
ARU	Arti	59.21	321	eP	P	09 48 04.1	-1.1
	comp=Z,8.8nm,0.5s,mb4.3						
DAWY	Dawson	60.15	30	eP	P	09 48 11.3	0.0
FORT	Forrest	61.52	189	eP	P	09 48 20.2	-0.6
	comp=Z,101nm,0.6s,mb5.4						
INK	Inuvik	61.76	25	P	P	09 48 22.0	+0.1
	comp=Z,6.0nm,0.5s,mb4.3,baz=288,slow=6.1,SNR=79						
INK	Inuvik	61.76	25	P	P	09 48 22.0	+0.1
INK				pmax	pmax		
	comp=Z,6.0nm,0.5s						
INK	Inuvik	61.76	25	eP	P	09 48 21.7	-0.1
	comp=Z,7.1nm,0.6s,mb4.3						
ARMA	Armidale	62.01	166	eP	P	09 48 24.3	+0.3
STKA	Stephens Creek	62.10	176	eP	P	09 48 24.4	-0.1
	comp=Z,13nm,0.7s,mb4.5						
STKA	Stephens Creek	62.10	176	P	P	09 48 24.2	-0.3
	comp=Z,17nm,0.7s,mb4.6,baz=333,slow=6.3,SNR=18						
DLBC	Dease Lake	65.90	35	P	P	09 48 49.8	+1.6
	comp=Z,26nm,1.4s,mb4.7,baz=275,slow=7.9,SNR=6.1						
TOO	Toolangi	68.07	173	eP	P	09 49 02.9	+0.9
	comp=Z,11nm,0.8s,mb4.5						
KEV	Kevo	68.43	339	ep	P	09 49 02.5	-1.1
	comp=Z,8.1nm,0.5s,mb4.6						
KEV	Kevo	68.43	339	eP	P	09 49 02.5	-1.1
KEV				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.6						
ARCES	ARCESS Array B	68.99	340	P	P	09 49 06.6	-0.4
	comp=Z,8.7nm,0.4s,mb4.6,baz=62,slow=8.4,SNR=108						
ARCES	ARCESS Array B	68.99	340	P	P	09 49 06.6	-0.4
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.4s						
RES	Resolute Bay	69.78	13	eP	P	09 49 12.0	+0.4
	comp=Z,7.3nm,0.6s,mb4.4						
JOF	Joensuu	70.22	332	ep	P	09 49 13.2	-1.1
	comp=Z,4.6nm,0.3s,mb4.5						
JOF	Joensuu	70.22	332	eP	P	09 49 13.2	-1.1
JOF				pmax	pmax		
	comp=Z,5.0nm,0.3s,mb4.5						
YKA	Yellowknife Ar	71.18	28	P	P	09 49 20.2	+0.2
	comp=Z,4.6nm,0.6s,mb4.2,baz=297,slow=6.0,SNR=97						
YKA	Yellowknife Ar	71.18	28	P	P	09 49 20.2	+0.2
YKA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
YKA	Yellowknife Ar	71.18	28	eP	P	09 49 20.2	+0.2
VRSR	Storozhevoye	71.69	319	eP	P	09 49 21.1	-2.1
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.5						
VRSR				pmax	pmax		
	comp=N,7.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.4s						
KAF	Kangasniemi	72.63	333	ep	P	09 49 27.1	-1.2
	comp=E,7.6nm,0.4s,mb4.6,baz=55,slow=5.5						
KAF	Kangasniemi	72.63	333	eP	P	09 49 27.1	-1.2
KAF				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.6						
KIV	Kislovodsk	72.71	311	d iP	P	09 49 28.3	-0.9
KIV				i *PP	pP	09 51 19.7	+3.3
KIV				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.5						
GNI	Garni	72.97	307	⇓iP	P	09 49 30.8	+0.1
GNI				pmax	pmax		
	comp=Z,21nm,1.7s						
FINES	FINESS Array B	73.08	332	P	P	09 49 30.2	-0.7
	comp=Z,6.3nm,0.4s,mb4.5,baz=68,slow=5.9,SNR=89						
FINES	FINESS Array B	73.08	332	i P	P	09 49 30.6	-0.3
FINES				pmax	pmax		
	comp=Z,6.0nm,0.4s						
SOC	Sochi	74.80	312	eP	P	09 49 38.0	-3.0
SOC				e*PP	pP	09 51 27.9	-1.1
SOC				eS	S	09 58 31.2	-5.4
SOC				e		09 58 51.2	
SOC				pmax	pmax		
	comp=Z,36nm,1.1s,mb4.8						
SOC				pmax	pmax		
	comp=N,23nm,0.9s						
SOC				pmax	pmax		
	comp=E,30nm,1.2s						
HAWA	Hanford	76.78	44	eP	P	09 49 52.6	+0.9
	comp=E,3.9nm,0.5s,mb4.2						
YBH	Yreka Blue Hor	77.09	49	P	P	09 49 55.3	+1.7
	comp=E,6.8nm,0.9s,mb4.2,baz=258,slow=7.2,SNR=6.9						
YBH	Yreka Blue Hor	77.09	49	P	P	09 49 55.3	+1.7
YBH				pmax	pmax		
	comp=Z,7.0nm,0.9s						
NEW	Newport	77.23	41	P	P	09 49 55.5	+1.3
	comp=Z,7.1nm,0.8s,mb4.2						
NEW	Newport	77.23	41	P	P	09 49 55.5	+1.3
NEW				pmax	pmax		
	comp=Z,7.0nm,0.9s						
AKASG	Malin Array Be	77.44	322	P	P	09 49 54.5	-0.8
	comp=Z,3.8nm,0.3s,mb4.3,baz=51,slow=5.4,SNR=32						
AKASG				pP	pP	09 51 40.3	-3.9
	comp=Z,1.4nm,0.5s,baz=44,slow=7.8,SNR=3.1						
URZ	Urewera	77.74	149	P	P	09 49 56.6	-0.6
	comp=Z,12nm,0.9s,mb4.3,baz=347,slow=15,SNR=6.1						
WALA	Waterton Lakes	78.60	39	eP	P	09 50 02.9	+1.4
	comp=Z,12nm,0.8s,mb4.5						
NB2	NORSAR Subarra	78.93	336	P	P	09 50 02.3	-0.7
	comp=Z,8.2nm,0.6s,mb4.4,baz=46,slow=5.3						
NB2	NORSAR Subarra	78.93	336	P	P	09 50 02.3	-0.7
	baz=46,slow=5.3						
NOA	NORSAR Array B	78.93	336	P	P	09 50 02.6	-0.3
	comp=Z,8.3nm,0.6s,mb4.5,baz=45,slow=5.2,SNR=35						
NOA				pP	pP	09 51 49.7	-2.7
	comp=Z,0.9nm,0.9s,baz=49,slow=5.7,SNR=1.3						
RPZ	Rata Peaks	79.96	156	P	P	09 50 09.1	+0.4
	comp=Z,14nm,0.8s,mb4.5,baz=200,slow=11,SNR=4.4						
BRTR	Keskin Array B	80.66	311	P	P	09 50 12.7	+0.2
	comp=Z,3.4nm,0.8s,mb4.0,baz=90,slow=3.7,SNR=11						
BRTR	Keskin Array B	80.66	311	P	P	09 50 12.7	+0.2
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
HRY	Holter Researc	81.08	41	eP	P	09 50 15.8	+1.3
NVAR	Mina Array Bea	81.69	50	P	P	09 50 18.9	+1.2
	comp=Z,4.8nm,0.7s,mb4.2,baz=290,slow=6.1,SNR=23						
MNV	Mina	81.78	50	eP	P	09 50 20.1	+1.9
MTUM	Tungsten Hills	82.08	51	eP	P	09 50 21.6	+1.8
ASF	Jabal al Asfar	82.33	303	P	P	09 50 20.9	-0.3
	comp=Z,6.7nm,1.1s,mb4.1,baz=178,slow=1.4,SNR=4.0						
ELK	Elko	82.41	47	eP	P	09 50 23.4	+2.0
	comp=Z,2.5nm,0.6s,mb3.9						
TPH	Tonopah	82.59	50	eP	P	09 50 24.3	+2.0
	comp=Z,8.9nm,0.9s,mb4.3						
IMW	Indian Meadow	83.23	43	eP	P	09 50 27.8	+2.4
TPNV	Topopah Spring	83.86	51	eP	P	09 50 30.1	+1.5
	comp=Z,9.7nm,0.8s,mb4.4						
HWUT	Hardware Ranch	84.20	45	eP	P	09 50 32.4	+2.2
	comp=Z,11nm,1.0s,mb4.3						
PDAR	Pinedale Array	84.71	43	P	P	09 50 34.1	+1.4
	comp=Z,2.3nm,0.7s,mb3.9,baz=326,slow=1.9,SNR=19						
NEN	Nelson	85.52	51	P	P	09 50 38.2	+1.4
GERES	GERESS Array B	86.46	327	P	P	09 50 40.4	-0.5
	comp=Z,0.9nm,0.4s,mb3.8,baz=43,slow=6.8,SNR=5.7						
GERES	GERESS Array B	86.46	327	P	P	09 50 40.4	-0.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ULM	Lac du Bonnet	86.85	31	P	P	09 50 43.6	+0.9
	comp=Z,1.6nm,0.3s,mb4.2,baz=324,slow=2.6,SNR=4.7						
PERS	Pernice	87.29	324	i P	P	09 50 45.3	+0.4
PV10	Paradox Valley	87.69	46	eP	P	09 50 49.2	+2.2
PDKS	Podkum	87.74	324	i P	P	09 50 46.8	-0.3
PV01	Paradox Valley	88.12	46	eP	P	09 50 50.9	+1.9
JAVS	Javornik	88.33	324	i P	P	09 50 49.2	-0.6
CDF	Champ du Feu	89.72	329	eP	P	09 50 55.4	-0.8
	comp=Z,5.2nm,0.5s,mb4.3						
SDCO	Great Sand Dun	90.26	45	eP	P	09 51 01.1	+2.1
HINF	Hinteralfeld	90.36	329	eP	P	09 50 58.1	-1.1
LPL	La Plagne	92.15	328	eP	P	09 51 06.9	-0.6
	comp=Z,6.3nm,0.6s,mb4.5						
LPG	La Plagne	92.15	328	eP	P	09 51 07.0	-0.5
	comp=Z,7.1nm,0.6s,mb4.5						
SMF	Signal de Mont	92.57	330	eP	P	09 51 09.1	-0.3
	comp=Z,20nm,1.0s,mb4.8						
LDF	La Druitiere	92.64	333	eP	P	09 51 09.4	-0.3
FLN	La Foliniere	92.64	334	eP	P	09 51 09.7	0.0
AVF	Avril sur Loir	92.67	330	eP	P	09 51 09.6	-0.2
	comp=Z,8.8nm,1.0s,mb4.5						
GRR	Gorron	93.09	334	eP	P	09 51 11.6	-0.2
	comp=Z,7.0nm,0.6s,mb4.6						
TCF	Toulx Ste Croi	93.55	331	eP	P	09 51 13.8	-0.1
TXAR	Lajitas Array	96.84	50	P	P	09 51 29.6	+0.3
	comp=Z,0.6nm,0.6s,mb4.0,baz=290,slow=3.2,SNR=10						
TXAR				PP	PP	09 55 29.4	-4.5
	comp=Z,0.5nm,0.9s,baz=286,slow=6.6,SNR=3.6						
TXAR	Lajitas Array	96.84	50	P	P	09 51 29.6	+0.3
TXAR				PP	PP	09 55 29.4	-4.5
SYO	Syowa Base	120.83	205	⇑Pdiff	Pdif	09 53 20.5	+6.2
DBIC	Dimbokro	128.34	309	PKP	PKPdf	09 57 02.1	+0.9
	comp=Z,3.0nm,1.0s,baz=342,slow=4.1,SNR=4.5						
DBIC	Dimbokro	128.34	309	PKIKP	PKPdf	09 57 02.1	+0.9
DBIC				pmax	pmax		
	comp=Z,3.0nm,1.0s						
SNAA	Sanae	133.49	196	⇑iP	PKPdf	09 57 08.7	-0.6
SNAA	Sanae	133.49	196	PKP	PKPdf	09 57 12.0	+2.7
	comp=Z,0.5nm,1.1s,baz=186,slow=11,SNR=3.2						
SNAA	Sanae	133.49	196	PKIKP	PKPdf	09 57 12.0	+2.7
SNAA				pmax	pmax		
	comp=Z,1.0nm,1.2s						
VNA2	Neumayer--Watz	135.08	196	⇑iP	PKPdf	09 57 17.1	+4.8
VNA2	Neumayer--Watz	135.08	196	⇑i	PKPdf	09 57 18.9	+6.6
VNA3	Neumayer Olymp	135.35	194	⇑iP	PKPdf	09 57 17.1	+4.3
VNA3	Neumayer Olymp	135.35	194	⇓i	PKPdf	09 57 19.5	+6.7
USHA	Ushuaia	149.41	150	PKPbc	PKPdf	09 57 44.8	+7.4
	comp=Z,15nm,0.8s,baz=140,slow=0.4,SNR=6.4						
SAML	Samuel	151.24	46	ePKPbc	PKPdf	09 57 49.1	+7.7

*NEIC **08** 09:48:13.3,16.13N×97.14W,h52^{km},MD4.1(MEX),After MEX.*

MEX 08 09:48:13.6±0.8**,16.12N×97.14W,h46**^{km}±18^{km}**,MD4.1,1D, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.99	286	i P	P	09 48 29.4	-1.8
PNIG				i S	S	09 48 42.1	-2.3
VHO	Vista Hermosa	1.03	22	⇓iP	P	09 48 30.0	-1.7
VHO				i S	S	09 48 43.2	-2.1
VHO	Vista Hermosa	1.03	22	i P	P	09 48 30.1	-1.7
VHO				i S	S	09 48 43.2	-2.1
OXX	Oaxaca	1.04	22	i P	P	09 48 30.0	-2.0
OXX				i S	S	09 48 43.0	-2.6
HUIG	Huatulco	1.05	109	i P	P	09 48 30.6	-1.5
HUIG				i S	S	09 48 43.7	-2.1
CMIG	Matias Romero	2.37	65	i P	P	09 48 48.5	-2.4
CMIG				i S	S	09 49 22.6	+3.8
ACX	Acapulco	2.77	286	eP	P	09 49 00.0	+3.4
IISM	Ciudad Serdan	2.87	355	eP	P	09 49 00.0	+2.0
EVV	El Vigia	2.89	36	eP	P	09 49 01.0	+2.7
CAIG	El Cayaco	3.14	288	i P	P	09 48 59.2	-2.7
CAIG				i S	S	09 49 31.5	-7.0
CAIG	El Cayaco	3.14	288	i P	P	09 49 00.1	-1.8
CAIG				i S	S	09 49 32.0	-6.5
PLIG	Platanillo	3.20	315	i P	P	09 49 05.2	+2.5
PLIG				i S	S	09 49 36.6	-3.3
PLIG	Platanillo	3.20	315	i P	P	09 49 03.4	+0.7
PLIG				i S	S	09 49 37.2	-2.8
PPM	Popocatepetl	3.26	334	eP	P	09 48 58.0	-5.5
PPM				i S	S	09 49 40.4	-1.1
PPM				i S	S	09 49 43.7	+2.2
PPM	Popocatepetl	3.26	334	eP	P	09 48 60.0	-3.6
PPM				eP		09 49 11.5	
PPM				i S	S	09 49 40.4	-1.1
LVIG	Laguna Verde	3.65	11	i S	S	09 49 52.3	+0.9

ISC 08 09:58:53.5±0.9**,46.06N**±0.05×**13.66E**±0.06**,n6,**σ0^{s}**71**/11**, 1C,Austria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DRE	Drenchia	0.11	353	⇑iPg	Pg	09 58 55.1	-0.6
DRE				i Sg	Sg	09 58 57.1	-0.2
VOJS	Vojsko	0.16	101	i Pg	Pg	09 58 56.5	-0.1
VOJS				i Sg	Sg	09 58 59.8	+1.0
CADS	Cadrg	0.17	17	i Pg	Pg	09 58 56.5	-0.4
CADS				i Sg	Sg	09 58 60.0	+0.7
COLI	Coloredo	0.21	290	ePg	Pg	09 58 57.2	-0.5
COLI				eSg	Sg	09 59 02.0	+1.5
ROBS	Robic	0.21	330	i Pg	Pg	09 58 56.8	-0.9
ROBS				i Sg	Sg	09 59 00.7	+0.2
JAVS	Javornik	0.33	121	i Pg	Pg	09 58 59.5	-0.5

*DHMR **08** 10:03:58.9±3.4,28.38N×57.56E,h32^{km}±999^{km},mb5.1*

*THR **08** 10:04:02.8±0.5,27.60N×57.22E,h18^{km}±9^{km},ML4.8*

*MOS **08** 10:04:05.3±0.8,27.57N×57.61E,h45^{km},mb5.1/16, MS4.2/9,Error ellipse: s-maj=14.3km s-min=6.8km az=113.3*

*BJI **08** 10:04:06.4,27.84N×56.75E,h77^{km},mB5.0,mb5.0,Ms4.9, Msz4.6*

*CSEM **08** 10:04:06.0±0.1,27.57N×57.28E,h35^{km},mb5.0/75,Ms4.7, Error ellipse: s-maj=2.9km s-min=1.9km az=80.0*

*DUSS **08** 10:04:08.7±0.3,23.07N×54.51E,h15^{km},MS5.8*

*IDC **08** 10:04:11.2±4.3,27.88N×57.44E,h61^{km}±38^{km},mb4.3/19, mb1 4.5/22,mb1mx4.5/25,ML4.7/2,MS4.3/18,Ms1 4.3/18, ms1mx4.3/20,Error ellipse: s-maj=18.0km s-min=13.8km az=179.0*

*NEIC **08** 10:04:12.9±1.2,27.92N×57.50E,h78^{km}±10^{km},mb5.1/86, Error ellipse: s-maj=7.6km s-min=3.6km az=185.0*

*HRVD **08** 10:04:12.9±0.6,27.71N×57.32E,h62^{km}±4^{km},MW5.0/31, Centroid moment Tensor Solution. LP body waves: s27,c39;Mantle waves: s31,c43; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.61±.25; $M_{\theta\theta}$0.06±.22; $M_{\phi\phi}$-1.67±.18; $M_{r\theta}$1.39±.24; $M_{\theta\phi}$3.70±.17; $M_{\phi r}$0.17±.28; Best double couple: $M_0$4.2×10^{16} NP1:ϕ_s3°,δ64°,λ162°. NP2:ϕ_s101°,δ74°,λ27°. Principal axes: T 3.7, Plg30°, Azm325°; N .99, Plg59°, Azm129°; P -4.69, Plg7°, Azm231°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 08 10:04:05.3±0.9**,27.59N**±0.03×**57.41E**±0.02**,h32**^{km}±7^{km}**, h34**^{km}±1.5^{km}**:pP-P,n410,**σ**1**^{s}**19**/423**,mb4.9**/125**,MS4.4**/33**, 24C-22D,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRBR	Kerman	2.45	347	ePG	Pn	10 04 46.7	+2.6
KRBR				eSG	Sn	10 05 18.5	+5.2
KRBR				AMP		10 05 20.9	
	comp=N,14μm,0.5s						
KRBR				AMP		10 05 21.6	
	comp=E,19μm,0.3s						
KRBR	Kerman	2.45	347	⇑iPg	Pn	10 04 47.2	+3.1
KRBR				i Sg	Sn	10 05 15.6	+2.3
	comp=E,22μm,0.5s						
ZHSF	Zahedan	3.58	55	ePN	Pn	10 05 01.5	+1.4
ZHSF				AMP		10 06 06.6	
	comp=N,487nm,0.7s						
ZHSF				AMP		10 06 08.2	
	comp=E,503nm,0.7s						
NASN	Na'in	6.54	324	ePN	Pn	10 05 39.6	-2.3
NASN	Na'in	6.54	324	ePn	Pn	10 05 41.7	-0.3
NASN				Sn	Sn	10 06 50.0	-6.3
HASS	Wahat al Ahsa'	7.32	253	P	Pn	10 05 49.4	-3.4
QRN	Al-Qurain	8.46	280	eP	P	10 06 08.3	-0.4
QRN				AML	AML	10 07 41.2	
	comp=Z,803nm,0.4s						
SHGR	Shooshtar-Gavs	8.73	303	ePn	P	10 06 11.4	-1.0
UMR	Umm Al-Rimmam	8.74	285	eP	P	10 06 11.8	-0.9
UMR				AML	AML	10 07 47.7	
	comp=Z,243nm,0.3s						
RDF	Al-Radifah	8.80	281	eP	P	10 06 12.0	-1.4
RDF				AML	AML	10 07 48.7	
	comp=Z,262nm,0.3s						
MIB	Mutribah	9.12	286	eP	P	10 06 16.3	-1.5
MIB				AML	AML	10 07 56.9	
	comp=Z,311nm,0.4s						
RST	Umm Al-Ruwaisa	9.35	284	eP	P	10 06 19.2	-1.9
ASAO	Ashtian	9.39	319	ePN	P	10 06 18.2	-3.4
ASAO	Ashtian	9.39	319	ePn	P	10 06 20.5	-1.1
RYDS	Riyadh	10.27	253	P	P	10 06 29.9	-3.8
RYDS				S	S	10 08 19.7	-9.0
SNGE	Sanandaj	11.39	314	ePN	P	10 06 46.0	-3.1
SNGE	Sanandaj	11.39	314	ePn	P	10 06 47.2	-1.8
MZLS	Mizel	11.55	255	P	P	10 06 48.3	-2.8
DRP	Derazinda	11.87	67	P	P	10 06 56.0	+0.5
JASL	Jaisalmer	12.03	90	eP	P	10 06 56.0	-1.6
SBDP	Sheikh Budin	12.53	65	P	P	10 07 04.0	-0.3
THW	Thamme Wali	13.44	64	⇑P	P	10 07 15.0	-1.3
AFFS	'Afif	13.48	258	P	P	10 07 14.8	-2.2
GRMI	Germi	13.73	327	ePn	P	10 07 19.5	-0.6
KAMS	Al Khamasin	13.78	241	P	P	10 07 19.1	-1.8
HILS	Ha'il	13.87	273	P	P	10 07 19.3	-2.7
CEP	Cherat	13.93	60	⇑P	P	10 07 23.2	+0.4
CHCP	Chirah Chowk	14.93	62	P	P	10 07 35.2	-0.6
TATS	Tathlith	15.07	241	P	P	10 07 35.5	-2.3
HKR	Hakkari	15.21	314	P	P	10 07 39.2	-0.4
MAKU	Maku	15.81	321	ePn	P	10 07 47.9	+0.7
VANT	Van	15.96	316	P	P	10 07 51.6	+2.3
TVAN	Van	16.01	317	i P	P	10 07 51.9	+2.1
VANB	Van	16.06	317	P	P	10 07 51.7	+1.2
KHET	Khetri	16.29	84	eP	P	10 07 52.2	-1.2
KHET				eP		10 07 53.4	
KHET				AMb	AMB	10 07 57.4	
	comp=Z,30nm,1.2s						
KBRS	Khaybar	16.32	268	P	P	10 07 52.9	-0.9
GNI	Garni	16.34	323	eP	P	10 07 55.3	+1.4
GNI	Garni	16.34	323	P	P	10 07 54.9	+1.0
	comp=Z,4.3nm,0.3s,baz=35,slow=3.4,SNR=12						
GNI				LR	LR	10 14 38.6	
	comp=Z,1μm,18.1s,baz=96,slow=39						
GNI	Garni	16.34	323	c iP	P	10 07 55.1	+1.1
GNI				pmax	pmax		
	comp=Z,37nm,0.8s						
GNI				MLR	MLR		
	comp=Z,2μm,19.0s						
THN	Thein Dam	16.57	69	eP	P	10 07 55.9	-1.1
RTK	Rohtak	16.80	81	eP	P	10 07 59.1	-0.8
RTK				AMb	AMB	10 08 00.8	
	comp=Z,88nm,0.7s						
DLH	Dalhousie	16.80	68	eP	P	10 08 06.0	+6.1
DLH				e		10 15 27.0	
KUDL	Kundal	16.88	84	eP	P	10 08 00.5	-0.5
KUDL				AMb	AMB	10 08 08.4	
	comp=Z,18nm,0.7s						
BHK	Bhakra	16.98	72	e	P	10 08 08.0	+5.9
BEST	Besiri	17.00	311	i P	P	10 07 59.6	-2.8
BTMT	Batman	17.02	312	eP	P	10 08 12.8	+10
KKR	Kurukshetra	17.18	77	eP	P	10 08 04.2	-0.5
KKR				AMb	AMB	10 08 04.8	
	comp=Z,158nm,0.3s						
SONA	Sohna	17.40	83	eP	P	10 08 08.2	+0.8
SONA				AMb	AMB	10 08 13.6	
	comp=Z,44nm,0.7s						
SONA				e		10 11 05.9	
AYAN	Aya Nagar	17.43	82	eP	P	10 08 08.2	+0.4
AYAN				e		10 08 14.4	
	comp=Z,41nm,0.7s						
AYAN				e		10 11 09.0	
HAJJ	Hajjah	17.44	230	⇓eP	P	10 08 07.4	-0.5
HAJJ				AMb	AMB	10 08 07.6	
	comp=Z,122nm,1.2s						
HAJJ	Hajjah	17.44	230	⇓eP	P	10 08 07.2	-0.7
BDHA	Al Bayda'	17.47	222	⇑eP	P	10 08 08.6	+0.2
NDI	New Delhi	17.51	82	eP	P	10 08 09.0	+0.3
	comp=Z,60nm,1.0s						
NDI				e		10 11 16.5	
TI2	Plekhanov	17.51	327	⇑iP	P	10 08 09.8	+1.1
TI2	Plekhanov	17.51	327	⇑iP	P	10 08 09.0	+0.3
VRT	Varto	17.54	315	P	P	10 08 11.4	+2.3
POO	Poona	17.59	117	eP	P	10 08 11.0	+1.1
POO				e		10 08 25.0	
POO				e		10 08 35.5	
POO				i		10 11 38.0	
POO				i		10 12 02.5	
DHBB	Dhamar BB	17.74	226	⇑eP	P	10 08 11.4	-0.3
DHBB	Dhamar BB	17.74	226	eP	P	10 08 11.3	-0.3
LBOS		17.74	222	⇑eP	P	10 08 12.1	+0.3
YNBS	Yanbu‘ al Bahr	17.76	264	P	P	10 08 10.2	-1.7
QURS	Qurayyt al Mil	17.89	287	P	P	10 08 12.6	-0.8
ASOR	Ausora	17.99	82	eP	P	10 08 16.0	+1.2
ASOR				AMb	AMB	10 08 16.2	
	comp=Z,180nm,0.3s						
ERZM	Erzurum	18.10	317	i P	P	10 08 18.2	+2.1
EZM	Erzurum	18.11	317	i P	P	10 08 18.7	+2.6
AGRA	Agra	18.24	86	eP	P	10 08 19.6	+1.7
AGRA				AMb	AMB	10 08 21.5	
	comp=Z,58nm,0.1s						
ASF	Jabal al Asfar	18.36	289	P	P	10 08 17.2	-2.2
	comp=Z,3.7nm,0.3s,baz=296,slow=4.2,SNR=14						
ASF				S	S	10 11 29.4	-10
	comp=Z,1.3nm,0.3s,baz=161,slow=22,SNR=3.2						
ASF				LR	LR	10 17 14.4	
	comp=Z,2μm,18.1s,baz=166,slow=43						
URFA	Urfa	18.47	307	eP	P	10 08 22.6	+1.9
KLP	Kalpa	18.55	73	eP	P	10 08 22.4	+0.7
KLP				e		10 08 25.7	
	comp=Z,33nm,0.7s						
PTK	Pertek	18.79	311	i P	P	10 08 25.7	+1.3
KALG	Kalgarh	18.85	79	e	P	10 08 14.7	-11
ELZG	Elazig	18.86	310	i P	P	10 08 26.2	+0.9
BCA	Borcka	18.94	321	i P	P	10 08 28.9	+2.7
EZC	Erzincan	18.97	314	P	P	10 08 30.3	+3.7

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JMQS  Jabal Moqyreh    19.02 279   P     P      10 08 27.2 -0.1
DUSS  Damascus Unive   19.11 293  iP     P      10 08 31.0 +2.7
DUSS                              iP            10 08 31.3
DUSS                              iP            10 08 31.9
DUSS                              e             10 08 32.4
      baz=118,slow=2.8
DUSS                              eS     S      10 12 06.4  +10
DUSS                               AMS   AMS    10 18 21.8
      comp=Z,47µm,18.5s
DUSS                               AMS   AMS    10 18 25.3
      comp=E,44µm,16.9s
MALT  Malatya          19.15 309  iP     P      10 08 29.8 +1.1
MYA   Malataya         19.16 309   P     P      10 08 29.6 +0.7
GZT   Gaziantep        19.34 305  iP     P      10 08 30.9  0.0
KSH   Kashi            19.48  48   P     P      10 08 34.7 +2.3
KSH                               eAP           10 08 46.0
KSH                               ePP    PP     10 08 54.4 +4.3
KSH                               eXP           10 08 56.2
KSH                               eS     S      10 12 06.0 +1.2
KSH                               eXS           10 12 25.0
KSH                               eSS    SS     10 12 33.0 +1.6
KSH                                AMB   AMB
      comp=Z,230nm,4.9s
KSH                                LR    LR
      comp=N,1µm,6.7s
KSH                                LR    LR
      comp=E,1µm,5.1s
GAZ   Gaziantep        19.52 304  eP     P      10 08 33.1 +0.1
AYUS  ‘Aynunah         19.58 277   P     P      10 08 34.1 +0.4
GUMT  Gumushane        19.59 316  eP     P      10 08 33.1 -0.7
AML   Almayashu        19.68  38   P     P      10 08 34.0 -0.6
      SNR=13
AML   Almayashu        19.68  38  eP     P      10 08 32.3 -2.4
      comp=E,11nm,0.7s
BDAS  Al Bad‘          19.71 278   N            10 08 35.4
EIL   Elat             19.82 281   P     P      10 08 37.3 +1.0
      comp=E,1.4nm,0.3s,baz=78,slow=8.2,SNR=16
EIL                                LR    LR     10 17 33.8
      comp=E,508nm,21.3s,baz=99,slow=41
EIL   Elat             19.82 281  eP     P      10 08 37.8 +1.5
      comp=E,18nm,0.8s
HAQS  Haql             19.84 280   P     P      10 08 37.0 +0.4
TAYS  Tayyib Ism       19.91 278   N            10 08 37.6
KAHT  Ahir Dag         19.95 305  iP     P      10 08 38.5 +0.8
COBT  Iskenderun       19.99 302  iP     P      10 08 39.8 +1.7
EKS2  Erkin-Say        20.08  37   P     P      10 08 37.7 -1.3
      SNR=13
EKS2  Erkin-Say        20.08  37  eP     P      10 08 37.1 -1.8
      comp=E,73nm,1.4s
PTH   Pithoragarh      20.12  79  eP     P      10 08 42.0 +2.5
PTH                               e             10 10 26.0
KIV   Kislovodsk       20.18 328  eP     P      10 08 39.6 -0.4
KIV                               e             10 08 58.3
KIV                               eS     S      10 12 20.7 +1.1
KIV                               eSS    SS     10 12 47.3 -1.6
KIV                                pmax  pmax
      comp=Z,72nm,1.0s
KIV                                MLR   MLR
      comp=N,241nm,20.0s,MS3.7
KIV                                MLR   MLR
      comp=E,248nm,20.0s,MS3.7
KIV                                MLR   MLR
      comp=Z,314nm,20.0s,MS3.7
KIV   Kislovodsk       20.18 328⇓iP      P      10 08 39.9 -0.1
UCH   Uchtor           20.20  39   P     P      10 08 44.5 +4.4
      SNR=7.8
UCH   Uchtor           20.20  39  eP     P      10 08 38.3 -1.9
      comp=Z,3.5nm,0.7s
AAK   Ala-Archa        20.45  38   P     P      10 08 41.5 -1.3
      SNR=12
AAK   Ala-Archa        20.45  38d iP     P      10 08 40.1 -2.7
AAK                                pmax  pmax
      comp=Z,9.0nm,0.7s
AAK                                MLR   MLR
      comp=Z,1µm,14.0s,MS4.4
AAK   Ala-Archa        20.45  38  eP     P      10 08 40.0 -2.8
      comp=Z,13nm,0.8s
KZA   Kyzart           20.52  41   P     P      10 08 43.7 +0.3
      SNR=29
CEYT  Ceyhan           20.54 303  eP     P      10 08 45.7 +1.9
FRU   Bishkek          20.65  38  eP     P      10 08 48.0 +3.1
FRU                                pmax  pmax
      comp=Z,180nm,2.2s
SVST  Sivas            20.86 311  iP     P      10 08 50.6 +3.6
USP   Ospenovka        20.88  37   P     P      10 08 48.2 +1.0
      SNR=9.9
BNN   Bunyan           21.20 307  eP     P      10 08 50.5 +0.1
ULHL  Ulahol           21.20  42   P     P      10 08 50.1 -0.3
      SNR=25
TKM2  Tokmak 2         21.25  39   P     P      10 08 49.9 -1.1
      SNR=20
TKM2  Tokmak 2         21.25  39  eP     P      10 08 49.5 -1.5
      comp=Z,16nm,0.7s,mb4.5
SOC   Sochi            21.42 323  eP     P      10 08 54.1 +1.5
SOC                               eS     S      10 12 51.5 +8.0
SOC                                pmax  pmax
      comp=N,32nm,0.8s
SOC                                pmax  pmax
      comp=E,19nm,0.8s
SOC                                pmax  pmax
      comp=Z,40nm,0.8s,mb4.8
SOC                                MLR   MLR
      comp=Z,533nm,11.0s,MS4.2
SOC                                MLR   MLR
      comp=N,1µm,16.0s,MS4.4
SOC                                MLR   MLR
      comp=E,730nm,16.0s,MS4.4
MEST  Erdemli          21.62 300  iP     P      10 08 53.5 -1.2
CSS   Prodhromos       21.82 296  eP     P      10 08 57.6 +0.9
      comp=E,43nm,0.8s,mb4.9
AVNT  Avonos           21.87 306  iP     P      10 08 57.7 +0.5
YOZ   Yozgat           21.91 309  eP     P      10 08 58.9 +1.3
HYB   Hyderabad        21.97 113  eP     P      10 09 00.0 +1.7
HYB   Hyderabad        21.97 113  iP     P      10 09 00.0 +1.7
CTKT  Corum            22.72 311  iP     P      10 09 06.3 +0.7
KAMT  Kaman            22.92 307  eP     P      10 09 07.3 -0.3
BRTR  Keskin Array B   23.12 308   P     P      10 09 10.6 +1.1
      comp=E,31nm,0.6s,mb4.9,baz=120,slow=9.5,SNR=119
BYBT  Boyabat          23.14 313  eP     P      10 09 12.2 +2.5
KOLN  Koldanda         23.18  83  eP     P      10 09 11.3 +1.0
      comp=E,36nm,0.8s,mb4.8
TOS   Tosya            23.43 311  eP     P      10 09 11.5 -1.0
CANT  Cankiri          23.51 310  eP     P      10 09 14.3 +1.1
ELDT  Eldivan          23.59 309  iP     P      10 09 14.8 +0.8
ANTO  Ankara           23.77 307  eP     P      10 09 15.7 -0.1
KIZT  Kizilcal         24.06 304   P     P      10 09 20.6 +1.9
GKN   Gorkha           24.07  83  eP     P      10 09 20.5 +1.6
      comp=E,55nm,1.1s,mb4.9
GKN   Gorkha           24.07  83  eP     P      10 09 20.6 +1.7
      comp=E,6.7nm,0.4s,mb4.4
BALT  Daday            24.09 312  iP     P      10 09 19.4 +0.5
SAFT  Safranbolu       24.42 310  eP     P      10 09 20.6 -1.6
DMN   Daman            24.53  83  eP     P      10 09 25.0 +1.7
      comp=E,28nm,0.6s,mb5.0
SGKT  Sivrigoynuk      24.57 308  iP     P      10 09 25.0 +1.4
KKN   Kakani           24.66  83  eP     P      10 09 25.0 +0.4
      comp=E,47nm,0.7s,mb5.2
ISP   Isparta          24.76 301  eP     P      10 09 29.7 +4.3
ISP   Isparta          24.76 301d iP     P      10 09 24.9 -0.5
PKI   Pulchoki         24.80  83  eP     P      10 09 27.4 +1.5
      comp=E,54nm,0.6s,mb5.2
ESKT  Eskisehir        25.04 305  iP     P      10 09 28.7 +0.6
MDU   Mudurnu          25.12 308  eP     P      10 09 26.9 -1.9
GUN   Gumba            25.18  83  eP     P      10 09 30.9 +1.4
      comp=E,45nm,0.4s,mb5.3
GUN   Gumba            25.18  83  eP     P      10 09 31.1 +1.6
      comp=E,70nm,0.9s,mb5.2
SIM   Simferopol’      25.41 319  eP     P      10 09 27.2 -4.3
SIM                                S     S      10 14 02.0 +8.5
SIM                                pmax  pmax
      comp=Z,31nm,0.8s,mb4.9
SIM                                MLR   MLR
      comp=Z,800nm,22.0s,MS4.2
ALT   Altintas         25.42 304  eP     P      10 09 34.4 +2.7
HENT  Hendek           25.48 308  iP     P      10 09 32.8 +0.6
YER   Yerkesik         26.30 299  eP     P      10 09 41.6 +1.8
HRT   Hereke           26.34 307  eP     P      10 09 40.7 +0.5
ULDT  Uludag           26.49 305  iP     P      10 09 42.2 +0.7
DST   Dursunbey        26.69 304  eP     P      10 09 47.3 +3.9
AKS   Akhisar          27.08 302  eP     P      10 09 39.5 -7.5
BVAR  Borovoye Array   27.18  17   P     P      10 09 46.6 -1.1
      comp=Z,22nm,0.8s,mb4.8,baz=202,slow=8.0,SNR=98
BVAR                               PcP   PcP    10 13 07.5 -0.4
      comp=Z,3.1nm,0.5s,baz=227,slow=2.8,SNR=6.3
BRVK  Borovoye         27.18  17  eP     P      10 09 46.6 -1.1
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      comp=Z,10nm,0.6s,mb4.5
VRSR  Storozhevoye     27.33 335  eP     P      10 09 48.2 -0.9
VRSR                              e*PP   pP     10 09 59.3 +0.7
VRSR                              e*SP   sP     10 10 08.1 +5.3
VRSR                              e             10 10 30.4
VRSR                              e             10 13 06.6
VRSR                              eSS    SS     10 15 40.8 -1.4
VRSR                              eSSS   SSS    10 15 58.3 -2.2
VRSR                               pmax  pmax
      comp=Z,20nm,0.8s,mb4.7
VRSR                               pmax  pmax
      comp=N,50nm,1.0s
VRSR                               pmax  pmax
      comp=E,30nm,0.9s
CHKZ  Chkalovo         27.83  17  eP     P      10 09 51.9 -1.7
      comp=E,5.5nm,0.6s,mb4.4
KURK  Kurchatov        28.16  29⇓iP      P      10 09 55.1 -1.6
KURK  Kurchatov        28.16  29  eP     P      10 09 55.3 -1.4
      comp=E,3.7nm,0.6s,mb4.2
IDI   Anoyia           28.70 294   P     P      10 10 02.1 +0.5
      comp=E,8.7nm,0.5s,mb4.8,baz=62,slow=11,SNR=7.3
ARU   Arti             28.84   1⇑iP      P      10 10 01.4 -1.3
ARU                               e             10 10 51.0
ARU                               e             10 13 03.9
ARU                               eS     S      10 14 48.8 -0.3
ARU                               eSS    SS     10 16 17.4 -0.1
ARU                               e             10 20 42.7
ARU                                pmax  pmax
      comp=Z,5.0nm,1.1s,mb4.2
ARU                                MLR   MLR
      comp=Z,500nm,19.0s,MS4.1
ARU                                MLR   MLR
      comp=N,400nm,22.0s,MS4.2
ARU                                MLR   MLR
      comp=E,500nm,19.0s,MS4.2
ARU   Arti             28.84   1⇓iP      P      10 10 01.7 -1.0
WMQ   Urumqi           29.24  48 ⇑P      P      10 10 06.6 +0.2
WMQ                                AP    pP     10 10 22.1 +6.2
WMQ                                PP    PP     10 11 02.2 +0.7
WMQ                                PPP   PPP    10 11 15.8 +1.1
WMQ                                S     S      10 14 51.9 -3.7
WMQ                                LR    LR
      comp=N,689nm,20.2s,MS4.5
WMQ                                LR    LR
      comp=E,999nm,21.2s,MS4.5
WMQ                                LR    LR
      comp=Z,1µm,23.6s,MS4.5
RDO   Rodhopi          29.40 306   P     P      10 10 09.3 +1.4
LSA   Lhasa            29.63  78   P     P      10 10 11.0 +0.9
RZN   Rozhen           30.15 306  eP     P      10 10 15.0 +0.4
MMB   Musomiste        30.83 306  eP     P      10 10 22.0 +1.4
SHL   Shillong         30.84  86  eP     P      10 10 20.0 -0.8
KKB   Krupnik          31.37 306  eP     P      10 10 26.0 +0.6
OBN   Obninsk          31.39 337⇓iP      P      10 10 24.0 -1.4
OBN                                pmax  pmax
      comp=Z,28nm,1.0s,mb5.0
OBN                                MLR   MLR
      comp=Z,300nm,18.0s,MS4.0
OBN   Obninsk          31.39 337⇓iP      P      10 10 24.5 -0.9
AKASG Malin Array Be   31.46 325   P     P      10 10 24.2 -1.8
      comp=Z,2.2nm,0.5s,mb4.2,baz=132,slow=8.6,SNR=10
AKASG                              PcP   PcP    10 13 18.1 -0.7
      comp=Z,0.2nm,0.2s,baz=83,slow=2.3,SNR=5.7
VTS   Vitosha          31.49 307  eP     P      10 10 27.5 +1.1
SOKR  Solikamsk        31.98 359⇓iP      P      10 10 28.7 -1.7
SOKR                               pmax  pmax
      comp=Z,20nm,0.9s,mb5.0
SOKR                               MLR   MLR
      comp=Z,920nm,21.0s,MS4.4
SKO   Skopje           32.59 306  iP     P      10 10 36.8 +0.9
SKO                               i      pP     10 10 46.6 +1.1
BOLS  Boljevac         32.74 309⇑iP      P      10 10 36.8 -0.4
NVS   Novosibirsk      33.08  27  iP     P      10 10 37.8 -2.3
NVS                               iS     S      10 15 46.8 -9.0
NVS                                pmax  pmax
      comp=Z,32nm,1.3s,mb5.1
NVS                                pmax  pmax
      comp=N,25nm,1.5s
NVS                                pmax  pmax
      comp=E,9.0nm,1.3s
NVS                                smax
      comp=N,26nm,1.9s
NVS                                smax
      comp=E,4.0nm,1.3s
ZAL   Zalesovo         33.13  30   P     P      10 10 38.9 -1.6
      comp=E,10nm,0.3s,mb5.3,baz=233,slow=7.5,SNR=45
ZAL                                LR    LR     10 27 04.4
      comp=E,612nm,18.3s,MS4.3,baz=242,slow=42
ZAL   Zalesovo         33.13  30   P     P      10 10 38.9 -1.6
ZAL                                LR    LR     10 27 04.4
DIVS  Divcibare        34.17 309⇓iP      P      10 10 48.5 -1.3
KOLS  Kolonicke sedl   34.42 318  iP     P      10 10 51.9 +0.2
KOLS                              i      pP     10 11 02.3 +1.0
KOLS                              ePCP   PcP    10 13 23.7 -3.3
KWP   Kalwaria         34.47 319  eP     P      10 10 51.2 -1.0
KMBO  Kilima Mbogo     34.51 217   P     P      10 10 56.3 +3.4
      comp=E,1.5nm,0.6s,mb4.1,baz=60,slow=20,SNR=3.5
KMBO  Kilima Mbogo     34.51 217  eP     P      10 10 57.5 +4.6
      comp=E,1.2nm,0.6s,mb4.0
CRVS  Cervenica-Dubn   34.89 317  eP     P      10 10 55.1 -0.7
CRVS                              e      pP     10 11 04.4 -1.0
PSZ   Piszkesteto      35.47 315  eP     P      10 11 00.8 +0.1
      comp=E,4.8nm,0.9s,mb4.4
TIP   Timpagrande      35.59 300  eP     P      10 10 59.8 -2.0
VYHS  Vyhne            36.34 316  eP     P      10 11 08.1  0.0
VYHS                              i             10 11 15.4
OJC   Ojcow            36.42 319  eP     P      10 11 07.8 -0.9
SLCN  Sala Consilina   36.59 301  eP     P      10 11 11.0 +0.7
MRLC  Muro Lucano      36.75 302  eP     P      10 11 13.1 +1.5
SGO   Sicignano        36.86 302  eP     P      10 11 13.9 +1.3
GTA   Gaotai           36.97  60  eP     P      10 11 13.6 +0.2
GTA                                AP    pP     10 11 29.5 +6.4
GTA                                PP    PP     10 12 42.0 +2.0
GTA                                S     S      10 16 53.3 -2.7
GTA                                AMB   AMB
      comp=Z,79nm,4.9s
GTA                                LR    LR
      comp=N,587nm,17.5s,MS4.7
GTA                                LR    LR
      comp=E,822nm,17.1s,MS4.7
GTA                                LR    LR
      comp=Z,472nm,14.1s,MS4.4
ZST   Bratislava       37.32 314  eP     P      10 11 26.7  +10
ZST   Bratislava       37.32 314  e      P      10 11 26.7  +10
VSU   Vasula           37.52 334d iP     P      10 11 17.1 -0.8
VSU   Vasula           37.52 334⇓iP      P      10 11 17.2 -0.7
MORC  Moravsky Berou   37.59 317  eP     P      10 11 17.3 -1.3
      comp=Z,8.8nm,1.1s,mb4.4
BOJS  Bojanci          37.80 310  eP     P      10 11 20.8 +0.5
BOJS                              e      pP     10 11 30.5 +0.5
ARSA  Arzberg          38.06 312⇓iP      P      10 11 22.4 -0.1
      comp=Z,8.0nm,1.1s,mb4.4
KNDS  Knezji Dol       38.40 309  eP     P      10 11 26.2 +0.8
KNDS                              e      pP     10 11 35.3 +0.2
CEY   Cerknica         38.41 310  eP     P      10 11 25.3 -0.2
CEY                               e      pP     10 11 35.8 +0.6
PTQR  Pietraquaria     38.47 304  eP     P      10 11 27.6 +1.5
AQU   L’Aquila         38.52 304  eP     P      10 11 27.8 +1.3
DPC   Dobruska-Polom   38.53 317  eP     P      10 11 25.0 -1.5
DPC                               ex     x      10 11 33.5
KSP   Ksiaz            38.72 318  eP     P      10 11 27.6 -0.5
VOY   Vojsko           38.84 310  e(P)   P      10 11 30.1 +1.0
VOY                               e             10 11 36.4
SNTG  Esanatoglia      38.99 306  eP     P      10 11 31.0 +0.7
ARV   Arcevia          39.02 306  eP     P      10 11 31.4 +0.7
MOA   Molln            39.04 313⇓iP      P      10 11 30.6 -0.2
      comp=Z,12nm,1.1s,mb4.5
MNS   Montasola        39.05 304  eP     P      10 11 31.5 +0.6
CMAR  Chiang Mai Arr   39.14  94   P     P      10 11 32.5 +0.7
      comp=Z,0.7nm,0.4s,baz=294,slow=8.9,SNR=3.2
CMAR                               PcP   PcP    10 13 42.5 +1.0
      comp=Z,3.0nm,0.8s,baz=287,slow=5.6,SNR=8.7
CMAR                               LR    LR     10 30 44.3
      comp=Z,379nm,21.7s,baz=290,slow=41
ROBS  Robic            39.15 310  eP     P      10 11 31.7  0.0
ROBS                              e      pP     10 11 42.0 +0.6
FSSB  Fossombrone      39.17 306  eP     P      10 11 32.8 +0.9
JOF   Joensuu          39.25 341  ep     P      10 11 30.4 -2.0
      comp=Z,6.8nm,0.4s,mb4.7
JOF   Joensuu          39.25 341  eP     P      10 11 30.4 -2.0
JOF                                pmax  pmax
      comp=Z,7.0nm,0.4s,mb4.7
KBA   Koelnbreinsper   39.45 312⇑iP      P      10 11 35.0 +0.8
      comp=Z,6.7nm,0.8s,mb4.4
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GEC2  GERESS Array S   39.68 314  eP     P      10 11 35.2 -0.8
GEC2                              e*PP   pP     10 11 45.8 +0.1
GEC2                               pmax  pmax
      comp=Z,34nm,1.2s,mb5.0
GEC2                               pmax  pmax
      comp=Z,34nm,1.2s,mb5.0
GEC2  GERESS Array S   39.68 314  eP     P      10 11 35.2 -0.8
      comp=Z,34nm,1.2s,mb5.0
GEC2                              epP    pP     10 11 45.8 +0.1
      comp=Z,34nm,1.2s
GERES GERESS Array B   39.68 314   P     P      10 11 35.7 -0.3
      comp=Z,2.5nm,0.8s,mb4.0,baz=108,slow=8.4,SNR=14
FINES FINESS Array B   39.80 337   P     P      10 11 36.1 -0.8
      comp=Z,14nm,0.5s,mb5.0,baz=134,slow=9.9,SNR=97
FINES                              LR    LR     10 31 12.6
      comp=Z,269nm,20.4s,MS4.1,baz=319,slow=41
FINES FINESS Array B   39.80 337  iP     P      10 11 36.1 -0.8
FINES                              pmax  pmax
      comp=Z,14nm,0.5s
KHC   Kasperske Hory   39.83 315  eP     P      10 11 35.5 -1.8
KHC                               e      pP     10 11 44.0 -3.0
KHC   Kasperske Hory   39.83 315  eP     P      10 11 35.5 -1.8
KHC                                x     x      10 11 44.0
SFI   Santa Sofia      39.87 306  eP     P      10 11 39.3 +1.7
PGD   Poggio Sodo      39.96 306  eP     P      10 11 40.2 +1.8
LZH   Lanzhou          40.04  66  eP     P      10 11 40.0 +0.9
LZH                                AP    pP     10 11 55.3 +6.5
LZH                                PP    PP     10 13 16.1 +1.2
LZH                               eS     S      10 17 39.0 -3.5
LZH                                AMB   AMB
      comp=Z,50nm,1.2s,mb5.1
LZH                                AMB   AMB
      comp=Z,240nm,4.4s
LZH                                LR    LR
      comp=N,960nm,13.0s
LZH                                LR    LR
      comp=Z,1µm,16.4s,MS4.9
LZH   Lanzhou          40.04  66  eP     P      10 11 40.0 +0.9
      comp=Z,50nm,1.2s,mb5.1
LZH                                pP    pP     10 11 55.3 +6.5
LZH                                sP    sP     10 12 02.7  +10
LZH                                PP    PP     10 13 16.1 +1.2
LZH                               eS     S      10 17 39.0 -3.5
LZH                                sS           10 18 05.0
LZH                               eSS    SS     10 20 30.0 -4.4
LZH                                LR    LR
      comp=Z,1µm,16.4s,MS4.9
VMG   Vicchio          40.09 306  eP     P      10 11 41.3 +1.8
BRG   Berggiesshubel   40.13 317  eP     P      10 11 39.4 -0.4
      comp=Z,6.0nm,0.8s,mb4.4
KAF   Kangasniemi      40.19 338  ep     P      10 11 39.4 -0.7
      comp=Z,2.0nm,0.3s,mb4.3
KAF   Kangasniemi      40.19 338  eP     P      10 11 39.4 -0.7
KAF                                pmax  pmax
      comp=Z,2.0nm,0.3s,mb4.3
SEI   Scarperia        40.24 307  eP     P      10 11 42.1 +1.3
CTI   Castel Tesino    40.37 310  eP     P      10 11 41.8  0.0
KMI   Kunming          40.52  83  eP     P      10 11 43.9 +0.7
KMI                                AP    pP     10 12 02.7  +10
KMI                                S     S      10 17 46.5 -3.4
KMI                                LR    LR
      comp=N,216nm,14.5s
KMI                                LR    LR
      comp=E,300nm,20.7s
KMI                                LR    LR
      comp=Z,273nm,19.0s,MS4.1
ZCCA  Zocca            40.56 307  eP     P      10 11 45.1 +1.8
WTTA  Wattenberg       40.63 311⇑iP      P      10 11 43.2 -0.7
      comp=Z,17nm,1.0s,mb4.6
WATA  Walderalm        40.69 312⇑iP      P      10 11 43.2 -1.1
      comp=Z,11nm,1.1s,mb4.4
BDI   Bagni Di Lucca   40.79 306  eP     P      10 11 44.9 -0.3
GSCL  Gusciola         40.83 307  eP     P      10 11 47.1 +1.5
CLL   Collm            40.84 318⇓iP      P      10 11 45.5  0.0
CLL                               i      pP     10 11 55.6 +0.4
CLL                                pmax  pmax
      comp=Z,34nm,1.5s,mb4.8
CLL   Collm            40.84 318⇓iP      P      10 11 45.5  0.0
      comp=Z,34nm,1.5s,mb4.8
CLL                               i      pP     10 11 55.6 +0.4
CLL   Collm            40.84 318 ⇓P      P      10 11 45.5  0.0
      comp=Z,logA/T=1.4,mb4.8
CLL                               i *PP  pP     10 11 55.6 +0.4
CLL                               e*SP   sP     10 12 04.0 +4.8
CLL                               i *PPP        10 13 29.5
CLL   Collm            40.84 318  eP     P      10 11 45.8 +0.3
      comp=Z,23nm,1.2s,mb4.7
CLL                               epP    pP     10 11 55.6 +0.4
SQTA  Sankt Quirin     40.91 311⇑iP      P      10 11 45.5 -0.6
      comp=Z,6.8nm,0.9s,mb4.3
ERBM  Eremo            40.97 307  eP     P      10 11 48.3 +1.7
MOTA  Moosalm          41.00 311⇑iP      P      10 11 45.9 -1.0
      comp=Z,6.3nm,1.0s,mb4.2
BSD   Bornholm Skovb   41.15 324⇑iP      P      10 11 46.4 -1.6
BSD                                pmax  pmax
      comp=Z,16nm,0.4s,mb5.0
BSD   Bornholm Skovb   41.15 324⇑iP      P      10 11 46.4 -1.6
      comp=Z,16nm,0.4s,mb5.0
BRMO  Bormio           41.32 310  eP     P      10 11 49.9 +0.3
ZAK   Zakamensk        41.45  44  eP     P      10 11 54.2 +3.6
GRA1  Grafenberg Arr   41.47 315  eP     P      10 11 51.0 +0.3
      comp=Z,50nm,1.1s,mb5.1
GRA1                              epP    pP     10 12 00.8 +0.4
GRA1                               LR    LR
      comp=Z,300nm,21.3s,MS4.1
GRF   Grafenberg Arr   41.47 315  eP     P      10 11 51.0 +0.3
GRF                               e*PP   pP     10 12 00.8 +0.4
GRF                                pmax  pmax
      comp=Z,50nm,1.1s,mb5.1
GRF                                MLR   MLR
      comp=Z,300nm,21.3s,MS4.1
GRF   Grafenberg Arr   41.47 315  eP     P      10 11 51.0 +0.3
      comp=Z,50nm,1.1s,mb5.1
GRF                               epP    pP     10 12 00.8 +0.4
GRF                                LR    LR
      comp=Z,300nm,21.3s,MS4.1
MOX   Moxa             41.48 316  eP     P      10 11 52.0 +1.2
MOX                                pP    pP     10 12 00.0 -0.5
BOB   Bobbio (Coli)    41.70 307  eP     P      10 11 54.1 +1.5
PGF   Pioggiola        41.78 304  eP     P      10 11 52.7 -0.6
DAVA  Damuels          41.80 311⇑iP      P      10 11 53.6 +0.1
      comp=Z,21nm,0.7s,mb4.9
TLY   Talaya           42.04  42  iP     P      10 11 53.3 -2.0
TLY                                pmax  pmax
      comp=Z,6.0nm,1.2s,mb4.1
TLY                                MLR   MLR
      comp=Z,500nm,19.0s,MS4.4
LLS   Linth-Limmern    42.31 310 ⇑P      P      10 11 56.8 -0.9
VAI   Varese           42.33 309  eP     P      10 11 56.7 -1.1
WILA  Wila             42.48 311 ⇓P      P      10 11 58.8 -0.2
CLZ   Clausthal        42.56 318  eP     P      10 11 59.5 -0.1
      comp=Z,24nm,1.1s,mb4.8
CLZ                               epP    pP     10 12 10.4 +1.1
MUO   Muotathal        42.59 310 ⇓P      P      10 11 59.8 -0.1
SONM  Songino Array    42.88  48   P     P      10 12 02.0 -0.3
      comp=Z,1.4nm,0.7s,baz=256,slow=9.2,SNR=12
MCGN  Macugnaga        42.88 309  eP     P      10 12 01.8 -0.5
NRDL  Niedersach Rie   42.90 319  eP     P      10 12 02.6 +0.2
      comp=Z,18nm,1.2s,mb4.7
MMK   Mattmark         42.91 309 ⇑P      P      10 12 03.0 +0.5
SBF   Sospel           43.03 306  eP     P      10 12 03.1 -0.5
      comp=Z,96nm,0.9s,mb5.2
ULN   Ulaanbaatar      43.32  48  eP     P      10 12 03.1 -2.7
ULN   Ulaanbaatar      43.32  48  eP     P      10 12 05.2 -0.6
      comp=Z,3.4nm,0.9s,mb4.1
FRF   La Foret Royal   43.58 305  eP     P      10 12 06.9 -1.1
MBDF  Montbardon       43.59 307  eP     P      10 12 08.0 -0.1
      comp=Z,42nm,0.9s,mb4.9
GYA   Guiyang          43.66  80   P     P      10 12 13.9 +5.0
GYA                                XP    sP     10 12 35.8  +13
GYA                                PP    PP     10 13 58.2 +6.0
GYA                                S     S      10 18 31.0 -5.0
GYA                                AMB   AMB
      comp=Z,10.0nm,0.8s,mb4.6
GYA                                AMB   AMB
      comp=Z,90nm,3.4s
GYA                                LR    LR
      comp=N,1µm,16.5s,MS5.0
GYA                                LR    LR
      comp=E,970nm,16.8s,MS5.0
GYA                                LR    LR
      comp=Z,980nm,17.0s,MS4.8
LPG   La Plagne        43.68 308  eP     P      10 12 07.9 -0.9
      comp=Z,69nm,0.8s,mb5.1
BNI   Bardonecchia     43.68 307  eP     P      10 12 08.7 -0.1
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	comp=Z,35nm,0.8s,mb5.1						
LPL	La Plagne	43.70	308	eP	P	10 12 08.8	-0.1
	comp=Z,74nm,0.9s,mb5.1						
CDF	Champ du Feu	43.73	312	eP	P	10 12 08.0	-1.2
HINF	Hinteralfeld	43.92	311	eP	P	10 12 09.1	-1.6
ORIF	Oris-en-Rattie	44.24	307	eP	P	10 12 12.6	-0.7
ORIF				eR			
	comp=Z,514nm,22.8s						
CABF	La Chapelle	44.27	310	eP	P	10 12 12.8	-0.8
	comp=Z,59nm,0.8s,mb5.1						
XAN	Xi’an	44.33	68	P	P	10 12 19.0	+4.8
MEM	Membach	44.94	315	P	P	10 12 19.8	+0.9
	comp=Z,15nm,1.3s,mb4.7						
VIVF	Saint-Julien-l	45.09	307	eP	P	10 12 18.8	-1.4
	comp=Z,71nm,1.0s,mb5.1						
ENH	Enshi	45.33	74	eP	P	10 12 19.1	-3.2
	comp=Z,7.4nm,1.0s,mb4.5						
NB2	NORSAR Subarra	45.46	330	P	P	10 12 21.3	-1.6
	comp=Z,6.1nm,0.7s,mb4.5,baz=115,slow=7.9						
NOA	NORSAR Array B	45.46	330	P	P	10 12 21.3	-1.6
	comp=Z,9.4nm,0.8s,mb4.7,baz=115,slow=7.9,SNR=25						
NOA				LR	LR	10 34 23.0	
	comp=Z,260nm,21.8s,MS4.1,baz=115,slow=40						
NOA	NORSAR Array B	45.46	330	P	P	10 12 21.3	-1.6
NOA				LR	LR	10 34 22.9	
GIVF	Givet	45.60	314	eP	P	10 12 23.8	-0.3
	comp=Z,109nm,1.3s,mb5.3						
LASF	Ste Croix	45.62	306	eP	P	10 12 23.7	-0.7
	comp=Z,50nm,1.1s,mb5.1						
DOU	Dourbes	45.74	314	P	P	10 12 26.0	+0.7
	comp=Z,12nm,1.6s,mb4.6						
SMF	Signal de Mont	45.81	309	eP	P	10 12 24.8	-1.1
	comp=Z,156nm,1.0s,mb5.6						
ARCES	ARCESS Array B	45.88	345	P	P	10 12 25.3	-0.8
	comp=Z,53nm,1.1s,mb5.4,baz=142,slow=8.5,SNR=64						
ARCES				PcP	PcP	10 14 02.5	-0.9
	comp=Z,6.6nm,1.0s,baz=180,slow=3.6,SNR=4.2						
ARCES				LR	LR	10 34 33.2	
	comp=Z,421nm,21.1s,MS4.4,baz=355,slow=40						
BAIF	Baives	45.98	314	eP	P	10 12 27.0	-0.2
SSF	Saint Saulge	46.08	310	eP	P	10 12 26.9	-1.1
	comp=Z,61nm,1.2s,mb5.4						
AVF	Avril sur Loir	46.16	310	eP	P	10 12 27.3	-1.3
	comp=Z,34nm,0.8s,mb5.0						
BGF	Bois d’Agland	46.49	309	eP	P	10 12 30.1	-1.1
	comp=Z,50nm,0.8s,mb5.2						
MTLF	Montolieu	46.79	305	eP	P	10 12 33.5	-0.1
	comp=Z,60nm,0.9s,mb5.2						
TCF	Toulx Ste Croi	46.91	309	eP	P	10 12 33.7	-0.8
	comp=Z,60nm,0.9s,mb5.2						
OPO	Ambohidratompo	46.94	193	eP	P	10 12 38.2	+3.1
	comp=Z,40nm,1.6s,mb5.1						
OPO				LR	LR		
	comp=Z,364µm,19.0s						
CAF	Calviac	46.94	307	eP	P	10 12 34.2	-0.6
	comp=Z,88nm,1.1s,mb5.3						
EMIR	Miracle	47.30	303	P	P	10 12 39.1	+1.3
	comp=Z,35nm,0.5s,mb5.5						
EMIR	Miracle	47.30	303	P	P	10 12 39.1	+1.4
	comp=Z,35nm,0.5s,mb5.5,SNR=12						
RJF	Les Rejaudoux	47.34	307	eP	P	10 12 37.5	-0.5
	comp=Z,100nm,1.2s,mb5.3						
RJF				eR			
	comp=Z,557nm,21.0s						
EPOB	Poblet	47.65	302	P	P	10 12 41.4	+0.9
	comp=Z,34nm,1.0s,mb5.3						
EPOB	Poblet	47.65	302	P	P	10 12 41.4	+0.9
	comp=Z,34nm,1.0s,mb5.3,SNR=10						
LFF	La Frestale	47.88	307	eP	P	10 12 41.7	-0.5
	comp=Z,62nm,0.8s,mb5.4						
EPF	Esparros	48.16	304	eP	P	10 12 42.8	-1.6
	comp=Z,10nm,0.7s,mb4.6						
EGRA	Graus	48.20	303	P	P	10 12 45.1	+0.4
	comp=Z,27nm,0.8s,mb5.3						
EGRA	Graus	48.20	303	P	P	10 12 45.1	+0.4
	comp=Z,27nm,0.8s,mb5.3,SNR=7.9						
ERTA	Horta de San J	48.23	302	P	P	10 12 45.0	0.0
	comp=Z,17nm,0.7s,mb5.2						
ERTA	Horta de San J	48.23	302	P	P	10 12 45.0	0.0
	comp=Z,17nm,0.7s,mb5.2,SNR=7.9						
EBIE	Bielsa	48.31	304	P	P	10 12 46.5	+0.9
	comp=Z,3.5nm,0.5s,mb4.7						
EBIE	Bielsa	48.31	304	P	P	10 12 46.5	+0.9
	comp=Z,3.5nm,0.5s,mb4.7,SNR=9.2						
MFF	Saint Martin d	48.55	309	eP	P	10 12 46.0	-1.4
LDF	La Druitiere	48.64	312	eP	P	10 12 46.9	-1.1
	comp=Z,8.3nm,0.4s,mb4.8						
ESAC	San Caprasio	48.80	303	P	P	10 12 50.2	+0.9
	comp=Z,36nm,0.5s,mb5.7						
ESAC	San Caprasio	48.80	303	P	P	10 12 50.2	+0.9
	comp=Z,36nm,0.5s,mb5.7,SNR=6.4						
EBEN	Beniarda	48.80	299	P	P	10 12 48.9	-0.6
	comp=Z,44nm,1.3s,mb5.3						
EBEN	Beniarda	48.80	299	P	P	10 12 48.9	-0.5
	comp=Z,44nm,1.3s,mb5.3,SNR=7.9						
ETSF	Etsaut	48.83	304	eP	P	10 12 49.4	-0.1
	comp=Z,28nm,0.7s,mb5.1						
EMOS	Mosqueruela	48.87	301	P	P	10 12 51.6	+1.7
	comp=Z,15nm,0.6s,mb5.2						
EMOS	Mosqueruela	48.87	301	P	P	10 12 51.6	+1.7
	comp=Z,15nm,0.6s,mb5.2,SNR=10						
FLN	La Foliniere	48.89	312	eP	P	10 12 48.8	-1.1
FLN				eR			
	comp=Z,587nm,22.5s						
GRR	Gorron	49.11	311	eP	P	10 12 51.0	-0.7
SJPF	Ste Jean	49.31	304	eP	P	10 12 53.1	-0.2
BJI	Beijing	49.57	60	eP	P	10 12 57.9	+2.6
BJI				LR	LR		
	comp=N,453nm,19.8s,MS4.7						
BJI				LR	LR		
	comp=E,454nm,16.2s,MS4.7						
BJI				LR	LR		
	comp=Z,399nm,17.4s,MS4.5						
SGMF	Saint Gilles	50.24	311	eP	P	10 12 59.2	-1.1
ENIJ	Nijar	50.55	297	P	P	10 13 03.5	+0.6
	comp=Z,38nm,0.4s,mb5.7						
ENIJ	Nijar	50.55	297	P	P	10 13 03.5	+0.6
	comp=Z,38nm,0.4s,mb5.7,SNR=7.9						
EVIA	Vianos	50.59	299	P	P	10 13 04.6	+1.5
	comp=Z,24nm,0.6s,mb5.3						
EVIA	Vianos	50.59	299	P	P	10 13 04.6	+1.5
	comp=Z,24nm,0.6s,mb5.3,SNR=12						
QUIF	Quistinic	50.64	311	eP	P	10 13 02.5	-0.9
ROSF	Rostrenen	50.72	311	eP	P	10 13 02.8	-1.2
ELAN	Lanestosa	50.92	305	P	P	10 13 05.9	+0.3
	comp=Z,15nm,0.8s,mb5.0						
ELAN	Lanestosa	50.92	305	P	P	10 13 05.9	+0.4
	comp=Z,15nm,0.8s,mb5.0,SNR=7.9						
EBER	Berja	51.10	297	P	P	10 13 08.4	+1.3
	comp=Z,13nm,0.6s,mb5.0						
EBER	Berja	51.10	297	P	P	10 13 08.4	+1.4
	comp=Z,13nm,0.6s,mb5.0,SNR=5.6						
EQES	Quesada	51.13	298	P	P	10 13 06.7	-0.5
	comp=Z,24nm,0.9s,mb5.1						
EQES	Quesada	51.13	298	P	P	10 13 06.7	-0.5
	comp=Z,24nm,0.9s,mb5.1,SNR=8.4						
ESDC	Sonseca Array	51.60	300	P	P	10 13 11.1	+0.3
	comp=Z,3.7nm,0.5s,mb4.6,baz=69,slow=7.2,SNR=47						
ESDC				PcP	PcP	10 14 24.4	0.0
	comp=Z,0.7nm,0.6s,baz=52,slow=3.2,SNR=4.9						
ESDC	Sonseca Array	51.60	300	P	P	10 13 11.2	+0.4
	comp=Z,9.4nm,0.6s,mb4.9						
ESDC	Sonseca Array	51.60	300	P	P	10 13 11.2	+0.4
	comp=Z,9.4nm,0.6s,mb4.9,SNR=41						
ERON	Agron	51.81	297	P	P	10 13 12.9	+0.5
	comp=Z,12nm,0.7s,mb4.9						
ERON	Agron	51.81	297	P	P	10 13 12.9	+0.5
	comp=Z,12nm,0.7s,mb4.9,SNR=12						
HIA	Hailar	51.83	48	P	P	10 13 11.3	-1.1
	comp=Z,3.9nm,0.6s,mb4.5						
ELOJ	Sierra Loja	52.07	297	P	P	10 13 13.4	-1.0
	comp=Z,5.7nm,0.7s,mb4.6,SNR=7.8						
ELUQ	Luque	52.10	298	P	P	10 13 13.9	-0.7
	comp=Z,3.8nm,0.5s,mb4.6						
ELUQ	Luque	52.10	298	P	P	10 13 13.9	-0.7
	comp=Z,3.8nm,0.5s,mb4.6,SNR=5.0						
EARI	Arriondas	52.21	305	P	P	10 13 15.0	-0.3
	comp=Z,10nm,0.8s,mb4.8						
EARI	Arriondas	52.21	305	P	P	10 13 15.0	-0.3
	comp=Z,10nm,0.8s,mb4.8,SNR=7.9						
EADA	Adamuz	52.26	298	P	P	10 13 16.2	+0.4
	comp=Z,18nm,0.9s,mb5.0,SNR=14						
EMIJ	Mijas	52.65	296	P	P	10 13 18.0	-0.7
	comp=Z,15nm,0.7s,mb5.0						
EMIJ	Mijas	52.65	296	P	P	10 13 18.0	-0.7
	comp=Z,15nm,0.7s,mb5.1,SNR=6.6						
ECAL	Calabor	53.45	303	P	P	10 13 25.2	+0.6
	comp=Z,12nm,0.5s,mb5.1						
ECAL	Calabor	53.45	303	P	P	10 13 25.2	+0.6
	comp=Z,12nm,0.5s,mb5.1,SNR=7.2						
ESPR	Espera	53.46	297	P	P	10 13 24.0	-0.7
	comp=Z,16nm,0.7s,mb5.1						
ESPR	Espera	53.46	297	P	P	10 13 24.0	-0.7
	comp=Z,16nm,0.7s,mb5.0,SNR=8.6						
PBRG	Braganca	53.47	303	eP	P	10 13 25.2	+0.5
	comp=Z,25nm,1.1s,mb5.0						
EPON	Pontenova	53.62	305	P	P	10 13 25.9	+0.2
	comp=Z,28nm,1.0s,mb5.2						
EPON	Pontenova	53.62	305	P	P	10 13 25.9	+0.2
	comp=Z,28nm,1.0s,mb5.1,SNR=5.1						
ERUA	La Rua	53.70	304	P	P	10 13 27.2	+0.8
	comp=Z,14nm,0.8s,mb5.0						
ERUA	La Rua	53.70	304	P	P	10 13 27.2	+0.8
	comp=Z,14nm,0.8s,mb5.0,SNR=11						
EINC	Incio	53.83	304	P	P	10 13 28.1	+0.8
	comp=Z,42nm,0.8s,mb5.4,SNR=19						
EMIN	Mina Concepcio	53.96	298	P	P	10 13 28.9	+0.6
	comp=Z,21nm,1.3s,mb4.9						
EMIN	Mina Concepcio	53.96	298	P	P	10 13 28.9	+0.6
	comp=Z,21nm,1.3s,mb4.9,SNR=6.3						
EBAD	Badajoz	54.07	299	P	P	10 13 29.4	+0.3
	comp=Z,9.4nm,0.6s,mb4.9						
EBAD	Badajoz	54.07	299	P	P	10 13 29.4	+0.3
	comp=Z,9.4nm,0.6s,mb4.9,SNR=10						
MTE	Manteigas	54.24	302	eP	P	10 13 31.2	+0.8
	comp=Z,47nm,1.7s,mb5.1						
PVRL	Vila Real	54.26	303	eP	P	10 13 31.1	+0.6
	comp=Z,60nm,1.5s,mb5.3						
PCBR	Castelo Branco	54.27	301	eP	P	10 13 31.2	+0.6
	comp=Z,45nm,0.9s,mb5.4						
ELOB	Lobios	54.44	303	P	P	10 13 32.8	+1.0
	comp=Z,14nm,0.6s,mb5.1,SNR=7.4						
PVIS	Viseu	54.47	302	eP	P	10 13 32.2	+0.2
	comp=Z,78nm,1.4s,mb5.4						
STS	Santiago	54.68	305	P	P	10 13 34.3	+0.7
	comp=Z,26nm,0.8s,mb5.3						
STS	Santiago	54.68	305	P	P	10 13 34.3	+0.7
	comp=Z,26nm,0.8s,mb5.3,SNR=10						
PBEJ	Beja	54.85	299	eP	P	10 13 35.0	+0.1
	comp=Z,12nm,0.9s,mb4.9						
EZAM	Zamans	54.88	304	P	P	10 13 35.6	+0.6
EZAM	Zamans	54.88	304	P	P	10 13 35.6	+0.6
	SNR=7.9						
EVO	Evora	54.88	299	eP	P	10 13 35.9	+0.8
	comp=Z,27nm,0.7s,mb5.1						
EMAZ	Mazaricos	54.99	305	P	P	10 13 36.1	+0.2
	comp=Z,28nm,0.7s,mb5.4						
EMAZ	Mazaricos	54.99	305	P	P	10 13 36.1	+0.3
	comp=Z,28nm,0.7s,mb5.4,SNR=7.1						
SSE	Sheshan	55.03	70	P	P	10 13 34.4	-1.9
SSE				XP	sP	10 14 00.9	+11
SSE				S	S	10 21 08.5	-6.0
SSE				AMB	AMB		
	comp=Z,22nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,88nm,4.8s						
SSE				LR	LR		
	comp=N,243nm,22.1s,MS4.2						
SSE				LR	LR		
	comp=E,77nm,22.1s,MS4.2						
SSE				LR	LR		
	comp=Z,177nm,17.7s,MS4.2						
SSE	Sheshan	55.03	70	P	P	10 13 34.4	-1.9
	comp=Z,22nm,0.8s,mb5.2						
SSE				sP	sP	10 14 00.9	+11
SSE				S	S	10 21 08.5	-6.0
SSE				sS		10 21 39.5	
SSE				LR	LR		
	comp=Z,180nm,17.7s,MS4.2						
CN2	Changchun	56.08	54	eP	P	10 13 44.1	+0.4
CN2				eAP	pP	10 14 07.0	+13
CN2				eS	S	10 21 24.4	-4.0
CN2				AMB	AMB		
	comp=Z,190nm,5.0s						
CN2				LR	LR		
	comp=N,380nm,17.0s,MS4.7						
CN2				LR	LR		
	comp=E,340nm,17.0s,MS4.7						
CN2				LR	LR		
	comp=Z,460nm,18.0s,MS4.6						
YAK	Yakutsk	57.75	32	iP	P	10 13 52.8	-2.5
YAK				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
YAK				MLR	MLR		
	comp=Z,200nm,19.0s,MS4.2						
YAK	Yakutsk	57.75	32	iP	P	10 13 52.9	-2.4
TIXI	Tiksi	58.24	21	eP	P	10 13 56.3	-2.3
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
MDJ	Mudanjiang	58.91	53	P	P	10 14 00.9	-2.7
MDJ				S	S	10 21 58.5	-7.1
MDJ				SS	SS	10 26 01.8	+0.8
MDJ				AMB	AMB		
	comp=Z,149nm,5.0s						
MDJ				LR	LR		
	comp=N,245nm,27.6s,MS4.2						
MDJ				LR	LR		
	comp=E,133nm,26.9s,MS4.2						
MDJ				LR	LR		
	comp=Z,450nm,20.6s						
DAG	Danmarks Havn	60.17	345	⇑iP	P	10 14 10.3	-1.6
DAG				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.0						
DAG	Danmarks Havn	60.17	345	⇑iP	P	10 14 10.3	-1.6
	comp=Z,8.7nm,0.6s,mb5.0						
DBIC	Dimbokro	62.39	263	P	P	10 14 27.8	0.0
	comp=Z,6.7nm,0.8s,mb4.8,baz=40,slow=6.3,SNR=18						
DBIC				LR	LR	10 42 34.2	
	comp=Z,369nm,21.1s,MS4.5,baz=38,slow=37						
DBIC	Dimbokro	62.39	263	P	P	10 14 27.8	0.0
DBIC				LR	LR	10 42 34.2	
SUMG	Summit	65.67	341	eP	P	10 14 47.6	-0.6
	comp=Z,33nm,0.9s,mb5.4						
YSS	Yuzh-Sakhalins	67.36	48	⇓iP	P	10 14 57.0	-2.4
CBIJ	Chichi jima	73.69	68	LR	LR	10 53 18.4	
	comp=Z,153nm,19.6s,MS4.3,baz=79,slow=40						
KAKA	Kakadu	82.93	108	eP	P	10 16 32.1	+3.2
	comp=Z,13nm,0.6s,mb5.2						
SCHQ	Schefferville	85.02	331	P	P	10 16 38.3	-0.3
	comp=Z,5.7nm,0.8s,mb4.7,baz=352,slow=5.5,SNR=9.0						
SCHQ				LR	LR	10 56 02.0	
	comp=Z,133nm,18.1s,MS4.4,baz=304,slow=37						
ILAR	Eielson Array	86.02	10	P	P	10 16 42.4	-1.0
	comp=Z,1.2nm,0.7s,mb4.2,baz=317,slow=4.4,SNR=16						
ILAR				LR	LR	11 03 06.1	
	comp=Z,334nm,19.3s,MS4.8,baz=78,slow=41						
DAWY	Dawson	87.70	7	eP	P	10 16 50.9	-0.7
WRA	Warramunga Arr	88.13	114	P	P	10 16 56.0	+1.4
	comp=Z,3.9nm,0.8s,mb4.7,baz=308,slow=4.3,SNR=22						
WRAB	Tennant Creek	88.13	114	⇓iP	P	10 16 52.9	-1.7
WB2	Warramunga Arr	88.14	114	eP	P	10 16 56.4	+1.8
ASAR	Alice Springs	89.64	117	P	P	10 17 03.2	+1.5
	comp=Z,1.3nm,0.6s,mb4.5,baz=308,slow=4.8,SNR=13						
ASAR				LR	LR	10 58 21.5	
	comp=Z,73nm,19.5s,MS4.1,baz=104,slow=36						
ASAR	Alice Springs	89.64	117	P	P	10 17 03.2	+1.5
ASAR				LR	LR	10 58 21.5	
YKA	Yellowknife Ar	90.01	356	P	P	10 17 02.6	+0.1
	comp=Z,3.7nm,0.9s,mb4.7,baz=1.1,slow=5.0,SNR=44						
YKA				LR	LR	10 59 16.0	
	comp=Z,248nm,21.5s,MS4.6,baz=5.0,slow=37						
YKA	Yellowknife Ar	90.01	356	iP	P	10 17 02.7	+0.2
YKA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
YKA	Yellowknife Ar	90.01	356	eP	P	10 17 02.7	+0.2
DLBC	Dease Lake	94.08	4	LR	LR	11 00 05.4	
	comp=Z,169nm,20.0s,MS4.5,baz=66,slow=36						
MAW	Mawson	94.98	178	LR	LR	10 55 03.9	
	comp=Z,136nm,18.2s,MS4.5,baz=243,slow=32						
ULM	Lac du Bonnet	98.96	343	LR	LR	11 08 07.5	
	comp=Z,146nm,18.9s,MS4.5,baz=34,slow=39						
STKA	Stephens Creek	99.53	121	LR	LR	11 00 59.7	
	comp=Z,243nm,18.5s,MS4.7,baz=115,slow=34						
TXAR	Lajitas Array	120.57	341	PKP	PKPdf	10 22 56.1	-3.5
	comp=Z,0.8nm,0.8s,baz=206,slow=0.7,SNR=9.6						
MOCB	Mochara	128.13	264	ePKPdf	PKPdf	10 23 12.6	-1.8

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*IDC **08** 10:30:54.1±2.7, 36.32N×67.61E, mb3.4/4, mb1 3.7/5, mb1mx3.5/20, ML3.9/1, Error ellipse: s-maj=61.7km s-min=28.8km az=162.0*

*NEIC **08** 10:30:57.7±1.8, 36.72N×67.47E, h10^{km}, mb3.4/3, Error ellipse: s-maj=29.9km s-min=15.0km az=160.0*

ISC 08 10:30:52.9±0.9, 36.35N±0.06×67.7E±0.1, h10^{km}, n29, σ1^{s}21/29, mb3.2/4, Hindu Kush region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	7.41	37	P	Pn	10 32 44.3	+0.6
	SNR=25						
AML	Almayashu	7.41	37	eP	Pn	10 32 44.1	+0.3
	13nm,0.4s						
EKS2	Erkin-Say	7.86	35	P	Pn	10 32 50.5	+0.4
	SNR=7.6						
EKS2	Erkin-Say	7.86	35	eP	Pn	10 32 49.2	-0.8
	4.7nm,0.3s						
UCH	Uchtor	7.89	40	P	Pn	10 32 51.3	+0.8
	SNR=23						
UCH	Uchtor	7.89	40	eP	Pn	10 32 50.8	+0.3
	12nm,0.6s						
AAK	Ala-Archa	8.18	38	P	P	10 32 54.9	+0.4
	SNR=20						
AAK	Ala-Archa	8.18	38	eP	P	10 32 53.6	-0.9
	12nm,0.4s						
KZA	Kyzart	8.18	43	P	P	10 32 55.4	+0.8
	SNR=15						
KBK	Karagaybulak	8.43	39	P	P	10 32 59.0	+1.1
	SNR=15						
USP	Ospenovka	8.66	35	P	P	10 33 00.5	-0.7
	SNR=11						
ULHL	Ulahol	8.86	46	P	P	10 33 04.5	+0.6
	SNR=7.6						
TKM2	Tokmak 2	8.95	40	P	P	10 33 05.4	+0.2
	SNR=6.0						
TKM2	Tokmak 2	8.95	40	eP	P	10 33 04.5	-0.7
	8.2nm,0.5s						
KOLN	Koldanda	15.95	118	eP	P	10 34 41.4	+2.5
	5.1nm,0.4s						
KURK	Kurchatov	16.37	25	eP	P	10 34 46.9	+2.7
	2.0nm,0.7s						
GKN	Gorkha	16.56	115	eP	P	10 34 47.5	+0.7
	13nm,0.5s						
BVAR	Borovoye Array	16.78	6	Pn	P	10 34 47.5	-1.9
	0.4nm,0.3s,baz=177,slow=12,SNR=6.6						
BRVK	Borovoye	16.81	5	P	P	10 34 49.2	-0.5
	4.6nm,1.1s						
DMN	Daman	17.12	116	eP	P	10 34 53.3	-0.6
KKN	Kakani	17.15	115	eP	P	10 34 53.1	-1.1
PKI	Pulchoki	17.37	115	eP	P	10 34 55.5	-1.4
CHKZ	Chkalovo	17.45	6	eP	P	10 34 55.6	-2.1
	1.6nm,0.7s						
GUN	Gumba	17.52	114	eP	P	10 34 57.7	-1.2
	20nm,0.8s						
ZAL	Zalesovo	21.23	29	P	P	10 35 40.4	-0.5
	2.8nm,0.9s,mb3.6,baz=243,slow=9.4,SNR=12						
ZAL	Zalesovo	21.23	29	P	P	10 35 40.4	-0.5
BRTR	Keskin Array B	26.95	288	P	P	10 36 37.6	+1.4
	0.5nm,0.8s,mb3.1,baz=76,slow=12,SNR=2.2						
SONM	Songino Array	30.61	56	P	P	10 37 12.1	+3.0
	0.2nm,0.7s,mb3.0,baz=270,slow=8.6,SNR=2.2						
YKA	Yellowknife Ar	81.48	1	P	P	10 43 11.1	0.0
	0.2nm,0.6s,mb3.2,baz=352,slow=5.7,SNR=6.6						

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*NEIC **08** 10:37:12.1±3.2, 17.73S×178.79W, h522^{km}±37^{km}, mb4.1/3, Error ellipse: s-maj=22.9km s-min=14.1km az=170.0*

*IDC **08** 10:37:15.3±2.8, 17.88S×178.84W, h557^{km}±33^{km}, mb3.3/8, mb1 3.4/9, mb1mx3.3/17, Error ellipse: s-maj=23.4km s-min=13.8km az=159.0*

ISC 08 10:37:08.5±3.1, 17.7S±0.2×178.9W±0.1, h481^{km}±35^{km}, n20, σ1^{s}04/18, mb3.7/8, 1C-2D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	18.34	104	P	P	10 40 54.0	+1.0
	1.7nm,0.3s,baz=34,slow=22,SNR=3.2						
URZ	Urewera	20.77	189	P	P	10 41 15.1	-0.9
	11nm,0.8s,baz=169,slow=15,SNR=4.2						
RPZ	Rata Peaks	27.28	196	P	P	10 42 13.8	-0.9
	7.4nm,0.8s,mb4.2,baz=352,slow=9.0,SNR=3.9						
STKA	Stephens Creek	38.34	241	eP	P	10 43 50.2	+1.9
	4.6nm,0.6s,mb4.1						
STKA	Stephens Creek	38.34	241	P	P	10 43 49.4	+1.1
	5.3nm,0.6s,mb4.2,baz=108,slow=9.3,SNR=10						
WRA	Warramunga Arr	44.23	259	P	P	10 44 35.4	-0.4
	1.1nm,0.6s,mb3.5,baz=96,slow=7.6,SNR=19						
WRA				PcP	PcP	10 46 08.2	-2.3
	1.3nm,1.0s,baz=93,slow=3.6,SNR=4.5						
ASAR	Alice Springs	44.42	254	P	P	10 44 37.5	+0.4
	14nm,0.5s,mb4.6,baz=89,slow=8.1,SNR=249						
ASAR				PcP	PcP	10 46 08.9	-2.3
	1.0nm,0.5s,baz=96,slow=4.2,SNR=6.4						
ASAR				S	S	10 50 30.7	-5.6
	0.8nm,0.8s,baz=94,slow=14,SNR=3.7						
ASPA	Alice Springs	44.42	254	⇓iP	P	10 44 37.4	+0.2
VNDA	Vanda	60.60	185	P	P	10 46 32.0	-1.0
	1.2nm,0.8s,mb3.4,baz=3.7,slow=9.2,SNR=3.7						
VNDA	Vanda	60.60	185	eP	P	10 46 32.1	-1.0
	1.0nm,0.7s,mb3.4						
QSPA	South Pole Qui	72.34	180	⇓iP	P	10 47 45.2	-0.3
	6.8nm,0.7s,mb4.3						
ILAR	Eielson Array	85.80	13	P	P	10 48 55.4	-1.3
	0.2nm,0.5s,mb3.0,baz=230,slow=7.0,SNR=6.3						
TXAR	Lajitas Array	86.27	58	P	P	10 48 59.5	-0.2
	0.2nm,0.8s,mb2.8,baz=239,slow=5.3,SNR=3.1						
SNAA	Sanae	90.80	179		P	10 49 18.0	-1.9
VNA3	Neumayer Olymp	90.96	177	⇑i	P	10 49 22.3	+1.6
VNA2	Neumayer--Watz	91.39	177		P	10 49 24.0	+1.3
VNA1	Neumayer--Stat	91.62	177		P	10 49 24.6	+0.8
BRTR	Keskin Array B	144.33	315	PKP	PKPdf	10 55 48.0	-1.0
	0.9nm,0.5s,baz=63,slow=3.2,SNR=4.0						
GERES	GERESS Array B	147.31	345	PKPbc	PKPdf	10 55 56.5	+2.8
	1.0nm,0.6s,baz=45,slow=1.9,SNR=6.0						
DAVOX	Davos	150.13	348	PKPbc	PKPdf	10 56 04.0	+5.7
	1.9nm,0.5s,baz=357,slow=8.7,SNR=4.0						

MAN 08 10:37:21.4, 11.74N×125.32E, h24^{km}, mb4.1, ML2.9, MS2.6, Samar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.18	139	eP	Pb	10 37 28.3	+1.6
PLP	Palo	0.66	210	eP	Pb	10 37 33.9	-0.2
PLP				eS	Sb	10 37 43.4	+0.5
OCLP	Ormoc	0.97	225	eP	Pb	10 37 39.8	+0.4
OCLP				eS	Sb	10 37 53.5	+1.6
CNP	Catarman	1.00	320	eP	Pb	10 37 39.5	-0.4
CNP				eS	Sb	10 37 54.0	+1.4
MSLP	Maasin	1.66	196	eP	Pn	10 37 50.3	+0.9
MSLP				eS	Sn	10 38 14.3	+4.2
SCPH	Surigao	1.95	175	eP	Pn	10 37 52.9	-0.7
SCPH				eS	Sn	10 38 11.6	-6.0
PVCP	Virac	2.17	329	eP	Pn	10 37 56.3	-0.4
PVCP				eS	Sn	10 38 28.2	+5.1
GUIM	Jordan	2.90	248	eP	Pn	10 38 05.8	-1.3
OTRP	Odiongan	3.28	281	eP	Pn	10 38 11.7	-0.9

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*PRU **08** 10:50:03.6, 50.30N×18.70E*

WAR 08 10:50:02.9, 50.20N×18.74E, h0^{km}, ML2.4, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.53	227	ePG	Pg	10 50 14.6	+1.2
OKC				eSG	Sg	10 50 23.7	+3.2
OJC	Ojcow	0.68	88	ePg	Pg	10 50 16.9	+0.4
OJC				eSg	Sg	10 50 26.0	+0.5
NIE	Niedzica	1.28	127	ePG	Pg	10 50 28.0	-0.5
NIE				eSG	Sg	10 50 45.0	-0.7
DPC	Dobruska-Polom	1.56	276	ePG	Pg	10 50 31.5	-2.5
DPC				eSG	Sg	10 50 52.5	-2.3
KSP	Ksiaz	1.69	293	ePG	Pg	10 50 35.0	-1.6
KSP				eSG	Sg	10 50 57.0	-2.1
UPC	Upice	1.77	281	eSG	Sg	10 50 59.5	-2.5
KHC	Kasperske Hory	3.52	254	eSG	Sg	10 51 55.9	-4.2

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*UPP **08** 10:57:42.7, 59.88N×24.54E, h0^{km}, ML2.4, Mining explosion.*

*CSEM **08** 10:57:43.3±0.1, 59.79N×24.30E, h2^{km}, ML2.2, Error ellipse: s-maj=4.5km s-min=1.7km az=152.0, Mining explosion.*

*BER **08** 10:57:45.3±3.9, 59.83N×24.32E, ML2.4(NAO), Suspected explosion*

*NAO **08** 10:57:46.1±3.3, 59.99N×24.12E, ML2.4*

*IDC **08** 10:57:47.7±2.0,60.09N×24.08E,mb1 3.3/3, mb1mx3.1/18,ML3.3/2,Error ellipse: s-maj=23.2km s-min=5.6km az=150.0*

HEL 08 10:57:43.9±0.3**,59.76N×24.37E,ML2.2,ML2.4**(UPP), **ML2.4**(NAO)**,Explosion,Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVF	Pernaja	1.09	43	eP	Pb	10 58 03.0	-2.3
PVF				eS	Sb	10 58 15.9	-4.0
VJF	Virojoki	1.78	62	eP	Pn	10 58 15.4	-0.7
VJF				eS	Sn	10 58 38.1	-1.7
VJF	Virojoki	1.78	62	P	Pn	10 58 15.4	-0.7
VJF				S	Sn	10 58 38.0	-1.7
FIA0	FINESS Array S	1.89	26	Pn	Pn	10 58 17.0	-0.7
	baz=204,slow=16						
FIA0				Lg		10 58 41.5	
	baz=214,slow=28						
FIA0	FINESS Array S	1.89	26	eP	Pn	10 58 17.0	-0.8
FIA0				eS	Sn	10 58 41.4	-1.3
FIA0				MSG		10 58 44.1	
	comp=Z,20nm,0.1s						
FIA0	FINESS Array S	1.89	26	P	Pn	10 58 16.9	-0.8
FIA0				S	Sn	10 58 41.3	-1.3
	comp=Z,20nm,0.1s						
FINES	FINESS Array B	1.89	26	Pg	Pg	10 58 17.0	-4.7
	comp=Z,6.8nm,0.3s,baz=216,slow=12,SNR=252						
FINES				Lg		10 58 40.1	
	comp=Z,4.0nm,0.3s,baz=207,slow=24,SNR=14						
FINES				Rg		10 58 50.1	
	comp=Z,2.0nm,0.3s,baz=193,slow=25,SNR=3.4						
AAL	Aland	2.24	283	eP	Pn	10 58 22.6	-0.1
KEF	Keuruu	2.43	6	eP	Pn	10 58 25.8	+0.3
KEF				eS	Sn	10 58 55.4	-1.0
KEF				MSG		10 58 59.0	
	comp=Z,11nm,0.2s						
KEF	Keuruu	2.43	6	P	Pn	10 58 25.7	+0.2
KEF				S	Sn	10 58 55.3	-1.0
	comp=Z,11nm,0.2s						
KAF	Kangasniemi	2.55	21	eP	Pn	10 58 27.2	+0.1
KAF				eS	Sn	10 58 57.5	-1.8
KAF				MSG		10 59 02.1	
	comp=Z,7.9nm,0.2s						
KAF	Kangasniemi	2.55	21	P	Pn	10 58 27.1	0.0
KAF				S	Sn	10 58 57.5	-1.8
	comp=Z,7.9nm,0.2s						
NRTU	Norrtaelje	2.91	271	eP	Pn	10 58 30.9	-1.3
GRAU	Graesoe	2.98	284	eP	Pn	10 58 31.1	-2.2
GRAU				eS	Sn	10 59 08.7	-1.5
GRAU	Graesoe	2.98	284	P	Pn	10 58 31.1	-2.2
GRAU				S	Sn	10 59 07.6	-2.7
FLYU	Flymyra	3.28	279	eP	Pn	10 58 36.4	-1.2
NYNU	Nynaeshamn	3.34	260	eP	Pn	10 58 38.7	+0.2
NYNU	Nynaeshamn	3.34	260	P	Pn	10 58 38.6	+0.1
BACU	Backbrunna	3.67	275	eP	Pn	10 58 41.9	-1.2
IGGU	Iggoen	3.68	291	eP	Pn	10 58 41.7	-1.6
FALU	Falun	4.33	283	eP	Pn	10 58 51.1	-1.4
HFS	Hagfors	5.38	279	Pn	Pn	10 59 05.2	-2.1
	baz=100,slow=11						
HFS				Sn	Sn	11 00 05.2	-5.7
	baz=109,slow=37						
HFS				Lg		11 00 28.1	
	baz=95,slow=37						
HFS	Hagfors	5.38	279	Pn	Pn	10 59 05.1	-2.2
	comp=Z,0.1nm,0.3s,baz=97,slow=12,SNR=16						
HFS				Sn	Sn	11 00 06.1	-4.9
	comp=Z,0.1nm,0.3s,baz=84,slow=30,SNR=5.6						
HFS				Lg		11 00 27.1	
	comp=Z,0.2nm,0.3s,baz=95,slow=31,SNR=7.1						
HFS	Hagfors	5.38	279	eP	Pn	10 59 05.2	-2.1
HFS				eS	Sn	11 00 05.2	-5.7
HFS				eSG		11 00 28.1	
NOA	NORSAR Array B	6.64	287	Pn	Pn	10 59 20.9	-4.2
	comp=Z,0.3nm,0.3s,baz=92,slow=13,SNR=2.7						
NOA				Sn	Sn	11 00 33.7	-8.9
	comp=Z,0.2nm,0.3s,baz=334,slow=14,SNR=2.6						
NOA				Lg		11 01 06.5	
	comp=Z,0.5nm,0.3s,baz=78,slow=22,SNR=2.8						
ARA0	ARCESS Array S	9.83	2	Pn	P	11 00 03.7	-5.7
	baz=178,slow=14						
ARA0				Sn	Sn	11 01 49.7	-12
	baz=185,slow=28						
ARA0	ARCESS Array S	9.83	2	eP	P	11 00 03.7	-5.7
ARA0				eS	Sn	11 01 49.7	-12
ARCES	ARCESS Array B	9.83	2	Pn	P	11 00 04.3	-5.1
	comp=Z,0.5nm,0.3s,baz=182,slow=13,SNR=32						
ARCES				Sn	Sn	11 01 47.1	-15
	comp=Z,0.2nm,0.3s,baz=172,slow=20,SNR=3.2						
ARCES				Lg		11 02 44.7	
	comp=Z,0.2nm,0.3s,baz=186,slow=26,SNR=3.0						

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*BER **08** 11:03:42.0±3.3,59.63N×24.77E,ML2.6(NAO), Suspected explosion*

*CSEM **08** 11:03:42.7±0.1,59.85N×24.39E,h2^{km},ML2.3,Error ellipse: s-maj=3.9km s-min=2.5km az=178.0,Mining explosion.*

*HEL **08** 11:03:43.8±0.2,59.80N×24.40E,ML2.3,ML2.5(UPP), ML2.6(NAO),Explosion*

*NAO **08** 11:03:43.7±3.2,59.83N×24.37E,ML2.6*

*UPP **08** 11:03:43.4,60.01N×24.42E,h0^{km},ML2.5,Mining explosion.*

*IDC **08** 11:03:46.9±1.9,60.07N×24.19E,mb1 3.4/3, mb1mx3.1/18,ML3.3/3,Error ellipse: s-maj=21.6km s-min=5.7km az=150.0*

ISC 08 11:03:42.2±0.5**,59.84N**±0.04×**24.38E**±0.06**,n28,**σ**1^{s}41**/49**, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVF	Pernaja	1.03	45	eP	Pb	11 04 01.9	-0.6
PVF				eS	Sg	11 04 14.3	-2.1
VJF	Virojoki	1.73	65	eP	Pn	11 04 14.2	+0.3
VJF				eS	Sb	11 04 36.5	-0.5
VJF	Virojoki	1.73	65	P	Pn	11 04 14.1	+0.3
VJF				S	Sb	11 04 36.4	-0.6
FIA0	FINESS Array S	1.82	27	Pn	Pn	11 04 16.2	+1.2
	baz=199,slow=16						
FIA0				Lg		11 04 41.3	
	baz=198,slow=28						
FIA0	FINESS Array S	1.82	27	eP	Pn	11 04 16.2	+1.2
FIA0				eS	Sn	11 04 40.0	+0.9
FIA0				MSG		11 04 42.2	
	comp=Z,15nm,0.2s						
FIA0	FINESS Array S	1.82	27	P	Pn	11 04 16.1	+1.1
FIA0				S	Sn	11 04 40.0	+0.9
	comp=Z,15nm,0.2s						
FINES	FINESS Array B	1.82	27	Pg	Pg	11 04 16.3	-2.2
	comp=Z,8.1nm,0.3s,baz=211,slow=16,SNR=226						
FINES				Lg		11 04 38.8	
	comp=Z,11nm,0.3s,baz=212,slow=27,SNR=28						
VSU	Vasula	1.83	138	eP	Pn	11 04 15.8	+0.6
VSU				eS	Sn	11 04 39.7	+0.2
VSU	Vasula	1.83	138	P	Pn	11 04 15.8	+0.5
VSU				S	Sn	11 04 39.6	+0.1
AAL	Aland	2.23	281	eP	Pn	11 04 22.6	+1.7
AAL				eS	Sn	11 04 49.0	-0.7
KEF	Keuruu	2.35	6	eP	Pn	11 04 25.2	+2.5
KEF				eS	Sn	11 04 55.5	+2.8
KEF				MSG		11 04 58.9	
	comp=Z,16nm,0.2s						
KEF	Keuruu	2.35	6	P	Pn	11 04 25.2	+2.5
KEF				S	Sn	11 04 55.5	+2.8
	comp=Z,16nm,0.2s						
KAF	Kangasniemi	2.47	21	eP	Pn	11 04 26.4	+2.1
KAF				eS	Sn	11 04 57.8	+2.1
KAF				MSG		11 05 00.6	
	comp=Z,12nm,0.2s						
KAF	Kangasniemi	2.47	21	P	Pn	11 04 26.4	+2.0
KAF				S	Sn	11 04 57.7	+2.0
	comp=Z,12nm,0.2s						
NRTU	Norrtaelje	2.92	269	eP	Pn	11 04 31.4	+0.6
NRTU				eS	Sn	11 05 08.2	+1.2
NRTU	Norrtaelje	2.92	269	P	Pn	11 04 31.3	+0.6
NRTU				S	Sn	11 05 08.1	+1.1
GRAU	Graesoe	2.97	282	eP	Pn	11 04 30.4	-1.1
FLYU	Flymyra	3.28	278	eP	Pn	11 04 36.0	+0.1
BACU	Backbrunna	3.67	273	eP	Pn	11 04 41.7	+0.2
BACU	Backbrunna	3.67	273	P	Pn	11 04 41.6	+0.1
FALU	Falun	4.32	282	eP	Pn	11 04 51.0	+0.3
HFS	Hagfors	5.38	278	Pn	Pn	11 05 04.6	-1.0
	baz=101,slow=16						
HFS				Sn	Sn	11 06 06.1	-3.1
	baz=77,slow=28						
HFS	Hagfors	5.38	278	Pn	Pn	11 05 05.3	-0.3
	comp=Z,0.1nm,0.3s,baz=104,slow=13,SNR=21						
HFS				Sn	Sn	11 06 05.5	-3.7
	comp=Z,0.2nm,0.3s,baz=87,slow=27,SNR=8.8						
HFS				Lg		11 06 31.7	
	comp=Z,0.4nm,0.3s,baz=93,slow=31,SNR=6.4						
HFS	Hagfors	5.38	278	eP	Pn	11 05 04.6	-1.0
HFS				eS	Sn	11 06 06.1	-3.1
NOA	NORSAR Array B	6.63	286	Pn	Pn	11 05 21.3	-2.0
	comp=Z,0.6nm,0.3s,baz=97,slow=13,SNR=3.1						
NOA				Sn	Sn	11 06 31.4	-9.2
	comp=Z,0.5nm,0.3s,baz=210,slow=4.1,SNR=2.5						
NOA				Lg		11 07 05.8	
	comp=Z,0.7nm,0.3s,baz=37,slow=6.7,SNR=2.7						
ARA0	ARCESS Array S	9.75	2	Pn	P	11 06 02.0	-4.6
	baz=179,slow=14						
ARA0				Sn	Sn	11 07 50.7	-7.4
	baz=184,slow=28						
ARA0	ARCESS Array S	9.75	2	eP	P	11 06 02.0	-4.6
ARA0				eS	Sn	11 07 50.7	-7.4
ARCES	ARCESS Array B	9.75	2	Pn	P	11 06 03.4	-3.2
	comp=Z,0.6nm,0.3s,baz=183,slow=13,SNR=24						
ARCES				Sn	Sn	11 07 46.8	-11
	comp=Z,0.0nm,0.3s,baz=178,slow=24,SNR=2.4						

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*IDC **08** 11:09:40.2±2.0,59.78N×24.61E,mb1 3.3/3, mb1mx3.1/18,ML2.8/3,Error ellipse: s-maj=22.3km s-min=7.1km az=142.0*

*BER **08** 11:09:40.6±3.0,59.70N×24.59E,ML2.2(NAO), Suspected explosion*

*NAO **08** 11:09:41.7±3.4,59.85N×24.32E,ML2.2*

HEL 08 11:09:41.4±0.1**,59.82N×24.39E,ML2.0,ML2.2**(UPP), **ML2.2**(NAO)**,Explosion,Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVF	Pernaja	1.03	45	eP	Pb	11 09 59.6	-2.3
PVF				eS	Sb	11 10 12.6	-3.2
VJF	Virojoki	1.74	64	eP	Pn	11 10 11.9	-1.2
VJF				eS	Sn	11 10 34.3	-2.0
VSU	Vasula	1.82	137	eP	Pn	11 10 13.8	-0.5
VSU				eS	Sn	11 10 37.4	-1.1
FIA0	FINESS Array S	1.83	26	Pn	Pn	11 10 13.9	-0.5
	baz=199,slow=16						
FIA0				Lg		11 10 38.9	
	baz=201,slow=37						
FIA0	FINESS Array S	1.83	26	eP	Pn	11 10 13.8	-0.5
FIA0				eS	Sn	11 10 37.2	-1.3
FIA0				MSG		11 10 40.3	
	comp=Z,11nm,0.1s						
FINES	FINESS Array B	1.83	26	Pn	Pn	11 10 13.9	-0.4
	comp=Z,1.6nm,0.3s,baz=200,slow=14,SNR=56						
FINES				Lg		11 10 36.7	
	comp=Z,2.9nm,0.3s,baz=202,slow=26,SNR=16						
FINES				Rg		11 10 46.4	
	comp=Z,14nm,1.1s,baz=215,slow=23,SNR=4.1						
AAL	Aland	2.24	281	eP	Pn	11 10 19.9	-0.3
AAL				eS	Sn	11 10 47.9	-1.0
KEF	Keuruu	2.37	6	eP	Pn	11 10 22.9	+0.9
KEF				eS	Sn	11 10 51.0	-1.2
KEF				MSG		11 10 55.5	
	comp=Z,4.4nm,0.1s						
KAF	Kangasniemi	2.48	21	eP	Pn	11 10 23.7	0.0
KAF				eS	Sn	11 10 54.7	-0.5
KAF				MSG		11 10 58.0	
	comp=Z,5.2nm,0.2s						
NRTU	Norrtaelje	2.92	270	eP	Pn	11 10 28.5	-1.4
GRAU	Graesoe	2.98	282	eP	Pn	11 10 28.1	-2.7
FLYU	Flymyra	3.28	278	eP	Pn	11 10 33.6	-1.5
HFS	Hagfors	5.38	278	Pn	Pn	11 11 02.1	-2.7
	baz=104,slow=16						
HFS				Sn	Sn	11 12 03.2	-5.3
	baz=98,slow=28						
HFS				Lg		11 12 29.1	
	baz=85,slow=37						
HFS	Hagfors	5.38	278	Pn	Pn	11 11 02.0	-2.9
	comp=Z,0.0nm,0.3s,baz=96,slow=13,SNR=5.9						
HFS				Sn	Sn	11 12 01.5	-6.9
	comp=Z,0.1nm,0.3s,baz=96,slow=26,SNR=4.5						
HFS				Lg		11 12 27.2	
	comp=Z,0.1nm,0.3s,baz=83,slow=33,SNR=5.2						
HFS	Hagfors	5.38	278	eP	Pn	11 11 02.1	-2.7
HFS				eS	Sn	11 12 03.2	-5.3
HFS				eSG		11 12 29.1	
NOA	NORSAR Array B	6.63	286	Pn	Pn	11 11 18.2	-4.3
	comp=Z,0.2nm,0.3s,baz=280,slow=10,SNR=3.0						
NOA				Sn	Sn	11 12 31.9	-8.0
	comp=Z,0.2nm,0.3s,baz=86,slow=14,SNR=2.8						
NOA				Lg		11 13 05.4	
	comp=Z,0.4nm,0.3s,baz=137,slow=26,SNR=2.6						
ARA0	ARCESS Array S	9.77	2	Pn	P	11 12 00.7	-5.3
	baz=180,slow=14						
ARA0	ARCESS Array S	9.77	2	eP	P	11 12 00.7	-5.3
ARCES	ARCESS Array B	9.77	2	Pn	P	11 12 00.8	-5.2
	comp=Z,0.2nm,0.3s,baz=177,slow=14,SNR=7.0						
ARCES				Sn	Sn	11 13 47.3	-10
	comp=Z,0.1nm,0.3s,baz=174,slow=24,SNR=2.3						

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*NAO **08** 11:23:22.9±3.5,60.88N×28.88E,ML2.2*

*BER **08** 11:23:24.2±2.2,60.94N×28.89E,ML2.2(NAO), Suspected explosion*

HEL 08 11:23:24.4±0.2**,60.97N×28.97E,ML1.6,ML2.2**(NAO)**, Explosion,Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VJF	Virojoki	0.82	238	eP	Pg	11 23 39.1	-1.6
VJF				eS	Sg	11 23 50.2	-1.5
FIA0	FINESS Array S	1.48	290	Pn	Pn	11 23 50.2	-2.1
	baz=109,slow=16						
FIA0				Lg		11 24 10.5	
	baz=105,slow=28						
FIA0				Rg		11 24 16.9	
	baz=115,slow=37						
FIA0	FINESS Array S	1.48	290	eP	Pn	11 23 50.3	-2.0
FIA0				eS	Sb	11 24 09.6	-2.1
PVF	Pernaja	1.58	256	eP	Pn	11 23 51.8	-2.1
PVF				eS	Sb	11 24 13.3	-1.5
KAF	Kangasniemi	1.71	313	eP	Pn	11 23 55.1	-0.6
KAF				eS	Sb	11 24 16.9	-1.7
SUF	Sumiainen	2.20	324	MSG		11 24 35.3	
	comp=Z,3.6nm,0.1s						
JOF	Joensuu	2.25	29	eP	Pn	11 24 02.7	-0.7
JOF				eS	Sn	11 24 30.8	-1.3
JOF				MSG		11 24 32.9	
	comp=Z,2.0nm,0.1s						
KEF	Keuruu	2.30	303	MSG		11 24 39.9	
	comp=Z,1.8nm,0.1s						
HFS	Hagfors	7.58	270	Pn	Pn	11 25 13.2	-5.5
	baz=87,slow=11						
HFS	Hagfors	7.58	270	eP	Pn	11 25 13.2	-5.5
ARA0	ARCESS Array S	8.72	352	Pn	P	11 25 30.1	-4.6
	baz=168,slow=12						
ARA0	ARCESS Array S	8.72	352	eP	P	11 25 30.1	-4.6

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*NIED **08** 11:32:00,22.80N×121.50E,h32^{km},Mw4.2 Best double couple: $M_0 2.6\times10^{15}$ NP1:ϕ_s48°,δ79°,λ83°. NP2:ϕ_s261°, δ13°,λ122°.*

*IDC **08** 11:32:29.7±0.8,22.83N×121.67E,mb3.9/11,mb1 4.1/12, mb1mx4.0/22,ML3.6/1,MS3.1/2,Ms1 3.2/2,ms1mx2.9/23, Error ellipse: s-maj=27.2km s-min=18.3km az=73.0*

*TAP **08** 11:32:32.6,22.84N×121.47E,h18^{km}±1^{km},ML4.4*

TAP Felt IV J at Chenggung, I J at Taitung, I J at Pinlang, II J at Taimali, I J at Lidau, I J at Lanyu.

*NEIC **08** 11:32:34.7±3.9,22.81N×121.71E,h32^{km}±28^{km},mb4.2/4, ML4.7(TAP),Error ellipse: s-maj=14.7km s-min=11.3km az=63.0*

NEIC Recorded [5 TAP] in T'ai-tung County.

*JMA **08** 11:32:34.4±0.3,22.84N×121.53E,h74^{km},M3.9*

*BJI **08** 11:32:39.8,23.09N×121.03E,h32^{km},mB4.7,mb4.2, ML3.8,Ms4.1,Msz3.8*

ISC 08 11:32:32.5±0.4**,22.79N**±0.02×**121.55E**±0.02**,h21**^{km}±3^{km}**, n85,**σ**1^{s}06**/135**,mb3.9**/15**,MS2.9**/1**,9C-10D,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHKT	Chengkung	0.36	331	⇑iP	Pb	11 32 39.8	-0.3
CHKT				S	Sb	11 32 43.9	-1.4
TTN	Taitung	0.38	265	⇓iP	Pb	11 32 40.6	+0.1
TTN				S	Sb	11 32 45.6	-0.2
TWG	Pinlang	0.44	275	⇑iP	Pb	11 32 40.8	-0.8
ECL	Taimali	0.58	251	i P	Pb	11 32 43.9	-0.1
TWF1	Yuli	0.61	337	⇓iP	Pb	11 32 44.1	-0.3
TWF1				S	Sb	11 32 52.1	-0.4
ELDTW	Lidau	0.64	309	⇑iP	Pb	11 32 43.7	-1.1
ELDTW				S	Sb	11 32 51.2	-2.0
TAW	Tawu	0.74	235	eP	Pb	11 32 46.6	+0.1
LAY	Lan-yu	0.74	180	⇓iP	Pb	11 32 48.0	+1.4
LAY				S	Sb	11 32 58.3	+2.0
EHY	Hungye	0.75	344	⇓iP	Pb	11 32 46.2	-0.5
EHY				S	Sb	11 32 56.8	+0.4
EAST	Anshuo	0.76	239	⇓iP	Pb	11 32 47.0	0.0
STYT	Tauyuan	0.82	297	⇑iP	Pb	11 32 47.0	-1.0
STYT				S	Sb	11 32 57.0	-1.6
SSD	Sandimen	0.85	268	⇑iP	Pb	11 32 47.6	-0.8
SSD				S	Sb	11 32 55.6	-3.8
YUS	Yu-Shan	0.89	322	⇓iP	Pb	11 32 48.6	-0.6
YUS				S	Sb	11 32 59.2	-1.5
SGST	Jiashian	0.94	288	⇑iP	Pb	11 32 49.8	-0.2
SGST				S	Sb	11 33 02.3	+0.3
WTP	Ta-pu	0.98	298	⇑P	Pb	11 32 50.2	-0.4
SGLT	Jiouru	0.98	267	eP	Pb	11 32 51.8	+1.1
ALS	Alishan	1.00	317	⇓iP	Pb	11 32 50.7	-0.3
ALS				S	Sb	11 33 02.2	-1.4
ESL	Shilin	1.03	354	⇓iP	Pb	11 32 50.5	-1.1
ESL				S	Sb	11 33 02.7	-1.9
CHN4	Tsaushan	1.05	303	eP	Pb	11 32 51.6	-0.2
CHN4				S	Sb	11 33 05.9	+0.8
TWK1	Hengchun	1.09	220	eP	Pb	11 32 52.8	+0.4
TWK1				S	Sb	11 33 05.9	-0.3
TWK	Hsinying	1.09	296	⇑iP	Pb	11 32 52.4	-0.2
TWK				S	Sb	11 33 06.6	+0.3
CHN3	Shinhua	1.13	285	eP	Pb	11 32 54.7	+1.4
CHN3				S	Sb	11 33 10.8	+3.3
CHN5	Tsauling	1.14	315	eP	Pb	11 32 53.3	0.0
CHN5				S	Sb	11 33 07.9	+0.1
KAU	Kaohsiung	1.17	260	eP	Pn	11 32 57.3	+3.4
TWP	Hsiaoliuchiu	1.18	249	eP	Pn	11 32 57.1	+3.1
HWA	Hwalien	1.19	2	eP	Pn	11 32 53.4	-0.7
SMLT	Sun Moon Lake	1.25	331	eP	Pn	11 32 54.8	-0.2
SMLT				S	Sb	11 33 11.2	+0.3
CHY	Chiayi	1.26	305	eP	Pn	11 32 55.7	+0.6
CHY				S	Sb	11 33 11.4	+0.2
WGK	Gukeng	1.28	315	eP	Pn	11 32 56.3	+0.8
WGK				S	Sb	11 33 13.3	+1.5
TYC	Yuchr	1.28	330	eP	Pn	11 32 55.6	+0.1
TYC				S	Sb	11 33 12.7	+0.7
TWD	Chiawan	1.29	2	⇓P	Pn	11 32 54.5	-1.1
TWD				S	Sb	11 33 12.6	+0.5
SCLT	Jiali	1.31	287	eP	Pn	11 32 57.2	+1.3
SCLT				S	Sb	11 33 14.0	+1.3
WNT	Mingjian	1.35	324	eP	Pn	11 32 57.4	+1.0
WNT				S	Sb	11 33 14.5	+0.7
CHN8	Yiju	1.35	295	eP	Pn	11 32 57.3	+0.8
CHN8				S	Sn	11 33 14.7	+0.7
WHF	Hehuan Shan	1.38	349	⇓P	Pn	11 32 56.2	-0.7
WHF				S	Sn	11 33 13.6	-1.0
WSF	Szhu	1.49	305	eP	Pn	11 32 58.9	+0.4
WSF				S	Sn	11 33 17.2	-0.2
TWT	Tachien	1.50	347	eP	Pn	11 32 58.8	+0.1
TWT				S	Sn	11 33 17.1	-0.6
TCU	Taichung	1.58	329	eP	Pn	11 33 01.3	+1.6
ENA	Nanau	1.64	6	eP	Pn	11 32 59.8	-0.8
NNS	Nan Shan	1.66	354	eP	Pn	11 33 00.1	-0.7
TWQ1	Liyutan	1.71	335	eP	Pn	11 33 03.1	+1.5
TWQ1				S	Sn	11 33 24.8	+1.8
NSY	Sanyi	1.78	336	eP	Pn	11 33 04.1	+1.5
NSY				S	Sn	11 33 26.9	+2.1
WDGT	Dungji	1.81	286	eP	Pn	11 33 02.7	-0.3
WDGT				S	Sn	11 33 23.5	-2.0
TWC	Suao	1.84	8	eP	Pn	11 33 03.1	-0.3
ENTT	Nioudou	1.85	0	eP	Pn	11 33 03.3	-0.2
ENTT				S	Sn	11 33 25.4	-1.1
NSK	Sanguang	1.89	355	eP	Pn	11 33 04.2	0.0
NSK				S	Sn	11 33 26.6	-1.0
NSTT	Nanjuang	1.91	345	eP	Pn	11 33 05.3	+0.9
NSTT				S	Sn	11 33 28.6	+0.6
TWE	Neicheng	1.93	3	eP	Pn	11 33 04.4	-0.4
TWE				S	Sn	11 33 31.0	+2.4
ILA	Ilan	1.98	5	eP	Pn	11 33 07.5	+2.1
PNG	Penghu	2.00	293	eP	Pn	11 33 05.3	-0.4
PNG				S	Sn	11 33 27.9	-2.4
HSN	Hsinchu	2.08	345	eP	Pn	11 33 06.0	-0.9
HSN				S	Sn	11 33 34.5	+2.1
YOJ	Yonaguni jima	2.14	38	P	Pn	11 33 08.2	+0.5
YOJ				S	Sn	11 33 33.9	0.0
TATO	Taipei	2.18	358	eP	Pn	11 33 08.3	-0.1
TWA	Mucha	2.19	1	eP	Pn	11 33 08.8	+0.4
TWB1	Santiao Chiao	2.25	10	eP	Pn	11 33 09.5	+0.2
TWB1				S	Sn	11 33 38.1	+1.4
NWF	Wu-fen Shan	2.29	5	eP	Pn	11 33 10.2	+0.4
NWF				S	Sn	11 33 38.7	+1.1
TWS1	Kuangyinshan	2.31	357	eP	Pn	11 33 11.4	+1.3
TWS1				S	Sn	11 33 38.7	+0.5
HATJ	Hateruma jima	2.43	58	P	Pn	11 33 12.5	+0.7
HATJ				eS	Sn	11 33 40.7	-0.5
TWY	Chenhua	2.48	1	eP	Pn	11 33 15.5	+2.9
IRIF	Iriomote-Funau	2.52	52	P	Pn	11 33 13.9	+0.6
IRIF				S	Sn	11 33 43.6	-0.1
JKRS	Kuro-shima	2.68	57	P	Pn	11 33 16.3	+0.8
JKRS				S	Sn	11 33 47.9	+0.3
JIJ	Ishigaki jima	2.85	56	P	Pn	11 33 17.9	0.0
JIJ				S	Sn	11 33 50.5	-1.5
KNM	Kinmen	3.29	300	eP	Pn	11 33 24.6	+0.4
JTJ	Tarama	3.43	57	P	Pn	11 33 26.5	+0.4
JTJ				S	Sn	11 34 06.4	-0.2
QZH	Quanzhou	3.46	309	⇑iP	Pn	11 33 24.8	-1.7
QZH				S	Sn	11 34 02.5	-4.8
QZH				Smax			
	comp=N,340nm,0.7s						
QZH				Smax			
	comp=E,460nm,0.8s						
JMJ	Miyako jima 2	3.98	59	P	Pn	11 33 34.1	+0.2
JMJ				eS	Sn	11 34 20.6	+0.1
JOW	Kunigami	7.32	55	Pn	Pn	11 34 17.7	-3.3
	comp=E,2.5nm,0.3s,baz=102,slow=29,SNR=6.5						
JOW				Sn	Sn	11 35 34.5	-10
	baz=17,slow=17,SNR=1.8						
JOW				LR	LR	11 37 26.8	
	comp=E,160nm,19.6s,baz=80,slow=41						
NJ2	Nanjing	9.54	346	eP	P	11 34 53.1	+1.2
NJ2				AP		11 34 57.4	
NJ2				XP		11 35 00.7	
NJ2				S	Sn	11 36 40.0	+0.5
NJ2				XS		11 36 46.0	
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s						
NJ2				Smax			
	comp=N,90nm,0.7s						
NJ2				Smax			
	comp=E,70nm,0.7s						
NJ2				LR	LR		
	comp=N,510nm,13.8s						
NJ2				LR	LR		
	comp=E,500nm,17.2s						
NJ2				LR	LR		
	comp=Z,2µm,15.0s						
HHC	Hu-ho-hao-te	19.88	337	eP	P	11 37 05.1	-0.4
HHC				AP		11 37 11.1	
HHC				XP		11 37 15.7	
HHC				PP	PP	11 37 26.2	+1.8
HHC				AMB	AMB		
	comp=Z,11nm,0.6s						
HHC				LR	LR		
	comp=N,292nm,12.2s						
HHC				LR	LR		
	comp=E,344nm,14.5s						
HHC				LR	LR		
	comp=Z,168nm,17.8s						
MAJO	Matsushiro	19.89	43	P	P	11 37 09.0	+3.3
	comp=Z,5.7nm,0.7s						
CMAR	Chiang Mai Arr	21.59	263	P	P	11 37 24.1	+0.9
	comp=Z,1.3nm,0.7s,mb3.5,baz=64,slow=9.2,SNR=5.3						
CMAR				LR	LR	11 45 40.9	
	comp=Z,44nm,19.9s,MS2.9,baz=40,slow=36						

GTA	Gaotai	24.82	317	*e*P	P	11 37 55.8	+1.0
GTA				AMB	AMB		
	comp=Z,4.0nm,1.4s,mb3.8						
SONM	Songino Array	27.78	338	P	P	11 38 20.1	-1.9
	comp=Z,0.7nm,0.4s,mb3.6,baz=163,slow=9.5,SNR=8.8						
ZAL	Zalesovo	41.60	328	P	P	11 40 19.6	-1.0
	comp=Z,3.5nm,0.8s,mb4.1,baz=355,slow=8.6,SNR=20						
KURK	Kurchatov	43.38	321	*e*P	P	11 40 34.9	-0.2
	comp=Z,3.7nm,0.7s,mb4.2						
WRA	Warramunga Arr	44.26	163	P	P	11 40 40.4	-2.3
	comp=Z,0.7nm,0.6s,mb3.6,baz=345,slow=8.8,SNR=8.8						
ASAR	Alice Springs	47.71	165	P	P	11 41 08.8	-1.3
	comp=Z,0.3nm,0.4s,mb3.7,baz=345,slow=7.0,SNR=8.8						
BRVK	Borovoye	49.04	321	P	P	11 41 20.2	+0.3
	comp=Z,1.3nm,0.6s,mb4.1						
CHKZ	Chkalovo	49.04	322	*e*P	P	11 41 18.9	-1.0
	comp=Z,7.5nm,1.0s,mb4.7						
ILAR	Eielson Array	70.30	27	P	P	11 43 45.7	-0.5
	comp=Z,0.4nm,0.7s,mb3.5,baz=261,slow=5.4,SNR=4.1						
ARCES	ARCESS Array B	70.96	338	P	P	11 43 49.0	-1.2
	comp=Z,3.8nm,0.9s,mb4.3,baz=78,slow=13,SNR=2.3						
FINES	FINESS Array B	72.82	330	P	P	11 43 59.6	-1.6
	comp=Z,8.5nm,1.2s,mb4.5,baz=27,slow=4.3,SNR=6.3						
INK	Inuvik	74.39	22	P	P	11 44 07.5	-2.8
	comp=Z,1.3nm,1.0s,mb3.8,baz=201,slow=2.4,SNR=4.2						
NOA	NORSAR Array B	79.61	332	P	P	11 44 37.5	-2.0
	comp=Z,4.1nm,1.2s,mb4.2,baz=56,slow=5.6,SNR=3.7						
YKA	Yellowknife Ar	84.12	23	P	P	11 45 02.2	-0.7
	comp=Z,0.1nm,0.4s,mb3.3,baz=310,slow=4.6,SNR=4.1						

CSEM ***08*** *12:07:14.6±0.1, 58.97N×18.28E, h2^{km}, ML3.0, Error ellipse: s-maj=2.9km s-min=1.7km az=156.0, Mining explosion.*
HEL ***08*** *12:07:15.8±0.1, 59.01N×18.18E, ML2.2, ML3.0(UPP), ML2.5(NAO), Explosion*
UPP ***08*** *12:07:15.2, 59.02N×18.18E, h0^{km}, ML3.0, Mining explosion.*
IDC ***08*** *12:07:18.4±1.6, 59.22N×18.11E, mb1 3.3/4, mb1mx3.1/19, ML2.7/4, Error ellipse: s-maj=20.5km s-min=6.0km az=177.0*
NAO ***08*** *12:07:18.5±2.8, 59.29N×18.14E, ML2.5*
BER ***08*** *12:07:18.3±3.6, 59.16N×18.13E, ML2.5(NAO), Suspected explosion*

ISC 08 12:07:14.2±0.4, 59.01N±0.03×18.30E±0.05, n48, σ1^{s}03/68, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NYNU	Nynaeshamn	0.15	267	*i* P	Pg	12 07 17.2	-0.1
NYNU				*i* S	Sg	12 07 18.5	-0.8
NYNU	Nynaeshamn	0.15	267	P	Pg	12 07 17.1	-0.1
NRTU	Norrtaelje	0.69	14	*i* P	Pg	12 07 28.4	+0.5
VIKU	Vikbolandet	0.98	239	*e*P	Pb	12 07 32.5	-1.2
VIKU	Vikbolandet	0.98	239	P	Pb	12 07 32.4	-1.3
ESKU	Eskilstuna	1.01	283	*e*P	Pb	12 07 32.7	-1.5
BACU	Backbrunna	1.04	325	*e*P	Pb	12 07 34.0	-0.8
FLYU	Flymyra	1.14	349	*e*P	Pb	12 07 36.3	-0.2
GRAU	Graesoe	1.33	5	*e*P	Pb	12 07 39.0	-0.7
GOTU	Gotland	1.34	174	*e*P	Pb	12 07 39.2	-0.6
AAL	Aland	1.45	36	*e*P	Pn	12 07 42.4	+0.7
VSTU	Vaestervik	1.65	215	*e*P	Pn	12 07 44.5	0.0
VSTU	Vaestervik	1.65	215	P	Pn	12 07 44.4	-0.1
LNKU	Linkoeping	1.66	243	*e*P	Pn	12 07 44.6	-0.1
LNKU	Linkoeping	1.66	243	P	Pn	12 07 44.5	-0.2
NRAU	Nora	1.77	290	*e*P	Pn	12 07 46.4	+0.2
ASKU	Askersund	1.80	268	*e*P	Pn	12 07 46.7	0.0
BYXU	Byxelkrok	1.86	202	*e*S	Sn	12 08 12.9	+0.8
BYXU	Byxelkrok	1.86	202	P	Pn	12 07 48.4	+0.9
BYXU				S	Sn	12 08 12.8	+0.7
IGGU	Iggoen	1.93	346	P	Pn	12 07 49.2	+0.6
FALU	Falun	1.94	321	*e*P	Pn	12 07 49.3	+0.6
FALU				*e*S	Sn	12 08 15.2	+1.1
FALU	Falun	1.94	321	P	Pn	12 07 49.3	+0.6
FALU				S	Sn	12 08 15.2	+1.0
EKSU	Eksjoe	2.14	229	P	Pn	12 07 52.7	+1.1
OSKU	Oskarshamn	2.17	214	P	Pn	12 07 53.3	+1.4
HFS	Hagfors	2.60	298	Pn	Pn	12 07 58.8	+0.6
	0.2nm,0.3s,baz=110,slow=17,SNR=38						
HFS				Sn	Sn	12 08 25.2	-5.8
	0.1nm,0.3s,baz=155,slow=28,SNR=5.2						
HFS				Lg		12 08 32.2	
	1.1nm,0.3s,baz=112,slow=27,SNR=31						
HFS	Hagfors	2.60	298	Pn	Pn	12 07 58.8	+0.7
	baz=128,slow=16						
HFS				Lg		12 08 33.8	
	baz=113,slow=37						
HFS	Hagfors	2.60	298	*e*P	Pn	12 07 58.8	+0.7
HFS				*e*SG	Sg	12 08 33.8	-6.9
HFS	Hagfors	2.60	298	P	Pn	12 07 58.8	+0.7
HFS				Sg	Sg	12 08 33.7	-7.0
NOA	NORSAR Array B	4.10	303	Pn	Pn	12 08 18.3	-1.2
	0.3nm,0.3s,baz=139,slow=24,SNR=2.6						
NOA				Pg	Pg	12 08 27.4	-8.6
	0.4nm,0.3s,baz=118,slow=13,SNR=2.5						
NOA				Lg		12 09 20.9	
	1.2nm,0.3s,baz=86,slow=12,SNR=6.3						
PVF	Pernaja	4.12	65	*e*P	Pn	12 08 20.2	+0.5
PVF				*e*S	Sn	12 09 07.7	-1.7
PVF				MSG		12 09 26.7	
	comp=Z,4.6nm,0.2s						
PVF	Pernaja	4.12	65	P	Pn	12 08 20.2	+0.5
PVF				S	Sn	12 09 07.6	-1.8
	comp=Z,4.6nm,0.2s						
BSD	Bornholm Skovb	4.32	207	*i* P	Pn	12 08 21.2	-1.5
BSD				*i* S	Sn	12 09 11.2	-3.4
BSD				*i*		12 09 11.7	
BSD				*i* S	Sn	12 09 27.6	+13
BSD				*i*		12 10 00.4	
KEF	Keuruu	4.53	43	*e*P	Pn	12 08 27.1	+1.5
KEF				MSG		12 09 44.7	
	comp=Z,2.2nm,0.2s						
KEF	Keuruu	4.53	43	P	Pn	12 08 27.0	+1.5
	comp=Z,2.2nm,0.2s						
VAF	Ylistaro	4.57	26	*e*P	Pn	12 08 28.2	+2.1
VAF				MSG		12 09 39.1	
	comp=Z,4.9nm,0.2s						
VAF	Ylistaro	4.57	26	P	Pn	12 08 28.1	+2.0
	comp=Z,4.9nm,0.2s						
FIA0	FINESS Array S	4.58	55	Pn	Pn	12 08 27.4	+1.1
	baz=242,slow=12						
FIA0				Sn	Sn	12 09 19.7	-1.3
	baz=247,slow=22						
FIA0				Lg		12 09 37.6	
	baz=232,slow=28						
FIA0	FINESS Array S	4.58	55	*e*P	Pn	12 08 27.2	+0.9
FIA0				*e*S	Sn	12 09 19.7	-1.4
FIA0				MSG		12 09 44.1	
	comp=Z,3.6nm,0.2s						
FIA0	FINESS Array S	4.58	55	P	Pn	12 08 27.1	+0.8
FIA0	FINESS Array S	4.58	55	S	Sn	12 09 19.6	-1.4
	comp=Z,3.6nm,0.2s						
FINES	FINESS Array B	4.58	55	Pn	Pn	12 08 27.4	+1.1
	comp=Z,0.4nm,0.3s,baz=249,slow=12,SNR=18						
FINES				Pg	Pg	12 08 37.2	-8.3
	comp=Z,0.3nm,0.3s,baz=247,slow=18,SNR=6.6						
FINES				Sn	Sn	12 09 20.4	-0.7
	comp=Z,0.8nm,0.3s,baz=248,slow=21,SNR=8.9						
FINES				Lg		12 09 37.5	
	comp=Z,1.3nm,0.3s,baz=238,slow=26,SNR=13						
KAF	Kangasniemi	5.03	48	*e*P	Pn	12 08 33.1	+0.5
SUF	Sumiainen	5.34	43	*e*P	Pn	12 08 38.3	+1.2
SUF				*e*S	Sn	12 09 38.0	-2.2
SUF				MSG		12 10 02.9	
	comp=Z,1.7nm,0.2s						
SUF	Sumiainen	5.34	43	P	Pn	12 08 38.2	+1.2
JOF	Joensuu	7.44	53	*e*P	Pn	12 09 05.6	-1.0
ARA0	ARCESS Array S	11.01	13	Pn	P	12 09 51.4	-4.3
	baz=193,slow=14						
ARA0				Sn	S	12 11 49.1	-12
	baz=196,slow=28						
ARA0	ARCESS Array S	11.01	13	*e*P	P	12 09 51.4	-4.3
ARA0				*e*S	S	12 11 49.1	-12
ARCES	ARCESS Array B	11.01	13	Pn	P	12 09 51.2	-4.5
	comp=Z,0.2nm,0.3s,baz=189,slow=13,SNR=14						
ARCES				Sn	S	12 11 47.5	-13
	comp=Z,0.1nm,0.3s,baz=190,slow=21,SNR=3.0						

MAN 08 12:10:26.6, 9.61N×126.10E, mb4.5, ML3.3, MS3.1, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	Surigao	0.63	286	*i* P	Pg	12 10 38.9	-0.3
SCPH				*i* S	Sg	12 10 50.6	+3.0
BUKP	Musuan	2.00	211	*e*P	Pn	12 11 02.3	+0.2
BUKP				*e*S	Sn	12 11 30.8	+2.6

JMA 08 12:24:41.5±0.3, 43.21N×147.05E, h33^{km}±4^{km}, M3.5, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	0.97	280	P	P	12 24 58.9	+0.2
NEM2				*e*S	S	12 25 11.6	+0.1
JRA	Rausu	1.58	298	P	P	12 25 07.9	+0.4
JRA				*e*S	S	12 25 27.0	+0.1
JAK	Akkeshi	1.74	264	P	P	12 25 10.2	+0.5
JAK				*e*S	S	12 25 31.8	+0.9
JNK	Nakash	1.74	283	P	P	12 25 09.8	0.0
JNK				*e*S	S	12 25 30.7	-0.3
JOB	Onbets	2.38	264	P	P	12 25 19.5	+0.6
JAR	Ashorobuto	2.40	273	P	P	12 25 19.8	+0.6
JAR				*e*S	S	12 25 48.8	+1.1
JTKR	Abashiri--Toko	2.41	289	P	P	12 25 20.3	+1.0
JCH	Churui	2.77	259	P	P	12 25 25.3	+0.7
JNBK	Urakawa-nobuka	3.30	255	P	P	12 25 32.2	+0.2

NAO ***08*** *12:34:00.7±1.8, 60.91N×29.04E, ML2.0*
BER ***08*** *12:34:01.7±2.9, 60.86N×28.99E, ML2.0(NAO), Suspected explosion*

HEL 08 12:34:00.8±0.3, 60.92N×29.15E, ML1.4, ML2.0(NAO), Explosion, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJF	Virojoki	0.87	245	*e*P	Pg	12 34 16.4	-1.8
VJF				*e*S	Sg	12 34 28.4	-1.5
FIA0	FINESS Array S	1.58	291	Pn	Pn	12 34 28.3	-1.9
	baz=115,slow=18						
FIA0				Lg		12 34 49.8	
	baz=98,slow=37						
FIA0				Rg		12 34 57.6	
	baz=122,slow=37						
FIA0	FINESS Array S	1.58	291	*e*P	Pn	12 34 28.4	-1.8
FIA0				*e*S	Sb	12 34 49.6	-1.4
PVF	Pernaja	1.66	258	*e*P	Pn	12 34 29.6	-1.7
PVF				*e*S	Sb	12 34 51.7	-1.7
KAF	Kangasniemi	1.81	313	*e*P	Pn	12 34 33.3	-0.3
KAF				*e*S	Sn	12 34 55.6	-2.0
KAF				MSG		12 34 59.5	
	comp=Z,2.6nm,0.1s						
JOF	Joensuu	2.25	26	*e*P	Pn	12 34 39.4	-0.5
JOF				*e*S	Sn	12 35 07.2	-1.5
JOF				MSG		12 35 09.2	
	comp=Z,1.0nm,0.1s						
SUF	Sumiainen	2.30	323	MSG		12 35 13.2	
	comp=Z,2.0nm,0.1s						
KEF	Keuruu	2.40	303	MSG		12 35 16.5	
	comp=Z,1.2nm,0.1s						
ARA0	ARCESS Array S	8.78	352	Pn	P	12 36 08.8	-3.2
	baz=169,slow=12						
ARA0	ARCESS Array S	8.78	352	*e*P	P	12 36 08.8	-3.2

KRSC 08 12:37:23.6±0.7, 48.96N×155.28E, h32^{km}±11^{km}, ML4.0, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril’s	1.81	17	*e*P	Pn	12 37 49.6	-3.5
SKR				*e*S	Sn	12 38 11.9	-3.3
ALID	Alaid	1.92	5	*e*P	Pn	12 37 55.5	+0.8
ALID				*e*S	Sn	12 38 18.6	+0.6
PAU	Pauzhetka	2.70	21	*e*P	Pn	12 38 07.7	+1.9
PAU				*e*S	Sn	12 38 38.3	+0.6
PAU				Smax			
	220nm,0.3s						
GRL	Gorelyy	4.01	25	*e*P	Pn	12 38 24.6	+0.1
GRL				*e*S	Sn	12 39 08.6	-2.4
PET	Petropavlovsk	4.59	26	*e*P	Pn	12 38 32.2	-0.6
PET				*e*S	Sn	12 39 22.3	-3.4
UGLR	Uglovaya	4.80	26	*e*P	Pn	12 38 35.1	-0.6
UGLR				*e*S	Sn	12 39 27.6	-3.4
KOK	Koryaka	4.83	25	*e*P	Pn	12 38 36.5	+0.5
KOK				*e*S	Sn	12 39 29.2	-2.3
AVH	Avacha	4.83	25	*e*P	Pn	12 38 35.4	-0.7
AVH				*e*S	Sn	12 39 27.9	-3.8
SMAR	Somma	4.85	26	*e*P	Pn	12 38 37.1	+0.8
SMAR				*e*S	Sn	12 39 30.4	-1.7
SDLR	Sedlovina	4.88	26	*e*P	Pn	12 38 35.6	-1.3
SDLR				*e*S	Sn	12 39 28.0	-5.0
GNL	Ganaly	5.03	18	*e*P	Pn	12 38 38.1	-0.8
GNL				*e*S	Sn	12 39 32.7	-3.9
SPN	Mys Shipunski	5.11	34	*e*P	Pn	12 38 40.2	+0.2
SPN				*e*S	Sn	12 39 35.9	-2.8
KBTR	Krutoberegovo	8.58	29	*e*P	P	12 39 25.7	-3.0

IDC ***08*** *13:19:40.8±0.8, 3.04S×129.26E, mb4.3/8, mb1 4.4/10, mb1mx4.2/19, ML3.9/2, Error ellipse: s-maj=41.3km s-min=16.5km az=61.0*
NEIC ***08*** *13:19:42.1±0.6, 3.05S×129.29E, h10^{km}, mb4.2/4, Error ellipse: s-maj=26.5km s-min=9.6km az=69.0*

ISC 08 13:19:43.5±3.9, 3.16S±0.07×129.1E±0.1, h32^{km}±28^{km}, n25, σ1^{s}16/27, mb4.4/14, Seram

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	10.03	161	*e*P	P	13 22 12.2	+3.5
	31nm,1.3s						
FITZ	Fitzroy Crossi	15.23	193	Pn	P	13 23 19.9	+1.6
	0.2nm,0.3s,baz=7.3,slow=14,SNR=3.9						
FITZ				Sn	S	13 26 04.1	-2.3
	0.1nm,0.3s,baz=174,slow=14,SNR=2.8						
WRAB	Tennant Creek	17.45	163	*e*P	P	13 23 45.2	-1.2
	14nm,1.0s						
WRA	Warramunga Arr	17.45	163	P	P	13 23 45.4	-1.0
	0.6nm,0.3s,baz=346,slow=13,SNR=14						
WRA				S	S	13 26 58.5	+1.0
	0.1nm,0.3s,baz=282,slow=40,SNR=3.2						
WB2	Warramunga Arr	17.46	163	*e*P	P	13 23 44.9	-1.6
ASAR	Alice Springs	20.91	168	P	P	13 24 26.8	+0.8
	6.8nm,0.5s,baz=345,slow=9.5,SNR=46						
ASPA	Alice Springs	20.91	168	*e*P	P	13 24 28.0	+2.0
CTA	Charters Tower	23.74	136	P	P	13 24 53.8	-0.2
	7.9nm,1.1s,mb4.1,baz=336,slow=9.8,SNR=4.4						
CTAO	Charters Tower	23.74	136	P	P	13 24 53.5	-0.6
	9.2nm,1.1s,mb4.1						
STKA	Stephens Creek	30.90	159	P	P	13 25 59.7	+0.1
	3.1nm,0.8s,mb4.2,baz=341,slow=8.7,SNR=3.1						
CMAR	Chiang Mai Arr	36.64	307	P	P	13 26 51.4	+2.1
	0.8nm,0.7s,mb3.7,baz=141,slow=7.6,SNR=7.3						
GUN	Gumba	51.79	310	*e*P	P	13 28 51.3	+0.5
	12nm,0.7s,mb4.9						
PKI	Pulchoki	51.99	309	*e*P	P	13 28 52.3	0.0
KKN	Kakani	52.19	309	*e*P	P	13 28 54.0	+0.2
	7.0nm,0.6s,mb4.8						
DMN	Daman	52.24	309	*e*P	P	13 28 54.4	+0.2
	8.8nm,0.9s,mb4.7						
GKN	Gorkha	52.79	309	*e*P	P	13 28 57.8	-0.5
	9.1nm,0.7s,mb4.8						
KOLN	Koldanda	53.49	308	*e*P	P	13 29 04.0	+0.5
	15nm,0.7s,mb5.0						
ZAL	Zalesovo	67.76	334	P	P	13 30 39.0	-1.2
	1.0nm,0.3s,mb4.3,baz=339,slow=5.7,SNR=7.3						
KURK	Kurchatov	68.79	328	*e*P	P	13 30 45.5	-1.2
	5.5nm,0.7s,mb4.6						
RAR	Rarotonga	71.28	111	P	P	13 31 02.4	0.0
	8.6nm,0.3s,mb5.1,baz=162,slow=4.4,SNR=6.0						
RAR	Rarotonga	71.28	111	P	P	13 31 02.4	0.0
BVAR	Borovoye Array	74.35	328	P	P	13 31 18.9	-0.9
	0.7nm,0.5s,mb3.8,baz=117,slow=6.6,SNR=6.3						
BRVK	Borovoye	74.42	328	P	P	13 31 20.4	+0.2
CHKZ	Chkalovo	74.53	328	*e*P	P	13 31 19.7	-1.2
	1.3nm,0.9s,mb3.9						
ILAR	Eielson Array	90.28	25	P	P	13 32 44.5	+2.2
	2.6nm,1.4s,mb4.4,baz=254,slow=5.6,SNR=4.0						

NAO ***08*** *13:28:53.4±5.4, 67.36N×32.77E, ML2.1*

HEL 08 13:28:54.3±0.4, 67.76N×33.69E, ML2.1, Explosion, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSF	Maaselka	2.61	227	*e*P	Pn	13 29 38.1	-0.4
MSF				*e*S	Sn	13 30 09.5	-1.8
SGF	Sodankyl	2.76	267	*e*P	Pn	13 29 41.6	+1.0
SGF				*e*S	Sn	13 30 12.7	-2.4
SGF				MSG		13 30 27.6	
	comp=Z,4.0nm,0.4s						
KEV	Kevo	3.15	313	*e*P	Pn	13 29 45.4	-0.8
KEV				*e*S	Sn	13 30 22.3	-2.8
KEV				MSG		13 30 37.9	
	comp=Z,7.3nm,0.3s						
ARA0	ARCESS Array S	3.48	305	Pn	Pn	13 29 48.4	-2.5
	baz=122,slow=16						
ARA0				Sn	Sn	13 30 29.5	-3.9
	baz=128,slow=28						
ARA0				Lg		13 30 42.0	
	baz=116,slow=37						
OUL	Oulu	4.12	233	*e*SG	Sg	13 31 01.3	-10
OUL				MSG		13 31 03.1	
	comp=Z,3.2nm,0.3s						
KJN	Kajaani	4.43	216	*e*P	Pn	13 30 02.3	-2.0
KJN				*e*S	Sn	13 30 51.5	-5.8
KJN				MSG		13 31 08.1	
	comp=Z,3.2nm,0.4s						

MAN 08 13:34:59.1, 8.84N×127.04E, h1^{km}, mb4.0, ML2.7, MS2.4, 1C, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	0.93	226	⇑*i*P	Pg	13 35 16.4	-1.3
BIPH				*i* S	Sg	13 35 24.2	-5.9
BUTP	Butuan	1.41	275	*e*P	Pb	13 35 37.0	+11
BUTP				*e*S	Sb	13 35 44.0	-0.2
SCPH	Surigao	1.80	302	*e*P	Pn	13 35 31.3	-0.2
SCPH				*e*S	Sn	13 35 48.6	-6.6

IDC 08 13:37:14.4±45.0, 17.51S×173.39W, mb4.1/3, mb1 4.3/3, mb1mx3.8/15, Error ellipse: s-maj=854.0km s-min=173.8km az=80.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	43.02	242	P	P	13 45 16.6	-0.9
	1.7nm,0.5s,baz=56,slow=11,SNR=3.8						
WB2	Warramunga Arr	49.39	258	*e*P	P	13 46 06.1	-2.0
WRA	Warramunga Arr	49.40	258	P	P	13 46 06.0	-2.2
	0.8nm,0.3s,baz=98,slow=7.3,SNR=35						
ASAR	Alice Springs	49.49	254	P	P	13 46 06.7	-2.2
	2.2nm,0.9s,baz=90,slow=8.1,SNR=20						

CSEM ***08*** *13:58:31.1±0.1, 45.96N×15.22E, h10^{km}, ML0.8*

LJU 08 13:58:31.9, 45.93N×15.20E, ML0.5, 2C Artificial, Northwestern Balkan Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LEGS	Legarje	0.09	80	⇑*i*Pg	Pg	13 58 33.2	-0.4
LEGS				*i* Sg	Sg	13 58 34.9	+0.1
	comp=Z,29nm,0.1s						
LEGS	Legarje	0.09	80	⇑*i*Pg	Pg	13 58 33.2	-0.4
LEGS				*i* Sg	Sg	13 58 35.8	+1.1
	comp=Z,58nm,0.1s						
PDKS	Podkum	0.19	312	*i* Pg	Pg	13 58 35.4	-0.3
PDKS				*i* Sg	Sg	13 58 38.6	+0.4
	comp=Z,13nm,0.3s						
PDKS	Podkum	0.19	312	*i* Pg	Pg	13 58 35.4	-0.3
PDKS				*i* Sg	Sg	13 58 38.6	+0.4
	comp=Z,26nm,0.3s						
VISS	Visnje	0.28	243	*i* Pg	Pg	13 58 37.4	-0.2
VISS				*i* Sg	Sg	13 58 41.8	+0.5
VISS	Visnje	0.28	243	*i* Pg	Pg	13 58 37.3	-0.2
VISS				*i* Sg	Sg	13 58 41.8	+0.5
GCIS	Gornji Cirnik	0.31	102	*i* Pg	Pg	13 58 38.5	+0.4
GOLS	Golise	0.31	75	*i* Pg	Pg	13 58 35.7	-2.3

CSEM ***08*** *14:02:38.2±0.3, 36.26N×10.44W, h10^{km}, ML2.5, Error ellipse: s-maj=6.8km s-min=4.1km az=75.0*
NEIC ***08*** *14:02:39.6±4.9, 36.29N×10.63W, h10^{km}, MG4.1(MDD), Error ellipse: s-maj=57.7km s-min=8.8km az=46.0*
INMG ***08*** *14:02:43.1±1.6, 36.33N×10.53W, h10^{km}, ML2.5, Error ellipse: s-maj=8.0km s-min=4.7km az=75.0*

MDD 08 14:02:41.6±1.7, 36.38N×10.50W, mbLg2.8/16, Error ellipse: s-maj=15.7km s-min=11.1km az=53.0, PRXIMO, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	Sao Teotonio	1.83	50	*e*Pn	Pn	14 03 13.5	-1.1
PTEO				*e*Sn	Sn	14 03 36.3	-2.6
	12nm,0.1s						
PTEO	Sao Teotonio	1.83	50	*e*P	Pn	14 03 13.5	-1.1
PTEO				*e*S	Sn	14 03 36.3	-2.6
	12nm,0.1s						
PBEJ	Beja	2.67	51	*e*Pn	Pn	14 03 24.6	-1.9
PBEJ				*e*Sn	Sn	14 03 56.3	-3.7
	6.4nm,0.1s						
PBEJ	Beja	2.67	51	*e*P	Pn	14 03 24.6	-1.9
PBEJ				*e*S	Sn	14 03 56.3	-3.7
	6.4nm,0.1s						
PLOU	Loures	2.72	23	*e*Pn	Pn	14 03 25.6	-1.7
PLOU				*e*Sn	Sn	14 03 57.6	-3.7
	32nm,0.1s						
PLOU	Loures	2.72	23	*e*P	Pn	14 03 25.6	-1.7
PLOU				*e*S	Sn	14 03 57.6	-3.7
	32nm,0.1s						
MOE	Montemor	2.74	38	*e*Pn	Pn	14 03 26.1	-1.4
MOE				*e*Sn	Sn	14 03 58.3	-3.5
EMIN	Mina Concepcio	3.36	65	P	Pn	14 03 33.9	-2.4
	4.9nm,0.1s,SNR=82						
EMIN				S	Sn	14 04 13.3	-4.3
	1.7nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	3.36	65	P	Pn	14 03 33.9	-2.5
	4.9nm,0.1s,SNR=82						
EMIN				S	Sn	14 04 13.3	-4.2
	1.7nm,0.1s,SNR=7.9						
PTOM	Tomar	3.63	26	*e*Pn	Pn	14 03 35.5	-4.7
PTOM				*e*Sn	Sn	14 04 16.4	-8.0
	14nm,0.1s						
PTOM	Tomar	3.63	26	*e*P	Pn	14 03 35.5	-4.7
PTOM				*e*S	Sn	14 04 16.4	-8.0
	14nm,0.1s						
EBAD	Badajoz	3.64	48	P	Pn	14 03 37.8	-2.6
	6.8nm,0.1s,SNR=46						
EBAD				S	Sn	14 04 20.2	-4.6
	4.9nm,0.1s,SNR=7.9						
EBAD	Badajoz	3.64	48	P	Pn	14 03 37.8	-2.6
	6.8nm,0.1s,SNR=46						
EBAD				S	Sn	14 04 20.2	-4.6
	4.9nm,0.1s,SNR=7.9						
ESPR	Espera	3.77	81	P	Pn	14 03 39.7	-2.5
	9.2nm,0.1s,SNR=37						
ESPR				S	Sn	14 04 22.0	-5.8
	21nm,0.2s,SNR=7.9						
ESPR	Espera	3.77	81	P	Pn	14 03 39.7	-2.5
	9.2nm,0.1s,SNR=37						
ESPR				S	Sn	14 04 22.0	-5.8
	21nm,0.2s,SNR=7.9						
PCBR	Castelo Branco	4.20	34	*e*Pn	Pn	14 03 46.0	-2.3
PCBR				*e*Sn	Sn	14 04 32.6	-6.1
	3.0nm,0.2s						
PCBR	Castelo Branco	4.20	34	P	Pn	14 03 46.0	-2.3
PCBR				S	Sn	14 04 32.6	-6.1
	1.5nm,0.2s						
EMIJ	Mijas	4.62	86	P	Pn	14 03 50.9	-3.4
	0.6nm,0.2s,SNR=7.9						
EMIJ				S	Sn	14 04 42.6	-6.8
	0.7nm,0.2s,SNR=7.9						
MTE	Manteigas	4.63	29	*e*Pn	Pn	14 03 51.8	-2.7
MTE				*e*Sn	Sn	14 04 43.0	-6.9
	5.2nm,0.4s						
MTE	Manteigas	4.63	29	P	Pn	14 03 51.8	-2.7
MTE				S	Sn	14 04 43.0	-6.9
	2.6nm,0.4s						
PVIS	Viseu	4.79	24	*e*Pn	Pn	14 03 54.1	-2.5
PVIS				*e*Sn	Sn	14 04 46.9	-6.8
	9.0nm,0.1s						
PVIS	Viseu	4.79	24	P	Pn	14 03 54.1	-2.5

PVIS				S	Sn	14 04 46.9	-6.8
	4.5nm,0.1s						
CIA	**Chichaoua**	5.02	163	*i* P	Pn	14 03 52.0	-7.9
CIA				*i* S	Sn	14 04 52.5	-7.0
EADA	**Adamuz**	5.05	68	P	Pn	14 03 57.1	-3.2
	3.0nm,0.1s,SNR=50						
EADA				S	Sn	14 04 53.2	-7.0
	2.0nm,0.1s,SNR=7.9						
EADA	**Adamuz**	5.05	68	P	Pn	14 03 57.1	-3.2
	3.0nm,0.1s,SNR=50						
EADA				S	Sn	14 04 53.2	-7.1
	2.0nm,0.1s,SNR=7.9						
PVRL	**Vila Real**	5.35	23	*e*Pn	Pn	14 04 02.2	-2.4
PVRL				*e*Sn	Sn	14 04 59.1	-8.7
	8.3nm,0.1s						
PVRL	**Vila Real**	5.35	23	P	Pn	14 04 02.2	-2.4
PVRL				S	Sn	14 04 59.1	-8.7
	4.2nm,0.1s						
CZD	**Col de Zad**	5.60	125	*i* P	Pn	14 04 02.0	-6.1
CZD				*i* S	Sn	14 05 05.5	-8.6
ELOB	**Lobios**	5.80	18	P	Pn	14 04 07.8	-3.1
	0.6nm,0.1s,SNR=6.8						
ELOB				S	Sn	14 05 10.0	-9.1
	1.3nm,0.1s,SNR=7.9						
ELOB	**Lobios**	5.80	18	P	Pn	14 04 07.8	-3.1
	0.6nm,0.1s,SNR=6.8						
EZAM	**Zamans**	5.93	13	P	Pn	14 04 09.6	-3.2
	0.5nm,0.1s,SNR=7.9						
EZAM				S	Sn	14 05 14.2	-8.1
	1.9nm,0.1s,SNR=7.9						
EQES	**Quesada**	6.10	74	P	Pn	14 04 11.5	-3.8
	1.1nm,0.2s,SNR=7.2						
EQES				S	Sn	14 05 18.5	-8.3
	0.8nm,0.2s,SNR=7.9						
EQES	**Quesada**	6.10	74	P	Pn	14 04 11.5	-3.8
	1.1nm,0.2s,SNR=7.2						
EQES				S	Sn	14 05 18.5	-8.3
	0.8nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	6.12	56	P	Pn	14 04 12.0	-3.4
	4.9nm,0.1s,baz=235,slow=14,SNR=58						
ESDC				S	Sn	14 05 19.4	-7.7
	0.4nm,0.1s,baz=244,slow=24,SNR=6.4						
ESDC	**Sonseca Array**	6.12	56	P	Pn	14 04 12.0	-3.4
	4.9nm,0.1s,SNR=58						
PBRG	**Braganca**	6.15	27	*e*Pn	Pn	14 04 12.4	-3.6
PBRG				*e*Sn	Sn	14 05 19.0	-9.0
	3.1nm,0.1s						
PBRG	**Braganca**	6.15	27	P	Pn	14 04 12.4	-3.6
PBRG				S	Sn	14 05 19.0	-9.0
	1.6nm,0.1s						
ECAL	**Calabor**	6.27	27	P	Pn	14 04 13.3	-4.3
	1.4nm,0.1s,SNR=6.1						
ECAL				S	Sn	14 05 22.9	-8.2
	3.0nm,0.2s,SNR=7.9						
ECAL	**Calabor**	6.27	27	S	Sn	14 05 22.9	-8.1
	3.0nm,0.2s,SNR=7.9						
ECAL	**Calabor**	6.27	27	P	Pn	14 04 13.3	-4.4
	1.4nm,0.1s,SNR=6.1						
EMAZ	**Mazaricos**	6.66	10	P	Pn	14 04 18.5	-4.7
	0.8nm,0.1s,SNR=6.9						
EMAZ				S	Sn	14 05 29.8	-11
	2.0nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	6.66	10	P	Pn	14 04 18.5	-4.7
	0.8nm,0.1s,SNR=6.9						
EINC	**Incio**	6.72	20	P	Pn	14 04 19.1	-4.9
	0.4nm,0.1s,SNR=7.9						
EINC				S	Sn	14 05 33.0	-9.3
	0.5nm,0.1s,SNR=7.9						
EINC	**Incio**	6.72	20	P	Pn	14 04 19.1	-4.9
	0.4nm,0.1s,SNR=7.9						
EPON	**Pontenova**	7.40	19	P	Pn	14 04 30.3	-3.2
	0.3nm,0.1s,SNR=7.9						
EPON				S	Sn	14 05 49.5	-10
	0.5nm,0.2s,SNR=7.9						
EPON	**Pontenova**	7.40	19	P	Pn	14 04 30.3	-3.2
	0.3nm,0.1s,SNR=7.9						
EARI	**Arriondas**	8.02	29	P	P	14 04 38.7	-3.5
	0.3nm,0.1s,SNR=7.9						
EARI				S	Sn	14 06 03.6	-11
	0.2nm,0.1s,SNR=7.9						
EARI	**Arriondas**	8.02	29	P	P	14 04 38.7	-3.4
	0.3nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	8.82	60	P	P	14 04 49.4	-3.9
	0.6nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	8.82	60	P	P	14 04 49.4	-3.9
	0.6nm,0.1s,SNR=7.9						
EBIE	**Bielsa**	10.35	49	P	P	14 05 09.7	-4.6
	0.3nm,0.1s,SNR=7.9						
EBIE	**Bielsa**	10.35	49	P	P	14 05 09.7	-4.6
	0.3nm,0.1s,SNR=7.9						
EMIR	**Miracle**	10.85	56	P	P	14 05 16.4	-4.8
	0.4nm,0.1s,SNR=7.9						
EMIR	**Miracle**	10.85	56	P	P	14 05 16.4	-4.7
	0.4nm,0.1s,SNR=7.9						

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*NEIC **08** 14:36:11.7±2.5, 2.45S×139.98E, h41^{km}±25^{km}, mb4.2/10, Error ellipse: s-maj=18.4km s-min=13.0km az=103.0*

*IDC **08** 14:36:12.5±3.0, 2.48S×139.97E, h48^{km}±29^{km}, mb4.0/7, mb1 4.3/10, mb1mx4.2/14, ML4.0/3, MS3.9/3, Ms1 3.9/3, ms1mx3.5/11, Error ellipse: s-maj=26.0km s-min=13.0km az=91.0*

ISC 08 14:36:09.0±2.3**, 2.56S**±0.06×**139.89E**±0.09**, h33**^{km}±22^{km}**, n33, σ0^{s}92**/38**, mb4.4**/17**, MS3.8**/3**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	9.93	134	P	P	14 38 32.2	-0.4
	0.9nm,0.3s,baz=317,slow=13,SNR=9.8						
PMG	**Port Moresby**	9.93	134	*e*P	P	14 38 31.8	-0.8
	33nm,1.1s						
KAKA	**Kakadu**	12.51	216	*e*P	P	14 39 06.8	-0.8
	42nm,0.6s						
KAKA				*e*S	S	14 41 25.8	-0.9
WRAB	**Tennant Creek**	18.09	197	*e*P	P	14 40 20.1	+0.4
	60nm,0.9s						
WB2	**Warramunga Arr**	18.10	197	*e*P	P	14 40 20.4	+0.6
WB2				*e*S	S	14 43 35.0	-2.6
WRA	**Warramunga Arr**	18.11	197	P	P	14 40 21.0	+1.2
	2.1nm,0.3s,baz=14,slow=12,SNR=55						
WRA				S	S	14 43 33.9	-3.8
	0.2nm,0.3s,baz=17,slow=24,SNR=4.0						
CTA	**Charters Tower**	18.50	161	*e*P	P	14 40 27.0	+2.2
	4.8nm,0.9s						
CTA	**Charters Tower**	18.50	161	P	P	14 40 24.9	+0.1
	0.3nm,0.3s,baz=333,slow=11,SNR=8.7						
CTAO	**Charters Tower**	18.50	161	*e*P	P	14 40 24.3	-0.5
	4.4nm,0.7s						
FITZ	**Fitzroy Crossi**	20.83	221	*e*P	P	14 40 51.7	+1.3
	19nm,0.9s						
FITZ				*e*S	S	14 44 36.7	+0.7
FITZ	**Fitzroy Crossi**	20.83	221	P	P	14 40 51.8	+1.4
	28nm,0.9s,baz=28,slow=9.2,SNR=20						
FITZ				S	S	14 44 37.6	+1.7
	6.9nm,0.7s,baz=144,slow=11,SNR=3.2						
ASAR	**Alice Springs**	21.77	195	P	P	14 41 00.7	+0.9
	9.9nm,0.7s,mb4.3,baz=27,slow=10,SNR=54						
ASAR				S	S	14 45 00.5	+6.9
	2.7nm,1.1s,baz=14,slow=19,SNR=3.6						
ASAR				LR	LR	14 49 55.9	
	comp=Z,161nm,20.4s,MS3.4,baz=16,slow=38						
ASPA	**Alice Springs**	21.77	195	*e*P	P	14 41 00.6	+0.8
ASPA				*e*S	S	14 45 00.1	+6.5
MBWA	**Marble Bar**	26.96	225	*e*P	P	14 41 51.1	+1.2
	20nm,1.0s,mb4.6						
STKA	**Stephens Creek**	29.20	177	P	P	14 42 12.0	+2.1
	3.0nm,0.9s,mb4.0,baz=342,slow=13,SNR=5.0						
STKA				LR	LR	14 55 05.4	
	comp=Z,383nm,19.1s,MS4.0,baz=4.2,slow=39						
CMAR	**Chiang Mai Arr**	45.39	299	P	P	14 44 27.2	+0.6
	4.8nm,0.9s,mb4.3,baz=118,slow=6.3,SNR=31						
GUN	**Gumba**	60.07	304	*e*P	P	14 46 15.8	+0.2
	9.4nm,0.7s,mb4.9						
PKI	**Pulchoki**	60.34	304	*e*P	P	14 46 18.2	+0.8
KKN	**Kakani**	60.52	304	*e*P	P	14 46 19.1	+0.4
	7.5nm,0.7s,mb4.9						
DMN	**Daman**	60.60	304	*e*P	P	14 46 20.6	+1.4
	5.7nm,0.5s,mb4.9						
GKN	**Gorkha**	61.13	304	*e*P	P	14 46 23.1	+0.3
	11nm,0.8s,mb5.0						
KOLN	**Koldanda**	61.91	303	*e*P	P	14 46 28.3	+0.2
	9.7nm,1.0s,mb4.9						
ZAL	**Zalesovo**	72.41	329	P	P	14 47 33.5	-0.2
	1.1nm,0.6s,mb4.0						
UCH	**Uchtor**	73.77	315	*e*P	P	14 47 43.5	+1.5
	2.2nm,0.7s,mb4.2						
KURK	**Kurchatov**	74.27	325	*e*P	P	14 47 45.0	+0.3
	3.0nm,0.9s,mb4.2						
VNDA	**Vanda**	75.83	175	P	P	14 47 54.1	+0.9
	1.2nm,0.8s,mb3.9,baz=338,slow=6.4,SNR=3.5						
VNDA				LR	LR	15 18 22.5	
	comp=Z,90nm,19.8s,MS4.1,baz=343,slow=33						
VNDA	**Vanda**	75.83	175	*e*P	P	14 47 54.2	+1.0
	2.5nm,1.0s,mb4.1						
VNDA				LR	LR	15 18 22.5	
BVAR	**Borovoye Array**	79.86	325	P	P	14 48 16.2	+0.2
	1.6nm,0.5s,mb4.2,baz=111,slow=7.5,SNR=22						
BRVK	**Borovoye**	79.93	325	*e*P	P	14 48 16.3	0.0
	2.4nm,0.8s,mb4.2						
CHKZ	**Chkalovo**	79.94	326	*e*P	P	14 48 16.0	-0.4
	1.2nm,0.6s,mb4.0						
ILAR	**Eielson Array**	85.21	24	P	P	14 48 41.5	-1.6
	0.8nm,0.7s,mb4.0,baz=268,slow=4.2,SNR=15						
DBIC	**Dimbokro**	144.63	278	PKP	PKPdf	14 55 43.3	-0.2
	10nm,0.7s,baz=85,slow=3.5,SNR=14						
LPAZ	**La Paz**	146.58	125	PKPbc	PKPbc	14 55 51.2	+3.2
	4.2nm,1.0s,baz=234,slow=1.0,SNR=11						

BJI 08 14:36:58.9, 39.56N×76.99E, h16^{km}, ML3.5, 1C, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	0.79	267	⇑*i*PG	Pb	14 37 13.5	-0.2
KSH				SG	Sb	14 37 25.7	+1.8
KSH				Smax			
	comp=N,2μm,0.6s						
KSH				Smax			
	comp=E,1μm,0.7s						
ULHL	**Ulahol**	2.74	348	P	Pn	14 37 47.6	+4.4
	SNR=9.2						
KZA	**Kyzart**	2.84	333	P	Pn	14 37 48.8	+4.2
	SNR=14						
UCH	**Uchtor**	3.26	326	P	Pn	14 37 57.9	+7.4
	SNR=6.5						
KBK	**Karagaybulak**	3.46	334	P	Pn	14 37 55.6	+2.3
	SNR=11						
TKM2	**Tokmak 2**	3.52	343	P	Pn	14 37 56.3	+2.2
	SNR=25						
AML	**Almayashu**	3.58	317	P	Pn	14 37 56.4	+1.3
	SNR=21						

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*IDC **08** 15:32:00.9±1.7, 13.57S×166.94E, mb4.1/6, mb1 4.3/6, mb1mx4.1/14, MS3.6/3, Ms1 3.6/3, ms1mx3.4/14, Error ellipse: s-maj=65.2km s-min=25.6km az=134.0*

ISC 08 15:32:12.6±5.5**, 13.8S**±0.2×**166.8E**±0.2**, h104**^{km}±56^{km}**, n9, σ1^{s}23**/8**, mb3.9**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	8.22	182	*e*P	P	15 34 11.1	+0.5
DZM				*e*S	S	15 35 42.0	-0.5
CTA	**Charters Tower**	20.59	250	LR	LR	15 43 35.2	
	comp=Z,162nm,20.8s,baz=265,slow=33						
STKA	**Stephens Creek**	29.24	228	P	P	15 38 08.4	+1.5
	4.6nm,1.0s,mb4.1,baz=36,slow=9.9,SNR=5.8						
STKA				LR	LR	15 50 10.0	
	comp=Z,119nm,18.4s,baz=137,slow=37						
WRA	**Warramunga Arr**	31.60	254	P	P	15 38 26.4	-1.4
	0.3nm,0.4s,mb3.4,baz=83,slow=8.1,SNR=8.5						
ASAR	**Alice Springs**	32.57	248	P	P	15 38 35.8	-0.4
	0.8nm,0.5s,mb3.8,baz=72,slow=9.6,SNR=16						
ASAR				PcP	PcP	15 41 21.2	+0.8
	0.9nm,0.8s,baz=78,slow=1.3,SNR=7.2						
ASAR				LR	LR	15 51 22.4	
	comp=Z,100nm,19.3s,baz=53,slow=35						
CMAR	**Chiang Mai Arr**	74.15	294	P	P	15 43 41.0	+1.1
	2.2nm,0.7s,mb4.0,baz=128,slow=4.8,SNR=13						
SONM	**Songino Array**	81.48	324	P	P	15 44 19.4	-0.4
	1.8nm,1.0s,mb3.9,baz=150,slow=10.0,SNR=4.9						
ILAR	**Eielson Array**	85.81	18	P	P	15 44 40.8	-0.4
	1.6nm,0.7s,mb4.1,baz=249,slow=4.5,SNR=25						
ARCES	**ARCESS Array B**	119.25	345	PKP	PKPdf	15 50 50.0	+0.9
	2.5nm,0.8s,baz=77,slow=2.0,SNR=17						

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*INMG **08** 15:35:47.6±0.8, 37.00N×8.95W, h25^{km}±5^{km}, ML1.8, Error ellipse: s-maj=9.0km s-min=3.5km az=80.0*

MDD 08 15:35:46.8±2.0**, 36.99N**×**9.01W, h29**^{km}±13^{km}**, mbLg2.1**/5**, Error ellipse: s-maj=20.2km s-min=11.0km az=70.0, PRXIMO, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTEO	**Sao Teotonio**	0.59	22	*e*Pg	Pb	15 35 58.3	-0.3
PTEO				*e*Sg	Sb	15 36 06.7	-0.1
	22nm,0.1s						
PTEO	**Sao Teotonio**	0.59	22	P	Pb	15 35 58.3	-0.3
PTEO				S	Sb	15 36 06.7	-0.1
	11nm,0.1s						
PBEJ	**Beja**	1.37	41	S	Sn	15 36 25.3	-2.4
	2.8nm,0.1s						
PBEJ	**Beja**	1.37	41	S	Sn	15 36 25.3	-2.4
	1.4nm,0.1s						
MOE	**Montemor**	1.61	19	*e*P	Pn	15 36 13.3	-0.5
MOE				S	Sn	15 36 31.7	-2.1
EMIN	**Mina Concepcio**	2.01	67	P	Pn	15 36 17.4	-2.1
	0.2nm,0.1s,SNR=8.9						
EMIN				S	Sn	15 36 40.5	-3.5
	0.4nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	2.36	41	P	Pn	15 36 21.5	-3.0
	0.3nm,0.1s,SNR=7.9						
EBAD				S	Sn	15 36 49.1	-3.8
	0.9nm,0.0s,SNR=7.9						
ESPR	**Espera**	2.53	92	P	Pn	15 36 25.1	-1.8
	1.0nm,0.1s,SNR=7.9						
ESPR				S	Sn	15 36 54.6	-2.4
	15nm,0.3s,SNR=7.9						
PCBR	**Castelo Branco**	3.08	22	*e*Sn	Sn	15 37 06.8	-4.4
	4.2nm,0.2s						
PCBR	**Castelo Branco**	3.08	22	S	Sn	15 37 06.8	-4.4
	2.1nm,0.2s						
EADA	**Adamuz**	3.71	70	P	Pn	15 36 41.2	-2.4
	0.5nm,0.1s,SNR=10						
EADA				S	Sn	15 37 22.7	-4.3
	SNR=7.9						
ESDC	**Sonseca Array**	4.78	54	P	Pn	15 36 55.6	-3.3
	2.1nm,0.1s,baz=241,slow=13,SNR=6.4						
ELOB	**Lobios**	4.92	8	P	Pn	15 36 57.6	-3.3
	SNR=7.9						
ELOB				S	Sn	15 37 48.8	-8.8
	SNR=7.9						

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*NEIC **08** 16:31:24.3, 17.52N×101.06W, h8^{km}, MD4.0(MEX), After MEX.*

MEX 08 16:31:25.6±1.7**, 17.48N**×**101.14W, h27**^{km}±45^{km}**, MD4.0, 1C, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	**Zihuatanejo**	0.34	293	⇑*i*P	Pb	16 31 31.4	-2.0
ZIIG				*i* S	Sb	16 31 37.6	-1.0
CAIG	**El Cayaco**	0.94	117	*i* P	Pn	16 31 39.6	-3.4
CAIG				*i* S	Sb	16 31 49.9	-5.3
CAIG	**El Cayaco**	0.94	117	*i* P	Pn	16 31 39.5	-3.5
CAIG				*e*S	Sb	16 31 51.7	-3.5
ACX	**Acapulco**	1.32	117	*i* P	Pn	16 31 47.0	-1.5
ACX				*i* S	Sn	16 32 04.0	-1.3
ACX	**Acapulco**	1.32	117	*i* P	Pn	16 31 47.5	-1.0
PLIG	**Platanillo**	1.81	59	*i* P	Pn	16 31 50.2	-5.2
PLIG				*i* S	Sn	16 32 13.0	-4.6
PLIG	**Platanillo**	1.81	59	*e*P	Pn	16 31 53.6	-1.9
PLIG				*i* S	Sn	16 32 14.1	-3.6
PPM	**Popocatepetl**	2.86	56	*i* P	Pn	16 32 08.1	-2.5
PPM				*i* S	Sn	16 32 40.6	-4.0
PPM	**Popocatepetl**	2.86	56	*e*P	Pn	16 32 06.0	-4.6
PPM				*i* P		16 32 08.1	
PPM				*i* S	Sn	16 32 40.6	-4.0
OXX	**Oaxaca**	4.24	95	*e*P	Pn	16 32 35.0	+4.9

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*NEIC **08** 17:06:18.0, 32.29S×138.10E, h10^{km}, ML2.8(AUST), After AUST.*

*AUST **08** 17:06:18.1, 32.29S×138.10E, h10^{km}, ML2.8*

*IDC **08** 17:06:21.9±6.2, 31.55S×138.50E, mb1 3.1/3, mb1mx3.0/10, ML2.6/3, Error ellipse: s-maj=107.0km s-min=17.4km az=29.0*

ISC 08 17:06:14.4±2.0**, 31.96S**±0.08×**138.20E**±0.06**, h10**^{km}±13^{km}**, n5, σ1^{s}27**/10**, South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBOO	**Buckleboo**	2.00	244	*e*P	Pn	17 06 50.0	+1.2
BBOO				*e*S	Sn	17 07 13.1	-1.0
	49nm,0.4s						
STKA	**Stephens Creek**	2.89	89	*e*P	Pn	17 07 06.1	+4.7
STKA				*e*S	Sn	17 07 36.6	0.0
	8.1nm,0.3s						
STKA	**Stephens Creek**	2.89	89	Pn	Pn	17 07 05.4	+4.0
	1.0nm,0.3s,baz=252,slow=12,SNR=16						
STKA				Pg	Pg	17 07 10.8	-1.3
	2.4nm,0.3s,baz=259,slow=16,SNR=25						
STKA				Sn	Sn	17 07 37.0	+0.5
	4.0nm,0.3s,baz=248,slow=16,SNR=8.2						
STKA				Lg		17 07 46.5	
	5.7nm,0.3s,baz=347,slow=21,SNR=7.1						
ASAR	**Alice Springs**	9.09	334	Pn	P	17 08 32.5	+3.8
	0.1nm,0.3s,baz=176,slow=8.9,SNR=7.2						
ASAR				Sn	Sn	17 10 11.2	-1.0
	0.1nm,0.3s,baz=158,slow=23,SNR=4.6						
WRA	**Warramunga Arr**	12.46	343	Pn	P	17 09 15.6	+0.8
	0.1nm,0.3s,baz=165,slow=12,SNR=9.0						

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*NIED **08** 17:15:00, 36.70N×140.90E, h53^{km}, Mw4.0 Best double couple: M$_0$1.33×10^{15} NP1:φ$_s$23°, δ67°, λ89°. NP2:φ$_s$206°, δ23°, λ93°.*

*NEIC **08** 17:15:18.6±0.6, 36.63N×141.08E, h10^{km}, mb4.3/6, Error ellipse: s-maj=13.6km s-min=11.0km az=160.0*

NEIC Felt in Fukushima Prefecture. Recorded [3 JMA] in Fukushima and [2 JMA] in Ibaraki and Tochigi Prefectures.

*MOS **08** 17:15:20.3±0.9, 36.58N×140.82E, h37^{km}, mb4.5/9, Error ellipse: s-maj=38.8km s-min=15.2km az=96.0*

*IDC **08** 17:15:23.5±1.6, 36.63N×140.94E, h45^{km}±16^{km}, mb3.9/16, mb1 4.1/19, mb1mx4.0/26, ML4.1/3, Error ellipse: s-maj=21.4km s-min=9.8km az=96.0*

*JMA **08** 17:15:23.6±0.1, 36.64N×140.93E, h49^{km}±1^{km}, M4.2 Broadband fault plane solution: P waves. NP1:φ$_s$193°, δ34°, λ91°. NP2:φ$_s$11°, δ56°, λ89°. Principal axes: T Plg79°, Azm278°; N Plg1°, Azm12°; P Plg11°, Azm102°;*

JMA Felt III J1.

ISC 08 17:15:22.2±0.6**, 36.62N**±0.03×**141.00E**±0.06**, h53**^{km}±4^{km}**, n56, σ0^{s}84**/70**, mb4.3**/26**, 1C-7D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	**Hitachi**	0.34	268	⇓P	P	17 15 32.6	+0.4
JHO				S	S	17 15 38.6	-0.7
ONAJ	**Iwakimizuishiy**	0.51	342	⇑P	P	17 15 34.1	+0.3
ONAJ				S	S	17 15 41.4	-0.8
JFK	**Kawauchi**	0.75	353	⇓P	P	17 15 37.0	+0.2
JFK				S	S	17 15 46.5	-1.1
JYT	**Yasato**	0.76	239	⇓P	P	17 15 37.4	+0.5
JYT				S	S	17 15 47.2	-0.6
JSB	**Shiboa**	0.93	292	⇓P	P	17 15 40.0	+0.7
JFT	**Otama**	1.04	330	⇓P	P	17 15 41.9	+1.1
JFT				S	S	17 15 54.7	+0.1
JMM	**Marumori**	1.25	353	P	P	17 15 44.2	+0.4
JMM				S	S	17 15 59.1	-0.7
JAG	**Ashikaga**	1.26	261	⇓P	P	17 15 44.3	+0.4
JAG				S	S	17 15 59.0	-1.0
JFY	**Yanaizu**	1.30	308	⇓P	P	17 15 45.0	+0.5
JFY				S	S	17 16 01.3	+0.3
MAJO	**Matsushiro**	2.25	269	*e*P	P	17 15 58.4	+0.6
MAT	**Matsushiro**	2.25	269	P	P	17 15 59.0	+1.2
MAT				S	S	17 16 26.7	+2.3
MAT	**Matsushiro**	2.25	269	*e*P	P	17 15 59.0	+1.2
MAT				*e*S	S	17 16 27.0	+2.6
JHJ	**Hachijo jima 2**	3.63	196	P	P	17 16 18.2	+0.7
	45nm,0.3s,baz=290,slow=4.3,SNR=36						
JHJ				S	S	17 16 59.0	-0.5
	130nm,0.3s,baz=80,slow=24,SNR=11						
ASAJ	**Asahikawa**	7.58	9	P	P	17 17 11.6	-1.1
	3.0nm,0.3s,baz=107,slow=27,SNR=18						
ASAJ				S	S	17 18 33.9	-4.2
	0.6nm,0.3s,baz=27,slow=7.3,SNR=2.8						
ASAJ	**Asahikawa**	7.58	9	P	P	17 17 11.6	-1.1
ASAJ				S	S	17 18 33.9	-4.2
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CBIJ	**Chichi jima**	9.55	174	P	P	17 17 35.9	-3.9
	comp=Z,7.3nm,0.3s,baz=249,slow=15,SNR=6.8						
CBIJ				S	S	17 19 16.4	-10
	comp=Z,8.4nm,0.3s,baz=268,slow=22,SNR=6.9						
ENH	**Enshi**	26.97	266	*e*P	P	17 20 59.9	-0.9
	comp=Z,7.0nm,0.7s,mb4.3						
SONM	**Songino Array**	27.74	305	P	P	17 21 08.8	+1.1
	comp=Z,3.2nm,0.7s,mb4.1,baz=107,slow=9.0,SNR=20						
ZAL	**Zalesovo**	41.96	313	P	P	17 23 09.5	+0.3
	comp=Z,2.5nm,0.6s,mb4.0,baz=17,slow=7.8,SNR=16						
ZAL	**Zalesovo**	41.96	313	P	P	17 23 09.5	+0.3
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KURK	**Kurchatov**	45.92	308	*e*P	P	17 23 40.4	-0.8
	comp=Z,1.8nm,0.5s,mb4.3						
GUN	**Gumba**	46.86	276	*e*P	P	17 23 49.1	+0.2
	comp=Z,24nm,1.1s,mb5.0						
PKI	**Pulchoki**	47.39	276	*e*P	P	17 23 51.2	-1.9
KKN	**Kakani**	47.40	276	*e*P	P	17 23 52.0	-1.1
	comp=Z,8.9nm,0.7s,mb4.8						
DMN	**Daman**	47.61	276	*e*P	P	17 23 54.2	-0.6
GKN	**Gorkha**	47.82	277	*e*P	P	17 23 56.3	-0.1
	comp=Z,18nm,0.7s,mb5.2						
KOLN	**Koldanda**	48.75	277	*e*P	P	17 24 03.5	-0.1
	comp=Z,5.2nm,0.7s,mb4.7						
TKM2	**Tokmak 2**	49.53	299	*e*P	P	17 24 10.0	+0.5
	comp=Z,3.1nm,0.7s,mb4.5						
ILAR	**Eielson Array**	50.02	32	P	P	17 24 14.2	+1.2
	comp=Z,1.7nm,0.6s,mb4.2,baz=274,slow=5.9,SNR=24						
ILAR	**Eielson Array**	50.02	32	P	P	17 24 14.2	+1.3
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CHKZ	**Chkalovo**	50.35	313	*e*P	P	17 24 14.4	-1.2
	comp=Z,1.6nm,0.6s,mb4.2						
BVAR	**Borovoye Array**	50.60	312	P	P	17 24 16.8	-0.7
	comp=Z,0.9nm,0.6s,mb3.9,baz=91,slow=7.6,SNR=8.8						
BRVK	**Borovoye**	50.66	313	*e*P	P	17 24 17.8	-0.1
	comp=Z,1.0nm,0.7s,mb3.9						
INK	**Inuvik**	54.91	27	*e*P	P	17 24 50.4	+1.1
	comp=Z,2.7nm,0.6s,mb4.5						
ARU	**Arti**	56.45	319	*e*P	P	17 24 58.7	-1.8
WRA	**Warramunga Arr**	56.61	188	P	P	17 25 01.3	-0.8
	comp=Z,2.6nm,0.5s,mb4.5,baz=4.9,slow=7.4,SNR=42						
WRA	**Warramunga Arr**	56.61	188	P	P	17 25 01.3	-0.9
WRA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
ASAR	**Alice Springs**	60.34	187	P	P	17 25 27.4	-0.7
	comp=Z,1.2nm,0.7s,mb4.0,baz=14,slow=6.4,SNR=17						
ARCES	**ARCESS Array B**	64.27	339	P	P	17 25 53.3	-0.2
	comp=Z,5.4nm,1.0s,mb4.5,baz=31,slow=7.1,SNR=6.8						
ARCES	**ARCESS Array B**	64.27	339	P	P	17 25 53.3	-0.2
ARCES				pmax	pmax		
	comp=Z,5.0nm,1.0s						
YKA	**Yellowknife Ar**	64.33	30	P	P	17 25 54.8	+0.8
	comp=Z,0.3nm,0.5s,mb3.6,baz=303,slow=6.5,SNR=7.8						
STKA	**Stephens Creek**	68.14	179	P	P	17 26 19.1	+0.3
	comp=Z,2.5nm,0.7s,mb4.4,baz=1.4,slow=14,SNR=3.2						
FINES	**FINESS Array B**	69.02	332	P	P	17 26 23.2	-0.5
	comp=Z,3.1nm,0.9s,mb4.2,baz=37,slow=9.5,SNR=8.0						
FINES	**FINESS Array B**	69.02	332	P	P	17 26 23.2	-0.5
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
HFS	**Hagfors**	74.33	336	P	P	17 26 56.1	+0.8
	comp=Z,1.7nm,0.5s,mb4.2,baz=76,slow=6.1,SNR=9.0						
HFS	**Hagfors**	74.33	336	P	P	17 26 56.1	+0.9
HFS				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG	**Malin Array Be**	74.42	322	P	P	17 26 55.8	-0.2
	comp=Z,3.8nm,0.7s,mb4.5,baz=45,slow=6.1,SNR=16						
AKASG	**Malin Array Be**	74.42	322	P	P	17 26 55.8	-0.2
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
NB2	**NORSAR Subarra**	74.44	337	P	P	17 26 55.7	-0.2
	comp=Z,1.7nm,0.6s,mb4.2,baz=40,slow=5.8						
NOA	**NORSAR Array B**	74.44	337	P	P	17 26 56.0	+0.2
	comp=Z,1.5nm,0.5s,mb4.2,baz=38,slow=5.8,SNR=8.2						
NOA	**NORSAR Array B**	74.44	337	P	P	17 26 56.0	+0.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
PDAR	**Pinedale Array**	78.19	45	P	P	17 27 18.1	+0.6
	comp=Z,0.4nm,0.8s,mb3.4,baz=346,slow=6.1,SNR=3.5						

ULM	Lac du Bonnet	80.03	33	P	P	17 27 28.1	+0.8
	comp=Z,1.0nm,0.5s,mb4.0,baz=329,slow=3.8,SNR=3.1						
CLL	Collm	81.29	330	P	P	17 27 34.6	+0.7
GERES	GERESS Array B	82.89	328	P	P	17 27 42.9	+0.8
	comp=Z,1.1nm,0.9s,mb3.9,baz=34,slow=4.8,SNR=5.2						
GERES	GERESS Array B	82.89	328	P	P	17 27 42.9	+0.7
GERES				pmax	pmax		
	comp=Z,1.0nm,0.9s						

*IDC **08** 17:33:53.1±11.0, 19.67S×176.90W, h450^{km}±171^{km}, mb3.6/5, mb1 3.6/6, mb1mx3.4/17, Error ellipse: s-maj=164.0km s-min=35.2km az=62.0*

NEIC 08 17:33:49.5±5.3**, 19.61S×176.94W, h400^{km}, mb4.0**/3**, Error ellipse: s-maj=109.0km s-min=21.1km az=58.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	19.29	194	P	P	17 37 47.3	+0.1
	1.9nm,0.3s,baz=114,slow=16,SNR=6.2						
CTA	Charters Tower	34.58	263	P	P	17 40 03.1	-0.9
	14nm,0.6s,baz=93,slow=10,SNR=36						
CTAO	Charters Tower	34.58	263	*e*P	P	17 40 02.6	-1.3
	11nm,0.5s						
PMG	Port Moresby	36.13	281	P	P	17 40 16.2	-0.9
	4.4nm,0.8s,baz=129,slow=6.5,SNR=3.8						
STKA	Stephens Creek	39.07	243	P	P	17 40 40.2	-1.0
	4.2nm,1.1s,baz=34,slow=7.3,SNR=3.7						
STKA	Stephens Creek	39.07	243	P	P	17 40 40.2	-1.0
ASAR	Alice Springs	45.69	256	P	P	17 41 32.8	-1.5
	4.0nm,0.6s,baz=97,slow=8.7,SNR=120						
WRAB	Tennant Creek	45.70	261	P	P	17 41 32.6	-1.8
	2.3nm,0.4s						
WRA	Warramunga Arr	45.71	261	P	P	17 41 32.6	-1.9
	1.0nm,0.3s,baz=96,slow=7.4,SNR=66						
MBWA	Marble Bar	59.02	257	*e*P	P	17 43 09.4	-1.8
	3.7nm,0.7s						

IDC 08 17:59:06.4±8.3**, 5.54S×152.54E, h71^{km}±62^{km}, mb4.0**/1**, Error ellipse: s-maj=107.0km s-min=56.5km az=148.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	6.58	234	P	P	18 00 40.5	-1.9
	baz=33,slow=14						
PMG				S	S	18 01 55.1	-1.6
	baz=156,slow=20						
WRA	Warramunga Arr	22.77	229	P	P	18 04 02.8	-1.0
	baz=52,slow=9.8						
ASAR	Alice Springs	25.43	223	P	P	18 04 28.8	-0.6
	baz=58,slow=8.9						
STKA	Stephens Creek	28.14	200	P	P	18 04 51.0	-3.1
	4.5nm,1.1s,baz=32,slow=13,SNR=3.2						

*SYO **08** 18:14:37.4, 7.70S×108.15E, h35^{km}, MB4.8*

*DJA **08** 18:14:39.1±0.5, 8.35S×107.93E, h33^{km}, mb5.8/4, MD5.1/4, Error ellipse: s-maj=26.2km s-min=4.7km az=23.0*

*IDC **08** 18:14:40.8±6.5, 7.72S×108.00E, h60^{km}±58^{km}, mb4.1/19, mb1 4.2/19, mb1mx4.1/21, MS3.0/3, Ms1 3.1/3, ms1mx2.7/22, Error ellipse: s-maj=25.6km s-min=13.6km az=63.0*

*BJI **08** 18:14:44.2, 7.87S×107.93E, h117^{km}, mB5.1, mb4.7*

*NEIC **08** 18:14:45.4±1.2, 7.74S×108.18E, h105^{km}±10^{km}, mb4.6/10, Error ellipse: s-maj=16.2km s-min=6.3km az=48.0*

NEIC Felt [III] at Tasikmalaya and [II] at Bandung. Also felt at Ciamis.

ISC 08 18:14:41.3±0.7**, 7.79S**±0.07×**108.10E**±0.05**, h86^{km}**±6^{km}**, n73, σ1$\overset{s}{.}$11**/80**, mb4.5**/39**, 6C-6D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SINI	Singah	0.97	322	*e*Pn	P	18 15 01.3	+0.6
PULI	Pulasari	2.55	304	*e*Pn	P	18 15 21.7	+0.1
PASI	Pasiripis	2.72	294	*e*Pn	P	18 15 21.5	-2.5
SRDI	Scrawed	6.02	97	⇑*e*P	P	18 16 09.4	-0.1
SRDI				*e*S	S	18 17 15.4	-2.3
SRDI	Scrawed	6.02	97	⇑*e*P	P	18 16 09.4	-0.1
	193nm,0.2s						
SRDI				⇑*e*S	S	18 17 18.0	+0.3
KELI	Kelakatan	6.34	94	⇓*e*P	P	18 16 15.8	+1.8
KELI				*e*S	S	18 17 24.6	-1.1
KELI	Kelakatan	6.34	94	⇓*e*P	P	18 16 15.8	+1.8
	301nm,0.2s						
KELI				⇑*e*S	S	18 17 28.1	+2.4
RATI	Rata	7.42	98	⇓*e*P	P	18 16 29.3	+0.5
RATI				*e*S	S	18 17 48.7	-3.3
RATI	Rata	7.42	98	⇓*e*P	P	18 16 29.3	+0.5
	574nm,0.3s						
KEDI	Kedomdong	7.96	96	⇓*e*P	P	18 16 36.6	+0.3
KEDI				*e*S	S	18 18 02.6	-2.9
KEDI	Kedomdong	7.96	96	⇓*e*P	P	18 16 36.6	+0.3
	272nm,0.2s						
KGM	Kluang	10.85	334	*e*P	P	18 17 19.8	+4.4
MBWA	Marble Bar	17.40	141	*e*P	P	18 18 37.2	-2.9
FITZ	Fitzroy Crossi	19.91	123	*e*P	P	18 19 08.5	-0.1
	5.3nm,0.6s						
FITZ	Fitzroy Crossi	19.91	123	P	P	18 19 09.1	+0.5
	5.7nm,0.6s,baz=288,slow=3.8,SNR=18						
FITZ				S	S	18 22 41.4	-1.5
	2.4nm,0.6s,baz=169,slow=18,SNR=5.3						
FITZ				LR	LR	18 26 16.3	
	comp=Z,36nm,18.5s,baz=48,slow=35						
KAKA	Kakadu	24.40	104	*e*P	P	18 19 54.1	+1.0
	14nm,0.6s,mb4.5						
CMAR	Chiang Mai Arr	27.60	341	P	P	18 20 22.4	-0.6
	0.8nm,0.4s,mb3.6,baz=174,slow=7.9,SNR=10.0						
CMAR				PcP	PcP	18 23 39.9	+1.2
	1.3nm,0.9s,baz=231,slow=2.5,SNR=7.8						
CMAR				LR	LR	18 31 12.2	
	comp=Z,77nm,18.5s,baz=185,slow=36						
WRA	Warramunga Arr	28.14	118	P	P	18 20 28.6	+0.9
	1.2nm,0.4s,mb3.8,baz=290,slow=12,SNR=12						
WRAB	Tennant Creek	28.15	118	*e*P	P	18 20 26.5	-1.3
ASAR	Alice Springs	29.34	125	P	P	18 20 39.5	+1.1
	0.6nm,0.6s,mb3.4,baz=303,slow=9.4,SNR=6.1						
ASAR				LR	LR	18 32 16.0	
	comp=Z,9.5nm,21.9s,baz=100,slow=36						
KMI	Kunming	33.13	351	*e*P	P	18 21 12.5	+0.9
KMI				S	S	18 26 31.4	+7.9
KMI				LR	LR		
	comp=Z,104nm,6.3s						
GYA	Guiyang	34.07	358	P	P	18 21 20.4	+0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
GYA				AMB	AMB		
	comp=Z,230nm,4.5s						
GYA				LR	LR		
	comp=N,110nm,3.9s						
GYA				LR	LR		
	comp=E,130nm,4.9s						
GYA				LR	LR		
	comp=Z,100nm,4.7s						
HYB	Hyderabad	38.47	311	*e*P	P	18 21 57.0	+0.2
HYB	Hyderabad	38.47	311	*i* P	P	18 21 57.0	+0.2
PMG	Port Moresby	38.64	95	P	P	18 21 59.7	+1.5
	comp=Z,4.2nm,0.6s,mb4.4,baz=214,slow=3.6,SNR=5.8						
STKA	Stephens Creek	39.30	132	P	P	18 22 04.7	+1.1
	comp=Z,3.2nm,0.4s,mb4.5,baz=311,slow=12,SNR=5.4						
STKA	Stephens Creek	39.30	132	*e*P	P	18 22 04.3	+0.7
NJ2	Nanjing	40.93	14	*e*P	P	18 22 18.5	+1.5
NJ2				PP	PP	18 23 56.8	+1.1
NJ2				S	S	18 28 29.0	+7.0
NJ2				SS	SS	18 31 27.0	+4.6
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.4s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,210nm,6.0s						
NJ2				LR	LR		
	comp=N,310nm,18.8s						
NJ2				LR	LR		
	comp=E,310nm,23.5s						
NJ2				LR	LR		
	comp=Z,290nm,19.0s						
PKI	Pulchoki	41.45	329	*e*P	P	18 22 21.9	+0.6
	comp=Z,4.6nm,0.4s,mb4.6						
GUN	Gumba	41.49	330	*e*P	P	18 22 21.1	-0.5
	comp=Z,13nm,0.5s,mb5.1						
XAN	Xi'an	41.61	1	P	P	18 22 22.5	-0.1
DMN	Daman	41.64	329	*e*P	P	18 22 23.4	+0.5
	comp=Z,3.1nm,0.2s,mb4.6						
KKN	Kakani	41.69	329	*e*P	P	18 22 22.8	-0.6
	comp=Z,6.3nm,0.6s,mb4.5						
GKN	Gorkha	42.20	328	*e*P	P	18 22 26.4	-1.1
	comp=Z,7.5nm,0.3s,mb4.9						
KOLN	Koldanda	42.56	327	*e*P	P	18 22 30.9	+0.4
	comp=Z,7.5nm,0.3s,mb5.0						
LZH	Lanzhou	43.83	355	*e*P	P	18 22 43.0	+2.3
LZH				PP	PP	18 24 27.0	+1.3
LZH				*e*S	S	18 29 12.1	+7.6
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb4.7						
LZH				AMB	AMB		
	comp=Z,201nm,6.0s						
LZH				LR	LR		
	comp=N,461nm,12.0s						
LZH				LR	LR		
	comp=Z,760nm,14.7s						
LZH	Lanzhou	43.83	355	*e*P	P	18 22 43.0	+2.3
	comp=Z,25nm,1.5s,mb4.7						
LZH				pP	pP	18 22 53.1	-8.3
LZH				sP	sP	18 22 56.8	-15
LZH				PP	PP	18 24 27.0	+1.3
LZH				*e*S	S	18 29 12.1	+7.6
LZH				sS		18 29 28.7	
LZH				*e*SS	SS	18 32 21.4	+6.8
LZH				LR	LR		
	comp=Z,760nm,14.7s						
GTA	Gaotai	47.59	351	*e*P	P	18 23 07.5	-2.9
GTA				PCP	PcP	18 24 40.4	+1.0
GTA				S	S	18 29 56.6	-1.5
GTA				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.1						
GTA				AMB	AMB		
	comp=Z,34nm,3.8s						
GTA				LR	LR		
	comp=N,92nm,15.2s						
GTA				LR	LR		
	comp=E,138nm,14.1s						
GTA				LR	LR		
	comp=Z,94nm,15.6s						
HHC	Hu-ho-hao-te	48.50	4	*e*P	P	18 23 17.0	-0.5
HHC				AMB	AMB		
	comp=Z,15nm,0.5s,mb5.2						
HHC				AMB	AMB		
	comp=Z,135nm,5.4s						
CN2	Changchun	53.70	16	*e*P	P	18 23 58.6	+1.8
WMQ	Urumqi	54.60	342	⇑P	P	18 24 04.4	+1.1
WMQ				PCP	PcP	18 25 07.9	+2.7
WMQ				PP	PP	18 26 08.2	+0.3
WMQ				S	S	18 31 39.4	+5.0
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.5s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,12nm,5.0s						
WMQ				LR	LR		
	comp=N,55nm,17.2s						
WMQ				LR	LR		
	comp=E,50nm,20.0s						
WMQ				LR	LR		
	comp=Z,46nm,16.0s						
SONM	Songino Array	55.40	359	P	P	18 24 08.4	-0.6
	comp=Z,1.9nm,0.5s,mb4.4,baz=178,slow=8.5,SNR=19						
SONM				PcP	PcP	18 25 08.6	+0.4
	comp=Z,3.7nm,0.5s,baz=177,slow=3.9,SNR=22						
MDJ	Mudanjiang	55.65	18	P	P	18 24 11.1	+0.2
MDJ				AMB	AMB		
	comp=Z,9.0nm,2.0s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,159nm,5.0s						
TKM2	Tokmak 2	58.50	332	*e*P	P	18 24 29.1	-2.0
	comp=Z,13nm,0.5s,mb5.2						
EKS2	Erkin-Say	59.16	331	*e*P	P	18 24 34.9	-0.7
	comp=Z,2.9nm,0.7s,mb4.4						
KURK	Kurchatov	63.61	340	*e*P	P	18 25 05.0	-0.5
	comp=Z,4.8nm,0.8s,mb4.4						
ZAL	Zalesovo	64.56	345	P	P	18 25 10.5	-1.1
	comp=Z,1.8nm,0.4s,mb4.3,baz=353,slow=2.9,SNR=8.4						
ZAL				PcP	PcP	18 25 44.1	-0.6
	comp=Z,1.0nm,0.5s,baz=348,slow=4.1,SNR=3.5						
ZAL	Zalesovo	64.56	345	P	P	18 25 10.5	-1.1
ZAL				PcP	PcP	18 25 44.1	-0.6
MAW	Mawson	66.93	197	P	P	18 25 26.5	+0.1
	comp=Z,1.7nm,0.7s,mb4.0,baz=69,slow=14,SNR=3.3						
BVAR	Borovoye Array	68.52	337	P	P	18 25 35.7	-0.9
	comp=Z,4.3nm,0.4s,mb4.7,baz=136,slow=9.0,SNR=54						
BRVK	Borovoye	68.59	337	*e*P	P	18 25 36.1	-0.8
	comp=Z,3.3nm,0.4s,mb4.5						
CHKZ	Chkalovo	68.93	337	*e*P	P	18 25 38.0	-1.1
	comp=Z,15nm,0.4s,mb5.2						
KMBO	Kilima Mbogo	70.87	272	P	P	18 25 51.8	+0.2
	comp=Z,0.8nm,0.5s,mb3.9,baz=57,slow=18,SNR=3.9						
YAK	Yakutsk	71.60	11	*e*P	P	18 25 53.6	-1.5
	comp=Z,8.2nm,0.8s,mb4.6						
VNDA	Vanda	75.00	170	P	P	18 26 15.1	+0.4
	comp=Z,0.7nm,0.6s,mb3.6,baz=248,slow=3.3,SNR=6.3						
VNDA	Vanda	75.00	170	P	P	18 26 15.1	+0.4
SYO	Syowa Base	75.14	200	⇑P	P	18 26 22.0	+6.4
ARU	Arti	75.80	334	*e*P	P	18 26 19.2	-0.4
	comp=Z,3.0nm,0.7s,mb4.1						
ASF	Jabal al Asfar	78.50	305	P	P	18 26 36.3	+1.2
	comp=Z,2.3nm,0.4s,mb4.2,baz=167,slow=4.3,SNR=4.2						
BRTR	Keskin Array B	83.17	312	P	P	18 27 00.1	+0.6
	comp=Z,2.0nm,0.6s,mb4.1,baz=135,slow=7.4,SNR=7.9						
AKASG	Malin Array Be	88.99	321	P	P	18 27 27.8	+0.1
	comp=Z,1.4nm,0.5s,mb4.2,baz=84,slow=4.4,SNR=10						
FINES	FINESS Array B	92.98	332	P	P	18 27 47.0	+0.9
	comp=Z,3.9nm,0.8s,mb4.8,baz=114,slow=7.2,SNR=10						
FINES	FINESS Array B	92.98	332	P	P	18 27 47.0	+0.9
ARCES	ARCESS Array B	94.66	340	P	P	18 27 53.7	+0.2
	comp=Z,1.6nm,0.7s,mb4.6,baz=108,slow=5.5,SNR=5.9						
ARCES	ARCESS Array B	94.66	340	P	P	18 27 53.7	+0.2
GERES	GERESS Array B	98.70	318	P	P	18 28 13.4	+1.1
	comp=Z,0.2nm,0.4s,mb4.0,baz=108,slow=3.1,SNR=3.0						
HFS	Hagfors	98.90	330	P	P	18 28 12.7	-0.3
	comp=Z,4.2nm,1.0s,mb4.9,baz=79,slow=7.3,SNR=3.9						
YKA	Yellowknife Ar	117.22	21	PKP	PKPdf	18 33 18.3	+1.9
	comp=Z,0.5nm,0.6s,baz=328,slow=1.8,SNR=10						
TXAR	Lajitas Array	143.25	50	PKP	PKPdf	18 34 07.6	+1.4
	comp=Z,1.1nm,0.6s,baz=217,slow=1.7,SNR=5.7						
CCM	Cathedral Cave	145.16	27	*e*PKPdf	PKPdf	18 34 11.0	+1.7
JCT	Junction City	145.48	45	*e*PKPdf	PKPdf	18 34 13.6	+3.5
BDFB	Brasilia	146.80	225	PKPbc	PKPbc	18 34 18.1	+3.9
	comp=Z,2.0nm,0.4s,baz=166,slow=4.2,SNR=2.9						
WVT	Waverly	148.26	25	*e*PKPbc	PKPdf	18 34 20.7	+6.2

IDC 08 18:15:28.4±6.5**, 5.23S×145.25E, h114^{km}**±73^{km}**, mb3.5**/3**, mb1 3.6**/5**, mb1mx3.4**/14**, Error ellipse: s-maj=55.2km s-min=37.1km az=177.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	4.56	156	P	P	18 16 35.4	-1.2
	3.3nm,0.3s,baz=356,slow=7.4,SNR=17						
PMG				S	S	18 17 28.0	-0.8
	5.0nm,0.3s,baz=143,slow=22,SNR=9.5						
WRA	Warramunga Arr	18.07	215	P	P	18 19 31.1	-2.5
	0.1nm,0.3s,baz=41,slow=11,SNR=7.3						
CMAR	Chiang Mai Arr	51.35	299	P	P	18 24 21.6	-2.2
	1.2nm,0.6s,baz=122,slow=6.2,SNR=10.0						
BVAR	Borovoye Array	85.13	324	P	P	18 27 52.2	-0.7
	0.3nm,0.4s,baz=101,slow=7.3,SNR=2.6						
ILAR	Eielson Array	85.47	23	P	P	18 27 53.0	-1.3
	0.5nm,0.8s,baz=254,slow=6.6,SNR=5.0						

*CSEM **08** 19:00:26.6±0.2, 36.59N×4.40W, h70^{km}±1^{km}, mb2.7/17, Error ellipse: s-maj=4.7km s-min=2.2km az=168.0*

*NEIC **08** 19:00:28.4, 36.56N×4.41W, h72^{km}, MG2.7(MDD), After MDD.*

*INMG **08** 19:00:28.9±0.9, 36.61N×4.50W, h70^{km}±3^{km}, ML2.2, Error ellipse: s-maj=4.3km s-min=3.3km az=154.0*

MDD 08 19:00:28.6±0.8**, 36.57N×4.41W, h71^{km}**±5^{km}**, mb2.8**/17**, 2D, Error ellipse: s-maj=7.5km s-min=4.3km az=157.0, PRXIMO, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EMAL	Malaga-Limoner	0.20	355	⇓P	P	19 00 39.2	-0.1
	8.0nm,0.1s,SNR=7.9						
EMAL				S	S	19 00 46.6	-0.7
	SNR=7.9						
EMIJ	Mijas	0.29	270	⇓P	P	19 00 39.4	-0.6
	9.5nm,0.1s,SNR=18						
EMIJ				S	S	19 00 47.2	-1.2
	60nm,0.1s,SNR=7.9						
EMIJ	Mijas	0.29	270	P	P	19 00 39.4	-0.6
	9.5nm,0.1s,SNR=18						
EMIJ				S	S	19 00 47.2	-1.2
	60nm,0.1s,SNR=7.9						
ELOJ	Sierra Loja	0.61	19	P	P	19 00 42.7	-0.2
	2.1nm,0.2s,SNR=7.9						
ELOJ				S	S	19 00 52.7	-0.6
	2.6nm,0.1s,SNR=7.9						
ERON	Agron	0.66	47	P	P	19 00 43.2	-0.1
	2.7nm,0.2s,SNR=7.9						
ERON				S	S	19 00 54.3	0.0
	4.1nm,0.2s,SNR=7.9						
LIJA	Lijar	0.87	293	P	P	19 00 45.9	+0.1
LIJA				S	S	19 00 57.0	-1.5
LIJA	Lijar	0.87	293	*i* P	P	19 00 45.9	+0.1
LIJA				*i* S	S	19 00 57.0	-1.5
ELUQ	Luque	1.00	6	P	P	19 00 46.8	-0.6
	7.9nm,0.1s,SNR=7.9						
ELUQ				S	S	19 00 60.0	-1.4
	12nm,0.2s,SNR=7.9						
ESPR	Espera	1.20	285	P	P	19 00 49.7	-0.3
	0.9nm,0.1s,SNR=7.9						
ESPR				S	S	19 01 05.4	-0.6
	7.9nm,0.2s,SNR=7.9						
ESPR	Espera	1.20	285	P	P	19 00 49.7	-0.4
	0.9nm,0.1s,SNR=7.9						
ESPR				S	S	19 01 05.4	-0.7
	7.9nm,0.2s,SNR=7.9						
EBER	Berja	1.26	74	P	P	19 00 49.3	-1.6
	1.3nm,0.2s,SNR=7.9						
EBER				S	S	19 01 05.3	-2.1
	1.7nm,0.1s,SNR=7.9						
EBER	Berja	1.26	74	P	P	19 00 49.3	-1.6
	1.3nm,0.2s,SNR=7.9						
EBER				S	S	19 01 05.3	-2.2
	1.7nm,0.1s,SNR=7.9						
EADA	Adamuz	1.60	355	P	P	19 00 54.3	-1.2
	6.5nm,0.1s,SNR=7.9						
EADA				S	S	19 01 13.4	-2.0
	15nm,0.1s,SNR=7.9						
EADA	Adamuz	1.60	355	P	P	19 00 54.3	-1.2
	6.5nm,0.1s,SNR=7.9						
EADA				S	S	19 01 13.4	-2.0
	15nm,0.1s,SNR=7.9						
EQES	Quesada	1.63	40	P	P	19 00 54.7	-1.1
	0.6nm,0.1s,SNR=7.9						
EQES				S	S	19 01 13.7	-2.3
	4.5nm,0.1s,SNR=7.9						
EQES	Quesada	1.63	40	P	P	19 00 54.7	-1.2
	0.6nm,0.1s,SNR=7.9						
EQES				S	S	19 01 13.7	-2.3
	4.5nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	2.17	304	P	P	19 01 01.3	-2.0
	1.2nm,0.1s,SNR=7.9						
EMIN				S	S	19 01 25.1	-3.9
	8.2nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	2.17	304	P	P	19 01 01.3	-2.0
	1.2nm,0.1s,SNR=7.9						
EMIN				S	S	19 01 25.1	-3.9
	8.2nm,0.1s,SNR=7.9						
EVIA	Vianos	2.56	36	S	S	19 01 34.6	-4.3
	1.6nm,0.1s,SNR=7.9						
EBAD	Badajoz	3.01	317	P	P	19 01 13.0	-2.1
	4.0nm,0.1s,SNR=7.9						
EBAD				S	S	19 01 45.6	-4.5
	36nm,0.2s,SNR=7.9						
EBAD	Badajoz	3.01	317	P	P	19 01 13.0	-2.1
	4.0nm,0.1s,SNR=7.9						
EBAD				S	S	19 01 45.6	-4.5
	36nm,0.2s,SNR=7.9						
PBEJ	Beja	3.12	299	*e*P	P	19 01 14.8	-1.9
PBEJ				*e*S	S	19 01 48.0	-4.9
	4.2nm,0.1s						
PBEJ	Beja	3.12	299	*e*P	P	19 01 14.8	-1.9
PBEJ				*e*S	S	19 01 48.0	-4.9
	4.2nm,0.1s						
ESDC	Sonseca Array	3.12	6	P	P	19 01 15.0	-1.7
	0.9nm,0.1s,SNR=7.9						
ESDC				S	S	19 01 47.4	-5.6
	2.2nm,0.1s,SNR=7.9						
ESDC	Sonseca Array	3.12	6	P	P	19 01 15.0	-1.7
	0.9nm,0.1s,SNR=7.9						
PTEO	Sao Teotonio	3.59	287	*e*P	P	19 01 22.0	-1.2
PTEO				*e*S	S	19 02 00.7	-3.9
	3.0nm,0.2s						
PTEO	Sao Teotonio	3.59	287	*e*P	P	19 01 22.0	-1.2
PTEO				*e*S	S	19 02 00.7	-3.9
	3.0nm,0.2s						
MOE	Montemor	3.69	303	*e*S	S	19 02 02.3	-4.9
PCBR	Castelo Branco	4.07	324	*e*P	P	19 01 27.7	-2.1
PCBR				*e*S	S	19 02 10.1	-6.4
	1.8nm,0.2s						
PCBR	Castelo Branco	4.07	324	P	P	19 01 27.7	-2.1
PCBR				S	S	19 02 10.1	-6.4
	0.9nm,0.2s						
PCBR	Castelo Branco	4.07	324	*e*S	S	19 02 10.1	-6.4
	1.8nm,0.2s						
EMOS	Mosqueruela	4.89	38	P	P	19 01 39.2	-2.1
	0.1nm,0.1s,SNR=7.9						
EMOS				S	S	19 02 29.1	-8.0
	0.2nm,0.1s,SNR=7.9						
EMOS	Mosqueruela	4.89	38	P	P	19 01 39.2	-2.1
	0.1nm,0.1s,SNR=7.9						
PVIS	Viseu	4.96	328	*e*P	P	19 01 40.4	-1.9
PVIS				*e*S	S	19 02 32.8	-6.1
	3.0nm,0.2s						
PVIS	Viseu	4.96	328	*e*P	P	19 01 40.4	-1.9
PVIS				*e*S	S	19 02 32.8	-6.1
	3.0nm,0.2s						
PVRL	Vila Real	5.36	332	*e*P	P	19 01 45.9	-1.9
PVRL				*e*S	S	19 02 42.0	-6.9
	13nm,0.1s						
PVRL	Vila Real	5.36	332	P	P	19 01 45.9	-1.9
PVRL				S	S	19 02 42.0	-6.9
	6.4nm,0.1s						
PBRG	Braganca	5.54	342	*e*P	P	19 01 47.8	-2.4
PBRG				*e*S	S	19 02 45.8	-7.4
	2.0nm,0.2s						
PBRG	Braganca	5.54	342	P	P	19 01 47.8	-2.4
PBRG				S	S	19 02 45.8	-7.4
	1.0nm,0.2s						
ELOB	Lobios	6.00	333	P	P	19 01 54.3	-2.4
	0.3nm,0.1s,SNR=7.9						
ELOB				S	S	19 02 56.8	-8.0
	0.3nm,0.1s,SNR=7.9						
ELOB	Lobios	6.00	333	P	P	19 01 54.3	-2.4
	0.3nm,0.1s,SNR=7.9						
EINC	Incio	6.50	340	P	P	19 02 01.4	-2.2
	0.3nm,0.2s,SNR=7.9						
EINC				S	S	19 03 09.3	-7.6
	0.5nm,0.1s,SNR=7.9						
EINC	Incio	6.50	340	P	P	19 02 01.4	-2.2
	0.3nm,0.2s,SNR=7.9						
ELAN	Lanestosa	6.70	6	P	P	19 02 04.4	-2.0
	0.7nm,0.2s,SNR=7.9						
ELAN	Lanestosa	6.70	6	P	P	19 02 04.4	-2.0
	0.7nm,0.2s,SNR=7.9						
EARI	Arriondas	6.75	355	P	P	19 02 04.7	-2.5
	0.3nm,0.2s,SNR=7.9						
EARI	Arriondas	6.75	355	P	P	19 02 04.7	-2.5
	0.3nm,0.2s,SNR=7.9						

*IDC **08** 19:09:10.8±1.1, 43.37N×105.27W, mb1 3.7/3, mb1mx3.4/19, ML3.7/3, Error ellipse: s-maj=23.8km s-min=8.2km az=157.0*

NEIC 08 19:09:13.7±0.7**, 43.72N×105.25W, ML3.3, Error ellipse: s-maj=9.2km s-min=6.6km az=102.0, Suspected Mining explosion., Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PHWY	Pilot Hill	2.42	184	*e*P	Pn	19 09 54.8	-0.3
RWWY	Rawlins	2.49	216	*e*P	Pn	19 09 56.4	+0.3
LAO	LASA Array	3.04	347	*e*Pn	Pn	19 10 03.2	-0.8
BW06	Boulder Array	3.29	255	*e*Pn	Pn	19 10 06.2	-1.3
PDAR	Pinedale Array	3.29	255	Pn	Pn	19 10 06.2	-1.3
	5.3nm,0.3s,baz=83,slow=15,SNR=55						
PDAR				Pg	Pg	19 10 12.2	-7.1
	10nm,0.3s,baz=67,slow=21,SNR=50						
PDAR				Lg		19 10 50.1	
	8.2nm,0.3s,baz=76,slow=19,SNR=9.2						
GCMT	Greycliff	3.77	305	*e*Pn	Pn	19 10 11.7	-2.5
LOHW	Long Hollow	3.89	270	*e*Pn	Pn	19 10 16.4	+0.5
ISCO	Idaho Springs	3.93	184	*e*Pn	Pn	19 10 15.8	-0.7
MOOW	Moose Ponds	3.98	272	*e*Pn	Pn	19 10 16.4	-0.9

WUWY	**Wally Ulrich**	**3.99**	**269**	*e*Pn	Pn	19 10 15.2	-2.3
SNOW	**Snow King Moun**	**4.01**	**268**	*e*Pn	Pn	19 10 14.9	-2.8
YNR	**Norris Junctio**	**4.03**	**286**	Pn	Pn	19 10 15.1	-2.8
REDW	**Red Top Meadow**	**4.09**	**267**	*e*Pn	Pn	19 10 17.3	-1.5
YFT	**Old Faithful**	**4.09**	**282**	Pn	Pn	19 10 19.8	+0.9
IMW	**Indian Meadow**	**4.12**	**274**	Pn	Pn	19 10 16.2	-3.1
TPAW	**Teton Pass**	**4.15**	**269**	*e*Pn	Pn	19 10 19.0	-0.7
YMR	**Madison River**	**4.22**	**285**	Pn	Pn	19 10 16.6	-4.1
AHID	**Auburn Hatcher**	**4.38**	**259**	Pn	Pn	19 10 20.7	-2.3
DGMT	**Dagmar**	**4.80**	**8**	*e*Pn	Pn	19 10 28.2	-0.8
HRY	**Holter Researc**	**5.53**	**305**	*e*Pn	Pn	19 10 37.5	-1.7
MCMT	**McKenzie Canyo**	**5.57**	**284**	*e*P	Pn	19 10 39.9	+0.2
RW3	**Ridgway**	**5.77**	**199**	P	Pn	19 10 35.8	-6.8
HVU	**Hansel Valley**	**5.87**	**253**	*e*P	Pn	19 10 43.6	-0.5
PV10	**Paradox Valley**	**6.06**	**209**	*e*P	Pn	19 10 44.9	-1.8
SRU	**San Rafael**	**6.08**	**223**	*e*P	Pn	19 10 43.6	-3.4
PV01	**Paradox Valley**	**6.12**	**205**	*e*P	Pn	19 10 45.8	-1.8
TMUT	**Trail Mountain**	**6.29**	**227**	*e*P	Pn	19 10 47.0	-3.0
ULM	**Lac du Bonnet**	**9.14**	**41**	Pn	P	19 11 25.4	-4.5
	2.0nm,0.3s,baz=223,slow=12,SNR=14						
ULM				Lg		19 14 00.7	
	0.2nm,0.3s,baz=316,slow=22,SNR=3.2						
YKA	**Yellowknife Ar**	**19.59**	**347**	P	P	19 13 43.2	-2.5
	0.1nm,0.3s,baz=154,slow=11,SNR=6.3						
YKA	**Yellowknife Ar**	**19.59**	**347**	P	P	19 13 43.2	-2.5
TEIG	**Tepich**	**27.39**	**143**	P	P	19 14 55.1	-7.6
	0.0nm,0.3s,baz=28,slow=12						

IDC 08 19:21:40.3±9.0, 12.23S×166.50E, mb3.8/3, mb1 4.0/3, mb1mx3.8/14, MS3.5/5, Ms1 3.5/5, ms1mx3.3/19, Error ellipse: s-maj=247.0km s-min=47.8km az=121.0, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**19.20**	**276**	LR	LR	19 32 18.8	
	comp=Z,124nm,20.8s,baz=90,slow=33						
CTA	**Charters Tower**	**20.94**	**245**	LR	LR	19 32 59.7	
	comp=Z,80nm,19.0s,baz=42,slow=32						
STKA	**Stephens Creek**	**30.12**	**226**	LR	LR	19 39 53.6	
	comp=Z,130nm,19.1s,baz=24,slow=36						
WRA	**Warramunga Arr**	**31.79**	**252**	P	P	19 28 06.6	-2.3
	0.8nm,0.7s,baz=83,slow=8.9,SNR=6.4						
WRA				pP	pP	19 28 18.2	+9.3
	1.0nm,0.7s,baz=84,slow=9.1,SNR=7.6						
ASAR	**Alice Springs**	**32.95**	**245**	P	P	19 28 16.9	-1.9
	1.2nm,0.7s,baz=71,slow=9.2,SNR=11						
ASAR				pP	pP	19 28 28.6	+10
	1.3nm,0.7s,baz=69,slow=9.3,SNR=6.8						
ASAR				LR	LR	19 41 16.0	
	comp=Z,93nm,18.8s,baz=38,slow=36						
FITZ	**Fitzroy Crossi**	**39.80**	**256**	LR	LR	19 45 26.3	
	comp=Z,69nm,20.4s,baz=7.7,slow=36						
SONM	**Songino Array**	**80.05**	**324**	P	P	19 33 52.0	-1.3
	0.4nm,0.7s,baz=140,slow=6.5,SNR=3.5						

OTT 08 19:31:08.5±0.1, 49.60N×66.96W, h18^{km}, MN2.9/18, 1C-1D, 47km south from Port-Cartier, Qc Lower St. Lawrence Seismic Zone, Quebec, Gaspe Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ICQ	**Pointe Anglais**	**0.22**	**250**	PG	Pb	19 31 14.1	+0.2
ICQ				SG	Sb	19 31 18.0	+0.6
ICQ				Trac		19 31 18.3	
	comp=Z,1μm,0.1s						
SMQ	**Clarke City**	**0.65**	**15**	⇑PG	Pb	19 31 20.6	-0.4
SMQ				SG	Sb	19 31 29.4	-0.1
SMQ				Trac		19 31 30.0	
	comp=Z,204nm,0.1s						
GSQ	**Grosses Roches**	**0.69**	**188**	⇓PG	Pb	19 31 21.3	-0.5
GSQ				SG	Sb	19 31 30.9	0.0
GSQ				Trac		19 31 31.2	
	comp=Z,225nm,0.2s						
CNQ	**Baie Comeau**	**0.79**	**248**	PG	Pb	19 31 22.7	-0.6
CNQ				SG	Sb	19 31 33.7	+0.2
CNQ				Trac		19 31 34.4	
	comp=Z,166nm,0.1s						
MNQ	**Manicouagan**	**1.50**	**309**	PN	Pn	19 31 34.7	-0.1
MNQ				SN	Sn	19 31 53.9	-0.1
MNQ				Trac		19 32 03.3	
	comp=Z,96nm,0.2s						
A21	**Saint Andre**	**2.62**	**225**	PN	Pn	19 31 49.4	-1.5
A21				SN	Sn	19 32 20.5	-2.0
A21				Trac		19 32 27.2	
	comp=Z,28nm,0.2s						
A64	**Saint Simeon**	**2.63**	**229**	PN	Pn	19 31 51.9	+0.9
A64				SN	Sn	19 32 20.8	-2.0
A64				Trac		19 32 32.6	
	comp=Z,11nm,0.1s						
A61	**Sainte Mathild**	**2.82**	**229**	PN	Pn	19 31 52.3	-1.4
A61				SN	Sn	19 32 25.1	-2.5
A61				Trac		19 32 40.8	
	comp=Z,10nm,0.1s						
A16	**Riviere Ouelle**	**2.94**	**225**	PN	Pn	19 31 53.8	-1.6
A16				SN	Sn	19 32 27.8	-2.8
A16				Trac		19 32 44.8	
	comp=Z,11nm,0.2s						
LMQ	**La Malbaie**	**3.04**	**229**	PN	Pn	19 31 55.0	-1.8
LMQ				SN	Sn	19 32 29.7	-3.3
LMQ				Trac		19 32 49.1	
	comp=Z,10nm,0.1s						
A54	**Misere**	**3.14**	**228**	PN	Pn	19 31 57.0	-1.3
A54				SN	Sn	19 32 31.9	-3.8
A54				Trac		19 32 44.2	
	comp=Z,6.0nm,0.1s						
A11	**Saint Roch-des**	**3.19**	**224**	PN	Pn	19 32 00.5	+1.5
A11				SN	Sn	19 32 34.0	-3.0
A11				Trac		19 32 50.4	
	comp=Z,8.6nm,0.2s						
DAQ	**Lac Daran**	**3.27**	**242**	PN	Pn	19 31 57.3	-2.8
DAQ				SN	Sn	19 32 35.7	-3.3
DAQ				Trac		19 32 52.7	
	comp=Z,11nm,0.2s						
LMN	**Caledonia Moun**	**4.02**	**158**	PN	Pn	19 32 08.3	-2.4
LMN				SN	Sn	19 32 51.2	-6.7
LMN				Trac		19 32 55.5	
	comp=Z,1.2nm,0.1s						
GGN	**Saint George**	**4.48**	**179**	PN	Pn	19 32 14.9	-2.4
GGN				SN	Sn	19 33 04.0	-5.6
GGN				Trac		19 33 07.5	
	comp=Z,2.0nm,0.1s						
SCHQ	**Schefferville**	**5.25**	**1**	PN	Pn	19 32 25.0	-3.1
SCHQ				SN	Sn	19 33 22.6	-6.3
SCHQ				Trac		19 33 58.6	
	comp=Z,3.8nm,0.4s						
DRLN	**Deer Lake**	**6.18**	**90**	PN	Pn	19 32 37.6	-3.6
DRLN				SN	Sn	19 33 42.9	-9.3
DRLN				Trac		19 34 32.9	
	comp=Z,2.3nm,0.2s						
VLDQ	**Val d'Or**	**7.08**	**262**	PN	Pn	19 32 52.0	-2.0
VLDQ				Trac		19 35 15.6	
	comp=Z,1.3nm,0.2s						
CRLO	**Chalk River**	**7.87**	**247**	PN	Pn	19 33 02.5	-2.5
CRLO				SN	Sn	19 34 24.6	-10
CRLO				Trac		19 34 30.8	
	comp=Z,1.0nm,0.1s						
EEO	**Eldee**	**8.63**	**255**	SN	Sn	19 34 41.5	-12
EEO				Trac		19 35 10.1	
	comp=Z,0.4nm,0.1s						
KAPO	**Kapuskasing**	**10.12**	**275**	PN	P	19 33 28.2	-7.7
VIMO	**Victor Mine**	**11.01**	**293**	PN	P	19 33 43.2	-5.0
VIMO				SN	S	19 35 38.9	-13
VIMO				Trac		19 35 51.0	
	comp=Z,0.4nm,0.2s						
SILO	**Sutton Inlier**	**12.08**	**301**	PN	P	19 33 58.2	-4.4
SILO				SN	S	19 36 03.8	-14
SILO				Trac		19 36 23.8	
	comp=Z,0.1nm,0.1s						

IDC 08 19:46:30.5±3.6, 8.24S×158.45E, mb3.9/5, mb1 4.0/5, mb1mx3.9/14, Error ellipse: s-maj=91.9km s-min=32.7km az=106.0, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**26.08**	**241**	P	P	19 52 07.0	-0.7
	0.8nm,0.3s,baz=66,slow=9.0,SNR=23						
ASAR	**Alice Springs**	**28.07**	**234**	P	P	19 52 23.6	-2.3
	0.5nm,0.4s,baz=62,slow=9.6,SNR=9.0						
STKA	**Stephens Creek**	**28.27**	**211**	P	P	19 52 24.6	-3.0
	0.6nm,0.4s,baz=30,slow=16,SNR=4.9						
FITZ	**Fitzroy Crossi**	**33.37**	**250**	P	P	19 53 10.8	-2.0
	2.4nm,0.9s,baz=9.5,slow=6.1,SNR=4.4						
SONM	**Songino Array**	**72.25**	**326**	P	P	19 57 58.0	-1.6
	0.2nm,0.4s,baz=141,slow=5.6,SNR=6.0						

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*PRU **08** 20:28:31.5, 50.11N×18.39E*

WAR 08 20:28:30.8, 50.06N×18.45E, h0^{km}, ML2.4, 1C, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	**Raciborz**	**0.17**	**279**	*e*PG	Pg	20 28 35.0	+0.9
RAC				*e*SG	Sg	20 28 38.0	+1.7
OKC	**Ostrava-Krasne**	**0.29**	**222**	*e*PG	Pg	20 28 37.1	+0.5
OKC				*e*SG	Sg	20 28 41.6	+1.0
OJC	**Ojcow**	**0.89**	**79**	*e*Pg	Pg	20 28 47.9	-0.6
OJC				*e*Sg	Sg	20 29 00.0	-0.3
LIKS	**Likavka**	**1.10**	**157**	*e*PG	Pg	20 28 53.6	+0.9
LIKS				*e*SG	Sg	20 29 10.1	+2.8
NIE	**Niedzica**	**1.37**	**117**	*e*Pg	Pg	20 28 57.4	-0.7
NIE				*e*Sg	Sg	20 29 15.9	-0.5
DPC	**Dobruska-Polom**	**1.40**	**283**	*e*PG	Pg	20 28 56.8	-1.9
DPC				*e*SG	Sg	20 29 15.4	-1.9
	23nm,0.3s						
VYHS	**Vyhne**	**1.58**	**171**	*e*PG	Pg	20 29 00.2	-2.2
VYHS				*e*SG	Sg	20 29 22.5	-1.1
KSP	**Ksiaz**	**1.59**	**301**	*e*PN	Pn	20 28 58.0	-2.2
KSP				*e*PG	Pg	20 29 01.0	-1.5
KSP				*e*SG	Sg	20 29 21.0	-2.6
UPC	**Upice**	**1.63**	**287**	*e*PG	Pg	20 29 00.7	-2.6
UPC				*e*SG	Sg	20 29 22.2	-2.7
CRVS	**Cervenica-Dubn**	**2.28**	**119**	*e*PN	Pn	20 29 13.7	+3.5
PRU	**Pruhonice**	**2.52**	**270**	SG	Sg	20 29 48.3	-6.4
	4.7nm,0.3s						
KHC	**Kasperske Hory**	**3.30**	**256**	*e*PN	Pn	20 29 22.0	-2.7
KHC				*e*PG	Pg	20 29 32.9	-3.8
KHC				*e*SG	Sg	20 30 14.9	-5.8
MOA	**Molln**	**3.53**	**233**	⇑*i*PN	Pn	20 29 27.6	-0.4
MOA				*i* SG	Sg	20 30 25.8	-2.6
	2.6nm,0.5s						
CLL	**Collm**	**3.68**	**292**	*e*SG	Sg	20 30 29.0	-4.4

WEL 08 20:59:51.9±0.2, 39.06S×179.64E, h33^{km}, ML3.8/9, Error ellipse: s-maj=2.3km s-min=1.3km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	**Puketiti**	**1.46**	**312**	PN	Pn	21 00 14.8	-1.6
PUZ				SN	Sn	21 00 32.6	-2.0
PUZ				SN	Sn	21 00 33.3	-1.2
KNZ	**Kokohu**	**1.53**	**271**	PN	Pn	21 00 16.2	-1.2
KNZ				SN	Sn	21 00 34.8	-1.6
MWZ	**Matawai**	**1.80**	**293**	PN	Pn	21 00 19.9	-1.4
MWZ				SN	Sn	21 00 41.3	-1.9
MXZ	**Matakaoa Point**	**1.82**	**324**	PN	Pn	21 00 20.4	-1.2
MXZ				SN	Sn	21 00 41.4	-2.3
URZ	**Urewera**	**2.13**	**291**	PN	Pn	21 00 24.9	-1.2
URZ				SN	Sn	21 00 49.9	-1.8
BKZ	**Black Stump Fm**	**2.45**	**266**	PN	Pn	21 00 28.9	-1.7
BKZ				SN	Sn	21 00 56.7	-3.1
TSZ	**Takapari Road**	**3.02**	**249**	PN	Pn	21 00 35.2	-3.3
TSZ				SN	Sn	21 01 08.8	-5.2
MOVZ	**Moawhango**	**3.04**	**262**	PN	Pn	21 00 37.1	-1.8
MOVZ				SN	Sn	21 01 10.8	-3.8
BFZ	**Birch Farm**	**3.08**	**237**	PN	Pn	21 00 34.9	-4.6
MRZ	**Mangatainoka R**	**3.51**	**242**	PN	Pn	21 00 41.1	-4.5
MRZ				SN	Sn	21 01 19.1	-7.5
MTW	**Mount Morrison**	**3.81**	**235**	PN	Pn	21 00 43.9	-5.9
MTW				SN	Sn	21 01 26.3	-7.7
PAWZ	**Paruwai Farm**	**3.98**	**233**	PN	Pn	21 00 46.5	-5.7
PAWZ				SN	Sn	21 01 30.6	-7.7
KIW	**Kapiti Island**	**4.06**	**242**	SN	Sn	21 01 33.6	-6.8
CAW	**Cannon Point**	**4.06**	**238**	SN	Sn	21 01 33.1	-7.4
MSWZ	**Moikau Station**	**4.11**	**234**	SN	Sn	21 01 32.6	-8.9
BHW	**Baring Head**	**4.34**	**236**	SN	Sn	21 01 39.6	-7.9
MRW	**Makara Radio**	**4.36**	**239**	SN	Sn	21 01 40.2	-8.0
KHZ	**Kahutara**	**5.72**	**232**	SN	Sn	21 02 11.4	-11
THZ	**Tophouse**	**5.81**	**240**	PN	Pn	21 01 11.7	-6.4

IDC 08 21:37:13.4±2.7, 51.88N×179.21E, mb3.4/4, mb1 3.7/5, mb1mx3.5/23, ML3.7/1, Error ellipse: s-maj=49.4km s-min=11.3km az=166.0, Rat Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FX1	**Attu Island--F**	**3.84**	**288**	Pn	Pn	21 38 11.7	-3.4
	19nm,0.3s,baz=66,slow=5.7,SNR=26						
FX1				Sn	Sn	21 38 56.5	-5.1
	12nm,0.3s,baz=270,slow=20,SNR=2.3						
ILAR	**Eielson Array**	**21.65**	**40**	P	P	21 42 04.9	-2.2
	0.3nm,0.8s,baz=256,slow=7.4,SNR=3.8						
ILAR				S	S	21 46 06.2	+3.4
	0.8nm,0.5s,baz=227,slow=29,SNR=11						
INK	**Inuvik**	**27.77**	**36**	P	P	21 43 04.7	-0.7
	1.0nm,0.7s,baz=201,slow=12,SNR=4.1						
YKA	**Yellowknife Ar**	**35.79**	**47**	P	P	21 44 13.2	-2.6
	0.3nm,0.4s,baz=281,slow=7.9,SNR=3.2						
SONM	**Songino Array**	**45.31**	**295**	P	P	21 45 32.9	-1.4
	0.4nm,0.7s,baz=45,slow=8.2,SNR=3.6						

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*IDC **08** 21:55:05.4±1.1, 32.40N×90.70E, mb3.6/6, mb1 3.8/8, mb1mx3.7/20, ML3.9/2, MS3.4/3, Ms1 3.4/3, ms1mx3.1/22, Error ellipse: s-maj=36.9km s-min=22.4km az=54.0*

*BJI **08** 21:55:06.4, 32.71N×90.60E, h15^{km}, mb3.4, ML3.9, Ms4.0, Msz3.4*

*NEIC **08** 21:55:07.9±4.2, 32.48N×90.63E, h15^{km}±28^{km}, mb3.6/9, Error ellipse: s-maj=13.7km s-min=7.4km az=217.0*

ISC 08 21:55:08.8±0.4, 32.56N±0.04×90.71E±0.06, h33^{km}, n27, σ1^{s}02/29, mb3.7/8, MS3.4/2, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	**Lhasa**	**2.87**	**172**	P	**P**	**21 55 56.1**	**+2.8**
LSA				PG	**P**	**21 56 00.1**	**+6.8**
LSA				S	**S**	**21 56 32.2**	**+5.2**
LSA				Smax			
	comp=N,230nm,1.0s						
LSA				Smax			
	comp=E,270nm,1.0s						
GUN	**Gumba**	**6.23**	**223**	*e*P	**P**	**21 56 42.0**	**+1.2**
	comp=E,66nm,1.0s						
KKN	**Kakani**	**6.68**	**226**	*e*P	**P**	**21 56 47.2**	**+0.1**
	comp=E,12nm,0.5s						
PKI	**Pulchoki**	**6.76**	**224**	*e*P	**P**	**21 56 48.4**	**+0.1**
	comp=E,19nm,0.6s						
DMN	**Daman**	**6.92**	**226**	*e*P	**P**	**21 56 50.7**	**+0.3**
	comp=E,12nm,0.4s						
GKN	**Gorkha**	**6.94**	**231**	*e*P	**P**	**21 56 49.5**	**-1.2**
	comp=E,19nm,0.5s						
SHL	**Shillong**	**7.04**	**171**	*e*P	**P**	**21 56 52.5**	**+0.4**
SHL				*e*S	rx	21 58 47.5	
KOLN	**Koldanda**	**7.78**	**234**	*e*P	**P**	**21 57 00.7**	**-1.8**
	comp=E,4.3nm,0.3s						
GTA	**Gaotai**	**10.06**	**45**	*e*P	**P**	**21 57 33.2**	**-0.8**
GTA				AP		21 57 36.9	
GTA				XP		21 57 39.3	
GTA				PP	PP	21 57 41.6	0.0
GTA				S	**S**	**21 59 26.8**	**0.0**
GTA				LG1		22 00 19.4	
GTA				LG2		22 00 42.2	
GTA				AMB	AMB		
	comp=Z,3.0nm,1.3s						
GTA				LR	LR		
	comp=N,797nm,13.7s						
GTA				LR	LR		
	comp=E,537nm,14.8s						
GTA				LR	LR		
	comp=Z,201nm,11.0s						
TKM2	**Tokmak 2**	**15.79**	**315**	*e*P	**P**	**21 58 50.4**	**+0.3**
	comp=Z,3.6nm,0.9s						
CMAR	**Chiang Mai Arr**	**15.88**	**150**	Pn	**P**	**21 58 50.4**	**-1.1**
	comp=Z,0.2nm,0.3s,baz=322,slow=9.7,SNR=5.1						
CMAR				LR	LR	22 05 25.8	
	comp=Z,77nm,18.4s,baz=350,slow=39						
UCH	**Uchtor**	**16.06**	**312**	*e*P	**P**	**21 58 53.6**	**-0.1**
	comp=Z,2.6nm,0.9s						
ENH	**Enshi**	**16.20**	**93**	P	**P**	**21 58 57.2**	**+1.7**
	comp=Z,5.2nm,0.8s						
AAK	**Ala-Archa**	**16.29**	**313**	P	**P**	**21 58 56.8**	**+0.3**
	comp=Z,2.5nm,0.9s						
EKS2	**Erkin-Say**	**16.75**	**312**	P	**P**	**21 59 01.4**	**-1.0**
	comp=Z,2.2nm,0.8s						
SONM	**Songino Array**	**19.35**	**33**	P	**P**	**21 59 33.3**	**-0.8**
	comp=Z,0.1nm,0.3s,baz=223,slow=11,SNR=8.2						
ULN	**Ulaanbaatar**	**19.68**	**34**	*e*P	**P**	**21 59 36.0**	**-1.7**
	comp=Z,5.5nm,1.2s						
KURK	**Kurchatov**	**20.22**	**337**	*e*P	**P**	**21 59 43.1**	**-0.4**
	comp=Z,1.8nm,0.8s						
ZAL	**Zalesovo**	**21.79**	**351**	P	**P**	**22 00 00.4**	**+1.0**
	comp=Z,1.6nm,0.9s,mb3.5,baz=270,slow=9.1,SNR=4.5						
ZAL				LR	LR	22 09 30.0	
	comp=Z,132nm,19.2s,MS3.4,baz=287,slow=39						
BVAR	**Borovoye Array**	**25.15**	**330**	P	**P**	**22 00 33.6**	**+1.3**
	comp=Z,2.0nm,0.8s,mb3.7,baz=141,slow=9.2,SNR=8.9						
BRVK	**Borovoye**	**25.22**	**330**	*e*P	**P**	**22 00 33.9**	**+1.0**
	comp=Z,3.7nm,0.9s,mb3.9						
CHKZ	**Chkalovo**	**25.54**	**332**	*e*P	**P**	**22 00 35.4**	**-0.5**
	comp=Z,3.4nm,1.0s,mb3.8						
ASF	**Jabal al Asfar**	**45.03**	**285**	LR	LR	22 23 12.3	
	comp=Z,42nm,20.2s,MS3.4,baz=282,slow=37						
BRTR	**Keskin Array B**	**45.97**	**296**	P	**P**	**22 03 30.4**	**-0.2**
	comp=Z,0.5nm,0.5s,mb3.7,baz=90,slow=10,SNR=2.5						
GERES	**GERESS Array B**	**58.16**	**311**	P	**P**	**22 05 01.8**	**+0.2**
	comp=Z,0.4nm,0.7s,mb3.6,baz=79,slow=6.8,SNR=5.2						
ASAR	**Alice Springs**	**69.47**	**138**	P	**P**	**22 06 14.8**	**-1.2**
	comp=Z,0.8nm,0.7s,mb3.8,baz=332,slow=6.8,SNR=6.0						
YKA	**Yellowknife Ar**	**83.12**	**12**	P	**P**	**22 07 34.1**	**+2.1**
	comp=Z,0.3nm,0.8s,mb3.4,baz=332,slow=5.0,SNR=4.7						

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*LDG **08** 21:59:58.4±0.0, 43.06N×0.31W, h4^{km}, Md2.4/2, Ml2.2/4, Error ellipse: s-maj=0.9km s-min=0.6km az=156.0*

*STR **08** 21:59:58.4±0.1, 43.05N×0.31W, h5^{km}±1^{km}, Ml2.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*CSEM **08** 21:59:58.4±0.1, 43.07N×0.31W, h2^{km}, ML2.5/5, Error ellipse: s-maj=1.0km s-min=0.8km az=146.0*

MDD 08 21:59:58.5±0.2, 43.07N×0.32W, h7^{km}±3^{km}, mbLg1.7/5, Error ellipse: s-maj=2.6km s-min=1.4km az=7.0, PRXIMO, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REYF	**Montagne du Re**	**0.06**	**270**	Pg	Pg	22 00 00.1	-0.2
REYF				Lg		22 00 01.4	
ETSF	**Etsaut**	**0.25**	**226**	*e*Pg	Pg	22 00 03.2	-0.4
ETSF				*e*Sg	Sg	22 00 06.2	-0.8
	26nm,0.2s						
ATE	**Arette**	**0.28**	**273**	Pg	Pg	22 00 03.7	-0.6
ATE				Lg		22 00 07.6	
LABF	**Labassere**	**0.29**	**94**	Pg	Pg	22 00 03.9	-0.5
LABF				Sg	Sg	22 00 08.3	0.0
LABF	**Labassere**	**0.29**	**94**	Pg	Pg	22 00 04.1	-0.3
LABF				Lg		22 00 08.3	
FDAF	**Les Forges d'A**	**0.31**	**216**	Pg	Pg	22 00 04.3	-0.6
FDAF				Sg	Sg	22 00 08.9	-0.2
FDAF	**Les Forges d'A**	**0.31**	**216**	Pg	Pg	22 00 04.4	-0.5
FDAF				Lg		22 00 08.9	
VIEF	**Viey**	**0.31**	**127**	Pg	Pg	22 00 04.4	-0.5
VIEF				Sg	Sg	22 00 08.6	-0.5
VIEF	**Viey**	**0.31**	**127**	Pg	Pg	22 00 04.4	-0.5
VIEF				Lg		22 00 08.6	
EPF	**Esparros**	**0.48**	**94**	*e*Pg	Pg	22 00 07.6	-0.7
EPF				*e*Sg	Sg	22 00 13.9	-0.9
	8.9nm,0.2s						
LARF	**Larrau**	**0.49**	**266**	Pg	Pg	22 00 07.9	-0.6
LARF				Sg	Sg	22 00 15.1	0.0
LARF	**Larrau**	**0.49**	**266**	Pg	Pg	22 00 08.0	-0.4
LARF				Lg		22 00 14.7	
EBIE	**Bielsa**	**0.51**	**138**	Pg	Pg	22 00 08.0	-0.8
	0.7nm,0.1s,SNR=21						
EBIE				Lg		22 00 14.6	
	4.9nm,0.1s						
EBIE	**Bielsa**	**0.51**	**138**	Pg	Pg	22 00 08.0	-0.8
	0.7nm,0.1s,SNR=21						
RESF	**Ens**	**0.55**	**118**	Pg	Pg	22 00 08.8	-0.8
RESF				Sg	Sg	22 00 16.3	-0.6
RESF	**Ens**	**0.55**	**118**	Pg	Pg	22 00 08.8	-0.8
RESF				Lg		22 00 16.0	
SJPF	**Ste Jean**	**0.67**	**274**	*e*Pg	Pg	22 00 11.3	-0.6
SJPF				*e*Sg	Sg	22 00 19.9	-0.9
	3.3nm,0.3s						
MELF	**Melles**	**0.81**	**104**	Lg		22 00 25.1	
EALK	**Alkurruntz**	**0.88**	**280**	Pg	Pg	22 00 13.9	-2.3
	0.8nm,0.2s,SNR=7.2						
EALK				Lg		22 00 26.5	
	0.5nm,0.1s						
SALF	**Salau**	**1.15**	**105**	Lg		22 00 35.8	
ESAC	**San Caprasio**	**1.35**	**185**	Pg	Pg	22 00 24.6	-1.0
	3.8nm,0.1s,SNR=10						
ESAC				Lg		22 00 42.6	
	3.9nm,0.1s						
ESAC	**San Caprasio**	**1.35**	**185**	Pg	Pg	22 00 24.6	-1.0
	3.8nm,0.1s,SNR=10						
EMIR	**Miracle**	**1.79**	**130**	Pg	Pg	22 00 31.9	-2.4
	0.7nm,0.1s,SNR=7.9						
EMIR				Lg		22 00 55.8	
	0.9nm,0.1s,SNR=6.6						
EMIR	**Miracle**	**1.79**	**130**	Pg	Pg	22 00 31.9	-2.3
	0.7nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	**1.87**	**81**	*e*Pn	Pn	22 00 29.1	-2.2
MTLF				*e*Pg	Pg	22 00 33.3	-2.7
MTLF				*e*Sn	Sn	22 00 51.6	-3.8
MTLF				*e*Sg	Sg	22 00 57.2	-3.7
	2.7nm,0.2s						
MTLF	**Montolieu**	**1.87**	**81**	*e*Pg	Pg	22 00 33.3	-2.7
MTLF				*e*Sn	Sn	22 00 51.6	-3.8
MTLF				*e*Sg	Sg	22 00 57.2	-3.7
	1.4nm,0.2s						
EPOB	**Poblet**	**2.00**	**148**	Pg	Pg	22 00 35.6	-3.0
	0.5nm,0.1s,SNR=7.9						
EPOB				Lg		22 01 02.3	
	0.2nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**2.00**	**148**	Pg	Pg	22 00 35.6	-3.0
	0.5nm,0.1s,SNR=7.9						
LFF	**La Frestale**	**2.02**	**22**	*e*Pn	Pn	22 00 31.7	-1.7
LFF				*e*Pg	Pg	22 00 35.8	-3.1
LFF				*e*Sn	Sn	22 00 55.9	-3.2
LFF				*e*Sg	Sg	22 01 02.3	-3.5
	3.4nm,0.2s						
LFF	**La Frestale**	**2.02**	**22**	*e*Pg	Pg	22 00 35.8	-3.1
LFF				*e*Sn	Sn	22 00 55.9	-3.2
LFF				*e*Sg	Sg	22 01 02.3	-3.5
	1.7nm,0.2s						
ERTA	**Horta de San J**	**2.17**	**167**	Pg	Pg	22 00 38.3	-3.5
	SNR=7.9						
ERTA				Sn	Sn	22 01 02.3	-0.6
	5.3nm,0.6s,SNR=5.8						
ERTA	**Horta de San J**	**2.17**	**167**	Pg	Pg	22 00 38.3	-3.5
	SNR=7.9						
ERTA				Sn	Sn	22 01 02.3	-0.6
	5.3nm,0.6s,SNR=5.8						
CAF	**Calviac**	**2.53**	**42**	*e*Pn	Pn	22 00 38.4	-2.3
CAF				*e*Pg	Pg	22 00 45.2	-3.8
CAF				*e*Sn	Sn	22 01 07.8	-4.3
CAF				*e*Sg	Sg	22 01 17.9	-4.9
	2.2nm,0.2s						
CAF	**Calviac**	**2.53**	**42**	*e*Pg	Pg	22 00 45.2	-3.8
CAF				*e*Sn	Sn	22 01 07.8	-4.3
CAF				*e*Sg	Sg	22 01 17.9	-4.9
	1.1nm,0.2s						
RJF	**Les Rejaudoux**	**2.59**	**30**	*e*Pn	Pn	22 00 39.5	-2.1
RJF				*e*Pg	Pg	22 00 46.5	-3.8
RJF				*e*Sn	Sn	22 01 09.7	-4.0
RJF				*e*Sg	Sg	22 01 19.9	-5.0
	3.6nm,0.3s						
RJF	**Les Rejaudoux**	**2.59**	**30**	*e*Pg	Pg	22 00 46.5	-3.8
RJF				*e*Sn	Sn	22 01 09.7	-4.0
RJF				*e*Sg	Sg	22 01 19.9	-5.0
	1.8nm,0.3s						
EMOS	**Mosqueruela**	**2.71**	**183**	Sn	Sn	22 01 14.0	-2.6
	SNR=7.9						
EMOS	**Mosqueruela**	**2.71**	**183**	Sn	Sn	22 01 14.0	-2.6
	SNR=7.9						

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*IDC **08** 22:10:07.3±1.2, 1.00N×124.76E, mb3.8/5, mb1 4.0/6, mb1mx3.8/17, ML4.2/1, MS3.3/1, Ms1 3.3/1, ms1mx2.6/19, Error ellipse: s-maj=102.0km s-min=19.3km az=70.0*

*NEIC **08** 22:10:29.0±3.6, 0.38N×123.80E, h202^{km}±38^{km}, mb4.3/3,* *Error ellipse: s-maj=49.8km s-min=13.0km az=67.0*

ISC 08 22:10:25.9±6.1**,0.4N**±0.2×**123.6E**±0.5**,h187**^{km}±62^{km}**,n13,** σ**0^{s}.39**/12**,mb3.7**/6**,Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	15.65	146	eP	P	22 13 58.0	0.0
	12nm,0.8s						
FITZ	Fitzroy Crossi	18.45	174	eP	P	22 14 29.8	-0.1
	3.8nm,0.7s						
FITZ	Fitzroy Crossi	18.45	174	P	P	22 14 30.0	+0.1
	0.6nm,0.3s,baz=24,slow=8.6,SNR=12						
WRAB	Tennant Creek	22.77	153	eP	P	22 15 13.2	0.0
	3.7nm,0.4s,mb4.2						
WRA	Warramunga Arr	22.77	153	P	P	22 15 13.5	+0.4
	4.2nm,0.4s,mb4.2,baz=338,slow=10,SNR=33						
WB2	Warramunga Arr	22.77	153	eP	P	22 15 13.2	0.0
ASAR	Alice Springs	25.90	158	P	P	22 15 42.2	-0.3
	0.5nm,0.5s,mb3.4,baz=342,slow=7.6,SNR=7.8						
JOW	Kunigami	26.71	9	LR	LR	22 25 23.7	
	comp=Z,71nm,19.4s,baz=357,slow=35						
STKA	Stephens Creek	36.32	154	P	P	22 17 13.3	-0.2
	1.0nm,0.6s,mb3.7,baz=346,slow=13,SNR=2.9						
STKA	Stephens Creek	36.32	154	P	P	22 17 13.3	-0.2
SONM	Songino Array	49.59	345	P	P	22 18 59.7	-0.1
	0.6nm,0.6s,mb3.4,baz=162,slow=10,SNR=5.1						
KURK	Kurchatov	62.95	330	eP	P	22 20 34.0	-0.7
BVAR	Borovoye Array	68.47	329	P	P	22 21 10.5	+0.9
	0.3nm,0.4s,mb3.4,baz=129,slow=9.2,SNR=4.3						

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*NEIC **08** 22:31:52.6,33.15S×70.28W,h6^{km},ML2.6(GUC),After GUC.*

GUC 08 22:31:52.6±0.9**,33.15S×70.28W,h6**^{km}±2^{km}**,MD3.6, ML2.6,3C-3D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FCH	Farellones	0.18	183	⇑iP	Pg	22 31 56.8	+0.5
FCH				i S	Sg	22 32 00.3	+1.6
FCH				AMP		22 32 01.0	
	comp=E,2μm,0.3s						
FCH				AMP		22 32 01.1	
	comp=N,2μm,0.2s						
CLCH	Cerro Calan	0.33	221	⇑iP	Pg	22 31 59.9	+0.7
CLCH				i S	Sg	22 32 05.2	+1.6
CLCH				AMP		22 32 09.5	
	comp=E,2μm,0.4s						
CLCH				AMP		22 32 09.6	
	comp=N,1μm,0.3s						
CLCH				AMP		22 32 10.1	
	comp=E,2μm,0.5s						
CLCH				AMP		22 32 10.9	
	comp=N,1μm,0.6s						
PEL	Peldehue	0.34	271	eP	Pg	22 31 59.8	+0.3
PEL				i S	Sg	22 32 04.7	+0.6
PEL				AMP		22 32 07.7	
	comp=N,598nm,0.5s						
DSCH	Colegio Aleman	0.35	224	⇑iP	Pg	22 32 00.5	+0.9
DSCH				i S	Sg	22 32 06.2	+1.9
DSCH				AMP		22 32 08.4	
	comp=N,1μm,0.2s						
DSCH				AMP		22 32 08.8	
	comp=E,1μm,0.4s						
PCH	Pirque	0.51	203	eP	Pg	22 32 03.1	+0.3
JACH	Jahuel	0.54	330	⇓iP	Pg	22 32 03.4	0.0
RCDM	Rinconada Maip	0.56	232	⇓iP	Pg	22 32 04.1	+0.3
LMEL	Las Melosas	0.70	175	eP	Pg	22 32 06.7	+0.1
LMEL				i S	Sg	22 32 17.0	+1.1
LMEL				AMP		22 32 19.7	
	comp=N,214nm,0.1s						
LMEL				AMP		22 32 21.1	
	comp=E,144nm,0.2s						
TACH	Talagante	0.74	227	⇓iP	Pg	22 32 07.4	-0.1
TACH				i S	Sg	22 32 18.0	+0.5
CHCH	Chadas Angostu	0.84	202	eP	Pb	22 32 09.0	-0.2
CACH	El Canelo	1.00	195	eP	Pb	22 32 12.2	+0.2
LCCH	Las Cruces	1.13	253	eP	Pb	22 32 13.9	-0.2
PACH	Papudo	1.15	302	eP	Pb	22 32 14.3	-0.3
PACH				i S	Sb	22 32 29.9	+0.4
CICH	Cipreses	1.17	186	eP	Pb	22 32 14.6	-0.3
LNV	Longovilo	1.24	229	eP	Pb	22 32 15.4	-0.7
CMCH	Combarbala	2.06	343	AMP		22 33 00.5	
	comp=E,339nm,0.7s						
CMCH				AMP		22 33 08.9	
	comp=N,253nm,0.8s						

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*IDC **08** 23:15:16.2±1.4,25.03N×141.15E,h171^{km}±14^{km},mb3.4/6, mb1 3.6/7,mb1mx3.3/22,Error ellipse: s-maj=37.3km s-min=14.2km az=95.0*

ISC 08 23:15:15.3±1.6**,25.0N**±0.1×**141.2E**±0.4**,h180**^{km}±16^{km}**,n8,** σ**0^{s}.51**/9**,mb3.8**/7**,Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.27	24	P	P	23 15 56.9	+1.1
	110nm,0.3s,baz=148,slow=3.9,SNR=79						
CBIJ				S	S	23 16 26.2	-0.8
	50nm,0.3s,baz=265,slow=23,SNR=16						
WRA	Warramunga Arr	45.17	189	P	P	23 23 16.1	+0.1
	6.5nm,0.3s,mb4.7,baz=8.7,slow=8.7,SNR=53						
ASAR	Alice Springs	48.90	189	P	P	23 23 44.8	-0.1
	0.3nm,0.4s,mb3.3,baz=7.0,slow=5.7,SNR=5.3						
STKA	Stephens Creek	56.57	180	P	P	23 24 40.9	-0.5
	1.5nm,0.5s,mb4.1,baz=8.1,slow=7.1,SNR=6.6						
BVAR	Borovoye Array	58.96	318	P	P	23 24 57.4	-0.3
	0.2nm,0.3s,mb3.4,baz=96,slow=9.5,SNR=3.7						
INK	Inuvik	65.30	24	P	P	23 25 39.5	0.0
	0.7nm,0.4s,mb3.8,baz=297,slow=6.8,SNR=5.2						
YKA	Yellowknife Ar	74.41	28	P	P	23 26 35.0	+0.4
	1.0nm,0.8s,mb3.6,baz=292,slow=5.9,SNR=8.4						
FINES	FINESS Array B	79.40	334	P	P	23 27 02.5	+0.2
	2.3nm,0.9s,mb3.8,baz=76,slow=5.7,SNR=3.4						

MAN 08 23:40:54.2,15.99N×121.64E,h9^{km}**,mb3.8,ML2.6,MS2.2, 1D,Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BALP	Baler	0.26	194	eP	Pg	23 40 60.0	+0.4
BALP				eS	Sg	23 41 04.9	+1.7
PCPH	Palayan	0.68	231	⇓eP	Pb	23 41 07.8	+0.1
PCPH				i S	Sg	23 41 20.7	+3.8
CAUP	Cauayan	0.96	10	eP	Pb	23 41 11.4	-1.2
POLP	Polilio Island	1.29	167	eP	Pb	23 41 17.3	-0.8
POLP				eS	Sb	23 41 36.2	+1.5

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*IDC **08** 23:51:22.2±10.0,23.34S×179.67E,h494^{km}±112^{km}, mb3.6/4,mb1 3.8/5,mb1mx3.4/15,Error ellipse: s-maj=104.0km s-min=41.8km az=28.0*

*NEIC **08** 23:51:23.7±4.9,23.46S×179.65E,h518^{km}±40^{km},mb4.5/5, Error ellipse: s-maj=77.8km s-min=18.9km az=48.0*

ISC 08 23:51:23.8±6.9**,23.4S**±0.5×**179.7E**±0.6**,h544**^{km}±63^{km}**, n13,** σ**0^{s}.48**/12**,mb4.2**/7**,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	14.95	188	P	P	23 54 32.2	-0.2
	2.2nm,0.3s,baz=12,slow=7.4,SNR=6.6						
CTA	Charters Tower	31.21	270	eP	P	23 57 01.1	+0.8
	15nm,0.3s,mb5.0						
CTA	Charters Tower	31.21	270	P	P	23 57 01.1	+0.8
	19nm,0.3s,mb5.0,baz=96,slow=11,SNR=52						
CTAO	Charters Tower	31.21	270	eP	P	23 57 00.9	+0.6
	18nm,0.4s,mb5.0						
PMG	Port Moresby	34.09	289	eP	P	23 57 24.9	+0.3
	3.5nm,0.4s,mb4.2						
STKA	Stephens Creek	34.65	247	P	P	23 57 29.9	+0.8
	11nm,1.4s,mb4.2,baz=90,slow=11,SNR=3.5						
ASAR	Alice Springs	41.85	260	P	P	23 58 27.8	0.0
	1.7nm,0.6s,mb3.8,baz=97,slow=7.1,SNR=23						
ASPA	Alice Springs	41.85	260	eP	P	23 58 27.6	-0.2
WB2	Warramunga Arr	42.16	266	eP	P	23 58 29.8	-0.5
WRAB	Tennant Creek	42.16	266	eP	P	23 58 29.6	-0.7
	3.7nm,0.5s,mb4.2						
WRA	Warramunga Arr	42.17	266	P	P	23 58 29.9	-0.5
	1.6nm,0.3s,mb4.0,baz=90,slow=5.9,SNR=34						
SBA	Scott Base	54.83	183	P	P	00 00 04.3	+0.2
	17nm,1.3s,mb4.1						
AKASG	Malin Array Be	144.44	327	PKP	PKPdf	00 10 01.2	+3.7
	0.7nm,0.6s,baz=42,slow=3.8,SNR=4.5						

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*MOS **08** 23:51:59.0±1.4,42.96N×145.59E,h33^{km},mb4.8/15,Error ellipse: s-maj=13.7km s-min=7.4km az=108.2*

*BJI **08** 23:51:59.9,42.86N×145.63E,h53^{km},mB5.3,mb4.8, Ms4.1,Msz3.9*

*IDC **08** 23:52:00.4±0.8,42.89N×145.57E,h31^{km}±4^{km},mb4.2/20, mb1 4.4/21,mb1mx4.3/24,ML4.8/1,MS3.9/8,Ms1 3.9/8, ms1mx3.5/28,Error ellipse: s-maj=17.2km s-min=14.1km az=160.0*

*NIED **08** 23:52:00,42.90N×145.50E,h35^{km},Mw4.6 Best double couple: $M_0$7.66×10^{15} NP1:ϕ_s19°,δ68°,λ77°. NP2:ϕ_s230°, δ25°,λ118°.*

*JMA **08** 23:52:00.5±0.1,42.86N×145.54E,h43^{km}±1^{km},M4.4*

JMA Felt I J1.

*NEIC **08** 23:52:01.2±0.8,42.87N×145.50E,h39^{km}±7^{km},mb4.8/31, MW4.6(NIED),Error ellipse: s-maj=7.6km s-min=5.6km az=144.0*

NEIC Recorded [1 JMA] in eastern Hokkaido.

*SKHL **08** 23:52:01.0±0.4,43.04N×145.74E,h55^{km}±9^{km},mb4.9/6, Ms3.9/1*

ISC 08 23:51:59.4±0.7**,42.83N**±0.04×**145.54E**±0.05**,h40**^{km}±5^{km}, **h33**^{km}±1.2^{km}**:pP-P,n165,** σ**1^{s}.05**/170**,mb4.7**/67**,MS3.8**/11**, 13C-15D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.55	15	⇓P	P	23 52 11.5	+0.7
NEM2				eS	S	23 52 19.2	+0.2
JAK	Akkeshi	0.64	285	⇓P	P	23 52 13.2	+1.2
JAK				eS	S	23 52 22.5	+1.3
JNK	Nakash	0.96	322	⇓P	P	23 52 17.3	+0.7
JNK				eS	S	23 52 28.8	-0.5
JRA	Rausu	1.15	345	⇓P	P	23 52 19.9	+0.8
JRA				eS	S	23 52 34.4	+0.5
YUK	Yuzh-Kuril'sk	1.22	11	⇓iPN	P	23 52 20.2	0.0
YUK				i S	S	23 52 34.5	-1.4
YUK				pmax	pmax		
	comp=N,1μm,0.3s						
YUK				pmax	pmax		
	comp=E,760nm,0.3s						
YUK				pmax	pmax		
	comp=Z,4μm,0.3s						
YUK				pmax	pmax		
	comp=Z,3μm,0.6s						
YUK				smax			
	comp=N,20μm,1.0s						
YUK				smax			
	comp=E,40μm,1.0s						
YUK				smax			
	comp=N,8μm,0.5s						
YUK				smax			
	comp=E,12μm,0.5s						
YUK	Yuzh-Kuril'sk	1.22	11	⇓iP	P	23 52 20.2	0.0
YUK				AMB	AMB	23 52 21.7	
	comp=E,1μm,0.3s						
YUK				AMB	AMB	23 52 21.7	
	comp=E,760nm,0.3s						
YUK				AMB	AMB	23 52 21.7	
	comp=E,4μm,0.3s						
YUK				AMB	AMB	23 52 23.6	
	comp=E,3μm,1.0s						
YUK				i S	S	23 52 34.5	-1.4
YUK				A		23 52 35.0	
	comp=E,20μm,1.0s						
YUK				A		23 52 35.0	
	comp=E,40μm,1.0s						
YUK				A		23 52 35.7	
	comp=E,8μm,0.5s						
YUK				A		23 52 35.7	
	comp=E,12μm,0.5s						
JOB	Onbets	1.26	274	⇓P	P	23 52 21.6	+0.9
JAR	Ashorobuto	1.38	290	⇓P	P	23 52 23.3	+0.7
ASAJ	Asahikawa	2.50	302	Pn	P	23 52 40.5	+2.0
	comp=E,143nm,0.3s,baz=129,slow=11,SNR=86						
ASAJ				LR	LR	23 53 45.0	
	comp=E,2μm,18.9s,baz=167,slow=42						
ASAJ	Asahikawa	2.50	302	PN	P	23 52 40.6	+2.1
ASAJ				pmax	pmax		
	comp=Z,143nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,2μm,18.9s						
KUR	Kuril'sk	2.93	34	PN	P	23 52 40.5	-4.1
KUR				eS	S	23 53 14.0	-4.9
KUR				pmax	pmax		
	comp=Z,260nm,0.7s						
KUR				smax			
	comp=N,880nm,0.5s						
KUR				smax			
	comp=E,530nm,0.5s						
KUR	Kuril'sk	2.93	34	eP	P	23 52 40.5	-4.1
KUR				AMB	AMB	23 52 53.0	
	comp=E,260nm,0.7s						
KUR				eS	S	23 53 14.0	-4.9
KUR				A		23 53 30.1	
	comp=E,880nm,0.5s						
KUR				A		23 53 30.1	
	comp=E,530nm,0.5s						
YSS	Yuzh-Sakhalins	4.57	335	P	P	23 53 07.2	-0.8
YSS	Yuzh-Sakhalins	4.57	335	eP	P	23 53 07.6	-0.3
YSS				eS	S	23 53 58.0	-2.5
YSS				AMS	AMS	23 55 21.0	
	comp=E,1μm,14.0s						
YSS				AMS	AMS	23 55 21.0	
	comp=E,800nm,14.0s						
YSS				AMS	AMS	23 55 21.0	
	comp=E,1μm,14.0s						
TEY	Ternei	6.82	292	eP	P	23 53 39.5	0.0
MAJO	Matsushiro	8.45	224	eP	P	23 54 00.7	-1.4
	comp=E,17nm,0.4s						
MAT	Matsushiro	8.45	224	P	P	23 53 59.9	-2.2
MAT				eS	S	23 55 34.0	-3.3
MAT	Matsushiro	8.45	224	eP	P	23 54 00.0	-2.1
	comp=E,18nm,1.0s						
MAT				S	S	23 55 34.0	-3.3
GRNR	Gornyy	10.10	325	eP	P	23 54 25.0	+0.2
GRNR				AMB	AMB	23 54 25.8	
	comp=E,19nm,0.5s						
MDJ	Mudanjiang	11.68	284	P	P	23 54 47.5	+1.2
MDJ				S	S	23 57 01.5	+5.1
MDJ				SS	SS	23 57 16.1	+5.0
MDJ				AMB	AMB		
	comp=Z,16nm,1.2s						
MDJ				AMB	AMB		
	comp=Z,121nm,4.7s						
MDJ	Mudanjiang	11.68	284	eP	P	23 54 47.0	+0.7
EKMR	Ekimchan	13.25	325	eP	P	23 55 02.0	-5.2
EKMR				AMB	AMB	23 55 07.5	
	comp=Z,6.0nm,0.7s						
CN2	Changchun	14.66	281	eP	P	23 55 25.7	0.0
CN2				eS	S	23 58 08.4	+0.7
CN2				AMB	AMB		
	comp=Z,20nm,0.8s						
CN2				AMB	AMB		
	comp=Z,120nm,5.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s						
CN2				LR	LR		
	comp=E,500nm,15.0s						
CN2				LR	LR		
	comp=Z,500nm,18.0s						
BMKR	Bomnak	16.15	323	eP	P	23 55 43.6	-1.2
BMKR				AMB	AMB	23 55 44.8	
	comp=Z,16nm,0.8s						
ZEA	Zeya	16.30	318	eP	P	23 55 45.9	-0.7
ZEA				AMB	AMB	23 55 52.4	
	comp=Z,20nm,1.0s						
ZEA				AMS	AMS	00 02 42.0	
	comp=Z,400nm,14.0s						
KROS	Kirovskiy	16.83	320	eP	P	23 55 51.9	-1.5
HIA	Hailar	18.98	299	eP	P	23 56 17.6	-2.4
	comp=Z,7.5nm,0.7s						
FX1	Attu Island--F	20.96	52	P	P	23 56 39.4	-1.7
	comp=Z,6.8nm,0.5s,baz=259,slow=20,SNR=1.7						
FX1	Attu Island--F	20.96	52	P	P	23 56 39.4	-1.7
FX1				pmax	pmax		
	comp=Z,7.0nm,0.5s						
YAK	Yakutsk	21.41	339	eP	P	23 56 48.3	+2.8
YAK				eS	S	00 00 37.5	+1.7
YAK				e		00 00 49.1	
YAK				e*SS		00 01 05.2	
YAK				e		00 08 06.6	
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
YAK				pmax	pmax		
	comp=N,2.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,2.0nm,0.9s						
YAK				smax			
	comp=E,6.0nm,1.2s						
YAK				smax			
	comp=Z,4.0nm,0.9s						
YAK				smax			
	comp=N,6.0nm,1.2s						
YAK	Yakutsk	21.41	339	P	P	23 56 48.8	+3.3
BJI	Beijing	22.14	273	eP	P	23 56 52.3	-0.7
	comp=N,36nm,0.8s,mb4.8						
BJI				LR	LR		
	comp=Z,180nm,28.8s,MS3.3						
BJT	Baijiatuau	22.16	273	eP	P	23 56 52.0	-1.2
	comp=Z,24nm,0.7s,mb4.7						
SSE	Sheshan	22.63	247	P	P	23 56 50.8	-7.1
	comp=Z,37nm,0.7s,mb4.9						
HHC	Hu-ho-hao-te	25.30	277	eP	P	23 57 24.1	+0.5
HHC				PP	PP	23 58 01.3	-1.5
HHC				PCP	PcP	00 00 57.7	+1.0
HHC				S	S	00 01 45.5	+1.2
HHC				SS	SS	00 02 46.7	-0.2
HHC				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.5						
HHC				AMB	AMB		
	comp=Z,145nm,4.8s						
HHC				LR	LR		
	comp=N,195nm,13.5s						
HHC				LR	LR		
	comp=E,635nm,19.8s						
HHC				LR	LR		
	comp=Z,141nm,16.8s,MS3.5						
BTO	Baotou	26.49	277	eP	P	23 57 35.0	+0.3
BTO				AMB	AMB		
	comp=Z,21nm,0.9s,mb4.7						
ULN	Ulaanbaatar	27.31	294	c iP	P	23 57 41.9	-0.3
ULN	Ulaanbaatar	27.31	294	eP	P	23 57 41.9	-0.2
	comp=Z,3.8nm,0.6s,mb4.1						
WHN	Wuhan	27.70	254	⇑P	P	23 57 46.0	+0.2
SONM	Songino Array	27.76	294	P	P	23 57 46.0	-0.2
	comp=Z,10nm,0.6s,mb4.6,baz=80,slow=7.9,SNR=112						
TLY	Talaya	29.43	302	i P	P	23 57 59.9	-1.2
ZAK	Zakamensk	29.67	300	eP	P	23 58 03.3	+0.1
XAN	Xi'an	29.81	265	P	P	23 58 03.8	-0.8
XAN				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.7						
ENH	Enshi	31.32	258	eP	P	23 58 17.8	-0.4
	comp=Z,13nm,0.7s,mb4.9						
LZH	Lanzhou	32.63	272	eP	P	23 58 29.5	0.0
LZH				AMB	AMB		
	comp=Z,30nm,1.5s,mb5.0						
LZH	Lanzhou	32.63	272	eP	P	23 58 29.5	0.0
	comp=Z,30nm,1.5s,mb5.0						
LZH				pP	pP	23 58 36.5	-4.0
LZH				sP	sP	23 58 39.5	-6.1
GTA	Gaotai	34.30	280	eP	P	23 58 44.2	+0.4
GTA				PP	PP	23 59 55.6	-4.1
GTA				S	S	00 04 01.2	-6.1
GTA				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.6						
GTA				AMB	AMB		
	comp=Z,78nm,3.6s						
GTA				LR	LR		
	comp=N,165nm,16.0s,MS3.9						
GTA				LR	LR		
	comp=E,150nm,19.8s,MS3.9						
GTA				LR	LR		
	comp=Z,121nm,18.6s,MS3.7						
CD2	Chengdu	35.15	264	⇑iP	P	23 58 51.4	+0.2
CD2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
KMI	Kunming	39.17	257	eP	P	23 59 26.2	+1.2
KMI				AP	pP	23 59 37.9	+1.8
KMI				AMB	AMB		
	comp=Z,18nm,0.9s,mb4.8						
KMI	Kunming	39.17	257	eP	P	23 59 26.2	+1.2
	comp=Z,18nm,0.9s,mb4.8						
KMI				pP	pP	23 59 37.9	+1.8
IMA	Indian Mountai	40.10	34	eP	P	23 59 33.1	+0.9
	comp=Z,74nm,0.9s,mb5.4						
ZAL	Zalesovo	40.64	308	P	P	23 59 37.0	+0.1
	comp=Z,3.4nm,1.1s,mb3.9,baz=32,slow=9.5,SNR=17						
ZAL				PcP	PcP	00 01 38.9	0.0
	comp=Z,3.3nm,0.6s,baz=43,slow=2.8,SNR=10.0						
ZAL				LR	LR	00 18 36.4	
	comp=Z,258nm,18.2s,MS4.1,baz=18,slow=39						
ZAL	Zalesovo	40.64	308	P	P	23 59 37.0	+0.1
ZAL						00 01 38.9	
ZAL				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ZAL				MLR	MLR		
	comp=Z,259nm,18.2s						
ZAL	Zalesovo	40.64	308	P	P	23 59 37.0	+0.1
ZAL				PcP	PcP	00 01 38.9	0.0
ZAL				LR	LR	00 18 36.4	
WMQ	Urumqi	41.35	292	P	P	23 59 45.4	+2.6
WMQ				PP	PP	00 01 24.8	+3.3
WMQ				PCP	PcP	00 01 43.4	+2.1
WMQ				S	S	00 06 00.4	+6.0
WMQ				AMB	AMB		
	comp=Z,6.0nm,0.6s,mb4.4						
WMQ				LR	LR		
	comp=Z,121nm,19.0s,MS3.8						
NVS	Novosibirsk	41.38	309	eP	P	23 59 40.0	-3.0
MCK	McKinley	42.08	37	eP	P	23 59 49.0	+0.5
	comp=Z,2.3nm,0.8s,mb3.9						
COLA	College	42.50	35	i P	P	23 59 52.7	+0.7
COLA	College	42.50	35	eP	P	23 59 50.9	-1.1
	comp=Z,6.9nm,0.8s,mb4.4						
ILAR	Eielson Array	42.92	36	P	P	23 59 55.5	+0.1
	comp=Z,2.2nm,0.7s,mb4.0,baz=257,slow=5.0,SNR=25						
ILAR				LR	LR	00 17 58.3	
	comp=Z,102nm,20.7s,MS3.7,baz=352,slow=36						
ILAR	Eielson Array	42.92	36	P	P	23 59 55.5	+0.1
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ILAR				MLR	MLR		
	comp=Z,102nm,20.7s						
CHRT	Chiangrai	44.61	254	⇑P	P	00 00 10.0	+0.4
NANT	Nan	44.68	252	P	P	00 00 10.5	+0.3
LSA	Lhasa	45.05	272	eP	P	00 00 13.2	+0.2
KURK	Kurchatov	45.08	304	c iP	P	00 00 12.3	-0.6
KURK	Kurchatov	45.08	304	eP	P	00 00 12.2	-0.8
	comp=Z,13nm,0.8s,mb4.8						
CMAR	Chiang Mai Arr	46.14	253	P	P	00 00 23.0	+1.2
	comp=Z,3.7nm,0.7s,mb4.4,baz=44,slow=7.4,SNR=16						
CMAR				LR	LR	00 20 07.4	
	comp=Z,90nm,21.4s,MS3.7,baz=55,slow=36						
CMAR	Chiang Mai Arr	46.14	253	P	P	00 00 23.0	+1.2
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CMAR				MLR	MLR		
	comp=Z,91nm,21.4s						
INK	Inuvik	47.78	30	LR	LR	00 23 09.3	
	comp=Z,110nm,20.6s,MS3.8,baz=329,slow=39						
INK	Inuvik	47.78	30	eP	P	00 00 34.0	-0.1
	comp=Z,3.8nm,0.6s,mb4.6						
CHKZ	Chkalovo	48.83	310	eP	P	00 00 41.4	-1.0
	comp=Z,3.0nm,0.6s,mb4.5						
GUN	Gumba	49.89	273	eP	P	00 00 51.1	+0.2
	comp=Z,41nm,0.7s,mb5.6						
KKN	Kakani	50.40	273	eP	P	00 00 54.8	0.0
	comp=Z,22nm,0.7s,mb5.3						
PKI	Pulchoki	50.43	273	eP	P	00 00 54.6	-0.4
	comp=Z,12nm,0.7s,mb5.0						
DMN	Daman	50.63	273	eP	P	00 00 56.5	0.0
	comp=Z,26nm,0.8s,mb5.2						
AAK	Ala-Archa	50.70	296	⇑iP	P	00 00 55.3	-1.6
AAK				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
GKN	Gorkha	50.75	274	eP	P	00 00 57.2	-0.3
	comp=Z,17nm,0.6s,mb5.2						
GKN	Gorkha	50.75	274	eP	P	00 00 57.4	-0.1
	comp=Z,8.6nm,0.6s,mb4.9						
KOLN	Koldanda	51.65	274	eP	P	00 01 04.4	+0.2
	comp=Z,19nm,0.7s,mb5.2						
ARU	Arti	54.21	317	d iP	P	00 01 21.8	-1.1
ARU				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
NDI	New Delhi	55.80	279	eP	P	00 01 33.0	-1.8
RES	Resolute Bay	56.18	16	eP	P	00 01 35.2	-1.8
	comp=Z,20nm,0.7s,mb5.3						

YKA	Yellowknife Ar	57.21	33	P	P	00 01 43.6	-0.8
	comp=Z,0.6nm,0.6s,mb3.8,baz=302,slow=6.9,SNR=18						
YKA				LR	LR	00 26 07.1	
	comp=Z,90nm,21.9s,MS3.8,baz=355,slow=36						
YKA	Yellowknife Ar	57.21	33	P	P	00 01 43.6	-0.9
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,90nm,21.9s						
YKA	Yellowknife Ar	57.21	33	*e*P	P	00 01 43.6	-0.9
ARCES	ARCESS Array B	59.70	339	P	P	00 02 00.3	-1.3
	comp=Z,4.0nm,1.0s,mb4.4,baz=39,slow=7.8,SNR=7.7						
ARCES	ARCESS Array B	59.70	339	P	P	00 02 00.4	-1.3
ARCES				pmax	pmax		
	comp=Z,4.0nm,1.0s						
HYB	Hyderabad	61.57	268	*e*P	P	00 02 14.0	-1.1
JOF	Joensuu	62.35	332	*e*p	P	00 02 17.8	-1.9
	comp=Z,8.3nm,0.5s,mb5.1						
JOF	Joensuu	62.35	332	*e*P	P	00 02 17.8	-1.9
JOF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb5.1						
WRAB	Tennant Creek	63.30	192	*i* P	P	00 02 30.1	+3.5
WRA	Warramunga Arr	63.31	192	P	P	00 02 25.5	-1.2
	comp=Z,1.1nm,0.8s,mb4.1,baz=15,slow=7.1,SNR=4.6						
WRA	Warramunga Arr	63.31	192	P	P	00 02 25.5	-1.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
KAF	Kangasniemi	64.60	333	*e*p	P	00 02 32.2	-2.1
	comp=Z,6.9nm,0.5s,mb4.9,baz=44,slow=6.2						
KAF	Kangasniemi	64.60	333	*e*P	P	00 02 32.2	-2.1
KAF				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
FINES	FINESS Array B	65.16	333	P	P	00 02 37.1	-0.8
	comp=Z,19nm,0.6s,mb5.3,baz=48,slow=7.8,SNR=153						
FINES				LR	LR	00 32 41.7	
	comp=Z,91nm,21.2s,MS3.9,baz=316,slow=38						
FINES	FINESS Array B	65.16	333	P	P	00 02 37.1	-0.8
FINES				pmax	pmax		
	comp=Z,19nm,0.6s						
FINES				MLR	MLR		
	comp=Z,91nm,21.2s						
OBN	Obninsk	65.36	323α	*i*P	P	00 02 38.2	-1.1
OBN				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
VRSR	Storozhevoye	66.65	319*d*	*i*P	P	00 02 47.4	-0.2
VRSR				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.6						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,7.0nm,0.6s						
ASAR	Alice Springs	67.03	192	P	P	00 02 50.8	+0.3
	comp=E,0.7nm,0.5s,mb4.0,baz=11,slow=7.0,SNR=8.4						
NVAR	Mina Array Bea	69.06	57	P	P	00 03 04.1	+1.2
	comp=E,5.4nm,1.0s,mb4.4,baz=293,slow=4.9,SNR=11						
MNV	Mina	69.15	57	P	P	00 03 03.4	-0.1
KIV	Kislovodsk	69.50	311	P	P	00 03 07.9	+2.4
	comp=E,166nm,0.9s,SNR=11						
KIV	Kislovodsk	69.50	311*d*	*i*P	P	00 03 06.1	+0.6
KIV				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
TI2	Plekhanov	69.75	308⇓	*i*P	P	00 03 09.8	+2.7
TI2				pmax	pmax		
	comp=Z,10.0nm,0.4s,mb5.1						
NB2	NORSAR Subarra	70.03	338	P	P	00 03 07.5	-0.9
	comp=Z,8.2nm,0.8s,mb4.7,baz=33,slow=6.2						
NOA	NORSAR Array B	70.03	338	P	P	00 03 07.8	-0.6
	comp=Z,20nm,1.1s,mb5.0,baz=35,slow=6.0,SNR=30						
NOA				pP	pP	00 03 17.8	-2.4
	comp=Z,3.5nm,0.6s,baz=35,slow=6.2,SNR=6.7						
NOA	NORSAR Array B	70.03	338	P	P	00 03 07.8	-0.6
NOA				*PP	pP	00 03 17.8	-2.4
NOA				pmax	pmax		
	comp=Z,20nm,1.1s						
NOA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NOA	NORSAR Array B	70.03	338	P	P	00 03 07.8	-0.6
NOA				pP	pP	00 03 17.8	-2.4
GNI	Garni	70.77	307	P	P	00 03 14.8	+1.6
	comp=Z,1.8nm,0.5s,mb4.2,baz=46,slow=12,SNR=3.0						
GNI	Garni	70.77	307	*e*P	P	00 03 14.2	+0.9
GNI				pmax	pmax		
	comp=Z,8.0nm,1.0s						
SOC	Sochi	71.36	312	*e*P	P	00 03 15.0	-1.8
SOC				*e*		00 03 41.8	
SOC				*e*		00 05 55.8	
SOC				*e*S	S	00 12 27.9	-2.7
SOC				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
SOC				pmax	pmax		
	comp=N,6.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,12nm,0.8s						
PDAR	Pinedale Array	71.40	49	P	P	00 03 17.4	+0.3
	comp=E,1.2nm,0.8s,mb3.9,baz=273,slow=2.0,SNR=8.8						
AKASG	Malin Array Be	71.62	323	P	P	00 03 17.6	-0.5
	comp=E,9.3nm,0.5s,mb5.0,baz=40,slow=5.9,SNR=66						
AKASG				pP	pP	00 03 27.7	-2.3
	comp=E,5.0nm,0.6s,baz=41,slow=6.1,SNR=6.2						
AKASG	Malin Array Be	71.62	323	P	P	00 03 17.6	-0.6
AKASG				*PP	pP	00 03 27.7	-2.3
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
PV10	Paradox Valley	74.63	52	*e*P	P	00 03 37.8	+1.8
OJC	Ojcow	75.93	327	*e*P	P	00 03 43.7	+0.5
NIE	Niedzica	76.36	327	*e*P	P	00 03 47.5	+1.8
KSP	Ksiaz	76.78	330	*e*P	P	00 03 48.4	+0.4
KSP				*e*	pP	00 03 58.2	-1.7
OKC	Ostrava-Krasne	76.88	328	*e*P	P	00 03 49.6	+1.0
UPC	Upice	77.15	330	*e*P	P	00 03 50.3	+0.2
UPC				*e**PP	pP	00 04 01.0	-1.0
DPC	Dobruska-Polom	77.17	329	*e*P	P	00 03 51.2	+1.0
DPC				*e**PP	pP	00 04 01.6	-0.5
BRTR	Keskin Array B	77.32	313	P	P	00 03 52.0	+0.7
	comp=Z,2.2nm,0.7s,mb4.2,baz=75,slow=3.7,SNR=11						
BRTR	Keskin Array B	77.32	313	P	P	00 03 52.0	+0.7
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CLL	Collm	77.58	332⇑	*i*P	P	00 03 52.2	-0.3
CLL				*i*	pP	00 04 02.9	-1.5
CLL				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
CLL	Collm	77.58	332⇑	*i*P	P	00 03 52.2	-0.3
	comp=Z,17nm,1.1s,mb4.9						
CLL				*i*	pP	00 04 02.9	-1.5
CLL	Collm	77.58	332	⇑P	P	00 03 52.2	-0.3
	comp=Z,logA/T=1.2,mb4.9						
CLL				*i* *PP	pP	00 04 02.9	-1.5
PRU	Pruhonice	78.12	330	*e*P	P	00 03 55.8	+0.3
PRU				*e**PP	pP	00 04 05.7	-1.7
SCHQ	Schefferville	78.87	18	P	P	00 03 59.5	+0.1
	comp=Z,3.9nm,1.1s,mb4.3,baz=320,slow=8.9,SNR=4.8						
SCHQ				LR	LR	00 39 31.6	
	comp=Z,127nm,18.6s,MS4.3,baz=298,slow=36						
KHC	Kasperske Hory	79.19	330	*e*P	P	00 04 01.8	+0.5
KHC				*e**PP	pP	00 04 12.0	-1.3
GERES	GERESS Array B	79.38	330	P	P	00 04 02.8	+0.4
	comp=Z,1.3nm,0.7s,mb4.0,baz=27,slow=6.0,SNR=12						
GERES				pP	pP	00 04 13.2	-1.1
	comp=Z,2.5nm,0.9s,baz=35,slow=5.9,SNR=7.2						
GERES	GERESS Array B	79.38	330	P	P	00 04 02.8	+0.4
GERES				*PP	pP	00 04 13.2	-1.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
GRA1	Grafenberg Arr	79.56	332	*e*P	P	00 04 03.9	+0.6
	comp=Z,6.0nm,1.1s,mb4.4						
GRA1				*e*pP	pP	00 04 14.7	-0.6
GRF	Grafenberg Arr	79.56	332	*e*P	P	00 04 03.9	+0.6
GRF				*e**PP	pP	00 04 14.7	-0.6
GRF				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
GRF	Grafenberg Arr	79.56	332	*e*P	P	00 04 03.9	+0.6
	comp=Z,6.0nm,1.1s,mb4.4						
GRF				*e*pP	pP	00 04 14.7	-0.6
GROS	Grobnik	80.66	328	*e*P	P	00 04 09.5	+0.2
LEGS	Legarje	81.15	327	*i* P	P	00 04 11.9	0.0
CDF	Champ du Feu	81.99	333	*e*P	P	00 04 16.2	0.0
	comp=Z,7.2nm,0.8s,mb4.3						
HINF	Hinteralfeld	82.65	333	*e*P	P	00 04 18.8	-0.8
HAU	Haudompre	82.65	334	*e*P	P	00 04 19.2	-0.4
TXAR	Lajitas Array	84.14	55	P	P	00 04 28.9	+1.4
	comp=Z,1.4nm,0.6s,mb4.2,baz=288,slow=4.0,SNR=14						
SSF	Saint Saulge	84.39	335	*e*P	P	00 04 28.3	0.0
	comp=Z,18nm,1.1s,mb4.8						
SMF	Signal de Mont	84.65	335	*e*P	P	00 04 29.0	-0.7
	comp=Z,18nm,1.0s,mb4.9						
AVF	Avril sur Loir	84.67	335	*e*P	P	00 04 30.0	+0.2
	comp=Z,12nm,0.9s,mb4.8						
BGF	Bois d'Agland	85.04	335	*e*P	P	00 04 33.1	+1.5
	comp=Z,6.6nm,0.7s,mb4.6						
MBDF	Montbardon	85.37	332	*e*P	P	00 04 30.4	-2.9
	comp=Z,12nm,0.9s,mb4.7						
TCF	Toulx Ste Croi	85.48	335	*e*P	P	00 04 35.4	+1.6
ORIF	Oris-en-Rattie	85.51	333	*e*P	P	00 04 33.0	-1.0
	comp=Z,51nm,1.4s,mb5.3						
MFF	Saint Martin d	85.89	337	*e*P	P	00 04 36.4	+0.6
	comp=Z,10nm,0.8s,mb4.8						
RJF	Les Rejaudoux	86.58	335	*e*P	P	00 04 39.9	+0.8
CAF	Calviac	86.75	335	*e*P	P	00 04 41.2	+1.2
	comp=Z,23nm,1.0s,mb5.1						
LFF	La Frestale	87.14	336	*e*P	P	00 04 43.0	+1.1
ETSF	Etsaut	89.39	336	*e*P	P	00 04 53.6	+0.9
	comp=Z,6.3nm,0.7s,mb4.8						
ESDC	Sonseca Array	93.35	337	P	P	00 05 11.6	+0.4
	comp=Z,0.7nm,0.5s,mb4.3,baz=15,slow=4.3,SNR=8.8						
ESDC				pP	pP	00 05 22.2	-1.2
	comp=Z,0.8nm,0.7s,baz=19,slow=3.9,SNR=5.0						
LVC	Limon Verde	145.03	66	PKPbc	PKPbc	00 11 34.8	+2.1
	comp=Z,2.6nm,0.8s,baz=306,slow=7.3,SNR=3.8						
MOCB	Mochara	146.22	60⇑	*i*PKPdf	PKPdf	00 11 38.8	+4.3
SNAA	Sanae	147.22	198⇑	*i*	PKPdf	00 11 39.4	+4.7
SNAA	Sanae	147.22	198	PKPbc	PKPdf	00 11 38.3	+3.6
	comp=Z,1.0nm,0.7s,baz=105,slow=7.1,SNR=9.8						
SNAA	Sanae	147.22	198	PKP2	PKPab	00 11 38.3	-2.6
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
VNA2	Neumayer--Watz	148.77	197⇓	*i*	PKPdf	00 11 45.7	+8.5
VNA3	Neumayer Olymp	148.98	195⇓	*i*	PKPdf	00 11 45.9	+8.3
VNA1	Neumayer--Stat	149.17	197⇓	*i*	PKPdf	00 11 45.5	+7.6
BDFB	Brasilia	150.51	27	PKPbc	PKPdf	00 11 48.9	+7.3
	comp=Z,7.1nm,0.9s,baz=283,slow=1.8,SNR=10						
BDFB	Brasilia	150.51	27	PKIKP	PKPdf	00 11 48.9	+7.3
BDFB				pmax	pmax		
	comp=Z,7.0nm,0.9s						
BAO	Brasilia Array	150.52	27	P	PKPdf	00 11 49.1	+7.5

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*SYO **08** 23:55:07.3, 37.74S×70.77W, h100^{km}, MB4.7*

*NEIC **08** 23:55:12.9±0.4, 37.50S×70.76W, h143^{km}±3^{km}, mb4.7/12, MD4.1(GUC), Error ellipse: s-maj=9.4km s-min=5.3km az=93.0*

*GUC **08** 23:55:12.5±1.0, 37.43S×71.08W, h152^{km}±17^{km}, MD4.1, ML4.3*

*IDC **08** 23:55:15.7±3.5, 37.45S×70.73W, h167^{km}±31^{km}, mb4.2/12, mb1 4.3/15, mb1mx4.2/17, Error ellipse: s-maj=18.6km s-min=11.6km az=81.0*

ISC 08 23:55:12.1±0.4**, 37.47S**±0.03×**70.83W**±0.09**, h146**^{km}±4^{km}**, n80,** $\sigma 1^{s}$**04**/78**, mb4.4**/23**, 6C-10D, Southern Argentina**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCHI	Chillan	1.32	311⇑	*i*P	P	23 55 41.1	+1.3
CCHI				*i* S	S	23 56 01.9	+0.8
CCHI				AMP		23 56 10.3	
	comp=E,6μm,0.6s						
CCHI				AMP		23 56 11.0	
	comp=E,10μm,0.7s						
TMCH	Temuco	1.90	227	*e*P	P	23 55 46.1	-0.1
TMCH				*i* S	S	23 56 12.0	-0.3
TMCH				AMP		23 56 13.8	
	comp=E,378nm,0.2s						
TMCH				AMP		23 56 14.1	
	comp=N,4μm,0.2s						
TALC	Talca	2.17	342⇑	*i*P	P	23 55 50.5	+1.1
TALC				*i* S	S	23 56 18.2	+0.3
SFDO	San Fernando	2.85	357	*i* P	P	23 55 59.5	+1.4
SFDO				*e*S	S	23 56 34.6	+1.3
VLCH	Valdivia	3.00	218	*e*P	P	23 55 58.1	-1.9
VLCH				*i* S	S	23 56 34.2	-2.5
CACH	El Canelo	3.35	3	*e*P	P	23 56 05.9	+1.3
CACH				*e*S	S	23 56 44.2	-0.6
CHCH	Chadas Angostu	3.53	2⇓	*i*P	P	23 56 07.9	+0.9
CHCH				*i* S	S	23 56 49.2	+0.2
LNV	Longovilo	3.54	352⇑	*i*P	P	23 56 07.4	+0.4
LNV				*i* S	S	23 56 48.0	-1.1
TACH	Talagante	3.81	359⇓	*i*P	P	23 56 10.8	+0.2
TACH				*i* S	S	23 56 54.6	-0.9
PCH	Pirque	3.85	4⇓	*i*P	P	23 56 12.1	+0.9
PCH				*i* S	S	23 56 56.4	-0.1
RCDM	Rinconada Maip	3.97	0⇓	*i*P	P	23 56 12.9	+0.2
RCDM				*i* S	S	23 56 58.2	-1.1
FSR	Penalolen	3.99	4	*e*P	P	23 56 13.5	+0.5
FSR				*e*S	S	23 56 59.6	-0.1
STL	Santa Lucia	4.03	2	*i* S	S	23 57 00.3	-0.4
LCCH	Las Cruces	4.03	351	*e*P	P	23 56 13.0	-0.5
LCCH				*e*S	S	23 56 58.7	-2.0
DSCH	Colegio Aleman	4.07	3	*i* P	P	23 56 14.7	+0.6
DSCH				*i* S	S	23 57 01.2	-0.4
CLCH	Cerro Calan	4.07	3⇑	*i*P	P	23 56 14.6	+0.5
CLCH				*i* S	S	23 57 01.3	-0.4
FCH	Farellones	4.16	6⇑	*i*P	P	23 56 16.0	+0.8
FCH				*i* S	S	23 57 04.2	+0.5
PEL	Peldehue	4.32	2	*e*P	P	23 56 17.2	-0.1
PEL				*i* S	S	23 57 06.4	-1.1
IHA	Instituto Hidr	4.48	351	*e*P	P	23 56 19.1	-0.4
ROCH	El Roble	4.49	358	*e*P	P	23 56 20.2	+0.6
ROCH				*e*S	S	23 57 10.1	-1.4
LVC	Limon Verde	14.90	7	P	P	23 58 37.2	+0.8
	comp=N,1.0nm,0.3s,baz=206,slow=9.8,SNR=13						
LVC	Limon Verde	14.90	7	*e*P	P	23 58 35.6	-0.8
	comp=N,20nm,0.5s						
USHA	Ushuaia	17.44	175	P	P	23 59 07.4	-0.2
	comp=N,2.7nm,0.3s,baz=348,slow=7.8,SNR=22						
ARE	Arequipa	20.93	358	*e*P	P	23 59 49.0	+4.4
LPAZ	La Paz	21.23	7	P	P	23 59 49.8	+2.2
	comp=N,13nm,0.6s,mb4.5,baz=170,slow=5.2,SNR=63						
LPAZ	La Paz	21.23	7	*e*P	P	23 59 49.8	+2.2
	comp=N,20nm,0.8s,mb4.5						
BDFB	Brasilia	29.67	49	P	P	00 01 04.5	-1.8
	comp=N,6.2nm,0.8s,mb4.4,baz=230,slow=7.1,SNR=10						
BDFB				PcP	PcP	00 04 05.9	-1.1
	comp=N,2.4nm,0.6s,baz=1.1,slow=6.6,SNR=3.4						
BAO	Brasilia Array	29.69	49	P	P	00 01 04.5	-2.1
OTAV	Otavalo	38.18	348	*e*P	P	00 02 21.2	+2.1
	comp=N,3.6nm,0.7s,mb4.1						
VNA3	Neumayer Olymp	45.79	157⇓	*i*	P	00 03 22.4	+2.2
VNA1	Neumayer--Stat	46.11	156⇓	*i*	P	00 03 25.1	+2.3
VNA2	Neumayer--Watz	46.45	156⇓	*i*	P	00 03 27.7	+2.3
SNAA	Sanae	48.01	157⇓	*i*	P	00 03 37.5	-0.1
SNAA	Sanae	48.01	157	P	P	00 03 37.4	-0.2
	comp=N,3.9nm,0.7s,mb4.2,baz=276,slow=7.8,SNR=67						
SNAA				PcP	PcP	00 05 02.3	-1.4
	comp=N,1.3nm,0.7s,baz=243,slow=9.0,SNR=3.1						
SNAA	Sanae	48.01	157⇓	*i*P	P	00 03 37.5	-0.1
QSPA	South Pole Qui	52.77	180	*e*P	P	00 04 13.4	-0.2
	comp=N,6.9nm,0.4s,mb4.7						
VNDA	Vanda	60.90	191	P	P	00 05 10.2	-0.9
	comp=N,2.2nm,0.8s,mb4.1,baz=115,slow=3.6,SNR=8.4						
SYO	Syowa Base	62.29	158	⇑P	P	00 05 18.0	-2.5
SYO	Syowa Base	62.29	158	⇓pP	pP	00 05 38.6	-17
MAW	Mawson	69.58	163	P	P	00 06 06.2	-0.4
	comp=N,1.4nm,0.4s,mb4.0,baz=224,slow=9.6,SNR=4.2						
PPT	Papeete	70.74	262	P	P	00 06 15.0	+0.5
	comp=N,34nm,0.7s,mb5.2,baz=13,slow=7.0,SNR=3.9						
SUR	Sutherland	72.33	117	P	P	00 06 24.2	+0.6
	comp=N,11nm,0.8s,mb4.6,baz=296,slow=5.8,SNR=6.4						
JCT	Junction City	72.83	334	*e*P	P	00 06 26.3	-0.3
	comp=N,28nm,1.0s,mb4.9						
TXAR	Lajitas Array	73.23	330	P	P	00 06 28.8	-0.2
	comp=N,4.7nm,0.8s,mb4.3,baz=151,slow=8.8,SNR=22						
TXAR				pP	pP	00 07 08.0	+3.1
	comp=N,1.0nm,0.6s,baz=156,slow=6.2,SNR=3.1						
SWET	Sewanee	73.67	347	*e*P	P	00 06 30.3	-1.1
PWV	Princeton	75.03	352	*e*P	P	00 06 38.3	-0.8
DBIC	Dimbokro	75.41	70	P	P	00 06 40.3	-1.5
	comp=N,6.7nm,0.6s,mb4.4,baz=201,slow=5.3,SNR=18						
GDL2	Guadalupe Moun	76.05	331	*e*P	P	00 06 44.8	-0.2
WMOK	Wichita Mounta	76.39	337	*e*P	P	00 06 45.6	-1.2
	comp=N,9.1nm,1.0s,mb4.4						
WMOK				*e*PcP	PcP	00 06 56.9	-1.5
AMTX	Amarillo	77.48	334	*e*P	P	00 06 52.9	0.0
	comp=N,13nm,0.7s,mb4.7						
BOSA	Boshof	77.62	116	*e*P	P	00 06 53.3	-0.5
	comp=N,5.2nm,0.6s,mb4.3						
BNM	Barren Site	78.66	330	*e*P	P	00 07 00.2	+0.9
ANMO	Albuquerque	79.29	331	P	P	00 07 02.3	-0.5
	comp=N,4.7nm,0.8s,mb4.1,baz=157,slow=7.2,SNR=11						
LBTB	Lobatse	79.99	114	*e*P	P	00 07 06.2	-0.5
	comp=N,9.6nm,0.8s,mb4.5						
RW3	Ridgway	82.66	332	*e*P	P	00 07 20.2	-0.2
TPNV	Topopah Spring	85.13	325	*e*P	P	00 07 34.1	+1.3
	comp=N,4.0nm,0.8s,mb4.2						
TPH	Tonopah	86.50	325	*e*P	P	00 07 40.6	+1.3
	comp=N,18nm,1.1s,mb4.7						
HWUT	Hardware Ranch	87.05	331	*e*P	P	00 07 42.2	+0.2
	comp=N,13nm,0.9s,mb4.8						
NVAR	Mina Array Bea	87.28	325	P	P	00 07 44.1	+1.0
	comp=N,3.8nm,0.7s,mb4.3,baz=149,slow=5.8,SNR=22						
PDAR	Pinedale Array	87.29	333	P	P	00 07 43.0	-0.1
	comp=N,0.8nm,0.9s,mb3.6,baz=166,slow=6.1,SNR=5.5						
ULM	Lac du Bonnet	90.10	344	P	P	00 07 56.1	-0.1
	comp=N,4.1nm,0.6s,mb4.6,baz=177,slow=2.4,SNR=7.9						
ASAR	Alice Springs	114.89	205	PKP	PKPdf	00 13 35.8	0.0
	comp=N,1.5nm,1.1s,baz=126,slow=1.5,SNR=7.3						
ILAR	Eielson Array	117.72	332	PKP	PKPdf	00 13 40.5	+0.3
	comp=N,1.0nm,0.8s,baz=191,slow=2.5,SNR=8.5						
WRA	Warramunga Arr	118.17	207	PKP	PKPdf	00 13 42.4	+0.4
	comp=N,1.2nm,0.4s,baz=161,slow=1.5,SNR=13						
BRTR	Keskin Array B	122.61	62	PKP	PKPdf	00 13 51.2	+1.0
	comp=N,1.6nm,0.8s,baz=204,slow=3.3,SNR=6.4						
AKASG	Malin Array Be	123.77	49	PKP	PKPdf	00 13 52.0	-0.2
	comp=N,1.1nm,0.4s,baz=257,slow=2.8,SNR=9.6						
FINES	FINESS Array B	125.26	36	PKP	PKPdf	00 13 55.7	+1.0
	comp=N,1.2nm,0.7s,baz=180,slow=3.8,SNR=5.3						
FINES	FINESS Array B	125.26	36	PKP	PKPdf	00 13 55.7	+1.0
ARCES	ARCESS Array B	126.72	26	PKP	PKPdf	00 13 57.9	+0.6
	comp=N,19nm,1.3s,baz=27,slow=2.7,SNR=8.8						
ARCES	ARCESS Array B	126.72	26	PKP	PKPdf	00 13 57.9	+0.6
HYB	Hyderabad	146.51	118	*e*P	PKPdf	00 14 37.0	+2.3
BRVK	Borovoye	148.96	47	*e*PKPdf	PKPdf	00 14 39.1	+1.4
CHKZ	Chkalovo	148.99	46	*e*PKPdf	PKPdf	00 14 38.7	+0.9
CHKZ				*e*PKPbc	PKPdf	00 14 43.5	+5.7
AAK	Ala-Archa	153.09	68	*e*PKPbc	PKPdf	00 14 52.7	+8.5
UCH	Uchtor	153.09	69	*e*PKPdf	PKPdf	00 14 47.0	+2.8
UCH				*e*PKPbc	PKPdf	00 14 54.0	+10
UCH				*e*PKPab	PKPab	00 15 05.8	-0.5
TKM2	Tokmak 2	153.90	67	*e*PKPdf	PKPdf	00 14 47.2	+1.9
TKM2				*e*PKPbc	PKPdf	00 14 54.4	+9.1
KURK	Kurchatov	154.58	49	*e*PKPdf	PKPdf	00 14 47.6	+1.7
KURK				*e*PKPbc	PKPdf	00 14 56.2	+10
KURK				*e*PKPab	PKPab	00 15 11.5	-0.8
ZAL	Zalesovo	156.50	38	PKP	PKPdf	00 14 50.0	+1.7
	comp=N,0.8nm,0.8s,baz=358,slow=3.8,SNR=8.4						
ZAL				PKPab	PKPab	00 15 20.1	-0.3
	comp=N,2.1nm,1.0s,baz=177,slow=4.9,SNR=5.9						
CMAR	Chiang Mai Arr	159.04	152	PKP	PKPdf	00 14 53.5	+0.9
	comp=N,0.7nm,0.8s,baz=290,slow=1.2,SNR=4.3						
SONM	Songino Array	169.44	10	PKP	PKPdf	00 15 01.4	+0.4
	comp=N,1.6nm,1.2s,baz=231,slow=1.3,SNR=5.8						
SONM				PKPab	PKPab	00 16 16.9	+0.1
	comp=N,1.3nm,0.7s,baz=327,slow=4.2,SNR=10						
SONM				PP	PP	00 20 08.4	+1.0
	comp=N,0.7nm,1.1s,baz=45,slow=3.5,SNR=3.8						

TRN 09 00:01:24.2, 15.78N×61.40W, h25^{km}**, MD3.8, 6C-1D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	Marie-Galante	0.16	28⇑	*i*P	Pb	00 01 31.5	+2.1
BBL	Barber's Block	0.26	196⇓	*i*P	Pb	00 01 31.0	+0.4
DEG	La Desirade	0.62	31⇑	*i*P	Pb	00 01 38.5	+2.2
DEG				*e*S	Sb	00 01 48.4	+3.7
SEG	Port Louis	0.63	350⇑	*e*P	Pb	00 01 38.6	+2.1
CRM	Caravelle	1.12	155⇑	*e*P	Pn	00 01 45.9	+1.4
CRM				*e*S	Sb	00 02 01.2	+2.3
BIM	Bigot	1.29	166⇑	*e*P	Pn	00 01 49.2	+2.2
MVM	Montagne Vaucl	1.31	158⇑	*e*P	Pn	00 01 48.9	+1.7
MVM				*e*S	Sn	00 02 06.3	+2.4

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*IDC **09** 00:19:41.3±1.2, 26.39S×26.96E, mb4.0/5, mb1 4.2/6, mb1mx3.9/22, ML4.2/1, Error ellipse: s-maj=56.5km s-min=19.2km az=112.0*

*NEIC **09** 00:19:41.6±0.8, 26.48S×27.38E, h5^{km}, Error ellipse: s-maj=19.9km s-min=10.3km az=107.0*

*PRE **09** 00:19:42.0±1.4, 26.41S×27.39E, h2^{km}, ML3.7*

ISC 09 00:19:39.8±0.4**, 26.40S**±0.03×**27.36E**±0.04**, h2**^{km}**, n21,** $\sigma 1^{s}$**29**/33**, mb4.0**/5**, 2C-1D, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSR	Koster	0.68	323	*e*P	Pg	00 19 55.2	+1.8
KSR				*e*S	Sg	00 20 03.6	+1.0
KSR				*e*		00 20 10.9	
	comp=Z,3μm,0.4s						
SLR	Silverton	1.06	52	*e*P	Pb	00 20 00.2	-0.3
SLR				*e*S	Sb	00 20 14.7	0.0
SLR				*e*		00 20 18.9	
	comp=Z,2μm,0.3s						
SEK	Senekal	1.93	173	*e*P	Pn	00 20 15.6	+1.7
SEK				*e*S	Sn	00 20 39.3	+0.1
SEK				*e*		00 20 40.8	
	comp=Z,904nm,0.3s						
LBTB	Lobatse	2.10	311	*e*Pn	Pn	00 20 19.0	+2.6
LBTB				*e*Pg	Pg	00 20 20.4	-1.4
LBTB				*e*Sn	Sn	00 20 43.8	+0.3
LBTB				*e*Sg	Sg	00 20 48.0	-1.8
NWL	Newcastle	2.66	120	*e*P	Pn	00 20 22.8	-1.7
LEP	Lephalale	2.76	7	*e*P	Pn	00 20 27.0	+1.2
LEP				*e*S	Sn	00 20 59.9	-0.3
LEP				*e*		00 21 08.7	
	comp=Z,213nm,0.7s						
BOSA	Boshof	2.89	220	*e*P	Pn	00 20 28.1	+0.4
BOSA				*e*S	Sn	00 21 06.9	+3.4
BOSA	Boshof	2.89	220	*e*Pn	Pn	00 20 27.9	+0.2
BOSA				*e*Sn	Sn	00 20 51.0	-13
MSNA	Messina	4.71	32	*e*P	Pn	00 20 52.3	-1.3
SUR	Sutherland	8.25	222	Pn	P	00 21 41.2	-2.1
	comp=Z,3.6nm,0.3s,baz=51,slow=9.4,SNR=31						
SUR				Sn	Sn	00 23 09.9	-8.3
	comp=Z,2.3nm,0.3s,baz=54,slow=23,SNR=4.1						
SUR				Lg		00 23 52.9	
	comp=Z,6.2nm,0.3s,baz=320,slow=20,SNR=4.5						
SUR	Sutherland	8.25	222	*e*Pn	P	00 21 40.9	-2.5
SUR				*e*Sn	Sn	00 23 06.9	-11
SUR				Sn	Sn	00 23 09.9	-8.3
SUR				Lg		00 23 52.9	
CVNA	Calvinia	8.36	231	*e*P	P	00 21 42.0	-2.9
SNAA	Sanae	48.34	192⇓	*i*	P	00 28 23.9	-0.4
SNAA	Sanae	48.34	192	P	P	00 28 23.9	-0.3
	comp=Z,0.6nm,0.5s,mb3.9,baz=52,slow=5.1,SNR=12						
VNA2	Neumayer--Watz	48.71	194⇑	*i*	P	00 28 29.3	+2.2
VNA3	Neumayer Olymp	49.45	195⇑	*i*	P	00 28 34.1	+1.2
ESDC	Sonseca Array	71.93	335	P	P	00 31 05.7	-1.0
	comp=Z,0.6nm,0.4s,mb3.8,baz=152,slow=5.7,SNR=10						
GERES	GERESS Array B	75.89	351	P	P	00 31 29.3	-0.1
	comp=Z,0.5nm,0.7s,mb3.6,baz=201,slow=8.4,SNR=4.4						
BVAR	Borovoye Array	87.50	24	P	P	00 32 30.4	+0.3
	comp=Z,0.5nm,0.8s,mb3.8,baz=194,slow=5.9,SNR=3.2						
BVAR	Borovoye Array	87.50	24	P	P	00 32 30.4	+0.3
FINES	FINESS Array B	87.53	359	P	P	00 32 30.5	+0.5
	comp=Z,7.1nm,1.1s,mb4.8,baz=180,slow=5.7,SNR=4.3						

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*NIED **09** 00:29:00, 33.20N×137.30E, h11^{km}, Mw3.7 Best double couple: $M_0$3.93×10^{14} NP1:ϕ_s76°, δ63°, λ96°. NP2:ϕ_s243°, δ28°, λ79°.*

*JMA **09** 00:29:24.0±0.1, 33.25N×137.27E, h42^{km}±2^{km}, M3.7*

ISC 09 00:29:23.8±0.7**, 33.25N**±0.05×**137.28E**±0.03**, h50**^{km}±13^{km}**, n19,** $\sigma 0^{s}$**63**/37**, 6D, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	Tokai 1	0.58	27	P	P	00 29 35.9	-0.2
TK01				S	S	00 29 44.2	-0.8
TK02	Tokai 2	0.81	30	⇓P	P	00 29 39.2	+0.2
TK02				S	S	00 29 50.6	+0.4
TK03	Tokai 3	1.08	32	P	P	00 29 43.0	+0.1
TK03				S	S	00 29 57.1	+0.1
JIE	Ise	1.24	338	⇓P	P	00 29 45.7	+0.6
JIE				S	S	00 30 01.3	+0.4
TK04	Tokai 4	1.24	23	⇓P	P	00 29 45.5	+0.4
TK04				S	S	00 30 01.2	+0.2
JWZ	Kozaga	1.34	283	⇓P	P	00 29 46.6	0.0
JWZ				S	S	00 30 02.3	-1.2

TSUJ	**Tsu 2**	1.62	334	P	P	00 29 51.1	+0.5
TSUJ				S	S	00 30 10.6	+0.1
JWY	**Kouya**	1.71	305	P	P	00 29 52.6	+0.9
JWY				S	S	00 30 12.5	0.0
JWM	**Minabe**	1.72	291	P	P	00 29 52.3	+0.4
JWM				S	S	00 30 11.9	-0.8
JHE	**Heguri**	1.93	317	⇓P	P	00 29 55.5	+0.6
JHE				S	S	00 30 17.5	-0.4
SHZ3	**Shizuoka 3**	1.97	23	P	P	00 29 55.5	0.0
SHZ3				S	S	00 30 17.5	-1.5
JHJ2	**Mitsune**	2.13	93	P	P	00 29 57.9	+0.2
JHJ2				*e*S	S	00 30 22.2	-0.8
JIM2	**Oshima 3**	2.31	50	*e*S	S	00 30 26.5	-1.2
JAI	**Aioi**	2.42	284	P	P	00 30 02.4	+0.5
JAI				S	S	00 30 29.0	-1.4
JYN	**Shimob**	2.48	25	P	P	00 30 03.0	+0.3
JYN				*e*S	S	00 30 32.4	+0.6
JGM	**Miyama**	2.49	349	P	P	00 30 03.3	+0.4
JGM				S	S	00 30 32.4	+0.2
JOD2	**Odawara 2**	2.51	36	P	P	00 30 03.9	+0.8
JOD2				*e*S	S	00 30 32.4	-0.2
JWT	**Wachi**	2.56	323	⇓P	P	00 30 04.6	+0.8
JWT				S	S	00 30 33.6	-0.3
MAT	**Matsushiro**	3.38	13	P	P	00 30 16.0	+0.6
MAT				S	S	00 30 53.9	-0.7

DJA 09 00:37:04.2±0.6**, 8.84S**×**116.05E, h2^{km}, ML3.9**/2**, 1C-8D, Error ellipse: s-maj=10.9km s-min=4.9km az=136.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	0.36	10	⇓*e*Pg	Pg	00 37 13.7	+2.3
KEDI				⇓*e*Sg	Sg	00 37 19.9	+3.8
RATI	**Rata**	0.52	283	⇑*e*Pg	Pg	00 37 17.8	+3.1
RATI				⇓*e*Sg	Sg	00 37 27.3	+5.7
KELI	**Kelakatan**	1.66	292	⇓*e*Pn	Pn	00 37 31.4	-3.1
	98nm,0.3s						
KELI				⇓*e*Sn	Sn	00 37 50.6	-6.1
SRDI	**Scrawed**	1.92	281	⇓*e*Pn	Pn	00 37 36.1	-2.1
	62nm,0.2s						
SRDI	**Scrawed**	1.92	281	⇓*e*P	Pn	00 37 37.3	-0.9
SRDI				⇓*e*Sn	Sn	00 37 58.6	-4.6

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*NEIC **09** 00:47:10.7±3.5, 7.80S×128.20E, h44^{km}±30^{km}, mb4.3/3, Error ellipse: s-maj=34.2km s-min=18.8km az=195.0*

*IDC **09** 00:47:23.6±9.9, 8.51S×127.53E, h145^{km}±72^{km}, mb4.1/2, mb1 4.1/5, mb1mx3.7/14, Error ellipse: s-maj=70.5km s-min=48.5km az=5.0*

ISC 09 00:47:18.8±1.9**, 8.27S**±0.09×**127.96E**±0.09**, h144^{km}**±20^{km}**, n16, σ1$\overset{s}{.}$50**/24**, mb4.2**/4**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	6.20	136	*e*P	P	00 48 49.0	0.0
	62nm,0.7s						
KAKA				*e*S	S	00 50 01.0	+1.9
FITZ	**Fitzroy Crossi**	10.03	193	*e*P	P	00 49 39.8	-0.4
	6.7nm,0.3s						
FITZ				*e*S	S	00 51 30.9	0.0
FITZ	**Fitzroy Crossi**	10.03	193	P	P	00 49 39.9	-0.4
	3.0nm,0.3s,baz=16,slow=10,SNR=66						
FITZ				S	S	00 51 31.3	+0.4
	1.6nm,0.3s,baz=1.4,slow=18,SNR=4.0						
WRAB	**Tennant Creek**	13.14	153	*e*P	P	00 50 19.2	-1.6
	26nm,0.8s						
WRAB				*e*S	S	00 52 42.9	-1.1
WRA	**Warramunga Arr**	13.14	153	P	P	00 50 19.2	-1.7
	2.7nm,0.3s,baz=330,slow=13,SNR=39						
WRA				S	S	00 52 46.3	+2.2
	1.3nm,0.3s,baz=330,slow=21,SNR=5.7						
WB2	**Warramunga Arr**	13.15	153	*e*P	P	00 50 19.1	-1.9
WB2				*e*S	S	00 52 42.4	-1.8
MBWA	**Marble Bar**	15.07	211	*e*P	P	00 50 45.9	+0.3
MBWA				*e*S	S	00 53 13.7	-15
ASPA	**Alice Springs**	16.33	160	*e*P	P	00 51 02.8	+1.6
ASPA				*e*S	S	00 54 07.7	+11
ASAR	**Alice Springs**	16.33	160	P	P	00 51 02.9	+1.7
	0.9nm,0.3s,baz=341,slow=11,SNR=34						
ASAR				S	S	00 54 05.6	+8.5
	0.3nm,0.3s,baz=336,slow=20,SNR=3.9						
CTAO	**Charters Tower**	21.24	125	P	P	00 51 52.3	-2.4
	16nm,1.4s,mb4.2						
NWAO	**Narrogin (SRO)**	26.47	201	P	P	00 52 43.1	-1.3
	6.7nm,0.8s,mb4.3,baz=45,slow=4.3,SNR=2.4						
NWAO	**Narrogin (SRO)**	26.47	201	*e*P	P	00 52 39.3	-5.2
	18nm,1.1s,mb4.6						
STKA	**Stephens Creek**	26.69	153	P	P	00 52 48.8	+2.4
	6.6nm,1.2s,mb4.1,baz=335,slow=12,SNR=4.6						
STKA	**Stephens Creek**	26.69	153	*e*P	P	00 52 48.2	+1.7
STKA				*e*		00 53 11.7	
UCH	**Uchtor**	70.00	321	P	P	00 58 17.5	+0.7
	2.2nm,1.1s,mb3.8						
LPAZ	**La Paz**	150.86	147	PKPbc	PKPdf	01 07 01.8	+13
	0.6nm,0.6s,baz=221,slow=5.7,SNR=3.7						

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*IDC **09** 01:09:05.5±1.9, 49.26N×19.90E, mb3.9/1, mb1 3.7/7, mb1mx3.5/20, ML3.2/5, Error ellipse: s-maj=22.2km s-min=9.1km az=137.0*

*MOS **09** 01:09:05.0±1.9, 49.51N×20.01E, h15^{km}, mb3.8/1, Error ellipse: s-maj=7.9km s-min=6.9km az=93.6*

*NEIC **09** 01:09:05.5±0.5, 49.44N×19.93E, h5^{km}, ML3.4(SZGRF), ML2.9(VIE), Error ellipse: s-maj=7.2km s-min=6.0km az=141.0*

*CSEM **09** 01:09:05.8±0.2, 49.38N×19.87E, ML3.7/4, Error ellipse: s-maj=3.4km s-min=2.2km az=25.0*

*PRU **09** 01:09:07.0, 49.42N×19.79E, High Tatras*

*IPEC **09** 01:09:07.8±0.3, 49.34N×19.80E, h10^{km}±1^{km}, ML2.7/3, Error ellipse: s-maj=2.0km s-min=0.9km az=46.0*

ISC 09 01:09:05.2±0.3**, 49.39N**±0.02×**19.87E**±0.03**, h5^{km}, n82, σ1$\overset{s}{.}$34**/105**, 2C-3D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIE	**Niedzica**	0.29	84	*e*Pg	Pg	01 09 10.6	-0.5
NIE				*e*Sg	Sg	01 09 14.9	-0.2
LIKS	**Likavka**	0.60	236	*i* PG	Pg	01 09 15.5	-1.8
LIKS				*i* SG	Sg	01 09 22.3	-3.1
OJC	**Ojcow**	0.83	357	*e*Pg	Pg	01 09 21.4	-0.5
OJC				*e*Sg	Sg	01 09 33.8	+0.8
VYHS	**Vyhne**	1.12	218	*i* PG	Pg	01 09 27.1	-0.6
VYHS				*e*SG	Sg	01 09 43.8	+1.1
CRVS	**Cervenica-Dubn**	1.15	114	*i* PG	Pg	01 09 26.9	-1.4
OKC	**Ostrava-Krasne**	1.21	293	*e*PG	Pg	01 09 28.9	-0.4
OKC				*e*SG	Sg	01 09 45.4	0.0
OKC	**Ostrava-Krasne**	1.21	293	*e*Pg	Pg	01 09 28.9	-0.4
OKC				*e*Sg	Sg	01 09 45.3	-0.1
KOLL	**Kolacno**	1.26	231	*i* PG	Pg	01 09 30.0	-0.4
RAC	**Raciborz**	1.29	303	*e*Pg	Pg	01 09 30.6	-0.4
RAC				*e*Sg	Sg	01 09 48.3	+0.1
PSZ	**Piszkesteto**	1.47	179	⇓*e*Pn	Pn	01 09 33.6	+1.1
PSZ				*e*Sn	Sn	01 09 52.9	+0.6
PSZ	**Piszkesteto**	1.47	179	*e*Pn	Pn	01 09 32.9	+0.4
PSZ				*e*Sn	Sn	01 09 53.7	+1.4
PSZ	**Piszkesteto**	1.47	179	*e*Pn	Pn	01 09 33.7	+1.2
PSZ				*e*Sg	Sg	01 09 53.1	-1.1
PSZ				*e*Sn	Sn	01 09 53.7	+1.4
JAVC	**Velka Javorina**	1.54	251	*e*Pn	Pn	01 09 35.5	+2.0
MORC	**Moravsky Berou**	1.56	285	*e*Pn	Pn	01 09 34.5	+0.7
MORC				*e*Sn	Sn	01 09 53.8	-0.9
MORC	**Moravsky Berou**	1.56	285	*e*Pn	Pn	01 09 34.5	+0.7
MORC				*e*Sn	Sn	01 09 53.8	-0.9
MORC				*e*Sg	Sg	01 09 56.2	-1.1
	154nm,0.4s						
KOLS	**Kolonicke sedl**	1.64	105	*e*PG	Pg	01 09 36.0	-2.1
KOLS				*i* SG	Sg	01 09 58.1	-1.9
UZH	**Uzhgorod**	1.77	114	*e*P	Pn	01 09 33.0	-3.7
UZH				*e*S	Sn	01 09 53.0	-6.9
SMOL	**Smolenice**	1.83	242	*e*P	Pn	01 09 38.7	+1.1
SMOL				*e*		01 10 03.6	
SMOL	**Smolenice**	1.83	242	*e*PN	Pn	01 09 38.7	+1.1
SMOL				*e*PB	Pb	01 09 39.4	+0.5
SMOL				*e*SN	Sn	01 10 03.6	+2.1
SMOL				*i*		01 10 04.3	
SMOL	**Smolenice**	1.83	242	*e*Sn	Sn	01 10 03.6	+2.1
SMOL	**Smolenice**	1.83	242	*e*Pg	Pb	01 09 39.4	+0.5
SMOL				*i* Sg	Sg	01 10 04.3	-1.9
KWP	**Kalwaria**	1.87	81	*e*Pn	Pn	01 09 39.9	+1.7
KWP				*e*Pg	Pg	01 09 44.9	+2.4
KWP				*e*Sn	Sn	01 10 04.6	+2.2
KWP				*e*Sg	Sg	01 10 12.3	+4.9
KWP	**Kalwaria**	1.87	81	*e*Pg	Pg	01 09 44.9	+2.4
KWP	**Kalwaria**	1.87	81	*e*Pn	Pn	01 09 39.9	+1.7
KWP	**Kalwaria**	1.87	81	*e*Pn	Pn	01 09 40.3	+2.1
KWP				*e*Pg	Pg	01 09 44.9	+2.4
KWP				*e*Sg	Sg	01 10 12.3	+4.9
MODS	**Modra-Piesok**	1.99	240	*e*P	Pn	01 09 39.9	0.0
MODS				*e*		01 10 05.6	
MODS	**Modra-Piesok**	1.99	240	*e*PN	Pn	01 09 39.9	0.0
MODS				*e*PB	Pb	01 09 41.8	+0.2
MODS				*e*SN	Sn	01 10 05.6	+0.1
MODS	**Modra-Piesok**	1.99	240	*e*Sn	Sn	01 10 05.6	+0.1
MODS	**Modra-Piesok**	1.99	240	*e*Pn	Pn	01 09 39.8	-0.1
MODS	**Modra-Piesok**	1.99	240	*e*Pg	Pb	01 09 41.8	+0.2
VRAC	**Vranov**	2.14	269	Pn	Pn	01 09 42.1	0.0
	3.0nm,0.3s,baz=107,slow=19,SNR=24						
VRAC				Lg		01 10 12.4	
	15nm,0.3s,baz=357,slow=21,SNR=17						
VRAC	**Vranov**	2.14	269	Pn	Pn	01 09 42.1	0.0
VRAC				*e*Sg	Sg	01 10 12.9	-3.7
	49nm,0.4s						
ZST	**Bratislava**	2.18	238	*i* P	Pn	01 09 43.0	+0.3
ZST				*e*		01 10 11.6	
ZST	**Bratislava**	2.18	238	*i* Pn	Pn	01 09 43.0	+0.3
ZST				*e*Pg	Pg	01 09 44.9	-3.9
ZST				*e*Sn	Sn	01 10 11.6	+1.2
ZST	**Bratislava**	2.18	238	*e*SN	Sn	01 10 11.6	+1.2
ZST	**Bratislava**	2.18	238	*e*Pg	Pg	01 09 44.9	-3.9
ZST				*e*Sn	Sn	01 10 11.6	+1.2
PKSG		2.23	207	⇓*e*P	Pn	01 09 43.7	+0.4
KRUC	**Moravsky**	2.30	263	*e*Pn	Pn	01 09 44.8	+0.4
DPC	**Dobruska-Polom**	2.49	294	*e*P	Pg	01 09 50.8	-4.1
DPC				*e*		01 10 23.3	
DPC				smax			
	comp=N,53nm,0.4s						
DPC	**Dobruska-Polom**	2.49	294	*e*PG	Pg	01 09 50.8	-4.1
DPC				*e*SG	Sg	01 10 23.3	-4.8
	comp=N,53nm,0.4s						
DPC	**Dobruska-Polom**	2.49	294	*e*Pn	Pn	01 09 49.1	+2.0
DPC	**Dobruska-Polom**	2.49	294	*e*Pg	Pg	01 09 50.8	-4.1
DPC				Sg	Sg	01 10 23.3	-4.8
	comp=N,53nm,0.4s						
KSP	**Ksiaz**	2.72	304	*e*Pn	Pn	01 09 50.5	+0.1
KSP				*e*		01 09 54.6	
KSP				*e*Pg	Pg	01 09 56.6	-3.0
KSP				*e*Sn	Sn	01 10 23.3	-0.8
KSP				*e*Sg	Sg	01 10 29.8	-6.1
KSP	**Ksiaz**	2.72	304	*e*Pg	Pg	01 09 56.6	-3.0
KSP				*e*Sn	Sn	01 10 23.3	-0.8
KSP				*e*Sg	Sg	01 10 29.8	-6.1
KSP	**Ksiaz**	2.72	304	*e*Pn	Pn	01 09 50.8	+0.4
KSP				*e*Pg	Pg	01 09 56.7	-2.9
KSP				*e*Sn	Sn	01 10 23.6	-0.5
UPC	**Upice**	2.73	296	*e*PN	Pn	01 09 54.2	+3.7
UPC				*e*SG	Sg	01 10 30.4	-5.8
UPC	**Upice**	2.73	296	*e*Sg	Sg	01 10 30.4	-5.8
PKSM	**Moragy**	3.28	195	*e*P	Pn	01 09 57.6	-0.8
PRU	**Pruhonice**	3.51	282	PG	Pg	01 10 10.5	-4.8
PRU				SG	Sg	01 10 55.9	-6.2
	comp=N,20nm,0.5s						
ARSA	**Arzberg**	3.60	235	⇑*i*PN	Pn	01 10 03.3	+0.4
ARSA				*i* SG	Sg	01 11 08.6	+3.4
	comp=N,2.8nm,0.5s						
PVCC	**Panska Ves**	3.61	290	*e*PN	Pn	01 10 04.5	+1.5
PVCC				*e*PG	Pg	01 10 13.2	-4.0
PVCC				*e*SG	Sg	01 10 59.0	-6.3
PVCC	**Panska Ves**	3.61	290	*e*Pg	Pg	01 10 13.2	-4.0
PVCC				*e*Sg	Sg	01 10 59.0	-6.3
MOA	**Molln**	4.02	250	⇑*i*PN	Pn	01 10 09.0	+0.1
MOA				*i* SG	Sg	01 11 22.3	+3.1
	comp=N,4.5nm,0.4s						
GEC2	**GERESS Array S**	4.09	265	*e*Pn	Px	01 10 10.7	
GEC2				*e*Sg	Sx	01 11 11.2	
GEC2	**GERESS Array S**	4.09	265	*e*Sg	Sx	01 11 11.2	
GERES	**GERESS Array B**	4.09	265	Pn	Px	01 10 10.0	
	comp=N,1.1nm,0.3s,baz=87,slow=14,SNR=38						
GERES				Sn	Sx	01 10 59.8	
	comp=N,2.4nm,0.3s,baz=87,slow=23,SNR=14						
GERES				Lg		01 11 11.9	
	comp=N,1.7nm,0.3s,baz=86,slow=28,SNR=5.8						
BRG	**Berggiesshubel**	4.09	294	*e*Pn	Pg	01 10 19.5	-7.4
BRG				*i* Sg	Sg	01 11 13.5	-8.0
BRG	**Berggiesshubel**	4.09	294	*e*Pg	Pg	01 10 22.4	-4.5
BRG				*e*Sg	Sg	01 11 14.9	-6.6
KHC	**Kasperske Hory**	4.13	269	*e*Pn	Px	01 10 09.8	
KHC				*e*Pg	Px	01 10 19.2	
KHC				*e*		01 10 24.5	
KHC				*e*		01 11 13.0	
KHC				*e*Sg	Sx	01 11 17.4	
KHC	**Kasperske Hory**	4.13	269	*e*PN	Px	01 10 09.8	
KHC				*e*PG	Px	01 10 19.2	
KHC				x	x	01 10 24.5	
KHC				x	x	01 11 13.0	
KHC				*e*SG	Sx	01 11 17.4	
KHC	**Kasperske Hory**	4.13	269	*e*Pn	Px	01 10 09.8	
KHC				*e*Sg	Sx	01 11 17.4	
KHC	**Kasperske Hory**	4.13	269	*e*Pg	Px	01 10 19.2	
GKP	**Gorka Klasztor**	4.22	338	*e*Pg	rx	01 10 45.3	
CLL	**Collm**	4.80	296	*e*PG	Px	01 10 37.0	
CLL				*i* SG	Sx	01 11 36.8	
CLL	**Collm**	4.80	296	Pg	Px	01 10 37.0	
CLL				*e*Sg	Sx	01 11 37.8	
TANN	**Tannenbergstha**	4.90	285	*e*Pn	Px	01 10 23.4	
TANN				*e*Sg	Sx	01 11 38.6	
KBA	**Koelnbreinsper**	4.93	245	⇓*i*PN	Px	01 10 22.2	
KBA				*i* SN	Sx	01 11 21.4	
WERD	**Werda**	5.00	285	*e*Sg	Sx	01 11 42.5	
SUW	**Suwalki**	5.07	23	*e*Pn	Px	01 10 21.6	
SUW	**Suwalki**	5.07	23	*e*Pn	Px	01 10 21.6	
MOX	**Moxa**	5.47	286	*e*Pg	Px	01 10 47.9	
MOX				*e*Sg	Sx	01 11 59.5	
MOX	**Moxa**	5.47	286	*e*Sg	Sx	01 11 59.5	
BSD	**Bornholm Skovb**	6.49	334	*i* P	Px	01 10 40.9	
BSD				*i* S	Sx	01 11 52.9	
DAVOX	**Davos**	7.18	252	Pn	Px	01 10 53.5	
	baz=86,slow=14						
DAVOX				Sn	Sx	01 12 13.0	
	baz=139,slow=19						
HFS	**Hagfors**	11.34	344	Pn	Px	01 11 44.0	
	comp=N,0.0nm,0.3s,baz=156,slow=14,SNR=4.4						
HFS				Sn	Sx	01 13 49.6	
	comp=N,0.1nm,0.3s,baz=350,slow=40,SNR=12						
FINES	**FINESS Array B**	12.58	14	Pn	Px	01 12 01.4	
	comp=N,0.3nm,0.3s,baz=192,slow=12,SNR=8.6						
FINES				Sn	Sx	01 14 15.3	
	comp=N,0.3nm,0.3s,baz=187,slow=22,SNR=5.1						
FINES	**FINESS Array B**	12.58	14	Pn	Px	01 12 01.4	
FINES				Sn	Sx	01 14 15.3	
NOA	**NORSAR Array B**	12.66	340	Pn	Px	01 12 03.4	
	comp=N,0.1nm,0.3s,baz=158,slow=14,SNR=2.8						
NOA				Sn	Sx	01 14 16.7	
	comp=N,0.1nm,0.3s,baz=154,slow=6.1,SNR=2.6						
KAF	**Kangasniemi**	13.25	13	*e*p	Px	01 12 10.5	
JOF	**Joensuu**	14.95	21	*e*p	Px	01 12 32.0	
ARCES	**ARCESS Array B**	20.39	6	Pn	P	01 13 41.6	-3.7
	comp=N,3.3nm,1.1s,baz=188,slow=13,SNR=4.9						
ARCES				P		01 13 46.0	
	comp=N,6.6nm,1.1s,baz=182,slow=12,SNR=6.9						
ARCES	**ARCESS Array B**	20.39	6	P	P	01 13 41.6	-3.7
ARCES						01 13 46.0	
ARCES				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.1s						

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*CSEM **09** 01:34:28.7±0.2, 24.41N×36.36E, h40^{km}, ML3.2, Error ellipse: s-maj=8.5km s-min=5.6km az=176.0*

*HLW **09** 01:34:30.5, 24.40N×36.29E, h25^{km}, Mb3.2*

*SNSN **09** 01:34:31.7, 24.50N×36.69E, Ml2.1*

ISC 09 01:34:26.5±0.6**, 24.35N**±0.06×**36.37E**±0.05**, h10^{km}, n11, σ0$\overset{s}{.}$84**/14**, 2C, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UMJS	**Umm Lajj**	1.23	44	P	Pb	01 34 49.3	0.0
HAGS	**Hagol**	1.26	272	⇑P	Pb	01 34 50.2	+0.4
HAGS	**Hagol**	1.26	272	P	Pb	01 34 50.2	+0.3
YNBS	**Yanbu‘ al Bahr**	1.48	90	P	Pn	01 34 54.3	+0.9
YNBS				S	Sb	01 35 11.2	-1.3
HSHL	**Bi’r Shalatayn**	1.52	216	P	Pn	01 34 55.0	+1.1
HSHL				S	Sb	01 35 12.8	-0.8
HSHL	**Bi’r Shalatayn**	1.52	216	P	Pn	01 34 55.0	+1.0
HSHL				S	Sb	01 35 12.8	-0.9
EMRS	**Mersa Alam**	1.54	296	P	Pn	01 34 54.0	-0.2
HADB		1.87	303	⇑P	Pn	01 34 58.6	-0.3
HEDF	**Idfu**	2.99	285	P	Pn	01 35 15.4	+0.5
KBRS	**Khaybar**	2.99	61	P	Pn	01 35 16.0	+1.1
HSFG		3.12	316	P	Pn	01 35 15.4	-1.4

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*BJI **09** 01:35:23.0, 44.51N×89.93E, h12^{km}, mb4.1, ML4.1, Ms3.6, Msz3.4*

*NNC **09** 01:35:28.1±3.9, 44.89N×89.63E, h12^{km}±15^{km}, mpv3.7, Error ellipse: s-maj=48.1km s-min=27.4km az=14.0*

ISC 09 01:35:20.8±2.2**, 44.65N**±0.08×**89.84E**±0.10**, h11^{km}**±13^{km}**, n11, σ1$\overset{s}{.}$41**/14**, 5C-1D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	**Urumqi**	1.75	243	⇑*i*PG	Pg	01 35 55.6	-0.2
WMQ				SG	Sg	01 36 18.8	-0.3
WMQ				Smax			
	comp=N,2µm,0.8s						
WMQ				Smax			
	comp=E,2µm,0.8s						
MK31	**Makanchi Array**	5.71	295	⇓Pn	Pn	01 36 50.2	+2.6
	comp=E,4.3nm,0.6s,baz=108,slow=15						
MK31				⇑Pg	Pg	01 37 07.2	-7.5
	comp=E,9.1nm,0.6s,baz=111,slow=17						
MK31				Sn	Sn	01 37 53.0	-1.0
	baz=104,slow=25						
MK31				⇑Lg		01 38 23.2	
	comp=E,33nm,0.5s,baz=117,slow=27						
GTA	**Gaotai**	9.08	122	*e*P	P	01 37 33.7	-1.1
GTA				AP		01 37 42.3	
GTA				XP		01 37 46.9	
GTA				AMB	AMB		
	comp=Z,5.0nm,0.6s						
GTA				LR	LR		
	comp=N,152nm,7.6s						
GTA				LR	LR		
	comp=E,163nm,7.6s						
GTA				LR	LR		
	comp=Z,117nm,5.3s						
KURK	**Kurchatov**	9.70	313	⇑Pn	P	01 37 43.1	-0.2
	comp=Z,1.3nm,0.8s						
KURK				⇑Lg		01 40 28.7	
	comp=Z,23nm,0.8s						
BVA0	**Borovoye Array**	15.27	310	P	P	01 38 57.9	+0.1
	comp=Z,0.1nm,1.0s,baz=110,slow=7.2,SNR=4.5						
GUN	**Gumba**	17.00	192	*e*P	P	01 39 22.8	+2.7
	comp=Z,6.2nm,0.4s						
GKN	**Gorkha**	17.12	196	*e*P	P	01 39 23.5	+1.8
KKN	**Kakani**	17.22	194	*e*P	P	01 39 23.9	+1.1
PKI	**Pulchoki**	17.41	193	*e*P	P	01 39 24.5	-0.7
	comp=Z,8.6nm,0.8s						
DMN	**Daman**	17.42	194	*e*P	P	01 39 22.8	-2.6
KOLN	**Koldanda**	17.57	199	*e*P	P	01 39 23.5	-3.7
	comp=Z,1.2nm,0.3s						

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*NIED **09** 01:54:00, 27.20N×140.20E, h460^{km}, Mw4.7 Best double couple: M$_0$1.48×10^{16} NP1:φ$_s$339°, δ76°, λ-60°. NP2:φ$_s$91°, δ33°, λ-154°.*

*MOS **09** 01:54:06.4±0.8, 27.23N×140.30E, h445^{km}, mb4.9/21, Error ellipse: s-maj=14.2km s-min=7.6km az=118.7*

*IDC **09** 01:54:09.8±0.5, 27.08N×140.19E, h469^{km}±5^{km}, mb3.9/21, mb1 4.0/23, mb1mx4.0/26, Error ellipse: s-maj=10.4km s-min=6.9km az=91.0*

*BJI **09** 01:54:10.7, 27.18N×140.11E, h491^{km}, mB4.7, mb4.9*

*JMA **09** 01:54:10.6±0.1, 27.17N×140.23E, h477^{km}, M4.5*

*NEIC **09** 01:54:11.4±0.7, 27.18N×140.15E, h488^{km}±7^{km}, mb4.9/52, MW4.8(NIED), Error ellipse: s-maj=8.3km s-min=5.5km az=84.0*

ISC 09 01:54:09.7±0.3**, 27.10N**±0.04×**140.22E**±0.05**, h483^{km}**±3^{km}**, h482^{km}**±3.4^{km}**:pP-P, n258, σ0$\overset{s}{.}$95**/266**, mb4.7**/88**, 3C-22D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	1.75	90	P	P	01 55 12.3	-0.1
	230nm,0.3s,baz=98,slow=3.5,SNR=97						
CBIJ				S	S	01 55 59.9	-2.3
	273nm,0.3s,baz=296,slow=21,SNR=9.5						
CBIJ	**Chichi jima**	1.75	90	P	P	01 55 12.6	+0.2
CBIJ				*e*S	S	01 56 00.1	-2.0
JHHJ	**Haha-jima-NKT**	1.81	105	P	P	01 55 13.6	+0.9
JHHJ				S	S	01 56 02.9	+0.3
JHJ	**Hachijo jima 2**	6.01	356	P	P	01 55 45.1	-1.2
	69nm,0.3s,baz=106,slow=20,SNR=5.1						
JHJ				S	S	01 56 59.3	-3.4
	34nm,0.3s,baz=73,slow=19,SNR=2.9						
JWZ	**Kozaga**	7.50	330	P	P	01 56 03.6	+2.0
BSO1	**Boso 1**	7.55	5	P	P	01 56 02.0	-0.2
BSO1				S	S	01 57 30.8	-0.6
JIE	**Ise**	7.87	338	P	P	01 56 07.0	+1.5
JIE				S	S	01 57 38.1	+0.7
JMZ	**Minamidaito 2**	8.17	263	P	P	01 56 08.6	-0.1
JOD2	**Odawara 2**	8.19	353	P	P	01 56 10.4	+1.4
JOD2				*e*S	S	01 57 43.7	+0.1
JTO	**Tosashimizu**	8.62	313	P	P	01 56 14.5	+0.9
JRY	**Ryogami san**	8.96	353	P	P	01 56 15.2	-2.0
JRY				*e*S	S	01 57 54.1	-4.3
JAM	**Amami Oshima**	9.50	280	P	P	01 56 24.3	+1.4
MAJO	**Matsushiro**	9.56	350	*e*Pn	P	01 56 23.9	+0.2
MAT	**Matsushiro**	9.56	350	P	P	01 56 21.9	-1.8
MAT				*e*S	S	01 58 05.9	-4.3
MAT	**Matsushiro**	9.56	350	P	P	01 56 21.0	-2.7
	12nm,0.8s						
MAT				S	S	01 58 06.0	-4.2
JHS	**Saijyo**	9.95	324	P	P	01 56 28.7	+0.9
JSJ	**Shimokoshiki**	10.23	299	P	P	01 56 31.5	+0.7
JOW	**Kunigami**	10.66	271	P	P	01 56 35.5	+0.1
	baz=112,slow=9.8						
JOW	**Kunigami**	10.66	271	P	P	01 56 36.4	+1.0
JMK	**Ichinoseki**	11.84	4	P	P	01 56 48.3	+0.4
JTU	**Tsushima**	11.88	311	P	P	01 56 48.5	+0.3
JKE	**Kume jima 2**	12.04	269	P	P	01 56 50.5	+0.5
KS15	**Wonju Array Si**	14.65	318	*e*P	P	01 57 15.9	-1.3
INCN	**Inchon**	15.45	315	*e*P	P	01 57 27.6	+2.4
	72nm,0.6s						
ASAJ	**Asahikawa**	17.08	6	P	P	01 57 46.4	+4.9
	1.1nm,0.3s,baz=51,slow=31,SNR=2.3						
ASAJ	**Asahikawa**	17.08	6	P	P	01 57 46.4	+4.9
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SSE	**Sheshan**	17.11	288	*e*P	P	01 57 42.8	+1.0
SSE				S	S	02 00 30.1	-3.2
SSE				AMB	AMB		
	comp=Z,33nm,0.7s						
SSE				AMB	AMB		
	comp=Z,80nm,5.1s						
SSE	**Sheshan**	17.11	288	*e*P	P	01 57 42.8	+1.0
	comp=Z,33nm,0.7s						
SSE				S	S	02 00 30.1	-3.2
NJ2	**Nanjing**	19.22	290	*e*P	P	01 58 02.1	-0.3
NJ2				S	S	02 01 05.0	-5.0
NJ2				PCP	PcP	02 02 06.3	+3.0
NJ2				SCP		02 04 50.3	
NJ2				PCS		02 05 42.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.9s						
NJ2				AMB	AMB		
	comp=Z,130nm,4.7s						
MDJ	**Mudanjiang**	19.45	337	P	P	01 58 05.6	+1.1
MDJ				AMB	AMB		
	comp=Z,28nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,87nm,5.1s						
MDJ	**Mudanjiang**	19.45	337	*e*P	P	01 58 05.8	+1.3
	comp=Z,22nm,0.7s						
CN2	**Changchun**	20.50	328	*e*P	P	01 58 13.6	-0.8
CN2				AMB	AMB		
	comp=Z,20nm,0.8s						
TGY	**Tagaytay City**	22.17	238	P	P	01 58 31.4	+1.3
	comp=Z,162nm,0.3s,baz=123,slow=9.5,SNR=3.2						
TGY	**Tagaytay City**	22.17	238	P	P	01 58 31.4	+1.3
TGY				pmax	pmax		
	comp=Z,162nm,0.3s						
WHN	**Wuhan**	22.91	285	⇓P	P	01 58 36.1	-0.7
BJT	**Baijiatuau**	23.74	309	*e*P	P	01 58 42.7	-1.4

	comp=Z,18nm,0.5s,mb4.8						
BJI	Beijing	23.75	309	P	P	01 58 42.3	-1.9
BJI				AMB	AMB		
	comp=Z,25nm,0.7s,mb4.8						
BJI				AMB	AMB		
	comp=Z,142nm,5.1s						
BJI	Beijing	23.75	309	P	P	01 58 42.3	-1.9
	comp=Z,25nm,0.7s,mb4.8						
ENH	Enshi	27.11	284	eP	P	01 59 13.1	-1.2
	comp=Z,50nm,0.6s,mb5.1						
HIA	Hailar	27.20	330	eP	P	01 59 14.2	-0.7
	comp=Z,33nm,0.7s,mb4.9						
HHC	Hu-ho-hao-te	27.30	307	eP	P	01 59 13.8	-2.0
HHC				AP		01 59 22.8	
HHC				AMB	AMB		
	comp=Z,36nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,107nm,5.2s						
XAN	Xi’an	27.75	292	P	P	01 59 19.2	-0.7
XAN				AMB	AMB		
	comp=Z,23nm,0.7s,mb4.7						
GYA	Guiyang	29.92	277	⇓iP	P	01 59 38.6	-0.2
GYA				AMB	AMB		
	comp=Z,30nm,0.7s,mb4.8						
GYA				AMB	AMB		
	comp=Z,170nm,5.4s						
LZH	Lanzhou	32.10	295	⇓P	P	01 59 57.0	-0.4
LZH				AMB	AMB		
	comp=Z,58nm,1.2s,mb4.9						
LZH	Lanzhou	32.10	295	⇓P	P	01 59 57.0	-0.4
	comp=Z,58nm,1.2s,mb4.9						
LZH				pP	tx	02 00 14.0	
LZH				sP	tx	02 00 23.5	
ULN	Ulaanbaatar	33.13	318	d iP	P	02 00 05.9	+0.1
ULN				i *PP		02 01 39.5	
ULN	Ulaanbaatar	33.13	318	eP	P	02 00 05.8	-0.1
	comp=Z,33nm,1.0s,mb4.7						
MA2	Magadan	33.27	10	eP	P	02 00 17.6	+11
MA2				pmax	pmax		
	comp=Z,180nm,2.9s,mb5.0						
SONM	Songino Array	33.51	317	P	P	02 00 09.1	+0.1
	comp=Z,9.3nm,0.6s,mb4.4,baz=124,slow=7.5,SNR=91						
SONM				PcP	PcP	02 02 36.8	0.0
	comp=Z,1.9nm,0.4s,baz=127,slow=3.0,SNR=7.8						
SONM				ScP		02 05 35.2	
	comp=Z,1.4nm,0.7s,baz=139,slow=3.6,SNR=6.4						
KMI	Kunming	33.64	275	eP	P	02 00 11.2	+0.8
KMI				AMB	AMB		
	comp=Z,26nm,0.8s,mb4.7						
KMI	Kunming	33.64	275	eP	P	02 00 11.2	+0.8
	comp=Z,26nm,0.8s,mb4.7						
KMI				pP		02 00 18.9	
YAK	Yakutsk	35.63	351	eP	P	02 00 24.5	-2.1
YAK				eS	S	02 05 21.9	-7.1
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.5						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK				smax			
	comp=E,10.0nm,1.0s						
YAK				smax			
	comp=N,8.0nm,0.9s						
YAK	Yakutsk	35.63	351	P	P	02 00 25.4	-1.2
	comp=N,48nm,1.0s,mb4.9						
GTA	Gaotai	35.67	301	⇓iP	P	02 00 27.3	+0.1
GTA				AP	pP	02 01 53.4	-1.4
GTA				PP	PP	02 02 05.1	+4.8
GTA				PCP	PcP	02 02 43.8	+0.5
GTA				XP	sP	02 02 47.0	-2.0
GTA				S	S	02 05 29.6	-0.3
GTA				SCP		02 05 44.3	
GTA				XS		02 08 03.6	
GTA				SS	SS	02 08 25.7	-0.5
GTA				AMB	AMB		
	comp=Z,29nm,0.9s,mb4.7						
GTA				AMB	AMB		
	comp=Z,118nm,5.0s						
BOD	Bodaibo	35.83	336	eP	P	02 00 27.7	-0.6
TLY	Talaya	36.84	322	eP	P	02 00 37.1	+0.3
	comp=Z,11nm,0.5s,mb4.5						
CMAR	Chiang Mai Arr	38.88	266	P	P	02 00 53.9	+0.1
	comp=Z,6.2nm,0.7s,mb4.2,baz=56,slow=8.5,SNR=34						
CMAR				PcP	PcP	02 02 54.0	+0.6
	comp=Z,2.4nm,0.6s,baz=85,slow=1.6,SNR=8.0						
CMAR				ScP		02 05 55.7	
	comp=Z,1.2nm,0.5s,baz=45,slow=2.0,SNR=4.4						
CMAR	Chiang Mai Arr	38.88	266	P	P	02 00 53.9	+0.1
CMAR						02 02 54.1	
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CMAR				pmax	pmax		
	comp=N,1.0nm,0.5s						
LSA	Lhasa	42.99	285	eP	P	02 01 28.4	+1.6
SHL	Shillong	43.14	279	eP	P	02 01 27.2	-0.8
SHL				eS	S	02 07 16.2	-2.9
TIXI	Tiksi	45.03	355	eP	P	02 01 40.0	-2.2
TIXI				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.4						
WMQ	Urumqi	45.15	306	⇓P	P	02 01 44.0	+0.5
WMQ				AMB	AMB		
	comp=Z,71nm,0.7s,mb5.2						
WRAB	Tennant Creek	47.10	188	i P	P	02 01 59.2	+0.4
WRAB	Tennant Creek	47.10	188	eP	P	02 01 58.4	-0.4
	comp=Z,9.8nm,0.4s,mb4.6						
FITZ	Fitzroy Crossi	47.11	199	eP	P	02 01 59.3	+0.4
	comp=Z,1.6nm,0.4s,mb3.8						
FITZ	Fitzroy Crossi	47.11	199	P	P	02 01 58.7	-0.2
	comp=Z,2.1nm,0.4s,mb3.9,baz=12,slow=9.1,SNR=18						
WB2	Warramunga Arr	47.11	188	eP	P	02 01 58.5	-0.4
WB2				e		02 06 28.4	
WB2				eS	S	02 08 11.1	-3.7
WRA	Warramunga Arr	47.11	188	P	P	02 01 58.6	-0.3
	comp=Z,6.2nm,0.3s,mb4.5,baz=5.0,slow=7.6,SNR=102						
WRA				PcP	PcP	02 03 21.8	+0.2
	comp=Z,2.5nm,0.6s,baz=0.1,slow=3.8,SNR=7.9						
WRA				ScP		02 06 28.3	
	comp=Z,6.1nm,0.9s,baz=1.9,slow=4.5,SNR=11						
WRA				S	S	02 08 11.8	-3.0
	comp=Z,2.7nm,0.8s,baz=6.9,slow=14,SNR=8.2						
WRA	Warramunga Arr	47.11	188	P	P	02 01 58.6	-0.3
WRA						02 03 21.8	
WRA				S	S	02 08 11.8	-3.1
WRA				pmax	pmax		
	comp=Z,6.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
WRA				pmax	pmax		
	comp=N,6.0nm,0.9s						
WRA				smax			
	comp=N,3.0nm,0.8s						
CTA	Charters Tower	47.27	172	P	P	02 02 00.6	+0.5
	comp=N,2.4nm,0.8s,mb3.7,baz=2.4,slow=13,SNR=3.2						
CTA	Charters Tower	47.27	172	P	P	02 02 00.6	+0.5
CTA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
GUN	Gumba	47.87	284	eP	P	02 02 05.4	+0.9
	comp=Z,106nm,0.4s,mb5.5						
GUN	Gumba	47.87	284	eP	P	02 02 05.2	+0.7
	comp=Z,52nm,0.4s,mb5.2						
PKI	Pulchoki	48.35	284	eP	P	02 02 08.1	-0.1
	comp=Z,33nm,0.6s,mb4.9						
ZAL	Zalesovo	48.35	319	P	P	02 02 07.2	-0.6
	comp=Z,25nm,0.5s,mb4.8,baz=3.3,slow=7.2,SNR=132						
ZAL				PcP	PcP	02 03 25.0	-0.7
	comp=Z,6.1nm,0.3s,baz=348,slow=5.3,SNR=6.4						
ZAL				ScP		02 06 32.3	
	comp=Z,1.3nm,0.6s,baz=338,slow=6.7,SNR=4.1						
ZAL	Zalesovo	48.35	319	P	P	02 02 07.2	-0.6
ZAL						02 03 25.0	
ZAL				pmax	pmax		
	comp=Z,25nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.4s						
ZAL				pmax	pmax		
	comp=N,1.0nm,0.6s						
ZAL	Zalesovo	48.35	319	P	P	02 02 07.2	-0.6
ZAL				PcP	PcP	02 03 25.0	-0.7
ZAL				ScP		02 06 32.3	
KKN	Kakani	48.41	284	eP	P	02 02 08.8	+0.2
	comp=N,42nm,0.6s,mb4.9						
DMN	Daman	48.60	284	eP	P	02 02 10.2	+0.1
	comp=N,46nm,0.5s,mb5.1						
GKN	Gorkha	48.92	285	eP	P	02 02 12.5	+0.1
	comp=N,28nm,0.4s,mb5.0						
MKAR	Makanchi Array	49.12	310	i P	P	02 02 13.3	-0.4
MKAR				pmax	pmax		
	comp=Z,14nm,0.4s						
KOLN	Koldanda	49.87	285	eP	P	02 02 19.6	+0.1
	comp=Z,15nm,0.3s,mb4.8						
ASAR	Alice Springs	50.84	187	P	P	02 02 25.6	-1.2
	comp=Z,2.2nm,0.3s,mb3.9,baz=355,slow=5.0,SNR=55						
ASAR				PcP	PcP	02 03 35.5	+0.1
	comp=Z,1.6nm,0.5s,baz=13,slow=4.2,SNR=7.7						
ASAR				ScP		02 06 44.5	
	comp=Z,2.1nm,1.0s,baz=6.7,slow=3.7,SNR=8.1						
ASAR				S	S	02 09 03.0	-2.7
	comp=Z,1.9nm,1.1s,baz=13,slow=12,SNR=4.0						
ASPA	Alice Springs	50.84	187	eP	P	02 02 26.0	-0.8
ASPA				eS	S	02 09 03.3	-2.4
KURK	Kurchatov	51.73	315	d iP	P	02 02 32.1	-0.9
KURK	Kurchatov	51.73	315	eP	P	02 02 32.0	-1.0
	comp=Z,50nm,0.7s,mb5.0						
ULHL	Ulahol	53.57	304	P	P	02 02 46.7	+0.4
	SNR=12						
TKM2	Tokmak 2	53.98	305	P	P	02 02 49.7	+0.5
	SNR=29						
TKM2	Tokmak 2	53.98	305	eP	P	02 02 49.6	+0.4
	comp=Z,18nm,0.6s,mb4.6						
KSH	Kashi	54.07	301	eP	P	02 02 51.4	+1.5
KZA	Kyzart	54.32	304	P	P	02 02 52.7	+1.1
	SNR=7.0						
KBK	Karagaybulak	54.48	305	P	P	02 02 52.9	+0.2
	SNR=9.9						
CHMS	Chumysh	54.59	305	P	P	02 02 53.4	-0.1
	SNR=9.6						
USP	Ospenovka	54.75	305	P	P	02 02 54.5	-0.1
	SNR=20						
AAK	Ala-Archa	54.81	305	P	P	02 02 55.1	0.0
	SNR=6.2						
AAK	Ala-Archa	54.81	305	d iP	P	02 02 54.0	-1.1
AAK				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.2						
AAK	Ala-Archa	54.81	305	eP	P	02 02 53.9	-1.2
	comp=Z,18nm,0.6s,mb4.6						
AAK				ePcP	PcP	02 03 49.1	-1.1
UCH	Uchtor	54.84	304	P	P	02 02 56.5	+1.2
	SNR=51						
UCH	Uchtor	54.84	304	eP	P	02 02 56.2	+0.9
	comp=Z,38nm,0.7s,mb4.8						
UCH				ePcP	PcP	02 03 51.0	+0.8
NDI	New Delhi	55.12	287	eP	P	02 02 55.0	-2.4
DLH	Dalhousie	55.28	292	eP	P	02 02 58.0	-0.5
EKS2	Erkin-Say	55.34	305	P	P	02 02 58.9	+0.1
	SNR=16						
EKS2	Erkin-Say	55.34	305	eP	P	02 02 58.3	-0.5
	comp=Z,19nm,0.9s,mb4.4						
EKS2				ePcP	PcP	02 03 52.0	-0.2
AML	Almayashu	55.46	304	P	P	02 03 00.6	+1.0
	SNR=20						
AML	Almayashu	55.46	304	eP	P	02 03 00.4	+0.8
	comp=Z,33nm,0.6s,mb4.8						
AML				ePcP	PcP	02 03 53.4	+0.7
THN	Thein Dam	55.51	292	eP	P	02 02 55.0	-5.1
CHKZ	Chkalovo	56.70	318	i P	P	02 03 06.2	-1.8
CHKZ				pmax	pmax		
	comp=Z,25nm,0.7s,mb4.7						
CHKZ	Chkalovo	56.70	318	eP	P	02 03 06.8	-1.3
	comp=Z,33nm,0.7s,mb4.8						
CHKZ				ePcP	PcP	02 03 55.6	-1.9
BVA0	Borovoye Array	56.85	317	i P	P	02 03 08.7	-0.4
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb3.9						
BVAR	Borovoye Array	56.85	317	P	P	02 03 08.7	-0.4
	comp=Z,54nm,0.4s,mb5.2,baz=90,slow=7.0,SNR=424						
BVAR				PcP	PcP	02 03 57.2	-0.9
	comp=Z,9.5nm,0.7s,baz=90,slow=4.4,SNR=5.2						
BRVK	Borovoye	56.92	317	eP	P	02 03 08.9	-0.6
	comp=Z,48nm,0.7s,mb4.9						
BRVK				ePcP	PcP	02 03 57.6	-0.7
HYB	Hyderabad	57.41	274	i P	P	02 03 13.0	-0.3
ILAR	Eielson Array	58.54	29	P	P	02 03 19.7	-0.7
	comp=Z,0.7nm,0.4s,baz=249,slow=5.8,SNR=31						
ILAR				PcP	PcP	02 04 03.9	-0.7
	comp=Z,0.9nm,0.7s,baz=292,slow=4.6,SNR=6.4						
ILAR				pP	pP	02 04 58.5	-0.3
	comp=Z,1.3nm,1.0s,baz=271,slow=6.3,SNR=4.6						
ILAR	Eielson Array	58.54	29	P	P	02 03 19.7	-0.7
ILAR						02 04 03.9	
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ILAR				pmax	pmax		
	comp=N,1.0nm,1.0s						
STKA	Stephens Creek	58.67	179	P	P	02 03 21.7	+0.1
	comp=N,3.6nm,0.7s,mb3.8,baz=321,slow=3.3,SNR=4.1						
STKA	Stephens Creek	58.67	179	P	P	02 03 21.6	-0.1
FORT	Forrest	58.72	192	eP	P	02 03 21.5	-0.5
	comp=N,41nm,0.7s,mb4.9						
POO	Poona	61.18	277	⇓iP	P	02 03 36.0	-2.5
ARU	Arti	63.34	322	⇑iP	P	02 03 51.4	-0.7
ARU				e		02 04 22.7	
ARU				e		02 06 19.4	
ARU				eS	S	02 11 38.1	-7.8
ARU				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.0						
ARU	Arti	63.34	322	eP	P	02 03 51.4	-0.7
	comp=Z,47nm,0.4s,mb5.4						
ARU				ePcP	PcP	02 04 22.2	-2.0
INK	Inuvik	63.75	24	P	P	02 03 54.5	+0.1
	comp=Z,1.4nm,0.4s,mb3.8,baz=296,slow=7.4,SNR=19						
INK	Inuvik	63.75	24	P	P	02 03 54.5	+0.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
SOKR	Solikamsk	63.77	326	⇓iP	P	02 03 52.3	-2.4
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.7						
KEV	Kevo	72.39	340	ep	P	02 04 46.3	-0.5
ARCES	ARCESS Array B	72.95	340	P	P	02 04 50.5	+0.5
	comp=Z,26nm,0.7s,mb4.8,baz=71,slow=8.3,SNR=143						
ARCES	ARCESS Array B	72.95	340	P	P	02 04 50.5	+0.5
ARCES				pmax	pmax		
	comp=Z,26nm,0.7s						
ARE0	ARCESS Array S	72.95	340	eP	P	02 04 50.4	+0.4
YKA	Yellowknife Ar	72.96	28	P	P	02 04 50.6	+0.5
	comp=Z,2.8nm,0.4s,mb4.2,baz=297,slow=5.7,SNR=62						
YKA	Yellowknife Ar	72.96	28	P	P	02 04 50.6	+0.5
YKA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
YKA	Yellowknife Ar	72.96	28	eP	P	02 04 50.6	+0.5
KTK1	Kautokeino	73.92	340	eP	P	02 04 56.2	+0.7
KTK1				AMb	AMB	02 04 57.9	
	comp=Z,43nm,1.4s,mb4.8						
KTK1	Kautokeino	73.92	340	eP	P	02 04 56.2	+0.7
	comp=Z,43nm,1.4s,mb4.8						
JOF	Joensuu	74.30	333	ep	P	02 04 56.7	-1.0
	comp=Z,25nm,0.5s,mb5.0						
JOF	Joensuu	74.30	333	eP	P	02 04 56.7	-1.0
JOF				pmax	pmax		
	comp=Z,25nm,0.5s,mb5.0						
TRO	Tromso	74.79	342	eP	P	02 04 59.5	-0.8
TRO				AMb	AMB	02 05 00.6	
	comp=Z,78nm,1.8s,mb5.0						
TRO	Tromso	74.79	342	eP	P	02 04 59.5	-0.8
	comp=Z,78nm,1.8s,mb4.9						
OBN	Obninsk	75.52	325	eP	P	02 05 04.8	+0.1
	comp=Z,26nm,0.7s,mb4.9						
VRSR	Storozhevoye	75.82	320	d iP	P	02 05 06.6	+0.2
VRSR				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.2						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.7s						
KAF	Kangasniemi	76.70	334	ep	P	02 05 10.0	-1.0
	comp=E,40nm,0.5s,mb5.2,baz=55,slow=5.1						
KAF	Kangasniemi	76.70	334	eP	P	02 05 10.0	-1.0
KAF				pmax	pmax		
	comp=Z,40nm,0.5s,mb5.2						
KIV	Kislovodsk	76.76	313	d iP	P	02 05 12.3	+0.6
KIV				pmax	pmax		
	comp=E,9.0nm,1.0s						
KIV				pmax	pmax		
	comp=Z,23nm,1.0s,mb4.7						
KIV	Kislovodsk	76.76	313	eP	P	02 05 12.2	+0.5
	comp=Z,16nm,0.7s,mb4.7						
GNI	Garni	76.95	308	P	P	02 05 13.5	+0.7
	comp=Z,2.5nm,0.4s,mb4.1,baz=101,slow=5.2,SNR=6.5						
GNI	Garni	76.95	308	d iP	P	02 05 14.1	+1.3
GNI				pmax	pmax		
	comp=Z,17nm,1.3s						
GNI	Garni	76.95	308	eP	P	02 05 13.9	+1.1
	comp=Z,28nm,1.0s,mb4.8						
FINES	FINESS Array B	77.16	333	P	P	02 05 13.6	+0.1
	comp=Z,47nm,0.4s,mb5.3,baz=68,slow=5.4,SNR=737						
FINES	FINESS Array B	77.16	333	P	P	02 05 13.6	+0.1
FINES				pmax	pmax		
	comp=Z,47nm,0.4s						
YBH	Yreka Blue Hor	77.38	50	P	P	02 05 17.6	+2.5
	comp=Z,2.5nm,0.8s,mb3.8,baz=8.0,slow=6.0,SNR=3.6						
YBH	Yreka Blue Hor	77.38	50	P	P	02 05 17.6	+2.5
YBH				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MOR8	Moi Rana	78.33	340	eP	P	02 05 18.8	-0.9
MOR8				AMb	AMB	02 05 19.4	
	comp=Z,59nm,0.8s,mb5.0						
MOR8	Moi Rana	78.33	340	eP	P	02 05 18.8	-0.9
	comp=Z,59nm,0.8s,mb5.1						
SOC	Sochi	78.86	313	eP	P	02 05 23.4	+0.4
SOC				e		02 08 36.2	
SOC				eSSS	SSS	02 23 31.7	+5.2
SOC				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.0						
SOC				pmax	pmax		
	comp=N,12nm,0.9s						
SOC				pmax	pmax		
	comp=E,6.0nm,0.6s						
UMR	Umm Al-Rimmam	79.14	298	eP	P	02 05 25.5	+0.8
QRN	Al-Qurain	79.32	297	eP	P	02 05 26.1	+0.4
MIB	Mutribah	79.33	298	eP	P	02 05 26.4	+0.6
MIB				AMb	AMB	02 05 26.9	
	comp=Z,122nm,0.7s,mb5.5						
ERZM	Erzurum	79.40	309	i P	P	02 05 27.3	+1.4
RDF	Al-Radifah	79.54	297	eP	P	02 05 27.9	+1.0
RDF				AMb	AMB	02 05 29.2	
	comp=Z,120nm,0.7s,mb5.6						
RST	Umm Al-Ruwaisa	79.73	298	eP	P	02 05 28.2	+0.4
RST				AMb	AMB	02 05 28.8	
	comp=Z,134nm,0.7s,mb5.6						
ANN	Anapa	79.76	315	⇓iP	P	02 05 28.6	+0.9
ANN				pmax	pmax		
	comp=Z,66nm,0.9s,mb5.2						
NSS	Namsos	80.22	340	eP	P	02 05 28.7	-0.9
NSS				AMb	AMB	02 05 29.4	
	comp=Z,148nm,1.5s,mb5.3						
NSS	Namsos	80.22	340	eP	P	02 05 28.7	-0.9
	comp=Z,148nm,1.5s,mb5.3						
BEST	Besiri	80.36	308	i P	P	02 05 37.2	+6.2
AKASG	Malin Array Be	81.57	323	P	P	02 05 36.9	0.0
	comp=Z,27nm,0.6s,mb5.0,baz=50,slow=5.3,SNR=127						
AKASG	Malin Array Be	81.57	323	P	P	02 05 36.9	0.0
AKASG				pmax	pmax		
	comp=Z,27nm,0.6s						
SIM	Simferopol’	81.75	316	⇓eP	P	02 05 38.4	+0.5
SIM				pmax	pmax		
	comp=Z,33nm,0.7s,mb5.0						
NVAR	Mina Array Bea	81.88	51	P	P	02 05 40.5	+1.8
	comp=Z,1.5nm,0.6s,mb3.7,baz=290,slow=7.4,SNR=11						
MALT	Malatya	82.16	309	eP	P	02 05 41.6	+1.5
	comp=Z,36nm,0.9s,mb4.9						
SVST	Sivas	82.47	311	i P	P	02 05 37.2	-4.5
NB2	NORSAR Subarra	82.95	338	P	P	02 05 43.3	-0.3
	comp=Z,21nm,0.5s,mb4.9,baz=50,slow=4.5						
NB2	NORSAR Subarra	82.95	338	P	P	02 05 43.3	-0.3
	baz=50,slow=4.6						
NOA	NORSAR Array B	82.95	338	P	P	02 05 43.4	-0.2
	comp=Z,22nm,0.5s,mb4.9,baz=46,slow=4.8,SNR=84						
NOA	NORSAR Array B	82.95	338	P	P	02 05 43.4	-0.2
NOA				pmax	pmax		
	comp=Z,22nm,0.5s						
MOL	Molde	83.00	340	eP	P	02 05 46.0	+2.1
MOL				AMb	AMB	02 05 47.7	
	comp=Z,57nm,1.5s,mb4.9						
MOL	Molde	83.00	340	eP	P	02 05 46.0	+2.1
	comp=Z,57nm,1.5s,mb4.9						
NAO01	NORSAR Array S	83.20	338	eP	P	02 05 44.3	-0.5
	comp=Z,26nm,0.6s,mb5.0						
GZT	Gaziantep	83.22	308	i P	P	02 05 46.2	+0.8
MZLS	Mizel	83.56	294	P	P	02 05 48.6	+1.2
BALT	Daday	83.94	314	i P	P	02 05 48.6	-0.4
BRTR	Keskin Array B	84.71	312	P	P	02 05 52.8	0.0
	comp=Z,5.8nm,0.6s,mb4.4,baz=85,slow=3.4,SNR=39						
BRTR	Keskin Array B	84.71	312	P	P	02 05 52.8	0.0
BRTR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HILS	Ha’il	84.77	298	P	P	02 05 54.3	+0.9
AFFS	‘Afif	85.40	294	P	P	02 05 57.1	+0.6
PDAR	Pinedale Array	85.43	44	P	P	02 05 57.5	+1.4
	comp=Z,0.9nm,0.8s,baz=245,slow=2.3,SNR=6.2						
PDAR				pP	pP	02 07 45.9	+1.7
	comp=Z,0.9nm,1.0s,baz=301,slow=5.3,SNR=3.6						
KWP	Kalwaria	85.61	325	eP	P	02 05 57.6	+0.7
	comp=Z,38nm,1.0s,mb5.0						
KAMS	Al Khamasin	85.75	291	P	P	02 05 58.2	-0.1
KOLS	Kolonicke sedl	86.27	324	eP	P	02 06 00.2	+0.2
KOLS				e		02 06 02.7	
KOLS				e		02 06 08.8	
ESKT	Eskisehir	86.65	313	i P	P	02 06 00.6	-1.5
CRVS	Cervenica-Dubn	86.70	325	eP	P	02 06 03.1	+0.9
CRVS				e		02 06 05.2	
OJC	Ojcow	86.72	326	eP	P	02 06 02.2	0.0
NIE	Niedzica	86.97	325	eP	P	02 06 04.0	+0.6
TATS	Tathlith	87.02	290	P	P	02 06 05.3	+1.0
ULDT	Uludag	87.41	314	i P	P	02 06 05.4	-0.4
KBRS	Khaybar	87.52	298	P	P	02 06 07.0	+0.4
OKC	Ostrava-Krasne	87.77	327	eP	P	02 06 07.6	+0.4
KSP	Ksiaz	88.00	328	eP	P	02 06 08.4	+0.2
MORC	Moravsky Berou	88.11	327	eP	P	02 06 08.7	0.0
	comp=Z,9.0nm,0.7s,mb4.6						
NAMS	An Nimas	88.26	291	P	P	02 06 11.1	+0.9
VYHS	Vyhne	88.31	325	i P	P	02 06 10.5	+0.8
VYHS				e		02 06 11.7	
VYHS				e		02 06 15.3	
DPC	Dobruska-Polom	88.31	328	eP	P	02 06 10.0	+0.3
BTOK	Tokmak	88.33	314	i P	P	02 06 09.3	-0.7
UPC	Upice	88.35	328	eP	P	02 06 10.4	+0.5
BLJS	Baljurashi	88.43	291	P	P	02 06 11.8	+0.9
JMQS	Jabal Moqyreh	88.62	302	D		02 06 11.7	
SMOL	Smolenice	89.00	326	eP	P	02 06 14.1	+1.1
PVCC	Panska Ves	89.01	329	eP	P	02 06 13.1	+0.1
BRG	Berggiesshubel	89.06	329	eP	P	02 06 13.3	+0.1
BRG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
BRG	Berggiesshubel	89.06	329	eP	P	02 06 13.3	+0.1
	comp=Z,7.1nm,0.8s,mb4.5						
CLL	Collm	89.18	330	⇓iP	P	02 06 13.3	-0.4
CLL				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.7						
CLL	Collm	89.18	330	⇓iP	P	02 06 13.3	-0.4
	comp=Z,16nm,1.2s,mb4.7						
CLL				e		02 06 47.0	
CLL	Collm	89.18	330	⇓P	P	02 06 13.3	-0.4
	comp=Z,logA/T=1.1,mb4.7						
YNBS	Yanbu‘ al Bahr	89.23	297	P	P	02 06 15.9	+1.3
ZST	Bratislava	89.38	326	eP	P	02 06 15.3	+0.6
ZST				e		02 06 21.4	
PRU	Pruhonice	89.40	328	eP	P	02 06 15.0	+0.2
AYDN	Tasoluk	89.61	313	i P	P	02 06 16.3	+0.2
NKC	Novy Kostel	90.19	329	eP	P	02 06 18.8	+0.4
MOX	Moxa	90.27	330	eP	P	02 06 18.9	+0.1
MOX				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.4						
MOX	Moxa	90.27	330	i P	P	02 06 18.9	+0.1
	comp=Z,logA/T=0.8,mb4.4						
MOX	Moxa	90.27	330	eP	P	02 06 18.9	+0.1
	comp=Z,10.0nm,1.5s,mb4.4						
KHC	Kasperske Hory	90.45	328	eP	P	02 06 19.2	-0.4
GERES	GERESS Array B	90.59	328	P	P	02 06 19.9	-0.4
	comp=Z,12nm,0.9s,mb4.8,baz=42,slow=4.7,SNR=60						
GERES	GERESS Array B	90.59	328	P	P	02 06 19.9	-0.4
GERES				pmax	pmax		
	comp=Z,12nm,0.9s						
GRA1	Grafenberg Arr	91.13	330	eP	P	02 06 23.4	+0.7
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	91.13	330	eP	P	02 06 23.4	+0.7
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	91.13	330	eP	P	02 06 23.4	+0.7
	comp=Z,15nm,0.9s,mb4.9						
ANMO	Albuquerque	91.80	49	d iP	P	02 06 29.1	+2.9
PDKS	Podkum	91.88	325	i P	P	02 06 26.1	-0.1
LJU	Ljubljana	92.13	326	i P	P	02 06 27.1	-0.3
JAVS	Javornik	92.47	326	i P	P	02 06 28.3	-0.7
CDF	Champ du Feu	93.83	331	eP	P	02 06 34.7	-0.5
	comp=Z,13nm,0.9s,mb4.7						

BAIF	Baives	93.84	333	eP	P	02 06 34.4	-0.8
HINF	Hinteralfeld	94.46	331	eP	P	02 06 37.3	-0.8
	comp=Z,7.1nm,0.9s,mb4.4						
HAU	Haudompre	94.54	331	eP	P	02 06 37.6	-0.8
	comp=Z,4.0nm,0.6s,mb4.3						
MEZF	Maizieres J'vi	94.71	332	eP	P	02 06 38.8	-0.4
	comp=Z,10nm,0.7s,mb4.7						
CABF	La Chapelle	95.72	330	eP	P	02 06 43.1	-0.7
LPL	La Plagne	96.26	329	eP	P	02 06 45.9	-0.4
	comp=Z,13nm,0.6s,mb4.9						
LPG	La Plagne	96.27	329	eP	P	02 06 46.1	-0.2
	comp=Z,10nm,0.5s,mb4.9						
SSF	Saint Saulge	96.48	332	eP	P	02 06 46.5	-0.7
SMF	Signal de Mont	96.67	331	eP	P	02 06 47.2	-0.9
AVF	Avril sur Loir	96.76	332	eP	P	02 06 48.1	-0.4
MBDF	Montbardon	96.85	329	eP	P	02 06 48.9	-0.1
	comp=Z,20nm,0.8s,mb5.1						
TXAR	Lajitas Array	96.99	52	P	P	02 06 51.9	+1.9
	comp=Z,0.5nm,0.5s,mb4.0,baz=311,slow=2.3,SNR=10						
ORIF	Oris-en-Rattie	97.11	329	eP	P	02 06 49.5	-0.7
TCF	Toulx Ste Croi	97.64	332	eP	P	02 06 51.9	-0.6
VIVF	Saint-Julien-l	97.70	330	eP	P	02 06 52.1	-0.8
	comp=Z,19nm,1.0s,mb5.1						
MFF	Saint Martin d	98.35	334	eP	P	02 06 54.5	-1.2
SNAA	Sanae	130.94	195	⇑iP	PKPdf	02 12 25.7	+0.9
SNAA	Sanae	130.94	195	PKP	PKPdf	02 12 26.1	+1.3
	comp=Z,0.8nm,0.6s,baz=209,slow=3.0,SNR=14						
SNAA	Sanae	130.94	195	PKIKP	PKPdf	02 12 26.1	+1.3
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
DBIC	Dimbokro	132.36	310	PKP	PKPdf	02 12 30.4	+1.5
	comp=Z,3.7nm,0.6s,baz=283,slow=0.5,SNR=7.1						
DBIC	Dimbokro	132.36	310	PKIKP	PKPdf	02 12 30.5	+1.5
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.6s						
VNA2	Neumayer--Watz	132.49	194	⇓iPKPdf	PKPdf	02 12 31.4	+3.7
VNA2				e		02 15 11.7	
VNA3	Neumayer Olymp	132.71	193	⇓iPKPdf	PKPdf	02 12 32.1	+4.0
VNA3				e		02 15 12.4	
VNA1	Neumayer--Stat	132.89	194	⇑iPKPdf	PKPdf	02 12 31.9	+3.5
VNA1				e		02 15 11.9	
SAML	Samuel	151.43	55	ePKPbc	PKPdf	02 13 10.7	+8.8
SAML				epPKPdf		02 15 04.2	
LPAZ	La Paz	151.61	74	PKPbc	PKPdf	02 13 12.7	+11
	comp=Z,6.3nm,0.7s,baz=280,slow=2.4,SNR=35						
LPAZ	La Paz	151.61	74	PKIKP	PKPdf	02 13 12.7	+11
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.7s						
LPAZ	La Paz	151.61	74	ePKPbc	PKPdf	02 13 12.7	+11
MOCB	Mochara	155.72	82	ePKPdf	PKPdf	02 13 11.9	+4.3

*IDC **09** 02:35:12.8±0.8,6.17S×149.43E,mb4.2/10,mb1 4.4/12, mb1mx4.3/17,ML3.9/2,MS3.6/6,Ms1 3.6/6,ms1mx3.5/14, Error ellipse: s-maj=32.2km s-min=17.3km az=107.0*

*NEIC **09** 02:35:18.8±1.8,6.23S×149.23E,h36^{km}±15^{km},mb4.5/11, Error ellipse: s-maj=15.1km s-min=10.4km az=98.0*

ISC 09 02:35:14.4±3.3**,6.21S**±0.08×**149.2E**±0.1**,h16**^{km}±24^{km}**, n38,**σ0^{s}**99**/38**,mb4.2**/16**,MS3.5**/4**,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.76	212	Pn	Pn	02 36 15.6	+2.4
	96nm,0.3s,baz=32,slow=5.7,SNR=274						
PMG				Sn	Sn	02 36 57.0	-0.6
	89nm,0.3s,baz=79,slow=17,SNR=12						
PMG				LR	LR	02 37 57.5	
	comp=Z,632nm,20.8s,baz=137,slow=42						
PMG	Port Moresby	3.76	212	ePn	Pn	02 36 14.4	+1.2
PMG				eS	Sn	02 36 56.2	-1.4
PMG				Sn	Sn	02 36 57.0	-0.6
PMG				LR	LR	02 37 57.5	
CTA	Charters Tower	14.09	191	Pn	P	02 38 36.0	+0.3
	0.2nm,0.3s,baz=11,slow=15,SNR=4.2						
CTA				LR	LR	02 43 43.6	
	comp=Z,225nm,19.1s,baz=43,slow=36						
CTAO	Charters Tower	14.09	191	eP	P	02 38 29.9	-5.9
	10nm,1.1s						
KAKA	Kakadu	17.74	247	eP	P	02 39 23.0	+0.3
	14nm,0.8s						
KAKA				eS	S	02 42 37.2	-0.5
WRAB	Tennant Creek	19.86	225	eP	P	02 39 46.8	-1.1
	26nm,0.7s						
WB2	Warramunga Arr	19.86	225	eP	P	02 39 46.9	-1.1
WB2				eS	S	02 43 36.8	+12
WRA	Warramunga Arr	19.87	225	P	P	02 39 47.6	-0.5
	5.4nm,0.4s,baz=48,slow=10,SNR=49						
WRA				ScP		02 47 40.4	
	0.4nm,0.7s,baz=42,slow=2.3,SNR=5.6						
ASAR	Alice Springs	22.75	219	P	P	02 40 17.9	+0.5
	2.1nm,0.4s,mb3.9,baz=56,slow=9.1,SNR=37						
ASAR				LR	LR	02 48 39.9	
	comp=Z,111nm,18.7s,MS3.3,baz=28,slow=35						
ASPA	Alice Springs	22.75	219	eP	P	02 40 18.0	+0.6
ASPA				eS	S	02 44 23.5	+2.7
FITZ	Fitzroy Crossi	25.85	241	eP	P	02 40 47.5	+0.3
	40nm,1.1s,mb4.9						
FITZ	Fitzroy Crossi	25.85	241	P	P	02 40 47.5	+0.3
	18nm,0.6s,mb4.8,baz=68,slow=3.9,SNR=84						
FITZ				LR	LR	02 52 42.4	
	comp=Z,74nm,18.6s,MS3.2,baz=180,slow=40						
STKA	Stephens Creek	26.50	195	eP	P	02 40 53.4	+0.2
	5.0nm,1.0s,mb4.0						
STKA	Stephens Creek	26.50	195	P	P	02 40 53.2	+0.1
	3.9nm,0.6s,mb4.1,baz=350,slow=12,SNR=8.3						
STKA				LR	LR	02 52 06.0	
	comp=Z,227nm,19.4s,MS3.7,baz=28,slow=38						
STKA	Stephens Creek	26.50	195	eP	P	02 40 52.9	-0.3
MBWA	Marble Bar	32.17	240	eP	P	02 41 42.7	-1.3
	12nm,0.8s,mb4.8						
NWAO	Narrogin (SRO)	39.87	224	P	P	02 42 50.1	+0.8
	25nm,1.4s,mb4.8						
KS15	Wonju Array Si	47.77	337	P	P	02 43 52.0	-1.1
COCO	West Island	51.97	259	P	P	02 44 28.0	+2.5
	115nm,1.0s						
HIA	Hailar	60.93	338	P	P	02 45 28.9	-0.2
	5.4nm,0.8s,mb4.7						
SONM	Songino Array	65.67	330	P	P	02 46 00.9	+0.6
	0.7nm,0.7s,mb3.8,baz=145,slow=6.3,SNR=5.7						
VNDA	Vanda	71.58	177	P	P	02 46 35.8	-0.8
	1.3nm,0.6s,mb4.0,baz=342,slow=6.8,SNR=9.5						
VNDA				LR	LR	03 12 38.5	
	comp=Z,56nm,18.9s,MS3.9,baz=324,slow=31						
VNDA	Vanda	71.58	177	eP	P	02 46 35.2	-1.4
	3.5nm,0.8s,mb4.3						
VNDA				e		02 46 42.5	
VNDA				LR	LR	03 12 38.5	
ZAL	Zalesovo	80.37	327	P	P	02 47 26.9	+0.4
	0.6nm,0.5s,mb3.8,baz=354,slow=8.3,SNR=3.6						
ZAL	Zalesovo	80.37	327	P	P	02 47 26.9	+0.4
TKM2	Tokmak 2	82.35	315	P	P	02 47 32.6	-4.5
	2.1nm,1.0s,mb4.0						
UCH	Uchtor	82.94	314	P	P	02 47 40.9	+0.7
	1.4nm,0.9s,mb4.0						
AML	Almayashu	83.50	314	P	P	02 47 43.0	-0.1
	2.8nm,0.7s,mb4.4						
ILAR	Eielson Array	84.82	23	P	P	02 47 47.4	-1.9
	1.7nm,1.0s,mb4.1,baz=245,slow=4.8,SNR=10						
BVAR	Borovoye Array	88.23	324	P	P	02 48 06.1	-0.1
	0.6nm,0.5s,mb4.1,baz=119,slow=7.6,SNR=4.1						
CHKZ	Chkalovo	88.25	324	P	P	02 48 06.0	-0.3
	0.6nm,0.6s,mb4.0						
INK	Inuvik	91.06	21	P	P	02 48 20.6	+1.5
	0.9nm,0.9s,mb4.1,baz=243,slow=6.8,SNR=3.0						
GERES	GERESS Array B	123.31	326	PKP	PKPdf	02 54 11.2	-3.5
	0.3nm,0.5s,baz=45,slow=2.8,SNR=3.5						
LPAZ	La Paz	136.82	122	PKP	PKPdf	02 54 39.3	-1.7
	0.7nm,0.5s,baz=12,slow=5.8,SNR=3.4						
SDV	Santo Domingo	140.43	84	ePKPpre		02 54 38.4	
SDV				ePKPdf	PKPdf	02 54 45.4	-2.4
BDFB	Brasilia	152.39	142	PKPbc	PKPdf	02 55 12.0	+4.5
	9.9nm,0.5s,baz=236,slow=0.5,SNR=25						
BAO	Brasilia Array	152.41	142	P	PKPdf	02 55 12.0	+4.4
BAO				i		02 55 19.3	
BAO				e		02 55 22.0	
DBIC	Dimbokro	154.22	272	PKPbc	PKPdf	02 55 17.5	+7.3
	3.1nm,1.0s,baz=355,slow=9.2,SNR=3.6						
DBIC				PKPab	PKPab	02 55 30.1	-1.0
	0.9nm,0.4s,baz=41,slow=9.2,SNR=4.3						

*BJI **09** 02:44:21.4,43.12N×12.82E,h28^{km},mB4.8,mb4.9,Ms4.4, Msz4.0*

*IDC **09** 02:44:23.4±0.8,42.90N×13.72E,mb4.0/14,mb1 4.1/25, mb1mx4.1/31,ML4.0/9,MS3.6/1,Ms1 3.6/1,ms1mx2.8/26, Error ellipse: s-maj=13.8km s-min=12.4km az=78.0*

*MOS **09** 02:44:23.4±0.7,42.89N×13.73E,h15^{km},mb4.2/12,Error ellipse: s-maj=8.5km s-min=4.2km az=81.2*

*PRU **09** 02:44:23.5,42.80N×13.08E*

*CSEM **09** 02:44:23.8±0.0,42.79N×13.85E,h16^{km},mb4.3/13, ML4.2/19,Error ellipse: s-maj=1.1km s-min=0.8km az=17.0*

*ZUR **09** 02:44:23.3,42.75N×13.78E,h10^{km},ML4.3/10*

*PDG **09** 02:44:24.7±1.8,42.88N×13.83E,h13^{km}±4^{km}*

*ROM **09** 02:44:25.2±0.2,42.79N×13.79E,h5^{km},MD3.9/3,ML4.0, Error ellipse: s-maj=1.5km s-min=1.1km az=90.0*

*ZUR_RM **09** 02:44:25,42.79N×13.79E,h12^{km},Mw4.2/27,Moment Tensor Solution. s27 Moment tensor: Scale 10^{15}Nm; M$_{rr}$0.10; M$_{\theta\theta}$-0.00; M$_{\phi\phi}$-0.10; M$_{r\theta}$0.87; M$_{\theta\phi}$0.25; M$_{\phi r}$-1.86; Best double couple: M$_0$2.07×10^{15} NP1:ϕ_s155°,δ87°,λ94°. NP2:ϕ_s281°,δ4°,λ36°. Principal axes: T 1.98, Plg47°, Azm69°; N .173, Plg4°, Azm335°; P -2.153, Plg42°, Azm242°;*

*NEIC **09** 02:44:25.3,42.79N×13.79E,h5^{km},mb4.3/12, ML4.7(STR),ML4.6(PDG),ML4.2(LDG),ML4.1(SZGRF), ML4.0(ROM),After ROM.*

NEIC Felt in parts of Abruzzo.

*LDG **09** 02:44:26.4±0.1,42.95N×13.91E,h10^{km},Ml4.2/24, ms3.2/5,Error ellipse: s-maj=5.2km s-min=2.9km az=48.0*

*STR **09** 02:44:34.8±0.8,43.47N×13.26E,h10^{km}±1^{km},Ml4.7,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 09 02:44:23.5±0.1**,42.89N**±0.01×**13.83E**±0.01**,h10**^{km}**,n447,** σ**1**^{s}**34**/546**,mb4.3**/25**,MS4.0**/4**,32C-23D,Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TERO	Teramo	0.31	212	⇑iPG	Pg	02 44 30.5	+0.5
TERO				SG	Sg	02 44 34.8	+0.5
TERO	Teramo	0.31	212	⇑iPg	Pg	02 44 30.5	+0.5
TERO				eSg	Sg	02 44 34.8	+0.5
CAMP	Campotosto	0.47	221	ePG	Pg	02 44 32.9	-0.1
CAMP				SG	Sg	02 44 39.2	-0.1
VCEL	Villa Celiera	0.49	179	ePG	Pg	02 44 34.0	+0.5
AQU	L'Aquila	0.62	211	ePG	Pg	02 44 35.1	-0.9
AQU	L'Aquila	0.62	211	ePg	Pg	02 44 35.1	-0.8
LNSS	Leonessa	0.65	244	ePG	Pg	02 44 36.3	-0.2
LNSS				SG	Sg	02 44 45.6	+0.4
FAGN	Fagnano	0.65	196	ePG	Pg	02 44 36.2	-0.3
CING	Cingoli	0.67	317	ePG	Pg	02 44 38.7	+1.6
CING				SG	Sg	02 44 53.0	+6.9
CING	Cingoli	0.67	317	ePg	Pg	02 44 38.7	+1.6
CING				eSg	Sg	02 44 53.0	+6.8
SNTG	Esanatoglia	0.75	300	ePG	Pg	02 44 39.3	+0.8
SNTG	Esanatoglia	0.75	300	ePg	Pg	02 44 39.3	+0.8
FIAM	Fiamignano	0.81	221	ePG	Pg	02 44 41.2	+1.4
FIAM	Fiamignano	0.81	221	ePg	Pg	02 44 41.2	+1.4
INTR	Introdacqua	0.88	176	ePG	Pg	02 44 39.5	-1.6
INTR				SG	Sg	02 44 54.9	+2.0
INTR	Introdacqua	0.88	176	ePg	Pg	02 44 39.5	-1.6
INTR				eSg	Sg	02 44 54.9	+2.1
ARV	Arcevia	0.89	314	ePG	Pg	02 44 42.9	+1.5
ARV	Arcevia	0.89	314	ePg	Pg	02 44 42.9	+1.6
PTQR	Pietraquaria	0.92	200	ePG	Pg	02 44 40.9	-1.1
MNS	Montasola	0.98	240	ePG	Pg	02 44 41.7	-1.5
MNS	Montasola	0.98	240	ePg	Pg	02 44 41.7	-1.5
MURB	Monte Urbino	1.03	292	ePG	Pg	02 44 45.9	+1.8
MURB				SG	Sg	02 45 00.8	+3.0
MURB	Monte Urbino	1.03	292	ePg	Pg	02 44 45.9	+1.8
MURB				eSg	Sg	02 45 00.8	+3.0
FSSB	Fossombrone	1.11	317	ePN	Pn	02 44 47.4	+2.3
	449nm,0.5s						
FSSB	Fossombrone	1.11	317	ePn	Pn	02 44 47.4	+2.3
FSSB	Fossombrone	1.11	317	ePn	Pn	02 44 47.4	+2.3
	449nm,0.5s						
CERT	Cerreto	1.13	214	ePG	Pg	02 44 45.9	-0.2
CERT				SG	Sg	02 45 03.5	+2.4
CERT	Cerreto	1.13	214	ePg	Pg	02 44 45.9	-0.2
CERT				eSg	Sg	02 45 03.5	+2.4
SDI	San Donato	1.18	181	ePN	Pn	02 44 45.1	-0.9
SDI	San Donato	1.18	181	ePg	Pg	02 44 45.1	-2.0
MTCE	Montecelio	1.18	223	⇓iPg	Pg	02 44 47.3	+0.1
MTCE				eSg	Sg	02 45 04.4	+1.5
MTCE	Montecelio	1.18	223	⇓iPg	Pg	02 44 47.3	+0.2
MTCE				eSg	Sg	02 45 04.4	+1.5
CII	Carovilli	1.22	163	ePN	Pn	02 44 47.5	+0.9
CII	Carovilli	1.22	163	ePn	Pn	02 44 47.5	+1.0
MA9	Marino	1.41	218	ePN	Pn	02 44 50.5	+1.1
MA9	Marino	1.41	218	ePn	Pn	02 44 50.5	+1.1
RSM	Repubblica di	1.45	317	ePN	Pn	02 44 53.9	+4.0
RSM	Repubblica di	1.45	317	ePn	Pn	02 44 53.9	+4.0
CRE	Caprese Michel	1.55	299	⇓iPN	Pn	02 44 54.3	+2.9
	552nm,0.5s						
CRE	Caprese Michel	1.55	299	⇓iPn	Pn	02 44 54.3	+2.9
SGG	Gregorio Mates	1.55	164	ePN	Pn	02 44 52.7	+1.3
SGG	Gregorio Mates	1.55	164	ePn	Pn	02 44 52.7	+1.3
TOLF	Tolfa	1.58	239	⇓iPN	Pn	02 44 53.0	+1.2
TOLF	Tolfa	1.58	239	⇓iPn	Pn	02 44 53.0	+1.1
MSC	Monte Massico	1.70	176	ePN	Pn	02 44 55.0	+1.5
MSC	Monte Massico	1.70	176	ePn	Pn	02 44 55.0	+1.6
SFI	Santa Sofia	1.77	306	ePN	Pn	02 44 58.0	+3.6
SFI	Santa Sofia	1.77	306	ePn	Pn	02 44 58.0	+3.5
RGNG	Rignano Grg	1.78	132	ePN	Pn	02 44 55.2	+0.5
IPES	Pescosannita	1.81	155	ePN	Pn	02 44 56.4	+1.3
PGD	Poggio Sodo	1.83	303	ePN	Pn	02 44 58.3	+3.0
PGD	Poggio Sodo	1.83	303	ePn	Pn	02 44 58.4	+3.1
NVLJ	Novalja	1.84	24	i Pn	Pn	02 44 57.4	+1.9
NVLJ				i Sn	Sn	02 45 21.7	+2.7
NVLJ	Novalja	1.84	24	i Pn	Pn	02 44 57.4	+1.9
NVLJ				i Sn	Sn	02 45 21.6	+2.6
FG5	Orsara di Pugl	1.93	146	ePN	Pn	02 44 57.9	+1.1
	2μm,0.7s						
FG5	Orsara di Pugl	1.93	146	ePn	Pn	02 44 57.9	+1.1
CSNT	Castellina Chi	1.94	288	⇓iPN	Pn	02 44 59.3	+2.3
	540nm,0.5s						
CSNT	Castellina Chi	1.94	288	⇓iPn	Pn	02 44 59.3	+2.3
MRB1	Monte Rocchett	1.96	154	ePN	Pn	02 44 59.0	+1.8
MRB1	Monte Rocchett	1.96	154	ePn	Pn	02 44 59.0	+1.8
FGMS	Monte Sant'Ang	1.97	126	ePN	Pn	02 44 58.3	+1.0
FGMS	Monte Sant'Ang	1.97	126	ePn	Pn	02 44 58.4	+1.0
VMG	Vicchio	1.98	304	ePn	Pn	02 45 00.9	+3.4
MAON	Monte Argentar	2.04	258	ePn	Pn	02 44 59.4	+1.0
MAON	Monte Argentar	2.04	258	ePn	Pn	02 44 59.4	+1.0
SEI	Scarperia	2.14	304	ePn	Pn	02 45 03.3	+3.4
FNVD	Fontana Vidola	2.35	304	ePn	Pn	02 45 05.8	+3.0
FNVD	Fontana Vidola	2.35	304	ePn	Pn	02 45 05.8	+3.0
ZCCA	Zocca	2.54	306	ePn	Pn	02 45 09.7	+4.2
SGO	Sicignano	2.58	154	ePn	Pn	02 45 06.8	+0.8
BDI	Bagni Di Lucca	2.63	298	ePn	Pn	02 45 08.5	+1.8
BDI	Bagni Di Lucca	2.63	298	ePn	Pn	02 45 08.5	+1.7
MAIM		2.64	294	P	Pn	02 45 08.5	+1.6
MAIM				S	Sn	02 45 36.8	-2.5
MAIM		2.64	294	P	Pn	02 45 08.5	+1.6
MAIM		2.64	294	S	Sn	02 45 36.8	-2.5
KNDS	Knezji Dol	2.67	8	ePn	Pn	02 45 08.5	+1.1
GSCL	Gusciola	2.77	303	ePn	Pn	02 45 12.3	+3.5
VLC	Villacollemand	2.81	298	eP	Pn	02 45 10.9	+1.6
BOJS	Bojanci	2.81	21	i Pn	Pn	02 45 11.3	+2.0
BOJS				eSn	Sn	02 45 45.5	+1.9
BOJS	Bojanci	2.81	21	Pn	Pn	02 45 11.4	+2.0
BOJS				eSn	Sn	02 45 45.5	+1.8
TRI	Trieste	2.82	359	ePn	Pn	02 45 10.5	+1.0
TRI	Trieste	2.82	359	ePn	Pn	02 45 10.5	+0.9
STON	Ston	2.85	89	i Pn	Pn	02 45 10.6	+0.7
STON				i Sn	Sn	02 45 43.9	-0.7
ERBM	Eremo	2.91	303	ePn	Pn	02 45 14.6	+3.8
VINC	Vinca	2.95	296	P	Pn	02 45 13.5	+2.1
VINC	Vinca	2.95	296	P	Pn	02 45 13.5	+2.1
VINC	Vinca	2.95	296	P	Pn	02 45 13.5	+2.1
VALM		2.98	301	P	Pn	02 45 14.0	+2.1
VALM		2.98	301	P	Pn	02 45 14.0	+2.2
MGR	Morigerati	3.04	154	ePn	Pn	02 45 13.3	+0.7
BACM		3.06	298	P	Pn	02 45 14.0	+1.0
BACM		3.06	298	P	Pn	02 45 14.0	+1.0
VOY	Vojsko	3.15	1	⇑ePn	Pn	02 45 15.0	+0.9
VOY				eSn	Sn	02 45 54.0	+1.9
VOY	Vojsko	3.15	1	eSn	Sn	02 45 54.0	+1.9
GRAM		3.16	302	P	Pn	02 45 16.7	+2.3
SISC	Sisak	3.17	34	i Pn	Pn	02 45 16.3	+1.9
SISC				i Sn	Sn	02 45 54.7	+2.0
SISC				i Sg	Sg	02 46 08.2	-0.7
SISC	Sisak	3.17	34	i Sg	Sg	02 46 08.2	-0.8
SISC	Sisak	3.17	34	i Sn	Sn	02 45 54.7	+2.0
LJU	Ljubljana	3.20	9	i Pn	Pn	02 45 16.5	+1.7
LJU				eSn	Sn	02 45 55.4	+1.9
LTRZ	Laterza	3.20	135	ePn	Pn	02 45 14.9	0.0
LTRZ	Laterza	3.20	135	ePn	Pn	02 45 14.9	0.0
CODM		3.25	299	P	Pn	02 45 17.4	+1.8
CODM		3.25	299	P	Pn	02 45 17.5	+1.8
TREB	Trebinje	3.33	91	Pn	Pn	02 45 17.6	+0.8
ROBS	Robic	3.37	356	ePn	Pn	02 45 18.0	+0.8
ORI	Oriolo Calabro	3.44	144	ePn	Pn	02 45 19.5	+1.2
BRY	Bratogost	3.47	88	⇑iPn	Pn	02 45 19.7	+1.0
BRY				eSn	Sn	02 46 01.5	+1.3
HCY	Herceg Novi	3.47	96	⇑iPn	Pn	02 45 19.5	+0.7
HCY				eSn	Sn	02 46 01.4	+0.9
CTI	Castel Tesino	3.52	335	ePn	Pn	02 45 20.6	+1.0
CTI	Castel Tesino	3.52	335	ePn	Pn	02 45 20.6	+1.1
PTCC	Patocco-Chiusa	3.53	355	ePn	Pn	02 45 20.2	+0.6
PTCC	Patocco-Chiusa	3.53	355	ePn	Pn	02 45 20.2	+0.5
PGF	Pioggiola	3.57	266	ePn	Pn	02 45 21.5	+1.3
PGF				eSn	Sn	02 46 00.6	-2.4
	50nm,0.6s						
SAL	Salo	3.61	320	ePn	Pn	02 45 22.0	+1.2
SAL	Salo	3.61	320	ePn	Pn	02 45 22.0	+1.3
OBKA	Obir	3.66	8	⇑iPN	Pn	02 45 22.5	+1.1
OBKA				i SN	Sn	02 46 06.7	+1.6
OBKA	Obir	3.66	8	ePn	Pn	02 45 22.7	+1.3
BOB	Bobbio (Coli)	3.68	302	ePn	Pn	02 45 24.7	+2.9
UPM	Unac-Piva	3.74	83	⇑iPn	Pn	02 45 24.2	+1.6
UPM				eSn	Sn	02 46 08.5	+1.3
FVI	Forni Avoltri	3.78	349	ePn	Pn	02 45 24.1	+0.9
FVI	Forni Avoltri	3.78	349	ePn	Pn	02 45 24.1	+0.9
BUM	Brajici-Budva	3.79	97	⇑iPn	Pn	02 45 24.1	+0.8
BUM				eSn	Sn	02 46 08.5	0.0
NKY	Niksic	3.80	89	⇑iPn	Pn	02 45 24.6	+1.2
NKY				eSn	Sn	02 46 09.6	+0.8
MABI	Malga Bissina	3.96	324	ePn	Pn	02 45 26.8	+1.1
TTG	Podgorica	4.03	95	⇑iPn	Pn	02 45 27.5	+0.7
TTG				eSn	Sn	02 46 14.4	-0.2
PLE	Pljevlja	4.10	82	⇑iPn	Pn	02 45 29.4	+1.6
PLE				eSn	Sn	02 46 17.2	+0.8
ULC	Ulcinj	4.12	101	⇑iPn	Pn	02 45 28.0	+0.1
ULC				eSn	Sn	02 46 16.5	-0.3
PCP	Pian Castagno	4.17	295	P	Pn	02 45 29.1	+0.4
KBA	Koelnbreinsper	4.21	356	⇑iPN	Pn	02 45 30.4	+1.2
KBA				i SN	Sn	02 46 20.4	+1.4
FIN	Finale Ligure	4.29	290	P	Pn	02 45 30.8	+0.3
FIN	Finale Ligure	4.29	290	P	Pn	02 45 30.8	+0.3
TIP	Timpagrande	4.32	148	eP	Pn	02 45 32.5	+1.7
NVSS	Nova Varos 2	4.34	80	⇓iPn	Pn	02 45 33.9	+2.8
NVSS				Sn	Sn	02 46 24.5	+2.1
BRMO	Bormio	4.35	327	ePn	Pn	02 45 33.0	+1.7
BRMO	Bormio	4.35	327	ePn	Pn	02 45 33.0	+1.7
SCE	Schlegeis	4.42	341	⇑iPn	Pn	02 45 33.7	+1.5
RHK1	Bakonya	4.42	42	eP	Pn	02 45 32.5	+0.3
RHK1				eS	Sn	02 46 22.9	-1.4
IMI	Imperia	4.45	285	P	Pn	02 45 32.4	-0.2
IMI	Imperia	4.45	285	P	Pn	02 45 32.4	-0.2
BERNI	Berninapass	4.45	324	⇓iP	Pn	02 45 33.8	+1.1
IVA	Berane	4.46	88	⇑iPn	Pn	02 45 34.4	+1.5
IVA				eSn	Sn	02 46 25.7	+0.2
FUORN	Ofenpass	4.51	327	⇑iP	Pn	02 45 35.5	+1.9
FUORN	Ofenpass	4.51	327	⇑iPn	Pn	02 45 30.4	-3.2
FUORN	Ofenpass	4.51	327	⇑iPn	Pn	02 45 35.6	+2.0
	10nm,0.9s						
ARSA	Arzberg	4.53	15	⇑iPN	Pn	02 45 34.2	+0.4
ARSA				i SN	Sn	02 46 27.8	+0.7
ARSA	Arzberg	4.53	15	eSn	Sn	02 46 25.5	-1.6
PVY	Plav	4.54	92	⇑iPn	Pn	02 45 35.1	+1.2
PVY				eSn	Sn	02 46 27.5	+0.2
ROB	Roburent	4.55	290	P	Pn	02 45 34.5	+0.5
ROB	Roburent	4.55	290	P	Pn	02 45 34.5	+0.4
PUK	Puka	4.57	99	i Pn	Pn	02 45 35.6	+1.3
PUK				i Sn	Sn	02 46 27.5	-0.6
MONE	Monesi	4.58	287	P	Pn	02 45 34.9	+0.4
MONE	Monesi	4.58	287	P	Pn	02 45 34.8	+0.3
MUGIO	Muggio	4.58	313	⇓iP	Pn	02 45 34.1	-0.4
MUGIO				eSn	Sn	02 46 23.9	-4.5
	10nm,0.5s						
BCI	Bajram Curri	4.63	94	i Pn	Pn	02 45 36.8	+1.5
BCI				i Sn	Sn	02 46 29.4	-0.4
WTTA	Wattenberg	4.64	341	⇑iPN	Pn	02 45 37.2	+1.8
WTTA				i SN	Sn	02 46 32.8	+2.7
WTTA	Wattenberg	4.64	341	ePn	Pn	02 45 37.1	+1.7
DIVS	Divcibare	4.65	73	⇓iPn	Pn	02 45 35.9	+0.5
DIVS				Sn	Sn	02 46 28.5	-1.6
VAI	Varese	4.69	311	ePn	Pn	02 45 36.0	-0.2
VAI	Varese	4.69	311	ePn	Pn	02 45 36.0	-0.1
SQTA	Sankt Quirin	4.71	338	⇓iPN	Pn	02 45 37.9	+1.5
SQTA				i SN	Sn	02 46 34.8	+3.0
QSH	Qafa e Shtames	4.72	105	i Pn	Pn	02 45 34.0	-2.5
WATA	Walderalm	4.72	341	⇓iPN	Pn	02 45 38.1	+1.5
WATA				i SN	Sn	02 46 35.0	+2.9
TIR	Tirane	4.75	107	i Pn	Pn	02 45 30.0	-6.9
VDL	Val di Lei	4.75	321	⇓iPn	Pn	02 45 34.7	-2.3
VDL	Val di Lei	4.75	321	⇓iP	Pn	02 45 37.9	+0.9
SBF	Sospel	4.76	284	ePn	Pn	02 45 37.8	+0.7
SBF				eSn	Sn	02 46 27.9	-5.1
	79nm,0.6s						
VSL	Villasalto	4.77	226	eP	Pn	02 45 34.0	-3.2
VSL	Villasalto	4.77	226	eP	Pn	02 45 34.0	-3.2
PKSM	Moragy	4.78	44	⇓eP	Pn	02 45 37.3	-0.1
DAVOX	Davos	4.80	326	Pn	Pn	02 45 39.4	+1.8
	baz=151,slow=19						
DAVOX				Sn	Sn	02 46 33.7	-0.3
	4.8nm,0.3s,baz=150,slow=20,SNR=2.5						
DAVOX	Davos	4.80	326	eP	Pn	02 45 39.3	+1.7
ENR	Entracque	4.84	288	P	Pn	02 45 38.6	+0.3
ENR	Entracque	4.84	288	P	Pn	02 45 38.6	+0.3
MOTA	Moosalm	4.86	338	⇑iPN	Pn	02 45 39.9	+1.5
MOTA				i SN	Sn	02 46 37.9	+2.5
VLO	Vlora	4.88	118	ePn	Pn	02 45 38.9	+0.1
STV2	Anna di Valdie	4.92	288	P	Pn	02 45 39.8	+0.6
STV2	Anna di Valdie	4.92	288	P	Pn	02 45 39.8	+0.5
STV	Sta Anna Valdi	4.92	288	P	Pn	02 45 38.9	-0.4
STV	Sta Anna Valdi	4.92	288	P	Pn	02 45 38.9	-0.4
TOUF	Mont Tournerai	4.92	285	P	Pn	02 45 41.8	+2.5
MOA	Molln	4.97	3	⇑iPN	Pn	02 45 41.2	+1.1
MOA				i SN	Sn	02 46 39.9	+1.5
ORX	Oropa	5.02	305	P	Pn	02 45 39.7	-1.0
ORX	Oropa	5.02	305	P	Pn	02 45 39.7	-1.0
GRUS	Gruza	5.12	76	⇓iPn	Pn	02 45 42.5	+0.3
GRUS				Sn	Sn	02 46 39.7	-2.4
FUSIO	Fusio	5.13	316	ePn	Pn	02 45 35.5	-6.8
FUSIO	Fusio	5.13	316	ePn	Pn	02 45 41.9	-0.4
	11nm,0.4s						
BHB	Bricherasio	5.13	295	P	Pn	02 45 41.6	-0.7
BHB	Bricherasio	5.13	295	P	Pn	02 45 41.7	-0.6
PZZ	Prazzo	5.14	291	P	Pn	02 45 42.4	0.0
PZZ	Prazzo	5.14	291	P	Pn	02 45 42.4	0.0
SOP	Sopron	5.17	21	⇑iPn	Pn	02 45 43.0	+0.1
DAVA	Damuels	5.21	329	⇑iPN	Pn	02 45 45.1	+1.6
DAVA				i SN	Sn	02 46 47.5	+3.1
DAVA	Damuels	5.21	329	ePn	Pn	02 45 44.9	+1.4
PLONS	Plons	5.22	324	ePn	Pn	02 45 37.9	-5.7
PLONS	Plons	5.22	324	eP	Pn	02 45 45.5	+1.9
LLS	Linth-Limmern	5.24	321	eP	Pn	02 45 45.4	+1.6
LLS	Linth-Limmern	5.24	321	ePn	Pn	02 45 41.9	-1.9
RSP	Reno Superiore	5.25	298	P	Pn	02 45 43.2	-0.8
RSP	Reno Superiore	5.25	298	P	Pn	02 45 43.2	-0.8
MMK	Mattmark	5.25	309	ePn	Pn	02 45 39.3	-4.8
MMK	Mattmark	5.25	309	eP	Pn	02 45 42.0	-2.1
FRF	La Foret Royal	5.29	280	ePn	Pn	02 45 44.8	+0.2
FRF				eSn	Sn	02 46 41.1	-5.2
	38nm,0.7s						
LIENZ	Alp Oberkamor	5.37	327	⇓iP	Pn	02 45 47.5	+1.8
LMR	La Mourre	5.38	277	ePn	Pn	02 45 45.7	-0.1
VAE	Valguarnera	5.42	175	Pn	Pn	02 45 53.3	+6.9
	0.7nm,0.3s,baz=344,slow=15,SNR=2.2						
MBDF	Montbardon	5.43	292	ePn	Pn	02 45 46.3	-0.2
MBDF				eSn	Sn	02 46 44.6	-5.2
	68nm,0.6s						
LSD	Ceresole Reale	5.44	300	P	Pn	02 45 45.1	-1.6
OHR	Ohrid	5.49	106	⇑iPn	Pn	02 45 47.8	+0.4
OHR				i Sn	Sn	02 46 46.9	-4.4
KEK	Kerkira	5.50	123	eP	Pn	02 45 47.4	-0.2
KEK	Kerkira	5.50	123	ePn	Pn	02 45 47.5	0.0
PKSG		5.54	34	eP	Pn	02 45 48.4	+0.3
SVIS	Svilajnac	5.55	73	⇑iPn	Pn	02 45 48.4	+0.1
SVIS				Sn	Sn	02 46 50.2	-2.7
SVIS	Svilajnac	5.55	73	Pn	Pn	02 45 48.3	0.0

SVIS				Sn	Sn	02 46 50.2	-2.7
FUR	Furstenfeldbru	5.58	342	ePn	Pn	02 45 49.6	+1.0
FUR				eSn	Sn	02 46 52.7	-0.8
DIX	Grande Dixence	5.59	307	ePn	Pn	02 45 45.4	-3.4
DIX	Grande Dixence	5.59	307	eP	Pn	02 45 48.1	-0.7
HASLI	Hasliberg	5.59	316	ePn	Pn	02 45 45.5	-3.3
HASLI	Hasliberg	5.59	316	ePn	Pn	02 45 48.6	-0.2
BNI	Bardonecchia	5.59	295	ePn	Pn	02 45 48.2	-0.7
	9.3nm,0.4s						
BNI	Bardonecchia	5.59	295	ePn	Pn	02 45 48.2	-0.7
	9.3nm,0.4s						
LKBD	Leukerbad	5.64	310	ePn	Pn	02 45 47.5	-2.0
LKBD	Leukerbad	5.64	310	ePn	Pn	02 45 49.0	-0.5
SKO	Skopje	5.71	97⇑	iPn	Pn	02 45 51.0	+0.5
	comp=Z,0.1nm,0.5s						
SKO				i Sn	Sn	02 46 54.0	-2.8
SKO				Lg		02 46 57.0	
	comp=Z,0.1nm,0.5s						
LPG	La Plagne	5.72	300	ePn	Pn	02 45 49.9	-0.7
LPG				eSn	Sn	02 46 50.7	-6.4
	comp=Z,50nm,0.5s						
LPL	La Plagne	5.74	300	ePn	Pn	02 45 49.4	-1.5
LPL				eSn	Sn	02 46 51.4	-6.2
	comp=Z,43nm,0.4s						
ZST	Bratislava	5.79	22	eP	Pn	02 45 51.2	-0.4
ZST				e		02 46 54.8	
ZST	Bratislava	5.79	22	ePN	Pn	02 45 51.2	-0.4
ZST				ePB	Pb	02 46 07.8	+3.4
ZST				e		02 46 54.8	
SENIN	Lac Senin	5.81	309	ePn	Pn	02 45 48.1	-3.8
SENIN	Lac Senin	5.81	309	ePn	Pn	02 45 51.9	0.0
GRYON	Gryon	5.86	307	ePn	Pn	02 45 48.6	-4.0
GRYON	Gryon	5.86	307	eP	Pn	02 45 53.1	+0.5
EMV	Vieux Emosson	5.89	305⇑	iP	Pn	02 45 53.9	+0.9
EMV	Vieux Emosson	5.89	305⇑	iPn	Pn	02 45 49.0	-4.0
EMV	Vieux Emosson	5.89	305	i P	Pn	02 45 53.9	+0.9
BIA	Bitola	5.89	106	i Pn	Pn	02 45 53.8	+0.7
BIA				i Sn	Sn	02 46 58.0	-3.5
IGT	Igoumenitsa	5.94	122	eP	Pn	02 45 53.4	-0.3
GEC2	GERESS Array S	5.96	359	ePn	Pn	02 45 53.6	-0.4
GEC2				eSn	Sn	02 47 00.3	-2.8
GERES	GERESS Array B	5.96	359	Pn	Pn	02 45 53.5	-0.5
	comp=Z,9.3nm,0.3s,baz=175,slow=13,SNR=212						
GERES				Sn	Sn	02 46 60.0	-3.1
	comp=Z,14nm,0.3s,baz=174,slow=24,SNR=11						
GERES	GERESS Array B	5.96	359	P	Pn	02 45 53.5	-0.5
GERES						02 47 00.0	
GERES				pmax	pmax		
	comp=Z,9.0nm,0.3s						
MODS	Modra-Piesok	6.00	23	ePN	Pn	02 45 53.9	-0.6
BOLS	Boljevac	6.00	78⇓	iPn	Pn	02 45 54.9	+0.3
FNA	Florina	6.02	108	eP	Pn	02 45 54.5	-0.3
GDM	Grand'Maison	6.02	295	P	Pn	02 45 56.5	+1.6
ORIF	Oris-en-Rattie	6.09	292	ePn	Pn	02 45 56.6	+0.8
ORIF				eSn	Sn	02 47 00.8	-5.6
	comp=Z,52nm,0.7s						
ORIF				eR			
	comp=Z,272nm,14.8s						
SMRF	Simiane la Rot	6.11	283	ePn	Pn	02 45 57.8	+1.7
SMOL	Smolenice	6.17	23	ePN	Pn	02 45 56.5	-0.4
SMOL				eSN	Sn	02 47 05.6	-2.7
JAN	Janina	6.20	119	eP	Pn	02 45 57.4	0.0
KHC	Kasperske Hory	6.25	358	eP	Pn	02 45 57.1	-1.0
KHC				e		02 47 06.5	
KHC	Kasperske Hory	6.25	358	ePN	Pn	02 45 57.1	-1.0
KHC				ex	x	02 46 05.9	
KHC				eSN	Sn	02 47 06.5	-3.8
GRN	Grenoble	6.28	295	P	Pn	02 45 59.1	+0.6
MEV	Metsovon	6.37	117	eP	Pn	02 46 00.3	+0.4
BBS	Basel-Blauen	6.39	318	P	Pn	02 45 59.5	-0.6
FELD	Feldberg	6.46	323	P	Pn	02 45 59.6	-1.4
KZN	Kozani	6.49	111	eP	Pn	02 46 01.1	-0.4
KOLL	Kolacno	6.53	28	eSN	Sn	02 47 11.5	-5.9
PSZ	Piszkesteto	6.60	38⇑	ePn	Pn	02 46 02.3	-0.7
PSZ				eSn	Sn	02 47 14.4	-4.7
PSZ	Piszkesteto	6.60	38	eP	Pn	02 45 59.7	-3.3
VYHS	Vyhne	6.61	30	ePN	Pn	02 46 02.8	-0.4
VYHS				eSN	Sn	02 47 14.7	-4.8
CABF	La Chapelle	6.65	307	ePn	Pn	02 46 02.5	-1.2
CABF				eSn	Sn	02 47 12.6	-7.8
	comp=Z,89nm,0.9s						
CABF	La Chapelle	6.65	307	eSn	Sn	02 47 12.6	-7.8
	comp=Z,44nm,0.9s						
LKD	Levkas	6.65	127	eP	Pn	02 46 03.0	-0.7
LOMF	Lomont	6.67	314	P	Pn	02 46 02.9	-1.1
BFO	Black Forest	6.67	327	ePn	Pn	02 46 03.0	-1.0
BFO				eSn	Sn	02 47 16.4	-4.5
GRG	Griva	6.68	104	eP	Pn	02 46 03.2	-1.0
VAY	Valandovo	6.69	101	i Pn	Pn	02 46 03.7	-0.6
VRAC	Vranov	6.70	16	Pn	Pn	02 46 03.6	-0.9
	comp=Z,1.3nm,0.3s,baz=201,slow=11,SNR=7.5						
VRAC				Sn	Sn	02 47 15.1	-6.7
	comp=Z,0.6nm,0.3s,baz=50,slow=21,SNR=3.4						
VRAC	Vranov	6.70	16	P	Pn	02 46 03.6	-0.9
VRAC						02 47 15.1	
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VRAC	Vranov	6.70	16	Sn	Sn	02 47 15.1	-6.6
MOF	Molkenrain	6.84	319	P	Pn	02 46 05.3	-1.2
MOF				S	Sn	02 47 19.9	-5.4
VIVF	Saint-Julien-l	6.90	290	ePn	Pn	02 46 06.6	-0.7
KKB	Krupnik	6.93	95	i P	Pn	02 46 08.0	+0.3
HINF	Hinteralfeld	6.96	318	ePn	Pn	02 46 06.4	-1.7
HINF				eSn	Sn	02 47 20.1	-8.0
	comp=Z,118nm,0.6s						
KNT	Kendrikon	6.97	101	eP	Pn	02 46 07.6	-0.7
VLS	Valsamata	6.97	130	eP	Pn	02 46 07.2	-1.1
GRA1	Grafenberg Arr	7.04	346	ePn	Pn	02 46 07.9	-1.3
GRA1				eSn	Sn	02 47 24.9	-5.3
GRF	Grafenberg Arr	7.04	346	ePn	Pn	02 46 07.9	-1.3
GRF				eSn	Sn	02 47 24.9	-5.3
LIT	Litokhoron	7.07	110	eP	Pn	02 46 08.1	-1.6
ECH	Echery	7.09	321	P	Pn	02 46 08.3	-1.6
ECH				S	Sn	02 47 26.8	-4.6
PRU	Pruhonice	7.12	4	eP	Pn	02 46 08.9	-1.5
PRU				e		02 47 26.9	
PRU	Pruhonice	7.12	4	ePN	Pn	02 46 08.9	-1.5
PRU				ex	x	02 46 17.6	
PRU				eSN	Sn	02 47 26.9	-5.3
WLS	Welschbruch	7.15	323	P	Pn	02 46 09.4	-1.3
CDF	Champ du Feu	7.18	323	ePn	Pn	02 46 09.9	-1.3
CDF				eSn	Sn	02 47 26.1	-7.6
	comp=Z,78nm,0.6s						
CDF	Champ du Feu	7.18	323	eSn	Sn	02 47 26.1	-7.6
	comp=Z,39nm,0.6s						
THE	Thessaloniki	7.19	105	eP	Pn	02 46 09.9	-1.5
EVR	Evrytania	7.23	121	eP	Pn	02 46 11.7	-0.2
HAU	Haudompre	7.34	317	ePn	Pn	02 46 11.0	-2.4
HAU				eSn	Sn	02 47 28.8	-8.8
	comp=Z,148nm,0.5s						
HAU				eR			
	comp=Z,369nm,17.9s						
LASF	Ste Croix	7.35	283	ePn	Pn	02 46 13.9	+0.3
MORC	Moravsky Berou	7.36	19	eP	Pn	02 46 13.4	-0.3
	comp=Z,1.9nm,0.4s						
MORC	Moravsky Berou	7.36	19	eP	Pn	02 46 13.4	-0.2
	comp=Z,1.9nm,0.4s						
SOH	Sokhos	7.41	103	eP	Pn	02 46 13.6	-0.8
NKC	Novy Kostel	7.41	353	ePN	Pn	02 46 12.6	-1.8
NKC				eSN	Sn	02 47 33.9	-5.5
MMB	Musomiste	7.46	97	i P	Pn	02 46 15.0	-0.1
SRS	Serrai	7.49	100	eP	Pn	02 46 14.4	-1.0
AGG	Agios Georgios	7.50	118	eP	Pn	02 46 15.1	-0.6
RLS	Riolos of Patr	7.56	127	eP	Pn	02 46 16.6	+0.1
OKC	Ostrava-Krasne	7.57	22	ePN	Pn	02 46 18.2	+1.6
OKC				eSN	Sn	02 47 40.2	-3.1
TANN	Tannenbergstha	7.59	353	ePn	Pn	02 46 15.6	-1.3
NVR	Nevrokopi	7.62	98	eP	Pn	02 46 16.8	-0.5
PGB	Panagyurishte	7.62	89	i P	Pn	02 46 18.0	+0.6
PLG	Polygyros	7.63	106	eP	Pn	02 46 15.7	-1.8
DPC	Dobruska-Polom	7.66	12	ePN	Pn	02 46 16.5	-1.4
PVCC	Panska Ves	7.66	4	ePN	Pn	02 46 17.3	-0.6
THEF	They Montfort	7.67	317	P	Pn	02 46 16.3	-1.7
UPC	Upice	7.77	10	ePN	Pn	02 46 19.3	-0.1
XOR	Xorichti	7.89	113	eP	Pn	02 46 19.1	-2.1
MOX	Moxa	7.91	350	i P	Pn	02 46 19.0	-2.4
MOX				S	Sn	02 47 44.0	-7.8
MOX	Moxa	7.91	350	ePn	Pn	02 46 19.0	-2.4
MOX				eSn	Sn	02 47 44.9	-6.9
PLDF	La Plantade	7.93	296	P	Pn	02 46 20.2	-1.5
NEO	Neokhori	7.95	114	eP	Pn	02 46 20.1	-1.8
LBL	Lubilhac	7.97	291	P	Pn	02 46 21.7	-0.6
PAIG	Paliouri	7.97	108	eP	Pn	02 46 19.6	-2.7
BRG	Berggiesshubel	7.99	1	i P	Pn	02 46 20.6	-1.9
BRG				i		02 47 48.4	
BRG	Berggiesshubel	7.99	1	i Pn	Pn	02 46 20.6	-1.9
BRG				i		02 46 36.4	
BRG				i		02 46 48.3	
BRG				i		02 47 48.4	
BRG				i		02 48 00.3	
BRG				i		02 49 11.7	
OUR	Ouranopolis	8.03	105	eP	P	02 46 21.0	-2.0
CRVS	Cervenica-Dubn	8.03	39	ePN	P	02 46 23.5	+0.4
CRVS				e		02 47 47.8	
SMF	Signal de Mont	8.04	301	ePn	P	02 46 20.5	-2.7
SMF				eSn	Sn	02 47 46.2	-8.9
	comp=Z,23nm,0.4s						
SFTF	Sexfontaines	8.14	314	ePn	P	02 46 22.4	-2.2
SFTF				eSn	Sn	02 47 48.0	-10
	comp=Z,92nm,0.9s						
LKR	Lokris	8.14	118	eP	P	02 46 23.1	-1.6
RZN	Rozhen	8.16	95	i P	P	02 46 24.8	-0.1
RFYF	Reffroy	8.19	317	ePn	P	02 46 23.5	-1.8
RFYF				eSn	Sn	02 47 47.8	-11
	comp=Z,59nm,0.6s						
RFYF	Reffroy	8.19	317	eSn	Sn	02 47 47.8	-11
	comp=Z,30nm,0.6s						
MEZF	Maizieres J'vi	8.32	315	ePn	P	02 46 24.3	-2.8
MEZF				eSn	Sn	02 47 51.2	-11
	comp=Z,29nm,0.5s						
AVF	Avril sur Loir	8.40	301	ePn	P	02 46 25.4	-2.9
AVF				eSn	Sn	02 47 54.8	-9.4
	comp=Z,26nm,0.9s						
SSF	Saint Saulge	8.42	303	ePn	P	02 46 25.9	-2.6
SSF				eSn	Sn	02 47 54.7	-10
	comp=Z,8.4nm,0.4s						
ITM	Ithomi	8.43	130	eP	P	02 46 27.5	-1.1
PVL	Pavlikeni	8.43	84	eP	P	02 46 28.0	-0.7
CLL	Collm	8.44	356	ePN	P	02 46 26.7	-2.1
CLL				eSN	Sn	02 47 59.0	-6.2
CLL				eSG	Sg	02 49 08.0	+3.4
CLL				i		02 49 25.5	
CLL	Collm	8.44	356	ePn	P	02 46 26.6	-2.2
AOS	Alonnisos	8.46	113	eP	P	02 46 27.5	-1.5
MTLF	Montolieu	8.51	277	ePn	P	02 46 27.6	-2.1
WLF	Walferdange	8.61	325	eP	P	02 46 30.2	-0.9
	comp=Z,7.7nm,0.6s						
WLF	Walferdange	8.61	325	eP	P	02 46 30.2	-0.9
	comp=Z,7.7nm,0.6s						
BGF	Bois d'Agland	8.64	299	ePn	P	02 46 27.8	-3.7
BGF				eSn	Sn	02 47 59.7	-10
	comp=Z,24nm,0.5s						
BGF	Bois d'Agland	8.64	299	eSn	Sn	02 47 59.7	-10
	comp=Z,12nm,0.5s						
CAF	Calviac	8.73	288	ePn	P	02 46 32.2	-0.7
RDO	Rodhopi	8.89	97	eP	P	02 46 34.0	-1.0
TCF	Toulx Ste Croi	8.96	296	ePn	P	02 46 32.9	-3.1
TCF				eSn	Sn	02 48 09.0	-9.0
	comp=Z,13nm,0.6s						
HYF	Humbligny	9.04	303	ePn	P	02 46 34.1	-3.1
HYF				eSn	Sn	02 48 09.5	-11
MLR	Muntele Rosu	9.09	69	Pn	P	02 46 38.6	+0.9
	comp=Z,1.3nm,0.3s,baz=157,slow=13,SNR=11						
MLR	Muntele Rosu	9.09	69	P	P	02 46 38.6	+0.8
MLR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KWP	Kalwaria	9.12	39	P	P	02 46 36.7	-1.6
	comp=Z,22nm,1.0s						
RJF	Les Rejaudoux	9.18	289	ePn	P	02 46 38.5	-0.6
RJF				eR			
	comp=Z,412nm,15.8s						
ALN	Alexandroupoli	9.33	98	eP	P	02 46 40.2	-0.9
VLI	Veliai	9.33	128	eP	P	02 46 41.6	+0.5
MEM	Membach	9.40	328	P	P	02 46 42.0	-0.1
GIVF	Givet	9.51	322	ePn	P	02 46 41.0	-2.6
GIVF				eSn	Sn	02 48 20.7	-11
	comp=Z,28nm,0.7s						
DOU	Dourbes	9.61	322	P	P	02 46 46.6	+1.7
LFF	La Frestale	9.67	287	ePn	P	02 46 45.0	-0.7
BAIF	Baives	9.77	321	ePn	P	02 46 43.6	-3.4
BAIF				eSn	Sn	02 48 27.1	-11
	comp=Z,17nm,0.6s						
EPF	Esparros	9.89	275	ePn	P	02 46 48.3	-0.5
MFF	Saint Martin d	10.61	295	ePn	P	02 46 55.8	-2.8
VAM	Vamos	10.98	129	eP	P	02 47 02.9	-0.8
LDF	La Druitiere	11.29	305	ePn	P	02 47 04.8	-3.1
KIS	Kishinev	11.39	64	eP	P	02 47 10.0	+0.7
KIS				MLR	MLR		
	comp=Z,900nm,13.0s						
KIS				MLR	MLR		
	comp=Z,800nm,12.0s						
IDI	Anoyia	11.46	128	Pn	P	02 47 06.7	-3.6
	comp=Z,0.7nm,0.3s,baz=212,slow=14,SNR=17						
IDI				Sn	S	02 49 05.0	-14
	comp=Z,1.1nm,0.3s,baz=304,slow=18,SNR=5.6						
FLN	La Foliniere	11.58	305	ePn	P	02 47 09.0	-2.8
FLN				eR			
	comp=Z,278nm,14.5s						
GRR	Gorron	11.65	303	ePn	P	02 47 08.6	-4.3
SUW	Suwalki	12.73	26	eP	P	02 47 28.0	+0.7
	comp=Z,23nm,0.9s						
SUW	Suwalki	12.73	26	eP	P	02 47 28.0	+0.7
	comp=Z,23nm,0.9s						
HENT	Hendek	12.90	93	i P	P	02 47 30.6	+1.0
ESKT	Eskisehir	13.25	99	i P	P	02 47 37.2	+2.9
ESDC	Sonseca Array	13.76	263	Pn	P	02 47 40.3	-0.6
	comp=Z,0.1nm,0.3s,baz=67,slow=13,SNR=5.5						
ESLA	Sonseca Array	13.76	263	eP	P	02 47 40.0	-1.0
ESLA	Sonseca Array	13.76	263	eP	P	02 47 40.0	-0.9
SGKT	Sivrigoynuk	13.81	93	i P	P	02 47 37.7	-3.9
BRTR	Keskin Array B	15.22	95	Pn	P	02 48 00.4	+0.3
	comp=Z,0.0nm,0.3s,baz=297,slow=9.7,SNR=3.2						
EKA	Eskdalemuir Ar	16.64	324	Pn	P	02 48 15.9	-2.2
	comp=Z,0.1nm,0.3s,baz=137,slow=14,SNR=2.5						
ESK	Eskdalemuir	16.65	324	P	P	02 48 20.5	+2.2
	comp=Z,9.5nm,0.9s						
ESK	Eskdalemuir	16.65	324	P	P	02 48 20.5	+2.2
	comp=Z,9.5nm,0.9s						
HFS	Hagfors	17.27	360	P	P	02 48 26.8	+0.7
	comp=Z,0.0nm,0.3s,baz=180,slow=15,SNR=5.9						
VSU	Vasula	17.56	23	i P	P	02 48 30.0	+0.3
NAO01	NORSAR Array S	18.07	355	eP	P	02 48 36.5	+0.3
	comp=Z,8.1nm,0.9s						
NAO01	NORSAR Array S	18.07	355	eP	P	02 48 36.5	+0.4
	comp=Z,8.1nm,0.9s						
NOA	NORSAR Array B	18.25	356	P	P	02 48 38.0	-0.4
	comp=Z,0.2nm,0.3s,baz=172,slow=13,SNR=4.6						
SOC	Sochi	18.86	79	eP	P	02 48 40.3	-5.6
SOC				pmax	pmax		
	comp=Z,11nm,0.7s						
SOC				pmax	pmax		
	comp=N,11nm,1.0s						
SOC				pmax	pmax		
	comp=E,16nm,1.0s						
SOC				MLR	MLR		
	comp=Z,115nm,10.0s						
SOC				MLR	MLR		
	comp=N,53nm,9.0s						
SOC				MLR	MLR		
	comp=E,59nm,8.0s						
GZT	Gaziantep	18.95	99	i P	P	02 48 46.8	-0.2
VRSR	Storozhevoye	19.11	55	eP	P	02 48 47.5	-1.3
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=N,9.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.8s						
MALT	Malatya	19.21	95	eP	P	02 48 50.6	+0.5
	comp=E,4.0nm,0.6s						
MALT	Malatya	19.21	95	eP	P	02 48 50.6	+0.5
	comp=E,4.0nm,0.6s						
ELZG	Elazig	19.55	94	i P	P	02 48 54.5	+0.5
FINES	FINESS Array B	19.98	17	P	P	02 48 57.6	-1.1
	comp=E,0.7nm,0.3s,baz=198,slow=9.1,SNR=23						
FINES	FINESS Array B	19.98	17	P	P	02 48 57.6	-1.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KAF	Kangasniemi	20.63	17	ep	P	02 49 04.2	-1.2
	comp=Z,5.6nm,0.8s,baz=204,slow=11						
KAF	Kangasniemi	20.63	17	eP	P	02 49 04.2	-1.2
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ERZM	Erzurum	20.84	89	i P	P	02 49 13.1	+5.4
KIV	Kislovodsk	20.95	77c	iP	P	02 49 08.3	-0.5
KIV				pmax	pmax		
	comp=Z,13nm,1.2s						
KIV	Kislovodsk	20.95	77	eP	P	02 49 08.5	-0.4
	comp=Z,13nm,0.8s						
KIV				eS	S	02 53 14.1	+17
KIV	Kislovodsk	20.95	77	eP	P	02 49 08.5	-0.3
	comp=Z,13nm,0.8s						
ASF	Jabal al Asfar	21.13	113	P	P	02 49 14.9	+4.1
	comp=Z,10nm,0.7s,mb4.3,baz=151,slow=8.2,SNR=12						
JOF	Joensuu	22.52	21	ep	P	02 49 24.1	-0.3
	comp=Z,2.9nm,0.6s,mb3.9						
JOF	Joensuu	22.52	21	eP	P	02 49 24.1	-0.3
JOF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.9						
TI2	Plekhanov	22.84	82	eP	P	02 49 31.2	+3.5
GNI	Garni	23.25	86	P	P	02 49 33.4	+1.7
	comp=Z,13nm,0.8s,mb4.4,baz=293,slow=3.4,SNR=11						
GNI	Garni	23.25	86d	iP	P	02 49 32.8	+1.1
GNI				pmax	pmax		
	comp=Z,18nm,0.8s						
GNI				MLR	MLR		
	comp=Z,100nm,19.0s						
GNI	Garni	23.25	86	eP	P	02 49 32.9	+1.2
	comp=Z,23nm,1.0s,mb4.6						
GNI	Garni	23.25	86	eP	P	02 49 32.9	+1.2
	comp=Z,23nm,1.0s,mb4.6						
ARCES	ARCESS Array B	27.39	9	P	P	02 50 09.0	-1.5
	comp=Z,3.7nm,0.9s,mb3.9,baz=187,slow=7.3,SNR=4.0						
ARCES	ARCESS Array B	27.39	9	P	P	02 50 09.0	-1.5
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ARCES	ARCESS Array B	27.39	9	P	P	02 50 09.0	-1.5
ARU	Arti	31.36	49⇓	iP	P	02 50 44.9	-1.3
ARU				e		02 51 42.6	
ARU				e		02 53 36.6	
ARU				eS	S	02 55 44.2	-8.0
ARU				e		03 01 15.7	
ARU				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
ARU	Arti	31.36	49	eP	P	02 50 45.1	-1.2
	comp=Z,13nm,0.8s,mb4.8						
ARU	Arti	31.36	49	eP	P	02 50 45.1	-1.1
	comp=Z,13nm,0.8s,mb4.8						
BRVK	Borovoye	38.21	54	eP	P	02 51 45.7	+0.9
	comp=Z,11nm,0.9s,mb4.6						
BRVK	Borovoye	38.21	54	eP	P	02 51 45.7	+0.8
	comp=Z,11nm,0.9s,mb4.6						
BVAR	Borovoye Array	38.28	54	P	P	02 51 45.9	+0.4
	comp=Z,4.2nm,0.8s,mb4.2,baz=270,slow=7.4,SNR=18						
CHKZ	Chkalovo	38.32	53	eP	P	02 51 45.6	-0.2
	comp=Z,3.3nm,0.9s,mb4.1						
CHKZ	Chkalovo	38.32	53	eP	P	02 51 45.6	-0.2
	comp=Z,3.3nm,0.9s,mb4.1						
DBIC	Dimbokro	39.66	210	P	P	02 51 56.2	-1.1
	comp=Z,1.6nm,0.9s,mb3.7,baz=246,slow=19,SNR=2.5						
DBIC				LR	LR	03 10 17.0	
	comp=Z,75nm,19.2s,MS3.5,baz=335,slow=39						
DBIC	Dimbokro	39.66	210	P	P	02 51 56.3	-1.1
DBIC				pmax	pmax		
	comp=Z,2.0nm,1.0s						
DBIC				MLR	MLR		
	comp=Z,75nm,19.2s						
DBIC	Dimbokro	39.66	210	P	P	02 51 56.2	-1.2
EKS2	Erkin-Say	43.17	69	eP	P	02 52 25.8	0.0
	comp=Z,7.6nm,0.7s,mb4.5						
EKS2	Erkin-Say	43.17	69	eP	P	02 52 25.8	0.0
	comp=Z,7.6nm,0.7s,mb4.5						
AAK	Ala-Archa	43.67	69d	iP	P	02 52 29.8	-0.1
AAK				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.2						
AAK				MLR	MLR		
	comp=Z,100nm,19.0s,MS3.7						
AAK	Ala-Archa	43.67	69	eP	P	02 52 29.8	-0.1
	comp=Z,9.4nm,1.1s,mb4.4						
AAK	Ala-Archa	43.67	69	eP	P	02 52 29.8	-0.1
	comp=Z,9.4nm,1.1s,mb4.4						
KURK	Kurchatov	43.75	56	eP	P	02 52 29.8	-0.6
KURK	Kurchatov	43.75	56	P	P	02 52 29.8	-0.6
KURK	Kurchatov	43.75	56	P	P	02 52 29.8	-0.6
ZAL	Zalesovo	46.48	50	P	P	02 52 52.4	+0.1
	comp=Z,1.7nm,0.8s,mb4.0,baz=187,slow=6.4,SNR=9.1						
ZAL	Zalesovo	46.48	50	P	P	02 52 52.4	+0.2
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ZAL	Zalesovo	46.48	50	P	P	02 52 52.3	+0.1
SCHQ	Schefferville	51.53	313	P	P	02 53 29.4	-1.8
	comp=Z,3.0nm,0.8s,mb4.3,baz=77,slow=14,SNR=3.5						
SCHQ	Schefferville	51.53	313	P	P	02 53 29.4	-1.8
WMQ	Urumqi	52.00	62	eP	P	02 53 36.4	+1.5
WMQ				AP	pP	02 53 40.7	+2.7
WMQ				XP	sP	02 53 43.4	+4.2
WMQ				PCP	PcP	02 54 48.9	+1.5
WMQ				PP	PP	02 55 35.4	+1.6
WMQ				LR	LR		
	comp=N,81nm,22.1s,MS3.8						
WMQ				LR	LR		
	comp=E,37nm,21.5s,MS3.8						
WMQ				LR	LR		
	comp=Z,44nm,20.4s,MS3.5						
SONM	Songino Array	61.39	50	P	P	02 54 41.5	-0.2
	comp=Z,3.5nm,0.8s,mb4.5,baz=283,slow=8.0,SNR=24						
YAK	Yakutsk	63.46	28	eP	P	02 54 55.0	-0.3
YAK				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.1						
INK	Inuvik	66.46	347	P	P	02 55 14.1	-0.4
	comp=Z,0.9nm,0.9s,mb3.8,baz=296,slow=1.0,SNR=4.1						
INK	Inuvik	66.46	347	P	P	02 55 14.1	-0.4
INK				pmax	pmax		
	comp=Z,1.0nm,0.9s						
LZH	Lanzhou	66.58	62	eP	P	02 55 14.6	-1.3
LZH				PP	PP	02 57 42.9	-1.6
LZH				eS	S	03 04 02.6	-2.8
LZH				eSS	SS	03 08 22.7	-1.5
LZH				AMB	AMB		
	comp=Z,21nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,93nm,4.5s						
LZH				LR	LR		
	comp=N,453nm,15.6s						
LZH				LR	LR		
	comp=Z,653nm,17.2s,MS4.9						
LZH	Lanzhou	66.58	62	eP	P	02 55 14.6	-1.3
	comp=Z,21nm,1.5s,mb5.0						
LZH				pP	pP	02 55 19.3	+0.3
LZH				sP	sP	02 55 21.6	+1.5
LZH				PP	PP	02 57 42.9	-1.6
LZH				eS	S	03 04 02.6	-2.8
LZH				sS		03 04 10.5	
LZH				eSS	SS	03 08 22.7	-1.5
LZH				LR	LR		
	comp=Z,650nm,17.2s,MS4.9						
LZH	Lanzhou	66.58	62	eP	P	02 55 14.6	-1.3
	comp=Z,21nm,1.5s,mb5.0						
LZH				pP	pP	02 55 19.3	+0.3
LZH				eS	S	03 04 02.6	-2.8
YKA	Yellowknife Ar	67.14	337	P	P	02 55 19.0	0.0
	comp=Z,0.3nm,0.5s,mb3.6,baz=39,slow=5.7,SNR=8.6						
ILAR	Eielson Array	71.62	351	P	P	02 55 47.3	+0.8
	comp=Z,0.7nm,0.7s,mb3.7,baz=8.0,slow=7.1,SNR=11						
ILAR	Eielson Array	71.62	351	P	P	02 55 47.3	+0.8
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CMAR	Chiang Mai Arr	74.17	79	P	P	02 56 01.3	-0.9
	comp=Z,2.2nm,0.7s,mb4.2,baz=305,slow=7.3,SNR=9.3						
CMAR	Chiang Mai Arr	74.17	79	P	P	02 56 01.3	-0.9
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CN2	Changchun	74.24	44	eP	P	02 55 59.2	-2.9
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
MDJ	Mudanjiang	75.73	42	P	P	02 56 08.5	-2.2
MDJ				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,165nm,5.2s						
NJ2	Nanjing	78.68	57	eP	P	02 56 26.7	-0.6
PDAR	Pinedale Array	80.74	321	P	P	02 56 39.0	+0.8
	comp=Z,0.5nm,1.0s,mb3.4,baz=63,slow=8.1,SNR=2.2						
SSE	Sheshan	80.77	56	eP	P	02 56 36.6	-2.0
SSE				AMB	AMB		
	comp=Z,42nm,4.0s						
SSE	Sheshan	80.77	56	eP	P	02 56 36.6	-2.0
	comp=Z,32nm,0.7s,mb5.4						
TXAR	Lajitas Array	88.04	309	P	P	02 57 14.3	-0.9
	comp=Z,0.7nm,1.2s,mb3.8,baz=82,slow=6.4,SNR=2.3						
TXAR	Lajitas Array	88.04	309	P	P	02 57 14.3	-0.9
ASAR	Alice Springs	127.47	89	PKP	PKPdf	03 03 29.3	-2.7
	comp=Z,0.2nm,0.6s,baz=314,slow=2.1,SNR=4.1						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	**Vanda**	142.89	169	PKhKP		03 03 53.8	
	comp=Z,1.4nm,1.0s,baz=231,slow=6.5,SNR=3.9						
VNDA	**Vanda**	142.89	169	iPKIKP	PKPdf	03 03 53.8	-5.1
VNDA				pmax	pmax		
	comp=Z,1.0nm,1.0s						

IDC 09 02:54:55.0±8.3**,12.14S**×**169.49E,mb3.8**/4**,mb1 4.0**/4**, mb1mx3.7**/14**,Error ellipse: s-maj=184.0km s-min=44.4km az=23.0,Santa Cruz Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	32.32	228	P	P	03 01 26.5	-1.6
	3.2nm,1.0s,baz=71,slow=7.9,SNR=5.9						
WRA	**Warramunga Arr**	34.61	252	P	P	03 01 46.0	-2.0
	0.5nm,1.0s,baz=86,slow=9.5,SNR=4.7						
ASAR	**Alice Springs**	35.65	246	P	P	03 01 54.6	-2.3
	0.6nm,0.4s,baz=74,slow=9.4,SNR=15						
VNDA	**Vanda**	65.50	182	P	P	03 05 39.5	-2.3
	0.8nm,0.5s,baz=1.6,slow=5.8,SNR=5.6						

WEL 09 03:20:04.5±0.6**,38.44S**×**178.31E,h5**^{km}**,ML5.0**/1**,1C, Error ellipse: s-maj=3.1km s-min=3.0km az=90.0,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	**Puketiti**	0.36	354	PG	Pg	03 20 11.5	-0.3
PUZ				SG	Sg	03 20 17.4	+0.7
PUZ				SG	Sg	03 20 17.7	+1.0
MWZ	**Matawai**	0.62	279	⇑P*	Pb	03 20 17.1	-0.3
MWZ				SG	Sg	03 20 25.1	-0.1
MWZ				SG	Sg	03 20 25.3	+0.1
MXZ	**Matakaoa Point**	0.87	0	P*	Pb	03 20 21.3	-0.3
MXZ				eS*	Sb	03 20 32.4	-1.0

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*IDC **09** 03:44:36.1±6.1,63.37N×151.27W,h124^{km}±41^{km},mb3.7/4, mb1 3.6/7,mb1mx3.3/20,Error ellipse: s-maj=60.7km s-min=43.2km az=37.0*

*NEIC **09** 03:44:36.4,63.16N×150.77W,h131^{km},mb3.5/1,After AEIC.*

ISC 09 03:44:35.0±0.3**,63.16N**±0.02×**150.79W**±0.07**, h138**^{km}±3^{km}**,n76,**σ**0**^{s}**.81**/90**,mb3.9**/5**,Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRF	**Thorofare Moun**	0.37	38	P	P	03 44 55.2	+0.3
TRF				S	S	03 45 09.3	-0.8
KTH	**Kantishna Hill**	0.40	352	P	P	03 44 55.1	+0.1
KTH				S	S	03 45 08.8	-1.5
HUR	**Hurricane**	0.56	109	P	P	03 44 56.0	+0.2
HUR				S	S	03 45 11.1	-0.6
CUT	**Chulitna**	0.79	162	P	P	03 44 57.6	+0.4
RND	**Reindeer**	0.91	73	P	P	03 44 58.6	+0.5
MCK	**McKinley**	1.01	55	P	P	03 44 59.5	+0.6
MCK				S	S	03 45 17.3	0.0
BWN	**Browne**	1.18	30	P	P	03 45 01.6	+1.0
DHY	**Denali Highway**	1.56	92	P	P	03 45 06.1	+1.4
PWA	**Palmer West**	1.57	164	P	P	03 45 05.4	+0.6
PWA				S	S	03 45 28.5	+0.8
NEA	**Nenana**	1.61	27	P	P	03 45 05.4	+0.1
NEA				S	S	03 45 27.3	-1.2
GHO	**Glory Hole Cre**	1.64	147	P	P	03 45 06.1	+0.5
STLK	**Strandline Lak**	1.74	197	P	P	03 45 07.1	+0.4
STLK				S	S	03 45 30.7	-0.2
PMR	**Palmer**	1.75	153	P	P	03 45 06.8	-0.1
PMR				S	S	03 45 30.6	-0.6
SML	**Sawmill**	1.77	139	P	P	03 45 07.1	+0.1
MLY	**Manley**	1.88	1	P	P	03 45 08.5	+0.2
CCB	**Clear Creek Bu**	1.99	40	P	P	03 45 10.0	+0.3
FIB	**Fire Island**	2.02	171	P	P	03 45 10.9	+0.9
CKN	**Chakachatna No**	2.05	199	P	P	03 45 11.2	+0.9
KNK	**Knik Glacier**	2.06	147	P	P	03 45 10.8	+0.2
SCM	**Sheep Creek Mo**	2.09	128	P	P	03 45 11.2	+0.3
MDM	**Murphy Dome**	2.13	31	P	P	03 45 11.8	+0.4
RC01	**Rabbit Creek A**	2.14	166	P	P	03 45 11.6	+0.1
COLA	**College**	2.15	36	P	P	03 45 12.0	+0.3
VOGL	**Vogel Lake**	2.18	175	P	P	03 45 13.4	+1.4
THY	**Trims Highway**	2.29	81	P	P	03 45 15.1	+1.7
IL1	**Eielson Array**	2.36	45	P	P	03 45 14.4	0.0
ILAR	**Eielson Array**	2.36	45	P	P	03 45 14.4	0.0
	13nm,0.3s,baz=227,slow=12,SNR=984						
ILAR				S	S	03 45 44.6	+0.2
	4.5nm,0.3s,baz=242,slow=16,SNR=6.0						
TT01	**Tatalina**	2.40	266	P	P	03 45 14.5	-0.3
TT01				S	S	03 45 43.9	-1.3
PAX	**Paxson**	2.43	92	P	P	03 45 15.8	+0.6
NKA	**Nikishka**	2.43	185	P	P	03 45 17.9	+2.6
PWL	**Port Wells**	2.58	152	P	P	03 45 17.0	-0.2
SLKM	**Skilak Lake**	2.67	174	P	P	03 45 18.6	+0.1
RDT	**Redoubt**	2.71	197	P	P	03 45 19.1	+0.3
TZL	**Tazlina**	2.72	112	P	P	03 45 20.1	+1.0
MPA	**Moose Pass**	2.76	165	P	P	03 45 19.2	-0.4
MPA				S	S	03 45 51.5	-2.1
NCT	**North Crescent**	2.80	202	P	P	03 45 20.4	+0.4
RDN	**Redoubt North**	2.81	200	P	P	03 45 20.7	+0.5
REF	**Redoubt East F**	2.83	200	P	P	03 45 21.7	+1.3
RSO	**Redoubt South**	2.86	200	P	P	03 45 21.6	+0.7
GLI	**Glacier Island**	2.88	141	P	P	03 45 20.3	-0.7
JPK	**Jack Peak**	2.89	135	P	P	03 45 20.4	-0.8
DOT	**Dot Lake**	3.07	78	P	P	03 45 23.4	-0.1
IM3	**Indian Mountai**	3.11	337	P	P	03 45 23.8	-0.3
DIV	**Divide**	3.12	129	P	P	03 45 23.1	-1.1
SEW	**Seward**	3.13	168	P	P	03 45 23.8	-0.6
SEW				S	S	03 46 00.8	-1.3
NNL	**Ninilchik**	3.14	185	P	P	03 45 25.6	+1.1
FID	**Port Fidalgo**	3.16	138	P	P	03 45 23.9	-0.9
IMA	**Indian Mountai**	3.17	338	eP	P	03 45 24.7	-0.3
ILIM	**Iliamna**	3.26	199	P	P	03 45 25.9	-0.1
INE	**Iliamna NE**	3.29	200	P	P	03 45 26.9	+0.4
ILW	**Iliamna West**	3.31	201	P	P	03 45 26.8	+0.1
BRLK	**Bradley Lake**	3.41	181	P	P	03 45 27.7	-0.3
BRLK				S	S	03 46 06.5	-2.0
LTI	**Latouche**	3.43	155	P	P	03 45 27.1	-1.2
LTI				S	S	03 46 07.8	-1.3
HIN	**Hinchinbrook I**	3.44	142	P	P	03 45 27.9	-0.5
EYAK	**Cordova Ski Ar**	3.54	135	P	P	03 45 29.4	-0.4
CVA	**Cordova**	3.55	135	P	P	03 45 29.3	-0.5
CNPM	**China Poot**	3.65	184	P	P	03 45 31.1	-0.2
GLB	**Gilahina Butte**	3.69	115	P	P	03 45 31.7	0.0
OPT	**Oil Point**	3.71	200	P	P	03 45 32.9	+0.9
AUL	**Augustine Lava**	4.00	200	P	P	03 45 37.7	+1.9
RAGM	**Ragged Mountai**	4.02	131	P	P	03 45 35.8	-0.3
BCA3	**Beaver Creek A**	4.09	87	P	P	03 45 36.6	-0.4
COLD	**Coldfoot**	4.09	3	P	P	03 45 37.1	+0.1
BALM	**Baldy**	4.50	114	P	P	03 45 42.2	-0.4
BM3	**Burnt Mountain**	5.00	29	P	P	03 45 49.0	-0.1
DAWY	**Dawson**	5.17	75	P	P	03 45 51.2	-0.2
CHX	**Chaix Hills**	5.56	120	P	P	03 45 57.7	+1.1
PCA	**Pinnacle**	5.89	117	P	P	03 46 01.1	+0.1
PNL	**Peninsula**	6.49	117	P	P	03 46 09.1	-0.1
INK	**Inuvik**	8.77	46	P	P	03 46 39.1	-0.5
	0.3nm,0.3s,baz=238,slow=10,SNR=12						
YKA	**Yellowknife Ar**	16.41	76	P	P	03 48 21.0	+3.0
	0.1nm,0.3s,baz=294,slow=13,SNR=5.6						
BW06	**Boulder Array**	31.33	111	P	P	03 50 44.3	+0.3
	0.5nm,0.5s,mb3.5						
ARCES	**ARCESS Array B**	47.56	2	P	P	03 52 56.9	-0.5
	7.1nm,1.1s,mb4.2,baz=9.5,slow=7.4,SNR=5.4						
FINES	**FINESS Array B**	55.69	2	P	P	03 53 57.6	-0.8
	2.7nm,1.0s,mb4.0,slow=7.6,SNR=3.4						
BVAR	**Borovoye Array**	59.75	333	P	P	03 54 25.5	-1.3
	0.6nm,0.5s,mb3.7,baz=56,slow=5.2,SNR=4.3						
AKASG	**Malin Array Be**	66.48	360	P	P	03 55 09.9	-1.1
	0.6nm,0.4s,mb3.8,baz=0.8,slow=5.9,SNR=5.2						

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*IDC **09** 04:28:26.7±0.7,32.89N×92.22E,mb4.1/16,mb1 4.3/18, mb1mx4.2/24,ML4.6/2,MS3.1/1,Ms1 3.3/1,ms1mx3.0/24, Error ellipse: s-maj=25.5km s-min=16.0km az=46.0*

*LDG **09** 04:28:29.9±0.2,33.00N×92.16E,h33^{km},Mb4.7/18,Error ellipse: s-maj=9.8km s-min=3.3km az=131.0*

*MOS **09** 04:28:29.1±0.9,32.80N×92.22E,h33^{km},mb4.3/10,Error ellipse: s-maj=33.5km s-min=13.6km az=109.0*

*NEIC **09** 04:28:34.1±0.7,32.92N×92.24E,h57^{km}±7^{km},mb4.4/28, Error ellipse: s-maj=6.8km s-min=5.5km az=200.0*

*BJI **09** 04:28:35.3,32.90N×92.54E,h56^{km},mB4.8,mb4.5,ML4.0, Ms3.8,Msz3.8*

ISC 09 04:28:31.2±0.8**,32.84N**±0.05×**92.27E**±0.05**,h50**^{km}±9^{km}**, n92,**σ**0**^{s}**.82**/88**,mb4.4**/37**,2C-2D,Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	**Lhasa**	3.28	197	P	P	04 29 26.0	+4.6
LSA				Smax			
	comp=N,140nm,1.0s						
LSA				Smax			
	comp=E,290nm,1.0s						
SHL	**Shillong**	7.26	183	ePN	P	04 30 16.7	-0.5
SHL				eSN	rx	04 30 37.0	
GUN	**Gumba**	7.39	230	eP	P	04 30 20.2	+1.2
	comp=E,40nm,0.7s						
KKN	**Kakani**	7.87	232	eP	P	04 30 25.4	-0.2
	comp=E,29nm,0.6s						
PKI	**Pulchoki**	7.93	230	eP	P	04 30 26.8	+0.4
	comp=E,44nm,0.9s						
DMN	**Daman**	8.10	232	eP	P	04 30 29.5	+0.7
	comp=E,23nm,0.6s						
IMP	**Imphal**	8.16	169	eP	P	04 30 29.8	+0.1
GKN	**Gorkha**	8.17	236	eP	P	04 30 29.1	-0.6
	comp=E,32nm,0.6s						
GKN	**Gorkha**	8.17	236	eP	P	04 30 29.3	-0.4
GTA	**Gaotai**	8.95	41	eP	P	04 30 40.3	-0.2
GTA				AP		04 30 44.2	
GTA				S	S	04 32 26.6	+5.6
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s						
GTA				AMB	AMB		
	comp=Z,124nm,3.8s						
GTA				LR	LR		
	comp=N,335nm,9.5s						
GTA				LR	LR		
	comp=E,243nm,9.1s						
GTA				LR	LR		
	comp=Z,287nm,9.9s						
KOLN	**Koldanda**	9.04	238	eP	P	04 30 40.7	-1.1
	comp=Z,24nm,0.7s						
CD2	**Chengdu**	9.96	98	P	P	04 30 53.8	-0.6
CD2				PP	PP	04 31 01.9	-0.5
CD2				PPP	PPP	04 31 11.3	+1.7
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
CD2				AMB	AMB		
	comp=Z,90nm,6.0s						
CD2				LR	LR		
	comp=E,520nm,8.7s						
CD2				LR	LR		
	comp=Z,490nm,8.7s						
KMI	**Kunming**	11.96	127	eP	P	04 31 24.8	+3.3
KMI				AMB	AMB		
	comp=Z,9.0nm,0.6s						
KMI	**Kunming**	11.96	127	eP	P	04 31 24.8	+3.3
	comp=Z,9.0nm,0.6s						
ENH	**Enshi**	14.90	95	P	P	04 32 00.7	+0.4
	comp=Z,31nm,1.1s						
CMAR	**Chiang Mai Arr**	15.53	156	Pn	P	04 32 06.1	-2.3
	comp=Z,0.7nm,0.3s,baz=332,slow=13,SNR=4.9						
CMAR				LR	LR	04 38 45.8	
	comp=Z,72nm,20.3s,baz=330,slow=40						
CMAR	**Chiang Mai Arr**	15.53	156	P	P	04 32 06.1	-2.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,72nm,20.3s						
TKM2	**Tokmak 2**	16.54	312	eP	P	04 32 20.6	-0.4
	comp=Z,4.5nm,0.9s						
UCH	**Uchtor**	16.89	309	eP	P	04 32 25.3	-0.1
	comp=Z,4.0nm,0.8s						
AAK	**Ala-Archa**	17.09	310	eP	P	04 32 29.1	+1.1
	comp=Z,3.1nm,0.7s						
AML	**Almayashu**	17.39	308	eP	P	04 32 33.1	+1.5
	comp=Z,4.4nm,0.7s						
EKS2	**Erkin-Say**	17.57	309	eP	P	04 32 34.6	+0.6
	comp=Z,6.4nm,0.9s						
SONM	**Songino Array**	18.40	31	P	P	04 32 43.5	-0.6
	comp=Z,0.6nm,0.3s,baz=215,slow=12,SNR=22						
ULN	**Ulaanbaatar**	18.71	32	eP	P	04 32 44.7	-3.2
	comp=Z,3.3nm,0.6s						
ZAK	**Zakamensk**	19.32	22	eP	P	04 32 54.4	-0.4
HYB	**Hyderabad**	19.72	222	eP	P	04 32 59.0	-0.3
HYB	**Hyderabad**	19.72	222	iP	P	04 32 59.0	-0.3
KURK	**Kurchatov**	20.49	335	eP	P	04 33 06.5	-0.8
	comp=Z,26nm,0.9s						
TLY	**Talaya**	20.57	20	P	P	04 32 59.7	-8.4
	comp=Z,9.6nm,1.1s						
ZAL	**Zalesovo**	21.75	348	P	P	04 33 19.7	-0.2
	comp=Z,2.9nm,0.5s,mb4.0,baz=311,slow=11,SNR=19						
ZAL	**Zalesovo**	21.75	348	P	P	04 33 19.7	-0.2
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BVAR	**Borovoye Array**	25.57	329	P	P	04 33 57.2	+0.3
	comp=Z,4.9nm,0.6s,mb4.2,baz=137,slow=13,SNR=13						
BRVK	**Borovoye**	25.64	329	eP	P	04 33 58.3	+0.6
	comp=Z,16nm,1.1s,mb4.5						
CHKZ	**Chkalovo**	25.93	330	eP	P	04 34 00.6	+0.3
	comp=Z,20nm,0.8s,mb4.7						
HIA	**Hailar**	26.22	43	eP	P	04 34 04.0	+0.9
	comp=Z,3.7nm,0.9s,mb3.9						
MALT	**Malatya**	43.62	293	P	P	04 36 27.2	-5.1
	comp=Z,3.4nm,1.0s,mb4.0						
ASF	**Jabal al Asfar**	46.24	285	P	P	04 36 53.9	+0.7
	comp=Z,2.0nm,0.6s,mb4.2,baz=36,slow=8.0,SNR=3.9						
BRTR	**Keskin Array B**	47.03	296	P	P	04 37 00.1	+0.6
	comp=Z,1.8nm,0.9s,mb4.0,baz=102,slow=7.9,SNR=10						
BRTR	**Keskin Array B**	47.03	296	P	P	04 37 00.1	+0.7
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
FINES	**FINESS Array B**	50.46	325	P	P	04 37 26.1	+0.5
	comp=Z,0.8nm,0.6s,mb3.9,baz=94,slow=7.7,SNR=3.7						
FINES	**FINESS Array B**	50.46	325	P	P	04 37 26.1	+0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARCES	**ARCESS Array B**	51.53	336	P	P	04 37 33.9	+0.3
	comp=Z,1.8nm,0.8s,mb4.1,baz=90,slow=6.3,SNR=4.7						
ARCES				PcP	PcP	04 38 47.3	-0.1
	comp=Z,2.6nm,0.9s,baz=90,slow=4.9,SNR=4.1						
ARCES	**ARCESS Array B**	51.53	336	P	P	04 37 33.9	+0.3
ARCES						04 38 47.3	
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	**ARCESS Array B**	51.53	336	P	P	04 37 33.9	+0.3
ARCES				PcP	PcP	04 38 47.2	-0.1
IDI	**Anoyia**	54.88	293	P	P	04 37 57.5	-1.4
	comp=Z,4.2nm,0.5s,mb4.8,baz=59,slow=6.9,SNR=10.0						
MORC	**Moravsky Berou**	56.31	311	P	P	04 38 08.7	-0.3
	comp=Z,2.7nm,0.7s,mb4.4						
NOA	**NORSAR Array B**	57.64	325	P	P	04 38 17.8	-0.5
	comp=Z,2.0nm,0.8s,mb4.2,baz=81,slow=6.9,SNR=4.1						
NOA	**NORSAR Array B**	57.64	325	P	P	04 38 17.8	-0.5
NOA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GERES	**GERESS Array B**	58.97	311	P	P	04 38 28.4	+0.7
	comp=Z,1.1nm,0.6s,mb4.0,baz=63,slow=6.0,SNR=10						
GERES	**GERESS Array B**	58.97	311	P	P	04 38 28.4	+0.7
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
TIP	**Timpagrande**	59.78	299	eP	P	04 38 30.9	-2.6
DAVOX	**Davos**	62.05	310	P	P	04 38 48.1	-0.6
	comp=Z,2.4nm,0.9s,mb4.3,baz=122,slow=12,SNR=4.7						
DAVOS	**Davos**	62.09	310	P	P	04 38 48.1	-0.8
CDF	**Champ du Feu**	63.16	312	eP	P	04 38 55.7	-0.4
	comp=Z,7.1nm,0.9s,mb4.5						
PGF	**Pioggiola**	64.12	305	eP	P	04 39 02.3	-0.1
LPG	**La Plagne**	64.53	309	eP	P	04 39 05.6	+0.6
	comp=Z,29nm,1.1s,mb4.9						
LPL	**La Plagne**	64.54	309	eP	P	04 39 05.3	+0.2
	comp=Z,17nm,0.8s,mb4.8						
SBF	**Sospel**	64.69	307	eP	P	04 39 05.6	-0.5
	comp=Z,55nm,1.0s,mb5.2						
MBDF	**Montbardon**	64.81	308	eP	P	04 39 06.7	-0.1
	comp=Z,9.2nm,0.8s,mb4.6						
ORIF	**Oris-en-Rattie**	65.32	309	eP	P	04 39 09.6	-0.5
	comp=Z,16nm,0.9s,mb4.8						
SMRF	**Simiane la Rot**	65.89	308	eP	P	04 39 13.5	-0.3
SMF	**Signal de Mont**	65.97	311	eP	P	04 39 13.6	-0.7
SSF	**Saint Saulge**	66.03	312	eP	P	04 39 14.0	-0.6
	comp=Z,5.4nm,0.7s,mb4.4						
WRA	**Warramunga Arr**	66.12	136	P	P	04 39 16.5	+0.9
	comp=Z,1.7nm,0.8s,mb4.1,baz=326,slow=7.7,SNR=6.2						
WRA	**Warramunga Arr**	66.12	136	P	P	04 39 16.5	+0.9
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
AVF	**Avril sur Loir**	66.23	311	eP	P	04 39 15.5	-0.4
EKA	**Eskdalemuir Ar**	66.58	322	P	P	04 39 16.6	-1.3
	comp=Z,2.5nm,0.9s,mb4.2,baz=84,slow=7.6,SNR=4.6						
EKA	**Eskdalemuir Ar**	66.58	322	P	P	04 39 16.6	-1.3
EKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KAC	**Achnashellach**	66.77	324	eP	P	04 39 21.3	+2.2
	comp=Z,1.8nm,0.7s,mb4.2						
TCF	**Toulx Ste Croi**	67.15	311	eP	P	04 39 21.7	0.0
	comp=Z,2.6nm,0.5s,mb4.2						
LDF	**La Druitiere**	67.65	314	eP	P	04 39 24.3	-0.4
	comp=Z,25nm,1.2s,mb4.8						
RJF	**Les Rejaudoux**	68.00	310	eP	P	04 39 26.7	-0.3
GRR	**Gorron**	68.18	314	eP	P	04 39 27.7	-0.4
MFF	**Saint Martin d**	68.50	312	eP	P	04 39 29.8	-0.3
LFF	**La Frestale**	68.65	310	eP	P	04 39 31.4	+0.3
	comp=Z,8.4nm,0.6s,mb4.6						
ASAR	**Alice Springs**	68.81	139	P	P	04 39 34.1	+1.7
	comp=Z,2.2nm,0.7s,mb4.2,baz=330,slow=6.5,SNR=8.8						
ETSF	**Etsaut**	70.39	309	eP	P	04 39 42.2	+0.4
	comp=Z,20nm,1.0s,mb4.7						
COLA	**College**	72.00	23	P	P	04 39 50.5	-0.5
	comp=Z,6.5nm,0.9s,mb4.6						
ILAR	**Eielson Array**	72.38	23	P	P	04 39 53.5	+0.3
	comp=Z,2.6nm,0.9s,mb4.1,baz=303,slow=5.6,SNR=21						
ILAR	**Eielson Array**	72.38	23	P	P	04 39 53.6	+0.4
ILAR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
RES	**Resolute Bay**	72.64	2	eP	P	04 39 54.8	+0.3
	comp=Z,4.6nm,1.0s,mb4.4						
INK	**Inuvik**	73.57	16	eP	P	04 40 00.8	+0.7
	comp=Z,4.2nm,1.0s,mb4.3						
ESDC	**Sonseca Array**	74.18	307	P	P	04 40 04.5	+0.3
	comp=Z,0.9nm,0.7s,mb3.8,baz=38,slow=6.1,SNR=5.9						
EVO	**Evora**	77.47	308	eP	P	04 40 23.4	+0.5
	comp=Z,16nm,1.1s,mb4.5						
YKA	**Yellowknife Ar**	82.56	12	P	P	04 40 50.4	+0.8
	comp=Z,1.4nm,0.8s,mb4.0,baz=330,slow=5.1,SNR=19						
YKA	**Yellowknife Ar**	82.56	12	P	P	04 40 50.4	+0.8
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	**Yellowknife Ar**	82.56	12	eP	P	04 40 50.4	+0.8
SNAA	**Sanae**	122.39	202	⇑i	PKPdf	04 47 19.6	-0.6
VNA2	**Neumayer--Watz**	123.80	203	⇓i	PKPdf	04 47 26.6	+3.7
VNA1	**Neumayer--Stat**	124.07	203	⇓i	PKPdf	04 47 22.0	-1.5
VNA3	**Neumayer Olymp**	124.55	203	⇑i	PKPdf	04 47 27.8	+3.6
SAML	**Samuel**	147.13	311	ePKPdf	PKPdf	04 48 08.7	+1.6
SAML				ePKPbc	PKPdf	04 48 11.6	+4.5

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*NAO **09** 04:30:40.2±3.6,67.39N×32.82E,ML2.3*

HEL 09 04:30:37.3±0.2**,67.63N**×**34.05E,ML2.1,ML2.3**(NAO)**, Explosion,Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	**Maaselka**	2.63	231	ePB	Pb	04 31 23.4	-1.7
MSF				eSB	Sb	04 31 56.4	-1.7
MSF				MSG		04 32 00.3	
	comp=Z,4.8nm,0.3s						
SGF	**Sodankyl**	2.90	270	eP	Pn	04 31 24.7	-0.8
SGF				eS	Sn	04 31 58.9	-2.7
SGF				eSB	Sb	04 32 03.5	-2.2
SGF				MSG		04 32 08.6	
	comp=Z,5.3nm,0.3s						
KEV	**Kevo**	3.34	313	eP	Pn	04 31 30.9	-0.9
KEV				eS	Sn	04 32 09.9	-3.0
KEV				eSG	Sg	04 32 20.0	-8.5
ARA0	**ARCESS Array S**	3.67	305	Pn	Pn	04 31 35.1	-1.4
	baz=122,slow=16						
ARA0				Sn	Sn	04 32 16.7	-4.5
	baz=127,slow=28						
ARA0				Lg		04 32 26.8	
	baz=111,slow=37						
ARA0	**ARCESS Array S**	3.67	305	eP	Pn	04 31 35.1	-1.4
ARA0				eS	Sn	04 32 16.7	-4.5
ARA0				eSB		04 32 26.8	
OUL	**Oulu**	4.16	236	eS	Sn	04 32 30.7	-2.9
OUL				eSG	Sg	04 32 45.8	-10
OUL				MSG		04 32 52.1	
	comp=Z,3.8nm,0.3s						
KJN	**Kajaani**	4.41	219	eS	Sn	04 32 35.5	-4.4
KJN				eSG	Sg	04 32 52.5	-12
KJN				MSG		04 32 54.9	
	comp=Z,2.7nm,0.3s						
JOF	**Joensuu**	4.87	195	eS	Sn	04 32 46.0	-5.5
JOF				eSG	Sg	04 33 06.9	-12
FIA0	**FINESS Array S**	7.09	213	Lg		04 34 11.4	
	baz=29,slow=28						
FIA0	**FINESS Array S**	7.09	213	Lg		04 34 11.4	
	baz=29,slow=28						
FIA0	**FINESS Array S**	7.09	213	eSG		04 34 11.4	

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*FUNV **09** 04:30:41.1,10.80N×62.33W,h63^{km},MW3.1*

*TRN **09** 04:30:42.4,10.85N×62.22W,h76^{km},MD3.8*

ISC 09 04:30:39.8±0.7**,10.76N**±0.04×**62.36W**±0.03**,h73**^{km}±7^{km}**, n16,**σ**1**^{s}**.01**/30**,2C-4D,Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	**Guiria**	0.17	129	⇑iP	P	04 30 50.9	+0.3
GUIV				eS	S	04 30 57.6	-1.1
GUNV	**Guanoco**	0.82	224	eP	P	04 30 58.1	+1.6
GUNV				eS	S	04 31 09.3	+0.3
CRUV	**Carupano**	0.86	265	⇓iP	P	04 30 57.7	+0.7
CRUV				eS	S	04 31 09.6	-0.2
BUAY	**Buenos Aires**	0.93	134	eP	P	04 31 01.7	+4.0
TRN	**Trinidad (W)**	0.95	97	⇓iP	P	04 30 58.7	+0.7
TRN				iS	S	04 31 10.8	-0.8
ITEV	**Isla Los Testi**	0.96	308	⇓iP	P	04 30 58.0	-0.2
ITEV				eS	S	04 31 11.1	-0.9
TPP	**Pointe-a-Pierr**	0.99	116	eP	P	04 31 00.2	+1.6
TPP				eS	S	04 31 13.6	+0.9
SIPA	**Siparia**	1.04	126	⇑iP	P	04 31 01.3	+2.2
TBH	**Brigand Hill**	1.30	102	eP	P	04 31 03.3	+0.6
TBH				eS	S	04 31 19.7	+0.1
GRW	**Mount Saint Ca**	1.55	26	eP	P	04 31 05.7	-0.4
GRW				eS	S	04 31 25.3	-0.2
TPR	**Prospect**	1.61	75	eP	P	04 31 07.1	+0.3
TPR				eS	S	04 31 26.4	-0.4
BOT	**Bacolet**	1.66	76	⇓iP	P	04 31 07.7	+0.2
BOT				eS	S	04 31 26.1	-1.9
ORIV	**Oritupano**	1.97	212	eP	P	04 31 13.1	+1.4
ORIV				eS	S	04 31 35.7	+0.5
RIOV	**Rio Grande**	2.73	169	eP	P	04 31 22.1	-0.2
RIOV				eS	S	04 31 52.0	-2.2
GURV	**El Guri**	3.06	194	eP	P	04 31 26.3	-0.7
GURV				eS	S	04 32 00.8	-1.8
CAOV	**Caicara del Or**	5.19	229	eP	P	04 31 55.7	-0.8
CAOV				eS	S	04 32 49.3	-6.4

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*PRU **09** 04:48:50.8,50.28N×18.76E*

WAR 09 04:48:50.4,50.27N×**18.83E,h1**^{km}**,Location given by Central Institute of Mining, origin time based upon OJC,Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	0.62	225	ePG	Pg	04 49 02.4	-0.3
OKC				eSG	Sg	04 49 11.4	+0.4
OJC	**Ojcow**	0.62	95	ePg	Pg	04 49 02.4	-0.5
OJC				eSg	Sg	04 49 11.8	+0.6
NIE	**Niedzica**	1.29	131	ePg	Pg	04 49 14.8	-1.3
NIE				eSg	Sg	04 49 33.8	+0.6
DPC	**Dobruska-Polom**	1.61	274	ePG	Pg	04 49 19.2	-3.3
DPC				eSG	Sg	04 49 40.6	-3.3
UPC	**Upice**	1.82	278	ePG	Pg	04 49 23.8	-2.9
UPC				eSG	Sg	04 49 47.9	-3.0
KHC	**Kasperske Hory**	3.59	253	ex	x	04 50 22.0	
KHC				eSG	Sg	04 50 44.5	-5.5

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*NIED **09** 05:18:00,31.20N×131.90E,h26^{km},Mw4.0 Best double couple: $M_0$1.16×10^{15} NP1:ϕ_s62°,δ58°,λ127°. NP2:ϕ_s187°, δ48°,λ46°.*

JMA 09 05:18:50.2±0.2**,31.18N**×**131.93E,h24**^{km}±2^{km}**,M3.5, 5C-1D,Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

JNAR	**Kushima--Naru**	0.66	302	⇓P	Pb	05 19 02.9	-0.1
JNAR				eS	Sb	05 19 12.1	+0.4
JTSR	**Tashiro 2**	0.86	269	⇑P	Pb	05 19 06.2	-0.2
JTN	**Tanegashima 3**	0.97	238	P	Pb	05 19 08.8	+0.6
JTN				eS	Sb	05 19 22.1	+1.4
JTZ	**Takazaki**	1.02	315	⇑P	Pb	05 19 08.3	-0.7
JTZ				eS	Sb	05 19 22.3	+0.3
JTSN	**Tsuno**	1.12	341	⇑P	Pn	05 19 10.5	-0.1
JTSN				S	Sb	05 19 25.5	+0.5
JSU	**Suzuyama**	1.30	285	⇑P	Pn	05 19 12.6	-0.6
JZO	**Okuchi**	1.48	310	⇑P	Pn	05 19 15.3	-0.5
JKC	**Kuchinoerabu**	1.66	245	P	Pn	05 19 17.8	-0.4
JKC				eS	Sn	05 19 38.0	-0.9
JSJ	**Shimokoshiki**	1.96	285	P	Pn	05 19 21.2	-1.3

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*LDG **09** 05:34:16.9±0.1, 49.40N×6.89E, h1^{km}, Md2.7/1, Ml2.6/10, Error ellipse: s-maj=1.7km s-min=1.3km az=110.0, Suspected Mining induced.*

*NEIC **09** 05:34:16.9, 49.40N×6.89E, h1^{km}, ML2.6(LDG), ML2.1(STR), After LDG.*

*CSEM **09** 05:34:16.8±0.1, 49.40N×6.92E, h2^{km}, ML2.6/9, Error ellipse: s-maj=0.9km s-min=0.8km az=118.0*

*BGR **09** 05:34:17.1±0.3, 49.38N×6.91E, h1^{km}, ML1.9/1, Error ellipse: s-maj=3.3km s-min=2.2km az=94.0*

*BNS **09** 05:34:18.7±1.0, 49.49N×6.88E, h1^{km}, ML1.6*

ISC 09 05:34:15.2±0.3, **49.37N**±0.01×**6.84E**±0.03, **n42**, σ**0^{s}98**/79, **Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUP	**Ruppelstein**	0.36	23	ePg	Pg	05 34 23.5	+1.0
	SNR=11						
RUP	**Ruppelstein**	0.36	23	Pg	Pg	05 34 22.9	+0.5
RUP				Sg	Sg	05 34 27.4	+0.2
WLF	**Walferdange**	0.54	304	ePg	Pg	05 34 28.2	+2.3
	SNR=4.9						
WLF	**Walferdange**	0.54	304	ePg	Pg	05 34 28.1	+2.2
WLF	**Walferdange**	0.54	304	ePg	Pg	05 34 28.1	+2.2
ABH	**Alteburg**	0.69	42	ePg	Pg	05 34 29.1	+0.2
	SNR=3.4						
ABH				eSg	Sg	05 34 37.9	-0.2
	SNR=3.0						
ABH	**Alteburg**	0.69	42	Pg	Pg	05 34 28.9	0.0
ABH				Sg	Sg	05 34 37.6	-0.5
LANF	**Langenberg**	0.74	121	ePg	Pg	05 34 30.1	+0.1
	SNR=3.1						
KTD	**Kalmit**	0.81	93	ePg	Pg	05 34 32.2	+0.7
	SNR=3.3						
BGG	**Burgeitz**	0.90	21	ePg	Pg	05 34 33.6	+0.5
BGG				eSg	Sg	05 34 44.8	-0.2
	35nm,0.6s						
CDF	**Champ du Feu**	1.00	163	ePg	Pg	05 34 36.0	+0.9
CDF				eSg	Sg	05 34 49.5	+1.0
	20nm,0.3s						
WLS	**Welschbruch**	1.01	160	ePg	Pg	05 34 36.3	+0.9
	SNR=7.5						
WLS				eSg	Sg	05 34 49.7	+0.7
	SNR=3.1						
WLS	**Welschbruch**	1.01	160	Pg	Pg	05 34 36.2	+0.8
WLS				Sg	Sg	05 34 48.8	-0.2
WLS	**Welschbruch**	1.01	160	Pg	Pg	05 34 36.2	+0.8
WLS				Sg	Sg	05 34 49.7	+0.7
	SNR=3.1						
RFYF	**Reffroy**	1.17	231	ePg	Pg	05 34 40.0	+1.6
	baz=48						
RFYF				eSg	Sg	05 34 55.8	+1.8
	24nm,0.3s,baz=55						
ECH	**Echery**	1.17	170	ePg	Pg	05 34 39.6	+1.0
	SNR=4.0						
ECH				eSg	Sg	05 34 55.0	+0.8
	SNR=8.4						
ECH	**Echery**	1.17	170	Pg	Pg	05 34 39.2	+0.6
ECH				Sg	Sg	05 34 55.0	+0.8
	SNR=8.4						
STB	**Steinbach**	1.23	360	eSg	Sg	05 34 56.2	+0.2
THEF	**They Montfort**	1.27	207	ePg	Pg	05 34 41.5	+0.8
	SNR=5.6						
THEF				eSg	Sg	05 34 58.1	+0.4
	SNR=4.0						
THEF	**They Montfort**	1.27	207	Pg	Pg	05 34 41.4	+0.8
THEF				Sg	Sg	05 34 57.7	+0.1
THEF	**They Montfort**	1.27	207	Pg	Pg	05 34 41.4	+0.8
THEF				Sg	Sg	05 34 58.1	+0.5
	SNR=4.0						
TOD	**Tromm**	1.30	79	ePg	Pg	05 34 40.1	-1.1
	SNR=6.0						
TOD				eSg	Sg	05 34 57.6	-0.9
	SNR=3.6						
TOD	**Tromm**	1.30	79	Pg	Pg	05 34 40.0	-1.2
KLL	**Kalltalsperre**	1.32	345	ePg	Pg	05 34 42.1	+0.5
KLL				eSg	Sg	05 34 58.7	-0.5
	8.1nm,0.7s						
HAU	**Haudompre**	1.40	194	ePn	Pn	05 34 42.6	+0.6
HAU				ePg	Pg	05 34 43.8	+0.6
HAU				eSg	Sg	05 35 02.4	+0.5
	8.0nm,0.2s						
HAU	**Haudompre**	1.40	194	ePg	Pg	05 34 43.8	+0.6
HAU				eSg	Sg	05 35 02.4	+0.5
	4.0nm,0.2s						
BFO	**Black Forest**	1.43	136	ePg	Pg	05 34 43.7	0.0
	SNR=4.6						
BFO				eSg	Sg	05 35 01.9	-0.9
	SNR=4.9						
BFO	**Black Forest**	1.43	136	ePg	Pg	05 34 43.7	0.0
BFO				eSg	Sg	05 35 01.9	-0.9
MEZF	**Maizieres J'vi**	1.46	234	ePg	Pg	05 34 44.9	+0.5
MEZF				eSg	Sg	05 35 05.1	+1.2
	15nm,0.4s,baz=54						
GIVF	**Givet**	1.50	300	ePg	Pg	05 34 44.9	-0.2
GIVF				eSg	Sg	05 35 04.6	-0.5
	8.1nm,0.3s						
HGN	**Heimansgroeve**	1.51	338	eSg	Sg	05 35 05.5	-0.1
	SNR=2.2						
MOF	**Molkenrain**	1.53	173	eSg	Sg	05 35 06.1	-0.1
	SNR=4.1						
MOF	**Molkenrain**	1.53	173	Pg	Pg	05 34 46.0	+0.3
HINF	**Hinteralfeld**	1.55	180	ePg	Pg	05 34 46.1	-0.1
HINF				eSg	Sg	05 35 06.6	-0.3
	19nm,0.3s						
SFTF	**Sexfontaines**	1.67	226	ePn	Pn	05 34 46.2	+0.4
SFTF				ePg	Pg	05 34 48.8	+0.4
SFTF				eSn	Sn	05 35 07.6	-0.6
SFTF				eSg	Sg	05 35 11.1	+0.4
	13nm,0.4s,baz=45						
SFTF	**Sexfontaines**	1.67	226	ePg	Pg	05 34 48.8	+0.4
SFTF				eSn	Sn	05 35 07.6	-0.6
SFTF				eSg	Sg	05 35 11.1	+0.4
	6.3nm,0.4s						
FELD	**Feldberg**	1.68	152	ePg	Pg	05 34 49.1	+0.4
	SNR=2.1						
FELD				eSg	Sg	05 35 09.9	-1.3
	SNR=4.3						
BAIF	**Baives**	1.84	293	ePg	Pg	05 34 50.8	-1.2
LOMF	**Lomont**	2.02	180	eSg	Sg	05 35 21.5	-0.9
	SNR=2.7						
SSF	**Saint Saulge**	3.21	225	ePn	Pn	05 35 06.4	-1.5
SSF				ePg	Pg	05 35 17.2	-2.1
SSF				eSn	Sn	05 35 44.5	-2.9
SSF				eSg	Sg	05 35 59.6	-2.4
	3.1nm,0.4s						
SSF	**Saint Saulge**	3.21	225	ePg	Pg	05 35 17.2	-2.1
SSF				eSn	Sn	05 35 44.5	-2.9
SSF				eSg	Sg	05 35 59.6	-2.4
	1.5nm,0.4s						
SMF	**Signal de Mont**	3.39	218	ePn	Pn	05 35 09.6	-0.8
SMF				eSn	Sn	05 35 48.7	-3.2
SMF				eSg	Sg	05 36 05.3	-2.7
	2.7nm,0.3s						

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*NEIC **09** 05:59:39.6, 37.23S×177.90E, h80^{km}, ML4.1(WEL), After WEL.*

WEL 09 05:59:41.4±0.5, **37.28S**×**177.79E**, **h56**^{km}±4^{km}, **ML3.8**/7, **2C-2D, Error ellipse: s-maj=3.3km s-min=2.5km az=0.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	0.50	125	P	P	05 59 52.3	-0.8
MXZ	**Matakaoa Point**	0.50	125	P*	P	05 59 52.3	-0.8
MXZ				S*	S	06 00 02.2	+0.5
MXZ				S*	S	06 00 02.3	+0.6
WIZ	**White Island**	0.54	242	P*	P	05 59 53.5	0.0
WIZ				S*	S	06 00 02.6	+0.1
PUZ	**Puketiti**	0.88	155	P	P	05 59 58.1	+0.3
PUZ				S	S	06 00 12.9	+2.9
PUZ	**Puketiti**	0.88	155	⇓PN	P	05 59 58.1	+0.3
PUZ				SN	S	06 00 09.4	-0.7
MWZ	**Matawai**	1.07	191	P	P	05 59 59.9	-0.7
MWZ	**Matawai**	1.07	191	⇑P*	P	05 59 59.9	-0.7
MWZ				S*	S	06 00 13.9	-0.9
URZ	**Urewera**	1.12	209	P	P	06 00 00.6	-0.6
URZ	**Urewera**	1.12	209	⇑P*	P	06 00 00.6	-0.6
URZ				S*	S	06 00 14.7	-1.2
MYRZ	**Mayor Island**	1.24	269	P*	P	06 00 02.6	-0.2
KUZ	**Kuaotunu**	1.74	287	P	P	06 00 09.3	-0.6
KUZ	**Kuaotunu**	1.74	287	⇓PN	P	06 00 09.3	-0.6
KNZ	**Kokohu**	1.74	183	P	P	06 00 08.8	-1.1
KNZ	**Kokohu**	1.74	183	PN	P	06 00 08.8	-1.1
BKZ	**Black Stump Fm**	2.15	208	eP	P	06 00 15.3	-0.3
BKZ	**Black Stump Fm**	2.15	208	P*	P	06 00 15.3	-0.2
MOVZ	**Moawhango**	2.66	216	eP*	P	06 00 21.9	-1.0
WCZ	**Waipu Caves**	3.08	295	PN	P	06 00 28.3	-0.5
TSZ	**Takapari Road**	3.12	207	PN	P	06 00 27.3	-2.1
BFZ	**Birch Farm**	3.60	199	eP	P	06 00 32.4	-3.8
BFZ	**Birch Farm**	3.60	199	PN	P	06 00 32.4	-3.8
BFZ				SN	S	06 01 13.4	-4.5
MRZ	**Mangatainoka R**	3.79	206	eP	P	06 00 34.9	-4.0
MRZ	**Mangatainoka R**	3.79	206	PN	P	06 00 34.9	-4.0
MRZ				SN	S	06 01 18.1	-4.5
OUZ	**Omahuta**	3.96	300	eP	P	06 00 40.8	-0.5
OUZ	**Omahuta**	3.96	300	PN	P	06 00 40.8	-0.4
KIW	**Kapiti Island**	4.22	211	P	P	06 00 40.8	-4.1
KIW	**Kapiti Island**	4.22	211	PN	P	06 00 40.8	-4.1
KIW				eSN	S	06 01 28.4	-5.1
MTW	**Mount Morrison**	4.26	204	P	P	06 00 40.4	-5.1
MTW	**Mount Morrison**	4.26	204	PN	P	06 00 40.4	-5.0
MTW				eSN	S	06 01 28.2	-6.3
CAW	**Cannon Point**	4.37	208	P	P	06 00 42.4	-4.6
CAW	**Cannon Point**	4.37	208	ePN	P	06 00 42.4	-4.6
PAWZ	**Paruwai Farm**	4.49	203	ePN	P	06 00 43.6	-5.0
TUWZ	**Tuamarina**	5.11	215	ePN	P	06 00 52.0	-5.2
KHZ	**Kahutara**	6.09	211	PN	P	06 01 05.3	-5.5

CASC 09 06:11:34.1±2.6, **12.96N**×**88.91W**, **h51**^{km}±38^{km}, **MD4.2, ML3.8, 7C-20D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNVI	**San Vicente**	0.65	6	⇓eP	P	06 11 47.6	+0.3
SNVI				eS	S	06 11 57.9	+0.8
LFRS	**El Faro**	0.67	347	⇓iP	P	06 11 47.5	-0.1
LCBS	**La Ceiba**	0.69	355	⇓iP	P	06 11 47.9	0.0
LCBS				eS	S	06 11 57.6	-0.5
VSM	**San Miguel**	0.78	53	⇓iP	P	06 11 49.7	+0.7
LBRS	**Las Brisas**	0.78	351	⇓eP	P	06 11 49.4	+0.3
LBRS				eS	S	06 11 59.4	-0.7
SNET	**Serv Nac Est T**	0.79	337	⇓eP	P	06 11 48.8	-0.3
LFU	**La Fuente**	0.81	346	⇓eP	P	06 11 49.6	+0.2
BLLM	**Bellamira**	0.81	54	⇓eP	P	06 11 49.9	+0.4
BLLM				eS	S	06 12 01.9	+1.1
BOQS	**Boqueron**	0.85	335	⇓eP	P	06 11 50.1	+0.2
BOQS				eS	S	06 12 05.5	+3.7
CAHU	**Cacacuatique**	1.05	40	⇑eP	P	06 11 53.4	+0.6
CAHU				eS	S	06 12 08.0	+1.3
CNCH	**Conchagua**	1.09	73	⇓eP	P	06 11 53.5	+0.1
CNCH				eS	S	06 12 08.8	+1.1
SBLS	**San Blas**	1.11	322	⇓eP	P	06 11 53.8	+0.1
SBLS				eS	S	06 12 09.4	+1.2
SNJE	**San Jose**	1.13	323	⇓eP	P	06 11 53.9	+0.1
SNJE				eS	S	06 12 08.4	-0.1
RTR	**El Retiro**	1.17	323	⇓eP	P	06 11 54.8	+0.3
RTR				eS	S	06 12 12.0	+2.4
RBDL	**Robledal**	1.37	327	eP	P	06 11 57.4	0.0
RBDL				eS	S	06 12 15.1	+0.4
MTO2	**Montecristo 2**	1.50	343	⇓eP	P	06 11 59.1	0.0
CHIN	**Chinandega**	1.86	100	⇓eP	P	06 11 49.2	-15
CHIN				eS	S	06 12 00.6	-26
IXG	**Ixpaco**	1.93	309	eP	P	06 12 04.3	-0.8
IXG				eS	S	06 12 26.6	-1.6
PYN	**Poneloya**	1.93	107	⇓eP	P	06 12 03.8	-1.4
PYN				eS	S	06 12 26.1	-2.1
NBG	**Las Nubes**	2.13	319	⇑eP	P	06 12 08.3	+0.2
MIRN	**Miramar**	2.21	103	⇓eP	P	06 12 07.7	-1.4
MIRN				eS	S	06 12 36.4	+1.2
FUG	**Fuego 3**	2.39	308	⇓eP	P	06 12 11.7	0.0
FUG				eS	S	06 12 40.3	+0.4
COPN	**Copaltepe**	2.39	109	eP	P	06 12 10.0	-1.7
COPN				eS	S	06 12 37.4	-2.6
APYN	**Apoyeque**	2.60	106	⇓eP	P	06 12 13.7	-1.1
APYN				eS	S	06 12 46.9	+1.6
XAVN	**Gruta Xavier**	2.65	107	⇑eP	P	06 12 14.0	-1.4
XAVN				eS	S	06 12 44.9	-1.6
MGAN	**Managua**	2.72	107	⇓eP	P	06 12 14.7	-1.7
MGAN				eS	S	06 12 46.0	-2.3
MGAN				i		06 12 55.7	
	comp=N,691nm,0.4s						
TICN	**Ticuantepe**	2.77	109	⇑eP	P	06 12 15.7	-1.4
TICN				eS	S	06 12 50.1	+0.5
WILN	**Americas 2**	2.78	106	eP	P	06 12 15.6	-1.6
WILN				eS	S	06 12 48.5	-1.2
JAT	**Jato**	2.97	297	⇑eP	P	06 12 19.3	-0.7
JAT				eS	S	06 12 53.0	-1.6
VCR	**Vista de Mar**	4.27	131	eP	P	06 12 37.7	-0.6
JCR	**Jicaral**	4.84	129	eP	P	06 12 45.8	-0.5
CGA2	**Cerro Gallo 2**	5.25	123	⇑eP	P	06 12 53.1	+1.2
PRS1	**Puriscal**	5.39	123	eP	P	06 12 54.6	+0.7
LAJ	**Bijagual**	5.62	123	eP	P	06 12 53.1	-4.0
LCR2	**La Lucha 2**	5.78	123	eP	P	06 13 00.1	+0.7
URSC	**Urasca**	5.91	121	eP	P	06 13 01.6	+0.4
URSC				eS	S	06 14 07.1	-1.5
BUS	**Buena Vista**	6.08	123	⇑eP	P	06 13 04.6	+1.0
ACR	**Cerro Adams**	7.08	127	eP	P	06 13 17.1	-0.5

IDC 09 06:12:43.7±25.0, **30.38S**×**179.90W**, **h220**^{km}±240^{km}, **mb3.1**/2, **mb1 3.4**/3, **mb1mx3.2**/13, **ML3.9**/1, **MS4.0**/1, **Ms1 4.0**/1, **ms1mx3.1**/6, **Error ellipse: s-maj=275.0km s-min=48.7km az=13.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	8.24	197	P	P	06 14 39.9	-0.9
	1.4nm,0.3s,baz=261,slow=7.3,SNR=9.9						
URZ				S	S	06 15 59.5	-13
	2.7nm,0.3s,baz=83,slow=22,SNR=16						
PMG	**Port Moresby**	37.12	297	LR	LR	06 30 47.2	
	comp=Z,208nm,19.5s,baz=141,slow=29						
ASAR	**Alice Springs**	41.47	268	P	P	06 20 08.7	-2.0
	0.3nm,0.4s,baz=102,slow=8.3,SNR=6.0						
WRA	**Warramunga Arr**	42.45	273	P	P	06 20 17.6	-1.1
	0.6nm,0.3s,baz=111,slow=8.1,SNR=8.8						
KAF	**Kangasniemi**	143.97	339	epkp	PKPdf	06 31 49.7	-2.2
	baz=51,slow=3.5						
FINES	**FINESS Array B**	144.55	339	PKP	PKPdf	06 31 52.5	-0.4
	1.6nm,0.5s,baz=45,slow=3.9,SNR=17						

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*NEIC **09** 06:26:47.0, 32.01S×69.62W, h141^{km}, MD3.5(GUC), After GUC.*

GUC 09 06:26:47.0±0.6, **32.01S**×**69.62W**, **h141**^{km}±8^{km}, **MD3.5, ML3.2, 3C-4D, Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JACH	**Jahuel**	1.06	231	⇑iP	P	06 27 11.9	+0.2
JACH				i S	S	06 27 30.7	0.0
MDZ	**Mendoza**	1.09	143	eP	P	06 27 10.5	-1.4
MDZ				i S	S	06 27 27.5	-3.6
FCH	**Farellones**	1.43	203	⇓iP	P	06 27 16.0	+0.5
FCH				i S	S	06 27 38.0	+0.6
FCH				AMP		06 27 38.9	
	comp=N,181nm,0.2s						
CMCH	**Combarbala**	1.44	305	⇓iP	P	06 27 15.9	+0.3
CMCH				i S	S	06 27 37.7	+0.1
CMCH				AMP		06 27 40.4	
	comp=E,1μm,0.8s						
PEL	**Peldehue**	1.44	218	i S	S	06 27 37.5	-0.2
PEL				AMP		06 27 38.8	
	comp=N,254nm,0.3s						
ROCH	**El Roble**	1.52	230	⇑iP	P	06 27 16.6	+0.2
CLCH	**Cerro Calan**	1.58	209	⇓iP	P	06 27 17.6	+0.4
CLCH				i S	S	06 27 40.5	+0.2
CLCH				AMP		06 27 42.3	
	comp=E,418nm,0.6s						
DSCH	**Colegio Aleman**	1.60	210	⇑iP	P	06 27 17.7	+0.3
DSCH				i S	S	06 27 40.5	-0.1
DSCH				AMP		06 27 42.1	
	comp=E,432nm,0.4s						
PACH	**Papudo**	1.63	251	i P	P	06 27 17.4	-0.3
FSR	**Penalolen**	1.65	207	eP	P	06 27 18.1	+0.1
FSR				i S	S	06 27 41.8	+0.1
STL	**Santa Lucia**	1.66	211	eP	P	06 27 18.1	+0.1
STL				i S	S	06 27 41.6	-0.2
STL				AMP		06 27 42.8	
	comp=E,69nm,0.4s						
PCH	**Pirque**	1.77	205	⇓iP	P	06 27 20.1	+0.8
PCH				i S	S	06 27 45.0	+0.9
RCDM	**Rinconada Maip**	1.78	214	eP	P	06 27 19.6	+0.2
RCDM				i S	S	06 27 44.4	+0.1
RCDM				AMP		06 27 45.9	
	comp=E,358nm,0.1s						
TACH	**Talagante**	1.98	214	eP	P	06 27 21.6	-0.1
CHCH	**Chadas Angostu**	2.10	204	eP	P	06 27 23.5	+0.3
CHCH				i S	S	06 27 51.3	+0.3

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*NEIC **09** 06:35:38.0, 61.36N×150.23W, h37^{km}, ML3.7(PMR), ML3.5(AEIC), After AEIC.*

NEIC Felt [II] at Palmer.

*IDC **09** 06:35:39.5±4.5, 61.45N×150.35W, h75^{km}±36^{km}, mb3.5/9, mb1 3.7/14, mb1mx3.6/23, ML3.4/4, Error ellipse: s-maj=34.5km s-min=16.0km az=55.0*

ISC 09 06:35:36.5±0.2, **61.36N**±0.02×**150.19W**±0.04, **h58**^{km}±4^{km}, **n89**, σ**0^{s}82**/106, **mb3.7**/10, **Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FIB	**Fire Island**	0.20	177	P	P	06 35 46.0	+0.3
PWA	**Palmer West**	0.33	27	P	P	06 35 45.8	-0.9
RC01	**Rabbit Creek A**	0.35	141	P	P	06 35 46.4	-0.5
RC01				S	S	06 35 54.0	-0.6
PMR	**Palmer**	0.56	65	eP	P	06 35 48.3	-0.8
GHO	**Glory Hole Cre**	0.73	55	P	P	06 35 51.1	-0.1
GHO				S	S	06 36 01.4	-0.6
STLK	**Strandline Lak**	0.80	281	P	P	06 35 51.8	-0.2
NKA	**Nikishka**	0.80	220	P	P	06 35 53.1	+1.1
KNK	**Knik Glacier**	0.84	86	P	P	06 35 52.9	+0.4
SLKM	**Skilak Lake**	0.86	181	P	P	06 35 52.4	-0.3
SLKM				S	S	06 36 04.2	-0.6
SPU	**Mount Spurr**	0.92	259	P	P	06 35 53.1	-0.5
MPA	**Moose Pass**	0.96	155	P	P	06 35 54.5	+0.3
CKN	**Chakachatna No**	0.97	263	P	P	06 35 54.2	-0.1
SML	**Sawmill**	1.00	62	P	P	06 35 54.7	0.0
SML				S	S	06 36 09.6	+1.5
PWL	**Port Wells**	1.03	118	P	P	06 35 55.6	+0.4
CUT	**Chulitna**	1.05	358	P	P	06 35 55.2	-0.2
SEW	**Seward**	1.31	164	P	P	06 35 59.5	+0.3
RDT	**Redoubt**	1.34	235	P	P	06 35 59.0	-0.6
RDT				S	S	06 36 16.2	-0.3
SCM	**Sheep Creek Mo**	1.45	70	P	P	06 36 01.3	+0.3
REF	**Redoubt East F**	1.51	236	P	P	06 36 01.5	-0.3
REF				S	S	06 36 21.0	+0.5
RDN	**Redoubt North**	1.52	237	P	P	06 36 01.4	-0.5
RSO	**Redoubt South**	1.54	235	eP	P	06 36 01.9	-0.4
NCT	**North Crescent**	1.56	240	P	P	06 36 02.3	-0.2
NCT				S	S	06 36 21.9	+0.2
GLI	**Glacier Island**	1.58	106	P	P	06 36 02.4	-0.4
GLI				S	S	06 36 22.9	+0.7
BRLK	**Bradley Lake**	1.64	192	P	P	06 36 03.3	-0.3
HUR	**Hurricane**	1.64	9	P	P	06 36 04.3	+0.6
HUR				S	S	06 36 25.9	+2.1
LTI	**Latouche**	1.75	138	P	P	06 36 06.3	+1.1
JPK	**Jack Peak**	1.77	98	P	P	06 36 05.4	0.0
JPK				S	S	06 36 27.8	+1.0
ILIM	**Iliamna**	1.87	228	P	P	06 36 06.7	-0.1
ILIM				S	S	06 36 30.9	+1.6
VLZ	**Valdez**	1.88	95	P	P	06 36 06.8	-0.2
VLZ				S	S	06 36 30.1	+0.6
FID	**Port Fidalgo**	1.91	107	P	P	06 36 06.2	-1.1
CNPM	**China Poot**	1.91	196	P	P	06 36 07.0	-0.4
CNPM				S	S	06 36 30.5	+0.2
INE	**Iliamna NE**	1.92	228	P	P	06 36 07.5	-0.1
INE				S	S	06 36 32.5	+2.0
ILW	**Iliamna West**	1.95	229	P	P	06 36 08.0	+0.1
HIN	**Hinchinbrook I**	2.05	117	P	P	06 36 08.4	-0.9
TRF	**Thorofare Moun**	2.10	359	P	P	06 36 10.0	0.0
DIV	**Divide**	2.15	94	P	P	06 36 10.4	-0.4
DIV				S	S	06 36 36.8	+0.6
KTH	**Kantishna Hill**	2.23	352	P	P	06 36 12.6	+0.7
OPT	**Oil Point**	2.28	223	P	P	06 36 12.9	+0.3
CVA	**Cordova**	2.32	109	P	P	06 36 12.3	-0.8
EYAK	**Cordova Ski Ar**	2.32	109	P	P	06 36 12.6	-0.5
TZL	**Tazlina**	2.37	71	P	P	06 36 14.6	+0.6
MCK	**McKinley**	2.45	13	P	P	06 36 15.7	+0.7
AUE	**Augustine Isla**	2.56	220	P	P	06 36 16.6	+0.1
AUL	**Augustine Lava**	2.56	220	P	P	06 36 17.1	+0.5
AUH	**Augustine H**	2.57	220	P	P	06 36 18.3	+1.5
AUW	**Augustine West**	2.58	221	P	P	06 36 16.9	+0.1
AUI	**Augustine Isla**	2.59	220	P	P	06 36 17.3	+0.3
PAX	**Paxson**	2.74	52	P	P	06 36 20.2	+1.0
BWN	**Browne**	2.84	6	P	P	06 36 21.4	+0.8
RAGM	**Ragged Mountai**	2.87	107	P	P	06 36 20.6	-0.4
THY	**Trims Highway**	2.92	43	P	P	06 36 23.4	+1.7
MCNL	**McNeil River**	3.00	225	P	P	06 36 22.2	-0.7
GLB	**Gilahina Butte**	3.07	86	P	P	06 36 23.2	-0.6
TT01	**Tatalina**	3.15	302	P	P	06 36 23.9	-0.9
CCB	**Clear Creek Bu**	3.47	17	P	P	06 36 29.7	+0.3
TGL	**Tana Glacier**	3.63	96	P	P	06 36 31.1	-0.6
COLA	**College**	3.68	16	P	P	06 36 32.5	+0.1
MLY	**Manley**	3.69	356	P	P	06 36 32.6	0.0
MDM	**Murphy Dome**	3.72	13	P	P	06 36 32.7	-0.3
IL1	**Eielson Array**	3.74	22	P	P	06 36 33.6	+0.4
ILAR	**Eielson Array**	3.74	22	P	P	06 36 33.6	+0.4
	2.1nm,0.3s,baz=207,slow=14,SNR=96						
ILAR				S	S	06 37 16.6	+0.3
	5.0nm,0.3s,baz=209,slow=21,SNR=6.1						
KDAK	**Kodiak Island**	3.79	200	P	P	06 36 34.4	+0.5
BALM	**Baldy**	3.81	91	P	P	06 36 32.9	-1.3
MGLS	**Mageik LS**	4.09	222	P	P	06 36 38.2	+0.1
CAHL	**Cahill**	4.21	220	P	P	06 36 39.5	-0.3
BCA3	**Beaver Creek A**	4.29	63	P	P	06 36 40.4	-0.5
IM3	**Indian Mountai**	4.90	343	P	P	06 36 48.5	-1.1
IMA	**Indian Mountai**	4.97	343	eP	P	06 36 48.7	-1.8
PCA	**Pinnacle**	5.04	100	P	P	06 36 50.4	-1.0
PNL	**Peninsula**	5.60	103	P	P	06 36 58.1	-1.0
DAWY	**Dawson**	5.66	57	P	P	06 36 59.5	-0.5
COLD	**Coldfoot**	5.89	360	P	P	06 37 03.3	+0.1
BM3	**Burnt Mountain**	6.54	19	P	P	06 37 11.8	-0.5
WHY	**Whitehorse**	7.47	89	P	P	06 37 24.0	-1.3
INK	**Inuvik**	9.91	38	P	P	06 37 57.8	-0.8
	0.1nm,0.3s,baz=259,slow=4.2,SNR=5.8						
INK				S	S	06 39 50.9	+1.5
	0.3nm,0.3s,baz=328,slow=8.3,SNR=4.7						
DLBC	**Dease Lake**	10.53	97	P	P	06 38 04.4	-2.6
	0.1nm,0.3s,baz=87,slow=26,SNR=3.9						
YKA	**Yellowknife Ar**	16.66	70	P	P	06 39 28.7	+1.7
	0.2nm,0.3s,baz=280,slow=10.0,SNR=15						
NEW	**Newport**	22.82	110	P	P	06 40 36.1	+1.4
	1.1nm,0.6s,mb3.5,baz=278,slow=4.3,SNR=3.0						
NVAR	**Mina Array Bea**	30.27	125	P	P	06 41 44.5	+0.6
	1.0nm,0.6s,mb3.7,baz=320,slow=9.2,SNR=6.8						
NVAR	**Mina Array Bea**	30.27	125	P	P	06 41 44.5	+0.6
PDAR	**Pinedale Array**	30.45	109	P	P	06 41 46.5	+1.1
	0.4nm,0.5s,mb3.4,baz=315,slow=3.8,SNR=3.1						
ULM	**Lac du Bonnet**	31.54	85	P	P	06 41 54.0	-0.9
	0.8nm,0.5s,mb3.8,baz=311,slow=9.3,SNR=2.9						
FRB	**Frobisher Bay**	35.31	50	P	P	06 42 26.7	-0.6
	4.5nm,1.2s,mb4.3,baz=305,slow=12,SNR=3.8						
ANMO	**Albuquerque**	38.22	113	P	P	06 42 53.0	+1.0
	0.3nm,0.4s,mb3.4,baz=336,slow=10.0,SNR=2.7						
TXAR	**Lajitas Array**	44.23	115	P	P	06 43 42.2	+0.8
	0.5nm,0.7s,mb3.3,baz=333,slow=5.6,SNR=6.2						
TXAR	**Lajitas Array**	44.23	115	P	P	06 43 42.2	+0.8
ARCES	**ARCESS Array B**	49.36	2	P	P	06 44 19.9	-1.3
	2.2nm,0.8s,mb4.2,slow=8.1,SNR=2.4						
SONM	**Songino Array**	55.09	307	P	P	06 45 03.3	-1.0
	0.4nm,0.7s,mb3.5,baz=72,slow=4.6,SNR=2.9						
AKASG	**Malin Array Be**	68.29	0	P	P	06 46 30.5	-2.1
	0.6nm,0.4s,mb4.0,baz=0.8,slow=5.7,SNR=5.2						

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*LDG **09** 06:41:50.2±0.0, 43.07N×0.09W, h5^{km}, Md3.1/2, Ml3.1/21, Error ellipse: s-maj=0.6km s-min=0.5km az=55.0*

*STR **09** 06:41:50.0±0.1, 43.04N×0.08W, h10^{km}±1^{km}, Ml2.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **09** 06:41:50.2, 43.07N×0.09W, h5^{km}, ML3.1(LDG), ML2.6(MRB), MN2.8(MDD), After LDG.*
*CSEM **09** 06:41:50.3±0.0, 43.08N×0.08W, h5^{km}, ML3.2/23, Error ellipse: s-maj=0.6km s-min=0.6km az=8.0*
*MRB **09** 06:41:52.5, 43.00N×0.02E, h10^{km}±77^{km}, ML2.6/7*
MDD 09 06:41:50.4±0.2**, 43.07N×0.08W, h9**^{km}±2^{km}**, mbLg2.8**/15**, 1C, Error ellipse: s-maj=2.2km s-min=1.2km az=10.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LABF	**Labassere**	**0.11**	**99**	Pg	Pg	06 41 53.2	0.0
LABF	**Labassere**	**0.11**	**99**	Pg	Pg	06 41 53.1	-0.1
LABF				Lg		06 41 55.2	
VIEF	**Viey**	**0.20**	**158**	Pg	Pg	06 41 54.3	-0.4
VIEF				Sg	Sg	06 41 58.4	+0.9
VIEF	**Viey**	**0.20**	**158**	Pg	Pg	06 41 54.3	-0.3
VIEF				Lg		06 41 57.0	
REYF	**Montagne du Re**	**0.23**	**271**	Pg	Pg	06 41 54.9	-0.4
REYF				Sg	Sg	06 41 58.4	-0.2
REYF	**Montagne du Re**	**0.23**	**271**	Pg	Pg	06 41 54.9	-0.4
REYF				Lg		06 41 58.5	
EPF	**Esparros**	**0.31**	**96**	*e*Pg	Pg	06 41 56.4	-0.4
EPF				*e*Sg	Sg	06 42 00.8	-0.3
	338nm,0.2s						
ETSF	**Etsaut**	**0.39**	**245**	*e*Pg	Pg	06 41 57.7	-0.7
ETSF				*e*Sg	Sg	06 42 02.8	-0.9
	287nm,0.2s						
RESF	**Ens**	**0.40**	**130**	Pg	Pg	06 41 57.9	-0.7
RESF				Sg	Sg	06 42 03.6	-0.4
RESF	**Ens**	**0.40**	**130**	Pg	Pg	06 41 57.9	-0.6
RESF				Lg		06 42 03.5	
EBIE	**Bielsa**	**0.41**	**157**	⇑Pg	Pg	06 41 58.1	-0.7
	35nm,0.1s,SNR=18						
EBIE				Lg		06 42 03.5	
	265nm,0.1s,SNR=5.1						
EBIE	**Bielsa**	**0.41**	**157**	Pg	Pg	06 41 58.1	-0.7
	35nm,0.1s,SNR=18						
EBIE				Lg		06 42 03.5	
	265nm,0.1s,SNR=5.1						
FDAF	**Les Forges d'A**	**0.44**	**236**	Pg	Pg	06 41 58.5	-0.8
FDAF				Sg	Sg	06 42 04.5	-0.7
FDAF	**Les Forges d'A**	**0.44**	**236**	Pg	Pg	06 41 58.3	-1.0
FDAF				Lg		06 42 04.2	
ATE	**Arette**	**0.46**	**273**	Pg	Pg	06 41 58.9	-0.8
ATE				Lg		06 42 05.5	
MELF	**Melles**	**0.64**	**107**	Pg	Pg	06 42 02.1	-1.3
MELF				Sg	Sg	06 42 11.3	-0.7
MELF	**Melles**	**0.64**	**107**	Pg	Pg	06 42 02.0	-1.4
MELF				Lg		06 42 11.3	
ORDF	**Ordiarp**	**0.65**	**283**	Pg	Pg	06 42 03.0	-0.4
ORDF				Sg	Sg	06 42 12.1	0.0
ORDF	**Ordiarp**	**0.65**	**283**	Pg	Pg	06 42 02.9	-0.5
ORDF				Lg		06 42 12.1	
LARF	**Larrau**	**0.67**	**268**	Pg	Pg	06 42 02.9	-0.9
LARF				Sg	Sg	06 42 12.7	-0.1
LARF	**Larrau**	**0.67**	**268**	Pg	Pg	06 42 02.9	-1.0
LARF				Lg		06 42 12.8	
SJPF	**Ste Jean**	**0.84**	**274**	*e*Pg	Pg	06 42 05.8	-1.5
SJPF				*e*Sg	Sg	06 42 16.5	-2.1
	40nm,0.3s						
MLS	**Moulis**	**0.87**	**97**	Pg	Pg	06 42 07.7	-0.1
MLS	**Moulis**	**0.87**	**97**	Lg		06 42 18.4	
OSSF	**Osses**	**0.89**	**283**	Pg	Pg	06 42 06.9	-1.3
OSSF	**Osses**	**0.89**	**283**	Pg	Pg	06 42 06.9	-1.3
OSSF				Lg		06 42 18.6	
SALF	**Salau**	**0.98**	**108**	Pg	Pg	06 42 08.7	-1.4
SALF				Sg	Sg	06 42 22.6	-0.6
SALF	**Salau**	**0.98**	**108**	Pg	Pg	06 42 07.9	-2.1
SALF				Lg		06 42 22.5	
EALK	**Alkurruntz**	**1.06**	**279**	Pg	Pg	06 42 09.6	-2.0
	2.7nm,0.1s,SNR=14						
EALK				Lg		06 42 24.4	
	20nm,0.2s,SNR=12						
CSOR	**Sort**	**1.13**	**127**	Pg	Pg	06 42 11.2	-1.9
CSOR				Sg	Sg	06 42 26.3	-1.8
CSOR	**Sort**	**1.13**	**127**	Pg	Pg	06 42 11.1	-1.9
CSOR				Lg		06 42 26.2	
	24nm,0.1s						
CSOR	**Sort**	**1.13**	**127**	Pg	Pg	06 42 11.2	-1.8
CSOR				Sg	Sg	06 42 26.3	-1.8
GRBF	**Gourbit**	**1.21**	**100**	Pg	Pg	06 42 13.6	-1.0
PAND	**Andorre**	**1.31**	**114**	Lg		06 42 31.7	
CORG	**Organya**	**1.33**	**129**	Pg	Pg	06 42 15.2	-1.7
CORG				Sg	Sg	06 42 32.6	-2.0
CORG	**Organya**	**1.33**	**129**	Pg	Pg	06 42 15.2	-1.7
CORG				Lg		06 42 32.6	
	13nm,0.1s						
CORG	**Organya**	**1.33**	**129**	Pg	Pg	06 42 15.2	-1.7
CORG				Sg	Sg	06 42 32.7	-2.0
CAVN	**Les Avellanes**	**1.33**	**152**	Pg	Pg	06 42 15.5	-1.6
CAVN				Sg	Sg	06 42 32.9	-2.0
CAVN	**Les Avellanes**	**1.33**	**152**	Pg	Pg	06 42 15.5	-1.6
CAVN				Lg		06 42 32.8	
	181nm,0.2s						
CAVN	**Les Avellanes**	**1.33**	**152**	Pg	Pg	06 42 15.5	-1.6
CAVN				Sg	Sg	06 42 32.9	-2.0
ESAC	**San Caprasio**	**1.37**	**192**	Pg	Pg	06 42 16.2	-1.7
	37nm,0.2s,SNR=59						
ESAC				Lg		06 42 35.1	
	171nm,0.1s,SNR=24						
ESAC	**San Caprasio**	**1.37**	**192**	Pg	Pg	06 42 16.2	-1.7
	37nm,0.2s,SNR=59						
CLLI	**Llivia**	**1.62**	**111**	Pg	Pg	06 42 21.3	-1.5
CLLI				Sg	Sg	06 42 41.8	-2.6
CLLI	**Llivia**	**1.62**	**111**	Pg	Pg	06 42 21.3	-1.5
CLLI				Lg		06 42 41.8	
	26nm,0.2s						
CLLI	**Llivia**	**1.62**	**111**	Pg	Pg	06 42 21.3	-1.5
CLLI				Sg	Sg	06 42 41.8	-2.7
CARF	**Carcanieres**	**1.64**	**102**	Pg	Pg	06 42 21.2	-2.1
CARF				Sg	Sg	06 42 43.2	-2.0
CARF	**Carcanieres**	**1.64**	**102**	Pg	Pg	06 42 21.6	-1.7
CARF				Lg		06 42 43.0	
EMIR	**Miracle**	**1.65**	**134**	Pn	Pn	06 42 21.2	+1.3
	1.0nm,0.1s,SNR=7.9						
EMIR				Pg	Pg	06 42 22.0	-1.4
	7.9nm,0.1s,SNR=38						
EMIR				Lg		06 42 42.9	
	46nm,0.2s,SNR=5.0						
EMIR	**Miracle**	**1.65**	**134**	Pn	Pn	06 42 21.1	+1.3
EMIR	**Miracle**	**1.65**	**134**	Pg	Pg	06 42 22.0	-1.5
	7.9nm,0.1s,SNR=38						
VALF	**Valcebollere**	**1.68**	**113**	Lg		06 42 45.0	
MTLF	**Montolieu**	**1.70**	**80**	*e*Pn	Pn	06 42 19.1	-1.4
MTLF				*e*Pg	Pg	06 42 22.0	-2.4
MTLF				*e*Sn	Sn	06 42 39.9	-2.7
	27nm,0.2s						
MTLF				*e*Sg	Sg	06 42 44.0	-3.1
	28nm,0.2s						
MTLF	**Montolieu**	**1.70**	**80**	*e*Pg	Pg	06 42 22.0	-2.4
MTLF				*e*Sn	Sn	06 42 39.9	-2.7
	14nm,0.2s						
MTLF				*e*Sg	Sg	06 42 44.0	-3.1
	14nm,0.2s						
CBRU	**Bruguera**	**1.84**	**114**	Pg	Pg	06 42 24.5	-2.7
CBRU				Sg	Sg	06 42 49.3	-2.4
CBRU	**Bruguera**	**1.84**	**114**	Pg	Pg	06 42 24.5	-2.7
CBRU				Lg		06 42 49.2	
	12nm,0.2s						
CBRU	**Bruguera**	**1.84**	**114**	Pg	Pg	06 42 24.5	-2.7
CBRU				Sg	Sg	06 42 49.3	-2.4
EPOB	**Poblet**	**1.92**	**153**	Pn	Pn	06 42 23.4	-0.2
EPOB				Pg	Pg	06 42 25.7	-3.0
EPOB				Lg		06 42 50.3	
EPOB	**Poblet**	**1.92**	**153**	Pn	Pn	06 42 23.4	-0.2
	0.2nm,0.1s,SNR=4.0						
EPOB				Pg	Pg	06 42 25.7	-3.0
	3.3nm,0.1s,SNR=31						
EPOB				Lg		06 42 50.3	
	42nm,0.2s,SNR=5.0						
EPOB	**Poblet**	**1.92**	**153**	Pn	Pn	06 42 23.4	-0.2
	0.2nm,0.1s,SNR=4.0						
EPOB	**Poblet**	**1.92**	**153**	Pg	Pg	06 42 25.7	-3.0
	3.3nm,0.1s,SNR=31						
LFF	**La Frestale**	**1.96**	**17**	*e*Pn	Pn	06 42 21.9	-2.4
LFF				*e*Pg	Pg	06 42 26.4	-3.3
LFF				*e*Sn	Sn	06 42 46.2	-3.0
LFF				*e*Sg	Sg	06 42 52.1	-3.8
	55nm,0.2s						
LFF	**La Frestale**	**1.96**	**17**	*e*Pg	Pg	06 42 26.4	-3.3
LFF				*e*Sn	Sn	06 42 46.2	-3.0
LFF				*e*Sg	Sg	06 42 52.1	-3.8
	28nm,0.2s						
CGAR	**Garraf**	**1.99**	**153**	Lg		06 43 02.6	
	8.8nm,0.2s						
ERTA	**Horta de San J**	**2.13**	**172**	Pg	Pg	06 42 29.6	-3.4
	2.3nm,0.1s,SNR=14						
ERTA				Lg		06 42 56.4	
	38nm,0.2s,SNR=5.0						
ERTA	**Horta de San J**	**2.13**	**172**	Pg	Pg	06 42 29.6	-3.4
	2.3nm,0.1s,SNR=14						
EJON	**La Jonquera**	**2.27**	**105**	Pg	Pg	06 42 33.6	-2.2
	0.6nm,0.1s,SNR=7.9						
EJON				Lg		06 43 03.6	
	2.1nm,0.1s,SNR=6.8						
EJON	**La Jonquera**	**2.27**	**105**	Pg	Pg	06 42 33.6	-2.2
	0.6nm,0.1s,SNR=7.9						
CFON	**Fontmartina**	**2.27**	**124**	Lg		06 43 01.7	
	63nm,0.3s						
CFON	**Fontmartina**	**2.27**	**124**	Sg	Sg	06 43 01.7	-4.4
	125nm,0.3s						
EBR	**Ebro Roquetas**	**2.28**	**169**	*e*SN	Sn	06 42 59.5	+2.1
EBR				*e*S*	Sb	06 43 02.4	+2.6
EBR				*e*SNSN		06 43 11.0	
CAF	**Calviac**	**2.42**	**39**	*e*Pn	Pn	06 42 27.4	-3.4
CAF				*e*Pg	Pg	06 42 35.2	-3.5
CAF				*e*Sn	Sn	06 42 57.0	-3.8
CAF				*e*Sg	Sg	06 43 05.6	-5.4
	23nm,0.2s						
CAF	**Calviac**	**2.42**	**39**	*e*Pg	Pg	06 42 35.2	-3.5
CAF				*e*Sn	Sn	06 42 57.0	-3.8
CAF				*e*Sg	Sg	06 43 05.6	-5.4
	11nm,0.2s						
ELAN	**Lanestosa**	**2.46**	**275**	Pg	Pg	06 42 34.6	-5.0
ELAN				Lg		06 43 04.5	
ELAN	**Lanestosa**	**2.46**	**275**	Pg	Pg	06 42 34.6	-5.0
	SNR=7.9						
ELAN				Lg		06 43 04.4	
	0.8nm,0.1s,SNR=4.0						
RJF	**Les Rejaudoux**	**2.52**	**27**	*e*Pn	Pn	06 42 29.5	-2.7
RJF				*e*Pg	Pg	06 42 36.9	-3.7
RJF				*e*Sn	Sn	06 42 59.4	-3.8
RJF				*e*Sg	Sg	06 43 09.1	-5.1
	23nm,0.2s						
RJF	**Les Rejaudoux**	**2.52**	**27**	*e*Pg	Pg	06 42 36.9	-3.7
RJF				*e*Sn	Sn	06 42 59.4	-3.8
RJF				*e*Sg	Sg	06 43 09.1	-5.1
	12nm,0.2s						
EMOS	**Mosqueruela**	**2.72**	**186**	Pn	Pn	06 42 35.9	+0.9
	8.5nm,0.8s,SNR=11						
EMOS				Pg	Pg	06 42 42.1	-2.6
	0.5nm,0.1s,SNR=7.9						
EMOS				Sn	Sn	06 43 05.9	-2.5
	0.8nm,0.1s,SNR=7.9						
EMOS				Lg		06 43 14.1	
	4.0nm,0.1s,SNR=8.0						
EMOS	**Mosqueruela**	**2.72**	**186**	Pn	Pn	06 42 35.9	+0.9
	8.5nm,0.8s,SNR=11						
EMOS	**Mosqueruela**	**2.72**	**186**	Pg	Pg	06 42 42.1	-2.6
	0.5nm,0.1s,SNR=7.9						
EMOS				Sn	Sn	06 43 05.9	-2.5
	0.8nm,0.1s,SNR=7.9						
LASF	**Ste Croix**	**3.03**	**69**	*e*Pn	Pn	06 42 37.0	-2.6
LASF				*e*Pg	Pg	06 42 46.5	-4.5
LASF				*e*Sn	Sn	06 43 11.7	-4.7
LASF				*e*Sg	Sg	06 43 25.1	-6.3
	8.8nm,0.2s						
LASF	**Ste Croix**	**3.03**	**69**	*e*Pg	Pg	06 42 46.5	-4.5
LASF				*e*Sn	Sn	06 43 11.7	-4.7
LASF				*e*Sg	Sg	06 43 25.1	-6.3
	4.4nm,0.2s						
MFF	**Saint Martin d**	**3.54**	**359**	*e*Pn	Pn	06 42 43.2	-3.5
MFF				*e*Pg	Pg	06 42 55.5	-5.5
MFF				*e*Sn	Sn	06 43 23.4	-5.7
MFF				*e*Sg	Sg	06 43 40.5	-7.7
	9.5nm,0.2s						
MFF	**Saint Martin d**	**3.54**	**359**	*e*Pg	Pg	06 42 55.5	-5.5
MFF				*e*Sn	Sn	06 43 23.4	-5.7
MFF				*e*Sg	Sg	06 43 40.5	-7.7
	4.8nm,0.2s						
TCF	**Toulx Ste Croi**	**3.61**	**26**	*e*Pn	Pn	06 42 44.9	-2.9
TCF				*e*Pg	Pg	06 42 56.5	-6.0
TCF				*e*Sn	Sn	06 43 25.6	-5.4
TCF				*e*Sg	Sg	06 43 43.2	-7.5
	12nm,0.2s						
TCF	**Toulx Ste Croi**	**3.61**	**26**	*e*Pg	Pg	06 42 56.5	-6.0
TCF				*e*Sn	Sn	06 43 25.6	-5.4
TCF				*e*Sg	Sg	06 43 43.2	-7.5
	6.1nm,0.2s						
EARI	**Arriondas**	**3.76**	**275**	Pn	Pn	06 42 51.4	+1.5
	SNR=4.0						
EARI				Sn	Sn	06 43 32.9	-1.9
	SNR=4.0						
EARI				Lg		06 43 51.0	
	0.2nm,0.1s,SNR=4.0						
EARI	**Arriondas**	**3.76**	**275**	Pn	Pn	06 42 51.4	+1.5
	SNR=4.0						
EARI				Sn	Sn	06 43 32.9	-1.9
	SNR=4.0						
VIVF	**Saint-Julien-l**	**3.87**	**61**	*e*Pn	Pn	06 42 48.4	-3.0
VIVF				*e*Pg	Pg	06 43 01.7	-6.0
VIVF				*e*Sn	Sn	06 43 31.7	-5.8
VIVF				*e*Sg	Sg	06 43 51.8	-7.4
	9.0nm,0.4s						
VIVF	**Saint-Julien-l**	**3.87**	**61**	*e*Pg	Pg	06 43 01.7	-6.0
VIVF				*e*Sn	Sn	06 43 31.7	-5.8
VIVF				*e*Sg	Sg	06 43 51.8	-7.4
	4.5nm,0.4s						
BGF	**Bois d'Agland**	**4.06**	**30**	*e*Pn	Pn	06 42 51.3	-2.9
BGF				*e*Pg	Pg	06 43 05.6	-6.0
BGF				*e*Sn	Sn	06 43 36.2	-6.3
BGF				*e*Sg	Sg	06 43 57.5	-8.3
	36nm,0.3s						
BGF	**Bois d'Agland**	**4.06**	**30**	*e*Pg	Pg	06 43 05.6	-6.0
BGF				*e*Sn	Sn	06 43 36.2	-6.3
BGF				*e*Sg	Sg	06 43 57.5	-8.3
	18nm,0.3s						
AVF	**Avril sur Loir**	**4.45**	**32**	*e*Pn	Pn	06 42 56.4	-3.3
AVF				*e*Pg	Pg	06 43 12.5	-6.8
AVF				*e*Sg	Sg	06 44 09.8	-8.8
	7.9nm,0.4s						
AVF	**Avril sur Loir**	**4.45**	**32**	*e*Pg	Pg	06 43 12.5	-6.8
AVF				*e*Sg	Sg	06 44 09.8	-8.8
	4.0nm,0.4s						
ESDC	**Sonseca Array**	**4.47**	**222**	Pn	Pn	06 42 58.9	-1.1
ESDC				Sn	Sn	06 43 47.3	-5.6
ESDC	**Sonseca Array**	**4.47**	**222**	Pn	Pn	06 42 58.9	-1.1
	0.6nm,0.1s,SNR=7.9						
ESDC				Sn	Sn	06 43 47.3	-5.6
	1.9nm,0.2s,baz=43,slow=25,SNR=5.4						
ESDC	**Sonseca Array**	**4.47**	**222**	Pn	Pn	06 42 58.9	-1.1
	0.6nm,0.1s,SNR=7.9						
ESDC				Sn	Sn	06 43 47.3	-5.6
SMF	**Signal de Mont**	**4.54**	**37**	*e*Pn	Pn	06 42 58.0	-2.9
SMF				*e*Pg	Pg	06 43 14.2	-6.8
SMF				*e*Sg	Sg	06 44 12.1	-9.3
	5.7nm,0.3s						
SMF	**Signal de Mont**	**4.54**	**37**	*e*Pg	Pg	06 43 14.2	-6.8
SMF				*e*Sg	Sg	06 44 12.1	-9.3
	2.8nm,0.3s						
HYF	**Humbligny**	**4.62**	**24**	*e*Sg	Sg	06 44 13.8	-10
SSF	**Saint Saulge**	**4.73**	**31**	*e*Pn	Pn	06 43 00.1	-3.6
SSF				*e*Pg	Pg	06 43 17.7	-7.2
SSF				*e*Sg	Sg	06 44 18.9	-9.1
	5.4nm,0.3s						
SSF	**Saint Saulge**	**4.73**	**31**	*e*Pg	Pg	06 43 17.7	-7.2
SSF				*e*Sg	Sg	06 44 18.9	-9.1
	2.7nm,0.3s						
ECAL	**Calabor**	**5.05**	**259**	Pn	Pn	06 43 07.0	-1.1
	0.1nm,0.1s,SNR=4.0						
ECAL				Sn	Sn	06 44 03.6	-3.8
	2.6nm,0.2s,SNR=4.0						
ECAL	**Calabor**	**5.05**	**259**	Pn	Pn	06 43 07.0	-1.2
ECAL				Sn	Sn	06 44 03.6	-3.8
QUIF	**Quistinic**	**5.31**	**337**	*e*Pn	Pn	06 43 07.8	-4.1
QUIF				*e*Pg	Pg	06 43 28.4	-8.1
QUIF				*e*Sn	Sn	06 44 05.8	-8.2
QUIF				*e*Sg	Sg	06 44 36.4	-11
	3.1nm,0.3s						
QUIF	**Quistinic**	**5.31**	**337**	*e*Pg	Pg	06 43 28.4	-8.1
QUIF				*e*Sn	Sn	06 44 05.8	-8.2
QUIF				*e*Sg	Sg	06 44 36.4	-11
	1.5nm,0.3s						
GRR	**Gorron**	**5.35**	**354**	*e*Pn	Pn	06 43 08.4	-4.0
GRR				*e*Sn	Sn	06 44 07.0	-7.9
	4.6nm,0.6s						
GRR				*e*Sg	Sg	06 44 37.6	-11
	5.2nm,0.3s						
SGMF	**Saint Gilles**	**5.47**	**342**	*e*Sn	Sn	06 44 08.8	-9.2
	8.7nm,0.8s						
SGMF	**Saint Gilles**	**5.47**	**342**	*e*Sg	Sg	06 44 41.3	-11
	2.2nm,0.3s						
SGMF	**Saint Gilles**	**5.47**	**342**	*e*Pn	Pn	06 43 10.6	-3.5
SGMF				*e*Pg	Pg	06 43 31.7	-8.0
SGMF				*e*Sn	Sn	06 44 08.8	-9.2
SGMF				*e*Sg	Sg	06 44 41.3	-11
SGMF	**Saint Gilles**	**5.47**	**342**	Pn	Pn	06 43 10.6	-3.5
SGMF				Pg	Pg	06 43 31.7	-8.0
SGMF				Sn	Sn	06 44 08.8	-9.2
	4.3nm,0.8s						
SGMF				Lg		06 44 41.3	
	1.1nm,0.3s						
SGMF	**Saint Gilles**	**5.47**	**342**	*e*Pg	Pg	06 43 31.7	-8.0
SGMF				*e*Sn	Sn	06 44 08.8	-9.2
	4.3nm,0.8s						
SGMF				*e*Sg	Sg	06 44 41.3	-11
	1.1nm,0.3s						
LDF	**La Druitiere**	**5.53**	**360**	*e*Pn	Pn	06 43 10.6	-4.3
LDF	**La Druitiere**	**5.53**	**360**	*e*Sn	Sn	06 44 10.7	-8.7
LDF	**La Druitiere**	**5.53**	**360**	*e*Sg	Sg	06 44 43.3	-11
	1.7nm,0.3s						
LDF	**La Druitiere**	**5.53**	**360**	*e*Pg	Pg	06 43 32.3	-8.5
LDF				*e*Sn	Sn	06 44 10.7	-8.7
LDF				*e*Sg	Sg	06 44 43.3	-11
	0.9nm,0.3s						
FLN	**La Foliniere**	**5.70**	**357**	*e*Pn	Pn	06 43 12.7	-4.7
FLN				*e*Sg	Sg	06 44 48.7	-12
	2.3nm,0.2s						
ROSF	**Rostrenen**	**5.73**	**338**	*e*Pn	Pn	06 43 13.6	-4.1
ROSF				*e*Sn	Sn	06 44 15.7	-8.6

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*NEIC **09** 07:03:21.7, 32.25S×71.40W, h63^{km}, MD3.6(GUC), After GUC.*
GUC 09 07:03:21.7±0.8**, 32.25S×71.40W, h63**^{km}±6^{km}**, MD3.6, ML3.2, 4C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	**Papudo**	**0.29**	**187**	⇑*i*P	P	07 03 32.8	+0.7
PACH				*i* S	S	07 03 40.8	+1.1
ROCH	**El Roble**	**0.79**	**156**	*e*P	P	07 03 37.9	+0.5
ROCH				*i* S	S	07 03 49.7	+0.7
IHA	**Instituto Hidr**	**0.80**	**195**	*e*P	P	07 03 37.3	-0.2
IHA				*i* S	S	07 03 48.7	-0.4
JACH	**Jahuel**	**0.81**	**123**	*e*P	P	07 03 37.9	+0.4
CMCH	**Combarbala**	**1.12**	**18**	⇑*i*P	P	07 03 41.9	+0.1
CMCH				*i* S	S	07 03 57.1	+0.5
CMCH				AMP		07 03 58.6	
	comp=E,1μm,0.5s						
LCCH	**Las Cruces**	**1.23**	**187**	⇓*i*P	P	07 03 43.2	0.0
RCDM	**Rinconada Maip**	**1.33**	**158**	*e*P	P	07 03 44.9	+0.1
RCDM				*i* S	S	07 04 01.8	-0.1
RCDM				AMP		07 04 02.9	
	comp=E,1μm,0.1s						
DSCH	**Colegio Aleman**	**1.34**	**149**	*e*P	P	07 03 45.0	+0.1
DSCH				*i* S	S	07 04 02.5	+0.5
DSCH				AMP		07 04 03.7	
	comp=E,1μm,0.6s						
STL	**Santa Lucia**	**1.34**	**152**	*e*P	P	07 03 45.1	+0.2
STL				*i* S	S	07 04 02.5	+0.4
STL				AMP		07 04 03.3	
	comp=E,205nm,0.5s						
CLCH	**Cerro Calan**	**1.35**	**148**	⇑*i*P	P	07 03 45.3	+0.3
CLCH				*i* S	S	07 04 02.9	+0.5
CLCH				AMP		07 04 04.8	
	comp=E,878nm,0.7s						
FCH	**Farellones**	**1.42**	**139**	⇑*i*P	P	07 03 46.5	+0.5
FCH				*i* S	S	07 04 05.2	+1.3
FCH				AMP		07 04 07.6	
	comp=E,284nm,0.1s						
FSR	**Penalolen**	**1.43**	**149**	*e*P	P	07 03 46.5	+0.4
FSR				*i* S	S	07 04 04.6	+0.6
FSR				AMP		07 04 05.8	
	comp=E,777nm,0.4s						
TACH	**Talagante**	**1.45**	**165**	*e*P	P	07 03 46.4	+0.1
TACH				*i* S	S	07 04 04.7	+0.1
PCH	**Pirque**	**1.56**	**152**	*e*P	P	07 03 47.9	+0.1
PCH				*i* S	S	07 04 07.7	+0.6
SJCH	**San Jose de Ma**	**1.64**	**148**	*e*P	P	07 03 48.9	0.0
SJCH				*i* S	S	07 04 09.6	+0.6
SJCH				AMP		07 04 10.6	
	comp=E,400nm,0.2s						
LNV	**Longovilo**	**1.70**	**180**	⇓*i*P	P	07 03 48.9	-0.8
CHCH	**Chadas Angostu**	**1.79**	**160**	*i* P	P	07 03 51.1	+0.1
LMEL	**Las Melosas**	**1.88**	**148**	*e*P	P	07 03 52.9	+0.6
LMEL				*i* S	S	07 04 16.1	+1.3
LMEL				AMP		07 04 17.5	
	comp=E,492nm,0.4s						

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*NEIC **09** 07:10:28.1±1.1, 5.00N×95.84E, h15^{km}, mb4.1/4, Error ellipse: s-maj=40.4km s-min=16.0km az=225.0*
*IDC **09** 07:10:37.0±17.0, 4.05N×95.52E, h69^{km}±134^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.6/19, ML4.4/1, Error ellipse: s-maj=180.0km s-min=25.3km az=70.0*
ISC 09 07:10:25.9±1.4**, 3.89N**±0.08×**95.0E**±0.2**, h15**^{km}**, n10, σ1§27**/11**, mb4.0**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.98**	**15**	P	**P**	**07 14 01.2**	**+2.1**
	0.5nm,0.3s,baz=203,slow=12,SNR=4.5						
CMAR				S	**S**	**07 16 44.9**	**-0.6**
	0.4nm,0.3s,baz=206,slow=27,SNR=4.1						
FITZ	**Fitzroy Crossi**	**37.29**	**127**	P	**P**	**07 17 39.5**	**+0.1**
	0.9nm,0.5s,mb3.8,baz=307,slow=15,SNR=2.8						
AML	**Almayashu**	**42.56**	**336**	P	**P**	**07 18 16.6**	**-6.4**
	1.8nm,0.6s,mb4.0						
SONM	**Songino Array**	**44.87**	**11**	P	**P**	**07 18 42.4**	**+0.8**
	0.8nm,0.7s,mb3.6,baz=207,slow=8.1,SNR=1.1						
WRA	**Warramunga Arr**	**45.33**	**123**	P	**P**	**07 18 45.2**	**-0.4**
	0.7nm,0.5s,mb3.8,baz=301,slow=9.3,SNR=5.7						
ASAR	**Alice Springs**	**46.77**	**128**	P	**P**	**07 18 57.6**	**+0.7**
	2.8nm,1.0s,mb4.1,baz=299,slow=7.9,SNR=15						
KURK	**Kurchatov**	**48.66**	**346**	*e*P	**P**	**07 19 06.7**	**-4.6**
	2.2nm,1.1s,mb4.1						
CHKZ	**Chkalovo**	**53.50**	**342**	P	**P**	**07 19 47.4**	**-0.6**
	1.8nm,1.0s,mb4.0						
PMG	**Port Moresby**	**53.63**	**105**	*e*P	**P**	**07 19 46.7**	**-2.8**
	5.9nm,0.8s,mb4.6						
STKA	**Stephens Creek**	**56.78**	**132**	P	**P**	**07 20 12.5**	**+0.4**
	1.3nm,0.6s,mb4.1,baz=342,slow=6.4,SNR=3.2						

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*PRU **09** 07:43:04.4, 49.52N×6.73E*
*LDG **09** 07:43:06.6±0.1, 49.41N×6.90E, h1^{km}, Md3.4/3, Ml3.6/25, Error ellipse: s-maj=1.7km s-min=1.7km az=108.0, Suspected Mining induced.*
*STR **09** 07:43:06.6±0.2, 49.36N×6.95E, h1^{km}±1^{km}, Ml2.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **09** 07:43:06.6, 49.36N×6.95E, h1^{km}, ML3.6(LDG), ML3.2(VIE), ML3.0(LEDBW), ML3.0(STR), After STR.*
*CSEM **09** 07:43:06.4±0.1, 49.39N×6.92E, h2^{km}, ML3.8/3, Error ellipse: s-maj=2.3km s-min=1.4km az=119.0*
*LEDBW **09** 07:43:07.0±0.5, 49.38N×6.93E, h1^{km}, ML3.0, Error ellipse: s-maj=12.0km s-min=6.0km az=106.0*
*BNS **09** 07:43:08.2±0.7, 49.45N×6.88E, h1^{km}, ML3.0*
BGR 09 07:43:06.6±0.2**, 49.38N×6.89E, h1**^{km}**, ML2.8**/2**, 7C-16D, Error ellipse: s-maj=2.2km s-min=1.1km az=97.0, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUP	**Ruppelstein**	**0.34**	**18**	⇓*e*Pg	Pg	07 43 13.5	+0.1
RUP				PmP		07 43 14.8	
WLF	**Walferdange**	**0.56**	**301**	*e*Pg	Pg	07 43 17.9	+0.1
	SNR=21						
WLF				*e*Sg	Sg	07 43 24.7	-0.6
	SNR=3.0						
WLF	**Walferdange**	**0.56**	**301**	*e*Pg	Pg	07 43 17.7	0.0
ABH	**Alteburg**	**0.66**	**40**	⇓*i*Pg	Pg	07 43 18.9	-0.8
ABH				Sg	Sg	07 43 27.7	-0.8
ABH	**Alteburg**	**0.66**	**40**	⇓*i*P	Pg	07 43 18.9	-0.8
ABH				Sg	Sg	07 43 27.6	-0.9
LANF	**Langenberg**	**0.72**	**123**	⇓*i*Pg	Pg	07 43 20.0	-0.9

LANF	**Langenberg**	**0.72**	**123**	Pg	Pg	07 43 19.8	-1.1
KTD	**Kalmit**	**0.78**	**94**	Pg	Pg	07 43 21.7	-0.5
KTD				*e*Sg	Sg	07 43 32.9	+0.4
	SNR=2.7						
KTD	**Kalmit**	**0.78**	**94**	Pg	Pg	07 43 21.0	-1.1
BGG	**Burgeitz**	**0.88**	**19**	*e*Pg	Pg	07 43 23.4	-0.7
BGG				*e*Sg	Sg	07 43 34.9	-0.8
	486nm,0.7s						
CDF	**Champ du Feu**	**1.00**	**165**	*e*Pg	Pg	07 43 24.7	-1.8
CDF				*e*Pn	Pn	07 43 26.0	-1.5
CDF				*e*Sg	Sg	07 43 39.8	0.0
	141nm,0.3s						
CDF	**Champ du Feu**	**1.00**	**165**	*e*Pn	Pn	07 43 26.0	-1.5
CDF				*e*Sg	Sg	07 43 39.8	0.0
	71nm,0.3s						
WLS	**Welschbruch**	**1.01**	**162**	⇓*e*P	Pb	07 43 25.4	-1.2
WLS				*i* P		07 43 26.3	
WLS	**Welschbruch**	**1.01**	**162**	Pg	Pg	07 43 25.5	-1.3
WLS				Sg	Sg	07 43 38.3	-2.0
WLS	**Welschbruch**	**1.01**	**162**	Pg	Pg	07 43 25.4	-1.4
WLS				Sg	Sg	07 43 38.3	-2.0
ECH	**Echery**	**1.18**	**171**	⇓Pn	Pn	07 43 28.3	-1.8
ECH				*e*Pg	Pg	07 43 28.4	-1.6
	SNR=21						
ECH				*e*Sg	Sg	07 43 43.9	-1.8
	SNR=4.3						
ECH	**Echery**	**1.18**	**171**	Pg	Pg	07 43 28.7	-1.3
ECH				Sg	Sg	07 43 43.8	-1.9
ECH	**Echery**	**1.18**	**171**	Pn	Pn	07 43 28.3	-1.8
ECH				Sg	Sg	07 43 43.9	-1.8
	SNR=4.3						
SWS	**Schriesheim**	**1.18**	**84**	⇓*e*Pg	Pg	07 43 28.2	-2.0
SWS				Sg	Sg	07 43 45.2	-0.8
SWS	**Schriesheim**	**1.18**	**84**	SG	Sg	07 43 45.2	-0.8
SWS	**Schriesheim**	**1.18**	**84**	⇓*e*P	Pb	07 43 28.2	-1.3
SWS				Sg	Sg	07 43 45.2	-0.8
RFYF	**Reffroy**	**1.20**	**232**	*e*Pg	Pg	07 43 29.6	-0.9
	baz=45						
RFYF				*e*Sg	Sg	07 43 45.7	-0.8
	303nm,0.3s,baz=48						
STB	**Steinbach**	**1.22**	**358**	*e*Pg	Pg	07 43 29.1	-1.8
STB				*i* Sg	Sg	07 43 45.0	-2.1
	205nm,0.8s						
TOD	**Tromm**	**1.27**	**79**	Pn	Pn	07 43 29.2	-2.1
TOD				*e*Pg	Pg	07 43 29.5	-2.4
	SNR=31						
TOD				PmP		07 43 30.3	
TOD				*e*Sg	Sg	07 43 47.4	-1.3
	SNR=4.4						
TOD				SmS		07 43 49.4	
TOD	**Tromm**	**1.27**	**79**	P	Pb	07 43 29.2	-1.7
TOD				S	Sb	07 43 49.4	+1.8
TOD	**Tromm**	**1.27**	**79**	P	Pb	07 43 29.2	-1.7
TOD				P		07 43 30.3	
TOD				S	Sb	07 43 49.4	+1.8
TOD	**Tromm**	**1.27**	**79**	Pg	Pg	07 43 29.5	-2.3
	SNR=31						
TOD				S	Sb	07 43 49.4	+1.8
THEF	**They Montfort**	**1.30**	**208**	*e*Pg	Pg	07 43 30.7	-1.8
	SNR=34						
THEF				⇓Pn	Pn	07 43 30.8	-1.0
THEF				Sn	Sn	07 43 47.8	-2.2
THEF				*e*Sg	Sg	07 43 47.9	-1.9
	SNR=4.4						
THEF	**They Montfort**	**1.30**	**208**	⇓P	Pb	07 43 30.8	-0.7
THEF	**They Montfort**	**1.30**	**208**	Pg	Pg	07 43 30.7	-1.8
THEF				Sg	Sg	07 43 48.7	-1.1
LIBD	**Limburg**	**1.31**	**159**	*e*Pg	Pg	07 43 31.9	-0.9
	SNR=15						
LIBD				⇓*e*Pn	Pn	07 43 32.0	-0.1
LIBD				*e*Sg	Sg	07 43 48.5	-1.9
	SNR=1.0						
LIBD	**Limburg**	**1.31**	**159**	⇓*e*P	Pb	07 43 32.0	+0.3
LIBD				Sg	Sg	07 43 48.6	-1.7
KLL	**Kalltalsperre**	**1.32**	**344**	⇑*e*Pg	Pg	07 43 30.6	-2.4
KLL				*i* Sg	Sg	07 43 47.7	-3.0
	108nm,0.7s						
BFO	**Black Forest**	**1.41**	**137**	Pg	Pg	07 43 33.2	-1.6
BFO				Sg	Sg	07 43 51.7	-2.0
BFO	**Black Forest**	**1.41**	**137**	*e*Pg	Pg	07 43 33.2	-1.6
BFO				*e*Sg	Sg	07 43 50.9	-2.7
HAU	**Haudompre**	**1.42**	**195**	*e*Pn	Pn	07 43 31.3	-2.3
HAU				*e*Pg	Pg	07 43 33.5	-1.4
HAU				*e*Sn	Sn	07 43 50.7	-2.4
HAU				*e*Sg	Sg	07 43 53.1	-0.7
	228nm,0.3s						
HAU	**Haudompre**	**1.42**	**195**	*e*Pg	Pg	07 43 33.5	-1.4
HAU				*e*Sn	Sn	07 43 50.7	-2.4
HAU				*e*Sg	Sg	07 43 53.1	-0.7
	114nm,0.3s						
LBG	**Lerchenberg**	**1.44**	**119**	Pn	Pn	07 43 32.3	-1.5
LBG				Pg	Pg	07 43 33.7	-1.6
LBG	**Lerchenberg**	**1.44**	**119**	PG	Pg	07 43 33.7	-1.6
LBG	**Lerchenberg**	**1.44**	**119**	P	Pn	07 43 32.3	-1.5
LBG				Pg	Pg	07 43 33.7	-1.6
LBG	**Lerchenberg**	**1.44**	**119**	Pg	Pg	07 43 33.7	-1.6
MEZF	**Maizieres J'vi**	**1.50**	**235**	*e*Pn	Pn	07 43 33.3	-1.4
	baz=50						
MEZF				*e*Pg	Pg	07 43 35.0	-1.5
	baz=50						
MEZF				*e*Sn	Sn	07 43 52.1	-3.0
MEZF				*e*Sg	Sg	07 43 54.5	-1.9
	222nm,0.5s,baz=52						
HGN	**Heimansgroeve**	**1.52**	**336**	*e*Pn	Pn	07 43 33.8	-1.2
	SNR=11						
HGN				*e*Pg	Pg	07 43 35.3	-1.6
	SNR=25						
HGN				*e*Sg	Sg	07 43 54.8	-2.3
	SNR=2.7						
HGN	**Heimansgroeve**	**1.52**	**336**	*e*Pn	Pn	07 43 33.8	-1.2
	baz=160						
HGN				*e*Pg	Pg	07 43 35.6	-1.3
	49nm,0.2s						
HGN				*e*Sg	Sg	07 43 53.7	-3.4
HGN				*e*Rg		07 44 17.1	
GIVF	**Givet**	**1.53**	**299**	*e*Pn	Pn	07 43 32.2	-2.9
GIVF				*e*Pg	Pg	07 43 34.1	-2.9
GIVF				*e*Sn	Sn	07 43 51.5	-4.3
GIVF				*e*Sg	Sg	07 43 53.8	-3.6
	388nm,0.6s						
MOF	**Molkenrain**	**1.54**	**174**	⇓*e*Pg	Pg	07 43 35.5	-1.8
MOF				Sg	Sg	07 43 55.8	-1.9
MOF	**Molkenrain**	**1.54**	**174**	Pg	Pg	07 43 35.3	-1.9
MOF				Sg	Sg	07 43 55.6	-2.1
HINF	**Hinteralfeld**	**1.56**	**181**	*e*Pn	Pn	07 43 34.7	-0.9
HINF				*e*Pg	Pg	07 43 36.6	-1.2
HINF				*e*Sn	Sn	07 43 54.9	-1.9
	214nm,0.3s						
HINF	**Hinteralfeld**	**1.56**	**181**	*e*Pg	Pg	07 43 36.6	-1.2
HINF				*e*Sn	Sn	07 43 54.9	-1.9
	107nm,0.3s						
KIZ	**Kirchzarten**	**1.58**	**154**	⇓Pn	Pn	07 43 35.8	0.0
KIZ				*i* Pg	Pg	07 43 36.2	-1.8
KIZ				Sg	Sg	07 43 56.3	-2.8
KIZ	**Kirchzarten**	**1.58**	**154**	*i* PG	Pg	07 43 36.2	-1.8
KIZ				SG	Sg	07 43 56.3	-2.8
KIZ	**Kirchzarten**	**1.58**	**154**	P	Pn	07 43 35.8	0.0
KIZ				*i* Pg	Pg	07 43 36.2	-1.8
KIZ				Sg	Sg	07 43 56.3	-2.8
BNS	**Bensberg**	**1.60**	**6**	*e*Pg	Pg	07 43 36.6	-1.9
BNS				*e*Sg	Sg	07 43 54.8	-5.0
	507nm,1.0s						
STU	**Stuttgart**	**1.63**	**111**	*e*Pn	Pn	07 43 35.4	-1.2
STU	**Stuttgart**	**1.63**	**111**	*e*Pn	Pn	07 43 35.3	-1.3
FELD	**Feldberg**	**1.67**	**153**	Pg	Pg	07 43 37.7	-2.3
FELD				Sg	Sg	07 43 59.8	-2.5
FELD	**Feldberg**	**1.67**	**153**	Pg	Pg	07 43 37.6	-2.4
FELD				Sg	Sg	07 43 59.5	-2.8
TUBL	**Tuebingen Lnz**	**1.68**	**120**	Pg	Pg	07 43 38.2	-1.9
SFTF	**Sexfontaines**	**1.70**	**227**	*e*Pn	Pn	07 43 36.1	-1.4
	baz=55						
SFTF				*e*Pg	Pg	07 43 38.6	-1.9
	baz=45						
SFTF				*e*Sn	Sn	07 43 57.2	-3.0
SFTF				*e*Sg	Sg	07 44 01.2	-1.9
	87nm,0.3s						
SIND	**Sindeldorf**	**1.77**	**90**	⇓*e*Pn	Pn	07 43 36.4	-2.2
SPAK	**Spaichingen**	**1.79**	**135**	⇑*e*Pg	Pg	07 43 40.2	-2.1
BUCH	**Bad Urach**	**1.87**	**119**	Pn	Pn	07 43 38.0	-2.0
BUCH				*i* Pg	Pg	07 43 41.9	-2.0
BUCH	**Bad Urach**	**1.87**	**119**	*i* PG	Pg	07 43 41.9	-2.0
BUCH	**Bad Urach**	**1.87**	**119**	P	Pn	07 43 38.0	-2.0
BUCH				*i* Pg	Pg	07 43 41.9	-2.0
BUCH	**Bad Urach**	**1.87**	**119**	*i* Pg	Pg	07 43 41.9	-2.0
BAIF	**Baives**	**1.87**	**292**	*e*Pn	Pn	07 43 37.1	-2.9
BAIF				*e*Pg	Pg	07 43 39.8	-4.1
BAIF				*e*Sn	Sn	07 43 59.7	-4.9
BAIF				*e*Sg	Sg	07 44 04.6	-4.3
	145nm,0.6s						
GUT	**Gutenstein**	**1.97**	**131**	Pn	Pn	07 43 40.8	-0.6
GUT				Pg	Pg	07 43 43.6	-2.2
GUT	**Gutenstein**	**1.97**	**131**	PG	Pg	07 43 43.6	-2.3
GUT	**Gutenstein**	**1.97**	**131**	P	Pn	07 43 40.8	-0.6
GUT				Pg	Pg	07 43 43.6	-2.3
GUT	**Gutenstein**	**1.97**	**131**	Pg	Pg	07 43 43.6	-2.3
LOMF	**Lomont**	**2.03**	**181**	*e*Pn	Pn	07 43 40.8	-1.4
	SNR=2.0						
LOMF				Sg	Sg	07 44 11.3	-2.8
LOMF	**Lomont**	**2.03**	**181**	S	Sn	07 44 11.3	+2.7
LOMF	**Lomont**	**2.03**	**181**	Pn	Pn	07 43 40.4	-1.9
UBBA	**Unterbreizbach**	**2.47**	**53**	*e*Sg	Sg	07 44 24.9	-3.8
	SNR=4.3						
WTSB	**Winterswijk**	**2.59**	**359**	*e*Pg	Pg	07 43 54.6	-3.7
	SNR=1.8						
WTSB				*e*Sg	Sg	07 44 28.6	-4.3
	SNR=2.7						
WTSB	**Winterswijk**	**2.59**	**359**	*e*Pn	Pn	07 43 55.6	+5.3
	28nm,0.5s						
WTSB				*e*Sg	Sg	07 44 27.1	-5.7
UBR	**Uberruh**	**2.73**	**127**	Pn	Pn	07 43 51.3	-0.9
CABF	**La Chapelle**	**2.82**	**191**	*e*Pn	Pn	07 43 51.8	-1.8
CABF				*e*Pg	Pg	07 44 00.0	-2.9
CABF				*e*Sg	Sg	07 44 37.0	-3.5
	91nm,0.6s						
GRA1	**Grafenberg Arr**	**2.84**	**82**	*e*Pn	Pn	07 44 00.8	+7.0
GRA1				*e*Sg	Sg	07 44 36.9	-4.1
GRF	**Grafenberg Arr**	**2.84**	**82**	*e*Pn	Pn	07 44 00.8	+7.0
GRF				*e*Sg	Sg	07 44 36.9	-4.1
DAVA	**Damuels**	**2.89**	**135**	⇑*i*PN	Pn	07 43 54.6	0.0
DAVA				*i* SN	Sn	07 44 29.9	-0.6
DAVA				*i* SG	Sg	07 44 43.4	+0.6
	60nm,0.8s						
DAVA	**Damuels**	**2.89**	**135**	*i* Sn	Sn	07 44 29.9	-0.6
IBBN	**Ibbenburen**	**2.98**	**10**	*e*Sg	Sg	07 44 41.2	-4.6
	SNR=2.6						
SSF	**Saint Saulge**	**3.24**	**226**	*e*Pn	Pn	07 43 56.5	-3.1
SSF				*e*Pg	Pg	07 44 07.0	-4.3
SSF				*e*Sn	Sn	07 44 34.8	-4.6
SSF				*e*Sg	Sg	07 44 49.5	-5.0
	56nm,0.5s						
MOX	**Moxa**	**3.30**	**66**	*e*Pn	Pn	07 43 58.8	-1.5
	SNR=2.8						
MOX				*e*Pg	Pg	07 44 07.2	-5.2
	SNR=4.3						
MOX				*e*Sn	Sn	07 44 36.2	-4.6
MOX	**Moxa**	**3.30**	**66**	*i* P	Pn	07 43 55.1	-5.3
MOX				Pg	Pg	07 44 07.0	-5.4
MOX				S	Sn	07 44 36.0	-4.8
MOX	**Moxa**	**3.30**	**66**	*e*Pn	Pn	07 43 55.1	-5.3
MOX				*e*Pg	Pg	07 44 07.0	-5.4
MOX				*e*Sn	Sn	07 44 36.2	-4.6
CLZ	**Clausthal**	**3.31**	**41**	*e*Sg	Sg	07 44 51.8	-5.1
	SNR=3.5						
SMF	**Signal de Mont**	**3.42**	**218**	*e*Pn	Pn	07 43 59.4	-2.7
SMF				*e*Sn	Sn	07 44 38.6	-5.2
SMF				*e*Sg	Sg	07 44 54.7	-5.6
	30nm,0.3s						
AVF	**Avril sur Loir**	**3.51**	**224**	*e*Pn	Pn	07 44 00.0	-3.4
AVF				*e*Sn	Sn	07 44 40.9	-5.3
AVF				*e*Sg	Sg	07 44 58.1	-5.4
	50nm,0.7s						
HYF	**Humbligny**	**3.54**	**235**	*e*Pn	Pn	07 44 01.6	-2.2
HYF				*e*Pg	Pg	07 44 13.1	-4.1
HYF				*e*Sn	Sn	07 44 41.9	-5.0
HYF				*e*Sg	Sg	07 44 58.4	-5.9
SQTA	**Sankt Quirin**	**3.60**	**125**	⇑*i*PN	Pn	07 44 04.2	-0.5
SQTA				*i* SN	Sn	07 44 46.6	-1.8
NEUB	**Neuenburg**	**3.63**	**58**	*e*Sg	Sg	07 45 02.1	-5.2
	SNR=2.8						
WERD	**Werda**	**3.66**	**71**	*e*Pn	Pn	07 44 03.3	-2.2
	SNR=2.0						
WERD				*e*Pg	Pg	07 44 14.4	-5.2
	SNR=4.2						
WERD				*e*Sg	Sg	07 45 02.6	-5.7
	SNR=5.0						
NKC	**Novy Kostel**	**3.70**	**75**	*e*PG	Pg	07 44 14.9	-5.5
NKC				*e*SG	Sg	07 45 03.1	-6.6
TANN	**Tannenbergstha**	**3.75**	**72**	*e*Pg	Pg	07 44 17.1	-4.3
	SNR=3.5						
TANN				*e*Sg	Sg	07 45 05.1	-6.2
	SNR=3.0						
WTTA	**Wattenberg**	**3.81**	**122**	⇑*i*PN	Pn	07 44 06.4	-1.2
WTTA				*i* SN	Sn	07 44 52.1	-1.6
WTTA	**Wattenberg**	**3.81**	**122**	*i* Sn	Sn	07 44 52.1	-1.6
LPL	**La Plagne**	**3.87**	**182**	*e*Pn	Pn	07 44 06.2	-2.2
LPL				*e*Sn	Sn	07 44 49.6	-5.6
LPL				*e*Sg	Sg	07 45 09.6	-5.6
	11nm,0.4s						
LPG	**La Plagne**	**3.88**	**181**	*e*Pn	Pn	07 44 06.4	-2.3
LPG				*e*Sn	Sn	07 44 50.7	-4.9
LPG				*e*Sg	Sg	07 45 10.1	-5.8
	30nm,0.7s						
BGF	**Bois d'Agland**	**3.92**	**225**	*e*Pn	Pn	07 44 05.9	-3.3
BGF				*e*Sn	Sn	07 44 49.6	-6.9
BGF				*e*Sg	Sg	07 45 11.2	-5.8
	142nm,0.5s						
CLL	**Collm**	**4.36**	**61**	*e*Pg	Pg	07 44 26.0	-7.7
CLL				*e*Sg	Sg	07 45 24.8	-7.0
	SNR=2.4						
KHC	**Kasperske Hory**	**4.38**	**91**	*e*P	Pn	07 44 13.5	-2.3
KHC				*e*		07 44 35.5	
KHC				*e*Sn	Sn	07 45 03.6	-4.7
KHC				*e*Sg	Sg	07 45 25.8	-6.8
KHC	**Kasperske Hory**	**4.38**	**91**	*e*x	x	07 44 13.5	
KHC				x	x	07 44 35.5	
KHC				*e*SN	Sn	07 45 03.6	-4.7
KHC				*e*SG	Sg	07 45 25.8	-6.8
KHC	**Kasperske Hory**	**4.38**	**91**	*e*Sn	Sn	07 45 03.6	-4.7
TCF	**Toulx Ste Croi**	**4.42**	**227**	*e*Pn	Pn	07 44 11.9	-4.4
TCF				*e*Pg	Pg	07 44 29.0	-5.7
TCF				*e*Sn	Sn	07 45 02.1	-7.0
TCF				*e*Sg	Sg	07 45 25.9	-7.7
	24nm,0.5s						
GEC2	**GERESS Array S**	**4.50**	**94**	*e*Pn	Pn	07 44 15.4	-2.1
	SNR=31						
GEC2				*e*(Sn)	Sn	07 45 04.8	-6.5
	SNR=3.4						
GEC2	**GERESS Array S**	**4.50**	**94**	*e*Pn	Pn	07 44 15.4	-2.1
GEC2				Sn	Sn	07 45 04.8	-6.5
ORIF	**Oris-en-Rattie**	**4.51**	**189**	*e*Sg	Sg	07 45 30.2	-6.7
	16nm,0.6s						
LDF	**La Druitiere**	**4.69**	**263**	*e*Pn	Pn	07 44 16.9	-3.2
LDF				*e*Pg	Pg	07 44 33.2	-6.9
LDF				*e*Sn	Sn	07 45 07.7	-8.3
LDF				*e*Sg	Sg	07 45 33.7	-8.9
	17nm,0.4s						
VIVF	**Saint-Julien-l**	**4.77**	**199**	*e*Sg	Sg	07 45 37.2	-8.2
	14nm,0.5s						
BRG	**Berggiesshubel**	**4.78**	**69**	*e*Pg	Pg	07 44 34.4	-7.5
BRG				*e*Sg	Sg	07 45 35.9	-10
KBA	**Koelnbreinsper**	**4.89**	**116**	⇓*i*PN	Pn	07 44 21.9	-1.0
KBA				*i* SN	Sn	07 45 18.6	-2.4
KBA	**Koelnbreinsper**	**4.89**	**116**	*i* Sn	Sn	07 45 18.6	-2.4
FLN	**La Foliniere**	**4.89**	**266**	*e*Pn	Pn	07 44 20.0	-3.0
FLN				*e*Pg	Pg	07 44 36.9	-7.2
FLN				*e*Sn	Sn	07 45 12.5	-8.5
FLN				*e*Sg	Sg	07 45 39.5	-10
	18nm,0.4s						
PRU	**Pruhonice**	**5.00**	**80**	*e*SG	Sg	07 45 44.7	-8.4
MOA	**Molln**	**5.12**	**105**	⇑*i*PN	Pn	07 44 24.5	-1.8
MOA				*i* SN	Sn	07 45 23.7	-3.3
MOA				*i* SG	Sg	07 45 55.3	-1.8
	3.6nm,0.4s						
MOA	**Molln**	**5.12**	**105**	⇑*i*Pn	Pn	07 44 24.5	-1.8
	3.6nm,0.4s						
MOA				*i* Sn	Sn	07 45 23.7	-3.3
MOA				*i* Sg	Sg	07 45 55.3	-1.8
GRR	**Gorron**	**5.21**	**262**	*e*Pn	Pn	07 44 25.0	-2.5
GRR				*e*Pg	Pg	07 44 43.5	-7.1
GRR				*e*Sn	Sn	07 45 20.3	-8.8
GRR				*e*Sg	Sg	07 45 48.5	-12
	18nm,0.3s						
MFF	**Saint Martin d**	**5.48**	**242**	*e*Pn	Pn	07 44 28.0	-3.3
MFF				*e*Sg	Sg	07 45 58.9	-10
	20nm,0.7s						
CAF	**Calviac**	**5.54**	**218**	*e*Pn	Pn	07 44 26.7	-5.4
DPC	**Dobruska-Polom**	**6.17**	**77**	*e*SG	Sg	07 46 26.0	-6.1
SGMF	**Saint Gilles**	**6.34**	**263**	*e*Pn	Pn	07 44 38.9	-4.6
SGMF				*e*Sn	Sn	07 45 47.7	-10
ROSF	**Rostrenen**	**6.79**	**265**	*e*Pn	Pn	07 44 45.2	-4.6
ROSF				*e*Sn	Sn	07 45 57.3	-11
	5.1nm,0.4s						
QUIF	**Quistinic**	**6.82**	**261**	*e*Pn	Pn	07 44 46.1	-4.2

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*IDC **09** 07:45:59.3±1.9,34.82N×2.93W,mb3.9/12,mb1 4.2/15, mb1mx4.1/27,ML4.5/3,MS4.0/12,Ms1 4.0/12, ms1mx3.8/26,Error ellipse: s-maj=44.3km s-min=22.0km az=1.0*

*CNRM **09** 07:45:59.9,35.10N×2.62W,h16^{km},MD4.6*

*MDD **09** 07:46:01.9±0.8,34.96N×3.08W,mb5.0/25,Error ellipse: s-maj=7.0km s-min=4.6km az=158.0,PRXIMO AftershockPLICA*

MDD EMS: III MELILLA.

*NEIC **09** 07:46:02.2,34.97N×3.08W,h2^{km},mb4.3/8,ML4.1(LDG), After MDD.*

*ZUR_RM **09** 07:46:02,34.97N×3.08W,h15^{km},Mw4.7/12,Moment Tensor Solution. s12 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.11; M$_{\theta\theta}$-0.34; M$_{\phi\phi}$0.23; M$_{r\theta}$0.31; M$_{\theta\phi}$-0.95; M$_{\phi r}$-0.35; Best double couple: M$_0$1.1×10^{16} NP1:φ$_s$96°,δ75°,λ161°. NP2:φ$_s$191°,δ71°,λ16°. Principal axes: T 1.1445, Plg24°, Azm53°; N -.0973, Plg65°, Azm239°; P -1.0472, Plg2°, Azm144°;*

*IAG **09** 07:46:02,34.97N×3.08W,h12^{km},Mw4.5,Moment Tensor Solution. Moment tensor: Scale 10^{15}Nm; M$_{rr}$-0.63; M$_{\theta\theta}$0.08; M$_{\phi\phi}$0.55; M$_{r\theta}$-1.74; M$_{\theta\phi}$-5.92; M$_{\phi r}$-2.80; Best double couple: M$_0$6.8×10^{15} NP1:φ$_s$94°,δ66°,λ194°. NP2:φ$_s$359°,δ77°,λ-23°. Principal axes: T 7.18, Plg8°, Azm48°; N -.831, Plg63°, Azm153°; P -6.35, Plg26°, Azm314°;*

*SFS **09** 07:46:02.0,34.97N×3.08W,ML5.0*

*INMG **09** 07:46:03.1±1.3,35.01N×2.99W,h16^{km}±4^{km},ML3.7,Error ellipse: s-maj=6.5km s-min=4.2km az=152.0*

*LDG **09** 07:46:04.9±0.2,34.88N×2.99W,h30^{km},Ml4.1/4,ms3.6/5, Error ellipse: s-maj=4.9km s-min=2.7km az=1.0*

*CSEM **09** 07:46:04.1,35.36N×2.94W,h5^{km},mb4.5,ML4.4*

*IGIL **09** 07:46:06.1,35.10N×3.10W,h0^{km},ML4.0*

ISC 09 07:46:04.2±0.4**,35.21N**±0.03×**3.00W**±0.02**,h29**^{km}±3^{km}**, n189,**σ1^{s}**34**/268**,mb4.1**/15**,MS4.0**/11**,2C-10D,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.10**	**21**	⇓P	**Pb**	**07 46 08.5**	**-0.9**
	5μm,0.2s,SNR=18						
EMEL				S	**Sn**	**07 46 13.5**	**+0.8**
	30μm,0.2s						
EMLI	**Melilla**	**0.10**	**24**	P	**Pb**	**07 46 08.5**	**-0.9**
	5μm,0.2s,SNR=18						
EMLI				S	**Sn**	**07 46 13.5**	**+0.7**
	30μm,0.2s						
MELI	**Melilla**	**0.10**	**32**	⇓P	**Pb**	**07 46 08.4**	**-1.0**
MELI				S	**Sn**	**07 46 13.4**	**+0.6**
MELI	**Melilla**	**0.10**	**32**	*i* P	**Pb**	**07 46 08.4**	**-1.0**
MELI				*i* S	**Sn**	**07 46 13.4**	**+0.6**
TOU	**Touzarine**	**0.67**	**248**	*i* P	**Pb**	**07 46 16.0**	**-1.3**
TOU				*i* S	**Sb**	**07 46 28.0**	**+1.8**
MPAL	**Palemas**	**0.77**	**271**	*i* P	**Pb**	**07 46 19.0**	**0.0**
EBER	**Berja**	**1.69**	**3**	P	**Pn**	**07 46 33.4**	**+1.1**
EBER				S	**Sn**	**07 46 54.1**	**+1.0**
EBER				S	**Sn**	**07 46 55.0**	**+1.8**
EBER	**Berja**	**1.69**	**3**	P	**Pn**	**07 46 33.4**	**+1.1**
	122nm,0.4s,SNR=63						
EBER				S	**Sn**	**07 46 55.0**	**+1.8**
	2μm,0.6s,SNR=10						
EBER	**Berja**	**1.69**	**3**	P	**Pn**	**07 46 33.4**	**+1.1**
	122nm,0.4s,SNR=63						
EBER				S	**Sn**	**07 46 55.0**	**+1.8**
	2μm,0.6s,SNR=10						
OTSS	**Djebel Tessala**	**1.81**	**87**	P	**Pn**	**07 46 35.0**	**+1.0**
ERON	**Agron**	**1.92**	**340**	⇑P	**Pn**	**07 46 36.4**	**+0.7**
ERON				S	**Sn**	**07 47 01.9**	**+2.9**
ERON	**Agron**	**1.92**	**340**	⇑P	**Pn**	**07 46 36.4**	**+0.7**
	63nm,0.3s,SNR=18						
ERON				S	**Sn**	**07 47 04.0**	**+4.9**
	124nm,0.2s,SNR=8.5						
ERON	**Agron**	**1.92**	**340**	S	**Sn**	**07 47 01.9**	**+2.8**
	124nm,0.2s,SNR=8.5						
EMAL	**Malaga-Limoner**	**1.94**	**324**	⇓P	**Pn**	**07 46 36.4**	**+0.6**
	191nm,0.3s,SNR=18						
EMAL				S	**Sn**	**07 47 02.4**	**+2.9**
	244nm,0.2s,SNR=7.9						
DKH	**Dar Kharkhour**	**1.95**	**279**	*i* P	**Pn**	**07 46 36.0**	**-0.1**
DKH				*i* S	**Sn**	**07 47 00.0**	**+0.2**
EMIJ	**Mijas**	**1.98**	**314**	⇓P	**Pn**	**07 46 36.3**	**-0.1**
EMIJ				S	**Sn**	**07 47 01.1**	**+0.6**
EMIJ	**Mijas**	**1.98**	**314**	⇓P	**Pn**	**07 46 36.3**	**-0.1**
	132nm,0.4s,SNR=18						
EMIJ				S	**Sn**	**07 47 01.5**	**+1.0**
	219nm,0.3s,SNR=6.7						
EMIJ	**Mijas**	**1.98**	**314**	S	**Sn**	**07 47 01.5**	**+1.0**
	219nm,0.3s,SNR=6.7						
ELOJ	**Sierra Loja**	**2.15**	**335**	P	**Pn**	**07 46 40.6**	**+1.7**
	50nm,0.4s,SNR=93						
ELOJ				S	**Sn**	**07 47 10.5**	**+5.6**
	244nm,0.6s,SNR=4.0						
ELOJ	**Sierra Loja**	**2.15**	**335**	S	**Sn**	**07 47 10.5**	**+5.6**
	244nm,0.6s,SNR=4.0						
REAL	**Reales**	**2.20**	**306**	P	**Pn**	**07 46 38.5**	**-1.2**
REAL	**Reales**	**2.20**	**306**	*e*P	**Pn**	**07 46 38.5**	**-1.2**
ELUQ	**Luque**	**2.56**	**337**	P	**Pn**	**07 46 47.7**	**+2.9**
	51nm,0.4s,SNR=57						
ELUQ				S	**Sn**	**07 47 19.7**	**+4.3**
	183nm,0.4s,SNR=7.1						
LIJA	**Lijar**	**2.58**	**312**	P	**Pn**	**07 46 48.0**	**+2.9**
LIJA				S	**Sn**	**07 47 18.0**	**+2.1**
LIJA	**Lijar**	**2.58**	**312**	*e*S	**Sn**	**07 47 18.0**	**+2.1**
EQES	**Quesada**	**2.59**	**359**	P	**Pn**	**07 46 48.1**	**+2.9**
EQES				S	**Sn**	**07 47 21.8**	**+5.8**
EQES	**Quesada**	**2.59**	**359**	⇓P	**Pn**	**07 46 48.5**	**+3.3**
	283nm,0.4s,SNR=18						
EQES				S	**Sn**	**07 47 21.8**	**+5.8**
	2μm,0.9s,SNR=7.9						
EQES	**Quesada**	**2.59**	**359**	P	**Pn**	**07 46 48.1**	**+2.9**
EQES				S	**Sn**	**07 47 21.8**	**+5.7**
	2μm,0.9s,SNR=7.9						
CNIL	**Conil**	**2.74**	**296**	P	**Pn**	**07 46 50.0**	**+2.6**
CZD	**Col de Zad**	**2.75**	**219**	*i* P	**Pn**	**07 46 44.0**	**-3.6**
CZD				*i* S	**Sn**	**07 47 14.5**	**-5.8**
ESPR	**Espera**	**2.85**	**306**	⇓P	**Pn**	**07 46 50.5**	**+1.6**
	53nm,0.4s,SNR=18						
ESPR				S	**Sn**	**07 47 26.1**	**+3.5**
	295nm,0.4s						
ESPR	**Espera**	**2.85**	**306**	P	**Pn**	**07 46 50.5**	**+1.6**
	53nm,0.4s,SNR=18						
ESPR				S	**Sn**	**07 47 26.1**	**+3.5**
	295nm,0.4s						
CART	**Cartagena**	**2.87**	**34**	*e*Pn	**Pn**	**07 46 47.4**	**-1.8**
CART				*e*Sn	**Sn**	**07 47 19.8**	**-3.4**
CART	**Cartagena**	**2.87**	**34**	*e*Pn	**Pn**	**07 46 47.4**	**-1.8**
CART				*e*Sn	**Sn**	**07 47 19.8**	**-3.4**
SFS	**San Fernando**	**2.89**	**297**	*e*Pn	**Pn**	**07 46 43.2**	**-6.4**
SFS	**San Fernando**	**2.89**	**297**	P	**Pn**	**07 46 55.3**	**+5.8**
SFS	**San Fernando**	**2.89**	**297**	*e*Pn	**Pn**	**07 46 43.2**	**-6.3**
GIBL	**Gibalbin**	**2.90**	**305**	P	**Pn**	**07 46 52.0**	**+2.3**
SCRT	**Cerro San Cris**	**2.94**	**300**	P	**Pn**	**07 46 53.2**	**+2.9**
EADA	**Adamuz**	**3.21**	**337**	P	**Pn**	**07 46 55.9**	**+1.8**
EADA				S	**Sn**	**07 47 33.4**	**+1.6**
EADA	**Adamuz**	**3.21**	**337**	P	**Pn**	**07 46 55.9**	**+1.8**
	75nm,0.4s,SNR=298						
EADA				S	**Sn**	**07 47 33.4**	**+1.6**
	757nm,0.7s						
EADA	**Adamuz**	**3.21**	**337**	P	**Pn**	**07 46 55.8**	**+1.7**
EADA				S	**Sn**	**07 47 33.4**	**+1.5**
	757nm,0.7s						
ZFT	**Errachidia**	**3.36**	**200**	*i* P	**Pn**	**07 46 51.5**	**-4.7**
EANR	**'Ain N'Sour**	**3.42**	**76**	P	**Pn**	**07 47 09.0**	**+12**
EVIA	**Vianos**	**3.45**	**6**	P	**Pn**	**07 46 58.8**	**+1.4**
EVIA				S	**Sn**	**07 47 40.6**	**+2.9**
EVIA	**Vianos**	**3.45**	**6**	P	**Pn**	**07 46 58.8**	**+1.4**
	54nm,0.3s,SNR=46						
EVIA				S	**Sn**	**07 47 42.7**	**+4.9**
	440nm,0.6s,SNR=4.8						
EVIA	**Vianos**	**3.45**	**6**	P	**Pn**	**07 46 58.8**	**+1.4**
	54nm,0.3s,SNR=46						
EVIA				S	**Sn**	**07 47 40.6**	**+2.9**

ETRT	**Tiaret**	**3.52**	**86**	P	**Pn**	**07 47 11.0**	**+13**
ECHF	**Ech Chlef**	**3.66**	**74**	P	**Pn**	**07 47 14.0**	**+14**
EMIN	**Mina Concepcio**	**3.91**	**312**	⇓P	**Pn**	**07 47 03.9**	**-0.1**
	16nm,0.2s,SNR=18						
EMIN				S	**Sn**	**07 47 48.8**	**-0.6**
	97nm,0.4s,SNR=7.3						
EMIN	**Mina Concepcio**	**3.91**	**312**	S	**Sn**	**07 47 48.8**	**-0.6**
	97nm,0.4s,SNR=7.3						
EMIN	**Mina Concepcio**	**3.91**	**312**	P	**Pn**	**07 47 03.9**	**-0.1**
	16nm,0.2s,SNR=18						
EBEN	**Beniarda**	**4.13**	**32**	P	**Pn**	**07 47 06.8**	**-0.4**
EBEN				S	**Sn**	**07 47 54.4**	**-0.8**
EBEN	**Beniarda**	**4.13**	**32**	P	**Pn**	**07 47 06.8**	**-0.4**
	19nm,0.3s,SNR=21						
EBEN				S	**Sn**	**07 47 54.4**	**-0.8**
	46nm,0.4s,SNR=7.9						
EBEN	**Beniarda**	**4.13**	**32**	S	**Sn**	**07 47 54.4**	**-0.8**
	46nm,0.4s,SNR=7.9						
EBEN	**Beniarda**	**4.13**	**32**	P	**Pn**	**07 47 06.8**	**-0.4**
	19nm,0.3s,SNR=21						
ESDC	**Sonseca Array**	**4.52**	**351**	Pn	**Pn**	**07 47 14.6**	**+1.9**
	47nm,0.3s,baz=174,slow=12,SNR=227						
ESDC				Sn	**Sn**	**07 48 07.3**	**+2.3**
	20nm,0.3s,baz=170,slow=19,SNR=8.6						
ESDC				Lg		07 48 21.8	
	50nm,0.3s,baz=169,slow=22,SNR=18						
ESDC	**Sonseca Array**	**4.52**	**351**	P	**Pn**	**07 47 14.3**	**+1.6**
	48nm,0.4s,baz=173,slow=12,SNR=199						
ESDC				S	**Sn**	**07 48 07.2**	**+2.2**
	35nm,0.5s,baz=169,slow=22,SNR=4.0						
ESDC	**Sonseca Array**	**4.52**	**351**	P	**Pn**	**07 47 14.3**	**+1.6**
	48nm,0.4s,SNR=199						
ESDC				S	**Sn**	**07 48 07.2**	**+2.2**
	35nm,0.5s,SNR=4.0						
ESLA	**Sonseca Array**	**4.52**	**351**	*e*Pn	**Pn**	**07 47 14.3**	**+1.6**
EBAD	**Badajoz**	**4.78**	**319**	⇓P	**Pn**	**07 47 16.4**	**+0.1**
EBAD				S	**Sn**	**07 48 11.4**	**-0.1**
EBAD				S	**Sn**	**07 48 11.9**	**+0.4**
EBAD	**Badajoz**	**4.78**	**319**	⇓P	**Pn**	**07 47 16.4**	**+0.1**
	32nm,0.3s,SNR=18						
EBAD				S	**Sn**	**07 48 11.4**	**-0.1**
	86nm,0.2s,SNR=6.8						
EBAD	**Badajoz**	**4.78**	**319**	P	**Pn**	**07 47 16.4**	**+0.1**
	32nm,0.3s,SNR=18						
EBAD				S	**Sn**	**07 48 11.4**	**-0.1**
	86nm,0.2s,SNR=6.8						
PBEJ	**Beja**	**4.82**	**307**	*e*Pn	**Pn**	**07 47 16.1**	**-0.8**
PBEJ				*e*Sn	**Sn**	**07 48 10.4**	**-2.1**
	86nm,0.7s						
PBEJ	**Beja**	**4.82**	**307**	*e*Pn	**Pn**	**07 47 16.1**	**-0.8**
PBEJ				*e*Sn	**Sn**	**07 48 10.4**	**-2.1**
	86nm,0.7s						
EMHD	**Djebel Mahouad**	**4.94**	**77**	P	**Pn**	**07 47 19.0**	**+0.3**
EIBI	**Ibiza**	**5.15**	**41**	P	**Pn**	**07 47 21.3**	**-0.3**
EIBI				S	**Sn**	**07 48 17.9**	**-2.9**
EIBI	**Ibiza**	**5.15**	**41**	P	**Pn**	**07 47 21.3**	**-0.3**
	84nm,0.3s,SNR=6.8						
EIBI				S	**Sn**	**07 48 19.5**	**-1.4**
	16nm,0.2s						
EIBI	**Ibiza**	**5.15**	**41**	S	**Sn**	**07 48 19.5**	**-1.4**
	16nm,0.2s						
EIBI	**Ibiza**	**5.15**	**41**	P	**Pn**	**07 47 21.3**	**-0.3**
	84nm,0.3s,SNR=6.8						
PTEO	**Sao Teotonio**	**5.17**	**298**	*e*Pn	**Pn**	**07 47 20.6**	**-1.3**
PTEO				*e*Sn	**Sn**	**07 48 19.2**	**-2.2**
	77nm,0.4s						
PTEO	**Sao Teotonio**	**5.17**	**298**	P	**Pn**	**07 47 20.6**	**-1.3**
PTEO				S	**Sn**	**07 48 19.2**	**-2.2**
	38nm,0.4s						
EVO	**Evora**	**5.21**	**311**	*e*Pn	**Pn**	**07 47 22.9**	**+0.5**
EVO				*e*Sn	**Sn**	**07 48 17.9**	**-4.4**
	196nm,0.5s						
EVO				*e*R			
	972nm,23.5s						
MOE	**Montemor**	**5.42**	**309**	*e*Pn	**Pn**	**07 47 25.3**	**0.0**
MOE				*e*Sn	**Sn**	**07 48 26.9**	**-0.6**
EMOS	**Mosqueruela**	**5.52**	**21**	P	**Pn**	**07 47 27.9**	**+1.2**
EMOS				S	**Sn**	**07 48 29.3**	**-0.8**
EMOS	**Mosqueruela**	**5.52**	**21**	P	**Pn**	**07 47 28.1**	**+1.4**
	10nm,0.4s,SNR=32						
EMOS				S	**Sn**	**07 48 29.3**	**-0.8**
	6.5nm,0.3s,SNR=4.0						
EMOS	**Mosqueruela**	**5.52**	**21**	P	**Pn**	**07 47 27.9**	**+1.1**
OUK	**Oukaimeden**	**5.71**	**227**	*i* P	**Pn**	**07 47 25.0**	**-4.4**
PCBR	**Castelo Branco**	**5.83**	**324**	*e*Pn	**Pn**	**07 47 31.1**	**-0.1**
PCBR				*e*Sn	**Sn**	**07 48 36.4**	**-1.5**
	53nm,0.5s						
PCBR	**Castelo Branco**	**5.83**	**324**	P	**Pn**	**07 47 31.1**	**-0.1**
PCBR				S	**Sn**	**07 48 36.4**	**-1.5**
	26nm,0.5s						
PCBR	**Castelo Branco**	**5.83**	**324**	*e*Sn	**Sn**	**07 48 36.4**	**-1.5**
	53nm,0.5s						
CIA	**Chichaoua**	**6.03**	**235**	*i* P	**Pn**	**07 47 30.0**	**-4.0**
LIS	**Lisbon**	**6.04**	**307**	*e*P	**Pn**	**07 47 33.8**	**-0.3**
LIS				*e*S	**Sn**	**07 48 39.1**	**-4.0**
LIS				*e*S	**Sn**	**07 48 39.2**	**-3.8**
LIS				AML	AML	07 48 45.4	
	comp=N,168nm,0.3s						
PLOU	**Loures**	**6.14**	**309**	*e*Pn	**Pn**	**07 47 34.4**	**-1.1**
PLOU				*e*Sn	**Sn**	**07 48 42.7**	**-2.8**
	comp=N,68nm,0.6s						
PLOU	**Loures**	**6.14**	**309**	P	**Pn**	**07 47 34.4**	**-1.1**
PLOU				S	**Sn**	**07 48 42.7**	**-2.8**
	comp=N,34nm,0.6s						
EBR	**Ebro Roquetas**	**6.24**	**25**	*e*PN	**Pn**	**07 47 37.5**	**+0.5**
EBR				*e*SN	**Sn**	**07 48 54.0**	**+5.9**
MTE	**Manteigas**	**6.31**	**327**	*e*Pn	**Pn**	**07 47 37.8**	**-0.1**
MTE				*e*Sn	**Sn**	**07 48 48.6**	**-1.1**
	comp=N,96nm,0.7s						
MTE	**Manteigas**	**6.31**	**327**	*e*Pn	**Pn**	**07 47 37.8**	**-0.1**
MTE				*e*Sn	**Sn**	**07 48 48.9**	**-0.8**
MTE	**Manteigas**	**6.31**	**327**	P	**Pn**	**07 47 37.8**	**-0.1**
MTE				S	**Sn**	**07 48 48.6**	**-1.1**
	comp=N,48nm,0.7s						
ERTA	**Horta de San J**	**6.31**	**24**	P	**Pn**	**07 47 37.9**	**0.0**
ERTA				S	**Sn**	**07 48 48.8**	**-1.0**
ERTA	**Horta de San J**	**6.31**	**24**	P	**Pn**	**07 47 38.6**	**+0.6**
	comp=N,67nm,0.4s,SNR=79						
ERTA				S	**Sn**	**07 48 48.8**	**-1.0**
	comp=N,15nm,0.4s						
ERTA	**Horta de San J**	**6.31**	**24**	P	**Pn**	**07 47 38.6**	**+0.7**
	comp=N,67nm,0.4s,SNR=79						
PVIS	**Viseu**	**6.72**	**326**	*e*Pn	**Pn**	**07 47 43.5**	**-0.2**
PVIS				*e*Sn	**Sn**	**07 48 57.6**	**-2.4**
	comp=N,46nm,0.7s						
PVIS	**Viseu**	**6.72**	**326**	P	**Pn**	**07 47 43.5**	**-0.2**
PVIS				S	**Sn**	**07 48 57.6**	**-2.4**
	comp=N,23nm,0.7s						
ESAC	**San Caprasio**	**6.80**	**16**	P	**Pn**	**07 47 45.5**	**+0.8**
	comp=N,11nm,0.3s,SNR=5.0						
ESAC	**San Caprasio**	**6.80**	**16**	P	**Pn**	**07 47 45.5**	**+0.7**
	comp=N,11nm,0.3s,SNR=5.0						
EPOB	**Poblet**	**6.92**	**26**	P	**Pn**	**07 47 45.9**	**-0.6**
	comp=N,20nm,0.4s,SNR=19						
EPOB	**Poblet**	**6.92**	**26**	P	**Pn**	**07 47 45.9**	**-0.6**
	comp=N,20nm,0.4s,SNR=19						
PVRL	**Vila Real**	**7.10**	**330**	*e*Pn	**Pn**	**07 47 48.9**	**-0.1**
PVRL				*e*Sn	**Sn**	**07 49 06.7**	**-2.9**
	comp=N,53nm,0.6s						
PVRL	**Vila Real**	**7.10**	**330**	P	**Pn**	**07 47 48.9**	**-0.1**
PVRL				S	**Sn**	**07 49 06.7**	**-2.9**
	comp=N,26nm,0.6s						
PBRG	**Braganca**	**7.21**	**337**	*e*Pn	**Pn**	**07 47 50.5**	**0.0**
PBRG				*e*Sn	**Sn**	**07 49 08.3**	**-4.0**
	comp=N,35nm,0.7s						
PBRG	**Braganca**	**7.21**	**337**	P	**Pn**	**07 47 50.5**	**0.0**
PBRG				S	**Sn**	**07 49 08.3**	**-4.0**
	comp=N,17nm,0.7s						
ECAL	**Calabor**	**7.33**	**338**	P	**Pn**	**07 47 52.0**	**-0.2**
	comp=N,34nm,0.4s,SNR=44						
ECAL				S	**Sn**	**07 49 11.5**	**-3.8**
	comp=N,31nm,0.4s						
ECAL	**Calabor**	**7.33**	**338**	P	**Pn**	**07 47 52.0**	**-0.2**
	comp=N,34nm,0.4s,SNR=44						
EMIR	**Miracle**	**7.57**	**27**	P	**Pn**	**07 47 56.6**	**+0.9**
	comp=N,17nm,0.6s,SNR=4.0						
EMIR				S	**Sn**	**07 49 20.8**	**-0.6**
	comp=N,9.7nm,0.6s						
EMIR	**Miracle**	**7.57**	**27**	P	**Pn**	**07 47 56.6**	**+1.0**
	comp=N,17nm,0.6s,SNR=4.0						
ELOB	**Lobios**	**7.74**	**331**	P	**Pn**	**07 47 57.1**	**-0.9**
ELOB				S	**Sn**	**07 49 21.0**	**-4.5**
ELOB				S	**Sn**	**07 49 22.5**	**-3.0**
ELOB	**Lobios**	**7.74**	**331**	P	**Pn**	**07 47 57.7**	**-0.2**
	comp=N,46nm,0.5s,SNR=87						
ELOB				S	**Sn**	**07 49 21.0**	**-4.5**
	comp=N,59nm,0.5s						
ELOB	**Lobios**	**7.74**	**331**	P	**Pn**	**07 47 57.7**	**-0.2**
	comp=N,46nm,0.5s,SNR=87						
CASM	**Ain Smara**	**7.79**	**80**	P	**Pn**	**07 47 57.0**	**-1.6**
EBIE	**Bielsa**	**7.86**	**17**	P	**Pn**	**07 48 00.3**	**+0.7**
	comp=N,12nm,0.4s,SNR=21						
EBIE				S	**Sn**	**07 49 26.4**	**-2.0**
	comp=N,3.1nm,0.5s						
EBIE	**Bielsa**	**7.86**	**17**	P	**Pn**	**07 48 00.3**	**+0.7**
	comp=N,12nm,0.4s,SNR=21						
ERUA	**La Rua**	**7.87**	**337**	P	**Pn**	**07 47 59.6**	**-0.1**
	comp=N,28nm,0.4s,SNR=24						
ERUA				S	**Sn**	**07 49 26.2**	**-2.5**
	comp=N,21nm,0.6s						
ETSF	**Etsaut**	**7.91**	**13**	*e*Pn	**Pn**	**07 48 00.6**	**+0.3**
ETSF				*e*Sn	**Sn**	**07 49 27.5**	**-2.3**
	comp=N,19nm,0.7s						
SJPF	**Ste Jean**	**8.01**	**9**	*e*Pn	**P**	**07 48 02.5**	**+0.8**
SJPF				*e*Sn	**Sn**	**07 49 29.6**	**-2.8**
	comp=N,27nm,0.8s						
VIEF	**Viey**	**8.02**	**16**	P	**P**	**07 48 02.2**	**+0.4**
ELAN	**Lanestosa**	**8.02**	**358**	P	**P**	**07 48 02.4**	**+0.6**
	comp=N,7.0nm,0.3s,SNR=19						
ELAN				S	**Sn**	**07 49 29.6**	**-2.9**
	comp=N,8.7nm,0.4s,SNR=4.0						
ELAN	**Lanestosa**	**8.02**	**358**	P	**P**	**07 48 02.5**	**+0.7**
RESF	**Ens**	**8.02**	**18**	P	**P**	**07 48 02.7**	**+0.9**
EALK	**Alkurruntz**	**8.08**	**8**	P	**P**	**07 48 03.7**	**+0.9**
	comp=N,20nm,0.4s,SNR=19						
EALK				S	**Sn**	**07 49 30.5**	**-3.6**
	comp=N,46nm,0.5s						
EINC	**Incio**	**8.17**	**337**	P	**P**	**07 48 04.1**	**+0.1**
	comp=N,13nm,0.3s,SNR=26						
EINC				S	**Sn**	**07 49 32.4**	**-4.0**
	comp=N,23nm,0.4s						
EINC	**Incio**	**8.17**	**337**	P	**P**	**07 48 04.1**	**+0.1**
	comp=N,13nm,0.3s,SNR=26						
LABF	**Labassere**	**8.18**	**16**	P	**P**	**07 48 04.6**	**+0.5**
EPF	**Esparros**	**8.23**	**17**	*e*Pn	**P**	**07 48 05.2**	**+0.4**
EPF				*e*Sn	**Sn**	**07 49 34.2**	**-3.6**
	comp=N,11nm,0.5s						
EZAM	**Zamans**	**8.23**	**329**	P	**P**	**07 48 02.5**	**-2.3**
	comp=N,2.4nm,0.3s,SNR=4.0						
EARI	**Arriondas**	**8.26**	**349**	P	**P**	**07 48 05.1**	**-0.1**
	comp=N,34nm,0.5s,SNR=7.9						
EARI	**Arriondas**	**8.26**	**349**	P	**P**	**07 48 05.1**	**-0.1**
	comp=N,34nm,0.5s,SNR=7.9						
MLS	**Moulis**	**8.37**	**21**	P	**P**	**07 48 08.2**	**+1.5**
CMAH	**Djebel Manchou**	**8.57**	**77**	P	**P**	**07 48 07.0**	**-2.5**
EPON	**Pontenova**	**8.72**	**340**	P	**P**	**07 48 11.6**	**0.0**
	comp=N,14nm,0.4s,SNR=23						
EPON				S	**Sn**	**07 49 44.9**	**-5.0**
	comp=N,7.2nm,0.4s,SNR=4.0						
EPON	**Pontenova**	**8.72**	**340**	P	**P**	**07 48 11.6**	**0.0**
	comp=N,14nm,0.4s,SNR=23						
STS	**Santiago**	**8.80**	**332**	P	**P**	**07 48 13.1**	**+0.5**
	comp=N,8.4nm,0.3s,SNR=4.0						
STS				S	**Sn**	**07 49 45.3**	**-6.6**
	comp=N,3.4nm,0.2s						
EMAZ	**Mazaricos**	**9.02**	**331**	P	**P**	**07 48 15.2**	**-0.4**
EMAZ				S	**Sn**	**07 49 51.9**	**-5.4**
EMAZ	**Mazaricos**	**9.02**	**331**	P	**P**	**07 48 15.2**	**-0.4**
	comp=N,5.2nm,0.2s,SNR=6.1						
EMAZ				S	**Sn**	**07 49 52.8**	**-4.4**
	comp=N,7.6nm,0.4s						
EMAZ	**Mazaricos**	**9.02**	**331**	P	**P**	**07 48 15.2**	**-0.5**
MTLF	**Montolieu**	**9.07**	**25**	*e*Pn	**P**	**07 48 15.3**	**-1.1**
LFF	**La Frestale**	**10.13**	**15**	*e*Pn	**P**	**07 48 30.5**	**-0.5**
CAF	**Calviac**	**10.45**	**20**	*e*Pn	**P**	**07 48 34.6**	**-0.7**
LMR	**La Mourre**	**10.95**	**39**	*e*Pn	**P**	**07 48 40.9**	**-1.3**
MFF	**Saint Martin d**	**11.58**	**10**	*e*Pn	**P**	**07 48 49.8**	**-1.0**
BGF	**Bois d’Agland**	**12.16**	**19**	*e*Pn	**P**	**07 48 57.7**	**-0.9**
SMF	**Signal de Mont**	**12.53**	**22**	*e*Pn	**P**	**07 49 03.0**	**-0.5**
QUIF	**Quistinic**	**12.70**	**359**	*e*Pn	**P**	**07 49 05.0**	**-0.7**
SGMF	**Saint Gilles**	**13.04**	**1**	*e*Pn	**P**	**07 49 09.9**	**-0.3**
ROSF	**Rostrenen**	**13.12**	**359**	*e*Pn	**P**	**07 49 11.0**	**-0.3**
GRR	**Gorron**	**13.26**	**6**	*e*Pn	**P**	**07 49 12.2**	**-1.0**
LDF	**La Druitiere**	**13.54**	**8**	*e*Pn	**P**	**07 49 16.7**	**-0.1**
FLN	**La Foliniere**	**13.67**	**7**	*e*Pn	**P**	**07 49 18.0**	**-0.5**
FLN				*e*R			
	comp=N,482nm,15.8s						
VAE	**Valguarnera**	**14.22**	**76**	LR	LR	07 55 24.0	
	comp=N,504nm,19.0s,baz=140,slow=40						
DAVOX	**Davos**	**15.08**	**36**	Pn	**P**	**07 49 39.4**	**+2.4**
	comp=N,0.2nm,0.3s,baz=172,slow=21,SNR=1.5						
GERES	**GERESS Array B**	**18.37**	**37**	P	**P**	**07 50 16.9**	**-1.7**
	comp=N,0.3nm,0.3s,baz=216,slow=12,SNR=4.7						
KHC	**Kasperske Hory**	**18.50**	**36**	*e*P	**P**	**07 50 22.0**	**+1.8**
KHC				*e*		07 50 26.5	
KHC	**Kasperske Hory**	**18.50**	**36**	*e*P	**P**	**07 50 22.0**	**+1.8**
KHC				x	x	07 50 26.5	
CLL	**Collm**	**19.80**	**31**	P	**P**	**07 50 36.8**	**+1.6**
	comp=N,logA/T=1.2						
CLL	**Collm**	**19.80**	**31**	*i* P	**P**	**07 50 36.8**	**+1.6**
	comp=N,20nm,1.3s						
BRG	**Berggiesshubel**	**19.89**	**33**	*e*P	**P**	**07 50 39.2**	**+3.0**
	comp=N,14nm,1.2s						
EKA	**Eskdalemuir Ar**	**20.12**	**360**	P	**P**	**07 50 40.2**	**+1.6**
	comp=N,2.8nm,0.6s,baz=176,slow=9.2,SNR=8.6						
EKA	**Eskdalemuir Ar**	**20.12**	**360**	P	**P**	**07 50 40.2**	**+1.6**
VRAC	**Vranov**	**20.14**	**40**	P	**P**	**07 50 38.9**	**+0.1**
	comp=N,2.1nm,0.5s,baz=217,slow=8.3,SNR=4.1						
SRO	**Srobarova**	**20.25**	**45**	*e*P	**P**	**07 50 42.6**	**+2.6**
VYHS	**Vyhne**	**20.90**	**44**	*i* P	**P**	**07 50 48.4**	**+1.7**
MORC	**Moravsky Berou**	**20.91**	**40**	*e*P	**P**	**07 50 46.8**	**0.0**
	comp=N,14nm,1.1s						
MORC	**Moravsky Berou**	**20.91**	**40**	*e*P	**P**	**07 50 46.8**	**0.0**
	comp=N,14nm,1.1s						
PSZ	**Piszkesteto**	**21.23**	**46**	*e*P	**P**	**07 50 46.4**	**-3.6**
	comp=N,18nm,1.2s,mb4.3						
IDI	**Anoyia**	**22.75**	**82**	P	**P**	**07 51 05.0**	**-0.3**
	comp=N,8.6nm,1.0s,mb4.1,baz=320,slow=6.9,SNR=3.8						
KOLS	**Kolonicke sedl**	**23.10**	**46**	*e*P	**P**	**07 51 09.3**	**+0.8**
MLR	**Muntele Rosu**	**24.21**	**56**	P	**P**	**07 51 22.2**	**+2.8**
	comp=N,1.9nm,0.7s,mb3.6,baz=238,slow=10,SNR=4.2						
MLR				LR	LR	08 01 14.7	
	comp=N,276nm,19.2s,MS3.8,baz=264,slow=38						
NOA	**NORSAR Array B**	**27.41**	**15**	LR	LR	08 03 44.8	
	comp=N,211nm,18.1s,MS3.8,baz=265,slow=38						
AKASG	**Malin Array Be**	**27.93**	**46**	P	**P**	**07 51 51.3**	**-2.6**
	comp=N,0.7nm,0.4s,mb3.6,baz=247,slow=10,SNR=6.6						
FINES	**FINESS Array B**	**32.09**	**26**	LR	LR	08 05 27.2	
	comp=N,181nm,18.2s,MS3.8,baz=352,slow=36						
MALT	**Malatya**	**33.14**	**72**	*e*P	**P**	**07 52 42.4**	**+2.3**
	comp=N,7.6nm,1.1s,mb4.5						
ARCES	**ARCESS Array B**	**37.78**	**16**	LR	LR	08 08 24.7	
	comp=N,425nm,20.6s,MS4.2,baz=122,slow=35						
ARU	**Arti**	**46.06**	**43**	*e*P	**P**	**07 54 26.7**	**-0.3**
	comp=N,32nm,1.0s,mb5.2						
ARU	**Arti**	**46.06**	**43**	*e*P	**P**	**07 54 26.7**	**-0.3**
	comp=N,32nm,1.0s,mb5.2						
SCHQ	**Schefferville**	**47.38**	**315**	P	**P**	**07 54 38.3**	**+0.8**
	comp=N,2.5nm,0.7s,mb4.2,baz=90,slow=6.1,SNR=4.0						
KMBO	**Kilima Mbogo**	**52.15**	**125**	LR	LR	08 18 01.9	
	comp=N,75nm,21.0s,MS3.7,baz=273,slow=37						
CHKZ	**Chkalovo**	**53.22**	**45**	*e*P	**P**	**07 55 21.0**	**-1.0**
	comp=N,2.9nm,1.0s,mb4.2						
CHKZ	**Chkalovo**	**53.22**	**45**	*e*P	**P**	**07 55 21.0**	**-1.0**
	comp=N,2.9nm,1.0s,mb4.2						
KURK	**Kurchatov**	**58.74**	**47**	*e*P	**P**	**07 55 59.8**	**-1.9**
	comp=N,7.2nm,1.0s,mb4.7						
KURK	**Kurchatov**	**58.74**	**47**	*e*P	**P**	**07 55 59.8**	**-1.9**
	comp=N,7.2nm,1.0s,mb4.7						
ZAL	**Zalesovo**	**61.22**	**42**	P	**P**	**07 56 16.1**	**-2.5**
	comp=N,1.0nm,0.5s,mb4.2,baz=177,slow=7.9,SNR=5.8						
ZAL				LR	LR	08 25 25.2	
	comp=N,110nm,18.6s,MS4.0,baz=171,slow=38						
BDFB	**Brasilia**	**66.17**	**228**	LR	LR	08 22 42.2	
	comp=N,113nm,18.6s,MS4.1,baz=331,slow=33						
YKA	**Yellowknife Ar**	**68.39**	**332**	P	**P**	**07 57 03.8**	**-1.1**
	comp=N,0.5nm,0.5s,mb3.8,baz=60,slow=6.3,SNR=12						
YKA				LR	LR	08 24 48.8	
	comp=N,177nm,21.9s,MS4.2,baz=230,slow=34						
INK	**Inuvik**	**70.43**	**343**	P	**P**	**07 57 17.3**	**0.0**
	comp=N,4.4nm,1.3s,mb4.2,baz=22,slow=8.1,SNR=3.2						
SONM	**Songino Array**	**76.06**	**41**	P	**P**	**07 57 51.6**	**+1.0**
	comp=N,1.4nm,1.2s,mb3.8,baz=16,slow=9.0,SNR=4.0						
ILAR	**Eielson Array**	**76.41**	**345**	P	**P**	**07 57 53.0**	**+0.8**
	comp=N,1.1nm,1.0s,mb3.7,baz=315,slow=4.0,SNR=5.9						
ILAR				LR	LR	08 31 52.5	
	comp=N,192nm,20.3s,MS4.4,baz=336,slow=36						
PDAR	**Pinedale Array**	**77.50**	**314**	P	**P**	**07 57 58.2**	**-0.4**
	comp=N,0.7nm,0.9s,mb3.6,baz=63,slow=6.6,SNR=4.2						
LPAZ	**La Paz**	**80.17**	**242**	LR	LR	08 34 27.4	
	comp=N,20nm,18.5s,MS3.5,baz=225,slow=36						
TXAR	**Lajitas Array**	**81.52**	**300**	LR	LR	08 30 58.1	
	comp=N,116nm,21.3s,MS4.2,baz=340,slow=33						

CNRM 09 07:46:55.8, 34.80N×2.72W, h4^{km}, MD3.9, Morocco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	**Zaio**	**0.17**	**353**	*i* P	Pg	07 46 59.0	-0.3
ZAI				*i* S	Sg	07 47 01.0	-0.6
TOU	**Touzarine**	**0.86**	**281**	*i* P	Pb	07 47 11.5	-1.5
TOU				*i* S	Sg	07 47 22.5	-2.1
MPAL	**Palemas**	**1.09**	**293**	*i* P	Pb	07 47 15.5	-1.3
MPAL				*i* S	Sb	07 47 29.5	-1.7

MDD ***09*** *07:50:36.7±1.9, 35.01N×3.14W, mb3.6/5, Error ellipse: s-maj=20.6km s-min=7.2km az=147.0, PRXIMO AftershockPLICA*

CSEM ***09*** *07:50:36.6±0.4, 35.13N×3.11W, h12^{km}, mb3.5/6, Error ellipse: s-maj=10.8km s-min=5.6km az=18.0*

NEIC ***09*** *07:50:37.4, 35.02N×2.98W, h16^{km}, MG3.5(MDD), After MDD.*

ISC 09 07:50:38.9±0.9, 35.24N±0.06×3.19W±0.05, h10^{km}, n15, σ1^{s}02/22, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	**0.20**	**71**	P	**Pg**	**07 50 42.9**	**-0.5**
	214nm,0.2s,SNR=6.5						
EMEL				S	**Sg**	**07 50 47.4**	**+1.0**
	933nm,0.2s,SNR=9.6						
EMLI	**Melilla**	**0.21**	**72**	P	**Pg**	**07 50 42.9**	**-0.6**
	214nm,0.2s,SNR=6.5						
MELI	**Melilla**	**0.22**	**74**	P	**Pg**	**07 50 42.4**	**-1.2**
MELI				S	**Sg**	**07 50 47.0**	**+0.2**
MELI	**Melilla**	**0.22**	**74**	*i* P	**Pg**	**07 50 42.4**	**-1.3**
MELI				*i* S	**Sg**	**07 50 47.0**	**+0.2**
ZAI	**Zaio**	**0.45**	**126**	*i* S	**Sg**	**07 50 54.5**	**+0.3**
ZAI	**Zaio**	**0.45**	**126**	*i* P	**Pg**	**07 50 49.0**	**+0.9**
EBER	**Berja**	**1.68**	**8**	P	**Pn**	**07 51 06.7**	**-1.9**
	5.2nm,0.3s,SNR=7.9						
EBER				S	**Sn**	**07 51 29.7**	**-0.6**
	22nm,0.4s,SNR=7.9						
EBER	**Berja**	**1.68**	**8**	P	**Pn**	**07 51 06.7**	**-1.9**
	5.2nm,0.3s,SNR=7.9						
EBER				S	**Sn**	**07 51 29.7**	**-0.6**
	22nm,0.4s,SNR=7.9						
EMIJ	**Mijas**	**1.85**	**316**	P	**Pn**	**07 51 10.5**	**-0.6**
	0.5nm,0.1s,SNR=7.9						
EMIJ				S	**Sn**	**07 51 36.2**	**+1.6**
	2.3nm,0.1s,SNR=7.9						
EQES	**Quesada**	**2.56**	**2**	P	**Pn**	**07 51 22.2**	**+0.9**
	1.5nm,0.1s,SNR=5.1						
EQES				S	**Sn**	**07 51 56.2**	**+3.3**
	6.8nm,0.2s,SNR=7.9						
EQES	**Quesada**	**2.56**	**2**	P	**Pn**	**07 51 22.2**	**+0.9**
	1.5nm,0.1s,SNR=5.1						
EADA	**Adamuz**	**3.13**	**340**	P	**Pn**	**07 51 29.8**	**+0.4**
	2.2nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.13**	**340**	P	**Pn**	**07 51 29.8**	**+0.4**
	2.2nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.77**	**313**	P	**Pn**	**07 51 37.7**	**-0.8**
	1.9nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.77**	**313**	P	**Pn**	**07 51 37.7**	**-0.8**

IDC ***09*** *07:55:23.2±6.6, 31.20N×139.98E, h120^{km}±56^{km}, mb3.4/7, mb1 3.7/8, mb1mx3.4/23, Error ellipse: s-maj=74.4km s-min=15.6km az=110.0*

JMA ***09*** *07:55:25.4±0.5, 31.47N×140.35E, h139^{km}, M3.6*

ISC 09 07:55:21.7±0.8, 31.26N±0.05×140.0E±0.2, h126^{km}±9^{km}, n16, σ1^{s}13/20, mb3.8/7, Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSO1	**Boso 1**	**3.47**	**13**	P	**P**	**07 56 15.7**	**+0.3**
JIM2	**Oshima 3**	**3.48**	**352**	P	**P**	**07 56 17.4**	**+1.8**
BSO3	**Boso 3**	**3.55**	**6**	P	**P**	**07 56 17.4**	**+0.9**
BSO3				*e*S	**S**	**07 56 57.1**	**-1.1**
BSO4	**Boso 4**	**3.73**	**4**	P	**P**	**07 56 19.8**	**+1.0**
JOD2	**Odawara 2**	**4.07**	**349**	P	**P**	**07 56 25.5**	**+2.1**
CBIJ	**Chichi jima**	**4.55**	**155**	P	**P**	**07 56 30.2**	**+0.3**
	3.0nm,0.3s,baz=282,slow=15,SNR=2.9						
CBIJ				S	**S**	**07 57 21.7**	**-0.5**
	22nm,0.3s,baz=305,slow=22,SNR=9.2						
JAG	**Ashikaga**	**5.17**	**355**	P	**P**	**07 56 37.6**	**-0.6**
JAG				*e*S	**S**	**07 57 35.0**	**-2.2**
JHO	**Hitachi**	**5.35**	**5**	P	**P**	**07 56 40.2**	**-0.4**
JHO				*e*S	**S**	**07 57 34.9**	**-6.7**
JFK	**Kawauchi**	**6.13**	**6**	P	**P**	**07 56 49.5**	**-1.6**
FITZ	**Fitzroy Crossi**	**50.99**	**198**	P	**P**	**08 04 12.5**	**-0.3**
	1.3nm,0.8s,mb4.0,baz=197,slow=22,SNR=2.8						
WRA	**Warramunga Arr**	**51.20**	**187**	P	**P**	**08 04 13.6**	**-0.8**
	0.7nm,0.3s,mb4.2,baz=6.7,slow=7.8,SNR=15						
ASAR	**Alice Springs**	**54.93**	**187**	P	**P**	**08 04 41.0**	**-0.9**
	0.4nm,0.7s,mb3.5,baz=1.3,slow=5.8,SNR=7.2						
ILAR	**Eielson Array**	**55.01**	**30**	P	**P**	**08 04 41.7**	**-0.2**
	1.0nm,0.9s,mb3.8,baz=256,slow=5.9,SNR=5.3						
INK	**Inuvik**	**60.06**	**25**	P	**P**	**08 05 17.6**	**+0.4**
	0.6nm,0.4s,mb4.0,baz=293,slow=7.2,SNR=8.9						
YKA	**Yellowknife Ar**	**69.39**	**29**	P	**P**	**08 06 18.0**	**+0.6**
	0.1nm,0.5s,mb2.9,baz=301,slow=6.5,SNR=3.6						
TXAR	**Lajitas Array**	**94.56**	**52**	P	**P**	**08 08 32.4**	**+3.1**
	0.5nm,0.7s,mb4.1,baz=291,slow=2.8,SNR=7.6						

GUC 09 08:14:39.4±0.5, 34.58S×71.91W, h32^{km}±3^{km}, MD3.6, ML2.2, 1C, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFDO	**San Fernando**	**0.74**	**93**	*e*P	Pn	08 14 53.4	-0.2
SFDO				*i* S	Sb	08 15 03.8	+0.2
LNV	**Longovilo**	**0.74**	**34**	⇑*i*P	Pn	08 14 53.1	-0.6
LNV				*i* S	Sb	08 15 03.9	+0.1
CACH	**El Canelo**	**1.18**	**67**	*e*P	Pn	08 15 00.3	+0.4
CACH				*i* S	Sn	08 15 16.8	+1.9
CHCH	**Chadas Angostu**	**1.22**	**59**	*e*P	Pn	08 15 01.2	+0.7
CHCH				*i* S	Sn	08 15 17.5	+1.4
TACH	**Talagante**	**1.22**	**41**	*e*P	Pn	08 15 01.0	+0.4
TACH				*i* S	Sn	08 15 16.9	+0.7
RCDM	**Rinconada Maip**	**1.42**	**40**	*i* S	Sn	08 15 22.4	+1.3
RCDM				AMP		08 15 25.9	
	comp=E,66nm,0.2s						
PCH	**Pirque**	**1.50**	**51**	*i* S	Sn	08 15 25.2	+2.1
FCH	**Farellones**	**1.83**	**48**	*e*P	Pn	08 15 10.9	+1.6
FCH				*i* S	Sn	08 15 34.6	+3.0
FCH				AMP		08 15 40.2	
	comp=N,38nm,0.3s						

NEIC ***09*** *08:16:07.1±1.2, 50.57N×170.86W, h10^{km}, mb3.5/1, Error ellipse: s-maj=30.3km s-min=13.0km az=185.0*

IDC ***09*** *08:16:09.0±10.0, 50.65N×170.15W, mb3.4/4, mb1 3.7/5, mb1mx3.5/22, ML3.4/1, Error ellipse: s-maj=201.0km s-min=51.5km az=73.0*

ISC 09 08:16:08.8±1.5, 50.7N±0.2×170.9W±0.2, h33^{km}, n8, σ0^{s}83/8, mb3.3/5, South of Aleutian Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIWB	**Kanaga Island**	**4.09**	**289**	*e*P	**P**	**08 17 10.5**	**-0.1**
ILAR	**Eielson Array**	**18.89**	**33**	P	**P**	**08 20 27.4**	**-1.3**
	0.1nm,0.3s,baz=226,slow=9.5,SNR=5.5						
INK	**Inuvik**	**25.29**	**32**	P	**P**	**08 21 34.4**	**+1.2**
	0.9nm,0.5s,mb3.6,baz=249,slow=8.8,SNR=5.3						
YKA	**Yellowknife Ar**	**32.09**	**47**	P	**P**	**08 22 35.0**	**+0.5**
	0.2nm,0.5s,mb3.2,baz=271,slow=7.5,SNR=5.8						
YKA	**Yellowknife Ar**	**32.09**	**47**	P	**P**	**08 22 35.0**	**+0.5**
BW06	**Boulder Array**	**41.70**	**76**	P	**P**	**08 23 56.5**	**+0.7**
	0.7nm,0.7s,mb3.4						
PDAR	**Pinedale Array**	**41.71**	**76**	P	**P**	**08 23 55.8**	**0.0**
	0.8nm,1.0s,mb3.3,baz=304,slow=5.3,SNR=4.8						
TXAR	**Lajitas Array**	**53.78**	**86**	P	**P**	**08 25 29.2**	**-1.0**
	0.1nm,0.4s,mb3.1,baz=288,slow=4.0,SNR=2.2						

CSEM ***09*** *08:25:26.8±0.2, 35.01N×2.71W, h20^{km}, mb3.6/4, Error ellipse: s-maj=4.8km s-min=2.0km az=101.0*

NEIC ***09*** *08:25:30.0, 35.03N×3.15W, MG3.6(MDD), After MDD.*

MDD ***09*** *08:25:30.1±1.5, 35.04N×3.15W, mb3.6/4, Error ellipse: s-maj=15.2km s-min=6.3km az=158.0, PRXIMO AftershockPLICA*

ISC 09 08:25:27.4±1.1, 34.99N±0.06×2.8W±0.1, h26^{km}±5^{km}, n19, σ1^{s}29/31, Morocco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.06	109	*i* P	Pb	08 25 31.0	-0.9
ZAI				*i* S	Sb	08 25 33.5	-1.4
MELI	Melilla	0.32	341	P	Pb	08 25 35.9	+1.1
MELI				S	Sb	08 25 39.9	0.0
MELI	Melilla	0.32	341	*i* S	Sb	08 25 39.9	0.0
MELI	Melilla	0.32	341	*e*P	Pb	08 25 35.9	+1.1
EMLI	Melilla	0.33	340	P	Pb	08 25 35.6	+0.6
	81nm,0.1s,SNR=14						
EMEL	Melilla	0.33	339	P	Pb	08 25 35.6	+0.6
	81nm,0.1s,SNR=14						
EMEL				S	Sb	08 25 40.0	-0.1
	586nm,0.1s,SNR=7.4						
TOU	Touzarine	0.78	268	*i* P	Pb	08 25 44.0	+1.8
TOU				*i* S	Sb	08 25 56.5	+4.2
EBER	Berja	1.91	358	P	Pn	08 26 03.3	+4.4
	0.5nm,0.1s,SNR=4.0						
EBER				S	Sn	08 26 22.4	+0.1
	7.2nm,0.4s,SNR=7.9						
EBER	Berja	1.91	358	S	Sn	08 26 22.4	+0.1
	7.2nm,0.4s,SNR=7.9						
EMIJ	Mijas	2.24	315	P	Pn	08 26 03.5	-0.2
	3.3nm,0.1s,SNR=6.1						
EMIJ				S	Sn	08 26 28.1	-2.7
	11nm,0.3s,SNR=7.9						
EQES	Quesada	2.82	356	P	Pn	08 26 15.1	+3.2
	0.6nm,0.1s,SNR=4.7						
EQES				S	Sn	08 26 48.7	+3.3
	2.6nm,0.1s						
EADA	Adamuz	3.48	336	P	Pn	08 26 22.4	+1.2
EADA				S	Sn	08 27 00.0	-2.1
EADA	Adamuz	3.48	336	P	Pn	08 26 22.4	+1.2
	1.6nm,0.2s,SNR=7.3						
EADA				S	Sn	08 27 00.0	-2.1
	3.3nm,0.3s,SNR=7.9						
EADA	Adamuz	3.48	336	P	Pn	08 26 22.4	+1.1
	1.6nm,0.2s,SNR=7.3						
EADA				S	Sn	08 27 00.0	-2.1
	3.3nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	4.17	313	P	Pn	08 26 30.5	-0.7
	0.9nm,0.1s,SNR=10						
EMIN				S	Sn	08 27 15.4	-4.4
	0.6nm,0.2s						
EMIN	Mina Concepcio	4.17	313	P	Pn	08 26 30.5	-0.7
	0.9nm,0.1s,SNR=10						
EBAD	Badajoz	5.05	319	P	Pn	08 26 43.1	-0.4
	0.7nm,0.1s,SNR=7.4						
EBAD				S	Sn	08 27 37.6	-4.2
	3.4nm,0.3s						
EBAD	Badajoz	5.05	319	S	Sn	08 27 37.6	-4.2
EBAD	Badajoz	5.05	319	P	Pn	08 26 43.1	-0.5
	0.7nm,0.1s,SNR=7.4						

WEL 09 08:29:04.5±0.7,35.20S×178.74E,h257^{km}±9^{km},ML3.5/3, Error ellipse: s-maj=21.3km s-min=11.1km az=90.0,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	2.38	188	PN	P	08 29 51.2	-0.3
MXZ				SN	S	08 30 26.9	-1.1
PUZ	Puketiti	2.89	188	PN	P	08 29 56.4	-0.3
PUZ				SN	S	08 30 35.1	-2.2
PUZ				SN	S	08 30 35.8	-1.4
MWZ	Matawai	3.28	197	PN	P	08 30 01.1	+0.2
MWZ				SN	S	08 30 44.8	+0.1
URZ	Urewera	3.32	203	PN	P	08 30 01.0	-0.4
MRZ	Mangatainoka R	6.00	204	PN	P	08 30 31.8	-1.5
THZ	Tophouse	7.99	213	*e*PN	P	08 30 58.4	0.0
KHZ	Kahutara	8.27	208	PN	P	08 31 00.0	-1.9

BJI ***09*** *08:31:03.5,5.89S×102.52E,h35^{km},mB5.1,mb4.9,Ms4.8, Msz4.7*

MOS ***09*** *08:31:10.2±1.3,4.76S×102.66E,h33^{km},mb5.0/7,Error ellipse: s-maj=20.4km s-min=10.9km az=116.1*

IDC ***09*** *08:31:11.6±0.6,4.97S×102.55E,h31^{km}±2^{km},mb4.4/16, mb1 4.5/16,mb1mx4.4/20,MS3.8/4,Ms1 3.9/4, ms1mx3.4/18,Error ellipse: s-maj=32.9km s-min=8.5km az=44.0*

SYO ***09*** *08:31:11.2,5.01S×102.46E,h35^{km},MB4.9*

NEIC ***09*** *08:31:11.4±0.3,5.00S×102.47E,h35^{km},mb4.9/28,Error ellipse: s-maj=10.7km s-min=5.6km az=224.0*

ISC 09 08:31:10.5±0.3,5.10S±0.05×102.47E±0.06,h43^{km}, h43^{km}±1.9^{km}:pP-P,n98,σ1^{s}24/94,mb4.8/53,MS4.3/11, 4C-3D,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KGM	Kluang	7.12	7	⇑*e*P	P	08 32 57.0	+2.3
	138nm,1.0s						
COCO	West Island	8.98	218	*e*Pn	P	08 33 18.4	-2.0
	764nm,0.8s						
COCO				*e*Sn	S	08 34 45.0	-16
MBWA	Marble Bar	23.14	135	*e*P	P	08 36 16.2	+2.1
	7.0nm,0.8s,mb4.1						
CM31	Chiang Mai Arr	23.66	352	*e*P	P	08 36 19.2	+0.1
	13nm,0.8s,mb4.4						
CMAR	Chiang Mai Arr	23.66	352	P	P	08 36 18.4	-0.7
	7.5nm,0.6s,mb4.3,baz=184,slow=8.8,SNR=43						
CMAR				LR	LR	08 44 45.9	
	comp=Z,134nm,21.7s,MS3.4,baz=250,slow=35						
FITZ	Fitzroy Crossi	26.07	122	*e*P	P	08 36 42.9	+0.7
	8.4nm,0.8s,mb4.3						
FITZ	Fitzroy Crossi	26.07	122	P	P	08 36 42.4	+0.2
	6.8nm,0.8s,mb4.2,baz=192,slow=5.8,SNR=9.4						
FITZ				sP	sP	08 36 55.6	-2.9
	11nm,0.8s,baz=324,slow=7.8,SNR=6.6						
DGAR	Diego Garcia	29.92	264	P	P	08 37 19.4	+2.5
	302nm,1.6s,mb5.8						
KMI	Kunming	30.04	0	*e*P	P	08 37 18.8	+0.9
KMI				S	S	08 42 15.6	+3.7
KMI				LR	LR		
	comp=Z,3µm,24.5s,MS4.8						
KAKA	Kakadu	30.54	106	*e*P	P	08 37 20.3	-2.1
	comp=Z,72nm,1.7s,mb5.2						
GYA	Guiyang	31.63	7	P	P	08 37 31.4	-0.6
GYA				AP	pP	08 37 40.3	-3.2
GYA				XP	sP	08 37 44.1	-4.9
GYA				S	S	08 42 39.9	+3.0
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
GYA				AMB	AMB		
	comp=Z,170nm,5.1s						
GYA				LR	LR		
	comp=N,160nm,10.2s,MS4.2						
GYA				LR	LR		
	comp=E,250nm,11.7s,MS4.2						
GYA				LR	LR		
	comp=Z,250nm,12.9s,MS4.1						
WRA	Warramunga Arr	34.34	118	P	P	08 37 55.4	-0.1
	comp=Z,7.2nm,0.8s,mb4.7,baz=294,slow=9.7,SNR=31						
WRA				sP	sP	08 38 08.2	-4.4
	comp=Z,9.8nm,0.8s,baz=290,slow=10,SNR=18						
WRA				PcP	PcP	08 40 31.2	+0.2
	comp=Z,1.7nm,0.7s,baz=304,slow=2.0,SNR=5.1						
WRA				S	S	08 43 19.1	0.0
	comp=Z,2.2nm,1.0s,baz=294,slow=16,SNR=5.1						
WRAB	Tennant Creek	34.34	118	*i* P	P	08 37 54.8	-0.7
WRAB	Tennant Creek	34.34	118	*e*P	P	08 37 55.0	-0.6
	comp=Z,24nm,0.9s,mb5.1						
WRAB				*e*	pP	08 38 08.0	+0.8
WRAB				*e*S	S	08 43 17.7	-1.4
WB2	Warramunga Arr	34.35	118	*e*P	P	08 37 55.4	-0.2
ASPA	Alice Springs	35.46	124	*e*P	P	08 38 06.2	+1.1
ASAR	Alice Springs	35.47	124	P	P	08 38 05.8	+0.7
	comp=Z,4.1nm,0.8s,mb4.4,baz=292,slow=7.9,SNR=27						
ASAR				pP	pP	08 38 14.5	-2.3
	comp=Z,4.2nm,0.4s,baz=302,slow=7.8,SNR=22						
ASAR				sP	sP	08 38 18.9	-3.3
	comp=Z,4.1nm,0.5s,baz=299,slow=8.0,SNR=9.1						
ASAR				PcP	PcP	08 40 35.0	+0.7
	comp=Z,1.4nm,0.7s,baz=283,slow=1.6,SNR=5.7						
ASAR				S	S	08 43 41.2	+4.8
	comp=Z,1.7nm,0.9s,baz=298,slow=15,SNR=3.9						
ASAR				LR	LR	08 53 12.8	
	comp=Z,112nm,19.4s,MS3.6,baz=81,slow=37						
ENH	Enshi	35.81	10	*e*P	P	08 38 05.9	-2.0
	comp=Z,19nm,0.8s,mb5.1						
PKI	Pulchoki	36.42	334	*e*P	P	08 38 13.5	+0.4
	comp=Z,8.4nm,0.6s,mb4.9						
DMN	Daman	36.58	334	*e*P	P	08 38 15.0	+0.5
KKN	Kakani	36.66	334	*e*P	P	08 38 15.7	+0.5
	comp=Z,34nm,0.8s,mb5.2						
GKN	Gorkha	37.13	333	*e*P	P	08 38 19.6	+0.5
	comp=Z,37nm,0.9s,mb5.2						
KOLN	Koldanda	37.41	332	*e*P	P	08 38 22.3	+0.9
	comp=Z,28nm,0.7s,mb5.2						
XAN	Xi'an	39.40	8	P	P	08 38 36.8	-1.1
XAN				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.0						
NJ2	Nanjing	40.10	22	*e*P	P	08 38 45.9	+2.1
NJ2				AP	pP	08 38 55.6	0.0
NJ2				XP	sP	08 38 59.7	-1.1
NJ2				S	S	08 44 51.0	+4.1
NJ2				XS		08 45 06.0	
NJ2				SS	SS	08 47 44.0	+4.3
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.8						
NJ2				AMB	AMB		
	comp=Z,190nm,5.4s						
NJ2				LR	LR		
	comp=N,420nm,20.4s,MS4.4						
NJ2				LR	LR		
	comp=E,520nm,24.0s,MS4.4						
NJ2				LR	LR		
	comp=Z,410nm,23.4s,MS4.2						
SSE	Sheshan	40.19	25	*e*P	P	08 38 45.3	+0.8
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,44nm,5.6s						
SSE	Sheshan	40.19	25	*e*P	P	08 38 45.3	+0.8
	comp=Z,25nm,0.7s,mb5.0						
LZH	Lanzhou	40.99	2	*e*P	P	08 38 54.0	+3.0
LZH				AP	pP	08 39 03.8	+0.9
LZH				XP	sP	08 39 07.8	-0.3
LZH				PP	PP	08 40 32.8	+4.0
LZH				*e*S	S	08 45 05.0	+5.0
LZH				XS		08 45 22.1	
LZH				AMB	AMB		
	comp=Z,23nm,1.5s,mb4.6						
LZH				AMB	AMB		
	comp=Z,100nm,4.4s						
LZH				LR	LR		
	comp=N,553nm,14.5s						
LZH				LR	LR		
	comp=Z,775nm,16.2s,MS4.7						
LZH	Lanzhou	40.99	2	*e*P	P	08 38 54.0	+3.0
	comp=Z,23nm,1.5s,mb4.6						
LZH				pP	pP	08 39 03.8	+0.9
LZH				sP	sP	08 39 07.8	-0.3
LZH				PP	PP	08 40 32.8	+4.0
LZH				*e*S	S	08 45 05.0	+5.0
LZH				sS		08 45 22.1	
LZH				*e*SS	tx	08 47 06.0	
LZH				LR	LR		
	comp=Z,780nm,16.2s,MS4.7						
GTA	Gaotai	44.35	357	*e*P	P	08 39 20.0	+1.5
GTA				AP	pP	08 39 28.2	-2.2
GTA				XP	sP	08 39 33.2	-2.4
GTA				PP	PP	08 41 04.9	+1.4
GTA				S	S	08 45 52.7	+3.4
GTA				XS		08 46 08.7	
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
GTA				AMB	AMB		
	comp=Z,104nm,4.2s						
GTA				LR	LR		
	comp=N,305nm,14.1s,MS4.9						
GTA				LR	LR		
	comp=E,898nm,13.3s,MS4.9						
GTA				LR	LR		
	comp=Z,864nm,15.2s,MS4.8						
PMG	Port Moresby	44.52	98	P	P	08 39 20.0	-0.2
	comp=Z,22nm,0.7s,mb5.1,baz=263,slow=8.2,SNR=13						
PMG				sP	sP	08 39 33.8	-3.4
	comp=Z,14nm,0.9s,baz=306,slow=16,SNR=2.5						
PMG	Port Moresby	44.52	98	*i* P	P	08 39 20.3	+0.2
PMG	Port Moresby	44.52	98	*e*P	P	08 39 19.9	-0.2
	comp=Z,26nm,0.8s,mb5.1						
PMG				*e*	pP	08 39 32.9	+0.9
CTA	Charters Tower	45.09	113	⇓*i*P	P	08 39 25.6	+1.0
	comp=Z,13nm,0.8s,mb4.8						
CTA				*i* pP	pP	08 39 39.2	+2.7
CTA	Charters Tower	45.09	113	P	P	08 39 25.4	+0.8
	comp=Z,18nm,0.8s,mb4.9,baz=281,slow=9.3,SNR=20						
CTA				sP	sP	08 39 38.6	-3.1
	comp=Z,16nm,0.8s,baz=290,slow=6.1,SNR=7.4						
CTAO	Charters Tower	45.09	113	*e*P	P	08 39 25.2	+0.5
	comp=Z,24nm,0.9s,mb5.0						
CTAO				*e*	pP	08 39 39.1	+2.5
STKA	Stephens Creek	45.27	131	⇑*i*P	P	08 39 27.3	+1.3
	comp=Z,8.8nm,0.6s,mb4.8						
STKA				*i*	pP	08 39 39.0	+1.2
STKA	Stephens Creek	45.27	131	P	P	08 39 27.4	+1.4
	comp=Z,12nm,0.8s,mb4.8,baz=302,slow=7.5,SNR=35						
STKA				sP	sP	08 39 39.7	-3.3
	comp=Z,12nm,0.6s,baz=301,slow=7.8,SNR=10						
BJT	Baijiatuau	46.63	14	*e*P	P	08 39 35.4	-1.2
	comp=Z,13nm,0.9s,mb4.8						
KS15	Wonju Array Si	48.50	27	P	P	08 39 51.1	-0.2
WMQ	Urumqi	50.48	346	⇑P	P	08 40 07.8	+1.4
WMQ				AP	pP	08 40 17.8	-0.6
WMQ				XP	sP	08 40 21.8	-1.7
WMQ				PCP	PcP	08 41 26.1	+1.9
WMQ				PP	PP	08 42 04.3	+1.2
WMQ				S	S	08 47 17.7	+1.9
WMQ				AMB	AMB		
	comp=Z,42nm,0.8s,mb5.5						
WMQ				AMB	AMB		
	comp=Z,40nm,9.5s						
WMQ				LR	LR		
	comp=N,2µm,29.3s,MS5.0						
WMQ				LR	LR		
	comp=E,974nm,28.6s,MS5.0						
WMQ				LR	LR		
	comp=Z,3µm,30.8s,MS5.1						
SONM	Songino Array	52.82	3	P	P	08 40 24.0	+0.1
	comp=Z,19nm,0.7s,mb5.1,baz=185,slow=8.7,SNR=128						
SONM				PcP	PcP	08 41 32.3	-0.5
	comp=Z,1.1nm,0.5s,baz=190,slow=2.6,SNR=4.3						
ULN	Ulaanbaatar	52.89	4	*i* P	P	08 40 24.9	+0.5
ULN	Ulaanbaatar	52.89	4	*e*P	P	08 40 23.2	-1.2
	comp=Z,13nm,0.9s,mb4.8						
ULN				*e*		08 40 40.3	
ULN				*e*PcP	PcP	08 41 45.0	+12
CN2	Changchun	52.91	21	*e*P	P	08 40 23.5	-1.1
CN2				*e*XP	sP	08 40 37.3	-4.4
CN2				*e*S	S	08 47 51.0	+2.0
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
CN2				AMB	AMB		
	comp=Z,300nm,5.0s						
CN2				LR	LR		
	comp=N,400nm,16.0s,MS4.8						
CN2				LR	LR		
	comp=E,500nm,16.0s,MS4.8						
CN2				LR	LR		
	comp=Z,600nm,17.0s,MS4.7						
UCH	Uchtor	53.53	334	*e*P	P	08 40 28.9	-0.3
	comp=Z,4.2nm,0.8s,mb4.4						
TKM2	Tokmak 2	53.64	336	*e*P	P	08 40 29.8	-0.3
	comp=Z,12nm,0.6s,mb5.0						
TKM2				*e*	pP	08 40 43.2	+1.0
AML	Almayashu	53.81	334	*e*P	P	08 40 31.0	-0.4
	comp=Z,4.8nm,0.6s,mb4.6						
AAK	Ala-Archa	53.87	335	*i* P	P	08 40 29.5	-2.2
AAK	Ala-Archa	53.87	335	*e*P	P	08 40 28.1	-3.6
	comp=Z,3.6nm,0.8s,mb4.3						
EKS2	Erkin-Say	54.20	334	*e*P	P	08 40 34.0	-0.1
	comp=Z,10.0nm,0.8s,mb4.8						
EKS2				*e*	pP	08 40 47.2	+0.9
MKAR	Makanchi Array	54.67	343	*i* P	P	08 40 36.6	-1.0
MKAR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MDJ	Mudanjiang	55.16	23	P	P	08 40 40.4	-0.7
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,67nm,4.7s						
ZAK	Zakamensk	55.26	1	*e*P	P	08 40 41.0	-0.8
HIA	Hailar	56.20	14	P	P	08 40 46.9	-1.6
	comp=Z,3.8nm,0.7s,mb4.5						
HIA				*e*	pP	08 40 59.4	-1.3
TLY	Talaya	56.57	1	*e*P	P	08 40 51.4	+0.3
TLY				*e*	pP	08 41 03.8	+0.4
TLY				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
TLY	Talaya	56.57	1	*e*P	P	08 40 50.2	-0.9
	comp=Z,7.7nm,0.7s,mb4.8						
TLY				*e*	pP	08 41 01.0	-2.4
ZAL	Zalesovo	60.66	348	P	P	08 41 15.6	-4.0
	comp=Z,15nm,1.0s,mb5.1,baz=297,slow=5.1,SNR=54						
ZAL				pP	pP	08 41 28.2	-3.7
	comp=Z,6.7nm,0.6s,baz=309,slow=4.0,SNR=6.6						
ASAJ	Asahikawa	60.84	32	P	P	08 41 19.8	-1.2
	comp=Z,6.4nm,0.8s,mb4.8,baz=249,slow=8.6,SNR=4.0						
BOD	Bodaibo	63.40	7	*e*P	P	08 41 35.9	-2.0
BVAR	Borovoye Array	63.93	339	P	P	08 41 40.2	-1.1
	comp=Z,4.4nm,0.6s,mb4.7,baz=143,slow=7.4,SNR=20						
BVAR				pP	pP	08 41 52.2	-1.6
	comp=Z,5.0nm,0.6s,baz=141,slow=9.5,SNR=9.4						
BRVK	Borovoye	63.99	339	*e*P	P	08 41 40.3	-1.5
	comp=Z,4.8nm,0.7s,mb4.6						
BRVK				*e*	pP	08 41 53.7	-0.5
CHKZ	Chkalovo	64.38	340	*e*P	P	08 41 43.4	-0.9
	comp=Z,7.9nm,0.7s,mb4.8						
YAK	Yakutsk	70.14	13	*i* P	P	08 42 18.8	-1.5
YAK				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.3						
YAK	Yakutsk	70.14	13	*e*P	P	08 42 18.7	-1.6
	comp=Z,39nm,0.9s,mb5.3						
YAK				*e*	pP	08 42 33.5	+0.6
ARU	Arti	71.02	336	⇑*i*P	P	08 42 25.3	-0.4
ARU				*e*		08 42 42.8	
ARU				*e*		08 45 06.7	
ARU				*e*S	S	08 51 32.3	-5.0
ARU				*e*SS	SS	08 56 07.8	-5.2
ARU				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
ARU	Arti	71.02	336	*e*P	P	08 42 25.5	-0.2
	comp=Z,4.5nm,0.7s,mb4.5						
ARU				*e*	pP	08 42 38.3	+0.1
RPZ	Rata Peaks	71.07	134	LR	LR	09 12 59.0	
	comp=Z,188nm,20.6s,MS4.3,baz=80,slow=35						
ASF	Jabal al Asfar	72.39	306	LR	LR	09 12 37.1	
	comp=Z,58nm,18.9s,MS3.9,baz=142,slow=34						
KIV	Kislovodsk	72.48	319	*i* P	P	08 42 32.9	-1.7
KIV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
MALT	Malatya	73.23	312	*e*P	P	08 42 39.6	+0.4
	comp=Z,4.3nm,1.0s,mb4.3						
MALT				*e*	pP	08 42 54.2	+2.4
SYO	Syowa Base	75.76	199	⇓P	P	08 42 54.5	+1.3
SYO	Syowa Base	75.76	199	⇓pP	pP	08 43 06.2	+0.4
ANN	Anapa	76.27	318	*e*P	P	08 42 50.5	-6.1
BRTR	Keskin Array B	77.22	312	P	P	08 43 02.1	+0.1
	comp=Z,3.1nm,0.7s,mb4.3,baz=136,slow=7.0,SNR=10.0						
BRTR				sP	sP	08 43 15.8	-3.7
	comp=Z,6.0nm,0.9s,baz=135,slow=7.0,SNR=11						
VRSR	Storozhevoye	77.69	325	*e*P	P	08 43 04.5	+0.1
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.4s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.4s						
TIXI	Tiksi	78.53	8	*e*P	P	08 43 05.7	-2.9
TIXI				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
SUR	Sutherland	80.25	238	P	P	08 43 21.5	+2.7
	comp=Z,20nm,1.2s,mb4.9						
AKASG	Malin Array Be	83.42	322	P	P	08 43 35.2	+0.4
	comp=Z,0.7nm,0.4s,mb4.0,baz=83,slow=4.5,SNR=6.1						
AKASG				sP	sP	08 43 48.8	-3.4
	comp=Z,1.0nm,0.5s,baz=352,slow=37,SNR=1.3						
JOF	Joensuu	86.06	334	*e*p	P	08 43 48.8	+1.2
FINES	FINESS Array B	87.98	332	P	P	08 43 58.3	+1.4
	comp=Z,1.5nm,0.6s,mb4.4,baz=117,slow=4.3,SNR=6.3						
FINES				sP	sP	08 44 11.4	-2.9
	comp=Z,1.4nm,0.6s,baz=45,slow=11,SNR=3.4						
FINES	FINESS Array B	87.98	332	*i* P	P	08 43 56.7	-0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KAF	Kangasniemi	88.04	333	*e*p	P	08 43 55.8	-1.5
ARCES	ARCESS Array B	90.20	340	P	P	08 44 08.3	+1.0
	comp=Z,1.6nm,0.8s,mb4.4,baz=140,slow=38,SNR=3.0						
ARCES				sP	sP	08 44 21.7	-3.0
	comp=Z,3.1nm,0.8s,baz=90,slow=3.6,SNR=2.4						
GERES	GERESS Array B	92.98	319	P	P	08 44 22.1	+1.4
	comp=Z,0.2nm,0.2s,mb4.1,baz=45,slow=3.8,SNR=6.2						
GERES				sP	sP	08 44 35.7	-2.3
	comp=Z,0.3nm,0.3s,baz=108,slow=4.2,SNR=3.0						
BDFB	Brasilia	144.24	234	PKP	PKPdf	08 50 46.9	+4.1
	comp=Z,1.4nm,0.4s,baz=90,slow=4.0,SNR=2.9						
BDFB				sPKP		08 50 58.4	
	comp=Z,6.5nm,1.1s,baz=86,slow=1.9,SNR=2.5						
WMOK	Wichita Mounta	144.55	31	*e*PKPdf	PKPdf	08 50 42.5	-0.4
WMOK				*e*		08 50 56.8	
ACSO	Alum Creek Sta	144.68	7	*e*PKPdf	PKPdf	08 50 42.9	0.0
ACSO				*e*		08 50 56.4	
CCM	Cathedral Cave	144.90	19	*e*PKPdf	PKPdf	08 50 43.7	+0.3
CCM				*e*		08 50 58.1	
BLO	Bloomington	145.12	12	*e*PKPdf	PKPdf	08 50 44.8	+1.0
BLO				*e*		08 50 58.2	
FVM	French Village	145.22	18	*e*PKPdf	PKPdf	08 50 44.5	+0.6
FVM				*e*		08 50 58.8	
LTX	Lajitas	145.48	43	*e*PKPdf	PKPdf	08 50 47.1	+2.4
LTX				*e*		08 51 00.9	
TXAR	Lajitas Array	145.48	43	PKPbc	PKPbc	08 50 47.5	+2.2
	comp=Z,11nm,0.7s,baz=299,slow=1.3,SNR=125						
TXAR				sPKPbc		08 51 01.4	
	comp=Z,7.2nm,0.8s,baz=280,slow=2.1,SNR=11						
WCI	Wyandotte Cave	146.07	12	*e*PKPdf	PKPdf	08 50 47.8	+2.3
WCI				*e*		08 51 01.8	
JCT	Junction City	147.18	37	*e*PKPdf	PKPdf	08 50 50.1	+2.6
JCT				*e*PKPbc	PKPdf	08 50 51.8	+4.3
JCT				*e*		08 51 03.4	
WVT	Waverly	147.70	16	*e*PKPbc	PKPdf	08 50 52.4	+4.2
WVT				*e*		08 51 06.3	
ELN	Prospectdale	147.89	5	*e*PKPbc	PKPdf	08 50 52.3	+3.8
SWET	Sewanee	149.04	13	*e*PKPbc	PKPdf	08 50 55.6	+5.3
SWET				*e*		08 51 09.4	

DJA 09 08:33:51.5±1.0,8.65S×113.86E,h67^{km}±10^{km},MD4.8/4, ML4.3/2,7C-3D,Error ellipse: s-maj=31.1km s-min=17.5km az=178.0,Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	Scrawed	0.33	58	⇑*i*Pn	P	08 34 01.9	-0.8
	153nm,0.2s						
KELI	Kelakatan	0.76	55	⇑*e*Pn	P	08 34 06.7	-0.3
KELI				*i* Sn	S	08 34 24.7	+6.1
KELI	Kelakatan	0.76	55	⇑*e*Pn	P	08 34 06.7	-0.3
	96nm,0.3s						
KELI				⇑*i*Sn	S	08 34 18.1	-0.5
RATI	Rata	1.65	93	⇓*i*Pn	P	08 34 19.3	+0.3
RATI				*i* Sn	S	08 34 36.4	-2.8
RATI	Rata	1.65	93	⇓*i*Pn	P	08 34 19.3	+0.3
	709nm,0.2s						
RATI	Rata	1.65	93	*e*P	P	08 34 19.5	+0.5
RATI				⇓*i*Sn	S	08 34 36.4	-2.8
KEDI	Kedomdong	2.23	86	⇑*i*Pn	P	08 34 24.4	-2.6
KEDI				*i* Sn	S	08 34 44.4	-9.0
KEDI	Kedomdong	2.23	86	⇑*i*Pn	P	08 34 24.4	-2.6
	47nm,0.2s						
KEDI				⇑*i*Sn	S	08 34 51.1	-2.3

IDC 09 08:41:07.0±4.7,3.36S×129.75E,mb4.0/3,mb1 4.3/5, mb1mx4.0/17,ML4.0/2,Error ellipse: s-maj=72.5km s-min=52.5km az=98.0,Seram

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	15.19	195	Pn	P	08 44 43.3	-1.4
	0.3nm,0.3s,baz=18,slow=14,SNR=4.3						
WRA	Warramunga Arr	17.07	165	P	P	08 45 06.8	-2.1
	0.7nm,0.3s,baz=346,slow=12,SNR=19						
WRA				S	S	08 48 18.9	+0.4
	0.1nm,0.3s,baz=350,slow=23,SNR=2.7						
ASAR	Alice Springs	20.58	169	P	P	08 45 48.2	-2.0
	6.0nm,0.4s,baz=344,slow=9.6,SNR=55						
CTA	Charters Tower	23.14	137	P	P	08 46 15.4	-0.7
	4.4nm,1.0s,baz=302,slow=8.4,SNR=3.8						
STKA	Stephens Creek	30.47	160	P	P	08 47 21.1	-2.8
	1.4nm,0.7s,baz=346,slow=9.1,SNR=3.5						

GUC 09 08:41:45.5±0.9**,23.06S**×**70.58W,h57**^{km}±13^{km}**,MD4.6, ML3.8,1C-1D,Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ANCH	**Antofagasta**	**0.64**	**166**	*e*P	P	08 41 59.0	+0.1
ANCH				*i* S	S	08 42 08.9	+0.1
ANCH				AMP		08 42 11.9	
	comp=N,6µm,0.4s						
CPN1	**Cerro Paranal**	**1.57**	**174**	*e*P	P	08 42 12.7	+1.1
CPN1				*i* S	S	08 42 32.5	+1.6
CPN1				AMP		08 42 39.5	
	comp=E,2µm,0.5s						
LVC	**Limon Verde**	**1.60**	**74**	⇓*i*P	P	08 42 12.8	+0.7
LVC				*i* S	S	08 42 33.1	+1.4
LVC				AMP		08 42 35.2	
	comp=N,3µm,0.4s						
SPCH	**San Pedro de A**	**2.20**	**87**	⇑*i*P	P	08 42 24.2	+3.8
SPCH				*i* S	S	08 42 51.8	+5.4

BJI ***09*** *08:48:58.6,24.84N×92.49E,h33^{km},mB5.3,mb5.3,ML5.2, Ms4.9,Msz4.6*

LDG ***09*** *08:48:59.2±0.2,24.85N×92.35E,h33^{km},Mb5.5/41, Ms4.5/7,Error ellipse: s-maj=13.8km s-min=6.7km az=179.0*

MOS ***09*** *08:48:59.2±0.9,24.78N×92.52E,h41^{km},mb5.7/36, MS4.6/12,Error ellipse: s-maj=11.9km s-min=5.3km az=121.7*

NEIC ***09*** *08:49:00.2±0.1,24.76N×92.54E,mb5.5/124,MS4.7/32, MW5.4,Error ellipse: s-maj=4.2km s-min=2.7km az=215.0, Moment Tensor Solution. s4 Moment tensor: Scale 10^{17} Nm; M_{rr}-0.06; $M_{\theta\theta}$-0.84; $M_{\phi\phi}$0.90; $M_{r\theta}$1.05; $M_{\theta\phi}$-0.19; $M_{\phi r}$-0.85; Best double couple: $M_0$1.6×10^{17} NP1:ϕ_s218°, δ33°,λ-2°. NP2:ϕ_s310°,δ89°,λ-123°. Principal axes: T 1.62, Plg35°, Azm68°; N -.01, Plg33°, Azm311°; P -1.61, Plg37°, Azm191°;*

NEIC Several people slightly injured at Hailakandi, India. Minor damage in Cachar, India. Felt in eastern Meghalaya and much of central and southern Assam, India. Also felt at Chittagong and in parts of eastern Bangladesh.

SYO ***09*** *08:49:00.1,24.75N×92.51E,h34^{km},MB5.5,MS4.6*

HRVD ***09*** *08:49:00.2±0.2,24.66N×92.72E,h39^{km}±1^{km},MW5.3/60, Centroid moment Tensor Solution. LP body waves: s39,c63;Mantle waves: s60,c126; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}0.66±.04; $M_{\theta\theta}$-1.27±.03; $M_{\phi\phi}$0.61±.03; $M_{r\theta}$0.54±.03; $M_{\theta\phi}$0.33±.02; $M_{\phi r}$-0.38±.03; Best double couple: $M_0$1.26×10^{17} NP1: ϕ_s243°,δ42°,λ32°. NP2:ϕ_s128°,δ69°,λ128°. Principal axes: T 1.03, Plg51°, Azm82°; N .46, Plg35°, Azm293°; P -1.49, Plg16°, Azm192°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***09*** *08:49:02.5±0.3,24.77N×92.58E,h54^{km}±3^{km},mb4.8/23, mb1 4.9/24,mb1mx4.8/26,MS4.4/11,Ms1 4.4/11, ms1mx4.3/15 Error ellipse: s-maj=14.9km s-min=8.1km az=46.0*

ISC 09 08:48:58.9±0.1**,24.72N**±0.02×**92.54E**±0.02**,h41**^{km}**, h41**^{km}±1.5^{km}**:pP-P,n505,**σ**1^{s}08**/508**,mb5.4**/166**,MS4.6**/60**, 102C-28D,India-Bangladesh border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHL	**Shillong**	**1.03**	**325**	⇓*i*PG	**P**	**08 49 19.8**	**+2.6**
SHL				*e*SG	**S**	**08 49 32.4**	**+1.8**
IMP	**Imphal**	**1.27**	**87**	⇓*i*	**P**	**08 49 24.5**	**+4.0**
IMP				*e*		08 49 30.1	
AGT	**Agartala**	**1.44**	**235**	*e*P	**P**	**08 49 28.0**	**+5.1**
LKP	**Lekhapani**	**4.11**	**50**	*e*P	**P**	**08 50 00.0**	**-0.9**
LKP				*e*S	**S**	**08 50 42.0**	**-6.3**
SLGI	**Shiliguri**	**4.21**	**299**	⇓*i*P	**P**	**08 50 03.9**	**+1.6**
	121nm,0.8s						
SLGI				*i* S	**S**	**08 50 47.6**	**-3.3**
GTK	**Gangtok**	**4.38**	**307**	*e*P	**P**	**08 50 02.0**	**-2.8**
GTK				*e*S	**S**	**08 50 50.0**	**-5.3**
CAL	**Calcutta**	**4.42**	**242**	*e*	**P**	**08 50 08.8**	**+3.4**
CAL				*e*		08 50 59.8	
CAL				*e*		08 51 02.7	
LSA	**Lhasa**	**5.12**	**346**	⇑*i*P	**P**	**08 50 16.5**	**+1.4**
LSA				PG	**P**	**08 50 24.0**	**+8.9**
LSA				S	**S**	**08 51 09.5**	**-4.2**
LSA				LR	LR		
	comp=N,19µm,5.0s						
LSA				LR	LR		
	comp=E,13µm,5.0s						
BOK	**Bokaro**	**6.14**	**263**	*e*S	**S**	**08 51 35.5**	**-3.7**
PKI	**Pulchoki**	**7.01**	**295**	*e*Pn	**P**	**08 50 41.6**	**0.0**
PKI				*e*Sn	**S**	**08 51 57.0**	**-3.9**
PKI	**Pulchoki**	**7.01**	**295**	*e*Sn	**S**	**08 51 57.0**	**-3.9**
	comp=E,2µm,0.5s						
KKN	**Kakani**	**7.20**	**297**	*e*Pn	**P**	**08 50 44.2**	**-0.1**
KKN				*e*Sn	**S**	**08 52 01.0**	**-4.6**
KKN	**Kakani**	**7.20**	**297**	*e*Sn	**S**	**08 52 01.3**	**-4.3**
	comp=E,1µm,0.2s						
DMN	**Daman**	**7.27**	**295**	*e*Pn	**P**	**08 50 44.9**	**-0.4**
DMN				*e*Sn	**S**	**08 52 03.0**	**-4.4**
DMN	**Daman**	**7.27**	**295**	*e*Sn	**S**	**08 52 02.2**	**-5.2**
	comp=E,2µm,0.6s						
GKN	**Gorkha**	**7.80**	**297**	*e*Pn	**P**	**08 50 52.2**	**-0.5**
GKN				*e*Sn	**S**	**08 52 14.9**	**-5.8**
GKN	**Gorkha**	**7.80**	**297**	*e*Sn	**S**	**08 52 14.7**	**-6.0**
	comp=E,4µm,0.3s						
VLK	**Valmikinagar**	**8.22**	**290**	⇑*i*P	**P**	**08 50 56.0**	**-2.4**
VLK				*i*		08 51 48.0	
CHG	**Chiang Mai**	**8.36**	**133**	PN	**P**	**08 50 59.5**	**-0.9**
CHG				SG	S	08 53 01.4	+27
KOLN	**Koldanda**	**8.58**	**293**	*e*Pn	**P**	**08 51 02.1**	**-1.3**
KOLN				*e*Sn	**S**	**08 52 32.3**	**-7.7**
CM31	**Chiang Mai Arr**	**8.62**	**135**	*e*Pn	**P**	**08 51 03.7**	**-0.3**
CMAR	**Chiang Mai Arr**	**8.62**	**135**	P	**P**	**08 51 03.1**	**-0.8**
	comp=E,7.1nm,0.3s,baz=312,slow=13,SNR=211						
CMAR				LR	LR	08 55 13.2	
	comp=E,3µm,18.9s,baz=318,slow=43						
CMAR				ScP		09 00 58.0	
	baz=302,slow=4.0,SNR=4.9						
CMAR	**Chiang Mai Arr**	**8.62**	**135**	*i* P	**P**	**08 51 03.7**	**-0.2**
CMAR				pmax	pmax		
	comp=Z,50nm,0.5s						
KMI	**Kunming**	**9.27**	**85**	*e*P	**P**	**08 51 14.8**	**+1.8**
KMI				S	**S**	**08 52 56.1**	**-1.0**
KMI				LR	LR		
	comp=N,9µm,11.5s						
KMI				LR	LR		
	comp=E,2µm,16.2s						
KMI				LR	LR		
	comp=Z,3µm,20.7s						
NANT	**Nan**	**9.60**	**126**	⇑P	**P**	**08 51 17.0**	**-0.6**
	comp=Z,112nm,1.0s						
ALBI	**Allahabad**	**9.75**	**276**	⇓*e*P	**P**	**08 51 16.5**	**-3.1**
BLSP	**Bilaspur**	**9.89**	**257**	*e*P	**P**	**08 51 19.0**	**-2.6**
BLSP				*e*		08 53 05.8	
VIS	**Vishakhapatnam**	**11.05**	**233**	*i* P	**P**	**08 51 36.2**	**-1.2**
VIS				*i* S	**S**	**08 53 28.2**	**-12**
NST	**Nakhon Sawan**	**11.48**	**140**	⇑P	**P**	**08 51 43.2**	**0.0**
	comp=Z,125nm,1.0s						
CD2	**Chengdu**	**11.69**	**56**	⇓*i*P	**P**	**08 51 44.5**	**-1.5**
CD2				XP		08 52 02.5	
CD2				AMB	AMB		
	comp=Z,30nm,0.5s						
CD2				LR	LR		
	comp=E,2µm,15.0s						
CD2				LR	LR		
	comp=Z,2µm,22.1s						
LGTI	**Lohaghat**	**11.92**	**296**	⇓*i*P	**P**	**08 51 47.3**	**-1.8**
LGTI				*e*S	**S**	**08 53 52.0**	**-10**
PTH	**Pithoragarh**	**11.98**	**296**	*e*P	**P**	**08 51 46.6**	**-3.3**
PTH				*e*S	**S**	**08 53 52.0**	**-11**
JHNI	**Jhansi**	**12.71**	**276**	*e*P	**P**	**08 51 55.0**	**-4.7**
JHNI				*e*S	**S**	**08 54 07.0**	**-14**
GYA	**Guiyang**	**12.87**	**79**	P	**P**	**08 52 00.5**	**-1.3**
GYA				AP		08 52 08.0	
GYA				XP		08 52 11.2	
GYA				S	**S**	**08 54 19.0**	**-5.6**
GYA				AMB	AMB		
	comp=Z,30nm,0.9s						
GYA				LR	LR		
	comp=N,2µm,10.8s						
GYA				LR	LR		
	comp=E,1µm,12.0s						
GYA				LR	LR		
	comp=Z,2µm,12.5s						
NGP	**Nagpur**	**12.92**	**257**	*e*P	**P**	**08 52 01.0**	**-1.5**
NGP				*e*S	**S**	**08 54 14.5**	**-11**
	comp=Z,372nm,0.4s						
AGRA	**Agra**	**13.36**	**284**	*e*P	**P**	**08 52 05.8**	**-2.5**
AGRA				*e*S	**S**	**08 54 22.2**	**-14**
NNT	**Nongplab**	**13.85**	**149**	P	**P**	**08 52 14.0**	**-0.8**
BHPL	**Bhopal**	**13.89**	**267**	⇓*i*P	**P**	**08 52 13.1**	**-2.3**
	comp=Z,127nm,0.9s						
BHPL				*i*		08 54 37.6	
	comp=Z,209nm,0.6s						
DDI	**Dehra Dun**	**14.01**	**297**	*e*	**P**	**08 52 11.8**	**-5.0**
DDI				*e*		08 54 38.4	
NDI	**New Delhi**	**14.25**	**289**	*e*P	**P**	**08 52 16.5**	**-3.5**
	comp=Z,229nm,0.5s						
NDI				*e*		08 54 41.0	
SONA	**Sohna**	**14.28**	**288**	*e*P	**P**	**08 52 20.5**	**+0.1**
SONA				*e*		08 52 20.5	
	comp=Z,190nm,0.7s						
SONA				*e*		08 54 42.0	
KUDL	**Kundal**	**14.78**	**287**	*e*P	**P**	**08 52 24.5**	**-2.4**
AKL	**Akola**	**14.87**	**258**	*e*P	**P**	**08 52 28.0**	**-0.1**
AKL				*e*		08 55 00.6	
	comp=Z,193nm,1.9s						
HYB	**Hyderabad**	**14.93**	**244**	*e*P	**P**	**08 52 27.0**	**-1.9**
	comp=Z,130nm,1.0s						
HYB				*e*		08 55 01.0	
HYB				*e*S	**S**	**08 55 12.0**	**-1.6**
HYB	**Hyderabad**	**14.93**	**244**	*i* P	**P**	**08 52 27.0**	**-1.9**
	comp=Z,130nm,1.0s						
HYB				*e*		08 55 01.0	
HYB				*e*S	**S**	**08 55 12.0**	**-1.6**
HYB				LR	LR	08 58 32.0	
	comp=Z,5.6nm,12.0s						
LZH	**Lanzhou**	**14.94**	**38**	⇑P	**P**	**08 52 27.5**	**-1.4**
LZH				AP		08 52 36.6	
LZH				XP		08 52 41.3	
LZH				S	**S**	**08 55 13.0**	**-0.8**
LZH				XS		08 55 25.0	
LZH				*e*SS	SS	08 55 32.0	+0.3
LZH				LG		08 56 41.1	
LZH				AMB	AMB		
	comp=Z,380nm,1.2s						
LZH				AMB	AMB		
	comp=Z,1µm,4.0s						
LZH				LR	LR		
	comp=E,8µm,10.6s						
LZH				LR	LR		
	comp=Z,8µm,12.7s						
LZH	**Lanzhou**	**14.94**	**38**	⇑P	**P**	**08 52 27.5**	**-1.4**
	comp=Z,380nm,1.2s						
LZH				pP		08 52 36.6	
LZH				sP		08 52 41.3	
LZH				S	**S**	**08 55 13.0**	**-0.8**
LZH				sS		08 55 25.0	
LZH				*e*SS	SS	08 55 32.0	+0.3
LZH				Lg		08 56 41.1	
SMLA	**Simla**	**15.01**	**299**	⇓*i*	**P**	**08 52 39.5**	**+10**
SMLA				*i*		08 55 16.1	
SDNR	**Sundarnagar**	**15.30**	**300**	*e*P	**P**	**08 52 30.4**	**-3.2**
SDNR				*e*		08 55 10.2	
KHET	**Khetri**	**15.36**	**286**	*e*P	**P**	**08 52 31.9**	**-2.6**
KHET				*e*		08 52 37.2	
	comp=Z,133nm,0.6s						
KHET				*e*		08 55 06.5	
BHK	**Bhakra**	**15.71**	**299**	*e*P	**P**	**08 52 37.0**	**-1.9**
BHK				*e*		08 55 21.2	
GTA	**Gaotai**	**15.89**	**21**	P	**P**	**08 52 38.0**	**-3.1**
GTA				AP		08 52 46.0	
GTA				PP	PP	08 52 51.5	-2.6
GTA				XP		08 52 52.6	
GTA				S	**S**	**08 55 29.4**	**-6.4**
GTA				XS		08 55 43.1	
GTA				SS	SS	08 55 48.8	-6.5
GTA				LG1		08 56 54.8	
GTA				LG2		08 57 18.7	
GTA				PCP	PcP	08 57 39.8	+1.1
GTA				SCP		09 01 09.0	
GTA				PCS		09 01 13.6	
GTA				SCS	ScS	09 04 45.5	-0.3
GTA				AMB	AMB		
	comp=Z,332nm,6.1s						
GTA				LR	LR		
	comp=N,3µm,12.5s						
GTA				LR	LR		
	comp=E,2µm,20.5s						
GTA				LR	LR		
	comp=Z,3µm,13.3s						
ENH	**Enshi**	**16.02**	**66**	*e*P	**P**	**08 52 37.8**	**-5.1**
	comp=Z,273nm,0.8s						
ENH				*e*		08 52 45.4	
ENH				*e*S	**S**	**08 55 34.0**	**-5.0**
LATR	**Latur**	**16.12**	**250**	*e*P	**P**	**08 52 43.4**	**-0.8**
LATR				*e*		08 55 37.5	
AJM	**Ajmer**	**16.24**	**280**	⇓*e*	**P**	**08 52 42.0**	**-3.6**
MDRS	**Chennai**	**16.40**	**227**	*e*	**P**	**08 52 45.0**	**-2.7**
MDRS				*e*		08 55 51.0	
MDRS				*e*		08 56 35.0	
DLH	**Dalhousie**	**16.49**	**302**	*e*	**P**	**08 52 45.0**	**-3.8**
DLH				*e*		08 55 40.0	
THN	**Thein Dam**	**16.64**	**301**	*e*	**P**	**08 52 45.9**	**-4.8**
	comp=Z,4.0nm,0.9s						
THN				*e*		08 55 41.0	
XAN	**Xi’an**	**17.02**	**53**	P	**P**	**08 52 53.3**	**-2.1**
XAN				AP		08 53 01.7	
XAN				S	**S**	**08 56 00.6**	**-1.3**
XAN				AMB	AMB		
	comp=Z,80nm,1.0s						
XAN				LR	LR		
	comp=N,1µm,15.2s						
XAN				LR	LR		
	comp=E,1µm,25.6s						
XAN				LR	LR		
	comp=Z,2µm,25.6s						
QIZ	**Qiongzhong**	**17.03**	**106**	P	**P**	**08 52 57.8**	**+2.2**
QIZ				AP		08 53 04.7	
QIZ				S	**S**	**08 56 03.2**	**+1.1**
QIZ				XS		08 56 14.8	
QIZ				AMB	AMB		
	comp=Z,100nm,1.2s						
QIZ				LR	LR		
	comp=N,2µm,20.0s						
QIZ				LR	LR		
	comp=E,1µm,20.6s						
QIZ				LR	LR		
	comp=Z,2µm,16.1s						
QIZ	**Qiongzhong**	**17.03**	**106**	*e*P	**P**	**08 52 56.7**	**+1.1**
	comp=Z,89nm,0.8s						
QIZ				*e*		08 53 11.2	
POO	**Poona**	**18.42**	**254**	⇓*i*	**P**	**08 53 10.5**	**-2.6**
	comp=Z,50nm,1.0s						
POO				*i*		08 53 23.0	
POO				*e*		08 53 33.5	
POO				*i*		08 56 24.5	
POO				*i*		09 01 27.0	
POO				*e*		09 05 02.0	
KAD	**Karad**	**18.64**	**250**	⇑*i*P	**P**	**08 53 18.4**	**+2.7**
KAD				*i*		08 56 28.5	
BHV	**Bhavnagar**	**18.97**	**265**	*e*	**P**	**08 53 18.8**	**-0.8**
BOM	**Bombay**	**19.20**	**256**	*e*P	**P**	**08 53 23.6**	**+1.5**
BOM				*e*		08 56 43.5	
	comp=Z,182nm,1.0s						
WMQ	**Urumqi**	**19.47**	**349**	⇓P	**P**	**08 53 24.8**	**-0.1**
WMQ				AP		08 53 33.3	
WMQ				XP		08 53 37.4	
WMQ				PP	PP	08 53 42.6	-0.5
WMQ				PPP	PPP	08 53 51.6	-0.7
WMQ				S	**S**	**08 56 56.8**	**-0.2**
WMQ				AMB	AMB		
	comp=Z,79nm,0.8s						
WMQ				AMB	AMB		
	comp=Z,539nm,7.7s						
WMQ				LR	LR		
	comp=N,747nm,20.0s						
WMQ				LR	LR		
	comp=E,2µm,25.2s						
WMQ				LR	LR		
	comp=Z,3µm,30.8s						
JASL	**Jaisalmer**	**19.60**	**281**	*e*	**P**	**08 53 24.1**	**-2.4**
GOA	**Goa**	**19.80**	**246**	⇓*e*P	**P**	**08 53 31.0**	**+2.2**
	comp=Z,16nm,0.2s						
GOA				*e*		08 56 58.3	
WHN	**Wuhan**	**20.17**	**68**	*e*P	**P**	**08 53 32.0**	**-0.6**
WHN				S	**S**	**08 57 10.0**	**-1.7**
WHN				AMB	AMB		
	comp=Z,502nm,6.0s						
WHN				LR	LR		
	comp=N,2µm,12.0s,MS4.8						
WHN				LR	LR		
	comp=E,2µm,11.0s,MS4.8						
WHN				LR	LR		
	comp=Z,4µm,19.6s						
KSH	**Kashi**	**20.31**	**321**	⇑*i*P	**P**	**08 53 35.0**	**+1.0**
KSH				AP		08 53 44.0	
KSH				XP		08 53 48.2	
KSH				PP	PP	08 53 57.3	+2.4
KSH				PPP	PPP	08 54 06.4	+2.2
KSH				*e*S	**S**	**08 57 19.3**	**+4.8**
KSH				XS		08 57 33.0	
KSH				SS	SS	08 57 46.2	+1.2
KSH				PCP	PcP	08 57 47.5	+1.4
KSH				AMB	AMB		
	comp=Z,530nm,2.4s						
KSH				LR	LR		
	comp=N,2µm,13.1s,MS4.8						
KSH				LR	LR		
	comp=E,2µm,11.8s,MS4.8						
MNGI	**Mangalore**	**20.42**	**238**	*e*	**P**	**08 53 38.1**	**+2.8**
	comp=E,72nm,0.9s						
MNGI				*e*		08 57 24.1	
BTO	**Baotou**	**21.56**	**38**	*e*P	**P**	**08 53 45.5**	**-1.2**
BTO				S	**S**	**08 57 42.6**	**+4.3**
BTO				AMB	AMB		
	comp=Z,86nm,1.0s,mb5.1						
BTO				LR	LR		
	comp=N,476nm,4.5s						
BTO				LR	LR		
	comp=E,871nm,6.3s						
IPM	**Ipoh**	**21.62**	**156**	⇑*e*P	**P**	**08 53 48.0**	**+0.5**
	comp=E,57nm,0.5s,mb5.2						
TRD	**Trivandrum**	**21.93**	**225**	⇑*e*	**S**	**08 57 53.0**	**+7.8**
ULHL	**Ulahol**	**22.08**	**326**	P	**P**	**08 53 53.7**	**+1.9**
	SNR=34						
KZA	**Kyzart**	**22.47**	**325**	P	**P**	**08 53 58.3**	**+2.5**
	SNR=34						
HHC	**Hu-ho-hao-te**	**22.61**	**40**	⇑P	**P**	**08 53 55.6**	**-1.5**
HHC				AP		08 54 04.8	
HHC				XP		08 54 10.3	
HHC				PP	PP	08 54 22.5	-3.6
HHC				PCP	PcP	08 57 51.8	+1.2
HHC				S	**S**	**08 57 54.1**	**-3.3**
HHC				AMB	AMB		
	comp=Z,52nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,969nm,3.2s						
TKM2	**Tokmak 2**	**22.90**	**327**	P	**P**	**08 54 01.8**	**+1.9**
	SNR=75						
TKM2	**Tokmak 2**	**22.90**	**327**	*e*P	**P**	**08 54 01.1**	**+1.2**
	comp=Z,344nm,1.3s,mb5.6						
TKM2				*e*pP		08 54 08.9	
TKM2				LR	LR		
	comp=Z,905nm,22.0s,MS4.2						
UCH	**Uchtor**	**22.96**	**324**	P	**P**	**08 54 03.5**	**+2.9**
	SNR=38						
UCH	**Uchtor**	**22.96**	**324**	*e*P	**P**	**08 54 02.4**	**+1.8**
	comp=Z,139nm,1.1s,mb5.3						
UCH				LR	LR		
	comp=Z,1µm,21.0s,MS4.3						
KBK	**Karagaybulak**	**23.04**	**325**	P	**P**	**08 54 02.9**	**+1.6**
	SNR=13						
AAK	**Ala-Archa**	**23.26**	**325**	P	**P**	**08 54 06.4**	**+3.0**
	SNR=46						
AAK	**Ala-Archa**	**23.26**	**325**	*c i*P	**P**	**08 54 04.7**	**+1.3**
AAK				pmax	pmax		
	comp=Z,130nm,1.5s,mb5.1						
AAK				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.3						
AAK	**Ala-Archa**	**23.26**	**325**	*e*P	**P**	**08 54 04.5**	**+1.0**
	comp=Z,222nm,1.5s,mb5.4						
AAK				*e*pP		08 54 13.6	
AAK				LR	LR		
	comp=Z,257nm,21.0s,MS3.7						
FRU	**Bishkek**	**23.33**	**325**	⇑*i*P	**P**	**08 54 06.5**	**+2.3**
FRU				*i*		08 54 28.5	
FRU				*e*		08 58 11.0	
FRU				pmax	pmax		
	comp=Z,300nm,2.3s,mb5.3						
AML	**Almayashu**	**23.34**	**323**	P	**P**	**08 54 06.8**	**+2.5**
	SNR=26						
AML	**Almayashu**	**23.34**	**323**	⇑*e*P	**P**	**08 54 06.3**	**+2.1**
AML				*e*pP		08 54 15.2	
AML				*e*sP		08 54 21.0	
AML				LR	LR		
	comp=Z,1µm,22.0s,MS4.3						
CHMS	**Chumysh**	**23.38**	**326**	P	**P**	**08 54 06.1**	**+1.5**
	SNR=8.4						
MKAR	**Makanchi Array**	**23.51**	**342**	*i* P	**P**	**08 54 06.3**	**+0.5**
MKAR				pmax	pmax		
	comp=Z,27nm,0.5s						
MKAR	**Makanchi Array**	**23.51**	**342**	*i* P	**P**	**08 54 06.4**	**+0.6**
QZH	**Quanzhou**	**23.64**	**84**	⇑*i*P	**P**	**08 54 07.2**	**-0.1**
QZH				S	**S**	**08 58 20.0**	**+4.2**
QZH				AMB	AMB		
	comp=Z,140nm,0.9s,mb5.4						
QZH				AMB	AMB		
	comp=Z,1µm,6.7s						
QZH				LR	LR		
	comp=N,6µm,14.0s,MS5.3						
QZH				LR	LR		
	comp=E,930nm,10.6s,MS5.3						
QZH				LR	LR		
	comp=Z,4µm,21.7s						
EKS2	**Erkin-Say**	**23.66**	**324**	P	**P**	**08 54 09.9**	**+2.6**
	SNR=38						
EKS2	**Erkin-Say**	**23.66**	**324**	⇑*i*P	**P**	**08 54 09.4**	**+2.1**
	comp=Z,72nm,0.8s,mb5.2						
EKS2				*e*pP		08 54 20.0	
EKS2				LR	LR		
	comp=Z,995nm,21.0s,MS4.3						
USP	**Ospenovka**	**23.70**	**326**	P	**P**	**08 54 09.5**	**+1.7**
	SNR=19						
TIA	**Tai’an**	**24.02**	**56**	*e*P	**P**	**08 54 11.0**	**+0.1**
TIA				S	**S**	**08 58 20.0**	**-2.3**
TIA				AMB	AMB		
	comp=Z,81nm,0.8s,mb5.2						
TIA				LR	LR		
	comp=N,2µm,18.0s,MS4.6						
TIA				LR	LR		
	comp=E,981nm,18.0s,MS4.6						
NJ2	**Nanjing**	**24.24**	**66**	*e*P	**P**	**08 54 13.3**	**+0.2**
NJ2				AP		08 54 22.6	
NJ2				XP		08 54 26.8	
NJ2				PP	PP	08 54 48.7	-0.1
NJ2				S	**S**	**08 58 29.0**	**+3.0**
NJ2				XS		08 58 42.0	
NJ2				SS	SS	08 59 20.0	-0.6
NJ2				AMB	AMB		
	comp=Z,500nm,0.9s,mb5.9						
NJ2				AMB	AMB		
	comp=Z,1µm,5.3s						
NJ2				LR	LR		
	comp=N,7µm,17.4s,MS5.3						
NJ2				LR	LR		
	comp=E,3µm,15.0s,MS5.3						
NJ2				LR	LR		
	comp=Z,4µm,18.9s,MS5.0						
BJT	**Baijiatuau**	**25.02**	**47**	*e*P	**P**	**08 54 20.9**	**+0.4**
	comp=Z,100nm,1.1s,mb5.3						
BJT				LR	LR		
	comp=Z,481nm,19.0s,MS4.0						
BJI	**Beijing**	**25.03**	**47**	P	**P**	**08 54 21.5**	**+0.8**
BJI				XP	sP	08 54 34.0	-2.4
BJI				S	**S**	**08 58 39.1**	**-0.3**
BJI				AMB	AMB		
	comp=Z,73nm,1.0s,mb5.2						
BJI				LR	LR		
	comp=N,1µm,11.5s,MS4.7						
BJI				LR	LR		
	comp=E,865nm,11.7s,MS4.7						
BJI				LR	LR		
	comp=Z,1µm,25.1s						
BJI	**Beijing**	**25.03**	**47**	P	**P**	**08 54 21.5**	**+0.8**
	comp=Z,73nm,1.0s,mb5.2						
BJI				sP	sP	08 54 34.0	-2.4
BJI				S	**S**	**08 58 39.1**	**-0.3**
BJI				LR	LR		
	comp=Z,1µm,25.1s,MS4.4						
SONM	**Songino Array**	**25.56**	**22**	P	**P**	**08 54 26.3**	**+0.7**
	comp=Z,75nm,0.9s,mb5.2,baz=205,slow=8.9,SNR=141						

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SONM                                pP     pP    08 54 37.4 +1.0
      comp=Z,79nm,0.7s,baz=205,slow=11,SNR=23
SONM                                ScP          09 01 31.0
      comp=Z,1.5nm,0.7s,baz=203,slow=2.0,SNR=6.0
ULN   Ulaanbaatar        25.81  23⇑eP      P     08 54 28.2 +0.3
ULN                               e*PP     pP    08 54 38.9 +0.1
ULN                                pmax    pmax
      comp=Z,130nm,0.9s,mb5.5
ULN   Ulaanbaatar        25.81  23⇑eP      P     08 54 28.1 +0.3
      comp=Z,318nm,0.9s,mb5.8
ULN                               epP      pP    08 54 38.5 -0.3
ULN                                LR      LR
      comp=Z,2µm,19.0s,MS4.7
SSE   Sheshan            26.06  69 P       P     08 54 30.1 -0.3
SSE                                S       S     08 59 00.5 +4.1
SSE                                XS            08 59 17.2
SSE                                AMB     AMB
      comp=Z,167nm,0.8s,mb5.6
SSE                                LR      LR
      comp=N,2µm,26.2s,MS4.5
SSE                                LR      LR
      comp=E,547nm,26.1s,MS4.5
SSE                                LR      LR
      comp=Z,1µm,23.9s,MS4.4
SSE   Sheshan            26.06  69 P       P     08 54 30.1 -0.3
      comp=Z,167nm,0.8s,mb5.6
SSE                                S       S     08 59 00.5 +4.1
SSE                                sS            08 59 17.2
SSE                                LR      LR
      comp=Z,1µm,23.9s,MS4.4
ZAK   Zakamensk          26.94  15⇑iP      P     08 54 39.1 +0.8
ZAK                               e              08 55 37.4
MOY   Mondy              27.68  11 eP      P     08 54 46.1 +1.1
TLY   Talaya             28.24  15c iP     P     08 54 50.3 +0.3
TLY                               e        pP    08 55 01.3 +0.2
TLY                               eS       S     08 59 31.1 -0.4
TLY                                pmax    pmax
      comp=Z,42nm,1.5s,mb4.8
TLY                                MLR     MLR
      comp=Z,2µm,27.0s,MS4.7
TLY   Talaya             28.24  15⇑iP      P     08 54 50.8 +0.8
TGY   Tagaytay City      28.73 106 LR      LR    09 07 12.9
      comp=Z,721nm,20.7s,MS4.3,baz=359,slow=38
IRK   Irkutsk            28.91  15 eP      P     08 54 52.1 -3.9
IRK                               e              08 55 07.4
ZAL   Zalesovo           29.75 351 P       P     08 55 00.4 -3.1
      comp=Z,25nm,0.7s,mb5.0,baz=304,slow=7.9,SNR=110
ZAL                                LR      LR    09 08 06.6
      comp=Z,644nm,18.7s,MS4.3,baz=301,slow=38
SNY   Shenyang           30.84  49 ⇑P      P     08 55 12.5 -0.8
SNY                                AP      pP    08 55 20.8 -3.7
SNY                                XP      sP    08 55 24.8 -5.0
SNY                                S       S     09 00 12.7 -0.1
SNY                                SS      SS    09 01 54.9 -2.6
SNY                                AMB     AMB
      comp=Z,40nm,0.9s,mb5.2
SNY                                LR      LR
      comp=N,740nm,14.5s
SNY                                LR      LR
      comp=Z,780nm,25.5s
NVS   Novosibirsk        30.87 350 eP      P     08 55 11.8 -1.6
NVS                               i        pP    08 55 22.3 -2.4
NVS                               i              08 56 13.1
NVS                               i S      S     09 00 08.9 -4.3
NVS                                pmax    pmax
      comp=Z,49nm,1.3s,mb5.2
NVS                                pmax    pmax
      comp=N,60nm,1.1s
NVS                                pmax    pmax
      comp=E,25nm,1.0s
NVS                                smax
      comp=N,60nm,1.8s
NVS                                smax
      comp=E,25nm,1.4s
HIA   Hailar             32.44  34 eP      P     08 55 27.5 +0.3
      comp=E,26nm,0.7s,mb5.2
HIA                               epP      pP    08 55 37.6 -0.9
HIA                                LR      LR
      comp=Z,1µm,22.0s,MS4.5
BVAR  Borovoye Array     32.84 335 P       P     08 55 30.4 -0.3
      comp=Z,4.7nm,0.5s,mb4.7,baz=135,slow=10,SNR=38
BVAR                               ScP           09 01 53.6
      comp=Z,3.7nm,0.9s,baz=135,slow=4.2,SNR=5.1
CN2   Changchun          32.90  46 eP      P     08 55 30.8 -0.5
CN2                               eAP      pP    08 55 40.1 -2.5
CN2                               eXP      sP    08 55 44.5 -3.4
CN2                               eS       S     09 00 45.0 -0.1
CN2                                AMB     AMB
      comp=Z,30nm,1.0s,mb5.2
CN2                                AMB     AMB
      comp=Z,430nm,4.0s
CN2                                LR      LR
      comp=N,600nm,12.0s,MS4.7
CN2                                LR      LR
      comp=E,700nm,12.0s,MS4.7
CN2                                LR      LR
      comp=Z,700nm,17.0s,MS4.4
BRVK  Borovoye           32.91 335 eP      P     08 55 30.6 -0.7
      comp=Z,47nm,1.0s,mb5.4
BRVK                              epP      pP    08 55 40.4 -2.2
CHKZ  Chkalovo           33.26 336 eP      P     08 55 34.0 -0.3
      comp=Z,97nm,1.1s,mb5.7
CHKZ                              epP      pP    08 55 44.0 -1.6
CHKZ                              e              08 55 50.0
MDJ   Mudanjiang         35.96  47 P       P     08 55 56.8 -0.8
MDJ                                AP      pP    08 56 05.3 -3.7
MDJ                                XP      sP    08 56 09.6 -4.6
MDJ                                PCP     PcP   08 58 20.9 -3.1
MDJ                                S       S     09 01 34.9 +2.4
MDJ                                XS            09 01 49.0
MDJ                                SCP           09 02 06.7
MDJ                                PCS           09 02 10.6
MDJ                                SCS     ScS   09 06 11.1 +1.5
MDJ                                AMB     AMB
      comp=Z,182nm,8.8s
MDJ                                LR      LR
      comp=N,658nm,35.1s
MDJ                                LR      LR
      comp=E,241nm,41.5s
MDJ                                LR      LR
      comp=Z,389nm,27.1s
MDJ   Mudanjiang         35.96  47 eP      P     08 55 56.9 -0.6
      comp=Z,13nm,0.8s,mb4.9
MDJ                               epP      pP    08 56 07.6 -1.3
MDJ                                LR      LR
      comp=Z,504nm,21.0s,MS4.3
BOD   Bodaibo            36.47  19⇓iP      P     08 56 01.2 -0.5
BOD                               e        pP    08 56 10.8 -2.3
VLA   Vladivostok        37.05  50 eP      P     08 56 17.0 +10
VLA                                pmax    pmax
      comp=Z,600nm,12.0s
VLA                                MLR     MLR
      comp=Z,1µm,13.0s,MS4.8
VLA                                MLR     MLR
      comp=N,500nm,12.0s,MS4.9
VLA                                MLR     MLR
      comp=E,1µm,12.0s,MS4.9
ARU   Arti               40.12 331⇑iP      P     08 56 32.4 +0.3
ARU                               e              08 58 03.5
ARU                               ePPP     PPP   08 58 32.0 -2.9
ARU                               e              08 58 34.7
ARU                               eS       S     09 02 38.7 +3.3
ARU                               eSSS     SSS   09 06 01.1 -4.0
ARU                               e              09 06 31.6
ARU                                pmax    pmax
      comp=Z,64nm,1.8s,mb5.0
ARU                                MLR     MLR
      comp=Z,900nm,20.0s,MS4.6
ARU                                MLR     MLR
      comp=N,500nm,19.0s,MS4.6
ARU                                MLR     MLR
      comp=E,700nm,23.0s,MS4.6
ARU   Arti               40.12 331⇑iP      P     08 56 32.7 +0.6
MAJO  Matsushiro         40.69  62 P       P     08 56 36.7 -0.3
MAJO  Matsushiro         40.69  62⇑iP      P     08 56 36.5 -0.5
MAJO                               pmax    pmax
      comp=Z,100nm,1.1s,mb5.4
MAJO  Matsushiro         40.69  62⇑iP      P     08 56 36.3 -0.7
      comp=Z,76nm,0.9s,mb5.3
MAJO                               LR      LR
      comp=Z,875nm,22.0s,MS4.6
MAT   Matsushiro         40.69  62 P       P     08 56 36.3 -0.7
MAT                                S       S     09 02 54.0 +10
MAT   Matsushiro         40.69  62 eP      P     08 56 36.0 -1.0
      comp=Z,78nm,1.0s,mb5.3
MAT                                S       S     09 02 25.0  -19
MAT                                LR      LR
      comp=Z,1µm,20.0s,MS4.7
SOKR  Solikamsk          42.81 334⇓iP      P     08 56 52.9 -1.2
SOKR                              e        pP    08 57 04.0 -1.7
SOKR                               pmax    pmax
      comp=Z,90nm,1.0s,mb5.5
SOKR                               MLR     MLR
      comp=Z,780nm,22.0s,MS4.6
TI2   Plekhanov          42.85 305⇑iP      P     08 56 56.8 +2.0
MZLS  Mizel              42.95 279 P       P     08 56 57.1 +1.3
GOF   Gofitskoye         44.61 310 eP      P     08 57 04.0 -4.9
KIV   Kislovodsk         44.67 308 P       P     08 57 11.6 +2.2
      comp=Z,458nm,0.9s,mb6.3,SNR=13
KIV   Kislovodsk         44.67 308c iP     P     08 57 10.4 +1.0
KIV                               eS       S     09 03 44.4 +2.0
KIV                                pmax    pmax
      comp=N,54nm,1.5s
KIV                                pmax    pmax
      comp=E,58nm,1.5s
KIV                                pmax    pmax
      comp=Z,112nm,1.5s,mb5.5
KIV                                MLR     MLR
      comp=N,213nm,22.0s,MS4.3
KIV                                MLR     MLR
      comp=E,394nm,22.0s,MS4.3
KIV                                MLR     MLR
      comp=Z,406nm,22.0s,MS4.3
KIV   Kislovodsk         44.67 308⇑iP      P     08 57 10.4 +1.0
KIV                               e              08 57 26.9
ASAJ  Asahikawa          44.85  52 P       P     08 57 12.0 +1.2
      comp=Z,22nm,0.9s,mb5.0,baz=279,slow=24,SNR=7.1
YAK   Yakutsk            44.89  24 eP      P     08 57 10.9  0.0
YAK                               e*PP     pP    08 57 21.0 -1.5
YAK                               e              08 57 26.9
YAK                                pmax    pmax
      comp=Z,67nm,0.8s,mb5.5
YAK   Yakutsk            44.89  24 eP      P     08 57 10.9  0.0
      comp=Z,80nm,0.8s,mb5.6
YAK                               epP      pP    08 57 21.0 -1.5
YAK                                LR      LR
      comp=Z,894nm,20.0s,MS4.7
AFFS  ‘Afif              44.95 280 P       P     08 57 13.4 +1.5
BEST  Besiri             45.21 300 i P     pP    08 57 26.8 +1.4
BEST  Besiri             45.21 300 i P     pP    08 57 26.8 +1.4
ERZM  Erzurum            45.23 302 i P     P     08 57 15.7 +1.8
HILS  Ha’il              45.42 285 P       P     08 57 17.0 +1.4
YSS   Yuzh-Sakhalins     45.45  48 eP      P     08 57 14.5 -1.1
YSS                               e              08 57 33.3
YSS                                pmax    pmax
      comp=Z,50nm,1.0s,mb5.3
YSS                                MLR     MLR
      comp=Z,900nm,14.0s,MS4.9
YSS   Yuzh-Sakhalins     45.45  48 eP      P     08 57 15.7 +0.1
      comp=Z,63nm,1.1s,mb5.4
YSS                                LR      LR
      comp=Z,791nm,22.0s,MS4.6
TATS  Tathlith           45.55 274 P       P     08 57 17.6 +0.9
SOC   Sochi              46.76 307 eP      P     08 57 25.6 -0.4
SOC                               e              08 59 18.9
SOC                               ePPP     PPP   09 00 01.0 -1.3
SOC                               eS       S     09 04 15.9 +3.7
SOC                               eSSS     SSS   09 08 38.6 -3.9
SOC                                pmax    pmax
      comp=Z,80nm,1.2s,mb5.5
SOC                                pmax    pmax
      comp=N,60nm,1.3s
SOC                                pmax    pmax
      comp=E,21nm,0.8s
SOC                                MLR     MLR
      comp=Z,542nm,23.0s,MS4.4
SOC                                MLR     MLR
      comp=N,276nm,22.0s,MS4.4
SOC                                MLR     MLR
      comp=E,390nm,22.0s,MS4.4
NAMS  An Nimas           46.80 274 P       P     08 57 28.7 +2.1
ELZG  Elazig             47.02 300 i P     P     08 57 30.0 +1.9
BLJS  Baljurashi         47.16 275 P       P     08 57 31.1 +1.6
MALT  Malatya            47.46 300⇑iP      P     08 57 32.5 +0.9
      comp=E,36nm,1.1s,mb5.2
MALT                              epP      pP    08 57 39.7 -3.5
KBRS  Khaybar            47.92 283 P       P     08 57 36.4 +1.1
GZT   Gaziantep          48.15 299 i P     P     08 57 38.3 +1.3
VRSR  Storozhevoye       48.34 318 eP      P     08 57 38.0 -0.2
VRSR                              e              08 59 05.4
VRSR                              e              08 59 25.8
VRSR                              eS       S     09 04 33.6 -0.8
VRSR                               pmax    pmax
      comp=E,50nm,0.9s
VRSR                               pmax    pmax
      comp=Z,50nm,0.9s,mb5.5
VRSR                               pmax    pmax
      comp=N,10.0nm,0.5s
VRSR                               smax
      comp=N,10.0nm,0.7s
VRSR                               smax
      comp=Z,2.0nm,0.5s
VRSR                               smax
      comp=E,20nm,1.0s
VRSR                               MLR     MLR
      comp=Z,630nm,20.0s,MS4.6
VRSR                               MLR     MLR
      comp=N,360nm,23.0s,MS4.5
VRSR                               MLR     MLR
      comp=E,430nm,21.0s,MS4.5
KAHT  Ahir Dag           48.69 299 i P     P     08 57 41.8 +0.6
ASF   Jabal al Asfar     49.03 292 P       P     08 57 45.3 +1.4
      comp=E,28nm,0.9s,mb5.3,baz=323,slow=4.1,SNR=21
UMJS  Umm Lajj           49.75 283 P       P     08 57 52.0 +2.5
KSHT  Keshet             49.86 293 P       P     08 57 51.8 +1.6
MKRJ  Makawir            50.17 291 P       P     08 57 53.8 +1.2
HMDT  Nahal Hemdat       50.18 292 P       P     08 57 53.8 +1.1
AVNT  Avonos             50.25 301 i P     P     08 57 53.5 +0.4
CTKT  Corum              50.28 303 i P     P     08 57 51.7 -1.6
MOS   Moscow             50.31 323 eP      P     08 57 51.9 -1.5
MOS                               e              08 59 46.8
MOS                               ePPP     PPP   09 00 42.7 -4.6
MOS                               eS       S     09 05 04.2 +2.4
MOS                                pmax    pmax
      comp=Z,192nm,1.4s,mb5.9
MOS                                pmax    pmax
      comp=N,59nm,0.9s
MOS                                pmax    pmax
      comp=E,115nm,0.9s
DRGI  Dragot             50.37 291 P       P     08 57 55.3 +1.2
GUMO  Guam               50.40  93 PFAKE         08 58 10.0  +15
GUMO                               LR      LR
      comp=Z,827nm,20.0s,MS4.7
MZDA  Masada             50.43 291 P       P     08 57 55.9 +1.3
OBN   Obninsk            50.75 322 eP      P     08 57 56.0 -0.6
      comp=Z,182nm,1.3s,mb5.8
OBN                                LR      LR
      comp=Z,500nm,27.0s,MS4.4
PRNI  Paran              50.87 290 P       P     08 57 58.7 +0.8
SIM   Simferopol’        50.88 309⇓eP      P     08 57 58.5 +0.7
SIM                                pmax    pmax
      comp=Z,31nm,1.0s,mb5.2
EIL   Elat               51.02 289 P       P     08 57 59.4 +0.3
EIL   Elat               51.02 289 eP      P     08 57 59.0 -0.1
      comp=Z,27nm,0.9s,mb5.2
EIL                               epP      pP    08 58 08.8 -2.0
EIL                               esP      sP    08 58 14.2 -1.5
MBH   Mount Berech       51.03 289 P       P     08 57 59.7 +0.5
KMTI  Karmit             51.15 290 P       P     08 58 00.6 +0.6
BRTR  Keskin Array B     51.17 302 P       P     08 57 59.9 -0.2
      comp=Z,2.7nm,0.7s,baz=112,slow=6.7,SNR=14
TIXI  Tiksi              51.21  14 eP      P     08 57 58.4 -1.6
TIXI                               pmax    pmax
      comp=Z,45nm,1.4s,mb5.2
BALT  Daday              51.33 304 i P     P     08 58 02.3 +1.0
SGKT  Sivrigoynuk        52.36 303 i P     P     08 58 01.4 -7.5
MBWA  Marble Bar         52.71 148 eP      P     08 58 11.6 -0.2
      comp=Z,57nm,1.1s,mb5.4
MBWA                               LR      LR
      comp=Z,389nm,19.0s,MS4.5
MA2   Magadan            53.02  33 P       P     08 58 12.8 -0.8
      comp=Z,26nm,0.8s,mb5.2
ESKT  Eskisehir          53.33 302 i P     P     08 58 15.6 -0.7
FITZ  Fitzroy Crossi     53.40 140 eP      P     08 58 16.9 -0.1
      comp=Z,15nm,0.8s,mb5.0
FITZ  Fitzroy Crossi     53.40 140 P       P     08 58 16.7 -0.3
      comp=Z,4.9nm,0.8s,mb4.5,baz=4.5,slow=7.2,SNR=11
FITZ                               pP      pP    08 58 30.5 +1.7
      comp=Z,14nm,0.7s,baz=360,slow=6.0,SNR=8.5
FITZ                               LR      LR    09 21 43.3
      comp=Z,112nm,19.7s,MS3.9,baz=183,slow=37
ISP   Isparta            53.72 300 eP      P     08 58 16.5 -2.7
      comp=Z,28nm,0.9s,mb5.2
AKASG Malin Array Be     54.51 316 P       P     08 58 23.6 -1.1
      comp=Z,35nm,0.7s,mb5.5,baz=74,slow=6.6,SNR=66
ULDT  Uludag             54.61 303 i P     P     08 58 24.9 -0.8
KIS   Kishinev           54.64 311⇓iP      P     08 58 24.0 -1.7
KIS                               i        pP    08 58 35.0 -2.6
PUL   Pulkovo            55.03 327 eP      P     08 58 27.5 -0.9
PUL                               i              09 00 30.8
PUL                                pmax    pmax
      comp=Z,120nm,0.5s,mb6.2
PUL                                pmax    pmax
      comp=N,398nm,0.7s
PUL                                pmax    pmax
      comp=E,122nm,0.6s
PUL                                pmax    pmax
      comp=Z,166nm,0.6s,mb6.2
PUL                                MLR     MLR
      comp=Z,438nm,9.0s
PUL   Pulkovo            55.03 327 i P     P     08 58 28.4  0.0
CFR   Carcaliu           55.12 309⇓iP      P     08 58 29.3  0.0
CFR   Carcaliu           55.12 309⇓iP      P     08 58 29.3  0.0
JOF   Joensuu            55.25 331 ep      P     08 58 28.7 -1.2
      comp=Z,42nm,0.7s,mb5.6
JOF   Joensuu            55.25 331 eP      P     08 58 28.7 -1.2
JOF                                pmax    pmax
      comp=Z,42nm,0.7s,mb5.6
LVZ   Lovozero           55.40 337deP      P     08 58 30.7 -0.3
LVZ                                pmax    pmax
      comp=Z,80nm,0.9s,mb5.8
LVZ                                pmax    pmax
      comp=N,14nm,1.0s
LVZ                                pmax    pmax
      comp=E,28nm,1.1s
LVZ                                pmax    pmax
      comp=Z,104nm,0.9s,mb5.9
LVZ                                MLR     MLR
      comp=Z,616nm,15.0s,MS4.8
LVZ                                MLR     MLR
      comp=N,371nm,13.0s,MS4.7
LVZ                                MLR     MLR
      comp=E,277nm,14.0s,MS4.7
LVZ   Lovozero           55.40 337 i P     P     08 58 30.4 -0.6
BTOK  Tokmak             55.48 302 i P     P     08 58 31.7 -0.3
MNK   Minsk              55.64 320 eP      P     08 58 30.0 -2.9
VRI   Vrincioaia         56.09 310 Pu            08 58 37.2
VRI   Vrincioaia         56.09 310 ⇑P      P     08 58 37.2 +0.9
PET   Petropavlovsk      56.37  42 eP      sP    08 58 53.6 -1.3
PET                               e              09 06 26.9
PET                                pmax    pmax
      comp=Z,200nm,16.2s
PET                                MLR     MLR
      comp=Z,500nm,18.0s,MS4.7
MLR   Muntele Rosu       56.65 309⇓iP      P     08 58 41.3 +1.0
MLR   Muntele Rosu       56.65 309⇓iP      P     08 58 41.3 +1.0
VSU   Vasula             56.66 325c iP     P     08 58 39.4 -0.7
VSU   Vasula             56.66 325⇑iP      P     08 58 39.5 -0.6
KDZ   Kurdzhali          57.30 305 i P     P     08 58 45.5 +0.6
KAF   Kangasniemi        57.36 329 ep      P     08 58 43.4 -1.7
      comp=Z,32nm,1.0s,mb5.3,baz=98,slow=7.0
KAF   Kangasniemi        57.36 329 eP      P     08 58 43.4 -1.7
KAF                                pmax    pmax
      comp=Z,32nm,1.0s,mb5.3
FINES FINESS Array B     57.37 328 P       P     08 58 44.4 -0.8
      comp=Z,26nm,0.7s,mb5.4,baz=101,slow=9.7,SNR=71
FINES FINESS Array B     57.37 328 i P     P     08 58 44.4 -0.8
FINES                              pmax    pmax
      comp=Z,26nm,0.7s
RZN   Rozhen             57.82 305 i P     P     08 58 48.5 -0.1
SANT  Santorini          57.90 299 eP      P     08 58 47.5 -1.7
      comp=Z,120nm,1.1s,mb5.8
SANT                              esP      sP    08 59 03.3 -2.7
SUW   Suwalki            58.34 320 eP      P     08 58 51.2 -0.8
      comp=Z,497nm,1.1s,mb6.5
SUW   Suwalki            58.34 320 eP      P     08 58 51.5 -0.5
SUW                               epP      pP    08 59 02.5 -1.5
KEV   Kevo               58.61 338 ep      P     08 58 52.4 -1.3
KWP   Kalwaria           58.68 314⇑eP      P     08 58 54.4 -0.1
KWP                               epP      pP    08 59 07.5 +1.1
KWP                               ePcP     PcP   08 59 45.3 +1.4
KWP   Kalwaria           58.68 314 eP      P     08 58 54.4 -0.1
KWP                               epP      pP    08 59 07.5 +1.1
KWP                               ePcP     PcP   08 59 45.3 +1.4
VTS   Vitosha            58.84 306 i P     P     08 58 52.5 -3.2
KOLS  Kolonicke sedl     59.00 314 i P     P     08 58 56.4 -0.3
KKB   Krupnik            59.01 305 i P     P     08 58 56.3 -0.6
ARCES ARCESS Array B     59.07 338 P       P     08 58 57.0 +0.1
      comp=Z,26nm,0.8s,mb5.3,baz=90,slow=6.1,SNR=41
KMBO  Kilima Mbogo       59.35 253 P       P     08 59 00.6 +1.0
      comp=Z,6.7nm,0.9s,mb4.7,baz=42,slow=9.4,SNR=17
KMBO                               pP      pP    08 59 15.8 +4.2
      comp=Z,3.8nm,0.6s,baz=48,slow=8.9,SNR=6.7
KMBO                               LR      LR    09 23 34.0
      comp=Z,224nm,21.7s,MS4.3,baz=276,slow=35
KMBO  Kilima Mbogo       59.35 253 eP      P     08 59 00.2 +0.5
KMBO                              e*SP     sP    08 59 16.0 -0.4
KMBO                               pmax    pmax
      comp=Z,26nm,1.5s
KMBO  Kilima Mbogo       59.35 253 eP      P     08 59 00.2 +0.6
      comp=Z,7.0nm,0.8s,mb4.7
KMBO                              epP      pP    08 59 10.4 -1.2
KMBO                              esP      sP    08 59 15.5 -1.0
KMBO                               LR      LR
      comp=Z,260nm,20.0s,MS4.4
CRVS  Cervenica-Dubn     59.53 314 eP      P     08 59 01.5 +1.1
WAR   Warsaw             59.65 317 eP      P     08 58 58.5 -2.7
KTK1  Kautokeino         59.76 337 eP      P     08 59 02.1 +0.4
KTK1                               AMb     AMB   08 59 03.5
      comp=Z,89nm,1.0s,mb5.7
KTK1                              epP      pP    08 59 12.7 -1.0
KTK1  Kautokeino         59.76 337 eP      P     08 59 02.1 +0.4
      comp=Z,89nm,1.0s,mb5.8
WRA   Warramunga Arr     60.21 134 P       P     08 59 05.0 -0.4
      comp=Z,12nm,0.6s,mb5.1,baz=322,slow=7.5,SNR=107
WRA                                pP      pP    08 59 20.3 +2.9
      comp=Z,40nm,0.7s,baz=322,slow=7.3,SNR=22
WRAB  Tennant Creek      60.21 134 eP      P     08 59 04.5 -0.9
WRAB                              e              08 59 20.4
WRAB                               pmax    pmax
      comp=Z,44nm,1.0s,mb5.4
WRAB  Tennant Creek      60.21 134 eP      P     08 59 04.5 -1.0
      comp=Z,104nm,0.9s,mb5.9
WRAB                              epP      pP    08 59 12.9 -4.5
WRAB                              esP      sP    08 59 20.7 -1.6
WRAB                               LR      LR
      comp=Z,124nm,21.0s,MS4.0
SKO   Skopje             60.22 306 i P     P     08 59 04.6 -0.6
WB2   Warramunga Arr     60.22 134 eP      P     08 59 05.3 -0.2
WB2                               i              08 59 20.8
NIE   Niedzica           60.25 314 eP      P     08 59 05.9 +0.6
OJC   Ojcow              60.53 315 eP      P     08 59 06.6 -0.6
PSZ   Piszkesteto        60.65 313⇑iP      P     08 59 07.5 -0.6
PSZ                                pmax    pmax
      comp=Z,85nm,1.6s,mb5.6
PSZ   Piszkesteto        60.65 313 eP      P     08 59 08.2 +0.1
PSZ   Piszkesteto        60.65 313⇑iP      P     08 59 07.5 -0.6
      comp=Z,86nm,1.6s,mb5.6
MUN   Mundaring          60.74 157⇑iP      P     08 59 08.7 -0.2
      comp=Z,37nm,0.8s,mb5.6
KLBR  Kellerberrin       60.96 155⇑iP      P     08 59 09.9 -0.5
      comp=Z,24nm,0.9s,mb5.3
DIVS  Divcibare          60.99 308⇓iP      P     08 59 09.7 -0.7
VYHS  Vyhne              61.30 313 i P     P     08 59 12.4  0.0
VYHS                              e              08 59 30.4
TRO   Tromso             61.36 337 eP      P     08 59 11.2 -1.4
TRO                                AMb     AMB   08 59 11.7
      comp=Z,114nm,1.0s,mb5.9
TRO                               epP      pP    08 59 21.3 -3.3
TRO   Tromso             61.36 337 eP      P     08 59 11.2 -1.4
      comp=Z,114nm,1.0s,mb6.0
KOLL  Kolacno            61.58 313 i P     P     08 59 14.3  0.0
OKC   Ostrava-Krasne     61.62 315⇑iP      P     08 59 14.4 -0.2
OKC                               epP      pP    08 59 28.5 +1.9
OPO   Ambohidratompo     61.66 230⇑iP      P     08 59 17.1 +1.8
      comp=Z,59nm,1.5s,mb5.5
OPO                                LR      LR
      comp=Z,1168µm,21.8s
PKSM  Moragy             61.68 311⇑eP      P     08 59 14.5 -0.5
GKP   Gorka Klasztor     61.90 319 eP      P     08 59 16.0 -0.4
NWAO  Narrogin (SRO)     61.97 157 P       P     08 59 16.2 -0.9
      comp=Z,19nm,0.7s,mb5.3,baz=327,slow=9.0,SNR=5.4
NWAO                               pP      pP    08 59 32.8 +3.7
      comp=Z,24nm,0.7s,baz=2.1,slow=5.2,SNR=4.2
NWAO  Narrogin (SRO)     61.97 157 eP      P     08 59 16.5 -0.7
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	comp=Z,29nm,0.8s,mb5.5						
NWAO				*e*sP	sP	08 59 32.9	-1.0
MORC	**Moravsky Berou**	**62.02**	**315**	*e*P	**P**	**08 59 16.9**	**-0.3**
MORC				*e*	pP	08 59 31.1	+1.9
MORC				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.5						
MORC	**Moravsky Berou**	**62.02**	**315**	*e*P	**P**	**08 59 16.9**	**-0.3**
	comp=Z,44nm,0.9s,mb5.6						
MORC				*e*pP	pP	08 59 29.8	+0.6
MODS	**Modra-Piesok**	**62.34**	**313**	*e*P	**P**	**08 59 18.3**	**-1.1**
MODS				*e*sP	sP	08 59 32.7	-3.5
ZST	**Bratislava**	**62.48**	**313**	*e*P	**P**	**08 59 20.3**	**-0.1**
ASPA	**Alice Springs**	**62.62**	**137**	*e*P	**P**	**08 59 21.7**	**+0.1**
ASPA				*i*		08 59 37.5	
ASAR	**Alice Springs**	**62.62**	**137**	P	**P**	**08 59 22.3**	**+0.6**
	comp=Z,9.9nm,0.6s,mb5.2,baz=319,slow=6.7,SNR=136						
ASAR				pP	pP	08 59 36.8	+3.1
	comp=Z,45nm,1.0s,baz=318,slow=6.7,SNR=15						
ASAR				LR	LR	09 30 16.3	
	comp=Z,158nm,21.1s,MS4.2,baz=313,slow=40						
KSP	**Ksiaz**	**62.70**	**316**	⇑*e*P	**P**	**08 59 21.7**	**-0.1**
KSP				*e*pP	pP	08 59 35.2	+1.4
KSP				LR	LR		
	comp=Z,2µm,24.3s,MS5.1						
KSP	**Ksiaz**	**62.70**	**316**	*e*P	**P**	**08 59 21.7**	**-0.1**
DPC	**Dobruska-Polom**	**62.74**	**316**	⇑*i*P	**P**	**08 59 22.3**	**+0.3**
DPC				*e*pP	pP	08 59 39.0	+4.9
DPC				AMS	AMS	09 29 10.0	
	comp=Z,700nm,20.4s						
MOR8	**Moi Rana**	**62.86**	**333**	*e*P	**P**	**08 59 21.0**	**-1.7**
MOR8				AMb	AMB	08 59 22.5	
	comp=Z,145nm,0.9s,mb6.1						
MOR8				*e*pP	pP	08 59 31.7	-3.0
MOR8				*e*sP	sP	08 59 37.3	-2.2
MOR8	**Moi Rana**	**62.86**	**333**	*e*P	**P**	**08 59 21.0**	**-1.7**
	comp=Z,145nm,0.9s,mb6.1						
UPC	**Upice**	**62.91**	**316**	⇑*i*P	**P**	**08 59 23.2**	**0.0**
UPC				*e*pP	pP	08 59 40.0	+4.7
BSD	**Bornholm Skovb**	**63.11**	**321**	*e*P	**P**	**08 59 23.4**	**-1.0**
BSD				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.5						
BSD	**Bornholm Skovb**	**63.11**	**321**	*e*P	**P**	**08 59 23.4**	**-1.0**
	comp=Z,35nm,0.8s,mb5.5						
BSD	**Bornholm Skovb**	**63.11**	**321**	*i* P	**P**	**08 59 23.4**	**-1.0**
	comp=Z,35nm,0.8s,mb5.5						
PMG	**Port Moresby**	**63.12**	**116**	P	**P**	**08 59 25.4**	**+0.3**
	comp=Z,21nm,0.9s,mb5.3,baz=303,slow=5.7,SNR=8.6						
PMG				pP	pP	08 59 40.4	+3.2
	comp=Z,34nm,0.7s,baz=341,slow=4.5,SNR=11						
PMG	**Port Moresby**	**63.12**	**116**	*d* *i*P	**P**	**08 59 25.4**	**+0.3**
PMG	**Port Moresby**	**63.12**	**116**	*e*P	**P**	**08 59 25.2**	**+0.1**
	comp=Z,59nm,0.8s,mb5.8						
PMG				*e*pP	pP	08 59 35.3	-1.8
PMG				*e*sP	sP	08 59 40.3	-1.6
PMG				LR	LR		
	comp=Z,217nm,19.0s,MS4.3						
LOF	**Lofoten**	**63.22**	**336**	*e*P	**P**	**08 59 25.8**	**+0.8**
LOF				AMb	AMB	08 59 26.8	
	comp=Z,137nm,0.9s,mb6.1						
LOF	**Lofoten**	**63.22**	**336**	*e*P	**P**	**08 59 25.8**	**+0.8**
	comp=Z,137nm,0.9s,mb6.1						
ARSA	**Arzberg**	**63.67**	**312**	⇑*i*P	**P**	**08 59 27.6**	**-0.6**
	comp=Z,21nm,1.1s,mb5.1						
PRU	**Pruhonice**	**63.92**	**315**	⇑*i*P	**P**	**08 59 29.9**	**+0.1**
PRU				*e**PP	pP	08 59 44.1	+2.2
PRU				pmax	pmax		
	comp=Z,72nm,1.0s,mb5.7						
PRU	**Pruhonice**	**63.92**	**315**	⇑*i*P	**P**	**08 59 29.9**	**+0.1**
	comp=Z,72nm,1.0s,mb5.7						
PRU				*e*pP	pP	08 59 44.1	+2.2
CRES	**Cresnjev**	**63.93**	**311**	*e*P	**P**	**08 59 29.9**	**0.0**
PERS	**Pernice**	**64.04**	**312**	*e*P	**P**	**08 59 30.4**	**-0.2**
RUE	**Ruedersdorf**	**64.06**	**318**	*e*P	**P**	**08 59 30.6**	**-0.1**
	comp=Z,114nm,0.9s,mb5.9						
RUE				*e*pP	pP	08 59 41.2	-1.5
BRG	**Berggiesshubel**	**64.17**	**316**	⇑*i*P	**P**	**08 59 31.6**	**+0.2**
	comp=Z,71nm,1.0s,mb5.7						
BRG				*i*	pP	08 59 45.6	+2.1
BRG				LR	LR		
	comp=Z,1µm,34.0s,MS4.8						
TIP	**Timpagrande**	**64.20**	**303**	*e*P	**P**	**08 59 30.3**	**-1.5**
TIP				*e*pP	pP	08 59 44.1	+0.2
MOA	**Molln**	**64.42**	**313**	⇑*i*P	**P**	**08 59 32.5**	**-0.5**
	comp=Z,30nm,0.9s,mb5.3						
OBKA	**Obir**	**64.44**	**312**	⇑*i*P	**P**	**08 59 33.4**	**+0.2**
	comp=Z,33nm,1.2s,mb5.2						
COP	**Copenhagen**	**64.46**	**322**	*e*P	**P**	**08 59 33.0**	**-0.2**
COP				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.6						
COP	**Copenhagen**	**64.46**	**322**	*e*P	**P**	**08 59 33.0**	**-0.2**
	comp=Z,61nm,1.0s,mb5.6						
COP	**Copenhagen**	**64.46**	**322**	*i* P	**P**	**08 59 33.0**	**-0.2**
	comp=Z,61nm,1.0s,mb5.6						
NB2	**NORSAR Subarra**	**64.53**	**328**	P	**P**	**08 59 32.8**	**-0.8**
	comp=Z,95nm,0.9s,mb5.8,baz=84,slow=6.2						
NB2	**NORSAR Subarra**	**64.53**	**328**	P	**P**	**08 59 32.8**	**-0.8**
	baz=84,slow=6.5						
NOA	**NORSAR Array B**	**64.53**	**328**	P	**P**	**08 59 32.7**	**-0.9**
	comp=Z,56nm,0.8s,mb5.6,baz=85,slow=6.6,SNR=146						
NOA				pP	pP	08 59 48.8	+3.1
	comp=Z,19nm,0.8s,baz=86,slow=6.6,SNR=6.2						
NOA	**NORSAR Array B**	**64.53**	**328**	P	**P**	**08 59 32.7**	**-0.9**
NOA				pP	pP	08 59 48.8	+3.1
GERES	**GERESS Array B**	**64.63**	**314**	P	**P**	**08 59 34.9**	**+0.5**
	comp=Z,31nm,0.8s,mb5.4,baz=76,slow=5.5,SNR=136						
GERES				pP	pP	08 59 50.6	+4.1
	comp=Z,18nm,0.7s,baz=77,slow=5.8,SNR=8.6						
CEY	**Cerknica**	**64.66**	**311**	*e*P	**P**	**08 59 34.5**	**-0.1**
CEY				*e*pP	pP	08 59 51.0	+4.2
KHC	**Kasperske Hory**	**64.66**	**314**	⇑*i*P	**P**	**08 59 34.5**	**-0.1**
KHC				*e*pP	pP	08 59 48.2	+1.4
KHC				AMS	AMS	09 29 40.0	
CLL	**Collm**	**64.70**	**317**	⇑*i*P	**P**	**08 59 34.4**	**-0.4**
CLL				*i*	pP	08 59 47.9	+1.0
CLL				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.5						
CLL	**Collm**	**64.70**	**317**	⇑*i*P	**P**	**08 59 34.4**	**-0.4**
	comp=Z,58nm,1.2s,mb5.5						
CLL				*i*		08 59 43.4	
CLL				*i*	pP	08 59 47.9	+1.0
CLL	**Collm**	**64.70**	**317**	⇑P	**P**	**08 59 34.4**	**-0.4**
	comp=Z,logA/T=1.7,mb5.5						
CLL				*i* *PP	pP	08 59 43.4	-3.5
CLL				*i* *SP	sP	08 59 47.9	-3.7
CLL				*e*		09 00 46.0	
CLL				*e*PP	PP	09 02 04.0	+4.7
NAO01	**NORSAR Array S**	**64.71**	**328**	*e*P	**P**	**08 59 33.7**	**-1.0**
	comp=Z,54nm,0.8s,mb5.6						
NAO01				*e*pP	pP	08 59 43.5	-3.4
MBAR	**Mbarara**	**64.82**	**257**	*e*P	sP	08 59 52.5	-0.5
MBAR	**Mbarara**	**64.82**	**257**	P	**P**	**08 59 34.4**	**-1.9**
	comp=Z,31nm,1.2s,mb5.2						
MBAR				*e*sP	sP	08 59 51.8	-1.2
FORT	**Forrest**	**64.83**	**146**	*e*P	**P**	**08 59 36.7**	**+0.7**
	comp=Z,42nm,0.7s,mb5.6						
JAVS	**Javornik**	**64.88**	**311**	*e*P	**P**	**08 59 35.8**	**-0.3**
OSL	**Oslo**	**64.89**	**327**	*e*P	**P**	**08 59 35.8**	**-0.1**
OSL				AMb	AMB	08 59 36.6	
	comp=Z,32nm,0.8s,mb5.4						
OSL				*e*pP	pP	08 59 46.3	-1.7
OSL	**Oslo**	**64.89**	**327**	*e*P	**P**	**08 59 35.8**	**-0.1**
	comp=Z,32nm,0.8s,mb5.4						
KBA	**Koelnbreinsper**	**65.16**	**312**	⇑*i*P	**P**	**08 59 37.3**	**-0.6**
	comp=Z,20nm,1.2s,mb5.0						
NKC	**Novy Kostel**	**65.21**	**316**	⇑*i*P	**P**	**08 59 38.3**	**+0.1**
NKC				*e*pP	pP	08 59 52.5	+2.2
NKC				AMS	AMS	09 30 20.0	
	comp=Z,800nm,25.1s						
PTCC	**Patocco-Chiusa**	**65.28**	**312**	*e*P	**P**	**08 59 38.4**	**-0.3**
FVI	**Forni Avoltri**	**65.63**	**312**	*e*P	**P**	**08 59 39.8**	**-1.1**
MOX	**Moxa**	**65.67**	**316**	*e*P	**P**	**08 59 41.0**	**-0.1**
MOX				*e*		08 59 57.6	
MOX				pmax	pmax		
	comp=Z,95nm,1.4s,mb5.6						
MOX	**Moxa**	**65.67**	**316**	⇑*i*P	**P**	**08 59 41.0**	**-0.1**
	comp=Z,logA/T=1.8,mb5.6						
MOX				pPKP		08 59 58.0	
MOX	**Moxa**	**65.67**	**316**	*e*PKP	**P**	**08 59 41.0**	**-0.1**
	comp=Z,95nm,1.4s,mb5.6						
MOX				*e*		08 59 57.6	
BSEG	**Bad Segeberg**	**65.91**	**320**	*e*P	**P**	**08 59 43.0**	**+0.4**
BSEG				pmax	pmax		
	comp=Z,115nm,1.0s,mb5.9						
AQU	**L'Aquila**	**66.04**	**307**	P	**P**	**08 59 43.4**	**-0.2**
AQU	**L'Aquila**	**66.04**	**307**	*e*P	**P**	**08 59 43.0**	**-0.6**
	comp=Z,76nm,1.3s,mb5.6						
GRA1	**Grafenberg Arr**	**66.09**	**315**	*e*P	**P**	**08 59 44.5**	**+0.8**
	comp=Z,200nm,1.4s,mb6.0						
GRA1				*e*PP	PP	09 02 07.6	-4.1
GRA1				LR	LR		
	comp=Z,600nm,21.8s,MS4.8						
GRF	**Grafenberg Arr**	**66.09**	**315**	*e*P	**P**	**08 59 44.5**	**+0.8**
GRF				*e*		09 02 07.6	
GRF				pmax	pmax		
	comp=Z,200nm,1.4s,mb6.0						
GRF				MLR	MLR		
	comp=Z,600nm,21.8s,MS4.8						
GRF	**Grafenberg Arr**	**66.09**	**315**	*e*P	**P**	**08 59 44.5**	**+0.8**
	comp=Z,200nm,1.4s,mb6.0						
GRF				*e*PP	PP	09 02 07.6	-4.1
GRF				LR	LR		
	comp=Z,600nm,21.8s,MS4.8						
MOL	**Molde**	**66.09**	**330**	*e*P	**P**	**08 59 44.6**	**+1.1**
MOL				AMb	AMB	08 59 46.2	
	comp=Z,170nm,1.7s,mb5.8						
MOL	**Molde**	**66.09**	**330**	*e*P	**P**	**08 59 44.6**	**+1.1**
	comp=Z,170nm,1.7s,mb5.8						
MUD	**Monsted U'grnd**	**66.16**	**323**	*i* P	**P**	**08 59 44.7**	**+0.6**
MUD				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.5						
MUD	**Monsted U'grnd**	**66.16**	**323**	*i* P	**P**	**08 59 44.7**	**+0.6**
	comp=Z,48nm,0.9s,mb5.5						
CLZ	**Clausthal**	**66.23**	**318**	*e*P	**P**	**08 59 44.9**	**+0.3**
	comp=Z,120nm,0.9s,mb5.9						
CLZ				*e*pP	pP	09 00 01.6	+4.8
WTTA	**Wattenberg**	**66.27**	**313**	⇑*i*P	**P**	**08 59 44.2**	**-0.8**
	comp=Z,40nm,0.9s,mb5.4						
WATA	**Walderalm**	**66.30**	**313**	⇑*i*P	**P**	**08 59 44.2**	**-0.9**
	comp=Z,27nm,1.1s,mb5.2						
FUR	**Furstenfeldbru**	**66.34**	**314**	*e*P	**P**	**08 59 45.5**	**+0.2**
FUR				pmax	pmax		
	comp=Z,115nm,1.3s,mb5.8						
FUR	**Furstenfeldbru**	**66.34**	**314**	*e*P	**P**	**08 59 45.5**	**+0.2**
	comp=Z,115nm,1.3s,mb5.8						
SQTA	**Sankt Quirin**	**66.57**	**313**	⇓*i*P	**P**	**08 59 46.0**	**-0.8**
	comp=Z,31nm,1.1s,mb5.2						
MOTA	**Moosalm**	**66.61**	**313**	⇓*i*P	**P**	**08 59 46.2**	**-0.9**
	comp=Z,23nm,1.0s,mb5.2						
SFI	**Santa Sofia**	**66.82**	**309**	*e*P	**P**	**08 59 49.7**	**+1.2**
ODD1	**Odda**	**66.93**	**327**	*e*P	**P**	**08 59 47.3**	**-1.6**
ODD1				*e*pP	pP	08 59 58.3	-2.8
HDH	**Heidenheim**	**66.95**	**314**	⇑*e*P	**P**	**08 59 48.9**	**-0.3**
VMG	**Vicchio**	**67.02**	**309**	*e*P	**P**	**08 59 51.0**	**+1.3**
BLS5	**Blasjo**	**67.10**	**326**	*e*P	**P**	**08 59 50.8**	**+0.8**
BLS5				AMb	AMB	08 59 53.4	
	comp=Z,43nm,1.7s,mb5.2						
BLS5	**Blasjo**	**67.10**	**326**	*e*P	**P**	**08 59 50.8**	**+0.8**
	comp=Z,43nm,1.7s,mb5.2						
SIND	**Sindeldorf**	**67.19**	**315**	⇑*e*P	**P**	**08 59 50.7**	**0.0**
UBR	**Uberruh**	**67.20**	**313**	*e*P	**P**	**08 59 50.4**	**-0.4**
DAVA	**Damuels**	**67.44**	**313**	⇑*i*P	**P**	**08 59 51.9**	**-0.4**
	comp=Z,67nm,1.1s,mb5.6						
BUCH	**Bad Urach**	**67.54**	**314**	⇑*e*P	**P**	**08 59 52.9**	**0.0**
STU	**Stuttgart**	**67.57**	**315**	*e*P	**P**	**08 59 53.0**	**-0.1**
STU				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.4						
STU	**Stuttgart**	**67.57**	**315**	*e*P	**P**	**08 59 53.0**	**-0.1**
	comp=Z,65nm,0.8s,mb5.7						
GSCL	**Gusciola**	**67.60**	**310**	*e*P	**P**	**08 59 54.3**	**+0.9**
TOD	**Tromm**	**67.64**	**316**	*e*P	**P**	**08 59 53.7**	**+0.2**
TOD	**Tromm**	**67.64**	**316**	⇑*e*P	**P**	**08 59 53.4**	**-0.1**
ERBM	**Eremo**	**67.71**	**310**	*e*P	**P**	**08 59 56.0**	**+1.9**
SWS	**Schriesheim**	**67.73**	**316**	*e*P	**P**	**08 59 54.5**	**+0.4**
GUT	**Gutenstein**	**67.77**	**314**	*e*P	**P**	**08 59 54.0**	**-0.4**
LBG	**Lerchenberg**	**67.85**	**315**	*e*P	**P**	**08 59 55.1**	**+0.2**
SPAK	**Spaichingen**	**67.98**	**314**	*e*P	**P**	**08 59 55.6**	**-0.1**
BFO	**Black Forest**	**68.23**	**314**	*e*P	**P**	**08 59 57.0**	**-0.2**
BFO				pmax	pmax		
	comp=Z,52nm,1.6s,mb5.3						
BFO	**Black Forest**	**68.23**	**314**	*e*P	**P**	**08 59 57.0**	**-0.2**
	comp=Z,52nm,1.6s,mb5.3						
BOB	**Bobbio (Coli)**	**68.30**	**310**	*e*P	**P**	**08 59 58.8**	**+1.1**
WTSB	**Winterswijk**	**68.38**	**318**	*e*P	**P**	**08 59 58.1**	**0.0**
	comp=Z,79nm,0.9s,mb5.7						
ABH	**Alteburg**	**68.38**	**316**	⇑*e*P	**P**	**08 59 58.4**	**+0.3**
ABH	**Alteburg**	**68.38**	**316**	⇑*e*P	**P**	**08 59 58.3**	**+0.2**
LANF	**Langenberg**	**68.42**	**315**	⇑*e*P	**P**	**08 59 58.6**	**+0.2**
VAI	**Varese**	**68.50**	**312**	*e*P	**P**	**08 59 58.5**	**-0.5**
FELD	**Feldberg**	**68.54**	**314**	⇑*e*P	**P**	**08 59 58.9**	**-0.3**
KIZ	**Kirchzarten**	**68.58**	**314**	⇑*e*P	**P**	**08 59 58.8**	**-0.6**
CTA	**Charters Tower**	**68.66**	**126**	*e*P	**P**	**09 00 01.4**	**+1.0**
	comp=Z,9.1nm,1.1s,mb4.6						
CTA				*i*		09 00 17.7	
CTA	**Charters Tower**	**68.66**	**126**	P	**P**	**09 00 01.0**	**+0.6**
	comp=Z,9.3nm,0.9s,mb4.7,baz=298,slow=6.0,SNR=6.4						
CTA				pP	pP	09 00 15.8	+3.1
	comp=Z,37nm,1.1s,baz=317,slow=7.3,SNR=11						
CTAO	**Charters Tower**	**68.66**	**126**	*e*P	**P**	**09 00 00.8**	**+0.4**
CTAO				*e**PP	pP	09 00 10.7	-1.9
CTAO				*e**SP	sP	09 00 16.0	-1.1
CTAO				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
CTAO	**Charters Tower**	**68.66**	**126**	*e*P	**P**	**09 00 00.8**	**+0.4**
	comp=Z,98nm,1.4s,mb5.5						
CTAO				*e*pP	pP	09 00 10.3	-2.3
CTAO				*e*sP	sP	09 00 15.8	-1.3
CTAO				LR	LR		
	comp=Z,296nm,20.0s,MS4.5						
RUP	**Ruppelstein**	**68.73**	**316**	*e*P	**P**	**09 00 00.7**	**+0.4**
RUP	**Ruppelstein**	**68.73**	**316**	⇑*e*P	**P**	**09 00 00.3**	**0.0**
LIBD	**Limburg**	**68.74**	**314**	*e*P	**P**	**09 00 00.8**	**+0.4**
LIBD	**Limburg**	**68.74**	**314**	*e*P	**P**	**09 00 00.3**	**-0.1**
WLS	**Welschbruch**	**68.84**	**315**	⇑*e*P	**P**	**09 00 00.7**	**-0.3**
CDF	**Champ du Feu**	**68.89**	**315**	⇑*i*P	**P**	**09 00 01.1**	**-0.2**
	comp=Z,89nm,1.0s,mb5.3						
BBS	**Basel-Blauen**	**68.97**	**314**	⇑*e*P	**P**	**09 00 01.4**	**-0.4**
BBS	**Basel-Blauen**	**68.97**	**314**	⇑*e*P	**P**	**09 00 01.6**	**-0.2**
ECH	**Echery**	**69.02**	**314**	*e*P	**P**	**09 00 01.4**	**-0.7**
MOF	**Molkenrain**	**69.12**	**314**	⇑*e*P	**P**	**09 00 02.9**	**+0.2**
PGF	**Pioggiola**	**69.16**	**308**	*e*P	**P**	**09 00 02.8**	**-0.3**
	comp=Z,86nm,0.9s,mb5.4						
HGN	**Heimansgroeve**	**69.18**	**317**	*e*P	**P**	**09 00 02.3**	**-0.8**
	comp=Z,38nm,1.1s,mb5.2						
WLF	**Walferdange**	**69.31**	**316**	*e*P	**P**	**09 00 04.6**	**+0.7**
WLF				*e**PP	pP	09 00 15.5	-0.6
WLF				*e**SP	sP	09 00 19.5	-1.1
WLF				pmax	pmax		
	comp=Z,230nm,1.2s,mb6.0						
WLF	**Walferdange**	**69.31**	**316**	*e*P	**P**	**09 00 04.6**	**+0.7**
	comp=Z,161nm,1.0s,mb5.9						
WLF				*e*pP	pP	09 00 15.5	-0.6
WLF				*e*sP	sP	09 00 20.3	-0.3
HINF	**Hinteralfeld**	**69.31**	**314**	⇑*i*P	**P**	**09 00 03.5**	**-0.4**
	comp=Z,233nm,1.7s,mb5.5						
LOMF	**Lomont**	**69.44**	**314**	*e*P	**P**	**09 00 04.2**	**-0.5**
HAU	**Haudompre**	**69.59**	**314**	*e*P	**P**	**09 00 05.4**	**-0.2**
	comp=Z,95nm,1.0s,mb5.4						
HAU				*e*R			
	comp=Z,604nm,22.5s						
THEF	**They Montfort**	**69.77**	**315**	⇑*e*P	**P**	**09 00 06.6**	**-0.1**
OG01	**Vacheresse**	**69.80**	**313**	⇑*e*P	**P**	**09 00 06.4**	**-0.5**
SBF	**Sospel**	**69.92**	**310**	*e*P	**P**	**09 00 07.5**	**-0.2**
	comp=Z,120nm,1.0s,mb5.5						
LPG	**La Plagne**	**69.97**	**312**	⇑*i*P	**P**	**09 00 08.3**	**+0.3**
	comp=Z,79nm,0.9s,mb5.3						
LPL	**La Plagne**	**69.97**	**312**	⇑*i*P	**P**	**09 00 08.4**	**+0.4**
	comp=Z,108nm,1.0s,mb5.4						
RSL	**Roselend**	**70.00**	**312**	⇑*e*P	**P**	**09 00 08.3**	**+0.1**
GIVF	**Givet**	**70.03**	**317**	*e*P	**P**	**09 00 08.5**	**+0.2**
	comp=Z,86nm,1.1s,mb5.3						
CABF	**La Chapelle**	**70.12**	**313**	*e*P	**P**	**09 00 09.1**	**+0.2**
	comp=Z,161nm,1.4s,mb5.5						
BNI	**Bardonecchia**	**70.13**	**311**	*e*P	**P**	**09 00 08.3**	**-0.7**
BNI				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.2						
BNI	**Bardonecchia**	**70.13**	**311**	*e*P	**P**	**09 00 08.2**	**-0.7**
	comp=Z,57nm,1.4s,mb5.3						
MBDF	**Montbardon**	**70.16**	**311**	*e*P	**P**	**09 00 08.6**	**-0.5**
	comp=Z,42nm,0.9s,mb5.0						
MEZF	**Maizieres J'vi**	**70.30**	**315**	*e*P	**P**	**09 00 10.2**	**+0.2**
	comp=Z,174nm,0.9s,mb5.7						
BAIF	**Baives**	**70.43**	**317**	*e*P	**P**	**09 00 11.0**	**+0.3**
	comp=Z,132nm,1.2s,mb5.5						
FRF	**La Foret Royal**	**70.56**	**310**	*e*P	**P**	**09 00 11.5**	**-0.1**
	comp=Z,72nm,0.9s,mb5.3						
OG05	**Jujurieux**	**70.69**	**313**	⇑*e*P	**P**	**09 00 12.5**	**+0.1**
LMR	**La Mourre**	**70.71**	**310**	*e*P	**P**	**09 00 12.3**	**-0.2**
	comp=Z,183nm,1.2s,mb5.6						
ORIF	**Oris-en-Rattie**	**70.71**	**311**	*e*P	**P**	**09 00 12.3**	**-0.2**
	comp=Z,30nm,0.9s,mb4.9						
ORIF				*e*R			
	comp=Z,886nm,21.9s						
SMRF	**Simiane la Rot**	**71.19**	**310**	*e*P	**P**	**09 00 15.6**	**+0.2**
	comp=Z,163nm,1.3s,mb5.5						
VIVF	**Saint-Julien-l**	**71.56**	**311**	⇑*i*P	**P**	**09 00 17.5**	**-0.1**
	comp=Z,64nm,1.0s,mb5.2						
SMF	**Signal de Mont**	**71.60**	**313**	*e*P	**P**	**09 00 17.6**	**-0.2**
	comp=Z,202nm,1.2s,mb5.6						
SSF	**Saint Saulge**	**71.70**	**314**	⇑*i*P	**P**	**09 00 18.3**	**-0.1**
	comp=Z,139nm,1.0s,mb5.6						
AVF	**Avril sur Loir**	**71.88**	**314**	⇑*i*P	**P**	**09 00 19.3**	**-0.1**
	comp=Z,129nm,1.1s,mb5.5						
PLDF	**La Plantade**	**71.94**	**313**	⇑*e*P	**P**	**09 00 21.1**	**+1.3**
HYF	**Humbligny**	**72.21**	**314**	*e*P	**P**	**09 00 21.9**	**+0.5**
AGO	**Saint Agoulin**	**72.25**	**313**	*e*P	**P**	**09 00 23.1**	**+1.5**
BGF	**Bois d'Agland**	**72.28**	**314**	⇑*i*P	**P**	**09 00 21.7**	**-0.1**
	comp=Z,103nm,1.3s,mb5.3						
LASF	**Ste Croix**	**72.34**	**311**	⇑*i*P	**P**	**09 00 22.6**	**+0.4**
	comp=Z,296nm,1.5s,mb5.7						
LBL	**Lubilhac**	**72.41**	**312**	⇑*e*P	**P**	**09 00 24.1**	**+1.5**
PYM	**Petit Puy Mans**	**72.42**	**313**	*e*P	**P**	**09 00 23.9**	**+1.3**
TCF	**Toulx Ste Croi**	**72.78**	**313**	⇑*i*P	**P**	**09 00 25.2**	**+0.4**
	comp=Z,157nm,1.1s,mb5.6						
STKA	**Stephens Creek**	**73.23**	**138**	*e*P	**P**	**09 00 27.7**	**-0.1**
	comp=Z,8.5nm,1.5s,mb4.5						
STKA				*i*		09 00 44.0	
STKA	**Stephens Creek**	**73.23**	**138**	P	**P**	**09 00 27.9**	**+0.1**
	comp=Z,5.3nm,0.7s,mb4.6,baz=319,slow=7.6,SNR=9.9						
STKA				pP	pP	09 00 42.7	+2.7
	comp=Z,11nm,0.9s,baz=302,slow=7.1,SNR=6.6						
STKA				LR	LR	09 37 33.5	
	comp=Z,181nm,20.1s,MS4.3,baz=156,slow=40						
CAF	**Calviac**	**73.30**	**312**	⇑*i*P	**P**	**09 00 28.4**	**+0.5**
	comp=Z,78nm,1.0s,mb5.3						
RJF	**Les Rejaudoux**	**73.55**	**313**	⇑*i*P	**P**	**09 00 30.0**	**+0.6**
	comp=Z,116nm,1.0s,mb5.5						
LDF	**La Druitiere**	**73.56**	**316**	⇑*i*P	**P**	**09 00 29.2**	**-0.2**
	comp=Z,82nm,0.9s,mb5.4						
MTLF	**Montolieu**	**73.70**	**311**	⇑*i*P	**P**	**09 00 30.6**	**+0.3**
	comp=Z,69nm,0.9s,mb5.3						
FLN	**La Foliniere**	**73.74**	**317**	*e*P	**P**	**09 00 30.0**	**-0.3**
GRR	**Gorron**	**74.09**	**316**	*e*P	**P**	**09 00 32.3**	**-0.1**
LFF	**La Frestale**	**74.19**	**312**	*e*P	**P**	**09 00 33.6**	**+0.5**
	comp=Z,75nm,0.8s,mb5.4						
MFF	**Saint Martin d**	**74.23**	**314**	⇑*i*P	**P**	**09 00 33.2**	**0.0**
	comp=Z,75nm,1.1s,mb5.2						
EPF	**Esparros**	**75.10**	**311**	*e*P	**P**	**09 00 37.1**	**-1.2**
	comp=Z,24nm,1.0s,mb4.8						
SGMF	**Saint Gilles**	**75.21**	**316**	*e*P	**P**	**09 00 39.2**	**+0.4**
	comp=Z,102nm,1.0s,mb5.4						
NIKO	**Nikolski**	**75.59**	**38**	*e*P	**P**	**09 00 41.8**	**+0.9**
ROSF	**Rostrenen**	**75.62**	**317**	⇑*i*P	**P**	**09 00 41.5**	**+0.3**
	comp=Z,92nm,0.9s,mb5.4						
QUIF	**Quistinic**	**75.71**	**316**	*e*P	**P**	**09 00 41.7**	**0.0**
	comp=Z,92nm,1.3s,mb5.2						
ETSF	**Etsaut**	**75.76**	**311**	⇑*i*P	**P**	**09 00 42.8**	**+0.7**
	comp=Z,50nm,0.8s,mb5.2						
SJPF	**Ste Jean**	**76.15**	**311**	*e*P	**P**	**09 00 45.1**	**+0.8**
	comp=Z,79nm,1.2s,mb5.2						
IMA	**Indian Mountai**	**76.70**	**23**	*e*P	**P**	**09 00 48.1**	**+1.1**
IMA				*e**PP	pP	09 01 01.1	+1.8
IMA				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.5						
IMA	**Indian Mountai**	**76.70**	**23**	*e*P	**P**	**09 00 48.0**	**+1.0**
	comp=Z,121nm,0.9s,mb5.8						
SUMG	**Summit**	**77.48**	**347**	*e*P	**P**	**09 00 51.5**	**+0.3**
	comp=Z,38nm,1.0s,mb5.3						
SUMG				*e*pP	pP	09 01 01.4	-2.2
CART	**Cartagena**	**78.00**	**306**	*e*P	**P**	**09 00 55.0**	**+0.2**
	comp=Z,96nm,1.0s,mb5.7						
CART				*e*pP	pP	09 01 06.9	-0.2
ESDC	**Sonseca Array**	**79.34**	**309**	P	**P**	**09 01 03.0**	**+0.9**
	comp=Z,14nm,1.1s,mb4.8,baz=58,slow=5.6,SNR=28						
ESDC				pP	pP	09 01 18.1	+3.7
	comp=Z,11nm,0.9s,baz=60,slow=5.2,SNR=8.0						
ESLA	**Sonseca Array**	**79.34**	**309**	*e*P	**P**	**09 01 02.3**	**+0.2**
	comp=Z,7.2nm,1.1s,mb4.5						
ESLA				*e*sP	sP	09 01 18.4	-0.6
COLA	**College**	**79.39**	**22**	*e*P	**P**	**09 01 02.4**	**+0.6**
MCK	**McKinley**	**79.68**	**23**	P	**P**	**09 01 04.5**	**+1.1**
MCK				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
MCK	**McKinley**	**79.68**	**23**	*e*P	**P**	**09 01 04.3**	**+0.9**
	comp=Z,23nm,0.8s,mb5.2						
MCK				*e*pP	pP	09 01 14.9	-0.9
ILAR	**Eielson Array**	**79.78**	**22**	P	**P**	**09 01 04.1**	**+0.1**
	comp=Z,28nm,0.8s,mb5.2,baz=307,slow=7.1,SNR=126						
ILAR				LR	LR	09 37 09.5	
	comp=Z,411nm,20.8s,MS4.8,baz=204,slow=36						
RSO	**Redoubt South**	**80.05**	**27**	*e*P	**P**	**09 01 06.4**	**+0.9**
PBRG	**Braganca**	**80.42**	**312**	*e*P	**P**	**09 01 08.2**	**+0.4**
	comp=Z,26nm,1.9s,mb4.8						
PBRG				*e*-		09 01 24.0	
PWA	**Palmer West**	**80.54**	**25**	*e*P	**P**	**09 01 07.9**	**-0.2**
RES	**Resolute Bay**	**80.73**	**2**	*e*P	**P**	**09 01 08.9**	**+0.1**
	comp=Z,23nm,1.1s,mb5.0						
RES				*e*pP	pP	09 01 20.1	-1.2
PMR	**Palmer**	**80.87**	**25**	*e*P	**P**	**09 01 10.1**	**+0.3**
THY	**Trims Highway**	**81.01**	**23**	*e*P	**P**	**09 01 09.1**	**-1.4**
SML	**Sawmill**	**81.05**	**25**	P	**P**	**09 01 12.2**	**+1.5**
SML	**Sawmill**	**81.05**	**25**	*e*P	**P**	**09 01 11.3**	**+0.6**
INK	**Inuvik**	**81.30**	**16**	⇑*i*P	**P**	**09 01 12.3**	**+0.4**
INK				pmax	pmax		
	comp=Z,77nm,1.0s						
INK	**Inuvik**	**81.30**	**16**	⇑*i*P	**P**	**09 01 12.3**	**+0.4**
	comp=Z,99nm,1.1s,mb5.7						
INK				*e*pP	pP	09 01 23.2	-1.1
LBTB	**Lobatse**	**81.47**	**238**	P	**P**	**09 01 15.1**	**+1.4**
LBTB				pP	pP	09 01 31.6	+5.5
LBTB	**Lobatse**	**81.47**	**238**	*e*P	**P**	**09 01 15.0**	**+1.3**
	comp=Z,8.2nm,0.8s,mb4.7						
LBTB				*e*pP	pP	09 01 27.3	+1.2
LBTB				*e*sP	sP	09 01 31.2	+0.6
MTE	**Manteigas**	**81.56**	**311**	*e*P	**P**	**09 01 14.2**	**+0.4**
	comp=Z,53nm,1.3s,mb5.3						
MTE				*e*-		09 01 30.5	
MTE	**Manteigas**	**81.56**	**311**	*e*P	**P**	**09 01 14.9**	**+1.1**
	comp=Z,52nm,0.9s,mb5.5						
MTE				*e*pP	pP	09 01 26.9	+0.7
MTE				*e*sP	sP	09 01 30.9	+0.1
PVIS	**Viseu**	**81.66**	**311**	*e*P	**P**	**09 01 15.8**	**+1.4**
	comp=Z,43nm,1.3s,mb5.2						
PVIS				*e*-		09 01 31.9	
PCBR	**Castelo Branco**	**81.75**	**310**	*e*P	**P**	**09 01 15.9**	**+1.1**
	comp=Z,30nm,1.1s,mb5.1						
PCBR				*e*-		09 01 33.0	
DIV	**Divide**	**82.44**	**25**	*e*P	**P**	**09 01 18.9**	**+1.0**
	comp=Z,93nm,0.8s,mb5.8						
DIV				*e*pP	pP	09 01 28.9	-1.4
EVO	**Evora**	**82.68**	**309**	⇑*i*P	**P**	**09 01 21.1**	**+1.4**
	comp=Z,35nm,1.0s,mb5.0						
EVO				*e*R			
	comp=Z,418nm,21.4s						
DAWY	**Dawson**	**82.72**	**20**	*e*P	**P**	**09 01 20.0**	**+0.7**
PBEJ	**Beja**	**82.80**	**308**	*e*P	**P**	**09 01 21.6**	**+1.3**
	comp=Z,32nm,1.2s,mb5.2						
BOSA	**Boshof**	**83.64**	**235**	*e*P	**P**	**09 01 25.9**	**+1.2**
	comp=Z,30nm,0.8s,mb5.5						
BOSA				*e*pP	pP	09 01 37.9	+0.6
BOSA				*e*sP	sP	09 01 42.3	+0.6
DLBC	**Dease Lake**	**89.93**	**21**	*e*P	**P**	**09 01 56.6**	**+1.9**
YKA	**Yellowknife Ar**	**90.43**	**12**	P	**P**	**09 01 57.2**	**+0.4**
	comp=Z,3.6nm,0.9s,mb4.7,baz=331,slow=4.7,SNR=38						
YKA				LR	LR	09 45 10.3	
	comp=Z,262nm,21.9s,MS4.6,baz=305,slow=37						
YKA	**Yellowknife Ar**	**90.43**	**12**	*i* P	**P**	**09 01 57.2**	**+0.3**
YKA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
YKA	**Yellowknife Ar**	**90.43**	**12**	*e*P	**P**	**09 01 57.2**	**+0.3**
CASY	**Casey**	**91.74**	**173**	PFAKE		09 02 20.0	+17
CASY				LR	LR		
	comp=Z,297nm,20.0s,MS4.7						
DBIC	**Dimbokro**	**93.91**	**279**	P	**P**	**09 02 15.5**	**+1.4**
	comp=Z,9.5nm,0.9s,mb5.2,baz=46,slow=2.4,SNR=9.9						
DBIC				pP	pP	09 02 30.3	+3.6
	comp=Z,13nm,0.8s,baz=43,slow=4.0,SNR=8.5						
DBIC	**Dimbokro**	**93.91**	**279**	*e*P	**P**	**09 02 14.7**	**+0.7**
	comp=Z,15nm,0.8s,mb5.5						
DBIC				*e*pP	pP	09 02 25.0	-1.7
DBIC				*e*sP	sP	09 02 29.9	-1.0
MAW	**Mawson**	**94.66**	**191**	LR	LR	09 38 17.0	
	comp=Z,157nm,20.7s,MS4.5,baz=47,slow=31						
MAW	**Mawson**	**94.66**	**191**	P	**P**	**09 02 16.8**	**+0.6**
FCC	**Fort Churchill**	**96.66**	**3**	P	**P**	**09 02 26.3**	**+0.8**
FCC	**Fort Churchill**	**96.66**	**3**	*e*P	**P**	**09 02 24.9**	**-0.5**
	comp=Z,8.8nm,1.2s,mb5.1						

SCHQ	**Schefferville**	**98.82**	**348**	LR	LR	09 52 09.7	
	comp=Z,294nm,18.9s,MS4.8,baz=212,slow=38						
SCHQ	**Schefferville**	**98.82**	**348**	P	**P**	**09 02 35.3**	**0.0**
	comp=Z,6.6nm,0.9s,mb5.2						
SYO	**Syowa Base**	**100.97**	**197**	⇓PP	PP	09 06 53.8	-2.4
SYO	**Syowa Base**	**100.97**	**197**	⇑PKiKP		09 07 12.6	
SNAA	**Sanae**	**114.92**	**200**	*e*	PKPdf	09 07 46.9	+12
SNAA	**Sanae**	**114.92**	**200**	PKIKP	PKPdf	09 07 36.4	+1.6
SNAA	**Sanae**	**114.92**	**200**	⇑*i*PKPdf	PKPdf	09 07 30.0	-4.8
SNAA				*e*		09 07 46.9	
ACSO	**Alum Creek Sta**	**115.25**	**356**	PFAKE		09 07 50.0	+14
ACSO				LR	LR		
	comp=Z,1μm,22.0s,MS5.5						
SDCO	**Great Sand Dun**	**115.60**	**16**	PFAKE		09 07 50.0	+13
SDCO				LR	LR		
	comp=Z,254nm,19.0s,MS4.8						
VNA2	**Neumayer--Watz**	**116.37**	**201**	*e*	PKPdf	09 07 58.3	+21
VNA2	**Neumayer--Watz**	**116.37**	**201**	⇑*i*PKPdf	PKPdf	09 07 41.8	+4.2
VNA2				*e*		09 07 58.3	
VNA1	**Neumayer--Stat**	**116.67**	**201**	*e*	PKPdf	09 07 58.3	+20
VNA1	**Neumayer--Stat**	**116.67**	**201**	⇓*i*PKPdf	PKPdf	09 07 42.4	+4.3
VNA1				*e*		09 07 58.3	
VNA3	**Neumayer Olymp**	**117.11**	**201**	*e*	PKPdf	09 07 59.3	+20
VNA3	**Neumayer Olymp**	**117.11**	**201**	⇓*i*PKPdf	PKPdf	09 07 42.9	+4.0
VNA3				*e*		09 07 59.3	
ANMO	**Albuquerque**	**117.99**	**18**	*i* PKIKP	PKPdf	09 07 43.8	+2.3
ANMO	**Albuquerque**	**117.99**	**18**	PFAKE		09 08 00.0	+19
ANMO				LR	LR		
	comp=Z,372nm,19.0s,MS5.0						
BNM	**Barren Site**	**118.69**	**18**	*e*PKPdf	PKPdf	09 07 45.5	+2.6
WVT	**Waverly**	**119.48**	**0**	PFAKE		09 08 00.0	+16
WVT				LR	LR		
	comp=Z,485nm,22.0s,MS5.1						
WMOK	**Wichita Mounta**	**119.91**	**11**	PFAKE		09 08 00.0	+15
WMOK				LR	LR		
	comp=Z,231nm,19.0s,MS4.8						
CPRX	**Cap Rock**	**120.49**	**16**	*e*PKPdf	PKPdf	09 07 47.9	+1.5
JSC	**Jenkinsville**	**121.03**	**354**	*e*PKIKP	PKPdf	09 07 48.5	+1.0
GDL2	**Guadalupe Moun**	**121.15**	**17**	*e*PKPdf	PKPdf	09 07 49.5	+1.7
JCT	**Junction City**	**123.86**	**13**	*e*PKPdf	PKPdf	09 07 54.4	+1.4
JCT				LR	LR		
	comp=Z,521nm,20.0s,MS5.2						
LTX	**Lajitas**	**124.05**	**17**	PKIKP	PKPdf	09 07 55.9	+2.5
LTX	**Lajitas**	**124.05**	**17**	*e*PKPdf	PKPdf	09 07 55.4	+2.0
LTX				LR	LR		
	comp=Z,459nm,19.0s,MS5.2						
TXAR	**Lajitas Array**	**124.05**	**17**	PKP	PKPdf	09 07 55.7	+2.2
	comp=Z,5.4nm,0.7s,baz=271,slow=1.0,SNR=56						
TXAR				pPKP		09 08 10.8	
	comp=Z,2.8nm,0.7s,baz=120,slow=0.7,SNR=6.9						
TXAR	**Lajitas Array**	**124.05**	**17**	PKP	PKPdf	09 07 55.7	+2.2
TXAR				pPKP		09 08 10.8	
DWPF	**Disney**	**127.16**	**353**	PFAKE		09 08 10.0	+10
DWPF				LR	LR		
	comp=Z,489nm,20.0s,MS5.2						
SDV	**Santo Domingo**	**142.79**	**332**	*e*PKPdf	PKPdf	09 08 25.7	-3.0
SDV				*e*pPKPdf		09 08 42.7	
SDV				LR	LR		
	comp=Z,209nm,22.0s,MS4.8						
JTS	**JuntasAbangare**	**145.12**	**356**	PKPbc	PKPbc	09 08 34.4	+1.3
	comp=Z,0.3nm,0.3s,baz=119,slow=7.0,SNR=3.0						
SAML	**Samuel**	**152.04**	**300**	*e*PKPdf	PKPdf	09 08 45.5	+1.7
SAML				*e*PKPbc	PKPdf	09 08 52.3	+8.5
CPUP	**Villa Florida**	**152.78**	**260**	PKP	PKPdf	09 08 46.9	+2.3
	comp=Z,26nm,0.5s,baz=230,slow=15,SNR=1.5						
CPUP				PKPbc	PKPdf	09 08 53.0	+8.4
	comp=Z,32nm,0.3s,baz=231,slow=15,SNR=2.6						
CPUP				PKPab	PKPab	09 09 03.4	-1.7
	comp=Z,37nm,0.5s,baz=230,slow=15,SNR=2.5						
CPUP				pPKPbc		09 09 10.1	
	comp=Z,21nm,0.4s,baz=230,slow=15,SNR=1.6						
CPUP	**Villa Florida**	**152.78**	**260**	PKPdf	PKPdf	09 08 46.7	+2.2
CPUP				PKPdf	PKPdf	09 08 53.2	+8.7
CPUP	**Villa Florida**	**152.78**	**260**	PKP	PKPdf	09 08 46.9	+2.3
CPUP				PKPbc	PKPdf	09 08 53.0	+8.4
CPUP				PKPab	PKPab	09 09 03.4	-1.7
CPUP				pPKPbc		09 09 10.1	
OTAV	**Otavalo**	**153.70**	**339**	*e*PKPdf	PKPdf	09 08 49.1	+2.9
OTAV				LR	LR		
	comp=Z,148nm,20.0s,MS4.8						
MOCB	**Mochara**	**159.62**	**275**	⇑*i*PKPdf	PKPdf	09 08 57.2	+3.7
LPAZ	**La Paz**	**160.06**	**291**	PKP	PKPdf	09 08 56.0	+1.9
	comp=Z,2.8nm,1.0s,baz=46,slow=6.2,SNR=7.9						
LPAZ				pPKP		09 09 13.2	
	comp=Z,1.9nm,0.8s,baz=93,slow=6.7,SNR=4.4						
LPAZ				PKPab	PKPab	09 09 35.8	-0.6
	comp=Z,4.0nm,0.8s,baz=41,slow=5.0,SNR=7.4						
LPAZ				pPKPab		09 09 53.5	
	comp=Z,6.7nm,1.0s,baz=98,slow=4.0,SNR=6.4						
LPAZ	**La Paz**	**160.06**	**291**	*e*PKPdf	PKPdf	09 08 55.5	+1.4
LVC	**Limon Verde**	**162.87**	**273**	PFAKE		09 09 10.0	+13
LVC				LR	LR		
	comp=Z,298nm,19.0s						

MAN 09 09:09:19.8, 15.12N×121.98E, h6^{km}, mb3.8, ML2.6, MS2.2, 2C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
POLP	**Polilio Island**	**0.39**	**186**	*e*P	Pg	09 09 28.0	+0.3
POLP						09 09 34.5	
BALP	**Baler**	**0.73**	**328**	*e*P	Pg	09 09 34.0	-0.4
BALP						09 09 48.1	
PCPH	**Palayan**	**0.96**	**297**	⇓*e*P	Pb	09 09 37.6	-0.9
PCPH				*e*S	Sb	09 09 54.0	+2.8
ARP	**Angono**	**0.99**	**234**	*e*P	Pb	09 09 38.7	-0.2
LQP	**Lukban**	**1.09**	**203**	⇑*e*P	Pb	09 09 40.3	-0.3
LQP				*e*S	Sb	09 09 56.9	+2.0
GQP	**Guinayangan**	**1.29**	**160**	⇑*i*P	Pb	09 09 43.1	-0.9
GQP				*i* S	Sb	09 10 01.2	+0.5
NBP	**Mount Natib**	**1.56**	**256**	*i* P	Pn	09 09 49.2	+1.0

CASC 09 09:25:54.1±2.9, 11.18N×87.04W, h21^{km}±13^{km}, MD3.6, 3C-4D, Near coast of Nicaragua

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COPN	**Copaltepe**	**1.09**	**24**	⇓*e*P	Pb	09 26 13.6	-0.6
COPN				*e*S	Sb	09 26 29.2	+1.3
TICN	**Ticuantepe**	**1.17**	**43**	⇑*e*P	Pn	09 26 14.2	-1.2
XAVN	**Gruta Xavier**	**1.20**	**36**	⇓*e*P	Pn	09 26 14.7	-1.1
PYN	**Poneloya**	**1.20**	**1**	⇑*e*P	Pn	09 26 16.1	+0.2
PYN				*e*S	Sb	09 26 34.2	+3.2
APON	**Apoyo**	**1.21**	**52**	⇓*e*P	Pn	09 26 14.6	-1.4
APON				*e*S	Sb	09 26 32.9	+1.5
MGAN	**Managua**	**1.24**	**39**	⇓*e*P	Pn	09 26 13.8	-2.6
MGAN				*e*S	Sb	09 26 33.3	+1.1
APYN	**Apoyeque**	**1.25**	**33**	*e*P	Pn	09 26 15.6	-1.0
MIRN	**Miramar**	**1.30**	**14**	*e*P	Pn	09 26 15.0	-2.2
MIRN				*e*S	Sb	09 26 34.2	+0.3
VCR	**Vista de Mar**	**1.74**	**127**	*e*P	Pn	09 26 24.1	+0.5
JCR	**Jicaral**	**2.31**	**125**	*e*P	Pn	09 26 32.5	+0.7
JCR				*e*S	Sn	09 27 01.0	+1.1
LAJ	**Bijagual**	**3.16**	**114**	*e*P	Pn	09 26 38.3	-5.5
LAJ				*e*S	Sn	09 27 14.5	-6.8
URSC	**Urasca**	**3.48**	**112**	⇑*e*P	Pn	09 26 46.0	-2.4

CSEM ***09*** *09:38:38.9±0.5, 67.67N×35.04E, h2^{km}, ML3.0/2, Error ellipse: s-maj=10.7km s-min=5.6km az=69.0, Mining explosion.*

NAO ***09*** *09:38:46.7±4.7, 67.60N×33.38E, ML2.5*

HEL 09 09:38:42.7±0.3, 67.66N×34.29E, ML1.9, ML2.5(NAO), Explosion, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MSF	**Maaselka**	**2.73**	**232**	*e*SB	Sb	09 40 04.3	-1.9
MSF				MSG		09 40 11.7	
	comp=Z,4.0nm,0.2s						
SGF	**Sodankyl**	**2.99**	**269**	*e*P	Pn	09 39 31.2	-1.0
SGF				*e*S	Sn	09 40 07.0	-2.3
SGF				*e*SG	Sg	09 40 15.2	-7.0
SGF				MSG		09 40 17.4	
	comp=Z,4.1nm,0.2s						
SGF	**Sodankyl**	**2.99**	**269**	P	Pn	09 39 31.2	-1.0
SGF				Sg	Sg	09 40 15.2	-7.0
	comp=Z,4.1nm,0.2s						
KEV	**Kevo**	**3.39**	**312**	*e*P	Pn	09 39 37.4	-0.5
KEV				*e*S	Sn	09 40 16.3	-3.1
KEV				*e*SG	Sg	09 40 26.4	-9.1
KEV	**Kevo**	**3.39**	**312**	S	Sn	09 40 16.2	-3.2
KEV	**Kevo**	**3.39**	**312**	P	Pn	09 39 37.3	-0.6
KEV				Sg	Sg	09 40 26.3	-9.2
ARA0	**ARCESS Array S**	**3.73**	**304**	Pn	Pn	09 39 42.0	-0.8
	baz=120,slow=16						
ARA0				Sn	Sn	09 40 24.4	-3.6
	baz=121,slow=28						
ARA0				Lg		09 40 35.9	
	baz=115,slow=28						
ARA0	**ARCESS Array S**	**3.73**	**304**	*e*P	Pn	09 39 42.0	-0.8
ARA0				*e*S	Sn	09 40 24.4	-3.6
ARA0				*e*SG		09 40 35.9	
ARA0	**ARCESS Array S**	**3.73**	**304**	P	Pn	09 39 41.9	-0.8
ARA0				Sn	Sn	09 40 24.4	-3.6
	SNR=7.2						
ARA0				Sg	Sg	09 40 35.9	-11
OUL	**Oulu**	**4.25**	**236**	*e*SG	Sg	09 40 53.1	-11
OUL				MSG		09 41 00.1	
	comp=Z,1.9nm,0.2s						
OUL	**Oulu**	**4.25**	**236**	Sg	Sg	09 40 53.1	-11
	comp=Z,1.9nm,0.2s						
KJN	**Kajaani**	**4.49**	**220**	*e*P	Pn	09 39 52.4	-1.2
KJN				*e*S	Sn	09 40 42.4	-5.0
KJN				*e*SG	Sg	09 41 00.7	-12
KJN				MSG		09 41 10.8	
	comp=Z,1.7nm,0.2s						
JOF	**Joensuu**	**4.93**	**196**	*e*P	Pn	09 39 57.1	-2.6
JOF				*e*S	Sn	09 40 51.9	-6.4
JOF				*e*SG	Sg	09 41 14.9	-12
JOF				MSG		09 41 19.4	
	comp=Z,1.2nm,0.2s						
FIA0	**FINESS Array S**	**7.17**	**213**	Sn	Sn	09 41 47.3	-7.3
	baz=30,slow=28						
FIA0				Lg		09 42 23.6	
	baz=30,slow=28						
FIA0	**FINESS Array S**	**7.17**	**213**	*e*S	Sn	09 41 47.3	-7.3
FIA0				*e*SG		09 42 23.6	

NEIC ***09*** *09:49:35.2, 32.57S×66.24W, h33^{km}, ML4.4(GUC), After GUC.*

GUC 09 09:49:35.2±0.7, 32.57S×66.24W, h33^{km}, ML4.4, 1D, San Luis Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MDZ	**Mendoza**	**2.22**	**261**	⇓*i*P	P	09 50 11.9	+1.6
MDZ				*e*		09 50 35.9	
MDZ				*i* S	S	09 50 56.7	+20
FCH	**Farellones**	**3.49**	**256**	*e*P	P	09 50 29.0	+0.6
FCH				*i* S	S	09 51 10.2	+1.2
FCH				AMP		09 51 16.9	
	comp=N,390nm,0.8s						
LMEL	**Las Melosas**	**3.56**	**248**	*e*P	P	09 50 29.4	0.0
LMEL				*i* S	S	09 51 11.2	+0.3
LMEL				AMP		09 51 20.2	
	comp=N,331nm,0.2s						
JACH	**Jahuel**	**3.67**	**267**	*e*P	P	09 50 31.6	+0.6
CLCH	**Cerro Calan**	**3.70**	**256**	*e*P	P	09 50 32.2	+0.7
CLCH				*i* S	S	09 51 14.8	+0.3
CLCH				AMP		09 51 30.1	
	comp=N,551nm,0.4s						
CHCH	**Chadas Angostu**	**3.94**	**249**	*e*P	P	09 50 34.9	+0.1
ROCH	**El Roble**	**4.04**	**263**	*e*P	P	09 50 36.7	+0.5
CMCH	**Combarbala**	**4.28**	**288**	*e*P	P	09 50 39.4	-0.3
CMCH				*i* S	S	09 51 28.4	-0.8

IDC 09 10:05:50.7±1.4, 22.74S×68.08W, h116^{km}±11^{km}, mb3.8/4, mb1 4.0/5, mb1mx3.6/13, Error ellipse: s-maj=33.0km s-min=23.5km az=98.0, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**0.78**	**279**	P	P	10 06 11.7	+1.2
	79nm,0.3s,baz=88,slow=7.0,SNR=971						
LVC				S	S	10 06 26.6	+1.1
	146nm,0.3s,baz=216,slow=20,SNR=152						
LPAZ	**La Paz**	**6.42**	**360**	P	P	10 07 23.9	-0.2
	2.3nm,0.3s,baz=186,slow=6.5,SNR=47						
LPAZ				S	S	10 08 36.1	-0.4
	baz=318,slow=14,SNR=2.2						
TXAR	**Lajitas Array**	**62.08**	**325**	P	P	10 15 59.1	-2.4
	0.7nm,1.1s,baz=132,slow=11,SNR=2.7						
DBIC	**Dimbokro**	**68.36**	**73**	P	P	10 16 39.8	-2.3
	22nm,1.4s,baz=196,slow=5.8,SNR=2.7						
ULM	**Lac du Bonnet**	**76.72**	**342**	P	P	10 17 28.9	-1.7
	1.5nm,0.6s,baz=242,slow=4.2,SNR=3.4						
YKA	**Yellowknife Ar**	**92.61**	**340**	P	P	10 18 48.8	-1.0
	0.5nm,0.5s,baz=132,slow=4.6,SNR=13						

IDC ***09*** *10:16:34.0±1.4, 2.85N×95.26W, mb4.1/8, mb1 4.4/9, mb1mx4.3/18, MS3.9/7, Ms1 3.9/7, ms1mx3.5/20, Error ellipse: s-maj=71.7km s-min=22.8km az=60.0*

BJI ***09*** *10:16:34.1, 2.60N×95.60W, h10^{km}, mB5.0, Ms4.8, Msz4.3*

NEIC ***09*** *10:16:34.1±0.6, 2.57N×95.63W, h10^{km}, mb4.3/14, Error ellipse: s-maj=19.5km s-min=8.9km az=52.0*

ISC 09 10:16:33.6±0.8, 2.8N±0.1×95.4W±0.1, h10^{km}, (h12^{km}±.0^{km}:pP-P), n46, σ1^{s}01/38, mb4.2/20, MS4.0/8, 2C-1D, Galapagos Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OTAV	**Otavalo**	**17.09**	**98**	*e*P	**P**	**10 20 38.4**	**+4.0**
	8.2nm,1.2s						
SDV	**Santo Domingo**	**25.32**	**75**	*e*P	**P**	**10 22 03.9**	**+1.6**
	18nm,1.4s,mb4.4						
HKT	**Hockley**	**27.02**	**359**	P	**P**	**10 22 17.0**	**-1.0**
	4.5nm,1.0s,mb4.0						
LTX	**Lajitas**	**27.56**	**344**	*e*P	**P**	**10 22 23.0**	**+0.1**
	5.2nm,0.9s,mb4.2						
TXAR	**Lajitas Array**	**27.56**	**344**	P	**P**	**10 22 23.6**	**+0.7**
	2.4nm,0.8s,mb3.9,baz=162,slow=11,SNR=31						
TXAR				PcP	PcP	10 25 39.5	-1.6
	0.6nm,1.1s,baz=135,slow=3.5,SNR=3.4						
TXAR				LR	LR	10 31 45.7	
	comp=Z,216nm,21.2s,MS3.7,baz=165,slow=33						
JCT	**Junction City**	**27.86**	**352**	P	**P**	**10 22 24.8**	**-0.8**
GDL2	**Guadalupe Moun**	**30.46**	**345**	*e*P	**P**	**10 22 49.2**	**+0.4**
WMOK	**Wichita Mounta**	**31.95**	**355**	*e*P	**P**	**10 23 01.6**	**-0.4**
	2.1nm,0.8s,mb4.0						
OXF	**Oxford**	**32.05**	**9**	*e*P	**P**	**10 23 02.9**	**+0.1**
	23nm,1.0s,mb5.0						
SJG	**San Juan**	**32.42**	**60**	P	**P**	**10 23 03.2**	**-3.0**
	24nm,1.0s,mb5.0						
LPAZ	**La Paz**	**32.91**	**126**	P	**P**	**10 23 11.2**	**+0.7**
	5.8nm,1.2s,mb4.4,baz=309,slow=9.6,SNR=6.8						
BNM	**Barren Site**	**32.93**	**343**	*e*P	**P**	**10 23 10.9**	**+0.5**
ANMO	**Albuquerque**	**33.62**	**343**	P	**P**	**10 23 17.3**	**+0.7**
	2.5nm,1.1s,mb4.1,baz=164,slow=7.9,SNR=6.9						
ANMO	**Albuquerque**	**33.62**	**343**	*e*P	**P**	**10 23 16.8**	**+0.2**
	2.5nm,0.9s,mb4.1						
WVT	**Waverly**	**33.90**	**11**	*e*P	**P**	**10 23 18.7**	**-0.2**
	7.8nm,1.0s,mb4.6						
SDCO	**Great Sand Dun**	**36.02**	**346**	*e*P	**P**	**10 23 36.3**	**-0.7**
	5.2nm,1.2s,mb4.3						
LVC	**Limon Verde**	**36.10**	**136**	LR	LR	10 33 51.2	
	comp=Z,53nm,20.9s,MS3.3,baz=302,slow=29						
PV01	**Paradox Valley**	**37.20**	**343**	*e*P	**P**	**10 23 47.6**	**+0.6**
PV10	**Paradox Valley**	**37.57**	**342**	*e*P	**P**	**10 23 49.8**	**-0.3**
BGU	**Big Grassy Mou**	**41.18**	**340**	*e*P	**P**	**10 24 20.6**	**+0.6**
NVAR	**Mina Array Bea**	**41.21**	**332**	P	**P**	**10 24 21.6**	**+1.3**
	1.5nm,0.8s,mb3.7,baz=147,slow=9.2,SNR=12						
HWUT	**Hardware Ranch**	**41.30**	**342**	*e*P	**P**	**10 24 21.6**	**+0.6**
	6.9nm,1.1s,mb4.2						
PDAR	**Pinedale Array**	**41.78**	**344**	P	**P**	**10 24 25.6**	**+0.7**
	3.4nm,0.8s,mb4.0,baz=159,slow=7.5,SNR=23						
PDAR				LR	LR	10 41 07.2	
	comp=Z,315nm,18.2s,MS4.2,baz=94,slow=35						
ELK	**Elko**	**41.84**	**337**	*e*P	**P**	**10 24 26.1**	**+0.7**
	4.2nm,1.1s,mb4.0						
MCMT	**McKenzie Canyo**	**44.62**	**342**	*e*P	**P**	**10 24 48.7**	**+0.7**
ULM	**Lac du Bonnet**	**47.29**	**360**	P	**P**	**10 25 08.8**	**-0.3**
	3.1nm,0.7s,mb4.3,baz=178,slow=7.2,SNR=7.9						
ULM				LR	LR	10 45 06.0	
	comp=Z,191nm,21.2s,MS4.0,baz=287,slow=36						
ULM	**Lac du Bonnet**	**47.29**	**360**	P	**P**	**10 25 08.8**	**-0.3**
ULM				LR	LR	10 45 06.0	
FCC	**Fort Churchill**	**55.83**	**1**	P	**P**	**10 26 08.3**	**-5.0**
	6.1nm,1.1s,mb4.5						
SCHQ	**Schefferville**	**56.83**	**19**	LR	LR	10 51 58.8	
	comp=Z,129nm,19.3s,MS4.0,baz=290,slow=37						
YKA	**Yellowknife Ar**	**61.27**	**350**	P	**P**	**10 26 49.3**	**-2.0**
	0.7nm,0.9s,mb3.8,baz=155,slow=6.5,SNR=6.6						
YKA	**Yellowknife Ar**	**61.27**	**350**	P	**P**	**10 26 49.3**	**-2.0**
INK	**Inuvik**	**70.32**	**346**	P	**P**	**10 27 48.5**	**-0.6**
	4.8nm,1.0s,mb4.4,baz=144,slow=7.4,SNR=6.4						
INK	**Inuvik**	**70.32**	**346**	*e*P	**P**	**10 27 48.1**	**-1.0**
	7.8nm,1.1s,mb4.5						
ILAR	**Eielson Array**	**71.94**	**339**	P	**P**	**10 27 57.5**	**-1.5**
	1.3nm,0.8s,mb3.9,baz=173,slow=4.2,SNR=9.7						
ILAR				LR	LR	10 59 25.7	
	comp=Z,157nm,18.9s,MS4.3,baz=169,slow=36						
VNA3	**Neumayer Olymp**	**91.23**	**161**	*e*	**P**	**10 29 37.7**	**-2.2**
VNA3	**Neumayer Olymp**	**91.23**	**161**	⇓*i*P	**P**	**10 29 34.0**	**-5.9**
VNA3				*e*	pP	10 29 37.7	-5.4
VNA3				*e*		10 33 18.5	
VNA1	**Neumayer--Stat**	**91.64**	**161**	*e*	**P**	**10 29 42.6**	**+0.8**
VNA1	**Neumayer--Stat**	**91.64**	**161**	⇑*i*P	**P**	**10 29 38.9**	**-3.0**
VNA1				*e*	pP	10 29 42.6	-2.5
VNA1				*e*		10 33 23.0	
VNA2	**Neumayer--Watz**	**91.94**	**161**	*e*	**P**	**10 29 46.3**	**+3.1**
VNA2	**Neumayer--Watz**	**91.94**	**161**	⇑*i*P	**P**	**10 29 42.6**	**-0.6**
VNA2				*e*	pP	10 29 46.3	-0.2
VNA2				*e*		10 33 27.0	
SNAA	**Sanae**	**93.42**	**162**	LR	LR	11 04 17.1	
	comp=Z,24nm,19.1s,MS3.7,baz=4.4,slow=31						
ASAR	**Alice Springs**	**128.10**	**242**	PKP	PKPdf	10 35 43.9	-0.3
	0.6nm,1.0s,baz=127,slow=1.7,SNR=4.0						
SSE	**Sheshan**	**131.57**	**317**	*e*PKP	PKPdf	10 35 49.1	-1.5
NJ2	**Nanjing**	**132.53**	**320**	*e*PKP	PKPdf	10 35 48.1	-4.3
WMQ	**Urumqi**	**133.52**	**357**	PKP	PKPdf	10 35 54.5	+0.7
WMQ				PP	PP	10 38 25.2	+2.1
WMQ				PP	PP		
	comp=Z,59nm,8.2s						
WMQ				LR	LR		
	comp=N,64nm,20.5s,MS4.5						
WMQ				LR	LR		
	comp=E,69nm,18.3s,MS4.5						
WMQ				LR	LR		
	comp=Z,52nm,19.0s,MS4.3						
LZH	**Lanzhou**	**137.37**	**337**	*e*PKP	PKPdf	10 35 56.7	-4.4
LZH				sPKP		10 36 11.1	

DJA 09 10:35:24.9±1.3, 4.13S×122.12E, h36^{km}±181^{km}, MD4.5/3, ML3.7/2, 2C-3D, Error ellipse: s-maj=38.7km s-min=34.6km az=114.0, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BUNI	**Buntu Taipa**	**1.85**	**285**	⇑*i*Pn	P	10 35 53.5	-1.3
	64nm,0.2s						
NINI	**Niniconang**	**2.38**	**263**	⇓*i*Pn	P	10 36 00.5	-1.8
NINI				⇓*e*Sn	S	10 36 29.4	-1.1
TANI	**Tanete Lipujan**	**2.82**	**284**	⇑*i*Pn	P	10 36 07.9	-0.7
	25nm,0.3s						
TANI				⇓*i*Sn	S	10 36 36.4	-5.3

IDC 09 10:35:53.9±1.5, 2.93N×95.47W, mb3.8/6, mb1 4.1/6, mb1mx3.9/16, MS3.7/4, Ms1 3.7/4, ms1mx3.3/21, Error ellipse: s-maj=77.9km s-min=26.4km az=60.0, Galapagos Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	**27.39**	**344**	P	P	10 41 42.4	-0.8
	1.1nm,0.7s,baz=161,slow=10,SNR=19						
TXAR				LR	LR	10 51 20.0	
	comp=Z,148nm,20.1s,baz=105,slow=34						
LPAZ	**La Paz**	**33.09**	**126**	P	P	10 42 32.8	-1.0
	0.6nm,0.6s,baz=319,slow=13,SNR=2.3						
LPAZ				LR	LR	10 54 08.9	
	comp=Z,46nm,21.3s,baz=75,slow=33						
NVAR	**Mina Array Bea**	**41.03**	**332**	P	P	10 43 39.5	-1.1
	0.5nm,0.6s,baz=145,slow=8.5,SNR=5.0						
PDAR	**Pinedale Array**	**41.61**	**344**	P	P	10 43 44.2	-1.1
	1.3nm,0.8s,baz=156,slow=7.6,SNR=9.8						
ULM	**Lac du Bonnet**	**47.15**	**360**	P	P	10 44 27.0	-2.9
	1.7nm,0.7s,baz=181,slow=3.3,SNR=4.4						
BDFB	**Brasilia**	**50.43**	**113**	LR	LR	11 04 44.6	
	comp=Z,52nm,18.7s,baz=108,slow=34						
ILAR	**Eielson Array**	**71.77**	**339**	P	P	10 47 16.8	-3.1
	0.6nm,0.8s,baz=144,slow=2.9,SNR=6.1						
RPZ	**Rata Peaks**	**94.52**	**227**	LR	LR	11 21 16.7	
	comp=Z,146nm,18.1s,baz=150,slow=29						
ASAR	**Alice Springs**	**128.06**	**242**	PKP	PKPdf	10 55 02.7	-2.1
	0.3nm,0.7s,baz=47,slow=1.9,SNR=4.1						

DJA 09 10:46:54.3±0.8, 8.61S×115.05E, h111^{km}±7^{km}, MD4.7/4, ML3.2/1, 3C-5D, Error ellipse: s-maj=33.4km s-min=7.3km az=8.0, Bali region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RATI	**Rata**	**0.49**	**103**	⇓*i*Pn	P	10 47 11.2	-0.2
	131nm,0.2s						
RATI				⇓*i*Sn	S	10 47 23.5	-0.7
KELI	**Kelakatan**	**0.68**	**306**	⇑*i*Pn	P	10 47 12.7	0.0
KELI				⇓*i*Sn	S	10 47 26.0	-0.7
SRDI	**Scrawed**	**0.91**	**278**	⇑*i*Pn	P	10 47 14.4	-0.6
	41nm,0.2s						
SRDI				⇓*i*Sn	S	10 47 28.8	-1.6
KEDI	**Kedomdong**	**1.06**	**83**	⇑*i*Pn	P	10 47 15.8	-0.7
KEDI				⇓*i*Sn	S	10 47 31.2	-2.0

IDC 09 11:07:09.3±2.6, 0.00S×135.99E, mb3.3/2, mb1 3.3/3, mb1mx3.3/15, ML3.0/1, Error ellipse: s-maj=128.0km s-min=28.7km az=82.0, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**19.88**	**185**	P	P	11 11 41.4	-3.8
	0.0nm,0.3s,baz=6.7,slow=12,SNR=4.8						
ASAR	**Alice Springs**	**23.61**	**185**	P	P	11 12 22.9	-0.1
	0.4nm,0.4s,baz=7.4,slow=12,SNR=7.5						
SONM	**Songino Array**	**54.14**	**336**	P	P	11 16 36.2	-2.2
	0.4nm,0.9s,baz=137,slow=7.5,SNR=3.5						

NEIC ***09*** *11:21:00.3, 45.09S×167.33E, h83^{km}, ML4.3(WEL), After WEL.*

WEL ***09*** *11:21:00.3±0.2, 45.12S×167.36E, h88^{km}±1^{km}, ML4.4/7, Error ellipse: s-maj=1.8km s-min=1.4km az=90.0*

WEL Felt between Otago, Southland and Fiordland, maximum reported intensity MM 4.

ISC 09 11:20:58.8±0.6, 45.07S±0.05×167.47E±0.08, h98^{km}±4^{km}, n38, σ1^{s}17/53, 7C-3D, South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	**0.47**	**208**	⇑PN	**P**	**11 21 13.7**	**-0.6**
DCZ				SN	**S**	**11 21 23.6**	**-2.2**
DCZ				SN	**S**	**11 21 24.0**	**-1.8**
MSZ	**Milford Sound**	**0.51**	**40**	⇑PN	**P**	**11 21 15.8**	**+1.1**
MSZ				SN	**S**	**11 21 27.2**	**+0.8**
MLZ	**Mavora Lakes**	**0.57**	**120**	P	**P**	**11 21 15.6**	**+0.5**
MLZ				S	**S**	**11 21 26.8**	**-0.4**
MLZ	**Mavora Lakes**	**0.57**	**120**	⇓PN	**P**	**11 21 15.6**	**+0.5**
MLZ				SN	**S**	**11 21 26.8**	**-0.4**
WHZ	**Wether Hill Ro**	**0.89**	**158**	P	**P**	**11 21 18.4**	**+0.3**
WHZ				S	**S**	**11 21 31.7**	**-0.9**
WHZ	**Wether Hill Ro**	**0.89**	**158**	PN	**P**	**11 21 18.4**	**+0.3**
WHZ				SN	**S**	**11 21 31.7**	**-0.9**
WKZ	**Wanaka**	**1.13**	**78**	P	**P**	**11 21 22.6**	**+1.8**
WKZ				S	**S**	**11 21 37.7**	**+0.4**
WKZ	**Wanaka**	**1.13**	**78**	⇓PN	**P**	**11 21 22.6**	**+1.7**
WKZ				SN	**S**	**11 21 38.4**	**+1.1**
EAZ	**Earnscleugh**	**1.31**	**98**	P	**P**	**11 21 24.5**	**+1.4**
EAZ	**Earnscleugh**	**1.31**	**98**	PN	**P**	**11 21 24.5**	**+1.4**
EAZ				SN	**S**	**11 21 41.5**	**+0.4**
JCZ	**Jackson Bay**	**1.35**	**43**	P	**P**	**11 21 24.9**	**+1.3**
JCZ	**Jackson Bay**	**1.35**	**43**	⇑PN	**P**	**11 21 24.9**	**+1.3**
TUZ	**Tuapeka**	**1.76**	**121**	P	**P**	**11 21 29.5**	**+0.8**
TUZ	**Tuapeka**	**1.76**	**121**	PN	**P**	**11 21 29.5**	**+0.9**
TUZ				SN	**S**	**11 21 50.9**	**+0.2**
LBZ	**Lake Benmore**	**2.05**	**72**	P	**P**	**11 21 32.9**	**+0.4**
LBZ	**Lake Benmore**	**2.05**	**72**	PN	**P**	**11 21 32.9**	**+0.4**
LBZ				SN	**S**	**11 21 57.3**	**-0.1**
FOZ	**Fox Glacier**	**2.19**	**47**	PN	**P**	**11 21 35.7**	**+1.3**
RPZ	**Rata Peaks**	**2.91**	**64**	P	**P**	**11 21 43.5**	**-0.7**
RPZ	**Rata Peaks**	**2.91**	**64**	⇓PN	**P**	**11 21 43.5**	**-0.7**
RPZ				SN	**S**	**11 22 17.1**	**-1.2**
WVZ	**Waitaha Valley**	**3.08**	**51**	*e*P	**P**	**11 21 45.9**	**-0.8**

WVZ	Waitaha Valley	3.08	51	PN	P	11 21 45.9	-0.7
MQZ	McQueen's Vall	3.96	72	*e*P	P	11 21 57.7	-0.9
MQZ	McQueen's Vall	3.96	72	PN	P	11 21 57.7	-1.0
MQZ				SN	S	11 22 39.0	-5.1
CRLZ	Canterbury Las	3.99	70	PN	P	11 21 57.7	-1.3
CRLZ				SN	S	11 22 40.6	-4.3
LTZ	Lake Taylor	4.15	58	*e*P	P	11 21 59.9	-1.4
LTZ	Lake Taylor	4.15	58	PN	P	11 21 59.7	-1.6
DSZ	Denniston Nort	4.58	45	*e*P	P	11 22 07.1	-0.1
DSZ	Denniston Nort	4.58	45	PN	P	11 22 06.3	-0.9
KHZ	Kahutara	5.13	61	*e*P	P	11 22 13.5	-1.2
KHZ	Kahutara	5.13	61	PN	P	11 22 13.5	-1.2
THZ	Tophouse	5.16	52	*e*P	P	11 22 13.0	-2.0
THZ	Tophouse	5.16	52	PN	P	11 22 13.0	-2.0
QRZ	Quartz Range	5.63	43	PN	P	11 22 22.0	+0.6
NNZ	Nelson	5.79	50	PN	P	11 22 24.1	+0.5
SNAA	Sanae	63.37	183	⇑*i*	P	11 31 19.3	0.0
VNA3	Neumayer Olymp	63.98	181	⇑*i*	P	11 31 25.9	+2.7
VNA2	Neumayer--Watz	64.26	182	⇑*i*	P	11 31 27.3	+2.3
VNA1	Neumayer--Stat	64.56	182	⇑*i*	P	11 31 24.5	-2.4

NAO ***09*** *11:58:26.2±1.8, 68.07N×32.04E, ML2.4*

HEL 09 11:58:22.2±0.1**, 68.10N×32.95E, ML1.7, ML1.7**(BER), **ML2.4**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SGF	Sodankyl	2.53	258	*e*P	Pn	11 59 04.4	-0.8
SGF				*e*S	Sn	11 59 35.5	-1.7
SGF				*e*SG	Sg	11 59 39.9	-6.5
SGF				MSG		11 59 45.2	
	comp=Z,2.7nm,0.2s						
MSF	Maaselka	2.68	217	*e*P	Pn	11 59 06.5	-0.8
MSF				*e*S	Sn	11 59 38.8	-2.2
MSF				MSG		11 59 54.1	
	comp=Z,1.5nm,0.2s						
KEV	Kevo	2.72	311	*e*P	Pn	11 59 07.1	-0.8
KEV				*e*S	Sn	11 59 39.6	-2.3
ARA0	ARCESS Array S	3.06	302	Pn	Pn	11 59 11.9	-1.0
	baz=122,slow=14						
ARA0				Pg	Pg	11 59 16.3	-7.1
	baz=115,slow=16						
ARA0				Sn	Sn	11 59 48.1	-2.7
	baz=120,slow=18						
ARA0				Lg		11 59 53.9	
	baz=116,slow=28						
ARA0				Rg		12 00 06.6	
	baz=115,slow=28						
ARA0	ARCESS Array S	3.06	302	*e*P	Pn	11 59 11.9	-1.0
ARA0				*e*PG	Pg	11 59 16.3	-7.1
ARA0				*e*S	Sn	11 59 48.1	-2.7
ARA0				*e*SB		11 59 53.9	
ARA0				*e*RG		12 00 06.6	
KTK1	Kautokeino	3.69	289	*e*P	Pn	11 59 19.9	-1.7
KTK1				AML	AML	12 00 22.4	
	comp=Z,4.4nm,0.1s						
OUL	Oulu	4.13	226	*e*SG	Sg	12 00 30.0	-10
OUL				MSG		12 00 36.2	
	comp=Z,1.5nm,0.2s						
KJN	Kajaani	4.56	210	*e*SG	Sg	12 00 42.0	-12
KJN				MSG		12 00 49.7	
	comp=Z,0.8nm,0.2s						
JOF	Joensuu	5.25	188	*e*SG	Sg	12 01 03.5	-13
FIA0	FINESS Array S	7.29	207	Pn	Pn	12 00 09.8	-2.8
	baz=27,slow=12						
FIA0				Lg		12 02 12.1	
FIA0	FINESS Array S	7.29	207	*e*P	Pn	12 00 09.8	-2.8
FIA0				*e*		12 02 12.1	

HEL ***09*** *12:37:36.7±0.2, 56.29N×22.99E, ML2.3, ML2.7(NAO), Explosion*

CSEM ***09*** *12:37:39.3±0.7, 56.68N×22.71E, h2^{km}, ML2.3, Error ellipse: s-maj=14.7km s-min=6.3km az=156.0, Mining explosion.*

NAO ***09*** *12:37:40.5±6.8, 56.56N×22.81E, ML2.7*

ISC 09 12:37:43.9±1.5**, 57.01N**±0.07×**22.61E**±0.09**, n19,** σ1^{s}**55**/35**,** **Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSU	Vasula	2.65	55	*e*SB	Sb	12 39 05.5	+0.2
VSU				*e*SG	Sg	12 39 07.8	-4.4
VSU	Vasula	2.65	55	Sg	Sg	12 39 07.8	-4.4
PVF	Pernaja	3.93	24	*e*S	Sn	12 39 38.0	+3.5
PVF				*e*SG	Sg	12 39 55.8	+1.0
PVF				MSG		12 39 59.1	
	comp=Z,6.5nm,0.3s						
PVF	Pernaja	3.93	24	S	Sn	12 39 37.9	+3.5
FIA0	FINESS Array S	4.79	20	Pn	Pn	12 38 58.5	-0.6
	baz=196,slow=12						
FIA0				Sn	Sn	12 39 58.5	+2.2
	baz=193,slow=28						
FIA0				Lg		12 40 23.5	
	baz=200,slow=28						
FIA0	FINESS Array S	4.79	20	*e*P	Pn	12 38 58.7	-0.4
FIA0				*e*S	Sn	12 39 58.4	+2.1
FIA0				*e*SG		12 40 23.2	
FIA0				MSG		12 40 35.9	
	comp=Z,5.0nm,0.4s						
FIA0	FINESS Array S	4.79	20	P	Pn	12 38 58.7	-0.4
FIA0				S	Sn	12 39 58.3	+2.1
KEF	Keuruu	5.30	12	*e*P	Pn	12 39 06.5	+0.2
KEF				*e*S	Sn	12 40 13.1	+4.0
KEF				*e*SG	Sg	12 40 40.5	0.0
KEF				MSG		12 40 45.9	
	comp=Z,2.1nm,0.4s						
KEF	Keuruu	5.30	12	P	Pn	12 39 06.4	+0.1
KEF				S	Sn	12 40 13.0	+3.9
KAF	Kangasniemi	5.46	19	*e*P	Pn	12 39 07.7	-0.8
KAF				*e*S	Sn	12 40 14.6	+1.7
KAF				*e*SG	Sg	12 40 43.6	-2.0
KAF				MSG		12 40 50.6	
	comp=Z,2.0nm,0.4s						
KAF	Kangasniemi	5.46	19	P	Pn	12 39 07.6	-0.8
KAF				S	Sn	12 40 14.5	+1.6
HFS	Hagfors	5.62	308	Pn	Pn	12 39 09.3	-1.4
	baz=125,slow=14						
HFS				Sn	Sn	12 40 19.0	+2.0
	baz=115,slow=28						
HFS				Lg		12 40 47.8	
	baz=125,slow=37						
HFS	Hagfors	5.62	308	*e*P	Pn	12 39 09.3	-1.4
HFS				*e*S	Sn	12 40 19.0	+2.0
HFS				*e*SG		12 40 47.8	
HFS	Hagfors	5.62	308	Sg	Sg	12 40 47.8	-3.2
HFS	Hagfors	5.62	308	P	Pn	12 39 09.3	-1.4
HFS				S	Sn	12 40 18.9	+1.9
SUF	Sumiainen	6.00	16	*e*S	Sn	12 40 28.3	+1.7
SUF				*e*SG	Sg	12 41 01.1	-2.7
SUF				MSG		12 41 07.8	
	comp=Z,2.2nm,0.4s						
SUF	Sumiainen	6.00	16	S	Sn	12 40 28.2	+1.6
VAF	Ylistaro	6.06	0	*e*SG	Sg	12 41 05.2	-0.4
JOF	Joensuu	7.36	33	*e*S	Sn	12 40 57.8	-2.7
JOF				*e*SG	Sg	12 41 37.7	-11
JOF				MSG		12 41 45.7	
	comp=Z,1.9nm,0.4s						

CASC 09 12:39:29.6±3.5**, 14.67N×90.72W, h6^{km}**±8^{km}**, MD3.8, ML4.2, 7C-2D, Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GCG	Guatemala City	0.20	114	⇑*e*P	Pg	12 39 33.7	0.0
GCG				*e*S	Sg	12 39 37.4	+1.0
GCG				AML	AML	12 39 38.1	
	comp=E,14µm,0.5s						
FUG	Fuego 3	0.25	208	*e*P	Pg	12 39 34.6	0.0
PCG	Pacaya	0.29	158	*e*P	Pg	12 39 35.8	+0.2
PCG				*e*S	Sg	12 39 40.7	+1.2
IXG	Ixpaco	0.55	152	*e*P	Pg	12 39 40.5	-0.1
IXG				*e*S	Sg	12 39 50.4	+2.3
IXG				AML	AML	12 39 51.5	
	comp=N,9µm,0.3s						
JAT	Jato	0.95	249	⇑*e*P	Pb	12 39 48.3	+0.2
JAT				*e*S	Sb	12 40 03.8	+3.0
JAT				AML	AML	12 40 04.2	
	comp=N,328µm,0.2s						
RBDL	Robledal	1.14	119	⇓*e*P	Pb	12 39 50.9	-0.5
RBDL				*e*S	Sb	12 40 06.6	+0.2
RTR	El Retiro	1.29	126	⇑*e*P	Pb	12 39 53.7	-0.3
SNJE	San Jose	1.34	126	⇑*e*P	Pb	12 39 54.5	-0.3
SNJE				*e*S	Sb	12 40 12.8	+0.7
MTO2	Montecristo 2	1.34	101	⇑*e*P	Pb	12 39 53.9	-1.0
MTO2				*e*S	Sb	12 40 12.4	+0.2
SBLS	San Blas	1.34	128	⇑*e*P	Pb	12 39 54.2	-0.7
BOQS	Boqueron	1.68	123	*e*P	Pn	12 40 00.0	+0.2
LFRS	El Faro	1.91	123	⇓*e*P	Pn	12 40 04.0	+0.8
LCBS	La Ceiba	1.97	121	⇑*e*P	Pn	12 40 04.6	+0.7
CAHU	Cacacuatique	2.59	110	*e*P	Pn	12 40 15.1	+2.3

MOS ***09*** *13:11:53.1±1.0, 6.72S×130.13E, h33^{km}, mb5.6/9, Error ellipse: s-maj=19.0km s-min=8.6km az=105.9*

BJI ***09*** *13:12:00.5, 6.87S×130.38E, h113^{km}, mB5.3, mb5.3*

NEIC ***09*** *13:12:02.8±0.7, 6.78S×130.23E, h105^{km}±6^{km}, mb5.3/43, Error ellipse: s-maj=5.3km s-min=4.3km az=59.0*

HRVD ***09*** *13:12:02.8±0.5, 6.93S×130.14E, h116^{km}±5^{km}, MW5.0/40, Centroid moment Tensor Solution. LP body waves: s13,c15;Mantle waves: s40,c72; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.73±.18; M$_{\theta\theta}$-2.21±.16; M$_{\phi\phi}$0.48±.21; M$_{r\theta}$1.21±.11; M$_{\theta\phi}$1.99±.17; M$_{\phi r}$1.40±.16; Best double couple: M$_0$3.38×10^{16} NP1:ϕ_s332°,δ54°,λ147°. NP2:ϕ_s83°,δ63°,λ41°. Principal axes: T 3.45, Plg47°, Azm302°; N -.15, Plg43°, Azm111°; P -3.31, Plg5°, Azm206°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***09*** *13:12:02.7, 6.79S×130.25E, h105^{km}, MB5.4*

IDC ***09*** *13:12:04.7±1.7, 6.79S×130.08E, h115^{km}±14^{km}, mb4.7/13, mb1 4.8/17, mb1mx4.8/18, MS3.8/7, Ms1 3.7/7, ms1mx3.4/22, Error ellipse: s-maj=18.8km s-min=9.6km az=57.0*

DJA ***09*** *13:12:14.9±0.3, 6.70S×130.83E, h500^{km}, mb5.4/8, Error ellipse: s-maj=29.5km s-min=8.6km az=169.0*

ISC 09 13:12:01.0±0.7**, 6.93S**±0.03×**130.31E**±0.04**, h110**^{km}±7^{km}**, h88**^{km}±5.2^{km}**:pP-P, n228,** σ1^{s}**23**/195**, mb5.2**/66**, 22C-24D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.12	160	⇓*i*P	P	13 13 31.4	+1.2
	815nm,0.5s						
KAKA				*e*S	S	13 14 38.3	-1.1
BUNI	Buntu Taipa	10.46	288	⇓*i*P	P	13 14 41.3	+12
	88nm,0.7s						
NINI	Niniconang	10.79	283	⇑*e*P	P	13 14 47.0	+13
	589nm,1.0s						
YOMI	Yo Moklole	11.06	68	⇓*e*P	P	13 14 38.8	+1.6
	359nm,0.6s						
TANI	Tanete Lipujan	11.42	287	⇓*e*P	P	13 14 53.6	+12
	21µm,0.7s						
TANI	Tanete Lipujan	11.42	287	⇓*e*P	P	13 14 53.6	+12
	21µm,0.7s						
FITZ	Fitzroy Crossi	12.00	202	⇓*i*P	P	13 14 46.6	-3.0
	163nm,0.4s						
FITZ				*e*S	S	13 16 50.8	-11
FITZ	Fitzroy Crossi	12.00	202	P	P	13 14 46.7	-2.8
	29nm,0.3s,baz=26,slow=8.5,SNR=195						
FITZ				S	S	13 16 50.7	-11
	17nm,0.3s,baz=193,slow=4.6,SNR=5.7						
FITZ				LR	LR	13 20 00.2	
	comp=Z,193nm,20.8s,baz=52,slow=40						
WRAB	Tennant Creek	13.51	164	*i* P	P	13 15 07.7	-1.6
WRAB	Tennant Creek	13.51	164	*e*P	P	13 15 07.1	-2.2
	194nm,0.7s						
WRA	Warramunga Arr	13.51	164	P	P	13 15 07.5	-1.9
	16nm,0.3s,baz=339,slow=13,SNR=430						
WRA				S	S	13 17 26.7	-10
	70nm,0.3s,baz=334,slow=24,SNR=17						
WB2	Warramunga Arr	13.52	164	⇓*i*P	P	13 15 07.1	-2.3
WB2				*e*S	S	13 17 25.7	-12
KEDI	Kedomdong	14.15	263	⇓*i*P	P	13 15 18.0	+0.3
KEDI	Kedomdong	14.15	263	⇓*i*P	P	13 15 22.5	+4.8
MATI	Mati	14.37	344	*e*P	P	13 15 24.8	+4.4
RATI	Rata	14.75	262	⇑*i*P	P	13 15 27.1	+1.8
	148nm,0.2s						
KCP	Kidapawan	14.79	339	⇓*e*P	P	13 15 27.7	+1.8
BUKP	Musuan	15.61	340	*e*P	P	13 15 38.2	+1.9
KELI	Kelakatan	15.73	264	⇑*i*P	P	13 15 39.7	+1.9
	88nm,0.4s						
SRDI	Scrawed	16.10	263	⇓*e*P	P	13 15 41.6	-0.7
	89nm,0.2s						
PAGZ	Pagadian	16.23	335	*e*P	P	13 15 46.9	+3.0
BUTP	Butuan	16.47	343	*e*P	P	13 15 48.0	+1.1
IPIL	Ipil	16.53	332	*e*P	P	13 15 48.9	+1.2
PMG	Port Moresby	16.86	100	P	P	13 15 55.6	+3.9
	4.9nm,0.3s,baz=280,slow=6.6,SNR=21						
PMG				S	S	13 18 51.6	-2.6
	4.1nm,0.3s,baz=244,slow=18,SNR=4.7						
PMG	Port Moresby	16.86	100	*i* P	P	13 15 55.0	+3.3
PMG	Port Moresby	16.86	100	*e*P	P	13 15 51.9	+0.2
	31nm,0.6s						
PMG				S	S	13 18 51.6	-2.6
ASAR	Alice Springs	17.00	169	P	P	13 15 52.6	-0.7
	18nm,0.3s,baz=340,slow=9.0,SNR=471						
ASAR				S	S	13 18 51.4	-5.8
	23nm,0.3s,baz=357,slow=26,SNR=10						
ASPA	Alice Springs	17.00	169	*e*P	P	13 15 52.9	-0.5
ASPA				*e*S	S	13 18 51.3	-5.9
MBWA	Marble Bar	17.46	215	*e*P	P	13 15 57.9	-1.3
	2.8nm,0.4s						
MSLP	Maasin	17.80	342	*e*P	P	13 16 04.0	+0.7
OCLP	Ormoc	18.74	342	*e*P	P	13 16 14.5	+0.6
CUYO	Cuyo Island	19.94	332	*e*P	P	13 16 26.9	+0.2
BATP	Bataraza	19.99	321	*e*P	P	13 16 27.3	+0.2
PPR	Puerto Princes	20.21	325	⇑*e*P	P	13 16 30.0	+0.5
CTA	Charters Tower	20.25	132	⇓*i*P	P	13 16 33.2	+3.3
	29nm,0.8s						
CTA				*i* S	S	13 20 21.3	+15
CTA	Charters Tower	20.25	132	P	P	13 16 33.3	+3.4
	30nm,0.6s,baz=308,slow=12,SNR=58						
CTA				S	S	13 20 19.3	+13
	13nm,0.5s,baz=63,slow=20,SNR=2.9						
CTA				LR	LR	13 24 47.4	
	comp=Z,233nm,19.6s,baz=81,slow=37						
CTAO	Charters Tower	20.25	132	*e*P	P	13 16 32.3	+2.4
CTAO				pmax	pmax		
	comp=Z,41nm,0.8s						
CTAO	Charters Tower	20.25	132	*e*P	P	13 16 32.3	+2.5
	comp=Z,41nm,0.8s						
OTRP	Odiongan	20.86	337	*e*P	P	13 16 36.8	+0.7
ENPP	El Nido	21.02	329	*e*P	P	13 16 39.1	+1.5
SJMP	San Jose	21.32	335	*e*P	P	13 16 41.6	+1.0
LUBP	Lubang	22.83	334	*e*P	P	13 16 56.6	+1.1
TGY	Tagaytay City	22.87	336	P	P	13 16 56.9	+1.0
	comp=Z,268nm,0.7s,mb5.7,baz=231,slow=4.5,SNR=8.8						
FORT	Forrest	23.82	185	⇓*i*P	P	13 17 06.9	+2.0
	comp=Z,532nm,0.6s,mb6.0						
FORT				*e*		13 17 17.5	
FORT				*e*S	S	13 21 30.1	+21
BALP	Baler	24.13	339	*e*P	P	13 17 08.1	+0.1
BOLP	Bolinao	25.34	336	*e*P	P	13 17 20.0	+0.4
STKA	Stephens Creek	26.96	158	⇓*i*P	P	13 17 36.1	+1.7
	comp=Z,32nm,0.4s,mb5.2						
STKA				*e*S		13 22 41.8	
STKA	Stephens Creek	26.96	158	P	P	13 17 36.1	+1.8
	comp=Z,45nm,0.5s,mb5.3,baz=333,slow=8.7,SNR=190						
STKA				Sx	Sx	13 22 41.5	
	comp=Z,24nm,0.8s,baz=310,slow=14,SNR=4.3						
STKA				LR	LR	13 30 22.6	
	comp=Z,193nm,19.3s,baz=344,slow=40						
KLBR	Kellerberrin	27.20	204	⇓*i*P	P	13 17 37.4	+0.9
	comp=Z,12nm,0.5s,mb4.7						
MUN	Mundaring	28.18	206	*e*P	P	13 17 47.2	+1.8
	comp=Z,7.2nm,0.7s,mb4.3						
KGM	Kluang	28.37	287	⇓*e*P	P	13 17 47.0	-0.3
	comp=Z,104nm,0.8s,mb5.4						
NWAO	Narrogin (SRO)	28.58	203	P	P	13 17 50.3	+1.4
	comp=Z,8.2nm,0.7s,mb4.5,baz=23,slow=8.5,SNR=8.1						
CNB	Canberra Magne	33.23	151	*e*P	P	13 18 33.3	+3.5
	comp=Z,15nm,0.8s,mb4.9						
KKTK	Khon Kaen	35.70	311	P	P	13 18 50.0	-0.9
	comp=Z,370nm,0.5s						
SSE	Sheshan	38.80	347	*e*P	P	13 19 16.8	0.0
SSE				S	S	13 25 10.9	+5.1
SSE				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.0						
SSE				LR	LR		
	comp=N,21nm,22.2s						
SSE				LR	LR		
	comp=E,57nm,22.1s						
SSE				LR	LR		
	comp=Z,62nm,44.3s						
SSE	Sheshan	38.80	347	*e*P	P	13 19 16.8	0.0
	comp=Z,25nm,1.0s,mb5.0						
SSE				sP	pP	13 19 40.8	-1.2
SSE				S	S	13 25 10.9	+5.1
SSE				sS		13 25 39.0	
SSE				LR	LR		
	comp=Z,60nm,44.3s						
NANT	Nan	38.81	312	⇑P	P	13 19 17.0	+0.1
CMAR	Chiang Mai Arr	39.92	310	P	P	13 19 25.8	-0.3
	comp=Z,27nm,0.8s,mb5.1,baz=137,slow=7.4,SNR=122						
CMAR				PcP	PcP	13 21 31.4	+1.2
	comp=Z,6.4nm,0.8s,baz=173,slow=2.6,SNR=8.1						
CMAR				ScP		13 25 09.3	
	comp=Z,2.2nm,0.8s,baz=150,slow=3.0,SNR=8.7						
CHG	Chiang Mai	40.13	310	⇑P	P	13 19 27.4	-0.5
	comp=Z,65nm,0.9s,mb5.5						
CHRT	Chiangrai	40.15	312	⇓P	P	13 19 28.0	0.0
	comp=Z,263nm,0.8s,mb6.1						
NJ2	Nanjing	40.27	345	*e*P	P	13 19 29.2	+0.3
NJ2				PP	PP	13 21 07.1	+0.3
NJ2				S	S	13 25 33.0	+5.2
NJ2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,260nm,4.9s						
NJ2				LR	LR		
	comp=N,350nm,26.0s						
NJ2				LR	LR		
	comp=E,360nm,21.9s						
NJ2				LR	LR		
	comp=Z,180nm,16.3s						
WHN	Wuhan	40.28	338	⇑P	P	13 19 28.5	-0.5
WHN				AMB	AMB		
	comp=Z,54nm,1.2s,mb5.2						
GYA	Guiyang	40.35	326	⇑*i*P	P	13 19 29.2	-0.3
GYA				PCP	PcP	13 21 32.5	+1.0
GYA				S	S	13 25 30.9	+2.0
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
GYA				AMB	AMB		
	comp=Z,110nm,4.5s						
GYA				LR	LR		
	comp=N,340nm,4.8s						
GYA				LR	LR		
	comp=E,240nm,5.1s						
GYA				LR	LR		
	comp=Z,190nm,5.7s						
KMI	Kunming	41.66	321	*e*P	P	13 19 40.0	-0.4
KMI				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
KMI	Kunming	41.66	321	*e*P	P	13 19 40.0	-0.4
	comp=Z,40nm,1.2s,mb5.0						
KMI				pP	pP	13 19 57.6	-8.2
KMI				sP	sP	13 20 10.1	-8.6
ENH	Enshi	42.04	333	*e*P	P	13 19 42.0	-1.5
	comp=Z,20nm,0.7s,mb5.0						
MAJO	Matsushiro	43.87	9	SKiKP		13 34 15.9	
MAJO	Matsushiro	43.87	9	*e*P	P	13 19 56.2	-2.1
MAJO				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.2						
MAJO	Matsushiro	43.87	9	*e*P	P	13 19 56.2	-2.0
	comp=Z,53nm,0.9s,mb5.3						
MAT	Matsushiro	43.87	9	P	P	13 19 56.8	-1.5
MAT	Matsushiro	43.87	9	*e*P	P	13 19 57.0	-1.3
	comp=Z,32nm,0.7s,mb5.2						
KS15	Wonju Array Si	44.20	357	*e*P	P	13 20 00.7	-0.2
INCN	Inchon	44.31	356	*e*P	P	13 20 01.4	-0.4
CD2	Chengdu	45.41	327	P	P	13 20 09.4	-1.2
CD2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
XAN	Xi'an	45.51	335	P	P	13 20 09.5	-1.8
XAN				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
BJT	Baijiatuau	48.51	345	*e*P	P	13 20 33.9	-0.9
	comp=Z,52nm,0.7s,mb5.6						
SHL	Shillong	49.38	312	*e*P	P	13 20 40.0	-1.7
LZH	Lanzhou	49.49	332	⇑P	P	13 20 41.5	-0.9
LZH				PP	PP	13 22 37.5	-0.5
LZH				*e*S	S	13 27 42.2	+2.2
LZH				*e*SS	SS	13 31 11.5	+1.9
LZH				AMB	AMB		
	comp=Z,70nm,1.5s,mb5.4						
LZH				AMB	AMB		
	comp=Z,173nm,4.2s						
LZH				LR	LR		
	comp=E,582nm,14.3s						
LZH				LR	LR		
	comp=Z,920nm,16.1s						
LZH	Lanzhou	49.49	332	⇑P	P	13 20 41.5	-0.9
	comp=Z,70nm,1.5s,mb5.4						
LZH				pP	pP	13 20 59.0	-9.4
LZH				sP	sP	13 21 08.5	-12
LZH				PP	PP	13 22 37.5	-0.5
LZH				*e*S	S	13 27 42.2	+2.2
LZH				sS		13 28 15.2	
LZH				*e*SS	SS	13 31 11.5	+1.9
LZH				LR	LR		
	comp=Z,920nm,16.1s						
HHC	Hu-ho-hao-te	50.57	342	*e*P	P	13 20 49.9	-0.7
HHC				PP	PP	13 22 44.7	-3.4
HHC				S	S	13 27 55.4	+0.4
HHC				SS	SS	13 31 23.1	-4.8
HHC				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.2						
HHC				AMB	AMB		
	comp=Z,166nm,5.7s						
HHC				LR	LR		
	comp=N,185nm,15.9s						
HHC				LR	LR		
	comp=E,152nm,12.9s						
HHC				LR	LR		
	comp=Z,125nm,14.7s						
CN2	Changchun	50.68	355	⇑P	P	13 20 50.4	-1.0
CN2				*e*S	S	13 27 59.0	+2.5
CN2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.4						
CN2				AMB	AMB		
	comp=Z,200nm,7.0s						
RPZ	Rata Peaks	51.10	143	P	P	13 20 58.9	+4.3
	comp=Z,16nm,0.7s,mb5.2,baz=28,slow=7.7,SNR=3.7						
RPZ				LR	LR	13 43 58.3	
	comp=Z,127nm,19.9s,baz=284,slow=37						
MDJ	Mudanjiang	51.31	359	P	P	13 20 55.7	-0.4
MDJ				PCP	PcP	13 22 09.3	-0.3
MDJ				PP	PP	13 22 53.9	-0.8
MDJ				PCS		13 26 06.8	
MDJ				S	S	13 28 11.3	+6.2
MDJ				AMB	AMB		
	comp=Z,37nm,0.8s,mb5.5						
MDJ				AMB	AMB		
	comp=Z,127nm,4.9s						
MDJ				LR	LR		
	comp=N,34nm,26.3s						
MDJ				LR	LR		
	comp=E,67nm,28.4s						
MDJ				LR	LR		
	comp=Z,64nm,16.4s						
ASAJ	Asahikawa	52.01	11	LR	LR	13 41 04.5	
	comp=Z,62nm,18.0s,baz=133,slow=34						
LSA	Lhasa	52.36	316	*e*P	P	13 21 04.4	+0.2
URZ	Urewera	52.49	134	P	P	13 21 07.4	+2.4
	comp=Z,7.1nm,0.7s,mb4.8,baz=286,slow=7.4,SNR=2.3						
GTA	Gaotai	54.06	331	⇑P	P	13 21 16.1	-0.5
GTA				PCP	PcP	13 22 21.1	+1.1
GTA				PP	PP	13 23 20.4	-0.1
GTA				SCP		13 26 07.7	
GTA				PCS		13 26 18.2	
GTA				S	S	13 28 48.6	+6.2
GTA				SCS	ScS	13 30 55.1	+3.8
GTA				SS	SS	13 32 24.6	-0.4
GTA				AMB	AMB		
	comp=Z,39nm,0.8s,mb5.5						
GTA				AMB	AMB		
	comp=Z,165nm,4.2s						
GTA				LR	LR		
	comp=N,108nm,16.7s						
GTA				LR	LR		
	comp=E,130nm,18.3s						
GTA				LR	LR		
	comp=Z,156nm,16.0s						
YSS	Yuzh-Sakhalins	54.77	10	⇑*i*P	P	13 21 20.0	-1.7
YSS				pmax	pmax		
	comp=Z,40nm,0.5s,mb5.7						

YSS	Yuzh-Sakhalins	54.77	10	eP	P	13 21 20.4	-1.2
	comp=Z,42nm,0.6s,mb5.6						
GUN	Gumba	55.14	311	eP	P	13 21 23.8	-0.8
PKI	Pulchoki	55.31	310	eP	P	13 21 24.0	-1.9
	comp=Z,31nm,0.6s,mb5.5						
BLSP	Bilaspur	55.32	303	eP	P	13 21 24.0	-2.0
BLSP				AMb	AMB	13 21 25.4	
	comp=Z,50nm,0.8s,mb5.6						
KKN	Kakani	55.53	311	eP	P	13 21 25.0	-2.4
	comp=Z,73nm,0.8s,mb5.8						
KKN	Kakani	55.53	311	⇑iP	P	13 21 26.0	-1.4
	comp=Z,36nm,0.8s,mb5.5						
DMN	Daman	55.56	310	eP	P	13 21 26.4	-1.3
	comp=Z,79nm,0.8s,mb5.8						
GKN	Gorkha	56.12	310	eP	P	13 21 30.2	-1.5
	comp=Z,111nm,0.7s,mb6.0						
GKN	Gorkha	56.12	310	⇑iP	P	13 21 30.3	-1.4
	comp=Z,56nm,0.7s,mb5.7						
HYB	Hyderabad	56.56	296	eP	P	13 21 32.0	-2.9
HYB	Hyderabad	56.56	296	iP	P	13 21 32.0	-2.9
HIA	Hailar	56.72	352	eP	P	13 21 34.5	-1.1
	comp=Z,7.4nm,0.9s,mb4.7						
KOLN	Koldanda	56.79	310	eP	P	13 21 35.2	-1.2
	comp=Z,76nm,0.7s,mb5.8						
ULN	Ulaanbaatar	58.29	342	c iP	P	13 21 46.6	0.0
ULN	Ulaanbaatar	58.29	342	eP	P	13 21 46.2	-0.5
	comp=Z,45nm,0.8s,mb5.5						
SONM	Songino Array	58.47	341	P	P	13 21 47.6	-0.2
	comp=Z,12nm,0.7s,mb5.0,baz=157,slow=6.8,SNR=83						
SONM				PcP	PcP	13 22 36.5	-0.5
	comp=Z,3.5nm,0.7s,baz=162,slow=6.9,SNR=3.6						
KAD	Karad	60.45	294	⇓iP	P	13 21 59.0	-2.9
KAD				eP		13 21 59.5	
KAD				AMb	AMB	13 22 05.9	
	comp=Z,38nm,1.5s,mb5.2						
POO	Poona	61.15	295	⇑iP	P	13 22 02.0	-4.6
POO				eP		13 22 03.6	
POO				AMb	AMB	13 22 05.0	
	comp=Z,24nm,0.7s,mb5.4						
ZAK	Zakamensk	61.70	341	eP	P	13 22 08.5	-1.4
ZAK				e		13 22 49.3	
NDI	New Delhi	62.19	307	eP	P	13 22 09.5	-3.9
DDI	Dehra Dun	62.27	309	eP	P	13 22 11.2	-2.8
AJM	Ajmer	63.34	304	iP	P	13 22 19.0	-2.1
AJM				AMb	AMB	13 22 20.2	
	comp=Z,24nm,0.7s,mb5.3						
WMQ	Urumqi	63.50	327	⇑iP	P	13 22 21.8	-0.2
WMQ				PCP	PcP	13 22 57.4	+0.1
WMQ				PP	PP	13 24 43.8	-0.6
WMQ				S	S	13 30 46.9	+2.2
WMQ				AMB	AMB		
	comp=Z,64nm,0.8s,mb5.5						
WMQ				LR	LR		
	comp=N,21nm,21.0s						
WMQ				LR	LR		
	comp=E,40nm,17.6s						
WMQ				LR	LR		
	comp=Z,41nm,19.4s						
MOY	Mondy	63.55	340	eP	P	13 22 22.6	+0.5
SDNR	Sundarnagar	63.64	310	eP	P	13 22 22.6	-0.5
PET	Petropavlovsk	64.39	19	eP	P	13 22 28.0	+0.5
PET				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.0						
BOD	Bodaibo	65.88	351	⇓iP	P	13 22 36.2	-0.8
KSH	Kashi	68.17	317	P	P	13 22 52.7	+1.0
KSH				ePCP	PcP	13 23 19.2	+2.4
KSH				ePP	PP	13 25 25.1	-0.3
KSH				ePCS		13 27 20.2	
KSH				eS	S	13 31 44.0	+2.5
KSH				eSS	SS	13 36 08.4	+0.6
KSH				AMB	AMB		
	comp=Z,310nm,6.7s						
KSH				LR	LR		
	comp=N,220nm,4.6s						
KSH				LR	LR		
	comp=E,320nm,5.2s						
MA2	Magadan	68.27	11	eP	P	13 22 41.2	-11
MA2				eSSS	SSS	13 39 18.1	+7.2
MA2				pmax	pmax		
	comp=Z,260nm,4.4s						
MKAR	Makanchi Array	68.34	327	iP	P	13 22 52.4	-0.2
MKAR				pmax	pmax		
	comp=Z,63nm,0.5s						
YAK	Yakutsk	68.76	360	eP	P	13 22 54.5	-0.4
YAK				eS	S	13 31 44.5	-3.5
YAK				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,12nm,1.2s						
YAK				smax			
	comp=N,5.0nm,1.2s						
YAK				smax			
	comp=E,4.0nm,1.1s						
YAK	Yakutsk	68.76	360	eP	P	13 22 53.9	-1.0
	comp=E,59nm,0.6s,mb5.6						
ULHL	Ulahol	69.37	320	P	P	13 22 59.3	+0.2
	SNR=18						
FX1	Attu Island--F	69.77	26	P	P	13 23 02.7	+1.4
KZA	Kyzart	69.92	319	P	P	13 23 03.6	+1.2
	SNR=73						
TKM2	Tokmak 2	70.13	320	P	P	13 23 04.2	+0.5
	SNR=124						
TKM2	Tokmak 2	70.13	320	eP	P	13 23 03.5	-0.1
	comp=E,70nm,0.7s,mb5.6						
KBK	Karagaybulak	70.41	320	P	P	13 23 06.0	+0.7
	SNR=52						
UCH	Uchtor	70.47	319	P	P	13 23 06.8	+1.1
	SNR=95						
UCH	Uchtor	70.47	319	eP	P	13 23 06.3	+0.5
	comp=E,76nm,0.9s,mb5.5						
AAK	Ala-Archa	70.69	320	P	P	13 23 07.8	+0.8
	SNR=60						
AAK	Ala-Archa	70.69	320	c iP	P	13 23 06.5	-0.5
AAK				pmax	pmax		
	comp=Z,77nm,0.9s,mb5.5						
AAK				MLR	MLR		
	comp=Z,100nm,19.0s						
AAK	Ala-Archa	70.69	320	eP	P	13 23 06.2	-0.8
	comp=Z,61nm,0.8s,mb5.5						
CHMS	Chumysh	70.70	320	P	P	13 23 07.0	0.0
	SNR=16						
AML	Almayashu	70.96	319	P	P	13 23 09.8	+1.2
	SNR=6.2						
AML	Almayashu	70.96	319	eP	P	13 23 09.5	+0.9
	comp=Z,106nm,0.8s,mb5.7						
USP	Ospenovka	71.00	320	P	P	13 23 09.2	+0.3
	SNR=103						
EKS2	Erkin-Say	71.16	319	P	P	13 23 10.7	+0.9
	SNR=86						
EKS2	Erkin-Say	71.16	319	eP	P	13 23 10.6	+0.8
	comp=Z,76nm,0.7s,mb5.6						
VNDA	Vanda	72.48	173	P	P	13 23 18.9	+1.8
	comp=Z,1.4nm,0.5s,baz=309,slow=5.3,SNR=11						
VNDA				LR	LR	13 53 15.1	
	comp=Z,71nm,18.5s,baz=335,slow=34						
NVS	Novosibirsk	72.94	334	eP	P	13 23 18.4	-1.7
NVS				eS	S	13 32 31.8	-4.6
NVS				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.1						
NVS				pmax	pmax		
	comp=N,41nm,1.5s						
NVS				pmax	pmax		
	comp=E,13nm,0.9s						
NVS				smax			
	comp=N,21nm,1.7s						
NVS				smax			
	comp=E,32nm,1.7s						
SBA	Scott Base	73.36	172	P	P	13 23 22.4	+0.2
MAW	Mawson	75.13	201	P	P	13 23 34.2	+1.7
	comp=E,5.6nm,0.7s,mb4.4,baz=70,slow=8.5,SNR=5.3						
MAW				LR	LR	13 51 06.6	
	comp=E,67nm,19.9s,baz=250,slow=31						
BVA0	Borovoye Array	78.17	328	P	P	13 23 49.3	-0.4
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRVK	Borovoye	78.24	328	eP	P	13 23 50.0	-0.1
	comp=Z,30nm,0.8s,mb5.1						
CHKZ	Chkalovo	78.36	328	eP	P	13 23 49.8	-1.0
CHKZ				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.8						
CHKZ	Chkalovo	78.36	328	eP	P	13 23 49.8	-1.0
	comp=Z,19nm,0.9s,mb4.8						
TIXI	Tiksi	78.42	360	iP	P	13 23 50.2	-0.6
OPO	Ambohidratompo	81.33	252	eP	P	13 24 08.5	+1.1
	comp=Z,39nm,1.3s,mb5.1						
QSPA	South Pole Qui	83.05	180	eP	P	13 24 17.1	+2.0
	comp=Z,6.6nm,0.6s,mb4.6						
SYO	Syowa Base	83.84	201	⇓P	P	13 24 21.1	+2.0
SYO	Syowa Base	83.84	201	⇑PcP	PcP	13 24 26.0	+2.7
SYO	Syowa Base	83.84	201	⇓pP	pP	13 24 47.4	-0.3
ARU	Arti	85.81	328	⇑iP	P	13 24 29.2	0.0
ARU				e		13 27 48.8	
ARU				ePPP	PPP	13 29 46.9	-2.1
ARU				eS	S	13 34 47.9	-3.3
ARU				eSS	SS	13 40 34.9	+1.1
ARU				eSSS	SSS	13 44 04.7	+1.0
ARU				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
ARU	Arti	85.81	328	iP	P	13 24 29.3	+0.1
KDAK	Kodiak Island	89.00	31	eP	P	13 24 45.4	+0.9
IMA	Indian Mountai	90.66	23	eP	P	13 24 53.0	+0.9
IMA				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.4						
IMA	Indian Mountai	90.66	23	eP	P	13 24 53.0	+1.0
	comp=Z,19nm,0.6s,mb5.4						
SLKM	Skilak Lake	90.82	29	eP	P	13 24 53.2	+0.2
COLA	College	92.76	25	eP	P	13 25 01.0	-0.8
COLA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.9						
COLA	College	92.76	25	eP	P	13 25 01.0	-0.8
	comp=Z,3.6nm,0.6s,mb4.9						
KMBO	Kilima Mbogo	92.90	269	P	P	13 25 05.2	+1.5
	comp=Z,2.4nm,0.9s,mb4.5,baz=44,slow=20,SNR=6.1						
KMBO	Kilima Mbogo	92.90	269	iP	P	13 25 05.7	+2.0
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.9s						
KMBO	Kilima Mbogo	92.90	269	eP	P	13 25 03.8	+0.1
	comp=Z,9.0nm,1.4s,mb4.9						
DIV	Divide	93.08	29	eP	P	13 25 04.3	+1.0
	comp=Z,24nm,0.6s,mb5.7						
ILAR	Eielson Array	93.15	25	P	P	13 25 03.0	-0.6
	comp=Z,9.4nm,0.7s,mb5.2,baz=267,slow=4.1,SNR=80						
ILAR				PKKP	PKKP	13 42 13.4	+19
	comp=Z,0.6nm,0.7s,baz=312,slow=0.5,SNR=9.9						
SOC	Sochi	95.15	313	eP	P	13 25 12.0	-1.2
SOC				e		13 29 09.5	
SOC				eS		13 35 42.3	
SOC				eSS	SS	13 42 51.9	+3.9
SOC				eSSS	SSS	13 46 34.3	+2.9
SOC				pmax	pmax		
	comp=N,42nm,0.9s						
SNAA	Sanae	95.80	193	⇓iP	P	13 25 23.5	+8.0
SNAA	Sanae	95.80	193	e	pP	13 25 39.7	-4.9
SNAA	Sanae	95.80	193	e	sP	13 25 47.9	-8.4
SNAA	Sanae	95.80	193	eS	S	13 36 29.6	+9.2
SNAA	Sanae	95.80	193	PKKPbc		13 42 04.6	
	comp=N,0.4nm,0.7s,baz=53,slow=2.4,SNR=4.0						
SNAA	Sanae	95.80	193	iP	P	13 25 17.3	+1.8
SNAA	Sanae	95.80	193	eP	P	13 25 17.3	+1.8
	comp=N,3.4nm,0.8s,mb4.8						
SNAA				e		13 25 39.7	
SNAA				e	pP	13 25 47.9	+3.3
SNAA				e		13 29 18.3	
SNAA				e		13 29 53.9	
SNAA				eS	S	13 36 29.6	+9.2
VRSR	Storozhevoye	96.05	321	eP	P	13 25 16.4	-0.7
VRSR				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
VRSR				pmax	pmax		
	comp=N,3.0nm,1.2s						
VRSR				pmax	pmax		
	comp=E,8.0nm,1.3s						
DAWY	Dawson	96.31	26	eP	P	13 25 18.4	+0.4
ANN	Anapa	96.87	314	eP	P	13 25 16.9	-4.1
VNA2	Neumayer--Watz	97.37	193	e	pP	13 25 51.6	-0.2
VNA2	Neumayer--Watz	97.37	193	eS	S	13 36 33.6	-0.1
VNA2	Neumayer--Watz	97.37	193	⇑iP	P	13 25 26.9	+4.2
VNA2				e		13 25 43.3	
VNA2				e	pP	13 25 51.6	-0.2
VNA2				e		13 29 22.3	
VNA2				e		13 29 57.6	
VNA2				eS	S	13 36 33.6	-0.1
VNA3	Neumayer Olymp	97.62	192	e	pP	13 25 52.6	-0.3
VNA3	Neumayer Olymp	97.62	192	eS	S	13 36 34.6	-1.1
VNA3	Neumayer Olymp	97.62	192	⇓iP	P	13 25 27.9	+4.1
VNA3				e		13 25 44.3	
VNA3				e	pP	13 25 52.6	-0.3
VNA3				e		13 29 23.3	
VNA3				e		13 29 58.6	
VNA3				eS	S	13 36 34.6	-1.1
VNA1	Neumayer--Stat	97.77	193	e	P	13 25 42.3	+18
VNA1	Neumayer--Stat	97.77	193	e	pP	13 25 50.7	-2.9
VNA1	Neumayer--Stat	97.77	193	eS	S	13 36 32.6	-4.4
VNA1	Neumayer--Stat	97.77	193	⇓iP	P	13 25 25.9	+1.5
VNA1				e		13 25 42.3	
VNA1				e	pP	13 25 50.7	-2.9
VNA1				e		13 29 21.3	
VNA1				e		13 29 56.3	
VNA1				eS	S	13 36 32.6	-4.4
INK	Inuvik	98.68	22	P	P	13 25 28.8	+0.1
	comp=E,3.8nm,0.8s,mb5.0,baz=275,slow=5.0,SNR=15						
BRTR	Keskin Array B	99.51	309	P	P	13 25 32.3	-0.8
	comp=E,2.2nm,0.6s,mb5.0						
ARCES	ARCESS Array B	101.62	340	P	P	13 25 41.3	-0.6
	comp=E,1.5nm,0.6s,baz=82,slow=6.4,SNR=6.6						
FINES	FINESS Array B	102.85	331	P	Pdif	13 25 46.2	-1.2
	comp=E,1.9nm,0.8s,baz=56,slow=5.0,SNR=3.5						
YKA	Yellowknife Ar	107.55	26	Pdiff	Pdif	13 26 09.0	+0.9
	comp=E,0.4nm,0.6s,baz=291,slow=4.9,SNR=9.6						
YKA				PKiKP		13 30 16.5	
	comp=E,1.8nm,0.5s,baz=295,slow=1.8,SNR=40						
YKA				PKKPbc		13 41 31.9	
	comp=E,0.8nm,0.6s,baz=111,slow=3.2,SNR=15						
YKA				PKKP	PKKP	13 41 46.4	+17
	comp=E,0.2nm,0.6s,baz=101,slow=3.1,SNR=4.2						
NVAR	Mina Array Bea	111.01	52	PKiKP		13 30 25.7	
	comp=E,0.5nm,0.6s,baz=245,slow=5.9,SNR=5.2						
NVAR				PKKPbc		13 41 23.8	
	comp=E,0.7nm,0.7s,baz=124,slow=3.3,SNR=5.7						
NVAR				PKKPab		13 41 33.1	
	comp=E,0.9nm,0.8s,baz=106,slow=6.6,SNR=5.3						
NVAR	Mina Array Bea	111.01	52	PKPdf	PKPdf	13 30 25.7	+4.1
NVAR				PKKPbc		13 41 23.8	
NVAR				PKKPab		13 41 33.1	
GERES	GERESS Array B	112.57	320	PKiKP		13 30 26.6	
	comp=E,1.3nm,0.4s,baz=45,slow=1.9,SNR=10						
GERES				PP	PP	13 31 11.9	-5.3
	comp=E,0.3nm,0.2s,baz=90,slow=5.3,SNR=3.4						
NEN	Nelson	114.16	54	ePKP	PKPdf	13 30 31.1	+3.3
PDAR	Pinedale Array	116.62	45	PKP	PKPdf	13 30 35.4	+3.0
	comp=E,1.3nm,0.7s,baz=243,slow=1.3,SNR=11						
PDAR				PKKPbc		13 41 03.0	
	comp=E,1.0nm,0.9s,baz=98,slow=6.4,SNR=5.5						
HINF	Hinteralfeld	117.22	321	ePKP1	PKPdf	13 30 34.9	+1.5
	comp=E,7.9nm,0.6s						
LAO	LASA Array	117.63	40	ePKP	PKPdf	13 30 36.8	+2.5
LPG	La Plagne	118.11	318	ePKP1	PKPdf	13 30 37.5	+2.3
	comp=E,7.4nm,0.6s						
LPL	La Plagne	118.12	318	ePKP1	PKPdf	13 30 37.5	+2.3
	comp=E,8.1nm,0.5s						
CABF	La Chapelle	118.15	320	ePKP1	PKPdf	13 30 37.5	+2.2
	comp=E,14nm,0.6s						
PV10	Paradox Valley	118.16	50	ePKP	PKPdf	13 30 38.4	+2.9
ORIF	Oris-en-Rattie	118.89	318	ePKP1	PKPdf	13 30 38.8	+2.0
	comp=E,12nm,0.7s						
SSF	Saint Saulge	119.61	321	ePKP1	PKPdf	13 30 40.1	+2.0
	comp=E,14nm,0.9s						
AVF	Avril sur Loir	119.82	321	ePKP1	PKPdf	13 30 40.0	+1.5
BGF	Bois d’Agland	120.23	321	ePKP1	PKPdf	13 30 41.4	+2.1
	comp=E,23nm,0.7s						
TCF	Toulx Ste Croi	120.74	321	ePKP1	PKPdf	13 30 42.4	+2.0
	comp=E,9.6nm,0.7s						
BNM	Barren Site	121.07	54	ePKP	PKPdf	13 30 44.5	+3.2
MFF	Saint Martin d	122.07	322	ePKP1	PKPdf	13 30 45.0	+2.1
	comp=E,18nm,0.7s						
ULM	Lac du Bonnet	122.22	33	PKP	PKPdf	13 30 45.0	+2.0
	comp=E,5.2nm,0.7s,baz=266,slow=1.2,SNR=9.6						
SGMF	Saint Gilles	122.72	324	ePKP1	PKPdf	13 30 45.8	+1.7
QUIF	Quistinic	123.24	324	ePKP1	PKPdf	13 30 46.9	+1.8
TXAR	Lajitas Array	124.63	59	PKP	PKPdf	13 30 51.4	+3.1
	comp=E,0.5nm,0.3s,baz=315,slow=1.8,SNR=9.3						
TXAR	Lajitas Array	124.63	59	PKP	PKPdf	13 30 51.4	+3.0
JCT	Junction City	127.60	57	ePKIKP	PKPdf	13 30 56.7	+2.6
ESDC	Sonseca Array	127.67	316	PKP	PKPdf	13 30 56.9	+2.9
	comp=E,0.2nm,0.4s,slow=3.0,SNR=4.6						
SCHQ	Schefferville	130.29	13	PKP	PKPdf	13 31 01.4	+2.9
	comp=E,3.8nm,0.6s,baz=10,slow=2.0,SNR=10						
SCHQ				SKPbc		13 34 12.2	
	comp=E,9.8nm,0.8s,baz=330,slow=3.2,SNR=8.0						
DBIC	Dimbokro	135.49	272	PKhKP		13 31 03.0	
	comp=E,2.6nm,0.8s,baz=80,slow=4.1,SNR=3.8						
DBIC				PKP	PKPdf	13 31 13.1	+3.8
	comp=E,10.0nm,0.5s,baz=81,slow=1.1,SNR=24						
DBIC				SKPbc		13 34 30.9	
	comp=E,5.5nm,0.6s,baz=86,slow=5.3,SNR=9.3						
DBIC	Dimbokro	135.49	272	PKP	PKPdf	13 31 03.0	-6.3
DBIC				ePKPdf	PKPdf	13 31 10.7	+1.3
JTS	JuntasAbangare	144.99	82	ePKPdf	PKPdf	13 31 29.7	+3.4
LVC	Limon Verde	145.13	148	ePKP	PKPdf	13 31 30.0	+3.6
CPUP	Villa Florida	146.12	168	PKPbc	PKPbc	13 31 31.7	+2.5
	comp=E,20nm,0.3s,baz=227,slow=15,SNR=1.7						
CPUP	Villa Florida	146.12	168	PKPbc	PKPbc	13 31 31.7	+2.5
MOCB	Mochara	147.91	151	ePKPdf	PKPdf	13 31 35.6	+4.6
ARE	Arequipa	148.29	137	eP	PKPdf	13 31 40.0	+8.2
LPAZ	La Paz	150.58	142	PKP	PKPdf	13 31 39.9	+4.6
	comp=E,4.8nm,0.9s,baz=94,slow=3.5,SNR=7.4						
LPAZ				PKPbc	PKPdf	13 31 45.7	+10
	comp=E,7.3nm,0.6s,baz=112,slow=2.4,SNR=23						
LPAZ				PKPab	PKPab	13 31 53.0	+2.6
	comp=E,6.1nm,0.8s,baz=194,slow=2.2,SNR=8.2						
LPAZ	La Paz	150.58	142	ePKPdf	PKPdf	13 31 39.5	+4.2
LPAZ				ePKPbc	PKPdf	13 31 45.5	+10
BDFB	Brasilia	157.51	184	PKP	PKPdf	13 31 48.9	+4.0
	comp=E,6.2nm,0.7s,baz=178,slow=2.4,SNR=7.7						
SDV	Santo Domingo	159.16	83	ePKP	PKPdf	13 31 49.5	+2.5

BER ***09*** *13:22:33.6±2.2, 59.74N×12.16E, ML2.5(NAO), Suspected explosion*

NAO 09 13:22:32.9±1.4**, 59.80N×12.05E, ML2.5, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HFS	Hagfors	0.89	67	Pg	Pg	13 22 49.7	-0.9
	baz=249,slow=18						
HFS				Lg		13 23 00.4	
	baz=247,slow=37						
HFS				Rg		13 23 05.6	
	baz=232,slow=37						
NC6	NORSAR Subarra	0.99	343	Pn	Pn	13 22 53.0	-0.9
NB2	NORSAR Subarra	1.31	342	Pn	Pn	13 22 58.9	+0.5

NIED ***09*** *13:33:00, 35.70N×140.20E, h80^{km}, Mw4.0 Best double couple: $M_0$1.31×10^{15} NP1:ϕ_s350°, δ71°, λ91°. NP2:ϕ_s168°, δ19°, λ88°.*

IDC ***09*** *13:33:45.1±4.6, 35.69N×140.26E, h60^{km}±34^{km}, mb3.5/4, mb1 3.9/6, mb1mx3.5/23, ML4.2/2, Error ellipse: s-maj=68.1km s-min=20.4km az=73.0*

NEIC ***09*** *13:33:45.9±2.0, 35.69N×140.28E, h69^{km}±14^{km}, mb4.3/3, Error ellipse: s-maj=25.2km s-min=15.9km az=73.0*

JMA ***09*** *13:33:45.6±0.1, 35.74N×140.21E, h66^{km}±2^{km}, M3.5 Broadband fault plane solution: P waves. NP1:ϕ_s110°, δ0°, λ1°. NP2:ϕ_s20°, δ90°, λ90°. Principal axes: T Plg45°, Azm290°; N Plg0°, Azm20°; P Plg45°, Azm109°;*

ISC 09 13:33:44.8±0.5**, 35.70N**±0.04×**140.21E**±0.07**, h74**^{km}±3^{km}**, n21, σ0^{s}75**/32**, mb3.9**/7**, 5D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCN	Nagara	0.28	182	⇓P	P	13 33 57.0	+0.6
JCN				S	S	13 34 05.0	-0.1
TOK	Tokyo	0.37	268	P	P	13 33 57.7	+0.7
TOK				S	S	13 34 05.7	-0.4
JYT	Yasato	0.53	358	⇓P	P	13 33 58.1	-0.2
JYT				S	S	13 34 07.4	-1.0
BSO3	Boso 3	0.93	165	P	P	13 34 03.0	+0.2
BSO3				S	S	13 34 17.0	+0.6
JAG	Ashikaga	0.95	320	⇓P	P	13 34 03.3	+0.2
JAG				S	S	13 34 16.5	-0.3
JOD2	Odawara 2	1.02	245	⇓P	P	13 34 03.9	0.0
JOD2				S	S	13 34 17.1	-1.2
JRY	Ryogami san	1.11	287	⇓P	P	13 34 06.0	+0.9
JRY				S	S	13 34 20.9	+0.6
MAJO	Matsushiro	1.83	298	ePn	P	13 34 15.8	+1.0
MAT	Matsushiro	1.83	298	P	P	13 34 15.8	+1.0
MAT				eS	S	13 34 36.0	-0.9
MAT	Matsushiro	1.83	298	eP	P	13 34 16.0	+1.2
MAT				S	S	13 34 36.0	-0.9
JHJ	Hachijo jima 2	2.60	188	P	P	13 34 25.8	+0.2
	74nm,0.3s,baz=73,slow=17,SNR=10						
JHJ				S	S	13 34 55.6	-0.4
	83nm,0.3s,baz=254,slow=24,SNR=7.0						
CBIJ	Chichi jima	8.74	168	P	P	13 35 46.8	-3.8
	12nm,0.3s,baz=302,slow=19,SNR=7.5						
CBIJ				S	S	13 37 18.7	-10
	4.3nm,0.3s,baz=288,slow=19,SNR=3.0						
BJT	Baijiatuau	19.45	290	P	P	13 38 07.5	-0.3
ENH	Enshi	26.27	267	eP	P	13 39 14.3	-0.6
	4.9nm,0.7s,mb4.0						
SONM	Songino Array	27.76	306	P	P	13 39 28.1	-0.2
	0.2nm,0.4s,mb3.0,baz=108,slow=9.1,SNR=3.6						
AML	Almayashu	50.98	299	eP	P	13 42 42.6	+1.8
	3.8nm,0.7s,mb4.5						
WRA	Warramunga Arr	55.62	187	P	P	13 43 14.2	-1.1
	1.9nm,0.5s,mb4.4,baz=2.2,slow=7.6,SNR=33						
ARU	Arti	56.72	319	eP	P	13 43 22.1	-0.6
ASAR	Alice Springs	59.34	187	P	P	13 43 41.5	0.0
	0.6nm,0.6s,mb3.8,baz=14,slow=7.6,SNR=9.8						
RES	Resolute Bay	64.13	14	P	P	13 44 12.0	-0.8
	5.0nm,1.3s,mb4.2						
AKASG	Malin Array Be	74.75	322	P	P	13 45 18.9	+0.9
	0.6nm,0.4s,mb3.7,baz=47,slow=5.6,SNR=6.9						

IDC 09 13:56:01.6±1.6**, 6.94S×125.56E, mb3.8**/2**, mb1 4.2**/4**, mb1mx4.0**/14**, ML4.1**/2**, Error ellipse: s-maj=158.0km s-min=28.1km az=65.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	15.48	147	Pn	P	13 59 43.4	+0.4
	1.0nm,0.3s,baz=327,slow=12,SNR=76						
WRA				Sn	S	14 02 16.7	-19
	0.1nm,0.3s,baz=325,slow=21,SNR=6.5						
ASAR	Alice Springs	18.46	155	P	P	14 00 17.8	-3.0
	0.8nm,0.3s,baz=334,slow=11,SNR=62						
ASAR				S	S	14 03 29.0	-16
	0.1nm,0.3s,baz=333,slow=22,SNR=8.3						
SONM	Songino Array	57.10	345	P	P	14 05 50.6	-1.6
	0.5nm,0.6s,baz=160,slow=7.1,SNR=5.0						
BVAR	Borovoye Array	75.71	329	P	P	14 07 48.2	-2.4
	0.7nm,0.6s,baz=106,slow=10,SNR=3.8						

IDC 09 14:18:24.3±2.0**, 17.80S×177.22W, mb4.1**/7**, mb1 4.4**/7**, mb1mx4.1**/15**, Error ellipse: s-maj=87.8km s-min=25.7km az=147.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	35.56	279	P	P	14 25 25.5	-0.1
	4.3nm,0.7s,baz=78,slow=8.1,SNR=4.4						
STKA	Stephens Creek	39.68	241	P	P	14 25 59.8	-0.2
	3.8nm,1.1s,baz=84,slow=9.2,SNR=4.8						
WRA	Warramunga Arr	45.77	259	P	P	14 26 46.5	-3.2
	1.1nm,0.4s,baz=95,slow=7.1,SNR=52						
ASAR	Alice Springs	45.91	254	P	P	14 26 48.2	-2.6
	7.7nm,0.6s,baz=87,slow=8.6,SNR=169						
NVAR	Mina Array Bea	78.56	43	P	P	14 30 33.9	+4.4
	0.9nm,0.9s,baz=225,slow=6.4,SNR=3.6						
ILAR	Eielson Array	85.53	13	P	P	14 31 03.1	-2.0
	0.3nm,0.5s,baz=221,slow=4.7,SNR=8.4						
PDAR	Pinedale Array	86.50	43	P	P	14 31 10.4	0.0
	0.4nm,0.6s,baz=225,slow=2.1,SNR=3.4						

IDC 09 14:24:39.1±57.0**, 37.31S×52.08E, mb3.6**/3**, mb1 3.9**/3**, mb1mx3.6**/15**, MS3.3**/1**, Ms1 3.2**/1**, ms1mx2.9**/17**, Error ellipse: s-maj=1541.0km s-min=69.6km az=75.0, South Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAW	Mawson	30.95	172	LR	LR	14 39 27.9	
	comp=Z,52nm,19.9s,baz=250,slow=29						
ASAR	Alice Springs	69.83	105	P	P	14 35 52.0	-1.7
	0.5nm,0.8s,baz=235,slow=5.6,SNR=6.8						
CMAR	Chiang Mai Arr	70.88	47	P	P	14 35 58.2	-1.9
	0.6nm,0.9s,baz=228,slow=6.4,SNR=4.3						
WRA	Warramunga Arr	72.20	102	P	P	14 36 06.2	-1.9
	0.3nm,0.6s,baz=241,slow=5.8,SNR=5.8						

IDC 09 15:02:05.1±1.7**,3.81N**×**127.09E,mb3.7**/3**,mb1 3.9**/3**, mb1mx3.7**/16**,MS3.3**/1**,Ms1 3.3**/1**,ms1mx2.6**/24**,Error ellipse: s-maj=196.0km s-min=28.2km az=72.0,Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	**Tagaytay City**	**11.89**	**330**	LR	LR	15 10 45.1	
	comp=Z,143nm,20.0s,baz=73,slow=44						
WRA	**Warramunga Arr**	**24.65**	**163**	P	P	15 07 27.6	-1.4
	2.1nm,0.7s,baz=343,slow=10.0,SNR=12						
WB2	**Warramunga Arr**	**24.66**	**163**	*e*P	P	15 07 27.6	-1.4
STKA	**Stephens Creek**	**38.08**	**160**	P	P	15 09 26.0	-1.4
	2.6nm,1.0s,baz=348,slow=9.3,SNR=3.2						
SONM	**Songino Array**	**47.34**	**341**	P	P	15 10 40.6	-2.0
	0.5nm,1.0s,baz=170,slow=8.8,SNR=3.5						

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*LDG **09** 15:04:54.4±0.2,48.09N×7.97E,h10^{km},Md1.9/1,Ml2.2/5, Error ellipse: s-maj=3.8km s-min=2.4km az=135.0*

STR 09 15:04:54.7±0.3**,48.02N**×**7.94E,h10**^{km}±1^{km}**,Ml1.6,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0,France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	**Welschbruch**	**0.56**	**315**	Pg	Pg	15 05 05.9	0.0
WLS				Sg	Sg	15 05 13.1	-0.3
ECH	**Echery**	**0.56**	**291**	Pg	Pg	15 05 05.3	-0.7
ECH				Sg	Sg	15 05 13.7	+0.1
CDF	**Champ du Feu**	**0.59**	**312**	*e*Pg	Pg	15 05 06.0	-0.7
CDF				*e*Pn	Pn	15 05 06.6	-2.2
CDF				*e*Sg	Sg	15 05 12.7	-2.0
	5.6nm,0.2s						
HINF	**Hinteralfeld**	**0.76**	**255**	*e*Pg	Pg	15 05 09.4	-0.6
HINF				*e*Pn	Pn	15 05 10.3	-0.9
HINF				*e*Sg	Sg	15 05 20.0	-0.1
	5.6nm,0.3s						
HAU	**Haudompre**	**1.07**	**270**	*e*Pg	Pg	15 05 15.0	-1.1
HAU				*e*Sn	Sn	15 05 29.1	-1.5
	8.8nm,0.3s						
RFYF	**Reffroy**	**1.75**	**291**	*e*Sg	Sg	15 05 49.7	-3.5
	2.5nm,0.2s						
SFTF	**Sexfontaines**	**1.95**	**277**	*e*Sg	Sg	15 05 55.6	-4.2
	1.9nm,0.2s						

DJA 09 15:11:20.3±0.8**,9.81S**×**115.38E,h33**^{km}**,MD4.9**/4**, ML4.3**/4**,1C-8D,Error ellipse: s-maj=18.3km s-min=8.5km az=177.0,South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RATI	**Rata**	**1.09**	**8**	⇓*i*Pn	Pn	15 11 38.3	-1.1
	767nm,0.2s						
RATI				⇓*i*Sn	Sn	15 11 50.9	-2.5
KEDI	**Kedomdong**	**1.50**	**29**	⇓*i*Pn	Pn	15 11 44.2	-1.1
	416nm,0.2s						
KEDI	**Kedomdong**	**1.50**	**29**	⇓*i*P	P	15 11 44.6	-0.5
KEDI				⇑*i*Sn	Sn	15 12 01.0	-2.9
SRDI	**Scrawed**	**1.80**	**317**	⇓*i*Pn	Pn	15 11 47.9	-1.7
	119nm,0.2s						
SRDI				⇓*i*Sn	Sn	15 12 07.6	-3.9
KELI	**Kelakatan**	**1.81**	**331**	⇓*i*Pn	Pn	15 11 48.9	-0.8
	96nm,0.2s						
KELI				⇓*i*Sn	Sn	15 12 09.4	-2.3

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*IDC **09** 15:19:47.7±2.1,9.16S×119.24E,mb4.1/6,mb1 4.2/8, mb1mx4.0/18,ML4.2/2,Error ellipse: s-maj=67.2km s-min=23.3km az=59.0*

*NEIC **09** 15:19:50.8±0.7,9.22S×119.25E,h20^{km},mb4.2/4,Error ellipse: s-maj=17.0km s-min=10.0km az=54.0*

*DJA **09** 15:20:02.4±1.4,8.85S×118.76E,h189^{km}±18^{km},mb5.0/2, Error ellipse: s-maj=57.7km s-min=7.2km az=139.0*

ISC 09 15:19:55.2±0.7**,9.39S**±0.05×**119.39E**±0.05**,h72**^{km}±9^{km}**, n34,**σ**1**^{s}**38**/45**,mb4.2**/10**,4C-4D,Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	**3.35**	**285**	⇑*e*P	**P**	**15 20 48.5**	**+2.0**
RATI	**Rata**	**3.86**	**280**	⇓*i*P	**P**	**15 20 54.7**	**+1.1**
NINI	**Niniconang**	**4.95**	**4**	⇓*i*P	**P**	**15 21 11.4**	**+2.7**
NINI				⇑*i*S	**S**	**15 22 04.0**	**-1.1**
KELI	**Kelakatan**	**4.98**	**283**	⇑*e*P	**P**	**15 21 08.1**	**-1.0**
SRDI	**Scrawed**	**5.26**	**279**	⇑*i*P	**P**	**15 21 11.8**	**-1.2**
BUNI	**Buntu Taipa**	**5.77**	**9**	⇓*i*P	**P**	**15 21 22.1**	**+2.2**
	278nm,0.3s						
TANI	**Tanete Lipujan**	**5.91**	**360**	⇓*i*P	**P**	**15 21 23.2**	**+1.3**
	403nm,0.3s						
FITZ	**Fitzroy Crossi**	**10.58**	**146**	*e*P	**P**	**15 22 24.0**	**-2.1**
	5.7nm,0.3s						
FITZ				*e*S	**S**	**15 24 14.1**	**-10**
FITZ	**Fitzroy Crossi**	**10.58**	**146**	Pn	**P**	**15 22 24.3**	**-1.8**
	1.9nm,0.3s,baz=349,slow=9.6,SNR=60						
FITZ				Sn	**S**	**15 24 14.1**	**-10**
	7.1nm,0.3s,baz=179,slow=22,SNR=17						
MBWA	**Marble Bar**	**11.71**	**178**	*e*P	**P**	**15 22 39.5**	**-1.8**
MBWA				*e*S	**S**	**15 24 35.8**	**-15**
KAKA	**Kakadu**	**13.23**	**106**	*e*P	**P**	**15 23 00.2**	**-1.3**
	21nm,0.4s						
KAKA				*e*S	**S**	**15 25 16.9**	**-10**
WRA	**Warramunga Arr**	**17.86**	**128**	P	**P**	**15 23 59.2**	**-1.2**
	0.6nm,0.3s,baz=303,slow=13,SNR=35						
WRA				S	**S**	**15 27 08.1**	**-5.9**
	1.6nm,0.3s,baz=296,slow=23,SNR=8.6						
WRAB	**Tennant Creek**	**17.86**	**128**	*e*P	**P**	**15 24 00.2**	**-0.2**
	7.1nm,0.6s						
WRAB				*e*S	**S**	**15 27 03.3**	**-11**
WB2	**Warramunga Arr**	**17.86**	**128**	*e*P	**P**	**15 23 59.7**	**-0.8**
WB2				*e*S	**S**	**15 27 02.8**	**-11**
ASPA	**Alice Springs**	**19.85**	**137**	*e*P	**P**	**15 24 24.1**	**+1.1**
ASPA				*e*S	**S**	**15 27 58.0**	**+0.5**
ASAR	**Alice Springs**	**19.86**	**137**	P	**P**	**15 24 24.1**	**+1.0**
	1.5nm,0.4s,baz=322,slow=13,SNR=18						
ASAR				S	**S**	**15 27 57.7**	**+0.1**
	2.3nm,0.6s,baz=307,slow=23,SNR=9.3						
KLBR	**Kellerberrin**	**22.15**	**184**	*e*P		15 25 03.0	
KLBR				*e*S	**S**	**15 28 42.4**	**+1.9**
MUN	**Mundaring**	**22.67**	**187**	*e*P		15 25 12.5	
	5.4nm,0.9s						
MUN				*e*S	**S**	**15 28 55.3**	**+5.3**
NWAO	**Narrogin (SRO)**	**23.51**	**185**	P		15 25 16.4	
	4.7nm,0.8s,baz=4.8,slow=12,SNR=3.4						
NWAO				S	**S**	**15 29 16.4**	**+12**
	6.8nm,0.9s,baz=348,slow=9.3,SNR=2.5						
NWAO	**Narrogin (SRO)**	**23.51**	**185**	P	**P**	**15 25 01.2**	**+1.8**
NWAO				*e*S	**S**	**15 29 09.0**	**+4.4**
PMG	**Port Moresby**	**27.40**	**92**	P	**P**	**15 25 36.7**	**+0.4**
	2.6nm,0.6s,mb4.0,baz=34,slow=5.6,SNR=3.2						
CTA	**Charters Tower**	**28.03**	**115**	P	**P**	**15 25 43.4**	**+1.5**
	2.1nm,0.7s,mb3.8,baz=290,slow=20,SNR=2.7						
CTA	**Charters Tower**	**28.03**	**115**	P	**P**	**15 25 43.4**	**+1.5**
STKA	**Stephens Creek**	**30.41**	**141**	*e*P	**P**	**15 26 04.1**	**+1.1**
	1.7nm,0.4s,mb4.0						
STKA	**Stephens Creek**	**30.41**	**141**	P	**P**	**15 26 04.1**	**+1.1**
	1.7nm,0.4s,mb4.0,baz=319,slow=11,SNR=14						
GUN	**Gumba**	**49.25**	**320**	*e*P	**P**	**15 28 37.5**	**-1.3**
PKI	**Pulchoki**	**49.32**	**319**	*e*P	**P**	**15 28 40.9**	**+1.6**
	3.9nm,0.4s,mb4.7						
DMN	**Daman**	**49.54**	**319**	*e*P	**P**	**15 28 41.4**	**+0.4**
	4.0nm,0.5s,mb4.6						
KKN	**Kakani**	**49.55**	**319**	*e*P	**P**	**15 28 39.8**	**-1.3**
GKN	**Gorkha**	**50.11**	**319**	*e*P	**P**	**15 28 42.7**	**-2.7**
	3.4nm,0.3s,mb4.7						
KOLN	**Koldanda**	**50.64**	**318**	*e*P	**P**	**15 28 48.7**	**-0.7**
	4.0nm,0.5s,mb4.7						
SONM	**Songino Array**	**58.12**	**350**	P	**P**	**15 29 41.3**	**-2.4**
	0.6nm,0.5s,mb3.9,baz=168,slow=8.2,SNR=6.3						
AML	**Almayashu**	**66.14**	**324**	P	**P**	**15 30 34.0**	**-3.3**
	1.6nm,0.7s,mb4.0						
CHKZ	**Chkalovo**	**75.12**	**332**	P	**P**	**15 31 31.7**	**+0.5**
	2.5nm,1.1s,mb3.9						

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*IDC **09** 15:29:56.3±3.7,52.75N×170.20W,h82^{km}±34^{km},mb3.6/12, mb1 3.9/14,mb1mx3.7/26,Error ellipse: s-maj=24.3km s-min=14.4km az=170.0*

*NEIC **09** 15:29:56.7±0.5,52.71N×170.02W,h83^{km}±5^{km},mb3.8/1, Error ellipse: s-maj=18.2km s-min=4.1km az=161.0*

ISC 09 15:29:55.6±0.5**,52.8N**±0.1×**170.10W**±0.08**,h88**^{km}±5^{km}**, n43,**σ**1**^{s}**06**/51**,mb3.8**/13**,Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIKO	**Nikolski**	**0.79**	**73**	P	**P**	**15 30 10.1**	**-3.1**
NIKO				S	**S**	**15 30 21.2**	**-4.9**
OKCE	**Okmok Cone E**	**1.35**	**59**	P	**P**	**15 30 18.6**	**-1.3**
OKCE				S	**S**	**15 30 36.7**	**-1.1**
OKCD	**Okmok Cone D**	**1.38**	**60**	P	**P**	**15 30 19.3**	**-0.9**
OKCD				S	**S**	**15 30 39.4**	**+0.9**
OKER	**East Rim**	**1.43**	**59**	P	**P**	**15 30 19.9**	**-0.9**
MGOD	**Makushin Gods**	**2.21**	**60**	P	**P**	**15 30 30.3**	**-0.9**
MGOD				S	**S**	**15 30 56.4**	**-1.1**
MNAT	**Makushin Natee**	**2.35**	**60**	P	**P**	**15 30 31.6**	**-1.5**
MNAT				S	**S**	**15 31 00.2**	**-0.8**
MTBL	**Makushin Table**	**2.39**	**58**	P	**P**	**15 30 33.1**	**-0.6**
UNV	**Unalaska Valle**	**2.42**	**62**	P	**P**	**15 30 33.2**	**-1.0**
UNV				S	**S**	**15 31 03.0**	**0.0**
ATKA	**Atka Island**	**2.56**	**259**	P	**P**	**15 30 35.4**	**-0.7**
LVA	**Lava Point**	**2.81**	**58**	P	**P**	**15 30 39.5**	**-0.1**
AKGG	**Akutan Green G**	**2.85**	**58**	P	**P**	**15 30 40.1**	**0.0**
AHB	**Akutan Harbor**	**2.91**	**60**	P	**P**	**15 30 40.9**	**0.0**
AHB				S	**S**	**15 31 17.7**	**+2.8**
WFAR	**Faris Peak**	**3.64**	**58**	P	**P**	**15 30 51.9**	**+0.9**
GSIG	**Igitkin Island**	**3.65**	**260**	P	**P**	**15 30 52.5**	**+1.4**
GSTR	**Great Sitkin T**	**3.71**	**262**	*e*P	**P**	**15 30 52.9**	**+1.0**
WESE	**West Dahl East**	**3.71**	**60**	P	**P**	**15 30 52.9**	**+0.9**
WESE				S	**S**	**15 31 36.8**	**+2.0**
GSMY	**Great Sitkin M**	**3.71**	**261**	P	**P**	**15 30 52.4**	**+0.3**
WESN	**West Dahl Nort**	**3.76**	**59**	P	**P**	**15 30 53.5**	**+0.9**
WESN				S	**S**	**15 31 38.1**	**+2.2**
GSTD	**Great Sitkin T**	**3.77**	**262**	P	**P**	**15 30 52.4**	**-0.3**
WTUG	**Tugumak**	**3.99**	**56**	P	**P**	**15 30 55.5**	**-0.3**
ADAG	**Mount Adagdak**	**4.06**	**262**	P	**P**	**15 30 58.3**	**+1.6**
SSLW	**Shishaldin Wes**	**4.09**	**58**	P	**P**	**15 30 58.0**	**+0.8**
SSLN	**Shishaldin Nor**	**4.17**	**58**	P	**P**	**15 30 58.8**	**+0.5**
KIWB	**Kanaga Island**	**4.42**	**261**	P	**P**	**15 31 02.3**	**+0.6**
KIMD	**Kanaga Island**	**4.49**	**260**	P	**P**	**15 31 03.8**	**+1.0**
DOL	**Dolgoi Island**	**5.43**	**60**	P	**P**	**15 31 16.1**	**+0.6**
FX1	**Attu Island--F**	**10.13**	**277**	P	**P**	**15 32 18.1**	**-1.6**
	1.6nm,0.3s,baz=244,slow=22,SNR=14						
ILAR	**Eielson Array**	**16.90**	**36**	P	**P**	**15 33 47.0**	**-0.3**
	0.1nm,0.3s,baz=225,slow=13,SNR=5.6						
DLBC	**Dease Lake**	**23.08**	**60**	P	**P**	**15 34 56.1**	**+2.6**
	3.0nm,1.1s,mb3.6,baz=279,slow=13,SNR=3.0						
INK	**Inuvik**	**23.28**	**34**	P	**P**	**15 34 56.0**	**+0.6**
	0.8nm,0.5s,mb3.3,baz=186,slow=10,SNR=9.1						
NEW	**Newport**	**33.35**	**76**	P	**P**	**15 36 25.4**	**-1.5**
	1.4nm,0.7s,mb3.9,baz=282,slow=5.6,SNR=4.1						
NVAR	**Mina Array Bea**	**38.12**	**91**	P	**P**	**15 37 08.6**	**+1.3**
	1.0nm,0.6s,mb3.8,baz=298,slow=7.6,SNR=8.5						
NVAR	**Mina Array Bea**	**38.12**	**91**	P	**P**	**15 37 08.6**	**+1.3**
BW06	**Boulder Array**	**40.77**	**79**	*e*P	**P**	**15 37 29.0**	**-0.2**
	0.8nm,0.5s,mb3.8						
PDAR	**Pinedale Array**	**40.77**	**79**	P	**P**	**15 37 29.7**	**+0.5**
	0.8nm,0.6s,mb3.7,baz=296,slow=3.5,SNR=5.3						
SONM	**Songino Array**	**50.72**	**300**	P	**P**	**15 38 47.6**	**-0.3**
	0.4nm,1.0s,mb3.4,baz=63,slow=6.4,SNR=3.2						
SONM				PcP	PcP	15 40 03.3	-0.8
	0.3nm,0.6s,baz=56,slow=2.8,SNR=4.0						
TXAR	**Lajitas Array**	**53.19**	**89**	P	**P**	**15 39 06.4**	**-0.3**
	1.2nm,0.4s,mb4.3,baz=302,slow=5.7,SNR=7.6						
ARCES	**ARCESS Array B**	**57.50**	**354**	P	**P**	**15 39 36.0**	**-1.2**
	4.4nm,1.0s,mb4.4,baz=7.1,slow=7.3,SNR=2.9						
BVAR	**Borovoye Array**	**63.13**	**324**	P	**P**	**15 40 14.7**	**-1.1**
	0.4nm,0.5s,mb3.6,baz=90,slow=5.9,SNR=3.6						
CTA	**Charters Tower**	**81.81**	**221**	P	**P**	**15 42 05.6**	**-0.6**
	2.8nm,0.8s,mb4.1,baz=41,slow=11,SNR=2.9						
WRA	**Warramunga Arr**	**86.89**	**231**	P	**P**	**15 42 30.8**	**-0.7**
	0.5nm,0.6s,mb3.6,baz=34,slow=5.8,SNR=6.9						
ASAR	**Alice Springs**	**90.30**	**229**	P	**P**	**15 42 47.7**	**+0.1**
	1.7nm,0.7s,mb4.3,baz=32,slow=4.8,SNR=19						
MAW	**Mawson**	**150.89**	**219**	PKPbc	PKPdf	15 49 37.9	+7.5
	1.4nm,0.5s,baz=157,slow=7.7,SNR=4.0						

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*JMA **09** 15:36:55.4±0.1,24.74N×122.43E,h106^{km},M2.0*

TAP 09 15:36:54.6,24.76N×**122.42E,h104**^{km}±1^{km}**,ML3.5, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.61**	**119**	P	P	15 37 12.6	+0.8
YOJ				S	S	15 37 25.7	+0.9
IRIF	**Iriomote-Funau**	**1.27**	**109**	P	P	15 37 19.1	+0.4
IRIF				*e*S	S	15 37 37.3	+0.5
HATJ	**Hateruma jima**	**1.44**	**119**	*e*S	S	15 37 41.0	+0.6
JKRS	**Kuro-shima**	**1.54**	**109**	P	P	15 37 22.7	+0.7
JKRS				*e*S	S	15 37 43.1	+0.7
JIJ	**Ishigaki jima**	**1.62**	**104**	P	P	15 37 23.7	+0.7
JIJ				*e*S	S	15 37 44.2	+0.1

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*PRU **09** 15:39:28.3,50.23N×18.84E*

WAR 09 15:39:27.0,50.26N×**18.86E,h0**^{km}**,ML2.5,Mining Induced,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.60**	**94**	*e*Pg	Pg	15 39 39.3	+0.3
OJC				*e*Sg	Sg	15 39 47.7	+0.6
OKC	**Ostrava-Krasne**	**0.63**	**228**	*e*PG	Pg	15 39 40.3	+0.8
OKC				*e*SG	Sg	15 39 49.9	+2.0
NIE	**Niedzica**	**1.26**	**131**	*e*PG	Pg	15 39 52.0	-0.2
NIE				*e*SG	Sg	15 40 09.0	0.0
DPC	**Dobruska-Polom**	**1.63**	**274**	*e*PG	Pg	15 39 56.7	-2.9
DPC				*e*SG	Sg	15 40 18.5	-2.8
KSP	**Ksiaz**	**1.74**	**291**	*e*PG	Pg	15 39 59.0	-2.7
KSP				*e*SG	Sg	15 40 22.0	-2.9
PRU	**Pruhonice**	**2.79**	**266**	*e*SG	Sg	15 40 55.5	-4.5
KHC	**Kasperske Hory**	**3.61**	**254**	*e*SG	Sg	15 41 21.8	-5.5
CLL	**Collm**	**3.86**	**288**	*e*SG	Sg	15 41 37.0	+1.4

MOS 09 15:52:37.1±1.6**,52.40N**×**106.60E,h13**^{km}**,mb4.3**/1**,Error ellipse: s-maj=61.0km s-min=36.4km az=97.2,Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAB	**Kabansk**	**0.35**	**175**	*e*PG	Pg	15 52 43.7	-0.8
KAB				*e*		15 52 49.8	
KAB				pmax	pmax		
	comp=Z,287nm,0.2s						
KAB				smax			
	comp=E,3μm,0.6s						
TRG	**Tyrgan**	**0.39**	**337**	*e*PG	Pg	15 52 44.1	-1.2
TRG				*e*		15 52 50.1	
TRG				pmax	pmax		
	comp=Z,208nm,0.1s						
TRG				smax			
	comp=N,3μm,0.2s						
IRK	**Irkutsk**	**1.44**	**265**	*e*PG	Pg	15 53 03.2	-2.7
IRK				*e*		15 53 23.0	
IRK				pmax	pmax		
	comp=Z,140nm,0.3s						
IRK				smax			
	comp=N,909nm,0.3s						
ARS	**Arshan**	**2.62**	**261**	*e*PN	Pn	15 53 21.5	+1.6
ARS				*e*		15 53 23.9	
ARS				*e*		15 53 58.9	
ARS				pmax	pmax		
	comp=Z,30nm,0.2s						
ARS				smax			
	comp=E,258nm,0.3s						

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*IDC **09** 16:11:23.7±1.7,64.93N×28.72E,mb1 3.0/4, mb1mx2.9/18,ML2.6/4,Error ellipse: s-maj=29.2km s-min=9.1km az=98.0*

*NAO **09** 16:11:25.1±1.2,65.07N×26.78E,ML2.7*

*BER **09** 16:11:25.5±3.9,65.08N×27.44E,ML2.7(NAO)*

*HEL **09** 16:11:26.3±0.1,65.05N×27.43E,h13^{km}±1^{km},ML2.0, ML2.7(NAO)*

*CSEM **09** 16:11:26.0±0.2,65.12N×27.35E,h25^{km},ML3.0/2,Error ellipse: s-maj=6.0km s-min=3.2km az=116.0*

ISC 09 16:11:25.2±0.3**,65.06N**±0.02×**27.41E**±0.07**,h13**^{km}**,n37,** σ**0**^{s}**86**/78**,Finland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OUL	**Oulu**	**0.64**	**273**	*i* P	**Pb**	**16 11 38.4**	**+0.6**
OUL				*i* S	**Sb**	**16 11 46.7**	**+0.3**
OUL	**Oulu**	**0.64**	**273**	P	**Pb**	**16 11 38.3**	**+0.5**
KU2	**Taivalkoski**	**0.73**	**28**	*i* P	**Pb**	**16 11 39.8**	**+0.4**
KU2				*i* S	**Sb**	**16 11 49.3**	**+0.2**
KU2	**Taivalkoski**	**0.73**	**28**	P	**Pb**	**16 11 39.7**	**+0.3**
KU2				S	**Sb**	**16 11 49.3**	**+0.2**
KJN	**Kajaani**	**0.99**	**172**	*i* P	**Pb**	**16 11 43.5**	**-0.2**
KJN				*e*S	**Sb**	**16 11 55.4**	**-1.1**
KU1	**Kurvinen**	**1.03**	**60**	*e*P	**Pb**	**16 11 44.7**	**+0.2**
KU1				*e*S	**Sb**	**16 11 57.6**	**-0.2**
KU1	**Kurvinen**	**1.03**	**60**	P	**Pb**	**16 11 44.6**	**+0.1**
KU1				S	**Sb**	**16 11 57.5**	**-0.2**
MSF	**Maaselka**	**1.09**	**38**	*e*P	**Pb**	**16 11 45.8**	**+0.4**
MSF				*e*S	**Sb**	**16 11 59.4**	**0.0**
KU5	**Karpankyla**	**1.34**	**49**	*e*P	**Pb**	**16 11 49.9**	**+0.1**
KU5				*e*S	**Sb**	**16 12 06.7**	**0.0**
KU5	**Karpankyla**	**1.34**	**49**	P	**Pb**	**16 11 49.8**	**+0.1**
KU5				S	**Sb**	**16 12 06.6**	**-0.1**
KU4	**Oulanka**	**1.59**	**33**	*e*P	**Pn**	**16 11 54.1**	**+0.9**
KU4				*e*S	**Sn**	**16 12 14.2**	**+0.5**
SGF	**Sodankyl**	**2.42**	**352**	*e*P	**Pn**	**16 12 05.5**	**+0.4**
SGF				*e*S	**Sn**	**16 12 33.8**	**-1.0**
SGF				MSG		16 12 43.1	
	comp=Z,5.5nm,0.2s						
SGF	**Sodankyl**	**2.42**	**352**	P	**Pn**	**16 12 05.5**	**+0.4**
SGF				S	**Sn**	**16 12 33.8**	**-1.0**
	comp=Z,5.5nm,0.2s						
SUF	**Sumiainen**	**2.42**	**194**	*e*P	**Pn**	**16 12 06.6**	**+1.5**
SUF				*e*S	**Sn**	**16 12 36.0**	**+1.1**
SUF	**Sumiainen**	**2.42**	**194**	P	**Pn**	**16 12 06.6**	**+1.4**
SUF				S	**Sn**	**16 12 35.9**	**+1.0**
JOF	**Joensuu**	**2.76**	**140**	*e*P	**Pn**	**16 12 10.2**	**+0.2**
JOF				*e*S	**Sn**	**16 12 42.6**	**-0.9**
JOF				*e*SG	**Sg**	**16 12 49.6**	**-7.4**
JOF				MSG		16 12 51.0	
	comp=Z,5.1nm,0.2s						
JOF	**Joensuu**	**2.76**	**140**	P	**Pn**	**16 12 10.1**	**+0.1**
JOF				S	**Sn**	**16 12 42.5**	**-1.0**
JOF				Sg	**Sg**	**16 12 49.6**	**-7.4**
	comp=Z,5.1nm,0.2s						
VAF	**Ylistaro**	**2.91**	**228**	*e*P	**Pn**	**16 12 12.2**	**0.0**
VAF				*e*S	**Sn**	**16 12 46.3**	**-1.0**
VAF	**Ylistaro**	**2.91**	**228**	P	**Pn**	**16 12 12.1**	**0.0**
VAF				S	**Sn**	**16 12 46.3**	**-1.0**
KAF	**Kangasniemi**	**3.00**	**190**	*e*P	**Pn**	**16 12 15.1**	**+1.6**
KAF				*e*S	**Sn**	**16 12 50.4**	**+0.7**
KAF				MSG		16 13 04.2	
	comp=Z,3.3nm,0.2s						
KAF	**Kangasniemi**	**3.00**	**190**	P	**Pn**	**16 12 15.1**	**+1.6**
KAF				S	**Sn**	**16 12 50.4**	**+0.7**
	comp=Z,3.3nm,0.2s						
KEF	**Keuruu**	**3.12**	**202**	*e*P	**Pn**	**16 12 15.6**	**+0.5**
KEF				*e*S	**Sn**	**16 12 50.9**	**-1.7**
KEF				*e*SG	**Sg**	**16 13 01.1**	**-8.0**
KEF				MSG		16 13 03.9	
	comp=Z,3.4nm,0.2s						
KEF	**Keuruu**	**3.12**	**202**	P	**Pn**	**16 12 15.6**	**+0.4**
KEF				S	**Sn**	**16 12 50.9**	**-1.8**
KEF				Sg	**Sg**	**16 13 01.1**	**-8.0**
	comp=Z,3.4nm,0.2s						
FIA0	**FINESS Array S**	**3.68**	**190**	Pn	**Pn**	**16 12 23.9**	**+0.8**
	baz=1.9,slow=14						
FIA0				Pg	**Pg**	**16 12 30.1**	**-8.6**
	baz=17,slow=16						
FIA0				Sn	**Sn**	**16 13 04.5**	**-2.5**
	baz=19,slow=28						
FIA0				Lg		16 13 18.5	
	baz=19,slow=28						
FIA0	**FINESS Array S**	**3.68**	**190**	*e*P	**Pn**	**16 12 23.8**	**+0.6**
FIA0				*e*S	**Sn**	**16 13 05.9**	**-1.1**
FIA0				*e*SG	**Sg**	**16 13 18.0**	**-10**
FIA0				MSG		16 13 19.7	
	comp=Z,3.5nm,0.2s						
FIA0	**FINESS Array S**	**3.68**	**190**	Sn	**Sn**	**16 13 04.4**	**-2.5**
FIA0	**FINESS Array S**	**3.68**	**190**	P	**Pn**	**16 12 23.7**	**+0.5**
FIA0	**FINESS Array S**	**3.68**	**190**	Pg	**Pg**	**16 12 30.1**	**-8.7**
FIA0				S	**Sn**	**16 13 05.8**	**-1.1**
FINES	**FINESS Array B**	**3.68**	**190**	Pn	**Pn**	**16 12 23.6**	**+0.5**
	comp=Z,0.5nm,0.3s,baz=14,slow=11,SNR=19						
FINES				Sn	**Sn**	**16 13 05.9**	**-1.0**
	comp=Z,0.5nm,0.3s,baz=14,slow=23,SNR=4.9						
FINES				Lg		16 13 18.6	
	comp=Z,3.0nm,0.3s,baz=18,slow=27,SNR=19						
ARA0	**ARCESS Array S**	**4.55**	**352**	Pn	**Pn**	**16 12 34.7**	**-0.9**
	baz=173,slow=16						
ARA0				Sn	**Sn**	**16 13 25.5**	**-3.5**
	baz=171,slow=28						
ARA0				Lg		16 13 43.4	
	baz=169,slow=37						
ARA0	**ARCESS Array S**	**4.55**	**352**	*e*P	**Pn**	**16 12 34.7**	**-0.9**
ARA0				*e*S	**Sn**	**16 13 25.5**	**-3.5**
ARA0				*e*SG	**Sg**	**16 13 43.4**	**-13**
ARA0	**ARCESS Array S**	**4.55**	**352**	P	**Pn**	**16 12 34.6**	**-0.9**
ARA0				S	**Sn**	**16 13 25.4**	**-3.5**
ARCES	**ARCESS Array B**	**4.55**	**352**	Pn	**Pn**	**16 12 35.1**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=167,slow=14,SNR=18						
ARCES				Sn	**Sn**	**16 13 24.9**	**-4.0**
	comp=Z,0.6nm,0.3s,baz=169,slow=24,SNR=4.2						
ARCES				Lg		16 13 44.4	
	comp=Z,3.2nm,0.3s,baz=167,slow=32,SNR=17						
PVF	**Pernaja**	**4.59**	**190**	*e*SG	**Sg**	**16 13 44.4**	**-14**
PVF				MSG		16 13 47.3	
	comp=Z,3.1nm,0.2s						
KEV	**Kevo**	**4.72**	**358**	*e*P	**Pn**	**16 12 37.1**	**-0.7**
KEV				*e*S	**Sn**	**16 13 28.0**	**-5.1**
KEV				*e*SG	**Sg**	**16 13 48.5**	**-14**
KEV				MSG		16 13 55.2	
	comp=Z,2.7nm,0.2s						
HFS	**Hagfors**	**8.02**	**238**	Pn	**P**	**16 13 24.1**	**-0.2**
	comp=Z,0.0nm,0.3s,baz=49,slow=15,SNR=2.6						
HFS				Sn	**Sn**	**16 14 48.1**	**-7.7**
	comp=Z,0.0nm,0.3s,baz=176,slow=40,SNR=2.7						
HFS				Lg		16 15 31.4	
	comp=Z,0.1nm,0.3s,baz=53,slow=30,SNR=6.8						
NOA	**NORSAR Array B**	**8.38**	**249**	Pn	**P**	**16 13 30.4**	**+1.1**
	comp=Z,0.1nm,0.3s,baz=62,slow=8.0,SNR=2.2						
NOA				Sn	**Sn**	**16 14 56.0**	**-8.7**
	comp=Z,0.1nm,0.3s,baz=49,slow=23,SNR=2.5						
NOA				Lg		16 15 45.3	
	comp=Z,0.4nm,0.3s,baz=40,slow=24,SNR=3.8						

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*LDG **09** 16:13:53.8±0.3,43.37N×0.57W,h15^{km},Md2.0/2,Ml2.2/1, Error ellipse: s-maj=8.2km s-min=3.2km az=173.0*

MDD 09 16:13:54.0±0.8**,43.43N**×**0.55W,mbLg1.3**/7**,Error ellipse: s-maj=5.8km s-min=3.4km az=6.0,PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATE	**Arette**	**0.36**	**198**	Pg	Pg	16 14 00.4	-0.8
ATE				Lg		16 14 06.7	
ETSF	**Etsaut**	**0.53**	**181**	*e*Pg	Pg	16 14 03.2	-1.4
ETSF				*e*Sg	Sg	16 14 09.4	-2.3
	6.9nm,0.3s						
SJPF	**Ste Jean**	**0.58**	**237**	*e*Pg	Pg	16 14 04.4	-1.3
SJPF				*e*Sg	Sg	16 14 12.6	-0.9
	6.8nm,0.3s						
EALK	**Alkurruntz**	**0.73**	**253**	Pg	Pg	16 14 07.0	-1.5
	0.5nm,0.1s,SNR=7.9						
EALK				Lg		16 14 17.9	
	12nm,0.4s,SNR=7.9						
EPF	**Esparros**	**0.77**	**121**	*e*Pg	Pg	16 14 08.1	-1.1
EPF				*e*Sg	Sg	16 14 19.0	-0.4
	7.4nm,0.2s						
EBIE	**Bielsa**	**0.90**	**145**	Pg	Pg	16 14 11.5	-0.5
	SNR=7.9						
EBIE				Lg		16 14 23.1	
	1.5nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**1.71**	**178**	Lg		16 14 50.0	
	14nm,0.3s,SNR=7.9						
MTLF	**Montolieu**	**2.02**	**92**	*e*Sg	Sg	16 14 57.6	-3.7
	3.3nm,0.3s						

WEL 09 16:35:08.0±0.3**,40.33S**×**174.04E,h86**^{km}±4^{km}**,ML3.5**/7**, 3C-1D,Error ellipse: s-maj=1.5km s-min=0.8km az=90.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIW	**Kapiti Island**	**0.85**	**129**	*e*PN	P	16 35 25.7	-0.2
KIW				SN	S	16 35 38.6	-0.8
WAZ	**Wanganui**	**0.92**	**52**	PN	P	16 35 27.1	+0.4
NRZ	**Ngariki Road**	**0.99**	**355**	PN	P	16 35 26.7	-0.8
DFE	**Dawson Falls**	**1.00**	**3**	PN	P	16 35 27.4	-0.3
NNZ	**Nelson**	**1.02**	**209**	⇑PN	P	16 35 27.6	-0.4

NNZ				SN	S	16 35 42.7	-0.3
MRW	**Makara Radio**	**1.03**	**151**	PN	P	16 35 28.1	0.0
MRW				SN	S	16 35 42.3	-0.9
NEZ	**North Egmont**	**1.05**	**2**	PN	P	16 35 28.7	+0.4
NWEZ	**Newall Road**	**1.06**	**353**	PN	P	16 35 27.9	-0.5
RAEZ	**Rainy Point**	**1.07**	**15**	PN	P	16 35 28.5	0.0
CAW	**Cannon Point**	**1.10**	**135**	PN	P	16 35 28.7	-0.2
CAW				SN	S	16 35 43.8	-0.8
WEL	**Wellington**	**1.11**	**150**	PN	P	16 35 28.8	-0.1
WEL				SN	S	16 35 44.1	-0.6
TUWZ	**Tuamarina**	**1.11**	**184**	PN	P	16 35 28.6	-0.4
TUWZ				SN	S	16 35 44.7	0.0
PKE	**Pukeiti**	**1.13**	**358**	PN	P	16 35 28.7	-0.6
PKE				SN	S	16 35 43.4	-1.8
MRZ	**Mangatainoka R**	**1.22**	**107**	PN	P	16 35 30.0	-0.4
MRZ				SN	S	16 35 45.5	-1.7
BHW	**Baring Head**	**1.25**	**150**	*e*PN	P	16 35 30.2	-0.6
QRZ	**Quartz Range**	**1.26**	**246**	⇓PN	P	16 35 29.4	-1.5
QRZ				SN	S	16 35 46.2	-1.8
VRZ	**Vera Road**	**1.32**	**25**	⇑PN	P	16 35 31.1	-0.7
VRZ				SN	S	16 35 49.4	0.0
MTW	**Mount Morrison**	**1.39**	**127**	PN	P	16 35 31.7	-0.9
MTW				SN	S	16 35 48.7	-2.1
BSWZ	**Blackbirch Sta**	**1.39**	**185**	PN	P	16 35 32.8	+0.1
BSWZ				*e*SN	S	16 35 50.4	-0.5
MSWZ	**Moikau Station**	**1.42**	**140**	*e*PN	P	16 35 32.8	-0.3
MSWZ				SN	S	16 35 49.8	-1.8
PAWZ	**Paruwai Farm**	**1.49**	**136**	PN	P	16 35 33.1	-0.8
PAWZ				SN	S	16 35 50.9	-2.1
TSZ	**Takapari Road**	**1.49**	**80**	PN	P	16 35 32.7	-1.2
WNVZ	**Wahianoa**	**1.56**	**51**	*e*PN	P	16 35 34.5	-0.3
DRZ	**Dome Shelter**	**1.57**	**49**	*e*PN	P	16 35 35.1	+0.1
FWVZ	**Far West T-bar**	**1.58**	**48**	PN	P	16 35 34.6	-0.5
MOVZ	**Moawhango**	**1.60**	**56**	*e*PN	P	16 35 34.0	-1.4
CNZ	**Chateau**	**1.62**	**46**	PN	P	16 35 34.8	-0.7
TUVZ	**Tukino**	**1.63**	**50**	PN	P	16 35 35.5	-0.2
TWVZ	**Taurewa**	**1.65**	**41**	PN	P	16 35 35.3	-0.7
NGZ	**Ngauruhoe**	**1.66**	**47**	PN	P	16 35 35.0	-1.1
THZ	**Tophouse**	**1.68**	**211**	PN	P	16 35 35.8	-0.5
MGZ	**Maungaku**	**1.76**	**42**	PN	P	16 35 36.7	-0.7
HIZ	**Hauiti**	**1.92**	**19**	PN	P	16 35 38.0	-1.5
HIZ				SN	S	16 36 00.8	-1.9
RATZ	**Rangitukua**	**1.98**	**43**	PN	P	16 35 40.3	0.0
KHZ	**Kahutara**	**2.12**	**190**	⇑PN	P	16 35 41.4	-0.9
DSZ	**Denniston Nort**	**2.21**	**229**	PN	P	16 35 42.0	-1.6
BKZ	**Black Stump Fm**	**2.21**	**59**	PN	P	16 35 41.3	-2.4
LTZ	**Lake Taylor**	**2.79**	**208**	PN	P	16 35 50.6	-1.1
TOZ	**Tahuroa Road**	**2.83**	**24**	PN	P	16 35 50.3	-1.8
URZ	**Urewera**	**3.15**	**50**	PN	P	16 35 55.9	-0.7
MKAZ	**Moumakai**	**3.33**	**16**	PN	P	16 35 56.9	-2.2
MWZ	**Matawai**	**3.35**	**55**	*e*PN	P	16 35 57.6	-1.8
WTAZ	**Waiatarua**	**3.41**	**7**	*e*PN	P	16 35 58.6	-1.6
CRLZ	**Canterbury Las**	**3.42**	**198**	*e*PN	P	16 35 57.1	-3.2
OTAZ	**Otara**	**3.44**	**12**	PN	P	16 35 58.7	-2.0
MQZ	**McQueen's Vall**	**3.54**	**197**	PN	P	16 35 57.8	-4.1
MTAZ	**Motutapu**	**3.60**	**11**	PN	P	16 36 00.6	-2.2
WVZ	**Waitaha Valley**	**3.70**	**221**	*e*PN	P	16 36 01.5	-2.7
WVZ				SN	S	16 36 42.3	-4.5
KUZ	**Kuaotunu**	**3.81**	**21**	PN	P	16 36 02.7	-3.0
KUZ				*e*SN	S	16 36 44.4	-5.1
WCZ	**Waipu Caves**	**4.38**	**3**	*e*PN	P	16 36 11.6	-2.1
FOZ	**Fox Glacier**	**4.58**	**224**	PN	P	16 36 12.4	-4.0
ODZ	**Otahua Downs**	**5.34**	**207**	*e*PN	P	16 36 23.0	-3.7
JCZ	**Jackson Bay**	**5.42**	**225**	PN	P	16 36 24.8	-3.2

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*WAR **09** 16:46:14.6, 51.50N×16.09E, h1^{km}, ML2.8, Mining Induced*
*PRU **09** 16:46:14.5, 51.47N×16.11E*
ISC 09 16:46:11.3±1.0**, 51.51N**±0.05×**16.10E**±0.05**, n10,** σ1^{s}**37**/22**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.68**	**170**	*e*PG	**Pg**	**16 46 27.0**	**+2.1**
KSP				*e*SG	**Sg**	**16 46 36.0**	**+2.0**
UPC	**Upice**	**1.01**	**183**	*e*PG	**Pg**	**16 46 33.0**	**+1.5**
UPC				*e*SG	**Sg**	**16 46 46.4**	**+1.5**
DPC	**Dobruska-Polom**	**1.17**	**173**	*e*PG	**Pg**	**16 46 35.5**	**+0.8**
DPC				*e*SG	**Sg**	**16 46 50.8**	**+0.4**
PVCC	**Panska Ves**	**1.38**	**225**	*e*PG	**Pg**	**16 46 40.3**	**+1.4**
PRU	**Pruhonice**	**1.82**	**214**	PG	**Pg**	**16 46 46.1**	**-1.5**
PRU				*i* x	x	16 46 50.9	
PRU				*i* x	x	16 47 04.2	
PRU				SG	**Sg**	**16 47 10.1**	**-1.8**
	6.1nm,0.3s						
CLL	**Collm**	**1.95**	**265**	*i* PG	**Pg**	**16 46 50.3**	**+0.1**
CLL				*e*SG	**Sg**	**16 47 16.0**	**-0.2**
OKC	**Ostrava-Krasne**	**2.12**	**141**	*e*PG	**Pg**	**16 46 52.2**	**-1.5**
OKC				*e*SG	**Sg**	**16 47 19.7**	**-2.4**
NKC	**Novy Kostel**	**2.64**	**242**	*e*PN	**Pn**	**16 46 58.3**	**+2.4**
NKC				*e*PG	**Pg**	**16 47 03.9**	**-0.2**
NKC				*e*SG	**Sg**	**16 47 39.1**	**-0.2**
OJC	**Ojcow**	**2.68**	**117**	*e*Pg	**Pg**	**16 47 04.5**	**-0.3**
OJC				*e*Sg	**Sg**	**16 47 39.7**	**-0.8**
KHC	**Kasperske Hory**	**2.88**	**215**	*e*PN	**Pn**	**16 47 00.4**	**+1.1**
KHC				*e*PG	**Pg**	**16 47 06.2**	**-2.6**
KHC				*e*SN	**Sn**	**16 47 34.5**	**-0.7**
KHC				*e*SG	**Sg**	**16 47 45.7**	**-1.5**

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*IDC **09** 16:48:28.4±21.0, 16.46N×93.18W, mb3.4/3, mb1 3.8/3, mb1mx3.6/17, Error ellipse: s-maj=435.0km s-min=123.3km az=173.0*
*NEIC **09** 16:48:37.9, 15.51N×93.40W, h17^{km}, MD4.2(MEX), After MEX.*
*MEX **09** 16:48:38.1±0.7, 15.51N×93.39W, h16^{km}±16^{km}, MD4.2*
ISC 09 16:48:36.8±1.9**, 15.9N**±0.2×**93.24W**±0.07**, h119**^{km}±8^{km}**, n8,** σ1^{s}**04**/12**, mb3.4**/3**, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCX	**San Cristobal**	**1.00**	**36**	*i* P	**P**	**16 49 00.0**	**+1.0**
SCX				*i* S	**S**	**16 49 17.0**	**+1.4**
CCIG	**Comitan**	**1.12**	**71**	*i* P	**P**	**16 48 59.8**	**-0.5**
CCIG				*i* S	**S**	**16 49 16.7**	**-1.2**
CMIG	**Matias Romero**	**1.96**	**307**	*e*P	**P**	**16 49 09.7**	**-0.4**
CMIG				*i* S	**S**	**16 49 33.7**	**-1.5**
CMIG	**Matias Romero**	**1.96**	**307**	*e*P	**P**	**16 49 10.1**	**0.0**
CMIG				*i* S	**S**	**16 49 33.7**	**-1.5**
OXX	**Oaxaca**	**3.53**	**290**	*e*P	**P**	**16 49 33.0**	**+1.9**
NVAR	**Mina Array Bea**	**31.43**	**320**	P	**P**	**16 54 48.3**	**-0.6**
	0.5nm,0.8s,mb3.3,baz=135,slow=10,SNR=2.4						
YKA	**Yellowknife Ar**	**48.89**	**347**	P	**P**	**16 57 11.7**	**-0.4**
	0.4nm,0.7s,mb3.5,baz=149,slow=7.8,SNR=4.2						
ILAR	**Eielson Array**	**60.61**	**337**	P	**P**	**16 58 37.5**	**+0.4**
	0.4nm,1.0s,mb3.4,baz=122,slow=4.8,SNR=4.4						

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*NEIC **09** 16:49:41.5, 34.72N×23.75E, h29^{km}, MD3.5(ATH), After ATH.*
*CSEM **09** 16:49:43.6, 34.88N×23.81E, h31^{km}, MD3.5*
ATH 09 16:49:42.5, 34.77N×23.74E, h32^{km}±4^{km}**, MD3.4**/5**, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	**Gavdhos**	**0.29**	**76**	*e*PB	Pb	16 49 50.5	+0.4
VAM	**Vamos**	**0.74**	**31**	*e*PB	Pb	16 49 56.2	-0.7
VAM				*e*SN	Sn	16 50 08.7	+1.8
KYTH	**Kithira**	**1.61**	**339**	*e*PN	Pn	16 50 11.0	+1.8
KYTH	**Kithira**	**1.61**	**339**	*e*Pn	Pn	16 50 12.0	+2.8
NPS	**Neapolis**	**1.61**	**72**	*e*PB	Pb	16 50 10.7	-0.9
VLI	**Veliai**	**2.05**	**342**	*e*PN	Pn	16 50 16.5	+1.0
VLI	**Veliai**	**2.05**	**342**	*e*Pn	Pn	16 50 15.2	-0.3
THR6	**Thira Island,**	**2.08**	**40**	*e*P	Pn	16 50 15.3	-0.7
THR5	**Thira Island,**	**2.10**	**38**	*e*P	Pn	16 50 14.8	-1.4
THR1	**Thera Island**	**2.12**	**41**	*e*P	Pn	16 50 15.6	-1.0
APE	**Apeiranthos**	**2.72**	**32**	*e*Pn	Pn	16 50 22.3	-2.7
KARP	**Karpathos**	**2.91**	**74**	*e*PN	Pn	16 50 28.8	+1.1

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*NEIC **09** 17:26:22.8, 35.03N×3.06W, h7^{km}, MG3.8(MDD), After MDD.*
*MDD **09** 17:26:22.1±1.4, 35.00N×3.09W, mb3.9/11, Error ellipse: s-maj=12.9km s-min=5.4km az=150.0, PRXIMO AftershockPLICA*
*CSEM **09** 17:26:22.1±0.3, 35.13N×3.03W, h15^{km}, MD3.8, Error ellipse: s-maj=7.0km s-min=3.9km az=118.0*
*CNRM **09** 17:26:22.9, 35.04N×2.85W, h1^{km}, MD3.8*
*INMG **09** 17:26:24.0±1.1, 35.08N×3.00W, h15^{km}±3^{km}, ML2.6, Error ellipse: s-maj=6.2km s-min=4.1km az=157.0*
ISC 09 17:26:22.9±0.4**, 35.18N**±0.02×**3.20W**±0.03**, h10**^{km}**, n53,** σ1^{s}**30**/92**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.23**	**58**	P	**Pg**	**17 26 28.1**	**+0.3**
	72nm,0.2s,SNR=7.9						
EMEL				S	**Sg**	**17 26 32.4**	**+1.2**
	314nm,0.3s,SNR=7.9						
EMLI	**Melilla**	**0.23**	**59**	P	**Pg**	**17 26 28.1**	**+0.2**
	72nm,0.2s,SNR=7.9						
EMLI				S	**Sg**	**17 26 32.4**	**+1.1**
	314nm,0.3s,SNR=7.9						
MELI	**Melilla**	**0.24**	**62**	P	**Pg**	**17 26 27.8**	**-0.2**
MELI				S	**Sg**	**17 26 32.5**	**+1.0**
MELI	**Melilla**	**0.24**	**62**	*e*P	**Pg**	**17 26 27.8**	**-0.3**
MELI				*i* S	**Sg**	**17 26 32.5**	**+1.0**
TOU	**Touzarine**	**0.51**	**245**	*i* P	**Pg**	**17 26 36.0**	**+2.8**
TOU				*i* S	**Sg**	**17 26 46.0**	**+6.0**
MPAL	**Palemas**	**0.61**	**275**	*i* P	**Pb**	**17 26 39.0**	**+3.7**
MPAL				*i* S	**Sg**	**17 26 52.0**	**+8.4**
TZK	**Tazeka**	**1.36**	**217**	*i* P	**Pn**	**17 26 47.0**	**-1.0**
TZK				*i* S	**Sb**	**17 27 06.0**	**+0.7**
EBER	**Berja**	**1.73**	**8**	P	**Pn**	**17 26 53.2**	**-0.2**
EBER				S	**Sn**	**17 27 18.0**	**+2.3**
EBER	**Berja**	**1.73**	**8**	P	**Pn**	**17 26 53.2**	**-0.2**
	2.4nm,0.3s,SNR=6.6						
EBER				S	**Sn**	**17 27 14.7**	**-1.1**
	15nm,0.2s,SNR=7.9						
EBER	**Berja**	**1.73**	**8**	S	**Sn**	**17 27 14.7**	**-1.0**
	15nm,0.2s,SNR=7.9						
EBER	**Berja**	**1.73**	**8**	P	**Pn**	**17 26 53.2**	**-0.2**
	2.4nm,0.3s,SNR=6.6						
DKH	**Dar Kharkhour**	**1.80**	**281**	*i* S	**Sn**	**17 27 22.0**	**+4.7**
EMIJ	**Mijas**	**1.89**	**318**	P	**Pn**	**17 26 55.5**	**0.0**
	5.8nm,0.2s,SNR=15						
EMIJ				S	**Sn**	**17 27 21.2**	**+1.7**
	15nm,0.2s,SNR=7.9						
MIF	**Mishlifen**	**2.44**	**224**	*e*P	**Pn**	**17 27 03.0**	**-0.5**
MIF				*i* S	**Sn**	**17 27 32.0**	**-1.6**
EQES	**Quesada**	**2.62**	**2**	P	**Pn**	**17 27 08.3**	**+2.2**
	6.8nm,0.2s,SNR=19						
EQES				S	**Sn**	**17 27 41.1**	**+2.8**
	SNR=7.9						
EQES	**Quesada**	**2.62**	**2**	S	**Sn**	**17 27 41.1**	**+2.8**
	SNR=7.9						
EQES	**Quesada**	**2.62**	**2**	P	**Pn**	**17 27 08.3**	**+2.2**
	6.8nm,0.2s,SNR=19						
CZD	**Col de Zad**	**2.63**	**216**	*e*P	**Pn**	**17 27 07.0**	**+0.8**
CZD				*i* S	**Sn**	**17 27 37.0**	**-1.6**
ESPR	**Espera**	**2.74**	**309**	P	**Pn**	**17 27 09.5**	**+1.7**
	3.8nm,0.3s,SNR=4.7						
ESPR				S	**Sn**	**17 27 42.7**	**+1.5**
	4.1nm,0.2s,SNR=7.9						
ESPR	**Espera**	**2.74**	**309**	P	**Pn**	**17 27 09.5**	**+1.8**
	3.8nm,0.3s,SNR=4.7						
ESPR				S	**Sn**	**17 27 42.7**	**+1.5**
	4.1nm,0.2s,SNR=7.9						
EMUR	**La Murta**	**3.09**	**30**	P	**Pn**	**17 27 11.5**	**-1.3**
	8.1nm,0.2s,SNR=9.3						
EMUR				S	**Sn**	**17 27 46.6**	**-3.5**
	0.6nm,0.6s,SNR=7.9						
EMUR	**La Murta**	**3.09**	**30**	P	**Pn**	**17 27 11.5**	**-1.3**
	8.1nm,0.2s,SNR=9.3						
EMUR				S	**Sn**	**17 27 46.6**	**-3.5**
	0.6nm,0.6s,SNR=7.9						
EADA	**Adamuz**	**3.18**	**340**	P	**Pn**	**17 27 15.3**	**+1.2**
	3.9nm,0.3s,SNR=23						
EADA				S	**Sn**	**17 27 53.0**	**+0.5**
	5.6nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.18**	**340**	P	**Pn**	**17 27 15.3**	**+1.2**
	3.9nm,0.3s,SNR=23						
EADA				S	**Sn**	**17 27 53.0**	**+0.5**
	5.6nm,0.2s,SNR=7.9						
ZFT	**Errachidia**	**3.28**	**197**	*i* P	**Pn**	**17 27 15.0**	**-0.5**
EMIN	**Mina Concepcio**	**3.81**	**314**	P	**Pn**	**17 27 23.3**	**+0.3**
	2.8nm,0.2s,SNR=42						
EMIN				S	**Sn**	**17 28 08.6**	**+0.2**
	2.1nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.81**	**314**	P	**Pn**	**17 27 23.3**	**+0.3**
	2.8nm,0.2s,SNR=42						
EMIN				S	**Sn**	**17 28 08.6**	**+0.2**
	2.1nm,0.2s,SNR=7.9						
EBEN	**Beniarda**	**4.25**	**33**	S	**Sn**	**17 28 14.7**	**-4.8**
	1.3nm,0.2s,SNR=7.9						
EBEN	**Beniarda**	**4.25**	**33**	S	**Sn**	**17 28 14.7**	**-4.7**
	1.3nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	**4.53**	**352**	P	**Pn**	**17 27 34.2**	**+1.0**
ESDC				S	**Sn**	**17 28 25.8**	**-0.8**
ESDC	**Sonseca Array**	**4.53**	**352**	P	**Pn**	**17 27 34.2**	**+1.0**
	6.3nm,0.2s,baz=172,slow=12,SNR=11						
ESDC	**Sonseca Array**	**4.53**	**352**	P	**Pn**	**17 27 34.2**	**+1.0**
	6.3nm,0.2s,SNR=11						
ESDC				S	**Sn**	**17 28 25.8**	**-0.8**
EBAD	**Badajoz**	**4.70**	**321**	P	**Pn**	**17 27 35.9**	**+0.2**
	6.7nm,0.2s,SNR=32						
EBAD				S	**Sn**	**17 28 29.5**	**-1.3**
	0.9nm,0.5s,SNR=7.9						
EBAD	**Badajoz**	**4.70**	**321**	P	**Pn**	**17 27 35.9**	**+0.3**
	6.7nm,0.2s,SNR=32						
EBAD				S	**Sn**	**17 28 29.5**	**-1.4**
	0.9nm,0.5s,SNR=7.9						
PBEJ	**Beja**	**4.71**	**308**	*e*Pn	**Pn**	**17 27 36.3**	**+0.5**
PBEJ				*e*Sn	**Sn**	**17 28 30.6**	**-0.6**
	3.6nm,0.4s						
PBEJ	**Beja**	**4.71**	**308**	P	**Pn**	**17 27 36.3**	**+0.5**
PBEJ				S	**Sn**	**17 28 30.6**	**-0.6**
	1.8nm,0.4s						
EIBI	**Ibiza**	**5.28**	**42**	P	**Pn**	**17 27 43.4**	**-0.4**
EIBI				S	**Sn**	**17 28 41.4**	**-4.2**
EIBI	**Ibiza**	**5.28**	**42**	P	**Pn**	**17 27 43.4**	**-0.5**
EIBI				S	**Sn**	**17 28 41.4**	**-4.2**
MOE	**Montemor**	**5.31**	**310**	*e*Pn	**Pn**	**17 27 44.8**	**+0.5**
PCBR	**Castelo Branco**	**5.76**	**325**	*e*Pn	**Pn**	**17 27 50.8**	**+0.1**
PCBR				*e*Sn	**Sn**	**17 28 55.6**	**-2.0**
	4.7nm,0.3s						
PCBR	**Castelo Branco**	**5.76**	**325**	P	**Pn**	**17 27 50.8**	**+0.1**
PCBR				S	**Sn**	**17 28 55.6**	**-2.0**
	2.3nm,0.3s						
MTE	**Manteigas**	**6.25**	**328**	*e*Pn	**Pn**	**17 27 57.6**	**+0.1**
MTE				*e*Sn	**Sn**	**17 29 07.5**	**-2.2**
	6.4nm,0.4s						
MTE	**Manteigas**	**6.25**	**328**	P	**Pn**	**17 27 57.6**	**+0.1**
MTE				S	**Sn**	**17 29 07.5**	**-2.2**
	3.2nm,0.4s						
EPOB	**Poblet**	**7.02**	**27**	P	**Pn**	**17 28 06.2**	**-2.1**
	0.4nm,0.2s,SNR=4.0						
EPOB	**Poblet**	**7.02**	**27**	P	**Pn**	**17 28 06.2**	**-2.1**
	0.4nm,0.2s,SNR=4.0						
PVRL	**Vila Real**	**7.05**	**331**	*e*Pn	**Pn**	**17 28 08.4**	**-0.4**
PVRL				*e*Sn	**Sn**	**17 29 26.1**	**-3.7**
	3.1nm,0.2s						
PVRL	**Vila Real**	**7.05**	**331**	P	**Pn**	**17 28 08.4**	**-0.4**
PVRL				S	**Sn**	**17 29 26.1**	**-3.7**
	1.6nm,0.2s						
PBRG	**Braganca**	**7.18**	**338**	*e*Pn	**Pn**	**17 28 10.0**	**-0.5**
PBRG				*e*Sn	**Sn**	**17 29 27.5**	**-5.4**
	2.5nm,0.4s						
PBRG	**Braganca**	**7.18**	**338**	P	**Pn**	**17 28 10.0**	**-0.5**
PBRG				S	**Sn**	**17 29 27.5**	**-5.4**
	1.2nm,0.4s						
ECAL	**Calabor**	**7.30**	**339**	P	**Pn**	**17 28 11.6**	**-0.7**
	1.6nm,0.3s,SNR=4.7						
ECAL				S	**Sn**	**17 29 31.6**	**-4.4**
	1.2nm,0.3s,SNR=7.9						
ECAL	**Calabor**	**7.30**	**339**	P	**Pn**	**17 28 11.6**	**-0.7**
	1.6nm,0.3s,SNR=4.7						
ELOB	**Lobios**	**7.69**	**332**	P	**Pn**	**17 28 17.8**	**0.0**
	1.7nm,0.3s,SNR=5.8						
ELOB				S	**Sn**	**17 29 41.3**	**-4.5**
	SNR=4.0						
ELOB	**Lobios**	**7.69**	**332**	P	**Pn**	**17 28 17.8**	**+0.1**

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*THR **09** 17:44:19.8±0.4, 27.68N×53.83E, h15^{km}, ML3.6*
*CSEM **09** 17:44:19.8, 27.68N×53.83E, h15^{km}, ML3.6*
*NEIC **09** 17:44:32.3±1.3, 28.32N×54.53E, h35^{km}, mb4.0/3, Error ellipse: s-maj=34.3km s-min=13.2km az=187.0*
*IDC **09** 17:44:38.5±9.6, 27.94N×54.22E, h110^{km}±94^{km}, mb3.4/7, mb1 3.5/7, mb1mx3.3/20, Error ellipse: s-maj=48.3km s-min=23.5km az=16.0*
ISC 09 17:44:25.6±1.3**, 27.7N**±0.2×**54.19E**±0.10**, h15**^{km}**, n15,** σ1^{s}**18**/17**, mb3.7**/8**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRBR	**Kerman**	**3.20**	**44**	*e*PN	**Pn**	**17 45 15.2**	**-1.2**
KRBR				SN	**Sn**	**17 45 55.8**	**+1.2**
KRBR				AMP		17 46 02.0	
	comp=E,91nm,0.6s						
KRBR				AMP		17 46 09.8	
	comp=N,143nm,0.7s						
KRBR	**Kerman**	**3.20**	**44**	*e*Pn	**Pn**	**17 45 15.2**	**-1.2**
KRBR				Sn	**Sn**	**17 45 55.8**	**+1.2**
	comp=N,143nm,0.7s						
NASN	**Na'in**	**5.21**	**347**	*e*PN	**Pn**	**17 45 38.9**	**-6.0**
ASAO	**Ashtian**	**7.69**	**333**	*e*PN	**Pn**	**17 46 12.7**	**-7.2**
SNGE	**Sanandaj**	**9.39**	**323**	*e*PN	**P**	**17 46 35.4**	**-8.1**
CSS	**Prodhromos**	**19.20**	**297**	*e*P	**P**	**17 48 54.4**	**+2.8**
	comp=N,9.8nm,0.8s						
BRTR	**Keskin Array B**	**20.82**	**310**	P	**P**	**17 49 09.7**	**+0.7**
	comp=N,1.6nm,0.8s,baz=136,slow=14,SNR=5.2						
AML	**Almayashu**	**21.44**	**43**	*e*P	**P**	**17 49 10.9**	**-4.4**
	comp=N,4.6nm,0.9s,mb3.8						
UCH	**Uchtor**	**22.00**	**44**	P	**P**	**17 49 21.4**	**+0.5**
	comp=N,7.9nm,1.4s,mb4.0						
IDI	**Anoyia**	**26.03**	**294**	P	**P**	**17 50 01.5**	**+1.5**
	comp=N,9.4nm,1.1s,mb4.2,baz=90,slow=7.1,SNR=2.6						
BVAR	**Borovoye Array**	**28.00**	**21**	P	**P**	**17 50 17.6**	**-0.1**
	comp=N,0.9nm,0.8s,mb3.5,baz=207,slow=6.4,SNR=5.2						
FINES	**FINESS Array B**	**38.61**	**339**	P	**P**	**17 51 48.0**	**-1.7**
	comp=N,1.5nm,0.8s,mb3.8,baz=135,slow=12,SNR=6.8						
CMAR	**Chiang Mai Arr**	**42.00**	**93**	P	**P**	**17 52 18.6**	**+0.5**
	comp=N,0.5nm,0.7s,mb3.3,baz=287,slow=9.4,SNR=5.0						
NOA	**NORSAR Array B**	**43.96**	**331**	P	**P**	**17 52 32.5**	**-1.0**
	comp=N,0.7nm,0.9s,mb3.4,baz=124,slow=6.7,SNR=2.8						
YKA	**Yellowknife Ar**	**89.66**	**355**	P	**P**	**17 57 22.8**	**-1.0**
	comp=N,0.1nm,0.4s,mb3.5,baz=3.7,slow=4.9,SNR=5.1						

WEL 09 18:08:10.3±0.1**, 39.09S×177.81E, h26**^{km}**, ML3.5**/2**, 1C-1D, Error ellipse: s-maj=0.7km s-min=0.6km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNZ	**Kokohu**	**0.12**	**304**	⇓P*	Pb	18 08 15.2	-0.1
KNZ				S*	Sb	18 08 18.9	+0.1
KNZ				S*	Sb	18 08 18.9	+0.2
MWZ	**Matawai**	**0.79**	**344**	⇑P*	Pb	18 08 25.1	-0.2
MWZ				S*	Sb	18 08 35.9	+0.3
URZ	**Urewera**	**0.99**	**326**	PN	Pn	18 08 28.1	-0.6
URZ				SN	Sn	18 08 41.2	-0.7
BKZ	**Black Stump Fm**	**1.03**	**265**	PN	Pn	18 08 28.5	-0.6
PUZ	**Puketiti**	**1.07**	**19**	PN	Pn	18 08 29.2	-0.6

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*STR **09** 18:15:54.7±0.5, 48.05N×8.07E, h10^{km}±1^{km}, Ml1.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*LDG **09** 18:15:55.1±0.2, 48.08N×7.99E, h10^{km}, Md2.3/1, Ml2.3/6, Error ellipse: s-maj=4.1km s-min=2.8km az=140.0*
ZUR 09 18:15:55.1, 48.06N×8.05E, h10^{km}**, ML1.5**/7**, 1C-1D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLE	**Schleitheim**	**0.42**	**135**	⇓*i*Pg	Pg	18 16 03.4	-0.3
SLE				*e*Sg	Sg	18 16 09.3	-0.2
SULZ	**Sulz-Cheisache**	**0.54**	**175**	⇑*i*Pg	Pg	18 16 05.8	-0.2
SULZ				*i* Sg	Sg	18 16 13.2	-0.1
WLS	**Welschbruch**	**0.58**	**307**	Pg	Pg	18 16 06.3	-0.5
WLS				Sg	Sg	18 16 15.0	+0.3
ECH	**Echery**	**0.61**	**285**	Pg	Pg	18 16 06.8	-0.7
ECH				Sg	Sg	18 16 15.1	-0.7
CDF	**Champ du Feu**	**0.62**	**304**	*e*Pg	Pg	18 16 07.1	-0.5
CDF				*e*Pn	Pn	18 16 07.7	-2.0
CDF				*e*Sg	Sg	18 16 14.0	-2.0
	4.4nm,0.2s						
MOF	**Molkenrain**	**0.65**	**251**	Pg	Pg	18 16 07.9	-0.3
MOF				Sg	Sg	18 16 17.3	+0.4
STEIN	**Stein am Rhein**	**0.68**	**125**	*e*Pg	Pg	18 16 08.3	-0.5
BALST	**Balsthal**	**0.77**	**198**	*e*Pg	Pg	18 16 09.9	-0.6
WEIN	**Weingarten**	**0.83**	**130**	*e*Pg	Pg	18 16 11.2	-0.6
HINF	**Hinteralfeld**	**0.84**	**253**	*e*Pg	Pg	18 16 10.4	-1.6
HINF				*e*Pn	Pn	18 16 11.3	-1.5
HINF				*e*Sg	Sg	18 16 21.1	-2.1
	4.6nm,0.2s						
HAU	**Haudompre**	**1.14**	**268**	*e*Pn	Pn	18 16 14.7	-2.4
HAU				*e*Pg	Pg	18 16 16.2	-1.8
HAU				*e*Sn	Sn	18 16 30.3	-2.6
	8.8nm,0.2s						
RFYF	**Reffroy**	**1.81**	**289**	*e*Sg	Sg	18 16 50.9	-4.4
	5.1nm,0.3s						
SFTF	**Sexfontaines**	**2.02**	**275**	*e*Sn	Sn	18 16 51.1	-4.1
SFTF				*e*Sg	Sg	18 16 57.3	-5.1
	2.7nm,0.3s						
MEZF	**Maizieres J'vi**	**2.05**	**283**	*e*Pg	Pg	18 16 32.3	-3.7
MEZF				*e*Sg	Sg	18 16 57.9	-5.4
	3.0nm,0.3s						

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*BJI **09** 18:35:16.3, 42.13N×19.85E, h20^{km}, mB5.2, mb4.6, Ms4.5, Msz4.4*
*PDG **09** 18:35:18.4±0.6, 42.00N×20.39E, h0^{km}±11^{km}*
*MOS **09** 18:35:18.2±1.0, 42.01N×20.38E, h10^{km}, mb4.5/9, Error ellipse: s-maj=7.8km s-min=3.6km az=95.6*
*CSEM **09** 18:35:18.3, 42.01N×20.38E, h5^{km}, ML4.6*
*PRU **09** 18:35:18.0, 42.00N×20.71E*
*TIR **09** 18:35:18.1, 41.98N×20.37E, h5^{km}, Ml3.4*
*NEIC **09** 18:35:19.4±0.6, 41.97N×20.42E, h4^{km}±4^{km}, mb4.5/26, ML4.5(THE), ML4.5(PDG), ML4.1(SKO), Error ellipse: s-maj=2.4km s-min=1.8km az=209.0*
NEIC Felt [IV] at Tetovo and [III] at Skopje, former Yugoslav Republic of Macedonia.
*HRVD **09** 18:35:19.4±0.8, 41.87N×20.30E, h28^{km}±1^{km}, MW4.8/29, Centroid moment Tensor Solution. LP body waves: s7,c7; Mantle waves: s29,c37; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.65±.28; M$_{\theta\theta}$0.23±.18; M$_{\phi\phi}$1.42±.17; M$_{r\theta}$-0.11±.34; M$_{\theta\phi}$0.67±.10; M$_{\phi r}$-0.55±.22; Best double couple: M$_0$1.78×10^{16} NP1:ϕ_s209°, δ36°, λ-83°. NP2:ϕ_s20°, δ54°, λ-95°. Principal axes: T 1.81, Plg9°, Azm114°; N -.06, Plg4°, Azm23°; P -1.75, Plg80°, Azm269°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ZUR_RM **09** 18:35:19, 41.97N×20.42E, h9^{km}, Mw4.6/30, Moment Tensor Solution. s30 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-0.95; M$_{\theta\theta}$0.09; M$_{\phi\phi}$0.86; M$_{r\theta}$0.20; M$_{\theta\phi}$0.46; M$_{\phi r}$-0.06; Best double couple: M$_0$1.04×10^{16} NP1:ϕ_s217°, δ47°, λ-72°. NP2:ϕ_s12°, δ46°, λ-108°. Principal axes: T 1.0746, Plg1°, Azm295°; N -.076, Plg13°, Azm25°; P -.9986, Plg77°, Azm201°;*
*MED_RC **09** 18:35:19.7±0.2, 42.05N×20.35E, h15^{km}, MW4.6/28, Moment Tensor Solution. Body waves: s28,c42; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-1.04±.03; M$_{\theta\theta}$0.25±.03; M$_{\phi\phi}$0.79±.02; M$_{r\theta}$0.36±.11; M$_{\theta\phi}$0.24±.02; M$_{\phi r}$-0.12±.08; Best double couple: M$_0$1.01×10^{16} NP1:ϕ_s5°, δ47°, λ-113°. NP2:ϕ_s217°, δ48°, λ-68°. Principal axes: T .88, Plg1°, Azm291°; N .27, Plg16°, Azm21°; P -1.15, Plg74°, Azm199°; nsta1 refers to waves, cutoff=35s.*
*THE **09** 18:35:19.6, 42.08N×20.53E, h10^{km}, ML4.5*
*LDG **09** 18:35:20.6±0.2, 42.00N×20.62E, h10^{km}, Ml4.6/17, ms3.6/7, Error ellipse: s-maj=4.4km s-min=3.7km az=95.0*
*IDC **09** 18:35:21.4±2.4, 41.98N×20.34E, h23^{km}±16^{km}, mb4.3/13, mb1 4.3/28, mb1mx4.3/32, ML4.2/14, MS3.8/11, Ms1 3.9/11, ms1mx3.6/24, Error ellipse: s-maj=9.5km s-min=7.9km az=48.0*
ISC 09 18:35:18.9±0.3**, 42.040N**±0.010×**20.38E**±0.01**, h12**^{km}±1^{km}**, h13**^{km}±1.0^{km}**:pP-P, n501,** σ1^{s}**25**/601**, mb4.5**/44**, MS4.1**/8**, 40C-23D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUK	**Puka**	**0.36**	**271**	*i* Pg	**Pg**	**18 35 25.5**	**-0.9**
PUK				*i* Sg	**Sg**	**18 35 28.1**	**-3.4**
BCI	**Bajram Curri**	**0.40**	**325**	*i* Pg	**Pg**	**18 35 27.2**	**0.0**
BCI				*i* Sg	**Sg**	**18 35 34.5**	**+1.8**
QSH	**Qafa e Shtames**	**0.63**	**215**	*i* Pg	**Pg**	**18 35 29.5**	**-2.1**
PVY	**Plav**	**0.63**	**332**	⇑*i*Pg	**Pg**	**18 35 31.1**	**-0.6**
PVY				*e*Sg	**Sg**	**18 35 41.4**	**+1.2**
LACI	**Lac**	**0.64**	**231**	*i* Pg	**Pg**	**18 35 30.6**	**-1.3**

LACI				i Sg	Sg	18 35 42.5	+1.9
TIR	Tirane	0.79	209	P	Pb	18 35 32.6	-1.5
TIR	Tirane	0.79	209	ePg	Pg	18 35 32.5	-2.3
TIR				i Sg	Sg	18 35 44.5	-1.0
SKO	Skopje	0.79	95	⇑iPg	Pg	18 35 33.3	-1.6
SKO				i Sg	Sg	18 35 46.2	+0.6
SKO				Lg		18 35 52.0	
	comp=N,47nm,2.5s						
SKO				Lg		18 35 55.0	
	comp=E,53nm,2.5s						
SKO	Skopje	0.79	95	i Sg	Sg	18 35 46.2	+0.6
PRZA	Preza	0.81	221	epg?	Pg	18 35 33.8	-1.4
PRZA				i Sg	Sg	18 35 39.0	-7.0
ULC	Ulcinj	0.84	265	⇑iPg	Pg	18 35 33.9	-2.0
ULC				eSg	Sg	18 35 47.4	+0.2
IVA	Berane	0.90	337	⇑iPg	Pg	18 35 35.9	-1.1
IVA				eSg	Sg	18 35 50.9	+1.7
IVA	Berane	0.90	337	eSg	Sg	18 35 50.9	+1.7
TTG	Podgorica	0.92	295	⇑iPg	Pg	18 35 35.2	-2.1
TTG				eSg	Sg	18 35 50.6	+1.0
TTG	Podgorica	0.92	295	eSg	Sg	18 35 50.6	+1.0
OHR	Ohrid	0.98	161	⇑iPg	Pg	18 35 35.2	-3.4
OHR				⇓iSg	Sg	18 35 50.5	-1.2
BUM	Brajici-Budva	1.13	284	⇑iPg	Pg	18 35 39.5	-2.1
BUM				eSg	Sg	18 35 57.4	+0.7
BIA	Bitola	1.24	145	i Pn	Pn	18 35 40.6	-1.5
BIA				i		18 35 43.2	
BIA				⇓iSn	Sn	18 35 59.1	+0.3
BIA	Bitola	1.24	145	i Pn	Pn	18 35 40.6	-1.5
BIA				⇓iSn	Sn	18 35 59.1	+0.3
NKY	Niksic	1.28	308	⇑iPg	Pg	18 35 41.9	-2.7
NKY				eSg	Sg	18 36 03.0	+1.3
KBN	Korca	1.45	168	ePn	Pn	18 35 45.6	+0.6
KBN				i Sn	Sn	18 36 04.9	+0.9
HCY	Herceg Novi	1.45	287	⇑iPg	Pg	18 35 44.8	-3.2
HCY				eSg	Sg	18 36 08.7	+1.3
FNA	Florina	1.46	149	ePb	Pb	18 35 43.9	-1.6
FNA				eSb	Sb	18 36 07.0	+3.0
PLE	Pljevlja	1.48	331	⇑iPg	Pg	18 35 46.3	-2.2
PLE				eSg	Sg	18 36 10.4	+2.2
NVSS	Nova Varos 2	1.55	341	⇓iPg	Pg	18 35 46.5	-3.4
NVSS				Sg	Sg	18 36 04.9	-5.7
UPM	Unac-Piva	1.59	317	⇑iPn	Pn	18 35 48.3	+1.2
UPM				eSn	Sg	18 36 13.8	+1.9
BRY	Bratogost	1.61	303	⇑iPn	Pn	18 35 47.1	-0.2
BRY				eSn	Sn	18 36 13.7	+5.6
TREB	Trebinje	1.65	295	Pn	Pn	18 35 49.2	+1.3
TREB				Sg	Sg	18 36 15.6	+1.7
VLO	Vlora	1.71	203	ePn	Pn	18 35 51.0	+2.3
TPE	Tepelena	1.77	189	ePn	Pn	18 35 51.7	+2.1
TPE				i Sn	Sn	18 36 14.1	+2.0
VAY	Valandovo	1.79	113	⇑iPn	Pn	18 35 50.3	+0.4
VAY				i		18 35 53.2	
VAY				i Sn	Sn	18 36 15.7	+3.0
VAY				i		18 36 18.7	
GRUS	Gruza	1.86	8	⇑iPn	Pn	18 35 52.1	+1.1
GRUS				Sn	Sn	18 36 18.9	+4.4
GRG	Griva	1.87	125	ePb	Pb	18 35 51.4	-1.0
GRG				eSb	Sb	18 36 15.5	-0.2
LSK	Leskovik	1.90	175	epn?	Pb	18 35 54.4	+1.4
LSK				i Sn	Sg	18 36 21.6	-0.5
KZN	Kozani	2.03	148	eP	Pn	18 35 54.3	+1.0
DIVS	Divcibare	2.08	352	⇑iPn	Pn	18 35 55.0	+0.9
DIVS				Sn	Sn	18 36 24.0	+4.0
KNT	Kendrikon	2.08	114	ePn	Pn	18 35 54.5	+0.4
KNT				eSn	Sn	18 36 19.3	-0.8
BOLS	Boljevac	2.13	32	⇓iPn	Pn	18 35 55.5	+0.7
BOLS				Sn	Sn	18 36 24.1	+2.7
STON	Ston	2.15	294	i Pn	Pn	18 35 56.7	+1.7
STON				i Sg	Sg	18 36 29.1	-1.5
STON	Ston	2.15	294	i Pn	Pn	18 35 56.7	+1.6
STON				i Sg	Sg	18 36 29.0	-1.5
VTS	Vitosha	2.17	74	P	Pn	18 35 56.5	+1.1
SRN	Sarande	2.18	188	i Pn	Pn	18 35 57.6	+2.1
SRN				i Sn	Sn	18 36 25.7	+3.2
SVIS	Svilajnac	2.34	15	⇑iPn	Pn	18 35 58.1	+0.3
SVIS				Sn	Sn	18 36 28.9	+2.3
MEV	Metsovon	2.34	164	ePn	Pn	18 35 59.1	+1.3
MEV				eSn	Sn	18 36 30.8	+4.1
KEK	Kerkira	2.37	191	eP	Pn	18 35 59.5	+1.3
KEK	Kerkira	2.37	191	P	Pn	18 35 59.9	+1.7
THE	Thessaloniki	2.40	125	ePn	Pn	18 35 59.1	+0.4
JAN	Janina	2.41	171	eP	Pn	18 36 02.0	+3.2
LCI	Lecce	2.42	226	ePn	Pn	18 35 58.7	-0.2
LCI	Lecce	2.42	226	ePn	Pn	18 35 58.7	-0.2
IGT	Igoumenitsa	2.51	181	ePn	Pn	18 36 01.6	+1.4
IGT				eSn	Sn	18 36 34.3	+3.4
LIT	Litokhoron	2.51	140	ePn	Pn	18 36 00.6	+0.4
SOH	Sokhos	2.55	118	ePn	Pn	18 36 01.1	+0.3
SRS	Serrai	2.58	110	ePn	Pn	18 36 01.6	+0.4
BRT	Bari-Castellan	2.65	245	ePn	Pn	18 36 03.8	+1.5
BRT	Bari-Castellan	2.65	245	ePn	Pn	18 36 03.8	+1.5
NVR	Nevrokopi	2.70	104	eP	Pn	18 36 03.4	+0.5
BEO	Belgrade	2.78	1	⇓iPn	Pn	18 36 04.8	+0.7
BEO				Sn	Sg	18 36 48.5	-3.0
PLG	Polygyros	2.85	125	eP	Pn	18 36 05.4	+0.3
LTRZ	Laterza	3.04	243	ePn	Pn	18 36 08.1	+0.3
LTRZ				eSn	Sn	18 36 44.0	-0.5
LTRZ	Laterza	3.04	243	ePn	Pn	18 36 08.1	+0.3
LTRZ				eSn	Sn	18 36 44.0	-0.5
OUR	Ouranopolis	3.21	121	ePn	Pn	18 36 10.4	+0.2
PAIG	Paliouri	3.27	129	ePn	Pn	18 36 11.0	-0.1
EVR	Evrytania	3.31	160	eP	Pn	18 36 15.0	+3.5
FGMS	Monte Sant'Ang	3.32	266	ePn	Pn	18 36 12.0	+0.2
FGMS	Monte Sant'Ang	3.32	266	ePn	Pn	18 36 12.0	+0.2
LKD	Levkas	3.34	176	ePn	Pn	18 36 12.4	+0.4
AGG	Agios Georgios	3.36	153	ePn	Pn	18 36 12.0	-0.3
XOR	Xorichti	3.42	140	ePn	Pn	18 36 13.1	-0.1
NEO	Neokhori	3.48	141	eP	Pn	18 36 13.8	-0.3
ORI	Oriolo Calabro	3.57	238	P	Pn	18 36 16.6	+1.3
RGNG	Rignano Grg	3.60	266	ePn	Pn	18 36 15.7	0.0
RGNG				eSn	Sn	18 36 58.9	+0.4
RGNG	Rignano Grg	3.60	266	ePn	Pn	18 36 15.7	0.0
RGNG				eSn	Sn	18 36 58.9	+0.3
FG4	Candela	3.76	258	ePn	Pn	18 36 18.7	+0.7
FG4	Candela	3.76	258	ePn	Pn	18 36 18.7	+0.7
VLS	Valsamata	3.86	178	eP	Pn	18 36 19.0	-0.4
FG5	Orsara di Pugl	3.90	261	ePn	Pn	18 36 21.1	+1.0
FG5	Orsara di Pugl	3.90	261	ePn	Pn	18 36 21.0	+1.0
LKR	Lokris	3.93	149	eP	Pn	18 36 20.0	-0.5
SLCN	Sala Consilina	3.94	247	ePn	Pn	18 36 20.0	-0.5
SLCN	Sala Consilina	3.94	247	ePn	Pn	18 36 20.0	-0.6
TIP	Timpagrande	3.97	225	eP	Pn	18 36 19.6	-1.4
TIP	Timpagrande	3.97	225	eP	Pn	18 36 19.5	-1.5
RDO	Rodhopi	3.97	101	eP	Pn	18 36 20.8	-0.2
RDO	Rodhopi	3.97	101	P	Pn	18 36 20.9	-0.1
RLS	Riolos of Patr	4.06	168	eP	Pn	18 36 23.6	+1.3
SGO	Sicignano	4.10	251	ePn	Pn	18 36 22.4	-0.4
SGO	Sicignano	4.10	251	ePn	Pn	18 36 22.4	-0.4
CIGN	Sant'Elia a Pi	4.11	266	P	Pn	18 36 23.7	+0.8
MGR	Morigerati	4.11	244	ePn	Pn	18 36 23.3	+0.3
MRB1	Monte Rocchett	4.16	259	P	Pn	18 36 24.6	+1.0
CSSN	Cassano Irpino	4.19	255	ePn	Pn	18 36 23.8	-0.3
CSSN	Cassano Irpino	4.19	255	ePn	Pn	18 36 23.8	-0.4
LIA	Limnos Island	4.22	119	eP	Pn	18 36 24.4	-0.1
PSB1	Pescosannita	4.25	261	P	Pn	18 36 26.1	+1.1
PKSM	Moragy	4.35	344	eS	Sn	18 37 16.1	-1.6
PKSM	Moragy	4.35	344	P	Pn	18 36 26.0	-0.4
RHK1	Bakonya	4.38	338	⇑eP	Pn	18 36 26.9	+0.1
RHK1				eS	Sn	18 37 17.7	-0.7
	comp=E,39nm,0.3s						
ALN	Alexandroupoli	4.41	103	ePn	Pn	18 36 26.5	-0.7
GRI	Girifalco	4.41	225	P	Pn	18 36 25.8	-1.5
SISC	Sisak	4.49	321	i Pn	Pn	18 36 30.6	+2.1
SISC				i Sg	Sg	18 37 48.7	+0.2
SISC	Sisak	4.49	321	i Pn	Pn	18 36 30.5	+2.1
SGG	Gregorio Mates	4.54	264	ePn	Pn	18 36 29.6	+0.5
SGG	Gregorio Mates	4.54	264	ePn	Pn	18 36 29.6	+0.5
CII	Carovilli	4.55	268	ePn	Pn	18 36 29.9	+0.7
CII	Carovilli	4.55	268	ePn	Pn	18 36 29.9	+0.7
MIDA	Miranda	4.59	267	P	Pn	18 36 29.9	+0.1
MGER	Gerania Oros	4.61	150	eP	Pn	18 36 30.0	-0.1
OVO	Vesuviano	4.66	257	ePn	Pn	18 36 31.7	+1.0
OVO	Vesuviano	4.66	257	ePn	Pn	18 36 31.7	+1.0
MTUR	Matau	4.66	45	⇓iP	Pn	18 36 32.4	+1.6
MTUR	Matau	4.66	45	⇓iP	Pn	18 36 32.3	+1.5
MPAR	Parnis Oros	4.66	145	eP	Pn	18 36 31.0	+0.2
RNI2	Rionero Sannit	4.66	268	P	Pn	18 36 31.5	+0.7
NVLJ	Novalja	4.75	304	⇑iPn	Pn	18 36 33.6	+1.6
NVLJ				i Sn	Sn	18 37 27.9	+0.4
NSAL	Nisos Salamina	4.76	149	eP	Pn	18 36 33.0	+0.8
PTL	Penteli	4.80	145	eP	Pn	18 36 35.0	+2.2
ATH	Athens Observa	4.80	147	eP	Pn	18 36 33.0	+0.2
INTR	Introdacqua	4.82	272	ePn	Pn	18 36 32.8	-0.3
INTR	Introdacqua	4.82	272	ePn	Pn	18 36 32.8	-0.3
RFI	Roccamonfina	4.85	263	ePn	Pn	18 36 34.0	+0.6
RFI	Roccamonfina	4.85	263	ePn	Pn	18 36 34.0	+0.6
PKSN	Nyarlorinc	4.87	356	⇑iP	Pn	18 36 33.9	+0.1
MSC	Monte Massico	4.88	262	ePn	Pn	18 36 34.2	+0.4
MSC	Monte Massico	4.88	262	ePn	Pn	18 36 34.2	+0.3
NAIG	Nisos Aigina	4.90	150	eP	Pn	18 36 35.5	+1.3
SDI	San Donato	4.92	268	ePn	Pn	18 36 35.0	+0.6
SDI	San Donato	4.92	268	ePn	Pn	18 36 35.0	+0.6
SNX	Sinaia	4.98	47	P	Pn	18 36 37.3	+1.9
ITM	Ithomi	5.00	166	eP	Pn	18 36 36.0	+0.4
ITM	Ithomi	5.00	166	P	Pn	18 36 36.9	+1.3
TERO	Teramo	5.06	279	ePn	Pn	18 36 36.7	+0.3
TERO	Teramo	5.06	279	ePn	Pn	18 36 36.7	+0.3
BOJS	Bojanci	5.08	315	ePn	Pn	18 36 38.6	+2.0
BOJS				eSn	Sn	18 37 38.3	+2.4
CEL	Celeste	5.11	224	P	Pn	18 36 36.6	-0.5
SOI	Samo	5.17	221	ePn	Pn	18 36 36.0	-2.0
SOI	Samo	5.17	221	ePn	Pn	18 36 36.0	-2.0
CRES	Cresnjev	5.19	318	i Pn	Pn	18 36 40.1	+1.8
AQU	L'Aquila	5.19	276	P	Pn	18 36 38.9	+0.6
AQU	L'Aquila	5.19	276	ePn	Pn	18 36 38.7	+0.4
AQU	L'Aquila	5.19	276	ePn	Pn	18 36 38.7	+0.4
PTQR	Pietraquaria	5.20	272	ePn	Pn	18 36 39.1	+0.7
PTQR	Pietraquaria	5.20	272	ePn	Pn	18 36 39.1	+0.7
SCLL	Scilla	5.20	225	ePn	Pn	18 36 36.0	-2.5
SCLL	Scilla	5.20	225	ePn	Pn	18 36 36.0	-2.4
GOLS	Golise	5.24	321	P	Pn	18 36 40.8	+1.8
GUAR	Guarcino	5.28	270	P	Pn	18 36 40.4	+0.9
PRK	Paraskevi	5.28	120	eP	Pn	18 36 39.8	+0.3
SART	Tekirdag	5.29	103	i P	Pn	18 36 41.2	+1.4
MLR	Muntele Rosu	5.30	48	Pn	Pn	18 36 41.3	+1.4
	comp=E,7.4nm,0.3s,baz=162,slow=9.4,SNR=51						
MLR				Sn	Sn	18 37 43.4	+1.8
	comp=E,2.6nm,0.3s,baz=154,slow=22,SNR=3.9						
MLR				Lg		18 38 14.9	
	comp=E,2.3nm,0.3s,baz=180,slow=14,SNR=4.0						
MLR	Muntele Rosu	5.30	48	⇓P	Pn	18 36 42.3	+2.4
LEGS	Legarje	5.35	319	P	Pn	18 36 42.5	+2.0
FIAM	Fiamignano	5.40	275	P	Pn	18 36 42.1	+0.8
DOBS	Dobrina	5.42	321	P	Pn	18 36 43.1	+1.6
ISR	Istrita	5.43	53	⇓iP	Pn	18 36 43.4	+1.7
ISR	Istrita	5.43	53	⇓iP	Pn	18 36 43.4	+1.7
CING	Cingoli	5.46	287	ePn	Pn	18 36 42.5	+0.4
CING	Cingoli	5.46	287	ePn	Pn	18 36 42.5	+0.4
SLNA	Salina	5.48	233	P	Pn	18 36 42.9	+0.5
VISS	Visnje	5.49	315	i Pn	Pn	18 36 44.4	+1.8
VISS				eSn	Sn	18 37 49.0	+2.7
VISS				e(Sg)	Sg	18 38 21.5	-0.2
	comp=Z,2μm,2.2s						
CERT	Cerreto	5.51	272	ePn	Pn	18 36 43.5	+0.7
AYVA	Ayvalik	5.52	118	i P	Pn	18 36 43.0	+0.1
BUD	Budapest	5.53	350	P	Pn	18 36 43.0	0.0
PKSG		5.54	346	⇑iP	Pn	18 36 43.6	+0.5
PKSG				i		18 37 49.4	
KNDS	Knezji Dol	5.57	311	ePn	Pn	18 36 44.7	+1.1
KNDS				eSn	Sn	18 37 51.5	+3.3
	comp=Z,2μm,1.7s						
PDKS	Podkum	5.58	318	P	Pn	18 36 45.9	+2.1
SNTG	Esanatoglia	5.62	285	ePn	Pn	18 36 44.2	-0.1
SNTG	Esanatoglia	5.62	285	ePn	Pn	18 36 44.2	-0.1
GROS	Grobnik	5.64	323	P	Pn	18 36 45.6	+1.0
ARV	Arcevia	5.67	287	ePn	Pn	18 36 45.0	+0.1
ARV	Arcevia	5.67	287	ePn	Pn	18 36 45.0	0.0
CEY	Cerknica	5.67	313	i Pn	Pn	18 36 47.0	+1.9
CEY				eSn	Sn	18 37 54.0	+3.2
CEY				e		18 38 15.8	
	comp=Z,2μm,1.4s						
VLI	Veliai	5.67	159	eP	Pn	18 36 46.3	+1.2
MNS	Montasola	5.73	276	ePn	Pn	18 36 46.5	+0.7
MNS	Montasola	5.73	276	ePn	Pn	18 36 46.5	+0.7
LJU	Ljubljana	5.81	315	i Pn	Pn	18 36 48.6	+1.6
LJU				eSn	Sn	18 37 57.7	+3.3
	comp=Z,1μm,2.2s						
LJU	Ljubljana	5.81	315	i Pn	Pn	18 36 48.6	+1.6
	comp=Z,1μm,2.2s						
LJU				eSn	Sn	18 37 57.7	+3.3
LJU	Ljubljana	5.81	315	i Pn	Pn	18 36 48.6	+1.5
	comp=Z,1μm,2.2s						
FSSB	Fossombrone	5.83	289	P	Pn	18 36 47.9	+0.7
PSZ	Piszkesteto	5.89	357	P	Pn	18 36 48.5	+0.4
MURB	Monte Urbino	5.92	285	P	Pn	18 36 49.5	+0.9
PERS	Pernice	5.94	322	ePn	Pn	18 36 49.2	+0.3
SRO	Srobarova	5.96	346	ePN	Pn	18 36 51.5	+2.4
SRO				eSN	Sn	18 37 59.3	+1.3
VRI	Vrincioaia	5.97	48	⇓P	Pn	18 36 50.6	+1.4
MNO	Monte Soro	5.99	229	P	Pn	18 36 50.2	+0.7
TRI	Trieste	6.02	310	ePn	Pn	18 36 50.7	+0.6
KYTH	Kithira	6.11	159	eP	Pn	18 36 53.9	+2.6
RSM	Repubblica di	6.11	291	P	Pn	18 36 52.8	+1.5
OBKA	Obir	6.12	319	⇑iPN	Pn	18 36 52.5	+1.1
OBKA				i SN	Sn	18 38 02.8	+0.7
VOY	Vojsko	6.14	313	ePn	Pn	18 36 52.9	+1.2
VOY				eSn	Sn	18 38 04.7	+2.0
BADI	Badiali	6.16	287	P	Pn	18 36 53.3	+1.3
BTOK	Tokmak	6.23	109	i P	Pn	18 36 52.5	-0.4
TOLF	Tolfa	6.24	273	P	Pn	18 36 53.4	+0.3
ARSA	Arzberg	6.25	328	⇑iPN	Pn	18 36 53.3	0.0
ARSA				i SN	Sn	18 38 03.4	-2.0
ARSA	Arzberg	6.25	328	ePn	Pn	18 36 53.6	+0.3
SOP	Sopron	6.26	336	ePn	Pn	18 36 53.2	-0.2
GIB	Gibilmanna	6.33	232	ePn	Pn	18 36 54.6	+0.1
GIB	Gibilmanna	6.33	232	ePn	Pn	18 36 54.6	+0.2
CSLB	Castelbuono	6.35	232	P	Pn	18 36 53.5	-1.2
CRE	Caprese Michel	6.39	287	ePn	Pn	18 36 55.4	+0.1
CRE	Caprese Michel	6.39	287	ePn	Pn	18 36 55.4	+0.1
KDAG	Bornova	6.40	122	i P	Pn	18 36 55.7	+0.3
CFR	Carcaliu	6.45	58	⇓iP	Pn	18 36 55.8	-0.2
CFR	Carcaliu	6.45	58	⇓iP	Pn	18 36 55.8	-0.2
VAE	Valguarnera	6.47	227	Pn	Pn	18 36 54.9	-1.4
	comp=Z,2.3nm,0.3s,baz=327,slow=23,SNR=3.1						
VAE	Valguarnera	6.47	227	Pn	Pn	18 36 55.0	-1.3
ROBS	Robic	6.49	313	ePn	Pn	18 36 57.5	+1.0
TLI	Talmassons	6.53	309	⇑iP	Pn	18 36 57.0	-0.1
SFI	Santa Sofia	6.53	289	ePn	Pn	18 36 58.5	+1.3
VYHS	Vyhne	6.54	351	i PN	Pn	18 36 57.0	-0.4
VYHS				eSN	Sn	18 38 07.4	-5.3
ZST	Bratislava	6.58	340	i PN	Pn	18 36 58.6	+0.8
ZST				i SN	Sn	18 38 09.9	-3.6
BAD	Bernadia	6.63	312	⇓iP	Pn	18 36 59.0	+0.4
PTCC	Patocco-Chiusa	6.67	313	ePn	Pn	18 37 00.1	+0.9
BUA	Buia	6.68	311	⇓iP	Pn	18 37 00.0	+0.6
KOLL	Kolacno	6.69	349	i PN	Pn	18 36 59.7	+0.3
MODS	Modra-Piesok	6.70	342	i PN	Pn	18 36 58.4	-1.2
MODS				eSN	Sn	18 38 11.5	-5.1
VMG	Vicchio	6.76	289	ePn	Pn	18 37 02.3	+1.9
MPRI	Monte Prat	6.77	311	⇓iP	Pn	18 37 01.0	+0.4
SMOL	Smolenice	6.80	343	i PN	Pn	18 37 01.1	+0.1
SMOL				i SN	Sn	18 38 16.8	-2.3
CSNT	Castellina Chi	6.84	285	ePn	Pn	18 37 01.6	0.0
CSNT	Castellina Chi	6.84	285	ePn	Pn	18 37 01.6	+0.1
VKA	Vienna	6.85	337	i (PN)	Pn	18 36 57.5	-4.2
VKA				i		18 38 17.2	
ULDT	Uludag	6.88	103	i P	Pn	18 37 04.2	+2.1
SANT	Santorini	6.90	143	P	Pn	18 36 59.9	-2.5
CRVS	Cervenica-Dubn	6.90	6	i PN	Pn	18 37 02.1	-0.3
SEI	Scarperia	6.91	290	P	Pn	18 37 05.4	+2.9
MLNI	Malnisio	6.94	309	⇓eP	Pn	18 37 03.0	+0.1
CAE	Caneva	6.96	307	⇑iP	Pn	18 37 03.0	-0.3
KOLS	Kolonicke sedl	7.02	10	i PN	Pn	18 37 04.2	+0.1
GRFL	Gerfalco	7.03	282	P	Pn	18 37 05.5	+1.3
LIKS	Likavka	7.07	353	eSN	Sn	18 38 21.5	-4.3
JAVC	Velka Javorina	7.08	345	P	Pn	18 37 06.5	+1.6
FNVD	Fontana Vidola	7.10	291	P	Pn	18 37 06.5	+1.3
FVI	Forni Avoltri	7.10	312	ePn	Pn	18 37 05.8	+0.6
KBA	Koelnbreinsper	7.11	317	⇑iPN	Pn	18 37 06.3	+0.9
KBA				i SN	Sn	18 38 26.5	-0.4
AYDN	Tasoluk	7.24	125	i P	Pn	18 37 07.5	+0.3
MOA	Molln	7.25	325	⇑iPN	Pn	18 37 07.4	+0.2
MOA				i SN	Sn	18 38 29.3	-1.0
ZCCA	Zocca	7.25	292	P	Pn	18 37 10.2	+2.9
VAM	Vamos	7.26	155	eP	Pn	18 37 08.5	+1.0
CGRP	Cima Grappa	7.28	305	⇑iP	Pn	18 37 07.0	-0.7
BDRM	Kayabasi	7.38	130	i P	Pn	18 37 13.1	+4.0
NIE	Niedzica	7.38	360	eP	Pn	18 37 10.3	+1.2
NIE				eS	Sn	18 38 35.1	+1.5
PII	Pisa	7.43	286	ePn	Pn	18 37 09.3	-0.6
BDI	Bagni Di Lucca	7.45	289	ePn	Pn	18 37 11.1	+1.1
CTI	Castel Tesino	7.46	305	ePn	Pn	18 37 09.4	-0.8
SEST	Monte Rota	7.50	312	P	Pn	18 37 11.8	+1.0
GSCL	Gusciola	7.52	291	P	Pn	18 37 13.4	+2.4
IDI	Anoyia	7.61	151	Pn	Pn	18 37 09.6	-2.7
	comp=Z,1.6nm,0.3s,baz=316,slow=14,SNR=16						
IDI				Sn	Sn	18 38 36.2	-3.1
	comp=Z,6.3nm,0.3s,baz=335,slow=21,SNR=4.5						
IDI				Lg		18 39 22.7	
	baz=37,slow=22,SNR=1.6						
VLC	Villacollemand	7.61	290	eP	Pn	18 37 11.2	-1.2
ERBM	Eremo	7.66	291	P	Pn	18 37 14.6	+1.6
VRAC	Vranov	7.74	341	Pn	Pn	18 37 13.4	-0.6
	comp=Z,0.9nm,0.3s,baz=162,slow=12,SNR=7.3						
VRAC				Sn	Sn	18 38 39.6	-2.8
	comp=Z,1.6nm,0.3s,baz=127,slow=14,SNR=3.8						
VRAC	Vranov	7.74	341	P	Pn	18 37 13.4	-0.7
VRAC						18 38 39.6	
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BRES	Bressanone	7.75	310	P	Pn	18 37 14.2	0.0
GVD	Gavdhos	7.75	157	ePn	Pn	18 37 11.9	-2.5
	comp=Z,24nm,0.4s						
KWP	Kalwaria	7.76	11	eP	Pn	18 37 15.6	+1.1
KIS	Kishinev	7.80	48	eP	Pn	18 37 15.0	0.0
KIS				eS	Sn	18 38 35.0	-9.2
KIS				MLR	MLR		
	comp=Z,700nm,12.0s						
KIS				MLR	MLR		
	comp=N,800nm,10.0s						
KIS				MLR	MLR		
	comp=E,1μm,12.0s						
KIS				MLR	MLR		
	comp=Z,700nm,12.0s						
APPI	Appiano	7.92	307	P	Pn	18 37 15.9	-0.8
OKC	Ostrava-Krasne	7.95	349	ePN	Pn	18 37 17.7	+0.6
OKC				eSN	Sn	18 38 46.4	-1.5
DNZL	Cakiroluk	7.96	120	i P	Pn	18 37 17.6	+0.4
SAL	Salo	7.97	300	P	Pn	18 37 16.6	-0.7
MORC	Moravsky Berou	7.99	347	P	Pn	18 37 18.1	+0.5
HENT	Hendek	8.00	95	i P	P	18 37 17.0	-0.8
WTTA	Wattenberg	8.13	313	⇑iPN	P	18 37 20.5	+0.9
WTTA				i SN	Sn	18 38 52.7	+0.4
MABI	Malga Bissina	8.16	303	ePn	P	18 37 19.5	-0.5
OJC	Ojcow	8.19	357	ePn	P	18 37 18.0	-2.4
OJC				ePP	PP	18 37 25.9	-2.3
OJC				ePPP	PPP	18 37 32.3	-2.9
WATA	Walderalm	8.20	313	⇓iPN	P	18 37 21.7	+1.1
WATA				i SN	Sn	18 38 54.3	+0.1
GERES	GERESS Array B	8.26	328	Pn	P	18 37 21.0	-0.5
	comp=Z,1.2nm,0.3s,baz=154,slow=12,SNR=30						
GERES				Sn	Sn	18 38 55.0	-0.7
	comp=Z,3.7nm,0.3s,baz=144,slow=25,SNR=6.0						
GERES				Lg		18 39 47.8	
	baz=161,slow=24,SNR=2.2						
GERES	GERESS Array B	8.26	328	P	P	18 37 21.0	-0.4
GERES						18 38 55.0	
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ESKT	Eskisehir	8.33	104	i P	P	18 37 21.8	-0.6
SQTA	Sankt Quirin	8.34	311	⇑iPN	P	18 37 23.3	+0.8
SQTA				i SN	Sn	18 38 58.2	+0.7
BOB	Bobbio (Coli)	8.41	293	ePn	P	18 37 24.4	+0.9
BRMO	Bormio	8.44	305	ePn	P	18 37 23.6	-0.2
PGF	Pioggiola	8.45	277	ePn	P	18 37 23.5	-0.6
PGF				eSn	Sn	18 38 53.6	-6.7
	comp=Z,84nm,1.1s						
PGF	Pioggiola	8.45	277	eSn	Sn	18 38 53.6	-6.7
	comp=Z,42nm,1.1s						
MOTA	Moosalm	8.47	312	⇓iPN	P	18 37 25.0	+0.7
MOTA				i SN	Sn	18 39 00.7	-0.1
KHC	Kasperske Hory	8.54	328	ePN	P	18 37 26.1	+0.8
KHC				eSN	Sn	18 38 59.8	-2.8
	comp=Z,62nm,0.7s						
KHC				ex	x	18 39 15.5	
GENL	Genova Univers	8.66	290	P	P	18 37 26.9	-0.1
VSL	Villasalto	8.73	257	P	P	18 37 26.1	-1.8
DPC	Dobruska-Polom	8.77	343	ePN	P	18 37 29.4	+0.9
DPC				eSN	Sn	18 39 06.0	-2.3
ISP	Isparta	8.84	115	i P	P	18 37 37.8	+8.4
ISP	Isparta	8.84	115	P	P	18 37 27.8	-1.6
DAVOX	Davos	8.88	306	Pn	P	18 37 30.2	+0.2
	comp=Z,9.3nm,0.3s,baz=113,slow=15,SNR=43						
DAVOX				Sn	Sn	18 39 12.3	+1.3
	comp=Z,5.9nm,0.3s,baz=179,slow=23,SNR=5.8						
DAVOX				Lg		18 40 03.3	
	baz=325,slow=21,SNR=1.9						
FUR	Furstenfeldbru	8.88	317	ePn	P	18 37 30.2	+0.2
FUR				eSn	Sn	18 39 11.9	+0.9
SGKT	Sivrigoynuk	8.91	96	i P	P	18 37 31.1	+0.6
PRU	Pruhonice	8.92	335	ePN	P	18 37 30.9	+0.3
PRU				eSN	Sn	18 39 10.0	-2.1
PCP	Pian Castagno	8.99	290	P	P	18 37 31.8	+0.3
UPC	Upice	8.99	342	ePN	P	18 37 32.7	+1.2
UPC				eSN	Sn	18 39 11.7	-2.0
VDL	Val di Lei	9.00	303	⇑P	P	18 37 31.8	+0.1
DAVA	Damuels	9.13	309	⇑iPN	P	18 37 34.0	+0.5
DAVA				i SN	Sn	18 39 17.4	+0.1
FIN	Finale Ligure	9.16	288	P	P	18 37 32.5	-1.4
VAI	Varese	9.21	298	ePn	P	18 37 33.1	-1.4
UBR	Uberruh	9.21	311	P	P	18 37 35.0	+0.4
KSP	Ksiaz	9.24	344	eP	P	18 37 37.4	+2.4
KSP				eSn	Sn	18 39 23.8	+3.8
KSP	Ksiaz	9.24	344	eP	P	18 37 42.8	+7.8
IMI	Imperia	9.35	286	P	P	18 37 35.4	-1.0
ROB	Roburent	9.41	288	P	P	18 37 35.3	-2.1
LLS	Linth-Limmern	9.44	304	⇑P	P	18 37 38.8	+1.0
MONE	Monesi	9.46	287	P	P	18 37 36.8	-1.2
ORX	Oropa	9.65	296	P	P	18 37 37.1	-3.5
SBF	Sospel	9.67	285	ePn	P	18 37 39.1	-1.7
SBF				eSn	Sn	18 39 23.8	-6.5
	comp=Z,48nm,0.5s						
AUTN	L'Aution	9.69	286	P	P	18 37 42.7	+1.6
HDH	Heidenheim	9.70	316	P	P	18 37 41.0	-0.2
ENR	Entracque	9.72	287	P	P	18 37 40.6	-1.0
MUO	Muotathal	9.72	304	⇓P	P	18 37 42.8	+1.2
MCGN	Macugnaga	9.75	298	ePn	P	18 37 42.3	+0.3
TRAV		9.77	295	P	P	18 37 38.2	-4.0
STV2	Anna di Valdie	9.79	287	P	P	18 37 41.2	-1.3
STV	Sta Anna Valdi	9.79	287	P	P	18 37 41.1	-1.4
MMK	Mattmark	9.79	298	⇑P	P	18 37 41.6	-1.0
TOUF	Mont Tournerai	9.82	286	P	P	18 37 43.9	+1.0
NKC	Novy Kostel	9.87	329	ePN	P	18 37 43.3	-0.2
NKC				eSN	Sn	18 39 31.7	-3.5
SISB	Singen-Sch Ber	9.87	309	P	P	18 37 44.5	+0.9
BRG	Berggiesshubel	9.88	336	eP	P	18 37 45.3	+1.5
BRG				MLR	MLR		
	comp=N,1μm,15.6s						
BRG				MLR	MLR		
	comp=E,2μm,15.6s						
BRG				MLR	MLR		
	comp=Z,2μm,8.9s						
BRG	Berggiesshubel	9.88	336	ePn	P	18 37 45.3	+1.5
BRG				i		18 39 15.8	
BRG				i Sg	rx	18 39 51.0	
DOI	San Damiano	9.89	289	ePn	P	18 37 43.3	-0.6
BHB	Bricherasio	9.94	291	P	P	18 37 41.1	-3.5
ZUR	Zurich	9.94	306	⇑P	P	18 37 45.6	+1.0
GRA1	Grafenberg Arr	9.96	323	ePn	P	18 37 44.3	-0.5
GRF	Grafenberg Arr	9.96	323	eP	P	18 37 44.3	-0.5
GUT	Gutenstein	9.99	311	P	P	18 37 44.7	-0.5
PZZ	Prazzo	9.99	289	P	P	18 37 42.9	-2.4
RSP	Reno Superiore	10.01	293	P	P	18 37 41.5	-4.1
BUCH	Bad Urach	10.07	313	P	P	18 37 45.7	-0.6
FENE	Fenestrelle	10.12	292	P	P	18 37 43.4	-3.6
LKBD	Leukerbad	10.13	300	⇑P	P	18 37 46.1	-1.1
LSD	Ceresole Reale	10.16	294	P	P	18 37 43.3	-4.2
DIX	Grande Dixence	10.17	298	⇓P	P	18 37 47.3	-0.4
SLE	Schleitheim	10.19	308	⇑P	P	18 37 46.5	-1.4
SPAK	Spaichingen	10.19	310	P	P	18 37 47.3	-0.7
FRF	La Foret Royal	10.21	283	ePn	P	18 37 47.7	-0.6
FRF				eSn	S	18 39 34.8	-8.9
	comp=Z,20nm,0.7s						
MBDF	Montbardon	10.26	290	ePn	P	18 37 46.2	-2.8
MBDF				eSn	S	18 39 36.9	-8.1
	comp=Z,42nm,0.6s						
RRL	Cesana Torines	10.29	291	P	P	18 37 46.8	-2.6
LMR	La Mourre	10.30	282	ePn	P	18 37 48.7	-0.8
SULZ	Sulz-Cheisache	10.30	306	⇑P	P	18 37 48.7	-0.7
BRTR	Keskin Array B	10.31	99	Pn	P	18 37 48.2	-1.4

	comp=Z,1.2nm,0.3s,baz=279,slow=13,SNR=23						
BRTR				Sn	S	18 39 43.4	-2.7
	comp=Z,0.2nm,0.3s,baz=124,slow=32,SNR=3.2						
BRTR				Lg		18 40 50.7	
	baz=32,slow=16,SNR=2.3						
BRTR	Keskin Array B	10.31	99	P	P	18 37 48.2	-1.4
BRTR						18 39 43.4	
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
STU	Stuttgart	10.34	314	*e*P	P	18 37 49.2	-0.9
BNI	Bardonecchia	10.39	291	*e*P	P	18 37 48.6	-2.2
LPG	La Plagne	10.44	294	*e*Pn	P	18 37 50.8	-0.7
LPG				*e*Sn	S	18 39 41.2	-8.3
	comp=Z,72nm,0.6s						
LPG	La Plagne	10.44	294	*e*Sn	S	18 39 41.2	-8.3
	comp=Z,36nm,0.6s						
LPL	La Plagne	10.46	294	*e*Pn	P	18 37 50.3	-1.4
LPL				*e*Sn	S	18 39 41.5	-8.4
	comp=Z,35nm,0.4s						
SIND	Sindeldorf	10.49	318	P	P	18 37 51.3	-0.8
LBG	Lerchenberg	10.50	313	P	P	18 37 52.2	0.0
EMV	Vieux Emosson	10.50	297	⇓P	P	18 37 52.3	0.0
MOX	Moxa	10.52	328	*e*P	P	18 37 53.7	+1.2
MOX				*e*		18 39 48.1	
MOX				MLR	MLR		
	comp=Z,800nm,14.0s						
MOX	Moxa	10.52	328	*i* P	P	18 37 53.7	+1.2
MOX				S	S	18 39 48.0	-3.2
MOX				QM		18 41 22.0	
MOX				RM		18 42 21.0	
FELD	Feldberg	10.53	308	P	P	18 37 51.0	-1.6
CLL	Collm	10.56	334	*e*P	P	18 37 51.0	-2.0
CLL				*e*S	S	18 39 54.0	+1.8
CLL				*i*		18 41 07.0	
CLL	Collm	10.56	334	P	P	18 37 51.0	-2.0
CLL				*e*		18 38 02.0	
CLL				*e*S	S	18 39 54.0	+1.8
CLL				*e*		18 40 19.0	
CLL				*e*L		18 41 07.0	
CLL				*e*L		18 41 21.0	
BFO	Black Forest	10.57	311	*e*Pn	P	18 37 52.6	-0.6
BFO				*e*Sn	S	18 39 49.2	-3.3
AKASG	Malin Array Be	10.59	32	Pn	P	18 37 52.4	-1.2
	comp=Z,0.9nm,0.3s,baz=222,slow=12,SNR=7.0						
AKASG				Lg		18 40 49.8	
	baz=210,slow=24,SNR=3.1						
AKASG	Malin Array Be	10.59	32	P	P	18 37 52.4	-1.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KIZ	Kirchzarten	10.62	308	P	P	18 37 52.6	-1.2
BBS	Basel-Blauen	10.63	305	P	P	18 37 54.4	+0.3
OG01	Vacheresse	10.73	298	P	P	18 37 55.5	+0.1
ORIF	Oris-en-Rattie	10.92	290	*e*Pn	P	18 37 56.1	-1.9
ORIF				*e*Sn	S	18 39 53.6	-7.6
	comp=Z,16nm,0.7s						
ORIF				*e*R			
	comp=Z,873nm,25.8s						
LOMF	Lomont	11.01	303	P	P	18 37 58.0	-1.2
MOF	Molkenrain	11.03	306	P	P	18 37 58.1	-1.4
SWS	Schriesheim	11.03	316	P	P	18 38 00.2	+0.7
TOD	Tromm	11.06	317	P	P	18 37 58.7	-1.1
GRN	Grenoble	11.08	292	P	P	18 37 58.4	-1.7
WLS	Welschbruch	11.17	309	P	P	18 38 00.0	-1.4
HINF	Hinteralfeld	11.19	306	*e*Pn	P	18 38 00.0	-1.6
HINF				*e*Sn	S	18 39 59.4	-8.2
	comp=Z,52nm,0.6s						
ECH	Echery	11.19	308	P	P	18 38 00.0	-1.7
CABF	La Chapelle	11.21	299	*e*Pn	P	18 38 00.0	-1.9
CDF	Champ du Feu	11.22	309	*e*Sn	S	18 40 00.1	-8.2
	comp=Z,32nm,0.9s						
CDF	Champ du Feu	11.22	309	*e*Pn	P	18 38 00.0	-2.0
CDF				*e*Sn	S	18 40 00.1	-8.2
LANF	Langenberg	11.22	312	P	P	18 38 01.4	-0.6
OG05	Jujurieux	11.46	295	P	P	18 38 03.4	-1.9
HAU	Haudompre	11.58	306	*e*Pn	P	18 38 05.8	-1.1
HAU				*e*Sn	S	18 40 07.7	-9.4
	comp=Z,43nm,0.6s						
HAU				*e*R			
	comp=Z,718nm,21.8s						
VIVF	Saint-Julien-l	11.76	289	*e*Pn	P	18 38 07.9	-1.5
VIVF				*e*Sn	S	18 40 13.8	-7.8
	comp=Z,13nm,0.6s						
VIVF	Saint-Julien-l	11.76	289	*e*Sn	S	18 40 13.8	-7.8
	comp=Z,6.5nm,0.6s						
ABH	Alteburg	11.87	316	P	P	18 38 11.5	+0.6
THEF	They Montfort	11.89	306	P	P	18 38 10.7	-0.5
RUP	Ruppelstein	12.02	314	P	P	18 38 13.3	+0.3
SUW	Suwalki	12.12	8	*e*P	P	18 38 12.7	-1.6
	comp=Z,65nm,1.1s						
SUW	Suwalki	12.12	8	*e*P	P	18 38 13.4	-0.9
WLF	Walferdange	12.50	312	*e*P	P	18 38 18.2	-1.1
SMF	Signal de Mont	12.70	297	*e*Pn	P	18 38 18.7	-3.3
SMF				*e*Sn	S	18 40 35.5	-8.8
	comp=Z,47nm,0.7s						
LBL	Lubilhac	12.81	290	P	P	18 38 23.7	+0.1
SSF	Saint Saulge	13.03	298	*e*Pn	P	18 38 25.9	-0.6
SSF				*e*Sn	S	18 40 43.7	-8.7
	comp=Z,9.0nm,0.8s						
AVF	Avril sur Loir	13.06	297	*e*Pn	P	18 38 23.9	-2.9
AVF				*e*Sn	S	18 40 45.6	-7.4
	comp=Z,9.0nm,0.7s						
AVF	Avril sur Loir	13.06	297	*e*Sn	S	18 40 45.6	-7.4
	comp=Z,4.5nm,0.7s						
HGN	Heimansgroeve	13.23	316	*e*Pn	P	18 38 27.7	-1.4
	comp=Z,11nm,0.7s						
BGF	Bois d'Agland	13.34	296	*e*Pn	P	18 38 28.7	-1.8
BGF				*e*Sn	S	18 40 49.5	-10
	comp=Z,25nm,0.5s						
GIVF	Givet	13.46	312	*e*Pn	P	18 38 32.0	-0.1
WTSB	Winterswijk	13.56	322	*e*Pn	P	18 38 33.4	+0.1
	comp=Z,36nm,1.1s						
CAF	Calviac	13.61	288	*e*Pn	P	18 38 33.3	-0.7
HYF	Humbligny	13.66	299	*e*Pn	P	18 38 35.1	+0.4
HYF				*e*Sn	S	18 40 59.6	-7.7
TCF	Toulx Ste Croi	13.71	294	*e*Pn	P	18 38 33.5	-1.9
TCF				*e*Sn	S	18 41 01.0	-7.6
	comp=Z,10nm,0.5s						
BAIF	Baives	13.78	311	*e*Pn	P	18 38 35.7	-0.5
GZT	Gaziantep	14.03	104	*i* P	P	18 38 43.3	+3.6
RJF	Les Rejaudoux	14.04	290	*e*Pn	P	18 38 39.4	-0.2
RJF				*e*R			
	comp=Z,582nm,19.8s						
SOC	Sochi	14.28	77	*e*P	P	18 38 43.8	+0.9
SOC				MLR	MLR		
	comp=Z,306nm,17.0s						
SOC				MLR	MLR		
	comp=N,168nm,13.0s						
SOC				MLR	MLR		
	comp=E,175nm,15.0s						
MALT	Malatya	14.29	99	P	P	18 38 43.7	+0.6
VRSR	Storozhevoye	15.81	48	*e*P	P	18 39 01.5	-1.2
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
VRSR				pmax	pmax		
	comp=N,4.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,4.0nm,1.1s						
VRSR				MLR	MLR		
	comp=Z,240nm,17.0s						
VRSR				MLR	MLR		
	comp=N,570nm,20.0s						
VRSR				MLR	MLR		
	comp=E,180nm,22.0s						
LDF	La Druitiere	15.82	301	*e*Pn	P	18 39 05.5	+2.7
FLN	La Foliniere	16.09	302	*e*Pn	P	18 39 08.4	+2.0
FLN				*e*R			
	comp=E,385nm,12.5s						
MUD	Monsted U'grnd	16.14	337	⇑*i*P	P	18 39 11.2	+4.2
MUD				pmax	pmax		
	comp=Z,27nm,0.9s						
MUD	Monsted U'grnd	16.14	337	⇑*i*P	P	18 39 11.2	+4.2
	comp=Z,27nm,0.9s						
GRR	Gorron	16.23	300	*e*Pn	P	18 39 10.0	+1.9
ASF	Jabal al Asfar	16.43	121	Pn	P	18 39 14.8	+4.1
	comp=Z,0.6nm,0.3s,baz=126,slow=4.6,SNR=3.1						
ASF				LR	LR	18 46 20.7	
	comp=Z,202nm,20.4s,baz=340,slow=40						
KIV	Kislovodsk	16.43	76	*e*P	P	18 39 10.7	0.0
KIV				pmax	pmax		
	comp=E,6.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,14nm,1.1s						
KIV				MLR	MLR		
	comp=N,101nm,16.0s						
KIV				MLR	MLR		
	comp=E,50nm,16.0s						
KIV				MLR	MLR		
	comp=Z,151nm,16.0s						
KIV	Kislovodsk	16.43	76	P	P	18 39 16.2	+5.6
	comp=Z,14nm,1.0s						
OBN	Obninsk	16.85	34	*e*P	P	18 39 13.5	-2.4
	comp=Z,52nm,1.2s						
VSU	Vasula	16.92	12	*i* P	P	18 39 17.0	+0.2
EIL	Elat	17.05	132	P	P	18 39 19.3	+0.6
	comp=Z,0.5nm,0.3s,baz=339,slow=25,SNR=6.5						
EIL				LR	LR	18 47 14.9	
	comp=Z,89nm,19.0s,baz=88,slow=42						
EIL	Elat	17.05	132	*e*P	P	18 39 18.2	-0.5
	comp=Z,6.2nm,0.7s						
SGMF	Saint Gilles	17.30	299	*e*Pn	P	18 39 22.7	+1.1
TI2	Plekhanov	18.14	83	*e*P	P	18 39 33.4	+1.2
GNI	Garni	18.45	88	P	P	18 39 37.3	+1.2
	comp=Z,0.2nm,0.3s,baz=213,slow=5.6,SNR=6.7						
GNI				LR	LR	18 47 02.9	
	comp=Z,94nm,19.2s,baz=171,slow=38						
GNI	Garni	18.45	88	P	P	18 39 36.7	+0.6
	comp=Z,12nm,0.8s						
ESDC	Sonseca Array	18.55	271	P	P	18 39 35.9	-1.4
	comp=Z,0.1nm,0.3s,baz=77,slow=12,SNR=4.6						
ESDC	Sonseca Array	18.55	271	P	P	18 39 35.9	-1.4
HFS	Hagfors	18.58	349	P	P	18 39 37.3	-0.2
	comp=Z,0.1nm,0.3s,baz=157,slow=11,SNR=14						
NAO01	NORSAR Array S	19.70	346	P	P	18 39 48.2	-2.4
FINES	FINESS Array B	19.73	8	P	P	18 39 48.9	-2.1
	comp=Z,0.5nm,0.3s,baz=176,slow=9.7,SNR=17						
FINES				LR	LR	18 48 15.5	
	comp=Z,151nm,18.6s,baz=340,slow=39						
FINES	FINESS Array B	19.73	8	*i* P	P	18 39 49.9	-1.1
FINES				pmax	pmax		
	comp=Z,5.0nm,0.5s						
NB2	NORSAR Subarra	19.82	347	P	P	18 39 50.6	-1.4
	comp=Z,0.7nm,0.6s,baz=148,slow=11						
NOA	NORSAR Array B	19.82	347	P	P	18 39 50.7	-1.4
	comp=Z,1.0nm,0.3s,baz=162,slow=10,SNR=14						
NOA				LR	LR	18 48 37.0	
	comp=Z,136nm,19.7s,baz=210,slow=40						
NOA	NORSAR Array B	19.82	347	P	P	18 39 50.7	-1.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.3s						
NOA				MLR	MLR		
	comp=Z,136nm,19.7s						
NOA	NORSAR Array B	19.82	347	P	P	18 39 50.7	-1.4
NOA				LR	LR	18 48 37.0	
PBRG	Braganca	20.16	278	*e*P	P	18 39 54.8	-0.9
	comp=Z,27nm,1.2s						
EKA	Eskdalemuir Ar	20.32	319	P	P	18 39 56.3	-1.0
	comp=Z,24nm,0.8s,baz=113,slow=11,SNR=48						
EKA	Eskdalemuir Ar	20.32	319	P	P	18 39 56.3	-1.0
EKA				pmax	pmax		
	comp=Z,24nm,0.8s						
KAF	Kangasniemi	20.41	8	*e*p	P	18 39 56.8	-1.5
	comp=Z,6.5nm,0.7s,baz=191,slow=9.8						
KAF	Kangasniemi	20.41	8	*e*P	P	18 39 56.8	-1.5
KAF				pmax	pmax		
	comp=Z,7.0nm,0.7s						
PVRL	Vila Real	20.97	277	*e*P	P	18 40 05.2	+1.0
	comp=Z,28nm,1.6s						
MTE	Manteigas	21.04	275	*e*P	P	18 40 05.7	+0.9
	comp=Z,35nm,1.5s,mb4.5						
PVIS	Viseu	21.22	276	*e*P	P	18 40 07.6	+0.9
	comp=Z,30nm,1.2s,mb4.5						
JOF	Joensuu	21.89	13	*e*p	P	18 40 11.8	-1.4
	comp=Z,8.6nm,0.8s,mb4.2						
JOF	Joensuu	21.89	13	*e*P	P	18 40 11.8	-1.4
JOF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.2						
PBEJ	Beja	21.95	269	*e*P	P	18 40 15.8	+1.7
	comp=Z,16nm,1.0s,mb4.4						
ARCES	ARCESS Array B	27.69	4	P	P	18 41 07.5	-0.8
	comp=Z,1.7nm,0.6s,mb3.9,baz=192,slow=9.5,SNR=16						
ARCES	ARCESS Array B	27.69	4	P	P	18 41 07.5	-0.8
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARU	Arti	28.36	46	⇑*i*P	P	18 41 13.3	-1.1
ARU				*e*		18 42 10.7	
ARU				*e*S	S	18 45 51.4	-7.9
ARU				pmax	pmax		
	comp=Z,22nm,1.8s,mb4.5						
ARU	Arti	28.36	46	*e*P	P	18 41 13.5	-0.9
	comp=Z,30nm,1.3s,mb4.8						
BRVK	Borovoye	34.76	54	*e*P	P	18 42 10.9	+0.1
	comp=Z,12nm,0.8s,mb4.9						
BVAR	Borovoye Array	34.83	54	P	P	18 42 11.7	+0.3
	comp=Z,4.8nm,0.7s,mb4.5,baz=270,slow=5.9,SNR=23						
CHKZ	Chkalovo	34.94	53	*e*P	P	18 42 12.4	0.0
	comp=Z,26nm,1.5s,mb4.9						
EKS2	Erkin-Say	38.91	71	*e*P	P	18 42 45.9	-0.1
	comp=Z,4.7nm,0.7s,mb4.3						
AML	Almayashu	39.02	71	*e*P	P	18 42 48.7	+1.9
	comp=Z,3.5nm,0.7s,mb4.2						
AAK	Ala-Archa	39.43	70	*i* P	P	18 42 49.9	-0.3
AAK				pmax	pmax		
	comp=Z,11nm,2.0s,mb4.2						
AAK	Ala-Archa	39.43	70	*e*P	P	18 42 49.7	-0.5
	comp=Z,1.6nm,0.6s,mb3.9						
UCH	Uchtor	39.57	71	P	P	18 42 51.5	+0.1
TKM2	Tokmak 2	40.11	69	*e*P	P	18 42 57.7	+1.9
	comp=Z,2.3nm,0.9s,mb3.9						
SUMG	Summit	41.21	337	P	P	18 43 00.7	-3.9
	comp=Z,7.8nm,1.1s,mb4.2						
DBIC	Dimbokro	41.73	220	P	P	18 43 08.9	-0.6
	comp=Z,32nm,0.6s,mb5.1,baz=8.2,slow=9.7,SNR=94						
DBIC	Dimbokro	41.73	220	P	P	18 43 08.9	-0.6
DBIC				pmax	pmax		
	comp=Z,32nm,0.6s						
DBIC	Dimbokro	41.73	220	*e*P	P	18 43 08.9	-0.6
	comp=Z,39nm,0.7s,mb5.2						
NVS	Novosibirsk	42.20	50	*e*P	P	18 43 13.0	+0.2
NVS				pmax	pmax		
	comp=N,21nm,1.8s						
NVS				pmax	pmax		
	comp=E,40nm,1.8s						
NVS				pmax	pmax		
	comp=Z,104nm,1.8s,mb5.2						
KMBO	Kilima Mbogo	45.60	156	P	P	18 43 41.2	+0.4
	comp=Z,0.4nm,0.2s,mb3.9,baz=11,slow=14,SNR=3.1						
KMBO	Kilima Mbogo	45.60	156	P	P	18 43 41.2	+0.4
	comp=Z,3.6nm,1.0s,mb4.3						
WMQ	Urumqi	48.07	64	*e*P	P	18 44 00.2	+0.3
WMQ				AP	pP	18 44 04.0	+0.4
WMQ				XP	sP	18 44 07.0	+2.0
WMQ				PCP	PcP	18 45 28.5	+0.4
WMQ				PP	PP	18 45 51.6	+0.1
WMQ				AMB	AMB		
	comp=Z,2.0nm,1.1s,mb4.1						
WMQ				LR	LR		
	comp=N,21nm,21.0s,MS3.5						
WMQ				LR	LR		
	comp=E,40nm,17.6s,MS3.5						
WMQ				LR	LR		
	comp=Z,41nm,19.4s,MS3.4						
KOLN	Koldanda	52.66	84	*e*P	P	18 44 32.0	-3.1
	comp=Z,3.3nm,0.6s,mb4.5						
GKN	Gorkha	53.30	83	*e*P	P	18 44 37.4	-2.5
	comp=Z,8.4nm,0.7s,mb4.8						
DMN	Daman	53.86	84	*e*P	P	18 44 42.1	-1.9
	comp=Z,8.6nm,0.7s,mb4.8						
KKN	Kakani	53.89	83	*e*P	P	18 44 42.4	-1.8
	comp=Z,5.9nm,0.6s,mb4.7						
PKI	Pulchoki	54.10	83	*e*P	P	18 44 44.3	-1.4
	comp=Z,8.5nm,0.8s,mb4.7						
GUN	Gumba	54.27	83	*e*P	P	18 44 46.9	0.0
SCHQ	Schefferville	55.59	316	P	P	18 44 54.9	-1.4
	comp=Z,3.8nm,0.6s,mb4.6,baz=77,slow=5.8,SNR=11						
SCHQ				LR	LR	19 05 05.0	
	comp=Z,142nm,21.9s,MS4.0,baz=53,slow=32						
SCHQ	Schefferville	55.59	316	*e*P	P	18 44 54.3	-2.0
	comp=Z,8.4nm,0.6s,mb5.0						
RES	Resolute Bay	56.04	343	*e*P	P	18 44 56.5	-2.8
	comp=Z,17nm,1.8s,mb4.8						
SONM	Songino Array	58.14	52	P	P	18 45 14.2	-0.2
	comp=Z,2.1nm,0.7s,mb4.3,baz=288,slow=8.0,SNR=17						
SONM				PcP	PcP	18 46 05.2	-0.7
	comp=Z,1.4nm,0.7s,baz=285,slow=5.0,SNR=3.6						
GTA	Gaotai	58.15	64	*e*P	P	18 45 14.6	-0.1
GTA				AP	pP	18 45 18.2	-0.2
GTA				XP	sP	18 45 21.4	+1.6
GTA				PP	PP	18 47 25.7	+0.4
GTA				S	S	18 53 16.2	+2.2
GTA				XS		18 53 23.8	
GTA				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.6						
GTA				LR	LR		
	comp=N,107nm,16.4s,MS4.3						
GTA				LR	LR		
	comp=E,148nm,17.5s,MS4.3						
GTA				LR	LR		
	comp=Z,147nm,16.7s,MS4.2						
ULN	Ulaanbaatar	58.51	52	*i* P	P	18 45 16.0	-1.0
LZH	Lanzhou	62.62	65	*e*P	P	18 45 45.0	-0.2
LZH				AP	pP	18 45 49.6	+0.6
LZH				XP	sP	18 45 52.0	+1.6
LZH				PP	PP	18 48 04.5	-0.4
LZH				AMB	AMB		
	comp=Z,22nm,1.5s,mb5.1						
LZH	Lanzhou	62.62	65	*e*P	P	18 45 45.0	-0.2
	comp=Z,22nm,1.5s,mb5.1						
LZH				pP	pP	18 45 49.6	+0.6
LZH				sP	sP	18 45 52.0	+1.6
LZH				PP	PP	18 48 04.5	-0.4
FCC	Fort Churchill	65.88	329	*e*P	P	18 46 04.8	-1.2
	comp=Z,3.9nm,0.8s,mb4.5						
XAN	Xi'an	67.20	64	P	P	18 46 13.5	-1.4
INK	Inuvik	68.25	350	*e*P	P	18 46 19.0	-1.9
	comp=Z,1.8nm,0.6s,mb4.3						
CMAR	Chiang Mai Arr	69.50	83	P	P	18 46 27.1	-2.3
	comp=Z,3.2nm,0.7s,mb4.3,baz=304,slow=7.0,SNR=11						
CMAR	Chiang Mai Arr	69.50	83	P	P	18 46 27.1	-2.3
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
YKA	Yellowknife Ar	69.73	340	P	P	18 46 29.1	-0.9
	comp=Z,2.2nm,0.6s,mb4.2,baz=33,slow=5.2,SNR=32						
YKA				LR	LR	19 18 35.7	
	comp=Z,166nm,18.8s,MS4.3,baz=50,slow=37						
YKA	Yellowknife Ar	69.73	340	P	P	18 46 29.1	-1.0
YKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA				MLR	MLR		
	comp=Z,166nm,18.8s						
ENH	Enshi	69.84	67	*e*P	P	18 46 29.8	-1.5
	comp=Z,7.3nm,0.7s,mb4.7						
CN2	Changchun	71.34	48	*e*P	P	18 46 39.9	-0.3
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
ULM	Lac du Bonnet	72.54	323	P	P	18 46 46.2	-1.0
	comp=Z,3.6nm,1.0s,mb4.3,baz=48,slow=4.8,SNR=5.7						
ULM				LR	LR	19 18 12.1	
	comp=Z,146nm,21.3s,MS4.2,baz=55,slow=35						
ULM	Lac du Bonnet	72.54	323	P	P	18 46 46.2	-1.0
ULM				LR	LR	19 18 12.1	
COLA	College	73.03	355	P	P	18 46 47.1	-2.6
	comp=Z,5.1nm,1.0s,mb4.4						
MDJ	Mudanjiang	73.03	45	P	P	18 46 47.9	-2.2
MDJ				AMB	AMB		
	comp=Z,8.0nm,2.2s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,95nm,3.8s						
DAWY	Dawson	73.03	351	*e*P	P	18 46 48.8	-0.9
ILAR	Eielson Array	73.06	354	P	P	18 46 50.0	+0.1
	comp=Z,1.4nm,0.6s,mb4.0,baz=356,slow=4.9,SNR=14						
ILAR	Eielson Array	73.06	354	P	P	18 46 50.0	+0.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SUR	Sutherland	74.06	180	LR	LR	19 21 26.3	
	comp=Z,89nm,20.5s,MS4.0,baz=14,slow=37						
MCK	McKinley	74.23	355	P	P	18 46 55.4	-1.3
NJ2	Nanjing	74.98	60	*e*P	P	18 47 01.5	-0.2
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
EDM	Edmonton	77.09	334	*e*P	P	18 47 12.7	-0.4
SSE	Sheshan	77.11	60	*e*P	P	18 47 13.3	-0.5
SSE				AMB	AMB		
	comp=Z,16nm,0.8s,mb5.0						
SSE	Sheshan	77.11	60	*e*P	P	18 47 13.3	-0.5
	comp=Z,16nm,0.8s,mb5.0						
LRAL	Lakeview Retre	79.92	305	*e*P	P	18 47 28.8	-0.3
	comp=Z,13nm,0.9s,mb4.9						
NEW	Newport	82.57	333	P	P	18 47 41.5	-1.1
PDAR	Pinedale Array	84.31	325	P	P	18 47 51.5	0.0
	comp=Z,0.6nm,0.7s,mb3.9,baz=53,slow=9.0,SNR=5.1						
PDAR				LR	LR	19 25 28.0	
	comp=Z,189nm,21.4s,MS4.4,baz=51,slow=36						
BDFB	Brasilia	85.09	244	P	P	18 47 57.3	+1.2
	comp=Z,8.7nm,0.7s,mb5.0,baz=69,slow=4.6,SNR=11						
BDFB	Brasilia	85.09	244	P	P	18 47 57.3	+1.2
BDFB				pmax	pmax		
	comp=Z,9.0nm,0.7s						
WMOK	Wichita Mounta	85.44	314	*e*P	P	18 47 57.8	+0.4
	comp=Z,3.7nm,0.9s,mb4.5						
NVAR	Mina Array Bea	91.52	329	LR	LR	19 28 55.8	
	comp=Z,142nm,21.0s,MS4.4,baz=10.0,slow=35						
WRA	Warramunga Arr	120.72	90	PKP	PKPdf	18 54 09.9	-4.5
	comp=Z,0.6nm,0.7s,baz=293,slow=2.3,SNR=6.8						
WRA	Warramunga Arr	120.72	90	PKIKP	PKPdf	18 54 09.9	-4.5
WRA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	122.61	94	PKP	PKPdf	18 54 13.9	-4.0
	comp=Z,2.1nm,0.7s,baz=328,slow=1.3,SNR=32						
STKA	Stephens Creek	132.77	98	PKP	PKPdf	18 54 33.1	-4.2
	comp=Z,0.9nm,0.5s,baz=304,slow=3.6,SNR=2.9						

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*NEIC **09** 18:40:34.5±5.3,21.35S×178.91W,h534^{km}±61^{km},mb4.0/5,*
Error ellipse: s-maj=28.2km s-min=24.3km az=155.0
*IDC **09** 18:40:37.5±6.4,21.22S×178.98W,h562^{km}±70^{km},mb3.0/7,*
mb1 3.4/7,mb1mx3.2/13,Error ellipse: s-maj=92.6km
s-min=27.9km az=152.0

ISC 09 18:40:34.8±0.7**,21.6S**±0.2×**178.9W**±0.2**,h550**^{km}**,n19,**
σ**0**^{s}**75**/16**,mb3.7**/12**,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	34.80	285	P	P	18 46 37.7	-3.4
STKA	Stephens Creek	36.59	245	P	P	18 46 56.5	+0.7
	2.3nm,0.7s,mb3.8,baz=84,slow=9.0,SNR=3.5						
STKA	Stephens Creek	36.59	245	*e*P	P	18 46 56.4	+0.7
ASAR	Alice Springs	43.48	258	P	P	18 47 51.8	+0.6
	3.1nm,0.6s,mb4.0,baz=100,slow=7.8,SNR=68						
ASAR				PcP	PcP	18 49 27.8	+0.4
	0.8nm,0.9s,baz=105,slow=4.3,SNR=7.0						
ASPA	Alice Springs	43.48	258	*e*P	P	18 47 52.2	+0.9
WB2	Warramunga Arr	43.63	263	*e*P	P	18 47 52.4	-0.1
WRAB	Tennant Creek	43.64	263	*e*P	P	18 47 51.9	-0.6
	12nm,1.3s,mb4.3						
WRA	Warramunga Arr	43.64	263	P	P	18 47 52.7	+0.1
	1.3nm,0.7s,mb3.6,baz=97,slow=6.7,SNR=30						
SBA	Scott Base	56.76	184	*e*P	P	18 49 27.2	-0.8
	3.6nm,0.7s,mb3.7						
MBWA	Marble Bar	56.82	258	*e*P	P	18 49 28.8	-0.4
	3.9nm,0.7s,mb3.8						
NVAR	Mina Array Bea	82.36	44	P	P	18 52 00.8	+0.5
	0.6nm,0.6s,mb3.2,baz=224,slow=9.1,SNR=3.9						
TPH	Tonopah	82.86	44	*e*P	P	18 52 03.6	+0.7
	2.0nm,0.5s,mb3.9						
ILAR	Eielson Array	89.53	13	P	P	18 52 32.9	-1.3
	0.4nm,0.6s,mb3.5,baz=216,slow=5.5,SNR=5.0						
CMAR	Chiang Mai Arr	89.69	290	P	P	18 52 36.0	+0.1
	0.3nm,0.5s,mb3.3,baz=153,slow=3.2,SNR=4.4						
PDAR	Pinedale Array	90.30	44	P	P	18 52 38.4	+0.2
	0.3nm,0.7s,mb3.2,baz=231,slow=5.8,SNR=3.2						
SDCO	Great Sand Dun	90.67	49	*e*P	P	18 52 34.7	-5.3
	3.2nm,1.0s,mb4.2						
ARCES	ARCESS Array B	129.81	349	PKP	PKPdf	18 58 41.2	+0.1
	2.3nm,0.8s,baz=90,slow=2.7,SNR=3.8						
AKASG	Malin Array Be	143.53	330	PKP	PKPdf	18 59 05.5	-0.9
	2.4nm,0.5s,baz=39,slow=4.1,SNR=16						
GERES	GERESS Array B	150.99	343	PKPbc	PKPdf	18 59 26.2	+7.6
	0.3nm,0.5s,baz=45,slow=3.8,SNR=5.0						

IDC 09 18:41:14.8±5.7**,13.67N**×**95.17E,mb3.1**/2**,mb1 3.6**/3**,**
mb1mx3.3/17**,ML4.0**/1**,MS3.0**/1**,Ms1 3.2**/1**,ms1mx3.2**/1**,**
Error ellipse: s-maj=126.0km s-min=41.8km az=96.0,
Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	5.99	37	Pn	Pn	18 42 44.9	-1.9
	0.9nm,0.3s,baz=224,slow=15,SNR=29						
CMAR				LR	LR	18 45 43.0	
	comp=Z,111nm,18.1s,baz=288,slow=45						
WRA	Warramunga Arr	51.00	130	P	P	18 50 18.2	-2.6
	0.1nm,0.5s,baz=310,slow=8.7,SNR=2.9						
ASAR	Alice Springs	53.02	134	P	P	18 50 34.3	-1.8
	0.2nm,0.7s,baz=315,slow=7.7,SNR=3.4						

CASC 09 19:02:26.8±1.7**, 12.39N×87.88W, h36^{km}**±557^{km}**, MD3.7, ML3.4, 8C-2D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRIN	San Cristobal	0.87	69	⇑eP	P	19 02 43.1	+0.5
CRIN				eS	S	19 02 55.8	+1.6
CNCH	Conchagua	0.88	3	⇑eP	P	19 02 43.0	+0.3
CNCH				eS	S	19 02 55.6	+1.1
LEON	Leon	0.97	88	eP	P	19 02 43.1	-0.9
TEL3	Telica 3	1.03	80	⇑iP	P	19 02 44.1	-0.8
TEL3				eS	S	19 02 59.0	+0.7
VSM	San Miguel	1.10	340	⇑eP	P	19 02 46.8	+0.9
VSM				eS	S	19 03 01.5	+1.3
BLLM	Bellamira	1.10	342	eP	P	19 02 46.1	+0.2
BLLM				⇓eP		19 02 46.4	
BLLM				eS	S	19 03 00.1	-0.1
BLLM				eS	S	19 03 00.3	+0.2
MIRN	Miramar	1.14	87	eP	P	19 02 45.2	-1.3
CAHU	Cacacuatique	1.41	347	eP	P	19 02 50.8	+0.4
CAHU				eS	S	19 03 09.4	+1.5
APYN	Apoyeque	1.50	96	⇑eP	P	19 02 50.8	-0.9
APYN				eS	S	19 03 10.3	0.0
SNVI	San Vicente	1.53	323	eP	P	19 02 52.0	-0.1
SNVI				eS	S	19 03 10.7	-0.4
XAVN	Gruta Xavier	1.54	99	⇓eP	P	19 02 53.3	+1.0
MGAN	Managua	1.62	98	eS	S	19 03 12.0	-1.1
MGAN				i		19 03 12.9	
	comp=N,480nm,0.4s						
LCBS	La Ceiba	1.65	320	⇑eP	P	19 02 53.6	-0.2
LCBS				eS	S	19 03 13.6	-0.4
TICN	Ticuantepe	1.65	102	eP	P	19 02 54.3	+0.5
TICN				eS	S	19 03 13.4	-0.6
LFRS	El Faro	1.68	317	⇑eP	P	19 02 53.9	-0.4
LFRS				eS	S	19 03 14.9	+0.2
LBRS	Las Brisas	1.75	320	eP	P	19 02 55.5	+0.3
LBRS				eS	S	19 03 16.6	-0.1
LFU	La Fuente	1.81	319	⇑eP	P	19 02 56.1	+0.1
LFU				eS	S	19 03 17.9	0.0
BOQS	Boqueron	1.91	315	eP	P	19 02 58.0	+0.5
BOQS				eS	S	19 03 21.3	+0.8

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*LDG **09** 19:05:15.6±0.6, 14.54S×167.13E, h10^{km}, Mb4.3/1, Error ellipse: s-maj=91.8km s-min=47.1km az=41.0*

*IDC **09** 19:05:28.5±4.1, 14.81S×167.56E, h122^{km}±32^{km}, mb3.6/10, mb1 3.7/10, mb1mx3.7/16, Error ellipse: s-maj=28.1km s-min=23.7km az=108.0*

*BJI **09** 19:05:32.3, 15.15S×167.85E, h187^{km}, mB4.9, mb4.4*

*NEIC **09** 19:05:33.2±1.6, 14.88S×167.33E, h157^{km}±14^{km}, mb4.3/9, Error ellipse: s-maj=11.8km s-min=8.9km az=183.0*

*SYO **09** 19:05:34.5, 14.83S×167.31E, h173^{km}, MB4.3*

ISC 09 19:05:33.6±2.0**, 14.94S**±0.09×**167.29E**±0.09**, h173^{km}**±18^{km}**, n57, σ1^{s}12**/37**, mb4.1**/19**, 5D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	7.14	186	eP	P	19 07 16.5	0.0
DZM				eS	S	19 08 36.7	+0.1
DZM	Mont Dzumac	7.14	186	ePn	P	19 07 15.9	-0.6
DZM				eSn	S	19 08 38.7	+2.1
AFI	Afiamalu	20.30	90	eP	P	19 09 57.0	-0.7
	66nm,1.1s						
PMG	Port Moresby	20.42	283	P	P	19 09 59.2	+0.3
	5.9nm,0.8s,baz=68,slow=9.4,SNR=3.3						
PMG	Port Moresby	20.42	283	eP	P	19 09 59.2	+0.3
	6.7nm,0.9s						
CTA	Charters Tower	20.70	253	P	P	19 10 03.0	+1.3
	3.8nm,1.0s,baz=85,slow=9.5,SNR=5.8						
CTAO	Charters Tower	20.70	253	eP	P	19 10 01.3	-0.3
	4.3nm,0.7s						
STKA	Stephens Creek	28.87	230	P	P	19 11 19.6	+1.3
	5.8nm,1.0s,mb4.3,baz=61,slow=7.2,SNR=14						
STKA	Stephens Creek	28.87	230	eP	P	19 11 18.7	+0.4
WB2	Warramunga Arr	31.78	256	eP	P	19 11 42.9	-1.1
WRAB	Tennant Creek	31.78	256	eP	P	19 11 42.2	-1.8
	9.7nm,1.1s,mb4.5						
WRA	Warramunga Arr	31.79	256	P	P	19 11 42.9	-1.2
	0.9nm,0.7s,mb3.6,baz=84,slow=9.1,SNR=16						
ASAR	Alice Springs	32.62	249	P	P	19 11 50.2	-1.0
	1.3nm,0.4s,mb4.0,baz=76,slow=9.3,SNR=60						
ASAR				PcP	PcP	19 14 32.4	-0.9
	0.5nm,0.7s,baz=83,slow=3.4,SNR=4.0						
ASAR				ScP		19 18 06.1	
	0.9nm,0.9s,baz=85,slow=3.0,SNR=5.6						
ASPA	Alice Springs	32.62	249	eP	P	19 11 50.4	-0.8
MBWA	Marble Bar	45.51	255	eP	P	19 13 38.1	+0.3
	12nm,1.2s,mb4.4						
VNDA	Vanda	62.65	181	P	P	19 15 41.0	-0.6
	1.3nm,0.6s,mb3.9,baz=351,slow=9.3,SNR=5.6						
CASY	Casey	63.34	202	eP	P	19 15 46.1	-0.1
	33nm,1.3s,mb5.0						
NJ2	Nanjing	65.84	316	eP	P	19 16 03.0	+0.1
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.1						
MDJ	Mudanjiang	68.47	332	P	P	19 16 19.6	+0.5
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.7s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,85nm,4.0s						
CN2	Changchun	69.83	329	eP	P	19 16 29.4	+2.0
KMI	Kunming	74.43	302	eP	P	19 16 56.7	+1.8
KMI				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.1						
CM31	Chiang Mai Arr	75.05	294	eP	P	19 16 56.2	-2.3
	comp=Z,2.3nm,0.9s,mb3.8						
CMAR	Chiang Mai Arr	75.05	294	P	P	19 16 59.7	+1.2
	comp=Z,0.5nm,0.6s,mb3.3,baz=132,slow=5.8,SNR=4.3						
YAK	Yakutsk	82.23	343	eP	P	19 17 35.8	-0.7
	comp=Z,6.9nm,0.7s,mb4.4						
ULN	Ulaanbaatar	82.31	324	eP	P	19 17 37.4	+0.2
	comp=Z,1.2nm,0.6s,mb3.7						
SONM	Songino Array	82.67	324	P	P	19 17 39.3	+0.2
	comp=Z,0.4nm,0.5s,mb3.4,baz=156,slow=8.2,SNR=5.0						
GTA	Gaotai	82.82	314	eP	P	19 17 41.4	+1.4
GTA				AP	pP	19 18 30.0	+7.1
GTA				XP	sP	19 18 48.4	+6.9
GTA				PP	PP	19 20 58.1	+3.9
GTA				S	S	19 27 46.1	+4.1
GTA				AMB	AMB		
	comp=Z,4.0nm,1.3s,mb4.0						
GTA				AMB	AMB		
	comp=Z,84nm,4.2s						
GTA				LR	LR		
	comp=N,219nm,16.4s						
GTA				LR	LR		
	comp=E,129nm,14.1s						
GTA				LR	LR		
	comp=Z,110nm,17.5s						
ILAR	Eielson Array	86.72	18	P	P	19 17 57.1	-1.6
	comp=Z,0.4nm,0.5s,mb3.5,baz=234,slow=5.6,SNR=5.7						
SYO	Syowa Base	88.51	197	⇓P	P	19 18 07.1	0.0
SYO	Syowa Base	88.51	197	⇓pP	pP	19 18 47.6	-2.9
SYO	Syowa Base	88.51	197	⇓PP	PP	19 21 34.9	-5.0
PMSA	Palmer Station	91.57	160	eP	P	19 18 20.0	-1.5
	comp=Z,63nm,0.8s						
WMQ	Urumqi	92.89	315	⇓P	P	19 18 28.1	0.0
WMQ				AP	pP	19 19 14.4	+2.7
WMQ				XP	sP	19 19 33.9	+3.6
WMQ				PP	PP	19 22 16.2	+1.0
WMQ				AMB	AMB		
	comp=Z,3.0nm,0.5s,mb4.7						
WMQ				LR	LR		
	comp=N,68nm,21.6s						
WMQ				LR	LR		
	comp=E,22nm,15.4s						
WMQ				LR	LR		
	comp=Z,58nm,14.8s						
SNAA	Sanae	93.34	183	⇓i	P	19 18 28.9	-0.6
SNAA	Sanae	93.34	183	P	P	19 18 29.2	-0.3
	comp=Z,0.4nm,0.6s,mb3.7,baz=184,slow=21,SNR=5.5						
VNA3	Neumayer Olymp	94.01	181		P	19 18 34.2	+1.7
VNA2	Neumayer--Watz	94.27	182		P	19 18 35.7	+2.0
ARCES	ARCESS Array B	120.46	345	PKP	PKPdf	19 24 04.2	+0.2
	comp=Z,3.7nm,1.0s,baz=44,slow=1.8,SNR=9.5						
CABF	La Chapelle	144.72	337	ePKP1	PKPbc	19 24 51.1	+1.4
FLN	La Foliniere	144.80	346	ePKP1	PKPbc	19 24 50.3	+0.4
	comp=Z,10nm,0.5s						
LDF	La Druitiere	144.87	345	ePKP1	PKPbc	19 24 50.2	+0.1
SSF	Saint Saulge	145.24	340	ePKP1	PKPbc	19 24 52.5	+1.4
	comp=Z,35nm,1.0s						
GRR	Gorron	145.24	346	ePKP1	PKPbc	19 24 51.9	+0.8
HYF	Humbligny	145.32	342	ePKP1	PKPbc	19 24 53.0	+1.7
LPL	La Plagne	145.39	336	ePKP1	PKPbc	19 24 53.5	+2.0
	comp=Z,6.6nm,0.6s						
LPG	La Plagne	145.40	336	ePKP1	PKPbc	19 24 53.5	+2.0
	comp=Z,50nm,1.2s						
SMF	Signal de Mont	145.49	340	ePKP1	PKPbc	19 24 53.2	+1.5
AVF	Avril sur Loir	145.52	340	ePKP1	PKPbc	19 24 53.1	+1.3
SGMF	Saint Gilles	145.74	348	ePKP1	PKPbc	19 24 53.3	+1.0
ROSF	Rostrenen	145.80	349	ePKP1	PKPbc	19 24 53.1	+0.7
BGF	Bois d'Agland	145.89	341	ePKP1	PKPbc	19 24 53.5	+0.8
ORIF	Oris-en-Rattie	146.22	336	ePKP1	PKPbc	19 24 55.7	+2.1
	comp=Z,16nm,0.9s						
TCF	Toulx Ste Croi	146.33	341	ePKP1	PKPbc	19 24 54.3	+0.5
	comp=Z,34nm,1.4s						
MFF	Saint Martin d	146.73	344	ePKP1	PKPbc	19 24 56.6	+1.9
	comp=Z,18nm,0.9s						
RJF	Les Rejaudoux	147.43	341	ePKP1	PKPdf	19 24 58.8	+4.6
CAF	Calviac	147.59	340	ePKP1	PKPdf	19 24 59.4	+4.9
LFF	La Frestale	148.00	342	ePKP1	PKPdf	19 25 00.2	+5.0
	comp=Z,12nm,0.7s						

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*NEIC **09** 19:06:35.6±2.8, 56.28S×27.17W, h162^{km}±25^{km}, mb4.3/9, Error ellipse: s-maj=16.5km s-min=10.3km az=47.0*

*IDC **09** 19:06:37.6±4.8, 56.35S×27.25W, h176^{km}±43^{km}, mb3.9/7, mb1 4.0/8, mb1mx3.8/13, Error ellipse: s-maj=27.3km s-min=11.4km az=60.0*

ISC 09 19:06:33.5±3.2**, 56.22S**±0.09×**27.2W**±0.2**, h156^{km}**±30^{km}**, n39, σ0^{s}90**/30**, mb4.2**/11**, 9C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	16.63	158	⇑i	P	19 10 24.5	+6.1
VNA3	Neumayer Olymp	16.82	160	⇑i	P	19 10 21.2	+0.5
VNA3	Neumayer Olymp	16.82	160	⇑i	P	19 10 22.5	+1.8
VNA3	Neumayer Olymp	16.82	160	⇑i	P	19 10 29.8	+9.1
VNA2	Neumayer--Watz	17.02	158	⇑i	P	19 10 22.2	-0.9
VNA2	Neumayer--Watz	17.02	158	⇑i	P	19 10 24.3	+1.2
VNA2	Neumayer--Watz	17.02	158	⇑i	P	19 10 32.7	+10
SNAA	Sanae	18.58	156	⇑i	P	19 10 37.4	-3.2
SNAA	Sanae	18.58	156	⇑i	P	19 10 38.8	-1.8
SNAA	Sanae	18.58	156	P	P	19 10 39.0	-1.6
	1.0nm,0.3s,baz=304,slow=10.0,SNR=170						
SNAA				S	S	19 13 59.1	0.0
	0.0nm,0.3s,baz=9.1,slow=22,SNR=2.4						
PMSA	Palmer Station	19.80	229	P	P	19 10 53.3	0.0
	80nm,1.3s						
QSPA	South Pole Qui	34.03	180	eP	P	19 13 03.5	-0.2
MAW	Mawson	40.00	143	P	P	19 13 54.1	+0.3
	3.2nm,0.8s,mb4.0,baz=254,slow=11,SNR=6.0						
LVC	Limon Verde	45.40	300	P	P	19 14 38.1	+0.2
	8.0nm,0.6s,mb4.5,baz=139,slow=4.8,SNR=15						
LVC	Limon Verde	45.40	300	eP	P	19 14 37.9	0.0
	16nm,0.9s,mb4.6						
SBA	Scott Base	45.91	184	P	P	19 14 31.4	-10
VNDA	Vanda	46.40	183	P	P	19 14 46.0	+0.8
	3.3nm,0.8s,mb4.0,baz=183,slow=6.0,SNR=14						
VNDA	Vanda	46.40	183	eP	P	19 14 45.3	+0.2
	3.9nm,0.8s,mb4.1						
LBTB	Lobatse	49.04	73	eP	P	19 15 06.5	+0.3
	4.6nm,0.8s,mb4.2						
LPAZ	La Paz	50.49	305	P	P	19 15 17.6	+0.3
	5.1nm,0.8s,mb4.2,baz=152,slow=6.6,SNR=18						
LPAZ	La Paz	50.49	305	eP	P	19 15 17.3	-0.1
	7.4nm,0.9s,mb4.3						
SAML	Samuel	54.94	315	eP	P	19 15 48.4	-2.0
	2.9nm,1.0s,mb4.0						
DBIC	Dimbokro	65.32	25	P	P	19 17 01.4	+0.4
	1.0nm,0.5s,mb4.0,baz=195,slow=12,SNR=2.9						
DBIC	Dimbokro	65.32	25	eP	P	19 17 01.0	+0.1
	4.6nm,1.1s,mb4.2						
OTAV	Otavalo	69.77	304	eP	P	19 17 30.1	+1.5
	3.4nm,0.7s,mb4.2						
JTS	JuntasAbangare	81.62	303	eP	P	19 18 41.4	+6.1
	29nm,1.3s,mb4.7						
NWAO	Narrogin (SRO)	86.17	151	P	P	19 18 56.6	-1.1
STKA	Stephens Creek	91.73	170	P	P	19 19 25.0	+1.0
	1.2nm,0.8s,mb4.0,baz=190,slow=6.1,SNR=4.0						
ASAR	Alice Springs	98.82	162	P	P	19 19 56.1	-0.3
	0.8nm,0.7s,mb4.2,baz=194,slow=4.3,SNR=7.7						
CTA	Charters Tower	103.79	174	eP	Pdif	19 20 17.3	-1.3
	4.9nm,0.9s						
FINES	FINESS Array B	124.53	28	PKP	PKPdf	19 25 13.6	+0.7
	3.3nm,1.1s,baz=270,slow=1.9,SNR=7.0						
CMAR	Chiang Mai Arr	124.99	111	PKP	PKPdf	19 25 16.9	+1.9
	0.5nm,0.7s,baz=235,slow=3.7,SNR=6.1						
ARCES	ARCESS Array B	131.10	22	PKP	PKPdf	19 25 27.2	+1.9
	3.7nm,1.0s,baz=180,slow=1.8,SNR=3.3						
YKA	Yellowknife Ar	136.31	318	PKP	PKPdf	19 25 36.5	+1.3
	0.2nm,0.5s,baz=125,slow=2.5,SNR=5.6						
YKA	Yellowknife Ar	136.31	318	PKP	PKPdf	19 25 36.5	+1.3
INK	Inuvik	145.95	320	PKPbc	PKPbc	19 25 54.2	+1.3
INK	Inuvik	145.95	320	PKPbc	PKPbc	19 25 54.2	+1.3
ILAR	Eielson Array	150.24	311	PKPbc	PKPdf	19 26 06.0	+7.2
	2.9nm,0.9s,baz=133,slow=1.8,SNR=18						
ILAR				pPKPbc		19 26 38.3	
	1.5nm,0.8s,baz=138,slow=1.9,SNR=5.6						
SONM	Songino Array	150.72	87	PKPbc	PKPdf	19 26 07.6	+7.6
	2.9nm,0.8s,baz=241,slow=2.5,SNR=16						

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*BJI **09** 19:28:50.5, 6.68N×71.56W, h39^{km}, mB5.0, Ms5.0, Msz4.6*

*NEIC **09** 19:28:51.5±1.0, 6.13N×71.85W, h39^{km}±9^{km}, mb4.6/15, Error ellipse: s-maj=10.0km s-min=6.6km az=67.0*

*IDC **09** 19:28:52.6±0.5, 6.13N×71.88W, h49^{km}±4^{km}, mb4.0/14, mb1 4.2/14, mb1mx4.0/23, MS3.7/7, Ms1 3.7/7, ms1mx3.3/25, Error ellipse: s-maj=22.2km s-min=11.4km az=71.0*

ISC 09 19:28:46.9±4.6**, 6.18N**±0.07×**71.85W**±0.08**, h15^{km}**±30^{km}**, h44^{km}**±2.0^{km}**:pP-P, n52, σ0^{s}86**/46**, mb4.4**/26**, MS3.7**/8**, 1D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTAV	Otavalo	8.85	228	P	P	19 30 56.9	-0.3
	2.9nm,0.4s						
SJG	San Juan	13.09	25	P	P	19 31 55.6	+0.5
	16nm,0.3s,baz=346,slow=16,SNR=14						
SJG	San Juan	13.09	25	eP	P	19 31 55.2	+0.1
	69nm,0.5s						
JTS	JuntasAbangare	13.60	288	P	P	19 32 01.6	-0.3
	30nm,1.0s						
JTS				e		19 32 11.4	
SAML	Samuel	17.34	150	eP	P	19 32 50.1	-0.1
	30nm,0.9s						
SAML				e		19 33 01.2	
SAML				eS	S	19 35 50.9	-10
LPAZ	La Paz	22.63	171	P	P	19 33 50.7	+1.9
	7.0nm,0.8s,mb4.1,baz=351,slow=11,SNR=22						
LPAZ				pP		19 34 03.0	
	7.8nm,0.5s,baz=340,slow=15,SNR=10						
LPAZ				LR	LR	19 43 18.7	
	comp=Z,166nm,20.0s,MS3.5,baz=5.8,slow=38						
LPAZ	La Paz	22.63	171	eP	P	19 33 50.4	+1.6
	46nm,1.2s,mb4.8						
LPAZ				e		19 34 03.1	
LVC	Limon Verde	28.76	174	P	P	19 34 45.1	-1.2
	1.3nm,0.6s,mb3.8,baz=15,slow=5.6,SNR=4.8						
LVC				pP	pP	19 34 58.3	+7.7
	5.6nm,0.7s,baz=304,slow=6.3,SNR=7.3						
LVC				sP	sP	19 35 02.8	+10
	3.8nm,0.5s,baz=341,slow=7.4,SNR=5.6						
LVC				LR	LR	19 47 33.3	
	comp=Z,61nm,18.2s,MS3.2,baz=35,slow=39						
LVC	Limon Verde	28.76	174	eP	P	19 34 45.4	-0.9
	11nm,1.0s,mb4.6						
LVC				e		19 34 58.8	
LVC				e		19 35 02.9	
BDFB	Brasilia	32.05	133	LR	LR	19 48 59.7	
	comp=Z,193nm,19.7s,MS3.8,baz=191,slow=38						
OXF	Oxford	32.53	332	eP	P	19 35 17.6	-1.9
	27nm,0.9s,mb5.2						
WVT	Waverly	33.22	336	eP	P	19 35 25.1	-0.4
	20nm,1.1s,mb5.0						
MIAR	Mount Ida	34.63	327	eP	P	19 35 37.5	-0.2
	0.4nm,0.7s,mb3.5						
WMOK	Wichita Mounta	37.75	322	eP	P	19 36 03.4	-0.8
	8.2nm,0.9s,mb4.5						
LTX	Lajitas	37.83	311	eP	P	19 36 04.9	+0.1
	4.9nm,0.7s,mb4.3						
TXAR	Lajitas Array	37.83	311	P	P	19 36 05.3	+0.4
	1.7nm,0.5s,mb4.1,baz=129,slow=9.0,SNR=15						
TXAR				pP	pP	19 36 18.3	+9.1
	0.9nm,0.5s,baz=126,slow=11,SNR=2.3						
TXAR				LR	LR	19 54 14.4	
	comp=Z,98nm,19.8s,MS3.6,baz=350,slow=40						
SADO	Sadowa	38.96	352	P	P	19 36 15.1	+0.9
	3.2nm,0.4s,mb4.4,baz=194,slow=8.3,SNR=2.6						
GDL2	Guadalupe Moun	39.87	315	eP	P	19 36 23.1	+1.2
ANMO	Albuquerque	42.85	317	P	P	19 36 47.5	+1.2
	1.0nm,0.5s,mb3.9,baz=106,slow=9.0,SNR=2.9						
ANMO	Albuquerque	42.85	317	eP	P	19 36 47.4	+1.1
	1.3nm,0.6s,mb3.8						
LAZ	Ladron	43.01	316	eP	P	19 36 49.0	+1.3
SDCO	Great Sand Dun	43.84	321	eP	P	19 36 55.9	+1.5
	8.0nm,0.9s,mb4.5						
SDCO				e		19 37 09.3	
PV01	Paradox Valley	46.03	319	eP	P	19 37 11.3	-0.6
PV10	Paradox Valley	46.48	319	eP	P	19 37 14.1	-1.3
ULM	Lac du Bonnet	48.32	340	P	P	19 37 28.8	-0.8
	8.8nm,0.7s,mb4.9,baz=141,slow=8.0,SNR=17						
ULM				LR	LR	19 59 11.4	
	comp=Z,89nm,20.2s,MS3.7,baz=339,slow=38						
MSU	Marysvale	48.63	317	eP	P	19 37 33.1	+0.9
MVU	Marysvale	48.65	317	eP	P	19 37 33.3	+0.9
	8.1nm,0.9s,mb4.8						
SCHQ	Schefferville	48.68	4	P	P	19 37 31.3	-1.0
	2.4nm,0.6s,mb4.4,baz=197,slow=9.1,SNR=5.4						
NLU	North Lily Min	49.31	319	eP	P	19 37 37.6	+0.1
PDAR	Pinedale Array	49.34	324	P	P	19 37 37.8	+0.1
	2.1nm,0.8s,mb4.2,baz=127,slow=7.4,SNR=14						
PDAR				pP	pP	19 37 51.9	+10
	1.0nm,0.9s,baz=135,slow=10,SNR=3.1						
HWUT	Hardware Ranch	49.89	321	eP	P	19 37 41.4	-0.5
	8.2nm,1.4s,mb4.6						
BGU	Big Grassy Mou	50.45	320	eP	P	19 37 46.1	-0.1
TPNV	Topopah Spring	50.72	314	eP	P	19 37 49.0	+0.7
	6.8nm,1.1s,mb4.5						
HLID	Hailey	52.72	322	eP	P	19 38 03.3	0.0
	6.1nm,1.2s,mb4.4						
NVAR	Mina Array Bea	52.83	314	P	P	19 38 04.3	+0.1
	3.1nm,1.0s,mb4.2,baz=114,slow=7.9,SNR=7.5						
NVAR				LR	LR	20 04 20.1	
	comp=Z,37nm,20.8s,MS3.4,baz=310,slow=40						
YBH	Yreka Blue Hor	57.27	316	P	P	19 38 34.7	-1.7
	1.1nm,0.3s,mb4.3,baz=163,slow=17,SNR=3.2						
YKA	Yellowknife Ar	64.30	340	P	P	19 39 22.9	-0.9
	6.3nm,0.7s,mb4.8,baz=131,slow=6.8,SNR=95						
YKA				pP	pP	19 39 35.9	+7.5
	2.5nm,0.8s,baz=130,slow=7.0,SNR=9.8						
YKA	Yellowknife Ar	64.30	340	P	P	19 39 22.9	-0.9
YKA				pP	pP	19 39 35.9	+7.5
DBIC	Dimbokro	66.52	85	P	P	19 39 38.5	-0.4
	3.2nm,0.8s,mb4.4,baz=223,slow=11,SNR=5.1						
DBIC				pP	pP	19 39 53.0	+9.4
	3.2nm,0.7s,baz=233,slow=8.6,SNR=2.7						
DBIC	Dimbokro	66.52	85	P	P	19 39 38.5	-0.4
DBIC				pP	pP	19 39 53.0	+9.4
SUMG	Summit	69.38	10	eP	P	19 39 55.9	+0.1
	8.6nm,0.8s,mb4.7						
INK	Inuvik	74.06	340	P	P	19 40 23.4	-0.3
INK				pP	pP	19 40 36.6	+8.3
INK	Inuvik	74.06	340	P	P	19 40 23.4	-0.3
INK				pP	pP	19 40 36.6	+8.3
ILAR	Eielson Array	78.07	335	P	P	19 40 46.4	0.0
	1.3nm,0.8s,mb3.9,baz=117,slow=3.2,SNR=8.0						
NOA	NORSAR Array B	81.26	29	P	P	19 41 05.0	+1.4
	1.0nm,0.9s,mb3.7,baz=275,slow=7.3,SNR=2.8						
SNAA	Sanae	89.36	163	P	P	19 41 43.3	-0.5
	1.1nm,0.8s,mb4.2						
SUR	Sutherland	95.51	122	LR	LR	20 20 00.7	
	comp=Z,58nm,18.9s,MS4.1,baz=181,slow=32						
MDJ	Mudanjiang	125.88	341	PKP	PKPdf	19 47 50.1	-2.2
WMQ	Urumqi	126.90	18	⇓PKP	PKPdf	19 47 51.0	-3.2
WMQ				XPKP		19 48 05.5	
WMQ				PP	PP	19 49 53.0	+0.7
WMQ				PKS	PKS	19 51 26.4	+0.2
WMQ				PP	PP		
	comp=Z,33nm,9.0s						
WMQ				LR	LR		
	comp=N,111nm,18.4s,MS4.7						
WMQ				LR	LR		
	comp=E,96nm,17.8s,MS4.7						
WMQ				LR	LR		
	comp=Z,91nm,17.8s,MS4.5						
NJ2	Nanjing	140.63	346	ePKP	PKPdf	19 48 16.2	-4.1
ASAR	Alice Springs	149.75	232	PKPbc	PKPdf	19 48 35.8	-0.1
	comp=Z,0.8nm,1.0s,baz=109,slow=2.6,SNR=3.7						
ASAR				pPKPbc		19 48 53.0	
	comp=Z,1.4nm,0.9s,baz=112,slow=3.2,SNR=5.8						
WRA	Warramunga Arr	151.12	239	PKPbc	PKPdf	19 48 39.3	+1.3
	comp=Z,0.4nm,0.8s,baz=108,slow=3.0,SNR=6.1						
WRA				pPKPbc		19 48 55.9	
	comp=Z,0.8nm,0.6s,baz=107,slow=2.9,SNR=6.4						

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*IDC **09** 19:54:29.2±16.0, 18.70S×172.78W, mb4.3/5, mb1 4.4/5, mb1mx4.0/17, Error ellipse: s-maj=316.0km s-min=146.8km az=80.0*

*NEIC **09** 19:54:36.2±2.5, 18.59S×173.10W, h35^{km}, mb4.8/2, Error ellipse: s-maj=103.0km s-min=22.0km az=192.0*

ISC 09 19:54:34.1±3.5**, 18.5S**±0.9×**173.1W**±0.3**, h33^{km}, n9, σ0^{s}42**/9**, mb4.4**/7**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	38.30	261	P	P	20 01 54.4	+0.9
	2.7nm,0.3s,mb4.4,baz=80,slow=11,SNR=7.9						
STKA	Stephens Creek	42.80	243	P	P	20 02 30.7	+0.1
	1.0nm,0.5s,mb3.8,baz=79,slow=10,SNR=6.7						
WB2	Warramunga Arr	49.44	259	eP	P	20 03 22.9	-0.4
WRAB	Tennant Creek	49.45	259	eP	P	20 03 22.8	-0.5
	3.1nm,0.6s,mb4.5						
WRA	Warramunga Arr	49.45	259	P	P	20 03 23.2	-0.2
	1.6nm,0.3s,mb4.6,baz=97,slow=7.0,SNR=111						
ASAR	Alice Springs	49.46	254	P	P	20 03 23.2	-0.2
	2.0nm,0.6s,mb4.3,baz=97,slow=7.2,SNR=22						
FITZ	Fitzroy Crossi	57.87	260	P	P	20 04 25.9	+0.5
	5.2nm,1.2s,mb4.4,baz=343,slow=20,SNR=6.7						
MBWA	Marble Bar	62.79	255	eP	P	20 04 58.8	-0.2
	20nm,1.4s,mb5.1						
EFI	East Falkland	90.24	146	P	P	20 07 32.6	0.0

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*NEIC **09** 20:04:33.5, 31.34S×69.50W, h150^{km}, After GUC.*

GUC 09 20:04:33.5±0.6**, 31.34S×69.50W, h150^{km}, ML3.6, 5C-3D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	1.30	277	i P	P	20 05 01.6	+0.3
CMCH				i S	S	20 05 22.7	0.0
CMCH				AMP		20 05 23.9	
	comp=E,2µm,0.6s						
PTCH	Petorca	1.52	233	⇑iP	P	20 05 03.5	-0.2
PTCH				i S	S	20 05 26.4	-0.5
PTCH				AMP		20 05 27.4	
	comp=E,2µm,0.3s						
JACH	Jahuel	1.63	214	⇓iP	P	20 05 05.0	+0.2
JACH				i S	S	20 05 29.2	+0.3
PACH	Papudo	2.03	234	⇓iP	P	20 05 09.0	-0.3
PACH				i S	S	20 05 36.8	-0.1
PEL	Peldehue	2.06	209	i S	S	20 05 37.3	-0.1
PEL				AMP		20 05 37.9	
	comp=N,239nm,0.3s						
ROCH	El Roble	2.07	218	⇓iP	P	20 05 10.2	+0.4
ROCH				i S	S	20 05 38.0	+0.3
FCH	Farellones	2.09	198	⇑iP	P	20 05 10.8	+0.7
FCH				i S	S	20 05 39.2	+1.1
FCH				AMP		20 05 42.3	
	comp=E,170nm,0.2s						
CLCH	Cerro Calan	2.23	203	⇑iP	P	20 05 12.2	+0.4
CLCH				i S	S	20 05 41.2	0.0
CLCH				AMP		20 05 42.9	
	comp=E,266nm,0.5s						
RCDM	Rinconada Maip	2.41	207	⇑iP	P	20 05 13.8	-0.2
RCDM				i S	S	20 05 45.0	-0.2
RCDM				AMP		20 05 46.7	
	comp=E,313nm,0.1s						
PCH	Pirque	2.43	200	⇑iP	P	20 05 14.7	+0.4
PCH				i S	S	20 05 45.8	+0.3
LMEL	Las Melosas	2.57	193	AMP		20 05 55.2	
	comp=N,121nm,0.1s						
TACH	Talagante	2.61	207	i P	P	20 05 16.1	-0.4
TACH				i S	S	20 05 48.9	-0.6
CHCH	Chadas Angostu	2.76	200	i P	P	20 05 18.5	0.0
CHCH				i S	S	20 05 53.0	+0.1
SFDO	San Fernando	3.50	201	i P	P	20 05 27.8	-0.3
SFDO				i S	S	20 06 09.4	-0.6

GUC 09 20:11:47.1±0.7**, 33.20S**×**70.34W, h5**^{km}±2^{km}**, MD3.6, ML2.0, 3C, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FCH	Farellones	0.13	162	⇑*i*P	Pg	20 11 50.7	+0.8
FCH				*i* S	Sg	20 11 53.1	+1.4
FCH				AMP		20 11 54.2	
	comp=N,567nm,0.2s						
CLCH	Cerro Calan	0.25	221	⇑*i*P	Pg	20 11 53.9	+1.6
CLCH				*i* S	Sg	20 11 58.2	+2.5
CLCH				AMP		20 12 01.1	
	comp=E,717nm,0.9s						
PEL	Peldehue	0.30	281	*e*P	Pg	20 11 53.6	+0.5
PEL				*i* S	Sg	20 11 57.9	+0.9
PEL				AMP		20 12 02.5	
	comp=N,208nm,0.3s						
JACH	Jahuel	0.56	338	*i* P	Pg	20 11 57.1	-1.3
TACH	Talagante	0.67	228	*e*P	Pg	20 12 00.8	+0.3
CHCH	Chadas Angostu	0.77	200	*e*P	Pg	20 12 02.0	-0.6
CHCH				*i* S	Sg	20 12 14.0	+1.1
CACH	El Canelo	0.94	193	*i* P	Pb	20 12 05.7	+0.2
CACH				*i* S	Sb	20 12 19.4	+1.4
CICH	Cipreses	1.12	183	⇑*i*P	Pb	20 12 08.3	-0.2
CICH				*i* S	Sb	20 12 24.4	+1.2
LNV	Longovilo	1.17	230	*e*P	Pb	20 12 08.1	-1.3
SFDO	San Fernando	1.52	202	*e*P	Pn	20 12 14.2	-0.8

DJA ***09*** *20:30:40.3±0.9, 8.47S×109.76E, h320^{km}, MD4.7/4, ML5.4/4, Error ellipse: s-maj=147.5km s-min=20.9km az=0.0*

NEIC ***09*** *20:30:47.1±1.4, 6.81S×110.17E, h248^{km}±12^{km}, mb4.1/5, Error ellipse: s-maj=28.0km s-min=10.1km az=54.0*

IDC ***09*** *20:30:51.0±6.2, 6.83S×110.20E, h285^{km}±62^{km}, mb3.4/7, mb1 3.6/8, mb1mx3.4/15, Error ellipse: s-maj=52.9km s-min=12.8km az=59.0*

ISC 09 20:30:47.1±1.5**, 6.7S**±0.1×**110.3E**±0.2**, h263**^{km}±13^{km}**, n25, σ0^{s}88**/33**, mb3.7**/11**, 3C-9D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	4.18	115	⇓*i*Pn	P	20 31 53.6	-0.5
SRDI				*i* Sn	S	20 32 46.3	0.0
SRDI	Scrawed	4.18	115	⇑*i*Pn	P	20 31 53.4	-0.7
	534nm,0.2s						
SRDI				⇑*i*Sn	S	20 32 46.3	0.0
KELI	Kelakatan	4.41	110	⇓*i*Pn	P	20 31 57.5	+0.7
KELI				*i* Sn	S	20 32 53.4	+2.3
KELI	Kelakatan	4.41	110	⇓*i*Pn	P	20 31 57.5	+0.7
	229nm,0.2s						
KELI				⇓*i*Sn	S	20 32 54.3	+3.2
RATI	Rata	5.55	111	⇑*i*Pn	P	20 32 09.9	-0.6
RATI				*e*Sn	S	20 33 15.2	-0.5
RATI	Rata	5.55	111	⇓*i*Pn	P	20 32 10.0	-0.5
	2μm,0.2s						
RATI				⇓*i*Sn	S	20 33 15.3	-0.4
KEDI	Kedomdong	6.02	107	⇓*i*Pn	P	20 32 15.7	-0.6
KEDI				*i* Sn	S	20 33 23.3	-2.8
KEDI	Kedomdong	6.02	107	⇓*i*Pn	P	20 32 15.9	-0.4
	274nm,0.2s						
KEDI				⇓*i*Sn	S	20 33 26.7	+0.6
FITZ	Fitzroy Crossi	18.74	128	*e*P	P	20 34 49.7	+1.0
	7.9nm,0.7s						
FITZ				*e*S	S	20 38 17.5	+14
FITZ	Fitzroy Crossi	18.74	128	P	P	20 34 49.8	+1.1
	0.7nm,0.3s,baz=343,slow=4.9,SNR=18						
WRA	Warramunga Arr	26.77	122	P	P	20 36 05.1	0.0
	0.7nm,0.7s,mb3.2,baz=296,slow=11,SNR=17						
WRAB	Tennant Creek	26.77	122	P	P	20 36 03.6	-1.6
	5.9nm,0.9s,mb4.0						
WB2	Warramunga Arr	26.78	122	*e*P	P	20 36 05.2	0.0
CMAR	Chiang Mai Arr	27.43	336	P	P	20 36 12.0	+0.9
	1.7nm,1.0s,mb3.4,baz=170,slow=8.1,SNR=8.5						
ASPA	Alice Springs	28.24	129	*e*P	P	20 36 19.0	+0.7
ASAR	Alice Springs	28.24	129	P	P	20 36 18.6	+0.2
	4.6nm,0.9s,mb3.9,baz=303,slow=9.0,SNR=56						
ASAR				PcP	PcP	20 39 24.3	-0.4
	0.3nm,0.5s,baz=306,slow=1.6,SNR=5.2						
STKA	Stephens Creek	38.44	135	P	P	20 37 46.3	+0.9
	1.7nm,0.4s,mb3.9,baz=308,slow=10,SNR=23						
STKA	Stephens Creek	38.44	135	*e*P	P	20 37 46.0	+0.7
ULN	Ulaanbaatar	54.44	357	P	P	20 39 49.5	+0.2
	2.0nm,0.5s,mb3.7						
SONM	Songino Array	54.44	357	P	P	20 39 50.1	+0.8
	1.0nm,0.6s,mb3.3,baz=176,slow=8.6,SNR=8.7						
CHKZ	Chkalovo	68.83	336	*e*P	P	20 41 23.1	-1.7
	1.2nm,0.8s,mb3.7						
VNDA	Vanda	75.64	170	P	P	20 42 04.3	-0.3
	0.4nm,0.5s,mb3.3,baz=294,slow=6.1,SNR=3.0						
LBTB	Lobatse	82.41	246	P	P	20 42 41.7	+0.1
	5.0nm,1.1s,mb4.2						
BRTR	Keskin Array B	84.11	311	P	P	20 42 49.6	-0.5
	1.2nm,0.6s,mb3.9,baz=131,slow=7.2,SNR=6.2						
MIAR	Mount Ida	144.63	35	*e*PKPdf	PKPdf	20 49 54.2	+1.5

CSEM ***09*** *20:51:07.9±0.1, 42.82N×13.87E, h12^{km}, ML3.1/5, Error ellipse: s-maj=1.5km s-min=1.1km az=81.0*

ROM ***09*** *20:51:08.1±0.4, 42.82N×13.79E, h5^{km}, MD2.9/10, ML2.5/3, Error ellipse: s-maj=3.1km s-min=1.4km az=90.0*

NEIC ***09*** *20:51:08.1, 42.82N×13.79E, h5^{km}, MD2.9(ROM), ML2.9(LDG), After ROM.*

LDG ***09*** *20:51:11.1±0.2, 42.82N×13.56E, h10^{km}, Ml2.9/10, Error ellipse: s-maj=6.0km s-min=2.8km az=65.0*

ISC 09 20:51:08.0±0.3**, 42.84N**±0.02×**13.87E**±0.03**, h5**^{km}**, n65, σ0^{s}80**/66**, 4C-2D, Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TERO	Teramo	0.29	223	⇑*i*PG	Pg	20 51 14.2	+0.3
TERO				SG	Sg	20 51 18.4	+0.6
TERO	Teramo	0.29	223	⇑*i*Pg	Pg	20 51 14.2	+0.3
TERO				*e*Sg	Sg	20 51 18.4	+0.6
VCEL	Villa Celiera	0.44	183	*e*PG	Pg	20 51 17.3	+0.4
VCEL				SG	Sg	20 51 24.2	+1.4
CAMP	Campotosto	0.45	229	*e*PG	Pg	20 51 16.6	-0.5
CAMP				SG	Sg	20 51 22.8	-0.4
AQU	L’Aquila	0.59	216	*e*PG	Pg	20 51 19.1	-0.8
AQU	L’Aquila	0.59	216	*e*Pg	Pg	20 51 19.1	-0.7
FAGN	Fagnano	0.61	200	*e*PG	Pg	20 51 19.5	-0.7
LNSS	Leonessa	0.66	249	*e*PG	Pg	20 51 20.0	-1.1
CING	Cingoli	0.73	318	*e*PG	Pg	20 51 22.6	0.0
CING	Cingoli	0.73	318	*e*Pg	Pg	20 51 22.6	0.0
SNTG	Esanatoglia	0.80	302	*e*PG	Pg	20 51 23.7	-0.3
SNTG				SG	Sg	20 51 36.0	+1.3
SNTG	Esanatoglia	0.80	302	*e*Pg	Pg	20 51 23.7	-0.3
SNTG				*e*Sg	Sg	20 51 36.0	+1.3
INTR	Introdacqua	0.82	178	*e*PG	Pg	20 51 23.3	-1.2
INTR	Introdacqua	0.82	178	*e*Pg	Pg	20 51 23.3	-1.2
PTQR	Pietraquaria	0.89	203	*e*PG	Pg	20 51 25.3	-0.4
	167nm,0.3s						
PTQR	Pietraquaria	0.89	203	*e*Pg	Pg	20 51 25.3	-0.4
PTQR	Pietraquaria	0.89	203	*e*Pg	Pg	20 51 25.3	-0.4
	167nm,0.3s						
ARV	Arcevia	0.95	314	*e*PG	Pg	20 51 27.0	0.0
	90nm,0.3s						
ARV	Arcevia	0.95	314	*e*Pg	Pg	20 51 27.0	+0.1
ARV	Arcevia	0.95	314	*e*Pg	Pg	20 51 27.0	0.0
	90nm,0.3s						
MNS	Montasola	0.99	243	*e*PG	Pg	20 51 25.5	-2.2
MNS	Montasola	0.99	243	*e*Pg	Pg	20 51 25.6	-2.2
MURB	Monte Urbino	1.07	294	*e*PG	Pg	20 51 29.1	-0.4
MURB				SG	Sg	20 51 45.2	+1.4
MURB	Monte Urbino	1.07	294	*e*Pg	Pg	20 51 29.1	-0.3
MURB				*e*Sg	Sg	20 51 45.2	+1.3
CERT	Cerreto	1.10	217	*e*PG	Pg	20 51 30.4	+0.3
CERT	Cerreto	1.10	217	*e*Pg	Pg	20 51 30.4	+0.4
GUAR	Guarcino	1.12	202	*e*PN	Pn	20 51 31.1	+0.8
GUAR	Guarcino	1.12	202	*e*Pg	Pg	20 51 31.1	+0.7
SDI	San Donato	1.13	182	*e*PN	Pn	20 51 30.8	+0.4
	147nm,0.3s						
SDI	San Donato	1.13	182	*e*Pg	Pg	20 51 30.8	+0.2
CII	Carovilli	1.16	164	*e*Pg	Pg	20 51 30.9	-0.2
CII				*e*Sg	Sg	20 51 46.9	+0.3
CII	Carovilli	1.16	164	*e*Pg	Pg	20 51 30.9	-0.3
CII	Carovilli	1.16	164	*e*Sg	Sg	20 51 46.9	+0.3
MTCE	Montecelio	1.17	226	*e*PN	Pn	20 51 31.4	+0.5
MTCE	Montecelio	1.17	226	*e*Pg	Pg	20 51 31.4	+0.1
NVLJ	Novalja	1.87	22	*i* Pn	Pn	20 51 41.3	+0.2
NVLJ				*i* Sn	Sn	20 52 06.0	+0.7
NVLJ	Novalja	1.87	22	*i* Pn	Pn	20 51 41.2	+0.2
NVLJ				*i* Sn	Sn	20 52 05.9	+0.6
STON	Ston	2.82	88	*i* Pn	Pn	20 51 54.5	0.0
STON				*i* Sn	Sn	20 52 29.1	-0.2
VBY	Vinica-Bojanci	2.85	20	*e*Pn	Pn	20 52 03.3	+8.3
VBY				*e*Sn	Sn	20 52 30.0	-0.1
VOY	Vojsko	3.19	0	*e*Pn	Pn	20 52 05.2	+5.3
VOY				*e*Sn	Sn	20 52 38.2	-0.7
VOY	Vojsko	3.19	0	*e*Sn	Sn	20 52 38.2	-0.7
PGF	Pioggiola	3.60	267	*e*Pn	Pn	20 52 02.8	-2.9
PGF				*e*Sn	Sn	20 52 39.4	-10
	2.0nm,0.3s						
OBKA	Obir	3.70	7	⇓*i*PN	Pn	20 52 07.0	-0.1
OBKA				*i* SN	Sn	20 52 50.7	-1.0
KBA	Koelnbreinsper	4.26	355	⇓*i*PN	Pn	20 52 14.8	-0.2
KBA				*i* SN	Sn	20 53 05.8	0.0
PUK	Puka	4.53	98	*i* p	Pn	20 52 19.7	+0.9
SQTA	Sankt Quirin	4.77	338	⇑*i*PN	Pn	20 52 22.4	+0.1
SQTA				*i* SN	Sn	20 53 20.0	+1.2
SBF	Sospel	4.80	285	*e*Pn	Pn	20 52 18.9	-3.9
SBF				*e*Sn	Sn	20 53 09.1	-10
	3.0nm,0.3s						
MOA	Molln	5.02	3	⇑*i*PN	Px	20 52 25.1	
MOA				*i* SN	Sx	20 53 23.9	
FRF	La Foret Royal	5.33	280	*e*Pn	Px	20 52 26.0	
FRF				*e*Sn	Sx	20 53 21.5	
	1.5nm,0.4s						
FRF	La Foret Royal	5.33	280	*e*Sn	Sx	20 53 21.5	
	0.8nm,0.4s						
LMR	La Mourre	5.41	278	*e*Pn	Px	20 52 27.7	
MBDF	Montbardon	5.48	293	*e*Pn	Px	20 52 27.8	
MBDF				*e*Sn	Sx	20 53 25.4	
	0.7nm,0.3s						
LPG	La Plagne	5.77	300	*e*Pn	Px	20 52 32.5	
LPG				*e*Sn	Sx	20 53 30.6	
	2.2nm,0.4s						
LPL	La Plagne	5.79	300	*e*Pn	Px	20 52 32.9	
LPL				*e*Sn	Sx	20 53 31.7	
	2.2nm,0.3s						
ORIF	Oris-en-Rattie	6.14	293	*e*Pn	Px	20 52 38.2	
SMRF	Simiane la Rot	6.15	283	*e*Pn	Px	20 52 37.9	
KHC	Kasperske Hory	6.30	358	*e*PN	Px	20 52 42.0	
CABF	La Chapelle	6.71	307	*e*Pn	Px	20 52 45.8	
CABF				*e*Sn	Sx	20 53 55.2	
	1.7nm,0.3s						
VIVF	Saint-Julien-l	6.95	290	*e*Pn	Px	20 52 47.8	
HINF	Hinteralfeld	7.02	318	*e*Pn	Px	20 52 49.7	
HINF				*e*Sn	Sx	20 54 03.6	
	4.1nm,0.3s						
CDF	Champ du Feu	7.24	323	*e*Pn	Px	20 52 53.7	
CDF				*e*Sn	Sx	20 54 09.3	
	7.1nm,0.6s						
LASF	Ste Croix	7.39	283	*e*Pn	Px	20 52 53.6	
HAU	Haudompre	7.39	317	*e*Pn	Px	20 52 55.0	
HAU				*e*Sn	Sx	20 54 12.6	
	5.7nm,0.3s						
SMF	Signal de Mont	8.09	302	*e*Pn	Px	20 53 03.7	
SSF	Saint Saulge	8.48	303	*e*Pn	Px	20 53 08.7	

MAN 09 21:07:58.8, 15.77N×**120.22E, h1**^{km}**, mb5.1, ML4.0, MS4.1, 1C-3D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCZP	Santa Cruz	0.29	271	*e*P	Pg	21 08 25.8	+21
SCZP						21 08 45.6	
QVPH	Quezon City--P	1.38	144	⇓*e*P	Pb	21 08 15.5	-10
QVPH				*e*S	Sb	21 08 29.3	-14
TGY	Tagaytay City	1.80	157	⇑*i*P	Pn	21 08 16.9	-14
TGY				*i* S	Sn	21 08 30.5	-25
LBPH	Los Banos	1.86	150	*e*P	Pn	21 08 15.6	-16
POLP	Polilio Island	1.96	122	*e*P	Pn	21 08 26.5	-7.0
LUBP	Lubang	2.02	179	⇓*e*P	Pn	21 08 15.6	-19
LUBP	Lubang	2.02	179	*e*P	Pn	21 08 17.3	-17
LUBP						21 08 32.1	
LQP	Lukban	2.08	142	⇓*e*P	Pn	21 08 21.9	-13
LQP				*e*S	Sn	21 08 42.5	-20
BOAC	Boac	2.79	145	*e*P	Pn	21 08 28.4	-17
SJMP	San Jose	3.40	165	*e*P	Pn	21 08 32.2	-22
SJMP						21 08 56.9	
ENPP	El Nido	4.60	190	*e*P	Pn	21 08 48.8	-22
ENPP						21 09 24.9	

NEIC ***09*** *21:24:06.9, 16.09N×97.58W, h30^{km}, MD3.8(MEX), After MEX.*

MEX 09 21:24:07.9±0.7**, 16.20N**×**97.61W, h13**^{km}±22^{km}**, MD3.8, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.53	291	*i* P	Pb	21 24 16.9	-1.7
PNIG				*i* S	Sb	21 24 24.7	-1.2
VHO	Vista Hermosa	1.21	44	*i* P	Pb	21 24 26.5	-3.7
VHO				*e*S	Sb	21 24 40.4	-5.1
VHO	Vista Hermosa	1.21	44	*i* P	Pb	21 24 26.5	-3.7
VHO				*i* S	Sb	21 24 42.0	-3.5
OXX	Oaxaca	1.22	44	*i* P	Pb	21 24 27.5	-2.9
OXX				*i* S	Sb	21 24 41.5	-4.4
CMIG	Matias Romero	2.76	71	*i* P	Pn	21 24 45.5	-7.2
CMIG				*i* S	Sn	21 25 17.4	-8.7
CMIG	Matias Romero	2.76	71	*i* P	Pn	21 24 48.7	-4.0
CMIG				*i* S	Sn	21 25 21.4	-4.7

DJA 09 22:13:20.9±1.0**, 8.74S**×**117.73E, h178**^{km}±11^{km}**, MD4.6**/4**, ML4.0**/4**, 3C-6D, Error ellipse: s-maj=68.8km s-min=21.5km az=4.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	1.62	279	⇑*e*Pn	P	22 13 54.5	+0.2
	94nm,0.2s						
KEDI	Kedomdong	1.62	279	⇓*i*P	P	22 13 54.8	+0.5
RATI	Rata	2.18	270	⇓*i*Pn	P	22 14 00.5	+0.3
	226nm,0.2s						
RATI	Rata	2.18	270	⇓*i*P	P	22 14 00.8	+0.6
RATI				⇑*i*Sn	S	22 14 28.7	-1.8
KELI	Kelakatan	3.25	279	⇓*i*Pn	P	22 14 13.6	+0.4
	14nm,0.2s						
KELI				⇓*i*Sn	S	22 14 52.4	-1.0
SRDI	Scrawed	3.56	274	⇑*i*Pn	P	22 14 16.9	-0.2
	66nm,0.2s						
SRDI				⇓*i*Sn	S	22 14 58.4	-2.0

NEIC ***09*** *22:33:57.2±1.1, 22.66S×179.50W, h539^{km}±13^{km}, mb4.3/11, Error ellipse: s-maj=14.1km s-min=8.9km az=151.0*

IDC ***09*** *22:34:00.9±5.5, 22.78S×179.51W, h580^{km}±70^{km}, mb3.3/8, mb1 3.5/9, mb1mx3.4/16, Error ellipse: s-maj=42.7km s-min=26.6km az=5.0*

ISC 09 22:33:56.6±1.6**, 22.7S**±0.1×**179.56W**±0.10**, h539**^{km}±20^{km}**, n34, σ0^{s}96**/28**, mb4.0**/16**, 1C-1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	11.40	42	P	P	22 36 28.7	-0.9
URZ	Urewera	15.82	190	P	P	22 37 14.9	+1.0
	1.7nm,0.3s,baz=268,slow=2.1,SNR=3.6						
CTA	Charters Tower	31.90	268	*e*P	P	22 39 40.4	+1.1
	9.3nm,0.4s,mb4.7						
CTA	Charters Tower	31.90	268	P	P	22 39 40.7	+1.4
	12nm,0.5s,mb4.7,baz=100,slow=9.7,SNR=26						
CTAO	Charters Tower	31.90	268	*e*P	P	22 39 40.5	+1.2
	15nm,0.6s,mb4.7						
PMG	Port Moresby	34.49	287	P	P	22 40 02.3	+1.3
	10nm,0.6s,mb4.5,baz=95,slow=4.9,SNR=6.6						
PMG	Port Moresby	34.49	287	*e*P	P	22 40 02.1	+1.0
	16nm,0.8s,mb4.6						
STKA	Stephens Creek	35.58	247	P	P	22 40 11.2	+1.3
	1.0nm,0.5s,mb3.6,baz=92,slow=9.3,SNR=4.8						
STKA	Stephens Creek	35.58	247	*e*P	P	22 40 08.8	-1.1
ASAR	Alice Springs	42.65	259	P	P	22 41 07.7	+0.4
	2.7nm,0.6s,mb4.0,baz=97,slow=6.9,SNR=33						
ASPA	Alice Springs	42.66	259	*e*P	P	22 41 08.2	+0.9
WB2	Warramunga Arr	42.90	265	⇓*i*P	P	22 41 08.9	-0.3
WRAB	Tennant Creek	42.90	265	*e*P	P	22 41 08.3	-1.0
	8.1nm,1.1s,mb4.2						
WRA	Warramunga Arr	42.91	265	P	P	22 41 09.2	-0.1
	1.9nm,0.5s,mb3.9,baz=90,slow=5.9,SNR=86						
SBA	Scott Base	55.65	183	*e*P	P	22 42 41.2	-1.8
MBWA	Marble Bar	56.00	259	*e*P	P	22 42 43.5	-2.6
	7.5nm,1.1s,mb3.8						
NWAO	Narrogin (SRO)	56.13	245	*e*P	P	22 42 45.7	-1.2
	16nm,1.2s,mb4.1						
QSPA	South Pole Qui	67.43	180	*e*P	P	22 43 59.5	-0.1
	4.5nm,0.8s,mb4.0						
MDJ	Mudanjiang	81.45	326	*e*P	P	22 45 17.8	-0.5
	17nm,1.1s,mb4.4						
CMB	Columbia Colle	82.01	43	*e*P	P	22 45 21.4	+0.1
	4.8nm,0.7s,mb4.0						
OMM	Old Mammoth Mi	82.66	44	P	P	22 45 17.8	-6.8
NVAR	Mina Array Bea	83.57	44	P	P	22 45 28.5	-0.6
	0.6nm,0.6s,mb3.3,baz=225,slow=6.4,SNR=5.1						
NVAR	Mina Array Bea	83.57	44	P	P	22 45 28.5	-0.6
SNAA	Sanae	85.91	179	P	P	22 45 40.6	+1.0
	3.5nm,1.2s,mb3.9						
TXAR	Lajitas Array	89.42	58	P	P	22 45 58.2	+1.0
	0.3nm,0.5s,mb3.4,baz=207,slow=8.4,SNR=3.4						
PV10	Paradox Valley	89.69	48	*e*P	P	22 45 58.5	+0.3
PDAR	Pinedale Array	91.51	44	P	P	22 46 07.0	+0.6
	0.8nm,0.8s,mb3.8,baz=236,slow=2.9,SNR=5.2						
SDCO	Great Sand Dun	91.85	50	*e*P	P	22 46 08.4	+0.2
	2.4nm,0.9s,mb4.2						
ARCES	ARCESS Array B	130.75	349	PKP	PKPdf	22 52 05.2	-0.6
	1.5nm,0.8s,baz=315,slow=1.7,SNR=7.7						
FINES	FINESS Array B	137.39	342	PKP	PKPdf	22 52 18.7	+0.5
	0.5nm,0.5s,baz=90,slow=1.9,SNR=4.1						
AKASG	Malin Array Be	144.13	328	PKP	PKPdf	22 52 30.3	0.0
	1.1nm,0.3s,baz=41,slow=4.2,SNR=18						
EIL	Elat	148.33	290	*e*PKPbc	PKPdf	22 52 42.3	+4.3
CLL	Collm	149.77	344	⇑*i*PKP1	PKPdf	22 52 46.1	+6.5
CLL				*e*PKP2	PKPab	22 52 54.0	-1.0
BRG	Berggiesshubel	149.92	343	*i* P	PKPdf	22 52 46.9	+7.1

IDC 09 22:41:45.5±3.0**, 1.12S**×**15.45W, mb3.7**/2**, mb1 3.9**/3**, mb1mx3.5**/17**, ML3.1**/1**, MS3.9**/7**, Ms1 3.9**/7**, ms1mx3.6**/20**, Error ellipse: s-maj=111.0km s-min=65.4km az=124.0, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBIC	Dimbokro	13.10	54	Pn	P	22 44 53.0	-2.6
	0.1nm,0.3s,baz=202,slow=16,SNR=2.6						
DBIC				LR	LR	22 49 21.4	
	comp=Z,247nm,18.4s,baz=148,slow=35						
BDFB	Brasilia	35.22	244	LR	LR	22 59 26.5	
	comp=Z,115nm,21.7s,baz=112,slow=30						
KMBO	Kilima Mbogo	52.69	91	LR	LR	23 12 33.2	
	comp=Z,176nm,18.8s,baz=24,slow=35						
LPAZ	La Paz	54.02	251	LR	LR	23 13 14.1	
	comp=Z,102nm,18.9s,baz=21,slow=35						
GERES	GERESS Array B	55.78	23	P	P	22 51 24.2	-2.4
	0.4nm,0.5s,baz=203,slow=7.5,SNR=2.4						
NOA	NORSAR Array B	65.29	14	LR	LR	23 22 55.8	
	comp=Z,118nm,18.5s,baz=60,slow=38						
FINES	FINESS Array B	69.96	20	P	P	22 52 58.5	-2.0
	0.8nm,0.7s,baz=217,slow=6.9,SNR=4.7						
TXAR	Lajitas Array	88.98	299	LR	LR	23 34 54.5	
	comp=Z,49nm,20.1s,baz=300,slow=36						
PDAR	Pinedale Array	93.77	313	LR	LR	23 30 24.6	
	comp=Z,144nm,20.8s,baz=177,slow=31						
ASAR	Alice Springs	141.35	132	PKP	PKPdf	23 01 16.5	-4.6
	0.7nm,0.8s,baz=218,slow=4.1,SNR=5.2						
WRA	Warramunga Arr	143.73	127	PKP	PKPdf	23 01 24.3	-0.9
	2.0nm,1.0s,baz=241,slow=2.5,SNR=8.1						

NNC ***09*** *23:07:06.5±19.0, 38.63N×77.24E, h26^{km}±624^{km}, mpv3.9, Error ellipse: s-maj=706.2km s-min=109.6km az=1.0*

BJI ***09*** *23:07:14.9, 39.60N×77.04E, h14^{km}, ML4.2*

ISC 09 23:07:14.0±0.5**, 39.39N**±0.03×**77.09E**±0.07**, h14**^{km}**, n25, σ1^{s}10**/30**, 3C-2D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.88	279	⇑*i*PG	Pg	23 07 30.3	-1.4
KSH				SG	Sg	23 07 42.4	-1.1
KSH				Smax			
	comp=N,9μm,0.3s						
KSH				Smax			
	comp=E,6μm,0.4s						
ULHL	Ulahol	2.93	348	P	Pn	23 08 01.6	+0.5
	SNR=210						
KZA	Kyzart	3.03	333	P	Pn	23 08 03.4	+0.8
	SNR=41						
UCH	Uchtor	3.45	326	P	Pn	23 08 08.6	+0.1
	SNR=27						
KBK	Karagaybulak	3.65	334	P	Pn	23 08 11.6	+0.3
	SNR=30						
TKM2	Tokmak 2	3.71	343	P	Pn	23 08 12.6	+0.4
	SNR=92						
AML	Almayashu	3.77	318	P	Pn	23 08 12.9	-0.1
	SNR=27						
AAK	Ala-Archa	3.79	330	⇓P	Pn	23 08 13.1	-0.3
	comp=E,20nm,0.4s						
AAK				⇑S	Sn	23 09 05.7	+7.4
	comp=E,105nm,0.6s						
AAK	Ala-Archa	3.79	330	P	Pn	23 08 13.4	0.0
	SNR=6.1						
CHMS	Chumysh	4.02	335	P	Pn	23 08 16.8	+0.3
	SNR=14						
EKS2	Erkin-Say	4.12	324	P	Pn	23 08 18.6	+0.5
	SNR=12						
USP	Ospenovka	4.34	334	P	Pn	23 08 21.6	+0.4
	SNR=10						
DLH	Dalhousie	6.89	188	*e*P	Pn	23 09 01.0	+3.8
DLH				*e*S	Sn	23 10 17.0	+0.9
THN	Thein Dam	7.03	190	*e*P	Pn	23 09 01.7	+2.6
	comp=E,2.8nm,0.1s						
THN				*e*S	Sn	23 10 21.7	+2.2
SDNR	Sundarnagar	7.87	181	*e*P	Pn	23 09 16.2	+5.3
	comp=E,167nm,0.2s						
SDNR				*e*		23 10 44.6	
BHK	Bhakra	7.97	184	*e*S	Sn	23 10 40.0	-3.1
MK31	Makanchi Array	8.32	25	⇑P	P	23 09 14.2	-3.0
	comp=E,0.9nm,0.5s,baz=206,slow=16,SNR=25						
DDI	Dehra Dun	9.08	175	*e*P	P	23 09 32.9	+5.3
DDI				*e*S	Sn	23 11 09.0	-1.6
NDI	New Delhi	10.68	179	*e*S	S	23 11 45.0	-5.0
KOLN	Koldanda	12.79	153	*e*P	P	23 10 17.0	-1.2
	comp=E,5.2nm,0.4s						
GKN	Gorkha	12.97	149	*e*P	P	23 10 21.0	+0.4
	comp=E,7.5nm,0.2s						
KKN	Kakani	13.42	147	*e*P	P	23 10 25.9	-0.7
	comp=E,4.5nm,0.4s						
DMN	Daman	13.51	148	*e*P	P	23 10 27.2	-0.5
	comp=E,3.5nm,0.3s						
PKI	Pulchoki	13.67	147	*e*P	P	23 10 29.6	-0.2
	comp=E,9.4nm,0.6s						
BVA0	Borovoye Array	14.40	344	⇓P	P	23 10 39.3	+0.1
	comp=E,0.5nm,0.9s,baz=146,slow=14						

NEIC ***09*** *23:09:14.0±3.4, 23.98S×179.05E, h521^{km}±32^{km}, mb4.5/12, Error ellipse: s-maj=34.7km s-min=15.6km az=45.0*

IDC ***09*** *23:09:14.7±3.4, 24.10S×178.96E, h516^{km}±30^{km}, mb3.8/10, mb1 3.8/11, mb1mx3.7/17, Error ellipse: s-maj=32.9km s-min=20.9km az=52.0*

ISC 09 23:09:15.7±3.8**, 24.1S**±0.2×**178.8E**±0.2**, h534**^{km}±37^{km}**, n33, σ0^{s}95**/28**, mb4.3**/16**, 5C, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	14.20	185	P	P	23 12 16.0	-1.1
	0.6nm,0.3s,baz=336,slow=9.9,SNR=3.4						
URZ				S	S	23 14 44.2	+0.9
	0.6nm,0.3s,baz=203,slow=18,SNR=4.5						
ARMA	Armidale	24.90	249	*e*P	P	23 13 59.8	+1.9
CTA	Charters Tower	30.34	271	⇑*i*P	P	23 14 46.3	+0.9
	18nm,0.3s,mb5.1						
CTA	Charters Tower	30.34	271	P	P	23 14 46.4	+1.0
	21nm,0.4s,mb5.0,baz=92,slow=11,SNR=95						
CTAO	Charters Tower	30.34	271	*e*P	P	23 14 46.1	+0.7
	22nm,0.4s,mb5.0						
PMG	Port Moresby	33.49	290	P	P	23 15 12.3	+0.2
	2.2nm,0.3s,mb4.1,baz=286,slow=3.9,SNR=4.3						
PMG	Port Moresby	33.49	290	*e*P	P	23 15 12.3	+0.2
	15nm,1.1s,mb4.4						
PMG				*e*		23 15 25.9	
STKA	Stephens Creek	33.60	248	⇑*i*P	P	23 15 13.9	+1.0
	7.9nm,0.4s,mb4.6						
STKA	Stephens Creek	33.60	248	P	P	23 15 14.0	+1.1
	9.3nm,0.5s,mb4.6,baz=94,slow=10.0,SNR=10						
ASAR	Alice Springs	40.88	261	P	P	23 16 13.1	+0.6

	13nm,0.6s,mb4.6,baz=94,slow=8.3,SNR=113						
ASAR				ScP		23 21 00.9	
	1.2nm,0.7s,baz=113,slow=4.6,SNR=8.7						
ASPA	Alice Springs	40.89	261	⇑iP	P	23 16 12.9	+0.4
WB2	Warramunga Arr	41.25	267	⇑iP	P	23 16 15.3	-0.2
WRAB	Tennant Creek	41.26	267	eP	P	23 16 15.2	-0.3
	50nm,0.8s,mb5.1						
WRAB				e		23 16 59.3	
WRAB				ePP	PP	23 17 47.4	-14
WRA	Warramunga Arr	41.26	267	P	P	23 16 15.3	-0.2
	12nm,0.4s,mb4.8,baz=90,slow=6.1,SNR=258						
FORT	Forrest	45.18	250	eP	P	23 16 45.5	-0.8
	84nm,0.6s						
KAKA	Kakadu	45.20	276	⇑iP	P	23 16 45.8	-0.8
	12nm,0.7s,mb4.5						
FITZ	Fitzroy Crossi	49.68	266	eP	P	23 17 20.3	-0.3
	9.2nm,0.9s,mb4.2						
FITZ	Fitzroy Crossi	49.68	266	P	P	23 17 20.5	0.0
	6.0nm,0.5s,mb4.3,baz=104,slow=2.8,SNR=22						
KLBR	Kellerberrin	53.87	248	eP	P	23 17 49.4	-1.2
	8.1nm,0.8s,mb4.1						
NWAO	Narrogin (SRO)	54.12	246	P	P	23 17 51.4	-1.1
	5.7nm,0.9s,mb3.9,baz=103,slow=11,SNR=4.5						
MBWA	Marble Bar	54.22	261	eP	P	23 17 51.9	-1.4
	5.8nm,0.4s,mb4.3						
CASY	Casey	59.45	206	P	P	23 18 26.5	-1.8
	14nm,1.2s,mb4.1						
QSPA	South Pole Qui	66.00	180	eP	P	23 19 10.8	+0.7
	3.6nm,0.7s,mb4.0						
MAW	Mawson	77.18	201	P	P	23 20 15.6	+0.7
	2.3nm,0.7s,mb3.8,baz=242,slow=7.3,SNR=4.7						
SNAA	Sanae	84.49	179	P	P	23 20 52.4	0.0
	0.2nm,0.5s,baz=332,slow=12,SNR=3.9						
CMAR	Chiang Mai Arr	88.53	291	P	P	23 21 14.4	+1.7
	1.5nm,1.0s,mb3.8,baz=139,slow=3.4,SNR=4.5						
SONM	Songino Array	96.51	320	P	P	23 21 48.8	+0.2
	0.3nm,0.5s,mb3.8,baz=124,slow=4.5,SNR=5.1						
KMBO	Kilima Mbogo	135.01	242	PKP	PKPdf	23 27 34.6	-0.2
	0.4nm,0.2s,baz=81,slow=24,SNR=3.2						
FINES	FINESS Array B	138.25	341	PKhKP		23 27 32.0	
	0.8nm,0.7s,baz=63,slow=4.3,SNR=4.6						
FINES				PKP	PKPdf	23 27 39.0	-0.4
	1.0nm,0.9s,baz=353,slow=15,SNR=2.9						
NOA	NORSAR Array B	142.08	350	PKhKP		23 27 43.2	
	0.9nm,1.0s,baz=7.0,slow=6.3,SNR=2.5						
AKASG	Malin Array Be	144.50	326	PKP	PKPdf	23 27 51.2	+0.7
	1.4nm,0.4s,baz=44,slow=4.1,SNR=19						
BRTR	Keskin Array B	146.78	306	PKPbc	PKPbc	23 27 58.8	+1.9
	3.3nm,0.8s,baz=87,slow=3.3,SNR=8.2						
CLL	Collm	150.69	342	i PKP1	PKPdf	23 28 08.4	+7.9
CLL				ePKP2	PKPab	23 28 17.0	-1.4

DJA 09 23:48:17.3±0.8, 9.54S×115.95E, h33^{km}, MD4.9/4, ML3.5/3, 6C-3D, Error ellipse: s-maj=18.6km s-min=9.1km az=162.0, South of Bali

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	Rata	0.91	333	⇓iPn	Pn	23 48 31.8	-2.0
RATI				⇓iSn	Sn	23 48 43.4	-2.4
KEDI	Kedomdong	1.05	9	⇑iPn	Pn	23 48 35.0	-1.0
	49nm,0.2s						
KEDI	Kedomdong	1.05	9	⇓iP	P	23 48 35.2	-0.6
KEDI				⇑iSn	Sn	23 48 49.6	0.0
KELI	Kelakatan	1.95	312	⇑iPn	Pn	23 48 47.5	-1.2
	25nm,0.5s						
KELI				⇑iSn	Sn	23 49 09.7	-2.6
SRDI	Scrawed	2.07	300	⇑iPn	Pn	23 48 49.9	-0.6
	32nm,1.0s						
SRDI				⇑iSn	Sn	23 49 10.7	-4.7

BUC 09 23:55:35.4±1.1, 45.69N×26.52E, h160^{km}±9^{km}, MD3.7/8, Error ellipse: s-maj=8.8km s-min=5.9km az=334.0
CSEM 09 23:55:36.6±0.6, 45.64N×26.54E, h150^{km}±5^{km}, MD3.5/6, Error ellipse: s-maj=4.8km s-min=2.4km az=355.0, After BUC
NEIC 09 23:55:39.0, 45.58N×26.55E, h136^{km}, After BUC.
ISC 09 23:55:38.1±1.6, 45.64N±0.08×26.56E±0.07, h137^{km}±11^{km}, n22, σ0^{s}60/37, 10C-4D, Romania

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRI	Vrincioaia	0.25	27	⇓iP	P	23 55 57.4	0.0
VRI				i S	S	23 56 12.3	+0.2
VRI	Vrincioaia	0.25	27	⇑iP	P	23 55 57.0	-0.4
VRI				i S	S	23 56 12.6	+0.4
VRI	Vrincioaia	0.25	27	⇓iP	P	23 55 57.0	-0.4
BRD	Bordesti	0.34	105	⇓iP	P	23 55 58.8	+1.1
BRD	Bordesti	0.34	105	⇑iP	P	23 55 58.8	+1.0
MLR	Muntele Rosu	0.46	251	P	P	23 55 57.9	-0.4
MLR				S	S	23 56 13.2	-0.5
MLR	Muntele Rosu	0.46	251	S	S	23 56 12.8	-1.0
MLR	Muntele Rosu	0.46	251	⇑iP	P	23 55 57.9	-0.4
ISR	Istrita	0.52	182	⇑iP	P	23 55 59.1	+0.5
ISR				i S	S	23 56 14.3	0.0
ISR	Istrita	0.52	182	⇑iP	P	23 55 58.9	+0.3
ISR				i S	S	23 56 15.5	+1.2
SNX	Sinaia	0.79	249	P	P	23 56 00.4	+0.2
SNX				S	S	23 56 16.5	-0.8
SNX	Sinaia	0.79	249	⇓iP	P	23 56 00.2	0.0
SNX				S	S	23 56 16.2	-1.0
MTUR	Matau	1.14	249	P	P	23 56 04.3	+1.1
MTUR				S	S	23 56 23.1	+0.7
MTUR	Matau	1.14	249	⇑iP	P	23 56 02.8	-0.4
MTUR				i S	S	23 56 23.1	+0.7
CFR	Carcaliu	1.20	112	⇑iP	P	23 56 04.0	+0.1
CFR				i S	S	23 56 23.5	-0.2
CFR	Carcaliu	1.20	112	⇑iP	P	23 56 03.8	-0.1
CFR				i S	S	23 56 23.6	0.0
BUC	Bucharest	1.27	195	i S	S	23 56 25.7	+0.8
BUC1	Bucharest	1.35	197	P	P	23 56 05.1	-0.3
BUC1				S	S	23 56 25.6	-0.7
BUC1	Bucharest	1.35	197	i S	S	23 56 25.7	-0.7
BUC1	Bucharest	1.35	197	⇑iP	P	23 56 04.7	-0.7
BUC1				S	S	23 56 25.7	-0.7
TLCR		1.65	105	P	P	23 56 08.8	+0.1
TLCR				S	S	23 56 32.0	-0.2
TLCR		1.65	105	⇑iP	P	23 56 08.1	-0.6
TLCR				i S	S	23 56 31.9	-0.3

NAO 10 00:13:55.5±4.7, 67.92N×20.97E, ML2.0
BER 10 00:13:53.7±3.4, 67.90N×20.37E, ML1.5, ML2.0(NAO), Suspected explosion, Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KTK1	Kautokeino	1.54	42	eP	Pn	00 14 20.7	-1.7
KTK1				eSg	Sg	00 14 43.5	-1.3
KTK1				AML	AML	00 14 45.4	
	comp=Z,7.0nm,0.3s						
TRO	Tromso	1.82	344	eP	Pn	00 14 23.2	-3.2
TRO				eSg	Sg	00 14 49.0	-5.1
TRO				AML	AML	00 14 50.8	
	comp=Z,10.0nm,0.2s						
ARA0	ARCESS Array S	2.49	46	Pn	Pn	00 14 34.9	-1.3
	baz=234,slow=14						
ARA0				Sn	Sn	00 15 02.7	-5.0
	baz=224,slow=28						
ARA0				Lg		00 15 08.8	
	baz=228,slow=28						
LOF	Lofoten	2.58	278	eS	Sn	00 15 07.6	-2.3
MOR8	Moi Rana	2.90	236	eS	Sn	00 15 07.3	-11

NEIC 10 00:15:50.2±0.4, 8.71S×124.28E, h10^{km}, mb4.4/9, Error ellipse: s-maj=15.0km s-min=6.8km az=58.0
IDC 10 00:15:55.0±5.1, 8.83S×124.21E, h39^{km}±49^{km}, mb3.8/6, mb1 4.2/9, mb1mx4.1/15, ML4.5/3, MS2.6/1, Ms1 2.6/1, ms1mx2.5/16, Error ellipse: s-maj=55.4km s-min=19.0km az=56.0
DJA 10 00:16:01.9±0.9, 9.29S×123.93E, h300^{km}, mb4.3/7, Error ellipse: s-maj=25.1km s-min=10.3km az=134.0
ISC 10 00:15:59.8±0.8, 9.44S±0.06×124.04E±0.06, h131^{km}±9^{km}, n37, σ1^{s}14/47, mb4.3/15, 7C-5D, Timor region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NINI	Niniconang	6.55	319	⇓iP	P	00 17 37.3	+2.4
	132nm,0.5s						
BUNI	Buntu Taipa	6.83	327	⇓eP	P	00 17 38.9	+0.2
	95nm,0.3s						
TANI	Tanete Lipujan	7.55	322	⇓iP	P	00 17 48.3	-0.1
	16nm,0.4s						
KEDI	Kedomdong	7.89	276	⇑eP	P	00 17 53.4	+0.4
	192nm,0.2s						
RATI	Rata	8.44	274	⇑iP	P	00 18 00.4	+0.1
	242nm,0.2s						
RATI				⇓iS	S	00 19 33.4	-0.8
FITZ	Fitzroy Crossi	8.75	170	eP	P	00 18 06.9	+2.5
	9.6nm,0.2s						
FITZ				eS	S	00 19 42.3	+0.6
FITZ	Fitzroy Crossi	8.75	170	Pn	P	00 18 06.5	+2.1
	5.0nm,0.3s,baz=2.2,slow=12,SNR=176						
FITZ				Sn	S	00 19 43.4	+1.7
	31nm,0.3s,baz=358,slow=11,SNR=18						
FITZ				LR	LR	00 22 32.3	
	comp=Z,32nm,19.1s,baz=263,slow=43						
KAKA	Kakadu	8.86	112	eP	P	00 18 04.4	-1.5
	18nm,0.3s						
KAKA				eS	S	00 19 37.3	-7.0
KELI	Kelakatan	9.52	277	⇑iP	P	00 18 13.5	-1.3
	71nm,0.2s						
KELI				⇑iS	S	00 19 57.0	-3.2
SRDI	Scrawed	9.83	275	⇑iP	P	00 18 17.3	-1.6
	104nm,0.2s						
SRDI				⇓iS	S	00 20 03.4	-4.2
MBWA	Marble Bar	12.37	199	ePn	P	00 18 57.0	+4.7
WRA	Warramunga Arr	14.42	138	Pn	P	00 19 19.2	+0.4
	2.8nm,0.3s,baz=312,slow=14,SNR=108						
WRA				Sn	S	00 21 51.6	-4.0
	5.6nm,0.3s,baz=312,slow=24,SNR=22						
WRAB	Tennant Creek	14.42	137	ePn	P	00 19 17.5	-1.4
	26nm,0.8s						
WRAB				eSn	S	00 21 52.4	-3.3
WB2	Warramunga Arr	14.43	137	eP	P	00 19 19.0	0.0
WB2				eS	S	00 21 50.5	-5.3
ASPA	Alice Springs	17.00	148	⇑iP	P	00 19 54.2	+3.2
ASPA				eS	S	00 22 53.4	-0.7
ASAR	Alice Springs	17.00	148	P	P	00 19 54.1	+3.1
	1.2nm,0.3s,baz=323,slow=12,SNR=57						
ASAR				S	S	00 22 54.0	-0.2
	0.7nm,0.3s,baz=329,slow=24,SNR=7.5						
FORT	Forrest	21.56	171	⇑iP	P	00 20 46.9	+7.1
	59nm,0.7s,mb5.1						
PMG	Port Moresby	22.80	92	pP		00 21 01.7	
	5.5nm,0.5s,baz=277,slow=11,SNR=3.6						
PMG	Port Moresby	22.80	92	P	P	00 20 51.2	-0.9
	9.2nm,0.8s,mb4.3						
CTA	Charters Tower	23.91	119	P	P	00 21 08.3	+5.6
	1.5nm,0.4s,mb3.9,baz=297,slow=9.0,SNR=5.6						
CTAO	Charters Tower	23.91	119	eP	P	00 21 06.9	+4.2
	10nm,0.9s,mb4.3						
STKA	Stephens Creek	27.63	146	eP	P	00 21 43.0	+5.8
	2.7nm,0.8s,mb4.0						
STKA	Stephens Creek	27.63	146	P	P	00 21 43.2	+6.0
	1.8nm,0.5s,mb4.0,baz=321,slow=10,SNR=8.3						
CMAR	Chiang Mai Arr	37.17	318	P	P	00 23 01.2	+1.3
	2.0nm,0.4s,mb4.1,baz=141,slow=6.6,SNR=10						
PKI	Pulchoki	52.47	316	eP	P	00 25 01.6	+0.1
	28nm,0.4s,mb5.2						
KKN	Kakani	52.70	316	eP	P	00 25 03.4	+0.2
DMN	Daman	52.70	315	eP	P	00 25 03.7	+0.4
	21nm,0.6s,mb5.0						
GKN	Gorkha	53.27	316	eP	P	00 25 07.7	+0.2
	27nm,0.4s						
KOLN	Koldanda	53.85	315	eP	P	00 25 11.9	+0.2
	32nm,0.7s,mb5.2						
SONM	Songino Array	59.13	346	P	P	00 25 47.3	-1.6
	2.0nm,1.0s,mb3.9,baz=163,slow=8.6,SNR=12						
UCH	Uchtor	68.50	323	P	P	00 26 50.9	+0.8
	1.6nm,0.8s,mb3.8						
AAK	Ala-Archa	68.75	323	eP	P	00 26 50.9	-0.7
	3.5nm,0.8s,mb4.1						
AML	Almayashu	68.94	322	eP	P	00 26 53.4	+0.7
	4.7nm,0.7s,mb4.3						
EKS2	Erkin-Say	69.19	323	eP	P	00 26 54.5	+0.2
	2.0nm,0.8s,mb3.9						
VNDA	Vanda	70.81	172	P	P	00 27 10.4	+6.8
	1.3nm,1.1s,mb3.6,baz=333,slow=4.5,SNR=4.0						
BVAR	Borovoye Array	77.09	330	P	P	00 27 40.2	+0.1
	0.2nm,0.4s,baz=127,slow=7.2,SNR=3.0						
CHKZ	Chkalovo	77.36	331	P	P	00 27 41.6	0.0
	1.9nm,0.9s,mb3.7						

LDG 10 00:53:39.2±0.3, 18.65S×168.86E, h10^{km}, Mb5.4/3, Ms4.8/6, Error ellipse: s-maj=33.9km s-min=18.1km az=17.0
CSEM 10 00:53:41.8, 18.92S×168.91E, h33^{km}, mb5.7
MOS 10 00:53:50.2±1.1, 18.92S×168.96E, h108^{km}, mb5.6/31, Error ellipse: s-maj=13.1km s-min=10.1km az=55.9
BJI 10 00:53:53.4, 18.67S×169.10E, h131^{km}, mB5.2, mb5.2
NEIC 10 00:53:55.0±0.1, 18.93S×169.02E, mb5.4/65, MW5.8, Error ellipse: s-maj=4.7km s-min=3.6km az=137.0, Moment Tensor Solution. s14 Moment tensor: Scale 10^{17} Nm; M$_{rr}$1.29; M$_{\theta\theta}$2.95; M$_{\phi\phi}$-4.25; M$_{r\theta}$-2.05; M$_{\theta\phi}$3.02; M$_{\phi r}$-1.66; Best double couple: M$_0$5.5×10^{17} NP1:φ$_s$299°, δ63°, λ17°. NP2:φ$_s$201°, δ75°, λ151°. Principal axes: T 5.53, Plg31°, Azm157°; N -.07, Plg58°, Azm355°; P -5.47, Plg8°, Azm252°;
IDC 10 00:53:55.2±0.6, 18.95S×169.03E, h138^{km}±4^{km}, mb5.2/21, mb1 5.3/21, mb1mx5.3/21, MS4.6/13, Ms1 4.6/13, ms1mx4.3/29 Error ellipse: s-maj=11.3km s-min=10.5km az=157.0
HRVD 10 00:53:55.0±0.2, 19.03S×168.87E, h150^{km}, MW5.7/64, Centroid moment Tensor Solution. LP body waves: s57,c116;Mantle waves: s64,c141; Half duration: 1^{s}9 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.75±.05; M$_{\theta\theta}$1.16±.06; M$_{\phi\phi}$-1.91±.06; M$_{r\theta}$-2.52±.05; M$_{\theta\phi}$3.88±.07; M$_{\phi r}$-1.35±.04; Best double couple: M$_0$5.03×10^{17} NP1:φ$_s$186°, δ66°, λ160°. NP2:φ$_s$285°, δ72°, λ26°. Principal axes: T 5.5, Plg31°, Azm147°; N -.94, Plg59°, Azm318°; P -4.57, Plg4°, Azm54°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.
SYO 10 00:53:56.8, 18.97S×168.98E, h155^{km}, MB5.4
ISC 10 00:53:54.3±0.7, 18.95S±0.04×168.94E±0.03, h142^{km}±6^{km}, h140^{km}±2.5^{km}:pP-P, n543, σ0^{s}88/271, mb5.3/107, 44C-67D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.88	217	⇓iP	P	00 54 54.6	+0.9
DZM				eS	S	00 55 37.4	-1.9
DZM	Mont Dzumac	3.88	217	⇓iPn	P	00 54 54.4	+0.7
DZM				eSn	S	00 55 38.8	-0.5
NOUC	Port Laguerre	3.99	218	⇓eP	P	00 54 56.3	+1.2
NOUC				eS	S	00 55 40.6	-1.1
RAO	Raoul Island	15.77	133	eP	P	00 57 28.0	-1.8
	411nm,0.7s						
OUZ	Omahuta	16.72	167	eP	P	00 57 42.3	+0.8
OUZ	Omahuta	16.72	167	P	P	00 57 42.3	+0.8
WCZ	Waipu Caves	17.58	165	eP	P	00 57 52.7	+0.8
WCZ	Waipu Caves	17.58	165	P	P	00 57 52.6	+0.7
AFI	Afiamalu	19.16	78	eP	P	00 58 06.6	-2.6
AFI				pmax	pmax		
	comp=Z,250nm,1.1s						
AFI	Afiamalu	19.16	78	eP	P	00 58 06.6	-2.6
	comp=Z,251nm,1.1s						
ARMA	Armidale	19.40	231	⇓iP	P	00 58 13.6	+2.0
ARMA				eS	S	01 01 43.7	+5.4
URZ	Urewera	20.51	161	P	P	00 58 23.1	+0.3
	comp=Z,239nm,0.7s,baz=342,slow=6.0,SNR=81						
URZ				LR	LR	01 05 16.0	
	comp=Z,1µm,20.0s,baz=23,slow=33						
URZ				ScP		01 05 51.6	
	comp=Z,32nm,1.1s,baz=47,slow=10,SNR=4.7						
MWZ	Matawai	20.71	161	eP	P	00 58 24.7	-0.2
MWZ	Matawai	20.71	161	P	P	00 58 25.3	+0.4
CTA	Charters Tower	21.41	263	⇓iP	P	00 58 33.2	+1.3
	comp=Z,277nm,0.6s,mb5.8						
CTA				eS	S	01 02 24.9	+9.2
CTA				eSCP		01 05 55.1	
CTA	Charters Tower	21.41	263	P	P	00 58 33.1	+1.3
	comp=Z,288nm,0.6s,mb5.8,baz=87,slow=12,SNR=434						
CTA				ScP		01 05 55.1	
	comp=Z,8.1nm,0.9s,baz=54,slow=5.1,SNR=3.6						
CTA				LR	LR	01 06 18.6	
	comp=Z,3µm,18.9s,baz=87,slow=35						
CTAO	Charters Tower	21.41	263	eP	P	00 58 32.6	+0.7
CTAO				pmax	pmax		
	comp=Z,280nm,0.6s,mb5.8						
CTAO	Charters Tower	21.41	263	eP	P	00 58 32.6	+0.8
	comp=Z,282nm,0.6s,mb5.8						
RIV	Riverview	21.70	223	⇓iP	P	00 58 37.2	+2.5
NNZ	Nelson	22.52	171	P	P	00 58 42.7	+0.1
NNZ	Nelson	22.52	171	P	P	00 58 43.8	+1.2
THZ	Tophouse	22.99	172	eP	P	00 58 48.1	+1.0
THZ	Tophouse	22.99	172	P	P	00 58 48.1	+1.0
THZ				pP		01 01 15.1	
PMG	Port Moresby	23.12	291	P	P	00 58 50.8	+2.0
	comp=Z,188nm,0.7s,mb5.6,baz=103,slow=5.2,SNR=91						
PMG				ScP		01 05 59.7	
	comp=Z,57nm,1.1s,baz=96,slow=2.6,SNR=14						
PMG				LR	LR	01 06 04.2	
	comp=Z,2µm,18.1s,baz=88,slow=31						
PMG	Port Moresby	23.12	291	⇓iP	P	00 58 50.5	+1.8
PMG				pmax	pmax		
	comp=Z,240nm,0.9s						
PMG	Port Moresby	23.12	291	⇓iP	P	00 58 50.5	+1.8
	comp=Z,237nm,0.8s,mb5.7						
KHZ	Kahutara	23.71	172	P	P	00 58 53.3	-0.9
KHZ	Kahutara	23.71	172	P	P	00 58 53.4	-0.8
CNB	Canberra Magne	23.78	223	⇓iP	P	00 58 56.8	+1.9
	comp=Z,482nm,0.9s,mb6.0						
CNB				eS	S	01 03 03.2	+6.5
CNB				eSCP		01 06 03.1	
LTZ	Lake Taylor	23.92	174	eP	P	00 58 56.4	+0.3
LTZ	Lake Taylor	23.92	174	P	P	00 58 56.4	+0.3
RPZ	Rata Peaks	24.75	176	P	P	00 59 04.7	+0.7
	comp=Z,159nm,0.7s,mb5.7,baz=340,slow=3.1,SNR=37						
RPZ				LR	LR	01 07 24.3	
	comp=Z,2µm,18.1s,baz=351,slow=33						
ODZ	Otahua Downs	26.06	177	P	P	00 59 14.9	-1.2
ODZ	Otahua Downs	26.06	177	P	P	00 59 14.8	-1.3
TOO	Toolangi	27.63	223	eP	P	00 59 30.7	+0.1
	comp=Z,25nm,1.0s,mb4.9						
TOO				eSCP		01 06 13.5	
STKA	Stephens Creek	27.76	237	⇓iP	P	00 59 32.2	+0.4
	comp=Z,116nm,0.8s,mb5.7						
STKA				i S	S	01 04 04.0	+1.7
STKA				eSCP		01 06 13.6	
STKA				eSCS	ScS	01 10 05.0	+3.2
STKA	Stephens Creek	27.76	237	P	P	00 59 32.3	+0.5
	comp=Z,116nm,0.6s,mb5.8,baz=68,slow=8.4,SNR=237						
STKA				ScP		01 06 13.8	
	comp=Z,8.1nm,0.9s,baz=63,slow=2.9,SNR=4.2						
STKA				P3KPbc		01 31 55.0	
	comp=Z,5.3nm,1.0s,baz=268,slow=4.8,SNR=6.7						
WB2	Warramunga Arr	32.59	262	⇓iP	P	01 00 13.3	-1.3
WB2				i S	S	01 05 16.2	-2.3
WB2				eSCP		01 06 28.8	
WB2				eSCS	ScS	01 10 26.0	+0.8
WRAB	Tennant Creek	32.59	262	⇓iP	P	01 00 13.1	-1.5
WRAB				e		01 01 32.4	
WRAB				pmax	pmax		
	comp=Z,170nm,0.9s,mb5.8						
WRAB	Tennant Creek	32.59	262	⇓iP	P	01 00 13.1	-1.5
	comp=Z,173nm,0.9s,mb5.8						
WRAB				ePP	PP	01 01 32.4	+4.2
WRAB				eScP		01 06 26.4	
WRA	Warramunga Arr	32.60	262	P	P	01 00 12.9	-1.8
	comp=Z,77nm,0.7s,mb5.5,baz=103,slow=7.4,SNR=199						
WRA				S	S	01 05 16.6	-2.1
	comp=Z,18nm,1.1s,baz=94,slow=14,SNR=12						
WRA				ScP		01 06 28.8	
	comp=Z,21nm,1.0s,baz=91,slow=3.7,SNR=11						
WRA				PKiKP		01 10 22.5	
	comp=Z,1.5nm,0.7s,baz=42,slow=0.2,SNR=11						
WRA				P3KPbc		01 31 34.5	
	comp=Z,2.7nm,0.9s,baz=292,slow=3.1,SNR=17						
ASAR	Alice Springs	32.92	256	P	P	01 00 16.9	-0.5
	comp=Z,714nm,0.7s,baz=85,slow=8.9,SNR=7198						
ASAR				S	S	01 05 22.6	-0.9
	comp=Z,24nm,1.0s,baz=84,slow=18,SNR=7.2						
ASAR				ScP		01 06 30.0	
	comp=Z,19nm,1.2s,baz=95,slow=3.4,SNR=9.6						
ASAR				PKiKP		01 10 22.9	
	comp=Z,1.7nm,0.8s,baz=90,slow=2.0,SNR=7.2						
ASAR				LR	LR	01 13 36.6	
	comp=Z,2µm,18.3s,baz=87,slow=36						
ASAR				P3KPbc		01 31 33.7	
	comp=Z,2.5nm,0.8s,baz=273,slow=4.2,SNR=19						
ASPA	Alice Springs	32.92	256	⇓iP	P	01 00 16.9	-0.4
ASPA				eS	S	01 05 22.6	-1.0
ASPA				eS	ScS	01 10 27.2	+0.3
KAKA	Kakadu	35.61	275	eS	S	01 06 05.4	+0.4
KAKA				eSCP		01 06 39.1	
KAKA	Kakadu	35.61	275	⇓iP	P	01 00 40.0	-0.2
	comp=Z,67nm,0.6s,mb5.5						
FORT	Forrest	38.71	244	⇓iP	P	01 01 06.4	+0.3
	comp=Z,605nm,0.7s,mb6.3						
FORT				eS	S	01 06 52.0	0.0
TBI	Tubuai	38.95	104	eP	P	01 01 06.6	-1.5
	comp=Z,122nm,1.0s,mb5.5						
TBI				eLR	LR	01 11 43.0	
	comp=Z,1µm,36.2s						
PAE	Paea	39.34	95	eP	P	01 01 10.3	-1.1
	comp=Z,121nm,1.0s,mb5.5						
PPT	Papeete	39.36	95	P	P	01 01 10.7	-0.8
	comp=Z,70nm,0.9s,mb5.3,baz=72,slow=6.4,SNR=7.2						
PPT	Papeete	39.36	95	eP	P	01 01 10.7	-0.8
	comp=Z,67nm,0.9s,mb5.3						
TIAR	Tiarei	39.58	95	eP	P	01 01 12.6	-0.7
	comp=Z,205nm,0.9s,mb5.8						
FITZ	Fitzroy Crossi	40.99	264	⇓iP	P	01 01 25.5	+0.6
	comp=Z,145nm,0.7s,mb5.7						
FITZ				e		01 02 02.8	
FITZ				eS	S	01 07 25.0	-0.9
FITZ	Fitzroy Crossi	40.99	264	P	P	01 01 25.6	+0.7
	comp=Z,168nm,0.7s,mb5.8,baz=127,slow=4.5,SNR=304						
FITZ				LR	LR	01 17 56.0	
	comp=Z,741nm,20.4s,baz=94,slow=35						
PMOR	Pomariorio Ree	41.40	91	eP	P	01 01 28.0	-0.3
	comp=Z,193nm,1.0s,mb5.7						
VAH	Vaihoa	41.61	92	eP	P	01 01 20.0	-10
KMBL	Kambalda	44.04	244	⇓iP	P	01 01 49.3	-0.3
	comp=Z,705nm,0.8s,mb6.3						
MBWA	Marble Bar	46.13	259	⇓iP	P	01 02 06.5	+0.2
	comp=Z,154nm,0.9s,mb5.6						
KLBR	Kellerberrin	47.58	244	⇓iP	P	01 02 16.8	-0.7
	comp=Z,311nm,0.8s,mb6.0						
NWAO	Narrogin (SRO)	48.09	242	P	P	01 02 21.0	-0.5
	comp=Z,166nm,0.8s,mb5.7,baz=90,slow=7.2,SNR=48						
NWAO	Narrogin (SRO)	48.09	242	⇓eP	P	01 02 21.0	-0.5
NWAO				pmax	pmax		
	comp=Z,130nm,0.8s						
NWAO	Narrogin (SRO)	48.09	242	⇓eP	P	01 02 21.0	-0.5
	comp=Z,133nm,0.8s,mb5.6						
MUN	Mundaring	48.91	244	eP	P	01 02 27.5	-0.3
	comp=Z,72nm,0.8s,mb5.4						
BUNI	Buntu Taipa	49.84	282	⇑eP	P	01 02 36.0	+0.8
	comp=Z,34nm,0.4s,mb5.0						
NINI	Niniconang	50.09	280	⇓eP	P	01 02 38.2	+1.1
	comp=Z,816nm,0.9s,mb6.1						
NINI				⇓eS	pP	01 03 10.7	+0.9
TANI	Tanete Lipujan	50.79	281	⇑iP	P	01 02 42.3	-0.1
	comp=Z,37nm,0.6s,mb4.9						
DRV	Dumont d'Urvil	51.24	194	P	P	01 02 41.0	-4.1
DRV				S	S	01 09 50.0	-1.0
DRV				L		01 15 00.0	
KEDI	Kedomdong	52.19	274	⇓iP	P	01 02 52.2	-0.7
	comp=Z,225nm,0.7s,mb5.6						
RKT	Rikitea	52.26	105	eP	P	01 02 52.9	-0.4
	comp=Z,178nm,1.0s,mb5.6						
RKT				eLQ		01 15 31.0	
RKT				eLR	LR	01 17 56.5	
	comp=Z,1µm,30.0s						
CBIJ	Chichi jima	52.61	330	P	P	01 02 54.8	-1.2
	comp=Z,167nm,0.7s,mb5.9,baz=92,slow=8.1,SNR=6.1						
RATI	Rata	52.67	273	eP	P	01 02 55.0	-1.4
	comp=Z,882nm,0.7s,mb6.3						
SRDI	Scrawed	54.05	273	⇑iP	P	01 03 05.3	-1.3
	comp=Z,148nm,1.0s,mb5.4						
TGY	Tagaytay City	57.57	301	P	P	01 03 31.8	+0.1
	comp=Z,346nm,0.7s,mb6.3,baz=154,slow=7.3,SNR=7.1						
TGY				pP	pP	01 04 05.1	-0.1
	comp=Z,227nm,0.4s,baz=146,slow=7.3,SNR=2.1						
VNDA	Vanda	58.70	182	P	P	01 03 37.6	-1.2
	comp=Z,26nm,1.1s,mb5.0,baz=357,slow=6.6,SNR=24						
VNDA				LR	LR	01 27 17.7	
	comp=Z,226nm,18.3s,baz=8.1,slow=34						
VNDA	Vanda	58.70	182	eP	P	01 03 33.7	-5.2
	comp=Z,111nm,1.5s,mb5.5						
VNDA				LR	LR	01 27 17.7	
SBA	Scott Base	58.95	181	⇑eP	P	01 03 40.4	-0.1
SBA				pmax	pmax		
	comp=Z,340nm,1.0s,mb6.1						

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SBA  Scott Base      58.95 181⇑eP     P       01 03 40.4  -0.1
          comp=Z,339nm,1.1s,mb6.1
JOW  Kunigami        60.23 318  LR    LR      01 27 41.4
          comp=Z,351nm,18.2s,baz=131,slow=34
CASY Casey           60.27 203 eP     P       01 03 48.5  -1.2
CASY                           i S    S       01 11 50.8  +0.2
MAJO Matsushiro      62.37 332  P'P'ab        01 34 08.8
MAJO                            SKKSdf        01 37 00.2
MAJO Matsushiro      62.37 332⇓iP     P       01 04 03.0  -1.2
MAJO                            pmax  pmax
          comp=Z,52nm,1.0s,mb5.3
MAJO Matsushiro      62.37 332⇓iP     P       01 04 03.0  -1.2
          comp=Z,52nm,1.0s,mb5.3
MAT  Matsushiro      62.37 332  P     P       01 04 03.0  -1.2
MAT                             S     S       01 12 22.0  +4.5
MAT  Matsushiro      62.37 332 eP     P       01 04 03.0  -1.2
          comp=Z,40nm,1.1s,mb5.2
MAT                            eS     S       01 12 22.0  +4.5
MIR  Mirnyy          67.17 205⇓eP     P       01 04 35.0  +0.3
MIR                            eS     S       01 13 18.0  +2.1
MIR                             pmax  pmax
          comp=Z,190nm,1.6s,mb5.7
MIR                             MLR   MLR
          comp=Z,600nm,15.0s
SSE  Sheshan         67.67 317 eP     P       01 04 38.7  +0.3
SSE                             XP    sP      01 05 26.9  -1.6
SSE                             S     S       01 13 26.4  +4.0
SSE                             SCS   ScS     01 14 23.9  +4.6
SSE                             AMB   AMB
          comp=Z,22nm,0.8s,mb4.9
SSE                             AMB   AMB
          comp=Z,74nm,5.3s
SSE                             LR    LR
          comp=N,313nm,32.3s
SSE                             LR    LR
          comp=E,231nm,32.1s
SSE                             LR    LR
          comp=Z,269nm,38.7s
SSE  Sheshan         67.67 317 eP     P       01 04 38.7  +0.3
          comp=Z,22nm,0.8s,mb4.9
SSE                             pP    pP      01 05 09.3  -3.6
SSE                             sP    sP      01 05 26.9  -1.6
SSE                             S     S       01 13 26.4  +4.0
SSE                             ScS   ScS     01 14 23.9  +4.6
SSE                             sS            01 14 28.3
SSE                             SS    SS      01 18 14.8   +27
SSE                             LR    LR
          comp=Z,270nm,38.7s
KGM  Kluang          67.72 280⇑eP     P       01 04 39.3  +0.3
QIZ  Qiongzhong      69.19 300  P     P       01 04 45.5  -2.4
QIZ                             AP    pP      01 05 21.7  -0.9
QIZ                            eS     S       01 13 37.2  -3.4
QIZ                             AMB   AMB
          comp=Z,52nm,1.3s,mb5.1
QIZ                             AMB   AMB
          comp=Z,219nm,5.2s
YSS  Yuzh-Sakhalins  69.72 341 eP     P       01 04 51.0  +0.3
YSS                            e      pP      01 05 26.0  +0.6
YSS                             pmax  pmax
          comp=Z,60nm,1.0s,mb5.3
YSS  Yuzh-Sakhalins  69.72 341 eP     P       01 04 51.0  +0.4
          comp=Z,46nm,0.8s,mb5.3
NJ2  Nanjing         69.80 316 eP     P       01 04 51.8  +0.3
NJ2                             PP    PP      01 07 31.3  +2.3
NJ2                             PPP   PPP     01 09 14.0  +4.7
NJ2                             S     S       01 13 54.0  +6.4
NJ2                             AMB   AMB
          comp=Z,40nm,0.8s,mb5.2
NJ2                             AMB   AMB
          comp=Z,460nm,5.6s
NJ2                             LR    LR
          comp=N,1μm,18.8s
NJ2                             LR    LR
          comp=E,1μm,25.2s
NJ2                             LR    LR
          comp=Z,6μm,37.9s
IPM  Ipoh            70.78 282⇑eP     P       01 04 57.1  -0.5
QSPA South Pole Qui  71.10 180 eP     P       01 04 57.8  -0.7
          comp=Z,275nm,1.0s,mb5.9
FX1  Attu Island--F  71.63   3 eP     P       01 05 01.4  -0.6
WHN  Wuhan           71.94 312 eP     P       01 05 03.5  -0.8
PET  Petropavlovsk   72.23 353  P     P       01 05 04.2  -1.3
          comp=Z,43nm,0.9s,mb5.2
DL2  Dalian          72.61 323  P     P       01 05 09.0  +0.9
DL2                             AP    pP      01 05 42.7  -0.4
DL2                            eS     S       01 14 23.7  +4.0
DL2                             SCS   ScS     01 14 58.2   0.0
DL2                             AMB   AMB
          comp=Z,60nm,0.7s,mb5.4
MDJ  Mudanjiang      72.74 332  P     P       01 05 09.1  +0.4
MDJ                             AP    pP      01 05 45.3  +1.6
MDJ                             PP    PP      01 07 54.2  +0.3
MDJ                             S     S       01 14 25.0  +4.0
MDJ                             SCS   ScS     01 15 03.6  +4.6
MDJ                             AMB   AMB
          comp=Z,65nm,1.3s,mb5.2
MDJ                             LR    LR
          comp=N,285nm,17.2s
MDJ                             LR    LR
          comp=E,293nm,12.7s
MDJ                             LR    LR
          comp=Z,406nm,22.2s
MDJ  Mudanjiang      72.74 332 eP     P       01 05 08.9  +0.2
          comp=Z,76nm,1.2s,mb5.3
TIA  Tai'an          73.54 318 eP     P       01 05 12.9  -0.7
CN2  Changchun       74.07 329 eP     P       01 05 16.3  -0.1
CN2                             PCP   PcP     01 05 29.9  -1.2
CN2                            eAP    pP      01 05 52.3  +0.6
CN2                            eS     S       01 14 36.3  +0.4
CN2                             PS    PS      01 15 34.0  +2.9
CN2                             AMB   AMB
          comp=Z,80nm,0.6s,mb5.6
ENH  Enshi           75.27 310 eP     P       01 05 23.1  -0.5
          comp=Z,12nm,0.8s,mb4.6
GYA  Guiyang         75.42 305⇓iP     P       01 05 25.1  +0.6
GYA                             S     S       01 14 53.1  +1.9
GYA                             AMB   AMB
          comp=Z,20nm,1.1s,mb4.7
GYA                             AMB   AMB
          comp=Z,160nm,5.4s
UNV  Unalaska Valle  75.52  15 eP     P       01 05 22.8  -1.7
NST  Nakhon Sawan    75.94 292  P     P       01 05 27.0  -0.5
BJT  Baijiatuau      76.53 321 eP     P       01 05 30.4   0.0
BJT                            e*PP   pP      01 06 09.1  +3.2
BJT                             pmax  pmax
          comp=Z,24nm,0.6s
BJT  Baijiatuau      76.53 321 eP     P       01 05 30.4   0.0
          comp=Z,24nm,0.6s,mb5.0
BJT                            epP    pP      01 06 09.1  +3.3
BJI  Beijing         76.54 321  P     P       01 05 30.8  +0.3
BJI                             S     S       01 14 53.3   -10
BJI                             XS            01 16 05.0
BJI                             SS    SS      01 20 02.8  -1.1
BJI                             AMB   AMB
          comp=Z,55nm,0.8s,mb5.2
BJI                             AMB   AMB
          comp=Z,370nm,4.0s
BJI  Beijing         76.54 321  P     P       01 05 30.8  +0.3
          comp=Z,55nm,0.8s,mb5.2
BJI                             pP    pP      01 06 01.2  -4.7
BJI                             sP    sP      01 06 24.4  +3.0
BJI                             S     S       01 14 53.3   -10
BJI                             sS            01 16 05.0
BJI                             SS    SS      01 20 02.8  -1.1
NANT Nan             76.76 295  P     P       01 05 31.0  -1.1
XAN  Xi'an           77.71 313  P     P       01 05 37.0  -0.1
XAN                             AP    pP      01 06 11.5  -1.1
XAN                             S     S       01 15 17.6  +1.8
XAN                             AMB   AMB
          comp=Z,32nm,0.9s,mb5.0
XAN                             LR    LR
          comp=N,133nm,14.8s
XAN                             LR    LR
          comp=E,221nm,16.8s
XAN                             LR    LR
          comp=Z,244nm,19.7s
KMI  Kunming         77.88 302⇓eP     P       01 05 40.0  +1.8
KMI                             PCP   PcP     01 05 51.5  +3.6
KMI                             AP    pP      01 06 13.2  -0.6
KMI                             XP    sP      01 06 30.4  +1.1
KMI                             PP    PP      01 08 40.4  +3.0
KMI                             S     S       01 15 20.0  +2.2
KMI                             SKS   SKS     01 15 35.2  +1.7
KMI                             XS            01 16 22.0
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KMI                             SS    SS      01 20 22.3  -1.9
KMI                             AMB   AMB
          comp=Z,169nm,3.3s
KMI                             LR    LR
          comp=N,387nm,25.2s
KMI                             LR    LR
          comp=E,285nm,19.1s
KMI                             LR    LR
          comp=Z,377nm,31.5s
KMI  Kunming         77.88 302⇓eP     P       01 05 40.0  +1.8
          comp=Z,0.2nm,3.3s
KMI                             PcP   PcP     01 05 51.5  +3.6
KMI                             pP    pP      01 06 13.2  -0.6
KMI                             sP    sP      01 06 30.4  +1.1
KMI                             PP    PP      01 08 40.4  +3.0
KMI                             S     S       01 15 20.0  +2.2
KMI                             SKS   SKS     01 15 35.2  +1.7
KMI                             sS            01 16 22.0
KMI                             SS    SS      01 20 22.3  -1.9
KMI                             LR    LR
          comp=Z,380nm,31.5s
CHRT Chiangrai       78.00 296 ⇓P     P       01 05 40.7  +1.8
          comp=Z,290nm,1.1s,mb5.8
CM31 Chiang Mai Arr  78.12 294 eP     P       01 05 40.6  +0.9
          comp=Z,36nm,0.9s,mb5.0
CMAR Chiang Mai Arr  78.12 294  P     P       01 05 41.0  +1.4
          comp=Z,34nm,1.1s,mb4.9,baz=129,slow=4.3,SNR=80
CMAR                            pP    pP      01 06 14.7  -0.6
          comp=Z,4.8nm,0.9s,baz=343,slow=28,SNR=4.1
CMAR                            PKPPKP        01 32 43.5
          comp=Z,0.6nm,0.5s,baz=315,slow=6.1,SNR=4.5
CHG  Chiang Mai      78.27 295 ⇓P     P       01 05 41.8  +1.3
          comp=Z,36nm,0.8s,mb5.0
MAW  Mawson          78.59 202⇑iP     P       01 05 41.8  +0.6
          comp=Z,35nm,0.9s,mb5.0
MAW                            eS     S       01 15 27.6  +3.1
MAW  Mawson          78.59 202  P     P       01 05 42.2  +1.0
          comp=Z,42nm,0.9s,mb5.1,baz=109,slow=6.4,SNR=29
MAW                             LR    LR      01 36 27.0
          comp=Z,561nm,19.7s,baz=99,slow=32
MAW  Mawson          78.59 202 eP     P       01 05 41.9  +0.7
MAW                             pmax  pmax
          comp=Z,120nm,1.2s
HHC  Hu-ho-hao-te    79.82 320 eP     P       01 05 49.3  +0.9
HHC                             PCP   PcP     01 05 56.2  +0.3
HHC                             AP    pP      01 06 23.5  -0.5
HHC                             PP    PP      01 08 53.3  +0.6
HHC                             S     S       01 15 37.7  -0.3
HHC                             SKS   SKS     01 15 46.0  -0.9
HHC                             SCS   ScS     01 15 55.5  -0.8
HHC                             SS    SS      01 20 54.1  +1.3
HHC                             AMB   AMB
          comp=Z,37nm,0.9s,mb5.0
HHC                             AMB   AMB
          comp=Z,161nm,4.9s
HHC                             LR    LR
          comp=N,349nm,21.6s
HHC                             LR    LR
          comp=E,321nm,13.3s
HHC                             LR    LR
          comp=Z,701nm,31.8s
CD2  Chengdu         79.83 308  P     P       01 05 49.9  +1.2
CD2                             AP    pP      01 06 23.3  -1.0
CD2                             XP    sP      01 06 40.1  +0.1
CD2                             PP    PP      01 08 57.4  +4.4
CD2                             S     S       01 15 40.2  +1.8
CD2                             XS            01 16 41.5
CD2                             LR    LR
          comp=N,220nm,15.0s
CD2                             LR    LR
          comp=Z,190nm,15.6s
BTO  Baotou          80.63 319 eP     P       01 05 52.8   0.0
HIA  Hailar          80.72 330 eP     P       01 05 52.8  -0.2
HIA                            e*PP   pP      01 06 30.9  +2.2
HIA                             pmax  pmax
          comp=Z,29nm,1.2s
HIA  Hailar          80.72 330 eP     P       01 05 52.8  -0.3
          comp=Z,29nm,1.2s,mb4.8
HIA                            epP    pP      01 06 30.9  +2.2
LZH  Lanzhou         82.33 312 ⇓P     P       01 06 03.6  +1.9
LZH                             PP    PP      01 09 12.0  -1.8
LZH                             S     S       01 16 09.1  +5.3
LZH                             SS    SS      01 21 30.0  -0.5
LZH                             AMB   AMB
          comp=Z,60nm,1.5s,mb5.0
LZH                             AMB   AMB
          comp=Z,230nm,4.6s
LZH                             LR    LR
          comp=N,430nm,12.6s
LZH                             LR    LR
          comp=Z,650nm,16.0s
LZH  Lanzhou         82.33 312 ⇓P     P       01 06 03.6  +1.9
          comp=Z,60nm,1.5s,mb5.0
LZH                             pP    pP      01 06 15.6   -22
LZH                             sP    sP      01 06 22.0   -31
LZH                             PP    PP      01 09 12.0  -1.8
LZH                             S     S       01 16 09.1  +5.3
LZH                             sS            01 16 30.0
LZH                             PS    PS      01 17 06.3  -8.3
LZH                             SS    SS      01 21 30.0  -0.5
LZH                             LR    LR
          comp=Z,650nm,16.0s
CLNS Chul'man        84.02 337 eP     P       01 06 07.6  -2.1
CLNS                            pmax  pmax
          comp=N,29nm,1.0s
CLNS                            pmax  pmax
          comp=Z,74nm,1.0s,mb5.4
CLNS                            pmax  pmax
          comp=E,14nm,0.9s
IMP  Imphal          84.95 298⇑iP     P       01 06 14.8  -0.3
RSO  Redoubt South   84.98  18 eP     P       01 06 13.4  -1.0
SYO  Syowa Base      85.13 196 ⇓P     P       01 06 14.6  -0.4
SYO  Syowa Base      85.13 196 ⇑PcP   PcP     01 06 16.1  -2.2
SYO  Syowa Base      85.13 196 ⇑pP    pP      01 06 53.8  +2.7
SYO  Syowa Base      85.13 196 ⇑sP    sP      01 07 07.0  +0.3
ANM  Nome            85.58  11 eP     P       01 06 17.9  +0.6
HOPS Hopland         85.75  46 eP     P       01 06 19.1  +0.4
          comp=E,53nm,1.1s,mb5.2
SLKM Skilak Lake     85.77  19 eP     P       01 06 18.2  -0.1
NSHM Saint Helena R  85.85  47 eP     P       01 06 18.8  -0.4
SAO  San Andreas Ge  85.85  49 eP     P       01 06 19.9  +0.6
SAO                             pmax  pmax
          comp=Z,54nm,0.9s,mb5.3
SAO  San Andreas Ge  85.85  49 eP     P       01 06 19.9  +0.6
          comp=Z,54nm,0.9s,mb5.3
LRV  Little Rabbit   86.01  49 eP     P       01 06 20.6  +0.5
KHMM Horse Mountain  86.21  45 eP     P       01 06 22.4  +1.4
ULN  Ulaanbaatar     86.47 323⇓iP     P       01 06 22.9  +0.9
          comp=Z,44nm,0.9s,mb5.2
YAK  Yakutsk         86.51 343 eP     P       01 06 21.6  -0.3
YAK                             pmax  pmax
          comp=Z,40nm,1.0s,mb5.2
YAK                             pmax  pmax
          comp=N,7.0nm,1.1s
YAK                             pmax  pmax
          comp=E,8.0nm,1.2s
YAK                             pmax  pmax
          comp=Z,19nm,0.9s,mb4.9
YAK                             pmax  pmax
          comp=N,13nm,1.1s
YAK  Yakutsk         86.51 343 eP     P       01 06 21.3  -0.6
          comp=N,83nm,0.8s,mb5.6
GTA  Gaotai          86.72 314 ⇓P     P       01 06 24.7  +1.3
GTA                             AP    pP      01 06 59.5  -0.2
GTA                             PP    PP      01 09 53.0  +3.3
GTA                             SKS   SKS     01 16 35.2  +1.2
GTA                             S     S       01 16 49.7  +2.9
GTA                             AMB   AMB
          comp=Z,30nm,1.0s,mb5.1
GTA                             AMB   AMB
          comp=Z,139nm,5.3s
GTA                             LR    LR
          comp=N,173nm,19.4s
GTA                             LR    LR
          comp=E,257nm,17.9s
GTA                             LR    LR
          comp=Z,331nm,23.9s
SONM Songino Array   86.82 323  P     P       01 06 24.4  +0.7
          comp=Z,21nm,0.8s,mb5.0,baz=152,slow=6.2,SNR=150
SONM                            pP    pP      01 06 59.2  -0.8
          comp=Z,21nm,1.0s,baz=153,slow=3.6,SNR=5.9
SONM                            PKKPbc        01 24 16.7
          comp=Z,2.2nm,0.7s,baz=279,slow=3.4,SNR=14
SONM                            PKPPKP        01 32 20.4
          comp=Z,0.9nm,1.0s,baz=326,slow=4.5,SNR=4.0
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WDC  Whiskeytown Da  86.86  45 eP     P       01 06 24.5  +0.4
WDC                             pmax  pmax
          comp=Z,58nm,1.0s,mb5.4
WDC  Whiskeytown Da  86.86  45 eP     P       01 06 24.5  +0.4
          comp=Z,58nm,0.9s,mb5.4
PMR  Palmer          86.95  19 eP     P       01 06 23.9  -0.1
SHL  Shillong        86.96 298 eP     P       01 06 21.0  -3.9
SHL                            e      pP      01 07 01.5  +0.3
SHL                            eS     S       01 16 38.0   -11
OHCM Honcut          87.00  47 eP     P       01 06 24.7  -0.1
CMB  Columbia Colle  87.18  48 eP     P       01 06 25.7   0.0
CMB                             pmax  pmax
          comp=Z,66nm,0.9s,mb5.5
CMB  Columbia Colle  87.18  48 eP     P       01 06 25.6   0.0
          comp=Z,66nm,0.8s,mb5.5
MWC  Mount Wilson    87.22  53 eP     P       01 06 25.9  -0.1
YBH  Yreka Blue Hor  87.29  44  P     P       01 06 27.4  +1.2
          comp=Z,53nm,0.9s,mb5.4,baz=182,slow=0.8,SNR=60
HUMO Hull Mountain   87.55  43 eP     P       01 06 28.0  +0.7
          comp=Z,68nm,0.9s,mb5.5
BAR  Barrett         87.64  54 eP     P       01 06 27.8  -0.2
DIV  Divide          87.66  20 eP     P       01 06 27.4   0.0
          comp=Z,79nm,1.0s,mb5.5
LBCM Butte Creek Ri  87.78  45  P     P       01 06 29.1  +0.6
BUOR Burton Butte    87.86  44  P     P       01 06 29.9  +1.1
BEKR Beckwourth      88.02  47 eP     P       01 06 30.3  +0.6
          comp=Z,96nm,1.3s,mb5.5
PFO  Pinyon Flat Ob  88.18  54 eP     P       01 06 30.8  +0.2
PFO                             pmax  pmax
          comp=Z,23nm,0.8s,mb5.1
PFO  Pinyon Flat Ob  88.18  54 eP     P       01 06 30.8  +0.2
          comp=Z,23nm,0.8s,mb5.0
MTUM Tungsten Hills  88.18  49 eP     P       01 06 31.1  +0.6
WCN  Washoe City     88.19  47 eP     P       01 06 31.4  +0.9
WCN                             pmax  pmax
          comp=Z,40nm,1.2s,mb5.1
WCN  Washoe City     88.19  47 eP     P       01 06 31.4  +0.9
          comp=Z,40nm,1.3s,mb5.1
MCK  McKinley        88.67  17 eP     P       01 06 32.3  +0.2
MCK                             pmax  pmax
          comp=Z,17nm,1.2s,mb4.8
MCK  McKinley        88.67  17 eP     P       01 06 32.3  +0.1
          comp=Z,17nm,1.3s,mb4.8
NVAR Mina Array Bea  88.83  49  P     P       01 06 34.1  +0.6
          comp=Z,21nm,0.7s,mb5.2,baz=232,slow=10,SNR=148
NVAR                            PKKPbc        01 24 14.7
          comp=Z,0.8nm,0.9s,baz=74,slow=4.6,SNR=3.8
NVAR                            PKPPKP        01 32 21.9
          comp=Z,0.4nm,0.7s,baz=99,slow=5.8,SNR=4.5
MNV  Mina            88.94  49⇑eP     P       01 06 34.3  +0.3
MNV                             pmax  pmax
          comp=Z,38nm,1.0s,mb5.3
MNV  Mina            88.94  49⇑eP     P       01 06 34.3  +0.3
          comp=Z,38nm,0.9s,mb5.3
BOD  Bodaibo         88.95 334 eP     P       01 06 32.3  -1.3
BOD                            e      pP      01 07 04.9  -5.1
MOD  Modoc           88.97  45 eP     P       01 06 34.4  +0.4
          comp=Z,23nm,0.3s,mb5.6
NVL  N'lazarevskaya  89.10 187⇑eP     P       01 06 32.0  -2.0
NVL                            eS     S       01 16 47.0   -21
NVL                             pmax  pmax
          comp=Z,354nm,2.9s,mb5.8
IMA  Indian Mountai  89.31  14 eP     P       01 06 34.9  -0.2
IMA                             pmax  pmax
          comp=Z,59nm,1.0s,mb5.5
IMA  Indian Mountai  89.31  14 eP     P       01 06 35.5  +0.4
SNAA Sanae           89.43 183⇑iP     P       01 06 34.2  -1.4
SNAA Sanae           89.43 183  P     P       01 06 34.8  -0.8
          comp=Z,10nm,0.8s,mb4.8,baz=174,slow=4.5,SNR=54
SNAA                            LR    LR      01 44 39.6
          comp=Z,83nm,18.9s,baz=183,slow=34
SNAA Sanae           89.43 183c iP    P       01 06 34.6  -1.0
TPNV Topopah Spring  89.69  51 eP     P       01 06 36.2  -1.4
TPNV                            pmax  pmax
          comp=Z,7.0nm,0.5s,mb4.8
TPNV Topopah Spring  89.69  51 eP     P       01 06 36.1  -1.4
          comp=Z,6.5nm,0.4s,mb4.9
STW  Striped Peak    89.78  38  P     P       01 06 39.0  +1.3
LDFC Landfair        89.79  53⇑iP     P       01 06 38.6  +0.5
COLA College         89.85  17 eP     P       01 06 35.7  -2.0
COLA                            pmax  pmax
          comp=Z,19nm,1.0s,mb5.0
COLA College         89.85  17 eP     P       01 06 35.6  -2.1
ZAK  Zakamensk       89.90 324⇑iP     P       01 06 38.0  -0.2
ZAK                            e      pP      01 07 13.8  -0.9
VIPM Ingram Point    89.94  42  P     P       01 06 39.2  +0.7
VNA3 Neumayer Olymp  90.03 180⇑iP     P       01 06 39.2  +0.8
ILAR Eielson Array   90.05  17  P     P       01 06 37.0  -1.6
          comp=Z,6.5nm,0.6s,mb4.7,baz=240,slow=4.8,SNR=64
ILAR                            pP    pP      01 07 14.0  -1.1
          comp=Z,2.7nm,0.8s,baz=213,slow=10.0,SNR=3.6
ILAR                            LR    LR      01 39 04.8
          comp=Z,348nm,20.5s,baz=119,slow=30
PGC  Sidney          90.15  38 eP     P       01 06 39.9  +0.4
NEN  Nelson          90.21  52 eP     P       01 06 40.0   0.0
VNA2 Neumayer--Watz  90.32 181⇑iP     P       01 06 41.3  +1.5
TLY  Talaya          90.36 326 eP     P       01 06 40.5  +0.1
TLY                             pmax  pmax
          comp=Z,7.0nm,0.8s,mb4.6
TLY  Talaya          90.36 326 eP     P       01 06 40.5  +0.1
          comp=Z,7.3nm,0.8s,mb4.7
BMN  Battle Mountai  90.43  47 eP     P       01 06 41.3  +0.3
BMN                             pmax  pmax
          comp=Z,63nm,0.9s,mb5.5
BMN  Battle Mountai  90.43  47 eP     P       01 06 41.3  +0.4
          comp=Z,63nm,0.9s,mb5.5
VNA1 Neumayer--Stat  90.61 181⇓iP     P       01 06 43.1  +2.0
TRCR Troy Canyon     90.74  50 eP     P       01 06 42.6  +0.1
TBM  Table Mountain  91.15  40  P     P       01 06 44.9  +0.7
HAWA Hanford         91.46  41 eP     P       01 06 45.2  -0.5
          comp=Z,95nm,0.9s,mb5.8
HAWA                           ePP    PP      01 10 24.6  -3.1
WTV  Waterville      91.78  40  P     P       01 06 47.3  +0.2
MOY  Mondy           91.79 325 eP     P       01 06 47.0   0.0
DAWY Dawson          91.83  20 eP     P       01 06 46.1  -0.8
USHA Ushuaia         91.83 151  LR    LR      01 40 31.4
          comp=Z,207nm,18.3s,baz=130,slow=30
EPH  Ephrata         91.85  40  P     P       01 06 47.6  +0.3
ELK  Elko            91.94  47 eP     P       01 06 48.4  +0.4
ELK                            e*PP   pP      01 07 28.2  +3.7
ELK                             pmax  pmax
          comp=Z,23nm,1.0s
ELK  Elko            91.94  47 eP     P       01 06 48.4  +0.4
          comp=Z,23nm,1.0s,mb5.2
ELK                            epP    pP      01 07 28.2  +3.7
ARUT Antelope Range  92.08  51 eP     P       01 06 48.9  +0.2
TUC  Tucson          92.09  57⇑eP     P       01 06 49.5  +0.6
TUC                             pmax  pmax
          comp=Z,49nm,1.0s,mb5.5
TUC  Tucson          92.09  57⇑eP     P       01 06 49.5  +0.6
          comp=Z,49nm,0.9s,mb5.5
TUC                            esP    sP      01 07 45.3  +4.3
BMO  Blue Mountains  92.22  43 eP     P       01 06 48.9  -0.2
BMO                             pmax  pmax
          comp=Z,21nm,1.2s,mb5.0
BMO  Blue Mountains  92.22  43 eP     P       01 06 48.9  -0.2
          comp=Z,21nm,1.3s,mb5.0
GUN  Gumba           92.81 298 eP     P       01 06 52.7  +0.4
          comp=Z,6.7nm,0.6s,mb5.0
GUN  Gumba           92.81 298 eP     P       01 06 51.3  -1.0
PKI  Pulchoki        93.09 298 eP     P       01 06 54.1  +0.5
          comp=Z,24nm,1.1s,mb5.2
MVU  Marysvale       93.24  50 eP     P       01 06 54.8  +0.8
          comp=Z,13nm,0.9s,mb5.1
KKN  Kakani          93.27 298 eP     P       01 06 55.0  +0.6
MSU  Marysvale       93.27  50 eP     P       01 06 54.5  +0.4
DMN  Daman           93.36 298 eP     P       01 06 55.1  +0.3
          comp=Z,29nm,0.9s,mb5.4
HLID Hailey          93.60  45 eP     P       01 06 55.4  -0.1
          comp=Z,25nm,0.8s,mb5.4
NEW  Newport         93.74  40 eP     P       01 06 55.4  -0.6
NEW                             pmax  pmax
          comp=Z,13nm,0.9s
NEW  Newport         93.74  40 eP     P       01 06 55.4  -0.6
          comp=Z,13nm,0.9s,mb5.1
NEW                            esP    sP      01 07 53.2  +5.1
NLU  North Lily Min  93.87  49 eP     P       01 06 56.9  +0.1
GKN  Gorkha          93.88 298 eP     P       01 06 56.5  -0.6
          comp=Z,8.2nm,0.4s,mb5.2
HVU  Hansel Valley   94.05  47 eP     P       01 06 57.9  +0.4
SPUT South Promonto  94.10  48 eP     P       01 06 58.0  +0.2
TMUT Trail Mountain  94.26  50 eP     P       01 06 58.3  -0.3
TIXI Tiksi           94.41 348⇓iP     P       01 06 57.4  -1.1
TIXI                            pmax  pmax
          comp=Z,8.0nm,1.1s,mb4.8
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TIXI  Tiksi             94.41 348  i P      P         01 06 57.7 -0.8
JLU   Jordanelle        94.55  49  eP       P         01 06 59.8  0.0
KOLN  Koldanda          94.67 298  eP       P         01 07 00.6 -0.1
      comp=Z,4.9nm,0.6s,mb4.9
SRU   San Rafael        94.69  50  eP       P         01 07 00.4 -0.2
HWUT  Hardware Ranch    94.83  48  eP       P         01 07 00.8 -0.3
      comp=Z,11nm,0.7s,mb5.2
HWUT                               ePP      PP        01 10 51.5 -2.1
CHMT  Chamberlain Mo    95.63  42  eP       P         01 07 03.6 -1.0
LENM  Lemitar           95.72  56  eP       P         01 07 06.0 +0.7
TPAW  Teton Pass        95.92  46  eP       P         01 07 05.5 -0.5
BNM   Barren Site       95.99  56  eP       P         01 07 06.9 +0.4
QLMT  Earthquake Lak    96.07  45  eP       P         01 07 07.3 +0.6
IMW   Indian Meadow     96.07  46  eP       P         01 07 06.9 +0.2
MOOW  Moose Ponds       96.15  46  eP       P         01 07 06.9 -0.1
LOHW  Long Hollow       96.20  46  eP       P         01 07 07.3  0.0
BOZ   Bozeman (W)       96.22  44  eP       P         01 07 07.3  0.0
BOZ                                 pmax    pmax
      comp=Z,18nm,1.2s,mb5.3
BOZ   Bozeman (W)       96.22  44  eP       P         01 07 07.3 -0.1
      comp=Z,18nm,1.2s,mb5.3
INK   Inuvik            96.37  18  eP       P         01 07 07.0 -0.5
INK                                 pmax    pmax
      comp=Z,29nm,1.2s
INK   Inuvik            96.37  18  eP       P         01 07 07.0 -0.5
      comp=Z,29nm,1.3s,mb5.5
ANMO  Albuquerque       96.37  55d iP       P         01 07 08.5 +0.2
ANMO  Albuquerque       96.37  55  eP       P         01 07 08.4 +0.1
      comp=Z,16nm,1.1s,mb5.3
HRY   Holter Researc    96.47  43  eP       P         01 07 08.4  0.0
BW06  Boulder Array     96.63  47  eP       P         01 07 08.4 -0.8
      comp=Z,6.0nm,0.9s,mb4.9
PDAR  Pinedale Array    96.63  47   P       P         01 07 08.9 -0.4
      comp=Z,2.7nm,0.6s,mb4.7,baz=225,slow=2.1,SNR=18
WMQ   Urumqi            96.80 314  eP       P         01 07 10.5 +0.5
WMQ                                 PP      PP        01 11 10.8 +1.8
WMQ                                 SKS     SKS       01 17 31.0 -1.1
WMQ                                eS       S         01 18 15.4 -0.5
WMQ                                 AMB     AMB
      comp=Z,17nm,1.1s,mb5.3
WMQ                                 LR      LR
      comp=N,333nm,22.6s
WMQ                                 LR      LR
      comp=E,62nm,21.8s
WMQ                                 LR      LR
      comp=Z,278nm,26.5s
LTX   Lajitas           96.88  61  eP       P         01 07 11.1 +0.3
LTX                                 pmax    pmax
      comp=Z,19nm,0.9s,mb5.4
LTX   Lajitas           96.88  61  eP       P         01 07 11.1 +0.4
      comp=Z,19nm,0.9s,mb5.4
TXAR  Lajitas Array     96.88  61   P       P         01 07 11.4 +0.7
      comp=Z,13nm,0.8s,mb5.3,baz=224,slow=5.6,SNR=157
TXAR                                PKKPbc            01 23 54.2
      comp=Z,0.9nm,0.8s,baz=91,slow=3.7,SNR=9.1
TXAR                                LR      LR        01 48 01.6
      comp=Z,256nm,18.4s,baz=220,slow=34
TXAR  Lajitas Array     96.88  61   P       P         01 07 11.4 +0.7
TXAR                                PKKPbc            01 23 54.2
TXAR                                LR      LR        01 48 01.6
GDL2  Guadalupe Moun    97.18  59  eP       P         01 07 11.7 -0.4
CLNB  Carlsbad          97.59  59  eP       P         01 07 13.9  0.0
CPRX  Cap Rock          97.83  58  eP       P         01 07 14.7 -0.3
SDCO  Great Sand Dun    97.98  53  eP       P         01 07 15.5  0.0
      comp=Z,6.4nm,1.1s,mb5.0
AMTX  Amarillo         100.10  57  ePdif    P         01 07 24.8 -0.4
      comp=Z,9.1nm,0.8s
YKA   Yellowknife Ar   100.55  27   P       P         01 07 26.5  0.0
      comp=Z,7.8nm,0.8s,baz=254,slow=4.6,SNR=58
YKA                                 pP                01 08 02.3
      comp=Z,3.0nm,0.7s,baz=257,slow=5.0,SNR=3.3
YKA                                 PP      PP        01 11 35.9 -1.3
      comp=Z,0.7nm,0.8s,baz=247,slow=6.8,SNR=4.5
YKA                                 PKKPbc            01 23 40.6
      comp=Z,0.3nm,0.5s,baz=62,slow=2.6,SNR=5.6
YKA   Yellowknife Ar   100.55  27   P       P         01 07 26.6  0.0
YKA                                 pP                01 08 02.4
YKA                                 PP      PP        01 11 35.9 -1.3
YKA                                 PKKPbc            01 23 40.6
YKW3  Yellowknife Ar   100.57  27  ePdif    P         01 07 26.9 +0.3
CHKZ  Chkalovo         109.94 321  ePKP               01 12 08.1
BVAR  Borovoye Array   110.02 321   Pdiff   Pdif      01 08 10.8 +2.3
      comp=Z,0.6nm,0.5s,baz=123,slow=4.9,SNR=6.3
BVAR                                PKiKP             01 12 09.2
      comp=Z,2.4nm,0.4s,baz=138,slow=1.9,SNR=48
BVAR                                PP      PP        01 12 45.6 -2.6
      comp=Z,1.0nm,0.4s,baz=117,slow=6.4,SNR=8.9
BVAR                                PKKPbc            01 23 11.1
      comp=Z,2.2nm,0.8s,baz=280,slow=3.0,SNR=14
BRVK  Borovoye         110.08 321  ePKIKP   PKPdf     01 12 09.2 +0.7
MOCB  Mochara          113.29 124  ePKPdf   PKPdf     01 12 16.7 +1.1
LPAZ  La Paz           113.84 118   PKiKP             01 12 18.4
      comp=Z,0.9nm,0.5s,baz=288,slow=3.2,SNR=5.3
ARU   Arti             116.84 324⇓iPKIKP   PKPdf     01 12 22.2 +0.6
ARU                                e                  01 13 33.8
ARU                                e                  01 18 59.7
ARU                                ePS      PS        01 23 08.9 -8.7
ARU                                eSS      SS        01 29 23.9 -4.8
ARU                                 pmax    pmax
      comp=Z,9.0nm,0.6s
ARU   Arti             116.84 324  ePKPdf   PKPdf     01 12 22.2 +0.6
SADO  Sadowa           118.58  49   PKP     PKPdf     01 12 26.1 +0.8
      comp=Z,5.8nm,0.7s,baz=230,slow=4.0,SNR=3.9
SUR   Sutherland       120.53 211  ePKPdf   PKPdf     01 12 30.9 +1.4
SAML  Samuel           121.62 114  ePKPdf   PKPdf     01 12 31.6 -0.3
KEV   Kevo             124.19 345  ep       PKPdf     01 12 35.1 -0.5
ARCES ARCESS Array B   124.72 345   PKP     PKPdf     01 12 37.0 +0.4
      comp=Z,12nm,0.6s,baz=69,slow=1.4,SNR=54
ARCES                               PKKPbc            01 22 21.2
      comp=Z,3.7nm,1.1s,baz=315,slow=3.4,SNR=4.4
ARCES ARCESS Array B   124.72 345   PKP     PKPdf     01 12 37.0 +0.4
ARCES                               PKKPbc            01 22 21.2
SCHQ  Schefferville    124.84  36   PKP     PKPdf     01 12 37.5 +0.4
      comp=Z,4.3nm,0.7s,baz=276,slow=1.2,SNR=5.7
UMR   Umm Al-Rimmam    125.86 293  eP       PKPdf     01 12 42.0 +2.2
UMR                                 AMb     AMB       01 12 47.9
      comp=Z,53nm,1.0s
RDF   Al-Radifah       125.98 292  eP       PKPdf     01 12 42.7 +2.6
RDF                                 AMb     AMB       01 12 44.9
      comp=Z,88nm,1.0s
RST   Umm Al-Ruwaisa   126.49 293  eP       PKPdf     01 12 42.6 +1.6
RST                                 AMb     AMB       01 12 43.9
      comp=Z,42nm,0.8s
JOF   Joensuu          127.38 337  ep       PKPdf     01 12 42.2 +0.4
      comp=Z,0.9nm,0.4s
JOF   Joensuu          127.38 337  ePKIKP   PKPdf     01 12 42.2 +0.4
JOF                                 pmax    pmax
      comp=Z,1.0nm,0.4s
SJG   San Juan         127.95  81  ePKIKP   PKPdf     01 12 43.7 -0.4
GNI   Garni            127.95 306   PKP     PKPdf     01 12 46.5 +2.9
      comp=Z,2.2nm,0.5s,baz=12,slow=9.3,SNR=4.0
KMBO  Kilima Mbogo     128.53 253   PKP     PKPdf     01 12 48.0 +2.6
      comp=Z,5.8nm,1.1s,baz=36,slow=3.2,SNR=15
KMBO  Kilima Mbogo     128.53 253  ePKIKP   PKPdf     01 12 47.8 +2.4
KIV   Kislovodsk       128.87 312  ePKIKP   PKPdf     01 12 45.9 +0.7
KIV                                e                  01 13 24.1
KIV                                e                  01 14 52.0
KIV                                 pmax    pmax
      comp=Z,15nm,1.4s
KIV                                 MLR     MLR
      comp=Z,100nm,18.0s
OBN   Obninsk          129.10 327  i PKIKP  PKPdf     01 12 46.1 +0.8
OBN                                e                  01 14 53.4
OBN                                ePPP     PPP       01 17 41.5 -5.2
OBN                                ePS      PS        01 25 06.3 +0.7
OBN                                 pmax    pmax
      comp=Z,8.0nm,1.0s
OBN   Obninsk          129.10 327  i PKP    PKPdf     01 12 46.3 +1.0
VRSR  Storozhevoye     129.17 321  ePKIKP   PKPdf     01 12 45.5 -0.1
VRSR                               e                  01 14 56.0
VRSR                               eSS      SS        01 32 09.5 +3.9
VRSR                                pmax    pmax
      comp=Z,9.0nm,0.6s
VRSR                                pmax    pmax
      comp=N,4.0nm,0.9s
VRSR                                pmax    pmax
      comp=E,5.0nm,0.7s
KAF   Kangasniemi      129.69 338  ep       PKPdf     01 12 44.3 -2.0
      comp=E,3.1nm,0.4s
KAF   Kangasniemi      129.69 338  ePKIKP   PKPdf     01 12 44.3 -2.0
KAF                                 pmax    pmax
      comp=Z,3.0nm,0.4s
BDFB  Brasilia         129.96 131   PKP     PKPdf     01 12 48.1 +0.1
      comp=Z,13nm,0.6s,baz=228,slow=0.6,SNR=23
BDFB                                SKPbc             01 15 59.8
      comp=Z,5.2nm,0.7s,baz=204,slow=4.5,SNR=6.2
BAO   Brasilia Array   129.98 131   PKP     PKPdf     01 12 48.4 +0.4
FINES FINESS Array B   130.22 338   PKhKP             01 12 36.6
      comp=Z,1.0nm,0.7s,SNR=4.2
FINES                               PKP     PKPdf     01 12 48.1 +0.9
      comp=Z,3.5nm,0.6s,baz=90,slow=3.8,SNR=11
FINES                               SKPbc             01 15 57.3
      comp=Z,18nm,0.8s,baz=90,slow=5.7,SNR=28
FINES FINESS Array B   130.22 338   PKP     PKPdf     01 12 48.1 +0.9
FINES                               SKPbc             01 15 57.3
SOC   Sochi            131.04 312  i PKIKP  PKPdf     01 12 51.7 +2.3
SOC                                e                  01 15 06.8
SOC                                ePPP     PPP       01 18 02.4 -0.2
SOC                                e                  01 19 48.7
SOC                                 pmax    pmax
      comp=N,26nm,0.8s
SOC                                 pmax    pmax
      comp=Z,30nm,0.8s
SOC                                 pmax    pmax
      comp=E,40nm,1.0s
MALT  Malatya          133.07 305  ePKIKP   PKPdf     01 12 55.3 +1.9
MBAR  Mbarara          134.60 249  ePKIKP   PKPdf     01 12 58.4 +1.5
AKASG Malin Array Be   135.09 324   PKP     PKPdf     01 12 57.1 +0.3
      comp=E,2.6nm,0.5s,baz=54,slow=1.6,SNR=16
AKASG                               SKPbc             01 16 15.1
      comp=E,6.3nm,0.8s,baz=44,slow=3.2,SNR=21
NB2   NORSAR Subarra   135.10 345   PKPdf   PKPdf     01 12 50.6 -5.9
      comp=E,1.9nm,0.8s,baz=31,slow=1.9
NOA   NORSAR Array B   135.10 345   PKP     PKPdf     01 12 57.2 +0.7
      comp=E,1.8nm,0.6s,baz=29,slow=2.0,SNR=5.4
NOA                                 SKP               01 16 18.9
      comp=E,3.8nm,0.8s,baz=28,slow=3.4,SNR=6.5
ASF   Jabal al Asfar   135.12 297   PKP     PKPdf     01 12 59.4 +2.0
      comp=E,2.0nm,0.5s,baz=331,slow=3.9,SNR=4.2
ASF                                 SKPbc             01 16 18.2
      comp=E,18nm,1.0s,baz=315,slow=0.9,SNR=18
EIL   Elat             136.97 293   PKP     PKPdf     01 13 01.9 +1.2
      comp=E,4.4nm,0.6s,baz=336,slow=3.1,SNR=5.6
EIL                                 SKPbc             01 16 23.4
      comp=E,20nm,0.9s,baz=32,slow=3.5,SNR=16
EIL   Elat             136.97 293  ePKPdf   PKPdf     01 13 01.7 +1.0
EIL                                eSKPbc             01 16 21.4
MLR   Muntele Rosu     139.56 319   PKhKP             01 12 53.3
      comp=E,2.2nm,1.0s,baz=301,slow=8.5,SNR=2.1
MLR                                 PKP     PKPdf     01 13 05.8 +0.8
      comp=E,2.0nm,0.6s,baz=307,slow=5.1,SNR=5.5
MLR                                 SKPbc             01 16 29.8
      comp=E,12nm,1.0s,baz=360,slow=3.3,SNR=10
MLR   Muntele Rosu     139.56 319   PKP     PKPdf     01 13 05.8 +0.8
MLR                                 SKPbc             01 16 29.8
KOLS  Kolonicke sedl   139.83 326  ePKP     PKPdf     01 13 01.2 -4.2
CRVS  Cervenica-Dubn   140.28 326  i PKP    PKPdf     01 13 04.8 -1.5
OJC   Ojcow            140.29 329  ePKP     PKPdf     01 13 07.0 +0.8
OJC                                ePP      PP        01 16 30.5  +22
NIE   Niedzica         140.55 328  ePKP     PKPdf     01 13 05.5 -1.2
NIE                                ePP      PP        01 16 31.1  +21
OKC   Ostrava-Krasne   141.34 330  ePP      PP        01 16 33.4  +18
KSP   Ksiaz            141.50 332  ePKP     PKPdf     01 13 04.2 -4.1
KSP                                ePP      PP        01 16 32.5  +16
PSZ   Piszkesteto      141.71 326  ePKIKP   PKPdf     01 13 10.1 +1.3
DPC   Dobruska-Polom   141.84 332  ePKP     PKPdf     01 13 05.0 -3.9
DPC                                ePP      PP        01 16 34.4  +16
DPC                                ePP      PP        01 16 35.2  +17
UPC   Upice            141.87 332  ePKP     PKPdf     01 13 06.2 -2.8
UPC                                ePP      PP        01 16 34.4  +16
VYHS  Vyhne            141.89 328  i PKP    PKPdf     01 13 06.3 -2.8
PVCC  Panska Ves       142.48 333  ePP      PP        01 16 34.8  +13
BRG   Berggiesshubel   142.49 334  ePKIKP   PKPdf     01 13 07.9 -2.1
BRG                                e                  01 13 45.9
BRG                                 pmax    pmax
      comp=Z,9.0nm,1.1s
BRG   Berggiesshubel   142.49 334  eP       PKPdf     01 13 07.9 -2.1
BRG                                e                  01 13 28.1
BRG                                e                  01 13 45.9
BRG                                e                  01 16 35.8
CLL   Collm            142.54 335  i PKIKP  PKPdf     01 13 07.4 -2.7
CLL                                 pmax    pmax
      comp=Z,9.0nm,0.5s
CLL   Collm            142.54 335  i PKP    PKPdf     01 13 07.4 -2.7
CLL                                i SKP              01 16 35.6
CLL   Collm            142.54 335  i        PKPdf     01 13 07.4 -2.7
CLL                                i PKIKP  PKPdf     01 13 10.5 +0.4
CLL                                i                  01 16 35.6
SMOL  Smolenice        142.58 329  ePKP     PKPdf     01 13 09.3 -1.0
VTS   Vitosha          142.68 317   P       PKPdf     01 13 12.0 +1.4
EAU   Auchinoon        142.72 353  eP       PKPdf     01 13 08.4 -1.8
EAU                                 AMb     AMB       01 13 16.1
      comp=Z,73nm,1.9s
MMB   Musomiste        142.80 315  i P      PKPdf     01 13 08.5 -2.4
PRU   Pruhonice        142.89 332  ePKP     PKPdf     01 13 08.7 -2.0
PRU                                ePP      PP        01 16 37.1  +13
ZST   Bratislava       142.96 328  ePKP     PKPdf     01 13 10.3 -0.6
KKB   Krupnik          143.10 316  i P      PKPbc     01 13 10.3 +0.8
SRS   Serrai           143.10 314  eP       PKPbc     01 13 09.5  0.0
CLZ   Clausthal        143.11 338  ePKP     PKPdf     01 13 10.4 -0.6
CLZ                                eSKP               01 16 37.7
OUR   Ouranopolis      143.17 313  eP       PKPbc     01 13 10.4 +0.7
EKA   Eskdalemuir Ar   143.19 352   PKP     PKPdf     01 13 10.2 -0.9
      comp=Z,2.2nm,0.4s,baz=350,slow=2.7,SNR=14
SOH   Sokhos           143.40 314  eP       PKPbc     01 13 10.1 -0.3
PKSM  Moragy           143.43 325⇑iP       PKPbc     01 13 11.1 +0.8
PKSM                               i                  01 16 37.8
KNT   Kendrikon        143.55 315  eP       PKPbc     01 13 10.8  0.0
NKC   Novy Kostel      143.59 334  ePKP     PKPdf     01 13 11.0 -0.9
MOX   Moxa             143.60 336  ePKIKP   PKPdf     01 13 10.6 -1.3
MOX                                 pmax    pmax
      comp=Z,54nm,1.1s
MOX   Moxa             143.60 336  i P      PKPbc     01 13 10.6 -0.1
      comp=Z,logA/T=1.7
MOX                                 SKP               01 16 38.0
THE   Thessaloniki     143.74 314  eP       PKPbc     01 13 10.6 -0.9
RHK1  Bakonya          143.82 325⇑iP       PKPbc     01 13 12.7 +1.2
DIVS  Divcibare        143.91 321⇑iP       PKPbc     01 13 12.3 +0.4
KHC   Kasperske Hory   143.95 332  ePKP     PKPdf     01 13 12.2 -0.3
KHC                                e                  01 13 20.5
KHC                                ePP      PP        01 16 39.5 +8.6
KHC   Kasperske Hory   143.95 332  ePKP     PKPdf     01 13 12.2 -0.3
KHC                                 x       x         01 13 20.5
KHC                                ePP      PP        01 16 39.5 +8.6
GRG   Griva            143.98 315  eP       PKPbc     01 13 11.8 -0.3
GERES GERESS Array B   144.11 332   PKP     PKPdf     01 13 12.7 -0.1
      comp=Z,12nm,0.6s,baz=37,slow=3.1,SNR=106
GERES                               SKPbc             01 16 39.8
      comp=Z,9.7nm,0.8s,baz=45,slow=1.9,SNR=15
SKO   Skopje           144.13 317⇓iPKP     PKPdf     01 13 13.7 +0.6
      comp=Z,0.1nm,0.8s
SKO                                i PP     PP        01 16 40.0 +7.8
SKO                                i                  01 17 02.0
XOR   Xorichti         144.13 312  eP       PKPbc     01 13 12.3 -0.4
LIT   Litokhoron       144.31 313  eP       PKPbc     01 13 12.9 -0.2
HPK   Haverah Park     144.31 350  eP       PKPbc     01 13 14.0 +1.4
IDI   Anoyia           144.34 305   PKP     PKPdf     01 13 13.7  0.0
      comp=Z,34nm,0.4s,baz=162,slow=1.8,SNR=72
IDI                                 SKPbc             01 16 41.5
      comp=Z,27nm,1.0s,baz=145,slow=5.5,SNR=7.1
ARSA  Arzberg          144.38 328⇓iP       PKPbc     01 13 13.7 +0.6
NVSS  Nova Varos 2     144.41 320⇑iP       PKPbc     01 13 14.5 +1.2
GRA1  Grafenberg Arr   144.51 335  ePKP     PKPdf     01 13 14.6 +1.0
GRA1                               eSKP               01 16 41.5
GRF   Grafenberg Arr   144.51 335  ePKIKP   PKPdf     01 13 14.6 +1.0
GRF                                e                  01 16 41.5
MOA   Molln            144.57 330⇑iP       PKPbc     01 13 14.7 +1.1
IVA   Berane           144.64 319⇓iPKP     PKPdf     01 13 15.2 +1.2
PLE   Pljevlja         144.69 320⇓iPKP     PKPdf     01 13 15.7 +1.6
PVY   Plav             144.74 319⇓iPKP     PKPdf     01 13 15.3 +1.2
LHO   Holmfirth        144.75 350⇑eP       PKPdf     01 13 14.2 +0.3
FNA   Florina          144.75 315  eP       PKPdf     01 13 14.5 +0.2
AGG   Agios Georgios   144.88 312  eP       PKPdf     01 13 14.5 -0.1
DMUB  Kingscourt       144.97 356  eP       PKPdf     01 13 14.4 +0.2
KBI1  Birley Grange    144.97 350⇑eP       PKPdf     01 13 10.8 -3.4
PERS  Pernice          145.01 328  i PKP    PKPdf     01 13 15.8 +1.2
UPM   Unac-Piva        145.06 320⇓iPKP     PKPdf     01 13 16.5 +1.7
GVD   Gavdhos          145.10 304  ePKPdf   PKPdf     01 13 16.3 +1.2
GOLS  Golise           145.17 327  i PKP    PKPdf     01 13 16.5 +1.6
NKY   Niksic           145.22 320⇓iPKP     PKPdf     01 13 16.7 +1.6
WME   Myndd Eilian     145.23 353  eP       PKPdf     01 13 14.7  0.0
WME                                 AMb     AMB       01 13 17.7
      comp=Z,77nm,1.8s
KWE   Weaver Farm      145.25 350  eP       PKPdf     01 13 12.0 -2.7
TTG   Podgorica        145.27 319⇓iPKP     PKPdf     01 13 16.6 +1.5
WCB1  Church Bay       145.27 353⇑eP       PKPdf     01 13 15.3 +0.6
WCB1                                AMb     AMB       01 13 19.7
      comp=Z,88nm,1.3s
RCBR  Riachuelo        145.28 133  ePKPdf   PKPdf     01 13 15.3 -0.7
MEV   Metsovon         145.31 314  eP       PKPdf     01 13 17.4 +2.1
WPM1  Penmaenmawr      145.31 352  eP       PKPdf     01 13 15.4 +0.6
WPM1                                AMb     AMB       01 13 18.1
      comp=Z,165nm,1.6s
YRC   Rhoscolyn        145.40 353⇑eP       PKPdf     01 13 15.5 +0.5
YRC                                 AMb     AMB       01 13 18.1
      comp=Z,96nm,1.1s
SIND  Sindeldorf       145.42 336⇓eP       PKPdf     01 13 17.2 +2.0
BRY   Bratogost        145.45 320⇓iPKP     PKPdf     01 13 17.2 +1.8
YLL   Llanberis        145.46 353⇑eP       PKPdf     01 13 15.7 +0.6
YLL                                 AMb     AMB       01 13 20.3
      comp=Z,168nm,1.6s
HGN   Heimansgroeve    145.51 341  ePKP     PKPdf     01 13 17.0 +1.7
      comp=Z,85nm,1.7s
TOD   Tromm            145.51 337⇓eP       PKPdf     01 13 17.4 +2.1
ULC   Ulcinj           145.53 318⇓iPKP     PKPdf     01 13 17.4 +1.8
DLF   Lyons Farm       145.54 355  eP       PKPdf     01 13 16.1 +0.9
DCN   Croghan          145.55 356  eP       PKPdf     01 13 16.2 +1.0
KBA   Koelnbreinsper   145.56 330⇑iP       PKPdf     01 13 17.0 +1.5
BUM   Brajici-Budva    145.57 319⇓iPKP     PKPdf     01 13 17.2 +1.6
YRE   Yr Eifl          145.65 353⇑eP       PKPdf     01 13 15.8 +0.4
YRE                                 AMb     AMB       01 13 20.1
      comp=Z,99nm,1.5s
SWS   Schriesheim      145.65 337  eP       PKPdf     01 13 17.6 +2.1
FUR   Furstenfeldbru   145.68 333  ePKP2    PKPab     01 13 18.3 -0.7
LJU   Ljubljana        145.71 328  i PKP    PKPdf     01 13 17.9 +2.1
LJU                                e                  01 13 53.7
HCY   Herceg Novi      145.73 320⇓iPKP     PKPdf     01 13 17.0 +1.1
ABH   Alteburg         145.74 338⇓eP       PKPdf     01 13 18.2 +2.5
ABH   Alteburg         145.74 338   PKP     PKPdf     01 13 18.0 +2.3
HDH   Heidenheim       145.80 335⇓eP       PKPdf     01 13 18.2 +2.4
KTD   Kalmit           146.01 337  eP       PKPdf     01 13 18.9 +2.7
SSP1  Stoney Pound     146.03 351  eP       PKPdf     01 13 17.2 +1.2
VOY   Vojsko           146.04 328  ePKP     PKPdf     01 13 18.0 +1.7
VOY                                e                  01 13 56.3
PTCC  Patocco-Chiusa   146.04 329  ePKP     PKPdf     01 13 18.1 +1.8
IGT   Igoumenitsa      146.04 314  eP       PKPdf     01 13 18.9 +2.4
STU   Stuttgart        146.05 336  ePKPdf   PKPdf     01 13 17.7 +1.5
STU                                ePKPbc   PKPbc     01 13 19.1 +1.7
RUP   Ruppelstein      146.06 339⇓eP       PKPdf     01 13 19.3 +3.1
RUP   Ruppelstein      146.06 339   PKP     PKPdf     01 13 18.7 +2.5
FVI   Forni Avoltri    146.18 330  ePKP     PKPdf     01 13 18.5 +2.0
LKD   Levkas           146.20 312  eP       PKPdf     01 13 19.9 +3.1
WTTA  Wattenberg       146.21 332⇑iP       PKPdf     01 13 19.3 +2.8
BUCH  Bad Urach        146.25 335⇓eP       PKPdf     01 13 19.9 +3.4
LBG   Lerchenberg      146.29 336⇓eP       PKPdf     01 13 19.9 +3.3
HAE   Alders End       146.31 351⇑eP       PKPdf     01 13 17.1 +0.5
HTR   Trewern Hill     146.38 351⇑eP       PKPdf     01 13 18.8 +2.1
HTR                                 AMb     AMB       01 13 20.9
      comp=Z,48nm,2.0s
MOTA  Moosalm          146.38 332⇑iP       PKPdf     01 13 19.6 +2.8
WLF   Walferdange      146.39 340  ePKP2    PKPab     01 13 20.3 -1.4
LANF  Langenberg       146.40 337   PKP     PKPdf     01 13 20.0 +3.2
MCH1  Michaelchurch    146.42 351⇑eP       PKPdf     01 13 18.9 +2.2
GIVF  Givet            146.43 341  ePKP1    PKPbc     01 13 19.6 +1.4
UBR   Uberruh          146.55 334⇓eP       PKPdf     01 13 20.5 +3.4
GUT   Gutenstein       146.65 335⇓eP       PKPdf     01 13 20.5 +3.3
BAIF  Baives           146.65 342  ePKP1    PKPbc     01 13 20.4 +1.7
      comp=Z,48nm,0.6s
HGH   Gray Hill        146.74 351⇑eP       PKPdf     01 13 19.2 +2.0
HGH                                 AMb     AMB       01 13 21.7
      comp=Z,76nm,1.1s
BFO   Black Forest     146.74 336  ePKP2    PKPab     01 13 20.7 -2.4
SPAK  Spaichingen      146.75 335  eP       PKPdf     01 13 21.0 +3.6
SPAK  Spaichingen      146.75 335   PKP     PKPdf     01 13 20.4 +3.0
MENF  Mencas           146.76 345   PKP     PKPdf     01 13 20.8 +3.5
DAVA  Damuels          146.96 333⇓iP       PKPdf     01 13 21.8 +4.1
WLS   Welschbruch      147.04 337   PKP     PKPdf     01 13 21.7 +3.9
CDF   Champ du Feu     147.07 337  ePKP1    PKPdf     01 13 21.5 +3.6
      comp=Z,103nm,0.7s
CTI   Castel Tesino    147.11 330  ePKP     PKPdf     01 13 21.7 +3.7
LIBD  Limburg          147.16 337  eP       PKPdf     01 13 22.2 +4.1
KIZ   Kirchzarten      147.21 336⇓eP       PKPdf     01 13 21.9 +3.8
FELD  Feldberg         147.24 336⇓eP       PKPdf     01 13 22.3 +4.1
ECH   Echery           147.28 337   PKP     PKPdf     01 13 22.1 +3.8
BRMO  Bormio           147.37 332  ePKP     PKPdf     01 13 23.0 +4.6
MOF   Molkenrain       147.59 337   PKP     PKPdf     01 13 22.8 +4.0
HINF  Hinteralfeld     147.72 337  ePKP1    PKPdf     01 13 22.9 +3.9
      comp=Z,30nm,0.6s
HAU   Haudompre        147.75 338  ePKP1    PKPdf     01 13 23.2 +4.1
      comp=Z,54nm,0.7s
HAU                                eR
      comp=Z,325nm,18.5s
MEZF  Maizieres J'vi   147.76 340  ePKP1    PKPdf     01 13 23.7 +4.6
      comp=Z,147nm,0.9s
BBS   Basel-Blauen     147.77 336⇓eP       PKPdf     01 13 23.7 +4.6
BBS   Basel-Blauen     147.77 336   PKP     PKPdf     01 13 23.4 +4.3
SAL   Salo             147.96 331  ePKP     PKPdf     01 13 24.0 +4.5
SBD   Saint Breward    148.05 352⇑eP       PKPdf     01 13 16.2 -3.3
SBD                                 AMb     AMB       01 13 21.1
      comp=Z,133nm,1.2s
LOMF  Lomont           148.12 337   PKP     PKPdf     01 13 24.7 +5.0
ARV   Arcevia          148.28 326  ePKP     PKPdf     01 13 25.6 +5.5
CSA1  St Austell       148.29 352  eP       PKPdf     01 13 23.9 +4.0
SNTG  Esanatoglia      148.44 325  ePKP     PKPdf     01 13 26.0 +5.7
CCA1  Carnmenellis     148.49 353  eP       PKPdf     01 13 24.8 +4.5
CRQ2  Rosemanowes 2    148.50 353⇑eP       PKPdf     01 13 24.6 +4.4
CRQ2                                AMb     AMB       01 13 28.6
      comp=Z,82nm,1.1s
VAI   Varese           148.54 333  ePKP     PKPdf     01 13 25.2 +4.8
SFI   Santa Sofia      148.57 327  ePKP     PKPdf     01 13 26.8 +6.3
CGW   Gweek            148.57 353⇑eP       PKPdf     01 13 24.8 +4.5
CMA1  Manaccan         148.58 353  eP       PKPdf     01 13 24.6 +4.3
CGH1  Goonhilly        148.62 353  eP       PKPdf     01 13 25.3 +4.9
TIP   Timpagrande      148.62 316  ePKPbc   PKPdf     01 13 26.4 +5.6
PGD   Poggio Sodo      148.65 327  ePKP     PKPdf     01 13 26.7 +6.0
CII   Carovilli        148.68 322  ePKPbc   PKPdf     01 13 27.4 +6.6
CRE   Caprese Michel   148.71 327  ePKP     PKPdf     01 13 26.6 +5.9
CSSN  Cassano Irpino   148.77 320  ePKP     PKPdf     01 13 25.9 +4.9
SGO   Sicignano        148.78 319  ePKP     PKPdf     01 13 26.3 +5.3
AQU   L'Aquila         148.79 324  ePKP2    PKPab     01 13 27.0 -4.4
AQU   L'Aquila         148.79 324  ePKP     PKPdf     01 13 26.8 +5.9
MCGN  Macugnaga        148.80 334  ePKP     PKPdf     01 13 26.9 +6.0
SGG   Gregorio Mates   148.84 321  ePKP     PKPdf     01 13 25.8 +4.8
GSCL  Gusciola         148.87 329  ePKP     PKPdf     01 13 27.1 +6.1
ERBM  Eremo            148.91 329  ePKP     PKPdf     01 13 27.1 +6.1
SDI   San Donato       148.97 322  ePKP     PKPdf     01 13 26.5 +5.3
PTQR  Pietraquaria     149.01 323  ePKP     PKPdf     01 13 27.0 +5.7
CABF  La Chapelle      149.02 337  ePKP1    PKPdf     01 13 27.1 +6.0
      comp=Z,191nm,0.9s
GRAM                   149.02 330   P       PKPdf     01 13 26.8 +5.6
VALM                   149.04 330   P       PKPdf     01 13 27.0 +5.8
FLN   La Foliniere     149.06 346  ePKP1    PKPdf     01 13 26.2 +5.1
      comp=Z,83nm,0.7s
FLN                                eR
      comp=Z,350nm,21.0s
ORX   Oropa            149.07 334   P       PKPdf     01 13 26.1 +4.8
ORO   Oropa            149.07 334  ePKP     PKPdf     01 13 26.3 +5.0
BDI   Bagni Di Lucca   149.08 329  ePKP     PKPdf     01 13 25.9 +4.5
BOB   Bobbio (Coli)    149.10 331  ePKP     PKPdf     01 13 27.2 +5.9
LDF   La Druitiere     149.13 346  ePKP1    PKPdf     01 13 26.3 +5.0
      comp=Z,34nm,0.6s
MNS   Montasola        149.17 324  ePKP     PKPdf     01 13 26.8 +5.3
BACM                   149.17 330   P       PKPdf     01 13 26.4 +4.9
CODM                   149.19 330   P       PKPdf     01 13 26.3 +4.8
VINC  Vinca            149.24 329   P       PKPdf     01 13 26.4 +4.8
MAIM                   149.24 329   P       PKPdf     01 13 26.0 +4.4
TRAV                   149.26 334   P       PKPdf     01 13 26.0 +4.5
PII   Pisa             149.36 328  ePKP     PKPdf     01 13 26.4 +4.6
GRR   Gorron           149.49 347  ePKP1    PKPdf     01 13 27.5 +5.7
      comp=Z,46nm,0.6s
SSF   Saint Saulge     149.53 340  ePKP1    PKPdf     01 13 27.9 +6.0
      comp=Z,96nm,0.8s
LSD   Ceresole Reale   149.55 334   P       PKPdf     01 13 28.7 +6.7
HYF   Humbligny        149.61 341  ePKP1    PKPdf     01 13 28.4 +6.4
LPL   La Plagne        149.68 335  ePKP1    PKPdf     01 13 28.8 +6.6
      comp=Z,66nm,0.8s
PCP   Pian Castagno    149.68 332   P       PKPdf     01 13 27.5 +5.3
LPG   La Plagne        149.68 335  ePKP1    PKPdf     01 13 29.0 +6.8
      comp=Z,100nm,0.8s
RSP   Reno Superiore   149.76 334   P       PKPdf     01 13 27.8 +5.4
SMF   Signal de Mont   149.78 339  ePKP1    PKPdf     01 13 28.2 +5.9
      comp=Z,79nm,0.8s
AVF   Avril sur Loir   149.81 340  ePKP1    PKPdf     01 13 28.2 +5.9
      comp=Z,49nm,0.7s
FENE  Fenestrelle      149.94 334   P       PKPdf     01 13 28.9 +6.3
SGMF  Saint Gilles     149.97 349  ePKP1    PKPdf     01 13 28.3 +5.8
      comp=Z,57nm,0.7s
BHB   Bricherasio      150.00 333   P       PKPdf     01 13 27.5 +4.8
ROSF  Rostrenen        150.02 350  ePKP1    PKPdf     01 13 28.2 +5.6
BNI   Bardonecchia     150.08 334  ePKIKP   PKPdf     01 13 29.9 +7.1
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FIN	Finale Ligure	150.09	332	P	PKPdf	01 13 28.2	+5.3
RRL	Cesana Torines	150.14	334	P	PKPdf	01 13 29.0	+6.1
ROB	Roburent	150.18	332	P	PKPdf	01 13 28.6	+5.6
GDM	Grand'Maison	150.18	335	PKP	PKPdf	01 13 30.5	+7.6
BGF	Bois d'Agland	150.18	341	ePKP1	PKPdf	01 13 29.4	+6.5
	comp=Z,76nm,0.8s						
GRN	Grenoble	150.29	336	PKP	PKPdf	01 13 30.6	+7.5
MBDF	Montbardon	150.30	334	ePKP1	PKPdf	01 13 29.7	+6.5
	comp=Z,38nm,0.8s						
PZZ	Prazzo	150.34	333	P	PKPdf	01 13 28.8	+5.5
MONE	Monesi	150.40	332	P	PKPdf	01 13 29.6	+6.3
QUIF	Quistinic	150.40	349	ePKP1	PKPdf	01 13 29.2	+6.0
	comp=Z,31nm,0.8s						
ENR	Entracque	150.43	332	P	PKPdf	01 13 27.9	+4.5
PLDF	La Plantade	150.45	339	PKP	PKPdf	01 13 31.7	+8.4
STV2	Anna di Valdie	150.45	333	P	PKPdf	01 13 28.4	+5.0
STV	Sta Anna Valdi	150.46	333	P	PKPdf	01 13 28.3	+4.9
SURF	Saint Ours	150.49	334	PKP	PKPdf	01 13 30.8	+7.4
ORIF	Oris-en-Rattie	150.51	335	ePKP1	PKPdf	01 13 30.5	+7.0
	comp=Z,104nm,0.7s						
ORIF				eR			
	comp=Z,389nm,23.0s						
AGO	Saint Agoulin	150.54	340	PKP	PKPdf	01 13 31.7	+8.2
SAOF	Saorge	150.56	332	PKP	PKPdf	01 13 29.7	+6.1
AUTN	L'Aution	150.61	332	PKP	PKPdf	01 13 30.6	+7.0
TCF	Toulx Ste Croi	150.62	341	ePKP1	PKPdf	01 13 30.4	+6.8
	comp=Z,56nm,0.9s						
TOUF	Mont Tournerai	150.67	332	PKP	PKPdf	01 13 30.4	+6.7
SBF	Sospel	150.71	332	ePKP1	PKPdf	01 13 30.3	+6.5
	comp=Z,118nm,0.8s						
PYM	Petit Puy Mans	150.85	340	PKP	PKPdf	01 13 32.5	+8.6
PGF	Pioggiola	150.98	328	ePKP1	PKPdf	01 13 31.4	+7.2
	comp=Z,246nm,0.8s						
MFF	Saint Martin d	151.00	344	ePKP1	PKPdf	01 13 31.0	+6.9
	comp=Z,38nm,0.7s						
VIVF	Saint-Julien-l	151.03	337	ePKP1	PKPdf	01 13 31.5	+7.3
	comp=Z,54nm,0.8s						
VAE	Valguarnera	151.09	315	PKPbc	PKPdf	01 13 33.8	+9.3
	comp=Z,19nm,1.1s,baz=225,slow=5.7,SNR=2.9						
VAE				PKPab	PKPab	01 13 40.8	-0.3
	comp=Z,31nm,0.8s,baz=346,slow=5.2,SNR=13						
LBL	Lubilhac	151.22	339	PKP	PKPdf	01 13 33.4	+8.9
FRF	La Foret Royal	151.30	333	ePKP1	PKPdf	01 13 31.8	+7.1
	comp=Z,52nm,0.7s						
SMRF	Simiane la Rot	151.41	334	ePKP1	PKPdf	01 13 32.6	+7.8
	comp=Z,96nm,0.9s						
LMR	La Mourre	151.54	332	ePKP1	PKPdf	01 13 32.4	+7.4
	comp=Z,91nm,0.9s						
RJF	Les Rejaudoux	151.72	341	ePKP1	PKPdf	01 13 32.8	+7.5
RJF				eR			
	comp=Z,391nm,19.0s						
CAF	Calviac	151.88	340	ePKP1	PKPdf	01 13 33.4	+7.9
LASF	Ste Croix	152.00	337	ePKP1	PKPdf	01 13 33.8	+8.1
	comp=Z,58nm,0.8s						
LFF	La Frestale	152.28	342	ePKP1	PKPdf	01 13 34.2	+8.1
MTLF	Montolieu	153.23	338	ePKP1	PKPdf	01 13 36.3	+8.8
ETSF	Etsaut	154.53	342	ePKP1	PKPdf	01 13 38.9	+10
PBRG	Braganca	156.93	352	ePKPab	PKPab	01 14 05.2	-0.5
PVRL	Vila Real	157.57	353	ePKPab	PKPab	01 14 07.7	-0.8
PVIS	Viseu	158.14	354	ePKPab	PKPab	01 14 10.2	-0.8
MTE	Manteigas	158.41	353	ePKPab	PKPab	01 14 11.7	-0.4
ESDC	Sonseca Array	158.46	345	PKPab	PKPab	01 14 11.3	-1.0
	comp=Z,2.9nm,0.6s,baz=14,slow=4.1,SNR=9.5						
EVO	Evora	160.31	353	ePKIKP	PKPdf	01 13 37.6	+1.0
	comp=Z,8.7nm,0.7s						
PBEJ	Beja	160.79	352	ePKPab	PKPab	01 14 22.0	-0.4
DBIC	Dimbokro	166.38	207	PKP	PKPdf	01 13 43.5	+0.4
	comp=Z,2.8nm,0.6s,baz=90,slow=3.0,SNR=8.3						
DBIC				PKPab	PKPab	01 14 47.0	-0.4
	comp=Z,4.8nm,0.6s,baz=174,slow=2.4,SNR=8.8						

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*NIED **10** 01:27:00, 42.90N×145.50E, h44^{km}, Mw4.0 Best double couple: $M_0 1.15\times10^{15}$ NP1: $\phi_s 172°, \delta 84°, \lambda -39°$. NP2: $\phi_s 267°, \delta 51°, \lambda -173°$.*

*MOS **10** 01:27:06.8±1.8, 42.57N×145.68E, h33^{km}, mb4.2/5, Error ellipse: s-maj=49.4km s-min=20.7km az=103.9*

*NEIC **10** 01:27:11.2±7.9, 43.50N×145.01E, h10^{km}, mb4.5/1, MW4.0(NIED), Error ellipse: s-maj=205.0km s-min=19.6km az=168.0*

*JMA **10** 01:27:11.9±0.1, 42.94N×145.48E, h45^{km}±1^{km}, M3.6*

*IDC **10** 01:27:13.0±6.8, 42.51N×145.34E, h70^{km}±40^{km}, mb3.6/9, mb1 3.7/10, mb1mx3.5/24, ML3.8/1, MS3.1/1, Ms1 3.1/1, ms1mx2.6/22, Error ellipse: s-maj=68.8km s-min=22.8km az=175.0*

ISC 10 01:27:11.7±1.0**, 42.97N**±0.08×**145.46E**±0.07**, h52**^{km}±5^{km}**, n29,** $\sigma 0^{s}79$/36**, mb3.9**/10**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.45	28	P	P	01 27 22.4	-0.2
NEM2				eS	S	01 27 29.6	-0.8
JAK	Akkeshi	0.56	273	P	P	01 27 23.9	+0.1
JAK				eS	S	01 27 32.5	-0.1
JNK	Nakash	0.82	319	P	P	01 27 27.4	+0.2
JNK				eS	S	01 27 38.3	-0.4
JRA	Rausu	1.00	346	P	P	01 27 29.8	+0.1
JRA				eS	S	01 27 43.5	+0.5
YUK	Yuzh-Kuril'sk	1.11	15	ePN	P	01 27 30.6	-0.6
YUK				pmax	pmax		
	comp=Z,290nm,0.5s						
JOB	Onbets	1.19	268	P	P	01 27 32.4	+0.1
JAR	Ashorobuto	1.28	286	P	P	01 27 34.0	+0.4
JAR				eS	S	01 27 49.3	-0.6
JTKR	Abashiri--Toko	1.51	312	P	P	01 27 37.7	+0.8
ASAJ	Asahikawa	2.38	300	P	P	01 27 50.9	+1.8
	comp=Z,14nm,0.3s,baz=126,slow=13,SNR=30						
ASAJ				S	S	01 28 23.4	+6.4
	comp=Z,8.1nm,0.3s,baz=352,slow=32,SNR=7.7						
ASAJ				LR	LR	01 29 02.3	
	comp=Z,372nm,19.5s,baz=151,slow=43						
ASAJ	Asahikawa	2.38	300	PN	P	01 27 50.9	+1.8
ASAJ				S	S	01 28 23.5	+6.4
ASAJ				pmax	pmax		
	comp=Z,14nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,372nm,19.5s						
ULN	Ulaanbaatar	27.20	294	eP	P	01 32 48.6	-3.7
	comp=Z,6.5nm,0.6s,mb4.3						
SONM	Songino Array	27.64	294	P	P	01 32 56.2	-0.1
	comp=Z,1.8nm,0.9s,mb3.7,baz=78,slow=7.9,SNR=7.7						
ILAR	Eielson Array	42.85	36	P	P	01 35 07.8	+2.0
	comp=Z,0.6nm,0.7s,mb3.4,baz=276,slow=8.8,SNR=6.6						
ILAR	Eielson Array	42.85	36	P	P	01 35 07.8	+2.0
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	Inuvik	47.70	30	P	P	01 35 44.2	-0.2
	comp=Z,0.5nm,0.3s,mb4.0,baz=306,slow=8.7,SNR=5.8						
INK	Inuvik	47.70	30	P	P	01 35 44.2	-0.2
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK	Inuvik	47.70	30	P	P	01 35 44.2	-0.2
BVAR	Borovoye Array	49.05	309	P	P	01 35 54.7	-0.3
	comp=Z,0.7nm,0.4s,mb4.1,baz=78,slow=8.6,SNR=14						
YKA	Yellowknife Ar	57.14	33	P	P	01 36 56.4	+1.6
	comp=Z,0.2nm,0.6s,mb3.3,baz=300,slow=7.2,SNR=4.5						
FINES	FINESS Array B	65.01	332	P	P	01 37 46.8	-1.1
	comp=Z,1.6nm,0.6s,mb4.2,baz=48,slow=7.8,SNR=16						
FINES	FINESS Array B	65.01	332	P	P	01 37 46.8	-1.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NOA	NORSAR Array B	69.88	338	P	P	01 38 18.1	-0.2
	comp=Z,0.4nm,0.4s,mb3.7,baz=40,slow=5.7,SNR=3.2						
HFS	Hagfors	69.93	337	P	P	01 38 18.5	-0.2
	comp=Z,0.7nm,0.4s,mb4.0,baz=27,slow=6.6,SNR=12						
HFS	Hagfors	69.93	337	P	P	01 38 18.5	-0.2
HFS				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	Malin Array Be	71.47	323	P	P	01 38 27.4	-0.8
	comp=Z,1.0nm,0.4s,mb4.1,baz=41,slow=6.1,SNR=10						
AKASG	Malin Array Be	71.47	323	P	P	01 38 27.4	-0.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CLL	Collm	77.43	332	eP	P	01 39 02.0	-0.5
CLL	Collm	77.43	332	P	P	01 39 02.0	-0.5
BRG	Berggiesshubel	77.46	331	eP	P	01 39 02.0	-0.6

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*SKHL **10** 01:30:37.6±0.6, 49.76N×151.12E, h360^{km}±40^{km}, mb6.4/3, mbh6.1/2, Ms4.9/2, msh5.6/7*

*KRSC **10** 01:30:38.9±1.6, 49.78N×150.47E, h343^{km}±15^{km}, ML5.7*

*MOS **10** 01:30:40.3±1.2, 49.89N×150.95E, h388^{km}, mb4.4/21, Error ellipse: s-maj=10.5km s-min=7.0km az=83.3*

*BJI **10** 01:30:40.7, 49.95N×150.71E, h371^{km}, mB4.9, mb4.8*

*IDC **10** 01:30:42.9±0.4, 49.99N×150.83E, h393^{km}±4^{km}, mb4.0/27, mb1 4.2/30, mb1mx4.2/32, Error ellipse: s-maj=9.4km s-min=6.7km az=141.0*

*NEIC **10** 01:30:42.1±0.1, 50.02N×150.80E, mb4.7/62, Error ellipse: s-maj=5.2km s-min=2.7km az=153.0*

*SYO **10** 01:30:42.2, 50.05N×150.79E, h381^{km}, MB4.8*

ISC 10 01:30:40.2±0.2**, 49.96N**±0.03×**150.89E**±0.03**, h374**^{km}±2^{km}**, h384**^{km}±1.1^{km}**:pP-P, n304,** $\sigma 1^{s}19$/377**, mb4.5**/94**, 13C-12D, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	Alaid	3.12	71	eP	P	01 31 44.1	+1.3
SKR	Severo-Kuril's	3.43	76	iP	P	01 31 42.7	-2.9
SKR				iS	S	01 32 33.1	-3.9
SKR	Severo-Kuril's	3.43	76	⇓iP	P	01 31 42.7	-2.9
SKR				AMB	AMB	01 31 44.0	
	7µm,2.0s						
SKR				AMB	AMB	01 31 44.0	
	12µm,2.0s						
SKR				AMB	AMB	01 31 44.0	
	8µm,2.0s						
SKR				AMB	AMB	01 31 44.0	
	5µm,2.0s						
SKR				AMB	AMB	01 31 44.0	
	12µm,2.0s						
SKR				AMB	AMB	01 31 45.0	
	3µm,0.8s						
SKR				AMB	AMB	01 31 45.0	
	2µm,0.8s						
SKR				AMB	AMB	01 31 45.0	
	2µm,0.8s						
SKR				eS	S	01 32 33.1	-3.9
SKR				A		01 32 34.0	
	8µm,6.0s						
SKR				A		01 32 34.0	
	8µm,6.0s						
SKR				A		01 32 34.0	
	10µm,4.0s						
SKR				A		01 32 34.0	
	7µm,4.0s						
SKR				A		01 32 41.8	
	920nm,0.5s						
SKR				A		01 32 41.8	
	310nm,0.5s						
SKR				A		01 32 41.8	
	230nm,0.5s						
PAU	Pauzhetka	4.06	66	iP	P	01 31 52.3	+0.7
PAU				eS	S	01 32 47.1	-0.6
PAU				Smax			
	2µm,1.0s						
APC	Apacha	4.92	50	iP	P	01 32 01.7	+1.1
APC				iS	S	01 33 02.0	-1.7
APC				Smax			
	630nm,1.3s						
KUR	Kuril'sk	5.15	204	ePN	P	01 32 00.5	-2.6
KUR				eS	S	01 33 06.0	-2.1
KUR				pmax	pmax		
	comp=N,5µm,2.0s						
KUR				pmax	pmax		
	comp=E,5µm,2.0s						
KUR				pmax	pmax		
	comp=Z,10µm,2.0s						
KUR				smax			
	comp=N,6µm,2.4s						
KUR				smax			
	comp=E,4µm,2.4s						
KUR	Kuril'sk	5.15	204	eP	P	01 32 00.5	-2.6
KUR				AMB	AMB	01 32 01.0	
	comp=E,5µm,2.0s						
KUR				AMB	AMB	01 32 01.0	
	comp=E,10µm,2.0s						
KUR				eS	S	01 33 06.0	-2.1
KUR				A		01 33 08.6	
	comp=E,4µm,2.4s						
KUR				A		01 33 08.6	
	comp=E,6µm,2.4s						
GRL	Gorelyy	5.21	57	iP	P	01 32 05.3	+1.6
GRL				eS	S	01 33 07.9	-1.3
TYV	Tymovskoe	5.34	283	ePN	P	01 32 06.5	+1.4
TYV				eS	S	01 33 16.0	+4.2
TYV				pmax	pmax		
	comp=Z,120nm,1.0s						
TYV				smax			
	comp=N,3.0nm,2.0s						
TYV				smax			
	comp=E,160nm,1.2s						
TYV				smax			
	comp=N,6µm,4.0s						
TYV				smax			
	comp=E,10µm,4.0s						
TYV	Tymovskoe	5.34	283	AMB	AMB	01 32 07.7	
	comp=E,120nm,1.0s						
TYV				eS	S	01 33 16.0	+4.2
TYV				⇓iS	S	01 33 16.0	+4.2
TYV				A		01 33 17.5	
	comp=E,160nm,1.6s						
TYV				A		01 33 20.0	
	comp=E,6µm,4.0s						
TYV				A		01 33 20.0	
	comp=E,10µm,4.0s						
KRMR	Karymshinskiy	5.37	55	eP	P	01 32 06.8	+1.4
KRMR				eS	S	01 33 11.3	-1.0
RUS	Russkaya	5.40	60	P	P	01 32 06.5	+0.8
RUS				S	S	01 33 09.8	-3.1
RUS	Russkaya	5.40	60	iP	P	01 32 06.3	+0.6
RUS				iS	S	01 33 09.8	-3.1
PET	Petropavlovsk	5.74	55	P	P	01 32 10.7	+1.2
PET				S	S	01 33 17.6	-2.0
PET	Petropavlovsk	5.74	55	iP	P	01 32 10.6	+1.1
PET				iS	S	01 33 17.4	-2.2
PET	Petropavlovsk	5.74	55	⇓iPN	P	01 32 10.5	+1.0
PET				eS	S	01 33 19.0	-0.6
PET				pmax	pmax		
	comp=Z,578nm,1.0s						
PET				pmax	pmax		
	comp=N,359nm,1.0s						
PET				pmax	pmax		
	comp=E,262nm,1.0s						
PET				pmax	pmax		
	comp=Z,262nm,1.2s						
PET				smax			
	comp=N,1µm,0.5s						
PET				smax			
	comp=E,468nm,0.6s						
PET				MLR	MLR		
	comp=N,3µm,14.0s						
PET				MLR	MLR		
	comp=E,2µm,13.0s						
PET				MLR	MLR		
	comp=Z,2µm,17.0s						
PET	Petropavlovsk	5.74	55	ePn	P	01 32 10.1	+0.6
	comp=Z,697nm,1.2s						
GNL	Ganaly	5.75	47	iP	P	01 32 11.3	+1.6
GNL				iS	S	01 33 17.9	-2.0
UGL	Uglegorsk	5.81	265	⇑iPN	P	01 32 12.0	+1.7
UGL				eS	S	01 33 25.0	+3.9
UGL				pmax	pmax		
	comp=N,130nm,0.4s						
UGL				pmax	pmax		
	comp=E,98nm,0.4s						
UGL				pmax	pmax		
	comp=Z,203nm,0.4s						
UGL				smax			
	comp=N,290nm,1.0s						
UGL				smax			
	comp=E,225nm,1.0s						
UGL				smax			
	comp=N,3µm,9.0s						
UGL				smax			
	comp=E,9µm,9.0s						
UGL				smax			
	comp=Z,3µm,9.0s						
UGL	Uglegorsk	5.81	265	⇑iP	P	01 32 12.0	+1.7
UGL				AMB	AMB	01 32 12.5	
	comp=Z,130nm,0.4s						
UGL				AMB	AMB	01 32 12.5	
	comp=Z,100nm,0.4s						
UGL				AMB	AMB	01 32 12.5	
	comp=Z,200nm,0.4s						
UGL				eS	S	01 33 25.0	+3.9
UGL				A		01 33 26.5	
	comp=Z,290nm,1.0s						
UGL				A		01 33 26.5	
	comp=Z,230nm,1.0s						
UGL				A		01 33 30.0	
	comp=Z,3µm,9.0s						
UGL				A		01 33 30.0	
	comp=Z,9µm,9.0s						
UGL				A		01 33 30.0	
	comp=Z,3µm,9.0s						
KOK	Koryaka	5.87	52	iP	P	01 32 13.1	+2.2
KOK				eS	S	01 33 21.4	-0.8
AVH	Avacha	5.90	53	iP	P	01 32 13.3	+2.0
AVH				eS	S	01 33 21.5	-1.4
UGLR	Uglovaya	5.92	54	iP	P	01 32 13.7	+2.2
UGLR				iS	S	01 33 22.3	-1.0
SMAR	Somma	5.94	53	iP	P	01 32 13.7	+2.0
SMAR				iS	S	01 33 21.8	-1.8
SDLR	Sedlovina	5.99	53	iP	P	01 32 13.7	+1.4
SDLR				iS	S	01 33 22.5	-2.1
NLC	Nalytchevo	6.18	55	eP	P	01 32 14.2	-0.2
NLC				eS	S	01 33 23.4	-5.1
YSS	Yuzh-Sakhalins	6.19	244	⇑iPN	P	01 32 17.2	+2.6
YSS				iS	S	01 33 32.2	+3.5
YSS				pmax	pmax		
	comp=N,190nm,0.9s						
YSS				pmax	pmax		
	comp=Z,350nm,0.9s						
YSS				pmax	pmax		
	comp=E,390nm,1.0s						
YSS				smax			
	comp=N,550nm,1.3s						
YSS				smax			
	comp=N,4µm,2.5s						
YSS				smax			
	comp=E,2µm,2.5s						
YSS				pmax	pmax		
	comp=E,2µm,1.5s						
YSS				MLR	MLR		
	comp=Z,1µm,11.0s						
YSS	Yuzh-Sakhalins	6.19	244	ePn	P	01 32 17.6	+3.1
	comp=Z,390nm,0.8s						
YSS				e		01 33 35.9	
YSS	Yuzh-Sakhalins	6.19	244	⇑iP	P	01 32 17.2	+2.6
YSS				⇑iP		01 32 17.2	
YSS				AMB	AMB	01 32 18.3	
	comp=Z,190nm,0.9s						
YSS				AMB	AMB	01 32 18.3	
	comp=Z,390nm,0.9s						
YSS				AMB	AMB	01 32 18.3	
	comp=Z,350nm,0.9s						
YSS				iS	S	01 33 32.2	+3.5
YSS				A		01 33 35.0	
	comp=Z,550nm,1.3s						
YSS				A		01 33 36.0	
	comp=Z,4µm,2.5s						
YSS				A		01 33 36.0	
	comp=Z,2µm,2.5s						
YSS				AMS	AMS	01 34 30.0	
	comp=Z,1µm,11.0s						
SPN	Mys Shipunski	6.51	58	P	P	01 32 17.7	-0.5
SPN				S	S	01 33 29.2	-6.2
SPN	Mys Shipunski	6.51	58	eP	P	01 32 17.6	-0.6
KII	Karymskiy	6.68	49	iP	P	01 32 21.4	+1.2
KII				eS	S	01 33 35.4	-3.5
YUK	Yuzh-Kuril'sk	6.85	212	ePN	P	01 32 19.3	-2.9
YUK				eS	S	01 33 41.0	-1.4
YUK				pmax	pmax		
	comp=Z,2µm,1.0s						
YUK				pmax	pmax		
	comp=N,380nm,0.5s						
YUK				pmax	pmax		
	comp=E,360nm,0.5s						
YUK				pmax	pmax		
	comp=Z,560nm,0.5s						
YUK				smax			
	comp=N,7µm,2.0s						
YUK				smax			
	comp=E,5µm,2.0s						
YUK				smax			
	comp=N,2µm,0.6s						
YUK				smax			
	comp=E,1µm,0.6s						
YUK	Yuzh-Kuril'sk	6.85	212	eP	P	01 32 19.3	-2.9
YUK				AMB	AMB	01 32 21.2	
	comp=E,2µm,1.0s						
YUK				AMB	AMB	01 32 40.4	
	comp=E,380nm,0.5s						
YUK				AMB	AMB	01 32 40.4	
	comp=E,390nm,0.5s						
YUK				AMB	AMB	01 32 40.4	
	comp=E,560nm,0.5s						
YUK				eS	S	01 33 41.0	-1.4
YUK				A		01 33 47.0	
	comp=E,7µm,2.0s						
YUK				A		01 33 47.0	
	comp=E,5µm,2.0s						
YUK				A		01 33 49.1	
	comp=E,2µm,0.6s						
YUK				A		01 33 49.1	
	comp=E,1µm,0.6s						
NKL	Nikolayevsk	7.12	301	iP	P	01 32 24.2	-1.1
NKL				AMB	AMB	01 32 25.1	
	comp=E,60nm,0.9s						
NKL				AMB	AMB	01 32 25.1	
	comp=E,80nm,0.9s						
NKL				AMB	AMB	01 32 25.1	
	comp=E,70nm,0.9s						
NKL				iS	S	01 33 52.0	+4.0
NKL				A		01 33 53.5	
	comp=E,1µm,1.8s						
NKL				A		01 33 54.0	
	comp=E,2µm,2.0s						
ESO	Esso	7.61	35	iP	P	01 32 33.4	+2.4
JWK2	Keihoku	7.64	236	P	P	01 32 33.5	+2.1
JWK2				eS	S	01 34 11.3	+12
TUMR	Tumrok	7.75	43	eP	P	01 32 35.0	+2.3
TUMR				eS	S	01 33 59.5	-1.8
KMNR	Kamenistaya	8.10	41	eP	P	01 32 38.9	+2.2
KMNR				eS	S	01 34 07.4	-1.2
ASAJ	Asahikawa	8.13	227	P	P	01 32 39.0	+1.9
	comp=E,57nm,0.3s,baz=57,slow=8.0,SNR=244						
ASAJ	Asahikawa	8.13	227	P	P	01 32 39.2	+2.1
ASAJ				eS	S	01 34 12.8	+3.5
ASAJ	Asahikawa	8.13	227	PN	P	01 32 39.0	+1.9
ASAJ				pmax	pmax		
	comp=Z,57nm,0.3s						
KOZ	Kozyrevsk	8.16	38	eP	P	01 32 40.4	+3.0
KOZ				eS	S	01 34 08.9	-0.9
KOZR	Kozyr	8.18	38	PN	P	01 32 40.4	+2.8
KPT	Kopyto	8.24	40	iP	P	01 32 39.9	+1.6
KPT				eS	S	01 34 07.4	-4.1
SRDR	Sredinnyy	8.29	36	iP	P	01 32 41.1	+2.2
SRDR				eS	S	01 34 11.1	-1.4
LGNR	Loginova	8.51	40	iP	P	01 32 43.3	+1.8
LGNR				eS	S	01 34 14.8	-2.4
ZLN	Zelenaya	8.52	41	iP	P	01 32 42.8	+1.2
ZLN				eS	S	01 34 12.4	-4.9
KRSR	Krestovskiy	8.55	39	eP	P	01 32 42.9	+0.9
KRSR				iS	S	01 34 12.7	-5.4
CIRR	Tsirk	8.56	40	iP	P	01 32 44.3	+2.2
CIRR				eS	S	01 34 15.9	-2.3
KLY	Klyuchi	8.65	39	P	P	01 32 46.0	+2.8
KLY				S	S	01 34 18.9	-1.3
KLY	Klyuchi	8.65	39	iP	P	01 32 46.1	+2.9
KLY				eS	S	01 34 18.9	-1.3
SVLR	Shiveluch	9.06	39	iP	P	01 32 49.9	+1.9
SVLR				eS	S	01 34 25.6	-3.4
GRNR	Gornyy	9.28	281	eP	P	01 32 55.2	+4.6
GRNR				AMB	AMB	01 32 56.4	
	comp=Z,100nm,1.0s						
GRNR				AMB	AMB	01 32 56.4	
	comp=Z,170nm,1.0s						
GRNR				AMB	AMB	01 32 56.4	
	comp=Z,250nm,1.0s						
GRNR				eS	S	01 34 41.8	+8.1
GRNR				A		01 34 43.0	
	comp=Z,290nm,1.2s						
KBG	Krutoberegovo	9.49	44	eP	P	01 32 53.3	+0.2
KBG				eS	S	01 34 31.3	-6.9
KBG				Smax			
	comp=Z,2µm,0.9s						
KBTR	Krutoberegovo	9.52	44	P	P	01 32 52.0	-1.2
KBTR				S	S	01 34 29.4	-9.1
KBTR	Krutoberegovo	9.52	44	eP	P	01 32 52.1	-1.1
JEM	Erimo	9.59	217	P	P	01 32 52.4	-1.8

JEM				*e*S	**S**	**01 34 34.5**	**-5.7**
MA2	**Magadan**	**9.64**	**360**	c *i*PN	**P**	**01 32 56.3**	**+1.6**
MA2				*e*S	**S**	**01 34 43.3**	**+2.2**
MA2				pmax	pmax		
	comp=Z,100nm,1.5s						
MA2	**Magadan**	**9.64**	**360**	*e*P	**P**	**01 32 55.8**	**+1.1**
	comp=Z,65nm,0.6s						
JEW	**Eniwo**	**9.65**	**226**	P	**P**	**01 32 55.1**	**+0.2**
JEW				*e*S	**S**	**01 34 41.4**	**0.0**
JSH	**Shimam**	**10.47**	**230**	P	**P**	**01 33 04.1**	**-0.6**
JSH				*e*S	**S**	**01 34 56.8**	**-2.2**
BKI	**Bering**	**10.57**	**54**	*i* P	**P**	**01 33 06.4**	**+0.6**
TEY	**Ternei**	**10.84**	**248**	*e*P	**P**	**01 33 09.0**	**-0.1**
TEY				AMB	AMB	01 33 10.5	
	comp=Z,100nm,1.0s						
TEY				*e*rx	rx	01 35 08.0	
TEY				AMS	AMS	01 37 56.0	
	comp=Z,1µm,11.0s						
TEY				AMS	AMS	01 37 56.0	
	comp=Z,2µm,11.0s						
JOT	**Ohata**	**10.99**	**222**	P	**P**	**01 33 06.8**	**-4.0**
JOT				*e*S	**S**	**01 35 00.6**	**-10**
JTM	**Tenmabayashi**	**11.47**	**221**	P	**P**	**01 33 12.2**	**-4.3**
JTM				*e*S	**S**	**01 35 12.0**	**-8.5**
EKMR	**Ekimchan**	**11.60**	**292**	*e*P	**P**	**01 33 16.8**	**-1.1**
EKMR				AMB	AMB	01 33 20.1	
	comp=Z,73nm,1.0s						
EKMR				AMB	AMB	01 33 20.1	
	comp=Z,160nm,1.0s						
EKMR				AMB	AMB	01 33 20.1	
	comp=Z,300nm,1.0s						
KLR	**Kul'dur**	**12.44**	**274**	*e*P	**P**	**01 33 26.0**	**-1.7**
KLR				*e*P		01 33 26.5	
KLR				AMB	AMB	01 33 29.6	
	comp=Z,40nm,1.6s						
KLR				AMB	AMB	01 33 29.6	
	comp=Z,90nm,1.6s						
KLR				AMB	AMB	01 33 29.6	
	comp=Z,60nm,1.6s						
KLR				AMB	AMB	01 33 32.0	
	comp=Z,900nm,5.0s						
JYA	**Atsumi**	**13.88**	**219**	P	**P**	**01 33 43.4**	**-0.6**
JYA				*e*S	**S**	**01 36 09.9**	**-1.1**
JMM	**Marumori**	**14.09**	**215**	P	**P**	**01 33 45.3**	**-1.0**
JMM				*e*S	**S**	**01 36 14.4**	**-0.9**
FX1	**Attu Island--F**	**14.19**	**70**	P	**P**	**01 33 46.3**	**-1.0**
	comp=Z,22nm,0.3s,baz=307,slow=9.2,SNR=35						
FX1	**Attu Island--F**	**14.19**	**70**	P	**P**	**01 33 46.3**	**-1.0**
FX1				pmax	pmax		
	comp=Z,22nm,0.3s						
FX1	**Attu Island--F**	**14.19**	**70**	*e*Pn	**P**	**01 33 46.2**	**-1.0**
FX1				*e*S	**S**	**01 36 29.4**	**+12**
BMKR	**Bomnak**	**14.27**	**298**	⇓*i*P	**P**	**01 33 44.9**	**-3.2**
BMKR				AMB	AMB	01 33 46.9	
	comp=Z,140nm,0.5s						
YASR	**Yasnyy**	**14.60**	**292**	⇑*e*P	**P**	**01 33 49.0**	**-2.5**
YASR				AMB	AMB	01 33 50.4	
	comp=Z,13nm,5.0s						
YASR				AMB	AMB	01 33 50.4	
	comp=Z,50nm,5.0s						
YASR				AMB	AMB	01 33 50.4	
	comp=Z,900nm,5.0s						
JSD	**Sado**	**14.96**	**222**	P	**P**	**01 33 54.9**	**-0.6**
JSD				*e*S	**S**	**01 36 30.4**	**-2.1**
ZEA	**Zeya**	**15.06**	**294**	*e*P	**P**	**01 33 53.6**	**-2.9**
ZEA				AMB	AMB	01 33 55.1	
	comp=Z,70nm,1.2s						
ZEA				AMB	AMB	01 33 55.1	
	comp=Z,90nm,1.2s						
ZEA				AMB	AMB	01 33 55.1	
	comp=Z,130nm,1.2s						
ZEA				A		01 36 47.7	
	comp=Z,160nm,2.2s						
ZEA				A		01 36 47.7	
	comp=Z,460nm,2.2s						
ZEA				A		01 36 47.7	
	comp=Z,1µm,2.2s						
ZEA				A		01 36 48.0	
	comp=Z,400nm,3.0s						
KAMR	**Kamenskoye**	**15.09**	**28**	*e*P	**P**	**01 33 57.2**	**+0.5**
KROS	**Kirovskiy**	**15.30**	**296**	*e*P	**P**	**01 33 55.9**	**-3.0**
KROS				AMB	AMB	01 33 57.4	
	comp=Z,3.0nm,0.5s						
KROS				AMB	AMB	01 33 57.4	
	comp=Z,18nm,0.5s						
MDJ	**Mudanjiang**	**15.39**	**258**	P	**P**	**01 33 58.5**	**-1.4**
MDJ				S	**S**	**01 36 42.0**	**+1.4**
MDJ				PCP	PcP	01 38 37.1	-2.0
MDJ				PCS		01 42 12.0	
MDJ				SCS	ScS	01 45 12.2	-1.7
MDJ				AMB	AMB		
	comp=Z,116nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,159nm,5.1s						
MDJ	**Mudanjiang**	**15.39**	**258**	*e*P	**P**	**01 33 59.1**	**-0.8**
	comp=Z,156nm,1.0s						
MAJO	**Matsushiro**	**16.25**	**219**	*e*P	**P**	**01 34 08.5**	**-0.3**
	comp=Z,103nm,0.7s						
MAT	**Matsushiro**	**16.25**	**219**	P	**P**	**01 34 08.6**	**-0.2**
MAT				S	**S**	**01 37 01.0**	**+3.8**
MAT	**Matsushiro**	**16.25**	**219**	P	**P**	**01 34 08.7**	**-0.1**
MAT	**Matsushiro**	**16.25**	**219**	*e*P	**P**	**01 34 09.0**	**+0.2**
	comp=Z,116nm,0.8s						
MAT				*e*S	**S**	**01 37 01.0**	**+3.8**
JRY	**Ryogami san**	**16.43**	**217**	P	**P**	**01 34 10.6**	**-0.1**
JRY				*e*S	**S**	**01 37 02.9**	**+2.3**
YAK	**Yakutsk**	**16.83**	**324**	*e*P	**P**	**01 34 14.3**	**-0.3**
YAK				*e*S	**S**	**01 37 09.0**	**+1.1**
YAK				pmax	pmax		
	comp=Z,14nm,0.8s						
YAK				pmax	pmax		
	comp=N,2.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK				smax			
	comp=E,13nm,1.0s						
YAK				smax			
	comp=N,10.0nm,1.4s						
CLNS	**Chul'man**	**16.89**	**304**	*e*P	**P**	**01 34 16.9**	**+1.7**
CLNS				pmax	pmax		
	comp=N,80nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,184nm,0.8s						
CLNS				pmax	pmax		
	comp=E,117nm,1.1s						
JOD2	**Odawara 2**	**17.03**	**215**	P	**P**	**01 34 19.7**	**+2.9**
JOD2				*e*S	**S**	**01 37 20.1**	**+8.3**
CN2	**Changchun**	**18.40**	**260**	⇓P	**P**	**01 34 30.1**	**-0.5**
CN2				*e*XP		01 36 11.2	
CN2				*e*S	**S**	**01 37 35.3**	**-1.8**
CN2				AMB	AMB		
	comp=Z,20nm,1.2s						
CN2				AMB	AMB		
	comp=Z,400nm,7.0s						
JAD	**Aida**	**19.36**	**225**	P	**P**	**01 34 41.1**	**+1.0**
JWZ	**Kozaga**	**19.88**	**220**	P	**P**	**01 34 47.0**	**+1.8**
HIA	**Hailar**	**20.12**	**280**	*e*P	**P**	**01 34 47.3**	**-0.1**
	comp=Z,73nm,0.8s						
SNY	**Shenyang**	**20.59**	**257**	⇑P	**P**	**01 34 53.7**	**+1.7**
SNY				*e*S	**S**	**01 38 23.7**	**+8.2**
SNY				AMB	AMB		
	comp=Z,70nm,1.0s						
SNY				LR	LR		
	comp=E,530nm,10.8s						
SNY				LR	LR		
	comp=Z,580nm,13.7s						
KS15	**Wonju Array Si**	**20.71**	**242**	*e*P	**P**	**01 34 55.7**	**+2.5**
INCN	**Inchon**	**21.40**	**244**	*e*P	**P**	**01 35 01.6**	**+1.7**
	comp=Z,64nm,1.0s,mb4.8						
BOD	**Bodaibo**	**22.87**	**304**	*e*P	**P**	**01 35 12.9**	**-0.4**
BOD				*e*		01 39 02.3	
TIXI	**Tiksi**	**23.96**	**343**	*i* P	**P**	**01 35 23.3**	**+0.1**
TIXI				pmax	pmax		
	comp=Z,24nm,1.6s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,200nm,19.0s						
BJI	**Beijing**	**26.26**	**261**	P	**P**	**01 35 44.1**	**-0.1**
BJI				XP	sP	01 37 39.1	+4.0
BJI				S	**S**	**01 39 44.4**	**-4.2**
BJI				SCS	ScS	01 45 50.5	-1.7
BJI				AMB	AMB		
	comp=Z,32nm,1.7s,mb4.3						
BJI				AMB	AMB		
	comp=Z,281nm,3.2s						
BJI	**Beijing**	**26.26**	**261**	P	**P**	**01 35 44.1**	**-0.1**
	comp=Z,32nm,1.7s,mb4.3						
BJI				sP	sP	01 37 39.1	+4.0
BJI				S	**S**	**01 39 44.4**	**-4.2**
BJI				ScS	ScS	01 45 50.5	-1.7
BJT	**Baijiatuau**	**26.28**	**261**	*e*P	**P**	**01 35 44.4**	**0.0**
	comp=Z,55nm,1.4s,mb4.6						
ANM	**Nome**	**27.11**	**41**	*e*P	**P**	**01 35 52.3**	**+0.7**
ULN	**Ulaanbaatar**	**28.58**	**283**	d *i*P	**P**	**01 36 04.7**	**0.0**
ULN	**Ulaanbaatar**	**28.58**	**283**	*e*P	**P**	**01 36 04.3**	**-0.4**
	comp=Z,28nm,1.1s,mb4.4						
HHC	**Hu-ho-hao-te**	**28.78**	**267**	*e*P	**P**	**01 36 07.2**	**+0.6**
HHC				AP		01 37 16.8	
HHC				XP	sP	01 37 59.6	+0.9
HHC				PCP	PcP	01 39 07.4	+1.3
HHC				S	**S**	**01 40 27.0**	**-1.3**
HHC				XS		01 42 31.7	
HHC				AMB	AMB		
	comp=Z,33nm,0.9s,mb4.6						
HHC				AMB	AMB		
	comp=Z,345nm,4.8s						
JOW	**Kunigami**	**28.89**	**225**	P	**P**	**01 36 06.8**	**-0.9**
	comp=Z,18nm,0.8s,mb4.3,baz=325,slow=6.2,SNR=3.9						
SONM	**Songino Array**	**29.00**	**283**	P	**P**	**01 36 08.5**	**0.0**
	comp=Z,5.8nm,0.4s,mb4.1,baz=76,slow=7.5,SNR=54						
SONM				PcP	PcP	01 39 04.8	-1.8
	comp=Z,1.3nm,0.6s,baz=116,slow=2.7,SNR=3.6						
SONM				ScP		01 42 08.7	
	comp=Z,1.7nm,0.9s,baz=78,slow=1.6,SNR=6.4						
SSE	**Sheshan**	**29.12**	**241**	*e*P	**P**	**01 36 10.2**	**+0.6**
SSE				AP		01 37 17.6	
SSE				S	**S**	**01 40 32.7**	**-1.0**
SSE				AMB	AMB		
	comp=Z,45nm,0.7s,mb4.8						
SSE				LR	LR		
	comp=N,160nm,29.5s						
SSE				LR	LR		
	comp=E,180nm,29.5s						
SSE				LR	LR		
	comp=Z,163nm,23.7s						
SSE	**Sheshan**	**29.12**	**241**	*e*P	**P**	**01 36 10.2**	**+0.6**
	comp=Z,45nm,0.7s,mb4.8						
SSE				pP		01 37 17.6	
SSE				S	**S**	**01 40 32.7**	**-1.0**
SSE				LR	LR		
	comp=Z,160nm,23.7s						
TLY	**Talaya**	**29.49**	**292**	*i* P	**P**	**01 36 13.5**	**+0.9**
ZAK	**Zakamensk**	**30.09**	**289**	⇓*i*P	**P**	**01 36 18.9**	**+1.1**
MOY	**Mondy**	**31.08**	**293**	*e*P	**P**	**01 36 27.8**	**+1.5**
IMA	**Indian Mountai**	**32.16**	**39**	*e*P	**P**	**01 36 35.3**	**-0.2**
RSO	**Redoubt South**	**32.81**	**50**	*e*P	**P**	**01 36 42.0**	**+0.9**
SPU	**Mount Spurr**	**33.07**	**48**	*e*P	**P**	**01 36 43.9**	**+0.7**
MCK	**McKinley**	**34.25**	**43**	*e*P	**P**	**01 36 53.5**	**+0.3**
	comp=Z,36nm,1.0s,mb4.6						
MCK				*e*pP	pP	01 38 06.3	+1.5
PMR	**Palmer**	**34.41**	**47**	*e*P	**P**	**01 36 54.6**	**0.0**
XAN	**Xi'an**	**34.50**	**259**	P	**P**	**01 36 55.5**	**-0.1**
XAN				AMB	AMB		
	comp=Z,25nm,1.5s,mb4.2						
COLA	**College**	**34.62**	**41**	*i* P	**P**	**01 36 55.3**	**-1.0**
COLA				*i* *PP	pP	01 38 09.6	+1.6
COLA				*i*		01 38 24.2	
COLA	**College**	**34.62**	**41**	*e*P	**P**	**01 36 56.7**	**+0.4**
SML	**Sawmill**	**34.76**	**47**	*e*P	**P**	**01 36 58.0**	**+0.5**
ILAR	**Eielson Array**	**35.04**	**41**	P	**P**	**01 36 59.5**	**-0.4**
	comp=Z,54nm,0.9s,mb4.8,baz=272,slow=8.3,SNR=164						
ILAR				pP	pP	01 38 13.2	+1.4
	comp=Z,11nm,1.0s,baz=268,slow=9.1,SNR=4.4						
ILAR	**Eielson Array**	**35.04**	**41**	P	**P**	**01 36 59.5**	**-0.4**
ILAR				*PP	pP	01 38 13.2	+1.5
ILAR				pmax	pmax		
	comp=Z,54nm,1.0s						
THY	**Trims Highway**	**35.70**	**44**	*e*P	**P**	**01 37 05.6**	**+0.1**
DIV	**Divide**	**36.08**	**47**	*e*P	**P**	**01 37 08.8**	**+0.1**
	comp=Z,70nm,0.6s,mb5.1						
LZH	**Lanzhou**	**36.47**	**266**	⇓P	**P**	**01 37 13.0**	**+0.9**
LZH				AMB	AMB		
	comp=Z,150nm,1.5s,mb5.0						
ENH	**Enshi**	**36.67**	**253**	*e*P	**P**	**01 37 13.7**	**-0.2**
	comp=Z,12nm,0.7s,mb4.2						
ENH				*e*PcP	PcP	01 39 27.1	-1.1
GTA	**Gaotai**	**37.14**	**273**	⇓P	**P**	**01 37 19.0**	**+1.3**
GTA				PP	PP	01 38 53.6	+1.4
GTA				S	**S**	**01 42 39.5**	**+2.8**
GTA				AMB	AMB		
	comp=Z,35nm,1.4s,mb4.4						
GTA				AMB	AMB		
	comp=Z,273nm,5.3s						
GTA				LR	LR		
	comp=N,173nm,17.5s						
GTA				LR	LR		
	comp=E,268nm,13.3s						
GTA				LR	LR		
	comp=Z,357nm,14.5s						
DAWY	**Dawson**	**38.36**	**42**	*e*P	**P**	**01 37 28.2**	**+0.7**
INK	**Inuvik**	**39.78**	**34**	P	**P**	**01 37 38.8**	**-0.3**
	comp=Z,24nm,0.7s,mb4.6,baz=302,slow=7.2,SNR=114						
INK				pP	pP	01 38 55.0	+2.6
	comp=Z,6.4nm,1.2s,baz=320,slow=3.3,SNR=1.8						
INK	**Inuvik**	**39.78**	**34**	P	**P**	**01 37 38.8**	**-0.3**
INK				*PP	pP	01 38 55.0	+2.6
INK				pmax	pmax		
	comp=Z,24nm,0.7s						
INK	**Inuvik**	**39.78**	**34**	*e*P	**P**	**01 37 38.9**	**-0.2**
	comp=Z,23nm,0.7s,mb4.5						
CD2	**Chengdu**	**39.83**	**260**	P	**P**	**01 37 40.4**	**+0.5**
CD2				AMB	AMB		
	comp=Z,40nm,1.1s,mb4.6						
NVS	**Novosibirsk**	**40.11**	**304**	*e*P	**P**	**01 37 41.0**	**-0.9**
NVS				*e*		01 39 25.5	
NVS				*e*S	**S**	**01 43 18.1**	**-2.4**
NVS				pmax	pmax		
	comp=N,34nm,1.6s						
NVS				pmax	pmax		
	comp=E,83nm,1.6s						
NVS				pmax	pmax		
	comp=Z,78nm,1.6s,mb4.7						
NVS				smax			
	comp=N,22nm,1.7s						
NVS				smax			
	comp=E,22nm,1.7s						
GYA	**Guiyang**	**41.13**	**252**	P	**P**	**01 37 50.8**	**+0.3**
GYA				AMB	AMB		
	comp=Z,30nm,0.7s,mb4.6						
WMQ	**Urumqi**	**42.47**	**287**	⇓P	**P**	**01 38 02.1**	**+1.1**
WMQ				AP	pP	01 39 17.2	+2.2
WMQ				PCP	PcP	01 39 47.9	+1.2
WMQ				PP	PP	01 39 50.1	+3.1
WMQ				XP	sP	01 39 59.5	+3.3
WMQ				SCP		01 43 01.0	
WMQ				AMB	AMB		
	comp=Z,35nm,1.0s,mb4.4						
WMQ				AMB	AMB		
	comp=Z,80nm,8.0s						
WMQ				LR	LR		
	comp=N,115nm,17.5s						
WMQ				LR	LR		
	comp=E,146nm,22.0s						
WMQ				LR	LR		
	comp=Z,116nm,24.0s						
DLBC	**Dease Lake**	**44.47**	**48**	P	**P**	**01 38 18.3**	**+1.6**
	comp=Z,20nm,0.9s,mb4.3,baz=281,slow=9.6,SNR=25						
DLBC				pP	pP	01 39 34.3	+3.1
	comp=Z,7.2nm,1.0s,baz=312,slow=12,SNR=2.8						
KMI	**Kunming**	**44.52**	**254**	⇑*e*P	**P**	**01 38 17.8**	**+0.2**
KMI				AP	pP	01 39 34.2	+2.1
KMI				PCP	PcP	01 39 53.0	-0.9
KMI				PP	PP	01 40 07.5	+0.5
KMI				XP	sP	01 40 16.2	+2.8
KMI				PCS		01 43 47.5	
KMI				S	**S**	**01 44 27.2**	**+2.8**
KMI				SS	SS	01 47 46.1	-0.5
KMI				AMB	AMB		
	comp=Z,23nm,1.4s,mb4.1						
KMI				AMB	AMB		
	comp=Z,176nm,3.1s						
KMI				LR	LR		
	comp=N,185nm,17.4s						
KMI				LR	LR		
	comp=E,222nm,18.8s						
KMI				LR	LR		
	comp=Z,209nm,16.7s						
KMI	**Kunming**	**44.52**	**254**	⇑*e*P	**P**	**01 38 17.8**	**+0.2**
	comp=Z,23nm,1.4s,mb4.1						
KMI				pP	pP	01 39 34.2	+2.1
KMI				PcP	PcP	01 39 53.0	-0.9
KMI				PP	PP	01 40 07.5	+0.5
KMI				sP	sP	01 40 16.2	+2.8
KMI				PcS		01 43 47.5	
KMI				S	**S**	**01 44 27.2**	**+2.8**
KMI				sS		01 46 43.1	
KMI				SS	SS	01 47 46.1	-0.5
KMI				LR	LR		
	comp=Z,210nm,16.7s						
CHKZ	**Chkalovo**	**47.27**	**307**	*e*P	**P**	**01 38 37.3**	**-1.2**
	comp=Z,28nm,0.5s,mb4.7						
BVAR	**Borovoye Array**	**47.71**	**306**	P	**P**	**01 38 41.5**	**-0.5**
	comp=Z,13nm,0.4s,mb4.5,baz=58,slow=7.3,SNR=178						
BVAR				PcP	PcP	01 40 02.8	-2.1
	comp=Z,2.1nm,0.7s,baz=72,slow=4.7,SNR=3.7						
BVAR				S	**S**	**01 45 07.8**	**-0.9**
	comp=Z,1.3nm,0.9s,baz=69,slow=12,SNR=5.2						
BRVK	**Borovoye**	**47.75**	**306**	*e*P	**P**	**01 38 41.6**	**-0.6**
	comp=Z,14nm,0.6s,mb4.4						
LSA	**Lhasa**	**48.73**	**269**	*e*P	**P**	**01 38 51.2**	**+1.2**
YKW3	**Yellowknife Ar**	**49.22**	**38**	*e*P	**P**	**01 38 52.4**	**-0.9**
YKW3				*e*	pP	01 40 10.7	+1.2
YKA	**Yellowknife Ar**	**49.26**	**38**	P	**P**	**01 38 52.6**	**-0.9**
	comp=Z,24nm,0.6s,mb4.6,baz=302,slow=7.2,SNR=199						
YKA				pP	pP	01 40 12.0	+2.1
	comp=Z,6.1nm,0.9s,baz=300,slow=7.4,SNR=5.3						
YKA				S	**S**	**01 45 30.4**	**+0.5**
	comp=Z,0.1nm,0.8s,baz=305,slow=13,SNR=3.9						
YKA	**Yellowknife Ar**	**49.26**	**38**	P	**P**	**01 38 52.6**	**-1.0**
YKA				*PP	pP	01 40 12.0	+2.2
YKA				S	**S**	**01 45 30.4**	**+0.5**
YKA				pmax	pmax		
	comp=Z,24nm,0.6s						
YKA	**Yellowknife Ar**	**49.26**	**38**	P	**P**	**01 38 52.6**	**-0.9**
YKA				pP	pP	01 40 12.0	+2.1
YKA				S	**S**	**01 45 30.4**	**+0.5**
TKM2	**Tokmak 2**	**50.32**	**293**	P	**P**	**01 39 02.6**	**+0.9**
	SNR=11						
ULHL	**Ulahol**	**50.33**	**292**	P	**P**	**01 39 02.8**	**+1.0**
	SNR=8.4						
USP	**Ospenovka**	**50.77**	**294**	P	**P**	**01 39 05.6**	**+0.6**
	SNR=41						
CHMS	**Chumysh**	**50.78**	**293**	P	**P**	**01 39 05.7**	**+0.5**
	SNR=15						
KBK	**Karagaybulak**	**50.86**	**293**	P	**P**	**01 39 06.3**	**+0.6**
	SNR=19						
FRU	**Bishkek**	**50.95**	**293**	*e*P	**P**	**01 39 06.5**	**+0.1**
FRU				pmax	pmax		
	comp=Z,80nm,1.5s,mb4.7						
KZA	**Kyzart**	**51.02**	**292**	P	**P**	**01 39 08.6**	**+1.7**
	SNR=14						
SHL	**Shillong**	**51.09**	**264**	*e*P	**P**	**01 39 08.0**	**+0.3**
AAK	**Ala-Archa**	**51.15**	**293**	P	**P**	**01 39 07.8**	**-0.1**
	SNR=28						
AAK	**Ala-Archa**	**51.15**	**293**	*i* P	**P**	**01 39 07.0**	**-0.8**
AAK				pmax	pmax		
	comp=Z,70nm,1.9s,mb4.6						
AAK	**Ala-Archa**	**51.15**	**293**	*e*P	**P**	**01 39 07.0**	**-0.8**
	comp=Z,35nm,0.9s,mb4.6						
UCH	**Uchtor**	**51.38**	**292**	P	**P**	**01 39 11.6**	**+2.0**
	SNR=6.8						
UCH	**Uchtor**	**51.38**	**292**	*e*P	**P**	**01 39 10.4**	**+0.9**
	comp=Z,11nm,1.4s,mb3.9						
EKS2	**Erkin-Say**	**51.55**	**293**	P	**P**	**01 39 11.4**	**+0.5**
	SNR=25						
EKS2	**Erkin-Say**	**51.55**	**293**	*e*P	**P**	**01 39 09.9**	**-0.9**
	comp=Z,36nm,0.9s,mb4.7						
ARU	**Arti**	**51.67**	**315**	⇓*i*P	**P**	**01 39 10.3**	**-1.2**
ARU				*e*		01 40 13.5	
ARU				*e*		01 40 32.6	
ARU				*e*		01 41 14.6	
ARU				*e*		01 48 15.1	
ARU				*e*SS	SS	01 49 43.9	-1.5
ARU				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.2						
ARU	**Arti**	**51.67**	**315**	*e*P	**P**	**01 39 10.1**	**-1.4**
	comp=Z,9.7nm,0.7s,mb4.2						
CMAR	**Chiang Mai Arr**	**51.82**	**252**	P	**P**	**01 39 12.8**	**-0.3**
	comp=Z,9.0nm,0.7s,mb4.2,baz=30,slow=7.2,SNR=34						
CMAR				PcP	PcP	01 40 19.8	-0.7
	comp=Z,2.9nm,0.8s,baz=11,slow=2.7,SNR=5.1						
CMAR				ScP		01 43 37.5	
	comp=Z,2.7nm,1.0s,baz=10,slow=5.0,SNR=6.6						
AML	**Almayashu**	**51.92**	**293**	P	**P**	**01 39 14.8**	**+1.2**
	SNR=12						
AML	**Almayashu**	**51.92**	**293**	*e*P	**P**	**01 39 14.5**	**+0.9**
	comp=Z,25nm,1.1s,mb4.5						
GUN	**Gumba**	**53.35**	**271**	*e*P	**P**	**01 39 23.9**	**-0.3**
	comp=Z,76nm,0.6s,mb5.2						
KKN	**Kakani**	**53.81**	**271**	*e*P	**P**	**01 39 27.8**	**+0.2**
KEV	**Kevo**	**53.82**	**339**	*e*p	**P**	**01 39 24.7**	**-2.3**
	comp=Z,1.0nm,0.3s,mb3.6						
KEV	**Kevo**	**53.82**	**339**	*e*P	**P**	**01 39 24.7**	**-2.3**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.6						
PKI	**Pulchoki**	**53.88**	**271**	*e*P	**P**	**01 39 27.9**	**-0.2**
DMN	**Daman**	**54.05**	**271**	*e*P	**P**	**01 39 29.7**	**+0.4**
	comp=Z,122nm,0.8s,mb5.3						
GKN	**Gorkha**	**54.09**	**272**	*e*P	**P**	**01 39 29.3**	**-0.2**
	comp=Z,141nm,0.7s,mb5.4						
ARCES	**ARCESS Array B**	**54.33**	**339**	P	**P**	**01 39 29.2**	**-1.4**
	comp=Z,1.3nm,0.4s,mb3.6,baz=27,slow=7.4,SNR=31						
ARCES	**ARCESS Array B**	**54.33**	**339**	P	**P**	**01 39 29.2**	**-1.5**
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
KOLN	**Koldanda**	**54.91**	**273**	*e*P	**P**	**01 39 35.2**	**-0.2**
	comp=Z,76nm,0.8s,mb5.1						
NEW	**Newport**	**56.43**	**53**	*e*P	**P**	**01 39 45.6**	**-0.2**
	comp=Z,53nm,1.5s,mb4.7						
NEW				*e*pP	pP	01 41 05.1	+0.4
YBH	**Yreka Blue Hor**	**57.55**	**62**	P	**P**	**01 39 53.5**	**0.0**
	comp=Z,5.8nm,0.8s,mb4.0,baz=106,slow=5.8,SNR=6.0						
YBH	**Yreka Blue Hor**	**57.55**	**62**	P	**P**	**01 39 53.5**	**0.0**
YBH				pmax	pmax		
	comp=Z,6.0nm,0.8s						
WALA	**Waterton Lakes**	**57.55**	**51**	*e*P	**P**	**01 39 52.9**	**-0.5**
	comp=Z,41nm,1.1s,mb4.7						
WALA				*e*pP	pP	01 41 15.5	+2.6
SUMG	**Summit**	**57.59**	**3**	*e*P	**P**	**01 39 52.5**	**-1.0**
JOF	**Joensuu**	**57.80**	**332**	*e*p	**P**	**01 39 52.8**	**-2.2**
	comp=Z,0.9nm,0.3s,mb3.6						
JOF	**Joensuu**	**57.80**	**332**	*e*P	**P**	**01 39 52.8**	**-2.2**
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb3.6						
BMO	**Blue Mountains**	**58.52**	**56**	*e*P	**P**	**01 39 59.9**	**-0.2**
	comp=Z,53nm,1.6s,mb4.7						
BMO				*e*pP	pP	01 41 20.5	+0.6
MSO	**Missoula**	**59.00**	**53**	*e*P	**P**	**01 40 03.0**	**-0.3**
	comp=Z,42nm,1.3s,mb4.7						
MSO				*e*pP	pP	01 41 25.2	+1.9
FFC	**Flin Flon**	**59.24**	**40**	*e*P	**P**	**01 40 03.5**	**-1.3**
	comp=Z,45nm,1.0s,mb4.8						
FFC				*e*pP	pP	01 41 26.0	+1.1
CHMT	**Chamberlain Mo**	**59.30**	**52**	*e*P	**P**	**01 40 05.4**	**+0.1**
FCC	**Fort Churchill**	**59.39**	**33**	*e*P	**P**	**01 40 04.0**	**-1.8**
	comp=Z,86nm,1.3s,mb5.0						
FCC				*e*pP	pP	01 41 28.0	+2.0
OHCM	**Honcut**	**59.82**	**64**	*e*P	**P**	**01 40 08.2**	**-0.8**
KAF	**Kangasniemi**	**59.91**	**333**	*e*p	**P**	**01 40 07.1**	**-2.1**
	comp=Z,0.6nm,0.4s,mb3.4,baz=40,slow=7.0						
KAF	**Kangasniemi**	**59.91**	**333**	*e*P	**P**	**01 40 07.1**	**-2.1**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.6						
HRY	**Holter Researc**	**60.16**	**52**	*e*P	**P**	**01 40 11.4**	**+0.3**
FINES	**FINESS Array B**	**60.50**	**333**	P	**P**	**01 40 11.6**	**-1.6**
	comp=Z,5.3nm,0.5s,mb4.2,baz=36,slow=7.8,SNR=62						
FINES	**FINESS Array B**	**60.50**	**333**	P	**P**	**01 40 11.6**	**-1.6**
FINES				pmax	pmax		
	comp=Z,5.0nm,0.5s						
MCMT	**McKenzie Canyo**	**60.91**	**54**	*e*P	**P**	**01 40 15.3**	**-0.8**
HLID	**Hailey**	**60.94**	**56**	*e*P	**P**	**01 40 16.9**	**+0.6**
	comp=Z,12nm,1.2s,mb4.2						
HLID				*e*pP	pP	01 41 37.9	+0.9
BOZ	**Bozeman (W)**	**60.98**	**53**	*e*P	**P**	**01 40 16.5**	**0.0**
	comp=Z,37nm,1.0s,mb4.8						
CMB	**Columbia Colle**	**61.33**	**64**	*e*P	**P**	**01 40 19.0**	**0.0**
	comp=Z,21nm,1.1s,mb4.5						
CMB				*e*pP	pP	01 41 41.3	+1.5
QLMT	**Earthquake Lak**	**61.64**	**53**	*e*P	**P**	**01 40 21.3**	**+0.4**
QLMT				*e*pP	pP	01 41 43.7	+1.8
OBN	**Obninsk**	**61.83**	**324**	⇑*i*P	**P**	**01 40 20.7**	**-1.3**
OBN				*e**PP	pP	01 41 48.4	+5.3
OBN				*e*		01 42 40.8	
OBN				*e*PPP	PPP	01 44 15.5	-2.2
OBN				*e*S	**S**	**01 48 12.4**	**-2.4**
OBN				pmax	pmax		

	comp=Z,13nm,0.7s,mb4.6						
YMR	**Madison River**	61.99	53	eP	P	01 40 23.9	+0.7
YMR				epP	pP	01 41 45.1	+0.7
YFT	**Old Faithful**	62.21	53	eP	P	01 40 26.5	+1.8
YFT				epP	pP	01 41 48.0	+2.1
NVAR	**Mina Array Bea**	62.26	63	P	P	01 40 25.7	+0.6
	comp=Z,11nm,0.9s,mb4.4,baz=314,slow=4.3,SNR=48						
NVAR				pP	pP	01 41 48.5	+2.3
	comp=Z,9.7nm,0.9s,baz=282,slow=9.0,SNR=19						
IMW	**Indian Meadow**	62.54	54	eP	P	01 40 28.1	+1.2
IMW				epP	pP	01 41 49.7	+1.6
DGMT	**Dagmar**	62.67	46	eP	P	01 40 27.1	-0.5
	comp=Z,66nm,1.1s,mb5.1						
MOOW	**Moose Ponds**	62.74	54	eP	P	01 40 28.5	+0.4
MOOW				epP	pP	01 41 51.6	+2.2
TPAW	**Teton Pass**	62.82	54	eP	P	01 40 29.9	+1.3
TPAW				epP	pP	01 41 50.4	+0.4
MTUM	**Tungsten Hills**	62.85	64	eP	P	01 40 29.4	+0.4
WUWY	**Wally Ulrich**	62.89	54	eP	P	01 40 29.6	+0.5
WUWY				epP	pP	01 41 54.9	+4.4
LOHW	**Long Hollow**	62.91	54	eP	P	01 40 30.1	+0.9
LOHW				epP	pP	01 41 52.1	+1.4
SNOW	**Snow King Moun**	62.94	54	eP	P	01 40 30.8	+1.3
REDW	**Red Top Meadow**	62.96	54	eP	P	01 40 30.6	+1.0
LAO	**LASA Array**	62.96	49	eP	P	01 40 29.7	+0.2
	comp=Z,120nm,1.7s,mb5.2						
LAO				epP	pP	01 41 51.7	+0.8
HVU	**Hansel Valley**	63.04	57	eP	P	01 40 30.4	+0.3
HVU				epP	pP	01 41 53.8	+2.4
TPH	**Tonopah**	63.13	62	eP	P	01 40 31.0	+0.3
	comp=Z,5.7nm,0.7s,mb4.2						
TPH				epP	pP	01 41 54.3	+2.1
AHID	**Auburn Hatcher**	63.24	55	eP	P	01 40 32.1	+0.8
SPUT	**South Promonto**	63.54	57	eP	P	01 40 33.8	+0.6
SPUT				epP	pP	01 41 56.9	+2.1
VRSR	**Storozhevoye**	63.68	319	eP	P	01 40 32.9	-1.1
VRSR				pmax	pmax		
	comp=N,5.0nm,0.6s						
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.6						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.0s						
HWUT	**Hardware Ranch**	63.81	56	eP	P	01 40 35.4	+0.4
	comp=E,23nm,1.1s,mb4.7						
HWUT				epP	pP	01 41 59.1	+2.6
BW06	**Boulder Array**	64.05	54	eP	P	01 40 36.5	+0.1
	comp=E,36nm,1.0s,mb5.0						
BW06				epP	pP	01 41 59.1	+0.9
PDAR	**Pinedale Array**	64.05	54	P	P	01 40 36.4	-0.1
	comp=E,18nm,0.8s,mb4.8,baz=308,slow=1.4,SNR=123						
PDAR				pP	pP	01 42 00.3	+2.1
	comp=E,8.1nm,0.9s,baz=326,slow=2.4,SNR=11						
NOQ	**North Oquirrh**	64.18	57	eP	P	01 40 38.4	+1.1
KAKA	**Kakadu**	64.47	200	eP	P	01 40 38.8	-0.8
	comp=E,13nm,1.0s,mb4.5						
KAKA				epP	pP	01 42 04.6	+3.1
NLU	**North Lily Min**	64.69	58	eP	P	01 40 41.4	+0.7
NLU				epP	pP	01 42 04.0	+1.5
NB2	**NORSAR Subarra**	64.70	340	P	P	01 40 39.1	-1.2
	comp=E,1.3nm,0.6s,mb3.7,baz=28,slow=6.2						
NOA	**NORSAR Array B**	64.70	340	P	P	01 40 39.4	-0.9
	comp=E,3.0nm,0.9s,mb3.9,baz=28,slow=6.5,SNR=6.4						
NOA	**NORSAR Array B**	64.70	340	P	P	01 40 39.4	-0.9
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MPU	**Maple Canyon**	64.89	57	eP	P	01 40 42.5	+0.7
MPU				epP	pP	01 42 06.5	+2.6
HFS	**Hagfors**	64.93	338	P	P	01 40 40.6	-1.1
	comp=Z,3.5nm,0.5s,mb4.3,baz=45,slow=4.2,SNR=24						
HFS	**Hagfors**	64.93	338	P	P	01 40 40.6	-1.2
HFS				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ULM	**Lac du Bonnet**	65.06	41	P	P	01 40 41.3	-1.5
	comp=Z,2.8nm,0.5s,mb4.1,baz=316,slow=7.0,SNR=6.6						
ARUT	**Antelope Range**	65.47	60	eP	P	01 40 45.6	+0.1
ARUT				epP	pP	01 42 08.3	+0.6
MSU	**Marysvale**	65.66	59	eP	P	01 40 48.0	+1.3
MSU				epP	pP	01 42 10.9	+2.0
SRU	**San Rafael**	66.13	57	eP	P	01 40 50.6	+0.9
SRU				epP	pP	01 42 14.4	+2.3
NEN	**Nelson**	66.18	63	eP	P	01 40 50.5	+0.4
KIV	**Kislovodsk**	67.52	312	⇑iP	P	01 40 57.1	-1.2
KIV				e*PP	pP	01 42 25.4	+4.4
KIV				eS	S	01 49 21.9	-1.8
KIV				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
KIV	**Kislovodsk**	67.52	312	eP	P	01 40 58.2	-0.1
	comp=Z,12nm,0.6s,mb4.8						
AKASG	**Malin Array Be**	68.06	324	P	P	01 40 59.9	-1.5
	comp=Z,5.7nm,0.6s,mb4.5,baz=32,slow=6.1,SNR=27						
AKASG	**Malin Array Be**	68.06	324	P	P	01 40 59.9	-1.5
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ISCO	**Idaho Springs**	68.25	54	eP	P	01 41 03.4	+0.7
	comp=Z,37nm,1.3s,mb5.0						
GNI	**Garni**	69.35	308	P	P	01 41 10.9	+1.4
	comp=Z,5.2nm,0.6s,mb4.5,baz=214,slow=1.5,SNR=6.3						
GNI	**Garni**	69.35	308	P	P	01 41 10.9	+1.4
GNI				pmax	pmax		
	comp=Z,5.0nm,0.6s						
GNI	**Garni**	69.35	308	eP	P	01 41 08.5	-1.0
	comp=Z,6.4nm,0.7s,mb4.5						
SDCO	**Great Sand Dun**	69.83	55	eP	P	01 41 12.9	+0.5
	comp=Z,25nm,1.2s,mb4.8						
CTA	**Charters Tower**	69.86	185	eP	P	01 41 11.9	-1.0
	comp=Z,6.7nm,1.0s,mb4.3						
CTA	**Charters Tower**	69.86	185	P	P	01 41 11.6	-1.3
	comp=Z,5.7nm,0.8s,mb4.4,baz=32,slow=7.3,SNR=6.2						
CTA	**Charters Tower**	69.86	185	P	P	01 41 11.6	-1.3
CTA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CTAO	**Charters Tower**	69.86	185	eP	P	01 41 12.5	-0.4
	comp=Z,8.0nm,0.9s,mb4.5						
SCHQ	**Schefferville**	70.91	22	P	P	01 41 17.2	-1.3
	comp=Z,5.1nm,0.8s,mb4.3,baz=13,slow=7.5,SNR=15						
WRAB	**Tennant Creek**	71.11	196	i P	P	01 41 19.6	-0.7
WRAB	**Tennant Creek**	71.11	196	eP	P	01 41 16.6	-3.7
	comp=Z,25nm,1.1s,mb4.8						
WRAB				epP	pP	01 42 46.8	+2.8
WB2	**Warramunga Arr**	71.12	196	eP	P	01 41 19.1	-1.3
WB2				epP	pP	01 42 42.2	-1.8
WRA	**Warramunga Arr**	71.12	196	P	P	01 41 19.3	-1.1
	comp=Z,7.2nm,0.6s,mb4.6,baz=15,slow=5.9,SNR=66						
WRA				pP	pP	01 42 46.7	+2.6
	comp=Z,14nm,1.1s,baz=15,slow=6.7,SNR=17						
WRA	**Warramunga Arr**	71.12	196	P	P	01 41 19.3	-1.1
WRA				*PP	pP	01 42 46.7	+2.7
WRA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
FITZ	**Fitzroy Crossi**	71.35	205	⇓iP	P	01 41 21.1	-0.7
	comp=Z,9.0nm,0.7s,mb4.6						
FITZ				epP	pP	01 42 49.7	+4.2
ANMO	**Albuquerque**	71.39	58	P	P	01 41 22.2	+0.5
	comp=Z,9.8nm,0.9s,mb4.5,baz=313,slow=8.3,SNR=29						
ANMO				pP	pP	01 42 46.6	+1.2
	comp=Z,4.5nm,0.8s,baz=316,slow=8.5,SNR=7.7						
ANMO	**Albuquerque**	71.39	58	i P	P	01 41 22.5	+0.7
ANMO	**Albuquerque**	71.39	58	eP	P	01 41 22.3	+0.6
	comp=Z,14nm,1.0s,mb4.7						
ANMO				epP	pP	01 42 47.6	+2.1
LENM	**Lemitar**	71.69	59	eP	P	01 41 24.2	+0.6
LENM				epP	pP	01 42 49.7	+2.4
LPM	**Los Pinos Moun**	71.77	58	eP	P	01 41 24.9	+0.9
LPM				epP	pP	01 42 50.4	+2.6
BNM	**Barren Site**	71.89	58	eP	P	01 41 25.4	+0.7
MORC	**Moravsky Berou**	72.91	330	eP	P	01 41 29.3	-1.0
	comp=Z,3.5nm,0.9s,mb4.1						
CLL	**Collm**	72.93	334	i P	P	01 41 29.5	-0.9
CLL	**Collm**	72.93	334	P	P	01 41 29.5	-0.9
BRG	**Berggiesshubel**	73.04	333	i P	P	01 41 29.5	-1.6
MALT	**Malatya**	73.90	311	eP	P	01 41 36.3	0.0
	comp=Z,3.0nm,0.7s,mb4.1						
AMTX	**Amarillo**	74.00	55	eP	P	01 41 36.9	-0.1
	comp=Z,62nm,1.3s,mb5.2						
AMTX				epP	pP	01 43 02.5	+1.3
CPRX	**Cap Rock**	74.25	57	eP	P	01 41 38.8	+0.4
GDL2	**Guadalupe Moun**	74.61	58	eP	P	01 41 40.7	+0.3
GDL2				epP	pP	01 43 06.6	+1.8
CLNB	**Carlsbad**	74.82	58	eP	P	01 41 41.3	-0.3
ASAR	**Alice Springs**	74.83	196	P	P	01 41 41.5	-0.3
	comp=Z,17nm,0.6s,mb5.0,baz=9.6,slow=5.0,SNR=222						
ASAR				pP	pP	01 43 10.6	+4.3
	comp=Z,25nm,1.3s,baz=9.7,slow=5.6,SNR=9.5						
ASPA	**Alice Springs**	74.83	196	eP	P	01 41 41.7	-0.2
ASPA				i pP	pP	01 43 11.0	+4.7
GERES	**GERESS Array B**	74.92	332	P	P	01 41 41.1	-0.7
	comp=Z,0.2nm,0.3s,baz=24,slow=5.7,SNR=3.3						
BRTR	**Keskin Array B**	75.05	315	P	P	01 41 42.8	0.0
	comp=Z,2.4nm,0.7s,mb4.0,baz=63,slow=4.4,SNR=9.7						
BRTR				pP	pP	01 43 09.4	+2.2
	comp=Z,0.7nm,0.8s,baz=76,slow=5.5,SNR=2.2						
BRTR	**Keskin Array B**	75.05	315	P	P	01 41 42.8	0.0
BRTR				*PP	pP	01 43 09.4	+2.2
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WMOK	**Wichita Mounta**	75.63	53	eP	P	01 41 45.6	-0.5
	comp=Z,20nm,0.9s,mb4.8						
WMOK				epP	pP	01 43 11.9	+1.2
UMR	**Umm Al-Rimmam**	75.74	299	eP	P	01 41 46.4	-0.4
MBWA	**Marble Bar**	76.00	210	eP	P	01 41 47.5	-1.0
	comp=Z,7.8nm,0.5s,mb4.7						
RST	**Umm Al-Ruwaisa**	76.18	299	eP	P	01 41 48.3	-1.0
RST				AMb	AMB	01 41 53.3	
	comp=Z,37nm,0.8s,mb5.2						
RDF	**Al-Radifah**	76.31	299	eP	P	01 41 50.3	+0.3
CCM	**Cathedral Cave**	76.68	46	eP	P	01 41 50.9	-1.0
CCM				epP	pP	01 43 16.9	+0.2
LTX	**Lajitas**	77.18	60	eP	P	01 41 55.0	+0.3
	comp=Z,58nm,1.6s,mb5.1						
LTX				epP	pP	01 43 20.9	+1.2
TXAR	**Lajitas Array**	77.18	60	P	P	01 41 55.0	+0.3
	comp=Z,7.8nm,0.6s,mb4.6,baz=294,slow=4.5,SNR=103						
TXAR				pP	pP	01 43 21.2	+1.6
	comp=Z,6.1nm,0.9s,baz=300,slow=3.9,SNR=9.3						
MSNY	**Massena**	77.39	31	eP	P	01 41 55.2	-0.4
DAVOX	**Davos**	77.90	334	P	P	01 41 57.6	-0.7
	comp=Z,2.5nm,0.7s,mb4.0,baz=357,slow=10,SNR=3.7						
MIAR	**Mount Ida**	78.40	49	eP	P	01 42 01.0	-0.2
	comp=Z,1.9nm,1.2s,mb3.7						
JCT	**Junction City**	78.41	56	eP	P	01 42 01.2	-0.2
	comp=Z,36nm,1.4s,mb4.9						
WCI	**Wyandotte Cave**	78.77	42	eP	P	01 42 02.6	-0.5
WCI				epP	pP	01 43 29.3	+0.9
HBAR	**Harrisburg**	78.99	47	eP	P	01 42 04.4	+0.1
CSS	**Prodhromos**	79.04	312	eP	P	01 42 03.9	-0.7
NATX	**Nacogdoches**	80.09	52	eP	P	01 42 10.7	+0.4
	comp=Z,121nm,1.3s,mb5.5						
OXF	**Oxford**	80.43	47	eP	P	01 42 11.3	-0.7
	comp=Z,48nm,1.3s,mb5.1						
OXF				epP	pP	01 43 38.5	+0.9
STKA	**Stephens Creek**	81.89	188	eP	P	01 42 19.4	-0.2
	comp=Z,3.6nm,1.0s,mb4.2						
STKA	**Stephens Creek**	81.89	188	P	P	01 42 19.5	0.0
	comp=Z,4.0nm,0.7s,mb4.4,baz=2.0,slow=6.3,SNR=12						
EIL	**Elat**	82.52	308	P	P	01 42 22.4	-0.4
	comp=Z,5.3nm,0.8s,mb4.4,baz=50,slow=10,SNR=6.0						
EIL	**Elat**	82.52	308	eP	P	01 42 23.4	+0.6
	comp=Z,3.8nm,0.6s,mb4.4						
DBIC	**Dimbokro**	119.79	332	PKP	PKPdf	01 48 45.9	-0.5
	comp=Z,2.2nm,0.7s,baz=320,slow=6.2,SNR=7.2						
DBIC	**Dimbokro**	119.79	332	PKIKP	PKPdf	01 48 45.9	-0.5
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
VNDA	**Vanda**	127.39	177	PKP	PKPdf	01 48 58.8	-0.7
	comp=Z,0.8nm,0.6s,baz=316,slow=11,SNR=6.1						
VNDA	**Vanda**	127.39	177	PKIKP	PKPdf	01 48 58.8	-0.7
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SAML	**Samuel**	130.28	47	PKPdf	PKPdf	01 49 07.3	+0.6
BDFB	**Brasilia**	142.49	31	PKhKP		01 49 26.2	
	comp=Z,2.9nm,0.6s,baz=351,slow=2.5,SNR=4.7						
SYO	**Syowa Base**	142.81	214	⇑PKiKP		01 49 32.0	

*NAO **10** 01:53:29.3±3.3, 61.38N×6.82E, ML2.1*
BER 10 01:53:31.1±3.6**, 61.56N**×**6.92E, h15^{km}, MD2.1, ML1.1, ML2.1**(NAO)**, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HYA	**Hoyanger**	0.53	222	eP	Pb	01 53 40.0	-1.5
HYA				eS	Sb	01 53 47.9	-0.7
HYA				AML	AML	01 53 56.0	
	comp=Z,7.8nm,0.3s						
FOO	**Floro**	0.90	273	eP	Pb	01 53 46.9	-1.0
FOO				eS	Sb	01 53 58.3	-1.0
FOO				AML	AML	01 54 07.0	
	comp=Z,9.7nm,0.7s						
MOL	**Molde**	1.06	16	eP	Pb	01 53 49.1	-1.4
MOL				eS	Sb	01 54 05.1	+1.1
MOL				AML	AML	01 54 10.5	
	comp=Z,6.8nm,0.2s						
DOMB	**Dombas**	1.13	64	eP	Pb	01 53 47.4	-4.4
DOMB				eS	Sb	01 54 04.5	-1.6
DOMB				AML	AML	01 54 12.2	
	comp=Z,7.4nm,0.3s						
NB2	**NORSAR Subarra**	2.14	102	Pn	Pn	01 54 05.8	-1.0
NB2				Lg		01 54 36.5	
NC6	**NORSAR Subarra**	2.35	108	Pn	Pn	01 54 10.5	+0.7
NC6				Lg		01 54 43.7	
HFS	**Hagfors**	3.61	110	Pn	Pn	01 54 25.3	-2.5
	baz=302,slow=14						
HFS				Pg	Pg	01 54 32.8	-10
	baz=293,slow=14						
HFS				Lg		01 55 22.4	
	baz=292,slow=37						

*MOS **10** 02:33:49.2±3.0, 20.15S×177.83W, h463^{km}, mb5.5/3, Error ellipse: s-maj=15.9km s-min=14.5km az=100.9*
*BJI **10** 02:33:49.6, 19.99S×176.98W, h504^{km}, mB5.2, mb5.2*
*NEIC **10** 02:33:50.3±0.1, 20.29S×177.69W, mb5.0/60, Error ellipse: s-maj=8.7km s-min=4.6km az=148.0*
*HRVD **10** 02:33:50.3±0.7, 20.16S×177.41W, h521^{km}±4^{km}, MW5.3/42, Centroid moment Tensor Solution. LP body waves: s42,c63; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.86±.06; M$_{\theta\theta}$0.84±.10; M$_{\phi\phi}$0.01±.11; M$_{r\theta}$-0.36±.11; M$_{\theta\phi}$-0.01±.09; M$_{\phi r}$-0.49±.11; Best double couple: M$_0$1.03×10^{17} NP1:φ$_s$289°, δ37°, λ-53°. NP2:φ$_s$66°, δ61°, λ-114°. Principal axes: T .93, Plg13°, Azm174°; N .21, Plg21°, Azm78°; P -1.14, Plg65°, Azm293°; nsta1 refers to body waves, cutoff=40s.*
*SYO **10** 02:33:50.8, 20.17S×177.78W, h493^{km}, MB4.8*
*IDC **10** 02:33:51.9±0.6, 20.29S×177.69W, h507^{km}±6^{km}, mb4.6/19, mb1 4.7/21, mb1mx4.7/22, Error ellipse: s-maj=13.5km s-min=8.4km az=146.0*
*BGS **10** 02:33:54.9±4.2, 20.29S×177.69W, h490^{km}*
ISC 10 02:33:46.5±0.9**, 20.23S**±0.05×**177.72W**±0.04**, h453^{km}**±9^{km}**, h495^{km}**±2.9^{km}**:pP-P, n459, σ0^{s}89**/176**, mb5.0**/80**, 29C-93D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	8.48	43	ePn	P	02 35 49.4	+0.9
	379nm,0.6s						
AFI				eSn	S	02 37 23.5	-1.6
DZM	**Mont Dzumac**	14.88	260	eP	P	02 37 00.9	+3.3
DZM	**Mont Dzumac**	14.88	260	⇓iP	P	02 37 01.2	+3.6
NOUC	**Port Laguerre**	15.02	260	⇑eP	P	02 37 02.5	+3.6
URZ	**Urewera**	18.52	193	P	P	02 37 32.9	-1.0
	17nm,0.3s,baz=15,slow=3.2,SNR=36						
URZ	**Urewera**	18.52	193	P	P	02 37 32.1	-1.8
TSZ	**Takapari Road**	20.49	194	eP	P	02 37 45.1	-7.7
QRZ	**Quartz Range**	22.15	200	eP	P	02 38 08.4	0.0
KHZ	**Kahutara**	23.32	197	eP	P	02 38 18.3	-0.7
RPZ	**Rata Peaks**	25.23	199	P	P	02 38 35.2	-1.0
	22nm,0.7s,mb4.7,baz=33,slow=13,SNR=9.6						
ARMA	**Armidale**	29.42	244	⇓iP	P	02 39 14.7	+1.4
CNB	**Canberra Magne**	32.59	236	⇓iP	P	02 39 41.5	+1.2
	86nm,0.9s,mb5.2						
CTA	**Charters Tower**	33.77	264	⇓iP	P	02 39 51.8	+1.3
	124nm,0.9s,mb5.3						
CTA				ePCP	PcP	02 42 16.3	-1.6
CTA				eSCP		02 45 16.3	
CTA	**Charters Tower**	33.77	264	P	P	02 39 51.8	+1.3
	121nm,0.6s,mb5.5,baz=94,slow=10,SNR=196						
CTAO	**Charters Tower**	33.77	264	⇓iP	P	02 39 51.5	+1.1
	171nm,0.8s,mb5.5						
PMG	**Port Moresby**	35.54	282	P	P	02 40 06.8	+1.5
	170nm,0.7s,mb5.6,baz=90,slow=5.5,SNR=95						
PMG	**Port Moresby**	35.54	282	deP	P	02 40 06.8	+1.5
PMG	**Port Moresby**	35.54	282	⇓iP	P	02 40 06.6	+1.3
	160nm,0.8s,mb5.5						
TOO	**Toolangi**	36.26	234	eP	P	02 40 11.8	+0.7
	28nm,1.0s,mb4.6						
STKA	**Stephens Creek**	38.14	244	⇓iP	P	02 40 27.6	+1.0
	73nm,1.0s,mb5.1						
STKA				ePCP	PcP	02 42 29.9	-1.1
STKA				eSCP		02 45 31.7	
STKA	**Stephens Creek**	38.14	244	P	P	02 40 27.7	+1.1
	58nm,0.7s,mb5.2,baz=90,slow=9.3,SNR=152						
STKA				pP	pP	02 41 55.0	+3.8
	7.8nm,0.6s,baz=106,slow=7.1,SNR=2.8						
STKA				PcP	PcP	02 42 29.8	-1.3
	13nm,0.8s,baz=83,slow=1.4,SNR=4.1						
STKA				ScP		02 45 31.2	
	9.7nm,0.9s,baz=66,slow=3.5,SNR=5.1						
ASAR	**Alice Springs**	44.83	256	P	P	02 41 20.6	+0.2
	343nm,0.6s,mb5.9,baz=99,slow=7.5,SNR=3059						
ASAR				PcP	PcP	02 42 51.8	-1.7
	24nm,0.9s,baz=97,slow=4.5,SNR=5.3						
ASAR				S	S	02 47 20.3	-3.7
	42nm,0.9s,baz=92,slow=17,SNR=28						
ASAR				PKiKP		02 49 47.2	
	1.0nm,0.7s,baz=141,slow=2.3,SNR=4.1						
ASPA	**Alice Springs**	44.84	256	⇓iP	P	02 41 20.6	+0.1
ASPA				i S	S	02 47 19.6	-4.4
ASPA				eSCS	ScS	02 50 23.8	-2.0
WB2	**Warramunga Arr**	44.88	262	⇓iP	P	02 41 20.5	-0.4
WRAB	**Tennant Creek**	44.89	262	d iP	P	02 41 20.5	-0.4
WRAB	**Tennant Creek**	44.89	262	⇓iP	P	02 41 20.3	-0.7
	302nm,0.9s,mb5.7						
WRA	**Warramunga Arr**	44.90	262	P	P	02 41 20.6	-0.4
	112nm,0.6s,mb5.5,baz=96,slow=8.3,SNR=393						
WRA				S	S	02 47 19.8	-5.2
	4.2nm,0.7s,baz=100,slow=13,SNR=6.7						
WRA				PKiKP		02 49 47.3	
	0.7nm,0.6s,baz=93,slow=0.7,SNR=5.3						
KAKA	**Kakadu**	48.23	271	⇓iP	P	02 41 46.2	-0.4
	147nm,0.6s,mb5.5						
FORT	**Forrest**	49.64	246	⇓iP	P	02 41 56.0	-1.1
	438nm,0.5s,mb6.0						
FITZ	**Fitzroy Crossi**	53.32	262	⇓iP	P	02 42 23.7	-0.5
	80nm,0.6s,mb5.2						
FITZ				i S	S	02 49 17.7	-2.4
FITZ	**Fitzroy Crossi**	53.32	262	P	P	02 42 23.7	-0.4
	89nm,0.6s,mb5.3,baz=148,slow=2.9,SNR=435						
SBA	**Scott Base**	58.15	184	eP	P	02 42 57.8	+0.7
	4.8nm,0.7s						
MBWA	**Marble Bar**	58.16	257	⇓iP	P	02 42 56.5	-1.3
	166nm,0.8s,mb5.4						
VNDA	**Vanda**	58.20	185	P	P	02 42 57.2	-0.1
	2.8nm,0.7s,baz=4.7,slow=8.0,SNR=7.3						
VNDA				PcP	PcP	02 43 41.1	-1.9
	2.8nm,0.7s,baz=353,slow=4.5,SNR=4.9						
VNDA				ScP		02 46 53.6	
	4.6nm,0.8s,baz=358,slow=3.7,SNR=7.4						
KLBR	**Kellerberrin**	58.40	245	⇓iP	P	02 42 58.1	-1.2
	141nm,0.9s,mb5.3						
NWAO	**Narrogin (SRO)**	58.72	243	P	P	02 43 00.3	-1.1
	47nm,0.7s,mb4.9,baz=109,slow=5.7,SNR=9.3						
NWAO	**Narrogin (SRO)**	58.72	243	eP	P	02 43 00.4	-1.1
	71nm,1.1s,mb4.9						
MUN	**Mundaring**	59.67	244	eP	P	02 43 06.9	-0.9
	51nm,0.7s,mb5.1						
BUNI	**Buntu Taipa**	62.46	277	⇑eP	P	02 43 26.8	+0.4
	38nm,0.9s,mb4.8						
NINI	**Niniconang**	62.72	276	⇓eP	P	02 43 28.6	+0.5
	814nm,0.9s						
TANI	**Tanete Lipujan**	63.41	276	⇓iP	P	02 43 32.1	-0.5
	24nm,0.8s,mb4.8						
CASY	**Casey**	64.31	205	P	P	02 43 36.3	-1.3
	9.0nm,0.8s,mb4.3						
KEDI	**Kedomdong**	64.80	270	⇑eP	P	02 43 39.9	-1.6
	310nm,0.7s,mb6.0						
RATI	**Rata**	65.27	270	⇓eP	P	02 43 43.6	-0.9
KELI	**Kelakatan**	66.41	270	⇓eP	P	02 43 50.1	-1.4
	244nm,0.4s						
SRDI	**Scrawed**	66.65	269	⇑eP	P	02 43 51.5	-1.6
	157nm,0.9s,mb5.6						
QSPA	**South Pole Qui**	69.83	180	⇓iP	P	02 44 14.3	+3.0
	7.0nm,0.7s,mb4.3						
MAJO	**Matsushiro**	70.15	323	⇓iP	P	02 44 13.3	-0.6
	47nm,0.8s,mb5.1						
MAT	**Matsushiro**	70.15	323	P	P	02 44 13.3	-0.6
MAT	**Matsushiro**	70.15	323	eP	P	02 44 13.0	-0.9
	44nm,0.7s,mb5.1						
TATO	**Taipei**	74.24	305	eP	P	02 44 37.4	-0.5
YSS	**Yuzh-Sakhalins**	75.77	333	d iP	P	02 44 46.4	+0.5
YSS				pmax	pmax		
	comp=Z,146nm,1.0s,mb5.5						
YSS	**Yuzh-Sakhalins**	75.77	333	eP	P	02 44 46.6	+0.6
	comp=Z,144nm,0.9s,mb5.5						
QZH	**Quanzhou**	76.48	303	⇑iP	P	02 44 50.9	+0.6
QZH				AMB	AMB		
	comp=Z,180nm,0.9s,mb5.6						
KS15	**Wonju Array Si**	76.88	318	eP	P	02 44 52.5	+0.2
INCN	**Inchon**	77.69	318	eP	P	02 44 57.0	+0.4
	comp=Z,36nm,0.6s,mb5.0						
SSE	**Sheshan**	77.72	310	eP	P	02 44 56.9	0.0
SSE				AMB	AMB		
	comp=Z,29nm,0.8s,mb4.8						
SSE	**Sheshan**	77.72	310	eP	P	02 44 56.9	0.0
	comp=Z,29nm,0.8s,mb4.8						
MWC	**Mount Wilson**	78.43	47	eP	P	02 45 00.7	0.0
CMB	**Columbia Colle**	79.09	43	eP	P	02 45 03.9	-0.2
	comp=Z,22nm,0.9s,mb4.7						
OHCM	**Honcut**	79.18	41	eP	P	02 45 04.6	+0.1
MTUM	**Tungsten Hills**	79.87	44	eP	P	02 45 08.6	+0.4
NJ2	**Nanjing**	79.91	310	eP	P	02 45 09.2	+0.7
NJ2				PP	PP	02 48 22.3	+4.2
NJ2				AMB	AMB		
	comp=Z,240nm,1.3s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,1µm,6.4s						
YBH	**Yreka Blue Hor**	79.92	39	P	P	02 45 08.7	+0.3
	comp=Z,19nm,0.7s,mb4.8,baz=175,slow=1.0,SNR=33						
BEKR	**Beckwourth**	80.20	41	⇓eP	P	02 45 10.1	+0.3
	comp=Z,21nm,1.3s,mb4.5						
WCN	**Washoe City**	80.24	42	eP	P	02 45 10.9	+0.8
	comp=Z,34nm,1.2s,mb4.8						
LTIM	**Timbered Crate**	80.30	40	P	P	02 45 11.0	+0.7
KGM	**Kluang**	80.34	276	⇑iP	P	02 45 11.9	+0.8
	comp=Z,313nm,0.8s,mb5.9						
MDJ	**Mudanjiang**	80.45	325	P	P	02 45 11.5	+0.5
MDJ				AP	pP	02 47 00.0	+8.0
MDJ				PP	PP	02 48 21.1	-1.4
MDJ				S	S	02 54 35.9	-3.0
MDJ				XS		02 57 49.1	
MDJ				SS	SS	03 00 06.2	-0.1
MDJ				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.4						
MDJ				AMB	AMB		
	comp=Z,122nm,4.2s						
MDJ	**Mudanjiang**	80.45	325	⇓iP	P	02 45 11.7	+0.7
	comp=Z,81nm,0.8s,mb5.3						
BUOR	**Burton Butte**	80.53	38	P	P	02 45 12.2	+0.8
NVAR	**Mina Array Bea**	80.65	43	P	P	02 45 12.6	+0.4
	comp=Z,14nm,0.8s,mb4.5,baz=205,slow=6.1,SNR=80						
NVAR				pP	pP	02 47 01.3	+8.0
	comp=Z,3.1nm,0.9s,baz=210,slow=6.5,SNR=6.2						
NVAR				PKKPbc		03 03 49.0	
	comp=Z,0.5nm,0.6s,baz=72,slow=4.5,SNR=5.4						
TPH	**Tonopah**	81.15	44	⇓iP	P	02 45 15.0	+0.2
	comp=Z,36nm,1.1s,mb4.8						
NEN	**Nelson**	81.42	47	eP	P	02 45 16.6	+0.3
MAW	**Mawson**	81.90	200	eP	P	02 45 17.1	-0.9
	comp=Z,6.6nm,0.6s,mb4.3						
MAW	**Mawson**	81.90	200	P	P	02 45 17.5	-0.5
	comp=Z,8.5nm,0.6s,mb4.4,baz=126,slow=5.0,SNR=16						
BMN	**Battle Mountai**	82.48	42	eP	P	02 45 21.6	+0.1
	comp=Z,50nm,1.3s,mb4.9						
WHN	**Wuhan**	82.50	306	⇑P	P	02 45 22.5	+0.7
TUC	**Tucson**	82.61	52	⇓iP	P	02 45 23.2	+0.9
	comp=Z,24nm,0.9s,mb4.7						
VIPM	**Ingram Point**	82.83	37	P	P	02 45 23.9	+0.7
VFP	**Flag Point**	82.85	36	P	P	02 45 24.1	+0.8
OOW	**Octopus West**	82.93	33	P	P	02 45 25.0	+1.4
IPM	**Ipoh**	83.39	277	⇓eP	P	02 45 27.4	+0.8
	comp=Z,294nm,1.2s,mb5.7						
ARUT	**Antelope Range**	83.51	46	eP	P	02 45 27.1	+0.4
MA2	**Magadan**	83.60	344	i P	P	02 45 24.3	-2.3
SPU	**Mount Spurr**	83.72	12	eP	P	02 45 25.4	-1.8
ELK	**Elko**	83.91	43	eP	P	02 45 28.7	+0.1
	comp=Z,14nm,1.1s,mb4.4						
USHA	**Ushuaia**	84.21	147	P	P	02 45 30.3	+0.5
	comp=Z,3.7nm,0.7s,mb4.0,baz=26,slow=2.3,SNR=3.9						
PWA	**Palmer West**	84.59	13	eP	P	02 45 30.3	-1.2
PMR	**Palmer**	84.70	13	eP	P	02 45 30.9	-1.1
MSU	**Marysvale**	84.73	46	eP	P	02 45 33.5	+0.7
ETW	**Entiat**	84.87	35	P	P	02 45 33.5	+0.3
BMO	**Blue Mountains**	84.94	38	eP	P	02 45 33.3	-0.4
	comp=Z,6.1nm,0.9s,mb4.2						

DIV	**Divide**	85.06	15	⇓eP	P	02 45 33.2	-0.6
	comp=Z,125nm,1.1s,mb5.5						
BJT	**Baijiatuau**	85.88	315	eP	P	02 45 38.4	+0.1
	comp=Z,28nm,0.6s,mb5.1						
BJI	**Beijing**	85.89	315	P	P	02 45 38.4	+0.1
BJI				AMB	AMB		
	comp=Z,63nm,0.8s,mb5.3						
BJI				AMB	AMB		
	comp=Z,318nm,3.9s						
BJI	**Beijing**	85.89	315	P	P	02 45 38.4	+0.1
	comp=Z,63nm,0.8s,mb5.3						
HLID	**Hailey**	85.95	41	eP	P	02 45 38.8	+0.3
	comp=Z,14nm,1.2s,mb4.5						
ENH	**Enshi**	86.11	304	⇓iP	P	02 45 40.0	+0.4
	comp=Z,140nm,0.9s,mb5.6						
SRU	**San Rafael**	86.15	46	eP	P	02 45 39.6	0.0
JLU	**Jordanelle**	86.28	44	eP	P	02 45 40.7	+0.5
LAZ	**Ladron**	86.29	51	eP	P	02 45 41.1	+0.8
BNM	**Barren Site**	86.55	52	eP	P	02 45 41.9	+0.3
LPM	**Los Pinos Moun**	86.62	52	eP	P	02 45 41.9	-0.1
LPM				epP	pP	02 47 32.3	+7.8
MCK	**McKinley**	86.66	12	⇓iP	P	02 45 40.2	-1.2
	comp=Z,24nm,1.0s,mb4.9						
LTX	**Lajitas**	86.69	57	eP	P	02 45 43.0	+0.6
	comp=Z,7.3nm,0.8s,mb4.5						
LTX				epP	pP	02 47 36.6	+12
TXAR	**Lajitas Array**	86.69	57	P	P	02 45 43.0	+0.6
	comp=Z,11nm,0.7s,mb4.7,baz=218,slow=6.5,SNR=146						
TXAR				pP	pP	02 47 33.5	+8.5
	comp=Z,4.9nm,1.1s,baz=217,slow=6.3,SNR=9.8						
TXAR				PKKPbc		03 03 34.4	
	comp=Z,1.0nm,0.8s,baz=108,slow=2.9,SNR=11						
HWUT	**Hardware Ranch**	86.72	43	eP	P	02 45 41.8	-0.4
	comp=Z,6.0nm,0.9s,mb4.3						
GYA	**Guiyang**	86.74	300	⇓iP	P	02 45 43.7	+1.0
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.2						
GYA				AMB	AMB		
	comp=Z,60nm,5.7s						
NEW	**Newport**	87.01	36	eP	P	02 45 42.7	-0.7
	comp=Z,7.6nm,0.8s,mb4.5						
ANMO	**Albuquerque**	87.03	51	P	P	02 45 44.1	+0.2
	comp=Z,7.7nm,0.7s,mb4.5,baz=226,slow=4.9,SNR=36						
ANMO				pP	pP	02 47 36.5	+10
	comp=Z,1.7nm,0.9s,baz=234,slow=8.2,SNR=3.8						
ANMO	**Albuquerque**	87.03	51	⇓eP	P	02 45 44.4	+0.5
ANMO	**Albuquerque**	87.03	51	eP	P	02 45 44.1	+0.1
	comp=Z,7.1nm,0.9s,mb4.4						
ANMO				epP	pP	02 47 32.9	+6.3
SYO	**Syowa Base**	87.04	193	⇑P	P	02 45 41.5	-1.7
SYO	**Syowa Base**	87.04	193	⇓PcP	PcP	02 45 45.2	+0.2
SYO	**Syowa Base**	87.04	193	⇑pP	pP	02 47 33.8	+7.9
GDL2	**Guadalupe Moun**	87.38	54	eP	P	02 45 45.7	+0.1
GDL2				epP	pP	02 47 37.2	+8.8
NNT	**Nongplab**	87.45	284	P	P	02 45 48.0	+1.7
MCMT	**McKenzie Canyo**	87.58	40	eP	P	02 45 46.8	+0.5
CLNB	**Carlsbad**	87.78	55	eP	P	02 45 47.3	-0.2
COLA	**College**	87.89	12	eP	P	02 45 46.0	-1.2
IMA	**Indian Mountai**	87.94	10	eP	P	02 45 47.0	-0.4
ILAR	**Eielson Array**	88.00	13	P	P	02 45 46.5	-1.2
	comp=Z,8.1nm,0.5s,mb4.7,baz=219,slow=5.8,SNR=155						
ILAR				pP	pP	02 47 40.4	+10
	comp=Z,2.4nm,0.9s,baz=230,slow=5.6,SNR=5.6						
ILAR				PKiKP		02 50 44.4	
	comp=Z,0.4nm,0.5s,baz=262,slow=2.9,SNR=7.3						
ILAR				PKKPbc		03 03 28.1	
	comp=Z,0.3nm,0.4s,baz=329,slow=2.6,SNR=6.6						
MSO	**Missoula**	88.00	38	eP	P	02 45 47.3	-0.8
	comp=Z,4.1nm,0.6s,mb4.3						
REDW	**Red Top Meadow**	88.06	42	⇓eP	P	02 45 48.8	+0.2
TPAW	**Teton Pass**	88.06	42	eP	P	02 45 49.4	+0.8
CPRX	**Cap Rock**	88.12	54	eP	P	02 45 48.8	-0.3
CPRX				epP	pP	02 47 39.0	+7.0
SNOW	**Snow King Moun**	88.17	42	eP	P	02 45 49.5	+0.4
XAN	**Xi'an**	88.18	307	P	P	02 45 50.0	+0.7
XAN				AMB	AMB		
	comp=Z,145nm,0.9s,mb5.7						
NST	**Nakhon Sawan**	88.20	287	P	P	02 45 50.5	+0.7
SNAA	**Sanae**	88.27	178	P	P	02 45 47.3	-1.6
	comp=Z,1.3nm,0.6s,baz=214,slow=7.8,SNR=34						
SNAA	**Sanae**	88.27	178	⇓iP	P	02 45 47.3	-1.6
SNAA				e		02 55 27.4	
IMW	**Indian Meadow**	88.28	42	⇓eP	P	02 45 50.2	+0.7
MOOW	**Moose Ponds**	88.32	42	eP	P	02 45 49.8	0.0
LOHW	**Long Hollow**	88.34	42	⇓eP	P	02 45 49.9	0.0
VNA3	**Neumayer Olymp**	88.39	176	⇓iP	P	02 45 50.3	+0.8
CHMT	**Chamberlain Mo**	88.44	38	eP	P	02 45 49.7	-0.6
QLMT	**Earthquake Lak**	88.45	41	eP	P	02 45 51.4	+1.1
BW06	**Boulder Array**	88.59	43	eP	P	02 45 51.1	0.0
	comp=Z,18nm,1.2s,mb4.8						
PDAR	**Pinedale Array**	88.59	43	P	P	02 45 50.8	-0.3
	comp=Z,9.5nm,0.8s,mb4.7,baz=214,slow=3.0,SNR=67						
PDAR				PKKPbc		03 03 27.9	
	comp=Z,0.7nm,0.7s,baz=77,slow=5.0,SNR=5.4						
HIA	**Hailar**	88.63	324	⇓eP	P	02 45 50.9	-0.1
	comp=Z,23nm,1.1s,mb4.9						
YMR	**Madison River**	88.65	41	⇓eP	P	02 45 52.3	+1.0
VNA2	**Neumayer--Watz**	88.83	177	⇓iP	P	02 45 52.7	+1.1
NANT	**Nan**	88.84	290	⇓P	P	02 45 52.0	-0.8
	comp=Z,125nm,0.8s,mb5.8						
SDCO	**Great Sand Dun**	88.98	49	eP	P	02 45 52.4	-0.6
	comp=Z,8.8nm,1.1s,mb4.5						
VNA1	**Neumayer--Stat**	89.06	177	⇑iP	P	02 45 54.2	+1.6
DAWY	**Dawson**	89.13	16	⇓eP	P	02 45 52.9	-0.2
HRY	**Holter Researc**	89.17	39	eP	P	02 45 53.5	-0.1
KMI	**Kunming**	89.46	297	⇓iP	P	02 45 57.2	+1.7
KMI				AP	pP	02 47 46.5	+7.8
KMI				XP	sP	02 48 37.1	+13
KMI				PP	PP	02 49 41.5	+5.8
KMI				S	S	02 56 02.3	-3.0
KMI				AMB	AMB		
	comp=Z,86nm,1.0s,mb5.5						
KMI				AMB	AMB		
	comp=Z,138nm,3.1s						
KMI				LR	LR		
	comp=Z,40nm,23.8s						
KMI	**Kunming**	89.46	297	⇓iP	P	02 45 57.2	+1.7
	comp=Z,86nm,1.0s,mb5.5						
KMI				pP	pP	02 47 46.5	+7.8
KMI				sP	sP	02 48 37.1	+13
KMI				PP	PP	02 49 41.5	+5.8
KMI				S	S	02 56 02.3	-3.0
KMI				LR	LR		
	comp=Z,40nm,23.8s						
ISCO	**Idaho Springs**	89.83	47	P	P	02 45 56.2	-0.7
CHRT	**Chiangrai**	90.04	291	⇓P	P	02 45 59.5	+1.2
	comp=Z,684nm,0.8s						
JCT	**Junction City**	90.22	58	eP	P	02 45 57.5	-1.4
	comp=Z,8.7nm,0.8s,mb4.6						
CM31	**Chiang Mai Arr**	90.27	289	eP	P	02 46 00.4	+1.0
	comp=Z,94nm,1.0s,mb5.6						
CMAR	**Chiang Mai Arr**	90.27	289	P	P	02 46 00.7	+1.3
	comp=Z,56nm,0.8s,mb5.4,baz=120,slow=2.9,SNR=161						
CMAR				PP	PP	02 49 45.0	+2.8
	comp=Z,2.3nm,0.6s,baz=117,slow=6.4,SNR=4.3						
BTO	**Baotou**	90.29	314	eP	P	02 45 59.5	+0.5
BTO				AMB	AMB		
	comp=Z,19nm,0.7s,mb5.0						
CHG	**Chiang Mai**	90.40	290	⇓P	P	02 46 01.0	+1.1
	comp=Z,106nm,0.8s,mb5.7						
CD2	**Chengdu**	90.86	303	P	P	02 46 03.1	+1.2
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
YAK	**Yakutsk**	91.96	338	d iP	P	02 46 05.2	-1.0
YAK				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
YAK	**Yakutsk**	91.96	338	eP	P	02 46 05.1	-1.0
	comp=Z,37nm,0.8s,mb5.4						
WMOK	**Wichita Mounta**	92.67	54	eP	P	02 46 08.9	-1.2
	comp=Z,1.7nm,0.8s,mb4.1						
LZH	**Lanzhou**	92.81	307	⇑P	P	02 46 11.0	+0.3
LZH				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.6						
INK	**Inuvik**	93.95	15	P	P	02 46 14.0	-1.1
	comp=Z,7.1nm,0.8s,mb4.8,baz=219,slow=4.3,SNR=28						
INK	**Inuvik**	93.95	15	⇓eP	P	02 46 13.9	-1.2
	comp=Z,13nm,1.1s,mb4.9						
DGMT	**Dagmar**	94.55	40	eP	P	02 46 18.2	-0.1
ULN	**Ulaanbaatar**	95.33	319	⇓iP	P	02 46 21.4	-0.5
ULN	**Ulaanbaatar**	95.33	319	eP	P	02 46 21.3	-0.6
	comp=Z,4.8nm,0.8s,mb4.6						
SONM	**Songino Array**	95.72	319	P	P	02 46 22.3	-1.4
	comp=Z,2.1nm,0.7s,mb4.4,baz=140,slow=4.0,SNR=14						
YKA	**Yellowknife Ar**	96.16	25	P	P	02 46 24.2	-1.1
	comp=Z,1.0nm,0.6s,mb4.1,baz=242,slow=4.5,SNR=23						
YKA				pP	pP	02 48 17.6	+8.7
	comp=Z,0.9nm,1.0s,baz=229,slow=4.9,SNR=4.2						
YKA				PKiKP		02 50 58.6	
	comp=Z,0.2nm,0.5s,baz=254,slow=1.6,SNR=7.9						
YKA				PKKPbc		03 03 07.8	
	comp=Z,0.4nm,0.5s,baz=38,slow=2.3,SNR=10						
YKA				PKPPKP		03 11 22.7	
	comp=Z,0.1nm,0.8s,baz=56,slow=3.0,SNR=3.9						
YKA	**Yellowknife Ar**	96.16	25	eP	P	02 46 24.2	-1.1
GTA	**Gaotai**	97.00	309	eP	P	02 46 30.3	+0.6
GTA				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.9						
TIXI	**Tiksi**	98.56	345	eP	P	02 46 34.5	-1.5
TIXI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.7						
ZAK	**Zakamensk**	98.59	321	eP	P	02 46 36.3	-0.3
KKN	**Kakani**	105.12	294	eP	Pdif	02 47 08.3	+2.3
	comp=Z,2.7nm,0.4s						
NVS	**Novosibirsk**	111.46	322	ePKIKP	PKPdf	02 51 25.5	-2.2
NVS				e		02 52 22.1	
NVS				pmax	pmax		
	comp=N,4.0nm,0.9s						
NVS				pmax	pmax		
	comp=E,4.0nm,0.9s						
NVS				pmax	pmax		
	comp=Z,10.0nm,0.9s						
TKM2	**Tokmak 2**	115.55	309	ePKPdf	PKPdf	02 51 35.3	-0.8
UCH	**Uchtor**	116.29	308	ePKPdf	PKPdf	02 51 37.8	+0.3
UCH				ePP	PP	02 52 52.5	-2.5
AAK	**Ala-Archa**	116.34	308	ePKPdf	PKPdf	02 51 36.0	-1.6
FRB	**Frobisher Bay**	116.43	28	PKP	PKPdf	02 51 35.1	-2.0
	comp=Z,13nm,1.1s,baz=37,slow=3.4,SNR=6.5						
EKS2	**Erkin-Say**	116.87	308	ePKPdf	PKPdf	02 51 38.0	-0.6
AML	**Almayashu**	116.90	308	⇓iPKPdf	PKPdf	02 51 38.5	-0.1
SCHQ	**Schefferville**	118.30	38	PKP	PKPdf	02 51 39.5	-1.6
	comp=Z,2.9nm,0.8s,baz=242,slow=8.1,SNR=5.6						
CHKZ	**Chkalovo**	118.85	321	⇓iPKPdf	PKPdf	02 51 40.6	-1.5
BDFB	**Brasilia**	119.07	122	PKP	PKPdf	02 51 42.4	-1.0
	comp=Z,1.4nm,0.5s,baz=154,slow=2.0,SNR=4.0						
BRVK	**Borovoye**	119.10	320	⇓iPKPdf	PKPdf	02 51 41.6	-1.0
OPO	**Ambohidratompo**	121.47	232	eP	PKPdf	02 51 48.2	+0.2
SUMG	**Summit**	122.83	14	ePKPdf	PKPdf	02 51 49.2	-0.2
SUR	**Sutherland**	124.76	199	PKP	PKPdf	02 51 54.4	+0.2
	comp=Z,8.9nm,0.5s,baz=191,slow=3.5,SNR=14						
SUR	**Sutherland**	124.76	199	ePKPdf	PKPdf	02 51 54.3	+0.1
SOKR	**Solikamsk**	124.99	330	⇓iPKIKP	PKPdf	02 51 51.8	-2.0
SOKR				pmax	pmax		
	comp=Z,30nm,0.9s						
ARU	**Arti**	125.13	326	i PKIKP	PKPdf	02 51 53.8	-0.4
ARU	**Arti**	125.13	326	ePKPdf	PKPdf	02 51 53.5	-0.7
ARU				ePP	PP	02 53 47.8	-5.8
KEV	**Kevo**	128.26	349	ep	PKPdf	02 51 57.7	-2.2
ARCES	**ARCESS Array B**	128.71	350	PKhKP		02 51 47.9	
	comp=Z,5.0nm,1.0s,baz=297,slow=2.7,SNR=3.9						
ARCES				PKP	PKPdf	02 52 00.2	-0.6
	comp=Z,6.0nm,0.5s,baz=22,slow=1.4,SNR=42						
JOF	**Joensuu**	132.96	342	ep	PKPdf	02 52 00.6	-8.3
	comp=Z,14nm,1.1s						
JOF	**Joensuu**	132.96	342	ePKHKP		02 52 00.6	
JOF				pmax	pmax		
	comp=Z,14nm,1.1s						
KAF	**Kangasniemi**	134.97	344	ep	PKPdf	02 51 59.5	-13
	comp=Z,4.1nm,0.5s						
KAF	**Kangasniemi**	134.97	344	ePKHKP		02 51 59.5	
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s						
FINES	**FINESS Array B**	135.59	344	PKhKP		02 52 00.5	
	comp=Z,0.9nm,0.5s,baz=42,slow=3.2,SNR=9.4						
FINES				PKP	PKPdf	02 52 13.0	-0.8
	comp=Z,3.0nm,0.5s,baz=91,slow=2.6,SNR=10						
OBN	**Obninsk**	136.65	332	i PKIKP	PKPdf	02 52 15.2	-0.7
OBN				e		02 55 02.6	
OBN				pmax	pmax		
	comp=Z,12nm,0.9s						
OBN				MLR	MLR		
	comp=Z,200nm,17.0s						
OBN	**Obninsk**	136.65	332	i PKP	PKPdf	02 52 16.1	+0.2
VRSR	**Storozhevoye**	137.69	326	ePKIKP	PKPdf	02 52 17.0	-0.9
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,6.0nm,1.0s						
GNI	**Garni**	138.74	308	ePKPdf	PKPdf	02 52 20.1	0.0
NB2	**NORSAR Subarra**	138.75	353	PKP	PKPdf	02 52 09.7	-10
	comp=E,2.1nm,0.8s,baz=7.0,slow=2.9						
NOA	**NORSAR Array B**	138.75	353	PKhKP		02 52 10.4	
	comp=E,1.4nm,0.5s,baz=20,slow=4.0,SNR=7.7						
KIV	**Kislovodsk**	138.95	315	ePKIKP	PKPdf	02 52 18.4	-2.0
KIV				e		02 55 21.5	
KIV				pmax	pmax		
	comp=Z,5.0nm,0.7s						
KIV				MLR	MLR		
	comp=Z,100nm,17.0s						
KMBO	**Kilima Mbogo**	139.69	242	PKhKP		02 52 15.9	
	comp=Z,2.0nm,0.7s,baz=68,slow=4.7,SNR=10.0						
BTMT	**Batman**	141.72	306	eP	PKPdf	02 52 21.8	-3.8
BINT	**Bingol**	142.26	308	eP	PKPdf	02 52 20.4	-6.1
NAMS	**An Nimas**	142.45	275	P	PKPdf	02 52 26.1	-1.1
EZC	**Erzincan**	142.47	310	eP	PKPdf	02 52 24.6	-2.2
SUW	**Suwalki**	142.68	340	ePKPdf	PKPdf	02 52 24.0	-2.7
AKASG	**Malin Array Be**	142.91	331	PKhKP		02 52 23.9	
	comp=Z,69nm,0.7s,baz=41,slow=4.3,SNR=203						
AKASG	**Malin Array Be**	142.91	331	PKHKP		02 52 23.9	
PTK	**Pertek**	143.07	308	eP	PKPbc	02 52 25.0	-1.2
BLJS	**Baljurashi**	143.12	276	P	PKPbc	02 52 28.1	+1.1
MUD	**Monsted U'grnd**	143.47	354	⇓iPKHKP		02 52 26.4	
MUD				pmax	pmax		
	comp=Z,72nm,0.8s						
MUD	**Monsted U'grnd**	143.47	354	⇓iP	PKPbc	02 52 26.4	-0.5
	comp=Z,72nm,0.8s						
ELZG	**Elazig**	143.50	308	i P	PKPbc	02 52 28.6	+1.0
COP	**Copenhagen**	143.79	350	⇓iPKHKP		02 52 27.3	
COP				pmax	pmax		
	comp=Z,34nm,0.4s						
COP	**Copenhagen**	143.79	350	⇓iP	PKPbc	02 52 27.3	-0.6
	comp=Z,34nm,0.4s						
BSD	**Bornholm Skovb**	143.88	348	⇓iPKHKP		02 52 27.3	
BSD				pmax	pmax		
	comp=Z,91nm,0.8s						
BSD	**Bornholm Skovb**	143.88	348	⇓iP	PKPbc	02 52 27.3	-0.9
	comp=Z,91nm,0.8s						
SIM	**Simferopol'**	143.96	320	⇓iPKIKP	PKPdf	02 52 29.0	-0.1
SIM				pmax	pmax		
	comp=Z,121nm,0.8s						
URFA	**Urfa**	143.96	306	eP	PKPbc	02 52 25.5	-3.5
MALT	**Malatya**	143.97	308	eP	PKPbc	02 52 27.4	-1.6
MALT	**Malatya**	143.97	308	PKIKP	PKPdf	02 52 29.9	+0.6
SVST	**Sivas**	144.51	311	i P	PKPdf	02 52 31.8	+1.5
TOKT	**Tokat**	144.58	312	eP	PKPdf	02 52 28.3	-2.1
GZT	**Gaziantep**	144.94	307	i P	PKPdf	02 52 31.6	+0.6
GAZ	**Gaziantep**	145.26	307	eP	PKPdf	02 52 28.8	-2.9
MBAR	**Mbarara**	145.28	237	⇓iPKPdf	PKPdf	02 52 33.0	+0.6
BYBT	**Boyabat**	145.29	315	eP	PKPdf	02 52 33.5	+1.9
KBRS	**Khaybar**	145.59	286	P	PKPdf	02 52 34.8	+2.3
KIS	**Kishinev**	145.66	327	κ iPKHKP		02 52 32.0	
KIS				e		02 52 38.0	
KIS				pmax	pmax		
	comp=Z,250nm,1.4s						
CTKT	**Corum**	145.66	314	i P	PKPdf	02 52 34.4	+2.2
DMUB	**Kingscourt**	145.66	10	eP	PKPdf	02 52 32.3	+0.5
BNN	**Bunyan**	145.66	310	eP	PKPdf	02 52 34.5	+2.2
YOZ	**Yozgat**	145.72	312	eP	PKPdf	02 52 33.5	+1.1
BSEG	**Bad Segeberg**	145.80	352	ePKPbc	PKPbc	02 52 34.0	+0.6
BSEG				epPKPbc		02 54 36.5	
TOS	**Tosya**	145.99	315	eP	PKPdf	02 52 33.5	+0.7
DCN	**Croghan**	146.14	10	eP	PKPdf	02 52 33.7	+1.1
BALT	**Daday**	146.17	316	i P	PKPdf	02 52 35.5	+2.4
COBT	**Iskenderun**	146.20	306	i P	PKPdf	02 52 36.2	+2.9
DLF	**Lyons Farm**	146.31	10	eP	PKPdf	02 52 34.0	+1.1
AVNT	**Avonos**	146.40	310	i P	PKPdf	02 52 35.5	+2.0
CEYT	**Ceyhan**	146.42	307	eP	PKPdf	02 52 35.3	+1.7
HTY	**Hatay**	146.42	305	eP	PKPdf	02 52 33.0	-0.6
KWP	**Kalwaria**	146.45	336	⇓iPKPbc	PKPbc	02 52 35.7	+0.7
CANT	**Cankiri**	146.46	314	eP	PKPdf	02 52 33.0	-0.6
RUE	**Ruedersdorf**	146.59	347	ePKPbc	PKPbc	02 52 35.9	+0.7
ELDT	**Eldivan**	146.65	314	i P	PKPdf	02 52 36.9	+3.1
SAFT	**Safranbolu**	146.78	316	eP	PKPdf	02 52 35.8	+1.8
NIG	**Nigde**	146.85	310	eP	PKPdf	02 52 35.8	+1.5
BRTR	**Keskin Array B**	146.85	313	PKP	PKPdf	02 52 33.4	-0.9
	comp=Z,20nm,0.7s,baz=76,slow=1.8,SNR=31						
BRTR				PKPbc	PKPbc	02 52 37.0	+0.7
	comp=Z,21nm,0.7s,baz=135,slow=4.6,SNR=51						
KAMT	**Kaman**	146.96	312	eP	PKPdf	02 52 34.9	+0.5
OJC	**Ojcow**	147.00	339	ePKP	PKPdf	02 52 37.1	+3.0
KOLS	**Kolonicke sedl**	147.18	335	ePKP	PKPdf	02 52 35.4	+1.0
KOLS				i		02 52 38.4	
KOLS				i		02 52 41.7	
CFR	**Carcaliu**	147.22	325	⇑iP	PKPdf	02 52 37.7	+3.1
CFR	**Carcaliu**	147.22	325	⇑iP	PKPdf	02 52 37.7	+3.1
UMJS	**Umm Lajj**	147.37	285	P	PKPdf	02 52 39.7	+4.2
LOD	**Lodumlu**	147.38	314	eP	PKPdf	02 52 35.8	+0.8
VRI	**Vrincioaia**	147.49	327	PKIKP	PKPdf	02 52 38.6	+3.6
VRI	**Vrincioaia**	147.49	327	⇑iP	PKPdf	02 52 38.8	+3.8
NIE	**Niedzica**	147.51	338	ePKP	PKPdf	02 52 39.2	+4.3
KSP	**Ksiaz**	147.51	343	⇓iPKIKP	PKPdf	02 52 39.0	+4.1
KSP				e		02 52 42.8	
CRVS	**Cervenica-Dubn**	147.52	336	i PKP	PKPdf	02 52 39.6	+4.6
SGKT	**Sivrigoynuk**	147.52	315	i P	PKPdf	02 52 38.9	+3.6
HLM1	**Long Mynd**	147.53	6	⇓eP	PKPdf	02 52 38.0	+3.2
HLM1				AMb	AMB	02 52 39.0	
	comp=Z,88nm,0.9s						
BRD	**Bordesti**	147.55	327	⇑iP	PKPdf	02 52 40.2	+5.1
BRD	**Bordesti**	147.55	327	⇑iP	PKPdf	02 52 40.2	+5.1
KSHT	**Keshet**	147.58	300	P	PKPdf	02 52 35.4	-0.2
SSP1	**Stoney Pound**	147.60	6	⇓eP	PKPdf	02 52 38.5	+3.5
KSDI	**Kefar Szold**	147.65	300	P	PKPdf	02 52 35.5	-0.2
GLH	**Golan-Tel Qazi**	147.78	300	P	PKPdf	02 52 36.0	+0.1
CLZ	**Clausthal**	147.82	351	ePKPbc	PKPdf	02 52 39.9	+4.5
TBKS	**Tabuk**	147.83	291	P	PKPdf	02 52 40.8	+4.6
CLL	**Collm**	147.86	347	i PKHKP		02 52 35.3	
CLL				i		02 52 39.6	
CLL				pmax	pmax		
	comp=Z,26nm,1.6s						
CLL				pmax	pmax		
	comp=Z,111nm,0.7s						
CLL	**Collm**	147.86	347	i PKP	PKPdf	02 52 35.3	-0.1
CLL				i PKP	PKPdf	02 52 39.6	+4.2
CLL				epPKP		02 54 38.0	
CLL	**Collm**	147.86	347	i PKIKP	PKPdf	02 52 35.3	-0.1
	comp=Z,logA/T=1.2						
CLL				i PKP1	PKPdf	02 52 39.6	+4.2
CLL				i PKP2	PKPab	02 52 43.7	-1.8
CLL				e*PPKP		02 54 38.0	
CLL				e		02 54 56.0	
OKC	**Ostrava-Krasne**	147.87	341	i PKIKP	PKPdf	02 52 39.5	+4.0
OKC				e		02 52 43.7	
OKC	**Ostrava-Krasne**	147.87	341	⇑iPKPB		02 52 39.5	
OKC				ePKPAB	PKPab	02 52 43.7	-1.9
UPC	**Upice**	147.89	343	i PKP	PKPdf	02 52 40.0	+4.5
UPC				e		02 52 44.8	
UPC	**Upice**	147.89	343	⇑iPKPB		02 52 40.0	
UPC				ePKPAB	PKPab	02 52 44.8	-0.9
HTR	**Trewern Hill**	147.92	6	eP	PKPdf	02 52 38.9	+3.4
HTR				AMb	AMB	02 52 42.3	
	comp=Z,95nm,1.7s						
DPC	**Dobruska-Polom**	147.95	343	i PKIKP	PKPdf	02 52 40.3	+4.7
DPC				e		02 52 44.9	
DPC	**Dobruska-Polom**	147.95	343	⇑iPKPB		02 52 40.3	
DPC				ePKPAB	PKPab	02 52 44.9	-1.0
HMDT	**Nahal Hemdat**	148.00	299	P	PKPdf	02 52 36.5	+0.2
MCH1	**Michaelchurch**	148.03	6	⇓eP	PKPdf	02 52 39.2	+3.5
HAE	**Alders End**	148.03	6	⇓eP	PKPdf	02 52 39.4	+3.7
HAE				AMb	AMB	02 52 42.4	
	comp=Z,112nm,1.4s						
MMLI	**Mount Malkishu**	148.04	299	P	PKPdf	02 52 36.7	+0.4
MKRJ	**Makawir**	148.06	297	P	PKPdf	02 52 36.5	+0.1
BRG	**Berggiesshubel**	148.07	346	i PKIKP	PKPdf	02 52 36.2	+0.4
BRG				i		02 52 44.6	
BRG				pmax	pmax		
	comp=Z,53nm,0.8s						
BRG	**Berggiesshubel**	148.07	346	i PKP	PKPdf	02 52 36.2	+0.4
BRG				i PKP	PKPdf	02 52 39.6	+3.8
BRG				i		02 52 44.6	
BRG				i		02 53 39.9	
BRG				epPKP		02 54 38.0	
BRG				e		02 54 47.6	
HNTI	**Hanita**	148.07	300	P	PKPdf	02 52 36.1	-0.3
MORC	**Moravsky Berou**	148.11	341	PKHKP		02 52 40.3	
MORC	**Moravsky Berou**	148.11	341	ePKPdf	PKPdf	02 52 36.1	+0.2
MORC				⇓iPKPbc	PKPdf	02 52 40.2	+4.4
MDU	**Mudurnu**	148.13	316	eP	PKPdf	02 52 40.0	+3.8
WTSB	**Winterswijk**	148.13	355	ePKP	PKPdf	02 52 40.1	+4.3
	comp=Z,134nm,0.8s						
MLR	**Muntele Rosu**	148.14	328	PKHKP		02 52 40.2	
PSN	**Preselentsi**	148.15	323	i P	PKPdf	02 52 41.0	+4.8
HENT	**Hendek**	148.15	316	i P	PKPdf	02 52 39.6	+3.3
PVCC	**Panska Ves**	148.24	345	i PKHKP		02 52 41.0	
PVCC	**Panska Ves**	148.24	345	⇑iPKPB		02 52 41.0	
IKL	**Isikli**	148.24	307	eP	PKPdf	02 52 35.8	-0.8
DRGI	**Dragot**	148.26	298	P	PKPdf	02 52 36.8	+0.1
JMQS	**Jabal Moqyreh**	148.33	292	P	PKPdf	02 52 42.0	+5.0
SLTI	**Sal'it**	148.40	299	P	PKPdf	02 52 37.2	+0.3
HGH	**Gray Hill**	148.41	6	⇓eP	PKPdf	02 52 40.1	+3.8
HGH				AMb	AMB	02 52 42.2	
	comp=Z,92nm,1.4s						
KIZT	**Kizilcal**	148.45	313	eP	PKPdf	02 52 38.6	+1.8
SNX	**Sinaia**	148.45	328	PKHKP		02 52 42.0	
ZFRI	**Zfri**	148.65	296	P	PKPdf	02 52 37.9	+0.5
PRU	**Pruhonice**	148.75	345	i PKP	PKPdf	02 52 41.8	+4.9
PRU				e		02 52 47.7	
PRU	**Pruhonice**	148.75	345	⇑iPKPB		02 52 41.8	
PRU				ePKPAB	PKPab	02 52 47.7	-1.5
MOX	**Moxa**	148.77	349	ePKIKP	PKPdf	02 52 37.1	+0.2
MOX				e		02 52 41.8	
MOX				pmax	pmax		
	comp=Z,84nm,1.4s						
MOX	**Moxa**	148.77	349	i P	PKPdf	02 52 37.1	+0.2
MOX				PP2		02 52 42.0	
VYHS	**Vyhne**	148.81	339	i PKP	PKPdf	02 52 42.1	+5.0
VYHS				i		02 52 48.9	
VRAC	**Vranov**	148.81	342	PKHKP		02 52 42.3	
PRNI	**Paran**	148.84	295	P	PKPdf	02 52 38.4	+0.7
ESKT	**Eskisehir**	148.85	314	eP	PKPdf	02 52 42.5	+5.1
KOLL	**Kolacno**	148.88	339	ePKP	PKPdf	02 52 38.4	+1.2
KOLL				i		02 52 42.8	
KOLL				e		02 52 48.8	
MASH	**Mash'abbe Sade**	148.89	297	P	PKPdf	02 52 38.3	+0.5
PRD	**Provadia**	148.90	323	i P	PKPdf	02 52 42.0	+4.6
AQBJ	**Aqaba**	148.91	294	P	PKPdf	02 52 38.5	+0.7
PSZ	**Piszkesteto**	148.92	337	PKHKP		02 52 42.4	
HRT	**Hereke**	148.94	317	eP	PKPdf	02 52 35.3	-2.2
JMOS	**Jabal al Moall**	148.96	293	P	PKPdf	02 52 43.2	+5.3
AYUS	**'Aynunah**	148.96	291	P	PKPdf	02 52 43.0	+5.1
RTMM	**Retamin**	148.96	297	P	PKPdf	02 52 38.4	+0.5
CSS	**Prodhromos**	148.97	305	⇓iPKPbc	PKPdf	02 52 42.3	+4.6
ALWS	**Ilw as Safayha**	148.97	293	P	PKPdf	02 52 43.3	+5.4
NKC	**Novy Kostel**	148.99	347	i PKHKP		02 52 42.5	
NKC				e		02 52 47.7	
NKC	**Novy Kostel**	148.99	347	⇑iPKPB		02 52 42.5	
NKC				ePKPAB	PKPab	02 52 47.7	-2.5
EIL	**Elat**	149.01	294	P	PKPdf	02 52 38.7	+0.7
EIL	**Elat**	149.01	294	ePKPdf	PKPdf	02 52 38.8	+0.8
EIL				⇓iPKPbc	PKPdf	02 52 43.1	+5.1
EIL				ePKPab	PKPab	02 52 49.7	-1.2
MBH	**Mount Berech**	149.02	294	P	PKPdf	02 52 38.8	+0.8
BDAS	**Al Bad'**	149.07	292	P	PKPdf	02 52 43.4	+5.3
KMTI	**Karmit**	149.12	295	P	PKPdf	02 52 38.7	+0.5
HAQS	**Haql**	149.13	293	P	PKPdf	02 52 43.6	+5.4
SBD	**Saint Breward**	149.23	9	⇓eP	PKPdf	02 52 37.2	-0.5
KZIT	**Kziot**	149.24	297	P	PKPdf	02 52 39.2	+0.9
LEF	**Lefka**	149.25	305	eP	PKPdf	02 52 39.1	+0.9
TAYS	**Tayyib Ism**	149.26	292	P	PKPdf	02 52 43.8	+5.3
SMOL	**Smolenice**	149.26	340	i PKP	PKPdf	02 52 43.8	+6.0
SMOL				i		02 52 50.5	
HGN	**Heimansgroeve**	149.40	355	ePKP	PKPdf	02 52 43.2	+5.3
	comp=Z,44nm,1.0s						
MODS	**Modra-Piesok**	149.43	340	i PKP	PKPdf	02 52 42.2	+4.1
MODS				e		02 52 49.8	
CTT	**Catalca**	149.53	319	eP	PKPdf	02 52 22.7	-16
SRO	**Srobarova**	149.57	338	ePKP	PKPdf	02 52 44.1	+5.8
SRO				e		02 52 52.5	
ALT	**Altintas**	149.57	314	eP	PKPdf	02 52 40.0	+1.4
ZST	**Bratislava**	149.64	340	ePKP	PKPdf	02 52 39.1	+0.7
ZST				i		02 52 44.6	
ZST				e		02 52 51.7	
MENF	**Mencas**	149.74	0	PKP	PKPdf	02 52 43.4	+4.9
MENF	**Mencas**	149.74	0	eP	PKPdf	02 52 43.8	+5.3
GRA1	**Grafenberg Arr**	149.75	348	ePKPdf	PKPdf	02 52 38.5	0.0
GRA1				ePKPbc	PKPdf	02 52 44.5	+6.0
GRA1				ePKPab	PKPab	02 52 51.6	-1.7
GRF	**Grafenberg Arr**	149.75	348	ePKP	PKPdf	02 52 38.5	0.0
GRF				ePKP	PKPdf	02 52 44.5	+6.0

GRF				ePKP	PKPab	02 52 51.6	-1.7
GRFO	Grafenberg	149.75	348	ePKPdf	PKPdf	02 52 38.7	+0.2
KHC	Kasperske Hory	149.78	345	ePKPDF	PKPdf	02 52 38.6	0.0
KHC				⇑iPKPB		02 52 44.5	
KHC				ePKPAB	PKPab	02 52 52.4	-1.0
JMB	Yambol	149.83	323	i P	PKPdf	02 52 44.5	+5.6
ISP	Isparta	149.88	312	⇓iPKPbc	PKPdf	02 52 43.9	+4.8
BCK	Bucak	150.00	311	eP	PKPdf	02 52 33.9	-5.4
GERES	GERESS Array B	150.01	345	PKP	PKPdf	02 52 38.7	-0.3
	comp=Z,1.6nm,0.7s,baz=135,slow=1.4,SNR=9.0						
GERES				PKPbc	PKPdf	02 52 44.4	+5.4
	comp=Z,23nm,0.9s,slow=1.3,SNR=14						
GERES				PKPab	PKPab	02 52 53.2	-1.2
	comp=Z,5.8nm,0.9s,slow=1.3,SNR=6.0						
GERES				pPKPbc		02 54 47.0	
	comp=Z,2.5nm,0.9s,baz=45,slow=1.9,SNR=3.7						
PVL	Pavlikeni	150.02	325	P	PKPdf	02 52 46.0	+6.8
ABH	Alteburg	150.12	353	⇓eP	PKPdf	02 52 45.4	+6.3
ABH	Alteburg	150.12	353	eP	PKPdf	02 52 45.3	+6.2
TOD	Tromm	150.23	351	⇓eP	PKPdf	02 52 45.4	+6.1
TOD	Tromm	150.23	351	eP	PKPdf	02 52 45.3	+6.0
RUP	Ruppelstein	150.35	354	⇓eP	PKPdf	02 52 46.0	+6.5
SIND	Sindeldorf	150.36	350	⇓eP	PKPdf	02 52 45.5	+6.0
SWS	Schriesheim	150.37	352	eP	PKPdf	02 52 45.4	+5.9
WLF	Walferdange	150.47	355	⇓iPKPbc	PKPdf	02 52 46.2	+6.5
KTD	Kalmit	150.61	352	eP	PKPdf	02 52 46.0	+6.1
DIM	Dimitrovgrad	150.69	323	i P	PKPdf	02 52 46.7	+6.5
BALB	Balikesir	150.73	317	eP	PKPdf	02 52 41.9	+1.5
MOA	Molln	150.79	343	⇑iP	PKPdf	02 52 40.0	-0.2
MOA				i		02 52 46.7	
MOA				i		02 52 57.0	
ELL	Elmali	150.81	310	eP	PKPdf	02 52 45.2	+4.6
JLP	Les Platons	150.84	6	⇓eP	PKPdf	02 52 46.4	+6.2
JVM	Valle D.L. Mar	150.86	6	⇓eP	PKPdf	02 52 46.4	+6.2
JSA	Saint Aubin	150.89	6	⇓eP	PKPdf	02 52 46.5	+6.3
JQE	Queens East	150.89	6	⇓eP	PKPdf	02 52 46.4	+6.1
JRS	Jersey	150.90	6	⇓eP	PKPdf	02 52 46.4	+6.1
DENT	Denizli	150.96	313	eP	PKPdf	02 52 46.1	+5.3
ARSA	Arzberg	150.97	341	⇑iP	PKPdf	02 52 41.5	+1.0
ARSA				i		02 52 47.2	
DNZL	Cakiroluk	150.98	313	i P	PKPdf	02 52 47.3	+6.5
LANF	Langenberg	150.98	352	PKP	PKPdf	02 52 47.6	+7.2
LANF	Langenberg	150.98	352	eP	PKPdf	02 52 47.0	+6.6
STU	Stuttgart	150.99	351	ePKPbc	PKPdf	02 52 47.0	+6.6
HDH	Heidenheim	151.00	349	eP	PKPdf	02 52 47.0	+6.5
KDZ	Kurdzhali	151.02	323	i P	PKPdf	02 52 47.0	+6.3
PGB	Panagyurishte	151.11	325	i P	PKPdf	02 52 47.5	+6.7
LBG	Lerchenberg	151.15	351	⇓eP	PKPdf	02 52 47.6	+6.9
FUR	Furstenfeldbru	151.20	347	ePKPbc	PKPdf	02 52 47.8	+7.0
FUR				ePKPab	PKPab	02 52 58.3	-1.1
BUCH	Bad Urach	151.28	350	⇓eP	PKPdf	02 52 47.9	+7.0
SVIS	Svilajnac	151.29	331	⇑iP	PKPdf	02 52 40.6	-0.4
RZN	Rozhen	151.39	323	i P	PKPdf	02 52 48.0	+6.8
FLN	La Foliniere	151.45	4	ePKIKP	PKPdf	02 52 40.1	-1.0
	comp=Z,27nm,1.0s						
FETY	Fethiye	151.45	311	eP	PKPdf	02 52 44.2	+2.7
BFO	Black Forest	151.55	352	ePKPdf	PKPdf	02 52 41.7	+0.5
BFO				ePKPbc	PKPdf	02 52 48.2	+7.0
VTS	Vitosha	151.58	326	i P	PKPdf	02 52 48.0	+6.5
VTS	Vitosha	151.58	326	P	PKPdf	02 52 48.7	+7.2
WLS	Welschbruch	151.59	353	PKP	PKPdf	02 52 48.7	+7.4
WLS	Welschbruch	151.59	353	eP	PKPdf	02 52 48.3	+7.0
CDF	Champ du Feu	151.60	353	ePKIKP	PKPdf	02 52 40.2	-1.1
ROSF	Rostrenen	151.61	8	ePKIKP	PKPdf	02 52 40.1	-1.2
LDF	La Druitiere	151.64	3	ePKIKP	PKPdf	02 52 40.3	-1.1
	comp=Z,40nm,1.2s						
PERS	Pernice	151.65	341	i PKPbc	PKPdf	02 52 47.7	+6.3
GUT	Gutenstein	151.68	350	⇓eP	PKPdf	02 52 48.3	+6.9
KBA	Koelnbreinsper	151.74	344	⇑iP	PKPdf	02 52 41.1	-0.5
KBA				i		02 52 48.5	
KBA				i		02 53 01.6	
SGMF	Saint Gilles	151.77	7	ePKIKP	PKPdf	02 52 40.4	-1.2
AYDN	Tasoluk	151.79	313	eP	PKPdf	02 52 49.3	+7.4
GRR	Gorron	151.80	4	ePKIKP	PKPdf	02 52 40.6	-1.0
	comp=Z,10nm,0.8s						
UBR	Uberruh	151.89	349	⇓eP	PKPdf	02 52 49.0	+7.3
THEF	They Montfort	151.91	355	PKP	PKPdf	02 52 49.4	+7.7
THEF	They Montfort	151.91	355	eP	PKPdf	02 52 49.2	+7.5
WATA	Walderalm	151.93	346	⇓iP	PKPdf	02 52 42.1	+0.3
WATA				i		02 52 49.1	
WATA				i		02 53 01.8	
WTTA	Wattenberg	151.98	346	⇑iP	PKPdf	02 52 42.2	+0.3
WTTA				i		02 52 49.4	
WTTA				i		02 53 01.9	
DIVS	Divcibare	151.99	332	⇑iP	PKPdf	02 52 48.9	+6.9
QUIF	Quistinic	152.03	8	ePKIKP	PKPdf	02 52 40.6	-1.3
FELD	Feldberg	152.04	352	eP	PKPdf	02 52 43.1	+1.2
HAU	Haudompre	152.10	354	ePKIKP	PKPdf	02 52 41.2	-0.8
KKB	Krupnik	152.16	325	i P	PKPdf	02 52 49.7	+7.4
HINF	Hinteralfeld	152.23	353	ePKIKP	PKPdf	02 52 41.3	-0.9
CRES	Cresnjev	152.26	340	i PKPbc	PKPdf	02 52 49.6	+7.3
DAVA	Damuels	152.31	349	⇑iP	PKPdf	02 52 42.4	+0.1
DAVA				i		02 52 51.0	
LJU	Ljubljana	152.36	341	i PKPbc	PKPdf	02 52 49.9	+7.4
LJU				ePKPab	PKPab	02 53 02.0	-2.3
CEY	Cerknica	152.66	341	ePKPbc	PKPdf	02 52 48.2	+5.3
HYF	Humbligny	153.03	359	ePKIKP	PKPdf	02 52 42.9	-0.4
SSF	Saint Saulge	153.22	358	ePKIKP	PKPdf	02 52 43.0	-0.6
	comp=Z,13nm,1.0s						
AVF	Avril sur Loir	153.50	358	ePKIKP	PKPdf	02 52 42.9	-1.1
CABF	La Chapelle	153.50	354	ePKIKP	PKPdf	02 52 43.3	-0.7
	comp=Z,25nm,1.0s						
MFF	Saint Martin d	153.62	4	ePKIKP	PKPdf	02 52 43.3	-0.9
	comp=Z,51nm,1.5s						
SMF	Signal de Mont	153.62	358	ePKIKP	PKPdf	02 52 43.3	-0.9
	comp=Z,21nm,1.2s						
BGF	Bois d'Agland	153.74	359	ePKIKP	PKPdf	02 52 43.7	-0.6
	comp=Z,8.1nm,0.7s						
MCGN	Macugnaga	153.92	351	ePKP	PKPdf	02 52 46.1	+1.6
TCF	Toulx Ste Croi	154.01	0	ePKIKP	PKPdf	02 52 43.9	-0.8
	comp=Z,18nm,0.9s						
LPL	La Plagne	154.52	353	ePKIKP	PKPdf	02 52 45.5	+0.1
	comp=Z,10nm,1.0s						
LPG	La Plagne	154.53	353	ePKIKP	PKPdf	02 52 45.4	0.0
BNI	Bardonecchia	154.98	353	ePKPab	PKPab	02 53 14.5	-0.9
RJF	Les Rejaudoux	154.99	1	ePKIKP	PKPdf	02 52 45.5	-0.5
	comp=Z,12nm,0.9s						
ORIF	Oris-en-Rattie	155.20	354	ePKIKP	PKPdf	02 52 45.9	-0.4
	comp=Z,22nm,1.0s						
MBDF	Montbardon	155.29	352	ePKIKP	PKPdf	02 52 45.8	-0.7
	comp=Z,55nm,1.4s						
LFF	La Frestale	155.33	3	ePKIKP	PKPdf	02 52 45.9	-0.6
VIVF	Saint-Julien-l	155.37	356	ePKIKP	PKPdf	02 52 46.2	-0.4
CAF	Calviac	155.38	0	ePKIKP	PKPdf	02 52 46.2	-0.4
GVD	Gavdhos	155.87	312	ePKPab	PKPab	02 53 18.1	-1.5
SBF	Sospel	156.05	351	ePKIKP	PKPdf	02 52 46.2	-1.3
	comp=Z,46nm,0.9s						
SMRF	Simiane la Rot	156.16	354	ePKIKP	PKPdf	02 52 47.6	0.0
	comp=Z,48nm,1.2s						
LASF	Ste Croix	156.19	357	ePKIKP	PKPdf	02 52 46.4	-1.2
LMR	La Mourre	156.69	352	ePKIKP	PKPdf	02 52 46.9	-1.4
	comp=Z,70nm,1.3s						
SJPF	Ste Jean	157.00	7	ePKIKP	PKPdf	02 52 47.5	-1.2
PBRG	Braganca	157.18	18	ePKPab	PKPab	02 53 23.5	-1.5
EPF	Esparros	157.21	4	ePKIKP	PKPdf	02 52 48.0	-1.0
ETSF	Etsaut	157.28	5	ePKIKP	PKPdf	02 52 47.6	-1.5
	comp=Z,16nm,1.0s						
PVRL	Vila Real	157.37	20	ePKPdf	PKPdf	02 52 50.1	+0.8
PVRL				ePKPab	PKPab	02 53 24.4	-1.4
PVIS	Viseu	157.81	21	ePKPab	PKPab	02 53 26.3	-1.4
MTE	Manteigas	158.21	21	ePKPdf	PKPdf	02 52 50.7	+0.3
MTE				ePKPab	PKPab	02 53 27.2	-2.3
PCBR	Castelo Branco	158.74	21	ePKPdf	PKPdf	02 52 51.7	+0.6
PCBR				ePKPab	PKPab	02 53 30.1	-1.6
EVO	Evora	159.71	24	ePKIKP	PKPdf	02 52 52.3	+0.2
	comp=Z,26nm,1.0s						
ESDC	Sonseca Array	159.90	14	PKP	PKPdf	02 52 52.4	+0.1
	comp=Z,0.8nm,0.7s,baz=162,slow=0.2,SNR=5.4						
ESDC				PKPab	PKPab	02 53 35.5	-1.3
	comp=Z,2.0nm,0.8s,baz=354,slow=3.6,SNR=6.1						
PBEJ	Beja	160.20	24	ePKPdf	PKPdf	02 52 53.3	+0.7
PBEJ				ePKPab	PKPab	02 53 36.0	-2.1
DBIC	Dimbokro	164.84	152	PKP	PKPdf	02 52 57.1	-0.8
	comp=Z,9.0nm,0.8s,baz=244,slow=0.2,SNR=11						
DBIC				PKPab	PKPab	02 53 57.2	-1.7
	comp=Z,5.7nm,0.9s,baz=157,slow=5.4,SNR=7.0						

DJA 10 03:06:06.3±0.4**, 8.73S**×**115.18E, h15^{km}, MD4.9**/4**, ML3.8**/2**, 4C-5D, Error ellipse: s-maj=23.9km s-min=4.2km az=8.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RATI	Rata	0.34	89	⇑ePn	Pn	03 06 12.4	-3.9
	404nm,0.2s						
RATI				⇑iSn	Sn	03 06 17.6	-5.3
KELI	Kelakatan	0.85	307	⇑iPn	Pn	03 06 20.8	-2.8
	141nm,0.2s						
KELI	Kelakatan	0.85	307	⇓iP	Pb	03 06 21.7	-0.6
KELI				⇓iSn	Sn	03 06 33.7	-2.0
KEDI	Kedomdong	0.95	75	⇓iPn	Pn	03 06 22.6	-2.4
	110nm,0.2s						
KEDI				⇑iSn	Sn	03 06 35.2	-3.0
SRDI	Scrawed	1.06	283	⇓iPn	Pn	03 06 24.6	-1.9
	160nm,0.2s						
SRDI				⇓iSn	Sn	03 06 38.9	-2.1

CSEM ***10*** *03:30:54.0±0.1, 27.91N×53.65E, h5^{km}, mb3.9/2, Error ellipse: s-maj=2.9km s-min=1.9km az=66.0*

IDC ***10*** *03:30:55.1±1.3, 27.90N×53.78E, mb4.0/14, mb1 4.2/15, mb1mx4.0/23, ML1.8/1, Error ellipse: s-maj=36.9km s-min=20.1km az=28.0*

NEIC ***10*** *03:30:56.6, 27.63N×53.75E, h8^{km}, mb3.8/3, MN3.5(TEH), After TEH.*

ISC 10 03:31:00.8±1.0**, 27.95N**±0.06×**53.59E**±0.08**, h54^{km}**±8^{km}**, n41, σ1^{s}25**/43**, mb3.9**/15**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IMOK	Mook	1.34	325	Pn	P	03 31 26.0	+2.3
ISRV	Sarvestan	1.49	344	Pn	P	03 31 28.2	+2.4
IMEH	Mehriz	3.54	14	Pn	P	03 31 55.1	+0.3
ISAD	Sadrabad	3.95	1	Pn	P	03 32 01.6	+1.1
IBAF	Bafgh	4.02	25	Pn	P	03 32 00.5	-0.9
ICHK	Chekchek	4.34	9	Pn	P	03 32 06.3	+0.3
HASS	Wahat al Ahsa'	4.44	233	P	P	03 32 07.7	+0.3
HASS				S	S	03 32 60.0	+1.7
IVRN	Varamin	7.20	348	Pn	P	03 32 44.4	-1.6
IDMV	Damavand	7.72	351	Pn	P	03 32 52.4	-0.7
IRAZ	Razeghan	8.06	338	Pn	P	03 32 54.3	-3.5
IRAZ				Sn	S	03 34 26.9	-1.5
MZLS	Mizel	8.49	245	P	P	03 33 02.4	-1.3
ARSS	Ar Rass	9.47	260	P	P	03 33 14.1	-3.0
AFFS	'Afif	10.33	250	P	P	03 33 26.9	-2.1
HILS	Ha'il	10.47	270	P	P	03 33 28.2	-2.8
GNI	Garni	14.20	331	Pn	P	03 34 29.1	+8.7
	1.0nm,0.3s,baz=15,slow=2.4,SNR=7.4						
GNI	Garni	14.20	331	ePn	P	03 34 24.9	+4.5
MALT	Malatya	16.35	313	eP	P	03 34 53.2	+5.1
	4.5nm,0.8s						
BRTR	Keskin Array B	20.26	311	P	P	03 35 35.0	+0.8
	1.3nm,0.5s,baz=131,slow=12,SNR=3.7						
BRTR	Keskin Array B	20.26	311	P	P	03 35 35.0	+0.7
AML	Almayashu	21.64	44	eP	P	03 35 47.7	-0.5
	2.2nm,0.5s,mb3.8						
AML	Almayashu	21.64	44	eP	P	03 35 47.7	-0.5
	2.2nm,0.5s,mb3.8						
IDI	Anoyia	25.45	294	P	P	03 36 26.4	+1.1
	3.5nm,0.6s,mb4.1,baz=135,slow=13,SNR=3.5						
BRVK	Borovoye	27.97	22	P	P	03 36 47.7	-0.5
	0.9nm,0.4s,mb3.8						
BRVK	Borovoye	27.97	22	P	P	03 36 47.7	-0.6
	0.9nm,0.4s,mb3.8						
BVAR	Borovoye Array	27.98	22	P	P	03 36 47.9	-0.5
	1.6nm,0.7s,mb3.8,baz=217,slow=7.4,SNR=9.5						
MLR	Muntele Rosu	28.04	316	P	P	03 36 51.5	+2.5
	2.2nm,1.0s,mb3.8,baz=11,slow=10,SNR=4.0						
AKASG	Malin Array Be	29.28	328	P	P	03 36 59.5	-0.4
	0.7nm,0.6s,mb3.6,baz=134,slow=7.8,SNR=3.4						
FINES	FINESS Array B	38.20	339	P	P	03 38 16.9	+0.2
	1.3nm,0.5s,mb4.0,baz=140,slow=10.0,SNR=18						
HFS	Hagfors	41.98	331	P	P	03 38 48.0	+0.2
	1.5nm,0.4s,mb4.0,baz=129,slow=9.5,SNR=14						
HFS	Hagfors	41.98	331	P	P	03 38 48.0	+0.2
NB2	NORSAR Subarra	43.50	332	P	P	03 38 59.9	-0.4
	0.5nm,0.5s,mb3.5,baz=118,slow=7.9						
NOA	NORSAR Array B	43.50	332	P	P	03 39 00.2	-0.1
	2.1nm,1.1s,mb3.8,baz=108,slow=9.3,SNR=3.5						
NOA	NORSAR Array B	43.50	332	P	P	03 39 00.2	-0.1
ARCES	ARCESS Array B	44.69	346	P	P	03 39 10.1	+0.3
	7.9nm,1.2s,mb4.4,baz=157,slow=9.2,SNR=5.3						
SONM	Songino Array	45.19	49	P	P	03 39 13.7	-0.3
	0.8nm,0.7s,mb3.6,baz=270,slow=8.6,SNR=4.2						
ILAR	Eielson Array	86.22	9	P	P	03 43 37.2	+0.3
	0.7nm,1.0s,mb3.9,baz=323,slow=4.9,SNR=7.1						
ILAR	Eielson Array	86.22	9	P	P	03 43 37.2	+0.2
YKA	Yellowknife Ar	89.38	355	P	P	03 43 53.5	+1.3
	0.4nm,0.6s,mb4.0,baz=6.6,slow=5.4,SNR=15						
YKA	Yellowknife Ar	89.38	355	P	P	03 43 53.5	+1.3
WRA	Warramunga Arr	91.39	112	P	P	03 44 03.6	+0.9
	0.3nm,0.6s,mb3.8,baz=316,slow=4.2,SNR=3.7						
ASAR	Alice Springs	92.84	115	P	P	03 44 08.2	-1.1
	0.4nm,0.6s,mb4.0,baz=304,slow=4.5,SNR=5.2						

BJI ***10*** *03:43:59.9, 35.72N×93.19E, h16^{km}, mB5.2, mb5.1, ML4.9, Ms4.9, Msz4.7*

NEIC ***10*** *03:44:00.4±0.1, 35.68N×93.18E, h10^{km}, mb5.2/100, Error ellipse: s-maj=4.3km s-min=2.7km az=31.0*

HRVD ***10*** *03:44:00.4±0.4, 35.83N×93.35E, h19^{km}±1^{km}, MW5.0/49, Centroid moment Tensor Solution. LP body waves: s19,c23;Mantle waves: s49,c83; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.43±.23; $M_{\theta\theta}$-1.58±.17; $M_{\phi\phi}$-0.85±.17; $M_{r\theta}$0.59±.31; $M_{\theta\phi}$3.45±.12; $M_{\phi r}$-0.24±.30; Best double couple: $M_0$3.67×10^{16} NP1:ϕ_s341°,δ48°,λ133°. NP2:ϕ_s106°,δ57°,λ52°. Principal axes: T 2.61, Plg59°, Azm320°; N 2.13, Plg31°, Azm129°; P -4.73, Plg5°, Azm222°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

MOS ***10*** *03:44:02.1±1.2, 35.69N×93.15E, h33^{km}, mb5.1/30, MS4.5/17 Error ellipse: s-maj=10.2km s-min=5.3km az=115.9*

IDC ***10*** *03:44:04.1±6.3, 35.76N×93.30E, h35^{km}±50^{km}, mb4.5/22, mb1 4.7/24, mb1mx4.7/25, ML4.4/2, MS4.3/15, Ms1 4.4/15, ms1mx4.2/23, Error ellipse: s-maj=19.6km s-min=10.9km az=45.0*

NNC ***10*** *03:44:06.9±3.5, 36.56N×92.98E, Error ellipse: s-maj=218.9km s-min=32.3km az=57.0*

ISC 10 03:44:00.1±0.1**, 35.73N**±0.02×**93.24E**±0.02**, h20^{km}, h20^{km}**±.6^{km}**:pP-P, n330, σ0^{s}99**/343**, mb5.0**/128**, MS4.5**/29**, 21C-10D, Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LSA	Lhasa	6.26	197	P	Pn	03 45 36.5	+2.6
LSA				LR	LR		
	comp=N,12μm,6.0s						
LSA				LR	LR		
	comp=E,8μm,6.0s						
GTA	Gaotai	6.38	53	eP	Pn	03 45 36.3	+0.7
GTA				S	Sn	03 46 51.0	+2.3
GTA				LR	LR		
	comp=N,4μm,13.7s						
GTA				LR	LR		
	comp=E,6μm,12.2s						
GTA				LR	LR		
	comp=Z,7μm,12.2s						
LZH	Lanzhou	8.61	85	⇓P	P	03 46 08.0	+1.3
LZH				AP		03 46 17.3	
LZH				eS	Sn	03 47 40.0	-4.2
LZH				AMB	AMB		
	comp=Z,190nm,1.0s						
LZH				AMB	AMB		
	comp=Z,750nm,4.0s						
LZH				Smax			
	comp=N,193nm,1.0s						
LZH				Smax			
	comp=E,213nm,1.1s						
LZH				LR	LR		
	comp=N,8μm,8.7s						
LZH				LR	LR		
	comp=Z,10μm,9.3s						
LZH	Lanzhou	8.61	85	⇓P	P	03 46 08.0	+1.3
	comp=Z,190nm,1.0s						
LZH				pP		03 46 17.3	
LZH				sP		03 46 22.5	
LZH				eS	Sn	03 47 40.0	-4.2
LZH				sS		03 47 51.0	
LZH				Lg		03 48 25.0	
WMQ	Urumqi	9.14	334	⇑iP	P	03 46 12.5	-1.6
WMQ				AP		03 46 15.5	
WMQ				XP		03 46 18.5	
WMQ				S	Sn	03 47 56.6	-0.8
WMQ				XS		03 48 01.7	
WMQ				LG1		03 48 41.0	
WMQ				AMB	AMB		
	comp=Z,175nm,0.8s						
WMQ				LR	LR		
	comp=N,2μm,21.2s						
WMQ				LR	LR		
	comp=E,4μm,20.2s						
WMQ				LR	LR		
	comp=Z,3μm,15.5s						
CD2	Chengdu	10.02	116	P	P	03 46 29.2	+3.0
CD2				XP		03 46 34.8	
CD2				PPP	PPP	03 46 43.4	+2.4
CD2				S	S	03 48 28.6	+10
CD2				XS		03 48 33.1	
CD2				AMB	AMB		
	comp=Z,10.0nm,0.4s						
CD2				AMB	AMB		
	comp=Z,80nm,5.1s						
CD2				LR	LR		
	comp=E,4μm,10.2s						
CD2				LR	LR		
	comp=Z,3μm,9.8s						
SHL	Shillong	10.19	187	eP	P	03 46 26.5	-2.1
SHL				e		03 49 47.0	
KKN	Kakani	10.41	223	eP	P	03 46 33.0	+1.4
	comp=Z,73nm,0.8s						
KKN	Kakani	10.41	223	ePn	P	03 46 32.8	+1.2
	comp=Z,104nm,1.2s						
PKI	Pulchoki	10.51	222	eP	P	03 46 33.9	+0.9
	comp=Z,136nm,1.0s						
GKN	Gorkha	10.62	226	eP	P	03 46 35.3	+1.0
	comp=Z,153nm,0.9s						
GKN	Gorkha	10.62	226	ePn	P	03 46 35.9	+1.6
	comp=Z,76nm,0.9s						
DMN	Daman	10.65	223	eP	P	03 46 35.8	+1.0
	comp=Z,394nm,1.4s						
IMP	Imphal	10.92	177	⇑iP	P	03 46 33.1	-5.4
KOLN	Koldanda	11.41	229	eP	P	03 46 45.3	+0.2
	comp=Z,108nm,1.0s						
AGT	Agartala	11.93	189	i	P	03 46 53.0	+0.8
PTH	Pithoragarh	12.58	244	eP	P	03 47 00.0	-1.0
XAN	Xi'an	12.98	93	P	P	03 47 04.3	-2.0
XAN				AP		03 47 13.9	
XAN				LR	LR		
	comp=N,3μm,10.9s						
XAN				LR	LR		
	comp=E,2μm,11.6s						
XAN				LR	LR		
	comp=Z,3μm,13.0s						
KMI	Kunming	13.36	140	eP	P	03 47 10.0	-1.3
KMI				AP		03 47 13.1	
KMI				XP		03 47 16.5	
KMI				PP	PP	03 47 21.1	-0.7
KMI				S	S	03 49 34.5	-5.7
KMI				SS	SS	03 49 56.0	+0.1
KMI				AMB	AMB		
	comp=Z,55nm,3.1s						
KMI				LR	LR		
	comp=N,2μm,12.2s						
KMI				LR	LR		
	comp=E,3μm,11.6s						
KMI				LR	LR		
	comp=Z,3μm,12.2s						
KMI	Kunming	13.36	140	eP	P	03 47 10.0	-1.3
	comp=Z,12nm,1.8s						
KMI				pP		03 47 13.1	
KMI				sP		03 47 16.5	
KMI				PP	PP	03 47 21.1	-0.7
KMI				S	S	03 49 34.5	-5.7
KMI				SS	SS	03 49 56.0	+0.1
MK31	Makanchi Array	13.77	327	⇑Pn	P	03 47 13.8	-2.8
	comp=Z,103nm,0.7s,baz=137,slow=12,SNR=628						
MK31				⇑Sn	S	03 49 42.5	-7.4
	comp=Z,39nm,0.8s						
MK31				⇑Lg		03 50 55.6	
	comp=Z,96nm,1.1s,baz=147,slow=23,SNR=4.0						
MKAR	Makanchi Array	13.77	327	i P	P	03 47 13.7	-2.9
MKAR				pmax	pmax		
	comp=Z,164nm,0.9s						
DDI	Dehra Dun	13.83	251	eP	P	03 47 15.6	-1.9
BTO	Baotou	14.07	65	eP	P	03 47 19.6	-0.9
BTO				AMB	AMB		
	comp=Z,45nm,0.8s						
BTO				LR	LR		
	comp=E,758nm,7.2s						
AAA	Alma-Ata	14.65	306	eP	P	03 47 26.0	-2.1
AAA				pmax	pmax		
	comp=Z,1μm,2.0s						
BHK	Bhakra	14.67	258	e	P	03 47 42.1	+14
ENH	Enshi	14.67	107	ePn	P	03 47 27.5	-1.0
	comp=Z,37nm,1.3s						
GYA	Guiyang	14.73	125	⇓iP	P	03 47 27.7	-1.6
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
GYA				AMB	AMB		
	comp=Z,220nm,5.1s						
GYA				LR	LR		
	comp=N,1μm,13.8s						
GYA				LR	LR		
	comp=E,1μm,13.9s						
GYA				LR	LR		
	comp=Z,2μm,10.2s						
THN	Thein Dam	14.89	262	eP	P	03 47 32.6	+1.2
THN				e		03 49 37.3	
THN				e		03 50 03.0	
KKR	Kurukshetra	14.95	252	eP	P	03 47 35.7	+3.6
HHC	Hu-ho-hao-te	15.26	65	eP	P	03 47 33.6	-2.6
HHC				PP	PP	03 47 45.5	-2.8
HHC				PCP	PcP	03 52 39.1	-3.0
HHC				AMB	AMB		
	comp=Z,34nm,0.8s						
HHC				AMB	AMB		
	comp=Z,278nm,3.5s						
HHC				LR	LR		
	comp=N,2μm,13.4s						
HHC				LR	LR		
	comp=E,2μm,14.8s						
HHC				LR	LR		
	comp=Z,2μm,16.1s						
NDI	New Delhi	15.27	247	e	P	03 47 30.5	-5.8
NDI				e		03 50 35.5	
KZA	Kyzart	15.37	300	P	P	03 47 37.0	-0.5
	SNR=12						
TKM2	Tokmak 2	15.42	303	P	P	03 47 43.2	+5.1
	SNR=9.4						
TKM2	Tokmak 2	15.42	303	ePn	P	03 47 36.9	-1.3
	comp=Z,62nm,0.6s						
AYAN	Aya Nagar	15.44	247	eP	P	03 47 40.9	+2.3
AYAN				e		03 47 51.4	
	comp=Z,43nm,1.3s						
BHGR	Bahadurgarh	15.47	248	eP	P	03 47 42.1	+3.2
AGRA	Agra	15.54	241	eP	P	03 47 39.6	-0.3
AGRA				e		03 47 42.8	
	comp=Z,81nm,1.8s						
SONM	Songino Array	15.55	35	Pn	P	03 47 39.6	-0.2
	comp=Z,1.3nm,0.3s,baz=220,slow=13,SNR=95						
RTK	Rohtak	15.70	250	eP	P	03 47 44.3	+2.4
KBK	Karagaybulak	15.77	302	P	P	03 47 47.8	+5.2
	SNR=6.7						
ULN	Ulaanbaatar	15.88	36	i P	P	03 47 44.6	+0.5
ULN	Ulaanbaatar	15.88	36	ePn	P	03 47 44.7	+0.6
	comp=Z,90nm,1.0s						
UCH	Uchtor	15.93	300	P	P	03 47 44.0	-0.8
	SNR=8.6						
UCH	Uchtor	15.93	300	ePn	P	03 47 44.0	-0.8
	comp=Z,89nm,1.4s						
CHMS	Chumysh	16.02	303	P	P	03 47 52.0	+6.1
	SNR=13						
FRU	Bishkek	16.06	302	eP	P	03 47 48.0	+1.6
FRU				pmax	pmax		
	comp=Z,100nm,1.6s						
AAK	Ala-Archa	16.08	301	⇑P	P	03 47 45.8	-0.8
	comp=Z,85nm,1.6s						
AAK	Ala-Archa	16.08	301	P	P	03 47 47.5	+0.9
	SNR=9.6						
AAK	Ala-Archa	16.08	301	i P	P	03 47 46.4	-0.2
AAK				pmax	pmax		
	comp=Z,72nm,1.6s						
AAK				MLR	MLR		
	comp=Z,800nm,13.0s						
AAK	Ala-Archa	16.08	301	ePn	P	03 47 45.2	-1.4
	comp=Z,33nm,0.9s						
KUDL	Kundal	16.09	247	eP	P	03 47 48.7	+1.8

KUDL				*e*		03 47 51.5	
	comp=Z,125nm,1.1s						
USP	**Ospenovka**	**16.29**	**303**	P	**P**	**03 47 53.3**	**+3.9**
	SNR=19						
AML	**Almayashu**	**16.49**	**299**	P	**P**	**03 47 56.8**	**+4.9**
	SNR=11						
AML	**Almayashu**	**16.49**	**299**	*e*Pn	**P**	**03 47 51.1**	**-0.8**
	comp=Z,38nm,1.3s						
EKS2	**Erkin-Say**	**16.59**	**301**	P	**P**	**03 47 58.2**	**+5.1**
	SNR=11						
EKS2	**Erkin-Say**	**16.59**	**301**	*e*Pn	**P**	**03 47 53.1**	**0.0**
	comp=Z,49nm,1.0s						
KHET	**Khetri**	**16.64**	**248**	*e*P	**P**	**03 47 54.8**	**+0.9**
KHET				*e*		03 47 58.8	
	comp=Z,112nm,1.3s						
KHET				*e*		03 51 11.9	
MOY	**Mondy**	**16.88**	**17**	*e*P	**P**	**03 47 57.9**	**+1.2**
CHG	**Chiang Mai**	**17.58**	**162**	⇓P	**P**	**03 48 05.9**	**+0.1**
	comp=Z,26nm,0.6s						
TLY	**Talaya**	**17.60**	**22**	*e*P	**P**	**03 48 09.3**	**+3.5**
TLY				*e*S	**S**	**03 51 29.3**	**+10**
TLY				pmax	pmax		
	comp=Z,74nm,1.3s						
TLY				MLR	MLR		
	comp=Z,2µm,15.0s						
TLY	**Talaya**	**17.60**	**22**	*e*Pn	**P**	**03 48 07.4**	**+1.6**
	comp=Z,57nm,1.1s						
CMAR	**Chiang Mai Arr**	**17.93**	**162**	P	**P**	**03 48 09.5**	**-0.5**
	comp=Z,0.2nm,0.3s,baz=337,slow=12,SNR=36						
CMAR				LR	LR	03 56 02.2	
	comp=Z,553nm,18.9s,baz=335,slow=40						
CMAR	**Chiang Mai Arr**	**17.93**	**162**	*i* P	**P**	**03 48 10.0**	**0.0**
CMAR				pmax	pmax		
	comp=Z,34nm,1.0s						
NANT	**Nan**	**18.10**	**157**	P	**P**	**03 48 12.0**	**-0.3**
IRK	**Irkutsk**	**18.28**	**22**	*e*P	**P**	**03 48 17.5**	**+3.2**
AJM	**Ajmer**	**18.38**	**245**	⇓*i*P	**P**	**03 48 14.0**	**-1.6**
WHN	**Wuhan**	**18.41**	**100**	*e*P	**P**	**03 48 18.0**	**+2.0**
WHN				LR	LR		
	comp=N,1µm,8.0s						
WHN				LR	LR		
	comp=E,5µm,10.9s						
WHN				LR	LR		
	comp=Z,6µm,14.1s						
BHPL	**Bhopal**	**18.53**	**232**	*e*P	**P**	**03 48 13.9**	**-3.6**
BHPL				*e*		03 48 24.6	
	comp=Z,79nm,1.4s						
BJT	**Baijiatuau**	**18.59**	**70**	*e*P	**P**	**03 48 19.1**	**+1.1**
	comp=Z,68nm,1.2s						
BJI	**Beijing**	**18.59**	**70**	P	**P**	**03 48 19.0**	**+0.8**
BJI				XP		03 48 23.9	
BJI				S	**S**	**03 51 46.1**	**+4.4**
BJI				AMB	AMB		
	comp=Z,745nm,6.5s						
BJI				LR	LR		
	comp=N,712nm,9.0s						
BJI				LR	LR		
	comp=E,2µm,9.0s						
BJI				LR	LR		
	comp=Z,1µm,18.2s						
BJI	**Beijing**	**18.59**	**70**	P	**P**	**03 48 19.0**	**+0.8**
	comp=Z,23nm,1.1s						
BJI				sP		03 48 23.9	
BJI				S	**S**	**03 51 46.1**	**+4.4**
NGP	**Nagpur**	**19.11**	**224**	⇓*e*P	**P**	**03 48 23.6**	**-0.9**
NGP				*e*S	**S**	**03 51 55.9**	**+2.2**
	comp=Z,191nm,1.3s						
TIA	**Tai’an**	**19.33**	**82**	*e*P	**P**	**03 48 27.8**	**+0.9**
TIA				LR	LR		
	comp=N,2µm,10.0s						
KRAR	**Krasnoyarsk**	**20.29**	**359**	*e*P	**P**	**03 48 39.8**	**+2.5**
KRAR				*i* *PP		03 48 57.7	
KRAR				*i*		03 52 20.3	
KRAR				*i*		03 52 51.8	
NVS	**Novosibirsk**	**20.33**	**343**	*i* P	**P**	**03 48 35.5**	**-2.2**
NVS				*e*S	**S**	**03 52 22.7**	**+3.2**
NVS				pmax	pmax		
	comp=N,363nm,1.7s						
NVS				pmax	pmax		
	comp=E,203nm,1.7s						
NVS				pmax	pmax		
	comp=Z,309nm,1.7s						
NVS				smax			
	comp=N,76nm,1.8s						
NVS				smax			
	comp=E,81nm,1.8s						
AKL	**Akola**	**20.66**	**228**	⇑*i*P	**P**	**03 48 39.8**	**-1.5**
AKL				*i*		03 56 17.4	
	comp=E,212nm,1.5s						
NST	**Nakhon Sawan**	**20.90**	**161**	P	**P**	**03 48 42.5**	**-1.3**
	comp=E,67nm,0.7s						
GZH	**Guangzhou**	**21.52**	**120**	P	**P**	**03 48 47.4**	**-2.6**
GZH				S	**S**	**03 52 44.2**	**+1.5**
GZH				LR	LR		
	comp=N,1µm,9.0s						
GZH				LR	LR		
	comp=E,1µm,9.2s						
GZH				LR	LR		
	comp=Z,2µm,11.8s,MS4.7						
QIZ	**Qiongzhong**	**22.17**	**134**	P	**P**	**03 48 55.6**	**-1.0**
QIZ				*e*S	**S**	**03 52 52.8**	**-1.9**
QIZ				LR	LR		
	comp=N,927nm,11.4s,MS4.5						
QIZ				LR	LR		
	comp=E,726nm,12.3s,MS4.5						
QIZ				LR	LR		
	comp=Z,2µm,11.7s,MS4.7						
HYB	**Hyderabad**	**22.42**	**219**	⇑*e*P	**P**	**03 48 58.0**	**-1.1**
	comp=Z,100nm,1.0s,mb5.2						
HYB				*e*		03 49 38.0	
HYB				*e*S	**S**	**03 53 08.0**	**+8.6**
HYB	**Hyderabad**	**22.42**	**219**	⇑*i*P	**P**	**03 48 58.0**	**-1.1**
	comp=Z,100nm,1.0s,mb5.2						
HYB				*e*		03 49 38.0	
HYB				*e*S	**S**	**03 53 08.0**	**+8.6**
HIA	**Hailar**	**23.62**	**47**	*e*P	**P**	**03 49 12.1**	**+1.6**
	comp=Z,56nm,1.3s,mb4.8						
BVA0	**Borovoye Array**	**23.62**	**324**	⇑P	**P**	**03 49 11.9**	**+1.4**
	comp=Z,8.2nm,2.3s,mb3.8						
BVA0	**Borovoye Array**	**23.62**	**324**	P	**P**	**03 49 11.6**	**+1.1**
BVA0				pmax	pmax		
	comp=Z,19nm,2.3s,mb4.1						
BVAR	**Borovoye Array**	**23.62**	**324**	P	**P**	**03 49 11.8**	**+1.3**
	comp=Z,7.8nm,0.8s,mb4.2,baz=114,slow=10,SNR=28						
BRVK	**Borovoye**	**23.70**	**324**	*e*P	**P**	**03 49 11.7**	**+0.5**
	comp=Z,13nm,0.6s,mb4.5						
SSE	**Sheshan**	**23.74**	**93**	*e*P	**P**	**03 49 12.6**	**+0.7**
SSE				AP		03 49 15.4	
SSE				S	**S**	**03 53 28.8**	**+6.1**
SSE				XS		03 53 34.2	
SSE				AMB	AMB		
	comp=Z,46nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,193nm,6.9s						
SSE				LR	LR		
	comp=N,1µm,19.3s,MS4.4						
SSE				LR	LR		
	comp=E,598nm,19.3s,MS4.4						
SSE				LR	LR		
	comp=Z,893nm,11.4s						
SSE	**Sheshan**	**23.74**	**93**	*e*P	**P**	**03 49 12.6**	**+0.7**
	comp=Z,46nm,0.7s,mb5.0						
SSE				pP		03 49 15.4	
SSE				S	**S**	**03 53 28.8**	**+6.1**
SSE				sS		03 53 34.2	
SSE				LR	LR		
	comp=Z,890nm,11.4s,MS4.5						
CHKZ	**Chkalovo**	**23.93**	**326**	P	**P**	**03 49 14.0**	**+0.5**
CHKZ				pmax	pmax		
	comp=Z,58nm,1.2s,mb4.9						
CHKZ	**Chkalovo**	**23.93**	**326**	*e*P	**P**	**03 49 14.0**	**+0.6**
	comp=Z,12nm,0.7s,mb4.4						
BHJ	**Bhuj**	**23.93**	**245**	*e*P	**P**	**03 49 14.9**	**+1.1**
POO	**Poona**	**24.24**	**230**	*e*P	**P**	**03 49 17.9**	**+1.0**
POO				*e*		03 49 21.6	
	comp=Z,68nm,2.7s						
QZH	**Quanzhou**	**24.31**	**109**	*e*P	**P**	**03 49 17.0**	**-0.5**
QZH				LR	LR		
	comp=N,6µm,13.8s,MS5.3						
QZH				LR	LR		
	comp=E,3µm,13.2s,MS5.3						
QZH				LR	LR		
	comp=Z,3µm,10.6s,MS5.1						
SNY	**Shenyang**	**24.34**	**66**	PR		03 49 22.4	
SNY				S	**S**	**03 53 39.4**	**+6.5**
SNY				AMB	AMB		
	comp=Z,400nm,5.5s						
SNY				LR	LR		
	comp=N,3µm,19.0s						
SNY				LR	LR		
	comp=Z,1µm,10.0s						
KAD	**Karad**	**24.96**	**228**	*e*P	**P**	**03 49 22.0**	**-1.9**
	comp=Z,65nm,1.6s,mb4.9						
CN2	**Changchun**	**25.91**	**62**	*e*P	**P**	**03 49 33.0**	**+0.5**
CN2				*e*AP	pP	03 49 37.5	-0.8
CN2				*e*S	**S**	**03 54 00.8**	**+1.6**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
CN2				AMB	AMB		
	comp=Z,500nm,7.0s						
CN2				LR	LR		
	comp=N,2µm,16.0s,MS4.8						
CN2				LR	LR		
	comp=E,800nm,16.0s,MS4.8						
CN2				LR	LR		
	comp=Z,3µm,19.0s,MS4.8						
BOD	**Bodaibo**	**26.07**	**26**	*e*P	**P**	**03 49 33.1**	**-0.7**
MDJ	**Mudanjiang**	**28.96**	**61**	P	**P**	**03 49 59.7**	**-0.5**
MDJ				PCP	PcP	03 53 07.3	-1.8
MDJ				S	**S**	**03 54 51.6**	**+2.9**
MDJ				SCP		03 56 49.9	
MDJ				AMB	AMB		
	comp=Z,138nm,4.8s						
MDJ				LR	LR		
	comp=N,730nm,27.5s,MS4.1						
MDJ				LR	LR		
	comp=E,259nm,32.2s,MS4.1						
MDJ				LR	LR		
	comp=Z,313nm,34.1s,MS3.7						
ARU	**Arti**	**31.23**	**322**	⇑*i*P	**P**	**03 50 19.7**	**-0.6**
ARU				*e*		03 51 20.0	
ARU				*e*		03 53 07.6	
ARU				*e*S	**S**	**03 55 25.8**	**+1.4**
ARU				*e*SS	SS	03 57 12.2	+1.4
ARU				*e*SSS	SSS	03 57 26.3	-6.8
ARU				*e*		04 00 54.5	
ARU				pmax	pmax		
	comp=Z,26nm,1.6s,mb4.8						
ARU				MLR	MLR		
	comp=Z,800nm,19.0s,MS4.4						
ARU				MLR	MLR		
	comp=N,300nm,17.0s,MS4.4						
ARU				MLR	MLR		
	comp=E,600nm,18.0s,MS4.4						
ARU	**Arti**	**31.23**	**322**	*e*P	**P**	**03 50 18.8**	**-1.5**
	comp=E,11nm,0.8s,mb4.7						
ARU				LR	LR		
	comp=Z,177nm,20.0s,MS3.7						
SOKR	**Solikamsk**	**33.54**	**327**	⇓*i*P	**P**	**03 50 39.0**	**-1.4**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,380nm,20.0s,MS4.1						
YAK	**Yakutsk**	**34.79**	**29**	*i* P	**P**	**03 50 51.1**	**0.0**
YAK				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.8						
YAK				MLR	MLR		
	comp=Z,900nm,18.0s,MS4.6						
GNI	**Garni**	**38.13**	**292**	*i* P	**P**	**03 51 20.2**	**+0.6**
GNI				pmax	pmax		
	comp=Z,24nm,1.5s						
GNI				MLR	MLR		
	comp=Z,300nm,18.0s						
GNI	**Garni**	**38.13**	**292**	P	**P**	**03 51 20.0**	**+0.4**
	comp=Z,11nm,1.0s,mb4.5						
KIV	**Kislovodsk**	**39.16**	**298**	*e*P	**P**	**03 51 29.6**	**+1.5**
KIV				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.4						
TIXI	**Tiksi**	**40.46**	**17**	⇑*i*P	**P**	**03 51 38.1**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,1µm,12.0s,MS4.9						
VRSR	**Storozhevoye**	**41.21**	**309**	*e*P	**P**	**03 51 43.3**	**-1.6**
VRSR				*e**PP	pP	03 51 50.5	-0.4
VRSR				*e*		03 53 43.6	
VRSR				*e*S	**S**	**03 57 53.5**	**-3.7**
VRSR				*e**SS		03 58 10.1	
VRSR				pmax	pmax		
	comp=Z,30nm,1.4s,mb4.7						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.7s						
VRSR				pmax	pmax		
	comp=E,20nm,1.5s						
VRSR				smax			
	comp=N,9.0nm,0.9s						
VRSR				smax			
	comp=Z,1.0nm,0.7s						
VRSR				smax			
	comp=E,3.0nm,1.0s						
SOC	**Sochi**	**41.34**	**298**	*e*P	**P**	**03 51 43.8**	**-2.3**
SOC				*e*		03 53 48.2	
SOC				*e*S	**S**	**03 58 02.0**	**+2.7**
SOC				pmax	pmax		
	comp=Z,64nm,1.0s,mb5.2						
SOC				pmax	pmax		
	comp=N,27nm,1.1s						
SOC				pmax	pmax		
	comp=E,75nm,1.5s						
MOS	**Moscow**	**42.33**	**316**	*e*P	**P**	**03 51 52.8**	**-1.2**
MOS				*e*		03 53 31.0	
MOS				pmax	pmax		
	comp=Z,95nm,1.1s,mb5.3						
MZLS	**Mizel**	**42.87**	**268**	P	**P**	**03 51 59.0**	**0.0**
OBN	**Obninsk**	**42.89**	**315**	*i* P	**P**	**03 51 58.4**	**-0.3**
OBN				*e*		03 53 35.8	
OBN				*e*		03 53 48.1	
OBN				*e*S	**S**	**03 58 20.8**	**-1.2**
OBN				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.0						
OBN				MLR	MLR		
	comp=Z,600nm,19.0s,MS4.5						
MALT	**Malatya**	**43.30**	**290**	*e*P	**P**	**03 52 01.8**	**-0.5**
	comp=Z,34nm,1.6s,mb4.8						
ARSS	**Ar Rass**	**43.66**	**271**	P	**P**	**03 52 05.0**	**-0.2**
MA2	**Magadan**	**43.72**	**38**	*i* P	**P**	**03 52 05.8**	**+0.5**
MA2				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.0						
MA2				MLR	MLR		
	comp=Z,500nm,13.0s,MS4.6						
HILS	**Ha’il**	**44.21**	**274**	P	**P**	**03 52 10.2**	**+0.5**
KAMS	**Al Khamasin**	**45.17**	**264**	P	**P**	**03 52 16.6**	**-0.9**
LVZ	**Lovozero**	**45.69**	**333**	*i* P	**P**	**03 52 20.7**	**-0.3**
LVZ				pmax	pmax		
	comp=Z,52nm,1.5s,mb5.2						
LVZ				MLR	MLR		
	comp=Z,900nm,17.0s,MS4.8						
QURS	**Qurayyt al Mil**	**46.27**	**281**	P	**P**	**03 52 27.4**	**+1.3**
ASF	**Jabal al Asfar**	**46.34**	**283**	P	**P**	**03 52 28.3**	**+1.7**
	comp=Z,13nm,0.9s,mb4.9,baz=156,slow=10.0,SNR=16						
TATS	**Tathlith**	**46.45**	**263**	P	**P**	**03 52 27.6**	**-0.1**
PUL	**Pulkovo**	**46.47**	**322**	*e*P	**P**	**03 52 27.4**	**+0.2**
PUL				pmax	pmax		
	comp=Z,89nm,0.6s,mb5.9						
PUL				pmax	pmax		
	comp=N,127nm,0.7s						
PUL				MLR	MLR		
	comp=Z,735nm,16.0s,MS4.7						
BRTR	**Keskin Array B**	**46.56**	**294**	P	**P**	**03 52 29.3**	**+1.0**
	comp=Z,5.2nm,0.7s,mb4.6,baz=95,slow=6.4,SNR=17						
BRTR	**Keskin Array B**	**46.56**	**294**	P	**P**	**03 52 29.3**	**+1.0**
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
KSHT	**Keshet**	**46.91**	**284**	P	**P**	**03 52 32.5**	**+1.4**
KBRS	**Khaybar**	**46.93**	**273**	P	**P**	**03 52 32.3**	**+1.0**
AKASG	**Malin Array Be**	**47.52**	**309**	P	**P**	**03 52 35.0**	**-0.7**
	comp=Z,2.9nm,0.8s,mb4.4,baz=71,slow=6.6,SNR=17						
AKASG	**Malin Array Be**	**47.52**	**309**	P	**P**	**03 52 35.0**	**-0.7**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MKRJ	**Makawir**	**47.55**	**282**	P	**P**	**03 52 37.0**	**+0.8**
NAMS	**An Nimas**	**47.67**	**264**	P	**P**	**03 52 38.0**	**+0.7**
SLTI	**Sal’it**	**47.78**	**283**	P	**P**	**03 52 39.5**	**+1.5**
BLJS	**Baljurashi**	**47.80**	**265**	P	**P**	**03 52 38.8**	**+0.5**
TBKS	**Tabuk**	**48.11**	**278**	P	**P**	**03 52 41.7**	**+1.2**
CSS	**Prodhromos**	**48.19**	**288**	P	**P**	**03 52 42.0**	**+0.8**
	comp=Z,19nm,0.9s,mb5.1						
VSU	**Vasula**	**48.32**	**320**	*i* P	**P**	**03 52 41.2**	**-0.6**
PRNI	**Paran**	**48.51**	**281**	P	**P**	**03 52 45.0**	**+1.3**
FINES	**FINESS Array B**	**48.58**	**324**	P	**P**	**03 52 43.6**	**-0.2**
	comp=Z,3.4nm,0.6s,mb4.6,baz=86,slow=8.1,SNR=44						
FINES				LR	LR	04 13 49.9	
	comp=Z,413nm,19.9s,MS4.4,baz=270,slow=37						
FINES	**FINESS Array B**	**48.58**	**324**	P	**P**	**03 52 43.6**	**-0.2**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
FINES				MLR	MLR		
	comp=Z,413nm,19.9s						
KZIT	**Kziot**	**48.78**	**282**	P	**P**	**03 52 46.7**	**+0.9**
MBH	**Mount Berech**	**48.80**	**280**	P	**P**	**03 52 47.0**	**+1.1**
EIL	**Elat**	**48.82**	**280**	P	**P**	**03 52 46.8**	**+0.8**
EIL	**Elat**	**48.82**	**280**	*e*P	**P**	**03 52 46.8**	**+0.7**
	comp=Z,94nm,1.2s,mb5.7						
KMTI	**Karmit**	**48.83**	**281**	P	**P**	**03 52 47.1**	**+1.0**
HAQS	**Haql**	**49.08**	**280**	P	**P**	**03 52 48.5**	**+0.5**
AYUS	**‘Aynunah**	**49.15**	**278**	P	**P**	**03 52 49.0**	**+0.3**
BDAS	**Al Bad‘**	**49.19**	**279**	P	**P**	**03 52 49.0**	**+0.1**
ARCES	**ARCESS Array B**	**49.26**	**335**	P	**P**	**03 52 49.4**	**+0.4**
	comp=Z,30nm,1.3s,mb5.2,baz=84,slow=9.1,SNR=12						
ARCES				PcP	PcP	03 54 11.1	-1.0
	comp=Z,12nm,1.1s,baz=80,slow=5.5,SNR=3.2						
ARCES				LR	LR	04 15 48.0	
	comp=Z,1µm,18.5s,MS4.9,baz=97,slow=39						
ARCES	**ARCESS Array B**	**49.26**	**335**	P	**P**	**03 52 49.4**	**+0.5**
ARCES						03 54 11.1	
ARCES				pmax	pmax		
	comp=Z,30nm,1.3s						
ARCES				pmax	pmax		
	comp=Z,12nm,1.1s						
ARCES				MLR	MLR		
	comp=Z,1µm,18.5s						
TAYS	**Tayyib Ism**	**49.33**	**279**	P	**P**	**03 52 50.2**	**+0.3**
MLR	**Muntele Rosu**	**50.65**	**303**	P	**P**	**03 53 00.4**	**+0.5**
	comp=Z,10nm,1.0s,mb4.7,baz=94,slow=4.5,SNR=12						
MLR	**Muntele Rosu**	**50.65**	**303**	P	**P**	**03 53 00.4**	**+0.5**
MLR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
SUW	**Suwalki**	**50.73**	**314**	*e*P	**P**	**03 53 01.0**	**+0.7**
SUW	**Suwalki**	**50.73**	**314**	*e*P	**P**	**03 53 00.0**	**-0.3**
SUW				*e*	pP	03 53 05.8	-0.7
KWP	**Kalwaria**	**51.84**	**309**	*e*P	**P**	**03 53 09.4**	**+0.6**
KWP				*e*	pP	03 53 14.4	-0.5
KWP	**Kalwaria**	**51.84**	**309**	*e*P	**P**	**03 53 09.1**	**+0.3**
KWP				*e*	pP	03 53 14.4	-0.5
KOLS	**Kolonicke sedl**	**52.27**	**308**	*e*P	**P**	**03 53 11.7**	**-0.4**
CRVS	**Cervenica-Dubn**	**52.80**	**308**	*e*P	**P**	**03 53 23.6**	**+7.6**
CRVS	**Cervenica-Dubn**	**52.80**	**308**	*e*	**P**	**03 53 23.6**	**+7.6**
NIE	**Niedzica**	**53.40**	**309**	*e*P	**P**	**03 53 21.5**	**+1.0**
OJC	**Ojcow**	**53.53**	**310**	*e*P	**P**	**03 53 21.3**	**-0.1**
PSZ	**Piszkesteto**	**54.06**	**307**	*e*P	**P**	**03 53 25.1**	**-0.2**
	comp=Z,28nm,1.4s,mb5.0						
IDI	**Anoyia**	**54.56**	**291**	P	**P**	**03 53 28.3**	**-0.9**
	comp=Z,11nm,0.6s,mb5.0,baz=41,slow=9.6,SNR=28						
VYHS	**Vyhne**	**54.58**	**308**	*i* P	**P**	**03 53 29.6**	**+0.4**
OKC	**Ostrava-Krasne**	**54.66**	**310**	*e*P	**P**	**03 53 29.6**	**-0.1**
OKC				*e*pP	pP	03 53 35.8	0.0
MORC	**Moravsky Berou**	**55.05**	**310**	*e*P	**P**	**03 53 32.5**	**-0.1**
	comp=Z,22nm,1.4s,mb5.0						
DIVS	**Divcibare**	**55.11**	**303**	⇑*i*P	**P**	**03 53 33.2**	**+0.1**
SMOL	**Smolenice**	**55.48**	**309**	*i* P	**P**	**03 53 36.1**	**+0.4**
KSP	**Ksiaz**	**55.53**	**311**	*e*P	**P**	**03 53 36.1**	**+0.1**
DPC	**Dobruska-Polom**	**55.65**	**311**	*e*P	**P**	**03 53 37.4**	**+0.5**
DPC				*e*pP	pP	03 53 43.5	+0.5
NB2	**NORSAR Subarra**	**55.76**	**324**	P	**P**	**03 53 36.0**	**-1.5**
	comp=Z,15nm,0.9s,mb5.0,baz=77,slow=7.0						
NOA	**NORSAR Array B**	**55.76**	**324**	P	**P**	**03 53 36.6**	**-0.9**
	comp=Z,8.1nm,0.8s,mb4.8,baz=78,slow=7.1,SNR=20						
NOA				LR	LR	04 20 00.7	
	comp=Z,350nm,18.1s,MS4.5,baz=60,slow=39						
NOA	**NORSAR Array B**	**55.76**	**324**	P	**P**	**03 53 36.6**	**-0.9**
NOA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,350nm,18.1s						
ZST	**Bratislava**	**55.78**	**308**	*i* P	**P**	**03 53 42.1**	**+4.3**
ZST	**Bratislava**	**55.78**	**308**	*i* sP	sP	03 53 42.1	-4.2
UPC	**Upice**	**55.79**	**311**	*e*P	**P**	**03 53 38.2**	**+0.3**
UPC				*e*pP	pP	03 53 44.6	+0.5
PVCC	**Panska Ves**	**56.67**	**311**	*e*P	**P**	**03 53 44.7**	**+0.5**
PVCC				*e*pP	pP	03 53 50.8	+0.4
PRU	**Pruhonice**	**56.85**	**311**	*e*P	**P**	**03 53 45.4**	**-0.1**
PRU				*e**PP	pP	03 53 51.9	+0.2
PRU				pmax	pmax		
	comp=Z,34nm,1.5s,mb5.2						
PRU	**Pruhonice**	**56.85**	**311**	*e*P	**P**	**03 53 45.4**	**-0.1**
	comp=Z,34nm,1.5s,mb5.2						
PRU				*e*pP	pP	03 53 51.9	+0.2
BRG	**Berggiesshubel**	**56.95**	**312**	*i* P	**P**	**03 53 48.7**	**+2.5**
BRG				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.2						
BRG	**Berggiesshubel**	**56.95**	**312**	*e*P	**P**	**03 53 46.1**	**-0.1**
	comp=Z,29nm,1.5s,mb5.1						
GROS	**Grobnik**	**57.35**	**307**	*i* P	**P**	**03 53 49.0**	**-0.1**
CLL	**Collm**	**57.38**	**313**	*i* P	**P**	**03 53 48.7**	**-0.6**
CLL				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.2						
CLL	**Collm**	**57.38**	**313**	*i* P	**P**	**03 53 48.7**	**-0.6**
	comp=Z,37nm,1.5s,mb5.2						
CLL	**Collm**	**57.38**	**313**	P	**P**	**03 53 48.7**	**-0.6**
	comp=Z,logA/T=1.4,mb5.2						
KHC	**Kasperske Hory**	**57.71**	**310**	*e*P	**P**	**03 53 51.6**	**0.0**
KHC				*e*pP	pP	03 53 57.9	+0.1
GERES	**GERESS Array B**	**57.73**	**310**	P	**P**	**03 53 52.0**	**+0.2**
	comp=Z,2.4nm,0.6s,mb4.4,baz=76,slow=5.5,SNR=17						
GERES	**GERESS Array B**	**57.73**	**310**	P	**P**	**03 53 52.0**	**+0.3**
GERES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
PDKS	**Podkum**	**57.82**	**306**	*i* P	**P**	**03 53 52.5**	**+0.1**
VISS	**Visnje**	**58.01**	**306**	*e*P	**P**	**03 53 53.8**	**+0.1**
NKC	**Novy Kostel**	**58.05**	**312**	*e*P	**P**	**03 53 54.2**	**+0.2**
NKC				*e*pP	pP	03 54 00.3	+0.1
BSEG	**Bad Segeberg**	**58.13**	**316**	*e*P	**P**	**03 53 54.8**	**+0.4**
BSEG				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.2						
MOX	**Moxa**	**58.42**	**312**	*e*P	**P**	**03 53 56.4**	**-0.1**
MOX				pmax	pmax		
	comp=Z,33nm,1.7s,mb5.1						
MOX	**Moxa**	**58.42**	**312**	⇓*i*P	**P**	**03 53 56.4**	**-0.1**
	comp=Z,logA/T=1.3,mb5.1						
MOX	**Moxa**	**58.42**	**312**	*e*P	**P**	**03 53 56.4**	**-0.1**
	comp=Z,33nm,1.7s,mb5.1						
KBA	**Koelnbreinsper**	**58.54**	**308**	⇑*i*P	**P**	**03 53 57.5**	**+0.1**
	comp=Z,17nm,1.1s,mb5.0						
CLZ	**Clausthal**	**58.77**	**314**	*e*P	**P**	**03 53 59.1**	**+0.2**
	comp=Z,37nm,1.4s,mb5.2						
GRA1	**Grafenberg Arr**	**58.98**	**311**	*e*P	**P**	**03 54 01.0**	**+0.6**
	comp=Z,92nm,1.7s,mb5.5						
GRA1				*e*pP	pP	03 54 07.6	+0.9
GRA1				LR	LR		
	comp=Z,500nm,19.7s,MS4.6						
GRF	**Grafenberg Arr**	**58.98**	**311**	*e*P	**P**	**03 54 01.0**	**+0.6**
GRF				*e**PP	pP	03 54 07.6	+0.9
GRF				pmax	pmax		
	comp=Z,92nm,1.7s,mb5.5						
GRF				MLR	MLR		
	comp=Z,500nm,19.7s,MS4.6						
GRF	**Grafenberg Arr**	**58.98**	**311**	*e*P	**P**	**03 54 01.0**	**+0.6**
	comp=Z,92nm,1.7s,mb5.5						
GRF				*e*pP	pP	03 54 07.6	+0.9
GRF				LR	LR		
	comp=Z,500nm,19.7s,MS4.6						
FUR	**Furstenfeldbru**	**59.47**	**310**	*e*P	**P**	**03 54 04.6**	**+0.7**
FUR				pmax	pmax		
	comp=Z,69nm,1.4s,mb5.5						
FUR	**Furstenfeldbru**	**59.47**	**310**	*e*P	**P**	**03 54 04.6**	**+0.7**
	comp=Z,69nm,1.4s,mb5.5						
WTTA	**Wattenberg**	**59.57**	**309**	⇑*i*P	**P**	**03 54 04.3**	**-0.3**
	comp=Z,50nm,1.4s,mb5.3						
WATA	**Walderalm**	**59.58**	**309**	⇑*i*P	**P**	**03 54 04.1**	**-0.5**
	comp=Z,26nm,1.3s,mb5.1						
SQTA	**Sankt Quirin**	**59.86**	**309**	⇑*i*P	**P**	**03 54 06.1**	**-0.4**
	comp=Z,32nm,1.3s,mb5.2						
MOTA	**Moosalm**	**59.88**	**309**	⇑*i*P	**P**	**03 54 06.3**	**-0.4**
	comp=Z,38nm,1.5s,mb5.2						
KAKA	**Kakadu**	**60.77**	**135**	⇑*i*P	**P**	**03 54 12.0**	**-1.2**
	comp=Z,19nm,1.2s,mb5.1						
BFO	**Black Forest**	**61.24**	**311**	*e*P	**P**	**03 54 15.7**	**-0.3**
BFO				*e**PP	pP	03 54 21.7	-0.5
BFO				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.3						
BFO	**Black Forest**	**61.24**	**311**	*e*P	**P**	**03 54 15.7**	**-0.3**
	comp=Z,37nm,1.5s,mb5.3						
BFO				*e*pP	pP	03 54 21.7	-0.5
FITZ	**Fitzroy Crossi**	**61.71**	**145**	*e*P	**P**	**03 54 18.9**	**-0.6**
	comp=Z,7.6nm,1.1s,mb4.7						
FITZ	**Fitzroy Crossi**	**61.71**	**145**	P	**P**	**03 54 18.9**	**-0.7**

	comp=Z,12nm,1.1s,mb4.9,baz=346,slow=7.3,SNR=5.0						
FITZ				LR	LR	04 21 39.7	
	comp=Z,86nm,20.6s,MS3.9,baz=300,slow=37						
CDF	Champ du Feu	61.86	311	eP	P	03 54 19.5	-0.7
	comp=Z,20nm,0.9s,mb4.9						
MBWA	Marble Bar	61.89	152	eP	P	03 54 20.5	-0.3
	comp=Z,37nm,1.1s,mb5.4						
WLF	Walferdange	62.05	313	eP	P	03 54 21.1	-0.3
	comp=Z,41nm,1.3s,mb5.4						
HINF	Hinteralfeld	62.36	311	eP	P	03 54 22.5	-1.0
	comp=Z,11nm,0.6s,mb4.9						
HAU	Haudompre	62.59	311	eP	P	03 54 24.1	-0.9
HAU				eR			
	comp=Z,333nm,20.2s						
GIVF	Givet	62.67	314	eP	P	03 54 24.9	-0.6
BAIF	Baives	63.05	314	eP	P	03 54 27.5	-0.5
	comp=Z,71nm,1.6s,mb5.3						
PGF	Pioggiola	63.13	304	eP	P	03 54 28.1	-0.6
	comp=Z,64nm,1.1s,mb5.4						
MEZF	Maizieres J'vi	63.18	312	eP	P	03 54 28.5	-0.4
CABF	La Chapelle	63.33	310	eP	P	03 54 29.0	-0.9
	comp=Z,45nm,1.2s,mb5.2						
LPG	La Plagne	63.37	308	eP	P	03 54 30.4	+0.2
LPL	La Plagne	63.37	308	eP	P	03 54 30.3	+0.1
BNI	Bardonecchia	63.60	308	eP	P	03 54 31.3	-0.4
	comp=Z,83nm,1.8s,mb5.5						
SBF	Sospel	63.62	306	eP	P	03 54 31.1	-0.7
	comp=Z,61nm,0.8s,mb5.4						
KMBO	Kilima Mbogo	63.66	248	P	P	03 54 32.0	-0.6
	comp=Z,5.4nm,0.8s,mb4.6,baz=38,slow=10,SNR=16						
KMBO				LR	LR	04 23 50.5	
	comp=Z,170nm,19.1s,MS4.2,baz=82,slow=38						
KMBO	Kilima Mbogo	63.66	248	iP	P	03 54 32.6	0.0
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KMBO	Kilima Mbogo	63.66	248	eP	P	03 54 31.9	-0.8
	comp=Z,22nm,1.4s,mb5.0						
KMBO				LR	LR		
	comp=Z,161nm,20.0s,MS4.2						
MBDF	Montbardon	63.68	307	eP	P	03 54 31.2	-1.0
ORIF	Oris-en-Rattie	64.17	308	eP	P	03 54 34.7	-0.7
	comp=Z,36nm,0.8s,mb5.1						
ORIF				eR			
	comp=Z,338nm,20.0s						
FRF	La Foret Royal	64.26	306	eP	P	03 54 35.3	-0.7
LMR	La Mourre	64.45	306	eP	P	03 54 36.6	-0.7
SMF	Signal de Mont	64.71	310	eP	P	03 54 38.1	-0.8
	comp=Z,152nm,1.5s,mb5.5						
SSF	Saint Saulge	64.74	311	eP	P	03 54 38.1	-1.0
	comp=Z,43nm,1.3s,mb5.0						
SMRF	Simiane la Rot	64.78	307	eP	P	03 54 39.1	-0.3
AVF	Avril sur Loir	64.95	311	eP	P	03 54 39.6	-0.8
	comp=Z,136nm,1.6s,mb5.4						
VIVF	Saint-Julien-l	64.97	308	eP	P	03 54 40.1	-0.5
HYF	Humbligny	65.18	311	eP	P	03 54 41.5	-0.4
BGF	Bois d'Agland	65.37	311	eP	P	03 54 42.4	-0.7
	comp=Z,94nm,1.5s,mb5.3						
LASF	Ste Croix	65.84	308	eP	P	03 54 46.0	-0.2
	comp=Z,56nm,1.1s,mb5.2						
TCF	Toulx Ste Croi	65.88	311	eP	P	03 54 46.1	-0.3
	comp=Z,76nm,1.1s,mb5.3						
LDF	La Druitiere	66.23	314	eP	P	03 54 47.7	-0.9
	comp=Z,84nm,1.5s,mb5.2						
FLN	La Foliniere	66.37	314	eP	P	03 54 48.6	-0.9
FLN				eR			
	comp=Z,281nm,17.8s						
IMA	Indian Mountai	66.38	24	eP	P	03 54 49.9	+0.6
	comp=Z,47nm,0.9s,mb5.5						
CAF	Calviac	66.60	309	eP	P	03 54 51.1	+0.1
	comp=Z,63nm,1.4s,mb5.2						
GRR	Gorron	66.76	314	eP	P	03 54 51.2	-0.8
	comp=Z,53nm,1.1s,mb5.2						
RJF	Les Rejaudoux	66.76	310	eP	P	03 54 52.2	+0.1
	comp=Z,136nm,1.5s,mb5.5						
RJF				eR			
	comp=Z,367nm,18.0s						
MFF	Saint Martin d	67.18	312	eP	P	03 54 54.1	-0.6
	comp=Z,110nm,1.6s,mb5.3						
EJON	La Jonquera	67.22	307	P	P	03 54 54.1	-0.9
	comp=Z,26nm,0.9s,mb5.3						
MTLF	Montolieu	67.24	308	eP	P	03 54 54.7	-0.4
	comp=Z,45nm,1.3s,mb5.0						
LFF	La Frestale	67.42	310	eP	P	03 54 56.2	0.0
	comp=Z,23nm,0.8s,mb5.0						
BORG	Borgarnes	67.67	335	LR	LR	04 26 15.1	
	comp=Z,382nm,21.3s,MS4.6,baz=340,slow=37						
WRAB	Tennant Creek	67.68	138	iP	P	03 54 58.1	-0.2
WRAB	Tennant Creek	67.68	138	eP	P	03 54 57.9	-0.3
	comp=Z,95nm,1.2s,mb5.7						
WRA	Warramunga Arr	67.68	138	P	P	03 54 58.0	-0.3
	comp=Z,44nm,1.2s,mb5.4,baz=335,slow=6.4,SNR=58						
WRA	Warramunga Arr	67.68	138	P	P	03 54 58.0	-0.3
WRA				pmax	pmax		
	comp=Z,45nm,1.2s						
WB2	Warramunga Arr	67.69	138	⇑iP	P	03 54 57.9	-0.4
PMG	Port Moresby	67.76	121	P	P	03 54 58.3	-0.6
	comp=Z,23nm,1.0s,mb5.2,baz=309,slow=5.7,SNR=8.3						
PMG				PP	PP	03 57 28.2	-2.0
	comp=Z,2.7nm,0.5s,baz=259,slow=10.0,SNR=3.1						
PMG	Port Moresby	67.76	121	P	P	03 54 58.3	-0.6
PMG						03 57 28.2	
PMG				pmax	pmax		
	comp=Z,23nm,1.0s						
PMG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
PMG	Port Moresby	67.76	121	eP	P	03 54 58.9	0.0
	comp=Z,39nm,1.1s,mb5.3						
SGMF	Saint Gilles	67.82	314	eP	P	03 54 57.6	-1.1
	comp=Z,26nm,1.1s,mb4.9						
ROSF	Rostrenen	68.20	314	eP	P	03 55 00.9	-0.2
	comp=Z,82nm,1.4s,mb5.3						
MBAR	Mbarara	68.31	253	eP	P	03 55 00.1	-2.3
	comp=Z,27nm,1.2s,mb5.2						
QUIF	Quistinic	68.34	314	eP	P	03 55 01.7	-0.3
	comp=Z,114nm,1.6s,mb5.4						
EMIR	Miracle	68.37	307	P	P	03 55 01.1	-1.1
	comp=Z,73nm,1.4s,mb5.5						
EPF	Esparros	68.59	308	eP	P	03 55 02.7	-0.9
	comp=Z,16nm,1.0s,mb4.6						
EBIE	Bielsa	68.89	308	P	P	03 55 04.7	-0.8
	comp=Z,100nm,1.7s,mb5.5						
EPOB	Poblet	68.93	306	P	P	03 55 04.5	-1.2
	comp=Z,25nm,1.0s,mb5.1						
COLA	College	69.04	24	iP	P	03 55 06.3	+0.3
COLA	College	69.04	24	eP	P	03 55 06.2	+0.2
	comp=Z,29nm,1.3s,mb5.0						
ETSF	Etsaut	69.23	308	eP	P	03 55 07.7	+0.2
	comp=Z,26nm,0.9s,mb4.9						
OPO	Ambohidratompo	69.41	227	eP	P	03 55 08.0	-1.0
	comp=Z,31nm,1.2s,mb5.1						
OPO				LR	LR		
	comp=Z,382µm,20.3s						
ILAR	Eielson Array	69.42	23	P	P	03 55 07.8	-0.6
	comp=Z,5.9nm,0.9s,mb4.5,baz=294,slow=5.2,SNR=44						
ILAR				LR	LR	04 29 17.7	
	comp=Z,294nm,19.1s,MS4.5,baz=176,slow=39						
ILAR	Eielson Array	69.42	23	P	P	03 55 07.8	-0.5
ILAR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ILAR				MLR	MLR		
	comp=Z,295nm,19.1s						
SJPF	Ste Jean	69.55	309	eP	P	03 55 09.8	+0.3
	comp=Z,44nm,1.2s,mb4.9						
ERTA	Horta de San J	69.62	306	P	P	03 55 08.5	-1.4
	comp=Z,15nm,1.0s,mb4.9						
ASPA	Alice Springs	70.49	141	eP	P	03 55 15.7	+0.2
ASAR	Alice Springs	70.49	141	P	P	03 55 15.7	+0.2
	comp=Z,19nm,0.7s,mb5.1,baz=330,slow=6.3,SNR=133						
INK	Inuvik	70.59	17	LR	LR	04 33 08.5	
	comp=Z,198nm,18.7s,MS4.4,baz=174,slow=42						
INK	Inuvik	70.59	17	eP	P	03 55 15.7	+0.3
	comp=Z,18nm,1.1s,mb4.9						
THY	Trims Highway	70.70	24	eP	P	03 55 16.2	+0.1
KLBR	Kellerberrin	70.81	158	eP	P	03 55 17.0	-0.3
	comp=Z,24nm,0.9s,mb5.1						
SML	Sawmill	70.88	26	eP	P	03 55 17.5	+0.3
ELAN	Lanestosa	70.88	310	P	P	03 55 16.8	-0.8
	comp=Z,25nm,1.5s,mb4.9						
NWAO	Narrogin (SRO)	71.90	159	eP	P	03 55 23.0	-0.9
	comp=Z,42nm,1.4s,mb5.2						
DIV	Divide	72.25	26	eP	P	03 55 26.0	+0.6
	comp=Z,236nm,1.5s,mb5.9						
DAWY	Dawson	72.25	22	eP	P	03 55 25.8	+0.4
ESDC	Sonseca Array	73.09	307	P	P	03 55 31.2	+0.4
	comp=Z,5.6nm,0.7s,mb4.6,baz=57,slow=5.7,SNR=16						
ESDC	Sonseca Array	73.09	307	P	P	03 55 31.2	+0.4
	comp=Z,13nm,1.3s,mb4.7						
ESLA	Sonseca Array	73.09	307	eP	P	03 55 30.9	+0.1
	comp=Z,1.9nm,0.9s,mb4.0						
EPON	Pontenova	73.12	311	P	P	03 55 32.0	+1.2
EQES	Quesada	73.51	305	P	P	03 55 33.7	+0.5
	comp=Z,14nm,0.8s,mb5.0						
EINC	Incio	73.61	311	P	P	03 55 34.8	+1.0
	comp=Z,16nm,1.0s,mb4.9						
ECAL	Calabor	73.63	310	P	P	03 55 34.8	+0.9
	comp=Z,10nm,0.8s,mb4.8						
PBRG	Braganca	73.71	310	eP	P	03 55 34.7	+0.4
	comp=Z,26nm,1.5s,mb4.9						
FORT	Forrest	73.80	149	eP	P	03 55 35.1	0.0
	comp=Z,64nm,0.9s,mb5.5						
EBER	Berja	73.87	304	P	P	03 55 35.5	+0.1
	comp=Z,25nm,1.2s,mb5.0						
EADA	Adamuz	74.31	306	P	P	03 55 39.3	+1.4
	comp=Z,10nm,1.2s,mb4.6						
CTA	Charters Tower	74.83	129	eP	P	03 55 41.1	-0.1
	comp=Z,10nm,1.2s,mb4.6						
CTA	Charters Tower	74.83	129	LR	LR	04 26 44.3	
	comp=Z,77nm,21.8s,MS4.0,baz=229,slow=34						
CTAO	Charters Tower	74.83	129	eP	P	03 55 41.4	+0.1
	comp=Z,25nm,1.2s,mb5.0						
MTE	Manteigas	74.99	309	eP	P	03 55 42.8	+1.0
	comp=Z,39nm,1.4s,mb5.1						
PVIS	Viseu	75.03	309	eP	P	03 55 42.8	+0.8
	comp=Z,22nm,1.6s,mb4.8						
PCBR	Castelo Branco	75.26	309	eP	P	03 55 44.2	+0.9
	comp=Z,24nm,1.3s,mb5.0						
EBAD	Badajoz	75.58	307	P	P	03 55 44.8	-0.3
	comp=Z,6.0nm,0.9s,mb4.5						
ESPR	Espera	75.87	305	P	P	03 55 47.1	+0.2
	comp=Z,8.4nm,0.8s,mb4.7						
EMIN	Mina Concepcio	75.91	306	P	P	03 55 47.6	+0.5
	comp=Z,11nm,1.0s,mb4.7						
EVO	Evora	76.35	308	eP	P	03 55 48.8	-0.7
	comp=Z,30nm,1.0s,mb4.9						
PBEJ	Beja	76.54	307	eP	P	03 55 51.3	+0.7
	comp=Z,17nm,1.1s,mb4.9						
YKW3	Yellowknife Ar	79.52	13	eP	P	03 56 06.5	+0.1
YKA	Yellowknife Ar	79.58	13	P	P	03 56 07.0	+0.2
	comp=Z,6.0nm,0.9s,mb4.5,baz=338,slow=5.0,SNR=28						
YKA				LR	LR	04 33 34.9	
	comp=Z,242nm,18.0s,MS4.6,slow=37						
YKA	Yellowknife Ar	79.58	13	P	P	03 56 07.0	+0.2
YKA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
YKA				MLR	MLR		
	comp=Z,242nm,18.0s						
YKA	Yellowknife Ar	79.58	13	eP	P	03 56 07.0	+0.2
STKA	Stephens Creek	81.11	140	⇑iP	P	03 56 15.6	+0.1
	comp=Z,12nm,1.1s,mb4.8						
STKA	Stephens Creek	81.11	140	P	P	03 56 16.1	+0.6
	comp=Z,18nm,1.0s,mb4.9,baz=323,slow=5.7,SNR=19						
TOO	Toolangi	87.54	141	eP	P	03 56 48.9	+1.1
	comp=Z,8.3nm,1.0s,mb4.9						
SCHQ	Schefferville	88.19	349	P	P	03 56 50.0	-0.6
	comp=Z,4.8nm,0.9s,mb4.7,baz=88,slow=3.3,SNR=4.2						
SCHQ				LR	LR	04 37 52.7	
	comp=Z,250nm,20.5s,MS4.6,baz=323,slow=37						
FFC	Flin Flon	88.97	9	eP	P	03 56 54.2	0.0
	comp=Z,16nm,1.0s,mb5.3						
NEW	Newport	92.10	20	eP	P	03 57 10.5	+1.6
	comp=Z,9.7nm,1.1s,mb5.0						
DBIC	Dimbokro	92.68	280	P	P	03 57 11.4	-0.9
	comp=Z,3.1nm,0.6s,mb4.9,baz=81,slow=7.3,SNR=9.1						
DBIC				LR	LR	04 41 39.8	
	comp=Z,160nm,20.7s,MS4.5,baz=138,slow=37						
DBIC	Dimbokro	92.68	280	P	P	03 57 11.5	-0.9
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
DBIC				MLR	MLR		
	comp=Z,160nm,20.7s						
ULM	Lac du Bonnet	94.02	6	P	P	03 57 17.5	-0.2
	comp=Z,2.0nm,0.6s,mb4.7,baz=331,slow=4.5,SNR=3.8						
ULM				LR	LR	04 47 59.0	
	comp=Z,156nm,18.1s,MS4.5,baz=343,slow=41						
DGMT	Dagmar	94.75	12	eP	P	03 57 22.3	+1.2
	comp=Z,17nm,0.9s,mb5.5						
PDAR	Pinedale Array	99.16	17	LR	LR	04 42 14.4	
	comp=Z,182nm,21.1s,MS4.5,baz=144,slow=35						
VNDA	Vanda	120.19	166	PKP	PKPdf	04 02 49.7	-3.3
	comp=Z,0.7nm,0.7s,baz=320,slow=5.0,SNR=4.1						
VNDA	Vanda	120.19	166	PKIKP	PKPdf	04 02 49.7	-3.3
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SNAA	Sanae	125.36	203	⇓iP	PKPdf	04 03 00.0	-3.0
QSPA	South Pole Qui	125.50	180	eP	PKPdf	04 02 59.8	-3.3
VNA2	Neumayer--Watz	126.75	204	⇓iP	PKPdf	04 03 05.0	-0.6
SAML	Samuel	145.76	315	ePKPdf	PKPdf	04 03 37.3	-4.6
SAML				ePKPbc	PKPbc	04 03 39.9	+1.2
LVC	Limon Verde	159.71	305	PKPab	PKPab	04 04 39.1	+0.5
	comp=Z,3.3nm,0.8s,baz=2.6,slow=4.8,SNR=5.0						

IDC 10 03:44:32.4±5.0**, 22.07S**×**148.08E, mb3.3**/1**, mb1 3.7**/5**, mb1mx3.6**/11**, ML3.5**/4**, Error ellipse: s-maj=60.9km s-min=22.4km az=74.0, Queensland**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CTA	Charters Tower	2.61	319	Pn	Pn	03 45 17.1	+0.7
	10nm,0.3s,baz=133,slow=16,SNR=109						
CTA				Lg		03 45 56.8	
	49nm,0.3s,baz=55,slow=24,SNR=19						
STKA	Stephens Creek	11.35	209	Pn	P	03 47 14.3	-4.6
	0.3nm,0.3s,baz=33,slow=11,SNR=6.4						
WRA	Warramunga Arr	13.01	277	Pn	P	03 47 37.5	-3.7
	0.2nm,0.3s,baz=97,slow=13,SNR=7.0						
WRA				Sn	S	03 50 04.4	-3.5
	0.2nm,0.3s,baz=114,slow=22,SNR=4.4						
WRA				Lg		03 51 28.7	
	0.3nm,0.3s,baz=101,slow=28,SNR=7.4						
ASAR	Alice Springs	13.16	260	Pn	P	03 47 39.9	-3.5
	0.2nm,0.3s,baz=79,slow=14,SNR=4.9						
ASAR				Sn	S	03 50 07.1	-4.6
	0.1nm,0.3s,baz=89,slow=21,SNR=3.9						
ASAR				Lg		03 51 38.8	
	0.2nm,0.3s,baz=85,slow=32,SNR=4.7						
FITZ	Fitzroy Crossi	21.43	277	P	P	03 49 22.3	-2.1
	1.1nm,0.7s,baz=86,slow=16,SNR=2.4						

IDC 10 04:08:03.4±7.8**, 4.97S**×**152.55E, h83**^{km}±56^{km}**, mb3.5**/4**, mb1 3.7**/5**, mb1mx3.5**/14**, ML3.0**/1**, Error ellipse: s-maj=91.1km s-min=32.7km az=109.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PMG	Port Moresby	6.93	230	P	P	04 09 42.1	-2.1
	1.5nm,0.3s,baz=32,slow=9.5,SNR=6.5						
PMG				S	S	04 11 00.4	-1.8
	1.2nm,0.3s,baz=345,slow=14,SNR=5.9						
WRA	Warramunga Arr	23.14	228	P	P	04 13 02.3	-1.0
	1.7nm,0.9s,baz=54,slow=9.8,SNR=6.8						
ASAR	Alice Springs	25.85	222	P	P	04 13 28.5	-0.7
	1.0nm,0.9s,baz=58,slow=10,SNR=7.0						
SONM	Songino Array	66.34	328	P	P	04 18 44.1	-1.4
	0.4nm,0.6s,baz=142,slow=5.2,SNR=4.2						
BVAR	Borovoye Array	89.23	323	P	P	04 20 49.2	-2.1
	1.8nm,0.7s,baz=117,slow=6.6,SNR=9.9						

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*NAO **10** 04:22:15.5±3.8, 67.63N×33.52E, ML2.0*

HEL 10 04:22:16.0±0.3**, 67.72N**×**33.76E, ML1.9, ML2.0**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MSF	Maaselka	2.60	228	eP	Pn	04 22 59.2	-0.8
MSF				eSB	Sb	04 23 34.0	-1.9
SGF	Sodankyl	2.79	268	eP	Pn	04 23 03.9	+1.3
SGF				eSG	Sg	04 23 41.1	-7.6
KEV	Kevo	3.20	313	eP	Pn	04 23 07.5	-1.0
ARA0	ARCESS Array S	3.53	305	Pn	Pn	04 23 11.4	-1.8
	baz=122,slow=16						
ARA0				Pg	Pg	04 23 19.9	-6.6
	baz=116,slow=16						
ARA0				Sn	Sn	04 23 52.9	-3.4
	baz=119,slow=28						
ARA0				Lg		04 24 04.8	
	baz=118,slow=28						
ARA0	ARCESS Array S	3.53	305	eP	Pn	04 23 11.4	-1.8
ARA0				ePG	Pg	04 23 19.9	-6.6
ARA0				eS	Sn	04 23 52.9	-3.4
ARA0				eSG		04 24 04.8	
OUL	Oulu	4.12	234	eSB	Sb	04 24 15.2	-4.8
KJN	Kajaani	4.41	217	eS	Sn	04 24 14.2	-4.3
KJN				MSG		04 24 29.4	
	comp=Z,2.1nm,0.5s						
SUF	Sumiainen	5.95	216	eSG	Sg	04 25 19.1	-15
SUF				MSG		04 25 22.8	
	comp=Z,0.9nm,0.4s						
FIA0	FINESS Array S	7.11	211	Lg		04 25 51.8	
	baz=23,slow=28						
FIA0	FINESS Array S	7.11	211	Lg		04 25 51.8	
	baz=23,slow=28						
FIA0	FINESS Array S	7.11	211	eSG		04 25 51.8	

PGC 10 04:28:55.5, 65.93N×**134.88W, h1**^{km}**, ML3.4**/4**, Mackenzie Mountains, Yukon Territory, Northern Yukon Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
INK	Inuvik	2.44	12	Pn	Pn	04 29 36.4	-0.7
INK				Pg	Pg	04 29 39.1	-5.2
INK				Sn	Sn	04 30 05.5	-2.6
INK				Sg	Sg	04 30 11.6	-5.3
INK				Trac		04 30 21.0	
	comp=Z,87nm,0.3s						
DAWY	Dawson	2.68	228	Pn	Pn	04 29 39.6	-0.9
DAWY				Sn	Sn	04 30 12.5	-1.6
DAWY				Sg	Sg	04 30 18.4	-6.3
DAWY				Trac		04 30 22.8	
	comp=Z,59nm,0.2s						
HYT	Haines Junctio	5.26	194	Pn	Pn	04 30 16.4	-0.7
HYT				Sg	Sg	04 31 38.5	-12
HYT				Trac		04 31 48.2	
	comp=Z,29nm,0.5s						
WHY	Whitehorse	5.29	180	Pn	Pn	04 30 16.4	-1.2
WHY				Sg	Sg	04 31 40.7	-11
WHY				Trac		04 31 49.5	
	comp=Z,17nm,0.8s						
DLBC	Dease Lake	7.86	161	Pn	Pn	04 30 48.9	-4.8
DLBC				Sg	Sg	04 33 01.5	-15
DLBC				Trac		04 33 14.4	
	comp=Z,4.0nm,0.5s						
YKW3	Yellowknife Ar	9.43	102	Pn	P	04 31 10.0	-5.5
YKW3				Pn	P	04 31 11.1	-4.4
YKW3				Sn	Sn	04 32 50.5	-13
YKW3				Sn	Sn	04 32 50.5	-13
YKW3				Sg	Sg	04 33 48.5	-21
YKW3				Sg	Sg	04 33 48.8	-21
YKW3				Trac		04 33 60.0	
	comp=Z,2.0nm,0.4s						
YKW3				Trac		04 34 02.1	
	comp=Z,2.0nm,0.4s						
RES	Resolute Bay	15.69	39	P	P	04 32 31.2	-7.6
RES				Sn	S	04 35 15.7	-18
RES				Trac		04 35 28.9	
	comp=Z,1.0nm,0.5s						

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*IDC **10** 04:28:59.1±3.5, 24.91S×179.63E, h486^{km}±33^{km}, mb3.4/7, mb1 3.6/7, mb1mx3.4/14, Error ellipse: s-maj=59.9km s-min=20.9km az=159.0*

*NEIC **10** 04:29:06.0±5.5, 24.93S×179.42E, h565^{km}±61^{km}, mb4.0/2, Error ellipse: s-maj=52.3km s-min=29.8km az=156.0*

ISC 10 04:29:04.1±1.3**, 24.9S**±0.4×**179.4E**±0.2**, h550**^{km}**, n19, σ0**^{s}**46**/13**, mb3.9**/8**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CTAO	Charters Tower	30.95	272	P	P	04 34 38.6	+0.6
STKA	Stephens Creek	33.84	249	P	P	04 35 02.3	-0.1
	0.9nm,0.5s,mb3.6,baz=121,slow=19,SNR=6.3						
PMG	Port Moresby	34.32	291	P	P	04 35 06.3	-0.2
	7.0nm,0.6s,mb4.4,baz=158,slow=3.7,SNR=5.3						
ASAR	Alice Springs	41.34	262	P	P	04 36 03.2	-0.3
	5.0nm,0.8s,mb4.1,baz=102,slow=8.2,SNR=40						
ASPA	Alice Springs	41.34	262	eP	P	04 36 04.4	+0.8
WB2	Warramunga Arr	41.79	267	eP	P	04 36 07.0	-0.2
WRAB	Tennant Creek	41.79	267	eP	P	04 36 06.9	-0.4
	7.7nm,0.7s,mb4.3						
WRA	Warramunga Arr	41.80	267	P	P	04 36 06.7	-0.6
	5.7nm,0.7s,mb4.2,baz=103,slow=8.1,SNR=27						
WRA				ScP		04 40 55.9	
	0.8nm,0.8s,baz=102,slow=3.2,SNR=4.7						
FITZ	Fitzroy Crossi	50.21	267	eP	P	04 37 12.4	+0.7
	1.6nm,0.6s,mb3.6						
FITZ	Fitzroy Crossi	50.21	267	P	P	04 37 11.8	+0.1
	2.3nm,0.7s,mb3.7,baz=184,slow=10,SNR=6.8						
NVAR	Mina Array Bea	85.86	44	P	P	04 40 47.1	+0.4
	0.6nm,0.6s,mb3.4,baz=224,slow=8.5,SNR=6.3						
TXAR	Lajitas Array	91.43	58	P	P	04 41 12.6	-0.3
	0.6nm,0.7s,mb3.6,baz=216,slow=6.3,SNR=9.3						
TXAR	Lajitas Array	91.43	58	P	P	04 41 12.6	-0.4
ARCES	ARCESS Array B	132.76	348	PKP	PKPdf	04 47 17.4	+1.5
	11nm,1.3s,slow=3.6,SNR=3.7						
NB2	NORSAR Subarra	142.99	350	PKP	PKPdf	04 47 33.9	-0.5
	1.0nm,0.6s,baz=16,slow=3.3						
NOA	NORSAR Array B	142.99	350	PKP	PKPdf	04 47 33.8	-0.6
	1.5nm,0.7s,baz=15,slow=5.0,SNR=5.5						
HFS	Hagfors	143.42	348	PKP	PKPdf	04 47 35.1	-0.1
	3.3nm,0.5s,baz=63,slow=3.3,SNR=26						
AKASG	Malin Array Be	145.51	326	PKPbc	PKPbc	04 47 41.8	+1.4
	0.2nm,0.3s,baz=35,slow=4.1,SNR=4.3						
CLL	Collm	151.65	342	ePKP1	PKPdf	04 47 58.0	+9.3

IDC 10 04:36:08.2±2.7**, 24.37N**×**140.38E, h104**^{km}±29^{km}**, mb3.3**/3**, mb1 3.6**/5**, mb1mx3.3**/21**, MS3.1**/1**, Ms1 3.3**/1**, ms1mx2.3**/6**, Error ellipse: s-maj=46.6km s-min=20.9km az=103.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CBIJ	Chichi jima	3.16	31	P	P	04 36 57.0	-0.2
	3.9nm,0.3s,baz=242,slow=20,SNR=4.4						
CBIJ				S	S	04 37 33.5	-0.7
	16nm,0.3s,baz=282,slow=22,SNR=9.5						
JHJ	Hachijo jima 2	8.73	357	P	P	04 38 11.9	-1.1
	20nm,0.3s,baz=229,slow=22,SNR=2.6						
JHJ				S	S	04 39 47.8	-2.7
	14nm,0.3s,baz=74,slow=21,SNR=3.1						
CMAR	Chiang Mai Arr	38.92	270	LR	LR	05 01 13.5	
	comp=Z,23nm,18.5s,baz=185,slow=39						
WRA	Warramunga Arr	44.44	188	P	P	04 44 08.3	-2.3
	0.8nm,0.4s,baz=9.0,slow=8.4,SNR=9.5						
ASAR	Alice Springs	48.16	188	P	P	04 44 38.2	-1.7
	0.2nm,0.4s,baz=22,slow=13,SNR=2.6						
YKA	Yellowknife Ar	75.30	28	P	P	04 47 39.9	-1.3
	0.2nm,0.3s,baz=296,slow=6.1,SNR=5.4						

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*NEIC **10** 04:52:03.6, 33.27S×72.08W, h40^{km}, MD3.5(GUC), After GUC.*

GUC 10 04:52:03.6±0.8**, 33.27S**×**72.08W, h40**^{km}±2^{km}**, MD3.5, ML2.2, 3C, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
LCCH	Las Cruces	0.47	116	⇑iP	P	04 52 13.9	-0.1
LCCH				iS	S	04 52 20.7	-0.5
LNV	Longovilo	0.88	141	eP	P	04 52 20.1	+0.5
LNV				iS	S	04 52 32.3	+0.9
PACH	Papudo	0.91	37	eP	P	04 52 20.4	+0.3
PACH				iS	S	04 52 33.5	+1.4
TACH	Talagante	1.03	112	⇑iP	P	04 52 22.7	+1.0
TACH				iS	S	04 52 36.0	+1.0
RCDM	Rinconada Maip	1.08	102	eP	P	04 52 22.8	+0.3
RCDM				iS	S	04 52 37.3	+0.7
RCDM				AMP		04 52 38.5	
	comp=N,103nm,0.1s						
CLCH	Cerro Calan	1.29	96	eP	P	04 52 26.8	+1.2
CLCH				iS	S	04 52 44.3	+2.3
CLCH				AMP		04 52 49.8	
	comp=E,59nm,0.4s						
JACH	Jahuel	1.38	65	eP	P	04 52 27.7	+0.9
JACH				iS	S	04 52 45.8	+1.8
CACH	El Canelo	1.49	125	⇑iP	P	04 52 29.6	+1.2
FCH	Farellones	1.50	93	eP	P	04 52 29.9	+1.4
FCH				iS	S	04 52 49.9	+2.9
FCH				AMP		04 52 56.0	
	comp=N,78nm,0.2s						
CMCH	Combarbala	2.28	24	eP	P	04 52 39.9	+0.3
CMCH				iS	S	04 53 12.9	+6.2

KISR 10 05:06:26.5±0.4**, 28.31N**×**57.67E, h16**^{km}±999^{km}**, ML4.0, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QRN	**Al-Qurain**	**8.59**	**275**	*e*P	P	05 08 31.7	-1.5
UMR	**Umm Al-Rimmam**	**8.81**	**280**	*e*P	P	05 08 34.7	-1.5
UMR				AML	AML	05 10 06.2	
	comp=Z,9.5nm,0.4s						
RDF	**Al-Radifah**	**8.92**	**276**	*e*P	P	05 08 35.9	-1.8
RDF				*e*S	Sn	05 10 12.1	-6.7
RST	**Umm Al-Ruwaisa**	**9.43**	**280**	*e*P	P	05 08 43.0	-1.8
RST				*e*S	Sn	05 10 23.5	-8.1
RST				AML	AML	05 10 24.3	
	comp=Z,5.0nm,0.3s						

WEL 10 06:30:07.3±0.5**, 38.03S**×**176.20E, h180**^{km}±5^{km}**, ML3.5**/8**, Error ellipse: s-maj=11.1km s-min=6.2km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**0.76**	**108**	*e*PN	P	06 30 33.1	-0.6
URZ				SN	S	06 30 53.3	-0.8
URZ				SN	S	06 30 53.4	-0.7
MWZ	**Matawai**	**1.09**	**107**	*e*PN	P	06 30 35.9	-0.1
MWZ				SN	S	06 30 58.0	-0.1
BKZ	**Black Stump Fm**	**1.16**	**169**	PN	P	06 30 36.6	+0.1
BKZ				SN	S	06 30 59.6	+0.4
TSZ	**Takapari Road**	**2.04**	**185**	*e*PN	P	06 30 44.6	-0.5
BFZ	**Birch Farm**	**2.65**	**179**	*e*PN	P	06 30 51.2	-1.1
BFZ				SN	S	06 31 23.6	-3.4
MRZ	**Mangatainoka R**	**2.68**	**190**	PN	P	06 30 50.8	-1.9
MRZ				SN	S	06 31 25.2	-2.4
KIW	**Kapiti Island**	**3.00**	**199**	*e*PN	P	06 30 54.2	-2.4
KIW				*e*SN	S	06 31 31.1	-3.4
MTW	**Mount Morrison**	**3.17**	**190**	*e*PN	P	06 30 56.0	-2.7
MTW				SN	S	06 31 34.4	-3.9
CAW	**Cannon Point**	**3.20**	**195**	PN	P	06 30 56.6	-2.4
CAW				SN	S	06 31 34.8	-4.1
MRW	**Makara Radio**	**3.40**	**199**	PN	P	06 30 58.7	-2.9
PAWZ	**Paruwai Farm**	**3.41**	**190**	SN	S	06 31 39.1	-4.3
MSWZ	**Moikau Station**	**3.46**	**192**	PN	P	06 30 59.3	-3.0
MSWZ				SN	S	06 31 40.2	-4.6
TUWZ	**Tuamarina**	**3.82**	**206**	*e*PN	P	06 31 03.8	-3.1
NNZ	**Nelson**	**3.86**	**213**	*e*PN	P	06 31 03.7	-3.6
NNZ				SN	S	06 31 50.1	-3.5
THZ	**Tophouse**	**4.51**	**213**	*e*PN	P	06 31 12.5	-3.2
THZ				SN	S	06 32 04.6	-3.9
KHZ	**Kahutara**	**4.84**	**204**	PN	P	06 31 15.9	-4.0
KHZ				SN	S	06 32 11.5	-4.5
LTZ	**Lake Taylor**	**5.62**	**211**	*e*PN	P	06 31 25.7	-4.4
MQZ	**McQueen's Vall**	**6.28**	**204**	SN	S	06 32 41.2	-8.8

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*NEIC **10** 06:40:24.8±0.9, 18.68S×177.97W, h600^{km}, mb4.3/4, Error ellipse: s-maj=45.9km s-min=16.0km az=161.0*
*IDC **10** 06:40:28.2±9.9, 18.70S×178.07W, h643^{km}±129^{km}, mb3.3/7, mb1 3.5/7, mb1mx3.2/17, Error ellipse: s-maj=67.5km s-min=43.3km az=146.0*
ISC 10 06:40:31.1±1.4**, 18.7S**±0.5×**178.3W**±0.2**, h700**^{km}**, n13, σ0^{s}.23**/13**, mb4.0**/9**, 2C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**33.47**	**262**	P	**P**	**06 46 18.4**	**-0.3**
	1.8nm,0.3s,mb4.0,baz=82,slow=10,SNR=4.0						
CTAO	**Charters Tower**	**33.47**	**262**	*e*P	**P**	**06 46 18.4**	**-0.3**
	4.0nm,0.7s,mb4.1						
PMG	**Port Moresby**	**34.75**	**281**	P	**P**	**06 46 29.5**	**+0.2**
	7.3nm,0.6s,mb4.4,baz=184,slow=4.2,SNR=3.8						
STKA	**Stephens Creek**	**38.37**	**242**	⇓*i*P	**P**	**06 46 59.0**	**+0.4**
	1.4nm,0.3s,mb4.0						
STKA	**Stephens Creek**	**38.37**	**242**	P	**P**	**06 46 58.6**	**0.0**
	2.3nm,0.3s,mb4.1,baz=74,slow=9.0,SNR=7.9						
WB2	**Warramunga Arr**	**44.62**	**260**	⇑*i*P	**P**	**06 47 47.6**	**0.0**
WRAB	**Tennant Creek**	**44.62**	**260**	*e*P	**P**	**06 47 47.3**	**-0.3**
	5.6nm,0.4s,mb4.3						
WRA	**Warramunga Arr**	**44.63**	**260**	P	**P**	**06 47 47.4**	**-0.3**
	3.0nm,0.3s,mb4.1,baz=98,slow=7.5,SNR=39						
ASAR	**Alice Springs**	**44.72**	**255**	P	**P**	**06 47 48.5**	**+0.2**
	4.7nm,0.4s,mb4.2,baz=90,slow=7.7,SNR=56						
ASPA	**Alice Springs**	**44.72**	**255**	⇓*i*P	**P**	**06 47 48.3**	**0.0**
KAKA	**Kakadu**	**47.72**	**270**	⇑*i*P	**P**	**06 48 11.2**	**+0.3**
	5.0nm,0.4s,mb4.3						
FITZ	**Fitzroy Crossi**	**53.04**	**261**	P	**P**	**06 48 49.4**	**+0.2**
	1.4nm,0.3s,mb3.8,baz=325,slow=1.5,SNR=17						
TXAR	**Lajitas Array**	**86.31**	**58**	P	**P**	**06 52 03.5**	**0.0**
	0.7nm,0.9s,mb3.2,baz=220,slow=6.9,SNR=7.0						

IDC 10 06:51:35.9±6.5**, 6.01S**×**146.74E, h154**^{km}±70^{km}**, mb3.2**/3**, mb1 3.3**/5**, mb1mx3.2**/14**, Error ellipse: s-maj=83.6km s-min=28.3km az=139.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.40**	**173**	P	P	06 52 28.8	-0.5
	4.4nm,0.3s,baz=35,slow=5.2,SNR=12						
PMG				S	S	06 53 10.0	-0.3
	11nm,0.3s,baz=192,slow=22,SNR=7.0						
WRA	**Warramunga Arr**	**18.36**	**220**	P	P	06 55 37.8	-3.7
	0.1nm,0.3s,baz=43,slow=11,SNR=5.0						
ASAR	**Alice Springs**	**21.47**	**214**	P	P	06 56 13.1	-0.1
	1.3nm,0.5s,baz=56,slow=8.8,SNR=18						
FITZ	**Fitzroy Crossi**	**23.84**	**238**	P	P	06 56 34.9	-1.5
	1.2nm,0.7s,baz=334,slow=9.8,SNR=4.2						
ILAR	**Eielson Array**	**85.59**	**23**	P	P	07 03 57.0	-0.8
	0.2nm,0.6s,baz=257,slow=5.6,SNR=4.1						

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*NIED **10** 07:22:00, 37.30N×138.80E, h5^{km}, Mw3.5 Best double couple: M$_0$1.9×10^{14} NP1:φ$_s$354°, δ51°, λ59°. NP2:φ$_s$218°, δ48°, λ123°.*
*JMA **10** 07:22:56.6, 37.30N×138.83E, h12^{km}±1^{km}, M3.5 Broadband fault plane solution: P waves. NP1:φ$_s$187°, δ34°, λ52°. NP2:φ$_s$50°, δ64°, λ112°. Principal axes: T Plg64°, Azm358°; N Plg20°, Azm220°; P Plg16°, Azm124°;*
JMA Felt III J1.
ISC 10 07:22:56.5±0.6**, 37.31N**±0.03×**138.81E**±0.05**, h15**^{km}±17^{km}**, n9, σ0^{s}.47**/18**, 5D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHK	**Hiroka**	**0.17**	**110**	⇓P	**Pb**	**07 23 00.3**	**-0.6**
JHK				S	**Sb**	**07 23 03.3**	**-0.5**
JIZZ	**Izumozaki**	**0.24**	**340**	⇓P	**Pb**	**07 23 02.2**	**+0.2**
JIZZ				S	**Sb**	**07 23 06.7**	**+1.1**
JKT	**Katashina**	**0.64**	**147**	⇓P	**Pb**	**07 23 08.7**	**-0.2**
JKT				S	**Sb**	**07 23 17.5**	**+0.1**
JNS	**Sasagawa**	**0.65**	**38**	P	**Pb**	**07 23 08.7**	**-0.3**
JNS				S	**Sb**	**07 23 17.7**	**+0.1**
JFY	**Yanaizu**	**0.72**	**82**	⇓P	**Pb**	**07 23 10.0**	**-0.2**
JFY				S	**Sb**	**07 23 19.5**	**-0.1**
JSD	**Sado**	**0.85**	**329**	P	**Pb**	**07 23 11.6**	**-0.8**
JSD				S	**Sb**	**07 23 22.9**	**-0.4**
MAT	**Matsushiro**	**0.90**	**213**	P	**Pb**	**07 23 13.2**	**-0.2**
MAT				S	**Sb**	**07 23 24.7**	**-0.3**
MAT	**Matsushiro**	**0.90**	**213**	P	**Pb**	**07 23 13.2**	**-0.2**
MAT				S	**Sb**	**07 23 24.9**	**-0.1**
JAG	**Ashikaga**	**1.02**	**149**	⇓P	**Pb**	**07 23 15.6**	**+0.2**
JAG				S	**Sb**	**07 23 29.0**	**+0.7**

CASC 10 07:29:16.8±2.7**, 12.39N**×**87.88W, h35**^{km}±999^{km}**, MD3.5, ML2.9, 7C-2D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CRIN	**San Cristobal**	**0.87**	**69**	⇑*e*P	P	07 29 32.0	-0.5
CRIN				*e*S	S	07 29 45.9	+1.7
CNCH	**Conchagua**	**0.88**	**3**	⇓*e*P	P	07 29 33.1	+0.3
CNCH				*e*S	S	07 29 44.8	+0.2
LEON	**Leon**	**0.96**	**88**	⇑*e*P	P	07 29 33.2	-0.8
LEON				*e*S	S	07 29 46.3	-0.4
BLLM	**Bellamira**	**1.10**	**342**	⇑*e*P	P	07 29 36.0	0.0
BLLM				*e*S	S	07 29 51.2	+1.0
APYN	**Apoyeque**	**1.50**	**96**	⇓*e*P	P	07 29 41.3	-0.4
APYN				*e*S	S	07 30 01.8	+1.5
SNVI	**San Vicente**	**1.53**	**323**	*e*P	P	07 29 44.4	+2.3
SNVI				*e*S	S	07 30 00.5	-0.6
XAVN	**Gruta Xavier**	**1.54**	**99**	⇑*e*P	P	07 29 42.7	+0.5
XAVN				*e*S	S	07 30 00.8	-0.4
MGAN	**Managua**	**1.61**	**98**	*e*S	S	07 30 01.6	-1.5
MGAN				*i*		07 30 03.4	
	comp=N,135nm,0.1s						
LCBS	**La Ceiba**	**1.65**	**320**	*e*P	P	07 29 43.5	-0.3
LCBS				*e*S	S	07 30 02.8	-1.3
WILN	**Americas 2**	**1.67**	**98**	*e*S	S	07 30 03.1	-1.4
LFRS	**El Faro**	**1.68**	**317**	⇑*e*P	P	07 29 43.9	-0.3
LFRS				*e*S	S	07 30 03.6	-1.2
LFU	**La Fuente**	**1.81**	**318**	⇑*e*P	P	07 29 46.2	+0.1
BOQS	**Boqueron**	**1.91**	**315**	⇑*e*P	P	07 29 48.8	+1.2
BOQS				*e*S	S	07 30 10.9	+0.3

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*JMA **10** 07:39:34.1±0.2, 24.83N×122.16E, h32^{km}, M2.5*
TAP 10 07:39:34.8, 24.40N×**122.02E, h11**^{km}**, ML3.1, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.91**	**86**	P	Pb	07 39 49.8	-2.2
YOJ				S	Sb	07 40 01.3	-2.5
IRIF	**Iriomote-Funau**	**1.56**	**92**	P	Pn	07 39 59.9	-2.8
IRIF				*e*S	Sb	07 40 18.6	-4.3
JKRS	**Kuro-shima**	**1.82**	**95**	P	Pn	07 40 03.5	-2.9
JKRS				*e*S	Sn	07 40 25.0	-4.6
JIJ	**Ishigaki jima**	**1.94**	**91**	P	Pn	07 40 05.3	-2.7
JIJ				*e*S	Sn	07 40 26.6	-5.9

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*IDC **10** 07:53:07.8±0.8, 15.75N×61.61W, mb4.1/8, mb1 4.4/9, mb1mx4.1/21, ML5.7/1, Error ellipse: s-maj=11.0km s-min=10.0km az=137.0*
*NEIC **10** 07:53:09.6±0.7, 15.73N×61.61W, h10^{km}, mb4.2/2, Error ellipse: s-maj=20.3km s-min=12.9km az=216.0*
ISC 10 07:53:09.8±0.5**, 15.75N**±0.03×**61.57W**±0.08**, h22**^{km}±5^{km}**, n31, σ0^{s}.80**/37**, mb4.1**/10**, 3C-7D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	**Barber's Block**	**0.24**	**157**	⇓*i*P	**Pb**	**07 53 15.5**	**-0.2**
BBL	**Barber's Block**	**0.24**	**157**	⇓*i*P	**Pb**	**07 53 15.5**	**-0.2**
BBL				*i* S	**Sb**	**07 53 18.2**	**-1.5**
MGG	**Marie-Galante**	**0.29**	**55**	*i* P	**Pb**	**07 53 16.5**	**0.0**
MDN	**Morne-Daniel**	**0.46**	**158**	⇓*i*P	**Pb**	**07 53 19.4**	**+0.3**
MDN				*i* S	**Sb**	**07 53 26.7**	**+1.1**
DBCT	**Belle View Cho**	**0.52**	**156**	*i* P	**Pb**	**07 53 20.5**	**+0.3**
DSTT	**Stowe**	**0.56**	**153**	⇑*i*P	**Pb**	**07 53 20.8**	**0.0**
DSHT	**Scott's Head**	**0.56**	**161**	⇓*i*P	**Pb**	**07 53 21.2**	**+0.3**
SEG	**Port Louis**	**0.65**	**5**	⇑*e*P	**Pb**	**07 53 22.4**	**0.0**
DEG	**La Desirade**	**0.74**	**41**	⇑*e*P	**Pb**	**07 53 23.1**	**-0.8**
FDF	**Fort de France**	**1.09**	**158**	⇓*e*P	**Pb**	**07 53 29.2**	**-0.6**
CRM	**Caravelle**	**1.17**	**147**	⇓*e*P	**Pn**	**07 53 30.8**	**-0.2**
CRM				*e*S	**Sb**	**07 53 47.2**	**+1.3**
BIM	**Bigot**	**1.31**	**159**	*e*P	**Pn**	**07 53 32.8**	**-0.3**
BPA	**Boggy Peak**	**1.32**	**348**	⇓*e*P	**Pn**	**07 53 33.2**	**0.0**
BPA				*i* S	**Sn**	**07 53 50.8**	**+0.6**
MVM	**Montagne Vaucl**	**1.35**	**151**	*e*P	**Pn**	**07 53 33.6**	**0.0**
MVM				*e*S	**Sn**	**07 53 50.7**	**-0.4**
CPB	**Codrington**	**1.90**	**353**	*i* P	**Pn**	**07 53 41.8**	**+0.4**
CPB				*e*S	**Sn**	**07 54 05.5**	**+0.6**
STAT	**Sint Eustatius**	**2.20**	**322**	*e*P	**Pn**	**07 53 48.1**	**+2.4**
GRW	**Mount Saint Ca**	**3.57**	**181**	*e*P	**Pn**	**07 54 06.3**	**+1.1**
SJG	**San Juan**	**4.97**	**299**	Pn	**Pn**	**07 54 23.9**	**-1.3**
	5.8nm,0.3s,baz=132,slow=16,SNR=6.1						
SJG				Lg		07 55 43.5	
	3.8nm,0.3s,baz=330,slow=13,SNR=4.1						
SJG	**San Juan**	**4.97**	**299**	Pn	**Pn**	**07 54 23.9**	**-1.3**
SJG				Lg		07 55 43.5	
SAML	**Samuel**	**24.59**	**184**	*e*P	**P**	**07 58 29.3**	**-0.6**
	3.1nm,0.7s,mb4.0						
JCT	**Junction City**	**37.90**	**300**	*e*P	**P**	**08 00 28.9**	**+1.6**
	4.5nm,0.8s,mb4.2						
TXAR	**Lajitas Array**	**40.95**	**297**	P	**P**	**08 00 52.7**	**+0.1**
	0.3nm,0.6s,mb3.1,baz=122,slow=8.5,SNR=6.0						
TXAR	**Lajitas Array**	**40.95**	**297**	P	**P**	**08 00 52.7**	**+0.1**
ULM	**Lac du Bonnet**	**44.16**	**329**	P	**P**	**08 01 17.7**	**-0.9**
	2.5nm,0.4s,mb4.3,baz=124,slow=6.3,SNR=6.9						
PDAR	**Pinedale Array**	**48.92**	**313**	P	**P**	**08 01 55.9**	**-0.4**
	1.9nm,0.5s,mb4.3,baz=118,slow=9.8,SNR=13						
NVAR	**Mina Array Bea**	**54.42**	**306**	P	**P**	**08 02 37.3**	**-0.4**
	0.6nm,0.7s,mb3.6,baz=88,slow=5.6,SNR=4.9						
DBIC	**Dimbokro**	**56.21**	**92**	P	**P**	**08 02 51.2**	**+0.2**
	3.6nm,0.9s,mb4.4,baz=296,slow=6.9,SNR=3.7						
YKA	**Yellowknife Ar**	**59.49**	**334**	P	**P**	**08 03 11.9**	**-1.4**
	2.5nm,0.5s,mb4.5,baz=106,slow=7.2,SNR=72						
YKA	**Yellowknife Ar**	**59.49**	**334**	P	**P**	**08 03 11.9**	**-1.4**
NOA	**NORSAR Array B**	**68.02**	**30**	P	**P**	**08 04 09.6**	**+0.3**
	1.5nm,0.8s,mb4.1,baz=262,slow=6.1,SNR=4.1						
ILAR	**Eielson Array**	**73.90**	**334**	P	**P**	**08 04 43.7**	**-0.9**
	3.0nm,1.0s,mb4.2,baz=80,slow=5.0,SNR=13						

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*IDC **10** 07:56:27.5±0.8, 15.75N×61.62W, mb4.1/9, mb1 4.3/10, mb1mx4.1/22, ML6.0/1, Error ellipse: s-maj=11.7km s-min=10.2km az=125.0*
*TRN **10** 07:56:28.1, 15.76N×61.46W, h19^{km}, MD3.7*
*NEIC **10** 07:56:29.2±0.6, 15.76N×61.64W, h10^{km}, mb4.1/2, Error ellipse: s-maj=15.7km s-min=10.9km az=218.0*
ISC 10 07:56:29.6±0.5**, 15.76N**±0.03×**61.58W**±0.07**, h23**^{km}±5^{km}**, n34, σ0^{s}.87**/40**, mb4.0**/11**, 4C-4D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	**Barber's Block**	**0.25**	**156**	⇓*i*P	**Pb**	**07 56 35.4**	**-0.4**
BBL	**Barber's Block**	**0.25**	**156**	⇓*i*P	**Pb**	**07 56 35.4**	**-0.4**
BBL				*i* S	**Sb**	**07 56 38.3**	**-1.7**
MGG	**Marie-Galante**	**0.30**	**57**	⇑*i*P	**Pb**	**07 56 36.2**	**-0.2**
MDN	**Morne-Daniel**	**0.47**	**158**	⇓*i*P	**Pb**	**07 56 39.4**	**+0.1**
MDN				*i* S	**Sb**	**07 56 46.5**	**+0.7**
DBCT	**Belle View Cho**	**0.53**	**155**	*i* P	**Pb**	**07 56 40.4**	**+0.2**
DSTT	**Stowe**	**0.57**	**152**	*e*P	**Pb**	**07 56 40.8**	**-0.1**
DSHT	**Scott's Head**	**0.57**	**160**	*e*P	**Pb**	**07 56 41.1**	**+0.2**
SEG	**Port Louis**	**0.65**	**6**	*e*P	**Pb**	**07 56 42.2**	**0.0**
DEG	**La Desirade**	**0.74**	**42**	⇑*e*P	**Pb**	**07 56 42.8**	**-1.0**
FDF	**Fort de France**	**1.10**	**158**	*e*P	**Pn**	**07 56 49.2**	**-0.5**
FDF				*e*S	**Sb**	**07 57 05.1**	**+1.4**
CRM	**Caravelle**	**1.19**	**147**	*e*P	**Pn**	**07 56 50.7**	**-0.2**
CRM				*e*S	**Sb**	**07 57 06.9**	**+0.7**
BPA	**Boggy Peak**	**1.31**	**348**	*e*P	**Pn**	**07 56 53.0**	**+0.2**
BPA				*e*S	**Sn**	**07 57 10.5**	**+0.8**
BIM	**Bigot**	**1.33**	**158**	⇓*e*P	**Pn**	**07 56 52.6**	**-0.4**
MVM	**Montagne Vaucl**	**1.36**	**151**	⇑*e*P	**Pn**	**07 56 53.6**	**0.0**
MVM				*e*S	**Sn**	**07 57 11.6**	**+0.6**
CPB	**Codrington**	**1.89**	**353**	⇑*i*P	**Pn**	**07 57 01.2**	**+0.1**
CPB				*i* S	**Sn**	**07 57 26.0**	**+1.7**
STAT	**Sint Eustatius**	**2.19**	**322**	*e*P	**Pn**	**07 57 07.9**	**+2.6**
SABT	**Saba**	**2.45**	**320**	*e*P	**Pn**	**07 57 11.0**	**+1.9**
SVB	**Belmont**	**2.49**	**173**	*e*T		07 56 01.6	
GRW	**Mount Saint Ca**	**3.58**	**181**	*e*P	**Pn**	**07 57 26.1**	**+1.0**
SJG	**San Juan**	**4.96**	**299**	Pn	**Pn**	**07 57 43.6**	**-1.1**
	12nm,0.3s,baz=12,slow=16,SNR=6.1						
SJG	**San Juan**	**4.96**	**299**	Pn	**Pn**	**07 57 43.6**	**-1.1**
SAML	**Samuel**	**24.60**	**184**	*e*P	**P**	**08 01 49.5**	**-0.1**
	3.3nm,0.8s,mb3.9						
JCT	**Junction City**	**37.88**	**300**	*e*P	**P**	**08 03 45.7**	**-1.2**
	2.0nm,0.5s,mb4.1						
SCHQ	**Schefferville**	**39.21**	**355**	P	**P**	**08 03 57.3**	**-0.4**
	1.3nm,0.7s,mb3.8,baz=56,slow=14,SNR=5.2						
TXAR	**Lajitas Array**	**40.93**	**297**	P	**P**	**08 04 11.8**	**-0.4**
	0.6nm,0.8s,mb3.2,baz=122,slow=7.3,SNR=8.1						
ULM	**Lac du Bonnet**	**44.14**	**329**	P	**P**	**08 04 37.2**	**-0.9**
	2.8nm,0.6s,mb4.2,baz=146,slow=9.1,SNR=5.7						
PDAR	**Pinedale Array**	**48.91**	**313**	P	**P**	**08 05 15.6**	**-0.3**
	1.5nm,0.5s,mb4.2,baz=120,slow=9.8,SNR=12						
DBIC	**Dimbokro**	**56.22**	**92**	P	**P**	**08 06 10.8**	**0.0**
	2.5nm,0.7s,mb4.4,baz=302,slow=10,SNR=3.7						
DBIC	**Dimbokro**	**56.22**	**92**	P	**P**	**08 06 10.8**	**0.0**
YKA	**Yellowknife Ar**	**59.48**	**334**	P	**P**	**08 06 31.4**	**-1.6**
	2.1nm,0.5s,mb4.4,baz=106,slow=7.4,SNR=41						
YKA	**Yellowknife Ar**	**59.48**	**334**	P	**P**	**08 06 31.4**	**-1.6**
DLBC	**Dease Lake**	**65.44**	**327**	P	**P**	**08 07 13.1**	**+0.4**
	2.1nm,0.9s,mb4.2,baz=47,slow=6.3,SNR=4.3						
NOA	**NORSAR Array B**	**68.01**	**30**	P	**P**	**08 07 28.8**	**-0.2**
	1.4nm,0.8s,mb4.0,baz=275,slow=5.0,SNR=3.4						
ILAR	**Eielson Array**	**73.89**	**334**	P	**P**	**08 08 03.2**	**-1.0**
	2.1nm,1.1s,mb4.0,baz=79,slow=5.4,SNR=11						

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*IDC **10** 09:02:50.7±2.1, 28.25S×176.37W, mb4.0/3, mb1 4.2/4, mb1mx4.0/13, ML3.5/1, MS3.8/4, Ms1 3.8/4, ms1mx3.4/23, Error ellipse: s-maj=61.6km s-min=32.3km az=130.0*
*NEIC **10** 09:02:51.7±1.3, 28.30S×176.28W, h10^{km}, Error ellipse: s-maj=33.4km s-min=19.8km az=114.0*
ISC 10 09:02:48.0±5.1**, 28.4S**±0.1×**175.5W**±0.8**, h33**^{km}**, n12, σ0^{s}.71**/7**, mb4.0**/3**, MS3.9**/3**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**11.58**	**210**	Pn	**P**	**09 05 33.9**	**-0.1**
	0.3nm,0.3s,baz=114,slow=19,SNR=2.9						
URZ				Sn	**S**	**09 07 43.1**	**-0.1**
	1.1nm,0.3s,baz=176,slow=21,SNR=7.2						
RAR	**Rarotonga**	**15.98**	**67**	LR	LR	09 11 40.6	
	comp=Z,166nm,19.2s,baz=234,slow=32						
CTA	**Charters Tower**	**35.72**	**275**	LR	LR	09 22 17.0	
	comp=Z,335nm,19.4s,MS4.1,baz=49,slow=33						
STKA	**Stephens Creek**	**37.08**	**254**	P	**P**	**09 09 58.4**	**+1.5**
	4.8nm,1.1s,mb4.2,baz=90,slow=9.1,SNR=4.1						
STKA				LR	LR	09 22 46.8	
	comp=Z,168nm,19.3s,MS3.9,baz=29,slow=33						
STKA	**Stephens Creek**	**37.08**	**254**	P	**P**	**09 09 58.4**	**+1.5**
STKA				LR	LR	09 22 46.8	
ASAR	**Alice Springs**	**45.43**	**264**	P	**P**	**09 11 05.5**	**-0.2**
	1.0nm,0.5s,mb3.9,baz=118,slow=8.1,SNR=11						
ASAR				LR	LR	09 30 09.6	
	comp=Z,99nm,19.1s,MS3.8,baz=92,slow=37						
WB2	**Warramunga Arr**	**46.24**	**269**	*e*P	**P**	**09 11 12.0**	**-0.1**
WRA	**Warramunga Arr**	**46.25**	**269**	P	**P**	**09 11 11.3**	**-1.0**
	1.3nm,0.7s,mb4.0,baz=108,slow=7.8,SNR=11						
FINES	**FINESS Array B**	**143.98**	**343**	PKP	PKPdf	09 22 26.1	+6.8
	1.9nm,0.9s,baz=63,slow=3.1,SNR=4.1						
NOA	**NORSAR Array B**	**147.08**	**354**	PKPbc	PKPdf	09 22 34.0	+9.3
	0.9nm,0.8s,baz=8.2,slow=3.7,SNR=3.3						
NOA	**NORSAR Array B**	**147.08**	**354**	PKPbc	PKPdf	09 22 34.0	+9.3
AKASG	**Malin Array Be**	**150.95**	**327**	PKPbc	PKPdf	09 22 43.1	+12
	0.8nm,0.5s,baz=37,slow=2.3,SNR=7.4						

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*NIED **10** 09:18:00, 42.90N×145.50E, h38^{km}, Mw3.8 Best double couple: M$_0$4.74×10^{14} NP1:φ$_s$24°, δ71°, λ74°. NP2:φ$_s$244°, δ25°, λ128°.*
*IDC **10** 09:18:47.8±6.8, 42.26N×145.35E, h47^{km}±45^{km}, mb3.4/7, mb1 3.7/8, mb1mx3.5/22, ML3.8/1, Error ellipse: s-maj=70.5km s-min=27.5km az=2.0*
*JMA **10** 09:18:50.7±0.1, 42.93N×145.48E, h45^{km}±1^{km}, M3.5*
*MOS **10** 09:18:57.1±1.4, 44.47N×145.27E, h33^{km}, mb4.1/4, Error ellipse: s-maj=33.9km s-min=27.2km az=106.6*
ISC 10 09:18:50.2±1.0**, 42.94N**±0.08×**145.48E**±0.08**, h52**^{km}±6^{km}**, n21, σ0^{s}.76**/27**, mb3.6**/7**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.47**	**24**	P	**P**	**09 19 01.2**	**-0.1**
NEM2				*e*S	**S**	**09 19 08.5**	**-0.7**
JAK	**Akkeshi**	**0.58**	**276**	P	**P**	**09 19 02.7**	**+0.2**
JAK				*e*S	**S**	**09 19 11.3**	**-0.1**
JNK	**Nakash**	**0.85**	**320**	P	**P**	**09 19 06.3**	**+0.2**
JNK				*e*S	**S**	**09 19 17.3**	**-0.6**
JRA	**Rausu**	**1.03**	**346**	P	**P**	**09 19 09.1**	**+0.5**
JRA				*e*S	**S**	**09 19 22.6**	**+0.3**
YUK	**Yuzh-Kuril'sk**	**1.13**	**14**	*e*PN	**P**	**09 19 09.5**	**-0.5**
YUK				*i*		09 19 21.8	
YUK				pmax	pmax		
	comp=Z,340nm,0.2s						
YUK				smax			
	comp=N,2μm,0.7s						
YUK				smax			
	comp=E,4μm,0.7s						
YUK				smax			
	comp=N,320nm,0.4s						
YUK				smax			
	comp=E,230nm,0.4s						
JOB	**Onbets**	**1.21**	**269**	P	**P**	**09 19 11.2**	**+0.2**
JAR	**Ashorobuto**	**1.30**	**287**	P	**P**	**09 19 12.8**	**+0.3**
JAR				*e*S	**S**	**09 19 28.5**	**-0.6**
JTKR	**Abashiri--Toko**	**1.54**	**313**	P	**P**	**09 19 16.6**	**+0.8**
JCH	**Churui**	**1.59**	**259**	P	**P**	**09 19 16.2**	**-0.3**
ASAJ	**Asahikawa**	**2.40**	**300**	P	**P**	**09 19 29.6**	**+1.6**
	comp=E,9.8nm,0.3s,baz=114,slow=11,SNR=40						
ASAJ				S	**S**	**09 20 01.5**	**+5.2**
	comp=E,4.1nm,0.3s,baz=17,slow=32,SNR=6.2						
SONM	**Songino Array**	**27.67**	**294**	P	**P**	**09 24 33.1**	**-2.0**
	comp=E,0.5nm,0.6s,mb3.3,baz=84,slow=13,SNR=4.1						
ILAR	**Eielson Array**	**42.86**	**36**	P	**P**	**09 26 45.6**	**+1.2**
	comp=E,1.1nm,1.0s,mb3.5,baz=282,slow=9.0,SNR=4.9						
ILAR	**Eielson Array**	**42.86**	**36**	P	**P**	**09 26 45.7**	**+1.2**
ILAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA	**Yellowknife Ar**	**57.16**	**33**	P	**P**	**09 28 34.6**	**+1.1**
	comp=Z,0.2nm,0.6s,mb3.4,baz=303,slow=6.8,SNR=4.2						
FINES	**FINESS Array B**	**65.04**	**332**	P	**P**	**09 29 26.1**	**-0.6**
	comp=Z,1.5nm,0.8s,mb4.1,baz=63,slow=8.5,SNR=5.2						
FINES	**FINESS Array B**	**65.04**	**332**	P	**P**	**09 29 26.1**	**-0.6**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	**NORSAR Array B**	**69.92**	**338**	P	**P**	**09 29 57.3**	**+0.1**
	comp=Z,1.0nm,0.9s,mb3.7,baz=44,slow=5.5,SNR=2.9						
NOA	**NORSAR Array B**	**69.92**	**338**	P	**P**	**09 29 57.3**	**+0.1**
NOA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
PDAR	**Pinedale Array**	**71.37**	**49**	P	**P**	**09 30 05.3**	**-1.0**
	comp=Z,0.5nm,1.0s,mb3.4,baz=248,slow=8.0,SNR=4.2						
AKASG	**Malin Array Be**	**71.50**	**323**	P	**P**	**09 30 06.5**	**-0.5**
	comp=Z,0.8nm,0.4s,mb4.0,baz=40,slow=5.9,SNR=4.6						
AKASG	**Malin Array Be**	**71.50**	**323**	P	**P**	**09 30 06.5**	**-0.4**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						

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*NEIC **10** 09:20:44.7±2.0, 14.75S×72.25W, h92^{km}±18^{km}, Error ellipse: s-maj=28.5km s-min=18.4km az=120.0*
*IDC **10** 09:20:46.9±4.6, 15.35S×72.42W, h127^{km}±42^{km}, mb3.4/2, mb1 3.4/4, mb1mx3.2/16, Error ellipse: s-maj=40.4km s-min=28.6km az=128.0*
ISC 10 09:20:46.4±1.9**, 15.4S**±0.1×**72.4W**±0.1**, h140**^{km}±17^{km}**, n9, σ0^{s}.60**/11**, mb3.6**/2**, 1D, Southern Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	**Arequipa**	**1.42**	**140**	⇓*i*P	**P**	**09 21 15.1**	**+0.4**
LPAZ	**La Paz**	**4.24**	**103**	P	**P**	**09 21 50.6**	**+0.1**
	2.3nm,0.3s,baz=286,slow=11,SNR=52						
LPAZ				S	**S**	**09 22 40.0**	**+0.2**
	baz=180,slow=18,SNR=1.9						
LPAZ	**La Paz**	**4.24**	**103**	*e*Pn	**P**	**09 21 48.2**	**-2.3**
LPAZ				S	**S**	**09 22 40.0**	**+0.2**
LVC	**Limon Verde**	**7.94**	**156**	P	**P**	**09 22 40.0**	**-0.1**
	0.2nm,0.3s,baz=346,slow=8.3,SNR=5.4						
LVC				S	**S**	**09 24 08.5**	**-0.1**
	0.6nm,0.3s,baz=100,slow=21,SNR=8.0						
SAML	**Samuel**	**11.07**	**56**	Pn	**P**	**09 23 13.2**	**-8.4**
BDFB	**Brasilia**	**23.53**	**94**	P	**P**	**09 25 45.4**	**+0.4**
	2.5nm,0.5s,mb4.0,baz=270,slow=10,SNR=4.7						
YKA	**Yellowknife Ar**	**84.34**	**342**	P	**P**	**09 33 03.4**	**-0.1**
	0.3nm,0.8s,mb3.1,baz=132,slow=5.0,SNR=4.6						
YKA	**Yellowknife Ar**	**84.34**	**342**	P	**P**	**09 33 03.4**	**-0.1**
SONM	**Songino Array**	**147.62**	**1**	PKPbc	PKPdf	09 40 17.2	+5.9
	0.6nm,0.8s,baz=7.8,slow=1.2,SNR=4.3						

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*NEIC **10** 09:30:01.4, 16.59N×96.36W, h155^{km}, MD4.2(MEX), After MEX.*
MEX 10 09:30:01.6±1.4**, 15.75N**×**96.31W, h17**^{km}±20^{km}**, MD4.2, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**0.19**	**84**	*i* P	Pb	09 30 05.5	-0.9
HUIG				*i* S	Sb	09 30 09.5	-0.1
VHO	**Vista Hermosa**	**1.38**	**343**	*i* P	Pn	09 30 22.5	-3.8
VHO				*i* S	Sb	09 30 38.5	-5.2
OXX	**Oaxaca**	**1.38**	**343**	*i* P	Pn	09 30 23.0	-3.4
OXX				*i* S	Sb	09 30 39.5	-4.4
PNIG	**Pinotepa**	**1.86**	**290**	*i* P	Pn	09 30 29.6	-3.6
PNIG				*i* S	Sn	09 30 56.9	+0.4
PNIG	**Pinotepa**	**1.86**	**290**	*i* P	Pn	09 30 29.3	-3.9
PNIG				*i* S	Sn	09 30 50.6	-5.9
CMIG	**Matias Romero**	**1.91**	**45**	*e*P	Pn	09 30 27.8	-6.1
CMIG				*i* S	Sn	09 30 53.7	-4.0
CMIG	**Matias Romero**	**1.91**	**45**	*i* P	Pn	09 30 29.1	-4.8
CMIG				*i* S	Sn	09 30 53.6	-4.1
EVV	**El Vigia**	**2.84**	**19**	*e*P	Pn	09 30 49.0	+1.8
IISM	**Ciudad Serdan**	**3.38**	**343**	*e*P	Pn	09 30 51.5	-3.3
ACX	**Acapulco**	**3.64**	**288**	*i* P	Pn	09 30 53.7	-4.8

PPM	**Popocatepetl**	**3.97**	**326**	*e*P	Pn	09 30 59.9	-3.4
PPM				*i* S	Sn	09 31 46.1	-3.9
PPM	**Popocatepetl**	**3.97**	**326**	*e*P	Pn	09 30 59.9	-3.4
PPM				*e*P		09 31 07.5	
PPM				*i* S	Sn	09 31 46.1	-3.9

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*NAO **10** 09:33:05.1±5.0, 67.52N×33.23E, ML2.3*

HEL 10 09:33:04.4±0.4**, 67.69N×33.79E, ML2.1, ML1.9**(BER), **ML2.3**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSF	**Maaselka**	**2.59**	**229**	*e*P	Pn	09 33 48.1	-0.2
MSF				*e*SG	Sg	09 34 23.9	-6.8
SGF	**Sodankyl**	**2.80**	**268**	*e*P	Pn	09 33 49.7	-1.5
SGF				*e*SG	Sg	09 34 30.6	-6.9
KEV	**Kevo**	**3.23**	**313**	*e*P	Pn	09 33 56.4	-0.9
KEV				*e*SG	Sg	09 34 42.8	-9.1
KEV				MSG		09 34 45.6	
	comp=Z,4.7nm,0.2s						
ARA0	**ARCESS Array S**	**3.56**	**305**	Pn	Pn	09 34 00.2	-1.8
	baz=121,slow=16						
ARA0				Pg	Pg	09 34 08.8	-6.6
	baz=118,slow=16						
ARA0				Sn	Sn	09 34 42.0	-3.4
	baz=122,slow=28						
ARA0				Lg		09 34 54.3	
	baz=115,slow=37						
ARA0	**ARCESS Array S**	**3.56**	**305**	*e*P	Pn	09 34 00.2	-1.8
ARA0				*e*PG	Pg	09 34 08.8	-6.6
ARA0				*e*S	Sn	09 34 42.0	-3.4
ARA0				*e*SG		09 34 54.3	
KTK1	**Kautokeino**	**4.13**	**294**	*e*P	Pn	09 34 09.3	-0.8
KTK1				AML	AML	09 35 15.5	
	comp=Z,5.7nm,0.3s						
KJN	**Kajaani**	**4.39**	**217**	*e*P	Pn	09 34 10.2	-3.7
KJN				*e*S	Sn	09 35 01.8	-4.8
KJN				MSG		09 35 21.0	
	comp=Z,3.1nm,0.4s						
FIA0	**FINESS Array S**	**7.09**	**212**	Lg		09 36 39.9	
	baz=38,slow=28						
FIA0	**FINESS Array S**	**7.09**	**212**	Lg		09 36 39.9	
	baz=38,slow=28						
FIA0	**FINESS Array S**	**7.09**	**212**	*e*SG		09 36 39.9	

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*MOS **10** 09:42:32.3±1.1, 10.89N×141.77E, h33^{km}, mb5.7/14, MS4.9/10, Error ellipse: s-maj=16.0km s-min=8.4km az=104.2*

*BJI **10** 09:42:32.7, 11.12N×141.97E, h28^{km}, mB5.4, mb5.2, Ms5.0, Msz4.9*

*IDC **10** 09:42:34.4±0.4, 10.89N×141.82E, h34^{km}±2^{km}, mb4.9/27, mb1 5.1/28, mb1mx5.0/30, ML4.4/1, MS4.9/20, Ms1 4.9/20, ms1mx4.8/28, Error ellipse: s-maj=13.6km s-min=8.8km az=88.0*

*NEIC **10** 09:42:34.4±0.1, 10.87N×141.78E, mb5.3/54, MS4.9/10, Error ellipse: s-maj=5.3km s-min=4.0km az=101.0*

*HRVD **10** 09:42:34.4±0.2, 10.81N×141.63E, h47^{km}, MW5.5/58, Centroid moment Tensor Solution. LP body waves: s58,c119;Mantle waves: s58,c122; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}1.87±.04; $M_{\theta\theta}$-0.99±.03; $M_{\phi\phi}$-0.89±.03; $M_{r\theta}$-0.53±.02; $M_{\theta\phi}$-1.02±.02; $M_{\phi r}$-0.37±.03; Best double couple: $M_0$2.02×10^{17} NP1: ϕ_s43°, δ36°, λ85°. NP2: ϕ_s229°, δ54°, λ93°. Principal axes: T 1.98, Plg80°, Azm154°; N .08, Plg3°, Azm47°; P -2.06, Plg9°, Azm317°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 10 09:42:32.9±0.2**, 10.85N**±0.03×**141.78E**±0.03**, h33**^{km}**, h33**^{km}±.7^{km}**:pP-P, n278,** σ1^{s}09/273**, mb5.2**/105**, MS4.9**/55**, 18C-14D, Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**4.06**	**48**	*e*Pn	**Pn**	**09 43 36.8**	**+2.3**
MATI	**Mati**	**15.82**	**257**	*e*P	**P**	**09 46 22.5**	**+7.3**
BUTP	**Butuan**	**16.03**	**265**	*e*P	**P**	**09 46 23.1**	**+5.2**
BESP	**Borongan**	**16.05**	**274**	*e*P	**P**	**09 46 24.4**	**+6.3**
CBIJ	**Chichi jima**	**16.16**	**1**	Pn	**P**	**09 46 20.8**	**+1.3**
	5.3nm,0.3s,baz=196,slow=17,SNR=3.0						
CBIJ				LR	LR	09 51 48.3	
	comp=Z,848nm,18.2s,baz=179,slow=34						
DAV	**Davao City (W)**	**16.44**	**258**	*e*P	**P**	**09 46 32.0**	**+8.9**
MSLP	**Maasin**	**16.66**	**269**	*e*P	**P**	**09 46 27.7**	**+1.9**
BUKP	**Musuan**	**16.76**	**261**	*e*P	**P**	**09 46 31.5**	**+4.4**
CNP	**Catarman**	**16.85**	**277**	*e*P	**P**	**09 46 30.9**	**+2.7**
OCLP	**Ormoc**	**16.86**	**272**	*e*P	**P**	**09 46 32.8**	**+4.3**
TBP	**Tagbilaran**	**17.67**	**268**	*e*P	**P**	**09 46 40.3**	**+1.8**
PAGZ	**Pagadian**	**18.40**	**262**	*e*P	**P**	**09 46 49.4**	**+1.8**
GUIM	**Jordan**	**18.86**	**271**	*e*P	**P**	**09 46 54.9**	**+1.8**
IPIL	**Ipil**	**19.20**	**263**	*e*P	**P**	**09 47 02.0**	**+4.9**
OTRP	**Odiongan**	**19.42**	**276**	*e*P	**P**	**09 46 59.4**	**-0.2**
BOAC	**Boac**	**19.66**	**280**	*e*P	**P**	**09 47 02.4**	**+0.1**
POLP	**Polilio Island**	**19.73**	**283**	*e*P	**P**	**09 47 02.6**	**-0.4**
LQP	**Lukban**	**20.03**	**281**	*e*P	**P**	**09 47 06.6**	**+0.5**
BALP	**Baler**	**20.25**	**286**	*e*P	**P**	**09 47 08.5**	**0.0**
CAUP	**Cauayan**	**20.29**	**290**	*e*P	**P**	**09 47 10.6**	**+1.7**
SJMP	**San Jose**	**20.30**	**277**	*e*P	**P**	**09 47 12.6**	**+3.6**
JOW	**Kunigami**	**20.37**	**323**	P	**P**	**09 47 09.6**	**-0.1**
	121nm,0.5s,baz=143,slow=12						
JOW				LR	LR	09 54 50.6	
	comp=Z,3µm,18.4s,MS4.7,baz=137,slow=36						
CUYO	**Cuyo Island**	**20.39**	**272**	*e*P	**P**	**09 47 09.8**	**-0.2**
SGCP	**Mt. Cagua**	**20.45**	**293**	*e*P	**P**	**09 47 10.6**	**0.0**
CVP	**Callao Caves**	**20.50**	**292**	*i* P	**P**	**09 47 12.2**	**+1.1**
TGY	**Tagaytay City**	**20.61**	**281**	P	**P**	**09 47 13.0**	**+0.8**
	1µm,1.1s,baz=151,slow=3.5,SNR=13						
TGY				LR	LR	09 54 02.5	
	comp=Z,3µm,20.8s,MS4.7,baz=191,slow=33						
PMG	**Port Moresby**	**20.82**	**165**	P	**P**	**09 47 13.3**	**-1.1**
	157nm,0.9s,baz=355,slow=6.6,SNR=58						
PMG				pP		09 47 23.7	
	211nm,0.8s,baz=355,slow=7.8,SNR=22						
PMG				LR	LR	09 54 51.0	
	comp=Z,5µm,18.9s,MS4.9,baz=346,slow=35						
PMG	**Port Moresby**	**20.82**	**165**	P	**P**	**09 47 13.3**	**-1.1**
PMG				pP		09 47 23.7	
PMG				LR	LR	09 54 51.0	
APYP	**Conner**	**21.07**	**292**	*e*P	**P**	**09 47 18.1**	**+1.2**
LUBP	**Lubang**	**21.23**	**280**	*e*P	**P**	**09 47 24.8**	**+6.2**
BBP	**Basco**	**21.31**	**299**	*e*P	**P**	**09 47 19.4**	**+0.1**
ABRA	**Dolores**	**21.50**	**291**	*e*P	**P**	**09 47 24.1**	**+2.8**
SCZP	**Santa Cruz**	**21.83**	**285**	*e*P		09 47 38.8	
BOLP	**Bolinao**	**21.95**	**287**	*e*P		09 47 38.5	
ENPP	**El Nido**	**21.95**	**273**	*e*P	**P**	**09 47 25.0**	**-0.7**
JHJ	**Hachijo jima 2**	**22.24**	**356**	LR	LR	09 55 48.3	
	comp=Z,4µm,18.6s,MS4.8,baz=186,slow=36						
PPR	**Puerto Princes**	**22.70**	**269**	⇑*e*P	**P**	**09 47 32.2**	**-1.2**
BATP	**Bataraza**	**23.72**	**267**	*e*P		09 47 53.3	
KAKA	**Kakadu**	**25.18**	**202**	*e*P	**P**	**09 47 57.6**	**+0.3**
	64nm,0.7s,mb5.3						
KAKA				*i*	pP	09 48 08.0	+1.2
MAJO	**Matsushiro**	**25.78**	**353**	*e*P	**P**	**09 47 59.9**	**-2.8**
	7.6nm,0.5s,mb4.5						
MAJO				LR	LR		
	comp=Z,2µm,21.0s,MS4.7						
MAT	**Matsushiro**	**25.78**	**353**	P	**P**	**09 47 59.6**	**-3.1**
MAT				S	**S**	**09 52 18.0**	**-9.4**
MAT	**Matsushiro**	**25.78**	**353**	*e*P	**P**	**09 48 00.0**	**-2.7**
MAT				*e*S	**S**	**09 52 18.0**	**-9.4**
MAT				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
QZH	**Quanzhou**	**26.08**	**306**	P	**P**	**09 48 06.3**	**+0.7**
QZH				S	**S**	**09 52 26.0**	**-6.5**
QZH				LR	LR		
	comp=N,3µm,19.4s						
QZH				LR	LR		
	comp=E,1µm,12.4s						
QZH				LR	LR		
	comp=Z,4µm,26.9s						
SSE	**Sheshan**	**27.75**	**320**	P	**P**	**09 48 20.2**	**-0.7**
SSE				XP	sP	09 48 33.9	-0.7
SSE				S	**S**	**09 53 01.8**	**+2.2**
SSE				XS		09 53 14.8	
SSE				AMB	AMB		
	comp=Z,49nm,1.5s,mb4.9						
SSE				LR	LR		
	comp=N,2µm,21.3s,MS4.7						
SSE				LR	LR		
	comp=E,1µm,21.3s,MS4.7						
SSE				LR	LR		
	comp=Z,2µm,22.6s,MS4.7						
SSE	**Sheshan**	**27.75**	**320**	P	**P**	**09 48 20.2**	**-0.7**
	comp=Z,49nm,1.5s,mb4.9						
SSE				sP	sP	09 48 33.9	-0.7
SSE				S	**S**	**09 53 01.8**	**+2.2**
SSE				sS		09 53 14.8	
SSE				LR	LR		
	comp=Z,2µm,22.6s,MS4.7						
GZH	**Guangzhou**	**29.73**	**298**	P	**P**	**09 48 37.9**	**-0.8**
GZH				LR	LR		
	comp=N,710nm,23.6s,MS4.6						
GZH				LR	LR		
	comp=E,2µm,21.8s,MS4.6						
GZH				LR	LR		
	comp=Z,2µm,28.6s						
NJ2	**Nanjing**	**29.88**	**318**	*e*P	**P**	**09 48 39.3**	**-0.7**
NJ2				AP	pP	09 48 48.1	-1.5
NJ2				XP	sP	09 48 52.9	-0.9
NJ2				S	**S**	**09 53 29.0**	**-4.6**
NJ2				XS		09 53 45.0	
NJ2				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,1µm,5.8s						
NJ2				LR	LR		
	comp=N,1µm,21.4s						
NJ2				LR	LR		
	comp=E,2µm,16.2s						
NJ2				LR	LR		
	comp=Z,3µm,17.9s,MS5.0						
CTA	**Charters Tower**	**31.06**	**172**	*e*P	**P**	**09 48 50.3**	**-0.2**
	comp=Z,25nm,1.0s,mb5.0						
CTA	**Charters Tower**	**31.06**	**172**	P	**P**	**09 48 49.9**	**-0.6**
	comp=Z,32nm,1.0s,mb5.1,baz=348,slow=9.9,SNR=24						
CTA				LR	LR	10 00 13.2	
	comp=Z,5µm,21.2s,MS5.1,baz=357,slow=34						
CTAO	**Charters Tower**	**31.06**	**172**	*e*P	**P**	**09 48 50.4**	**0.0**
	comp=Z,47nm,1.1s,mb5.2						
WRAB	**Tennant Creek**	**31.45**	**193**	*c* *i*P	**P**	**09 48 53.0**	**-1.0**
WRAB	**Tennant Creek**	**31.45**	**193**	*e*P	**P**	**09 48 52.8**	**-1.2**
	comp=Z,106nm,1.0s,mb5.6						
WRAB				LR	LR		
	comp=Z,1µm,21.0s,MS4.5						
WB2	**Warramunga Arr**	**31.46**	**193**	⇑*i*P	**P**	**09 48 52.7**	**-1.3**
WB2				*i*	pP	09 49 04.0	+0.4
WRA	**Warramunga Arr**	**31.47**	**194**	P	**P**	**09 48 52.9**	**-1.1**
	comp=Z,35nm,0.7s,mb5.3,baz=14,slow=9.3,SNR=85						
WRA				pP	pP	09 49 03.3	-0.3
	comp=Z,18nm,0.6s,baz=15,slow=9.6,SNR=10						
WRA				pPcP		09 51 58.2	
	comp=Z,5.1nm,0.8s,baz=0.1,slow=3.0,SNR=5.1						
WRA	**Warramunga Arr**	**31.47**	**194**	*i* P	**P**	**09 48 52.9**	**-1.2**
WRA				pmax	pmax		
	comp=Z,35nm,0.7s						
WHN	**Wuhan**	**32.13**	**312**	*e*P	**P**	**09 48 59.9**	**+0.1**
WHN				S	**S**	**09 54 12.0**	**+3.0**
WHN				LR	LR		
	comp=N,1µm,20.0s,MS5.0						
WHN				LR	LR		
	comp=E,3µm,22.2s,MS5.0						
WHN				LR	LR		
	comp=Z,5µm,23.7s,MS5.1						
FITZ	**Fitzroy Crossi**	**32.89**	**209**	⇑*i*P	**P**	**09 49 04.9**	**-1.6**
	comp=Z,12nm,0.8s,mb4.9						
FITZ	**Fitzroy Crossi**	**32.89**	**209**	P	**P**	**09 49 05.1**	**-1.4**
	comp=Z,15nm,0.8s,mb5.0,baz=25,slow=8.0,SNR=19						
ASAJ	**Asahikawa**	**33.15**	**1**	LR	LR	10 01 13.0	
	comp=Z,1µm,21.9s,MS4.6,baz=58,slow=34						
DL2	**Dalian**	**33.22**	**331**	P	**P**	**09 49 09.7**	**+0.5**
DL2				S	**S**	**09 54 29.7**	**+3.8**
DL2				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.3						
DL2				LR	LR		
	comp=N,770nm,17.8s,MS4.6						
DL2				LR	LR		
	comp=E,810nm,17.7s,MS4.6						
DL2				LR	LR		
	comp=Z,1µm,20.4s,MS4.5						
ASAR	**Alice Springs**	**35.16**	**193**	P	**P**	**09 49 25.2**	**-0.8**
	comp=Z,11nm,0.8s,mb4.8,baz=24,slow=11,SNR=74						
ASAR				PcP	PcP	09 51 55.4	-1.7
	comp=Z,12nm,0.9s,baz=6.5,slow=3.7,SNR=6.5						
ASAR				pPcP		09 52 07.9	
	comp=Z,8.9nm,0.7s,baz=36,slow=2.7,SNR=8.1						
ASPA	**Alice Springs**	**35.16**	**193**	*e*P	**P**	**09 49 25.7**	**-0.4**
MDJ	**Mudanjiang**	**35.24**	**345**	P	**P**	**09 49 26.5**	**0.0**
MDJ				AP	pP	09 49 35.2	-1.0
MDJ				XP	sP	09 49 39.1	-1.2
MDJ				PP	PP	09 50 47.0	+1.0
MDJ				PCP	PcP	09 51 56.0	-1.1
MDJ				S	**S**	**09 54 59.6**	**+2.5**
MDJ				XS		09 55 14.6	
MDJ				SCP		09 55 39.6	
MDJ				PCS		09 55 43.1	
MDJ				AMB	AMB		
	comp=Z,281nm,4.6s						
MDJ				LR	LR		
	comp=N,2µm,27.4s,MS4.6						
MDJ				LR	LR		
	comp=E,548nm,30.5s,MS4.6						
MDJ				LR	LR		
	comp=Z,2µm,29.0s,MS4.7						
ENH	**Enshi**	**35.69**	**308**	*e*P	**P**	**09 49 29.3**	**-1.2**
	comp=Z,93nm,1.0s,mb5.7						
ENH				LR	LR		
	comp=Z,783nm,19.0s,MS4.5						
CN2	**Changchun**	**35.75**	**340**	*e*P	**P**	**09 49 30.8**	**0.0**
CN2				*e*AP	pP	09 49 40.8	+0.3
CN2				*e*S	**S**	**09 55 04.4**	**-0.5**
CN2				AMB	AMB		
	comp=Z,30nm,1.1s,mb5.1						
CN2				AMB	AMB		
	comp=Z,500nm,3.0s						
CN2				LR	LR		
	comp=N,1µm,16.0s,MS4.9						
CN2				LR	LR		
	comp=E,1µm,16.0s,MS4.9						
CN2				LR	LR		
	comp=Z,1µm,19.0s,MS4.7						
YSS	**Yuzh-Sakhalins**	**35.99**	**1**	*e*P	pP	09 49 47.5	+5.0
YSS				MLR	MLR		
	comp=N,1µm,19.0s						
YSS				MLR	MLR		
	comp=Z,1µm,19.0s,MS4.6						
GYA	**Guiyang**	**36.56**	**300**	⇑*i*P	**P**	**09 49 40.2**	**+2.3**
GYA				S	**S**	**09 55 11.1**	**-6.5**
GYA				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.0						
GYA				AMB	AMB		
	comp=Z,310nm,5.4s						
GYA				LR	LR		
	comp=N,570nm,25.5s,MS4.7						
GYA				LR	LR		
	comp=E,1µm,24.3s,MS4.7						
GYA				LR	LR		
	comp=Z,2µm,25.2s,MS4.8						
BJT	**Baijiatuau**	**36.86**	**326**	*e*P	**P**	**09 49 39.3**	**-0.9**
	comp=Z,68nm,1.0s,mb5.4						
BJI	**Beijing**	**36.87**	**326**	P	**P**	**09 49 39.4**	**-0.9**
BJI				XP	sP	09 49 52.1	-2.0
BJI				PP	PP	09 51 01.8	-4.7
BJI				S	**S**	**09 55 18.6**	**-3.6**
BJI				XS		09 55 36.5	
BJI				AMB	AMB		
	comp=Z,79nm,1.3s,mb5.4						
BJI				AMB	AMB		
	comp=Z,612nm,3.4s						
BJI				LR	LR		
	comp=N,2µm,20.0s,MS4.9						
BJI				LR	LR		
	comp=E,1µm,20.0s,MS4.9						
BJI				LR	LR		
	comp=Z,3µm,27.5s						
BJI	**Beijing**	**36.87**	**326**	P	**P**	**09 49 39.4**	**-0.9**
	comp=Z,79nm,1.3s,mb5.4						
BJI				sP	sP	09 49 52.1	-2.0
BJI				PP	PP	09 51 01.8	-4.7
BJI				S	**S**	**09 55 18.6**	**-3.6**
BJI				sS		09 55 36.5	
BJI				SS	SS	09 58 03.1	+12
BJI				LR	LR		
	comp=Z,3µm,27.5s,MS4.9						
XAN	**Xi'an**	**37.87**	**313**	P	**P**	**09 49 48.5**	**-0.2**
XAN				AP	pP	09 50 00.6	+2.1
XAN				SS	SS	09 58 12.9	-1.3
XAN				AMB	AMB		
	comp=Z,24nm,1.4s,mb4.7						
XAN				LR	LR		
	comp=N,421nm,19.0s,MS4.7						
XAN				LR	LR		
	comp=E,1µm,22.5s,MS4.7						
XAN				LR	LR		
	comp=Z,2µm,24.8s,MS4.8						
MBWA	**Marble Bar**	**38.49**	**214**	*e*P	**P**	**09 49 52.7**	**-1.4**
KMI	**Kunming**	**39.59**	**296**	⇓*e*P	**P**	**09 50 05.4**	**+2.1**
KMI				AP	pP	09 50 13.0	0.0
KMI				XP	sP	09 50 17.4	+0.4
KMI				PP	PP	09 51 41.9	+3.9
KMI				PCP	PcP	09 52 15.6	+5.0
KMI				S	**S**	**09 56 04.2**	**+0.6**
KMI				XS		09 56 18.3	
KMI				SS	SS	09 58 55.8	+3.5
KMI				SCS	ScS	10 00 09.6	+3.1
KMI				AMB	AMB		
	comp=Z,25nm,1.7s,mb4.7						
KMI				AMB	AMB		
	comp=Z,157nm,3.9s						
KMI				LR	LR		
	comp=N,519nm,14.5s						
KMI				LR	LR		
	comp=E,1µm,23.4s						
KMI				LR	LR		
	comp=Z,2µm,26.7s						
KMI	**Kunming**	**39.59**	**296**	⇓*e*P	**P**	**09 50 05.4**	**+2.1**
	comp=Z,25nm,1.7s,mb4.7						
KMI				pP	pP	09 50 13.0	0.0
KMI				sP	sP	09 50 17.4	+0.4
KMI				PP	PP	09 51 41.9	+3.9
KMI				PcP	PcP	09 52 15.6	+5.0
KMI				S	**S**	**09 56 04.2**	**+0.6**
KMI				sS		09 56 18.3	
KMI				SS	SS	09 58 55.8	+3.5
KMI				ScS	ScS	10 00 09.6	+3.1
KMI				LR	LR		
	comp=Z,2µm,26.7s,MS4.8						
HHC	**Hu-ho-hao-te**	**40.02**	**324**	*e*P	**P**	**09 50 07.2**	**+0.6**
HHC				AP	pP	09 50 14.6	-1.8
HHC				XP	sP	09 50 18.0	-2.4
HHC				PP	PP	09 51 43.5	+1.2
HHC				PCP	PcP	09 52 13.1	+1.3
HHC				S	**S**	**09 56 08.9**	**-1.0**
HHC				XS		09 56 21.7	
HHC				SS	SS	09 58 59.7	-1.8
HHC				SCS	ScS	10 00 11.0	+2.2
HHC				AMB	AMB		
	comp=Z,32nm,1.0s,mb5.0						
HHC				AMB	AMB		
	comp=Z,1µm,3.4s						
HHC				LR	LR		
	comp=N,674nm,15.1s,MS4.8						
HHC				LR	LR		
	comp=E,658nm,14.5s,MS4.8						
HHC				LR	LR		
	comp=Z,1µm,29.7s						
CD2	**Chengdu**	**40.47**	**305**	⇑*i*P	**P**	**09 50 11.1**	**+0.7**
CD2				PP	PP	09 51 46.0	-0.9
CD2				PPP	PPP	09 52 15.3	+0.5
CD2				S	**S**	**09 56 14.4**	**-2.3**
CD2				XS		09 56 31.6	
CD2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
CD2				AMB	AMB		
	comp=Z,120nm,3.8s						
CD2				LR	LR		
	comp=E,580nm,19.2s						
CD2				LR	LR		
	comp=Z,550nm,24.0s,MS4.3						
NOUC	**Port Laguerre**	**40.63**	**144**	*e*P	**P**	**09 50 13.3**	**+1.4**
DZM	**Mont Dzumac**	**40.69**	**144**	*e*P	**P**	**09 50 10.0**	**-2.3**
NST	**Nakhon Sawan**	**40.77**	**281**	P	**P**	**09 50 15.0**	**+2.0**
NST	**Nakhon Sawan**	**40.77**	**281**	P	pP	09 50 23.2	+0.4
BTO	**Baotou**	**40.78**	**322**	*e*P	**P**	**09 50 13.1**	**+0.2**
BTO				AMB	AMB		
	comp=Z,57nm,1.8s,mb4.9						
IPM	**Ipoh**	**40.84**	**264**	⇑*e*P	**P**	**09 50 14.0**	**+0.4**
CHRT	**Chiangrai**	**41.38**	**288**	⇓P	**P**	**09 50 21.0**	**+3.0**
	comp=Z,329nm,1.0s,mb5.9						
CM31	**Chiang Mai Arr**	**42.05**	**285**	*e*P	**P**	**09 50 24.9**	**+1.3**
CMAR	**Chiang Mai Arr**	**42.05**	**285**	P	**P**	**09 50 24.1**	**+0.6**
	comp=Z,9.9nm,0.7s,mb4.6,baz=89,slow=6.4,SNR=34						
CMAR				pP	pP	09 50 33.8	+0.4
	comp=Z,35nm,0.9s,baz=87,slow=6.1,SNR=16						
CMAR				LR	LR	10 06 24.1	
	comp=Z,780nm,20.4s,MS4.6,baz=100,slow=34						
CHG	**Chiang Mai**	**42.07**	**286**	⇓P	pP	09 50 33.8	+0.3
	comp=Z,19nm,1.0s						
HIA	**Hailar**	**42.45**	**339**	P	**P**	**09 50 27.1**	**+0.6**
	comp=Z,5.5nm,0.3s,mb4.7						
STKA	**Stephens Creek**	**42.49**	**180**	⇑*i*P	**P**	**09 50 26.2**	**-0.8**
	comp=Z,27nm,0.9s,mb4.9						
STKA	**Stephens Creek**	**42.49**	**180**	P	**P**	**09 50 26.2**	**-0.8**
	comp=Z,40nm,1.0s,mb5.0,baz=355,slow=8.4,SNR=42						
STKA				LR	LR	10 09 55.0	
	comp=Z,3µm,18.0s,MS5.3,baz=354,slow=39						
LZH	**Lanzhou**	**42.50**	**313**	⇑P	**P**	**09 50 27.8**	**+0.7**
LZH				AP	pP	09 50 41.5	+4.6
LZH				PP	PP	09 52 09.0	+0.7
LZH				XS		09 57 05.0	
LZH				AMB	AMB		
	comp=Z,140nm,1.4s,mb5.5						
LZH				AMB	AMB		
	comp=Z,470nm,4.5s						
LZH				LR	LR		
	comp=E,2µm,16.0s						
LZH				LR	LR		
	comp=Z,4µm,18.0s,MS5.4						
LZH	**Lanzhou**	**42.50**	**313**	⇑P	**P**	**09 50 27.8**	**+0.7**
	comp=Z,140nm,1.4s,mb5.5						
LZH				pP	pP	09 50 41.5	+4.6
LZH				sP	sP	09 50 51.3	+10
LZH				PP	PP	09 52 09.0	+0.7
LZH				S	**S**	**09 56 36.0**	**-11**
LZH				sS		09 57 05.0	
LZH				SS	SS	09 59 37.0	-14
LZH				LR	LR		
	comp=Z,4µm,18.0s,MS5.4						
FORT	**Forrest**	**43.44**	**197**	⇑*i*P	**P**	**09 50 35.0**	**+0.2**
	comp=Z,471nm,0.8s,mb6.3						
PET	**Petropavlovsk**	**44.20**	**15**	*e*P	**P**	**09 50 36.3**	**-4.3**
PET				*e*S	**S**	**09 57 12.8**	**+1.6**
PET				*e*SS	SS	10 00 27.5	+6.4
PET				smax			
	comp=N,600nm,18.4s						
PET				smax			
	comp=E,500nm,11.8s						
PET				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.8						
GTA	**Gaotai**	**46.83**	**315**	*e*P	**P**	**09 51 01.4**	**-0.4**
GTA				AP	pP	09 51 10.6	-1.0
GTA				XP	sP	09 51 14.7	-0.8
GTA				PP	PP	09 52 46.1	-5.4
GTA				SCS	ScS	10 00 52.9	+1.8
GTA				AMB	AMB		
	comp=Z,36nm,0.8s,mb5.3						
GTA				AMB	AMB		
	comp=Z,222nm,4.2s						
GTA				LR	LR		
	comp=N,605nm,24.7s,MS4.7						
GTA				LR	LR		
	comp=E,797nm,26.2s,MS4.7						
GTA				LR	LR		
	comp=Z,2µm,27.0s,MS4.9						
ULN	**Ulaanbaatar**	**47.01**	**328**	*e*P	**P**	**09 51 03.0**	**-0.1**
	comp=Z,64nm,1.7s,mb5.3						
ULN				*e*	pP	09 51 12.3	-0.5
SONM	**Songino Array**	**47.33**	**328**	P	**P**	**09 51 05.1**	**-0.5**
	comp=Z,3.4nm,0.6s,mb4.5,baz=143,slow=7.6,SNR=27						
SONM				pP	pP	09 51 15.5	+0.1
	comp=Z,9.5nm,0.8s,baz=132,slow=6.3,SNR=14						
SONM				PcP	PcP	09 52 36.5	+0.1
	comp=Z,5.0nm,1.0s,baz=124,slow=5.2,SNR=1.9						
SONM				pPcP		09 52 45.8	
	comp=Z,9.8nm,0.8s,baz=139,slow=3.1,SNR=4.8						
IMP	**Imphal**	**47.37**	**294**	*e*P	**P**	**09 51 05.9**	**-0.4**
CLNS	**Chul'man**	**47.71**	**348**	*e*P	**P**	**09 51 07.4**	**-1.0**
CLNS				*e*		09 52 43.6	
CLNS				*e*SS	ScS	10 00 52.0	-4.5
CLNS				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
CLNS				pmax	pmax		

	comp=N,9.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,5.0nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
CLNS				pmax	pmax		
	comp=N,24nm,1.0s						
CLNS				pmax	pmax		
	comp=E,13nm,1.0s						
CLNS				MLR	MLR		
	comp=N,600nm,16.0s,MS4.7						
CLNS				MLR	MLR		
	comp=Z,800nm,16.0s,MS4.8						
CLNS				MLR	MLR		
	comp=E,100nm,14.0s,MS4.7						
TOO	**Toolangi**	**48.29**	**176**⇑	*i*P	**P**	**09 51 13.9**	**+0.7**
	comp=E,33nm,1.2s,mb5.2						
FX1	**Attu Island--F**	**48.92**	**25**	P	**P**	**09 51 17.4**	**-0.4**
	comp=E,19nm,0.6s,mb5.3,baz=307,slow=5.1,SNR=4.8						
FX1	**Attu Island--F**	**48.92**	**25**	P	**P**	**09 51 17.5**	**-0.4**
FX1	**Attu Island--F**	**48.92**	**25**	P	**P**	**09 51 16.8**	**-1.1**
MA2	**Magadan**	**49.09**	**6**	P	**P**	**09 51 18.1**	**-1.0**
MA2				*e*S	**S**	**09 58 19.8**	**-0.9**
MA2				*e*SS	SS	10 01 51.6	+4.1
MA2				pmax	pmax		
	comp=Z,40nm,2.5s,mb5.0						
MA2				MLR	MLR		
	comp=Z,700nm,20.0s,MS4.7						
MA2	**Magadan**	**49.09**	**6**	*e*P	**P**	**09 51 18.0**	**-1.1**
	comp=Z,19nm,0.6s,mb5.3						
MUN	**Mundaring**	**49.12**	**209**⇓	*i*P	**P**	**09 51 19.5**	**-0.2**
	comp=Z,23nm,0.9s,mb5.2						
SHL	**Shillong**	**49.32**	**294**	*e*P	**P**	**09 51 22.0**	**+0.7**
SHL				*e*		09 56 48.0	
NWAO	**Narrogin (SRO)**	**49.44**	**207**	*e*P	**P**	**09 51 21.1**	**-1.0**
	comp=Z,31nm,0.9s,mb5.3						
AGT	**Agartala**	**49.69**	**292**	*i*	**P**	**09 51 34.0**	**+10**
ZAK	**Zakamensk**	**50.51**	**329**	*e*P	**P**	**09 51 29.5**	**-0.6**
LSA	**Lhasa**	**50.63**	**300**	P	**P**	**09 51 33.2**	**+1.9**
LSA				AP	pP	09 51 43.0	+1.8
LSA				XP	sP	09 51 48.5	+3.5
LSA				*i* S	**S**	**09 58 34.5**	**-7.9**
LSA				LR	LR		
	comp=N,1µm,22.0s,MS5.0						
LSA				LR	LR		
	comp=E,1µm,22.0s,MS5.0						
TLY	**Talaya**	**51.14**	**330**	*e*P	**P**	**09 51 34.9**	**+0.1**
TLY				*e*	pP	09 51 45.6	+0.8
TLY				*e*S	**S**	**09 58 42.9**	**-6.2**
TLY				*e*SS	SS	10 02 28.3	+6.0
TLY				pmax	pmax		
	comp=Z,25nm,2.0s,mb4.8						
TLY				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.1						
TLY	**Talaya**	**51.14**	**330**	*e*P	**P**	**09 51 35.4**	**+0.6**
	comp=Z,22nm,1.3s,mb4.9						
IRK	**Irkutsk**	**51.20**	**331**	*e*P	pP	09 51 47.8	+2.6
BOD	**Bodaibo**	**51.45**	**341**	*e*P	**P**	**09 51 35.1**	**-2.0**
YAK	**Yakutsk**	**51.84**	**353**	*e*P	**P**	**09 51 37.5**	**-2.5**
YAK				*e*		09 53 41.1	
YAK				*e*S	**S**	**09 59 10.2**	**+12**
YAK				*e*		10 01 16.8	
YAK				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.5						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,6.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
YAK				pmax	pmax		
	comp=N,5.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,3.0nm,0.8s						
YAK	**Yakutsk**	**51.84**	**353**	*e*P	**P**	**09 51 38.1**	**-1.9**
	comp=E,45nm,0.6s,mb5.6						
YAK				*e*pP	pP	09 51 47.8	-2.2
YAK				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
MOY	**Mondy**	**52.44**	**329**	*e*P	pP	09 51 58.1	+3.5
SEY	**Seymchan**	**52.55**	**6**	*e*P	**P**	**09 51 49.6**	**+4.3**
SEY				*e*		09 59 12.0	
GUN	**Gumba**	**54.94**	**296**	*e*P	**P**	**09 52 03.3**	**-0.1**
	comp=Z,29nm,0.5s,mb5.6						
PKI	**Pulchoki**	**55.32**	**296**	*e*P	**P**	**09 52 05.5**	**-0.6**
	comp=Z,61nm,1.1s,mb5.5						
KKN	**Kakani**	**55.45**	**296**	*e*P	**P**	**09 52 07.2**	**+0.1**
DMN	**Daman**	**55.59**	**296**	*e*P	**P**	**09 52 08.0**	**-0.1**
GKN	**Gorkha**	**56.04**	**296**	*e*P	**P**	**09 52 11.0**	**-0.3**
VIS	**Vishakhapatnam**	**56.88**	**284**	*e*	**P**	**09 52 25.0**	**+7.5**
VIS				*e*		09 52 44.0	
KOLN	**Koldanda**	**56.93**	**296**	*e*P	**P**	**09 52 17.4**	**-0.4**
	comp=Z,44nm,0.9s,mb5.5						
URZ	**Urewera**	**58.96**	**148**	P	**P**	**09 52 30.7**	**-1.1**
	comp=Z,57nm,1.1s,mb5.5,baz=27,slow=4.2,SNR=9.2						
URZ				LR	LR	10 16 18.1	
	comp=Z,1µm,18.3s,MS5.0,baz=215,slow=34						
UNV	**Unalaska Valle**	**59.25**	**33**	*e*P	**P**	**09 52 31.8**	**-1.7**
	comp=Z,402nm,1.1s						
LGTI	**Lohaghat**	**60.01**	**298**	*e*	**P**	**09 52 47.3**	**+8.2**
RPZ	**Rata Peaks**	**60.49**	**156**	P	**P**	**09 52 41.3**	**-1.0**
	comp=Z,122nm,1.1s,mb5.8,baz=357,slow=6.9,SNR=8.9						
RPZ				LR	LR	10 16 17.9	
	comp=Z,1µm,19.9s,MS5.1,baz=327,slow=33						
TIXI	**Tiksi**	**61.27**	**355**	*e*P	**P**	**09 52 45.1**	**-2.0**
TIXI				*e*S	**S**	**10 01 06.8**	**+3.6**
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,442nm,19.0s,MS4.6						
HYB	**Hyderabad**	**61.44**	**284**	*e*P	**P**	**09 52 49.0**	**0.0**
HYB				*e*S	**S**	**10 01 08.0**	**+1.9**
HYB	**Hyderabad**	**61.44**	**284**	*i* P	**P**	**09 52 49.0**	**0.0**
HYB				*e*S	**S**	**10 01 08.0**	**+1.9**
DDI	**Dehra Dun**	**61.97**	**299**	*e*P	**P**	**09 52 52.0**	**-0.4**
ZAL	**Zalesovo**	**62.14**	**326**	P	**P**	**09 52 51.7**	**-1.5**
	comp=Z,5.8nm,0.7s,mb4.8,baz=2.3,slow=7.1,SNR=20						
BHPL	**Bhopal**	**62.33**	**291**	*e*P	**P**	**09 52 54.0**	**-0.9**
BHPL				*e*		09 53 10.2	
	comp=Z,67nm,1.2s						
NDI	**New Delhi**	**62.61**	**297**	*e*P	**P**	**09 52 55.0**	**-1.7**
SDNR	**Sundarnagar**	**62.98**	**300**	*e*P	**P**	**09 53 01.2**	**+2.2**
LATR	**Latur**	**63.28**	**285**	*e*P	**P**	**09 53 01.6**	**+0.4**
NVS	**Novosibirsk**	**63.31**	**326**	*e*P	**P**	**09 52 59.4**	**-1.6**
NVS				*e*S	**S**	**10 01 28.9**	**-0.3**
NVS				pmax	pmax		
	comp=N,44nm,1.3s						
NVS				pmax	pmax		
	comp=E,53nm,1.3s						
NVS				pmax	pmax		
	comp=Z,107nm,1.3s,mb5.8						
NVS				smax			
	comp=E,92nm,1.8s						
BHK	**Bhakra**	**63.44**	**300**	*e*	pP	09 53 16.0	+3.7
THN	**Thein Dam**	**64.10**	**301**	*e*P	**P**	**09 53 04.9**	**-1.6**
TNA	**Tin City**	**64.46**	**21**	P	**P**	**09 53 08.7**	**+0.4**
	comp=E,38nm,0.9s,mb5.4						
AJM	**Ajmer**	**64.85**	**294**⇓	*i*P	**P**	**09 53 10.0**	**-1.5**
ANM	**Nome**	**64.85**	**22**	*e*P	**P**	**09 53 20.1**	**+9.2**
TKM2	**Tokmak 2**	**65.27**	**312**	*e*P	**P**	**09 53 13.3**	**-0.6**
	comp=E,5.9nm,0.8s,mb4.7						
TKM2				LR	LR		
	comp=Z,977nm,19.0s,MS5.0						
KAD	**Karad**	**65.61**	**284**	*e*P	**P**	**09 53 15.0**	**-1.5**
RAR	**Rarotonga**	**65.64**	**119**	LR	LR	10 16 05.1	
	comp=Z,1µm,20.2s,MS5.1,baz=260,slow=31						
POO	**Poona**	**65.84**	**285**⇓	*i*P	**P**	**09 53 14.0**	**-4.0**
	comp=Z,40nm,1.0s,mb5.4						
UCH	**Uchtor**	**65.97**	**311**	*e*P	**P**	**09 53 19.6**	**+1.2**
	comp=Z,21nm,1.2s,mb5.0						
UCH				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
FRU	**Bishkek**	**65.97**	**312**	P	**P**	**09 53 24.0**	**+5.6**
FRU				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.4						
AAK	**Ala-Archa**	**66.04**	**312**⇓	*e*P	**P**	**09 53 18.0**	**-0.8**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
AAK				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.1						
AAK	**Ala-Archa**	**66.04**	**312**	*e*P	**P**	**09 53 17.4**	**-1.4**
	comp=Z,3.0nm,0.8s,mb4.4						
AML	**Almayashu**	**66.56**	**311**	*e*P	**P**	**09 53 22.6**	**+0.4**
	comp=Z,3.9nm,0.5s,mb4.7						
EKS2	**Erkin-Say**	**66.57**	**312**	*e*P	**P**	**09 53 22.0**	**-0.2**
	comp=Z,6.9nm,1.0s,mb4.6						
KDAK	**Kodiak Island**	**67.97**	**32**	*e*P	**P**	**09 53 30.2**	**-0.6**
SLKM	**Skilak Lake**	**69.84**	**29**	*e*P	**P**	**09 53 42.0**	**-0.3**
SLKM				*e*pP	pP	09 53 50.7	-1.7
IMA	**Indian Mountai**	**69.94**	**23**	*e*P	**P**	**09 53 43.0**	**+0.3**
CHKZ	**Chkalovo**	**70.18**	**323**	*e*P	**P**	**09 53 43.5**	**-1.0**
	comp=Z,22nm,0.9s,mb5.1						
BVAR	**Borovoye Array**	**70.22**	**323**	P	**P**	**09 53 44.2**	**-0.5**
	comp=Z,31nm,0.4s,mb5.6,baz=111,slow=8.1,SNR=144						
PMR	**Palmer**	**70.61**	**28**	*e*P	**P**	**09 53 45.6**	**-1.3**
SML	**Sawmill**	**71.03**	**28**	*e*P	**P**	**09 53 48.4**	**-1.1**
SML				*e*pP	pP	09 53 59.0	-0.6
MCK	**McKinley**	**71.21**	**26**	*e*P	**P**	**09 53 50.2**	**-0.3**
	comp=Z,11nm,1.0s,mb4.8						
MCK				*e*pP	pP	09 53 59.1	-1.6
MCK				*e*sP	sP	09 54 03.8	-0.5
MCK				LR	LR		
	comp=Z,724nm,21.0s,MS4.9						
COLA	**College**	**71.94**	**25**⇓	*e*P	**P**	**09 53 54.4**	**-0.5**
COLA	**College**	**71.94**	**25**	*e*P	**P**	**09 53 53.9**	**-1.0**
DIV	**Divide**	**72.10**	**29**	*e*P	**P**	**09 53 55.5**	**-0.3**
	comp=Z,288nm,1.6s,mb6.0						
DIV				*e*pP	pP	09 54 05.2	-0.8
ILAR	**Eielson Array**	**72.31**	**25**	P	**P**	**09 53 54.8**	**-2.3**
	comp=Z,12nm,0.7s,mb5.0,baz=249,slow=5.7,SNR=162						
ILAR				pP	pP	09 54 04.8	-2.4
	comp=Z,21nm,0.7s,baz=248,slow=6.1,SNR=34						
ILAR				sP	sP	09 54 10.1	-0.8
	comp=Z,46nm,0.9s,baz=252,slow=5.4,SNR=28						
THY	**Trims Highway**	**72.53**	**27**	*e*P	**P**	**09 53 58.0**	**-0.4**
THY				*e*pP	pP	09 54 08.0	-0.6
PPT	**Papeete**	**73.43**	**112**	*e*P	**P**	**09 54 06.1**	**+1.6**
	comp=Z,50nm,1.3s,mb5.3						
PPT	**Papeete**	**73.43**	**112**	*e*LQ		10 13 14.6	
PPT				*e*LR	LR	10 16 07.9	
	comp=Z,3µm,29.0s,baz=288						
PAE	**Paea**	**73.45**	**112**	*e*P	**P**	**09 54 06.5**	**+1.8**
	comp=Z,70nm,1.1s,mb5.5						
TIAR	**Tiarei**	**73.64**	**112**	*e*P	**P**	**09 54 07.4**	**+1.7**
	comp=Z,149nm,1.1s,mb5.8						
PMOR	**Pomariorio Ree**	**74.25**	**109**	*e*P	**P**	**09 54 10.9**	**+1.6**
	comp=Z,111nm,1.1s,mb5.7						
TBI	**Tubuai**	**75.32**	**118**	*e*P	**P**	**09 54 17.1**	**+1.7**
	comp=Z,198nm,1.2s,mb5.9						
TBI				*e*SS	SS	10 08 35.0	-8.8
TBI				*e*LR	LR	10 16 56.7	
	comp=Z,2µm,30.5s,baz=294						
DAWY	**Dawson**	**75.42**	**26**	*e*P	**P**	**09 54 14.8**	**-0.3**
ARU	**Arti**	**77.29**	**326**⇑	*i*P	**P**	**09 54 25.6**	**-0.1**
ARU				*e*	pP	09 54 35.9	-0.1
ARU				*e*		09 57 20.0	
ARU				*e*PPP	PPP	09 59 06.9	-2.9
ARU				*e*S	S	10 04 11.4	-0.6
ARU				*e*		10 04 42.2	
ARU				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.3						
ARU				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.4						
ARU				MLR	MLR		
	comp=N,100nm,16.0s,MS5.3						
ARU				MLR	MLR		
	comp=E,1µm,18.0s,MS5.3						
ARU	**Arti**	**77.29**	**326**	*e*P	**P**	**09 54 25.1**	**-0.7**
	comp=E,30nm,0.6s,mb5.4						
ARU				*e*pP	pP	09 54 34.7	-1.4
ARU				LR	LR		
	comp=Z,549nm,19.0s,MS4.9						
DRV	**Dumont d'Urvil**	**77.32**	**181**	P	**P**	**09 54 27.0**	**+1.3**
INK	**Inuvik**	**78.03**	**22**	P	**P**	**09 54 28.4**	**-1.1**
	comp=Z,12nm,1.0s,mb4.8,baz=266,slow=7.5,SNR=16						
INK				pP	pP	09 54 39.4	-0.4
	comp=Z,36nm,1.0s,baz=262,slow=7.2,SNR=23						
INK				sP	sP	09 54 43.9	+0.6
	comp=Z,46nm,0.8s,baz=260,slow=6.8,SNR=20						
INK	**Inuvik**	**78.03**	**22**	*e*P	**P**	**09 54 28.9**	**-0.6**
	comp=Z,35nm,1.3s,mb5.1						
SOKR	**Solikamsk**	**78.19**	**329**⇓	*i*P	**P**	**09 54 30.6**	**0.0**
SOKR				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
DLBC	**Dease Lake**	**79.90**	**32**	P	**P**	**09 54 40.3**	**+0.4**
	comp=Z,22nm,0.9s,mb5.1,baz=281,slow=4.7,SNR=22						
DLBC				pP	pP	09 54 51.4	+1.1
	comp=Z,22nm,1.0s,baz=258,slow=4.0,SNR=9.6						
DLBC				LR	LR	10 27 19.2	
	comp=Z,388nm,21.0s,MS4.7,baz=65,slow=34						
DLBC	**Dease Lake**	**79.90**	**32**	*e*P	**P**	**09 54 40.3**	**+0.4**
DLBC				*e*	pP	09 54 51.3	+1.0
CASY	**Casey**	**80.29**	**192**	*e*P	**P**	**09 54 41.2**	**-0.7**
CASY				*i*	pP	09 54 53.4	+1.2
YKW3	**Yellowknife Ar**	**86.63**	**27**	*e*P	**P**	**09 55 14.3**	**+0.1**
YKW3				*e*	pP	09 55 25.3	+0.7
YKA	**Yellowknife Ar**	**86.66**	**27**	P	**P**	**09 55 14.4**	**+0.1**
	comp=Z,20nm,0.8s,mb5.4,baz=290,slow=5.3,SNR=236						
YKA				pP	pP	09 55 25.3	+0.5
	comp=Z,33nm,1.1s,baz=288,slow=5.1,SNR=14						
YKA				PKKPbc		10 13 08.3	
	comp=Z,0.1nm,0.5s,baz=120,slow=2.6,SNR=6.1						
YKA				LR	LR	10 33 57.3	
	comp=Z,664nm,20.3s,MS5.0,baz=250,slow=36						
YKA	**Yellowknife Ar**	**86.66**	**27**	*i* P	**P**	**09 55 14.4**	**+0.1**
YKA				pmax	pmax		
	comp=Z,20nm,0.8s						
YBH	**Yreka Blue Hor**	**86.93**	**48**	P	**P**	**09 55 16.5**	**+0.3**
	comp=Z,15nm,1.0s,mb5.2,baz=286,slow=1.5,SNR=18						
TBM	**Table Mountain**	**87.25**	**43**	P	**P**	**09 55 18.2**	**+0.6**
LHEM	**Herd Peak**	**87.31**	**48**	P	**P**	**09 55 18.8**	**+0.8**
EBG	**Ellensburg**	**87.33**	**43**	P	**P**	**09 55 18.7**	**+0.7**
LASM	**Arnica Sink**	**87.79**	**48**	P	**P**	**09 55 21.3**	**+1.0**
RES	**Resolute Bay**	**87.88**	**13**	*e*P	**P**	**09 55 20.0**	**-0.1**
	comp=Z,13nm,0.8s,mb5.2						
RES				*e*	pP	09 55 31.3	+0.8
RKT	**Rikitea**	**88.09**	**114**	*e*LR	LR	10 22 59.6	
	comp=Z,1µm,26.0s,baz=291						
LBCM	**Butte Creek Ri**	**88.12**	**49**	P	**P**	**09 55 22.9**	**+1.0**
KEV	**Kevo**	**88.16**	**342**	*e*p	**P**	**09 55 20.2**	**-1.2**
OHCM	**Honcut**	**88.35**	**50**	*e*P	**P**	**09 55 23.3**	**+0.2**
GNI	**Garni**	**88.40**	**310**	LR	LR	10 40 48.6	
	comp=Z,492nm,19.4s,MS4.9,baz=234,slow=40						
MOD	**Modoc**	**88.65**	**48**	*e*P	**P**	**09 55 24.8**	**+0.4**
	comp=Z,38nm,1.3s,mb5.6						
ARCES	**ARCESS Array B**	**88.73**	**342**	P	**P**	**09 55 23.5**	**-0.6**
	comp=Z,19nm,0.7s,mb5.5,baz=65,slow=7.6,SNR=37						
ARCES				pP	pP	09 55 34.8	+0.1
	comp=Z,15nm,0.7s,baz=56,slow=4.4,SNR=7.2						
ARCES				LR	LR	10 36 45.0	
	comp=Z,1µm,21.7s,MS5.3,baz=48,slow=37						
ARCES	**ARCESS Array B**	**88.73**	**342**	P	**P**	**09 55 23.5**	**-0.7**
ARCES				pP	pP	09 55 34.8	+0.1
ARCES				LR	LR	10 36 45.0	
MOS	**Moscow**	**88.95**	**327**	*e*P	**P**	**09 55 23.3**	**-2.2**
MOS				*e*		10 06 04.9	
MOS				pmax	pmax		
	comp=Z,72nm,0.8s,mb6.0						
MOS				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.6						
VNDA	**Vanda**	**88.96**	**176**	P	**P**	**09 55 24.8**	**-0.4**
	comp=Z,11nm,1.0s,mb5.1,baz=315,slow=6.6,SNR=27						
VNDA				LR	LR	10 34 30.4	
	comp=Z,1µm,19.1s,MS5.3,baz=345,slow=35						
KIV	**Kislovodsk**	**89.01**	**315**	*e*P	**P**	**09 55 25.4**	**-0.7**
KIV				*e*PS	PS	10 07 20.0	-1.4
KIV				*e*SS	SS	10 12 03.2	-3.3
KIV				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.9						
KIV				MLR	MLR		
	comp=Z,700nm,22.0s,MS5.0						
BEKR	**Beckwourth**	**89.08**	**50**	*e*P	**P**	**09 55 27.3**	**+0.8**
	comp=Z,26nm,1.0s,mb5.5						
NEW	**Newport**	**89.27**	**41**	P	**P**	**09 55 27.9**	**+0.7**
	comp=Z,12nm,0.8s,mb5.3,baz=267,slow=3.5,SNR=29						
NEW	**Newport**	**89.27**	**41**	*e*P	**P**	**09 55 27.8**	**+0.6**
	comp=Z,15nm,0.9s,mb5.3						
VRSR	**Storozhevoye**	**89.39**	**322**	*e*P	**P**	**09 55 26.6**	**-1.1**
VRSR				*e**PP	pP	09 55 36.4	-1.7
VRSR				*e**SP	sP	09 55 42.2	+0.7
VRSR				*e*		09 58 56.0	
VRSR				*e*S	S	10 06 10.0	-3.1
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.2						
VRSR				pmax	pmax		
	comp=N,4.0nm,1.4s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.5s						
VRSR				smax			
	comp=N,140nm,6.4s						
VRSR				smax			
	comp=Z,570nm,5.2s						
VRSR				smax			
	comp=E,370nm,3.8s						
VRSR				MLR	MLR		
	comp=Z,930nm,18.0s,MS5.2						
VRSR				MLR	MLR		
	comp=N,300nm,17.0s,MS5.0						
VRSR				MLR	MLR		
	comp=E,420nm,18.0s,MS5.0						
CMB	**Columbia Colle**	**89.48**	**51**	*e*P	**P**	**09 55 28.6**	**+0.1**
	comp=E,25nm,1.0s,mb5.5						
JOF	**Joensuu**	**89.48**	**335**	*e*p	**P**	**09 55 26.4**	**-1.5**
	comp=E,34nm,1.0s,mb5.6						
JOF	**Joensuu**	**89.48**	**335**	*e*P	**P**	**09 55 26.4**	**-1.5**
JOF				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.6						
WCN	**Washoe City**	**89.66**	**50**	*e*P	**P**	**09 55 29.8**	**+0.5**
	comp=Z,24nm,1.1s,mb5.5						
SBA	**Scott Base**	**89.67**	**175**	*e*P	**P**	**09 55 29.9**	**+1.4**
SBA				*e*pP	pP	09 55 38.3	-0.6
SBA				*e*sP	sP	09 55 41.5	-0.8
OBN	**Obninsk**	**89.71**	**326**⇓	*e*P	**P**	**09 55 28.6**	**-0.5**
OBN				*e*		09 55 43.6	
OBN				*e*		10 05 51.3	
OBN				*e*PS	PS	10 07 28.2	-0.6
OBN				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.6						
OBN				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.5						
BMO	**Blue Mountains**	**90.05**	**44**	*e*P	**P**	**09 55 30.9**	**0.0**
	comp=Z,22nm,1.0s,mb5.5						
EDM	**Edmonton**	**90.12**	**36**	*e*P	**P**	**09 55 31.4**	**+0.3**
EDM				*e*pP	pP	09 55 41.3	-0.2
OMM	**Old Mammoth Mi**	**90.65**	**52**	*e*P	**P**	**09 55 35.1**	**+1.2**
NVAR	**Mina Array Bea**	**90.98**	**51**	P	**P**	**09 55 36.2**	**+0.8**
	comp=Z,28nm,0.9s,mb5.6,baz=261,slow=7.9,SNR=98						
NVAR				pP	pP	09 55 47.7	+1.9
	comp=Z,4.0nm,0.6s,baz=274,slow=4.9,SNR=4.3						
NVAR	**Mina Array Bea**	**90.98**	**51**	P	**P**	**09 55 36.2**	**+0.8**
NVAR				pP	pP	09 55 47.7	+1.8
MTUM	**Tungsten Hills**	**91.05**	**52**	*e*P	**P**	**09 55 36.2**	**+0.4**
MNV	**Mina**	**91.09**	**51**	*e*P	**P**	**09 55 36.5**	**+0.6**
	comp=Z,37nm,1.1s,mb5.6						
SOC	**Sochi**	**91.19**	**315**	*e*P	**P**	**09 55 35.0**	**-1.2**
SOC				*e*		09 59 15.9	
SOC				*e*PPP	PPP	10 01 12.4	-3.5
SOC				*e*S		10 06 01.1	
SOC				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.8						
SOC				pmax	pmax		
	comp=N,79nm,1.3s						
SOC				pmax	pmax		
	comp=E,29nm,1.1s						
BEST	**Besiri**	**91.57**	**309**	P	**P**	**09 55 46.7**	**+8.6**
DAG	**Danmarks Havn**	**91.78**	**356**⇓	*e*P	**P**	**09 55 37.9**	**-0.4**
DAG				*i*	pP	09 55 48.0	-0.7
DAG				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.6						
DAG	**Danmarks Havn**	**91.78**	**356**⇓	*e*P	**P**	**09 55 37.9**	**-0.4**
	comp=Z,3.4nm,0.9s,mb4.7						
DAG				*i*	pP	09 55 48.0	-0.7
DAG	**Danmarks Havn**	**91.78**	**356**⇓	*i*P	**P**	**09 55 37.9**	**-0.4**
	comp=Z,3.4nm,0.9s,mb4.7						
DAG				*i*	pP	09 55 48.0	-0.7
TPH	**Tonopah**	**91.89**	**51**	*e*P	**P**	**09 55 40.6**	**+1.0**
	comp=Z,37nm,1.1s,mb5.6						
KAF	**Kangasniemi**	**91.92**	**335**	*e*p	**P**	**09 55 36.7**	**-2.4**
	comp=Z,31nm,1.0s,mb5.6						
KAF	**Kangasniemi**	**91.92**	**335**	*e*P	**P**	**09 55 36.7**	**-2.4**
KAF				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.6						
MWC	**Mount Wilson**	**92.23**	**55**	*e*P	**P**	**09 55 41.6**	**+0.4**
MWC				*e*pP	pP	09 55 50.3	-1.3
MWC				*e*sP	sP	09 55 54.3	-0.7
FINES	**FINESS Array B**	**92.33**	**334**	P	**P**	**09 55 39.3**	**-1.7**
	comp=Z,11nm,0.6s,mb5.4,baz=66,slow=5.0,SNR=43						
FINES				LR	LR	10 41 46.2	
	comp=Z,806nm,18.8s,MS5.2,baz=68,slow=38						
FINES	**FINESS Array B**	**92.33**	**334**	*i* P	**P**	**09 55 39.3**	**-1.7**
FINES				pmax	pmax		
	comp=Z,11nm,0.6s						
HLID	**Hailey**	**92.40**	**45**	*e*P	**P**	**09 55 42.7**	**+0.9**
	comp=Z,13nm,1.0s,mb5.2						
ELK	**Elko**	**92.64**	**48**	*e*P	**P**	**09 55 43.7**	**+0.7**
	comp=Z,10nm,0.9s,mb5.3						
ELK				*e*	pP	09 55 55.1	+1.7
MCMT	**McKenzie Canyo**	**93.09**	**43**	*e*P	**P**	**09 55 44.9**	**0.0**
ELZG	**Elazig**	**93.14**	**310**	P	**P**	**09 55 52.1**	**+6.7**
HRY	**Holter Researc**	**93.15**	**41**	*e*P	**P**	**09 55 45.7**	**+0.5**
MALT	**Malatya**	**93.61**	**310**	P	**P**	**09 55 48.1**	**+0.6**
	comp=Z,17nm,1.4s,mb5.3						
PFO	**Pinyon Flat Ob**	**93.67**	**55**	*e*P	**P**	**09 55 47.6**	**-0.3**
	comp=Z,23nm,1.2s,mb5.5						
QLMT	**Earthquake Lak**	**94.04**	**43**	*e*P	**P**	**09 55 50.3**	**+1.0**
NEN	**Nelson**	**94.39**	**53**	*e*P	**P**	**09 55 51.7**	**+0.5**
YMR	**Madison River**	**94.41**	**43**	*e*P	**P**	**09 55 52.3**	**+1.3**
YMR				*e*pP	pP	09 56 02.4	+0.9
GZT	**Gaziantep**	**94.55**	**309**	P	**P**	**09 55 51.7**	**-0.2**
YFT	**Old Faithful**	**94.57**	**43**	*e*P	**P**	**09 55 54.3**	**+2.5**
YNR	**Norris Junctio**	**94.58**	**43**	*e*P	**P**	**09 55 53.6**	**+1.8**
TPAW	**Teton Pass**	**94.81**	**44**	*e*P	**P**	**09 55 54.1**	**+1.2**
ARUT	**Antelope Range**	**94.84**	**50**	*e*P	**P**	**09 55 53.2**	**0.0**
MOOW	**Moose Ponds**	**94.87**	**44**	*e*P	**P**	**09 55 53.4**	**+0.3**
KAHT	**Ahir Dag**	**94.99**	**310**	*e*P	**P**	**09 56 00.1**	**+6.2**
HWUT	**Hardware Ranch**	**95.01**	**46**	*e*P	**P**	**09 55 53.9**	**0.0**
	comp=Z,9.4nm,1.1s,mb5.1						
AKASG	**Malin Array Be**	**95.47**	**324**	P	**P**	**09 55 54.1**	**-1.6**
	comp=Z,2.4nm,0.8s,mb4.7,baz=50,slow=4.8,SNR=5.5						
AKASG				pP	pP	09 56 03.9	-2.3
	comp=Z,1.9nm,0.5s,baz=49,slow=4.5,SNR=5.1						
MSU	**Marysvale**	**95.56**	**49**	*e*P	**P**	**09 55 57.1**	**+0.7**
FFC	**Flin Flon**	**95.72**	**32**	*e*P	**P**	**09 55 56.5**	**-0.2**
	comp=Z,14nm,0.8s,mb5.4						
MAW	**Mawson**	**95.76**	**202**	P	**P**	**09 55 56.0**	**-0.7**
	comp=Z,11nm,1.0s,mb5.3,baz=85,slow=6.9,SNR=7.5						
MAW				LR	LR	10 37 19.0	
	comp=Z,243nm,19.4s,MS4.7,baz=72,slow=34						
BW06	**Boulder Array**	**96.02**	**45**	*e*P	**P**	**09 55 58.3**	**-0.1**
	comp=Z,2.1nm,0.9s,mb4.6						
PDAR	**Pinedale Array**	**96.02**	**45**	P	**P**	**09 55 58.2**	**-0.2**
	comp=Z,1.0nm,0.8s,mb4.3,baz=274,slow=2.1,SNR=7.3						
PDAR				PP	PP	09 59 47.0	-6.5
	comp=Z,0.6nm,0.8s,baz=304,slow=3.3,SNR=3.0						
LAO	**LASA Array**	**96.75**	**40**	*e*P	**P**	**09 56 02.2**	**+0.6**
	comp=Z,36nm,1.1s,mb5.7						
LAO				*e*pP	pP	09 56 12.2	+0.1
SUMG	**Summit**	**96.75**	**0**	*e*P	**P**	**09 56 00.8**	**-0.3**
	comp=Z,10nm,0.9s,mb5.2						
SUMG				*e*pP	pP	09 56 11.7	+0.1
FCC	**Fort Churchill**	**97.33**	**26**	*e*P	**P**	**09 56 03.3**	**-0.7**
	comp=Z,14nm,1.1s,mb5.3						
FCC				*e*pP	pP	09 56 13.4	-1.1
NB2	**NORSAR Subarra**	**98.48**	**338**	P	**P**	**09 56 16.7**	**+7.6**
	comp=Z,12nm,1.4s,mb5.2,baz=44,slow=5.3						
NOA	**NORSAR Array B**	**98.48**	**338**	P	**P**	**09 56 07.5**	**-1.5**
	comp=Z,1.0nm,1.0s,mb4.3,baz=291,slow=4.8,SNR=3.0						
NOA				LR	LR	10 44 28.4	
	comp=Z,739nm,20.2s,MS5.2,baz=30,slow=38						
TUC	**Tucson**	**98.61**	**55**	*e*P	**P**	**09 56 11.5**	**+1.2**
	comp=Z,4.9nm,1.2s,mb4.9						
ULM	**Lac du Bonnet**	**101.18**	**34**	P	P	09 56 20.6	-1.0
	comp=Z,3.9nm,0.8s,baz=322,slow=5.8,SNR=5.7						
GERES	**GERESS Array B**	**105.06**	**327**	Pdiff	Pdif	09 56 36.7	-1.9
	comp=Z,0.2nm,0.3s,baz=18,slow=3.1,SNR=4.4						
GERES				PKKPbc		10 12 19.3	
	comp=Z,0.7nm,0.7s,baz=297,slow=3.0,SNR=3.8						
GERES	**GERESS Array B**	**105.06**	**327**	P	Pdif	09 56 36.7	-2.0
GERES				P		10 10 12.1	
TXAR	**Lajitas Array**	**105.38**	**55**	PKKPbc		10 12 19.4	
	comp=Z,0.5nm,0.9s,baz=153,slow=5.6,SNR=3.9						
SNAA	**Sanae**	**115.52**	**192**⇑	*i*P	PKPdf	10 01 23.8	+7.2
SNAA	**Sanae**	**115.52**	**192**⇑	*i*	PKPdf	10 01 34.8	+18
VNA2	**Neumayer--Watz**	**117.00**	**191**⇑	*i*P	PKPdf	10 01 18.6	-0.9
VNA2	**Neumayer--Watz**	**117.00**	**191**⇑	*i*	PKPdf	10 01 30.5	+11
VNA3	**Neumayer Olymp**	**117.14**	**190**	P	PKPdf	10 01 17.8	-1.9
VNA3	**Neumayer Olymp**	**117.14**	**190**⇑	*i*	PKPdf	10 01 30.4	+11
USHA	**Ushuaia**	**130.07**	**158**	PKP	PKPdf	10 01 41.9	-3.1
	comp=Z,7.2nm,0.9s,baz=81,slow=22,SNR=3.8						
DBIC	**Dimbokro**	**142.50**	**296**	PKhKP		10 02 00.5	
	comp=Z,7.6nm,1.1s,baz=30,slow=4.4,SNR=7.5						
FCH	**Farellones**	**143.06**	**132**	*e*P	PKPbc	10 02 02.2	+0.1
ARE	**Arequipa**	**147.22**	**104**	*e*P	PKPdf	10 02 15.0	-2.0
LPAZ	**La Paz**	**150.44**	**104**	PKP	PKPdf	10 02 19.0	-3.1
	comp=Z,24nm,1.1s,baz=328,slow=2.7,SNR=18						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ				PKPbc	PKPdf	10 02 24.7	+2.6
	comp=Z,42nm,0.8s,baz=349,slow=4.0,SNR=116						
SAML	Samuel	155.34	88	ePKPdf	PKPdf	10 02 25.5	-3.6
BDFB	Brasilia	169.34	118	PKP	PKPdf	10 02 39.1	-3.7
	comp=Z,5.6nm,0.9s,baz=96,slow=5.5,SNR=5.6						
BDFB				PKPab	PKPab	10 03 52.8	+0.6
	comp=Z,7.6nm,1.0s,baz=327,slow=4.6,SNR=4.0						

IDC 10 09:57:43.8±4.9**, 17.48S**×**174.14W, mb4.1**/4**, mb1 4.3**/4**, mb1mx3.8**/16**, Error ellipse: s-maj=162.0km s-min=96.7km az=165.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	37.53	260	P	P	10 05 01.1	-0.4
	1.9nm,0.4s,baz=77,slow=11,SNR=3.8						
STKA	Stephens Creek	42.41	242	P	P	10 05 41.2	-0.8
	1.4nm,0.8s,baz=98,slow=14,SNR=3.0						
WRA	Warramunga Arr	48.71	259	P	P	10 06 29.6	-2.6
	1.3nm,0.3s,baz=97,slow=7.5,SNR=50						
ASAR	Alice Springs	48.82	254	P	P	10 06 30.4	-2.6
	1.5nm,0.5s,baz=88,slow=8.0,SNR=41						
ASAR				PcP	PcP	10 07 56.0	-2.2
	0.3nm,0.4s,baz=104,slow=4.4,SNR=5.1						

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*IDC **10** 09:57:55.7±0.7, 27.59S×65.94E, mb4.2/10, mb1 4.3/10, mb1mx4.2/18, Error ellipse: s-maj=26.7km s-min=21.2km az=85.0*

*NEIC **10** 09:57:57.2±0.4, 27.59S×65.92E, h10^{km}, mb4.7/2, Error ellipse: s-maj=15.7km s-min=12.7km az=60.0*

ISC 10 09:57:55.4±0.6**, 27.6S**±0.1×**66.0E**±0.2**, h10^{km}, n21, σ0^{s}52**/17**, mb4.4**/14**, Indian Ocean Triple Junction**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	55.85	39	P	P	10 07 35.9	+0.3
	6.0nm,0.8s,mb4.7,baz=232,slow=7.2,SNR=32						
SNAA	Sanae	57.39	200	P	P	10 07 45.4	-0.5
	0.6nm,0.6s,mb3.8,baz=104,slow=9.1,SNR=6.4						
KOLN	Koldanda	57.61	19	eP	P	10 07 47.8	-0.3
KKN	Kakani	58.13	20	eP	P	10 07 51.6	-0.1
	8.6nm,0.6s,mb5.0						
GKN	Gorkha	58.13	19	eP	P	10 07 51.5	-0.2
GUN	Gumba	58.42	21	eP	P	10 07 53.8	+0.1
	18nm,0.9s,mb5.1						
ASAR	Alice Springs	60.70	103	P	P	10 08 09.1	-0.4
	5.3nm,1.1s,mb4.6,baz=246,slow=6.3,SNR=16						
WRA	Warramunga Arr	62.37	99	P	P	10 08 20.4	-0.4
	1.4nm,0.8s,mb4.1,baz=251,slow=6.5,SNR=5.6						
WRAB	Tennant Creek	62.38	99	P	P	10 08 21.4	+0.6
	4.4nm,0.8s,mb4.6						
EIL	Elat	64.22	330	eP	P	10 08 32.4	-0.5
	3.0nm,0.6s,mb4.5						
VNDA	Vanda	64.52	166	P	P	10 08 34.3	+0.2
	1.4nm,0.7s,mb4.1,baz=273,slow=9.2,SNR=6.1						
BRTR	Keskin Array B	73.44	335	P	P	10 09 29.0	-0.8
	1.1nm,0.9s,mb3.8,baz=158,slow=7.8,SNR=3.3						
BRTR	Keskin Array B	73.44	335	P	P	10 09 28.9	-0.8
DBIC	Dimbokro	76.31	285	P	P	10 09 47.9	+1.1
	1.9nm,0.7s,mb4.1,baz=130,slow=7.9,SNR=3.1						
BVAR	Borovoye Array	80.39	3	P	P	10 10 07.8	-0.4
	2.2nm,0.8s,mb4.1,baz=169,slow=7.6,SNR=8.4						
ZAL	Zalesovo	82.83	11	P	P	10 10 21.6	+0.6
	2.9nm,0.6s,mb4.5,baz=284,slow=5.0,SNR=16						
SONM	Songino Array	83.44	26	P	P	10 10 25.0	+0.8
	1.7nm,0.8s,mb4.1,baz=215,slow=4.7,SNR=12						
YKA	Yellowknife Ar	145.12	0	PKPbc	PKPbc	10 17 33.0	+0.3
	3.5nm,0.7s,baz=344,slow=3.6,SNR=143						
YKA	Yellowknife Ar	145.12	0	PKPbc	PKPbc	10 17 33.0	+0.3
DLBC	Dease Lake	147.23	16	PKPbc	PKPdf	10 17 39.8	+0.7
	5.3nm,1.1s,baz=20,slow=1.5,SNR=3.1						
PDAR	Pinedale Array	164.44	348	PKP	PKPdf	10 18 00.8	-1.1
	0.8nm,0.9s,baz=56,slow=3.3,SNR=4.5						

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*IDC **10** 10:00:10.0±2.5, 64.62N×30.94E, mb1 3.1/4, mb1mx3.0/19, ML2.5/4, Error ellipse: s-maj=33.1km s-min=8.6km az=101.0*

*HEL **10** 10:00:10.3±0.4, 64.73N×30.65E, ML1.8, ML1.7(UPP), Explosion*

ISC 10 10:00:08.9±0.8**, 64.75N**±0.04×**30.6E**±0.1**, n19, σ1^{s}02**/25**, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	Maaselka	1.34	331	eP	Pb	10 00 35.1	+0.5
KJN	Kajaani	1.43	243	eP	Pb	10 00 35.4	-0.7
KJN				eS	Sb	10 00 54.9	+0.2
JOF	Joensuu	1.87	170	eP	Pn	10 00 41.5	-0.9
JOF				eS	Sn	10 01 07.5	+0.5
OUL	Oulu	2.04	282	eP	Pn	10 00 46.4	+1.6
OUL				eS	Sn	10 01 12.6	+1.3
SUF	Sumiainen	2.84	226	eP	Pn	10 00 57.5	+1.1
SUF				eSB	Sb	10 01 34.8	-1.1
SGF	Sodankyl	3.17	330	eP	Pn	10 01 02.1	+1.1
KEF	Keuruu	3.66	227	eP	Pn	10 01 08.8	+0.9
KEF				MSG		10 02 11.1	
	comp=Z,1.3nm,0.1s						
PAJU	Pajala	3.83	310	eP	Pn	10 01 10.8	+0.5
SJUU	Sjulsmark	3.88	285	eP	Pn	10 01 11.2	+0.2
FIA0	FINESS Array S	3.91	214	eP	Pn	10 01 12.8	+1.3
FIA0				MSG		10 02 20.0	
	comp=Z,1.6nm,0.2s						
FINES	FINESS Array B	3.91	214	Pn	Pn	10 01 10.6	-0.9
	comp=Z,0.1nm,0.3s,baz=37,slow=13,SNR=2.2						
FINES				Lg		10 02 11.4	
	comp=Z,0.6nm,0.3s,baz=35,slow=29,SNR=7.7						
BURU	Burvik	3.97	272	eP	Pn	10 01 11.8	-0.6
UMAU	Umeaa	4.41	263	eP	Pn	10 01 17.0	-1.7
MASU	Masugnsbyn	4.43	312	eP	Pn	10 01 20.3	+1.4
LILU	Lilltraesk	4.59	282	eP	Pn	10 01 20.8	-0.5
LILU				eS	Sn	10 02 15.7	-0.4
SVAU	Svanoeiden	4.76	272	eP	Pn	10 01 22.6	-0.9
ARCES	ARCESS Array B	5.20	340	Pn	Pn	10 01 29.1	-0.7
	comp=Z,0.2nm,0.3s,baz=154,slow=13,SNR=13						
ARCES				Sn	Sn	10 02 29.1	-2.3
	comp=Z,0.2nm,0.3s,baz=158,slow=24,SNR=2.6						
ARCES				Lg		10 02 57.7	
	comp=Z,0.7nm,0.3s,baz=153,slow=30,SNR=7.8						
HFS	Hagfors	9.09	247	Pn	P	10 02 18.8	-5.5
	comp=Z,0.0nm,0.3s,baz=54,slow=12,SNR=2.7						
NOA	NORSAR Array B	9.59	256	Pn	P	10 02 26.8	-4.2
	comp=Z,0.1nm,0.3s,baz=58,slow=10,SNR=2.9						

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*IDC **10** 10:16:30.2±1.2, 28.78N×132.24E, mb3.7/4, mb1 4.0/4, mb1mx3.6/20, Error ellipse: s-maj=47.5km s-min=26.0km az=116.0*

*JMA **10** 10:16:36.4±0.2, 28.97N×131.96E, h80^{km}, M3.5*

ISC 10 10:16:34.7±1.2**, 28.91N**±0.05×**132.08E**±0.08**, h45^{km}**±13^{km}**, n16, σ0^{s}93**/26**, mb3.7**/4**, West of Bonin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	Kikaishima	1.94	253	P	P	10 17 07.3	+1.4
JZK				eS	S	10 17 30.5	+1.4
JTN	Tanegashima 3	1.99	332	P	P	10 17 07.1	+0.6
JTN				S	S	10 17 30.3	0.0
JNN	Nakanoshima	2.14	296	P	P	10 17 09.1	+0.4
JNN				eS	S	10 17 33.9	-0.2
JAM	Amami Oshima	2.23	258	P	P	10 17 09.9	-0.1
JAM				eS	S	10 17 36.1	-0.3
JKC	Kuchinoerabu	2.26	314	P	P	10 17 11.3	+0.9
JKC				eS	S	10 17 37.1	0.0
JTSR	Tashiro 2	2.47	336	P	P	10 17 14.0	+0.6
JTSR				S	S	10 17 41.8	-0.6
JNAR	Kushima--Naru	2.70	345	P	P	10 17 17.5	+0.7
JNAR				eS	S	10 17 47.6	-0.9
JTK	Tokunoshima	2.97	249	S	S	10 17 54.4	-0.9
JTZ	Takazaki	3.11	344	P	P	10 17 22.9	+0.4
JTZ				S	S	10 17 57.6	-1.1
JOW	Kunigami	3.95	239	Pn	P	10 17 32.6	-1.8
	baz=69,slow=8.6						
JOW				Sn	S	10 18 15.8	-4.2
	4.0nm,0.3s,baz=55,slow=25,SNR=5.7						
JOW	Kunigami	3.95	239	eS	S	10 18 16.7	-3.3
JTO	Tosashimizu	3.99	9	P	P	10 17 33.9	-1.1
JTO				eS	S	10 18 14.9	-6.2
ASAR	Alice Springs	52.30	178	P	P	10 25 42.6	-1.5
	0.4nm,0.8s,mb3.4,baz=8.1,slow=6.4,SNR=5.1						
ILAR	Eielson Array	60.46	29	P	P	10 26 41.5	-0.3
	0.6nm,0.7s,mb3.8,baz=265,slow=5.8,SNR=10						
FINES	FINESS Array B	72.21	331	P	P	10 27 57.5	+1.1
	3.0nm,0.9s,mb4.2,baz=76,slow=7.9,SNR=3.7						
YKA	Yellowknife Ar	74.65	26	P	P	10 28 11.7	+1.2
	0.4nm,0.8s,mb3.4,baz=301,slow=6.1,SNR=8.7						

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*IDC **10** 10:25:35.3±2.7, 64.62N×31.12E, mb1 3.2/4, mb1mx3.1/19, ML2.6/4, Error ellipse: s-maj=37.1km s-min=9.8km az=103.0*

HEL 10 10:25:35.1±0.4**, 64.72N**×**30.83E, ML1.7, Explosion, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	Maaselka	1.42	329	eP	Pb	10 26 00.4	-1.7
MSF				eS	Sb	10 26 19.0	-1.6
KJN	Kajaani	1.50	246	eP	Pn	10 26 01.1	-2.1
JOF	Joensuu	1.82	173	eP	Pn	10 26 06.7	-1.2
JOF				eS	Sn	10 26 31.3	-0.7
SUF	Sumiainen	2.89	228	eP	Pn	10 26 22.9	-0.4
SUF				eSB	Sb	10 27 01.6	-1.8
SUF				MSG		10 27 02.6	
	comp=Z,2.1nm,0.1s						
KEF	Keuruu	3.70	229	eP	Pn	10 26 34.6	-0.2
KEF				MSG		10 27 19.4	
	comp=Z,1.1nm,0.1s						
FIA0	FINESS Array S	3.93	215	eP	Pn	10 26 36.4	-1.6
FINES	FINESS Array B	3.93	215	Pn	Pn	10 26 36.4	-1.6
	comp=Z,0.2nm,0.3s,baz=38,slow=13,SNR=3.3						
FINES				Lg		10 27 35.7	
	comp=Z,0.7nm,0.3s,baz=35,slow=29,SNR=8.9						
ARCES	ARCESS Array B	5.26	339	Pn	Pn	10 26 54.3	-2.6
	comp=Z,0.2nm,0.3s,baz=156,slow=15,SNR=9.3						
ARCES				Sn	Sn	10 27 53.2	-6.0
	comp=Z,0.2nm,0.3s,baz=153,slow=24,SNR=3.8						
HFS	Hagfors	9.16	248	Pn	P	10 27 46.6	-5.0
	comp=Z,0.1nm,0.3s,baz=55,slow=12,SNR=4.2						
NOA	NORSAR Array B	9.67	257	Pn	P	10 27 53.1	-5.3
	comp=Z,0.1nm,0.3s,baz=69,slow=6.0,SNR=2.6						

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*MEX **10** 10:32:22.0±2.0, 15.18N×97.29W, h16^{km}±39^{km}, MD5.0*

*MOS **10** 10:32:24.4±1.0, 15.26N×97.24W, h41^{km}, mb5.1/12, MS4.5/7, Error ellipse: s-maj=18.1km s-min=12.1km az=113.4*

*NEIC **10** 10:32:25.8±0.6, 15.32N×97.01W, h36^{km}±4^{km}, mb5.4/92, MD5.1(MEX), Error ellipse: s-maj=5.2km s-min=2.8km az=208.0*

*BJI **10** 10:32:25.7, 15.30N×97.00W, h36^{km}, mB5.8, Ms5.1, Msz4.9*

*HRVD **10** 10:32:25.8±0.4, 15.42N×96.94W, h12^{km}, MW5.1/52, Centroid moment Tensor Solution. LP body waves: s33,c47;Mantle waves: s52,c83; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.54±.16; $M_{\theta\theta}$4.05±.12; $M_{\phi\phi}$1.49±.19; $M_{r\theta}$-3.14±.40; $M_{\theta\phi}$-1.84±.13; $M_{\phi r}$0.58±.56; Best double couple: $M_0$6.16×10^{16} NP1:ϕ_s304°,δ30°,λ-77°. NP2:ϕ_s109°,δ61°,λ-97°. Principal axes: T 5.84, Plg15°, Azm205°; N .63, Plg6°, Azm113°; P -6.48, Plg73°, Azm1°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **10** 10:32:27.4±4.4, 15.33N×97.07W, h53^{km}±37^{km}, mb4.5/20, mb1 4.7/22, mb1mx4.7/25, ML4.0/1, MS4.5/16, Ms1 4.5/16, ms1mx4.3/23 Error ellipse: s-maj=24.9km s-min=13.9km az=56.0*

ISC 10 10:32:23.4±1.2**, 15.35N**±0.04×**97.08W**±0.03**, h30^{km}**±7^{km}**, h26^{km}**±.6^{km}**:pP-P, n289, σ0^{s}79**/278**, mb5.3**/107**, MS4.5**/28**, 4C-5D, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	1.02	66	i P	Pn	10 32 41.0	-0.8
HUIG				i S	Sb	10 32 56.0	+0.5
PNIG	Pinotepa	1.44	316	i P	Pn	10 32 44.5	-3.5
PNIG				i S	Sn	10 33 00.5	-5.5
PNIG	Pinotepa	1.44	316	i P	Pn	10 32 44.4	-3.6
PNIG				i S	Sn	10 33 00.5	-5.5
PNIG				eS	Sn	10 33 00.5	-5.5
OXX	Oaxaca	1.75	11	i P	Pn	10 32 52.0	-0.4
OXX				i S	Sn	10 33 15.0	+1.2
OXX	Oaxaca	1.75	11	i P	Pn	10 32 52.6	+0.3
OXX				⇓iS	Sn	10 33 15.0	+1.2
CMIG	Matias Romero	2.73	50	eP	Pn	10 33 05.3	-0.9
CMIG				eS	Sn	10 33 42.4	+3.8
CMIG	Matias Romero	2.73	50	eP	Pn	10 33 05.3	-0.9
CMIG				eS	Sn	10 33 41.2	+2.6
ACX	Acapulco	3.12	299	i P	Pn	10 33 06.4	-5.4
EVV	El Vigia	3.50	28	i P	Pn	10 33 16.6	-0.6
IISM	Ciudad Serdan	3.62	356	i P	Pn	10 33 19.3	+0.3
PPM	Popocatepetl	3.98	338	i P	Pn	10 33 24.2	+0.2
PPM				eP		10 33 25.1	
PPM				eS	Sn	10 34 09.1	-1.1
LVIG	Laguna Verde	4.39	8	eP	Pn	10 33 27.9	-2.0
LVIG				eS	Sn	10 34 19.4	-1.3
UNM	Universidad Na	4.43	333	eP	Pn	10 33 31.1	+0.6
UNM				eS	Sn	10 34 19.2	-2.6
UNM	Universidad Na	4.43	333	eP	Pn	10 33 29.6	-0.9
UNM				eP		10 33 31.1	
UNM				eP		10 33 32.0	
UNM				eS	Sn	10 34 15.6	-6.2
UNM				eS	Sn	10 34 19.2	-2.6
SCX	San Cristobal	4.49	72	i P	Pn	10 33 32.0	+0.7
IIO	Organos	4.50	340	i P	Pn	10 33 36.4	+5.0
PTVM	Pico Tres Padr	4.64	336	eP	Pn	10 33 34.6	+1.2
IIC	Rita Coyotepec	4.86	335	i P	Pn	10 33 42.7	+6.2
COLM	Colima	7.38	302	eP	Pn	10 34 09.7	-2.2
COLM				eS	Sn	10 35 33.2	-2.2
SFJM	Santa Fe	7.63	313	i P	Pn	10 34 15.7	+0.2
CJM	Chamela	8.65	300	eP	P	10 34 27.5	-2.1
JTS	JuntasAbangare	12.85	112	c iP	P	10 35 30.1	+3.1
JTS	JuntasAbangare	12.85	112	ePn	P	10 35 27.5	+0.6
	131nm,1.5s						
HKT	Hockley	14.57	4	ePn	P	10 35 49.1	-0.5
	121nm,1.6s						
LTX	Lajitas	15.18	338	ePn	P	10 35 59.4	+1.8
	141nm,1.5s						
TXAR	Lajitas Array	15.18	338	P	P	10 35 58.1	+0.5
	0.1nm,0.3s,baz=145,slow=11,SNR=35						
TXAR				PcP	PcP	10 41 03.0	-0.9
	0.1nm,0.3s,baz=135,slow=3.5,SNR=5.3						
TXAR				LR	LR	10 41 28.4	
	comp=Z,2µm,21.7s,baz=145,slow=36						
TXAR	Lajitas Array	15.18	338	P	P	10 35 58.1	+0.5
TXAR				PcP	PcP	10 41 03.0	-0.9
TXAR				LR	LR	10 41 28.4	
JCT	Junction City	15.26	351	ePn	P	10 35 58.0	-0.6
	46nm,0.8s						
NATX	Nacogdoches	16.48	7	eP	P	10 36 12.7	-1.5
	248nm,1.4s						
CLNB	Carlsbad	17.94	341	eP	P	10 36 33.3	+0.8
GDL2	Guadalupe Moun	18.04	340	eP	P	10 36 34.4	+0.6
CPRX	Cap Rock	18.65	342	eP	P	10 36 41.0	-0.2
WMOK	Wichita Mounta	19.36	356	eP	P	10 36 48.3	-1.3
	31nm,0.8s						
MIAR	Mount Ida	19.37	9	eP	P	10 36 48.5	-1.2
	12nm,1.0s						
UALR	University of	19.80	12	eP	P	10 36 53.9	-0.6
	89nm,0.9s						
LRAL	Lakeview Retre	19.84	26	eP	P	10 36 54.2	-0.7
	36nm,0.8s						
AMTX	Amarillo	19.88	349	eP	P	10 36 53.9	-1.5
	79nm,0.8s						
OXF	Oxford	20.29	19	eP	P	10 36 58.3	-1.3
	213nm,0.9s						
BNM	Barren Site	20.60	337	eP	P	10 37 03.3	+0.4
LPM	Los Pinos Moun	20.75	337	eP	P	10 37 05.0	+0.6
LENM	Lemitar	20.75	336	eP	P	10 37 04.9	+0.5
HBAR	Harrisburg	20.92	15	eP	P	10 37 06.4	+0.3
TUC	Tucson	20.99	326	eP	P	10 37 07.2	+0.4
	153nm,1.4s						
LAZ	Ladron	21.02	336	eP	P	10 37 08.2	+1.0
ANMO	Albuquerque	21.26	338	P	P	10 37 10.4	+0.9
	84nm,1.2s,mb4.9,baz=150,slow=11,SNR=56						
ANMO				LR	LR	10 46 50.3	
	comp=Z,358nm,19.1s,MS3.8,slow=40						
ANMO	Albuquerque	21.26	338	d iP	P	10 37 10.2	+0.7
ANMO	Albuquerque	21.26	338	eP	P	10 37 10.3	+0.8
	147nm,1.3s,mb5.2						
HALT	Halls	21.61	17	eP	P	10 37 13.7	+0.7
GLAT	Glass	21.96	17	eP	P	10 37 17.3	+0.7
UTMT	University of	22.15	18	eP	P	10 37 18.7	+0.3
	694nm,0.9s,mb6.1						
SWET	Sewanee	22.16	25	eP	P	10 37 18.0	-0.6
PARMO	Parma	22.20	16	eP	P	10 37 19.0	0.0
WVT	Waverly	22.28	20	eP	P	10 37 19.6	-0.1
	192nm,1.0s,mb5.5						
CCM	Cathedral Cave	23.19	12	eP	P	10 37 29.1	+0.3
	222nm,1.0s,mb5.5						
COW	Cow Castle Cre	23.28	37	eP	P	10 37 30.3	+0.6
FVM	French Village	23.30	13	eP	P	10 37 29.8	+0.1
	41nm,0.9s,mb4.9						
NHSC	New Hope	23.39	38	eP	P	10 37 31.7	+1.0
	482nm,1.3s,mb5.8						
SDCO	Great Sand Dun	23.52	343	eP	P	10 37 33.7	+1.8
	72nm,1.0s,mb5.0						
SDCO				LR	LR		
	comp=Z,506nm,20.0s,MS4.0						
KSU1	Kansas State U	23.66	1	eP	P	10 37 34.0	+0.7
OTAV	Otavalo	23.75	128	eP	P	10 37 36.2	+1.8
	comp=Z,45nm,1.5s,mb4.7						
OTAV				LR	LR		
	comp=Z,340nm,21.0s,MS3.8						
SLM	Saint Louis	23.96	13	eP	P	10 37 36.9	+0.7
	comp=Z,424nm,1.3s,mb5.7						
USIN	University of	24.01	19	eP	P	10 37 37.2	+0.5
	comp=Z,508nm,1.5s,mb5.7						
WCI	Wyandotte Cave	24.70	21	eP	P	10 37 43.6	+0.2
	comp=Z,386nm,0.9s,mb5.9						
WCI				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
BAR	Barrett	24.78	318	eP	P	10 37 44.3	+0.1
PFO	Pinyon Flat Ob	25.24	320	eP	P	10 37 48.9	+0.3
	comp=Z,28nm,1.1s,mb4.7						
BLO	Bloomington	25.47	19	eP	P	10 37 50.6	-0.1
	comp=Z,123nm,0.8s,mb5.5						
ISCO	Idaho Springs	25.47	345	eP	P	10 37 51.5	+0.8
	comp=Z,367nm,1.7s,mb5.6						
NEN	Nelson	25.72	325	eP	P	10 37 53.2	+0.2
PWV	Princeton	26.11	30	eP	P	10 37 56.9	+0.3
ELN	Prospectdale	26.17	31	eP	P	10 37 57.8	+0.7
BLA	Blacksburg	26.32	31	eP	P	10 37 58.7	+0.2
	comp=Z,194nm,1.2s,mb5.5						
SRU	San Rafael	26.45	336	eP	P	10 38 00.5	+0.8
ARUT	Antelope Range	26.63	330	eP	P	10 38 02.8	+1.5
MSU	Marysvale	26.63	333	eP	P	10 38 02.1	+0.7
MVU	Marysvale	26.64	333	eP	P	10 38 02.3	+0.8
	comp=Z,34nm,1.2s,mb4.8						
MVU				LR	LR		
	comp=Z,539nm,19.0s,MS4.1						
MWC	Mount Wilson	26.66	319	eP	P	10 38 02.1	+0.4
TMUT	Trail Mountain	26.88	335	eP	P	10 38 04.7	+1.0
MPU	Maple Canyon	27.66	335	eP	P	10 38 11.4	+0.6
RWWY	Rawlins	27.67	344	eP	P	10 38 10.7	-0.1
ACSO	Alum Creek Sta	27.67	24	eP	P	10 38 10.5	-0.4
	comp=Z,78nm,0.8s,mb5.4						
NLU	North Lily Min	27.79	335	eP	P	10 38 12.6	+0.7
NLU				ePcP	PcP	10 41 27.3	-0.9
JFWS	Jewell Farm	28.08	11	eP	P	10 38 14.3	-0.3
	comp=Z,58nm,0.8s,mb5.3						
JLU	Jordanelle	28.09	336	eP	P	10 38 14.9	+0.2
TRCR	Troy Canyon	28.13	328	eP	P	10 38 15.8	+0.8
NOQ	North Oquirrh	28.40	335	eP	P	10 38 16.8	-0.7
MCWV	Mont Chateau	28.53	29	eP	P	10 38 18.9	+0.3
	comp=Z,227nm,1.5s,mb5.7						
TPH	Tonopah	28.79	326	eP	P	10 38 21.2	+0.3
	comp=Z,58nm,1.6s,mb5.1						
BGU	Big Grassy Mou	29.00	335	eP	P	10 38 23.2	+0.3
HWUT	Hardware Ranch	29.01	337	eP	P	10 38 22.9	0.0
	comp=Z,66nm,1.6s,mb5.1						
HWUT				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
MTUM	Tungsten Hills	29.03	323	eP	P	10 38 23.6	+0.4
AAM	Ann Arbor	29.23	21	eP	P	10 38 24.6	-0.4
	comp=Z,24nm,0.7s,mb5.0						
AAM				LR	LR		
	comp=Z,968nm,19.0s,MS4.4						
BW06	Boulder Array	29.34	341	eP	P	10 38 25.6	-0.3
	comp=Z,85nm,1.7s,mb5.2						
PDAR	Pinedale Array	29.34	341	P	P	10 38 26.0	+0.1
	comp=Z,8.7nm,0.9s,mb4.5,baz=136,slow=9.9,SNR=58						
PDAR				PcP	PcP	10 41 30.3	-1.7
	comp=Z,1.4nm,0.8s,baz=180,slow=2.7,SNR=3.8						
PDAR				LR	LR	10 51 12.0	
	comp=Z,1µm,18.1s,MS4.6,baz=348,slow=38						
OMM	Old Mammoth Mi	29.46	323	eP	P	10 38 27.4	+0.3
MNV	Mina	29.55	325	eP	P	10 38 28.5	+0.7
	comp=Z,61nm,1.2s,mb5.2						
HVU	Hansel Valley	29.62	336	eP	P	10 38 28.7	+0.3
NVAR	Mina Array Bea	29.63	325	P	P	10 38 29.3	+0.7
	comp=Z,16nm,0.8s,mb4.8,baz=171,slow=8.9,SNR=110						
NVAR				PcP	PcP	10 41 32.2	-0.6
	comp=Z,3.8nm,1.0s,baz=112,slow=6.2,SNR=6.8						
NVAR				LR	LR	10 50 53.5	
	comp=Z,458nm,20.4s,MS4.1,baz=100,slow=37						
NVAR	Mina Array Bea	29.63	325	P	P	10 38 29.3	+0.7
NVAR				PcP	PcP	10 41 32.2	-0.6
NVAR				LR	LR	10 50 53.5	
ELK	Elko	29.82	332	eP	P	10 38 30.7	+0.5
	comp=Z,65nm,1.4s,mb5.2						
ELK				ePcP	PcP	10 41 32.7	-0.5
ALLY	Alegheny Colle	30.01	26	eP	P	10 38 31.4	-0.5
SSPA	Standing Stone	30.22	30	eP	P	10 38 33.1	-0.7
	comp=Z,179nm,1.8s,mb5.5						
REDW	Red Top Meadow	30.30	340	eP	P	10 38 34.7	+0.3
SNOW	Snow King Moun	30.36	340	eP	P	10 38 35.5	+0.6
WUWY	Wally Ulrich	30.42	340	eP	P	10 38 35.9	+0.4
LOHW	Long Hollow	30.44	340	eP	P	10 38 35.8	+0.2
TPAW	Teton Pass	30.44	340	eP	P	10 38 36.0	+0.3
ERPA	Erie	30.47	26	eP	P	10 38 36.4	+0.5
	comp=Z,45nm,0.8s,mb5.2						
BMN	Battle Mountai	30.53	329	eP	P	10 38 37.2	+0.7
	comp=Z,78nm,1.5s,mb5.3						
BMN				epP	pP	10 38 44.9	-0.3
CMB	Columbia Colle	30.56	322	eP	P	10 38 36.5	-0.3
	comp=Z,14nm,1.2s,mb4.7						
MOOW	Moose Ponds	30.61	340	eP	P	10 38 37.2	+0.1
MOOW				ePcP	PcP	10 41 34.2	-1.0
IMW	Indian Meadow	30.80	340	eP	P	10 38 38.7	-0.1
IMW				epP	pP	10 38 46.1	-1.4
WCN	Washoe City	31.05	325	eP	P	10 38 41.7	+0.6
	comp=Z,45nm,1.3s,mb5.1						
YFT	Old Faithful	31.27	341	eP	P	10 38 44.0	+1.1
YNR	Norris Junctio	31.45	341	eP	P	10 38 44.9	+0.4
YMR	Madison River	31.50	341	eP	P	10 38 45.7	+0.7
HLID	Hailey	31.77	336	eP	P	10 38 47.3	0.0
	comp=Z,23nm,1.0s,mb5.0						
BEKR	Beckwourth	31.78	325	eP	P	10 38 47.7	+0.2
	comp=Z,32nm,1.1s,mb5.1						
BEKR				epP	pP	10 38 55.8	-0.4
QLMT	Earthquake Lak	31.79	340	eP	P	10 38 49.0	+1.4
GENY	Geneseo	31.93	27	eP	P	10 38 48.6	-0.1
OHCM	Honcut	32.06	323	eP	P	10 38 50.1	+0.1
GCMT	Greycliff	32.13	343	P	P	10 38 50.7	+0.2
LAO	LASA Array	32.16	348	eP	P	10 38 50.3	-0.4
	comp=Z,139nm,1.8s,mb5.5						
MCMT	McKenzie Canyo	32.27	339	eP	P	10 38 52.9	+1.3
BINY	Binghamton	32.33	30	eP	P	10 38 52.4	+0.2
	comp=Z,99nm,1.2s,mb5.5						
BOZ	Bozeman (W)	32.59	341	eP	P	10 38 54.5	0.0
	comp=Z,7.6nm,0.6s,mb4.8						
EYMN	Ely	32.83	7	eP	P	10 38 56.1	-0.3
SADO	Sadowa	33.02	24	P	P	10 38 57.0	-1.2
	comp=Z,22nm,0.9s,mb5.1,baz=230,slow=9.3,SNR=7.0						
MOD	Modoc	33.18	327	eP	P	10 38 59.7	0.0
	comp=Z,65nm,1.2s,mb5.4						
DGMT	Dagmar	33.54	351	eP	P	10 39 02.9	+0.2
	comp=Z,120nm,1.6s,mb5.6						
HRY	Holter Researc	33.60	342	eP	P	10 39 03.6	+0.3
BMO	Blue Mountains	34.02	334	eP	P	10 39 06.1	-0.8
	comp=Z,69nm,1.7s,mb5.3						
ACCN	Adirondack Com	34.35	31	eP	P	10 39 09.6	-0.2
YBH	Yreka Blue Hor	34.36	325	P	P	10 39 08.7	-1.2
	comp=Z,5.1nm,0.8s,mb4.5,baz=89,slow=5.7,SNR=10						
YBH	Yreka Blue Hor	34.36	325	P	P	10 39 08.7	-1.1
YBH				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MSO	Missoula	34.39	339	eP	P	10 39 09.9	-0.1
	comp=Z,72nm,1.7s,mb5.3						
NCB	Newcomb	34.52	30	eP	P	10 39 10.8	-0.4
	comp=Z,141nm,1.4s,mb5.7						
ULM	Lac du Bonnet	34.82	1	P	P	10 39 13.2	-0.5
	comp=Z,20nm,0.8s,mb5.1,baz=185,slow=9.3,SNR=32						
ULM				LR	LR	10 57 07.6	
	comp=Z,424nm,18.3s,MS4.2,baz=2.4,slow=42						
ULM	Lac du Bonnet	34.82	1	eP	P	10 39 12.9	-0.8
	comp=Z,75nm,1.3s,mb5.5						

MSNY	**Massena**	35.00	28	*e*P	P	10 39 14.8	-0.5
WALA	**Waterton Lakes**	36.33	341	*e*P	P	10 39 26.4	-0.1
	comp=Z,18nm,0.9s,mb5.0						
VLL	**Laurance Lake**	36.46	330	P	P	10 39 29.4	+1.8
NEW	**Newport**	36.74	337	*e*P	P	10 39 29.9	-0.1
	comp=Z,27nm,1.0s,mb5.0						
EPH	**Ephrata**	36.97	334	P	P	10 39 32.2	+0.3
WTV	**Waterville**	37.40	334	P	P	10 39 36.2	+0.8
LON	**Longmire**	37.48	332	P	P	10 39 37.0	+0.8
VDB	**Vedder Mountai**	39.33	334	P	P	10 39 51.6	-0.1
EDM	**Edmonton**	39.90	345	*e*P	P	10 39 56.2	-0.2
LPAZ	**La Paz**	42.49	137	P	P	10 40 17.8	-0.2
	comp=Z,2.6nm,0.8s,baz=318,slow=10,SNR=7.1						
LPAZ				PcP	PcP	10 42 10.3	-0.7
	comp=Z,3.1nm,0.9s,baz=294,slow=4.9,SNR=4.4						
LPAZ				LR	LR	10 56 04.4	
	comp=Z,388nm,21.4s,MS4.3,baz=43,slow=33						
LPAZ	**La Paz**	42.49	137	P	P	10 40 17.8	-0.2
LPAZ						10 42 10.4	
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
LPAZ	**La Paz**	42.49	137	*e*P	P	10 40 18.0	0.0
LPAZ				*e*PcP	PcP	10 42 10.5	-0.6
LPAZ				LR	LR	10 56 04.4	
FCC	**Fort Churchill**	43.39	2	*e*P	P	10 40 24.8	-0.1
	comp=Z,198nm,1.8s,mb5.5						
FCC				*e*PP	PP	10 42 05.0	-2.7
SCHQ	**Schefferville**	45.83	24	P	P	10 40 44.2	-0.2
	comp=Z,17nm,0.8s,mb5.0,baz=232,slow=7.5,SNR=18						
SCHQ				PcP	PcP	10 42 20.7	-1.3
	comp=Z,8.6nm,0.9s,baz=223,slow=5.0,SNR=4.5						
SCHQ				LR	LR	11 01 32.0	
	comp=Z,386nm,18.2s,MS4.4,baz=54,slow=38						
SCHQ	**Schefferville**	45.83	24	*e*P	P	10 40 44.3	-0.2
	comp=Z,124nm,1.4s,mb5.7						
SCHQ				*e*PcP	PcP	10 42 21.1	-0.9
LVC	**Limon Verde**	46.74	143	P	P	10 40 52.5	+0.4
	comp=Z,10.0nm,1.0s,mb4.7,baz=299,slow=7.7,SNR=7.4						
LVC				LR	LR	10 55 43.8	
	comp=Z,1µm,22.0s,MS4.8,baz=297,slow=30						
LVC	**Limon Verde**	46.74	143	*e*P	P	10 40 52.0	0.0
	comp=Z,46nm,1.5s,mb5.2						
MOCB	**Mochara**	47.70	139	*e*P	P	10 40 58.5	-1.2
YKA	**Yellowknife Ar**	48.69	349	P	P	10 41 05.8	-1.0
	comp=Z,11nm,0.9s,mb4.9,baz=156,slow=7.6,SNR=111						
YKA				PcP	PcP	10 42 30.5	-1.6
	comp=Z,4.1nm,0.8s,baz=151,slow=3.4,SNR=14						
YKA				LR	LR	11 02 03.6	
	comp=Z,586nm,20.7s,MS4.5,baz=160,slow=36						
YKA	**Yellowknife Ar**	48.69	349	P	P	10 41 05.8	-0.9
YKA						10 42 30.5	
YKA				pmax	pmax		
	comp=Z,11nm,0.9s						
YKA				pmax	pmax		
	comp=Z,4.0nm,0.8s						
YKA				MLR	MLR		
	comp=Z,586nm,20.7s						
YKA	**Yellowknife Ar**	48.69	349	*e*P	P	10 41 05.8	-0.9
YKW3	**Yellowknife Ar**	48.75	349	*e*P	P	10 41 06.2	-1.0
YKW3				*e*PcP	PcP	10 42 30.7	-1.6
YKW3				*e*PP	PP	10 43 01.7	+1.4
DLBC	**Dease Lake**	49.49	338	*e*P	P	10 41 14.6	+1.7
FRB	**Frobisher Bay**	52.22	16	LR	LR	11 05 18.3	
	comp=Z,542nm,19.1s,MS4.6,baz=211,slow=38						
RKT	**Rikitea**	53.26	225	*e*LR	LR	10 56 37.4	
	comp=Z,662nm,33.8s,baz=39						
FCH	**Farellones**	54.75	152	*e*P	P	10 41 52.0	-0.8
DAWY	**Dawson**	56.63	339	*e*P	P	10 42 04.6	-1.3
BDFB	**Brasilia**	57.42	120	P	P	10 42 10.3	-1.8
	comp=Z,2.7nm,0.6s,mb4.4,baz=254,slow=10,SNR=3.5						
BDFB	**Brasilia**	57.42	120	P	P	10 42 10.3	-1.8
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.6s						
INK	**Inuvik**	57.80	345	P	P	10 42 13.2	-1.0
	comp=Z,50nm,0.8s,mb5.6,baz=135,slow=8.5,SNR=104						
INK				PcP	PcP	10 43 04.7	-1.7
	comp=Z,8.1nm,1.0s,baz=161,slow=5.7,SNR=5.2						
INK				LR	LR	11 12 18.2	
	comp=Z,292nm,19.5s,MS4.4,baz=306,slow=41						
INK	**Inuvik**	57.80	345	P	P	10 42 13.2	-1.0
INK						10 43 04.7	
INK				pmax	pmax		
	comp=Z,50nm,0.8s						
INK				pmax	pmax		
	comp=Z,8.0nm,1.0s						
INK				MLR	MLR		
	comp=Z,292nm,19.5s						
INK	**Inuvik**	57.80	345	*e*P	P	10 42 13.1	-1.0
	comp=Z,67nm,0.9s,mb5.7						
RES	**Resolute Bay**	59.34	1	*e*P	P	10 42 23.3	-1.5
	comp=Z,35nm,1.3s,mb5.2						
ILAR	**Eielson Array**	59.70	338	P	P	10 42 26.2	-1.2
	comp=Z,18nm,1.0s,mb5.0,baz=133,slow=4.2,SNR=93						
ILAR				PcP	PcP	10 43 12.2	-1.7
	comp=Z,2.2nm,0.8s,baz=64,slow=0.2,SNR=4.1						
ILAR				LR	LR	11 10 26.7	
	comp=Z,369nm,19.0s,MS4.5,baz=319,slow=38						
ILAR	**Eielson Array**	59.70	338	P	P	10 42 26.2	-1.2
ILAR						10 43 12.2	
ILAR				pmax	pmax		
	comp=Z,18nm,1.0s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ILAR				MLR	MLR		
	comp=Z,369nm,19.0s						
MCK	**McKinley**	59.95	336	*e*P	P	10 42 28.0	-1.1
	comp=Z,30nm,1.4s,mb5.1						
COLA	**College**	60.10	338⇑	*e*P	P	10 42 29.4	-0.8
COLA	**College**	60.10	338	*e*P	P	10 42 28.9	-1.2
RSO	**Redoubt South**	60.12	332	*e*P	P	10 42 29.5	-0.8
PPT	**Papeete**	61.23	240	*e*SS	SS	10 54 32.7	-24
PPT				*e*LR	LR	11 00 22.9	
	comp=Z,701nm,25.8s,baz=57						
TBI	**Tubuai**	64.05	234	*e*SS	SS	10 55 14.8	-26
TBI				*e*LR	LR	11 01 40.2	
	comp=Z,610nm,28.2s,baz=62						
SUMG	**Summit**	66.28	16	*e*P	P	10 43 11.1	+0.3
	comp=Z,16nm,0.8s,mb5.1						
BORG	**Borgarnes**	70.15	26	LR	LR	11 17 21.2	
	comp=Z,427nm,18.5s,MS4.7,baz=170,slow=38						
EGOM	**La Gomera**	74.14	65	P	P	10 43 59.0	-0.3
	comp=Z,63nm,1.3s,mb5.4						
ELOB	**Lobios**	79.20	49	P	P	10 44 27.0	-0.4
	comp=Z,4.8nm,0.6s,mb4.6						
EPON	**Pontenova**	79.58	48	P	P	10 44 27.1	-2.3
	comp=Z,34nm,1.5s,mb5.1						
EKA	**Eskdalemuir Ar**	79.73	35	P	P	10 44 30.2	+0.3
	comp=Z,4.4nm,0.8s,mb4.4,baz=278,slow=5.9,SNR=5.9						
EKA	**Eskdalemuir Ar**	79.73	35	P	P	10 44 30.2	+0.3
EKA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
MTE	**Manteigas**	79.87	51	*e*P	P	10 44 31.5	+0.5
	comp=Z,46nm,1.4s,mb5.2						
EVO	**Evora**	79.89	53	*e*P	P	10 44 30.8	-0.4
	comp=Z,127nm,1.5s,mb5.3						
EVO				*e*R			
	comp=Z,650nm,19.8s						
PCBR	**Castelo Branco**	80.03	51	*e*P	P	10 44 32.6	+0.7
	comp=Z,32nm,1.4s,mb5.1						
PBEJ	**Beja**	80.10	53	*e*P	P	10 44 32.8	+0.5
	comp=Z,29nm,1.6s,mb5.0						
PBRG	**Braganca**	80.18	49	*e*P	P	10 44 33.3	+0.6
	comp=Z,26nm,1.7s,mb4.9						
EBAD	**Badajoz**	80.61	52	P	P	10 44 33.0	-2.0
	comp=Z,140nm,2.4s,mb5.5						
EMIN	**Mina Concepcio**	81.08	53	P	P	10 44 37.2	-0.3
	comp=Z,17nm,0.9s,mb5.0						
ROSF	**Rostrenen**	81.18	42	*e*P	P	10 44 37.4	-0.4
QUIF	**Quistinic**	81.35	43	*e*P	P	10 44 38.4	-0.3
SGMF	**Saint Gilles**	81.67	42	*e*P	P	10 44 39.6	-0.7
ESPR	**Espera**	81.91	54	P	P	10 44 42.6	+0.8
	comp=Z,82nm,1.3s,mb5.5						
EADA	**Adamuz**	82.60	53	P	P	10 44 45.7	+0.4
	comp=Z,58nm,1.4s,mb5.4						
ESDC	**Sonseca Array**	82.71	51	P	P	10 44 46.5	+0.6
	comp=Z,15nm,1.0s,mb5.0,baz=297,slow=4.9,SNR=32						
ESDC	**Sonseca Array**	82.71	51	P	P	10 44 46.4	+0.4
	comp=Z,19nm,0.8s,mb5.2						
ESLA	**Sonseca Array**	82.71	51	*e*P	P	10 44 46.8	+0.9
GRR	**Gorron**	82.73	42	*e*P	P	10 44 45.7	-0.1
	comp=Z,45nm,1.0s,mb5.1						
EMIJ	**Mijas**	82.83	54	P	P	10 44 46.5	-0.1
	comp=Z,76nm,1.4s,mb5.5						
FLN	**La Foliniere**	82.88	41	*e*P	P	10 44 46.6	0.0
	comp=Z,38nm,0.9s,mb5.1						
FLN				*e*R			
	comp=Z,650nm,21.0s						
LDF	**La Druitiere**	83.15	42	*e*P	P	10 44 47.9	-0.1
	comp=Z,51nm,1.1s,mb5.2						
EALK	**Alkurruntz**	83.62	47	P	P	10 44 49.4	-1.2
	comp=Z,57nm,1.2s,mb5.6						
MFF	**Saint Martin d**	83.67	44	*e*P	P	10 44 50.4	-0.3
EQES	**Quesada**	83.85	53	P	P	10 44 51.4	-0.4
	comp=Z,312nm,2.8s,mb6.0						
SJPF	**Ste Jean**	83.85	47	*e*P	P	10 44 51.8	+0.1
	comp=Z,65nm,1.5s,mb5.2						
EBER	**Berja**	84.21	53	P	P	10 44 54.1	+0.5
	comp=Z,230nm,2.3s,mb5.9						
ETSF	**Etsaut**	84.38	47	*e*P	P	10 44 54.7	+0.3
	comp=Z,22nm,1.0s,mb4.9						
LFF	**La Frestale**	84.72	45	*e*P	P	10 44 55.9	-0.1
EBIE	**Bielsa**	84.93	47	P	P	10 44 57.2	+0.1
	comp=Z,97nm,1.9s,mb5.6						
EPF	**Esparros**	84.98	47	*e*P	P	10 44 57.4	+0.1
	comp=Z,169nm,1.7s,mb5.6						
EMOS	**Mosqueruela**	85.13	50	P	P	10 44 58.9	+0.8
	comp=Z,371nm,2.4s,mb6.1						
RJF	**Les Rejaudoux**	85.14	44	*e*P	P	10 44 57.9	-0.2
RJF				*e*R			
	comp=Z,550nm,18.5s						
NB2	**NORSAR Subarra**	85.27	28	P	P	10 44 58.7	+0.3
	comp=Z,43nm,2.0s,mb5.2,baz=298,slow=5.0						
NB2	**NORSAR Subarra**	85.27	28	P	P	10 44 58.7	+0.3
	baz=298,slow=5.3						
NOA	**NORSAR Array B**	85.27	28	P	P	10 44 58.5	+0.2
	comp=Z,1.7nm,0.7s,mb4.3,baz=301,slow=4.9,SNR=5.0						
NOA				LR	LR	11 19 55.9	
	comp=Z,295nm,21.0s,MS4.7,baz=290,slow=33						
TCF	**Toulx Ste Croi**	85.32	43	*e*P	P	10 44 58.7	-0.3
	comp=Z,142nm,1.7s,mb5.5						
BAIF	**Baives**	85.44	39	*e*P	P	10 44 59.5	0.0
	comp=Z,160nm,1.8s,mb5.5						
ERTA	**Horta de San J**	85.55	49	P	P	10 44 59.6	-0.7
	comp=Z,360nm,2.4s,mb6.2						
CAF	**Calviac**	85.62	45	*e*P	P	10 45 00.7	+0.2
BGF	**Bois d'Agland**	85.66	43	*e*P	P	10 45 00.4	-0.3
	comp=Z,132nm,1.5s,mb5.6						
GIVF	**Givet**	85.80	39	*e*P	P	10 45 01.4	+0.1
AVF	**Avril sur Loir**	85.92	43	*e*P	P	10 45 01.3	-0.7
	comp=Z,36nm,1.3s,mb5.2						
SSF	**Saint Saulge**	85.94	42	*e*P	P	10 45 01.6	-0.4
	comp=Z,124nm,1.6s,mb5.6						
EMIR	**Miracle**	86.14	48	P	P	10 45 03.8	+0.7
	comp=Z,187nm,1.5s,mb6.1						
MTLF	**Montolieu**	86.20	46	*e*P	P	10 45 03.3	-0.1
	comp=Z,96nm,1.3s,mb5.6						
HGN	**Heimansgroeve**	86.25	38⇑	*e*P	P	10 45 00.4	-3.1
	comp=Z,48nm,1.9s,mb5.4						
SMF	**Signal de Mont**	86.28	43	*e*P	P	10 45 03.0	-0.8
ARCES	**ARCESS Array B**	86.35	17	P	P	10 45 03.4	-0.2
	comp=Z,9.9nm,0.8s,mb5.1,baz=333,slow=5.4,SNR=8.3						
ARCES				LR	LR	11 24 56.6	
	comp=Z,243nm,18.4s,MS4.6,baz=6.0,slow=36						
ARCES	**ARCESS Array B**	86.35	17	P	P	10 45 03.4	-0.2
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,243nm,18.4s						
MEZF	**Maizieres J'vi**	86.47	41	*e*P	P	10 45 04.6	0.0
EJON	**La Jonquera**	86.94	47	P	P	10 45 04.2	-2.8
	comp=Z,94nm,1.5s,mb5.8						
LASF	**Ste Croix**	87.11	45	*e*P	P	10 45 08.3	+0.5
	comp=Z,115nm,1.4s,mb5.6						
VIVF	**Saint-Julien-l**	87.41	44	*e*P	P	10 45 09.5	+0.2
HAU	**Haudompre**	87.45	41	*e*P	P	10 45 09.1	-0.3
HAU				*e*R			
	comp=Z,396nm,23.0s						
CABF	**La Chapelle**	87.76	42	*e*P	P	10 45 10.9	0.0
	comp=Z,33nm,1.2s,mb5.1						
HINF	**Hinteralfeld**	87.83	41	*e*P	P	10 45 10.8	-0.4
TIXI	**Tiksi**	87.88	347⇓	*i*P	P	10 45 10.5	-0.4
TIXI				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.7						
TIXI				MLR	MLR		
	comp=Z,119nm,19.0s,MS4.3						
TIXI	**Tiksi**	87.88	347⇓	*e*P	P	10 45 10.4	-0.5
CDF	**Champ du Feu**	87.89	40	*e*P	P	10 45 11.2	-0.3
ORIF	**Oris-en-Rattie**	88.20	44	*e*P	P	10 45 13.0	0.0
ORIF				*e*R			
	comp=Z,544nm,21.2s						
SMRF	**Simiane la Rot**	88.31	45	*e*P	P	10 45 14.3	+0.7
	comp=Z,39nm,1.3s,mb5.2						
LPL	**La Plagne**	88.56	43	*e*P	P	10 45 15.0	+0.2
LPG	**La Plagne**	88.58	43	*e*P	P	10 45 15.3	+0.5
MBDF	**Montbardon**	88.86	44	*e*P	P	10 45 16.0	-0.2
FRF	**La Foret Royal**	89.18	45	*e*P	P	10 45 17.6	-0.2
MOX	**Moxa**	89.65	37	P	P	10 45 20.0	+0.2
GRA1	**Grafenberg Arr**	89.81	38	*e*P	P	10 45 21.8	+1.2
	comp=Z,24nm,1.4s,mb5.3						
GRF	**Grafenberg Arr**	89.81	38	*e*P	P	10 45 21.8	+1.2
GRF				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.3						
GRF	**Grafenberg Arr**	89.81	38	*e*P	P	10 45 21.8	+1.2
	comp=Z,24nm,1.4s,mb5.3						
CLL	**Collm**	90.18	36	*e*P	P	10 45 23.0	+0.8
CLL	**Collm**	90.18	36	P	P	10 45 23.0	+0.8
DBIC	**Dimbokro**	90.39	83	P	P	10 45 22.1	-2.0
	comp=Z,5.2nm,1.0s,mb4.8,baz=253,slow=7.2,SNR=4.0						
DBIC	**Dimbokro**	90.39	83	P	P	10 45 22.1	-2.0
DBIC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
BRG	**Berggiesshubel**	90.90	36	*e*P	P	10 45 26.5	+0.9
BRG				pmax	pmax		
	comp=Z,29nm,1.7s,mb5.3						
BRG	**Berggiesshubel**	90.90	36	*e*P	P	10 45 26.5	+0.9
BRG				*e*		10 48 42.5	
FINES	**FINESS Array B**	91.31	24	P	P	10 45 26.9	-0.3
	comp=Z,3.9nm,0.9s,mb4.7,baz=27,slow=4.3,SNR=5.0						
FINES				LR	LR	11 26 14.3	
	comp=Z,206nm,18.2s,MS4.6,baz=128,slow=35						
FINES	**FINESS Array B**	91.31	24	P	P	10 45 26.9	-0.3
FINES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
FINES				MLR	MLR		
	comp=Z,206nm,18.2s						
GERES	**GERESS Array B**	91.64	38	P	P	10 45 28.9	-0.1
	comp=Z,2.2nm,0.8s,mb4.6,baz=315,slow=3.8,SNR=15						
GERES	**GERESS Array B**	91.64	38	P	P	10 45 28.9	-0.1
GERES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
VRAC	**Vranov**	93.13	37	P	P	10 45 36.5	+0.7
	comp=Z,3.3nm,0.6s,mb4.9,baz=223,slow=4.1,SNR=5.4						
VRAC	**Vranov**	93.13	37	P	P	10 45 36.5	+0.6
VRAC				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MORC	**Moravsky Berou**	93.45	36	*e*P	P	10 45 37.7	+0.4
YAK	**Yakutsk**	94.56	340⇑	*e*P	P	10 45 42.3	+0.2
YAK				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.7						
VYHS	**Vyhne**	94.82	37	*e*P	P	10 45 44.6	+1.0
OBN	**Obninsk**	99.63	25	*e*P	P	10 46 04.7	-0.6
OBN				*e*		10 50 10.8	
OBN				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.3						
OBN				MLR	MLR		
	comp=Z,200nm,15.0s,MS4.7						
BVAR	**Borovoye Array**	111.05	8	PP	PP	10 51 32.4	-4.8
	comp=Z,3.1nm,0.9s,baz=342,slow=4.7,SNR=11						
BJI	**Beijing**	116.79	332	PKP	PKPdf	10 51 10.3	-0.1
BJI				LR	LR		
	comp=Z,143nm,28.6s,MS4.4						
WMQ	**Urumqi**	120.95	356	PKP	PKPdf	10 51 15.0	-3.4
WMQ				XPKP		10 51 32.3	
WMQ				PP	PP	10 52 48.0	+1.2
WMQ				PKS	PKS	10 54 50.4	+1.3
WMQ				LR	LR		
	comp=N,161nm,19.0s,MS4.8						
WMQ				LR	LR		
	comp=E,106nm,20.4s,MS4.8						
WMQ				LR	LR		
	comp=Z,145nm,20.1s,MS4.6						
SSE	**Sheshan**	120.97	322	*e*PKP	PKPdf	10 51 13.8	-5.0
NJ2	**Nanjing**	121.63	324	*e*PKP	PKPdf	10 51 16.4	-3.6
NJ2				XPKP		10 51 30.8	
NJ2				PP	PP	10 52 53.0	+1.2
NJ2				PKS	PKS	10 54 52.0	+1.3
NJ2				SKS	SKS	10 58 23.0	+3.4
NJ2				SKKS		10 59 36.0	
NJ2				PP	PP		
	comp=Z,360nm,8.6s						
NJ2				LR	LR		
	comp=Z,640nm,24.2s,MS5.2						
GTA	**Gaotai**	123.28	344	*e*PKP	PKPdf	10 51 18.9	-4.1
GTA				XPKP		10 51 35.4	
GTA				PKS	PKS	10 54 55.5	+1.8
GTA				SKS	SKS	10 58 25.9	+1.2
GTA				SKKS		10 59 48.1	
GTA				PP	PP		
	comp=Z,149nm,5.3s						
GTA				LR	LR		
	comp=N,175nm,17.5s,MS4.8						
GTA				LR	LR		
	comp=E,125nm,21.7s,MS4.8						
GTA				LR	LR		
	comp=Z,307nm,20.1s,MS5.0						
STKA	**Stephens Creek**	124.41	242	PKP	PKPdf	10 51 20.1	-5.3
	comp=Z,3.5nm,1.1s,baz=66,slow=4.7,SNR=6.3						
ENH	**Enshi**	127.92	331	*e*PKPdf	PKPdf	10 51 27.2	-5.1
WRA	**Warramunga Arr**	130.94	257	PKP	PKPdf	10 51 33.3	-5.0
	comp=Z,5.1nm,1.0s,baz=83,slow=1.3,SNR=16						
WRA	**Warramunga Arr**	130.94	257	PKIKP	PKPdf	10 51 33.3	-4.9
WRA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ASAR	**Alice Springs**	131.45	252	PKP	PKPdf	10 51 33.9	-5.3
	comp=Z,3.1nm,1.0s,baz=109,slow=2.0,SNR=15						
KMBO	**Kilima Mbogo**	132.78	77	PKP	PKPdf	10 51 39.0	-2.9
	comp=Z,0.5nm,0.5s,baz=241,slow=22,SNR=4.9						
KMBO	**Kilima Mbogo**	132.78	77	PKIKP	PKPdf	10 51 39.1	-2.8
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KMI	**Kunming**	135.37	334	*e*PKP	PKPdf	10 51 42.6	-3.8
KMI				SS	SS	11 12 10.0	-2.9
KMI				LR	LR		
	comp=N,71nm,28.0s,MS4.5						
KMI				LR	LR		
	comp=E,116nm,32.3s,MS4.5						
KMI				LR	LR		
	comp=Z,128nm,23.7s						
CMAR	**Chiang Mai Arr**	142.88	334	PKhKP		10 51 51.9	
	comp=Z,3.8nm,0.9s,baz=349,slow=3.8,SNR=14						
CMAR				PKP	PKPdf	10 51 55.8	-4.3
	comp=Z,3.4nm,0.9s,baz=333,slow=2.3,SNR=12						
CMAR				PP	PP	10 55 04.0	-4.2
	comp=Z,0.5nm,0.4s,baz=2.0,slow=7.9,SNR=4.1						
POO	**Poona**	145.16	15⇓	*i*P	PKPbc	10 51 57.0	-2.3
	comp=Z,70nm,1.0s						
OPO	**Ambohidratompo**	145.71	101	*e*PKPdf	PKPdf	10 52 01.9	-3.1
OPO				LR	LR		
	comp=Z,152µm,21.8s						
KAD	**Karad**	146.42	15	*e*P	PKPbc	10 52 02.0	-0.4
HYB	**Hyderabad**	147.15	8	*e*P	PKPdf	10 52 05.0	-2.5
HYB				*e*		10 52 13.0	
HYB	**Hyderabad**	147.15	8	*i* PKP	PKPdf	10 52 05.0	-2.5
	comp=Z,70nm,1.0s						

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*LDG **10** 10:45:17.6±0.2, 48.09N×8.02E, h10^{km}, Md2.3/1, Ml2.3/7, Error ellipse: s-maj=3.5km s-min=2.2km az=93.0*

*STR **10** 10:45:17.9±0.4, 48.06N×8.03E, h10^{km}±1^{km}, Ml2.0, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LEDBW **10** 10:45:17.9±0.1, 48.08N×8.05E, h12^{km}, ML2.1, Error ellipse: s-maj=1.0km s-min=0.6km az=126.0*

*BGR **10** 10:45:18.1±0.3, 48.09N×8.05E, h10^{km}, ML0.9/1, Error ellipse: s-maj=2.2km s-min=2.2km az=55.0*

ISC 10 10:45:17.0±0.3, **48.09N**±0.02×**8.02E**±0.02, **h14**^{km}±3^{km}, **n38, σ0^{s}79**/68, **5C, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
FBB	**Freiburg**	0.14	232	Sg	Sg	10 45 23.9	+0.5
KIZ	**Kirchzarten**	0.15	207⇑	*i*Pg	Pg	10 45 21.4	+0.5
KIZ				*i* Sg	Sg	10 45 23.9	+0.3
FELD	**Feldberg**	0.21	183⇑	*i*Pg	Pg	10 45 22.4	+0.5
FELD				Sg	Sg	10 45 25.4	+0.1
LIBD	**Limburg**	0.29	282	Sg	Sg	10 45 28.5	+1.1
BFO	**Black Forest**	0.32	41⇑	*i*Pg	Pg	10 45 24.2	+0.4
BFO				*i* Sg	Sg	10 45 28.4	+0.1
SLE	**Schleitheim**	0.45	135	*e*Pg	Pg	10 45 26.4	0.0
	SNR=8.8						
SLE				*e*Sg	Sg	10 45 32.3	-0.4
	SNR=7.0						
SPAK	**Spaichingen**	0.51	88	*i* Pg	Pg	10 45 27.7	+0.2
WLS	**Welschbruch**	0.55	306	Pg	Pg	10 45 29.3	+1.0
WLS				*e*Sg	Sg	10 45 36.4	+0.6
	SNR=10						
WLS	**Welschbruch**	0.55	306	Pg	Pg	10 45 28.9	+0.6
SULZ	**Sulz-Cheisache**	0.57	174	*e*Pg	Pg	10 45 28.6	+0.1
	SNR=1.7						
SULZ				*e*Sg	Sg	10 45 36.1	-0.2
	SNR=5.5						
ECH	**Echery**	0.59	283	Sg	Sg	10 45 37.7	+0.6
ECH	**Echery**	0.59	283	Pg	Pg	10 45 29.5	+0.5
ECH				Sg	Sg	10 45 37.4	+0.3
CDF	**Champ du Feu**	0.59	303	*e*Pg	Pg	10 45 29.7	+0.6
CDF				*e*Pn	Pn	10 45 30.3	-0.3
CDF				*e*Sg	Sg	10 45 36.4	-0.8
	11nm,0.2s						
CDF	**Champ du Feu**	0.59	303	*e*Pg	Pg	10 45 29.8	+0.7
	SNR=7.3						
CDF				*e*Sg	Sg	10 45 37.9	+0.7
	SNR=4.9						
MOF	**Molkenrain**	0.64	249	*e*Pg	Pg	10 45 30.7	+0.7
	SNR=2.2						
MOF				*e*Sg	Sg	10 45 39.4	+0.6
	SNR=2.6						
BBS	**Basel-Blauen**	0.71	209	Pg	Pg	10 45 31.6	+0.1
BBS				Sg	Sg	10 45 41.5	+0.3
GUT	**Gutenstein**	0.73	91⇑	*i*Pg	Pg	10 45 31.7	-0.2
GUT				*i* Sg	Sb	10 45 41.1	+0.6
GUT	**Gutenstein**	0.73	91⇑	*i*P	Pg	10 45 31.7	-0.2
GUT				P		10 45 32.5	
GUT				S	Sb	10 45 41.1	+0.6
GUT				S	Sb	10 45 42.3	+1.7
SISB	**Singen-Sch Ber**	0.75	122	Pg	Pg	10 45 32.1	-0.1
SISB				Sg	Sg	10 45 42.1	-0.3
SISB	**Singen-Sch Ber**	0.75	122	P	Pb	10 45 32.2	+1.0
SISB				S	Sg	10 45 42.1	-0.3
SISB				S	Sb	10 45 42.9	+1.8
LBG	**Lerchenberg**	0.77	42	Pg	Pg	10 45 32.5	-0.1
LBG				Sg	Sg	10 45 42.8	-0.3
LBG	**Lerchenberg**	0.77	42	P	Pb	10 45 32.5	+0.8
HINF	**Hinteralfeld**	0.83	251	*e*Pg	Pg	10 45 32.9	-0.9
HINF				*e*Pn	Pn	10 45 34.0	0.0
HINF				*e*Sg	Sg	10 45 43.5	-1.5
	6.5nm,0.2s						
HINF	**Hinteralfeld**	0.83	251	*e*Sg	Sg	10 45 44.9	-0.1
	SNR=3.4						
TUBL	**Tuebingen Lnz**	0.83	58	Sg	Sg	10 45 44.7	-0.2
TUBL	**Tuebingen Lnz**	0.83	58	S	Sb	10 45 44.6	+1.3
BOURR	**Bourrignon**	0.88	218	*e*Pg	Pg	10 45 34.8	+0.1
	SNR=4.5						
BOURR				*e*Sg	Sg	10 45 46.7	+0.2
	SNR=6.2						
BUCH	**Bad Urach**	0.96	67⇑	*i*Pg	Pg	10 45 36.0	-0.3
BUCH				Sg	Sg	10 45 48.9	-0.3
LOMF	**Lomont**	1.09	228	Pg	Pg	10 45 38.7	-0.2
LOMF				*e*Sg	Sg	10 45 53.3	-0.4
	SNR=1.8						
LOMF	**Lomont**	1.09	228	Pg	Pg	10 45 38.7	-0.2
LOMF				Sg	Sg	10 45 53.1	-0.5
HAU	**Haudompre**	1.12	266	*e*Pn	Pn	10 45 37.2	-1.0
HAU				*e*Pg	Pg	10 45 38.7	-0.9
HAU				*e*Sn	Sn	10 45 53.5	0.0
	9.8nm,0.2s						
HAU	**Haudompre**	1.12	266	*e*Pn	Pn	10 45 38.8	+0.6
	SNR=3.1						
HAU				*e*Sg	Sg	10 45 54.5	-0.2
	SNR=3.5						
UBR	**Uberruh**	1.46	105	Sg	Sg	10 46 04.2	-1.6
HDH	**Heidenheim**	1.54	70	Sg	Sg	10 46 06.7	-1.7
RFYF	**Reffroy**	1.78	289	*e*Sg	Sg	10 46 13.5	-2.9
	11nm,0.3s						
CABF	**La Chapelle**	1.98	222	*e*Pn	Pn	10 45 48.9	-1.5
CABF				*e*Sg	Sg	10 46 18.4	-4.6
	1.9nm,0.3s						
SFTF	**Sexfontaines**	2.00	274	*e*Pn	Pn	10 45 49.4	-1.4
SFTF				*e*Sg	Sg	10 46 19.9	-3.8
	3.9nm,0.2s						
MEZF	**Maizieres J'vi**	2.02	283	*e*Sg	Sg	10 46 20.4	-4.1
	1.7nm,0.2s						

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*NEIC **10** 10:49:29.9, 32.16N×115.86W, h6^{km}, ML3.3(PAS), After*

PAS.

ECX 10 10:49:30.0±0.7**,32.18N**×**115.81W,h1**^{km}±2^{km}**,MD3.4, ML3.5,11C-4D,California-Baja California border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RDX	**Rancho Dowling**	**0.27**	**206**	⇑*e*P	Pg	10 49 35.0	-0.4
RDX				*e*S	Sg	10 49 38.8	-0.2
RDX				⇑*e*		10 49 39.1	
	comp=E,8μm,0.2s						
RDX				⇓*e*		10 49 39.7	
	comp=N,6μm,0.2s						
SGL	**Mount Signal**	**0.48**	**9**	⇑*i*P	Pg	10 49 38.9	-0.7
YUH	**Yuha Desert**	**0.48**	**349**	⇑*i*P	Pg	10 49 38.8	-0.8
RMX	**La Rumorosa**	**0.48**	**332**	⇑*e*P	Pg	10 49 38.9	-0.7
RMX				*e*S	Sg	10 49 45.8	-0.2
RMX				⇓*e*		10 49 46.1	
	comp=N,3μm,0.2s						
CPBX	**Cerro Prieto**	**0.49**	**61**	⇑*e*P	Pg	10 49 38.9	-0.9
CPBX				*e*S	Sg	10 49 46.5	+0.1
CBX	**Cerro Bola**	**0.74**	**281**	*e*P	Pg	10 49 43.6	-1.1
CBX				*e*S	Sg	10 49 53.4	-1.1
ENX	**Ensenada**	**0.78**	**248**	⇑*e*P	Pg	10 49 44.3	-1.3
ENX				*e*S	Sg	10 49 54.8	-1.3
ENX				⇓*e*		10 49 55.8	
	comp=N,2μm,0.6s						
ENX				⇓*e*		10 49 55.8	
	comp=E,2μm,0.5s						
ECNX	**Esteban Cantu**	**0.85**	**232**	⇑*e*P	Pg	10 49 45.5	-1.3
ECNX				⇑*e*P		10 49 44.5	
ECNX				*e*S	Sg	10 49 55.2	-2.9
ECNX				*e*S	Sg	10 49 56.7	-1.4
BAR	**Barrett**	**0.89**	**305**	⇑*i*P	Pg	10 49 45.7	-1.9
BAR	**Barrett**	**0.89**	**305**	*e*P	Pg	10 49 45.7	-1.9
BAR				*e*S	Sg	10 49 56.1	-3.4
PBX	**Punta Banda**	**0.89**	**241**	⇑*e*P	Pg	10 49 46.2	-1.5
PBX				*e*S	Sg	10 49 58.2	-1.4
ECBX	**El Chinero**	**0.95**	**137**	*e*P	Pb	10 49 46.4	-2.5
ECBX				*e*S	Sg	10 50 00.1	-1.6
SPX	**San Pedro Mart**	**1.17**	**165**	*e*P	Pb	10 49 50.9	-1.7
SPX				*e*S	Sb	10 50 06.5	-1.5
PFO	**Pinyon Flat Ob**	**1.53**	**339**	*e*P	Pn	10 49 55.2	-3.3
MWC	**Mount Wilson**	**2.78**	**318**	Pn	Pn	10 50 11.2	-5.2
NEN	**Nelson**	**3.56**	**13**	Pn	Pn	10 50 24.0	-3.4
TUC	**Tucson**	**4.26**	**87**	Pn	Pn	10 50 33.6	-3.8
MVU	**Marysvale**	**6.96**	**24**	Pn	Pn	10 51 14.0	-1.6
MSU	**Marysvale**	**6.98**	**24**	Pn	Pn	10 51 11.4	-4.5

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*IDC **10** 10:54:02.6±0.9, 11.19S×42.82E, mb4.1/7, mb1 4.3/8, mb1mx4.0/22, ML4.5/1, Error ellipse: s-maj=32.5km s-min=24.7km az=77.0*

*NEIC **10** 10:54:04.1±0.5, 11.14S×42.80E, h10^{km}, mb4.6/4, Error ellipse: s-maj=13.7km s-min=10.3km az=91.0*

ISC 10 10:54:02.6±0.7**,11.09S**±0.08×**42.8E**±0.1**,h10**^{km}**,n17, σ0**^{s}**.73**/13**,mb4.2**/10**,Northwest of Madagascar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	**Kilima Mbogo**	**11.31**	**331**	Pn	**P**	**10 56 46.2**	**-1.2**
	3.2nm,0.3s,baz=147,slow=13,SNR=114						
KMBO				Sn	**S**	**10 58 50.1**	**-4.9**
	1.6nm,0.3s,baz=42,slow=22,SNR=2.7						
MBAR	**Mbarara**	**15.86**	**310**	*e*P	**P**	**10 57 48.1**	**+0.3**
	7.6nm,0.6s						
LBTB	**Lobatse**	**21.38**	**227**	*e*P	**P**	**10 58 53.1**	**+0.5**
	31nm,1.1s,mb4.5						
BOSA	**Boshof**	**23.94**	**221**	*e*P	**P**	**10 59 18.1**	**+0.2**
	26nm,1.2s,mb4.5						
SUR	**Sutherland**	**29.30**	**220**	P	**P**	**11 00 06.9**	**-0.6**
	3.5nm,0.6s,mb4.3,baz=63,slow=14,SNR=5.1						
ASF	**Jabal al Asfar**	**43.38**	**353**	P	**P**	**11 02 07.7**	**+0.7**
	3.7nm,0.9s,mb4.1,baz=172,slow=14,SNR=4.1						
MALT	**Malatya**	**49.31**	**355**	*e*P	**P**	**11 02 54.4**	**+0.5**
	4.8nm,0.9s,mb4.5						
BRTR	**Keskin Array B**	**51.26**	**351**	P	**P**	**11 03 08.8**	**+0.1**
	2.3nm,0.9s,mb4.1,baz=169,slow=6.3,SNR=7.7						
MLR	**Muntele Rosu**	**58.32**	**346**	P	**P**	**11 04 00.4**	**+0.2**
	1.1nm,0.4s,mb4.2,baz=142,slow=20,SNR=3.0						
CMAR	**Chiang Mai Arr**	**62.70**	**63**	P	**P**	**11 04 30.6**	**+0.3**
	1.7nm,0.8s,mb4.2,baz=258,slow=8.3,SNR=5.0						
ASAR	**Alice Springs**	**86.64**	**113**	P	**P**	**11 06 46.7**	**-1.6**
	0.7nm,0.9s,mb3.9,baz=256,slow=3.7,SNR=4.3						
WRA	**Warramunga Arr**	**87.73**	**110**	P	**P**	**11 06 54.1**	**+0.5**
	1.0nm,1.3s,mb3.9,baz=255,slow=2.2,SNR=3.3						
YKA	**Yellowknife Ar**	**126.15**	**347**	PKP	PKPdf	11 13 07.5	-0.7
	0.1nm,0.5s,baz=31,slow=2.0,SNR=3.9						
YKA	**Yellowknife Ar**	**126.15**	**347**	PKP	PKPdf	11 13 07.5	-0.7
TXAR	**Lajitas Array**	**143.84**	**305**	PKP	PKPdf	11 13 39.2	-2.5
	0.3nm,1.0s,baz=63,slow=2.0,SNR=2.4						
TXAR	**Lajitas Array**	**143.84**	**305**	PKP	PKPdf	11 13 39.2	-2.5
NVAR	**Mina Array Bea**	**147.94**	**331**	PKPbc	PKPdf	11 13 50.8	+2.3
	0.2nm,0.4s,baz=45,slow=2.6,SNR=2.3						

IDC 10 12:35:54.3±1.4**,14.59N**×**146.89E,mb3.5**/5**,mb1 3.7**/5**, mb1mx3.6**/19**,Error ellipse: s-maj=45.7km s-min=25.3km az=93.0,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**36.47**	**200**	P	P	12 43 00.1	-3.1
	1.0nm,0.8s,baz=21,slow=9.6,SNR=6.6						
ASAR	**Alice Springs**	**40.09**	**199**	P	P	12 43 33.1	-0.3
	0.3nm,0.8s,baz=16,slow=6.6,SNR=3.6						
CMAR	**Chiang Mai Arr**	**46.03**	**282**	P	P	12 44 19.4	-2.3
	0.5nm,0.8s,baz=82,slow=6.4,SNR=3.1						
SONM	**Songino Array**	**47.08**	**323**	P	P	12 44 28.9	-0.8
	0.6nm,0.6s,baz=144,slow=7.6,SNR=4.7						
YKA	**Yellowknife Ar**	**81.07**	**28**	P	P	12 48 11.0	-1.4
	0.2nm,0.5s,baz=286,slow=5.3,SNR=4.3						

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*PRU **10** 13:11:47.8, 50.33N×18.95E*

WAR 10 13:11:47.7,50.22N×**19.02E,h0**^{km}**,ML2.6,Mining Induced,Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.50**	**90**	*e*Pg	Pg	13 11 57.9	+0.2
OJC				*e*Sg	Sg	13 12 05.2	+0.7
OKC	**Ostrava-Krasne**	**0.68**	**236**	*e*PG	Pg	13 12 01.4	+0.1
OKC				*e*SG	Sg	13 12 11.0	+0.6
NIE	**Niedzica**	**1.17**	**133**	*e*Pg	Pg	13 12 11.1	+0.1
NIE				*e*Sg	Sg	13 12 27.9	+1.4
DPC	**Dobruska-Polom**	**1.73**	**275**	*e*PG	Pg	13 12 18.3	-4.0
DPC				*e*SG	Sg	13 12 42.1	-3.3
	13nm,0.2s						
KSP	**Ksiaz**	**1.84**	**291**	*e*PG	Pg	13 12 22.0	-2.5
KSP				*e*SG	Sg	13 12 46.0	-3.1
UPC	**Upice**	**1.94**	**280**	*e*SG	Sg	13 12 49.0	-3.4
PRU	**Pruhonice**	**2.89**	**267**	*e*SG	Sg	13 13 17.3	-6.6
	4.1nm,0.4s						
CLL	**Collm**	**3.97**	**288**	*e*SG	Sg	13 13 54.0	-5.8

IDC 10 13:15:44.5±1.1**,28.92N**×**131.99E,mb3.6**/4**,mb1 3.8**/4**, mb1mx3.6**/20**,MS2.5**/1**,Ms1 2.5**/1**,ms1mx2.3**/24**,Error ellipse: s-maj=38.5km s-min=24.0km az=105.0, Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOW	**Kunigami**	**3.89**	**239**	Pn	Pn	13 16 45.8	-1.1
JOW				Sn	Sn	13 17 31.3	-2.7
CBIJ	**Chichi jima**	**9.19**	**99**	LR	LR	13 21 14.6	
	comp=Z,30nm,19.7s,baz=117,slow=36						
WRA	**Warramunga Arr**	**48.63**	**177**	P	P	13 24 29.1	-3.1
	0.4nm,0.8s,baz=356,slow=8.6,SNR=3.3						
ASAR	**Alice Springs**	**52.31**	**178**	P	P	13 24 59.0	-1.2
	0.4nm,0.6s,baz=12,slow=13,SNR=7.5						
FINES	**FINESS Array B**	**72.16**	**331**	P	P	13 27 10.9	-1.7
	0.7nm,0.5s,baz=56,slow=6.9,SNR=4.5						
YKA	**Yellowknife Ar**	**74.67**	**26**	P	P	13 27 25.3	-1.8
	0.4nm,0.8s,baz=297,slow=5.7,SNR=5.1						

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*DJA **10** 13:26:34.9±0.9, 11.32S×107.17E, h33^{km}, mb6.2/4, Error ellipse: s-maj=104.0km s-min=18.7km az=158.0*

*IDC **10** 13:27:38.9±4.5, 6.58S×110.30E, h635^{km}±57^{km}, mb2.7/4, mb1 3.0/5, mb1mx2.8/15, Error ellipse: s-maj=144.0km s-min=19.0km az=52.0*

ISC 10 13:26:40.5±1.3**,9.1S**±0.2×**107.07E**±0.10**,h33**^{km}**,n11, σ1**^{s}**.25**/12**,mb3.8**/4**,1C-3D,South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	**Scrawed**	**7.01**	**86**	⇑*e*P	**P**	**13 28 24.3**	**+0.8**
	198nm,0.2s						
SRDI				*e*S	**S**	**13 29 47.9**	**+4.9**
KELI	**Kelakatan**	**7.39**	**84**	⇓*e*P	**P**	**13 28 29.1**	**+0.4**
	251nm,0.2s						
KELI				*e*S	**S**	**13 29 58.0**	**+5.7**
RATI	**Rata**	**8.37**	**88**	⇓*e*P	**P**	**13 28 41.3**	**-1.1**
	1μm,0.2s						
RATI				*e*S	**S**	**13 30 17.5**	**+0.8**
KEDI	**Kedomdong**	**8.96**	**87**	⇓*e*P	**P**	**13 28 47.6**	**-2.9**
	341nm,0.1s						
KEDI				*e*S	**S**	**13 30 27.0**	**-4.4**
FITZ	**Fitzroy Crossi**	**20.14**	**118**	P		13 31 29.1	
	0.5nm,0.3s,baz=340,slow=9.8,SNR=14						
WRA	**Warramunga Arr**	**28.47**	**115**	P	**P**	**13 32 32.7**	**-2.3**
	1.8nm,0.3s,mb4.1,baz=304,slow=9.0,SNR=13						
CMAR	**Chiang Mai Arr**	**28.51**	**344**	P	**P**	**13 32 35.6**	**+0.3**
	0.7nm,0.7s,mb3.5,baz=159,slow=7.7,SNR=4.2						
ASAR	**Alice Springs**	**29.47**	**123**	P	**P**	**13 32 44.3**	**+0.5**
	0.5nm,0.7s,mb3.4,baz=306,slow=8.5,SNR=3.7						
STKA	**Stephens Creek**	**39.23**	**130**	P	**P**	**13 34 09.0**	**+1.4**
	1.6nm,0.5s,mb4.0,baz=316,slow=13,SNR=5.1						
SONM	**Songino Array**	**56.66**	**359**	PcP	Px	13 36 57.2	
	0.7nm,0.5s,baz=177,slow=3.8,SNR=5.2						
YKA	**Yellowknife Ar**	**118.77**	**21**	PKP	PKPdf	13 45 09.6	-16
	0.1nm,0.3s,baz=319,slow=0.6,SNR=3.8						

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*JMA **10** 14:18:30.5±0.2, 24.83N×122.08E, h96^{km}, M2.7*

TAP 10 14:18:30.3,24.84N×**122.05E,h99**^{km}**,ML3.5,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.95**	**113**	P	P	14 18 49.9	-0.5
YOJ				S	S	14 19 04.8	-0.6
IRIF	**Iriomote-Funau**	**1.61**	**108**	P	P	14 18 57.9	-0.4
IRIF				S	S	14 19 18.3	-0.7
HATJ	**Hateruma jima**	**1.78**	**116**	*e*S	S	14 19 22.4	-0.4
JKRS	**Kuro-shima**	**1.88**	**108**	P	P	14 19 01.7	-0.1
JKRS				*e*S	S	14 19 24.5	-0.6
JIJ	**Ishigaki jima**	**1.96**	**104**	P	P	14 19 02.3	-0.5
JIJ				S	S	14 19 26.1	-0.8
JTJ	**Tarama**	**2.42**	**94**	P	P	14 19 09.0	-0.1
JTJ				*e*S	S	14 19 37.5	-0.5

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*IDC **10** 14:19:55.0±1.1, 28.94N×132.08E, mb3.5/5, mb1 3.7/6, mb1mx3.6/21, ML3.6/1, Error ellipse: s-maj=35.4km s-min=24.6km az=102.0*

*JMA **10** 14:19:58.2±0.2, 28.89N×132.06E, h67^{km}, M3.4*

ISC 10 14:19:57.7±0.6**,28.89N**±0.03×**132.04E**±0.05**,h33**^{km}**,n20, σ0**^{s}**.94**/33**,mb3.4**/5**,West of Bonin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**1.91**	**253**	P	**P**	**14 20 29.7**	**+1.3**
JZK				*e*S	**S**	**14 20 53.7**	**+2.2**
JTN	**Tanegashima 3**	**1.99**	**333**	P	**P**	**14 20 30.2**	**+0.7**
JTN				S	**S**	**14 20 53.7**	**+0.2**
JNN	**Nakanoshima**	**2.12**	**297**	P	**P**	**14 20 32.3**	**+1.0**
JNN				*e*S	**S**	**14 20 57.3**	**+0.5**
JAM	**Amami Oshima**	**2.19**	**258**	P	**P**	**14 20 32.8**	**+0.3**
JAM				*e*S	**S**	**14 20 59.0**	**+0.3**
JKC	**Kuchinoerabu**	**2.25**	**315**	P	**P**	**14 20 34.5**	**+1.3**
JTSR	**Tashiro 2**	**2.47**	**337**	P	**P**	**14 20 37.0**	**+0.6**
JTSR				S	**S**	**14 21 05.2**	**-0.5**
JNAR	**Kushima--Naru**	**2.71**	**346**	P	**P**	**14 20 40.5**	**+0.6**
JNAR				S	**S**	**14 21 11.1**	**-0.8**
JTK	**Tokunoshima**	**2.94**	**249**	P	**P**	**14 20 43.1**	**0.0**
JTK				*e*S	**S**	**14 21 17.3**	**-0.3**
JTZ	**Takazaki**	**3.12**	**345**	P	**P**	**14 20 46.3**	**+0.7**
JTZ				S	**S**	**14 21 21.0**	**-1.1**
JMZ	**Minamidaito 2**	**3.14**	**194**	P	**P**	**14 20 45.6**	**-0.4**
JMZ				*e*S	**S**	**14 21 18.4**	**-4.4**
JSJ	**Shimokoshiki**	**3.43**	**325**	P	**P**	**14 20 50.0**	**-0.1**
JSJ				*e*S	**S**	**14 21 28.9**	**-1.3**
JOW	**Kunigami**	**3.92**	**239**	Pn	**Pn**	**14 20 56.0**	**-1.1**
	7.4nm,0.3s,baz=106,slow=20,SNR=14						
JOW				Sn	**Sn**	**14 21 41.0**	**-1.5**
	6.8nm,0.3s,baz=295,slow=27,SNR=8.1						
JOW	**Kunigami**	**3.92**	**239**	P	**P**	**14 20 56.2**	**-0.7**
JOW				*e*S	**S**	**14 21 40.3**	**-2.1**
JTO	**Tosashimizu**	**4.01**	**9**	P	**P**	**14 20 57.0**	**-1.3**
JTO				*e*S	**S**	**14 21 38.8**	**-6.1**
JMN	**Monobe**	**5.07**	**18**	P	**P**	**14 21 12.7**	**-0.7**
SONM	**Songino Array**	**27.41**	**321**	P	**P**	**14 25 42.6**	**+0.5**
	0.3nm,0.8s,mb2.9,baz=124,slow=5.2,SNR=2.7						
ASAR	**Alice Springs**	**52.28**	**178**	P	**P**	**14 29 09.0**	**+0.8**
	0.4nm,0.6s,mb3.5,baz=9.3,slow=13,SNR=8.9						
ILAR	**Eielson Array**	**60.49**	**29**	P	**P**	**14 30 05.8**	**-0.6**
	0.7nm,1.0s,mb3.7,baz=257,slow=5.9,SNR=6.7						
FINES	**FINESS Array B**	**72.21**	**331**	P	**P**	**14 31 21.4**	**+0.7**
	1.3nm,0.8s,mb3.9,baz=76,slow=7.9,SNR=5.5						
YKA	**Yellowknife Ar**	**74.68**	**26**	P	**P**	**14 31 35.7**	**+0.6**
	0.2nm,0.6s,mb3.2,baz=298,slow=5.0,SNR=5.0						

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*IDC **10** 15:04:08.8±1.8, 49.28S×121.52E, mb3.8/5, mb1 4.1/6, mb1mx4.0/11, ML2.2/1, MS3.4/5, Ms1 3.4/5, ms1mx3.0/16, Error ellipse: s-maj=66.3km s-min=24.1km az=92.0*

*NEIC **10** 15:04:09.9±0.6, 49.32S×121.50E, h10^{km}, mb4.3/3, Error ellipse: s-maj=27.2km s-min=9.7km az=101.0*

ISC 10 15:04:08.2±0.7**,49.31S**±0.08×**121.5E**±0.3**,h10**^{km}**,n17, σ0**^{s}**.72**/14**,mb3.7**/7**,MS3.3**/5**,4C,Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	**16.67**	**348**	Pn	**P**	**15 08 03.7**	**+0.3**
	0.4nm,0.3s,baz=150,slow=12,SNR=3.8						
STKA	**Stephens Creek**	**23.06**	**48**	P	**P**	**15 09 15.3**	**+0.7**
	2.0nm,0.8s,mb3.6,baz=221,slow=11,SNR=5.1						
STKA				LR	LR	15 17 03.1	
	comp=Z,109nm,18.6s,MS3.3,baz=206,slow=34						
STKA	**Stephens Creek**	**23.06**	**48**	P	**P**	**15 09 15.3**	**+0.7**
STKA				LR	LR	15 17 03.1	
ASAR	**Alice Springs**	**27.41**	**25**	P	**P**	**15 09 55.9**	**0.0**
	1.5nm,0.8s,mb3.6,baz=202,slow=8.2,SNR=14						
ASAR				LR	LR	15 19 07.6	
	comp=Z,104nm,19.7s,MS3.4,baz=170,slow=33						
WRA	**Warramunga Arr**	**31.07**	**24**	P	**P**	**15 10 27.7**	**-0.9**
	1.5nm,1.1s,mb3.7,baz=200,slow=8.0,SNR=5.9						
FITZ	**Fitzroy Crossi**	**31.31**	**8**	P	**P**	**15 10 30.6**	**-0.2**
	1.4nm,0.7s,mb3.9,baz=175,slow=10,SNR=3.4						
VNDA	**Vanda**	**32.18**	**165**	P	**P**	**15 10 37.9**	**+0.1**
	0.9nm,0.8s,mb3.6,baz=302,slow=8.2,SNR=5.5						
VNDA				LR	LR	15 22 36.8	
	comp=Z,110nm,18.5s,MS3.6,baz=328,slow=34						
VNDA	**Vanda**	**32.18**	**165**	*e*P	**P**	**15 10 37.4**	**-0.4**
	1.3nm,0.8s,mb3.8						
MAW	**Mawson**	**34.00**	**216**	LR	LR	15 22 11.5	
	comp=Z,21nm,20.5s,MS2.9,baz=247,slow=32						
CTA	**Charters Tower**	**35.26**	**43**	LR	LR	15 25 01.7	
	comp=Z,71nm,18.3s,MS3.5,baz=310,slow=36						
QSPA	**South Pole Qui**	**40.81**	**180**	*e*P	**P**	**15 11 50.7**	**-0.2**
	4.4nm,0.6s,mb4.3						
SNAA	**Sanae**	**53.09**	**199**	⇑*i*	**P**	**15 13 32.1**	**+4.8**
SNAA	**Sanae**	**53.09**	**199**	⇑*i*P	**P**	**15 13 24.9**	**-2.5**
	0.4nm,1.0s,mb3.3						
VNA2	**Neumayer--Watz**	**54.62**	**198**	⇑*i*	**P**	**15 13 39.4**	**+0.9**
VNA3	**Neumayer Olymp**	**54.82**	**197**		**P**	**15 13 40.7**	**+0.7**
VNA3	**Neumayer Olymp**	**54.82**	**197**	⇑*i*	**P**	**15 13 47.4**	**+7.4**
YKA	**Yellowknife Ar**	**147.06**	**45**	PKPbc	PKPdf	15 23 51.3	+0.4
	0.8nm,0.6s,baz=270,slow=2.8,SNR=20						

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*BJI **10** 15:43:25.6, 9.74N×126.17E, h64^{km}, mB4.9, mb4.6, Ms4.2, Msz3.8*

*IDC **10** 15:43:27.2±3.0, 10.04N×126.18E, h36^{km}±22^{km}, mb3.9/15, mb1 4.0/15, mb1mx3.9/22, MS3.6/2, Ms1 3.7/2, ms1mx2.8/28, Error ellipse: s-maj=33.4km s-min=14.1km az=71.0*

*NEIC **10** 15:43:28.1±7.1, 10.02N×126.24E, h46^{km}±67^{km}, mb4.4/5, Error ellipse: s-maj=28.4km s-min=11.5km az=67.0*

ISC 10 15:43:27.8±0.9**,10.04N**±0.04×**126.34E**±0.07**,h58**^{km}±8^{km}**, n42,σ1**^{s}**.29**/54**,mb4.2**/22**,MS3.6**/2**,2C-3D,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	**Surigao**	**0.87**	**253**	*e*P	**P**	**15 43 41.7**	**-2.5**
SCPH				*e*S	**S**	**15 43 54.3**	**-2.2**
BUTP	**Butuan**	**1.27**	**214**	*e*P	**P**	**15 43 47.9**	**-1.9**
BUTP				*e*S	**S**	**15 44 08.4**	**+2.3**
MSLP	**Maasin**	**1.46**	**274**	*e*P	**P**	**15 43 51.6**	**-0.7**
MSLP				*e*S	**S**	**15 44 09.7**	**-0.9**
BESP	**Borongan**	**1.79**	**330**	*e*P	**P**	**15 43 57.8**	**+0.9**
BESP				*e*S	**S**	**15 44 25.5**	**+7.0**
BIPH	**Bislig**	**1.84**	**179**	⇑*e*P	**P**	**15 43 55.5**	**-2.1**
BIPH				*e*S	**S**	**15 44 18.4**	**-1.3**
OCLP	**Ormoc**	**1.98**	**301**	*e*P	**P**	**15 44 00.9**	**+1.4**
LLP	**Lapu-Lapu**	**2.35**	**277**	⇓*e*P	**P**	**15 44 05.3**	**+0.4**
LLP				*e*S	**S**	**15 44 34.9**	**+2.4**
TBP	**Tagbilaran**	**2.46**	**262**	*e*P	**P**	**15 44 06.3**	**-0.1**
TBP				*e*S	**S**	**15 44 32.6**	**-2.8**
BUKP	**Musuan**	**2.49**	**211**	*e*P	**P**	**15 44 07.2**	**+0.4**
BUKP				*e*S	**S**	**15 44 39.8**	**+3.8**
CNP	**Catarman**	**2.96**	**326**	*e*P	**P**	**15 44 09.7**	**-3.7**
CNP				*e*S	**S**	**15 44 48.2**	**+0.4**
MATI	**Mati**	**3.07**	**181**	*e*P	**P**	**15 44 19.2**	**+4.2**
MATI				*e*S	**S**	**15 44 53.9**	**+3.2**
KCP	**Kidapawan**	**3.25**	**202**	⇓*e*P	**P**	**15 44 19.4**	**+1.8**
KCP				*i* S	**S**	**15 44 56.0**	**+0.7**
DCPH	**Dipolog City**	**3.28**	**244**	⇓*e*P	**P**	**15 44 18.4**	**+0.4**
PAGZ	**Pagadian**	**3.64**	**234**	*e*P	**P**	**15 44 23.3**	**+0.3**
GUIM	**Jordan**	**3.73**	**279**	*e*P	**P**	**15 44 25.4**	**+1.0**
GUIM				*e*S	**S**	**15 45 08.4**	**+1.0**
RCP	**Roxas**	**3.84**	**294**	⇑*e*P	**P**	**15 44 26.8**	**+1.0**
TGY	**Tagaytay City**	**6.65**	**308**	LR	LR	15 47 57.6	
	comp=Z,688nm,18.1s,baz=131,slow=41						
KAKA	**Kakadu**	**23.38**	**165**	*e*P	**P**	**15 48 30.6**	**-1.6**
	10nm,0.6s,mb4.4						
CMAR	**Chiang Mai Arr**	**27.81**	**291**	P	**P**	**15 49 12.4**	**-1.5**
	3.0nm,1.0s,mb3.9,baz=96,slow=7.7,SNR=12						
CMAR				LR	LR	15 59 23.9	
	comp=Z,75nm,18.0s,MS3.3,baz=282,slow=35						
FITZ	**Fitzroy Crossi**	**27.97**	**181**	*e*P	**P**	**15 49 15.4**	**+0.1**
	3.6nm,1.1s,mb3.9						
FITZ	**Fitzroy Crossi**	**27.97**	**181**	P	**P**	**15 49 15.4**	**+0.1**
	1.5nm,0.4s,mb4.0,baz=11,slow=13,SNR=6.5						
XAN	**Xi'an**	**28.74**	**329**	P	**P**	**15 49 20.0**	**-2.0**
XAN				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
WRA	**Warramunga Arr**	**30.81**	**165**	P	**P**	**15 49 37.7**	**-2.9**
	comp=Z,1.2nm,1.1s,mb3.6,baz=344,slow=9.4,SNR=3.7						
WB2	**Warramunga Arr**	**30.82**	**165**	*e*P	**P**	**15 49 40.9**	**+0.3**
HHC	**Hu-ho-hao-te**	**33.36**	**339**	*e*P	**P**	**15 50 03.1**	**+0.5**
HHC				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,98nm,6.3s						
ASAR	**Alice Springs**	**34.30**	**168**	P	**P**	**15 50 10.0**	**-0.8**
	comp=Z,0.5nm,0.5s,mb3.7,baz=353,slow=6.8,SNR=18						
ASAR				ScP		15 56 27.4	
	comp=Z,0.9nm,1.1s,baz=355,slow=4.8,SNR=4.7						
CTA	**Charters Tower**	**35.78**	**147**	P	**P**	**15 50 23.9**	**+0.4**
	comp=Z,2.7nm,0.7s,mb4.3,baz=333,slow=9.0,SNR=5.4						
GTA	**Gaotai**	**37.61**	**325**	*e*P	**P**	**15 50 38.5**	**-0.2**
GTA				S	**S**	**15 56 16.4**	**-7.2**
GTA				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb4.1						
GTA				LR	LR		
	comp=N,179nm,15.6s,MS4.1						
GTA				LR	LR		
	comp=E,154nm,14.4s,MS4.1						
GTA				LR	LR		
	comp=Z,120nm,15.6s,MS3.8						
FORT	**Forrest**	**40.61**	**178**	*e*P	**P**	**15 51 04.9**	**+1.2**
	comp=Z,26nm,0.5s,mb5.1						
ULN	**Ulaanbaatar**	**41.06**	**340**	*e*P	**P**	**15 51 07.7**	**+0.5**
	comp=Z,4.6nm,0.9s,mb4.1						
SONM	**Songino Array**	**41.26**	**340**	P	**P**	**15 51 09.3**	**+0.5**
	comp=Z,1.7nm,0.6s,mb3.8,baz=159,slow=9.5,SNR=13						
SONM				ScP		15 56 55.6	
	comp=Z,0.9nm,0.8s,baz=162,slow=3.9,SNR=6.4						
MUN	**Mundaring**	**42.88**	**193**	*e*P	**P**	**15 51 23.3**	**+0.9**
	comp=Z,4.5nm,0.5s,mb4.5						
NWAO	**Narrogin (SRO)**	**43.59**	**191**	P	**P**	**15 51 27.8**	**-0.4**
	comp=Z,8.6nm,0.8s,mb4.6,baz=303,slow=15,SNR=7.1						
ZAL	**Zalesovo**	**54.87**	**331**	P	**P**	**15 52 52.9**	**-1.6**
	comp=Z,1.0nm,0.4s,mb4.2,baz=350,slow=5.6,SNR=4.8						
BVAR	**Borovoye Array**	**61.89**	**325**	P	**P**	**15 53 42.0**	**-1.5**
	comp=Z,1.5nm,0.8s,mb4.2,baz=124,slow=5.3,SNR=8.3						
ILAR	**Eielson Array**	**79.62**	**26**	P	**P**	**15 55 30.6**	**+0.5**
	comp=Z,0.4nm,0.7s,mb3.5,baz=238,slow=6.0,SNR=4.8						
ARCES	**ARCESS Array B**	**84.44**	**340**	P	**P**	**15 55 55.5**	**+0.5**
	comp=Z,4.2nm,1.0s,mb4.5,baz=82,slow=6.4,SNR=3.1						
BRTR	**Keskin Array B**	**85.73**	**309**	P	**P**	**15 56 01.6**	**-0.4**
	comp=Z,0.8nm,0.6s,mb4.1,baz=149,slow=8.2,SNR=3.6						
FINES	**FINESS Array B**	**86.13**	**332**	P	**P**	**15 56 03.2**	**-0.2**
	comp=Z,1.2nm,0.6s,mb4.3,baz=90,slow=5.7,SNR=11						
YKA	**Yellowknife Ar**	**93.94**	**24**	P	**P**	**15 56 42.3**	**+2.2**
	comp=Z,0.3nm,0.6s,mb3.9,baz=301,slow=4.5,SNR=5.7						
YKA	**Yellowknife Ar**	**93.94**	**24**	P	**P**	**15 56 42.3**	**+2.2**
GERES	**GERESS Array B**	**96.92**	**322**	P	**P**	**15 56 54.3**	**+0.3**
	comp=Z,0.2nm,0.4s,mb3.9,baz=68,slow=7.2,SNR=3.8						

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*JMA **10** 15:54:56.3±0.2, 24.65N×122.31E, h83^{km}, M2.1*

TAP 10 15:54:55.9,24.65N×**122.25E,h78**^{km}±1^{km}**,ML3.1, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.72**	**105**	P	P	15 55 11.9	+0.1
YOJ				S	S	15 55 23.6	-0.1
IRIF	**Iriomote-Funau**	**1.38**	**103**	P	P	15 55 19.6	-0.6
IRIF				*e*S	S	15 55 37.3	-0.8
JKRS	**Kuro-shima**	**1.66**	**104**	P	P	15 55 23.7	0.0
JKRS				*e*S	S	15 55 44.1	-0.1
JIJ	**Ishigaki jima**	**1.75**	**99**	P	P	15 55 24.4	-0.5
JIJ				S	S	15 55 45.4	-0.9
JTJ	**Tarama**	**2.23**	**90**	P	P	15 55 31.6	0.0
JTJ				*e*S	S	15 55 57.9	-0.1

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*BJI **10** 16:07:33.8, 6.40S×130.16E, h41^{km}, mb4.2*

*NEIC **10** 16:07:34.5±0.4, 5.74S×130.85E, h20^{km}, mb4.3/9, Error ellipse: s-maj=17.2km s-min=6.4km az=75.0*

*IDC **10** 16:07:48.4±8.2, 5.80S×130.71E, h142^{km}±84^{km}, mb3.9/7, mb1 4.2/11, mb1mx4.1/16, MS3.3/1, Ms1 3.3/1, ms1mx2.5/19, Error ellipse: s-maj=29.0km s-min=20.2km az=65.0*

ISC 10 16:07:40.0±1.7**,5.99S**±0.06×**130.70E**±0.07**,h92**^{km}±18^{km}**, n37,σ1**^{s}**.12**/46**,mb4.6**/17**,1D,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.90**	**166**	⇓*i*P	**P**	**16 09 22.1**	**+1.8**
	83nm,0.2s						
KAKA				*e*S	**S**	**16 10 37.6**	**-0.2**
FITZ	**Fitzroy Crossi**	**13.01**	**202**	*e*P	**P**	**16 10 41.2**	**-1.4**
	13nm,0.2s						
FITZ				*e*S	**S**	**16 12 59.1**	**-6.4**
FITZ	**Fitzroy Crossi**	**13.01**	**202**	P	**P**	**16 10 41.3**	**-1.3**
	10nm,0.3s,baz=26,slow=9.6,SNR=69						
FITZ				S	**S**	**16 13 03.3**	**-2.2**
	7.6nm,0.3s,baz=1.1,slow=20,SNR=7.0						
WRAB	**Tennant Creek**	**14.31**	**166**	*e*Pn	**P**	**16 10 57.4**	**-2.0**
	35nm,0.4s						
WRAB				*e*Sn	**S**	**16 13 30.0**	**-6.2**
WRA	**Warramunga Arr**	**14.31**	**166**	P	**P**	**16 10 58.8**	**-0.7**
	2.4nm,0.3s,baz=346,slow=13,SNR=110						
WRA				S	**S**	**16 13 30.0**	**-6.4**
	8.2nm,0.3s,baz=349,slow=21,SNR=8.5						
WB2	**Warramunga Arr**	**14.32**	**166**	*e*P	**P**	**16 10 58.1**	**-1.5**
WB2				*e*S	**S**	**16 13 31.1**	**-5.3**
PMG	**Port Moresby**	**16.66**	**103**	P	**P**	**16 11 33.9**	**+4.6**
	0.7nm,0.3s,baz=281,slow=7.8,SNR=8.7						
PMG				S	**S**	**16 14 29.4**	**-0.9**
	0.7nm,0.3s,baz=194,slow=23,SNR=5.8						
PMG	**Port Moresby**	**16.66**	**103**	*e*P	**P**	**16 11 30.2**	**+1.0**
	13nm,0.9s						
PMG				S	**S**	**16 14 29.4**	**-0.9**
ASAR	**Alice Springs**	**17.84**	**170**	P	**P**	**16 11 45.6**	**+1.8**
	5.1nm,0.3s,baz=348,slow=9.1,SNR=281						
ASAR				S	**S**	**16 14 57.0**	**+0.4**
	2.9nm,0.3s,baz=358,slow=28,SNR=8.8						
ASPA	**Alice Springs**	**17.84**	**170**	*e*P	**P**	**16 11 45.5**	**+1.6**
ASPA				*e*S	**S**	**16 14 55.6**	**-1.0**
MBWA	**Marble Bar**	**18.45**	**214**	*e*P	**P**	**16 11 52.5**	**+1.6**
CTA	**Charters Tower**	**20.61**	**134**	*e*P	**P**	**16 12 18.3**	**+4.3**
	3.7nm,0.8s						
CTA	**Charters Tower**	**20.61**	**134**	P	**P**	**16 12 17.8**	**+3.8**

	5.6nm,0.8s,baz=304,slow=11,SNR=6.5						
CTAO	Charters Tower	20.61	134	P	P	16 12 13.6	-0.4
	15nm,1.2s						
FORT	Forrest	24.79	185	eP	P	16 12 58.2	+3.4
	29nm,0.5s,mb5.0						
STKA	Stephens Creek	27.70	160	eP	P	16 13 24.5	+2.8
	4.5nm,0.3s,mb4.5						
STKA				eS		16 18 44.5	
STKA	Stephens Creek	27.70	160	P	P	16 13 24.7	+3.0
	5.9nm,0.3s,mb4.5,baz=336,slow=8.4,SNR=45						
STKA				LR	LR	16 25 28.6	
	comp=Z,64nm,19.0s,baz=26,slow=38						
NWAO	Narrogin (SRO)	29.59	203	P	P	16 13 42.0	+3.4
	9.3nm,1.1s,mb4.3,baz=32,slow=12,SNR=4.1						
CMAR	Chiang Mai Arr	39.63	308	P	P	16 15 05.0	+0.5
	2.5nm,0.6s,mb4.2,baz=136,slow=6.8,SNR=21						
ENH	Enshi	41.39	332	eP	P	16 15 18.1	-0.7
	5.7nm,0.7s,mb4.5						
GTA	Gaotai	53.43	330	eP	P	16 16 53.1	+0.2
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.5						
GUN	Gumba	54.82	310	eP	P	16 17 02.8	-0.4
	comp=Z,33nm,0.5s,mb5.6						
PKI	Pulchoki	55.01	310	eP	P	16 17 03.8	-0.7
	comp=Z,5.2nm,0.3s,mb5.1						
KKN	Kakani	55.22	310	eP	P	16 17 05.4	-0.6
	comp=Z,11nm,0.5s,mb5.2						
DMN	Daman	55.26	310	eP	P	16 17 05.9	-0.4
	comp=Z,11nm,0.3s,mb5.4						
GKN	Gorkha	55.82	310	eP	P	16 17 09.8	-0.5
	comp=Z,29nm,0.3s						
KOLN	Koldanda	56.50	309	eP	P	16 17 14.8	-0.4
	comp=Z,18nm,0.5s,mb5.4						
ULN	Ulaanbaatar	57.53	341	eP	P	16 17 22.2	+0.1
	comp=Z,2.6nm,0.6s,mb4.4						
SONM	Songino Array	57.71	341	P	P	16 17 23.7	+0.3
	comp=Z,3.0nm,0.7s,mb4.4,baz=165,slow=6.5,SNR=28						
SDNR	Sundarnagar	63.34	310	eP	pP	16 18 18.2	-7.1
UCH	Uchtor	70.02	319	eP	P	16 18 45.1	+1.2
AAK	Ala-Archa	70.22	319	eP	P	16 18 45.1	0.0
	comp=Z,1.1nm,0.4s,mb4.0						
ZAL	Zalesovo	70.99	333	P	P	16 18 49.7	+0.1
	comp=Z,1.4nm,0.3s,mb4.2,baz=339,slow=4.1,SNR=7.6						
ZAL	Zalesovo	70.99	333	P	P	16 18 49.7	+0.1
CHKZ	Chkalovo	77.77	328	eP	P	16 19 28.4	-0.2
	comp=Z,1.4nm,0.6s,mb3.9						
QSPA	South Pole Qui	83.98	180	eP	P	16 20 04.0	+3.3
ILAR	Eielson Array	92.14	25	P	P	16 20 39.8	-0.3
	comp=Z,0.3nm,0.8s,mb3.6,baz=285,slow=4.4,SNR=4.8						

IDC 10 16:18:09.0±2.4, 15.59S×176.14W, mb4.2/4, mb1 4.5/4, mb1mx4.0/14, Error ellipse: s-maj=176.0km s-min=29.5km az=149.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	41.66	239	P	P	16 25 59.5	-1.6
	1.4nm,0.7s,baz=78,slow=8.8,SNR=4.1						
WB2	Warramunga Arr	47.22	257	eP	P	16 26 43.9	-2.0
WRA	Warramunga Arr	47.23	257	P	P	16 26 44.1	-1.9
	1.8nm,0.5s,baz=92,slow=7.2,SNR=37						
ASAR	Alice Springs	47.54	252	P	P	16 26 46.5	-1.9
	6.4nm,0.4s,baz=89,slow=7.7,SNR=325						
ASPA	Alice Springs	47.55	252	eP	P	16 26 46.5	-2.0
NVAR	Mina Array Bea	76.25	43	P	P	16 30 00.0	-1.4
	1.0nm,0.9s,baz=231,slow=7.9,SNR=4.1						

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*HEL **10** 16:31:59.2±0.4, 67.13N×20.33E, ML2.0, Explosion*

*IDC **10** 16:32:01.9±0.9, 67.05N×21.19E, mb1 3.1/4, mb1mx3.0/19, ML2.4/4, Error ellipse: s-maj=18.8km s-min=8.8km az=112.0*

ISC 10 16:31:59.9±0.5, 67.01N±0.03×20.77E±0.09, n14, σ1^{s}18/21, Sweden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTK1	Kautokeino	2.21	24	eP	Pn	16 32 38.5	+0.2
SGF	Sodankyl	2.28	76	eP	Pn	16 32 39.5	+0.2
SGF				eS	Sn	16 33 10.2	+1.7
MOR8	Moi Rana	2.67	254	e	Sn	16 33 20.0	+1.8
TRO	Tromso	2.72	346	eP	Pn	16 32 46.9	+1.3
OUL	Oulu	2.85	130	eP	Pn	16 32 49.1	+1.7
OUL				MSG		16 33 38.7	
	comp=Z,3.8nm,0.2s						
LOF	Lofoten	2.99	295	e	Sg	16 33 38.8	-0.7
ARCES	ARCESS Array B	3.09	33	Pn	Pn	16 32 49.8	-1.0
	comp=Z,0.4nm,0.3s,baz=212,slow=14,SNR=29						
ARCES				Sn	Sn	16 33 28.6	-0.4
	comp=Z,0.8nm,0.3s,baz=215,slow=24,SNR=9.1						
MSF	Maaselka	3.50	105	eP	Pn	16 32 57.6	+1.0
KEV	Kevo	3.59	37	eP	Pn	16 32 56.2	-1.8
KEV				eS	Sn	16 33 38.7	-3.1
KEV				MSG		16 33 56.0	
	comp=Z,3.4nm,0.2s						
KJN	Kajaani	4.12	132	eP	Pn	16 33 06.6	+1.1
KJN				eS	Sn	16 33 55.3	+0.3
SUF	Sumiainen	4.88	149	eP	Pn	16 33 16.9	+0.7
SUF				eS	Sn	16 34 12.7	-1.7
FINES	FINESS Array B	6.05	155	Pn	Pn	16 33 32.0	-0.8
	comp=Z,0.1nm,0.3s,baz=339,slow=13,SNR=7.2						
FINES				Sn	Sn	16 34 42.3	-1.4
	comp=Z,0.2nm,0.3s,baz=347,slow=24,SNR=5.5						
NOA	NORSAR Array B	7.31	219	Pn	Pn	16 33 50.5	0.0
	comp=Z,0.1nm,0.3s,baz=49,slow=17,SNR=3.1						
NOA				Sn	Sn	16 35 07.6	-7.6
	comp=Z,0.1nm,0.3s,baz=151,slow=21,SNR=2.4						
HFS	Hagfors	7.59	208	Pn	Pn	16 33 53.3	-1.1
	comp=Z,0.0nm,0.3s,baz=28,slow=12,SNR=7.0						

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*NEIC **10** 16:52:31.2, 32.59S×71.61W, h26^{km}, ML3.2(GUC), After GUC.*

GUC 10 16:52:31.2±0.7, 32.59S×71.61W, h26^{km}±4^{km}, MD4.1, ML3.2, 2C-2D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	Papudo	0.16	69	⇓iP	Pb	16 52 37.0	+0.5
PACH				i S	Sb	16 52 40.8	+0.7
IHA	Instituto Hidr	0.43	183	⇑iP	Pb	16 52 39.9	-0.4
IHA				i S	Sb	16 52 46.7	+0.2
ROCH	El Roble	0.63	127	eP	Pb	16 52 43.3	-0.3
ROCH				i S	Sb	16 52 52.8	+0.7
JACH	Jahuel	0.86	96	⇑iP	Pb	16 52 47.1	-0.4
JACH				i S	Sb	16 52 58.6	0.0
LCCH	Las Cruces	0.88	178	eP	Pb	16 52 46.9	-0.8
RCDM	Rinconada Maip	1.12	143	eP	Pn	16 52 51.2	-0.2
RCDM				i S	Sb	16 53 06.1	+0.1
RCDM				AMP		16 53 11.3	
	comp=E,1µm,0.1s						
STL	Santa Lucia	1.17	136	eP	Pn	16 52 51.8	-0.3
STL				i S	Sn	16 53 07.5	+0.2
STL				AMP		16 53 08.8	
	comp=N,449nm,0.3s						
TACH	Talagante	1.20	152	eP	Pn	16 52 52.0	-0.5
CLCH	Cerro Calan	1.21	132	eP	Pn	16 52 52.4	-0.2
CLCH				i S	Sn	16 53 08.7	+0.4
CLCH				AMP		16 53 11.9	
	comp=E,737nm,0.4s						
FCH	Farellones	1.33	124	⇓iP	Pn	16 52 54.4	0.0
FCH				i S	Sn	16 53 13.2	+1.8
FCH				AMP		16 53 14.0	
	comp=N,1000nm,0.2s						
LNV	Longovilo	1.37	173	eP	Pn	16 52 54.0	-0.9
LNV				i S	Sn	16 53 11.6	-0.7
PCH	Pirque	1.38	138	eP	Pn	16 52 55.3	+0.2
PCH				i S	Sn	16 53 13.4	+0.8
CHCH	Chadas Angostu	1.56	149	eP	Pn	16 52 58.5	+0.8
CHCH				i S	Sn	16 53 18.6	+1.4
LMEL	Las Melosas	1.72	137	eP	Pn	16 53 00.2	+0.3
LMEL				i S	Sn	16 53 23.3	+2.0
LMEL				AMP		16 53 28.5	
	comp=N,834nm,0.1s						
CACH	El Canelo	1.74	151	eP	Pn	16 53 01.6	+1.3
SFDO	San Fernando	2.08	166	eP	Pn	16 53 06.0	+0.9

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*STR **10** 16:56:17.5±0.8, 45.90N×2.82E, h10^{km}±1^{km}, Ml2.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 10 16:56:16.0±0.1, 45.91N×2.72E, h2^{km}, Md2.3/3, Ml2.3/18, Error ellipse: s-maj=1.0km s-min=0.8km az=105.0, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AGO	Saint Agoulin	0.32	64	Pg	Pg	16 56 23.2	+0.8
AGO				Sg	Sg	16 56 27.4	+0.7
TCF	Toulx Ste Croi	0.52	317	ePg	Pg	16 56 26.0	-0.3
TCF				eSg	Sg	16 56 32.5	-0.7
	11nm,0.2s						
PLDF	La Plantade	0.64	84	Pg	Pg	16 56 29.6	+0.9
BGF	Bois d'Agland	0.65	8	ePg	Pg	16 56 28.6	-0.4
BGF				ePn	Pn	16 56 30.7	-1.2
BGF				eSg	Sg	16 56 36.5	-1.2
	22nm,0.3s						
LBL	Lubilhac	0.78	151	Pg	Pg	16 56 32.2	+0.7
COLF	Collangettes	0.79	120	Pg	Pg	16 56 31.0	-0.8
COLF				Sg	Sg	16 56 41.9	-0.4
AVF	Avril sur Loir	0.98	26	ePg	Pg	16 56 34.5	-1.1
AVF				eSg	Sg	16 56 46.8	-1.9
	7.6nm,0.2s						
RJF	Les Rejaudoux	1.04	235	ePg	Pg	16 56 36.0	-0.7
RJF				eSg	Sg	16 56 48.6	-2.0
	11nm,0.2s						
SMF	Signal de Mont	1.07	46	ePg	Pg	16 56 36.2	-1.2
SMF				eSg	Sg	16 56 49.5	-2.2
	28nm,0.3s						
CAF	Calviac	1.09	205	ePg	Pg	16 56 36.5	-1.2
CAF				eSg	Sg	16 56 49.8	-2.4
	8.3nm,0.2s						
SSF	Saint Saulge	1.27	25	ePg	Pg	16 56 39.7	-1.7
SSF				eSg	Sg	16 56 55.8	-2.6
	5.8nm,0.2s						
HYF	Humbligny	1.36	358	ePg	Pg	16 56 41.5	-1.6
HYF				eSg	Sg	16 56 58.9	-2.3
LFF	La Frestale	1.70	236	ePg	Pg	16 56 47.7	-2.2
LFF				eSg	Sg	16 57 09.8	-2.7
	12nm,0.3s						
VIVF	Saint-Julien-l	1.74	127	ePg	Pg	16 56 48.4	-2.3
VIVF				eSg	Sg	16 57 10.3	-3.5
	3.0nm,0.2s						
LASF	Ste Croix	2.01	156	ePn	Pn	16 56 49.3	-2.0
LASF				ePg	Pg	16 56 52.9	-3.2
LASF				eSg	Sg	16 57 18.9	-3.9
	1.9nm,0.2s						
MFF	Saint Martin d	2.10	290	ePg	Pg	16 56 54.8	-3.2
MFF				eSg	Sg	16 57 21.3	-4.7
	2.7nm,0.2s						
CABF	La Chapelle	2.44	72	ePn	Pn	16 56 55.1	-2.4
CABF				ePg	Pg	16 57 00.8	-3.9
CABF				eSg	Sg	16 57 32.5	-4.8
	1.2nm,0.3s						
MTLF	Montolieu	2.59	188	ePg	Pg	16 57 03.9	-3.9
MTLF				eSg	Sg	16 57 37.1	-5.3
	1.7nm,0.3s						
HAU	Haudompre	3.25	49	eSg	Sg	16 57 57.8	-6.5
	4.2nm,0.5s						
LDF	La Druitiere	3.31	325	eSg	Sg	16 57 58.9	-7.2
	2.5nm,0.4s						
EPF	Esparros	3.34	211	ePg	Pg	16 57 16.4	-6.4
EPF				eSg	Sg	16 58 00.4	-7.0
	1.1nm,0.3s						
HINF	Hinteralfeld	3.42	55	eSg	Sg	16 58 02.8	-7.0
	1.4nm,0.2s						
GRR	Gorron	3.48	317	ePn	Pn	16 57 09.4	-2.8
GRR				eSg	Sg	16 58 04.5	-7.2
	0.8nm,0.2s						
FLN	La Foliniere	3.59	324	eSg	Sg	16 58 08.3	-7.1
	0.9nm,0.2s						

IDC 10 16:56:59.3±2.2, 12.27S×166.20E, mb3.9/6, mb1 4.2/6, mb1mx4.0/14, MS3.4/5, Ms1 3.4/5, ms1mx3.1/27, Error ellipse: s-maj=74.4km s-min=26.2km az=128.0, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	18.91	277	LR	LR	17 07 01.1	
	comp=Z,74nm,20.3s,baz=84,slow=32						
CTA	Charters Tower	20.65	245	LR	LR	17 08 31.1	
	comp=Z,94nm,20.8s,baz=267,slow=34						
STKA	Stephens Creek	29.88	225	P	P	17 03 09.6	-1.4
	2.9nm,0.6s,baz=33,slow=7.8,SNR=9.6						
WRA	Warramunga Arr	31.50	252	P	P	17 03 22.5	-2.8
	0.3nm,0.4s,baz=82,slow=8.7,SNR=6.9						
ASAR	Alice Springs	32.66	245	P	P	17 03 32.6	-2.8
	0.6nm,0.6s,baz=69,slow=9.6,SNR=16						
ASAR				LR	LR	17 16 01.1	
	comp=Z,13nm,19.8s,baz=146,slow=35						
CMAR	Chiang Mai Arr	73.00	294	P	P	17 08 32.1	-1.3
	1.4nm,0.7s,baz=128,slow=5.2,SNR=10.0						
SONM	Songino Array	79.91	324	P	P	17 09 10.5	-1.1
	0.3nm,0.4s,baz=141,slow=6.2,SNR=5.6						
ILAR	Eielson Array	84.53	18	P	P	17 09 33.5	-1.6
	1.1nm,0.7s,baz=239,slow=5.1,SNR=10.0						
NVAR	Mina Array Bea	86.47	50	LR	LR	17 39 11.3	
	comp=Z,64nm,20.7s,baz=305,slow=29						
ANMO	Albuquerque	94.77	55	LR	LR	17 47 16.9	
	comp=Z,36nm,18.5s,slow=32						

DJA 10 17:16:23.2±1.0, 3.63S×119.03E, h2^{km}, MD4.2/3, ML3.3/2, 3C-4D, Error ellipse: s-maj=22.3km s-min=6.4km az=119.0, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TANI	Tanete Lipujan	0.40	61	⇓iPn	Pn	17 16 33.2	-2.3
	58nm,0.2s						
TANI	Tanete Lipujan	0.40	61	⇓ePn	Pn	17 16 33.3	-2.2
	58nm,0.2s						
TANI				⇑iSn	Sn	17 16 42.1	-1.6
NINI	Niniconang	1.07	137	⇑iPn	Pn	17 16 42.7	-2.3
	44nm,0.3s						
NINI				⇓iSn	Sn	17 16 54.7	-5.9
BUNI	Buntu Taipa	1.29	91	⇓iPn	Pn	17 16 45.2	-3.0
	39nm,0.2s						
BUNI				⇑iSn	Sn	17 17 01.6	-4.6

CASC 10 17:27:17.5±2.7, 14.02N×91.59W, h25^{km}±11^{km}, MD3.9, 8C, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAT	Jato	0.30	350	⇑eP	Pb	17 27 26.8	+2.3
FUG	Fuego 3	0.84	59	⇑eP	Pb	17 27 32.8	-0.4
TP2	Tecpan 2	0.93	36	⇑eP	Pb	17 27 34.5	-0.4
TP2				eS	Sb	17 27 48.5	+1.6
PCG	Pacaya	1.02	69	eP	Pn	17 27 36.2	-0.1
PCG				eS	Sb	17 27 50.4	+1.1
IXG	Ixpaco	1.11	82	⇑eP	Pn	17 27 36.4	-1.2
IXG				eS	Sb	17 27 55.0	+3.1
NBG	Las Nubes	1.33	65	⇑eP	Pn	17 27 40.8	0.0
NBG				eS	Sn	17 28 00.5	+2.8
RBDL	Robledal	1.84	87	⇑eP	Pn	17 27 47.5	-0.7
RBDL				eS	Sn	17 28 11.5	+0.6
RTR	El Retiro	1.89	94	eP	Pn	17 27 47.7	-1.0
RTR				eS	Sn	17 28 13.1	+1.1
SBLS	San Blas	1.91	95	eP	Pn	17 27 48.0	-1.2
SBLS				eS	Sn	17 28 12.0	-0.6
SNJE	San Jose	1.93	94	⇑eP	Pn	17 27 48.4	-0.9
SNJE				eS	Sn	17 28 14.1	+1.1
BOQS	Boqueron	2.26	97	eP	Pn	17 27 54.7	+0.6
LFRS	El Faro	2.48	99	⇑eP	Pn	17 27 58.8	+1.5
LFRS				eS	Sn	17 28 26.1	-1.0
LCBS	La Ceiba	2.56	98	eP	Pn	17 27 56.3	-2.1
LCBS				eS	Sn	17 28 29.1	+0.1

IDC 10 17:31:53.0±47.0, 15.24S×171.45W, mb3.9/3, mb1 4.1/3, mb1mx3.7/15, Error ellipse: s-maj=927.0km s-min=187.8km az=79.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	45.74	240	P	P	17 40 16.5	-1.6
	0.8nm,0.6s,baz=100,slow=12,SNR=5.0						
WRA	Warramunga Arr	51.71	256	P	P	17 41 01.7	-2.7
	0.4nm,0.6s,baz=94,slow=6.9,SNR=8.2						
ASAR	Alice Springs	51.94	252	P	P	17 41 04.5	-1.7
	2.6nm,0.5s,baz=89,slow=8.2,SNR=97						

IDC 10 17:40:11.4±38.0, 19.05S×177.94W, h660^{km}±226^{km}, mb3.1/6, mb1 3.2/6, mb1mx3.0/17, Error ellipse: s-maj=455.0km s-min=65.3km az=82.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	33.72	262	eP	P	17 46 01.6	-1.3
	3.4nm,0.6s						
CTA	Charters Tower	33.72	262	P	P	17 46 01.6	-1.3
	2.6nm,0.4s,baz=96,slow=9.9,SNR=10						
PMG	Port Moresby	35.10	281	P	P	17 46 13.3	-1.1
	4.3nm,0.6s,baz=70,slow=5.3,SNR=4.5						
STKA	Stephens Creek	38.49	243	eP	P	17 46 42.6	+0.8
	0.7nm,0.4s						
STKA	Stephens Creek	38.49	243	P	P	17 46 40.4	-1.4
	0.7nm,0.4s,baz=65,slow=9.9,SNR=5.8						
WB2	Warramunga Arr	44.87	261	eP	P	17 47 30.1	-1.9
WRA	Warramunga Arr	44.88	261	P	P	17 47 30.1	-2.0
	1.9nm,0.3s,baz=98,slow=6.9,SNR=94						
ASAR	Alice Springs	44.93	255	P	P	17 47 30.9	-1.5
	3.2nm,0.7s,baz=88,slow=8.2,SNR=121						
ASPA	Alice Springs	44.93	255	eP	P	17 47 31.1	-1.3
KAKA	Kakadu	48.02	270	eP	P	17 47 53.3	-2.4
	4.0nm,0.7s						
FITZ	Fitzroy Crossi	53.29	261	P	P	17 48 31.8	-1.9
	0.6nm,0.3s,baz=104,slow=4.2,SNR=8.7						

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*IDC **10** 18:38:04.8±1.9, 3.21S×135.39E, mb4.1/3, mb1 4.3/7, mb1mx4.0/15, ML3.7/4, MS3.4/1, Ms1 3.4/1, ms1mx2.8/16, Error ellipse: s-maj=65.3km s-min=29.8km az=98.0*

*NEIC **10** 18:38:09.8±1.2, 3.35S×135.23E, h10^{km}, mb3.9/3, Error ellipse: s-maj=20.0km s-min=13.4km az=135.0*

ISC 10 18:38:13.8±3.1, 4.0S±0.1×135.4E±0.1, h33^{km}±33^{km}, n16, σ1^{s}33/24, mb4.2/3, 1D, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.18	199	eP	P	18 40 27.7	+0.8
	16nm,0.5s						
KAKA				eS	Sn	18 42 12.5	+2.2
PMG	Port Moresby	12.85	115	Pn	P	18 41 17.2	+0.3
	0.3nm,0.3s,baz=311,slow=11,SNR=3.0						
WRAB	Tennant Creek	15.91	184	eP	P	18 41 55.5	-1.5
	16nm,0.8s						
WRAB				eS	S	18 44 47.2	-4.9
WB2	Warramunga Arr	15.92	184	eP	P	18 41 55.9	-1.2
WB2				eS	S	18 44 50.9	-1.4
WRA	Warramunga Arr	15.92	184	Pn	P	18 41 56.0	-1.1
	0.2nm,0.3s,baz=5.4,slow=13,SNR=15						
WRA				Sn	S	18 44 52.7	+0.3
	0.3nm,0.3s,baz=4.7,slow=22,SNR=8.3						
FITZ	Fitzroy Crossi	17.01	214	eP	P	18 42 10.7	-0.1
	5.0nm,0.6s						
FITZ				eS	S	18 45 15.3	-2.2
FITZ	Fitzroy Crossi	17.01	214	P	P	18 42 11.8	+1.0
	0.9nm,0.3s,baz=21,slow=11,SNR=19						
FITZ				S	S	18 45 15.9	-1.6
	0.4nm,0.3s,baz=185,slow=15,SNR=3.9						
CTA	Charters Tower	19.19	148	P	P	18 42 38.0	+0.3
	0.2nm,0.3s,baz=320,slow=13,SNR=3.9						
CTA	Charters Tower	19.19	148	P	P	18 42 38.0	+0.3
CTAO	Charters Tower	19.19	148	eP	P	18 42 33.2	-4.5
	5.9nm,0.9s						
ASAR	Alice Springs	19.64	184	P	P	18 42 44.4	+1.7
	14nm,0.6s,baz=9.0,slow=11,SNR=123						
ASAR				S	S	18 46 23.6	+6.5
	0.9nm,0.7s,baz=5.9,slow=26,SNR=5.3						
ASAR				LR	LR	18 51 02.2	
	comp=Z,105nm,18.5s,baz=4.2,slow=38						
ASPA	Alice Springs	19.64	184	⇓iP	P	18 42 44.4	+1.7
ASPA				eS	S	18 46 21.1	+4.0
FORT	Forrest	27.56	194	eP	P	18 44 00.6	+0.6
	23nm,0.7s,mb4.9						
STKA	Stephens Creek	28.37	169	P	P	18 44 06.3	-0.9
	2.4nm,0.9s,mb3.8,baz=333,slow=11,SNR=6.4						
STKA	Stephens Creek	28.37	169	P	P	18 44 06.3	-0.9
ILAR	Eielson Array	88.33	25	P	P	18 50 55.2	-7.9
	0.4nm,0.7s,mb3.8,baz=269,slow=4.7,SNR=5.2						

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*IDC **10** 18:38:34.5±1.1, 35.33N×35.79W, mb3.8/8, mb1 4.1/8, mb1mx3.9/21, MS4.0/19, Ms1 4.0/19, ms1mx3.9/29, Error ellipse: s-maj=34.6km s-min=19.8km az=166.0*

*NEIC **10** 18:38:36.1±0.6, 35.33N×35.80W, h10^{km}, Error ellipse: s-maj=20.1km s-min=12.9km az=161.0*

ISC 10 18:38:34.3±0.7, 35.4N±0.2×35.8W±0.1, h10^{km}, n25, σ0^{s}45/10, mb3.8/8, MS4.0/19, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ESDC	Sonseca Array	25.55	71	P	P	18 44 04.5	-0.3
	1.2nm,0.7s,mb3.5,baz=278,slow=7.6,SNR=7.3						
SCHQ	Schefferville	28.93	322	LR	LR	18 54 38.6	
	comp=Z,418nm,21.3s,MS4.0,baz=333,slow=33						
SJG	San Juan	31.91	245	LR	LR	18 54 46.4	
	comp=Z,67nm,20.6s,MS3.3,baz=307,slow=30						
SADO	Sadowa	34.12	299	LR	LR	18 57 54.3	
	comp=Z,117nm,18.9s,MS3.6,baz=292,slow=34						
FRB	Frobisher Bay	34.73	335	LR	LR	18 57 34.6	
	comp=Z,139nm,20.5s,MS3.7,baz=325,slow=33						
GERES	GERESS Array B	38.45	54	P	P	18 45 58.9	+1.0
	0.3nm,0.6s,mb3.2,baz=282,slow=12,SNR=3.6						
NOA	NORSAR Array B	39.24	34	LR	LR	18 59 01.8	
	comp=Z,149nm,18.5s,MS3.9,baz=285,slow=31						
DBIC	Dimbokro	40.30	128	LR	LR	19 00 25.4	
	comp=Z,260nm,20.7s,MS4.1,baz=295,slow=33						
ULM	Lac du Bonnet	45.28	308	LR	LR	19 05 06.7	
	comp=Z,207nm,18.4s,MS4.1,baz=62,slow=35						
FINES	FINESS Array B	46.34	36	LR	LR	19 03 48.4	
	comp=Z,257nm,21.6s,MS4.1,baz=54,slow=33						
ARCES	ARCESS Array B	47.37	25	LR	LR	19 03 56.5	
	comp=Z,239nm,19.5s,MS4.2,baz=231,slow=32						
AKASG	Malin Array Be	48.39	50	P	P	18 47 17.5	-0.7
	2.4nm,0.9s,mb4.2,baz=272,slow=7.5,SNR=9.8						
BDFB	Brasilia	52.03	195	LR	LR	19 04 38.3	
	comp=Z,221nm,20.1s,MS4.2,baz=175,slow=30						
BRTR	Keskin Array B	53.98	63	P	P	18 48 00.4	-0.1
	1.5nm,0.9s,mb3.9,baz=309,slow=7.9,SNR=4.0						
YKA	Yellowknife Ar	54.27	326	P	P	18 48 02.3	+0.1
	2.8nm,1.2s,mb4.1,baz=81,slow=7.6,SNR=11						
YKA				LR	LR	19 08 38.0	
	comp=Z,135nm,19.4s,MS4.0,baz=70,slow=33						
PDAR	Pinedale Array	56.06	302	P	P	18 48 15.2	-0.4
	3.3nm,1.2s,mb4.2,baz=90,slow=5.9,SNR=6.8						
PDAR				LR	LR	19 10 07.6	
	comp=Z,230nm,20.7s,MS4.2,baz=71,slow=34						
TXAR	Lajitas Array	56.65	284	LR	LR	19 08 28.1	
	comp=Z,123nm,20.8s,MS4.0,baz=80,slow=32						
EIL	Elat	58.79	74	LR	LR	19 15 19.9	
	comp=Z,69nm,18.1s,MS3.8,baz=154,slow=38						
LPAZ	La Paz	59.82	216	P	P	18 48 42.5	+0.1
	0.7nm,0.5s,mb4.0,baz=357,slow=7.4,SNR=3.5						
LPAZ				LR	LR	19 12 41.3	
	comp=Z,124nm,21.2s,MS4.0,baz=249,slow=34						
NVAR	Mina Array Bea	63.86	300	P	P	18 49 09.5	+0.3
	0.2nm,0.3s,mb3.6,baz=74,slow=6.6,SNR=3.3						
NVAR				LR	LR	19 15 00.8	
	comp=Z,98nm,18.5s,MS4.0,baz=270,slow=34						
NVAR	Mina Array Bea	63.86	300	P	P	18 49 09.5	+0.3
NVAR				LR	LR	19 15 00.8	
LVC	Limon Verde	65.64	214	LR	LR	19 14 36.1	
	comp=Z,102nm,19.8s,MS4.0,baz=212,slow=33						
ILAR	Eielson Array	66.76	334	LR	LR	19 19 09.8	
	comp=Z,123nm,19.7s,MS4.1,baz=20,slow=36						
MDZ	Mendoza	74.62	208	eP	P	18 50 15.5	0.0
ZAL	Zalesovo	77.38	31	LR	LR	19 25 31.7	
	comp=Z,163nm,18.4s,MS4.4,baz=151,slow=36						

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*THR **10** 19:02:54.2±0.4, 29.73N×57.63E, h18^{km}±7^{km}, ML3.6*

*CSEM **10** 19:02:54.2, 29.75N×57.64E, h18^{km}, ML3.6, After THR*

*IDC **10** 19:03:01.3±6.5, 30.83N×57.48E, mb3.3/4, mb1 3.5/4, mb1mx3.3/20, Error ellipse: s-maj=131.0km s-min=49.1km az=170.0*

ISC 10 19:02:55.7±0.9, 30.0N±0.1×57.66E±0.05, h18^{km}, n10, σ0^{s}67/15, mb3.4/4, 2C, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KRBR	Kerman	0.78	272	ePG	Pb	19 03 09.7	-0.6
KRBR				eSG	Sb	19 03 20.7	+0.3
KRBR				AMP		19 03 25.5	
	comp=N,2µm,0.2s						
KRBR				AMP		19 03 25.8	
	comp=E,3µm,0.3s						

KRBR	Kerman	0.78	272	⇑iPg	Pb	19 03 09.7	-0.6
KRBR				iSg	Sb	19 03 20.8	+0.4
	comp=E,3µm,0.3s						
ZHSF	Zahedan	2.73	96	ePN	Pn	19 03 39.4	-0.2
ZHSF				AMP		19 04 21.1	
	comp=E,276nm,0.4s						
ZHSF				AMP		19 04 24.9	
	comp=N,228nm,0.4s						
ZHSF	Zahedan	2.73	96	⇑iPn	Pn	19 03 39.4	-0.2
ZHSF				Sn	Sn	19 04 12.5	0.0
	comp=N,234nm,0.4s						
NASN	Na'in	5.02	306	ePN	Pn	19 04 12.8	+0.7
NASN				ePG	Pn	19 04 26.3	+14
NASN	Na'in	5.02	306	ePn	Pn	19 04 12.8	+0.7
NASN				Sn	Sn	19 05 10.1	-0.3
BRTR	Keskin Array B	21.93	303	P	P	19 07 50.0	0.0
	comp=N,1.0nm,1.0s,mb3.2,baz=129,slow=9.2,SNR=3.6						
BVAR	Borovoye Array	24.87	18	P	P	19 08 18.5	0.0
	comp=N,0.6nm,0.7s,mb3.2,baz=202,slow=8.0,SNR=4.2						
FINES	FINESS Array B	37.73	336	P	P	19 10 11.3	-0.5
	comp=N,0.7nm,0.7s,mb3.5,baz=125,slow=8.7,SNR=4.9						
YKA	Yellowknife Ar	87.67	356	P	P	19 15 47.1	+3.4
	comp=N,0.2nm,0.6s,mb3.5,baz=357,slow=5.4,SNR=4.9						

PRU 10 19:34:43.3,42.97N×15.10E

ROM 10 19:34:44.8±0.6,43.18N×15.61E,h10^{km},MD3.1/7,ML2.8/6,Error ellipse: s-maj=7.2km s-min=3.2km az=90.0

NEIC 10 19:34:44.8,43.18N×15.61E,h10^{km},MD3.1(ROM),ML3.2(LDG),After ROM.

CSEM 10 19:34:47.1±0.1,43.15N×15.51E,h35^{km},ML3.2/10,Error ellipse: s-maj=3.0km s-min=2.6km az=76.0

LDG 10 19:34:48.8±0.2,43.26N×15.39E,h10^{km},Ml3.2/12,Error ellipse: s-maj=4.3km s-min=3.2km az=89.0

ISC 10 19:34:45.1±0.4,43.15N±0.02×15.46E±0.05,h10^{km},n54,σ1^{s}13/55,3C-1D,Adriatic Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVLJ	Novalja	1.47	343	iPn	Pn	19 35 10.6	-1.2
NVLJ				iSn	Sn	19 35 32.2	+1.0
NVLJ				iSg	Sg	19 35 32.6	-1.6
NVLJ	Novalja	1.47	343	iPn	Pn	19 35 10.6	-1.2
NVLJ				iSn	Sn	19 35 32.1	+0.9
NVLJ				iSg	Sg	19 35 32.6	-1.6
RGNG	Rignano Grg	1.48	176	ePN	Pn	19 35 11.1	-0.8
RGNG	Rignano Grg	1.48	176	ePn	Pn	19 35 11.2	-0.8
INTR	Introdacqua	1.62	226	ePN	Pn	19 35 13.8	-0.1
INTR	Introdacqua	1.62	226	ePn	Pn	19 35 13.8	-0.1
CII	Carovilli	1.67	211	ePN	Pn	19 35 15.0	+0.4
CII	Carovilli	1.67	211	ePn	Pn	19 35 15.7	+1.2
STON	Ston	1.67	99	iPn	Pn	19 35 14.8	+0.2
STON				iSg	Sg	19 35 38.7	-1.9
STON	Ston	1.67	99	iPn	Pn	19 35 14.7	+0.1
STON				iSg	Sg	19 35 38.7	-1.9
AQU	L'Aquila	1.71	243	ePn	Pn	19 35 15.3	+0.1
SNTG	Esanatoglia	1.85	274	ePN	Pn	19 35 16.6	-0.5
	41nm,0.5s						
SNTG	Esanatoglia	1.85	274	ePn	Pn	19 35 16.6	-0.6
SNTG	Esanatoglia	1.85	274	ePn	Pn	19 35 16.6	-0.5
	41nm,0.5s						
ARV	Arcevia	1.87	281	ePN	Pn	19 35 17.1	-0.4
ARV	Arcevia	1.87	281	ePn	Pn	19 35 17.1	-0.4
SDI	San Donato	1.89	221	ePN	Pn	19 35 16.6	-1.2
	60nm,0.5s						
SDI	San Donato	1.89	221	ePn	Pn	19 35 16.6	-1.2
SDI	San Donato	1.89	221	ePn	Pn	19 35 16.6	-1.2
	60nm,0.5s						
PTQR	Pietraquaria	1.90	234	ePN	Pn	19 35 19.7	+1.9
PTQR	Pietraquaria	1.90	234	ePn	Pn	19 35 19.7	+1.9
RFI	Roccamonfina	2.15	211	ePN	Pn	19 35 22.0	+0.5
	38nm,0.6s						
RFI	Roccamonfina	2.15	211	ePn	Pn	19 35 22.0	+0.5
RFI	Roccamonfina	2.15	211	ePn	Pn	19 35 22.0	+0.5
	38nm,0.6s						
TREB	Trebinje	2.17	101	ePn	Pn	19 35 23.9	+2.2
MNS	Montasola	2.19	250	ePN	Pn	19 35 23.6	+1.6
	31nm,0.5s						
MNS	Montasola	2.19	250	ePn	Pn	19 35 23.6	+1.6
	31nm,0.5s						
VBY	Vinica-Bojanci	2.35	356	ePn	Pn	19 35 25.8	+1.4
VBY				eSn	Sn	19 35 56.7	+3.0
VISS	Visnje	2.69	351	iPn	Pn	19 35 29.8	+0.7
VISS				eSn	Sn	19 36 04.1	+2.0
VOY	Vojsko	3.09	339	ePn	Pn	19 35 34.7	-0.2
VOY				eSn	Sn	19 36 12.6	+0.4
OBKA	Obir	3.42	349	⇑iPN	Pn	19 35 39.6	0.0
OBKA				iSN	Sn	19 36 20.9	+0.3
PTCC	Patocco-Chiusa	3.58	336	ePN	Pn	19 35 41.0	-0.9
	18nm,0.4s						
PTCC	Patocco-Chiusa	3.58	336	ePn	Pn	19 35 41.0	-0.9
PTCC	Patocco-Chiusa	3.58	336	ePn	Pn	19 35 41.0	-0.9
	18nm,0.4s						
FVI	Forni Avoltri	3.94	332	ePN	Pn	19 35 45.0	-1.9
	32nm,0.8s						
FVI	Forni Avoltri	3.94	332	ePn	Pn	19 35 45.0	-1.9
FVI	Forni Avoltri	3.94	332	ePn	Pn	19 35 45.0	-1.9
	32nm,0.8s						
ARSA	Arzberg	4.10	1	⇑iPN	Pn	19 35 49.1	-0.1
ARSA				iSN	Sn	19 36 38.8	+1.0
KBA	Koelnbreinsper	4.20	340	⇓iPN	Pn	19 35 50.1	-0.6
KBA				iSN	Sn	19 36 38.8	-1.6
MOA	Molln	4.77	350	⇑iPN	Pn	19 35 58.8	0.0
MOA				iSN	Sn	19 36 54.2	-0.6
PGF	Pioggiola	4.79	265	ePn	Pn	19 35 57.7	-1.3
PGF				eSn	Sn	19 36 50.4	-4.9
	1.8nm,0.4s						
SBF	Sospel	5.88	280	ePn	Px	19 36 12.8	
SBF				eSn	Sx	19 37 16.1	
	1.5nm,0.2s						
KHC	Kasperske Hory	6.12	348	ePN	Px	19 36 15.7	
KHC				ex	x	19 36 21.5	
KHC				eSG	Sx	19 37 24.1	
FRF	La Foret Royal	6.44	277	ePn	Px	19 36 19.3	
FRF				eSn	Sx	19 37 29.5	
	2.7nm,0.5s						
MBDF	Montbardon	6.47	287	ePn	Px	19 36 20.8	
LPG	La Plagne	6.67	294	ePn	Px	19 36 22.8	
LPG				eSn	Sx	19 37 34.2	
	4.9nm,0.5s						
LPL	La Plagne	6.69	294	ePn	Px	19 36 23.4	
LPL				eSn	Sx	19 37 35.3	
	7.3nm,0.6s						
ORIF	Oris-en-Rattie	7.13	288	ePn	Px	19 36 29.2	
ORIF				eSn	Sx	19 37 45.2	
	9.1nm,0.8s						
SMRF	Simiane la Rot	7.23	280	ePn	Px	19 36 31.4	
CABF	La Chapelle	7.50	301	ePn	Px	19 36 34.7	
CABF				eSn	Sx	19 37 53.3	
	1.6nm,0.4s						
HINF	Hinteralfeld	7.64	311	ePn	Px	19 36 36.7	
HINF				eSn	Sx	19 37 56.9	
	4.3nm,0.5s						
CDF	Champ du Feu	7.77	315	ePn	Px	19 36 38.3	
CDF				eSn	Sx	19 38 00.2	
	2.1nm,0.4s						
HAU	Haudompre	8.02	310	ePn	Px	19 36 41.2	
HAU				eSn	Sx	19 38 05.7	
	5.8nm,0.4s						
SMF	Signal de Mont	8.96	297	ePn	Px	19 36 53.6	
SMF				eSn	Sx	19 38 28.4	
	1.4nm,0.3s						

IDC 10 19:38:30.8±2.9,15.80N×120.50E,h53^{km}±27^{km},mb3.8/16,mb1 4.0/16,mb1mx3.9/22,Error ellipse: s-maj=33.1km s-min=13.0km az=60.0

NEIC 10 19:38:31.2±1.2,15.79N×120.51E,h60^{km}±12^{km},mb4.1/9,Error ellipse: s-maj=14.6km s-min=6.7km az=56.0

BJI 10 19:38:31.2,15.80N×120.50E,h59^{km},mB4.7,mb4.2

ISC 10 19:38:25.9±0.9,15.83N±0.03×120.11E±0.03,h13^{km}±6^{km},n50,σ1^{s}41/64,mb4.1/24,4C-3D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCZP	Santa Cruz	0.20	254	eP	Pg	19 38 29.6	-0.9
BOLP	Bolinao	0.58	341	eP	Pb	19 38 37.6	+0.2
BOLP				eS	Sb	19 38 47.9	+2.7
BCPH	Baguio City Da	0.71	40	⇑iP	Pb	19 38 38.9	-0.8
BCPH				iS	Sb	19 38 49.9	+0.8
PCPH	Palayan	0.99	106	⇓eP	Pb	19 38 42.3	-2.1
PCPH				eS	Sb	19 38 56.3	-0.9
BALP	Baler	1.42	93	eP	Pn	19 38 48.1	-3.4
BALP				eS	Sb	19 39 09.2	-0.4
TGY	Tagaytay City	1.90	155	⇑eP	Pn	19 39 01.7	+3.3
TGY				eS	Sn	19 39 29.2	+6.9
TGY	Tagaytay City	1.90	155	P	Pn	19 38 58.9	+0.5
	144nm,0.3s,baz=310,slow=2.4,SNR=9.6						
TGY				S	Sn	19 39 28.0	+5.7
	199nm,0.3s,baz=8.0,slow=22,SNR=6.6						
ABRA	Dolores	1.90	18	eP	Pn	19 38 60.0	+1.6
POLP	Polilio Island	2.08	122	eP	Pn	19 39 00.9	-0.1
POLP				eS	Sn	19 39 28.2	+1.2
LUBP	Lubang	2.09	176	eP	Pn	19 39 02.0	+0.8
LUBP				eS	Sn	19 39 29.1	+1.8
LQP	Lukban	2.20	141	⇓eP	Pn	19 39 02.1	-0.6
LQP				eS	Sn	19 39 31.0	+1.0
APYP	Conner	2.29	28	eP	Pn	19 39 05.7	+1.6
APYP				eS	Sn	19 39 39.0	+6.6
CVP	Callao Caves	2.48	41	⇓eP	Pn	19 39 18.5	+12
PIP	Pasuquin	2.53	11	⇑iP	Pn	19 39 11.0	+3.5
PIP				eS	Sn	19 39 47.9	+9.5
PALP	Palanan	2.54	61	eP	Pn	19 39 08.4	+0.8
PALP				eS	Sn	19 39 45.0	+6.4
BOAC	Boac	2.90	144	eP	Pn	19 39 14.3	+1.7
BOAC				eS	Sn	19 39 46.9	-0.8
GQP	Guinayangan	2.96	130	⇑eP	Pn	19 39 12.9	-0.7
GQP				iS	Sn	19 39 53.2	+3.9
SGCP	Mt. Cagua	3.03	37	eP	Pn	19 39 16.4	+1.8
SJMP	San Jose	3.49	164	eP	Pn	19 39 22.6	+1.4
CM31	Chiang Mai Arr	20.39	280	eP	P	19 43 08.5	+3.1
	8.9nm,1.1s						
CMAR	Chiang Mai Arr	20.39	280	P	P	19 43 07.8	+2.4
	5.2nm,0.9s,baz=90,slow=7.4,SNR=26						
XAN	Xi'an	20.75	333	P	P	19 43 11.5	+2.5
XAN				AMB	AMB		
	comp=Z,5.0nm,1.2s						
BJI	Beijing	24.36	353	P	P	19 43 44.8	0.0
BJI				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.2						
BJI				AMB	AMB		
	comp=Z,184nm,6.1s						
BJI	Beijing	24.36	353	P	P	19 43 44.8	0.0
	comp=Z,10.0nm,1.0s,mb4.2						
ULN	Ulaanbaatar	33.71	344	P	P	19 45 08.1	-0.9
	comp=Z,1.2nm,0.8s,mb3.9						
SONM	Songino Array	33.86	343	P	P	19 45 09.1	-1.2
	comp=Z,0.9nm,0.6s,mb3.9,baz=161,slow=10,SNR=10						
PMG	Port Moresby	36.69	131	P	P	19 45 31.7	-3.0
	comp=Z,6.7nm,1.0s,mb4.4,baz=64,slow=5.1,SNR=3.2						
PMG	Port Moresby	36.69	131	P	P	19 45 31.7	-3.1
WRAB	Tennant Creek	38.20	158	eP	P	19 45 43.5	-3.8
	comp=Z,10nm,1.1s,mb4.5						
WRA	Warramunga Arr	38.20	158	P	P	19 45 43.4	-4.0
	comp=Z,2.2nm,0.8s,mb4.0,baz=340,slow=9.0,SNR=18						
ASAR	Alice Springs	41.51	161	P	P	19 46 10.9	-3.8
	comp=Z,2.0nm,1.0s,mb3.7,baz=337,slow=6.6,SNR=19						
ASAR				PcP	PcP	19 48 10.2	-2.8
	comp=Z,0.1nm,0.4s,baz=341,slow=3.5,SNR=5.4						
ZAL	Zalesovo	46.92	332	P	P	19 46 57.0	-0.9
	comp=Z,0.9nm,0.7s,mb3.8,baz=344,slow=9.0,SNR=7.4						
UCH	Uchtor	47.02	314	P	P	19 46 59.2	+0.3
	comp=Z,1.7nm,0.8s,mb4.0						
STKA	Stephens Creek	51.72	157	P	P	19 47 30.2	-5.0
	comp=Z,1.4nm,0.7s,mb4.0,baz=332,slow=8.2,SNR=4.6						
BVAR	Borovoye Array	53.70	325	P	P	19 47 48.8	-0.9
	comp=Z,1.5nm,0.7s,mb4.0,baz=117,slow=9.9,SNR=8.2						
BVAR				PcP	PcP	19 48 54.5	-1.4
	comp=Z,0.7nm,0.7s,baz=135,slow=4.2,SNR=4.0						
CHKZ	Chkalovo	53.85	326	eP	P	19 47 49.3	-1.4
	comp=Z,1.4nm,0.5s,mb4.2						
ARU	Arti	61.30	326	P	P	19 48 41.0	-2.3
	comp=Z,2.3nm,0.4s,mb4.7						
JOF	Joensuu	75.50	332	ep	P	19 50 03.6	-7.9
	comp=Z,0.8nm,0.4s,mb4.0						
KEV	Kevo	76.35	339	ep	P	19 50 09.5	-6.6
	comp=Z,0.8nm,0.3s,mb4.1						
ARCES	ARCESS Array B	76.90	339	P	P	19 50 18.4	-0.8
	comp=Z,2.6nm,0.7s,mb4.3,baz=68,slow=6.5,SNR=6.4						
ILAR	Eielson Array	77.10	26	P	P	19 50 17.9	-2.5
	comp=Z,1.0nm,1.0s,mb3.7,baz=260,slow=5.5,SNR=4.3						
KAF	Kangasniemi	77.92	331	ep	P	19 50 20.4	-4.6
	comp=Z,0.5nm,0.4s,mb3.8						
FINES	FINESS Array B	78.16	331	P	P	19 50 25.0	-1.3
	comp=Z,2.2nm,0.6s,mb4.2,baz=45,slow=5.4,SNR=14						
MLR	Muntele Rosu	81.75	315	P	P	19 50 46.4	+0.6
	comp=Z,2.1nm,0.7s,mb4.2,baz=268,slow=10,SNR=3.2						
KMBO	Kilima Mbogo	83.43	267	P	P	19 50 56.2	+1.0
	comp=Z,2.1nm,1.0s,mb4.1,baz=40,slow=12,SNR=6.0						
KMBO	Kilima Mbogo	83.43	267	P	P	19 50 56.2	+1.0
HFS	Hagfors	84.34	331	P	P	19 50 57.9	-0.9
	comp=Z,2.1nm,0.7s,mb4.4,baz=104,slow=6.1,SNR=6.8						
NB2	NORSAR Subarra	85.12	332	P	P	19 51 01.2	-1.4
	comp=Z,0.2nm,0.7s,mb3.4,baz=69,slow=5.6						
NOA	NORSAR Array B	85.12	332	P	P	19 51 01.1	-1.5
	comp=Z,2.0nm,0.8s,mb4.3,baz=68,slow=4.8,SNR=4.8						
GERES	GERESS Array B	88.63	321	P	P	19 51 19.3	-0.8
	comp=Z,0.5nm,0.6s,mb4.0,baz=45,slow=5.7,SNR=4.1						

ISK 10 19:50:43.4,34.51N×32.63E,h22^{km},MD3.0

NIC 10 19:50:44.4±0.5,34.43N×32.49E,h20^{km},ML3.5,MW3.2

NEIC 10 19:50:44.4,34.43N×32.49E,h20^{km},ML3.5(NIC),After NIC.

CSEM 10 19:50:46.3±0.1,34.77N×32.47E,h40^{km},ML3.5,Error ellipse: s-maj=3.3km s-min=1.8km az=71.0

GII 10 19:50:50.4±0.6,34.65N×32.68E,h25^{km}±30^{km},ML2.3/1

ISC 10 19:50:46.9±0.6,34.64N±0.03×32.54E±0.06,h30^{km}±5^{km},n34,σ0^{s}91/45,5C-3D,Cyprus region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPCY	Paphos	0.29	327	⇑iP	Pb	19 50 54.3	+0.1
SZAC	Souni-Zanaja	0.31	68	⇓P	Pb	19 50 53.7	-0.8
SZAC				S	Sb	19 50 59.2	-0.4
SZAC	Souni-Zanaja	0.31	68	⇓iP	Pb	19 50 53.7	-0.8
SZAC				S	Sb	19 50 59.2	-0.4
AKMC	Akamas	0.42	336	⇑iP	Pb	19 50 56.2	+0.1
ALFC	Alevga	0.52	6	⇓iP	Pb	19 50 56.5	-1.1
	38nm,0.1s						
ALFC				S	Sb	19 51 05.2	+0.3
LEF	Lefka	0.56	31	PG	Pb	19 50 56.2	-2.1
LEF				SG	Sb	19 51 06.7	+0.6
CSS	Prodhromos	0.73	64	⇑P	Pb	19 51 01.5	+0.5
	9.4nm,0.3s						
CSS				S	Sb	19 51 12.1	+1.4
CSS	Prodhromos	0.73	64	S	Sb	19 51 12.1	+1.4
MAMC	Mammari	0.77	46	P	Pb	19 51 02.2	+0.4
PHNC	Paralimni	1.28	73	⇑P	Pn	19 51 12.3	+3.2
PHNC				S	Sn	19 51 32.6	+7.1
PHNC	Paralimni	1.28	73	⇑iP	Pn	19 51 12.3	+3.2
PHNC				S	Sn	19 51 32.6	+7.1
IKL	Isikli	1.85	30	PN	Pn	19 51 15.7	-1.5
HDMB	Hadim	2.32	359	ePN	Pn	19 51 24.2	+0.2
HDMB				eSN	Sn	19 51 52.2	+0.4
HNTI	Hanita	2.69	125	Pn	Pn	19 51 29.0	-0.3
HNTI				Sn	Sn	19 52 01.0	-0.2
HAF	Haifa	2.78	131	Pn	Pn	19 51 30.2	-0.4
OFRI	'Ofer	2.87	134	Pn	Pn	19 51 32.0	+0.1
KSDI	Kefar Szold	2.97	118	Pn	Pn	19 51 33.1	-0.1
SLTI	Sal'it	3.18	138	Pn	Pn	19 51 36.2	-0.1
SLTI				Sn	Sn	19 52 12.7	-0.9
MMLI	Mount Malkishu	3.26	132	Pn	Pn	19 51 37.5	+0.2
HTY	Hatay	3.29	62	ePN	Pn	19 51 35.7	-2.1
HMDT	Nahal Hemdat	3.45	133	Pn	Pn	19 51 40.6	+0.5
DRGI	Dragot	3.87	141	Pn	Pn	19 51 47.1	+1.1
MKRJ	Makawir	4.04	139	Pn	Pn	19 51 49.5	+1.1
KZIT	Kziot	4.04	157	Pn	Pn	19 51 49.0	+0.6
KZIT				Sn	Sn	19 52 34.5	-0.9
MZDA	Masada	4.08	144	Pn	Pn	19 51 49.9	+0.8
MASH	Mash'abbe Sade	4.10	152	Pn	Pn	19 51 50.2	+0.9
PRNI	Paran	4.76	153	Pn	Pn	19 51 58.9	+0.3
MBH	Mount Berech	5.24	157	Pn	Pn	19 52 06.3	+1.0
EIL	Elat	5.36	157	Pn	Pn	19 52 06.9	-0.3
JMOS	Jabal al Moall	5.88	157	P	Pn	19 52 15.3	+0.9
HAQS	Haql	5.93	159	S	Sn	19 53 20.4	-2.4
HAQS				P		19 52 15.2	
HAQS	Haql	5.93	159	P	Pn	19 52 15.2	+0.1
TAYS	Tayyib Ism	6.39	161	P	Pn	19 52 21.8	+0.2
BDAS	Al Bad'	6.57	160	P	Pn	19 52 23.5	-0.6

IDC 10 20:01:56.8±1.8,5.83S×148.77E,h104^{km}±14^{km},mb4.0/9,mb1 4.3/12,mb1mx4.2/16,Error ellipse: s-maj=23.7km s-min=9.8km az=119.0

NEIC 10 20:01:57.4±1.6,5.87S×148.87E,h111^{km}±14^{km},mb4.7/10,Error ellipse: s-maj=15.0km s-min=10.0km az=106.0

ISC 10 20:01:54.6±1.4,5.80S±0.07×148.8E±0.1,h94^{km}±12^{km},n36,σ0^{s}82/41,mb4.3/16,1C-3D,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.95	205	P	P	20 02 54.7	+0.5
	91nm,0.3s,baz=348,slow=5.0,SNR=172						
PMG				S	S	20 03 39.6	0.0
	246nm,0.3s,baz=326,slow=23,SNR=30						
PMG	Port Moresby	3.95	205	ePn	P	20 02 54.3	+0.1
PMG				S	S	20 03 39.6	0.0
PMG				eSn	S	20 03 40.3	+0.7
CTA	Charters Tower	14.42	190	eP	P	20 05 21.4	+6.0
	2.1nm,0.6s						
CTA	Charters Tower	14.42	190	P	P	20 05 16.9	+1.6
	0.1nm,0.3s,baz=10,slow=14,SNR=2.1						
CTA				S	S	20 07 52.7	-0.6
	0.2nm,0.3s,baz=261,slow=11,SNR=2.5						
CTA	Charters Tower	14.42	190	P	P	20 05 16.9	+1.6
CTA				S	S	20 07 52.7	-0.6
KAKA	Kakadu	17.59	246	eP	P	20 05 54.3	-1.0
	45nm,0.3s						
WRAB	Tennant Creek	19.89	224	eP	P	20 06 20.2	-0.7
	96nm,0.8s						
WB2	Warramunga Arr	19.89	224	⇓iP	P	20 06 20.6	-0.4
WB2				eS	S	20 09 56.4	+1.8
WRA	Warramunga Arr	19.90	224	P	P	20 06 20.5	-0.6
	6.1nm,0.3s,baz=49,slow=11,SNR=177						
WRA				pP		20 06 40.3	
	3.1nm,0.3s,baz=52,slow=11,SNR=4.1						
WRA				S	S	20 09 54.5	-0.3
	0.2nm,0.3s,baz=47,slow=16,SNR=4.1						
ASAR	Alice Springs	22.85	217	P	P	20 06 51.5	+1.0
	49nm,0.5s,mb5.1,baz=53,slow=9.2,SNR=169						
ASAR				pP		20 07 10.2	
	18nm,0.6s,baz=39,slow=12,SNR=6.5						
ASAR				PcP	PcP	20 10 38.8	-1.5
	1.0nm,0.5s,baz=48,slow=2.2,SNR=4.0						
ASAR				S	S	20 10 55.4	+6.5
	8.2nm,1.0s,baz=32,slow=22,SNR=18						
ASPA	Alice Springs	22.85	217	⇓iP	P	20 06 51.4	+0.9
ASPA				eS	S	20 10 57.0	+8.1
FITZ	Fitzroy Crossi	25.73	240	⇓iP	P	20 07 18.3	+0.2
	58nm,0.6s,mb5.2						
FITZ	Fitzroy Crossi	25.73	240	P	P	20 07 18.3	+0.2
	75nm,0.6s,mb5.3,baz=46,slow=4.7,SNR=133						
STKA	Stephens Creek	26.81	194	eP	P	20 07 29.0	+1.0
	0.9nm,0.3s,mb3.8						
STKA	Stephens Creek	26.81	194	P	P	20 07 28.5	+0.5
	2.0nm,0.8s,mb3.7,baz=22,slow=8.5,SNR=7.1						
STKA	Stephens Creek	26.81	194	P	P	20 07 26.7	-1.3
FORT	Forrest	31.59	216	eP	P	20 08 10.1	-0.5
	19nm,0.6s,mb5.0						
MBWA	Marble Bar	32.06	239	eP	P	20 08 13.7	-1.0
	8.3nm,0.6s,mb4.6						
MAJO	Matsushiro	43.28	347	eP	P	20 09 49.9	+1.3
	8.6nm,0.6s,mb4.7						
SONM	Songino Array	65.13	330	P	P	20 12 27.7	0.0
	0.5nm,0.4s,mb3.7,baz=152,slow=4.6,SNR=6.2						
VNDA	Vanda	72.01	177	P	P	20 13 08.6	-1.0
	1.9nm,0.6s,mb4.1,baz=322,slow=6.5,SNR=14						
VNDA	Vanda	72.01	177	eP	P	20 13 08.3	-1.4
	2.1nm,0.7s,mb4.1						
ZAL	Zalesovo	79.82	327	P	P	20 13 53.8	-0.3
	1.1nm,0.6s,mb3.9,baz=23,slow=5.0,SNR=5.2						
UCH	Uchtor	82.38	314	eP	P	20 14 07.8	+0.1
	1.0nm,0.7s,mb3.8						
AML	Almayashu	82.94	314	P	P	20 14 10.9	+0.3
	1.2nm,0.8s,mb3.8						
QSPA	South Pole Qui	84.17	180	⇑iP	P	20 14 15.8	-0.1
	7.0nm,0.6s,mb4.7						
ILAR	Eielson Array	84.59	23	P	P	20 14 17.6	-0.7
	5.3nm,0.6s,mb4.6,baz=251,slow=5.2,SNR=58						
DAWY	Dawson	87.33	25	eP	P	20 14 32.8	+1.1
BVAR	Borovoye Array	87.68	324	P	P	20 14 32.5	-1.2
	0.6nm,0.6s,mb3.8,baz=118,slow=6.1,SNR=4.6						
INK	Inuvik	90.81	21	P	P	20 14 47.4	-0.7
	2.6nm,0.8s,mb4.4,baz=259,slow=3.7,SNR=7.6						
INK	Inuvik	90.81	21	eP	P	20 14 48.0	-0.1
YKA	Yellowknife Ar	98.15	28	P	P	20 15 22.7	+1.0
	0.1nm,0.4s,mb3.7,baz=277,slow=5.0,SNR=4.0						
GERES	GERESS Array B	122.76	326	PKP	PKPdf	20 20 40.2	+0.6
	0.2nm,0.4s,baz=45,slow=1.9,SNR=3.7						
SAML	Samuel	144.89	114	ePKPdf	PKPdf	20 21 20.3	-1.3
BDFB	Brasilia	152.95	142	PKPbc	PKPdf	20 21 42.5	+8.2
	5.3nm,0.5s,baz=232,slow=1.9,SNR=10						
BDFB				PKPab	PKPab	20 21 53.8	-1.9
	12nm,1.0s,baz=185,slow=2.7,SNR=8.7						
BAO	Brasilia Array	152.97	142	P	PKPdf	20 21 42.5	+8.1
BAO				e		20 21 53.8	

MAN 10 20:08:07.0,11.16N×124.31E,h1^{km},mb4.3,ML3.1,MS2.8,2C,Leyte

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LLP	Lapu-Lapu	0.90	202	⇑eP	Pg	20 08 24.8	-0.1
LLP				eS	Sg	20 08 39.6	+2.7
MMPH	Masbate	1.37	331	eP	Sg	20 08 49.5	-3.1
TBP	Tagbilaran	1.52	197	eP	Pn	20 08 34.9	-0.5
RCP	Roxas	1.58	285	⇑eP	Pn	20 08 35.2	-1.1
GUIM	Jordan	1.77	253	eP	Pn	20 08 39.3	+0.4
GUIM				eS	Sn	20 09 03.7	+1.3
SCPH	Surigao	1.79	139	eP	Pn	20 08 39.5	+0.1
SCPH				eS	Sn	20 09 08.0	+4.9
OTRP	Odiongan	2.54	298	eP	Pn	20 08 50.0	0.0
PAGZ	Pagadian	3.41	196	eP	Pn	20 09 02.7	+0.2
PAGZ				eS	Sn	20 09 49.4	+5.3

JMA 10 20:29:32.9±0.1,37.75N×141.60E,h81^{km}±1^{km},M3.5 Broadband fault plane solution: P waves. NP1:ϕ_s12°,δ37°,λ-130°. NP2:ϕ_s238°,δ63°,λ-65°. Principal axes: T Plg14°,Azm310°; N Plg22°, Azm46°; P Plg63°, Azm190°;

ISC 10 20:29:32.6±1.3,37.74N±0.05×141.65E±0.09,h78^{km}±10^{km},n13,σ0^{s}24/26,2C-3D,Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JMM	Marumori	0.69	281	P	P	20 29 48.3	+0.2
JMM				S	S	20 29 59.4	-0.3
JFK	Kawauchi	0.72	239	⇓P	P	20 29 48.6	+0.1
JFK				S	S	20 29 59.9	-0.4
JIO	Ouri	0.75	342	⇓P	P	20 29 49.2	+0.4
JIO				S	S	20 30 01.2	+0.4
JOU	Okura	1.00	309	P	P	20 29 51.7	0.0
JOU				S	S	20 30 05.8	-0.2
JFT	Otama	1.06	258	P	P	20 29 52.9	+0.4
JFT				S	S	20 30 07.5	+0.1
JMK	Ichinoseki	1.25	345	⇓P	P	20 29 55.0	0.0
JMK				S	S	20 30 11.5	-0.2
JYS	Shirataka	1.34	291	P	P	20 29 56.0	-0.2
JYS				S	S	20 30 13.5	-0.2
JYK	Kaneyama	1.55	320	⇑P	P	20 29 58.8	-0.2
JYK				S	S	20 30 18.5	0.0
JFY	Yanaizu	1.58	258	P	P	20 29 59.2	-0.2
JFY				S	S	20 30 19.3	+0.2
JYA	Atsumi	1.75	300	P	P	20 30 01.4	-0.1
JYA				S	S	20 30 23.2	+0.3
JOM	Ohasama	1.75	351	P	P	20 30 01.5	-0.1
JOM				S	S	20 30 22.8	-0.2
JNS	Sasagawa	1.85	273	⇑P	P	20 30 03.0	+0.1
JNS				S	S	20 30 25.8	+0.5
MAT	Matsushiro	3.00	248	P	P	20 30 18.9	-0.1
MAT				S	S	20 30 53.6	-0.3

NEIC 10 20:32:15.0,32.11S×71.74W,h26^{km},ML3.2(GUC),After GUC.

GUC 10 20:32:15.0±0.7,32.11S×71.74W,h26^{km}±3^{km},MD3.7,ML3.2,9C-3D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	Papudo	0.50	149	⇓iP	Pb	20 32 25.0	-0.2
PACH				iS	Sb	20 32 32.7	+0.5
ILCH	Illapel	0.67	46	⇑iP	Pb	20 32 27.8	-0.3
ILCH				iS	Sb	20 32 37.6	+0.5
ILCH				AMP		20 32 42.9	

	comp=N,990nm,0.2s						
PTCH	**Petorca**	0.70	103	⇑*i*P	Pb	20 32 28.6	0.0
PTCH				*i* S	Sb	20 32 38.1	+0.3
PTCH				AMP		20 32 41.9	
	comp=E,3μm,0.2s						
IHA	**Instituto Hidr**	0.92	175	⇑*i*P	Pb	20 32 31.9	-0.4
IHA				*i* S	Sb	20 32 43.9	-0.1
ROCH	**El Roble**	1.06	145	⇑*i*P	Pn	20 32 34.1	-0.2
ROCH				*i* S	Sb	20 32 48.5	+0.4
CMCH	**Combarbala**	1.12	34	*e*P	Pn	20 32 34.9	-0.3
CMCH				*i* S	Sb	20 32 49.9	0.0
CMCH				AMP		20 32 56.3	
	comp=N,3μm,0.8s						
JACH	**Jahuel**	1.13	121	⇑*i*P	Pn	20 32 35.2	-0.1
JACH				*i* S	Sb	20 32 50.7	+0.7
LCCH	**Las Cruces**	1.37	174	⇑*i*P	Pn	20 32 38.3	-0.6
LCCH				*i* S	Sn	20 32 56.5	+0.2
RCDM	**Rinconada Maip**	1.59	151	⇑*i*P	Pn	20 32 42.3	+0.4
RCDM				*i* S	Sn	20 33 02.7	+1.0
RCDM				AMP		20 33 10.8	
	comp=E,288nm,0.5s						
CLCH	**Cerro Calan**	1.64	142	⇑*i*P	Pn	20 32 43.4	+0.7
CLCH				*i* S	Sn	20 33 04.2	+1.2
CLCH				AMP		20 33 13.5	
	comp=N,562nm,0.6s						
CLCH				AMP		20 33 14.4	
	comp=N,619nm,0.6s						
TACH	**Talagante**	1.68	157	⇑*i*P	Pn	20 32 43.7	+0.5
TACH				*i* S	Sn	20 33 05.3	+1.1
FCH	**Farellones**	1.73	135	⇓*i*P	Pn	20 32 44.4	+0.5
FCH				*i* S	Sn	20 33 07.5	+2.3
FCH				AMP		20 33 11.4	
	comp=E,233nm,0.3s						
LNV	**Longovilo**	1.86	172	⇓*i*P	Pn	20 32 46.3	+0.5
CHCH	**Chadas Angostu**	2.04	154	*e*P	Pn	20 32 49.3	+0.9
LMEL	**Las Melosas**	2.16	144	*e*P	Pn	20 32 51.1	+0.9
LMEL				*i* S	Sn	20 33 18.2	+1.8
LMEL				AMP		20 33 24.4	
	comp=N,268nm,0.3s						
CICH	**Cipreses**	2.47	154	*e*P	Pn	20 32 55.3	+0.8

KRSC 10 20:32:18.7±2.2**, 50.00N×156.15E, h94**^{km}±8^{km}**, ML4.1, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	0.68	358	*i* P	P	20 32 34.5	-1.1
SKR				*i* S	S	20 32 49.0	+0.7
ALID	**Alaid**	0.95	336	*i* P	P	20 32 39.7	+1.3
ALID				*i* S	S	20 32 53.7	+0.6
PAU	**Pauzhetka**	1.53	16	*i* P	P	20 32 47.3	+1.9
PAU				*e*S	S	20 33 07.9	+2.7
PAU				Smax			
	320nm,0.2s						
GRL	**Gorelyy**	2.83	25	*e*P	P	20 33 05.0	+2.0
GRL				*e*S	S	20 33 38.5	+2.4
RUS	**Russkaya**	2.85	30	*e*P	P	20 33 04.0	+0.7
RUS				*e*S	S	20 33 36.4	-0.4
APC	**Apacha**	3.00	12	*e*P	P	20 33 06.3	+1.0
PET	**Petropavlovsk**	3.41	26	*e*P	P	20 33 12.1	+1.1
PET				*e*S	S	20 33 50.5	0.0
UGLR	**Uglovaya**	3.62	26	*e*P	P	20 33 15.4	+1.5
UGLR				*e*S	S	20 33 57.3	+1.6
KOK	**Koryaka**	3.64	24	*e*P	P	20 33 15.9	+1.7
KOK				*e*S	S	20 33 57.0	+0.8
AVH	**Avacha**	3.65	25	*e*P	P	20 33 16.1	+1.9
AVH				*e*S	S	20 33 57.2	+0.9
SMAR	**Somma**	3.66	26	*e*P	P	20 33 16.1	+1.7
SMAR				*e*S	S	20 33 56.5	-0.2
SDLR	**Sedlovina**	3.70	26	*e*P	P	20 33 16.0	+1.1
SDLR				*e*S	S	20 33 57.2	-0.4
NLC	**Nalytchevo**	3.75	31	*e*P	P	20 33 15.2	-0.4
NLC				*e*S	S	20 33 56.0	-2.9
GNL	**Ganaly**	3.86	16	*e*P	P	20 33 16.7	-0.5
GNL				*e*S	S	20 34 00.6	-1.1
SPN	**Mys Shipunski**	3.93	36	*e*P	P	20 33 19.2	+1.0
SPN				*e*S	S	20 34 02.1	-1.3
KMNR	**Kamenistaya**	6.27	22	*e*P	P	20 33 49.6	-0.7
ZLN	**Zelenaya**	6.65	23	*e*P	P	20 33 54.4	-1.1
LGNR	**Loginova**	6.68	22	*e*P	P	20 33 55.9	0.0
LGNR				*e*S	S	20 35 05.3	-5.8
SVLR	**Shiveluch**	7.25	23	*e*P	P	20 34 04.7	+0.9
KBTR	**Krutoberegovo**	7.40	30	*i* P	P	20 34 05.4	-0.4
BKI	**Bering**	7.93	45	*e*S	S	20 35 32.2	-10
BKI				Smax			
	30nm,0.8s						

DJA 10 20:34:10.4±1.3**, 10.62S×115.92E, h122**^{km}±54^{km}**, MD4.8**/4**, ML4.0**/4**, 7D, Error ellipse: s-maj=61.3km s-min=22.0km az=17.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RATI	**Rata**	1.93	349	⇓*i*Pn	P	20 34 43.6	+0.1
	161nm,0.2s						
RATI				⇓*i*Sn	S	20 35 14.9	+6.4
KEDI	**Kedomdong**	2.13	5	*e*Pn	P	20 34 45.7	-0.4
	127nm,0.2s						
KEDI				⇓*i*Sn	S	20 35 11.4	-1.8
SRDI	**Scrawed**	2.76	320	⇓*i*Pn	P	20 34 53.3	-1.2
	27nm,0.2s						
SRDI				⇓*i*Sn	S	20 35 35.0	+7.2
KELI	**Kelakatan**	2.78	329	⇓*i*Pn	P	20 34 54.9	+0.2
	62nm,0.2s						
KELI				⇓*i*Sn	S	20 35 26.5	-1.7

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*NEIC **10** 20:56:30.9, 17.37N×94.84W, h127^{km}, mb4.0/3, MD4.4(MEX), After MEX.*
*MEX **10** 20:56:31.1±0.8, 17.39N×94.83W, h125^{km}±5^{km}, MD4.4*
*IDC **10** 20:56:33.2±4.1, 17.42N×94.54W, h150^{km}±35^{km}, mb3.4/6, mb1 3.6/8, mb1mx3.5/18, MS3.1/1, Ms1 3.1/1, ms1mx2.2/20, Error ellipse: s-maj=34.9km s-min=19.5km az=44.0*
ISC 10 20:56:28.7±0.4**, 17.38N**±0.05×**94.82W**±0.03**, h128**^{km}±4^{km}**, n30, σ1^{s}28**/43**, mb3.7**/6**, Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	**Matias Romero**	0.29	192	*i* P	P	20 56 47.4	+0.8
CMIG				*i* S	S	20 56 59.9	-0.4
EVV	**El Vigia**	1.19	335	*i* P	P	20 56 54.6	+1.0
EVV				*i* S	S	20 57 11.8	-0.5
OXX	**Oaxaca**	1.84	261	*i* P	P	20 57 01.5	+0.4
OXX				*i* S	S	20 57 26.3	+0.6
VHO	**Vista Hermosa**	1.85	261	*i* P	P	20 57 01.8	+0.6
VHO				*i* S	S	20 57 26.2	+0.3
SCX	**San Cristobal**	2.19	107	*e*P	P	20 57 06.3	+0.9
SCX				*i* S	S	20 57 33.4	+0.2
LVIG	**Laguna Verde**	2.78	327	*i* P	P	20 57 13.0	-0.3
LVIG				*i* S	S	20 57 44.7	-2.3
CCIG	**Comitan**	2.79	113	*i* P	P	20 57 14.3	+1.0
CCIG				*i* S	S	20 57 47.0	-0.2
PNIG	**Pinotepa**	3.31	253	*i* P	P	20 57 17.4	-2.8
PNIG				*e*S	S	20 57 56.2	-3.4
PNIG	**Pinotepa**	3.31	253	*i* P	P	20 57 17.5	-2.8
PPM	**Popocatepetl**	3.99	296	*i* P	P	20 57 31.4	+2.1
PPM				*e*S	S	20 58 18.2	+2.4
PPM	**Popocatepetl**	3.99	296	*i* P	P	20 57 31.4	+2.1
PPM				*i* P		20 57 32.0	
PPM				*e*S	S	20 58 18.2	+2.4
YAIG	**Yautepec**	4.30	291	*i* P	P	20 57 34.8	+1.3
YAIG				*e*S	S	20 58 23.6	+0.4
PLIG	**Platanillo**	4.57	283	*i* P	P	20 57 38.0	+0.9
PLIG				*e*S	S	20 58 27.4	-2.3
ACX	**Acapulco**	4.90	265	*i* P	P	20 57 38.4	-3.1
CAIG	**El Cayaco**	5.22	267	*i* P	P	20 57 44.1	-1.6
CAIG				*e*S	S	20 58 43.4	-1.8
TEIG	**Tepich**	6.82	64	P	P	20 58 06.6	-0.8
	5.4nm,0.3s,baz=174,slow=9.5,SNR=84						
TEIG				S	S	20 59 22.2	-1.8
	5.1nm,0.3s,baz=249,slow=23,SNR=7.3						
JTS	**JuntasAbangare**	11.89	125	*e*Pn	P	20 59 14.6	-0.5
	9.1nm,0.4s						
GDL2	**Guadalupe Moun**	17.10	331	*e*P	P	21 00 25.3	+4.0
WMOK	**Wichita Mounta**	17.65	349	*e*P	P	21 00 29.8	+1.8
	2.4nm,0.4s						
ANMO	**Albuquerque**	20.35	332	P	P	21 01 00.6	+3.7
	2.8nm,0.7s,baz=153,slow=11,SNR=5.9						
ANMO				LR	LR	21 09 40.1	
	comp=Z,47nm,19.2s,slow=38						
ANMO	**Albuquerque**	20.35	332	*e*P	P	21 01 00.4	+3.5
	2.7nm,0.7s						
NVAR	**Mina Array Bea**	29.35	320	P	P	21 02 23.2	+1.5
	0.4nm,0.6s,mb3.2,baz=143,slow=9.0,SNR=3.2						
NVAR				pP	pP	21 02 53.0	+3.7
	1.6nm,0.7s,baz=140,slow=9.2,SNR=9.0						
ULM	**Lac du Bonnet**	32.81	359	P	P	21 02 50.9	-0.9
	1.6nm,0.4s,mb4.2,baz=162,slow=8.1,SNR=2.9						
ULM	**Lac du Bonnet**	32.81	359	P	P	21 02 50.9	-0.9
LPAZ	**La Paz**	42.55	140	P	P	21 04 13.8	+0.1
	1.0nm,0.6s,mb3.8,baz=301,slow=5.0,SNR=4.1						
SCHQ	**Schefferville**	43.12	23	P	P	21 04 16.8	-0.9
	1.4nm,0.9s,mb3.7,baz=249,slow=14,SNR=2.7						
YKA	**Yellowknife Ar**	47.15	348	P	P	21 04 49.6	-0.1
	0.3nm,0.5s,mb3.3,baz=152,slow=7.4,SNR=7.7						
YKA				pP	pP	21 05 19.7	+0.6
	0.7nm,0.5s,baz=152,slow=7.6,SNR=7.7						
YKA	**Yellowknife Ar**	47.15	348	P	P	21 04 49.6	-0.1
YKA				pP	pP	21 05 19.7	+0.6
ILAR	**Eielson Array**	58.68	337	pP	pP	21 06 47.2	+1.8
	0.4nm,0.8s,baz=156,slow=4.3,SNR=3.2						
ESDC	**Sonseca Array**	79.76	52	P	P	21 08 24.5	+0.3
	1.2nm,0.7s,mb3.9,baz=288,slow=4.1,SNR=5.3						

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*NIED **10** 21:23:00, 29.50N×128.60E, h240^{km}, Mw4.5 Best double couple: M$_0$5.32×10^{15} NP1:φ$_s$126°, δ56°, λ-96°. NP2: φ$_s$317°, δ34°, λ-81°.*
*BJI **10** 21:23:49.6, 29.28N×128.81E, h235^{km}, mB4.8, mb4.9*
*IDC **10** 21:23:51.8±0.9, 29.63N×128.34E, h218^{km}±8^{km}, mb3.9/28, mb1 4.1/29, mb1mx4.1/31, Error ellipse: s-maj=15.3km s-min=7.9km az=76.0*
*NEIC **10** 21:23:54.0±0.6, 29.62N×128.40E, h236^{km}±5^{km}, mb4.4/32, Error ellipse: s-maj=6.6km s-min=5.4km az=86.0*
*JMA **10** 21:23:53.1±0.2, 29.47N×128.63E, h249^{km}±3^{km}, M4.1*
ISC 10 21:23:52.9±0.2**, 29.52N**±0.03×**128.48E**±0.04**, h237**^{km}±2^{km}**, n111, σ1^{s}13**/121**, mb4.2**/58**, 4D, Northwest of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNN	**Nakanoshima**	1.25	75	P	P	21 24 29.0	+0.5
JNN				S	S	21 24 56.6	+0.5
JAM	**Amami Oshima**	1.48	138	P	P	21 24 30.6	+0.4
JAM				S	S	21 24 57.9	-1.2
JKC	**Kuchinoerabu**	1.76	57	P	P	21 24 33.3	+0.8
JKC				*e*S	S	21 25 02.7	-0.4
JZK	**Kikaishima**	1.77	132	P	P	21 24 34.5	+1.9
JZK				S	S	21 25 04.4	+1.1
JTK	**Tokunoshima**	1.77	166	P	P	21 24 33.2	+0.6
JTK				S	S	21 25 02.8	-0.5
JSJ	**Shimokoshiki**	2.40	26	P	P	21 24 39.5	+0.9
JSJ				*e*S	S	21 25 14.6	+0.5
JTN	**Tanegashima 3**	2.44	62	P	P	21 24 38.6	-0.5
JTN				*e*S	S	21 25 12.1	-2.8
JIH	**Iheya**	2.52	191	P	P	21 24 39.9	+0.1
JIH				S	S	21 25 14.9	-1.3
JOW	**Kunigami**	2.68	184	P	P	21 24 41.4	-0.2
JOW				S	S	21 25 17.4	-1.9
	218nm,0.3s,baz=145,slow=29,SNR=60						
JOW	**Kunigami**	2.68	184	P	P	21 24 41.4	-0.2
JOW				S	S	21 25 17.2	-2.1
JAGN	**Aguni-jima**	3.12	201	P	P	21 24 46.4	+0.1
JAGN				*e*S	S	21 25 26.7	-1.1
JTZ	**Takazaki**	3.27	43	P	P	21 24 48.1	0.0
JTZ				S	S	21 25 27.7	-3.2
JJT2	**Tamagusuku 2**	3.43	191	P	P	21 24 50.7	+0.8
JJT2				*e*S	S	21 25 33.4	-0.8
JIU2	**Izumi 2**	3.62	33	P	P	21 24 53.1	+0.9
TATO	**Taipei**	7.69	236	*e*Pn	P	21 25 45.4	+2.4
	79nm,0.6s						
KS15	**Wonju Array Si**	7.92	357	*e*Pn	P	21 25 46.6	+0.8
MAT	**Matsushiro**	10.75	47	P	P	21 26 21.0	-1.0
MAT	**Matsushiro**	10.75	47	*e*P	P	21 26 21.0	-1.0
	19nm,1.2s						
SNY	**Shenyang**	12.91	343	⇓P	P	21 26 53.3	+4.3
SNY				AMB	AMB		
	comp=Z,50nm,0.6s						
CN2	**Changchun**	14.46	351	*e*P	P	21 27 10.7	+2.6
CN2				AMB	AMB		
	comp=Z,40nm,0.7s						
BJT	**Baijiatuau**	14.55	319	*e*P	P	21 27 11.1	+1.8
	comp=Z,84nm,0.8s						
BJI	**Beijing**	14.56	319	P	P	21 27 10.9	+1.5
	comp=Z,116nm,0.9s						
ENH	**Enshi**	16.49	277	*e*P	P	21 27 33.1	+0.7
	comp=Z,22nm,0.7s						
XAN	**Xi'an**	17.23	290	P	P	21 27 40.0	-0.4
XAN				AP		21 27 45.7	
XAN				AMB	AMB		
	comp=Z,60nm,0.9s						
HHC	**Hu-ho-hao-te**	17.83	314	*e*P	P	21 27 46.7	+0.1
HHC				AP		21 27 51.5	
HHC				AMB	AMB		
	comp=Z,32nm,0.9s						
HHC				AMB	AMB		
	comp=Z,126nm,3.7s						
HHC				LR	LR		
	comp=N,130nm,13.1s						
HHC				LR	LR		
	comp=E,130nm,14.3s						
HHC				LR	LR		
	comp=Z,121nm,15.6s						
ASAJ	**Asahikawa**	18.40	34	P	P	21 27 52.8	+0.4
	comp=Z,0.4nm,0.3s,baz=207,slow=9.0,SNR=3.3						
GYA	**Guiyang**	19.50	266	P	P	21 28 05.9	+2.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
HIA	**Hailar**	20.82	344	P	P	21 28 15.2	-1.5
	comp=Z,33nm,0.8s						
CD2	**Chengdu**	21.40	280	P	P	21 28 22.7	+0.2
CD2				AMB	AMB		
	comp=Z,10.0nm,0.4s,mb4.7						
LZH	**Lanzhou**	21.69	294	⇓P	P	21 28 26.5	+1.2
LZH				AMB	AMB		
	comp=Z,58nm,1.5s,mb4.9						
LZH	**Lanzhou**	21.69	294	⇓P	P	21 28 26.5	+1.2
	comp=Z,58nm,1.5s,mb4.9						
LZH				pP		21 28 39.5	
LZH				sP		21 28 44.0	
ULN	**Ulaanbaatar**	24.67	324	*e*P	P	21 28 52.3	-1.1
	comp=Z,15nm,0.8s,mb4.7						
ULN				*e*PcP	PcP	21 32 24.1	-0.6
SONM	**Songino Array**	24.99	323	P	P	21 28 55.5	-0.9
	comp=Z,6.9nm,0.6s,mb4.5,baz=143,slow=10,SNR=39						
SONM				PcP	PcP	21 32 24.4	-1.0
	comp=Z,1.3nm,0.9s,baz=160,slow=4.1,SNR=4.4						
SONM				ScP		21 35 40.4	
	comp=Z,0.5nm,0.8s,baz=162,slow=3.9,SNR=4.4						
GTA	**Gaotai**	25.52	300	*e*P	P	21 29 00.4	-0.9
GTA				PCP	PcP	21 32 26.2	-0.5
GTA				SS	SS	21 34 49.5	+11
GTA				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.3						
GTA				AMB	AMB		
	comp=Z,82nm,4.2s						
GTA				LR	LR		
	comp=N,148nm,14.1s						
GTA				LR	LR		
	comp=E,149nm,14.4s						
GTA				LR	LR		
	comp=Z,89nm,12.9s						
CMAR	**Chiang Mai Arr**	29.07	254	PcP	PcP	21 32 35.5	+0.1
	comp=Z,1.6nm,0.8s,baz=51,slow=1.6,SNR=8.4						
YAK	**Yakutsk**	32.53	1	*e*P	P	21 30 00.8	-2.4
	comp=Z,8.3nm,0.7s,mb4.4						
GUN	**Gumba**	37.25	278	*e*P	P	21 30 45.5	+2.0
	comp=Z,15nm,0.4s,mb4.9						
PKI	**Pulchoki**	37.73	278	*e*P	P	21 30 48.5	+1.0
KKN	**Kakani**	37.79	278	*e*P	P	21 30 49.2	+1.2
	comp=Z,6.9nm,0.6s,mb4.3						
DMN	**Daman**	37.98	278	*e*P	P	21 30 50.7	+1.1
	comp=Z,2.8nm,0.4s,mb4.2						
GKN	**Gorkha**	38.30	279	*e*P	P	21 30 52.7	+0.5
	comp=Z,2.9nm,0.4s,mb4.2						
ZAL	**Zalesovo**	39.82	320	P	P	21 31 02.4	-2.1
	comp=Z,1.6nm,0.5s,mb3.7,baz=15,slow=7.8,SNR=8.6						
ZAL				PcP	PcP	21 33 04.5	-1.5
	comp=Z,2.9nm,0.3s,baz=344,slow=3.3,SNR=12						
ZAL				ScP		21 36 30.3	
	comp=Z,0.6nm,0.7s,baz=319,slow=4.6,SNR=4.7						
ZAL	**Zalesovo**	39.82	320	P	P	21 31 02.4	-2.1
ZAL				PcP	PcP	21 33 04.5	-1.5
ZAL				ScP		21 36 30.3	
TKM2	**Tokmak 2**	44.03	303	*e*P	P	21 31 38.5	-0.1
	comp=Z,6.3nm,0.7s,mb4.0						
UCH	**Uchtor**	44.84	302	*e*P	P	21 31 45.8	+0.7
	comp=Z,8.6nm,0.8s,mb4.1						
EKS2	**Erkin-Say**	45.38	302	*e*P	P	21 31 48.7	-0.6
	comp=Z,1.2nm,0.7s,mb3.3						
FITZ	**Fitzroy Crossi**	47.42	184	P	P	21 32 05.4	-0.1
	comp=Z,1.8nm,0.6s,mb3.5,baz=38,slow=0.4,SNR=5.9						
BVAR	**Borovoye Array**	48.02	316	P	P	21 32 07.7	-1.9
	comp=Z,3.0nm,0.7s,mb3.8,baz=88,slow=9.8,SNR=20						
BVAR				PcP	PcP	21 33 32.6	-1.5
	comp=Z,3.1nm,0.5s,baz=105,slow=3.1,SNR=12						
BVAR				ScP		21 37 03.6	
	comp=Z,1.1nm,0.9s,baz=90,slow=1.5,SNR=3.8						
WRA	**Warramunga Arr**	49.50	173	P	P	21 32 21.2	-0.1
	comp=Z,1.3nm,0.5s,mb3.5,baz=353,slow=8.0,SNR=17						
WRA				PcP	PcP	21 33 39.3	-0.6
	comp=Z,1.2nm,0.7s,baz=349,slow=4.0,SNR=7.6						
WB2	**Warramunga Arr**	49.50	173	*e*P	P	21 32 21.3	0.0
CTA	**Charters Tower**	52.21	159	*e*P	P	21 32 42.3	+0.7
	comp=Z,3.2nm,0.6s,mb3.9						
CTA	**Charters Tower**	52.21	159	P	P	21 32 41.8	+0.3
	comp=Z,4.5nm,0.7s,mb4.0,baz=337,slow=8.9,SNR=7.1						
CTAO	**Charters Tower**	52.21	159	*e*P	P	21 32 42.1	+0.6
	comp=Z,4.7nm,0.7s,mb4.0						
ASAR	**Alice Springs**	53.13	174	P	P	21 32 48.8	+0.4
	comp=Z,2.4nm,0.5s,mb3.9,baz=2.1,slow=14,SNR=55						
ASAR				PcP	PcP	21 33 52.4	-1.0
	comp=Z,1.2nm,0.8s,baz=4.3,slow=3.5,SNR=7.9						
ARU	**Arti**	54.98	320	*e*P	P	21 32 59.7	-1.5
	comp=Z,2.2nm,0.5s,mb3.9						
IMA	**Indian Mountai**	58.50	28	*e*P	P	21 33 25.2	-0.7
	comp=Z,35nm,0.8s,mb5.0						
RSO	**Redoubt South**	59.34	34	*e*P	P	21 33 32.4	+0.6
MCK	**McKinley**	60.72	30	*e*P	P	21 33 39.5	-1.5
	comp=Z,6.7nm,0.8s,mb4.3						
COLA	**College**	61.03	29	*e*P	P	21 33 42.3	-0.8
	comp=Z,7.7nm,0.6s,mb4.5						
ILAR	**Eielson Array**	61.46	29	P	P	21 33 43.9	-2.0
	comp=Z,4.6nm,0.7s,mb4.2,baz=280,slow=7.0,SNR=40						
STKA	**Stephens Creek**	62.32	167	⇓*i*P	P	21 33 52.2	+0.1
	comp=Z,4.1nm,0.6s,mb4.2						
STKA	**Stephens Creek**	62.32	167	P	P	21 33 52.1	0.0
	comp=Z,4.6nm,0.6s,mb4.3,baz=333,slow=6.3,SNR=22						
INK	**Inuvik**	65.80	24	P	P	21 34 12.8	-1.2
	comp=Z,5.6nm,0.5s,mb4.5,baz=290,slow=5.9,SNR=42						
INK	**Inuvik**	65.80	24	*e*P	P	21 34 12.9	-1.0
	comp=Z,5.9nm,0.5s,mb4.5						
KEV	**Kevo**	66.47	338	*e*p	P	21 34 15.6	-2.6
	comp=Z,0.9nm,0.4s,mb3.8						
ARCES	**ARCESS Array B**	67.04	338	P	P	21 34 19.6	-2.2
	comp=Z,9.3nm,1.1s,mb4.3,baz=45,slow=6.4,SNR=6.0						
JOF	**Joensuu**	67.29	331	*e*p	P	21 34 20.9	-2.5
KAF	**Kangasniemi**	69.75	331	*e*p	P	21 34 32.2	-6.3
	comp=Z,0.3nm,0.4s,mb3.3						
FINES	**FINESS Array B**	70.13	330	P	P	21 34 39.2	-1.6
	comp=Z,3.4nm,0.6s,mb4.2,baz=68,slow=6.3,SNR=40						
FINES				PcP	PcP	21 35 00.0	-1.5
	comp=Z,0.8nm,0.5s,baz=65,slow=6.0,SNR=3.4						
DLBC	**Dease Lake**	71.00	33	P	P	21 34 46.5	+0.4
	comp=Z,1.2nm,0.5s,mb3.8,baz=170,slow=21,SNR=3.7						
DLBC	**Dease Lake**	71.00	33	P	P	21 34 46.5	+0.4
RES	**Resolute Bay**	72.29	11	*e*P	P	21 34 52.3	-1.3
	comp=Z,7.5nm,0.6s,mb4.5						
MALT	**Malatya**	72.42	304	*e*P	P	21 34 54.8	-0.1
	comp=Z,1.1nm,0.5s,mb3.7						
AKASG	**Malin Array Be**	73.19	319	P	P	21 34 57.2	-2.0
	comp=Z,3.3nm,0.7s,mb4.1,baz=57,slow=6.5,SNR=10						
BRTR	**Keskin Array B**	75.21	307	P	P	21 35 10.4	-0.6
	comp=Z,0.9nm,0.6s,mb3.6,baz=90,slow=6.2,SNR=3.7						
YKA	**Yellowknife Ar**	75.47	25	P	P	21 35 11.6	-0.3
	comp=Z,6.2nm,0.8s,mb4.3,baz=297,slow=5.7,SNR=58						
HFS	**Hagfors**	76.03	332	P	P	21 35 13.4	-1.8
	comp=Z,1.1nm,0.5s,mb3.8,baz=108,slow=4.7,SNR=7.5						
NB2	**NORSAR Subarra**	76.47	334	P	P	21 35 15.8	-1.8
	comp=Z,3.2nm,0.7s,mb4.1,baz=50,slow=5.3						
NOA	**NORSAR Array B**	76.47	334	P	P	21 35 15.5	-2.1
	comp=Z,4.7nm,0.7s,mb4.2,baz=51,slow=5.5,SNR=16						
SUMG	**Summit**	77.78	356	*e*P	P	21 35 24.4	-0.2
	comp=Z,3.4nm,0.5s,mb4.2						
VRAC	**Vranov**	80.91	322	P	P	21 35 42.0	+0.3
	comp=Z,1.8nm,0.5s,mb4.0,baz=82,slow=7.1,SNR=3.2						
CLL	**Collm**	81.59	325	P	P	21 35 45.2	0.0
EDM	**Edmonton**	81.71	32	*e*P	P	21 35 45.8	+0.1
GERES	**GERESS Array B**	82.72	323	P	P	21 35 50.8	-0.2
	comp=Z,1.0nm,0.6s,mb3.7,baz=44,slow=5.6,SNR=11						
NEW	**Newport**	82.87	38	*e*P	P	21 35 52.3	+0.4
	comp=Z,4.6nm,0.5s,mb4.5						
YBH	**Yreka Blue Hor**	83.41	45	P	P	21 35 56.1	+1.4
	comp=Z,1.2nm,0.6s,mb3.8,baz=281,slow=10,SNR=3.3						
BEKR	**Beckwourth**	85.94	46	*e*P	P	21 36 07.8	+0.5
	comp=Z,6.0nm,0.8s,mb4.4						
DAVOX	**Davos**	86.02	323	P	P	21 36 07.4	-0.1
	comp=Z,2.2nm,0.5s,mb4.2,baz=40,slow=3.6,SNR=7.5						
FRB	**Frobisher Bay**	86.08	8	P	P	21 36 06.6	-0.8
	comp=Z,14nm,0.7s,mb4.8,baz=356,slow=6.2,SNR=7.2						
FRB	**Frobisher Bay**	86.08	8	P	P	21 36 06.6	-0.8
HRY	**Holter Researc**	86.64	37	*e*P	P	21 36 11.4	+0.8
HLID	**Hailey**	87.25	40	*e*P	P	21 36 14.6	+1.1
	comp=Z,7.3nm,0.9s,mb4.4						
NVAR	**Mina Array Bea**	88.08	46	P	P	21 36 18.4	+1.0
	comp=Z,1.6nm,0.9s,mb3.8,baz=272,slow=5.9,SNR=7.2						
QLMT	**Earthquake Lak**	88.08	38	*e*P	P	21 36 18.7	+1.3
ELK	**Elko**	88.54	43	*e*P	P	21 36 21.1	+1.5
	comp=Z,2.9nm,0.9s,mb4.1						
TPH	**Tonopah**	88.97	46	P	P	21 36 22.6	+0.9
	comp=Z,1.3nm,0.5s,mb4.0						
DGMT	**Dagmar**	89.19	32	*e*P	P	21 36 23.1	+0.6
	comp=Z,21nm,1.0s,mb4.9						
TPAW	**Teton Pass**	89.22	39	*e*P	P	21 36 24.1	+1.3
LOHW	**Long Hollow**	89.33	39	P	P	21 36 24.3	+1.0
HWUT	**Hardware Ranch**	90.12	41	*e*P	P	21 36 28.3	+1.2
	comp=Z,6.4nm,1.1s,mb4.4						
TPNV	**Topopah Spring**	90.27	46	*e*P	P	21 36 28.5	+0.7
	comp=Z,3.2nm,0.8s,mb4.2						
BW06	**Boulder Array**	90.47	39	*e*P	P	21 36 29.0	+0.4
	comp=Z,3.2nm,0.9s,mb4.2						
PDAR	**Pinedale Array**	90.47	39	P	P	21 36 29.1	+0.5
	comp=Z,2.4nm,0.8s,mb4.1,baz=319,slow=0.5,SNR=20						
DAU	**Daniels Canyon**	91.08	41	*e*P	P	21 36 32.6	+1.1
ULM	**Lac du Bonnet**	91.39	27	P	P	21 36 32.6	-0.1
	comp=Z,6.4nm,0.5s,mb4.8,baz=325,slow=4.1,SNR=14						
KMBO	**Kilima Mbogo**	91.62	270	P	P	21 36 34.2	-0.4
	comp=Z,0.4nm,0.5s,mb3.6,baz=53,slow=11,SNR=3.6						
KMBO	**Kilima Mbogo**	91.62	270	P	P	21 36 34.2	-0.4
MSU	**Marysvale**	91.78	43	*e*P	P	21 36 36.2	+1.4
SCHQ	**Schefferville**	94.97	9	P	P	21 36 48.1	-0.8
	comp=Z,2.2nm,0.7s,mb4.4,baz=326,slow=11,SNR=3.4						
DBIC	**Dimbokro**	122.52	301	PKP	PKPdf	21 42 21.4	+0.8
	comp=Z,2.8nm,1.0s,baz=315,slow=4.3,SNR=3.5						
SNAA	**Sanae**	130.32	198	PKP	PKPdf	21 42 34.8	+0.6
	comp=Z,1.9nm,1.3s,baz=180,slow=12						

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*MAN **10** 21:35:29.9, 5.76N×127.02E, h98^{km}, mb5.1, ML4.0, MS4.1*
*MOS **10** 21:35:31.1±0.8, 5.93N×126.90E, h155^{km}, mb4.6/24, Error ellipse: s-maj=19.5km s-min=8.4km az=109.3*
*BJI **10** 21:35:33.6, 5.70N×126.96E, h198^{km}, mB4.4, mb4.8*
*IDC **10** 21:35:35.6±2.6, 5.89N×126.98E, h183^{km}±25^{km}, mb4.3/25, mb1 4.4/26, mb1mx4.3/28, MS3.6/2, Ms1 3.7/2, ms1mx2.8/24, Error ellipse: s-maj=15.5km s-min=7.9km az=80.0*
*NEIC **10** 21:35:35.5±0.9, 5.90N×127.03E, h183^{km}±9^{km}, mb4.8/36, Error ellipse: s-maj=7.8km s-min=3.3km az=74.0*
ISC 10 21:35:29.2±0.7**, 5.92N**±0.04×**127.01E**±0.06**, h137**^{km}±5^{km}**, n170, σ0^{s}88**/168**, mb4.7**/76**, 14C-7D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KCP	**Kidapawan**	2.19	300	⇑*e*P	P	21 36 06.7	+0.3
KCP				*i* S	S	21 36 34.8	0.0
BIPH	**Bislig**	2.34	344	⇓*e*P	P	21 36 08.0	-0.3
BIPH				*i* S	S	21 36 34.4	-3.7
SCPH	**Surigao**	4.12	339	*e*P	P	21 36 33.4	+1.7
SCPH				*e*S	S	21 37 14.4	-5.2
TGY	**Tagaytay City**	10.09	324	P	P	21 37 57.1	+5.5
	30nm,0.3s,baz=132,slow=6.9,SNR=3.9						
TGY	**Tagaytay City**	10.09	324	P	P	21 37 57.1	+5.4
TGY				pmax	pmax		
	comp=Z,30nm,0.3s						
KAKA	**Kakadu**	19.28	164	⇑*i*P	P	21 39 45.5	-0.4
	comp=Z,40nm,0.8s						
JOW	**Kunigami**	20.83	3	P	P	21 40 03.6	+2.1
	comp=Z,16nm,0.3s,baz=159,slow=14,SNR=6.3						

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FITZ  Fitzroy Crossi   23.91 183   P       P       21 40 32.1 +0.3
            comp=Z,9.6nm,0.5s,mb4.6,baz=21,slow=2.6,SNR=34
CBIJ  Chichi jima      25.54  33   P       P       21 40 47.0  0.0
            comp=Z,102nm,0.4s,mb5.8,baz=268,slow=6.6,SNR=19
SSE   Sheshan          25.63 348  eP       P       21 40 48.7 +0.8
SSE                                AMB     AMB
            comp=Z,33nm,0.7s,mb5.1
SSE                                AMB     AMB
            comp=Z,49nm,5.5s
SSE   Sheshan          25.63 348  eP       P       21 40 48.7 +0.8
            comp=Z,33nm,0.7s,mb5.1
WRAB  Tennant Creek    26.69 164⇑eP       P       21 40 57.5 -0.2
WRAB  Tennant Creek    26.69 164  eP       P       21 40 57.3 -0.4
            comp=Z,9.5nm,0.6s,mb4.6
WRAB                              eS       S       21 45 05.0  -16
WRA   Warramunga Arr   26.69 165   P       P       21 40 57.0 -0.7
            comp=Z,5.8nm,0.7s,mb4.3,baz=344,slow=10,SNR=23
WRA   Warramunga Arr   26.69 165  i P      P       21 40 57.6 -0.1
WRA                                pmax    pmax
            comp=Z,6.0nm,0.7s
WB2   Warramunga Arr   26.70 164⇑iP       P       21 40 57.4 -0.4
NJ2   Nanjing          27.09 345  eP       P       21 41 03.3 +2.0
NJ2                                AP      pP      21 41 44.2  +14
NJ2                                PP      PP      21 42 00.5 +7.7
NJ2                                S       S       21 45 27.0 -0.5
NJ2                                AMB     AMB
            comp=Z,10.0nm,0.6s,mb4.6
NJ2                                AMB     AMB
            comp=Z,28nm,3.6s
NJ2                                LR      LR
            comp=N,1µm,11.6s
NJ2                                LR      LR
            comp=E,290nm,12.3s
NJ2                                LR      LR
            comp=Z,6µm,12.8s
WHN   Wuhan            27.23 336  eP       P       21 41 03.0 +0.4
MBWA  Marble Bar       27.84 195  eP       P       21 41 07.9 -0.3
            comp=Z,12nm,0.8s,mb4.7
ENH   Enshi            29.30 328  eP       P       21 41 20.0 -1.2
            comp=Z,23nm,0.9s,mb4.9
CM31  Chiang Mai Arr   30.07 297  eP       P       21 41 28.2 +0.1
            comp=Z,3.4nm,0.6s,mb4.2
CMAR  Chiang Mai Arr   30.07 297   P       P       21 41 27.6 -0.5
            comp=Z,1.8nm,0.6s,mb4.0,baz=119,slow=7.4,SNR=16
CMAR                               LR      LR      21 54 36.5
            comp=Z,66nm,18.7s,baz=165,slow=38
CMAR  Chiang Mai Arr   30.07 297   P       P       21 41 27.6 -0.5
CMAR                               pmax    pmax
            comp=Z,2.0nm,0.6s
CMAR                               MLR     MLR
            comp=Z,66nm,18.7s
KMI   Kunming          30.08 312⇑iP       P       21 41 28.4 +0.3
KMI                                AMB     AMB
            comp=Z,31nm,1.1s,mb5.0
KMI                                AMB     AMB
            comp=Z,145nm,3.8s
ASAR  Alice Springs    30.17 167   P       P       21 41 28.0 -0.9
            comp=Z,1.4nm,0.4s,mb4.0,baz=349,slow=7.7,SNR=33
ASPA  Alice Springs    30.17 167  eP       P       21 41 28.3 -0.6
CTA   Charters Tower   32.03 144   P       P       21 41 45.7 +0.4
            comp=Z,5.1nm,0.8s,mb4.3,baz=340,slow=9.6,SNR=7.7
CTA   Charters Tower   32.03 144   P       P       21 41 45.7 +0.4
CTA                                pmax    pmax
            comp=Z,5.0nm,0.8s
CTAO  Charters Tower   32.03 144  eP       P       21 41 44.5 -0.7
            comp=Z,4.3nm,0.7s,mb4.3
MAT   Matsushiro       32.16  17   P       P       21 41 45.0 -1.2
MAT   Matsushiro       32.16  17  eP       P       21 41 45.0 -1.2
XAN   Xi'an            32.62 331   P       P       21 41 49.5 -0.7
XAN                                AMB     AMB
            comp=Z,21nm,0.9s,mb4.9
CD2   Chengdu          33.08 322   P       P       21 41 52.3 -1.9
CD2                                AMB     AMB
            comp=Z,20nm,0.9s,mb4.8
BJT   Baijiatuau       35.32 346  eP       P       21 42 13.5 +0.3
            comp=Z,31nm,0.6s,mb5.1
BJI   Beijing          35.34 346   P       P       21 42 13.6 +0.3
BJI                                AMB     AMB
            comp=Z,53nm,0.8s,mb5.2
BJI   Beijing          35.34 346   P       P       21 42 13.6 +0.3
            comp=Z,53nm,0.8s,mb5.2
FORT  Forrest          36.51 178⇑iP       P       21 42 23.3 +0.1
            comp=Z,37nm,0.4s,mb5.4
LZH   Lanzhou          36.79 328 ⇑P       P       21 42 26.5 +1.0
LZH                                AMB     AMB
            comp=Z,60nm,1.2s,mb5.1
LZH   Lanzhou          36.79 328 ⇑P       P       21 42 26.5 +1.0
            comp=Z,60nm,1.2s,mb5.1
LZH                                pP      pP      21 42 47.5 -8.3
LZH                                sP      sP      21 42 59.0  -13
CN2   Changchun        37.75 358  eP       P       21 42 33.2 -0.3
CN2                                AMB     AMB
            comp=Z,10.0nm,1.0s,mb4.4
MDJ   Mudanjiang       38.61   3  eP       P       21 42 41.8 +1.2
            comp=Z,22nm,0.8s,mb4.8
SHL   Shillong         38.85 304⇑eP       P       21 42 43.0 +0.2
MUN   Mundaring        39.07 195  eP       P       21 42 44.9 +0.3
            comp=Z,5.7nm,0.4s,mb4.5
NWAO  Narrogin (SRO)   39.73 193   P       P       21 42 50.5 +0.4
            comp=Z,15nm,0.5s,mb4.9,baz=22,slow=8.4,SNR=40
NWAO  Narrogin (SRO)   39.73 193   P       P       21 42 50.5 +0.4
NWAO                               pmax    pmax
            comp=Z,15nm,0.5s
NWAO  Narrogin (SRO)   39.73 193  eP       P       21 42 50.2 +0.1
            comp=Z,12nm,0.4s,mb4.9
STKA  Stephens Creek   40.08 161  eP       P       21 42 53.3 +0.4
            comp=Z,3.5nm,0.4s,mb4.3
STKA  Stephens Creek   40.08 161   P       P       21 42 53.4 +0.5
            comp=Z,4.4nm,0.4s,mb4.4,baz=338,slow=7.7,SNR=23
ASAJ  Asahikawa        40.43  17   P       P       21 42 56.8 +1.1
            comp=Z,21nm,0.6s,mb4.9,baz=314,slow=17,SNR=15
ASAJ  Asahikawa        40.43  17   P       P       21 42 56.8 +1.2
ASAJ                               pmax    pmax
            comp=Z,21nm,0.6s
GTA   Gaotai           41.39 328 ⇑P       P       21 43 04.5 +0.9
GTA                                AP      pP      21 43 47.2  +13
GTA                                XP      sP      21 44 08.2  +18
GTA                                AMB     AMB
            comp=Z,17nm,0.6s,mb4.8
GTA                                AMB     AMB
            comp=Z,59nm,4.2s
GTA                                LR      LR
            comp=N,117nm,12.2s
GTA                                LR      LR
            comp=E,101nm,12.5s
GTA                                LR      LR
            comp=Z,157nm,14.1s
HIA   Hailar           43.63 353  eP       P       21 43 21.9 +0.2
            comp=Z,2.8nm,0.5s,mb4.2
GUN   Gumba            44.70 304  eP       P       21 43 30.4 -0.2
            comp=Z,72nm,0.6s,mb5.5
PKI   Pulchoki         44.97 303  eP       P       21 43 31.7 -1.0
            comp=Z,28nm,0.8s,mb5.0
ULN   Ulaanbaatar      45.14 341  eP       P       21 43 34.2 +0.4
            comp=Z,30nm,0.9s,mb4.9
KKN   Kakani           45.15 304  eP       P       21 43 33.2 -0.9
            comp=Z,44nm,0.8s,mb5.1
DMN   Daman            45.23 303  eP       P       21 43 33.8 -1.0
            comp=Z,36nm,0.7s,mb5.1
SONM  Songino Array    45.33 341   P       P       21 43 35.5 +0.3
            comp=Z,9.5nm,0.9s,mb4.4,baz=151,slow=8.1,SNR=55
SONM                               PcP     PcP     21 45 12.7 -0.3
            comp=Z,1.0nm,0.5s,baz=145,slow=2.7,SNR=5.3
GKN   Gorkha           45.76 304  eP       P       21 43 37.9 -1.0
            comp=Z,24nm,0.5s,mb5.1
KOLN  Koldanda         46.54 303  eP       P       21 43 44.7 -0.4
            comp=Z,76nm,0.6s,mb5.5
ZAK   Zakamensk        48.57 340  eP       P       21 43 58.3 -2.2
ZAK                               e                21 45 24.3
TLY   Talaya           49.55 341d iP       P       21 44 09.1 +1.0
TLY                                pmax    pmax
            comp=Z,13nm,0.9s,mb4.6
TLY   Talaya           49.55 341  eP       P       21 44 08.5 +0.4
            comp=Z,13nm,0.9s,mb4.6
MOY   Mondy            50.44 339  eP       P       21 44 15.9 +1.1
WMQ   Urumqi           51.11 324   P       P       21 44 20.5 +0.4
WMQ                                AMB     AMB
            comp=Z,15nm,0.8s,mb4.7
WMQ                                AMB     AMB
            comp=Z,37nm,5.1s
WMQ                                LR      LR
            comp=N,40nm,15.0s
WMQ                                LR      LR
            comp=E,45nm,16.4s
WMQ                                LR      LR
            comp=Z,25nm,16.4s
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DDI   Dehra Dun        51.95 304  eP       P       21 44 25.2 -1.4
NDI   New Delhi        52.18 302  eP       P       21 44 29.0 +0.7
BOD   Bodaibo          52.75 351  eP       P       21 44 30.8 -1.3
THN   Thein Dam        54.50 306⇓iP       P       21 44 42.9 -2.3
MKAR  Makanchi Array   55.94 324  eP       P       21 44 55.0 -0.5
MKAR                               pmax    pmax
            comp=Z,7.0nm,0.5s
YAK   Yakutsk          56.02   2d iP       P       21 44 55.5 -0.4
YAK                                pmax    pmax
            comp=Z,60nm,0.7s,mb5.5
YAK   Yakutsk          56.02   2  eP       P       21 44 54.8 -1.0
            comp=Z,61nm,0.7s,mb5.5
ULHL  Ulahol           57.60 317   P       P       21 45 07.1 -0.1
            SNR=9.6
KZA   Kyzart           58.21 317   P       P       21 45 12.2 +0.8
            SNR=17
TKM2  Tokmak 2         58.31 318   P       P       21 45 11.5 -0.7
            SNR=10
TKM2  Tokmak 2         58.31 318  eP       P       21 45 11.7 -0.5
            comp=Z,7.8nm,0.5s,mb4.8
KBK   Karagaybulak     58.64 317   P       P       21 45 14.5  0.0
            SNR=15
UCH   Uchtor           58.77 316   P       P       21 45 15.9 +0.5
            SNR=31
UCH   Uchtor           58.77 316  eP       P       21 45 15.7 +0.3
            comp=Z,33nm,1.0s,mb5.1
ZAL   Zalesovo         58.78 332   P       P       21 45 14.5 -0.8
            comp=Z,5.5nm,0.4s,mb4.7,baz=349,slow=6.2,SNR=24
ZAL   Zalesovo         58.78 332   P       P       21 45 14.5 -0.8
ZAL                                pmax    pmax
            comp=Z,6.0nm,0.4s
CHMS  Chumysh          58.91 317   P       P       21 45 16.0 -0.4
            SNR=8.7
AAK   Ala-Archa        58.94 317   P       P       21 45 16.5  0.0
            SNR=9.4
AAK   Ala-Archa        58.94 317c iP       P       21 45 15.4 -1.2
AAK                                pmax    pmax
            comp=Z,5.0nm,0.9s,mb4.3
AAK                                MLR     MLR
            comp=Z,100nm,15.0s
AAK   Ala-Archa        58.94 317  eP       P       21 45 14.8 -1.8
            comp=Z,4.9nm,0.5s,mb4.6
USP   Ospenovka        59.19 318   P       P       21 45 17.6 -0.6
            SNR=28
AML   Almayashu        59.30 316   P       P       21 45 19.5 +0.4
            SNR=10
AML   Almayashu        59.30 316  eP       P       21 45 18.8 -0.2
            comp=Z,27nm,0.9s,mb5.1
EKS2  Erkin-Say        59.44 317   P       P       21 45 19.9 -0.1
            SNR=28
EKS2  Erkin-Say        59.44 317  eP       P       21 45 19.4 -0.6
            comp=Z,30nm,0.9s,mb5.1
FX1   Attu Island--F   60.06  30   P       P       21 45 24.7 +0.7
            comp=Z,36nm,0.5s,mb5.5,baz=262,slow=21,SNR=7.3
FX1   Attu Island--F   60.06  30   P       P       21 45 24.7 +0.7
FX1                                pmax    pmax
            comp=Z,37nm,0.5s
NVS   Novosibirsk      60.06 332⇑iP       P       21 45 22.2 -1.8
NVS                                pmax    pmax
            comp=Z,17nm,1.1s,mb4.8
NVS                                pmax    pmax
            comp=N,20nm,1.3s
NVS                                pmax    pmax
            comp=E,15nm,1.6s
BVA0  Borovoye Array   65.65 326  i P      P       21 46 00.3 -0.7
BVA0                               pmax    pmax
            comp=Z,3.0nm,0.8s,mb4.2
BVAR  Borovoye Array   65.65 326   P       P       21 46 00.4 -0.6
            comp=Z,19nm,0.6s,mb5.1,baz=130,slow=8.1,SNR=151
TIXI  Tiksi            65.66   1⇑eP       P       21 46 00.3 -0.5
CHKZ  Chkalovo         65.80 327  eP       P       21 46 00.9 -1.0
            comp=Z,25nm,1.1s,mb5.0
ARU   Arti             73.25 327⇑iP       P       21 46 46.2 -0.9
ARU                               e                21 46 59.9
ARU                               e                21 49 31.4
ARU                               ePPP     PPP     21 51 19.1 +1.2
ARU                               eS       S       21 55 58.8 -3.8
ARU                               e                21 56 36.2
ARU                               eSS      SS      22 00 45.8 -3.8
ARU                                pmax    pmax
            comp=Z,18nm,0.7s,mb4.9
ARU   Arti             73.25 327  eP       P       21 46 46.2 -0.9
            comp=Z,18nm,0.5s,mb5.1
QRN   Al-Qurain        77.62 298  eP       P       21 47 12.2 -0.3
UMR   Umm Al-Rimmam    77.80 299  eP       P       21 47 13.1 -0.3
UMR                                AMb     AMB     21 47 14.0
            comp=Z,36nm,0.6s,mb5.2
RDF   Al-Radifah       77.95 298  eP       P       21 47 14.1 -0.1
RDF                                AMb     AMB     21 47 15.2
            comp=Z,46nm,0.9s,mb5.1
RST   Umm Al-Ruwaisa   78.43 299  eP       P       21 47 15.8 -1.0
RST                                AMb     AMB     21 47 17.0
            comp=Z,54nm,0.7s,mb5.3
MZLS  Mizel            80.14 293   P       P       21 47 26.0 -0.2
IMA   Indian Mountai   80.28  24  eP       P       21 47 27.6 +1.5
            comp=Z,59nm,0.6s,mb5.4
KAMS  Al Khamasin      80.89 290   D               21 47 29.3
SLKM  Skilak Lake      81.31  30  eP       P       21 47 31.9 +0.3
KIV   Kislovodsk       81.84 313⇓eP       P       21 47 35.7 +1.0
KIV                                pmax    pmax
            comp=Z,21nm,1.6s,mb4.5
ARSS  Ar Rass          81.86 295   P       P       21 47 35.2 +0.1
TATS  Tathlith         81.97 289   P       P       21 47 36.2 +0.4
MCK   McKinley         82.09  27  eP       P       21 47 36.1 +0.5
            comp=Z,12nm,0.7s,mb4.7
AFFS  ‘Afif            82.17 293   P       P       21 47 37.1 +0.3
SML   Sawmill          82.29  28  eP       P       21 47 34.3 -2.3
COLA  College          82.61  25d iP       P       21 47 38.5 +0.3
COLA  College          82.61  25  eP       P       21 47 38.1 -0.1
            comp=Z,8.6nm,0.8s,mb4.5
ILAR  Eielson Array    83.02  26   P       P       21 47 39.6 -0.7
            comp=Z,3.5nm,0.6s,mb4.3,baz=243,slow=4.6,SNR=9.4
ILAR  Eielson Array    83.02  26   P       P       21 47 39.6 -0.7
ILAR                               pmax    pmax
            comp=Z,4.0nm,0.6s
HILS  Ha’il            83.07 297   P       P       21 47 42.2 +0.9
DIV   Divide           83.51  29  eP       P       21 47 41.8 -1.0
            comp=Z,51nm,0.8s,mb5.3
BLJS  Baljurashi       83.71 289   P       P       21 47 46.3 +1.5
VRSR  Storozhevoye     84.06 321  eP       P       21 47 45.1 -0.7
VRSR                               pmax    pmax
            comp=Z,10.0nm,0.9s,mb4.5
VRSR                               pmax    pmax
            comp=N,7.0nm,0.7s
VRSR                               pmax    pmax
            comp=E,7.0nm,0.8s
MALT  Malatya          85.26 308  eP       P       21 47 53.4 +1.3
            comp=E,20nm,1.3s,mb4.7
KBRS  Khaybar          85.44 295   P       P       21 47 54.7 +1.5
OBN   Obninsk          85.44 325⇓eP       P       21 47 53.0 +0.5
OBN                                pmax    pmax
            comp=Z,55nm,2.1s,mb4.9
VNDA  Vanda            85.55 173   P       P       21 47 53.0 +0.3
            comp=Z,2.2nm,0.7s,mb4.0,baz=298,slow=5.6,SNR=7.1
VNDA                               LR      LR      22 26 28.5
            comp=Z,40nm,19.1s,baz=72,slow=36
VNDA  Vanda            85.55 173   P       P       21 47 53.0 +0.3
VNDA                               pmax    pmax
            comp=Z,2.0nm,0.7s
VNDA                               MLR     MLR
            comp=Z,40nm,19.1s
VNDA  Vanda            85.55 173  eP       P       21 47 52.5 -0.2
            comp=Z,3.0nm,0.9s,mb4.0
QURS  Qurayyt al Mil   86.69 301   P       P       21 48 00.9 +1.7
YNBS  Yanbu‘ al Bahr   86.70 294   P       P       21 48 00.5 +1.1
ASF   Jabal al Asfar   86.98 302   P       P       21 48 01.6 +1.0
            comp=Z,16nm,0.8s,mb4.9,baz=326,slow=3.3,SNR=25
UMJS  Umm Lajj         87.24 295   P       P       21 48 03.2 +1.2
JOF   Joensuu          87.37 333  ep       P       21 48 01.2 -0.5
            comp=Z,1.5nm,0.4s,mb4.2
JOF   Joensuu          87.37 333  eP       P       21 48 01.2 -0.5
JOF                                pmax    pmax
            comp=Z,2.0nm,0.4s,mb4.3
TBKS  Tabuk            87.64 298   P       P       21 48 05.2 +1.3
KEV   Kevo             87.94 340  ep       P       21 48 04.1 -0.2
            comp=Z,0.6nm,0.4s,mb3.8
KEV   Kevo             87.94 340  eP       P       21 48 04.1 -0.2
KEV                                pmax    pmax
            comp=Z,1.0nm,0.4s,mb4.0
INK   Inuvik           88.03  22   P       P       21 48 05.0 +0.3
            comp=Z,4.3nm,0.9s,mb4.3,baz=269,slow=5.6,SNR=11
INK   Inuvik           88.03  22   P       P       21 48 05.1 +0.3
INK                                pmax    pmax
            comp=Z,4.0nm,0.9s
INK   Inuvik           88.03  22  eP       P       21 48 04.9 +0.1
            comp=Z,2.7nm,0.5s,mb4.3
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JMQS  Jabal Moqyreh    88.17 299   P       P       21 48 07.7 +1.3
DBAS  Duba             88.24 297   P       P       21 48 07.6 +0.8
ARCES ARCESS Array B   88.50 340   P       P       21 48 06.4 -0.5
            comp=Z,5.0nm,0.6s,mb4.7,baz=84,slow=6.5,SNR=31
ARCES ARCESS Array B   88.50 340   P       P       21 48 06.4 -0.6
ARCES                              pmax    pmax
            comp=Z,5.0nm,0.6s
AYUS  ‘Aynunah         88.77 298   P       P       21 48 10.0 +0.7
JMOS  Jabal al Moall   88.81 299   P       P       21 48 10.4 +1.1
BRTR  Keskin Array B   88.85 310   P       P       21 48 09.0 -0.3
            comp=Z,2.5nm,0.7s,mb4.2,baz=120,slow=4.4,SNR=12
BRTR  Keskin Array B   88.85 310   P       P       21 48 09.0 -0.3
BRTR                               pmax    pmax
            comp=Z,3.0nm,0.7s
EIL   Elat             88.89 300  eP       P       21 48 10.1 +0.4
            comp=Z,7.4nm,0.9s,mb4.6
HAQS  Haql             88.97 299   P       P       21 48 11.3 +1.2
KAF   Kangasniemi      89.80 332  ep       P       21 48 13.0 -0.2
KMBO  Kilima Mbogo     89.87 269   P       P       21 48 15.0 +0.3
            comp=Z,1.9nm,0.8s,mb4.1,baz=55,slow=20,SNR=5.6
KMBO  Kilima Mbogo     89.87 269  i P      P       21 48 14.3 -0.4
KMBO                               pmax    pmax
            comp=Z,2.0nm,0.8s
FINES FINESS Array B   90.04 332   P       P       21 48 13.5 -0.9
            comp=Z,2.0nm,0.7s,mb4.2,baz=81,slow=5.2,SNR=24
FINES FINESS Array B   90.04 332  i P      P       21 48 14.3 -0.1
FINES                              pmax    pmax
            comp=Z,2.0nm,0.7s
AKASG Malin Array Be   90.38 321   P       P       21 48 15.1 -1.2
            comp=Z,0.6nm,0.3s,mb3.9,baz=68,slow=4.1,SNR=8.4
AKASG Malin Array Be   90.38 321   P       P       21 48 15.1 -1.1
AKASG                              pmax    pmax
            comp=Z,1.0nm,0.4s
MLR   Muntele Rosu     93.52 316   P       P       21 48 31.1 +0.3
            comp=Z,1.8nm,0.4s,mb4.5,baz=310,slow=8.6,SNR=5.2
MLR   Muntele Rosu     93.52 316   P       P       21 48 31.1 +0.3
MLR                                pmax    pmax
            comp=Z,2.0nm,0.4s
QSPA  South Pole Qui   95.81 180  eP       P       21 48 40.5  0.0
NOA   NORSAR Array B   96.96 334   P       P       21 48 45.4 -0.7
            comp=Z,1.5nm,0.8s,mb4.3,baz=66,slow=4.5,SNR=3.8
NOA   NORSAR Array B   96.96 334   P       P       21 48 45.4 -0.7
NOA                                pmax    pmax
            comp=Z,2.0nm,0.8s
NOA   NORSAR Array B   96.96 334   P       P       21 48 45.4 -0.7
YKA   Yellowknife Ar   97.40  24   P       P       21 48 47.8 -0.2
            comp=Z,1.7nm,0.9s,mb4.4,baz=298,slow=4.4,SNR=16
YKA   Yellowknife Ar   97.40  24   P       P       21 48 47.8 -0.2
YKA                                pmax    pmax
            comp=Z,2.0nm,0.9s
NVAR  Mina Array Bea  105.24  48   Pdiff   Pdif    21 49 25.3 +1.7
            comp=Z,0.5nm,0.7s,baz=279,slow=4.8,SNR=3.7
NVAR  Mina Array Bea  105.24  48   Pdif    Pdif    21 49 25.3 +1.6
DBIC  Dimbokro        130.36 284   PKP     PKPdf   21 54 25.4 +0.8
            comp=Z,2.3nm,0.8s,baz=95,slow=1.9,SNR=4.1
DBIC  Dimbokro        130.36 284   PKIKP   PKPdf   21 54 25.5 +0.8
DBIC                               pmax    pmax
            comp=Z,2.0nm,0.8s
JTS   JuntasAbangare  144.32  63  ePKPdf   PKPdf   21 54 51.5 +1.4
TRQA  Tornquist       146.99 167  ePKPbc   PKPbc   21 54 58.2 +2.5
```

PRU ***10*** *21:38:13.2, 42.89N×15.06E*
ROM ***10*** *21:38:17.3±0.4, 43.19N×15.42E, h10^{km}, MD3.2/10, ML2.6/5, Error ellipse: s-maj=4.6km s-min=2.7km az=90.0*
NEIC ***10*** *21:38:17.4, 43.19N×15.42E, h10^{km}, MD3.2(ROM), ML3.3(LDG), After ROM.*
LDG ***10*** *21:38:18.1±0.2, 43.21N×15.49E, h10^{km}, Ml3.3/12, Error ellipse: s-maj=5.0km s-min=2.6km az=63.0*
CSEM ***10*** *21:38:19.2±0.1, 43.16N×15.50E, h40^{km}, ML3.2/12, Error ellipse: s-maj=2.9km s-min=2.6km az=82.0*
ISC 10 21:38:16.7±0.4**, 43.16N**±0.02×**15.41E**±0.05**, h10**^{km}**, n65, σ1ˢ01**/64**, 4C, Adriatic Sea**

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Code  Station Name      Δ°   AZ°   Phase ID         Time      Res
                                   Op      ISC     h  m  s    ISC
NVLJ  Novalja           1.45 345  i Pn     Pn      21 38 41.4 -1.8
NVLJ                              i Sn     Sn      21 39 03.2 +0.8
NVLJ                              i Sg     Sg      21 39 03.7 -1.5
NVLJ  Novalja           1.45 345  i Sn     Sn      21 39 03.1 +0.7
NVLJ                              i Sg     Sg      21 39 03.7 -1.5
RGNG  Rignano Grg       1.49 175  ePN      Pn      21 38 43.3 -0.4
RGNG  Rignano Grg       1.49 175  ePn      Pn      21 38 43.3 -0.5
FGMS  Monte Sant’Ang    1.51 164  ePN      Pn      21 38 44.8 +0.9
FGMS  Monte Sant’Ang    1.51 164  ePn      Pn      21 38 44.8 +0.9
INTR  Introdacqua       1.60 225  ePN      Pn      21 38 45.4 +0.2
INTR  Introdacqua       1.60 225  ePn      Pn      21 38 45.4 +0.2
CII   Carovilli         1.65 210  ePN      Pn      21 38 47.1 +1.1
            133nm,0.6s
CII   Carovilli         1.65 210  ePn      Pn      21 38 47.1 +1.0
CII   Carovilli         1.65 210  ePn      Pn      21 38 47.1 +1.1
            133nm,0.6s
STON  Ston              1.71  99  i Pn     Pn      21 38 45.8 -1.0
STON                              i Sg     Sg      21 39 09.8 -3.8
STON  Ston              1.71  99  i Pn     Pn      21 38 45.8 -1.0
STON                              i Sg     Sg      21 39 09.7 -3.9
SNTG  Esanatoglia       1.81 274  ePN      Pn      21 38 47.2 -1.0
            61nm,0.7s
SNTG  Esanatoglia       1.81 274  ePn      Pn      21 38 47.2 -1.0
SNTG  Esanatoglia       1.81 274  ePn      Pn      21 38 47.2 -1.0
            61nm,0.7s
ARV   Arcevia           1.83 281  ePN      Pn      21 38 48.8 +0.2
            21nm,0.5s
ARV   Arcevia           1.83 281  ePn      Pn      21 38 48.8 +0.2
ARV   Arcevia           1.83 281  ePn      Pn      21 38 48.8 +0.2
            21nm,0.5s
PTQR  Pietraquaria      1.87 233  ePN      Pn      21 38 49.3 +0.2
            32nm,0.6s
PTQR  Pietraquaria      1.87 233  ePn      Pn      21 38 49.4 +0.2
PTQR  Pietraquaria      1.87 233  ePn      Pn      21 38 49.3 +0.2
            32nm,0.6s
SDI   San Donato        1.87 220  ePN      Pn      21 38 47.9 -1.3
            93nm,0.6s
SDI   San Donato        1.87 220  ePn      Pn      21 38 47.9 -1.2
SDI   San Donato        1.87 220  ePn      Pn      21 38 47.9 -1.3
            93nm,0.6s
SGG   Gregorio Mates    1.93 204  ePN      Pn      21 38 51.1 +1.1
SGG   Gregorio Mates    1.93 204  ePn      Pn      21 38 51.1 +1.1
IPES  Pescosannita      1.97 193  ePN      Pn      21 38 51.8 +1.2
BLY   Banja Luka        2.04  38   Pn      Pn      21 38 53.8 +2.2
MNS   Montasola         2.15 250  ePN      Pn      21 38 53.8 +0.6
            38nm,0.6s
MNS   Montasola         2.15 250  ePn      Pn      21 38 53.8 +0.6
MNS   Montasola         2.15 250  ePn      Pn      21 38 53.8 +0.6
            38nm,0.6s
TREB  Trebinje          2.21 101  ePn      Pn      21 38 54.3 +0.4
TREB                               Sn      Sn      21 39 20.6 -0.9
VBY   Vinica-Bojanci    2.34 357  ePn      Pn      21 38 56.8 +0.9
VBY                               e(Sn)    Sn      21 39 29.1 +4.1
CRE   Caprese Michel    2.56 281  ePN      Pn      21 38 59.5 +0.5
            14nm,0.4s
CRE   Caprese Michel    2.56 281  ePn      Pn      21 38 59.5 +0.5
CRE   Caprese Michel    2.56 281  ePn      Pn      21 38 59.5 +0.5
            14nm,0.4s
VISS  Visnje            2.67 351  i Pn     Pn      21 39 01.4 +0.8
VISS                              eSn      Sn      21 39 35.2 +1.8
VOY   Vojsko            3.07 340  ePn      Pn      21 39 05.6 -0.6
VOY                               eSn      Sn      21 39 43.3  0.0
OBKA  Obir              3.40 350⇑iPN      Pn      21 39 11.0  0.0
OBKA                              i SN     Sn      21 39 52.6 +0.8
RHK1  Bakonya           3.50  32  eP       Pn      21 39 12.2 -0.1
RHK1                              eS       Sn      21 39 53.9 -0.3
PTCC  Patocco-Chiusa    3.56 336  ePN      Pn      21 39 11.9 -1.3
PTCC  Patocco-Chiusa    3.56 336  ePn      Pn      21 39 11.9 -1.3
CTI   Castel Tesino     3.94 318  ePN      Pn      21 39 17.2 -1.4
CTI   Castel Tesino     3.94 318  ePn      Pn      21 39 17.2 -1.4
ARSA  Arzberg           4.09   1⇑iPN      Pn      21 39 20.3 -0.5
ARSA                              i SN     Sn      21 40 11.0 +1.8
KBA   Koelnbreinsper    4.18 340⇑iPN      Pn      21 39 21.5 -0.5
KBA                               i SN     Sn      21 40 12.1 +0.6
PGF   Pioggiola         4.75 265  ePn      Pn      21 39 28.6 -1.5
PGF                               eSn      Sn      21 40 21.1 -4.9
            1.6nm,0.4s
MOA   Molln             4.76 351⇑iPN      Pn      21 39 29.9 -0.3
MOA                               i SN     Sn      21 40 25.5 -0.6
SBF   Sospel            5.84 280  eSn      Sx      21 40 47.0
            16nm,0.7s
KHC   Kasperske Hory    6.10 349  ePn      Px      21 39 47.1
KHC                               e                21 39 56.0
KHC                               eSn      Sx      21 40 54.4
KHC                               e                21 41 12.5
KHC   Kasperske Hory    6.10 349  ePN      Px      21 39 47.1
KHC                                x       x       21 39 56.0
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KHC				eSN	Sx	21 40 54.4	
KHC				ex	x	21 41 12.5	
FRF	**La Foret Royal**	**6.40**	**277**	ePn	Px	21 39 50.7	
MBDF	**Montbardon**	**6.43**	**287**	ePn	Px	21 39 51.0	
MBDF				eSn	Sx	21 41 01.2	
	6.3nm,0.5s						
LMR	**La Mourre**	**6.50**	**275**	ePn	Px	21 39 51.7	
LMR				eSn	Sx	21 41 03.1	
	0.5nm,0.3s						
LPG	**La Plagne**	**6.63**	**294**	ePn	Px	21 39 55.2	
LPG				eSn	Sx	21 41 06.0	
	11nm,0.6s						
LPL	**La Plagne**	**6.65**	**294**	ePn	Px	21 39 53.9	
LPL				eSn	Sx	21 41 06.2	
	7.1nm,0.4s						
ORIF	**Oris-en-Rattie**	**7.09**	**288**	ePn	Px	21 40 00.0	
ORIF				eSn	Sx	21 41 16.7	
	6.9nm,0.6s						
SMRF	**Simiane la Rot**	**7.19**	**280**	ePn	Px	21 40 01.4	
HINF	**Hinteralfeld**	**7.60**	**311**	ePn	Px	21 40 06.9	
HINF				eSn	Sx	21 41 28.3	
	12nm,0.6s						
MOX	**Moxa**	**7.92**	**342**	Pn	Px	21 40 11.2	
SMF	**Signal de Mont**	**8.92**	**297**	ePn	Px	21 40 25.3	
SMF				eSn	Sx	21 42 00.0	
	8.8nm,0.6s						
SSF	**Saint Saulge**	**9.27**	**299**	ePn	Px	21 40 29.8	
SSF				eSn	Sx	21 42 08.3	
	1.8nm,0.6s						
AVF	**Avril sur Loir**	**9.28**	**297**	ePn	Px	21 40 29.8	
AVF				eSn	Sx	21 42 09.0	
	0.4nm,0.3s						
BGF	**Bois d'Agland**	**9.54**	**295**	ePn	Px	21 40 33.6	
BGF				eSn	Sx	21 42 15.0	
	6.9nm,0.6s						

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*IDC **10** 21:39:11.2±2.0, 9.12S×124.27E, mb4.1/1, mb1 4.7/4, mb1mx4.3/13, ML4.6/3, MS3.0/2, Ms1 3.0/2, ms1mx2.5/21, Error ellipse: s-maj=73.0km s-min=25.8km az=64.0*

*NEIC **10** 21:39:22.6±2.7, 9.64S×124.32E, h119^{km}±29^{km}, mb3.8/1, Error ellipse: s-maj=26.4km s-min=22.6km az=58.0*

ISC 10 21:39:21.4±1.8**, 9.51S**±0.09×**124.5E**±0.1**, h129**^{km}±20^{km}**, n17,** σ**0**^{s}.**93**/23**, mb4.3**/7**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**8.43**	**113**	eP	**P**	**21 41 23.2**	**+1.5**
	19nm,0.3s						
KAKA				eS	**S**	**21 42 54.3**	**-1.3**
FITZ	**Fitzroy Crossi**	**8.62**	**172**	eP	**P**	**21 41 23.2**	**-1.1**
	20nm,0.2s						
FITZ	**Fitzroy Crossi**	**8.62**	**172**	Pn	**P**	**21 41 23.1**	**-1.3**
	11nm,0.3s,baz=4.5,slow=11,SNR=144						
FITZ				Sn	**S**	**21 42 53.5**	**-6.8**
	19nm,0.3s,baz=164,slow=7.8,SNR=24						
FITZ				LR	LR	21 46 05.9	
	comp=Z,55nm,18.0s,baz=276,slow=46						
WRA	**Warramunga Arr**	**14.10**	**138**	Pn	**P**	**21 42 35.8**	**-0.7**
	2.4nm,0.3s,baz=316,slow=13,SNR=15						
WRA				Sn	**S**	**21 45 05.3**	**-4.8**
	4.9nm,0.3s,baz=311,slow=24,SNR=12						
WRAB	**Tennant Creek**	**14.10**	**138**	ePn	**P**	**21 42 35.7**	**-0.8**
WB2	**Warramunga Arr**	**14.11**	**138**	eP	**P**	**21 42 37.3**	**+0.7**
WB2				eS	**S**	**21 45 03.7**	**-6.5**
ASPA	**Alice Springs**	**16.73**	**148**	eP	**P**	**21 43 12.4**	**+2.9**
ASPA				eS	**S**	**21 46 09.3**	**-0.6**
ASAR	**Alice Springs**	**16.73**	**148**	P	**P**	**21 43 10.8**	**+1.3**
	2.0nm,0.3s,baz=324,slow=13,SNR=37						
ASAR				S	**S**	**21 46 10.5**	**+0.6**
	1.9nm,0.3s,baz=312,slow=21,SNR=18						
ASAR				LR	LR	21 51 27.0	
	comp=Z,70nm,18.3s,baz=29,slow=43						
CTA	**Charters Tower**	**23.53**	**119**	P	**P**	**21 44 27.9**	**+7.0**
	5.5nm,0.9s,mb4.1,baz=304,slow=13,SNR=4.6						
CTA	**Charters Tower**	**23.53**	**119**	P	**P**	**21 44 27.9**	**+7.0**
GUN	**Gumba**	**52.69**	**316**	eP	**P**	**21 48 24.8**	**-0.2**
	9.7nm,0.4s,mb4.9						
PKI	**Pulchoki**	**52.80**	**315**	eP	**P**	**21 48 25.2**	**-0.6**
	8.3nm,0.4s,mb4.8						
DMN	**Daman**	**53.03**	**315**	eP	**P**	**21 48 27.7**	**+0.1**
GKN	**Gorkha**	**53.60**	**315**	eP	**P**	**21 48 31.9**	**+0.2**
	6.7nm,0.3s,mb4.8						
KOLN	**Koldanda**	**54.19**	**314**	eP	**P**	**21 48 35.5**	**-0.5**
	5.7nm,0.4s,mb4.6						
SONM	**Songino Array**	**59.29**	**346**	P	**P**	**21 49 11.8**	**-0.1**
	0.3nm,0.6s,mb3.3,baz=162,slow=8.6,SNR=4.4						
UCH	**Uchtor**	**68.80**	**322**	P	**P**	**21 50 14.4**	**+0.6**
	0.9nm,0.6s,mb3.7						

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*NIED **10** 21:42:00, 28.90N×132.00E, h8^{km}, Mw3.8 Best double couple: M$_0$5.21×10^{14} NP1:φ$_s$229°, δ58°, λ-83°. NP2:φ$_s$36°, δ32°, λ-101°.*

*IDC **10** 21:42:33.3±3.0, 28.62N×132.07E, mb3.6/5, mb1 3.8/6, mb1mx3.6/22, ML3.4/1, MS2.8/1, Ms1 2.8/1, ms1mx1.8/21, Error ellipse: s-maj=100.0km s-min=25.6km az=147.0*

*JMA **10** 21:42:38.5±0.2, 28.90N×132.03E, h80^{km}, M3.5*

ISC 10 21:42:37.2±0.7**, 28.84N**±0.03×**132.06E**±0.06**, h33**^{km}**, n21,** σ**1**^{s}.**12**/32**, mb3.6**/5**, West of Bonin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	**Kikaishima**	**1.91**	**255**	P	**P**	**21 43 09.5**	**+1.5**
JZK				eS	**S**	**21 43 34.2**	**+3.1**
JTN	**Tanegashima 3**	**2.04**	**333**	P	**P**	**21 43 10.5**	**+0.7**
JTN				eS	**S**	**21 43 34.6**	**+0.2**
JNN	**Nakanoshima**	**2.16**	**298**	P	**P**	**21 43 12.4**	**+0.9**
JAM	**Amami Oshima**	**2.20**	**259**	P	**P**	**21 43 13.0**	**+0.9**
JAM				eS	**S**	**21 43 39.4**	**+1.0**
JKC	**Kuchinoerabu**	**2.29**	**315**	P	**P**	**21 43 14.6**	**+1.2**
JTSR	**Tashiro 2**	**2.52**	**337**	P	**P**	**21 43 17.3**	**+0.6**
JTSR				S	**S**	**21 43 45.5**	**-1.1**
JNAR	**Kushima--Naru**	**2.77**	**346**	P	**P**	**21 43 20.8**	**+0.6**
JNAR				eS	**S**	**21 43 51.3**	**-1.5**
JTK	**Tokunoshima**	**2.94**	**250**	P	**P**	**21 43 23.3**	**+0.7**
JTK				eS	**S**	**21 43 57.2**	**+0.1**
JMZ	**Minamidaito 2**	**3.10**	**194**	P	**P**	**21 43 23.9**	**-1.0**
JMZ				eS	**S**	**21 43 57.9**	**-3.3**
JTZ	**Takazaki**	**3.17**	**345**	P	**P**	**21 43 26.4**	**+0.5**
JTZ				eS	**S**	**21 44 01.6**	**-1.4**
JSJ	**Shimokoshiki**	**3.48**	**325**	P	**P**	**21 43 30.2**	**-0.2**
JSJ				eS	**S**	**21 44 10.3**	**-0.7**
JOW	**Kunigami**	**3.90**	**240**	Pn	**Pn**	**21 43 33.0**	**-3.5**
	6.0nm,0.3s,baz=118,slow=22,SNR=9.7						
JOW				Sn	**Sn**	**21 44 19.8**	**-2.0**
	6.8nm,0.3s,baz=100,slow=29,SNR=8.6						
JOW	**Kunigami**	**3.90**	**240**	P	**P**	**21 43 32.9**	**-3.5**
JOW				eS	**S**	**21 44 19.9**	**-1.8**
JTO	**Tosashimizu**	**4.06**	**9**	P	**P**	**21 43 37.5**	**-1.1**
JTO				eS	**S**	**21 44 18.8**	**-6.8**
JNA	**Nagahama**	**4.72**	**4**	P	**P**	**21 43 47.6**	**-0.3**
CBIJ	**Chichi jima**	**9.12**	**99**	LR	LR	21 47 57.3	
	comp=Z,55nm,20.0s,baz=257,slow=36						
ILAR	**Eielson Array**	**60.53**	**29**	P	**P**	**21 52 46.3**	**+0.1**
	0.5nm,1.0s,mb3.6,baz=270,slow=5.4,SNR=4.1						
INK	**Inuvik**	**65.15**	**24**	P	**P**	**21 53 17.2**	**+0.6**
	1.2nm,0.8s,mb4.0,baz=287,slow=5.7,SNR=5.0						
FINES	**FINESS Array B**	**72.26**	**331**	P	**P**	**21 54 01.1**	**+0.5**
	1.6nm,0.9s,mb3.9,baz=79,slow=7.1,SNR=5.3						
YKA	**Yellowknife Ar**	**74.71**	**26**	P	**P**	**21 54 15.5**	**+0.6**
	0.1nm,0.3s,mb3.2,baz=300,slow=5.7,SNR=4.9						
AKASG	**Malin Array Be**	**75.74**	**320**	P	**P**	**21 54 21.9**	**+0.8**
	0.1nm,0.3s,mb3.2,baz=51,slow=5.6,SNR=4.3						

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*NEIC **10** 22:08:53.2±1.0, 19.69S×177.87W, h542^{km}±12^{km}, mb4.4/16, Error ellipse: s-maj=12.9km s-min=7.3km az=148.0*

*IDC **10** 22:08:57.8±2.2, 19.82S×177.98W, h600^{km}±28^{km}, mb3.5/11, mb1 3.8/12, mb1mx3.6/17, Error ellipse: s-maj=19.4km s-min=11.4km az=156.0*

ISC 10 22:08:52.6±1.2**, 19.8S**±0.1×**177.96W**±0.08**, h548**^{km}±16^{km}**, n36,** σ**1**^{s}.**07**/36**, mb4.2**/23**, 4C-5D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**8.29**	**46**	ePn	**P**	**22 10 52.5**	**-1.5**
	42nm,0.6s						
URZ	**Urewera**	**18.93**	**192**	P	**P**	**22 12 37.2**	**-2.5**
	5.1nm,0.3s,baz=318,slow=0.8,SNR=24						
RPZ	**Rata Peaks**	**25.61**	**199**	P	**P**	**22 13 39.5**	**-0.7**
	20nm,0.8s,mb4.8,baz=11,slow=5.2,SNR=5.5						
ARMA	**Armidale**	**29.43**	**243**	eP	**P**	**22 14 15.5**	**+1.8**
CTA	**Charters Tower**	**33.61**	**263**	⇓ iP	**P**	**22 14 50.6**	**+1.5**
	21nm,0.4s,mb5.0						
CTAO	**Charters Tower**	**33.61**	**263**	eP	**P**	**22 14 50.5**	**+1.3**
	29nm,0.5s,mb5.1						
PMG	**Port Moresby**	**35.22**	**282**	P	**P**	**22 15 03.7**	**+1.1**
	31nm,0.8s,mb4.9,baz=92,slow=6.4,SNR=12						
PMG	**Port Moresby**	**35.22**	**282**	eP	**P**	**22 15 03.0**	**+0.4**
	35nm,0.9s,mb4.9						
TOO	**Toolangi**	**36.37**	**233**	⇓ iP	**P**	**22 15 12.8**	**+0.9**
	4.1nm,0.6s,mb4.1						
STKA	**Stephens Creek**	**38.15**	**243**	⇓ iP	**P**	**22 15 27.8**	**+1.3**
	3.8nm,0.6s,mb4.1						
STKA	**Stephens Creek**	**38.15**	**243**	P	**P**	**22 15 27.3**	**+0.8**
	7.9nm,0.8s,mb4.3,baz=87,slow=9.8,SNR=19						
ASAR	**Alice Springs**	**44.73**	**256**	P	**P**	**22 16 19.5**	**+0.5**
	20nm,0.8s,mb4.7,baz=91,slow=7.5,SNR=207						
ASAR				ScP		22 20 49.4	
	0.5nm,0.6s,baz=112,slow=3.7,SNR=4.3						
ASAR				S	**S**	**22 22 13.9**	**-2.5**
	1.2nm,0.9s,baz=93,slow=16,SNR=11						
ASPA	**Alice Springs**	**44.73**	**256**	⇓ iP	**P**	**22 16 19.4**	**+0.4**
ASPA				eS	**S**	**22 22 14.9**	**-1.5**
WB2	**Warramunga Arr**	**44.73**	**261**	⇓ iP	**P**	**22 16 19.0**	**0.0**
WRAB	**Tennant Creek**	**44.74**	**261**	eP	**P**	**22 16 18.7**	**-0.3**
	7.5nm,0.5s,mb4.5						
WRA	**Warramunga Arr**	**44.74**	**261**	P	**P**	**22 16 18.8**	**-0.3**
	4.9nm,0.3s,mb4.5,baz=97,slow=7.3,SNR=233						
WRA				S	**S**	**22 22 13.6**	**-3.0**
	0.5nm,0.8s,baz=100,slow=23,SNR=3.3						
KAKA	**Kakadu**	**48.04**	**271**	eP	**P**	**22 16 44.0**	**-0.3**
	8.6nm,0.6s,mb4.5						
FORT	**Forrest**	**49.63**	**246**	⇑ iP	**P**	**22 16 55.5**	**-0.5**
	46nm,0.6s,mb5.1						
FITZ	**Fitzroy Crossi**	**53.17**	**262**	eP	**P**	**22 17 21.6**	**-0.1**
	5.2nm,0.5s,mb4.1						
MBWA	**Marble Bar**	**58.05**	**257**	eP	**P**	**22 17 54.8**	**-0.8**
	11nm,0.6s,mb4.3						
VNDA	**Vanda**	**58.66**	**185**	P	**P**	**22 17 58.5**	**-0.3**
	0.9nm,0.5s,mb3.2,baz=1.3,slow=9.5,SNR=7.2						
QSPA	**South Pole Qui**	**70.31**	**180**	⇑ iP	**P**	**22 19 12.1**	**+0.1**
	8.9nm,0.7s,mb4.4						
YBH	**Yreka Blue Hor**	**79.68**	**39**	P	**P**	**22 20 05.4**	**+0.8**
	3.2nm,0.7s,mb3.8,baz=205,slow=3.4,SNR=5.7						
NVAR	**Mina Array Bea**	**80.46**	**43**	P	**P**	**22 20 09.1**	**+0.5**
	1.7nm,0.7s,mb3.5,baz=229,slow=9.4,SNR=12						
TPNV	**Topopah Spring**	**80.99**	**46**	P	**P**	**22 20 11.5**	**+0.1**
	2.0nm,0.8s,mb3.6						
ENH	**Enshi**	**85.65**	**304**	eP	**P**	**22 20 35.3**	**+0.6**
	3.0nm,0.3s,mb4.4						
HLID	**Hailey**	**85.74**	**41**	eP	**P**	**22 20 34.9**	**+0.1**
	2.0nm,0.9s,mb3.8						
ILAR	**Eielson Array**	**87.58**	**13**	P	**P**	**22 20 41.7**	**-1.3**
	1.1nm,0.7s,mb3.7,baz=210,slow=5.6,SNR=12						
BW06	**Boulder Array**	**88.39**	**43**	eP	**P**	**22 20 46.8**	**-0.6**
	1.3nm,0.6s,mb3.8						
PDAR	**Pinedale Array**	**88.39**	**43**	P	**P**	**22 20 47.4**	**+0.1**
	1.4nm,0.7s,mb3.8,baz=221,slow=3.0,SNR=11						
SNAA	**Sanae**	**88.75**	**178**	P	**P**	**22 20 46.9**	**-1.4**
	0.4nm,0.8s,mb3.3,baz=250,slow=11,SNR=6.2						
VNA3	**Neumayer Olymp**	**88.88**	**176**	⇑ i	**P**	**22 20 50.9**	**+1.9**
VNA2	**Neumayer--Watz**	**89.33**	**177**	⇑ i	**P**	**22 20 53.3**	**+2.2**
AKASG	**Malin Array Be**	**142.38**	**332**	PKhKP		22 27 19.5	
	0.3nm,0.3s,baz=40,slow=4.6,SNR=7.0						
CLL	**Collm**	**147.34**	**347**	ePKP1	PKPdf	22 27 36.0	+5.1
GERES	**GERESS Array B**	**149.49**	**345**	PKPbc	PKPdf	22 27 40.7	+6.3
	2.5nm,1.1s,slow=1.3,SNR=9.2						

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*MOS **10** 22:51:33.3±1.4, 51.04N×156.49E, h117^{km}, mb4.5/14, Error ellipse: s-maj=12.4km s-min=6.7km az=87.0*

*KRSC **10** 22:51:35.5±1.7, 50.97N×156.95E, h99^{km}±5^{km}, ML4.6*

*IDC **10** 22:51:36.1±0.5, 51.39N×156.42E, h113^{km}±4^{km}, mb4.1/22, mb1 4.3/24, mb1mx4.3/27, Error ellipse: s-maj=14.2km s-min=9.5km az=146.0*

*BJI **10** 22:51:37.2, 51.06N×156.50E, h146^{km}, mB4.9, mb4.8*

*NEIC **10** 22:51:39.1±0.6, 51.42N×156.37E, h140^{km}±5^{km}, mb4.6/54, Error ellipse: s-maj=5.5km s-min=3.1km az=169.0*

ISC 10 22:51:36.5±0.3**, 51.27N**±0.03×**156.51E**±0.04**, h133**^{km}±2^{km}**, h119**^{km}±3.3^{km}**:pP-P, n242,** σ**0**^{s}.**97**/289**, mb4.4**/83**, 7C-5D, Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAU	**Pauzhetka**	**0.28**	**44**	i P	**P**	**22 51 53.5**	**-1.4**
PAU				eS	**S**	**22 52 05.0**	**-4.1**
PAU				Smax			
	10μm,0.9s						
SKR	**Severo-Kuril's**	**0.64**	**203**	i P	**P**	**22 51 49.9**	**-7.0**
SKR				i S	**S**	**22 52 03.4**	**-9.0**
SKR	**Severo-Kuril's**	**0.64**	**203**	⇓ iPN	**P**	**22 51 49.9**	**-7.0**
SKR				i S	**S**	**22 52 03.4**	**-9.0**
SKR				pmax	pmax		
	comp=Z,7μm,0.5s						
SKR				pmax	pmax		
	comp=N,3μm,0.4s						
SKR				pmax	pmax		
	comp=E,3μm,0.4s						
SKR				pmax	pmax		
	comp=N,6μm,1.0s						
SKR				pmax	pmax		
	comp=Z,12μm,1.0s						
SKR				pmax	pmax		
	comp=E,8μm,1.9s						
SKR				smax			
	comp=N,75μm,1.0s						
SKR				smax			
	comp=E,95μm,1.0s						
ALID	**Alaid**	**0.72**	**237**	i P	**P**	**22 51 56.6**	**-0.9**
ALID				eS	**S**	**22 52 10.9**	**-2.6**
MIPR	**Malaya Ipel'ka**	**1.02**	**9**	eP	**P**	**22 52 00.5**	**+0.5**
GRL	**Gorelyy**	**1.61**	**37**	i P	**P**	**22 52 06.5**	**+0.1**
GRL				eS	**S**	**22 52 29.4**	**+0.1**
APC	**Apacha**	**1.71**	**13**	i P	**P**	**22 52 08.2**	**+0.7**
APC				eS	**S**	**22 52 32.2**	**+1.0**
APC				Smax			
	comp=E,800nm,1.1s						
RUS	**Russkaya**	**1.71**	**46**	P	**P**	**22 52 06.1**	**-1.4**
RUS				S	**S**	**22 52 28.7**	**-2.5**
RUS	**Russkaya**	**1.71**	**46**	eP	**P**	**22 52 06.0**	**-1.5**
RUS				i S	**S**	**22 52 28.7**	**-2.5**
KRMR	**Karymshinskiy**	**1.86**	**32**	i P	**P**	**22 52 09.8**	**+0.5**
KRMR				eS	**S**	**22 52 34.3**	**0.0**
PET	**Petropavlovsk**	**2.20**	**36**	P	**P**	**22 52 13.4**	**-0.2**
PET				S	**S**	**22 52 40.3**	**-1.5**
PET	**Petropavlovsk**	**2.20**	**36**	eP	**P**	**22 52 13.3**	**-0.3**
PET				eS	**S**	**22 52 40.4**	**-1.4**
PET	**Petropavlovsk**	**2.20**	**36**	ePn	**P**	**22 52 13.2**	**-0.3**
PET				eSn	**S**	**22 52 38.1**	**-3.6**
UGLR	**Uglovaya**	**2.41**	**35**	eP	**P**	**22 52 17.2**	**+0.9**
UGLR				eS	**S**	**22 52 47.9**	**+1.4**
KOK	**Koryaka**	**2.41**	**32**	i P	**P**	**22 52 17.8**	**+1.5**
KOK				eS	**S**	**22 52 48.9**	**+2.3**
AVH	**Avacha**	**2.42**	**34**	i P	**P**	**22 52 17.5**	**+1.0**
AVH				eS	**S**	**22 52 46.8**	**-0.1**
SMAR	**Somma**	**2.44**	**34**	eP	**P**	**22 52 17.4**	**+0.7**
SMAR				eS	**S**	**22 52 46.9**	**-0.4**
SDLR	**Sedlovina**	**2.48**	**35**	i P	**P**	**22 52 17.5**	**+0.2**
SDLR				eS	**S**	**22 52 48.0**	**-0.3**
GNL	**Ganaly**	**2.58**	**19**	i P	**P**	**22 52 19.7**	**+1.2**
GNL				eS	**S**	**22 52 52.2**	**+1.7**
NLC	**Nalytchevo**	**2.58**	**41**	P	**P**	**22 52 16.9**	**-1.7**
NLC				S	**S**	**22 52 46.6**	**-3.9**
NLC	**Nalytchevo**	**2.58**	**41**	i P	**P**	**22 52 16.9**	**-1.7**
NLC				eS	**S**	**22 52 46.5**	**-4.0**
SPN	**Mys Shipunski**	**2.83**	**48**	P	**P**	**22 52 20.3**	**-1.5**
SPN				S	**S**	**22 52 52.6**	**-3.7**
SPN	**Mys Shipunski**	**2.83**	**48**	eP	**P**	**22 52 20.3**	**-1.5**
SPN				i S	**S**	**22 52 52.4**	**-3.9**
KII	**Karymskiy**	**3.30**	**32**	P	**P**	**22 52 28.6**	**+0.6**
KII				S	**S**	**22 53 07.1**	**-0.2**
KII	**Karymskiy**	**3.30**	**32**	eP	**P**	**22 52 28.5**	**+0.5**
KII				eS	**S**	**22 53 06.9**	**-0.4**
TUMR	**Tumrok**	**4.57**	**27**	i P	**P**	**22 52 46.5**	**+1.6**
TUMR				eS	**S**	**22 53 38.2**	**+0.6**
ESO	**Esso**	**4.84**	**15**	eP	**P**	**22 52 51.0**	**+2.5**
KMNR	**Kamenistaya**	**5.01**	**25**	eP	**P**	**22 52 52.4**	**+1.6**
KMNR				eS	**S**	**22 53 48.4**	**+0.2**
KOZ	**Kozyrevsk**	**5.20**	**21**	P	**P**	**22 52 55.1**	**+1.8**
KOZ	**Kozyrevsk**	**5.20**	**21**	eP	**P**	**22 52 54.8**	**+1.5**
KOZ				eS	**S**	**22 53 52.8**	**+0.2**
KPT	**Kopyto**	**5.20**	**24**	eP	**P**	**22 52 53.7**	**+0.4**
KPT				eS	**S**	**22 53 50.1**	**-2.5**
KOZR	**Kozyr**	**5.21**	**21**	PN	**P**	**22 52 55.1**	**+1.7**
ZLN	**Zelenaya**	**5.40**	**27**	eP	**P**	**22 52 57.6**	**+1.7**
ZLN				eS	**S**	**22 53 56.8**	**-0.7**
SRDR	**Sredinnyy**	**5.40**	**19**	i P	**P**	**22 52 57.7**	**+1.7**
SRDR				eS	**S**	**22 53 57.1**	**-0.4**
LGNR	**Loginova**	**5.42**	**26**	eP	**P**	**22 52 57.6**	**+1.3**
LGNR				eS	**S**	**22 53 57.9**	**-0.2**
CIRR	**Tsirk**	**5.47**	**26**	eP	**P**	**22 52 57.7**	**+0.8**
CIRR				eS	**S**	**22 53 57.8**	**-1.3**
KRSR	**Krestovskiy**	**5.51**	**24**	eP	**P**	**22 52 58.2**	**+0.8**
KRSR				eS	**S**	**22 53 58.7**	**-1.4**
SVLR	**Shiveluch**	**6.00**	**26**	eP	**P**	**22 53 04.5**	**+0.5**
SVLR				eS	**S**	**22 54 09.7**	**-2.3**
KBG	**Krutoberegovo**	**6.20**	**34**	eP	**P**	**22 53 07.3**	**+0.6**
KBG				eS	**S**	**22 54 15.2**	**-1.6**
KBG				Smax			
	comp=E,200nm,0.8s						
KBTR	**Krutoberegovo**	**6.20**	**35**	P	**P**	**22 53 05.3**	**-1.5**
KBTR				S	**S**	**22 54 11.9**	**-5.0**
KBTR	**Krutoberegovo**	**6.20**	**35**	eP	**P**	**22 53 05.2**	**-1.6**
KBTR				eS	**S**	**22 54 12.0**	**-4.9**
BKI	**Bering**	**6.91**	**52**	i P	**P**	**22 53 13.5**	**-3.0**
BKI				i S	**S**	**22 54 22.8**	**-11**
MA2	**Magadan**	**8.94**	**341**	ePN	**P**	**22 53 44.7**	**+1.1**
MA2				eS	**S**	**22 55 26.7**	**+3.9**
MA2				pmax	pmax		
	comp=Z,20nm,0.9s						
MA2	**Magadan**	**8.94**	**341**	ePn	**P**	**22 53 44.4**	**+0.8**
YSS	**Yuzh-Sakhalins**	**9.99**	**250**	ePn	**P**	**22 53 59.5**	**+2.0**
FX1	**Attu Island--F**	**10.38**	**75**	P	**P**	**22 54 00.5**	**-2.1**
	comp=Z,7.3nm,0.3s,baz=263,slow=21,SNR=4.7						
FX1				S	**S**	**22 55 48.4**	**-8.7**
	comp=Z,19nm,0.3s,baz=116,slow=20,SNR=9.9						
ASAJ	**Asahikawa**	**11.78**	**238**	P	**P**	**22 54 22.2**	**+1.1**
	comp=Z,7.4nm,0.3s,baz=74,slow=12,SNR=18						
ASAJ	**Asahikawa**	**11.78**	**238**	PN	**P**	**22 54 22.2**	**+1.1**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
YAK	**Yakutsk**	**18.11**	**317**	d iP	**P**	**22 55 40.2**	**-0.1**
YAK				eS	**S**	**22 59 03.8**	**+9.0**
YAK				pmax	pmax		
	comp=Z,84nm,1.0s						
YAK				pmax	pmax		
	comp=N,13nm,1.2s						
YAK				pmax	pmax		
	comp=E,48nm,1.2s						
YAK				smax			
	comp=N,7.0nm,1.0s						
YAK				smax			
	comp=E,18nm,1.0s						
YAK	**Yakutsk**	**18.11**	**317**	eP	**P**	**22 55 39.9**	**-0.4**
	comp=E,134nm,0.5s						
MDJ	**Mudanjiang**	**19.15**	**260**	P	**P**	**22 55 50.1**	**-1.4**
MDJ				S	**S**	**22 59 20.1**	**+3.7**
MDJ				SCP		23 03 32.2	
MDJ				PCS		23 03 46.0	
MDJ				AMB	AMB		
	comp=Z,37nm,0.9s						
MDJ				AMB	AMB		
	comp=Z,167nm,4.7s						
MDJ				LR	LR		
	comp=N,263nm,13.0s						
MDJ				LR	LR		
	comp=E,160nm,13.7s						
MDJ				LR	LR		
	comp=Z,367nm,13.0s						
CLNS	**Chul'man**	**19.26**	**299**	eP	**P**	**22 55 54.6**	**+2.0**
CLNS				pmax	pmax		
	comp=Z,110nm,1.0s						
CLNS				pmax	pmax		
	comp=N,83nm,1.1s						
CLNS				pmax	pmax		
	comp=E,87nm,0.8s						
MAJO	**Matsushiro**	**19.68**	**229**	eP	**P**	**22 55 56.5**	**-0.7**
	comp=E,50nm,0.6s						
MAT	**Matsushiro**	**19.68**	**229**	P	**P**	**22 55 56.6**	**-0.6**
MAT	**Matsushiro**	**19.68**	**229**	eP	**P**	**22 55 57.0**	**-0.2**
	comp=E,54nm,0.6s						
CN2	**Changchun**	**22.13**	**262**	eP	**P**	**22 56 21.4**	**-0.2**
CN2				eS	**S**	**23 00 11.4**	**-0.4**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.2						
CN2				AMB	AMB		
	comp=Z,400nm,3.0s						
CN2				LR	LR		
	comp=N,320nm,14.0s						
CN2				LR	LR		
	comp=E,300nm,14.0s						
CN2				LR	LR		
	comp=Z,300nm,14.0s						
TIXI	**Tiksi**	**23.90**	**339**	⇑ iP	**P**	**22 56 38.6**	**+0.3**
TIXI				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.3						
BOD	**Bodaibo**	**25.16**	**302**	eP	**P**	**22 56 48.6**	**-1.8**
IMA	**Indian Mountai**	**28.87**	**40**	eP	**P**	**22 57 23.8**	**-0.3**
	comp=Z,81nm,0.9s,mb5.5						
MCK	**McKinley**	**30.81**	**45**	eP	**P**	**22 57 40.2**	**-1.1**
COLA	**College**	**31.25**	**43**	c iP	**P**	**22 57 44.6**	**-0.6**
COLA	**College**	**31.25**	**43**	eP	**P**	**22 57 44.3**	**-0.8**
ILAR	**Eielson Array**	**31.66**	**43**	P	**P**	**22 57 47.5**	**-1.2**
	comp=Z,7.4nm,0.7s,mb4.5,baz=262,slow=7.6,SNR=62						
ILAR	**Eielson Array**	**31.66**	**43**	P	**P**	**22 57 47.6**	**-1.2**
ILAR				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ULN	**Ulaanbaatar**	**31.77**	**284**	eP	**P**	**22 57 49.3**	**-0.5**
	comp=Z,12nm,1.0s,mb4.6						
ULN				epP	pP	22 58 17.8	-1.0
SONM	**Songino Array**	**32.18**	**284**	P	**P**	**22 57 53.2**	**-0.2**
	comp=Z,2.5nm,0.6s,mb4.2,baz=67,slow=7.8,SNR=37						
SONM				PcP	PcP	23 00 38.3	-0.9
	comp=Z,1.9nm,0.7s,baz=73,slow=1.9,SNR=7.5						
SONM				ScP		23 04 10.9	
	comp=Z,1.0nm,1.0s,baz=100,slow=2.4,SNR=4.5						
SSE	**Sheshan**	**32.91**	**246**	eP	**P**	**22 57 55.2**	**-4.7**
SSE				S	**S**	**23 03 02.6**	**-4.1**
SSE				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.1						
SSE				LR	LR		
	comp=N,44nm,17.8s						
SSE				LR	LR		
	comp=E,79nm,17.9s						
SSE				LR	LR		
	comp=Z,77nm,19.6s						
SSE	**Sheshan**	**32.91**	**246**	eP	**P**	**22 57 55.2**	**-4.7**
	comp=Z,30nm,0.7s,mb5.1						
SSE				pP	pP	22 58 19.6	-9.4
SSE				S	**S**	**23 03 02.6**	**-4.1**
SSE				sS		23 03 50.2	
SSE				SS	SS	23 05 02.0	-14
SSE				LR	LR		
	comp=Z,80nm,19.6s						
ZAK	**Zakamensk**	**33.02**	**290**	eP	**P**	**22 58 01.4**	**+0.8**
ZAK				e	pP	22 58 29.0	-0.8
NJ2	**Nanjing**	**33.56**	**250**	eP	**P**	**22 58 02.1**	**-3.4**
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
DAWY	**Dawson**	**34.97**	**44**	eP	**P**	**22 58 16.7**	**-0.4**
INK	**Inuvik**	**36.65**	**36**	P	**P**	**22 58 31.8**	**+0.5**
	comp=Z,5.3nm,0.5s,mb4.4,baz=285,slow=6.0,SNR=26						
INK	**Inuvik**	**36.65**	**36**	P	**P**	**22 58 31.8**	**+0.6**
INK				pmax	pmax		
	comp=Z,5.0nm,0.5s						
INK	**Inuvik**	**36.65**	**36**	eP	**P**	**22 58 31.5**	**+0.3**
	comp=Z,6.7nm,0.8s,mb4.3						
LZH	**Lanzhou**	**40.10**	**269**	eP	**P**	**22 59 00.5**	**+0.3**
LZH				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.8						
LZH	**Lanzhou**	**40.10**	**269**	eP	**P**	**22 59 00.5**	**+0.3**
	comp=Z,30nm,1.2s,mb4.8						
LZH				pP	pP	22 59 30.5	+0.4
LZH				sP	sP	22 59 44.5	-1.4
GTA	**Gaotai**	**40.60**	**276**	eP	**P**	**22 59 05.2**	**+0.9**
GTA				AMB	AMB		
	comp=Z,8.0nm,1.3s,mb4.2						
GTA				AMB	AMB		
	comp=Z,70nm,3.8s						
GTA				LR	LR		
	comp=N,87nm,13.7s						
GTA				LR	LR		
	comp=E,107nm,15.2s						
GTA				LR	LR		
	comp=Z,110nm,13.7s						
ZAL	**Zalesovo**	**41.92**	**303**	P	**P**	**22 59 14.7**	**-0.2**
	comp=Z,2.3nm,0.4s,mb4.1,baz=46,slow=6.6,SNR=11						
ZAL				PcP	PcP	23 01 08.1	-0.4

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      comp=Z,4.1nm,0.5s,baz=26,slow=2.7,SNR=12
ZAL   Zalesovo         41.92 303   P        P        22 59 14.7 -0.1
ZAL                                                  23 01 08.1
ZAL                                pmax     pmax
      comp=Z,2.0nm,0.4s
ZAL                                pmax     pmax
      comp=Z,4.0nm,0.5s
NVS   Novosibirsk      42.33 305⇑iP        P        22 59 17.9 -0.3
NVS                              i          pP       22 59 45.8 -2.4
NVS                              i                   23 01 03.9
NVS                                pmax     pmax
      comp=Z,19nm,1.1s,mb4.6
NVS                                pmax     pmax
      comp=N,12nm,1.0s
NVS                                pmax     pmax
      comp=E,15nm,1.1s
GYA   Guiyang          44.93 256 ⇓P        P        22 59 39.1 -0.4
GYA                                AMB      AMB
      comp=Z,10.0nm,0.9s,mb4.5
WMQ   Urumqi           45.48 289 ⇑P        P        22 59 45.0 +1.4
WMQ                                PCP      PcP      23 01 22.6 +1.9
WMQ                                PP       PP       23 01 33.5 +1.2
WMQ                                S        S        23 06 15.5 +1.3
WMQ                                AMB      AMB
      comp=Z,20nm,1.2s,mb4.6
WMQ                                AMB      AMB
      comp=Z,36nm,8.5s
WMQ                                LR       LR
      comp=N,97nm,15.0s
WMQ                                LR       LR
      comp=E,39nm,15.0s
WMQ                                LR       LR
      comp=Z,55nm,17.0s
RES   Resolute Bay     45.83  21  eP        P        22 59 46.1 +0.2
      comp=Z,1.6nm,0.3s,mb4.1
YKA   Yellowknife Ar   45.99  40   P        P        22 59 47.9 +0.5
      comp=Z,2.4nm,0.6s,mb4.0,baz=298,slow=7.8,SNR=34
YKA                                pP       pP       23 00 13.3 -4.5
      comp=Z,1.4nm,0.9s,baz=296,slow=7.6,SNR=2.0
YKA   Yellowknife Ar   45.99  40   P        P        22 59 47.9 +0.5
YKA                                *PP      pP       23 00 13.3 -4.5
YKA                                pmax     pmax
      comp=Z,2.0nm,0.6s
YKA                                pmax     pmax
      comp=Z,1.0nm,0.9s
YKA   Yellowknife Ar   45.99  40  eP        P        22 59 47.9 +0.5
MKAR  Makanchi Array   46.94 295   P        P        22 59 54.8 -0.3
MKAR                               pmax     pmax
      comp=Z,3.0nm,0.4s
KMI   Kunming          48.31 258⇑iP        P        23 00 06.4 +0.4
KMI                                AP       pP       23 00 39.9 +3.3
KMI                                S        S        23 06 53.0 -1.4
KMI                                SS       SS       23 10 18.8 -2.8
KMI                                AMB      AMB
      comp=Z,10.0nm,0.8s,mb4.5
KMI                                AMB      AMB
      comp=Z,88nm,5.2s
KMI                                LR       LR
      comp=Z,84nm,18.5s
KMI   Kunming          48.31 258⇑iP        P        23 00 06.4 +0.4
      comp=Z,10.0nm,0.8s,mb4.5
KMI                                pP       pP       23 00 39.9 +3.3
KMI                                S        S        23 06 53.0 -1.4
KMI                                SS       SS       23 10 18.8 -2.8
KMI                                LR       LR
      comp=Z,80nm,18.5s
CHKZ  Chkalovo         49.30 308   P        P        23 00 11.9 -1.3
CHKZ                               pmax     pmax
      comp=Z,2.0nm,0.5s,mb4.0
CHKZ  Chkalovo         49.30 308  eP        P        23 00 12.0 -1.1
      comp=Z,6.3nm,0.5s,mb4.5
CHKZ                              epP       pP       23 00 41.8 -2.1
BVA0  Borovoye Array   49.78 308  i P       P        23 00 15.8 -1.1
BVAR  Borovoye Array   49.78 308   P        P        23 00 15.9 -0.9
      comp=Z,4.5nm,0.5s,mb4.4,baz=63,slow=8.4,SNR=31
BVAR                               PcP      PcP      23 01 35.1 -0.9
      comp=Z,4.4nm,0.4s,baz=71,slow=2.1,SNR=14
BVAR                               ScP               23 05 19.2
      comp=Z,0.8nm,0.8s,baz=45,slow=4.1,SNR=4.0
NEW   Newport          52.74  57  eP        P        23 00 38.5 -0.8
      comp=Z,2.9nm,0.4s,mb4.4
TKM2  Tokmak 2         53.07 295   P        P        23 00 41.5 -0.3
      SNR=10
ULHL  Ulahol           53.13 294   P        P        23 00 43.2 +1.0
      SNR=6.1
ARU   Arti             53.22 317⇓iP        P        23 00 41.0 -1.7
ARU                               i         pP       23 01 11.8 -2.1
ARU                               e                  23 01 45.2
ARU                               e                  23 02 39.8
ARU                               eS        S        23 08 03.8 +2.3
ARU                               e                  23 10 10.2
ARU                               eSS       SS       23 11 41.5 -1.0
ARU                                pmax     pmax
      comp=Z,23nm,1.5s,mb4.7
ARU   Arti             53.22 317  eP        P        23 00 40.9 -1.8
      comp=Z,13nm,0.7s,mb4.8
ARU                               epP       pP       23 01 11.8 -2.1
ARU                               ePcP      PcP      23 01 47.7 -1.0
USP   Ospenovka        53.47 296   P        P        23 00 44.2 -0.6
      SNR=14
CHMS  Chumysh          53.50 295   P        P        23 00 44.8 -0.2
      SNR=7.2
KBK   Karagaybulak     53.61 295   P        P        23 00 45.4 -0.3
      SNR=8.7
YBH   Yreka Blue Hor   53.75  66  eP        P        23 00 47.5 +0.7
      comp=Z,9.1nm,0.8s,mb4.6
AAK   Ala-Archa        53.88 295   P        P        23 00 47.4 -0.2
      SNR=11
AAK   Ala-Archa        53.88 295d iP        P        23 00 46.2 -1.5
AAK                                pmax     pmax
      comp=Z,8.0nm,0.7s,mb4.6
AAK   Ala-Archa        53.88 295  eP        P        23 00 46.2 -1.5
      comp=Z,7.0nm,0.5s,mb4.7
AAK                               epP       pP       23 01 16.6 -2.3
EKS2  Erkin-Say        54.27 296   P        P        23 00 50.4 -0.1
      SNR=17
ARCES ARCESS Array B   54.31 341   P        P        23 00 49.1 -1.4
      comp=Z,10nm,1.0s,mb4.5,baz=46,slow=7.4,SNR=13
ARCES ARCESS Array B   54.31 341   P        P        23 00 49.1 -1.4
ARCES                              pmax     pmax
      comp=Z,10.0nm,1.0s
MOD   Modoc            55.02  65  eP        P        23 00 56.6 +0.6
      comp=Z,15nm,0.6s,mb4.9
CMAR  Chiang Mai Arr   55.62 256   P        P        23 01 01.1 +0.4
      comp=Z,13nm,0.6s,mb4.9,baz=30,slow=7.0,SNR=58
CMAR                               PcP      PcP      23 01 59.5 +1.1
      comp=Z,1.2nm,0.5s,baz=27,slow=4.3,SNR=3.1
CMAR  Chiang Mai Arr   55.62 256   P        P        23 01 01.1 +0.4
CMAR                                                 23 01 59.5
CMAR                               pmax     pmax
      comp=Z,13nm,0.6s
CMAR                               pmax     pmax
      comp=Z,1.0nm,0.5s
CHMT  Chamberlain Mo   55.62  56  eP        P        23 00 59.9 -0.4
NSHM  Saint Helena R   55.90  69  eP        P        23 01 02.6 +0.2
SUMG  Summit           56.01   5  eP        P        23 01 02.6 -0.2
      comp=Z,6.4nm,0.6s,mb4.6
OHCM  Honcut           56.02  68  eP        P        23 01 02.6 -0.7
FCC   Fort Churchill   56.27  36  eP        P        23 01 03.8 -1.0
      comp=Z,5.7nm,0.5s,mb4.7
BEKR  Beckwourth       56.32  67  eP        P        23 01 05.2 -0.2
      comp=Z,12nm,0.9s,mb4.7
GUN   Gumba            56.86 274  eP        P        23 01 10.0 +0.7
      comp=Z,82nm,0.5s
HLID  Hailey           57.21  60  eP        P        23 01 11.8 +0.2
      comp=Z,5.5nm,1.0s,mb4.3
MCMT  McKenzie Canyo   57.21  58  eP        P        23 01 11.3 -0.2
KKN   Kakani           57.32 275  eP        P        23 01 13.5 +1.0
      comp=Z,116nm,0.5s
PKI   Pulchoki         57.39 274  eP        P        23 01 12.9 -0.2
      comp=Z,36nm,0.5s,mb5.5
CMB   Columbia Colle   57.53  68  eP        P        23 01 13.6 -0.3
      comp=Z,11nm,1.1s,mb4.6
CMB                               ePP       PP       23 03 21.2 -3.3
DMN   Daman            57.55 275  eP        P        23 01 14.3 +0.1
      comp=Z,131nm,0.8s
GKN   Gorkha           57.57 275  eP        P        23 01 14.5 +0.2
GKN   Gorkha           57.57 275  eP        P        23 01 14.2 -0.1
      comp=Z,68nm,0.7s
BMN   Battle Mountai   57.74  64  eP        P        23 01 15.8 +0.5
      comp=Z,30nm,1.2s,mb5.0
QLMT  Earthquake Lak   57.96  57  eP        P        23 01 17.2 +0.4
JOF   Joensuu          58.26 334  ep        P        23 01 16.5 -2.1
KOLN  Koldanda         58.38 276  eP        P        23 01 20.2 +0.2
      comp=Z,46nm,0.5s
NVAR  Mina Array Bea   58.47  67   P        P        23 01 20.8 +0.4
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      comp=Z,14nm,0.7s,mb4.9,baz=300,slow=7.1,SNR=92
ELK   Elko             58.64  63  eP        P        23 01 21.8 +0.2
      comp=Z,7.0nm,0.7s,mb4.6
MTUM  Tungsten Hills   59.05  68  eP        P        23 01 24.8 +0.3
TPAW  Teton Pass       59.12  58  eP        P        23 01 26.2 +1.3
LOHW  Long Hollow      59.22  58  eP        P        23 01 26.4 +0.9
SNOW  Snow King Moun   59.24  58  eP        P        23 01 26.9 +1.2
REDW  Red Top Meadow   59.26  58  eP        P        23 01 26.9 +1.1
TPH   Tonopah          59.33  66  eP        P        23 01 26.4  0.0
      comp=Z,14nm,0.8s,mb4.8
SPUT  South Promonto   59.80  61  eP        P        23 01 29.8 +0.2
HWUT  Hardware Ranch   60.08  60  eP        P        23 01 32.1 +0.6
      comp=Z,18nm,1.0s,mb4.8
TRCR  Troy Canyon      60.08  65  eP        P        23 01 31.5  0.0
KAF   Kangasniemi      60.26 336  ep        P        23 01 30.0 -2.4
      comp=Z,0.5nm,0.3s,mb3.8,baz=30,slow=7.0
KAF   Kangasniemi      60.26 336  eP        P        23 01 30.0 -2.4
KAF                                pmax     pmax
      comp=Z,1.0nm,0.3s,mb4.1
BW06  Boulder Array    60.35  58  eP        P        23 01 33.4  0.0
      comp=Z,12nm,0.8s,mb4.8
BW06                              epP       pP       23 02 00.8 -4.5
PDAR  Pinedale Array   60.36  58   P        P        23 01 33.7 +0.4
      comp=Z,24nm,1.1s,mb5.0,baz=317,slow=2.1,SNR=98
PDAR                               pP       pP       23 02 00.6 -4.7
      comp=Z,2.7nm,0.7s,baz=323,slow=2.6,SNR=3.8
TPNV  Topopah Spring   60.67  67  eP        P        23 01 35.7 +0.2
      comp=Z,13nm,0.8s,mb4.8
FINES FINESS Array B   60.88 335   P        P        23 01 34.6 -2.0
      comp=Z,1.8nm,0.4s,mb4.2,baz=38,slow=7.8,SNR=33
FINES                              PcP      PcP      23 02 17.8 -0.8
      comp=Z,2.6nm,0.7s,baz=46,slow=3.7,SNR=3.5
FINES FINESS Array B   60.88 335   P        P        23 01 34.6 -2.1
FINES                                                23 02 17.8
FINES                              pmax     pmax
      comp=Z,2.0nm,0.4s
FINES                              pmax     pmax
      comp=Z,3.0nm,0.7s
FINES FINESS Array B   60.88 335   P        P        23 01 34.6 -2.0
FINES                              PcP      PcP      23 02 17.8 -0.8
NLU   North Lily Min   60.94  62  eP        P        23 01 37.7 +0.3
MPU   Maple Canyon     61.14  61  eP        P        23 01 39.0 +0.3
TMUT  Trail Mountain   61.88  62  eP        P        23 01 44.2 +0.5
MSU   Marysvale        61.89  63  eP        P        23 01 44.4 +0.6
NEN   Nelson           62.39  67  eP        P        23 01 47.2 +0.1
SRU   San Rafael       62.39  61  eP        P        23 01 47.2 +0.2
OBN   Obninsk          62.83 326  eP        P        23 01 46.4 -3.3
OBN                               e                  23 02 26.1
OBN                               e                  23 04 07.0
OBN                                pmax     pmax
      comp=Z,3.0nm,0.9s,mb4.1
OBN                                MLR      MLR
      comp=Z,100nm,20.0s
ISCO  Idaho Springs    64.55  58  eP        P        23 02 02.0 +0.9
      comp=Z,8.8nm,1.1s,mb4.5
NB2   NORSAR Subarra   64.64 342   P        P        23 01 59.3 -2.0
      comp=Z,4.1nm,0.9s,mb4.3,baz=23,slow=6.5
NOA   NORSAR Array B   64.64 342   P        P        23 01 59.8 -1.5
      comp=Z,0.5nm,0.4s,mb3.7,baz=14,slow=5.5,SNR=3.9
NOA                                PcP      PcP      23 02 32.1 -1.7
      comp=Z,1.4nm,0.6s,baz=24,slow=3.5,SNR=4.4
NOA   NORSAR Array B   64.64 342   P        P        23 01 59.8 -1.5
NOA                                         pP       23 02 32.1 -1.5
NOA                                pmax     pmax
      comp=Z,1.0nm,0.4s
NOA                                pmax     pmax
      comp=Z,1.0nm,0.6s
VRSR  Storozhevoye     64.94 322  eP        P        23 02 02.8 -0.6
VRSR                               pmax     pmax
      comp=Z,10.0nm,0.6s,mb4.8
VRSR                               pmax     pmax
      comp=N,4.0nm,0.5s
VRSR                               pmax     pmax
      comp=E,3.0nm,0.5s
SDCO  Great Sand Dun   66.11  59  eP        P        23 02 11.3 +0.2
      comp=E,3.4nm,1.0s,mb4.1
TUC   Tucson           67.13  67  eP        P        23 02 17.6 -0.1
      comp=E,2.5nm,0.8s,mb4.1
ANMO  Albuquerque      67.64  62c iP        P        23 02 21.6 +0.8
ANMO  Albuquerque      67.64  62  eP        P        23 02 21.3 +0.5
      comp=E,6.8nm,1.0s,mb4.3
SCHQ  Schefferville    68.27  25   P        P        23 02 23.7 -0.6
      comp=E,1.2nm,0.4s,mb4.0,baz=312,slow=6.6,SNR=9.7
SCHQ  Schefferville    68.27  25   P        P        23 02 23.7 -0.6
AKASG Malin Array Be   68.99 327   P        P        23 02 26.5 -2.3
      comp=E,0.2nm,0.3s,baz=23,slow=5.4,SNR=4.3
AKASG                              PcP      PcP      23 02 50.8 -1.4
      comp=E,0.7nm,0.4s,baz=36,slow=4.5,SNR=4.6
AKASG Malin Array Be   68.99 327   P        P        23 02 26.5 -2.3
AKASG                                                23 02 50.8
AKASG                              pmax     pmax
      comp=Z,1.0nm,0.4s
HYB   Hyderabad        69.11 272  eP        P        23 02 29.0 -1.1
HYB   Hyderabad        69.11 272  i P       P        23 02 29.0 -1.1
KIV   Kislovodsk       69.21 315  eP        P        23 02 31.3 +1.0
KIV                               e*PP      pP       23 02 59.9 -3.0
KIV                                pmax     pmax
      comp=Z,4.0nm,0.7s,mb4.3
KIV                                MLR      MLR
      comp=Z,100nm,15.0s
AMTX  Amarillo         70.29  59   P        P        23 02 37.1 +0.1
      comp=Z,4.8nm,0.9s,mb4.2
SOC   Sochi            70.81 317  eP        P        23 02 31.3 -8.7
SOC                               e                  23 05 16.0
SOC                               ePPP      PPP      23 07 02.8 +1.2
SOC                               eS        S        23 11 34.1 -8.4
SOC                               eSP       SP       23 12 31.7  +21
SOC                               eSSS      SSS      23 19 31.6 +4.7
SOC                                pmax     pmax
      comp=Z,65nm,1.5s,mb5.1
SOC                                pmax     pmax
      comp=N,48nm,1.1s
SOC                                pmax     pmax
      comp=E,64nm,1.5s
GDL2  Guadalupe Moun   70.85  62  eP        P        23 02 41.0 +0.6
LTX   Lajitas          73.41  64  eP        P        23 02 55.9 +0.4
      comp=E,10nm,0.9s,mb4.6
TXAR  Lajitas Array    73.41  64   P        P        23 02 56.0 +0.5
      comp=E,8.6nm,0.7s,mb4.6,baz=297,slow=4.9,SNR=68
TXAR                               pP       pP       23 03 23.9 -4.7
      comp=E,1.9nm,0.5s,baz=300,slow=4.9,SNR=5.0
WRAB  Tennant Creek    73.52 202  i P       P        23 03 04.1 +7.8
WRA   Warramunga Arr   73.53 202   P        P        23 02 56.0 -0.3
      comp=E,1.6nm,0.6s,mb3.9,baz=18,slow=6.3,SNR=34
WRA                                pP       pP       23 03 23.8 -5.7
      comp=E,1.3nm,0.6s,baz=18,slow=6.2,SNR=3.1
WRA                                sP       sP       23 03 39.6 -4.3
      comp=E,6.0nm,1.1s,baz=20,slow=6.5,SNR=6.2
WRA   Warramunga Arr   73.53 202   P        P        23 02 56.0 -0.4
WRA                                *PP      pP       23 03 23.8 -5.7
WRA                                *SP      sP       23 03 39.6 -4.3
WRA                                pmax     pmax
      comp=Z,2.0nm,0.6s
FITZ  Fitzroy Crossi   74.18 210   P        P        23 03 01.2 +1.0
      comp=Z,1.7nm,0.6s,mb4.0,baz=356,slow=4.5,SNR=3.8
KHC   Kasperske Hory   75.08 336  eP        P        23 03 03.0 -1.7
KHC                               e                  23 03 11.0
KHC   Kasperske Hory   75.08 336  eP        P        23 03 03.0 -1.7
KHC                                x        x        23 03 11.0
GERES GERESS Array B   75.31 336   P        P        23 03 05.8 -0.2
      comp=Z,0.6nm,0.5s,mb3.5,baz=36,slow=6.2,SNR=7.1
GERES GERESS Array B   75.31 336   P        P        23 03 05.8 -0.2
GERES                              pmax     pmax
      comp=Z,1.0nm,0.5s
BAIF  Baives           76.33 342  eP        P        23 03 10.5 -1.1
BRTR  Keskin Array B   76.56 318   P        P        23 03 13.1 -0.2
      comp=Z,1.5nm,0.8s,mb3.7,baz=26,slow=3.0,SNR=7.8
BRTR  Keskin Array B   76.56 318   P        P        23 03 13.1 -0.1
BRTR                               pmax     pmax
      comp=Z,2.0nm,0.8s
ASAR  Alice Springs    77.22 201   P        P        23 03 18.0 +0.8
      comp=Z,0.9nm,0.5s,mb3.7,baz=14,slow=5.4,SNR=27
ASAR                               pP       pP       23 03 45.4 -5.2
      comp=Z,1.0nm,0.7s,baz=17,slow=6.5,SNR=3.5
CDF   Champ du Feu     77.26 340  eP        P        23 03 15.8 -1.1
MEZF  Maizieres J'vi   77.64 341  eP        P        23 03 18.1 -0.9
      comp=Z,6.6nm,0.5s,mb4.2
HAU   Haudompre        77.84 340  eP        P        23 03 19.5 -0.6
HINF  Hinteralfeld     77.91 340  eP        P        23 03 20.3 -0.2
UMR   Umm Al-Rimmam    78.14 303  eP        P        23 03 22.5 +0.4
UMR                                AMb      AMB      23 03 23.8
      comp=Z,17nm,0.5s,mb5.0
FLN   La Foliniere     78.42 345  eP        P        23 03 22.8 -0.4
LDF   La Druitiere     78.52 344  eP        P        23 03 23.3 -0.5
RST   Umm Al-Ruwaisa   78.56 303  eP        P        23 03 23.9 -0.6
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RDF   Al-Radifah       78.73 302  eP        P        23 03 26.4 +1.1
GRR   Gorron           78.84 345  eP        P        23 03 25.4 -0.1
CABF  La Chapelle      79.22 340  eP        P        23 03 27.6  0.0
SGMF  Saint Gilles     79.24 346  eP        P        23 03 27.3 -0.4
      comp=Z,9.9nm,0.5s,mb4.4
ROSF  Rostrenen        79.27 346  eP        P        23 03 28.1 +0.2
SSF   Saint Saulge     79.33 342  eP        P        23 03 27.1 -1.1
      comp=Z,5.3nm,0.7s,mb4.0
AVF   Avril sur Loir   79.62 342  eP        P        23 03 29.7 -0.1
      comp=Z,12nm,0.6s,mb4.4
SMF   Signal de Mont   79.66 341  eP        P        23 03 30.0  0.0
      comp=Z,14nm,0.8s,mb4.3
QUIF  Quistinic        79.66 346  eP        P        23 03 29.9 -0.1
BGF   Bois d'Agland    79.94 342  eP        P        23 03 31.8 +0.3
      comp=Z,6.7nm,0.5s,mb4.3
LPL   La Plagne        80.12 339  eP        P        23 03 33.0 +0.5
      comp=Z,7.2nm,0.5s,mb4.2
LPG   La Plagne        80.13 339  eP        P        23 03 33.3 +0.7
      comp=Z,9.0nm,0.6s,mb4.3
TCF   Toulx Ste Croi   80.33 342  eP        P        23 03 33.1 -0.5
      comp=Z,7.6nm,0.6s,mb4.2
MFF   Saint Martin d   80.45 344  eP        P        23 03 34.5 +0.2
      comp=Z,13nm,0.7s,mb4.3
MBDF  Montbardon       80.86 339  eP        P        23 03 36.0 -0.4
ORIF  Oris-en-Rattie   80.88 339  eP        P        23 03 36.5  0.0
      comp=Z,9.7nm,0.8s,mb4.2
VIVF  Saint-Julien-l   81.20 340  eP        P        23 03 37.9 -0.3
      comp=Z,7.6nm,0.8s,mb4.0
RJF   Les Rejaudoux    81.40 342  eP        P        23 03 38.9 -0.4
ASF   Jabal al Asfar   81.43 312   P        P        23 03 40.3 +0.6
      comp=Z,2.8nm,0.9s,mb3.9,baz=180,slow=4.3,SNR=4.4
SBF   Sospel           81.52 338  eP        P        23 03 39.6 -0.3
      comp=Z,19nm,0.8s,mb4.5
CAF   Calviac          81.66 342  eP        P        23 03 41.3 +0.6
SMRF  Simiane la Rot   81.84 339  eP        P        23 03 41.9 +0.3
LFF   La Frestale      81.90 343  eP        P        23 03 42.5 +0.6
      comp=Z,21nm,0.8s,mb4.5
FRF   La Foret Royal   81.99 338  eP        P        23 03 41.9 -0.5
LMR   La Mourre        82.24 338  eP        P        23 03 43.7 +0.1
      comp=Z,11nm,0.7s,mb4.3
PGF   Pioggiola        82.38 336  eP        P        23 03 44.1 -0.3
HILS  Ha'il            82.97 306   P        P        23 03 48.4 +0.7
MTLF  Montolieu        83.16 341  eP        P        23 03 47.1 -1.2
      comp=Z,12nm,0.8s,mb4.4
ARSS  Ar Rass          83.44 304   P        P        23 03 51.0 +0.9
EPF   Esparros         83.82 343  eP        P        23 03 50.7 -0.8
      comp=Z,3.3nm,0.5s,mb4.0
MZLS  Mizel            83.89 301   P        P        23 03 53.0 +0.6
SJPF  Ste Jean         84.02 344  eP        P        23 03 51.9 -0.7
      comp=Z,3.9nm,0.6s,mb4.0
ETSF  Etsaut           84.11 343  eP        P        23 03 52.8 -0.2
      comp=Z,11nm,0.9s,mb4.3
JMQS  Jabal Moqyreh    84.65 311   P        P        23 03 57.1 +1.0
TBKS  Tabuk            84.88 310   P        P        23 03 58.4 +1.2
HAQS  Haql             84.96 312   P        P        23 03 58.8 +1.3
AFFS  'Afif            85.15 303   P        P        23 03 59.6 +0.9
AYUS  'Aynunah         85.52 311   P        P        23 04 01.1 +0.8
KBRS  Khaybar          85.56 306   P        P        23 04 01.6 +1.0
KAMS  Al Khamasin      87.23 299   P        P        23 04 08.7 -0.1
ESDC  Sonseca Array    87.83 345   P        P        23 04 11.2 -0.1
      comp=Z,2.2nm,0.5s,mb4.2,baz=0.6,slow=3.3,SNR=14
TATS  Tathlith         88.46 300   P        P        23 04 15.3 +0.6
BLJS  Baljurashi       89.20 301   P        P        23 04 18.8 +0.7
DBIC  Dimbokro        120.10 338   PKP      PKPdf    23 10 12.8 +1.2
      comp=Z,2.6nm,0.9s,baz=21,slow=3.9,SNR=5.1
DBIC  Dimbokro        120.10 338   PKIKP    PKPdf    23 10 12.8 +1.3
DBIC                               pmax     pmax
      comp=Z,3.0nm,0.9s
```

IDC 10 23:00:44.9±1.1**,21.94N**×**45.37W,mb3.8**/5**,mb1 4.1**/5**, mb1mx3.7**/20**,MS3.6**/10**,Ms1 3.7**/10**,ms1mx3.4**/27**,Error ellipse: s-maj=38.1km s-min=26.4km az=46.0,Northern Mid-Atlantic Ridge**

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Code  Station Name       Δ°   AZ°     Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
SJG   San Juan         19.89 263   LR       LR       23 11 04.9
      comp=Z,135nm,21.2s,baz=82,slow=31
DBIC  Dimbokro         41.93 105   P        P        23 08 37.5 -1.8
      3.6nm,0.6s,baz=291,slow=10,SNR=7.6
LPAZ  La Paz           44.06 212   P        P        23 08 55.6 -1.0
      0.7nm,0.6s,baz=38,slow=7.8,SNR=4.8
LPAZ                               LR       LR       23 25 48.2
      comp=Z,42nm,20.3s,baz=92,slow=34
ULM   Lac du Bonnet    48.40 319   LR       LR       23 28 01.3
      comp=Z,71nm,18.7s,baz=234,slow=34
TXAR  Lajitas Array    52.62 291   LR       LR       23 33 22.1
      comp=Z,58nm,19.9s,baz=90,slow=37
VAE   Valguarnera      53.36  59   LR       LR       23 29 33.6
      comp=Z,80nm,20.7s,baz=95,slow=32
NOA   NORSAR Array B   55.01  30   LR       LR       23 29 28.0
      comp=Z,73nm,18.8s,baz=160,slow=31
PDAR  Pinedale Array   56.70 308   P        P        23 10 30.0 -2.6
      0.2nm,0.3s,baz=90,slow=5.4,SNR=3.3
YKA   Yellowknife Ar   61.19 330   P        P        23 11 02.0 -1.5
      0.5nm,0.6s,baz=100,slow=7.1,SNR=12
NVAR  Mina Array Bea   63.64 303   LR       LR       23 37 10.7
      comp=Z,62nm,21.1s,baz=210,slow=34
INK   Inuvik           69.14 337   LR       LR       23 41 03.8
      comp=Z,72nm,19.0s,baz=34,slow=35
ILAR  Eielson Array    75.15 334   P        P        23 12 28.4 -2.0
      0.9nm,0.8s,baz=53,slow=7.1,SNR=6.0
SUR   Sutherland       83.15 129   LR       LR       23 43 21.5
      comp=Z,36nm,19.6s,baz=173,slow=31
KMBO  Kilima Mbogo     83.57  94   LR       LR       23 48 52.6
      comp=Z,37nm,18.4s,baz=86,slow=35
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*NEIC **10** 23:18:13.8±3.1,29.11N×142.27E,h25^{km}±21^{km},mb4.7/3, Error ellipse: s-maj=14.5km s-min=7.6km az=88.0*

*BJI **10** 23:18:13.8,29.36N×142.95E,h47^{km},mb4.7,Ms4.1, Msz4.1*

*IDC **10** 23:18:16.2±2.7,29.09N×142.23E,h44^{km}±28^{km},mb3.8/13, mb1 3.9/13,mb1mx3.8/23,MS3.8/6,Ms1 3.8/6, ms1mx3.3/31,Error ellipse: s-maj=24.1km s-min=17.2km az=72.0*

ISC 10 23:18:12.1±3.2**,29.18N**±0.05×**142.2E**±0.1**,h24**^{km}±22^{km}**, n32,σ0^{s}73**/30**,mb4.1**/16**,MS3.8**/5**,Southeast of Honshu**

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Code  Station Name       Δ°   AZ°     Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
CBIJ  Chichi jima       2.07 179   P        Pn       23 18 46.9 +0.8
      17nm,0.3s,baz=96,slow=22,SNR=13
CBIJ                               S        Sn       23 19 11.2 -0.2
      64nm,0.3s,baz=284,slow=23,SNR=12
JHJ   Hachijo jima 2    4.42 333   LR       LR       23 21 15.9
      comp=Z,877nm,18.6s,baz=269,slow=40
MAJO  Matsushiro        8.06 337  ePn       P        23 20 10.7  0.0
      12nm,0.4s
MAT   Matsushiro        8.06 337   P        P        23 20 10.4 -0.3
MAT                                S        Sn       23 21 40.1 -1.9
MAT   Matsushiro        8.06 337  eP        P        23 20 10.0 -0.7
      10nm,0.7s
MAT                               eS        Sn       23 21 40.0 -2.0
JOW   Kunigami         12.48 263   LR       LR       23 25 26.0
      comp=Z,341nm,20.1s,baz=304,slow=34
NJ2   Nanjing          20.25 284  eP        P        23 22 55.0 +6.5
NJ2                                AMB      AMB
      comp=Z,30nm,0.6s
NJ2                                LR       LR
      comp=N,370nm,12.1s,MS4.0
NJ2                                LR       LR
      comp=E,160nm,14.0s,MS4.0
ULN   Ulaanbaatar      32.82 314  eP        P        23 24 46.5 +0.8
      comp=E,7.7nm,1.0s,mb4.6
SONM  Songino Array    33.22 314   P        P        23 24 49.6 +0.3
      comp=E,2.4nm,0.7s,mb4.2,baz=87,slow=7.7,SNR=17
CMAR  Chiang Mai Arr   40.74 265   P        P        23 25 53.3 +0.4
      comp=E,1.0nm,0.5s,mb3.7,baz=48,slow=8.5,SNR=5.9
CMAR                               LR       LR       23 43 59.7
      comp=E,95nm,19.6s,MS3.7,baz=65,slow=38
CMAR  Chiang Mai Arr   40.74 265   P        P        23 25 53.3 +0.4
CMAR                               LR       LR       23 43 59.7
WMQ   Urumqi           45.36 304  eP        P        23 26 30.5 +0.3
ZAL   Zalesovo         47.92 318   P        P        23 26 51.5 +1.2
      comp=E,2.1nm,0.8s,mb4.2,baz=4.9,slow=7.2,SNR=14
ZAL                                LR       LR       23 49 32.4
      comp=E,48nm,19.1s,MS3.5,baz=353,slow=39
WRAB  Tennant Creek    49.40 190  eP        P        23 27 01.2 -0.9
      comp=E,6.6nm,0.7s,mb4.8
WB2   Warramunga Arr   49.41 190  eP        P        23 27 01.5 -0.7
WRA   Warramunga Arr   49.41 190   P        P        23 27 01.3 -0.9
      comp=E,2.7nm,0.8s,mb4.3,baz=9.7,slow=8.2,SNR=34
ASAR  Alice Springs    53.13 189   P        P        23 27 29.1 -1.3
```

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
	comp=E,0.4nm,0.6s,mb3.5,baz=10,slow=15,SNR=4.9						
BVAR	Borovoye Array	56.51	317	P	P	23 27 54.8	+0.3
	comp=E,4.1nm,0.5s,mb4.7,baz=98,slow=7.0,SNR=39						
STKA	Stephens Creek	60.72	181	LR	LR	23 54 54.2	
	comp=E,141nm,18.1s,MS4.2,baz=199,slow=36						
INK	Inuvik	61.16	25	P	P	23 28 26.8	+0.2
	comp=E,0.5nm,0.5s,mb3.9,baz=295,slow=2.5,SNR=4.3						
ARU	Arti	62.77	322	eP	P	23 28 37.4	-0.1
	comp=E,5.8nm,0.9s,mb4.7						
RES	Resolute Bay	70.06	14	P	P	23 29 23.4	-0.1
YKA	Yellowknife Ar	70.34	29	P	P	23 29 24.9	-0.5
	comp=E,0.4nm,0.5s,mb3.6,baz=294,slow=6.4,SNR=6.4						
YKA	Yellowknife Ar	70.34	29	P	P	23 29 24.9	-0.5
FINES	FINESS Array B	76.08	334	P	P	23 29 59.2	+0.2
	comp=E,0.8nm,0.5s,mb3.9,baz=104,slow=7.9,SNR=7.5						
FINES	FINESS Array B	76.08	334	P	P	23 29 59.2	+0.2
NVAR	Mina Array Bea	79.27	52	P	P	23 30 17.7	+0.6
	comp=E,0.7nm,0.8s,mb3.6,baz=280,slow=5.8,SNR=4.6						
HFS	Hagfors	81.51	337	P	P	23 30 28.4	-0.1
	comp=E,3.0nm,1.1s,mb4.1,baz=346,slow=6.1,SNR=5.9						
NOA	NORSAR Array B	81.67	338	P	P	23 30 29.8	+0.4
	comp=E,0.9nm,1.0s,mb3.7,baz=58,slow=3.9,SNR=2.7						
BRTR	Keskin Array B	84.57	313	P	P	23 30 46.0	+1.3
	comp=E,1.3nm,0.7s,mb4.2,baz=90,slow=2.5,SNR=5.4						
ULM	Lac du Bonnet	85.73	33	LR	LR	00 12 21.0	
	comp=E,56nm,20.4s,MS4.0,baz=330,slow=38						
LPAZ	La Paz	149.37	72	PKPbc	PKPdf	23 38 00.7	+0.9
	comp=E,0.5nm,0.6s,baz=270,slow=1.0,SNR=2.3						

IDC ***10*** *23:32:49.6±7.2, 17.86S×178.20W, h509^{km}±77^{km}, mb3.3/8, mb1 3.4/8, mb1mx3.3/17, Error ellipse: s-maj=40.7km s-min=23.3km az=47.0*

NEIC ***10*** *23:32:49.8±4.8, 17.81S×178.24W, h512^{km}±50^{km}, mb4.0/5, Error ellipse: s-maj=31.4km s-min=16.1km az=50.0*

ISC 10 23:32:53.3±3.0**, 18.0S**±0.2×**178.5W**±0.2**, h560**^{km}±38^{km}**, n21, σ0^{s}92**/17**, mb3.9**/10**, 1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	20.60	190	P	P	23 36 53.4	-1.9
	5.2nm,0.4s,baz=339,slow=5.7,SNR=4.9						
CTA	Charters Tower	33.40	261	eP	P	23 38 47.9	+0.4
	2.2nm,1.1s,mb3.6						
CTA	Charters Tower	33.40	261	P	P	23 38 47.5	+0.1
	1.9nm,0.4s,mb3.9,baz=74,slow=9.4,SNR=4.3						
CTAO	Charters Tower	33.40	261	eP	P	23 38 47.8	+0.4
	2.9nm,0.6s,mb4.0						
PMG	Port Moresby	34.43	280	P	P	23 38 56.9	+0.8
	12nm,0.8s,mb4.5,baz=116,slow=4.7,SNR=6.7						
STKA	Stephens Creek	38.58	241	eP	P	23 39 31.5	+1.6
	2.8nm,0.6s,mb4.0						
STKA	Stephens Creek	38.58	241	P	P	23 39 31.4	+1.5
	3.4nm,0.6s,mb4.1,baz=105,slow=8.4,SNR=13						
WB2	Warramunga Arr	44.58	260	eP	P	23 40 17.2	-0.6
WRAB	Tennant Creek	44.58	260	eP	P	23 40 17.3	-0.5
	4.1nm,0.5s,mb4.2						
WRA	Warramunga Arr	44.59	260	P	P	23 40 17.3	-0.6
	2.5nm,0.5s,mb4.0,baz=94,slow=6.9,SNR=51						
ASAR	Alice Springs	44.74	254	P	P	23 40 19.4	+0.4
	26nm,0.5s,mb5.0,baz=89,slow=8.3,SNR=366						
ASAR				S	S	23 46 14.5	-1.3
	0.8nm,1.0s,baz=81,slow=12,SNR=3.2						
ASPA	Alice Springs	44.75	254	⇓iP	P	23 40 19.3	+0.3
FITZ	Fitzroy Crossi	52.98	261	P	P	23 41 20.0	-0.3
	0.7nm,0.3s,mb3.5,baz=58,slow=3.6,SNR=7.8						
VNDA	Vanda	60.39	185	P	P	23 42 10.5	+0.3
	0.5nm,0.5s,mb3.1,baz=343,slow=5.0,SNR=2.0						
QSPA	South Pole Qui	72.10	180	eP	P	23 43 23.7	+1.6
	2.6nm,0.8s,mb3.7						
ILAR	Eielson Array	85.94	13	P	P	23 44 34.2	-0.8
	0.3nm,0.4s,mb3.2,baz=210,slow=7.3,SNR=5.2						
BVAR	Borovoye Array	116.86	321	PKP	PKPdf	23 50 34.9	+0.7
	0.3nm,0.3s,baz=143,slow=2.3,SNR=6.7						
FINES	FINESS Array B	133.23	344	PKP	PKPdf	23 51 09.6	+4.2
	0.7nm,0.5s,slow=2.8,SNR=10						
BRTR	Keskin Array B	144.79	315	PKP	PKPdf	23 51 28.1	+1.5
	1.0nm,0.6s,baz=45,slow=2.0,SNR=5.2						
CLL	Collm	145.50	347	ePKP1	PKPbc	23 51 31.0	+2.3
GERES	GERESS Array B	147.65	345	PKPbc	PKPdf	23 51 36.6	+5.5
	0.9nm,0.6s,baz=22,slow=3.3,SNR=4.9						

IDC ***10*** *23:37:07.6±1.0, 11.91S×166.21E, mb4.0/8, mb1 4.2/9, mb1mx4.1/16, ML3.6/1, MS3.5/4, Ms1 3.5/4, ms1mx3.3/21, Error ellipse: s-maj=34.5km s-min=22.3km az=133.0*

NEIC ***10*** *23:37:23.4±7.6, 11.96S×165.93E, h125^{km}±66^{km}, mb4.1/3, Error ellipse: s-maj=33.7km s-min=14.7km az=86.0*

ISC 10 23:37:13.3±4.1**, 12.0S**±0.1×**166.1E**±0.1**, h50**^{km}±36^{km}**, n19, σ0^{s}53**/17**, mb4.1**/9**, MS3.7**/5**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	10.05	178	eP	P	23 39 37.6	-0.2
DZM				eS	S	23 41 48.0	+18
PMG	Port Moresby	18.75	276	P	P	23 41 30.7	-0.1
	0.6nm,0.3s,baz=278,slow=22,SNR=3.6						
PMG	Port Moresby	18.75	276	P	P	23 41 30.7	-0.1
CTA	Charters Tower	20.67	245	P	P	23 41 52.7	+1.2
	3.4nm,0.7s,baz=54,slow=9.5,SNR=5.4						
CTA				LR	LR	23 48 23.0	
	comp=Z,93nm,19.0s,MS3.2,baz=46,slow=32						
CTA	Charters Tower	20.67	245	P	P	23 41 52.7	+1.2
CTA				LR	LR	23 48 23.0	
CTAO	Charters Tower	20.67	245	eP	P	23 41 52.6	+1.2
	6.3nm,0.9s						
STKA	Stephens Creek	30.00	225	P	P	23 43 20.1	+0.5
	1.2nm,0.7s,mb3.8,baz=38,slow=5.8,SNR=3.0						
WRA	Warramunga Arr	31.48	251	P	P	23 43 32.2	-0.5
	1.2nm,0.5s,mb4.0,baz=84,slow=9.2,SNR=12						
WRA				PcP	PcP	23 46 24.4	-0.5
	0.7nm,0.8s,baz=79,slow=2.8,SNR=4.1						
ASAR	Alice Springs	32.67	245	P	P	23 43 42.5	-0.6
	2.5nm,0.7s,mb4.2,baz=73,slow=9.5,SNR=18						
ASAR				PcP	PcP	23 46 27.6	-0.5
	1.6nm,0.9s,baz=92,slow=3.4,SNR=9.8						
ASAR				LR	LR	23 56 11.2	
	comp=Z,56nm,19.5s,MS3.3,baz=13,slow=35						
RAR	Rarotonga	33.94	110	LR	LR	23 53 29.7	
	comp=Z,2µm,21.8s,MS4.7,baz=292,slow=29						
FITZ	Fitzroy Crossi	39.46	256	LR	LR	23 59 45.9	
	comp=Z,34nm,20.9s,MS3.2,baz=2.1,slow=34						
VNDA	Vanda	65.58	181	P	P	23 47 53.1	-0.5
	2.7nm,1.2s,mb4.2,baz=357,slow=6.6,SNR=2.5						
QSPA	South Pole Qui	78.04	180	P	P	23 49 07.8	+0.2
	2.0nm,0.7s,mb4.2						
ULN	Ulaanbaatar	79.23	324	P	P	23 49 14.4	-0.4
	2.1nm,0.3s,mb4.5						
SONM	Songino Array	79.59	324	P	P	23 49 16.5	-0.2
	0.7nm,0.6s,mb3.7,baz=147,slow=4.8,SNR=7.4						
ILAR	Eielson Array	84.28	18	P	P	23 49 40.8	+0.1
	0.5nm,0.5s,mb3.9,baz=231,slow=5.3,SNR=6.0						
NVAR	Mina Array Bea	86.38	50	LR	LR	00 20 01.2	
	comp=Z,64nm,20.3s,MS4.0,baz=60,slow=30						
YKA	Yellowknife Ar	95.64	27	P	P	23 50 34.9	+0.7
	0.3nm,0.4s,mb4.1,baz=259,slow=4.9,SNR=6.9						
YKA	Yellowknife Ar	95.64	27	P	P	23 50 34.9	+0.7

NEIC ***10*** *23:47:54.0±2.7, 51.55N×16.12E, h5^{km}, ML2.6(VIE), ML2.1(BRG), Error ellipse: s-maj=30.1km s-min=7.6km az=213.0*

WAR ***10*** *23:47:55.3, 51.50N×16.10E, h1^{km}, ML2.9, Mining Induced*

PRU ***10*** *23:47:55.4, 51.48N×16.11E*

ISC 10 23:47:52.9±0.9**, 51.48N**±0.04×**16.09E**±0.04**, n16, σ1^{s}13**/32**, 1C, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.65	169	ePG	Pg	23 48 07.0	+1.2
KSP				eSG	Sg	23 48 16.0	+1.5
KSP	Ksiaz	0.65	169	ePg	Pg	23 48 07.5	+1.7
KSP				eSg	Sg	23 48 16.2	+1.7
UPC	Upice	0.97	183	ePg	Pg	23 48 13.5	+1.2
DPC	Dobruska-Polom	1.14	172	ePG	Pg	23 48 16.4	+0.8
DPC				eSG	Sg	23 48 32.0	+1.2
PVCC	Panska Ves	1.35	226	ePG	Pg	23 48 21.0	+1.1
BRG	Berggiesshubel	1.48	247	ePn	Pn	23 48 22.1	+1.2
BRG				i Pg	Pg	23 48 23.3	+0.9
BRG				i Sg	Sg	23 48 43.1	+0.9
PRU	Pruhonice	1.79	214	PG	Pg	23 48 28.1	-0.4
PRU				i x	x	23 48 32.1	
PRU				i x	x	23 48 44.8	
PRU				SG	Sg	23 48 52.0	-0.3
	17nm,0.3s						
MORC	Moravsky Berou	1.94	151	ePn	Pn	23 48 28.0	+0.6
MORC				eSn	Sn	23 48 52.4	-0.4
CLL	Collm	1.94	266	i Pg	Pg	23 48 30.9	-0.7
CLL				eSg	Sg	23 48 58.0	+0.5
CLL	Collm	1.94	266	i PG	Pg	23 48 30.9	-0.7
CLL				e		23 48 34.0	
CLL				eSG	Sg	23 48 58.0	+0.5
OKC	Ostrava-Krasne	2.10	141	ePg	Pg	23 48 35.0	+0.2
OKC				eSg	Sg	23 49 01.4	-1.4
NKC	Novy Kostel	2.62	243	eSG	Sg	23 49 18.6	-1.6
OJC	Ojcow	2.67	117	ePg	Pg	23 48 45.6	-0.5
OJC				eSg	Sg	23 49 19.6	-2.1
KHC	Kasperske Hory	2.85	215	ePN	Pn	23 48 41.2	+0.8
KHC				ePG	Pg	23 48 47.1	-2.6
KHC				eSN	Sn	23 49 16.5	+0.6
KHC				eSG	Sg	23 49 25.9	-1.8
MOX	Moxa	2.94	255	ePg	Pg	23 48 50.1	-1.5
MOX				eSg	Sg	23 49 30.3	-0.6
MOA	Molln	3.82	199	⇑iPN	Pn	23 48 55.0	+0.8
MOA				i SG	Sg	23 49 58.9	-1.2
	3.6nm,0.5s						

CSEM ***11*** *00:20:55.3±0.5, 67.73N×20.00E, h2^{km}, ML2.8, Error ellipse: s-maj=13.7km s-min=10.9km az=26.0, Mining explosion.*

UPP ***11*** *00:20:56.2, 67.83N×20.20E, h1^{km}, ML2.8, Mining explosion.*

HEL 11 00:20:57.1±0.1**, 67.89N**×**20.09E, ML2.8**(UPP)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	Kurravaara	0.11	55	i P	Pg	00 20 58.8	-0.5
KUA				i S	Sg	00 21 00.9	+0.1
NIKU	Nikkaluokta	0.40	267	i P	Pg	00 21 04.3	-0.8
NIKU	Nikkaluokta	0.40	267	P	Pg	00 21 04.3	-0.8
DUNU	Dundret	0.79	166	i P	Pg	00 21 09.5	-3.5
DUNU				i S	Sg	00 21 19.9	-3.7
DUNU	Dundret	0.79	166	P	Pg	00 21 09.4	-3.6
DUNU				S	Sg	00 21 19.9	-3.6
PAJU	Pajala	1.45	125	eP	Pn	00 21 21.1	-3.5
PAJU	Pajala	1.45	125	P	Pn	00 21 21.1	-3.6
SGF	Sodankyl	2.50	97	eP	Pn	00 21 39.0	-0.7
SGF				eS	Sn	00 22 09.4	-1.8
SGF				eSG	Sg	00 22 13.6	-6.7
SGF	Sodankyl	2.50	97	P	Pn	00 21 38.9	-0.7
SGF				S	Sn	00 22 09.4	-1.9
SGF				Sg	Sg	00 22 13.5	-6.8
KEV	Kevo	3.13	50	eP	Pn	00 21 47.6	-1.1
KEV				eS	Sn	00 22 24.8	-2.5
OUL	Oulu	3.65	138	eSB	Sb	00 22 45.6	-2.0
MSF	Maaselka	4.05	115	eS	Sn	00 22 47.0	-3.5
MSF	Maaselka	4.05	115	S	Sn	00 22 46.9	-3.6
VAF	Ylistaro	4.99	166	eS	Sn	00 23 09.2	-5.0

IDC 11 00:21:35.6±27.0**, 14.81S**×**178.15W, h364**^{km}±290^{km}**, mb3.4**/6**, mb1 3.6**/6**, mb1mx3.3**/16**, MS4.0**/1**, Ms1 4.0**/1**, ms1mx3.0**/12**, Error ellipse: s-maj=122.0km s-min=61.3km az=166.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	Rata Peaks	30.26	196	LR	LR	00 37 31.5	
	comp=Z,317nm,21.0s,baz=27,slow=32						
CTA	Charters Tower	34.32	256	P	P	00 27 49.7	-1.2
	3.1nm,0.9s,baz=170,slow=12,SNR=3.5						
STKA	Stephens Creek	40.41	238	P	P	00 28 39.8	-1.4
	1.1nm,0.6s,baz=72,slow=9.7,SNR=3.6						
WRA	Warramunga Arr	45.52	256	P	P	00 29 19.8	-2.4
	1.4nm,1.0s,baz=91,slow=7.6,SNR=10						
ASAR	Alice Springs	45.94	251	P	P	00 29 24.0	-1.5
	8.8nm,0.5s,baz=85,slow=8.4,SNR=106						
ASPA	Alice Springs	45.95	251	eP	P	00 29 24.2	-1.3
FITZ	Fitzroy Crossi	53.84	258	P	P	00 30 23.1	-1.5
	3.5nm,1.1s,baz=90,slow=15,SNR=6.6						
TXAR	Lajitas Array	84.13	58	P	P	00 33 27.1	-1.1
	0.6nm,0.7s,baz=236,slow=4.5,SNR=3.4						

CSEM ***11*** *00:21:58.8±0.1, 67.78N×20.15E, h2^{km}, ML3.0/3, Error ellipse: s-maj=3.0km s-min=2.1km az=68.0, Mining explosion.*

UPP ***11*** *00:22:00.0, 67.83N×20.20E, h0^{km}, ML2.6, Mining explosion.*

BER ***11*** *00:22:01.0±3.1, 67.82N×20.20E, ML1.8, Suspected explosion*

ISC 11 00:21:58.8±0.7**, 67.89N**±0.04×**20.2E**±0.1**, n11, σ1^{s}18**/15**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIKU	Nikkaluokta	0.44	268	P	Pg	00 22 08.2	+0.6
DUNU	Dundret	0.78	169	P	Pg	00 22 13.2	-1.3
PAJU	Pajala	1.42	126	P	Pb	00 22 25.1	-0.8
KTK1	Kautokeino	1.59	43	eP	Pn	00 22 30.9	+2.6
KTK1				eSg	Sg	00 22 51.4	-0.4
KTK1				AML	AML	00 22 57.8	
	comp=Z,8.9nm,0.4s						
KTK1	Kautokeino	1.59	43	eP	Pn	00 22 30.9	+2.5
	SNR=50						
KTK1				eSg	Sg	00 22 51.4	-0.4
	comp=Z,8.9nm,0.4s,SNR=90						
TRO	Tromso	1.81	346	eP	Pn	00 22 32.5	+1.0
TRO				eSg	Sg	00 22 58.3	-0.9
TRO				AML	AML	00 23 00.1	
	comp=Z,13nm,0.4s						
TRO	Tromso	1.81	346	eP	Pn	00 22 32.5	+1.0
	SNR=50						
TRO				eSg	Sg	00 22 58.3	-0.8
	comp=Z,13nm,0.4s,SNR=90						
LOF	Lofoten	2.52	279	eSg	Sg	00 23 21.3	-1.3
LOF				AML	AML	00 23 23.1	
	comp=Z,12nm,0.4s						
MOR8	Moi Rana	2.84	235	eSg	Sn	00 23 22.9	+1.2
MOR8				AML	AML	00 23 24.4	
	comp=Z,22nm,0.4s						
MOR8	Moi Rana	2.84	235	eSg	Sn	00 23 22.9	+1.3
	comp=Z,22nm,0.4s,SNR=90						
NSS	Namsos	4.74	229	eSg	Sg	00 24 26.2	-10

IDC 11 00:30:06.3±2.5**, 10.96S**×**121.97E, mb3.6**/2**, mb1 4.0**/5**, mb1mx3.9**/12**, ML3.8**/3**, Error ellipse: s-maj=154.0km s-min=23.9km az=62.0, Savu Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	7.94	154	eP	Pn	00 32 02.0	-3.7
	4.2nm,0.5s						
FITZ				eS	Sn	00 33 25.9	-11
FITZ	Fitzroy Crossi	7.94	154	Pn	Pn	00 32 02.8	-3.0
	1.2nm,0.3s,baz=355,slow=12,SNR=27						
FITZ				Sn	Sn	00 33 25.4	-12
	3.0nm,0.3s,baz=192,slow=18,SNR=10						
WRA	Warramunga Arr	14.88	128	Pn	P	00 33 38.2	-1.8
	0.7nm,0.3s,baz=307,slow=14,SNR=35						
WRA				Sn	S	00 36 15.5	-11
	0.3nm,0.3s,baz=305,slow=23,SNR=6.2						
WB2	Warramunga Arr	14.89	128	eP	P	00 33 38.3	-1.9
WB2				eS	S	00 36 16.3	-11
ASPA	Alice Springs	16.99	140	eP	P	00 34 05.9	-1.2
ASPA				eS	S	00 37 05.3	-11
ASAR	Alice Springs	16.99	140	Pn	P	00 34 05.8	-1.4
	0.3nm,0.3s,baz=314,slow=12,SNR=36						
ASAR				Sn	S	00 37 07.2	-8.8
	0.2nm,0.3s,baz=316,slow=24,SNR=12						
STKA	Stephens Creek	27.60	142	P	P	00 35 55.5	-1.9
	0.8nm,0.6s,baz=317,slow=8.9,SNR=3.7						
SONM	Songino Array	60.15	348	P	P	00 40 15.8	-2.3
	0.2nm,0.5s,baz=170,slow=8.8,SNR=2.7						

IDC ***11*** *00:41:46.0±4.0, 5.17S×151.50E, h162^{km}±35^{km}, mb3.7/7, mb1 3.9/8, mb1mx3.7/14, Error ellipse: s-maj=43.8km s-min=22.6km az=119.0*

NEIC ***11*** *00:41:47.4±2.4, 5.14S×151.40E, h174^{km}±21^{km}, mb4.5/2, Error ellipse: s-maj=34.4km s-min=16.5km az=125.0*

ISC 11 00:41:46.7±2.9**, 5.0S**±0.2×**151.3E**±0.2**, h176**^{km}±25^{km}**, n14, σ0^{s}69**/14**, mb3.9**/7**, 1D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	5.96	223	P	P	00 43 14.1	+0.2
	2.3nm,0.3s,baz=22,slow=14,SNR=4.1						
PMG				S	S	00 44 21.5	-0.2
	9.6nm,0.3s,baz=67,slow=9.4,SNR=17						
KAKA	Kakadu	20.12	246	⇓iP	P	00 46 08.6	-0.2
	11nm,0.3s						
WB2	Warramunga Arr	22.16	227	eP	P	00 46 29.2	+0.5
WRA	Warramunga Arr	22.16	227	P	P	00 46 29.4	+0.6
	7.0nm,0.6s,mb4.3,baz=52,slow=9.7,SNR=84						
ASAR	Alice Springs	24.97	220	P	P	00 46 55.8	+0.1
	3.8nm,0.5s,mb4.2,baz=56,slow=9.8,SNR=32						
ASPA	Alice Springs	24.97	220	eP	P	00 46 55.5	-0.2
FITZ	Fitzroy Crossi	28.21	240	eP	P	00 47 24.6	-0.7
	2.3nm,0.4s,mb4.3						
FITZ	Fitzroy Crossi	28.21	240	P	P	00 47 24.5	-0.9
	3.5nm,0.5s,mb4.3,baz=32,slow=7.4,SNR=26						
SONM	Songino Array	65.71	329	P	P	00 52 15.6	+1.1
	0.8nm,0.4s,mb3.9,baz=145,slow=5.3,SNR=16						
ZAL	Zalesovo	80.50	327	P	P	00 53 40.2	-0.2
	0.5nm,0.3s,mb3.5,baz=339,slow=10,SNR=3.2						
ZAL	Zalesovo	80.50	327	P	P	00 53 40.2	-0.2
ILAR	Eielson Array	82.94	22	P	P	00 53 51.2	-1.6
	0.4nm,0.5s,mb3.4,baz=251,slow=5.0,SNR=7.9						
NVAR	Mina Array Bea	93.43	52	P	P	00 54 44.2	+0.8
	0.3nm,0.5s,mb3.7,baz=257,slow=7.6,SNR=3.7						
GERES	GERESS Array B	123.44	328	PKP	PKPdf	01 00 24.7	+1.7
	0.2nm,0.4s,baz=45,slow=1.9,SNR=4.5						

IDC 11 01:28:10.6±3.0**, 27.00S**×**113.65W, mb3.6**/3**, mb1 4.0**/3**, mb1mx3.8**/16**, MS3.3**/1**, Ms1 3.4**/1**, ms1mx2.5**/15**, Error ellipse: s-maj=175.0km s-min=71.7km az=74.0, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	43.43	85	LR	LR	01 50 04.1	
	comp=Z,38nm,21.4s,baz=101,slow=30						
NVAR	Mina Array Bea	65.23	356	P	P	01 38 54.3	-1.9
	1.3nm,0.9s,baz=180,slow=7.2,SNR=7.2						
PDAR	Pinedale Array	69.52	3	P	P	01 39 21.1	-2.0
	0.2nm,0.4s,baz=140,slow=7.0,SNR=2.6						
YKA	Yellowknife Ar	89.18	360	P	P	01 41 07.5	-1.4
	0.2nm,0.7s,baz=180,slow=4.5,SNR=5.2						
ZAL	Zalesovo	149.84	338	PKPbc	PKPdf	01 48 01.8	+2.6
	0.5nm,0.4s,baz=346,slow=3.1,SNR=3.4						
BRTR	Keskin Array B	150.05	57	PKPbc	PKPdf	01 48 03.1	+3.1
	1.5nm,0.9s,baz=315,slow=3.5,SNR=5.0						

IDC ***11*** *01:33:18.8±2.0, 10.88S×77.75W, h43^{km}±6^{km}, mb3.5/6, mb1 3.8/7, mb1mx3.7/17, ML3.9/1, MS3.1/1, Ms1 3.2/1, ms1mx2.5/16, Error ellipse: s-maj=80.6km s-min=24.2km az=37.0*

NEIC ***11*** *01:33:18.4±0.9, 10.94S×77.90W, mb4.3/1, Error ellipse: s-maj=33.8km s-min=13.6km az=49.0*

NEIC Felt [III] at Huacho.

ISC 11 01:33:18.8±4.2**, 10.7S**±0.3×**77.6W**±0.4**, h54**^{km}±33^{km}**, h43**^{km}±1.6^{km}**:pP-P, n13, σ0^{s}61**/11**, mb3.9**/7**, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	10.78	122	P	P	01 35 53.0	-0.1
	0.4nm,0.3s,baz=315,slow=9.9,SNR=6.6						
LPAZ				LR	LR	01 40 23.3	
	comp=Z,95nm,19.0s,baz=96,slow=39						
OTAV	Otavalo	10.87	356	P	P	01 35 54.5	+0.1
TXAR	Lajitas Array	47.05	328	P	P	01 41 48.1	+1.0
	0.2nm,0.5s,mb3.4,baz=152,slow=9.5,SNR=6.0						
TXAR				pP	pP	01 42 00.1	-1.3
	0.7nm,0.6s,baz=148,slow=9.7,SNR=8.8						
BW06	Boulder Array	60.67	333	P	P	01 43 26.2	-0.7
	2.5nm,1.1s,mb4.3						
PDAR	Pinedale Array	60.67	333	P	P	01 43 26.8	-0.1
	0.4nm,0.7s,mb3.7,baz=117,slow=3.3,SNR=3.6						
PDAR				pP	pP	01 43 39.0	-2.8
	0.5nm,0.6s,baz=122,slow=8.2,SNR=5.0						
NVAR	Mina Array Bea	61.87	325	P	P	01 43 35.1	+0.1
	0.2nm,0.4s,mb3.6,baz=146,slow=6.1,SNR=4.1						
NVAR				pP	pP	01 43 47.7	-2.2
	0.9nm,0.7s,baz=155,slow=6.8,SNR=5.9						
NVAR	Mina Array Bea	61.87	325	P	P	01 43 35.1	+0.1
NVAR				pP	pP	01 43 47.7	-2.2
ULM	Lac du Bonnet	62.73	347	P	P	01 43 39.4	-1.2
	3.8nm,1.1s,mb4.4,baz=156,slow=3.2,SNR=2.3						
ULM				pP	pP	01 43 52.9	-2.6
	2.2nm,0.7s,baz=127,slow=5.2,SNR=2.9						
PPT	Papeete	69.78	255	eLR	LR	01 43 37.6	
	137nm,25.5s						
DBIC	Dimbokro	74.44	80	P	P	01 44 54.3	+0.5
	2.0nm,0.8s,mb4.1,baz=249,slow=5.9,SNR=4.2						
YKA	Yellowknife Ar	78.37	343	P	P	01 45 15.2	+0.4
	0.5nm,0.5s,mb3.7,baz=143,slow=5.8,SNR=15						
YKA				pP	pP	01 45 27.1	-3.1
	0.4nm,0.5s,baz=140,slow=6.0,SNR=7.3						
YKA	Yellowknife Ar	78.37	343	P	P	01 45 15.2	+0.4
YKA				pP	pP	01 45 27.1	-3.1
WRA	Warramunga Arr	136.24	226	PKP	PKPdf	01 52 33.4	-1.8
	0.4nm,0.6s,baz=130,slow=1.8,SNR=5.4						

JMA 11 01:40:36.9±0.1**, 42.93N**×**145.06E, h50**^{km}±1^{km}**, M3.6, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	Akkeshi	0.28	284	P	P	01 40 45.7	-0.2
JAK				S	S	01 40 52.2	0.0
NEM2	Nemuro 2	0.66	49	P	P	01 40 49.7	-0.5
NEM2				S	S	01 40 58.9	-1.1
JNK	Nakash	0.70	339	P	P	01 40 50.3	-0.4
JNK				S	S	01 40 59.9	-1.0
JOB	Onbets	0.90	269	P	P	01 40 53.1	-0.3
JOB				eS	S	01 41 04.5	-1.2
JRA	Rausu	1.01	3	P	P	01 40 54.8	-0.1
JRA				S	S	01 41 07.7	-0.6
JAR	Ashorobuto	1.01	292	P	P	01 40 54.8	-0.2
JAR				eS	S	01 41 07.8	-0.6
JCH	Churui	1.29	256	P	P	01 40 57.9	-1.0
JCH				eS	S	01 41 14.1	-1.2
JTKR	Abashiri--Toko	1.34	322	P	P	01 40 59.7	0.0
JTKR				eS	S	01 41 16.8	+0.2

ORF ***11*** *01:54:49.5, 6.77S×149.20E, h30^{km}, mb5.5*

MOS ***11*** *01:55:48.6±0.8, 4.32S×149.64E, h522^{km}, mb4.9/10, Error ellipse: s-maj=21.2km s-min=11.9km az=105.8*

BJI ***11*** *01:55:48.8, 4.39S×150.00E, h535^{km}, mB4.8, mb4.8*

IDC ***11*** *01:55:49.9±0.7, 4.62S×149.69E, h538^{km}±6^{km}, mb4.7/21, mb1 4.8/23, mb1mx4.7/24, Error ellipse: s-maj=9.5km s-min=6.1km az=100.0*

NEIC ***11*** *01:55:49.9±0.5, 4.61S×149.78E, h542^{km}±5^{km}, mb5.3/35, Error ellipse: s-maj=5.0km s-min=4.1km az=134.0*

HRVD ***11*** *01:55:49.9±0.4, 4.56S×149.89E, h525^{km}±1^{km}, MW5.5/55, Centroid moment Tensor Solution. LP body waves: s55,c107; Half duration: 1^{s}3 Moment tensor: Scale 10^{17} Nm; M_{rr}-1.37±.05; $M_{\theta\theta}$1.51±.07; $M_{\phi\phi}$-0.15±.09; $M_{r\theta}$-0.29±.09; $M_{\theta\phi}$0.79±.07; $M_{\phi r}$0.84±.09; Best double couple: $M_0$1.87×10^{17} NP1:ϕ_s96°, δ52°, λ-49°. NP2:ϕ_s221°, δ54°, λ-130°. Principal axes: T 1.83, Plg1°, Azm338°; N .08, Plg31°, Azm247°; P -1.91, Plg59°, Azm69°; nsta1 refers to body waves, cutoff=40s.*

BGS ***11*** *01:55:50.3±1.9, 4.61S×149.78E, h540^{km}*

SYO ***11*** *01:55:51.5, 4.71S×149.71E, h565^{km}, MB5.3*

ISC 11 01:55:48.3±0.6**, 4.62S**±0.04×**149.76E**±0.03**, h532**^{km}±7^{km}**, h542**^{km}±5.3^{km}**:pP-P, n441, σ0^{s}90**/212**, mb5.0**/84**, 36C-16D, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	5.41	208	P	P	01 57 23.1	+1.7
	303nm,0.3s,baz=40,slow=5.5,SNR=760						
PMG				S	S	01 58 37.0	+1.7
	47nm,0.3s,baz=349,slow=22,SNR=12						
PMG	Port Moresby	5.41	208	d iP	P	01 57 23.0	+1.6
CTA	Charters Tower	15.75	192	⇑iP	P	01 59 07.6	+2.3
	384nm,0.5s						
CTA				eS	S	02 01 52.1	+7.7
CTA	Charters Tower	15.75	192	P	P	01 59 07.5	+2.2

	77nm,0.3s,baz=8.2,slow=11,SNR=991						
CTA				S	**S**	**02 01 48.9**	**+4.4**
	baz=21,slow=15,SNR=1.3						
CTA				ScP		02 06 15.3	
	0.2nm,0.3s,baz=53,slow=6.1,SNR=3.7						
KAKA	**Kakadu**	**18.90**	**244**	⇑*i*P	**P**	**01 59 36.0**	**+0.1**
	59nm,0.3s						
KAKA				*e*S	**S**	**02 02 40.3**	**+1.2**
WRAB	**Tennant Creek**	**21.38**	**223**	*c* *i*P	**P**	**01 59 59.2**	**+0.3**
WB2	**Warramunga Arr**	**21.38**	**223**	⇑*i*P	**P**	**01 59 59.0**	**0.0**
WB2				*e*S	**S**	**02 03 18.8**	**-1.5**
WB2				*e*PCS		02 06 11.3	
WRA	**Warramunga Arr**	**21.39**	**223**	P	**P**	**01 59 59.3**	**+0.3**
	57nm,0.4s,mb5.5,baz=46,slow=9.5,SNR=165						
WRA				S	**S**	**02 03 19.2**	**-1.2**
	44nm,0.7s,baz=47,slow=15,SNR=14						
WRA				PcP	PcP	02 03 41.0	-0.3
	20nm,0.6s,baz=34,slow=2.1,SNR=6.7						
WRA				ScP		02 06 27.8	
	20nm,0.9s,baz=36,slow=2.4,SNR=13						
WRA				PKiKP		02 11 25.1	
	1.4nm,0.5s,baz=302,slow=1.1,SNR=10.0						
WRA	**Warramunga Arr**	**21.39**	**223**	*i* P	**P**	**01 59 57.4**	**-1.6**
WRA				pmax	pmax		
	comp=Z,57nm,0.4s						
NOUC	**Port Laguerre**	**23.64**	**139**	*e*P	**P**	**02 00 18.4**	**-1.1**
DZM	**Mont Dzumac**	**23.72**	**139**	*e*P	**P**	**02 00 19.8**	**-0.3**
ASAR	**Alice Springs**	**24.34**	**217**	P	**P**	**02 00 25.6**	**-0.1**
	comp=Z,48nm,0.5s,mb5.4,baz=51,slow=7.9,SNR=13						
ASAR				PcP	PcP	02 03 47.0	-0.6
	comp=Z,11nm,0.6s,baz=45,slow=2.9,SNR=4.0						
ASAR				S	**S**	**02 04 05.0**	**-3.0**
	comp=Z,17nm,0.6s,baz=50,slow=14,SNR=8.5						
ASAR				ScP		02 06 35.6	
	comp=Z,16nm,0.8s,baz=45,slow=2.7,SNR=7.2						
ASAR				PKiKP		02 11 26.6	
	comp=Z,0.9nm,0.5s,baz=46,slow=0.5,SNR=6.1						
ASPA	**Alice Springs**	**24.34**	**217**	⇑*i*P	**P**	**02 00 25.4**	**-0.4**
ASPA				*e*S	**S**	**02 04 05.4**	**-2.6**
ASPA				*e*PCS		02 06 56.7	
ASPA				*e*SCS	ScS	02 10 25.6	+2.8
MATI	**Mati**	**26.12**	**296**	*e*P	**P**	**02 00 40.5**	**-1.1**
FITZ	**Fitzroy Crossi**	**27.13**	**238**	⇑*i*P	**P**	**02 00 49.1**	**-1.3**
	comp=Z,16nm,0.3s,mb5.1						
FITZ				*e*		02 01 05.4	
FITZ				*e*SCP		02 06 44.5	
FITZ	**Fitzroy Crossi**	**27.13**	**238**	P	**P**	**02 00 49.2**	**-1.2**
	comp=Z,20nm,0.4s,mb5.1,baz=42,slow=7.1,SNR=184						
FITZ				S	**S**	**02 04 51.8**	**-0.1**
	comp=Z,11nm,0.9s,baz=213,slow=6.6,SNR=3.6						
FITZ				ScP		02 06 44.0	
	comp=Z,39nm,0.9s,baz=11,slow=6.3,SNR=7.1						
BUKP	**Musuan**	**27.59**	**297**	*e*P	**P**	**02 00 53.9**	**-0.6**
BUTP	**Butuan**	**27.59**	**299**	*e*P	**P**	**02 01 10.5**	**+16**
STKA	**Stephens Creek**	**28.18**	**195**	⇑*i*P	**P**	**02 00 58.3**	**-1.2**
	comp=Z,20nm,0.4s,mb5.1						
STKA				*e*S	**S**	**02 05 03.1**	**-5.1**
STKA				*e*SCP		02 06 47.1	
STKA	**Stephens Creek**	**28.18**	**195**	P	**P**	**02 00 58.4**	**-1.2**
	comp=Z,24nm,0.4s,mb5.2,baz=354,slow=8.4,SNR=96						
STKA				S	**S**	**02 05 07.0**	**-1.1**
	comp=Z,9.1nm,0.6s,baz=334,slow=21,SNR=2.9						
STKA				ScP		02 06 47.6	
	comp=Z,12nm,0.7s,baz=71,slow=4.1,SNR=6.0						
MSLP	**Maasin**	**28.80**	**301**	*e*P	**P**	**02 01 04.2**	**-0.9**
BESP	**Borongan**	**29.07**	**304**	*e*P	**P**	**02 01 06.8**	**-0.5**
PAGZ	**Pagadian**	**29.08**	**295**	*e*P	**P**	**02 01 07.5**	**0.0**
OCLP	**Ormoc**	**29.47**	**302**	*e*P	**P**	**02 01 09.3**	**-1.5**
CNP	**Catarman**	**30.19**	**305**	*e*P	**P**	**02 01 16.1**	**-0.9**
GUIM	**Jordan**	**31.00**	**299**	*e*P	**P**	**02 01 23.2**	**-0.6**
OTRP	**Odiongan**	**32.32**	**302**	*e*P	**P**	**02 01 34.3**	**-0.8**
CBIJ	**Chichi jima**	**32.36**	**347**	P	**P**	**02 01 31.4**	**-3.9**
	comp=Z,148nm,0.8s,mb5.5,baz=110,slow=23,SNR=4.6						
CBIJ				PcP	PcP	02 04 06.2	-1.5
	comp=Z,114nm,0.7s,baz=116,slow=22,SNR=7.3						
CUYO	**Cuyo Island**	**32.47**	**298**	*e*P	**P**	**02 01 36.6**	**+0.3**
BOAC	**Boac**	**33.02**	**303**	*e*P	**P**	**02 01 40.7**	**-0.2**
TOO	**Toolangi**	**33.03**	**186**	⇑*i*P	**P**	**02 01 41.3**	**+0.5**
	comp=Z,55nm,0.6s,mb5.3						
FORT	**Forrest**	**33.09**	**216**	⇑*i*P	**P**	**02 01 40.8**	**-0.6**
	comp=Z,260nm,0.5s,mb6.0						
FORT				*e*S	**S**	**02 06 19.4**	**-4.6**
SJMP	**San Jose**	**33.14**	**301**	*e*P	**P**	**02 01 42.4**	**+0.4**
POLP	**Polilio Island**	**33.61**	**305**	*e*P	**P**	**02 01 45.2**	**-0.7**
ENPP	**El Nido**	**34.03**	**298**	*e*P	**P**	**02 01 49.5**	**+0.1**
TGY	**Tagaytay City**	**34.11**	**303**	P	**P**	**02 01 49.1**	**-1.0**
	comp=Z,585nm,0.9s,mb6.1,baz=155,slow=12,SNR=8.3						
BALP	**Baler**	**34.46**	**307**	*e*P	**P**	**02 01 52.5**	**-0.5**
LUBP	**Lubang**	**34.50**	**302**	*e*P	**P**	**02 01 51.6**	**-1.7**
CAUP	**Cauayan**	**34.94**	**308**	*e*P	**P**	**02 01 57.3**	**+0.3**
CVP	**Callao Caves**	**35.38**	**310**	*e*P	**P**	**02 02 01.0**	**+0.4**
SGCP	**Mt. Cagua**	**35.53**	**310**	*e*P	**P**	**02 02 01.4**	**-0.5**
APYP	**Conner**	**35.92**	**309**	*e*P	**P**	**02 02 04.2**	**-0.9**
ABRA	**Dolores**	**36.21**	**308**	*e*P	**P**	**02 02 06.3**	**-1.1**
BBP	**Basco**	**36.95**	**313**	*e*P	**P**	**02 02 13.1**	**-0.4**
JOW	**Kunigami**	**37.54**	**328**	P	**P**	**02 02 18.1**	**-0.1**
	comp=Z,204nm,0.5s,mb5.9,baz=158,slow=9.6,SNR=56						
NWAO	**Narrogin (SRO)**	**41.40**	**223**	S	**S**	**02 08 27.1**	**+0.4**
	comp=Z,14nm,1.0s,baz=58,slow=17,SNR=3.6						
URZ	**Urewera**	**41.73**	**147**	P	**P**	**02 02 52.3**	**+0.3**
	comp=Z,15nm,0.4s,mb4.9,baz=236,slow=2.9,SNR=18						
URZ				PcP	PcP	02 04 33.4	-3.1
	comp=Z,24nm,0.7s,baz=225,slow=1.3,SNR=5.1						
QZH	**Quanzhou**	**42.20**	**316**	⇑*i*P	**P**	**02 02 56.6**	**+0.7**
QZH				S	**S**	**02 08 39.3**	**+0.9**
MAT	**Matsushiro**	**42.34**	**346**	P	**P**	**02 02 56.4**	**-0.5**
MAT				S	**S**	**02 08 35.0**	**-5.2**
MAT	**Matsushiro**	**42.34**	**346**	*e*P	**P**	**02 02 56.0**	**-0.9**
	comp=Z,84nm,0.8s,mb5.3						
MAT				*e*S	**S**	**02 08 35.0**	**-5.2**
RPZ	**Rata Peaks**	**43.24**	**157**	P	**P**	**02 03 03.5**	**-0.4**
	comp=Z,57nm,0.8s,mb5.2,baz=291,slow=1.1,SNR=23						
SSE	**Sheshan**	**44.77**	**324**	P	**P**	**02 03 15.5**	**-0.5**
SSE				AP	pP	02 04 55.3	+1.1
SSE				XP	sP	02 05 53.6	+1.5
SSE				S	**S**	**02 09 14.6**	**0.0**
SSE				XS		02 12 15.5	
SSE				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.7						
SSE				AMB	AMB		
	comp=Z,102nm,4.7s						
QIZ	**Qiongzhong**	**45.78**	**302**	⇑P	**P**	**02 03 24.9**	**+0.9**
QIZ				XP	sP	02 06 01.3	+0.9
QIZ				S	**S**	**02 09 29.8**	**+1.0**
QIZ				XS		02 12 27.2	
QIZ				AMB	AMB		
	comp=Z,34nm,0.9s,mb4.9						
KS15	**Wonju Array Si**	**46.54**	**336**	*e*P	**P**	**02 03 29.3**	**-0.2**
NJ2	**Nanjing**	**46.84**	**323**	*e*P	**P**	**02 03 32.6**	**+0.8**
NJ2				PCP	PcP	02 04 50.3	-4.1
NJ2				AP	pP	02 05 11.9	+0.8
NJ2				PP	PP	02 05 31.5	+3.2
NJ2				SCP		02 07 57.0	
NJ2				S	**S**	**02 09 46.0**	**+2.7**
NJ2				AMB	AMB		
	comp=Z,80nm,0.8s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,240nm,8.9s						
WHN	**Wuhan**	**48.66**	**318**	⇑P	**P**	**02 03 46.0**	**+0.3**
WHN				AMB	AMB		
	comp=Z,26nm,0.7s,mb4.9						
ASAJ	**Asahikawa**	**48.94**	**353**	P	**P**	**02 03 47.1**	**-0.4**
	comp=Z,26nm,0.6s,mb4.9,baz=219,slow=12,SNR=16						
ASAJ				PcP	PcP	02 05 01.2	-0.7
	comp=Z,6.5nm,0.5s,baz=204,slow=18,SNR=2.6						
GYA	**Guiyang**	**51.90**	**309**	⇑*i*P	**P**	**02 04 10.3**	**+0.8**
GYA				S	**S**	**02 10 54.6**	**+2.6**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.5						
GYA				AMB	AMB		
	comp=Z,980nm,3.2s						
MDJ	**Mudanjiang**	**52.24**	**342**	P	**P**	**02 04 11.7**	**-0.1**
MDJ				PCP	PcP	02 05 13.3	-1.0
MDJ				AP	pP	02 05 59.2	+5.1
MDJ				PP	PP	02 06 19.7	+2.8
MDJ				S	**S**	**02 10 58.6**	**+2.2**
MDJ				SCS	ScS	02 13 01.2	-2.0
MDJ				AMB	AMB		
	comp=Z,18nm,0.8s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,105nm,4.6s						
CN2	**Changchun**	**52.94**	**338**	*e*P	**P**	**02 04 16.3**	**-0.4**
CN2				PCP	PcP	02 05 15.6	-1.3
CN2				*e*S	**S**	**02 11 03.6**	**-2.0**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.2						
CN2				AMB	AMB		
	comp=Z,290nm,4.0s						
BJI	**Beijing**	**54.10**	**328**	P	**P**	**02 04 26.8**	**+1.7**
BJI				PCP	PcP	02 05 20.9	-0.5
BJI				AP	pP	02 06 14.1	+5.7
BJI				PP	PP	02 06 38.6	+4.5
BJI				SCP		02 08 24.6	
BJI				PCS		02 09 23.0	
BJI				S	**S**	**02 11 18.9**	**-2.1**
BJI				SCS	ScS	02 13 16.5	+0.1
BJI				AMB	AMB		
	comp=Z,17nm,1.2s,mb4.2						
KMI	**Kunming**	**54.39**	**305**	⇑*e*P	**P**	**02 04 28.6**	**+1.4**
KMI				PCP	PcP	02 05 22.8	+0.1
KMI				AP	pP	02 06 11.3	+0.5
KMI				PP	PP	02 06 40.2	+3.4
KMI				S	**S**	**02 11 27.9**	**+2.9**
KMI				XS		02 14 34.9	
KMI				SS	SS	02 15 20.6	+1.1
KMI				AMB	AMB		
	comp=Z,18nm,0.9s,mb4.4						
KMI				AMB	AMB		
	comp=Z,123nm,4.5s						
XAN	**Xi’an**	**54.43**	**318**	P	**P**	**02 04 27.2**	**-0.2**
XAN				AMB	AMB		
	comp=Z,44nm,0.7s,mb4.9						
CM31	**Chiang Mai Arr**	**55.06**	**296**	*e*P	**P**	**02 04 32.5**	**+0.4**
	comp=Z,8.8nm,0.7s,mb4.1						
CM31				*e*PcP	PcP	02 05 25.5	+0.1
CMAR	**Chiang Mai Arr**	**55.06**	**296**	P	**P**	**02 04 31.5**	**-0.5**
	comp=Z,5.6nm,0.5s,mb4.0,baz=122,slow=6.0,SNR=30						
CMAR				PcP	PcP	02 05 25.6	+0.2
	comp=Z,8.3nm,0.6s,baz=112,slow=2.0,SNR=12						
CMAR				PKP2bc		02 34 41.8	
	comp=Z,3.9nm,1.0s,baz=293,slow=4.2,SNR=6.7						
CMAR	**Chiang Mai Arr**	**55.06**	**296**	*i* P	**P**	**02 04 33.1**	**+1.1**
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.5s						
CMAR	**Chiang Mai Arr**	**55.06**	**296**	P	**P**	**02 04 31.5**	**-0.5**
CMAR				PcP	PcP	02 05 25.6	+0.2
CMAR				⇑*e*		02 34 41.8	
KLR	**Kul’dur**	**55.87**	**346**	*e*P	**P**	**02 04 47.0**	**+10**
KLR				*e*		02 05 24.0	
KLR				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.4						
CD2	**Chengdu**	**56.34**	**312**	P	**P**	**02 04 41.0**	**+0.3**
CD2				XP	sP	02 07 22.4	+1.2
CD2				S	**S**	**02 11 50.2**	**-0.1**
CD2				SCS	ScS	02 13 34.2	+1.6
CD2				XS		02 14 59.2	
CD2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.4						
CD2				AMB	AMB		
	comp=Z,90nm,5.0s						
HHC	**Hu-ho-hao-te**	**57.16**	**326**	*e*P	**P**	**02 04 46.3**	**+0.1**
HHC				PCP	PcP	02 05 34.3	+0.8
HHC				PP	PP	02 07 03.0	+1.9
HHC				S	**S**	**02 11 57.4**	**-3.3**
HHC				SCS	ScS	02 13 37.6	-0.9
HHC				XS		02 15 05.6	
HHC				SS	SS	02 16 00.3	-3.1
HHC				AMB	AMB		
	comp=Z,23nm,0.7s,mb4.5						
HHC				AMB	AMB		
	comp=Z,150nm,5.5s						
BTO	**Baotou**	**57.87**	**325**	*e*P	**P**	**02 04 49.9**	**-1.2**
PET	**Petropavlovsk**	**57.91**	**6**	⇑*i*P	**P**	**02 04 50.7**	**-0.5**
PET				*i*		02 05 35.3	
PET				*e**PP	pP	02 06 36.2	-0.6
PET				*e*S	**S**	**02 12 13.0**	**+2.9**
PET				*e*SS	SS	02 16 13.1	-1.8
PET				*e*SSS	SSS	02 19 03.1	0.0
PET				pmax	pmax		
	comp=Z,58nm,0.7s,mb4.9						
PET				pmax	pmax		
	comp=N,57nm,0.8s						
PET				pmax	pmax		
	comp=Z,67nm,1.0s,mb4.8						
PET				pmax	pmax		
	comp=Z,200nm,17.2s						
PET				smax			
	comp=E,300nm,10.9s						
PET				smax			
	comp=N,200nm,17.8s						
PET				pmax	pmax		
	comp=N,54nm,3.1s						
LZH	**Lanzhou**	**59.01**	**317**	*e*P	**P**	**02 04 59.9**	**+1.1**
LZH				PCP	PcP	02 05 41.6	+0.8
LZH				AP	pP	02 06 50.7	+5.7
LZH				PP	PP	02 07 21.7	+4.3
LZH				PCS		02 09 42.8	
LZH				S	**S**	**02 12 26.0**	**+1.7**
LZH				SS	SS	02 16 32.1	0.0
LZH				AMB	AMB		
	comp=Z,61nm,1.4s,mb4.6						
LZH				AMB	AMB		
	comp=Z,208nm,4.0s						
FX1	**Attu Island--F**	**60.61**	**16**	P	**P**	**02 05 09.2**	**+0.1**
	comp=Z,137nm,0.6s,mb5.5,baz=153,slow=1.1,SNR=25						
FX1	**Attu Island--F**	**60.61**	**16**	*e*P	**P**	**02 05 08.5**	**-0.6**
PAE	**Paea**	**60.68**	**108**	*e*P	**P**	**02 05 10.6**	**+0.6**
	comp=Z,118nm,1.2s,mb5.1						
TIAR	**Tiarei**	**60.89**	**107**	*e*P	**P**	**02 05 12.4**	**+1.0**
	comp=Z,307nm,0.9s,mb5.6						
TBI	**Tubuai**	**61.40**	**114**	*e*P	**P**	**02 05 15.2**	**+0.5**
	comp=Z,124nm,0.9s,mb5.3						
PMOR	**Pomariorio Ree**	**62.12**	**104**	*e*P	**P**	**02 05 20.2**	**+0.8**
	comp=Z,200nm,1.0s,mb5.5						
MEH	**Mehetia**	**62.13**	**108**	*e*P	**P**	**02 05 20.1**	**+0.6**
	comp=Z,72nm,1.0s,mb5.0						
DRV	**Dumont d’Urvil**	**62.31**	**184**	S	**S**	**02 13 02.0**	**-2.8**
GTA	**Gaotai**	**63.48**	**318**	*e*P	**P**	**02 05 28.5**	**+0.6**
GTA				PCP	PcP	02 05 59.4	+0.4
GTA				AP	pP	02 07 18.3	+1.7
GTA				PP	PP	02 07 59.5	+3.5
GTA				XP	sP	02 08 15.5	+4.3
GTA				S	**S**	**02 13 22.3**	**+2.9**
GTA				AMB	AMB		
	comp=Z,102nm,4.2s						
SHL	**Shillong**	**63.61**	**301**	*e*P	**P**	**02 05 28.0**	**-1.0**
SHL				*e*		02 08 20.8	
SHL				*e*S	**S**	**02 13 21.8**	**+0.6**
MA2	**Magadan**	**64.00**	**1**	*e*P	**P**	**02 05 30.1**	**-0.7**
MA2				*e**SP	sP	02 08 10.4	-4.0
MA2				*e*S	**S**	**02 13 25.4**	**+0.1**
MA2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.6						
SONM	**Songino Array**	**64.58**	**329**	P	**P**	**02 05 35.0**	**+0.2**
	comp=Z,16nm,0.7s,mb4.6,baz=150,slow=4.6,SNR=106						
SONM				PcP	PcP	02 06 02.9	-0.6
	comp=Z,7.9nm,0.5s,baz=147,slow=4.7,SNR=8.1						
SONM				PKiKP		02 12 05.2	
	comp=Z,1.0nm,0.9s,baz=20,slow=0.6,SNR=4.2						
SONM				PKP2bc		02 34 18.0	
	comp=Z,1.4nm,0.9s,baz=270,slow=1.2,SNR=6.8						
ZAK	**Zakamensk**	**67.79**	**330**	⇓*i*P	**P**	**02 05 54.5**	**0.0**
ZAK				*e*	pP	02 07 46.8	+1.6
YAK	**Yakutsk**	**68.23**	**350**	*e*P	**P**	**02 05 55.0**	**-2.0**
YAK				*e*		02 06 15.7	
YAK				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.5						
YAK				pmax	pmax		
	comp=N,9.0nm,1.2s						
YAK				pmax	pmax		
	comp=N,22nm,0.9s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK	**Yakutsk**	**68.23**	**350**	*i* Pr		02 05 56.6	
TLY	**Talaya**	**68.43**	**331**	*e*P	**P**	**02 05 58.4**	**0.0**
TLY				*e*		02 14 18.1	
TLY				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.2						
BOD	**Bodaibo**	**68.57**	**340**	*e*P	**P**	**02 05 57.8**	**-1.3**
GUN	**Gumba**	**69.44**	**302**	*e*P	**P**	**02 06 05.5**	**+0.6**
	comp=Z,151nm,0.6s,mb5.7						
GUN	**Gumba**	**69.44**	**302**	⇓*i*P	**P**	**02 06 05.4**	**+0.5**
	comp=Z,74nm,0.6s,mb5.4						
PKI	**Pulchoki**	**69.74**	**301**	*e*P	**P**	**02 06 07.0**	**+0.4**
	comp=Z,50nm,0.6s,mb5.2						
KKN	**Kakani**	**69.91**	**302**	*e*P	**P**	**02 06 08.1**	**+0.5**
	comp=Z,77nm,0.6s,mb5.4						
DMN	**Daman**	**70.01**	**301**	*e*P	**P**	**02 06 09.0**	**+0.8**
	comp=Z,95nm,0.5s,mb5.5						
GKN	**Gorkha**	**70.52**	**302**	*e*P	**P**	**02 06 11.5**	**+0.3**
	comp=Z,90nm,0.4s,mb5.6						
KOLN	**Koldanda**	**71.34**	**301**	*e*P	**P**	**02 06 16.3**	**+0.3**
	comp=Z,138nm,0.7s,mb5.6						
VNDA	**Vanda**	**73.14**	**177**	P	**P**	**02 06 25.4**	**-0.1**
	comp=Z,15nm,0.5s,mb4.7,baz=332,slow=6.7,SNR=136						
VNDA				S	S	02 15 10.6	+0.3
	comp=Z,0.7nm,0.7s,baz=210,slow=22,SNR=4.1						
WMQ	**Urumqi**	**73.57**	**318**	P	**P**	**02 06 29.1**	**+0.6**
WMQ				PCP	PcP	02 06 43.0	+1.4
WMQ				PP	PP	02 09 23.9	+1.7
WMQ				*e*S	S	02 15 13.1	-2.5
WMQ				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.5						
HYB	**Hyderabad**	**73.57**	**290**	*e*P	**P**	**02 06 28.5**	**-0.5**
	comp=Z,70nm,1.0s,mb5.0						
HYB	**Hyderabad**	**73.57**	**290**	*i* P	**P**	**02 06 28.5**	**-0.5**
	comp=Z,70nm,1.0s,mb5.0						
RKT	**Rikitea**	**74.66**	**113**	*e*P	**P**	**02 06 35.4**	**+0.4**
	comp=Z,162nm,1.1s,mb5.4						
TIXI	**Tiksi**	**77.34**	**353**	⇓*e*P	**P**	**02 06 47.7**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,40nm,1.3s,mb4.7						
KDAK	**Kodiak Island**	**77.40**	**28**	*e*P	**P**	**02 06 49.1**	**-0.2**
	comp=Z,83nm,1.1s,mb5.1						
SDNR	**Sundarnagar**	**77.85**	**303**	*e*P	**P**	**02 06 53.2**	**+0.9**
POO	**Poona**	**78.17**	**290**	⇓*i*P	**P**	**02 06 52.0**	**-2.2**
	comp=Z,40nm,1.0s,mb4.7						
MKAR	**Makanchi Array**	**78.21**	**320**	*e*P	**P**	**02 06 54.3**	**+0.4**
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MKAR	**Makanchi Array**	**78.21**	**320**	*i* P	**P**	**02 06 54.3**	**+0.4**
ZAL	**Zalesovo**	**79.34**	**327**	P	**P**	**02 06 59.4**	**-0.3**
	comp=Z,18nm,0.6s,mb4.6,baz=357,slow=5.8,SNR=113						
ZAL				S	S	02 16 13.8	-2.7
	comp=Z,2.3nm,0.8s,baz=196,slow=19,SNR=15						
ZAL	**Zalesovo**	**79.34**	**327**	P	**P**	**02 06 59.4**	**-0.3**
ZAL				S	S	02 16 13.8	-2.7
SLKM	**Skilak Lake**	**79.81**	**26**	*e*P	**P**	**02 07 01.7**	**-0.3**
PWA	**Palmer West**	**80.50**	**25**	*e*P	**P**	**02 07 04.9**	**-0.7**
KSH	**Kashi**	**80.52**	**311**	*i* PR		02 07 08.5	
KSH				*e*PP	PP	02 10 26.1	+6.3
KSH				*e*PPP	PPP	02 12 23.4	+8.6
KSH				*e*SKS	SKS	02 16 25.0	-5.1
KSH				*e*S	S	02 16 27.1	-1.7
KSH				*e*SS	SS	02 22 04.5	+5.1
KSH				AMB	AMB		
	comp=Z,200nm,3.8s						
NVS	**Novosibirsk**	**80.53**	**327**	⇓*i*P	**P**	**02 07 04.8**	**-1.1**
NVS				*i*	pP	02 08 57.2	-4.1
NVS				*i*		02 09 54.4	
NVS				*e*S	S	02 16 26.3	-2.2
NVS				pmax	pmax		
	comp=Z,35nm,1.4s,mb4.6						
NVS				pmax	pmax		
	comp=N,8.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,18nm,0.9s						
NVS				pmax	pmax		
	comp=E,14nm,1.8s						
NVS				pmax	pmax		
	comp=Z,28nm,1.8s,mb4.4						
NVS				smax			
	comp=E,256nm,2.7s						
PMR	**Palmer**	**80.79**	**25**	*e*P	**P**	**02 07 06.6**	**-0.5**
ULHL	**Ulahol**	**81.00**	**314**	P	**P**	**02 07 09.6**	**+1.1**
	SNR=11						
IMA	**Indian Mountai**	**81.31**	**20**	*e*P	**P**	**02 07 10.2**	**+0.5**
TKM2	**Tokmak 2**	**81.63**	**314**	P	**P**	**02 07 12.8**	**+1.1**
	SNR=55						
KZA	**Kyzart**	**81.67**	**314**	P	**P**	**02 07 14.3**	**+2.4**
	SNR=51						
KBK	**Karagaybulak**	**82.03**	**314**	P	**P**	**02 07 14.9**	**+1.2**
	SNR=26						
UCH	**Uchtor**	**82.24**	**314**	P	**P**	**02 07 16.9**	**+2.1**
	SNR=44						
CHMS	**Chumysh**	**82.25**	**314**	P	**P**	**02 07 15.8**	**+1.0**
	SNR=26						
FRU	**Bishkek**	**82.31**	**314**	*e*P	**P**	**02 07 16.4**	**+1.3**
FRU				pmax	pmax		
	comp=Z,110nm,2.0s,mb4.9						
AAK	**Ala-Archa**	**82.35**	**314**	P	**P**	**02 07 16.8**	**+1.4**
	SNR=43						
AAK	**Ala-Archa**	**82.35**	**314**	*d* *i*P	**P**	**02 07 15.5**	**+0.2**
AAK				pmax	pmax		
	comp=Z,30nm,0.6s,mb4.9						
AAK	**Ala-Archa**	**82.35**	**314**	*i* Pr		02 07 15.6	
USP	**Ospenovka**	**82.49**	**315**	P	**P**	**02 07 17.2**	**+1.2**
	SNR=69						
AML	**Almayashu**	**82.81**	**313**	P	**P**	**02 07 19.9**	**+2.2**
	SNR=23						
COLA	**College**	**82.82**	**22**	*d* *i*P	**P**	**02 07 16.1**	**-1.2**
COLA	**College**	**82.82**	**22**	*e*P	**P**	**02 07 16.4**	**-0.9**
EKS2	**Erkin-Say**	**82.87**	**314**	P	**P**	**02 07 19.6**	**+1.6**
	SNR=68						
ILAR	**Eielson Array**	**83.14**	**23**	P	**P**	**02 07 17.8**	**-1.1**
	comp=Z,104nm,0.7s,mb5.5,baz=252,slow=4.9,SNR=1186						
ILAR				PKiKP		02 12 31.6	
	comp=Z,1.3nm,0.7s,baz=304,slow=4.6,SNR=5.4						
ILAR				PKKPbc		02 25 35.3	
	comp=Z,0.7nm,0.6s,baz=342,slow=1.2,SNR=8.7						
MAW	**Mawson**	**84.57**	**203**	*e*P	**P**	**02 07 25.9**	**+0.1**
	comp=Z,11nm,0.5s,mb4.7						
MAW	**Mawson**	**84.57**	**203**	P	**P**	**02 07 25.4**	**-0.4**
	comp=Z,14nm,0.6s,mb4.7,baz=107,slow=6.1,SNR=50						
QSPA	**South Pole Qui**	**85.34**	**180**	⇓*i*P	**P**	**02 07 29.7**	**+0.3**
	comp=Z,33nm,0.7s,mb5.0						
SIT	**Sitka**	**85.71**	**32**	*e*P	**P**	**02 07 32.5**	**+0.9**
DAWY	**Dawson**	**85.87**	**25**	*e*P	**P**	**02 07 32.7**	**+0.5**
CHKZ	**Chkalovo**	**87.28**	**324**	P	**P**	**02 07 37.5**	**-1.6**
CHKZ				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.6						
BVA0	**Borovoye Array**	**87.28**	**324**	*i* P	**P**	**02 07 38.1**	**-1.0**
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.0						
BVAR	**Borovoye Array**	**87.28**	**324**	P	**P**	**02 07 38.4**	**-0.7**
	comp=Z,21nm,0.7s,mb4.9,baz=108,slow=5.6,SNR=113						
BVAR				PKiKP		02 12 38.7	
	comp=Z,1.0nm,0.5s,baz=116,slow=1.4,SNR=4.8						
BVAR				S	S	02 17 12.8	-21
	comp=Z,2.6nm,0.9s,baz=135,slow=6.3,SNR=7.3						
DLBC	**Dease Lake**	**88.79**	**31**	*e*P	**P**	**02 07 46.5**	**+0.5**
INK	**Inuvik**	**89.38**	**21**	*e*P	**P**	**02 07 47.9**	**-0.7**
	comp=Z,127nm,1.2s,mb5.6						
INK				*e*		02 10 37.8	
HUMO	**Hull Mountain**	**91.09**	**48**	*e*P	**P**	**02 07 57.4**	**+0.4**
	comp=Z,25nm,0.8s,mb5.2						
YBH	**Yreka Blue Hor**	**91.20**	**48**	P	**P**	**02 07 58.4**	**+0.9**
	comp=Z,30nm,1.0s,mb5.2,baz=221,slow=2.0,SNR=37						
YBH	**Yreka Blue Hor**	**91.20**	**48**	*e*P	**P**	**02 07 57.8**	**+0.2**
	comp=Z,51nm,1.2s,mb5.3						
WDC	**Whiskeytown Da**	**91.22**	**50**	*e*P	**P**	**02 07 57.5**	**-0.2**
	comp=Z,78nm,1.5s,mb5.4						
WDC				*e*		02 10 48.7	
SAO	**San Andreas Ge**	**91.77**	**53**	*e*P	**P**	**02 08 00.1**	**-0.2**
	comp=Z,8.3nm,0.9s,mb4.8						
OHCM	**Honcut**	**91.93**	**51**	*e*P	**P**	**02 08 01.4**	**+0.4**
LRV	**Little Rabbit**	**92.08**	**54**	*e*P	**P**	**02 08 02.6**	**+0.9**
CMB	**Columbia Colle**	**92.70**	**52**	*e*P	**P**	**02 08 04.5**	**-0.1**
	comp=Z,25nm,1.3s,mb5.1						
SYO	**Syowa Base**	**92.82**	**200**	⇑P	**P**	**02 08 03.6**	**-0.8**
SYO	**Syowa Base**	**92.82**	**200**	⇓PcP	PcP	02 08 04.3	-0.6
SYO	**Syowa Base**	**92.82**	**200**	⇑SKSac		02 17 45.3	
BEKR	**Beckwourth**	**92.84**	**50**	*e*P	**P**	**02 08 05.0**	**-0.1**
	comp=Z,21nm,1.0s,mb5.1						
MOD	**Modoc**	**93.00**	**48**	*e*P	**P**	**02 08 05.4**	**-0.5**
	comp=Z,43nm,1.3s,mb5.3						
WCN	**Washoe City**	**93.27**	**51**	*e*P	**P**	**02 08 07.0**	**-0.1**
	comp=Z,31nm,1.3s,mb5.2						
OMM	**Old Mammoth Mi**	**93.78**	**53**	*e*P	**P**	**02 08 09.7**	**+0.2**
MTUM	**Tungsten Hills**	**94.10**	**53**	*e*P	**P**	**02 08 11.3**	**+0.3**
NVAR	**Mina Array Bea**	**94.36**	**52**	P	**P**	**02 08 13.0**	**+0.9**
	comp=Z,11nm,0.6s,mb5.1,baz=257,slow=7.6,SNR=61						
NVAR				PKiKP		02 12 52.1	
	comp=Z,4.1nm,1.2s,baz=231,slow=4.2,SNR=5.0						
NVAR				PKKPbc		02 25 10.8	
	comp=Z,0.2nm,0.4s,baz=90,slow=6.0,SNR=4.0						
NVAR	**Mina Array Bea**	**94.36**	**52**	P	**P**	**02 08 13.0**	**+0.9**
MWC	**Mount Wilson**	**94.37**	**56**	*e*P	**P**	**02 08 12.6**	**+0.2**
ARU	**Arti**	**94.47**	**326**	⇓*i*P	**P**	**02 08 10.1**	**-2.1**
ARU				*e*		02 12 07.1	
ARU				*e*PPP	PPP	02 14 12.2	-6.0
ARU				*i* S		02 17 52.0	
ARU				*e*SS	SS	02 25 13.9	-5.1
ARU				*e*SSS	SSS	02 29 10.6	+3.8

ARU				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
ARU	Arti	94.47	326⇑	eP	P	02 08 09.9	-2.3
MNV	Mina	94.47	52	eP	P	02 08 12.7	0.0
	comp=Z,24nm,1.1s,mb5.2						
DAC	Darwin (Calif)	94.84	54	eP	P	02 08 14.5	+0.1
	comp=Z,40nm,1.0s,mb5.5						
TPH	Tonopah	95.19	52	eP	P	02 08 16.1	+0.2
	comp=Z,7.4nm,0.7s,mb4.9						
BMN	Battle Mountai	95.26	50	eP	P	02 08 16.5	+0.3
	comp=Z,6.3nm,0.8s,mb4.8						
BMO	Blue Mountains	95.31	46	eP	P	02 08 15.6	-0.6
	comp=Z,14nm,0.6s,mb5.3						
NEW	Newport	95.50	42	eP	P	02 08 16.6	-0.4
	comp=Z,23nm,0.7s,mb5.4						
TPNV	Topopah Spring	95.94	53	eP	P	02 08 19.4	+0.1
	comp=Z,17nm,0.9s,mb5.3						
YKW3	Yellowknife Ar	96.67	28	eP	P	02 08 21.4	-0.6
YKA	Yellowknife Ar	96.68	28	P	P	02 08 21.8	-0.2
	comp=Z,36nm,1.2s,mb5.5,baz=276,slow=5.2,SNR=98						
YKA				PKiKP		02 12 55.2	
	comp=Z,1.4nm,0.4s,baz=272,slow=1.3,SNR=35						
YKA				SKiKP		02 15 40.3	
	comp=Z,0.3nm,0.7s,baz=291,slow=1.4,SNR=3.0						
YKA				PKKPbc		02 25 01.6	
	comp=Z,0.9nm,0.8s,baz=86,slow=2.7,SNR=16						
YKA				SKKPbc		02 27 50.0	
	comp=Z,0.4nm,0.7s,baz=92,slow=3.1,SNR=7.5						
YKA	Yellowknife Ar	96.68	28	i P	P	02 08 21.8	-0.3
YKA				pmax	pmax		
	comp=Z,36nm,1.2s						
YKA	Yellowknife Ar	96.68	28	eP	P	02 08 21.8	-0.3
NEN	Nelson	97.05	55	eP	P	02 08 24.7	+0.2
HLID	Hailey	97.38	47	eP	P	02 08 25.6	-0.1
	comp=Z,8.5nm,0.9s,mb5.0						
CHMT	Chamberlain Mo	98.13	43	eP	P	02 08 29.1	+0.1
ARUT	Antelope Range	98.18	53	eP	P	02 08 29.7	+0.2
BGU	Big Grassy Mou	98.45	49	eP	P	02 08 30.2	-0.4
MCMT	McKenzie Canyo	98.48	46	eP	P	02 08 30.6	0.0
HVU	Hansel Valley	98.62	49	eP	P	02 08 31.6	+0.3
SPUT	South Promonto	98.88	49	eP	P	02 08 32.4	-0.1
HRY	Holter Researc	99.11	44	ePdif	P	02 08 33.2	-0.2
QLMT	Earthquake Lak	99.49	45	ePdif	P	02 08 35.7	+0.5
HWUT	Hardware Ranch	99.54	49	ePdif	P	02 08 34.8	-0.7
	comp=Z,10.0nm,1.0s,mb5.2						
AHID	Auburn Hatcher	99.83	48	ePdif	P	02 08 36.3	-0.5
TMUT	Trail Mountain	99.90	51	ePdif	P	02 08 36.6	-0.5
SRU	San Rafael	100.44	51	ePdif	P	02 08 39.3	-0.2
BW06	Boulder Array	100.96	47	ePdif	P	02 08 40.9	-0.9
	comp=Z,13nm,1.0s						
PDAR	Pinedale Array	100.96	47	P	P	02 08 41.4	-0.4
	comp=Z,10nm,0.8s,baz=222,slow=2.1,SNR=72						
PDAR				PKiKP		02 13 03.9	
	comp=Z,2.0nm,0.7s,baz=258,slow=3.8,SNR=7.0						
PDAR				PKKPbc		02 24 51.0	
	comp=Z,0.5nm,0.8s,baz=99,slow=3.8,SNR=4.5						
RES	Resolute Bay	100.98	14	ePdif	P	02 08 40.2	-0.9
	comp=Z,8.9nm,1.0s						
SNAA	Sanae	101.78	189	e	P	02 08 47.5	+2.8
SNAA	Sanae	101.78	189	e	PP	02 13 00.8	-4.1
SNAA	Sanae	101.78	189	P	P	02 08 44.1	-0.6
	comp=Z,0.5nm,0.7s,baz=266,slow=14,SNR=7.7						
SNAA				PKKPbc		02 24 48.0	
	comp=Z,1.0nm,0.7s,baz=1.7,slow=3.6,SNR=7.5						
SNAA	Sanae	101.78	189	ePdif	P	02 08 44.0	-0.7
SNAA				e		02 08 47.5	
SNAA				e		02 13 00.8	
LAO	LASA Array	102.96	43	ePdif	Pdif	02 08 50.5	0.0
	comp=Z,5.3nm,0.6s						
VNA3	Neumayer Olymp	103.08	187	e	Pdif	02 08 56.5	+6.1
VNA3	Neumayer Olymp	103.08	187	e	PP	02 13 10.1	-4.7
VNA3	Neumayer Olymp	103.08	187	ePdif	Pdif	02 08 52.1	+1.7
VNA3				e		02 08 56.5	
VNA3				e		02 13 10.1	
VNA2	Neumayer--Watz	103.09	188	e	Pdif	02 08 56.1	+5.6
VNA2	Neumayer--Watz	103.09	188	e	PP	02 13 10.3	-4.6
VNA2	Neumayer--Watz	103.09	188	ePdif	Pdif	02 08 52.1	+1.6
VNA2				e		02 08 56.1	
VNA2				e		02 13 10.3	
ANMO	Albuquerque	103.93	55	Pdif	Pdif	02 08 56.0	+1.0
	comp=Z,3.6nm,1.3s						
SDCO	Great Sand Dun	104.47	52	ePdif	Pdif	02 08 57.5	+0.1
KEV	Kevo	105.23	342	ep		02 13 10.1	
KEV	Kevo	105.23	342	eP	Pdif	02 08 58.8	-1.1
KEV				eP		02 13 10.1	
ARCES	ARCESS Array B	105.79	342	Pdiff	Pdif	02 09 02.6	+0.2
	comp=Z,3.4nm,0.6s,baz=68,slow=6.5,SNR=14						
ARCES				PKiKP		02 13 11.6	
	comp=Z,6.1nm,0.5s,baz=92,slow=1.7,SNR=35						
ARCES				PKKPbc		02 24 35.1	
	comp=Z,4.5nm,0.8s,baz=288,slow=3.8,SNR=9.2						
CLNB	Carlsbad	106.28	58	ePKP		02 13 13.6	
TXAR	Lajitas Array	106.69	61	Pdiff	Pdif	02 09 08.7	+1.4
	comp=Z,1.0nm,0.7s,baz=233,slow=3.0,SNR=13						
TXAR				PKiKP		02 13 15.0	
	comp=Z,1.2nm,0.5s,baz=127,slow=1.7,SNR=29						
TXAR				PKKPbc		02 24 35.2	
	comp=Z,0.3nm,0.5s,baz=104,slow=5.6,SNR=4.3						
TXAR				PKKPab		02 24 50.0	
	comp=Z,1.0nm,0.8s,baz=120,slow=7.2,SNR=7.7						
TXAR				SKKP		02 27 27.1	
	comp=Z,0.3nm,0.7s,baz=108,slow=4.0,SNR=4.1						
TXAR	Lajitas Array	106.69	61	Pdif	Pdif	02 09 08.7	+1.4
TXAR				PKPdf		02 13 15.0	
TXAR				PKKPbc		02 24 35.2	
TXAR				PKKPab		02 24 50.0	
TXAR				SKKP		02 27 27.1	
JOF	Joensuu	106.76	335	ep	Pdif	02 09 04.0	-2.8
	comp=Z,3.6nm,0.6s						
JOF	Joensuu	106.76	335	ep		02 13 12.9	
	comp=Z,3.6nm,0.8s						
JOF	Joensuu	106.76	335	eP	Pdif	02 09 04.0	-2.8
JOF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
JOF	Joensuu	106.76	335	eP	Pdif	02 09 04.0	-2.8
JOF				eP		02 13 12.9	
OBN	Obninsk	106.91	326⇑	eP	Pdif	02 09 18.8	+11
OBN				e		02 13 36.9	
OBN				eSS	SS	02 28 16.6	+7.8
OBN				pmax	pmax		
	comp=Z,52nm,2.3s						
FCC	Fort Churchill	107.29	29	ePKP		02 13 13.5	
BLJS	Baljurashi	108.62	289	P		02 13 19.6	
ULM	Lac du Bonnet	108.98	38	Pdiff	Pdif	02 09 17.7	+0.8
	comp=Z,1.6nm,0.6s,baz=323,slow=3.8,SNR=4.1						
ULM				PKiKP		02 13 17.9	
	comp=Z,10nm,0.6s,baz=313,slow=1.7,SNR=16						
ULM	Lac du Bonnet	108.98	38	Pdif	Pdif	02 09 17.7	+0.8
ULM				PKPdf		02 13 17.9	
KAF	Kangasniemi	109.20	335	ep	Pdif	02 09 14.8	-2.8
	comp=Z,5.3nm,0.9s						
KAF	Kangasniemi	109.20	335	ep		02 13 17.2	
	comp=Z,4.5nm,0.6s						
KAF	Kangasniemi	109.20	335	eP	Pdif	02 09 14.8	-2.8
KAF				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KAF	Kangasniemi	109.20	335	eP	Pdif	02 09 14.8	-2.8
KAF				eP		02 13 17.2	
FINES	FINESS Array B	109.62	335	Pdiff	Pdif	02 09 18.1	-1.3
	comp=Z,1.9nm,0.4s,baz=63,slow=4.6,SNR=28						
FINES				PKiKP		02 13 18.7	
	comp=Z,12nm,1.1s,baz=90,slow=3.2,SNR=23						
FINES				PKKPbc		02 24 23.4	
	comp=Z,4.8nm,1.1s,baz=315,slow=2.7,SNR=5.6						
FINES	FINESS Array B	109.62	335	Pdif	Pdif	02 09 18.1	-1.3
FINES				PKPdf		02 13 18.7	
FINES				PKKPbc		02 24 23.4	
JCT	Junction City	109.93	59	ePKP		02 13 20.3	
KSU1	Kansas State U	111.17	50	ePKP	PKPdf	02 13 22.3	+1.0
ASF	Jabal al Asfar	111.76	303	PKiKP		02 13 24.5	
	comp=Z,1.8nm,0.7s,baz=8.2,slow=2.2,SNR=6.1						
KMBO	Kilima Mbogo	112.33	267	PKiKP		02 13 26.2	
	comp=Z,1.6nm,0.6s,baz=54,slow=8.2,SNR=7.2						
AKASG	Malin Array Be	112.56	324	PKiKP		02 13 23.1	
	comp=Z,6.2nm,0.5s,baz=57,slow=2.2,SNR=45						
AKASG				PKKPbc		02 24 14.4	
	comp=Z,1.4nm,0.6s,baz=259,slow=3.9,SNR=8.8						
USHA	Ushuaia	112.83	157	PKiKP		02 13 25.3	
	comp=Z,4.4nm,0.6s,baz=143,slow=5.1,SNR=4.1						
BRTR	Keskin Array B	112.91	311	PKiKP		02 13 25.4	
	comp=Z,2.6nm,0.5s,baz=114,slow=1.4,SNR=16						
BRTR				SKP		02 16 09.8	
	comp=Z,0.7nm,0.5s,baz=145,slow=3.5,SNR=5.8						
BRTR				PKKPbc		02 24 15.6	
	comp=Z,1.3nm,0.5s,baz=230,slow=5.3,SNR=12						
DBAS	Duba	113.22	298	P	PKPdf	02 13 27.1	+1.5
EIL	Elat	113.79	300	PKiKP		02 13 28.2	
	comp=Z,5.6nm,0.7s,baz=27,slow=8.3,SNR=11						
EIL				PKKPbc		02 24 13.6	
	comp=Z,2.8nm,0.6s,baz=278,slow=5.8,SNR=6.6						
EIL	Elat	113.79	300	PKPdf	PKPdf	02 13 28.2	+1.5
EIL				PKKPbc		02 24 13.6	
BDAS	Al Bad‘	113.83	299	P	PKPdf	02 13 28.1	+1.3
HAQS	Haql	113.90	300	P	PKPdf	02 13 28.3	+1.3
TAYS	Tayyib Ism	114.02	299	P	PKPdf	02 13 28.8	+1.6
SUW	Suwalki	114.53	329	ePKP	PKPdf	02 13 28.5	+1.0
HFS	Hagfors	115.37	337	PKiKP		02 13 29.0	
	comp=Z,4.5nm,0.6s,baz=63,slow=3.3,SNR=25						
HFS				SKP		02 16 13.8	
	comp=Z,1.0nm,0.5s,baz=72,slow=4.7,SNR=4.7						
HFS				PKKPbc		02 24 04.8	
	comp=Z,1.0nm,0.6s,baz=198,slow=9.4,SNR=5.0						
NB2	NORSAR Subarra	115.69	339	PKPdf	PKPdf	02 13 28.7	-0.8
	comp=Z,1.8nm,0.5s,baz=45,slow=1.9						
NOA	NORSAR Array B	115.69	339	PKiKP		02 13 30.1	
	comp=Z,5.2nm,0.6s,baz=48,slow=2.0,SNR=21						
NOA				SKP		02 16 14.5	
	comp=Z,0.5nm,0.5s,baz=47,slow=4.1,SNR=3.3						
NOA				PKKPbc		02 24 04.8	
	comp=Z,1.7nm,0.6s,baz=52,slow=3.7,SNR=6.8						
NOA				SKKPbc		02 26 56.9	
	comp=Z,1.5nm,0.8s,baz=47,slow=0.2,SNR=3.9						
NOA	NORSAR Array B	115.69	339	PKPdf	PKPdf	02 13 30.1	+0.6
NOA				SKP		02 16 14.5	
NOA				PKKPbc		02 24 04.8	
NOA				SKKPbc		02 26 56.9	
FVM	French Village	116.14	50	ePKP	PKPdf	02 13 31.2	+0.2
MLR	Muntele Rosu	116.55	319	PKiKP		02 13 32.6	
	comp=Z,6.1nm,0.5s,baz=245,slow=2.3,SNR=26						
MLR				PKKPbc		02 24 00.9	
	comp=Z,2.5nm,0.5s,baz=166,slow=8.5,SNR=6.7						
KWP	Kalwaria	116.82	324	ePKP	PKPdf	02 13 33.4	+1.3
KOLS	Kolonicke sedl	117.39	324	i PKP	PKPdf	02 13 34.8	+1.6
CRVS	Cervenica-Dubn	117.88	324	ePKP	PKPdf	02 13 35.6	+1.5
GKP	Gorka Klasztor	117.94	330	ePKP	PKPdf	02 13 35.3	+1.2
BSD	Bornholm Skovb	117.99	333	i PKIKP	PKPdf	02 13 33.8	-0.4
BSD				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BSD	Bornholm Skovb	117.99	333	i P	PKPdf	02 13 33.8	-0.4
	comp=Z,9.7nm,0.5s						
OJC	Ojcow	118.20	326	ePKP	PKPdf	02 13 35.5	+0.8
NIE	Niedzica	118.30	325	ePKP	PKPdf	02 13 36.7	+1.8
WVT	Waverly	118.65	51	ePKP	PKPdf	02 13 36.1	+0.1
BLO	Bloomington	118.71	47	ePKP	PKPdf	02 13 36.4	+0.4
RZN	Rozhen	118.79	316	eP	PKPdf	02 13 37.0	+0.9
SUR	Sutherland	119.18	229	PKP	PKPdf	02 13 39.2	+2.1
	comp=Z,4.1nm,0.7s,baz=186,slow=10,SNR=4.6						
SUR				PKKPbc		02 23 54.0	
	comp=Z,15nm,1.1s,baz=288,slow=3.5,SNR=3.9						
WCI	Wyandotte Cave	119.19	48	ePKP	PKPdf	02 13 36.5	-0.5
PSZ	Piszkesteto	119.27	324⇑	i	PKPdf	02 13 38.1	+1.2
OKC	Ostrava-Krasne	119.31	326	ePKP	PKPdf	02 13 38.0	+1.1
VTS	Vitosha	119.49	317	eP	PKPdf	02 13 38.2	+0.8
MMB	Musomiste	119.52	316	eP	PKPdf	02 13 37.8	+0.3
VYHS	Vyhne	119.61	325	ePKP	PKPdf	02 13 38.2	+0.7
AAM	Ann Arbor	119.63	43	ePKP	PKPdf	02 13 38.3	+0.6
KSP	Ksiaz	119.77	328⇓	ePKP	PKPdf	02 13 39.1	+1.3
KSP	Ksiaz	119.77	328	ePKP	PKPdf	02 13 39.2	+1.4
KKB	Krupnik	119.86	316	eP	PKPdf	02 13 38.8	+0.6
DPC	Dobruska-Polom	120.03	327	ePKP	PKPdf	02 13 39.6	+1.3
SVIS	Svilajnac	120.10	320	eP	PKPdf	02 13 39.3	+0.7
UPC	Upice	120.11	328	ePKP	PKPdf	02 13 39.5	+1.1
LRAL	Lakeview Retre	120.16	54	ePKP	PKPdf	02 13 38.9	0.0
SRO	Srobarova	120.25	324	ePKP	PKPdf	02 13 40.2	+1.5
KNT	Kendrikon	120.26	316	eP	PKPdf	02 13 38.9	-0.1
SWET	Sewanee	120.39	52	ePKP	PKPdf	02 13 38.9	-0.5
SMOL	Smolenice	120.40	325	i PKP	PKPdf	02 13 40.8	+1.8
VRAC	Vranov	120.45	326	PKP	PKPdf	02 13 40.3	+1.3
	comp=Z,6.6nm,0.7s,baz=45,slow=3.8,SNR=7.3						
GRUS	Gruza	120.61	319⇑	iP	PKPdf	02 13 40.7	+1.1
GRG	Griva	120.68	316	eP	PKPdf	02 13 39.9	+0.1
ZST	Bratislava	120.75	325	i PKP	PKPdf	02 13 41.2	+1.5
IDI	Anoyia	120.81	309	PKP	PKPdf	02 13 41.3	+1.2
	comp=Z,27nm,0.6s,baz=143,slow=4.4,SNR=52						
BSEG	Bad Segeberg	120.81	333	ePKIKP	PKPdf	02 13 41.4	+1.7
BSEG				e		02 16 32.4	
PVCC	Panska Ves	120.86	328	ePKP	PKPdf	02 13 41.1	+1.3
ACSO	Alum Creek Sta	120.89	45	ePKP	PKPdf	02 13 40.3	+0.1
SKO	Skopje	120.94	317	i PKP	PKPdf	02 13 41.3	+1.1
LIT	Litokhoron	120.95	315	eP	PKPdf	02 13 40.5	+0.2
BRG	Berggiesshubel	120.98	329	i PKIKP	PKPdf	02 13 41.3	+1.2
BRG				i		02 16 32.9	
BRG				pmax	pmax		
	comp=Z,30nm,0.9s						
BRG	Berggiesshubel	120.98	329	i P	PKPdf	02 13 41.3	+1.2
BRG				i		02 13 46.6	
BRG				i		02 16 32.9	
DIVS	Divcibare	120.98	320⇑	iP	PKPdf	02 13 41.1	+0.9
PRU	Pruhonice	121.18	328	ePKP	PKPdf	02 13 41.3	+0.8
CLL	Collm	121.20	330	i PKIKP	PKPdf	02 13 41.5	+1.0
CLL				pmax	pmax		
	comp=Z,30nm,0.8s						
CLL	Collm	121.20	330	i PKIKP	PKPdf	02 13 41.5	+1.0
	comp=Z,logA/T=1.6						
CLL				e		02 13 47.0	
RHK1	Bakonya	121.25	323⇓	iP	PKPdf	02 13 41.8	+1.1
FNA	Florina	121.47	316	eP	PKPdf	02 13 41.8	+0.5
AGG	Agios Georgios	121.47	314	eP	PKPdf	02 13 41.8	+0.4
SCHQ	Schefferville	121.89	24	PKP	PKPdf	02 13 42.8	+1.0
	comp=Z,13nm,0.6s,baz=349,slow=1.6,SNR=28						
SCHQ				PKKPbc		02 23 42.0	
	comp=Z,3.2nm,0.8s,baz=270,slow=7.1,SNR=4.5						
SCHQ	Schefferville	121.89	24	ePKP	PKPdf	02 13 42.3	+0.5
NKC	Novy Kostel	122.13	329	ePKP	PKPdf	02 13 43.5	+1.1
CLZ	Clausthal	122.15	332	ePKPdf	PKPdf	02 13 43.9	+1.5
CLZ				eSKPdf		02 16 35.2	
ARSA	Arzberg	122.16	325⇑	iP	PKPdf	02 13 42.9	+0.4
KHC	Kasperske Hory	122.19	327	ePKP	PKPdf	02 13 43.5	+1.0
GEC2	GERESS Array S	122.28	327	ePKIKP	PKPdf	02 13 44.0	+1.3
GEC2				e		02 16 35.5	
GERES	GERESS Array B	122.28	327	PKP	PKPdf	02 13 43.7	+1.0
	comp=Z,26nm,0.6s,baz=74,slow=1.6,SNR=285						
GERES				SKP		02 16 28.3	
	comp=Z,0.9nm,0.5s,baz=101,slow=1.1,SNR=4.3						
GERES				PKKPbc		02 23 41.8	
	comp=Z,1.2nm,0.5s,baz=207,slow=3.4,SNR=14						
GERES				SKKPbc		02 26 33.1	
	comp=Z,0.2nm,0.4s,baz=194,slow=5.5,SNR=3.6						
MOX	Moxa	122.30	330	ePKIKP	PKPdf	02 13 43.5	+0.8
MOX				pmax	pmax		
	comp=Z,15nm,1.1s						
MOX	Moxa	122.30	330	i P	PKPdf	02 13 43.5	+0.8
	comp=Z,logA/T=1.1						
MOA	Molln	122.54	326⇓	iP	PKPdf	02 13 43.8	+0.6
WET	Wettzell	122.55	328	ePKIKP	PKPdf	02 13 44.7	+1.5
SISC	Sisak	122.59	323	i PKP	PKPdf	02 13 45.6	+2.3
IGT	Igoumenitsa	122.70	315	eP	PKPdf	02 13 44.4	+0.7
PERS	Pernice	122.72	324	i PKPdf	PKPdf	02 13 44.4	+0.8
GRA1	Grafenberg Arr	123.09	329	ePKPdf	PKPdf	02 13 45.5	+1.3
GRA1				eSKPdf		02 16 37.0	
GRF	Grafenberg Arr	123.09	329	ePKIKP	PKPdf	02 13 45.5	+1.3
GRF				e		02 16 37.0	
BOJS	Bojanci	123.25	323	i PKPdf	PKPdf	02 13 46.0	+1.4
MCWV	Mont Chateau	123.33	45	ePKP	PKPdf	02 13 45.4	+0.5
LJU	Ljubljana	123.39	324	i PKPdf	PKPdf	02 13 46.2	+1.3
PWV	Princeton	123.39	48	ePKP	PKPdf	02 13 45.6	+0.5
ELN	Prospectdale	123.65	48	ePKP	PKPdf	02 13 45.9	+0.3
WTSB	Winterswijk	123.72	333	ePKP	PKPdf	02 13 46.4	+1.1
	comp=Z,32nm,0.8s						
CADS	Cadrg	123.74	325	i PKPdf	PKPdf	02 13 46.0	+0.5
VOY	Vojsko	123.76	324	i PKPdf	PKPdf	02 13 46.5	+0.9
PTCC	Patocco-Chiusa	123.87	325	eP	PKPdf	02 13 46.2	+0.5
BLA	Blacksburg	123.90	48	ePKP	PKPdf	02 13 46.4	+0.3
FUR	Furstenfeldbru	123.99	328	ePKIKP	PKPdf	02 13 47.2	+1.3
FVI	Forni Avoltri	124.08	325	eP	PKPdf	02 13 46.6	+0.5
SSPA	Standing Stone	124.26	43	ePKP	PKPdf	02 13 46.0	-0.7
WATA	Walderalm	124.32	327⇑	iP	PKPdf	02 13 47.5	+0.9
JSC	Jenkinsville	124.34	51	ePKP	PKPdf	02 13 48.1	+1.1
TOD	Tromm	124.36	330	PKP	PKPdf	02 13 47.5	+0.9
SQTA	Sankt Quirin	124.59	327⇓	iP	PKPdf	02 13 48.2	+1.1
ABH	Alteburg	124.79	331	PKP	PKPdf	02 13 48.8	+1.4
EKA	Eskdalemuir Ar	124.94	341	PKP	PKPdf	02 13 48.8	+1.2
	comp=Z,20nm,0.6s,baz=17,slow=3.1,SNR=74						
EKA				SKPbc		02 16 12.2	
	comp=Z,2.7nm,0.5s,baz=22,slow=2.1,SNR=9.8						
EKA				SKP		02 16 33.2	
	comp=Z,1.1nm,0.4s,baz=18,slow=2.2,SNR=3.3						
HGN	Heimansgroeve	124.94	333	ePKP	PKPdf	02 13 48.0	+0.3
	comp=Z,27nm,1.3s						
NCB	Newcomb	124.97	38	ePKP	PKPdf	02 13 48.2	+0.2
CTI	Castel Tesino	125.04	325	eP	PKPdf	02 13 49.1	+1.1
RUP	Ruppelstein	125.14	331	PKP	PKPdf	02 13 49.0	+0.9
LANF	Langenberg	125.26	330	PKP	PKPdf	02 13 49.5	+1.1
BFO	Black Forest	125.42	329	ePKIKP	PKPdf	02 13 49.8	+1.1
BRMO	Bormio	125.50	326	eP	PKPdf	02 13 50.3	+1.3
SDMD	Soldier’s Deli	125.53	44	ePKP	PKPdf	02 13 50.0	+0.8
DAVOX	Davos	125.58	327	PKP	PKPdf	02 13 50.9	+1.8
	comp=Z,44nm,0.8s,baz=192,slow=1.2,SNR=61						
ACCN	Adirondack Com	125.63	38	ePKP	PKPdf	02 13 49.4	+0.1
CBN	Corbin	125.70	45	ePKP	PKPdf	02 13 50.2	+0.6
WLS	Welschbruch	125.86	330	PKP	PKPdf	02 13 49.7	+0.1
FELD	Feldberg	125.88	329	PKP	PKPdf	02 13 50.1	+0.4
CDF	Champ du Feu	125.90	330	ePKIKP	PKPdf	02 13 49.7	0.0
	comp=Z,18nm,0.8s						
GIVF	Givet	125.91	333	ePKIKP	PKPdf	02 13 50.3	+0.6
	comp=Z,67nm,0.9s						
ECH	Echery	126.09	330	PKP	PKPdf	02 13 51.0	+0.9
SDI	San Donato	126.11	320	eP	PKPdf	02 13 50.9	+0.6
SFI	Santa Sofia	126.15	323	eP	PKPdf	02 13 52.3	+2.0
PTQR	Pietraquaria	126.21	320	eP	PKPdf	02 13 51.4	+1.0
BAIF	Baives	126.22	333	ePKIKP	PKPdf	02 13 50.8	+0.5
	comp=Z,36nm,0.9s						
CRE	Caprese Michel	126.25	323	eP	PKPdf	02 13 52.0	+1.5
VMG	Vicchio	126.30	323	eP	PKPdf	02 13 51.7	+1.1
MOF	Molkenrain	126.34	329	PKP	PKPdf	02 13 51.0	+0.5
BBS	Basel-Blauen	126.41	329	PKP	PKPdf	02 13 50.8	+0.1
ZCCA	Zocca	126.41	324	eP	PKPdf	02 13 53.1	+2.4
WIM	Isle of Man	126.42	342⇑	eP	PKPdf	02 13 51.9	+1.4
WIM				AMb	AMB	02 13 53.2	
	comp=Z,62nm,1.6s						
HINF	Hinteralfeld	126.51	330	ePKIKP	PKPdf	02 13 51.0	+0.1
	comp=Z,91nm,1.1s						
HAU	Haudompre	126.63	330	ePKIKP	PKPdf	02 13 51.4	+0.3
	comp=Z,75nm,0.8s						
GSCL	Gusciola	126.64	324	eP	PKPdf	02 13 52.8	+1.6
THEF	They Montfort	126.66	330	PKP	PKPdf	02 13 51.9	+0.8
BDI	Bagni Di Lucca	126.80	324	eP	PKPdf	02 13 51.7	+0.2
LOMF	Lomont	126.83	329	PKP	PKPdf	02 13 52.3	+0.8
WPM1	Penmaenmawr	126.91	341⇑	eP	PKPdf	02 13 52.5	+1.0
WPM1				AMb	AMB	02 13 54.2	
	comp=Z,82nm,1.3s						
MEZF	Maizieres J’vi	126.93	331	ePKIKP	PKPdf	02 13 52.4	+0.8
	comp=Z,67nm,0.9s						
WME	Myndd Eilian	126.93	341⇑	eP	PKPdf	02 13 52.6	+1.1
WME				AMb	AMB	02 13 53.7	
	comp=Z,42nm,1.4s						
WCB1	Church Bay	127.02	341⇑	eP	PKPdf	02 13 52.6	+0.9
WCB1				AMb	AMB	02 13 54.2	
	comp=Z,56nm,1.0s						
WLF1	Llynfaes	127.05	341⇑	eP	PKPdf	02 13 52.7	+1.0
MCGN	Macugnaga	127.12	327	eP	PKPdf	02 13 53.6	+1.5
YRE	Yr Eifl	127.32	341⇑	eP	PKPdf	02 13 53.4	+1.1
YRE				AMb	AMB	02 13 54.8	
	comp=Z,53nm,1.4s						
CABF	La Chapelle	127.70	329	ePKIKP	PKPdf	02 13 54.2	+1.0
	comp=Z,72nm,0.8s						
DLF	Lyons Farm	127.72	342	eP	PKPdf	02 13 53.4	+0.4
VAE	Valguarnera	127.77	315	PKP	PKPdf	02 13 54.3	+0.7
	comp=Z,21nm,1.2s,baz=310,slow=13,SNR=2.3						
DCN	Croghan	127.90	343	eP	PKPdf	02 13 54.0	+0.7
LPL	La Plagne	128.08	328	ePKIKP	PKPdf	02 13 54.8	+0.9
	comp=Z,37nm,0.7s						
LPG	La Plagne	128.08	327	ePKIKP	PKPdf	02 13 54.9	+1.0
	comp=Z,32nm,0.6s						
MBDF	Montbardon	128.57	327	ePKIKP	PKPdf	02 13 55.3	+0.4
	comp=Z,12nm,0.5s						
SAOF	Saorge	128.60	326	PKP	PKPdf	02 13 54.9	-0.1
PGF	Pioggiola	128.63	323	ePKIKP	PKPdf	02 13 55.6	+0.5
	comp=Z,72nm,0.6s						
AUTN	L’Aution	128.67	326	PKP	PKPdf	02 13 55.8	+0.6
SSF	Saint Saulge	128.68	331	ePKIKP	PKPdf	02 13 55.8	+0.7
	comp=Z,39nm,1.0s						
SBF	Sospel	128.75	325	ePKIKP	PKPdf	02 13 55.5	+0.2
	comp=Z,79nm,0.8s						
TOUF	Mont Tournerai	128.76	326	PKP	PKPdf	02 13 56.0	+0.7
SMF	Signal de Mont	128.81	330	ePKIKP	PKPdf	02 13 55.7	+0.3
	comp=Z,44nm,0.9s						
ORIF	Oris-en-Rattie	128.93	327	ePKIKP	PKPdf	02 13 56.2	+0.6
	comp=Z,40nm,0.7s						
AVF	Avril sur Loir	128.95	331	ePKIKP	PKPdf	02 13 55.9	+0.3
	comp=Z,21nm,0.9s						
HYF	Humbligny	128.95	332	ePKIKP	PKPdf	02 13 56.6	+1.0
LDF	La Druitiere	129.21	335	ePKIKP	PKPdf	02 13 56.4	+0.3
	comp=Z,21nm,0.7s						
FLN	La Foliniere	129.24	335	ePKIKP	PKPdf	02 13 56.5	+0.4
	comp=Z,64nm,0.8s						
BGF	Bois d’Agland	129.36	331	ePKIKP	PKPdf	02 13 57.2	+0.8
	comp=Z,46nm,0.8s						
FRF	La Foret Royal	129.38	326	ePKIKP	PKPdf	02 13 56.4	-0.1
	comp=Z,39nm,0.7s						
PLDF	La Plantade	129.39	330	PKP	PKPdf	02 13 59.0	+2.5
AGO	Saint Agoulin	129.57	330	PKP	PKPdf	02 13 59.0	+2.2
LMR	La Mourre	129.60	325	ePKIKP	PKPdf	02 13 57.4	+0.4
	comp=Z,63nm,0.8s						
VIVF	Saint-Julien-l	129.61	328	ePKIKP	PKPdf	02 13 57.6	+0.7
	comp=Z,32nm,0.8s						
TAVF	Tavernes	129.67	326	PKP	PKPdf	02 13 59.6	+2.5
CSA1	St Austell	129.68	339	eP	PKPdf	02 13 57.4	+0.5
GRR	Gorron	129.68	335	ePKIKP	PKPdf	02 13 57.6	+0.6
	comp=Z,52nm,0.7s						
SMRF	Simiane la Rot	129.71	327	ePKIKP	PKPdf	02 13 58.2	+1.0
	comp=Z,80nm,1.0s						
PYM	Petit Puy Mans	129.85	330	PKP	PKPdf	02 14 00.4	+3.0
TCF	Toulx Ste Croi	129.86	331	ePKIKP	PKPdf	02 13 58.2	+0.8
	comp=Z,58nm,0.9s						
CRQ2	Rosemanowes 2	129.93	339⇑	eP	PKPdf	02 13 58.4	+1.0
CRQ2				AMb	AMB	02 13 59.6	
	comp=Z,50nm,0.7s						
CCA1	Carnmenellis	129.93	339⇑	eP	PKPdf	02 13 58.3	+0.9
CMA1	Manaccan	129.99	339⇑	eP	PKPdf	02 13 58.6	+1.1
CGW	Gweek	130.00	339⇑	eP	PKPdf	02 13 58.6	+1.1
CGH1	Goonhilly	130.03	339⇑	eP	PKPdf	02 13 58.3	+0.7
PRAF	Pradon	130.04	327	PKP	PKPdf	02 13 58.3	+0.5
BERF	Bertagne	130.07	326	PKP	PKPdf	02 13 59.6	+1.7
LBL	Lubilhac	130.09	329	PKP	PKPdf	02 14 01.1	+3.2
GELF	Grande-Etoile	130.17	326	PKP	PKPdf	02 13 58.8	+0.7
SGMF	Saint Gilles	130.50	336	ePKIKP	PKPdf	02 13 59.0	+0.5
	comp=Z,56nm,0.5s						
LASF	Ste Croix	130.57	328	ePKIKP	PKPdf	02 13 59.7	+0.9
	comp=Z,36nm,0.8s						
ROSF	Rostrenen	130.72	336	ePKIKP	PKPdf	02 13 59.4	+0.4
	comp=Z,20nm,0.6s						
MFF	Saint Martin d	130.73	333	ePKIKP	PKPdf	02 13 59.7	+0.7
	comp=Z,30nm,0.7s						
CAF	Calviac	130.90	330	ePKIKP	PKPdf	02 14 00.5	+1.1
	comp=Z,29nm,1.0s						
RJF	Les Rejaudoux	130.90	331	ePKIKP	PKPdf	02 14 00.3	+0.9
	comp=Z,12nm,0.6s						
QUIF	Quistinic	131.01	336	ePKIKP	PKPdf	02 14 00.0	+0.5
	comp=Z,20nm,0.6s						
LFF	La Frestale	131.55	331	ePKIKP	PKPdf	02 14 01.7	+1.1
	comp=Z,25nm,0.9s						
MTLF	Montolieu	131.94	328	ePKIKP	PKPdf	02 14 01.6	+0.3
	comp=Z,7.2nm,0.7s						
EPF	Esparros	133.13	329	ePKIKP	PKPdf	02 14 05.0	+1.4
	comp=Z,8.6nm,0.6s						
VIEF	Viey	133.39	329	PKP	PKPdf	02 14 07.1	+3.1
LVC	Limon Verde	133.52	127	PKhKP		02 13 50.8	
	comp=Z,1.4nm,0.5s,baz=289,slow=9.1,SNR=3.2						
LVC				PKP	PKPdf	02 14 05.6	+0.8
	comp=Z,2.5nm,0.5s,baz=262,slow=7.3,SNR=4.9						
LVC				SKP		02 16 49.2	
	comp=Z,5.3nm,0.6s,baz=244,slow=3.4,SNR=5.4						
ETSF	Etsaut	133.68	330	ePKIKP	PKPdf	02 14 06.7	+2.1
	comp=Z,30nm,0.6s						
SJPF	Ste Jean	133.85	330	ePKIKP	PKPdf	02 14 06.8	+1.9
	comp=Z,22nm,0.6s						
MOCB	Mochara	136.82	128⇓	iPKPdf	PKPdf	02 14 01.4	-9.5
LPAZ	La Paz	137.16	120	PKhKP		02 14 04.0	
	comp=Z,3.1nm,0.5s,baz=319,slow=2.0,SNR=17						
LPAZ				PKP	PKPdf	02 14 11.6	0.0
	comp=Z,10nm,0.6s,baz=72,slow=0.9,SNR=13						
LPAZ				SKP		02 16 58.5	
	comp=Z,6.6nm,0.9s,baz=346,slow=2.3,SNR=5.6						
PBRG	Braganca	137.44	334	ePKPdf	PKPdf	02 14 12.7	+1.2
ESDC	Sonseca Array	137.79	329	PKhKP		02 14 02.9	
	comp=Z,0.5nm,0.5s,baz=32,slow=2.8,SNR=4.4						
ESDC				PKP	PKPdf	02 14 13.2	+1.0
	comp=Z,2.5nm,0.6s,baz=23,slow=3.4,SNR=9.3						
ESDC				SKP		02 16 57.5	
	comp=Z,0.9nm,0.6s,baz=14,slow=3.5,SNR=5.3						
ESDC				SKPab		02 17 06.9	
	comp=Z,4.0nm,0.7s,baz=27,slow=5.0,SNR=8.6						

PVRL	**Vila Real**	**138.29**	**334**	*e*PKPdf	PKPdf	02 14 14.3	+1.2
MTE	**Manteigas**	**138.93**	**333**	*e*PKPdf	PKPdf	02 14 13.3	-1.0
PCBR	**Castelo Branco**	**139.35**	**333**	*e*PKPdf	PKPdf	02 14 16.8	+1.7
EVO	**Evora**	**140.65**	**332**	*e*PKIKP	PKPdf	02 14 12.8	-4.6
	comp=Z,19nm,0.8s						
PTEO	**Sao Teotonio**	**141.78**	**332**	*e*PKPdf	PKPdf	02 14 16.9	-2.5
SJG	**San Juan**	**142.43**	**66**	PKhKP		02 14 17.9	
	comp=Z,68nm,0.5s,baz=38,slow=2.7,SNR=30						
SJG	**San Juan**	**142.43**	**66**	PKP	PKPdf	02 14 17.9	-3.1
TRN	**Trinidad (W)**	**148.56**	**77**	*e*P	PKPdf	02 14 38.8	+7.4
TPP	**Pointe-a-Pierr**	**148.56**	**78**	*e*P	PKPdf	02 14 40.2	+8.8
TBH	**Brigand Hill**	**148.91**	**77**	*e*P	PKPdf	02 14 35.4	+3.4
BDFB	**Brasilia**	**153.27**	**139**	PKP	PKPdf	02 14 40.6	+2.3
	comp=Z,14nm,0.8s,baz=112,slow=0.6,SNR=21						
BDFB				PKPbc	PKPdf	02 14 48.2	+10
	comp=Z,37nm,0.5s,baz=283,slow=1.3,SNR=69						
BDFB				PKPab	PKPab	02 15 02.5	-0.9
	comp=Z,24nm,0.7s,baz=200,slow=0.9,SNR=12						
BAO	**Brasilia Array**	**153.29**	**139**	P	PKPdf	02 14 40.7	+2.4
BAO				*e*		02 14 47.9	
BAO				*e*		02 14 54.2	
BAO				*e*		02 15 02.6	
DBIC	**Dimbokro**	**154.66**	**276**	PKP	PKPdf	02 14 41.3	+1.0
	comp=Z,11nm,0.9s,baz=84,slow=2.3,SNR=13						
DBIC				PKPbc	PKPdf	02 14 50.7	+10
	comp=Z,18nm,0.8s,baz=95,slow=2.8,SNR=24						
DBIC				PKPab	PKPab	02 15 08.9	-0.3
	comp=Z,37nm,0.5s,baz=75,slow=3.9,SNR=27						
DBIC	**Dimbokro**	**154.66**	**276**	PKP	PKPdf	02 14 41.3	+1.0
DBIC				PKPbc	PKPdf	02 14 50.7	+10
DBIC				PKPab	PKPab	02 15 08.9	-0.3

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*IDC **11** 01:58:41.6±1.0, 4.68S×149.74E, h540^{km}±10^{km}, mb4.2/16, mb1 4.3/18, mb1mx4.3/20, Error ellipse: s-maj=13.9km s-min=8.9km az=100.0*

*NEIC **11** 01:58:42.0±0.8, 4.64S×149.79E, h547^{km}±9^{km}, mb4.5/3, Error ellipse: s-maj=10.4km s-min=9.0km az=65.0*

ISC 11 01:58:40.9±0.9**, 4.64S**±0.06×**149.82E**±0.08**, h542**^{km}±10^{km}**, n68, σ0^{s}90**/54**, mb4.7**/24**, 1D, Bismarck Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**5.42**	**209**	P	**P**	**02 00 14.8**	**+0.1**
	58nm,0.3s,baz=38,slow=6.2,SNR=6.8						
PMG				S	**S**	**02 01 28.4**	**-0.5**
	6.3nm,0.3s,baz=342,slow=20,SNR=4.7						
PMG	**Port Moresby**	**5.42**	**209**	P	**P**	**02 00 14.8**	**+0.1**
PMG				S	**S**	**02 01 28.4**	**-0.5**
CTA	**Charters Tower**	**15.74**	**192**	P	**P**	**02 01 59.2**	**+1.6**
	12nm,0.3s,baz=5.0,slow=11,SNR=8.5						
CTA				S	**S**	**02 04 37.9**	**+1.7**
	baz=47,slow=20,SNR=1.5						
CTA	**Charters Tower**	**15.74**	**192**	P	**P**	**02 01 59.2**	**+1.6**
CTA				S	**S**	**02 04 38.0**	**+1.7**
WRA	**Warramunga Arr**	**21.42**	**223**	S	**S**	**02 06 11.3**	**-1.3**
	10nm,0.6s,baz=46,slow=14,SNR=6.0						
ASAR	**Alice Springs**	**24.36**	**218**	S	**S**	**02 06 57.3**	**-2.7**
	8.5nm,0.9s,baz=44,slow=14,SNR=4.0						
ASAR				ScP		02 09 27.1	
	3.4nm,0.7s,baz=51,slow=3.3,SNR=4.2						
FITZ	**Fitzroy Crossi**	**27.17**	**239**	P	**P**	**02 03 40.9**	**-2.0**
	13nm,0.4s,mb4.9,baz=37,slow=7.0,SNR=3.7						
JOW	**Kunigami**	**37.60**	**327**	P	**P**	**02 05 11.4**	**+0.6**
	25nm,0.6s,mb4.9,baz=119,slow=15,SNR=4.1						
URZ	**Urewera**	**41.67**	**147**	P	**P**	**02 05 43.7**	**+0.2**
	6.4nm,0.6s,mb4.4,baz=127,slow=18,SNR=2.1						
RPZ	**Rata Peaks**	**43.19**	**157**	P	**P**	**02 05 54.9**	**-0.6**
	29nm,0.9s,mb4.8,baz=153,slow=2.3,SNR=3.2						
ASAJ	**Asahikawa**	**48.97**	**353**	P	**P**	**02 06 39.2**	**-0.5**
	9.5nm,0.6s,mb4.5,baz=221,slow=11,SNR=3.3						
CMAR	**Chiang Mai Arr**	**55.13**	**296**	P	**P**	**02 07 24.2**	**-0.2**
	5.2nm,0.6s,mb3.9,baz=111,slow=4.8,SNR=5.2						
CMAR				PcP	PcP	02 08 16.6	-0.7
	4.5nm,0.7s,baz=104,slow=2.2,SNR=6.2						
FX1	**Attu Island--F**	**60.61**	**16**	P	**P**	**02 07 59.8**	**-1.1**
	30nm,0.5s,mb4.8,baz=262,slow=9.4,SNR=4.2						
SONM	**Songino Array**	**64.64**	**329**	P	**P**	**02 08 26.9**	**0.0**
	8.3nm,0.5s,mb4.4,baz=152,slow=4.8,SNR=11						
GUN	**Gumba**	**69.51**	**302**	*e*P	**P**	**02 08 57.2**	**+0.1**
	102nm,0.7s,mb5.5						
PKI	**Pulchoki**	**69.81**	**301**	*e*P	**P**	**02 08 58.5**	**-0.4**
KKN	**Kakani**	**69.98**	**302**	*e*P	**P**	**02 08 59.5**	**-0.4**
	59nm,0.7s,mb5.2						
DMN	**Daman**	**70.08**	**301**	*e*P	**P**	**02 09 00.5**	**+0.1**
	68nm,0.6s,mb5.3						
GKN	**Gorkha**	**70.59**	**302**	*e*P	**P**	**02 09 03.1**	**-0.3**
	61nm,0.6s,mb5.3						
KOLN	**Koldanda**	**71.41**	**301**	*e*P	**P**	**02 09 07.8**	**-0.4**
	63nm,0.7s,mb5.3						
VNDA	**Vanda**	**73.11**	**177**	P	**P**	**02 09 17.2**	**+0.1**
	8.2nm,0.5s,mb4.4,baz=332,slow=7.4,SNR=13						
HYB	**Hyderabad**	**73.64**	**290**	*e*P	**P**	**02 09 20.0**	**-1.2**
HYB	**Hyderabad**	**73.64**	**290**	*i* P	**P**	**02 09 20.0**	**-1.2**
ZAL	**Zalesovo**	**79.39**	**327**	P	**P**	**02 09 51.1**	**-0.6**
	7.0nm,0.6s,mb4.2,baz=351,slow=5.3,SNR=8.6						
IMA	**Indian Mountai**	**81.31**	**20**	*e*P	**P**	**02 10 01.0**	**-0.5**
TKM2	**Tokmak 2**	**81.69**	**314**	P	**P**	**02 10 03.9**	**0.0**
	SNR=8.8						
KZA	**Kyzart**	**81.74**	**314**	P	**P**	**02 10 05.9**	**+1.9**
	SNR=6.8						
KBK	**Karagaybulak**	**82.09**	**314**	P	**P**	**02 10 06.9**	**+1.1**
	SNR=6.3						
UCH	**Uchtor**	**82.30**	**314**	P	**P**	**02 10 08.9**	**+2.0**
	SNR=8.1						
CHMS	**Chumysh**	**82.31**	**314**	P	**P**	**02 10 07.7**	**+0.8**
	SNR=7.3						
AAK	**Ala-Archa**	**82.41**	**314**	P	**P**	**02 10 08.3**	**+0.8**
	SNR=7.8						
USP	**Ospenovka**	**82.55**	**315**	P	**P**	**02 10 08.8**	**+0.6**
	SNR=16						
AML	**Almayashu**	**82.87**	**313**	P	**P**	**02 10 11.4**	**+1.6**
	SNR=9.1						
EKS2	**Erkin-Say**	**82.93**	**314**	P	**P**	**02 10 11.3**	**+1.2**
	SNR=16						
ILAR	**Eielson Array**	**83.14**	**23**	P	**P**	**02 10 09.2**	**-1.4**
	24nm,0.7s,mb4.8,baz=270,slow=7.1,SNR=21						
MAW	**Mawson**	**84.57**	**203**	P	**P**	**02 10 17.3**	**-0.3**
	7.2nm,0.6s,mb4.4,baz=97,slow=6.7,SNR=8.3						
DAWY	**Dawson**	**85.87**	**25**	*e*P	**P**	**02 10 24.3**	**+0.4**
BVAR	**Borovoye Array**	**87.34**	**324**	P	**P**	**02 10 29.9**	**-1.2**
	12nm,0.9s,mb4.5,baz=108,slow=4.7,SNR=7.0						
YBH	**Yreka Blue Hor**	**91.17**	**48**	P	**P**	**02 10 49.7**	**+0.6**
	6.2nm,0.9s,mb4.5,baz=304,slow=4.4,SNR=5.7						
CMB	**Columbia Colle**	**92.66**	**52**	*e*P	**P**	**02 10 55.5**	**-0.7**
	2.9nm,0.8s,mb4.4						
SYO	**Syowa Base**	**92.82**	**200**	⇓P	**P**	**02 10 55.5**	**-0.6**
MTUM	**Tungsten Hills**	**94.07**	**53**	*e*P	**P**	**02 11 03.0**	**+0.4**
NVAR	**Mina Array Bea**	**94.32**	**52**	P	**P**	**02 11 04.6**	**+0.8**
	2.1nm,0.7s,mb4.4,baz=260,slow=4.2,SNR=4.8						
NVAR	**Mina Array Bea**	**94.32**	**52**	P	**P**	**02 11 04.6**	**+0.8**
MWC	**Mount Wilson**	**94.33**	**56**	*e*P	**P**	**02 11 04.5**	**+0.6**
BMO	**Blue Mountains**	**95.28**	**46**	*e*P	**P**	**02 11 07.2**	**-0.7**
NEW	**Newport**	**95.47**	**42**	*e*P	**P**	**02 11 08.3**	**-0.4**
	3.0nm,0.5s,mb4.7						
TPNV	**Topopah Spring**	**95.90**	**53**	*e*P	**P**	**02 11 10.4**	**-0.5**
	1.9nm,0.7s,mb4.4						
YKW3	**Yellowknife Ar**	**96.66**	**28**	*e*P	**P**	**02 11 13.2**	**-0.5**
YKA	**Yellowknife Ar**	**96.67**	**28**	P	**P**	**02 11 13.6**	**-0.2**
	12nm,1.3s,mb5.0,baz=272,slow=4.6,SNR=3.6						
PDAR	**Pinedale Array**	**100.93**	**47**	P	P	02 11 33.1	-0.3
	2.0nm,0.8s,baz=250,slow=2.7,SNR=5.7						
ARCES	**ARCESS Array B**	**105.84**	**342**	Pdiff	Pdif	02 11 54.0	-0.3
	6.3nm,0.8s,baz=63,slow=8.1,SNR=4.1						
ARCES				PKiKP		02 16 03.0	
	3.5nm,0.8s,baz=51,slow=2.3,SNR=4.3						
ARCES	**ARCESS Array B**	**105.84**	**342**	Pdif	Pdif	02 11 54.0	-0.3
ARCES				PKPdf		02 16 03.0	
TXAR	**Lajitas Array**	**106.65**	**61**	PKiKP		02 16 06.5	
	0.3nm,0.6s,baz=123,slow=1.2,SNR=3.6						
TXAR	**Lajitas Array**	**106.65**	**61**	PKPdf		02 16 06.5	
FINES	**FINESS Array B**	**109.67**	**335**	Pdiff	Pdif	02 12 09.7	-1.6
	4.7nm,1.1s,baz=73,slow=3.6,SNR=5.9						
AKASG	**Malin Array Be**	**112.62**	**324**	PKiKP		02 16 15.8	
	1.2nm,0.4s,baz=57,slow=2.3,SNR=7.4						
NOA	**NORSAR Array B**	**115.73**	**339**	PKiKP		02 16 21.1	
	1.6nm,0.6s,baz=51,slow=1.7,SNR=4.3						
IDI	**Anoyia**	**120.87**	**309**	PKP	PKPdf	02 16 32.8	+0.9
	5.3nm,0.4s,baz=152,slow=24,SNR=8.0						
CLL	**Collm**	**121.25**	**330**	*i* PKIKP	PKPdf	02 16 33.3	+1.0
	logA/T=1.1						
SCHQ	**Schefferville**	**121.89**	**24**	PKP	PKPdf	02 16 34.0	+0.6
	2.0nm,0.6s,baz=293,slow=7.7,SNR=3.4						
GERES	**GERESS Array B**	**122.34**	**327**	PKP	PKPdf	02 16 35.3	+0.8
	7.4nm,0.6s,baz=74,slow=1.6,SNR=20						
EKA	**Eskdalemuir Ar**	**124.98**	**342**	PKP	PKPdf	02 16 40.0	+0.7
	10nm,0.9s,baz=15,slow=3.3,SNR=9.1						
DAVOX	**Davos**	**125.64**	**327**	PKP	PKPdf	02 16 42.0	+1.1
	9.4nm,0.6s,baz=247,slow=2.2,SNR=6.4						
LVC	**Limon Verde**	**133.45**	**127**	SKP		02 19 40.3	
	2.3nm,0.6s,baz=257,slow=10,SNR=4.0						
LPAZ	**La Paz**	**137.09**	**120**	SKP		02 19 50.1	
	3.7nm,1.1s,baz=356,slow=2.6,SNR=3.9						
BDFB	**Brasilia**	**153.21**	**139**	PKPbc	PKPdf	02 17 39.7	+10
	7.0nm,0.5s,baz=255,slow=2.4,SNR=3.7						
DBIC	**Dimbokro**	**154.72**	**276**	PKPab	PKPab	02 18 00.4	-0.8
	13nm,0.5s,baz=71,slow=2.9,SNR=7.7						

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*IDC **11** 02:17:12.3±0.9, 28.94N×132.07E, mb3.8/8, mb1 3.9/9, mb1mx3.8/23, ML3.8/1, MS3.3/1, Ms1 3.5/1, ms1mx2.8/21, Error ellipse: s-maj=31.2km s-min=21.1km az=86.0*

*JMA **11** 02:17:16.1±0.2, 28.90N×132.00E, h57^{km}, M3.7*

ISC 11 02:17:15.4±0.6**, 28.88N**±0.03×**131.98E**±0.05**, h33**^{km}**, n23, σ0^{s}93**/34**, mb3.7**/8**, MS3.2**/1**, Southeast of Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTN	**Tanegashima 3**	**1.97**	**334**	P	**P**	**02 17 47.8**	**+0.8**
JTN				S	**S**	**02 18 11.1**	**+0.3**
JNN	**Nakanoshima**	**2.08**	**298**	P	**P**	**02 17 49.6**	**+1.1**
JNN				S	**S**	**02 18 14.7**	**+1.3**
JAM	**Amami Oshima**	**2.14**	**258**	P	**P**	**02 17 50.4**	**+1.0**
JAM				S	**S**	**02 18 15.6**	**+0.5**
JKC	**Kuchinoerabu**	**2.21**	**316**	P	**P**	**02 17 52.2**	**+1.7**
JTSR	**Tashiro 2**	**2.46**	**338**	P	**P**	**02 17 54.6**	**+0.7**
JTSR				S	**S**	**02 18 22.4**	**-0.7**
JNAR	**Kushima--Naru**	**2.71**	**347**	P	**P**	**02 17 58.3**	**+0.8**
JNAR				S	**S**	**02 18 28.3**	**-1.2**
JTK	**Tokunoshima**	**2.89**	**249**	P	**P**	**02 18 00.7**	**+0.6**
JTK				S	**S**	**02 18 34.3**	**+0.3**
JTZ	**Takazaki**	**3.11**	**346**	P	**P**	**02 18 03.9**	**+0.7**
JTZ				S	**S**	**02 18 38.2**	**-1.5**
JMZ	**Minamidaito 2**	**3.12**	**193**	S	**S**	**02 18 35.9**	**-4.1**
JSJ	**Shimokoshiki**	**3.41**	**325**	P	**P**	**02 18 07.8**	**+0.3**
JSJ				S	**S**	**02 18 45.8**	**-1.5**
JOW	**Kunigami**	**3.87**	**239**	Pn	**P**	**02 18 13.7**	**-0.3**
	14nm,0.3s,baz=103,slow=19,SNR=20						
JOW				Sn	**Sn**	**02 18 57.8**	**-1.2**
	8.2nm,0.3s,baz=74,slow=27,SNR=6.8						
JOW	**Kunigami**	**3.87**	**239**	P	**P**	**02 18 13.7**	**-0.3**
JOW				S	**S**	**02 18 57.3**	**-1.6**
JIH	**Iheya**	**4.00**	**244**	P	**P**	**02 18 15.9**	**0.0**
JIH				S	**S**	**02 19 00.9**	**-1.4**
JTO	**Tosashimizu**	**4.03**	**10**	P	**P**	**02 18 14.8**	**-1.5**
JTO				S	**S**	**02 18 56.2**	**-6.8**
SONM	**Songino Array**	**27.38**	**321**	P	**P**	**02 22 59.9**	**+0.3**
	0.4nm,0.8s,mb3.0,baz=112,slow=7.8,SNR=2.5						
CMAR	**Chiang Mai Arr**	**31.89**	**258**	LR	LR	02 36 25.1	
	comp=Z,53nm,20.1s,MS3.2,baz=339,slow=36						
CTA	**Charters Tower**	**50.59**	**163**	P	**P**	**02 26 13.5**	**+0.2**
	1.4nm,0.8s,mb3.9,baz=307,slow=10,SNR=2.1						
ASAR	**Alice Springs**	**52.27**	**178**	P	**P**	**02 26 25.9**	**0.0**
	0.4nm,0.5s,mb3.6,baz=10,slow=13,SNR=6.6						
ILAR	**Eielson Array**	**60.52**	**29**	P	**P**	**02 27 22.9**	**-1.4**
	0.6nm,0.7s,mb3.9,baz=267,slow=6.2,SNR=8.4						
FINES	**FINESS Array B**	**72.19**	**331**	P	**P**	**02 28 38.6**	**+0.3**
	1.2nm,0.6s,mb4.0,baz=56,slow=6.9,SNR=9.2						
YKA	**Yellowknife Ar**	**74.71**	**26**	P	**P**	**02 28 53.2**	**+0.2**
	0.6nm,0.9s,mb3.5,baz=298,slow=5.8,SNR=6.9						
AKASG	**Malin Array Be**	**75.66**	**320**	P	**P**	**02 28 59.3**	**+0.5**
	0.4nm,0.4s,mb3.7,baz=53,slow=5.6,SNR=5.9						
HFS	**Hagfors**	**78.00**	**333**	P	**P**	**02 29 12.0**	**+0.3**
	1.8nm,0.8s,mb4.1,baz=27,slow=3.2,SNR=3.4						

ISC 11 02:26:39.9±0.7**, 46.38N**±0.03×**15.07E**±0.06**, n5, σ0^{s}58**/9**, 2C, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PERS	**Pernice**	**0.26**	**7**	*i* Sg	**Sg**	**02 26 49.4**	**+1.0**
GROS	**Grobnik**	**0.31**	**75**	*i* Pg	**Pg**	**02 26 45.9**	**-0.1**
GROS				*e*Sg	**Sg**	**02 26 50.5**	**+0.5**
	comp=Z,7.0nm,0.3s						
OBKA	**Obir**	**0.39**	**290**	⇑*i*PG	**Pg**	**02 26 47.5**	**0.0**
OBKA				*i* SG	**Sg**	**02 26 52.9**	**+0.2**
	comp=Z,11nm,0.5s						
LEGS	**Legarje**	**0.47**	**159**	*e*Pg	**Pg**	**02 26 49.1**	**0.0**
LEGS				*i* Sg	**Sg**	**02 26 55.4**	**+0.1**
	comp=Z,4.0nm,0.2s						
ARSA	**Arzberg**	**0.92**	**19**	⇑*i*PG	**Pg**	**02 26 57.0**	**-1.3**
ARSA				*i* SG	**Sg**	**02 27 10.1**	**-0.5**
	comp=Z,1.2nm,0.3s						

ISC 11 02:51:36.4±0.6**, 46.39N**±0.03×**15.09E**±0.05**, n6, σ0^{s}81**/12**, 2C, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PERS	**Pernice**	**0.24**	**4**	*i* Pg	**Pg**	**02 51 41.3**	**0.0**
PERS				*e*Sg	**Sg**	**02 51 45.3**	**+0.8**
	comp=Z,12nm,0.3s						
GROS	**Grobnik**	**0.29**	**77**	*i* Pg	**Pg**	**02 51 42.4**	**+0.2**
GROS				*i* Sg	**Sg**	**02 51 47.2**	**+1.1**
	comp=Z,12nm,0.3s						
OBKA	**Obir**	**0.39**	**287**	⇑*i*PG	**Pg**	**02 51 44.5**	**+0.2**
OBKA				*i* SG	**Sg**	**02 51 50.0**	**+0.5**
	comp=Z,22nm,0.5s						
LEGS	**Legarje**	**0.47**	**161**	*i* Pg	**Pg**	**02 51 45.7**	**-0.2**
LEGS				*e*Sg	**Sg**	**02 51 52.1**	**0.0**
	comp=Z,7.0nm,0.4s						
ARSA	**Arzberg**	**0.91**	**19**	⇑*i*PG	**Pg**	**02 51 53.4**	**-1.1**
ARSA				*i* SG	**Sg**	**02 52 05.8**	**-0.8**
	comp=Z,1.4nm,0.3s						
VOY	**Vojsko**	**0.91**	**247**	*e*Pg	**Pg**	**02 51 52.8**	**-1.8**
VOY				*e*Sg	**Sg**	**02 52 07.7**	**+1.0**

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*GUC **11** 03:00:33.3±0.9, 33.58S×67.63W, h160^{km}, ML4.1*

*NEIC **11** 03:00:37.0±2.1, 33.93S×68.66W, h230^{km}±37^{km}, Error ellipse: s-maj=97.0km s-min=11.3km az=85.0*

ISC 11 03:00:35.6±1.2**, 33.81S**±0.08×**68.4W**±0.3**, h235**^{km}±19^{km}**, n17, σ0^{s}74**/28**, 8C-3D, Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LMEL	**Las Melosas**	**1.47**	**268**	*e*P	**P**	**03 01 11.8**	**-0.7**
LMEL				AMP		03 01 58.1	
	comp=N,238nm,0.2s						
FCH	**Farellones**	**1.62**	**287**	⇓*i*P	**P**	**03 01 13.5**	**-0.3**
FCH				*i* S	**S**	**03 01 43.9**	**+0.6**
FCH				AMP		03 01 49.4	
	comp=N,507nm,0.2s						
PCH	**Pirque**	**1.74**	**276**	⇑*i*P	**P**	**03 01 14.2**	**-0.5**
PCH				*i* S	**S**	**03 01 45.8**	**+0.7**
FSR	**Penalolen**	**1.77**	**280**	*e*P	**P**	**03 01 14.3**	**-0.8**
FSR				*i* S	**S**	**03 01 46.1**	**+0.4**
FSR				AMP		03 01 48.0	
	comp=N,667nm,0.5s						
CLCH	**Cerro Calan**	**1.80**	**283**	⇓*i*P	**P**	**03 01 15.0**	**-0.3**
CLCH				*i* S	**S**	**03 01 46.5**	**+0.5**
CLCH				AMP		03 01 50.6	
	comp=E,904nm,0.6s						
CLCH				AMP		03 01 51.0	
	comp=N,610nm,0.5s						
CACH	**El Canelo**	**1.82**	**260**	⇓*i*P	**P**	**03 01 15.0**	**-0.5**
CACH				*i* S	**S**	**03 01 47.5**	**+1.1**
DSCH	**Colegio Aleman**	**1.82**	**283**	*e*P	**P**	**03 01 14.9**	**-0.7**
DSCH				*i* S	**S**	**03 01 46.9**	**+0.5**
DSCH				AMP		03 01 52.8	
	comp=N,924nm,0.5s						
STL	**Santa Lucia**	**1.87**	**281**	*i* S	**S**	**03 01 47.1**	**-0.1**
STL				AMP		03 01 48.1	
	comp=N,583nm,0.4s						
RCDM	**Rinconada Maip**	**2.00**	**279**	*i* P	**P**	**03 01 16.9**	**-0.2**
RCDM				*i* S	**S**	**03 01 49.0**	**-0.2**
RCDM				AMP		03 01 52.3	
	comp=N,882nm,0.2s						
JACH	**Jahuel**	**2.13**	**301**	⇑*i*P	**P**	**03 01 18.3**	**-0.1**
JACH				*i* S	**S**	**03 01 52.5**	**+1.0**
PTCH	**Petorca**	**2.60**	**306**	⇑*i*P	**P**	**03 01 23.1**	**-0.2**
PTCH				*i* S	**S**	**03 01 59.9**	**-0.3**
ILCH	**Illapel**	**3.16**	**313**	⇑*i*P	**P**	**03 01 29.3**	**-0.1**
ILCH				*i* S	**S**	**03 02 09.6**	**-1.7**
CMCH	**Combarbala**	**3.41**	**320**	⇑*i*P	**P**	**03 01 32.6**	**+0.3**
CMCH				*i* S	**S**	**03 02 16.1**	**-0.1**
LPAZ	**La Paz**	**17.45**	**1**	P	**P**	**03 04 27.4**	**+1.8**
VNA3	**Neumayer Olymp**	**48.41**	**158**	⇑*i*	**P**	**03 08 56.2**	**+0.9**
VNA2	**Neumayer--Watz**	**49.03**	**158**	⇑*i*	**P**	**03 09 00.6**	**+0.6**
SNAA	**Sanae**	**50.64**	**158**	⇑*i*	**P**	**03 09 10.5**	**-1.5**

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*IDC **11** 03:22:21.1±1.8, 22.64S×66.27W, h240^{km}±19^{km}, mb3.2/1, mb1 3.4/4, mb1mx3.2/14, Error ellipse: s-maj=30.8km s-min=21.5km az=117.0*

*NEIC **11** 03:22:21.3±1.2, 22.62S×66.26W, h244^{km}±10^{km}, mb3.6/1, Error ellipse: s-maj=21.3km s-min=18.0km az=180.0*

ISC 11 03:22:20.7±1.3**, 22.67S**±0.10×**66.3W**±0.1**, h252**^{km}±12^{km}**, n9, σ0^{s}84**/11**, mb3.5**/2**, Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**2.41**	**271**	P	**P**	**03 23 08.2**	**+0.7**
	32nm,0.3s,baz=94,slow=5.9,SNR=363						
LVC				S	**S**	**03 23 43.7**	**-0.2**
	16nm,0.3s,baz=240,slow=19,SNR=13						
LPAZ	**La Paz**	**6.58**	**345**	P	**P**	**03 23 57.4**	**+0.7**
	0.4nm,0.3s,baz=156,slow=9.9,SNR=17						
LPAZ				S	**S**	**03 25 13.0**	**+1.1**
	0.4nm,0.3s,baz=261,slow=23,SNR=8.6						
ARE	**Arequipa**	**7.88**	**321**	*e*P	**P**	**03 24 12.0**	**-1.1**
ARE				*e*S	**S**	**03 25 40.0**	**-1.3**
BDFB	**Brasilia**	**18.63**	**71**	P	**P**	**03 26 20.6**	**-1.2**
	0.2nm,0.3s,baz=243,slow=9.1,SNR=4.2						
SDCO	**Great Sand Dun**	**70.50**	**328**	P	**P**	**03 33 10.4**	**+0.6**
	0.8nm,0.6s,mb3.5						
BW06	**Boulder Array**	**76.34**	**329**	P	**P**	**03 33 43.9**	**+0.3**
YKA	**Yellowknife Ar**	**93.11**	**340**	P	**P**	**03 35 07.0**	**+0.3**
	0.2nm,0.5s,mb3.4,baz=129,slow=4.4,SNR=7.5						
YKA	**Yellowknife Ar**	**93.11**	**340**	P	**P**	**03 35 07.0**	**+0.3**
WRA	**Warramunga Arr**	**133.09**	**207**	PKP	PKPdf	03 41 08.4	+1.4
	0.3nm,0.8s,baz=153,slow=1.7,SNR=2.8						

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*IDC **11** 03:35:55.7±1.1, 27.88N×57.52E, h23^{km}±4^{km}, mb3.6/10, mb1 3.8/13, mb1mx3.7/24, ML3.4/3, MS3.3/2, Ms1 3.5/2, ms1mx2.9/18, Error ellipse: s-maj=27.8km s-min=17.3km az=16.0*

*NEIC **11** 03:35:55.4±1.2, 27.77N×57.57E, mb4.6/15, Error ellipse: s-maj=28.7km s-min=15.5km az=186.0*

*CSEM **11** 03:35:58.8±0.1, 27.18N×56.65E, h2^{km}, mb4.6/16, Error ellipse: s-maj=4.9km s-min=2.9km az=62.0*

ISC 11 03:35:51.0±1.0**, 27.6N**±0.1×**57.33E**±0.09**, h10**^{km}**, (h25**^{km}±3.8^{km}**:pP-P), n46, σ1^{s}50**/29**, mb3.7**/11**, MS3.4**/1**, 1D, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HASS	**Wahat al Ahsa'**	**7.27**	**252**	P	**Pn**	**03 37 38.8**	**-1.0**
HASS				S	**Sn**	**03 39 03.4**	**+0.1**
MZLS	**Mizel**	**11.49**	**254**	P	**P**	**03 38 37.1**	**-1.2**
ARSS	**Ar Rass**	**12.71**	**265**	P	**P**	**03 38 53.2**	**-1.5**
AFFS	**'Afif**	**13.43**	**257**	P	**P**	**03 39 04.1**	**-0.1**
HILS	**Ha'il**	**13.79**	**273**	P	**P**	**03 39 07.4**	**-1.7**
GNI	**Garni**	**16.26**	**323**	Pn	**P**	**03 39 45.3**	**+4.3**
	0.6nm,0.3s,baz=238,slow=24,SNR=3.7						
YNBS	**Yanbu' al Bahr**	**17.69**	**264**	P	**P**	**03 40 00.9**	**+1.7**
ASF	**Jabal al Asfar**	**18.28**	**289**	P	**P**	**03 40 09.4**	**+3.0**
	0.4nm,0.3s,baz=308,slow=3.2,SNR=7.7						
ASF				S	**S**	**03 43 18.5**	**-8.9**
	0.3nm,0.3s,baz=147,slow=16,SNR=3.4						
ASF				LR	LR	03 49 01.7	
	comp=Z,82nm,18.6s,baz=124,slow=43						
EIL	**Elat**	**19.74**	**281**	P	**P**	**03 40 26.7**	**+2.9**
	0.3nm,0.3s,baz=100,slow=13,SNR=7.9						
BRTR	**Keskin Array B**	**23.03**	**308**	P	**P**	**03 40 59.4**	**+2.1**
	6.9nm,1.1s,mb4.0,baz=117,slow=11,SNR=10						
BVAR	**Borovoye Array**	**27.16**	**17**	P	**P**	**03 41 35.4**	**-0.8**
	1.2nm,0.6s,mb3.6,baz=202,slow=8.0,SNR=10						
BVAR				sP	sP	03 41 45.2	+4.8
	1.9nm,0.6s,baz=202,slow=8.0,SNR=11						
BRD	**Bordesti**	**29.94**	**315**	⇓*i*P	**P**	**03 42 07.0**	**+5.6**
AKASG	**Malin Array Be**	**31.38**	**325**	P	**P**	**03 42 13.2**	**-0.8**
	0.2nm,0.3s,mb3.4,baz=355,slow=36,SNR=2.6						
KOLS	**Kolonicke sedl**	**34.33**	**318**	*e*P	**P**	**03 42 37.6**	**-2.1**
KOLS				*e*		03 42 48.3	
KOLS	**Kolonicke sedl**	**34.33**	**318**	*e*	**P**	**03 42 37.6**	**-2.1**
KOLS				*e*pP	pP	03 42 48.3	+5.6
CMAR	**Chiang Mai Arr**	**39.21**	**94**	LR	LR	04 00 22.2	
	comp=Z,48nm,18.0s,MS3.4,baz=243,slow=38						
GERES	**GERESS Array B**	**39.59**	**314**	P	**P**	**03 43 24.7**	**+0.6**
	0.4nm,0.8s,mb3.2,baz=135,slow=5.6,SNR=2.4						
FINES	**FINESS Array B**	**39.73**	**337**	P	**P**	**03 43 24.3**	**-0.8**
	2.1nm,0.7s,mb4.0,baz=145,slow=10.0,SNR=14						
FINES				pP	pP	03 43 31.1	+3.0
	2.1nm,0.8s,baz=158,slow=10,SNR=2.8						
KHC	**Kasperske Hory**	**39.75**	**315**	*e*P	**P**	**03 43 28.5**	**+3.1**
KHC				*e*		03 43 33.5	
KHC	**Kasperske Hory**	**39.75**	**315**	*e*P	**P**	**03 43 28.5**	**+3.1**
KHC				x	x	03 43 33.5	
SONM	**Songino Array**	**42.90**	**48**	P	**P**	**03 43 50.6**	**-0.6**
	0.3nm,0.8s,mb3.1,baz=270,slow=12,SNR=3.2						
MBDF	**Montbardon**	**43.50**	**307**	*e*P	Px	03 44 03.8	
	14nm,0.9s						
LPG	**La Plagne**	**43.59**	**308**	*e*P	Px	03 44 04.6	
	17nm,0.8s						
LPL	**La Plagne**	**43.61**	**308**	*e*P	Px	03 44 04.7	
	16nm,0.9s						
CDF	**Champ du Feu**	**43.65**	**312**	*e*P	Px	03 44 04.7	
CABF	**La Chapelle**	**44.18**	**310**	*e*P	Px	03 44 09.7	
	9.1nm,0.7s						
VIVF	**Saint-Julien-l**	**45.00**	**307**	*e*P	Px	03 44 15.6	
	13nm,0.9s						
NOA	**NORSAR Array B**	**45.38**	**330**	P	**P**	**03 44 09.2**	**-1.9**
	0.8nm,0.6s,mb3.7,baz=111,slow=7.6,SNR=3.6						
LASF	**Ste Croix**	**45.54**	**306**	*e*P	Px	03 44 20.3	
	17nm,1.0s						
SMF	**Signal de Mont**	**45.73**	**309**	*e*P	Px	03 44 21.7	
	24nm,0.8s						
SSF	**Saint Saulge**	**45.99**	**310**	*e*P	**P**	**03 44 23.8**	**+7.7**
	5.9nm,0.7s,mb4.6						
AVF	**Avril sur Loir**	**46.07**	**310**	*e*P	Px	03 44 24.2	
	9.3nm,0.9s						
BGF	**Bois d'Agland**	**46.40**	**309**	*e*P	Px	03 44 27.1	
	11nm,0.7s						
HYF	**Humbligny**	**46.60**	**310**	*e*P	Px	03 44 29.3	
MTLF	**Montolieu**	**46.70**	**305**	*e*P	Px	03 44 30.0	
	10nm,0.8s						
TCF	**Toulx Ste Croi**	**46.82**	**309**	*e*P	Px	03 44 30.6	
	7.5nm,0.7s						
CAF	**Calviac**	**46.86**	**307**	*e*P	Px	03 44 31.0	
	14nm,0.9s						
RJF	**Les Rejaudoux**	**47.26**	**307**	*e*P	Px	03 44 34.4	
	13nm,0.8s						
EPF	**Esparros**	**48.08**	**304**	*e*P	Px	03 44 41.0	
ETSF	**Etsaut**	**48.74**	**304**	*e*P	Px	03 44 46.7	
	7.4nm,0.8s						
SJPF	**Ste Jean**	**49.22**	**304**	*e*P	Px	03 44 48.4	
	7.8nm,0.8s						
ESDC	**Sonseca Array**	**51.52**	**300**	P	**P**	**03 44 59.6**	**+0.7**
	0.2nm,0.4s,mb3.4,baz=73,slow=7.2,SNR=4.0						
ESDC				pP	pP	03 45 07.5	+5.5
	0.4nm,0.5s,baz=66,slow=7.9,SNR=2.3						
WRA	**Warramunga Arr**	**88.21**	**113**	P	**P**	**03 48 45.7**	**+1.7**
	0.9nm,1.2s,mb3.9,baz=321,slow=3.5,SNR=3.8						
WRA				pP	pP	03 48 51.7	+4.5
	1.2nm,0.9s,baz=313,slow=4.2,SNR=6.7						
WRA	**Warramunga Arr**	**88.21**	**113**	P	**P**	**03 48 45.7**	**+1.7**
WRA				pP	pP	03 48 51.8	+4.5
YKA	**Yellowknife Ar**	**89.95**	**356**	P	**P**	**03 48 50.7**	**-0.6**
	0.3nm,0.8s,mb3.7,baz=3.9,slow=5.5,SNR=7.5						
YKA	**Yellowknife Ar**	**89.95**	**356**	*e*P	**P**	**03 48 51.9**	**+0.6**

IDC 11 03:37:35.9±2.2**, 13.06S**×**74.09W, mb3.7**/5**, mb1 4.0**/5**, mb1mx3.8**/16**, Error ellipse: s-maj=145.0km s-min=47.9km az=74.0, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	**Lajitas Array**	**50.90**	**326**	P	P	03 46 37.3	-3.7
	0.4nm,0.5s,baz=146,slow=8.3,SNR=7.4						
PDAR	**Pinedale Array**	**64.37**	**332**	P	P	03 48 15.2	-0.8
	0.3nm,0.7s,baz=124,slow=6.5,SNR=2.8						
NVAR	**Mina Array Bea**	**65.82**	**323**	P	P	03 48 24.3	-1.0
	0.4nm,0.8s,baz=153,slow=8.1,SNR=3.8						
ULM	**Lac du Bonnet**	**65.87**	**345**	P	P	03 48 23.7	-1.7
	2.1nm,0.7s,baz=135,slow=5.7,SNR=3.3						
YKA	**Yellowknife Ar**	**81.65**	**342**	P	P	03 49 54.6	-2.4
	0.4nm,0.6s,baz=133,slow=6.3,SNR=9.9						
ASAR	**Alice Springs**	**134.38**	**217**	PKP	PKPdf	03 56 56.1	-2.5
	0.5nm,0.5s,baz=115,slow=1.9,SNR=5.6						

WRA	Warramunga Arr	136.90	221	PKP	PKPdf	03 57 00.5	-2.7
	0.6nm,0.5s,baz=131,slow=1.9,SNR=6.7						
FITZ	Fitzroy Crossi	143.43	213	PKP	PKPdf	03 57 14.2	-0.9
	3.0nm,0.5s,baz=143,slow=9.7,SNR=12						

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*NEIC **11** 04:36:35.1, 30.77S×71.80W, h14^{km}, ML2.6(GUC), After GUC.*

GUC 11 04:36:35.1±0.8**, 30.77S×71.80W, h14**^{km}±13^{km}**, MD3.5, ML2.6, 3C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	0.79	121	⇑iP	Pb	04 36 50.0	-0.2
CMCH				iS	Sb	04 37 00.9	+0.4
CMCH				AMP		04 37 01.1	
	comp=E,431nm,0.2s						
ILCH	Illapel	1.02	148	⇑iP	Pb	04 36 53.2	-0.8
ILCH				iS	Sb	04 37 06.6	-0.4
ILCH				AMP		04 37 08.3	
	comp=N,248nm,0.2s						
TLL	Tololo Astrono	1.04	55	⇓iP	Pb	04 36 53.8	-0.7
TLL				iS	Sb	04 37 08.9	+1.0
TLL				AMP		04 37 11.2	
	comp=N,310nm,0.4s						
PTCH	Petorca	1.66	154	⇑iP	Pn	04 37 03.6	-0.6
PTCH				iS	Sn	04 37 25.0	-0.4
PTCH				AMP		04 37 31.9	
	comp=E,236nm,0.3s						

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*IDC **11** 04:45:21.4±1.8, 11.11N×62.56W, h107^{km}±15^{km}, mb3.9/17, mb1 4.0/19, mb1mx4.0/24, Error ellipse: s-maj=14.6km s-min=12.2km az=99.0*

*NEIC **11** 04:45:22.2, 10.99N×62.31W, h95^{km}, mb4.5/8, MD4.0(CAR), After CAR.*

*FUNV **11** 04:45:22.2, 10.99N×62.31W, h95^{km}, MW3.4*

*TRN **11** 04:45:24.0, 11.14N×62.33W, h13^{km}, MD4.1*

ISC 11 04:45:20.5±0.2**, 11.04N**±0.04×**62.48W**±0.02**, h117**^{km}±2^{km}**, n67, σ1^{s}12**/82**, mb4.2**/26**, 3C-2D, Windward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.47	148	eP	P	04 45 36.1	-1.9
GUIV				eS	S	04 45 47.0	-4.1
ITEV	Isla Los Testi	0.71	296	eP	P	04 45 40.6	+0.9
ITEV				eS	S	04 45 53.5	-0.8
CRUV	Carupano	0.83	244	eP	P	04 45 41.6	+0.7
CRUV				eS	S	04 45 55.5	-0.6
GUNV	Guanoco	0.99	208	eP	P	04 45 42.6	+0.1
GUNV				eS	S	04 45 57.5	-1.3
TRN	Trinidad (W)	1.12	110	⇑iP	P	04 45 44.4	+0.6
TRN				eS	S	04 45 58.8	-2.6
BUAY	Buenos Aires	1.21	140	eP	P	04 45 47.8	+3.0
TPP	Pointe-a-Pierr	1.24	126	⇓iP	P	04 45 46.5	+1.4
TPP				eS	S	04 46 05.4	+1.8
SIPA	Siparia	1.31	133	eP	P	04 45 47.7	+1.8
GRW	Mount Saint Ca	1.37	36	eP	P	04 45 48.1	+1.5
GRW				eS	S	04 46 03.2	-3.1
TBH	Brigand Hill	1.49	112	⇓iP	P	04 45 48.6	+0.6
TBH				eS	S	04 46 09.0	+0.1
TPR	Prospect	1.67	85	⇑iP	P	04 45 50.6	+0.4
TPR				eS	S	04 46 11.3	-1.3
BOT	Bacolet	1.73	86	⇑iP	P	04 45 51.0	+0.1
BOT				eS	S	04 46 12.1	-1.8
ORIV	Oritupano	2.17	205	eP	P	04 45 57.5	+1.1
ORIV				eS	S	04 46 21.9	-1.6
IBAV	Isla La Blanqu	2.20	291	eP	P	04 45 58.7	+1.8
IBAV				eS	S	04 46 25.8	+1.4
PCRV	Puerto La Cruz	2.29	248	eP	P	04 45 59.5	+1.4
PCRV				eS	S	04 46 25.9	-0.6
RIOV	Rio Grande	3.03	167	eP	P	04 46 06.5	-1.5
RIOV				eS	S	04 46 37.9	-6.0
CUPV	Cœpira	3.40	254	eP	P	04 46 13.9	+1.0
CUPV				eS	S	04 46 52.8	-0.1
ORCV	Isla La Orchil	3.72	282	eP	P	04 46 18.5	+1.2
ORCV				eS	S	04 47 01.3	+0.6
CAOV	Caicara del Or	5.30	226	eP	P	04 46 37.9	-0.7
CAOV				eS	S	04 47 34.2	-4.7
BAUV	El Baul	5.87	250	eP	P	04 46 46.8	+0.6
BAUV				eS	S	04 47 49.1	-3.6
PAYV	Puerto Ayacuch	7.58	223	eP	P	04 47 08.8	-0.9
PAYV				eS	S	04 48 26.5	-8.0
SJG	San Juan	7.88	334	P	P	04 47 12.7	-1.0
	0.5nm,0.3s,baz=295,slow=17,SNR=1.8						
LPAZ	La Paz	27.73	192	P	P	04 51 02.5	+2.2
	0.9nm,0.7s,mb3.4,baz=359,slow=5.4,SNR=5.2						
LPAZ	La Paz	27.73	192	P	P	04 51 02.5	+2.2
BDFB	Brasilia	30.13	151	P	P	04 51 22.6	+0.9
	1.2nm,0.5s,mb3.8,baz=2.2,slow=12,SNR=4.2						
ELN	Prospectdale	30.83	331	P	P	04 51 26.2	-1.4
LRAL	Lakeview Retre	31.40	318	eP	P	04 51 32.7	0.0
OXF	Oxford	33.89	318	P	P	04 51 53.9	-0.3
LVC	Limon Verde	34.04	191	P	P	04 51 54.3	-1.3
	1.9nm,0.8s,mb4.0,baz=0.3,slow=6.7,SNR=4.2						
HKT	Hockley	36.27	306	eP	P	04 52 14.6	+0.2
SADO	Sadowa	36.53	340	P	P	04 52 15.3	-1.1
	8.2nm,1.1s,mb4.6,baz=166,slow=12,SNR=4.1						
LTX	Lajitas	42.45	302	eP	P	04 53 06.2	+0.6
TXAR	Lajitas Array	42.45	302	P	P	04 53 06.0	+0.4
	1.8nm,0.5s,mb4.0,baz=116,slow=8.2,SNR=29						
TXAR				PcP	PcP	04 54 56.8	-0.3
	1.4nm,0.5s,baz=119,slow=5.5,SNR=22						
AMTX	Amarillo	42.80	310	eP	P	04 53 07.6	-0.8
	4.1nm,0.5s,mb4.4						
CPRX	Cap Rock	43.78	307	eP	P	04 53 16.0	-0.3
SCHQ	Schefferville	43.81	356	P	P	04 53 16.8	+0.5
	2.1nm,0.5s,mb4.1,baz=206,slow=4.6,SNR=12						
SCHQ				PcP	PcP	04 54 59.0	-2.3
	1.3nm,0.6s,baz=108,slow=9.3,SNR=3.2						
GDL2	Guadalupe Moun	43.90	305	eP	P	04 53 17.7	+0.4
BNM	Barren Site	46.33	307	eP	P	04 53 37.5	+0.9
LPM	Los Pinos Moun	46.39	307	eP	P	04 53 37.7	+0.7
ANMO	Albuquerque	46.47	308	P	P	04 53 38.6	+1.0
	2.7nm,0.7s,mb4.1,baz=108,slow=7.8,SNR=13						
SDCO	Great Sand Dun	46.77	312	eP	P	04 53 39.5	-0.5
	5.0nm,0.6s,mb4.4						
ULM	Lac du Bonnet	47.77	331	P	P	04 53 46.4	-1.3
	2.8nm,0.4s,mb4.5,baz=132,slow=7.0,SNR=8.8						
ULM	Lac du Bonnet	47.77	331	P	P	04 53 45.1	-2.5
BW06	Boulder Array	51.61	317	eP	P	04 54 15.7	-1.3
	6.5nm,0.9s,mb4.7						
PDAR	Pinedale Array	51.61	317	P	P	04 54 16.2	-0.9
	5.4nm,0.7s,mb4.7,baz=116,slow=9.4,SNR=54						
PDAR				PcP	PcP	04 55 27.9	-1.4
	0.5nm,0.4s,baz=116,slow=6.7,SNR=5.1						
DAU	Daniels Canyon	51.91	313	eP	P	04 54 19.1	-0.3
HWUT	Hardware Ranch	52.55	314	eP	P	04 54 23.0	-1.2
	4.5nm,0.8s,mb4.5						
BGU	Big Grassy Mou	53.36	313	eP	P	04 54 29.4	-0.8
TPNV	Topopah Spring	54.64	308	eP	P	04 54 39.5	0.0
	3.1nm,0.8s,mb4.4						
HLID	Hailey	55.20	316	eP	P	04 54 42.3	-1.3
	2.8nm,0.6s,mb4.5						
NVAR	Mina Array Bea	56.57	309	P	P	04 54 53.2	-0.2
	0.5nm,0.6s,mb3.8,baz=97,slow=7.9,SNR=6.4						
ESDC	Sonseca Array	58.88	50	P	P	04 55 10.5	+0.9
	0.8nm,0.6s,mb4.0,baz=262,slow=8.0,SNR=5.2						
YKA	Yellowknife Ar	63.36	336	P	P	04 55 36.7	-2.7
	1.0nm,0.4s,mb4.1,baz=110,slow=7.3,SNR=36						
YKA	Yellowknife Ar	63.36	336	P	P	04 55 36.7	-2.7
NB2	NORSAR Subarra	72.52	29	P	P	04 56 37.4	+1.3
	2.8nm,0.8s,mb4.1,baz=262,slow=6.2						
NOA	NORSAR Array B	72.52	29	P	P	04 56 37.7	+1.6
	3.3nm,0.7s,mb4.3,baz=263,slow=5.9,SNR=10						
GERES	GERESS Array B	72.67	42	P	P	04 56 37.8	+0.5
	0.7nm,0.6s,mb3.6,baz=252,slow=4.2,SNR=8.7						
ILAR	Eielson Array	77.71	334	P	P	04 57 04.8	-0.8
	0.4nm,0.5s,mb3.4,baz=91,slow=4.8,SNR=17						
ARCES	ARCESS Array B	79.03	21	P	P	04 57 13.2	+0.5
	3.6nm,0.7s,mb4.3,baz=306,slow=10,SNR=6.3						
FINES	FINESS Array B	79.70	29	P	P	04 57 17.2	+0.7
	4.0nm,0.5s,mb4.5,baz=266,slow=3.5,SNR=39						
KAF	Kangasniemi	79.76	29	ep	P	04 57 16.9	+0.1
	6.7nm,0.9s,mb4.5						
JOF	Joensuu	81.98	27	ep	P	04 57 28.1	-0.4
	3.8nm,0.8s,mb4.3						
BRTR	Keskin Array B	87.68	50	P	P	04 57 58.9	+1.6
	1.9nm,0.7s,mb4.2,baz=270,slow=4.5,SNR=8.0						
CMAR	Chiang Mai Arr	145.43	32	PKPbc	PKPbc	05 04 47.8	+1.6
	1.8nm,0.5s,baz=318,slow=5.0,SNR=11						
STKA	Stephens Creek	149.61	223	PKPbc	PKPdf	05 04 57.6	+5.6
	2.2nm,0.6s,baz=86,slow=4.0,SNR=6.2						
CTA	Charters Tower	150.94	248	PKPbc	PKPdf	05 05 01.4	+7.1
	5.7nm,0.7s,baz=68,slow=2.7,SNR=9.8						
WRA	Warramunga Arr	161.55	239	PKP	PKPdf	05 05 08.5	+0.7
	0.5nm,0.7s,baz=78,slow=0.7,SNR=5.8						

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*NIED **11** 04:55:00, 28.90N×132.00E, h5^{km}, Mw3.8 Best double couple: M$_0$4.82×10^{14} NP1:φ$_s$214°, δ59°, λ-90°. NP2:φ$_s$33°, δ31°, λ-91°.*

*IDC **11** 04:55:39.1±0.9, 28.76N×132.23E, mb3.5/7, mb1 3.7/8, mb1mx3.6/22, ML3.6/1, Error ellipse: s-maj=33.0km s-min=20.5km az=97.0*

*JMA **11** 04:55:43.1±0.2, 28.87N×132.03E, h57^{km}, M3.6*

ISC 11 04:55:41.8±0.6**, 28.82N**±0.03×**132.04E**±0.05**, h33**^{km}**, n20, σ1^{s}09**/32**, mb3.5**/7**, West of Bonin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTN	Tanegashima 3	2.05	333	P	P	04 56 15.2	+0.7
JTN				S	S	04 56 39.1	-0.1
JNN	Nakanoshima	2.15	299	P	P	04 56 17.0	+1.1
JNN				S	S	04 56 42.8	+1.1
JAM	Amami Oshima	2.18	260	P	P	04 56 17.5	+1.1
JAM				S	S	04 56 43.7	+1.2
JKC	Kuchinoerabu	2.30	316	P	P	04 56 19.3	+1.3
JKC				S	S	04 56 44.9	-0.5
JTSR	Tashiro 2	2.54	338	P	P	04 56 22.0	+0.6
JTSR				S	S	04 56 50.1	-1.4
JNAR	Kushima--Naru	2.78	346	P	P	04 56 25.4	+0.4
JNAR				iS	S	04 56 56.1	-1.6
JTK	Tokunoshima	2.91	250	P	P	04 56 28.1	+1.2
JTK				S	S	04 57 01.7	+0.6
JMZ	Minamidaito 2	3.08	194	P	P	04 56 28.4	-0.7
JMZ				S	S	04 57 02.8	-2.4
JTZ	Takazaki	3.18	345	P	P	04 56 30.9	+0.2
JTZ				S	S	04 57 06.0	-1.9
JSJ	Shimokoshiki	3.49	325	P	P	04 56 34.9	-0.1
JSJ				S	S	04 57 13.1	-2.7
JOW	Kunigami	3.88	240	Pn	Pn	04 56 40.6	0.0
	8.1nm,0.3s,baz=115,slow=21,SNR=8.9						
JOW				Sn	Sn	04 57 23.9	-1.7
	8.8nm,0.3s,baz=107,slow=28,SNR=10						
JOW	Kunigami	3.88	240	P	P	04 56 40.8	+0.2
JOW				eS	S	04 57 25.0	-0.6
JIH	Iheya	4.02	245	S	S	04 57 28.3	-0.9
SONM	Songino Array	27.46	321	P	P	05 01 29.3	+2.6
	0.3nm,0.5s,mb3.1,baz=130,slow=9.9,SNR=2.6						
WRA	Warramunga Arr	48.52	177	P	P	05 04 23.8	0.0
	0.6nm,0.9s,mb3.6,baz=354,slow=7.7,SNR=3.7						
ASAR	Alice Springs	52.21	178	P	P	05 04 51.2	-0.6
	0.3nm,0.9s,mb3.2,baz=20,slow=11,SNR=4.0						
ILAR	Eielson Array	60.55	29	P	P	05 05 50.6	-0.3
	0.4nm,0.8s,mb3.6,baz=284,slow=7.4,SNR=4.0						
INK	Inuvik	65.17	24	P	P	05 06 21.7	+0.4
	0.7nm,0.8s,mb3.8,baz=268,slow=5.2,SNR=6.4						
FINES	FINESS Array B	72.27	331	P	P	05 07 06.1	+0.9
	4.0nm,1.1s,mb4.2,baz=90,slow=3.8,SNR=8.2						
YKA	Yellowknife Ar	74.74	26	P	P	05 07 20.4	+0.8
	0.2nm,0.7s,mb3.2,baz=298,slow=5.9,SNR=4.7						

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*NIED **11** 05:03:00, 28.80N×132.10E, h5^{km}, Mw3.9 Best double couple: M$_0$9.25×10^{14} NP1:φ$_s$208°, δ54°, λ-96°. NP2:φ$_s$38°, δ37°, λ-82°.*

*IDC **11** 05:03:25.4±0.9, 28.83N×132.19E, mb3.7/7, mb1 3.9/8, mb1mx3.8/22, ML3.5/1, Error ellipse: s-maj=30.7km s-min=19.5km az=90.0*

*JMA **11** 05:03:27.9±0.3, 28.85N×132.12E, h51^{km}, M3.9*

ISC 11 05:03:28.0±0.6**, 28.84N**±0.03×**132.03E**±0.05**, h33**^{km}**, n22, σ1^{s}15**/36**, mb3.7**/7**, West of Bonin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	Kikaishima	1.89	255	S	S	05 04 25.0	+3.8
JTN	Tanegashima 3	2.03	333	P	P	05 04 00.3	-0.1
JTN				S	S	05 04 24.3	-0.6
JNN	Nakanoshima	2.14	299	P	P	05 04 02.9	+1.0
JNN				S	S	05 04 28.6	+1.1
JAM	Amami Oshima	2.18	259	P	P	05 04 03.6	+1.1
JAM				S	S	05 04 29.3	+0.8
JKC	Kuchinoerabu	2.28	316	P	P	05 04 05.4	+1.5
JKC				S	S	05 04 32.1	+1.0
JTSR	Tashiro 2	2.52	338	P	P	05 04 07.8	+0.5
JTSR				S	S	05 04 36.1	-1.1
JNAR	Kushima--Naru	2.76	346	P	P	05 04 11.3	+0.4
JNAR				S	S	05 04 42.4	-1.0
JTK	Tokunoshima	2.91	250	P	P	05 04 14.0	+1.0
JTK				S	S	05 04 47.6	+0.4
JMZ	Minamidaito 2	3.09	194	P	P	05 04 14.9	-0.6
JMZ				S	S	05 04 49.0	-2.7
JTZ	Takazaki	3.16	345	P	P	05 04 16.9	+0.3
JTZ				S	S	05 04 51.7	-1.9
JSJ	Shimokoshiki	3.47	325	P	P	05 04 20.6	-0.3
JSJ				S	S	05 04 58.9	-2.6
JOW	Kunigami	3.88	240	Pn	Pn	05 04 26.1	-0.8
	7.0nm,0.3s,baz=112,slow=23,SNR=14						
JOW				Sn	Sn	05 05 09.6	-2.4
	8.9nm,0.3s,baz=43,slow=28,SNR=9.2						
JOW	Kunigami	3.88	240	P	P	05 04 27.3	+0.5
JOW				S	S	05 05 11.3	-0.5
JIH	Iheya	4.02	244	P	P	05 04 28.5	-0.2
JIH				S	S	05 05 13.5	-1.9
JTO	Tosashimizu	4.07	9	P	P	05 04 28.2	-1.2
JTO				S	S	05 05 09.2	-7.3
SONM	Songino Array	27.44	321	P	P	05 09 14.2	+1.5
	1.4nm,1.2s,mb3.4,baz=143,slow=7.2,SNR=4.9						
WRA	Warramunga Arr	48.54	177	P	P	05 12 09.5	-0.6
	0.5nm,0.6s,mb3.7,baz=354,slow=8.6,SNR=4.2						
BVAR	Borovoye Array	50.65	317	P	P	05 12 27.9	+2.1
	0.2nm,0.4s,mb3.4,baz=90,slow=4.3,SNR=3.2						
ASAR	Alice Springs	52.23	178	P	P	05 12 39.2	+1.1
	0.6nm,0.6s,mb3.7,baz=10,slow=10,SNR=11						
ILAR	Eielson Array	60.54	29	P	P	05 13 36.4	-0.7
	0.7nm,0.7s,mb3.9,baz=277,slow=6.0,SNR=8.3						
FINES	FINESS Array B	72.25	331	P	P	05 14 52.0	+0.7
	1.2nm,0.6s,mb4.0,baz=56,slow=6.9,SNR=6.3						
YKA	Yellowknife Ar	74.73	26	P	P	05 15 06.5	+0.8
	0.6nm,0.8s,mb3.6,baz=298,slow=5.7,SNR=10						

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*MOS **11** 05:27:33.8±0.7, 3.70N×128.40E, h33^{km}, mb4.8/12, Error ellipse: s-maj=30.4km s-min=11.2km az=118.4*

*BJI **11** 05:27:33.3, 3.35N×128.79E, h51^{km}, mB5.1, mb4.9, Ms4.4, Msz3.9*

*NEIC **11** 05:27:35.9±6.1, 3.54N×128.38E, h34^{km}±45^{km}, mb4.5/6, Error ellipse: s-maj=18.8km s-min=8.8km az=67.0*

*IDC **11** 05:27:36.8±0.8, 3.53N×128.32E, h46^{km}±7^{km}, mb4.2/15, mb1 4.4/15, mb1mx4.3/21, MS3.8/2, Ms1 3.8/2, ms1mx3.0/26, Error ellipse: s-maj=27.3km s-min=9.6km az=70.0*

ISC 11 05:27:39.6±1.3**, 3.57N**±0.06×**128.4E**±0.1**, h86**^{km}±11^{km}**, h47**^{km}±2.0^{km}**:pP-P, n77, σ0^{s}97**/70**, mb4.6**/32**, 5C, North of Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	3.99	327	eP	P	05 28 29.0	-11
KCP	Kidapawan	4.76	316	eP	P	05 28 51.0	+0.4
BUKP	Musuan	5.43	322	eP	P	05 29 00.4	+0.8
BUTP	Butuan	6.05	333	eP	P	05 29 03.9	-4.2
PAGZ	Pagadian	6.58	311	eP	P	05 29 15.1	-0.4
KAKA	Kakadu	16.66	166	eP	P	05 31 25.3	-3.8
	23nm,0.9s						
FITZ	Fitzroy Crossi	21.71	187	⇑iP	P	05 32 24.0	-1.1
	8.7nm,0.7s,mb4.2						
FITZ	Fitzroy Crossi	21.71	187	P	P	05 32 24.2	-0.9
	8.0nm,0.6s,mb4.2,baz=16,slow=6.3,SNR=67						
PMG	Port Moresby	22.69	125	P	P	05 32 35.2	+0.3
	14nm,0.7s,mb4.4,baz=310,slow=7.1,SNR=15						
PMG	Port Moresby	22.69	125	P	P	05 32 35.2	+0.4
PMG				pmax	pmax		
	comp=Z,14nm,0.7s						
WRAB	Tennant Creek	24.07	166	eP	P	05 32 48.8	+0.7
WRAB	Tennant Creek	24.07	166	eP	P	05 32 48.4	+0.3
	comp=Z,24nm,0.7s,mb4.6						
WRA	Warramunga Arr	24.07	166	P	P	05 32 48.7	+0.5
	comp=Z,10nm,0.5s,mb4.4,baz=345,slow=10,SNR=50						
WRA				S	S	05 37 00.9	+4.5
	comp=Z,1.8nm,0.9s,baz=346,slow=15,SNR=4.5						
WRA	Warramunga Arr	24.07	166	P	P	05 32 48.7	+0.5
WRA				S	S	05 37 00.9	+4.4
WRA				pmax	pmax		
	comp=Z,10.0nm,0.5s						
WRA				smax			
	comp=E,2.0nm,0.9s						
WB2	Warramunga Arr	24.08	166	eP	P	05 32 48.6	+0.4
WB2				eS	S	05 37 00.9	+4.4
ASAR	Alice Springs	27.59	169	P	P	05 33 20.1	-0.9
	comp=E,3.3nm,0.8s,mb3.9,baz=351,slow=8.4,SNR=22						
ASAR				PcP	PcP	05 36 37.6	+0.8
	comp=E,1.5nm,0.7s,baz=0.2,slow=1.7,SNR=4.6						
ASAR				S	S	05 37 57.5	+3.0
	comp=E,0.5nm,0.8s,baz=352,slow=19,SNR=3.2						
ASAR				ScP		05 40 16.4	
	comp=E,0.6nm,0.9s,baz=354,slow=3.1,SNR=4.1						
ASPA	Alice Springs	27.59	169	eP	P	05 33 20.2	-0.8
SSE	Sheshan	28.22	347	P	P	05 33 25.4	-1.2
SSE				S	S	05 38 02.3	-2.2
SSE				AMB	AMB		
	comp=Z,28nm,0.8s,mb4.8						
SSE				AMB	AMB		
	comp=Z,63nm,4.8s						
SSE				LR	LR		
	comp=Z,60nm,18.8s						
CTA	Charters Tower	29.31	144	eP	P	05 33 40.4	+3.9
	comp=Z,4.0nm,0.8s,mb4.1						
CTA	Charters Tower	29.31	144	P	P	05 33 37.4	+1.0
	comp=Z,5.0nm,0.7s,mb4.2,baz=322,slow=8.4,SNR=8.6						
CTA	Charters Tower	29.31	144	P	P	05 33 37.4	+0.9
CTA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NJ2	Nanjing	29.73	343	eP	P	05 33 40.9	+0.9
NJ2				PP	PP	05 34 43.2	+3.4
NJ2				S	S	05 38 24.0	-4.5
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.9						
NJ2				AMB	AMB		
	comp=Z,390nm,4.2s						
NJ2				LR	LR		
	comp=N,300nm,13.0s						
NJ2				LR	LR		
	comp=E,310nm,15.1s						
NJ2				LR	LR		
	comp=Z,240nm,12.0s						
WHN	Wuhan	29.95	335	eP	P	05 33 42.5	+0.5
CMAR	Chiang Mai Arr	32.42	299	P	P	05 34 03.9	+0.2
	comp=Z,1.2nm,0.4s,mb4.0,baz=118,slow=8.3,SNR=6.5						
CMAR				PcP	PcP	05 36 50.0	+0.6
	comp=Z,0.8nm,0.4s,baz=127,slow=4.5,SNR=4.5						
CMAR	Chiang Mai Arr	32.42	299	P	P	05 34 03.9	+0.2
CMAR						05 36 50.0	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FORT	Forrest	34.16	181	eP	P	05 34 17.7	-0.9
	comp=Z,83nm,0.7s,mb5.7						
XAN	Xi’an	35.34	331	P	P	05 34 28.3	-0.4
XAN				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.8						
STKA	Stephens Creek	37.41	161	eP	P	05 34 45.7	-0.4
	comp=Z,8.1nm,0.6s,mb4.8						
STKA	Stephens Creek	37.41	161	P	P	05 34 45.7	-0.4
	comp=Z,9.3nm,0.6s,mb4.9,baz=334,slow=8.2,SNR=30						
STKA				PcP	PcP	05 37 03.8	0.0
	comp=Z,2.2nm,0.6s,baz=308,slow=5.0,SNR=2.7						
STKA				LR	LR	05 51 58.9	
	comp=Z,130nm,18.6s,baz=205,slow=39						
BJI	Beijing	37.96	345	P	P	05 34 49.7	-0.9
BJI				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.8						
BJI				LR	LR		
	comp=Z,52nm,22.2s						
LZH	Lanzhou	39.52	328	eP	P	05 35 05.5	+1.9
LZH				AP	pP	05 35 19.8	-4.4
LZH				XP	sP	05 35 27.1	-7.2
LZH				AMB	AMB		
	comp=Z,41nm,1.1s,mb5.2						
LZH				AMB	AMB		
	comp=Z,190nm,5.8s						
LZH				LR	LR		
	comp=N,222nm,15.4s						
LZH				LR	LR		
	comp=Z,290nm,17.3s						
HHC	Hu-ho-hao-te	40.10	340	eP	P	05 35 09.2	+0.8
HHC				PP	PP	05 36 46.6	+1.0
HHC				AMB	AMB		
	comp=Z,23nm,0.9s,mb5.0						
HHC				LR	LR		
	comp=N,254nm,12.0s						
HHC				LR	LR		
	comp=E,182nm,17.7s						
HHC				LR	LR		
	comp=Z,130nm,16.3s						
MDJ	Mudanjiang	40.89	1	P	P	05 35 15.5	+0.7
MDJ				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,274nm,4.6s						
SHL	Shillong	41.34	305	eP	P	05 35 19.7	+1.0
GTA	Gaotai	44.12	328	eP	P	05 35 42.4	+1.1
GTA				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.2						
SONM	Songino Array	48.01	340	P	P	05 36 10.8	-1.1
	comp=Z,3.2nm,0.9s,mb4.1,baz=148,slow=8.1,SNR=18						
SONM				PcP	PcP	05 37 39.2	+0.2
	comp=Z,3.3nm,0.9s,baz=158,slow=3.4,SNR=6.7						
WMQ	Urumqi	53.83	324	P	P	05 36 57.2	+1.2
DDI	Dehra Dun	54.44	305	e	P	05 37 01.7	+1.1
BOD	Bodaibo	55.28	351	eP	P	05 37 05.4	-0.9
YAK	Yakutsk	58.34	1	⇑eP	P	05 37 27.4	-0.5
YAK				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.6						
YAK				MLR	MLR		
	comp=Z,100nm,13.0s						
MKAR	Makanchi Array	58.66	325	eP	P	05 37 30.6	+0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MKAR	Makanchi Array	58.66	325	iP	P	05 37 30.6	+0.3
ZAL	Zalesovo	61.51	332	iP	P	05 37 48.3	-1.4
ZAL				pmax	pmax		
	comp=Z,32nm,0.6s						
AAK	Ala-Archa	61.62	317	⇑eP	P	05 37 50.9	+0.3
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
AAK	Ala-Archa	61.62	317	⇑eP	P	05 37 50.0	-0.6
BVA0	Borovoye Array	68.38	327	iP	P	05 38 33.7	-0.3
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb3.9						
BVAR	Borovoye Array	68.38	327	P	P	05 38 33.6	-0.4
	comp=Z,12nm,0.9s,mb4.8,baz=117,slow=6.6,SNR=44						
BVAR				pP	pP	05 38 46.8	-10
	comp=Z,19nm,1.2s,baz=135,slow=8.2,SNR=5.5						
ARU	Arti	75.98	327	eP	P	05 39 17.7	-1.1
IMA	Indian Mountai	81.85	24	eP	P	05 39 52.6	+2.1
	comp=Z,51nm,0.9s,mb5.3						
VNDA	Vanda	83.06	173	P	P	05 39 56.0	-0.6
	comp=Z,1.7nm,0.8s,mb3.9,baz=8.1,slow=3.2,SNR=5.2						
VNDA				LR	LR	06 17 11.1	
	comp=Z,51nm,18.1s,baz=77,slow=36						
VNDA	Vanda	83.06	173	P	P	05 39 56.0	-0.5
VNDA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
VNDA				MLR	MLR		
	comp=Z,51nm,18.1s						
ILAR	Eielson Array	84.52	25	P	P	05 40 03.8	-0.2
	comp=Z,4.4nm,1.1s,mb4.3,baz=247,slow=5.1,SNR=16						
ILAR	Eielson Array	84.52	25	P	P	05 40 03.8	-0.2
ILAR				pmax	pmax		
	comp=Z,4.0nm,1.1s						
VRSR	Storozhevoye	86.76	321	eP	P	05 40 15.6	+0.2
VRSR				pmax	pmax		
	comp=N,3.0nm,0.6s						
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
VRSR				pmax	pmax		
	comp=E,7.0nm,0.7s						
OBN	Obninsk	88.17	325	⇑eP	P	05 40 21.6	-0.4
OBN				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s						
ANN	Anapa	88.22	315	eP	P	05 40 18.0	-4.5
ANN				pmax	pmax		
	comp=Z,74nm,1.4s,mb5.5						
ARCES	ARCESS Array B	91.18	340	P	P	05 40 35.6	-0.3
	comp=Z,2.8nm,0.7s,mb4.5,baz=92,slow=5.7,SNR=9.3						
ARCES	ARCESS Array B	91.18	340	P	P	05 40 35.6	-0.3

ARCES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	92.77	332	P	P	05 40 42.8	-0.6
	comp=Z,3.1nm,0.9s,mb4.6,baz=79,slow=3.8,SNR=11						
FINES	FINESS Array B	92.77	332	iP	P	05 40 43.1	-0.2
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
AKASG	Malin Array Be	93.08	321	P	P	05 40 44.2	-0.8
	comp=Z,0.2nm,0.4s,mb3.8,baz=65,slow=4.5,SNR=6.1						
AKASG				pP	pP	05 40 58.0	-11
	comp=Z,1.9nm,0.8s,baz=65,slow=4.5,SNR=4.1						
AKASG	Malin Array Be	93.08	321	P	P	05 40 44.2	-0.8
AKASG				*PP	pP	05 40 58.1	-10
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA	Yellowknife Ar	98.94	25	P	P	05 41 12.0	+0.6
	comp=Z,0.5nm,0.7s,mb4.2,baz=297,slow=4.2,SNR=9.1						
YKA				pP	pP	05 41 25.8	-9.2
	comp=Z,0.6nm,0.8s,baz=298,slow=4.6,SNR=7.1						
YKA				PKiKP		05 45 42.6	
	comp=Z,0.3nm,0.8s,baz=300,slow=1.9,SNR=5.1						
YKA	Yellowknife Ar	98.94	25	P	P	05 41 12.0	+0.6
YKA				*PP	pP	05 41 25.8	-9.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SNAA	Sanae	105.48	194	e		05 45 49.6	
VNA2	Neumayer--Watz	107.08	194	e		05 45 53.3	
VNA2	Neumayer--Watz	107.08	194	e	PP	05 46 10.9	-7.1
VNA3	Neumayer Olymp	107.39	193	e		05 45 58.5	
VNA3	Neumayer Olymp	107.39	193	e	PP	05 46 16.0	-4.1
VNA1	Neumayer--Stat	107.48	194	e		05 45 54.9	
VNA1	Neumayer--Stat	107.48	194	e	PP	05 46 13.0	-7.8
PDAR	Pinedale Array	110.36	42	PKKPab		05 57 15.0	
	comp=Z,0.5nm,0.8s,baz=108,slow=2.9,SNR=4.1						
TXAR	Lajitas Array	120.35	53	PKP	PKPdf	05 46 24.7	+3.1
	comp=Z,0.2nm,0.5s,baz=288,slow=0.7,SNR=6.2						
DBIC	Dimbokro	132.26	282	PKP	PKPdf	05 46 46.1	+1.2
	comp=Z,5.3nm,1.1s,baz=322,slow=3.3,SNR=3.9						
DBIC	Dimbokro	132.26	282	PKIKP	PKPdf	05 46 46.1	+1.2
DBIC				pmax	pmax		
	comp=Z,5.0nm,1.1s						
LPAZ	La Paz	159.40	129	PKPab	PKPab	05 48 12.1	+2.9
	comp=Z,2.8nm,0.7s,baz=227,slow=4.4,SNR=16						
LPAZ	La Paz	159.40	129	PKP2	PKPab	05 48 12.1	+2.9
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.7s						

*SOF **11** 05:46:20.4, 40.20N×25.03E, h2^{km}, MD2.9*
*NEIC **11** 05:46:21.9, 40.12N×24.91E, h25^{km}, MD3.4(ATH), After ATH.*
*ATH **11** 05:46:22.0, 40.12N×24.93E, h25^{km}±4^{km}, MD3.4/5*
*CSEM **11** 05:46:22.7±0.1, 40.19N×24.99E, h10^{km}, ML3.4, Error ellipse: s-maj=2.0km s-min=1.6km az=69.0*
*THE **11** 05:46:23.0, 40.14N×24.95E, h7^{km}, ML3.4*
ISC 11 05:46:21.7±0.5**, 40.18N**±0.02×**24.95E**±0.03**, h5**^{km}±5^{km}**, n33, σ1^{s}03**/45**, 1C-4D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOS	Limnos	0.26	158	ePg	Pg	05 46 27.9	+0.9
LOS				eSg	Sg	05 46 31.3	+0.8
LIA	Limnos Island	0.33	147	⇓PB	Pb	05 46 29.6	-0.1
LIA				SB	Sb	05 46 34.0	-1.0
OUR	Ouranopolis	0.76	282	ePg	Pg	05 46 37.8	+1.0
BOZC	Bozcaada	0.91	111	iP	Pb	05 46 40.5	+0.9
BOZC				iS	Sb	05 46 51.0	-0.8
PAIG	Paliouri	1.01	256	ePg	Pg	05 46 41.8	0.0
PAIG				eSg	Sg	05 46 55.9	+0.7
RDO	Rodhopi	1.06	25	⇑PN	Pn	05 46 43.3	+0.1
ALN	Alexandroupoli	1.10	49	ePg	Pg	05 46 43.5	-0.1
ALN				eSg	Sg	05 47 00.1	+1.8
PLG	Polygyros	1.17	280	⇓ePN	Pn	05 46 44.5	-0.1
AOS	Alonnisos	1.30	220	ePb	Pb	05 46 46.2	-0.1
AOS				eSb	Sb	05 47 04.4	+1.2
SOH	Sokhos	1.38	298	ePb	Pb	05 46 47.7	+0.2
SOH				eSb	Sb	05 47 07.8	+2.5
PRK	Paraskevi	1.38	132	⇓PN	Pn	05 46 47.9	+0.2
SRS	Serrai	1.40	313	ePb	Pb	05 46 48.0	+0.1
SRS				eSb	Sb	05 47 07.7	+1.9
NVR	Nevrokopi	1.43	325	⇑PN	Pn	05 46 48.8	+0.4
KDZ	Kurdzhali	1.51	13	iPg	Pg	05 46 49.0	-2.9
RZN	Rozhen	1.52	353	iPg	Pg	05 46 52.0	0.0
XOR	Xorichti	1.58	240	ePb	Pb	05 46 49.8	-1.2
NEO	Neokhori	1.59	237	⇓PN	Pn	05 46 49.5	-1.2
MMB	Musomiste	1.69	327	iP	Pn	05 46 51.5	-0.6
KNT	Kendrikon	1.84	303	ePb	Pb	05 46 54.7	-0.8
KNT				eSb	Sb	05 47 20.0	+1.1
KNT	Kendrikon	1.84	303	eSb	Sb	05 47 20.0	+1.1
LIT	Litokhoron	1.89	268	ePb	Pb	05 46 54.4	-1.9
LIT				eSb	Sb	05 47 18.9	-1.3
DIM	Dimitrovgrad	1.92	13	iP	Pn	05 46 55.0	-0.4
PLD	Plovdiv	1.93	355	iP	Pn	05 46 56.0	+0.4
GRG	Griva	2.09	293	ePn	Pn	05 46 58.3	+0.5
GRG				eSn	Sn	05 47 24.6	0.0
KKB	Krupnik	2.20	321	iP	Pn	05 47 00.0	+0.6
AGG	Agios Georgios	2.33	241	ePn	Pn	05 47 00.7	-0.5
BTOK	Tokmak	2.40	99	iP	Pn	05 47 04.1	+1.7
BTOK				iS	Sn	05 47 37.2	+4.6
PGB	Panagyurishte	2.44	346	iPg	Pg	05 47 08.2	-2.2
JMB	Yambol	2.60	28	iP	Pn	05 47 05.0	-0.1
VTS	Vitosha	2.74	332	iPg	Pg	05 47 14.0	-2.4
FNA	Florina	2.79	284	ePn	Pn	05 47 08.3	+0.4
PVL	Pavlikeni	3.05	5	iP	Pn	05 47 10.5	-1.0
SZH	Strazhica	3.17	13	iP	Pn	05 47 12.8	-0.5

*IDC **11** 06:34:35.4±3.2, 38.00N×72.22E, mb3.8/4, mb1 3.8/6, mb1mx3.6/21, ML3.2/2, Error ellipse: s-maj=58.5km s-min=35.1km az=13.0*
ISC 11 06:34:40.1±1.6**, 38.07N**±0.06×**72.6E**±0.2**, h51**^{km}±17^{km}**, n22, σ0^{s}97**/25**, mb3.6**/5**, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	4.14	11	P	P	06 35 44.2	+1.7
	SNR=32						
UCH	Uchtor	4.41	19	P	P	06 35 45.2	-1.0
	SNR=14						
KZA	Kyzart	4.49	26	P	P	06 35 47.2	-0.2
	SNR=8.8						
EKS2	Erkin-Say	4.67	11	P	P	06 35 53.2	+3.2
	SNR=8.2						
AAK	Ala-Archa	4.79	17	P	P	06 35 51.3	-0.3
	SNR=16						
CHMS	Chumysh	5.19	18	P	P	06 35 56.7	-0.4
	SNR=10						
DLH	Dalhousie	6.17	152	eP	P	06 36 11.0	+0.2
DLH				eS	S	06 37 29.0	+8.2
THN	Thein Dam	6.18	155	eP	P	06 36 11.1	+0.2
	2.1nm,0.3s						
THN				eS	S	06 37 25.0	+3.9
SDNR	Sundarnagar	7.48	150	eP	P	06 36 27.2	-1.9
	333nm,0.2s						
SDNR				e		06 37 53.6	
DDI	Dehra Dun	8.95	148	eS	S	06 38 30.6	+0.7
NDI	New Delhi	10.12	156	eS	S	06 38 45.0	-14
KOLN	Koldanda	13.81	135	eP	P	06 37 49.6	-5.2
	4.1nm,0.3s						
KOLN				eS	S	06 40 19.3	-8.1
KKN	Kakani	14.77	130	eP	P	06 38 08.7	+1.3
	14nm,0.6s						
DMN	Daman	14.80	131	eP	P	06 38 06.8	-1.0
	8.5nm,0.5s						
PKI	Pulchoki	15.01	130	eP	P	06 38 10.0	-0.5
BVAR	Borovoye Array	15.04	355	Pn	P	06 38 06.7	-3.9
	0.1nm,0.3s,baz=173,slow=14,SNR=2.4						
ZAL	Zalesovo	17.95	24	P	P	06 38 47.1	-0.3
	0.3nm,0.3s,baz=261,slow=12,SNR=4.3						
SONM	Songino Array	26.41	57	P	P	06 40 17.5	+3.9
	1.0nm,0.8s,mb3.4,baz=247,slow=9.4,SNR=5.4						
FINES	FINESS Array B	36.92	325	P	P	06 41 45.2	-0.3
	1.0nm,0.5s,mb3.9,baz=112,slow=10,SNR=8.7						
ARCES	ARCESS Array B	40.20	336	P	P	06 42 13.0	+0.2
	2.8nm,1.0s,mb4.0,baz=115,slow=8.5,SNR=2.9						
NB2	NORSAR Subarra	43.91	322	P	P	06 42 43.3	+0.2
	1.1nm,0.8s,mb3.6,baz=107,slow=7.4						
YKA	Yellowknife Ar	79.61	3	P	P	06 46 42.9	0.0
	0.3nm,0.8s,mb3.3,baz=353,slow=5.6,SNR=3.9						

*IDC **11** 06:41:21.0±0.4, 6.51S×130.45E, mb5.1/18, mb1 5.1/22, mb1mx5.1/24, ML5.2/4, MS3.9/11, Ms1 3.9/11, ms1mx3.8/22, Error ellipse: s-maj=21.5km s-min=11.4km az=78.0*
*MOS **11** 06:41:24.2±1.3, 6.60S×130.46E, h33^{km}, mb5.1/17, Error ellipse: s-maj=18.0km s-min=9.3km az=110.6*
*DJA **11** 06:41:24.1±1.4, 7.72S×130.86E, h20^{km}±11^{km}, mb5.4/7, Error ellipse: s-maj=27.9km s-min=7.1km az=168.0*
*BJI **11** 06:41:24.9, 6.60S×130.68E, h49^{km}, mB5.3, mb5.1, Ms4.4, Msz4.1*
*NEIC **11** 06:41:26.8±1.1, 6.51S×130.41E, h40^{km}±9^{km}, mb5.1/15, Error ellipse: s-maj=8.8km s-min=6.1km az=67.0*
*HRVD **11** 06:41:26.8±0.6, 6.51S×130.31E, h86^{km}±3^{km}, MW4.9/46, Centroid moment Tensor Solution. LP body waves: s18,c24;Mantle waves: s46,c74; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.55±.18; $M_{\theta\theta}$-3.69±.13; $M_{\phi\phi}$2.14±.19; $M_{r\theta}$-0.43±.12; $M_{\theta\phi}$0.80±.17; $M_{\phi r}$0.63±.15; Best double couple: $M_0$3.21×10^{16} NP1:ϕ_s56°,δ65°,λ18°. NP2:ϕ_s318°,δ73°,λ154°. Principal axes: T 2.57, Plg30°, Azm275°; N 1.27, Plg59°, Azm108°; P -3.85, Plg5°, Azm8°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 11 06:41:31.3±0.9**, 6.59S**±0.04×**130.55E**±0.04**, h99**^{km}±8^{km}**, h45**^{km}±4.7^{km}**:pP-P, n232, σ1^{s}22**/184**, mb5.2**/61**, 21C-20D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	6.36	163	⇓iP	P	06 43 00.9	-3.1
	352nm,0.3s						
KAKA				eS	S	06 44 08.8	-6.9
BUNI	Buntu Taipa	10.60	285	⇓eP	P	06 44 08.1	+6.5
BUNI	Buntu Taipa	10.60	285	⇓eP	P	06 44 08.2	+6.6
	107nm,0.4s						
YOMI	Yo Moklole	10.72	69	⇓eP	P	06 44 02.3	-0.9
	136nm,0.4s						
YOMI	Yo Moklole	10.72	69	⇓eP	P	06 44 02.2	-1.0
	496nm,0.6s						
YOMI				⇑iS	S	06 45 54.8	-7.0
NINI	Niniconang	10.96	281	⇑eP	P	06 44 09.2	+2.7
	437nm,1.6s						
NINI	Niniconang	10.96	281	⇑ipP		06 44 12.6	
NINI	Niniconang	10.96	281	⇑eP	P	06 44 08.9	+2.4
	874nm,1.6s						
FITZ	Fitzroy Crossi	12.40	202	eP	P	06 44 19.2	-6.4
	123nm,0.3s						
FITZ				eS	S	06 46 29.5	-12
FITZ	Fitzroy Crossi	12.40	202	Pn	P	06 44 18.9	-6.7
	27nm,0.3s,baz=22,slow=10,SNR=218						
FITZ				Sn	S	06 46 27.3	-15
	34nm,0.3s,baz=171,slow=12,SNR=11						
FITZ				LR	LR	06 49 55.4	
	comp=Z,504nm,18.3s,baz=54,slow=41						
WRAB	Tennant Creek	13.76	165	iP	P	06 44 37.4	-6.0
WRAB	Tennant Creek	13.76	165	eP	P	06 44 37.4	-6.0
WRA	Warramunga Arr	13.77	165	Pn	P	06 44 37.1	-6.4
	12nm,0.3s,baz=348,slow=13,SNR=183						
WRA				Sn	S	06 46 59.2	-15
	9.6nm,0.3s,baz=351,slow=18,SNR=5.1						
WB2	Warramunga Arr	13.77	165	eP	P	06 44 37.4	-6.1
WB2				eS	S	06 47 02.6	-12
MATI	Mati	14.12	342	eP	P	06 44 57.9	+10
KEDI	Kedomdong	14.44	262	eP	P	06 44 51.5	-0.7
	33nm,0.3s						
KEDI	Kedomdong	14.44	262	eP	P	06 44 51.6	-0.6
	67nm,0.3s						
KEDI				⇑iS	S	06 47 35.5	+5.4
RATI	Rata	15.04	261	⇓eP	P	06 45 01.3	+1.5
	250nm,0.2s						
RATI	Rata	15.04	261	⇓eP	P	06 45 01.1	+1.3
	250nm,0.2s						
BUKP	Musuan	15.38	339	eP	P	06 45 06.9	+2.6
KELI	Kelakatan	16.01	263	⇓eP	P	06 45 13.2	+1.1
	43nm,0.3s						
PAGZ	Pagadian	16.03	333	eP	P	06 45 14.8	+2.5
SRDI	Scrawed	16.38	262	⇓iP	P	06 45 15.5	-1.2
	51nm,0.3s						
SRDI	Scrawed	16.38	262	⇓iP	P	06 45 15.6	-1.1
	103nm,0.3s						
SRDI				⇑iS	S	06 48 19.4	+4.8
PMG	Port Moresby	16.68	101	Pn	P	06 45 19.5	-0.9
	12nm,0.3s,baz=267,slow=4.6,SNR=32						
PMG				Sn	S	06 48 12.2	-9.2
	1.3nm,0.3s,baz=106,slow=23,SNR=3.1						
ASAR	Alice Springs	17.28	170	P	P	06 45 24.0	-3.8
	17nm,0.3s,baz=18,slow=13,SNR=203						
ASAR				S	S	06 48 26.2	-8.6
	12nm,0.3s,baz=353,slow=23,SNR=11						
ASAR				LR	LR	06 52 44.7	
	comp=Z,342nm,20.0s,baz=343,slow=39						
ASPA	Alice Springs	17.28	170	eP	P	06 45 24.1	-3.7
ASPA				eS	S	06 48 22.6	-12
MSLP	Maasin	17.56	341	eP	P	06 45 33.8	+2.4
BESP	Borongan	18.78	344	eP	P	06 45 46.2	+0.7
GUIM	Jordan	18.85	335	eP	P	06 45 50.5	+4.2
CUYO	Cuyo Island	19.76	331	eP	P	06 45 56.7	+0.7
CTA	Charters Tower	20.30	133	⇑iP	P	06 46 03.0	+1.4
	41nm,0.8s						
CTA	Charters Tower	20.30	133	P	P	06 46 01.6	0.0
	45nm,0.7s,baz=311,slow=12,SNR=76						
CTA				S	S	06 49 38.9	+0.3
	8.5nm,0.8s,baz=272,slow=22,SNR=2.9						
CTA				LR	LR	06 54 03.6	
	comp=Z,131nm,19.7s,baz=228,slow=37						
CTA	Charters Tower	20.30	133	P	P	06 46 01.6	0.0
CTA				S	S	06 49 38.9	+0.3
CTA				pmax	pmax		
	comp=Z,45nm,0.7s						
CTA				smax			
	comp=E,9.0nm,0.8s						
CTA				MLR	MLR		
	comp=Z,131nm,19.7s						
ENPP	El Nido	20.86	328	eP	P	06 46 08.2	+0.9
SJMP	San Jose	21.12	334	eP	P	06 46 14.2	+4.3
BOAC	Boac	21.72	337	eP	P	06 46 17.3	+1.5
LUBP	Lubang	22.64	333	eP	P	06 46 26.8	+1.9
BALP	Baler	23.91	338	eP	P	06 46 37.9	+0.8
FORT	Forrest	24.17	185	eP	P	06 46 40.7	+1.1
	comp=Z,160nm,1.0s,mb5.3						
FORT				e	tx	06 46 50.0	
FORT				eS	S	06 51 06.2	+19
CAUP	Cauayan	24.93	340	eP	P	06 46 49.7	+2.7
BOLP	Bolinao	25.14	335	eP	P	06 46 49.1	+0.1
APYP	Conner	25.98	339	eP	P	06 46 55.2	-1.6
STKA	Stephens Creek	27.19	159	⇑iP	P	06 47 08.0	+0.2
	comp=Z,16nm,0.7s,mb4.7						
STKA	Stephens Creek	27.19	159	P	P	06 47 08.0	+0.2
	comp=Z,20nm,0.7s,mb4.8,baz=332,slow=8.7,SNR=58						
STKA				S	tx	06 51 54.1	
	comp=Z,7.9nm,0.8s,baz=297,slow=23,SNR=1.6						
STKA				LR	LR	06 59 23.1	
	comp=Z,698nm,19.2s,baz=343,slow=40						
STKA	Stephens Creek	27.19	159	eP	P	06 47 07.7	0.0
KLBR	Kellerberrin	27.60	204	⇑iP	P	06 47 11.3	-0.2
	comp=Z,169nm,1.7s,mb5.3						
MUN	Mundaring	28.59	206	eP	P	06 47 20.3	-0.1
	comp=Z,10nm,0.5s,mb4.7						
MUN				eS	tx	06 52 48.7	
NWAO	Narrogin (SRO)	28.98	204	P	P	06 47 23.5	-0.4
	comp=Z,7.2nm,0.3s,mb4.7,baz=50,slow=9.3,SNR=17						
NWAO	Narrogin (SRO)	28.98	204	P	P	06 47 23.5	-0.4
NWAO				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ARMA	Armidale	30.88	143	eP	P	06 47 42.0	+1.3
QIZ	Qiongzhong	32.63	322	eP	P	06 47 55.2	-0.9
JOW	Kunigami	33.30	356	P	P	06 48 00.4	-1.4
	comp=Z,35nm,0.8s,mb5.3,baz=187,slow=13,SNR=5.3						
JOW				LR	LR	06 59 52.2	
	comp=Z,125nm,21.2s,baz=290,slow=34						
CNB	Canberra Magne	33.41	151	eP	P	06 48 03.7	+1.0
	comp=Z,14nm,0.8s,mb4.8						
TOO	Toolangi	33.70	158	eP	P	06 48 06.8	+1.7
	comp=Z,6.1nm,0.6s,mb4.6						
CBIJ	Chichi jima	35.33	18	P	P	06 48 18.4	-0.7
	comp=Z,47nm,0.4s,mb5.7,baz=274,slow=20,SNR=7.7						
DZM	Mont Dzumac	37.89	118	⇑iP	P	06 48 42.1	+1.5
SSE	Sheshan	38.53	347	P	P	06 48 40.1	-5.8
SSE				AP	pP	06 48 53.1	-16
SSE				S	S	06 54 33.4	-0.5
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,28nm,4.2s						
SSE				LR	LR		
	comp=N,55nm,24.1s						
SSE				LR	LR		
	comp=E,44nm,24.2s						
NANT	Nan	38.77	311	PG	P	06 48 46.0	-1.9
NANT				SG	Px	06 48 47.0	
CM31	Chiang Mai Arr	39.90	309	eP	P	06 48 57.3	0.0
	comp=E,41nm,0.7s,mb5.4						
CMAR	Chiang Mai Arr	39.90	309	P	P	06 48 57.1	-0.2
	comp=E,39nm,0.6s,mb5.4,baz=136,slow=7.3,SNR=151						
CMAR	Chiang Mai Arr	39.90	309	eP	P	06 48 57.4	+0.1
NJ2	Nanjing	40.02	344	eP	P	06 48 56.9	-1.3
NJ2				AP	pP	06 49 09.8	-12
NJ2				XP	sP	06 49 14.6	-18
NJ2				PP	PP	06 50 31.4	-4.1
NJ2				S	S	06 54 56.0	-0.2
NJ2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,420nm,3.6s						
NJ2				LR	LR		
	comp=N,340nm,14.3s						
NJ2				LR	LR		
	comp=E,340nm,14.3s						
NJ2				LR	LR		
	comp=Z,290nm,17.0s						
WHN	Wuhan	40.06	338	⇓P	P	06 48 59.0	+0.5
CHG	Chiang Mai	40.10	310	⇑P	P	06 48 59.1	+0.1
	comp=Z,99nm,0.8s,mb5.7						
CHRT	Chiangrai	40.10	312	⇑P	P	06 48 59.0	0.0
	comp=Z,310nm,0.8s,mb6.2						
GYA	Guiyang	40.20	326	⇑iP	P	06 49 00.0	+0.2
GYA				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
GYA				AMB	AMB		
	comp=Z,60nm,4.4s						
JHJ	Hachijo jima 2	40.45	12	LR	LR	07 03 35.1	
	comp=Z,293nm,21.4s,baz=189,slow=33						
KMI	Kunming	41.55	320	⇑eP	P	06 49 11.8	+0.9
KMI				AMB	AMB		
	comp=Z,22nm,0.8s,mb4.9						
KMI				AMB	AMB		
	comp=Z,87nm,3.1s						
KMI				LR	LR		
	comp=N,165nm,14.7s						
KMI				LR	LR		
	comp=E,139nm,17.5s						
KMI				LR	LR		
	comp=Z,139nm,16.0s						
MAT	Matsushiro	43.51	9	P	P	06 49 26.4	-0.3
MAT				S	pP	06 49 45.4	-4.6
MAT	Matsushiro	43.51	9	eP	P	06 49 26.0	-0.7
MAT				eS	pP	06 49 45.0	-5.0
KS15	Wonju Array Si	43.88	357	eP	P	06 49 29.6	-0.1
CD2	Chengdu	45.26	327	P	P	06 49 40.1	-0.8
CD2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
XAN	Xi’an	45.31	334	P	P	06 49 39.6	-1.6
XAN				AMB	AMB		
	comp=Z,23nm,0.9s,mb4.9						
IMP	Imphal	47.37	313	⇓iP	P	06 49 56.4	-1.2
BJI	Beijing	48.26	345	P	P	06 50 03.8	-0.5
BJI				AMB	AMB		
	comp=Z,25nm,0.9s,mb5.0						
LZH	Lanzhou	49.31	331	eP	P	06 50 12.5	+0.1
LZH				AP	pP	06 50 25.5	-11
LZH				XP	sP	06 50 31.5	-16
LZH				AMB	AMB		
	comp=Z,41nm,1.4s,mb5.2						
LZH				AMB	AMB		
	comp=Z,200nm,5.9s						
SHL	Shillong	49.34	312	⇑eP	P	06 50 11.7	-1.1
HHC	Hu-ho-hao-te	50.33	341	eP	P	06 50 20.7	+0.5
HHC				XP	sP	06 50 38.0	-17
HHC				AMB	AMB		
	comp=Z,24nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,153nm,5.4s						
CN2	Changchun	50.37	355	eP	P	06 50 18.8	-1.7
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
MDJ	Mudanjiang	50.98	359	P	P	06 50 25.1	0.0
MDJ				AMB	AMB		
	comp=Z,17nm,0.7s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,331nm,4.4s						
RPZ	Rata Peaks	51.22	143	P	P	06 50 27.4	+0.5
	comp=Z,55nm,1.0s,mb5.5,baz=320,slow=3.4,SNR=7.2						
RPZ				LR	LR	07 12 51.5	
	comp=Z,168nm,20.5s,baz=142,slow=37						
RPZ	Rata Peaks	51.22	143	P	P	06 50 27.4	+0.6
RPZ				LR	LR	07 12 51.5	
ASAJ	Asahikawa	51.63	11	P	P	06 50 29.5	-0.5
	comp=Z,12nm,0.7s,mb5.0,baz=2.2,slow=28,SNR=6.2						
ASAJ	Asahikawa	51.63	11	P	P	06 50 29.5	-0.5
ASAJ				pmax	pmax		
	comp=Z,12nm,0.7s						
LSA	Lhasa	52.29	316	P	P	06 50 33.8	-1.3
VIS	Vishakhapatnam	52.51	298	eP	P	06 50 35.9	-1.0
VIS				e		06 50 37.0	
	comp=Z,92nm,0.8s						
URZ	Urewera	52.55	134	LR	LR	07 12 57.6	
	comp=Z,143nm,21.3s,baz=283,slow=36						
GTA	Gaotai	53.89	331	P	P	06 50 47.0	+0.2
GTA				AP	pP	06 50 55.2	-16
GTA				AMB	AMB		
	comp=Z,19nm,0.8s,mb5.2						
GUN	Gumba	55.10	311	eP	P	06 50 55.2	-0.6
	comp=Z,369nm,0.7s						
GUN	Gumba	55.10	311	⇑iP	P	06 50 55.3	-0.5
	comp=Z,182nm,0.7s,mb6.2						
PKI	Pulchoki	55.28	310	eP	P	06 50 56.1	-1.0
	comp=Z,108nm,0.7s,mb6.0						
KOD	Kodaikanal	55.45	287	eP	P	06 50 57.3	-1.2
KOD				AMb	AMB	06 51 02.5	
	comp=Z,36nm,0.7s,mb5.5						
KKN	Kakani	55.49	310	eP	P	06 50 57.8	-0.8
	comp=Z,156nm,0.7s,mb6.2						
DMN	Daman	55.53	310	eP	P	06 50 58.3	-0.6
	comp=Z,189nm,0.8s,mb6.2						
GKN	Gorkha	56.09	310	eP	P	06 51 02.1	-0.8
	comp=Z,285nm,0.7s						
GKN	Gorkha	56.09	310	⇑iP	P	06 51 02.1	-0.8
	comp=Z,141nm,0.7s,mb6.1						
HIA	Hailar	56.42	352	iP	P	06 50 58.5	-6.5
HYB	Hyderabad	56.63	296	eP	P	06 51 04.5	-2.4
HYB	Hyderabad	56.63	296	iP	P	06 51 04.5	-2.4
KOLN	Koldanda	56.77	309	eP	P	06 51 07.1	-0.6
	comp=Z,212nm,0.8s,mb6.2						
SONM	Songino Array	58.23	341	P	P	06 51 17.3	-0.3
	comp=Z,6.2nm,0.6s,mb4.8,baz=161,slow=6.6,SNR=54						
AKL	Akola	59.16	299	eP	P	06 51 22.6	-1.8
AKL				AMb	AMB	06 51 24.8	
	comp=Z,42nm,0.3s,mb5.9						
BHPL	Bhopal	59.77	302	eP	P	06 51 26.8	-1.8
BHPL				e		06 51 31.2	
	comp=Z,29nm,1.7s						
LGTI	Lohaghat	60.16	309	⇓iP	P	06 51 30.0	-1.2
GOA	Goa	60.32	292	eP	P	06 51 27.8	-4.6
KAD	Karad	60.53	294	⇓iP	P	06 51 32.0	-1.9
	comp=Z,50nm,1.5s,mb5.3						
POO	Poona	61.22	295	⇓iP	P	06 51 35.0	-3.5
	comp=Z,40nm,1.0s,mb5.4						
ZAK	Zakamensk	61.46	340	⇑iP	P	06 51 39.5	-0.2
NDI	New Delhi	62.17	307	eP	P	06 51 42.5	-2.3
NDI				AMb	AMB	06 51 43.4	
	comp=Z,78nm,0.4s,mb6.1						
DDI	Dehra Dun	62.25	309	eP	P	06 51 42.6	-2.7
TLY	Talaya	62.46	341	iP	P	06 51 42.9	-3.5
TLY				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
MOY	Mondy	63.32	340	eP	P	06 51 52.8	+0.7
AJM	Ajmer	63.35	304	⇑iP	P	06 51 51.0	-1.7
	comp=Z,38nm,1.0s,mb5.3						
WMQ	Urumqi	63.36	327	P	P	06 51 52.5	0.0
SDNR	Sundarnagar	63.61	310	eP	P	06 51 54.6	+0.2
SDNR				e		06 56 10.2	
THN	Thein Dam	64.98	310	eP	P	06 52 01.0	-2.2
BOD	Bodaibo	65.59	350	eP	P	06 52 05.7	-1.0
KSH	Kashi	68.09	317	eP	P	06 52 24.0	+1.3
KSH				eAP	pP	06 52 36.4	-11
KSH				eXP	sP	06 52 40.7	-18
MKAR	Makanchi Array	68.19	326	eP	P	06 52 23.4	+0.2
MKAR	Makanchi Array	68.19	326	iP	P	06 52 23.5	+0.3
KZA	Kyzart	69.83	319	P	P	06 52 34.9	+1.5

	SNR=34						
TKM2	Tokmak 2	70.02	320	P	P	06 52 35.1	+0.6
	SNR=30						
UCH	Uchtor	70.38	319	P	P	06 52 38.1	+1.5
	SNR=33						
AAK	Ala-Archa	70.59	320	P	P	06 52 39.0	+1.0
	SNR=23						
CHMS	Chumysh	70.60	320	P	P	06 52 38.4	+0.4
	SNR=6.9						
AML	Almayashu	70.87	319	P	P	06 52 41.0	+1.5
	SNR=42						
USP	Ospenovka	70.89	320	P	P	06 52 40.2	+0.4
	SNR=25						
EKS2	Erkin-Say	71.06	319	P	P	06 52 42.1	+1.3
	SNR=26						
SEY	Seymchan	71.31	10	eP	P	06 52 43.9	+2.0
SEY						06 53 01.2	
SEY				e		06 55 27.0	
SEY				e*SS		07 02 30.7	
SEY				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.1						
SEY				MLR	MLR		
	comp=Z,140nm,18.0s						
SEY				MLR	MLR		
	comp=N,130nm,23.0s						
SEY				MLR	MLR		
	comp=E,140nm,23.0s						
ZAL	Zalesovo	71.47	333	P	P	06 52 42.6	-0.4
	comp=E,7.3nm,0.6s,mb4.7,baz=344,slow=5.6,SNR=53						
ZAL	Zalesovo	71.47	333	P	P	06 52 42.6	-0.4
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.6s						
NVS	Novosibirsk	72.75	334	eP	P	06 52 49.6	-0.9
NVS				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.0						
VNDA	Vanda	72.78	173	P	P	06 52 50.9	+0.5
	comp=Z,7.4nm,0.7s,mb4.6,baz=318,slow=5.8,SNR=32						
VNDA				LR	LR	07 25 26.1	
	comp=Z,96nm,18.2s,baz=334,slow=36						
VNDA	Vanda	72.78	173	P	P	06 52 50.9	+0.6
VNDA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
VNDA				MLR	MLR		
	comp=Z,96nm,18.2s						
MAW	Mawson	75.53	201	⇑iP	P	06 53 07.7	+1.4
	comp=Z,12nm,1.0s,mb4.6						
MAW	Mawson	75.53	201	P	P	06 53 07.1	+0.8
	comp=Z,14nm,0.8s,mb4.7,baz=72,slow=6.3,SNR=23						
MAW				LR	LR	07 22 36.5	
	comp=Z,110nm,19.9s,baz=62,slow=33						
BVA0	Borovoye Array	78.02	328	iP	P	06 53 20.4	-0.1
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BVAR	Borovoye Array	78.02	328	P	P	06 53 20.4	-0.1
	comp=Z,12nm,0.8s,mb4.7,baz=121,slow=8.6,SNR=57						
CHKZ	Chkalovo	78.20	328	P	P	06 53 21.3	-0.2
CHKZ				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
OPO	Ambohidratompo	81.66	252	eP	P	06 53 41.7	+1.0
	comp=Z,49nm,1.5s,mb5.1						
OPO				LR	LR		
	comp=Z,66μm,19.0s						
QSPA	South Pole Qui	83.38	180	⇑iP	P	06 53 49.9	+1.6
	comp=Z,15nm,0.8s,mb4.9						
HASS	Wahat al Ahsa’	84.56	296	P	P	06 53 55.6	+0.2
ARU	Arti	85.65	328	⇓iP	P	06 53 59.9	-0.1
ARU				e		06 57 22.0	
ARU				ePPP	PPP	06 59 13.6	-5.3
ARU				eS	S	07 04 20.9	-1.4
ARU				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
QRN	Al-Qurain	86.72	299	eP	P	06 54 06.8	+0.9
UMR	Umm Al-Rimmam	87.02	300	eP	P	06 54 06.8	-0.5
UMR				AMb	AMB	06 54 10.8	
	comp=Z,41nm,1.0s,mb5.3						
RDF	Al-Radifah	87.06	299	eP	P	06 54 07.5	-0.1
RDF				AMb	AMB	06 54 10.7	
	comp=Z,65nm,1.3s,mb5.4						
RST	Umm Al-Ruwaisa	87.63	300	eP	P	06 54 10.4	+0.1
RST				AMb	AMB	06 54 11.6	
	comp=Z,22nm,0.6s,mb5.3						
MZLS	Mizel	88.42	294	P	P	06 54 15.1	+0.9
TATS	Tathlith	89.43	290	P	P	06 54 20.7	+1.7
IMA	Indian Mountai	90.26	23	P	P	06 54 22.3	+0.5
	comp=Z,15nm,0.8s,mb5.2						
ARSS	Ar Rass	90.44	296	P	P	06 54 24.7	+1.2
HILS	Ha’il	91.90	297	P	P	06 54 32.6	+2.2
ILAR	Eielson Array	92.75	25	P	P	06 54 32.8	-0.6
	comp=Z,4.4nm,0.7s,mb4.9,baz=266,slow=4.3,SNR=72						
ILAR	Eielson Array	92.75	25	P	P	06 54 32.8	-0.5
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KMBO	Kilima Mbogo	93.15	269	P	P	06 54 37.6	+1.2
	comp=Z,1.9nm,0.8s,mb4.5,baz=50,slow=23,SNR=6.0						
KMBO				LR	LR	07 29 19.1	
	comp=Z,40nm,21.3s,baz=93,slow=31						
SNAA	Sanae	96.18	193	e	P	06 55 04.4	+16
SNAA	Sanae	96.18	193	P	P	06 54 50.5	+1.7
	comp=Z,1.9nm,0.9s,mb4.5,baz=77,slow=1.8,SNR=8.2						
SNAA	Sanae	96.18	193	P	P	06 54 50.5	+1.7
SNAA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SNAA	Sanae	96.18	193	⇓iP	P	06 54 50.3	+1.5
SNAA				e		06 55 04.4	
SNAA				e		06 55 09.4	
ASF	Jabal al Asfar	96.56	302	P	P	06 54 52.5	+1.0
	comp=Z,2.6nm,0.7s,mb4.8,baz=57,slow=4.9,SNR=4.7						
OBN	Obninsk	97.64	325	⇓eP	P	06 54 54.0	-1.8
OBN				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.5						
OBN	Obninsk	97.64	325	iP	P	06 54 54.1	-1.7
OBN				LR	LR		
	comp=Z,100nm,15.0s						
VNA2	Neumayer--Watz	97.75	193	e	P	06 55 08.3	+12
VNA2	Neumayer--Watz	97.75	193	e	P	06 55 13.9	+18
VNA2	Neumayer--Watz	97.75	193	⇓iP	P	06 54 53.2	-2.8
VNA2				e		06 55 08.3	
VNA2				e		06 55 13.9	
VNA3	Neumayer Olymp	97.99	192	e	P	06 55 05.7	+8.6
VNA3	Neumayer Olymp	97.99	192	e	P	06 55 11.2	+14
VNA3	Neumayer Olymp	97.99	192	⇓iP	P	06 54 50.4	-6.7
VNA3				e		06 55 05.7	
VNA3				e		06 55 11.2	
INK	Inuvik	98.28	22	P	P	06 54 58.3	-0.1
	comp=Z,2.2nm,0.9s,mb4.7,baz=274,slow=8.6,SNR=6.9						
INK	Inuvik	98.28	22	P	P	06 54 58.3	-0.1
INK				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LBTB	Lobatse	100.64	243	eP	P	06 55 10.8	+0.7
	comp=Z,3.0nm,0.7s						
ARCES	ARCESS Array B	101.39	340	P	P	06 55 13.3	+0.9
	comp=Z,4.5nm,0.9s,baz=53,slow=6.1,SNR=9.1						
ARCES	ARCESS Array B	101.39	340	P	P	06 55 13.3	+0.9
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ARCES	ARCESS Array B	101.39	340	P	P	06 55 13.3	+0.9
FINES	FINESS Array B	102.67	332	PKiKP		06 59 39.2	
	comp=Z,1.6nm,0.7s,baz=117,slow=4.3,SNR=4.2						
YKA	Yellowknife Ar	107.15	26	Pdiff	Pdif	06 55 38.2	+0.3
	comp=Z,0.4nm,0.6s,baz=290,slow=4.8,SNR=13						
YKA				PKiKP		06 59 47.4	
	comp=Z,1.2nm,0.5s,baz=293,slow=1.9,SNR=67						
YKA				PKKPbc		07 11 04.1	
	comp=Z,1.2nm,0.7s,baz=106,slow=3.0,SNR=23						
YKA	Yellowknife Ar	107.15	26	Pdif	Pdif	06 55 38.2	+0.3
YKA				ePKPdf		06 59 47.4	
NVAR	Mina Array Bea	110.61	52	PKiKP		06 59 56.5	
	comp=Z,0.5nm,0.7s,baz=167,slow=0.8,SNR=5.0						
NVAR				PKKPbc		07 10 55.9	
	comp=Z,0.6nm,0.6s,baz=130,slow=2.7,SNR=7.6						
GERES	GERESS Array B	112.46	320	PKiKP		06 59 57.5	
	comp=Z,2.5nm,0.8s,baz=56,slow=1.9,SNR=20						
GERES	GERESS Array B	112.46	320	iPKIKP	PKPdf	06 59 57.5	+1.7
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
PDAR	Pinedale Array	116.22	45	PKP	PKPdf	07 00 06.2	+2.8
	comp=Z,1.5nm,0.7s,baz=198,slow=0.7,SNR=14						
PDAR				PKKPbc		07 10 35.1	
	comp=Z,1.4nm,0.9s,baz=119,slow=5.3,SNR=10						
SRU	San Rafael	116.45	50	ePKPdf	PKPdf	07 00 07.2	+3.3
CDF	Champ du Feu	116.63	321	ePKIKP	PKPdf	07 00 05.5	+1.5
	comp=Z,2.2nm,0.6s						
HINF	Hinteralfeld	117.11	321	ePKIKP	PKPdf	07 00 06.7	+1.8
	comp=Z,11nm,0.7s						
HAU	Haudompre	117.36	321	ePKIKP	PKPdf	07 00 07.4	+2.0
	comp=Z,7.8nm,0.8s						
BAIF	Baives	117.82	324	ePKIKP	PKPdf	07 00 08.7	+2.5
	comp=Z,10nm,0.9s						
LPG	La Plagne	118.02	319	ePKIKP	PKPdf	07 00 09.3	+2.6
	comp=Z,8.5nm,0.7s						
LPL	La Plagne	118.03	319	ePKIKP	PKPdf	07 00 09.2	+2.5
	comp=Z,13nm,0.7s						
CABF	La Chapelle	118.05	320	ePKIKP	PKPdf	07 00 09.2	+2.5
	comp=Z,12nm,0.5s						
SBF	Sospel	118.12	317	ePKIKP	PKPdf	07 00 08.7	+1.8
	comp=Z,32nm,0.9s						
MBDF	Montbardon	118.28	318	ePKIKP	PKPdf	07 00 09.8	+2.6
	comp=Z,7.3nm,0.8s						
FRF	La Foret Royal	118.76	317	ePKIKP	PKPdf	07 00 10.2	+2.0
ORIF	Oris-en-Rattie	118.81	318	ePKIKP	PKPdf	07 00 10.4	+2.1
	comp=Z,8.7nm,0.6s						
EKA	Eskdalemuir Ar	119.07	332	PKP	PKPdf	07 00 10.5	+2.0
	comp=Z,5.0nm,1.0s,baz=14,slow=3.4,SNR=8.8						
EKA	Eskdalemuir Ar	119.07	332	PKIKP	PKPdf	07 00 10.5	+2.0
EKA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
SMRF	Simiane la Rot	119.35	317	ePKIKP	PKPdf	07 00 11.9	+2.6
	comp=Z,9.2nm,0.7s						
SSF	Saint Saulge	119.50	321	ePKIKP	PKPdf	07 00 11.8	+2.2
	comp=Z,14nm,0.8s						
VIVF	Saint-Julien-l	119.62	318	ePKIKP	PKPdf	07 00 11.9	+2.1
	comp=Z,9.9nm,0.9s						
AVF	Avril sur Loir	119.71	321	ePKIKP	PKPdf	07 00 11.8	+1.8
	comp=Z,7.3nm,0.8s						
BGF	Bois d’Agland	120.12	321	ePKIKP	PKPdf	07 00 13.2	+2.4
	comp=Z,20nm,0.7s						
SDCO	Great Sand Dun	120.62	50	ePKPdf	PKPdf	07 00 14.8	+2.8
TCF	Toulx Ste Croi	120.64	321	ePKIKP	PKPdf	07 00 14.1	+2.3
	comp=Z,10nm,0.8s						
BNM	Barren Site	120.68	54	ePKPdf	PKPdf	07 00 15.8	+3.6
FLN	La Foliniere	121.14	324	ePKIKP	PKPdf	07 00 14.7	+2.0
CAF	Calviac	121.30	319	ePKIKP	PKPdf	07 00 15.7	+2.6
	comp=Z,8.9nm,0.9s						
ULM	Lac du Bonnet	121.81	33	PKP	PKPdf	07 00 15.9	+1.9
	comp=Z,3.8nm,0.6s,baz=284,slow=2.9,SNR=6.7						
ULM				PKKPbc		07 10 14.8	
	comp=Z,2.2nm,0.8s,baz=90,slow=4.9,SNR=3.3						
MTLF	Montolieu	121.84	318	ePKIKP	PKPdf	07 00 16.2	+2.0
	comp=Z,12nm,0.9s						
MFF	Saint Martin d	121.96	322	ePKIKP	PKPdf	07 00 16.5	+2.2
	comp=Z,16nm,0.7s						
LFF	La Frestale	122.15	320	ePKIKP	PKPdf	07 00 16.4	+1.7
	comp=Z,9.9nm,0.8s						
SGMF	Saint Gilles	122.59	325	ePKIKP	PKPdf	07 00 17.5	+2.0
	comp=Z,20nm,0.8s						
ROSF	Rostrenen	122.96	325	ePKIKP	PKPdf	07 00 18.1	+1.9
	comp=Z,8.2nm,0.8s						
QUIF	Quistinic	123.11	325	ePKIKP	PKPdf	07 00 18.5	+2.0
	comp=Z,8.5nm,0.7s						
EPF	Esparros	123.22	318	ePKIKP	PKPdf	07 00 19.1	+2.2
	comp=Z,12nm,1.0s						
ETSF	Etsaut	123.88	318	ePKIKP	PKPdf	07 00 21.1	+2.9
SJPF	Ste Jean	124.22	319	ePKIKP	PKPdf	07 00 21.7	+2.9
	comp=Z,18nm,1.1s						
TXAR	Lajitas Array	124.25	59	PKP	PKPdf	07 00 22.1	+2.8
	comp=Z,1.5nm,0.7s,baz=263,slow=1.4,SNR=19						
TXAR				PKKPbc		07 10 05.5	
	comp=Z,0.4nm,0.9s,baz=90,slow=4.5,SNR=2.6						
TXAR	Lajitas Array	124.25	59	PKP	PKPdf	07 00 22.1	+2.8
TXAR				PKKPbc		07 10 05.5	
JCT	Junction City	127.21	57	ePKPdf	PKPdf	07 00 28.2	+3.3
ESDC	Sonseca Array	127.60	316	PP	PP	07 02 27.5	-4.1
	comp=Z,0.3nm,0.3s,baz=59,slow=6.6,SNR=5.3						
SCHQ	Schefferville	129.91	13	PKP	PKPdf	07 00 32.2	+2.7
	comp=Z,2.2nm,0.5s,baz=266,slow=6.2,SNR=9.0						
SCHQ	Schefferville	129.91	13	PKP	PKPdf	07 00 32.2	+2.7
DBIC	Dimbokro	135.72	273	PKP	PKPdf	07 00 44.0	+2.6
	comp=Z,4.8nm,0.8s,baz=124,slow=5.4,SNR=9.1						
DBIC	Dimbokro	135.72	273	PKIKP	PKPdf	07 00 44.1	+2.7
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.8s						
LVC	Limon Verde	145.28	147	PKPbc	PKPbc	07 01 03.3	+4.5
	comp=Z,16nm,0.5s,baz=258,slow=3.4,SNR=65						
MOCB	Mochara	148.09	151	ePKPdf	PKPdf	07 01 07.7	+4.7
ARE	Arequipa	148.37	137	eP	PKPdf	07 01 12.0	+8.5
LPAZ	La Paz	150.69	141	PKP	PKPdf	07 01 10.5	+3.3
	comp=Z,1.8nm,0.8s,baz=132,slow=3.0,SNR=6.9						
LPAZ				PKPbc	PKPdf	07 01 17.4	+10
	comp=Z,14nm,0.6s,baz=57,slow=1.1,SNR=65						
LPAZ	La Paz	150.69	141	PKIKP	PKPdf	07 01 10.5	+3.3
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,14nm,0.6s						
LPAZ	La Paz	150.69	141	ePKPdf	PKPdf	07 01 10.6	+3.4
LPAZ				ePKPbc	PKPdf	07 01 17.4	+10
BDFB	Brasilia	157.86	184	PKP	PKPdf	07 01 20.8	+3.8
	comp=Z,2.9nm,0.8s,baz=163,slow=9.4,SNR=4.4						
BDFB	Brasilia	157.86	184	PKIKP	PKPdf	07 01 20.8	+3.8
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.8s						

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*NEIC **11** 07:05:14.4,17.23N×101.44W,h15^{km},MD3.6(MEX),After MEX.*

MEX 11 07:05:14.7±0.9**,17.27N×101.36W,h6^{km}**±256^{km}**,MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	Zihuatanejo	0.35	343	iP	Pg	07 05 21.1	-0.6
ZIIG				iS	Sg	07 05 26.0	-0.4
CAIG	El Cayaco	1.07	102	eP	Pb	07 05 32.4	-2.8
CAIG				eS	Sb	07 05 44.8	-4.4
CAIG				iS	Sb	07 05 45.3	-3.9
CAIG	El Cayaco	1.07	102	eP	Pb	07 05 32.4	-2.8
CAIG				iS	Sb	07 05 45.3	-3.9
ACX	Acapulco	1.44	106	eP	Pn	07 05 39.5	-1.9
ACX				eS	Sb	07 05 57.3	-2.6
PLIG	Platanillo	2.09	58	eP	Pn	07 05 47.2	-3.5
PLIG				eS	Sn	07 06 13.0	-4.3

IDC 11 07:07:59.6±1.6**,6.96S×146.42E,mb3.6**/4**,mb1 3.7**/6**, mb1mx3.6**/13**,ML2.6**/2**,MS3.5**/1**,Ms1 3.5**/1**,ms1mx2.7**/12**, Error ellipse: s-maj=31.3km s-min=22.8km az=83.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	2.54	163	Pn	Pn	07 08 40.6	-2.1
	4.3nm,0.3s,baz=353,slow=8.4,SNR=14						
PMG				Pg	Pg	07 08 45.8	-4.4
	8.8nm,0.3s,baz=360,slow=6.3,SNR=23						
PMG				Sn	Sn	07 09 15.6	+0.8
	6.2nm,0.3s,baz=345,slow=20,SNR=6.7						
WRA	Warramunga Arr	17.44	221	P	P	07 12 06.2	+0.1
	0.0nm,0.3s,baz=41,slow=11,SNR=3.9						
ASAR	Alice Springs	20.51	215	P	P	07 12 40.2	-1.9
	1.4nm,0.8s,baz=44,slow=10.0,SNR=14						
FITZ	Fitzroy Crossi	23.09	239	P	P	07 13 05.4	-2.7
	1.3nm,0.7s,baz=72,slow=13,SNR=3.8						
STKA	Stephens Creek	25.20	190	P	P	07 13 27.5	-1.0
	0.7nm,0.3s,baz=41,slow=11,SNR=2.1						
TGY	Tagaytay City	32.83	310	LR	LR	07 28 11.8	
	comp=Z,84nm,21.6s,baz=109,slow=37						
ILAR	Eielson Array	86.58	23	P	P	07 20 45.0	-0.7
	0.3nm,0.6s,baz=260,slow=4.5,SNR=5.3						

IDC 11 07:12:02.2±7.8**,28.54S×74.23E,mb3.8**/3**,mb1 4.0**/3**, mb1mx3.6**/16**,Error ellipse: s-maj=311.0km s-min=38.1km az=38.0,Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	53.34	99	P	P	07 21 23.4	-2.2
	0.5nm,0.6s,baz=245,slow=6.5,SNR=8.5						
WRA	Warramunga Arr	54.99	95	P	P	07 21 35.7	-2.2
	1.2nm,1.0s,baz=252,slow=7.8,SNR=4.8						
BVAR	Borovoye Array	81.29	358	P	P	07 24 19.9	-1.6
	0.8nm,0.7s,baz=166,slow=6.1,SNR=5.5						
YKA	Yellowknife Ar	145.55	7	PKPbc	PKPbc	07 31 41.0	-1.2
	0.1nm,0.6s,baz=328,slow=3.8,SNR=4.2						

IDC 11 07:14:36.6±2.2**,72.21N×2.62E,mb3.5**/1**,mb1 3.9**/4**, mb1mx3.4**/21**,ML3.0**/3**,Error ellipse: s-maj=55.4km s-min=22.9km az=48.0,Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARCES	ARCESS Array B	7.95	99	Pn	Pn	07 16 32.3	-4.0
	0.4nm,0.3s,baz=302,slow=12,SNR=7.7						
HFS	Hagfors	12.89	154	Pn	P	07 17 41.8	-1.9
	0.0nm,0.3s,baz=333,slow=9.9,SNR=4.2						
FINES	FINESS Array B	14.06	128	Pn	P	07 17 57.4	-1.5
	0.1nm,0.3s,baz=330,slow=11,SNR=3.6						
ILAR	Eielson Array	41.73	341	P	P	07 22 26.6	-1.5
	0.7nm,1.0s,baz=15,slow=6.2,SNR=6.1						

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*NIED **11** 07:41:00,33.10N×137.30E,h5^{km},Mw3.7 Best double couple: M$_0$4.38×10^{14} NP1:ϕ_s62°,δ70°,λ32°. NP2:ϕ_s320°, δ60°,λ157°.*

*JMA **11** 07:41:14.6±0.1,33.14N×137.25E,h42^{km}±2^{km},M4.1*

ISC 11 07:41:14.9±1.0**,33.16N**±0.06×**137.26E**±0.04**,h50^{km}**±15^{km}**, n19,$\sigma 0^{s}$66**/36**,5C-6D,Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	Tokai 1	0.67	25	P	P	07 41 27.9	-0.3
TK01				S	S	07 41 37.6	-0.5
TK02	Tokai 2	0.89	28	⇓P	P	07 41 31.2	0.0
TK02				S	S	07 41 43.5	0.0
TK03	Tokai 3	1.17	30	⇓P	P	07 41 35.1	0.0
TK03				S	S	07 41 50.4	+0.3
JIE	Ise	1.31	340	⇓P	P	07 41 37.8	+0.5
JIE				S	S	07 41 54.3	+0.3
TK04	Tokai 4	1.33	23	⇓P	P	07 41 37.6	+0.1
TK04				eS	S	07 41 54.3	0.0
JWZ	Kozaga	1.34	287	⇑P	P	07 41 37.3	-0.5
TSUJ	Tsu 2	1.70	336	P	P	07 41 43.2	+0.5
TSUJ				S	S	07 42 03.2	-0.1
JWM	Minabe	1.73	294	⇑P	P	07 41 43.1	-0.1
JWM				eS	S	07 42 03.6	-0.6
JWY	Kouya	1.75	308	⇑P	P	07 41 43.9	+0.6
JWY				eS	S	07 42 04.3	-0.1
JHE	Heguri	1.98	319	⇑P	P	07 41 47.3	+0.6
JHE				eS	S	07 42 10.6	+0.3
JIZS	Izushimoda	2.06	40	P	P	07 41 47.7	0.0
JIZS				eS	S	07 42 11.3	-0.9
SHZ3	Shizuoka 3	2.06	22	⇓P	P	07 41 47.6	-0.2
JIM2	Oshima 3	2.38	49	P	P	07 41 53.0	+0.6
JIM2				eS	S	07 42 19.5	-1.0
JAI	Aioi	2.43	286	P	P	07 41 52.9	-0.1
JAI				eS	S	07 42 20.0	-1.6
JYN	Shimob	2.57	24	P	P	07 41 55.2	+0.2
JYN				S	S	07 42 27.4	+2.3
JGM	Miyama	2.58	350	⇓P	P	07 41 55.5	+0.4
JGM				S	S	07 42 25.6	+0.3
JOD2	Odawara 2	2.59	35	P	P	07 41 55.9	+0.6
JOD2				S	S	07 42 24.5	-1.2
JWT	Wachi	2.62	325	⇑P	P	07 41 56.4	+0.7
JWT				eS	S	07 42 26.5	0.0
MAT	Matsushiro	3.47	13	P	P	07 42 08.3	+0.6
MAT				S	S	07 42 46.7	-1.2

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*MEX **11** 07:44:29.0±0.5,14.14N×92.78W,h20^{km}±222^{km},MD4.1*

*NEIC **11** 07:44:31.9±9.7,14.42N×92.46W,h80^{km}±51^{km},mb4.1/1, Error ellipse: s-maj=109.5km s-min=23.9km az=192.0*

*CASC **11** 07:44:32.3±1.8,14.40N×92.58W,h21^{km}±8^{km},MD4.3, mb4.1(NEIC)*

*IDC **11** 07:44:36.1±8.6,14.75N×92.38W,h102^{km}±54^{km},mb3.6/5, mb1 4.0/8,mb1mx3.7/21,Error ellipse: s-maj=78.6km s-min=38.3km az=172.0*

ISC 11 07:44:29.9±0.9**,14.30N**±0.06×**92.78W**±0.06**,h77^{km}**±9^{km}**, n36,$\sigma 0^{s}$91**/52**,mb3.9**/7**,2C-10D,Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	Jato	1.10	89	⇑eP	P	07 44 50.0	-0.3
JAT				eS	S	07 45 02.1	-3.4
CCIG	Comitan	2.06	17	eP	P	07 45 02.1	-1.1
CCIG				iS	S	07 45 28.1	+0.4
PCG	Pacaya	2.10	87	eP	P	07 45 04.0	+0.3
PCG				eS	S	07 45 28.6	-0.2
GCG	Guatemala City	2.19	82	⇓eP	P	07 45 05.5	+0.5
GCG				eS	S	07 45 31.6	+0.5
IXG	Ixpaco	2.26	93	eP	P	07 45 05.4	-0.5
IXG				eS	S	07 45 31.4	-1.2
IXG				e		07 45 34.1	
NBG	Las Nubes	2.37	83	⇓eP	P	07 45 08.4	+0.9
NBG				eS	S	07 45 36.0	+0.5
SCX	San Cristobal	2.42	3	eP	P	07 45 08.0	-0.2
SCX				eS	S	07 45 37.5	+0.7
RBDL	Robledal	3.00	93	⇓eP	P	07 45 16.6	+0.2
RBDL				eS	S	07 45 51.7	+0.4
RTR	El Retiro	3.06	97	⇓eP	P	07 45 17.6	+0.3
SBLS	San Blas	3.10	98	⇓eP	P	07 45 17.9	+0.2
SBLS				eS	S	07 45 53.5	-0.1
SNJE	San Jose	3.11	98	⇓eP	P	07 45 18.4	+0.5
SNJE				eS	S	07 45 53.5	-0.5
MTO2	Montecristo 2	3.31	88	eP	P	07 45 19.6	-1.1
BOQS	Boqueron	3.44	99	⇑eP	P	07 45 22.6	+0.2
BOQS				eS	S	07 46 03.0	+0.8
LFU	La Fuente	3.60	98	eP	P	07 45 25.1	+0.4
LBRS	Las Brisas	3.67	98	⇓eP	P	07 45 25.8	+0.2
LBRS				eS	S	07 46 08.6	+0.7
LFRS	El Faro	3.67	100	⇓eP	P	07 45 25.9	+0.3
LFRS				eS	S	07 46 06.2	-1.7
LCBS	La Ceiba	3.74	99	⇓eP	P	07 45 27.3	+0.6
SNVI	San Vicente	3.88	100	eP	P	07 45 29.0	+0.4
SNVI				⇓eP		07 45 30.1	
SNVI				eS	S	07 46 12.4	-0.9
OXX	Oaxaca	4.70	307	eP	P	07 45 43.5	+3.6
OXX				eS	S	07 46 31.3	-2.3
CNCH	Conchagua	4.91	101	eP	P	07 45 42.6	-0.3
TEIG	Tepich	7.29	35	P	P	07 46 12.0	-3.8
	16nm,0.3s,baz=136,slow=1.4,SNR=64						
TEIG				S	S	07 47 27.8	-10
	4.4nm,0.3s,baz=353,slow=23,SNR=6.6						
TXAR	Lajitas Array	18.03	328	P	P	07 48 37.6	+0.7
	0.2nm,0.3s,baz=143,slow=12,SNR=22						
CLNB	Carlsbad	20.55	332	eP	P	07 49 04.6	0.0
GDL2	Guadalupe Moun	20.72	331	eP	P	07 49 06.5	+0.3
CPRX	Cap Rock	21.20	333	eP	P	07 49 10.3	-0.7
AMTX	Amarillo	22.01	340	P	P	07 49 16.7	-2.3
	7.0nm,0.7s,mb4.1						
BNM	Barren Site	23.40	330	eP	P	07 49 35.0	+2.4
ANMO	Albuquerque	23.98	331	P	P	07 49 39.3	+1.2
	1.5nm,0.7s,mb3.4,baz=146,slow=11,SNR=8.5						
PDAR	Pinedale Array	31.84	336	P	P	07 50 48.5	-1.0
	0.4nm,0.7s,mb3.3,baz=143,slow=7.4,SNR=4.3						
REDW	Red Top Meadow	32.85	335	eP	P	07 50 59.0	+0.6
SNOW	Snow King Moun	32.90	336	eP	P	07 50 59.3	+0.5
NVAR	Mina Array Bea	32.96	322	P	P	07 51 00.7	+1.3
	1.4nm,0.7s,mb3.9,baz=124,slow=8.9,SNR=15						
YKA	Yellowknife Ar	50.56	347	P	P	07 53 21.3	-1.1
	2.4nm,0.6s,mb4.4,baz=150,slow=7.3,SNR=87						
YKA				PcP	PcP	07 54 38.4	-1.0
	0.2nm,0.6s,baz=154,slow=3.5,SNR=4.3						
YKA	Yellowknife Ar	50.56	347	P	P	07 53 21.3	-1.1
YKA				PcP	PcP	07 54 38.4	-1.0
INK	Inuvik	59.94	344	P	P	07 54 29.2	-0.8
	1.9nm,0.6s,mb4.3,baz=128,slow=7.5,SNR=19						
ILAR	Eielson Array	62.27	337	P	P	07 54 45.4	-0.5
	0.6nm,0.7s,mb3.7,baz=127,slow=3.9,SNR=7.6						

IDC 11 07:56:47.5±6.2**,6.56S×155.08E,h84^{km}**±53^{km}**,mb3.5**/6**, mb1 3.8**/7**,mb1mx3.6**/14**,ML3.1**/1**,MS3.2**/3**,Ms1 3.2**/3**, ms1mx2.9**/15**,Error ellipse: s-maj=50.6km s-min=27.8km az=117.0,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	8.34	250	P	P	07 58 45.9	-1.7
	1.3nm,0.3s,baz=66,slow=8.5,SNR=4.9						
PMG				LR	LR	08 01 39.0	
	comp=Z,91nm,21.2s,baz=31,slow=35						
WRA	Warramunga Arr	24.14	235	P	P	08 01 56.1	-0.8
	0.7nm,0.4s,baz=61,slow=9.7,SNR=14						
ASAR	Alice Springs	26.53	228	P	P	08 02 17.1	-2.3
	0.4nm,0.6s,baz=59,slow=9.2,SNR=6.7						
STKA	Stephens Creek	28.17	205	P	P	08 02 32.2	-2.0
	0.6nm,0.5s,baz=41,slow=11,SNR=3.1						
RPZ	Rata Peaks	39.58	162	LR	LR	08 18 16.1	
	comp=Z,129nm,20.3s,baz=221,slow=33						
RAR	Rarotonga	46.00	113	LR	LR	08 21 51.5	

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
	comp=Z,11nm,19.3s,baz=49,slow=33						
CMAR	Chiang Mai Arr	60.67	295	P	P	08 06 50.5	-2.1
	1.5nm,0.6s,baz=98,slow=6.4,SNR=6.3						
ILAR	Eielson Array	82.94	21	P	P	08 09 02.0	-2.2
	0.8nm,1.1s,baz=256,slow=5.9,SNR=5.3						
YKA	Yellowknife Ar	95.91	28	P	P	08 10 05.3	-0.4
	0.2nm,0.5s,baz=266,slow=4.6,SNR=16						

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*IDC **11** 08:46:27.6±0.6, 6.48N×145.36E, mb4.2/14, mb1 4.4/15, mb1mx4.3/20, ML3.4/1, MS3.9/21, Ms1 3.9/21, ms1mx3.8/25, Error ellipse: s-maj=24.3km s-min=13.8km az=92.0*

*NEIC **11** 08:46:33.4±3.9, 6.43N×145.23E, h39^{km}±35^{km}, mb4.7/2, Error ellipse: s-maj=19.0km s-min=14.1km az=87.0*

*BJI **11** 08:46:33.4, 6.40N×145.20E, h38^{km}, mB5.4, mb4.8*

*MOS **11** 08:46:35.3±1.1, 6.38N×145.35E, h74^{km}, mb4.6/10, Error ellipse: s-maj=24.9km s-min=11.2km az=100.0*

ISC 11 08:46:31.1±0.4**, 6.39N**±0.05×**145.28E**±0.10**, h33^{km}, n67, σ0ˢ86**/54**, mb4.5**/32**, MS3.9**/20**, 1D, Eastern Caroline Islands region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	15.80	173	Pn	P	08 50 14.8	+1.9
	0.5nm,0.3s,baz=13,slow=6.8,SNR=3.5						
PMG				LR	LR	08 55 19.3	
	comp=Z,562nm,19.8s,baz=148,slow=34						
PMG	Port Moresby	15.80	173	P	P	08 50 14.8	+1.8
PMG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PMG				MLR	MLR		
	comp=Z,562nm,19.8s						
CBIJ	Chichi jima	20.80	352	LR	LR	08 58 07.4	
	comp=Z,442nm,21.3s,MS3.8,baz=101,slow=34						
KAKA	Kakadu	22.86	214	eP	P	08 51 31.9	-1.1
	comp=Z,26nm,0.8s,mb4.7						
JOW	Kunigami	25.99	323	LR	LR	09 00 10.3	
	comp=Z,212nm,21.3s,MS3.6,baz=117,slow=32						
CTA	Charters Tower	26.33	178	P	P	08 52 06.2	+0.1
	comp=Z,2.1nm,0.9s,mb3.7,baz=350,slow=11,SNR=3.7						
CTA				LR	LR	09 01 08.3	
	comp=Z,176nm,21.8s,MS3.6,baz=5.9,slow=33						
CTA	Charters Tower	26.33	178	P	P	08 52 06.2	+0.1
CTA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
CTA				MLR	MLR		
	comp=Z,176nm,21.8s						
CTA	Charters Tower	26.33	178	P	P	08 52 06.2	+0.1
CTA				LR	LR	09 01 08.3	
JHJ	Hachijo jima 2	27.08	350	LR	LR	09 02 02.0	
	comp=Z,270nm,19.8s,MS3.8,baz=179,slow=35						
WRAB	Tennant Creek	28.28	202	i P	P	08 52 23.7	-0.2
WB2	Warramunga Arr	28.29	202	eP	P	08 52 23.5	-0.4
WRA	Warramunga Arr	28.29	202	P	P	08 52 23.0	-1.0
	comp=Z,6.3nm,0.9s,mb4.2,baz=21,slow=10.0,SNR=17						
WRA	Warramunga Arr	28.29	202	P	P	08 52 23.0	-1.0
WRA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
FITZ	Fitzroy Crossi	31.11	218	P	P	08 52 49.2	+0.2
	comp=Z,6.3nm,0.9s,mb4.5,baz=31,slow=5.9,SNR=5.0						
FITZ				LR	LR	09 05 38.5	
	comp=Z,89nm,19.7s,MS3.4,baz=34,slow=37						
ASAR	Alice Springs	31.87	200	P	P	08 52 55.8	+0.1
	comp=Z,1.1nm,0.9s,mb3.7,baz=36,slow=7.7,SNR=9.8						
ASAR				PcP	PcP	08 55 45.1	-0.8
	comp=Z,0.6nm,0.8s,baz=37,slow=3.3,SNR=4.6						
SSE	Sheshan	33.37	320	P	P	08 53 08.7	+0.1
SSE				S	S	08 58 21.7	-4.6
SSE				AMB	AMB		
	comp=Z,13nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,97nm,4.5s						
NJ2	Nanjing	35.49	319	eP	P	08 53 28.8	+1.9
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,420nm,5.4s						
ASAJ	Asahikawa	37.65	357	LR	LR	09 10 25.6	
	comp=Z,124nm,18.4s,MS3.7,baz=40,slow=38						
WHN	Wuhan	37.68	313	eP	P	08 53 51.2	+5.9
STKA	Stephens Creek	38.21	185	P	P	08 53 48.0	-1.7
	comp=Z,1.5nm,0.5s,mb4.0,baz=338,slow=8.4,SNR=6.4						
STKA				LR	LR	09 09 53.7	
	comp=Z,276nm,19.4s,MS4.1,baz=20,slow=37						
STKA	Stephens Creek	38.21	185	eP	P	08 53 48.6	-1.1
BJI	Beijing	42.48	326	P	P	08 54 25.1	+0.1
BJI				S	S	09 00 51.2	+6.8
BJI				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.4						
BJI				AMB	AMB		
	comp=Z,173nm,4.4s						
HHC	Hu-ho-hao-te	45.64	324	eP	P	08 54 50.1	-0.3
HHC				AMB	AMB		
	comp=Z,17nm,0.5s,mb5.2						
HHC				AMB	AMB		
	comp=Z,319nm,5.1s						
CD2	Chengdu	45.88	307	P	P	08 54 53.1	+0.6
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
CMAR	Chiang Mai Arr	46.67	289	P	P	08 55 00.4	+1.6
	comp=Z,5.6nm,0.8s,mb4.5,baz=95,slow=6.1,SNR=24						
CMAR				LR	LR	09 13 48.4	
	comp=Z,52nm,18.6s,MS3.5,baz=200,slow=35						
HIA	Hailar	47.86	338	i P	P	08 55 08.0	+0.2
GTA	Gaotai	52.41	316	eP	P	08 55 43.1	+0.5
GTA				AP	pP	08 55 52.5	-0.1
GTA				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.5						
ULN	Ulaanbaatar	52.59	328	i P	P	08 55 44.6	+0.8
SONM	Songino Array	52.92	328	P	P	08 55 45.3	-1.0
	comp=Z,3.5nm,0.9s,mb4.3,baz=140,slow=7.9,SNR=20						
URZ	Urewera	53.38	149	P	P	08 55 50.2	+0.3
	comp=Z,6.1nm,0.6s,mb4.7,baz=128,slow=8.5,SNR=6.9						
URZ				LR	LR	09 17 15.6	
	comp=Z,173nm,18.1s,MS4.2,baz=202,slow=35						
URZ	Urewera	53.38	149	P	P	08 55 50.2	+0.3
URZ				LR	LR	09 17 15.6	
RPZ	Rata Peaks	55.05	157	LR	LR	09 15 45.5	
	comp=Z,285nm,19.2s,MS4.4,baz=20,slow=32						
ZAK	Zakamensk	56.09	329	eP	P	08 56 08.8	-0.7
ZAK				e		08 56 37.1	
TLY	Talaya	56.70	330	i P	P	08 56 14.0	+0.2
TLY				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
YAK	Yakutsk	56.71	351	i P	P	08 56 13.2	-0.6
YAK				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
GUN	Gumba	60.05	298	eP	P	08 56 38.1	+0.6
	comp=Z,43nm,1.0s,mb5.4						
PKI	Pulchoki	60.41	298	eP	P	08 56 40.1	+0.1
	comp=Z,8.0nm,0.7s,mb4.9						
KKN	Kakani	60.55	298	eP	P	08 56 41.0	0.0
DMN	Daman	60.68	298	eP	P	08 56 42.2	+0.4
	comp=Z,7.6nm,0.5s,mb5.1						
GKN	Gorkha	61.15	298	eP	P	08 56 44.9	-0.1
	comp=Z,24nm,0.9s,mb5.3						
KOLN	Koldanda	62.02	298	eP	P	08 56 50.1	-0.8
WMQ	Urumqi	62.49	316	eP	P	08 56 54.0	+0.3
TIXI	Tiksi	65.99	354	i P	P	08 57 16.3	+0.2
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
ZAL	Zalesovo	67.75	326	P	P	08 57 25.8	-1.7
	comp=Z,2.3nm,1.1s,mb4.1,baz=15,slow=8.5,SNR=9.1						
ZAL				LR	LR	09 27 00.8	
	comp=Z,60nm,19.3s,MS3.8,baz=198,slow=36						
ZAL	Zalesovo	67.75	326	P	P	08 57 25.8	-1.6
ZAL				pmax	pmax		
	comp=Z,2.0nm,1.1s						
ZAL				MLR	MLR		
	comp=Z,60nm,19.3s						
AAK	Ala-Archa	71.58	313	i P	P	08 57 51.2	+0.1
AAK				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
ILAR	Eielson Array	74.90	24	P	P	08 58 08.2	-1.9
	comp=Z,0.8nm,0.8s,mb3.7,baz=249,slow=5.9,SNR=8.4						
ILAR				LR	LR	09 28 58.0	
	comp=Z,71nm,18.1s,MS4.0,baz=357,slow=34						
INK	Inuvik	80.84	22	P	P	08 58 42.5	-0.4
	comp=Z,2.3nm,0.8s,mb4.2,baz=250,slow=5.3,SNR=12						
INK	Inuvik	80.84	22	P	P	08 58 42.5	-0.4
INK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ARU	Arti	82.90	326	⇓iP	P	08 58 53.9	+0.1
ARU				e		09 02 05.2	
ARU				eS	S	09 09 03.6	-5.1
ARU				eSS	SS	09 14 36.1	+0.5
ARU				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
VNDA	Vanda	84.30	176	P	P	08 59 01.4	+0.9
	comp=Z,0.4nm,0.7s,mb3.7,baz=356,slow=4.0,SNR=2.1						
VNDA				LR	LR	09 37 52.6	
	comp=Z,39nm,18.7s,MS3.8,baz=252,slow=37						
YKA	Yellowknife Ar	89.03	27	P	P	08 59 23.7	0.0
	comp=Z,1.0nm,0.8s,mb4.2,baz=281,slow=4.9,SNR=17						
YKA				LR	LR	09 34 22.8	
	comp=Z,92nm,20.0s,MS4.2,baz=335,slow=32						
YKA	Yellowknife Ar	89.03	27	P	P	08 59 23.8	0.0
YKA				LR	LR	09 34 22.8	
BMO	Blue Mountains	90.78	45	eP	P	08 59 33.6	+1.2
	comp=Z,3.3nm,0.9s,mb4.7						
NVAR	Mina Array Bea	91.08	51	P	P	08 59 34.9	+0.9
	comp=Z,0.5nm,0.6s,mb4.1,baz=270,slow=7.1,SNR=5.0						
NVAR				LR	LR	09 40 53.1	
	comp=Z,77nm,18.4s,MS4.2,baz=270,slow=36						
NVAR	Mina Array Bea	91.08	51	P	P	08 59 34.9	+0.9
NVAR				LR	LR	09 40 53.1	
MAW	Mawson	92.97	202	LR	LR	09 41 57.1	
	comp=Z,54nm,20.2s,MS4.0,baz=72,slow=36						
GNI	Garni	93.91	311	LR	LR	09 47 20.4	
	comp=Z,46nm,18.3s,MS4.0,baz=231,slow=39						
ARCES	ARCESS Array B	94.02	342	LR	LR	09 45 44.6	
	comp=Z,113nm,18.4s,MS4.4,baz=190,slow=38						
OBN	Obninsk	95.32	327	eP	P	08 59 50.9	-2.0
OBN				e		09 03 52.0	
OBN				eS	tx	09 10 15.6	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb5.0						
PDAR	Pinedale Array	96.70	46	LR	LR	09 35 37.7	
	comp=Z,62nm,21.9s,MS4.0,baz=151,slow=30						
FINES	FINESS Array B	97.82	335	LR	LR	09 49 34.7	
	comp=Z,93nm,19.0s,MS4.3,baz=31,slow=39						
LPAZ	La Paz	145.85	110	PKPbc	PKPbc	09 06 11.4	+3.0
	comp=Z,0.8nm,0.5s,baz=255,slow=7.2,SNR=5.6						
LPAZ	La Paz	145.85	110	PKP2	PKPab	09 06 11.4	+0.8
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.5s						
LPAZ	La Paz	145.85	110	ePKPdf	PKPdf	09 06 11.2	+3.7
DBIC	Dimbokro	147.50	293	PKPbc	PKPdf	09 06 15.3	+4.9
	comp=Z,2.8nm,0.8s,baz=195,slow=6.8,SNR=3.8						
DBIC	Dimbokro	147.50	293	PKP2	PKPab	09 06 15.3	-1.8
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.8s						

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*NEIC **11** 09:00:25.4, 45.13S×167.49E, h124^{km}, After WEL.*

WEL 11 09:00:24.9±0.4**, 45.13S**×**167.42E, h124^{km}**±3^{km}**, ML4.6**/7**, 4C-6D, Error ellipse: s-maj=3.4km s-min=2.1km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
DCZ	Deep Cove	0.40	208	PN	P	09 00 42.3	-0.6
DCZ				SN	S	09 00 55.1	-1.4
MLZ	Mavora Lakes	0.58	113	P	P	09 00 43.7	-0.3
MLZ				S	S	09 00 57.8	-0.7
MLZ	Mavora Lakes	0.58	113	⇑PN	P	09 00 43.7	-0.3
MLZ				SN	S	09 00 57.8	-0.7
MLZ				SN	S	09 00 58.0	-0.4
MSZ	Milford Sound	0.58	39	⇑PN	P	09 00 44.0	0.0
WHZ	Wether Hill Ro	0.85	154	P	P	09 00 45.9	-0.3
WHZ				S	S	09 01 01.5	-0.7
WHZ	Wether Hill Ro	0.85	154	⇓PN	P	09 00 45.9	-0.3
WHZ				SN	S	09 01 01.3	-0.9
WHZ				SN	S	09 01 01.6	-0.6
WKZ	Wanaka	1.18	76	P	P	09 00 49.2	-0.2
WKZ				S	S	09 01 06.8	-1.0
WKZ	Wanaka	1.18	76	⇑PN	P	09 00 49.2	-0.2
WKZ				SN	S	09 01 06.5	-1.3
EAZ	Earnscleugh	1.34	95	P	P	09 00 50.6	-0.7
EAZ				S	S	09 01 08.5	-2.8
EAZ	Earnscleugh	1.34	95	⇑PN	P	09 00 50.6	-0.7
EAZ				SN	S	09 01 08.3	-3.1
JCZ	Jackson Bay	1.42	43	P	P	09 00 51.5	-0.7
JCZ				S	S	09 01 10.9	-2.0
JCZ	Jackson Bay	1.42	43	⇓PN	P	09 00 51.5	-0.7
JCZ				SN	S	09 01 10.9	-2.0
TUZ	Tuapeka	1.77	119	P	P	09 00 55.5	-0.7
TUZ	Tuapeka	1.77	119	⇓PN	P	09 00 55.5	-0.7
LBZ	Lake Benmore	2.11	70	P	P	09 00 58.3	-2.1
LBZ	Lake Benmore	2.11	70	⇓PN	P	09 00 58.3	-2.1
FOZ	Fox Glacier	2.26	47	⇓PN	P	09 01 00.9	-1.5
RPZ	Rata Peaks	2.96	63	P	P	09 01 08.6	-3.1
RPZ	Rata Peaks	2.96	63	⇓PN	P	09 01 08.6	-3.1
WVZ	Waitaha Valley	3.15	51	PN	P	09 01 10.6	-3.7
MQZ	McQueen's Vall	4.01	71	P	P	09 01 22.3	-3.4
MQZ	McQueen's Vall	4.01	71	PN	P	09 01 22.9	-2.8
MQZ				SN	S	09 02 04.7	-7.7
CRLZ	Canterbury Las	4.04	69	eP	P	09 01 23.7	-2.5
CRLZ	Canterbury Las	4.04	69	ePN	P	09 01 22.9	-3.3
LTZ	Lake Taylor	4.21	58	eP	P	09 01 24.3	-4.2
LTZ	Lake Taylor	4.21	58	ePN	P	09 01 24.3	-4.2
DSZ	Denniston Nort	4.65	45	eP	P	09 01 30.5	-3.8
DSZ	Denniston Nort	4.65	45	PN	P	09 01 30.5	-3.8
DSZ				SN	S	09 02 19.9	-7.8
KHZ	Kahutara	5.20	61	eP	P	09 01 37.9	-3.8
KHZ	Kahutara	5.20	61	ePN	P	09 01 37.9	-3.8
KHZ				SN	S	09 02 34.6	-6.4
THZ	Tophouse	5.22	52	eP	P	09 01 37.9	-4.1
THZ	Tophouse	5.22	52	ePN	P	09 01 37.1	-4.9
THZ				SN	S	09 02 34.2	-7.3
QRZ	Quartz Range	5.70	43	eP	P	09 01 44.7	-3.8
QRZ	Quartz Range	5.70	43	PN	P	09 01 45.3	-3.1
NNZ	Nelson	5.85	50	eP	P	09 01 47.6	-2.9
NNZ	Nelson	5.85	50	ePN	P	09 01 48.7	-1.8
NNZ				SN	S	09 02 51.5	-5.4
CAW	Cannon Point	6.89	57	P	P	09 02 00.6	-4.1
CAW	Cannon Point	6.89	57	ePN	P	09 02 00.8	-3.9

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*TIF **11** 09:15:06.3, 42.02N×45.86E, h11^{km}, Mpv3.5*

*MOS **11** 09:15:07.3±2.6, 41.94N×45.89E, h10^{km}, mb4.0/1, Error ellipse: s-maj=26.4km s-min=17.8km az=141.4*

ISC 11 09:15:07.1±0.5**, 42.00N**±0.05×**45.98E**±0.04**, h10^{km}, n12, σ1ˢ42**/21**, 5C-3D, Eastern Caucasus**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
DGRG	David-gareji	0.71	220	⇓iP	Pb	09 15 21.6	+0.5
DGRG				eS	Sb	09 15 32.2	+1.5
UNCR	Uncukul	0.94	40	⇓iPG	Pg	09 15 24.3	-1.6
UNCR				i S	Sb	09 15 37.0	-0.2
UNCR				pmax	pmax		
	comp=Z,135nm,0.3s						
MTA	Mtatsminda	0.94	251	⇑iP	Pb	09 15 23.7	-1.3
MTA				i S	Sb	09 15 37.6	+0.3
DUS	Dusheti	0.95	276	⇑iP	Pb	09 15 25.0	-0.3
DUS				i S	Sb	09 15 39.8	+2.0
TI2	Plekhanov	0.95	254	⇑iPG	Pg	09 15 24.4	-1.9
TI2				eS	Sb	09 15 37.8	0.0
TI2				pmax	pmax		
	comp=Z,50nm,0.4s						
TI2				smax			
	comp=E,190nm,0.6s						
TBLG	Delisi	0.96	254	⇑iP	Pb	09 15 24.4	-1.1
TBLG				eS	Sb	09 15 38.2	+0.2
BUJR	Buynaksk	1.18	45	⇑iPG	Pg	09 15 29.5	-1.2
BUJR				eS	Sb	09 15 46.8	+2.6
BUJR				pmax	pmax		
	comp=Z,227nm,0.3s						
AKT	Akhty	1.41	111	ePG	Pg	09 15 33.0	-2.3
AKT				S	Sb	09 15 52.5	+1.5
AKT				pmax	pmax		
	comp=Z,23nm,0.2s						
MAK	Makhachkala	1.48	49	ePG	Pg	09 15 40.0	+3.2
MAK				e		09 15 59.0	
STE	Stepanavan	1.55	230	i P	Pn	09 15 33.0	-2.0
ZEI	Tsey	1.72	297	i PN	Pn	09 15 37.6	+0.2
ZEI				e		09 16 02.2	
AKH	Akhalkalaki	1.95	253	⇓iP	Pn	09 15 40.2	-0.5
AKH				i S	Sn	09 16 07.4	+1.9

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*NEIC **11** 09:34:43.9, 32.96S×70.87W, h77^{km}, mb4.6/6, After GUC.*

NEIC Felt [IV] at Melipilla, Quillota, San Felipe, Santiago, Valparaiso and Vina del Mar; [III] at Rancagua; [II] at San Jose de Maipo. Felt at Quilpue.

*GUC **11** 09:34:43.9±0.8, 32.96S×70.87W, h77^{km}±3^{km}, ML5.0*

*IDC **11** 09:34:46.2±4.9, 32.91S×70.70W, h92^{km}±43^{km}, mb4.2/11, mb1 4.4/13, mb1mx4.3/15, MS3.6/3, Ms1 3.5/3, ms1mx3.3/13, Error ellipse: s-maj=21.2km s-min=14.6km az=88.0*

*SYO **11** 09:34:48.1, 32.83S×70.29W, h112^{km}, MB4.5*

ISC 11 09:34:43.6±0.3**, 32.93S**±0.03×**70.87W**±0.06**, h82^{km}**±2^{km}**, n53, σ0ˢ66**/59**, mb4.4**/16**, 9C-4D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ROCH	El Roble	0.12	252	i P	P	09 34 55.4	0.0
PEL	Peldehue	0.26	144	⇓iP	P	09 34 55.9	-0.1
PEL				i S	S	09 35 04.7	-0.5
PEL				AMP		09 35 05.6	
	comp=N,73μm,0.3s						
JACH	Jahuel	0.34	43	i P	P	09 34 56.5	0.0
CLCH	Cerro Calan	0.54	149	⇑iP	P	09 34 58.1	+0.1
CLCH				i S	S	09 35 08.9	+0.1
CLCH				AMP		09 35 10.2	
	comp=N,285μm,0.5s						
CLCH				AMP		09 35 10.7	
	comp=N,342μm,0.5s						
SAN	Santiago	0.55	162	⇓iP	P	09 34 58.1	0.0
SAN				i S	S	09 35 08.5	-0.4
SAN				AMP		09 35 12.7	
	comp=E,24μm,0.7s						
RCDM	Rinconada Maip	0.56	175	i P	P	09 34 57.9	-0.4
RCDM				i S	S	09 35 08.7	-0.3
RCDM				AMP		09 35 09.3	
	comp=E,260μm,0.2s						
PACH	Papudo	0.62	309	i P	P	09 34 58.5	-0.3
FCH	Farellones	0.62	129	⇑iP	P	09 34 59.4	+0.5
FCH				i S	S	09 35 11.2	+1.1
FCH				AMP		09 35 13.3	
	comp=N,34μm,0.1s						
IHA	Instituto Hidr	0.66	262	⇓iP	P	09 34 58.6	-0.6
IHA				i S	S	09 35 10.7	0.0
TACH	Talagante	0.72	185	⇑iP	P	09 34 59.6	-0.3
PCH	Pirque	0.75	157	i P	P	09 35 00.0	-0.2
LCCH	Las Cruces	0.80	227	⇑iP	P	09 35 00.7	-0.1
CHCH	Chadas Angostu	1.01	170	⇑iP	P	09 35 03.1	0.0
LMEL	Las Melosas	1.07	149	⇑iP	P	09 35 04.7	+0.9
LMEL				i S	S	09 35 20.1	+1.1
LMEL				AMP		09 35 21.1	
	comp=N,65μm,0.2s						
LNV	Longovilo	1.12	204	i P	P	09 35 03.9	-0.5
CACH	El Canelo	1.20	169	i P	P	09 35 06.2	+0.6
CACH				i S	S	09 35 22.5	+0.5
SFDO	San Fernando	1.68	184	i P	P	09 35 12.0	+0.1
MDZ	Mendoza	1.70	89	eP	P	09 35 11.1	-1.0
MDZ				i		09 35 20.0	
MDZ				i		09 35 35.4	
MDZ				i		09 35 38.0	
MDZ				i		09 35 38.5	
MDZ				i S	S	09 35 39.9	+6.8
MDZ				i S	S	09 35 42.1	+9.0
TALC	Talca	2.54	194	⇑iP	P	09 35 22.9	-0.7
TALC				i S	S	09 35 52.9	-0.7
TLL	Tololo Astrono	2.76	1	i P	P	09 35 27.0	+0.3
TLL				i S	S	09 36 00.3	+1.3
TLL				AMP		09 36 02.8	
	comp=N,6μm,0.6s						
LSCH	La Serena	3.03	354	AMP		09 36 08.3	
	comp=N,2μm,0.6s						
VACH	Vallenar	4.34	1	⇑iP	P	09 35 48.7	0.0
VACH				i S	S	09 36 37.6	-0.9
LVC	Limon Verde	10.43	10	P	P	09 37 06.4	-5.6
	comp=N,0.6nm,0.3s,baz=201,slow=12,SNR=12						
ARE	Arequipa	16.41	358	eP	P	09 38 31.0	+0.9
LPAZ	La Paz	16.76	9	P	P	09 38 34.7	+0.3
	comp=N,0.8nm,0.3s,baz=182,slow=11,SNR=36						
LPAZ	La Paz	16.76	9	eP	P	09 38 34.6	+0.2
	comp=N,32nm,0.8s						
USHA	Ushuaia	21.96	176	P	P	09 39 32.8	+1.2
	comp=N,15nm,0.9s,mb4.3,baz=1.6,slow=7.5,SNR=7.8						
USHA				LR	LR	09 49 15.2	
	comp=N,106nm,19.7s,baz=336,slow=40						
BDFB	Brasilia	26.93	56	P	P	09 40 17.3	-1.9
	comp=N,33nm,0.8s,mb4.9,baz=238,slow=7.7,SNR=34						
BDFB				LR	LR	09 52 19.3	
	comp=N,168nm,18.3s,baz=44,slow=39						
BAO	Brasilia Array	26.95	56	P	P	09 40 17.9	-1.5
SNAA	Sanae	52.21	158	P	P	09 43 47.6	-0.1
	comp=N,1.5nm,0.8s,mb4.1,baz=304,slow=7.6,SNR=8.6						
QSPA	South Pole Qui	57.30	180	⇑iP	P	09 44 24.7	0.0
	comp=N,4.2nm,0.6s,mb4.7						
VNDA	Vanda	65.33	191	P	P	09 45 18.4	-0.2
	comp=N,0.9nm,0.7s,mb3.7,baz=138,slow=7.3,SNR=5.9						
SYO	Syowa Base	66.50	158	⇓pP	pP	09 45 45.9	-1.5
JCT	Junction City	68.76	333	eP	P	09 45 40.4	-0.4
	comp=N,8.2nm,0.8s,mb4.6						
LTX	Lajitas	69.30	330	eP	P	09 45 44.0	-0.2
	comp=N,4.0nm,0.7s,mb4.4						
TXAR	Lajitas Array	69.30	330	P	P	09 45 44.1	-0.1
	comp=N,2.7nm,0.6s,mb4.2,baz=154,slow=8.6,SNR=42						
PPT	Papeete	71.37	261	P	P	09 45 58.3	+1.5
	comp=N,31nm,0.9s,mb5.2,baz=143,slow=10,SNR=3.1						
GDL2	Guadalupe Moun	72.08	331	eP	P	09 46 00.7	-0.2
GDL2				esP	sP	09 46 29.7	-1.5
CPRX	Cap Rock	72.60	331	eP	P	09 46 04.1	+0.1
CPRX				esP	sP	09 46 29.2	-5.1
AMTX	Amarillo	73.40	334	eP	P	09 46 08.5	0.0
	comp=N,5.1nm,0.6s,mb4.5						
DBIC	Dimbokro	73.91	71	P	P	09 46 11.3	-0.6
	comp=N,7.5nm,0.7s,mb4.5,baz=207,slow=7.3,SNR=14						
MAW	Mawson	73.92	163	P	P	09 46 10.1	-0.9
	comp=N,2.2nm,0.2s,mb4.4,baz=60,slow=8.1,SNR=13						
MAW				LR	LR	10 18 08.0	
	comp=N,34nm,19.1s,baz=67,slow=35						
NEN	Nelson	79.69	325	eP	P	09 46 44.3	+0.5
HWUT	Hardware Ranch	83.09	330	eP	P	09 47 01.5	+0.1
	comp=N,3.1nm,0.6s,mb4.3						
HWUT				esP	sP	09 47 31.1	-1.4
PDAR	Pinedale Array	83.26	332	P	P	09 47 02.2	-0.1
	comp=N,2.1nm,1.1s,mb3.9,baz=132,slow=6.0,SNR=8.8						
NVAR	Mina Array Bea	83.58	324	P	P	09 47 05.1	+1.2
	comp=N,3.9nm,0.8s,mb4.3,baz=144,slow=6.8,SNR=32						
ULM	Lac du Bonnet	85.73	344	P	P	09 47 14.2	-0.2
	comp=N,2.1nm,0.8s,mb4.2,baz=153,slow=4.5,SNR=3.5						
MCMT	McKenzie Canyo	86.29	332	eP	P	09 47 18.3	+1.1
YKA	Yellowknife Ar	101.37	341	P	P	09 48 25.6	-0.7
	comp=N,0.3nm,0.5s,baz=145,slow=4.4,SNR=13						
ASAR	Alice Springs	118.96	206	PKP	PKPdf	09 53 23.4	+0.3
	comp=N,0.6nm,0.4s,baz=157,slow=1.1,SNR=12						
WRA	Warramunga Arr	122.17	208	PKP	PKPdf	09 53 29.8	+0.5
	comp=N,1.9nm,0.4s,baz=163,slow=1.7,SNR=39						
BVAR	Borovoye Array	145.84	42	PKPbc	PKPbc	09 54 14.8	+1.8
	comp=N,2.8nm,0.6s,baz=297,slow=3.3,SNR=17						
ZAL	Zalesovo	152.80	32	PKPbc	PKPdf	09 54 31.9	+8.9
	comp=N,2.1nm,0.8s,baz=146,slow=3.3,SNR=9.0						

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*IDC **11** 09:59:54.1±2.1, 2.96S×137.65E, mb3.7/3, mb1 4.0/5, mb1mx4.0/10, ML4.0/2, MS3.0/1, Ms1 3.0/1, ms1mx2.6/17, Error ellipse: s-maj=66.3km s-min=24.6km az=81.0*

*NEIC **11** 09:59:56.0±1.5, 2.90S×137.68E, h10^{km}, mb3.8/1, Error ellipse: s-maj=39.6km s-min=15.7km az=86.0*

ISC 11 10:00:03.8±2.6**, 3.31S**±0.06×**137.4E**±0.2**, h94^{km}**±25^{km}**, n15, σ0ˢ85**/19**, mb4.2**/5**, Irian Jaya**

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	10.54	208	eP	P	10 02 33.1	-0.4
	8.9nm,0.4s						
KAKA				eS	S	10 04 30.4	+0.1
WB2	Warramunga Arr	16.79	190	eP	P	10 03 54.1	-0.4
WB2				e		10 04 00.7	
WB2				eS	S	10 06 56.2	-0.6
WRA	Warramunga Arr	16.79	190	P	P	10 03 54.8	+0.3
	0.4nm,0.3s,baz=11,slow=13,SNR=24						
WRA				S	S	10 06 55.9	-1.0
	0.4nm,0.3s,baz=12,slow=22,SNR=6.3						
FITZ	Fitzroy Crossi	18.66	217	eP	P	10 04 21.0	+4.1
	2.2nm,0.4s						
FITZ				eS	S	10 07 38.8	+0.4
FITZ	Fitzroy Crossi	18.66	217	P	P	10 04 19.2	+2.2
	0.6nm,0.3s,baz=33,slow=11,SNR=14						
CTA	Charters Tower	18.79	153	LR	LR	10 12 00.0	
	comp=Z,43nm,18.1s,baz=44,slow=38						
ASPA	Alice Springs	20.51	189	eP	P	10 04 40.3	+3.7
ASPA				eS	S	10 08 25.7	+10
STKA	Stephens Creek	28.69	172	P	P	10 05 55.8	+1.6

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
	0.6nm,0.5s,mb3.5,baz=333,slow=9.0,SNR=2.8						
CMAR	Chiang Mai Arr	43.59	301	P	P	10 08 00.6	0.0
	1.0nm,0.7s,mb3.6,baz=125,slow=6.7,SNR=5.8						
SONM	Songino Array	57.70	336	P	P	10 09 45.3	-1.7
	0.3nm,0.4s,mb3.6,baz=158,slow=7.8,SNR=3.4						
GUN	Gumba	58.44	306	eP	P	10 09 52.8	+0.4
	13nm,0.7s,mb5.1						
PKI	Pulchoki	58.69	305	eP	P	10 09 53.9	-0.2
KKN	Kakani	58.88	305	eP	P	10 09 55.1	-0.3
GKN	Gorkha	59.48	305	eP	P	10 09 59.8	+0.2
KOLN	Koldanda	60.25	305	eP	P	10 10 05.0	+0.2
	12nm,0.9s,mb4.9						

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*IDC **11** 10:07:01.6±1.3,22.70S×66.16W,h247^{km}±11^{km},mb3.4/5, mb1 3.6/8,mb1mx3.5/14,Error ellipse: s-maj=22.1km s-min=18.3km az=176.0*

*NEIC **11** 10:07:02.4±1.0,22.61S×66.17W,h252^{km}±8^{km},mb3.6/1, Error ellipse: s-maj=18.0km s-min=11.7km az=185.0*

ISC 11 10:07:01.4±1.0**,22.70S**±0.10×**66.2W**±0.1**,h259**^{km}±9^{km}**, n15,**σ**1^{s}03**/17**,mb3.5**/6**,Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LVC	Limon Verde	2.50	271	P	P	10 07 50.7	+1.0
	67nm,0.3s,baz=100,slow=10,SNR=726						
LVC				S	S	10 08 26.7	-0.5
	16nm,0.3s,baz=259,slow=23,SNR=6.0						
LPAZ	La Paz	6.63	344	P	P	10 08 40.0	+1.8
	0.5nm,0.3s,baz=155,slow=12,SNR=11						
LPAZ				S	S	10 09 54.9	+0.8
	0.3nm,0.3s,baz=294,slow=21,SNR=7.7						
LPAZ	La Paz	6.63	344	eP	P	10 08 38.4	+0.2
LPAZ				S	S	10 09 54.9	+0.8
ARE	Arequipa	7.96	320	eP	P	10 08 54.0	-0.9
ARE				eS	S	10 10 21.0	-2.9
BDFB	Brasilia	18.55	71	P	P	10 11 01.0	-0.3
	0.9nm,0.3s,baz=244,slow=11,SNR=14						
BAO	Brasilia Array	18.58	71	P	P	10 11 01.3	-0.2
TXAR	Lajitas Array	63.06	323	P	P	10 17 02.5	-0.7
	0.2nm,0.5s,mb3.0,baz=155,slow=6.8,SNR=7.2						
DBIC	Dimbokro	66.70	72	P	P	10 17 25.1	-1.8
	3.4nm,1.0s,mb4.0,baz=207,slow=7.6,SNR=6.5						
TPNV	Topopah Spring	75.79	321	eP	P	10 18 21.6	+1.0
	0.8nm,0.6s,mb3.5						
PDAR	Pinedale Array	76.41	329	P	P	10 18 24.4	+0.5
	0.3nm,0.5s,mb3.1,baz=127,slow=7.4,SNR=4.5						
ULM	Lac du Bonnet	77.23	341	P	P	10 18 28.9	+0.6
	1.3nm,0.4s,mb4.0,baz=138,slow=8.7,SNR=3.4						
YKA	Yellowknife Ar	93.16	340	P	P	10 19 47.5	+0.7
	0.3nm,0.5s,mb3.5,baz=130,slow=4.6,SNR=20						
YKA	Yellowknife Ar	93.16	340	P	P	10 19 47.5	+0.7
ASAR	Alice Springs	129.94	204	PKP	PKPdf	10 25 42.7	+1.9
	0.3nm,0.4s,baz=122,slow=1.6,SNR=9.1						
WRA	Warramunga Arr	133.11	207	PKP	PKPdf	10 25 48.9	+2.1
	0.3nm,0.3s,baz=152,slow=1.9,SNR=14						

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*IDC **11** 10:25:35.9±31.0,15.31S×176.72E,mb4.3/5,mb1 4.4/5, mb1mx4.0/16,MS3.1/1,Ms1 3.1/1,ms1mx2.7/22,Error ellipse: s-maj=546.0km s-min=131.3km az=70.0*

ISC 11 10:27:05.9±4.5**,19.1S**±0.5×**169.4E**±0.6**,h250**^{km}±32^{km}**,n7,** σ**1^{s}25**/8**,mb3.9**/5**,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.07	222	eP	P	10 28 11.2	+0.1
DZM				eS	S	10 29 01.6	-0.2
NOUC	Port Laguerre	4.18	223	eP	P	10 28 12.4	0.0
CTA	Charters Tower	21.83	263	P	P	10 31 40.6	+1.6
	3.2nm,0.7s,mb4.0,baz=55,slow=10,SNR=3.8						
STKA	Stephens Creek	28.06	238	P	P	10 32 37.4	+0.8
	0.8nm,0.4s,mb3.7,baz=68,slow=8.6,SNR=4.9						
WRA	Warramunga Arr	33.03	263	P	P	10 33 18.3	-1.7
	0.8nm,0.3s,mb3.7,baz=89,slow=8.3,SNR=16						
ASAR	Alice Springs	33.32	256	P	P	10 33 21.8	-0.6
	7.2nm,0.4s,mb4.6,baz=81,slow=8.7,SNR=128						
FITZ	Fitzroy Crossi	41.41	264	P	P	10 34 29.9	+0.1
	1.9nm,0.7s,mb3.6,baz=79,slow=5.2,SNR=7.6						
FITZ				LR	LR	10 50 29.0	
	comp=Z,23nm,21.0s,baz=306,slow=30						

MAN 11 10:32:18.5,18.01N×121.46E,h4^{km},mb3.6,ML2.3,MS1.9, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APYP	Conner	0.26	234	eP	Pg	10 32 24.1	+0.4
APYP				eS	Sg	10 32 28.6	+1.4
SGCP	Mt. Cagua	0.60	68	eP	Pg	10 32 30.5	0.0
SGCP				eS	Sg	10 32 40.0	+1.5
CAUP	Cauayan	1.12	162	eP	Pb	10 32 40.9	+0.9
CAUP				eS	Sb	10 32 57.6	+2.8

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*IDC **11** 10:36:34.0±3.6,6.81N×72.99W,h156^{km}±32^{km},mb3.8/14, mb1 3.9/17,mb1mx3.9/24,Error ellipse: s-maj=19.7km s-min=12.7km az=49.0*

*NEIC **11** 10:36:33.7±0.4,6.82N×73.00W,mb4.0/4,Error ellipse: s-maj=12.6km s-min=8.3km az=47.0*

*CASC **11** 10:36:37.2±1.0,6.14N×74.22W,h249^{km}±172^{km},MD4.6, mb4.0(NEIC)*

ISC 11 10:36:29.6±1.5**,6.8N**±0.1×**73.15W**±0.08**,h127**^{km}±14^{km}**, n32,**σ**1^{s}24**/30**,mb4.1**/19**,Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JEF	Cerro Jefe	6.62	292	eP	P	10 38 08.2	+2.6
JEF				i S	S	10 39 17.5	-2.6
UPA	Univ. de Panam	6.69	289	eP	P	10 38 06.8	+0.3
	baz=118,slow=12						
UPA				i S	S	10 39 18.5	-3.3
DVD	David	9.37	281	eP	P	10 38 40.2	-2.2
SJG	San Juan	13.15	31	P	P	10 39 32.9	+0.5
	4.0nm,0.3s,baz=238,slow=13,SNR=3.4						
TEIG	Tepich	19.84	314	P	P	10 40 54.4	+1.8
	1.3nm,0.3s,baz=49,slow=9.3,SNR=14						
LPAZ	La Paz	23.47	168	P	P	10 41 31.1	+2.5
	0.7nm,0.5s,mb3.3,baz=349,slow=10,SNR=5.8						
LPAZ				pP		10 42 00.8	
	1.8nm,0.6s,baz=355,slow=12,SNR=5.5						
LPAZ	La Paz	23.47	168	eP	P	10 41 30.5	+1.8
LPAZ				pP		10 42 00.8	
BDFB	Brasilia	33.42	132	P	P	10 42 57.3	-1.0
	3.0nm,0.5s,mb4.4,baz=303,slow=10,SNR=4.5						
LTX	Lajitas	36.46	312	eP	P	10 43 23.4	-0.6
	2.0nm,0.4s,mb4.4						
TXAR	Lajitas Array	36.46	312	P	P	10 43 25.2	+1.2
	1.8nm,0.5s,mb4.3,baz=128,slow=9.1,SNR=62						
TXAR				PcP	PcP	10 45 46.5	+0.8
	0.3nm,0.5s,baz=146,slow=4.3,SNR=5.3						
ANMO	Albuquerque	41.52	317	P	P	10 44 07.5	+1.5
	0.5nm,0.3s,mb3.6,baz=119,slow=7.0,SNR=4.9						
ULM	Lac du Bonnet	47.30	340	P	P	10 44 51.8	-0.2
	3.5nm,0.4s,mb4.4,baz=143,slow=6.8,SNR=9.1						
NEN	Nelson	47.77	313	eP	P	10 44 56.5	+0.7
PDAR	Pinedale Array	48.08	324	P	P	10 44 58.8	+0.6
	1.3nm,0.6s,mb3.9,baz=127,slow=9.4,SNR=11						
SCHQ	Schefferville	48.16	5	P	P	10 44 58.0	-0.7
	7.7nm,0.5s,mb4.8,baz=192,slow=6.3,SNR=37						
REDW	Red Top Meadow	49.20	324	eP	P	10 45 05.4	-1.3
TPNV	Topopah Spring	49.36	314	eP	P	10 45 08.8	+0.7
	4.2nm,1.0s,mb4.3						
ELK	Elko	50.48	319	eP	P	10 45 17.1	+0.6
	0.8nm,0.6s,mb3.8						
MNV	Mina	51.38	315	P	P	10 45 24.2	+0.8
	2.3nm,1.1s,mb4.1						
NVAR	Mina Array Bea	51.48	315	P	P	10 45 24.9	+0.7
	1.0nm,0.7s,mb4.0,baz=117,slow=8.2,SNR=11						
YBH	Yreka Blue Hor	55.94	317	P	P	10 45 55.1	-1.7
	1.6nm,0.6s,mb4.3,baz=96,slow=4.9,SNR=8.9						
YKA	Yellowknife Ar	63.27	340	P	P	10 46 45.9	-0.9
	1.7nm,0.4s,mb4.3,baz=133,slow=6.6,SNR=184						
YKA				pP	pP	10 47 23.7	+6.0
	0.8nm,0.8s,baz=133,slow=6.9,SNR=2.4						
DLBC	Dease Lake	67.33	331	P	P	10 47 12.8	0.0
	0.9nm,0.8s,mb3.6,baz=121,slow=5.9,SNR=6.3						
DLBC	Dease Lake	67.33	331	P	P	10 47 12.8	0.0
DBIC	Dimbokro	67.76	86	P	P	10 47 13.8	-2.4
	7.8nm,1.1s,mb4.5,baz=275,slow=7.9,SNR=8.2						
ILAR	Eielson Array	76.97	335	P	P	10 48 08.7	-0.8
	0.3nm,0.5s,mb3.3,baz=98,slow=5.8,SNR=5.1						
NOA	NORSAR Array B	81.36	29	P	P	10 48 33.3	+0.1
	0.7nm,0.5s,mb3.8,baz=268,slow=5.3,SNR=3.3						
ARCES	ARCESS Array B	86.70	20	P	P	10 48 59.6	-0.1
	3.9nm,0.8s,mb4.4,baz=280,slow=5.5,SNR=4.2						
SONM	Songino Array	125.60	0	PKP	PKPdf	10 55 18.1	+2.0
	0.7nm,0.5s,baz=278,slow=0.9,SNR=6.9						
ASAR	Alice Springs	149.08	234	PKPbc	PKPdf	10 56 03.9	+4.6
	1.8nm,0.5s,baz=115,slow=3.8,SNR=33						
WRA	Warramunga Arr	150.31	241	PKPbc	PKPdf	10 56 07.0	+5.8
	1.8nm,0.4s,baz=109,slow=2.5,SNR=83						
WRA				PKPab	PKPab	10 56 14.3	-1.2
	0.8nm,0.6s,baz=108,slow=3.8,SNR=5.7						
CMAR	Chiang Mai Arr	153.72	17	PKPbc	PKPdf	10 56 15.6	+9.5
	1.4nm,0.6s,baz=334,slow=3.4,SNR=6.4						
CMAR				PKPab	PKPab	10 56 29.0	-0.8
	0.6nm,0.4s,baz=0.5,slow=25,SNR=3.0						

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*NIED **11** 10:47:00,30.50N×143.60E,h23^{km},Mw3.9 Best double couple: $M_0$9.15×10^{14} NP1:ϕ_s156°,δ78°,λ-111°. NP2: ϕ_s38°,δ24°,λ-30°.*

*JMA **11** 10:47:28.3±0.3,30.49N×143.57E,h45^{km},M4.4*

*IDC **11** 10:47:29.5±0.7,30.39N×143.30E,mb3.9/9,mb1 4.2/11, mb1mx4.0/23,ML4.0/2,MS3.0/1,Ms1 3.0/1,ms1mx2.3/28, Error ellipse: s-maj=27.2km s-min=16.9km az=103.0*

*NEIC **11** 10:47:35.2±0.7,30.47N×143.14E,h40^{km},Error ellipse: s-maj=22.3km s-min=15.8km az=80.0*

ISC 11 10:47:31.7±0.6**,30.46N**±0.05×**143.02E**±0.10**,h33**^{km}**,n26,** σ**1^{s}17**/31**,mb3.9**/9**,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	Chichi jima	3.43	193	Pn	Pn	10 48 22.9	-1.3
	24nm,0.3s,baz=83,slow=20,SNR=15						
CBIJ				Sn	Sn	10 49 00.1	-4.1
	22nm,0.3s,baz=271,slow=22,SNR=6.4						
CBIJ				LR	LR	10 49 31.7	
	comp=Z,207nm,20.5s,baz=125,slow=36						
CBIJ	Chichi jima	3.43	193	P	P	10 48 23.5	-0.6
JHJ2	Mitsune	3.80	315	P	P	10 48 31.0	+1.6
JHJ	Hachijo jima 2	3.83	315	Pn	Pn	10 48 30.9	+1.1
	16nm,0.3s,baz=25,slow=19,SNR=10						
JHJ				Sn	Sn	10 49 15.6	+1.3
	28nm,0.3s,baz=104,slow=22,SNR=6.9						
BSO1	Boso 1	4.53	338	P	P	10 48 39.0	-0.7
BSO3	Boso 3	4.82	335	P	P	10 48 43.1	-0.8
BSO4	Boso 4	5.05	334	P	P	10 48 46.9	-0.2
BSO4				eS	S	10 49 45.0	-0.1
JOD2	Odawara 2	5.82	326	P	P	10 48 57.6	-0.3
JOD2				eS	S	10 50 05.2	+0.7
JHU	Hanno	6.23	331	P	P	10 49 02.7	-0.9
JHU				eS	S	10 50 12.5	-2.0
JHO	Hitachi	6.47	342	P	P	10 49 04.8	-2.2
MAT	Matsushiro	7.28	328	P	P	10 49 18.0	-0.4
MAT				S	S	10 50 30.3	-10
MAT	Matsushiro	7.28	328	P	P	10 49 18.2	-0.2
MAT	Matsushiro	7.28	328	eP	P	10 49 18.0	-0.4
	19nm,0.8s						
MAT				eS	S	10 50 30.0	-11
SONM	Songino Array	32.90	312	P	P	10 54 08.2	+3.4
	1.3nm,0.6s,mb4.1,baz=113,slow=8.0,SNR=10						
SHL	Shillong	45.10	277	eP	P	10 55 51.0	+4.3
WRA	Warramunga Arr	50.80	191	P	P	10 56 31.4	+0.2
	6.7nm,0.7s,mb4.7,baz=10,slow=8.0,SNR=46						
ILAR	Eielson Array	54.43	30	P	P	10 56 57.0	-0.5
	0.5nm,0.8s,mb3.5,baz=254,slow=6.0,SNR=5.0						
ASAR	Alice Springs	54.52	190	P	P	10 56 58.8	0.0
	1.3nm,0.5s,mb4.2,baz=5.4,slow=6.3,SNR=13						
INK	Inuvik	59.68	25	P	P	10 57 34.3	-0.5
	0.9nm,0.6s,mb4.0,baz=271,slow=8.7,SNR=11						
YKA	Yellowknife Ar	68.85	29	P	P	10 58 34.6	+0.1
	0.4nm,0.5s,mb3.6,baz=298,slow=6.4,SNR=13						
NVAR	Mina Array Bea	77.88	53	P	P	10 59 29.2	+1.5
	0.9nm,0.8s,mb3.8,baz=313,slow=4.4,SNR=6.7						
AKASG	Malin Array Be	80.35	324	P	P	10 59 43.8	+2.9
	0.4nm,0.4s,mb3.7,baz=45,slow=5.8,SNR=6.7						
TXAR	Lajitas Array	93.01	53	P	P	11 00 45.2	+1.9
	0.4nm,0.8s,mb3.9,baz=297,slow=2.8,SNR=3.7						
TXAR	Lajitas Array	93.01	53	P	P	11 00 45.2	+1.9
LPAZ	La Paz	148.24	71	PKPbc	PKPdf	11 07 18.8	+7.2
	2.0nm,1.0s,baz=252,slow=3.2,SNR=7.3						
LPAZ	La Paz	148.24	71	ePKPbc	PKPdf	11 07 18.4	+6.9

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*IDC **11** 10:50:17.4±8.9,32.16S×178.37W,h59^{km}±80^{km},mb4.2/4, mb1 4.3/5,mb1mx3.9/15,ML4.4/1,MS3.3/1,Ms1 3.3/1, ms1mx2.6/20,Error ellipse: s-maj=60.8km s-min=36.9km az=11.0*

*NEIC **11** 10:50:17.9±7.4,32.19S×178.34W,h67^{km}±69^{km},Error ellipse: s-maj=81.8km s-min=20.8km az=187.0*

ISC 11 10:50:14.6±2.2**,32.16S**±0.06×**178.6W**±0.3**,h33**^{km}**,n23,** σ**1^{s}08**/22**,mb4.4**/4**,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	5.95	204	eP	P	10 51 43.6	+1.0
PUZ	Puketiti	6.43	203	P	P	10 51 49.2	-0.2
PUZ				S	S	10 53 01.5	-1.0
MWZ	Matawai	6.92	206	eP	P	10 51 55.6	-0.7
MWZ				S	S	10 53 13.9	-0.7
URZ	Urewera	7.01	209	P	P	10 51 59.1	+1.4
	7.2nm,0.3s,baz=324,slow=17,SNR=47						
URZ				S	S	10 53 18.8	+1.7
	5.8nm,0.3s,baz=185,slow=23,SNR=11						
URZ	Urewera	7.01	209	eP	P	10 51 56.8	-0.8
OUZ	Omahuta	7.16	243	P	P	10 52 06.0	+6.3
KNZ	Kokohu	7.48	203	eP	P	10 52 06.3	+2.2
BKZ	Black Stump Fm	8.04	208	eP	P	10 52 09.6	-2.3
MRZ	Mangatainoka R	9.68	207	eP	P	10 52 30.1	-4.5
NNZ	Nelson	11.08	213	S	S	10 54 51.8	-5.7
MQZ	McQueen's Vall	13.41	208	S	S	10 55 42.1	-12
STKA	Stephens Creek	33.59	260	P	P	10 56 54.7	+0.8
	0.8nm,0.3s,mb4.1,baz=100,slow=6.1,SNR=3.6						
STKA	Stephens Creek	33.59	260	P	P	10 56 54.7	+0.8
CTA	Charters Tower	33.59	282	P	P	10 56 54.7	+0.7
	2.2nm,0.4s,mb4.4,baz=111,slow=8.6,SNR=7.2						
CTA				LR	LR	11 07 25.4	
	comp=Z,47nm,20.0s,baz=226,slow=30						
CTA	Charters Tower	33.59	282	P	P	10 56 54.7	+0.7
ASAR	Alice Springs	42.51	269	P	P	10 58 08.6	-0.2
	3.2nm,0.6s,mb4.3,baz=106,slow=7.5,SNR=28						
ASPA	Alice Springs	42.51	269	eP	P	10 58 08.5	-0.2
WB2	Warramunga Arr	43.65	274	eP	P	10 58 17.4	-0.6
WRA	Warramunga Arr	43.66	274	P	P	10 58 17.6	-0.5
	5.7nm,0.3s,mb4.7,baz=112,slow=8.1,SNR=51						
KAF	Kangasniemi	146.01	339	ep	PKPdf	11 09 48.5	-0.9
FINES	FINESS Array B	146.59	339	PKPbc	PKPbc	11 09 51.0	-0.8
	1.4nm,0.4s,baz=55,slow=4.6,SNR=18						
NOA	NORSAR Array B	150.40	350	PKPbc	PKPdf	11 10 01.7	+5.2
	0.6nm,0.7s,baz=39,slow=2.2,SNR=3.1						
HFS	Hagfors	150.85	347	PKPbc	PKPdf	11 10 01.9	+4.7
	9.2nm,1.1s,baz=45,slow=2.0,SNR=7.7						

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*NEIC **11** 11:10:34.7±1.5,3.37S×152.41E,h450^{km}±17^{km},mb4.3/2, Error ellipse: s-maj=14.7km s-min=10.7km az=81.0*

*IDC **11** 11:10:35.6±1.6,3.41S×152.38E,h458^{km}±17^{km},mb3.7/15, mb1 3.8/17,mb1mx3.8/19,Error ellipse: s-maj=12.5km s-min=9.3km az=108.0*

ISC 11 11:10:34.4±1.4**,3.42S**±0.08×**152.41E**±0.09**,h458**^{km}±14^{km}**, n36,**σ**0^{s}74**/36**,mb4.1**/20**,2C-1D,New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	7.91	221	P	P	11 12 30.0	-0.1
	16nm,0.3s,baz=52,slow=5.4,SNR=79						
PMG				S	S	11 14 02.5	+0.6
	0.9nm,0.3s,baz=291,slow=19,SNR=6.9						
PMG	Port Moresby	7.91	221	P	P	11 12 30.0	-0.1
PMG				S	S	11 14 02.5	+0.6
CTA	Charters Tower	17.62	199	⇑iP	P	11 14 13.8	+1.0
	5.4nm,0.9s						
CTA	Charters Tower	17.62	199	P	P	11 14 13.8	+1.0
	0.4nm,0.3s,baz=33,slow=12,SNR=10						
DZM	Mont Dzumac	23.01	145	eP	P	11 15 03.4	-0.5
WB2	Warramunga Arr	24.08	226	⇑iP	P	11 15 13.3	-0.4
WRA	Warramunga Arr	24.09	226	P	P	11 15 13.4	-0.3
	2.9nm,0.4s,mb4.1,baz=48,slow=9.2,SNR=90						
WRA				PcP	PcP	11 18 40.6	-0.1
	0.5nm,0.3s,baz=54,slow=2.4,SNR=5.2						
WRA				S	S	11 18 58.9	+1.0
	1.3nm,1.0s,baz=47,slow=14,SNR=5.5						
WRA				ScP		11 21 38.7	
	2.2nm,0.9s,baz=50,slow=3.3,SNR=13						
ASAR	Alice Springs	26.92	220	P	P	11 15 38.2	-0.9
	1.7nm,0.5s,mb3.8,baz=52,slow=8.4,SNR=48						
ASAR				S	S	11 19 41.4	-1.6
	0.6nm,0.6s,baz=52,slow=15,SNR=6.2						
ASAR				ScP		11 21 47.2	
	0.7nm,0.9s,baz=28,slow=6.4,SNR=4.0						
ASPA	Alice Springs	26.93	220	eP	P	11 15 38.3	-0.8
FITZ	Fitzroy Crossi	30.00	239	P	P	11 16 04.7	-1.2
	3.0nm,1.0s,mb3.7,baz=119,slow=7.4,SNR=7.0						
STKA	Stephens Creek	30.08	199	P	P	11 16 05.6	-0.9
	1.2nm,0.3s,mb3.8,baz=6.2,slow=10,SNR=9.7						
STKA	Stephens Creek	30.08	199	eP	P	11 16 05.5	-1.0
JOW	Kunigami	38.05	324	P	P	11 17 13.4	-0.1
	23nm,0.9s,mb4.6,baz=190,slow=12,SNR=4.4						
URZ	Urewera	41.37	150	P	P	11 17 41.8	+1.4
	4.3nm,0.3s,mb4.4,baz=260,slow=2.2,SNR=12						
RPZ	Rata Peaks	43.40	160	P	P	11 17 56.5	+0.1
	17nm,0.6s,mb4.7,baz=348,slow=3.3,SNR=19						
CMAR	Chiang Mai Arr	56.95	295	P	P	11 19 37.5	+0.5
	2.7nm,0.6s,mb3.7,baz=114,slow=5.2,SNR=18						
SONM	Songino Array	64.96	328	P	P	11 20 29.2	-0.2
	1.7nm,0.6s,mb3.9,baz=141,slow=5.9,SNR=18						
GUN	Gumba	71.08	301	eP	P	11 21 07.5	+0.5
PKI	Pulchoki	71.40	300	eP	P	11 21 09.1	+0.3
	6.2nm,0.5s,mb4.4						
KKN	Kakani	71.56	301	eP	P	11 21 10.4	+0.6
	9.4nm,0.5s,mb4.6						
DMN	Daman	71.67	300	eP	P	11 21 11.1	+0.7
	9.9nm,0.6s,mb4.5						
GKN	Gorkha	72.17	301	eP	P	11 21 13.7	+0.4
KOLN	Koldanda	73.00	300	eP	P	11 21 18.5	+0.3
	10nm,0.8s,mb4.4						
VNDA	Vanda	74.21	178	P	P	11 21 24.6	+0.4
	1.3nm,0.7s,mb3.6,baz=318,slow=6.3,SNR=5.9						
VNDA	Vanda	74.21	178	eP	P	11 21 24.8	+0.6
ILAR	Eielson Array	81.04	22	P	P	11 21 59.6	-1.5
	2.8nm,0.6s,mb4.0,baz=250,slow=5.5,SNR=34						
QSPA	South Pole Qui	86.53	180	⇓iP	P	11 22 29.2	+1.2
	5.9nm,0.6s,mb4.5						
YBH	Yreka Blue Hor	88.43	48	P	P	11 22 37.7	-0.1
	4.0nm,1.1s,mb4.1,baz=225,slow=4.3,SNR=3.9						
NVAR	Mina Array Bea	91.55	52	P	P	11 22 52.7	+0.4
	1.8nm,0.7s,mb4.1,baz=255,slow=7.7,SNR=13						
YKA	Yellowknife Ar	94.40	28	P	P	11 23 04.3	-0.4
	0.6nm,0.7s,mb3.8,baz=271,slow=4.9,SNR=23						
YKA	Yellowknife Ar	94.40	28	P	P	11 23 04.3	-0.4
PDAR	Pinedale Array	98.21	47	P	P	11 23 21.8	-0.7
	1.2nm,0.9s,mb4.2,baz=222,slow=2.6,SNR=6.1						
GERES	GERESS Array B	122.68	329	PKP	PKPdf	11 28 38.8	+1.7
	0.1nm,0.3s,baz=90,slow=2.7,SNR=3.7						
LPAZ	La Paz	135.40	117	PKP	PKPdf	11 29 05.4	+3.3
	0.8nm,0.5s,baz=26,slow=2.5,SNR=5.3						
LPAZ	La Paz	135.40	117	ePKPdf	PKPdf	11 29 05.3	+3.2
BDFB	Brasilia	152.30	134	PKPbc	PKPdf	11 29 39.6	+9.0
	3.1nm,0.4s,baz=235,slow=7.3,SNR=5.1						
BDFB				PKPab	PKPab	11 29 51.1	-1.4
	1.3nm,0.4s,baz=302,slow=3.9,SNR=2.7						

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*NNC **11** 11:12:14.0±3.7,43.76N×72.26E,h16^{km}±13^{km},mpv3.6, Error ellipse: s-maj=30.2km s-min=6.7km az=58.0*

ISC 11 11:12:09.9±1.1**,43.72N**±0.06×**72.0E**±0.1**,h10**^{km}**,n14,** σ**0^{s}93**/18**,5C-5D,Central Kazakhstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EKS2	Erkin-Say	1.67	128	P	Pn	11 12 38.3	-1.2
	SNR=178						
USP	Ospenovka	1.87	103	P	Pn	11 12 43.0	+0.6
	SNR=233						
AML	Almayashu	2.02	141	P	Pn	11 12 42.6	-1.8
	SNR=181						
AAK	Ala-Archa	2.12	120	⇑P	Pn	11 12 45.4	-0.5
	60nm,0.5s						
AAK				⇓S	Sn	11 13 13.2	+0.7
	81nm,0.3s						
AAK	Ala-Archa	2.12	120	P	Pn	11 12 45.4	-0.5
	SNR=106						
CHMS	Chumysh	2.13	109	P	Pn	11 12 46.3	+0.3
	SNR=73						
UCH	Uchtor	2.37	128	P	Pn	11 12 49.1	-0.3
	SNR=150						
KBK	Karagaybulak	2.40	115	P	Pn	11 12 50.0	+0.1
	SNR=22						
TKM2	Tokmak 2	2.74	106	P	Pn	11 12 55.0	+0.2
	SNR=54						
KZA	Kyzart	2.90	123	P	Pn	11 12 57.7	+0.8
	SNR=64						
ULHL	Ulahol	3.44	114	P	Pn	11 13 10.1	+5.4
	SNR=19						
MK31	Makanchi Array	7.89	63	Pn	Pn	11 14 08.3	+0.9
	0.5nm,0.5s,baz=236,slow=15,SNR=26						
MK31				⇑Sn	Sn	11 15 36.9	-0.8
	1.4nm,0.5s,baz=244,slow=24,SNR=4.2						
MK31				⇓Lg		11 16 19.5	
	10nm,0.7s,baz=238,slow=29,SNR=4.9						
BVA0	Borovoye Array	9.38	354	⇓Pn	P	11 14 29.8	+1.7
	0.2nm,0.6s,baz=155,slow=11,SNR=7.9						
BVA0				⇓Sn	Sn	11 16 13.6	-1.1
	0.3nm,0.6s,baz=164,slow=24,SNR=3.2						
BVA0				⇑Lg		11 17 15.0	
	2.8nm,1.4s						
CHKZ	Chkalovo	10.01	355	⇑Pn	P	11 14 37.9	+1.2
	4.9nm,1.4s						
CHKZ				⇓Sn	S	11 16 29.2	-0.9
	1.3nm,0.7s						
CHKZ				⇑Lg		11 17 30.4	
	4.9nm,0.9s						

CASC 11 11:30:17.2±2.7**,11.62N×87.17W,h22**^{km}±13^{km}**,MD4.2, ML4.0,5C-9D,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COPN	Copaltepe	0.79	45	⇑eP	Pb	11 30 32.0	-0.1
COPN				eS	Sb	11 30 43.7	+1.3
LEON	Leon	0.83	19	⇓eP	Pb	11 30 32.5	-0.3
LEON				eS	Sb	11 30 46.7	+3.1
CRUN	El Crucero	0.92	67	⇓eP	Pb	11 30 33.6	-0.8
MIRN	Miramar	0.93	29	⇑eP	Pb	11 30 33.8	-0.6
XAVN	Gruta Xavier	0.97	57	⇑eP	Pb	11 30 34.6	-0.7
XAVN				eS	Sb	11 30 50.4	+2.6
CNGN	Cerro Negro	0.99	28	eP	Pb	11 30 34.3	-1.1
MOMJ	Momotombo	0.99	38	⇓eP	Pb	11 30 34.7	-0.9
TICN	Ticuantepe	1.00	66	⇑eP	Pb	11 30 34.8	-0.9
APYN	Apoyeque	1.00	53	⇓eP	Pb	11 30 35.1	-0.7
APYN				eS	Sb	11 30 50.4	+1.8
MGAN	Managua	1.04	60	⇓iP	Pb	11 30 34.2	-2.2
MGAN				⇓eP		11 30 35.3	
MGAN				eS	Sb	11 30 49.9	+0.3
MASN	Masaya	1.06	70	eP	Pb	11 30 36.4	-0.3
CRIN	San Cristobal	1.08	6	eP	Pb	11 30 36.4	-0.6
WILN	Americas 2	1.10	61	⇓eP	Pb	11 30 35.9	-1.5
WILN				eS	Sb	11 30 51.5	+0.2
WILN				i		11 30 52.2	
	comp=E,4μm,0.4s						
APON	Apoyo	1.12	75	⇑eP	Pb	11 30 36.2	-1.5
APON				eS	Sb	11 30 51.8	0.0
PYTN	Playitas	1.42	50	⇓eP	Pn	11 30 40.7	-1.3
PYTN				eS	Sn	11 30 59.2	-0.9
JCR	Jicaral	2.68	131	eP	Pn	11 30 58.1	-1.9
JCR				eS	Sn	11 31 31.9	-0.3
PRS1	Puriscal	3.24	120	eP	Pn	11 31 09.7	+1.6
LAJ	Bijagual	3.47	120	eP	Pn	11 31 06.9	-4.3
LCR2	La Lucha 2	3.63	121	eP	Pn	11 31 13.7	+0.2
URSC	Urasca	3.77	118	⇓eP	Pn	11 31 15.7	+0.1

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*NIED **11** 11:37:00,40.10N×142.40E,h35^{km},Mw3.8 Best double couple: $M_0$5.84×10^{14} NP1:ϕ_s21°,δ77°,λ93°. NP2:ϕ_s187°, δ13°,λ76°.*

*IDC **11** 11:37:02.0±1.6,39.86N×142.14E,mb3.5/3,mb1 3.6/4, mb1mx3.4/21,ML3.2/1,MS3.4/1,Ms1 3.4/1,ms1mx3.0/18, Error ellipse: s-maj=60.5km s-min=23.5km az=84.0*

*JMA **11** 11:37:06.2±0.1,40.11N×142.44E,h35^{km}±1^{km},M3.7*

ISC 11 11:37:05.9±1.4**,40.11N**±0.05×**142.5E**±0.1**,h33**^{km}±6^{km}**, n12,**σ**0^{s}94**/18**,mb3.4**/3**,3D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JTH	Tanohata	0.48	249	P	Pb	11 37 16.5	+0.3
JTH				eS	Sb	11 37 24.0	+0.7
MIYJ	Miyakonagasawa	0.72	222	P	Pn	11 37 19.5	-0.3
MIYJ				eS	Sb	11 37 28.4	-1.3

JANG	Nango	0.76	290	⇓P	Pn	11 37 20.2	-0.1
JANG				*e*S	Sb	11 37 30.0	-0.8
JKZ	Kuzumaki	0.87	262	⇓P	Pn	11 37 22.3	+0.4
JKZ				*e*S	Sn	11 37 33.3	-0.2
JOM	Ohasama	1.10	235	⇓P	Pn	11 37 25.7	+0.6
JOM				*e*S	Sn	11 37 40.0	+0.7
OFUJ	Ofunato	1.20	211	P	Pn	11 37 26.8	+0.3
OFUJ				*e*S	Sn	11 37 42.0	+0.3
ASAJ	Asahikawa	4.00	2	Pn	Pn	11 38 08.0	+1.4
	1.0nm,0.3s,baz=232,slow=11,SNR=6.4						
ASAJ				Sn	Sn	11 38 59.9	+6.9
	1.0nm,0.3s,baz=338,slow=20,SNR=3.5						
MAT	Matsushiro	4.88	224	P	Pn	11 38 20.1	+1.1
JOW	Kunigami	17.73	226	LR	LR	11 46 51.5	
	comp=Z,109nm,18.6s,baz=129,slow=34						
SONM	Songino Array	26.88	299	P	P	11 42 43.8	-1.6
	0.6nm,0.6s,mb3.3,baz=105,slow=8.8,SNR=5.0						
WRA	Warramunga Arr	60.22	189	P	P	11 47 09.0	-4.2
	0.4nm,0.8s,mb3.5,baz=6.8,slow=7.0,SNR=5.8						
ASAR	Alice Springs	63.95	189	P	P	11 47 35.7	-2.4
	0.3nm,0.9s,mb3.3,baz=357,slow=6.4,SNR=3.7						

MOS 11 11:40:48.7±1.1,37.47N×20.72E,h10^{km},mb4.5/4,Error ellipse: s-maj=9.7km s-min=4.1km az=85.5

IDC 11 11:40:50.2±1.0,37.83N×20.97E,mb4.0/12,mb1 4.0/20, mb1mx4.0/27,ML4.0/7,MS3.0/1,Ms1 3.0/1,ms1mx2.6/24, Error ellipse: s-maj=24.0km s-min=16.4km az=42.0

NEIC 11 11:40:53.2,37.70N×20.83E,h22^{km},mb4.2/4, MD3.9(PDG),ML4.1(THE),ML3.8(ATH),After ATH.

ATH 11 11:40:53.5,37.72N×20.84E,h22^{km}±1^{km},MD3.8/16, ML3.8

CSEM 11 11:40:55.2±0.1,37.72N×20.90E,h25^{km},ML3.8,Error ellipse: s-maj=3.1km s-min=2.2km az=27.0

PDG 11 11:40:56.8±0.1,37.96N×19.76E,h15^{km}±11^{km}

ISC 11 11:40:54.9±0.4,**37.78N**±0.03×**20.76E**±0.03,**h50**^{km}±4^{km}, **n128,**σ$1\overset{s}{.}$**33**/148,**mb4.1**/15,**MS3.6**/1,**5C-20D,Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.42	342	⇓*e*PB	P	11 41 03.8	-1.4
RLS	Riolos of Patr	0.63	63	⇓PN	P	11 41 05.7	-2.0
RLS				SN	S	11 41 13.7	-3.4
ITM	Ithomi	1.11	122	⇑PN	P	11 41 13.6	-0.7
ITM				SN	S	11 41 27.3	-1.4
EVR	Evrytania	1.41	36	⇓PN	P	11 41 20.4	+1.8
AGG	Agios Georgios	1.75	44	*e*P	P	11 41 26.1	+2.7
AGG	Agios Georgios	1.75	44	P	P	11 41 26.1	+2.7
AGG				S	S	11 41 54.9	+10
IGT	Igoumenitsa	1.78	349	*e*P	P	11 41 25.3	+1.4
IGT	Igoumenitsa	1.78	349	P	P	11 41 25.3	+1.4
IGT				S	S	11 41 56.1	+11
JAN	Janina	1.88	2	⇑PN	P	11 41 27.3	+2.1
LKR	Lokris	1.97	63	⇓PN	P	11 41 27.7	+1.2
MEV	Metsovon	2.04	10	*e*P	P	11 41 30.5	+3.0
VLI	Veliai	2.04	121	⇓Pn	P	11 41 23.7	-3.7
KEK	Kerkira	2.07	339	⇓PB	P	11 41 28.9	+1.0
NSAL	Nisos Salamina	2.15	86	*e*PB	P	11 41 29.0	0.0
NAIG	Nisos Aigina	2.17	90	*e*PN	P	11 41 30.0	+0.7
ATH	Athens Observa	2.35	84	⇓PN	P	11 41 31.9	0.0
KYTH	Kithira	2.36	129	*e*PN	P	11 41 31.0	-1.1
MPAR	Parnis Oros	2.38	80	*e*PN	P	11 41 33.0	+0.6
NEO	Neokhori	2.46	51	⇑PN	P	11 41 34.3	+0.8
PTL	Penteli	2.47	83	*e*PN	P	11 41 33.5	-0.2
XOR	Xorichti	2.48	50	*e*P	P	11 41 34.8	+1.0
XOR	Xorichti	2.48	50	P	P	11 41 34.8	+1.0
XOR				S	S	11 42 11.4	+8.4
KZN	Kozani	2.65	17	⇓PB	P	11 41 39.0	+2.9
LIT	Litokhoron	2.68	30	*e*P	P	11 41 37.8	+1.1
AOS	Alonnisos	2.82	60	*e*P	P	11 41 38.9	+0.3
FNA	Florina	3.04	9	*e*P	P	11 41 43.3	+1.6
PAIG	Paliouri	3.13	46	*e*P	P	11 41 43.2	+0.1
THE	Thessaloniki	3.33	30	*e*P	P	11 41 47.1	+1.3
OHR	Ohrid	3.33	1	*e*Pn	P	11 41 47.6	+1.8
PLG	Polygyros	3.33	38	PN	P	11 41 46.5	+0.7
GRG	Griva	3.42	21	*e*P	P	11 41 47.8	+0.7
OUR	Ouranopolis	3.58	44	*e*P	P	11 41 49.7	+0.4
SOH	Sokhos	3.65	33	*e*P	P	11 41 51.4	+1.1
KNT	Kendrikon	3.76	25	*e*P	P	11 41 53.0	+1.1
QSH	Qafa e Shtames	3.79	350	*i* Sn	S	11 42 37.0	+0.8
APE	Apeiranthos	3.87	99	*i* P	P	11 41 58.4	+5.0
SRS	Serrai	3.99	32	*e*P	P	11 41 55.8	+0.7
ORI	Oriolo Calabro	4.06	306	*e*Pn	P	11 41 56.8	+0.7
IDI	Anoyia	4.16	126	Pn	P	11 41 57.3	-0.1
	1.7nm,0.3s,baz=286,slow=15,SNR=2.4						
IDI				Sn	S	11 42 42.4	-2.9
	13nm,0.3s,baz=298,slow=19,SNR=7.0						
LTRZ	Laterza	4.16	314	*e*Pn	P	11 41 57.6	+0.1
LTRZ	Laterza	4.16	314	*e*Pn	P	11 41 57.6	+0.1
SKO	Skopje	4.22	7	⇑*i*Pn	P	11 41 59.0	+0.6
ULC	Ulcinj	4.34	345	⇓*i*Pn	P	11 41 59.2	-0.8
ULC				*e*Sn	S	11 42 46.9	-3.0
MGR	Morigerati	4.69	302	*e*Pn	P	11 42 05.1	+0.1
MGR	Morigerati	4.69	302	*e*Pn	P	11 42 05.1	+0.1
BUM	Brajici-Budva	4.74	343	⇓*i*Pn	P	11 42 04.4	-1.2
BUM				*e*Sn	S	11 42 55.6	-4.3
BUM	Brajici-Budva	4.74	343	*e*Sn	S	11 42 55.6	-4.3
SLCN	Sala Consilina	4.76	305	*e*Pn	P	11 42 07.2	+1.2
SLCN	Sala Consilina	4.76	305	*e*Pn	P	11 42 07.2	+1.2
TTG	Podgorica	4.78	347	⇓*i*Pn	P	11 42 05.4	-0.9
TTG				*e*Sn	S	11 42 57.9	-3.3
PVY	Plav	4.85	353	⇓*i*Pn	P	11 42 07.7	+0.5
PVY				*e*Sn	S	11 43 01.3	-1.5
PVY	Plav	4.85	353	*e*Sn	S	11 43 01.3	-1.4
HCY	Herceg Novi	4.97	340	⇓*i*Pn	P	11 42 07.2	-1.8
HCY				*e*Sn	S	11 43 00.1	-5.8
VAE	Valguarnera	5.04	269	Pn	P	11 42 10.7	+0.8
	1.5nm,0.3s,baz=96,slow=10,SNR=2.6						
VAE				Sn	S	11 43 08.6	+0.9
	11nm,0.3s,baz=128,slow=18,SNR=7.2						
VAE	Valguarnera	5.04	269	Pn	P	11 42 10.8	+0.8
MRLC	Muro Lucano	5.05	308	*e*Pn	P	11 42 10.3	+0.2
MRLC	Muro Lucano	5.05	308	*e*Pn	P	11 42 10.3	+0.2
SGO	Sicignano	5.06	305	*e*Pn	P	11 42 11.5	+1.3
IVA	Berane	5.13	353	⇓*i*Pn	P	11 42 11.9	+0.8
IVA				*e*Sn	S	11 43 08.3	-1.4
NKY	Niksic	5.20	346	⇓*i*Pn	P	11 42 11.5	-0.7
NKY				*e*Sn	S	11 43 07.4	-4.3
BRY	Bratogost	5.39	342	⇓*i*Pn	P	11 42 13.3	-1.4
BRY				*e*Sn	S	11 43 10.6	-5.7
CSSN	Cassano Irpino	5.41	306	*e*Pn	P	11 42 16.6	+1.6
CSSN	Cassano Irpino	5.41	306	*e*Pn	P	11 42 16.5	+1.5
FG5	Orsara di Pugl	5.50	311	*e*Pn	P	11 42 17.1	+0.9
RGNG	Rignano Grg	5.57	316	*e*Pn	P	11 42 16.8	-0.4
RGNG	Rignano Grg	5.57	316	*e*Pn	P	11 42 16.8	-0.4
STON	Ston	5.60	336	*i* Pn	P	11 42 15.8	-1.9
STON				*i* Sn	S	11 43 17.2	-4.2
UPM	Unac-Piva	5.60	346	⇓*i*Pn	P	11 42 17.2	-0.4
UPM				*e*Sn	S	11 43 16.6	-4.9
UPM	Unac-Piva	5.60	346	⇓*i*Pn	P	11 42 17.2	-0.4
UPM				*e*Sn	S	11 43 16.6	-4.9
PLE	Pljevlja	5.64	350	⇓*i*Pn	P	11 42 18.0	-0.2
PLE				*e*Sn	S	11 43 19.4	-3.2
ARV	Arcevia	8.24	316	*e*Pn	P	11 42 53.3	-1.2
ARV	Arcevia	8.24	316	*e*Pn	P	11 42 53.3	-1.1
MLR	Muntele Rosu	8.63	25	Pn	P	11 43 00.8	+1.0
	0.4nm,0.3s,baz=138,slow=13,SNR=5.5						
BOJS	Bojanci	8.75	334	*e*Pn	P	11 43 00.2	-1.2
GCIS	Gornji Cirnik	8.94	336	*e*Pn	P	11 43 01.9	-2.2
VISS	Visnje	9.15	333	*e*Pn	P	11 43 05.7	-1.4
PDKS	Podkum	9.32	334	*e*Pn	P	11 43 08.0	-1.3
VOY	Vojsko	9.70	330	*e*Pn	P	11 43 12.3	-2.2
VOY				*e*Sn	S	11 44 57.1	-6.0
OBKA	Obir	9.86	334	⇑*i*PN	P	11 43 15.0	-1.7
OBKA				*i* SN	S	11 45 00.3	-6.8
BRTR	Keskin Array B	10.25	75	Pn	P	11 43 19.4	-2.6
	baz=297,slow=3.2,SNR=2.8						
MOA	Molln	11.13	337	⇓*i*PN	P	11 43 32.1	-1.9
MOA				*i* SN	S	11 45 31.3	-6.6
DAVOX	Davos	12.06	322	Sn	S	11 46 02.0	+1.6
	0.8nm,0.3s,baz=131,slow=15,SNR=5.7						
GERES	GERESS Array B	12.19	337	Pn	P	11 43 45.6	-2.6
	0.3nm,0.3s,baz=163,slow=14,SNR=11						
GERES				Sn	S	11 45 58.1	-5.4
	0.3nm,0.3s,baz=149,slow=22,SNR=5.9						
KHC	Kasperske Hory	12.48	338	*e*P	P	11 43 52.0	-0.1
GRA1	Grafenberg Arr	13.74	333	*e*Pn	P	11 44 18.9	+10
GRF	Grafenberg Arr	13.74	333	*e*P	P	11 44 18.9	+10
GRF	Grafenberg Arr	13.74	333	*e*P	P	11 44 18.9	+10
AKASG	Malin Array Be	14.26	22	Pn	P	11 44 12.8	-2.6
	0.4nm,0.3s,baz=207,slow=12,SNR=3.4						
HINF	Hinteralfeld	14.29	319	*e*P	P	11 44 23.4	+7.6
	3.2nm,0.5s						
HINF	Hinteralfeld	14.29	319	*e*P	P	11 44 23.4	+7.6
HINF				pmax	pmax		
	comp=Z,2.0nm,0.5s						
EIL	Elat	14.30	120	Pn	P	11 44 11.6	-4.6
	comp=Z,0.2nm,0.3s,baz=73,slow=14,SNR=3.3						
EIL	Elat	14.30	120	Pn	P	11 44 11.6	-4.6
CDF	Champ du Feu	14.46	322	*e*P	P	11 44 27.5	+9.4
	comp=Z,9.1nm,0.8s						
CDF	Champ du Feu	14.46	322	*e*P	P	11 44 27.5	+9.4
CDF				pmax	pmax		
	comp=Z,5.0nm,0.8s						
CLL	Collm	14.60	340	*e*	P	11 44 28.0	+8.2
HAU	Haudompre	14.67	319	*e*P	P	11 44 28.7	+7.9
	comp=Z,15nm,0.8s						
HAU	Haudompre	14.67	319	*e*P	P	11 44 28.7	+7.9
HAU				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MEZF	Maizieres J'vi	15.66	318	*e*P	P	11 44 40.3	+6.8
	comp=Z,21nm,1.0s						
SSF	Saint Saulge	15.73	312	*e*P	P	11 44 39.6	+5.2
GIVF	Givet	16.79	322	*e*P	P	11 44 53.0	+5.2
BAIF	Baives	17.06	321	*e*P	P	11 44 56.0	+4.8
	comp=Z,3.5nm,0.6s						
BAIF	Baives	17.06	321	*e*P	P	11 44 56.0	+4.8
BAIF				pmax	pmax		
	comp=Z,2.0nm,0.6s						
GNI	Garni	18.79	75	LR	LR	11 52 57.2	
	comp=Z,44nm,20.3s,baz=167,slow=39						
ESDC	Sonseca Array	19.37	283	P	P	11 45 19.2	+0.1
	comp=Z,0.8nm,0.3s,baz=90,slow=11,SNR=4.3						
OBN	Obninsk	20.39	27	*e*P	P	11 45 28.7	-1.2
OBN				*e*S	S	11 49 13.1	+2.5
OBN				pmax	pmax		
	comp=Z,15nm,0.6s						
HFS	Hagfors	22.82	351	P	P	11 45 54.0	-0.1
	comp=Z,10.0nm,0.7s,mb4.3,baz=164,slow=10,SNR=23						
EKA	Eskdalemuir Ar	23.86	325	P	P	11 46 06.1	+1.9
	comp=Z,8.1nm,0.7s,mb4.3,baz=126,slow=8.7,SNR=28						
FINES	FINESS Array B	23.92	6	P	P	11 46 04.8	+0.1
	comp=Z,1.5nm,0.5s,mb3.7,baz=171,slow=11,SNR=10.0						
FINES	FINESS Array B	23.92	6	*e*P	P	11 46 05.5	+0.8
NB2	NORSAR Subarra	24.05	349	P	P	11 46 06.6	+0.7
	comp=Z,3.9nm,0.7s,mb4.0,baz=147,slow=8.6						
NB2	NORSAR Subarra	24.05	349	P	P	11 46 06.6	+0.7
NB2				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.0						
NOA	NORSAR Array B	24.05	349	P	P	11 46 06.9	+1.0
	comp=Z,1.8nm,0.7s,mb3.6,baz=162,slow=10,SNR=11						
ARCES	ARCESS Array B	31.92	3	P	P	11 47 16.6	-1.0
	comp=Z,3.9nm,0.9s,mb4.2,baz=192,slow=11,SNR=5.4						
ARCES	ARCESS Array B	31.92	3	P	P	11 47 16.5	-1.0
NVS	Novosibirsk	44.81	47	*e*P	P	11 49 04.3	-1.0
NVS				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
GUN	Gumba	54.62	80	*e*P	P	11 50 19.1	-1.7
	comp=Z,3.0nm,0.5s,mb4.6						
SCHQ	Schefferville	58.88	318	P	P	11 50 50.6	-0.1
	comp=Z,2.6nm,0.8s,mb4.3,baz=69,slow=6.5,SNR=3.1						
TIXI	Tiksi	59.96	20	*e*P	P	11 50 54.2	-3.7
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,48nm,19.0s,MS3.6						
SONM	Songino Array	60.57	50	P	P	11 51 01.6	-0.8
	comp=Z,0.6nm,0.7s,mb3.8,baz=271,slow=8.9,SNR=5.3						
CMAR	Chiang Mai Arr	69.76	82	P	P	11 52 01.1	-0.9
	comp=Z,2.6nm,0.9s,mb4.2,baz=302,slow=8.5,SNR=12						
CMAR	Chiang Mai Arr	69.76	82	P	P	11 52 01.0	-1.0
YKA	Yellowknife Ar	73.83	340	P	P	11 52 26.5	+1.2
	comp=Z,0.5nm,0.6s,mb3.6,baz=34,slow=5.4,SNR=18						
ULM	Lac du Bonnet	76.13	324	P	P	11 52 41.0	+2.2
	comp=Z,1.5nm,0.7s,mb4.0,baz=34,slow=7.6,SNR=3.1						
ILAR	Eielson Array	77.32	355	P	P	11 52 46.7	+1.5
	comp=Z,0.5nm,0.9s,mb3.4,baz=349,slow=4.6,SNR=5.7						
PDAR	Pinedale Array	87.98	326	P	P	11 53 42.7	+2.3
	comp=Z,0.3nm,0.7s,mb3.6,baz=352,slow=6.4,SNR=3.1						
WRA	Warramunga Arr	120.34	93	PKP	PKPdf	11 59 42.2	+1.2
	comp=Z,0.4nm,1.0s,baz=314,slow=1.5,SNR=5.4						
WRA	Warramunga Arr	120.34	93	*e*PKIKP	PKPdf	11 59 40.8	-0.2
ASAR	Alice Springs	121.94	97	PKP	PKPdf	11 59 45.7	+1.7
	comp=Z,0.8nm,1.0s,baz=307,slow=1.7,SNR=6.2						

NEIC 11 11:49:34.2±0.8,56.34S×143.19W,h10^{km},mb4.4/2,Error ellipse: s-maj=29.4km s-min=16.6km az=180.0

IDC 11 11:49:33.7±1.1,**56.55S**×**143.46W,mb4.1**/6,**mb1 4.2**/6, **mb1mx4.0**/13,**MS4.6**/14,**Ms1 4.6**/14,**ms1mx4.6**/15,**Error ellipse: s-maj=48.5km s-min=21.8km az=2.0, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	28.07	202	LR	LR	12 03 10.8	
	comp=Z,1µm,21.9s,baz=76,slow=29						
RPZ	Rata Peaks	31.25	275	LR	LR	12 05 42.9	
	comp=Z,2µm,20.1s,baz=128,slow=31						
URZ	Urewera	31.77	288	LR	LR	12 05 47.0	
	comp=Z,2µm,20.3s,baz=322,slow=31						
RAR	Rarotonga	37.30	334	LR	LR	12 07 55.0	
	comp=Z,768nm,19.0s,baz=181,slow=30						
SNAA	Sanae	49.12	165	P	P	11 58 22.3	-1.8
	1.0nm,0.5s,baz=205,slow=8.6,SNR=16						
MAW	Mawson	54.63	192	LR	LR	12 21 53.4	
	comp=Z,484nm,18.8s,baz=157,slow=36						
MAW	Mawson	54.63	192	P	P	11 59 04.2	-1.3
	2.5nm,0.9s						
STKA	Stephens Creek	55.95	263	P	P	11 59 14.6	-1.0
	0.7nm,0.7s,baz=147,slow=5.6,SNR=3.7						
STKA				LR	LR	12 18 33.2	
	comp=Z,835nm,21.4s,baz=296,slow=31						
STKA	Stephens Creek	55.95	263	*e*P	P	11 59 14.5	-1.1
CTA	Charters Tower	62.62	275	LR	LR	12 23 29.9	
	comp=Z,450nm,18.0s,baz=99,slow=32						
LVC	Limon Verde	62.96	90	P	P	12 00 00.5	-3.6
	3.0nm,0.8s,baz=228,slow=9.4,SNR=5.2						
ASAR	Alice Springs	66.58	262	P	P	12 00 25.6	-2.0
	2.1nm,1.0s,baz=140,slow=6.3,SNR=12						
ASAR				LR	LR	12 25 24.3	
	comp=Z,491nm,20.5s,baz=147,slow=32						
LPAZ	La Paz	68.48	87	P	P	12 00 40.0	+0.4
	2.9nm,0.9s,baz=198,slow=5.6,SNR=5.4						
LPAZ				LR	LR	12 24 02.8	
	comp=Z,224nm,21.4s,baz=77,slow=30						
LPAZ	La Paz	68.48	87	*e*P	P	12 00 36.1	-3.5
	3.2nm,0.7s						
WRA	Warramunga Arr	69.33	265	P	P	12 00 41.9	-2.9
	1.0nm,0.8s,baz=146,slow=5.7,SNR=6.1						
FITZ	Fitzroy Crossi	75.59	259	LR	LR	12 31 39.8	
	comp=Z,374nm,18.2s,baz=124,slow=33						
BDFB	Brasilia	80.07	103	LR	LR	12 33 35.8	
	comp=Z,962nm,18.1s,baz=205,slow=33						
SUR	Sutherland	90.42	167	LR	LR	12 36 27.9	
	comp=Z,291nm,20.1s,baz=20,slow=31						
TXAR	Lajitas Array	91.97	34	LR	LR	12 34 10.8	
	comp=Z,160nm,20.5s,baz=70,slow=29						
NVAR	Mina Array Bea	96.99	20	LR	LR	12 38 38.3	
	comp=Z,227nm,18.3s,baz=245,slow=30						

IDC 11 12:15:59.9±8.4,1.57S×100.61E,h84^{km}±76^{km},mb4.3/12, mb1 4.3/13,mb1mx4.0/20,ML5.0/1,Error ellipse: s-maj=50.3km s-min=13.6km az=60.0

NEIC 11 12:16:00.1±1.1,1.57S×100.65E,h85^{km}±10^{km},mb4.4/1, Error ellipse: s-maj=14.4km s-min=8.2km az=72.0

NEIC Felt [II] at Padang and Padangpanjang.

BJI 11 12:16:00.0,1.27S×100.60E,h84^{km},mb4.6

ISC 11 12:15:57.4±0.8,**1.59S**±0.06×**100.63E**±0.09,**h80**^{km}±7^{km}, **n46,**σ**$0\overset{s}{.}$99**/44,**mb4.5**/16,**2C-3D,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPI	Padang Panjang	1.15	348	*e*P	P	12 16 18.0	-0.5
PPI				*e*S	S	12 16 35.0	+0.6
KGM	Kluang	4.48	37	*i* P	P	12 17 06.3	+1.9
	388nm,0.1s						
PENI	Pendagan	6.01	131	*e*P	P	12 17 26.3	+0.8
IPM	Ipoh	6.14	4	⇑*e*P	P	12 17 27.2	-0.1
PASI	Pasiripis	7.08	136	*e*P	P	12 17 37.6	-2.8
SINI	Singah	8.71	128	*e*P	P	12 18 01.5	-1.2
COCO	West Island	11.19	199	*e*P	P	12 18 37.2	+1.0
SRDI	Scrawed	15.09	117	⇑*e*P	P	12 19 25.8	-1.8
	184nm,0.2s						
KELI	Kelakatan	15.29	116	⇓*i*P	P	12 19 31.6	+1.4
RATI	Rata	16.44	116	⇓*i*P	P	12 19 43.2	-1.4
	299nm,0.2s						
KEDI	Kedomdong	16.87	114	⇓*i*P	P	12 19 49.8	-0.1
	59nm,0.2s						
CMAR	Chiang Mai Arr	19.99	355	P	P	12 20 25.9	-0.2
	1.9nm,0.3s,baz=186,slow=9.8,SNR=9.0						
FITZ	Fitzroy Crossi	29.53	125	P	P	12 21 56.4	-0.4
	4.1nm,0.9s,mb4.1,baz=315,slow=7.8,SNR=9.6						
LSA	Lhasa	32.40	344	P	P	12 22 22.0	+0.1
PKI	Pulchoki	32.48	334	*e*P	P	12 22 21.2	-1.4
GUN	Gumba	32.58	335	*e*P	P	12 22 23.1	-0.3
	52nm,0.4s						
DMN	Daman	32.65	334	*e*P	P	12 22 23.5	-0.6
KKN	Kakani	32.73	334	*e*P	P	12 22 24.4	-0.4
	20nm,0.6s,mb5.1						
GKN	Gorkha	33.19	334	*e*P	P	12 22 28.2	-0.6
	8.1nm,0.3s,mb5.0						
KOLN	Koldanda	33.47	332	*e*P	P	12 22 28.4	-2.8
	9.8nm,0.6s,mb4.8						
NWAO	Narrogin (SRO)	34.86	155	P	P	12 22 43.7	+0.7
	9.3nm,0.8s,mb4.7,baz=27,slow=6.8,SNR=2.7						
NWAO	Narrogin (SRO)	34.86	155	P	P	12 22 43.7	+0.7
WRA	Warramunga Arr	37.66	121	P	P	12 23 06.4	-0.3
	1.3nm,0.4s,mb4.1,baz=299,slow=10,SNR=36						
WB2	Warramunga Arr	37.67	121	*e*P	P	12 23 06.6	-0.2
ASPA	Alice Springs	38.99	127	*e*P	P	12 23 18.7	+1.0
ASAR	Alice Springs	38.99	127	P	P	12 23 18.6	+0.8
	2.5nm,0.7s,mb4.2,baz=304,slow=8.1,SNR=37						
PMG	Port Moresby	46.92	101	P	P	12 24 22.6	+0.4
	5.2nm,0.8s,mb4.3,baz=259,slow=10,SNR=3.4						
PMG	Port Moresby	46.92	101	P	P	12 24 22.6	+0.4
STKA	Stephens Creek	48.95	132	*e*P	P	12 24 38.7	+0.9
	1.5nm,0.4s,mb4.3						
STKA	Stephens Creek	48.95	132	P	P	12 24 38.8	+0.9
	2.3nm,0.7s,mb4.2,baz=302,slow=6.5,SNR=6.7						
STKA	Stephens Creek	48.95	132	*e*P	P	12 24 38.7	+0.8
KZA	Kyzart	49.16	335	P	P	12 24 40.5	+1.3
	SNR=6.3						
SONM	Songino Array	49.48	5	P	P	12 24 42.1	+0.4
	7.1nm,0.5s,mb4.8,baz=187,slow=9.4,SNR=65						
TKM2	Tokmak 2	49.71	336	P	P	12 24 43.9	+0.4
	SNR=21						
AML	Almayashu	49.87	334	P	P	12 24 45.1	+0.3
	SNR=10						
EKS2	Erkin-Say	50.26	334	P	P	12 24 48.1	+0.4
	SNR=15						
USP	Ospenovka	50.45	335	P	P	12 24 48.7	-0.4
	SNR=9.3						
BVAR	Borovoye Array	60.02	339	P	P	12 25 56.5	-1.6
	2.2nm,0.4s,mb4.5,baz=138,slow=9.5,SNR=8.3						
FINES	FINESS Array B	84.04	332	P	P	12 28 20.7	+0.5
	5.3nm,1.1s,mb4.3,baz=103,slow=6.2,SNR=13						
KAF	Kangasniemi	84.11	333	*e*p	P	12 28 20.4	-0.1
	3.0nm,0.7s,mb4.2						
ARCES	ARCESS Array B	86.30	340	P	P	12 28 33.1	+1.9
	7.0nm,1.0s,mb4.5,baz=108,slow=3.8,SNR=6.6						
VAE	Valguarnera	87.95	307	P	P	12 28 43.9	+3.9
	12nm,0.4s,mb5.3,baz=231,slow=6.5,SNR=3.1						
HFS	Hagfors	89.83	330	P	P	12 28 48.0	-0.3
	5.8nm,1.1s,mb4.6,baz=169,slow=7.6,SNR=4.5						
TXAR	Lajitas Array	143.99	38	PKP	PKPdf	12 35 25.9	+1.6
	1.7nm,0.7s,baz=204,slow=1.2,SNR=33						
TXAR	Lajitas Array	143.99	38	PKP	PKPdf	12 35 25.9	+1.6
JCT	Junction City	145.34	32	*e*PKPdf	PKPdf	12 35 29.5	+2.8

MEX 11 12:18:35.9±0.4,**16.02N**×**98.54W,h2**^{km}±7^{km},**MD3.6,Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.55	47	*i* P	Pg	12 18 46.0	-0.8
PNIG				*i* S	Sg	12 18 53.9	-0.2
ACX	Acapulco	1.57	303	*e*P	Pn	12 19 02.0	-2.9
ACX				*e*S	Sb	12 19 20.0	-5.6
VHO	Vista Hermosa	2.03	59	*e*P	Pn	12 19 07.6	-4.0
VHO				*i* S	Sn	12 19 32.7	-5.1

NEIC 11 12:19:35.3±5.6,2.71N×128.65E,h219^{km}±55^{km},mb4.1/1, Error ellipse: s-maj=42.6km s-min=13.2km az=57.0

IDC 11 12:19:36.4±2.4,2.68N×128.63E,h230^{km}±18^{km},mb3.4/7, mb1 3.6/7,mb1mx3.4/18,Error ellipse: s-maj=48.5km s-min=12.4km az=68.0

ISC 11 12:19:32.0±2.6,**2.8N**±0.2×**128.7E**±0.4,**h205**^{km}±25^{km},**n11,** σ**$0\overset{s}{.}$62**/13,**mb3.8**/6,**Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	15.83	167	*e*P	P	12 23 05.3	-0.1
	5.8nm,0.7s						
FITZ	Fitzroy Crossi	20.99	188	P	P	12 24 00.7	+0.4
	2.4nm,0.8s,baz=3.8,slow=11,SNR=5.2						
WRA	Warramunga Arr	23.26	166	P	P	12 24 23.1	+0.6
	2.0nm,0.5s,mb4.0,baz=347,slow=10,SNR=15						
WRA				S	S	12 28 17.5	+1.2
	0.5nm,0.8s,baz=343,slow=14,SNR=2.8						
WRA				ScP		12 31 19.8	
	0.2nm,0.6s,baz=334,slow=2.4,SNR=4.5						
WB2	Warramunga Arr	23.27	166	*e*P	P	12 24 23.6	+1.1
ASAR	Alice Springs	26.79	169	P	P	12 24 54.4	-0.8
	1.7nm,0.5s,mb4.0,baz=356,slow=8.2,SNR=17						
ASAR				S	S	12 29 13.5	-0.7
	0.3nm,0.8s,baz=354,slow=20,SNR=3.9						
ASAR				ScP		12 31 30.2	
	0.5nm,0.8s,baz=342,slow=2.9,SNR=4.8						
ASPA	Alice Springs	26.79	169	*e*P	P	12 24 54.5	-0.6
CMAR	Chiang Mai Arr	33.05	300	P	P	12 25 50.5	+0.2
	0.6nm,0.9s,mb3.1,baz=113,slow=6.9,SNR=4.3						
STKA	Stephens Creek	36.59	161	P	P	12 26 19.7	-0.5
	1.0nm,0.3s,mb3.8,baz=337,slow=9.6,SNR=2.8						
STKA	Stephens Creek	36.59	161	P	P	12 26 19.7	-0.5
NWAO	Narrogin (SRO)	37.15	196	P	P	12 26 24.4	-0.5
	8.4nm,0.8s,mb4.3,baz=23,slow=7.7,SNR=3.4						
BVAR	Borovoye Array	69.18	327	P	P	12 30 18.2	+0.1
	0.8nm,0.8s,mb3.4,baz=135,slow=4.1,SNR=3.6						

IDC 11 12:53:43.7±10.0,24.67S×179.64W,h355^{km}±100^{km}, mb3.5/5,mb1 3.7/6,mb1mx3.5/13,Error ellipse: s-maj=54.5km s-min=24.8km az=47.0

NEIC 11 12:53:47.7±7.4,24.73S×179.71W,h398^{km}±70^{km},mb4.3/3, Error ellipse: s-maj=56.5km s-min=19.4km az=211.0

ISC 11 12:53:41.5±5.6,**24.7S**±0.2×**179.7W**±0.3,**h341**^{km}±56^{km}, **n18,**σ**$0\overset{s}{.}$95**/12,**mb3.8**/8,**1D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	13.84	191	P	P	12 56 46.8	+0.5
	1.4nm,0.3s,baz=166,slow=12,SNR=8.9						
URZ				S	S	12 59 14.0	+0.5
	0.9nm,0.3s,baz=245,slow=23,SNR=14						
CTA	Charters Tower	31.75	271	*e*P	P	12 59 39.0	+2.3
	7.5nm,0.4s,mb4.3						
STKA	Stephens Creek	34.70	249	P	P	13 00 01.0	-0.7
	2.7nm,0.6s,mb3.6,baz=109,slow=8.9,SNR=5.1						
ASAR	Alice Springs	42.18	261	P	P	13 01 03.4	0.0
	2.8nm,0.4s,mb3.8,baz=94,slow=6.9,SNR=82						
ASPA	Alice Springs	42.18	261	*e*P	P	13 01 03.3	-0.1
WB2	Warramunga Arr	42.62	267	⇓*i*P	P	13 01 06.7	-0.2
WRA	Warramunga Arr	42.63	267	P	P	13 01 06.8	-0.2
	6.5nm,0.5s,mb4.0,baz=100,slow=7.3,SNR=232						
KAKA	Kakadu	46.68	276	*e*P	P	13 01 38.0	-1.0
	4.5nm,0.3s,mb4.2						
FITZ	Fitzroy Crossi	51.04	266	*e*P	P	13 02 10.9	-1.0
	5.0nm,0.5s,mb4.0						
VNDA	Vanda	53.66	185	P	P	13 02 29.3	-1.0
	0.9nm,0.9s,mb3.1,baz=357,slow=6.7,SNR=5.6						
CMAR	Chiang Mai Arr	90.03	290	P	P	13 06 06.2	+1.6
	1.1nm,0.9s,mb3.8,baz=137,slow=3.3,SNR=6.1						
BVAR	Borovoye Array	121.17	318	PKP	PKPdf	13 11 53.8	0.0
	0.4nm,0.3s,baz=117,slow=3.3,SNR=4.6						
NB2	NORSAR Subarra	142.86	351	PKP	PKPdf	13 12 33.9	0.0
	1.3nm,0.6s,baz=21,slow=3.7						
NOA	NORSAR Array B	142.86	351	PKP	PKPdf	13 12 33.9	-0.1
	2.2nm,0.7s,baz=22,slow=3.8,SNR=6.2						
HFS	Hagfors	143.33	349	PKP	PKPdf	13 12 35.3	+0.6
	4.5nm,0.5s,SNR=14						
AKASG	Malin Array Be	145.74	327	PKPbc	PKPbc	13 12 41.5	+1.1
	0.9nm,0.4s,baz=39,slow=4.1,SNR=6.8						
BRTR	Keskin Array B	148.24	306	PKPbc	PKPdf	13 12 48.8	+5.1
	0.5nm,0.6s,baz=90,slow=4.3,SNR=3.0						
EKA	Eskdalemuir Ar	149.24	4	PKPbc	PKPdf	13 12 48.3	+3.6
	1.0nm,0.7s,baz=205,slow=38,SNR=3.4						

IDC 11 13:16:35.4±5.1**,20.62S**×**178.28W,mb3.9**/2**,mb1 4.3**/2**, mb1mx3.8**/12**,MS3.6**/1**,Ms1 3.5**/1**,ms1mx2.9**/21**,Error ellipse: s-maj=333.0km s-min=37.0km az=157.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**33.22**	**265**	*e*P	P	13 23 19.0	+2.6
	1.9nm,0.3s						
STKA	**Stephens Creek**	**37.50**	**244**	LR	LR	13 37 54.5	
	comp=Z,82nm,18.7s,baz=158,slow=34						
WB2	**Warramunga Arr**	**44.32**	**262**	*e*P	P	13 24 47.2	-1.9
WRA	**Warramunga Arr**	**44.33**	**262**	P	P	13 24 47.5	-1.8
	1.3nm,0.3s,baz=99,slow=7.3,SNR=44						
NVAR	**Mina Array Bea**	**81.29**	**43**	P	P	13 28 54.0	-1.1
	0.3nm,0.6s,baz=228,slow=9.3,SNR=4.1						
AKASG	**Malin Array Be**	**142.99**	**331**	PKP	PKPdf	13 36 10.2	-2.6
	1.0nm,0.3s,baz=43,slow=3.9,SNR=11						

WEL 11 13:38:35.8±0.2**,38.16S**×**176.38E,h157**^{km}±1^{km}**,ML3.5**/7**, 2C,Error ellipse: s-maj=2.0km s-min=1.9km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**0.58**	**100**	⇑PN	P	13 38 58.3	-0.5
URZ				SN	S	13 39 15.7	-0.8
MWZ	**Matawai**	**0.92**	**101**	PN	P	13 39 00.6	-0.2
MWZ				SN	S	13 39 19.8	-0.3
BKZ	**Black Stump Fm**	**1.01**	**175**	⇑PN	P	13 39 01.5	+0.1
BKZ				SN	S	13 39 20.9	-0.3
MGZ	**Maungaku**	**1.06**	**218**	PN	P	13 39 02.0	0.0
NGZ	**Ngauruhoe**	**1.18**	**211**	*e*PN	P	13 39 02.9	-0.2
CNZ	**Chateau**	**1.22**	**212**	PN	P	13 39 03.3	-0.2
TUVZ	**Tukino**	**1.24**	**207**	PN	P	13 39 03.4	-0.2
PUZ	**Puketiti**	**1.48**	**87**	PN	P	13 39 05.8	-0.3
PUZ				SN	S	13 39 28.4	-1.1
PWZ	**Pawanui**	**1.90**	**169**	PN	P	13 39 10.2	-0.3
PWZ				SN	S	13 39 36.0	-1.4
TSZ	**Takapari Road**	**1.92**	**190**	PN	P	13 39 09.7	-1.1
TSZ				SN	S	13 39 35.4	-2.3
MRZ	**Mangatainoka R**	**2.57**	**194**	PN	P	13 39 16.4	-2.3
MRZ				SN	S	13 39 47.7	-3.9
KIW	**Kapiti Island**	**2.92**	**202**	PN	P	13 39 20.2	-3.0
MTW	**Mount Morrison**	**3.07**	**192**	PN	P	13 39 21.8	-3.1
CAW	**Cannon Point**	**3.11**	**199**	PN	P	13 39 22.4	-3.1
MRW	**Makara Radio**	**3.32**	**202**	PN	P	13 39 24.9	-3.4
TUWZ	**Tuamarina**	**3.76**	**209**	PN	P	13 39 29.7	-4.2
NNZ	**Nelson**	**3.83**	**216**	SN	S	13 40 14.8	-5.4
KHZ	**Kahutara**	**4.77**	**206**	PN	P	13 39 42.3	-4.8
KHZ				SN	S	13 40 36.1	-6.1
MQZ	**McQueen's Vall**	**6.21**	**206**	SN	S	13 41 05.8	-11

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*NNC **11** 13:48:15.5±33.0,37.93N×72.34E,h203^{km}±609^{km},mpv4.2, Error ellipse: s-maj=1533.1km s-min=474.1km az=102.0*

ISC 11 13:48:08.0±1.7**,37.42N**±0.06×**72.2E**±0.3**,h200**^{km}**,n22,** σ**0**^{s}**70**/26**,1C-1D,Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	**Almayashu**	**4.84**	**14**	P	**P**	**13 49 21.0**	**-0.1**
	SNR=99						
UCH	**Uchtor**	**5.12**	**20**	P	**P**	**13 49 24.9**	**+0.2**
	SNR=48						
KZA	**Kyzart**	**5.22**	**26**	P	**P**	**13 49 25.4**	**-0.5**
	SNR=14						
EKS2	**Erkin-Say**	**5.37**	**13**	P	**P**	**13 49 28.0**	**+0.1**
	SNR=30						
AAK	**Ala-Archa**	**5.50**	**18**	⇑P	**P**	**13 49 29.7**	**+0.2**
	18nm,0.5s						
AAK				⇓S	**S**	**13 50 28.9**	**-4.0**
	21nm,0.6s						
AAK	**Ala-Archa**	**5.50**	**18**	P	**P**	**13 49 29.8**	**+0.3**
	SNR=34						
KBK	**Karagaybulak**	**5.64**	**21**	P	**P**	**13 49 31.9**	**+0.5**
	SNR=12						
ULHL	**Ulahol**	**5.74**	**32**	P	**P**	**13 49 32.2**	**-0.5**
	SNR=9.9						
THN	**Thein Dam**	**5.77**	**149**	*e*P	**P**	**13 49 33.4**	**+0.4**
	5.4nm,0.2s						
THN				*e*S	**S**	**13 50 36.6**	**-2.4**
DLH	**Dalhousie**	**5.78**	**146**	*e*P	**P**	**13 49 34.0**	**+0.8**
DLH				*e*S	**S**	**13 50 39.0**	**-0.4**
CHMS	**Chumysh**	**5.91**	**19**	P	**P**	**13 49 34.6**	**-0.2**
	SNR=9.2						
TKM2	**Tokmak 2**	**6.08**	**24**	P	**P**	**13 49 37.0**	**-0.1**
	SNR=12						
USP	**Ospenovka**	**6.10**	**16**	P	**P**	**13 49 36.9**	**-0.4**
	SNR=11						
SDNR	**Sundarnagar**	**7.11**	**145**	*e*P	**P**	**13 49 50.6**	**+0.1**
	194nm,0.2s						
SDNR				*e*S	**S**	**13 51 06.2**	**-4.3**
MK31	**Makanchi Array**	**11.99**	**36**	P	**P**	**13 50 54.5**	**+0.9**
	0.5nm,0.4s,baz=203,slow=11,SNR=29						
KOLN	**Koldanda**	**13.61**	**132**	*e*P	**P**	**13 51 13.6**	**-0.3**
	6.7nm,0.3s						
GKN	**Gorkha**	**14.07**	**128**	*e*P	**P**	**13 51 19.4**	**-0.3**
	27nm,0.4s						
KKN	**Kakani**	**14.62**	**127**	*e*P	**P**	**13 51 27.2**	**+0.6**
	7.0nm,0.4s						
DMN	**Daman**	**14.64**	**128**	*e*P	**P**	**13 51 27.4**	**+0.6**
PKI	**Pulchoki**	**14.86**	**128**	*e*P	**P**	**13 51 30.6**	**+1.1**
	9.6nm,0.6s						
GUN	**Gumba**	**14.93**	**126**	*e*P	**P**	**13 51 30.5**	**+0.2**
	6.9nm,0.3s						
CHKZ	**Chkalovo**	**16.29**	**357**	P	**P**	**13 51 46.3**	**-0.6**

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*IDC **11** 14:06:04.8±3.6,36.40N×71.84E,mb3.7/4,mb1 3.9/5, mb1mx3.6/18,ML3.8/1,Error ellipse: s-maj=76.9km s-min=37.0km az=11.0*

*NNC **11** 14:06:22.8±4.1,38.48N×72.67E,mpv4.0,Error ellipse: s-maj=91.5km s-min=33.9km az=115.0*

ISC 11 14:06:17.3±1.8**,38.03N**±0.07×**72.2E**±0.2**,h33**^{km}±19^{km}**, n19,**σ**1**^{s}**12**/19**,mb3.5**/4**,1C-1D,Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	**Almayashu**	**4.25**	**15**	P	**P**	**14 07 21.3**	**-0.1**
	SNR=19						
UCH	**Uchtor**	**4.55**	**22**	P	**P**	**14 07 26.3**	**+0.7**
	SNR=6.6						
KZA	**Kyzart**	**4.67**	**29**	P	**P**	**14 07 33.0**	**+5.7**
	SNR=20						
AAK	**Ala-Archa**	**4.92**	**20**	⇓Pn	**P**	**14 07 30.6**	**-0.2**
	17nm,0.6s						
AAK				⇑Sn	**S**	**14 08 23.6**	**-3.8**
	22nm,0.8s						
AAK	**Ala-Archa**	**4.92**	**20**	P	**P**	**14 07 28.4**	**-2.5**
	SNR=25						
KBK	**Karagaybulak**	**5.08**	**23**	P	**P**	**14 07 40.9**	**+7.9**
	SNR=5.9						
ULHL	**Ulahol**	**5.22**	**35**	P	**P**	**14 07 41.4**	**+6.3**
	SNR=9.3						
CHMS	**Chumysh**	**5.33**	**20**	P	**P**	**14 07 37.7**	**+1.1**
	SNR=15						
USP	**Ospenovka**	**5.52**	**18**	P	**P**	**14 07 39.5**	**+0.3**
	SNR=6.1						
THN	**Thein Dam**	**6.27**	**152**	*e*P	**P**	**14 07 47.7**	**-2.1**
	1.2nm,0.2s						
THN				*e*S	**S**	**14 09 02.0**	**+0.7**
SDNR	**Sundarnagar**	**7.59**	**148**	*e*P	**P**	**14 08 15.2**	**+6.9**
MK31	**Makanchi Array**	**11.49**	**37**	P	**P**	**14 09 01.3**	**-0.7**
	0.8nm,0.8s,baz=225,slow=16,SNR=3.8						
BVA0	**Borovoye Array**	**15.05**	**356**	P		14 09 55.5	
	0.1nm,0.5s,baz=152,slow=10,SNR=7.0						
BVAR	**Borovoye Array**	**15.05**	**356**	Pn		14 09 55.1	
	0.4nm,0.3s,baz=153,slow=9.7,SNR=7.1						
CHKZ	**Chkalovo**	**15.69**	**356**	P	**P**	**14 09 59.0**	**+1.8**
SONM	**Songino Array**	**26.69**	**57**	P	**P**	**14 11 55.4**	**+0.3**
	0.8nm,0.8s,mb3.3,baz=270,slow=7.4,SNR=6.1						
FINES	**FINESS Array B**	**36.78**	**325**	P	**P**	**14 13 23.6**	**+0.2**
	4.3nm,1.1s,mb4.2,baz=127,slow=9.5,SNR=5.8						
NOA	**NORSAR Array B**	**43.76**	**322**	P	**P**	**14 14 19.7**	**-1.2**
	1.3nm,0.9s,mb3.7,baz=100,slow=7.7,SNR=3.3						
YKA	**Yellowknife Ar**	**79.68**	**3**	P	**P**	**14 18 23.4**	**+0.9**
	0.1nm,0.4s,mb3.1,baz=352,slow=5.4,SNR=2.9						

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*NEIC **11** 14:25:35.1±0.5,9.99N×126.39E,h10^{km},mb4.6/7,Error ellipse: s-maj=22.9km s-min=8.6km az=75.0*

*IDC **11** 14:25:38.9±4.2,9.96N×126.37E,h34^{km}±32^{km},mb4.0/13, mb1 4.1/13,mb1mx4.0/21,MS3.5/2,Ms1 3.5/2, ms1mx2.9/23,Error ellipse: s-maj=33.3km s-min=13.4km az=71.0*

*MAN **11** 14:25:39.1,10.07N×126.36E,h32^{km},mb4.9,ML3.8, MS3.8*

ISC 11 14:25:39.2±0.9**,10.05N**±0.03×**126.42E**±0.06**,h56**^{km}±8^{km}**, n41,**σ**1**^{s}**02**/50**,mb4.3**/18**,MS3.2**/1**,1C-4D,Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	**Butuan**	**1.34**	**216**	*e*P	**P**	**14 25 59.7**	**-2.4**
BUTP				*e*S	**S**	**14 26 20.3**	**+1.3**
MSLP	**Maasin**	**1.54**	**273**	*e*P	**P**	**14 26 03.8**	**-1.1**
MSLP				*e*S	**S**	**14 26 23.4**	**-0.5**
PLP	**Palo**	**1.80**	**308**	*e*P	**P**	**14 26 08.5**	**+0.1**
PLP				*e*S	**S**	**14 26 29.4**	**-0.7**
BESP	**Borongan**	**1.82**	**328**	*e*P	**P**	**14 26 08.0**	**-0.7**
OCLP	**Ormoc**	**2.04**	**299**	*e*P	**P**	**14 26 12.2**	**+0.4**
OCLP				*e*S	**S**	**14 26 40.7**	**+4.6**
LLP	**Lapu-Lapu**	**2.43**	**276**	*e*P	**P**	**14 26 17.8**	**+0.4**
LLP				*e*S	**S**	**14 26 46.8**	**+0.8**
BUKP	**Musuan**	**2.54**	**212**	*e*P	**P**	**14 26 18.9**	**-0.1**
BUKP				*e*S	**S**	**14 26 51.9**	**+3.0**
TBP	**Tagbilaran**	**2.55**	**262**	*e*P	**P**	**14 26 18.2**	**-0.9**
TBP				*i* S	**S**	**14 26 48.2**	**-0.7**
CNP	**Catarman**	**2.99**	**325**	*e*P	**P**	**14 26 24.4**	**-0.9**
CNP				*e*S	**S**	**14 26 59.9**	**-0.2**
MATI	**Mati**	**3.09**	**183**	*e*P	**P**	**14 26 28.1**	**+1.3**
KCP	**Kidapawan**	**3.30**	**204**	⇓*e*P	**P**	**14 26 30.9**	**+1.2**
KCP				*i* S	**S**	**14 27 08.6**	**+0.6**
DCPH	**Dipolog City**	**3.36**	**244**	⇓*e*P	**P**	**14 26 29.9**	**-0.7**
DCPH				*e*S	**S**	**14 27 09.3**	**-0.3**
PAGZ	**Pagadian**	**3.72**	**234**	*e*P	**P**	**14 26 35.3**	**-0.3**
GUIM	**Jordan**	**3.81**	**279**	*e*P	**P**	**14 26 37.6**	**+0.6**
RCP	**Roxas**	**3.91**	**293**	⇓*i*P	**P**	**14 26 38.8**	**+0.5**
IPIL	**Ipil**	**4.42**	**240**	*e*P	**P**	**14 26 45.8**	**+0.3**
SJMP	**San Jose**	**5.72**	**295**	*e*P	**P**	**14 27 05.9**	**+2.3**
TGY	**Tagaytay City**	**6.71**	**307**	LR	LR	14 30 11.4	
	comp=Z,510nm,20.6s,baz=113,slow=41						
ENPP	**El Nido**	**6.97**	**280**	*e*P	**P**	**14 27 21.1**	**-0.1**
KAKA	**Kakadu**	**23.37**	**165**	*e*P	**P**	**14 30 43.5**	**-0.3**
	15nm,0.6s,mb4.6						
CMAR	**Chiang Mai Arr**	**27.88**	**291**	P	**P**	**14 31 25.2**	**-1.0**
	0.7nm,0.6s,mb3.5,baz=94,slow=7.8,SNR=6.1						
CMAR				LR	LR	14 42 34.9	
	comp=Z,60nm,19.8s,MS3.2,baz=180,slow=36						
FITZ	**Fitzroy Crossi**	**27.99**	**182**	*e*P	**P**	**14 31 25.7**	**-1.4**
	4.4nm,0.7s,mb4.2						
FITZ	**Fitzroy Crossi**	**27.99**	**182**	P	**P**	**14 31 25.6**	**-1.5**
	4.5nm,0.5s,mb4.4,baz=344,slow=7.1,SNR=12						
WRA	**Warramunga Arr**	**30.81**	**165**	P	**P**	**14 31 49.6**	**-2.7**
	0.5nm,0.4s,mb3.7,baz=343,slow=9.2,SNR=10						
ASAR	**Alice Springs**	**34.30**	**168**	P	**P**	**14 32 20.8**	**-1.7**
	0.8nm,0.4s,mb4.0,baz=351,slow=7.2,SNR=29						
CTA	**Charters Tower**	**35.75**	**147**	*e*P	**P**	**14 32 35.7**	**+0.8**
	2.4nm,0.5s,mb4.4						
CTA	**Charters Tower**	**35.75**	**147**	P	**P**	**14 32 35.8**	**+0.8**
	3.0nm,0.5s,mb4.5,baz=331,slow=8.6,SNR=10						
FORT	**Forrest**	**40.63**	**178**	*e*P	**P**	**14 33 15.3**	**-0.2**
	39nm,0.6s,mb5.2						
SONM	**Songino Array**	**41.27**	**340**	P	**P**	**14 33 21.7**	**+1.1**
	1.3nm,1.0s,mb3.5,baz=147,slow=9.5,SNR=7.9						
SONM				ScP		14 39 07.0	
	0.7nm,0.8s,baz=156,slow=3.5,SNR=5.2						
KLBR	**Kellerberrin**	**42.23**	**191**	⇑*i*P	**P**	**14 33 28.3**	**-0.4**
	12nm,0.5s,mb4.8						
MUN	**Mundaring**	**42.92**	**193**	*e*P	**P**	**14 33 33.6**	**-0.8**
	10nm,0.7s,mb4.7						
NWAO	**Narrogin (SRO)**	**43.63**	**191**	P	**P**	**14 33 40.1**	**0.0**
	11nm,0.5s,mb4.9,baz=11,slow=10,SNR=19						
STKA	**Stephens Creek**	**44.15**	**161**	⇓*i*P	**P**	**14 33 43.7**	**-0.6**
	1.3nm,0.4s,mb4.0						
STKA	**Stephens Creek**	**44.15**	**161**	P	**P**	**14 33 44.0**	**-0.4**
	1.9nm,0.5s,mb4.1,baz=338,slow=8.8,SNR=12						
BVAR	**Borovoye Array**	**61.93**	**325**	P	**P**	**14 35 57.1**	**+1.7**
	0.4nm,0.5s,mb3.8,baz=117,slow=9.7,SNR=4.0						
BVAR	**Borovoye Array**	**61.93**	**325**	P	**P**	**14 35 57.1**	**+1.7**
ILAR	**Eielson Array**	**79.57**	**26**	P	**P**	**14 37 42.2**	**+0.6**
	0.4nm,0.8s,mb3.4,baz=253,slow=4.2,SNR=5.9						
JOF	**Joensuu**	**83.45**	**333**	*e*p	**P**	**14 38 01.4**	**-0.4**
	3.2nm,0.7s,mb4.5						
ARCES	**ARCESS Array B**	**84.45**	**340**	P	**P**	**14 38 07.5**	**+0.8**
	2.4nm,0.8s,mb4.4,baz=68,slow=6.5,SNR=5.5						
FINES	**FINESS Array B**	**86.15**	**332**	P	**P**	**14 38 15.3**	**+0.1**
	4.5nm,1.1s,mb4.6,baz=45,slow=2.7,SNR=9.7						
YKA	**Yellowknife Ar**	**93.89**	**24**	P	**P**	**14 38 53.6**	**+2.0**
	1.8nm,1.0s,mb4.5,baz=299,slow=4.6,SNR=14						

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*IDC **11** 14:37:33.7±1.1,13.40N×120.81E,mb3.6/4,mb1 3.9/4, mb1mx3.7/17,Error ellipse: s-maj=32.6km s-min=9.5km az=95.0*

*MAN **11** 14:37:34.0,13.52N×120.60E,h10^{km},mb4.4,ML3.2, MS3.0*

ISC 11 14:37:33.0±1.0**,13.49N**±0.04×**120.66E**±0.04**,h3**^{km}±8^{km}**, n18,**σ**1**^{s}**11**/25**,mb3.6**/4**,3C-1D,Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	**Lubang**	**0.47**	**301**	*e*P	**Pg**	**14 37 43.1**	**+0.7**
LUBP				*e*S	**Sg**	**14 37 49.8**	**+1.1**
TGY	**Tagaytay City**	**0.66**	**24**	⇑*i*P	**Pg**	**14 37 46.6**	**+0.3**
TGY				*i* S	**Sg**	**14 37 53.3**	**-1.8**
TGY	**Tagaytay City**	**0.66**	**24**	Pg	**Pg**	**14 37 46.5**	**+0.2**
	305nm,0.3s,baz=210,slow=6.7,SNR=14						
TGY				Lg		14 37 57.9	
	421nm,0.3s,baz=344,slow=24,SNR=16						
LQP	**Lukban**	**1.05**	**54**	⇑*e*P	**Pb**	**14 37 53.3**	**-0.2**
BOAC	**Boac**	**1.15**	**91**	*e*P	**Pb**	**14 37 54.1**	**-1.1**
BOAC				*e*S	**Sb**	**14 38 14.4**	**+4.1**
OTRP	**Odiongan**	**1.74**	**130**	*e*P	**Pn**	**14 38 05.5**	**+1.2**
OTRP				*e*S	**Sn**	**14 38 29.2**	**+2.0**
POLP	**Polilio Island**	**1.75**	**45**	*e*P	**Pn**	**14 38 04.6**	**+0.2**
GQP	**Guinayangan**	**1.78**	**76**	⇑*e*P	**Pn**	**14 38 05.6**	**+0.7**
GQP				*e*S	**Sn**	**14 38 28.9**	**+0.5**
PCPH	**Palayan**	**2.10**	**11**	⇓*e*P	**Pn**	**14 38 08.9**	**-0.6**
PCPH				*e*S	**Sn**	**14 38 36.7**	**+0.2**
SCZP	**Santa Cruz**	**2.38**	**342**	*e*P	**Pn**	**14 38 10.9**	**-2.7**
BALP	**Baler**	**2.41**	**21**	*e*P	**Pn**	**14 38 15.1**	**+1.2**
ENPP	**El Nido**	**2.57**	**208**	*e*P	**Pn**	**14 38 16.2**	**0.0**
ENPP				*e*S	**Sn**	**14 38 47.3**	**-1.2**
CUYO	**Cuyo Island**	**2.65**	**172**	*e*P	**Pn**	**14 38 16.9**	**-0.5**
CAUP	**Cauayan**	**3.61**	**18**	*e*P	**Pn**	**14 38 40.5**	**+10**
CMAR	**Chiang Mai Arr**	**21.45**	**286**	P	**P**	**14 42 25.8**	**+1.1**
	0.6nm,0.6s,mb3.1,baz=99,slow=7.9,SNR=6.9						
WRA	**Warramunga Arr**	**35.85**	**158**	P	**P**	**14 44 33.6**	**-2.6**
	2.0nm,0.7s,mb4.1,baz=335,slow=9.7,SNR=15						
SONM	**Songino Array**	**36.25**	**344**	P	**P**	**14 44 39.4**	**+0.2**
	0.3nm,0.6s,mb3.4,baz=158,slow=7.8,SNR=3.4						
ASAR	**Alice Springs**	**39.13**	**161**	P	**P**	**14 45 02.8**	**-0.9**
	1.3nm,0.6s,mb3.8,baz=338,slow=7.0,SNR=25						

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*IDC **11** 15:01:19.5±26.0,16.82N×99.62W,mb3.5/3,mb1 4.0/3, mb1mx3.7/17,MS3.9/1,Ms1 3.9/1,ms1mx2.5/19,Error ellipse: s-maj=473.0km s-min=129.6km az=173.0*

*NEIC **11** 15:01:24.2,16.71N×100.48W,h15^{km},MD4.1(MEX),After MEX.*

*MEX **11** 15:01:24.5±1.3,16.71N×100.48W,h16^{km}±21^{km},MD4.1*

ISC 11 15:01:23.4±1.3**,16.77N**±0.07×**100.43W**±0.05**,h30**^{km}±8^{km}**, n14,**σ**1**^{s}**04**/21**,mb3.2**/3**,MS3.9**/1**,1C,Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	**Acapulco**	**0.50**	**79**	*i* P	**Pb**	**15 01 32.6**	**-1.2**
ACX				*i* S	**Sb**	**15 01 41.5**	**+0.5**
ACX	**Acapulco**	**0.50**	**79**	⇑*i*P	**Pb**	**15 01 32.7**	**-1.1**
ACX				*i* S	**Sb**	**15 01 41.5**	**+0.5**
ZIIG	**Zihuatanejo**	**1.29**	**310**	*e*P	**Pn**	**15 01 45.6**	**-0.1**
ZIIG				*i* S	**Sn**	**15 01 58.8**	**-3.3**
PLIG	**Platanillo**	**1.84**	**29**	*e*P	**Pn**	**15 01 53.9**	**+0.3**
PLIG				*i* S	**Sn**	**15 02 16.4**	**+0.4**
PNIG	**Pinotepa**	**2.24**	**99**	*i* P	**Pn**	**15 02 00.2**	**+0.9**
PNIG				*i* S	**Sn**	**15 02 26.2**	**-0.1**
YAIG	**Yautepec**	**2.45**	**32**	*e*P	**Pn**	**15 02 02.5**	**+0.2**
YAIG				*e*S	**Sn**	**15 02 30.4**	**-1.2**
PPM	**Popocatepetl**	**2.86**	**37**	*e*P	**Pn**	**15 02 09.8**	**+1.7**
PPM				*e*S	**Sn**	**15 02 42.8**	**+1.0**
PPM	**Popocatepetl**	**2.86**	**37**	*e*P	**Pn**	**15 02 07.9**	**-0.2**
PPM				*e*S	**Sn**	**15 02 42.8**	**+1.0**
VHO	**Vista Hermosa**	**3.55**	**85**	*i* S	**Sn**	**15 02 58.0**	**-1.4**
NVAR	**Mina Array Bea**	**26.67**	**328**	P	**P**	**15 07 03.7**	**+2.0**
	0.8nm,0.8s,mb3.3,baz=142,slow=10,SNR=7.8						
PDAR	**Pinedale Array**	**27.05**	**345**	P	**P**	**15 07 05.5**	**+0.3**
	0.7nm,0.8s,mb3.3,baz=140,slow=12,SNR=3.8						
YKA	**Yellowknife Ar**	**46.74**	**351**	P	**P**	**15 09 50.7**	**-0.8**
	0.1nm,0.4s,mb3.1,baz=162,slow=7.4,SNR=6.9						
YKA	**Yellowknife Ar**	**46.74**	**351**	P	**P**	**15 09 50.7**	**-0.8**
INK	**Inuvik**	**55.62**	**346**	LR	LR	15 36 59.9	
	comp=Z,92nm,18.5s,MS3.9,baz=134,slow=38						

IDC 11 15:26:42.0±1.0**,7.60N**×**36.74W,mb4.1**/7**,mb1 4.2**/7**, mb1mx3.9**/20**,MS3.4**/5**,Ms1 3.4**/5**,ms1mx3.1**/19**,Error ellipse: s-maj=33.4km s-min=22.0km az=121.0,Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDFB	**Brasilia**	**25.65**	**206**	P	P	15 32 14.9	-0.3
	7.2nm,0.7s,baz=42,slow=11,SNR=7.5						
BDFB				LR	LR	15 41 18.7	
	comp=Z,43nm,20.3s,baz=326,slow=34						
SJG	**San Juan**	**30.47**	**293**	LR	LR	15 41 44.0	
	comp=Z,62nm,19.6s,baz=271,slow=30						
DBIC	**Dimbokro**	**31.65**	**90**	P	P	15 33 07.9	-1.5
	2.7nm,0.8s,baz=269,slow=8.4,SNR=3.4						
LPAZ	**La Paz**	**39.09**	**232**	P	P	15 34 10.8	-2.2
	4.2nm,0.7s,baz=61,slow=6.2,SNR=19						
LPAZ				LR	LR	15 50 30.2	
	comp=Z,35nm,20.1s,baz=351,slow=36						
SCHQ	**Schefferville**	**52.89**	**339**	P	P	15 36 00.8	-1.1
	5.4nm,1.1s,baz=146,slow=11,SNR=4.8						
GERES	**GERESS Array B**	**58.96**	**36**	P	P	15 36 41.8	-3.8
	0.2nm,0.2s,baz=262,slow=6.9,SNR=3.6						
FINES	**FINESS Array B**	**70.56**	**27**	LR	LR	16 07 02.8	
	comp=Z,67nm,18.6s,baz=353,slow=34						
YKA	**Yellowknife Ar**	**77.70**	**332**	P	P	15 38 40.4	-1.6
	0.7nm,0.6s,baz=98,slow=5.6,SNR=10.0						
YKA				LR	LR	16 12 33.3	
	comp=Z,29nm,19.1s,baz=55,slow=35						
INK	**Inuvik**	**85.50**	**338**	P	P	15 39 22.1	-0.6
	0.9nm,0.9s,baz=66,slow=7.2,SNR=3.1						

PRU 11 16:06:33.5,49.82N×**18.47E,Czech and Slovak Republics**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	**0.21**	**275**	*e*PG	Pg	16 06 37.8	+0.1
OKC				*e*SG	Sg	16 06 41.8	+1.3
OJC	**Ojcow**	**0.95**	**64**	*e*Pg	Pg	16 06 50.4	-2.0
OJC				*e*Sg	Sg	16 07 03.7	-1.3
VYHS	**Vyhne**	**1.35**	**170**	*e*PN	Pn	16 06 58.2	-1.4
VYHS				*e*SN	Sn	16 07 16.4	-2.1
DPC	**Dobruska-Polom**	**1.48**	**292**	*e*PG	Pg	16 07 01.1	-2.0
DPC				*e*SG	Sg	16 07 20.7	-2.1
UPC	**Upice**	**1.72**	**294**	*e*PG	Pg	16 07 05.8	-2.1
UPC				*e*SG	Sg	16 07 28.4	-2.5
SRO1	**Iza**	**2.07**	**184**	*e*SN	Sn	16 07 33.5	-3.2
KHC	**Kasperske Hory**	**3.26**	**260**	*e*SG	Sg	16 08 15.0	-7.2

IDC 11 16:20:34.3±7.5**,2.72N**×**126.80E,mb3.5**/3**,mb1 3.7**/3**, mb1mx3.5**/15**,Error ellipse: s-maj=162.0km s-min=117.1km az=74.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**23.70**	**162**	P	P	16 25 48.4	-0.5
	0.4nm,0.3s,baz=340,slow=10,SNR=15						
ASAR	**Alice Springs**	**27.12**	**166**	P	P	16 26 20.1	-1.0
	0.4nm,0.6s,baz=353,slow=8.1,SNR=12						
STKA	**Stephens Creek**	**37.16**	**159**	P	P	16 27 45.8	-3.1
	0.9nm,0.6s,baz=324,slow=8.7,SNR=5.7						

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*IDC **11** 16:28:18.7±12.0,1.52S×101.34E,h182^{km}±106^{km}, mb3.6/7,mb1 3.7/7,mb1mx3.5/14,Error ellipse: s-maj=69.7km s-min=19.1km az=63.0*

ISC 11 16:28:09.4±6.1**,1.6S**±0.4×**101.2E**±0.6**,h113**^{km}±44^{km}**,n10,** σ**0**^{s}**51**/8**,mb4.0**/7**,1C,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPM	**Ipoh**	**6.14**	**359**	⇑*e*P	**P**	**16 29 39.0**	**0.0**
FITZ	**Fitzroy Crossi**	**29.09**	**126**	P	**P**	**16 34 01.1**	**-0.6**
	2.1nm,0.9s,mb3.8,baz=284,slow=17,SNR=3.1						
WRA	**Warramunga Arr**	**37.20**	**122**	P	**P**	**16 35 12.2**	**+0.6**
	0.8nm,0.5s,mb3.9,baz=309,slow=8.9,SNR=14						
WRA				PcP	PcP	16 37 27.3	-2.4
	0.4nm,0.8s,baz=309,slow=2.5,SNR=6.5						
ASAR	**Alice Springs**	**38.56**	**127**	P	**P**	**16 35 23.1**	**+0.2**
	0.7nm,0.7s,mb3.6,baz=303,slow=8.1,SNR=17						
ASAR				PcP	PcP	16 37 33.8	-0.1
	0.3nm,0.4s,baz=295,slow=2.5,SNR=5.3						
STKA	**Stephens Creek**	**48.55**	**133**	P	**P**	**16 36 43.2**	**-0.1**
	1.6nm,0.6s,mb4.2,baz=305,slow=8.2,SNR=4.7						
SONM	**Songino Array**	**49.45**	**5**	P	**P**	**16 36 49.9**	**-0.1**
	0.3nm,0.4s,mb3.6,baz=192,slow=8.9,SNR=6.2						
FINES	**FINESS Array B**	**84.30**	**332**	P	**P**	**16 40 30.0**	**+0.4**
	2.9nm,0.9s,mb4.1,baz=117,slow=4.3,SNR=4.7						
ARCES	**ARCESS Array B**	**86.50**	**340**	P	**P**	**16 40 40.0**	**-0.3**
	5.7nm,0.9s,mb4.5,baz=79,slow=4.6,SNR=3.9						
TXAR	**Lajitas Array**	**143.68**	**38**	PKP	PKPdf	16 47 31.2	-0.4
	1.2nm,1.0s,baz=224,slow=1.3,SNR=4.3						
BDFB	**Brasilia**	**145.04**	**240**	PKPbc	PKPbc	16 47 35.4	+0.6
	5.1nm,1.0s,baz=180,slow=5.1,SNR=2.7						

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*CASC **11** 16:35:45.9±1.7,14.71N×91.24W,h181^{km}±5^{km},MD4.3, mb4.6(NEIC)*

*IDC **11** 16:35:49.6±2.3,15.00N×90.84W,h206^{km}±19^{km},mb3.7/11, mb1 3.9/13,mb1mx3.8/21,Error ellipse: s-maj=22.4km s-min=14.1km az=58.0*

*NEIC **11** 16:35:49.4±1.3,14.95N×90.81W,h207^{km}±12^{km},mb4.6/14, Error ellipse: s-maj=17.0km s-min=9.2km az=63.0*

ISC 11 16:35:45.8±0.4**,14.92N**±0.05×**91.20W**±0.06**,h183**^{km}±3^{km}**, n55,**σ**1**^{s}**08**/65**,mb4.1**/16**,6C-8D,Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TP2	**Tecpan 2**	**0.21**	**128**	⇑*e*P	**P**	**16 36 10.5**	**-0.1**
TP2				*e*S	**S**	**16 36 29.8**	**+0.3**
FUG	**Fuego 3**	**0.58**	**144**	⇑*e*P	**P**	**16 36 10.9**	**-0.8**
FUG				*e*S	**S**	**16 36 31.0**	**-0.7**
GCG	**Guatemala City**	**0.72**	**117**	⇓*e*P	**P**	**16 36 13.4**	**+1.0**
GCG				*e*S	**S**	**16 36 34.6**	**+1.7**
JAT	**Jato**	**0.73**	**216**	⇑*e*P	**P**	**16 36 10.9**	**-1.6**
JAT				*e*S	**S**	**16 36 31.9**	**-1.1**
PCG	**Pacaya**	**0.77**	**132**	⇓*e*P	**P**	**16 36 12.6**	**-0.1**
NBG	**Las Nubes**	**0.88**	**112**	⇓*e*P	**P**	**16 36 13.6**	**+0.3**
NBG				*e*S	**S**	**16 36 35.2**	**+0.7**
IXG	**Ixpaco**	**1.03**	**136**	⇑*e*P	**P**	**16 36 13.7**	**-0.6**
IXG				*e*S	**S**	**16 36 35.3**	**-1.0**
RTR	**El Retiro**	**1.81**	**124**	⇓*e*P	**P**	**16 36 21.7**	**+0.1**
SNJE	**San Jose**	**1.86**	**124**	⇓*e*P	**P**	**16 36 22.2**	**+0.1**
SNJE				*e*S	**S**	**16 36 50.5**	**+0.5**
SBLS	**San Blas**	**1.86**	**125**	⇑*e*P	**P**	**16 36 22.1**	**+0.1**
SBLS				*e*S	**S**	**16 36 50.2**	**+0.2**
BOQS	**Boqueron**	**2.20**	**122**	⇑*e*P	**P**	**16 36 26.0**	**+0.3**
BOQS				*e*S	**S**	**16 36 56.4**	**-0.1**
LFRS	**El Faro**	**2.44**	**122**	⇓*e*P	**P**	**16 36 28.3**	**-0.2**
LFRS				*e*S	**S**	**16 36 59.4**	**-2.0**
LCBS	**La Ceiba**	**2.49**	**120**	⇓*e*P	**P**	**16 36 29.0**	**-0.2**
SNVI	**San Vicente**	**2.63**	**119**	*e*P	**P**	**16 36 30.9**	**+0.1**
SNVI				*e*S	**S**	**16 37 04.6**	**-0.8**
TEIG	**Tepich**	**5.97**	**27**	P	**P**	**16 37 13.7**	**+0.5**
	8.4nm,0.3s,baz=135,slow=7.3,SNR=29						
TEIG				S	**S**	**16 38 21.3**	**+0.2**
	baz=272,slow=23,SNR=4.7						
JTS	**JuntasAbangare**	**7.63**	**126**	*e*Pn	**P**	**16 37 34.2**	**-1.0**
JTS				*e*Sn	**S**	**16 38 53.3**	**-7.1**
JCR	**Jicaral**	**7.79**	**130**	*e*P	**P**	**16 37 38.3**	**+1.1**
VPS2	**Volcan Poas 2**	**8.26**	**124**	*e*P	**P**	**16 37 46.2**	**+2.8**
TRTC	**Tortuguero**	**8.48**	**120**	*e*P	**P**	**16 37 47.3**	**+1.1**
LAJ	**Bijagual**	**8.54**	**125**	*e*P	**P**	**16 37 46.0**	**-1.1**
LCR2	**La Lucha 2**	**8.71**	**125**	*e*P	**P**	**16 37 50.5**	**+1.2**
URSC	**Urasca**	**8.83**	**124**	⇓*e*P	**P**	**16 37 52.6**	**+1.8**
BUS	**Buena Vista**	**9.01**	**125**	*e*P	**P**	**16 37 54.8**	**+1.5**
HKT	**Hockley**	**15.56**	**345**	P	**P**	**16 39 12.8**	**-4.1**
	5.0nm,0.6s						
DWPF	**Disney**	**15.95**	**33**	P	**P**	**16 39 16.5**	**-5.1**

	17nm,0.5s						
JCT	Junction City	17.39	334	eP	P	16 39 40.8	+2.2
	16nm,1.3s						
TXAR	Lajitas Array	18.40	323	P	P	16 39 51.6	+2.1
	0.4nm,0.3s,baz=148,slow=12,SNR=28						
LRAL	Lakeview Retre	18.44	11	eP	P	16 39 49.8	0.0
	33nm,1.0s						
OXF	Oxford	19.58	4	P	P	16 40 01.2	-0.5
	20nm,0.7s						
MIAR	Mount Ida	19.66	354	eP	P	16 40 02.6	0.0
	1.2nm,0.8s						
UALR	University of	19.80	357	eP	P	16 40 04.7	+0.8
	59nm,0.8s						
WMOK	Wichita Mounta	20.89	342	eP	P	16 40 14.0	-0.8
	1.7nm,0.6s						
WVT	Waverly	21.34	8	eP	P	16 40 17.5	-1.8
	11nm,0.7s,mb4.3						
WCI	Wyandotte Cave	23.62	10	eP	P	16 40 41.7	+0.4
	24nm,0.8s,mb4.8						
KSU1	Kansas State U	24.56	350	eP	P	16 40 50.7	+0.6
ACSO	Alum Creek Sta	26.22	14	eP	P	16 41 05.1	-0.5
	19nm,0.7s,mb4.8						
TPNV	Topopah Spring	31.27	319	eP	P	16 41 53.5	+2.8
	15nm,1.7s,mb4.5						
SADO	Sadowa	31.46	17	P	P	16 41 51.0	-1.3
	5.9nm,0.5s,mb4.6,baz=206,slow=6.4,SNR=7.3						
PDAR	Pinedale Array	31.93	334	P	P	16 41 55.7	-0.5
	0.3nm,0.6s,mb3.2,baz=132,slow=13,SNR=3.0						
PDAR				ScP		16 48 07.5	
	0.3nm,0.8s,baz=143,slow=7.4,SNR=4.4						
MNV	Mina	33.37	320	eP	P	16 42 10.6	+1.9
	2.7nm,0.7s,mb4.1						
NVAR	Mina Array Bea	33.47	320	P	P	16 42 12.2	+2.7
	3.6nm,0.8s,mb4.2,baz=128,slow=8.8,SNR=29						
NVAR				PcP	PcP	16 44 46.6	+0.2
	0.5nm,0.7s,baz=129,slow=3.9,SNR=4.0						
ULM	Lac du Bonnet	35.44	355	P	P	16 42 25.5	-0.7
	4.6nm,0.6s,mb4.3,baz=175,slow=8.9,SNR=12						
LPAZ	La Paz	38.47	143	P	P	16 42 51.6	-0.3
	2.3nm,0.7s,mb3.9,baz=316,slow=7.6,SNR=11						
LPAZ	La Paz	38.47	143	eP	P	16 42 51.2	-0.7
	2.2nm,0.6s,mb4.0						
SCHQ	Schefferville	44.10	20	P	P	16 43 35.9	-1.4
	14nm,0.6s,mb4.7,baz=214,slow=6.1,SNR=24						
SCHQ	Schefferville	44.10	20	eP	P	16 43 36.4	-0.9
	28nm,0.8s,mb4.9						
YKA	Yellowknife Ar	50.32	346	P	P	16 44 24.8	-0.7
	2.0nm,0.6s,mb3.9,baz=148,slow=7.6,SNR=36						
YKA	Yellowknife Ar	50.32	346	P	P	16 44 24.8	-0.7
INK	Inuvik	59.79	343	P	P	16 45 32.4	-1.1
	2.1nm,0.6s,mb4.1,baz=127,slow=8.4,SNR=22						
ILAR	Eielson Array	62.31	336	P	P	16 45 49.1	-1.4
	1.1nm,0.6s,mb3.8,baz=168,slow=4.6,SNR=18						
NOA	NORSAR Array B	82.97	29	P	P	16 47 51.0	-0.4
	0.7nm,0.7s,mb3.5,baz=292,slow=8.3,SNR=3.2						
GERES	GERESS Array B	88.40	40	P	P	16 48 15.9	-2.2
	0.3nm,0.7s,mb3.2,slow=6.7,SNR=5.2						
WRA	Warramunga Arr	136.37	257	PKP	PKPdf	16 54 48.2	+1.7
	0.8nm,0.5s,baz=87,slow=2.5,SNR=8.7						
FITZ	Fitzroy Crossi	144.58	260	PKP	PKPdf	16 55 02.5	+1.3
	2.7nm,0.6s,baz=136,slow=3.4,SNR=7.1						
CMAR	Chiang Mai Arr	145.37	343	PKPbc	PKPbc	16 55 03.0	-0.2
	1.2nm,0.5s,baz=342,slow=3.7,SNR=10						

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*NIED **11** 16:43:00,33.10N×137.20E,h8^{km},Mw3.9 Best double couple: M$_0$7.97×10^{14} NP1:φ$_s$79°,δ75°,λ48°. NP2:φ$_s$333°, δ44°,λ158°.*
*JMA **11** 16:43:39.9±0.1,33.12N×137.24E,h43^{km}±2^{km},M3.9*
*NEIC **11** 16:43:41.2±1.0,33.05N×137.08E,h20^{km},mb4.5/1, MW3.9(NIED),Error ellipse: s-maj=31.1km s-min=18.3km az=94.0*
*IDC **11** 16:43:42.8±0.8,33.11N×137.40E,h31^{km}±5^{km},mb3.7/8, mb1 3.8/9,mb1mx3.6/23,ML3.2/1,MS3.4/2,Ms1 3.4/2, ms1mx2.7/25,Error ellipse: s-maj=25.2km s-min=15.9km az=57.0*
ISC 11 16:43:40.5±0.5,**33.15N**±0.03×**137.26E**±0.03,**h43**^{km}, **(h31**^{km}±1.4^{km}**:pP-P),n34,**σ**0**^{s}**97**/53,**mb3.9**/9,**MS3.8**/1, **6C-2D,Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	Tokai 1	0.67	24	P	P	16 43 53.4	-0.2
TK01				S	S	16 44 03.6	+0.3
TK02	Tokai 2	0.90	28	⇓P	P	16 43 56.7	-0.1
TK02				S	S	16 44 09.4	+0.6
TK03	Tokai 3	1.17	30	P	P	16 44 00.7	+0.1
TK03				S	S	16 44 16.4	+0.7
JIE	Ise	1.32	340	⇓P	P	16 44 03.2	+0.3
JIE				eS	S	16 44 19.6	+0.1
TK04	Tokai 4	1.33	23	P	P	16 44 03.2	+0.1
TK04				eS	S	16 44 20.3	+0.4
JWZ	Kozaga	1.34	287	⇑P	P	16 44 02.6	-0.6
JWZ				eS	S	16 44 18.7	-1.4
TSUJ	Tsu 2	1.70	336	⇑P	P	16 44 08.6	+0.3
TSUJ				eS	S	16 44 28.6	-0.4
JWM	Minabe	1.73	294	⇑P	P	16 44 08.4	-0.3
JWM				eS	S	16 44 28.8	-0.9
JWY	Kouya	1.75	308	⇑P	P	16 44 09.2	+0.3
JWY				eS	S	16 44 29.6	-0.5
JHE	Heguri	1.99	319	⇑P	P	16 44 12.5	+0.2
JHE				eS	S	16 44 35.6	-0.5
JIZS	Izushimoda	2.06	40	P	P	16 44 13.2	-0.2
JIZS				eS	S	16 44 36.5	-1.5
SHZ3	Shizuoka 3	2.07	22	P	P	16 44 13.2	-0.2
SHZ3				eS	S	16 44 37.8	-0.3
JHJ	Hachijo jima 2	2.12	90	Pn	P	16 44 13.8	-0.3
	21nm,0.3s,baz=137,slow=13,SNR=6.2						
JHJ				Sn	S	16 44 38.4	-1.1
	42nm,0.3s,baz=212,slow=23,SNR=9.8						
JHJ				LR	LR	16 44 42.5	
	comp=Z,506nm,21.1s,baz=45,slow=29						
JHJ2	Mitsune	2.15	90	P	P	16 44 14.1	-0.5
JHJ2				eS	S	16 44 38.5	-1.7
JIM2	Oshima 3	2.39	49	P	P	16 44 18.4	+0.4
JIM2				eS	S	16 44 45.3	-1.0
JAI	Aioi	2.43	286	P	P	16 44 18.3	-0.3
JAI				eS	S	16 44 44.8	-2.5
JYN	Shimob	2.57	24	P	P	16 44 20.8	+0.2
JYN				eS	S	16 44 51.3	+0.4
JGM	Miyama	2.58	350	P	P	16 44 21.0	+0.2
JGM				eS	S	16 44 51.0	-0.1
JOD2	Odawara 2	2.60	35	P	P	16 44 21.5	+0.5
JWT	Wachi	2.62	325	⇑P	P	16 44 21.8	+0.4
JWT				eS	S	16 44 52.2	0.0
MAT	Matsushiro	3.47	13	P	P	16 44 34.2	+0.8
MAT				S	S	16 45 13.3	-0.5
MAT	Matsushiro	3.47	13	eP	P	16 44 34.0	+0.6
MAT				eS	S	16 45 13.0	-0.8
SONM	Songino Array	27.45	311	P	P	16 49 26.5	+2.2
	2.6nm,0.9s,mb3.8,baz=115,slow=8.5,SNR=14						
CM31	Chiang Mai Arr	37.24	256	P	P	16 50 47.2	-2.6
	14nm,1.6s,mb4.5						
BVAR	Borovoye Array	50.74	314	P	P	16 52 40.3	+2.4
	0.5nm,0.5s,mb3.7,baz=88,slow=9.7,SNR=4.7						
WRA	Warramunga Arr	52.87	183	P	P	16 52 54.6	+0.3
	0.7nm,0.9s,mb3.6,baz=2.4,slow=7.8,SNR=6.4						
WRA				pP	pP	16 53 04.2	-2.3
	1.0nm,0.6s,baz=1.0,slow=7.8,SNR=6.7						
ASAR	Alice Springs	56.59	184	P	P	16 53 22.2	+0.8
	0.2nm,0.6s,mb3.3,baz=17,slow=12,SNR=2.4						
ASAR				pP	pP	16 53 32.9	-0.8
	0.3nm,0.6s,baz=14,slow=15,SNR=3.9						
STKA	Stephens Creek	64.81	176	LR	LR	17 23 10.1	
	comp=Z,53nm,19.3s,MS3.8,baz=251,slow=37						
STKA	Stephens Creek	64.81	176	eP	P	16 54 22.3	+5.2
FINES	FINESS Array B	70.63	332	P	P	16 54 55.0	+2.1
	3.8nm,1.1s,mb4.2,baz=63,slow=8.5,SNR=5.2						
AKASG	Malin Array Be	75.23	321	P	P	16 55 22.5	+2.4
	1.3nm,0.6s,mb4.0,baz=50,slow=5.9,SNR=6.4						
BRTR	Keskin Array B	78.81	310	P	P	16 55 44.0	+3.6
	3.3nm,0.9s,mb4.3,baz=92,slow=5.3,SNR=12						
BRTR				pP	pP	16 55 53.8	+0.6
	1.3nm,0.8s,baz=76,slow=5.1,SNR=3.9						
GERES	GERESS Array B	84.13	326	P	P	16 56 11.3	+3.3
	0.8nm,0.7s,mb4.0,baz=45,slow=7.5,SNR=7.3						
GERES				pP	pP	16 56 20.8	0.0
	0.4nm,0.8s,baz=37,slow=6.7,SNR=2.2						
LPAZ	La Paz	151.59	60	PKPbc	PKPdf	17 03 36.9	+13
	1.0nm,0.9s,baz=27,slow=3.5,SNR=3.9						

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*BJI **11** 16:45:20.1,4.90N×94.00E,h15^{km},mb4.8*
*NEIC **11** 16:45:23.1±8.5,4.91N×93.99E,h15^{km}±52^{km},mb5.1/5, Error ellipse: s-maj=26.6km s-min=10.3km az=58.0*
*IDC **11** 16:45:28.3±6.6,5.14N×94.28E,h48^{km}±60^{km},mb4.0/13, mb1 4.1/14,mb1mx3.9/23,ML4.9/1,MS3.5/3,Ms1 3.5/3, ms1mx3.2/18,Error ellipse: s-maj=51.8km s-min=15.2km az=53.0*
ISC 11 16:45:27.4±3.1,**5.1N**±0.1×**94.3E**±0.1,**h61**^{km}±26^{km},**n38,** σ**1**^{s}**09**/35,**mb4.4**/23,**1C-1D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPM	Ipoh	6.75	94	⇓eP	P	16 47 06.0	-0.2
CM31	Chiang Mai Arr	14.05	19	eP	P	16 48 44.7	-0.4
	12nm,0.6s						
CMAR	Chiang Mai Arr	14.05	19	P	P	16 48 45.4	+0.3
	1.8nm,0.3s,baz=205,slow=14,SNR=30						
CHG	Chiang Mai	14.39	18	⇑P	P	16 48 53.5	+4.0
	19nm,0.5s						
NANT	Nan	15.01	24	P	P	16 49 01.0	+3.5
KMI	Kunming	21.52	21	eP	P	16 50 13.9	+0.6
PKI	Pulchoki	23.90	340	eP	P	16 50 36.3	-0.3
DMN	Daman	24.04	340	eP	P	16 50 38.0	+0.1
GUN	Gumba	24.06	342	eP	P	16 50 37.8	-0.4
	15nm,0.7s,mb4.5						
GKN	Gorkha	24.56	339	eP	P	16 50 43.2	+0.1
	27nm,0.7s,mb4.9						
LSA	Lhasa	24.66	353	P	P	16 50 44.8	+0.8
KOLN	Koldanda	24.74	337	eP	P	16 50 44.8	0.0
	22nm,0.6s,mb4.8						
XAN	Xi'an	31.86	23	P	P	16 51 46.8	-2.3
XAN				AMB	AMB		
	comp=Z,19nm,0.7s,mb5.0						
GTA	Gaotai	34.54	8	eP	P	16 52 11.3	-0.8
GTA				AP	pP	16 52 16.9	-11
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.6						
FITZ	Fitzroy Crossi	38.58	127	P	P	16 52 46.5	+0.2
	comp=Z,2.2nm,0.7s,mb4.0,baz=353,slow=8.1,SNR=4.9						
SONM	Songino Array	43.84	12	P	P	16 53 28.9	-0.5
	comp=Z,3.0nm,0.6s,mb4.2,baz=194,slow=7.9,SNR=28						
SONM				PcP	PcP	16 55 16.0	+0.6
	comp=Z,0.7nm,0.6s,baz=180,slow=3.1,SNR=4.3						
KS15	Wonju Array Si	44.47	39	P	P	16 53 32.1	-2.5
WRA	Warramunga Arr	46.58	124	P	P	16 53 52.3	+0.8
	comp=Z,2.3nm,0.6s,mb4.3,baz=301,slow=9.5,SNR=21						
WB2	Warramunga Arr	46.59	124	eP	P	16 53 52.3	+0.7
ASAR	Alice Springs	48.07	128	P	P	16 54 03.4	+0.2
	comp=Z,0.9nm,0.5s,mb4.1,baz=302,slow=7.7,SNR=12						
BVAR	Borovoye Array	51.66	342	P	P	16 54 29.3	-0.9
	comp=Z,1.9nm,0.6s,mb4.2,baz=141,slow=9.5,SNR=11						
CTA	Charters Tower	56.87	118	LR	LR	17 22 32.7	
	comp=Z,63nm,18.1s,baz=120,slow=39						
KMBO	Kilima Mbogo	57.29	265	LR	LR	17 13 55.6	
	comp=Z,31nm,21.2s,baz=90,slow=30						
ASAJ	Asahikawa	57.45	40	LR	LR	17 20 43.7	
	comp=Z,40nm,19.2s,baz=167,slow=37						
BRTR	Keskin Array B	64.35	312	P	P	16 55 58.8	-0.6
	comp=Z,1.2nm,0.7s,mb4.0,baz=127,slow=5.8,SNR=4.7						
MA2	Magadan	69.17	27	eP	P	16 56 24.7	-4.6
	comp=Z,18nm,1.0s,mb5.0						
LBTB	Lobatse	73.04	242	eP	P	16 56 50.1	-3.2
	comp=Z,16nm,1.4s,mb4.7						
FINES	FINESS Array B	75.22	333	P	P	16 57 05.2	0.0
	comp=Z,1.6nm,0.6s,mb4.2,baz=96,slow=6.0,SNR=17						
KAF	Kangasniemi	75.32	333	ep	P	16 57 05.2	-0.5
	comp=Z,2.7nm,0.8s,mb4.2						
ARCES	ARCESS Array B	77.92	340	P	P	16 57 21.5	+1.3
	comp=Z,1.9nm,0.7s,mb4.1,baz=27,slow=5.4,SNR=4.0						
GERES	GERESS Array B	79.98	319	P	P	16 57 32.9	+1.0
	comp=Z,0.5nm,0.5s,mb3.7,baz=107,slow=4.6,SNR=8.1						
GERES				pP	pP	16 57 46.6	-2.2
	comp=Z,1.7nm,0.6s,baz=90,slow=5.3,SNR=10						
HFS	Hagfors	80.92	330	P	P	16 57 36.5	0.0
	comp=Z,1.6nm,0.6s,mb4.2,baz=108,slow=4.7,SNR=8.0						
DAVOX	Davos	82.48	316	P	P	16 57 46.9	+1.9
	comp=Z,2.0nm,0.7s,mb4.2,baz=90,slow=3.0,SNR=5.6						
EKA	Eskdalemuir Ar	90.08	325	P	P	16 58 23.4	+1.6
	comp=Z,0.8nm,0.6s,mb4.2,baz=80,slow=5.1,SNR=4.8						
SNAA	Sanae	97.04	198	P	P	16 58 51.4	-2.0
	comp=Z,8.7nm,1.5s,mb5.0						
DBIC	Dimbokro	98.44	277	P	P	16 59 04.5	+3.4
	comp=Z,13nm,1.5s,mb5.2						
INK	Inuvik	99.62	16	P	P	16 59 05.6	+0.4
	comp=Z,2.0nm,1.2s,mb4.4,baz=243,slow=4.5,SNR=4.4						
INK	Inuvik	99.62	16	P	P	16 59 05.6	+0.4

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*JMA **11** 16:45:54.9±0.2,35.35N×140.16E,h64^{km}±2^{km},M3.2 Broadband fault plane solution: P waves. NP1:φ$_s$53°,δ46°, λ-46°. NP2:φ$_s$178°,δ59°,λ-126°. Principal axes: T Plg7°, Azm293°; N Plg30°, Azm199°; P Plg59°, Azm35°;*
JMA Felt I J1.
*NIED **11** 16:46:00,35.40N×140.20E,h47^{km},Mw3.5 Best double couple: M$_0$1.83×10^{14} NP1:φ$_s$212°,δ71°,λ-89°. NP2:φ$_s$28°, δ19°,λ-94°.*
ISC 11 16:45:54.4±1.0,**35.31N**±0.04×**140.16E**±0.05,**h69**^{km}±8^{km}, **n14,**σ**0**^{s}**66**/26,**6C-4D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JCN	Nagara	0.11	17	⇓P	P	16 46 04.9	+0.2
JCN				eS	S	16 46 12.4	+0.3
KTR	Katsuura	0.21	143	⇓P	P	16 46 04.8	-0.2
KTR				eS	S	16 46 11.6	-1.3
BSO4	Boso 4	0.35	156	⇓P	P	16 46 06.2	+0.2
BSO4				eS	S	16 46 15.5	+0.9
TATJ	Tateyama 2	0.36	218	⇓P	P	16 46 06.6	+0.5
TATJ				eS	S	16 46 16.0	+1.3
BSO3	Boso 3	0.58	151	⇑P	P	16 46 08.3	0.0
BSO3				eS	S	16 46 18.8	+0.5
JIM2	Oshima 3	0.84	225	P	P	16 46 11.1	-0.1
JIM2				eS	S	16 46 22.7	-0.9
JOD2	Odawara 2	0.88	267	⇑P	P	16 46 11.6	0.0
JOD2				eS	S	16 46 23.2	-1.1
BSO1	Boso 1	0.94	134	⇑P	P	16 46 11.8	-0.6
BSO1				eS	S	16 46 25.0	-0.7
JIZS	Izushimoda	1.21	241	P	P	16 46 16.1	+0.2
JIZS				eS	S	16 46 31.1	-0.8
JRY	Ryogami san	1.24	305	⇑P	P	16 46 16.7	+0.3
JAG	Ashikaga	1.25	333	⇑P	P	16 46 16.4	-0.1
JAG				eS	S	16 46 32.1	-0.7
JYN	Shimob	1.33	278	⇑P	P	16 46 17.8	+0.1
JYN				eS	S	16 46 34.8	-0.2
JMY	Miyakejima3	1.35	204	eS	S	16 46 36.3	+1.0
MAT	Matsushiro	2.01	308	P	P	16 46 27.0	+0.2
MAT				S	S	16 46 51.7	+1.1

OTT 11 16:59:20.6±0.2,**52.72N**×**67.14W,MN2.9**/5,**Blast, Mount Wright, Qc Mining explosion.,Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	Schefferville	2.13	5	PN	Pn	16 59 56.1	-1.8
SCHQ				SN	Sn	17 00 24.8	-0.6
SCHQ				Trac		17 00 26.5	
	comp=Z,14nm,0.1s						
MNQ	Manicouagan	2.41	206	PN	Pn	17 00 01.6	-0.4
MNQ				SG	Sg	17 00 34.7	-6.3
MNQ				Trac		17 00 36.5	
	comp=Z,30nm,0.3s						
SMQ	Clarke City	2.51	174	PN	Pn	17 00 02.0	-1.4
SMQ				Trac		17 00 41.2	
	comp=Z,10nm,0.1s						
ICQ	Pointe Anglais	3.20	182	PN	Pn	17 00 10.8	-2.4
ICQ				SN	Sn	17 00 50.0	-2.7
CNQ	Baie Comeau	3.47	190	PN	Pn	17 00 16.1	-0.9
CNQ				Trac		17 01 13.1	
	comp=Z,6.4nm,0.2s						
GSQ	Grosses Roches	3.81	180	PN	Pn	17 00 20.2	-1.6
GSQ				Trac		17 01 24.3	
	comp=Z,3.0nm,0.1s						
DAQ	Lac Daran	5.43	211	PN	Pn	17 00 38.0	-6.9
LMQ	La Malbaie	5.57	203	PN	Pn	17 00 42.9	-3.8
DRLN	Deer Lake	7.00	116	PN	Pn	17 01 03.0	-3.8
LMN	Caledonia Moun	7.04	167	PN	Pn	17 01 04.0	-3.5
VLDQ	Val d'Or	8.04	239	PN	P	17 01 16.7	-4.8
MALO	McAlpine Lake	8.35	256	PN	P	17 01 18.6	-7.2
VIMO	Victor Mine	10.07	277	PN	P	17 01 40.9	-8.5
SILO	Sutton Inlier	10.71	287	PN	P	17 01 49.1	-9.1

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*NEIC **11** 17:07:54.9±1.1,55.62N×154.30W,h35^{km},ML3.3(AEIC), Error ellipse: s-maj=15.7km s-min=10.5km az=154.0*
*IDC **11** 17:07:58.4±8.2,55.86N×154.28W,h56^{km}±63^{km},mb3.5/5, mb1 3.8/7,mb1mx3.5/22,ML3.8/2,Error ellipse: s-maj=62.4km s-min=35.7km az=174.0*
ISC 11 17:07:52.2±3.5,**55.6N**±0.1×**154.1W**±0.2,**h31**^{km}±23^{km},**n22,** σ**0**^{s}**78**/24,**mb3.8**/5,**South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDAK	Kodiak Island	2.39	20	P	Pn	17 08 30.5	+0.4
KDAK				S	Sn	17 08 58.4	-0.2
CAHL	Cahill	2.58	346	P	Pn	17 08 32.9	+0.1
KJL	Kejulik	2.62	343	P	Pn	17 08 33.9	+0.5
MGLS	Mageik LS	2.74	347	P	Pn	17 08 33.5	-1.5
KAWH	Katmai	2.86	353	P	Pn	17 08 37.1	+0.4
KAPH	Katmai Pasha	3.05	358	P	Pn	17 08 40.1	+0.7
CNPM	China Poot	4.27	20	P	Pn	17 08 56.5	-0.3
SEW	Seward	5.20	27	P	Pn	17 09 10.4	+0.5
MPA	Moose Pass	5.56	25	P	Pn	17 09 15.9	+0.9
RC01	Rabbit Creek A	6.01	21	P	Pn	17 09 22.0	+0.7
STLK	Strandline Lak	6.08	10	P	Pn	17 09 22.9	+0.6
GHO	Glory Hole Cre	6.80	21	P	Pn	17 09 32.5	+0.1
VLZ	Valdez	6.93	33	P	Pn	17 09 32.2	-2.1
SCM	Sheep Creek Mo	7.22	27	P	Pn	17 09 36.6	-1.7
ILAR	Eielson Array	9.91	18	P	P	17 10 15.1	-0.5
	0.4nm,0.3s,baz=201,slow=13,SNR=23						
ILAR				S	Sn	17 12 00.1	-6.7
	0.1nm,0.3s,baz=201,slow=25,SNR=5.0						
INK	Inuvik	15.92	29	P	P	17 11 36.1	+0.9
	0.2nm,0.3s,baz=246,slow=16,SNR=15						
YKA	Yellowknife Ar	21.20	55	P	P	17 12 37.5	+0.4
	0.2nm,0.4s,mb2.8,baz=272,slow=9.4,SNR=5.8						
YKA	Yellowknife Ar	21.20	55	P	P	17 12 37.5	+0.4
SONM	Songino Array	56.97	308	P	P	17 17 35.9	-0.6
	1.4nm,0.7s,mb4.1,baz=42,slow=6.6,SNR=9.1						
BVAR	Borovoye Array	65.72	332	P	P	17 18 35.4	+0.1
	0.8nm,0.7s,mb3.9,baz=45,slow=6.1,SNR=5.6						
EKA	Eskdalemuir Ar	66.95	18	P	P	17 18 43.2	0.0
	1.6nm,0.9s,mb4.0,baz=342,slow=6.7,SNR=3.8						
CMAR	Chiang Mai Arr	84.15	294	P	P	17 20 21.5	+0.2
	1.2nm,0.9s,mb4.0,baz=15,slow=5.7,SNR=6.6						

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*IDC **11** 17:15:20.3±15.0,6.00N×126.25E,mb4.0/5,mb1 4.1/5, mb1mx3.9/18,Error ellipse: s-maj=267.0km s-min=75.5km az=173.0*
ISC 11 17:15:20.9±1.6,**6.16N**±0.07×**126.4E**±0.1,**h23**^{km}±14^{km}, **n12,**σ**1**^{s}**07**/16,**mb3.8**/5,**1D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	0.80	348	eP	Pb	17 15 36.5	+0.5
MATI				eS	Sb	17 15 45.5	-0.8
KCP	Kidapawan	1.57	303	⇓iP	Pn	17 15 48.4	+0.6
KCP				i S	Sn	17 16 06.9	-0.5
BUKP	Musuan	2.17	322	eP	Pn	17 15 55.9	-0.5
BUKP				eS	Sn	17 16 21.6	-1.3
BUTP	Butuan	2.90	344	eP	Pn	17 16 07.6	+0.8
BUTP				eS	Sn	17 16 43.1	+1.8
PAGZ	Pagadian	3.45	299	eP	Pn	17 16 16.9	+2.4
MSLP	Maasin	4.24	339	eP	Pn	17 16 24.1	-1.7
FITZ	Fitzroy Crossi	24.12	182	P	P	17 20 37.5	+1.2
	2.8nm,0.8s,mb3.7,baz=357,slow=9.9,SNR=7.4						
WRA	Warramunga Arr	27.09	163	P	P	17 21 03.3	-0.8
	0.9nm,0.7s,mb3.4,baz=342,slow=10,SNR=17						
ASAR	Alice Springs	30.53	166	P	P	17 21 34.4	-0.7
	0.4nm,0.4s,mb3.6,baz=342,slow=7.2,SNR=16						
NWAO	Narrogin (SRO)	39.84	192	P	P	17 22 54.0	-0.6
	6.9nm,0.9s,mb4.4,baz=34,slow=3.6,SNR=5.8						
STKA	Stephens Creek	40.50	160	eP	P	17 23 00.1	+0.2
	1.5nm,0.6s,mb3.8						
STKA	Stephens Creek	40.50	160	P	P	17 23 00.1	+0.2
	2.7nm,0.9s,mb3.9,baz=340,slow=9.6,SNR=5.3						

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*JMA **11** 18:00:07.9±0.2,33.57N×127.88E,M2.6*
*KMA **11** 18:00:09.8,33.60N×127.70E,ML2.1*
ISC 11 18:00:09.2±0.7,**33.55N**±0.05×**127.85E**±0.05,**h10**^{km},**n11,** σ**0**^{s}**77**/15,**South Korea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSJJU	Jeju	1.09	264	P	Pb	18 00 29.6	-0.2
JFU	Fukue jima 2	1.17	139	P	Pb	18 00 30.5	-0.5
JFU				S	Sb	18 00 46.1	0.0
KSWAN	Wando	1.27	312	P	Pb	18 00 31.9	-0.8
JII	Iki	1.59	81	P	Pn	18 00 36.2	-1.4
JII				eS	Sb	18 00 57.2	-1.1
JTU	Tsushima	1.61	53	P	Pn	18 00 37.7	-0.2
JTU				S	Sn	18 00 58.7	-0.2
KSKWJ	Gwangju	1.76	336	P	Pn	18 00 40.0	0.0
JUR	Ureshino	1.82	104	P	Pn	18 00 40.9	+0.1
JUR				S	Sn	18 01 04.7	+0.6
NGSJ	Nagasakinomoza	1.88	119	S	Sn	18 01 06.7	+1.1
KSBUS	Busan	1.99	31	P	Pn	18 00 43.5	+0.1
KSJEU	Jeongeup	2.08	339	P	Pn	18 00 45.3	+0.7
KSDAG	Daegu	2.38	21	P	Pn	18 00 50.6	+1.8

ISC 11 18:01:13.6±0.8,**44.48N**±0.04×**17.12E**±0.09,**h10**^{km},**n8,** σ**1**^{s}**17**/16,**3C-1D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVLJ	Novalja	1.61	274	i Pn	Pn	18 01 44.5	+2.2
NVLJ				i Sg	Sg	18 02 06.5	-0.8
STON	Ston	1.66	165	i Pn	Pn	18 01 45.0	+2.0
STON				i Sg	Sg	18 02 08.3	-0.7
BOJS	Bojanci	1.68	308	ePn	Pn	18 01 43.8	+0.6
BOJS				eSn	Sn	18 02 05.2	+0.3
CRES	Cresnjev	1.79	319	ePn	Pn	18 01 44.6	-0.2
CRES				eSn	Sn	18 02 09.9	+2.1
OBKA	Obir	2.72	319	⇑iPN	Pn	18 01 57.3	-0.9
OBKA				i SN	Sn	18 02 30.7	-0.7
ARSA	Arzberg	2.99	339	⇑iPN	Pn	18 02 00.8	-1.2
ARSA				i SN	Sn	18 02 38.9	+0.7
MOA	Molln	3.91	331	⇓iPN	Pn	18 02 13.8	-1.3
MOA				i SN	Sn	18 03 01.9	+0.3
WTTA	Wattenberg	4.73	308	⇑iPN	Pn	18 02 24.8	-2.0
WTTA				i SN	Sn	18 03 22.8	+0.3

IDC 11 18:07:34.6±1.8,**23.41S**×**68.04W,h116**^{km}±10^{km},**mb3.6**/7, **mb1 3.8**/9,**mb1mx3.7**/14,**Error ellipse: s-maj=35.5km s-min=20.3km az=15.0,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.13	314	P	P	18 07 58.3	+0.2
	221nm,0.3s,baz=157,slow=9.7,SNR=1764						
LVC				S	S	18 08 15.7	+0.1
	686nm,0.3s,baz=45,slow=18,SNR=78						
LPAZ	La Paz	7.09	359	P	P	18 09 17.4	+0.3
	0.6nm,0.3s,baz=163,slow=4.2,SNR=10						
BDFB	Brasilia	20.38	71	P	P	18 12 01.8	-2.3
	6.6nm,0.4s,baz=247,slow=8.1,SNR=10						
TXAR	Lajitas Array	62.65	325	P	P	18 17 46.6	-2.7
	0.3nm,0.6s,baz=140,slow=6.6,SNR=4.7						
DBIC	Dimbokro	68.52	72	P	P	18 18 25.4	-1.6
	2.1nm,0.4s,baz=230,slow=6.2,SNR=7.1						
ANMO	Albuquerque	68.54	327	P	P	18 18 24.3	-2.5
	2.7nm,1.0s,baz=148,slow=6.2,SNR=5.9						
PDAR	Pinedale Array	76.16	330	P	P	18 19 10.1	-1.4
	0.4nm,0.6s,baz=90,slow=4.4,SNR=3.9						
ULM	Lac du Bonnet	77.38	342	P	P	18 19 15.9	-2.2
	1.1nm,0.5s,baz=142,slow=5.0,SNR=5.2						
NVAR	Mina Array Bea	77.49	322	P	P	18 19 19.5	+0.5
	0.2nm,0.4s,baz=146,slow=6.5,SNR=2.9						
YKA	Yellowknife Ar	93.25	340	P	P	18 20 34.4	-2.3
	0.5nm,0.6s,baz=135,slow=4.5,SNR=8.5						
ASAR	Alice Springs	128.58	206	PKP	PKPdf	18 26 28.0	-0.6
	0.5nm,0.6s,baz=122,slow=1.7,SNR=12						
WRA	Warramunga Arr	131.70	209	PKP	PKPdf	18 26 34.4	-0.2
	0.3nm,0.5s,baz=153,slow=1.6,SNR=11						

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*IDC **11** 18:37:38.5±1.5,3.99N×126.67E,mb3.5/4,mb1 3.7/4, mb1mx3.5/17,Error ellipse: s-maj=109.0km s-min=23.5km az=76.0*
ISC 11 18:37:38.6±1.8,**4.3N**±0.3×**126.5E**±0.8,**h33**^{km},**n5,**σ**0**^{s}**33**/6, **mb3.4**/4,**Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	3.06	333	eP	P	18 38 26.2	+0.4
KCP				eS	S	18 39 01.5	-0.3
FITZ	Fitzroy Crossi	22.23	182	P	P	18 42 34.2	+0.1
	2.9nm,1.0s,mb3.7,baz=0.5,slow=9.6,SNR=3.2						
WRA	Warramunga Arr	25.26	162	P	P	18 43 03.5	-0.1
	0.9nm,0.6s,mb3.5,baz=343,slow=10,SNR=10.0						
ASAR	Alice Springs	28.68	166	P	P	18 43 34.9	-0.1
	0.3nm,0.7s,mb3.1,baz=336,slow=7.5,SNR=5.3						
SONM	Songino Array	46.72	341	P	P	18 46 11.8	+5.4
	0.3nm,0.8s,mb3.3,baz=155,slow=6.4,SNR=2.7						

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*IDC **11** 18:40:21.6±2.3,53.04N×174.22W,h218km±23km, mb3.4/10,mb1 3.7/12,mb1mx3.5/24,Error ellipse: s-maj=23.8km s-min=10.5km az=177.0*

*NEIC **11** 18:40:21.1±0.2,52.89N×174.19W,h218km±4km,mb4.2/5, Error ellipse: s-maj=12.9km s-min=5.4km az=156.0*

ISC 11 18:40:20.1±0.3,**52.90N**±0.09×**174.19W**±0.07, **h220**km±4km,**n42,**σ**0^{s}90**/50,**mb3.7**/14,**Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	0.70	180	P	P	18 40 50.2	-0.4
ATKA				S	S	18 41 12.7	-1.5
GSTR	Great Sitkin T	1.40	236	P	P	18 40 55.7	+0.6
GSTR				S	S	18 41 23.0	+0.8
GSIG	Igitkin Island	1.40	230	P	P	18 40 55.1	-0.1
GSIG				S	S	18 41 20.4	-1.8
GSMY	Great Sitkin M	1.43	234	P	P	18 40 55.5	+0.1
GSMY				S	S	18 41 20.8	-1.9
GSSP	Great Sitkin S	1.46	237	P	P	18 40 56.1	+0.5
GSTD	Great Sitkin T	1.46	236	P	P	18 40 56.0	+0.3
GSTD				S	S	18 41 22.8	-0.4
ADAG	Mount Adagdak	1.74	239	P	P	18 40 58.4	+0.3
ADAG				S	S	18 41 28.3	+1.0
KIRH	Kanaga Island	2.04	242	P	P	18 41 01.3	+0.5
KINC	Kanaga Island	2.04	243	P	P	18 41 01.3	+0.4
KIKV	Kanaga Island	2.09	242	P	P	18 41 02.0	+0.7
KIWB	Kanaga Island	2.10	241	P	P	18 41 01.8	+0.4
KIMD	Kanaga Island	2.19	240	P	P	18 41 02.8	+0.4
MNAT	Makushin Natee	4.60	75	P	P	18 41 31.0	+0.4
UNV	Unalaska Valle	4.70	75	P	P	18 41 33.0	+1.1
UNV				S	S	18 42 27.4	-0.2
WESE	West Dahl East	5.92	71	P	P	18 41 47.6	+0.3
DOL	Dolgoi Island	7.60	68	P	P	18 42 08.4	-0.5
FX1	Attu Island--F	7.65	275	P	P	18 42 11.2	+1.6
	2.9nm,0.3s,baz=72,slow=3.2,SNR=21						
FX1				S	S	18 43 34.4	-0.8
	4.1nm,0.3s,baz=151,slow=21,SNR=6.1						
PVV	Pavlof Volcano	7.70	66	P	P	18 42 10.0	-0.1
RSO	Redoubt South	13.96	49	eP	P	18 43 31.0	+1.7
SLKM	Skilak Lake	15.14	50	eP	P	18 43 44.6	+0.8
IMA	Indian Mountai	16.69	30	eP	P	18 44 02.7	+0.3
	43nm,1.0s						
ILAR	Eielson Array	18.28	39	P	P	18 44 16.9	-2.3
	0.4nm,0.3s,baz=246,slow=9.7,SNR=22						
INK	Inuvik	24.58	36	P	P	18 45 20.6	-0.1
	1.6nm,0.5s,mb4.0,baz=243,slow=7.1,SNR=22						
YKA	Yellowknife Ar	32.11	49	P	P	18 46 25.6	-2.4
	0.9nm,0.7s,mb3.4,baz=279,slow=9.2,SNR=6.8						
NEW	Newport	35.71	74	eP	P	18 46 58.1	-0.7
	12nm,0.9s,mb4.4						
YBH	Yreka Blue Hor	35.91	87	P	P	18 47 01.7	+1.1
	1.8nm,0.7s,mb3.7,baz=325,slow=6.9,SNR=4.5						
HLID	Hailey	39.82	79	eP	P	18 47 33.0	-0.1
	1.3nm,0.5s,mb3.6						
NVAR	Mina Array Bea	40.60	88	P	P	18 47 40.9	+1.4
	1.8nm,0.6s,mb3.7,baz=309,slow=6.4,SNR=17						
MTUM	Tungsten Hills	41.13	89	eP	P	18 47 45.0	+1.2
HWUT	Hardware Ranch	42.68	79	P	P	18 47 56.4	+0.2
TPNV	Topopah Spring	42.80	88	eP	P	18 47 57.7	+0.4
	4.1nm,0.6s,mb4.0						
BW06	Boulder Array	43.16	77	eP	P	18 47 59.7	-0.5
	5.9nm,0.8s,mb4.1						
PDAR	Pinedale Array	43.16	77	P	P	18 48 00.4	+0.2
	5.6nm,0.6s,mb4.2,baz=309,slow=3.7,SNR=48						
SONM	Songino Array	48.48	298	P	P	18 48 41.9	+0.2
	0.3nm,0.6s,mb2.8,baz=53,slow=7.2,SNR=6.5						
SDCO	Great Sand Dun	48.74	79	eP	P	18 48 43.8	-0.1
WMOK	Wichita Mounta	54.76	77	eP	P	18 49 27.2	-1.4
TXAR	Lajitas Array	55.66	86	P	P	18 49 34.7	-0.4
	1.3nm,0.7s,mb3.5,baz=297,slow=5.6,SNR=8.1						
TXAR	Lajitas Array	55.66	86	P	P	18 49 34.7	-0.4
MIAR	Mount Ida	57.95	74	eP	P	18 49 49.7	-1.5
BVAR	Borovoye Array	61.51	322	P	P	18 50 14.5	-0.5
	2.3nm,0.5s,mb4.0,baz=58,slow=5.7,SNR=22						
CMAR	Chiang Mai Arr	73.63	279	P	P	18 51 30.4	-0.6
	0.4nm,0.7s,mb3.2,baz=23,slow=8.9,SNR=5.6						
ASAR	Alice Springs	88.56	226	P	P	18 52 49.0	+0.4
	0.5nm,0.7s,mb3.4,baz=26,slow=4.1,SNR=6.9						

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*IDC **11** 18:50:07.7±0.9,3.52S×135.61E,mb4.0/5,mb1 4.2/9, mb1mx4.1/14,ML3.7/4,Error ellipse: s-maj=41.2km s-min=19.4km az=74.0*

*NEIC **11** 18:50:09.9±0.6,3.53S×135.52E,h10km,mb4.4/5,Error ellipse: s-maj=19.4km s-min=10.9km az=78.0*

ISC 11 18:50:11.9±1.7,**3.76S**±0.05×**135.5E**±0.1,**h43**km±16km, **n21,**σ**1^{s}37**/25,**mb4.2**/8,**Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.39	199	eP	P	18 52 29.8	+2.2
	17nm,0.4s						
KAKA				eS	S	18 54 11.9	-1.1
PMG	Port Moresby	12.88	116	Pn	P	18 53 13.3	-1.7
	0.4nm,0.3s,baz=288,slow=13,SNR=3.2						
WB2	Warramunga Arr	16.12	184	eP	P	18 53 55.7	-1.5
WB2				e		18 54 02.9	
WB2				eS	S	18 56 47.1	-7.2
WRA	Warramunga Arr	16.12	184	Pn	P	18 53 55.4	-1.8
	0.3nm,0.3s,baz=3.4,slow=13,SNR=18						
WRA				Sn	S	18 56 47.1	-7.3
	1.0nm,0.3s,baz=4.8,slow=23,SNR=10.0						
FITZ	Fitzroy Crossi	17.21	213	Pn	P	18 54 10.9	0.0
	0.2nm,0.3s,baz=27,slow=11,SNR=4.2						
FITZ				Sn	S	18 57 12.7	-6.5
	1.6nm,0.3s,baz=193,slow=12,SNR=8.2						
CTA	Charters Tower	19.33	148	eP	P	18 54 39.0	+2.5
	2.6nm,0.4s						
CTA	Charters Tower	19.33	148	P	P	18 54 37.6	+1.1
	0.8nm,0.3s,baz=331,slow=12,SNR=9.0						
ASAR	Alice Springs	19.85	184	P	P	18 54 44.5	+2.3
	21nm,0.8s,baz=7.3,slow=12,SNR=365						
ASAR				S	S	18 58 16.2	-2.0
	1.0nm,0.5s,baz=3.8,slow=27,SNR=4.3						
ASPA	Alice Springs	19.85	184	eP	P	18 54 44.1	+1.9
ASPA				eS	S	18 58 18.9	+0.7
STKA	Stephens Creek	28.55	169	P	P	18 56 07.2	+1.2
	0.8nm,0.4s,mb3.8,baz=360,slow=9.2,SNR=5.0						
STKA	Stephens Creek	28.55	169	eP	P	18 56 06.8	+0.8
ENH	Enshi	41.99	325	P	P	18 58 00.6	-0.2
	4.8nm,0.9s,mb4.1						
BJT	Baijiatuau	47.04	340	eP	P	18 58 40.7	-0.5
	3.9nm,0.5s,mb4.6						
SONM	Songino Array	57.36	337	P	P	18 59 58.4	+0.2
	0.8nm,1.0s,mb3.7,baz=151,slow=6.2,SNR=4.3						
VNDA	Vanda	75.05	174	P	P	19 01 53.6	+3.2
	3.4nm,1.3s,mb4.1						
BVAR	Borovoye Array	78.35	326	P	P	19 02 09.2	-0.2
	1.0nm,0.6s,mb3.9,baz=117,slow=6.6,SNR=8.2						
CHKZ	Chkalovo	78.48	327	P	P	19 02 10.9	+0.8
ILAR	Eielson Array	88.12	25	P	P	19 02 58.2	-0.7
	0.7nm,0.6s,mb4.1,baz=280,slow=5.1,SNR=6.2						
KIV	Kislovodsk	94.61	314	eP	P	19 03 28.3	-1.2
	7.9nm,0.8s,mb5.2						
ARCES	ARCESS Array B	100.42	340	P	P	19 03 54.5	-0.9
	3.3nm,0.8s,baz=90,slow=7.2,SNR=4.0						
LPAZ	La Paz	149.31	131	PKPbc	PKPdf	19 09 58.3	+5.6
	0.6nm,0.5s,baz=12,slow=9.3,SNR=1.9						

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*IDC **11** 19:02:25.4±1.7,43.63N×105.45W,mb4.8/1,mb1 4.1/5, mb1mx3.6/19,ML3.5/4,Error ellipse: s-maj=44.2km s-min=8.9km az=151.0*

*NEIC **11** 19:02:26.2±0.5,43.68N×105.18W,ML3.4,Error ellipse: s-maj=7.2km s-min=4.8km az=113.0,Suspected Mining explosion.*

NEIC 75 km [45 miles] SSE of Gillette.

ISC 11 19:02:24.4±0.6,**43.68N**±0.04×**105.16W**±0.08,**n43,** σ**1^{s}14**/43,**mb5.0**/1,**Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PHWY	Pilot Hill	2.39	185	ePn	Pn	19 03 05.3	-0.1
RWWY	Rawlins	2.50	218	ePn	Pn	19 03 08.8	+1.9
LAO	LASA Array	3.10	346	ePn	Pn	19 03 16.8	+1.3
BW06	Boulder Array	3.34	256	ePn	Pn	19 03 18.8	-0.1
PDAR	Pinedale Array	3.34	256	Pn	Pn	19 03 19.0	+0.1
	2.8nm,0.3s,baz=73,slow=15,SNR=50						
PDAR				Lg		19 04 02.7	
	6.0nm,0.3s,baz=74,slow=32,SNR=6.4						
ISCO	Idaho Springs	3.89	185	ePn	Pn	19 03 28.2	+1.5
LOHW	Long Hollow	3.95	271	ePn	Pn	19 03 28.4	+0.8
MOOW	Moose Ponds	4.05	273	ePn	Pn	19 03 30.4	+1.4
WUWY	Wally Ulrich	4.06	270	ePn	Pn	19 03 30.4	+1.3
SNOW	Snow King Moun	4.07	269	ePn	Pn	19 03 29.9	+0.6
YNR	Norris Junctio	4.10	287	ePn	Pn	19 03 29.8	+0.1
REDW	Red Top Meadow	4.15	268	ePn	Pn	19 03 31.0	+0.5
YFT	Old Faithful	4.16	283	ePn	Pn	19 03 31.9	+1.3
IMW	Indian Meadow	4.19	275	ePn	Pn	19 03 31.1	+0.1
TPAW	Teton Pass	4.21	269	ePn	Pn	19 03 31.2	-0.1
AHID	Auburn Hatcher	4.44	260	P	Pn	19 03 32.1	-2.4
QLMT	Earthquake Lak	4.65	286	ePn	Pn	19 03 38.3	+0.8
DGMT	Dagmar	4.84	8	ePn	Pn	19 03 42.0	+1.8
HWUT	Hardware Ranch	5.16	249	ePn	Pn	19 03 43.9	-0.8
	3.2nm,0.5s						
DAU	Daniels Canyon	5.59	236	ePn	Pn	19 03 51.5	+0.6
JLU	Jordanelle	5.60	239	ePn	Pn	19 03 50.4	-0.5
HRY	Holter Researc	5.60	305	ePn	Pn	19 03 50.1	-0.9
MCMT	McKenzie Canyo	5.64	284	ePn	Pn	19 03 50.3	-1.3
SPUT	South Promonto	5.89	249	ePn	Pn	19 03 54.5	-0.5
SDCO	Great Sand Dun	5.94	183	ePn	Pn	19 03 57.5	+1.9
	2.3nm,0.6s						
MPU	Maple Canyon	6.06	235	Pn	Pn	19 03 48.9	-8.5
SRU	San Rafael	6.09	223	ePn	Pn	19 03 56.8	-1.1
TMUT	Trail Mountain	6.31	228	ePn	Pn	19 03 59.0	-2.0
NLU	North Lily Min	6.37	237	ePn	Pn	19 04 01.8	0.0
MSU	Marysvale	7.40	228	ePn	Pn	19 04 15.3	-1.0
MVU	Marysvale	7.42	228	ePn	Pn	19 04 16.0	-0.6
	3.1nm,0.6s						
BMO	Blue Mountains	8.80	282	P	P	19 04 19.3	-16
ULM	Lac du Bonnet	9.13	41	Pn	P	19 04 38.4	-2.0
	1.8nm,0.3s,baz=233,slow=14,SNR=11						
ULM	Lac du Bonnet	9.13	41	Pn	P	19 04 38.4	-2.0
AMTX	Amarillo	9.19	162	Pn	P	19 04 55.4	+14
NVAR	Mina Array Bea	11.22	247	Pn	P	19 05 07.6	-1.5
	0.1nm,0.3s,baz=64,slow=13,SNR=3.9						
NVAR	Mina Array Bea	11.22	247	Pn	P	19 05 07.6	-1.5
FFC	Flin Flon	11.25	10	ePn	P	19 05 06.1	-3.2
	2.7nm,0.5s						
SWET	Sewanee	17.06	113	Pn	P	19 06 42.3	+17
YKA	Yellowknife Ar	19.64	347	P	P	19 06 56.9	-0.2
	0.1nm,0.3s,baz=158,slow=11,SNR=11						
YKA	Yellowknife Ar	19.64	347	P	P	19 06 56.9	-0.2
ARCES	ARCESS Array B	61.45	18	P	P	19 12 43.0	-1.4
	13nm,1.1s,mb5.0,baz=324,slow=7.8,SNR=5.0						
ARCES	ARCESS Array B	61.45	18	P	P	19 12 43.0	-1.4

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*IDC **11** 19:07:53.2±0.6,13.63N×89.25W,h55km±4km,mb4.0/17, mb1 4.2/18,mb1mx4.1/25,MS3.7/10,Ms1 3.7/10, ms1mx3.5/19,Error ellipse: s-maj=22.9km s-min=11.8km az=67.0*

*CASC **11** 19:07:53.1±2.6,13.25N×89.75W,h43km±29km,MD4.6, ML4.7,mb4.6(NEIC)*

*NEIC **11** 19:07:57.9±1.3,13.43N×89.42W,h106km±12km,mb4.6/22, MD4.8(SNET),Error ellipse: s-maj=16.1km s-min=6.7km az=55.0*

NEIC Felt [III] at San Salvador.

ISC 11 19:07:52.7±0.4,**13.29N**±0.04×**89.70W**±0.04,**h75**km±3km, **h56**km±1.2km**:pP-P,n106,**σ**1^{s}22**/124,**mb4.3**/29,**22C-24D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	San Blas	0.55	8	⇓iP	P	19 08 05.5	-1.0
SNJE	San Jose	0.58	9	⇓iP	P	19 08 06.0	-0.9
BOQS	Boqueron	0.60	43	⇓iP	P	19 08 06.6	-0.5
SNET	Serv Nac Est T	0.60	49	⇓eP	P	19 08 06.3	-0.8
RTR	El Retiro	0.60	5	⇓iP	P	19 08 06.3	-0.8
LFRS	El Faro	0.70	62	eP	P	19 08 07.7	-0.4
LFRS				⇓iP		19 08 07.8	
LFU	La Fuente	0.73	51	⇓iP	P	19 08 08.5	+0.1
LBRS	Las Brisas	0.78	55	⇓iP	P	19 08 09.2	+0.2
LBRS				eS	S	19 08 19.0	-2.0
LCBS	La Ceiba	0.79	63	⇓iP	P	19 08 09.0	-0.1
RBDL	Robledal	0.81	1	⇑iP	P	19 08 09.3	-0.2
SNVI	San Vicente	0.90	69	⇓eP	P	19 08 10.7	+0.3
SNVI				eS	S	19 08 24.4	+0.8
IXG	Ixpaco	1.14	320	⇓eP	P	19 08 12.0	-1.5
IXG				eS	S	19 08 28.0	-1.0
MTO2	Montecristo 2	1.15	17	⇑eP	P	19 08 13.9	+0.4
MTO2				⇓eS	S	19 08 30.4	+1.2
VSM	San Miguel	1.39	84	⇑eP	P	19 08 17.8	+0.8
PCG	Pacaya	1.41	321	⇑eP	P	19 08 16.5	-0.6
PCG				eS	S	19 08 34.3	-0.8
BLLM	Bellamira	1.43	84	eP	P	19 08 18.4	+1.0
BLLM				eS	S	19 08 36.4	+0.7
NBG	Las Nubes	1.43	334	⇓eP	P	19 08 17.8	+0.3
NBG				eS	S	19 08 38.1	+2.4
CAHU	Cacacuatique	1.52	72	eP	P	19 08 19.5	+0.9
CAHU				eS	S	19 08 40.1	+2.3
FUG	Fuego 3	1.60	316	⇓iP	P	19 08 18.4	-1.2
CNCH	Conchagua	1.82	90	⇓eP	P	19 08 23.4	+0.8
CNCH				eS	S	19 08 46.2	+1.7
CRIN	San Cristobal	2.65	103	⇑eP	P	19 08 34.6	+0.4
LEON	Leon	2.87	107	⇑eP	P	19 08 36.1	-1.2
TEL3	Telica 3	2.87	104	⇑eP	P	19 08 37.0	-0.3
TEL3				eS	S	19 09 14.0	+3.1
TELN	Telica	2.88	103	⇑eP	P	19 08 37.0	-0.4
TELN				eS	S	19 09 10.9	-0.1
CNGN	Cerro Negro	3.03	105	⇓eP	P	19 08 39.2	-0.3
CNGN				eS	S	19 09 15.1	+0.3
MIRN	Miramar	3.04	106	⇓eP	P	19 08 38.7	-0.9
MOMJ	Momotombo	3.21	106	⇑eP	P	19 08 41.0	-0.9
MOMJ				eS	S	19 09 21.0	+1.9
COPN	Copaltepe	3.23	110	eP	P	19 08 41.0	-1.3
COPN				eS	S	19 09 18.1	-1.6
APYN	Apoyeque	3.43	107	⇑eP	P	19 08 44.6	-0.5
XAVN	Gruta Xavier	3.48	109	⇑eP	P	19 08 45.2	-0.6
XAVN				eS	S	19 09 24.2	-1.9
MGAN	Managua	3.56	108	⇑eP	P	19 08 47.1	+0.2
MGAN				e		19 09 39.8	
	comp=E,2µm,0.6s						
CRUN	El Crucero	3.56	111	⇑eP	P	19 08 48.4	+1.5
CRUN				eS	S	19 09 28.4	+0.3
WILN	Americas 2	3.61	108	⇑eP	P	19 08 47.7	+0.1
WILN				eS	S	19 09 27.8	-1.3
TICN	Ticuantepe	3.61	110	⇓eP	P	19 08 48.8	+1.2
TICN				eS	S	19 09 27.6	-1.6
PYTN	Playitas	3.63	102	⇓eP	P	19 08 47.7	-0.2
PYTN				⇓eP		19 08 48.8	
PYTN				eS	S	19 09 28.0	-1.7
MASN	Masaya	3.70	110	⇑eP	P	19 08 49.4	+0.5
MASN				eS	S	19 09 30.6	-0.8
APON	Apoyo	3.80	111	⇑eP	P	19 08 50.5	+0.2
APON				eS	S	19 09 32.5	-1.5
VCR	Vista de Mar	5.08	128	⇑eP	P	19 09 08.7	+0.7
JTS	JuntasAbangare	5.52	122	ePn	P	19 09 14.3	+0.2
	comp=E,50nm,0.4s						
JTS				e		19 09 23.6	
JTS				eSn	S	19 10 10.0	-6.9
JTS				e		19 10 29.6	
JCR	Jicaral	5.65	127	⇑eP	P	19 09 16.7	+0.9
FORC	Fortuna	5.67	119	eP	P	19 09 14.8	-1.3
CGA2	Cerro Gallo 2	6.07	122	⇑eP	P	19 09 23.6	+2.0
VPS2	Volcan Poas 2	6.18	119	eP	P	19 09 24.9	+1.8
PRS1	Puriscal	6.22	121	eP	P	19 09 25.4	+1.7
PRS1				eS	S	19 10 34.4	+0.2
LAJ	Bijagual	6.44	121	⇓eP	P	19 09 24.2	-2.6
TRTC	Tortuguero	6.45	114	⇓eP	P	19 09 26.3	-0.7
TRTC				eS	S	19 10 38.2	-1.7
LCR2	La Lucha 2	6.61	122	⇓eP	P	19 09 30.2	+1.1
LCR2				eS	S	19 10 43.5	-0.1
ICR	Volcan Irazu	6.62	119	⇓eP	P	19 09 31.1	+1.7
URSC	Urasca	6.74	120	⇑eP	P	19 09 32.4	+1.4
BUS	Buena Vista	6.91	122	⇑eP	P	19 09 35.3	+2.0
TEIG	Tepich	7.03	11	P	P	19 09 35.5	+0.5
	comp=E,26nm,0.3s,baz=86,slow=2.9,SNR=198						
ACR	Cerro Adams	7.90	125	⇑eP	P	19 09 47.9	+1.0
OTAV	Otavalo	17.10	138	eP	P	19 11 53.7	+5.3
	comp=E,8.9nm,0.8s						
NATX	Nacogdoches	18.94	347	eP	P	19 12 11.3	+1.0
	comp=E,112nm,1.6s						
SDV	Santo Domingo	19.21	101	eP	P	19 12 11.6	-1.8
	comp=E,41nm,0.8s						
SDV				e		19 12 25.0	
JCT	Junction City	19.48	333	eP	P	19 12 16.8	+0.5
	comp=E,29nm,1.1s						
JCT				e		19 12 31.0	
LTX	Lajitas	20.56	323	eP	P	19 12 29.9	+2.3
	comp=E,11nm,0.8s						
LTX				e		19 12 42.9	
TXAR	Lajitas Array	20.56	323	P	P	19 12 29.4	+1.9
	comp=E,5.4nm,0.5s,baz=144,slow=9.8,SNR=47						
TXAR				PcP	PcP	19 16 36.9	+0.6
	comp=E,1.2nm,0.8s,baz=144,slow=3.4,SNR=4.6						
TXAR				pPcP		19 16 53.5	
	comp=E,1.7nm,0.9s,baz=144,slow=5.5,SNR=5.0						
TXAR				ScP		19 20 09.3	
	comp=E,0.7nm,0.8s,baz=158,slow=6.7,SNR=6.0						
TXAR				LR	LR	19 22 32.4	
	comp=E,46nm,18.1s,baz=70,slow=43						
TXAR	Lajitas Array	20.56	323	P	P	19 12 29.4	+1.9
TXAR				PcP	PcP	19 16 36.9	+0.6
TXAR				pPcP		19 16 53.5	
TXAR				ScP		19 20 09.3	
TXAR				LR	LR	19 22 32.4	
OXF	Oxford	21.13	1	eP	P	19 12 35.1	+1.8
	comp=E,62nm,0.9s,mb4.9						
OXF				e		19 12 52.9	
MIAR	Mount Ida	21.45	351	eP	P	19 12 39.0	+2.5
	comp=E,2.4nm,1.0s,mb3.5						
MIAR				e		19 12 53.3	
UALR	University of	21.52	354	eP	P	19 12 39.0	+1.8
	comp=E,33nm,1.0s,mb4.6						
SWET	Sewanee	22.09	8	eP	P	19 12 43.4	+0.6
SWET				e		19 12 57.0	
JSC	Jenkinsville	22.25	19	P	P	19 12 43.0	-1.5
JSC				e		19 13 00.3	
WVT	Waverly	22.80	4	eP	P	19 12 51.3	+1.4
	comp=E,14nm,1.1s,mb4.2						
WMOK	Wichita Mounta	22.88	340	eP	P	19 12 50.5	-0.1
	comp=E,36nm,1.1s,mb4.6						
WMOK				e		19 13 02.5	
AMTX	Amarillo	24.07	335	P	P	19 13 00.9	-1.3
	comp=E,16nm,0.8s,mb4.4						
SADO	Sadowa	32.64	14	P	P	19 14 16.6	-3.0
	comp=E,2.6nm,0.4s,mb4.4,baz=210,slow=8.1,SNR=2.7						
SADO				LR	LR	19 27 59.0	
	comp=E,338nm,19.8s,baz=120,slow=37						
PDAR	Pinedale Array	34.02	333	P	P	19 14 31.9	+0.4
	comp=E,0.4nm,0.8s,mb3.3,baz=270,slow=0.9,SNR=2.7						
PDAR				PcP	PcP	19 17 08.2	+0.2
	comp=E,1.0nm,0.7s,baz=151,slow=4.3,SNR=6.0						
PDAR				pPcP		19 17 24.2	
	comp=E,1.3nm,0.8s,baz=134,slow=4.9,SNR=5.7						
PDAR				ScP		19 20 48.4	
	comp=E,1.5nm,1.0s,baz=162,slow=4.7,SNR=6.6						
SAML	Samuel	34.37	129	eP	P	19 14 33.9	-0.9
	comp=E,47nm,0.9s,mb5.3						
SAML				e	pP	19 14 48.8	-4.1
TPH	Tonopah	34.74	320	P	P	19 14 36.8	-0.9
NVAR	Mina Array Bea	35.64	320	P	P	19 14 47.4	+2.0
	comp=E,4.5nm,0.6s,mb4.6,baz=128,slow=9.6,SNR=50						
NVAR				PcP	PcP	19 17 14.3	+1.6
	comp=E,4.0nm,0.7s,baz=122,slow=5.1,SNR=13						
NVAR				pPcP		19 17 30.3	
	comp=E,2.3nm,0.7s,baz=120,slow=4.9,SNR=5.7						
NVAR				ScP		19 20 55.3	
	comp=E,1.4nm,0.8s,baz=130,slow=4.5,SNR=9.9						
NVAR				LR	LR	19 29 30.9	
	comp=E,95nm,21.9s,baz=330,slow=36						
NVAR	Mina Array Bea	35.64	320	P	P	19 14 47.4	+2.0
NVAR				PcP	PcP	19 17 14.3	+1.5
NVAR				pPcP		19 17 30.3	
NVAR				ScP		19 20 55.3	
NVAR				LR	LR	19 29 30.9	
LPAZ	La Paz	36.31	143	P	P	19 14 53.2	+1.9
	comp=E,3.7nm,0.6s,mb4.5,baz=325,slow=9.1,SNR=26						
LPAZ				LR	LR	19 30 16.0	
	comp=E,47nm,18.5s,baz=293,slow=37						
LPAZ	La Paz	36.31	143	eP	P	19 14 52.5	+1.3
	comp=E,5.1nm,0.8s,mb4.5						
CMB	Columbia Colle	36.75	318	eP	P	19 14 56.0	+1.3
	comp=E,2.9nm,0.8s,mb4.3						
DGMT	Dagmar	37.08	344	eP	P	19 14 57.8	+0.4
	comp=E,38nm,0.7s,mb5.4						
ULM	Lac du Bonnet	37.20	353	P	P	19 14 56.8	-1.5
	comp=E,7.3nm,0.8s,mb4.7,baz=156,slow=8.1,SNR=11						
ULM				pP	pP	19 15 11.1	-5.5
	comp=E,4.4nm,0.6s,baz=177,slow=7.8,SNR=4.9						
ULM				LR	LR	19 32 44.1	
	comp=E,141nm,18.6s,baz=102,slow=40						
ULM	Lac du Bonnet	37.20	353	eP	P	19 14 56.4	-1.9
	comp=E,8.5nm,0.7s,mb4.8						
ULM				e	pP	19 15 11.2	-5.4
BMO	Blue Mountains	39.26	329	P	P	19 15 15.0	-0.6
	comp=E,0.9nm,0.7s,mb3.7						
YBH	Yreka Blue Hor	40.31	321	P	P	19 15 24.1	-0.1
	comp=E,2.0nm,0.9s,mb3.9,baz=111,slow=7.9,SNR=3.5						
LVC	Limon Verde	41.09	150	P	P	19 15 33.0	+2.2
	comp=E,7.0nm,0.9s,mb4.5,baz=309,slow=5.9,SNR=9.7						
LVC				LR	LR	19 30 10.2	
	comp=E,82nm,19.9s,baz=212,slow=32						
FFC	Flin Flon	42.44	349	eP	P	19 15 41.0	-0.6
	comp=E,5.0nm,0.8s,mb4.3						
FFC				e		19 15 54.0	
SCHQ	Schefferville	45.14	18	P	P	19 16 00.1	-3.3
	comp=E,5.6nm,0.5s,mb4.6,baz=228,slow=7.3,SNR=27						
SCHQ				LR	LR	19 37 27.4	
	comp=E,114nm,18.1s,baz=255,slow=40						
SCHQ	Schefferville	45.14	18	P	P	19 15 59.9	-3.5
	comp=E,13nm,0.7s,mb4.8						
BDFB	Brasilia	50.26	124	P	P	19 16 43.0	-0.9
	comp=E,2.1nm,0.7s,mb4.2,baz=252,slow=7.4,SNR=3.6						
BDFB				LR	LR	19 40 22.9	
	comp=E,93nm,19.8s,baz=304,slow=39						
YKA	Yellowknife Ar	52.24	346	P	P	19 16 57.0	-1.1
	comp=E,1.1nm,0.4s,mb4.3,baz=131,slow=7.7,SNR=54						
YKA				pP	pP	19 17 11.7	-5.3
	comp=E,1.9nm,0.8s,baz=143,slow=7.7,SNR=5.7						
YKA				LR	LR	19 40 25.4	
	comp=E,109nm,18.2s,baz=180,slow=38						
YKA	Yellowknife Ar	52.24	346	P	P	19 16 57.0	-1.1
YKA				pP	pP	19 17 11.7	-5.3
YKA				LR	LR	19 40 25.4	
FRB	Frobisher Bay	52.52	12	P	P	19 16 57.7	-2.6
	comp=E,12nm,0.5s,mb5.2,baz=203,slow=8.3,SNR=36						
FRB	Frobisher Bay	52.52	12	P	P	19 16 57.7	-2.6
DLBC	Dease Lake	54.22	335	P	P	19 17 13.0	+0.2
	comp=E,0.7nm,0.4s,mb4.0,baz=149,slow=12,SNR=3.0						
DLBC	Dease Lake	54.22	335	P	P	19 17 13.0	+0.2
INK	Inuvik	61.76	343	P	P	19 18 04.4	-1.0
	comp=E,1.1nm,0.4s,mb4.3,baz=134,slow=5.0,SNR=22						
ILAR	Eielson Array	64.37	336	P	P	19 18 20.5	-2.2
	comp=E,0.3nm,0.4s,mb3.5,baz=114,slow=5.5,SNR=7.7						
ILAR				LR	LR	19 47 58.7	
	comp=E,64nm,18.1s,baz=181,slow=37						
ESLA	Sonseca Array	78.40	52	P	P	19 19 45.6	-1.3
	comp=E,0.7nm,0.8s,mb3.4						
DBIC	Dimbokro	83.50	85	P	P	19 20 14.1	-0.2
	comp=E,2.0nm,0.8s,mb4.0,baz=234,slow=8.2,SNR=4.2						
DBIC	Dimbokro	83.50	85	eP	P	19 20 12.7	-1.6
	comp=E,11nm,1.3s,mb4.5						
NAO01	NORSAR Array S	83.59	29	P	P	19 20 13.7	-0.1
	comp=E,7.6nm,0.9s,mb4.5						
ARCES	ARCESS Array B	86.10	19	P	P	19 20 24.9	-1.2
	comp=E,5.1nm,0.9s,mb4.4,baz=284,slow=5.0,SNR=8.4						
SONM	Songino Array	117.48	348	PKP	PKPdf	19 26 31.8	+1.9
	comp=E,0.9nm,0.8s,baz=348,slow=1.6,SNR=7.2						
SONM				pPKP		19 26 47.6	
	comp=E,0.8nm,0.9s,baz=27,slow=2.8,SNR=4.1						
SONM				PKKPbc		19 36 54.6	
	comp=E,0.5nm,0.7s,baz=225,slow=3.5,SNR=4.6						
STKA	Stephens Creek	129.64	240	PKP	PKPdf	19 26 57.1	+3.2
	comp=E,3.2nm,0.8s,baz=339,slow=2.5,SNR=10						
WRA	Warramunga Arr	137.38	255	PKhKP		19 27 01.4	
	comp=E,0.4nm,0.6s,baz=90,slow=3.8,SNR=7.5						
WRA				PKP	PKPdf	19 27 11.3	+2.7
	comp=E,1.5nm,0.8s,baz=90,slow=3.5,SNR=6.5						
WRA				pPKP		19 27 28.8	
	comp=E,2.5nm,0.8s,baz=84,slow=1.5,SNR=7.8						
WRA				SKP		19 30 42.2	
	comp=E,1.3nm,0.9s,baz=87,slow=2.4,SNR=8.7						
ASAR	Alice Springs	137.53	249	PKhKP		19 27 01.2	
	comp=E,0.3nm,0.6s,baz=106,slow=3.8,SNR=2.3						
ASAR				PKP	PKPdf	19 27 11.6	+2.7

	comp=E,1.2nm,0.9s,baz=108,slow=1.7,SNR=5.9						
ASAR				pPKP		19 27 28.7	
	comp=E,1.3nm,0.7s,baz=105,slow=2.2,SNR=5.5						
ASAR				SKP		19 30 43.7	
	comp=E,1.4nm,0.9s,baz=102,slow=3.3,SNR=7.8						
FITZ	Fitzroy Crossi	145.68	257	PKPbc	PKPbc	19 27 26.7	+2.5
	comp=E,11nm,0.8s,baz=93,slow=3.5,SNR=15						
FITZ				pPKPbc		19 27 43.8	
	comp=E,22nm,1.2s,baz=277,slow=1.2,SNR=4.5						
CM31	Chiang Mai Arr	147.32	345	ePKPbc	PKPdf	19 27 30.1	+4.0
CMAR	Chiang Mai Arr	147.32	345	PKPbc	PKPdf	19 27 29.2	+3.1
	comp=E,4.5nm,0.7s,baz=343,slow=3.2,SNR=38						
CMAR				pPKPbc		19 27 46.5	
	comp=E,3.4nm,0.7s,baz=341,slow=2.8,SNR=8.1						

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*JMA **11** 19:34:35.7±0.1, 28.11N×130.36E, h31^{km}±1^{km}, M3.4*
JMA Felt I J1.
*IDC **11** 19:34:37.6±1.6, 27.74N×130.22E, mb3.7/3, mb1 3.9/3, mb1mx3.5/18, Error ellipse: s-maj=34.3km s-min=26.9km az=97.0*
ISC 11 19:34:37.3±1.1**, 28.14N**±0.06×**130.26E**±0.10**, h34**^{km}±15^{km}**, n15, σ0^{s}.54**/22**, mb3.6**/3**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	Kikaishima	0.30	305	P	P	19 34 44.5	-0.6
JZK				S	S	19 34 50.8	+0.1
JAM	Amami Oshima	0.63	295	P	P	19 34 49.5	-0.2
JAM				eS	S	19 34 59.5	+0.8
JTK	Tokunoshima	1.21	253	P	P	19 34 58.6	+0.7
JTK				eS	S	19 35 13.9	+0.6
JNN	Nakanoshima	1.73	349	P	P	19 35 05.6	+0.2
JOW	Kunigami	2.19	234	Pn	P	19 35 12.4	+0.4
	21nm,0.3s,baz=93,slow=16,SNR=41						
JOW				Sn	S	19 35 36.8	-1.4
	20nm,0.3s,baz=89,slow=24,SNR=5.6						
JOW	Kunigami	2.19	234	P	P	19 35 12.0	0.0
JOW				eS	S	19 35 38.2	0.0
JIH	Iheya	2.31	242	P	P	19 35 13.8	+0.1
JIH				eS	S	19 35 40.5	-0.7
JKC	Kuchinoerabu	2.31	359	S	S	19 35 40.2	-1.1
JTN	Tanegashima 3	2.58	14	P	P	19 35 17.8	+0.2
JTN				eS	S	19 35 48.6	+0.4
JJT2	Tamagusuku 2	2.99	229	P	P	19 35 23.7	+0.2
JAGN	Aguni-jima	3.09	241	P	P	19 35 25.0	+0.1
JKE	Kume jima 2	3.58	240	P	P	19 35 31.4	-0.4
SONM	Songino Array	27.02	323	P	P	19 40 25.0	+6.9
	0.6nm,0.8s,mb3.2,baz=127,slow=7.2,SNR=4.4						
WRA	Warramunga Arr	47.96	175	P	P	19 43 15.0	+0.2
	0.9nm,0.7s,mb3.9,baz=353,slow=8.3,SNR=11						
NOA	NORSAR Array B	78.39	334	P	P	19 46 41.0	+5.5
	0.5nm,0.7s,mb3.6,baz=53,slow=6.5,SNR=3.3						

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*LDG **11** 19:45:32.0±0.7, 17.69N×65.05W, h10^{km}, Mb5.3/40, Ms4.1/7, Error ellipse: s-maj=31.4km s-min=5.7km az=50.0*
*MOS **11** 19:45:44.4±0.9, 18.70N×64.65W, h50^{km}, mb5.2/36, MS4.3/9, Error ellipse: s-maj=14.2km s-min=6.6km az=54.7*
*TRN **11** 19:45:44.4, 18.74N×64.71W, h35^{km}, MD4.6*
TRN Felt (V).
*IDC **11** 19:45:45.7±0.4, 18.64N×64.67W, h52^{km}±3^{km}, mb4.7/29, mb1 4.8/29, mb1mx4.8/30, MS4.3/18, Ms1 4.3/18, ms1mx4.1/21, Error ellipse: s-maj=10.7km s-min=6.0km az=152.0*
*NEIC **11** 19:45:46.5±0.3, 18.65N×64.70W, h55^{km}±3^{km}, mb5.2/161, Error ellipse: s-maj=3.1km s-min=2.0km az=193.0*
NEIC Felt in the Virgin Islands and eastern Puerto Rico.
*BJI **11** 19:45:46.1, 18.28N×64.75W, h64^{km}, mB5.5, Ms5.0, Msz4.6*
*SYO **11** 19:45:46.2, 18.67N×64.69W, h52^{km}, MB5.2*
*HRVD **11** 19:45:46.5±0.3, 18.76N×64.69W, h48^{km}±1^{km}, MW5.2/49, Centroid moment Tensor Solution. LP body waves: s38,c67;Mantle waves: s49,c78; Half duration: 1^{s}.0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.99±.27; M$_{\theta\theta}$-3.42±.20; M$_{\phi\phi}$0.43±.27; M$_{r\theta}$-0.33±.19; M$_{\theta\phi}$4.83±.19; M$_{\phi r}$4.37±.21; Best double couple: M$_0$7.27×10^{16} NP1:ϕ_s87°, δ47°, λ24°. NP2:ϕ_s340°, δ73°, λ134°. Principal axes: T 7.05, Plg44°, Azm293°; N .43, Plg42°, Azm144°; P -7.48, Plg16°, Azm39°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*RSPR **11** 19:45:47.1, 18.81N×64.72W, h25^{km}±18^{km}, MD4.6/17, MD4.6/17*
ISC 11 19:45:45.3±0.3**, 18.69N**±0.03×**64.68W**±0.02**, h59**^{km}±4^{km}**, h51**^{km}±1.4^{km}**:pP-P, n513, σ0^{s}.80**/488**, mb5.1**/196**, MS4.4**/29**, 47C-25D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTP	Monte Pirata	1.02	234	eS	S	19 46 17.2	-0.4
MTP	Monte Pirata	1.02	234	⇓eP	P	19 46 04.2	+0.3
MTP				eS	S	19 46 17.2	-0.4
CBYP	Canovanas	1.19	250	eS	S	19 46 20.9	-0.7
CBYP	Canovanas	1.19	250	⇓eP	P	19 46 06.0	-0.1
CBYP				eS	S	19 46 20.9	-0.7
CBYP	Canovanas	1.19	250	eP	P	19 46 06.0	-0.1
CBYP				eS	S	19 46 20.9	-0.7
HUMP	Col San Antoni	1.24	244	⇓eP	P	19 46 07.0	+0.2
CPD	Cerro la Pandu	1.34	241	eS	S	19 46 25.5	+0.1
CPD	Cerro la Pandu	1.34	241	⇓eP	P	19 46 08.8	+0.4
CPD				eS	S	19 46 25.5	+0.1
CSB	Colonia Sabana	1.46	254	⇓iP	P	19 46 09.5	-0.4
SJG	San Juan	1.51	248	eS	S	19 46 29.1	-0.3
SJG	San Juan	1.51	248	⇑iP	P	19 46 10.6	-0.1
SJG	San Juan	1.51	248	P	P	19 46 10.6	0.0
	3μm,0.3s,baz=82,slow=5.1,SNR=1904						
SJG				S	S	19 46 29.3	-0.1
	5μm,0.3s,baz=38,slow=19,SNR=15						
SJG				LR	LR	19 46 50.7	
	comp=Z,14μm,19.1s,baz=225,slow=43						
SJG	San Juan	1.51	248	P	P	19 46 10.6	-0.1
SJG				S	S	19 46 29.3	-0.1
SJG				MLR	MLR		
	comp=Z,14μm,19.1s						
SJG	San Juan	1.51	248	⇓eP	P	19 46 10.6	0.0
SJG				eS	S	19 46 29.1	-0.3
SJG	San Juan	1.51	248	⇑iP	P	19 46 10.6	-0.1
SJG				eS	S	19 46 29.1	-0.3
STMA	St. Maarten, A	1.63	113	⇑eP	P	19 46 13.1	+0.9
STMA				i S	S	19 46 33.2	+1.1
SABT	Saba	1.73	128	⇑iP	P	19 46 14.8	+1.1
CELP	Cerrillos	1.91	251	⇓iP	P	19 46 16.1	+0.1
ICM	Isla Caja Muer	1.92	246	eS	S	19 46 39.9	+0.6
ICM	Isla Caja Muer	1.92	246	⇓eP	P	19 46 17.2	+0.9
ICM				eS	S	19 46 39.9	+0.6
ICM	Isla Caja Muer	1.92	246	eP	P	19 46 17.2	+0.9
ICM				eS	S	19 46 39.9	+0.6
PORP	Portuguez	1.96	251	⇓iP	P	19 46 17.0	+0.1
AOPR	Arecibo Observ	1.99	260	⇓eP	P	19 46 17.1	-0.2
STAT	Sint Eustatius	2.01	126	eP	P	19 46 19.1	+1.6
LRS	Lares	2.09	259	⇑eP	P	19 46 18.6	-0.1
LSP	Las Mesas	2.34	258	⇑eP	P	19 46 22.4	+0.2
LSP				eS	S	19 46 48.5	-1.3
MPR	Mayaguez	2.38	259	eS	S	19 46 51.3	+0.4
MPR	Mayaguez	2.38	259	⇓iP	P	19 46 22.6	-0.2
MPR				eS	S	19 46 51.3	+0.4
MGP	Maguayo	2.39	254	⇑iP	P	19 46 23.3	+0.4
MGP	Maguayo	2.39	254	eS	S	19 46 49.9	-1.1
MGP	Maguayo	2.39	254	⇓eP	P	19 46 23.3	+0.4
MGP				eS	S	19 46 49.9	-1.1
MGP	Maguayo	2.39	254	eP	P	19 46 23.3	+0.4
MGP				eS	S	19 46 49.9	-1.1
IDE	Isla Desecheo	2.67	264	⇑iP	P	19 46 26.3	-0.7
CPB	Codrington	2.91	111	⇓iP	P	19 46 29.4	-1.0
BPA	Boggy Peak	3.15	121	⇑iP	P	19 46 33.3	-0.4
BPA				eS	S	19 47 08.9	-1.3
SEG	Port Louis	3.79	126	⇑iP	P	19 46 42.9	+0.2
MGG	Marie-Galante	4.24	130	eP	P	19 46 49.6	+0.7
BBL	Barber's Block	4.40	135	eP	P	19 46 50.8	-0.4
BBL	Barber's Block	4.40	135	eP	P	19 46 52.2	+0.9
BBL				eS	S	19 47 42.6	+0.9
MDN	Morne-Daniel	4.60	136	eP	P	19 46 56.2	+2.1
FDF	Fort de France	5.19	139	⇓eP	P	19 47 01.6	-0.7
CRM	Caravelle	5.33	137	⇓eP	P	19 47 03.7	-0.4
BIM	Bigot	5.41	140	⇑iP	P	19 47 04.4	-0.9
MVM	Montagne Vaucl	5.49	138	⇓eP	P	19 47 06.1	-0.2
SVV	Soufriere Volc	6.30	148	eP	P	19 47 17.5	-0.2
SVB	Belmont	6.32	148	eP	P	19 47 17.4	-0.6
GRW	Mount Saint Ca	7.12	155	eP	P	19 47 28.9	-0.3
TPR	Prospect	8.36	153	eP	P	19 47 47.7	+1.4
TRN	Trinidad (W)	8.60	158	eP	P	19 47 50.9	+1.3
SDV	Santo Domingo	11.33	211	⇓ePn	P	19 48 25.2	-1.7
	comp=Z,609nm,0.8s						
SDV				eSn	S	19 50 26.8	-6.0
BBSR	BB Station	13.62	360	ePn	P	19 48 50.9	-6.3
	comp=Z,113nm,0.8s						
JEF	Cerro Jefe	17.08	239	eP	P	19 49 39.6	-2.0
UPA	Univ. de Panam	17.34	238	eP	P	19 49 43.5	-1.5
DWPF	Disney	17.99	304	ePn	P	19 49 53.2	+0.4
	comp=Z,106nm,0.7s						
DWPF				eS	S	19 52 56.5	-12
CSU	Charleston Sou	19.82	319	eP	P	19 50 13.7	-0.1
RGRS	Roger Stewart	19.85	318	eP	P	19 50 13.0	-1.1
TWB	Tillmans-White	19.93	319	eP	P	19 50 13.7	-1.3
NHSC	New Hope	19.97	319	eP	P	19 50 12.5	-2.9
	comp=Z,78nm,0.9s						
HBF	Harts Bluff	19.98	318	eP	P	19 50 14.1	-1.4
DVD	David	20.04	242	eP	P	19 50 17.4	+1.2
TRTC	Tortuguero	20.09	249	eP	P	19 50 15.9	-0.8
ICR	Volcan Irazu	20.46	248	eP	P	19 50 21.5	+1.0
URSC	Urasca	20.48	247	eP	P	19 50 20.2	-0.6
COW	Cow Castle Cre	20.48	319	eP	P	19 50 19.9	-0.8
ACR	Cerro Adams	20.53	243	eP	P	19 50 20.3	-1.0
BUS	Buena Vista	20.59	246	eP	P	19 50 23.1	+1.2
LCR2	La Lucha 2	20.72	247	eP	P	19 50 24.0	+0.8
VPS2	Volcan Poas 2	20.72	249	eP	P	19 50 23.0	-0.3
LAJ	Bijagual	20.77	248	eP	P	19 50 27.1	+3.3
FORC	Fortuna	20.98	250	eP	P	19 50 26.7	+0.8
JTS	JuntasAbangare	21.31	250	d iP	P	19 50 29.6	+0.3
JTS	JuntasAbangare	21.31	250	eP	P	19 50 27.9	-1.3
	comp=Z,123nm,1.0s,mb5.2						
JSC	Jenkinsville	21.43	320	eP	P	19 50 29.7	-0.6
JCR	Jicaral	21.64	249	eP	P	19 50 31.5	-1.0
TEIG	Tepich	22.30	278	P	P	19 50 39.0	+0.1
	comp=Z,62nm,1.2s,mb4.9,baz=348,slow=9.0,SNR=19						
TEIG	Tepich	22.30	278	eP	P	19 50 39.3	+0.3
	comp=Z,35nm,0.8s,mb4.8						
CBN	Corbin	22.37	333	eP	P	19 50 39.7	+0.2
	comp=Z,61nm,1.0s,mb5.0						
OTAV	Otavalo	22.79	218	eP	P	19 50 45.2	+1.2
	comp=Z,35nm,0.9s,mb4.8						
OTAV				eS	S	19 54 43.2	-1.1
BLA	Blacksburg	23.04	326	eP	P	19 50 47.0	+0.9
	comp=Z,80nm,0.9s,mb5.2						
SDMD	Soldier's Deli	23.17	336	eP	P	19 50 48.4	+1.0
ELN	Prospectdale	23.23	326	eP	P	19 50 49.7	+1.7
CPNY	Central Park	23.42	342	eP	P	19 50 50.5	+0.7
PWV	Princeton	23.46	326	eP	P	19 50 51.5	+1.3
BRNJ	Basking Ridge	23.50	341	eP	P	19 50 51.9	+1.3
BRNJ				eS	S	19 55 01.1	+4.5
PAL	Palisades	23.60	342	P	P	19 50 52.7	+1.1
	comp=Z,31nm,0.5s,mb5.0						
LUPA	Lehigh Univers	23.69	339	eP	P	19 50 53.3	+0.9
WES	Weston	24.28	348	P	P	19 50 59.5	+1.3
	comp=Z,62nm,0.6s,mb5.2						
HRV	Harvard--Oak R	24.45	348	P	P	19 51 00.3	+0.5
	comp=Z,46nm,0.3s,mb5.4						
LRAL	Lakeview Retre	24.57	310	eP	P	19 51 01.9	+0.9
	comp=Z,82nm,1.0s,mb5.2						
SSPA	Standing Stone	24.64	335	eP	P	19 51 02.0	+0.4
	comp=Z,16nm,1.0s,mb4.5						
MCWV	Mont Chateau	24.66	331	eP	P	19 51 00.6	-1.3
	comp=Z,41nm,0.4s,mb5.3						
SWET	Sewanee	25.01	315	eP	P	19 51 05.7	+0.4
BINY	Binghamton	25.33	340	eP	P	19 51 07.8	-0.4
	comp=Z,20nm,0.7s,mb4.8						
BINY				eS	S	19 55 33.7	+6.2
FFD	Franklin Falls	25.39	348	P	P	19 51 09.9	+1.2
	comp=Z,26nm,0.4s,mb5.1						
HNH	Hanover	25.75	347	P	P	19 51 11.7	-0.3
	comp=Z,3.4nm,0.5s,mb4.1						
ACCN	Adirondack Com	25.76	345	eP	P	19 51 13.4	+1.2
ACCN				eS	S	19 55 53.5	+19
NCB	Newcomb	26.45	344	eP	P	19 51 18.5	0.0
	comp=Z,49nm,0.4s,mb5.4						
GENY	Geneseo	26.45	338	eP	P	19 51 19.2	+0.6
GENY				eS	S	19 56 09.1	+23
ACSO	Alum Creek Sta	26.63	328	eP	P	19 51 19.8	-0.5
	comp=Z,71nm,1.2s,mb5.1						
ACSO				eS		19 56 26.8	
ERPA	Erie	26.74	334	P	P	19 51 20.5	-0.7
	comp=Z,24nm,0.4s,mb5.1						
WVT	Waverly	26.80	315	eP	P	19 51 20.9	-0.9
	comp=Z,15nm,1.0s,mb4.5						
OXF	Oxford	27.04	311	eP	P	19 51 23.9	-0.3
	comp=Z,296nm,1.4s,mb5.6						
WCI	Wyandotte Cave	27.08	320	eP	P	19 51 24.3	-0.1
	comp=Z,46nm,1.0s,mb5.0						
WCI				eS		19 56 31.4	
SAML	Samuel	27.51	177	eP	P	19 51 27.3	-1.3
	comp=Z,0.9nm,0.3s						
MSNY	Massena	27.57	344	P	P	19 51 28.5	-0.3
UTMT	University of	27.61	314	eP	P	19 51 29.7	+0.4
AAM	Ann Arbor	28.52	330	eP	P	19 51 37.5	+0.1
	comp=Z,41nm,0.4s,mb5.5						
SADO	Sadowa	28.67	338	P	P	19 51 37.6	-1.1
	comp=Z,9.1nm,0.7s,mb4.6,baz=154,slow=4.8,SNR=4.9						
SADO				LR	LR	20 01 59.8	
	comp=Z,426nm,21.0s,MS4.0,baz=151,slow=34						
SADO	Sadowa	28.67	338	P	P	19 51 37.6	-1.1
SADO				LR	LR	20 01 59.8	
UALR	University of	29.31	309	eP	P	19 51 43.5	-1.0
	comp=Z,10nm,0.7s,mb4.7						
FVM	French Village	29.55	316	eP	P	19 51 46.3	-0.3
	comp=Z,52nm,0.6s,mb5.4						
SLM	Saint Louis	29.79	317	P	P	19 51 49.4	+0.7
	comp=Z,161nm,0.8s,mb5.8						
NATX	Nacogdoches	29.97	302	eP	P	19 51 50.6	+0.2
	comp=Z,84nm,1.0s,mb5.4						
MIAR	Mount Ida	30.13	307	eP	P	19 51 50.9	-0.9
	comp=Z,1.6nm,0.9s						
HKT	Hockley	30.42	298	eP	P	19 51 53.7	-0.8
	comp=Z,74nm,1.7s,mb5.1						
JCT	Junction City	33.89	297	eP	P	19 52 23.9	-0.8
	comp=Z,102nm,1.4s,mb5.6						
WMOK	Wichita Mounta	34.19	305	eP	P	19 52 26.2	-1.0
	comp=Z,8.0nm,0.8s,mb4.7						
KSU1	Kansas State U	34.30	313	eP	P	19 52 26.8	-1.3
LPAZ	La Paz	34.93	186	P	P	19 52 32.7	-1.0
	comp=Z,7.5nm,0.5s,mb4.8,baz=359,slow=8.9,SNR=27						
LPAZ				ScP		19 58 45.0	
	comp=Z,3.6nm,0.8s,baz=46,slow=8.9,SNR=5.0						
LPAZ				LR	LR	20 07 29.9	
	comp=Z,377nm,21.2s,MS4.1,baz=360,slow=37						
LPAZ	La Paz	34.93	186	eP	P	19 52 32.4	-1.3
	comp=Z,31nm,1.1s,mb5.2						
LPAZ				P		19 52 32.7	
LPAZ				ScP		19 58 45.0	
LPAZ				LR	LR	20 07 29.9	
SCHQ	Schefferville	36.11	358	P	P	19 52 42.6	-0.7
	comp=Z,11nm,0.6s,mb5.0,baz=184,slow=5.5,SNR=18						
SCHQ				LR	LR	20 06 17.0	
	comp=Z,240nm,19.6s,MS4.0,baz=360,slow=34						
SCHQ	Schefferville	36.11	358	eP	P	19 52 42.4	-1.0
	comp=Z,17nm,0.7s,mb5.1						
EYMN	Ely	36.43	329	eP	P	19 52 46.0	0.0
	comp=Z,13nm,0.8s,mb4.9						
AMTX	Amarillo	36.51	304	eP	P	19 52 45.8	-1.2
	comp=Z,45nm,1.1s,mb5.2						
LTX	Lajitas	37.00	294	eP	P	19 52 50.9	-0.2
	comp=Z,63nm,1.3s,mb5.3						
TXAR	Lajitas Array	37.00	294	P	P	19 52 51.1	0.0
	comp=Z,6.7nm,0.6s,mb4.7,baz=119,slow=13,SNR=53						
TXAR				ScP		19 58 53.5	
	comp=Z,3.1nm,0.9s,baz=126,slow=6.3,SNR=8.6						
TXAR				LR	LR	20 12 31.9	
	comp=Z,312nm,19.3s,MS4.1,baz=55,slow=43						
RCBR	Riachuelo	37.40	128	eP	P	19 52 55.2	+0.6
	comp=Z,15nm,0.7s,mb4.9						
CLNB	Carlsbad	37.66	299	eP	P	19 52 55.7	-0.9
CPRX	Cap Rock	37.81	300	eP	P	19 52 57.0	-0.8
BDFB	Brasilia	37.86	153	P	P	19 52 58.5	+0.2
	comp=Z,13nm,0.8s,mb4.7,baz=344,slow=8.8,SNR=16						
BDFB				LR	LR	20 09 42.1	
	comp=Z,342nm,18.8s,MS4.2,baz=329,slow=38						
BDFB	Brasilia	37.86	153	P	P	19 52 58.5	+0.1
BDFB				pmax	pmax		
	comp=Z,13nm,0.8s						
BDFB				MLR	MLR		
	comp=Z,342nm,18.8s						
BAO	Brasilia Array	37.86	153	P	P	19 52 59.4	+1.0
BAO				i	pP	19 53 10.3	-3.1
BAO				i	pP	19 53 18.0	+4.5
BAO				i		19 53 22.8	
BAO				i		19 53 31.0	
BAO				i		19 53 40.0	
GDL2	Guadalupe Moun	38.06	299	eP	P	19 52 59.4	-0.4
ULM	Lac du Bonnet	40.11	329	P	P	19 53 16.4	-0.3
	comp=Z,47nm,0.7s,mb5.3,baz=128,slow=8.2,SNR=88						
ULM				LR	LR	20 08 44.7	
	comp=Z,363nm,21.0s,MS4.2,baz=97,slow=34						
ULM	Lac du Bonnet	40.11	329	eP	P	19 53 15.9	-0.8
	comp=Z,54nm,0.7s,mb5.4						
SDCO	Great Sand Dun	40.28	307	eP	P	19 53 18.7	+0.4
	comp=Z,43nm,0.9s,mb5.2						
BNM	Barren Site	40.30	301	eP	P	19 53 19.4	+1.0
ANMO	Albuquerque	40.33	302	LR	LR	20 12 19.5	
	comp=Z,379nm,19.6s,MS4.2,slow=40						
ANMO	Albuquerque	40.33	302	c iP	P	19 53 19.7	+1.0
ANMO	Albuquerque	40.33	302	eP	P	19 53 19.4	+0.7
	comp=Z,26nm,1.1s,mb4.9						
LPM	Los Pinos Moun	40.33	301	eP	P	19 53 19.6	+0.9
LENM	Lemitar	40.58	301	eP	P	19 53 21.5	+0.8
LAZ	Ladron	40.76	301	eP	P	19 53 22.9	+0.6
ISCO	Idaho Springs	40.99	310	eP	P	19 53 24.6	+0.5
	comp=Z,58nm,1.5s,mb5.0						
LVC	Limon Verde	41.26	186	P	P	19 53 24.7	-1.8
	comp=Z,18nm,0.5s,mb5.0,baz=6.4,slow=6.4,SNR=40						
LVC				ScP		19 59 09.9	
	comp=Z,3.4nm,1.0s,baz=27,slow=8.2,SNR=3.7						
LVC	Limon Verde	41.26	186	eP	P	19 53 24.3	-2.1
	comp=Z,16nm,0.5s,mb4.9						
RWWY	Rawlins	42.75	312	eP	P	19 53 39.4	+0.8
TUC	Tucson	43.45	297	eP	P	19 53 45.4	+1.0
	comp=Z,90nm,1.5s,mb5.3						
DGMT	Dagmar	43.58	322	eP	P	19 53 45.1	-0.1
	comp=Z,12nm,0.6s,mb4.8						
LAO	LASA Array	43.99	319	eP	P	19 53 48.8	+0.3
	comp=Z,170nm,1.3s,mb5.6						
EGOM	La Gomera	44.33	69	P	pP	19 54 04.7	-2.0
SRU	San Rafael	44.45	307	eP	P	19 53 52.8	+0.4
BW06	Boulder Array	44.75	312	eP	P	19 53 54.8	+0.1
	comp=Z,53nm,0.9s,mb5.4						
PDAR	Pinedale Array	44.75	312	P	P	19 53 55.0	+0.3
	comp=Z,36nm,0.8s,mb5.3,baz=116,slow=9.1,SNR=221						
PDAR				PcP	PcP	19 55 35.4	-1.2
	comp=Z,8.5nm,0.8s,baz=122,slow=6.0,SNR=3.5						
PDAR				LR	LR	20 13 41.7	
	comp=Z,274nm,21.2s,MS4.2,baz=118,slow=37						
CCAN	Las Canadas	44.87	69	P	pP	19 54 09.9	-1.2
TMUT	Trail Mountain	45.01	307	eP	P	19 53 57.6	+0.8
FRB	Frobisher Bay	45.09	358	P	P	19 53 56.1	-1.0
	comp=Z,9.5nm,0.6s,mb4.8,baz=161,slow=8.2,SNR=18						
FRB	Frobisher Bay	45.09	358	P	P	19 53 56.1	-1.0
FRB				pmax	pmax		
	comp=Z,10.0nm,0.6s						
DAU	Daniels Canyon	45.31	309	eP	P	19 53 59.9	+0.7
CPUP	Villa Florida	45.32	171	P	P	19 53 57.2	-2.2
	comp=Z,84nm,0.4s,mb6.0,baz=232,slow=14,SNR=3.2						
CPUP	Villa Florida	45.32	171	P	P	19 53 57.2	-2.3
CPUP				pmax	pmax		
	comp=Z,84nm,0.4s						
CPUP	Villa Florida	45.32	171	P	P	19 53 57.2	-2.2
MPU	Maple Canyon	45.50	308	eP	P	19 54 01.1	+0.5
JLU	Jordanelle	45.50	309	eP	P	19 54 01.1	+0.3
MSU	Marysvale	45.57	306	eP	P	19 54 02.1	+0.8
MVU	Marysvale	45.60	306	eP	P	19 54 02.1	+0.6
	comp=Z,53nm,1.8s,mb5.2						
LOHW	Long Hollow	45.74	313	eP	P	19 54 03.0	+0.4
SNOW	Snow King Moun	45.80	313	eP	P	19 54 03.6	+0.6
NLU	North Lily Min	45.81	308	eP	P	19 54 03.7	+0.5
WUWY	Wally Ulrich	45.81	313	eP	P	19 54 03.5	+0.3
FFC	Flin Flon	45.82	331	eP	P	19 54 01.9	-1.1
	comp=Z,25nm,0.8s,mb5.2						
AHID	Auburn Hatcher	45.83	312	eP	P	19 54 03.6	+0.3
	comp=Z,30nm,0.8s,mb5.3						
REDW	Red Top Meadow	45.84	313	eP	P	19 54 03.9	+0.6
HWUT	Hardware Ranch	45.84	310	eP	P	19 54 03.0	-0.4
	comp=Z,31nm,0.8s,mb5.3						
MOOW	Moose Ponds	45.88	313	eP	P	19 54 03.8	+0.1
TPAW	Teton Pass	45.94	313	eP	P	19 54 04.8	+0.7
NOQ	North Oquirrh	46.01	309	eP	P	19 54 05.2	+0.5
IMW	Indian Meadow	46.06	314	eP	P	19 54 05.5	+0.4
YNR	Norris Junctio	46.14	315	eP	P	19 54 06.6	+0.9
YFT	Old Faithful	46.16	314	eP	P	19 54 07.5	+1.6
YMR	Madison River	46.32	315	eP	P	19 54 09.5	+2.4
SPUT	South Promonto	46.41	310	eP	P	19 54 07.9	+0.1
ARUT	Antelope Range	46.41	305	eP	P	19 54 08.4	+0.5
QLMT	Earthquake Lak	46.69	315	eP	P	19 54 11.7	+1.7
BGU	Big Grassy Mou	46.74	309	eP	P	19 54 10.7	+0.2
HVU	Hansel Valley	46.77	310	eP	P	19 54 10.4	-0.2
BOZ	Bozeman (W)	47.08	316	eP	P	19 54 13.1	+0.1
	comp=Z,54nm,1.1s,mb5.4						
NEN	Nelson	47.20	302	eP	P	19 54 15.0	+0.8
LDFC	Landfair	47.35	301	eP	P	19 54 16.7	+1.4
HRY	Holter Researc	47.56	317	eP	P	19 54 17.3	+0.4
MCMT	McKenzie Canyo	47.65	314	eP	P	19 54 18.4	+0.9
TRCR	Troy Canyon	48.18	305	eP	P	19 54 22.6	+0.8
ELK	Elko	48.34	308	eP	P	19 54 23.0	0.0
	comp=Z,35nm,1.3s,mb5.2						
HLID	Hailey	48.38	312	eP	P	19 54 23.9	+0.6
	comp=Z,27nm,0.8s,mb5.3						
HLID				LR	LR		
	comp=Z,379nm,20.0s,MS4.4						
BAR	Barrett	48.44	297	eP	P	19 54 24.3	+0.4
TPNV	Topopah Spring	48.49	303	eP	P	19 54 25.4	+1.2
	comp=Z,29nm,0.9s,mb5.3						
MSO	Missoula	48.98	316	eP	P	19 54 27.4	-0.3
	comp=Z,3.4nm,0.8s,mb4.4						
TPH	Tonopah	49.41	304	eP	P	19 54 31.8	+0.5
	comp=Z,61nm,1.8s,mb5.3						
DAC	Darwin (Calif)	49.49	302	eP	P	19 54 33.3	+1.3
MWC	Mount Wilson	49.69	299	eP	P	19 54 33.9	+0.4
BMN	Battle Mountai	49.77	307	eP	P	19 54 34.2	+0.2
	comp=Z,33nm,1.0s,mb5.3						
MNV	Mina	50.19	305	eP	P	19 54 37.5	+0.2
	comp=Z,43nm,1.2s,mb5.3						
MNV				LR	LR		
	comp=Z,458nm,20.0s,MS4.5						
NVAR	Mina Array Bea	50.30	305	P	P	19 54 38.0	-0.1
	comp=Z,7.8nm,0.8s,mb4.8,baz=94,slow=8.0,SNR=56						
NVAR				ScP		19 59 48.2	
	comp=Z,1.4nm,0.8s,baz=102,slow=6.8,SNR=4.7						
NVAR				LR	LR	20 17 40.4	
	comp=Z,318nm,20.1s,MS4.3,baz=260,slow=38						
NVAR	Mina Array Bea	50.30	305	P	P	19 54 38.0	-0.1
NVAR				ScP		19 59 48.2	
NVAR				LR	LR	20 17 40.4	
MTUM	Tungsten Hills	50.38	303	eP	P	19 54 39.4	+0.6
BMO	Blue Mountains	50.71	313	eP	P	19 54 40.1	-1.0
	comp=Z,2.8nm,0.8s,mb4.2						
OMM	Old Mammoth Mi	50.75	304	eP	P	19 54 42.0	+0.5
NEW	Newport	51.45	317	eP	P	19 54 46.0	-0.7
	comp=Z,77nm,0.8s,mb5.7						
NEW				LR	LR		
	comp=Z,654nm,20.0s,MS4.7						
CMB	Columbia Colle	51.89	304	eP	P	19 54 49.8	-0.3
	comp=Z,10nm,1.2s,mb4.6						
CMB				LR	LR		
	comp=Z,532nm,19.0s,MS4.6						
PTEO	Sao Teotonio	52.04	57	eP	P	19 54 51.6	+0.4
BEKR	Beckwourth	52.06	306	eP	P	19 54 50.8	-0.6
	comp=Z,4.0nm,0.7s,mb4.5						
LRV	Little Rabbit	52.26	302	eP	P	19 54 52.8	-0.1
OD2	Odessa Site #2	52.26	316	P	P	19 54 52.6	-0.2
MOD	Modoc	52.30	309	eP	P	19 54 52.0	-1.1
	comp=Z,6.7nm,0.8s,mb4.6						
PTOM	Tomar	52.49	54	eP	P	19 54 54.0	-0.6
	comp=Z,56nm,0.9s,mb5.5						
HAWA	Hanford	52.58	315	eP	P	19 54 54.4	-0.8
	comp=Z,11nm,0.6s,mb5.0						
EZAM	Zamans	52.60	51	P	P	19 54 55.5	+0.2
	comp=Z,16nm,0.7s,mb5.1						
EVO	Evora	52.69	55	eP	P	19 54 54.6	-1.5
	comp=Z,31nm,1.0s,mb4.9						
EVO				eR			
	comp=Z,743nm,23.0s						
PBEJ	Beja	52.76	56	eP	P	19 54 57.1	+0.5
STS	Santiago	52.82	50	P	P	19 54 56.9	-0.1
	comp=Z,2.8nm,0.4s,mb4.5						
PVIS	Viseu	53.01	53	eP	P	19 54 58.4	-0.1
	comp=Z,27nm,1.5s,mb5.0						
ELOB	Lobios	53.03	51	P	P	19 54 58.4	-0.3
	comp=Z,13nm,0.6s,mb5.0						
PVRL	Vila Real	53.21	52	eP	P	19 55 00.2	+0.2
	comp=Z,49nm,2.0s,mb5.1						
PCBR	Castelo Branco	53.23	54	eP	P	19 55 00.0	-0.1

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         comp=Z,38nm,1.3s,mb5.2
MTE   Manteigas        53.24  53 eP     P       19 55 00.1 -0.1
         comp=Z,39nm,0.9s,mb5.3
MTE                              eLR    LR      20 10 35.7
         comp=Z,560nm,22.0s
MTE   Manteigas        53.24  53 eP     P       19 54 59.6 -0.6
         comp=Z,27nm,0.8s,mb5.2
HOG   Hogback Mounta   53.38 309  P     P       19 55 01.9 +0.7
SAC   San Andreas      53.45 303  P     P       19 55 01.3 -0.4
EBAD  Badajoz          53.49  55  P     P       19 55 02.2 +0.1
         comp=Z,6.1nm,0.7s,mb4.6
EINC  Incio            53.66  50  P     P       19 55 03.1 -0.2
         comp=Z,294nm,3.2s
NSHM  Saint Helena R   53.67 304 eP     P       19 55 03.6 +0.2
EMIN  Mina Concepcio   53.68  57  P     P       19 55 03.8 +0.4
         comp=Z,70nm,1.7s,mb5.3
LHEM  Herd Peak        53.68 308  P     P       19 55 04.0 +0.6
ERUA  La Rua           53.78  51  P     P       19 55 04.2 +0.1
         comp=Z,9.5nm,0.8s,mb4.8
EPON  Pontenova        53.90  50  P     P       19 55 04.6 -0.4
         comp=Z,103nm,1.8s,mb5.5
PBRG  Braganca         54.00  52 eP     P       19 55 05.9 +0.2
ECAL  Calabor          54.02  51  P     P       19 55 05.8 -0.1
YBH   Yreka Blue Hor   54.06 308 eP     P       19 55 04.4 -1.7
         comp=Z,15nm,0.9s,mb4.9
ESPR  Espera           54.28  58  P     P       19 55 09.1 +1.3
         comp=Z,17nm,0.8s,mb5.0
BORG  Borgarnes        54.31  21  LR    LR      20 13 03.2
         comp=Z,350nm,21.9s,MS4.4,baz=354,slow=30
HUMO  Hull Mountain    54.35 309 eP     P       19 55 06.5 -1.8
         comp=Z,10.0nm,0.8s,mb4.8
EJIF  Jimena Fronter   54.57  58  P     P       19 55 14.3 +4.3
         comp=Z,333nm,2.0s,mb6.0
EARI  Arriondas        55.30  50  P     P       19 55 15.3 +0.1
         comp=Z,60nm,1.8s,mb5.3
EADA  Adamuz           55.36  56  P     P       19 55 16.6 +0.9
         comp=Z,5.1nm,0.8s,mb4.6
YKA   Yellowknife Ar   55.56 334  P     P       19 55 15.2 -1.5
         comp=Z,30nm,0.7s,mb5.4,baz=110,slow=7.5,SNR=391
YKA                               LR    LR      20 17 29.8
         comp=Z,245nm,21.7s,MS4.2,baz=105,slow=34
YKA   Yellowknife Ar   55.56 334  P     P       19 55 15.2 -1.6
YKA                               pmax  pmax
         comp=Z,30nm,0.7s
YKA                               MLR   MLR
         comp=Z,245nm,21.7s
YKA   Yellowknife Ar   55.56 334 eP     P       19 55 15.2 -1.6
ELUQ  Luque            55.58  57  P     P       19 55 17.6 +0.3
         comp=Z,3.6nm,0.6s,mb4.6
ELOJ  Sierra Loja      55.65  57  P     P       19 55 18.5 +0.7
         comp=Z,17nm,0.9s,mb5.1
DCN   Croghan          55.87  38⇑iP     P       19 55 18.9 -0.2
DCN   Croghan          55.87  38 eP     pP      19 55 32.1 -2.7
ESDC  Sonseca Array    55.92  54  P     P       19 55 19.1 -0.5
         comp=Z,18nm,0.8s,mb5.2,baz=268,slow=7.1,SNR=59
ESDC  Sonseca Array    55.92  54  P     P       19 55 20.0 +0.4
         comp=Z,17nm,0.8s,mb5.1
ESLA  Sonseca Array    55.92  54 eP     P       19 55 19.1 -0.5
         comp=Z,4.0nm,0.8s,mb4.5
ERON  Agron            55.93  58  P     P       19 55 20.8 +1.1
         comp=Z,7.1nm,0.5s,mb5.0
SUMG  Summit           55.95   9 eP     P       19 55 19.1 -0.4
         comp=Z,15nm,0.8s,mb5.1
DMUB  Kingscourt       56.22  37 eP     P       19 55 21.2 -0.4
DMUB  Kingscourt       56.22  37 eP     pP      19 55 34.6 -2.8
DLF   Lyons Farm       56.28  38⇑iP     P       19 55 21.4 -0.7
EQES  Quesada          56.53  57  P     P       19 55 26.2 +2.1
         comp=Z,38nm,1.7s,mb5.1
ELAN  Lanestosa        56.59  50  P     P       19 55 24.1 -0.3
         comp=Z,67nm,0.9s,mb5.7
EBER  Berja            56.66  58  P     P       19 55 26.0 +1.0
         comp=Z,57nm,1.2s,mb5.5
EVIA  Vianos           57.01  56  P     P       19 55 28.1 +0.7
         comp=Z,27nm,1.3s,mb5.1
ROSF  Rostrenen        57.32  44 eP     P       19 55 28.9 -0.6
         comp=Z,55nm,0.9s,mb5.3
QUIF  Quistinic        57.33  45 eP     P       19 55 29.0 -0.6
         comp=Z,39nm,0.9s,mb5.2
SGMF  Saint Gilles     57.78  44 eP     P       19 55 32.1 -0.7
         comp=Z,36nm,0.9s,mb5.1
EMUR  La Murta         57.98  57  P     P       19 55 34.5 +0.2
         comp=Z,34nm,0.8s,mb5.4
EALK  Alkurruntz       57.99  50  P     P       19 55 35.1 +0.8
         comp=Z,66nm,1.3s,mb5.5
OSSF  Osses            58.17  50⇑eP     P       19 55 35.5  0.0
SJPF  Ste Jean         58.19  50 eP     P       19 55 35.6 -0.1
         comp=Z,73nm,0.8s,mb5.5
EMOS  Mosqueruela      58.62  54  P     P       19 55 39.5 +0.8
         comp=Z,18nm,0.7s,mb5.2
ETSF  Etsaut           58.66  51 eP     P       19 55 38.9 -0.1
         comp=Z,25nm,1.1s,mb4.9
ESAC  San Caprasio     58.67  52  P     P       19 55 39.1  0.0
         comp=Z,47nm,0.9s,mb5.5
EKA   Eskdalemuir Ar   58.69  36  P     P       19 55 37.5 -1.5
         comp=Z,7.3nm,0.8s,mb4.8,baz=288,slow=4.9,SNR=24
EKA   Eskdalemuir Ar   58.69  36  P     P       19 55 37.5 -1.5
EKA                               pmax  pmax
         comp=Z,7.0nm,0.8s
EBEN  Beniarda         58.79  56  P     P       19 55 41.0 +1.1
         comp=Z,28nm,0.7s,mb5.4
GRR   Gorron           58.92  44 eP     P       19 55 40.0 -0.7
         comp=Z,67nm,0.7s,mb5.5
EBIE  Bielsa           59.17  51  P     P       19 55 43.2 +0.8
         comp=Z,11nm,0.6s,mb5.1
FLN   La Foliniere     59.21  44 eP     P       19 55 42.1 -0.6
         comp=Z,67nm,0.7s,mb5.5
FLN                              eR
         comp=Z,169nm,20.5s
MFF   Saint Martin d   59.22  46 eP     P       19 55 42.4 -0.4
         comp=Z,62nm,0.9s,mb5.3
ERTA  Horta de San J   59.25  53  P     P       19 55 43.4 +0.3
         comp=Z,17nm,0.7s,mb5.2
EGRA  Graus            59.28  52  P     P       19 55 41.6 -1.6
         comp=Z,565nm,0.6s
EPF   Esparros         59.33  51 eP     P       19 55 43.6  0.0
         comp=Z,39nm,0.7s,mb5.3
DBIC  Dimbokro         59.33  93  P     P       19 55 42.5 -1.5
         comp=Z,20nm,0.7s,mb5.2,baz=277,slow=8.5,SNR=35
DBIC                              LR    LR      20 17 40.1
         comp=Z,438nm,19.8s,MS4.6,baz=258,slow=32
DBIC  Dimbokro         59.33  93  P     P       19 55 42.5 -1.5
DBIC                              pmax  pmax
         comp=Z,20nm,0.7s
DBIC                              MLR   MLR
         comp=Z,438nm,19.8s
LDF   La Druitiere     59.43  44 eP     P       19 55 43.6 -0.6
         comp=Z,67nm,0.8s,mb5.5
MELF  Melles           59.63  51⇑eP     P       19 55 46.6 +1.0
MELF  Melles           59.63  51⇑eP     P       19 55 46.6 +1.0
LFF   La Frestale      59.72  48 eP     P       19 55 45.6 -0.6
         comp=Z,34nm,1.0s,mb5.0
EPOB  Poblet           59.82  53  P     P       19 55 46.8 -0.2
EMIR  Miracle          60.17  52  P     P       19 55 50.2 +0.8
         comp=Z,19nm,0.8s,mb5.2
RJF   Les Rejaudoux    60.28  48 eP     P       19 55 49.4 -0.7
         comp=Z,64nm,0.8s,mb5.4
RJF                              eR
         comp=Z,214nm,19.5s
CAF   Calviac          60.65  48 eP     P       19 55 52.1 -0.5
         comp=Z,65nm,1.0s,mb5.4
MTLF  Montolieu        60.71  50 eP     P       19 55 52.3 -0.8
         comp=Z,19nm,0.7s,mb5.0
TCF   Toulx Ste Croi   60.82  47 eP     P       19 55 53.0 -0.8
         comp=Z,46nm,0.8s,mb5.4
HYF   Humbligny        61.17  46 eP     P       19 55 55.5 -0.6
SJAF  Saint Jean de    61.19  51⇑eP     P       19 55 56.6 +0.3
EJON  La Jonquera      61.19  51  P     P       19 55 56.9 +0.6
         comp=Z,24nm,0.8s,mb5.4
BGF   Bois d'Agland    61.28  47 eP     P       19 55 56.0 -0.8
         comp=Z,35nm,1.0s,mb5.1
PYM   Petit Puy Mans   61.35  48⇑eP     P       19 55 58.7 +1.4
LBL   Lubilhac         61.50  48⇑eP     P       19 55 59.8 +1.4
AVF   Avril sur Loir   61.63  46 eP     P       19 55 58.2 -1.0
         comp=Z,51nm,0.9s,mb5.3
SSF   Saint Saulge     61.75  46 eP     P       19 55 58.9 -1.1
         comp=Z,44nm,1.1s,mb5.2
PLDF  La Plantade      61.79  47⇑eP     P       19 56 01.4 +1.1
LASF  Ste Croix        61.91  49 eP     P       19 56 01.0 -0.1
         comp=Z,54nm,1.3s,mb5.2
SMF   Signal de Mont   61.96  47 eP     P       19 56 00.5 -0.9
         comp=Z,52nm,1.1s,mb5.3
BAIF  Baives           62.38  43 eP     P       19 56 03.0 -1.1
         comp=Z,20nm,0.9s,mb4.9
VIVF  Saint-Julien-l   62.51  49 eP     P       19 56 05.2 +0.1
         comp=Z,79nm,1.1s,mb5.4
DAG   Danmarks Havn    62.51  11⇑iP     P       19 56 03.8 -0.9
DAG                               pmax  pmax
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         comp=Z,6.0nm,0.8s,mb4.8
DAG   Danmarks Havn    62.51  11⇑iP     P       19 56 03.8 -0.9
         comp=Z,6.0nm,0.8s,mb4.8
GIVF  Givet            62.78  43 eP     P       19 56 05.9 -0.9
         comp=Z,60nm,0.8s,mb5.5
MEZF  Maizieres J'vi   62.85  45 eP     P       19 56 06.6 -0.7
         comp=Z,126nm,0.8s,mb5.8
SMRF  Simiane la Rot   63.15  50 eP     P       19 56 09.0 -0.4
         comp=Z,18nm,0.9s,mb4.9
ORIF  Oris-en-Rattie   63.36  49 eP     P       19 56 10.9 +0.1
         comp=Z,19nm,1.0s,mb4.9
ORIF                             eR
         comp=Z,172nm,21.5s
THEF  They Montfort    63.47  45⇑eP     P       19 56 11.2 -0.2
CABF  La Chapelle      63.51  47 eP     P       19 56 11.0 -0.7
         comp=Z,15nm,0.8s,mb4.8
HGN   Heimansgroeve    63.52  42 eP     P       19 56 11.0 -0.7
HGN                              epP    pP      19 56 24.9 -2.8
WLF   Walferdange      63.62  43 eP     P       19 56 11.9 -0.5
         comp=Z,16nm,0.7s,mb5.2
HAU   Haudompre        63.70  45 eP     P       19 56 11.8 -1.2
         comp=Z,20nm,0.8s,mb4.9
HAU                              eR
         comp=Z,168nm,19.0s
LMR   La Mourre        63.84  50 eP     P       19 56 13.1 -0.8
         comp=Z,52nm,1.1s,mb5.2
FRF   La Foret Royal   63.94  50 eP     P       19 56 13.8 -0.7
         comp=Z,15nm,0.8s,mb4.8
LPL   La Plagne        63.96  48 eP     P       19 56 14.8 +0.1
         comp=Z,24nm,0.8s,mb5.0
LPG   La Plagne        63.98  48 eP     P       19 56 15.0 +0.3
         comp=Z,36nm,1.1s,mb5.0
MBDF  Montbardon       64.00  49 eP     P       19 56 15.0 +0.1
         comp=Z,14nm,0.7s,mb4.8
LOMF  Lomont           64.02  46⇑eP     P       19 56 14.9 -0.1
HINF  Hinteralfeld     64.04  45 eP     P       19 56 13.7 -1.4
         comp=Z,23nm,0.9s,mb4.9
WTSB  Winterswijk      64.11  41 eP     P       19 56 15.1 -0.4
         comp=Z,47nm,1.0s,mb5.5
RUP   Ruppelstein      64.21  43 eP     P       19 56 16.1 -0.1
RUP   Ruppelstein      64.21  43⇑eP     P       19 56 16.3 +0.1
MOF   Molkenrain       64.23  45⇑eP     P       19 56 15.9 -0.5
ECH   Echery           64.25  45⇑eP     P       19 56 16.1 -0.4
CDF   Champ du Feu     64.33  45 eP     P       19 56 16.1 -0.9
         comp=Z,26nm,0.9s,mb5.0
TOUF  Mont Tournerai   64.36  50⇑eP     P       19 56 17.7 +0.4
WLS   Welschbruch      64.38  45⇑eP     P       19 56 17.0 -0.3
BBS   Basel-Blauen     64.48  46⇑eP     P       19 56 16.8 -1.2
SBF   Sospel           64.50  50 eP     P       19 56 17.1 -1.1
         comp=Z,68nm,0.9s,mb5.4
ABH   Alteburg         64.53  43 eP     P       19 56 18.4 +0.2
ABH   Alteburg         64.53  43⇑eP     P       19 56 18.5 +0.3
LIBD  Limburg          64.55  45⇓eP     P       19 56 17.9 -0.5
LIBD  Limburg          64.55  45⇑eP     P       19 56 18.3 -0.1
SAOF  Saorge           64.58  50⇑eP     P       19 56 18.9 +0.2
LANF  Langenberg       64.69  44⇑eP     P       19 56 19.2 -0.1
KIZ   Kirchzarten      64.76  45⇓eP     P       19 56 18.9 -0.9
FELD  Feldberg         64.82  45 eP     P       19 56 19.5 -0.7
BFO   Black Forest     65.03  45 eP     P       19 56 21.1 -0.5
TOD   Tromm            65.34  43 eP     P       19 56 22.7 -0.8
LBG   Lerchenberg      65.34  44 eP     P       19 56 22.7 -0.8
VAI   Varese           65.38  47 eP     P       19 56 23.4 -0.5
GUT   Gutenstein       65.56  45 eP     P       19 56 24.1 -0.9
STU   Stuttgart        65.60  44 eP     P       19 56 24.5 -0.7
PGF   Pioggiola        65.70  51 eP     P       19 56 25.0 -1.0
         comp=Z,41nm,0.8s,mb5.2
MUD   Monsted U'grnd   65.71  36 i P    P       19 56 25.9 +0.1
MUD                               pmax  pmax
         comp=Z,20nm,0.8s,mb5.2
MUD   Monsted U'grnd   65.71  36 i P    P       19 56 25.9 +0.1
         comp=Z,20nm,0.8s,mb5.2
BUCH  Bad Urach        65.71  45 eP     P       19 56 25.3 -0.6
SIND  Sindeldorf       65.86  44 eP     P       19 56 26.1 -0.8
DAVA  Damuels          66.10  46⇑iP     P       19 56 28.5 +0.1
         comp=Z,20nm,0.9s,mb5.1
DAVOX Davos            66.12  46  P     P       19 56 28.6 +0.1
         comp=Z,3.6nm,0.7s,mb4.5,baz=269,slow=7.9,SNR=8.5
BSEG  Bad Segeberg     66.30  39 eP     P       19 56 28.3 -1.2
CLZ   Clausthal        66.33  41 eP     P       19 56 29.2 -0.5
         comp=Z,25nm,0.8s,mb5.3
BRMO  Bormio           66.47  47 eP     P       19 56 30.9 +0.2
GRA1  Grafenberg Arr   66.91  43 eP     P       19 56 33.1 -0.3
         comp=Z,33nm,1.6s,mb5.1
GRA1                             epP    pP      19 56 48.5 -1.1
GRF   Grafenberg Arr   66.91  43 eP     P       19 56 33.1 -0.3
GRF                              e*PP   pP      19 56 48.5 -1.1
GRF                               pmax  pmax
         comp=Z,33nm,1.6s,mb5.1
GRF   Grafenberg Arr   66.91  43 eP     P       19 56 33.1 -0.3
         comp=Z,33nm,1.6s,mb5.1
GRF                              epP    pP      19 56 48.5 -1.1
MOTA  Moosalm          66.93  46⇓iP     P       19 56 33.4 -0.2
         comp=Z,8.5nm,0.9s,mb4.8
NB2   NORSAR Subarra   67.00  31  P     P       19 56 33.8  0.0
         comp=Z,0.9nm,0.7s,baz=268,slow=6.5
NOA   NORSAR Array B   67.00  31  P     P       19 56 33.5 -0.4
         comp=Z,6.6nm,0.7s,mb4.8,baz=267,slow=6.4,SNR=23
NOA                               pP    pP      19 56 48.1 -1.9
         comp=Z,9.2nm,0.9s,baz=268,slow=6.5,SNR=9.1
NOA                               LR    LR      20 20 26.2
         comp=Z,173nm,19.3s,MS4.3,baz=275,slow=31
NOA   NORSAR Array B   67.00  31  P     P       19 56 33.5 -0.3
NOA                               *PP   pP      19 56 48.2 -1.8
NOA                               pmax  pmax
         comp=Z,7.0nm,0.7s
NOA                               pmax  pmax
         comp=Z,9.0nm,0.9s
NOA                               MLR   MLR
         comp=Z,173nm,19.3s
FUR   Furstenfeldbru   67.01  45 eP     P       19 56 33.6 -0.5
FUR                               pmax  pmax
         comp=Z,45nm,1.8s,mb5.2
FUR   Furstenfeldbru   67.01  45 eP     P       19 56 33.6 -0.5
         comp=Z,45nm,1.8s,mb5.2
SQTA  Sankt Quirin     67.01  46⇑iP     P       19 56 34.2 +0.1
         comp=Z,11nm,0.9s,mb4.9
MOX   Moxa             67.13  42 eP     P       19 56 34.3 -0.5
MOX                               pmax  pmax
         comp=Z,30nm,1.8s,mb5.0
MOX   Moxa             67.13  42 i P    P       19 56 34.3 -0.5
         comp=Z,logA/T=1.2,mb5.0
MOX   Moxa             67.13  42 eP     P       19 56 34.3 -0.5
         comp=Z,30nm,1.8s,mb5.0
WATA  Walderalm        67.25  46⇓iP     P       19 56 35.1 -0.5
         comp=Z,6.0nm,1.1s,mb4.5
WTTA  Wattenberg       67.30  46⇑iP     P       19 56 35.9  0.0
         comp=Z,13nm,0.9s,mb5.0
COP   Copenhagen       67.53  37 eP     sP      19 56 57.1 -2.7
COP   Copenhagen       67.53  37 i P    sP      19 56 57.1 -2.7
         comp=Z,25nm,1.0s
NKC   Novy Kostel      67.68  43 eP     P       19 56 38.2 -0.1
SFI   Santa Sofia      67.68  49 eP     P       19 56 38.5 +0.1
CLL   Collm            67.98  41⇑iP     P       19 56 40.1  0.0
CLL                              i      pP      19 56 52.6 -3.7
CLL                               pmax  pmax
         comp=Z,22nm,0.8s,mb5.2
CLL   Collm            67.98  41⇑iP     P       19 56 40.1  0.0
         comp=Z,22nm,0.8s,mb5.2
CLL                              i      pP      19 56 52.6 -3.7
CLL   Collm            67.98  41 ⇑P     P       19 56 40.1  0.0
         comp=Z,logA/T=1.4,mb5.2
CLL                              i *PP  pP      19 56 52.6 -3.7
WET   Wettzell         68.02  44 eP     P       19 56 39.9 -0.5
WET                               pmax  pmax
         comp=Z,12nm,1.0s,mb4.9
WET   Wettzell         68.02  44 eP     P       19 56 39.9 -0.5
         comp=Z,12nm,1.0s,mb4.9
HFS   Hagfors          68.20  32  P     P       19 56 41.1 -0.2
         comp=Z,7.7nm,0.7s,mb4.8,baz=252,slow=4.7,SNR=9.9
HFS   Hagfors          68.20  32  P     P       19 56 41.1 -0.2
HFS                               pmax  pmax
         comp=Z,8.0nm,0.7s
MNS   Montasola        68.43  51 eP     P       19 56 42.5 -0.6
KBA   Koelnbreinsper   68.47  46⇑iP     P       19 56 43.1 -0.1
         comp=Z,13nm,0.9s,mb5.0
KHC   Kasperske Hory   68.47  44 eP     P       19 56 43.0 -0.2
KHC                              epP    pP      19 56 58.6 -0.9
PTCC  Patocco-Chiusa   68.53  47 eP     P       19 56 42.9 -0.8
GEC2  GERESS Array S   68.58  44 eP     P       19 56 43.4 -0.5
GEC2                              pmax  pmax
         comp=Z,8.0nm,1.0s,mb4.6
GEC2  GERESS Array S   68.58  44 eP     P       19 56 43.4 -0.5
         comp=Z,8.0nm,1.0s,mb4.6
GERES GERESS Array B   68.58  44  P     P       19 56 43.0 -0.9
         comp=Z,2.4nm,0.5s,mb4.4,baz=270,slow=5.3,SNR=29
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GERES GERESS Array B   68.58  44  P     P       19 56 43.0 -0.9
GERES                             pmax  pmax
         comp=Z,2.0nm,0.5s
BRG   Berggiesshubel   68.60  42 i P    P       19 56 44.0  0.0
BRG                              e      pP      19 56 57.6 -2.6
BRG                               pmax  pmax
         comp=Z,50nm,1.8s,mb5.1
BRG   Berggiesshubel   68.60  42⇑iP     P       19 56 40.1 -3.9
         comp=Z,22nm,0.8s,mb5.1
BRG                              i P            19 56 44.0
BRG                              i      pP      19 56 52.6 -7.6
BRG                              e      pP      19 56 57.6 -2.6
VOY   Vojsko           68.94  47 eP     P       19 56 46.2  0.0
VOY                              e      pP      19 57 06.8 +4.4
BSD   Bornholm Skovb   68.95  37 i P    P       19 56 45.8 -0.3
         comp=Z,21nm,0.8s,mb5.1
PVCC  Panska Ves       69.02  42 eP     P       19 56 46.2 -0.4
PVCC                             epP    pP      19 57 00.4 -2.4
MOA   Molln            69.03  45⇓iP     P       19 56 46.1 -0.6
         comp=Z,19nm,1.2s,mb4.9
PRU   Pruhonice        69.04  43  P     P       19 56 46.7  0.0
PRU                              e*PP   pP      19 57 01.0 -2.0
PRU                               pmax  pmax
         comp=Z,21nm,1.1s,mb5.0
PRU   Pruhonice        69.04  43  P     P       19 56 46.7  0.0
         comp=Z,21nm,1.1s,mb5.0
PRU                              epP    pP      19 57 01.0 -2.0
JAVS  Javornik         69.07  47 i P    P       19 56 47.0  0.0
LJU   Ljubljana        69.38  47 eP     P       19 56 49.0 +0.1
LEGS  Legarje          69.94  47 i P    P       19 56 52.1 -0.2
UPC   Upice            69.94  42 eP     P       19 56 52.5 +0.3
UPC                              epP    pP      19 57 07.4 -1.1
ILAR  Eielson Array    69.94 333  P     P       19 56 51.2 -0.8
         comp=Z,9.8nm,0.8s,mb4.8,baz=101,slow=4.0,SNR=72
ILAR                              LR    LR      20 26 39.1
         comp=Z,209nm,20.5s,MS4.4,baz=284,slow=35
ILAR  Eielson Array    69.94 333  P     P       19 56 51.2 -0.8
ILAR                              pmax  pmax
         comp=Z,10.0nm,0.8s
ILAR                              MLR   MLR
         comp=Z,209nm,20.5s
CRES  Cresnjev         70.05  47 i P    P       19 56 52.9  0.0
CRES                             e      pP      19 57 07.0 -2.2
CRES                             e              19 57 18.8
KSP   Ksiaz            70.08  42 eP     P       19 56 52.9 -0.2
KSP   Ksiaz            70.08  42 eP     P       19 56 52.8 -0.3
DPC   Dobruska-Polom   70.15  42 eP     P       19 56 53.6 +0.1
DPC                              epP    pP      19 57 08.0 -1.8
COLA  College          70.35 333 i P    P       19 56 53.8 -0.7
COLA  College          70.35 333 eP     P       19 56 53.6 -0.9
         comp=Z,39nm,1.3s,mb5.2
VRAC  Vranov           70.43  43  P     P       19 56 54.5 -0.7
         comp=Z,9.4nm,1.0s,mb4.7,baz=278,slow=6.2,SNR=8.9
VRAC  Vranov           70.43  43  P     P       19 56 54.5 -0.7
VRAC                              pmax  pmax
         comp=Z,9.0nm,1.0s
GKP   Gorka Klasztor   70.44  39 eP     P       19 56 56.1 +0.9
ZST   Bratislava       70.89  44 eP     P       19 56 58.3 +0.3
ZST                              epP    pP      19 57 12.8 -1.5
MORC  Moravsky Berou   70.99  43 eP     P       19 56 58.3 -0.2
         comp=Z,16nm,0.9s,mb4.9
SMOL  Smolenice        71.07  44 eP     P       19 56 58.3 -0.7
OKC   Ostrava-Krasne   71.37  43 eP     P       19 57 00.7 -0.2
OKC                              epP    pP      19 57 15.8 -1.4
VYHS  Vyhne            72.00  44 eP     P       19 57 05.0 +0.4
VYHS                             epP    pP      19 57 20.6 -0.3
PKSM  Moragy           72.19  46⇓iP     P       19 57 05.8  0.0
OJC   Ojcow            72.38  42 eP     P       19 57 06.3 -0.5
IMA   Indian Mountai   72.69 335 eP     P       19 57 08.4 +0.1
         comp=Z,15nm,0.8s,mb5.0
ARCES ARCESS Array B   72.71  22  P     P       19 57 08.4  0.0
         comp=Z,14nm,0.6s,mb5.1,baz=271,slow=4.4,SNR=38
ARCES                             LR    LR      20 27 55.9
         comp=Z,201nm,18.4s,MS4.4,baz=17,slow=35
ARCES ARCESS Array B   72.71  22  P     P       19 57 08.5 +0.1
ARCES                             pmax  pmax
         comp=Z,15nm,0.6s
ARCES                             MLR   MLR
         comp=Z,201nm,18.5s
PSZ   Piszkesteto      72.78  45 eP     P       19 57 09.6 +0.4
PSZ   Piszkesteto      72.78  45 eP     P       19 57 09.2 -0.1
         comp=Z,7.0nm,1.0s,mb4.5
NIE   Niedzica         72.83  43 eP     P       19 57 11.0 +1.5
RSO   Redoubt South    72.99 329 eP     P       19 57 09.9 -0.2
KEV   Kevo             73.21  21 ep     P       19 57 11.2 -0.1
         comp=Z,16nm,0.8s,mb5.0
KEV   Kevo             73.21  21 eP     P       19 57 11.2 -0.1
KEV                               pmax  pmax
         comp=Z,16nm,0.8s,mb5.0
SUW   Suwalki          73.86  38 eP     P       19 57 16.0 +0.6
KAF   Kangasniemi      74.13  29 ep     P       19 57 15.7 -1.1
         comp=Z,18nm,0.7s,mb5.1,baz=279,slow=5.5
KAF   Kangasniemi      74.13  29 eP     P       19 57 15.7 -1.1
KAF                               pmax  pmax
         comp=Z,18nm,0.7s,mb5.1
FINES FINESS Array B   74.14  30  P     P       19 57 16.7 -0.1
         comp=Z,35nm,1.0s,mb5.3,baz=261,slow=2.5,SNR=65
FINES                             pP    pP      19 57 31.6 -1.7
         comp=Z,11nm,0.8s,baz=270,slow=5.7,SNR=5.7
FINES                             LR    LR      20 24 17.0
         comp=Z,272nm,19.3s,MS4.5,baz=326,slow=31
FINES FINESS Array B   74.14  30  P     P       19 57 16.7 -0.2
FINES                             *PP   pP      19 57 31.6 -1.7
FINES                             pmax  pmax
         comp=Z,35nm,1.0s
FINES                             pmax  pmax
         comp=Z,11nm,0.8s
FINES                             MLR   MLR
         comp=Z,272nm,19.3s
KOLS  Kolonicke sedl   74.17  43 eP     P       19 57 19.7 +2.3
KWP   Kalwaria         74.33  42 eP     P       19 57 20.0 +1.8
VTS   Vitosha          76.08  49 eP     P       19 57 30.0 +1.6
KKB   Krupnik          76.15  50 eP     P       19 57 30.0 +1.2
JOF   Joensuu          76.23  28 ep     P       19 57 28.2 -0.7
         comp=Z,8.8nm,0.7s,mb4.8
JOF   Joensuu          76.23  28 eP     P       19 57 28.2 -0.7
JOF                               pmax  pmax
         comp=Z,9.0nm,0.7s,mb4.8
MMB   Musomiste        76.68  50 eP     P       19 57 32.0 +0.2
MLR   Muntele Rosu     77.34  46  P     P       19 57 37.1 +1.7
         comp=Z,10nm,0.8s,mb4.8,baz=197,slow=4.3,SNR=20
MLR                               pP    pP      19 57 50.8 -1.1
         comp=Z,24nm,1.0s,baz=241,slow=8.7,SNR=13
MLR                               LR    LR      20 25 22.1
         comp=Z,245nm,20.8s,MS4.5,baz=266,slow=31
RZN   Rozhen           77.38  50 eP     P       19 57 36.0 +0.3
AKASG Malin Array Be   78.18  40  P     P       19 57 39.6 -0.3
         comp=Z,2.3nm,0.8s,mb4.2,baz=274,slow=5.1,SNR=12
AKASG                             pP    pP      19 57 54.4 -2.1
         comp=Z,4.2nm,0.8s,baz=274,slow=4.8,SNR=6.7
AKASG Malin Array Be   78.18  40  P     P       19 57 39.7 -0.2
AKASG                             *PP   pP      19 57 54.4 -2.0
AKASG                             pmax  pmax
         comp=Z,2.0nm,0.8s
AKASG                             pmax  pmax
         comp=Z,4.0nm,0.8s
IDI   Anoyia           79.11  56  P     P       19 57 46.0 +0.7
         comp=Z,20nm,0.7s,mb5.2,baz=280,slow=6.3,SNR=14
ULDT  Uludag           81.01  51 i P    P       19 57 55.8 +0.3
OBN   Obninsk          81.11  35 i P    P       19 57 56.0 +0.4
OBN                              e*PP   pP      19 58 11.2 -1.0
OBN                              eS     S       20 08 10.0  +11
OBN                               pmax  pmax
         comp=Z,49nm,1.7s,mb5.2
OBN                               MLR   MLR
         comp=Z,100nm,19.0s,MS4.2
ESKT  Eskisehir        82.46  51 i P    P       19 58 03.7 +0.8
PMSA  Palmer Station   83.20 180 eP     P       19 58 06.7 +0.6
         comp=Z,12nm,0.8s,mb5.0
VRSR  Storozhevoye     83.99  38 eP     P       19 58 10.8 +0.4
VRSR                             e*PP   pP      19 58 25.6 -1.5
VRSR                             e*SP   sP      19 58 32.6 -0.9
VRSR                             e              20 01 21.8
VRSR                             eS     S       20 08 33.0 +4.7
VRSR                             eSS    SS      20 13 59.8 -0.4
VRSR                             eSSS   SSS     20 17 24.2 -3.4
VRSR                              pmax  pmax
         comp=Z,10.0nm,0.6s,mb5.1
VRSR                              pmax  pmax
         comp=N,10.0nm,0.8s
VRSR                              pmax  pmax
         comp=E,10.0nm,0.8s
VRSR                              smax
         comp=N,1µm,13.1s
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VRSR				smax			
	comp=Z,420nm,3.6s						
VRSR				smax			
	comp=E,790nm,5.1s						
ELDT	**Eldivan**	**84.03**	**49**	*i* P	**P**	**19 58 12.0**	**+1.1**
BRTR	**Keskin Array B**	**84.43**	**50**	P	**P**	**19 58 13.3**	**+0.4**
	comp=E,8.9nm,0.7s,mb5.0,baz=280,slow=4.8,SNR=38						
BRTR				pP	pP	19 58 28.1	-1.6
	comp=E,11nm,0.8s,baz=260,slow=4.4,SNR=14						
BRTR	**Keskin Array B**	**84.43**	**50**	P	**P**	**19 58 13.3**	**+0.4**
BRTR				*PP	pP	19 58 28.1	-1.5
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
BRTR				pmax	pmax		
	comp=Z,11nm,0.8s						
SOC	**Sochi**	**87.27**	**45**	*e*P	**P**	**19 58 27.5**	**+0.7**
SOC				*e*PPP	PPP	20 03 54.7	+3.2
SOC				*e*S	S	20 08 52.9	-7.4
SOC				*e*SSS	SSS	20 18 21.7	+1.4
SOC				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.5						
SOC				pmax	pmax		
	comp=N,21nm,1.0s						
SOC				pmax	pmax		
	comp=E,27nm,1.0s						
MALT	**Malatya**	**88.42**	**50**	*e*P	**P**	**19 58 33.9**	**+1.5**
	comp=E,16nm,0.6s,mb5.4						
EIL	**Elat**	**88.92**	**59**	P	**P**	**19 58 35.9**	**+0.9**
	comp=E,3.4nm,0.6s,mb4.9,baz=341,slow=22,SNR=7.5						
EIL	**Elat**	**88.92**	**59**	*e*P	**P**	**19 58 36.6**	**+1.6**
TIXI	**Tiksi**	**89.41**	**356**	*i* P	**P**	**19 58 37.2**	**+0.9**
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.8						
ERZM	**Erzurum**	**89.89**	**48**	*i* P	**P**	**19 58 41.7**	**+2.5**
ARU	**Arti**	**91.36**	**28**	⇑*i*P	**P**	**19 58 47.2**	**+1.4**
ARU				*e*		20 02 24.3	
ARU				*e*S		20 09 15.7	
ARU				*e*SSS	SSS	20 19 20.0	-5.1
ARU				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.8						
VNA3	**Neumayer Olymp**	**97.22**	**165**	⇑*i*P	**P**	**19 59 16.4**	**+4.2**
LSZ	**Lusaka**	**97.42**	**104**	P	**P**	**19 59 15.7**	**+1.4**
	comp=Z,18nm,1.6s,mb5.2						
LSZ				*e*pP	pP	19 59 29.4	-1.9
VNA2	**Neumayer--Watz**	**97.61**	**164**	⇑*i*P	**P**	**19 59 18.3**	**+4.4**
YAK	**Yakutsk**	**98.74**	**353**	*i* P	**P**	**19 59 19.8**	**+0.6**
YAK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb5.0						
SNAA	**Sanae**	**99.25**	**164**	P	**P**	**19 59 22.6**	**+1.2**
SNAA	**Sanae**	**99.25**	**164**	⇑*i*	**P**	**19 59 34.4**	**+13**
SNAA	**Sanae**	**99.25**	**164**	P	**P**	**19 59 22.1**	**+0.7**
	comp=Z,2.0nm,0.9s,mb4.7,baz=290,slow=6.8,SNR=9.5						
SNAA				LR	LR	20 42 08.5	
	comp=Z,60nm,21.1s,MS4.1,baz=4.9,slow=34						
SNAA	**Sanae**	**99.25**	**164**	*i* P	**P**	**19 59 22.6**	**+1.2**
QSPA	**South Pole Qui**	**108.64**	**180**	PKP		20 04 09.2	
SYO	**Syowa Base**	**112.42**	**158**	⇓PKiKP		20 04 13.7	
SYO	**Syowa Base**	**112.42**	**158**	⇑pPKiKP		20 04 33.6	
WMQ	**Urumqi**	**112.84**	**21**	⇑PKP	PKPdf	20 04 17.2	+1.7
WMQ				PP	PP		
	comp=Z,22nm,8.2s						
WMQ				LR	LR		
	comp=N,171nm,20.6s,MS4.7						
WMQ				LR	LR		
	comp=E,130nm,20.6s,MS4.7						
WMQ				LR	LR		
	comp=Z,75nm,17.9s,MS4.3						
SONM	**Songino Array**	**113.30**	**7**	PKKPbc		20 15 02.0	
	comp=Z,0.5nm,0.8s,baz=188,slow=3.0,SNR=4.1						
SONM				PKKPab		20 15 11.7	
	comp=Z,1.0nm,0.8s,baz=166,slow=3.9,SNR=6.4						
CN2	**Changchun**	**117.12**	**352**	*e*PKP	PKPdf	20 04 26.1	+2.2
MAT	**Matsushiro**	**120.96**	**339**	PKP	PKPdf	20 04 32.1	+0.5
MAT	**Matsushiro**	**120.96**	**339**	*e*PKP	PKPdf	20 04 32.0	+0.4
MAW	**Mawson**	**121.04**	**159**	PKP	PKPdf	20 04 31.8	+0.8
	comp=Z,2.2nm,0.6s,baz=166,slow=4.2,SNR=5.1						
MAW				pPKP		20 04 46.4	
	comp=Z,4.7nm,0.7s,baz=261,slow=2.2,SNR=6.3						
MAW	**Mawson**	**121.04**	**159**	PKIKP	PKPdf	20 04 31.8	+0.8
MAW						20 04 46.4	
MAW				pmax	pmax		
	comp=Z,2.0nm,0.6s						
MAW				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LZH	**Lanzhou**	**124.45**	**11**	*e*PKP	PKPdf	20 04 40.5	+2.2
LZH				SKKS		20 13 18.0	
LZH				PP	PP		
	comp=Z,126nm,5.7s						
LZH				LR	LR		
	comp=N,301nm,19.2s						
LZH				LR	LR		
	comp=Z,385nm,20.3s,MS5.1						
GKN	**Gorkha**	**124.89**	**33**	*e*P	PKPdf	20 04 40.4	+1.0
KKN	**Kakani**	**125.40**	**33**	*e*P	PKPdf	20 04 42.3	+1.9
DMN	**Daman**	**125.45**	**33**	*e*P	PKPdf	20 04 40.0	-0.5
PKI	**Pulchoki**	**125.64**	**33**	*e*P	PKPdf	20 04 42.3	+1.5
	comp=Z,9.4nm,0.8s						
NJ2	**Nanjing**	**129.43**	**356**	*e*PKP	PKPdf	20 04 49.2	+1.2
NJ2				PP	PP	20 07 00.0	-2.5
NJ2				PKS	PKS	20 08 20.0	-3.5
NJ2				SKKS		20 13 46.0	
NJ2				LR	LR		
	comp=Z,420nm,20.0s,MS5.1						
SSE	**Sheshan**	**130.18**	**353**	PKP	PKPdf	20 04 49.6	+0.1
SSE				PP	PP	20 07 04.6	-2.6
SSE				LR	LR		
	comp=N,36nm,31.9s,MS4.2						
SSE				LR	LR		
	comp=E,81nm,31.9s,MS4.2						
SSE				LR	LR		
	comp=Z,93nm,29.2s,MS4.3						
WHN	**Wuhan**	**131.04**	**1**	*e*PKP	PKPdf	20 04 53.0	+1.9
WHN				*e*PP	PP	20 07 11.2	-2.0
GYA	**Guiyang**	**134.34**	**11**	PKP	PKPdf	20 05 00.1	+2.7
GYA				PKS	PKS	20 08 35.0	+2.3
GYA				PP	PP		
	comp=Z,260nm,9.0s						
GYA				LR	LR		
	comp=N,240nm,18.1s,MS5.0						
GYA				LR	LR		
	comp=E,120nm,17.8s,MS5.0						
GYA				LR	LR		
	comp=Z,300nm,18.7s,MS5.0						
KMI	**Kunming**	**134.76**	**16**	*e*PKP	PKPdf	20 04 59.0	+0.8
KMI				PP	PP	20 07 36.5	0.0
KMI				SKKS		20 14 20.5	
KMI				PP	PP		
	comp=Z,117nm,6.5s						
KMI				LR	LR		
	comp=N,89nm,29.1s,MS4.6						
KMI				LR	LR		
	comp=E,119nm,26.8s,MS4.6						
KMI				LR	LR		
	comp=Z,101nm,28.4s,MS4.4						
CMAR	**Chiang Mai Arr**	**139.73**	**24**	PKP	PKPdf	20 05 09.4	+2.0
	comp=Z,1.8nm,0.8s,baz=314,slow=3.1,SNR=12						
CMAR				SKPbc		20 08 38.6	
	comp=Z,1.7nm,0.9s,baz=332,slow=3.7,SNR=6.0						
CMAR	**Chiang Mai Arr**	**139.73**	**24**	PKIKP	PKPdf	20 05 09.5	+2.1
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
CNB	**Canberra Magne**	**145.66**	**234**	*e*PKP	PKPdf	20 05 19.3	+1.9
	comp=Z,85nm,1.0s						
LQP	**Lukban**	**146.83**	**349**	⇑*e*P	PKPdf	20 05 22.9	+3.0
TOO	**Toolangi**	**147.62**	**228**	*e*PKP	PKPdf	20 05 22.5	+1.9
	comp=Z,11nm,0.7s						
PMG	**Port Moresby**	**147.81**	**282**	*i* PKP2	PKPab	20 05 25.5	-3.7
PMG	**Port Moresby**	**147.81**	**282**	*e*PKPbc	PKPdf	20 05 26.4	+4.9
CTA	**Charters Tower**	**150.81**	**262**	*e*PKP	PKPdf	20 05 33.0	+6.9
	comp=Z,12nm,0.8s						
CTA	**Charters Tower**	**150.81**	**262**	PKPbc	PKPdf	20 05 33.1	+7.0
	baz=71,slow=1.8						
CTAO	**Charters Tower**	**150.81**	**262**	*e*PKPbc	PKPdf	20 05 32.9	+6.8
STKA	**Stephens Creek**	**152.94**	**236**	*e*PKP	PKPdf	20 05 37.5	+8.6
	comp=Z,15nm,0.7s						
STKA	**Stephens Creek**	**152.94**	**236**	PKP	PKPdf	20 05 30.3	+1.4
	comp=Z,14nm,0.7s,baz=110,slow=4.1,SNR=3.4						
STKA				PKPbc	PKPdf	20 05 37.5	+8.5
	comp=Z,15nm,0.7s,baz=92,slow=2.6,SNR=48						
STKA	**Stephens Creek**	**152.94**	**236**	PKP	PKPdf	20 05 30.3	+1.4
STKA				*e*PKPbc	PKPdf	20 05 37.4	+8.5
ASAR	**Alice Springs**	**161.98**	**251**	PKP	PKPdf	20 05 40.9	+0.8
	comp=Z,2.1nm,0.9s,baz=92,slow=1.1,SNR=13						
ASAR				pPKP		20 05 55.4	
	comp=Z,4.1nm,0.9s,baz=122,slow=1.6,SNR=14						
ASAR				PKPab	PKPab	20 06 26.8	-2.2
	comp=Z,4.1nm,0.8s,baz=112,slow=4.1,SNR=9.8						
ASPA	**Alice Springs**	**161.98**	**251**	*e*PKP	PKPdf	20 05 41.3	+1.2
ASPA				*e*SKKS		20 16 52.6	
WB2	**Warramunga Arr**	**161.99**	**263**	*e*PKP	PKPdf	20 05 41.6	+1.4
WRAB	**Tennant Creek**	**161.99**	**263**	*i* PKIKP	PKPdf	20 05 41.4	+1.2
WRAB	**Tennant Creek**	**161.99**	**263**	*e*PKP	PKPdf	20 05 40.9	+0.7
WRA	**Warramunga Arr**	**162.00**	**263**	PKP	PKPdf	20 05 41.1	+0.9
	comp=Z,3.9nm,1.0s,baz=60,slow=1.0,SNR=19						
WRA				pPKP		20 05 55.7	
	comp=Z,7.2nm,1.0s,baz=55,slow=1.0,SNR=13						
WRA				PKPab	PKPab	20 06 27.5	-1.7
	comp=Z,3.9nm,0.8s,baz=91,slow=4.5,SNR=7.3						
WRA	**Warramunga Arr**	**162.00**	**263**	PKIKP	PKPdf	20 05 41.1	+0.9
WRA						20 05 55.7	
WRA						20 06 27.5	
WRA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
WRA				pmax	pmax		
	comp=Z,7.0nm,1.0s						
WRA				pmax	pmax		
	comp=Z,4.0nm,0.9s						

MOS ***11*** *20:01:32.5±1.4, 34.80N×22.89E, h10km, mb4.6/14, Error ellipse: s-maj=7.6km s-min=3.4km az=108.2*
IDC ***11*** *20:01:33.6±1.0, 35.02N×22.89E, mb4.0/10, mb1 4.2/19, mb1mx4.1/29, ML3.9/9, MS3.2/2, Ms1 3.2/2, ms1mx2.9/19, Error ellipse: s-maj=19.0km s-min=18.3km az=23.0*
ATH ***11*** *20:01:34.7, 34.97N×22.73E, h5km, MD4.0/13, ML3.9*
BJI ***11*** *20:01:35.0, 35.05N×23.22E, h5km, mb4.4, Msz3.7*
CSEM ***11*** *20:01:36.7±0.1, 34.79N×22.98E, h60km, mb4.1/30, Error ellipse: s-maj=2.5km s-min=1.3km az=32.0*
NEIC ***11*** *20:01:37.0, 35.07N×22.86E, h5km, mb4.1/45, ML3.9(ATH), After ATH.*
THE ***11*** *20:01:42.5, 35.21N×22.82E, h20km, ML4.2*
ISC 11 20:01:36.1±0.6, **34.80N**±0.04×**22.86E**±0.03, **h41**km±5km, **n247, σ1§39**/257, **mb4.2**/31, **MS3.7**/1, **11C-15D, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GVD	**Gavdhos**	**1.01**	**87**	*e*PG	**P**	**20 01 55.7**	**+1.7**
GVD	**Gavdhos**	**1.01**	**87**	*e*Pg	**P**	**20 01 56.0**	**+2.0**
VAM	**Vamos**	**1.26**	**61**	⇓*i*PB	**P**	**20 01 59.9**	**+2.5**
VAM				*e*SB	**S**	**20 02 17.3**	**+3.9**
VAM	**Vamos**	**1.26**	**61**	⇓Pb	**P**	**20 01 59.3**	**+1.9**
KYTH	**Kithira**	**1.49**	**5**	*e*PG	**P**	**20 01 59.5**	**-1.3**
IDI	**Anoyia**	**1.74**	**73**	Pn	**P**	**20 02 07.5**	**+3.2**
	21nm,0.3s,baz=272,slow=15,SNR=65						
IDI				Sn	**S**	**20 02 31.7**	**+6.3**
	44nm,0.3s,baz=6.7,slow=17,SNR=6.7						
VLI	**Veliai**	**1.92**	**2**	⇓*i*PN	**P**	**20 02 07.9**	**+1.0**
VLI	**Veliai**	**1.92**	**2**	⇓Pb	**P**	**20 02 08.9**	**+2.0**
NPS	**Neapolis**	**2.31**	**78**	⇓*i*PN	**P**	**20 02 17.0**	**+4.5**
NPS	**Neapolis**	**2.31**	**78**	⇓P	**P**	**20 02 17.2**	**+4.7**
ITM	**Ithomi**	**2.50**	**343**	⇑*i*PG	**P**	**20 02 17.8**	**+2.6**
ITM	**Ithomi**	**2.50**	**343**	⇑Pg	**P**	**20 02 19.6**	**+4.4**
THR6	**Thira Island,**	**2.59**	**52**	*e*Pn	**P**	**20 02 18.4**	**+1.9**
THR6				*e*Sn	**S**	**20 02 47.6**	**+0.6**
THR6	**Thira Island,**	**2.59**	**52**	*e*Sn	**S**	**20 02 47.6**	**+0.6**
THR5	**Thira Island,**	**2.59**	**51**	*e*Pn	**P**	**20 02 18.1**	**+1.5**
THR3	**Thira Island,**	**2.62**	**51**	*e*Pn	**P**	**20 02 19.8**	**+2.8**
SANT	**Santorini**	**2.64**	**53**	*e*Pn	**P**	**20 02 16.5**	**-0.7**
NAIG	**Nisos Aigina**	**3.00**	**10**	*e*PB	**P**	**20 02 23.0**	**+0.6**
NAIG	**Nisos Aigina**	**3.00**	**10**	*e*Pn	**P**	**20 02 24.5**	**+2.1**
NSAL	**Nisos Salamina**	**3.14**	**9**	*e*PN	**P**	**20 02 25.7**	**+1.3**
NSAL	**Nisos Salamina**	**3.14**	**9**	*e*Pn	**P**	**20 02 26.0**	**+1.6**
MGER	**Gerania Oros**	**3.20**	**6**	*e*Pn	**P**	**20 02 27.0**	**+1.8**
ATH	**Athens Observa**	**3.24**	**12**	⇓*i*PB	**P**	**20 02 26.5**	**+0.7**
ATH	**Athens Observa**	**3.24**	**12**	⇓Pb	**P**	**20 02 26.8**	**+1.0**
PTL	**Penteli**	**3.35**	**14**	*e*PN	**P**	**20 02 27.9**	**+0.6**
MPAR	**Parnis Oros**	**3.42**	**12**	*e*Pn	**P**	**20 02 28.0**	**-0.3**
RLS	**Riolos of Patr**	**3.44**	**341**	⇓*i*PN	**P**	**20 02 30.7**	**+2.1**
KARP	**Karpathos**	**3.60**	**77**	⇓*i*PB	**P**	**20 02 35.9**	**+5.0**
KARP	**Karpathos**	**3.60**	**77**	⇓Pb	**P**	**20 02 36.3**	**+5.4**
VLS	**Valsamata**	**3.84**	**332**	⇑P	**P**	**20 02 33.7**	**-0.5**
VLS	**Valsamata**	**3.84**	**332**	Pn	**P**	**20 02 33.7**	**-0.5**
LKR	**Lokris**	**3.85**	**2**	⇑*i*PN	**P**	**20 02 35.3**	**+0.9**
EVR	**Evrytania**	**4.20**	**349**	⇓*i*PN	**P**	**20 02 40.2**	**+0.9**
EVR	**Evrytania**	**4.20**	**349**	⇓Pn	**P**	**20 02 41.5**	**+2.2**
AGG	**Agios Georgios**	**4.24**	**354**	*e*Pn	**P**	**20 02 40.7**	**+0.8**
AGG				*e*Sn	**S**	**20 03 23.4**	**-5.5**
AGG	**Agios Georgios**	**4.24**	**354**	*e*Sn	**S**	**20 03 23.4**	**-5.4**
AOS	**Alonnisos**	**4.44**	**10**	*e*Pn	**P**	**20 02 43.3**	**+0.5**
XOR	**Xorichti**	**4.57**	**3**	*e*Pn	**P**	**20 02 45.0**	**+0.5**
XOR	**Xorichti**	**4.57**	**3**	*e*Pn	**P**	**20 02 45.0**	**+0.4**
JAN	**Janina**	**5.11**	**342**	Pn	**P**	**20 02 52.3**	**+0.1**
IGT	**Igoumenitsa**	**5.14**	**338**	*e*Pn	**P**	**20 02 50.9**	**-1.8**
IGT				*e*Sn	**S**	**20 03 46.1**	**-5.4**
MEV	**Metsovon**	**5.15**	**346**	*e*Pn	**P**	**20 02 53.2**	**+0.5**
MEV				*e*Sn	**S**	**20 03 45.4**	**-6.2**
PAIG	**Paliouri**	**5.16**	**7**	*e*Pn	**P**	**20 02 52.4**	**-0.5**
PRK	**Paraskevi**	**5.21**	**31**	⇑P	**P**	**20 02 52.7**	**-0.9**
PRK	**Paraskevi**	**5.21**	**31**	Pn	**P**	**20 02 52.7**	**-0.9**
LIA	**Limnos Island**	**5.42**	**19**	⇑Pn	**P**	**20 02 55.4**	**-1.1**
LIA	**Limnos Island**	**5.42**	**19**	Pn	**P**	**20 02 55.4**	**-1.1**
LOS	**Limnos**	**5.42**	**18**	*e*Pn	**P**	**20 02 56.1**	**-0.5**
AYVA	**Ayvalik**	**5.45**	**33**	*i* P	**P**	**20 02 56.7**	**-0.1**
KEK	**Kerkira**	**5.48**	**334**	⇑Pn	**P**	**20 02 57.1**	**-0.3**
KEK	**Kerkira**	**5.48**	**334**	Pn	**P**	**20 02 57.1**	**-0.3**
PLG	**Polygyros**	**5.59**	**5**	Pn	**P**	**20 02 57.5**	**-1.3**
OUR	**Ouranopolis**	**5.60**	**9**	*e*Pn	**P**	**20 02 58.1**	**-0.9**
DNZL	**Cakiroluk**	**5.77**	**58**	*i* P	**P**	**20 03 04.0**	**+2.6**
SOH	**Sokhos**	**6.03**	**4**	*e*Pn	**P**	**20 03 05.2**	**+0.2**
FNA	**Florina**	**6.09**	**349**	*e*Pn	**P**	**20 03 04.2**	**-1.7**
FNA				*e*Sn	**S**	**20 04 10.7**	**-4.7**
FNA	**Florina**	**6.09**	**349**	*e*Pn	**P**	**20 03 04.2**	**-1.7**
FNA				*e*Sn	**S**	**20 04 10.6**	**-4.7**
GRG	**Griva**	**6.16**	**357**	*e*Pn	**P**	**20 03 06.0**	**-1.0**
GRG	**Griva**	**6.16**	**357**	*e*Pn	**P**	**20 03 05.9**	**-1.0**
BIA	**Bitola**	**6.33**	**349**	*i* Pn	**P**	**20 03 08.7**	**-0.6**
BIA				*i*		20 03 10.8	
KNT	**Kendrikon**	**6.36**	**0**	*e*Pn	**P**	**20 03 09.5**	**-0.1**
TIP	**Timpagrande**	**6.55**	**314**	*e*Pn	**P**	**20 03 08.8**	**-3.7**
ALN	**Alexandroupoli**	**6.59**	**22**	*e*Pn	**P**	**20 03 14.2**	**+1.3**
RDO	**Rodhopi**	**6.68**	**18**	⇓Pn	**P**	**20 03 13.2**	**-1.1**
MMB	**Musomiste**	**6.82**	**5**	*e*P	**P**	**20 03 14.0**	**-2.1**
RZN	**Rozhen**	**7.03**	**11**	*e*P	**P**	**20 03 18.0**	**-1.2**
KKB	**Krupnik**	**7.06**	**1**	*e*P	**P**	**20 03 20.0**	**+0.4**
SKO	**Skopje**	**7.25**	**352**	*e*Pn	**P**	**20 03 18.8**	**-3.4**
	30nm,0.7s						
SKO				*i*		20 03 22.5	
SKO	**Skopje**	**7.25**	**352**	*e*Pn	**P**	**20 03 18.8**	**-3.4**
SKO				*i*		20 03 22.5	
	comp=Z,0.0nm,0.7s						
ULDT	**Uludag**	**7.30**	**41**	*i* P	**P**	**20 03 23.4**	**+0.4**
VAE	**Valguarnera**	**7.34**	**294**	Pn	**P**	**20 03 23.8**	**+0.4**
	comp=Z,0.9nm,0.3s,baz=82,slow=19,SNR=3.3						
VAE				Sn	**S**	**20 04 39.2**	**-7.1**
	comp=Z,2.7nm,0.3s,baz=82,slow=7.1,SNR=3.7						
VAE	**Valguarnera**	**7.34**	**294**	Pn	**P**	**20 03 23.9**	**+0.5**
VTS	**Vitosha**	**7.79**	**2**	*e*P	**P**	**20 03 30.0**	**+0.4**
SLCN	**Sala Consilina**	**8.00**	**316**	*e*Pn	**P**	**20 03 32.3**	**-0.3**
SLCN	**Sala Consilina**	**8.00**	**316**	*e*Pn	**P**	**20 03 32.3**	**-0.3**
SGO	**Sicignano**	**8.30**	**316**	*e*Pn	**P**	**20 03 35.1**	**-1.7**
MRLC	**Muro Lucano**	**8.33**	**318**	*e*Pn	**P**	**20 03 35.5**	**-1.6**
MRLC	**Muro Lucano**	**8.33**	**318**	*e*Pn	**P**	**20 03 35.5**	**-1.7**
CSS	**Prodhromos**	**8.61**	**86**	*e*Pn	**P**	**20 03 39.9**	**-1.1**
CSS				*e*Sn	**S**	**20 05 04.5**	**-13**
FG5	**Orsara di Pugl**	**8.82**	**319**	*e*Pn	**P**	**20 03 41.9**	**-2.0**
SGG	**Gregorio Mates**	**9.38**	**317**	*e*Pn	**P**	**20 03 49.9**	**-1.7**
SGG	**Gregorio Mates**	**9.38**	**317**	*e*Pn	**P**	**20 03 49.9**	**-1.7**
DIVS	**Divcibare**	**9.55**	**347**	⇑*i*P	**P**	**20 03 48.9**	**-5.1**
BRTR	**Keskin Array B**	**9.90**	**57**	Pn	**P**	**20 03 57.3**	**-1.5**
	comp=Z,0.2nm,0.3s,baz=228,slow=15,SNR=5.4						
KZIT	**Kziot**	**10.45**	**109**	P	**P**	**20 04 05.6**	**-0.8**
SLTI	**Sal'it**	**10.48**	**101**	P	**P**	**20 04 05.2**	**-1.6**
AQU	**L'Aquila**	**10.57**	**318**	P	**P**	**20 04 19.6**	**+12**
RTMM	**Retamin**	**10.62**	**107**	P	**P**	**20 04 07.0**	**-1.6**
MLR	**Muntele Rosu**	**10.94**	**12**	Pn	**P**	**20 04 11.0**	**-2.0**
	comp=Z,0.3nm,0.3s,baz=152,slow=17,SNR=5.8						
MLR				LR	LR	20 09 10.2	
	comp=Z,102nm,18.0s,baz=101,slow=43						
DRGI	**Dragot**	**10.97**	**103**	P	**P**	**20 04 11.9**	**-1.6**
MZDA	**Masada**	**11.05**	**105**	P	**P**	**20 04 13.2**	**-1.4**
PRNI	**Paran**	**11.16**	**110**	P	**P**	**20 04 14.8**	**-1.2**
MKRJ	**Makawir**	**11.19**	**103**	P	**P**	**20 04 14.6**	**-1.8**
EIL	**Elat**	**11.44**	**113**	Pn	**P**	**20 04 18.7**	**-1.1**
	comp=Z,1.2nm,0.3s,baz=330,slow=13,SNR=8.0						
EIL				Sn	**S**	**20 06 18.9**	**-8.4**
	comp=Z,0.6nm,0.3s,baz=132,slow=16,SNR=3.5						
EIL	**Elat**	**11.44**	**113**	*e*P	**P**	**20 04 16.0**	**-3.8**
EIL				*e*S	S	20 06 03.6	-24
EIL	**Elat**	**11.44**	**113**	P	**P**	**20 04 18.4**	**-1.4**
AQBJ	**Aqaba**	**11.49**	**113**	P	**P**	**20 04 18.4**	**-2.0**
HAQS	**Haql**	**11.74**	**116**	P	**P**	**20 04 31.5**	**+7.7**
JMOS	**Jabal al Moall**	**11.81**	**115**	P	**P**	**20 04 30.5**	**+5.6**
TAYS	**Tayyib Ism**	**11.97**	**118**	P	**P**	**20 04 29.4**	**+2.5**
ASF	**Jabal al Asfar**	**12.01**	**99**	Pn	**P**	**20 04 26.0**	**-1.5**
	comp=Z,0.5nm,0.3s,baz=118,slow=2.5,SNR=2.6						
ASF				Sn	**S**	**20 06 34.5**	**-6.6**
	comp=Z,0.4nm,0.3s,baz=225,slow=1.4,SNR=3.9						
BDAS	**Al Bad'**	**12.21**	**118**	P	**P**	**20 04 29.4**	**-0.7**
AYUS	**'Aynunah**	**12.46**	**119**	P	**P**	**20 04 36.6**	**+3.0**
JMQS	**Jabal Moqyreh**	**12.53**	**114**	P	**P**	**20 04 32.7**	**-1.8**
MALT	**Malatya**	**13.00**	**70**	*e*P	**P**	**20 04 40.3**	**-0.4**
MALT				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MALT	**Malatya**	**13.00**	**70**	*e*Pn	**P**	**20 04 40.3**	**-0.4**
	comp=Z,2.4nm,0.7s						
PSZ	**Piszkesteto**	**13.30**	**351**	⇓*e*	**P**	**20 04 43.1**	**-1.4**
PSZ	**Piszkesteto**	**13.30**	**351**	*e*P	**P**	**20 04 42.8**	**-1.8**
DBAS	**Duba**	**13.54**	**120**	P	**P**	**20 04 49.0**	**+1.1**
VYHS	**Vyhne**	**14.01**	**349**	*e*PN	**P**	**20 04 56.7**	**+2.9**
KOLS	**Kolonicke sedl**	**14.13**	**358**	*e*PN	**P**	**20 04 56.7**	**+1.3**
CRVS	**Cervenica-Dubn**	**14.13**	**356**	*e*PN	**P**	**20 05 01.4**	**+5.9**
MOA	**Molln**	**14.54**	**336**	⇑*i*P	**P**	**20 04 58.9**	**-1.9**
	comp=Z,11nm,0.8s						
NIE	**Niedzica**	**14.73**	**353**	*e*P	**P**	**20 05 10.2**	**+6.9**
SQTA	**Sankt Quirin**	**15.19**	**328**	⇑*i*P	**P**	**20 05 15.5**	**+6.3**
VRAC	**Vranov**	**15.22**	**344**	Pn	**P**	**20 05 06.3**	**-3.3**
	comp=Z,0.4nm,0.3s,baz=151,slow=18,SNR=3.5						
OKC	**Ostrava-Krasne**	**15.43**	**348**	*e*P	**P**	**20 05 17.4**	**+5.1**
DAVOX	**Davos**	**15.46**	**325**	Pn	**P**	**20 05 12.8**	**0.0**
	comp=Z,0.1nm,0.3s,baz=149,slow=19,SNR=2.1						
MORC	**Moravsky Berou**	**15.47**	**347**	*e*P	**P**	**20 05 15.7**	**+2.8**
MORC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
MORC	**Moravsky Berou**	**15.47**	**347**	*e*P	**P**	**20 05 15.7**	**+2.8**
	comp=Z,6.1nm,0.6s						
OJC	**Ojcow**	**15.58**	**353**	*e*P	**P**	**20 05 17.6**	**+3.4**
GERES	**GERESS Array B**	**15.59**	**337**	Pn	**P**	**20 05 12.4**	**-2.0**
	comp=Z,0.1nm,0.3s,baz=153,slow=12,SNR=9.4						
MBDF	**Montbardon**	**15.83**	**314**	*e*P	**P**	**20 05 14.3**	**-3.2**
	comp=Z,16nm,0.9s						
MBDF	**Montbardon**	**15.83**	**314**	*e*P	**P**	**20 05 14.3**	**-3.2**
MBDF				pmax	pmax		
	comp=Z,8.0nm,0.9s						
DAVA	**Damuels**	**15.83**	**326**	⇑*i*P	**P**	**20 05 19.5**	**+2.0**
	comp=Z,6.7nm,0.7s						
KHC	**Kasperske Hory**	**15.88**	**337**	*e*P	**P**	**20 05 18.5**	**+0.4**
KHC				*e*		20 05 22.2	
KHC	**Kasperske Hory**	**15.88**	**337**	*e*P	**P**	**20 05 18.5**	**+0.4**
KHC				x	x	20 05 22.2	
DPC	**Dobruska-Polom**	**16.26**	**345**	*e*P	**P**	**20 05 26.1**	**+3.2**
LPG	**La Plagne**	**16.28**	**316**	*e*P	**P**	**20 05 23.9**	**+0.8**
	comp=Z,7.2nm,0.9s						
LPG	**La Plagne**	**16.28**	**316**	*e*P	**P**	**20 05 23.9**	**+0.8**
LPG				pmax	pmax		
	comp=Z,4.0nm,0.9s						
LPL	**La Plagne**	**16.30**	**316**	*e*P	**P**	**20 05 24.0**	**+0.6**
PRU	**Pruhonice**	**16.36**	**341**	*e*P	**P**	**20 05 26.8**	**+2.6**
ORIF	**Oris-en-Rattie**	**16.47**	**313**	*e*P	**P**	**20 05 22.7**	**-2.8**
	comp=Z,7.4nm,0.8s						
ORIF	**Oris-en-Rattie**	**16.47**	**313**	*e*P	**P**	**20 05 22.7**	**-2.8**
ORIF				pmax	pmax		
	comp=Z,4.0nm,0.8s						
UPC	**Upice**	**16.48**	**344**	*e*P	**P**	**20 05 23.7**	**-1.9**
AKASG	**Malin Array Be**	**16.56**	**14**	Pn	**P**	**20 05 22.1**	**-4.5**
	comp=Z,0.5nm,0.3s,baz=205,slow=11,SNR=9.6						
AKASG	**Malin Array Be**	**16.56**	**14**	P	**P**	**20 05 22.1**	**-4.5**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KSP	**Ksiaz**	**16.73**	**345**	*e*P	**P**	**20 05 31.4**	**+2.5**
PVCC	**Panska Ves**	**16.84**	**341**	*e*P	**P**	**20 05 32.5**	**+2.2**
GRA1	**Grafenberg Arr**	**17.17**	**334**	*e*P	**P**	**20 05 36.2**	**+1.9**
	comp=Z,52nm,1.2s						
GRF	**Grafenberg Arr**	**17.17**	**334**	*e*P	**P**	**20 05 36.2**	**+1.9**
GRF				pmax	pmax		
	comp=Z,52nm,1.2s						
GRF	**Grafenberg Arr**	**17.17**	**334**	*e*P	**P**	**20 05 36.2**	**+1.9**
GRF				pmax	pmax		
	comp=Z,52nm,1.2s						
GRF	**Grafenberg Arr**	**17.17**	**334**	*e*P	**P**	**20 05 36.2**	**+1.9**
	comp=Z,52nm,1.2s						
STU	**Stuttgart**	**17.25**	**328**	*e*P	**P**	**20 05 36.4**	**+1.1**
STU				pmax	pmax		
	comp=Z,11nm,0.9s						
STU	**Stuttgart**	**17.25**	**328**	*e*P	**P**	**20 05 36.4**	**+1.0**
	comp=Z,10nm,0.9s						
STU	**Stuttgart**	**17.25**	**328**	*e*P	**P**	**20 05 36.3**	**+1.0**
	comp=Z,10nm,0.9s						
CABF	**La Chapelle**	**17.31**	**318**	*e*P	**P**	**20 05 35.0**	**-1.1**
	comp=Z,11nm,0.9s						
CABF	**La Chapelle**	**17.31**	**318**	*e*P	**P**	**20 05 35.0**	**-1.1**
CABF				pmax	pmax		
	comp=Z,6.0nm,0.9s						
BRG	**Berggiesshubel**	**17.33**	**341**	*e*P	**P**	**20 05 36.4**	**+0.1**
BRG				pmax	pmax		
	comp=Z,13nm,1.4s						
BRG	**Berggiesshubel**	**17.33**	**341**	*e*P	**P**	**20 05 36.4**	**+0.1**
	comp=Z,13nm,1.4s						
BRG				*i* P		20 05 45.4	
LASF	**Ste Croix**	**17.33**	**308**	*e*P	**P**	**20 05 35.5**	**-0.9**
HINF	**Hinteralfeld**	**17.67**	**322**	*e*P	**P**	**20 05 34.7**	**-5.9**
	comp=Z,29nm,1.3s						
HINF	**Hinteralfeld**	**17.67**	**322**	*e*P	**P**	**20 05 34.7**	**-5.9**
HINF				pmax	pmax		
	comp=Z,14nm,1.3s						
MOX	**Moxa**	**17.83**	**336**	P	**P**	**20 05 34.3**	**-8.3**
MOX				pmax	pmax		
	comp=Z,28nm,1.8s						
MOX	**Moxa**	**17.83**	**336**	*i* P	**P**	**20 05 34.3**	**-8.3**
	comp=Z,logA/T=1.2						
MOX	**Moxa**	**17.83**	**336**	P	**P**	**20 05 34.3**	**-8.3**
	comp=Z,28nm,1.8s						
CDF	**Champ du Feu**	**17.86**	**324**	*e*P	**P**	**20 05 35.8**	**-7.2**
	comp=Z,14nm,1.0s						
CDF	**Champ du Feu**	**17.86**	**324**	*e*P	**P**	**20 05 35.8**	**-7.2**
CDF				pmax	pmax		
	comp=Z,7.0nm,1.0s						
CLL	**Collm**	**17.98**	**340**	*i* P	**P**	**20 05 45.4**	**+1.0**
CLL				pmax	pmax		
	comp=Z,12nm,1.0s						
CLL	**Collm**	**17.98**	**340**	*i* P	**P**	**20 05 45.4**	**+1.0**
	comp=Z,12nm,1.0s						
CLL				*e*		20 05 58.0	
CLL	**Collm**	**17.98**	**340**	P	**P**	**20 05 45.4**	**+1.0**
	comp=Z,logA/T=1.1						
CLL				*e*PP	PP	20 05 58.0	-1.4
HAU	**Haudompre**	**18.05**	**322**	*e*P	**P**	**20 05 44.5**	**-0.8**
	comp=Z,8.6nm,0.6s						
HAU	**Haudompre**	**18.05**	**322**	*e*P	**P**	**20 05 44.5**	**-0.8**
HAU				pmax	pmax		
	comp=Z,4.0nm,0.6s						
GNI	**Garni**	**18.16**	**66**	LR	LR	20 14 02.6	
	comp=Z,79nm,18.5s,baz=20,slow=42						
SMF	**Signal de Mont**	**18.60**	**315**	*e*P	**P**	**20 05 52.4**	**+0.3**
CAF	**Calviac**	**18.85**	**309**	*e*P	**P**	**20 05 57.0**	**+1.8**
	comp=Z,20nm,1.4s						
CAF	**Calviac**	**18.85**	**309**	*e*P	**P**	**20 05 57.0**	**+1.8**
CAF				pmax	pmax		
	comp=Z,10.0nm,1.4s						
AVF	**Avril sur Loir**	**18.96**	**315**	*e*P	**P**	**20 05 55.1**	**-1.3**
	comp=Z,13nm,1.2s						
AVF	**Avril sur Loir**	**18.96**	**315**	*e*P	**P**	**20 05 55.1**	**-1.3**
AVF				pmax	pmax		
	comp=Z,7.0nm,1.2s						
SSF	**Saint Saulge**	**19.02**	**316**	*e*P	**P**	**20 05 58.4**	**+1.3**
SSF				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SSF	**Saint Saulge**	**19.02**	**316**	*e*P	**P**	**20 05 58.4**	**+1.3**
	comp=Z,1.5nm,0.7s						
MEZF	**Maizieres J'vi**	**19.03**	**321**	*e*P	**P**	**20 05 56.6**	**-0.6**
	comp=Z,15nm,0.7s						
BGF	**Bois d'Agland**	**19.14**	**314**	*e*P	**P**	**20 05 57.6**	**-0.8**
	comp=Z,12nm,0.9s						
BGF	**Bois d'Agland**	**19.14**	**314**	*e*P	**P**	**20 05 57.6**	**-0.8**
BGF				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SUW	**Suwalki**	**19.21**	**1**	*e*P	**P**	**20 05 54.8**	**-4.4**
SUW				pmax	pmax		

	comp=Z,36nm,0.7s						
SUW	Suwalki	19.21	1	eP	P	20 05 54.8	-4.5
	comp=Z,36nm,0.7s						
WLF	Walferdange	19.27	326	eP	P	20 05 59.4	-0.5
WLF				pmax	pmax		
	comp=Z,52nm,1.5s						
WLF	Walferdange	19.27	326	eP	P	20 05 59.4	-0.5
	comp=Z,52nm,1.5s						
WLF	Walferdange	19.27	326	eP	P	20 05 59.4	-0.5
	comp=Z,52nm,1.5s						
EPF	Esparros	19.32	302	eP	P	20 06 01.1	+0.6
RJF	Les Rejaudoux	19.36	309	eP	P	20 06 01.6	+0.6
TCF	Toulx Ste Croi	19.38	313	eP	P	20 06 02.0	+0.9
	comp=Z,8.6nm,1.0s						
TCF	Toulx Ste Croi	19.38	313	eP	P	20 06 02.0	+0.9
TCF				pmax	pmax		
	comp=Z,4.0nm,1.0s						
LFF	La Frestale	19.71	308	eP	P	20 06 05.4	+0.6
ETSF	Etsaut	19.91	301	eP	P	20 06 06.9	0.0
	comp=Z,20nm,1.1s						
ETSF	Etsaut	19.91	301	eP	P	20 06 06.9	0.0
ETSF				pmax	pmax		
	comp=Z,10.0nm,1.1s						
MEM	Membach	20.00	327	P	P	20 06 07.9	+0.1
	comp=Z,10nm,1.5s						
GIVF	Givet	20.20	325	eP	P	20 06 09.7	-0.2
DOU	Dourbes	20.30	324	P	P	20 06 10.5	-0.5
	comp=Z,7.7nm,1.3s						
SJPF	Ste Jean	20.44	301	eP	P	20 06 14.0	+1.5
	comp=Z,25nm,1.0s						
SJPF	Ste Jean	20.44	301	eP	P	20 06 14.0	+1.5
SJPF				pmax	pmax		
	comp=Z,13nm,1.0s						
BAIF	Baives	20.46	324	eP	P	20 06 12.1	-0.5
	comp=Z,14nm,0.8s						
BAIF	Baives	20.46	324	eP	P	20 06 12.1	-0.5
BAIF				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MFF	Saint Martin d	20.97	311	eP	P	20 06 19.7	+1.8
	comp=Z,7.2nm,0.6s						
MFF	Saint Martin d	20.97	311	eP	P	20 06 19.7	+1.8
MFF				pmax	pmax		
	comp=Z,4.0nm,0.6s						
BSD	Bornholm Skovb	21.05	347	i P	P	20 06 16.6	-2.1
ESDC	Sonseca Array	21.87	291	P	P	20 06 26.7	-0.2
	comp=Z,0.5nm,0.6s,mb3.1,baz=82,slow=9.5,SNR=3.0						
ESLA	Sonseca Array	21.87	291	eP	P	20 06 29.6	+2.6
	comp=Z,7.3nm,1.4s,mb3.9						
LDF	La Druitiere	21.90	316	eP	P	20 06 27.2	0.0
	comp=Z,16nm,0.8s,mb4.2						
LDF	La Druitiere	21.90	316	eP	P	20 06 27.2	0.0
LDF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.2						
FLN	La Foliniere	22.19	316	eP	P	20 06 30.3	+0.2
	comp=Z,23nm,0.7s,mb4.4						
FLN	La Foliniere	22.19	316	eP	P	20 06 30.3	+0.2
FLN				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.4						
GRR	Gorron	22.23	315	eP	P	20 06 30.1	-0.3
	comp=Z,18nm,0.9s,mb4.2						
GRR	Gorron	22.23	315	eP	P	20 06 30.1	-0.3
GRR				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.2						
OBN	Obninsk	22.43	21	eP	P	20 06 33.2	+0.8
	comp=Z,32nm,0.7s,mb4.9						
SGMF	Saint Gilles	23.17	313	eP	P	20 06 40.0	+0.4
	comp=Z,26nm,1.0s,mb4.3						
SGMF	Saint Gilles	23.17	313	eP	P	20 06 40.0	+0.4
SGMF				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.3						
MOS	Moscow	23.28	21	eP	P	20 06 39.5	-1.2
MOS				pmax	pmax		
	comp=Z,53nm,1.0s,mb4.9						
QUIF	Quistinic	23.39	312	eP	P	20 06 43.4	+1.6
	comp=Z,16nm,0.9s,mb4.2						
QUIF	Quistinic	23.39	312	eP	P	20 06 43.4	+1.6
QUIF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.2						
ROSF	Rostrenen	23.64	313	eP	P	20 06 45.1	+0.9
	comp=Z,27nm,0.9s,mb4.4						
ROSF	Rostrenen	23.64	313	eP	P	20 06 45.1	+0.9
ROSF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.4						
HFS	Hagfors	26.05	350	P	P	20 07 06.2	-0.9
	comp=Z,5.7nm,0.5s,mb4.3,baz=162,slow=9.4,SNR=21						
FINES	FINESS Array B	26.75	3	P	P	20 07 11.0	-2.5
	comp=Z,2.2nm,0.7s,mb3.8,baz=164,slow=9.7,SNR=12						
NAO01	NORSAR Array S	27.19	347	P	P	20 07 15.9	-1.7
	comp=Z,7.4nm,0.7s,mb4.3						
NAO01	NORSAR Array S	27.19	347	P	P	20 07 15.9	-1.7
	comp=Z,7.4nm,0.7s,mb4.3						
EKA	Eskdalemuir Ar	27.28	327	P	P	20 07 18.0	-0.5
	comp=Z,2.2nm,0.6s,mb3.9,baz=132,slow=7.6,SNR=12						
ESK	Eskdalemuir	27.29	327	eP	P	20 07 18.7	+0.1
NB2	NORSAR Subarra	27.31	348	P	P	20 07 17.1	-1.6
	comp=Z,7.2nm,1.2s,mb4.1,baz=158,slow=9.3						
NB2	NORSAR Subarra	27.31	348	P	P	20 07 17.1	-1.6
NB2				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.1						
NOA	NORSAR Array B	27.31	348	P	P	20 07 19.3	+0.6
	comp=Z,2.8nm,0.6s,mb3.9,baz=152,slow=11,SNR=13						
KAF	Kangasniemi	27.43	4	ep	P	20 07 17.5	-2.2
ARU	Arti	32.48	37	P	P	20 08 03.8	-0.8
ARU				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.5						
ARU	Arti	32.48	37	P	P	20 08 03.8	-0.8
	comp=Z,11nm,1.3s,mb4.5						
ARU	Arti	32.48	37	P	P	20 08 03.8	-0.8
	comp=Z,11nm,1.3s,mb4.5						
ARCES	ARCESS Array B	34.82	2	P	P	20 08 22.7	-2.0
	comp=Z,7.1nm,0.9s,mb4.6,baz=180,slow=1.2,SNR=5.2						
ARE0	ARCESS Array S	34.82	2	eP	P	20 08 22.5	-2.3
ARE0	ARCESS Array S	34.82	2	eP	P	20 08 22.5	-2.2
DBIC	Dimbokro	37.89	229	P	P	20 08 53.4	+2.3
	comp=Z,8.2nm,1.4s,mb4.3,baz=30,slow=16,SNR=3.8						
CHKZ	Chkalovo	38.21	45	eP	P	20 08 53.3	-0.1
CHKZ				e		20 08 59.7	
CHKZ				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
CHKZ	Chkalovo	38.21	45	eP	P	20 08 53.3	-0.1
	comp=Z,7.0nm,0.7s,mb4.5						
CHKZ				e		20 08 59.7	
AML	Almayashu	39.98	64	eP	P	20 09 10.7	+2.5
	comp=Z,7.2nm,1.0s,mb4.4						
EKS2	Erkin-Say	39.98	63	eP	P	20 09 10.2	+2.0
	comp=Z,5.1nm,0.6s,mb4.4						
AAK	Ala-Archa	40.51	63	eP	P	20 09 13.0	+0.4
AAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.3						
AAK	Ala-Archa	40.51	63	eP	P	20 09 13.0	+0.3
	comp=Z,7.2nm,0.9s,mb4.3						
UCH	Uchtor	40.57	64	eP	P	20 09 14.4	+1.3
	comp=Z,2.2nm,0.7s,mb3.9						
TKM2	Tokmak 2	41.28	62	eP	P	20 09 20.2	+1.2
	comp=Z,2.9nm,0.7s,mb4.0						
NVS	Novosibirsk	45.68	45	eP	P	20 09 54.3	-0.1
NVS				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
NVS				pmax	pmax		
	comp=E,6.0nm,0.8s						
GTA	Gaotai	59.79	61	eP	P	20 11 46.1	+6.7
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.4						
SONM	Songino Array	61.17	50	P	P	20 11 48.9	+0.2
	comp=Z,1.4nm,0.9s,mb4.1,baz=273,slow=7.3,SNR=5.2						
BOD	Bodaibo	61.90	37	eP	P	20 11 52.7	-0.7
YAK	Yakutsk	67.13	29	eP	P	20 12 27.0	-0.2
YAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
YAK	Yakutsk	67.13	29	eP	P	20 12 27.0	-0.1
	comp=Z,7.5nm,0.8s,mb4.8						
KMI	Kunming	68.23	74	eP	P	20 12 36.9	+2.2
KMI				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.4						
KMI				LR	LR		
	comp=Z,67nm,28.3s,MS3.7						
YKA	Yellowknife Ar	77.20	341	P	P	20 13 28.6	+1.7
	comp=Z,0.2nm,0.6s,mb3.2,baz=36,slow=5.2,SNR=3.0						
ILAR	Eielson Array	80.44	356	P	P	20 13 46.2	+1.8
	comp=Z,0.9nm,0.9s,mb3.7,baz=343,slow=4.5,SNR=5.8						
ASAR	Alice Springs	119.85	99	PKP	PKPdf	20 20 26.6	+4.2
	comp=Z,0.3nm,0.9s,baz=314,slow=1.9,SNR=3.7						

PRU ***11*** *20:11:18.2,42.93N×14.89E*
ROM ***11*** *20:11:21.5±0.6,43.17N×15.40E,h10^{km},MD3.2/12, ML2.7/7,Error ellipse: s-maj=6.7km s-min=3.9km az=90.0*
NEIC ***11*** *20:11:21.6,43.17N×15.40E,h10^{km},MD3.2(ROM), ML3.1(LDG),After ROM.*
LDG ***11*** *20:11:22.9±0.4,43.25N×15.43E,h10^{km},Ml3.1/9,Error ellipse: s-maj=8.7km s-min=4.4km az=78.0*
CSEM ***11*** *20:11:23.3±0.1,43.20N×15.44E,h40^{km},ML3.1/9,Error ellipse: s-maj=2.5km s-min=2.0km az=91.0*
ISC 11 20:11:20.8±0.4**,43.16N**±0.02×**15.34E**±0.05**,h10**^{km}**,n66, σ1**^{s}**26**/63**,4C,Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVLJ	Novalja	1.45	347	i Pn	Pn	20 11 46.4	-0.7
NVLJ				i Pg	Pg	20 11 47.1	-2.6
NVLJ				i Sg	Sg	20 12 07.7	-1.3
NVLJ	Novalja	1.45	347	i Pg	Pg	20 11 47.1	-2.6
NVLJ				i Sg	Sg	20 12 07.7	-1.3
RGNG	Rignano Grg	1.49	173	ePN	Pn	20 11 46.5	-1.3
RGNG	Rignano Grg	1.49	173	ePn	Pn	20 11 46.5	-1.3
FGMS	Monte Sant'Ang	1.52	162	ePN	Pn	20 11 49.2	+1.0
	200nm,0.5s						
FGMS	Monte Sant'Ang	1.52	162	ePn	Pn	20 11 49.2	+1.0
FGMS	Monte Sant'Ang	1.52	162	ePn	Pn	20 11 49.2	+1.0
	200nm,0.5s						
INTR	Introdacqua	1.56	223	ePN	Pn	20 11 50.0	+1.2
INTR	Introdacqua	1.56	223	ePn	Pn	20 11 50.0	+1.2
CII	Carovilli	1.62	208	ePN	Pn	20 11 52.2	+2.5
STON	Ston	1.75	99	i Pn	Pn	20 11 49.9	-1.6
STON				i Sg	Sg	20 12 13.9	-5.4
STON	Ston	1.75	99	i Sg	Sg	20 12 13.8	-5.5
SNTG	Esanatoglia	1.76	274	ePN	Pn	20 11 51.5	-0.1
	31nm,0.4s						
SNTG	Esanatoglia	1.76	274	ePn	Pn	20 11 51.5	-0.1
SNTG	Esanatoglia	1.76	274	ePn	Pn	20 11 51.5	-0.1
	31nm,0.4s						
ARV	Arcevia	1.78	282	ePN	Pn	20 11 51.8	-0.1
ARV	Arcevia	1.78	282	ePn	Pn	20 11 51.8	-0.2
SDI	San Donato	1.84	219	ePN	Pn	20 11 51.4	-1.3
	52nm,0.6s						
SGG	Gregorio Mates	1.91	202	ePN	Pn	20 11 55.0	+1.3
SGG	Gregorio Mates	1.91	202	ePn	Pn	20 11 55.0	+1.3
BLY	Banja Luka	2.08	39	Pn	Pn	20 11 58.9	+2.7
MNS	Montasola	2.10	249	ePN	Pn	20 11 57.3	+0.8
	30nm,0.7s						
MNS	Montasola	2.10	249	ePn	Pn	20 11 57.3	+0.7
MNS	Montasola	2.10	249	ePn	Pn	20 11 57.3	+0.8
	30nm,0.7s						
TREB	Trebinje	2.25	100	Sn	Sn	20 12 26.1	-0.7
TREB	Trebinje	2.25	100	Pn	Pn	20 11 58.4	-0.3
BOJS	Bojanci	2.35	359	ePn	Pn	20 12 01.0	+0.9
BOJS				eSn	Sn	20 12 34.2	+5.0
SISC	Sisak	2.43	17	i Pn	Pn	20 12 00.1	-1.1
SISC				i Sg	Sg	20 12 36.8	-5.0
SISC	Sisak	2.43	17	i Pn	Pn	20 12 00.1	-1.1
VISS	Visnje	2.67	352	ePn	Pn	20 12 05.5	+0.8
VISS				eSn	Sn	20 12 38.8	+1.4
VISS	Visnje	2.67	352	ePn	Pn	20 12 05.4	+0.7
PGD	Poggio Sodo	2.73	287	ePN	Pn	20 12 06.7	+1.2
	11nm,0.5s						
PGD	Poggio Sodo	2.73	287	ePn	Pn	20 12 06.7	+1.2
PGD	Poggio Sodo	2.73	287	ePn	Pn	20 12 06.7	+1.2
	11nm,0.5s						
VOY	Vojsko	3.06	341	e(Pn)	Pn	20 12 07.9	-2.2
VOY				e		20 12 09.9	
VOY				e		20 12 16.5	
VOY				e(Sn)	Sn	20 12 48.4	+1.3
VOY				e		20 13 02.6	
OBKA	Obir	3.40	351	⇑iPN	Pn	20 12 15.5	+0.5
OBKA				i SN	Sn	20 12 57.1	+1.3
RHK1	Bakonya	3.53	33	eP	Pn	20 12 19.9	+3.1
RHK1				eS	Sn	20 13 00.2	+1.1
RHK1	Bakonya	3.53	33	eS	Sn	20 13 00.2	+1.1
	1.8nm,0.4s						
PTCC	Patocco-Chiusa	3.54	337	ePN	Pn	20 12 16.4	-0.7
	26nm,0.6s						
PTCC	Patocco-Chiusa	3.54	337	ePn	Pn	20 12 16.4	-0.6
PTCC	Patocco-Chiusa	3.54	337	ePn	Pn	20 12 16.4	-0.7
	26nm,0.6s						
PKSM	Moragy	3.86	36	eP	Pn	20 12 20.8	-0.7
FVI	Forni Avoltri	3.89	333	ePN	Pn	20 12 21.1	-0.9
	14nm,0.5s						
FVI	Forni Avoltri	3.89	333	ePn	Pn	20 12 21.1	-0.9
FVI	Forni Avoltri	3.89	333	ePn	Pn	20 12 21.1	-0.9
	14nm,0.5s						
ARSA	Arzberg	4.10	2	⇑iPN	Pn	20 12 24.1	-0.8
ARSA				i SN	Sn	20 13 14.8	+1.3
KBA	Koelnbreinsper	4.17	341	⇑iPN	Pn	20 12 25.5	-0.4
KBA				i SN	Sn	20 13 13.5	-1.8
PGF	Pioggiola	4.70	265	ePn	Pn	20 12 33.0	-0.5
PGF				eSn	Sn	20 13 25.7	-3.1
	17nm,0.9s						
MOA	Molln	4.75	351	⇑iPN	Pn	20 12 34.0	-0.3
MOA				i SN	Sn	20 13 30.9	+0.8
KHC	Kasperske Hory	6.10	349	ePN	Px	20 12 50.9	
KHC				ex	x	20 13 00.7	
KHC				eSN	Sx	20 13 58.7	
FRF	La Foret Royal	6.35	277	ePn	Px	20 12 54.5	
MBDF	Montbardon	6.38	287	ePn	Px	20 12 53.8	
MBDF				eSn	Sx	20 14 05.3	
	4.5nm,0.7s						
MBDF	Montbardon	6.38	287	eSn	Sx	20 14 05.3	
	2.2nm,0.7s						
LMR	La Mourre	6.45	275	ePn	Px	20 12 56.3	
LPG	La Plagne	6.59	294	ePn	Px	20 12 58.2	
LPG				eSn	Sx	20 14 09.9	
	9.3nm,0.6s						
LPL	La Plagne	6.61	294	ePn	Px	20 12 57.9	
LPL				eSn	Sx	20 14 10.4	
	4.9nm,0.5s						
ORIF	Oris-en-Rattie	7.04	288	ePn	Px	20 13 04.8	
ORIF				eSn	Sx	20 14 21.0	
	1.5nm,0.4s						
CABF	La Chapelle	7.42	301	ePn	Px	20 13 08.1	
CABF				eSn	Sx	20 14 29.1	
	4.7nm,0.7s						
HINF	Hinteralfeld	7.57	311	ePn	Px	20 13 10.2	
CDF	Champ du Feu	7.70	316	ePn	Px	20 13 12.7	
VIVF	Saint-Julien-l	7.88	286	ePn	Px	20 13 15.2	
VIVF				eSn	Sx	20 14 40.6	
	0.8nm,0.4s						
HAU	Haudompre	7.95	311	ePn	Px	20 13 15.4	
HAU				eSn	Sx	20 14 41.7	
	7.2nm,0.5s						
CLL	Collm	8.31	350	eSG	Sx	20 15 53.0	
SMF	Signal de Mont	8.87	297	ePn	Px	20 13 27.3	
SMF				eSn	Sx	20 15 03.7	
	0.5nm,0.2s						
AVF	Avril sur Loir	9.24	297	ePn	Px	20 13 32.3	
BGF	Bois d'Agland	9.50	295	ePn	Px	20 13 36.0	

NEIC ***11*** *20:12:39.0,19.22N×64.63W,h25^{km},MD3.5(RSPR), After RSPR.*
RSPR 11 20:12:39.0,19.22N×64.63W,h25^{km}±28^{km}**,MD3.5**/6**, MD3.5**/6**,7C-2D,Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTP	Monte Pirata	1.42	218	eS	Sn	20 13 18.8	-2.8
MTP	Monte Pirata	1.42	218	⇓eP	Pn	20 13 00.6	-3.0
MTP				eS	Sn	20 13 18.8	-2.8
CBYP	Canovanas	1.49	231	eS	Sn	20 13 20.5	-3.0
CBYP	Canovanas	1.49	231	⇑eP	Pn	20 13 01.8	-2.8
CBYP				eS	Sn	20 13 20.5	-3.0
CSB	Colonia Sabana	1.71	238	⇑eP	Pn	20 13 05.4	-2.4
CSB				eS	Sn	20 13 25.6	-3.5
SJG	San Juan	1.81	233	eS	Sn	20 13 27.7	-3.9
SJG	San Juan	1.81	233	⇑eP	Pn	20 13 07.0	-2.2
SJG				eS	Sn	20 13 28.1	-3.5
SJG	San Juan	1.81	233	⇑eP	Pn	20 13 06.6	-2.5
SJG				eS	Sn	20 13 27.7	-3.9
CELP	Cerrillos	2.17	239	⇓eP	Pn	20 13 11.4	-2.8
CELP				eS	Sn	20 13 37.2	-3.4
PORP	Portuguez	2.23	239	⇑eP	Pn	20 13 13.0	-2.2
PORP				eS	Sn	20 13 38.7	-3.4
LSP	Las Mesas	2.55	246	eS	Sn	20 13 46.7	-3.5
LSP	Las Mesas	2.55	246	⇑eP	Pn	20 13 17.4	-2.3
LSP				eS	Sn	20 13 46.7	-3.5
MGP	Maguayo	2.62	243	⇑eP	Pn	20 13 18.3	-2.5

BJI ***11*** *21:03:17.8,39.20N×21.70E,h13^{km},mB5.1,mb4.8*
IDC ***11*** *21:03:18.2±0.6,39.19N×21.65E,mb4.3/17,mb1 4.4/28, mb1mx4.3/31,ML4.0/11,MS3.7/13,Ms1 3.7/13, ms1mx3.6/24,Error ellipse: s-maj=12.1km s-min=10.3km az=76.0*
MOS ***11*** *21:03:18.4±1.1,39.23N×21.62E,h10^{km},mb4.7/13,Error ellipse: s-maj=3.9km s-min=2.6km az=111.3*
ATH ***11*** *21:03:18.7,39.24N×21.67E,h14^{km}±3^{km},MD4.1/20, ML4.2*
THE ***11*** *21:03:18.7,39.12N×21.58E,h10^{km},ML4.3*
PDG ***11*** *21:03:19.7±0.5,39.23N×21.65E,h11^{km}±1^{km}*
CSEM ***11*** *21:03:19.9±0.1,39.28N×21.61E,h20^{km},mb4.3/19,Ms3.0, Error ellipse: s-maj=1.6km s-min=0.9km az=30.0*
NEIC ***11*** *21:03:20.8±0.7,39.20N×21.66E,h13^{km}±5^{km},mb4.4/45, ML4.3(PDG),ML4.2(ATH),ML4.2(THE),Error ellipse: s-maj=3.3km s-min=2.0km az=203.0*
ZUR_RM ***11*** *21:03:20,39.21N×21.66E,h12^{km},Mw4.5/11,Moment Tensor Solution. s11 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-0.61; M$_{\theta\theta}$-0.10; M$_{\phi\phi}$0.71; M$_{r\theta}$-5.13; M$_{\theta\phi}$-1.62; M$_{\phi r}$2.13; Best double couple: M$_{0}$5.81×10^{15} NP1:φ$_{s}$112°,δ86°, λ-104°. NP2:φ$_{s}$5°,δ15°,λ-17°. Principal axes: T 6.092, Plg39°, Azm215°; N -.565, Plg14°, Azm113°; P -5.527, Plg47°, Azm6°;*
ISC 11 21:03:18.9±0.4**,39.21N**±0.01×**21.64E**±0.01**,h12**^{km}±3^{km}**, n448,σ1**^{s}**28**/516**,mb4.5**/55**,MS3.8**/10**,41C-21D,Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EVR	Evrytania	0.32	156	⇑iPB	Pb	21 03 25.6	-0.5
EVR				eSB	Sb	21 03 30.2	-0.7
AGG	Agios Georgios	0.57	109	ePg	Pg	21 03 30.7	+0.3
AGG	Agios Georgios	0.57	109	P	Pb	21 03 30.8	+0.5
MEV	Metsovon	0.66	331	ePg	Pg	21 03 31.6	-0.5
MEV	Metsovon	0.66	331	P	Pb	21 03 31.7	-0.1
JAN	Janina	0.76	306	⇓iPB	Pb	21 03 33.9	+0.4
JAN				eSB	Sb	21 03 43.1	-0.5
LKD	Levkas	0.92	237	ePg	Pg	21 03 33.8	-3.7
LKD	Levkas	0.92	237	P	Pb	21 03 33.7	-2.7
IGT	Igoumenitsa	1.07	288	ePg	Pg	21 03 38.6	-1.6
IGT				eSg	Sg	21 03 54.0	-0.5
IGT	Igoumenitsa	1.07	288	P	Pb	21 03 38.8	0.0
IGT				S	Sg	21 03 54.0	-0.5
KZN	Kozani	1.10	5	⇑iPN	Pn	21 03 39.5	-0.6
KZN				eSB	Sb	21 03 54.0	+0.5
LIT	Litokhoron	1.10	36	ePb	Pb	21 03 39.7	+0.3
LIT				eSb	Sb	21 03 57.6	+4.1
LIT	Litokhoron	1.10	36	S	Sb	21 03 57.6	+4.0
RLS	Riolos of Patr	1.16	187	⇓iPB	Pn	21 03 41.1	+0.2
RLS	Riolos of Patr	1.16	187	⇓Pn	Pn	21 03 41.1	+0.2
RLS				Sn	Sn	21 03 58.8	+2.0
RLS	Riolos of Patr	1.16	187	Sn	Sn	21 03 58.8	+2.0
LKR	Lokris	1.20	117	⇓iPB	Pb	21 03 42.4	+1.4
XOR	Xorichti	1.21	82	ePb	Pb	21 03 42.0	+0.7
XOR	Xorichti	1.21	82	P	Pb	21 03 42.2	+0.9
NEO	Neokhori	1.23	85	⇑iPB	Pn	21 03 42.4	+0.5
NEO	Neokhori	1.23	85	⇑Pn	Pn	21 03 42.4	+0.5
NEO				Sn	Sn	21 03 59.8	+1.2
VLS	Valsamata	1.32	219	⇑iPN	Pn	21 03 42.7	-0.6
SRN	Sarande	1.44	298	i Pn	Pn	21 03 47.0	+2.1
SRN				i Sn	Sn	21 04 08.9	+5.1
KEK	Kerkira	1.51	290	⇓iPB	Pb	21 03 48.0	+1.5
KEK	Kerkira	1.51	290	⇓Pn	Pn	21 03 48.8	+2.8
KEK				Sn	Sn	21 04 09.7	+3.9
KBN	Korca	1.56	335	i Pn	Pn	21 03 49.2	+2.6
KBN				i Sn	Sn	21 04 11.3	+4.4
KBN	Korca	1.56	335	ePn	Pn	21 03 49.2	+2.6
FNA	Florina	1.58	353	ePb	Pb	21 03 48.1	+0.4
FNA				eSb	Sb	21 04 09.1	+1.5
TPE	Tepelena	1.66	311	i Pn	Pn	21 03 52.5	+4.4
TPE				i Sn	Sn	21 04 14.3	+4.8
TPE	Tepelena	1.66	311	ePn	Pn	21 03 52.5	+4.4
PAIG	Paliouri	1.73	65	ePb	Pb	21 03 49.0	-1.2
THE	Thessaloniki	1.75	35	ePb	Pb	21 03 49.4	-1.0
MGER	Gerania Oros	1.76	134	ePN	Pn	21 03 50.5	+1.0
MGER	Gerania Oros	1.76	134	ePb	Pb	21 03 50.0	-0.7
PLG	Polygyros	1.81	50	⇑iPN	Pn	21 03 50.2	0.0
PLG				eSN	Sn	21 04 13.6	+0.3
PLG	Polygyros	1.81	50	⇑Pn	Pn	21 03 50.2	0.0
PLG				Sn	Sn	21 04 12.9	-0.4
BIA	Bitola	1.82	352	⇑iPn	Pn	21 03 53.0	+2.6
BIA				i		21 04 00.1	
BIA				i		21 04 07.8	
BIA				i Sn	Sn	21 04 17.3	+3.7
BIA				i		21 04 20.5	
BIA				i		21 04 23.5	
GRG	Griva	1.84	18	ePb	Pb	21 03 50.8	-1.2
GRG				eSb	Sb	21 04 17.0	+2.1
NSAL	Nisos Salamina	1.93	132	ePN	Pn	21 03 53.2	+1.2
NSAL	Nisos Salamina	1.93	132	ePn	Pn	21 03 55.0	+3.0
MPAR	Parnis Oros	1.95	122	ePN	Pn	21 03 53.5	+1.3
OHR	Ohrid	2.00	341	ePn	Pn	21 03 55.8	+2.8
OHR				i		21 03 57.6	
OHR				eSn	Sn	21 04 21.7	+3.4
OHR				e		21 04 25.9	
ITM	Ithomi	2.04	174	⇓iPG	Pg	21 03 56.5	-3.1
ITM	Ithomi	2.04	174	⇓Pn	Pn	21 03 56.7	+3.2
ITM				Sn	Sn	21 04 21.0	+1.8
ATH	Athens Observa	2.04	127	⇑iPN	Pn	21 03 55.0	+1.4
NAIG	Nisos Aigina	2.05	134	ePN	Pn	21 03 55.0	+1.3
SOH	Sokhos	2.08	39	ePn	Pn	21 03 54.7	+0.6
VLO	Vlora	2.08	308	ePn	Pn	21 03 59.0	+4.9
PTL	Penteli	2.09	123	ePN	Pn	21 03 55.5	+1.2
OUR	Ouranopolis	2.12	57	ePn	Pn	21 03 55.1	+0.4
KNT	Kendrikon	2.17	26	ePn	Pn	21 03 56.2	+0.7
VAY	Valandovo	2.22	18	i Pn	Pn	21 03 56.8	+0.6
VAY				i Sn	Sn	21 04 24.6	+0.8
VAY				i		21 04 31.9	
SRS	Serrai	2.42	37	ePn	Pn	21 03 59.0	+0.1
TIR	Tirane	2.53	328	ePn	Pn	21 04 03.9	+3.3
TIR				i Sn	Sn	21 04 38.0	+6.4
QSH	Qafa e Shtames	2.66	331	i Pn	Pn	21 04 07.0	+4.6
PRZA	Preza	2.68	326	ePn	Pn	21 04 11.0	+8.3
VLI	Veliai	2.69	157	⇑iPB	Pb	21 04 04.6	-2.0
NVR	Nevrokopi	2.73	38	⇑iPN	Pn	21 04 03.9	+0.5
SKO	Skopje	2.76	357	⇑iP	Pn	21 04 05.3	+1.4
SKO				i S	Sb	21 04 44.5	+2.7
SKO	Skopje	2.76	357	⇑iPn	Pn	21 04 05.3	+1.4
SKO				i Pb	Pb	21 04 11.1	+3.3
SKO				i Pg	Pg	21 04 13.5	-0.5
SKO				i Sn	Sn	21 04 39.7	+2.2
SKO				i Sb	Sb	21 04 44.5	+2.7
SKO				i Sg	Sg	21 04 50.3	-0.6
SKO				Lg		21 04 55.0	
	comp=Z,0.4nm,0.9s						
LIA	Limnos Island	2.82	75	⇓iPN	Pn	21 04 04.6	-0.1
LACI	Lac	2.84	329	ePn	Pn	21 04 06.9	+2.0
LACI				i Sn	Sn	21 04 42.7	+3.3
MMB	Musomiste	2.86	33	i P	Pn	21 04 05.0	-0.2
KKB	Krupnik	2.87	22	i P	Pn	21 04 05.0	-0.4
LCI	Lecce	2.94	294	ePn	Pn	21 04 08.8	+2.3
KYTH	Kithira	3.13	159	ePb	Pb	21 04 13.0	-1.1
PUK	Puka	3.13	335	i Pn	Pn	21 04 13.0	+4.0
PUK				i Sn	Sn	21 04 52.9	+6.2
ULC	Ulcinj	3.30	327	⇑iPn	Pn	21 04 13.1	+1.6
ULC				eSn	Sn	21 04 53.2	+2.2
BCI	Bajram Curri	3.37	340	i p	Pn	21 04 16.5	+4.0
RZN	Rozhen	3.41	42	i P	Pn	21 04 13.0	0.0
VTS	Vitosha	3.58	19	i P	Pn	21 04 16.0	+0.5
PRK	Paraskevi	3.59	88	⇓iPN	Pn	21 04 16.2	+0.5
PVY	Plav	3.61	340	⇑iPn	Pn	21 04 17.5	+1.6
PVY				eSn	Sn	21 05 00.5	+1.6
EZN	Ezine	3.67	79	i P	Pn	21 04 17.2	+0.4
TTG	Podgorica	3.69	331	⇑iPn	Pn	21 04 18.4	+1.4
TTG				eSn	Sn	21 05 02.2	+1.3
PLD	Plovdiv	3.71	38	i P	Pn	21 04 18.0	+0.7
BUM	Brajici-Budva	3.72	327	ePn	Pn	21 04 18.6	+1.1
BUM				eSn	Sn	21 05 03.4	+1.6
APE	Apeiranthos	3.74	124	P	Pn	21 04 18.1	+0.4
APE	Apeiranthos	3.74	124	⇓iPN	Pn	21 04 18.2	+0.5
APE	Apeiranthos	3.74	124	P	Pn	21 04 18.1	+0.4
APE				⇓Pb	Pb	21 04 21.5	-3.0
KDZ	Kurdzhali	3.77	49	i P	Pn	21 04 16.0	-2.2
ALN	Alexandroupoli	3.77	62	ePn	Pn	21 04 17.5	-0.7
ALN				eSn	Sn	21 05 03.0	-0.1
ALN	Alexandroupoli	3.77	62	P	Pn	21 04 17.4	-0.8
ALN				S	Sn	21 05 03.0	-0.1
ALN	Alexandroupoli	3.77	62	S	Sn	21 05 03.0	-0.1
TIP	Timpagrande	3.80	271	ePn	Pn	21 04 19.0	+0.4
TIP				Sn	Sn	21 04 52.5	-11

PGB	Panagyurishte	3.84	29	iP	Pn	21 04 19.0	-0.2
IVA	Berane	3.89	341	⇑iPn	Pn	21 04 21.2	+1.3
IVA				eSn	Sn	21 05 07.5	+1.5
AYVA	Ayvalik	3.92	87	iP	Pn	21 04 20.7	+0.4
LTRZ	Laterza	3.96	292	ePn	Pn	21 04 22.3	+1.4
HCY	Herceg Novi	4.02	325	⇑iPn	Pn	21 04 22.3	+0.6
HCY				eSn	Sn	21 05 09.7	+0.4
GRI	Girifalco	4.09	266	ePn	Pn	21 04 23.2	+0.5
DIM	Dimitrovgrad	4.10	45	iP	Pn	21 04 22.0	-0.9
ORI	Oriolo Calabro	4.10	284	ePn	Pn	21 04 23.7	+0.8
NKY	Niksic	4.12	332	⇑iPn	Pn	21 04 24.1	+1.0
NKY				eSn	Sn	21 05 12.2	+0.4
SANT	Santorini	4.14	132	Pn	Pn	21 04 25.9	+2.4
SANT	Santorini	4.14	132	Pn	Pn	21 04 25.9	+2.4
BLCB	Balcova	4.30	99	P	Pn	21 04 27.0	+1.3
TREB	Trebinje	4.30	326	Pn	Pn	21 04 25.8	+0.1
VAM	Vamos	4.31	151	⇓iPN	Pn	21 04 28.6	+2.7
SMG	Samos	4.34	109	ePN	Pn	21 04 27.2	+0.9
BRY	Bratogost	4.37	329	⇑iPn	Pn	21 04 27.8	+1.1
BRY				eSn	Sn	21 05 18.8	+0.7
PLE	Pljevlja	4.45	338	⇑iPn	Pn	21 04 29.2	+1.3
PLE				eSn	Sn	21 05 20.8	+0.6
IZM	Izmir	4.46	99	P	Pn	21 04 29.1	+1.0
KDAG	Bornova	4.47	99	iP	Pn	21 04 29.2	+1.2
UPM	Unac-Piva	4.49	334	⇑iPn	Pn	21 04 29.7	+1.3
UPM				eSn	Sn	21 05 21.6	+0.4
SART	Tekirdag	4.50	69	iP	Pn	21 04 25.8	-2.8
SOI	Samo	4.52	257	ePn	Pn	21 04 29.2	+0.3
NVSS	Nova Varos 2	4.54	342	⇓iPn	Pn	21 04 30.1	+1.1
NVSS				Sn	Sn	21 05 12.8	-10
NVSS	Nova Varos 2	4.54	342	Sn	Sn	21 05 12.8	-10
BOLS	Boljevac	4.62	3	⇑iPn	Pn	21 04 29.6	-0.6
BOLS				Sn	Sg	21 05 49.1	-3.7
EDRB	Edirne	4.69	54	P	Pn	21 04 30.3	-1.0
IDI	Anoyia	4.69	146	Pn	Pn	21 04 30.9	-0.5
	comp=Z,2.8nm,0.3s,baz=5.3,slow=12,SNR=16						
IDI				Sn	Sn	21 05 24.6	-1.8
	comp=Z,11nm,0.3s,baz=312,slow=18,SNR=4.3						
STON	Ston	4.72	322	iPn	Pn	21 04 32.2	+0.5
STON				iSn	Sn	21 05 26.0	-1.0
STON				iSg	Sg	21 05 50.2	-5.8
GRUS	Gruza	4.72	352	⇑iPn	Pn	21 04 31.7	-0.1
GRUS				Sn	Sg	21 05 51.4	-4.8
SCLL	Scilla	4.73	260	ePn	Pn	21 04 32.2	+0.3
SCLL	Scilla	4.73	260	ePn	Pn	21 04 32.2	+0.3
SLCN	Sala Consilina	4.78	286	ePn	Pn	21 04 34.1	+1.6
SLCN	Sala Consilina	4.78	286	ePn	Pn	21 04 34.1	+1.6
GVD	Gavdhos	4.78	155	ePN	Pn	21 04 33.8	+1.2
GVD	Gavdhos	4.78	155	ePn	Pn	21 04 33.6	+1.1
GVD				eSn	Sn	21 05 26.6	-2.0
GVD	Gavdhos	4.78	155	ePn	Pn	21 04 33.6	+1.1
GVD				eSn	Sn	21 05 26.5	-2.1
MGR	Morigerati	4.79	283	ePn	Pn	21 04 33.9	+1.3
MGR	Morigerati	4.79	283	ePn	Pn	21 04 33.9	+1.2
AKS	Akhisar	4.81	92	P	Pn	21 04 33.8	+0.8
BALB	Balikesir	4.85	83	P	Pn	21 04 34.2	+0.7
EDC	Edincik	4.92	75	eP	Pn	21 04 35.2	+0.6
JMB	Yambol	4.96	47	iP	Pn	21 04 33.0	-2.1
BNT	Bandirma	4.97	75	eP	Pn	21 04 34.7	-0.5
BTOK	Tokmak	4.97	82	iP	Pn	21 04 35.7	+0.4
MRLC	Muro Lucano	4.97	290	ePn	Pn	21 04 36.3	+1.0
MRLC	Muro Lucano	4.97	290	ePn	Pn	21 04 36.3	+1.0
FGMS	Monte Sant'Ang	5.01	302	ePn	Pn	21 04 36.7	+1.0
FGMS	Monte Sant'Ang	5.01	302	ePn	Pn	21 04 36.7	+1.0
DIVS	Divcibare	5.04	346	⇓iPn	Pn	21 04 36.6	+0.4
DIVS				Sg	Sb	21 05 52.4	+4.6
SGO	Sicignano	5.06	287	ePn	Pn	21 04 37.6	+1.2
SVIS	Svilajnac	5.09	357	ePn	Pn	21 04 35.3	-1.6
SVIS				Sn	Sn	21 05 27.6	-8.8
SVIS	Svilajnac	5.09	357	Sn	Sn	21 05 27.5	-8.9
SZH	Strazhica	5.18	37	iP	Pn	21 04 37.0	-1.2
RGNG	Rignano Grg	5.24	300	ePn	Pn	21 04 39.7	+0.7
RGNG	Rignano Grg	5.24	300	ePn	Pn	21 04 39.7	+0.7
KCT	Karacabey	5.28	76	eP	Pn	21 04 39.1	-0.5
FG5	Orsara di Pugl	5.30	295	ePn	Pn	21 04 41.3	+1.4
SLNA	Salina	5.35	265	ePn	Pn	21 04 40.1	-0.5
SLNA	Salina	5.35	265	ePn	Pn	21 04 40.1	-0.5
DST	Dursunbey	5.42	84	eP	Pn	21 04 42.4	+0.8
MRB1	Monte Rocchett	5.46	293	ePn	Pn	21 04 43.5	+1.4
MRB1	Monte Rocchett	5.46	293	ePn	Pn	21 04 43.5	+1.4
YER	Yerkesik	5.63	110	eP	Pn	21 04 45.5	+1.0
PZI	Palazzolo	5.70	250	eP	Pn	21 04 42.8	-2.7
OVO	Vesuviano	5.79	288	ePn	Pn	21 04 48.5	+1.7
ULDT	Uludag	5.86	78	iP	Pn	21 04 48.0	+0.3
PRD	Provadia	5.89	46	iP	Pn	21 04 45.0	-3.2
VAE	Valguarnera	5.94	255	Pn	Pn	21 04 47.6	-1.3
	comp=Z,2.6nm,0.3s,baz=82,slow=10,SNR=7.5						
VAE				Sn	Sn	21 05 58.2	+0.5
	comp=Z,9.3nm,0.3s,baz=82,slow=16,SNR=3.9						
VAE				LR	LR	21 07 11.1	
	comp=Z,163nm,20.5s,baz=326,slow=39						
SGG	Gregorio Mates	5.96	294	ePn	Pn	21 04 50.7	+1.5
DENT	Denizli	5.98	102	eP	Pn	21 04 50.3	+0.9
DNZL	Cakiroluk	6.00	102	iP	Pn	21 04 51.4	+1.6
CSLB	Castelbuono	6.08	260	ePn	Pn	21 04 50.6	-0.2
CII	Carovilli	6.13	296	ePn	Pn	21 04 52.7	+1.1
CII	Carovilli	6.13	296	ePn	Pn	21 04 52.7	+1.1
MSC	Monte Massico	6.20	291	ePn	Pn	21 04 53.4	+0.9
MSC	Monte Massico	6.20	291	ePn	Pn	21 04 53.4	+0.9
RFI	Roccamonfina	6.22	292	ePn	Pn	21 04 53.8	+0.9
RFI	Roccamonfina	6.22	292	ePn	Pn	21 04 53.8	+1.0
HRT	Hereke	6.37	73	eP	Pn	21 04 54.9	0.0
FETY	Fethiye	6.42	111	eP	Pn	21 04 57.6	+2.0
SDI	San Donato	6.47	295	eP	Pn	21 04 57.8	+1.4
INTR	Introdacqua	6.52	298	ePn	Pn	21 04 57.9	+0.8
INTR	Introdacqua	6.52	298	ePn	Pn	21 04 57.9	+0.8
ALT	Altintas	6.58	89	eP	Pn	21 04 58.9	+0.9
PSN	Preselentsi	6.64	46	iP	Pn	21 04 57.0	-1.8
PTQR	Pietraquaria	6.87	297	ePn	Pn	21 05 02.9	+0.8
PTQR	Pietraquaria	6.87	297	ePn	Pn	21 05 02.8	+0.8
ISR	Istrita	6.93	30	⇑iP	Pn	21 05 03.7	+0.8
ELL	Elmali	6.97	108	P	Pn	21 05 04.5	+1.0
AQU	L'Aquila	7.00	299	eP	Pn	21 05 04.8	+1.0
MLR	Muntele Rosu	7.04	26	Pn	Pn	21 05 04.9	+0.5
	comp=Z,2.9nm,0.3s,baz=306,slow=19,SNR=21						
MLR				Lg		21 07 02.5	
	baz=133,slow=22,SNR=1.8						
MLR				LR	LR	21 07 57.4	
	comp=Z,322nm,21.8s,baz=214,slow=40						
ISP	Isparta	7.08	98	eP	Pn	21 05 06.2	+1.2
CERT	Cerreto	7.14	295	ePn	Pn	21 05 07.6	+1.9
ESKT	Eskisehir	7.14	85	eP	Pn	21 05 05.8	0.0
ESKT	Eskisehir	7.14	85	iP	Pn	21 05 06.3	+0.6
HARR	Harsova	7.20	39	⇑iP	Pn	21 05 09.6	+2.9
HARR	Harsova	7.20	39	⇑iP	Pn	21 05 09.6	+2.9
HARR	Harsova	7.20	39	⇑iP	Pn	21 05 06.6	-0.1
BCK	Bucak	7.25	101	eP	Pn	21 05 07.7	+0.4
HENT	Hendek	7.28	74	iP	Pn	21 05 11.8	+4.0
PKSM	Moragy	7.34	343	⇑iP	Pn	21 05 08.0	-0.6
PKSM				eS	Sn	21 06 29.5	-3.1
NVLJ	Novalja	7.36	319	iPn	Pn	21 05 07.9	-1.0
NVLJ	Novalja	7.36	319	iPn	Pn	21 05 07.8	-1.0
RHK1	Bakonya	7.37	340	⇓eP	Pn	21 05 08.0	-0.9
MNS	Montasola	7.50	298	eP	Pn	21 05 11.8	+0.9
CING	Cingoli	7.60	306	ePn	Pn	21 05 11.1	-1.2
CING	Cingoli	7.60	306	ePn	Pn	21 05 11.1	-1.1
VRI	Vrincioaia	7.63	28	⇓iP	Pn	21 05 13.5	+0.8
CFR	Carcaliu	7.66	37	⇓iP	Pn	21 05 15.6	+2.5
CFR	Carcaliu	7.66	37	⇓iP	Pn	21 05 15.6	+2.5
CFR	Carcaliu	7.66	37	⇑iP	Pn	21 05 13.4	+0.3
SNTG	Esanatoglia	7.70	304	ePn	Pn	21 05 13.3	-0.3
SNTG	Esanatoglia	7.70	304	ePn	Pn	21 05 13.3	-0.4
PKSN	Nyarlorinc	7.79	351	⇑eP	Pn	21 05 14.5	-0.4
ARV	Arcevia	7.82	306	ePn	Pn	21 05 14.2	-1.1
ARV	Arcevia	7.82	306	ePn	Pn	21 05 14.2	-1.1
BOJS	Bojanci	7.87	325	iPn	Pn	21 05 14.7	-1.3
KIZT	Kizilcal	7.97	89	P	Pn	21 05 17.4	-0.1
CRES	Cresnjev	8.03	327	ePn	P	21 05 16.7	-1.5
CRES				Sn	Sn	21 06 45.1	-4.9
CRES	Cresnjev	8.03	327	ePn	P	21 05 16.7	-1.6
CRES				Sn	Sn	21 06 45.1	-4.9
LEGS	Legarje	8.19	327	iPn	P	21 05 18.6	-1.8
CEY	Cerknica	8.42	323	ePn	P	21 05 22.1	-1.6
CEY				eSn	Sn	21 06 55.5	-4.2
	comp=Z,278nm,1.4s						
KONT	Konya--Tatoy	8.49	95	eP	P	21 05 24.4	-0.2
CRE	Caprese Michel	8.51	304	eP	P	21 05 26.4	+1.5
PKSG		8.51	345	⇑eP	P	21 05 24.8	-0.2
LJU	Ljubljana	8.61	325	iPn	P	21 05 25.4	-0.8
SFI	Santa Sofia	8.71	306	eP	P	21 05 28.0	+0.3
TRI	Trieste	8.72	321	ePn	P	21 05 26.3	-1.5
PGD	Poggio Sodo	8.78	305	eP	P	21 05 29.3	+0.7
PSZ	Piszkesteto	8.80	352	ePn	P	21 05 27.6	-1.3
PSZ				eSn	Sn	21 07 03.1	-5.9
PSZ	Piszkesteto	8.80	352	ePn	P	21 05 27.6	-1.3
CSNT	Castellina Chi	8.87	302	ePn	P	21 05 31.4	+1.4
VOY	Vojsko	8.89	323	eSn	Sn	21 07 06.3	-5.0
VOY	Vojsko	8.89	323	eSn	Sn	21 07 06.3	-5.0
SRO	Srobarova	8.93	345	ePN	P	21 05 31.6	+0.8
SRO				eSN	Sn	21 07 11.1	-1.3
VMG	Vicchio	8.93	305	ePn	P	21 05 31.8	+1.0
OBKA	Obir	8.96	327	⇑iPN	P	21 05 30.3	-0.8
OBKA				iSN	Sn	21 07 08.3	-4.7
SEI	Scarperia	9.09	305	ePn	P	21 05 33.9	+0.9
CADS	Cadrg	9.11	323	iPn	P	21 05 31.9	-1.3
ELDT	Eldivan	9.15	78	iP	P	21 05 33.6	-0.2
ARSA	Arzberg	9.19	333	⇑iPN	P	21 05 32.9	-1.4
ARSA				iSN	Sn	21 07 14.8	-4.0
PTCC	Patocco-Chiusa	9.42	322	ePn	P	21 05 36.1	-1.4
PTCC	Patocco-Chiusa	9.42	322	ePn	P	21 05 36.1	-1.4
VYHS	Vyhne	9.50	349	ePN	P	21 05 38.4	-0.2
VYHS				eSN	Sn	21 07 21.5	-4.9
VSL	Villasalto	9.51	276	ePn	P	21 05 36.0	-2.7
VSL	Villasalto	9.51	276	ePn	P	21 05 36.0	-2.7
CRVS	Cervenica-Dubn	9.69	359	ePN	P	21 05 45.7	+4.5
GSCL	Gusciola	9.72	305	ePn	P	21 05 43.5	+1.9
KOLS	Kolonicke sedl	9.73	2	ePN	P	21 05 45.5	+3.8
SMOL	Smolenice	9.78	343	ePN	P	21 05 42.2	-0.2
FVI	Forni Avoltri	9.83	322	ePn	P	21 05 42.4	-0.7
KBA	Koelnbreinsper	9.92	325	⇑iPN	P	21 05 43.7	-0.7
KBA				iSN	Sn	21 07 33.5	-3.3
CTI	Castel Tesino	10.04	316	ePn	P	21 05 43.6	-2.4
PGF	Pioggiola	10.14	293	eP	P	21 05 48.4	+1.0
	comp=Z,41nm,0.8s						
PGF	Pioggiola	10.14	293	eP	P	21 05 48.4	+1.0
PGF				pmax	pmax		
	comp=Z,20nm,0.8s						
MOA	Molln	10.16	331	⇑iPN	P	21 05 46.6	-1.0
MOA				iSN	S	21 07 39.4	-3.1
NIE	Niedzica	10.25	355	eP	P	21 05 53.9	+5.0
CSS	Prodhromos	10.25	111	P	P	21 05 47.6	-1.3
CSS	Prodhromos	10.25	111	P	P	21 05 47.6	-1.3
KWP	Kalwaria	10.45	4	eP	P	21 05 52.4	+0.9
BOB	Bobbio (Coli)	10.64	305	ePn	P	21 05 53.5	-0.7
VRAC	Vranov	10.72	342	Pn	P	21 05 54.3	-1.0
	comp=Z,0.4nm,0.3s,baz=157,slow=11,SNR=18						
VRAC	Vranov	10.72	342	eP	P	21 05 54.9	-0.4
WTTA	Wattenberg	10.86	321	⇓iPN	P	21 05 56.1	-1.1
WTTA				iSN	S	21 07 53.3	-6.4
SIM	Simferopol'	10.89	54	P	P	21 05 56.0	-1.7
SIM				pmax	pmax		
	comp=Z,11nm,0.7s						
SIM				MLR	MLR		
	comp=Z,210nm,15.3s						
OKC	Ostrava-Krasne	10.91	348	ePN	P	21 06 00.0	+2.1
WATA	Walderalm	10.94	321	⇑iPN	P	21 05 57.1	-1.2
WATA				iSN	S	21 07 56.8	-4.8
MORC	Moravsky Berou	10.96	346	eP	P	21 05 57.9	-0.7
MORC				eS	S	21 07 57.3	-4.9
MORC	Moravsky Berou	10.96	346	eS	S	21 07 57.3	-4.9
BRMO	Bormio	11.00	315	ePn	P	21 05 59.1	-0.1
BRMO	Bormio	11.00	315	ePn	P	21 05 59.1	0.0
SQTA	Sankt Quirin	11.04	320	iSN	S	21 07 59.4	-4.7
SQTA	Sankt Quirin	11.04	320	⇓iPn	P	21 05 58.9	-0.8
SQTA				iSn	S	21 07 59.4	-4.7
OJC	Ojcow	11.09	354	eP	P	21 06 01.7	+1.4
MOTA	Moosalm	11.18	320	iSN	S	21 08 03.6	-3.9
MOTA	Moosalm	11.18	320	⇑iPn	P	21 06 00.2	-1.3
MOTA				iSn	S	21 08 03.6	-3.9
GERES	GERESS Array B	11.19	332	Pn	P	21 06 00.4	-1.3
	comp=Z,0.4nm,0.3s,baz=154,slow=13,SNR=16						
GERES				Sn	S	21 08 03.7	-4.1
	comp=Z,0.6nm,0.3s,baz=153,slow=23,SNR=5.9						
GERES				PcP	PcP	21 11 55.0	-2.1
	comp=Z,0.1nm,0.3s,baz=90,slow=1.3,SNR=3.7						
DAVOX	Davos	11.46	315	Pn	P	21 06 05.0	-0.3
	comp=Z,0.9nm,0.3s,baz=140,slow=15,SNR=9.5						
DAVOX				Sn	S	21 08 10.0	-4.3
	comp=Z,1.0nm,0.3s,baz=342,slow=18,SNR=4.9						
DAVOX	Davos	11.46	315	Pn	P	21 06 05.0	-0.3
DAVOX				Sn	S	21 08 10.0	-4.3
KHC	Kasperske Hory	11.48	332	eP	P	21 06 04.6	-1.0
KHC				e		21 06 29.5	
KHC	Kasperske Hory	11.48	332	ePN	P	21 06 04.6	-1.0
KHC				x	x	21 06 29.5	
KHC				AMS	AMS	21 11 00.0	
	comp=Z,1µm,14.4s						
SBF	Sospel	11.62	298	eP	P	21 06 01.4	-6.1
	comp=Z,36nm,0.9s						
SBF	Sospel	11.62	298	eP	P	21 06 01.4	-6.1
SBF				pmax	pmax		
	comp=Z,18nm,0.9s						
DPC	Dobruska-Polom	11.76	343	ePN	P	21 06 09.3	-0.1
DAVA	Damuels	11.77	317	iSN	S	21 08 18.2	-3.7
DAVA	Damuels	11.77	317	⇑iPn	P	21 06 09.1	-0.5
DAVA				iSn	S	21 08 18.2	-3.7
PRU	Pruhonice	11.90	337	ePN	P	21 06 10.1	-1.2
PRU				AMS	AMS	21 11 20.0	
UPC	Upice	11.98	342	ePN	P	21 06 11.8	-0.6
MBDF	Montbardon	12.36	301	eP	P	21 06 17.0	-0.6
	comp=Z,15nm,0.7s						
MBDF	Montbardon	12.36	301	eP	P	21 06 17.0	-0.6
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.7s						
PVCC	Panska Ves	12.37	338	ePN	P	21 06 15.9	-1.8
GZT	Gaziantep	12.65	93	iP	P	21 06 25.8	+4.3
AKASG	Malin Array Be	12.67	22	Pn	P	21 06 19.9	-1.8
	comp=Z,0.4nm,0.3s,baz=208,slow=12,SNR=5.8						
LPG	La Plagne	12.67	305	eP	P	21 06 19.9	-1.8
	comp=Z,20nm,0.8s						
LPG	La Plagne	12.67	305	eP	P	21 06 19.9	-1.8
LPG				pmax	pmax		
	comp=Z,10.0nm,0.8s						
LPL	La Plagne	12.69	305	eP	P	21 06 20.4	-1.6
	comp=Z,17nm,0.7s						
LPL	La Plagne	12.69	305	eP	P	21 06 20.4	-1.6
LPL				pmax	pmax		
	comp=Z,8.0nm,0.7s						
NKC	Novy Kostel	12.80	332	AMS	AMS	21 11 40.0	
	comp=Z,1µm,11.5s						
GRA1	Grafenberg Arr	12.84	328	eP	P	21 06 34.2	+10
GRF	Grafenberg Arr	12.84	328	eP	P	21 06 34.2	+10
BRG	Berggiesshubel	12.86	338	eP	P	21 06 23.4	-0.8
BRG				pmax	pmax		
	comp=Z,20nm,1.7s						
BRG	Berggiesshubel	12.86	338	eP	P	21 06 23.4	-0.8
	comp=Z,20nm,1.7s						
BRG				i		21 06 41.9	
BRG				i		21 10 15.6	
ORIF	Oris-en-Rattie	13.02	301	eP	P	21 06 23.8	-2.6
ORIF				eR			
	comp=Z,239nm,17.2s						
STU	Stuttgart	13.09	321	P	P	21 06 24.7	-2.5
MALT	Malatya	13.13	89	eP	P	21 06 28.8	+0.9
MALT				pmax	pmax		
	comp=Z,12nm,1.1s						
MALT	Malatya	13.13	89	eP	P	21 06 28.8	+0.9
	comp=Z,12nm,1.1s						
MALT	Malatya	13.13	89	eP	P	21 06 28.8	+0.9
	comp=Z,12nm,1.1s						
MOX	Moxa	13.44	332	iP	P	21 06 33.6	+1.7
MOX				L		21 12 24.0	
MOX	Moxa	13.44	332	eP	P	21 06 33.6	+1.7
CLL	Collm	13.53	336	P	P	21 06 34.0	+1.0
CLL				i		21 06 41.9	
CLL				e		21 10 12.0	
CABF	La Chapelle	13.58	308	eP	P	21 06 31.6	-2.0
	comp=Z,16nm,0.7s						
CABF	La Chapelle	13.58	308	eP	P	21 06 31.6	-2.0
CABF				pmax	pmax		
	comp=Z,8.0nm,0.7s						
HINF	Hinteralfeld	13.74	314	eP	P	21 06 34.4	-1.3
CDF	Champ du Feu	13.84	316	eP	P	21 06 34.4	-2.8
HAU	Haudompre	14.12	313	eP	P	21 06 37.8	-3.0
HAU				eR			
	comp=Z,202nm,18.0s						
ASF	Jabal al Asfar	14.24	115	Pn	P	21 06 42.4	-0.1
	comp=Z,0.4nm,0.3s,baz=210,slow=1.4,SNR=2.1						
EIL	Elat	14.52	127	Pn	P	21 06 46.0	-0.1
	comp=Z,1.0nm,0.3s,baz=304,slow=12,SNR=6.9						
EIL	Elat	14.52	127	eP	P	21 06 44.4	-1.7
	comp=Z,11nm,0.8s						
EIL				eS	S	21 09 15.5	-12
SUW	Suwalki	14.84	4	eP	P	21 06 55.8	+5.6
CLZ	Clausthal	14.87	332	eP	P	21 06 57.0	+6.4
SMF	Signal de Mont	14.99	305	eP	P	21 06 50.7	-1.5
	comp=Z,22nm,0.9s						
SMF	Signal de Mont	14.99	305	eP	P	21 06 50.7	-1.5
SMF				pmax	pmax		
	comp=Z,11nm,0.9s						
MEZF	Maizieres J'vi	15.12	313	eP	P	21 06 53.2	-0.7
AVF	Avril sur Loir	15.36	305	eP	P	21 06 57.1	+0.1
	comp=Z,28nm,0.9s						
AVF	Avril sur Loir	15.36	305	eP	P	21 06 57.1	+0.1
AVF				pmax	pmax		
	comp=Z,14nm,0.9s						
SSF	Saint Saulge	15.37	307	eP	P	21 06 55.8	-1.3
SSF				pmax	pmax		
	comp=Z,14nm,0.9s						
SSF	Saint Saulge	15.37	307	eP	P	21 06 55.8	-1.3
	comp=Z,14nm,0.9s						
BGF	Bois d'Agland	15.59	304	eP	P	21 06 58.3	-1.7
	comp=Z,40nm,1.0s						
BGF	Bois d'Agland	15.59	304	eP	P	21 06 58.3	-1.7
BGF				pmax	pmax		
	comp=Z,20nm,1.0s						
TCF	Toulx Ste Croi	15.91	303	eP	P	21 07 03.3	-0.8
GIVF	Givet	16.14	318	eP	P	21 07 04.3	-2.7
KIV	Kislovodsk	16.43	66	eP	P	21 07 14.3	+3.5
KIV				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KIV				MLR	MLR		
	comp=Z,100nm,13.0s						
KIV	Kislovodsk	16.43	66	P	P	21 07 13.2	+2.4
	comp=Z,24nm,1.1s						
BAIF	Baives	16.44	317	eP	P	21 07 11.1	+0.3
	comp=Z,29nm,0.9s						
BAIF	Baives	16.44	317	eP	P	21 07 11.1	+0.3
BAIF				pmax	pmax		
	comp=Z,15nm,0.9s						
BSEG	Bad Segeberg	16.63	336	eP	P	21 07 14.5	+1.3
GOF	Gofitskoye	16.89	63	⇑iP	P	21 07 23.0	+6.4
GOF				pmax	pmax		
	comp=Z,35nm,1.4s						
VRSR	Storozhevoye	17.18	40	eP	P	21 07 18.0	-2.2
VRSR				eS	S	21 10 26.6	-3.1
VRSR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
VRSR				pmax	pmax		
	comp=N,5.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.8s						
VRSR				smax			
	comp=N,9.0nm,0.8s						
VRSR				smax			
	comp=Z,4.0nm,0.5s						
VRSR				smax			
	comp=E,10.0nm,1.0s						
MFF	Saint Martin d	17.55	302	eP	P	21 07 20.7	-4.2
	comp=E,20nm,0.9s						
MFF	Saint Martin d	17.55	302	eP	P	21 07 20.7	-4.2
MFF				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GNI	Garni	17.80	80	P	P	21 07 29.4	+1.4
	comp=Z,0.3nm,0.3s,baz=200,slow=21,SNR=3.2						
GNI				LR	LR	21 14 28.3	
	comp=Z,163nm,19.0s,baz=298,slow=38						
GNI	Garni	17.80	80	eP	P	21 07 31.8	+3.8
	comp=Z,12nm,0.8s						
LDF	La Druitiere	18.22	308	eP	P	21 07 33.5	+0.3
	comp=Z,46nm,1.2s						
LDF	La Druitiere	18.22	308	eP	P	21 07 33.5	+0.3
LDF				pmax	pmax		
	comp=Z,23nm,1.2s						
FLN	La Foliniere	18.51	308	eP	P	21 07 36.7	-0.1
	comp=Z,92nm,1.5s						
FLN				eR			
	comp=Z,69nm,19.2s						
GRR	Gorron	18.60	307	eP	P	21 07 34.3	-3.6
	comp=Z,43nm,1.0s						
GRR	Gorron	18.60	307	eP	P	21 07 34.3	-3.6
GRR				pmax	pmax		
	comp=Z,22nm,1.0s						
EVIA	Vianos	18.79	276	P	P	21 07 41.8	+1.6
EVIA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
EVIA	Vianos	18.79	276	P	P	21 07 41.8	+1.6
	comp=Z,9.0nm,0.6s						
EVIA	Vianos	18.79	276	P	P	21 07 41.8	+1.6
	comp=Z,9.0nm,0.6s,SNR=7.9						
OBN	Obninsk	18.80	27	iP	P	21 07 40.4	+0.1
OBN				eS	S	21 11 15.1	+8.5
OBN				pmax	pmax		
	comp=Z,9.0nm,0.6s						
VSU	Vasula	19.55	8	iP	P	21 07 46.5	-2.5
SGMF	Saint Gilles	19.62	305	eP	P	21 07 49.4	-0.5
	comp=Z,31nm,0.9s						
SGMF	Saint Gilles	19.62	305	eP	P	21 07 49.4	-0.5
SGMF				pmax	pmax		
	comp=Z,15nm,0.9s						
ESDC	Sonseca Array	19.77	279	P	P	21 07 51.6	-0.1
	comp=Z,0.7nm,0.3s,baz=77,slow=11,SNR=17						
ESDC	Sonseca Array	19.77	279	P	P	21 07 50.0	-1.6
	comp=Z,1.4nm,0.8s						
ESDC	Sonseca Array	19.77	279	P	P	21 07 50.0	-1.6
	comp=Z,1.4nm,0.8s,SNR=13						
ESLA	Sonseca Array	19.77	279	eP	P	21 07 51.5	-0.1
	comp=Z,2.5nm,0.8s						
ESLA				e		21 07 59.0	
ESLA	Sonseca Array	19.77	279	eP	P	21 07 51.5	-0.1
ROSF	Rostrenen	20.10	305	eP	P	21 07 54.0	-1.1
ELUQ	Luque	20.36	274	P	P	21 07 55.5	-2.5
ELUQ				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ELUQ	Luque	20.36	274	P	P	21 07 55.5	-2.4
	comp=Z,5.0nm,0.6s						
EADA	Adamuz	20.48	275	P	P	21 07 57.8	-1.3
	comp=Z,14nm,0.7s						
EADA	Adamuz	20.48	275	P	P	21 07 57.8	-1.4
	comp=Z,14nm,0.7s,SNR=15						
HFS	Hagfors	21.54	349	P	P	21 08 08.4	-1.4
	comp=Z,6.7nm,0.5s,mb4.3,baz=157,slow=11,SNR=28						
PBRG	Braganca	21.70	286	eP	P	21 08 14.5	+2.9
ERUA	La Rua	21.98	288	P	P	21 08 21.4	+7.0
ERUA				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.4						
ERUA	La Rua	21.98	288	P	P	21 08 21.4	+7.0
	comp=Z,19nm,1.1s,mb4.4						
EMIN	Mina Concepcio	22.18	275	P	P	21 08 16.0	-0.4
	comp=Z,7.3nm,0.5s,mb4.4						
EMIN	Mina Concepcio	22.18	275	P	P	21 08 16.0	-0.4
	comp=Z,7.3nm,0.5s,mb4.4,SNR=15						
EBAD	Badajoz	22.25	278	P	P	21 08 18.1	+1.0
	comp=Z,22nm,1.3s,mb4.4						
EBAD	Badajoz	22.25	278	P	P	21 08 18.0	+0.9
	comp=Z,22nm,1.3s,mb4.4						
FINES	FINESS Array B	22.43	6	P	P	21 08 16.7	-2.0
	comp=Z,1.7nm,0.6s,mb3.7,baz=171,slow=9.6,SNR=17						
FINES				PcP	PcP	21 12 12.0	-2.4
	comp=Z,2.9nm,0.8s,baz=135,slow=2.7,SNR=5.8						
FINES				LR	LR	21 18 19.0	
	comp=Z,236nm,18.3s,MS3.6,baz=164,slow=40						
FINES	FINESS Array B	22.43	6	PcP	PcP	21 12 12.0	-2.4
PCBR	Castelo Branco	22.43	281	eP	P	21 08 22.3	+3.4
PVRL	Vila Real	22.46	285	eP	P	21 08 22.3	+3.1
PVIS	Viseu	22.65	283	eP	P	21 08 23.1	+2.1
NAO01	NORSAR Array S	22.67	346	eP	P	21 08 20.1	-0.9
	comp=Z,32nm,1.1s,mb4.7						
NAO01	NORSAR Array S	22.67	346	eP	P	21 08 20.1	-0.9
	comp=Z,32nm,1.1s,mb4.7						
NB2	NORSAR Subarra	22.80	347	P	P	21 08 21.6	-0.6
	comp=Z,0.9nm,0.6s,mb3.4,baz=154,slow=10						
NB2	NORSAR Subarra	22.80	347	P	P	21 08 21.6	-0.6
NB2				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.4						
NOA	NORSAR Array B	22.80	347	P	P	21 08 21.7	-0.6
	comp=Z,6.1nm,0.7s,mb4.2,baz=158,slow=9.2,SNR=22						
NOA				LR	LR	21 17 43.4	
	comp=Z,88nm,18.2s,MS3.2,baz=155,slow=38						
NOA	NORSAR Array B	22.80	347	P	P	21 08 21.7	-0.6
NOA				LR	LR	21 17 43.4	
RST	Umm Al-Ruwaisa	23.00	107	eP	P	21 08 23.7	-0.9
PBEJ	Beja	23.05	276	eP	P	21 08 24.5	-0.4
EVO	Evora	23.06	278	eP	P	21 08 25.4	+0.4
	comp=Z,5.5nm,0.8s,mb3.7						
EVO				eR			
	comp=Z,63nm,22.5s						
KAF	Kangasniemi	23.11	6	ep	P	21 08 23.7	-1.6
	comp=Z,6.3nm,0.8s,mb4.1						

KAF	Kangasniemi	23.11	6	*e*P	P	21 08 23.7	-1.6
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.1						
EKA	Eskdalemuir Ar	23.12	322	P	P	21 08 24.9	-0.5
	comp=Z,10nm,0.7s,mb4.4,baz=121,slow=11,SNR=44						
ESK	Eskdalemuir	23.13	322	*e*P	P	21 08 24.9	-0.7
ESK				pmax	pmax		
	comp=Z,25nm,0.8s,mb4.7						
ESK	Eskdalemuir	23.13	322	*e*P	P	21 08 24.9	-0.7
	comp=Z,25nm,0.8s,mb4.7						
ESK	Eskdalemuir	23.13	322	*e*P	P	21 08 24.9	-0.7
	comp=Z,25nm,0.8s,mb4.7						
KAC	Achnashellach	25.33	325	⇑*i*P	P	21 08 46.9	+0.2
	comp=Z,7.5nm,0.8s,mb4.3						
ARU	Arti	29.70	42	*e*P	P	21 09 25.2	-1.5
ARU				*e*PPP	PPP	21 10 26.4	-11
ARU				*e*		21 12 27.1	
ARU				*e*S	S	21 14 21.4	+0.3
ARU				*e*SS	SS	21 15 51.0	-4.4
ARU				*e*		21 20 01.4	
ARU	Arti	29.70	42	*e*P	P	21 09 25.1	-1.7
	comp=Z,5.7nm,0.9s,mb4.3						
ARU	Arti	29.70	42	*e*P	P	21 09 25.1	-1.6
	comp=Z,5.7nm,0.9s,mb4.3						
ARCES	ARCESS Array B	30.46	3	P	P	21 09 31.9	-1.4
	comp=Z,7.7nm,1.1s,mb4.3,baz=333,slow=5.4,SNR=10.0						
ARCES				PcP	PcP	21 12 30.6	-2.1
	comp=Z,5.3nm,1.0s,baz=180,slow=1.8,SNR=3.3						
ARCES				LR	LR	21 22 29.1	
	comp=Z,343nm,19.5s,MS4.0,baz=196,slow=38						
ARCES	ARCESS Array B	30.46	3	PcP	PcP	21 12 30.6	-2.1
BVAR	Borovoye Array	35.78	51	P	P	21 10 19.8	+0.2
	comp=Z,1.0nm,0.6s,mb3.9,baz=282,slow=8.4,SNR=7.2						
CHKZ	Chkalovo	35.95	50	*e*P	P	21 10 20.5	-0.6
CHKZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
CHKZ	Chkalovo	35.95	50	*e*P	P	21 10 20.5	-0.5
	comp=Z,4.1nm,0.8s,mb4.4						
EKS2	Erkin-Say	39.02	68	*e*P	P	21 10 47.6	+0.6
	comp=Z,12nm,1.0s,mb4.6						
AML	Almayashu	39.09	68	*e*P	P	21 10 48.5	+1.0
	comp=Z,3.7nm,0.7s,mb4.2						
AAK	Ala-Archa	39.55	67	*e*P	P	21 10 50.9	-0.4
AAK				*e*		21 16 45.0	
AAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
AAK	Ala-Archa	39.55	67	*e*P	P	21 10 50.9	-0.4
	comp=Z,10nm,1.1s,mb4.5						
AAK				*e*ScP		21 16 45.0	
UCH	Uchtor	39.66	68	*e*P	P	21 10 53.0	+0.8
	comp=Z,10nm,1.3s,mb4.4						
DBIC	Dimbokro	40.25	223	P	P	21 10 56.7	-0.7
	comp=Z,9.9nm,0.8s,mb4.6,baz=15,slow=9.7,SNR=23						
DBIC				LR	LR	21 28 50.1	
	comp=Z,137nm,18.1s,MS3.8,baz=285,slow=38						
DBIC	Dimbokro	40.25	223	P	P	21 10 56.7	-0.7
DBIC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
DBIC				MLR	MLR		
	comp=Z,137nm,18.1s						
DBIC	Dimbokro	40.25	223	*e*P	P	21 10 56.6	-0.8
	comp=Z,8.6nm,0.6s,mb4.7						
TKM2	Tokmak 2	40.27	67	P	P	21 10 58.2	+1.0
	comp=Z,1.6nm,0.6s,mb3.9						
KMBO	Kilima Mbogo	42.62	157	LR	LR	21 30 09.9	
	comp=Z,52nm,20.5s,MS3.4,baz=75,slow=38						
NVS	Novosibirsk	43.33	48	*e*P	P	21 11 21.1	-1.0
NVS				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.6						
NVS				pmax	pmax		
	comp=E,8.0nm,1.3s						
SUMG	Summit	44.19	338	*e*P	P	21 11 29.4	+0.6
	comp=E,9.5nm,1.1s,mb4.4						
WMQ	Urumqi	48.49	62	*e*P	P	21 12 04.2	+0.9
KOLN	Koldanda	52.01	83	*e*P	P	21 12 28.6	-1.8
	comp=E,8.9nm,0.5s,mb5.0						
GKN	Gorkha	52.70	82	*e*P	P	21 12 33.5	-2.0
	comp=E,14nm,0.6s,mb5.0						
DMN	Daman	53.25	82	*e*P	P	21 12 37.8	-1.9
	comp=E,15nm,0.6s,mb5.1						
KKN	Kakani	53.30	82	*e*P	P	21 12 37.4	-2.6
	comp=E,11nm,0.7s,mb4.9						
PKI	Pulchoki	53.51	82	*e*P	P	21 12 37.6	-3.9
	comp=E,20nm,1.2s,mb4.9						
GUN	Gumba	53.70	81	*e*P	P	21 12 41.0	-1.9
	comp=E,20nm,1.0s,mb5.0						
LSZ	Lusaka	54.55	172	*e*P	P	21 12 48.7	-0.5
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
LSZ	Lusaka	54.55	172	*e*P	P	21 12 48.7	-0.5
	comp=Z,3.7nm,0.7s,mb4.5						
ZAK	Zakamensk	56.22	50	*e*P	P	21 12 57.8	-3.1
SCHQ	Schefferville	58.30	317	P	P	21 13 14.1	-1.5
	comp=Z,4.0nm,0.6s,mb4.7,baz=58,slow=9.4,SNR=7.3						
GTA	Gaotai	58.57	63	*e*P	P	21 13 16.6	-1.1
GTA				AP	pP	21 13 23.9	+2.6
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.3						
SONM	Songino Array	59.13	51	P	P	21 13 20.1	-1.4
	comp=Z,2.8nm,0.9s,mb4.3,baz=283,slow=8.6,SNR=16						
ULN	Ulaanbaatar	59.51	51	*e*P	P	21 13 22.4	-1.7
ULN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
ULN	Ulaanbaatar	59.51	51	*e*P	P	21 13 22.4	-1.8
	comp=Z,2.5nm,0.7s,mb4.3						
OPO	Ambohidratompo	62.25	152	*e*P	P	21 13 43.3	+0.2
	comp=Z,18nm,1.3s,mb5.0						
LBTB	Lobatse	64.00	176	*e*P	P	21 13 50.5	-4.0
	comp=Z,6.1nm,1.1s,mb4.5						
BOSA	Boshof	67.56	177	*e*P	P	21 14 14.7	-2.7
BOSA				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
BOSA	Boshof	67.56	177	*e*P	P	21 14 14.7	-2.6
	comp=Z,6.4nm,1.0s,mb4.6						
KMI	Kunming	67.98	75	*e*P	P	21 14 19.6	-0.5
KMI				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.3						
CMAR	Chiang Mai Arr	68.88	83	P	P	21 14 23.6	-2.2
	comp=Z,1.1nm,0.9s,mb3.8,baz=294,slow=6.8,SNR=4.6						
ENH	Enshi	70.06	67	*e*P	P	21 14 28.6	-4.2
	comp=Z,4.1nm,0.9s,mb4.4						
SUR	Sutherland	71.23	181	*e*P	P	21 14 38.9	-1.0
	comp=Z,17nm,1.1s,mb4.9						
CN2	Changchun	72.54	47	*e*P	P	21 14 47.0	-0.4
YKA	Yellowknife Ar	72.72	340	P	P	21 14 47.9	-0.2
	comp=Z,1.2nm,0.6s,mb4.0,baz=34,slow=5.3,SNR=23						
YKA	Yellowknife Ar	72.72	340	*e*P	P	21 14 47.9	-0.2
ULM	Lac du Bonnet	75.39	324	P	P	21 15 04.2	+0.4
	comp=Z,3.7nm,0.6s,mb4.5,baz=65,slow=1.7,SNR=6.5						
NJ2	Nanjing	75.54	60	*e*P	P	21 15 03.6	-1.5
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
COLA	College	75.92	355	P	P	21 15 05.9	-0.6
COLA				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
COLA	College	75.92	355	P	P	21 15 05.9	-0.6
	comp=Z,4.9nm,0.9s,mb4.4						
ILAR	Eielson Array	75.96	355	P	P	21 15 07.3	+0.6
	comp=Z,1.2nm,0.9s,mb3.8,baz=354,slow=3.7,SNR=9.0						
SSE	Sheshan	77.70	60	P	P	21 15 13.4	-3.7
SSE				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,97nm,4.2s						
DLBC	Dease Lake	79.88	345	LR	LR	21 52 52.0	
	comp=Z,90nm,19.0s,MS4.1,baz=294,slow=37						
BDFB	Brasilia	84.75	245	P	P	21 15 56.5	+2.0
	comp=Z,5.7nm,1.1s,mb4.6,baz=79,slow=9.0,SNR=3.1						
BDFB				LR	LR	21 56 04.3	
	comp=Z,64nm,20.4s,MS4.0,baz=127,slow=37						
SDV	Santo Domingo	86.21	278	*e*P	P	21 16 02.6	+0.8
	comp=Z,11nm,0.9s,mb5.1						
MCMT	McKenzie Canyo	86.85	329	P	P	21 16 08.2	+3.9
PDAR	Pinedale Array	87.19	326	P	P	21 16 06.2	+0.2
	comp=Z,1.1nm,0.8s,mb4.1,baz=56,slow=5.3,SNR=5.8						
PDAR				LR	LR	21 54 28.3	
	comp=Z,84nm,19.5s,MS4.2,baz=60,slow=35						
WMOK	Wichita Mounta	88.10	315	P	P	21 16 09.8	-0.8
WMOK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.6						
WMOK	Wichita Mounta	88.10	315	P	P	21 16 09.8	-0.8
	comp=Z,3.2nm,0.8s,mb4.6						
BMO	Blue Mountains	88.52	332	*e*P	P	21 16 12.1	-0.2
	comp=Z,4.0nm,0.9s,mb4.8						
SRU	San Rafael	90.58	325	*e*P	P	21 16 21.9	-0.3
SRU				*e*		21 16 33.5	
NVAR	Mina Array Bea	94.44	330	P	P	21 16 41.0	+1.1
	comp=Z,0.1nm,0.4s,mb3.6,baz=68,slow=5.0,SNR=3.5						
NVAR				LR	LR	21 59 06.1	
	comp=Z,56nm,18.1s,MS4.1,baz=20,slow=35						
NVAR	Mina Array Bea	94.44	330	P	P	21 16 41.0	+1.1
NVAR				LR	LR	21 59 06.1	
TXAR	Lajitas Array	94.89	314	P	P	21 16 43.5	+1.3
	comp=Z,2.3nm,1.0s,mb4.6,baz=65,slow=3.7,SNR=16						
TXAR	Lajitas Array	94.89	314	P	P	21 16 43.5	+1.3
LPAZ	La Paz	99.94	257	LR	LR	22 06 01.4	
	comp=Z,28nm,21.1s,MS3.8,baz=209,slow=38						
WRA	Warramunga Arr	119.70	92	PKP	PKPdf	21 22 08.8	-3.5
	comp=Z,1.1nm,0.8s,baz=316,slow=1.7,SNR=12						
ASAR	Alice Springs	121.41	96	PKP	PKPdf	21 22 12.5	-3.2
	comp=Z,2.1nm,0.6s,baz=314,slow=1.5,SNR=41						
STKA	Stephens Creek	131.37	101	PKP	PKPdf	21 22 31.5	-3.2
	comp=Z,1.2nm,0.7s,baz=334,slow=3.6,SNR=5.5						
STKA	Stephens Creek	131.37	101	PKP	PKPdf	21 22 31.5	-3.2

IDC 11 21:15:05.9±1.4**, 16.61S**×**69.44W, h197**^{km}±9^{km}**, mb3.6**/4**, mb1 3.6**/5**, mb1mx3.4**/17**, Error ellipse: s-maj=26.9km s-min=24.4km az=78.0, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	1.29	76	P	P	21 15 38.7	+0.8
	46nm,0.3s,baz=312,slow=6.4,SNR=1018						
LPAZ				S	S	21 16 03.3	+0.7
	8.5nm,0.3s,baz=46,slow=22,SNR=11						
LVC	Limon Verde	6.00	175	P	P	21 16 33.1	-0.7
	1.8nm,0.3s,baz=14,slow=8.3,SNR=37						
BDFB	Brasilia	20.60	90	P	P	21 19 29.9	-1.2
	2.8nm,0.7s,baz=248,slow=24,SNR=3.7						
TEIG	Tepich	41.01	332	P	P	21 22 29.8	-1.6
	30nm,1.5s,baz=198,slow=18,SNR=3.4						
DBIC	Dimbokro	67.91	76	P	P	21 25 44.0	-1.7
	3.9nm,1.1s,baz=210,slow=5.9,SNR=4.7						
YKA	Yellowknife Ar	86.43	341	P	P	21 27 24.8	-2.1
	0.2nm,0.4s,baz=133,slow=4.3,SNR=6.2						
SONM	Songino Array	148.67	5	PKPbc	PKPdf	21 34 29.9	+4.4
	0.6nm,0.3s,baz=327,slow=1.9,SNR=12						

*IDC **11** 21:16:57.2±1.1, 21.99S×67.39W, h169^{km}±13^{km}, mb3.6/4, mb1 3.6/6, mb1mx3.4/15, Error ellipse: s-maj=24.7km s-min=13.3km az=97.0*

*NEIC **11** 21:16:57.6±0.8, 22.08S×67.34W, h173^{km}±8^{km}, mb4.0/6, Error ellipse: s-maj=15.1km s-min=9.9km az=68.0*

ISC 11 21:16:56.2±0.8**, 22.06S**±0.06×**67.3W**±0.1**, h175**^{km}±9^{km}**, n15, σ1^{s}02**/19**, mb3.9**/8**, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.58	249	P	P	21 17 29.8	+1.0
	55nm,0.3s,baz=47,slow=6.7,SNR=182						
LVC				S	S	21 17 53.2	-0.7
	47nm,0.3s,baz=92,slow=23,SNR=41						
LVC	Limon Verde	1.58	249	P	P	21 17 29.8	+1.0
LVC				S	S	21 17 53.2	-0.7
LVC				*e*Sn	S	21 17 53.5	-0.5
LPAZ	La Paz	5.79	352	P	P	21 18 22.6	+1.4
	4.5nm,0.3s,baz=148,slow=7.6,SNR=7.6						
LPAZ				S	S	21 19 26.0	-1.2
	baz=38,slow=20,SNR=1.8						
TRQA	Tornquist	16.59	165	*e*P	P	21 20 39.2	-0.9
	8.9nm,0.9s						
BDFB	Brasilia	19.34	74	P	P	21 21 10.4	0.0
	0.3nm,0.3s,baz=237,slow=9.0,SNR=3.1						
OTAV	Otavalo	24.68	332	P	P	21 22 04.0	+1.4
	3.0nm,1.0s,mb3.8						
TEIG	Tepich	46.75	333	P	P	21 25 08.8	-1.0
	3.4nm,0.9s,mb4.0,baz=336,slow=19,SNR=2.3						
SNAA	Sanae	61.27	161	P	P	21 26 54.9	+0.2
	0.6nm,0.9s,mb3.4,baz=297,slow=14,SNR=4.4						
SNAA	Sanae	61.27	161	*e*P	P	21 26 54.3	-0.4
LTX	Lajitas	61.94	324	P	P	21 26 58.3	-1.5
	1.2nm,0.5s,mb4.0						
DBIC	Dimbokro	67.48	72	P	P	21 27 35.1	-0.6
	2.9nm,0.7s,mb4.2,baz=224,slow=6.5,SNR=5.6						
DBIC	Dimbokro	67.48	72	*e*P	P	21 27 34.9	-0.8
	5.1nm,0.9s,mb4.3						
HLID	Hailey	78.31	327	P	P	21 28 39.8	+1.4
	2.1nm,1.0s,mb3.7						
LBTB	Lobatse	83.44	114	P	P	21 29 06.8	+1.1
	3.1nm,1.0s,mb4.0						
YKA	Yellowknife Ar	92.21	340	P	P	21 29 46.6	-0.2
	0.4nm,0.6s,mb3.6,baz=133,slow=4.3,SNR=7.1						

KRSC 11 21:24:55.6±1.8**, 49.60N**×**156.39E, h40**^{km}±17^{km}**, ML4.2, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.10	351	*i* P	P	21 25 12.9	-1.8
SKR				*i* S	S	21 25 27.4	-1.5
ALID	Alaid	1.38	337	*e*P	P	21 25 20.2	+1.4
ALID				*e*S	S	21 25 37.6	+1.5
PAU	Pauzhetka	1.89	8	*e*P	P	21 25 27.6	+1.6
PAU				*e*S	S	21 25 50.8	+2.0
PAU				Smax			
	500nm,0.2s						
RUS	Russkaya	3.14	24	*e*P	P	21 25 43.5	-0.3
RUS				*e*S	S	21 26 18.1	-2.4
GRL	Gorelyy	3.14	19	*e*P	P	21 25 44.8	+0.9
GRL				*e*S	S	21 26 19.7	-0.8
APC	Apacha	3.37	8	*e*P	P	21 25 48.1	+1.1
APC				*e*S	S	21 26 25.7	-0.5
KRMR	Karymshinskiy	3.41	18	*e*P	P	21 25 48.2	+0.5
KRMR				*e*S	S	21 26 25.9	-1.6
PET	Petropavlovsk	3.71	22	*e*P	P	21 25 51.7	-0.2
PET				*e*S	S	21 26 32.3	-2.7
AVH	Avacha	3.95	21	*e*P	P	21 25 56.7	+1.3
AVH				*e*S	S	21 26 40.7	-0.4
SMAR	Somma	3.97	21	*e*P	P	21 25 56.6	+1.0
SMAR				*e*S	S	21 26 39.9	-1.6
SPN	Mys Shipunski	4.18	32	*e*P	P	21 25 58.1	-0.5
SPN				*e*S	S	21 26 44.1	-2.7
GNL	Ganaly	4.21	13	*e*P	P	21 26 00.6	+1.5
GNL				*e*S	S	21 26 46.8	-0.9
KBTR	Krutoberegovo	7.67	28	*e*P	P	21 26 49.3	+1.7
KBTR				*e*S	S	21 28 10.0	-4.2
BKI	Bering	8.11	43	*e*P	P	21 26 50.2	-3.4
BKI				*e*S	S	21 28 13.2	-12

*SKHL **11** 22:00:20.7±0.5, 43.67N×147.47E, h70^{km}, mb4.9/1*

*JMA **11** 22:00:21.3±0.2, 43.62N×147.31E, h31^{km}±4^{km}, M4.2*

ISC 11 22:00:21.2±1.5**, 43.64N**±0.08×**147.23E**±0.10**, h16**^{km}±9^{km}**, n15, σ0^{s}72**/26**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUK	Yuzh-Kuril'sk	1.07	292	*i* P	Pb	22 00 39.5	-1.3
YUK				AMB	AMB	22 00 43.5	
	230nm,0.4s						
YUK				AMB	AMB	22 00 43.5	
	180nm,0.4s						
YUK				AMB	AMB	22 00 43.5	
	470nm,0.4s						
YUK				*i* S	Sb	22 00 53.5	-0.9
YUK				A		22 00 54.7	
	10µm,1.0s						
YUK				A		22 00 54.7	
	4µm,1.0s						
YUK				A		22 00 55.5	
	3µm,0.4s						
YUK				A		22 00 55.5	
	2µm,0.4s						
NEM2	Nemuro 2	1.12	256	P	Pb	22 00 42.0	+0.4
NEM2				*e*S	Sb	22 00 57.1	+1.4
JRA	Rausu	1.56	282	P	Pn	22 00 48.3	-0.2
JRA				*e*S	Sn	22 01 08.4	0.0
JNK	Nakash	1.83	269	P	Pn	22 00 52.2	-0.1
JNK				*e*S	Sn	22 01 14.7	-0.6
JAK	Akkeshi	1.96	252	P	Pn	22 00 53.9	-0.3
JAK				*e*S	Sn	22 01 17.8	-0.8
JTKR	Abashiri--Toko	2.43	279	P	Pn	22 01 01.1	+0.1
JTKR				*e*S	Sn	22 01 32.4	+1.8
JAR	Ashorobuto	2.54	264	P	Pn	22 01 02.8	+0.2
JAR				*e*S	Sn	22 01 34.2	+0.7
JOB	Onbets	2.59	255	P	Pn	22 01 03.3	+0.1
JOB				*e*S	Sn	22 01 34.2	-0.4
JMP	Maruseppu	2.83	279	P	Pn	22 01 06.9	+0.2
JCH	Churui	3.01	252	P	Pn	22 01 08.6	-0.7
JCH				*e*S	Sn	22 01 44.0	-1.3
JKK2	Kamakawa 2	3.26	276	P	Pn	22 01 13.6	+0.8
ASAJ	Asahikawa	3.39	280	P	Pn	22 01 14.8	+0.2
JEM	Erimo	3.41	243	P	Pn	22 01 15.6	+0.7
JEM				*e*S	Sn	22 01 55.2	-0.1
JFR	Furan	3.41	264	P	Pn	22 01 15.7	+0.7
JFR				*e*S	Sn	22 01 55.6	+0.1
JNBK	Urakawa-nobuka	3.56	249	P	Pn	22 01 16.5	-0.5

*WAR **11** 22:15:10.9, 50.27N×18.78E, h0^{km}, ML2.5, Mining Induced*

*PRU **11** 22:15:11.9, 50.31N×18.68E*

ISC 11 22:15:09.8±0.7**, 50.36N**±0.04×**18.76E**±0.04**, n12, σ1^{s}07**/20**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.45	233	*e*PG	Pg	22 15 20.0	+1.2
RAC				*e*SG	Sg	22 15 27.0	+2.1
OKC	Ostrava-Krasne	0.65	217	*e*PG	Pg	22 15 22.8	0.0
OKC				*e*SG	Sg	22 15 32.0	+0.5
OJC	Ojcow	0.68	101	*e*PG	Pg	22 15 24.0	+0.6
OJC				*e*SG	Sg	22 15 33.0	+0.5
NIE	Niedzica	1.38	132	*e*Pg	Pg	22 15 36.4	-0.9
NIE				*e*Sg	Sg	22 15 54.8	-0.8
DPC	Dobruska-Polom	1.56	271	*e*PG	Pg	22 15 39.8	-1.1
DPC				*e*SG	Sg	22 16 00.3	-1.4
KSP	Ksiaz	1.64	288	*e*PN	Pn	22 15 40.0	0.0
KSP				*e*PG	Pg	22 15 43.0	+0.5
KSP				*e*SG	Sg	22 16 05.0	+0.6
UPC	Upice	1.76	276	*e*SG	Sg	22 16 07.1	-1.3
VYHS	Vyhne	1.87	178	*e*PN	Pn	22 15 43.9	+0.6
VYHS				*e*SN	Sn	22 16 06.4	-1.5
CRVS	Cervenica-Dubn	2.29	129	*e*PN	Pn	22 15 52.9	+3.7
PRU	Pruhonice	2.73	264	*e*SG	Sg	22 16 37.1	-3.7
KHC	Kasperske Hory	3.58	252	*e*SG	Sg	22 17 04.4	-4.4
CLL	Collm	3.77	287	*e*SG	Sg	22 17 16.0	+0.8

ISC 11 22:39:17.2±0.7**, 46.39N**±0.03×**15.05E**±0.05**, n5, σ0^{s}60**/10**, 1C-1D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PERS	Pernice	0.25	10	*i* Pg	Pg	22 39 22.3	+0.1
PERS				*i* Sg	Sg	22 39 26.1	+0.7
	comp=Z,9.0nm,0.2s						
GROS	Grobnik	0.32	77	*i* Pg	Pg	22 39 23.3	-0.2
GROS				*i* Sg	Sg	22 39 28.7	+0.9
OBKA	Obir	0.37	289	⇑*i*PG	Pg	22 39 24.5	0.0
OBKA				*i* SG	Sg	22 39 29.9	+0.5
	comp=Z,18nm,0.5s						
LEGS	Legarje	0.48	157	*i* Pg	Pg	22 39 26.5	-0.2
LEGS				*e*Sg	Sg	22 39 33.2	0.0
	comp=Z,3.0nm,0.2s						
ARSA	Arzberg	0.92	20	⇓*i*PG	Pg	22 39 34.2	-1.3
ARSA				*i* SG	Sg	22 39 47.2	-0.5
	comp=Z,1.1nm,0.3s						

CASC 11 22:43:00.1±2.3**, 11.58N**×**84.20W, h7**^{km}±8^{km}**, MD3.8, ML4.0, 3C-1D, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRTC	Tortuguero	1.11	155	⇑*e*P	Pb	22 43 20.3	-1.0
TRTC				*e*S	Sb	22 43 35.5	-0.2
FORC	Fortuna	1.20	203	*e*P	Pb	22 43 21.9	-0.8
VPS2	Volcan Poas 2	1.39	182	*e*P	Pb	22 43 25.2	-0.8
VPS2				*e*S	Sb	22 43 44.3	+0.6
CGA2	Cerro Gallo 2	1.58	190	*e*P	Pn	22 43 28.1	-0.7
CGA2				*e*S	Sb	22 43 49.0	-0.4
PRS1	Puriscal	1.59	184	*e*P	Pn	22 43 30.1	+1.1
PRS1				*e*S	Sb	22 43 53.6	+3.8
ICR	Volcan Irazu	1.63	167	*e*P	Pn	22 43 29.4	-0.1
ICR				*e*S	Sb	22 43 50.8	-0.2
LAJ	Bijagual	1.71	178	*e*P	Pn	22 43 32.4	+1.8
LAJ				*e*S	Sn	22 43 60.0	+7.0
URSC	Urasca	1.79	167	⇓*e*P	Pn	22 43 28.9	-2.8
LCR2	La Lucha 2	1.84	174	*e*P	Pn	22 43 31.8	-0.7
LCR2				*e*S	Sn	22 43 58.5	+2.2
JCR	Jicaral	1.94	208	⇑*e*P	Pn	22 43 32.6	-1.3
JCR				*e*S	Sn	22 43 59.9	+1.0
VCR	Vista de Mar	2.02	224	*e*P	Pn	22 43 35.8	+0.7
VCR				*e*S	Sn	22 44 02.1	+1.2
WILN	Americas 2	2.03	287	*e*S	Sn	22 44 00.5	-0.6
TICN	Ticuantepe	2.04	283	*e*P	Pn	22 43 34.0	-1.3
TICN				*e*S	Sn	22 44 01.2	-0.2
PYTN	Playitas	2.05	298	*e*P	Pn	22 43 36.0	+0.5
PYTN				*e*S	Sn	22 44 00.5	-1.2
BUS	Buena Vista	2.06	168	*e*P	Pn	22 43 36.9	+1.3
BUS				*e*S	Sn	22 44 03.2	+1.3
MGAN	Managua	2.08	286	*e*P	Pn	22 43 36.1	+0.2
MGAN				*e*S	Sn	22 44 02.1	-0.3
	comp=N,722nm,0.4s						
APYN	Apoyeque	2.20	287	⇑*e*P	Pn	22 43 36.5	-1.2
COPN	Copaltepe	2.42	284	*e*P	Pn	22 43 39.4	-1.3
COPN				*e*S	Sn	22 44 10.7	-0.2

*NEIC **11** 22:48:44.9, 34.94N×2.96W, h10^{km}, MG3.1(MDD), After MDD.*

*CSEM **11** 22:48:44.8±0.8, 35.10N×2.96W, h15^{km}, mb3.1/2, Error ellipse: s-maj=15.8km s-min=10.5km az=166.0*

*SFS **11** 22:48:44.0, 34.94N×2.94W, h9^{km}, ML3.2*

MDD 11 22:48:44.5±1.5**, 34.95N**×**3.06W, mb3.1**/2**, Error ellipse: s-maj=15.3km s-min=7.9km az=133.0, PRXIMO AftershockPLICA, Morocco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	Melilla	0.36	17	P	Pg	22 48 50.6	-1.0
MELI				S	Sg	22 48 55.0	-1.3
MELI	Melilla	0.36	17	*e*S	Sg	22 48 55.0	-1.3
MELI	Melilla	0.36	17	*e*P	Pg	22 48 50.6	-1.0
EMEL	Melilla	0.36	14	P	Pg	22 48 51.4	-0.2
	66nm,0.2s,SNR=9.8						
EMEL				S	Sg	22 48 56.8	+0.4
	167nm,0.1s,SNR=7.9						
EMLI	Melilla	0.36	14	P	Pg	22 48 51.4	-0.2
	66nm,0.2s,SNR=9.8						
EMLI				S	Sg	22 48 56.8	+0.4
	167nm,0.1s,SNR=7.9						
EBER	Berja	1.95	4	P	Pn	22 49 16.6	-2.5
	0.5nm,0.2s,SNR=4.5						
EBER				S	Sn	22 49 38.4	-6.2
	11nm,0.5s,SNR=7.9						
EBER	Berja	1.95	4	P	Pn	22 49 16.6	-2.5
	0.5nm,0.2s,SNR=4.5						
EBER				S	Sn	22 49 38.4	-6.2
	11nm,0.5s,SNR=7.9						
EMIJ	Mijas	2.13	320	P	Pn	22 49 19.7	-2.0
	0.7nm,0.1s,SNR=9.5						
EMIJ				S	Sn	22 49 45.3	-4.0
	1.1nm,0.2s,SNR=7.9						
ELUQ	Luque	2.78	340	P	Pn	22 49 30.5	-0.5
	0.6nm,0.1s,SNR=5.7						
ELUQ				S	Sn	22 50 02.3	-3.5
	0.7nm,0.2s,SNR=7.9						
EQES	Quesada	2.85	360	P	Pn	22 49 31.2	-0.8
	1.3nm,0.3s,SNR=7.9						
EQES				S	Sn	22 50 03.2	-4.3
	1.2nm,0.3s,SNR=7.9						
EQES	Quesada	2.85	360	P	Pn	22 49 31.2	-0.8
	1.3nm,0.3s,SNR=7.9						
EQES				S	Sn	22 50 03.2	-4.3
	1.2nm,0.3s,SNR=7.9						
EMUR	La Murta	3.24	26	P	Pn	22 49 33.6	-3.9
	0.5nm,0.2s,SNR=7.9						
EMUR				S	Sn	22 50 09.2	-8.2
	0.5nm,0.2s,SNR=7.9						
EMUR	La Murta	3.24	26	P	Pn	22 49 33.7	-3.8
EMUR				S	Sn	22 50 09.2	-8.2
	0.5nm,0.2s,SNR=7.9						
EADA	Adamuz	3.44	340	P	Pn	22 49 38.7	-1.7
	0.9nm,0.1s,SNR=7.9						
EADA				S	Sn	22 50 16.6	-5.8
	0.2nm,0.2s,SNR=7.9						
EADA	Adamuz	3.44	340	P	Pn	22 49 38.7	-1.6
	0.9nm,0.1s,SNR=7.9						
EADA				S	Sn	22 50 16.6	-5.8
	0.2nm,0.2s,SNR=7.9						

EMIN	Mina Concepcio	4.05	315	P	Pn	22 49 46.6	-2.5
	0.8nm,0.2s,SNR=7.9						
EMIN				S	Sn	22 50 31.4	-6.6
	0.4nm,0.2s,SNR=7.9						
EMIN	Mina Concepcio	4.05	315	S	Sn	22 50 31.4	-6.5
EMIN	Mina Concepcio	4.05	315	P	Pn	22 49 46.6	-2.5
	0.8nm,0.2s,SNR=7.9						

DJA 11 23:14:54.4±0.5, 8.12S×114.86E, h16^{km}±5^{km}, MD4.6/3, ML4.0/1, 4D, Error ellipse: s-maj=27.5km s-min=6.0km az=179.0, Bali region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KELI	Kelakatan	0.38	255⇓	ePn	Pn	23 15 01.7	-3.2
KELI	Kelakatan	0.38	255	ePg	Pb	23 15 02.1	-0.3
KELI				eSn	Sn	23 15 07.5	-4.3
SRDI	Scrawed	0.80	243⇓	ePn	Pn	23 15 08.1	-2.8
	186nm,0.2s						
SRDI				eSn	Sn	23 15 19.0	-3.4
RATI	Rata	0.90	132⇓	iPn	Pn	23 15 09.6	-2.6
	238nm,0.2s						
RATI				eSn	Sn	23 15 20.8	-4.0
KEDI	Kedomdong	1.29	107⇓	ePn	Pn	23 15 15.0	-2.8
KEDI				eSn	Sn	23 15 31.1	-3.7

IDC 11 23:18:46.3±63.0, 14.96S×173.55W, mb3.7/3, mb1 3.9/3, mb1mx3.6/14, Error ellipse: s-maj=1217.0km s-min=199.7km az=78.0, Samoa Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	44.13	240	P	P	23 26 56.7	-1.7
	0.5nm,0.4s,baz=78,slow=7.6,SNR=3.6						
WRA	Warramunga Arr	49.80	256	P	P	23 27 41.3	-1.9
	0.2nm,0.3s,baz=93,slow=7.0,SNR=6.6						
ASAR	Alice Springs	50.11	252	P	P	23 27 43.4	-2.1
	0.9nm,0.6s,baz=86,slow=7.9,SNR=8.3						

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*NEIC **11** 23:18:48.2, 36.65S×178.41E, h81^{km}, ML4.4(WEL), After WEL.*

WEL 11 23:18:49.3±0.6, 36.71S×178.32E, h80^{km}±3^{km}, ML4.1/5, Error ellipse: s-maj=5.5km s-min=3.7km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	0.85	180	P	P	23 19 06.3	-0.5
MXZ				S	S	23 19 19.9	-0.1
MXZ	Matakaoa Point	0.85	180	P*	P	23 19 06.0	-0.8
MXZ				S*	S	23 19 19.9	-0.1
MXZ				S*	S	23 19 20.2	+0.3
WIZ	White Island	1.22	227	P*	P	23 19 10.7	-0.6
PUZ	Puketiti	1.36	182	P	P	23 19 13.2	-0.1
PUZ	Puketiti	1.36	182	PN	P	23 19 13.2	-0.2
PUZ				SN	S	23 19 30.8	-0.3
MWZ	Matawai	1.74	201	P	P	23 19 18.1	-0.2
MWZ				S	S	23 19 41.4	+1.8
MWZ	Matawai	1.74	201	P*	P	23 19 18.0	-0.2
MWZ				S*	S	23 19 38.6	-1.0
MYRZ	Mayor Island	1.76	250	P*	P	23 19 18.4	-0.1
URZ	Urewera	1.82	211	P	P	23 19 19.1	-0.2
URZ	Urewera	1.82	211	PN	P	23 19 19.0	-0.4
URZ				SN	S	23 19 39.9	-1.6
MARZ	Manawahe	1.83	225	P	P	23 19 19.3	-0.1
MARZ	Manawahe	1.83	225	PN	P	23 19 19.3	-0.1
EDRZ	Edgecumbe	1.88	221	P	P	23 19 20.0	-0.1
EDRZ	Edgecumbe	1.88	221	PN	P	23 19 19.8	-0.2
LIRZ	Lichensteins R	2.01	229	ePN	P	23 19 22.3	+0.5
TAZ	Tarawera	2.09	223	P	P	23 19 24.4	+1.4
TAZ	Tarawera	2.09	223	ePN	P	23 19 23.5	+0.4
KNZ	Kokohu	2.36	192	eP	P	23 19 25.4	-1.4
KNZ	Kokohu	2.36	192	PN	P	23 19 25.4	-1.5
KNZ				SN	S	23 19 52.4	-2.4
BKZ	Black Stump Fm	2.85	210	eP	P	23 19 32.4	-1.2
BKZ	Black Stump Fm	2.85	210	PN	P	23 19 32.3	-1.3
NGZ	Ngauruhoe	3.27	220	P	P	23 19 39.8	+0.4
NGZ	Ngauruhoe	3.27	220	ePN	P	23 19 39.7	+0.3
TUVZ	Tukino	3.31	219	P	P	23 19 41.1	+1.1
TUVZ	Tukino	3.31	219	ePN	P	23 19 39.2	-0.8
CNZ	Chateau	3.31	220	P	P	23 19 40.5	+0.4
CNZ	Chateau	3.31	220	ePN	P	23 19 40.3	+0.2
FWVZ	Far West T-bar	3.35	220	P	P	23 19 41.3	+0.7
FWVZ	Far West T-bar	3.35	220	ePN	P	23 19 40.7	+0.1
MOVZ	Moawhango	3.37	216	P	P	23 19 39.9	-1.0
MOVZ	Moawhango	3.37	216	ePN	P	23 19 39.6	-1.2
WNVZ	Wahianoa	3.38	219	P	P	23 19 42.3	+1.2
WNVZ	Wahianoa	3.38	219	ePN	P	23 19 41.9	+0.8
TSZ	Takapari Road	3.82	208	P	P	23 19 45.8	-1.4
TSZ	Takapari Road	3.82	208	ePN	P	23 19 45.0	-2.2
MRZ	Mangatainoka R	4.49	208	eP	P	23 19 53.4	-3.0
MRZ	Mangatainoka R	4.49	208	ePN	P	23 19 53.4	-3.1
MRZ				SN	S	23 20 41.6	-6.1
KIW	Kapiti Island	4.93	212	P	P	23 19 58.3	-4.1
KIW	Kapiti Island	4.93	212	ePN	P	23 19 57.5	-4.9
MTW	Mount Morrison	4.96	205	P	P	23 19 58.8	-4.0
MTW	Mount Morrison	4.96	205	ePN	P	23 19 58.7	-4.1
NNZ	Nelson	5.92	219	SN	S	23 21 17.7	-5.6
THZ	Tophouse	6.57	218	eP	P	23 20 21.0	-4.1
THZ	Tophouse	6.57	218	ePN	P	23 20 20.0	-5.0
THZ				SN	S	23 21 32.4	-6.7
MQZ	McQueen's Vall	8.22	210	SN	S	23 22 06.4	-14

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*MOS **11** 23:24:05.9±1.5, 43.04N×50.10E, h10^{km}, mb3.8/1, Error ellipse: s-maj=13.3km s-min=11.0km az=19.5*

*CSEM **11** 23:24:06.0±0.2, 42.60N×49.91E, h25^{km}, mb4.0/7, Error ellipse: s-maj=8.2km s-min=3.9km az=156.0*

*IDC **11** 23:24:08.2±1.7, 43.04N×49.76E, mb3.7/3, mb1 3.8/7, mb1mx3.5/21, ML2.9/4, MS2.7/1, Ms1 2.7/1, ms1mx2.5/20, Error ellipse: s-maj=37.6km s-min=14.8km az=137.0*

*NEIC **11** 23:24:11.2±0.8, 43.03N×50.09E, h38^{km}±15^{km}, mb3.8/8, Error ellipse: s-maj=8.9km s-min=6.9km az=195.0*

ISC 11 23:24:10.7±0.8, 42.91N±0.06×50.07E±0.06, h60^{km}±13^{km}, n44, σ1^{s}20/46, mb3.7/5, 1D, Caspian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAK	Makhachkala	1.89	273⇓	iPN	P	23 24 43.2	+1.9
MAK				i		23 25 08.9	
MAK				pmax	pmax		
	comp=N,945nm,0.6s						
MAK				pmax	pmax		
	comp=Z,1μm,0.6s						
MAK				smax			
	comp=N,4μm,0.9s						
MAK				smax			
	comp=E,6μm,0.9s						
DBC	Dubki	2.38	274	PN	P	23 24 48.0	-0.3
DBC				S	S	23 25 17.0	+0.7
XNZR	Khunzakh	2.51	263	PN	P	23 24 45.0	-5.1
TI2	Plekhanov	4.12	255	ePN	P	23 25 25.2	+12
TI2				i		23 26 12.0	
TI2				MLR	MLR		
	comp=E,500nm,0.5s						
TBLG	Delisi	4.13	255	ePn	P	23 25 25.2	+12
TBLG				i		23 26 12.0	
ZEI	Tsey	4.54	270	ePN	P	23 25 19.4	+0.7
ZEI				e		23 26 33.8	
GNI	Garni	4.86	237	Pn	P	23 25 23.1	0.0
	comp=E,0.5nm,0.3s,baz=20,slow=12,SNR=5.5						
GNI				LR	LR	23 27 45.7	
	comp=E,88nm,18.9s,baz=226,slow=46						
GNI	Garni	4.86	237	PN	P	23 25 23.1	0.0
GNI				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GNI				MLR	MLR		
	comp=Z,88nm,18.9s						
GNI	Garni	4.86	237	ePn	P	23 25 22.6	-0.5
KIV	Kislovodsk	5.48	284	eP	P	23 25 30.0	-1.7
KIV				e		23 26 30.7	
KIV				pmax	pmax		
	comp=Z,4.0nm,0.2s						
KIV				smax			
	comp=N,32nm,0.3s						
KIV	Kislovodsk	5.48	284	eP	P	23 25 30.0	-1.7
	comp=N,4.0nm,0.2s						
KIV				e		23 26 30.7	
IGZV	Gazvin	6.51	179	Pn	P	23 25 48.6	+2.5
IMHD	Mahdasht	7.22	176	Pn	P	23 25 55.9	-0.2
IDMV	Damavand	7.47	168	Pn	P	23 25 59.4	-0.1
IRAZ	Razeghan	7.49	181	Pn	P	23 25 58.1	-1.6
IRAZ				Sn	rx	23 26 48.8	
IFIR	Firoozkooh	7.55	163	Pn	P	23 25 59.6	-0.9
IVRN	Varamin	8.00	170	Pn	P	23 26 05.8	-0.9
IQOM	Qom	8.09	174	Pn	P	23 26 09.8	+1.9
ISFB	Sefidab	8.71	168	Pn	P	23 26 16.2	-0.2
BRTR	Keskin Array B	12.76	261	Pn	P	23 27 08.1	-3.1
	comp=N,0.0nm,0.3s,baz=270,slow=9.9,SNR=2.4						
ARU	Arti	14.59	19	eP	P	23 27 30.9	-4.1
OBN	Obninsk	15.05	329	P	P	23 27 45.2	+4.2
	comp=N,13nm,0.7s						
AKASG	Malin Array Be	16.23	306	Pn	P	23 27 54.0	-2.0
	comp=N,2.3nm,0.3s,baz=107,slow=10,SNR=12						
BVAR	Borovoye Array	16.90	46	Pn	P	23 28 04.0	-0.4
	comp=N,0.4nm,0.3s,baz=232,slow=15,SNR=9.4						
BVAR				Sn	S	23 31 02.2	-6.7
	comp=N,0.3nm,0.3s,baz=245,slow=24,SNR=4.2						
CHKZ	Chkalovo	17.34	44	eP	P	23 28 08.5	-1.4
CHKZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
EKS2	Erkin-Say	17.40	83	eP	P	23 28 10.7	0.0
	comp=Z,3.5nm,0.5s						
AML	Almayashu	17.43	84	eP	P	23 28 12.7	+1.6
	comp=Z,5.4nm,0.6s						
AML	Almayashu	17.43	84	eP	P	23 28 12.6	+1.6
	comp=Z,5.4nm,0.6s						
AAK	Ala-Archa	17.92	83	eP	P	23 28 17.1	-0.1
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AAK	Ala-Archa	17.92	83	eP	P	23 28 17.1	-0.1
	comp=Z,3.0nm,0.7s						
AAK	Ala-Archa	17.92	83	eP	P	23 28 17.0	-0.2
	comp=Z,3.1nm,0.7s						
EIL	Elat	17.94	227	P	P	23 28 17.5	+0.1
	comp=Z,2.7nm,0.9s						
KWP	Kalwaria	20.01	299	P	P	23 28 40.5	-0.3
KWP				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KWP	Kalwaria	20.01	299	P	P	23 28 40.5	-0.3
	comp=Z,8.4nm,1.0s						
KWP	Kalwaria	20.01	299	P	P	23 28 40.5	-0.3
	comp=Z,8.4nm,1.0s						
SUW	Suwalki	20.88	311	eP	P	23 28 48.9	-0.9
	comp=Z,27nm,1.0s						
SUW	Suwalki	20.88	311	eP	P	23 28 48.9	-0.8
	comp=Z,27nm,1.0s						
FINES	FINESS Array B	23.45	331	P	P	23 29 16.0	+1.1
	comp=Z,0.9nm,0.3s,mb3.6,baz=133,slow=9.9,SNR=22						
KAF	Kangasniemi	23.82	332	ep	P	23 29 20.0	+1.6
	comp=Z,0.9nm,0.4s,mb3.5						
KAF	Kangasniemi	23.82	332	eP	P	23 29 20.0	+1.6
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.6						
GERES	GERESS Array B	25.83	296	P	P	23 29 38.6	+0.8
	comp=Z,0.7nm,1.0s,mb3.1,baz=111,slow=8.4,SNR=2.9						
AQU	L'Aquila	26.85	281	P	P	23 29 45.9	-1.5
	comp=Z,18nm,1.1s,mb4.5						
AQU	L'Aquila	26.85	281	P	P	23 29 45.9	-1.5
	comp=Z,18nm,1.1s,mb4.5						
HFS	Hagfors	27.95	321	P	P	23 29 58.5	+1.3
	comp=Z,1.8nm,0.8s,mb3.8,baz=120,slow=9.1,SNR=6.0						

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*IDC **11** 23:46:00.2±2.7, 6.35S×147.53E, h34^{km}±20^{km}, mb4.5/11, mb1 4.6/14, mb1mx4.5/16, ML3.9/3, MS4.1/14, Ms1 4.1/14, ms1mx4.0/17, Error ellipse: s-maj=17.8km s-min=9.5km az=120.0*

*BJI **11** 23:46:00.3, 6.30S×147.60E, h49^{km}, mB5.1, mb5.0, Ms4.5, Msz4.1*

*NEIC **11** 23:46:01.4±1.2, 6.31S×147.58E, h49^{km}±10^{km}, mb4.8/27, Error ellipse: s-maj=9.8km s-min=6.7km az=90.0*

ISC 11 23:45:54.2±1.8, 6.26S±0.03×147.67E±0.07, h9^{km}±11^{km}, n75, σ0^{s}95/74, mb4.8/39, MS4.1/13, 1D, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.17	189	Pn	Pn	23 46 47.0	+1.7
	21nm,0.3s,baz=27,slow=4.9,SNR=61						
PMG				Sn	Sn	23 47 24.3	+0.6
	48nm,0.3s,baz=43,slow=20,SNR=9.4						
PMG				LR	LR	23 47 28.0	
	comp=Z,1μm,21.2s,baz=266,slow=29						
PMG	Port Moresby	3.17	189	ePn	Pn	23 46 46.8	+1.5
PMG				eSn	Sn	23 47 25.8	+2.1
CTA	Charters Tower	13.82	186	eP	P	23 49 15.0	+2.1
	7.5nm,0.8s						
CTA	Charters Tower	13.82	186	Pn	P	23 49 13.7	+0.8
	0.3nm,0.3s,baz=360,slow=14,SNR=10						
CTA				Sn	S	23 51 44.6	-2.8
	0.3nm,0.3s,baz=28,slow=12,SNR=2.3						
CTA				LR	LR	23 54 10.4	
	comp=Z,899nm,19.5s,baz=14,slow=36						
CTAO	Charters Tower	13.82	186	eP	P	23 49 14.2	+1.4
	14nm,0.9s						
KAKA	Kakadu	16.35	246	eP	P	23 49 46.2	+0.3
	27nm,0.5s						
KAKA				eS	S	23 52 42.5	-4.7
WRAB	Tennant Creek	18.77	222	eP	P	23 50 15.6	-0.4
	33nm,0.8s						
WRAB				eS	S	23 53 42.2	+0.1
WB2	Warramunga Arr	18.77	222	eP	P	23 50 15.7	-0.3
WB2				eS	S	23 53 42.0	-0.3
WRA	Warramunga Arr	18.78	222	P	P	23 50 15.8	-0.3
	1.1nm,0.3s,baz=48,slow=11,SNR=43						
WRA				S	S	23 53 42.9	+0.4
	baz=43,slow=22,SNR=9.5						
ASAR	Alice Springs	21.79	216	P	P	23 50 48.9	+0.3
	19nm,0.8s,mb4.5,baz=53,slow=8.9,SNR=21						
ASAR				S	S	23 54 45.9	+1.4
	14nm,0.9s,baz=31,slow=22,SNR=13						
ASAR				ScP		23 58 28.8	
	2.6nm,0.9s,baz=47,slow=2.2,SNR=6.5						
ASAR				LR	LR	00 00 25.4	
	comp=Z,502nm,18.0s,MS4.0,baz=39,slow=40						
ASPA	Alice Springs	21.79	216	eP	P	23 50 48.4	-0.2
ASPA				eS	S	23 54 45.3	+0.7
ARMA	Armidale	24.32	172	eP	P	23 51 14.2	+0.7
FITZ	Fitzroy Crossi	24.50	239	eP	P	23 51 15.2	-0.1
	31nm,0.8s,mb4.9						
FITZ				eS	S	23 55 32.4	-0.3
FITZ	Fitzroy Crossi	24.50	239	P	P	23 51 15.5	+0.2
	32nm,0.6s,mb5.0,baz=63,slow=5.6,SNR=59						
FITZ				S	S	23 55 34.2	+1.4
	16nm,1.0s,baz=2.0,slow=22,SNR=4.4						
FITZ				LR	LR	00 02 04.6	
	comp=Z,208nm,20.2s,MS3.6,baz=78,slow=40						
STKA	Stephens Creek	26.11	192	eP	P	23 51 29.4	-1.0
	15nm,0.8s,mb4.6						
STKA	Stephens Creek	26.11	192	P	P	23 51 29.7	-0.7
	20nm,1.0s,mb4.6,baz=357,slow=9.9,SNR=25						
STKA				LR	LR	00 02 21.9	
	comp=Z,645nm,18.5s,MS4.2,baz=282,slow=38						
FORT	Forrest	30.56	215	eP	P	23 52 09.6	-0.9
	28nm,0.6s,mb5.3						
MBWA	Marble Bar	30.83	239	eP	P	23 52 12.6	-0.5
	26nm,1.1s,mb5.0						
TGY	Tagaytay City	33.36	307	LR	LR	00 06 00.6	
	comp=Z,125nm,20.3s,MS3.6,baz=156,slow=36						
CBIJ	Chichi jima	33.58	351	LR	LR	00 03 53.6	
	comp=Z,373nm,18.8s,MS4.1,baz=116,slow=32						
KLBR	Kellerberrin	37.65	224	eP	P	23 53 10.9	-0.6
	32nm,0.7s,mb5.2						
JOW	Kunigami	37.88	331	P	P	23 53 13.4	-0.1
	16nm,0.8s,mb4.8,baz=155,slow=14,SNR=3.0						
JOW				LR	LR	00 05 56.9	
	comp=Z,312nm,21.6s,MS4.1,baz=103,slow=32						
NWAO	Narrogin (SRO)	38.79	223	eP	P	23 53 18.3	-2.9
	13nm,0.8s,mb4.7						
MUN	Mundaring	38.95	225	eP	P	23 53 22.8	+0.3
	14nm,0.7s,mb4.8						
RPZ	Rata Peaks	42.59	155	P	P	23 53 52.2	-0.2
	16nm,0.6s,mb4.9,baz=46,slow=2.2,SNR=7.9						
RPZ				LR	LR	00 09 50.9	
	comp=Z,465nm,18.4s,MS4.4,baz=137,slow=34						
RPZ	Rata Peaks	42.59	155	P	P	23 53 52.2	-0.2
RPZ				LR	LR	00 09 50.9	
MAJO	Matsushiro	43.49	349	eP	P	23 54 00.3	+0.5
	44nm,1.1s,mb5.1						
MAT	Matsushiro	43.49	349	P	P	23 54 00.4	+0.6
MAT	Matsushiro	43.49	349	eP	P	23 54 00.0	+0.2
	21nm,1.0s,mb4.8						
KS15	Wonju Array Si	47.23	338	P	P	23 54 27.6	-2.0
IPM	Ipoh	47.79	282⇓	eP	P	23 54 35.4	+1.0
WHN	Wuhan	48.55	321	eP	P	23 54 41.4	+1.4
ENH	Enshi	51.55	317	eP	P	23 55 04.2	+1.2
	6.9nm,0.7s,mb4.7						
KMI	Kunming	53.68	307	eP	P	23 55 20.2	+1.3
KMI				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.4						
KMI				LR	LR		
	comp=N,137nm,16.6s,MS4.3						
KMI				LR	LR		
	comp=E,142nm,13.1s,MS4.3						
KMI				LR	LR		
	comp=Z,132nm,16.8s,MS4.1						
CMAR	Chiang Mai Arr	53.95	298	P	P	23 55 20.9	-0.1
	comp=Z,2.0nm,0.8s,mb4.1,baz=126,slow=6.3,SNR=5.5						
XAN	Xi'an	54.30	320	P	P	23 55 22.8	-0.5
HHC	Hu-ho-hao-te	57.40	328	eP	P	23 55 44.9	-0.7
HHC				PCP	PcP	23 56 39.3	-0.1
HHC				PP	PP	23 57 52.8	-1.9
HHC				AMB	AMB		
	comp=Z,18nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,357nm,5.7s						
LZH	Lanzhou	58.84	319	eP	P	23 55 57.6	+1.9
LZH				AP	pP	23 56 14.5	+16
LZH				AMB	AMB		
	comp=Z,31nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,216nm,5.6s						
HIA	Hailar	60.42	339	eP	P	23 56 06.0	-0.5
	comp=Z,17nm,0.8s,mb5.1						
SHL	Shillong	62.71	303	e	P	23 56 22.0	-0.2
GTA	Gaotai	63.36	320	eP	P	23 56 31.5	+5.2
GTA				AP	pP	23 56 43.8	+15
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.6						
ULN	Ulaanbaatar	64.65	331	eP	P	23 56 34.5	-0.1
	comp=Z,6.2nm,0.8s,mb4.7						
LSA	Lhasa	64.92	307	P	P	23 56 37.6	+0.9
SONM	Songino Array	64.95	331	P	P	23 56 36.1	-0.5
	comp=Z,10nm,1.1s,mb4.8,baz=144,slow=6.0,SNR=30						
CASY	Casey	65.19	196	eP	P	23 56 36.6	-1.2
MA2	Magadan	65.67	2	P	P	23 56 41.3	+0.3
	comp=Z,37nm,1.3s,mb5.2						
GUN	Gumba	68.56	303	eP	P	23 56 59.4	-0.4
	comp=Z,12nm,0.6s,mb5.0						
PKI	Pulchoki	68.84	303	eP	P	23 57 01.3	-0.3
YAK	Yakutsk	69.49	351	P	P	23 57 04.6	-0.3
	comp=Z,15nm,0.9s,mb4.9						
GKN	Gorkha	69.63	303	eP	P	23 57 05.7	-0.7
	comp=Z,14nm,0.9s,mb4.9						
KOLN	Koldanda	70.42	302	eP	P	23 57 10.7	-0.5
	comp=Z,8.5nm,0.8s,mb4.7						
VNDA	Vanda	71.62	177	P	P	23 57 17.4	-0.3
	comp=Z,5.0nm,0.7s,mb4.6,baz=338,slow=6.2,SNR=12						
VNDA				LR	LR	00 28 05.4	
	comp=Z,93nm,18.4s,MS4.1,baz=348,slow=35						
VNDA	Vanda	71.62	177	eP	P	23 57 17.4	-0.3
	comp=Z,14nm,1.1s,mb4.8						
TKM2	Tokmak 2	81.29	315	eP	P	23 58 12.8	+0.2
	comp=Z,11nm,1.4s,mb4.6						
UCH	Uchtor	81.86	314	eP	P	23 58 16.6	+1.1
	comp=Z,5.0nm,1.0s,mb4.4						
AAK	Ala-Archa	81.99	314	eP	P	23 58 15.3	-0.8
	comp=Z,3.6nm,0.9s,mb4.3						
MAW	Mawson	82.27	203	P	P	23 58 15.6	-1.5
	comp=Z,3.4nm,0.7s,mb4.4,baz=60,slow=6.4,SNR=5.3						
MAW				LR	LR	00 34 56.1	
	comp=Z,152nm,19.1s,MS4.4,baz=230,slow=36						
AML	Almayashu	82.42	314	eP	P	23 58 18.4	0.0
	comp=Z,9.5nm,1.0s,mb4.7						
EKS2	Erkin-Say	82.51	314	eP	P	23 58 19.0	+0.2
	comp=Z,3.3nm,0.8s,mb4.4						
QSPA	South Pole Qui	83.71	180	eP	P	23 58 24.2	-0.1
	comp=Z,20nm,0.9s,mb5.2						
MCK	McKinley	84.20	24	eP	P	23 58 26.7	-0.3
	comp=Z,5.2nm,1.0s,mb4.6						
ILAR	Eielson Array	85.46	23	P	P	23 58 32.4	-1.0
	comp=Z,1.8nm,0.7s,mb4.3,baz=249,slow=4.8,SNR=24						
ILAR				LR	LR	00 38 04.7	
	comp=Z,117nm,18.1s,MS4.3,baz=178,slow=36						
ARU	Arti	94.67	326	eP	P	23 59 15.4	-1.4
	comp=Z,7.8nm,1.3s,mb5.0						
NVAR	Mina Array Bea	97.00	52	P	P	23 59 29.8	+1.8
	comp=Z,0.5nm,0.8s,mb4.0,baz=256,slow=7.4,SNR=3.7						
NVAR				LR	LR	00 36 11.5	
	comp=Z,70nm,19.3s,MS4.2,baz=5.0,slow=31						
PFO	Pinyon Flat Ob	98.32	57	eP	P	23 59 36.4	+2.4
	comp=Z,5.1nm,0.5s,mb5.3						
YKA	Yellowknife Ar	99.09	28	LR	LR	00 41 21.0	
	comp=Z,106nm,19.4s,MS4.3,baz=270,slow=34						
TXAR	Lajitas Array	109.31	61	PKKP	PKKP	00 15 48.9	+5.2
	comp=Z,0.5nm,0.8s,baz=109,slow=7.9,SNR=4.9						
KHC	Kasperske Hory	122.41	326	eP	PKPdf	00 04 51.5	-1.5
GERES	GERESS Array B	122.49	326	PKP	PKPdf	00 04 51.4	-1.8
	comp=Z,1.2nm,0.6s,baz=90,slow=1.3,SNR=13						
LVC	Limon Verde	134.13	130	PKP	PKPdf	00 05 16.0	-0.2
	comp=Z,2.1nm,0.7s,baz=266,slow=8.6,SNR=5.1						
LPAZ	La Paz	138.09	123	PKhKP		00 05 18.1	
	comp=Z,1.8nm,0.9s,baz=300,slow=3.1,SNR=4.9						
LPAZ				PKP	PKPdf	00 05 21.8	-1.8
	comp=Z,4.4nm,0.8s,baz=232,slow=3.2,SNR=9.7						
LPAZ	La Paz	138.09	123	ePKPpre		00 05 11.3	
LPAZ				PKP	PKPdf	00 05 18.1	-5.5
LPAZ				PKP	PKPdf	00 05 21.8	-1.8
LPAZ				ePKPdf	PKPdf	00 05 24.1	+0.4
DBIC	Dimbokro	152.69	272	PKP	PKPdf	00 05 47.2	-1.1
	comp=Z,6.1nm,1.1s,baz=38,slow=7.5,SNR=3.7						
DBIC				PKPbc	PKPdf	00 05 54.8	+6.5
	comp=Z,13nm,0.8s,baz=68,slow=3.3,SNR=23						
DBIC	Dimbokro	152.69	272	PKP	PKPdf	00 05 47.2	-1.1
DBIC				PKPbc	PKPdf	00 05 54.8	+6.5
BDFB	Brasilia	153.27	145	PKP	PKPdf	00 05 48.3	-0.6
	comp=Z,4.8nm,0.9s,baz=191,slow=3.4,SNR=4.7						
BDFB				PKPbc	PKPdf	00 05 55.7	+6.8
	comp=Z,21nm,0.8s,baz=250,slow=1.3,SNR=24						

MAN 11 23:57:29.9, 10.28N×121.90E, h1^{km}, mb4.5, ML3.4, MS3.3, 1C-2D, Panay

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAP	Anini-y	0.15	17⇓	iP	Pg	23 57 32.0	-0.8
AAP				i S	Sg	23 57 40.0	+5.2
GUIM	Jordan	0.76	63	eP	Pg	23 57 44.6	-0.5
GUIM				eS	Sg	23 57 56.7	+1.5
CUYO	Cuyo Island	1.04	303	eP	Pb	23 57 51.3	+1.0
CUYO				eS	Sb	23 58 06.5	+2.3
KALP	Kalibo	1.46	17	eP	Pn	23 57 47.2	-10
KALP				eS	Sb	23 58 13.7	-2.7
RCP	Roxas	1.52	33	eP	Pn	23 57 58.6	+0.3
RCP				eS	Sb	23 58 18.7	+0.4
SNPH	Sibulan	1.61	125⇓	iP	Pn	23 58 00.0	+0.4
SNPH				i S	Sb	23 58 20.5	-0.4
TBP	Tagbilaran	2.02	107	eP	Pn	23 58 05.2	-0.2
TBP				i S	Sn	23 58 34.1	+2.5
LLP	Lapu-Lapu	2.03	89	eP	Pn	23 58 06.0	+0.4
LLP				eS	Sn	23 58 32.3	+0.3
DCPH	Dipolog City	2.21	139⇑	eP	Pn	23 58 08.5	+0.3
DCPH				i S	Sn	23 58 37.0	+0.5
SJMP	San Jose	2.30	341	eP	Pn	23 58 08.3	-1.2
IPIL	Ipil	2.56	165	eP	Pn	23 58 16.5	+3.3
IPIL				eS	Sn	23 58 44.1	-1.3
ENPP	El Nido	2.60	291	eP	Pn	23 58 13.8	0.0
ENPP				eS	Sn	23 58 43.5	-3.0

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*JMA **11** 23:59:46.4±0.2, 33.16N×137.93E, h365^{km}, M3.5*

*NEIC **11** 23:59:50.4±1.0, 33.27N×137.73E, h326^{km}±13^{km}, mb3.9/2, Error ellipse: s-maj=24.3km s-min=17.0km az=72.0*

*IDC **11** 23:59:52.0±1.1, 33.24N×137.84E, h342^{km}±12^{km}, mb3.0/5, mb1 3.2/5, mb1mx2.9/22, Error ellipse: s-maj=35.8km s-min=18.0km az=91.0*

ISC 11 23:59:49.7±0.5, 33.49N±0.07×137.88E±0.09, h348^{km}±6^{km}, n25, σ1^{s}09/32, mb3.3/7, Near south coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	1.64	103	P	P	00 00 39.9	+1.1
	12nm,0.3s,baz=70,slow=23,SNR=2.5						
JHJ				S	S	00 01 19.4	+2.2
	17nm,0.3s,baz=71,slow=22,SNR=2.5						
JWZ	Kozaga	1.81	272	P	P	00 00 38.5	-1.4

JNY	**Yasuok**	**1.86**	**359**	P	**P**	**00 00 41.0**	**+0.8**
JOD2	**Odawara 2**	**2.03**	**29**	P	**P**	**00 00 41.9**	**+0.5**
JWY	**Kouya**	**2.04**	**291**	P	**P**	**00 00 41.4**	**-0.1**
BSO4	**Boso 4**	**2.52**	**53**	P	**P**	**00 00 45.4**	**+0.2**
BSO3	**Boso 3**	**2.54**	**58**	P	**P**	**00 00 44.5**	**-0.9**
JHU	**Hanno**	**2.62**	**26**	P	**P**	**00 00 46.4**	**+0.4**
JHU				S	**S**	**00 01 29.4**	**-0.7**
JRY	**Ryogami san**	**2.66**	**18**	P	**P**	**00 00 47.4**	**+1.1**
JRY				S	**S**	**00 01 33.6**	**+3.0**
JWT	**Wachi**	**2.72**	**312**	P	**P**	**00 00 47.1**	**+0.2**
JAI	**Aioi**	**2.88**	**277**	P	**P**	**00 00 47.2**	**-1.0**
MAJO	**Matsushiro**	**3.06**	**5**	*e*Pn	**P**	**00 00 50.2**	**+0.4**
MAT	**Matsushiro**	**3.06**	**5**	P	**P**	**00 00 51.0**	**+1.2**
MAT	**Matsushiro**	**3.06**	**5**	*e*P	**P**	**00 00 51.0**	**+1.2**
JAG	**Ashikaga**	**3.20**	**23**	P	**P**	**00 00 51.1**	**-0.1**
JAG				S	**S**	**00 01 38.8**	**-0.5**
JYT	**Yasato**	**3.33**	**34**	P	**P**	**00 00 52.0**	**-0.4**
JYT				S	**S**	**00 01 40.0**	**-1.5**
JHO	**Hitachi**	**3.81**	**35**	P	**P**	**00 00 56.5**	**-0.6**
JHO				S	**S**	**00 01 48.1**	**-1.9**
JFK	**Kawauchi**	**4.57**	**31**	P	**P**	**00 01 04.9**	**-0.2**
JFK				S	**S**	**00 02 03.7**	**-0.6**
ENH	**Enshi**	**24.29**	**270**	*e*P	**P**	**00 04 37.6**	**-0.6**
	13nm,0.8s,mb4.2						
ULN	**Ulaanbaatar**	**27.22**	**311**	P	**P**	**00 05 04.5**	**0.0**
	1.4nm,0.9s,mb3.2						
SONM	**Songino Array**	**27.63**	**311**	P	**P**	**00 05 10.5**	**+2.3**
	0.7nm,1.1s,mb2.8,baz=111,slow=7.6,SNR=3.8						
FITZ	**Fitzroy Crossi**	**52.62**	**195**	P	**P**	**00 08 30.4**	**-0.7**
	1.8nm,0.6s,mb3.6,baz=30,slow=8.1,SNR=5.0						
WRA	**Warramunga Arr**	**53.24**	**184**	P	**P**	**00 08 34.1**	**-1.5**
	0.6nm,0.4s,mb3.3,baz=0.3,slow=7.7,SNR=16						
ILAR	**Eielson Array**	**54.02**	**31**	P	**P**	**00 08 43.0**	**+2.5**
	0.5nm,0.8s,mb2.9,baz=272,slow=4.7,SNR=4.8						
ASAR	**Alice Springs**	**56.97**	**184**	P	**P**	**00 09 01.6**	**-0.2**
	0.3nm,0.5s,mb2.9,baz=17,slow=12,SNR=6.4						

LDG ***12*** *00:07:49.8±0.2, 48.08N×7.94E, h15^{km}, Md1.9/3, Ml1.7/5, Error ellipse: s-maj=3.3km s-min=2.1km az=116.0*

STR 12 00:07:48.8±0.8**, 48.03N×8.00E, h15^{km}±1^{km}, Ml1.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WLS	**Welschbruch**	**0.58**	**312**	Pg	Pg	00 08 00.9	+0.2
WLS				Sg	Sg	00 08 07.8	-0.8
ECH	**Echery**	**0.59**	**289**	Pg	Pg	00 08 00.2	-0.8
ECH				Sg	Sg	00 08 08.7	-0.4
MOF	**Molkenrain**	**0.61**	**253**	Pg	Pg	00 08 01.7	+0.4
CDF	**Champ du Feu**	**0.62**	**309**	*e*Pg	Pg	00 08 00.9	-0.5
CDF				*e*Pn	Pn	00 08 01.5	-1.2
CDF				*e*Sg	Sg	00 08 07.8	-2.0
	3.3nm,0.2s						
HINF	**Hinteralfeld**	**0.80**	**255**	*e*Pg	Pg	00 08 04.3	-0.7
HINF				*e*Sg	Sg	00 08 15.4	-0.4
	2.1nm,0.2s						
HAU	**Haudompre**	**1.11**	**269**	*e*Pg	Pg	00 08 10.0	-1.1
HAU				*e*Sg	Sg	00 08 23.8	-2.2
	4.7nm,0.3s						
RFYF	**Reffroy**	**1.79**	**291**	*e*Sg	Sg	00 08 44.7	-3.8
	1.6nm,0.2s						
CABF	**La Chapelle**	**1.93**	**223**	*e*Pg	Pg	00 08 26.1	-1.2
CABF				*e*Sg	Sg	00 08 51.3	-1.8
	0.1nm,0.2s						
SFTF	**Sexfontaines**	**1.99**	**276**	*e*Sg	Sg	00 08 51.1	-4.2
	0.4nm,0.2s						

CSEM ***12*** *00:14:12.0±0.1, 67.92N×20.16E, h2^{km}, ML2.0, Error ellipse: s-maj=3.9km s-min=3.2km az=120.0, Mining explosion.*

UPP ***12*** *00:14:12.7, 67.84N×20.21E, h0^{km}, ML2.7, Mining explosion.*

HEL 12 00:14:13.1±0.1**, 67.86N×20.20E, ML2.0, ML2.6**(UPP)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	**Kurravaara**	**0.11**	**29**	*i* P	Pg	00 14 14.9	-0.4
KUA				*i* S	Sg	00 14 16.7	-0.1
NIKU	**Nikkaluokta**	**0.44**	**272**	*i* P	Pg	00 14 20.9	-1.0
DUNU	**Dundret**	**0.75**	**169**	*i* P	Pg	00 14 26.2	-1.9
PAJU	**Pajala**	**1.40**	**125**	*e*P	Pb	00 14 37.9	-2.0
ERTU	**Ertsjaerv**	**1.52**	**148**	*e*P	Pn	00 14 38.9	-2.8
KTK1	**Kautokeino**	**1.61**	**43**	*e*P	Pn	00 14 40.9	-2.1
TRO	**Tromso**	**1.84**	**346**	*e*P	Pn	00 14 44.3	-1.9
SJUU	**Sjulsmark**	**2.43**	**166**	*e*P	Pn	00 14 54.1	-0.5
SGF	**Sodankyl**	**2.46**	**97**	*e*P	Pn	00 14 54.3	-0.7
SGF				*e*S	Sn	00 15 25.7	-0.5
SGF	**Sodankyl**	**2.46**	**97**	P	Pn	00 14 54.2	-0.8
SGF				S	Sn	00 15 25.6	-0.6
LILU	**Lilltraesk**	**2.59**	**183**	*e*P	Pn	00 14 57.0	+0.1
MOR8	**Moi Rana**	**2.82**	**236**	*e*	Sn	00 15 34.1	-1.4
KEV	**Kevo**	**3.12**	**49**	*e*P	Pn	00 15 03.5	-1.0
KEV				*e*S	Sn	00 15 41.5	-1.6
KEV				MSG		00 15 48.5	
	comp=Z,5.3nm,0.3s						
KEV	**Kevo**	**3.12**	**49**	P	Pn	00 15 03.5	-1.0
KEV				S	Sn	00 15 41.4	-1.7
	comp=Z,5.3nm,0.3s						
SVAU	**Svanoeiden**	**3.39**	**185**	*e*P	Pn	00 15 08.2	-0.1
SVAU	**Svanoeiden**	**3.39**	**185**	P	Pn	00 15 08.2	-0.1
OUL	**Oulu**	**3.60**	**138**	*e*PG	Pg	00 15 16.8	-8.2
OUL				*e*SB	Sb	00 16 00.3	-1.8
MSF	**Maaselka**	**4.00**	**115**	*e*P	Pn	00 15 15.9	-1.0
MSF				*e*SG	Sg	00 16 15.3	-11
MSF				MSG		00 16 19.5	
	comp=Z,2.0nm,0.3s						
MSF	**Maaselka**	**4.00**	**115**	Sg	Sg	00 16 15.2	-11
	comp=Z,2.0nm,0.3s						
BREU	**Bredtraesk**	**4.04**	**190**	*e*P	Pn	00 15 16.8	-0.8
VAF	**Ylistaro**	**4.95**	**167**	*e*P	Pn	00 15 29.1	-1.3
VAF				*e*S	Sn	00 16 25.3	-3.9

CASC 12 00:25:18.1±1.9**, 12.90N×88.45W, h70^{km}±20^{km}, MD3.8, ML3.3, 14C-5D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSM	**San Miguel**	**0.56**	**18**	⇑*e*P	P	00 25 31.7	0.0
VSM				*e*S	S	00 25 42.9	+1.4
BLLM	**Bellamira**	**0.58**	**21**	⇓*e*P	P	00 25 31.4	-0.5
BLLM				*e*S	S	00 25 43.0	+1.0
CNCH	**Conchagua**	**0.71**	**58**	⇓*e*P	P	00 25 32.5	-0.8
CNCH				*e*S	S	00 25 45.0	+0.4
SNVI	**San Vicente**	**0.81**	**332**	⇑*e*P	P	00 25 34.2	-0.2
SNVI				*e*S	S	00 25 47.6	+1.1
CAHU	**Cacacuatique**	**0.90**	**15**	⇓*e*P	P	00 25 34.9	-0.7
CAHU				*e*S	S	00 25 50.0	+1.5
LCBS	**La Ceiba**	**0.91**	**326**	⇑*i*P	P	00 25 35.6	-0.1
LCBS				*e*S	S	00 25 49.0	+0.3
LFRS	**El Faro**	**0.94**	**321**	⇑*i*P	P	00 25 35.8	-0.2
LFRS				*e*S	S	00 25 49.4	+0.1
LBRS	**Las Brisas**	**1.02**	**326**	*e*P	P	00 25 37.1	0.0
LBRS				*e*S	S	00 25 51.0	-0.1
LFU	**La Fuente**	**1.06**	**323**	*e*P	P	00 25 37.4	-0.3
LFU				*e*S	S	00 25 53.3	+1.1
SNET	**Serv Nac Est T**	**1.09**	**316**	*e*P	P	00 25 37.8	-0.2
BOQS	**Boqueron**	**1.16**	**316**	⇑*e*P	P	00 25 38.9	0.0
BOQS				*e*S	S	00 25 55.8	+1.3
CRIN	**San Cristobal**	**1.38**	**98**	⇓*e*P	P	00 25 42.7	+0.6
CRIN				*e*S	S	00 26 00.9	+1.1
SBLS	**San Blas**	**1.48**	**310**	⇑*e*P	P	00 25 43.3	+0.1
SBLS				*e*S	S	00 26 02.8	+1.0
SNJE	**San Jose**	**1.48**	**311**	⇑*e*P	P	00 25 43.1	-0.2
SNJE				*e*S	S	00 26 03.5	+1.6
RTR	**El Retiro**	**1.53**	**311**	⇑*e*P	P	00 25 44.0	0.0
RTR				*e*S	S	00 26 03.5	+0.5
LEON	**Leon**	**1.60**	**107**	⇓*e*P	P	00 25 44.5	-0.3
LEON				*e*S	S	00 26 04.3	-0.4
TELN	**Telica**	**1.61**	**100**	*e*P	P	00 25 43.5	-1.5
TELN				*e*S	S	00 26 04.2	-0.7
RBDL	**Robledal**	**1.70**	**315**	⇑*e*P	P	00 25 46.1	-0.2
MTO2	**Montecristo 2**	**1.74**	**330**	⇑*e*P	P	00 25 46.5	-0.3
CNGN	**Cerro Negro**	**1.76**	**103**	⇑*e*P	P	00 25 46.7	-0.3
CNGN				*e*S	S	00 26 11.8	+3.4
MIRN	**Miramar**	**1.76**	**105**	*e*P	P	00 25 46.9	-0.2
MIRN				*e*S	S	00 26 08.3	-0.2
COPN	**Copaltepe**	**1.95**	**111**	⇑*e*P	P	00 25 49.3	-0.4
COPN				*e*S	S	00 26 11.8	-1.2
APYN	**Apoyeque**	**2.16**	**108**	⇑*e*P	P	00 25 52.4	-0.2
APYN				*e*S	S	00 26 18.1	0.0
XAVN	**Gruta Xavier**	**2.21**	**109**	⇑*e*P	P	00 25 53.0	-0.3
XAVN				*e*S	S	00 26 19.3	-0.1
MGAN	**Managua**	**2.28**	**109**	*e*S	S	00 26 20.9	-0.3
	comp=N,244nm,0.3s						
CRUN	**El Crucero**	**2.29**	**113**	*e*P	P	00 25 55.0	+0.5
CRUN				*e*S	S	00 26 22.4	+0.9
WILN	**Americas 2**	**2.33**	**108**	*e*P	P	00 25 56.2	+1.1
WILN				*e*S	S	00 26 22.0	-0.5
TICN	**Ticuantepe**	**2.33**	**111**	*e*P	P	00 25 55.5	+0.4
TICN				*e*S	S	00 26 22.9	+0.4

ISK ***12*** *00:53:16.6, 40.57N×32.93E, h5^{km}, MD4.2, ML4.2*

IDC ***12*** *00:53:17.3±0.9, 40.67N×33.28E, mb3.7/5, mb1 3.9/11, mb1mx3.7/24, ML3.7/6, MS3.3/4, Ms1 3.4/4, ms1mx3.1/19, Error ellipse: s-maj=27.3km s-min=7.7km az=68.0*

CSEM ***12*** *00:53:17.4±0.1, 40.59N×32.93E, h5^{km}, mb4.0/2, Error ellipse: s-maj=2.0km s-min=1.1km az=175.0*

NEIC ***12*** *00:53:19.3±0.3, 40.55N×32.95E, h5^{km}, mb4.0/11, ML4.3(ISK), Error ellipse: s-maj=4.6km s-min=3.7km az=14.0*

ZUR_RM ***12*** *00:53:19, 40.55N×32.95E, h15^{km}, Mw4.2/13, Moment Tensor Solution. s13 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-0.96; M$_{\theta\theta}$-1.46; M$_{\phi\phi}$2.42; M$_{r\theta}$-0.01; M$_{\theta\phi}$-1.88; M$_{\phi r}$-0.06; Best double couple: M$_0$2.7×10^{15} NP1:φ$_s$23°, δ89°,λ-2°. NP2:φ$_s$113°,δ88°,λ-179°. Principal axes: T 3.184, Plg1°, Azm68°; N -.959, Plg88°, Azm183°; P -2.225, Plg2°, Azm338°;*

ORF ***12*** *00:53:20.8, 40.11N×33.51E, h10^{km}*

ISC 12 00:53:18.2±0.2**, 40.55N**±0.02×**32.94E**±0.02**, h5^{km}, n106, σ1^{s}06**/117**, mb3.8**/8**, MS3.4**/2**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELDT	**Eldivan**	**0.38**	**99**	*i* P	**Pg**	**00 53 25.2**	**-0.5**
ELDT				*i* S	**Sg**	**00 53 29.6**	**-1.1**
CANT	**Cankiri**	**0.52**	**83**	*i* PG	**Pg**	**00 53 28.0**	**-0.6**
CANT				*i* SG	**Sg**	**00 53 36.4**	**+0.8**
CANT	**Cankiri**	**0.52**	**83**	Pg	**Pg**	**00 53 28.0**	**-0.6**
CANT				Sg	**Sg**	**00 53 36.0**	**+0.5**
CANT	**Cankiri**	**0.52**	**83**	*i* Pg	**Pg**	**00 53 28.0**	**-0.6**
CANT				Sg	**Sg**	**00 53 36.0**	**+0.4**
LOD	**Lodumlu**	**0.67**	**192**	*i* PG	**Pg**	**00 53 30.9**	**-0.8**
ANTO	**Ankara**	**0.69**	**190**	*i* PG	**Pg**	**00 53 30.7**	**-1.3**
SAFT	**Safranbolu**	**0.72**	**345**	*i* PG	**Pg**	**00 53 31.2**	**-1.4**
TOS	**Tosya**	**0.96**	**59**	*i* PG	**Pg**	**00 53 35.5**	**-1.8**
BRTR	**Keskin Array B**	**0.98**	**147**	Pg	**Pg**	**00 53 35.9**	**-1.9**
	206nm,0.3s,baz=329,slow=14,SNR=683						
BRTR				Lg		00 53 50.6	
	302nm,0.3s,baz=325,slow=24,SNR=25						
BALT	**Daday**	**1.04**	**19**	*i* P	**Pb**	**00 53 38.3**	**0.0**
BALT				*i* S	**Sb**	**00 53 52.5**	**+0.4**
KAMT	**Kaman**	**1.32**	**153**	*i* PN	**Pn**	**00 53 42.7**	**-0.6**
MDU	**Mudurnu**	**1.32**	**267**	*i* PN	**Pn**	**00 53 43.3**	**0.0**
CTKT	**Corum**	**1.41**	**86**	*i* P	**Pn**	**00 53 43.9**	**-0.7**
CTKT				*i* S	**Sb**	**00 54 03.3**	**+0.5**
HENT	**Hendek**	**1.58**	**281**	*i* P	**Pn**	**00 53 48.0**	**+1.0**
HENT				*i* S	**Sb**	**00 54 15.8**	**+8.2**
BYBT	**Boyabat**	**1.66**	**56**	*i* PN	**Pn**	**00 53 47.9**	**-0.3**
KIZT	**Kizilcal**	**1.85**	**207**	*i* PN	**Pn**	**00 53 51.0**	**0.0**
ESKT	**Eskisehir**	**1.91**	**238**	*i* P	**Pn**	**00 53 51.9**	**+0.2**
ESKT				*i* S	**Sn**	**00 54 24.6**	**+8.3**
ESKT	**Eskisehir**	**1.91**	**238**	*i* Pn	**Pn**	**00 53 51.5**	**-0.2**
YOZ	**Yozgat**	**2.04**	**116**	*i* PN	**Pn**	**00 53 54.0**	**+0.5**
EYL	**Eskiyayla**	**2.12**	**271**	*e*PN	**Pn**	**00 53 55.2**	**+0.4**
AVNT	**Avonos**	**2.30**	**139**	*i* P	**Pn**	**00 53 59.2**	**+1.9**
AVNT				*i* S	**Sn**	**00 54 31.2**	**+4.8**
KVT	**Kavak**	**2.42**	**76**	PN	**Pn**	**00 53 58.9**	**-0.1**
HRT	**Hereke**	**2.50**	**277**	PN	**Pn**	**00 54 00.2**	**0.0**
KONT	**Konya--Tatoy**	**2.64**	**190**	*e*PN	**Pn**	**00 54 02.3**	**+0.2**
ALT	**Altintas**	**2.64**	**237**	PN	**Pn**	**00 54 01.8**	**-0.4**
NIG	**Nigde**	**2.76**	**151**	*e*PN	**Pn**	**00 54 04.3**	**+0.5**
TOKT	**Tokat**	**2.76**	**94**	PN	**Pn**	**00 54 03.5**	**-0.4**
BNN	**Bunyan**	**2.81**	**126**	PN	**Pn**	**00 54 05.1**	**+0.5**
ISK	**Istanbul-Kandi**	**2.99**	**281**	PN	**Pn**	**00 54 07.2**	**0.0**
ORLT	**Orhaneli**	**3.13**	**262**	PN	**Pn**	**00 54 09.2**	**-0.1**
ORLT	**Orhaneli**	**3.13**	**262**	Pn	**Pn**	**00 54 09.1**	**-0.1**
ISP	**Isparta**	**3.29**	**216**	PN	**Pn**	**00 54 10.9**	**-0.6**
DST	**Dursunbey**	**3.44**	**256**	*e*PN	**Pn**	**00 54 13.6**	**0.0**
KHL	**Karahalli**	**3.46**	**231**	PN	**Pn**	**00 54 13.2**	**-0.6**
KCT	**Karacabey**	**3.51**	**267**	PN	**Pn**	**00 54 14.0**	**-0.6**
BCK	**Bucak**	**3.58**	**211**	*e*PN	**Pn**	**00 54 15.7**	**0.0**
HDMB	**Hadim**	**3.59**	**186**	*e*PN	**Pn**	**00 54 16.6**	**+0.8**
BNT	**Bandirma**	**3.84**	**269**	PN	**Pn**	**00 54 18.4**	**-0.7**
EDC	**Edincik**	**3.88**	**269**	PN	**Pn**	**00 54 19.1**	**-0.8**
BALB	**Balikesir**	**3.99**	**258**	PN	**Pn**	**00 54 20.4**	**-0.9**
ANTB	**Antalya**	**4.06**	**207**	*e*PN	**Pn**	**00 54 22.8**	**+0.4**
DENT	**Denizli**	**4.12**	**229**	*e*PN	**Pn**	**00 54 23.6**	**+0.3**
CEYT	**Ceyhan**	**4.16**	**147**	*e*PN	**Pn**	**00 54 24.2**	**+0.4**
AKS	**Akhisar**	**4.29**	**249**	PN	**Pn**	**00 54 25.1**	**-0.6**
ELL	**Elmali**	**4.47**	**213**	PN	**Pn**	**00 54 28.8**	**+0.5**
PSN	**Preselentsi**	**4.73**	**313**	*e*P	**Pn**	**00 54 30.0**	**-1.8**
GAZ	**Gaziantep**	**4.74**	**134**	*e*PN	**Pn**	**00 54 32.8**	**+0.7**
MYA	**Malataya**	**4.79**	**116**	*e*PN	**Pn**	**00 54 32.2**	**-0.5**
MALT	**Malatya**	**4.80**	**116**	*e*PN	**Pn**	**00 54 32.7**	**-0.1**
MALT	**Malatya**	**4.80**	**116**	Pn	**Pn**	**00 54 32.7**	**-0.1**
MALT				*e*Pg	**Pb**	**00 54 43.8**	**+1.2**
MALT				*e*Sg	**Sg**	**00 55 49.5**	**-8.5**
IZM	**Izmir**	**4.89**	**246**	*e*PN	**Pn**	**00 54 33.0**	**-1.2**
PRD	**Provadia**	**4.91**	**304**	*e*P	**Pn**	**00 54 35.0**	**+0.5**
FETY	**Fethiye**	**4.94**	**219**	PN	**Pn**	**00 54 34.8**	**0.0**
YER	**Yerkesik**	**4.98**	**228**	PN	**Pn**	**00 54 35.8**	**+0.3**
GUMT	**Gumushane**	**4.99**	**89**	PN	**Pn**	**00 54 35.2**	**-0.3**
BLCB	**Balcova**	**5.05**	**247**	*e*PN	**Pn**	**00 54 35.4**	**-1.1**
DALT	**Dalyan (Mudla)**	**5.06**	**223**	PN	**Pn**	**00 54 37.0**	**+0.5**
HTY	**Hatay**	**5.08**	**149**	*e*PN	**Pn**	**00 54 37.7**	**+0.8**
PTK	**Pertek**	**5.24**	**106**	PN	**Pn**	**00 54 40.1**	**+0.9**
EZC	**Erzincan**	**5.33**	**96**	PN	**Pn**	**00 54 35.5**	**-4.8**
URFA	**Urfa**	**5.53**	**122**	*e*PN	**Pn**	**00 54 44.4**	**+1.2**
CSS	**Prodhromos**	**5.58**	**177**	Pn	**Pn**	**00 54 41.4**	**-2.5**
CSS	**Prodhromos**	**5.58**	**177**	Pn	**Pn**	**00 54 41.4**	**-2.5**
SZH	**Strazhica**	**5.89**	**300**	*e*P	**Pn**	**00 54 50.0**	**+1.7**
BINT	**Bingol**	**6.05**	**104**	*e*PN	**Pn**	**00 54 51.7**	**+1.1**
DIY	**Diyarbakir**	**6.25**	**113**	*e*PN	**Pn**	**00 54 54.3**	**+1.0**
PVL	**Pavlikeni**	**6.27**	**298**	*e*P	**Pn**	**00 54 53.0**	**-0.7**
RZN	**Rozhen**	**6.32**	**283**	*e*P	**Pn**	**00 54 52.0**	**-2.3**
EZM	**Erzurum**	**6.48**	**93**	*e*PN	**Pn**	**00 54 57.1**	**+0.6**
VRT	**Varto**	**6.76**	**99**	*e*PN	**Pn**	**00 55 00.8**	**+0.3**
BTMT	**Batman**	**7.03**	**107**	*e*PN	**Pn**	**00 55 03.5**	**-0.8**
MMB	**Musomiste**	**7.04**	**282**	*e*P	**Pn**	**00 55 12.0**	**+7.5**
MLR	**Muntele Rosu**	**7.12**	**316**	Pn	**Pn**	**00 55 03.5**	**-2.0**
	0.2nm,0.3s,baz=110,slow=22,SNR=4.1						
MLR				Sn	**Sn**	**00 56 28.7**	**+1.0**
	0.7nm,0.3s,baz=264,slow=22,SNR=2.3						
MLR				LR	LR	00 58 21.9	
	comp=Z,149nm,19.2s,baz=22,slow=42						
KKB	**Krupnik**	**7.55**	**283**	*e*P	**Pn**	**00 55 10.0**	**-1.6**
KIV	**Kislovodsk**	**7.99**	**62**	P	**Pn**	**00 55 09.6**	**-8.2**
IDI	**Anoyia**	**8.25**	**233**	Pn	**P**	**00 55 21.2**	**-0.2**
	2.2nm,0.3s,baz=42,slow=14,SNR=11						
VANB	**Van**	**8.30**	**100**	*e*PN	**P**	**00 55 21.9**	**-0.2**
ASF	**Jabal al Asfar**	**8.94**	**158**	Pn	**P**	**00 55 31.2**	**+0.2**
	0.1nm,0.3s,baz=16,slow=8.0,SNR=3.7						
ASF				LR	LR	00 59 35.9	
	comp=Z,148nm,19.9s,baz=29,slow=42						
AKASG	**Malin Array Be**	**10.48**	**347**	Pn	**P**	**00 55 46.2**	**-5.9**
	2.4nm,0.3s,baz=158,slow=13,SNR=18						
VRAC	**Vranov**	**14.49**	**313**	Pn	**P**	**00 56 46.4**	**+0.6**
	0.3nm,0.3s,baz=108,slow=19,SNR=5.0						
GERES	**GERESS Array B**	**15.97**	**308**	Pn	**P**	**00 57 05.5**	**+0.5**
	0.1nm,0.3s,baz=113,slow=10,SNR=9.2						
GRA1	**Grafenberg Arr**	**17.80**	**308**	*e*P	**P**	**00 57 29.3**	**+1.2**
GRF	**Grafenberg Arr**	**17.80**	**308**	*e*P	**P**	**00 57 29.3**	**+1.2**
MOX	**Moxa**	**17.96**	**311**	*e*P	**P**	**00 57 30.0**	**-0.1**
PGF	**Pioggiola**	**18.02**	**284**	*e*P	**P**	**00 57 35.0**	**+4.1**
	20nm,1.0s						
MBDF	**Montbardon**	**19.67**	**291**	*e*P	**P**	**00 57 53.1**	**+2.4**
	8.2nm,0.8s						
LPG	**La Plagne**	**19.74**	**293**	*e*P	**P**	**00 57 54.0**	**+2.5**
	25nm,1.2s						
LPL	**La Plagne**	**19.75**	**293**	*e*P	**P**	**00 57 54.0**	**+2.4**
	13nm,1.2s						
CDF	**Champ du Feu**	**19.86**	**302**	*e*P	**P**	**00 57 53.4**	**+0.5**
	10nm,1.1s						
HINF	**Hinteralfeld**	**20.01**	**300**	*e*P	**P**	**00 57 54.7**	**+0.3**
ORIF	**Oris-en-Rattie**	**20.31**	**291**	*e*P	**P**	**00 58 00.0**	**+2.4**
	17nm,1.1s						
CABF	**La Chapelle**	**20.32**	**296**	*e*P	**P**	**00 57 58.3**	**+0.6**
	81nm,1.8s						
HAU	**Haudompre**	**20.38**	**300**	*e*P	**P**	**00 58 00.1**	**+1.8**
FINES	**FINESS Array B**	**21.34**	**351**	P	**P**	**00 58 04.7**	**-3.5**
	2.5nm,0.5s,mb3.8,baz=156,slow=12,SNR=26						
SMF	**Signal de Mont**	**21.86**	**296**	*e*P	**P**	**00 58 15.0**	**+1.5**
KAF	**Kangasniemi**	**21.97**	**352**	*e*p	**P**	**00 58 11.5**	**-2.9**
	9.3nm,0.8s,mb4.3						
SSF	**Saint Saulge**	**22.14**	**297**	*e*P	**P**	**00 58 18.4**	**+2.2**
	16nm,1.2s,mb4.0						
AVF	**Avril sur Loir**	**22.21**	**296**	*e*P	**P**	**00 58 17.7**	**+0.7**
HFS	**Hagfors**	**22.97**	**335**	P	**P**	**00 58 22.7**	**-1.6**
	2.4nm,0.8s,mb3.7,baz=135,slow=8.4,SNR=5.2						
ARU	**Arti**	**23.05**	**38**	*e*P	**P**	**00 58 21.6**	**-3.5**
	32nm,1.5s,mb4.5						
NB2	**NORSAR Subarra**	**24.47**	**334**	P	**P**	**00 58 38.3**	**-0.5**
	0.8nm,0.7s,mb3.3,baz=132,slow=9.3						
NOA	**NORSAR Array B**	**24.47**	**334**	P	**P**	**00 58 37.5**	**-1.2**
	1.7nm,0.8s,mb3.5,baz=137,slow=9.7,SNR=4.6						
NOA				LR	LR	01 09 36.8	
	comp=Z,58nm,18.5s,MS3.1,baz=5.0,slow=40						
EKA	**Eskdalemuir Ar**	**27.96**	**314**	P	**P**	**00 59 09.2**	**-2.1**
	0.7nm,0.6s,mb3.5,baz=114,slow=9.0,SNR=4.3						
ARCES	**ARCESS Array B**	**29.32**	**355**	LR	LR	01 13 11.3	
	comp=Z,151nm,18.5s,MS3.6,baz=179,slow=41						
YKA	**Yellowknife Ar**	**74.04**	**345**	P	**P**	**01 04 55.0**	**-1.1**
	0.2nm,0.5s,mb3.3,baz=24,slow=5.4,SNR=10.0						
YKA	**Yellowknife Ar**	**74.04**	**345**	*e*P	**P**	**01 04 56.9**	**+0.8**

NEIC ***12*** *01:01:16.3±0.2, 4.84S×103.00E, h30^{km}, mb4.8/18, Error ellipse: s-maj=9.0km s-min=4.8km az=52.0*

BJI ***12*** *01:01:16.3, 4.80S×103.00E, h30^{km}, mB5.5, mb4.9, Ms4.5, Msz4.2*

SYO ***12*** *01:01:17.7, 4.90S×102.91E, h45^{km}, MB4.8*

IDC ***12*** *01:01:25.5±3.2, 4.75S×103.22E, h107^{km}±27^{km}, mb4.4/19, mb1 4.5/19, mb1mx4.4/21, MS3.5/8, Ms1 3.5/8, ms1mx3.4/16, Error ellipse: s-maj=21.6km s-min=9.2km az=44.0*

ISC 12 01:01:15.2±0.3**, 4.91S**±0.05×**103.01E**±0.06**, h33^{km}, (h43^{km}**±2.0^{km}**:pP-P), n93, σ0^{s}90**/81**, mb4.8**/46**, MS3.7**/12**, 2C, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COCO	**West Island**	**9.46**	**220**	*e*P	**P**	**01 03 30.4**	**-1.8**
	138nm,0.5s						
MBWA	**Marble Bar**	**22.90**	**136**	*e*P	**P**	**01 06 19.5**	**+2.1**
	2.9nm,0.5s,mb4.0						
CM31	**Chiang Mai Arr**	**23.56**	**350**	*e*P	**P**	**01 06 24.2**	**+0.3**
	5.8nm,0.5s,mb4.3						
CMAR	**Chiang Mai Arr**	**23.56**	**350**	P	**P**	**01 06 24.0**	**+0.2**
	6.3nm,0.5s,mb4.3,baz=182,slow=8.9,SNR=32						
CMAR				LR	LR	01 17 23.9	
	comp=Z,81nm,18.6s,MS3.2,baz=170,slow=41						
FITZ	**Fitzroy Crossi**	**25.71**	**122**	*e*P	**P**	**01 06 44.3**	**-0.2**
	8.4nm,0.4s,mb4.6						
FITZ	**Fitzroy Crossi**	**25.71**	**122**	P	**P**	**01 06 44.5**	**-0.1**
	10.0nm,0.4s,mb4.7,baz=333,slow=5.2,SNR=82						
FITZ				LR	LR	01 15 31.9	
	comp=Z,46nm,19.6s,MS3.0,baz=7.3,slow=33						
TGY	**Tagaytay City**	**25.95**	**43**	P	**P**	**01 06 46.0**	**-0.7**
	241nm,0.3s,baz=123,slow=1.8,SNR=3.7						
TGY				LR	LR	01 16 22.7	
	comp=Z,113nm,21.2s,MS3.4,baz=145,slow=35						
TGY	**Tagaytay City**	**25.95**	**43**	P	**P**	**01 06 46.0**	**-0.7**
TGY				LR	LR	01 16 22.7	
KMI	**Kunming**	**29.85**	**360**	*e*P	**P**	**01 07 24.4**	**+2.5**
KMI				AP	pP	01 07 36.0	+4.5
KMI				XP	sP	01 07 40.6	+4.7
KMI				PP	PP	01 08 23.1	+3.5
KMI				S	**S**	**01 12 19.8**	**+4.4**
KMI				SS	SS	01 13 55.7	+3.7
KMI				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb4.6						
KMI				AMB	AMB		
	comp=Z,114nm,5.6s						
KMI				LR	LR		
	comp=Z,231nm,14.6s,MS4.0						
WRA	**Warramunga Arr**	**33.95**	**119**	P	**P**	**01 07 57.4**	**-0.5**
	comp=Z,9.0nm,0.4s,mb5.0,baz=299,slow=9.1,SNR=128						
WRA				PcP	PcP	01 10 35.3	-0.6
	comp=Z,1.8nm,0.4s,baz=299,slow=2.1,SNR=9.6						
WRA				S	**S**	**01 13 13.8**	**-5.8**
	comp=Z,1.0nm,1.1s,baz=297,slow=17,SNR=2.8						
WRAB	**Tennant Creek**	**33.96**	**119**	*e*P	**P**	**01 07 57.4**	**-0.6**
	comp=Z,15nm,0.4s,mb5.3						
WB2	**Warramunga Arr**	**33.96**	**119**	*e*P	**P**	**01 07 57.6**	**-0.4**
ASPA	**Alice Springs**	**35.13**	**125**	*e*P	**P**	**01 08 08.3**	**+0.4**
ASAR	**Alice Springs**	**35.13**	**125**	P	**P**	**01 08 08.4**	**+0.4**
	comp=Z,6.4nm,0.4s,mb4.9,baz=295,slow=7.7,SNR=131						
ASAR				LR	LR	01 20 54.3	
	comp=Z,56nm,21.4s,MS3.3,baz=263,slow=33						
ENH	**Enshi**	**35.53**	**10**	*e*P	**P**	**01 08 10.2**	**-1.1**
PKI	**Pulchoki**	**36.49**	**333**	*e*P	**P**	**01 08 19.9**	**+0.5**
	comp=Z,6.2nm,0.4s,mb4.8						
GUN	**Gumba**	**36.57**	**334**	*e*P	**P**	**01 08 21.0**	**+0.9**
	comp=Z,38nm,0.5s,mb5.5						
KKN	**Kakani**	**36.74**	**333**	*e*P	**P**	**01 08 21.9**	**+0.4**
	comp=Z,20nm,0.5s,mb5.2						
GKN	**Gorkha**	**37.21**	**333**	*e*P	**P**	**01 08 25.9**	**+0.4**
	comp=Z,18nm,0.5s,mb5.2						
KOLN	**Koldanda**	**37.50**	**331**	*e*P	**P**	**01 08 28.7**	**+0.8**
	comp=Z,43nm,0.7s,mb5.3						
LZH	**Lanzhou**	**40.79**	**1**	*e*P	**P**	**01 08 56.5**	**+1.3**
LZH				AP	pP	01 09 09.0	+4.0
LZH				XP	sP	01 09 14.6	+5.4
LZH				*e*S	**S**	**01 15 05.1**	**+1.5**
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb4.6						
LZH				AMB	AMB		
	comp=Z,98nm,4.0s						
LZH				LR	LR		
	comp=E,310nm,15.1s						
LZH				LR	LR		
	comp=Z,591nm,17.0s,MS4.5						
AYAN	**Aya Nagar**	**41.51**	**325**	*e*P	**P**	**01 09 01.5**	**+0.2**
AYAN				*e*		01 09 02.3	
	comp=Z,19nm,0.3s						
NDI	**New Delhi**	**41.61**	**325**	*e*P	**P**	**01 09 01.0**	**-1.1**
KUDL	**Kundal**	**41.63**	**324**	*e*P	**P**	**01 09 02.5**	**+0.2**
KUDL				*e*		01 09 04.1	
	comp=Z,12nm,0.5s						
BHGR	**Bahadurgarh**	**41.77**	**325**	*e*P	**P**	**01 09 02.8**	**-0.7**
KHET	**Khetri**	**41.99**	**323**	*e*P	**P**	**01 09 06.1**	**+0.8**
KHET				*e*		01 09 07.7	
	comp=Z,14nm,0.5s						
KKR	**Kurukshetra**	**42.80**	**326**	*e*P	**P**	**01 09 12.0**	**+0.1**
PMG	**Port Moresby**	**44.01**	**98**	P	**P**	**01 09 21.1**	**-0.7**
	comp=Z,6.3nm,0.4s,mb4.7,baz=169,slow=4.8,SNR=7.6						
GTA	**Gaotai**	**44.20**	**356**	*e*P	**P**	**01 09 23.6**	**+0.6**
GTA				AP	pP	01 09 29.4	-3.5
GTA				AMB	AMB		
	comp=Z,7.0nm,0.5s,mb4.7						
CTA	**Charters Tower**	**44.67**	**114**	*e*P	**P**	**01 09 27.2**	**+0.2**
	comp=Z,12nm,0.8s,mb4.8						
CTA	**Charters Tower**	**44.67**	**114**	P	**P**	**01 09 26.7**	**-0.3**
	comp=Z,14nm,0.6s,mb5.0,baz=285,slow=9.5,SNR=30						
CTA				LR	LR	01 28 01.5	
	comp=Z,63nm,18.6s,MS3.6,baz=226,slow=36						
CTAO	**Charters Tower**	**44.67**	**114**	*e*P	**P**	**01 09 26.9**	**-0.1**
	comp=Z,13nm,0.7s,mb4.9						
STKA	**Stephens Creek**	**44.98**	**131**	*e*P	**P**	**01 09 30.3**	**+0.9**
	comp=Z,7.6nm,0.4s,mb4.9						
STKA	**Stephens Creek**	**44.98**	**131**	P	**P**	**01 09 30.2**	**+0.8**
	comp=Z,8.6nm,0.4s,mb4.9,baz=305,slow=7.3,SNR=21						
STKA				LR	LR	01 27 11.1	
	comp=Z,63nm,21.3s,MS3.5,baz=26,slow=34						
HHC	**Hu-ho-hao-te**	**46.21**	**9**	*e*P	**P**	**01 09 39.2**	**+0.2**
HHC				AP	pP	01 09 51.6	+2.7
HHC				XP	sP	01 09 56.8	+3.8
HHC				PCP	PcP	01 11 15.2	+0.3
HHC				PP	PP	01 11 26.8	-0.7
HHC				S	**S**	**01 16 21.1**	**-1.3**
HHC				XS		01 16 41.3	
HHC				SS	SS	01 19 37.3	-2.6
HHC				AMB	AMB		
	comp=Z,12nm,0.6s,mb5.0						
HHC				AMB	AMB		
	comp=Z,159nm,4.9s						
WMQ	**Urumqi**	**50.43**	**346**	⇑P	**P**	**01 10 12.2**	**+0.4**
WMQ				AP	pP	01 10 24.7	+3.0
WMQ				XP	sP	01 10 30.0	+4.2
WMQ				PCP	PcP	01 11 30.2	+0.2
WMQ				PP	PP	01 12 09.2	+0.9
WMQ				*e*S	**S**	**01 17 20.9**	**-0.8**

WMQ				AMB	AMB		
	comp=Z,14nm,0.7s,mb5.1						
WMQ				LR	LR		
	comp=N,87nm,15.4s,MS4.0						
WMQ				LR	LR		
	comp=E,60nm,16.0s,MS4.0						
WMQ				LR	LR		
	comp=Z,36nm,15.6s,MS3.5						
KSH	**Kashi**	50.75	333	*e*P	**P**	**01 10 15.6**	**+1.3**
KSH				*e*AP	pP	01 10 27.2	+3.0
KSH				*e*XP	sP	01 10 33.0	+4.7
KSH				*e*PCP	PcP	01 11 32.0	+0.8
KSH				*e*PP	PP	01 12 13.0	+1.8
KSH				*e*PPP	PPP	01 13 12.0	+1.7
KSH				*e*SCP		01 15 23.3	
KSH				*e*PCS		01 15 29.3	
KSH				AMB	AMB		
	comp=Z,280nm,4.8s						
CN2	**Changchun**	52.54	20	*e*P	**P**	**01 10 26.5**	**-1.1**
CN2				*e*S	**S**	**01 17 51.4**	**+0.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
CN2				AMB	AMB		
	comp=Z,300nm,5.0s						
CN2				LR	LR		
	comp=N,400nm,15.0s,MS4.7						
CN2				LR	LR		
	comp=E,400nm,15.0s,MS4.7						
CN2				LR	LR		
	comp=Z,400nm,16.0s,MS4.5						
SONM	**Songino Array**	52.60	3	P	**P**	**01 10 27.8**	**-0.3**
	comp=Z,7.3nm,0.5s,mb4.8,baz=183,slow=9.1,SNR=90						
SONM				PcP	PcP	01 11 36.7	-1.2
	comp=Z,2.2nm,0.4s,baz=189,slow=4.5,SNR=18						
ULN	**Ulaanbaatar**	52.67	3	*e*P	**P**	**01 10 28.3**	**-0.3**
	comp=Z,3.9nm,0.9s,mb4.3						
ULN				*e*PcP	PcP	01 11 36.8	-1.4
KZA	**Kyzart**	53.15	334	P	**P**	**01 10 32.6**	**+0.3**
	SNR=6.2						
UCH	**Uchtor**	53.60	334	P	**P**	**01 10 35.6**	**+0.1**
	SNR=7.1						
UCH	**Uchtor**	53.60	334	*e*P	**P**	**01 10 35.0**	**-0.5**
	comp=Z,4.0nm,0.6s,mb4.5						
UCH				*e*PcP	PcP	01 11 42.0	+0.3
TKM2	**Tokmak 2**	53.70	335	P	**P**	**01 10 36.0**	**-0.3**
	SNR=37						
TKM2	**Tokmak 2**	53.70	335	*e*P	**P**	**01 10 35.5**	**-0.8**
	comp=Z,27nm,0.5s,mb5.4						
KBK	**Karagaybulak**	53.76	335	P	**P**	**01 10 36.9**	**+0.2**
	SNR=28						
AML	**Almayashu**	53.88	333	P	**P**	**01 10 37.7**	**0.0**
	SNR=12						
AML	**Almayashu**	53.88	333	*e*P	**P**	**01 10 36.8**	**-0.8**
	comp=Z,6.9nm,0.6s,mb4.8						
AML				*e*PcP	PcP	01 11 43.1	+0.2
AAK	**Ala-Archa**	53.93	334	P	**P**	**01 10 37.8**	**-0.2**
	SNR=5.3						
AAK	**Ala-Archa**	53.93	334	*e*P	**P**	**01 10 36.2**	**-1.8**
	comp=Z,2.6nm,0.5s,mb4.4						
AAK				*e*PcP	PcP	01 11 42.3	-0.8
EKS2	**Erkin-Say**	54.27	334	P	**P**	**01 10 40.2**	**-0.3**
	SNR=15						
EKS2	**Erkin-Say**	54.27	334	*e*P	**P**	**01 10 39.6**	**-0.9**
	comp=Z,11nm,0.6s,mb5.0						
USP	**Ospenovka**	54.44	335	P	**P**	**01 10 40.9**	**-0.8**
	SNR=11						
MDJ	**Mudanjiang**	54.77	23	P	**P**	**01 10 43.7**	**-0.4**
MDJ				AP	pP	01 10 55.2	+1.0
MDJ				XP	sP	01 11 00.1	+2.0
MDJ				PP	PP	01 12 47.0	-1.3
MDJ				SCP		01 15 40.2	
MDJ				PCS		01 15 45.0	
MDJ				S	**S**	**01 18 22.1**	**+1.3**
MDJ				XS		01 18 42.6	
MDJ				SCS	ScS	01 20 28.9	+1.7
MDJ				SS	SS	01 22 07.0	+3.3
MDJ				AMB	AMB		
	comp=Z,341nm,5.4s						
MDJ				LR	LR		
	comp=N,30nm,28.2s						
MDJ				LR	LR		
	comp=E,33nm,34.3s						
MDJ				LR	LR		
	comp=Z,53nm,22.7s						
TLY	**Talaya**	56.37	0	P	**P**	**01 10 53.8**	**-1.8**
	comp=Z,4.4nm,0.6s,mb4.7						
ASAJ	**Asahikawa**	60.39	32	P	**P**	**01 11 22.9**	**-0.9**
	comp=Z,11nm,0.5s,mb5.1,baz=199,slow=6.7,SNR=11						
RDF	**Al-Radifah**	62.98	306	*e*P	**P**	**01 11 41.5**	**+0.1**
RDF				AMb	AMB	01 11 42.9	
	comp=Z,22nm,0.7s,mb5.4						
UMR	**Umm Al-Rimmam**	63.09	307	*e*P	**P**	**01 11 42.8**	**+0.7**
UMR				AMb	AMB	01 11 44.3	
	comp=Z,57nm,0.5s,mb5.9						
RST	**Umm Al-Ruwaisa**	63.65	306	*e*P	**P**	**01 11 45.9**	**+0.1**
RST				AMb	AMB	01 11 47.4	
	comp=Z,31nm,0.6s,mb5.5						
BVAR	**Borovoye Array**	63.95	339	P	**P**	**01 11 45.7**	**-1.7**
	comp=Z,7.6nm,0.5s,mb5.0,baz=144,slow=9.3,SNR=95						
CHKZ	**Chkalovo**	64.39	339	*e*P	**P**	**01 11 48.6**	**-1.6**
	comp=Z,11nm,0.6s,mb5.1						
MAW	**Mawson**	68.26	195	LR	LR	01 36 17.3	
	comp=Z,92nm,19.5s,MS4.0,baz=59,slow=31						
ARU	**Arti**	71.06	336	*e*P	**P**	**01 12 30.6**	**-1.3**
	comp=Z,6.0nm,0.9s,mb4.5						
ASF	**Jabal al Asfar**	72.71	306	P	**P**	**01 12 43.3**	**+1.1**
	comp=Z,4.9nm,0.8s,mb4.5,baz=325,slow=5.8,SNR=9.0						
SYO	**Syowa Base**	76.12	199	⇑PcP	PcP	01 13 14.9	+1.3
BRTR	**Keskin Array B**	77.49	312	P	**P**	**01 13 08.7**	**-0.8**
	comp=Z,3.3nm,0.7s,mb4.3,baz=132,slow=7.3,SNR=17						
VNDA	**Vanda**	78.75	169	P	**P**	**01 13 16.8**	**+1.1**
	comp=Z,4.3nm,1.4s,mb4.2,baz=317,slow=7.2,SNR=3.3						
VNDA				LR	LR	01 43 43.0	
	comp=Z,46nm,19.3s,MS3.8,baz=327,slow=32						
AKASG	**Malin Array Be**	83.61	322	P	**P**	**01 13 40.9**	**-0.7**
	comp=Z,1.6nm,0.5s,mb4.5,baz=85,slow=4.5,SNR=12						
KOLS	**Kolonicke sedl**	87.60	319	*e*P	**P**	**01 14 03.6**	**+2.2**
FINES	**FINESS Array B**	88.07	332	P	**P**	**01 14 03.9**	**+0.6**
	comp=Z,3.5nm,0.4s,mb4.9,baz=109,slow=6.0,SNR=71						
KAF	**Kangasniemi**	88.12	333	*e*p	**P**	**01 14 03.8**	**+0.3**
	comp=Z,6.7nm,0.5s,mb5.1						
ARCES	**ARCESS Array B**	90.21	340	P	**P**	**01 14 13.4**	**+0.1**
	comp=Z,11nm,1.1s,mb5.1,baz=101,slow=6.2,SNR=8.2						
GERES	**GERESS Array B**	93.20	319	P	**P**	**01 14 28.5**	**+0.9**
	comp=Z,1.0nm,0.8s,mb4.3,baz=90,slow=4.0,SNR=8.6						
HFS	**Hagfors**	93.88	330	P	**P**	**01 14 30.8**	**+0.4**
	comp=Z,2.9nm,0.7s,mb4.8,baz=198,slow=4.7,SNR=12						
NB2	**NORSAR Subarra**	95.13	331	P	**P**	**01 14 35.9**	**-0.2**
	comp=Z,0.7nm,0.7s,mb4.2,baz=83,slow=7.0						
NOA	**NORSAR Array B**	95.13	331	P	**P**	**01 14 35.6**	**-0.4**
	comp=Z,0.8nm,0.7s,mb4.3,baz=82,slow=7.3,SNR=4.3						
YKA	**Yellowknife Ar**	116.22	18	PKP	PKPdf	01 19 54.2	-0.8
	comp=Z,0.2nm,0.6s,baz=345,slow=2.1,SNR=11						
YKA	**Yellowknife Ar**	116.22	18	PKP	PKPdf	01 19 54.2	-0.8
HLID	**Hailey**	129.32	35	*e*P	PKPdf	01 20 23.0	+2.2
BOZ	**Bozeman (W)**	129.47	31	*e*P	PKPdf	01 20 22.9	+1.8
SCHQ	**Schefferville**	129.55	352	PKP	PKPdf	01 20 22.1	+1.1
	comp=Z,10.0nm,1.3s,baz=233,slow=13,SNR=5.6						
NVAR	**Mina Array Bea**	129.82	42	PKP	PKPdf	01 20 24.3	+2.3
	comp=Z,0.6nm,0.5s,baz=312,slow=3.6,SNR=8.8						
NVAR	**Mina Array Bea**	129.82	42	PKP	PKPdf	01 20 24.3	+2.3
TPNV	**Topopah Spring**	131.99	43	*e*PKPdf	PKPdf	01 20 28.0	+1.9
ULM	**Lac du Bonnet**	132.10	16	PKP	PKPdf	01 20 26.9	+1.0
	comp=Z,0.9nm,0.5s,baz=303,slow=1.0,SNR=3.5						
ULM	**Lac du Bonnet**	132.10	16	PKP	PKPdf	01 20 26.9	+1.0
PDAR	**Pinedale Array**	132.52	33	PKP	PKPdf	01 20 28.0	+1.0
	comp=Z,0.9nm,1.0s,baz=98,slow=1.4,SNR=5.6						
WMOK	**Wichita Mounta**	144.11	31	*e*PKP	PKPdf	01 20 46.4	-1.7
BDFB	**Brasilia**	144.79	234	PKPbc	PKPbc	01 20 51.3	+1.6
	comp=Z,4.5nm,0.4s,baz=94,slow=4.5,SNR=15						
TXAR	**Lajitas Array**	144.97	43	PKP	PKPdf	01 20 50.3	+0.5
	comp=Z,4.0nm,0.5s,baz=266,slow=1.1,SNR=121						
WCI	**Wyandotte Cave**	145.77	13	*e*PKPbc	PKPbc	01 20 52.1	+0.4
JCT	**Junction City**	146.70	38	*e*PKPbc	PKPbc	01 20 55.1	+1.0
WVT	**Waverly**	147.37	16	*e*PKPbc	PKPdf	01 20 56.7	+3.0

WEL 12 01:14:15.9±0.2**, 39.38S**×**177.45E, h51**^{km}±4^{km}**, ML3.7**/5**, 5C-7D, Error ellipse: s-maj=1.8km s-min=1.3km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KNZ	**Kokohu**	0.39	26	⇑PN	P	01 14 26.6	+0.5
KNZ				SN	S	01 14 33.7	+0.3
BKZ	**Black Stump Fm**	0.77	285	⇓PN	P	01 14 30.5	-0.2
BKZ				SN	S	01 14 40.6	-1.1
PWZ	**Pawanui**	0.80	215	⇓PN	P	01 14 30.8	-0.2
PWZ				SN	S	01 14 41.9	-0.3
MWZ	**Matawai**	1.04	3	⇑PN	P	01 14 33.9	-0.5
MWZ				SN	S	01 14 47.5	-0.7
URZ	**Urewera**	1.15	346	⇓PN	P	01 14 35.3	-0.6
URZ				SN	S	01 14 48.5	-2.2
MOVZ	**Moawhango**	1.32	268	⇓PN	P	01 14 38.2	-0.2
MOVZ				SN	S	01 14 53.4	-1.8
TSZ	**Takapari Road**	1.34	239	PN	P	01 14 37.4	-1.3
TSZ				SN	S	01 14 53.9	-1.8
TAZ	**Tarawera**	1.36	327	⇑PN	P	01 14 38.3	-0.7
EDRZ	**Edgecumbe**	1.38	336	PN	P	01 14 38.3	-1.0
TUVZ	**Tukino**	1.40	274	⇓PN	P	01 14 39.3	-0.3
TUVZ				SN	S	01 14 54.9	-2.3
RATZ	**Rangitukua**	1.40	291	PN	P	01 14 38.5	-1.1
OTVZ	**Oturere**	1.40	278	⇓PN	P	01 14 39.3	-0.3
OTVZ				SN	S	01 14 55.4	-1.8
WNVZ	**Wahianoa**	1.44	271	PN	P	01 14 40.2	+0.1
WNVZ				SN	S	01 14 57.3	-0.8
PUZ	**Puketiti**	1.44	26	PN	P	01 14 39.2	-1.0
PUZ				SN	S	01 14 56.8	-1.4
NGZ	**Ngauruhoe**	1.45	277	⇓PN	P	01 14 39.9	-0.4
DRZ	**Dome Shelter**	1.47	273	PN	P	01 14 39.7	-0.8
WTVZ	**West Tongariro**	1.47	279	PN	P	01 14 40.1	-0.5
FWVZ	**Far West T-bar**	1.48	274	⇑PN	P	01 14 40.2	-0.5
FWVZ				SN	S	01 14 55.8	-3.3
CNZ	**Chateau**	1.49	276	⇑PN	P	01 14 40.4	-0.4
CNZ				SN	S	01 14 57.1	-2.2
WPVZ	**Whakapapa**	1.49	276	PN	P	01 14 40.4	-0.5
WPVZ				SN	S	01 14 56.2	-3.1
MGZ	**Maungaku**	1.53	283	PN	P	01 14 40.7	-0.8
TWVZ	**Taurewa**	1.59	280	PN	P	01 14 41.2	-1.1
BFZ	**Birch Farm**	1.60	215	PN	P	01 14 40.8	-1.5
MXZ	**Matakaoa Point**	1.93	21	PN	P	01 14 45.9	-1.1
MRZ	**Mangatainoka R**	1.93	228	PN	P	01 14 44.9	-2.1
MRZ				SN	S	01 15 07.6	-2.5
WAZ	**Wanganui**	1.95	258	SN	S	01 15 09.3	-1.1
HIZ	**Hauiti**	2.20	292	PN	P	01 14 49.3	-1.5
MTW	**Mount Morrison**	2.33	219	PN	P	01 14 49.3	-3.3
MTW				SN	S	01 15 16.7	-3.3
KIW	**Kapiti Island**	2.45	232	PN	P	01 14 51.7	-2.7
KIW				SN	S	01 15 20.0	-3.2
CAW	**Cannon Point**	2.52	226	PN	P	01 14 52.0	-3.3
CAW				SN	S	01 15 21.5	-3.4
PAWZ	**Paruwai Farm**	2.53	217	PN	P	01 14 52.0	-3.5
PAWZ				SN	S	01 15 20.8	-4.6
MRW	**Makara Radio**	2.81	228	PN	P	01 14 55.8	-3.6
MRW				SN	S	01 15 27.3	-5.0
TUWZ	**Tuamarina**	3.38	231	PN	P	01 15 03.0	-4.5

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*LDG **12** 01:34:58.2±0.2, 48.04N×7.93E, h15^{km}, Md1.9/3, Ml1.6/5, Error ellipse: s-maj=3.9km s-min=2.6km az=116.0*

STR 12 01:34:58.2±0.4**, 48.01N**×**7.92E, h15**^{km}±1^{km}**, Ml1.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ECH	**Echery**	0.55	292	Pg	Pg	01 35 09.3	-0.2
ECH				Sg	Sg	01 35 16.5	-0.6
MOF	**Molkenrain**	0.55	254	Pg	Pg	01 35 09.5	-0.1
WLS	**Welschbruch**	0.55	317	Pg	Pg	01 35 09.2	-0.4
CDF	**Champ du Feu**	0.59	313	*e*Pg	Pg	01 35 09.7	-0.6
CDF				*e*Pn	Pn	01 35 10.4	-1.3
CDF				*e*Sg	Sg	01 35 16.6	-1.7
	7.9nm,0.2s						
HINF	**Hinteralfeld**	0.74	255	*e*Pg	Pg	01 35 12.1	-1.2
HINF				*e*Sg	Sg	01 35 22.5	-0.9
	6.4nm,0.3s						
HAU	**Haudompre**	1.06	270	*e*Pg	Pg	01 35 17.5	-1.9
HAU				*e*Sg	Sg	01 35 31.7	-1.9
	2.7nm,0.3s						
RFYF	**Reffroy**	1.75	292	*e*Sg	Sg	01 35 53.5	-3.0
	1.5nm,0.3s						
CABF	**La Chapelle**	1.87	222	*e*Pg	Pg	01 35 34.0	-1.7
CABF				*e*Sg	Sg	01 35 58.8	-2.0
	0.3nm,0.2s						
SFTF	**Sexfontaines**	1.94	277	*e*Sg	Sg	01 35 59.9	-3.1
	0.4nm,0.2s						

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*THR **12** 01:38:06.6±0.5, 33.24N×47.63E, h46^{km}±6^{km}, ML2.8*

*KISR **12** 01:38:06.6±0.3, 33.23N×48.69E, h15^{km}, ML2.7*

ISC 12 01:38:10.4±0.8**, 33.24N**±0.04×**47.8E**±0.1**, h33**^{km}**, n5,** σ**1**^{s}**22**/9**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHGR	**Shooshtar-Gavs**	1.39	144	*e*PG	**P**	**01 38 34.0**	**+0.2**
SHGR				*e*SG	**S**	**01 38 54.2**	**+3.0**
SHGR				AMP		01 39 02.5	
	comp=E,143nm,0.4s						
SHGR				AMP		01 39 03.2	
	comp=N,116nm,0.6s						
SNGE	**Sanandaj**	1.89	348	*e*PG	**P**	**01 38 40.4**	**-0.5**
SNGE				*e*SG	**S**	**01 39 05.4**	**+1.6**
SNGE				AMP		01 39 09.3	
	comp=N,70nm,0.5s						
ASAO	**Ashtian**	2.25	54	*e*PN	**Pn**	**01 38 44.4**	**-1.7**
RDF	**Al-Radifah**	4.31	183	*e*P	**P**	**01 39 15.0**	**-0.3**
RDF				*e*S	**S**	**01 40 05.8**	**+0.8**
RDF				AML	AML	01 40 07.3	
	comp=Z,7.1nm,0.3s						
QRN	**Al-Qurain**	4.48	179	*e*P	**P**	**01 39 16.8**	**-0.9**
QRN				*e*S	**S**	**01 40 08.6**	**-0.8**

PRE 12 01:46:25.5±1.6**, 26.44S**×**27.37E, h2**^{km}**, ML3.8, South Africa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSR	**Koster**	0.72	324	*e*P	Pg	01 46 38.6	-1.3
KSR				*e*S	Sg	01 46 47.8	-1.8
KSR				*e*		01 46 54.1	
	comp=Z,2μm,0.6s						
SLR	**Silverton**	1.08	50	*e*P	Pb	01 46 44.8	-1.7
SLR				*e*S	Sb	01 47 00.2	-0.8
SLR				*e*		01 47 04.9	
	comp=Z,1μm,0.3s						
SEK	**Senekal**	1.89	173	*e*P	Pn	01 46 59.5	+0.4
SEK				*e*S	Sn	01 47 23.1	-0.7
SEK				*e*		01 47 24.4	
	comp=Z,777nm,0.2s						
NWL	**Newcastle**	2.63	120	*e*P	Pn	01 47 07.7	-2.1
NWL				*e*S	Sn	01 47 38.9	-3.8
NWL				*e*		01 47 50.5	
	comp=Z,970nm,0.7s						
BOSA	**Boshof**	2.87	220	*e*P	Pn	01 47 11.2	-1.8
BOSA				*e*S	Sn	01 47 45.6	-3.0
MSNA	**Messina**	4.74	31	*e*S		01 47 25.1	

IDC 12 02:09:22.5±7.3**, 24.00S**×**179.93W, h482**^{km}±82^{km}**, mb3.1**/5**, mb1 3.3**/6**, mb1mx3.1**/15**, Error ellipse: s-maj=56.9km s-min=25.7km az=20.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	14.44	189	P	P	02 12 24.8	-2.9
	1.8nm,0.3s,baz=344,slow=13,SNR=9.4						
RPZ	**Rata Peaks**	21.01	198	P	P	02 13 31.3	-0.7
	12nm,0.8s,baz=118,slow=23,SNR=4.3						
CTA	**Charters Tower**	31.54	270	P	P	02 15 04.4	-1.2
	2.1nm,0.8s,baz=82,slow=7.1,SNR=4.1						
ASAR	**Alice Springs**	42.08	261	P	P	02 16 31.6	-1.0
	0.3nm,0.4s,baz=98,slow=6.7,SNR=8.2						
WRA	**Warramunga Arr**	42.46	266	P	P	02 16 34.5	-1.1
	0.5nm,0.3s,baz=97,slow=8.3,SNR=23						
TXAR	**Lajitas Array**	90.43	58	P	P	02 21 33.2	+0.3
	0.5nm,0.6s,baz=214,slow=6.6,SNR=6.5						
BVAR	**Borovoye Array**	120.56	319	PKP	PKPdf	02 27 17.6	-0.7
	0.4nm,0.4s,baz=114,slow=3.3,SNR=6.1						
AKASG	**Malin Array Be**	145.09	327	PKPbc	PKPbc	02 28 03.5	-1.0
	0.3nm,0.3s,baz=40,slow=4.1,SNR=5.0						
GERES	**GERESS Array B**	152.97	340	PKPbc	PKPdf	02 28 24.2	+8.2
	1.3nm,1.2s,baz=304,slow=3.5,SNR=2.7						

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*CSEM **12** 02:19:20.5±0.5, 34.88N×2.99W, h8^{km}, mb3.4/4, Error ellipse: s-maj=11.9km s-min=6.0km az=168.0*

*CNRM **12** 02:19:20.9, 35.18N×2.90W, h18^{km}, MD3.2*

*NEIC **12** 02:19:24.0, 34.99N×3.14W, MG3.4(MDD), After MDD.*

*MDD **12** 02:19:24.0±1.9, 34.99N×3.14W, mb3.5/3, Error ellipse: s-maj=18.2km s-min=8.0km az=154.0, PRXIMO AftershockPLICA*

ISC 12 02:19:24.9±1.4**, 35.09N**±0.08×**3.08W**±0.07**, h25**^{km}±6^{km}**, n21,** σ**1**^{s}**27**/33**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	0.24	26	P	**Pb**	**02 19 30.6**	**-0.4**
	SNR=8.4						
EMEL				S	**Sb**	**02 19 35.3**	**+0.1**
	70nm,0.2s,SNR=7.9						
EMLI	**Melilla**	0.24	27	P	**Pb**	**02 19 30.6**	**-0.4**
	42nm,0.1s,SNR=8.4						
ZAI	**Zaio**	0.30	112	*i* P	**Pb**	**02 19 26.0**	**-5.9**
TOU	**Touzarine**	0.56	258	*i* P	**Pb**	**02 19 34.0**	**-2.1**
TOU				*i* S	**Sb**	**02 19 45.0**	**+1.2**
EBER	**Berja**	1.82	5	P	**Pn**	**02 19 55.0**	**-0.2**
	0.3nm,0.2s,SNR=7.1						
EBER				S	**Sn**	**02 20 17.3**	**-0.2**
	0.1nm,0.4s,SNR=7.9						
EBER	**Berja**	1.82	5	P	**Pn**	**02 19 55.0**	**-0.1**
	0.3nm,0.2s,SNR=7.1						
EMIJ	**Mijas**	2.02	318	P	**Pn**	**02 19 58.7**	**+0.7**
	0.8nm,0.1s,SNR=8.3						
EMIJ				S	**Sn**	**02 20 23.0**	**+0.4**
	1.0nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.71	0	P	**Pn**	**02 20 10.3**	**+2.4**
	3.9nm,0.3s,SNR=17						
EQES				S	**Sn**	**02 20 42.7**	**+2.4**
	0.7nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.71	0	P	**Pn**	**02 20 10.3**	**+2.4**
	3.9nm,0.3s,SNR=17						
EQES				S	**Sn**	**02 20 42.7**	**+2.4**
	0.7nm,0.2s,SNR=7.9						
EMUR	**La Murta**	3.13	28	P	**Pn**	**02 20 13.1**	**-0.7**
EMUR				S	**Sn**	**02 20 47.6**	**-3.1**
EMUR	**La Murta**	3.13	28	P	**Pn**	**02 20 13.1**	**-0.7**
	2.7nm,0.3s,SNR=14						
EMUR				S	**Sn**	**02 20 47.6**	**-3.1**
	0.7nm,0.3s,SNR=7.9						
EMUR	**La Murta**	3.13	28	P	**Pn**	**02 20 13.1**	**-0.7**
	2.7nm,0.3s,SNR=14						
EADA	**Adamuz**	3.30	339	P	**Pn**	**02 20 17.2**	**+0.9**
EADA				S	**Sn**	**02 20 54.8**	**-0.5**
EADA	**Adamuz**	3.30	339	P	**Pn**	**02 20 17.2**	**+0.8**
	2.3nm,0.3s,SNR=14						
EADA				S	**Sn**	**02 20 54.8**	**-0.4**
	0.0nm,0.4s,SNR=7.9						
EADA	**Adamuz**	3.30	339	P	**Pn**	**02 20 17.2**	**+0.9**
	2.3nm,0.3s,SNR=14						
EMIN	**Mina Concepcio**	3.94	314	P	**Pn**	**02 20 25.3**	**-0.1**
	0.4nm,0.2s,SNR=7.9						
EMIN				S	**Sn**	**02 21 09.5**	**-1.9**
	SNR=7.9						
EMIN	**Mina Concepcio**	3.94	314	P	**Pn**	**02 20 25.3**	**-0.1**
	0.4nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	4.63	352	P	**Pn**	**02 20 36.5**	**+1.3**
	0.4nm,0.2s,baz=173,slow=12,SNR=5.3						
ESDC	**Sonseca Array**	4.63	352	P	**Pn**	**02 20 36.5**	**+1.3**
	0.4nm,0.2s,baz=173,slow=12,SNR=5.3						
EBAD	**Badajoz**	4.83	320	P	**Pn**	**02 20 38.4**	**+0.4**
	0.3nm,0.1s,SNR=7.9						
EBAD				S	**Sn**	**02 21 32.0**	**-1.9**
	SNR=7.9						
EBAD	**Badajoz**	4.83	320	P	**Pn**	**02 20 38.4**	**+0.4**

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*NEIC **12** 02:31:23.5, 35.04N×3.14W, MG3.3(MDD), After MDD.*

*MDD **12** 02:31:23.2±1.4, 35.02N×3.13W, mb3.3/5, Error ellipse: s-maj=14.5km s-min=6.4km az=154.0, PRXIMO AftershockPLICA*

*CNRM **12** 02:31:23.8, 35.01N×2.67W, h22^{km}, MD3.3*

*CSEM **12** 02:31:24.5±0.2, 35.30N×2.96W, h20^{km}, mb3.3/5, Error ellipse: s-maj=4.7km s-min=3.6km az=15.0*

ISC 12 02:31:25.7±1.1**, 35.28N**±0.08×**2.96W**±0.07**, h25**^{km}±5^{km}**, n20,** σ**1**^{s}**20**/37**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	**Melilla**	0.02	354	P	**Pb**	**02 31 29.1**	**-0.8**
	25nm,0.1s,SNR=18						
EMEL				S	**Sb**	**02 31 33.3**	**+0.6**
	390nm,0.2s,SNR=7.9						
EMLI	**Melilla**	0.02	12	P	**Pb**	**02 31 29.0**	**-0.9**
	25nm,0.1s,SNR=18						
EMLI				S	**Sb**	**02 31 33.3**	**+0.6**
	390nm,0.2s,SNR=7.9						
MELI	**Melilla**	0.02	55	P	**Pb**	**02 31 28.1**	**-1.8**
MELI				S	**Sb**	**02 31 33.0**	**+0.3**
MELI	**Melilla**	0.02	55	*e*P	**Pb**	**02 31 28.1**	**-1.8**
MELI				*e*S	**Sb**	**02 31 33.0**	**+0.3**
TOU	**Touzarine**	0.73	244	*i* P	**Pb**	**02 31 40.0**	**+0.3**
TOU				*i* S	**Sb**	**02 31 51.0**	**+1.8**
EBER	**Berja**	1.61	2	P	**Pn**	**02 31 54.8**	**+1.8**
	0.9nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**02 32 15.7**	**+2.4**
	42nm,0.7s,SNR=7.9						
EBER	**Berja**	1.61	2	P	**Pn**	**02 31 54.8**	**+1.7**
	0.9nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	1.95	311	P	**Pn**	**02 31 56.9**	**-1.0**
	0.8nm,0.1s,SNR=7.8						
EMIJ				S	**Sn**	**02 32 21.5**	**-0.4**
	2.6nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.52	358	P	**Pn**	**02 32 08.8**	**+2.8**
	0.9nm,0.1s,SNR=16						
EQES				S	**Sn**	**02 32 41.7**	**+5.5**
	5.4nm,0.2s,SNR=7.9						
EMUR	**La Murta**	2.90	28	P	**Pn**	**02 32 10.9**	**-0.6**
EMUR				S	**Sn**	**02 32 44.8**	**-1.2**
EMUR	**La Murta**	2.90	28	P	**Pn**	**02 32 11.0**	**-0.6**
	2.5nm,0.4s,SNR=8.9						
EMUR				S	**Sn**	**02 32 44.8**	**-1.2**
	4.9nm,0.5s,SNR=7.9						
EMUR	**La Murta**	2.90	28	P	**Pn**	**02 32 10.9**	**-0.6**
EMUR				S	**Sn**	**02 32 44.8**	**-1.2**
	4.9nm,0.5s,SNR=7.9						
EADA	**Adamuz**	3.16	336	P	**Pn**	**02 32 15.9**	**+0.7**
	0.4nm,0.1s,SNR=5.4						
EADA				S	**Sn**	**02 32 53.0**	**+0.5**
	4.5nm,0.4s,SNR=7.9						
EADA	**Adamuz**	3.16	336	P	**Pn**	**02 32 15.9**	**+0.7**
	0.4nm,0.1s,SNR=5.4						
EADA				S	**Sn**	**02 32 53.0**	**+0.5**
	4.5nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	3.89	311	P	**Pn**	**02 32 23.9**	**-1.6**
	0.9nm,0.2s,SNR=12						
EMIN				S	**Sn**	**02 33 10.4**	**-0.5**
	0.8nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	3.89	311	P	**Pn**	**02 32 23.9**	**-1.6**
	0.9nm,0.2s,SNR=12						
EMIN				S	**Sn**	**02 33 10.4**	**-0.5**
	0.8nm,0.3s,SNR=7.9						
ESDC	**Sonseca Array**	4.46	350	P	**Pn**	**02 32 34.8**	**+1.2**
	0.6nm,0.2s,baz=173,slow=12,SNR=3.7						
ESDC	**Sonseca Array**	4.46	350	P	**Pn**	**02 32 34.8**	**+1.2**
EBAD	**Badajoz**	4.75	318	P	**Pn**	**02 32 36.7**	**-1.0**
	0.4nm,0.1s,SNR=6.2						
EBAD				S	**Sn**	**02 33 31.4**	**-1.3**
	1.3nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	4.75	318	P	**Pn**	**02 32 36.7**	**-1.0**
EBAD				S	**Sn**	**02 33 31.4**	**-1.3**

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*IDC **12** 02:57:38.5±1.1, 21.75S×68.33W, h125^{km}±15^{km}, mb3.6/3, mb1 3.7/4, mb1mx3.4/13, Error ellipse: s-maj=34.5km s-min=26.9km az=94.0*

*NEIC **12** 02:57:38.8±0.9, 21.67S×68.30W, h123^{km}±10^{km}, mb3.8/2, Error ellipse: s-maj=30.0km s-min=12.8km az=87.0*

ISC 12 02:57:37.9±1.0**, 21.7S**±0.1×**68.4W**±0.3**, h131**^{km}±12^{km}**, n9,** σ**0**^{s}**60**/11**, mb3.7**/3**, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	1.04	210	P	**P**	**02 58 02.0**	**+0.5**
	36nm,0.3s,baz=14,slow=7.4,SNR=402						
LVC				S	**S**	**02 58 19.0**	**-0.5**
	34nm,0.3s,baz=104,slow=23,SNR=10.0						
LVC	**Limon Verde**	1.04	210	*e*Pn	**P**	**02 58 02.0**	**+0.5**
LVC				*e*Sn	**S**	**02 58 18.9**	**-0.6**
LPAZ	**La Paz**	5.39	2	P	**P**	**02 58 57.7**	**+0.4**
	1.1nm,0.3s,baz=180,slow=8.6,SNR=18						
LPAZ	**La Paz**	5.39	2	*e*Pn	**P**	**02 58 57.5**	**+0.3**

TRQA	Tornquist	17.20	163	eP	P	03 01 32.0	+0.6
	1.6nm,0.5s						
TXAR	Lajitas Array	61.10	325	P	P	03 07 40.2	-0.4
	0.3nm,0.9s,mb3.1,baz=139,slow=9.6,SNR=3.0						
DBIC	Dimbokro	68.29	73	P	P	03 08 26.3	-0.9
	2.0nm,0.6s,mb4.0,baz=229,slow=8.9,SNR=6.4						
DBIC	Dimbokro	68.29	73	eP	P	03 08 26.2	-1.1
	1.8nm,0.6s,mb4.0						
YKA	Yellowknife Ar	91.56	340	P	P	03 10 31.0	+0.5
	0.6nm,0.5s,mb3.9,baz=134,slow=4.5,SNR=19						

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*IDC **12** 03:01:60.0±1.0, 12.42S×166.85E, h213^{km}±9^{km}, mb3.6/12, mb1 3.8/13, mb1mx3.7/17, Error ellipse: s-maj=20.8km s-min=12.3km az=149.0*

*NEIC **12** 03:01:59.8±0.4, 12.38S×166.87E, mb4.4/4, Error ellipse: s-maj=17.2km s-min=10.3km az=142.0*

ISC 12 03:02:02.3±0.6**, 12.5S**±0.1×**166.8E**±0.1**, h250**^{km}**, n40, σ0^{s}97**/20**, mb3.8**/14**, Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	19.54	277	P	P	03 06 12.9	+0.1
	0.4nm,0.3s,baz=84,slow=8.3,SNR=4.3						
PMG	Port Moresby	19.54	277	eP	P	03 06 12.9	+0.1
CTA	Charters Tower	21.11	246	eP	P	03 06 29.8	+1.4
	9.2nm,0.8s,mb4.4						
CTA	Charters Tower	21.11	246	P	P	03 06 29.5	+1.1
	10nm,0.6s,mb4.5,baz=81,slow=11,SNR=20						
CTA				pP		03 07 03.5	
	2.9nm,0.8s,baz=53,slow=10,SNR=2.9						
CTAO	Charters Tower	21.11	246	eP	P	03 06 29.6	+1.2
	12nm,0.8s,mb4.5						
ARMA	Armidale	22.71	216	eP	P	03 06 46.4	+2.6
URZ	Urewera	27.25	162	P	P	03 07 24.6	-1.0
	7.8nm,0.8s,mb4.4,baz=312,slow=15,SNR=3.1						
STKA	Stephens Creek	30.15	226	P	P	03 07 50.9	-0.6
	0.7nm,0.4s,mb3.6,baz=29,slow=9.7,SNR=5.4						
WRAB	Tennant Creek	31.99	252	eP	P	03 08 06.2	-1.3
	2.3nm,0.6s,mb3.9						
WRA	Warramunga Arr	32.00	252	P	P	03 08 06.6	-1.0
	1.4nm,0.5s,mb3.8,baz=85,slow=9.0,SNR=22						
ASAR	Alice Springs	33.11	246	P	P	03 08 16.4	-0.7
	1.7nm,0.5s,mb3.8,baz=71,slow=9.6,SNR=30						
ASAR				pP	pP	03 08 60.0	-7.7
	3.1nm,0.7s,baz=72,slow=9.6,SNR=12						
FITZ	Fitzroy Crossi	40.04	257	P	P	03 09 15.2	+0.1
	2.0nm,0.6s,mb3.8,baz=16,slow=8.1,SNR=10						
VNDA	Vanda	65.07	181	P	P	03 12 18.1	+0.6
	0.5nm,0.8s,mb3.2,baz=325,slow=9.7,SNR=2.2						
SONM	Songino Array	80.45	324	P	P	03 13 48.8	+1.2
	0.3nm,0.5s,mb3.2,baz=148,slow=5.8,SNR=4.0						
COLA	College	84.34	18	eP	P	03 14 06.8	-0.3
	5.5nm,0.7s,mb4.4						
ILAR	Eielson Array	84.56	18	P	P	03 14 08.1	-0.2
	5.4nm,0.7s,mb4.4,baz=250,slow=5.2,SNR=57						
NVAR	Mina Array Bea	86.16	49	P	P	03 14 17.8	+1.0
	0.3nm,0.5s,mb3.2,baz=236,slow=9.8,SNR=3.5						
NVAR				pP	pP	03 15 09.9	-7.3
	0.6nm,0.8s,baz=240,slow=8.3,SNR=3.8						
TXAR	Lajitas Array	95.61	61	P	P	03 15 01.1	+0.2
	0.2nm,0.8s,mb3.4,baz=207,slow=6.0,SNR=3.5						
YKA	Yellowknife Ar	95.78	27	P	P	03 14 59.3	-1.5
	0.3nm,0.6s,mb3.7,baz=259,slow=4.8,SNR=12						
YKA	Yellowknife Ar	95.78	27	eP	P	03 14 59.8	-1.0
LPAZ	La Paz	118.61	116	PKP	PKPdf	03 20 26.3	+5.0
	3.4nm,0.5s,baz=33,slow=5.5,SNR=14						
LPAZ	La Paz	118.61	116	PKP	PKPdf	03 20 26.3	+5.0
SSF	Saint Saulge	142.79	341	ePKP1	PKPdf	03 21 05.5	-0.3
	2.7nm,0.8s						
LPL	La Plagne	142.99	337	ePKP1	PKPdf	03 21 08.1	+1.9
LPG	La Plagne	142.99	337	ePKP1	PKPdf	03 21 08.2	+2.0
SMF	Signal de Mont	143.05	340	ePKP1	PKPbc	03 21 05.0	+0.4
AVF	Avril sur Loir	143.08	341	ePKP1	PKPbc	03 21 05.0	+0.4
MBDF	Montbardon	143.63	336	ePKP1	PKPbc	03 21 07.4	+1.1
	6.9nm,0.9s						
ORIF	Oris-en-Rattie	143.82	337	ePKP1	PKPbc	03 21 08.6	+1.7
	16nm,0.8s						
TCF	Toulx Ste Croi	143.89	342	ePKP1	PKPbc	03 21 08.1	+1.0
	16nm,1.1s						
SBF	Sospel	144.06	334	ePKP1	PKPbc	03 21 08.5	+0.8
	43nm,0.9s						
MFF	Saint Martin d	144.27	345	ePKP1	PKPbc	03 21 09.6	+1.5
	20nm,0.9s						
VIVF	Saint-Julien-l	144.32	338	ePKP1	PKPbc	03 21 10.1	+1.7
	22nm,1.1s						
PGF	Pioggiola	144.40	331	ePKP1	PKPbc	03 21 10.1	+1.4
	13nm,0.7s						
FRF	La Foret Royal	144.64	335	ePKP1	PKPbc	03 21 10.7	+1.4
	40nm,1.1s						
SMRF	Simiane la Rot	144.73	336	ePKP1	PKPbc	03 21 11.7	+2.2
RJF	Les Rejaudoux	144.99	342	ePKP1	PKPbc	03 21 12.2	+2.0
	49nm,1.3s						
LFF	La Frestale	145.55	342	ePKP1	PKPbc	03 21 13.8	+2.2
	7.7nm,0.6s						
MTLF	Montolieu	146.51	339	ePKP1	PKPbc	03 21 16.9	+2.9
	5.2nm,0.6s						
ESDC	Sonseca Array	151.73	345	PKPbc	PKPdf	03 21 27.0	+6.3
	0.7nm,0.6s,baz=35,slow=1.0,SNR=5.4						
ESDC				PKPab	PKPab	03 21 40.1	+0.6
	1.7nm,0.8s,baz=16,slow=3.5,SNR=6.6						

IDC 12 03:07:13.0±1.6**, 6.33S×129.86E, mb3.7**/2**, mb1 3.9**/5**, mb1mx3.8**/12**, ML3.6**/3**, Error ellipse: s-maj=77.0km s-min=24.9km az=76.0, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	12.40	199	Pn	P	03 10 11.4	-2.5
	0.4nm,0.3s,baz=350,slow=18,SNR=16						
FITZ				Sn	S	03 12 17.5	-17
	0.8nm,0.3s,baz=173,slow=6.0,SNR=6.3						
WRA	Warramunga Arr	14.22	163	Pn	P	03 10 35.1	-2.9
	0.2nm,0.3s,baz=345,slow=13,SNR=8.7						
WRA				Sn	S	03 13 02.5	-15
	0.7nm,0.3s,baz=333,slow=22,SNR=7.7						
ASAR	Alice Springs	17.67	168	P	P	03 11 20.4	-1.9
	0.5nm,0.3s,baz=345,slow=9.6,SNR=46						
ASAR				S	S	03 14 25.6	-12
	0.1nm,0.3s,baz=347,slow=25,SNR=5.1						
STKA	Stephens Creek	27.68	158	P	P	03 13 03.0	-1.8
	0.9nm,0.5s,baz=336,slow=11,SNR=4.6						
SONM	Songino Array	57.76	342	P	P	03 17 05.9	-2.3
	0.2nm,0.4s,baz=165,slow=6.7,SNR=4.7						

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*NIED **12** 03:19:00, 28.90N×130.80E, h32^{km}, Mw4.1 Best double couple: M$_0$1.37×10^{15} NP1:φ$_s$344°, δ86°, λ109°. NP2:φ$_s$85°, δ20°, λ12°.*

*IDC **12** 03:19:41.5±0.7, 28.95N×130.77E, mb4.0/14, mb1 4.2/16, mb1mx4.1/24, ML4.2/2, MS3.1/1, Ms1 3.1/1, ms1mx2.7/22, Error ellipse: s-maj=21.9km s-min=17.1km az=77.0*

*JMA **12** 03:19:45.5±0.1, 28.92N×130.78E, h67^{km}±3^{km}, M3.8*

*NEIC **12** 03:19:47.4±0.4, 28.89N×130.67E, h40^{km}, mb4.1/2, Error ellipse: s-maj=11.2km s-min=9.1km az=120.0*

ISC 12 03:19:45.2±0.7**, 28.91N**±0.03×**130.81E**±0.06**, h35**^{km}±7^{km}**, n33, σ0^{s}95**/43**, mb4.0**/15**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JZK	Kikaishima	0.95	231	P	P	03 20 03.2	+1.1
JAM	Amami Oshima	1.17	245	P	P	03 20 05.8	+0.5
JAM				S	S	03 20 20.7	+0.4
JNN	Nakanoshima	1.24	319	P	P	03 20 06.9	+0.7
JNN				S	S	03 20 22.9	+0.9
JKC	Kuchinoerabu	1.64	341	P	P	03 20 12.7	+0.7
JKC				S	S	03 20 31.9	-0.2
JTN	Tanegashima 3	1.75	5	P	P	03 20 13.8	+0.2
JTN				S	S	03 20 35.1	+0.3
JTK	Tokunoshima	1.98	236	P	P	03 20 17.6	+0.6
JTK				eS	S	03 20 41.5	+0.6
JTSR	Tashiro 2	2.25	2	P	P	03 20 21.3	+0.5
JTSR				S	S	03 20 48.2	+0.5
JSU	Suzuyama	2.61	353	P	P	03 20 25.8	-0.1
JSU				S	S	03 20 56.1	-0.6
JNAR	Kushima--Naru	2.64	9	P	P	03 20 26.9	+0.5
JSJ	Shimokoshiki	2.92	341	P	P	03 20 30.0	-0.3
JSJ				S	S	03 21 03.2	-1.4
JTZ	Takazaki	2.99	5	P	P	03 20 31.7	+0.3
JTZ				S	S	03 21 05.3	-1.2
JOW	Kunigami	3.05	228	Pn	P	03 20 31.3	-0.9
	30nm,0.3s,baz=99,slow=22,SNR=63						
JOW				Sn	S	03 21 06.3	-1.7
	28nm,0.3s,baz=194,slow=29,SNR=11						
JOW	Kunigami	3.05	228	P	P	03 20 31.6	-0.6
JOW				S	S	03 21 06.4	-1.6
JHJ	Hachijo jima 2	8.77	59	LR	LR	03 24 17.0	
	comp=Z,106nm,18.8s,baz=240,slow=31						
CBIJ	Chichi jima	10.21	97	Pn	P	03 22 10.4	-2.0
	15nm,0.3s,baz=278,slow=23,SNR=8.7						
ENH	Enshi	18.60	279	P	P	03 24 00.3	-1.5
	5.6nm,0.4s						
SONM	Songino Array	26.71	322	P	P	03 25 21.1	-2.0
	0.8nm,1.0s,mb3.2,baz=139,slow=9.4,SNR=6.4						
WRA	Warramunga Arr	48.68	176	P	P	03 28 27.6	-0.6
	1.2nm,0.7s,mb4.1,baz=354,slow=8.5,SNR=12						
BVAR	Borovoye Array	49.86	317	P	P	03 28 35.5	-1.3
	0.6nm,0.3s,mb4.0,baz=91,slow=10,SNR=9.4						
ASAR	Alice Springs	52.35	176	P	P	03 28 55.4	-0.7
	0.8nm,0.7s,mb3.7,baz=12,slow=13,SNR=17						
ILAR	Eielson Array	61.00	29	P	P	03 29 55.8	-1.3
	0.6nm,0.6s,mb3.9,baz=259,slow=5.7,SNR=11						
FINES	FINESS Array B	71.66	331	P	P	03 31 04.5	-0.4
	2.3nm,0.8s,mb4.2,baz=62,slow=5.7,SNR=14						
AKASG	Malin Array Be	74.98	320	P	P	03 31 24.7	+0.3
	2.1nm,0.6s,mb4.3,baz=56,slow=6.4,SNR=10						
YKA	Yellowknife Ar	75.13	26	P	P	03 31 25.2	+0.2
	1.3nm,0.7s,mb4.0,baz=300,slow=5.8,SNR=26						
BRTR	Keskin Array B	77.19	308	P	P	03 31 37.9	+0.7
	1.1nm,0.8s,mb3.8,baz=112,slow=6.7,SNR=5.5						
HFS	Hagfors	77.51	333	P	P	03 31 39.0	+0.4
	1.7nm,0.8s,mb4.0,baz=54,slow=5.8,SNR=4.2						
NB2	NORSAR Subarra	77.92	334	P	P	03 31 40.2	-0.6
	3.3nm,1.0s,mb4.2,baz=50,slow=5.6						
NOA	NORSAR Array B	77.92	334	P	P	03 31 40.6	-0.2
	1.0nm,0.8s,mb3.8,baz=48,slow=5.6,SNR=3.9						
GERES	GERESS Array B	84.43	324	P	P	03 32 16.1	+0.9
	0.9nm,0.8s,mb3.9,baz=34,slow=4.8,SNR=7.6						
HLID	Hailey	86.38	41	eP	P	03 32 26.3	+1.4
	1.4nm,0.8s,mb4.2						
NVAR	Mina Array Bea	87.01	47	P	P	03 32 29.3	+1.2
	0.6nm,0.7s,mb4.0,baz=297,slow=6.4,SNR=7.8						
PDAR	Pinedale Array	89.65	40	P	P	03 32 41.8	+1.1
	0.7nm,0.9s,mb4.0,baz=90,slow=1.5,SNR=6.2						
PV10	Paradox Valley	92.80	43	eP	P	03 32 57.6	+2.3

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*NEIC **12** 03:38:08.0, 19.03N×67.54W, h16^{km}, MD3.5(RSPR), After RSPR.*

RSPR 12 03:38:08.0, 19.03N×67.54W, h16^{km}±28^{km}**, MD3.5**/15**, MD3.5**/15**, 15C-1D, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPR	Mayaguez	0.90	155	eS	Sb	03 38 34.2	-1.9
MPR	Mayaguez	0.90	155	⇑eP	Pb	03 38 23.6	-1.1
MPR				eS	Sb	03 38 34.2	-1.9
LSP	Las Mesas	0.95	153	eS	Sb	03 38 35.5	-2.1
LSP	Las Mesas	0.95	153	⇑eP	Pb	03 38 24.3	-1.3
LSP				eS	Sb	03 38 35.5	-2.1
LRS	Lares	0.98	138	⇑eP	Pb	03 38 23.7	-2.4
LRS				eS	Sb	03 38 36.0	-2.7
AOPR	Arecibo Observ	1.01	132	⇑eP	Pb	03 38 23.8	-2.8
AOPR				eS	Sb	03 38 37.0	-2.4
MGP	Maguayo	1.10	157	⇑eP	Pb	03 38 26.5	-1.7
MGP				eS	Sb	03 38 39.8	-2.3
MGP	Maguayo	1.10	157	eS	Sb	03 38 39.5	-2.6
MGP	Maguayo	1.10	157	⇓eP	Pb	03 38 26.5	-1.7
MGP				eS	Sb	03 38 39.5	-2.6
PORP	Portuguez	1.29	138	⇑eP	Pb	03 38 28.8	-2.7
PORP				eS	Sb	03 38 44.4	-3.3
CELP	Cerrillos	1.31	136	⇑eP	Pb	03 38 28.8	-3.1
CELP				eS	Sb	03 38 44.7	-3.6
ICM	Isla Caja Muer	1.49	139	eS	Sb	03 38 49.7	-3.5
ICM	Isla Caja Muer	1.49	139	⇑eP	Pn	03 38 32.1	-2.2
ICM				eS	Sb	03 38 49.7	-3.5
CSB	Colonia Sabana	1.50	119	⇑eP	Pn	03 38 30.9	-3.6
CSB				eS	Sb	03 38 50.6	-3.1
SJG	San Juan	1.60	124	eS	Sn	03 38 51.8	-4.6
SJG	San Juan	1.60	124	⇑eP	Pn	03 38 32.7	-3.3
SJG				eS	Sn	03 38 53.1	-3.4
SJG	San Juan	1.60	124	⇑eP	Pn	03 38 32.8	-3.2
SJG				eS	Sn	03 38 51.8	-4.6
CBYP	Canovanas	1.77	115	eS	Sn	03 38 56.5	-4.0
CBYP	Canovanas	1.77	115	⇑eP	Pn	03 38 34.5	-3.8
CBYP				eS	Sn	03 38 56.5	-4.0
CPD	Cerro la Pandu	1.83	122	⇑eP	Pn	03 38 36.9	-2.3
CPD	Cerro la Pandu	1.83	122	eS	Sn	03 38 58.5	-3.6
CPD	Cerro la Pandu	1.83	122	⇑P	Pn	03 38 36.9	-2.3
CPD				eS	Sn	03 38 58.5	-3.6
MTP	Monte Pirata	2.10	116	eS	Sn	03 39 05.5	-3.6
MTP	Monte Pirata	2.10	116	⇑eP	Pn	03 38 39.3	-3.8
MTP				eS	Sn	03 39 05.5	-3.6

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*IDC **12** 04:08:36.4±1.3, 5.85N×127.35E, mb4.0/6, mb1 4.1/6, mb1mx3.9/18, Error ellipse: s-maj=76.8km s-min=19.2km az=76.0*

ISC 12 04:08:47.8±1.8**, 5.8N**±0.1×**127.2E**±0.2**, h111**^{km}±17^{km}**, n11, σ0^{s}60**/13**, mb3.8**/6**, 1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	Mati	1.45	322	eP	P	04 09 14.4	-0.1
KCP	Kidapawan	2.38	301	⇓iP	P	04 09 27.2	+0.8
KCP				i S	S	04 09 55.4	0.0
BUKP	Musuan	2.94	315	eP	P	04 09 34.4	+0.5
BUKP				eS	S	04 10 07.8	-0.9
BUTP	Butuan	3.50	334	eP	P	04 09 51.3	+10
PAGZ	Pagadian	4.27	299	eP	P	04 09 47.5	-4.4
FITZ	Fitzroy Crossi	23.79	184	P	P	04 13 52.1	+0.8
	1.7nm,0.5s,mb3.6,baz=358,slow=8.6,SNR=11						
WRA	Warramunga Arr	26.53	165	P	P	04 14 16.3	-0.8
	2.0nm,0.5s,mb3.9,baz=347,slow=10,SNR=18						
NWAO	Narrogin (SRO)	39.64	193	P	P	04 16 10.0	-0.3
	4.4nm,0.9s,mb4.3,baz=30,slow=11,SNR=7.0						
STKA	Stephens Creek	39.91	161	P	P	04 16 12.1	-0.4
	1.2nm,0.4s,mb4.1,baz=353,slow=7.4,SNR=7.1						
SONM	Songino Array	45.50	340	P	P	04 16 58.3	+0.6
	0.2nm,0.3s,mb3.3,baz=162,slow=7.9,SNR=2.8						
BVAR	Borovoye Array	65.84	326	P	P	04 19 23.3	-0.1
	0.5nm,0.4s,mb3.7,baz=121,slow=8.6,SNR=3.7						

IDC 12 04:49:55.9±2.1**, 16.60S×177.04W, mb4.1**/5**, mb1 4.4**/5**, mb1mx4.0**/14**, Error ellipse: s-maj=119.0km s-min=22.8km az=145.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	40.41	240	P	P	04 57 36.0	-1.6
	1.4nm,0.4s,baz=91,slow=10.0,SNR=9.2						
WRA	Warramunga Arr	46.17	258	P	P	04 58 22.6	-1.9
	1.4nm,0.9s,baz=97,slow=7.8,SNR=14						
ASAR	Alice Springs	46.41	253	P	P	04 58 24.8	-1.5
	12nm,0.4s,baz=89,slow=8.1,SNR=234						
NVAR	Mina Array Bea	77.58	43	P	P	05 01 55.1	-0.6
	0.3nm,0.7s,baz=217,slow=9.0,SNR=2.7						
ILAR	Eielson Array	84.33	12	P	P	05 02 28.4	-2.3
	0.3nm,0.4s,baz=225,slow=5.2,SNR=14						

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*IDC **12** 04:52:43.5±0.8, 13.03S×167.00E, h186^{km}±7^{km}, mb4.0/11, mb1 4.2/11, mb1mx4.1/15, Error ellipse: s-maj=17.9km s-min=12.7km az=109.0*

*NEIC **12** 04:52:43.4±0.3, 12.91S×166.92E, mb4.5/12, Error ellipse: s-maj=10.7km s-min=7.5km az=114.0*

ISC 12 04:52:46.7±2.7**, 13.1S**±0.1×**166.84E**±0.10**, h231**^{km}±23^{km}**, h189**^{km}±.6^{km}**:pP-P, n51, σ1^{s}04**/32**, mb4.3**/20**, 7C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	8.96	182	ePn	P	04 54 53.6	+0.5
ARMA	Armidale	22.27	217	eP	P	04 57 27.4	+2.1
URZ	Urewera	26.70	162	P	P	04 58 05.3	-1.4
	12nm,0.9s,mb4.5,baz=356,slow=13,SNR=5.6						
CNB	Canberra Magne	27.20	212	⇑iP	P	04 58 11.4	+0.2
	10nm,0.6s,mb4.6						
STKA	Stephens Creek	29.78	227	⇑iP	P	04 58 34.6	+0.4
	17nm,0.4s,mb5.0						
STKA	Stephens Creek	29.78	227	P	P	04 58 34.6	+0.4
	26nm,0.6s,mb5.1,baz=48,slow=8.5,SNR=69						
RPZ	Rata Peaks	30.76	174	P	P	04 58 41.7	-0.8
	14nm,0.6s,mb4.8,baz=355,slow=6.9,SNR=6.9						
TOO	Toolangi	30.96	214	⇑iP	P	04 58 44.5	+0.1
	5.2nm,0.6s,mb4.3						
WB2	Warramunga Arr	31.85	253	eP	P	04 58 51.4	-0.9
WRAB	Tennant Creek	31.85	253	eP	P	04 58 49.6	-2.6
	3.5nm,0.5s,mb4.2						
WRA	Warramunga Arr	31.86	253	P	P	04 58 51.7	-0.7
	3.9nm,0.6s,mb4.1,baz=86,slow=9.1,SNR=26						
ASAR	Alice Springs	32.91	247	P	P	04 59 01.1	-0.3
	9.1nm,0.6s,mb4.5,baz=75,slow=9.3,SNR=27						
ASPA	Alice Springs	32.91	247	⇑iP	P	04 59 00.8	-0.6
KAKA	Kakadu	33.52	267	eP	P	04 59 06.6	0.0
	11nm,0.6s,mb4.6						
FORT	Forrest	39.81	237	⇑iP	P	04 59 59.8	+0.7
	106nm,0.4s						
FITZ	Fitzroy Crossi	39.94	257	eP	P	04 59 59.8	-0.4
	4.2nm,1.4s,mb3.7						
KLBR	Kellerberrin	48.56	239	⇑iP	P	05 01 08.5	-0.2
	13nm,0.5s,mb4.5						
MUN	Mundaring	49.93	239	eP	P	05 01 19.4	+0.3
	8.8nm,0.9s,mb4.1						
VNDA	Vanda	64.50	181	P	P	05 03 00.1	-0.2
	2.6nm,0.6s,mb4.0,baz=354,slow=6.1,SNR=23						
VNDA	Vanda	64.50	181	eP	P	05 02 60.0	-0.3
	2.3nm,0.6s,mb4.0						
SBA	Scott Base	64.79	180	eP	P	05 03 02.3	+0.2
	3.8nm,0.7s,mb4.1						
CASY	Casey	64.90	202	eP	P	05 03 02.1	-0.9
	4.4nm,0.4s,mb4.4						
CMAR	Chiang Mai Arr	73.89	294	P	P	05 04 00.4	+1.7
	1.7nm,0.4s,mb4.0,baz=120,slow=5.3,SNR=8.2						
QSPA	South Pole Qui	76.95	180	eP	P	05 04 15.4	+0.8
	16nm,0.7s,mb4.8						
SONM	Songino Array	80.92	324	P	P	05 04 37.8	+1.3
	1.9nm,0.9s,mb3.7,baz=131,slow=5.3,SNR=10						
ILAR	Eielson Array	85.08	18	P	P	05 04 56.7	-0.6
	1.3nm,0.6s,mb3.9,baz=240,slow=4.8,SNR=27						
ILAR				pP	pP	05 05 43.5	-10
	1.1nm,0.7s,baz=249,slow=5.0,SNR=4.0						
NVAR	Mina Array Bea	86.51	49	P	P	05 05 05.4	+0.5
	0.3nm,0.7s,baz=255,slow=10,SNR=2.2						
NVAR				pP	pP	05 05 52.5	-8.7
	1.5nm,1.0s,baz=240,slow=7.3,SNR=5.5						
SNAA	Sanae	95.18	183	⇑i	P	05 05 41.8	-2.6
VNA3	Neumayer Olymp	95.86	181	⇓i	P	05 05 49.5	+2.1
VNA2	Neumayer--Watz	96.12	182	⇓i	P	05 05 49.8	+1.2
YKA	Yellowknife Ar	96.27	27	P	P	05 05 48.4	-1.1
	0.3nm,0.6s,mb3.7,baz=258,slow=4.6,SNR=14						
YKA				pP	pP	05 06 35.4	-11
	0.3nm,0.7s,baz=259,slow=5.0,SNR=4.8						
YKA	Yellowknife Ar	96.27	27	eP	P	05 05 48.4	-1.1
ARCES	ARCESS Array B	118.55	346	PKP	PKPdf	05 11 07.6	+1.2
	9.6nm,1.1s,slow=1.2,SNR=10.0						
FINES	FINESS Array B	124.03	338	PKP	PKPdf	05 11 18.5	+1.2
	1.1nm,0.8s,baz=45,slow=2.7,SNR=5.4						
NOA	NORSAR Array B	128.92	345	PKP	PKPdf	05 11 28.3	+1.6
	0.4nm,0.7s,baz=85,slow=4.3,SNR=3.1						
GERES	GERESS Array B	137.98	334	PKP	PKPdf	05 11 46.7	+2.9
	0.7nm,0.8s,baz=117,slow=3.0,SNR=4.9						
GERES				SKPbc		05 15 03.4	
	1.1nm,1.1s,baz=346,slow=4.0,SNR=4.0						
GIVF	Givet	140.24	342	ePKP1	PKPdf	05 11 49.4	+1.5
LPL	La Plagne	143.51	336	ePKP1	PKPbc	05 11 56.1	+3.6
	6.7nm,0.9s						
LPG	La Plagne	143.52	336	ePKP1	PKPbc	05 11 55.5	+3.0
	5.8nm,0.8s						
SGMF	Saint Gilles	143.82	348	ePKP1	PKPbc	05 11 54.3	+1.0
	5.1nm,0.5s						
ROSF	Rostrenen	143.89	349	ePKP1	PKPbc	05 11 54.3	+0.8
BGF	Bois d'Agland	143.99	341	ePKP1	PKPbc	05 11 55.1	+1.2
	7.3nm,0.7s						
MBDF	Montbardon	144.15	335	ePKP1	PKPbc	05 11 55.6	+1.2
	7.9nm,0.8s						
QUIF	Quistinic	144.27	348	ePKP1	PKPbc	05 11 55.5	+0.9
ORIF	Oris-en-Rattie	144.34	337	ePKP1	PKPbc	05 11 56.7	+1.8
	14nm,0.7s						
TCF	Toulx Ste Croi	144.43	342	ePKP1	PKPbc	05 11 56.6	+1.5
	9.7nm,0.8s						
SBF	Sospel	144.58	334	ePKP1	PKPbc	05 11 56.9	+1.3
	42nm,0.9s						
MFF	Saint Martin d	144.82	344	ePKP1	PKPbc	05 11 57.7	+1.5
	18nm,0.6s						
VIVF	Saint-Julien-l	144.85	338	ePKP1	PKPbc	05 11 58.4	+2.0
	9.9nm,0.8s						
FRF	La Foret Royal	145.16	334	ePKP1	PKPbc	05 11 58.1	+0.9
ESDC	Sonseca Array	152.28	345	PKPbc	PKPdf	05 12 17.3	+9.2
	4.9nm,1.1s,baz=12,slow=4.8,SNR=6.4						
ESDC				PKPab	PKPab	05 12 28.5	+0.2
	0.8nm,0.7s,baz=8.4,slow=4.2,SNR=4.3						

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*NEIC **12** 04:56:45.7, 31.66S×69.95W, h133^{km}, mb3.4/2, MD3.7(GUC), After GUC.*

*GUC **12** 04:56:45.7±0.8, 31.66S×69.95W, h133^{km}±7^{km}, MD3.7, ML3.9*

ISC 12 04:56:46.0±0.6**, 31.66S**±0.03×**69.96W**±0.08**, h133**^{km}±7^{km}**, n28, σ0^{s}63**/51**, mb3.3**/1**, 10C-7D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	Combarbala	1.02	298	⇑iP	P	04 57 09.9	+0.4
CMCH				i S	S	04 57 27.9	+0.5
CMCH				AMP		04 57 30.0	
	comp=E,6μm,0.6s						
PTCH	Petorca	1.02	234	⇑iP	P	04 57 09.3	-0.2
PTCH				i S	S	04 57 27.4	0.0
PTCH				AMP		04 57 28.3	
	comp=E,5μm,0.2s						
ILCH	Illapel	1.03	271	⇓iP	P	04 57 09.9	+0.2
ILCH				i S	S	04 57 27.7	+0.1
ILCH				AMP		04 57 28.7	
	comp=N,2μm,0.2s						
JACH	Jahuel	1.15	208	⇓iP	P	04 57 10.7	-0.1
JACH				i S	S	04 57 29.9	+0.2
PACH	Papudo	1.53	235	⇑iP	P	04 57 14.9	-0.1
PACH				i S	S	04 57 37.0	-0.1
MDZ	Mendoza	1.54	143	eP	P	04 57 14.3	-0.8
MDZ				i		04 57 15.0	
MDZ				i		04 57 34.0	
MDZ				i S	S	04 57 36.1	-1.2
ROCH	El Roble	1.58	214	⇓iP	P	04 57 15.5	-0.1
ROCH				i S	S	04 57 37.7	-0.4
PEL	Peldehue	1.60	202	⇓iP	P	04 57 15.5	-0.2
PEL				i S	S	04 57 37.8	-0.7
PEL				AMP		04 57 38.9	
	comp=N,1μm,0.2s						
TLL	Tololo Astrono	1.66	334	i P	P	04 57 17.1	+0.6
TLL				i S	S	04 57 39.8	0.0
TLL				AMP		04 57 41.4	
	comp=N,1μm,0.3s						
FCH	Farellones	1.68	190	⇑iP	P	04 57 17.2	+0.4
FCH				i S	S	04 57 41.1	+0.9
FCH				AMP		04 57 45.2	
	comp=E,1μm,0.2s						
CLCH	Cerro Calan	1.80	196	⇑iP	P	04 57 18.0	0.0
CLCH				i S	S	04 57 43.1	+0.6
CLCH				AMP		04 57 46.2	
	comp=N,910nm,0.5s						
CLCH				AMP		04 57 47.1	
	comp=N,1μm,0.6s						
DSCH	Colegio Aleman	1.81	196	⇓iP	P	04 57 18.1	0.0
DSCH				i S	S	04 57 43.0	+0.3
DSCH				AMP		04 57 47.3	
	comp=E,1μm,0.3s						
STL	Santa Lucia	1.86	198	i P	P	04 57 18.8	0.0
STL				i S	S	04 57 43.8	0.0
STL				AMP		04 57 45.9	
	comp=E,319nm,0.3s						
FSR	Penalolen	1.87	195	⇓iP	P	04 57 19.2	+0.3
FSR				i S	S	04 57 44.6	+0.5
FSR				AMP		04 57 46.0	
	comp=N,814nm,0.5s						
RCDM	Rinconada Maip	1.96	201	⇑iP	P	04 57 19.8	-0.1
RCDM				i S	S	04 57 46.1	+0.2
RCDM				AMP		04 57 47.2	
	comp=E,2μm,0.1s						
IHA	Instituto Hidr	1.97	226	eP	P	04 57 20.1	0.0
SJCH	San Jose de Ma	2.00	190	eP	P	04 57 20.4	-0.1
SJCH				i S	S	04 57 47.0	+0.2
SJCH				AMP		04 57 51.9	
	comp=N,356nm,0.2s						
PCH	Pirque	2.01	193	⇑iP	P	04 57 21.0	+0.4
PCH				i S	S	04 57 47.8	+0.9
LSCH	La Serena	2.07	327	i P	P	04 57 21.1	-0.3
LSCH				i S	S	04 57 47.4	-1.0
LSCH				AMP		04 57 50.8	
	comp=E,1μm,0.3s						
TACH	Talagante	2.15	202	⇑iP	P	04 57 22.0	-0.4
TACH				i S	S	04 57 49.5	-0.6

LMEL	**Las Melosas**	**2.19**	**185**	⇓*i*P	**P**	**04 57 23.1**	**+0.2**
LMEL				*i* S	**S**	**04 57 53.1**	**+2.1**
LMEL				AMP		04 57 57.5	
	comp=N,637nm,0.2s						
LCCH	**Las Cruces**	**2.26**	**217**	*e*P	**P**	**04 57 23.5**	**-0.4**
CHCH	**Chadas Angostu**	**2.34**	**194**	⇑*i*P	**P**	**04 57 24.5**	**-0.4**
CHCH				*i* S	**S**	**04 57 54.0**	**-0.4**
CACH	**El Canelo**	**2.51**	**192**	⇑*i*P	**P**	**04 57 27.2**	**+0.2**
CACH				*i* S	**S**	**04 57 59.0**	**+0.7**
LNV	**Longovilo**	**2.59**	**208**	*i* P	**P**	**04 57 26.9**	**-1.3**
LNV				*i* S	**S**	**04 57 58.5**	**-1.7**
TRQA	**Tornquist**	**9.14**	**136**	*e*Pn	**P**	**04 58 52.2**	**-3.6**
LPAZ	**La Paz**	**15.40**	**7**	*e*P	**P**	**05 00 18.0**	**+0.8**
	comp=N,1.5nm,0.5s						
SAML	**Samuel**	**23.46**	**17**	*e*P	**P**	**05 01 45.0**	**+0.6**
	comp=N,0.8nm,0.6s,mb3.3						

DJA 12 04:58:42.5±0.9, 9.66S×116.76E, h33^{km}, MD4.7/4, ML4.2/3, 2C-6D, Error ellipse: s-maj=19.9km s-min=17.8km az=10.0, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	**1.33**	**331**	⇓*i*Pn	Pn	04 59 04.1	-1.0
	277nm,0.2s						
KEDI				⇓*i*Sn	Sn	04 59 20.0	-1.9
RATI	**Rata**	**1.53**	**307**	⇓*i*Pn	Pn	04 59 06.1	-1.9
RATI				⇓*i*Sn	Sn	04 59 23.5	-3.4
KELI	**Kelakatan**	**2.66**	**302**	⇑*i*Pn	Pn	04 59 23.8	-0.4
	58nm,0.2s						
KELI				⇓*i*Sn	Sn	04 59 53.6	-2.1
SRDI	**Scrawed**	**2.84**	**294**	⇑*i*Pn	Pn	04 59 24.8	-1.9
	206nm,0.2s						
SRDI				⇓*i*Sn	Sn	04 59 55.7	-4.5

NEIC 12 05:05:52.9, 34.15N×116.98W, h12^{km}, ML3.7(PAS), After PAS., Southern California

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PFO	**Pinyon Flat Ob**	**0.69**	**141**	*e*P	Pb	05 06 05.1	-1.4
PFO				*e*S	Sb	05 06 14.1	-1.7
MWC	**Mount Wilson**	**0.90**	**275**	*e*P	Pb	05 06 09.1	-0.8
BAR	**Barrett**	**1.49**	**170**	*e*P	Pn	05 06 18.3	-1.4
LDFC	**Landfair**	**1.80**	**59**	*e*P	Pn	05 06 22.6	-1.6
DAC	**Darwin (Calif)**	**2.18**	**347**	*e*Pn	Pn	05 06 28.5	-1.0
NEN	**Nelson**	**2.31**	**49**	*e*Pn	Pn	05 06 29.8	-1.6
TPNV	**Topopah Spring**	**2.86**	**12**	*e*Pn	Pn	05 06 38.1	-1.1
MTUM	**Tungsten Hills**	**3.45**	**339**	*e*Pn	Pn	05 06 46.2	-1.4
OMM	**Old Mammoth Mi**	**3.83**	**335**	*e*Pn	Pn	05 06 51.9	-1.1
TPH	**Tonopah**	**3.92**	**357**	*e*Pn	Pn	05 06 52.6	-1.8
LRV	**Little Rabbit**	**4.01**	**306**	*e*Pn	Pn	05 06 53.3	-2.3
TRCR	**Troy Canyon**	**4.34**	**15**	Pn	Pn	05 06 57.8	-2.5
MNV	**Mina**	**4.38**	**348**	*e*Pn	Pn	05 06 58.8	-2.1
SAO	**San Andreas Ge**	**4.48**	**307**	*e*Pn	Pn	05 06 59.3	-3.0
ARUT	**Antelope Range**	**4.63**	**37**	*e*Pn	Pn	05 07 02.8	-1.6
CMB	**Columbia Colle**	**4.76**	**326**	*e*Pn	Pn	05 07 03.5	-2.7
TUC	**Tucson**	**5.51**	**108**	*e*Pn	Pn	05 07 12.3	-4.5
WCN	**Washoe City**	**5.60**	**337**	*e*Pn	Pn	05 07 14.4	-3.7
MVU	**Marysvale**	**5.80**	**40**	*e*Pn	Pn	05 07 19.7	-1.3
MSU	**Marysvale**	**5.83**	**40**	Pn	Pn	05 07 19.9	-1.5
BMN	**Battle Mountai**	**6.27**	**358**	Pn	Pn	05 07 23.5	-4.1
ELK	**Elko**	**6.73**	**11**	*e*Pn	Pn	05 07 32.7	-1.3
SRU	**San Rafael**	**7.17**	**44**	Pn	Pn	05 07 41.0	+0.8
PV10	**Paradox Valley**	**7.68**	**54**	Pn	Pn	05 07 47.8	+0.5

NIED **12** *05:28:00,31.80N×129.20E,h5^{km},Mw5.0 Best double couple: $M_0$4.1×10^{16} NP1:ϕ_s88°,δ85°,λ-37°. NP2:ϕ_s181°,δ53°,λ-174°.*

BJI **12** *05:28:37.8,31.41N×129.74E,h10^{km},mB5.0,mb4.5,ML4.7,Ms5.0,Msz4.8*

IDC **12** *05:28:42.5±0.5,31.81N×129.17E,mb4.3/21,mb1 4.5/24,mb1mx4.5/29,ML4.1/3,MS4.2/9,Ms1 4.3/9,ms1mx4.0/20, Error ellipse: s-maj=20.1km s-min=12.5km az=74.0*

JMA **12** *05:28:43.3±0.1,31.77N×129.18E,h15^{km}±1^{km},M5.1 Broadband fault plane solution: P waves. NP1:ϕ_s354°,δ67°,λ-169°. NP2:ϕ_s260°,δ80°,λ-24°. Principal axes: T Plg9°, Azm309°; N Plg64°, Azm58°; P Plg24°, Azm215°;*

JMA Felt III J1.

MOS **12** *05:28:44.3±2.5,31.78N×129.21E,h10^{km},mb5.2/37,MS4.9/12 Error ellipse: s-maj=11.9km s-min=5.6km az=111.0*

NEIC **12** *05:28:46.0±0.4,31.76N×128.87E,h10^{km},mb4.9/44,MS4.4/8,MW5.0(NIED),Error ellipse: s-maj=12.1km s-min=8.7km az=74.0*

NEIC Recorded [3 JMA] in Kagoshima, [2 JMA] in Kumamoto and [1 JMA] in Miyazaki and Nagasaki Prefectures, Kyushu.

HRVD **12** *05:28:46.0±0.3,31.81N×129.11E,h12^{km},MW5.0/54, Centroid moment Tensor Solution. LP body waves: s32,c46;Mantle waves: s54,c100; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.56±.12; $M_{\theta\theta}$0.59±.13; $M_{\phi\phi}$-0.03±.13; $M_{r\theta}$0.26±.31; $M_{\theta\phi}$4.05±.09; $M_{\phi r}$-0.84±.32; Best double couple: $M_0$4.17×10^{16} NP1: ϕ_s272°,δ78°,λ-6°. NP2:ϕ_s3°,δ84°,λ-167°. Principal axes: T 4.37, Plg4°, Azm137°; N -.4, Plg76°, Azm28°; P -3.97, Plg13°, Azm228°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 12 05:28:43.5±0.2, 31.73N±0.02×129.21E±0.02, h10^{km}, (h34^{km}±5.5^{km}:pP-P), n218, σ1§65/239, mb4.8/79, MS4.7/27, 7C-19D, Kyushu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	**Shimokoshiki**	**0.43**	**96**	⇑P	**Pg**	**05 28 52.4**	**+0.1**
JSJ				S	**Sg**	**05 28 58.4**	**+0.2**
JFU	**Fukue jima 2**	**1.01**	**337**	⇑P	**Pb**	**05 29 01.3**	**-1.2**
JFU				S	**Sb**	**05 29 14.9**	**-0.7**
NGSJ	**Nagasakinomoza**	**1.03**	**29**	⇓P	**Pb**	**05 29 01.9**	**-1.1**
NGSJ				S	**Sb**	**05 29 16.1**	**-0.3**
JHD	**Hondo**	**1.08**	**47**	⇓P	**Pb**	**05 29 03.1**	**-0.7**
JHD				S	**Sb**	**05 29 18.4**	**+0.7**
JSU	**Suzuyama**	**1.08**	**101**	⇑P	**Pb**	**05 29 04.0**	**+0.1**
JSU				S	**Sb**	**05 29 19.5**	**+1.6**
JZO	**Okuchi**	**1.25**	**70**	⇓P	**Pb**	**05 29 06.0**	**-0.7**
JZO				S	**Sb**	**05 29 23.6**	**+0.9**
JUR	**Ureshino**	**1.50**	**24**	⇓P	**Pn**	**05 29 09.1**	**-1.5**
JKC	**Kuchinoerabu**	**1.52**	**146**	S	**Sb**	**05 29 32.6**	**+2.2**
JTSR	**Tashiro 2**	**1.56**	**110**	⇑P	**Pn**	**05 29 10.4**	**-1.1**
JIU2	**Izumi 2**	**1.59**	**59**	S	**Sb**	**05 29 33.3**	**+0.8**
JTA	**Tamana**	**1.67**	**42**	⇓P	**Pn**	**05 29 11.5**	**-1.5**
JTA				S	**Sn**	**05 29 37.0**	**+2.4**
JNAR	**Kushima--Naru**	**1.77**	**96**	⇑P	**Pn**	**05 29 14.1**	**-0.3**
JTN	**Tanegashima 3**	**1.85**	**125**	⇑P	**Pn**	**05 29 14.6**	**-1.1**
JNU	**Nakatsue**	**1.98**	**45**	⇓P	**Pn**	**05 29 16.1**	**-1.4**
JTSN	**Tsuno**	**2.02**	**74**	⇓P	**Pn**	**05 29 17.1**	**-0.9**
JTSN				S	**Sn**	**05 29 47.0**	**+3.5**
JKIT	**Kitakata**	**2.10**	**64**	⇓P	**Pn**	**05 29 18.5**	**-0.7**
JII	**Iki**	**2.11**	**12**	⇓P	**Pn**	**05 29 17.8**	**-1.5**
JUS	**Usuki**	**2.53**	**57**	S	**Sn**	**05 29 58.5**	**+2.0**
JTO	**Tosashimizu**	**3.25**	**69**	⇓P	**Pn**	**05 29 34.1**	**-1.4**
JHIK	**Hikimi**	**3.61**	**38**	P	**Pn**	**05 29 40.2**	**-0.5**
JKU	**Kubokawa**	**3.62**	**63**	⇓P	**Pn**	**05 29 39.7**	**-1.1**
JOW	**Kunigami**	**4.94**	**190**	Pn	**Pn**	**05 30 01.1**	**+1.5**
	baz=16,slow=11						
KS15	**Wonju Array Si**	**5.81**	**350**	*e*Pn	**Pn**	**05 30 09.4**	**-2.4**
KS15				*e*Sn	**Sn**	**05 31 20.2**	**+1.0**
INCN	**Inchon**	**6.12**	**340**	*e*Pn	**Pn**	**05 30 12.0**	**-4.3**
	36nm,0.6s						
INCN				*e*S	**Sb**	**05 31 46.0**	**+1.8**
JWT	**Wachi**	**6.27**	**54**	P	**Pn**	**05 30 17.1**	**-1.2**
SSE	**Sheshan**	**6.89**	**267**	P	**Pn**	**05 30 27.1**	**+0.1**
SSE				S	**Sn**	**05 31 46.5**	**+0.2**
SSE				Smax			
	comp=N,348nm,1.3s						
SSE				Smax			
	comp=E,170nm,1.2s						
NJ2	**Nanjing**	**8.81**	**275**	*e*P	**P**	**05 30 56.2**	**+2.3**
NJ2				AP		05 31 03.2	
NJ2				XP		05 31 08.1	
NJ2				S	**Sn**	**05 32 37.5**	**+3.2**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s						
NJ2				LR	LR		
	comp=Z,6μm,13.4s						
MAJO	**Matsushiro**	**8.87**	**55**	*e*Pn	**P**	**05 30 54.0**	**-0.7**
	comp=Z,23nm,0.8s						
MAT	**Matsushiro**	**8.87**	**55**	P	**P**	**05 30 51.6**	**-3.1**
MAT				*e*S	**Sn**	**05 32 33.2**	**-2.5**
MAT	**Matsushiro**	**8.87**	**55**	P	**P**	**05 30 52.0**	**-2.7**
	comp=Z,7.5nm,0.7s						
MAT				S	**Sn**	**05 32 37.0**	**+1.3**
JHJ	**Hachijo jima 2**	**9.05**	**78**	Pn	**P**	**05 30 54.9**	**-2.2**
	comp=Z,12nm,0.3s,baz=51,slow=13,SNR=2.9						
JHJ				LR	LR	05 34 07.3	
	comp=Z,1μm,20.8s,baz=272,slow=36						
DL2	**Dalian**	**9.47**	**321**	*e*P	**P**	**05 31 04.0**	**+1.0**
DL2				S	**Sn**	**05 32 50.7**	**+0.2**
DL2				AMB	AMB		
	comp=Z,330nm,10.2s						
DL2				LR	LR		
	comp=N,5μm,12.0s						
DL2				LR	LR		
	comp=E,3μm,12.0s						
DL2				LR	LR		
	comp=Z,3μm,14.1s						
TIA	**Tai'an**	**10.98**	**297**	*e*P	**P**	**05 31 30.2**	**+6.4**
TIA				LR	LR		
	comp=N,3μm,11.4s						
TIA				LR	LR		
	comp=E,3μm,10.2s						
SNY	**Shenyang**	**11.04**	**337**	⇓P	**P**	**05 31 26.5**	**+1.9**
SNY				S	**S**	**05 33 34.2**	**+5.0**
SNY				AMB	AMB		
	comp=Z,10.0nm,1.0s						
SNY				LR	LR		
	comp=Z,8μm,10.8s						
CBIJ	**Chichi jima**	**12.21**	**109**	Pn	**P**	**05 31 39.0**	**-1.5**
	comp=Z,4.0nm,0.3s,baz=284,slow=19,SNR=2.5						
CBIJ				LR	LR	05 36 04.3	
	comp=Z,1μm,18.8s,baz=58,slow=36						
CN2	**Changchun**	**12.42**	**347**	*e*P	**P**	**05 31 42.6**	**-0.5**
CN2				*e*S	**S**	**05 34 01.7**	**-0.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.5s						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,2μm,12.0s						
CN2				LR	LR		
	comp=Z,5μm,14.0s						
MDJ	**Mudanjiang**	**12.87**	**1**	P	**P**	**05 31 50.0**	**+0.8**
MDJ				AP		05 31 52.8	
MDJ				PP	PP	05 32 00.3	+0.8
MDJ				S	**S**	**05 34 16.8**	**+3.2**
MDJ				PCP	PcP	05 37 22.5	-1.4
MDJ				SCP		05 40 55.7	
MDJ				PCS		05 40 57.2	
MDJ				AMB	AMB		
	comp=Z,91nm,3.3s						
MDJ				LR	LR		
	comp=N,2μm,16.6s						
MDJ				LR	LR		
	comp=E,5μm,12.3s						
MDJ				LR	LR		
	comp=Z,3μm,15.6s						
MDJ	**Mudanjiang**	**12.87**	**1**	P	**P**	**05 31 49.2**	**-0.1**
BJT	**Baijiatuau**	**13.42**	**312**	*e*P	**P**	**05 31 52.5**	**-4.0**
	comp=Z,85nm,1.4s						
BJI	**Beijing**	**13.43**	**312**	P	**P**	**05 31 55.4**	**-1.1**
BJI				AMB	AMB		
	comp=Z,31nm,1.6s						
BJI				LR	LR		
	comp=N,6μm,13.0s						
BJI				LR	LR		
	comp=E,5μm,13.0s						
BJI				LR	LR		
	comp=Z,3μm,15.4s						
ASAJ	**Asahikawa**	**16.24**	**37**	Pn	**P**	**05 32 32.0**	**-1.2**
	comp=Z,1.3nm,0.3s,baz=245,slow=11,SNR=10						
ASAJ				LR	LR	05 38 14.7	
	comp=Z,2μm,19.1s,baz=176,slow=35						
ASAJ	**Asahikawa**	**16.24**	**37**	P	**P**	**05 32 32.0**	**-1.2**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,2μm,19.1s						
HHC	**Hu-ho-hao-te**	**16.87**	**308**	*e*P	**P**	**05 32 43.6**	**+2.4**
HHC				AP		05 32 47.2	
HHC				XP		05 32 50.6	
HHC				PP	PP	05 32 57.8	+2.4
HHC				S	**S**	**05 35 49.3**	**+1.6**
HHC				AMB	AMB		
	comp=Z,28nm,1.4s						
HHC				AMB	AMB		
	comp=Z,286nm,4.8s						
HHC				LR	LR		
	comp=N,3μm,13.2s						
HHC				LR	LR		
	comp=E,3μm,13.7s						
HHC				LR	LR		
	comp=Z,4μm,12.5s						
ENH	**Enshi**	**16.98**	**270**	P	**P**	**05 32 38.1**	**-4.6**
	comp=Z,203nm,1.9s						
XAN	**Xi'an**	**17.20**	**283**	P	**P**	**05 32 45.8**	**+0.4**
XAN				AP		05 32 50.3	
XAN				S	**S**	**05 36 03.5**	**+8.1**
XAN				AMB	AMB		
	comp=Z,7.0nm,1.9s						
XAN				LR	LR		
	comp=N,7μm,16.2s						
XAN				LR	LR		
	comp=E,1μm,15.1s						
XAN				LR	LR		
	comp=Z,3μm,14.6s						
KLR	**Kul'dur**	**17.59**	**6**	*e*P	**P**	**05 32 50.3**	**+0.1**
KLR				pmax	pmax		
	comp=Z,74nm,1.6s						
KLR				MLR	MLR		
	comp=N,3μm,13.0s						
KLR				MLR	MLR		
	comp=Z,8μm,13.0s						
BTO	**Baotou**	**17.82**	**305**	*e*P	**P**	**05 32 52.6**	**-0.5**
BTO				S	**S**	**05 36 20.5**	**+11**
BTO				AMB	AMB		
	comp=Z,42nm,1.7s						
BTO				LR	LR		
	comp=N,693nm,4.5s						
BTO				LR	LR		
	comp=E,701nm,11.8s						
YSS	**Yuzh-Sakhalins**	**18.43**	**31**	*e*P	**P**	**05 33 01.0**	**+0.4**
YSS				pmax	pmax		
	comp=Z,130nm,1.2s						
YSS	**Yuzh-Sakhalins**	**18.43**	**31**	*e*P	**P**	**05 32 59.8**	**-0.8**
	comp=Z,155nm,1.3s						
HIA	**Hailar**	**18.92**	**341**	*e*P	**P**	**05 33 03.4**	**-3.2**
HIA				pmax	pmax		
	comp=Z,82nm,1.3s						
HIA	**Hailar**	**18.92**	**341**	*e*P	**P**	**05 33 03.4**	**-3.2**
	comp=Z,82nm,1.3s						
TGY	**Tagaytay City**	**19.11**	**205**	LR	LR	05 39 53.7	
	comp=Z,471nm,20.4s,baz=15,slow=35						
GYA	**Guiyang**	**20.38**	**261**	P	**P**	**05 33 21.7**	**-1.4**
GYA				S	**S**	**05 37 11.3**	**+5.2**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
GYA				AMB	AMB		
	comp=Z,170nm,5.1s						
GYA				LR	LR		
	comp=N,7μm,17.3s,MS5.1						
GYA				LR	LR		
	comp=E,2μm,17.9s,MS5.1						
GYA				LR	LR		
	comp=Z,2μm,14.0s,MS4.6						
LZH	**Lanzhou**	**21.48**	**289**	⇓P	**P**	**05 33 34.5**	**+0.2**
LZH				PP	PP	05 34 01.3	+2.8
LZH				S	**S**	**05 37 32.1**	**+4.7**
LZH				XS		05 37 40.0	
LZH				SS	SS	05 38 09.7	+7.1
LZH				AMB	AMB		
	comp=Z,43nm,1.6s,mb4.5						
LZH				AMB	AMB		
	comp=Z,153nm,5.4s						
LZH				LR	LR		
	comp=E,3μm,13.5s						
LZH				LR	LR		
	comp=Z,4μm,13.6s,MS5.0						
CD2	**Chengdu**	**21.75**	**275**	⇓*i*P	**P**	**05 33 38.2**	**+1.2**
CD2				AP		05 33 43.1	
CD2				XP		05 33 45.7	
CD2				PPP	PPP	05 34 10.3	-1.5
CD2				S	**S**	**05 37 31.1**	**-1.5**
CD2				AMB	AMB		
	comp=Z,70nm,1.3s,mb4.9						
CD2				LR	LR		
	comp=N,4μm,13.2s						
CD2				LR	LR		
	comp=Z,2μm,11.4s,MS4.8						
ULN	**Ulaanbaatar**	**23.32**	**320**	*e*P	**P**	**05 33 50.3**	**-2.1**
ULN				pmax	pmax		
	comp=Z,41nm,1.3s,mb4.7						
ULN				MLR	MLR		
	comp=Z,3μm,19.0s,MS4.7						
ULN	**Ulaanbaatar**	**23.32**	**320**	*e*P	**P**	**05 33 50.3**	**-2.1**
	comp=Z,41nm,1.3s,mb4.7						
ULN				LR	LR		
	comp=Z,3μm,19.0s,MS4.7						
SONM	**Songino Array**	**23.66**	**319**	P	**P**	**05 33 55.0**	**-0.7**
	comp=Z,14nm,1.1s,mb4.3,baz=134,slow=8.6,SNR=40						
KMI	**Kunming**	**24.16**	**261**	*e*P	**P**	**05 33 59.6**	**-1.2**
KMI				AP		05 34 06.5	
KMI				PP	PP	05 34 31.6	-3.8
KMI				S	**S**	**05 38 10.7**	**-4.9**
KMI				AMB	AMB		
	comp=Z,6.0nm,1.6s,mb3.8						
KMI				LR	LR		
	comp=N,4μm,15.8s,MS5.1						
KMI				LR	LR		
	comp=E,2μm,13.1s,MS5.1						
KMI				LR	LR		
	comp=Z,1μm,10.7s,MS4.7						
GTA	**Gaotai**	**25.03**	**296**	*e*P	**P**	**05 34 07.6**	**-1.5**
GTA				AP	pP	05 34 14.4	+2.4
GTA				PP	PP	05 34 49.7	+3.0
GTA				PPP	PPP	05 35 01.3	+3.6
GTA				S	**S**	**05 38 25.3**	**-5.0**
GTA				AMB	AMB		
	comp=Z,10.0nm,1.9s,mb4.0						
GTA				AMB	AMB		
	comp=Z,168nm,5.0s						
GTA				LR	LR		
	comp=N,3μm,14.1s,MS5.1						
GTA				LR	LR		
	comp=E,2μm,11.0s,MS5.1						
GTA				LR	LR		
	comp=Z,2μm,13.3s,MS4.9						
ZAK	**Zakamensk**	**26.80**	**322**	⇑*i*P	**P**	**05 34 22.7**	**-2.7**
TLY	**Talaya**	**27.36**	**324**	*e*P	**P**	**05 34 29.4**	**-1.1**
TLY				*e*S	**S**	**05 39 05.9**	**-2.8**
TLY				pmax	pmax		
	comp=Z,40nm,1.8s,mb4.7						
TLY				MLR	MLR		
	comp=Z,848nm,15.0s,MS4.4						
IRK	**Irkutsk**	**27.40**	**326**	*e*P	**P**	**05 34 30.1**	**-0.8**
IRK				*e*		05 40 46.1	
BOD	**Bodaibo**	**28.10**	**343**	*e*P	**P**	**05 34 36.3**	**-0.9**
CMAR	**Chiang Mai Arr**	**30.31**	**251**	P	**P**	**05 34 59.0**	**+1.6**
	comp=Z,4.1nm,0.9s,mb4.2,baz=52,slow=6.8,SNR=12						
CMAR				LR	LR	05 47 27.9	
	comp=Z,365nm,18.3s,MS4.1,baz=70,slow=37						
YAK	**Yakutsk**	**30.32**	**0**	*e*P	**P**	**05 34 57.4**	**+0.4**
YAK				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.0						
YAK	**Yakutsk**	**30.32**	**0**	*e*P	**P**	**05 34 57.4**	**+0.3**
	comp=Z,44nm,1.4s,mb5.0						
SHL	**Shillong**	**33.21**	**269**	*e*P	**P**	**05 35 20.2**	**-2.5**
WMQ	**Urumqi**	**34.62**	**302**	P	**P**	**05 35 32.6**	**-2.1**
WMQ				PP	PP	05 36 47.3	-4.0
WMQ				PPP	PPP	05 37 05.4	-3.9
WMQ				PCP	PcP	05 38 09.6	+0.3
WMQ				S	**S**	**05 40 57.9**	**-5.2**
WMQ				AMB	AMB		
	comp=Z,23nm,1.2s,mb5.0						
WMQ				LR	LR		
	comp=N,2μm,20.6s,MS4.8						
WMQ				LR	LR		
	comp=E,858nm,20.6s,MS4.8						
WMQ				LR	LR		
	comp=Z,1μm,19.5s,MS4.7						
GUN	**Gumba**	**37.61**	**276**	*e*P	**P**	**05 35 59.8**	**-0.3**
	comp=Z,224nm,1.1s,mb5.8						
GUN	**Gumba**	**37.61**	**276**	*e*P	**P**	**05 35 59.7**	**-0.4**
	comp=Z,110nm,1.1s,mb5.5						
FX1	**Attu Island--F**	**38.00**	**43**	LR	LR	05 50 50.1	
	comp=Z,20nm,19.9s,baz=258,slow=35						
PKI	**Pulchoki**	**38.10**	**275**	*e*P	**P**	**05 36 03.8**	**-0.5**
	comp=Z,95nm,1.1s,mb5.5						
KKN	**Kakani**	**38.15**	**276**	*e*P	**P**	**05 36 04.4**	**-0.3**
	comp=Z,155nm,1.1s,mb5.6						
DMN	**Daman**	**38.35**	**275**	*e*P	**P**	**05 36 06.1**	**-0.3**
	comp=Z,151nm,1.4s,mb5.5						
GKN	**Gorkha**	**38.63**	**276**	*e*P	**P**	**05 36 08.0**	**-0.8**
	comp=Z,118nm,1.3s,mb5.5						
GKN	**Gorkha**	**38.63**	**276**	*e*P	**P**	**05 36 08.4**	**-0.4**
	comp=Z,58nm,1.3s,mb5.2						
KOLN	**Koldanda**	**39.58**	**276**	*e*P	**P**	**05 36 16.0**	**-0.6**
	comp=Z,179nm,1.5s,mb5.6						
NVS	**Novosibirsk**	**39.70**	**319**	*e*P	**P**	**05 36 14.1**	**-3.2**
NVS				pmax	pmax		
	comp=Z,44nm,2.4s,mb4.8						
TIXI	**Tiksi**	**39.98**	**360**	*e*P	**P**	**05 36 17.7**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,72nm,1.6s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,2μm,14.0s,MS5.1						
TKM2	**Tokmak 2**	**43.41**	**301**	*e*P	**P**	**05 36 46.6**	**-1.3**
	comp=Z,41nm,1.3s,mb5.0						
KSH	**Kashi**	**43.44**	**296**	*e*P	**P**	**05 36 46.5**	**-1.6**
KSH				*e*PP	PP	05 38 29.1	-2.2
KSH				*e*PCP	PcP	05 38 37.7	+0.7
KSH				*e*PPP	PPP	05 39 02.8	-4.1
KSH				*e*SCP		05 42 25.6	
KSH				*e*PCS		05 42 27.5	
KSH				*e*S	**S**	**05 43 11.0**	**-5.0**
KSH				*e*SCS	ScS	05 46 47.5	+1.5
FRU	**Bishkek**	**44.14**	**301**	*e*P	**P**	**05 36 54.0**	**+0.2**
FRU				pmax	pmax		
	comp=Z,80nm,2.2s,mb5.1						
AAK	**Ala-Archa**	**44.24**	**300**	*e*P	**P**	**05 36 51.7**	**-2.9**
AAK				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.6						
AAK				MLR	MLR		
	comp=Z,275nm,20.0s,MS4.2						
AAK	**Ala-Archa**	**44.24**	**300**	*e*P	**P**	**05 36 51.7**	**-2.9**
	comp=Z,16nm,1.4s,mb4.6						
AAK				LR	LR		
	comp=Z,275nm,20.0s,MS4.2						
UCH	**Uchtor**	**44.26**	**300**	*e*P	**P**	**05 36 54.1**	**-0.7**
	comp=Z,38nm,1.2s,mb5.0						
NDI	**New Delhi**	**44.69**	**280**	*e*P	**P**	**05 37 02.0**	**+3.5**
EKS2	**Erkin-Say**	**44.77**	**300**	*e*P	**P**	**05 36 58.1**	**-0.8**
	comp=Z,20nm,1.4s,mb4.8						
CHKZ	**Chkalovo**	**46.78**	**316**	*e*P	**P**	**05 37 11.6**	**-3.1**
CHKZ				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
CHKZ	**Chkalovo**	**46.78**	**316**	*e*P	**P**	**05 37 11.6**	**-3.1**
	comp=Z,18nm,1.2s,mb4.9						
BVAR	**Borovoye Array**	**46.88**	**315**	P	**P**	**05 37 13.4**	**-2.1**
	comp=Z,6.1nm,0.7s,mb4.7,baz=98,slow=10,SNR=17						
BRVK	**Borovoye**	**46.95**	**315**	*e*P	**P**	**05 37 14.0**	**-2.0**
BRVK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
BRVK				MLR	MLR		
	comp=Z,323nm,21.0s,MS4.3						
BRVK	**Borovoye**	**46.95**	**315**	*e*P	**P**	**05 37 14.0**	**-2.0**
	comp=Z,18nm,0.9s,mb5.0						
BRVK				LR	LR		
	comp=Z,323nm,21.0s,MS4.3						
FITZ	**Fitzroy Crossi**	**49.66**	**184**	*e*P	**P**	**05 37 41.1**	**+3.6**
	comp=Z,7.7nm,0.6s,mb4.9						
FITZ	**Fitzroy Crossi**	**49.66**	**184**	P	**P**	**05 37 36.4**	**-1.1**
	comp=Z,3.8nm,0.7s,mb4.5,baz=346,slow=8.3,SNR=2.6						
WRAB	**Tennant Creek**	**51.60**	**174**	*e*P	**P**	**05 37 50.2**	**-2.1**
WRAB				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
WRAB				MLR	MLR		
	comp=Z,65nm,21.0s,MS3.6						
WRAB	**Tennant Creek**	**51.60**	**174**	*e*P	**P**	**05 37 50.2**	**-2.1**
	comp=Z,11nm,0.8s,mb4.8						
WRAB				LR	LR		
	comp=Z,65nm,21.0s,MS3.6						
WRA	**Warramunga Arr**	**51.61**	**174**	P	**P**	**05 37 50.1**	**-2.3**
	comp=Z,3.9nm,1.0s,mb4.3,baz=352,slow=7.8,SNR=5.9						
WB2	**Warramunga Arr**	**51.61**	**174**	*e*P	**P**	**05 37 54.6**	**+2.3**
MBWA	**Marble Bar**	**53.36**	**191**	*e*P	**P**	**05 38 03.9**	**-1.5**
	comp=Z,11nm,0.9s,mb4.8						
ARU	**Arti**	**53.70**	**319**	*i* P	**P**	**05 38 05.9**	**-1.6**

ARU				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
ARU				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.3						
ARU	**Arti**	53.70	319	*e*P	P	05 38 03.4	-4.1
	comp=Z,38nm,1.0s,mb5.3						
CTA	**Charters Tower**	54.05	160	*e*P	P	05 38 13.8	+3.3
	comp=Z,7.2nm,0.9s,mb4.6						
CTA	**Charters Tower**	54.05	160	P	P	05 38 09.8	-0.7
	comp=Z,7.1nm,0.7s,mb4.7,baz=340,slow=9.0,SNR=12						
CTA				LR	LR	05 58 59.7	
	comp=Z,202nm,19.4s,MS4.2,baz=196,slow=34						
CTAO	**Charters Tower**	54.05	160	*e*P	P	05 38 13.5	+3.0
CTAO				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
CTAO				MLR	MLR		
	comp=Z,181nm,19.0s,MS4.2						
CTAO	**Charters Tower**	54.05	160	*e*P	P	05 38 13.4	+3.0
	comp=Z,5.6nm,0.7s,mb4.6						
CTAO				LR	LR		
	comp=Z,181nm,19.0s,MS4.2						
SOKR	**Solikamsk**	54.45	323	⇓*i*P	P	05 38 13.6	+0.7
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ASAR	**Alice Springs**	55.26	175	P	P	05 38 17.8	-1.6
	comp=Z,0.9nm,0.6s,mb4.0,baz=2.3,slow=14,SNR=11						
ASAR				LR	LR	06 03 08.8	
	comp=Z,137nm,20.2s,MS4.0,baz=352,slow=37						
ASPA	**Alice Springs**	55.26	175	*e*P	P	05 38 18.3	-1.1
IMA	**Indian Mountai**	56.27	29	*e*P	P	05 38 26.9	+0.9
IMA				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.5						
IMA	**Indian Mountai**	56.27	29	*e*P	P	05 38 26.9	+0.8
	comp=Z,48nm,1.0s,mb5.5						
RSO	**Redoubt South**	57.18	35	*e*P	P	05 38 34.5	+1.8
KDAK	**Kodiak Island**	57.65	38	*e*P	P	05 38 34.7	-1.3
	comp=Z,34nm,1.0s,mb5.3						
COLA	**College**	58.81	30	*i* P	P	05 38 43.5	-0.5
COLA	**College**	58.81	30	*e*P	P	05 38 45.3	+1.4
	comp=Z,9.9nm,1.0s,mb4.8						
COLA				LR	LR		
	comp=Z,368nm,22.0s,MS4.5						
ILAR	**Eielson Array**	59.23	30	P	P	05 38 46.5	-0.5
	comp=Z,3.5nm,0.7s,mb4.5,baz=276,slow=6.1,SNR=16						
DIV	**Divide**	60.43	34	*e*P	P	05 38 57.8	+2.6
	comp=Z,45nm,0.9s,mb5.5						
INK	**Inuvik**	63.53	24	P	P	05 39 14.2	-1.6
	comp=Z,4.5nm,1.1s,mb4.4,baz=252,slow=7.8,SNR=8.1						
DZM	**Mont Dzumac**	64.29	141	*e*P	P	05 39 19.8	-1.7
STKA	**Stephens Creek**	64.33	168	P	P	05 39 20.9	-0.7
	comp=Z,1.4nm,0.6s,mb4.2,baz=341,slow=6.3,SNR=5.5						
STKA	**Stephens Creek**	64.33	168	P	P	05 39 20.9	-0.7
MOS	**Moscow**	65.28	322	*e*P	P	05 39 29.4	+2.1
MOS				pmax	pmax		
	comp=Z,79nm,1.5s,mb5.5						
MOS				MLR	MLR		
	comp=Z,2µm,17.7s,MS5.4						
GOF	**Gofitskoye**	65.83	309	⇓*i*P	P	05 39 34.0	+2.9
GOF				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.4						
OBN	**Obninsk**	66.06	321	*e*P	P	05 39 30.8	-1.6
OBN				*i*	pP	05 39 34.5	-1.0
OBN				*e*		05 39 58.4	
OBN				pmax	pmax		
	comp=Z,39nm,1.6s,mb5.2						
OBN				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.2						
ZEI	**Tsey**	66.09	307	*e*P	P	05 39 35.7	+3.0
ZEI				*i* *PP	pP	05 39 42.8	+6.9
ZEI				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.0						
KIV	**Kislovodsk**	66.47	308	P	P	05 39 38.5	+3.3
	comp=Z,284nm,1.3s,SNR=8.5						
KIV	**Kislovodsk**	66.47	308	*e*P	P	05 39 32.1	-3.1
KIV				*i*		05 39 39.1	
KIV				*e*		05 40 00.1	
KIV				pmax	pmax		
	comp=Z,94nm,1.4s,mb5.6						
KIV				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.8						
GNI	**Garni**	66.48	304	*i* P	P	05 39 35.3	0.0
GNI				pmax	pmax		
	comp=Z,42nm,1.5s						
GNI				MLR	MLR		
	comp=Z,400nm,19.0s						
FINES	**FINESS Array B**	68.54	330	P	P	05 39 45.0	-2.9
	comp=Z,6.9nm,1.0s,mb4.5,baz=76,slow=7.9,SNR=8.4						
SOC	**Sochi**	68.59	309	*e*P	P	05 39 53.3	+4.7
SOC				*e*PPP	PPP	05 44 05.2	+5.4
SOC				*e*S	S	05 48 50.7	+1.1
SOC				*e*		05 49 44.2	
SOC				*e*SS	SS	05 53 12.9	-2.6
SOC				pmax	pmax		
	comp=N,14nm,0.6s						
SOC				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
SOC				pmax	pmax		
	comp=E,30nm,1.0s						
SOC				MLR	MLR		
	comp=N,515nm,20.0s,MS5.0						
SOC				MLR	MLR		
	comp=Z,700nm,20.0s,MS4.9						
SOC				MLR	MLR		
	comp=E,664nm,17.0s,MS5.0						
ANN	**Anapa**	69.59	311	*e*P	P	05 39 56.2	+1.5
ANN				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.4						
DAG	**Danmarks Havn**	69.94	353	⇓*e*P	P	05 39 58.7	+2.4
DAG				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
DAG	**Danmarks Havn**	69.94	353	⇓*e*P	P	05 39 58.7	+2.4
	comp=Z,1.5nm,0.8s,mb4.0						
DAG	**Danmarks Havn**	69.94	353	⇓*i*P	P	05 39 58.7	+2.4
	comp=Z,1.5nm,0.8s,mb4.0						
MALT	**Malatya**	71.70	304	P	P	05 40 06.2	-1.4
MALT				pmax	pmax		
	comp=Z,27nm,1.6s,mb4.9						
MALT	**Malatya**	71.70	304	P	P	05 40 06.2	-1.4
	comp=Z,26nm,1.6s,mb4.9						
AKASG	**Malin Array Be**	71.95	319	P	P	05 40 06.6	-2.2
	comp=Z,2.4nm,0.6s,mb4.3,baz=55,slow=6.7,SNR=4.9						
AKASG	**Malin Array Be**	71.95	319	P	P	05 40 06.6	-2.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
YKA	**Yellowknife Ar**	73.21	26	P	P	05 40 13.2	-2.8
	comp=Z,0.8nm,1.1s,baz=298,slow=6.2,SNR=4.8						
JMIC	**Jan Mayen**	73.28	347	LR	LR	06 13 11.2	
	comp=Z,329nm,19.1s,MS4.6,baz=274,slow=36						
BRTR	**Keskin Array B**	74.38	307	P	P	05 40 23.2	0.0
	comp=Z,4.1nm,0.9s,mb4.3,baz=103,slow=6.1,SNR=14						
NB2	**NORSAR Subarra**	74.79	334	P	P	05 40 26.7	+1.6
	comp=Z,1.3nm,0.7s,mb4.0,baz=49,slow=5.6						
NB2	**NORSAR Subarra**	74.79	334	P	P	05 40 26.7	+1.6
NB2				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
NOA	**NORSAR Array B**	74.79	334	P	P	05 40 22.7	-2.4
	comp=Z,2.8nm,1.0s,mb4.2,baz=50,slow=5.6,SNR=6.0						
KOLS	**Kolonicke sedl**	76.72	320	*e*P	P	05 40 34.2	-2.2
OJC	**Ojcow**	77.34	322	*e*P	P	05 40 34.4	-5.4
OKC	**Ostrava-Krasne**	78.44	322	*e*P	P	05 40 49.6	+3.8
KSP	**Ksiaz**	78.80	323	*e*P	P	05 40 50.9	+3.2
KSP				*e*pP	pP	05 41 03.4	+12
KSP				LR	LR		
	comp=Z,3µm,16.6s,MS5.6						
VYHS	**Vyhne**	78.85	321	*e*P	P	05 40 51.4	+3.3
DPC	**Dobruska-Polom**	79.08	323	*e*P	P	05 40 53.6	+4.3
UPC	**Upice**	79.14	323	*e*P	P	05 40 53.6	+4.0
BRG	**Berggiesshubel**	79.96	324	*i* P	P	05 40 58.1	+4.1
BRG				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
BRG	**Berggiesshubel**	79.96	324	P	P	05 40 59.4	+5.4
	comp=Z,8.9nm,1.5s,mb4.5						
CLL	**Collm**	80.15	325	*i* P	P	05 40 58.1	+3.1
CLL				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
CLL	**Collm**	80.15	325	*i* P	P	05 40 58.1	+3.1
	comp=Z,13nm,1.2s,mb4.7						
CLL				*e*		05 41 13.0	
CLL	**Collm**	80.15	325	P	P	05 40 58.1	+3.1
	comp=Z,logA/T=1.0,mb4.7						
CLL				*e*		05 41 13.0	
PRU	**Pruhonice**	80.21	323	*e*P	P	05 40 58.8	+3.4
PRU				*e*pP	pP	05 41 13.4	+15
PKSM	**Moragy**	80.29	319	*e*P	P	05 40 59.7	+3.8
KHC	**Kasperske Hory**	81.23	323	*e*P	P	05 41 04.8	+4.0
KHC				*e*pP	pP	05 41 19.0	+15
MOX	**Moxa**	81.25	325	*e*P	P	05 40 57.4	-3.4
MOX				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.2						
MOX	**Moxa**	81.25	325	*i* P	P	05 40 57.4	-3.4
MOX				L		06 20 33.0	
GERES	**GERESS Array B**	81.35	323	P	P	05 41 01.5	+0.1
	comp=Z,1.5nm,0.9s,mb3.9,baz=45,slow=2.8,SNR=4.0						
GRA1	**Grafenberg Arr**	82.06	325	*e*P	P	05 41 04.6	-0.5
	comp=Z,58nm,2.0s,mb5.2						
GRF	**Grafenberg Arr**	82.06	325	*e*P	P	05 41 04.6	-0.5
GRF				pmax	pmax		
	comp=Z,58nm,2.0s,mb5.2						
GRF	**Grafenberg Arr**	82.06	325	*e*P	P	05 41 04.6	-0.5
GRF				pmax	pmax		
	comp=Z,58nm,2.0s,mb5.2						
GRF	**Grafenberg Arr**	82.06	325	*e*P	P	05 41 04.6	-0.5
	comp=Z,58nm,2.0s,mb5.2						
BMO	**Blue Mountains**	82.75	41	*e*P	P	05 41 11.2	+2.4
BMO				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.5						
BMO	**Blue Mountains**	82.75	41	*e*P	P	05 41 11.2	+2.5
	comp=Z,7.2nm,1.4s,mb4.5						
STU	**Stuttgart**	83.66	325	*e*P	P	05 41 13.0	-0.3
STU				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
STU	**Stuttgart**	83.66	325	*e*P	P	05 41 13.0	-0.3
	comp=Z,9.6nm,0.8s,mb5.0						
EKA	**Eskdalemuir Ar**	84.19	335	P	P	05 41 18.3	+2.5
	comp=Z,1.9nm,0.9s,mb4.2,baz=34,slow=3.0,SNR=4.1						
WLF	**Walferdange**	84.51	327	*e*P	P	05 41 15.7	-1.9
WLF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
WLF	**Walferdange**	84.51	327	*e*P	P	05 41 15.7	-1.9
	comp=Z,8.2nm,0.8s,mb4.9						
DAVOX	**Davos**	84.65	323	P	P	05 41 18.7	+0.4
	comp=Z,6.7nm,0.8s,mb4.8,baz=333,slow=11,SNR=3.3						
CDF	**Champ du Feu**	84.84	325	*e*P	P	05 41 22.5	+3.2
	comp=Z,70nm,1.5s,mb5.3						
CDF	**Champ du Feu**	84.84	325	*e*P	P	05 41 22.5	+3.2
CDF				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.3						
HLID	**Hailey**	85.17	41	*e*P	P	05 41 24.6	+3.6
	comp=Z,4.1nm,1.3s,mb4.4						
HLID				LR	LR		
	comp=Z,219nm,20.0s,MS4.5						
BOZ	**Bozeman (W)**	85.32	38	*e*P	P	05 41 23.6	+1.9
BOZ				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.6						
BOZ	**Bozeman (W)**	85.32	38	*e*P	P	05 41 23.6	+1.9
	comp=Z,4.7nm,1.1s,mb4.5						
HINF	**Hinteralfeld**	85.46	325	*e*P	P	05 41 25.1	+2.7
	comp=Z,19nm,1.1s,mb4.8						
HINF	**Hinteralfeld**	85.46	325	*e*P	P	05 41 25.1	+2.7
HINF				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.9						
SFI	**Santa Sofia**	85.50	320	*e*P	P	05 41 27.6	+4.9
HAU	**Haudompre**	85.57	326	*e*P	P	05 41 25.7	+2.8
	comp=Z,16nm,1.1s,mb4.9						
HAU				*e*R			
	comp=Z,1µm,17.0s						
HAU	**Haudompre**	85.57	326	*e*P	P	05 41 25.7	+2.8
HAU				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.9						
HAU				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.4						
PGD	**Poggio Sodo**	85.59	320	*e*P	P	05 41 27.5	+4.4
AQU	**L'Aquila**	85.63	318	*e*P	P	05 41 21.0	-2.4
AQU				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.4						
AQU	**L'Aquila**	85.63	318	*e*P	P	05 41 21.0	-2.3
	comp=Z,25nm,1.1s,mb5.4						
PTQR	**Pietraquaria**	85.84	318	*e*P	P	05 41 29.4	+5.0
NVAR	**Mina Array Bea**	86.11	47	P	P	05 41 25.2	-0.6
	comp=Z,2.3nm,0.8s,mb4.4,baz=291,slow=6.4,SNR=4.0						
NVAR				LR	LR	06 17 16.3	
	comp=Z,121nm,18.6s,MS4.3,baz=295,slow=34						
ELK	**Elko**	86.51	43	*e*P	P	05 41 31.6	+3.9
CABF	**La Chapelle**	86.67	325	*e*P	P	05 41 31.1	+2.7
IMW	**Indian Meadow**	86.85	39	*e*P	P	05 41 33.0	+3.6
TPH	**Tonopah**	86.99	46	*e*P	P	05 41 31.0	+0.8
TPH				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.9						
TPH	**Tonopah**	86.99	46	*e*P	P	05 41 31.0	+0.8
	comp=Z,8.6nm,1.1s,mb4.9						
LPL	**La Plagne**	87.11	324	*e*P	P	05 41 33.6	+3.0
	comp=Z,10nm,1.1s,mb4.7						
LPL	**La Plagne**	87.11	324	*e*P	P	05 41 33.6	+3.0
LPL				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.7						
LPG	**La Plagne**	87.12	324	*e*P	P	05 41 33.7	+3.1
SSF	**Saint Saulge**	87.60	326	*e*P	P	05 41 35.5	+2.6
	comp=Z,12nm,1.2s,mb4.7						
SSF	**Saint Saulge**	87.60	326	*e*P	P	05 41 35.5	+2.6
SSF				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.7						
MBDF	**Montbardon**	87.64	323	*e*P	P	05 41 36.2	+3.1
	comp=Z,14nm,1.1s,mb4.8						
MBDF	**Montbardon**	87.64	323	*e*P	P	05 41 36.2	+3.1
MBDF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.8						
SMF	**Signal de Mont**	87.74	326	*e*P	P	05 41 35.9	+2.3
AVF	**Avril sur Loir**	87.87	326	*e*P	P	05 41 36.7	+2.5
BGF	**Bois d'Agland**	88.28	326	*e*P	P	05 41 37.8	+1.7
TPNV	**Topopah Spring**	88.30	47	*e*P	P	05 41 38.8	+2.3
TPNV				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
TPNV	**Topopah Spring**	88.30	47	*e*P	P	05 41 38.8	+2.3
	comp=Z,2.6nm,0.9s,mb4.5						
BW06	**Boulder Array**	88.36	39	*e*P	P	05 41 39.2	+2.5
	comp=Z,2.3nm,0.9s,mb4.4						
PDAR	**Pinedale Array**	88.36	39	P	P	05 41 38.9	+2.3
	comp=Z,1.4nm,0.8s,mb4.3,baz=270,slow=1.5,SNR=9.4						
FRF	**La Foret Royal**	88.52	322	*e*P	P	05 41 40.3	+2.9
ULM	**Lac du Bonnet**	89.14	27	P	P	05 41 43.3	+3.1
	comp=Z,3.7nm,0.9s,mb4.7,baz=328,slow=1.4,SNR=5.2						
MTLF	**Montolieu**	90.93	324	*e*P	P	05 41 50.9	+2.2
	comp=Z,18nm,1.2s,mb5.0						
MTLF	**Montolieu**	90.93	324	*e*P	P	05 41 50.9	+2.2
MTLF				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb5.0						
PPT	**Papeete**	91.88	109	*e*LR	LR	06 10 46.5	
	comp=Z,319nm,26.2s,baz=320						
PV01	**Paradox Valley**	92.09	42	*e*P	P	05 41 57.8	+3.7
TBI	**Tubuai**	95.06	114	*e*LR	LR	06 12 15.2	
	comp=Z,339nm,28.8s,baz=327						
RKT	**Rikitea**	106.49	107	*e*LR	LR	06 17 32.2	
	comp=Z,272nm,32.2s						
SDV	**Santo Domingo**	135.38	29	*e*PKPpre		05 47 59.5	
LPAZ	**La Paz**	157.98	50	*e*PKPdf	PKPdf	05 48 45.6	+1.8

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*NIED **12** 05:30:00, 31.80N×129.20E, h5^{km}, Mw4.6 Best double couple: $M_0$8.12×10^{15} NP1:ϕ_s203°, δ89°, λ-153°. NP2: ϕ_s113°, δ63°, λ-2°.*

*IDC **12** 05:30:36.0±1.6, 31.84N×129.59E, mb4.0/6, mb1 4.2/7, mb1mx4.0/22, ML3.5/1, Error ellipse: s-maj=86.1km s-min=18.8km az=67.0*

*JMA **12** 05:30:37.3±0.1, 31.76N×129.17E, h13^{km}±1^{km}, M4.8*

JMA Felt II J1.

*NEIC **12** 05:30:38.3±1.0, 31.82N×129.49E, h15^{km}, mb4.5/3, MW4.6(NIED), Error ellipse: s-maj=40.8km s-min=10.0km az=67.0*

ISC 12 05:30:36.5±1.2**, 31.72N**±0.04×**129.15E**±0.04**, h10**^{km}±8^{km}**, n17, σ0^{s}79**/23**, mb4.2**/9**, 1C, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	**Shimokoshiki**	0.48	94	⇑P	Pg	05 30 46.4	+0.1
JSJ				S	Sg	05 30 52.5	-0.3
JFU	**Fukue jima 2**	1.00	340	P	Pb	05 30 55.1	-0.4
JFU				S	Sb	05 31 08.4	-0.1
NGSJ	**Nagasakinomoza**	1.07	31	P	Pb	05 30 56.6	-0.1
NGSJ				S	Sb	05 31 10.2	-0.3
JHD	**Hondo**	1.12	48	P	Pb	05 30 57.1	-0.5
JHD				S	Sb	05 31 11.7	-0.4
JSU	**Suzuyama**	1.13	100	P	Pb	05 30 58.0	+0.2
JSU				S	Sb	05 31 13.2	+0.8
JZO	**Okuchi**	1.30	71	P	Pb	05 31 00.9	+0.2
JZO				S	Sb	05 31 18.1	+0.8
JOW	**Kunigami**	4.93	189	Pn	Pn	05 31 53.8	+1.3
	3.8nm,0.3s,baz=21,slow=8.6,SNR=3.5						
BJT	**Baijiatuau**	13.39	312	*e*P	P	05 33 49.9	+0.7
ULN	**Ulaanbaatar**	23.30	320	*e*P	P	05 35 45.9	+0.6
	9.6nm,1.0s,mb4.2						
SONM	**Songino Array**	23.64	319	P	P	05 35 49.0	+0.4
	6.2nm,0.8s,mb4.1,baz=129,slow=8.8,SNR=3.8						
BRVK	**Borovoye**	46.92	315	P	P	05 39 08.7	-0.2
	6.0nm,0.8s,mb4.6						
WRAB	**Tennant Creek**	51.59	174	P	P	05 39 44.5	-0.9
	6.6nm,0.9s,mb4.6						
WRA	**Warramunga Arr**	51.60	174	P	P	05 39 43.5	-2.0
	1.0nm,0.8s,mb3.8,baz=348,slow=7.9,SNR=2.5						
CTA	**Charters Tower**	54.06	160	P	P	05 40 02.9	-0.8
	1.8nm,0.5s,mb4.3,baz=342,slow=9.0,SNR=2.7						
ASAR	**Alice Springs**	55.26	175	P	P	05 40 12.0	-0.4
	1.5nm,0.7s,mb4.1,baz=6.4,slow=11,SNR=3.5						
BRTR	**Keskin Array B**	74.34	307	P	P	05 42 19.0	+2.8
	4.6nm,1.2s,mb4.3,baz=110,slow=4.7,SNR=2.9						
GERES	**GERESS Array B**	81.33	323	P	P	05 42 54.0	-0.4
	0.4nm,0.8s,mb3.4,slow=4.9,SNR=3.4						

GUC 12 05:34:42.2±1.0**, 31.26S×67.40W, h147**^{km}**, ML4.0, 2C-1D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	**Combarbala**	3.09	271	⇑*e*		05 34 16.2	
CMCH				⇓*i*P		05 35 31.6	
CMCH				*i* S	S	05 36 08.8	-0.1
TLL	**Tololo Astrono**	3.13	289	*i* P	P	05 35 34.4	+2.6
TLL				*i* S	S	05 36 12.0	+2.2
TLL				AMP		05 36 23.1	
	comp=N,249nm,0.8s						
PTCH	**Petorca**	3.17	251	*e*P	P	05 35 30.9	-1.5
PTCH				*i* S	S	05 36 08.5	-2.3
PTCH				AMP		05 36 14.5	
	comp=N,358nm,0.4s						
FCH	**Farellones**	3.21	229	*i* S	S	05 36 12.4	+0.8
FCH				AMP		05 36 14.2	
	comp=E,103nm,0.4s						
CLCH	**Cerro Calan**	3.41	230	*e*P	P	05 35 35.2	-0.3
CLCH				*i* S	S	05 36 16.6	+0.3
CLCH				AMP		05 36 22.8	
	comp=E,195nm,0.6s						
RCDM	**Rinconada Maip**	3.65	231	⇑*i*P	P	05 35 38.1	-0.5

CASC 12 05:40:33.5±2.1**, 13.16N×90.44W, h8**^{km}±11^{km}**, MD3.9, 6C-1D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IXG	**Ixpaco**	1.01	359	⇓*e*P	Pb	05 40 52.4	-0.4
IXG				*e*S	Sb	05 41 04.7	-1.4
IXG				*e*S	Sb	05 41 06.6	+0.4
SBLS	**San Blas**	1.04	49	⇑*i*P	Pb	05 40 53.1	-0.3
SBLS				*e*S	Sb	05 41 08.5	+1.4
RTR	**El Retiro**	1.06	46	*e*P	Pb	05 40 53.5	-0.3
RTR				*e*S	Sb	05 41 10.7	+3.0
SNJE	**San Jose**	1.07	49	⇑*e*P	Pb	05 40 53.7	-0.3
SNJE				*e*S	Sb	05 41 08.3	+0.3
RBDL	**Robledal**	1.20	37	⇑*e*P	Pb	05 40 55.6	-0.4
RBDL				*e*S	Sb	05 41 12.3	+0.8
BOQS	**Boqueron**	1.26	63	⇑*e*P	Pb	05 40 57.2	0.0
BOQS				*e*S	Sb	05 41 14.5	+1.0
FUG	**Fuego 3**	1.34	343	*e*P	Pb	05 40 57.6	-0.9
LFU	**La Fuente**	1.42	65	*e*P	Pn	05 40 58.5	-1.2
LFRS	**El Faro**	1.42	71	⇑*e*P	Pn	05 40 58.1	-1.6
LFRS				*e*S	Sb	05 41 18.8	+0.9
LBRS	**Las Brisas**	1.47	67	*e*P	Pn	05 41 00.4	-0.2
LBRS				*e*S	Sb	05 41 21.2	+1.6
LCBS	**La Ceiba**	1.50	71	⇑*e*P	Pn	05 40 59.4	-1.6
LCBS				*e*S	Sb	05 41 20.9	+0.4
MTO2	**Montecristo 2**	1.62	40	*e*P	Pn	05 41 01.8	-0.8
MTO2				*e*S	Sb	05 41 24.2	+0.4
SNVI	**San Vicente**	1.62	74	*e*P	Pn	05 41 01.6	-1.0
SNVI				*e*S	Sb	05 41 23.6	-0.2
JAT	**Jato**	1.64	315	*e*P	Pn	05 41 02.1	-0.8
JAT				*e*S	Sn	05 41 26.1	+1.7
CAHU	**Cacacuatique**	2.25	74	*e*P	Pn	05 41 10.7	-0.9
CNCH	**Conchagua**	2.54	87	*e*P	Pn	05 41 14.7	-1.1

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*NIED **12** 05:47:00, 31.80N×129.20E, h5^{km}, Mw3.8 Best double couple: $M_0$6.66×10^{14} NP1:ϕ_s17°, δ78°, λ-159°. NP2: ϕ_s283°, δ69°, λ-12°.*

JMA 12 05:47:01.7±0.1**, 31.76N×129.17E, h14**^{km}±2^{km}**, M3.9, 2C-4D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	**Shimokoshiki**	0.47	100	⇑P	Pb	05 47 11.0	-0.3
JSJ				S	Sb	05 47 17.0	-0.8
JFU	**Fukue jima 2**	0.96	338	⇑P	Pb	05 47 19.5	-0.1
JFU				S	Sb	05 47 33.9	+1.9
NGSJ	**Nagasakinomoza**	1.02	31	⇓P	Pb	05 47 20.9	+0.3
NGSJ				S	Sb	05 47 34.6	+0.9
JHD	**Hondo**	1.08	49	⇓P	Pb	05 47 21.5	-0.2
JHD				S	Sb	05 47 36.7	+1.3
JSU	**Suzuyama**	1.12	103	P	Pb	05 47 22.6	+0.2
JSU				S	Sb	05 47 38.0	+1.3
JZO	**Okuchi**	1.27	72	⇓P	Pb	05 47 24.3	-0.6
JZO				S	Sb	05 47 42.1	+1.1
JIU2	**Izumi 2**	1.60	60	P	Pn	05 47 29.0	-0.8
JTZ	**Takazaki**	1.64	85	⇓P	Pn	05 47 29.7	-0.7

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*CASC **12** 05:48:52.6±2.3, 13.20N×90.38W, h22^{km}±8^{km}, MD4.1, mb3.8(NEIC)*

*NEIC **12** 05:48:58.4±1.6, 13.31N×89.97W, h88^{km}±15^{km}, mb3.8/4, Error ellipse: s-maj=25.9km s-min=9.1km az=49.0*

*IDC **12** 05:49:09.0±17.0, 14.11N×89.95W, h136^{km}±80^{km}, mb3.3/6, mb1 3.6/8, mb1mx3.4/20, Error ellipse: s-maj=199.0km s-min=36.8km az=173.0*

ISC 12 05:48:52.7±0.7**, 13.14N**±0.05×**90.40W**±0.05**, h57**^{km}±7^{km}**, n45, σ1^{s}03**/55**, mb3.8**/7**, 6C-10D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	**San Blas**	1.02	47	⇓*e*P	P	05 49 10.7	-0.5
SBLS				*e*S	S	05 49 25.3	+0.5
IXG	**Ixpaco**	1.03	357	⇓*e*P	P	05 49 09.9	-1.3
IXG				*e*S	S	05 49 24.1	-0.8
RTR	**El Retiro**	1.05	44	⇓*e*P	P	05 49 11.0	-0.5
SNJE	**San Jose**	1.06	47	⇓*e*P	P	05 49 11.2	-0.4
RBDL	**Robledal**	1.19	36	⇑*e*P	P	05 49 13.3	0.0
BOQS	**Boqueron**	1.24	61	⇑*e*P	P	05 49 13.8	-0.3
BOQS				*e*S	S	05 49 30.9	+0.8
SNET	**Serv Nac Est T**	1.26	64	⇓*e*P	P	05 49 13.9	-0.5
SNET				*e*S	S	05 49 31.6	+1.1
PCG	**Pacaya**	1.26	351	*e*P	P	05 49 13.2	-1.3
FUG	**Fuego 3**	1.37	342	*e*P	P	05 49 15.3	-0.7
LFRS	**El Faro**	1.39	70	⇓*e*P	P	05 49 15.7	-0.6
LFU	**La Fuente**	1.39	64	*e*P	P	05 49 16.2	-0.1
NBG	**Las Nubes**	1.44	2	⇑*e*P	P	05 49 17.4	+0.4
LBRS	**Las Brisas**	1.45	66	⇑*e*P	P	05 49 17.0	-0.1
LCBS	**La Ceiba**	1.47	70	⇓*e*P	P	05 49 16.8	-0.7
SNVI	**San Vicente**	1.59	73	⇑*e*P	P	05 49 18.8	-0.2
MTO2	**Montecristo 2**	1.60	39	⇓*e*P	P	05 49 19.6	+0.4
MTO2				*e*S	S	05 49 39.5	+0.5
JAT	**Jato**	1.68	314	*e*P	P	05 49 19.7	-0.6
JAT				*e*S	S	05 49 43.1	+2.4
VSM	**San Miguel**	2.09	82	⇑*e*P	P	05 49 26.9	+0.9
BLLM	**Bellamira**	2.12	82	⇓*e*P	P	05 49 27.0	+0.5
BLLM				*e*S	S	05 49 52.5	+0.8
CAHU	**Cacacuatique**	2.22	73	*e*P	P	05 49 28.2	+0.3
CNCH	**Conchagua**	2.50	87	⇓*e*P	P	05 49 31.6	-0.3
JTS	**JuntasAbangare**	6.04	117	*e*Pn	P	05 50 20.6	-0.8
	12nm,0.5s						
JTS				*e*S	S	05 51 26.5	-3.6
JCR	**Jicaral**	6.13	122	*e*P	P	05 50 22.7	0.0
PRS1	**Puriscal**	6.74	117	*e*P	P	05 50 32.9	+1.6
LAJ	**Bijagual**	6.96	117	*e*P	P	05 50 30.8	-3.5
LAJ				*e*S	S	05 51 43.3	-10
TRTC	**Tortuguero**	7.02	111	*e*P	P	05 50 33.8	-1.5
ICR	**Volcan Irazu**	7.16	115	*e*P	P	05 50 42.2	+5.0
URSC	**Urasca**	7.27	116	*e*P	P	05 50 39.7	+1.0
TEIG	**Tepich**	7.33	16	P	P	05 50 39.2	-0.3
	1.1nm,0.3s,baz=161,slow=9.6,SNR=18						
TEIG	**Tepich**	7.33	16	*e*Pn	P	05 50 39.6	+0.1
BUS	**Buena Vista**	7.42	118	*e*P	P	05 50 42.5	+1.7
BUS				*e*S	S	05 52 04.0	-0.3
ACR	**Cerro Adams**	8.38	121	*e*P	P	05 50 55.7	+1.7
SDV	**Santo Domingo**	19.85	100	*e*P	P	05 53 20.1	-1.7
	3.9nm,1.0s						

LTX	Lajitas	20.28	325	eP	P	05 53 28.0	+1.9
	2.9nm,0.8s						
TXAR	Lajitas Array	20.28	325	P	P	05 53 28.6	+2.5
	0.2nm,0.3s,baz=152,slow=12,SNR=26						
PV10	Paradox Valley	30.10	330	eP	P	05 55 00.3	+1.3
SAML	Samuel	34.82	128	eP	P	05 55 39.2	-1.1
	1.4nm,0.9s,mb3.9						
NVAR	Mina Array Bea	35.32	321	P	P	05 55 48.0	+3.7
	3.1nm,0.8s,mb4.3,baz=146,slow=7.9,SNR=23						
ULM	Lac du Bonnet	37.27	354	P	P	05 55 59.9	-0.8
	1.3nm,0.5s,mb4.0,baz=146,slow=3.6,SNR=2.8						
SCHQ	Schefferville	45.50	19	P	P	05 57 06.8	-1.2
	2.0nm,0.6s,mb4.3,baz=228,slow=12,SNR=6.8						
SCHQ	Schefferville	45.50	19	eP	P	05 57 06.0	-2.1
	1.3nm,0.5s,mb4.1						
YKA	Yellowknife Ar	52.22	346	P	P	05 57 59.0	-0.8
	0.1nm,0.4s,mb3.1,baz=150,slow=7.9,SNR=8.3						
YKA	Yellowknife Ar	52.22	346	P	P	05 57 59.0	-0.8
INK	Inuvik	61.70	343	P	P	05 59 06.5	-0.4
	0.6nm,0.8s,mb3.8,baz=72,slow=1.8,SNR=3.6						
ILAR	Eielson Array	64.24	337	P	P	05 59 24.1	+0.4
	0.4nm,1.0s,mb3.4,baz=109,slow=6.3,SNR=5.1						

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*NIED **12** 05:50:00, 31.80N×129.20E, h5^{km}, Mw3.7 Best double couple: M$_0$3.51×10^{14} NP1:φ$_s$35°, δ84°, λ-130°. NP2: φ$_s$298°, δ41°, λ-9°.*

JMA 12 05:50:43.0±0.1**, 31.76N×129.20E, h12**^{km}±3^{km}**, M2.7, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.45	100	P	Pg	05 50 51.7	-0.5
JSJ				S	Sg	05 50 57.9	-0.4
JFU	Fukue jima 2	0.97	337	P	Pb	05 51 00.7	-0.6
NGSJ	Nagasakinomoza	1.01	30	P	Pb	05 51 01.8	-0.1
JHD	Hondo	1.06	48	P	Pb	05 51 02.8	0.0
JSU	Suzuyama	1.10	103	S	Sb	05 51 18.8	+1.2
JZO	Okuchi	1.25	72	P	Pb	05 51 05.3	-0.7

JMA 12 05:50:54.1±0.1**, 31.76N×129.19E, h10**^{km}±2^{km}**, M3.6, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.46	100	P	Pg	05 51 02.9	-0.5
JSJ				S	Sg	05 51 09.0	-0.6
JFU	Fukue jima 2	0.97	337	P	Pb	05 51 12.5	0.0
JFU				S	Sb	05 51 26.1	+1.0
NGSJ	Nagasakinomoza	1.01	31	P	Pb	05 51 12.8	-0.5
NGSJ				S	Sb	05 51 27.1	+0.7
JHD	Hondo	1.07	49	P	Pb	05 51 13.9	-0.3
JHD				S	Sb	05 51 28.5	+0.5
JSU	Suzuyama	1.11	103	S	Sb	05 51 29.9	+0.7
JZO	Okuchi	1.26	72	P	Pb	05 51 17.4	0.0
JZO				S	Sb	05 51 34.5	+1.0

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*CSEM **12** 06:02:52.4±0.1, 36.74N×27.30E, h12^{km}, MD3.4, Error ellipse: s-maj=3.0km s-min=2.6km az=158.0*
*NEIC **12** 06:02:53.1, 36.75N×27.37E, h59^{km}, MD3.0(ATH), After ATH.*
*ATH **12** 06:02:53.2, 36.76N×27.37E, h57^{km}±43^{km}, MD3.0/3*
*ISK **12** 06:02:56.4, 36.88N×27.43E, h37^{km}, MD3.4*
ISC 12 06:02:52.8±1.0**, 36.72N**±0.03×**27.31E**±0.06**, h6**^{km}±6^{km}**, n20, σ0^{s}86**/28**, 1C, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	Kayabasi	0.36	18	iP	Pg	06 03 00.3	+0.2
BDRM				iS	Sg	06 03 05.4	+0.4
MLSB	Milas	0.69	33	PG	Pg	06 03 07.2	+0.7
MLSB				SG	Sg	06 03 15.9	+0.2
ARG	Arkhangelos	0.83	127	eP	Pb	06 03 09.0	-0.2
ARG				eS	Sb	06 03 21.5	+1.1
YER	Yerkesik	0.89	62	PG	Pg	06 03 09.9	-0.6
YER				SG	Sg	06 03 21.2	-1.1
AYDN	Tasoluk	1.05	26	iP	Pb	06 03 12.8	-0.1
AYDN				iS	Sb	06 03 26.8	+0.1
SMG	Samos	1.06	339	eP	Pb	06 03 12.7	-0.4
DALT	Dalyan (Mudla)	1.07	87	ePG	Pg	06 03 13.4	-0.8
KARP	Karpathos	1.18	186	⇑iP	Pb	06 03 15.2	+0.1
FETY	Fethiye	1.43	93	PN	Pn	06 03 19.8	+0.4
APE	Apeiranthos	1.47	284	ePN	Pn	06 03 22.8	+2.9
APE	Apeiranthos	1.47	284	eP	Pn	06 03 19.0	-0.9
BLCB	Balcova	1.68	353	ePN	Pn	06 03 21.1	-1.8
IZM	Izmir	1.68	359	PN	Pn	06 03 21.7	-1.2
KDAG	Bornova	1.68	359	iP	Pn	06 03 24.2	+1.2
KDAG				iS	Sn	06 03 45.9	+0.8
DNZL	Cakiroluk	1.69	55	iP	Pn	06 03 23.5	+0.3
DNZL				iS	Sn	06 03 41.9	-3.5
DENT	Denizli	1.72	53	ePN	Pn	06 03 23.0	-0.6
MANT	Manisa	2.03	29	iP	Pg	06 03 33.2	-0.1
MANT				iS	Sg	06 04 01.6	+1.3
ELL	Elmali	2.09	88	ePN	Pn	06 03 29.2	+0.4
AKS	Akhisar	2.19	10	ePN	Pn	06 03 29.9	-0.4
ANTB	Antalya	2.69	85	ePN	Pn	06 03 37.8	+0.4

BJI 12 06:26:18.9, 39.37N×77.03E, h11^{km}**, ML3.5, 1C, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.83	280	⇑iPG	Pg	06 26 33.3	-2.3
KSH				SG	Sg	06 26 45.3	-1.5
KSH				Smax			
	comp=N,2µm,0.5s						
KSH				Smax			
	comp=E,2µm,0.5s						
ULHL	Ulahol	2.93	348	P	Pn	06 27 08.0	+1.6
	SNR=9.0						
KZA	Kyzart	3.02	334	P	Pn	06 27 09.6	+1.9
	SNR=85						
UCH	Uchtor	3.44	327	P	Pn	06 27 16.2	+2.6
	SNR=17						
KBK	Karagaybulak	3.64	335	P	Sn	06 28 08.2	+8.4
	SNR=5.3						
TKM2	Tokmak 2	3.71	343	P	Pn	06 27 16.7	-0.7
	SNR=15						
AML	Almayashu	3.75	318	P	Pn	06 27 21.3	+3.4
	SNR=14						
AAK	Ala-Archa	3.78	330	P	Pn	06 27 24.0	+5.6
	SNR=7.2						
CHMS	Chumysh	4.01	335	P	Pn	06 27 20.8	-0.9
	SNR=5.4						
EKS2	Erkin-Say	4.11	324	P	Pn	06 27 26.6	+3.5
	SNR=6.2						
USP	Ospenovka	4.33	335	P	Pn	06 27 32.9	+6.5
	SNR=5.8						

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*IDC **12** 06:35:24.5±1.0, 35.10S×111.23W, mb4.1/7, mb1 4.3/7, mb1mx4.1/16, MS3.6/2, Ms1 3.7/2, ms1mx3.2/18, Error ellipse: s-maj=35.3km s-min=29.3km az=174.0*
*NEIC **12** 06:35:25.7±0.4, 35.21S×111.29W, h10^{km}, mb4.6/7, Error ellipse: s-maj=15.0km s-min=12.5km az=53.0*
ISC 12 06:35:23.7±0.8**, 35.2S**±0.1×**111.3W**±0.2**, h10**^{km}**, n27, σ0^{s}88**/19**, mb4.2**/13**, MS3.6**/2**, Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
USHA	Ushuaia	35.37	137	LR	LR	06 52 10.7	
	comp=Z,126nm,18.6s,MS3.7,baz=156,slow=28						
LVC	Limon Verde	38.93	83	P	P	06 42 52.6	+1.1
	5.0nm,1.0s,mb4.2,baz=240,slow=6.7,SNR=4.3						
LVC	Limon Verde	38.93	83	eP	P	06 42 52.5	+0.9
	5.8nm,0.9s,mb4.3						
TRQA	Tornquist	39.34	109	eP	P	06 42 55.2	+0.5
	23nm,1.5s,mb4.7						
LPAZ	La Paz	42.86	75	P	P	06 43 23.6	-0.3
	1.1nm,0.7s,mb3.7,baz=290,slow=11,SNR=4.3						
LPAZ	La Paz	42.86	75	P	P	06 43 25.2	+1.3
VNDA	Vanda	55.21	195	LR	LR	07 02 25.7	
	comp=Z,50nm,21.7s,MS3.5,baz=146,slow=29						
SDV	Santo Domingo	58.33	49	eP	P	06 45 20.3	-1.3
	10nm,1.4s,mb4.7						
SNAA	Sanae	62.44	160	P	P	06 45 47.4	-1.5
	8.0nm,1.3s,mb4.7						
TXAR	Lajitas Array	64.64	7	P	P	06 46 02.8	-1.0
	0.5nm,0.8s,mb3.6,baz=180,slow=8.8,SNR=4.9						
LDFC	Landfair	70.05	357	eP	P	06 46 38.1	+0.3
TPNV	Topopah Spring	71.97	356	eP	P	06 46 49.5	+0.1
	5.2nm,1.2s,mb4.3						
NVAR	Mina Array Bea	73.58	354	P	P	06 47 00.1	+1.3
	1.9nm,0.8s,mb4.1,baz=194,slow=6.5,SNR=14						
DAU	Daniels Canyon	75.28	0	eP	P	06 47 09.2	+0.6
JLU	Jordanelle	75.47	360	eP	P	06 47 09.0	-0.7
BW06	Boulder Array	77.65	1	eP	P	06 47 21.2	-0.6
	8.1nm,1.2s,mb4.5						
PDAR	Pinedale Array	77.65	1	P	P	06 47 21.6	-0.2
	2.5nm,0.8s,mb4.2,baz=155,slow=5.0,SNR=24						
MCMT	McKenzie Canyo	79.71	359	eP	P	06 47 33.9	+0.9
BMO	Blue Mountains	79.90	356	eP	P	06 47 34.3	+0.3
	6.2nm,1.4s,mb4.3						
ASAR	Alice Springs	94.88	237	P	P	06 48 48.5	+1.0
	0.5nm,1.0s,mb3.9,baz=118,slow=2.1,SNR=4.4						
YKA	Yellowknife Ar	97.43	358	P	P	06 48 56.9	-1.2
	0.4nm,1.0s,mb3.8,baz=173,slow=3.9,SNR=5.8						
ENH	Enshi	145.48	273	ePKPbc	PKPbc	06 55 04.8	+2.0
MLR	Muntele Rosu	146.24	59	PKPbc	PKPbc	06 55 05.5	+1.3
	3.5nm,0.8s,baz=257,slow=9.2,SNR=4.9						
AKASG	Malin Array Be	147.71	49	PKPbc	PKPdf	06 55 08.5	+0.2
	1.0nm,0.7s,baz=268,slow=4.1,SNR=8.6						
CMAR	Chiang Mai Arr	148.40	246	PKPbc	PKPdf	06 55 14.3	+4.0
	2.7nm,1.0s,baz=162,slow=4.5,SNR=10						
SONM	Songino Array	149.39	306	PKPbc	PKPdf	06 55 14.8	+3.7
	1.9nm,1.2s,baz=180,slow=1.4,SNR=6.9						
BRTR	Keskin Array B	151.97	70	PKPbc	PKPdf	06 55 21.2	+5.9
	0.4nm,0.7s,baz=194,slow=5.9,SNR=4.4						

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*CSEM **12** 06:50:39.4±0.6, 38.67N×28.52W, h14^{km}±2^{km}, ML2.1, Error ellipse: s-maj=2.1km s-min=2.1km az=2.0*
*PDA **12** 06:50:39.4±0.6, 38.67N×28.52W, h14^{km}±2^{km}, MD2.9, ML2.1, Error ellipse: s-maj=2.1km s-min=2.1km az=2.0*
SVSA 12 06:50:39.4±0.6**, 38.67N×28.52W, h14**^{km}±2^{km}**, MD2.9, ML2.1, Error ellipse: s-maj=2.1km s-min=2.1km az=2.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	Cedros	0.15	255	eP	Pg	06 50 42.8	-0.4
PCED				eS	Sg	06 50 45.3	-0.5
	253nm,0.1s						
PCED	Cedros	0.15	255	eP	Pg	06 50 42.8	-0.4
PCED				eS	Sg	06 50 45.3	-0.5
	253nm,0.1s						
HOR	Horta	0.16	212	eP	Pg	06 50 42.8	-0.7
HOR				eS	Sg	06 50 45.3	-1.0
CALA	Caldeira	0.17	239	eP	Pg	06 50 42.9	-0.6
CALA				eS	Sg	06 50 45.5	-0.8
PICO	Pico	0.18	156	iP	Pg	06 50 43.2	-0.6
PICO				eS	Sg	06 50 46.1	-0.6
PICO	Pico	0.18	156	eS	Sg	06 50 46.1	-0.6
ROSA	Rosais	0.22	76	eP	Pg	06 50 43.8	-0.7
ROSA				eS	Sg	06 50 46.8	-1.1
PPNO	Prainha do Nor	0.28	134	eP	Pg	06 50 44.5	-1.0
PPNO				eS	Sg	06 50 48.6	-1.0
	161nm,0.1s						
PPNO	Prainha do Nor	0.28	134	eP	Pg	06 50 44.5	-1.0
PPNO				eS	Sg	06 50 48.6	-1.0
	161nm,0.1s						
PMAN	Manadas	0.34	96	eS	Sg	06 50 49.6	-1.8
	59nm,0.1s						

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*NIED **12** 06:58:00, 31.80N×129.20E, h5^{km}, Mw4.5 Best double couple: M$_0$7.46×10^{15} NP1:φ$_s$286°, δ85°, λ-24°. NP2:φ$_s$18°, δ66°, λ-175°.*
*MOS **12** 06:58:20.8±1.1, 31.76N×129.18E, h10^{km}, mb4.4/6, Error ellipse: s-maj=18.4km s-min=9.8km az=109.1*
*IDC **12** 06:58:21.5±0.6, 31.72N×128.90E, mb4.0/17, mb1 4.1/18, mb1mx4.1/26, ML3.3/1, MS3.8/12, Ms1 3.8/12, ms1mx3.7/21, Error ellipse: s-maj=24.6km s-min=13.6km az=74.0*
*JMA **12** 06:58:22.1±0.1, 31.76N×129.17E, h15^{km}±1^{km}, M4.7 Broadband fault plane solution: P waves. NP1:φ$_s$281°, δ65°, λ-26°. NP2:φ$_s$22°, δ67°, λ-153°. Principal axes: T Plg1°, Azm151°; N Plg55°, Azm60°; P Plg35°, Azm242°;*
JMA Felt II J1.
*NEIC **12** 06:58:23.3±0.4, 31.79N×129.04E, h10^{km}, mb4.3/9 Error ellipse: s-maj=11.7km s-min=7.1km az=72.0*
NEIC Recorded [2 JMA] in Kagoshima and [1 JMA] in Nagasaki Prefectures.
*BJI **12** 06:58:23.5, 31.61N×129.33E, h28^{km}, mB4.5, mb4.4, ML5.0, Ms4.4, Msz4.1*
ISC 12 06:58:21.7±0.9**, 31.75N**±0.03×**129.17E**±0.03**, h13**^{km}±6^{km}**, n74, σ1^{s}17**/81**, mb4.2**/32**, MS4.0**/11**, 4C-5D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.47	99	⇓P	Pg	06 58 31.2	-0.2
JSJ				S	Sg	06 58 37.6	-0.3
JFU	Fukue jima 2	0.97	339	⇑P	Pb	06 58 40.0	+0.1
JFU				S	Sb	06 58 53.5	+1.1
NGSJ	Nagasakinomoza	1.03	31	⇓P	Pb	06 58 41.0	+0.1
NGSJ				S	Sb	06 58 56.1	+2.0
JHD	Hondo	1.08	49	⇓P	Pb	06 58 42.1	+0.2
JHD				S	Sb	06 58 56.5	+0.7
JSU	Suzuyama	1.12	102	⇑P	Pb	06 58 42.8	+0.2
JSU				S	Sb	06 58 58.0	+1.1
JZO	Okuchi	1.27	72	⇓P	Pb	06 58 44.9	-0.2
JZO				S	Sb	06 59 02.3	+1.0
JIU2	Izumi 2	1.60	60	⇓P	Pn	06 58 49.6	-0.4
JTZ	Takazaki	1.64	84	⇑P	Pn	06 58 50.3	-0.3
JTN	Tanegashima 3	1.90	125	P	Pn	06 58 53.5	-0.8
JOW	Kunigami	4.96	189	Pn	Pn	06 59 39.2	+1.3
	2.6nm,0.3s,baz=29,slow=12,SNR=9.4						
JOW				LR	LR	07 01 37.8	
	comp=Z,914nm,19.7s,baz=130,slow=40						
KS15	Wonju Array Si	5.77	350	ePn	Pn	06 59 47.6	-1.6
KS15				eSn	Sn	07 00 53.0	-3.1
KS15				eS	Sb	07 01 14.8	+3.0
INCN	Inchon	6.09	341	ePn	Pn	06 59 52.4	-1.3
	42nm,0.8s						
INCN				eS	Sn	07 01 19.1	+15
INCN				eSg	Sg	07 01 32.7	-12
MAT	Matsushiro	8.88	55	P	P	07 00 32.4	-0.4
MAT				eS	Sn	07 02 12.7	-1.1
MAT	Matsushiro	8.88	55	P	P	07 00 32.0	-0.8
MAT				S	Sn	07 02 13.0	-0.8
JHJ	Hachijo jima 2	9.07	79	LR	LR	07 03 55.8	
	comp=Z,222nm,18.3s,baz=266,slow=36						
TIA	Tai'an	10.94	297	eP	P	07 01 04.3	+3.2
CBIJ	Chichi jima	12.26	109	LR	LR	07 06 02.3	
	comp=Z,237nm,18.4s,baz=200,slow=37						
BJT	Baijiatuau	13.37	312	eP	P	07 01 34.4	+0.6
BJT				pmax	pmax		
	comp=Z,30nm,1.1s						
BJT	Baijiatuau	13.37	312	eP	P	07 01 34.4	+0.6
	comp=Z,30nm,1.1s						
ASAJ	Asahikawa	16.24	37	LR	LR	07 07 51.9	
	comp=Z,219nm,20.5s,baz=174,slow=35						
ENH	Enshi	16.94	270	P	P	07 02 23.3	+3.2
	comp=Z,5.0nm,0.5s						
KLR	Kul'dur	17.57	6	eP	P	07 02 27.0	-0.8
KLR				pmax	pmax		
	comp=Z,340nm,3.0s						
KLR				pmax	pmax		
	comp=N,150µm,3.0s						
KLR				MLR	MLR		
	comp=N,800nm,13.0s						
KLR				MLR	MLR		
	comp=Z,2µm,13.0s						
BTO	Baotou	17.78	305	eP	P	07 02 30.3	-0.2
HIA	Hailar	18.88	341	eP	P	07 02 44.0	0.0
HIA				pmax	pmax		
	comp=Z,31nm,1.5s						
HIA	Hailar	18.88	341	eP	P	07 02 44.0	-0.1
	comp=Z,31nm,1.5s						
GYA	Guiyang	20.35	261	P	P	07 03 00.4	-0.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s						
GYA				AMB	AMB		
	comp=Z,60nm,3.7s						
LZH	Lanzhou	21.43	289	eP	P	07 03 18.5	+6.8
LZH				AP		07 03 21.6	
LZH				XP		07 03 23.8	
LZH				AMB	AMB		
	comp=Z,24nm,1.2s,mb4.4						
LZH				AMB	AMB		
	comp=Z,150nm,5.0s						
LZH				LR	LR		
	comp=E,710nm,12.3s						
LZH				LR	LR		
	comp=Z,789nm,14.8s,MS4.2						
CD2	Chengdu	21.71	274	P	P	07 03 17.0	+2.4
ULN	Ulaanbaatar	23.28	320	eP	P	07 03 29.7	-0.2
ULN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb3.8						
ULN	Ulaanbaatar	23.28	320	eP	P	07 03 29.7	-0.2
	comp=Z,3.4nm,0.7s,mb3.9						
SONM	Songino Array	23.62	319	P	P	07 03 33.2	0.0
	comp=Z,8.8nm,0.8s,mb4.2,baz=135,slow=7.7,SNR=55						
ZAK	Zakamensk	26.75	322	eP	P	07 04 02.0	-0.8
CMAR	Chiang Mai Arr	30.29	251	LR	LR	07 17 43.9	
	comp=Z,190nm,18.1s,MS3.8,baz=45,slow=39						
SHL	Shillong	33.18	269	eP	P	07 05 01.7	+1.4
WMQ	Urumqi	34.58	302	eP	P	07 05 15.0	+2.8
GUN	Gumba	37.57	276	eP	P	07 05 38.4	+0.7
	comp=Z,76nm,1.0s,mb5.4						
PKI	Pulchoki	38.07	275	eP	P	07 05 42.8	+0.9
	comp=Z,33nm,1.0s,mb5.0						
KKN	Kakani	38.11	276	eP	P	07 05 42.9	+0.6
	comp=Z,19nm,0.7s,mb4.9						
ZAL	Zalesovo	38.52	318	P	P	07 05 43.6	-1.7
	comp=Z,1.0nm,0.8s,mb3.6,baz=290,slow=3.8,SNR=3.1						
ZAL				LR	LR	07 23 35.5	
	comp=Z,307nm,18.2s,MS4.2,baz=318,slow=39						
KOLN	Koldanda	39.54	276	eP	P	07 05 55.2	+1.0
	comp=Z,28nm,1.2s,mb4.9						
TKM2	Tokmak 2	43.37	301	eP	P	07 06 25.6	+0.2
	comp=Z,11nm,1.3s,mb4.4						
AAK	Ala-Archa	44.20	300	eP	P	07 06 31.2	-1.0
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.9						
AAK	Ala-Archa	44.20	300	eP	P	07 06 31.2	-1.0
	comp=Z,2.0nm,0.8s,mb3.9						
UCH	Uchtor	44.22	300	eP	P	07 06 31.0	-1.3
	comp=Z,4.6nm,0.9s,mb4.2						
PMG	Port Moresby	44.40	154	LR	LR	07 21 48.8	
	comp=Z,106nm,20.1s,MS3.8,baz=0.5,slow=32						
NDI	New Delhi	44.65	280	eP	P	07 06 40.0	+4.0
BVAR	Borovoye Array	46.84	315	P	P	07 06 52.2	-0.8
	comp=Z,2.5nm,0.7s,mb4.3,baz=90,slow=8.9,SNR=17						
BRVK	Borovoye	46.90	315	eP	P	07 06 52.6	-0.9
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
BRVK	Borovoye	46.90	315	eP	P	07 06 52.6	-0.9
	comp=Z,3.9nm,0.8s,mb4.4						
FITZ	Fitzroy Crossi	49.68	184	P	P	07 07 14.9	-0.7
	comp=Z,3.5nm,1.0s,mb4.3,baz=359,slow=15,SNR=2.6						
WRAB	Tennant Creek	51.63	174	eP	P	07 07 32.4	+2.0
WRAB				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
WRAB	Tennant Creek	51.63	174	eP	P	07 07 32.4	+2.1
	comp=Z,4.4nm,0.8s,mb4.4						
WRA	Warramunga Arr	51.64	174	P	P	07 07 28.7	-1.7
	comp=Z,1.0nm,0.8s,mb3.8,baz=352,slow=8.0,SNR=4.3						
ARU	Arti	53.66	319	⇑iP	P	07 07 42.9	-2.1
ARU				e		07 08 52.4	
ARU				e		07 09 44.1	
ARU				eS	S	07 15 09.6	-7.2
ARU				eSS	SS	07 18 51.6	-5.3
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
ARU				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.4						
ARU				MLR	MLR		
	comp=E,200nm,16.0s						
ARU	Arti	53.66	319	eP	P	07 07 43.5	-1.5
	comp=E,9.4nm,1.0s,mb4.7						
CTA	Charters Tower	54.09	160	P	P	07 07 47.5	-1.1
	comp=E,2.1nm,0.8s,mb4.2,baz=343,slow=11,SNR=2.8						
ASAR	Alice Springs	55.29	175	P	P	07 07 57.5	+0.1
	comp=E,1.7nm,1.0s,mb4.0,baz=1.5,slow=14,SNR=15						
ILAR	Eielson Array	59.22	30	P	P	07 08 24.2	-0.5
	comp=E,0.8nm,0.8s,mb3.8,baz=280,slow=7.6,SNR=8.1						
INK	Inuvik	63.52	24	P	P	07 08 54.2	+0.6
	comp=E,2.1nm,1.1s,mb4.1,baz=276,slow=6.2,SNR=2.4						
INK				LR	LR	07 37 59.4	
	comp=E,71nm,18.2s,MS3.9,baz=274,slow=37						
INK	Inuvik	63.52	24	P	P	07 08 54.2	+0.6
INK				LR	LR	07 37 59.4	
STKA	Stephens Creek	64.37	168	P	P	07 08 59.6	-0.1
	comp=E,0.7nm,0.4s,mb4.0,baz=336,slow=12,SNR=3.0						
STKA				LR	LR	07 40 13.3	
	comp=E,62nm,18.8s,MS3.8,baz=209,slow=39						
KIV	Kislovodsk	66.42	308	eP	P	07 09 17.8	+5.1
KIV				pmax	pmax		
	comp=E,12nm,1.0s						
KIV				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
KIV				MLR	MLR		
	comp=Z,182nm,26.0s,MS4.2						
KIV				MLR	MLR		
	comp=N,99nm,17.0s						
KIV				MLR	MLR		
	comp=E,87nm,26.0s						
FINES	FINESS Array B	68.50	330	P	P	07 09 23.9	-1.6
	comp=E,1.8nm,0.7s,mb4.2,baz=56,slow=10.0,SNR=5.0						
FINES				LR	LR	07 42 36.7	
	comp=E,133nm,18.3s,MS4.2,baz=357,slow=39						
AKASG	Malin Array Be	71.91	319	P	P	07 09 45.1	-1.3
	comp=E,0.7nm,0.6s,mb3.8,baz=54,slow=6.8,SNR=5.5						
AKASG	Malin Array Be	71.91	319	P	P	07 09 45.1	-1.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	73.20	26	P	P	07 09 53.5	-0.2
	comp=Z,0.3nm,0.6s,mb3.4,baz=306,slow=5.2,SNR=6.3						
YKA				LR	LR	07 43 10.7	
	comp=Z,46nm,18.4s,MS3.8,baz=285,slow=37						
YKA	Yellowknife Ar	73.20	26	P	P	07 09 53.5	-0.2
YKA				LR	LR	07 43 10.7	
BRTR	Keskin Array B	74.33	307	P	P	07 10 00.8	0.0
	comp=Z,3.4nm,1.2s,mb4.2,baz=72,slow=3.9,SNR=4.3						
NB2	NORSAR Subarra	74.75	334	P	P	07 10 00.8	-1.9
	comp=Z,8.3nm,1.4s,mb4.5,baz=50,slow=5.8						
NOA	NORSAR Array B	74.75	334	LR	LR	07 46 56.4	
	comp=Z,70nm,18.6s,MS4.0,baz=45,slow=39						
GERES	GERESS Array B	81.31	323	P	P	07 10 40.0	+0.9
	comp=Z,0.5nm,0.8s,mb3.5,baz=45,slow=3.8,SNR=4.9						
DAVOX	Davos	84.61	323	P	P	07 10 56.6	+0.6
	comp=Z,3.0nm,0.8s,mb4.5,baz=51,slow=6.5						
NVAR	Mina Array Bea	86.11	47	P	P	07 11 06.9	+3.2
	comp=Z,0.4nm,0.8s,mb3.7,baz=284,slow=7.4,SNR=2.7						
PDAR	Pinedale Array	88.36	39	P	P	07 11 17.9	+3.5
	comp=Z,1.1nm,1.2s,mb4.0,baz=90,slow=2.7,SNR=2.8						

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*IDC **12** 08:40:11.9±2.1, 17.35N×62.25W, h115^{km}±42^{km}, mb3.1/4, mb1 3.4/4, mb1mx3.1/21, Error ellipse: s-maj=52.2km s-min=24.6km az=92.0*
*TRN **12** 08:40:11.4, 17.35N×62.46W, h98^{km}, MD3.6*
*RSPR **12** 08:40:12.6, 17.65N×62.33W, h25^{km}±54^{km}, MD4.1/9, MD4.1/9*
ISC 12 08:40:11.3±0.7**, 17.4N**±0.1×**62.45W**±0.04**, h110**^{km}±4^{km}**, n26, σ0^{s}81**/37**, mb3.4**/4**, 8C-7D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STAT	Sint Eustatius	0.51	281	⇓iP	P	08 40 29.1	+0.7
STAT				eS	S	08 40 40.9	-0.4
CPB	Codrington	0.64	68	⇑iP	P	08 40 30.2	+0.9
CPB				eS	S	08 40 42.9	-0.1
BPA	Boggy Peak	0.67	122	⇑iP	P	08 40 29.9	+0.4
BPA				eS	S	08 40 42.2	-1.1
SABT	Saba	0.79	286	eP	P	08 40 31.6	+0.9
SABT				eS	S	08 40 44.2	-1.0
STMA	St. Maarten, A	0.90	316	⇑iP	P	08 40 32.8	+1.0
STMA				eS	S	08 40 46.8	-0.3
MTP	Monte Pirata	3.04	284	eS	S	08 41 33.4	-1.4
MTP	Monte Pirata	3.04	284	⇓eP	P	08 40 58.8	0.0
MTP				eS	S	08 41 33.4	-1.4
CBYP	Canovanas	3.36	285	⇓eP	P	08 41 03.4	+0.3
CBYP				eS	S	08 41 42.4	0.0
CPD	Cerro la Pandu	3.36	281	eS	S	08 41 43.4	+0.8
CPD	Cerro la Pandu	3.36	281	⇑eP	P	08 41 03.3	+0.1
CPD				eS	S	08 41 43.4	+0.8
SJG	San Juan	3.60	282	⇓eP	P	08 41 06.7	+0.3
SJG				eS	S	08 41 46.0	-2.2
SJG	San Juan	3.60	282	eS	S	08 41 47.5	-0.7
SJG	San Juan	3.60	282	⇓eP	P	08 41 06.4	0.0
SJG	San Juan	3.60	282	S	S	08 41 49.2	+1.0
	8.3nm,0.3s,baz=348,slow=15,SNR=5.5						
SJG	San Juan	3.60	282	⇓eP	P	08 41 06.7	+0.3
SJG				eS	S	08 41 47.5	-0.7
CSB	Colonia Sabana	3.64	285	⇓eP	P	08 41 07.0	0.0
CSB				eS	S	08 41 48.0	-1.3

PORP	**Portuguez**	4.04	280	⇑*e*P	P	08 41 12.2	-0.3
AOPR	**Arecibo Observ**	4.20	284	⇑*e*P	P	08 41 15.5	+0.9
AOPR	**Arecibo Observ**	4.20	284	*e*S	S	08 42 03.3	+0.4
MGP	**Maguayo**	4.46	278	⇑*e*P	P	08 41 17.4	-0.8
LSP	**Las Mesas**	4.48	281	⇑*e*P	P	08 41 18.6	+0.2
LSP				*e*S	S	08 42 12.2	+2.4
TEIG	**Tepich**	24.60	281	P	P	08 45 22.8	0.0
	2.8nm,0.8s,mb3.8,baz=203,slow=22,SNR=2.7						
TXAR	**Lajitas Array**	39.47	295	P	P	08 47 32.2	-0.3
	0.1nm,0.4s,mb3.0,baz=126,slow=7.8,SNR=5.7						
PDAR	**Pinedale Array**	47.18	313	P	P	08 48 34.8	+0.1
	0.4nm,0.5s,mb3.4,baz=120,slow=7.3,SNR=5.1						
YKA	**Yellowknife Ar**	57.64	334	P	P	08 49 50.7	-1.4
	0.2nm,0.5s,mb3.4,baz=106,slow=7.4,SNR=8.2						
SDNR	**Sundarnagar**	117.70	39	*e*P	PKPdf	08 58 45.2	+0.2

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*NEIC **12** 08:49:36.0±1.2, 24.09S×179.77W, h440^{km}±14^{km}, mb4.5/16, Error ellipse: s-maj=12.1km s-min=8.6km az=146.0*

*IDC **12** 08:49:39.6±2.5, 24.10S×179.82W, h476^{km}±27^{km}, mb3.7/15, mb1 3.9/17, mb1mx3.9/19, Error ellipse: s-maj=16.2km s-min=15.2km az=159.0*

ISC 12 08:49:40.8±1.8**, 24.28S**±0.06×**179.95W**±0.09**, h502**^{km}±21^{km}**, n52,** σ**1^{s}06**/51**, mb4.2**/24**, 1C-5D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	12.71	277	*e*P	P	08 52 30.1	+2.4
NOUC	**Port Laguerre**	12.83	277	*e*P	P	08 52 31.6	+2.6
AFI	**Afiamalu**	12.87	38	*e*P	P	08 52 21.5	-7.9
	77nm,0.9s						
AFI				*e*S	S	08 54 32.9	-12
URZ	**Urewera**	14.17	190	P	P	08 52 38.9	-3.8
	3.2nm,0.3s,baz=16,slow=5.2,SNR=16						
URZ				S	S	08 55 06.9	-2.4
	0.3nm,0.3s,baz=14,slow=16,SNR=6.9						
MRZ	**Mangatainoka R**	16.77	192	S	S	08 55 58.1	+1.3
QRZ	**Quartz Range**	17.67	199	P	P	08 53 17.9	+0.4
THZ	**Tophouse**	18.43	197	P	P	08 53 23.9	-1.0
THZ				S	S	08 56 26.5	+0.8
DSZ	**Denniston Nort**	18.73	200	P	P	08 53 27.8	0.0
LTZ	**Lake Taylor**	19.55	197	P	P	08 53 34.3	-1.3
RPZ	**Rata Peaks**	20.75	199	P	P	08 53 48.0	+1.2
	10nm,0.3s,baz=68,slow=10,SNR=3.1						
CTA	**Charters Tower**	31.53	271	⇓*i*P	P	08 55 23.5	+1.0
	15nm,0.3s,mb4.9						
CTA	**Charters Tower**	31.53	271	P	P	08 55 23.5	+1.0
	20nm,0.3s,mb5.0,baz=96,slow=11,SNR=77						
CTAO	**Charters Tower**	31.53	271	*e*P	P	08 55 23.3	+0.7
	34nm,0.6s,mb5.0						
TOO	**Toolangi**	32.29	238	*e*P	P	08 55 29.9	+1.1
	5.3nm,0.6s,mb4.2						
STKA	**Stephens Creek**	34.63	249	⇓*i*P	P	08 55 49.5	+1.0
	4.1nm,0.4s,mb4.2						
STKA	**Stephens Creek**	34.63	249	P	P	08 55 49.5	+1.0
	4.5nm,0.4s,mb4.2,baz=94,slow=9.8,SNR=34						
PMG	**Port Moresby**	34.66	290	P	P	08 55 49.5	+0.6
	34nm,0.9s,mb4.8,baz=120,slow=5.5,SNR=13						
PMG	**Port Moresby**	34.66	290	*e*P	P	08 55 48.7	-0.2
	33nm,0.8s,mb4.8						
ASAR	**Alice Springs**	42.02	261	ScP		09 01 39.1	
	3.4nm,0.8s,baz=109,slow=3.9,SNR=19						
ASAR				S	S	09 02 30.0	-2.0
	0.1nm,0.7s,baz=37,slow=35,SNR=2.7						
ASPA	**Alice Springs**	42.03	261	⇓*i*P	P	08 56 49.2	+0.2
WB2	**Warramunga Arr**	42.42	267	⇓*i*P	P	08 56 51.9	-0.2
WRAB	**Tennant Creek**	42.42	267	*e*P	P	08 56 51.8	-0.3
	24nm,0.5s,mb4.9						
WRA	**Warramunga Arr**	42.43	267	P	P	08 56 52.0	-0.3
	13nm,0.4s,mb4.8,baz=98,slow=8.3,SNR=518						
WRA				ScP		09 01 41.6	
	5.2nm,0.9s,baz=102,slow=4.1,SNR=23						
WRA				S	S	09 02 35.9	-1.9
	1.2nm,1.0s,baz=98,slow=14,SNR=2.7						
WRA	**Warramunga Arr**	42.43	267	P	P	08 56 52.0	-0.3
WRA				ScP		09 01 41.6	
WRA				S	S	09 02 35.9	-1.9
FORT	**Forrest**	46.23	250	*e*P	P	08 57 20.9	-0.8
	75nm,0.6s,mb5.3						
KAKA	**Kakadu**	46.43	275	⇓*i*P	P	08 57 22.3	-1.2
	14nm,0.9s,mb4.4						
FITZ	**Fitzroy Crossi**	50.85	266	*e*P	P	08 57 56.4	-0.2
	13nm,0.7s,mb4.4						
FITZ	**Fitzroy Crossi**	50.85	266	P	P	08 57 56.4	-0.2
	9.0nm,0.4s,mb4.5,baz=140,slow=3.6,SNR=60						
SBA	**Scott Base**	54.01	183	*e*P	P	08 58 18.1	-0.4
	6.6nm,0.8s,mb4.0						
VNDA	**Vanda**	54.01	185	P	P	08 58 19.4	+0.8
	1.8nm,0.8s,mb3.5,baz=352,slow=7.0,SNR=7.6						
VNDA	**Vanda**	54.01	185	*e*P	P	08 58 19.1	+0.5
	1.6nm,0.8s,mb3.4						
KLBR	**Kellerberrin**	54.89	247	*e*P	P	08 58 24.7	-0.7
	14nm,0.8s,mb4.3						
NWAO	**Narrogin (SRO)**	55.13	246	P	P	08 58 26.4	-0.6
	6.5nm,0.7s,mb4.1,baz=108,slow=9.6,SNR=2.3						
MBWA	**Marble Bar**	55.36	260	*e*P	P	08 58 27.6	-1.1
	8.5nm,0.5s,mb4.3						
MUN	**Mundaring**	56.13	247	*e*P	P	08 58 33.4	-0.6
	7.2nm,0.7s,mb4.1						
QSPA	**South Pole Qui**	65.81	180	*e*P	P	08 59 37.8	+1.1
	9.3nm,0.8s,mb4.5						
MAW	**Mawson**	77.42	200	⇑*i*P	P	09 00 45.5	+1.3
	4.3nm,0.6s,mb4.2						
MAW	**Mawson**	77.42	200	P	P	09 00 45.3	+1.2
	6.8nm,0.8s,mb4.3,baz=127,slow=7.4,SNR=19						
YBH	**Yreka Blue Hor**	84.34	39	P	P	09 01 20.6	+0.3
	1.9nm,1.0s,mb3.6,baz=253,slow=16,SNR=3.8						
NVAR	**Mina Array Bea**	84.98	44	P	P	09 01 23.6	+0.1
	1.1nm,0.8s,mb3.5,baz=234,slow=11,SNR=4.5						
CMAR	**Chiang Mai Arr**	89.70	290	P	P	09 01 48.0	+1.8
	2.9nm,1.0s,mb4.0,baz=137,slow=3.8,SNR=8.0						
TXAR	**Lajitas Array**	90.58	58	P	P	09 01 50.5	+0.5
	1.3nm,0.7s,mb3.9,baz=214,slow=6.7,SNR=19						
ANMO	**Albuquerque**	91.15	52	P	P	09 01 52.0	-0.5
	1.0nm,0.8s,mb3.8,baz=228,slow=3.7,SNR=4.5						
ANMO	**Albuquerque**	91.15	52	*e*P	P	09 01 52.1	-0.4
ILAR	**Eielson Array**	92.38	14	P	P	09 01 56.0	-1.4
	0.3nm,0.7s,mb3.3,baz=231,slow=4.5,SNR=4.4						
PDAR	**Pinedale Array**	92.92	44	P	P	09 02 00.2	-0.2
	0.3nm,0.7s,mb3.4,baz=180,slow=4.4,SNR=4.1						
YKA	**Yellowknife Ar**	100.68	25	PP	PP	09 06 44.4	-7.3
	0.1nm,0.5s,baz=251,slow=11,SNR=3.3						
BVAR	**Borovoye Array**	120.75	319	PKP	PKPdf	09 07 35.3	+0.4
	0.5nm,0.3s,baz=93,slow=1.7,SNR=6.2						
FINES	**FINESS Array B**	138.82	341	PP	PP	09 10 59.3	-11
	2.8nm,0.8s,baz=27,slow=3.1,SNR=5.2						
MALT	**Malatya**	144.61	303	*e*PKPdf	PKPdf	09 08 20.9	+1.4
AKASG	**Malin Array Be**	145.31	327	PKPbc	PKPbc	09 08 21.5	+0.1
	0.6nm,0.3s,baz=51,slow=4.0,SNR=7.4						
BRTR	**Keskin Array B**	147.84	307	PKPbc	PKPdf	09 08 28.9	+4.2
	1.3nm,0.9s,baz=90,slow=4.3,SNR=3.5						

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*BJI **12** 08:59:33.8, 52.42N×100.43E, h7^{km}, mB4.7, mb4.0, Ms4.3, Msz4.1*

*IDC **12** 08:59:35.8±0.7, 51.71N×100.40E, mb3.9/14, mb1 4.0/17, mb1mx3.9/26, ML3.1/3, MS3.7/4, Ms1 3.7/4, ms1mx3.2/26, Error ellipse: s-maj=22.1km s-min=11.7km az=29.0*

*MOS **12** 08:59:35.8±1.0, 51.83N×100.34E, h8^{km}, mb4.5/5, Error ellipse: s-maj=9.6km s-min=9.0km az=15.1*

MOS Felt (II) at Orlyk, Mondy.

*BYKL **12** 08:59:36.2±0.4, 51.77N×100.42E, FELT I=III-IV at Orlik, Hurga, II-III at Mondy*

*NEIC **12** 08:59:37.0±1.0, 51.83N×100.40E, h2^{km}±7^{km}, mb4.1/11, MS3.6/1, Error ellipse: s-maj=7.8km s-min=4.7km az=188.0*

NEIC Felt [II] at Mondy and Orlik, Russia.

ISC 12 08:59:35.7±0.2**, 51.86N**±0.02×**100.59E**±0.03**, h10**^{km}**, n85,** σ**1^{s}44**/129**, mb3.9**/17**, MS3.7**/5**, 8C-9D, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MOY	**Mondy**	0.32	127	⇓*i*Pg	Pg	08 59 44.3	+2.0
	744nm,0.5s						
MOY				⇑*i*Pg	Pg	08 59 44.3	+2.0
	3µm,0.5s						
MOY				⇑*i*Pg	Pg	08 59 44.3	+2.0
	5µm,0.5s						
MOY				Pmax		08 59 44.5	
	5µm,0.4s						
MOY				*i* Sg	Sg	08 59 49.2	+2.5
MOY				Smax		08 59 50.8	
	54µm,1.2s						
MOY	**Mondy**	0.32	127	*e*PG	Pg	08 59 44.2	+1.9
MOY				*e*		08 59 49.3	
MOY				pmax	pmax		
	comp=Z,5µm,0.4s						
ORL	**Orlik**	0.83	325	⇑*i*Pg	Pg	08 59 52.1	-0.3
	comp=Z,590nm,0.7s						
ORL				⇓*i*Pg	Pg	08 59 52.1	-0.3
	comp=Z,442nm,0.7s						
ORL				⇑*i*Pg	Pg	08 59 52.1	-0.3
	comp=Z,716nm,0.7s						
ORL				Pmax		08 59 53.7	
	comp=Z,1µm,0.3s						
ORL				*i* Sg	Sg	09 00 02.7	-0.8
ORL				Smax		09 00 05.3	
	comp=Z,5µm,0.6s						
ORL	**Orlik**	0.83	325	⇑*i*PG	Pg	08 59 52.1	-0.3
ORL				*e*		09 00 02.7	
ORL				pmax	pmax		
	comp=Z,2µm,0.2s						
ORL				smax			
	comp=N,5µm,0.5s						
ARS	**Arshan**	1.14	86	⇓*i*Pg	Pg	08 59 59.2	+0.7
ARS				*e*Pb	Pb	09 00 01.4	+4.4
ARS				max		09 00 02.4	
ARS				*e*Sg	Sg	09 00 15.5	+1.7
ARS				*e*		09 00 21.0	
ARS				Smax		09 00 22.8	
	comp=N,23µm,0.7s						
ARS	**Arshan**	1.14	86	*e*PG	Pg	09 00 00.5	+2.0
TLY	**Talaya**	1.91	94	⇓*i*Pg	Pg	09 00 12.2	-1.6
TLY				Pmax		09 00 16.5	
	comp=N,628nm,0.5s						
TLY				*e*Sg	Sg	09 00 38.6	-0.7
TLY				Smax		09 00 45.4	
	comp=N,3µm,0.8s						
TLY	**Talaya**	1.91	94	*e*PN	Pg	09 00 11.9	-1.9
TLY				*e*		09 00 37.8	
TLY				pmax	pmax		
	comp=Z,330nm,0.6s						
TLY				smax			
	comp=N,2µm,0.8s						
ZAK	**Zakamensk**	2.25	130	⇑*i*Pg	Pg	09 00 17.8	-2.9
ZAK				Pmax		09 00 25.3	
	comp=N,663nm,0.4s						
ZAK				*e*Sg	Sg	09 00 47.7	-3.0
ZAK				Smax		09 00 51.5	
	comp=N,3µm,1.1s						
ZAK	**Zakamensk**	2.25	130	*e*PN	Pg	09 00 17.1	-3.6
ZAK				*e*		09 00 17.7	
ZAK				*e*S	Sg	09 00 48.9	-1.8
ZAK				pmax	pmax		
	comp=Z,658nm,0.4s						
ZAK				smax			
	comp=N,3µm,1.0s						
IRK	**Irkutsk**	2.31	79	⇓*i*Pg	Pg	09 00 19.8	-2.0
	comp=N,512nm,0.6s						
IRK				⇓*i*Pg	Pg	09 00 19.8	-2.0
	comp=N,1µm,0.6s						
IRK				⇓*i*Pg	Pg	09 00 19.8	-2.0
	comp=N,2µm,0.6s						
IRK				*e*PgPg		09 00 24.1	
IRK				max		09 00 24.9	
	comp=N,3µm,0.6s						
IRK				*e*Sg	Sg	09 00 50.8	-1.8
IRK				Smax		09 00 54.0	
	comp=N,10µm,0.7s						
IRK	**Irkutsk**	2.31	79	*e*PN	Pg	09 00 18.7	-3.1
IRK				*e*		09 00 20.0	
IRK				*e*	Sg	09 00 51.1	-1.5
IRK				pmax	pmax		
	comp=Z,3µm,0.6s						
IRK				smax			
	comp=N,10µm,0.7s						
LSTR	**Listvyanka**	2.63	88	⇓*i*Pg	Pg	09 00 24.9	-3.4
LSTR				Pmax		09 00 32.7	
	comp=N,407nm,0.7s						
LSTR				*i* Sg	Sg	09 01 00.2	-3.2
LSTR				Smax		09 01 05.8	
	comp=N,3µm,1.5s						
LSTR	**Listvyanka**	2.63	88	*e*PN	Pn	09 00 22.5	+3.5
LSTR				*e*		09 00 25.0	
LSTR				*e*		09 01 00.1	
LSTR				pmax	pmax		
	comp=Z,180nm,0.4s						
LSTR				smax			
	comp=N,3µm,1.2s						
TDJR	**Todzha**	2.82	283	*e*	Pn	09 00 22.0	+0.4
TDJR				*e*Pg	Pb	09 00 25.1	-0.6
TDJR				*e*Sg	Sb	09 01 01.4	+1.0
BTMB	**Babushkin**	3.26	91	⇓*i*Pg	Pb	09 00 34.9	+1.6
BTMB				*e*		09 00 36.5	
BTMB				max		09 00 36.9	
	comp=N,301nm,0.3s						
BTMB				*e*Sg	Sb	09 01 18.9	+5.6
BTMB				*e*		09 01 22.2	
BTMB				Smax		09 01 23.0	
	comp=N,3µm,0.6s						
TSC	**Tosontsengel**	3.44	207	*e*Pn	Pn	09 00 29.8	-0.6
TSC				*e*Pg	Pb	09 00 35.1	-1.2
TSC				*e*Sg	Sb	09 01 18.8	+0.5
BLGM	**Bulgan**	3.60	147	*e*Pn	Pn	09 00 32.9	+0.1
BLGM				*e*Pg	Pb	09 00 39.4	+0.2
BLGM				*e*Sg	Sb	09 01 27.8	+4.5
BLGM				Smax			
	comp=N,978nm,0.4s						
TRG	**Tyrgan**	3.65	73	*e*	Pn	09 00 37.5	+4.0
TRG				*e*Pg	Pg	09 00 43.8	-4.8
TRG				Pmax		09 00 46.2	
	comp=N,526nm,0.7s						
TRG				*e*		09 01 22.4	
TRG				*e*Sg	Sg	09 01 32.5	-4.8
TRG				Smax		09 01 42.3	
	comp=N,2µm,1.0s						
TRG	**Tyrgan**	3.65	73	*e*PN	Pn	09 00 37.8	+4.3
TRG				*e*		09 00 43.8	
TRG				*e*		09 01 31.1	
TRG				pmax	pmax		
	comp=Z,534nm,0.6s						
TRG				smax			
	comp=N,2µm,1.3s						
KAB	**Kabansk**	3.76	85	*e*	Pg	09 00 44.7	-6.1
KAB				*e*		09 01 28.3	
KAB				*e*Sg	Sg	09 01 37.0	-3.9
KAB				Smax		09 01 48.7	
	comp=N,5µm,1.9s						
KAB	**Kabansk**	3.76	85	*e*PN	Pg	09 00 44.9	-5.9
KAB				*e*		09 01 35.7	
KAB				pmax	pmax		
	comp=Z,657nm,1.0s						
KAB				smax			
	comp=N,5µm,1.6s						
TTS	**Tsetserleg**	4.42	172	*e*Pn	Pn	09 00 43.3	-1.1
TTS				*e*Pg	Pb	09 00 52.7	-0.4
TTS				*e*Sg	Sb	09 01 50.0	+3.1
OGRR	**Ongureny**	4.62	64	*e*Pn	Pn	09 00 50.5	+3.3
OGRR				*e*Pg	Pg	09 01 01.6	-6.3
OGRR				Pmax		09 01 04.6	
	comp=N,398nm,0.6s						
OGRR				*e*Sn	Sn	09 01 43.0	+1.4
OGRR				*e*Sg	Sg	09 02 02.5	-7.0
OGRR				Smax		09 02 07.6	
	comp=N,849nm,0.5s						
OGRR	**Ongureny**	4.62	64	*e*PN	Pn	09 00 49.7	+2.5
OGRR				*e*		09 01 01.9	
OGRR				pmax	pmax		
	comp=Z,317nm,0.5s						
SONM	**Songino Array**	5.51	135	Pn	Pn	09 01 00.0	+0.2
	comp=Z,0.4nm,0.3s,baz=313,slow=16,SNR=12						
SONM				Pg	Pg	09 01 15.0	-11
	comp=Z,9.7nm,0.3s,baz=316,slow=18,SNR=71						
SONM				Lg		09 02 29.2	
	comp=Z,40nm,0.3s,baz=320,slow=29,SNR=17						
SYVR	**Suvo**	5.99	69	*e*Pn	Pn	09 01 09.3	+2.7
SYVR				*e*Pg	Pg	09 01 26.1	-9.2
SYVR				Pmax		09 01 33.6	
	comp=Z,115nm,1.8s						
SYVR				*e*		09 02 38.5	
SYVR				*e*Sg	Sg	09 02 45.1	-10
SYVR				Smax		09 02 51.2	
	comp=Z,328nm,1.9s						
KRAR	**Krasnoyarsk**	6.17	315	*e*PG	Pg	09 01 27.8	-11
KRAR				*e*		09 02 48.8	
NIZ	**Nizh Angarsk**	6.59	50	*e*Pn	Pn	09 01 15.2	+0.1
NIZ				max		09 01 18.3	
	comp=Z,221nm,0.8s						
NIZ				*e*Pg	Pg	09 01 37.2	-10
NIZ				*e*Sn	Sn	09 02 30.6	-0.6
NIZ				*e*Sg	Sg	09 03 04.7	-11
NIZ				Smax		09 03 10.6	
	comp=Z,906nm,1.0s						
NIZ	**Nizh Angarsk**	6.59	50	*e*PN	Pn	09 01 17.7	+2.6
NIZ				*e*		09 01 38.9	
NIZ				*e*S	Sn	09 02 29.7	-1.5
NIZ				*e*		09 03 03.2	
NIZ				pmax	pmax		
	comp=Z,101nm,0.4s						
NIZ				smax			
	comp=N,807nm,0.6s						
NIZ	**Nizh Angarsk**	6.59	50	*e*Pn	Pn	09 01 17.7	+2.6
	comp=N,101nm,0.4s						
NIZ				*e*		09 01 38.9	
NIZ				*e*S	Sn	09 02 29.7	-1.5
NIZ				*e*		09 03 03.2	
YLYR	**Ulyunkhan**	7.01	60	*e*Pn	Pn	09 01 23.3	+2.3
YLYR				*e*Sn	Sn	09 02 42.9	+1.3
YLYR				*e*Sg	Sg	09 03 17.9	-11
YLYR				Smax		09 03 23.6	
	comp=N,376nm,1.5s						
KMO	**Kumora**	7.46	53	*e*PN	Pn	09 01 30.0	+2.8
KMO				*e*S	Sn	09 02 53.9	+1.1
KPC	**Khapcheranga**	7.78	101	Pmax		09 01 12.8	
	comp=N,81nm,1.7s						
KPC				*e*Pn	Pn	09 01 33.8	+2.0
KPC				*e*Pg	Pg	09 01 59.8	-11
KPC				*e*Sg	Sg	09 03 42.1	-13
KPC				Smax		09 04 00.8	
	comp=N,567nm,1.4s						
KPC	**Khapcheranga**	7.78	101	*e*PG	Pg	09 01 59.9	-11
KPC				pmax	pmax		
	comp=Z,21nm,1.4s						
KPC	**Khapcheranga**	7.78	101	*e*Pg	Pg	09 01 59.9	-11
	comp=Z,21nm,1.4s						
CIT	**Chita**	8.02	84	*e*	Pn	09 01 34.9	-0.2
CIT				*e*Sg	Sg	09 03 48.9	-14
CIT				Smax		09 04 08.4	
	comp=Z,141nm,0.6s						
UKT	**Uakit**	8.55	60	*e*Pn	P	09 01 44.5	+2.0
UKT				*e*Pg	P	09 02 11.9	+29
UKT				Pmax		09 02 19.3	
	comp=Z,57nm,1.0s						
UKT				*e*		09 03 47.2	
UKT				*e*Sg	Sg	09 04 03.5	-17
UKT				Smax		09 04 30.1	
	comp=Z,183nm,1.5s						
UKT	**Uakit**	8.55	60	*e*PG	Px	09 02 13.9	
BOD	**Bodaibo**	9.77	47	*e*P	P	09 01 59.0	-0.1
ZAL	**Zalesovo**	9.77	288	Pn	P	09 01 56.9	-2.2
	comp=Z,0.2nm,0.3s,baz=59,slow=4.7,SNR=1.9						
ZAL				Lg		09 04 31.3	
	comp=Z,1.6nm,0.3s,baz=34,slow=6.3,SNR=4.1						
ZAL				LR	LR	09 06 25.4	
	comp=Z,170nm,19.2s,baz=46,slow=42						
NLYR	**Nelyaty**	10.00	56	*e*Pn	P	09 02 05.0	+2.7
NLYR				*e*		09 02 42.4	
NLYR				*e*		09 04 07.9	
NLYR				Smax		09 04 12.1	
	comp=Z,295nm,0.8s						
NLYR				*e*Sg	Sg	09 04 49.4	-19
GTA	**Gaotai**	12.46	183	*e*P	P	09 02 42.6	+6.7
GTA				AMB	AMB		
	comp=Z,2.0nm,0.7s						
GTA				LR	LR		
	comp=N,388nm,9.1s						
GTA				LR	LR		
	comp=E,724nm,11.4s						
GTA				LR	LR		
	comp=Z,383nm,8.8s						
GTA	**Gaotai**	12.46	183	*e*P	P	09 02 42.6	+6.7
	comp=Z,2.0nm,0.7s						
LZH	**Lanzhou**	15.94	170	*e*P	P	09 03 28.2	+6.7
LZH				AP		09 03 30.5	
LZH				XP		09 03 32.5	
LZH				PP	PP	09 03 39.6	+5.1
LZH				AMB	AMB		
	comp=Z,51nm,1.3s						
LZH				AMB	AMB		
	comp=Z,170nm,4.4s						
LZH				LR	LR		
	comp=E,480nm,9.7s						
LZH				LR	LR		
	comp=Z,764nm,11.9s						
LZH	**Lanzhou**	15.94	170	*e*P	P	09 03 28.2	+6.7
	comp=Z,51nm,1.3s						
LZH				pP		09 03 30.5	
LZH				sP		09 03 32.5	
LZH				PP	PP	09 03 39.6	+5.1
BVAR	**Borovoye Array**	18.39	286	P	P	09 03 50.6	-1.5
	comp=Z,0.2nm,0.3s,baz=90,slow=12,SNR=7.6						
BVAR				Lg		09 09 17.2	
	comp=Z,0.1nm,0.3s,baz=51,slow=28,SNR=2.0						
BRVK	**Borovoye**	18.44	286	*e*P	P	09 03 51.2	-1.7
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BRVK	**Borovoye**	18.44	286	*e*P	P	09 03 51.2	-1.7
	comp=Z,3.0nm,0.8s						
YAK	**Yakutsk**	18.68	46	*e*P	P	09 04 06.0	+10
YAK				pmax	pmax		
	comp=Z,9.0nm,0.9s						
YAK				pmax	pmax		
	comp=N,3.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.0s						
YAK	**Yakutsk**	18.68	46	*e*P	P	09 04 06.0	+10
	comp=E,9.0nm,0.9s						
TKM2	**Tokmak 2**	19.06	252	P	P	09 04 00.0	-0.3
	comp=E,9.4nm,1.1s						
UCH	**Uchtor**	20.11	252	*e*P	P	09 04 13.1	+0.9
	comp=E,8.4nm,1.1s						
EKS2	**Erkin-Say**	20.29	254	*e*P	P	09 04 13.2	-0.8
	comp=E,5.4nm,0.7s						
AML	**Almayashu**	20.65	253	P	P	09 04 19.6	+1.7
	comp=E,4.5nm,0.8s						
CD2	**Chengdu**	21.06	172	P	P	09 04 27.0	+4.8
TIXI	**Tiksi**	23.50	22	*e*P	P	09 04 51.6	+5.7
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.2						
TIXI	**Tiksi**	23.50	22	*e*P	P	09 04 51.6	+5.7
	comp=Z,8.0nm,0.9s,mb4.2						
ARU	**Arti**	24.74	297	⇑*i*P	P	09 04 58.6	+0.5
ARU				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.3						
ARU				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.4						
ARU	**Arti**	24.74	297	⇑*i*P	P	09 04 58.6	+0.5
	comp=Z,11nm,1.0s,mb4.3						
ARU				LR	LR		
	comp=Z,100nm,17.0s,MS3.4						
CMAR	**Chiang Mai Arr**	33.35	183	LR	LR	09 19 21.0	
	comp=Z,56nm,18.0s,MS3.3,baz=168,slow=36						
OBN	**Obninsk**	37.04	301	*e*P	P	09 06 47.2	+0.1
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
OBN				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.6						
OBN	**Obninsk**	37.04	301	*e*P	P	09 06 47.2	+0.1
	comp=Z,6.0nm,0.8s,mb4.5						
OBN				LR	LR		
	comp=Z,100nm,20.0s,MS3.6						
FINES	**FINESS Array B**	39.87	314	P	P	09 07 10.8	+0.1
	comp=Z,3.0nm,0.5s,mb4.2,baz=72,slow=9.4,SNR=30						
FINES				LR	LR	09 25 59.6	
	comp=Z,83nm,18.6s,MS3.6,baz=346,slow=40						
FINES	**FINESS Array B**	39.87	314	P	P	09 07 10.8	+0.1
FINES				LR	LR	09 25 59.6	
AKASG	**Malin Array Be**	42.99	298	P	P	09 07 35.9	-0.4
	comp=Z,1.2nm,0.4s,mb4.0,baz=54,slow=8.5,SNR=8.3						
NB2	**NORSAR Subarra**	46.48	318	P	P	09 08 03.3	-0.8
	comp=Z,1.3nm,0.6s,mb4.0,baz=54,slow=5.6						
NOA	**NORSAR Array B**	46.48	318	P	P	09 08 04.0	-0.1
	comp=Z,2.6nm,0.8s,mb4.2,baz=58,slow=7.8,SNR=5.9						
BRTR	**Keskin Array B**	46.63	283	P	P	09 08 06.2	+0.5
	comp=Z,3.0nm,0.8s,mb4.2,baz=76,slow=6.0,SNR=11						
ISP	**Isparta**	49.72	283	*i* P	P	09 08 23.5	-6.2
CLL	**Collm**	51.16	306	*e*PKP1	P	09 08 40.0	-0.5
MOX	**Moxa**	52.26	306	*e*P	P	09 08 48.0	-0.8
GERES	**GERESS Array B**	52.32	304	P	P	09 08 48.5	-0.8
	comp=Z,0.5nm,0.8s,mb3.5,baz=27,slow=6.0,SNR=4.9						

ILAR	**Eielson Array**	52.63	30	P	P	09 08 53.0	+1.6
	comp=Z,0.5nm,0.9s,mb3.5,baz=304,slow=2.4,SNR=4.4						
INK	**Inuvik**	53.63	22	P	P	09 08 59.5	+0.8
	comp=Z,0.5nm,0.6s,mb3.6,baz=100,slow=1.1,SNR=5.0						
DAVOX	**Davos**	55.62	304	P	P	09 09 13.9	+0.3
	comp=Z,1.9nm,0.8s,mb4.2,baz=59,slow=5.9,SNR=3.1						
EKA	**Eskdalemuir Ar**	55.97	318	P	P	09 09 15.4	-0.6
	comp=Z,0.9nm,0.6s,mb4.0,baz=41,slow=6.5,SNR=4.2						
YKA	**Yellowknife Ar**	62.65	18	P	P	09 10 02.3	+0.3
	comp=Z,0.8nm,0.9s,mb3.9,baz=335,slow=6.9,SNR=8.0						
YKA	**Yellowknife Ar**	62.65	18	P	P	09 10 02.4	+0.4
WRA	**Warramunga Arr**	77.34	148	P	P	09 11 31.2	-0.9
	comp=Z,1.0nm,0.9s,mb3.8,baz=344,slow=6.2,SNR=4.0						
ASAR	**Alice Springs**	80.67	149	P	P	09 11 50.6	+0.4
	comp=Z,0.8nm,0.6s,mb3.8,baz=342,slow=6.5,SNR=6.4						
CTA	**Charters Tower**	81.98	137	LR	LR	09 46 12.4	
	comp=Z,154nm,19.3s,MS4.4,baz=224,slow=34						
PDAR	**Pinedale Array**	82.20	22	P	P	09 11 58.5	+0.8
	comp=Z,0.2nm,0.4s,mb3.4,baz=73,slow=1.7,SNR=3.9						
NVAR	**Mina Array Bea**	83.89	30	P	P	09 12 09.3	+2.8
	comp=Z,0.5nm,0.7s,mb3.8,baz=333,slow=4.0,SNR=4.9						
NVAR	**Mina Array Bea**	83.89	30	P	P	09 12 09.3	+2.8

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*NEIC **12** 09:07:18.3±2.8, 34.89N×3.02W, h10^{km}, MG4.0(MDD), Error ellipse: s-maj=32.7km s-min=7.7km az=171.0*

*MDD **12** 09:07:19.5±1.1, 34.99N×3.07W, mb4.0/17, Error ellipse: s-maj=10.2km s-min=5.0km az=148.0, PRXIMO AftershockPLICA*

*SFS **12** 09:07:19.0, 34.97N×3.05W, ML4.0*

*CSEM **12** 09:07:19.2±0.1, 35.11N×3.06W, h16^{km}±1^{km}, MD3.8, Error ellipse: s-maj=3.7km s-min=2.0km az=116.0*

*LDG **12** 09:07:20.3±0.8, 35.17N×2.87W, h10^{km}, Ml3.2/3, Error ellipse: s-maj=16.6km s-min=8.2km az=173.0*

*INMG **12** 09:07:21.0±1.3, 35.07N×3.03W, h15^{km}±5^{km}, ML2.8, Error ellipse: s-maj=9.1km s-min=5.5km az=155.0*

CNRM 12 09:07:17.3, 35.06N×2.62W, h14^{km}, MD3.8, 2C-2D, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MELI	**Melilla**	0.35	312	P	Pg	09 07 25.3	+0.6
MELI				S	Sg	09 07 30.0	+0.3
MELI	**Melilla**	0.35	312	*i* S	Sg	09 07 30.0	+0.4
MELI	**Melilla**	0.35	312	*e*P	Pg	09 07 25.3	+0.6
EMLI	**Melilla**	0.36	312	P	Pg	09 07 25.5	+0.6
	106nm,0.1s,SNR=40						
EMLI				S	Sg	09 07 29.8	-0.2
	6μm,0.2s						
EMEL	**Melilla**	0.36	311	P	Pg	09 07 25.5	+0.5
	106nm,0.1s,SNR=40						
EMEL				S	Sg	09 07 29.8	-0.3
	6μm,0.2s						
TOU	**Touzarine**	0.94	264	*i* P	Pb	09 07 33.0	-1.8
TOU				*i* S	Sb	09 07 45.0	-1.8
MPAL	**Palemas**	1.10	279	*i* P	Pb	09 07 36.5	-1.0
TZK	**Tazeka**	1.61	234	*i* P	Pn	09 07 44.5	-1.1
TZK				*i* S	Sn	09 08 04.0	-2.3
EBER	**Berja**	1.85	353	P	Pn	09 07 50.7	+1.7
	2.8nm,0.3s,SNR=15						
EBER				S	Sn	09 08 12.5	+0.3
	476nm,0.6s						
EBER	**Berja**	1.85	353	P	Pn	09 07 50.7	+1.8
	2.8nm,0.3s,SNR=15						
EBER				S	Sn	09 08 12.5	+0.3
	476nm,0.6s						
ERON	**Agron**	2.18	334	P	Pn	09 07 53.4	-0.3
	6.0nm,0.2s,SNR=7.0						
ERON				S	Sn	09 08 17.4	-3.2
	33nm,0.4s						
TGT	**Taghat**	2.24	245	*e*P	Pn	09 07 51.0	-3.6
EMIJ	**Mijas**	2.31	311	P	Pn	09 07 53.2	-2.3
	2.8nm,0.2s,SNR=7.9						
EMIJ				S	Sn	09 08 18.6	-5.2
	110nm,0.5s,SNR=7.9						
ELOJ	**Sierra Loja**	2.42	330	P	Pn	09 07 58.1	+0.9
	8.3nm,0.2s,SNR=7.9						
ELOJ				S	Sn	09 08 24.8	-2.0
	27nm,0.6s,SNR=7.9						
MIF	**Mishlifen**	2.72	233	*i* P	Pn	09 07 58.5	-2.9
MIF				*i* S	Sn	09 08 28.5	-5.8
EQES	**Quesada**	2.76	353	⇑P	Pn	09 08 05.7	+3.6
	13nm,0.2s,SNR=18						
EQES				S	Sn	09 08 39.2	+3.8
	79nm,0.5s,SNR=7.9						
EQES	**Quesada**	2.76	353	S	Sn	09 08 39.2	+3.8
	79nm,0.5s,SNR=7.9						
ELUQ	**Luque**	2.83	332	P	Pn	09 08 04.5	+1.6
	14nm,0.3s,SNR=7.9						
ELUQ				S	Sn	09 08 37.7	+0.6
	34nm,0.3s,SNR=7.9						
ELUQ	**Luque**	2.83	332	S	Sn	09 08 37.7	+0.6
	34nm,0.3s,SNR=7.9						
CZD	**Col de Zad**	2.85	226	*i* P	Pn	09 08 02.5	-0.8
CZD	**Col de Zad**	2.85	226	*i* S	Sn	09 08 34.5	-3.2
LIJA	**Lijar**	2.91	310	⇓P	Pn	09 08 05.1	+1.0
LIJA				S	Sn	09 08 42.4	+3.1
ESPR	**Espera**	3.19	305	P	Pn	09 08 07.7	-0.4
	6.8nm,0.3s,SNR=8.9						
ESPR				S	Sn	09 08 45.6	-0.5
	17nm,0.3s						
ESPR	**Espera**	3.19	305	P	Pn	09 08 07.7	-0.3
	6.8nm,0.3s,SNR=8.9						
EADA	**Adamuz**	3.48	334	P	Pn	09 08 12.5	+0.3
	8.1nm,0.3s,SNR=48						
EADA				S	Sn	09 08 51.0	-2.6
	9.5nm,0.2s						
EADA	**Adamuz**	3.48	334	P	Pn	09 08 12.5	+0.3
	8.1nm,0.3s,SNR=48						
EADA				S	Sn	09 08 51.0	-2.6
	9.5nm,0.2s						
EVIA	**Vianos**	3.57	1	P	Pn	09 08 18.3	+4.7
	SNR=7.9						
EVIA				S	Sn	09 08 59.9	+4.0
	SNR=7.9						
EVIA	**Vianos**	3.57	1	S	Sn	09 08 59.9	+3.9
	SNR=7.9						
EBEN	**Beniarda**	4.11	27	P	Pn	09 08 24.9	+3.7
	4.2nm,0.4s,SNR=7.4						
EBEN				S	Sn	09 09 11.8	+2.1
	4.9nm,0.3s						
EBEN	**Beniarda**	4.11	27	S	Sn	09 09 11.8	+2.2
	4.9nm,0.3s						
EBEN	**Beniarda**	4.11	27	P	Pn	09 08 24.9	+3.7
	4.2nm,0.4s,SNR=7.4						
EMIN	**Mina Concepcio**	4.24	311	⇓P	Pn	09 08 20.7	-2.3
	2.6nm,0.1s,SNR=18						
EMIN				S	Sn	09 09 06.3	-6.6
	2.8nm,0.2s						
EMIN	**Mina Concepcio**	4.24	311	P	Pn	09 08 20.7	-2.3
	2.6nm,0.1s,SNR=18						
EMIN				S	Sn	09 09 06.2	-6.7
ESDC	**Sonseca Array**	4.73	347	⇑P	Pn	09 08 31.7	+1.8
	11nm,0.3s,baz=172,slow=12,SNR=18						
ESDC				S	Sn	09 09 24.3	-0.9
	5.6nm,0.5s,baz=176,slow=22,SNR=4.0						
ESDC	**Sonseca Array**	4.73	347	P	Pn	09 08 31.7	+1.7
	11nm,0.3s,SNR=18						
ESDC				S	Sn	09 09 24.3	-0.9
	5.6nm,0.5s,SNR=4.0						
EIBI	**Ibiza**	5.07	38	P	Pn	09 08 37.6	+2.8
	6.7nm,0.3s,SNR=14						
EIBI				S	Sn	09 09 36.9	+3.1
	3.7nm,0.2s						
EIBI	**Ibiza**	5.07	38	P	Pn	09 08 37.6	+2.8
	6.7nm,0.3s,SNR=14						
EIBI				S	Sn	09 09 36.9	+3.0
	3.7nm,0.2s						
EBAD	**Badajoz**	5.10	318	P	Pn	09 08 33.3	-1.9
	8.6nm,0.3s,SNR=48						
EBAD				S	Sn	09 09 29.0	-5.5
	27nm,0.3s						
EBAD	**Badajoz**	5.10	318	S	Sn	09 09 29.0	-5.5
	27nm,0.3s						
EBAD	**Badajoz**	5.10	318	P	Pn	09 08 33.3	-1.9
	8.6nm,0.3s,SNR=48						
PTEO	**Sao Teotonio**	5.52	298	*e*Pn	Pn	09 08 38.0	-3.1
PTEO				*e*Sn	Sn	09 09 35.4	-10
	7.5nm,0.7s						
PTEO	**Sao Teotonio**	5.52	298	P	Pn	09 08 38.6	-2.5
PTEO				S	Sn	09 09 35.4	-10
PTEO	**Sao Teotonio**	5.52	298	P	Pn	09 08 38.0	-3.1
PTEO				P		09 08 38.6	
PTEO				S	Sn	09 09 35.4	-10
PTEO				S	Sn	09 09 35.4	-10
	3.8nm,0.7s						
PTEO	**Sao Teotonio**	5.52	298	P	Pn	09 08 38.6	-2.5
PTEO	**Sao Teotonio**	5.52	298	*e*Pn	Pn	09 08 38.0	-3.1
PTEO				S	Sn	09 09 35.4	-10
EVO	**Evora**	5.54	310	*e*Pn	Pn	09 08 39.7	-1.8
EVO				*e*Sn	Sn	09 09 34.5	-11
	8.6nm,0.3s						
EMOS	**Mosqueruela**	5.56	17	P	Pn	09 08 45.8	+4.0
EMOS				S	Sn	09 09 49.9	+3.7
EMOS	**Mosqueruela**	5.56	17	P	Pn	09 08 45.2	+3.5
	1.3nm,0.4s,SNR=7.8						
EMOS				S	Sn	09 09 46.2	+0.1
	1.9nm,0.5s						
EMOS	**Mosqueruela**	5.56	17	P	Pn	09 08 45.2	+3.5
	1.3nm,0.4s,SNR=7.8						
EMOS				S	Sn	09 09 49.8	+3.7
PCBR	**Castelo Branco**	6.14	322	*e*Pn	Pn	09 08 48.2	-1.7
PCBR				*e*Sn	Sn	09 09 52.3	-8.3
	6.1nm,0.2s						
PCBR	**Castelo Branco**	6.14	322	P	Pn	09 08 48.2	-1.6
PCBR				S	Sn	09 09 52.3	-8.3
PCBR	**Castelo Branco**	6.14	322	P	Pn	09 08 48.2	-1.7
PCBR				P		09 08 48.2	
PCBR				S	Sn	09 09 52.3	-8.3
PCBR				S	Sn	09 09 52.3	-8.3
	3.0nm,0.2s						
ERTA	**Horta de San J**	6.33	21	P	Pn	09 08 56.0	+3.4
	4.3nm,0.5s,SNR=9.2						
ERTA				S	Sn	09 10 07.5	+2.1
	1.6nm,0.3s						
ERTA	**Horta de San J**	6.33	21	P	Pn	09 08 56.0	+3.4
	4.3nm,0.5s,SNR=9.2						
PLOU	**Loures**	6.47	308	*e*Pn	Pn	09 08 51.9	-2.7
PLOU	**Loures**	6.47	308	P	Pn	09 08 51.9	-2.7
PLOU	**Loures**	6.47	308	P	Pn	09 08 51.9	-2.7
PLOU				P		09 08 51.9	
PTOM	**Tomar**	6.48	316	*e*Pn	Pn	09 08 51.8	-2.8
PTOM				*e*Sn	Sn	09 10 00.2	-8.9
	5.9nm,0.3s						
PTOM	**Tomar**	6.48	316	P	Pn	09 08 51.8	-2.8
PTOM				S	Sn	09 10 00.2	-8.9
	3.0nm,0.3s						
MTE	**Manteigas**	6.61	325	*e*Pn	Pn	09 08 55.2	-1.2
MTE				*e*Sn	Sn	09 10 04.0	-8.2
	13nm,0.7s						
MTE	**Manteigas**	6.61	325	P	Pn	09 08 55.5	-1.0
MTE				S	Sn	09 10 04.2	-8.1
MTE	**Manteigas**	6.61	325	P	Pn	09 08 55.2	-1.2
MTE				P		09 08 55.5	
MTE				S	Sn	09 10 04.0	-8.2
	6.3nm,0.7s						
MTE				S	Sn	09 10 04.2	-8.1
MTE	**Manteigas**	6.61	325	P	Pn	09 08 55.5	-0.9
EPOB	**Poblet**	6.92	24	P	Pn	09 09 03.9	+3.0
	0.8nm,0.2s,SNR=7.9						
EPOB	**Poblet**	6.92	24	P	Pn	09 09 03.9	+3.0
	0.8nm,0.2s,SNR=7.9						
PVIS	**Viseu**	7.02	325	*e*Pn	Pn	09 09 00.4	-1.8
PVIS				*e*Sn	Sn	09 10 14.1	-8.5
PVIS	**Viseu**	7.02	325	P	Pn	09 09 00.5	-1.8
PVIS				S	Sn	09 10 14.1	-8.5
PVIS	**Viseu**	7.02	325	P	Pn	09 09 00.4	-1.8
PVIS				P		09 09 00.5	
PVIS				S	Sn	09 10 14.1	-8.5
PVIS				S	Sn	09 10 14.1	-8.5
PVRL	**Vila Real**	7.39	329	*e*Pn	Pn	09 09 05.9	-1.5
PVRL				*e*Sn	Sn	09 10 22.6	-9.3
	4.1nm,0.1s						
PVRL	**Vila Real**	7.39	329	P	Pn	09 09 05.9	-1.5
PVRL				S	Sn	09 10 22.6	-9.3
	2.0nm,0.1s						
PBRG	**Braganca**	7.47	336	*e*Pn	Pn	09 09 07.3	-1.3
PBRG				*e*Sn	Sn	09 10 25.7	-8.2
	4.1nm,0.5s						
PBRG	**Braganca**	7.47	336	P	Pn	09 09 07.1	-1.5
PBRG				S	Sn	09 10 25.2	-8.7
PBRG	**Braganca**	7.47	336	P	Pn	09 09 07.1	-1.5
PBRG				P		09 09 07.3	
PBRG				S	Sn	09 10 25.2	-8.7
PBRG				S	Sn	09 10 25.7	-8.2
	2.0nm,0.5s						
PBRG	**Braganca**	7.47	336	P	Pn	09 09 07.1	-1.5
ECAL	**Calabor**	7.59	336	P	Pn	09 09 09.4	-0.8
	2.5nm,0.3s,SNR=5.7						
ECAL				S	Sn	09 10 29.3	-7.6
	3.9nm,0.3s						
ECAL	**Calabor**	7.59	336	P	Pn	09 09 09.4	-0.8
	2.5nm,0.3s,SNR=5.7						
EBIE	**Bielsa**	7.91	15	P	Pn	09 09 18.2	+3.4
	0.4nm,0.3s,SNR=7.9						
EBIE	**Bielsa**	7.91	15	P	Pn	09 09 18.2	+3.4
	0.4nm,0.3s,SNR=7.9						
ETSF	**Etsaut**	7.99	11	*e*Pn	Pn	09 09 13.3	-2.5
ELOB	**Lobios**	8.02	330	P	P	09 09 13.5	-2.8
	3.1nm,0.4s,SNR=8.8						
ELOB				S	Sn	09 10 38.5	-9.2
	1.9nm,0.3s						
ELOB	**Lobios**	8.02	330	P	P	09 09 13.5	-2.8
	3.1nm,0.4s,SNR=8.8						
SJPF	**Ste Jean**	8.12	7	*e*Pn	P	09 09 14.8	-2.8
ERUA	**La Rua**	8.13	336	P	P	09 09 16.5	-1.2
	2.4nm,0.3s,SNR=7.9						
EPF	**Esparros**	8.29	15	*e*Pn	P	09 09 17.6	-2.3
EPF				*e*Sn	Sn	09 10 46.1	-8.1
	0.6nm,0.2s						
EINC	**Incio**	8.44	336	P	P	09 09 20.9	-1.2
	1.5nm,0.3s,SNR=4.9						
EINC				S	Sn	09 10 49.0	-9.0
	0.8nm,0.2s,SNR=7.9						
EINC	**Incio**	8.44	336	P	P	09 09 20.9	-1.1
	1.5nm,0.3s,SNR=4.9						
EARI	**Arriondas**	8.47	347	P	P	09 09 22.6	+0.1
	0.8nm,0.4s,SNR=7.9						
EARI	**Arriondas**	8.47	347	P	P	09 09 22.6	+0.1
EPON	**Pontenova**	8.97	338	P	P	09 09 29.5	0.0
EPON				S	Sn	09 11 04.2	-7.1
EPON	**Pontenova**	8.97	338	P	P	09 09 29.5	0.0
	1.1nm,0.3s,SNR=7.9						
EPON				S	Sn	09 11 01.7	-10
	1.4nm,0.3s,SNR=4.0						
MTLF	**Montolieu**	9.08	23	*e*Pn	P	09 09 28.8	-2.2
EMAZ	**Mazaricos**	9.30	330	P	P	09 09 33.0	-1.0
	0.4nm,0.1s,SNR=4.0						
VIVF	**Saint-Julien-l**	11.27	28	*e*Pn	P	09 09 59.3	-1.6
VIVF				*e*Sn	S	09 11 57.9	-10
	0.5nm,0.3s						

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*IDC **12** 09:13:29.1±0.8, 40.72N×123.89W, mb4.0/12, mb1 4.3/17, mb1mx4.1/24, ML3.8/4, MS3.7/9, Ms1 3.7/9, ms1mx3.3/24, Error ellipse: s-maj=10.8km s-min=9.9km az=102.0*

*BJI **12** 09:13:32.5, 40.70N×123.90W, h28^{km}, mB4.3, mb4.3, Ms4.5, Msz4.2*

*NEIC **12** 09:13:33.6, 40.70N×123.87W, h28^{km}, mb4.1/2, MW4.5(BRK), After NCEDC.*

NEIC Felt [V] at Hoopa; [IV] at Blue Lake, Ferndale, Hyampom, Orleans, Samoa, Scotia, Trinidad and Willow Creek; [III] at Arcata, Bayside, Big Bar, Bridgeville, Carlotta, Eureka, Fortuna, Hydesville, Kneeland, Korbel, Loleta, McKinleyville, Petrolia, Rio Dell and Salyer.

ISC 12 09:13:32.4±0.5**, 40.70N**±0.03×**123.80W**±0.05**, h34^{km}**±5^{km}**, n95, σ0^{s}86**/95**, mb4.0**/15**, MS3.9**/7**, 2D, Northern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KHMM	**Horse Mountain**	0.18	16	*e*P	P	09 13 39.5	+0.5
KRMB	**Red Mountain**	0.83	354	*e*P	P	09 13 47.5	-0.1
WDC	**Whiskeytown Da**	0.96	97	*e*P	P	09 13 50.5	+1.0
YBH	**Yreka Blue Hor**	1.32	38	Pg	P	09 13 55.6	+1.0
	260nm,0.3s,baz=251,slow=11,SNR=3965						
YBH				Lg		09 14 11.6	
	356nm,0.3s,baz=199,slow=6.8,SNR=18						
YBH	**Yreka Blue Hor**	1.32	38	*e*P	P	09 13 55.6	+0.9
KBO	**Bosley Butte**	1.55	348	⇓*e*P	P	09 13 57.8	-0.2
HOPS	**Hopland**	1.79	162	*e*P	P	09 14 01.1	-0.3
HUMO	**Hull Mountain**	2.01	18	⇓*e*Pn	P	09 14 05.1	+0.5
KEBM	**Edson Butte**	2.21	350	*e*Pn	P	09 14 06.6	-0.8
OHCM	**Honcut**	2.24	127	*e*Pn	P	09 14 07.5	-0.3
NSHM	**Saint Helena R**	2.36	157	*e*Pn	P	09 14 09.5	-0.1
MOD	**Modoc**	2.89	64	*e*Pn	P	09 14 17.5	+0.3
LKC	**Lake Chabot**	3.25	155	*e*Pn	P	09 14 22.4	+0.1
SAC	**San Andreas**	3.29	161	*e*Pn	P	09 14 22.3	-0.5
WCN	**Washoe City**	3.40	113	*e*Pn	P	09 14 25.0	+0.6
CMB	**Columbia Colle**	3.75	134	*e*Pn	P	09 14 29.7	+0.3
COR	**Corvallis**	3.90	5	*e*Pn	P	09 14 30.7	-0.8
SAO	**San Andreas Ge**	4.34	154	*e*Pn	P	09 14 36.4	-1.3
LRV	**Little Rabbit**	4.79	152	*e*Pn	P	09 14 44.1	0.0
NVAR	**Mina Array Bea**	4.81	116	Pn	P	09 14 45.0	+0.6
	13nm,0.3s,baz=293,slow=15,SNR=215						
NVAR				Pg	P	09 14 54.0	+10
	9.6nm,0.3s,baz=291,slow=16,SNR=17						
NVAR				Lg		09 15 58.4	
	3.4nm,0.3s,baz=292,slow=24,SNR=2.2						
NVAR	**Mina Array Bea**	4.81	116	Pn	P	09 14 45.0	+0.6
NVAR				Pg	P	09 14 54.0	+10
NVAR				Lg		09 15 58.4	
OMM	**Old Mammoth Mi**	4.84	128	*e*Pn	P	09 14 45.8	+1.0
MNV	**Mina**	4.91	116	*e*Pn	P	09 14 45.8	0.0
BMN	**Battle Mountai**	5.01	91	*e*Pn	P	09 14 46.6	-0.7
MTUM	**Tungsten Hills**	5.27	128	*e*Pn	P	09 14 51.4	+0.6
TPH	**Tonopah**	5.73	115	*e*Pn	P	09 14 57.0	-0.2
BMO	**Blue Mountains**	6.33	47	*e*Pn	P	09 15 05.7	0.0
HAWA	**Hanford**	6.48	27	*e*Pn	P	09 15 08.3	+0.5
ELK	**Elko**	6.50	87	*e*Pn	P	09 15 08.1	-0.1
TRCR	**Troy Canyon**	6.77	108	*e*Pn	P	09 15 11.0	-1.0
TPNV	**Topopah Spring**	6.98	120	*e*Pn	P	09 15 15.2	+0.3
OCWA	**Octopus Mounta**	7.05	358	*e*Pn	P	09 15 15.0	-0.9
HLID	**Hailey**	7.54	65	*e*Pn	P	09 15 22.4	-0.2
MWC	**Mount Wilson**	7.91	143	*e*Pn	P	09 15 27.4	-0.5
BGU	**Big Grassy Mou**	8.17	85	*e*Pn	P	09 15 29.9	-1.5
HVU	**Hansel Valley**	8.38	79	*e*Pn	P	09 15 33.6	-0.7
ARUT	**Antelope Range**	8.54	107	*e*Pn	P	09 15 36.5	-0.2
NEN	**Nelson**	8.66	123	*e*Pn	P	09 15 36.8	-1.5
LDFC	**Landfair**	8.87	127	*e*Pn	P	09 15 41.4	+0.3
NOQ	**North Oquirrh**	8.87	87	*e*Pn	P	09 15 40.4	-0.9
NEW	**Newport**	8.94	30	*e*Pn	P	09 15 40.6	-1.5
NLU	**North Lily Min**	8.98	91	*e*Pn	P	09 15 42.4	-0.4
MCMT	**McKenzie Canyo**	9.05	59	*e*Pn	P	09 15 44.5	+0.9
MVU	**Marysvale**	9.21	100	Pn	P	09 15 45.7	-0.1
MSU	**Marysvale**	9.23	100	*e*Pn	P	09 15 46.6	+0.5
HWUT	**Hardware Ranch**	9.27	80	*e*Pn	P	09 15 47.0	+0.3
MPU	**Maple Canyon**	9.31	90	*e*Pn	P	09 15 46.1	-1.1
JLU	**Jordanelle**	9.39	87	*e*Pn	P	09 15 49.0	+0.7
MSO	**Missoula**	9.40	46	*e*Pn	P	09 15 47.9	-0.6
DAU	**Daniels Canyon**	9.55	88	*e*Pn	P	09 15 49.2	-1.3
TMUT	**Trail Mountain**	9.76	94	*e*Pn	P	09 15 53.9	+0.5
TPAW	**Teton Pass**	9.95	70	*e*Pn	P	09 15 56.6	+0.6
IMW	**Indian Meadow**	10.05	67	*e*Pn	P	09 15 57.7	+0.3
BOZ	**Bozeman (W)**	10.17	57	*e*Pn	P	09 15 58.8	-0.2
SRU	**San Rafael**	10.32	95	*e*Pn	P	09 16 01.2	+0.1
HRY	**Holter Researc**	10.54	51	*e*Pn	P	09 16 03.6	-0.5
BW06	**Boulder Array**	10.84	74	*e*Pn	P	09 16 07.5	-0.7
PDAR	**Pinedale Array**	10.84	74	Pn	P	09 16 09.5	+1.2
	0.1nm,0.3s,baz=264,slow=13,SNR=13						
PV10	**Paradox Valley**	11.63	97	*e*Pn	P	09 16 19.5	+0.6
BBB	**Bella Bella**	11.87	347	Pn	P	09 16 24.6	+2.6
	0.5nm,0.3s,baz=184,slow=14,SNR=8.8						
PV01	**Paradox Valley**	12.05	97	*e*Pn	P	09 16 25.8	+1.1
RW3	**Ridgway**	12.69	96	*e*Pn	P	09 16 34.0	+0.8
TUC	**Tucson**	13.39	125	*e*Pn	P	09 16 43.1	+0.6
ISCO	**Idaho Springs**	13.92	88	*e*Pn	P	09 16 48.2	-1.1
	6.8nm,1.1s						
SDCO	**Great Sand Dun**	14.49	96	*e*Pn	P	09 16 57.9	+1.2
	13nm,0.8s						
ANMO	**Albuquerque**	14.85	107	Pn	P	09 17 03.7	+2.2
	baz=306,slow=11,SNR=18						
ANMO				LR	LR	09 23 00.9	
	comp=Z,146nm,20.3s,slow=38						
ANMO	**Albuquerque**	14.85	107	*e*Pn	P	09 17 02.7	+1.2
	18nm,1.2s						
LENM	**Lemitar**	14.86	111	*e*Pn	P	09 17 02.3	+0.6
LPM	**Los Pinos Moun**	15.03	110	*e*Pn	P	09 17 05.6	+1.7
BNM	**Barren Site**	15.12	110	*e*Pn	P	09 17 05.0	0.0
GDL2	**Guadalupe Moun**	17.76	112	*e*Pn	P	09 17 37.8	-0.7
DLBC	**Dease Lake**	18.20	349	P	P	09 17 44.3	+0.5
	0.1nm,0.3s,baz=170,slow=11,SNR=2.7						
TXAR	**Lajitas Array**	19.96	118	P	P	09 18 04.0	-0.3
	0.8nm,0.5s,baz=292,slow=9.8,SNR=26						
TXAR				LR	LR	09 25 55.3	
	comp=Z,75nm,21.9s,baz=165,slow=37						
WMOK	**Wichita Mounta**	20.63	99	*e*P	P	09 18 07.9	-3.5
	4.0nm,0.6s						
KSU1	**Kansas State U**	20.89	86	*e*P	P	09 18 15.2	+1.2
ULM	**Lac du Bonnet**	21.67	54	P	P	09 18 20.6	-1.2
	2.2nm,0.4s,mb4.0,baz=259,slow=9.5,SNR=3.8						
ULM				LR	LR	09 27 26.9	
	comp=Z,259nm,18.9s,MS3.6,baz=107,slow=39						
JCT	**Junction City**	21.95	110	*e*P	P	09 18 23.7	-1.0
	4.4nm,0.5s,mb4.1						
YKA	**Yellowknife Ar**	22.51	11	P	P	09 18 29.5	-0.5
	2.4nm,0.5s,mb3.9,baz=194,slow=9.6,SNR=37						
YKA				LR	LR	09 27 48.0	
	comp=Z,185nm,20.9s,MS3.5,baz=210,slow=38						
MIAR	**Mount Ida**	24.64	95	*e*P	P	09 18 49.5	-1.4
ILAR	**Eielson Array**	27.55	339	P	P	09 19 18.4	+0.7
	1.8nm,0.7s,mb3.8,baz=149,slow=7.8,SNR=24						
ILAR				PcP	PcP	09 22 35.2	-0.2
	0.5nm,0.7s,baz=180,slow=3.0,SNR=7.1						
INK	**Inuvik**	28.16	352	P	P	09 19 23.1	-0.1
	7.9nm,1.1s,mb4.3,baz=172,slow=10,SNR=15						
SCHQ	**Schefferville**	39.68	49	P	P	09 21 02.7	+0.2
	2.0nm,0.7s,mb3.9,baz=281,slow=5.2,SNR=2.7						
SCHQ				LR	LR	09 38 07.4	
	comp=Z,167nm,18.2s,MS3.9,baz=33,slow=37						
SCHQ	**Schefferville**	39.68	49	P	P	09 21 02.7	+0.2
SCHQ				LR	LR	09 38 07.4	
ARCES	**ARCESS Array B**	67.78	11	LR	LR	09 55 53.9	
	comp=Z,107nm,18.9s,MS4.1,baz=13,slow=38						
NOA	**NORSAR Array B**	72.20	21	P	P	09 24 54.3	-0.8
	0.8nm,0.8s,mb3.7,baz=325,slow=6.2,SNR=2.8						
NOA				LR	LR	09 58 04.5	
	comp=Z,49nm,18.8s,MS3.8,baz=335,slow=37						
MDJ	**Mudanjiang**	72.58	314	P	P	09 24 56.1	-1.5
MDJ				AMB	AMB		
	comp=Z,9.0nm,2.3s,mb4.3						
FINES	**FINESS Array B**	75.31	14	P	P	09 25 12.4	-0.7
	comp=Z,1.3nm,0.8s,mb3.9,baz=270,slow=1.9,SNR=5.0						
FINES				LR	LR	09 56 54.2	
	comp=Z,89nm,18.6s,MS4.1,baz=350,slow=35						
CN2	**Changchun**	75.35	316	*e*P	P	09 25 12.8	-1.0
LPAZ	**La Paz**	76.66	125	P	P	09 25 22.5	+0.8
	comp=Z,2.4nm,0.8s,mb4.2,baz=355,slow=6.4,SNR=11						
SONM	**Songino Array**	81.26	328	P	P	09 25 47.7	+1.6
	comp=Z,0.4nm,0.9s,mb3.4,baz=18,slow=4.6,SNR=3.0						
ZAL	**Zalesovo**	82.58	343	P	P	09 25 53.9	+1.0
	comp=Z,1.1nm,0.3s,mb4.3,baz=115,slow=12,SNR=4.1						
AKASG	**Malin Array Be**	85.96	17	P	P	09 26 08.9	-0.8
	comp=Z,0.4nm,0.5s,mb3.9,baz=343,slow=4.2,SNR=5.0						
BDFB	**Brasilia**	89.66	111	LR	LR	10 10 59.2	
	comp=Z,48nm,18.2s,MS4.0,baz=116,slow=38						
WMQ	**Urumqi**	91.21	338	P	P	09 26 37.4	+2.4
WMQ				AP	pP	09 26 46.9	+1.0
WMQ				XP	sP	09 26 51.7	+2.2
WMQ				AMB	AMB		
	comp=Z,1.0nm,0.9s,mb4.2						
LZH	**Lanzhou**	91.95	323	*e*P	P	09 26 39.2	+0.6
LZH				AP	pP	09 26 47.5	-2.0
LZH				XP	sP	09 26 50.8	-2.3
LZH				AMB	AMB		
	comp=Z,11nm,1.5s,mb5.0						

IDC 12 09:19:09.6±3.6**, 14.31S×177.89W, mb3.6**/4**, mb1 4.0**/4**, mb1mx3.8**/13**, Error ellipse: s-maj=196.0km s-min=33.8km az=149.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	45.87	256	P	P	09 27 34.0	-1.8
	0.1nm,0.3s,baz=91,slow=6.6,SNR=5.9						
NVAR	**Mina Array Bea**	76.51	44	P	P	09 31 02.4	-1.0
	0.8nm,0.9s,baz=223,slow=9.3,SNR=4.5						
ILAR	**Eielson Array**	82.29	13	P	P	09 31 33.0	-1.1
	0.7nm,1.1s,baz=213,slow=7.2,SNR=4.2						
YKA	**Yellowknife Ar**	90.87	25	P	P	09 32 13.8	-2.2
	0.6nm,1.3s,baz=238,slow=4.3,SNR=3.7						

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*BJI **12** 09:32:20.0, 7.67S×128.57E, h163^{km}, mB5.0, mb4.9*

*NEIC **12** 09:32:21.3±1.0, 7.41S×128.45E, h142^{km}±9^{km}, mb4.7/28, Error ellipse: s-maj=9.9km s-min=6.1km az=67.0*

*IDC **12** 09:32:23.3±2.5, 7.39S×128.49E, h155^{km}±22^{km}, mb4.3/11, mb1 4.4/15, mb1mx4.3/17, Error ellipse: s-maj=20.7km s-min=10.5km az=68.0*

ISC 12 09:32:19.3±1.0**, 7.43S**±0.04×**128.54E**±0.06**, h137^{km}**±10^{km}**, h141^{km}**±1.9^{km}**:pP-P, n118, σ1^{s}01**/96**, mb4.7**/48**, 10C-2D,**

Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	6.50	144	*e*P	P	09 33 55.6	+1.9
	83nm,0.1s						
KAKA				*e*S	S	09 35 04.2	-2.8
FITZ	Fitzroy Crossi	10.98	195	*e*P	P	09 34 52.9	-0.6
	9.6nm,0.2s						
FITZ				*e*S	S	09 36 49.1	-5.1
FITZ	Fitzroy Crossi	10.98	195	P	P	09 34 52.6	-0.9
	4.1nm,0.3s,baz=22,slow=9.6,SNR=60						
FITZ				S	S	09 36 44.1	-10
	5.2nm,0.3s,baz=17,slow=13,SNR=3.4						
WRAB	Tennant Creek	13.65	156	*e*Pn	P	09 35 26.6	-1.7
	9.3nm,0.8s						
WRAB				*e*		09 35 34.5	
WRAB				*e*Sn	S	09 37 47.7	-9.2
WRA	Warramunga Arr	13.65	156	P	P	09 35 27.5	-0.8
	1.7nm,0.3s,baz=332,slow=14,SNR=85						
WRA				S	S	09 37 48.3	-8.8
	6.0nm,0.3s,baz=334,slow=22,SNR=8.8						
WB2	Warramunga Arr	13.66	156	*e*P	P	09 35 27.3	-1.1
WB2				*e*		09 35 34.7	
WB2				*e*S	S	09 37 50.6	-6.5
MBWA	Marble Bar	16.09	211	*e*Pn	P	09 35 59.0	-0.1
	11nm,0.8s						
ASPA	Alice Springs	16.95	163	*e*P	P	09 36 11.4	+1.8
ASPA				*e*S	S	09 39 11.7	-0.4
ASAR	Alice Springs	16.95	163	P	P	09 36 11.4	+1.8
	3.8nm,0.3s,baz=338,slow=10,SNR=331						
ASAR				S	S	09 39 10.8	-1.3
	1.6nm,0.3s,baz=335,slow=23,SNR=5.3						
PMG	Port Moresby	18.52	97	P	P	09 36 28.7	+0.9
	3.0nm,0.3s,baz=283,slow=5.5,SNR=44						
PMG				S	S	09 39 46.6	0.0
	0.3nm,0.3s,baz=211,slow=22,SNR=3.2						
PMG	Port Moresby	18.52	97	*e*P	P	09 36 28.9	+1.0
	112nm,0.9s						
CTA	Charters Tower	21.29	128	*e*P	P	09 36 58.7	+2.5
	5.7nm,0.9s,mb3.9						
CTA	Charters Tower	21.29	128	P	P	09 36 58.3	+2.1
	2.6nm,0.7s,mb3.7,baz=296,slow=12,SNR=4.3						
CTAO	Charters Tower	21.29	128	*e*P	P	09 36 58.9	+2.7
	2.7nm,0.8s,mb3.6						
TGY	Tagaytay City	22.68	341	P	P	09 37 11.2	+1.2
	147nm,0.3s,mb5.8,baz=229,slow=6.5,SNR=3.6						
FORT	Forrest	23.24	181	*e*P	P	09 37 16.6	+1.4
	102nm,0.9s,mb5.2						
KLBR	Kellerberrin	26.07	201	*e*P	P	09 37 42.0	0.0
	14nm,0.9s,mb4.6						
KLBR				*e*S	tx	09 42 39.4	
STKA	Stephens Creek	27.20	155	*e*P	P	09 37 52.7	+0.4
	13nm,0.5s,mb4.8						
STKA	Stephens Creek	27.20	155	P	P	09 37 52.8	+0.4
	19nm,0.6s,mb4.9,baz=325,slow=8.3,SNR=38						
STKA				S	S	09 42 28.4	+9.1
	2.6nm,0.8s,baz=272,slow=7.7,SNR=2.7						
NWAO	Narrogin (SRO)	27.46	201	P	P	09 37 54.6	0.0
	11nm,0.6s,mb4.7,baz=37,slow=8.5,SNR=9.5						
NWAO	Narrogin (SRO)	27.46	201	*e*P	P	09 37 54.2	-0.5
	6.3nm,0.6s,mb4.4						
TOO	Toolangi	33.72	155	*e*P	P	09 38 51.6	+2.0
	6.0nm,0.5s,mb4.6						
NANT	Nan	37.85	314	⇑P	P	09 39 25.5	+0.9
CM31	Chiang Mai Arr	38.91	312	*e*P	P	09 39 33.7	+0.2
CMAR	Chiang Mai Arr	38.91	312	P	P	09 39 34.5	+1.0
	6.1nm,0.8s,mb4.3,baz=142,slow=6.9,SNR=29						
CMAR				PcP	PcP	09 41 42.1	+0.1
	2.6nm,0.6s,baz=165,slow=2.6,SNR=11						
CHG	Chiang Mai	39.13	312	⇑P	P	09 39 36.0	+0.7
	18nm,1.0s,mb4.7						
GYA	Guiyang	39.82	329	⇑*i*P	P	09 39 41.2	+0.4
GYA				AP	pP	09 40 12.4	+1.0
GYA				S	S	09 45 34.6	0.0
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.7						
GYA				LR	LR		
	comp=N,2μm,16.8s						
GYA				LR	LR		
	comp=E,1μm,17.0s						
GYA				LR	LR		
	comp=Z,1μm,18.2s						
WHN	Wuhan	40.13	341	⇑P	P	09 39 44.0	+0.6
WHN				AMB	AMB		
	comp=Z,39nm,0.9s,mb5.0						
NJ2	Nanjing	40.33	347	*e*P	P	09 39 45.3	+0.3
NJ2				AP	pP	09 40 16.6	+1.0
NJ2				PP	PP	09 41 24.5	+1.5
NJ2				S	S	09 45 43.0	+0.8
NJ2				AMB	AMB		
	comp=Z,50nm,0.5s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,50nm,4.4s						
NJ2				LR	LR		
	comp=N,630nm,24.0s						
NJ2				LR	LR		
	comp=E,100nm,23.0s						
NJ2				LR	LR		
	comp=Z,350nm,13.3s						
KMI	Kunming	40.96	323	*e*P	P	09 39 52.1	+1.9
KMI				AMB	AMB		
	comp=Z,18nm,0.9s,mb4.7						
KMI				LR	LR		
	comp=Z,42nm,22.9s						
MAJO	Matsushiro	44.67	11	*e*P	P	09 40 18.8	-1.4
	comp=Z,11nm,1.0s,mb4.5						
CD2	Chengdu	44.91	329	P	P	09 40 21.9	-0.3
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
XAN	Xi'an	45.24	337	P	P	09 40 24.0	-0.8
XAN				AMB	AMB		
	comp=Z,48nm,0.9s,mb5.1						
SHL	Shillong	48.44	314	⇑*e*P	P	09 40 48.5	-1.4
BJT	Baijiatuau	48.57	347	*e*P	P	09 40 50.0	-0.7
	comp=Z,49nm,1.2s,mb5.0						
LZH	Lanzhou	49.12	333	*e*P	P	09 40 55.4	+0.4
LZH				PP	PP	09 42 51.3	+1.2
LZH				*e*S	S	09 47 49.0	+0.8
LZH				SS	SS	09 51 17.1	-0.5
LZH				AMB	AMB		
	comp=Z,92nm,1.4s,mb5.2						
LZH				AMB	AMB		
	comp=Z,196nm,4.0s						
HHC	Hu-ho-hao-te	50.51	343	*e*P	P	09 41 05.2	-0.4
HHC				PCP	PcP	09 42 21.8	0.0
HHC				PP	PP	09 43 03.6	+0.3
HHC				S	S	09 48 04.5	-3.0
HHC				SS	SS	09 51 37.4	-3.5
HHC				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,166nm,6.5s						
HHC				LR	LR		
	comp=Z,154nm,15.3s						
CN2	Changchun	51.06	357	*e*P	P	09 41 12.7	+3.0
LSA	Lhasa	51.52	318	P	P	09 41 13.8	+0.4
MDJ	Mudanjiang	51.81	1	P	P	09 41 17.3	+2.0
MDJ				AMB	AMB		
	comp=Z,11nm,1.8s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,224nm,6.1s						
ASAJ	Asahikawa	52.85	13	P	P	09 41 22.1	-1.0
	comp=Z,8.3nm,0.9s,mb4.5,baz=81,slow=17,SNR=4.7						
GTA	Gaotai	53.66	332	*e*P	P	09 41 29.1	0.0
GTA				AP	pP	09 42 03.2	+2.1
GTA				PCP	PcP	09 42 33.6	+0.1
GTA				PP	PP	09 43 33.5	+0.8
GTA				S	S	09 48 49.9	-0.5
GTA				AMB	AMB		
	comp=Z,31nm,0.9s,mb5.0						
GTA				AMB	AMB		
	comp=Z,109nm,6.1s						
GTA				LR	LR		
	comp=N,135nm,6.5s						
GTA				LR	LR		
	comp=E,135nm,4.6s						
GTA				LR	LR		
	comp=Z,91nm,6.5s						
GUN	Gumba	54.15	312	*e*P	P	09 41 32.3	-0.5
	comp=Z,48nm,0.7s,mb5.3						
GUN	Gumba	54.15	312	⇑*i*P	P	09 41 32.3	-0.5
	comp=Z,24nm,0.7s,mb5.0						
PKI	Pulchoki	54.31	312	*e*P	P	09 41 32.9	-1.1
	comp=Z,21nm,0.6s,mb5.0						
KKN	Kakani	54.53	312	*e*P	P	09 41 34.5	-1.1
	comp=Z,13nm,0.5s,mb4.9						
DMN	Daman	54.56	312	*e*P	P	09 41 34.9	-0.9
GKN	Gorkha	55.12	312	*e*P	P	09 41 38.9	-1.0
	comp=Z,39nm,0.5s,mb5.4						
GKN	Gorkha	55.12	312	⇑*i*P	P	09 41 39.0	-0.9
	comp=Z,10nm,0.3s,mb5.0						
KOLN	Koldanda	55.77	311	*e*P	P	09 41 43.5	-1.1
	comp=Z,53nm,0.8s,mb5.4						
ULN	Ulaanbaatar	58.23	343	*e*P	P	09 42 01.3	-0.3
	comp=Z,18nm,1.1s,mb4.8						
SONM	Songino Array	58.40	343	P	P	09 42 02.8	0.0
	comp=Z,8.2nm,0.7s,mb4.7,baz=163,slow=6.7,SNR=50						
SONM				ScP		09 46 36.6	
	comp=Z,0.6nm,1.0s,baz=143,slow=7.2,SNR=3.0						
TLY	Talaya	62.64	343	*e*P	P	09 42 30.6	-0.9
	comp=Z,4.6nm,0.6s,mb4.5						
WMQ	Urumqi	62.97	328	⇑P	P	09 42 34.0	+0.2
WMQ				AP	pP	09 43 07.2	+0.5
WMQ				PCP	PcP	09 43 10.2	0.0
WMQ				PP	PP	09 44 55.5	+0.3
WMQ				S	S	09 50 51.0	-0.1
WMQ				AMB	AMB		
	comp=Z,33nm,0.9s,mb5.2						
WMQ				LR	LR		
	comp=N,19nm,17.6s						
WMQ				LR	LR		
	comp=E,26nm,17.6s						
WMQ				LR	LR		
	comp=Z,35nm,17.6s						
KZA	Kyzart	69.17	320	P	P	09 43 14.1	+1.0
	SNR=7.8						
YAK	Yakutsk	69.25	1	*e*P	P	09 43 12.0	-1.3
	comp=Z,45nm,1.0s,mb5.2						
TKM2	Tokmak 2	69.40	321	P	P	09 43 14.8	+0.3
	SNR=8.7						
TKM2	Tokmak 2	69.40	321	*e*P	P	09 43 14.3	-0.2
	comp=Z,8.0nm,0.9s,mb4.5						
UCH	Uchtor	69.72	320	P	P	09 43 17.1	+0.6
	SNR=10						
UCH	Uchtor	69.72	320	*e*P	P	09 43 16.9	+0.5
	comp=Z,6.9nm,0.8s,mb4.4						
AAK	Ala-Archa	69.94	321	P	P	09 43 18.4	+0.6
	SNR=10						
AAK	Ala-Archa	69.94	321	*e*P	P	09 43 17.0	-0.8
	comp=Z,13nm,1.0s,mb4.6						
AML	Almayashu	70.19	320	P	P	09 43 20.1	+0.8
	SNR=9.8						
AML	Almayashu	70.19	320	*e*P	P	09 43 19.4	+0.1
	comp=Z,9.4nm,0.8s,mb4.6						
USP	Ospenovka	70.26	321	P	P	09 43 19.8	0.0
	SNR=15						
EKS2	Erkin-Say	70.41	320	P	P	09 43 21.3	+0.7
	SNR=12						
EKS2	Erkin-Say	70.41	320	*e*P	P	09 43 20.9	+0.3
	comp=Z,15nm,1.0s,mb4.7						
ZAL	Zalesovo	71.33	334	P	P	09 43 25.1	-0.8
	comp=Z,6.3nm,0.6s,mb4.5,baz=339,slow=5.5,SNR=20						
VNDA	Vanda	72.20	173	P	P	09 43 30.8	0.0
	comp=Z,2.2nm,0.6s,mb4.1,baz=316,slow=6.6,SNR=19						
VNDA	Vanda	72.20	173	P	P	09 43 30.8	0.0
SBA	Scott Base	73.11	172	P	P	09 43 36.0	0.0
	comp=Z,1.1nm,0.6s,mb3.8						
MAW	Mawson	74.03	201	P	P	09 43 42.4	+0.9
	comp=Z,3.4nm,0.7s,mb4.2,baz=79,slow=7.6,SNR=4.9						
BVAR	Borovoye Array	77.66	328	P	P	09 44 01.8	-0.4
	comp=Z,30nm,1.1s,mb4.8,baz=135,slow=6.3,SNR=40						
BRVK	Borovoye	77.73	328	*e*P	P	09 44 01.9	-0.6
	comp=Z,19nm,1.0s,mb4.7						
CHKZ	Chkalovo	77.87	329	*e*P	P	09 44 02.3	-1.1
	comp=Z,15nm,1.0s,mb4.6						
TBI	Tubuai	79.78	112	*e*LR	LR	09 44 54.3	
	comp=Z,75nm,26.2s						
QSPA	South Pole Qui	82.55	180	⇑*i*P	P	09 44 28.3	+0.6
	comp=Z,10.0nm,0.6s,mb4.7						
SYO	Syowa Base	82.74	201	⇓P	P	09 44 29.3	+0.4
SYO	Syowa Base	82.74	201	⇓PcP	PcP	09 44 32.3	-1.5
SYO	Syowa Base	82.74	201	⇑pP	pP	09 45 05.8	+2.3
KMBO	Kilima Mbogo	91.13	269	P	P	09 45 10.6	-0.1
	comp=Z,0.7nm,0.5s,mb4.0,baz=235,slow=23,SNR=3.5						
ILAR	Eielson Array	94.35	25	P	P	09 45 22.4	-1.7
	comp=Z,1.3nm,0.9s,mb4.1,baz=265,slow=4.1,SNR=8.8						
SNAA	Sanae	94.91	194	P	P	09 45 27.3	+0.7
	comp=Z,1.8nm,0.8s,mb4.3						
FINES	FINESS Array B	102.44	331	PKiKP		09 50 21.5	
	comp=Z,4.5nm,1.1s,SNR=7.6						
YKA	Yellowknife Ar	108.77	26	PKiKP		09 50 32.7	
	comp=Z,0.7nm,0.6s,baz=298,slow=1.7,SNR=31						
YKA				PKKPbc		10 01 41.2	
	comp=Z,0.3nm,0.5s,baz=111,slow=3.4,SNR=14						
YKA				PKKP	PKKP	10 01 54.4	+16
	comp=Z,0.2nm,0.6s,baz=106,slow=4.9,SNR=4.4						
YKA	Yellowknife Ar	108.77	26	PKPdf		09 50 32.7	
YKA				PKKPbc		10 01 41.2	
YKA				PKKP	PKKP	10 01 54.4	+16
NOA	NORSAR Array B	109.50	333	PKiKP		09 50 34.6	
	comp=Z,1.6nm,1.1s,baz=178,slow=1.2,SNR=3.2						
BRG	Berggiesshubel	111.16	322	*i* P	PKPdf	09 50 24.7	-12
CLL	Collm	111.61	322	*i* P	PKPdf	09 50 24.7	-13
CLL	Collm	111.61	322	P	PKPdf	09 50 24.7	-13
GERES	GERESS Array B	111.81	320	PKiKP		09 50 39.1	
	comp=Z,1.5nm,0.5s,baz=58,slow=2.1,SNR=19						
NVAR	Mina Array Bea	112.69	52	PKKPab		10 01 40.0	
	comp=Z,0.3nm,0.8s,baz=108,slow=5.7,SNR=3.7						
HINF	Hinteralfeld	116.48	320	*e*PKIKP	PKPdf	09 50 47.0	0.0
	comp=Z,5.8nm,0.5s						
PGF	Pioggiola	116.61	314	*e*PKIKP	PKPdf	09 50 48.2	+0.8
LPG	La Plagne	117.31	318	*e*PKIKP	PKPdf	09 50 49.6	+1.0
LPL	La Plagne	117.31	318	*e*PKIKP	PKPdf	09 50 49.5	+0.9
	comp=Z,5.7nm,0.6s						
CABF	La Chapelle	117.38	319	*e*PKIKP	PKPdf	09 50 49.6	+0.9
	comp=Z,12nm,0.6s						
MBDF	Montbardon	117.53	317	*e*PKIKP	PKPdf	09 50 49.9	+0.8
	comp=Z,13nm,1.0s						
ORIF	Oris-en-Rattie	118.07	317	*e*PKIKP	PKPdf	09 50 50.5	+0.4
PDAR	Pinedale Array	118.22	45	PKP	PKPdf	09 50 52.4	+1.9
	comp=Z,0.8nm,0.7s,baz=255,slow=1.4,SNR=7.3						
PDAR				PKKPbc		10 01 11.7	
	comp=Z,0.5nm,0.8s,baz=135,slow=6.3,SNR=4.5						
PDAR				PKKPab		10 01 14.3	
	comp=Z,0.5nm,0.8s,baz=117,slow=3.3,SNR=4.6						
SMF	Signal de Mont	118.82	320	*e*PKIKP	PKPdf	09 50 51.8	+0.2
SSF	Saint Saulge	118.88	320	*e*PKIKP	PKPdf	09 50 52.3	+0.6
	comp=Z,6.4nm,0.5s						
AVF	Avril sur Loir	119.08	320	*e*PKIKP	PKPdf	09 50 52.2	+0.1
	comp=Z,2.7nm,0.5s						
BGF	Bois d'Agland	119.49	320	*e*PKIKP	PKPdf	09 50 53.5	+0.7
	comp=Z,12nm,0.6s						
PV10	Paradox Valley	119.82	50	*e*P	PKPdf	09 50 55.9	+2.2
TCF	Toulx Ste Croi	120.00	320	*e*PKIKP	PKPdf	09 50 54.6	+0.8
PV01	Paradox Valley	120.24	50	*e*P	PKPdf	09 50 56.9	+2.4
CAF	Calviac	120.61	318	*e*PKIKP	PKPdf	09 50 56.1	+1.0
MTLF	Montolieu	121.09	317	*e*PKIKP	PKPdf	09 50 55.9	-0.2
	comp=Z,4.7nm,0.7s						
MFF	Saint Martin d	121.36	321	*e*PKIKP	PKPdf	09 50 57.0	+0.5
	comp=Z,9.6nm,0.7s						
ETSF	Etsaut	123.14	317	*e*PKIKP	PKPdf	09 51 01.3	+1.3
	comp=Z,7.0nm,0.7s						
TXAR	Lajitas Array	126.39	59	PKP	PKPdf	09 51 08.9	+2.2
	comp=Z,0.6nm,0.5s,baz=192,slow=2.4,SNR=17						
SCHQ	Schefferville	131.15	12	PKP	PKPdf	09 51 16.9	+1.8
	comp=Z,2.1nm,0.6s,baz=256,slow=3.4,SNR=4.6						
DBIC	Dimbokro	133.76	272	PKP	PKPdf	09 51 21.9	+0.8
	comp=Z,2.5nm,0.6s,baz=92,slow=6.4,SNR=7.0						
LVC	Limon Verde	145.60	151	*e*P	PKPdf	09 51 45.6	+3.5
MOCB	Mochara	148.28	154	*e*PKPdf	PKPdf	09 51 49.4	+2.8
LPAZ	La Paz	151.24	145	PKP	PKPdf	09 51 53.5	+2.2
	comp=Z,0.9nm,0.9s,baz=58,slow=4.4,SNR=3.1						
LPAZ				PKPbc	PKPdf	09 52 00.5	+9.3
	comp=Z,3.4nm,0.5s,baz=47,slow=1.6,SNR=23						
LPAZ				PKPab	PKPab	09 52 09.3	+1.2
	comp=Z,7.0nm,0.7s,baz=195,slow=4.2,SNR=18						
LPAZ	La Paz	151.24	145	PKPdf	PKPdf	09 51 54.1	+2.9
LPAZ				*e*PKPbc	PKPdf	09 52 00.1	+8.9
LPAZ				*e*PKPab	PKPab	09 52 09.1	+1.0

IDC 12 09:49:57.2±8.1**, 15.57S**×**174.67W, mb3.6**/3**, mb1 3.9**/3**, mb1mx3.6**/14**, Error ellipse: s-maj=360.0km s-min=37.5km az=139.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	48.61	257	P	P	09 58 42.5	-2.5
	0.6nm,1.0s,baz=94,slow=7.7,SNR=4.6						
ASAR	Alice Springs	48.90	252	P	P	09 58 45.6	-1.4
	0.8nm,0.7s,baz=88,slow=9.6,SNR=14						
ILAR	Eielson Array	82.85	12	P	P	10 02 23.0	-1.5
	0.7nm,1.0s,baz=214,slow=3.3,SNR=5.2						

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*NIED **12** 10:26:00, 31.80N×129.20E, h5^{km}, Mw4.0 Best double couple: M$_0$1.05×10^{15} NP1:ϕ_s221°, δ79°, λ-155°. NP2: ϕ_s126°, δ65°, λ-12°.*

JMA 12 10:26:46.2±0.1**, 31.76N**×**129.17E, h15**^{km}±1^{km}**, M4.2, 1C-7D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.47	100	⇓P	Pb	10 26 55.5	-0.2
JSJ				S	Sb	10 27 01.8	-0.3
JFU	Fukue jima 2	0.96	338	⇑P	Pb	10 27 04.3	+0.3
NGSJ	Nagasakinomoza	1.02	31	⇓P	Pb	10 27 05.0	0.0
NGSJ				S	Sb	10 27 19.3	+1.3
JHD	Hondo	1.08	49	⇓P	Pb	10 27 06.2	+0.1
JHD				S	Sb	10 27 21.2	+1.4
JSU	Suzuyama	1.12	103	⇓P	Pb	10 27 07.1	+0.3
JSU				S	Sb	10 27 22.5	+1.4
JZO	Okuchi	1.27	72	⇓P	Pb	10 27 09.0	-0.3
JIU2	Izumi 2	1.60	60	⇓P	Pn	10 27 13.6	-0.6
JTZ	Takazaki	1.64	85	⇓P	Pn	10 27 14.3	-0.4

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*IDC **12** 10:42:59.7±0.7, 28.86N×132.16E, mb4.1/14, mb1 4.3/15, mb1mx4.2/23, ML4.0/1, MS3.3/4, Ms1 3.4/4, ms1mx2.8/33, Error ellipse: s-maj=24.1km s-min=15.9km az=87.0*

*NIED **12** 10:43:00, 28.90N×132.00E, h5^{km}, Mw4.2 Best double couple: M$_0$2.45×10^{15} NP1:ϕ_s215°, δ57°, λ-92°. NP2:ϕ_s37°, δ33°, λ-88°.*

*NEIC **12** 10:43:03.7±2.4, 28.79N×132.09E, h26^{km}±17^{km}, mb4.5/6, MW4.2(NIED), Error ellipse: s-maj=11.1km s-min=7.8km az=120.0*

*JMA **12** 10:43:03.6±0.2, 28.91N×132.01E, h72^{km}, M4.2*

ISC 12 10:43:02.2±1.6**, 28.91N**±0.03×**132.04E**±0.04**, h26**^{km}±12^{km}**, n46, σ0^{s}94**/55**, mb4.1**/19**, MS3.4**/3**, West of Bonin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JZK	Kikaishima	1.91	253	P	Pn	10 43 34.3	+0.6
JZK				S	Sn	10 43 57.7	+0.6
JTN	Tanegashima 3	1.97	332	P	Pn	10 43 35.4	+0.9
JNN	Nakanoshima	2.11	297	P	Pn	10 43 37.2	+0.7
JNN				S	Sn	10 44 02.5	+0.4
JAM	Amami Oshima	2.20	258	P	Pn	10 43 37.8	+0.1
JAM				S	Sn	10 44 04.1	-0.2
JKC	Kuchinoerabu	2.23	314	P	Pn	10 43 39.2	+1.0
JKC				S	Sn	10 44 04.7	-0.5
JTSR	Tashiro 2	2.45	337	P	Pn	10 43 42.2	+0.8
JTSR				S	Sn	10 44 10.0	-0.8
JNAR	Kushima--Naru	2.69	346	P	Pn	10 43 45.7	+0.8
JNAR				S	Sn	10 44 16.0	-1.0
JTK	Tokunoshima	2.94	248	P	Pn	10 43 48.2	-0.2
JTK				S	Sn	10 44 22.0	-1.3
JTZ	Takazaki	3.10	345	P	Pn	10 43 51.2	+0.7
JTZ				S	Sn	10 44 26.1	-1.0
JSJ	Shimokoshiki	3.42	325	P	Pn	10 43 55.0	-0.1
JSJ				S	Sn	10 44 33.2	-2.0
JOW	Kunigami	3.92	239	Pn	Pn	10 44 01.1	-1.2
	18nm,0.3s,baz=276,slow=29,SNR=29						
JOW				Sn	Sn	10 44 44.0	-4.0
	7.1nm,0.3s,baz=40,slow=28,SNR=6.6						
JOW	Kunigami	3.92	239	P	Pn	10 44 01.0	-1.3
JOW				S	Sn	10 44 44.7	-3.3
JTO	Tosashimizu	3.99	9	P	Pn	10 44 02.3	-1.0
JTO				S	Sn	10 44 43.8	-6.0
JIH	Iheya	4.06	244	S	Sn	10 44 47.3	-4.2
JNA	Nagahama	4.65	5	P	Pn	10 44 12.2	-0.4
JNA				S	Sn	10 45 00.8	-5.7
CBIJ	Chichi jima	9.15	99	LR	LR	10 48 19.3	
	comp=Z,153nm,20.6s,baz=322,slow=35						
MAJO	Matsushiro	9.21	33	*e*P	P	10 45 15.6	-1.0
	5.7nm,0.4s						
MAT	Matsushiro	9.21	33	P	P	10 45 15.6	-0.9
MAT	Matsushiro	9.21	33	P	P	10 45 17.0	+0.5
ULN	Ulaanbaatar	27.04	321	P	P	10 48 45.0	+0.9
	2.7nm,1.0s,mb3.7						
SONM	Songino Array	27.39	321	P	P	10 48 48.0	+0.6
	1.3nm,0.9s,mb3.5,baz=129,slow=7.9,SNR=6.9						
CMAR	Chiang Mai Arr	31.95	258	LR	LR	11 04 28.8	
	comp=Z,49nm,19.4s,MS3.2,baz=110,slow=40						
PMG	Port Moresby	40.79	157	LR	LR	11 04 57.4	
	comp=Z,73nm,19.3s,MS3.5,baz=231,slow=32						
WRA	Warramunga Arr	48.61	177	P	P	10 51 44.9	-0.9
	1.3nm,0.8s,mb4.0,baz=355,slow=8.4,SNR=8.3						
BVAR	Borovoye Array	50.60	317	P	P	10 52 01.5	+0.9
	3.1nm,0.9s,mb4.2,baz=104,slow=12,SNR=5.6						
CTA	Charters Tower	50.60	163	LR	LR	11 11 10.2	
	comp=Z,31nm,19.8s,MS3.3,baz=232,slow=34						
BRVK	Borovoye	50.67	317	*e*P	P	10 52 03.4	+2.3
	2.1nm,0.6s,mb4.2						
ASAR	Alice Springs	52.30	178	P	P	10 52 13.1	-0.8
	0.9nm,0.6s,mb3.9,baz=9.6,slow=14,SNR=19						
COLA	College	60.05	29	*e*P	P	10 53 09.1	+0.2
	2.4nm,0.6s,mb4.4						
ILAR	Eielson Array	60.48	29	P	P	10 53 10.6	-1.2
	1.3nm,0.7s,mb4.1,baz=264,slow=5.6,SNR=20						
STKA	Stephens Creek	61.13	171	P	P	10 53 14.8	-1.8
	1.4nm,0.7s,mb4.2,baz=325,slow=9.1,SNR=4.2						
STKA	Stephens Creek	61.13	171	P	P	10 53 14.8	-1.8
	3.1nm,0.5s,mb4.7						
INK	Inuvik	65.09	24	P	P	10 53 41.9	-0.4
	2.0nm,0.5s,mb4.4,baz=296,slow=7.5,SNR=24						
ARCES	ARCESS Array B	68.75	339	P	P	10 54 06.0	+0.6
	7.4nm,0.9s,mb4.6,baz=21,slow=10,SNR=3.0						
FINES	FINESS Array B	72.19	331	P	P	10 54 26.3	-0.1
	2.0nm,0.6s,mb4.2,baz=72,slow=6.0,SNR=14						
FINES	FINESS Array B	72.19	331	P	P	10 54 26.3	-0.1
YKA	Yellowknife Ar	74.66	26	P	P	10 54 40.6	-0.1
	1.6nm,0.9s,mb4.0,baz=298,slow=5.7,SNR=20						
AKASG	Malin Array Be	75.67	320	P	P	10 54 47.0	+0.3
	1.7nm,0.7s,mb4.1,baz=54,slow=6.1,SNR=6.9						
BRTR	Keskin Array B	78.03	309	P	P	10 55 01.6	+1.6
	1.5nm,0.7s,mb4.0,baz=108,slow=3.9,SNR=5.2						
NB2	NORSAR Subarra	78.38	335	P	P	10 55 01.4	-0.1
	0.2nm,0.7s,mb3.2,baz=54,slow=5.8						
NOA	NORSAR Array B	78.38	335	P	P	10 55 01.8	+0.3
	1.1nm,0.7s,mb3.9,baz=50,slow=5.6,SNR=4.1						
NOA	NORSAR Array B	78.38	335	P	P	10 55 01.8	+0.3
BRG	Berggiesshubel	83.66	326	*i* P	P	10 55 30.9	+1.3
	3.5nm,0.9s,mb4.5						
CLL	Collm	83.84	326	*i* P	P	10 55 31.3	+0.8
	8.0nm,0.9s,mb4.8						
CLL				*e*	pP	10 55 41.0	+2.1
CLL	Collm	83.84	326	P	P	10 55 31.3	+0.8
	logA/T=0.9,mb4.8						
CLL				*e**SP	sP	10 55 41.0	-0.7
NVAR	Mina Array Bea	86.21	48	P	P	10 55 43.5	+0.8
	0.5nm,0.8s,mb3.8,baz=285,slow=7.4,SNR=3.9						

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*IDC **12** 10:47:07.7±1.1, 15.27S×167.81E, mb4.1/8, mb1 4.3/8, mb1mx4.1/15, Error ellipse: s-maj=33.7km s-min=24.9km az=131.0*

*LDG **12** 10:47:09.8±1.1, 15.68S×167.00E, h10^{km}, Mb4.3/2, Error ellipse: s-maj=142.1km s-min=82.7km az=37.0*

*NEIC **12** 10:47:22.4±2.9, 15.42S×167.55E, h113^{km}±25^{km}, mb4.3/5, Error ellipse: s-maj=24.7km s-min=16.6km az=175.0*

ISC 12 10:47:22.3±3.0**, 15.5S**±0.1×**167.5E**±0.2**, h125**^{km}±26^{km}**, n43, σ0^{s}79**/21**, mb4.0**/11**, 7C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.62	188	*e*P	P	10 48 58.7	+0.3
DZM				*e*S	S	10 50 13.4	+0.4
DZM	Mont Dzumac	6.62	188	*e*Pn	P	10 48 58.5	+0.1
DZM				*e*Sn	rx	10 49 55.7	
NOUC	Port Laguerre	6.67	189	*e*P	P	10 48 59.5	+0.4
NOUC				*e*S	S	10 50 13.4	-0.8
STKA	Stephens Creek	28.66	231	P	P	10 53 10.4	+0.8
	0.9nm,0.4s,mb3.8,baz=38,slow=8.1,SNR=5.2						
STKA				PcP	PcP	10 56 17.0	-0.3
	1.6nm,0.6s,baz=74,slow=1.6,SNR=5.2						
STKA	Stephens Creek	28.66	231	P	P	10 53 10.4	+0.8
STKA				PcP	PcP	10 56 17.0	-0.3
WB2	Warramunga Arr	31.83	257	*e*P	P	10 53 36.4	-1.2
WRAB	Tennant Creek	31.83	257	*e*P	P	10 53 36.6	-1.0
	1.9nm,0.3s,mb4.3						
WRA	Warramunga Arr	31.84	257	P	P	10 53 37.2	-0.5
	0.7nm,0.3s,mb3.8,baz=80,slow=6.0,SNR=30						
ASAR	Alice Springs	32.60	250	P	P	10 53 44.0	-0.2
	3.4nm,0.4s,mb4.5,baz=74,slow=9.3,SNR=78						
ASAR				PcP	PcP	10 56 27.9	+0.2
	0.7nm,1.0s,baz=120,slow=2.0,SNR=4.4						

ASPA	Alice Springs	32.60	250	*e*P	P	10 53 44.1	-0.2
FITZ	Fitzroy Crossi	40.08	260	*e*P	P	10 54 48.1	+0.9
	5.6nm,0.6s,mb4.6						
FITZ	Fitzroy Crossi	40.08	260	P	P	10 54 48.0	+0.8
	7.8nm,0.7s,mb4.7,baz=79,slow=4.7,SNR=30						
MBWA	Marble Bar	45.54	255	*e*P	P	10 55 31.7	+0.2
	7.4nm,0.9s,mb4.4						
VNDA	Vanda	62.12	181	P	P	10 57 32.0	0.0
	0.4nm,0.5s,mb3.7,slow=7.1,SNR=3.4						
VNDA	Vanda	62.12	181	*e*P	P	10 57 32.0	0.0
	0.2nm,0.5s,mb3.4						
CMAR	Chiang Mai Arr	75.44	294	P	P	10 58 56.0	+1.2
	1.8nm,1.1s,mb3.7,baz=135,slow=4.9,SNR=5.0						
SONM	Songino Array	83.22	324	P	P	10 59 37.1	+1.1
	1.0nm,0.5s,mb3.9,baz=150,slow=8.7,SNR=10						
ILAR	Eielson Array	87.18	18	P	P	10 59 53.5	-1.6
	0.3nm,0.6s,mb3.4,baz=236,slow=5.1,SNR=6.4						
SNAA	Sanae	92.81	183	*e*P	P	11 00 21.5	+0.1
	1.1nm,0.7s,mb4.3						
ARCES	ARCESS Array B	121.03	345	PKP	PKPdf	11 06 00.8	+1.0
	2.3nm,0.6s,slow=2.4,SNR=10						
ARCES	ARCESS Array B	121.03	345	PKP	PKPdf	11 06 00.8	+1.0
GERES	GERESS Array B	140.40	333	PKP	PKPdf	11 06 40.3	+3.6
	0.2nm,0.6s,slow=2.9,SNR=3.6						
CDF	Champ du Feu	143.35	338	*e*PKP1	PKPbc	11 06 41.0	+0.8
HINF	Hinteralfeld	144.00	338	*e*PKP1	PKPbc	11 06 42.8	+0.6
	2.3nm,0.5s						
HAU	Haudompre	144.02	338	*e*PKP1	PKPbc	11 06 43.2	+0.9
MEZF	Maizieres J'vi	144.04	340	*e*PKP1	PKPbc	11 06 43.5	+1.2
CABF	La Chapelle	145.30	337	⇑*i*PKP1	PKPbc	11 06 48.1	+2.3
	8.1nm,0.6s						
FLN	La Foliniere	145.37	346	⇑*i*PKP1	PKPbc	11 06 47.3	+1.4
	18nm,0.7s						
LDF	La Druitiere	145.44	345	⇑*i*PKP1	PKPbc	11 06 47.5	+1.4
	6.1nm,0.5s						
SSF	Saint Saulge	145.81	340	⇑*i*PKP1	PKPbc	11 06 49.3	+2.2
	8.1nm,0.6s						
GRR	Gorron	145.81	346	*e*PKP1	PKPbc	11 06 48.8	+1.8
	11nm,0.6s						
LPG	La Plagne	145.97	335	*e*PKP1	PKPbc	11 06 50.9	+3.4
SMF	Signal de Mont	146.06	340	*e*PKP1	PKPbc	11 06 50.6	+2.9
	2.8nm,0.5s						
AVF	Avril sur Loir	146.10	340	*e*PKP1	PKPbc	11 06 50.7	+2.9
	5.3nm,0.6s						
SGMF	Saint Gilles	146.31	348	⇑*i*PKP1	PKPbc	11 06 50.2	+2.0
	9.2nm,0.5s						
BGF	Bois d'Agland	146.47	341	⇑*i*PKP1	PKPbc	11 06 51.0	+2.4
	6.7nm,0.5s						
MBDF	Montbardon	146.59	335	*e*PKP1	PKPbc	11 06 52.5	+3.5
	5.3nm,0.8s						
QUIF	Quistinic	146.75	348	*e*PKP1	PKPbc	11 06 51.1	+1.9
	3.2nm,0.5s						
ORIF	Oris-en-Rattie	146.79	336	*e*PKP1	PKPbc	11 06 51.0	+1.6
	4.7nm,0.7s						
TCF	Toulx Ste Croi	146.91	341	*e*PKP1	PKPbc	11 06 52.3	+2.6
	4.0nm,0.6s						
MFF	Saint Martin d	147.30	344	⇑*i*PKP1	PKPdf	11 06 53.2	+4.6
	11nm,0.6s						
RJF	Les Rejaudoux	148.00	341	*e*PKP1	PKPdf	11 06 58.4	+8.6
	5.5nm,0.7s						
ETSF	Etsaut	150.82	342	*e*PKP1	PKPdf	11 07 02.9	+8.7
	2.8nm,0.5s						

NIED 12 10:51:00, 31.80N×129.20E, h5^{km}, Mw3.3 Best double couple: M$_0$1.11×10^{14} NP1:ϕ_s106°, δ81°, λ11°. NP2:ϕ_s14°, δ79°, λ171°.

JMA 12 10:51:29.8±0.1**, 31.76N**×**129.16E, h14**^{km}±2^{km}**, M3.5, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.48	100	P	Pb	10 51 39.1	-0.4
JSJ				S	Sb	10 51 45.1	-1.0
JFU	Fukue jima 2	0.96	339	P	Pb	10 51 47.8	+0.1
JFU				S	Sb	10 52 01.0	+1.0
NGSJ	Nagasakinomoza	1.02	32	P	Pb	10 51 48.5	-0.3
NGSJ				S	Sb	10 52 02.6	+0.7
JHD	Hondo	1.09	49	P	Pb	10 51 49.4	-0.5
JHD				S	Sb	10 52 04.5	+0.8
JSU	Suzuyama	1.13	103	P	Pb	10 51 50.5	-0.2
JSU				S	Sb	10 52 05.8	+0.8
JZO	Okuchi	1.28	72	P	Pb	10 51 52.5	-0.7
JZO				S	Sb	10 52 10.5	+1.2
JIU2	Izumi 2	1.61	60	P	Pn	10 51 57.3	-0.7
JTZ	Takazaki	1.65	85	P	Pn	10 51 57.8	-0.8
JTZ				S	Sn	10 52 22.2	+2.6
JTN	Tanegashima 3	1.91	125	P	Pn	10 52 01.8	-0.5
JTN				S	Sn	10 52 32.1	+5.8

NEIC 12 10:59:41.9, 62.13N×148.12W, h7^{km}, ML3.7(AEIC), ML3.6(PMR), After AEIC.
NEIC Felt [II] at Eagle River.
IDC 12 10:59:46.3±3.7, 62.32N×147.89W, h78^{km}±31^{km}, mb3.3/5, mb1 3.6/9, mb1mx3.4/22, MS3.0/1, Ms1 3.0/1, ms1mx2.5/17, Error ellipse: s-maj=35.8km s-min=15.3km az=51.0

ISC 12 10:59:41.8±0.5**, 62.15N**±0.02×**148.12W**±0.04**, h32**^{km}±4^{km}**, n88,** σ**1$\overset{s}{.}$05**/109**, mb3.6**/5**, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SML	Sawmill	0.35	196	P	Pb	10 59 50.8	+0.7
SML				S	Sb	10 59 57.8	+2.0
SCM	Sheep Creek Mo	0.49	129	P	Pb	10 59 52.3	+0.2
GHO	Glory Hole Cre	0.53	226	P	Pb	10 59 52.9	0.0
PMR	Palmer	0.73	221	P	Pn	10 59 55.2	-0.7
PMR				S	Sb	11 00 05.6	-0.3
KNK	Knik Glacier	0.75	192	P	Pn	10 59 56.0	-0.2
PWA	Palmer West	0.97	240	P	Pn	10 59 59.5	+0.2
DHY	Denali Highway	1.00	20	P	Pn	11 00 00.2	+0.5
CUT	Chulitna	1.04	286	P	Pn	11 00 00.6	+0.4
HUR	Hurricane	1.09	321	P	Pn	11 00 01.4	+0.3
HUR				S	Sn	11 00 16.6	+1.5
TZL	Tazlina	1.27	93	P	Pn	11 00 04.3	+0.6
PWL	Port Wells	1.29	185	P	Pn	11 00 03.8	-0.2
PWL				S	Sn	11 00 21.3	+1.0
RC01	Rabbit Creek A	1.31	217	P	Pn	11 00 04.4	+0.2
RC01				S	Sn	11 00 22.9	+2.2
RND	Reindeer	1.31	345	P	Pn	11 00 04.4	+0.3
JPK	Jack Peak	1.31	146	P	Pn	11 00 03.3	-0.9
JPK				S	Sn	11 00 21.8	+0.9
VLZ	Valdez	1.33	139	P	Pn	11 00 03.1	-1.3
VLZ				S	Sn	11 00 22.3	+1.1
GLI	Glacier Island	1.36	158	P	Pn	11 00 04.5	-0.4
GLI				S	Sn	11 00 23.5	+1.5
FIB	Fire Island	1.39	226	P	Pn	11 00 06.3	+1.0
PAX	Paxson	1.48	55	P	Pn	11 00 07.2	+0.6
PAX				S	Sn	11 00 27.0	+1.9
DIV	Divide	1.52	131	P	Pn	11 00 06.0	-1.1
DIV				S	Sn	11 00 27.0	+1.1
VOGL	Vogel Lake	1.60	225	P	Pn	11 00 09.8	+1.6
FID	Port Fidalgo	1.61	150	P	Pn	11 00 08.1	-0.3
MCK	McKinley	1.64	347	P	Pn	11 00 09.6	+0.8
TRF	Thorofare Moun	1.65	324	P	Pn	11 00 09.3	+0.4
THY	Trims Highway	1.68	39	P	Pn	11 00 10.7	+1.2
MPA	Moose Pass	1.77	200	P	Pn	11 00 10.3	-0.4
MPA				S	Sn	11 00 33.4	+1.1
STLK	Strandline Lak	1.88	251	P	Pn	11 00 13.1	+0.8
STLK				S	Sn	11 00 37.3	+2.2
KTH	Kantishna Hill	1.91	319	P	Pn	11 00 13.1	+0.4
HIN	Hinchinbrook I	1.92	155	P	Pn	11 00 13.0	+0.1
SLKM	Skilak Lake	1.93	213	P	Pn	11 00 13.2	+0.2
DDM	Donnelly Dome	1.94	31	P	Pn	11 00 15.9	+2.6
EYAK	Cordova Ski Ar	1.97	143	P	Pn	11 00 14.5	+0.9
CVA	Cordova	1.97	143	P	Pn	11 00 13.8	+0.2
CVA				S	Sn	11 00 37.3	-0.1
SPU	Mount Spurr	2.11	244	*e*P	Pn	11 00 15.7	+0.1
LTI	Latouche	2.12	176	P	Pn	11 00 15.4	-0.3
LTI				S	Sn	11 00 43.9	+2.7
BWN	Browne	2.12	344	P	Pn	11 00 16.0	+0.1
CKN	Chakachatna No	2.14	246	P	Pn	11 00 16.9	+0.8
SEW	Seward	2.15	198	P	Pn	11 00 16.9	+0.8
SEW				S	Sn	11 00 45.1	+3.1
GLB	Gilahina Butte	2.17	107	P	Pn	11 00 16.5	+0.1
HDA	Harding Lake	2.33	13	P	Pn	11 00 19.6	+0.8
HDA				S	Sn	11 00 48.5	+1.9
RAGM	Ragged Mountai	2.43	135	P	Pn	11 00 19.7	-0.4
NEA	Nenana	2.48	350	P	Pn	11 00 20.4	-0.5
NEA				S	Sn	11 00 51.7	+1.3
CCB	Clear Creek Bu	2.52	3	P	Pn	11 00 21.1	-0.3
RDT	Redoubt	2.60	235	P	Pn	11 00 22.6	0.0
RDT				S	Sn	11 00 54.1	+0.8
IL1	Eielson Array	2.69	11	P	Pn	11 00 24.0	0.0
ILAR	Eielson Array	2.69	11	P	Pn	11 00 24.5	+0.5
	25nm,0.3s,baz=196,slow=14,SNR=1209						
ILAR				S	Sn	11 00 55.5	-0.4
	49nm,0.3s,baz=196,slow=21,SNR=19						
BRLK	Bradley Lake	2.74	211	P	Pn	11 00 24.3	-0.4
COLA	College	2.74	2	P	Pn	11 00 25.2	+0.6
COLA				S	Sn	11 00 57.9	+0.9
RDN	Redoubt North	2.77	236	P	Pn	11 00 24.9	-0.2
RSO	Redoubt South	2.80	235	*e*P	Pn	11 00 25.4	-0.1
NCT	North Crescent	2.81	238	P	Pn	11 00 25.6	0.0
MDM	Murphy Dome	2.83	359	P	Pn	11 00 25.9	0.0
TGL	Tana Glacier	2.90	116	P	Pn	11 00 25.9	-1.0
BALM	Baldy	2.98	109	P	Pn	11 00 26.9	-1.1
CNPM	China Poot	3.04	211	P	Pn	11 00 28.2	-0.6
BCA3	Beaver Creek A	3.07	70	P	Pn	11 00 30.3	+1.0
ILIM	Iliamna	3.13	231	P	Pn	11 00 30.0	-0.1
INE	Iliamna NE	3.18	231	P	Pn	11 00 30.5	-0.3
ILW	Iliamna West	3.21	232	P	Pn	11 00 31.1	-0.2
CTGM	Chitina Glacie	3.46	107	P	Pn	11 00 34.0	-0.8
OPT	Oil Point	3.53	227	P	Pn	11 00 35.2	-0.7
YAH	Yahtse	3.56	117	P	Pn	11 00 36.0	-0.3
TT01	Tatalina	3.74	285	P	Pn	11 00 37.9	-1.0
AUH	Augustine H	3.82	225	P	Pn	11 00 40.3	+0.3
AUW	Augustine West	3.83	226	P	Pn	11 00 39.9	-0.2
AUI	Augustine Isla	3.84	225	P	Pn	11 00 39.9	-0.3
MCNL	McNeil River	4.26	229	P	Pn	11 00 45.0	-1.3
IM3	Indian Mountai	4.58	330	P	Pn	11 00 49.6	-1.1
IMA	Indian Mountai	4.63	331	*e*P	Pn	11 00 50.5	-1.0
GCSA	Galena City Sc	4.72	307	P	Pn	11 00 51.8	-0.9
KAHC	Katmai Hardscr	4.89	227	P	Pn	11 00 53.3	-1.9
KDAK	Kodiak Island	4.92	209	*e*P	Pn	11 00 52.6	-2.9
KAWH	Katmai	5.03	224	P	Pn	11 00 55.3	-1.7
COLD	Coldfoot	5.18	351	P	Pn	11 00 58.4	-0.9
ANCK	Angle Creek	5.40	226	P	Pn	11 01 00.7	-1.7
CAHL	Cahill	5.45	224	P	Pn	11 01 01.4	-1.7
BM3	Burnt Mountain	5.50	14	P	Pn	11 01 03.1	-0.7
ANPK	Aniakchak Peak	7.36	228	P	Pn	11 01 28.2	-1.6
ANM	Nome	8.12	295	*e*P	P	11 01 39.4	-1.1
INK	Inuvik	8.69	38	P	P	11 01 46.8	-1.6
	0.9nm,0.3s,baz=229,slow=16,SNR=17						
INK				S	Sn	11 03 19.1	-7.1
	0.6nm,0.3s,baz=286,slow=16,SNR=2.7						
DLBC	Dease Lake	9.71	104	P	P	11 02 00.2	-2.1
	0.1nm,0.3s,baz=296,slow=27,SNR=2.4						
DLBC				LR	LR	11 06 14.8	
	comp=Z,83nm,18.0s,baz=282,slow=40						
DLBC	Dease Lake	9.71	104	P	P	11 02 00.2	-2.1
DLBC				LR	LR	11 06 14.8	
YKA	Yellowknife Ar	15.48	74	P	P	11 03 16.2	-2.9
	0.1nm,0.3s,baz=283,slow=10,SNR=11						
YKA	Yellowknife Ar	15.48	74	P	P	11 03 16.2	-2.9
PDAR	Pinedale Array	29.80	113	P	P	11 05 45.7	-2.0
	0.7nm,0.9s,mb3.4,baz=315,slow=6.3,SNR=4.8						
TXAR	Lajitas Array	43.70	118	P	P	11 07 44.0	-1.1
	0.2nm,0.6s,mb3.0,baz=326,slow=6.5,SNR=3.1						
SONM	Songino Array	55.40	308	P	P	11 09 11.8	-3.0
	0.6nm,1.1s,mb3.5,baz=45,slow=8.2,SNR=2.7						
FINES	FINESS Array B	56.66	3	P	P	11 09 18.9	-4.7
	2.6nm,1.0s,mb4.2,baz=14,slow=5.7,SNR=4.8						
BVAR	Borovoye Array	61.21	335	P	P	11 09 51.1	-4.2
	0.7nm,0.5s,mb4.0,baz=40,slow=12,SNR=3.7						

NEIC 12 11:01:59.8±1.7, 21.31S×176.42W, h144^{km}±19^{km}, mb4.3/2, Error ellipse: s-maj=22.5km s-min=12.6km az=121.0
IDC 12 11:02:01.6±14.0, 21.27S×176.54W, h156^{km}±124^{km}, mb3.9/6, mb1 4.0/7, mb1mx3.7/16, ML4.6/1, Error ellipse: s-maj=54.8km s-min=32.5km az=26.0

ISC 12 11:01:57.1±2.5**, 21.4S**±0.1×**176.5W**±0.2**, h123**^{km}±33^{km}**, n16,** σ**0$\overset{s}{.}$92**/12**, mb4.2**/7**, 1C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.68	32	Pn	P	11 04 01.2	+0.2
AFI				*e*Sn	S	11 05 32.0	-5.7
URZ	Urewera	17.71	197	P	P	11 05 56.3	-1.1
	2.1nm,0.3s,baz=31,slow=10.0,SNR=16						
RPZ	Rata Peaks	24.57	202	P	P	11 07 08.8	+2.0
	25nm,1.0s,mb4.6,baz=66,slow=14,SNR=4.1						
CTA	Charters Tower	34.78	265	P	P	11 08 38.2	+0.4
	3.8nm,0.6s,mb4.4,baz=96,slow=8.7,SNR=6.7						
CTAO	Charters Tower	34.78	265	*e*P	P	11 08 38.1	+0.3
	3.8nm,0.6s,mb4.4						
PMG	Port Moresby	36.87	283	*e*P	P	11 08 56.4	+0.9
	5.6nm,0.8s,mb4.5						
STKA	Stephens Creek	38.67	245	P	P	11 09 10.3	0.0
	3.4nm,0.8s,mb4.2,baz=88,slow=9.8,SNR=9.4						
STKA	Stephens Creek	38.67	245	*e*P	P	11 09 10.2	-0.1
ASAR	Alice Springs	45.67	257	P	P	11 10 07.0	-0.4
	4.3nm,0.8s,mb4.2,baz=91,slow=8.0,SNR=50						
WRA	Warramunga Arr	45.85	263	P	P	11 10 07.8	-1.1
	1.4nm,0.7s,mb3.8,baz=95,slow=8.1,SNR=27						
ILAR	Eielson Array	88.85	12	P	P	11 14 37.5	-0.5
	1.7nm,1.2s,mb3.9,baz=222,slow=4.8,SNR=4.7						
BVAR	Borovoye Array	120.62	320	PKP	PKPdf	11 20 34.2	0.0
	0.5nm,0.3s,baz=110,slow=3.4,SNR=6.2						
HFS	Hagfors	140.59	352	PKhKP		11 21 07.3	
	5.1nm,1.2s,baz=333,slow=3.2,SNR=4.8						
AKASG	Malin Array Be	144.42	332	PKP	PKPdf	11 21 16.9	-1.5
	1.0nm,0.4s,baz=38,slow=4.4,SNR=6.7						
BRTR	Keskin Array B	148.43	312	PKPbc	PKPdf	11 21 29.1	+3.6
	0.9nm,0.5s,baz=133,slow=4.4,SNR=4.1						
CLL	Collm	149.19	348	⇑*i*PKP1	PKPdf	11 21 32.2	+5.8

IDC 12 11:04:49.9±1.1, 58.93S×147.79E, mb4.4/4, mb1 4.4/5, mb1mx4.1/11, ML3.6/1, MS4.2/5, Ms1 4.2/5, ms1mx3.7/10, Error ellipse: s-maj=41.4km s-min=24.4km az=81.0
NEIC 12 11:04:51.1±0.5, 58.96S×147.84E, h10^{km}, mb4.6/6, Error ellipse: s-maj=21.2km s-min=9.3km az=87.0

ISC 12 11:04:49.3±0.7**, 58.97S**±0.09×**147.9E**±0.4**, h10**^{km}**, n24,** σ**0$\overset{s}{.}$50**/15**, mb4.4**/9**, MS3.9**/5**, West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	19.22	171	P	P	11 09 16.1	+0.5
	0.2nm,0.3s,baz=336,slow=12,SNR=11						
VNDA				LR	LR	11 15 59.7	
	comp=Z,602nm,18.3s,baz=342,slow=35						
VNDA	Vanda	19.22	171	*e*P	P	11 09 15.1	-0.5
	3.5nm,0.7s						
VNDA				LR	LR	11 15 59.7	
RPZ	Rata Peaks	20.85	53	LR	LR	11 15 55.4	
	comp=Z,676nm,19.0s,MS4.0,baz=195,slow=32						
TOO	Toolangi	21.48	355	*e*P	P	11 09 39.0	-0.9
	12nm,1.0s,mb4.2						
CNB	Canberra Magne	23.69	3	*e*P	P	11 10 02.3	+0.6
	23nm,1.2s,mb4.5						
STKA	Stephens Creek	27.44	348	*e*P	P	11 10 37.7	+0.7
	2.2nm,0.9s,mb3.7						
STKA	Stephens Creek	27.44	348	P	P	11 10 36.3	-0.7
	2.4nm,0.8s,mb3.8,baz=165,slow=7.1,SNR=5.5						
URZ	Urewera	27.93	55	P	P	11 10 41.5	+0.1
	9.9nm,0.8s,mb4.5,baz=180,slow=6.1,SNR=2.8						
URZ				LR	LR	11 20 34.0	
	comp=Z,409nm,18.0s,MS4.1,baz=357,slow=34						
NWAO	Narrogin (SRO)	33.14	308	LR	LR	11 20 47.9	
	comp=Z,17nm,18.2s,MS2.8,baz=46,slow=29						
MAW	Mawson	36.18	220	LR	LR	11 27 04.7	
	comp=Z,512nm,18.3s,MS4.3,baz=76,slow=37						
ASAR	Alice Springs	36.66	338	P	P	11 11 58.3	+0.5
	3.2nm,0.8s,mb4.2,baz=164,slow=9.8,SNR=26						
ASAR				PcP	PcP	11 14 20.4	-0.7
	0.6nm,0.8s,baz=164,slow=3.1,SNR=4.3						
ASPA	Alice Springs	36.66	338	*e*P	P	11 11 58.5	+0.7
CTA	Charters Tower	38.86	357	*e*P	P	11 12 16.1	-0.2
	7.9nm,0.9s,mb4.4						
CTAO	Charters Tower	38.86	357	*e*P	P	11 12 15.8	-0.5
	11nm,0.9s,mb4.6						
WB2	Warramunga Arr	40.21	340	*e*P	P	11 12 27.3	-0.2
WRA	Warramunga Arr	40.21	340	P	P	11 12 27.5	0.0
	4.0nm,0.7s,mb4.2,baz=167,slow=7.8,SNR=32						
WRAB	Tennant Creek	40.22	340	*e*P	P	11 12 27.2	-0.4
	24nm,1.4s,mb4.7						
SNAA	Sanae	48.05	192	*e*P	P	11 13 29.9	0.0
	7.2nm,1.0s,mb4.7						
CMAR	Chiang Mai Arr	86.94	314	LR	LR	11 52 24.2	
	comp=Z,67nm,18.4s,MS4.1,baz=165,slow=33						
YKA	Yellowknife Ar	142.07	49	PKhKP		11 24 15.0	
	0.2nm,0.8s,baz=231,slow=2.6,SNR=5.0						
GERES	GERESS Array B	151.75	269	PKPab	PKPab	11 24 52.8	-1.2
	0.6nm,0.8s,baz=135,slow=3.8,SNR=4.2						
FINES	FINESS Array B	151.83	300	PKPab	PKPab	11 24 52.0	-2.0
	2.6nm,0.8s,baz=108,slow=6.0,SNR=4.4						
FINES	FINESS Array B	151.83	300	PKPab	PKPab	11 24 52.0	-2.0
ESDC	Sonseca Array	153.71	235	PKPbc	PKPdf	11 24 51.0	+8.5
	0.2nm,0.4s,baz=333,slow=36,SNR=3.3						

IDC 12 11:20:05.3±1.0, 35.84N×57.93E, mb3.9/16, mb1 4.1/20, mb1mx4.1/25, ML3.7/2, MS3.8/1, Ms1 3.8/1, ms1mx2.9/21, Error ellipse: s-maj=26.6km s-min=15.2km az=8.0
CSEM 12 11:20:05.4±0.2, 35.98N×57.97E, h14^{km}, mb4.2/14, Error ellipse: s-maj=5.0km s-min=4.0km az=106.0
BJI 12 11:20:06.6, 36.00N×57.90E, h8^{km}, mB4.6, mb4.5, Ms4.3, Msz3.7
THR 12 11:20:07.2±0.4, 35.83N×57.80E, h15^{km}, ML4.5
MOS 12 11:20:08.5±1.3, 35.92N×57.88E, h33^{km}, mb4.5/12, Error ellipse: s-maj=11.3km s-min=6.8km az=125.8
NEIC 12 11:20:08.2, 35.83N×57.91E, h5^{km}, mb4.3/23, MS3.5/2, MN4.5(TEH), After TEH.

ISC 12 11:20:07.4±1.2**, 35.94N**±0.04×**57.88E**±0.03**, h25**^{km}±10^{km}**, n139,** σ**1$\overset{s}{.}$37**/144**, mb4.1**/30**, MS3.6**/5**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPAY	Payeh	1.04	60	Pg	Pn	11 20 26.7	+0.3
ISFR	Esferayen	1.11	5	Pg	Pn	11 20 30.0	+2.5
MHI	Mashhad	1.34	73	Pg	Pn	11 20 32.1	+1.3
IEMG	Emamqoli	1.60	23	Pn	Pn	11 20 38.1	+3.7
ISHV	Shirvan	1.60	355	Pn	Pn	11 20 38.5	+4.0
IMYA	Miamay	1.84	77	Pn	Pn	11 20 40.4	+2.5
IMIN	Minoodasht	2.45	300	Pn	Pn	11 20 48.0	+1.4
IANJ	Anjiloo	3.26	263	Pn	Pn	11 21 00.0	+1.8
IKIA	Kiasar	3.41	276	Pn	Pn	11 21 01.8	+1.5
IGLO	Galoogah	3.57	277	Pn	Pn	11 21 01.4	-1.2
ILAS	Lasjerd	4.05	264	Pn	Pn	11 21 10.4	+1.1
IFIR	Firoozkooh	4.18	267	Pn	Pn	11 21 11.9	+0.7
IFIR				Sn	Sn	11 21 59.6	-0.3
IPRN	Paran-Amol	4.58	275	Pn	Pn	11 21 16.5	-0.4
ICHK	Chekchek	4.68	219	Pn	Pn	11 21 17.6	-0.7
IBAF	Bafgh	4.74	205	Pn	Pn	11 21 18.4	-0.8
IDMV	Damavand	4.77	267	Pn	Pn	11 21 20.2	+0.6
IVRN	Varamin	5.11	261	Pn	Pn	11 21 26.6	+2.2
IVRN				Sn	Sn	11 22 21.4	-1.9
NASN	Na'in	5.23	235	*e*PN	Pn	11 21 25.6	-0.5
ISAD	Sadrabad	5.32	222	Pn	Pn	11 21 26.3	-1.0
IQOM	Qom	5.67	261	Pn	Pn	11 21 32.2	-0.1
IQOM				Sn	Sn	11 22 34.6	-2.8
KRBR	Kerman	6.01	189	*e*PN	Pn	11 21 36.8	-0.3
KRBR				AMP		11 23 27.4	
	comp=E,137nm,0.5s						
KRBR				AMP		11 23 31.8	
	comp=N,198nm,0.6s						
KRBR	Kerman	6.01	189	*e*Pn	Pn	11 21 36.9	-0.2
	comp=N,218nm,0.5s						
ASAO	Ashtian	6.58	260	*e*PN	Pn	11 21 44.8	-0.3
ASAO	Ashtian	6.58	260	*e*Pn	Pn	11 21 44.5	-0.6
ZHSF	Zahedan	6.76	158	*e*PN	Pn	11 21 47.2	-0.5
ZHSF	Zahedan	6.76	158	*e*Pn	Pn	11 21 47.3	-0.4
SHGR	Shooshtar-Gavs	8.45	246	*e*Pn	P	11 22 10.4	-0.8
GRMI	Germi	8.45	293	*e*Pn	P	11 22 09.7	-1.6
SNGE	Sanandaj	8.63	267	*e*PN	P	11 22 13.3	-0.4
SNGE	Sanandaj	8.63	267	*e*Pn	P	11 22 12.8	-1.0
MAKU	Maku	11.01	292	*e*Pn	P	11 22 45.4	-1.0
GNI	Garni	11.18	296	Pn	P	11 22 47.6	-1.1
	comp=N,0.3nm,0.3s,baz=67,slow=8.3,SNR=3.1						
ZEI	Tsey	12.79	306	*e*P	P	11 23 18.9	+8.5
AML	Almayashu	13.75	58	P	P	11 23 21.0	-2.1
	SNR=13						
AML	Almayashu	13.75	58	*e*P	P	11 23 20.6	-2.5
	comp=N,10nm,0.5s						
EKS2	Erkin-Say	14.01	57	P	P	11 23 24.9	-1.6
	SNR=11						
EKS2	Erkin-Say	14.01	57	*e*P	P	11 23 23.9	-2.6
	comp=N,11nm,0.9s						
EKS2	Erkin-Say	14.01	57	*e*P	P	11 23 23.9	-2.6
	comp=N,11nm,0.9s						
KIV	Kislovodsk	14.13	309	*e*P	P	11 23 28.5	+0.5
KIV	Kislovodsk	14.13	309	*e*P	P	11 23 28.0	0.0
KIV	Kislovodsk	14.13	309	*e*P	P	11 23 28.0	0.0
UCH	Uchtor	14.36	59	P	P	11 23 29.2	-1.8
	SNR=16						
UCH	Uchtor	14.36	59	*e*P	P	11 23 28.8	-2.2
	comp=N,7.4nm,0.7s						
UCH				*e*Sn	S	11 26 07.5	-2.8
UCH	Uchtor	14.36	59	*e*P	P	11 23 28.8	-2.2
	comp=N,7.4nm,0.7s						
AAK	Ala-Archa	14.49	57	P	P	11 23 31.5	-1.3
	SNR=5.9						
AAK	Ala-Archa	14.49	57	*e*P	P	11 23 29.6	-3.1
AAK				*e*		11 26 12.5	
AAK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
AAK	Ala-Archa	14.49	57	*e*P	P	11 23 29.6	-3.1
	comp=Z,5.4nm,0.8s						
AAK				*e*Sn	S	11 26 12.5	-0.9
AAK	Ala-Archa	14.49	57	*e*P	P	11 23 29.6	-3.1
	comp=Z,5.4nm,0.8s						
GOF	Gofitskoye	14.49	313	*e*P	P	11 23 24.0	-8.8
KSH	Kashi	14.76	71	*e*P	P	11 23 32.9	-3.4
KBK	Karagaybulak	14.81	58	P	P	11 23 36.2	-0.7
	SNR=10						
KZA	Kyzart	14.82	60	P	P	11 23 35.3	-1.8
	SNR=22						
TKM2	Tokmak 2	15.35	58	*e*P	P	11 23 41.7	-2.3
	comp=Z,2.6nm,0.4s						
TKM2	Tokmak 2	15.35	58	*e*P	P	11 23 41.7	-2.3
	comp=Z,2.6nm,0.4s						
ULHL	Ulahol	15.57	61	P	P	11 23 44.9	-2.0
	SNR=7.0						
MALT	Malatya	15.70	284	*e*P	P	11 23 49.9	+1.4
MALT				pmax	pmax		
	comp=Z,6.0nm,1.0s						
MALT	Malatya	15.70	284	*e*P	P	11 23 49.9	+1.3
	comp=Z,5.7nm,1.0s						
MALT	Malatya	15.70	284	*e*P	P	11 23 49.9	+1.4
	comp=Z,5.7nm,1.0s						
SOC	Sochi	15.90	304	*e*P	P	11 23 53.4	+2.3
SOC				*e*		11 26 51.1	
SOC				pmax	pmax		
	comp=N,25nm,0.9s						
SOC				pmax	pmax		
	comp=Z,19nm,0.9s						
SOC				pmax	pmax		
	comp=E,11nm,0.8s						
SOC	Sochi	15.90	304	*e*P	P	11 23 53.4	+2.3
	comp=E,19nm,0.9s						
SOC				*e*		11 26 51.1	
ASF	Jabal al Asfar	17.79	264	P	P	11 24 16.0	+1.1
	comp=E,0.3nm,0.3s,baz=296,slow=2.2,SNR=4.6						
BRVK	Borovoye	19.22	23	*e*P	P	11 24 30.1	-2.1
BRVK				pmax	pmax		
	comp=Z,13nm,0.8s						
BRVK	Borovoye	19.22	23	*e*P	P	11 24 30.1	-2.1
	comp=Z,13nm,0.8s						
BRVK	Borovoye	19.22	23	*e*P	P	11 24 30.1	-2.1
	comp=Z,13nm,0.8s						
BVA0	Borovoye Array	19.23	23	*i* P	P	11 24 31.9	-0.4
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BVA0	Borovoye Array	19.23	23	*i* P	P	11 24 31.9	-0.4
	comp=Z,1.0nm,0.8s						
BVAR	Borovoye Array	19.23	23	P	P	11 24 31.9	-0.3
	comp=Z,1.9nm,0.3s,baz=203,slow=11,SNR=30						
BRTR	Keskin Array B	19.50	288	P	P	11 24 36.0	+0.4
	comp=Z,0.2nm,0.3s,baz=92,slow=9.6,SNR=14						
ELDT	Eldivan	19.73	291	*i* P	P	11 24 39.1	+1.1
CHKZ	Chkalovo	19.85	23	P	P	11 24 38.7	-0.6
CHKZ				pmax	pmax		
	comp=Z,7.0nm,1.2s						
CHKZ	Chkalovo	19.85	23	*e*P	P	11 24 38.3	-1.0
	comp=Z,2.7nm,0.6s						
CHKZ	Chkalovo	19.85	23	*e*P	P	11 24 38.3	-1.0
	comp=Z,2.7nm,0.6s						
BALT	Daday	19.88	294	*i* P	P	11 24 41.2	+1.5
CSS	Prodhromos	20.02	274	*e*P	P	11 24 40.3	-0.8
	comp=Z,20nm,1.0s						
CSS	Prodhromos	20.02	274	*e*P	P	11 24 40.3	-0.8
	comp=Z,20nm,1.0s						
EIL	Elat	20.24	259	P	P	11 24 43.1	-0.5
	comp=Z,4.6nm,0.7s,baz=21,slow=7.9,SNR=3.8						
EIL	Elat	20.24	259	*e*P	P	11 24 42.4	-1.1
	comp=Z,5.7nm,0.8s						

EIL	Elat	20.24	259	*e*P	P	11 24 42.4	-1.1
	comp=Z,5.7nm,0.8s						
VRSR	Storozhevoye	20.32	325	*e*P	P	11 24 43.1	-1.1
VRSR				*e*		11 24 56.8	
VRSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,7.0nm,0.6s						
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
VRSR	Storozhevoye	20.32	325	*e*P	P	11 24 43.1	-1.1
	comp=Z,10.0nm,0.6s						
VRSR				*e*		11 24 56.8	
ARU	Arti	20.50	1	*i* P	P	11 24 46.6	+0.5
ARU				pmax	pmax		
	comp=Z,30nm,1.7s						
ARU				MLR	MLR		
	comp=Z,100nm,19.0s,MS3.2						
ARU	Arti	20.50	1	*e*P	P	11 24 46.5	+0.5
	comp=Z,17nm,0.9s						
ARU	Arti	20.50	1	*e*P	P	11 24 46.5	+0.4
	comp=Z,17nm,0.9s						
SGKT	Sivrigoynuk	20.77	291	*i* P	P	11 24 45.2	-3.7
MKAR	Makanchi Array	21.20	52	*i* P	P	11 24 54.0	+0.7
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KOLN	Koldanda	23.27	103	*e*P	P	11 25 16.0	+2.1
GKN	Gorkha	23.98	102	*e*P	P	11 25 24.1	+3.3
GKN	Gorkha	23.98	102	*e*P	P	11 25 22.1	+1.3
	comp=Z,11nm,0.7s,mb4.4						
OBN	Obninsk	24.13	329	*e*P	P	11 25 23.1	+1.1
OBN				*e*		11 25 52.5	
OBN				*i*		11 26 03.5	
OBN				pmax	pmax		
	comp=Z,29nm,1.7s,mb4.4						
OBN				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.3						
OBN	Obninsk	24.13	329	*e*P	P	11 25 23.1	+1.1
	comp=Z,29nm,1.7s,mb4.4						
OBN				*e*		11 25 52.5	
OBN				*i*		11 26 03.5	
OBN				LR	LR		
	comp=Z,100nm,20.0s,MS3.3						
DMN	Daman	24.53	102	*e*P	P	11 25 29.0	+2.8
KKN	Kakani	24.59	102	*e*P	P	11 25 29.8	+3.1
	comp=Z,12nm,0.7s,mb4.5						
PKI	Pulchoki	24.79	102	*e*P	P	11 25 30.6	+1.9
	comp=Z,37nm,1.0s,mb4.8						
GUN	Gumba	25.01	101	*e*P	P	11 25 33.9	+3.1
	comp=Z,18nm,0.6s,mb4.8						
GUN	Gumba	25.01	101	*e*P	P	11 25 33.5	+2.7
	comp=Z,9.3nm,0.7s,mb4.4						
AKASG	Malin Array Be	25.34	315	P	P	11 25 35.3	+1.7
	comp=Z,11nm,0.6s,mb4.6,baz=120,slow=8.7,SNR=34						
AKASG	Malin Array Be	25.34	315	P	P	11 25 35.3	+1.7
AKASG				pmax	pmax		
	comp=Z,11nm,0.6s						
MLR	Muntele Rosu	25.88	302	P	P	11 25 41.4	+2.7
	comp=Z,5.8nm,0.6s,mb4.3,baz=165,slow=9.0,SNR=4.6						
ZAL	Zalesovo	25.96	38	P	P	11 25 40.4	+0.9
	comp=Z,0.8nm,0.7s,mb3.4,baz=219,slow=10,SNR=3.1						
ZAL	Zalesovo	25.96	38	P	P	11 25 40.3	+0.9
FINES	FINESS Array B	32.45	332	P	P	11 26 37.9	+0.4
	comp=Z,3.0nm,0.9s,mb4.1,baz=127,slow=9.5,SNR=4.1						
GERES	GERESS Array B	34.60	306	P	P	11 26 56.6	+0.3
	comp=Z,0.5nm,0.5s,mb3.7,baz=100,slow=8.1,SNR=6.9						
TLY	Talaya	35.93	49	*e*P	P	11 27 08.0	+0.5
TLY				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
TLY				MLR	MLR		
	comp=Z,100nm,12.0s,MS3.8						
HFS	Hagfors	37.15	325	P	P	11 27 18.7	+1.1
	comp=Z,2.1nm,0.7s,mb4.1,baz=108,slow=9.4,SNR=7.8						
SONM	Songino Array	37.44	56	P	P	11 27 22.3	+2.0
	comp=Z,0.2nm,0.5s,mb3.2,baz=256,slow=10,SNR=3.5						
ARCES	ARCESS Array B	38.00	342	P	P	11 27 25.4	+0.6
	comp=Z,9.3nm,1.0s,mb4.5,baz=9.5,slow=7.4,SNR=3.7						
ARCES				LR	LR	11 47 34.3	
	comp=Z,148nm,20.4s,MS3.8,baz=202,slow=43						
NB2	NORSAR Subarra	38.61	325	P	P	11 27 29.5	-0.4
	comp=Z,4.9nm,1.1s,mb4.2,baz=113,slow=7.9						
NB2	NORSAR Subarra	38.61	325	P	P	11 27 29.5	-0.4
NB2				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
NOA	NORSAR Array B	38.61	325	P	P	11 27 29.9	0.0
	comp=Z,1.2nm,0.7s,mb3.8,baz=112,slow=8.1,SNR=3.9						
CDF	Champ du Feu	38.84	305	*e*P	P	11 27 30.6	-1.4
LPL	La Plagne	39.34	300	*e*P	P	11 27 35.1	-1.1
	comp=Z,2.3nm,0.4s,mb3.9						
LPL	La Plagne	39.34	300	*e*P	P	11 27 35.1	-1.1
LPL				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
MBDF	Montbardon	39.38	299	*e*P	P	11 27 34.1	-2.4
	comp=Z,17nm,1.0s,mb4.5						
MBDF	Montbardon	39.38	299	*e*P	P	11 27 34.1	-2.4
MBDF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
HAU	Haudompre	39.47	304	*e*P	P	11 27 39.0	+1.8
	comp=Z,12nm,0.9s,mb4.3						
HAU	Haudompre	39.47	304	*e*P	P	11 27 39.0	+1.8
HAU				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
CABF	La Chapelle	39.71	302	*e*P	P	11 27 39.0	-0.2
	comp=Z,9.6nm,0.8s,mb4.3						
CABF	La Chapelle	39.71	302	*e*P	P	11 27 39.0	-0.2
CABF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
KMI	Kunming	39.81	93	*e*P	P	11 27 47.0	+6.7
KMI				AP	pP	11 27 52.5	+4.6
KMI				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.4						
KMI				AMB	AMB		
	comp=Z,70nm,5.8s						
KMI				LR	LR		
	comp=N,172nm,15.5s,MS4.1						
KMI				LR	LR		
	comp=E,134nm,13.8s,MS4.1						
KMI				LR	LR		
	comp=Z,110nm,21.3s						
KMI	Kunming	39.81	93	*e*P	P	11 27 47.0	+6.7
	comp=Z,8.0nm,1.0s,mb4.4						
KMI				pP	pP	11 27 52.5	+4.6
KMI				LR	LR		
	comp=Z,110nm,21.3s,MS3.7						
CMAR	Chiang Mai Arr	40.12	105	P	P	11 27 44.0	+1.1
	comp=Z,1.5nm,0.8s,mb3.8,baz=299,slow=7.7,SNR=7.2						
MEZF	Maizieres J'vi	40.32	305	*e*P	P	11 27 43.6	-0.6
	comp=Z,5.1nm,0.6s,mb4.2						
SMF	Signal de Mont	41.25	302	*e*P	P	11 27 52.2	+0.3
SSF	Saint Saulge	41.45	303	*e*P	P	11 27 52.8	-0.7
AVF	Avril sur Loir	41.58	303	*e*P	P	11 27 54.3	-0.2
	comp=Z,10nm,0.9s,mb4.2						
AVF	Avril sur Loir	41.58	303	*e*P	P	11 27 54.3	-0.2
AVF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.1						
EKA	Eskdalemuir Ar	45.25	315	P	P	11 28 24.8	+0.6
	comp=Z,0.7nm,0.5s,mb3.8,baz=104,slow=8.1,SNR=4.1						
SGMF	Saint Gilles	45.40	305	*e*P	P	11 28 23.1	-2.3
ROSF	Rostrenen	45.86	305	*e*P	P	11 28 30.1	+1.0
	comp=Z,34nm,1.0s,mb4.9						
ROSF	Rostrenen	45.86	305	*e*P	P	11 28 30.1	+1.0
ROSF				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
ESDC	Sonseca Array	48.16	294	P	P	11 28 46.0	-1.3
	comp=Z,0.7nm,0.6s,mb3.9,baz=67,slow=7.9,SNR=5.6						
TIXI	Tiksi	50.36	23	*e*P	P	11 29 07.8	+4.0
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
TIXI	Tiksi	50.36	23	*e*P	P	11 29 07.8	+4.0
	comp=Z,2.0nm,1.1s,mb4.1						
YAK	Yakutsk	50.60	35	*i* P	P	11 29 06.2	+0.5
ILAR	Eielson Array	77.76	11	P	P	11 32 03.4	+0.1
	comp=Z,0.8nm,1.1s,mb3.6,baz=333,slow=4.0,SNR=4.1						
ILAR	Eielson Array	77.76	11	P	P	11 32 03.3	+0.1
YKA	Yellowknife Ar	81.73	356	P	P	11 32 24.6	+0.1
	comp=Z,0.5nm,0.8s,mb3.5,baz=1.5,slow=5.8,SNR=11						
YKA	Yellowknife Ar	81.73	356	*e*P	P	11 32 24.6	0.0
WRA	Warramunga Arr	91.11	114	P	P	11 33 09.7	-1.7
	comp=Z,0.2nm,0.7s,mb3.5,baz=317,slow=4.1,SNR=7.3						

*TAP **12** 11:20:13.7,24.32N×122.90E,h15^{km}±1^{km},ML3.6*

JMA 12 11:20:14.6±0.1**,24.38N×122.99E,h48**^{km}±1^{km}**,M2.9, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.08	13	P	P	11 20 22.1	+0.1
YOJ				S	S	11 20 27.5	0.0
IRIF	Iriomote-Funau	0.68	94	P	P	11 20 27.8	-0.2
IRIF				*e*S	S	11 20 37.7	-0.1
HATJ	Hateruma jima	0.81	113	P	P	11 20 29.8	0.0
HATJ				*e*S	S	11 20 40.3	-0.7
JKRS	Kuro-shima	0.94	98	P	P	11 20 32.0	+0.4
JKRS				*e*S	S	11 20 44.7	+0.5
JIJ	Ishigaki jima	1.05	91	P	P	11 20 32.8	-0.4
JIJ				*e*S	S	11 20 45.9	-1.1
JTJ	Tarama	1.58	80	P	P	11 20 40.9	+0.2
JTJ				*e*S	S	11 21 00.7	+0.6
JMJ	Miyako jima 2	2.14	78	*e*S	S	11 21 14.0	-0.1
JOGS	Gusukube	2.23	80	*e*S	S	11 21 15.8	-0.6

*IDC **12** 11:20:27.0±2.5,1.79S×15.58W,mb3.9/4,mb1 4.0/5, mb1mx3.6/20,ML3.6/1,MS3.8/7,Ms1 3.8/7,ms1mx3.4/20, Error ellipse: s-maj=108.0km s-min=30.3km az=139.0*

*NEIC **12** 11:20:28.9±0.6,1.72S×15.59W,h10^{km},mb4.2/3,Error ellipse: s-maj=18.6km s-min=13.0km az=151.0*

ISC 12 11:20:27.1±0.7**,1.7S**±0.1×**15.6W**±0.1**,h10**^{km}**,n16,**σ**0**^{s}**91**/9**, mb3.9**/7**,MS3.9**/6**,North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBIC	Dimbokro	13.55	52	Pn	P	11 23 41.7	-0.4
	0.3nm,0.3s,baz=217,slow=13,SNR=8.2						
DBIC				LR	LR	11 28 06.7	
	comp=Z,315nm,18.5s,baz=224,slow=34						
DBIC	Dimbokro	13.55	52	*e*P	P	11 23 41.5	-0.6
	34nm,1.3s						
DBIC				LR	LR	11 28 06.7	
BDFB	Brasilia	34.85	245	P	P	11 27 19.7	-1.0
	5.3nm,1.1s,mb4.4,baz=112,slow=19,SNR=2.7						
BDFB				LR	LR	11 38 48.1	
	comp=Z,93nm,18.8s,MS3.5,baz=255,slow=32						
LBTB	Lobatse	45.99	124	P	P	11 28 53.3	+0.6
	0.8nm,0.5s,mb3.9						
BOSA	Boshof	47.26	128	*e*P	P	11 29 02.5	-0.2
	1.3nm,0.6s,mb4.0						
BOSA				*e*	pP	11 29 06.7	+1.0
SAML	Samuel	47.90	260	*e*P	P	11 29 08.2	+0.3
	2.4nm,1.1s,mb4.1						
KMBO	Kilima Mbogo	52.82	90	LR	LR	11 50 23.2	
	comp=Z,216nm,19.5s,MS4.2,baz=277,slow=34						
LPAZ	La Paz	53.71	251	LR	LR	11 52 26.7	
	comp=Z,139nm,19.7s,MS4.0,baz=42,slow=36						
GERES	GERESS Array B	56.35	23	P	P	11 30 11.4	+0.6
	0.6nm,0.8s,mb3.7,baz=219,slow=6.3,SNR=3.8						
ASF	Jabal al Asfar	59.95	51	LR	LR	11 56 14.8	
	comp=Z,22nm,18.8s,MS3.3,baz=70,slow=36						
HFS	Hagfors	65.72	16	P	P	11 31 12.6	-1.4
	1.2nm,0.7s,mb4.1,baz=180,slow=4.4,SNR=3.6						
SADO	Sadowa	72.74	318	LR	LR	11 58 49.9	
	comp=Z,82nm,18.8s,MS4.0,baz=179,slow=32						
PDAR	Pinedale Array	94.05	313	LR	LR	12 10 22.0	
	comp=Z,69nm,20.3s,MS4.1,baz=334,slow=32						
YKA	Yellowknife Ar	95.66	333	P	P	11 33 55.6	+1.6
	0.1nm,0.7s,mb3.4,baz=83,slow=5.2,SNR=3.7						
WRA	Warramunga Arr	143.50	128	PKP	PKPdf	11 40 04.2	-1.8
	0.4nm,0.7s,baz=245,slow=2.9,SNR=7.5						
WRAB	Tennant Creek	143.52	128	*e*PKPpre		11 40 02.5	

WEL 12 11:31:35.0±0.2**,40.39S×173.35E,h168**^{km}±2^{km}**,ML3.7**/9**, 2C-3D,Error ellipse: s-maj=1.4km s-min=1.0km az=90.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QRZ	Quartz Range	0.76	235	⇑PN	P	11 31 59.7	-0.4
QRZ				SN	S	11 32 18.3	-1.2
NNZ	Nelson	0.83	178	PN	P	11 32 00.3	-0.2
NNZ				SN	S	11 32 19.3	-0.8
TUWZ	Tuamarina	1.13	157	PN	P	11 32 02.9	0.0
TUWZ				SN	S	11 32 23.3	-1.0
NWEZ	Newall Road	1.18	20	*e*PN	P	11 32 03.3	+0.1
DFE	Dawson Falls	1.21	29	PN	P	11 32 03.2	-0.3
NEZ	North Egmont	1.25	27	PN	P	11 32 03.4	-0.5
KIW	Kapiti Island	1.28	112	PN	P	11 32 03.9	-0.2
MRW	Makara Radio	1.32	130	⇓PN	P	11 32 04.5	-0.1
MRW				SN	S	11 32 25.9	-1.6
RAEZ	Rainy Point	1.36	36	PN	P	11 32 04.4	-0.5
BSWZ	Blackbirch Sta	1.38	163	PN	P	11 32 05.1	-0.1
BSWZ				SN	S	11 32 26.8	-1.7
WEL	Wellington	1.40	130	PN	P	11 32 05.1	-0.3
WAZ	Wanganui	1.41	64	PN	P	11 32 05.3	0.0
WAZ				SN	S	11 32 29.7	+0.8
THZ	Tophouse	1.41	194	PN	P	11 32 04.9	-0.6
THZ				SN	S	11 32 26.9	-2.1
CAW	Cannon Point	1.49	119	PN	P	11 32 05.9	-0.3
BHW	Baring Head	1.54	132	PN	P	11 32 06.2	-0.5
MRZ	Mangatainoka R	1.72	100	PN	P	11 32 07.8	-0.7
MRZ				SN	S	11 32 32.4	-2.1
MSWZ	Moikau Station	1.77	126	⇓PN	P	11 32 08.4	-0.6
MSWZ				SN	S	11 32 32.9	-2.4
DSZ	Denniston Nort	1.79	220	⇑PN	P	11 32 08.2	-1.1
DSZ				SN	S	11 32 33.7	-2.1
MTW	Mount Morrison	1.81	116	⇓PN	P	11 32 08.9	-0.5
PAWZ	Paruwai Farm	1.86	123	PN	P	11 32 09.4	-0.7
PAWZ				SN	S	11 32 34.9	-2.2
TSZ	Takapari Road	2.03	82	PN	P	11 32 11.1	-0.8
TSZ				SN	S	11 32 37.9	-2.4
KHZ	Kahutara	2.03	176	PN	P	11 32 10.9	-1.0
CNZ	Chateau	2.07	56	PN	P	11 32 11.1	-1.3
MOVZ	Moawhango	2.09	63	PN	P	11 32 11.0	-1.6
MOVZ				SN	S	11 32 38.3	-3.3
TUVZ	Tukino	2.10	58	PN	P	11 32 11.5	-1.2
NGZ	Ngauruhoe	2.12	56	PN	P	11 32 11.3	-1.6
MGZ	Maungaku	2.18	51	*e*PN	P	11 32 12.2	-1.6
BFZ	Birch Farm	2.23	98	PN	P	11 32 13.5	-0.8
LTZ	Lake Taylor	2.52	198	PN	P	11 32 16.1	-1.8
WVZ	Waitaha Valley	3.32	215	PN	P	11 32 24.8	-3.0
WVZ				SN	S	11 33 02.7	-5.7
MQZ	McQueen's Vall	3.36	189	PN	P	11 32 25.0	-3.2
MWZ	Matawai	3.83	59	*e*PN	P	11 32 30.4	-4.0

*STR **12** 11:52:13.1±2.2,40.22N×9.45E,h10^{km}±1^{km},Ml3.8,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*IDC **12** 11:52:13.0±2.2,40.77N×10.25E,mb3.4/4,mb1 3.7/8, mb1mx3.5/22,ML3.8/4,MS2.7/1,Ms1 2.8/1,ms1mx2.5/18, Error ellipse: s-maj=42.9km s-min=25.2km az=145.0*

*NEIC **12** 11:52:14.5,40.86N×10.14E,h10^{km},mb3.8/1, ML3.8(LDG),ML3.8(STR),ML3.6(ROM),After ROM.*

*CSEM **12** 11:52:15.9±0.1,40.91N×10.23E,h15^{km},ML3.8/7,Error ellipse: s-maj=2.2km s-min=1.2km az=10.0*

*LDG **12** 11:52:16.7±0.3,40.90N×10.04E,h10^{km},Ml3.8/9,Error ellipse: s-maj=7.7km s-min=4.0km az=91.0*

ROM 12 11:52:14.4±0.3**,40.86N×10.14E,h10**^{km}**,ML3.6,9C-3D, Error ellipse: s-maj=3.2km s-min=3.0km az=0.0, Tyrrhenian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSL	Villasalto	1.48	203	*e*PN	Pn	11 52 41.8	+0.5
VSL	Villasalto	1.48	203	*e*Pn	Pn	11 52 41.8	+0.5
MAON	Monte Argentar	1.73	25	*e*PN	Pn	11 52 44.1	-0.7
MAON	Monte Argentar	1.73	25	*e*Pn	Pn	11 52 44.1	-0.8
TOLF	Tolfa	1.84	49	*e*PN	Pn	11 52 45.4	-1.0
TOLF	Tolfa	1.84	49	*e*Pn	Pn	11 52 45.4	-1.0
PGF	Pioggiola	1.89	333	*e*Pn	Pn	11 52 46.7	-0.4
PGF				*e*Sn	Sn	11 53 09.2	-2.0
	720nm,0.3s						
GRFL	Gerfalco	2.37	15	*e*PN	Pn	11 52 52.6	-1.3
GRFL	Gerfalco	2.37	15	*e*Pn	Pn	11 52 52.6	-1.3
CERT	Cerreto	2.40	62	*e*PN	Pn	11 52 53.6	-0.8
CERT	Cerreto	2.40	62	*e*Pn	Pn	11 52 53.6	-0.8
MNS	Montasola	2.44	51	*e*PN	Pn	11 52 53.7	-1.2
MNS	Montasola	2.44	51	*e*Pn	Pn	11 52 53.7	-1.2
VENT	Ventotene	2.49	90	*e*PN	Pn	11 52 53.9	-1.8
VENT	Ventotene	2.49	90	*e*Pn	Pn	11 52 53.9	-1.8
PTQR	Pietraquaria	2.71	64	*e*PN	Pn	11 52 58.0	-0.8
PTQR	Pietraquaria	2.71	64	*e*Pn	Pn	11 52 58.0	-0.8
CSNT	Castellina Chi	2.75	18	*e*PN	Pn	11 52 58.3	-1.0
CSNT	Castellina Chi	2.75	18	*e*Pn	Pn	11 52 58.3	-1.0
AQU	L'Aquila	2.86	58	*e*Pn	Pn	11 53 01.8	+0.8
AQU	L'Aquila	2.86	58	*e*Pn	Pn	11 53 01.8	+0.8
PII	Pisa	2.87	6	*e*PN	Pn	11 53 00.3	-0.9
PII	Pisa	2.87	6	*e*Pn	Pn	11 53 00.3	-0.9
SDI	San Donato	2.89	72	*e*PN	Pn	11 53 00.2	-1.2
SDI	San Donato	2.89	72	*e*Pn	Pn	11 53 00.2	-1.2
MSC	Monte Massico	2.92	82	*e*PN	Pn	11 53 00.1	-1.7
MSC	Monte Massico	2.92	82	*e*Pn	Pn	11 53 00.1	-1.6
RFI	Roccamonfina	2.94	80	⇑*i*PN	Pn	11 53 01.1	-1.0
RFI	Roccamonfina	2.94	80	⇑*i*Pn	Pn	11 53 01.1	-1.0
INTR	Introdacqua	3.05	67	*e*PN	Pn	11 53 04.3	+0.6
INTR	Introdacqua	3.05	67	*e*Pn	Pn	11 53 04.3	+0.6
MAIM		3.06	5	P	Pn	11 53 03.1	-0.7
MAIM				S	Sn	11 53 41.9	+1.0
MAIM		3.06	5	P	Pn	11 53 03.1	-0.7
MAIM				S	Sn	11 53 41.9	+1.0
ISOR	Termini	3.20	94	*e*PN	Pn	11 53 03.0	-2.8
SGG	Gregorio Mates	3.24	79	⇓*i*PN	Pn	11 53 05.2	-1.2
SGG	Gregorio Mates	3.24	79	⇓*i*Pn	Pn	11 53 05.2	-1.3
CII	Carovilli	3.25	73	*e*PN	Pn	11 53 06.1	-0.5
VINC	Vinca	3.28	0	P	Pn	11 53 06.1	-0.8
VINC				S	Sn	11 53 46.6	+0.2
VINC	Vinca	3.28	0	P	Pn	11 53 06.1	-0.8
VINC	Vinca	3.28	0	P	Pn	11 53 06.1	-0.8
VINC				S	Sn	11 53 46.6	+0.2
VINC				S	Sn	11 53 46.6	+0.2
SARO	Sassorosso	3.33	3	P	Pn	11 53 06.5	-1.1
SARO				S	Sn	11 53 48.2	+0.5
SARO	Sassorosso	3.33	3	P	Pn	11 53 06.5	-1.1
SARO	Sassorosso	3.33	3	P	Pn	11 53 06.5	-1.1
SARO				S	Sn	11 53 48.2	+0.6
SARO				S	Sn	11 53 48.2	+0.6
BACM		3.42	359	P	Pn	11 53 08.0	-0.8
BACM				S	Sn	11 53 49.7	-0.2
BACM		3.42	359	P	Pn	11 53 08.0	-0.9
BACM				S	Sn	11 53 49.7	-0.2
FSSB	Fossombrone	3.44	34	*e*PN	Pn	11 53 09.4	+0.2
FSSB	Fossombrone	3.44	34	*e*Pn	Pn	11 53 09.4	+0.2
IMI	Imperia	3.47	332	*e*PN	Pn	11 53 07.5	-2.2
IMI	Imperia	3.47	332	*e*Pn	Pn	11 53 07.5	-2.2
IMI	Imperia	3.47	332	P	Pn	11 53 07.0	-2.7
IMI				S	Sn	11 53 47.8	-3.5
VALM		3.49	1	P	Pn	11 53 08.9	-1.0
VALM		3.49	1	P	Pn	11 53 08.9	-1.0
NEGI	Negi	3.49	330	P	Pn	11 53 06.7	-3.3
NEGI				S	Sn	11 53 47.4	-4.3
NEGI	Negi	3.49	330	P	Pn	11 53 06.7	-3.2
CODM		3.53	357	P	Pn	11 53 09.7	-0.8
CODM				S	Sn	11 53 53.1	+0.2
CODM		3.53	357	P	Pn	11 53 09.7	-0.9
CODM				S	Sn	11 53 53.1	+0.2
IPES	Pescosannita	3.57	82	*e*PN	Pn	11 53 09.1	-1.9
SBF	Sospel	3.61	327	*e*Pn	Pn	11 53 09.5	-2.1
SBF				*e*Sn	Sn	11 53 50.5	-4.2
	70nm,0.3s						
GRAM		3.63	359	P	Pn	11 53 10.7	-1.2
FIN	Finale Ligure	3.64	338	*e*Pn	Pn	11 53 10.1	-2.0
FIN	Finale Ligure	3.64	338	P	Pn	11 53 09.5	-2.5
FIN				S	Sn	11 53 52.0	-3.5
FIN	Finale Ligure	3.64	338	*e*Pn	Pn	11 53 10.1	-1.9
GENL	Genova Univers	3.65	347	P	Pn	11 53 09.3	-2.8
GENL	Genova Univers	3.65	347	P	Pn	11 53 09.3	-2.8
LMR	La Mourre	3.66	314	*e*Pn	Pn	11 53 09.9	-2.5
LMR				*e*Sn	Sn	11 53 50.7	-5.4
	59nm,0.3s						
LMR	La Mourre	3.66	314	*e*Sn	Sn	11 53 50.7	-5.4
	29nm,0.3s						
SAOF	Saorge	3.66	329	Pn	Pn	11 53 10.2	-2.2
SAOF				Pg	Pg	11 53 27.8	+0.2
SAOF	Saorge	3.66	329	Pg	Pg	11 53 27.8	+0.2
MONE	Monesi	3.67	332	P	Pn	11 53 10.5	-2.0
MONE	Monesi	3.67	332	P	Pn	11 53 10.5	-2.0
CSSN	Cassano Irpino	3.70	88	*e*PN	Pn	11 53 10.5	-2.4
AUTN	L'Aution	3.72	328	Pn	Pn	11 53 11.9	-1.3
AUTN				Pg	Pg	11 53 29.6	+0.9
AUTN	L'Aution	3.72	328	Pg	Pg	11 53 29.6	+0.9
FRF	La Foret Royal	3.74	317	*e*Pn	Pn	11 53 11.5	-2.0
FRF				*e*Sn	Sn	11 53 53.3	-4.9
	36nm,0.2s						
FRF	La Foret Royal	3.74	317	*e*Sn	Sn	11 53 53.3	-4.9
	18nm,0.2s						
MVIF	Mont Vial	3.75	325	Pn	Pn	11 53 12.0	-1.7
MVIF				Pg	Pg	11 53 30.2	+0.8
MVIF	Mont Vial	3.75	325	Pg	Pg	11 53 30.2	+0.8
CALN	Calern	3.76	321	Pn	Pn	11 53 12.4	-1.4
CALN				Pg	Pg	11 53 30.1	+0.5
CALN	Calern	3.76	321	Pg	Pg	11 53 30.1	+0.5
TOUF	Mont Tournerai	3.81	327	Pn	Pn	11 53 12.7	-1.8
ROB	Roburent	3.82	335	P	Pn	11 53 11.8	-2.8
ROB	Roburent	3.82	335	P	Pn	11 53 11.8	-2.8
PCP	Pian Castagno	3.86	343	P	Pn	11 53 13.5	-1.7
PCP	Pian Castagno	3.86	343	P	Pn	11 53 13.5	-1.7
ENR	Entracque	3.92	330	P	Pn	11 53 13.8	-2.2
SGO	Sicignano	3.94	93	*e*PN	Pn	11 53 14.5	-1.8
STV	Sta Anna Valdi	3.97	329	P	Pn	11 53 13.5	-3.3
STV	Sta Anna Valdi	3.97	329	P	Pn	11 53 13.5	-3.2
STV2	Anna di Valdie	3.97	329	P	Pn	11 53 14.3	-2.4
STV2	Anna di Valdie	3.97	329	P	Pn	11 53 14.3	-2.4
MRLC	Muro Lucano	4.06	90	*e*PN	Pn	11 53 16.1	-1.9
MRLC	Muro Lucano	4.06	90	*e*Pn	Pn	11 53 16.1	-1.9
TAVF	Tavernes	4.10	314	Pn	Pn	11 53 17.1	-1.4
TAVF				Pg	Pg	11 53 35.0	-1.2
TAVF	Tavernes	4.10	314	Pg	Pg	11 53 35.0	-1.2
BERF	Bertagne	4.12	308	Pn	Pn	11 53 16.7	-2.2
MGR	Morigerati	4.19	98	*e*PN	Pn	11 53 16.5	-3.4
MGR	Morigerati	4.19	98	*e*Pn	Pn	11 53 16.5	-3.3
PZZ	Prazzo	4.28	329	P	Pn	11 53 17.8	-3.3
PZZ	Prazzo	4.28	329	P	Pn	11 53 17.8	-3.3
GELF	Grande-Etoile	4.32	307	Pn	Pn	11 53 19.1	-2.6
GELF				Pg	Pg	11 53 37.8	-2.8
GELF	Grande-Etoile	4.32	307	Pg	Pg	11 53 37.8	-2.8
SURF	Saint Ours	4.37	327	Pn	Pn	11 53 22.0	-0.5
SURF				Pg	Pg	11 53 40.1	-1.6
SURF	Saint Ours	4.37	327	Pg	Pg	11 53 40.1	-1.6
STOF	St-Etienne Org	4.43	316	Pn	Pn	11 53 24.3	+1.0
VILF	Villemus	4.44	314	Pn	Pn	11 53 21.9	-1.5
TREF	Trevaresse	4.48	310	Pn	Pn	11 53 22.5	-1.5
TREF				Pg	Pg	11 53 40.4	-3.5
TREF	Trevaresse	4.48	310	Pg	Pg	11 53 40.4	-3.5
BHB	Bricherasio	4.51	333	P	Pn	11 53 20.9	-3.5
BHB	Bricherasio	4.51	333	P	Pn	11 53 20.9	-3.5
MBDF	Montbardon	4.59	328	*e*Pn	Pn	11 53 24.1	-1.5
SMRF	Simiane la Rot	4.59	314	*e*Pn	Pn	11 53 24.0	-1.6
SMRF				*e*Sn	Sn	11 54 13.0	-6.7
	24nm,0.3s						
OG22	Abries	4.60	330	Pg	Pg	11 53 41.8	-4.5
OG25	Le Caire	4.62	321	Pg	Pg	11 53 42.0	-4.6
PRAF	Pradon	4.71	310	Pn	Pn	11 53 25.1	-2.2
PRAF				Pg	Pg	11 53 43.3	-5.2
PRAF	Pradon	4.71	310	Pg	Pg	11 53 43.3	-5.2
RRL	Cesana Torines	4.75	330	P	Pn	11 53 26.7	-1.1
RRL	Cesana Torines	4.75	330	P	Pn	11 53 26.7	-1.1
RSP	Reno Superiore	4.78	335	P	Pn	11 53 25.2	-3.1
RSP	Reno Superiore	4.78	335	P	Pn	11 53 25.2	-3.1
BNI	Bardonecchia	4.90	330	*e*P	Pn	11 53 29.2	-0.7
BNI	Bardonecchia	4.90	330	*e*P	Pn	11 53 29.2	-0.7
TRAV		4.97	340	P	Pn	11 53 27.9	-3.0
ORX	Oropa	5.02	342	P	Pn	11 53 29.4	-2.3
ORX	Oropa	5.02	342	P	Pn	11 53 29.4	-2.3
LSD	Ceresole Reale	5.09	336	P	Pn	11 53 30.6	-2.0
LSD	Ceresole Reale	5.09	336	P	Pn	11 53 30.6	-2.0
ORIF	Oris-en-Rattie	5.12	324	*e*Pn	Pn	11 53 30.5	-2.6
LPG	La Plagne	5.25	333	*e*Pn	Pn	11 53 34.1	-0.9
LPL	La Plagne	5.28	333	*e*Pn	Pn	11 53 33.4	-1.9
LPL				*e*Sn	Sn	11 54 30.9	-6.0
	24nm,0.5s						
LASF	Ste Croix	5.65	307	*e*Pn	Pn	11 53 36.4	-4.1
LASF				*e*Sn	Sn	11 54 38.6	-7.6
	18nm,0.4s						
LASF	Ste Croix	5.65	307	*e*Sn	Sn	11 54 38.6	-7.6
	9.1nm,0.4s						
EJON	La Jonquera	5.66	289	Pn	Pn	11 53 43.0	+2.4
EJON				Pg	Pg	11 53 54.0	-13
EJON				Sn	Sn	11 54 54.7	+8.2
EJON	La Jonquera	5.66	289	Pn	Pn	11 53 43.0	+2.3
	6.7nm,0.3s,SNR=5.3						
VIVF	Saint-Julien-l	5.67	317	*e*Pn	Pn	11 53 37.3	-3.4
SJAF	Saint Jean de	5.67	289	Pg	Pg	11 53 54.1	-14
VOY	Vojsko	5.84	27	*e*(P)	Pn	11 53 44.4	+1.1
VOY				*e*		11 53 58.7	
VOY				*e*		11 54 33.8	
DAVOX	Davos	5.92	358	Pn	Pn	11 53 44.8	+0.4

	0.7nm,0.3s,baz=176,slow=11,SNR=13						
FILF	Fillols	5.92	289	Pg	Pg	11 54 00.6	-12
VALF	Valcebollere	6.28	287	Pg	Pg	11 54 03.9	-16
MTLF	Montolieu	6.39	295	ePn	Pn	11 53 46.8	-4.2
MTLF				eSn	Sn	11 54 55.5	-9.4
	9.5nm,0.4s						
SQTA	Sankt Quirin	6.40	7	⇑iP	Pn	11 53 51.9	+0.7
SQTA				i		11 54 09.2	
DAVA	Damuels	6.43	358	⇓iP	Pn	11 53 52.7	+1.2
	4.1nm,0.5s						
CABF	La Chapelle	6.45	334	ePn	Pn	11 53 48.6	-3.3
WTTA	Wattenberg	6.49	9	⇑iP	Pn	11 53 52.6	+0.2
	5.6nm,1.4s						
WTTA				i		11 54 10.9	
	31nm,0.9s						
MOTA	Moosalm	6.52	6	⇑iP	Pn	11 53 53.1	+0.3
MOTA				i		11 54 09.8	
WATA	Walderalm	6.55	9	⇑iP	Pn	11 53 53.8	+0.5
WATA				i		11 54 11.4	
EMIR	Miracle	6.56	282	Pn	Pn	11 53 55.5	+2.0
EMIR	Miracle	6.56	282	S	Sn	11 55 12.5	+3.3
EMIR	Miracle	6.56	282	S	Sn	11 55 12.5	+3.4
KBA	Koelnbreinsper	6.63	19	⇑iP	Pn	11 53 53.9	-0.5
	3.1nm,0.8s						
KBA				i		11 54 11.2	
	17nm,1.0s						
EPOB	Poblet	6.86	277	Pn	Pn	11 53 56.7	-0.9
EPOB				Pg	Pg	11 54 14.6	-17
EPOB				Sn	Sn	11 55 25.1	+8.5
EPOB	Poblet	6.86	277	Pn	Pn	11 53 56.7	-0.9
	5.6nm,0.3s,SNR=9.4						
EPOB	Poblet	6.86	277	Pg	Pg	11 54 14.6	-17
	SNR=7.9						
EIBI	Ibiza	7.00	258	Pn	Pn	11 53 59.6	0.0
EIBI	Ibiza	7.00	258	Pn	Pn	11 53 59.7	+0.1
CAF	Calviac	7.19	307	ePn	Pn	11 53 58.7	-3.5
HINF	Hinteralfeld	7.34	342	ePn	Pn	11 53 59.8	-4.5
HINF				eSn	Sn	11 55 18.2	-10
	13nm,0.7s						
SMF	Signal de Mont	7.36	324	ePn	Pn	11 54 00.5	-4.1
ARSA	Arzberg	7.47	29	⇑iP	Pn	11 54 06.3	+0.2
	8.3nm,0.9s						
ARSA				i		11 54 23.7	
	36nm,0.6s						
MOA	Molln	7.58	22	⇑iP	Pn	11 54 07.8	+0.1
	3.1nm,0.8s						
MOA				i		11 54 26.2	
	10nm,0.6s						
EPF	Esparros	7.62	290	ePn	Pn	11 54 02.9	-5.4
HAU	Haudompre	7.64	340	ePn	Pn	11 54 04.0	-4.5
AVF	Avril sur Loir	7.69	323	ePn	Pn	11 54 05.4	-3.9
EBIE	Bielsa	7.69	287	Pn	Pn	11 54 09.9	+0.7
EBIE				Pg	Pg	11 54 27.6	-20
EBIE				Sn	Sn	11 55 44.8	+7.4
EBIE	Bielsa	7.69	287	Pn	Pn	11 54 09.9	+0.6
	SNR=7.9						
RJF	Les Rejaudoux	7.72	308	ePn	Pn	11 54 06.0	-3.6
CDF	Champ du Feu	7.82	346	ePn	Pn	11 54 07.8	-3.2
SSF	Saint Saulge	7.83	325	ePn	Pn	11 54 06.0	-5.2
TCF	Toulx Ste Croi	7.91	316	ePn	Pn	11 54 07.7	-4.6
LFF	La Frestale	8.01	304	ePn	P	11 54 09.2	-4.5
ESAC	San Caprasio	8.04	280	Pn	P	11 54 16.2	+2.1
ESAC				Pg	P	11 54 32.4	+18
ESAC				Sn	Sn	11 55 57.6	+12
EMOS	Mosqueruela	8.09	270	Pn	P	11 54 15.3	+0.5
EMOS	Mosqueruela	8.09	270	Pn	P	11 54 15.3	+0.5
	SNR=7.9						
ETSF	Etsaut	8.24	288	ePn	P	11 54 11.9	-5.0
EBEN	Beniarda	8.27	258	Pn	P	11 54 17.4	+0.1
EBEN	Beniarda	8.27	258	Pn	P	11 54 17.4	+0.1
	SNR=7.9						
GERES	GERESS Array B	8.37	16	Pn	P	11 54 16.2	-2.5
	0.3nm,0.3s,baz=193,slow=12,SNR=14						
SJPF	Ste Jean	8.76	289	ePn	P	11 54 19.8	-4.3
ZST	Bratislava	8.86	32	ePN	P	11 54 19.5	-5.9
ZST				e		11 54 42.1	
KOLL	Kolacno	9.70	35	eP	P	11 54 44.3	+7.3
KOLL	Kolacno	9.70	35	e	P	11 54 44.3	+7.3
EVIA	Vianos	9.99	261	Pn	P	11 54 40.6	-0.4
	24nm,0.5s						
EVIA	Vianos	9.99	261	Pn	P	11 54 40.6	-0.4
	SNR=7.9						
MORC	Moravsky Berou	10.32	28	eP	P	11 54 42.6	-3.0
ESDC	Sonseca Array	10.85	268	Pn	P	11 54 50.2	-2.6
	0.5nm,0.3s,baz=82,slow=14,SNR=4.8						
ESDC	Sonseca Array	10.85	268	Pn	P	11 54 50.2	-2.6
AKASG	Malin Array Be	16.51	47	Pn	P	11 56 06.7	-0.8
	0.9nm,0.3s,baz=243,slow=10,SNR=8.5						
NOA	NORSAR Array B	20.22	2	P	P	11 56 49.0	-3.0
	1.1nm,0.6s,baz=189,slow=7.5,SNR=3.4						
NOA				LR	LR	12 06 02.1	
	comp=Z,24nm,20.8s,baz=210,slow=41						
BRVK	Borovoye	41.62	52	eP	P	12 00 03.2	-0.7
	1.2nm,0.6s						
SONM	Songino Array	64.79	48	P	P	12 02 52.0	-3.1
	0.2nm,0.7s,baz=248,slow=6.7,SNR=3.7						
YKA	Yellowknife Ar	67.89	336	P	P	12 03 13.7	-0.8
	0.3nm,0.7s,baz=46,slow=5.8,SNR=8.2						
YKA	Yellowknife Ar	67.89	336	P	P	12 03 13.7	-0.8
ILAR	Eielson Array	73.17	350	P	P	12 03 46.8	+0.4
	0.5nm,1.1s,slow=5.7,SNR=4.7						

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*IDC **12** 11:52:31.7±0.8, 40.92N×9.99E, mb4.1/16, mb1 4.2/26, mb1mx4.2/30, ML3.9/10, MS3.4/2, Ms1 3.5/2, ms1mx2.7/28, Error ellipse: s-maj=17.9km s-min=12.7km az=138.0*

*MOS **12** 11:52:31.6±0.8, 41.04N×9.94E, h10^{km}, mb4.5/6, Error ellipse: s-maj=6.9km s-min=4.3km az=98.8*

*LDG **12** 11:52:32.2±0.2, 40.84N×10.19E, h10^{km}, Md3.9/1, Ml4.2/21, ms3.0/5, Error ellipse: s-maj=4.6km s-min=3.2km az=4.0*

*NEIC **12** 11:52:32.6, 40.83N×10.16E, h10^{km}, mb4.3/5, ML4.2(LDG), ML4.2(ROM), After ROM.*

*CSEM **12** 11:52:32.6±0.4, 40.83N×10.16E, h10^{km}, MD3.7/7, After ROM*

*ZUR_RM **12** 11:52:32, 40.83N×10.16E, h6^{km}, Mw4.1/32, Moment Tensor Solution. s32 Moment tensor: Scale 10^{15}Nm; M_{rr}1.54; $M_{\theta\theta}$0.18; $M_{\phi\phi}$-1.72; $M_{r\theta}$0.56; $M_{\theta\phi}$-0.08; $M_{\phi r}$0.56; Best double couple: $M_0$1.82×10^{15} NP1:ϕ_s20°,δ57°,λ110°. NP2:ϕ_s165°,δ38°,λ61°. Principal axes: T 1.814, Plg70°, Azm335°; N .013, Plg17°, Azm188°; P -1.827, Plg10°, Azm95°;*

*ROM **12** 11:52:32.6±0.4, 40.83N×10.16E, h10^{km}, MD3.7/7, ML4.2 Error ellipse: s-maj=3.6km s-min=3.4km az=0.0*

ISC 12 11:52:33.2±0.9, **41.02N**±0.03×**9.97E**±0.02, **h24**^{km}±8^{km}, **n174,** σ**1**^{s}**43**/205, **mb4.1**/20, **MS3.4**/2, **3C, Corsica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSL	Villasalto	1.58	197	ePN	Pn	11 53 00.5	+0.4
VSL	Villasalto	1.58	197	ePn	Pn	11 53 00.5	+0.4
MAON	Monte Argentar	1.66	31	ePN	Pn	11 53 03.6	+2.4
MAON	Monte Argentar	1.66	31	ePn	Pn	11 53 03.6	+2.4
PGF	Pioggiola	1.69	335	ePn	Pn	11 53 05.3	+3.6
PGF				eSn	Sn	11 53 26.7	+3.9
	1μm,0.4s						
TOLF	Tolfa	1.85	55	ePN	Pn	11 53 04.2	+0.2
TOLF	Tolfa	1.85	55	ePn	Pn	11 53 04.2	+0.2
GRFL	Gerfalco	2.26	19	ePN	Pn	11 53 11.6	+1.8
GRFL	Gerfalco	2.26	19	ePn	Pn	11 53 11.6	+1.8
CERT	Cerreto	2.45	67	ePN	Pn	11 53 11.5	-1.0
CERT	Cerreto	2.45	67	ePn	Pn	11 53 11.5	-1.1
VENT	Ventotene	2.63	94	ePN	Pn	11 53 12.5	-2.6
VENT	Ventotene	2.63	94	ePn	Pn	11 53 12.5	-2.6
CSNT	Castellina Chi	2.65	21	ePN	Pn	11 53 18.0	+2.7
CSNT	Castellina Chi	2.65	21	ePn	Pn	11 53 18.1	+2.7
PII	Pisa	2.74	9	ePN	Pn	11 53 17.7	+1.1
PTQR	Pietraquaria	2.77	68	ePN	Pn	11 53 17.0	-0.1
PTQR	Pietraquaria	2.77	68	ePn	Pn	11 53 17.0	0.0
SDI	San Donato	2.97	75	ePN	Pn	11 53 18.7	-1.3
SDI	San Donato	2.97	75	ePn	Pn	11 53 18.7	-1.3
MSC	Monte Massico	3.03	85	ePN	Pn	11 53 18.0	-2.8
MSC	Monte Massico	3.03	85	ePn	Pn	11 53 18.0	-2.8
RFI	Roccamonfina	3.05	83	ePN	Pn	11 53 19.0	-2.0
RFI	Roccamonfina	3.05	83	ePn	Pn	11 53 18.9	-2.1
TERO	Teramo	3.16	58	ePN	Pn	11 53 22.2	-0.4
TERO	Teramo	3.16	58	ePn	Pn	11 53 22.2	-0.4
VLC	Villacollemand	3.16	5	ePn	Pn	11 53 23.5	+0.9
IMI	Imperia	3.28	333	ePN	Pn	11 53 25.3	+1.0
IMI	Imperia	3.28	333	ePn	Pn	11 53 25.3	+1.1
CII	Carovilli	3.34	76	ePN	Pn	11 53 24.5	-0.7
CII	Carovilli	3.34	76	ePn	Pn	11 53 24.5	-0.7
ISOR	Termini	3.34	96	⇑iPN	Pn	11 53 20.9	-4.3
SGG	Gregorio Mates	3.35	82	ePN	Pn	11 53 22.9	-2.4
SGG	Gregorio Mates	3.35	82	ePn	Pn	11 53 22.9	-2.4
CING	Cingoli	3.36	44	ePN	Pn	11 53 27.6	+2.1
CING	Cingoli	3.36	44	ePn	Pn	11 53 27.6	+2.1
SBF	Sospel	3.41	327	ePn	Pn	11 53 27.3	+1.2
SBF				eSn	Sn	11 54 07.1	+0.9
	1μm,0.9s						
ERBM	Eremo	3.42	5	ePN	Pn	11 53 28.5	+2.2
ERBM	Eremo	3.42	5	ePn	Pn	11 53 28.5	+2.2
FIN	Finale Ligure	3.45	338	⇑iPN	Pn	11 53 27.9	+1.2
LMR	La Mourre	3.46	313	ePn	Pn	11 53 28.0	+1.1
LMR				eSn	Sn	11 54 08.1	+0.5
	189nm,0.5s						
FRF	La Foret Royal	3.54	317	ePn	Pn	11 53 29.1	+1.1
FRF				eSn	Sn	11 54 10.0	+0.4
	831nm,1.0s						
ERC	Erice	3.60	145	ePN	Pn	11 53 24.7	-4.2
	405nm,0.8s						
ERC	Erice	3.60	145	ePn	Pn	11 53 24.7	-4.2
ERC	Erice	3.60	145	ePn	Pn	11 53 24.7	-4.2
	405nm,0.8s						
IPES	Pescosannita	3.68	85	ePN	Pn	11 53 27.0	-3.0
BOB	Bobbio (Coli)	3.77	354	ePN	Pn	11 53 33.8	+2.5
BOB	Bobbio (Coli)	3.77	354	ePn	Pn	11 53 33.8	+2.5
DOI	San Damiano	4.02	331	ePN	Pn	11 53 37.5	+2.6
DOI	San Damiano	4.02	331	ePn	Pn	11 53 37.5	+2.7
SGO	Sicignano	4.08	95	ePN	Pn	11 53 32.4	-3.3
SGO	Sicignano	4.08	95	ePn	Pn	11 53 32.4	-3.3
MRLC	Muro Lucano	4.19	92	ePN	Pn	11 53 34.2	-3.1
MRLC	Muro Lucano	4.19	92	ePn	Pn	11 53 34.1	-3.2
MGR	Morigerati	4.34	100	ePN	Pn	11 53 34.9	-4.6
MGR	Morigerati	4.34	100	ePn	Pn	11 53 34.9	-4.6
MBDF	Montbardon	4.39	329	ePn	Pn	11 53 42.1	+2.0
MBDF				eSn	Sn	11 54 29.1	-2.0
	268nm,0.6s						
SMRF	Simiane la Rot	4.39	314	ePn	Pn	11 53 41.7	+1.5
SMRF				eSn	Sn	11 54 30.3	-0.9
	189nm,0.9s						
ORIF	Oris-en-Rattie	4.92	324	ePn	Pn	11 53 48.3	+0.7
ORIF				eSn	Sn	11 54 42.2	-2.3
	457nm,1.2s						
ORIF				eR			
	309nm,14.0s						
VAE	Valguarnera	4.94	134	Pn	Pn	11 53 54.4	+6.5
	2.5nm,0.3s,baz=50,slow=3.9,SNR=6.9						
VAE				Sn	Sn	11 54 42.7	-2.2
	2.7nm,0.3s,baz=235,slow=14,SNR=1.9						
LPG	La Plagne	5.06	333	eP	Pn	11 53 52.8	+3.2
LPG				eSn	Sn	11 54 46.0	-2.0
	324nm,1.1s						
LPL	La Plagne	5.08	333	eP	Pn	11 53 53.1	+3.2
LPL				eSn	Sn	11 54 45.5	-3.0
	193nm,1.1s						
LASF	Ste Croix	5.45	306	ePn	Pn	11 53 54.5	-0.6
LASF				eSn	Sn	11 54 54.3	-3.5
	46nm,0.4s						
VIVF	Saint-Julien-l	5.46	316	ePn	Pn	11 53 55.8	+0.6
VIVF				eSn	Sn	11 54 55.2	-2.9
	143nm,1.1s						
EJON	La Jonquera	5.49	287	P	Pn	11 53 54.4	-1.2
EJON				S	Sn	11 54 56.9	-1.8
TIP	Timpagrande	5.52	107	ePn	Pn	11 53 51.7	-4.4
DAVOX	Davos	5.76	359	Pn	Pn	11 54 01.2	+1.7
	2.7nm,0.3s,baz=179,slow=10,SNR=22						
MTLF	Montolieu	6.21	295	ePn	Pn	11 54 04.5	-1.3
MTLF				eSn	Sn	11 55 14.3	-2.5
	102nm,0.6s						
CABF	La Chapelle	6.26	335	ePn	Pn	11 54 07.1	+0.6
EMIR	Miracle	6.41	281	P	Pn	11 54 06.9	-1.7
EMIR	Miracle	6.41	281	Sn	Sn	11 55 15.9	-5.7
EPOB	Poblet	6.71	276	P	Pn	11 54 13.7	+0.8
EPOB				S	Sn	11 55 28.1	-1.3
EIBI	Ibiza	6.91	256	Pg	Pn	11 54 16.3	+0.6
EIBI				P		11 54 16.9	
EIBI				Sn	Sn	11 55 28.8	-5.5
EIBI				S	Sn	11 55 29.1	-5.2
CAF	Calviac	6.99	307	ePn	Pn	11 54 16.6	-0.2
CAF				eSn	Sn	11 55 31.9	-4.4
	43nm,0.7s						
HINF	Hinteralfeld	7.16	343	ePn	Pn	11 54 18.4	-0.7
SMF	Signal de Mont	7.16	324	ePn	Pn	11 54 19.4	+0.2
SMF				eSn	Sn	11 55 36.2	-4.4
	59nm,1.1s						
EBR	Ebro Roquetas	7.18	272	ePN	Pn	11 54 19.0	-0.4
EBR				eSN	Sn	11 55 43.5	+2.5
EBR				eSNSN		11 55 57.0	
EBR				e		11 59 54.5	
ERTA	Horta de San J	7.29	273	P	Pn	11 54 21.9	+1.0
EGRA	Graus	7.33	282	P	Pn	11 54 22.2	+0.7
EPF	Esparros	7.45	289	ePn	Pn	11 54 21.1	-2.1
EPF				eSn	Sn	11 55 43.6	-4.1
	27nm,0.6s						
HAU	Haudompre	7.45	341	ePn	Pn	11 54 22.5	-0.7
HAU				eSn	Sn	11 55 42.5	-5.3
	22nm,0.8s						
HAU				eR			
	180nm,16.8s						
AVF	Avril sur Loir	7.49	323	ePn	Pn	11 54 24.2	+0.4
RJF	Les Rejaudoux	7.52	308	ePn	Pn	11 54 23.7	-0.5
RJF				eSn	Sn	11 55 44.2	-5.3
	71nm,0.9s						
RJF				eR			
	177nm,14.2s						
EBIE	Bielsa	7.52	286	P	Pn	11 54 24.2	0.0
EBIE				S	Sn	11 55 54.0	+4.3
BGF	Bois d’Agland	7.56	319	ePn	Pn	11 54 24.1	-0.7
SSF	Saint Saulge	7.63	325	ePn	Pn	11 54 24.9	-0.8
CDF	Champ du Feu	7.64	346	ePn	Pn	11 54 25.9	0.0
TCF	Toulx Ste Croi	7.71	316	ePn	Pn	11 54 26.8	0.0
RHK1	Bakonya	7.77	47	⇑eP	Pn	11 54 26.2	-1.5
LFF	La Frestale	7.82	303	ePn	Pn	11 54 26.8	-1.6
LFF				eSn	Sn	11 55 51.9	-5.1
	25nm,0.4s						
ESAC	San Caprasio	7.88	279	P	Pn	11 54 30.8	+1.6
ESAC				S	Sn	11 56 01.0	+2.4
EMOS	Mosqueruela	7.96	269	P	Pn	11 54 30.3	0.0
EMOS	Mosqueruela	7.96	269	Pg	Pn	11 54 31.4	+1.1
EMOS				Sn	Sn	11 55 58.3	-2.2
SFTF	Sexfontaines	8.00	336	ePn	P	11 54 31.0	+0.1
	baz=158						
ETSF	Etsaut	8.07	287	ePn	P	11 54 30.5	-1.3
ETSF				eSn	Sn	11 55 57.4	-5.8
	42nm,0.6s						
EBEN	Beniarda	8.17	257	P	P	11 54 32.3	-1.0
EBEN	Beniarda	8.17	257	Pg	P	11 54 35.3	+2.0
EBEN				Sn	Sn	11 56 02.9	-2.9
HYF	Humbligny	8.17	322	ePn	P	11 54 31.9	-1.4
RFYF	Reffroy	8.25	339	ePn	P	11 54 32.1	-2.3
	baz=158						
MEZF	Maizieres J’vi	8.26	337	ePn	P	11 54 34.2	-0.3
	baz=155						
GERES	GERESS Array B	8.26	17	Pn	P	11 54 33.6	-0.9
	0.8nm,0.3s,baz=194,slow=13,SNR=18						
KHC	Kasperske Hory	8.51	16	eP	P	11 54 35.9	-2.0
KHC				e		11 54 40.5	
KHC				e		11 55 02.5	
KHC	Kasperske Hory	8.51	16	eP	P	11 54 35.9	-2.0
KHC				x	x	11 54 40.5	
KHC				x	x	11 55 02.5	
SJPF	Ste Jean	8.59	288	ePn	P	11 54 38.4	-0.6
SJPF				eSn	Sn	11 56 09.7	-6.4
	35nm,0.8s						
EALK	Alkurruntz	8.81	288	P	P	11 54 42.9	+0.7
EALK				Pg	P	11 54 48.6	+6.4
MFF	Saint Martin d	9.20	311	ePn	P	11 54 47.4	-0.1
MFF				eSn	Sn	11 56 24.8	-6.4
	18nm,0.8s						
VRAC	Vranov	9.52	27	Pn	P	11 54 51.4	-0.5
	0.3nm,0.3s,baz=215,slow=9.8,SNR=8.9						
MOX	Moxa	9.70	6	eP	P	11 54 54.7	+0.4
MOX	Moxa	9.70	6	i P	P	11 54 54.7	+0.4
GIVF	Givet	9.77	340	ePn	P	11 54 53.4	-2.0
VYHS	Vyhne	9.78	37	ePN	P	11 54 55.6	+0.2
EVIA	Vianos	9.88	260	P	P	11 54 58.8	+1.9
EVIA	Vianos	9.88	260	Pg	P	11 54 58.6	+1.7
PSZ	Piszkesteto	9.89	42	eP	P	11 54 56.1	-0.9
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s						
PSZ	Piszkesteto	9.89	42	ePn	P	11 54 56.0	-0.9
	comp=Z,3.6nm,0.8s						
BAIF	Baives	9.90	338	ePn	P	11 54 54.6	-2.5
BAIF				eP		11 54 59.9	
BAIF	Baives	9.90	338	eP	P	11 54 59.9	+2.8
ELAN	Lanestosa	10.20	287	P	P	11 55 03.5	+2.2
BRG	Berggiesshubel	10.24	14	eP	P	11 55 01.7	0.0
BRG				pmax	pmax		
	comp=Z,7.0nm,1.4s						
BRG	Berggiesshubel	10.24	14	eP	P	11 55 01.7	0.0
	comp=Z,7.2nm,1.4s						
MORC	Moravsky Berou	10.25	29	eP	P	11 55 00.0	-1.9
MORC				pmax	pmax		
	comp=Z,10.0nm,1.0s						
MORC	Moravsky Berou	10.25	29	eP	P	11 55 00.0	-1.8
	comp=Z,9.7nm,1.0s						
DPC	Dobruska-Polom	10.34	23	eP	P	11 55 03.8	+0.7
LDF	La Druitiere	10.42	320	ePn	P	11 55 03.0	-1.3
CLL	Collm	10.51	11	P	P	11 55 05.0	-0.4
OKC	Ostrava-Krasne	10.52	30	eP	P	11 55 05.5	-0.1
EQES	Quesada	10.59	257	P	P	11 55 08.9	+2.4
GRR	Gorron	10.66	317	ePn	P	11 55 08.2	+0.8
FLN	La Foliniere	10.71	320	ePn	P	11 55 07.0	-1.2
FLN				eR			
	comp=Z,301nm,13.8s						
ESDC	Sonseca Array	10.72	267	Pn	P	11 55 07.6	-0.8
	comp=Z,1.3nm,0.3s,baz=72,slow=14,SNR=12						
ESDC	Sonseca Array	10.72	267	P	P	11 55 08.6	+0.3
	comp=Z,0.3nm,0.3s						
ESDC	Sonseca Array	10.72	267	Pg	P	11 55 09.0	+0.6
ESLA	Sonseca Array	10.72	267	eP	P	11 55 06.0	-2.4
	comp=Z,2.8nm,0.8s						
EBER	Berja	10.82	252	P	P	11 55 12.6	+2.8
	comp=Z,18nm,0.8s						
SGMF	Saint Gilles	11.48	313	ePn	P	11 55 18.4	-0.3
EADA	Adamuz	11.58	261	P	P	11 55 20.4	+0.4
	comp=Z,1.8nm,0.4s						
ELOJ	Sierra Loja	11.63	255	P	P	11 55 24.1	+3.3
ELOJ				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ELOJ	Sierra Loja	11.63	255	P	P	11 55 24.1	+3.3
	comp=Z,9.5nm,0.8s						
MLR	Muntele Rosu	12.47	64	Pn	P	11 55 31.7	-0.4
	comp=Z,0.2nm,0.3s,baz=134,slow=22,SNR=3.0						
AKASG	Malin Array Be	16.50	48	Pn	P	11 56 27.0	+2.5
	comp=Z,0.8nm,0.3s,baz=242,slow=11,SNR=7.0						
AKASG	Malin Array Be	16.50	48	P	P	11 56 27.0	+2.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
EKA	Eskdalemuir Ar	16.75	333	Pn	P	11 56 31.3	+3.7
	comp=Z,0.1nm,0.3s,baz=143,slow=12,SNR=7.8						
BRTR	Keskin Array B	18.08	86	P	P	11 56 45.0	+0.6
	comp=Z,0.1nm,0.3s,baz=262,slow=10,SNR=3.3						
HFS	Hagfors	19.28	6	P	P	11 56 59.1	+0.4
	comp=Z,0.1nm,0.3s,baz=170,slow=9.0,SNR=7.2						
NB2	NORSAR Subarra	20.07	2	P	P	11 57 08.3	+0.9
	comp=Z,6.4nm,0.8s,baz=181,slow=10						
NB2	NORSAR Subarra	20.07	2	P	P	11 57 08.3	+0.9
NB2				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NOA	NORSAR Array B	20.07	2	P	P	11 57 07.7	+0.3
	comp=Z,4.5nm,0.7s,baz=176,slow=9.9,SNR=11						
FINES	FINESS Array B	22.68	20	P	P	11 57 34.7	+1.0
	comp=Z,4.3nm,0.8s,mb3.9,baz=225,slow=8.1,SNR=7.8						
FINES				LR	LR	12 07 00.7	
	comp=Z,111nm,18.7s,MS3.3,baz=172,slow=38						
KAF	Kangasniemi	23.31	20	ep	P	11 57 38.3	-1.5
	comp=Z,6.6nm,0.9s,mb4.1						
KAF	Kangasniemi	23.31	20	eP	P	11 57 38.3	-1.5
KAF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.1						
ZEI	Tsey	25.23	75	eP	P	11 58 00.4	+1.9
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.0						
GNI	Garni	26.33	80	P	P	11 58 09.9	+1.1
	comp=Z,3.4nm,0.3s,mb4.3,baz=168,slow=1.8,SNR=3.4						
ARU	Arti	34.75	47	eP	P	11 59 22.6	-0.7
ARU				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
ARU	Arti	34.75	47	eP	P	11 59 22.6	-0.7
	comp=Z,12nm,1.0s,mb4.8						
DBIC	Dimbokro	36.67	205	P	P	11 59 39.7	-0.3
	comp=Z,1.6nm,0.7s,mb4.0,baz=11,slow=16,SNR=3.4						
BRVK	Borovoye	41.63	52	eP	P	12 00 21.5	+0.8
BRVK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.5						
BRVK	Borovoye	41.63	52	eP	P	12 00 21.4	+0.7
	comp=Z,11nm,0.9s,mb4.5						
CHKZ	Chkalovo	41.74	51	eP	P	12 00 21.9	+0.3
CHKZ				e		12 00 27.2	
CHKZ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.0						
CHKZ	Chkalovo	41.74	51	eP	P	12 00 21.9	+0.3
	comp=Z,4.0nm,1.0s,mb4.0						
CHKZ				e		12 00 27.2	
ZAL	Zalesovo	49.89	48	P	P	12 01 26.8	+0.4
	comp=Z,1.0nm,0.3s,mb4.3,baz=162,slow=7.3,SNR=3.9						
SCHQ	Schefferville	50.72	313	P	P	12 01 33.3	+0.7
	comp=Z,5.4nm,0.9s,mb4.5,baz=54,slow=12,SNR=4.4						
SONM	Songino Array	64.79	48	P	P	12 03 11.9	+0.2
	comp=Z,1.9nm,0.9s,mb4.1,baz=293,slow=6.8,SNR=12						
INK	Inuvik	67.62	346	P	P	12 03 29.9	+0.5
	comp=Z,1.5nm,0.9s,mb4.0,baz=61,slow=2.0,SNR=4.6						
YKA	Yellowknife Ar	67.69	336	P	P	12 03 31.6	+1.7
	comp=Z,1.1nm,0.7s,mb4.0,baz=44,slow=6.1,SNR=22						
YKA	Yellowknife Ar	67.69	336	P	P	12 03 31.7	+1.7
ULM	Lac du Bonnet	68.37	318	P	P	12 03 33.8	-0.6
	comp=Z,6.9nm,1.0s,mb4.7,baz=52,slow=3.8,SNR=8.0						
ILAR	Eielson Array	73.00	350	P	P	12 04 04.1	+2.1
	comp=Z,2.1nm,0.8s,mb4.1,baz=7.8,slow=5.7,SNR=18						
CMAR	Chiang Mai Arr	77.38	77	P	P	12 04 28.4	+0.5
	comp=Z,0.7nm,0.8s,mb3.6,baz=314,slow=5.9,SNR=4.8						
CMAR				LR	LR	12 41 31.5	
	comp=Z,21nm,20.5s,MS3.4,baz=26,slow=38						
BDFB	Brasilia	77.80	237	P	P	12 04 30.3	+0.1
	comp=Z,1.8nm,0.6s,mb4.2,baz=97,slow=8.1,SNR=2.7						
PDAR	Pinedale Array	80.35	319	P	P	12 04 45.7	+2.1
	comp=Z,1.8nm,1.1s,mb3.9,baz=57,slow=5.4,SNR=7.3						
TXAR	Lajitas Array	86.92	307	P	P	12 05 19.6	+2.3
	comp=Z,0.2nm,0.6s,mb3.5,baz=59,slow=5.3,SNR=3.4						
NVAR	Mina Array Bea	87.91	322	P	P	12 05 24.9	+3.1
	comp=Z,0.7nm,1.0s,mb3.9,baz=56,slow=3.9,SNR=4.6						
NVAR	Mina Array Bea	87.91	322	P	P	12 05 24.9	+3.1
ASAR	Alice Springs	130.41	88	PKP	PKPdf	12 11 43.4	-3.3
	comp=Z,0.3nm,0.7s,baz=307,slow=2.2,SNR=6.9						

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*NEIC **12** 12:14:32.8±2.2, 3.37S×139.86E, h49^{km}±20^{km}, mb4.5/10, Error ellipse: s-maj=14.7km s-min=13.4km az=81.0*

*BJI **12** 12:14:32.7, 3.40S×139.90E, h49^{km}, mb4.4*

*IDC **12** 12:14:34.3±3.1, 3.48S×139.75E, h64^{km}±28^{km}, mb4.1/10, mb1 4.3/13, mb1mx4.2/15, ML4.1/3, MS3.7/6, Ms1 3.7/6, ms1mx3.4/14, Error ellipse: s-maj=17.1km s-min=11.1km az=102.0*

ISC 12 12:14:29.1±1.9, **3.48S**±0.06×**139.80E**±0.07, **h33**^{km}±18^{km}, **n41,** σ**0**^{s}**99**/45, **mb4.5**/16, **MS3.7**/5, **3D, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	9.39	129	P	P	12 16 46.3	+1.3
	2.1nm,0.3s,baz=309,slow=11,SNR=14						
PMG				S	S	12 18 29.6	-1.0
	0.1nm,0.3s,baz=92,slow=22,SNR=2.0						
PMG	Port Moresby	9.39	129	eP	P	12 16 46.4	+1.3
PMG				S	S	12 18 29.6	-1.0
WRAB	Tennant Creek	17.20	198	eP	P	12 18 27.5	-1.0
	21nm,0.6s						
WB2	Warramunga Arr	17.21	198	⇓iP	P	12 18 27.4	-1.2
WB2				eS	S	12 21 34.0	-3.3
WRA	Warramunga Arr	17.21	198	P	P	12 18 28.0	-0.6
	1.1nm,0.3s,baz=14,slow=13,SNR=45						
WRA				S	S	12 21 32.8	-4.6
	1.0nm,0.3s,baz=23,slow=23,SNR=5.1						
CTA	Charters Tower	17.67	160	eP	P	12 18 35.9	+1.5
	6.3nm,0.7s						
CTA	Charters Tower	17.67	160	P	P	12 18 35.1	+0.7
	0.6nm,0.3s,baz=341,slow=12,SNR=10						
CTA				LR	LR	12 26 08.9	
	comp=Z,188nm,18.6s,baz=344,slow=39						
CTAO	Charters Tower	17.67	160	eP	P	12 18 35.8	+1.4
	13nm,0.9s						
FITZ	Fitzroy Crossi	20.09	223	eP	P	12 19 02.9	+0.1
	24nm,0.6s						
FITZ				eS	S	12 22 41.2	-0.6
FITZ	Fitzroy Crossi	20.09	223	P	P	12 19 02.6	-0.2
	35nm,0.8s,baz=34,slow=8.2,SNR=38						
FITZ				S	S	12 22 41.4	-0.4
	11nm,0.6s,baz=193,slow=12,SNR=3.6						
FITZ				LR	LR	12 26 28.8	

	comp=Z,76nm,21.4s,MS3.0,baz=60,slow=36						
ASAR	**Alice Springs**	**20.86**	**195**	P	**P**	**12 19 12.8**	**+2.0**
	27nm,0.5s,baz=26,slow=9.1,SNR=146						
ASAR				S	**S**	**12 23 02.8**	**+6.0**
	37nm,1.1s,baz=15,slow=27,SNR=8.4						
ASPA	**Alice Springs**	**20.87**	**195**	⇓*i*P	**P**	**12 19 11.3**	**+0.5**
ASPA				*e*S	**S**	**12 22 57.2**	**+0.5**
MBWA	**Marble Bar**	**26.27**	**226**	*e*P	**P**	**12 20 04.0**	**+0.5**
	9.8nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**28.30**	**177**	*e*P	**P**	**12 20 25.3**	**+3.4**
	2.4nm,0.9s,mb3.8						
STKA	**Stephens Creek**	**28.30**	**177**	P	**P**	**12 20 23.2**	**+1.4**
	2.2nm,1.2s,mb3.7,baz=340,slow=15,SNR=3.6						
STKA				LR	LR	12 32 56.1	
	comp=Z,344nm,19.4s,MS4.0,baz=23,slow=39						
FORT	**Forrest**	**29.33**	**201**	*e*P	**P**	**12 20 31.7**	**+0.6**
	18nm,0.5s,mb5.1						
FORT				*e*		12 20 58.5	
JHJ	**Hachijo jima 2**	**36.40**	**360**	LR	LR	12 35 58.6	
	comp=Z,65nm,18.0s,MS3.5,baz=120,slow=35						
CMAR	**Chiang Mai Arr**	**45.76**	**300**	P	**P**	**12 22 50.5**	**+0.8**
	1.1nm,0.9s,mb3.8,baz=117,slow=5.8,SNR=5.8						
RPZ	**Rata Peaks**	**48.68**	**150**	P	**P**	**12 23 13.3**	**+1.1**
	10nm,0.6s,mb5.0,baz=20,slow=11,SNR=6.9						
SHL	**Shillong**	**54.66**	**305**	*e*P	**P**	**12 23 58.0**	**+0.6**
GTA	**Gaotai**	**56.33**	**323**	*e*P	**P**	**12 24 10.0**	**+0.7**
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.4						
SONM	**Songino Array**	**58.88**	**334**	P	**P**	**12 24 27.5**	**+0.4**
	comp=Z,0.3nm,0.5s,mb3.5,baz=127,slow=7.2,SNR=3.2						
GUN	**Gumba**	**60.52**	**305**	*e*P	**P**	**12 24 39.3**	**+0.6**
PKI	**Pulchoki**	**60.78**	**304**	*e*P	**P**	**12 24 40.1**	**-0.4**
KKN	**Kakani**	**60.97**	**304**	*e*P	**P**	**12 24 41.8**	**+0.1**
DMN	**Daman**	**61.04**	**304**	*e*P	**P**	**12 24 42.6**	**+0.3**
RAR	**Rarotonga**	**61.23**	**112**	P	**P**	**12 24 41.8**	**-1.8**
	comp=Z,6.4nm,0.4s,mb5.1,baz=135,slow=8.6,SNR=3.3						
RAR	**Rarotonga**	**61.23**	**112**	P	**P**	**12 24 41.8**	**-1.8**
GKN	**Gorkha**	**61.57**	**304**	*e*P	**P**	**12 24 45.8**	**0.0**
	comp=Z,21nm,0.8s,mb5.3						
KOLN	**Koldanda**	**62.35**	**304**	*e*P	**P**	**12 24 50.8**	**-0.2**
	comp=Z,15nm,1.0s,mb5.1						
AML	**Almayashu**	**74.90**	**315**	*e*P	**P**	**12 26 09.3**	**+0.7**
	comp=Z,5.7nm,0.8s,mb4.5						
VNDA	**Vanda**	**74.93**	**175**	P	**P**	**12 26 08.6**	**+0.5**
	comp=Z,2.5nm,1.0s,mb4.1,baz=319,slow=7.4,SNR=6.4						
VNDA				LR	LR	12 58 49.7	
	comp=Z,64nm,18.2s,MS4.0,baz=357,slow=35						
VNDA	**Vanda**	**74.93**	**175**	*e*P	**P**	**12 26 08.6**	**+0.6**
VNDA				LR	LR	12 58 49.7	
BVAR	**Borovoye Array**	**80.56**	**325**	P	**P**	**12 26 38.7**	**-1.0**
	comp=Z,1.4nm,0.6s,mb4.1,baz=121,slow=8.6,SNR=6.4						
MAW	**Mawson**	**81.83**	**202**	P	**P**	**12 26 46.4**	**+0.4**
	comp=Z,2.6nm,0.8s,mb4.2,baz=66,slow=9.8,SNR=4.2						
MAW				LR	LR	13 02 20.7	
	comp=Z,82nm,19.1s,MS4.1,baz=246,slow=35						
MAW	**Mawson**	**81.83**	**202**	*e*P	**P**	**12 26 47.0**	**+1.0**
	comp=Z,3.4nm,0.8s,mb4.3						
MAW				LR	LR	13 02 20.7	
ILAR	**Eielson Array**	**86.08**	**24**	P	**P**	**12 27 06.0**	**-1.4**
	comp=Z,1.1nm,0.8s,mb4.1,baz=260,slow=4.5,SNR=18						
QSPA	**South Pole Qui**	**86.47**	**180**	⇓*e*P	**P**	**12 27 11.3**	**+2.2**
	comp=Z,11nm,0.6s,mb5.3						
DBIC	**Dimbokro**	**144.66**	**277**	PKP	PKPdf	12 34 04.1	+0.6
	comp=Z,7.2nm,1.1s,baz=358,slow=3.7,SNR=6.7						
LPAZ	**La Paz**	**146.11**	**126**	PKPbc	PKPbc	12 34 10.5	+3.6
	comp=Z,1.1nm,0.6s,baz=38,slow=3.1,SNR=8.5						
LPAZ	**La Paz**	**146.11**	**126**	PKPbc	PKPbc	12 34 10.5	+3.6

*IDC **12** 12:42:19.6±4.6,5.77S×154.53E,h207^{km}±39^{km},mb3.4/9, mb1 3.6/10,mb1mx3.6/15,MS3.6/1,Ms1 3.6/1, ms1mx2.6/12,Error ellipse: s-maj=35.3km s-min=20.3km az=102.0*

*NEIC **12** 12:42:19.4±3.4,5.79S×154.51E,h207^{km}±29^{km},mb4.1/2, Error ellipse: s-maj=32.7km s-min=18.9km az=102.0*

ISC 12 12:42:18.7±3.5,**5.9S**±0.1×**154.7E**±0.2,**h220**^{km}±31^{km},**n14,** σ**1**^{s}**09**/15,**mb3.7**/10,**Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**8.21**	**244**	P	**P**	**12 44 14.7**	**-0.8**
	1.2nm,0.3s,baz=100,slow=4.3,SNR=7.5						
PMG				S	**S**	**12 45 48.6**	**+1.9**
	0.1nm,0.3s,baz=268,slow=9.3,SNR=3.4						
PMG	**Port Moresby**	**8.21**	**244**	*e*P	**P**	**12 44 14.4**	**-1.0**
PMG				S	**S**	**12 45 48.6**	**+1.9**
CTAO	**Charters Tower**	**16.30**	**209**	*e*P	**P**	**12 45 55.9**	**-1.3**
	16nm,1.4s						
WRAB	**Tennant Creek**	**24.17**	**233**	*e*P	**P**	**12 47 16.1**	**-0.4**
	1.6nm,0.4s,mb4.0						
WRA	**Warramunga Arr**	**24.18**	**233**	P	**P**	**12 47 16.6**	**0.0**
	0.8nm,0.4s,mb3.8,baz=57,slow=9.7,SNR=39						
WRA				PcP	PcP	12 50 52.3	+0.3
	0.2nm,0.3s,baz=56,slow=2.6,SNR=6.9						
ASAR	**Alice Springs**	**26.66**	**226**	P	**P**	**12 47 38.1**	**-1.3**
	0.5nm,0.6s,mb3.3,baz=57,slow=9.4,SNR=9.0						
ASAR				PcP	PcP	12 50 58.0	+0.5
	0.4nm,0.5s,baz=54,slow=2.6,SNR=7.7						
STKA	**Stephens Creek**	**28.60**	**204**	P	**P**	**12 47 58.8**	**+2.0**
	1.0nm,0.8s,mb3.5,baz=145,slow=23,SNR=3.8						
RPZ	**Rata Peaks**	**40.35**	**162**	LR	LR	13 01 35.7	
	comp=Z,96nm,21.8s,baz=190,slow=29						
CMAR	**Chiang Mai Arr**	**60.00**	**295**	P	**P**	**12 52 04.5**	**-0.1**
	0.8nm,0.5s,mb3.6,baz=118,slow=5.7,SNR=5.1						
SONM	**Songino Array**	**68.22**	**327**	P	**P**	**12 52 58.0**	**+0.6**
	0.3nm,0.4s,mb3.3,baz=98,slow=14,SNR=6.4						
ILAR	**Eielson Array**	**82.47**	**22**	P	**P**	**12 54 17.6**	**+0.1**
	0.8nm,1.0s,mb3.3,baz=246,slow=4.8,SNR=5.4						
ZAL	**Zalesovo**	**83.08**	**326**	P	**P**	**12 54 20.3**	**-0.6**
	1.9nm,0.3s,mb4.3,baz=199,slow=0.9,SNR=4.0						
BVAR	**Borovoye Array**	**91.21**	**323**	P	**P**	**12 54 58.9**	**-1.0**
	0.8nm,0.6s,mb3.9,baz=117,slow=6.6,SNR=5.2						
NVAR	**Mina Array Bea**	**91.31**	**52**	P	**P**	**12 55 02.3**	**+1.6**
	0.9nm,0.9s,mb3.7,baz=255,slow=4.8,SNR=5.1						

*NAO **12** 12:45:48.6±1.9,77.21N×20.31E,ML2.1*

*BER **12** 12:45:52.3±3.4,77.22N×19.99E,h16^{km}±71^{km}, ML2.1(NAO)*

ISC 12 12:45:50.2±1.0,**77.1N**±0.1×**19.6E**±0.2,**h10**^{km}**,n4,**σ**1**^{s}**00**/7, **Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	**Hornsund**	**0.93**	**265**	*e*Pg	**Pg**	**12 46 09.8**	**+1.0**
HSP				*e*Sg	**Sg**	**12 46 21.3**	**+0.1**
SPA0	**Spitsbergen Ar**	**1.27**	**328**	Pn	**Pn**	**12 46 13.2**	**-0.9**
	baz=150,slow=22						
SPA0				Lg		12 46 30.4	
	baz=132,slow=37						
HOPEN	**Hopen**	**1.38**	**114**	*e*P	**Pn**	**12 46 16.7**	**+1.1**
HOPEN				*e*S	**Sb**	**12 46 33.5**	**+0.3**
ARA0	**ARCESS Array S**	**7.81**	**165**	Pn	**Pn**	**12 47 44.9**	**-1.8**
	baz=0.4,slow=11						
ARA0				Sn	**Sn**	**12 49 07.9**	**-8.1**
	baz=1.1,slow=22						

*IDC **12** 12:55:04.0±0.8,40.92S×127.51E,mb3.9/6,mb1 4.2/9, mb1mx4.2/12,ML3.7/3,MS3.6/2,Ms1 3.6/2,ms1mx2.8/12, Error ellipse: s-maj=44.1km s-min=17.6km az=94.0*

*NEIC **12** 12:55:05.2±0.7,40.87S×126.93E,h10^{km},mb4.2/3,Error ellipse: s-maj=13.3km s-min=11.0km az=216.0*

ISC 12 12:55:03.4±0.8,**40.79S**±0.08×**126.9E**±0.1,**h10**^{km}**,n23,** σ**1**^{s}**52**/26,**mb4.0**/7,**MS3.5**/2,**1C,South of Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FORT	**Forrest**	**10.04**	**6**	*e*P	**P**	**12 57 30.3**	**-0.4**
	23nm,0.5s						
NWAO	**Narrogin (SRO)**	**11.02**	**312**	Pn	**P**	**12 57 44.0**	**-0.1**
	8.0nm,0.3s,baz=135,slow=9.9,SNR=63						
NWAO				Sn	**S**	**12 59 42.3**	**-6.1**
	3.8nm,0.3s,baz=304,slow=21,SNR=16						
NWAO	**Narrogin (SRO)**	**11.02**	**312**	*e*P	**P**	**12 57 43.7**	**-0.4**
NWAO				Pn	**P**	**12 57 44.0**	**0.0**
NWAO				Sn	**S**	**12 59 42.3**	**-6.1**
KLBR	**Kellerberrin**	**11.77**	**318**	*e*P	**P**	**12 57 53.3**	**-1.1**
	81nm,1.8s						
MUN	**Mundaring**	**12.30**	**312**	*e*P	**P**	**12 58 00.2**	**-1.3**
	4.9nm,0.4s						
MUN				*e*S	**S**	**13 00 11.3**	**-8.4**
TOO	**Toolangi**	**14.78**	**83**	⇑*i*P	**P**	**12 58 34.5**	**+0.3**
	3.3nm,0.3s						
STKA	**Stephens Creek**	**14.80**	**58**	*e*P	**P**	**12 58 32.7**	**-1.8**
	1.9nm,0.5s						
STKA	**Stephens Creek**	**14.80**	**58**	Pn	**P**	**12 58 31.3**	**-3.2**
	0.6nm,0.3s,baz=231,slow=10,SNR=11						
STKA				Sn	**S**	**13 01 07.2**	**-12**
	0.5nm,0.3s,baz=356,slow=17,SNR=5.1						
ASAR	**Alice Springs**	**18.07**	**21**	P	**P**	**12 59 14.4**	**-1.7**
	0.2nm,0.3s,baz=192,slow=12,SNR=16						
ASAR				S	**S**	**13 02 22.8**	**-12**
	0.2nm,0.3s,baz=197,slow=22,SNR=5.8						
MBWA	**Marble Bar**	**20.50**	**341**	*e*P	**P**	**12 59 47.5**	**+3.3**
	40nm,1.4s						
WRA	**Warramunga Arr**	**21.74**	**19**	P	**P**	**12 59 58.2**	**+1.3**
	3.1nm,0.8s,mb3.8,baz=198,slow=12,SNR=23						
WRA				S	**S**	**13 03 51.0**	**-1.2**
	0.4nm,0.5s,baz=196,slow=24,SNR=4.4						
WB2	**Warramunga Arr**	**21.74**	**19**	*e*P	**P**	**12 59 59.8**	**+2.9**
WRAB	**Tennant Creek**	**21.75**	**19**	*e*P	**P**	**12 59 58.4**	**+1.4**
	3.3nm,0.6s,mb3.9						
FITZ	**Fitzroy Crossi**	**22.64**	**357**	P	**P**	**13 00 08.1**	**+2.3**
	2.5nm,0.9s,mb3.6,baz=214,slow=12,SNR=3.8						
FITZ				LR	LR	13 08 37.5	
	comp=Z,31nm,20.2s,MS2.7,baz=188,slow=36						
RPZ	**Rata Peaks**	**32.53**	**110**	LR	LR	13 11 35.1	
	comp=Z,419nm,18.6s,MS4.2,baz=236,slow=31						
VNDA	**Vanda**	**39.59**	**169**	P	**P**	**13 02 35.5**	**-0.6**
	3.2nm,0.8s,mb4.1,baz=338,slow=8.2,SNR=12						
VNDA	**Vanda**	**39.59**	**169**	*e*P	**P**	**13 02 34.9**	**-1.3**
	4.2nm,0.9s,mb4.2						
SNAA	**Sanae**	**62.37**	**196**	P	**P**	**13 05 27.7**	**-0.2**
	2.9nm,1.0s,mb4.4,baz=170,slow=9.8,SNR=21						
CMAR	**Chiang Mai Arr**	**64.42**	**330**	P	**P**	**13 05 44.8**	**+2.6**
	1.7nm,1.0s,mb4.0,baz=168,slow=4.0,SNR=6.3						
SONM	**Songino Array**	**90.10**	**346**	P	**P**	**13 08 06.8**	**+2.4**
	0.4nm,0.6s,mb3.9,baz=168,slow=5.2,SNR=3.9						
YKA	**Yellowknife Ar**	**138.13**	**38**	PKP	PKPdf	13 14 27.4	-3.5
	0.1nm,0.5s,baz=274,slow=2.7,SNR=5.1						
EKA	**Eskdalemuir Ar**	**144.41**	**311**	PKP	PKPdf	13 14 41.7	-0.3
	1.2nm,0.7s,baz=98,slow=5.9,SNR=5.7						
ULM	**Lac du Bonnet**	**148.96**	**58**	PKPbc	PKPdf	13 14 50.0	+0.2
	3.4nm,0.8s,baz=253,slow=6.1,SNR=3.9						

CASC 12 13:08:10.1±2.2,**11.62N**×**86.94W,h6**^{km}±20^{km}**,MD4.2, ML3.3,7C-4D,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COPN	**Copaltepe**	**0.65**	**31**	⇑*i*P	Pg	13 08 23.4	+0.2
LEON	**Leon**	**0.79**	**3**	⇓*e*P	Pb	13 08 25.4	-0.4
XAVN	**Gruta Xavier**	**0.80**	**49**	⇓*e*P	Pb	13 08 25.2	-0.7
TICN	**Ticuantepe**	**0.81**	**59**	*e*P	Pb	13 08 25.5	-0.5
APYN	**Apoyeque**	**0.84**	**43**	⇑*e*P	Pb	13 08 25.9	-0.7
MIRN	**Miramar**	**0.84**	**15**	⇓*e*P	Pb	13 08 26.2	-0.5
MGAN	**Managua**	**0.86**	**52**	⇑*e*P	Pb	13 08 26.1	-0.8
MGAN				*e*S	Sb	13 08 39.4	+1.0
	comp=E,814nm,0.3s						
MOMJ	**Momotombo**	**0.88**	**26**	⇓*e*P	Pb	13 08 26.5	-0.8
APON	**Apoyo**	**0.90**	**71**	⇑*e*P	Pb	13 08 26.4	-1.3
CNGN	**Cerro Negro**	**0.91**	**15**	⇑*e*P	Pb	13 08 27.0	-0.8
WILN	**Americas 2**	**0.91**	**54**	⇑*e*P	Pb	13 08 26.9	-1.0
WILN				*e*S	Sb	13 08 40.7	+0.7
TEL3	**Telica 3**	**0.95**	**5**	⇑*e*P	Pb	13 08 27.9	-0.6
TELN	**Telica**	**0.98**	**6**	*e*P	Pb	13 08 28.2	-1.0
CRIN	**San Cristobal**	**1.08**	**354**	*e*P	Pb	13 08 29.6	-1.1
PYTN	**Playitas**	**1.25**	**43**	*e*P	Pb	13 08 31.6	-2.1
JCR	**Jicaral**	**2.51**	**134**	*e*P	Pn	13 08 50.8	-1.3
JCR				*e*S	Sn	13 09 24.9	+1.5
VPS2	**Volcan Poas 2**	**3.01**	**118**	*e*P	Pn	13 08 59.6	+0.4
VPS2				*e*S	Sn	13 09 33.6	-2.4
PRS1	**Puriscal**	**3.05**	**122**	*e*P	Pn	13 09 00.0	+0.2
PRS1				*e*S	Sn	13 09 36.9	-0.1
LAJ	**Bijagual**	**3.27**	**122**	*e*P	Pn	13 08 59.2	-3.7
URSC	**Urasca**	**3.58**	**119**	*e*P	Pn	13 09 04.7	-2.5

*NEIC **12** 13:21:24.1,35.08S×70.53W,h1^{km},ML2.8(GUC),After GUC.*

GUC 12 13:21:24.1±0.8,**35.08S**×**70.53W,h1**^{km}±3^{km}**,MD3.7, ML2.8,2C-3D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SFDO	**San Fernando**	**0.61**	**320**	⇓*i*P	Pg	13 21 36.8	+0.4
SFDO				*i* S	Sg	13 21 46.0	+1.5
CICH	**Cipreses**	**0.77**	**7**	⇓*i*P	Pg	13 21 38.5	-0.9
CICH				*i* S	Sg	13 21 49.0	-0.6
TALC	**Talca**	**0.95**	**250**	⇓*i*P	Pb	13 21 42.9	-0.2
TALC				*i* S	Sg	13 21 56.5	+0.6
TALC				AMP		13 21 57.0	
	comp=N,2μm,0.1s						
CACH	**El Canelo**	**0.96**	**357**	⇑*i*P	Pb	13 21 42.1	-1.2
CHCH	**Chadas Angostu**	**1.15**	**355**	*e*P	Pb	13 21 45.6	-0.9
LNV	**Longovilo**	**1.34**	**327**	⇑*i*P	Pb	13 21 48.8	-0.9
LNV				*i* S	Sb	13 22 07.3	+0.1
PCH	**Pirque**	**1.46**	**1**	*e*P	Pn	13 21 50.9	-0.8
TACH	**Talagante**	**1.47**	**347**	*i* P	Pn	13 21 50.9	-0.9
TACH				*i* S	Sb	13 22 11.3	+0.4
RCDM	**Rinconada Maip**	**1.61**	**352**	*e*P	Pn	13 21 53.2	-0.5
RCDM				*i* S	Sb	13 22 14.9	-0.1
RCDM				AMP		13 22 17.3	
	comp=E,136nm,0.1s						
FCH	**Farellones**	**1.76**	**7**	*e*P	Pn	13 21 56.3	+0.3
FCH				*i* S	Sn	13 22 20.6	+1.2
FCH				AMP		13 22 30.8	
	comp=N,72nm,0.2s						
LCCH	**Las Cruces**	**1.82**	**332**	*e*P	Pn	13 21 56.9	0.0
LCCH				*e*S	Sn	13 22 20.6	-0.2
PEL	**Peldehue**	**1.94**	**356**	*e*S	Sn	13 22 25.0	+1.1
PEL				AMP		13 22 32.6	
	comp=N,164nm,0.5s						
ROCH	**El Roble**	**2.14**	**349**	*i* S	Sn	13 22 30.8	+1.7

*IDC **12** 13:33:29.1±3.0,21.70S×169.93E,mb3.9/6,mb1 4.1/6, mb1mx4.0/13,MS3.2/2,Ms1 3.2/2,ms1mx2.7/20,Error ellipse: s-maj=112.0km s-min=30.2km az=145.0*

ISC 12 13:33:33.0±3.2,**21.8S**±0.4×**169.9E**±0.2,**h39**^{km}±23^{km}**,n10,** σ**0**^{s}**56**/10,**mb3.8**/6,**MS3.1**/2,**Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**3.20**	**264**	*e*P	**P**	**13 34 22.5**	**+0.4**
DZM				*e*S	**S**	**13 34 59.9**	**+0.5**
NOUC	**Port Laguerre**	**3.33**	**263**	*e*P	**P**	**13 34 23.8**	**-0.2**
NOUC				*e*S	**S**	**13 35 02.0**	**-0.7**
RPZ	**Rata Peaks**	**21.93**	**178**	LR	LR	13 44 46.6	
	comp=Z,77nm,20.5s,MS3.1,baz=162,slow=31						
STKA	**Stephens Creek**	**27.10**	**242**	P	**P**	**13 39 14.3**	**0.0**
	1.0nm,0.7s,mb3.5,baz=114,slow=10.0,SNR=3.9						
ASAR	**Alice Springs**	**33.18**	**260**	P	**P**	**13 40 07.9**	**-0.4**
	1.7nm,0.7s,mb4.1,baz=87,slow=8.9,SNR=18						
ASAR				LR	LR	13 52 47.9	
	comp=Z,32nm,18.4s,MS3.1,baz=43,slow=35						
WRA	**Warramunga Arr**	**33.21**	**267**	P	**P**	**13 40 07.9**	**-0.7**
	0.5nm,0.4s,mb3.8,baz=100,slow=8.4,SNR=8.5						
FITZ	**Fitzroy Crossi**	**41.64**	**267**	P	**P**	**13 41 20.5**	**+1.0**
	5.0nm,0.9s,mb4.2,baz=159,slow=17,SNR=3.8						
CMAR	**Chiang Mai Arr**	**80.07**	**294**	P	**P**	**13 45 41.4**	**+0.6**
	0.3nm,0.4s,mb3.5,baz=272,slow=26,SNR=3.8						
ILAR	**Eielson Array**	**92.44**	**17**	P	**P**	**13 46 40.1**	**-0.5**
	0.3nm,0.6s,mb3.8,baz=249,slow=4.9,SNR=6.2						
GERES	**GERESS Array B**	**146.96**	**331**	PKPbc	PKPbc	13 53 13.9	+3.0
	0.5nm,0.5s,baz=27,slow=3.0,SNR=7.8						

IDC 12 14:00:48.2±6.2,**9.68S**×**125.16E,mb4.0**/1,**mb1 3.6**/4, **mb1mx3.4**/13,**ML3.0**/3,**Error ellipse: s-maj=86.0km s-min=60.5km az=112.0,Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**8.39**	**177**	Pn	P	14 02 50.4	-3.5
	0.2nm,0.3s,baz=137,slow=6.7,SNR=10						
FITZ				Sn	Sn	14 04 28.8	-1.7
	0.3nm,0.3s,baz=183,slow=12,SNR=6.7						
WRA	**Warramunga Arr**	**13.52**	**140**	Pn	P	14 04 01.4	-2.6
	0.1nm,0.3s,baz=317,slow=14,SNR=6.5						
WRA				Sn	S	14 06 34.2	-2.0
	0.1nm,0.3s,baz=314,slow=23,SNR=5.8						
ASAR	**Alice Springs**	**16.23**	**150**	Pn	P	14 04 37.0	-2.3
	0.1nm,0.3s,baz=328,slow=12,SNR=5.1						
STKA	**Stephens Creek**	**26.84**	**148**	P	P	14 06 30.8	-1.6
	0.7nm,0.2s,baz=311,slow=11,SNR=2.7						

ISC 12 14:05:36.8±0.6,**39.72N**±0.04×**29.55E**±0.05,**h10**^{km}**,n12,** σ**0**^{s}**92**/16,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULDT	**Uludag**	**0.53**	**323**	*i* P	**Pg**	**14 05 47.1**	**-0.3**
ULDT				*i* S	**Sg**	**14 05 55.3**	**+0.8**
ALT	**Altintas**	**0.80**	**147**	PG	**Pg**	**14 05 51.7**	**-1.1**
ESKT	**Eskisehir**	**1.02**	**101**	PG	**Pg**	**14 05 55.9**	**-1.4**
ESKT	**Eskisehir**	**1.02**	**101**	*i* P	**Pb**	**14 05 58.2**	**+2.0**
ESKT				*i* S	**Sb**	**14 06 13.9**	**+4.4**
KCT	**Karacabey**	**1.06**	**301**	PG	**Pg**	**14 05 56.9**	**-1.2**
HRT	**Hereke**	**1.10**	**5**	*e*PN	**Pn**	**14 05 57.4**	**-0.8**
BTOK	**Tokmak**	**1.17**	**272**	*i* P	**Pb**	**14 05 58.2**	**-0.4**
BTOK				*i* S	**Sb**	**14 06 14.1**	**+0.4**
ISK	**Istanbul-Kandi**	**1.39**	**345**	*e*PN	**Pn**	**14 06 02.5**	**+0.2**
BNT	**Bandirma**	**1.40**	**297**	*e*PN	**Pn**	**14 06 03.0**	**+0.5**
MANT	**Manisa**	**1.45**	**212**	*i* P	**Pn**	**14 06 02.6**	**-0.6**
MANT				*i* S	**Sb**	**14 06 22.5**	**+0.6**
AKS	**Akhisar**	**1.59**	**238**	*e*PN	**Pn**	**14 06 05.4**	**+0.2**
KIZT	**Kizilcal**	**2.00**	**114**	*e*PN	**Pn**	**14 06 12.1**	**+1.1**

*IDC **12** 14:37:38.4±1.8,3.41S×135.26E,mb4.0/3,mb1 4.1/7, mb1mx3.9/14,ML3.7/4,MS3.2/2,Ms1 3.2/2,ms1mx2.7/16, Error ellipse: s-maj=49.5km s-min=28.5km az=97.0*

*NEIC **12** 14:37:39.2±0.8,3.34S×135.38E,h10^{km},mb4.0/5,Error ellipse: s-maj=14.4km s-min=12.7km az=107.0*

ISC 12 14:37:45.0±1.8,**3.90S**±0.10×**135.4E**±0.1,**h57**^{km}±16^{km}**, n16,**σ**1**^{s}**51**/22,**mb3.9**/4,**MS3.1**/1,**Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**9.23**	**199**	*e*P	**P**	**14 39 58.9**	**+0.9**
	19nm,0.6s						
KAKA				*e*S	**S**	**14 41 41.0**	**-0.5**
PMG	**Port Moresby**	**12.90**	**116**	Pn	**P**	**14 40 49.4**	**+1.8**
	0.4nm,0.3s,baz=323,slow=10,SNR=4.2						
PMG	**Port Moresby**	**12.90**	**116**	*e*P	**P**	**14 40 46.2**	**-1.5**
WRAB	**Tennant Creek**	**15.97**	**184**	*e*P	**P**	**14 41 26.1**	**-1.4**
	10nm,0.9s						
WB2	**Warramunga Arr**	**15.98**	**184**	*e*P	**P**	**14 41 26.5**	**-1.2**
WB2				*e*		14 41 34.6	
WB2				*e*S	**S**	**14 44 17.9**	**-4.9**
WRA	**Warramunga Arr**	**15.98**	**184**	Pn	**P**	**14 41 25.4**	**-2.3**
	0.4nm,0.3s,baz=1.1,slow=13,SNR=10						
WRA				Sn	**S**	**14 44 16.4**	**-6.4**
	0.7nm,0.3s,baz=2.6,slow=23,SNR=8.5						
FITZ	**Fitzroy Crossi**	**17.04**	**213**	P	**P**	**14 41 43.0**	**+2.0**
	0.4nm,0.3s,baz=28,slow=13,SNR=13						
FITZ				S	**S**	**14 44 41.8**	**-5.5**
	0.9nm,0.3s,baz=197,slow=17,SNR=7.4						
CTA	**Charters Tower**	**19.26**	**148**	P	**P**	**14 42 09.6**	**+1.8**
	0.3nm,0.3s,baz=337,slow=14,SNR=3.1						
CTAO	**Charters Tower**	**19.26**	**148**	P	**P**	**14 42 08.1**	**+0.3**
	14nm,1.3s						
ASAR	**Alice Springs**	**19.70**	**184**	P	**P**	**14 42 15.8**	**+3.2**
	6.8nm,0.5s,baz=8.0,slow=11,SNR=63						
ASAR				S	**S**	**14 45 46.0**	**-0.3**
	1.7nm,0.7s,baz=2.0,slow=25,SNR=5.1						
ASAR				LR	LR	14 50 20.9	
	comp=Z,75nm,20.3s,baz=13,slow=38						
ASPA	**Alice Springs**	**19.70**	**184**	*e*P	**P**	**14 42 15.7**	**+3.2**
ASPA				*e*S	**S**	**14 45 46.4**	**0.0**
MBWA	**Marble Bar**	**22.94**	**220**	*e*P	**P**	**14 42 49.0**	**+3.6**
	2.1nm,0.6s,mb3.7						
STKA	**Stephens Creek**	**28.43**	**169**	*e*P	**P**	**14 43 39.1**	**+2.4**
	2.9nm,2.0s,mb3.6						
STKA	**Stephens Creek**	**28.43**	**169**	P	**P**	**14 43 38.5**	**+1.8**
	1.0nm,0.6s,mb3.6,baz=338,slow=9.2,SNR=6.1						
STKA				LR	LR	14 55 29.6	
	comp=Z,44nm,18.2s,MS3.1,baz=24,slow=37						
ULN	**Ulaanbaatar**	**57.23**	**338**	P	**P**	**14 47 21.8**	**-7.1**
	1.9nm,0.4s,mb4.5						
ILAR	**Eielson Array**	**88.28**	**25**	P	**P**	**14 50 29.8**	**-1.5**
	0.3nm,0.5s,mb3.8,baz=253,slow=4.4,SNR=8.6						

*IDC **12** 15:05:23.9±0.5,8.93S×108.57E,mb4.8/18,mb1 4.9/19, mb1mx4.9/21,ML4.7/1,MS4.5/16,Ms1 4.5/16, ms1mx4.4/23,Error ellipse: s-maj=20.8km s-min=11.8km az=58.0*

*MOS **12** 15:05:27.3±1.4,8.84S×108.70E,h33^{km},mb5.1/22, MS4.5/11,Error ellipse: s-maj=20.8km s-min=10.4km az=112.3*

*NEIC **12** 15:05:30.3±0.2,8.84S×108.62E,mb4.9/28,MS4.5/10, Error ellipse: s-maj=7.9km s-min=5.0km az=46.0*

*HRVD **12** 15:05:30.3±0.6,9.28S×108.70E,h61^{km}±3^{km},MW5.0/38, Centroid moment Tensor Solution. LP body waves: s21,c28;Mantle waves: s38,c62; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.02±.25; M$_{\theta\theta}$-3.72±.19; M$_{\phi\phi}$2.70±.26; M$_{r\theta}$2.04±.11; M$_{\theta\phi}$-0.38±.17; M$_{\phi r}$0.51±.18; Best double couple: M$_0$3.68×10^{16} NP1:φ$_s$314°,δ62°, λ-178°. NP2:φ$_s$224°,δ88°,λ-28°. Principal axes: T 2.85, Plg18°, Azm272°; N 1.67, Plg62°, Azm40°; P -4.52, Plg21°, Azm175°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **12** 15:05:30.0,8.84S×108.55E,h49^{km},MB4.9,MS4.5*

*BJI **12** 15:05:30.3,8.80S×108.60E,h48^{km},mB5.0,mb4.9,Ms4.9, Msz4.7*

*DJA **12** 15:05:34.4±0.8,10.14S×109.18E,h148^{km}±16^{km},mb5.3/6, MD4.8/4,Error ellipse: s-maj=50.9km s-min=16.5km az=165.0*

ISC 12 15:05:27.5±1.1,**8.91S**±0.04×**108.62E**±0.04,**h38**^{km}±9^{km}**, h45**^{km}±1.8^{km}**:pP-P,n172,**σ**1**^{s}**23**/161,**mb4.8**/65,**MS4.5**/36, **15C-18D,Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**5.48**	**86**	⇑*e*Pn	**P**	**15 06 50.1**	**+1.3**
SRDI				*e*Sn	**S**	**15 07 51.5**	**+0.1**
SRDI	**Scrawed**	**5.48**	**86**	⇓*e*P	**P**	**15 06 50.3**	**+1.5**
	1μm,0.2s						
SRDI				⇓*e*S	**S**	**15 07 50.1**	**-1.3**
KELI	**Kelakatan**	**5.85**	**84**	⇓*e*Pn	**P**	**15 06 57.0**	**+3.1**
KELI	**Kelakatan**	**5.85**	**84**	⇓*e*P	**P**	**15 06 56.8**	**+2.9**
	827nm,0.2s						
KELI				⇓*e*S	**S**	**15 08 00.7**	**0.0**
RATI	**Rata**	**6.83**	**89**	⇑*e*P	**P**	**15 07 09.2**	**+1.3**
RATI				*e*S	**S**	**15 08 24.7**	**-0.6**
RATI	**Rata**	**6.83**	**89**	⇑*e*P	**P**	**15 07 08.5**	**+0.6**
	5μm,0.3s						
RATI				⇑*e*S	**S**	**15 08 20.1**	**-5.2**
KEDI	**Kedomdong**	**7.42**	**87**	⇓*e*P	**P**	**15 07 15.4**	**-0.6**
KEDI				*e*S	**S**	**15 08 34.7**	**-5.2**
KEDI	**Kedomdong**	**7.42**	**87**	⇓*e*P	**P**	**15 07 15.4**	**-0.6**
KEDI				⇑*e*S	**S**	**15 08 34.2**	**-5.7**
NINI	**Niniconang**	**11.93**	**69**	⇓*e*P	**P**	**15 08 25.2**	**+7.2**
NINI	**Niniconang**	**11.93**	**69**	⇓*e*P	**P**	**15 08 20.8**	**+2.8**
	310nm,1.1s						
TANI	**Tanete Lipujan**	**12.00**	**64**	⇓*e*P	**P**	**15 08 22.0**	**+3.0**
TANI	**Tanete Lipujan**	**12.00**	**64**	⇓*e*P	**P**	**15 08 23.8**	**+4.8**
	34nm,0.6s						
BUNI	**Buntu Taipa**	**12.75**	**67**	⇓*e*P	**P**	**15 08 33.6**	**+4.6**
BUNI				*e*S	rx	15 10 13.4	
BUNI	**Buntu Taipa**	**12.75**	**67**	⇓*e*P	**P**	**15 08 31.3**	**+2.3**
	53nm,0.5s						
IPM	**Ipoh**	**15.39**	**330**	*e*P	**P**	**15 09 11.5**	**+7.7**
MBWA	**Marble Bar**	**16.22**	**140**	*e*Pn	**P**	**15 09 08.7**	**-5.6**
FITZ	**Fitzroy Crossi**	**18.89**	**121**	*e*P	**P**	**15 09 47.4**	**-0.1**
	23nm,0.7s						
FITZ				*e*S	rx	15 13 01.2	
FITZ	**Fitzroy Crossi**	**18.89**	**121**	P	**P**	**15 09 47.4**	**-0.2**
	1.8nm,0.3s,baz=308,slow=3.3,SNR=48						
FITZ				S	rx	15 13 02.1	
	0.5nm,0.3s,baz=9.1,slow=19,SNR=3.4						
FITZ				LR	LR	15 16 50.2	
	comp=Z,731nm,20.3s,baz=287,slow=36						
MEEK	**Meekatharra**	**20.02**	**153**	*e*P	**P**	**15 10 00.1**	**+0.2**
	44nm,1.1s						
MEEK				*e*S	rx	15 13 26.6	
KAKA	**Kakadu**	**23.70**	**101**	*e*P	**P**	**15 10 37.8**	**+0.8**
	48nm,0.6s,mb5.1						
KAKA				*e*S		15 15 05.8	
MUN	**Mundaring**	**24.01**	**164**	*e*P	**P**	**15 10 40.3**	**+0.4**
	9.2nm,0.7s,mb4.3						
NWAO	**Narrogin (SRO)**	**25.19**	**163**	P	**P**	**15 10 50.8**	**-0.5**
	14nm,0.7s,mb4.6,baz=313,slow=11,SNR=7.1						
NWAO				LR	LR	15 19 37.4	
	comp=Z,15nm,21.9s,baz=304,slow=34						

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NWAO  Narrogin (SRO)     25.19 163   P      P       15 10 50.8 -0.5
NWAO                                 pmax   pmax
      comp=Z,15nm,0.7s
NWAO                                 MLR    MLR
      comp=Z,15nm,21.9s
NWAO  Narrogin (SRO)     25.19 163  eP      P       15 10 51.1 -0.1
      comp=Z,11nm,0.8s,mb4.5
WRA   Warramunga Arr     27.17 117   P      P       15 11 09.3 -0.4
      comp=Z,16nm,0.6s,mb4.8,baz=290,slow=11,SNR=117
WRA   Warramunga Arr     27.17 117   P      P       15 11 09.3 -0.4
WRA                                  pmax   pmax
      comp=Z,16nm,0.6s
WRAB  Tennant Creek      27.18 117  eP      P       15 11 09.2 -0.6
      comp=Z,35nm,0.6s,mb5.1
WB2   Warramunga Arr     27.18 117⇑iP      P       15 11 09.5 -0.3
WB2                                 eS      tx      15 16 20.0
QIZ   Qiongzhong         27.79   2  eP      P       15 11 18.0 +2.6
QIZ                                 eS      S       15 15 56.0 +2.1
QIZ                                  LR     LR
      comp=N,658nm,16.2s
QIZ                                  LR     LR
      comp=Z,886nm,23.6s
ASPA  Alice Springs      28.28 124  eP      P       15 11 19.8  0.0
ASPA                                eS      tx      15 16 45.1
ASAR  Alice Springs      28.29 124   P      P       15 11 18.9 -0.9
      comp=Z,5.5nm,0.7s,mb4.3,baz=297,slow=7.5,SNR=54
ASAR                                 PcP    PcP     15 14 32.9 +0.4
      comp=Z,1.7nm,0.4s,baz=313,slow=2.1,SNR=8.3
ASAR                                 LR     LR      15 22 57.3
      comp=Z,739nm,18.8s,MS4.3,baz=295,slow=37
FORT  Forrest            28.32 143  eP      P       15 11 19.6 -0.5
      comp=Z,24nm,0.6s,mb5.0
FORT                                eS      tx      15 16 38.6
CM31  Chiang Mai Arr     28.82 341  eP      P       15 11 22.1 -2.5
      comp=Z,6.2nm,0.8s,mb4.4
CM31                                 LR     LR
      comp=Z,1µm,21.0s,MS4.5
CMAR  Chiang Mai Arr     28.82 341   P      P       15 11 22.9 -1.7
      comp=Z,1.9nm,0.6s,mb4.0,baz=175,slow=8.9,SNR=15
CMAR                                 PcP    PcP     15 14 34.8 +0.9
      comp=Z,1.5nm,0.7s,baz=192,slow=4.4,SNR=4.9
CMAR                                 LR     LR      15 23 45.0
      comp=Z,1µm,20.3s,MS4.4,baz=160,slow=38
CMAR  Chiang Mai Arr     28.82 341   P      P       15 11 23.0 -1.6
CMAR                                                15 14 34.8
CMAR                                 pmax   pmax
      comp=Z,2.0nm,0.6s
CMAR                                 pmax   pmax
      comp=Z,2.0nm,0.7s
CMAR                                 MLR    MLR
      comp=Z,1µm,20.3s
KMI   Kunming            34.31 351  eP      P       15 12 14.9 +2.2
KMI                                  AP     pP      15 12 28.9 +5.6
KMI                                  PP     PP      15 13 29.9 +1.4
KMI                                  S      S       15 17 37.6 +1.1
KMI                                  XS             15 18 00.1
KMI                                  SS     SS      15 19 49.7 +2.2
KMI                                  AMB    AMB
      comp=Z,8.0nm,0.9s,mb4.7
KMI                                  AMB    AMB
      comp=Z,95nm,3.9s
KMI                                  LR     LR
      comp=N,1µm,17.9s,MS4.9
KMI                                  LR     LR
      comp=E,1µm,14.8s,MS4.9
KMI                                  LR     LR
      comp=Z,2µm,18.2s,MS4.9
GYA   Guiyang            35.21 357⇑iP      P       15 12 21.6 +1.2
GYA                                  AP     pP      15 12 34.8 +3.8
GYA                                  XP     sP      15 12 39.4 +3.5
GYA                                  PP     PP      15 13 40.2 +0.2
GYA                                  S      S       15 17 50.8 +0.5
GYA                                  SCP            15 18 28.6
GYA                                  AMB    AMB
      comp=Z,20nm,1.1s,mb5.0
GYA                                  AMB    AMB
      comp=Z,180nm,3.2s
GYA                                  LR     LR
      comp=N,820nm,18.8s,MS4.7
GYA                                  LR     LR
      comp=E,720nm,16.8s,MS4.7
GYA                                  LR     LR
      comp=Z,1µm,19.8s,MS4.6
TRD   Trivandrum         35.97 298  eP      P       15 12 29.1 +2.1
TRD                                  AMb    AMB     15 12 35.7
      comp=Z,38nm,1.3s,mb5.2
VIS   Vishakhapatnam     36.39 317  eP      P       15 12 31.1 +0.6
VIS                                  AMb    AMB     15 12 38.4
      comp=Z,42nm,1.0s,mb5.3
SHL   Shillong           37.95 335  eP      P       15 12 43.2 -0.2
CTA   Charters Tower     38.00 111  eP      P       15 12 45.6 +1.7
      comp=Z,4.6nm,0.6s,mb4.4
CTA   Charters Tower     38.00 111   LR     LR      15 28 23.7
      comp=Z,612nm,20.5s,MS4.4,baz=285,slow=36
CTAO  Charters Tower     38.00 111  eP      P       15 12 44.1 +0.1
      comp=Z,12nm,1.0s,mb4.6
CTAO                                 LR     LR
      comp=Z,966nm,22.0s,MS4.6
PMG   Port Moresby       38.04  94   P      P       15 12 44.6 +0.3
      comp=Z,7.4nm,0.7s,mb4.5,baz=301,slow=7.1,SNR=7.3
PMG                                  LR     LR      15 30 01.9
      comp=Z,488nm,21.1s,MS4.3,baz=116,slow=39
PMG   Port Moresby       38.04  94   P      P       15 12 44.6 +0.3
PMG                                  pmax   pmax
      comp=Z,7.0nm,0.7s
PMG                                  MLR    MLR
      comp=Z,488nm,21.1s
PMG   Port Moresby       38.04  94  eP      P       15 12 44.1 -0.2
      comp=Z,8.4nm,0.8s,mb4.5
PMG                                  LR     LR
      comp=Z,466nm,21.0s,MS4.3
STKA  Stephens Creek     38.18 131⇑iP      P       15 12 45.7 +0.4
      comp=Z,60nm,0.6s,mb5.5
STKA  Stephens Creek     38.18 131   P      P       15 12 45.2 -0.1
      comp=Z,81nm,0.7s,mb5.6,baz=304,slow=8.2,SNR=168
STKA                                 LR     LR      15 29 59.7
      comp=Z,1µm,20.0s,MS4.7,baz=308,slow=39
ENH   Enshi              38.97   1  eP      P       15 12 51.6 -0.3
      comp=Z,9.2nm,0.6s,mb4.7
HYB   Hyderabad          39.59 311  eP      P       15 13 01.5 +4.4
HYB   Hyderabad          39.59 311  i P     P       15 13 00.0 +2.9
CD2   Chengdu            39.87 353   P      P       15 13 01.8 +2.5
CD2                                  PP     PP      15 14 41.5 +6.5
CD2                                  PPP    PPP     15 15 03.1 +2.4
CD2                                  S      S       15 19 02.8 +1.5
CD2                                  SS     SS      15 21 50.6 -1.6
CD2                                  SCS    ScS     15 23 03.3 +1.9
CD2                                  AMB    AMB
      comp=Z,10.0nm,1.0s,mb4.5
CD2                                  AMB    AMB
      comp=Z,80nm,4.8s
CD2                                  LR     LR
      comp=E,470nm,18.6s
CD2                                  LR     LR
      comp=Z,390nm,13.2s
LSA   Lhasa              41.91 337   P      P       15 13 20.8 +4.5
PKI   Pulchoki           42.67 329  eP      P       15 13 23.4 +0.8
      comp=Z,3.5nm,0.3s,mb4.5
GUN   Gumba              42.71 330  eP      P       15 13 23.1 +0.2
      comp=Z,26nm,0.6s,mb5.1
XAN   Xi’an              42.71   0   P      P       15 13 22.9 +0.1
XAN                                  AMB    AMB
      comp=Z,16nm,0.6s,mb4.9
DMN   Daman              42.85 329  eP      P       15 13 24.1  0.0
KKN   Kakani             42.91 329  eP      P       15 13 25.2 +0.7
      comp=Z,9.9nm,0.5s,mb4.8
GKN   Gorkha             43.41 328  eP      P       15 13 28.4 -0.2
KOLN  Koldanda           43.77 327  eP      P       15 13 30.9 -0.6
      comp=Z,41nm,0.6s,mb5.3
BHPL  Bhopal             44.19 317  eP      P       15 13 34.9  0.0
BHPL                                e               15 13 50.2
      comp=Z,26nm,1.7s
LZH   Lanzhou            44.98 355  eP      P       15 13 46.0 +4.9
LZH                                  AP     pP      15 13 58.4 +6.4
LZH                                  XP     sP      15 14 03.9 +7.3
LZH                                  PP     PP      15 15 32.2 +5.0
LZH                                 eS      S       15 20 21.0 +4.7
LZH                                  XS             15 20 43.0
LZH                                  AMB    AMB
      comp=Z,15nm,1.0s,mb4.8
LZH                                  AMB    AMB
      comp=Z,70nm,4.1s
LZH                                  LR     LR
      comp=N,700nm,14.6s
LZH                                  LR     LR
      comp=Z,924nm,15.9s,MS4.8
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LGTI  Lohaghat           46.92 325  eP      P       15 13 56.7 +0.2
PTH   Pithoragarh        47.01 325  e       P       15 13 51.8 -5.5
NDI   New Delhi          48.12 322  eP      P       15 14 03.0 -3.0
NDI                                 e               15 20 55.5
AJM   Ajmer              48.23 318  eP      P       15 14 06.7 -0.1
AJM                                 e               15 14 37.4
      comp=Z,19nm,1.0s
CBIJ  Chichi jima        48.37  41   LR     LR      15 32 12.2
      comp=Z,231nm,20.9s,MS4.1,baz=151,slow=33
GTA   Gaotai             48.77 351  eP      P       15 14 12.6 +1.8
GTA                                  AP     pP      15 14 24.0 +2.3
GTA                                  XP     sP      15 14 30.0 +3.8
GTA                                  PCP    PcP     15 15 36.1 +0.4
GTA                                  PP     PP      15 16 06.1 +2.2
GTA                                  SCP            15 19 26.1
GTA                                  S      S       15 21 12.4 +2.5
GTA                                  SS     SS      15 24 38.7 +2.8
GTA                                  AMB    AMB
      comp=Z,6.0nm,0.4s,mb5.0
GTA                                  AMB    AMB
      comp=Z,120nm,4.6s
GTA                                  LR     LR
      comp=N,911nm,17.5s,MS4.9
GTA                                  LR     LR
      comp=E,582nm,17.1s,MS4.9
GTA                                  LR     LR
      comp=Z,970nm,19.4s,MS4.8
DDI   Dehra Dun          48.83 324  eP      P       15 14 13.2 +1.8
BJT   Baijiatuau         49.18   8  eP      P       15 14 11.9 -2.0
      comp=Z,15nm,0.5s,mb5.3
BJT                                 epP     pP      15 14 25.5 +0.7
BJT                                  LR     LR
      comp=Z,523nm,19.0s,MS4.5
BJI   Beijing            49.20   8   P      P       15 14 12.7 -1.5
BJI                                  S      S       15 21 22.8 +6.8
BJI                                  LR     LR
      comp=N,525nm,19.5s
BJI                                  LR     LR
      comp=E,414nm,12.7s
BJI                                  LR     LR
      comp=Z,517nm,26.4s
BTO   Baotou             49.28   1  eP      P       15 14 13.5 -1.3
BHJ   Bhuj               49.75 311  eP      P       15 14 17.6 -0.9
BHJ                                  AMb    AMB     15 14 33.7
      comp=Z,44nm,1.3s,mb5.3
SDNR  Sundarnagar        50.32 324  eP      P       15 14 21.8 -1.1
JHJ   Hachijo jima 2     51.25  34   LR     LR      15 34 45.4
      comp=Z,226nm,20.2s,MS4.2,baz=160,slow=34
THN   Thein Dam          51.73 324  eP      P       15 14 30.7 -2.8
SNY   Shenyang           52.32  14 ⇑P       P       15 14 37.3 -0.5
SNY                                  S      S       15 21 49.4  -10
SNY                                  AMB    AMB
      comp=Z,10.0nm,0.9s,mb4.8
SNY                                  LR     LR
      comp=N,300nm,19.2s,MS4.5
SNY                                  LR     LR
      comp=E,210nm,17.1s,MS4.5
SNY                                  LR     LR
      comp=Z,420nm,19.0s,MS4.5
MAT   Matsushiro         53.08  30   P      P       15 14 41.6 -1.9
MAT   Matsushiro         53.08  30   P      P       15 14 42.0 -1.5
      comp=Z,9.6nm,0.7s,mb4.8
CN2   Changchun          54.64  15  eP      P       15 14 56.0 +1.1
CN2                                 eAP     pP      15 15 08.5 +2.5
CN2                                 eS      S       15 22 33.9 +3.4
CN2                                  AMB    AMB
      comp=Z,10.0nm,0.7s,mb5.0
CN2                                  AMB    AMB
      comp=Z,400nm,6.0s
CN2                                  LR     LR
      comp=N,300nm,15.0s,MS4.6
CN2                                  LR     LR
      comp=E,300nm,15.0s,MS4.6
CN2                                  LR     LR
      comp=Z,500nm,16.0s,MS4.7
WMQ   Urumqi             55.81 342 ⇓P       P       15 15 04.7 +1.3
WMQ                                  AP     pP      15 15 17.7 +3.2
WMQ                                  XP     sP      15 15 22.7 +3.8
WMQ                                  PCP    PcP     15 16 03.5 +1.6
WMQ                                  PP     PP      15 17 10.9 +1.4
WMQ                                  S      S       15 22 46.5 +0.4
WMQ                                  AMB    AMB
      comp=Z,5.0nm,0.9s,mb4.5
WMQ                                  LR     LR
      comp=N,298nm,21.4s,MS4.5
WMQ                                  LR     LR
      comp=E,313nm,20.8s,MS4.5
WMQ                                  LR     LR
      comp=Z,326nm,22.0s,MS4.4
SONM  Songino Array      56.53 358   P      P       15 15 08.0 -0.4
      comp=Z,10nm,0.6s,mb5.1,baz=176,slow=8.3,SNR=54
ULN   Ulaanbaatar        56.54 359  eP      P       15 15 07.6 -1.0
      comp=Z,16nm,0.7s,mb5.2
ULN                                  LR     LR
      comp=Z,501nm,21.0s,MS4.6
MDJ   Mudanjiang         56.55  18   P      P       15 15 06.7 -2.0
MDJ                                  AP     pP      15 15 18.3 -1.5
MDJ                                  XP     sP      15 15 23.3 -0.9
MDJ                                  PP     PP      15 17 12.5 -3.6
MDJ                                  SCP            15 19 59.4
MDJ                                  PCS            15 20 04.0
MDJ                                  S      S       15 22 55.1 -0.8
MDJ                                  XS             15 23 14.6
MDJ                                  SS     SS      15 26 42.5 -1.7
MDJ                                  AMB    AMB
      comp=Z,85nm,4.0s
MDJ                                  LR     LR
      comp=N,296nm,23.2s,MS4.4
MDJ                                  LR     LR
      comp=E,230nm,26.9s,MS4.4
MDJ                                  LR     LR
      comp=Z,281nm,20.6s
KSH   Kashi              56.90 330  eP      P       15 15 14.2 +2.9
KSH                                 eAP     pP      15 15 27.4 +5.0
KSH                                 eXP     sP      15 15 32.2 +5.4
KSH                                 ePCP    PcP     15 16 10.4 +4.2
KSH                                 ePP     PP      15 17 21.2 +1.8
KSH                                 ePPP    PPP     15 18 40.2 +1.2
KSH                                 eSCP            15 20 05.0
KSH                                 ePCS            15 20 10.2
KSH                                  AMB    AMB
      comp=Z,190nm,4.6s
HIA   Hailar             58.75   9  eP      P       15 15 22.2 -1.9
HIA                                  LR     LR
      comp=Z,509nm,21.0s,MS4.6
ZAK   Zakamensk          59.23 356  eP      P       15 15 28.5 +1.1
KZA   Kyzart             59.23 332   P      P       15 15 27.1 -0.4
      SNR=15
UCH   Uchtor             59.69 331  eP      P       15 15 29.6 -1.1
      comp=Z,2.8nm,0.7s,mb4.4
TKM2  Tokmak 2           59.73 332   P      P       15 15 29.9 -1.0
      SNR=37
TKM2  Tokmak 2           59.73 332  eP      P       15 15 29.7 -1.2
      comp=Z,27nm,0.7s,mb5.4
TKM2                                 LR     LR
      comp=Z,515nm,22.0s,MS4.6
KBK   Karagaybulak       59.82 332   P      P       15 15 31.2 -0.4
      SNR=23
AAK   Ala-Archa          60.02 331  eP      P       15 15 31.3 -1.6
AAK                                  pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.5
AAK                                  MLR    MLR
      comp=Z,500nm,19.0s,MS4.7
AAK   Ala-Archa          60.02 331  eP      P       15 15 30.7 -2.2
      comp=Z,3.9nm,0.8s,mb4.5
AML   Almayashu          60.02 331   P      P       15 15 32.3 -0.6
      SNR=6.7
MKAR  Makanchi Array     60.22 339  i P     P       15 15 33.1 -1.2
MKAR                                 pmax   pmax
      comp=Z,8.0nm,0.4s
EKS2  Erkin-Say          60.38 331   P      P       15 15 34.7 -0.7
      SNR=6.1
EKS2  Erkin-Say          60.38 331  eP      P       15 15 34.3 -1.1
      comp=Z,16nm,0.7s,mb5.2
TLY   Talaya             60.50 356  i P     P       15 15 41.7 +5.6
TLY   Talaya             60.50 356   P      P       15 15 34.5 -1.6
      comp=Z,6.6nm,0.7s,mb4.8
TLY                                  LR     LR
      comp=Z,175nm,22.0s,MS4.2
ASAJ  Asahikawa          61.09  27   P      P       15 15 41.2 +1.0
      comp=Z,9.1nm,0.7s,mb5.0,baz=116,slow=3.0,SNR=6.8
ASAJ                                 LR     LR      15 47 00.5
      comp=Z,746nm,18.6s,MS4.9,baz=66,slow=41
ASAJ  Asahikawa          61.09  27   P      P       15 15 41.3 +1.1
ASAJ                                 pmax   pmax
```

```
      comp=Z,9.0nm,0.7s
ASAJ                                 MLR    MLR
      comp=Z,746nm,18.6s
KLR   Kul’dur            61.35  17  eP      P       15 15 36.2 -5.7
YSS   Yuzh-Sakhalins     63.38  25  eP      pP      15 16 06.6 -0.1
YSS                                  pmax   pmax
      comp=Z,110nm,1.3s,mb5.8
YSS   Yuzh-Sakhalins     63.38  25  eP      P       15 15 53.4 -2.0
YSS                                 epP     pP      15 16 06.4 -0.3
RPZ   Rata Peaks         64.05 134   LR     LR      15 42 14.9
      comp=Z,1µm,20.3s,MS5.1,baz=273,slow=34
ZAL   Zalesovo           65.77 345   P      P       15 16 09.3 -1.5
      comp=Z,8.6nm,0.4s,mb5.1,baz=331,slow=4.1,SNR=28
ZAL                                  LR     LR      15 48 10.5
      comp=Z,377nm,18.2s,MS4.6,baz=283,slow=39
ZAL   Zalesovo           65.77 345   P      P       15 16 09.3 -1.5
ZAL                                  pmax   pmax
      comp=Z,9.0nm,0.4s
ZAL                                  MLR    MLR
      comp=Z,377nm,18.2s
ZAL   Zalesovo           65.77 345   P      P       15 16 09.3 -1.5
ZAL                                  LR     LR      15 48 10.5
MAW   Mawson             66.02 197   P      P       15 16 10.7 -1.5
      comp=Z,18nm,0.7s,mb5.2,baz=32,slow=11,SNR=12
MAW                                  LR     LR      15 40 07.4
      comp=Z,223nm,18.7s,MS4.4,baz=64,slow=32
MAW   Mawson             66.02 197  eP      P       15 16 12.2  0.0
      comp=Z,24nm,0.8s,mb5.3
BOD   Bodaibo            66.64   3  eP      P       15 16 14.7 -1.6
BOD                                 e       pP      15 16 28.9 +1.3
BVA0  Borovoye Array     69.75 337   P      P       15 16 35.0 -0.6
BVA0                                 pmax   pmax
      comp=Z,2.0nm,0.7s,mb4.2
BVAR  Borovoye Array     69.75 337   P      P       15 16 34.8 -0.8
      comp=Z,13nm,0.6s,mb5.0,baz=141,slow=8.7,SNR=68
BRVK  Borovoye           69.81 336  eP      P       15 16 35.0 -1.0
      comp=Z,15nm,0.9s,mb4.9
BRVK                                 LR     LR
      comp=Z,128nm,20.0s,MS4.2
CHKZ  Chkalovo           70.15 337  eP      P       15 16 37.3 -0.8
      comp=Z,15nm,0.5s,mb5.2
KMBO  Kilima Mbogo       71.42 272   P      P       15 16 47.4 +0.9
      comp=Z,1.2nm,0.6s,mb4.0,baz=56,slow=22,SNR=3.8
KMBO                                 LR     LR      15 42 52.2
      comp=Z,227nm,20.9s,MS4.4,baz=93,slow=32
YAK   Yakutsk            72.60  10  eP      P       15 16 50.3 -2.3
YAK                                 e       pP      15 17 04.6 +0.6
YAK                                  pmax   pmax
      comp=Z,12nm,0.9s,mb4.8
YAK                                  pmax   pmax
      comp=Z,66nm,0.9s,mb5.6
YAK                                  pmax   pmax
      comp=N,36nm,1.2s
YAK                                  pmax   pmax
      comp=E,14nm,1.3s
YAK   Yakutsk            72.60  10  eP      P       15 16 50.8 -1.8
      comp=E,29nm,0.6s,mb5.4
YAK                                 epP     pP      15 17 05.0 +1.0
YAK                                  LR     LR
      comp=Z,281nm,22.0s,MS4.5
VNDA  Vanda              73.81 170   P      P       15 16 59.1 -0.4
      comp=Z,4.0nm,0.7s,mb4.4,baz=316,slow=6.0,SNR=21
VNDA                                 LR     LR      15 48 18.7
      comp=Z,266nm,19.0s,MS4.5,baz=323,slow=35
SYO   Syowa Base         74.28 200 ⇓P       P       15 17 02.2 -0.1
SYO   Syowa Base         74.28 200 ⇑PcP     PcP     15 17 14.8 -2.5
SBA   Scott Base         74.88 169  eP      P       15 17 03.6 -2.0
MA2   Magadan            76.09  21  eP      PcP     15 17 24.7 -0.6
MA2                                  pmax   pmax
      comp=Z,58nm,1.5s,mb5.3
MA2                                  MLR    MLR
      comp=Z,100nm,13.0s,MS4.3
ARU   Arti               77.03 334⇓iP      P       15 17 18.6 +0.4
ARU                                 e       pP      15 17 32.6 +2.9
ARU                                 eS      S       15 26 58.7 -4.0
ARU                                  pmax   pmax
      comp=Z,19nm,1.0s,mb5.0
ARU                                  MLR    MLR
      comp=Z,400nm,22.0s,MS4.7
ARU   Arti               77.03 334  eP      P       15 17 17.3 -1.0
      comp=Z,8.8nm,0.6s,mb4.9
ZEI   Tsey               78.08 317  i P     P       15 17 25.4 +1.1
ZEI                                  pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.6
LSZ   Lusaka             78.53 256  eP      P       15 17 27.9 +0.6
      comp=Z,10nm,1.0s,mb4.7
KIV   Kislovodsk         79.36 318  eP      P       15 17 31.1 -0.2
KIV                                 e       pP      15 17 40.9 -1.9
KIV                                  pmax   pmax
      comp=Z,6.0nm,0.8s,mb4.6
ASF   Jabal al Asfar     79.56 305   P      P       15 17 33.6 +0.9
      comp=Z,1.9nm,0.3s,mb4.5,baz=137,slow=4.9,SNR=2.5
GOF   Gofitskoye         79.58 319  eP      P       15 17 41.0 +8.5
SOKR  Solikamsk          79.72 336⇓eP      P       15 17 33.7 +0.8
SOKR                                 pmax   pmax
      comp=Z,20nm,1.1s,mb5.0
SOKR                                 MLR    MLR
      comp=Z,410nm,21.6s,MS4.7
QSPA  South Pole Qui     81.09 180  eP      P       15 17 41.6 +1.8
      comp=Z,7.6nm,0.9s,mb4.6
SOC   Sochi              81.21 317  eP      P       15 17 35.1 -6.1
SOC                                 ePPP    PPP     15 22 33.2 -7.0
SOC                                 eSS     SS      15 33 02.6 -3.4
SOC                                  pmax   pmax
      comp=Z,10.0nm,0.8s,mb4.8
SOC                                  pmax   pmax
      comp=N,9.0nm,0.7s
SOC                                  pmax   pmax
      comp=E,5.0nm,0.6s
TIXI  Tiksi              81.51   6⇑iP      P       15 17 42.1 -0.1
TIXI                                 pmax   pmax
      comp=Z,16nm,0.7s,mb5.1
TIXI                                 MLR    MLR
      comp=Z,191nm,20.0s,MS4.5
BRTR  Keskin Array B     84.29 312   P      P       15 17 58.7 +1.7
      comp=Z,2.9nm,0.9s,mb4.4,baz=135,slow=7.0,SNR=11
BRTR  Keskin Array B     84.29 312   P      P       15 17 58.7 +1.7
BRTR                                 pmax   pmax
      comp=Z,3.0nm,0.9s
VRSR  Storozhevoye       84.33 324  eP      P       15 17 58.9 +1.9
VRSR                                e*PP    pP      15 18 07.9 -0.7
VRSR                                e*SP    sP      15 18 11.9 -0.7
VRSR                                 pmax   pmax
      comp=Z,10.0nm,0.6s,mb5.1
VRSR                                 pmax   pmax
      comp=N,5.0nm,0.5s
VRSR                                 pmax   pmax
      comp=E,10.0nm,0.8s
OBN   Obninsk            87.19 327⇑iP      P       15 18 11.3 +0.4
OBN                                 i       pP      15 18 25.0 +2.4
OBN                                  pmax   pmax
      comp=Z,11nm,1.5s,mb4.9
SNAA  Sanae              88.19 197⇑iP      P       15 18 16.4 +1.1
SNAA  Sanae              88.19 197⇓iP      P       15 18 17.3 +2.0
VNA2  Neumayer--Watz     89.84 197⇑iP      P       15 18 27.5 +4.3
AKASG Malin Array Be     90.18 321   P      P       15 18 25.8 +0.6
      comp=Z,0.8nm,0.5s,mb4.3,baz=83,slow=4.2,SNR=5.2
AKASG                                PP     PP      15 21 58.8 -2.7
      comp=Z,1.3nm,0.7s,baz=99,slow=5.9,SNR=5.3
AKASG Malin Array Be     90.18 321   P      P       15 18 25.8 +0.6
AKASG                                               15 21 58.8
AKASG                                pmax   pmax
      comp=Z,1.0nm,0.5s
AKASG                                pmax   pmax
      comp=Z,1.0nm,0.7s
VNA3  Neumayer Olymp     90.34 197⇑iP      P       15 18 31.7 +6.2
FINES FINESS Array B     94.21 331   P      P       15 18 44.9 +1.5
      comp=Z,4.6nm,1.1s,mb4.8,baz=135,slow=11,SNR=7.2
FINES                                LR     LR      16 03 39.7
      comp=Z,202nm,18.6s,MS4.6,baz=190,slow=37
FINES FINESS Array B     94.21 331   P      P       15 18 44.9 +1.4
FINES                                pmax   pmax
      comp=Z,5.0nm,1.1s
FINES                                MLR    MLR
      comp=Z,202nm,18.6s
FINES FINESS Array B     94.21 331   P      P       15 18 44.9 +1.4
FINES                                LR     LR      16 03 39.7
ARCES ARCESS Array B     95.88 339   P      P       15 18 51.7 +0.8
      comp=Z,24nm,1.3s,mb5.5,baz=90,slow=4.9,SNR=5.0
ARCES                                LR     LR      16 04 01.2
      comp=Z,353nm,18.1s,MS4.9,baz=296,slow=37
ARCES ARCESS Array B     95.88 339   P      P       15 18 51.7 +0.8
ARCES                                pmax   pmax
      comp=Z,24nm,1.3s
ARCES                                MLR    MLR
      comp=Z,353nm,18.1s
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TBI	**Tubuai**	**97.29**	**115**	*e*LR	LR	15 51 41.1	
	comp=Z,348nm,23.2s						
PPT	**Papeete**	**98.43**	**109**	*e*LR	LR	15 52 13.8	
	comp=Z,304nm,23.0s						
IMA	**Indian Mountai**	**101.22**	**24**	Pdif	P	15 19 15.0	-0.2
	comp=Z,56nm,1.3s						
RKT	**Rikitea**	**110.15**	**119**	*e*LR	LR	15 57 37.8	
	comp=Z,309nm,39.0s						
YKA	**Yellowknife Ar**	**118.07**	**21**	PKP	PKPdf	15 24 12.8	+2.6
	comp=Z,0.4nm,0.5s,baz=323,slow=1.9,SNR=12						
NVAR	**Mina Array Bea**	**128.70**	**47**	PKP	PKPdf	15 24 35.8	+4.3
	comp=Z,0.9nm,0.8s,baz=239,slow=1.6,SNR=6.1						
TXAR	**Lajitas Array**	**143.55**	**52**	PKP	PKPdf	15 24 59.0	+0.1
	comp=Z,1.1nm,0.7s,baz=264,slow=2.3,SNR=7.3						
WMOK	**Wichita Mounta**	**144.07**	**40**	*e*PKPdf	PKPdf	15 25 00.4	+0.8
NCB	**Newcomb**	**144.99**	**4**	*e*PKP	PKPdf	15 25 01.8	+0.8
JCT	**Junction City**	**145.88**	**47**	*e*PKP	PKPdf	15 25 05.3	+2.4
BDFB	**Brasilia**	**146.37**	**224**	PKPbc	PKPbc	15 25 07.9	+2.5
	comp=Z,10nm,1.0s,baz=22,slow=2.7,SNR=6.2						
BDFB	**Brasilia**	**146.37**	**224**	PKP2	PKPab	15 25 07.9	-0.5
BDFB				pmax	pmax		
	comp=Z,10.0nm,1.0s						
BLO	**Bloomington**	**146.95**	**22**	PKPbc	PKPbc	15 25 07.7	+1.6
MIAR	**Mount Ida**	**147.36**	**35**	PKPab	PKPab	15 25 10.2	-1.5
WCI	**Wyandotte Cave**	**147.87**	**22**	*e*PKPab	PKPab	15 25 11.4	-2.2
SSPA	**Standing Stone**	**147.88**	**9**	*e*PKPbc	PKPdf	15 25 09.9	+4.0
LVC	**Limon Verde**	**148.58**	**184**	*e*PKPbc	PKPdf	15 25 14.2	+6.6
WVT	**Waverly**	**149.04**	**26**	*e*PKPbc	PKPdf	15 25 13.5	+5.5
OXF	**Oxford**	**149.62**	**30**	PKPbc	PKPdf	15 25 14.3	+5.4
LPAZ	**La Paz**	**154.76**	**187**	PKP	PKPdf	15 25 21.4	+4.6
	comp=Z,1.1nm,1.1s,baz=176,slow=3.3,SNR=4.7						
LPAZ				PKPbc	PKPdf	15 25 30.8	+14
	comp=Z,1.3nm,0.8s,baz=220,slow=1.5,SNR=6.1						
LPAZ				PKPab	PKPab	15 25 44.0	+1.1
	comp=Z,3.8nm,0.7s,baz=188,slow=5.1,SNR=9.9						
LPAZ	**La Paz**	**154.76**	**187**	PKIKP	PKPdf	15 25 21.4	+4.6
LPAZ						15 25 30.8	
LPAZ						15 25 44.0	
LPAZ				pmax	pmax		
	comp=Z,1.0nm,1.1s						
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LPAZ	**La Paz**	**154.76**	**187**	PKP	PKPdf	15 25 21.4	+4.6
LPAZ				PKPbc	PKPdf	15 25 30.8	+14
LPAZ				*e*PKPab	PKPab	15 25 44.0	+1.1

IDC 12 15:18:30.7±2.3**, 8.89S**×**108.41E, mb3.7**/5**, mb1 3.9**/5**, mb1mx3.7**/16**, Error ellipse: s-maj=105.0km s-min=21.0km az=53.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**27.36**	**116**	P	P	15 24 17.4	-2.4
	0.4nm,0.5s,baz=290,slow=11,SNR=5.3						
ASAR	**Alice Springs**	**28.47**	**124**	P	P	15 24 28.2	-1.5
	0.5nm,0.7s,baz=300,slow=9.5,SNR=9.2						
STKA	**Stephens Creek**	**38.34**	**131**	P	P	15 25 53.5	-1.8
	2.0nm,0.6s,baz=318,slow=11,SNR=12						
SONM	**Songino Array**	**56.51**	**358**	P	P	15 28 15.4	-1.7
	0.2nm,0.4s,baz=182,slow=8.1,SNR=3.0						
BVAR	**Borovoye Array**	**69.65**	**337**	P	P	15 29 41.3	-2.6
	0.9nm,0.7s,baz=141,slow=9.5,SNR=6.8						

NIED ***12*** *15:31:00, 42.90N×145.00E, h59^{km}, Mw4.1 Best double couple: M$_0$1.44×10^{15} NP1:φ$_s$19°, δ70°, λ75°. NP2:φ$_s$238°, δ25°, λ126°.*

MOS ***12*** *15:31:41.3±0.9, 42.89N×145.09E, h61^{km}, mb4.2/3, Error ellipse: s-maj=16.7km s-min=10.2km az=88.6*

SKHL ***12*** *15:31:43.4±1.0, 42.91N×145.04E, h54^{km}±10^{km}, mb5.4/1*

JMA ***12*** *15:31:43.3±0.1, 42.95N×144.99E, h52^{km}±1^{km}, M4.1 Broadband fault plane solution: P waves. NP1:φ$_s$243°, δ23°, λ126°. NP2:φ$_s$25°, δ71°, λ76°. Principal axes: T Plg61°, Azm274°; N Plg13°, Azm30°; P Plg25°, Azm126°;*

JMA Felt II J1.

NEIC ***12*** *15:31:44.3±0.9, 42.97N×144.90E, h64^{km}±8^{km}, mb4.0/4 Error ellipse: s-maj=9.1km s-min=7.0km az=118.0*

NEIC Recorded [2 JMA] in eastern Hokkaido.

IDC ***12*** *15:31:46.7±2.2, 43.01N×144.91E, h85^{km}±18^{km}, mb3.6/17, mb1 3.8/18, mb1mx3.7/25, Error ellipse: s-maj=17.3km s-min=14.5km az=128.0*

ISC 12 15:31:41.8±0.5**, 42.92N**±0.04×**145.02E**±0.05**, h59**^{km}±3^{km}**, n50, σ0^{s}89**/65**, mb3.9**/21**, 2C-7D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.24**	**288**	⇓P	**P**	**15 31 52.0**	**+0.5**
JAK				S	**S**	**15 31 58.3**	**-0.3**
NEM2	**Nemuro 2**	**0.69**	**50**	⇑P	**P**	**15 31 56.5**	**+0.5**
NEM2				*e*S	**S**	**15 32 05.8**	**-0.7**
JNK	**Nakash**	**0.70**	**342**	⇓P	**P**	**15 31 56.4**	**+0.4**
JNK				*e*S	**S**	**15 32 05.8**	**-0.9**
JOB	**Onbets**	**0.87**	**269**	⇓P	**P**	**15 31 58.9**	**+0.7**
JOB				S	**S**	**15 32 10.4**	**-0.1**
JAR	**Ashorobuto**	**0.99**	**293**	⇓P	**P**	**15 32 00.6**	**+0.8**
JAR				*e*S	**S**	**15 32 13.0**	**-0.2**
JRA	**Rausu**	**1.02**	**4**	⇓P	**P**	**15 32 01.0**	**+0.7**
JRA				*e*S	**S**	**15 32 13.8**	**-0.2**
JCH	**Churui**	**1.25**	**256**	⇓P	**P**	**15 32 03.8**	**+0.2**
JCH				*e*S	**S**	**15 32 19.4**	**-0.3**
YUK	**Yuzh-Kuril’sk**	**1.27**	**29**	⇑*i*PN	**P**	**15 32 03.2**	**-0.6**
YUK				*i* S	**S**	**15 32 18.8**	**-1.3**
YUK				pmax	pmax		
	comp=Z,2µm,1.0s						
YUK				pmax	pmax		
	comp=Z,1µm,0.3s						
YUK				pmax	pmax		
	comp=N,440nm,0.5s						
YUK				pmax	pmax		
	comp=E,190nm,0.3s						
YUK				smax			
	comp=N,12µm,1.0s						
YUK				smax			
	comp=E,9µm,1.0s						
YUK				smax			
	comp=N,6µm,0.5s						
YUK				smax			
	comp=E,2µm,0.4s						
YUK	**Yuzh-Kuril’sk**	**1.27**	**29**	*i* P	**P**	**15 32 03.2**	**-0.6**
YUK				AMB	AMB	15 32 04.0	
	comp=E,2µm,1.0s						
YUK				AMB	AMB	15 32 04.0	
	comp=E,440nm,0.3s						
YUK				AMB	AMB	15 32 04.0	
	comp=E,190nm,0.3s						
YUK				AMB	AMB	15 32 04.0	
	comp=E,1µm,0.3s						
YUK				*i* S	**S**	**15 32 18.8**	**-1.3**
YUK				A		15 32 20.3	
	comp=E,12µm,1.0s						
YUK				A		15 32 20.3	
	comp=E,9µm,1.0s						
YUK				A		15 32 22.0	
	comp=E,6µm,0.5s						
YUK				A		15 32 22.0	
	comp=E,2µm,0.5s						
JTKR	**Abashiri--Toko**	**1.32**	**323**	⇓P	**P**	**15 32 05.5**	**+0.9**
JTKR				*e*S	**S**	**15 32 22.4**	**+0.9**
ASAJ	**Asahikawa**	**2.13**	**305**	P	**P**	**15 32 17.3**	**+1.6**
	comp=E,91nm,0.3s,baz=130,slow=8.2,SNR=220						
ASAJ				S	**S**	**15 32 44.2**	**+3.3**
	comp=E,29nm,0.3s,baz=346,slow=28,SNR=5.9						
ASAJ	**Asahikawa**	**2.13**	**305**	PN	**P**	**15 32 17.3**	**+1.6**
ASAJ				S	**S**	**15 32 44.2**	**+3.3**
ASAJ				pmax	pmax		
	comp=Z,91nm,0.3s						
YSS	**Yuzh-Sakhalins**	**4.34**	**339**	*e*PN	**P**	**15 32 47.0**	**+0.1**
YSS	**Yuzh-Sakhalins**	**4.34**	**339**	*e*P	**P**	**15 32 47.3**	**+0.4**
YSS				*e*S	**S**	**15 33 34.0**	**-2.7**
YSS				A		15 33 36.5	
	comp=Z,30nm,1.0s						
MAJO	**Matsushiro**	**8.25**	**222**	*e*PN	**P**	**15 33 40.5**	**-0.7**
MAT	**Matsushiro**	**8.25**	**222**	P	**P**	**15 33 40.3**	**-0.9**
MAT				S	**S**	**15 35 12.6**	**-1.3**
MAT	**Matsushiro**	**8.25**	**222**	P	**P**	**15 33 41.0**	**-0.2**
MAT				*e*S	**S**	**15 35 13.0**	**-0.9**
ULN	**Ulaanbaatar**	**26.92**	**294**	*e*P	**P**	**15 37 18.7**	**-0.4**
ULN				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb3.7						
ULN	**Ulaanbaatar**	**26.92**	**294**	*e*P	**P**	**15 37 18.7**	**-0.4**
	comp=Z,2.6nm,1.1s,mb3.7						
SONM	**Songino Array**	**27.37**	**294**	P	**P**	**15 37 22.8**	**-0.4**
	comp=Z,2.4nm,0.6s,mb3.9,baz=77,slow=8.4,SNR=22						
ZAL	**Zalesovo**	**40.27**	**307**	P	**P**	**15 39 14.1**	**-0.1**
	comp=Z,0.9nm,0.3s,mb3.9,baz=52,slow=5.8,SNR=3.3						
ILAR	**Eielson Array**	**43.07**	**36**	P	**P**	**15 39 38.0**	**+1.0**
	comp=Z,0.4nm,0.6s,mb3.3,baz=270,slow=7.2,SNR=18						
CMAR	**Chiang Mai Arr**	**45.79**	**252**	P	**P**	**15 39 59.9**	**+0.5**
	comp=Z,0.9nm,0.6s,mb3.9,baz=43,slow=8.0,SNR=10						
INK	**Inuvik**	**47.90**	**30**	P	**P**	**15 40 15.5**	**+0.2**
	comp=Z,0.9nm,0.4s,mb4.1,baz=284,slow=6.7,SNR=29						
BVAR	**Borovoye Array**	**48.82**	**309**	P	**P**	**15 40 22.3**	**-0.3**
	comp=Z,0.8nm,0.4s,mb4.1,baz=82,slow=9.1,SNR=16						
TKM2	**Tokmak 2**	**49.45**	**295**	*e*P	**P**	**15 40 26.1**	**-1.5**
	comp=Z,2.6nm,0.6s,mb4.4						
GUN	**Gumba**	**49.50**	**273**	*e*P	**P**	**15 40 28.5**	**+0.3**
KKN	**Kakani**	**50.01**	**273**	*e*P	**P**	**15 40 33.2**	**+1.1**
AAK	**Ala-Archa**	**50.31**	**295**	*e*P	**P**	**15 40 33.0**	**-1.2**
AAK				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
AAK	**Ala-Archa**	**50.31**	**295**	*e*P	**P**	**15 40 33.0**	**-1.2**
	comp=Z,1.0nm,0.5s,mb4.1						
GKN	**Gorkha**	**50.36**	**273**	*e*P	**P**	**15 40 33.4**	**-1.4**
KOLN	**Koldanda**	**51.25**	**274**	*e*P	**P**	**15 40 41.8**	**+0.2**
YKA	**Yellowknife Ar**	**57.35**	**33**	P	**P**	**15 41 23.8**	**-1.8**
	comp=Z,0.1nm,0.3s,mb3.3,baz=304,slow=6.7,SNR=5.6						
WRA	**Warramunga Arr**	**63.32**	**191**	P	**P**	**15 42 06.0**	**-0.9**
	comp=Z,1.0nm,0.9s,mb3.9,baz=9.2,slow=7.1,SNR=7.0						
FINES	**FINESS Array B**	**64.89**	**332**	P	**P**	**15 42 15.6**	**-0.9**
	comp=Z,1.3nm,0.5s,mb4.2,baz=56,slow=7.2,SNR=18						
ASAR	**Alice Springs**	**67.04**	**191**	P	**P**	**15 42 31.7**	**+0.9**
	comp=Z,0.9nm,0.7s,mb3.9,baz=7.4,slow=5.5,SNR=20						
NVAR	**Mina Array Bea**	**69.34**	**56**	P	**P**	**15 42 46.0**	**+1.2**
	comp=Z,0.4nm,0.6s,mb3.5,baz=281,slow=3.9,SNR=4.9						
NB2	**NORSAR Subarra**	**69.80**	**338**	P	**P**	**15 42 46.7**	**-0.5**
	comp=Z,1.0nm,0.5s,mb4.0,baz=33,slow=6.2						
NOA	**NORSAR Array B**	**69.80**	**338**	P	**P**	**15 42 46.5**	**-0.7**
	comp=Z,1.2nm,0.5s,mb4.1,baz=34,slow=6.3,SNR=7.1						
HFS	**Hagfors**	**69.84**	**336**	P	**P**	**15 42 46.8**	**-0.6**
	comp=Z,2.0nm,0.5s,mb4.3,baz=37,slow=7.4,SNR=15						
AKASG	**Malin Array Be**	**71.31**	**323**	P	**P**	**15 42 56.2**	**-0.3**
	comp=Z,0.9nm,0.4s,mb4.0,baz=42,slow=5.6,SNR=8.7						
AKASG	**Malin Array Be**	**71.31**	**323**	P	**P**	**15 42 56.2**	**-0.3**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BW06	**Boulder Array**	**71.63**	**48**	*e*P	**P**	**15 42 59.3**	**+0.7**
	comp=Z,0.6nm,0.4s,mb3.9						
PDAR	**Pinedale Array**	**71.63**	**48**	P	**P**	**15 42 59.2**	**+0.7**
	comp=Z,0.3nm,0.3s,mb3.6,baz=225,slow=2.1,SNR=3.4						
PV10	**Paradox Valley**	**74.88**	**52**	P	**P**	**15 43 18.3**	**+0.7**
PRU	**Pruhonice**	**77.85**	**330**	*e*P	**P**	**15 43 35.0**	**+0.9**
KHC	**Kasperske Hory**	**78.91**	**330**	*e*P	**P**	**15 43 40.5**	**+0.6**
GERES	**GERESS Array B**	**79.10**	**330**	P	**P**	**15 43 40.6**	**-0.4**
	comp=Z,0.4nm,0.4s,mb3.7,baz=33,slow=6.4,SNR=6.8						
TXAR	**Lajitas Array**	**84.40**	**55**	P	**P**	**15 44 10.5**	**+1.6**
	comp=Z,0.3nm,0.7s,mb3.5,baz=336,slow=2.0,SNR=4.5						
TXAR	**Lajitas Array**	**84.40**	**55**	P	**P**	**15 44 10.5**	**+1.6**

IDC ***12*** *15:35:55.6±1.2, 47.39N×153.16E, mb4.0/11, mb1 4.1/11, mb1mx3.9/23, Error ellipse: s-maj=32.0km s-min=25.0km az=143.0*

MOS ***12*** *15:36:04.6±1.7, 47.49N×153.61E, h82^{km}, mb4.2/2, Error ellipse: s-maj=27.9km s-min=13.6km az=86.4*

NEIC ***12*** *15:36:09.5±1.9, 47.45N×153.36E, h113^{km}±15^{km}, mb3.9/1, Error ellipse: s-maj=21.8km s-min=12.8km az=135.0*

ISC 12 15:36:03.7±2.1**, 47.5N**±0.2×**153.6E**±0.2**, h74**^{km}±15^{km}**, n20, σ1^{s}21**/20**, mb3.9**/13**, 1C, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril’s**	**3.56**	**26**	*e*PN	**P**	**15 36 56.7**	**-1.2**
SKR				*e*S	**S**	**15 37 38.5**	**-0.5**
YSS	**Yuzh-Sakhalins**	**7.43**	**270**	*e*PN	**P**	**15 37 52.9**	**+1.4**
MA2	**Magadan**	**12.20**	**353**	*e*PN	**P**	**15 38 59.5**	**+3.5**
ILAR	**Eielson Array**	**35.73**	**39**	P	**P**	**15 42 56.8**	**+0.3**
	0.6nm,1.0s,mb3.5,baz=258,slow=6.9,SNR=5.4						
INK	**Inuvik**	**40.81**	**33**	P	**P**	**15 43 41.2**	**+2.4**
	0.4nm,0.3s,mb3.7,baz=292,slow=5.6,SNR=11						
YKA	**Yellowknife Ar**	**50.10**	**37**	P	**P**	**15 44 54.9**	**+2.4**
	0.6nm,0.8s,mb3.6,baz=297,slow=7.1,SNR=5.8						
BVAR	**Borovoye Array**	**50.65**	**309**	P	**P**	**15 44 55.3**	**-1.6**
	0.5nm,0.3s,mb4.0,baz=58,slow=8.2,SNR=9.1						
KAF	**Kangasniemi**	**62.90**	**335**	*e*p	**P**	**15 46 22.6**	**-1.1**
	0.6nm,0.4s,mb3.9						
KAF	**Kangasniemi**	**62.90**	**335**	*e*P	**P**	**15 46 22.6**	**-1.1**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
FINES	**FINESS Array B**	**63.50**	**335**	P	**P**	**15 46 26.6**	**-1.1**
	comp=Z,1.1nm,0.3s,mb4.3,baz=35,slow=7.8,SNR=26						
NB2	**NORSAR Subarra**	**67.62**	**341**	P	**P**	**15 46 54.1**	**+0.2**
	comp=Z,2.0nm,0.6s,mb4.1,baz=26,slow=6.2						
NOA	**NORSAR Array B**	**67.62**	**341**	P	**P**	**15 46 54.0**	**+0.1**
	comp=Z,2.5nm,0.6s,mb4.2,baz=26,slow=6.3,SNR=13						
HFS	**Hagfors**	**67.86**	**340**	P	**P**	**15 46 55.2**	**-0.2**
	comp=Z,5.0nm,0.4s,mb4.7,baz=56,slow=5.3,SNR=64						
AKASG	**Malin Array Be**	**71.11**	**326**	P	**P**	**15 47 14.6**	**-0.8**
	comp=Z,1.8nm,0.4s,mb4.3,baz=35,slow=6.2,SNR=16						
AKASG	**Malin Array Be**	**71.11**	**326**	P	**P**	**15 47 14.6**	**-0.8**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ASAR	**Alice Springs**	**73.05**	**199**	P	**P**	**15 47 25.9**	**-1.4**
	comp=Z,0.4nm,0.9s,mb3.2,baz=15,slow=6.1,SNR=5.2						
ASAR				pP	pP	15 47 45.5	-1.8
	comp=Z,0.5nm,1.0s,baz=11,slow=5.6,SNR=4.1						
CLL	**Collm**	**75.92**	**336**	⇑P	**P**	**15 47 44.1**	**+0.8**
	comp=Z,logA/T=0.9,mb4.4						
TXAR	**Lajitas Array**	**76.81**	**61**	pP	pP	15 48 09.9	+1.0
	comp=Z,0.5nm,0.7s,baz=300,slow=6.0,SNR=6.5						
GERES	**GERESS Array B**	**77.92**	**334**	P	**P**	**15 47 55.2**	**+0.6**
	comp=Z,0.5nm,0.4s,mb3.6,baz=34,slow=4.8,SNR=8.9						
BRTR	**Keskin Array B**	**78.08**	**317**	P	**P**	**15 47 55.8**	**+0.2**
	comp=Z,1.1nm,0.7s,mb3.7,baz=72,slow=3.9,SNR=5.5						

NIED ***12*** *15:45:00, 42.90N×145.50E, h35^{km}, Mw4.3 Best double couple: M$_0$3.2×10^{15} NP1:φ$_s$33°, δ71°, λ84°. NP2:φ$_s$231°, δ20°, λ107°.*

MOS ***12*** *15:45:15.9±0.9, 42.79N×145.53E, h36^{km}, mb4.8/15, Error ellipse: s-maj=12.1km s-min=6.7km az=105.4*

IDC ***12*** *15:45:17.6±0.8, 42.89N×145.41E, h34^{km}±5^{km}, mb4.0/21, mb1 4.2/22, mb1mx4.1/27, ML4.4/1, MS3.0/1, Ms1 3.0/1, ms1mx2.4/31, Error ellipse: s-maj=16.5km s-min=14.2km az=145.0*

BJI ***12*** *15:45:17.8, 43.03N×145.64E, h61^{km}, mB4.9, mb4.7, Ms4.3, Msz4.0*

NEIC ***12*** *15:45:18.6±0.8, 42.87N×145.44E, h42^{km}±7^{km}, mb4.7/18, MW4.3(NIED), Error ellipse: s-maj=6.5km s-min=5.3km az=126.0*

NEIC Recorded [1 JMA] in eastern Hokkaido.

JMA ***12*** *15:45:18.3±0.1, 42.91N×145.49E, h45^{km}±1^{km}, M4.2*

JMA Felt I J1.

SKHL ***12*** *15:45:19.5±0.4, 42.98N×145.64E, h50^{km}±19^{km}, mb4.6/4*

ISC 12 15:45:16.8±0.6**, 42.84N**±0.04×**145.51E**±0.05**, h42**^{km}±4^{km}**, h39**^{km}±2.4^{km}**:pP-P, n122, σ0^{s}95**/136**, mb4.5**/50**, MS4.2**/4**, 2C-12D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.55**	**18**	⇑P	**P**	**15 45 29.0**	**+0.7**
NEM2				S	**S**	**15 45 36.4**	**-0.2**
JAK	**Akkeshi**	**0.62**	**285**	⇓P	**P**	**15 45 30.4**	**+1.2**
JAK				*e*S	**S**	**15 45 38.7**	**+0.5**
JNK	**Nakash**	**0.94**	**323**	⇓P	**P**	**15 45 34.2**	**+0.5**
JNK				S	**S**	**15 45 45.3**	**-1.0**
JRA	**Rausu**	**1.14**	**346**	⇓P	**P**	**15 45 36.9**	**+0.5**
JRA				*e*S	**S**	**15 45 50.7**	**-0.4**
YUK	**Yuzh-Kuril’sk**	**1.22**	**12**	⇓*i*PN	**P**	**15 45 36.6**	**-1.1**
YUK				*i* S	**S**	**15 45 51.0**	**-2.3**
YUK				pmax	pmax		
	comp=Z,1µm,0.5s						
YUK				pmax	pmax		
	comp=N,880nm,0.7s						
YUK				pmax	pmax		
	comp=E,180nm,0.3s						
YUK				pmax	pmax		
	comp=Z,2µm,1.0s						
YUK				smax			
	comp=N,12µm,0.7s						
YUK				smax			
	comp=E,27µm,0.9s						
YUK				smax			
	comp=N,11µm,0.5s						
YUK				smax			
	comp=E,8µm,0.5s						
YUK	**Yuzh-Kuril’sk**	**1.22**	**12**	*i* P	**P**	**15 45 36.6**	**-1.1**
YUK				AMB	AMB	15 45 37.5	
	comp=E,2µm,1.0s						
YUK				AMB	AMB	15 45 37.5	
	comp=E,880nm,0.7s						
YUK				AMB	AMB	15 45 37.5	
	comp=E,180nm,0.7s						
YUK				AMB	AMB	15 45 37.5	
	comp=E,1µm,0.7s						
YUK				*i* rx	rx	15 45 49.0	
YUK				*i* S	**S**	**15 45 51.0**	**-2.3**
YUK				A		15 45 52.0	
	comp=E,12µm,1.0s						
YUK				A		15 45 52.0	
	comp=E,27µm,1.0s						
YUK				A		15 45 56.8	
	comp=E,11µm,0.5s						
YUK				A		15 45 56.8	
	comp=E,8µm,0.5s						
JOB	**Onbets**	**1.23**	**274**	⇓P	**P**	**15 45 38.9**	**+1.1**
JAR	**Ashorobuto**	**1.35**	**290**	⇓P	**P**	**15 45 40.5**	**+0.8**
JAR				*e*S	**S**	**15 45 57.1**	**+0.4**
ASAJ	**Asahikawa**	**2.48**	**302**	Pn	**P**	**15 45 57.2**	**+1.7**
	comp=E,55nm,0.3s,baz=117,slow=10,SNR=136						
ASAJ				Sn	**S**	**15 46 29.2**	**+4.4**
	comp=E,27nm,0.3s,baz=21,slow=30,SNR=7.8						
ASAJ	**Asahikawa**	**2.48**	**302**	PN	**P**	**15 45 57.3**	**+1.7**
ASAJ						15 46 29.3	
ASAJ				pmax	pmax		
	comp=Z,55nm,0.3s						
YSS	**Yuzh-Sakhalins**	**4.56**	**336**	*e*PN	**P**	**15 46 24.7**	**-0.4**
YSS	**Yuzh-Sakhalins**	**4.56**	**336**	*e*P	**P**	**15 46 25.8**	**+0.7**
YSS				*e*rx	rx	15 46 49.0	
YSS				*e*S	**S**	**15 47 18.0**	**+0.5**
YSS				A		15 47 20.0	
	comp=Z,30nm,0.9s						
TYV	**Tymovskoe**	**8.26**	**347**	*e*P	**P**	**15 47 14.0**	**-2.9**
MAJO	**Matsushiro**	**8.44**	**224**	*e*PN	**P**	**15 47 17.9**	**-1.4**
MAJO				pmax	pmax		
	comp=Z,14nm,0.7s						
MAJO	**Matsushiro**	**8.44**	**224**	*e*P	**P**	**15 47 17.9**	**-1.4**
	comp=Z,14nm,0.7s						
MAT	**Matsushiro**	**8.44**	**224**	P	**P**	**15 47 18.1**	**-1.2**
MAT				*e*S	**S**	**15 48 52.9**	**-1.4**
MAT	**Matsushiro**	**8.44**	**224**	*e*PN	**P**	**15 47 18.0**	**-1.3**
MAT				pmax	pmax		
	comp=Z,9.0nm,0.7s						
MAT	**Matsushiro**	**8.44**	**224**	*e*P	**P**	**15 47 18.0**	**-1.3**
	comp=Z,8.9nm,0.7s						
MAT				S	**S**	**15 48 55.0**	**+0.7**
GRNR	**Gornyy**	**10.08**	**325**	*e*P	**P**	**15 47 42.8**	**+0.9**
JHJ	**Hachijo jima 2**	**10.70**	**207**	LR	LR	15 51 58.4	
	comp=Z,80nm,18.6s,baz=105,slow=37						
KLR	**Kul’dur**	**11.49**	**309**	*e*P	**P**	**15 48 02.0**	**+0.9**
EKMR	**Ekimchan**	**13.23**	**325**	*e*P	**P**	**15 48 23.5**	**-0.8**
EKMR				AMB	AMB	15 48 25.4	
	comp=Z,3.0nm,0.6s						
CN2	**Changchun**	**14.64**	**281**	*e*P	**P**	**15 48 47.2**	**+4.5**
CN2				*e*XP		15 48 57.0	
CN2				*e*S	**S**	**15 51 23.7**	**-0.6**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,300nm,11.0s						
CN2				LR	LR		
	comp=E,300nm,11.0s						
CN2				LR	LR		
	comp=Z,400nm,12.0s						
BMKR	**Bomnak**	**16.13**	**323**	*e*P	**P**	**15 49 00.5**	**-1.3**
ZEA	**Zeya**	**16.27**	**318**	*e*P	**P**	**15 49 06.1**	**+2.5**
ZEA				AMB	AMB	15 49 16.6	
	comp=Z,30nm,1.2s						
KROS	**Kirovskiy**	**16.81**	**320**	*e*P	**P**	**15 49 08.2**	**-2.2**
KROS				AMB	AMB	15 49 11.4	
	comp=Z,6.0nm,0.9s						
BJT	**Baijiatuau**	**22.13**	**273**	*e*P	**P**	**15 50 09.6**	**-0.5**
BJT				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BJT	**Baijiatuau**	**22.13**	**273**	*e*P	**P**	**15 50 09.6**	**-0.5**
	comp=Z,7.6nm,0.6s,mb4.3						
NJ2	**Nanjing**	**23.65**	**252**	*e*P	**P**	**15 50 24.4**	**-0.6**
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
HHC	**Hu-ho-hao-te**	**25.27**	**277**	*e*P	**P**	**15 50 42.4**	**+1.8**
HHC				AP	pP	15 50 54.0	+2.4
HHC				XP	sP	15 50 59.5	+3.0
HHC				PP	PP	15 51 21.6	+1.8
HHC				PCP	PcP	15 54 16.1	+2.3
HHC				S	**S**	**15 55 02.7**	**+1.8**
HHC				XS		15 55 21.5	
HHC				SS	SS	15 56 05.1	+1.5
HHC				AMB	AMB		
	comp=Z,22nm,0.4s,mb5.0						
HHC				AMB	AMB		
	comp=Z,121nm,4.4s						
HHC				LR	LR		
	comp=N,202nm,8.0s						
HHC				LR	LR		
	comp=E,205nm,7.4s						
HHC				LR	LR		
	comp=Z,161nm,11.2s,MS3.8						
ULN	**Ulaanbaatar**	**27.29**	**294**	*e*P	**P**	**15 50 58.7**	**-0.4**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.1						
ULN	**Ulaanbaatar**	**27.29**	**294**	*e*P	**P**	**15 50 58.7**	**-0.5**
	comp=Z,2.4nm,0.3s,mb4.2						
SONM	**Songino Array**	**27.73**	**294**	P	**P**	**15 51 02.5**	**-0.7**
	comp=Z,6.6nm,0.8s,mb4.3,baz=84,slow=8.0,SNR=35						
ZAK	**Zakamensk**	**29.64**	**300**	*e*P	**P**	**15 51 19.6**	**-0.6**
ENH	**Enshi**	**31.30**	**258**	*e*P	**P**	**15 51 34.5**	**-0.6**
	comp=Z,6.7nm,0.7s,mb4.6						
LZH	**Lanzhou**	**32.61**	**272**	*e*P	**P**	**15 51 47.3**	**+0.8**
LZH				AP	pP	15 51 57.6	-0.4
LZH				PP	PP	15 52 56.1	0.0
LZH				*e*S	**S**	**15 56 58.0**	**-0.2**
LZH				SS	SS	15 58 55.9	-1.0
LZH				AMB	AMB		
	comp=Z,26nm,1.5s,mb4.9						
LZH				AMB	AMB		
	comp=Z,91nm,4.9s						
LZH				LR	LR		
	comp=N,556nm,14.5s						
LZH				LR	LR		
	comp=Z,822nm,16.0s,MS4.5						
GTA	**Gaotai**	**34.27**	**280**	*e*P	**P**	**15 52 01.1**	**+0.3**
GTA				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.3						
CD2	**Chengdu**	**35.12**	**264**	P	**P**	**15 52 08.0**	**-0.2**
CD2				*e*S	**S**	**15 57 34.9**	**-2.3**
CD2				SS	SS	15 59 52.5	-2.1
CD2				SCS	ScS	16 02 24.1	+1.4
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
CD2				AMB	AMB		
	comp=Z,80nm,4.8s						
CD2				LR	LR		
	comp=E,100nm,6.0s						
CD2				LR	LR		
	comp=Z,120nm,6.6s						
GYA	**Guiyang**	**35.53**	**255**	⇓*i*P	**P**	**15 52 11.6**	**-0.1**
GYA				XP	sP	15 52 29.4	+0.8
GYA				PP	PP	15 53 32.6	0.0
GYA				S	**S**	**15 57 42.3**	**-1.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
GYA				LR	LR		
	comp=N,1µm,16.8s,MS4.9						
GYA				LR	LR		
	comp=E,1µm,17.6s,MS4.9						
GYA				LR	LR		
	comp=Z,1µm,17.0s,MS4.8						
KMI	**Kunming**	**39.15**	**257**	*e*P	**P**	**15 52 42.7**	**+0.7**
KMI				AMB	AMB		
	comp=Z,11nm,0.6s,mb4.8						
IMA	**Indian Mountai**	**40.11**	**34**	*e*P	**P**	**15 52 50.1**	**+0.6**
IMA				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.1						
IMA	**Indian Mountai**	**40.11**	**34**	*e*P	**P**	**15 52 50.1**	**+0.6**
	comp=Z,35nm,0.8s,mb5.1						
ZAL	**Zalesovo**	**40.61**	**308**	P	**P**	**15 52 53.0**	**-0.8**
	comp=Z,0.9nm,0.6s,mb3.6,baz=22,slow=11,SNR=5.8						

WMQ	**Urumqi**	**41.32**	**292**	⇑P	**P**	**15 53 00.5**	**+0.7**
WMQ				AP	pP	15 53 12.5	+1.0
WMQ				XP	sP	15 53 18.0	+1.4
WMQ				PP	PP	15 54 39.3	+0.9
WMQ				PCP	PcP	15 55 00.4	+2.0
WMQ				S	**S**	**15 59 10.9**	**-0.1**
WMQ				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.0						
WMQ				LR	LR		
	comp=N,32nm,19.4s,MS3.5						
WMQ				LR	LR		
	comp=E,58nm,19.4s,MS3.5						
WMQ				LR	LR		
	comp=Z,64nm,15.0s,MS3.6						
ILAR	**Eielson Array**	**42.93**	**36**	P	**P**	**15 53 12.8**	**+0.2**
	comp=Z,1.3nm,0.6s,mb3.8,baz=265,slow=4.7,SNR=30						
ILAR				pP	pP	15 53 22.4	-2.0
	comp=Z,2.6nm,0.9s,baz=271,slow=5.7,SNR=8.5						
MKAR	**Makanchi Array**	**43.95**	**298**	*i* P	**P**	**15 53 20.9**	**-0.3**
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**46.12**	**253**	P	**P**	**15 53 39.2**	**+0.4**
	comp=Z,1.3nm,0.6s,mb4.0,baz=40,slow=7.0,SNR=11						
INK	**Inuvik**	**47.79**	**30**	P	**P**	**15 53 51.2**	**-0.2**
	comp=Z,1.6nm,0.5s,mb4.3,baz=293,slow=6.1,SNR=53						
BVA0	**Borovoye Array**	**49.16**	**309**	P	**P**	**15 54 01.6**	**-0.5**
BVAR	**Borovoye Array**	**49.16**	**309**	P	**P**	**15 54 01.7**	**-0.4**
	comp=Z,2.4nm,0.5s,mb4.5,baz=83,slow=8.5,SNR=30						
BRVK	**Borovoye**	**49.21**	**310**	*e*P	**P**	**15 54 01.6**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
BRVK	**Borovoye**	**49.21**	**310**	*e*P	**P**	**15 54 01.6**	**-0.8**
	comp=Z,5.4nm,1.0s,mb4.5						
TKM2	**Tokmak 2**	**49.82**	**295**	*e*P	**P**	**15 54 07.3**	**-0.1**
	comp=Z,6.7nm,0.8s,mb4.7						
TKM2				*e*pP	pP	15 54 18.1	-1.1
TKM2				*e*sP	sP	15 54 23.3	-0.9
GUN	**Gumba**	**49.87**	**273**	*e*P	**P**	**15 54 07.0**	**-0.9**
	comp=Z,15nm,0.6s,mb5.2						
GUN	**Gumba**	**49.87**	**273**	*e*P	**P**	**15 54 08.2**	**+0.3**
	comp=Z,6.9nm,0.4s,mb5.0						
KKN	**Kakani**	**50.38**	**273**	*e*P	**P**	**15 54 11.5**	**-0.3**
	comp=Z,10nm,0.8s,mb4.9						
PKI	**Pulchoki**	**50.40**	**273**	*e*P	**P**	**15 54 12.0**	**0.0**
DMN	**Daman**	**50.60**	**273**	*e*P	**P**	**15 54 13.3**	**-0.2**
	comp=Z,5.2nm,0.5s,mb4.7						
GKN	**Gorkha**	**50.73**	**274**	*e*P	**P**	**15 54 14.3**	**-0.2**
	comp=Z,7.4nm,0.4s,mb4.9						
GKN	**Gorkha**	**50.73**	**274**	*e*P	**P**	**15 54 13.0**	**-1.5**
	comp=Z,3.7nm,0.4s,mb4.7						
KOLN	**Koldanda**	**51.62**	**274**	*e*P	**P**	**15 54 21.3**	**+0.1**
	comp=Z,8.6nm,0.5s,mb4.9						
PMG	**Port Moresby**	**52.01**	**178**	P	**P**	**15 54 23.4**	**-0.9**
	comp=Z,3.7nm,0.9s,mb4.3,baz=32,slow=9.5,SNR=3.2						
ARU	**Arti**	**54.19**	**317**	*e*P	**P**	**15 54 37.7**	**-2.2**
YKA	**Yellowknife Ar**	**57.22**	**33**	P	**P**	**15 55 00.9**	**-0.7**
	comp=Z,0.6nm,0.6s,mb3.8,baz=302,slow=6.7,SNR=9.2						
YKA				pP	pP	15 55 11.4	-2.3
	comp=Z,0.8nm,0.7s,baz=302,slow=6.9,SNR=7.8						
YKA	**Yellowknife Ar**	**57.22**	**33**	*e*P	**P**	**15 55 00.9**	**-0.8**
WRA	**Warramunga Arr**	**63.31**	**192**	P	**P**	**15 55 43.0**	**-0.8**
	comp=Z,0.2nm,0.6s,mb3.5,baz=9.4,slow=6.7,SNR=4.6						
KAF	**Kangasniemi**	**64.59**	**333**	*e*p	**P**	**15 55 49.3**	**-2.1**
	comp=Z,4.6nm,0.6s,mb4.7						
KAF	**Kangasniemi**	**64.59**	**333**	*e*P	**P**	**15 55 49.3**	**-2.1**
KAF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
FINES	**FINESS Array B**	**65.14**	**333**	P	**P**	**15 55 54.0**	**-1.0**
	comp=Z,7.9nm,0.5s,mb5.0,baz=50,slow=7.8,SNR=84						
VRSR	**Storozhevoye**	**66.63**	**319**	*e*P	**P**	**15 56 04.1**	**-0.5**
VRSR				pmax	pmax		
	comp=N,7.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,1.0nm,0.6s						
VRSR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
ASAR	**Alice Springs**	**67.03**	**192**	P	**P**	**15 56 07.3**	**-0.3**
	comp=Z,0.8nm,1.0s,mb3.7,baz=7.0,slow=6.3,SNR=8.2						
BOZ	**Bozeman (W)**	**68.41**	**47**	*e*P	**P**	**15 56 16.2**	**+0.3**
NVAR	**Mina Array Bea**	**69.08**	**57**	P	**P**	**15 56 21.1**	**+0.9**
	comp=Z,1.5nm,0.8s,mb4.0,baz=281,slow=9.3,SNR=8.1						
KIV	**Kislovodsk**	**69.47**	**311**	*e*P	**P**	**15 56 23.7**	**+1.2**
KIV				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
KIV	**Kislovodsk**	**69.47**	**311**	*e*P	**P**	**15 56 22.9**	**+0.4**
	comp=Z,13nm,0.8s,mb4.9						
NB2	**NORSAR Subarra**	**70.01**	**338**	P	**P**	**15 56 24.5**	**-1.0**
	comp=Z,4.2nm,0.7s,mb4.5,baz=37,slow=6.2						
NB2	**NORSAR Subarra**	**70.01**	**338**	P	**P**	**15 56 24.5**	**-1.0**
NB2				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
NOA	**NORSAR Array B**	**70.01**	**338**	P	**P**	**15 56 24.4**	**-1.1**
	comp=Z,5.3nm,0.7s,mb4.6,baz=36,slow=6.1,SNR=22						
NOA				pP	pP	15 56 35.1	-2.8
	comp=Z,1.6nm,1.0s,baz=43,slow=5.5,SNR=2.6						
HFS	**Hagfors**	**70.06**	**337**	P	**P**	**15 56 24.6**	**-1.2**
	comp=Z,23nm,1.1s,mb5.0,baz=45,slow=6.3,SNR=24						
HFS				pP	pP	15 56 36.0	-2.2
	comp=Z,2.2nm,0.5s,baz=45,slow=4.2,SNR=2.7						
FRB	**Frobisher Bay**	**70.38**	**15**	P	**P**	**15 56 26.3**	**-1.4**
	comp=Z,5.8nm,1.1s,mb4.4,baz=310,slow=4.2,SNR=4.0						
PDAR	**Pinedale Array**	**71.41**	**49**	P	**P**	**15 56 33.9**	**-0.4**
	comp=Z,0.4nm,0.5s,mb3.6,baz=25,slow=1.0,SNR=4.7						
AKASG	**Malin Array Be**	**71.60**	**323**	P	**P**	**15 56 34.5**	**-0.7**
	comp=Z,6.2nm,0.5s,mb4.8,baz=41,slow=6.3,SNR=34						
AKASG	**Malin Array Be**	**71.60**	**323**	P	**P**	**15 56 34.5**	**-0.7**
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.5s						
PV10	**Paradox Valley**	**74.64**	**52**	P	**P**	**15 56 53.9**	**+0.6**
KOLS	**Kolonicke sedl**	**75.91**	**325**	*e*P	**P**	**15 57 00.6**	**+0.3**
KOLS				*e*pP	pP	15 57 12.5	-0.2
MORC	**Moravsky Berou**	**77.15**	**328**	*e*P	**P**	**15 57 06.9**	**-0.4**
DPC	**Dobruska-Polom**	**77.15**	**329**	*e*P	**P**	**15 57 08.2**	**+0.9**
DPC				*e*pP	pP	15 57 20.9	+1.2
BRTR	**Keskin Array B**	**77.30**	**313**	P	**P**	**15 57 07.9**	**-0.4**
	comp=Z,1.4nm,0.6s,mb4.0,baz=69,slow=3.4,SNR=6.9						
CLL	**Collm**	**77.56**	**332**	⇓*i*P	**P**	**15 57 09.4**	**-0.1**
CLL				*i*	pP	15 57 20.2	-1.8
CLL				*i*		15 57 25.4	
CLL				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CLL	**Collm**	**77.56**	**332**	⇓*i*P	**P**	**15 57 09.4**	**-0.1**
	comp=Z,10.0nm,1.0s,mb4.7						
CLL				*i*	pP	15 57 20.2	-1.8
CLL				*i*		15 57 25.4	
CLL	**Collm**	**77.56**	**332**	⇓P	**P**	**15 57 09.4**	**-0.1**
	comp=Z,logA/T=1.0,mb4.7						
CLL				*i* *PP	pP	15 57 20.2	-1.8
CLL				*i* *SP	sP	15 57 25.4	-1.2
BRG	**Berggiesshubel**	**77.59**	**331**	⇓*i*P	**P**	**15 57 09.4**	**-0.3**
BRG				*i*	pP	15 57 20.2	-2.0
BRG				*i*		15 57 25.4	
BRG				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BRG	**Berggiesshubel**	**77.59**	**331**	⇓*i*P	**P**	**15 57 09.4**	**-0.3**
	comp=Z,10.0nm,1.0s,mb4.7						
BRG				*i*	pP	15 57 20.2	-2.0
BRG				*i*		15 57 25.4	
VYHS	**Vyhne**	**77.67**	**327**	*e*P	**P**	**15 57 10.9**	**+0.7**
PRU	**Pruhonice**	**78.10**	**330**	*e*P	**P**	**15 57 12.8**	**+0.3**
PRU				*e*pP	pP	15 57 29.4	+4.4
SMOL	**Smolenice**	**78.21**	**328**	*e*P	**P**	**15 57 13.3**	**+0.2**
SCHQ	**Schefferville**	**78.87**	**18**	P	**P**	**15 57 17.7**	**+1.1**
	comp=Z,3.0nm,1.0s,mb4.2,baz=356,slow=15,SNR=3.5						
KHC	**Kasperske Hory**	**79.17**	**330**	*e*P	**P**	**15 57 18.7**	**+0.3**
KHC				*e*	pP	15 57 29.5	-1.4
KHC				*e**PP	pP	15 57 35.2	+4.3
KHC	**Kasperske Hory**	**79.17**	**330**	*e*P	**P**	**15 57 18.7**	**+0.3**
KHC				x	x	15 57 29.5	
KHC				*e*pP	pP	15 57 35.2	+4.3
GERES	**GERESS Array B**	**79.36**	**330**	P	**P**	**15 57 19.3**	**-0.1**
	comp=Z,0.7nm,0.6s,mb3.8,baz=34,slow=4.8,SNR=10.0						
CDF	**Champ du Feu**	**81.97**	**333**	*e*P	**P**	**15 57 32.6**	**-0.6**
TXAR	**Lajitas Array**	**84.15**	**55**	P	**P**	**15 57 46.1**	**+1.4**
	comp=Z,0.6nm,0.7s,mb3.8,baz=288,slow=2.7,SNR=9.4						
SSF	**Saint Saulge**	**84.37**	**335**	*e*P	**P**	**15 57 46.4**	**+1.0**
SMF	**Signal de Mont**	**84.64**	**335**	*e*P	**P**	**15 57 47.2**	**+0.5**
	comp=Z,8.2nm,0.9s,mb4.6						
SMF	**Signal de Mont**	**84.64**	**335**	*e*P	**P**	**15 57 47.2**	**+0.5**
SMF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
AVF	**Avril sur Loir**	**84.66**	**335**	*e*P	**P**	**15 57 47.2**	**+0.4**
LPL	**La Plagne**	**84.68**	**332**	*e*P	**P**	**15 57 48.0**	**+1.0**
	comp=Z,4.9nm,0.9s,mb4.3						
LPL	**La Plagne**	**84.68**	**332**	*e*P	**P**	**15 57 48.0**	**+1.0**
LPL				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
LPG	**La Plagne**	**84.69**	**332**	*e*P	**P**	**15 57 48.2**	**+1.2**
MBDF	**Montbardon**	**85.36**	**332**	*e*P	**P**	**15 57 50.0**	**-0.3**
VIVF	**Saint-Julien-l**	**85.95**	**333**	*e*P	**P**	**15 57 54.1**	**+0.8**
FRF	**La Foret Royal**	**86.42**	**331**	*e*P	**P**	**15 57 56.8**	**+1.2**
	comp=Z,11nm,0.8s,mb4.8						
FRF	**La Foret Royal**	**86.42**	**331**	*e*P	**P**	**15 57 56.8**	**+1.2**
FRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
RJF	**Les Rejaudoux**	**86.56**	**335**	*e*P	**P**	**15 57 57.3**	**+1.1**
LMR	**La Mourre**	**86.67**	**331**	*e*P	**P**	**15 57 57.2**	**+0.4**
CAF	**Calviac**	**86.73**	**335**	*e*P	**P**	**15 57 58.7**	**+1.6**
	comp=Z,12nm,0.9s,mb4.8						
CAF	**Calviac**	**86.73**	**335**	*e*P	**P**	**15 57 58.7**	**+1.6**
CAF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
LFF	**La Frestale**	**87.12**	**336**	*e*P	**P**	**15 58 01.1**	**+2.1**
ETSF	**Etsaut**	**89.37**	**336**	*e*P	**P**	**15 58 11.6**	**+1.8**
	comp=Z,4.0nm,0.7s,mb4.6						
ETSF	**Etsaut**	**89.37**	**336**	*e*P	**P**	**15 58 11.6**	**+1.8**
ETSF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.6						
MOCB	**Mochara**	**146.24**	**60**	*e*PKPdf	PKPdf	16 04 55.0	+3.3
BDFB	**Brasilia**	**150.52**	**27**	PKPbc	PKPdf	16 05 06.3	+7.6
	comp=Z,1.8nm,0.8s,baz=195,slow=5.9,SNR=3.1						

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*HLW **12** 15:50:35.5,24.94N×35.94E,h15^{km},Mb3.3*
*CSEM **12** 15:50:35.0±0.1,24.94N×36.09E,h35^{km},ML2.7,Error ellipse: s-maj=3.0km s-min=2.4km az=82.0*
*SNSN **12** 15:50:36.3,25.02N×36.27E,h24^{km},Ml2.7*
ISC 12 15:50:33.2±1.1**,24.94N**±0.06×**36.10E**±0.05**,h15**^{km}±14^{km}**, n16,**σ**0^{s}65**/18**,3C-2D,Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UMJS	**Umm Lajj**	**1.14**	**75**	P	**Pb**	**15 50 54.1**	**0.0**
EMRS	**Mersa Alam**	**1.14**	**274**	P	**Pb**	**15 50 54.0**	**-0.2**
EMRS				S	**Sb**	**15 51 07.5**	**-1.1**
HAGS	**Hagol**	**1.15**	**242**	⇑*i*P	**Pb**	**15 50 55.0**	**+0.7**
HADB		**1.40**	**288**	⇑P	**Pn**	**15 50 58.0**	**-0.3**
YNBS	**Yanbu‘ al Bahr**	**1.82**	**109**	P	**Pn**	**15 51 04.9**	**+0.5**
YNBS				S	**Sn**	**15 51 26.1**	**-1.2**
HSHL	**Bi’r Shalatayn**	**1.93**	**199**	⇑P	**Pn**	**15 51 06.3**	**+0.4**
HSFG		**2.54**	**310**	P	**Pn**	**15 51 13.9**	**-0.8**
HEDF	**Idfu**	**2.65**	**274**	⇓P	**Pn**	**15 51 17.3**	**+1.1**
HHRG	**Al Ghardaqah**	**3.22**	**316**	⇓P	**Pn**	**15 51 23.4**	**-0.8**
TBKS	**Tabuk**	**3.30**	**7**	P	**Pn**	**15 51 25.6**	**+0.1**
AYUS	**‘Aynunah**	**3.33**	**347**	P	**Pn**	**15 51 26.0**	**+0.2**
BDAS	**Al Bad‘**	**3.59**	**346**	P	**Pn**	**15 51 30.8**	**+1.1**
TAYS	**Tayyib Ism**	**3.77**	**343**	P	**Pn**	**15 51 31.9**	**-0.2**
JMQS	**Jabal Moqyreh**	**3.94**	**357**	P	**Pn**	**15 51 34.6**	**+0.1**
HAQS	**Haql**	**4.23**	**346**	P	**Pn**	**15 51 38.8**	**+0.1**
JMOS	**Jabal al Moall**	**4.31**	**348**	P	**Pn**	**15 51 40.0**	**+0.2**

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*MOS **12** 16:03:34.9±1.0,3.49S×145.17E,h10^{km},mb4.8/12, MS5.1/9,Error ellipse: s-maj=21.2km s-min=10.8km az=96.7*
*IDC **12** 16:03:35.0±0.7,3.51S×145.26E,mb4.6/12,mb1 4.8/15, mb1mx4.8/16,ML4.1/3,MS5.1/10,Ms1 5.1/10, ms1mx4.8/17,Error ellipse: s-maj=26.2km s-min=14.5km az=94.0*
*BJI **12** 16:03:36.4,3.56S×145.51E,h28^{km},mB5.6,mb5.0,Ms5.3, Msz5.1*
*SYO **12** 16:03:36.9,3.48S×145.19E,h10^{km},MB5.1,MS5.3*
*NEIC **12** 16:03:37.6±4.4,3.49S×145.20E,h14^{km}±27^{km},mb5.1/26, MS5.3/118,MW5.5,Error ellipse: s-maj=10.4km s-min=7.3km az=70.0,Moment Tensor Solution. s6 Moment tensor: Scale 10^{17}Nm; M_{rr}0.04; $M_{\theta\theta}$0.75; $M_{\phi\phi}$-0.79; $M_{r\theta}$0.70; $M_{\theta\phi}$2.06; $M_{\phi r}$-0.09; Best double couple: $M_0$2.3×10^{17} NP1:ϕ_s10°,δ72°,λ179°. NP2:ϕ_s100°, δ89°,λ18°. Principal axes: T 2.3, Plg13°, Azm327°; N .01, Plg72°, Azm104°; P -2.32, Plg12°, Azm234°;*
*HRVD **12** 16:03:37.6±0.2,3.40S×145.18E,h12^{km},MW5.4/60, Centroid moment Tensor Solution. LP body waves: s51,c97;Mantle waves: s60,c132; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.06±.03; $M_{\theta\theta}$-0.24±.03; $M_{\phi\phi}$0.30±.03; $M_{r\theta}$-0.01±.06; $M_{\theta\phi}$1.72±.02; $M_{\phi r}$-0.36±.07; Best double couple: $M_0$1.78×10^{17} NP1: ϕ_s266°,δ78°,λ1°. NP2:ϕ_s175°,δ89°,λ168°. Principal axes: T 1.81, Plg9°, Azm130°; N -.07, Plg78°, Azm352°; P -1.74, Plg8°, Azm221°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 12 16:03:35.7±0.3**,3.53S**±0.03×**145.28E**±0.06**,h14**^{km}**, (h17**^{km}±2.6^{km}**:pP-P),n227,**σ**1^{s}07**/137**,mb5.0**/59**, MS5.2**/145**,14C-8D,Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOMI	**Yo Moklole**	**4.79**	**280**	⇑*e*P	**Pn**	**16 04 46.3**	**-3.0**
YOMI	**Yo Moklole**	**4.79**	**280**	⇑*e*P	**Pn**	**16 04 46.4**	**-2.9**
PMG	**Port Moresby**	**6.13**	**162**	Pn	**Pn**	**16 05 09.2**	**+1.0**
	3.6nm,0.3s,baz=16,slow=6.4,SNR=28						
PMG				Sn	**Sn**	**16 06 19.2**	**+0.5**
	7.1nm,0.3s,baz=350,slow=23,SNR=4.5						
PMG	**Port Moresby**	**6.13**	**162**	P	**Pn**	**16 05 09.2**	**+1.1**
PMG						16 06 19.2	
PMG				pmax	pmax		
	comp=Z,4.0nm,0.3s						
PMG				smax			
	comp=E,7.0nm,0.3s						
PMG	**Port Moresby**	**6.13**	**162**	⇑*e*Pn	**Pn**	**16 05 08.8**	**+0.7**
	comp=E,19nm,0.6s						
KAKA	**Kakadu**	**15.64**	**234**	*e*P	**P**	**16 07 17.5**	**0.0**
	comp=E,26nm,0.8s						
KAKA				*e*S	**S**	**16 10 04.0**	**-6.9**
CTA	**Charters Tower**	**16.49**	**177**	*e*P	**P**	**16 07 33.3**	**+5.0**
	comp=E,23nm,1.9s						
CTA	**Charters Tower**	**16.49**	**177**	Pn	**P**	**16 07 32.6**	**+4.3**
	comp=E,0.3nm,0.3s,baz=345,slow=12,SNR=8.0						
CTAO	**Charters Tower**	**16.49**	**177**	*e*Pn	**P**	**16 07 30.4**	**+2.0**
	comp=E,68nm,1.5s						
WRAB	**Tennant Creek**	**19.48**	**212**	*d i*P	**P**	**16 08 04.0**	**-1.2**
WRAB	**Tennant Creek**	**19.48**	**212**	*e*P	**P**	**16 08 04.0**	**-1.2**
	comp=E,147nm,1.1s						
WB2	**Warramunga Arr**	**19.49**	**212**	⇓*i*P	**P**	**16 08 04.1**	**-1.2**
WB2				*e*S	**S**	**16 11 42.5**	**+3.7**
WRA	**Warramunga Arr**	**19.50**	**212**	P	**P**	**16 08 04.1**	**-1.3**
	comp=E,3.3nm,0.3s,baz=32,slow=10,SNR=419						
WRA				S	**S**	**16 11 53.8**	**+15**
	comp=E,0.1nm,0.3s,baz=30,slow=22,SNR=5.9						
DAV	**Davao City (W)**	**22.30**	**298**	*e*P	**P**	**16 08 39.0**	**+4.5**
ASAR	**Alice Springs**	**22.84**	**208**	P	**P**	**16 08 40.2**	**+0.4**
	comp=E,13nm,0.7s,mb4.5,baz=29,slow=12,SNR=241						
ASPA	**Alice Springs**	**22.84**	**208**	*e*P	**P**	**16 08 40.3**	**+0.5**
ASPA				*e*S	**S**	**16 12 54.5**	**+10**
FITZ	**Fitzroy Crossi**	**24.08**	**232**	⇑*i*P	**P**	**16 08 51.2**	**-0.7**
	comp=E,43nm,0.9s,mb4.9						
FITZ	**Fitzroy Crossi**	**24.08**	**232**	P	**P**	**16 08 50.8**	**-1.1**
	comp=E,26nm,0.5s,mb4.9,baz=50,slow=6.9,SNR=57						
BUNI	**Buntu Taipa**	**24.91**	**269**	⇑*e*P	**P**	**16 09 01.5**	**+1.5**
BUNI	**Buntu Taipa**	**24.91**	**269**	⇑*e*P	**P**	**16 09 00.3**	**+0.3**
NINI	**Niniconang**	**25.48**	**267**	⇓*e*P	**P**	**16 09 05.6**	**+0.3**
	comp=E,302nm,1.4s,mb5.3						
TANI	**Tanete Lipujan**	**25.85**	**269**	⇑*e*P	**P**	**16 09 08.9**	**+0.1**
	comp=E,133nm,1.5s,mb5.0						
STKA	**Stephens Creek**	**28.41**	**187**	*e*P	**P**	**16 09 33.0**	**+1.0**
	comp=E,11nm,1.6s,mb4.2						
STKA	**Stephens Creek**	**28.41**	**187**	P	**P**	**16 09 31.0**	**-1.0**
	comp=E,6.3nm,0.7s,mb4.3,baz=343,slow=7.4,SNR=19						
STKA				LR	LR	16 21 46.8	
	comp=E,5µm,18.4s,MS5.1,baz=3.4,slow=38						
MBWA	**Marble Bar**	**30.40**	**233**	*e*P	**P**	**16 09 47.8**	**-2.2**
MBWA				LR	LR		
	comp=Z,3µm,22.0s,MS4.9						
FORT	**Forrest**	**31.61**	**209**	*e*P	**P**	**16 10 00.3**	**-0.2**
	comp=Z,81nm,0.6s,mb5.7						
TATO	**Taipei**	**36.56**	**322**	PFAKE		16 10 50.0	+6.8
TATO				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
QZH	**Quanzhou**	**38.38**	**319**	⇑*i*P	**P**	**16 10 59.2**	**+0.8**
QZH				S	**S**	**16 16 50.0**	**-2.3**
QZH				AMB	AMB		
	comp=Z,2µm,4.4s						
QZH				LR	LR		
	comp=N,710nm,5.4s						
QZH				LR	LR		
	comp=E,4µm,16.4s						
QZH				LR	LR		
	comp=Z,7µm,26.5s						
NWAO	**Narrogin (SRO)**	**39.29**	**219**	PFAKE		16 11 20.0	+14
NWAO				LR	LR		
	comp=Z,7µm,20.0s,MS5.5						
MAJO	**Matsushiro**	**40.41**	**351**	PFAKE		16 11 30.0	+15
MAJO				LR	LR		
	comp=Z,1µm,19.0s,MS4.8						
MAT	**Matsushiro**	**40.41**	**351**	P	**P**	**16 11 14.7**	**-0.5**
MAT				S	**S**	**16 17 19.0**	**-3.7**
MAT	**Matsushiro**	**40.41**	**351**	*e*P	**P**	**16 11 17.0**	**+1.8**
	comp=Z,17nm,1.2s,mb4.7						
MAT				*e*S	**S**	**16 17 20.0**	**-2.7**
MAT				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
GZH	**Guangzhou**	**40.87**	**312**	P	**P**	**16 11 20.8**	**+1.7**
GZH				S	**S**	**16 17 37.3**	**+7.6**
GZH				AMB	AMB		
	comp=Z,1µm,4.2s						
GZH				LR	LR		
	comp=N,990nm,22.2s,MS4.9						
GZH				LR	LR		
	comp=E,2µm,19.4s,MS4.9						
GZH				LR	LR		
	comp=Z,3µm,21.6s,MS5.1						
SSE	**Sheshan**	**41.39**	**328**	P	**P**	**16 11 22.3**	**-1.0**
SSE				XP	sP	16 11 34.9	+5.7
SSE				S	**S**	**16 17 36.7**	**-0.7**
SSE				XS		16 17 49.6	
SSE				AMB	AMB		
	comp=Z,34nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,194nm,3.9s						
SSE				LR	LR		
	comp=N,2µm,20.0s,MS5.1						
SSE				LR	LR		
	comp=E,2µm,20.0s,MS5.1						
SSE				LR	LR		
	comp=Z,3µm,21.3s,MS5.2						
QIZ	**Qiongzhong**	**41.45**	**304**	P	**P**	**16 11 24.2**	**+0.3**
QIZ				S	**S**	**16 17 38.4**	**0.0**
QIZ				SS	SS	16 20 36.0	-1.8
QIZ				AMB	AMB		
	comp=Z,492nm,5.9s						
QIZ				LR	LR		
	comp=E,1µm,22.1s						
QIZ				LR	LR		
	comp=Z,3µm,27.0s,MS5.0						
QIZ	**Qiongzhong**	**41.45**	**304**	PFAKE		16 11 30.0	+6.1
QIZ				LR	LR		
	comp=Z,3µm,22.0s,MS5.1						
NJ2	**Nanjing**	**43.39**	**327**	*e*P	**P**	**16 11 40.4**	**+0.7**
NJ2				AP	pP	16 11 50.3	+6.4
NJ2				XP	sP	16 11 54.2	+8.6
NJ2				PP	PP	16 13 22.6	-0.2
NJ2				S	**S**	**16 18 09.5**	**+2.8**
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
NJ2				AMB	AMB		
	comp=Z,1µm,6.5s						
NJ2				LR	LR		
	comp=N,3µm,12.4s						
NJ2				LR	LR		
	comp=E,10µm,23.2s						
NJ2				LR	LR		
	comp=Z,3µm,20.2s						
AFI	**Afiamalu**	**43.60**	**106**	PFAKE		16 11 50.0	+8.4
AFI				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
INCN	**Inchon**	**44.33**	**339**	PFAKE		16 12 00.0	+13
INCN				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
WHN	**Wuhan**	**44.95**	**321**	⇓P	**P**	**16 11 53.4**	**+1.1**
WHN				S	**S**	**16 18 36.4**	**+7.0**
WHN				AMB	AMB		
	comp=Z,350nm,4.0s						
WHN				LR	LR		
	comp=Z,3µm,18.8s,MS5.2						
URZ	**Urewera**	**45.15**	**144**	LR	LR	16 28 53.1	
	comp=Z,2µm,18.5s,MS5.0,baz=146,slow=34						
RPZ	**Rata Peaks**	**46.06**	**154**	LR	LR	16 29 26.6	
	comp=Z,4µm,20.6s,MS5.3,baz=318,slow=34						
DL2	**Dalian**	**47.54**	**335**	*e*P	**P**	**16 12 13.8**	**+1.1**
DL2				S	**S**	**16 19 08.7**	**+2.5**
DL2				AMB	AMB		
	comp=Z,200nm,6.1s						
DL2				LR	LR		
	comp=N,650nm,19.8s,MS4.8						
DL2				LR	LR		
	comp=E,880nm,18.8s,MS4.8						
DL2				LR	LR		
	comp=Z,1µm,22.4s,MS4.8						
GYA	**Guiyang**	**47.78**	**311**	⇓*i*P	**P**	**16 12 15.8**	**+1.1**
GYA				AP	pP	16 12 20.6	+1.6
GYA				PP	PP	16 14 09.0	+3.1
GYA				SCP		16 17 33.6	
GYA				S	**S**	**16 19 15.8**	**+6.1**
GYA				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.5						
GYA				AMB	AMB		
	comp=Z,400nm,4.2s						
GYA				LR	LR		
	comp=N,920nm,23.0s,MS4.9						
GYA				LR	LR		
	comp=E,1µm,18.6s,MS4.9						
GYA				LR	LR		
	comp=Z,1µm,22.7s,MS4.8						
ENH	**Enshi**	**47.95**	**317**	*e*P	**P**	**16 12 15.5**	**-0.6**
	comp=Z,26nm,1.0s,mb5.2						
ENH				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
NST	**Nakhon Sawan**	**48.57**	**294**	P	**P**	**16 12 21.5**	**+0.5**
NANT	**Nan**	**49.16**	**298**	P	**P**	**16 12 27.0**	**+1.5**
MDJ	**Mudanjiang**	**49.95**	**345**	P	**P**	**16 12 30.0**	**-1.2**
MDJ				PCP	PcP	16 13 49.7	-2.0
MDJ				PP	PP	16 14 24.2	-3.0
MDJ				SCP		16 17 45.6	
MDJ				PCS		16 17 46.9	
MDJ				S	**S**	**16 19 40.5**	**+0.6**
MDJ				SCS	ScS	16 22 21.8	+2.4
MDJ				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,49nm,3.2s						
MDJ				LR	LR		
	comp=N,466nm,17.9s,MS4.8						
MDJ				LR	LR		
	comp=E,611nm,16.6s,MS4.8						
MDJ				LR	LR		
	comp=Z,1µm,17.9s,MS4.9						
MDJ	**Mudanjiang**	**49.95**	**345**	PFAKE		16 12 40.0	+8.8
MDJ				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
KMI	**Kunming**	**50.15**	**307**	*e*P	**P**	**16 12 34.3**	**+1.3**
KMI				AP	pP	16 12 38.6	+1.3
KMI				PP	PP	16 14 30.0	+0.7
KMI				S	**S**	**16 19 46.6**	**+3.7**
KMI				XS		16 19 54.5	
KMI				AMB	AMB		
	comp=Z,16nm,1.0s,mb5.0						
KMI				AMB	AMB		
	comp=Z,576nm,5.4s						
KMI				LR	LR		
	comp=N,930nm,20.8s,MS4.8						
KMI				LR	LR		
	comp=E,719nm,24.2s,MS4.8						
KMI				LR	LR		
	comp=Z,2µm,29.7s						
YSS	**Yuzh-Sakhalins**	**50.32**	**358**	PFAKE		16 12 50.0	+16
YSS				LR	LR		
	comp=Z,827nm,19.0s,MS4.8						
CHRT	**Chiangrai**	**50.37**	**299**	⇑P	**P**	**16 12 35.0**	**+0.2**
CN2	**Changchun**	**50.38**	**341**	*e*P	**P**	**16 12 37.6**	**+3.0**
CN2				*e*AP	pP	16 12 42.2	+3.4
CN2				*e*S	**S**	**16 19 46.1**	**+0.2**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
CN2				AMB	AMB		
	comp=Z,500nm,6.0s						
CN2				LR	LR		
	comp=N,1µm,16.0s,MS5.2						
CN2				LR	LR		
	comp=E,1µm,16.0s,MS5.2						
CN2				LR	LR		
	comp=Z,2µm,18.0s,MS5.2						

CM31	**Chiang Mai Arr**	**50.59**	**297**	P	**P**	**16 12 37.2**	**+0.7**
	comp=Z,23nm,1.0s,mb5.1						
CM31				LR	LR		
	comp=Z,1µm,21.0s,MS4.8						
CMAR	**Chiang Mai Arr**	**50.59**	**297**	P	**P**	**16 12 36.5**	**0.0**
	comp=Z,8.6nm,0.9s,mb4.7,baz=113,slow=5.9,SNR=26						
CMAR				LR	LR	16 34 34.7	
	comp=Z,494nm,18.3s,MS4.6,baz=110,slow=37						
CMAR	**Chiang Mai Arr**	**50.59**	**297**	P	**P**	**16 12 36.5**	**0.0**
CMAR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CMAR				MLR	MLR		
	comp=Z,494nm,18.3s						
XAN	**Xi'an**	**50.70**	**320**	P	**P**	**16 12 36.2**	**-0.9**
XAN				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.7						
CHG	**Chiang Mai**	**50.72**	**298**	⇑P	**P**	**16 12 40.6**	**+3.2**
	comp=Z,18nm,1.2s,mb4.9						
BJT	**Baijiatuau**	**50.91**	**331**	*e*P	**P**	**16 12 37.2**	**-1.4**
	comp=Z,11nm,1.0s,mb4.8						
BJT				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
BJI	**Beijing**	**50.92**	**331**	P	**P**	**16 12 37.4**	**-1.3**
BJI				S	**S**	**16 19 44.2**	**-9.2**
BJI				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.8						
BJI				LR	LR		
	comp=N,3µm,19.8s,MS5.3						
BJI				LR	LR		
	comp=E,2µm,21.6s,MS5.3						
BJI				LR	LR		
	comp=Z,3µm,26.3s,MS5.2						
CD2	**Chengdu**	**52.34**	**314**	P	**P**	**16 12 49.6**	**+0.1**
CD2				XP	sP	16 13 00.3	+4.8
CD2				PP	PP	16 14 50.0	+0.7
CD2				PPP	PPP	16 15 59.5	+6.2
CD2				S	**S**	**16 20 17.3**	**+4.3**
CD2				XS		16 20 26.8	
CD2				SS	SS	16 23 49.6	+0.3
CD2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
CD2				AMB	AMB		
	comp=Z,330nm,3.8s						
CD2				LR	LR		
	comp=N,590nm,14.4s						
CD2				LR	LR		
	comp=Z,670nm,17.4s,MS4.7						
HHC	**Hu-ho-hao-te**	**53.84**	**329**	*e*P	**P**	**16 13 01.5**	**+1.0**
HHC				S	**S**	**16 20 39.2**	**+5.9**
HHC				SCS	ScS	16 22 42.5	-3.8
HHC				AMB	AMB		
	comp=Z,23nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,245nm,6.8s						
HHC				LR	LR		
	comp=N,1µm,20.8s,MS5.1						
HHC				LR	LR		
	comp=E,1µm,21.6s,MS5.1						
HHC				LR	LR		
	comp=Z,2µm,28.2s						
KLR	**Kul'dur**	**53.84**	**349**	*e*P	**P**	**16 13 00.0**	**-0.4**
KLR				*e*S	**S**	**16 20 29.0**	**-4.2**
KLR				MLR	MLR		
	comp=N,1µm,14.0s						
KLR				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.3						
BTO	**Baotou**	**54.49**	**327**	*e*P	**P**	**16 13 02.8**	**-2.5**
BTO				AMB	AMB		
	comp=Z,27nm,1.0s,mb5.1						
LZH	**Lanzhou**	**55.23**	**319**	⇑P	**P**	**16 13 10.9**	**+0.1**
LZH				S	**S**	**16 20 53.1**	**+1.1**
LZH				AMB	AMB		
	comp=Z,83nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,330nm,4.5s						
LZH				LR	LR		
	comp=N,2µm,16.6s						
LZH				LR	LR		
	comp=Z,2µm,18.4s,MS5.3						
HIA	**Hailar**	**57.06**	**340**	*e*P	**P**	**16 13 22.8**	**-1.0**
	comp=Z,32nm,1.4s,mb5.2						
HIA				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
SHL	**Shillong**	**59.25**	**302**	⇑*e*P	**P**	**16 13 39.0**	**-0.4**
SHL				*e*S	**S**	**16 21 49.2**	**+4.0**
GTA	**Gaotai**	**59.76**	**320**	*e*P	**P**	**16 13 43.1**	**+0.4**
GTA				PCP	PcP	16 14 28.1	-1.2
GTA				PP	PP	16 15 59.8	+3.2
GTA				S	**S**	**16 21 53.0**	**+1.5**
GTA				XS		16 22 03.3	
GTA				SCS	ScS	16 23 29.1	0.0
GTA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
GTA				AMB	AMB		
	comp=Z,565nm,6.5s						
GTA				LR	LR		
	comp=N,730nm,17.5s,MS4.9						
GTA				LR	LR		
	comp=E,514nm,21.3s,MS4.9						
GTA				LR	LR		
	comp=Z,712nm,18.6s,MS4.8						
ULN	**Ulaanbaatar**	**61.13**	**332**	*e*P	**P**	**16 13 51.1**	**-0.8**
	comp=Z,28nm,1.5s,mb5.2						
ULN				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
SONM	**Songino Array**	**61.43**	**331**	P	**P**	**16 13 53.9**	**0.0**
	comp=Z,7.3nm,1.2s,mb4.7,baz=124,slow=4.5,SNR=14						
MA2	**Magadan**	**63.06**	**3**	*e*P	**P**	**16 14 04.2**	**-0.5**
MA2				*e*		16 16 28.6	
MA2				*e*S	**S**	**16 22 33.9**	**+0.7**
MA2				pmax	pmax		
	comp=Z,20nm,1.5s,mb5.0						
MA2				MLR	MLR		
	comp=Z,460nm,24.0s,MS4.6						
ZAK	**Zakamensk**	**64.67**	**332**	*e*P	**P**	**16 14 14.6**	**-0.7**
GUN	**Gumba**	**65.09**	**303**	*e*P	**P**	**16 14 18.9**	**+0.4**
	comp=Z,183nm,1.6s,mb5.8						
PPT	**Papeete**	**65.25**	**108**	*e*LQ		16 31 02.0	
PPT				*e*LR	LR	16 34 06.9	
	comp=Z,1µm,32.0s						
TLY	**Talaya**	**65.38**	**333**	*e*P	**P**	**16 14 17.3**	**-2.6**
TLY				*e*S	S	16 23 03.9	+1.9
TLY				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
TLY	**Talaya**	**65.38**	**333**	PFAKE		16 14 30.0	+10
TLY				LR	LR		
	comp=Z,576nm,22.0s,MS4.7						
PKI	**Pulchoki**	**65.38**	**302**	*e*P	**P**	**16 14 20.2**	**-0.2**
	comp=Z,74nm,1.5s,mb5.5						
KKN	**Kakani**	**65.56**	**303**	*e*P	**P**	**16 14 21.4**	**-0.1**
	comp=Z,27nm,1.0s,mb5.2						
DMN	**Daman**	**65.65**	**302**	*e*P	**P**	**16 14 22.3**	**+0.2**
	comp=Z,100nm,1.3s,mb5.7						
TBI	**Tubuai**	**65.92**	**114**	*e*SS	SS	16 27 29.2	+3.6
TBI				*e*LQ		16 31 28.8	
TBI				*e*LR	LR	16 34 28.7	
	comp=Z,2µm,39.0s						
BOD	**Bodaibo**	**66.12**	**342**	*e*P	**P**	**16 14 23.5**	**-1.0**
GKN	**Gorkha**	**66.16**	**303**	*e*P	**P**	**16 14 25.2**	**-0.2**
	comp=Z,38nm,1.0s,mb5.4						
YAK	**Yakutsk**	**66.46**	**352**	*e*P	**P**	**16 14 26.9**	**+0.2**
YAK				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.8						
YAK	**Yakutsk**	**66.46**	**352**	*e*P	**P**	**16 14 26.6**	**0.0**
	comp=Z,77nm,1.5s,mb5.5						
YAK				LR	LR		
	comp=Z,859nm,19.0s,MS5.0						
MOY	**Mondy**	**66.60**	**332**	*e*P	**P**	**16 14 28.3**	**+0.6**
KOLN	**Koldanda**	**66.97**	**302**	*e*P	**P**	**16 14 30.5**	**0.0**
	comp=Z,52nm,1.2s,mb5.5						
CASY	**Casey**	**67.19**	**194**	PFAKE		16 14 40.0	+8.8
CASY				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
HYB	**Hyderabad**	**69.00**	**290**	*e*P	**P**	**16 14 42.0**	**-1.3**
HYB	**Hyderabad**	**69.00**	**290**	*i* P	**P**	**16 14 42.0**	**-1.3**
WMQ	**Urumqi**	**69.81**	**319**	⇑P	**P**	**16 14 47.6**	**-0.3**
WMQ				PCP	PcP	16 15 10.7	+0.1
WMQ				PP	PP	16 17 23.8	-0.5
WMQ				S	S	16 23 54.8	-0.5
WMQ				AMB	AMB		
	comp=Z,19nm,1.2s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,85nm,7.6s						
WMQ				LR	LR		
	comp=N,607nm,26.4s,MS4.8						
WMQ				LR	LR		
	comp=E,391nm,27.7s,MS4.8						
WMQ				LR	LR		
	comp=Z,678nm,32.0s,MS4.7						
DDI	**Dehra Dun**	**72.34**	**303**	*e*	**P**	**16 15 04.2**	**+0.8**
NDI	**New Delhi**	**72.64**	**301**	*e*P	**P**	**16 15 05.0**	**-0.2**
VNDA	**Vanda**	**74.47**	**176**	P	**P**	**16 15 15.9**	**+1.0**
	comp=Z,2.5nm,0.8s,mb4.2,baz=325,slow=6.4,SNR=12						
VNDA				LR	LR	16 47 02.7	
	comp=Z,1µm,18.1s,MS5.2,baz=347,slow=35						
VNDA	**Vanda**	**74.47**	**176**	P	**P**	**16 15 15.9**	**+1.0**
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
VNDA				MLR	MLR		
	comp=Z,1µm,18.1s						
THN	**Thein Dam**	**74.81**	**305**	*e*P	**P**	**16 15 13.2**	**-4.6**
SBA	**Scott Base**	**75.14**	**175**	PFAKE		16 15 30.0	+11
SBA				LR	LR		
	comp=Z,967nm,22.0s,MS5.1						
TIXI	**Tiksi**	**75.80**	**355**	⇑*i*P	**P**	**16 15 22.1**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,600nm,17.0s,MS5.0						
TIXI	**Tiksi**	**75.80**	**355**	PFAKE		16 15 30.0	+7.3
TIXI				LR	LR		
	comp=Z,651nm,20.0s,MS4.9						
ZAL	**Zalesovo**	**76.03**	**328**	P	**P**	**16 15 23.8**	**-0.5**
	comp=Z,6.3nm,1.2s,mb4.4,baz=6.3,slow=6.5,SNR=7.6						
ZAL				LR	LR	16 48 51.5	
	comp=Z,3µm,20.1s,MS5.6,baz=351,slow=36						
ZAL	**Zalesovo**	**76.03**	**328**	P	**P**	**16 15 23.8**	**-0.5**
ZAL				pmax	pmax		
	comp=Z,6.0nm,1.2s						
ZAL				MLR	MLR		
	comp=Z,3µm,20.1s						
KSH	**Kashi**	**76.46**	**312**	*e*P	**P**	**16 15 28.7**	**+1.7**
KSH				*e*AP	pP	16 15 33.5	+2.0
KSH				*e*XP	sP	16 15 35.2	+2.2
KSH				*e*PCP	PcP	16 15 40.4	+1.2
KSH				*e*PP	PP	16 18 21.7	+1.1
KSH				*e*PPP	PPP	16 20 08.0	-0.1
KSH				*e*S	S	16 25 12.2	+1.5
KSH				*e*SKS	SKS	16 25 32.8	-5.9
KSH				*e*SCS	ScS	16 25 38.2	-0.8
KSH				*e*PS	PS	16 25 49.8	-1.1
KSH				*e*SS	SS	16 30 07.4	-1.2
KSH				AMB	AMB		
	comp=Z,270nm,3.1s						
KSH				LR	LR		
	comp=N,340nm,5.8s						
KSH				LR	LR		
	comp=E,280nm,5.5s						
TNA	**Tin City**	**76.78**	**18**	PFAKE		16 15 40.0	+12
TNA				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
NVS	**Novosibirsk**	**77.25**	**328**	*e*P	**P**	**16 15 28.5**	**-2.5**
NVS				pmax	pmax		
	comp=Z,55nm,1.6s,mb5.2						
NVS				pmax	pmax		
	comp=N,38nm,2.0s						
NVS				pmax	pmax		
	comp=E,60nm,2.0s						
TKM2	**Tokmak 2**	**77.70**	**315**	*e*P	**P**	**16 15 32.7**	**-1.1**
	comp=E,21nm,1.5s,mb4.8						
TKM2				LR	LR		
	comp=Z,889nm,21.0s,MS5.1						
UCH	**Uchtor**	**78.27**	**314**	*e*P	**P**	**16 15 38.2**	**+1.2**
	comp=Z,14nm,1.1s,mb4.8						
UCH				LR	LR		
	comp=Z,868nm,21.0s,MS5.1						
FRU	**Bishkek**	**78.36**	**315**	*e*P	**P**	**16 15 37.0**	**-0.5**
FRU				pmax	pmax		
	comp=Z,120nm,2.8s,mb5.3						
FRU				MLR	MLR		
	comp=Z,900nm,20.0s,MS5.1						
AAK	**Ala-Archa**	**78.40**	**315**	*d* *i*P	**P**	**16 15 38.7**	**+1.1**
AAK				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
AAK				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
AAK	**Ala-Archa**	**78.40**	**315**	*e*P	**P**	**16 15 37.6**	**0.0**
	comp=Z,22nm,1.4s,mb4.9						
AAK				LR	LR		
	comp=Z,270nm,21.0s,MS4.5						
KDAK	**Kodiak Island**	**78.56**	**29**	PFAKE		16 15 50.0	+12
KDAK				LR	LR		
	comp=Z,426nm,19.0s,MS4.8						
AML	**Almayashu**	**78.83**	**314**	*e*P	**P**	**16 15 40.2**	**+0.1**
	comp=Z,40nm,1.4s,mb5.2						
AML				LR	LR		
	comp=Z,653nm,20.0s,MS5.0						
EKS2	**Erkin-Say**	**78.91**	**315**	*e*P	**P**	**16 15 41.0**	**+0.6**
	comp=Z,9.7nm,1.0s,mb4.7						
EKS2				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
RKT	**Rikitea**	**79.20**	**113**	*e*LR	LR	16 40 29.6	
	comp=Z,1µm,32.5s						
FIB	**Fire Island**	**81.11**	**26**	PFAKE		16 16 00.0	+8.2
FIB				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
IMA	**Indian Mountai**	**81.88**	**21**	*e*P	**P**	**16 15 56.5**	**+0.8**
	comp=Z,58nm,1.0s,mb5.5						
MCK	**McKinley**	**82.68**	**24**	*e*P	**P**	**16 15 59.1**	**-0.8**
	comp=Z,25nm,1.3s,mb5.1						
MCK				LR	LR		
	comp=Z,611nm,21.0s,MS5.0						
DIV	**Divide**	**83.08**	**27**	PFAKE		16 16 10.0	+8.0
DIV				LR	LR		
	comp=Z,3µm,22.0s,MS5.6						
COLA	**College**	**83.56**	**23**	*e*P	**P**	**16 16 03.9**	**-0.6**
	comp=Z,15nm,0.9s,mb5.1						
COLA				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
CHKZ	**Chkalovo**	**83.81**	**325**	*e*P	**P**	**16 16 05.2**	**-0.7**
	comp=Z,13nm,1.0s,mb5.0						
BRVK	**Borovoye**	**83.85**	**324**	*e*P	**P**	**16 16 06.6**	**+0.4**
	comp=Z,16nm,1.1s,mb5.0						
BRVK				LR	LR		
	comp=Z,172nm,20.0s,MS4.4						
MAW	**Mawson**	**83.86**	**202**	P	**P**	**16 16 05.4**	**-0.5**
	comp=Z,4.9nm,1.1s,mb4.5,baz=49,slow=9.3,SNR=4.8						
MAW				LR	LR	16 51 33.2	
	comp=Z,816nm,21.0s,MS5.1,baz=75,slow=34						
MAW	**Mawson**	**83.86**	**202**	P	**P**	**16 16 05.4**	**-0.5**
MAW				pmax	pmax		
	comp=Z,5.0nm,1.1s						
MAW				MLR	MLR		
	comp=Z,817nm,21.0s						
MAW	**Mawson**	**83.86**	**202**	*e*P	**P**	**16 16 05.4**	**-0.4**
	comp=Z,20nm,1.3s,mb5.1						
MAW				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
ILAR	**Eielson Array**	**83.91**	**24**	P	**P**	**16 16 04.7**	**-1.5**
	comp=Z,6.4nm,0.7s,mb4.8,baz=257,slow=4.2,SNR=40						
ILAR				LR	LR	16 53 21.3	
	comp=Z,576nm,18.9s,MS5.0,baz=277,slow=36						
ILAR	**Eielson Array**	**83.91**	**24**	P	**P**	**16 16 04.7**	**-1.5**
ILAR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ILAR				MLR	MLR		
	comp=Z,576nm,18.9s						
QSPA	**South Pole Qui**	**86.42**	**180**	⇑*i*P	**P**	**16 16 19.9**	**+1.5**
	comp=Z,13nm,1.1s,mb5.1						
INK	**Inuvik**	**90.00**	**22**	P	**P**	**16 16 35.5**	**-0.2**
	comp=Z,5.9nm,1.2s,mb4.8,baz=314,slow=4.7,SNR=5.4						
INK	**Inuvik**	**90.00**	**22**	P	**P**	**16 16 35.5**	**-0.3**
INK				pmax	pmax		
	comp=Z,6.0nm,1.3s						
ARU	**Arti**	**91.09**	**326**	PFAKE		16 16 50.0	+9.0
ARU				LR	LR		
	comp=Z,287nm,20.0s,MS4.7						
SYO	**Syowa Base**	**92.31**	**200**	⇓P	**P**	**16 16 44.4**	**-1.9**
SYO	**Syowa Base**	**92.31**	**200**	⇓pP	pP	16 16 50.8	0.0
OCWA	**Octopus Mounta**	**92.95**	**43**	PFAKE		16 17 00.0	+10
OCWA				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
COR	**Corvallis**	**93.46**	**46**	PFAKE		16 17 00.0	+7.8
COR				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
HOPS	**Hopland**	**93.48**	**51**	PFAKE		16 17 00.0	+7.5
HOPS				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HUMO	**Hull Mountain**	**93.67**	**48**	PFAKE		16 17 10.0	+17
HUMO				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
YBH	**Yreka Blue Hor**	**93.83**	**49**	PFAKE		16 17 10.0	+16
YBH				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
WDC	**Whiskeytown Da**	**93.93**	**50**	PFAKE		16 17 10.0	+16
WDC				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SAO	**San Andreas Ge**	**94.72**	**54**	PFAKE		16 17 10.0	+12
SAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
CMB	**Columbia Colle**	**95.57**	**52**	PFAKE		16 17 10.0	+7.9
CMB				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
MOD	**Modoc**	**95.63**	**48**	PFAKE		16 17 10.0	+7.7
MOD				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HAWA	**Hanford**	**96.12**	**44**	PFAKE		16 17 20.0	+16
HAWA				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
NVAR	**Mina Array Bea**	**97.21**	**52**	P	**P**	**16 17 11.0**	**+1.5**
	comp=Z,0.2nm,0.3s,mb4.0,baz=256,slow=3.7,SNR=3.3						
NVAR				LR	LR	16 52 25.3	
	comp=Z,1µm,21.5s,MS5.4,baz=345,slow=30						
MNV	**Mina**	**97.32**	**52**	PFAKE		16 17 20.0	+10
MNV				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
NEW	**Newport**	**97.68**	**42**	PFAKE		16 17 20.0	+8.6
NEW				LR	LR		
	comp=Z,959nm,19.0s,MS5.3						
BMO	**Blue Mountains**	**97.73**	**45**	PFAKE		16 17 20.0	+8.3
BMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
YKA	**Yellowknife Ar**	**97.79**	**27**	P	**P**	**16 17 12.5**	**+1.0**
	comp=Z,0.6nm,0.7s,mb4.2,baz=278,slow=4.9,SNR=8.3						
YKA				LR	LR	16 57 52.9	
	comp=Z,632nm,20.0s,MS5.1,baz=260,slow=33						
YKA	**Yellowknife Ar**	**97.79**	**27**	P	**P**	**16 17 12.5**	**+1.0**
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				MLR	MLR		
	comp=Z,632nm,20.0s						
YKA	**Yellowknife Ar**	**97.79**	**27**	P	**P**	**16 17 12.5**	**+1.0**
YKA				LR	LR	16 57 52.9	
DAC	**Darwin (Calif)**	**97.82**	**54**	PFAKE		16 17 20.0	+7.7
DAC				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
BMN	**Battle Mountai**	**97.99**	**50**	PFAKE		16 17 30.0	+17
BMN				LR	LR		
	comp=Z,788nm,20.0s,MS5.2						
TPH	**Tonopah**	**98.07**	**52**	PFAKE		16 17 30.0	+17
TPH				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
PFO	**Pinyon Flat Ob**	**98.83**	**57**	PFAKE		16 17 30.0	+13
PFO				LR	LR		
	comp=Z,218nm,20.0s,MS4.7						
TPNV	**Topopah Spring**	**98.88**	**53**	PFAKE		16 17 30.0	+13
TPNV				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
ELK	**Elko**	**99.48**	**49**	PFAKE		16 17 30.0	+10
ELK				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
HLID	**Hailey**	**99.89**	**47**	PFAKE		16 17 30.0	+8.5
HLID				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
MSO	**Missoula**	**99.94**	**43**	PFAKE		16 17 30.0	+8.3
MSO				LR	LR		
	comp=Z,653nm,22.0s,MS5.1						
GNI	**Garni**	**100.32**	**310**	PFAKE		16 17 40.0	+16
GNI				LR	LR		
	comp=Z,366nm,21.0s,MS4.9						
KIV	**Kislovodsk**	**101.51**	**314**	PFAKE		16 17 40.0	+11
KIV				LR	LR		
	comp=Z,115nm,20.0s,MS4.4						
BOZ	**Bozeman (W)**	**101.66**	**44**	PFAKE		16 17 40.0	+11
BOZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
MVU	**Marysvale**	**101.98**	**52**	PFAKE		16 17 40.0	+8.9
MVU				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
HWUT	**Hardware Ranch**	**102.17**	**48**	PFAKE		16 17 40.0	+8.1
HWUT				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
AHID	**Auburn Hatcher**	**102.38**	**47**	PFAKE		16 17 40.0	+7.2
AHID				LR	LR		
	comp=Z,927nm,19.0s,MS5.3						
LKWY	**Lake**	**102.66**	**45**	PFAKE		16 17 50.0	+16
LKWY				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
BW06	**Boulder Array**	**103.51**	**47**	PFAKE		16 17 50.0	+12
BW06				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
OBN	**Obninsk**	**103.53**	**326**	PFAKE		16 17 50.0	+12
OBN				LR	LR		
	comp=Z,172nm,19.0s,MS4.6						
TUC	**Tucson**	**103.66**	**58**	PFAKE		16 17 50.0	+11
TUC				LR	LR		
	comp=Z,819nm,20.0s,MS5.3						
LAO	**LASA Array**	**105.21**	**43**	PFAKE		16 22 10.0	
LAO				LR	LR		
	comp=Z,721nm,20.0s,MS5.2						
FFC	**Flin Flon**	**105.88**	**34**	PFAKE		16 22 10.0	
FFC				LR	LR		
	comp=Z,264nm,21.0s,MS4.8						
DGMT	**Dagmar**	**106.17**	**40**	PFAKE		16 22 10.0	
DGMT				LR	LR		
	comp=Z,698nm,21.0s,MS5.2						
ISCO	**Idaho Springs**	**106.90**	**50**	PFAKE		16 22 20.0	
ISCO				LR	LR		
	comp=Z,627nm,20.0s,MS5.2						
ANMO	**Albuquerque**	**106.96**	**55**	PFAKE		16 22 20.0	
ANMO				LR	LR		
	comp=Z,535nm,20.0s,MS5.1						
SDCO	**Great Sand Dun**	**107.32**	**52**	PFAKE		16 22 20.0	
SDCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
KMBO	**Kilima Mbogo**	**107.92**	**268**	PFAKE		16 22 20.0	
KMBO				LR	LR		
	comp=Z,301nm,20.0s,MS4.8						
PMSA	**Palmer Station**	**108.52**	**167**	PFAKE		16 22 20.0	
PMSA				LR	LR		
	comp=Z,734nm,21.0s,MS5.2						
BR131	**Keskin Array S**	**108.83**	**311**	PFAKE		16 22 20.0	
BR131				LR	LR		
	comp=Z,284nm,21.0s,MS4.8						
LTX	**Lajitas**	**110.05**	**60**	PFAKE		16 22 20.0	+9.3
LTX				LR	LR		
	comp=Z,718nm,20.0s,MS5.2						
AMTX	**Amarillo**	**110.85**	**54**	PFAKE		16 22 20.0	+7.8
AMTX				LR	LR		
	comp=Z,822nm,21.0s,MS5.3						
ULM	**Lac du Bonnet**	**110.86**	**37**	PFAKE		16 22 20.0	+8.2
ULM				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
JCT	**Junction City**	**113.20**	**58**	PFAKE		16 22 30.0	+13
JCT				LR	LR		
	comp=Z,856nm,20.0s,MS5.3						
WMOK	**Wichita Mounta**	**113.22**	**54**	PFAKE		16 22 30.0	+13
WMOK				LR	LR		
	comp=Z,511nm,20.0s,MS5.1						
BOSA	**Boshof**	**114.20**	**237**	PFAKE		16 22 30.0	+11
BOSA				LR	LR		
	comp=Z,990nm,19.0s,MS5.4						
EYMN	**Ely**	**114.39**	**38**	PFAKE		16 22 30.0	+11
EYMN				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
MBAR	**Mbarara**	**114.45**	**268**	PFAKE		16 22 30.0	+10
MBAR				LR	LR		
	comp=Z,66nm,19.0s,MS4.3						
KONO	**Kongsberg**	**114.54**	**337**	PFAKE		16 22 30.0	+11
KONO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
LSZ	**Lusaka**	**115.00**	**251**	PFAKE		16 22 30.0	+9.3
LSZ				LR	LR		
	comp=Z,471nm,20.0s,MS5.1						
SUR	**Sutherland**	**116.45**	**231**	PFAKE		16 22 30.0	+6.8
SUR				LR	LR		
	comp=Z,361nm,20.0s,MS5.0						
HKT	**Hockley**	**116.67**	**58**	PFAKE		16 22 30.0	+6.3
HKT				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
JFWS	**Jewell Farm**	**117.16**	**43**	PFAKE		16 22 30.0	+5.7
JFWS				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
MIAR	**Mount Ida**	**117.43**	**53**	PFAKE		16 22 40.0	+15
MIAR				LR	LR		
	comp=Z,44nm,21.0s,MS4.1						
GERES	**GERESS Array B**	**118.91**	**326**	PKP	PKPdf	16 22 25.4	-2.2

	comp=Z,0.4nm,0.9s,baz=315,slow=2.8,SNR=2.5						
OXF	Oxford	120.72	52	PFAKE		16 22 40.0	+8.5
OXF				LR	LR		
	comp=Z,838nm,22.0s,MS5.3						
WVT	Waverly	121.40	49	PFAKE		16 22 40.0	+7.3
WVT				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
WCI	Wyandotte Cave	121.75	47	PFAKE		16 22 40.0	+6.6
WCI				LR	LR		
	comp=Z,699nm,21.0s,MS5.3						
AAM	Ann Arbor	121.83	41	PFAKE		16 22 40.0	+6.6
AAM				LR	LR		
	comp=Z,887nm,20.0s,MS5.4						
ESK	Eskdalemuir	122.45	339	PFAKE		16 22 40.0	+5.8
ESK				LR	LR		
	comp=Z,251nm,20.0s,MS4.9						
SCHQ	Schefferville	122.62	21	PFAKE		16 22 40.0	+5.5
SCHQ				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
LRAL	Lakeview Retre	123.10	52	PFAKE		16 22 50.0	+14
LRAL				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
ACSO	Alum Creek Sta	123.23	43	PFAKE		16 22 50.0	+14
ACSO				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
ERPA	Erie	124.30	40	PFAKE		16 22 50.0	+12
ERPA				LR	LR		
	comp=Z,853nm,19.0s,MS5.4						
PAYG	Puerto Ayora	124.31	93	PFAKE		16 22 50.0	+11
PAYG				LR	LR		
	comp=Z,207nm,19.0s,MS4.8						
TEIG	Tepich	125.30	68	PFAKE		16 22 50.0	+9.3
TEIG				LR	LR		
	comp=Z,194nm,19.0s,MS4.8						
MCWV	Mont Chateau	125.63	42	PFAKE		16 22 50.0	+9.2
MCWV				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
BLA	Blacksburg	126.40	45	PFAKE		16 22 50.0	+7.7
BLA				LR	LR		
	comp=Z,725nm,21.0s,MS5.3						
SSPA	Standing Stone	126.42	40	PFAKE		16 22 50.0	+7.8
SSPA				LR	LR		
	comp=Z,808nm,20.0s,MS5.4						
NCB	Newcomb	126.75	35	PFAKE		16 22 50.0	+7.2
NCB				LR	LR		
	comp=Z,763nm,20.0s,MS5.4						
BINY	Binghamton	126.75	38	PFAKE		16 22 50.0	+7.2
BINY				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
CBN	Corbin	128.02	43	PFAKE		16 23 00.0	+14
CBN				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
NHSC	New Hope	128.38	50	PFAKE		16 23 00.0	+14
NHSC				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
WVL	Waterville	128.88	32	PFAKE		16 23 00.0	+13
WVL				LR	LR		
	comp=Z,14µm,22.0s						
HRV	Harvard--Oak R	129.19	35	PFAKE		16 23 00.0	+12
HRV				LR	LR		
	comp=Z,755nm,21.0s,MS5.4						
DWPF	Disney	129.29	56	PFAKE		16 23 00.0	+12
DWPF				LR	LR		
	comp=Z,786nm,22.0s,MS5.4						
WES	Weston	129.40	35	PFAKE		16 23 00.0	+12
WES				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
JTS	JuntasAbangare	129.73	80	PFAKE		16 23 00.0	+11
JTS				LR	LR		
	comp=Z,223nm,20.0s,MS4.8						
EMMW	East Machias	129.91	30	PFAKE		16 23 00.0	+11
EMMW				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
TRQA	Tornquist	131.52	151	PFAKE		16 23 00.0	+7.8
TRQA				LR	LR		
	comp=Z,500nm,21.0s,MS5.2						
ESLA	Sonseca Array	134.50	326	PFAKE		16 23 10.0	+12
ESLA				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
OTAV	Otavalo	136.18	93	PFAKE		16 23 10.0	+8.6
OTAV				LR	LR		
	comp=Z,138nm,20.0s,MS4.7						
LVC	Limon Verde	137.69	130	PFAKE		16 23 10.0	+6.0
LVC				LR	LR		
	comp=Z,390nm,19.0s,MS5.2						
BBSR	BB Station	139.84	41	PFAKE		16 23 20.0	+12
BBSR				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
LPAZ	La Paz	141.55	122	PKP	PKPdf	16 23 07.8	-3.4
	comp=Z,1.4nm,0.8s,baz=318,slow=3.9,SNR=5.4						
LPAZ	La Paz	141.55	122	PKIKP	PKPdf	16 23 07.8	-3.4
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
LPAZ	La Paz	141.55	122	*e*PKPpre		16 23 05.9	
LPAZ				LR	LR		
	comp=Z,197nm,19.0s,MS4.9						
SDV	Santo Domingo	143.92	80	*e*PKPpre		16 23 09.3	
SDV				LR	LR		
	comp=Z,532nm,22.0s,MS5.3						
SJG	San Juan	145.99	62	PFAKE		16 23 30.0	+14
SJG				LR	LR		
	comp=Z,573nm,22.0s,MS5.3						
SAML	Samuel	149.04	114	PFAKE		16 23 30.0	+6.1
SAML				LR	LR		
	comp=Z,312nm,19.0s,MS5.1						
DBIC	Dimbokro	150.10	277	PKPbc	PKPdf	16 23 29.9	+4.2
	comp=Z,4.3nm,1.1s,baz=53,slow=1.3,SNR=3.7						
DBIC	Dimbokro	150.10	277	PKP2	PKPab	16 23 29.9	-5.4
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.1s						
RCBR	Riachuelo	170.63	173	PFAKE		16 24 00.0	+12
RCBR				LR	LR		
	comp=Z,788nm,20.0s						

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*IDC **12** 16:05:02.9±2.5, 34.54N×24.29E, mb3.8/1, mb1 3.6/3, mb1mx3.5/20, ML3.8/2, Error ellipse: s-maj=49.8km s-min=18.9km az=128.0*

*NEIC **12** 16:05:08.8, 34.86N×24.24E, h19^{km}, MD3.4(ATH), After ATH.*

*ATH **12** 16:05:08.7, 34.85N×24.24E, h19^{km}±1^{km}, MD3.4/8*

*CSEM **12** 16:05:09.1±0.3, 34.89N×24.33E, h5^{km}, MD3.4, Error ellipse: s-maj=6.9km s-min=2.9km az=22.0*

ISC 12 16:05:08.0±1.9**, 34.84N**±0.09×**24.27E**±0.07**, h7**^{km}±12^{km}**, n17, σ0^{s}84**/18**, mb3.8**/1**, 1D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GVD	Gavdhos	0.15	269	*e*PB	Pb	16 05 12.8	0.0
VAM	Vamos	0.57	354	⇓*i*PN	Pg	16 05 18.7	-0.7
VAM				*e*SN	Sg	16 05 28.1	+1.1
IDI	Anoyia	0.68	49	Pg	Pg	16 05 20.8	-0.8
	20nm,0.3s,baz=221,slow=18,SNR=102						
IDI				Lg		16 05 32.2	
	140nm,0.3s,baz=325,slow=18,SNR=33						
XRY	Khrisi	1.17	88	*e*PN	Pn	16 05 31.5	+0.7
NPS	Neapolis	1.18	69	*e*PN	Pn	16 05 31.1	+0.2
KYTH	Kithira	1.75	325	*e*PN	Pn	16 05 40.0	+0.9
THR6	Thira Island,	1.77	31	*e*P	Pn	16 05 39.7	+0.4
THR5	Thira Island,	1.80	29	*e*P	Pn	16 05 39.9	0.0
THR5	Thira Island,	1.80	29	*e*P	Pn	16 05 39.8	0.0
THR1	Thera Island	1.81	32	*e*P	Pn	16 05 39.7	-0.2
THR3	Thira Island,	1.82	30	*e*P	Pn	16 05 39.5	-0.5
VLI	Veliai	2.16	330	*e*PN	Pn	16 05 45.7	+0.7
APE	Apeiranthos	2.45	24	*e*PN	Pn	16 05 49.0	-0.1
KARP	Karpathos	2.47	73	*e*PN	Pn	16 05 50.5	+1.1
GERES	GERESS Array B	16.03	334	Pn	P	16 08 54.5	-1.0
	0.1nm,0.3s,baz=151,slow=10,SNR=4.1						
AKASG	Malin Array Be	16.26	11	Pn	P	16 08 55.6	-2.7
	0.8nm,0.3s,baz=196,slow=12,SNR=7.1						
SONM	Songino Array	60.25	50	P	P	16 15 13.9	-5.3
	0.4nm,0.4s,mb3.8,baz=280,slow=7.7,SNR=5.1						

IDC 12 16:38:02.6±2.4**, 6.14N**×**123.04E, h472**^{km}±28^{km}**, mb3.2**/3**, mb1 3.6**/4**, mb1mx3.0**/19**, Error ellipse: s-maj=257.0km s-min=26.9km az=72.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	Tagaytay City	8.18	345	P	P	16 40 00.3	-1.3
	40nm,0.3s,baz=156,slow=20,SNR=6.3						
WRA	Warramunga Arr	28.20	157	P	P	16 43 15.3	-2.4
	2.0nm,0.3s,baz=335,slow=9.7,SNR=105						
ASAR	Alice Springs	31.47	161	P	P	16 43 44.4	-1.5
	0.8nm,0.4s,baz=340,slow=7.0,SNR=37						
ASAR				ScP		16 49 20.9	
	0.2nm,0.6s,baz=335,slow=2.8,SNR=4.0						
STKA	Stephens Creek	41.74	156	P	P	16 45 10.4	-0.3
	1.1nm,0.5s,baz=341,slow=9.6,SNR=5.6						

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*IDC **12** 16:40:57.9±7.8, 31.51S×179.88E, h483^{km}±100^{km}, mb2.6/2, mb1 3.0/3, mb1mx2.8/13, Error ellipse: s-maj=109.0km s-min=40.5km az=8.0*

ISC 12 16:40:55.2±2.4**, 31.4S**±0.3×**180.0W**±0.5**, h472**^{km}±40^{km}**, n18, σ0^{s}93**/20**, mb3.0**/2**, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	6.31	193	P	P	16 42 33.5	-0.9
PUZ	Puketiti	6.81	192	P	P	16 42 39.3	-0.3
PUZ				S	S	16 43 59.4	-2.9
MWZ	Matawai	7.22	196	P	P	16 42 43.3	-0.6
MWZ				*e*S	S	16 44 10.1	+0.1
URZ	Urewera	7.25	199	P	P	16 42 45.2	+1.0
	7.9nm,0.3s,baz=304,slow=3.5,SNR=87						
URZ				S	S	16 44 11.2	+0.5
	2.5nm,0.3s,baz=114,slow=18,SNR=11						
URZ	Urewera	7.25	199	P	P	16 42 43.1	-1.1
KNZ	Kokohu	7.84	194	P	P	16 42 52.5	+2.0
BKZ	Black Stump Fm	8.27	200	P	P	16 42 55.6	+0.4
MGZ	Maungaku	8.43	205	P	P	16 42 58.2	+1.3
NGZ	Ngauruhoe	8.56	204	P	P	16 42 59.1	+0.8
TSZ	Takapari Road	9.25	200	P	P	16 43 04.8	-1.0
BFZ	Birch Farm	9.75	197	P	P	16 43 11.2	0.0
MRZ	Mangatainoka R	9.92	200	P	P	16 43 13.1	+0.2
CAW	Cannon Point	10.48	201	P	P	16 43 19.9	+0.9
NNZ	Nelson	11.17	207	P	P	16 43 25.3	-1.0
THZ	Tophouse	11.82	207	P	P	16 43 32.9	-0.4
ASAR	Alice Springs	41.39	269	P	P	16 48 00.6	+0.3
	0.5nm,1.1s,mb2.9,baz=106,slow=7.3,SNR=6.4						
WRA	Warramunga Arr	42.48	274	P	P	16 48 08.3	-0.7
	0.3nm,0.3s,mb3.2,baz=111,slow=8.1,SNR=18						
FINES	FINESS Array B	145.48	338	PKPbc	PKPbc	16 59 40.0	+1.3
	3.7nm,1.2s,baz=45,slow=2.7,SNR=7.2						

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*BJI **12** 16:44:24.9, 40.82N×78.23E, h28^{km}, ML3.1*

*NNC **12** 16:44:31.5±2.4, 41.73N×77.95E, mpv2.7, Error ellipse: s-maj=35.0km s-min=8.5km az=166.0*

ISC 12 16:44:25.2±5.6**, 41.0N**±0.1×**78.2E**±0.2**, h6**^{km}±41^{km}**, n11, σ1^{s}09**/12**, 3C-1D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULHL	Ulahol	1.92	310	P	Pn	16 44 54.2	-4.6
	SNR=54						
KSH	Kashi	2.30	229	*e*PG	Pn	16 45 03.9	-0.3
KSH				S	Sn	16 45 33.1	0.0
KSH				Smax			
	comp=N,140nm,0.4s						
KSH				Smax			
	comp=E,150nm,0.4s						
KZA	Kyzart	2.47	296	P	Pn	16 45 03.0	-3.7
	SNR=23						
TKM2	Tokmak 2	2.72	315	P	Pn	16 45 08.7	-1.6
	SNR=17						
KBK	Karagaybulak	2.94	305	P	Pn	16 45 13.2	-0.1
	SNR=7.6						
UCH	Uchtor	3.03	294	P	Pn	16 45 16.1	+1.5
	SNR=11						
AAK	Ala-Archa	3.22	301	⇑Pn	Pn	16 45 16.7	-0.6
	comp=E,4.8nm,0.6s						
AAK				⇑Lg		16 45 57.8	
	comp=E,25nm,0.6s						
AAK	Ala-Archa	3.22	301	P	Pn	16 45 17.0	-0.3
	SNR=9.0						
CHMS	Chumysh	3.25	308	P	Pn	16 45 17.6	-0.1
	SNR=6.1						
EKS2	Erkin-Say	3.71	297	P	Pn	16 45 26.2	+2.0
	SNR=13						
MK31	Makanchi Array	6.46	26	⇑Pn	Pn	16 46 03.4	+0.3
	comp=E,0.1nm,0.3s,baz=206,slow=14,SNR=6.5						
MK31				⇓Lg		16 47 38.1	
	comp=E,4.3nm,0.9s,baz=210,slow=29,SNR=4.8						

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*TIR **12** 16:48:53.6, 41.87N×20.52E, h24^{km}*

*PDG **12** 16:48:57.9±0.3, 41.95N×20.38E, h1^{km}±1^{km}*

*CSEM **12** 16:48:58.3±0.1, 42.01N×20.32E, h2^{km}, ML2.6, Error ellipse: s-maj=2.9km s-min=1.2km az=41.0*

*THE **12** 16:49:02.4, 41.96N×20.53E, h20^{km}, ML2.6*

ISC 12 16:48:57.4±0.4**, 41.96N**±0.03×**20.41E**±0.03**, h1**^{km}**, n24, σ1^{s}32**/41**, 5C, Albania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUK	Puka	0.39	283	*i* Pg	Pg	16 49 04.5	-0.8
PUK				*i* Sg	Sg	16 49 09.7	-0.8
BCI	Bajram Curri	0.48	328	*i* Pg	Pg	16 49 06.2	-0.8
BCI				*i* Sg	Sg	16 49 13.5	0.0
QSH	Qafa e Shtames	0.57	221	*i* pg?	Pg	16 49 11.4	+2.5
QSH				*i* Sg	Sg	16 49 21.6	+5.0
PVY	Plav	0.71	333	⇑*i*Pg	Pg	16 49 10.9	-0.8
PVY				*e*Sg	Sg	16 49 22.1	+0.9
TIR	Tirane	0.73	214	*i* Pg	Pg	16 49 08.6	-3.4
SKO	Skopje	0.77	89	⇑*i*Pg	Pg	16 49 12.6	-0.2
SKO				*i* Sg	Sg	16 49 24.2	+1.2
SKO				Lg		16 49 26.0	
	comp=Z,0.0nm,0.5s						
SKO	Skopje	0.77	89	*i* Sg	Sg	16 49 24.2	+1.2
ULC	Ulcinj	0.86	271	⇑*i*Pg	Pg	16 49 13.5	-1.2
ULC				*e*Sg	Sg	16 49 27.1	+0.8
ULC	Ulcinj	0.86	271	*e*Sg	Sg	16 49 27.0	+0.8
TTG	Podgorica	0.97	299	⇑*i*Pg	Pg	16 49 15.1	-1.8
TTG				*e*Sg	Sg	16 49 29.8	-0.1
IVA	Berane	0.99	338	*e*Pg	Pg	16 49 15.8	-1.3
IVA				*e*Sg	Sg	16 49 31.7	+1.3
BUM	Brajici-Budva	1.18	288	*e*Pg	Pg	16 49 19.0	-1.9
BUM				*e*Sg	Sg	16 49 37.8	+1.2
NKY	Niksic	1.35	310	*e*Pg	Pg	16 49 21.8	-2.6
NKY				*e*Sg	Sg	16 49 43.6	+1.2
FNA	Florina	1.38	148	*e*Pb	Pb	16 49 24.5	+0.8
FNA				*e*Sb	Sb	16 49 43.4	+1.7
HCY	Herceg Novi	1.50	290	*e*Pg	Pg	16 49 24.9	-2.6
HCY				*e*Sg	Sg	16 49 47.9	+0.5
PLE	Pljevlja	1.56	332	*e*Pg	Pg	16 49 27.0	-1.7
PLE				*e*Sg	Sg	16 49 50.6	+1.1
UPM	Unac-Piva	1.67	319	*e*Pn	Pn	16 49 29.0	+1.0
UPM				*e*Sn	Sn	16 49 53.8	+3.5
BRY	Bratogost	1.67	305	⇑*i*Pn	Pn	16 49 28.8	+0.8
BRY				*e*Sn	Sn	16 49 53.6	+3.2
GRG	Griva	1.80	123	*e*Pb	Pb	16 49 31.2	+0.3
GRG				*e*Sb	Sb	16 49 52.8	-1.1
GRG	Griva	1.80	123	*e*Pb	Pb	16 49 31.2	+0.3
KNT	Kendrikon	2.03	112	*e*Pb	Pb	16 49 33.8	-1.0
KNT				*e*Sb	Sb	16 49 57.8	-2.8
SRS	Serrai	2.53	108	*e*Pn	Pn	16 49 41.1	+0.8
PAIG	Paliouri	3.20	128	*e*Pn	Pn	16 49 50.6	+0.8
AGG	Agios Georgios	3.28	153	*e*Pn	Pn	16 49 51.7	+0.8

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*IDC **12** 16:49:57.3±13.0, 9.12S×108.80E, mb3.6/3, mb1 3.8/4, mb1mx3.5/14, ML3.3/1, Error ellipse: s-maj=211.0km s-min=119.6km az=128.0*

*DJA **12** 16:50:02.8±1.2, 10.85S×109.34E, h30^{km}±5^{km}, mb5.5/3, ML5.2/1, Error ellipse: s-maj=89.8km s-min=23.1km az=159.0*

ISC 12 16:50:06.8±3.3**, 9.0S**±0.7×**109.1E**±0.2**, h87**^{km}±57^{km}**, n9, σ0^{s}92**/11**, mb3.3**/3**, 1C-3D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	Scrawed	4.99	85	*e*Pn	P	16 51 20.3	-0.5
	245nm,0.2s						
SRDI	Scrawed	4.99	85	⇓*e*P	P	16 51 21.9	+1.1
SRDI				⇑*e*Sn	S	16 52 17.1	-0.6
KELI	Kelakatan	5.37	82	⇓*e*P	P	16 51 27.9	+1.9
	151nm,0.2s						
RATI	Rata	6.34	88	*e*P	P	16 51 38.9	-0.5
	418nm,0.2s						
RATI				*e*S	S	16 52 51.9	+0.8
KEDI	Kedomdong	6.93	86	⇓*e*P	P	16 51 45.9	-1.7
	94nm,0.2s						
FITZ	Fitzroy Crossi	18.42	121	P	P	16 54 17.9	0.0
	0.1nm,0.3s,baz=277,slow=8.1,SNR=4.7						
WRA	Warramunga Arr	26.69	117	P	P	16 55 39.6	-0.4
	0.4nm,0.8s,mb3.0,baz=288,slow=12,SNR=5.2						
ASAR	Alice Springs	27.83	125	P	P	16 55 50.5	+0.2
	0.3nm,0.5s,mb3.1,baz=302,slow=9.8,SNR=6.9						
STKA	Stephens Creek	37.76	132	P	P	16 57 16.4	+0.3
	0.7nm,0.5s,mb3.8,baz=328,slow=8.9,SNR=3.5						

IDC 12 16:53:40.2±24.0**, 18.10S**×**178.98W, h602**^{km}±225^{km}**, mb2.7**/2**, mb1 3.1**/2**, mb1mx2.7**/13**, Error ellipse: s-maj=371.0km s-min=75.4km az=138.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	44.06	260	P	P	17 00 56.4	-1.6
	0.8nm,0.7s,baz=96,slow=7.6,SNR=16						
ILAR	Eielson Array	86.19	13	P	P	17 05 18.1	-1.3
	0.4nm,1.0s,baz=227,slow=5.1,SNR=5.4						
GERES	GERESS Array B	147.65	344	PKPbc	PKPdf	17 12 17.6	+3.7
	0.1nm,0.3s,slow=1.3,SNR=5.0						

OTT 12 17:00:05.2±0.3**, 52.79N**×**67.25W, MN2.9**/5**, Blast, Mount Wright, Qc Mining explosion., Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCHQ	Schefferville	2.06	7	PN	Pn	17 00 40.8	-0.7
SCHQ				SN	Sn	17 01 08.2	0.0
SCHQ				Trac		17 01 10.5	
	comp=Z,20nm,0.2s						
MNQ	Manicouagan	2.45	203	PN	Pn	17 00 47.0	0.0
MNQ				SN	Sn	17 01 18.1	-0.1
MNQ				Trac		17 01 21.7	
	comp=Z,23nm,0.2s						
SMQ	Clarke City	2.59	172	PN	Pn	17 00 47.3	-1.8
SMQ				SN	Sn	17 01 18.8	-3.0
SMQ				Trac		17 01 24.4	
	comp=Z,16nm,0.3s						
ICQ	Pointe Anglais	3.27	180	PN	Pn	17 00 58.4	-0.3
ICQ				SN	Sn	17 01 36.5	-2.5
CNQ	Baie Comeau	3.53	189	PN	Pn	17 01 01.0	-1.4
CNQ				SN	Sn	17 01 43.1	-2.4
CNQ				Trac		17 01 58.5	
	comp=Z,6.5nm,0.2s						
GSQ	Grosses Roches	3.89	179	PN	Pn	17 01 05.4	-2.1
GSQ				SG	Sg	17 02 03.8	-11
LG4Q	La Grande 4	4.20	284	PN	Pn	17 01 09.2	-2.7
LG4Q				PG	Pg	17 01 17.1	-12
LG4Q				SN	Sn	17 01 56.3	-6.2
LG4Q				Trac		17 02 18.5	
	comp=Z,8.2nm,0.2s						
LMQ	La Malbaie	5.61	202	PN	Pn	17 01 28.2	-3.7
DRLN	Deer Lake	7.09	116	PN	Pn	17 01 48.1	-4.7
DRLN				SN	Sn	17 03 04.9	-10
LMN	Caledonia Moun	7.12	166	PN	Pn	17 01 49.1	-4.1
LMN				SN	Sn	17 03 04.2	-12
VLDQ	Val d'Or	8.02	238	PN	P	17 02 02.9	-2.8
VLDQ				SN	Sn	17 03 28.0	-10
MALO	McAlpine Lake	8.30	256	PN	P	17 02 04.6	-5.1
MALO				SN	Sn	17 03 35.1	-10
MALO				LG		17 04 18.3	
VIMO	Victor Mine	9.99	277	PN	P	17 02 26.5	-6.5
VIMO				SN	Sn	17 04 10.8	-16
SILO	Sutton Inlier	10.62	286	PN	P	17 02 34.3	-7.3
SILO				SN	S	17 04 29.1	-14

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*NEIC **12** 17:16:11.5, 37.58S×176.49E, h249^{km}, After WEL.*

WEL 12 17:16:11.6±0.2**, 37.61S**×**176.49E, h249**^{km}±2^{km}**, ML4.1**/9**, 4C, Error ellipse: s-maj=3.4km s-min=3.1km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.82	143	P	P	17 16 45.4	-0.4
URZ	Urewera	0.82	143	⇑PN	P	17 16 45.4	-0.4
URZ				SN	S	17 17 11.5	-0.9
MWZ	Matawai	1.10	132	P	P	17 16 47.2	-0.1
MWZ				S	S	17 17 14.8	-0.3
MWZ	Matawai	1.10	132	⇑PN	P	17 16 47.2	-0.1
MWZ				SN	S	17 17 14.8	-0.3
RATZ	Rangitukua	1.38	204	P	P	17 16 49.2	0.0
RATZ	Rangitukua	1.38	204	PN	P	17 16 49.2	0.0
MXZ	Matakaoa Point	1.45	89	P	P	17 16 49.3	-0.4
MXZ	Matakaoa Point	1.45	89	PN	P	17 16 49.3	-0.4
MXZ				SN	S	17 17 19.4	+0.1
PUZ	Puketiti	1.48	109	P	P	17 16 49.6	-0.4
PUZ				S	S	17 17 18.5	-1.2
PUZ	Puketiti	1.48	109	PN	P	17 16 49.4	-0.5
PUZ				SN	S	17 17 18.5	-1.2
BKZ	Black Stump Fm	1.56	180	P	P	17 16 50.4	-0.2
BKZ	Black Stump Fm	1.56	180	⇑PN	P	17 16 50.4	-0.2
BKZ				SN	S	17 17 20.4	-0.5
MGZ	Maungaku	1.58	208	P	P	17 16 50.9	+0.1
MGZ	Maungaku	1.58	208	PN	P	17 16 50.8	+0.1
WTVZ	West Tongariro	1.67	205	P	P	17 16 51.3	-0.1
WTVZ	West Tongariro	1.67	205	PN	P	17 16 51.3	-0.1
TWVZ	Taurewa	1.68	209	PN	P	17 16 51.5	0.0
KNZ	Kokohu	1.69	147	P	P	17 16 51.3	-0.4
KNZ				S	S	17 17 22.3	-0.4
KNZ	Kokohu	1.69	147	PN	P	17 16 51.3	-0.3
KNZ				SN	S	17 17 22.0	-0.7
NGZ	Ngauruhoe	1.72	204	P	P	17 16 51.9	+0.1
NGZ	Ngauruhoe	1.72	204	PN	P	17 16 51.9	+0.1
CNZ	Chateau	1.75	205	P	P	17 16 52.2	+0.1
CNZ	Chateau	1.75	205	PN	P	17 16 52.0	-0.1
WPVZ	Whakapapa	1.76	205	P	P	17 16 52.1	-0.1
WPVZ	Whakapapa	1.76	205	PN	P	17 16 51.9	-0.3
TUVZ	Tukino	1.79	201	PN	P	17 16 52.4	0.0
TUVZ				SN	S	17 17 23.4	-0.6
FWVZ	Far West T-bar	1.80	204	*e*P	P	17 16 52.6	0.0
FWVZ	Far West T-bar	1.80	204	PN	P	17 16 52.6	+0.1
WNVZ	Wahianoa	1.86	202	P	P	17 16 53.3	+0.3
WNVZ	Wahianoa	1.86	202	PN	P	17 16 53.3	+0.3
MOVZ	Moawhango	1.89	198	P	P	17 16 52.6	-0.7
MOVZ	Moawhango	1.89	198	PN	P	17 16 52.5	-0.7
PWZ	Pawanui	2.44	173	*e*P	P	17 16 57.8	-0.7
PWZ	Pawanui	2.44	173	PN	P	17 16 57.6	-1.0
PWZ				SN	S	17 17 33.9	-1.1
WAZ	Wanganui	2.45	208	*e*P	P	17 16 58.6	0.0
WAZ	Wanganui	2.45	208	PN	P	17 16 57.7	-0.9
TSZ	Takapari Road	2.48	189	P	P	17 16 57.8	-1.2
TSZ	Takapari Road	2.48	189	PN	P	17 16 57.8	-1.2
TSZ				SN	S	17 17 34.1	-1.7
BFZ	Birch Farm	3.08	183	*e*P	P	17 17 03.6	-1.7
BFZ	Birch Farm	3.08	183	PN	P	17 17 03.6	-1.7
BFZ				SN	S	17 17 45.5	-1.5
MRZ	Mangatainoka R	3.13	193	P	P	17 17 03.8	-2.1
MRZ	Mangatainoka R	3.13	193	⇑PN	P	17 17 03.8	-2.1
MRZ				SN	S	17 17 45.3	-2.8
KIW	Kapiti Island	3.48	200	P	P	17 17 07.4	-2.4
KIW	Kapiti Island	3.48	200	PN	P	17 17 07.4	-2.4
MTW	Mount Morrison	3.63	192	P	P	17 17 08.8	-2.8
MTW	Mount Morrison	3.63	192	PN	P	17 17 08.8	-2.8
CAW	Cannon Point	3.67	197	P	P	17 17 09.6	-2.4
CAW	Cannon Point	3.67	197	PN	P	17 17 09.6	-2.4
PAWZ	Paruwai Farm	3.86	192	PN	P	17 17 10.9	-3.3
MRW	Makara Radio	3.88	200	P	P	17 17 12.1	-2.3
MRW	Makara Radio	3.88	200	PN	P	17 17 11.7	-2.7
MSWZ	Moikau Station	3.92	194	P	P	17 17 12.2	-2.8
MSWZ	Moikau Station	3.92	194	PN	P	17 17 12.1	-2.9
TUWZ	Tuamarina	4.30	206	PN	P	17 17 16.8	-2.6
NNZ	Nelson	4.34	213	PN	P	17 17 16.6	-3.3
QRZ	Quartz Range	4.45	222	*e*P	P	17 17 17.7	-3.5
QRZ	Quartz Range	4.45	222	PN	P	17 17 17.7	-3.6
THZ	Tophouse	4.99	213	*e*P	P	17 17 24.9	-2.9
THZ	Tophouse	4.99	213	PN	P	17 17 24.9	-2.9
KHZ	Kahutara	5.31	204	*e*P	P	17 17 29.1	-2.7
KHZ	Kahutara	5.31	204	PN	P	17 17 29.1	-2.6
LTZ	Lake Taylor	6.09	211	*e*P	P	17 17 37.8	-3.7
LTZ	Lake Taylor	6.09	211	PN	P	17 17 37.8	-3.7
JCZ	Jackson Bay	8.72	220	*e*P	P	17 18 09.6	-5.2
JCZ	Jackson Bay	8.72	220	PN	P	17 18 09.6	-5.2

MEX 12 17:34:34.1±0.6**, 15.83N**×**96.23W, h48**^{km}±6^{km}**, MD3.8, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

HUIG	**Huatulco**	0.13	117	*i* P	P	17 34 40.4	-1.2
HUIG				*i* S	S	17 34 45.4	-1.7
VHO	**Vista Hermosa**	1.33	339	*i* P	P	17 34 55.1	-1.6
VHO				*i* S	S	17 35 10.9	-2.7
OXX	**Oaxaca**	1.34	339	*i* P	P	17 34 55.0	-1.8
OXX				*i* S	S	17 35 11.0	-2.7
CMIG	**Matias Romero**	1.80	45	*e*P	P	17 35 00.7	-2.6
CMIG				*i* S	S	17 35 22.7	-2.3
PPM	**Popocatepetl**	3.95	325	*e*P	P	17 35 32.8	-1.1

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*ATH **12** 17:56:53.3, 40.49N×23.67E, h4^{km}, MD2.7/3*
*THE **12** 17:56:53.6, 40.53N×23.59E, h6^{km}, ML2.3*
*CSEM **12** 17:56:53.8±0.1, 40.52N×23.58E, h8^{km}, ML2.3, Error ellipse: s-maj=2.7km s-min=1.7km az=76.0*
ISC 12 17:56:53.1±0.5**, 40.52N**±0.02×**23.58E**±0.04**, h10**^{km}±6^{km}**, n17, σ0^{s}47**/23**, 2D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLG	**Polygyros**	0.18	214	⇓*i*PG	Pg	17 56 57.2	+0.1
PLG				*e*SG	Sg	17 56 59.8	+0.1
SOH	**Sokhos**	0.34	331	*e*Pg	Pg	17 57 00.3	+0.2
SOH				*e*Sg	Sg	17 57 04.8	-0.1
OUR	**Ouranopolis**	0.36	121	*e*Pg	Pg	17 57 00.8	+0.2
OUR				*e*Sg	Sg	17 57 05.8	+0.3
THE	**Thessaloniki**	0.48	283	*e*Pg	Pg	17 57 02.3	-0.5
SRS	**Serrai**	0.59	1	*e*Pg	Pg	17 57 04.8	-0.3
SRS				*e*Sg	Sg	17 57 13.8	+0.7
PAIG	**Paliouri**	0.60	172	*e*Pg	Pg	17 57 04.5	-0.7
KNT	**Kendrikon**	0.82	321	*e*Pg	Pg	17 57 08.8	-0.7
KNT				*e*Sg	Sg	17 57 20.7	+0.2
NVR	**Nevrokopi**	0.85	15	⇓*i*PG	Pg	17 57 09.8	-0.4
LIT	**Litokhoron**	0.93	243	*e*Pg	Pg	17 57 11.7	-0.1
LIT				*e*Sg	Sg	17 57 25.2	+1.0
GRG	**Griva**	0.99	296	*e*Pg	Pg	17 57 12.6	-0.3
MMB	**Musomiste**	1.07	6	*i* P	Pb	17 57 13.0	-0.3
XOR	**Xorichti**	1.19	194	*e*Pb	Pb	17 57 16.0	+0.7
NEO	**Neokhori**	1.25	193	*e*PB	Pb	17 57 16.6	+0.4
AOS	**Alonnisos**	1.37	170	*e*Pb	Pb	17 57 17.9	-0.5
KKB	**Krupnik**	1.39	345	*i* P	Pn	17 57 19.0	+0.3
RZN	**Rozhen**	1.45	36	*i* P	Pn	17 57 20.0	+0.5
AGG	**Agios Georgios**	1.78	213	*e*Pb	Pb	17 57 24.6	-0.8

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*NIED **12** 17:58:00, 43.70N×147.20E, h56^{km}, Mw4.2 Best double couple: $M_0$2.37×10^{15} NP1:ϕ_s155°, δ72°, λ63°. NP2:ϕ_s35°, δ32°, λ145°.*
*MOS **12** 17:58:22.7±1.1, 43.73N×147.17E, h65^{km}, mb4.6/6, Error ellipse: s-maj=13.3km s-min=10.7km az=83.1*
*IDC **12** 17:58:23.8±0.5, 43.90N×147.13E, h51^{km}±4^{km}, mb4.0/17, mb1 4.2/18, mb1mx4.1/23, MS3.1/2, Ms1 3.1/2, ms1mx2.5/24, Error ellipse: s-maj=17.7km s-min=11.7km az=122.0*
*NEIC **12** 17:58:23.7±0.3, 43.86N×147.13E, mb4.2/8, Error ellipse: s-maj=9.1km s-min=6.2km az=138.0*
*JMA **12** 17:58:23.3±0.2, 43.66N×147.24E, h32^{km}±5^{km}, M4.8*
*SKHL **12** 17:58:23.9±0.9, 43.76N×147.30E, h40^{km}±9^{km}, mb4.8/4*
ISC 12 17:58:23.1±0.8**, 43.83N**±0.05×**147.23E**±0.07**, h62**^{km}±6^{km}**, h53**^{km}±.7^{km}**:pP-P, n70, σ1^{s}10**/81**, mb4.2**/24**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YUK	**Yuzh-Kuril'sk**	1.01	282	⇓*i*PN	P	17 58 40.8	-0.8
YUK				*i* S	S	17 58 54.0	-1.3
YUK				pmax	pmax		
	comp=Z,4μm,0.3s						
YUK				pmax	pmax		
	comp=Z,5μm,0.2s						
YUK				pmax	pmax		
	comp=N,580nm,0.3s						
YUK				pmax	pmax		
	comp=E,920nm,0.3s						
YUK				smax			
	comp=N,30μm,0.5s						
YUK				smax			
	comp=E,50μm,0.5s						
YUK				smax			
	comp=N,12μm,0.5s						
YUK				smax			
	comp=E,17μm,0.5s						
YUK	**Yuzh-Kuril'sk**	1.01	282	*i* P	P	17 58 40.8	-0.8
YUK				AMB	AMB	17 58 41.2	
	comp=E,4μm,0.3s						
YUK				AMB	AMB	17 58 41.5	
	comp=E,580nm,0.2s						
YUK				AMB	AMB	17 58 41.5	
	comp=E,920nm,0.2s						
YUK				AMB	AMB	17 58 41.5	
	comp=E,5μm,0.2s						
YUK				*i* rx	rx	17 58 51.2	
YUK				*i* S	S	17 58 54.0	-1.3
YUK				A		17 58 54.5	
	comp=E,30μm,1.0s						
YUK				A		17 58 54.5	
	comp=E,50μm,1.0s						
YUK				A		17 58 55.0	
	comp=E,12μm,0.5s						
YUK				A		17 58 55.0	
	comp=E,17μm,0.5s						
NEM2	**Nemuro 2**	1.18	247	P	P	17 58 43.3	-0.5
NEM2				*e*S	S	17 58 57.6	-1.7
KUR	**Kuril'sk**	1.47	18	*e*P	P	17 58 55.0	+6.9
KUR				*e*S	S	17 59 05.0	-1.5
JRA	**Rausu**	1.53	275	P	P	17 58 49.5	+0.7
JRA				*e*S	S	17 59 09.7	+2.0
JNK	**Nakash**	1.84	263	P	P	17 58 53.3	+0.3
JAK	**Akkeshi**	2.02	246	P	P	17 58 55.3	-0.3
JAK				S	S	17 59 18.8	-0.9
JTKR	**Abashiri--Toko**	2.40	274	P	P	17 59 02.3	+1.3
JAR	**Ashorobuto**	2.57	259	P	P	17 59 04.0	+0.6
JAR				*e*S	S	17 59 35.1	+1.6
JOB	**Onbets**	2.64	251	P	P	17 59 04.5	+0.1
JOB				*e*S	S	17 59 34.0	-1.3
JMP	**Maruseppu**	2.80	275	P	P	17 59 08.0	+1.4
JCH	**Churui**	3.08	248	P	P	17 59 10.1	-0.4
JCH				*e*S	S	17 59 44.9	-1.4
JKK2	**Kamakawa 2**	3.24	272	P	P	17 59 14.8	+2.0
ASAJ	**Asahikawa**	3.35	276	P	P	17 59 16.4	+2.0
	comp=E,18nm,0.3s,baz=88,slow=15,SNR=56						
ASAJ				S	S	18 00 02.5	+9.2
	comp=E,30nm,0.3s,baz=2.1,slow=28,SNR=5.3						
ASAJ				LR	LR	18 00 37.2	
	comp=E,397nm,18.1s,baz=292,slow=41						
ASAJ	**Asahikawa**	3.35	276	P	P	17 59 16.3	+1.9
JFR	**Furan**	3.44	260	P	P	17 59 16.6	+1.0
JFR				*e*S	S	17 59 56.4	+1.1
JEM	**Erimo**	3.50	240	P	P	17 59 17.3	+0.9
JSE	**Soyaes**	3.51	290	P	P	17 59 17.8	+1.2
JNBK	**Urakawa-nobuka**	3.63	246	P	P	17 59 17.4	-0.8
YSS	**Yuzh-Sakhalins**	4.43	316	*e*PN	P	17 59 30.0	+0.5
YSS	**Yuzh-Sakhalins**	4.43	316	*i* P	P	17 59 30.0	+0.5
YSS				*i* S	S	18 00 18.5	-1.9
YSS				A		18 00 20.0	
	comp=E,60nm,0.7s						
TEY	**Ternei**	7.70	283	*e*P	P	18 00 17.5	+2.6
MAJO	**Matsushiro**	10.03	226	*e*PN	P	18 00 43.6	-3.2
MAJO				pmax	pmax		
	comp=Z,19nm,0.6s						
MAJO	**Matsushiro**	10.03	226	*e*Pn	P	18 00 43.6	-3.2
	comp=Z,19nm,0.6s						
MAT	**Matsushiro**	10.03	226	P	P	18 00 44.0	-2.8
MAT	**Matsushiro**	10.03	226	*e*PN	P	18 00 44.0	-2.8
MAT				pmax	pmax		
	comp=Z,14nm,0.7s						
MAT	**Matsushiro**	10.03	226	*e*P	P	18 00 44.0	-2.8
	comp=Z,14nm,0.7s						
JHJ	**Hachijo jima 2**	12.18	211	LR	LR	18 05 58.2	
	comp=Z,48nm,18.7s,baz=301,slow=37						
MA2	**Magadan**	15.91	7	P	P	18 02 01.4	-2.8
MA2				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MA2	**Magadan**	15.91	7	P	P	18 02 01.4	-2.8
	comp=Z,2.5nm,0.6s						
BMKR	**Bomnak**	16.14	319	*e*P	P	18 02 07.4	+0.3
BMKR				AMB	AMB	18 02 08.1	
	comp=Z,14nm,0.8s						
HIA	**Hailar**	19.61	296	P	P	18 02 45.8	-3.0
HIA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HIA	**Hailar**	19.61	296	P	P	18 02 45.8	-3.0
	comp=Z,2.1nm,0.7s						
BJT	**Baijiatuau**	23.35	271	*e*P	P	18 03 26.2	-0.2
BJT				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BJT	**Baijiatuau**	23.35	271	*e*P	P	18 03 26.2	-0.1
	comp=Z,9.7nm,0.7s,mb4.3						
SONM	**Songino Array**	28.49	293	P	P	18 04 13.0	-1.3
	comp=Z,0.6nm,0.5s,mb3.5,baz=79,slow=8.0,SNR=7.6						
IMA	**Indian Mountai**	38.58	34	*e*P	P	18 05 41.4	+0.3
IMA				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.2						
IMA	**Indian Mountai**	38.58	34	*e*P	P	18 05 41.4	+0.3
	comp=Z,31nm,0.6s,mb5.2						
COLA	**College**	40.97	36	*e*P	P	18 06 01.7	+0.8
COLA				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.3						
COLA	**College**	40.97	36	*e*P	P	18 06 01.7	+0.8
	comp=Z,5.1nm,0.6s,mb4.3						
ZAL	**Zalesovo**	41.01	307	P	P	18 06 01.3	0.0
	comp=Z,0.5nm,0.3s,mb3.6,baz=350,slow=3.4,SNR=3.2						
ZAL				PcP	PcP	18 07 59.2	-1.8
	comp=Z,1.7nm,0.5s,baz=22,slow=5.6,SNR=8.2						
ILAR	**Eielson Array**	41.39	36	P	P	18 06 04.5	+0.2
	comp=Z,4.1nm,0.8s,mb4.1,baz=247,slow=5.1,SNR=40						
INK	**Inuvik**	46.30	30	P	P	18 06 44.1	+0.3
	comp=Z,7.6nm,0.5s,mb4.9,baz=306,slow=6.7,SNR=123						
CMAR	**Chiang Mai Arr**	47.60	254	P	P	18 06 55.2	+0.6
	comp=Z,4.6nm,1.1s,mb4.4,baz=44,slow=7.4,SNR=9.8						
YKA	**Yellowknife Ar**	55.70	34	P	P	18 07 54.2	-0.7
	comp=Z,3.9nm,0.7s,mb4.5,baz=297,slow=6.8,SNR=44						
KAF	**Kangasniemi**	64.27	333	*e*p	P	18 08 51.4	-2.0
WRA	**Warramunga Arr**	64.55	193	P	P	18 08 55.2	-0.7
	comp=Z,2.4nm,0.7s,mb4.3,baz=10,slow=6.5,SNR=18						
WRA				pP	pP	18 09 09.5	-3.3
	comp=Z,2.5nm,1.0s,baz=12,slow=6.9,SNR=7.9						
FINES	**FINESS Array B**	64.83	333	P	P	18 08 55.9	-1.2
	comp=Z,1.2nm,0.5s,mb4.2,baz=46,slow=7.4,SNR=17						
BOZ	**Bozeman (W)**	66.81	48	*e*P	P	18 09 10.2	+0.2
BOZ				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BOZ	**Bozeman (W)**	66.81	48	*e*P	P	18 09 10.2	+0.3
	comp=Z,5.1nm,0.8s,mb4.6						
NVAR	**Mina Array Bea**	67.49	58	P	P	18 09 15.2	+0.9
	comp=Z,2.2nm,0.6s,mb4.4,baz=287,slow=7.6,SNR=15						
NVAR				sP	sP	18 09 35.0	-3.1
	comp=Z,2.8nm,0.9s,baz=308,slow=4.4,SNR=5.9						
ASAR	**Alice Springs**	68.27	193	P	P	18 09 19.4	0.0
	comp=Z,1.1nm,0.7s,mb4.0,baz=8.9,slow=5.2,SNR=25						
ASAR				pP	pP	18 09 34.5	-2.0
	comp=Z,1.3nm,0.8s,baz=12,slow=5.6,SNR=9.9						
NB2	**NORSAR Subarra**	69.55	339	P	P	18 09 25.9	-0.8
	comp=Z,1.4nm,0.4s,mb4.2,baz=31,slow=6.2						
NOA	**NORSAR Array B**	69.55	339	P	P	18 09 26.1	-0.5
	comp=Z,1.9nm,0.3s,mb4.5,baz=31,slow=6.3,SNR=7.6						
TPNV	**Topopah Spring**	69.69	58	*e*P	P	18 09 28.3	+0.4
TPNV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
TPNV	**Topopah Spring**	69.69	58	*e*P	P	18 09 28.3	+0.4
	comp=Z,2.0nm,0.6s,mb4.2						
BW06	**Boulder Array**	69.81	50	*e*P	P	18 09 28.7	+0.1
	comp=Z,1.3nm,0.6s,mb4.0						
PDAR	**Pinedale Array**	69.81	50	P	P	18 09 28.9	+0.3
	comp=Z,1.2nm,0.5s,mb4.1,baz=299,slow=2.0,SNR=9.0						
PDAR				sP	sP	18 09 49.0	-3.3
	comp=Z,1.3nm,0.9s,baz=315,slow=2.1,SNR=4.0						
AKASG	**Malin Array Be**	71.55	324	P	P	18 09 38.4	-0.5
	comp=Z,0.9nm,0.4s,mb4.1,baz=40,slow=6.5,SNR=13						
AKASG	**Malin Array Be**	71.55	324	P	P	18 09 38.4	-0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
PV10	**Paradox Valley**	73.05	53	*e*P	P	18 09 48.8	+0.9
STKA	**Stephens Creek**	75.52	185	P	P	18 10 03.0	+0.7
	comp=Z,1.0nm,0.8s,mb3.8,baz=340,slow=15,SNR=3.6						
CLL	**Collm**	77.27	333	*i* P	P	18 10 11.8	0.0
CLL	**Collm**	77.27	333	P	P	18 10 11.8	0.0
BRG	**Berggiesshubel**	77.32	332	P	P	18 10 11.9	-0.2
BRG				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.2						
BRG	**Berggiesshubel**	77.32	332	P	P	18 10 11.9	-0.2
	comp=Z,2.9nm,1.0s,mb4.2						
SCHQ	**Schefferville**	77.53	19	P	P	18 10 13.5	+0.3
	comp=Z,2.2nm,0.3s,mb4.5,baz=36,slow=8.2,SNR=18						
KHC	**Kasperske Hory**	78.92	331	*e*P	P	18 10 21.5	+0.6
GERES	**GERESS Array B**	79.11	331	P	P	18 10 22.0	-0.1
	comp=Z,0.9nm,0.6s,mb3.9,baz=40,slow=5.7,SNR=11						
TXAR	**Lajitas Array**	82.56	56	P	P	18 10 41.1	+0.6
	comp=Z,1.3nm,0.7s,mb4.1,baz=300,slow=4.7,SNR=9.2						
TXAR				pP	pP	18 10 56.6	-1.5
	comp=Z,0.6nm,0.6s,baz=305,slow=4.6,SNR=2.9						
TXAR				sP	sP	18 11 02.4	-2.5
	comp=Z,2.3nm,0.7s,baz=297,slow=4.0,SNR=8.5						

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*CSEM **12** 18:11:25.9±0.1, 34.95N×2.93W, h12^{km}, MD3.4, Error ellipse: s-maj=3.0km s-min=2.6km az=159.0*
*CNRM **12** 18:11:26.3, 35.04N×2.69W, h25^{km}, MD3.4*
*NEIC **12** 18:11:28.6, 35.05N×3.16W, MG3.4(MDD), After MDD.*
*MDD **12** 18:11:29.1±1.7, 35.07N×3.17W, mb3.5/2, Error ellipse: s-maj=16.4km s-min=5.4km az=162.0, PRXIMO AftershockPLICA*
ISC 12 18:11:27.1±0.7**, 35.02N**±0.03×**3.00W**±0.06**, h10**^{km}**, n25, σ1^{s}47**/42**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.21	103	*i* P	Pg	18 11 30.5	-1.2
MELI	**Melilla**	0.28	10	P	Pg	18 11 34.6	+1.7
MELI				S	Sg	18 11 38.2	+1.3
MELI	**Melilla**	0.28	10	*e*P	Pg	18 11 34.6	+1.6
EMEL	**Melilla**	0.28	7	P	Pg	18 11 34.3	+1.3
	SNR=6.6						
EMEL				S	Sg	18 11 38.2	+1.2
	227nm,0.1s,SNR=11						
EMLI	**Melilla**	0.28	8	P	Pg	18 11 34.3	+1.3
	26nm,0.1s,SNR=6.6						
TOU	**Touzarine**	0.62	265	*i* P	Pb	18 11 41.0	+1.4
TOU				*i* S	Sg	18 11 52.5	+4.4
MPAL	**Palemas**	0.80	285	*e*P	Pb	18 11 43.0	+0.4
MPAL				*e*S	Sb	18 11 57.0	+3.7
TZK	**Tazeka**	1.35	227	*i* P	Pn	18 11 52.5	+0.5
TZK				*i* S	Sb	18 12 11.0	+1.8
EBER	**Berja**	1.88	3	P	Pn	18 11 59.7	+0.1
	0.5nm,0.1s,SNR=4.0						
EBER				S	Sn	18 12 20.8	-2.8
	9.8nm,0.3s						
EBER	**Berja**	1.88	3	P	Pn	18 11 59.7	+0.1
	0.5nm,0.1s,SNR=4.0						
EBER				S	Sn	18 12 20.8	-2.7
	9.8nm,0.3s						
EMIJ	**Mijas**	2.11	317	P	Pn	18 12 01.4	-1.6
	1.4nm,0.1s,SNR=9.5						
EMIJ				S	Sn	18 12 26.2	-3.3
	4.8nm,0.3s						
EMIJ	**Mijas**	2.11	317	S	Sn	18 12 26.2	-3.3
	4.8nm,0.3s						
MIF	**Mishlifen**	2.45	230	*e*P	Pn	18 12 07.0	-0.8
MIF				*i* S	Sn	18 12 35.5	-2.5
EQES	**Quesada**	2.78	359	P	Pn	18 12 13.6	+1.1
	0.6nm,0.1s,SNR=9.5						
EQES				S	Sn	18 12 47.4	+0.9
	11nm,0.4s						
EQES	**Quesada**	2.78	359	P	Pn	18 12 13.6	+1.1
	0.6nm,0.1s,SNR=9.5						
EQES				S	Sn	18 12 47.4	+0.9
	11nm,0.4s						
ESPR	**Espera**	2.97	309	S	Sn	18 12 51.6	+0.4
	3.2nm,0.2s,SNR=4.0						
ESPR	**Espera**	2.97	309	S	Sn	18 12 51.6	+0.4
	3.2nm,0.2s,SNR=4.0						
EADA	**Adamuz**	3.39	338	P	Pn	18 12 20.9	-0.3
	1.4nm,0.2s,SNR=14						
EADA				S	Sn	18 12 58.8	-3.1
	3.0nm,0.3s						
EADA	**Adamuz**	3.39	338	P	Pn	18 12 20.9	-0.3
	1.4nm,0.2s,SNR=14						
EADA				S	Sn	18 12 58.8	-3.1
	3.0nm,0.3s						
EMIN	**Mina Concepcio**	4.04	314	P	Pn	18 12 28.8	-1.6
	0.5nm,0.1s,SNR=7.3						
EMIN				S	Sn	18 13 13.0	-5.4
	1.2nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	4.04	314	P	Pn	18 12 28.8	-1.6
	0.5nm,0.1s,SNR=7.3						
ESDC	**Sonseca Array**	4.71	351	P	Pn	18 12 39.9	-0.1
	1.9nm,0.3s,baz=175,slow=12,SNR=11						
ESDC				S	Sn	18 13 33.0	-2.3
	0.1nm,0.1s,baz=171,slow=28,SNR=4.0						
ESDC	**Sonseca Array**	4.71	351	P	Pn	18 12 39.9	-0.1
	1.9nm,0.3s,SNR=11						
ESDC				S	Sn	18 13 33.0	-2.3
	0.1nm,0.1s,SNR=4.0						
EBAD	**Badajoz**	4.93	320	P	Pn	18 12 41.5	-1.5
	0.8nm,0.1s,SNR=5.8						
EBAD				S	Sn	18 13 35.4	-5.4
	62nm,1.9s						
EBAD	**Badajoz**	4.93	320	P	Pn	18 12 41.5	-1.5

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*NEIC **12** 18:37:24.8, 30.70S×71.77W, h26^{km}, ML3.2(GUC), After GUC.*
GUC 12 18:37:24.8±0.9**, 30.70S×71.77W, h26**^{km}±6^{km}**, MD3.8, ML3.2, 2C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	**Combarbala**	0.81	126	⇑*i*P	Pb	18 37 40.0	-0.2
CMCH				*i* S	Sb	18 37 51.3	+0.5
CMCH				AMP		18 37 57.9	
	comp=N,2μm,0.6s						
LSCH	**La Serena**	0.91	30	*i* P	Pb	18 37 41.1	-0.7
LSCH				*i* S	Sb	18 37 52.9	-0.6
LSCH				AMP		18 37 54.0	
	comp=N,979nm,0.4s						
TLL	**Tololo Astrono**	0.99	58	⇓*i*P	Pn	18 37 43.0	-0.2
TLL				*i* S	Sb	18 37 56.8	+1.0
TLL				AMP		18 38 01.8	
	comp=N,669nm,0.6s						
ILCH	**Illapel**	1.07	151	*i* P	Pn	18 37 43.5	-0.8
ILCH				*i* S	Sb	18 37 57.3	-0.8
ILCH				AMP		18 38 00.1	
	comp=N,641nm,0.2s						
PTCH	**Petorca**	1.72	156	⇑*i*P	Pn	18 37 53.9	+0.4
PTCH				*i* S	Sn	18 38 16.0	+1.1
PTCH				AMP		18 38 19.9	
	comp=N,649nm,0.3s						
PEL	**Peldehue**	2.61	160	*i* S	Sn	18 38 38.8	+1.3
PEL				AMP		18 38 47.8	
	comp=N,214nm,0.3s						
CLCH	**Cerro Calan**	2.89	159	AMP		18 38 58.3	
	comp=E,163nm,0.4s						
FCH	**Farellones**	2.91	155	*i* S	Sn	18 38 46.4	+1.4
FCH				AMP		18 39 00.1	
	comp=E,69nm,0.3s						

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*SNSN **12** 18:37:57.6, 33.49N×34.65E, h112^{km}, Ml3.2*
*GRAL **12** 18:38:14.3±4.8, 32.19N×33.93E, h14^{km}±35^{km}, MD3.6*
*CSEM **12** 18:38:14.5±0.1, 32.02N×35.06E, h2^{km}, Mw2.7, Error ellipse: s-maj=2.6km s-min=1.0km az=93.0*
*GII **12** 18:38:15.0±0.2, 32.03N×35.11E, h2^{km}±1^{km}, ML2.7/13, Mw2.7/8*
ISC 12 18:38:14.7±0.4**, 32.01N**±0.02×**35.07E**±0.06**, h0**^{km}±4^{km}**, n40, σ0^{s}78**/52**, 4D, Dead Sea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SLTI	**Sal'it**	0.23	354	Pg	Pg	18 38 19.5	+0.2
SLTI				Sg	Sg	18 38 23.2	+0.9
SLTI	**Sal'it**	0.23	354	⇑Pg	Pg	18 38 19.5	+0.2
SLTI				Sg	Sg	18 38 23.2	+0.9
HMDT	**Nahal Hemdat**	0.46	58	Pg	Pg	18 38 23.7	-0.1
DRGI	**Dragot**	0.50	147	Pg	Pg	18 38 25.5	+0.9
DSI	**Dead Sea**	0.51	149	Pg	Pg	18 38 25.5	+0.6
MMLI	**Mount Malkishu**	0.52	35	Pg	Pg	18 38 24.9	-0.2
MMLI	**Mount Malkishu**	0.52	35	⇓Pg	Pg	18 38 24.9	-0.2
AMZI	**Amatzia**	0.57	194	Pg	Pg	18 38 26.0	0.0
AMZI				Sg	Sg	18 38 34.3	+0.7
OFRI	**'Ofer**	0.61	353	Pg	Pg	18 38 27.0	+0.1
YTIR	**Yattir**	0.65	177	Pg	Pg	18 38 28.2	+0.6
MKRJ	**Makawir**	0.67	133	Pg	Pg	18 38 28.9	+0.8
MZDA	**Masada**	0.74	160	Pg	Pg	18 38 29.6	+0.1
MZDA				Sg	Sg	18 38 40.6	+1.2
HAF	**Haifa**	0.77	357	Pg	Pg	18 38 29.7	-0.3
TCHB	**Talchebab**	1.00	49	⇓*i*P	Pb	18 38 33.9	-0.7
RTMM	**Retamin**	1.01	199	Pg	Pg	18 38 35.2	+0.2
MASH	**Mash'abbe Sade**	1.04	194	Pg	Pg	18 38 35.4	-0.1
HNTI	**Hanita**	1.07	5	Pg	Pg	18 38 35.1	-1.0
HNTI				Sg	Sg	18 38 50.3	-0.1
KSHT	**Keshet**	1.15	33	Pg	Pg	18 38 36.5	-1.2
KZIT	**Kziot**	1.24	208	Pg	Pg	18 38 39.2	-0.4
KZIT				Sg	Sg	18 38 56.6	+0.5
KSDI	**Kefar Szold**	1.28	23	Pg	Pg	18 38 38.5	-1.7
HRI	**Mount Hermon**	1.37	24	Pn	Pn	18 38 40.2	-0.9
ZFRI	**Zfri**	1.46	176	Pn	Pn	18 38 42.4	+0.1
MATL	**Matirih**	1.49	8	*i* PG	Pg	18 38 43.6	-0.9
MATL				*i* SG	Sg	18 39 05.4	+1.1
BRBR	**Barbar**	1.58	28	⇓*i*S	Sb	18 39 01.1	-3.9
BRBR	**Barbar**	1.58	28	⇓*i*P	Pn	18 38 43.9	-0.2
PRNI	**Paran**	1.66	182	Pn	Pn	18 38 45.2	+0.1
QASN	**Qassioun**	1.82	33	⇑*i*P	Pn	18 38 48.2	+0.6
QASN				⇑*i*S	Sn	18 39 06.4	-5.3
KMTI	**Karmit**	1.93	189	Pn	Pn	18 38 49.2	+0.2
KMTI				Sn	Sn	18 39 15.3	+1.0
BHL	**Bhannes**	1.95	14	*e*PN	Pn	18 38 50.1	+0.7
	baz=245,slow=9.3						
BHL				SN	Sn	18 39 16.5	+1.6
HRFI	**Mount Harif**	1.97	181	Pn	Pn	18 38 49.8	+0.1
HRFI				Sn	Sn	18 39 14.9	-0.5
MBH	**Mount Berech**	2.22	183	Pn	Pn	18 38 52.8	-0.4
AQBJ	**Aqaba**	2.28	180	Pn	Pn	18 38 53.9	-0.2
EIL	**Elat**	2.34	183	Pn	Pn	18 38 54.4	-0.5
HWQ	**Hawqa**	2.38	18	*e*PN	Pn	18 38 56.2	+0.7
HWQ				SN	Sn	18 39 27.6	+1.8
JMOS	**Jabal al Moall**	2.83	179	P	Pn	18 39 01.4	-0.6
HAQS	**Haql**	2.95	182	P	Pn	18 39 03.0	-0.7
JMQS	**Jabal Moqyreh**	3.19	167	P	Pn	18 39 06.8	-0.4
BDAS	**Al Bad'**	3.57	180	P	Pn	18 39 11.4	-1.0
AYUS	**'Aynunah**	3.81	177	P	Pn	18 39 14.9	-1.1
TBKS	**Tabuk**	3.99	161	P	Pn	18 39 17.4	-1.0
TBKS				S	Sx	18 40 20.3	

IDC 12 18:47:45.3±5.8**, 5.29S×152.76E, h81**^{km}±54^{km}**, mb3.3**/3**, mb1 3.6**/4**, mb1mx3.3**/13**, ML2.7**/1**, MS2.6**/2**, Ms1 2.6**/2**, ms1mx2.5**/13**, Error ellipse: s-maj=68.7km s-min=34.5km az=139.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	6.90	233	P	P	18 49 23.7	-2.1
	0.8nm,0.3s,baz=45,slow=14,SNR=5.4						
PMG				S	S	18 50 41.5	-1.9
	0.6nm,0.3s,baz=108,slow=20,SNR=3.2						
PMG				LR	LR	18 52 06.1	
	comp=Z,60nm,18.5s,baz=85,slow=38						
WRA	**Warramunga Arr**	23.10	229	P	P	18 52 45.1	+0.2
	0.3nm,0.4s,baz=52,slow=9.9,SNR=6.1						
JNU	**Nakatsue**	43.48	333	LR	LR	19 12 30.4	
	comp=Z,5.6nm,20.3s,baz=14,slow=34						
CMAR	**Chiang Mai Arr**	58.05	295	P	P	18 57 31.4	-1.4
	1.9nm,1.2s,baz=120,slow=6.0,SNR=4.4						
ILAR	**Eielson Array**	82.62	22	P	P	18 59 58.4	-2.4
	0.8nm,0.9s,baz=245,slow=5.1,SNR=7.0						

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*NEIC **12** 19:15:28.5, 31.17S×68.43W, h145^{km}, MD3.6(GUC), After GUC.*
GUC 12 19:15:28.5±0.7**, 31.17S×68.43W, h145**^{km}**, MD3.6, ML3.8, 2C-3D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDZ	**Mendoza**	1.75	192	⇑*i*P	P	19 16 02.0	+1.3
MDZ				*e*		19 16 38.0	
CMCH	**Combarbala**	2.21	269	⇓*i*P	P	19 16 06.8	+0.5
CMCH				*i* S	S	19 16 35.1	-0.1
CMCH				AMP		19 16 37.3	
	comp=E,907nm,0.4s						
TLL	**Tololo Astrono**	2.28	295	*e*P	P	19 16 08.1	+0.9
TLL				*i* S	S	19 16 37.1	+0.3
TLL				AMP		19 16 40.0	
	comp=N,320nm,0.3s						
JACH	**Jahuel**	2.38	230	*i* S	S	19 16 38.8	-0.1
PTCH	**Petorca**	2.40	242	*i* S	S	19 16 39.2	-0.2
PTCH				AMP		19 16 41.1	
	comp=N,633nm,0.5s						
FCH	**Farellones**	2.67	216	*e*P	P	19 16 13.0	+0.8
FCH				*i* S	S	19 16 46.1	+0.6

FCH				AMP		19 16 55.6	
	comp=E,83nm,0.2s						
PEL	**Peldehue**	2.75	224	*i* S	S	19 16 47.3	+0.1
PEL				AMP		19 16 48.8	
	comp=N,218nm,0.4s						
CLCH	**Cerro Calan**	2.85	218	*e*P	P	19 16 14.8	+0.4
CLCH				*i* S	S	19 16 49.3	-0.2
CLCH				AMP		19 16 55.6	
	comp=E,138nm,0.4s						
RCDM	**Rinconada Maip**	3.07	220	⇓*i*P	P	19 16 17.1	-0.1
RCDM				*i* S	S	19 16 54.6	+0.1
RCDM				AMP		19 16 58.0	
	comp=N,210nm,0.1s						
TACH	**Talagante**	3.26	220	⇑*i*P	P	19 16 19.4	-0.4
TACH				*i* S	S	19 16 58.9	-0.2
CHCH	**Chadas Angostu**	3.33	214	*e*P	P	19 16 20.8	0.0
CHCH				*e*S	S	19 16 59.9	-0.8
CACH	**El Canelo**	3.46	211	*e*P	P	19 16 22.6	+0.1
LCCH	**Las Cruces**	3.52	228	*e*P	P	19 16 22.2	-0.9
LVC	**Limon Verde**	8.53	357	⇓*e*Pn	P	19 17 28.1	-1.9
	comp=N,4.7nm,0.3s						

NEIC ***12*** *19:33:18.3±3.1, 4.27S×152.96E, h69^{km}±21^{km}, mb4.2/5, Error ellipse: s-maj=30.0km s-min=20.0km az=92.0*

IDC ***12*** *19:33:30.6±6.6, 4.10S×151.80E, h137^{km}±44^{km}, mb3.7/4, mb1 3.8/5, mb1mx3.5/15, MS3.0/1, Ms1 3.0/1, ms1mx2.6/17, Error ellipse: s-maj=88.8km s-min=28.0km az=105.0*

ISC 12 19:33:18.0±4.9**, 4.3S**±0.2×**152.8E**±0.3**, h74**^{km}±37^{km}**, n13, σ1^{s}06**/14**, mb3.9**/8**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	7.57	227	P	P	19 35 09.1	+1.2
	1.0nm,0.3s,baz=36,slow=11,SNR=4.5						
PMG				S	S	19 36 31.0	-1.9
	2.6nm,0.3s,baz=128,slow=17,SNR=11						
PMG	**Port Moresby**	7.57	227	*e*Pn	P	19 35 07.6	-0.2
PMG				S	S	19 36 31.0	-1.9
CTA	**Charters Tower**	16.97	201	LR	LR	19 42 03.8	
	comp=Z,52nm,18.5s,baz=176,slow=31						
KAKA	**Kakadu**	21.82	246	*e*P	P	19 38 06.8	+1.1
	11nm,0.5s,mb4.4						
WRAB	**Tennant Creek**	23.78	228	*e*P	P	19 38 25.7	+0.9
	8.1nm,0.6s,mb4.2						
WB2	**Warramunga Arr**	23.79	228	*e*P	P	19 38 25.9	+1.1
WRA	**Warramunga Arr**	23.79	228	P	P	19 38 26.2	+1.2
	4.8nm,0.5s,mb4.1,baz=53,slow=10.0,SNR=108						
ASAR	**Alice Springs**	26.54	222	P	P	19 38 50.3	-0.6
	0.5nm,0.4s,mb3.4,baz=54,slow=9.0,SNR=19						
FITZ	**Fitzroy Crossi**	29.91	241	*e*P	P	19 39 21.2	-0.1
	3.3nm,1.2s,mb3.8						
FITZ	**Fitzroy Crossi**	29.91	241	P	P	19 39 19.7	-1.6
	1.5nm,0.3s,mb4.0,baz=46,slow=9.0,SNR=34						
MBWA	**Marble Bar**	36.23	239	*e*P	P	19 40 16.0	+0.1
	1.8nm,0.4s,mb4.3						
SONM	**Songino Array**	65.86	328	P	P	19 43 56.9	-1.1
	1.9nm,1.3s,mb3.8,baz=59,slow=8.4,SNR=3.4						
VNDA	**Vanda**	73.37	178	*e*P	P	19 44 42.3	-0.9
	0.2nm,0.5s,mb3.2						

IDC ***12*** *19:36:54.5±0.6, 44.53S×82.07W, mb4.6/15, mb1 4.7/17, mb1mx4.7/21, ML3.5/1, MS4.7/13, Ms1 4.7/13, ms1mx4.4/19, Error ellipse: s-maj=25.7km s-min=16.5km az=89.0*

NEIC ***12*** *19:36:56.6±0.3, 44.33S×82.13W, h10^{km}, mb4.9/17, MS4.7/10, Error ellipse: s-maj=11.7km s-min=6.9km az=70.0*

HRVD ***12*** *19:36:56.6±0.2, 44.51S×82.43W, h12^{km}, MW5.4/57, Centroid moment Tensor Solution. LP body waves: s52,c97;Mantle waves: s57,c107; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.20±.03; $M_{\theta\theta}$-0.13±.03; $M_{\phi\phi}$1.34±.02; $M_{r\theta}$0.18±.07; $M_{\theta\phi}$-0.30±.02; $M_{\phi r}$-0.22±.06; Best double couple: $M_0$1.33×10^{17} NP1: ϕ_s177°,δ40°,λ-79°. NP2:ϕ_s342°,δ51°,λ-99°. Principal axes: T 1.42, Plg6°, Azm79°; N -.17, Plg7°, Azm348°; P -1.24, Plg81°, Azm205°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***12*** *19:36:56.7, 44.31S×82.17W, h10^{km}, MB4.9, MS4.7*

BJI ***12*** *19:36:56.5, 44.30S×82.10W, h10^{km}, mB5.3, Ms5.3, Msz5.2*

ISC 12 19:36:55.3±0.3**, 44.36S**±0.05×**82.1W**±0.1**, h10**^{km}**, n86, σ1^{s}01**/65**, mb4.7**/27**, MS4.7**/23**, 6C, West Chile Rise**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
USHA	**Ushuaia**	13.69	145	Pn	P	19 40 11.1	-0.6
	0.2nm,0.3s,baz=276,slow=13,SNR=4.7						
USHA				LR	LR	19 44 51.3	
	comp=Z,4µm,18.8s,baz=292,slow=35						
TRQA	**Tornquist**	16.37	74	*e*P	P	19 40 48.4	+1.8
	93nm,1.0s						
TLL	**Tololo Astrono**	16.74	36	*i* P	P	19 40 57.0	+5.5
EFI	**East Falkland**	17.60	123	*e*P	P	19 41 01.9	-0.2
	117nm,1.3s						
LPA	**La Plata**	20.79	71	*ce*P	P	19 41 39.0	-0.1
LPA				*e*sP		19 41 45.0	
LPA				*e*PP	PP	19 41 56.0	-5.1
LPA				*e*S	S	19 45 37.0	+11
LPA				*e*PCP	PcP	19 45 46.0	-2.1
PMSA	**Palmer Station**	22.81	160	P	P	19 41 59.2	+0.2
	11nm,0.6s,mb4.5						
PMSA				LR	LR		
	comp=Z,1µm,19.0s,MS4.3						
LVC	**Limon Verde**	24.25	31	P	P	19 42 15.8	+2.4
	comp=Z,17nm,0.8s,mb4.5,baz=221,slow=8.7,SNR=19						
LVC				LR	LR	19 49 28.2	
	comp=Z,2µm,20.9s,MS4.6,baz=208,slow=31						
LVC	**Limon Verde**	24.25	31	*e*P	P	19 42 14.3	+0.9
	comp=Z,53nm,1.0s,mb4.9						
LVC				LR	LR		
	comp=Z,3µm,22.0s,MS4.7						
CPUP	**Villa Florida**	26.88	56	SKiKP		19 57 17.9	
LPAZ	**La Paz**	30.37	27	P	P	19 43 10.3	+0.7
	comp=Z,5.5nm,0.9s,mb4.3,baz=180,slow=9.4,SNR=15						
LPAZ				PcP	PcP	19 46 09.2	-0.4
	comp=Z,1.5nm,0.8s,baz=194,slow=1.9,SNR=3.9						
LPAZ	**La Paz**	30.37	27	*e*P	P	19 43 09.3	-0.3
	comp=Z,38nm,1.5s,mb4.9						
LPAZ				LR	LR		
	comp=Z,2µm,22.0s,MS4.7						
BDFB	**Brasilia**	40.61	56	P	P	19 44 37.1	+0.2
	comp=Z,16nm,0.9s,mb4.7,baz=215,slow=5.0,SNR=13						
BDFB				LR	LR	20 01 51.2	
	comp=Z,5µm,18.4s,MS5.4,baz=217,slow=37						
BAO	**Brasilia Array**	40.63	56	P	P	19 44 37.0	-0.1
VNA3	**Neumayer Olymp**	43.16	153	⇑*i*	P	19 45 00.0	+2.8
VNA2	**Neumayer--Watz**	43.92	153	⇑*i*	P	19 45 06.2	+2.9
OTAV	**Otavalo**	44.52	5	*e*P	P	19 45 08.2	-0.8
	comp=Z,35nm,1.8s,mb4.9						
OTAV				LR	LR		
	comp=Z,596nm,19.0s,MS4.5						
SNAA	**Sanae**	45.31	154	⇑*i*	P	19 45 13.3	-1.2
SNAA	**Sanae**	45.31	154	P	P	19 45 13.6	-0.9
	comp=Z,3.2nm,1.0s,mb4.1,baz=267,slow=6.0,SNR=14						
SNAA				LR	LR	20 00 21.1	
	comp=Z,156nm,21.8s,MS3.9,baz=189,slow=31						
SNAA	**Sanae**	45.31	154	⇑*i*P	P	19 45 13.3	-1.2
QSPA	**South Pole Qui**	45.88	180	*e*P	P	19 45 18.3	-0.7
	comp=Z,9.8nm,1.1s,mb4.7						
QSPA				LR	LR		
	comp=Z,486nm,22.0s,MS4.4						
SBA	**Scott Base**	51.24	195	*e*P	P	19 46 02.0	+1.5
	comp=Z,19nm,1.2s,mb4.9						
SBA				LR	LR		
	comp=Z,984nm,20.0s,MS4.8						
VNDA	**Vanda**	52.30	194	P	P	19 46 08.8	+0.3
	comp=Z,4.1nm,1.0s,mb4.3,baz=111,slow=7.3,SNR=11						
VNDA				LR	LR	20 05 16.5	
	comp=Z,1µm,18.5s,MS4.9,baz=120,slow=33						
SDV	**Santo Domingo**	54.00	14	*e*P	P	19 46 20.2	-1.7
	comp=Z,52nm,1.7s,mb5.2						
SDV				LR	LR		
	comp=Z,727nm,21.0s,MS4.7						
SYO	**Syowa Base**	59.06	159	⇑pP	P	19 46 56.9	-0.4
SJG	**San Juan**	63.85	17	P	P	19 47 28.3	-2.0
	comp=Z,6.6nm,0.3s,mb5.1,baz=195,slow=9.6,SNR=5.9						
SJG				LR	LR	20 12 48.9	
	comp=Z,264nm,21.4s,MS4.4,baz=255,slow=34						
SJG	**San Juan**	63.85	17	P	P	19 47 28.3	-2.0
SJG				LR	LR	20 12 48.9	
TEIG	**Tepich**	64.52	354	P	P	19 47 35.1	+0.4
	comp=Z,3.2nm,0.8s,mb4.4,baz=315,slow=1.4,SNR=4.6						
MAW	**Mawson**	65.26	166	P	P	19 47 36.4	-2.3
	comp=Z,4.6nm,0.9s,mb4.5,baz=237,slow=6.9,SNR=8.5						
MAW				LR	LR	20 15 38.5	
	comp=Z,604nm,20.2s,MS4.8,baz=233,slow=36						
MAW	**Mawson**	65.26	166	P	P	19 47 35.7	-2.9
	comp=Z,6.2nm,1.0s,mb4.6						
TXAR	**Lajitas Array**	75.94	341	P	P	19 48 44.3	+0.3
	comp=Z,1.2nm,0.7s,mb4.0,baz=164,slow=8.0,SNR=12						
TXAR				LR	LR	20 16 04.3	
	comp=Z,544nm,21.4s,MS4.8,baz=180,slow=31						
JCT	**Junction City**	76.22	344	P	P	19 48 44.2	-1.4
	comp=Z,79nm,2.0s,mb5.3						
JCT				LR	LR		
	comp=Z,223nm,19.0s,MS4.5						
SUR	**Sutherland**	76.36	122	LR	LR	20 16 08.2	
	comp=Z,467nm,21.6s,MS4.8,baz=212,slow=31						
GDL2	**Guadalupe Moun**	78.86	341	*e*P	P	19 48 59.7	-0.4
SWET	**Sewanee**	79.28	357	*e*P	P	19 49 01.4	-0.9
WMOK	**Wichita Mounta**	80.17	346	*e*P	P	19 49 06.2	-0.9
WMOK				LR	LR		
	comp=Z,409nm,19.0s,MS4.8						
LPM	**Los Pinos Moun**	81.42	340	*e*P	P	19 49 12.7	-1.0
LAZ	**Ladron**	81.64	339	*e*P	P	19 49 15.3	+0.4
ANMO	**Albuquerque**	81.99	340	P	P	19 49 17.8	+1.2
	comp=Z,4.7nm,0.8s,mb4.5,baz=162,slow=9.7,SNR=18						
ANMO	**Albuquerque**	81.99	340	*e*P	P	19 49 14.8	-1.9
	comp=Z,8.7nm,0.9s,mb4.7						
ANMO				LR	LR		
	comp=Z,545nm,21.0s,MS4.9						
LDFC	**Landfair**	84.57	333	*e*P	P	19 49 29.9	+0.1
NEN	**Nelson**	85.01	334	*e*P	P	19 49 31.2	-0.7
RW3	**Ridgway**	85.42	340	*e*P	P	19 49 35.0	+1.0
PV01	**Paradox Valley**	85.53	339	*e*P	P	19 49 35.8	+1.2
DBIC	**Dimbokro**	85.57	76	P	P	19 49 33.6	-1.6
	comp=Z,6.2nm,0.9s,mb4.8,baz=181,slow=6.2,SNR=4.7						
DBIC				LR	LR	20 25 38.2	
	comp=Z,421nm,18.5s,MS4.9,baz=194,slow=34						
PV10	**Paradox Valley**	85.88	339	*e*P	P	19 49 37.2	+1.0
TPNV	**Topopah Spring**	86.65	333	*e*P	P	19 49 40.4	+0.4
	comp=Z,10.0nm,0.9s,mb5.0						
MSU	**Marysvale**	86.86	337	*e*P	P	19 49 42.4	+1.4
TRCR	**Troy Canyon**	87.72	334	*e*P	P	19 49 46.2	+1.0
TPH	**Tonopah**	87.99	333	*e*P	P	19 49 47.1	+0.6
	comp=Z,8.4nm,1.0s,mb4.9						
MPU	**Maple Canyon**	88.11	338	*e*P	P	19 49 46.6	-0.4
NLU	**North Lily Min**	88.17	337	*e*P	P	19 49 46.4	-0.9
DAU	**Daniels Canyon**	88.38	338	*e*P	P	19 49 48.3	0.0
NVAR	**Mina Array Bea**	88.67	332	P	P	19 49 50.2	+0.4
	comp=Z,3.5nm,0.7s,mb4.8,baz=164,slow=5.0,SNR=17						
NVAR				LR	LR	20 22 54.9	
	comp=Z,104nm,19.8s,MS4.2,baz=300,slow=31						
NVAR	**Mina Array Bea**	88.67	332	P	P	19 49 50.2	+0.4
NVAR				LR	LR	20 22 54.9	
SADO	**Sadowa**	88.78	2	P	P	19 49 50.2	+0.1
	comp=Z,8.7nm,0.9s,mb5.1,baz=217,slow=5.1,SNR=3.2						
SPUT	**South Promonto**	89.54	338	*e*P	P	19 49 53.4	-0.4
HWUT	**Hardware Ranch**	89.58	338	*e*P	P	19 49 53.6	-0.4
	comp=Z,13nm,1.0s,mb5.2						
ELK	**Elko**	89.81	335	*e*P	P	19 49 54.9	-0.2
	comp=Z,3.9nm,1.0s,mb4.7						
HVU	**Hansel Valley**	90.06	338	*e*P	P	19 49 56.2	0.0
PDAR	**Pinedale Array**	90.16	340	P	P	19 49 57.7	+1.0
	comp=Z,2.5nm,0.8s,mb4.6,baz=146,slow=4.8,SNR=18						
PDAR				LR	LR	20 24 37.6	
	comp=Z,290nm,20.8s,MS4.7,baz=146,slow=32						
BEKR	**Beckwourth**	90.65	332	*e*P	P	19 50 00.4	+1.4
	comp=Z,11nm,1.0s,mb5.1						
REDW	**Red Top Meadow**	91.04	339	*e*P	P	19 50 00.3	-0.4
IMW	**Indian Meadow**	91.56	340	*e*P	P	19 50 01.9	-1.2
YMR	**Madison River**	92.29	340	*e*P	P	19 50 07.7	+1.3
YBH	**Yreka Blue Hor**	93.13	331	P	P	19 50 11.0	+0.6
	comp=Z,2.6nm,1.0s,mb4.6,baz=110,slow=3.5,SNR=4.7						
STKA	**Stephens Creek**	94.32	216	P	P	19 50 15.6	-0.5
	comp=Z,1.2nm,0.9s,mb4.3,baz=193,slow=3.4,SNR=2.5						
STKA				LR	LR	20 24 47.0	
	comp=Z,810nm,19.9s,MS5.2,baz=96,slow=30						
ILAR	**Eielson Array**	119.91	333	PKP	PKPdf	19 55 44.5	-3.6
	comp=Z,2.0nm,0.8s,baz=168,slow=1.3,SNR=21						
IMA	**Indian Mountai**	122.94	333	*e*PKPdf	PKPdf	19 55 52.5	-1.4
GERES	**GERESS Array B**	124.81	53	PKP	PKPdf	19 55 54.2	-3.8
	comp=Z,1.2nm,0.7s,baz=225,slow=1.4,SNR=12						
BRTR	**Keskin Array B**	133.12	72	PKP	PKPdf	19 56 10.6	-3.6
	comp=Z,2.0nm,0.8s,baz=182,slow=2.3,SNR=7.4						
AKASG	**Malin Array Be**	134.70	56	PKP	PKPdf	19 56 20.0	+3.2
	comp=Z,0.1nm,0.3s,baz=259,slow=3.0,SNR=4.3						
MAJO	**Matsushiro**	148.62	270	*e*PKPdf	PKPdf	19 56 39.1	-2.4
MAJO				*e*PKPbc	PKPdf	19 56 42.9	+1.4
MAT	**Matsushiro**	148.62	270	PKP	PKPdf	19 56 41.9	+0.4
MAT	**Matsushiro**	148.62	270	*e*P	PKPdf	19 56 42.0	+0.5
CMAR	**Chiang Mai Arr**	154.16	182	PKP	PKPdf	19 56 47.5	-2.7
	comp=Z,1.5nm,1.0s,baz=225,slow=2.6,SNR=3.9						
CMAR				PKPbc	PKPdf	19 56 56.0	+5.8
	comp=Z,4.0nm,1.1s,baz=224,slow=3.2,SNR=6.3						
YAK	**Yakutsk**	154.42	325	*e*PKPbc	PKPdf	19 56 54.9	+5.6
MDJ	**Mudanjiang**	157.47	282	PKP	PKPdf	19 56 52.9	-0.9
MDJ				APKP		19 56 58.0	
MDJ				PKS	PKS	20 00 25.8	+2.4
MDJ				PP	PP	20 01 02.0	-3.0
MDJ				SKS	SKS	20 03 58.1	-0.9
MDJ				LR	LR		
	comp=N,74nm,24.8s,MS4.8						
MDJ				LR	LR		
	comp=E,139nm,24.1s,MS4.8						
MDJ				LR	LR		
	comp=Z,213nm,21.9s,MS4.9						
NJ2	**Nanjing**	159.53	240	*e*PKP	PKPdf	19 56 50.6	-6.1
NJ2				APKP		19 57 01.4	
NJ2				PKP2	PKPab	19 57 31.4	-2.8
NJ2				PP	PP	20 01 13.0	-3.3
NJ2				PP	PP		
	comp=Z,280nm,11.0s						
NJ2				LR	LR		
	comp=N,670nm,25.0s						
NJ2				LR	LR		
	comp=E,260nm,18.7s						
NJ2				LR	LR		
	comp=Z,880nm,26.1s,MS5.5						
CN2	**Changchun**	160.25	278	*e*PKP	PKPdf	19 56 57.1	0.0
CN2				PP	PP		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,300nm,17.0s						
CN2				LR	LR		
	comp=E,300nm,17.0s						
CN2				LR	LR		
	comp=Z,400nm,19.0s						
KMI	**Kunming**	160.41	193	*e*PKP	PKPdf	19 56 56.5	-1.3
KMI				PP	PP	20 01 19.3	-2.0
KMI				SS	SS	20 21 31.7	+2.0
KMI				PP	PP		
	comp=Z,178nm,4.6s						
KMI				LR	LR		
	comp=Z,212nm,23.1s						
ZAL	**Zalesovo**	167.15	37	PKP	PKPdf	19 57 00.2	-3.0
	comp=Z,1.3nm,0.9s,baz=187,slow=1.1,SNR=6.5						
ZAL				PKPab	PKPab	19 58 06.6	0.0
	comp=Z,1.1nm,0.8s,baz=157,slow=7.0,SNR=2.4						
ZAL	**Zalesovo**	167.15	37	PKP	PKPdf	19 57 00.2	-3.0
ZAL				PKPab	PKPab	19 58 06.6	0.0
LZH	**Lanzhou**	170.58	211	*e*PKP	PKPdf	19 57 03.1	-2.7
LZH				XPKP		19 57 07.1	
LZH				SKKS		20 08 55.6	
LZH				SS	SS	20 23 10.0	-2.5
LZH				PP	PP		
	comp=Z,213nm,6.0s						
LZH				LR	LR		
	comp=E,366nm,19.8s						
LZH				LR	LR		
	comp=Z,430nm,21.0s						
WMQ	**Urumqi**	172.62	91	PKP	PKPdf	19 57 06.0	-0.8
WMQ				APKP		19 57 10.0	
WMQ				XPKP		19 57 13.0	
WMQ				PKP2	PKPab	19 58 33.0	+1.9
WMQ				PP	PP	20 02 25.3	+2.0
WMQ				LR	LR		
	comp=N,349nm,28.8s						
WMQ				LR	LR		
	comp=E,206nm,27.5s						
WMQ				LR	LR		
	comp=Z,491nm,27.4s						
SONM	**Songino Array**	173.16	304	PKP	PKPdf	19 57 03.8	-3.1
	comp=Z,0.8nm,0.9s,baz=90,slow=1.4,SNR=5.4						
SONM				PKPab	PKPab	19 58 31.9	-1.4
	comp=Z,0.3nm,0.6s,baz=90,slow=2.5,SNR=3.6						
GTA	**Gaotai**	174.86	197	*e*PKP	PKPdf	19 57 05.7	-1.9
GTA				APKP		19 57 13.8	
GTA				LR	LR		
	comp=N,159nm,13.7s						
GTA				LR	LR		
	comp=E,199nm,8.7s						
GTA				LR	LR		
	comp=Z,178nm,9.5s						

NIED ***12*** *19:41:00, 41.50N×142.00E, h53^{km}, Mw4.4 Best double couple: $M_0$5.09×10^{15} NP1:ϕ_s22°,δ69°,λ97°. NP2:ϕ_s184°, δ22°,λ72°.*

MOS ***12*** *19:41:37.4±0.9, 41.61N×141.82E, h53^{km}, mb5.0/40, MS4.7/5, Error ellipse: s-maj=10.8km s-min=5.6km az=107.7*

BJI ***12*** *19:41:38.8, 41.42N×142.02E, h87^{km}, mB4.7, mb4.7, Ms3.9, Msz3.6*

JMA ***12*** *19:41:38.3±0.1, 41.49N×142.02E, h63^{km}±2^{km}, M4.2 Broadband fault plane solution: P waves. NP1:ϕ_s196°, δ11°,λ90°. NP2:ϕ_s16°,δ79°,λ90°. Principal axes: T Plg56°, Azm286°; N Plg0°, Azm16°; P Plg34°, Azm106°;*

JMA Felt II J1.

IDC ***12*** *19:41:39.3±2.6, 41.47N×141.99E, h68^{km}±20^{km}, mb4.1/17, mb1 4.3/18, mb1mx4.2/23, MS3.5/1, Ms1 3.5/1, ms1mx2.7/24 Error ellipse: s-maj=19.6km s-min=14.5km az=143.0*

NEIC ***12*** *19:41:40.1±0.8, 41.53N×141.94E, h71^{km}±6^{km}, mb4.7/43, MW4.4(NIED), Error ellipse: s-maj=8.0km s-min=6.5km az=125.0*

NEIC Recorded [2 JMA] in Aomori and [1 JMA] in Iwate Prefectures, Honshu. Also recorded [1 JMA] in the Shikabe area, Hokkaido.

ISC 12 19:41:37.8±0.3**, 41.49N**±0.03×**142.02E**±0.04**, h66**^{km}±2^{km}**, n211, σ0^{s}97**/215**, mb4.6**/67**, 12C-19D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JOT	**Ohata**	0.73	262	⇓P	P	19 41 53.2	+0.3
JOT				S	S	19 42 04.5	+0.3
JKB	**Kayabe**	0.84	299	⇓P	P	19 41 54.3	+0.1
JKB				*e*S	S	19 42 05.9	-0.5
JNBK	**Urakawa-nobuka**	0.96	35	P	P	19 41 55.6	-0.3
JNBK				*e*S	S	19 42 08.5	-0.8
JTM	**Tenmabayashi**	1.00	226	⇓P	P	19 41 56.9	+0.6
JTM				S	S	19 42 10.2	+0.1
JEM	**Erimo**	1.00	58	P	P	19 41 56.5	+0.1
JEM				*e*S	S	19 42 09.8	-0.4
JANG	**Nango**	1.18	199	⇓P	P	19 41 58.6	0.0
JANG				*e*S	S	19 42 13.0	-1.2
JSR	**Shiriuchi**	1.20	273	⇓P	P	19 41 59.5	+0.5
JSR				*e*S	S	19 42 15.1	+0.3
JNB	**Noboribetsu**	1.22	324	⇓P	P	19 41 59.1	-0.2
JNB				*e*S	S	19 42 14.6	-0.7
JBT2	**Biratori 2**	1.32	11	⇓P	P	19 42 01.2	+0.5
JBT2				*e*S	S	19 42 18.5	+0.8
JEW	**Eniwo**	1.42	343	⇓P	P	19 42 02.5	+0.5
JEW				*e*S	S	19 42 20.3	+0.3
JCH	**Churui**	1.51	41	P	P	19 42 04.0	+0.7
JFR	**Furan**	1.73	14	⇓P	P	19 42 06.6	+0.3
JOSM	**Okushiri--Mats**	1.99	288	P	P	19 42 09.7	-0.1
JOSM				*e*S	S	19 42 33.7	+0.2
JOM	**Ohasama**	2.09	196	P	P	19 42 11.4	+0.2
JOM				*e*S	S	19 42 36.7	+0.7
ASAJ	**Asahikawa**	2.66	9	P	P	19 42 20.1	+0.7
	35nm,0.3s,baz=240,slow=9.5,SNR=133						
ASAJ				S	S	19 42 52.1	+1.6
	25nm,0.3s,baz=193,slow=8.5,SNR=7.8						
ASAJ	**Asahikawa**	2.66	9	P	P	19 42 20.1	+0.7
ASAJ				S	S	19 42 52.1	+1.6
ASAJ				pmax	pmax		
	comp=Z,35nm,0.3s						
YUK	**Yuzh-Kuril'sk**	3.81	47	*e*P	P	19 42 33.0	-2.4
YUK				*i* S	S	19 43 14.0	-5.3
YUK				pmax	pmax		
	comp=Z,520nm,0.3s						
YUK				smax			
	comp=N,2µm,0.5s						
YUK				smax			
	comp=E,3µm,0.7s						
YUK				smax			
	comp=N,1µm,0.5s						
YUK				smax			
	comp=E,620nm,0.5s						
YSS	**Yuzh-Sakhalins**	5.49	5	*e*P	P	19 42 58.5	-0.3
YSS				pmax	pmax		
	comp=Z,15nm,0.6s						
YSS	**Yuzh-Sakhalins**	5.49	5	*e*Pn	P	19 42 58.5	-0.4
	comp=Z,15nm,0.6s						
MAJO	**Matsushiro**	5.76	212	*e*P	P	19 43 02.5	0.0
MAJO				pmax	pmax		
	comp=Z,44nm,1.0s						
MAJO	**Matsushiro**	5.76	212	*e*Pn	P	19 43 02.5	0.0
	comp=Z,44nm,1.0s						
MAT	**Matsushiro**	5.76	212	P	P	19 43 03.7	+1.2
MAT				*e*S	S	19 44 07.8	-0.2
MAT	**Matsushiro**	5.76	212	P	P	19 43 04.0	+1.5
MAT				S	S	19 44 04.0	-4.0
MAT				pmax	pmax		
	comp=Z,27nm,1.0s						
MAT	**Matsushiro**	5.76	212	P	P	19 43 04.0	+1.5
	comp=Z,27nm,1.0s						
MAT				S	S	19 44 04.0	-4.0
MDJ	**Mudanjiang**	9.62	293	*e*P	P	19 43 55.2	-0.5
	comp=Z,35nm,0.9s						
KLR	**Kul'dur**	10.58	320	*e*P	P	19 44 06.8	-2.0
KS15	**Wonju Array Si**	11.64	254	*e*P	P	19 44 24.2	+1.1
SNY	**Shenyang**	13.79	278	⇓P	P	19 44 53.9	+2.4
SNY				AMB	AMB		
	comp=Z,10.0nm,1.1s						
SNY				LR	LR		
	comp=E,330nm,22.2s						
SNY				LR	LR		
	comp=Z,290nm,26.5s						
HIA	**Hailar**	17.43	304	*e*P	P	19 45 36.2	-1.6
HIA				pmax	pmax		
	comp=Z,12nm,0.9s						
HIA	**Hailar**	17.43	304	*e*P	P	19 45 36.2	-1.6
	comp=Z,12nm,0.9s						
BJT	**Baijiatuau**	19.62	274	*e*P	P	19 46 00.7	-2.7
BJT				pmax	pmax		
	comp=Z,25nm,0.8s						
BJT	**Baijiatuau**	19.62	274	*e*P	P	19 46 00.7	-2.7
	comp=Z,25nm,0.8s						
SSE	**Sheshan**	19.69	245	P	P	19 46 03.1	-1.1
SSE				XP		19 46 35.0	
SSE				S	S	19 49 40.5	+3.1
SSE				AMB	AMB		
	comp=Z,28nm,0.7s						
NJ2	**Nanjing**	20.75	250	*e*P	P	19 46 16.9	+1.6
NJ2				AP		19 46 37.1	
NJ2				PP	PP	19 46 45.0	+6.2
NJ2				S	S	19 50 00.0	+1.8
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s						
NJ2				LR	LR		
	comp=N,330nm,11.4s						
NJ2				LR	LR		
	comp=E,490nm,17.6s						
NJ2				LR	LR		
	comp=Z,340nm,19.6s						
YAK	**Yakutsk**	21.87	344	*e*P	P	19 46 21.9	-4.3
YAK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.2						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK	**Yakutsk**	21.87	344	*e*P	P	19 46 20.4	-5.8
	comp=N,33nm,0.9s,mb4.7						
HHC	**Hu-ho-hao-te**	22.88	279	*e*P	P	19 46 41.0	+4.8
HHC				AP		19 46 53.6	
HHC				AMB	AMB		
	comp=Z,13nm,0.5s,mb4.5						
HHC				AMB	AMB		
	comp=Z,114nm,5.0s						
BOD	**Bodaibo**	24.15	322	*e*P	P	19 46 47.0	-1.3
ULN	**Ulaanbaatar**	25.51	296	*e*P	P	19 46 59.7	-1.8
ULN				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.2						
ULN	**Ulaanbaatar**	25.51	296	*e*P	P	19 46 59.6	-1.8
	comp=Z,9.4nm,0.9s,mb4.2						
SONM	**Songino Array**	25.95	296	P	P	19 47 05.3	-0.3

	comp=Z,9.2nm,0.7s,mb4.3,baz=83,slow=8.3,SNR=53						
ZAK	Zakamensk	28.09	302	eP	P	19 47 23.6	-1.5
ENH	Enshi	28.48	257	eP	P	19 47 26.0	-2.8
	comp=Z,8.5nm,0.5s,mb4.5						
MOY	Mondy	29.62	304	eP	P	19 47 38.4	-0.3
TIXI	Tiksi	30.94	352	i P	P	19 47 46.5	-3.7
GTA	Gaotai	31.95	280	eP	P	19 47 58.4	-1.0
GTA				PCP	PcP	19 50 48.4	0.0
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.4						
KMI	Kunming	36.31	256	eP	P	19 48 36.3	-0.6
KMI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.5						
ZAL	Zalesovo	39.40	308	P	P	19 49 02.6	+0.2
	comp=Z,8.5nm,0.6s,mb4.8,baz=25,slow=8.8,SNR=53						
ZAL				LR	LR	20 06 50.9	
	comp=Z,74nm,21.1s,baz=92,slow=38						
WMQ	Urumqi	39.42	292	P	P	19 49 03.0	+0.4
NVS	Novosibirsk	40.22	310	eP	P	19 49 07.2	-1.9
NVS				pmax	pmax		
	comp=N,4.0nm,0.9s						
NVS				pmax	pmax		
	comp=E,8.0nm,0.9s						
NVS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
MKAR	Makanchi Array	42.29	298	i P	P	19 49 26.0	-0.2
MKAR				pmax	pmax		
	comp=Z,16nm,0.7s						
LSA	Lhasa	42.45	271	P	P	19 49 29.8	+2.1
IMA	Indian Mountai	42.66	33	eP	P	19 49 29.2	+0.2
IMA				pmax	pmax		
	comp=Z,18nm,0.8s,mb4.8						
IMA	Indian Mountai	42.66	33	eP	P	19 49 29.2	+0.2
	comp=Z,18nm,0.8s,mb4.8						
CMAR	Chiang Mai Arr	43.23	251	P	P	19 49 34.6	+0.3
	comp=Z,1.4nm,0.5s,mb3.9,baz=36,slow=6.6,SNR=8.8						
SHL	Shillong	44.09	265	eP	P	19 49 41.2	+0.1
COLA	College	45.11	35	eP	P	19 49 48.7	0.0
COLA				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
COLA	College	45.11	35	eP	P	19 49 48.7	-0.1
	comp=Z,11nm,0.9s,mb4.6						
ILAR	Eielson Array	45.53	35	P	P	19 49 52.2	+0.2
	comp=Z,5.1nm,0.9s,mb4.2,baz=270,slow=6.4,SNR=38						
GUN	Gumba	47.33	272	eP	P	19 50 07.0	+0.2
	comp=Z,99nm,0.7s						
GUN	Gumba	47.33	272	⇑iP	P	19 50 07.7	+0.9
	comp=Z,51nm,0.7s,mb5.4						
CHKZ	Chkalovo	47.70	310	eP	P	19 50 07.5	-1.8
CHKZ				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
CHKZ	Chkalovo	47.70	310	eP	P	19 50 07.5	-1.8
	comp=Z,14nm,0.9s,mb4.8						
KKN	Kakani	47.84	272	eP	P	19 50 10.7	-0.1
	comp=Z,70nm,0.8s,mb5.5						
PKI	Pulchoki	47.86	272	eP	P	19 50 10.0	-1.0
	comp=Z,15nm,0.5s,mb5.1						
BVA0	Borovoye Array	48.01	310	i P	P	19 50 11.2	-0.6
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
TKM2	Tokmak 2	48.04	295	P	P	19 50 12.7	+0.6
	SNR=28						
TKM2	Tokmak 2	48.04	295	eP	P	19 50 12.5	+0.3
	comp=Z,20nm,0.8s,mb5.0						
BRVK	Borovoye	48.06	310	eP	P	19 50 11.7	-0.5
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.5						
BRVK	Borovoye	48.06	310	eP	P	19 50 11.7	-0.5
	comp=Z,7.1nm,0.8s,mb4.5						
DMN	Daman	48.07	272	eP	P	19 50 12.7	+0.1
GKN	Gorkha	48.21	273	eP	P	19 50 13.2	-0.5
	comp=Z,28nm,0.6s,mb5.3						
GKN	Gorkha	48.21	273	⇑iP	P	19 50 13.2	-0.5
	comp=Z,14nm,0.6s,mb5.0						
KBK	Karagaybulak	48.59	295	P	P	19 50 16.5	+0.2
	SNR=28						
KZA	Kyzart	48.60	294	P	P	19 50 17.7	+1.2
	SNR=9.7						
USP	Ospenovka	48.66	296	P	P	19 50 16.7	-0.2
	SNR=6.4						
AAK	Ala-Archa	48.90	295	P	P	19 50 18.6	-0.1
	SNR=6.3						
AAK	Ala-Archa	48.90	295	eP	P	19 50 16.7	-2.1
AAK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
AAK	Ala-Archa	48.90	295	eP	P	19 50 16.7	-2.1
	comp=Z,3.1nm,0.6s,mb4.4						
UCH	Uchtor	49.05	295	eP	P	19 50 20.2	+0.3
	comp=Z,2.3nm,0.7s,mb4.2						
KOLN	Koldanda	49.11	273	eP	P	19 50 20.6	0.0
	comp=Z,34nm,0.9s,mb5.3						
EKS2	Erkin-Say	49.38	296	P	P	19 50 22.0	-0.5
	SNR=13						
EKS2	Erkin-Say	49.38	296	eP	P	19 50 21.9	-0.6
	comp=Z,4.8nm,0.6s,mb4.6						
AML	Almayashu	49.65	295	P	P	19 50 25.1	+0.5
	SNR=7.8						
AML	Almayashu	49.65	295	eP	P	19 50 24.8	+0.2
	comp=Z,7.8nm,0.9s,mb4.6						
INK	Inuvik	50.24	29	P	P	19 50 28.7	0.0
	comp=Z,6.5nm,0.6s,mb4.8,baz=298,slow=6.8,SNR=40						
ARU	Arti	53.39	317	⇓iP	P	19 50 50.8	-1.8
ARU				e		19 52 47.1	
ARU				ePPP	PPP	19 54 02.8	-0.6
ARU				eS	S	19 58 17.4	-0.6
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
YKA	Yellowknife Ar	59.75	32	P	P	19 51 36.8	-0.9
	comp=Z,2.2nm,1.1s,mb4.1,baz=304,slow=6.7,SNR=14						
YKA	Yellowknife Ar	59.75	32	P	P	19 51 36.8	-0.9
YKA				pmax	pmax		
	comp=Z,2.0nm,1.1s						
YKA	Yellowknife Ar	59.75	32	eP	P	19 51 37.6	-0.1
ARCES	ARCESS Array B	60.01	339	P	P	19 51 36.9	-2.5
	comp=Z,24nm,1.3s,mb5.0,baz=27,slow=5.4,SNR=3.9						
WRAB	Tennant Creek	61.52	188	⇑iP	P	19 51 48.5	-1.8
WB2	Warramunga Arr	61.53	188	eP	P	19 51 48.1	-2.2
WRA	Warramunga Arr	61.53	188	P	P	19 51 48.3	-2.0
	comp=Z,2.9nm,0.9s,mb4.3,baz=7.1,slow=7.7,SNR=24						
KAF	Kangasniemi	64.58	332	ep	P	19 52 07.4	-2.4
	comp=Z,2.4nm,0.6s,mb4.2						
KAF	Kangasniemi	64.58	332	eP	P	19 52 07.4	-2.4
KAF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
OBN	Obninsk	64.84	322	⇓iP	P	19 52 10.5	-1.1
OBN				pmax	pmax		
	comp=Z,42nm,1.9s,mb4.9						
OBN				MLR	MLR		
	comp=Z,100nm,13.0s						
OBN				MLR	MLR		
	comp=Z,500nm,20.0s						
FINES	FINESS Array B	65.11	332	P	P	19 52 12.1	-1.2
	comp=Z,10nm,0.8s,mb4.7,baz=50,slow=7.4,SNR=30						
VRSR	Storozhevoye	65.91	318	eP	P	19 52 17.5	-1.0
VRSR				e*PP	pP	19 52 39.4	+3.3
VRSR				e*SP	sP	19 52 51.5	+8.2
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
VRSR				pmax	pmax		
	comp=N,5.0nm,0.4s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.7s						
GOF	Gofitskoye	67.52	311	eP	P	19 52 28.0	-0.7
KIV	Kislovodsk	68.38	310	P	P	19 52 35.9	+1.8
	comp=E,158nm,1.0s,SNR=8.4						
KIV	Kislovodsk	68.38	310	eP	P	19 52 34.3	+0.2
KIV				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.1						
KIV	Kislovodsk	68.38	310	eP	P	19 52 34.3	+0.2
	comp=Z,33nm,1.1s,mb5.1						
ZEI	Tsey	68.38	308	i P	P	19 52 32.3	-1.9
ZEI				i *PP	pP	19 52 53.8	+1.9
ZEI				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.5						
NB2	NORSAR Subarra	70.27	337	P	P	19 52 44.6	-0.8
	comp=Z,2.1nm,0.6s,mb4.1,baz=36,slow=6.2						
NB2	NORSAR Subarra	70.27	337	P	P	19 52 44.6	-0.8
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
NOA	NORSAR Array B	70.27	337	P	P	19 52 44.6	-0.8
	comp=Z,4.0nm,0.8s,mb4.3,baz=37,slow=6.1,SNR=14						
AKASG	Malin Array Be	71.08	322	P	P	19 52 49.7	-0.8
	comp=Z,4.0nm,0.4s,mb4.6,baz=43,slow=6.4,SNR=37						
AKASG	Malin Array Be	71.08	322	P	P	19 52 49.7	-0.8
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.4s						
NVAR	Mina Array Bea	71.99	55	P	P	19 52 56.3	+0.2
	comp=Z,0.9nm,0.8s,mb3.6,baz=302,slow=3.4,SNR=3.7						
FRB	Frobisher Bay	72.34	14	P	P	19 52 57.1	-0.6
	comp=Z,7.6nm,0.6s,mb4.7,baz=351,slow=8.7,SNR=17						
PDAR	Pinedale Array	74.24	47	P	P	19 53 09.6	+0.4
	comp=Z,0.7nm,0.7s,mb3.5,baz=243,slow=1.2,SNR=4.6						
MALT	Malatya	74.42	307	eP	P	19 53 11.5	+1.2
MALT				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.5						
MALT	Malatya	74.42	307	ePKPdf	P	19 53 11.4	+1.1
	comp=Z,11nm,1.1s,mb4.5						
KOLS	Kolonicke sedl	75.50	324	eP	P	19 53 17.0	+0.7
OJC	Ojcow	75.61	326	eP	P	19 53 17.0	+0.1
CRVS	Cervenica-Dubn	75.89	324	eP	P	19 53 19.5	+1.0
NIE	Niedzica	76.00	325	eP	P	19 53 20.1	+1.0
BRTR	Keskin Array B	76.27	311	P	P	19 53 21.4	+0.6
	comp=Z,2.4nm,0.6s,mb4.1,baz=61,slow=4.8,SNR=13						
KSP	Ksiaz	76.57	328	eP	P	19 53 22.7	+0.4
KSP	Ksiaz	76.57	328	eP	P	19 53 22.6	+0.3
OKC	Ostrava-Krasne	76.60	326	⇓iP	P	19 53 24.3	+1.8
DPC	Dobruska-Polom	76.94	328	⇓iP	P	19 53 25.5	+1.1
UPC	Upice	76.94	328	⇓iP	P	19 53 25.5	+1.1
VYHS	Vyhne	77.33	325	eP	P	19 53 27.1	+0.5
BRG	Berggiesshubel	77.47	329	i P	P	19 53 27.0	-0.3
BRG				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.5						
BRG				MLR	MLR		
	comp=Z,800nm,20.4s						
BRG	Berggiesshubel	77.47	329	i P	P	19 53 27.0	-0.3
	comp=Z,14nm,1.4s,mb4.5						
BRG				LR	LR		
	comp=Z,800nm,20.4s						
CLL	Collm	77.47	330	i P	P	19 53 27.0	-0.3
CLL				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.5						
CLL				MLR	MLR		
	comp=Z,800nm,20.4s						
CLL	Collm	77.47	330	i P	P	19 53 27.0	-0.3
	comp=Z,14nm,1.4s,mb4.5						
CLL				LR	LR		
	comp=Z,800nm,20.4s						
CLL	Collm	77.47	330	P	P	19 53 27.0	-0.3
	comp=Z,logA/T=1.0,mb4.5						
PRU	Pruhonice	77.94	328	⇓iP	P	19 53 30.5	+0.6
KHC	Kasperske Hory	79.00	328	⇓iP	P	19 53 36.5	+0.8
GERES	GERESS Array B	79.18	328	P	P	19 53 37.1	+0.4
	comp=Z,0.8nm,0.5s,mb3.8,baz=27,slow=6.0,SNR=12						
GRA1	Grafenberg Arr	79.45	330	eP	P	19 53 38.8	+0.6
	comp=Z,10.0nm,0.9s,mb4.7						
GRA1				LR	LR		
	comp=Z,200nm,22.0s						
GRF	Grafenberg Arr	79.45	330	eP	P	19 53 38.8	+0.6
GRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
GRF				MLR	MLR		
	comp=Z,200nm,22.0s						
GRF	Grafenberg Arr	79.45	330	eP	P	19 53 38.8	+0.6
GRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
GRF				MLR	MLR		
	comp=Z,200nm,22.0s						
GRF	Grafenberg Arr	79.45	330	eP	P	19 53 38.8	+0.6
	comp=Z,10.0nm,0.9s,mb4.7						
GRF				LR	LR		
	comp=Z,200nm,22.0s						
GROS	Grobnik	80.34	326	i P	P	19 53 43.1	+0.1
PDKS	Podkum	80.87	326	i P	P	19 53 45.9	+0.1
VISS	Visnje	81.14	326	eP	P	19 53 47.1	-0.2
JAVS	Javornik	81.39	326	eP	P	19 53 48.0	-0.6
CDF	Champ du Feu	81.97	331	eP	P	19 53 51.6	+0.1
	comp=Z,10nm,1.0s,mb4.3						
CDF	Champ du Feu	81.97	331	eP	P	19 53 51.6	+0.1
CDF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.3						
HAU	Haudompre	82.64	332	eP	P	19 53 54.7	-0.3
FLN	La Foliniere	84.24	336	eP	P	19 54 02.8	-0.1
LDF	La Druitiere	84.28	336	eP	P	19 54 02.9	-0.2
	comp=Z,16nm,0.9s,mb4.5						
LDF	La Druitiere	84.28	336	eP	P	19 54 02.9	-0.2
LDF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
SARO	Sassorosso	84.30	327	P	P	19 54 04.1	+0.8
CODM		84.35	328	P	P	19 54 03.6	0.0
SSF	Saint Saulge	84.44	333	eP	P	19 54 04.8	+0.8
	comp=Z,5.5nm,0.8s,mb4.1						
SSF	Saint Saulge	84.44	333	eP	P	19 54 04.8	+0.8
SSF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.2						
LSD	Ceresole Reale	84.50	330	P	P	19 54 06.7	+2.4
LPL	La Plagne	84.61	330	eP	P	19 54 05.8	+0.9
	comp=Z,14nm,0.9s,mb4.6						
LPL	La Plagne	84.61	330	eP	P	19 54 05.8	+0.9
LPL				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
LPG	La Plagne	84.62	330	eP	P	19 54 05.9	+1.0
	comp=Z,30nm,1.1s,mb4.8						
LPG	La Plagne	84.62	330	eP	P	19 54 05.9	+1.0
LPG				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
GRR	Gorron	84.68	336	eP	P	19 54 05.4	+0.2
	comp=Z,14nm,0.9s,mb4.6						
GRR	Gorron	84.68	336	eP	P	19 54 05.4	+0.2
GRR				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
SMF	Signal de Mont	84.69	333	eP	P	19 54 05.5	+0.3
	comp=Z,14nm,1.1s,mb4.5						
SMF	Signal de Mont	84.69	333	eP	P	19 54 05.5	+0.3
SMF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
RSP	Reno Superiore	84.72	330	P	P	19 54 06.9	+1.5
AVF	Avril sur Loir	84.73	333	eP	P	19 54 05.8	+0.4
	comp=Z,25nm,1.1s,mb4.8						
AVF	Avril sur Loir	84.73	333	eP	P	19 54 05.8	+0.4
AVF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
FENE	Fenestrelle	84.90	330	P	P	19 54 06.6	+0.3
BHB	Bricherasio	84.98	330	P	P	19 54 07.0	+0.2
RRL	Cesana Torines	85.10	330	P	P	19 54 07.8	+0.5
FIN	Finale Ligure	85.15	329	P	P	19 54 06.6	-1.0
ROB	Roburent	85.21	329	P	P	19 54 07.1	-0.8
MBDF	Montbardon	85.27	330	eP	P	19 54 08.3	+0.2
	comp=Z,12nm,0.8s,mb4.6						
MBDF	Montbardon	85.27	330	eP	P	19 54 08.3	+0.2
MBDF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
SGMF	Saint Gilles	85.31	337	eP	P	19 54 08.9	+0.6
ORIF	Oris-en-Rattie	85.44	330	eP	P	19 54 09.6	+0.6
	comp=Z,11nm,0.8s,mb4.5						
ORIF	Oris-en-Rattie	85.44	330	eP	P	19 54 09.6	+0.6
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
ROSF	Rostrenen	85.44	338	eP	P	19 54 09.6	+0.7
	comp=Z,54nm,1.2s,mb5.0						
ROSF	Rostrenen	85.44	338	eP	P	19 54 09.6	+0.7
ROSF				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.0						
IMI	Imperia	85.53	329	P	P	19 54 05.3	-4.1
TCF	Toulx Ste Croi	85.56	333	eP	P	19 54 10.2	+0.7
	comp=Z,8.8nm,0.9s,mb4.4						
TCF	Toulx Ste Croi	85.56	333	eP	P	19 54 10.2	+0.7
TCF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
VIVF	Saint-Julien-l	85.93	331	eP	P	19 54 12.0	+0.6
	comp=Z,14nm,0.9s,mb4.6						
VIVF	Saint-Julien-l	85.93	331	eP	P	19 54 12.0	+0.6
VIVF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
MFF	Saint Martin d	86.05	335	eP	P	19 54 12.8	+0.9
	comp=Z,21nm,1.0s,mb4.7						
MFF	Saint Martin d	86.05	335	eP	P	19 54 12.8	+0.9
MFF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
PPT	Papeete	86.23	117	eLR	LR	20 22 03.7	
	comp=Z,168nm,20.5s						
FRF	La Foret Royal	86.30	329	eP	P	19 54 12.7	-0.5
LMR	La Mourre	86.55	329	eP	P	19 54 13.3	-1.2
	comp=Z,18nm,1.0s,mb4.7						
LMR	La Mourre	86.55	329	eP	P	19 54 13.3	-1.2
LMR				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
RJF	Les Rejaudoux	86.65	333	eP	P	19 54 15.6	+0.7
	comp=Z,15nm,1.0s,mb4.6						
RJF	Les Rejaudoux	86.65	333	eP	P	19 54 15.6	+0.7
RJF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
CAF	Calviac	86.80	333	eP	P	19 54 16.9	+1.3
	comp=Z,25nm,0.9s,mb4.9						
CAF	Calviac	86.80	333	eP	P	19 54 16.9	+1.3
CAF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
TXAR	Lajitas Array	87.05	53	P	P	19 54 18.0	+0.7
	comp=Z,0.3nm,0.6s,baz=260,slow=7.6,SNR=3.6						
LFF	La Frestale	87.23	334	eP	P	19 54 19.0	+1.2
	comp=Z,13nm,0.8s,mb4.6						
LFF	La Frestale	87.23	334	eP	P	19 54 19.0	+1.2
LFF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
ETSF	Etsaut	89.47	333	eP	P	19 54 29.6	+1.1
	comp=Z,11nm,1.0s,mb4.6						
ETSF	Etsaut	89.47	333	eP	P	19 54 29.6	+1.1
ETSF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
TBI	Tubuai	90.42	121	eLR	LR	20 24 00.0	
	comp=Z,177nm,20.5s						
RKT	Rikitea	99.99	112	eLR	LR	19 58 46.3	
	comp=Z,4µm,27.2s,baz=132						
RKT	Rikitea	99.99	112	eLR	LR	20 28 26.2	
	comp=Z,200nm,25.0s						
SNAA	Sanae	145.13	199	⇓i	PKPdf	20 01 09.5	+3.1
SNAA	Sanae	145.13	199		PKPdf	20 01 32.0	+26
SNAA	Sanae	145.13	199	⇑i	PKPdf	20 01 41.8	+35
SNAA	Sanae	145.13	199	⇑iPKPdf	PKPdf	20 01 07.0	+0.6
SNAA				⇓iP		20 01 09.5	
VNA2	Neumayer--Watz	146.71	198	⇑iP	PKPdf	20 01 14.6	+5.5
VNA2	Neumayer--Watz	146.71	198	⇑i	PKPdf	20 01 44.1	+35
VNA2	Neumayer--Watz	146.71	198	⇑i	PKPdf	20 01 56.2	+47
VNA3	Neumayer Olymp	146.97	196		PKPdf	20 01 15.9	+6.3
VNA3	Neumayer Olymp	146.97	196	⇑i	PKPdf	20 01 38.6	+29
VNA3	Neumayer Olymp	146.97	196		PKPdf	20 01 43.6	+34
VNA3	Neumayer Olymp	146.97	196	PKPdf	PKPdf	20 01 13.6	+4.0
VNA3				P		20 01 15.9	
VNA1	Neumayer--Stat	147.11	198	⇑i	PKPdf	20 01 15.4	+5.6
VNA1	Neumayer--Stat	147.11	198	⇑iPKPdf	PKPdf	20 01 13.2	+3.4
VNA1				⇑iP		20 01 15.4	

DJA 12 19:52:58.4±1.0, 8.29S×117.49E, h195^{km}±9^{km}, ML4.2/2, 5C-2D, Error ellipse: s-maj=96.8km s-min=24.8km az=179.0, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KEDI	Kedomdong	1.38	262	⇓ePn	P	19 53 31.2	+0.3
	99nm,0.2s						
KEDI				⇑eSn	S	19 53 54.1	-1.9
RATI	Rata	1.99	257	⇑ePn	P	19 53 36.7	0.0
	324nm,0.2s						
RATI				⇓eSn	S	19 54 05.1	-1.1
KELI	Kelakatan	2.97	271	⇑iP	P	19 53 48.0	+0.1
SRDI	Scrawed	3.32	266	⇑iP	P	19 53 52.0	-0.2
SRDI				⇑eSn	S	19 54 32.3	-1.4

IDC 12 19:55:42.2±1.2, 27.35S×63.30W, h568^{km}±14^{km}, mb3.7/10, mb1 3.8/13, mb1mx3.7/18, Error ellipse: s-maj=17.2km s-min=12.2km az=84.0

NEIC 12 19:55:42.1±0.6, 27.44S×63.29W, h572^{km}±7^{km}, mb4.4/10, Error ellipse: s-maj=10.3km s-min=7.0km az=79.0

ISC 12 19:55:42.1±0.8, 27.42S±0.06×63.3W±0.1, h577^{km}±11^{km}, n73, σ1^{s}14/40, mb4.1/17, 6C-5D, Santiago del Estero Province

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LVC	Limon Verde	7.01	312	P	P	19 57 32.1	+0.3
	60nm,0.3s,baz=128,slow=5.0,SNR=737						
LVC				S	S	19 58 58.9	-0.2
	108nm,0.3s,baz=195,slow=4.4,SNR=35						
LVC	Limon Verde	7.01	312	eP	P	19 57 31.8	0.0
LVC				S	S	19 58 58.9	-0.2
TRQA	Tornquist	10.67	175	eP	P	19 58 05.6	-1.9
LPAZ	La Paz	11.96	337	P	P	19 58 20.6	+0.2
	4.6nm,0.3s,baz=132,slow=5.3,SNR=79						
LPAZ				S	S	20 00 27.9	+0.3
	0.5nm,0.3s,baz=7.2,slow=12,SNR=5.4						
LPAZ	La Paz	11.96	337	⇑eP	P	19 58 20.5	+0.1
LPAZ				S	S	20 00 27.9	+0.3
ARE	Arequipa	13.30	323	eP	P	19 58 36.0	+2.1
ARE				i S	rx	20 01 05.0	
BDFB	Brasilia	18.38	53	P	P	19 59 23.2	+0.3
	2.3nm,0.3s,baz=232,slow=7.6,SNR=25						
BAO	Brasilia Array	18.40	54	eP	P	19 59 23.6	+0.5
USHA	Ushuaia	27.65	186	P	P	20 00 44.5	-1.5
	4.2nm,0.5s,mb4.3,baz=349,slow=11,SNR=3.7						
OTAV	Otavalo	31.13	330	eP	P	20 01 16.4	+0.2
	6.0nm,0.7s,mb4.3						
RCBR	Riachuelo	33.73	55	eP	P	20 01 37.5	-0.5
	2.2nm,0.4s,mb4.1						
SDV	Santo Domingo	36.79	348	eP	P	20 02 00.7	-2.5
	3.1nm,0.3s,mb4.3						
VNA3	Neumayer Olymp	52.84	161	⇑i	P	20 04 08.5	+2.5
VNA1	Neumayer--Stat	53.00	160		P	20 04 09.6	+2.4
VNA2	Neumayer--Watz	53.38	160	⇑i	P	20 04 12.3	+2.5
SNAA	Sanae	55.02	160	P	P	20 04 20.4	-0.9
	2.6nm,0.7s,mb3.7,baz=289,slow=5.9,SNR=23						
SNAA	Sanae	55.02	160	⇑iP	P	20 04 19.6	-1.7
SNAA				ePcP	PcP	20 05 12.9	-1.2
QSPA	South Pole Qui	62.81	180	⇓iP	P	20 05 13.4	+0.2
	20nm,0.5s,mb4.7						
DBIC	Dimbokro	65.81	68	P	P	20 05 31.9	-1.1
	12nm,0.3s,mb4.7,baz=207,slow=6.0,SNR=84						
DBIC	Dimbokro	65.81	68	⇓iP	P	20 05 31.8	-1.2
	12nm,0.4s,mb4.7						
DBIC				ePcP	PcP	20 05 57.3	-1.3
DBIC				epP	pP	20 07 24.5	-5.3
SYO	Syowa Base	69.15	158	⇑P	P	20 05 52.0	-0.3
SYO	Syowa Base	69.15	158	⇓P	P	20 05 56.1	+3.8
SUR	Sutherland	71.23	117	P	P	20 06 06.0	+0.9
	9.5nm,0.7s,mb4.5,baz=241,slow=6.7,SNR=18						
SUR	Sutherland	71.23	117	eP	P	20 06 05.8	+0.6
	5.4nm,0.6s,mb4.2						
VNDA	Vanda	71.91	189	P	P	20 06 09.3	+0.9
	2.5nm,0.7s,mb3.9,baz=136,slow=6.6,SNR=21						
VNDA	Vanda	71.91	189	eP	P	20 06 07.3	-1.1
	3.8nm,1.0s,mb3.9						
MAW	Mawson	77.16	161	P	P	20 06 37.5	-0.1
	9.1nm,0.8s,mb4.2,baz=214,slow=7.3,SNR=14						
LBTB	Lobatse	77.96	112	eP	P	20 06 41.4	-1.3
	16nm,0.7s,mb4.5						
BW06	Boulder Array	81.81	327	eP	P	20 07 02.0	-0.3
	0.6nm,0.5s,mb3.4						
PDAR	Pinedale Array	81.81	327	P	P	20 07 02.4	+0.1
	0.7nm,0.4s,mb3.5,baz=124,slow=8.0,SNR=8.4						
SCHQ	Schefferville	81.97	358	P	P	20 07 02.5	-0.3
	3.4nm,0.7s,mb4.0,baz=116,slow=5.0,SNR=5.6						
SCHQ	Schefferville	81.97	358	P	P	20 07 02.5	-0.4
LSZ	Lusaka	84.37	104	eP	P	20 07 16.6	+1.0
	19nm,1.3s,mb4.5						
ESDC	Sonseca Array	86.61	42	P	P	20 07 25.6	-0.3
	0.5nm,0.5s,mb3.5,baz=238,slow=5.4,SNR=10						
YKA	Yellowknife Ar	98.50	338	P	P	20 08 19.1	-0.6
	0.4nm,0.6s,mb3.9,baz=126,slow=4.8,SNR=9.0						
YKA	Yellowknife Ar	98.50	338	P	P	20 08 19.1	-0.6
FINES	FINESS Array B	113.38	32	PKiKP		20 13 14.4	
	5.0nm,1.2s,baz=166,slow=7.9,SNR=4.5						
CTA	Charters Tower	124.80	214	PKP	PKPdf	20 13 37.9	+0.6
	1.9nm,0.6s,baz=95,slow=4.7,SNR=5.6						
ASAR	Alice Springs	126.58	200	PKP	PKPdf	20 13 41.1	+0.4
	3.2nm,0.5s,baz=139,slow=1.8,SNR=57						
ASAR				pPKP		20 15 54.0	
	0.6nm,0.8s,baz=149,slow=2.2,SNR=3.9						
ASPA	Alice Springs	126.58	200	⇑iP	PKPdf	20 13 41.2	+0.5
WB2	Warramunga Arr	129.93	202	⇓iP	PKPdf	20 13 47.7	+0.5
WRA	Warramunga Arr	129.93	202	PKhKP		20 13 37.6	
	0.5nm,0.5s,baz=227,slow=1.3,SNR=10						
WRA				PKP	PKPdf	20 13 47.8	+0.6
	2.2nm,0.4s,baz=166,slow=1.6,SNR=73						
WRA				pPKP		20 16 00.5	
	1.0nm,0.9s,baz=157,slow=1.2,SNR=6.3						
WRA				SKPbc		20 16 16.6	
	1.9nm,0.5s,baz=157,slow=3.6,SNR=44						
MBWA	Marble Bar	131.63	184	ePKPdf	PKPdf	20 13 50.9	+0.5
FITZ	Fitzroy Crossi	133.94	192	eP	PKPdf	20 13 55.9	+1.2
	1.6nm,0.3s						
FITZ	Fitzroy Crossi	133.94	192	PKP	PKPdf	20 13 56.0	+1.3
	2.2nm,0.3s,baz=336,slow=1.0,SNR=22						
FITZ				SKPbc		20 16 31.4	
	1.4nm,0.6s,baz=281,slow=3.9,SNR=4.3						
CHKZ	Chkalovo	137.28	39	ePKPdf	PKPdf	20 14 01.1	+1.2
BRVK	Borovoye	137.29	40	ePKPdf	PKPdf	20 14 01.0	+1.1

EKS2	Erkin-Say	142.10	55	ePKPpre		20 14 06.8	
AML	Almayashu	142.13	56	P	PKPdf	20 14 07.5	-1.2
	SNR=6.3						
AML	Almayashu	142.13	56	ePKPpre		20 14 07.1	
USP	Ospenovka	142.52	54	P	PKPdf	20 14 08.1	-1.4
	SNR=5.7						
AAK	Ala-Archa	142.63	55	P	PKPdf	20 14 09.2	-0.5
	SNR=8.7						
AAK	Ala-Archa	142.63	55	ePKPpre		20 14 08.0	
UCH	Uchtor	142.71	55	P	PKPdf	20 14 09.9	+0.1
	SNR=18						
UCH	Uchtor	142.71	55	ePKPpre		20 14 09.4	
CHMS	Chumysh	142.75	54	P	PKPdf	20 14 08.8	-1.1
	SNR=8.7						
KBK	Karagaybulak	142.96	55	P	PKPdf	20 14 10.3	+0.1
	SNR=25						
KZA	Kyzart	143.28	56	P	PKPbc	20 14 11.7	+2.0
	SNR=28						
TKM2	Tokmak 2	143.37	54	P	PKPbc	20 14 11.1	+1.1
	SNR=28						
TKM2	Tokmak 2	143.37	54	ePKPdf	PKPdf	20 14 11.1	+0.1
HYB	Hyderabad	143.45	98	eP	PKPbc	20 14 11.5	+0.6
HYB	Hyderabad	143.45	98	⇓iPKP	PKPdf	20 14 11.5	-0.3
ULHL	Ulahol	143.97	55	P	PKPbc	20 14 13.9	+2.1
	SNR=32						
THN	Thein Dam	144.26	72	eP	PKPdf	20 14 13.0	+0.2
YAK	Yakutsk	144.33	350	ePKP	PKPdf	20 14 12.9	+1.0
DDI	Dehra Dun	146.11	76	e	PKPdf	20 14 18.3	+2.3
KOLN	Koldanda	150.68	82	eP	PKPdf	20 14 30.5	+7.2
	5.9nm,0.3s						
GKN	Gorkha	151.62	81	eP	PKPdf	20 14 32.7	+8.0
	20nm,0.4s						
DMN	Daman	151.98	82	eP	PKPdf	20 14 33.7	+8.5
KKN	Kakani	152.16	82	eP	PKPdf	20 14 33.9	+8.5
	4.5nm,0.2s						
PKI	Pulchoki	152.25	82	eP	PKPdf	20 14 33.7	+8.1
	2.8nm,0.3s						
GUN	Gumba	152.70	82	eP	PKPdf	20 14 35.5	+9.3
	7.5nm,0.2s						
SONM	Songino Array	158.07	19	PKP	PKPdf	20 14 34.9	+2.2
	1.0nm,0.8s,baz=281,slow=0.6,SNR=7.6						
SONM				PKPab	PKPab	20 15 11.8	-0.5
	0.7nm,0.7s,baz=314,slow=4.2,SNR=5.0						

DJA 12 20:58:05.5±0.9, 8.95S×114.50E, h103^{km}±9^{km}, ML3.9/1, 5C-3D, Error ellipse: s-maj=35.3km s-min=9.6km az=9.0, Bali region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	Scrawed	0.58	323	⇑iPn	P	20 58 21.8	-0.6
SRDI				⇑eSn	S	20 58 33.3	-1.7
KELI	Kelakatan	0.73	359	⇓ePn	P	20 58 23.6	0.0
KELI				⇑eSn	S	20 58 36.7	-0.5
RATI	Rata	1.05	78	⇓ePn	P	20 58 26.9	0.0
	169nm,0.2s						
RATI				⇓eSn	S	20 58 41.9	-1.1
KEDI	Kedomdong	1.66	74	⇑ePn	P	20 58 33.1	-1.2
KEDI				⇑eSn	S	20 58 53.3	-2.5

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*LDG **12** 21:02:05.3±0.8, 17.51S×69.38W, h10^{km}, Mb4.7/8, Error ellipse: s-maj=54.0km s-min=12.9km az=61.0*
*IDC **12** 21:02:16.2±0.6, 18.41S×69.56W, h112^{km}±5^{km}, mb4.1/11, mb1 4.3/13, mb1mx4.2/16, Error ellipse: s-maj=15.8km s-min=8.6km az=100.0*
*SYO **12** 21:02:16.9, 18.29S×69.69W, h122^{km}, MB4.6*
*NEIC **12** 21:02:17.1±0.7, 18.26S×69.56W, h120^{km}±6^{km}, mb4.6/14, Error ellipse: s-maj=11.6km s-min=7.6km az=71.0*
ISC 12 21:02:15.8±0.6, **18.39S**±0.04×**69.64W**±0.07, **h124**^{km}±5^{km}, **n50, σ1^{s}16**/46, **mb4.4**/21, **5C-2D, Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	2.54	35	P	P	21 02 57.9	+1.0
	68nm,0.3s,baz=222,slow=7.1,SNR=1490						
LPAZ				S	S	21 03 29.1	+1.1
	17nm,0.3s,baz=122,slow=22,SNR=6.3						
LPAZ	La Paz	2.54	35	⇑iPn	P	21 02 57.9	+1.0
ARE	Arequipa	2.61	317	⇑iP	P	21 02 56.9	-0.9
ARE				i S	S	21 03 29.4	-0.2
LVC	Limon Verde	4.26	171	P	P	21 03 20.1	+0.2
	26nm,0.3s,baz=349,slow=10,SNR=288						
LVC				S	S	21 04 07.3	-1.8
	103nm,0.3s,baz=341,slow=14,SNR=8.2						
LVC	Limon Verde	4.26	171	ePn	P	21 03 20.0	+0.1
MOCB	Mochara	4.72	128	⇑iPn	P	21 03 29.4	+3.3
OTAV	Otavalo	20.43	334	P	P	21 06 45.2	-0.1
	5.1nm,0.9s						
TRQA	Tornquist	20.71	163	⇓eP	P	21 06 48.1	+0.3
	32nm,0.7s						
BDFB	Brasilia	20.86	86	P	P	21 06 47.8	-1.7
	17nm,0.5s,baz=264,slow=10,SNR=25						
BAO	Brasilia Array	20.88	86	P	P	21 06 47.9	-1.8
BAO				i		21 06 51.4	
SDV	Santo Domingo	27.11	358	eP	P	21 07 46.2	-3.1
	7.3nm,1.0s,mb4.2						
USHA	Ushuaia	36.39	179	P	P	21 09 10.7	+1.1
	12nm,0.9s,mb4.8,baz=16,slow=7.4,SNR=3.4						
SJG	San Juan	36.43	6	eP	P	21 09 07.2	-3.2
	18nm,0.8s,mb5.0						
TEIG	Tepich	42.50	334	P	P	21 10 01.1	+0.4
	4.2nm,1.0s,mb4.1,baz=186,slow=9.2,SNR=4.3						
TXAR	Lajitas Array	57.70	325	P	P	21 11 56.3	+0.4
	0.2nm,0.6s,mb3.3,baz=146,slow=9.8,SNR=2.5						
TXAR				pP	pP	21 12 21.9	-3.6
	0.4nm,0.7s,baz=140,slow=9.8,SNR=3.1						
DBIC	Dimbokro	68.55	75	P	P	21 13 06.2	-1.4
	14nm,0.7s,mb4.9,baz=229,slow=7.5,SNR=44						
DBIC	Dimbokro	68.55	75	⇑iP	P	21 13 05.8	-1.7
	13nm,0.8s,mb4.8						
QSPA	South Pole Qui	71.79	180	eP	P	21 13 28.1	+2.1
	5.0nm,0.4s,mb4.7						
ULM	Lac du Bonnet	72.15	343	P	P	21 13 28.3	-0.4
	4.2nm,0.4s,mb4.6,baz=157,slow=6.2,SNR=13						
ULM	Lac du Bonnet	72.15	343	P	P	21 13 28.3	-0.4
	5.5nm,0.4s,mb4.7						
SCHQ	Schefferville	72.96	2	P	P	21 13 32.2	-1.1
	3.1nm,0.9s,mb4.1,baz=198,slow=5.1,SNR=6.1						
SCHQ	Schefferville	72.96	2	P	P	21 13 32.2	-1.1
SYO	Syowa Base	79.64	160	⇑P	P	21 14 07.9	-2.6
SYO	Syowa Base	79.64	160	⇓PcP	PcP	21 14 14.4	-3.8
VNDA	Vanda	79.78	190	P	P	21 14 12.9	+1.8
	1.0nm,1.1s,mb3.5,baz=147,slow=8.5,SNR=4.7						
ESDC	Sonseca Array	84.11	45	P	P	21 14 35.0	+0.8
	3.7nm,0.7s,mb4.3,baz=252,slow=5.0,SNR=15						
MAW	Mawson	87.50	164	P	P	21 14 51.6	+1.5
	1.7nm,0.6s,mb4.2,baz=184,slow=5.5,SNR=5.4						
SJPF	Ste Jean	87.57	43	eP	P	21 14 52.4	+1.4
ETSF	Etsaut	87.91	43	eP	P	21 14 53.3	+0.6
	3.9nm,0.6s,mb4.3						
YKA	Yellowknife Ar	88.03	341	P	P	21 14 53.6	+0.9
	1.3nm,0.4s,mb4.3,baz=135,slow=4.9,SNR=27						
YKA				pP	pP	21 15 22.6	-2.3
	1.9nm,0.7s,baz=134,slow=4.8,SNR=5.4						
YKA	Yellowknife Ar	88.03	341	eP	P	21 14 53.6	+0.8
EPF	Esparros	88.55	44	eP	P	21 14 56.0	+0.3
QUIF	Quistinic	88.68	38	eP	P	21 14 55.6	-0.6
LFF	La Frestale	89.67	42	eP	P	21 15 00.9	0.0
	22nm,0.8s,mb5.0						
MTLF	Montolieu	89.92	44	eP	P	21 15 01.8	-0.3
	3.6nm,0.7s,mb4.3						
GRR	Gorron	90.26	38	eP	P	21 15 02.9	-0.7
	23nm,0.9s,mb5.0						
RJF	Les Rejaudoux	90.32	42	eP	P	21 15 03.7	-0.3
CAF	Calviac	90.51	42	eP	P	21 15 04.8	0.0
	4.7nm,0.7s,mb4.4						
LDF	La Druitiere	90.79	38	eP	P	21 15 05.4	-0.7
	21nm,0.9s,mb4.9						
TCF	Toulx Ste Croi	91.19	41	eP	P	21 15 08.6	+0.6
	4.0nm,0.8s,mb4.3						
CABF	La Chapelle	93.77	42	eP	P	21 15 20.4	+0.6
LPG	La Plagne	93.77	43	eP	P	21 15 23.9	+4.1
BAIF	Baives	93.98	38	eP	P	21 15 21.6	+1.0
GERES	GERESS Array B	99.36	42	P	P	21 15 44.1	-1.1
	0.3nm,0.8s,mb3.9,baz=249,slow=11,SNR=4.2						
ASAR	Alice Springs	132.30	210	pPKP		21 21 48.4	
	0.4nm,0.6s,baz=100,slow=1.3,SNR=2.2						
WRA	Warramunga Arr	135.23	213	PKP	PKPdf	21 21 23.9	+2.4
	0.5nm,0.4s,baz=139,slow=1.6,SNR=14						
WRA				pPKP		21 21 53.7	
	0.4nm,0.6s,baz=142,slow=1.5,SNR=2.3						
ZAL	Zalesovo	139.41	23	PKP	PKPdf	21 21 30.1	+1.8
	1.0nm,0.5s,baz=241,slow=4.0,SNR=5.0						
SONM	Songino Array	150.45	5	PKPbc	PKPdf	21 21 55.8	+8.7
	1.9nm,1.0s,baz=304,slow=1.5,SNR=11						
SONM				PKPab	PKPab	21 22 02.1	+0.4
	1.0nm,0.5s,baz=329,slow=2.7,SNR=5.7						
SONM				pPKPbc		21 22 24.0	
	1.2nm,0.7s,baz=298,slow=1.2,SNR=3.7						
ULN	Ulaanbaatar	150.47	5	ePKPab	PKPab	21 22 01.6	-0.3
CMAR	Chiang Mai Arr	169.16	88	PKPab	PKPab	21 23 21.4	-1.7
	1.1nm,0.9s,baz=273,slow=6.5,SNR=5.5						

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*NEIC **12** 21:05:38.0, 15.83N×98.45W, h20^{km}, MD4.0(MEX), After MEX.*
MEX 12 21:05:38.5±0.8, **15.86N×98.50W, h20**^{km}, **MD4.0, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.64	34	i P	Pb	21 05 48.2	-2.7
PNIG				i S	Sb	21 05 56.9	-2.3
ACX	Acapulco	1.69	307	i P	Pn	21 06 03.5	-3.8
ACX				i S	Sn	21 06 26.0	-2.6
ACX	Acapulco	1.69	307	i P	Pn	21 06 03.0	-4.3
ACX				i S	Sn	21 06 22.8	-5.8
CAIG	El Cayaco	2.07	305	i P	Pn	21 06 09.9	-2.8
CAIG				i S	Sn	21 06 34.9	-3.2
CAIG	El Cayaco	2.07	305	i P	Pn	21 06 09.9	-2.8
CAIG				i S	Sn	21 06 33.9	-4.3
VHO	Vista Hermosa	2.08	54	i P	Pn	21 06 10.4	-2.5
VHO				i S	Sn	21 06 33.2	-5.2
VHO	Vista Hermosa	2.08	54	i P	Pn	21 06 10.4	-2.5
VHO				i S	Sn	21 06 36.1	-2.4
OXX	Oaxaca	2.09	54	i P	Pn	21 06 11.0	-2.1
OXX				i S	Sn	21 06 43.0	+4.2
PLIG	Platanillo	2.69	339	i P	Pn	21 06 18.4	-3.4
PLIG				i S	Sn	21 06 48.4	-5.7
PPM	Popocatepetl	3.19	358	i P	Pn	21 06 27.0	-1.8
PPM				i S	Sn	21 07 02.3	-4.4
PPM	Popocatepetl	3.19	358	i P	Pn	21 06 25.9	-2.8
PPM				i P		21 06 27.0	
PPM				i S	Sn	21 07 02.0	-4.6
PPM				i S	Sn	21 07 02.4	-4.3
IISM	Ciudad Serdan	3.29	19	eP	Pn	21 06 35.0	+4.8
IISM				i S	Sn	21 07 15.0	+5.9
ZIIG	Zihuatanejo	3.33	302	i P	Pn	21 06 27.7	-3.1
ZIIG				i S	Sn	21 07 06.4	-3.8
CMIG	Matias Romero	3.68	70	i P	Pn	21 06 32.9	-2.8
CMIG				i S	Sn	21 07 14.4	-4.6

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*IDC **12** 21:07:51.8±1.0, 3.42S×135.34E, mb4.0/6, mb1 4.2/10, mb1mx4.1/15, ML3.7/4, Error ellipse: s-maj=41.9km s-min=19.7km az=75.0*
*NEIC **12** 21:07:53.0±0.8, 3.43S×135.49E, h10^{km}, mb4.0/3, Error ellipse: s-maj=17.1km s-min=13.8km az=86.0*
ISC 12 21:07:54.2±2.6, **3.61S**±0.06×**135.3E**±0.1, **h30**^{km}±19^{km}, **n19, σ1^{s}12**/26, **mb3.8**/5, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.49	197	eP	P	21 10 13.1	+1.1
	16nm,0.5s						
KAKA				eS	Sn	21 11 58.3	-0.5
PMG	Port Moresby	13.08	117	Pn	P	21 11 02.0	+1.2
	0.6nm,0.3s,baz=304,slow=9.0,SNR=8.3						
PMG	Port Moresby	13.08	117	P	P	21 10 55.8	-5.0
WRAB	Tennant Creek	16.26	183	eP	P	21 11 40.5	-1.8
	29nm,0.8s						
WB2	Warramunga Arr	16.27	183	eP	P	21 11 40.5	-1.9
WB2				eS	S	21 14 33.8	-7.6
WRA	Warramunga Arr	16.27	183	Pn	P	21 11 40.2	-2.2
	0.3nm,0.3s,baz=4.6,slow=13,SNR=12						
WRA				Sn	S	21 14 32.8	-8.7
	0.5nm,0.3s,baz=5.3,slow=23,SNR=8.9						
FITZ	Fitzroy Crossi	17.25	213	eP	P	21 11 56.1	+1.2
	3.4nm,0.9s						
FITZ				eS	S	21 14 59.0	-5.1
FITZ	Fitzroy Crossi	17.25	213	P	P	21 11 55.4	+0.5
	0.5nm,0.3s,baz=38,slow=7.9,SNR=10						
FITZ				S	S	21 14 58.9	-5.2
	0.5nm,0.3s,baz=184,slow=9.7,SNR=5.3						
CTA	Charters Tower	19.54	148	P	P	21 12 23.2	+0.7
	0.3nm,0.3s,baz=315,slow=12,SNR=7.0						
CTAO	Charters Tower	19.54	148	eP	P	21 12 23.2	+0.7
	11nm,1.1s						
ASAR	Alice Springs	19.99	184	P	P	21 12 28.7	+1.2
	33nm,0.9s,baz=10,slow=11,SNR=100						
ASAR				S	S	21 16 05.2	0.0
	2.1nm,0.7s,baz=4.0,slow=27,SNR=5.5						
ASPA	Alice Springs	19.99	184	eP	P	21 12 28.3	+0.8
ASPA				eS	S	21 16 05.2	0.0
MBWA	Marble Bar	23.12	220	eP	P	21 13 00.0	+1.0
STKA	Stephens Creek	28.73	169	P	P	21 13 52.0	+0.7
	2.6nm,1.0s,mb3.9,baz=353,slow=11,SNR=5.4						
STKA	Stephens Creek	28.73	169	eP	P	21 13 51.8	+0.4
SONM	Songino Array	57.16	337	P	P	21 17 39.8	-0.9
	0.2nm,0.4s,mb3.5,baz=151,slow=5.6,SNR=3.3						
ZAL	Zalesovo	71.06	331	P	P	21 19 15.4	+3.9
	0.6nm,0.5s,mb3.8,baz=343,slow=6.1,SNR=3.9						
BVAR	Borovoye Array	78.14	326	P	P	21 19 52.7	+0.5
	1.4nm,0.8s,mb3.9,baz=117,slow=6.6,SNR=4.4						
ILAR	Eielson Array	88.05	25	P	P	21 20 41.6	-1.1
	0.6nm,0.8s,mb3.9,baz=265,slow=4.2,SNR=5.3						

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*NIED **12** 21:11:00, 31.80N×129.20E, h5^{km}, Mw3.6 Best double couple: M$_0$3.1×10^{14} NP1:φ$_s$34°, δ87°, λ154°. NP2:φ$_s$126°, δ64°, λ4°.*
JMA 12 21:11:00.5±0.1, **31.77N×129.18E, h11**^{km}±2^{km}, **M3.7, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	Shimokoshiki	0.47	101	P	Pg	21 11 09.5	-0.5
JSJ				S	Sg	21 11 15.4	-1.0
JFU	Fukue jima 2	0.95	338	P	Pb	21 11 18.5	-0.1
JFU				S	Sb	21 11 32.3	+1.3
NGSJ	Nagasakinomoza	1.01	31	P	Pb	21 11 19.7	+0.2
NGSJ				S	Sb	21 11 33.3	+0.8
JHD	Hondo	1.07	49	P	Pb	21 11 20.4	-0.1
JHD				S	Sb	21 11 34.8	+0.5
JSU	Suzuyama	1.12	103	P	Pb	21 11 21.2	-0.2
JSU				S	Sb	21 11 36.2	+0.4
JZO	Okuchi	1.26	73	P	Pb	21 11 23.0	-0.8
JZO				S	Sb	21 11 41.0	+1.1
JKC	Kuchinoerabu	1.57	146	P	Pn	21 11 29.2	+0.7
JIU2	Izumi 2	1.59	60	P	Pn	21 11 28.0	-0.8
JTZ	Takazaki	1.63	85	P	Pn	21 11 28.4	-1.0

ISC 12 21:17:11.6±2.7, **37.67N**±0.09×**73.4E**±0.6, **h215**^{km}±35^{km}, **n13, σ0^{s}60**/14, **Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	Almayashu	4.46	3	P	P	21 18 19.3	-1.0
	SNR=13						
KZA	Kyzart	4.63	17	P	P	21 18 22.1	-0.2
	SNR=5.7						
UCH	Uchtor	4.63	10	P	P	21 18 21.9	-0.5
	SNR=22						
EKS2	Erkin-Say	5.00	3	P	P	21 18 28.3	+1.3
	SNR=7.8						
AAK	Ala-Archa	5.03	9	P	P	21 18 27.6	+0.2
	SNR=16						
ULHL	Ulahol	5.06	25	P	P	21 18 27.7	-0.1
	SNR=7.4						
KBK	Karagaybulak	5.12	13	P	P	21 18 29.1	+0.5
	SNR=7.2						
THN	Thein Dam	5.55	159	eP	P	21 18 33.4	-0.6
	0.8nm,0.3s						
THN				eS	S	21 19 38.6	+0.4
KOLN	Koldanda	13.06	136	eP	P	21 20 11.1	+0.8
	3.1nm,0.4s						
GKN	Gorkha	13.47	132	eP	P	21 20 14.9	-0.5
	3.8nm,0.4s						
KKN	Kakani	14.01	131	eP	P	21 20 21.7	-0.4
DMN	Daman	14.04	132	eP	P	21 20 22.6	+0.1
PKI	Pulchoki	14.25	131	eP	P	21 20 25.0	0.0

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*IDC **12** 21:19:13.0±0.5, 2.56S×139.18E, mb5.0/16, mb1 5.1/19, mb1mx5.1/20, ML4.5/3, MS4.9/10, Ms1 4.9/10, ms1mx4.8/15, Error ellipse: s-maj=22.3km s-min=12.2km az=78.0*
*MOS **12** 21:19:13.2±1.1, 2.60S×139.14E, h10^{km}, mb5.1/15, MS4.9/10, Error ellipse: s-maj=16.6km s-min=8.6km az=103.3*
*BJI **12** 21:19:13.2, 2.77S×139.18E, h19^{km}, mB5.3, mb5.0, Ms5.0, Msz4.8*
*NEIC **12** 21:19:14.8±0.3, 2.62S×139.15E, h10^{km}, mb5.2/40, MS4.9/11, Error ellipse: s-maj=8.5km s-min=6.2km az=79.0*
*HRVD **12** 21:19:14.8±0.2, 2.48S×139.10E, h15^{km}±1^{km}, MW5.3/53, Centroid moment Tensor Solution. LP body waves: s46,c78;Mantle waves: s53,c103; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.25±.02; M$_{\theta\theta}$0.12±.02; M$_{\phi\phi}$-0.37±.02; M$_{r\theta}$-0.53±.07; M$_{\theta\phi}$0.76±.02; M$_{\phi r}$-0.12±.06; Best double couple: M$_0$.99×10^{17} NP1:φ$_s$184°, δ58°, λ162°. NP2:φ$_s$284°, δ75°, λ33°. Principal axes: T 1.01, Plg34°, Azm148°; N -.05, Plg54°, Azm305°; P -.97, Plg11°, Azm51°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*SYO **12** 21:19:15.0, 2.56S×139.23E, h10^{km}, MB5.2, MS4.9*
*DJA **12** 21:19:17.4±2.8, 3.45S×139.79E, h95^{km}±62^{km}, mb5.2/6, Error ellipse: s-maj=222.2km s-min=41.6km az=17.0*
ISC 12 21:19:12.9±1.1, **2.65S**±0.03×**139.14E**±0.05, **h9**^{km}±7^{km}, **h18**^{km}±2.4^{km}**:pP-P, n196, σ1^{s}15**/185, **mb5.1**/72, **MS4.9**/37, **13C-23D, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOMI	Yo Moklole	1.42	90	eP	Pn	21 19 38.5	-0.5
YOMI	Yo Moklole	1.42	90	⇑ePn	Pn	21 19 38.4	-0.6
PMG	Port Moresby	10.42	130	Pn	P	21 21 47.2	+1.5
	4.0nm,0.3s,baz=320,slow=8.4,SNR=110						
PMG	Port Moresby	10.42	130	c iP	P	21 21 47.0	+1.3
PMG	Port Moresby	10.42	130	⇑ePn	P	21 21 46.1	+0.4
	643nm,1.0s						
KAKA	Kakadu	12.01	213	eP	P	21 22 06.4	-0.9
	315nm,0.6s						
KAKA				eS	S	21 24 15.1	-7.3
DAV	Davao City (W)	16.63	306	eP	P	21 23 15.3	+7.3
WRAB	Tennant Creek	17.80	195	c iP	P	21 23 22.9	+0.2
WRAB	Tennant Creek	17.80	195	eP	P	21 23 20.5	-2.1
	122nm,0.9s						
WRAB				eS	S	21 26 25.2	-14
WB2	Warramunga Arr	17.81	195	⇓iP	P	21 23 21.1	-1.7
WB2				eS	S	21 26 34.6	-4.5
WRA	Warramunga Arr	17.81	195	P	P	21 23 22.7	-0.1
	2.9nm,0.3s,baz=16,slow=13,SNR=80						
WRA				S	S	21 26 35.2	-3.9
	3.5nm,0.3s,baz=13,slow=22,SNR=5.7						
WRA	Warramunga Arr	17.81	195	P	P	21 23 22.7	-0.1
WRA				S	S	21 26 35.2	-4.0
WRA				pmax	pmax		
	comp=Z,3.0nm,0.3s						
WRA				smax			
	comp=E,4.0nm,0.3s						
CTA	Charters Tower	18.67	159	⇓iP	P	21 23 34.5	+1.0
	comp=E,33nm,0.6s						
CTA	Charters Tower	18.67	159	P	P	21 23 34.6	+1.1
	comp=E,2.0nm,0.3s,baz=338,slow=12,SNR=33						
CTA	Charters Tower	18.67	159	P	P	21 23 34.6	+1.1
CTA				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CTAO	Charters Tower	18.67	159	⇑eP	P	21 23 32.9	-0.6
	comp=Z,61nm,0.9s						
BUNI	Buntu Taipa	18.81	266	⇑eP	P	21 23 38.3	+3.0
	comp=Z,15nm,0.5s						
BUNI	Buntu Taipa	18.81	266	⇑eP	P	21 23 38.4	+3.1
	comp=Z,29nm,0.5s						
NINI	Niniconang	19.42	264	⇓eP	P	21 23 45.4	+2.9
	comp=Z,348nm,1.3s						
NINI	Niniconang	19.42	264	⇓eP	P	21 23 45.2	+2.7
	comp=Z,695nm,1.3s						
TBP	Tagbilaran	19.54	309	eP	P	21 23 44.0	+0.1
TANI	Tanete Lipujan	19.74	267	⇓eP	P	21 23 48.1	+2.0
	comp=Z,52nm,0.9s						
TANI	Tanete Lipujan	19.74	267	⇓eP	P	21 23 48.3	+2.2
	comp=Z,104nm,0.9s						
FITZ	Fitzroy Crossi	20.27	220	⇓iP	P	21 23 51.1	-0.6
	comp=Z,74nm,0.9s						
FITZ				eS	S	21 27 30.4	-3.3
FITZ	Fitzroy Crossi	20.27	220	P	P	21 23 51.2	-0.5
	comp=Z,16nm,0.4s,baz=26,slow=8.8,SNR=50						
FITZ				S	S	21 27 30.3	-3.4
	comp=Z,149nm,0.9s,baz=165,slow=10,SNR=11						
FITZ				LR	LR	21 31 47.6	
	comp=Z,1μm,21.1s,MS4.2,baz=65,slow=37						
ASAR	Alice Springs	21.50	193	P	P	21 24 04.2	0.0
	comp=Z,16nm,0.5s,mb4.6,baz=13,slow=9.9,SNR=124						
ASAR				S	S	21 27 59.9	+2.3
	comp=Z,40nm,0.9s,baz=19,slow=19,SNR=3.9						
ASPA	Alice Springs	21.50	193	⇓iP	P	21 24 04.2	0.0
ASPA				eS	S	21 27 59.3	+1.7
RCP	Roxas	21.57	311	⇓eP	P	21 24 06.9	+1.9
KEDI	Kedomdong	23.63	255	⇓eP	P	21 24 25.0	-0.5
	comp=Z,278nm,0.9s,mb5.7						
KEDI	Kedomdong	23.63	255	⇓eP	P	21 24 25.5	0.0
	comp=Z,555nm,0.9s,mb5.7						
RATI	Rata	24.24	255	⇓eP	P	21 24 32.9	+1.4
RATI	Rata	24.24	255	⇓eP	P	21 24 30.1	-1.4
TGY	Tagaytay City	24.55	313	P	P	21 24 34.4	0.0
	comp=Z,312nm,0.4s,mb6.2,baz=142,slow=6.6,SNR=11						
TGY				LR	LR	21 35 03.9	
	comp=Z,2μm,18.5s,MS4.7,baz=121,slow=39						
TGY	Tagaytay City	24.55	313	P	P	21 24 34.4	0.0
TGY				pmax	pmax		
	comp=Z,312nm,0.4s						
TGY				MLR	MLR		
	comp=Z,2μm,18.5s						
KELI	Kelakatan	25.14	256	⇑eP	P	21 24 41.0	+0.9
	comp=Z,239nm,1.1s,mb5.6						
KELI	Kelakatan	25.14	256	⇑eP	P	21 24 38.7	-1.4
	comp=Z,239nm,1.1s,mb5.3						
SRDI	Scrawed	25.53	256	⇑eP	P	21 24 45.0	+1.2
	comp=Z,83nm,1.0s,mb5.2						
SRDI	Scrawed	25.53	256	eP	P	21 24 43.8	0.0
	comp=Z,166nm,1.1s,mb5.2						
MBWA	Marble Bar	26.37	224	eP	P	21 24 51.1	-0.4
	comp=Z,23nm,0.7s,mb4.8						
MBWA				LR	LR		
	comp=Z,2μm,20.0s,MS4.6						
STKA	Stephens Creek	29.16	176	eP	P	21 25 16.1	-0.6
	comp=Z,39nm,0.7s,mb5.2						
STKA	Stephens Creek	29.16	176	P	P	21 25 16.7	-0.1
	comp=Z,40nm,0.7s,mb5.3,baz=344,slow=8.0,SNR=70						
STKA				LR	LR	21 38 14.0	
	comp=Z,7μm,18.2s,MS5.3,baz=349,slow=39						
CBIJ	Chichi jima	29.72	5	LR	LR	21 34 44.3	
	comp=Z,1μm,20.2s,MS4.5,baz=288,slow=31						
FORT	Forrest	29.87	199	eP	P	21 25 22.2	-1.0
	comp=Z,194nm,0.6s,mb6.0						
JOW	Kunigami	31.13	341	LR	LR	21 35 55.5	
	comp=Z,3μm,20.9s,MS4.9,baz=114,slow=32						
DZM	Mont Dzumac	32.80	128	eP	P	21 25 48.0	-0.9
KLBR	Kellerberrin	35.14	213	eP	P	21 26 09.1	0.0
	comp=Z,39nm,1.3s,mb5.2						
TOO	Toolangi	35.24	171	⇑iP	P	21 26 12.4	+2.6
	comp=Z,29nm,0.7s,mb5.3						
QIZ	Qiongzhong	35.98	308	P	P	21 26 14.6	-1.7
QIZ				PPP	PPP	21 27 56.1	-1.7
QIZ				S	S	21 31 53.4	-0.7
QIZ				XS		21 32 07.5	
QIZ				SS	SS	21 34 12.3	-3.7
QIZ				AMB	AMB		
	comp=Z,51nm,1.8s,mb5.2						
QIZ				LR	LR		
	comp=N,992nm,17.6s						
QIZ				LR	LR		
	comp=Z,1μm,23.0s						
NWAO	Narrogin (SRO)	36.45	212	P	P	21 26 21.0	+0.8
	comp=Z,10nm,0.7s,mb4.8,baz=64,slow=11,SNR=6.3						
NWAO	Narrogin (SRO)	36.45	212	P	P	21 26 21.0	+0.9
NWAO				pmax	pmax		
	comp=Z,10.0nm,0.7s						
NWAO	Narrogin (SRO)	36.45	212	eP	P	21 26 20.8	+0.7
	comp=Z,24nm,1.1s,mb5.0						
NWAO				LR	LR		
	comp=Z,5μm,20.0s,MS5.3						
SSE	Sheshan	37.67	334	P	P	21 26 30.1	-0.3
SSE				AP	pP	21 26 38.9	+5.8
SSE				PP	PP	21 27 58.0	-1.1
SSE				S	S	21 32 19.4	-0.5
SSE				XS		21 32 34.9	

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SSE                               AMB      AMB
      comp=Z,37nm,0.8s,mb5.2
SSE                               AMB      AMB
      comp=Z,103nm,4.6s
SSE                               LR       LR
      comp=N,917nm,22.0s,MS4.6
SSE                               LR       LR
      comp=E,587nm,21.9s,MS4.6
SSE                               LR       LR
      comp=Z,1µm,21.0s,MS4.7
MAT   Matsushiro       39.00 359  P        P        21 26 42.2 +0.7
MAT                               S        S        21 32 41.0 +0.9
MAT   Matsushiro       39.00 359  P        P        21 26 45.0 +3.5
      comp=Z,14nm,1.2s,mb4.6
MAT                              eS        S        21 32 48.0 +7.9
NJ2   Nanjing          39.52 332 eP        P        21 26 47.4 +1.5
NJ2                               AP       pP       21 26 57.2 +8.5
NJ2                               XP       sP       21 27 01.2  +11
NJ2                               PP       PP       21 28 23.7 +3.1
NJ2                               S        S        21 32 49.0 +1.0
NJ2                               AMB      AMB
      comp=Z,40nm,0.9s,mb5.2
NJ2                               LR       LR
      comp=N,2µm,17.6s,MS5.3
NJ2                               LR       LR
      comp=E,3µm,13.8s,MS5.3
NJ2                               LR       LR
      comp=Z,3µm,20.4s
WHN   Wuhan            40.61 326 eP        P        21 26 56.5 +1.6
WHN                               S        S        21 33 11.0 +6.7
WHN                               LR       LR
      comp=Z,2µm,22.2s,MS4.9
NST   Nakhon Sawan     42.66 297  P        P        21 27 13.0 +1.1
GYA   Guiyang          42.68 315⇓iP        P        21 27 12.7 +0.7
GYA                               AP       pP       21 27 17.6 +2.8
GYA                               XP       sP       21 27 19.7 +3.7
GYA                               PP       PP       21 28 54.8 +1.0
GYA                               S        S        21 33 36.2 +1.1
GYA                               XS                21 33 42.9
GYA                               SS       SS       21 36 40.7 +1.4
GYA                               AMB      AMB
      comp=Z,10.0nm,1.2s,mb4.4
GYA                               AMB      AMB
      comp=Z,280nm,3.9s
GYA                               LR       LR
      comp=N,600nm,18.5s,MS4.6
GYA                               LR       LR
      comp=E,580nm,20.3s,MS4.6
GYA                               LR       LR
      comp=Z,1µm,19.2s,MS4.7
ENH   Enshi            43.28 321 eP        P        21 27 16.6 -0.3
      comp=Z,24nm,0.9s,mb4.9
ENH                               LR       LR
      comp=Z,1µm,22.0s,MS4.8
NANT  Nan              43.41 301  P        P        21 27 17.0 -1.0
DL2   Dalian           44.39 340  P        P        21 27 21.0 -4.8
DL2                               S        S        21 34 08.0 +8.2
DL2                               AMB      AMB
      comp=Z,230nm,6.4s
DL2                               LR       LR
      comp=N,410nm,21.8s,MS4.5
DL2                               LR       LR
      comp=E,460nm,18.2s,MS4.5
DL2                               LR       LR
      comp=Z,460nm,22.8s,MS4.3
CHRT  Chiangrai        44.65 302 ⇓P        P        21 27 28.0  0.0
      comp=Z,105nm,0.9s,mb5.7
CM31  Chiang Mai Arr   44.78 300 eP        P        21 27 27.2 -1.9
      comp=Z,26nm,1.1s,mb5.0
CMAR  Chiang Mai Arr   44.78 300  P        P        21 27 28.9 -0.3
      comp=Z,6.2nm,0.8s,mb4.5,baz=121,slow=6.1,SNR=31
CMAR                              LR       LR       21 45 15.5
      comp=Z,536nm,19.4s,MS4.5,baz=305,slow=35
CMAR  Chiang Mai Arr   44.78 300  P        P        21 27 28.9 -0.2
CMAR                              pmax     pmax
      comp=Z,6.0nm,0.8s
CMAR                              MLR      MLR
      comp=Z,537nm,19.4s
KMI   Kunming          44.81 310 eP        P        21 27 29.8 +0.5
KMI                               AP       pP       21 27 36.9 +4.8
KMI                               PP       PP       21 29 12.1 -2.9
KMI                               S        S        21 34 00.9 -5.1
KMI                               SS       SS       21 37 19.0 +0.5
KMI                               SSS      SSS      21 38 00.3  -16
KMI                               AMB      AMB
      comp=Z,10.0nm,1.3s,mb4.5
KMI                               AMB      AMB
      comp=Z,103nm,4.7s
KMI                               LR       LR
      comp=N,525nm,21.8s,MS4.7
KMI                               LR       LR
      comp=E,784nm,23.1s,MS4.7
KMI                               LR       LR
      comp=Z,1µm,20.5s,MS4.8
CHG   Chiang Mai       44.92 300  P        P        21 27 31.1 +0.8
XAN   Xi’an            46.27 325  P        P        21 27 40.4 -0.4
XAN                               AP       pP       21 27 44.9 +1.3
XAN                               AMB      AMB
      comp=Z,14nm,1.3s,mb4.7
XAN                               LR       LR
      comp=N,433nm,25.2s
XAN                               LR       LR
      comp=E,278nm,14.4s
XAN                               LR       LR
      comp=Z,812nm,23.4s,MS4.6
SNY   Shenyang         46.47 344 ⇓P        P        21 27 47.3 +5.1
SNY                               S        S        21 34 34.1 +4.5
SNY                               AMB      AMB
      comp=Z,20nm,3.7s
SNY                               LR       LR
      comp=N,810nm,20.6s,MS4.8
SNY                               LR       LR
      comp=E,570nm,20.6s,MS4.8
SNY                               LR       LR
      comp=Z,1µm,22.2s,MS4.8
BJT   Baijiatuau       47.40 336 eP        P        21 27 49.5 -0.1
      comp=Z,130nm,1.6s,mb5.6
BJT                               LR       LR
      comp=Z,2µm,20.0s,MS5.1
BJI   Beijing          47.41 336  P        P        21 27 50.4 +0.7
BJI                               S        S        21 34 35.7 -7.3
BJI                               AMB      AMB
      comp=Z,36nm,1.3s,mb5.1
BJI                               LR       LR
      comp=N,2µm,23.1s,MS5.1
BJI                               LR       LR
      comp=E,1µm,19.5s,MS5.1
BJI                               LR       LR
      comp=Z,2µm,21.1s,MS5.0
CD2   Chengdu          47.43 317⇓iP        P        21 27 50.2 +0.3
CD2                               XP       sP       21 27 56.9 +3.0
CD2                               PPP      PPP      21 30 35.4 +6.7
CD2                               S        S        21 34 43.3  0.0
CD2                               SCS      ScS      21 37 40.5 -1.0
CD2                               AMB      AMB
      comp=Z,30nm,1.3s,mb5.1
CD2                               AMB      AMB
      comp=Z,180nm,4.1s
CD2                               LR       LR
      comp=N,340nm,15.6s
CD2                               LR       LR
      comp=Z,430nm,21.0s
MDJ   Mudanjiang       47.83 351  P        P        21 27 55.6 +2.7
MDJ                               AP       pP       21 27 58.7 +3.0
MDJ                               XP       sP       21 27 59.9 +3.1
MDJ                               PCP      PcP      21 29 21.8 -0.3
MDJ                               PP       PP       21 29 48.2 +4.1
MDJ                               SCP               21 33 16.7
MDJ                               PCS               21 33 18.1
MDJ                               S        S        21 34 56.1 +7.4
MDJ                               XS                21 35 01.8
MDJ                               AMB      AMB
      comp=Z,12nm,1.8s,mb4.6
MDJ                               AMB      AMB
      comp=Z,196nm,7.7s
MDJ                               LR       LR
      comp=N,952nm,21.8s,MS4.8
MDJ                               LR       LR
      comp=E,436nm,19.7s,MS4.8
MDJ                               LR       LR
      comp=Z,1µm,19.7s,MS4.9
MDJ   Mudanjiang       47.83 351  P        P        21 27 50.2 -2.7
CN2   Changchun        47.85 347 eP        P        21 27 53.0 -0.1
CN2                              eXP       sP       21 27 58.6 +1.5
CN2                              eS        S        21 34 50.4 +1.3
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CN2                               AMB      AMB
      comp=Z,10.0nm,1.0s,mb4.8
CN2                               AMB      AMB
      comp=Z,200nm,5.0s
CN2                               LR       LR
      comp=N,2µm,22.0s,MS5.0
CN2                               LR       LR
      comp=E,600nm,22.0s,MS5.0
CN2                               LR       LR
      comp=Z,2µm,22.0s,MS5.0
URZ   Urewera          49.59 140  P        P        21 28 05.9 -0.6
      comp=Z,56nm,1.4s,mb5.4,baz=240,slow=0.6,SNR=3.7
RPZ   Rata Peaks       49.72 150  P        P        21 28 07.6 +0.1
      comp=Z,85nm,1.0s,mb5.7,baz=355,slow=1.8,SNR=16
AFI   Afiamalu         49.74 106 eP        P        21 28 08.8 +0.8
      comp=Z,396nm,1.9s,mb6.1
HHC   Hu-ho-hao-te     50.08 333 eP        P        21 28 11.7 +1.4
HHC                               PCP      PcP      21 29 29.6 -0.6
HHC                               PP       PP       21 30 08.4 +2.0
HHC                               S        S        21 35 22.8 +2.5
HHC                               SCS      ScS      21 37 55.0 -3.9
HHC                               SS       SS       21 38 51.9 +1.7
HHC                               AMB      AMB
      comp=Z,21nm,1.0s,mb5.1
HHC                               AMB      AMB
      comp=Z,324nm,6.9s
HHC                               LR       LR
      comp=N,1µm,20.0s,MS5.0
HHC                               LR       LR
      comp=E,783nm,20.0s,MS5.0
HHC                               LR       LR
      comp=Z,1µm,20.1s,MS5.0
BTO   Baotou           50.61 331 eP        P        21 28 14.3  0.0
LZH   Lanzhou          50.69 323 eP        P        21 28 15.5 +0.5
LZH                               AP       pP       21 28 18.8 +0.9
LZH                               XP       sP       21 28 20.5 +1.5
LZH                               PP       PP       21 30 12.0  0.0
LZH                               S        S        21 35 27.1 -1.8
LZH                              eSS       SS       21 38 58.0 -2.7
LZH                               AMB      AMB
      comp=Z,39nm,1.2s,mb5.2
LZH                               AMB      AMB
      comp=Z,190nm,5.7s
LZH                               LR       LR
      comp=N,1µm,16.3s
LZH                               LR       LR
      comp=Z,1µm,18.2s,MS5.0
IMP   Imphal           51.64 305 eP        P        21 28 24.2 +1.8
KLR   Kul’dur          52.07 354 eP        P        21 28 27.2 +1.9
KLR                              e                  21 36 04.5
KLR                               MLR      MLR
      comp=E,1µm,19.0s
SHL   Shillong         53.65 305 eP        P        21 28 36.5 -0.9
HIA   Hailar           54.37 344 eP        P        21 28 42.2 -0.1
      comp=E,25nm,1.3s,mb5.0
HIA                               LR       LR
      comp=Z,1µm,20.0s,MS5.0
GTA   Gaotai           55.28 323 eP        P        21 28 48.8 -0.3
GTA                               AP       pP       21 28 55.8 +3.8
GTA                               XP       sP       21 28 59.5 +6.4
GTA                               PP       PP       21 30 56.6 +2.3
GTA                               S        S        21 36 30.1 -1.0
GTA                               AMB      AMB
      comp=Z,7.0nm,0.9s,mb4.7
GTA                               AMB      AMB
      comp=Z,195nm,7.2s
GTA                               LR       LR
      comp=N,313nm,16.7s,MS4.7
GTA                               LR       LR
      comp=E,491nm,17.5s,MS4.7
GTA                               LR       LR
      comp=Z,717nm,19.8s,MS4.8
LSA   Lhasa            56.01 309  P        P        21 28 54.8 +0.3
ULN   Ulaanbaatar      57.59 335 eP        P        21 29 03.8 -1.7
      comp=Z,70nm,1.8s,mb5.4
ULN                               LR       LR
      comp=Z,2µm,21.0s,MS5.1
SONM  Songino Array    57.85 335  P        P        21 29 06.8 -0.6
      comp=Z,2.8nm,0.6s,mb4.5,baz=155,slow=7.2,SNR=41
SONM                              PKP2ab            21 59 17.5
      comp=Z,0.7nm,0.9s,baz=315,slow=1.7,SNR=4.6
GUN   Gumba            59.51 305 eP        P        21 29 18.2 -1.0
      comp=Z,126nm,1.2s,mb5.8
GUN   Gumba            59.51 305 eP        P        21 29 18.3 -0.9
      comp=Z,66nm,1.2s,mb5.5
PKI   Pulchoki         59.77 304 eP        P        21 29 19.0 -2.0
KKN   Kakani           59.96 304 eP        P        21 29 21.5 -0.7
      comp=Z,46nm,1.0s,mb5.5
DMN   Daman            60.04 304 eP        P        21 29 22.0 -0.8
      comp=Z,84nm,1.1s,mb5.7
GKN   Gorkha           60.56 304 eP        P        21 29 25.7 -0.7
      comp=Z,85nm,1.1s,mb5.8
GKN   Gorkha           60.56 304 eP        P        21 29 25.5 -0.9
      comp=Z,44nm,1.1s,mb5.5
BLSP  Bilaspur         60.85 297 eP        P        21 29 27.3 -1.1
BLSP                              AMb      AMB      21 29 30.5
      comp=Z,17nm,1.1s,mb5.1
ZAK   Zakamensk        61.12 335⇑iP        P        21 29 28.8 -1.0
KOLN  Koldanda         61.34 304 eP        P        21 29 30.8 -0.9
      comp=Z,128nm,1.7s,mb5.8
TLY   Talaya           61.94 336 eP        P        21 29 37.1 +1.7
TLY                              eS        S        21 37 57.4 -0.3
TLY                               pmax     pmax
      comp=Z,45nm,1.8s,mb5.3
TLY                               MLR      MLR
      comp=Z,896nm,19.0s,MS5.0
TLY   Talaya           61.94 336 eP        P        21 29 35.2 -0.2
IRK   Irkutsk          62.11 337 eP        P        21 29 32.4 -4.1
MOY   Mondy            63.04 334 eP        P        21 29 42.8 +0.1
BOD   Bodaibo          63.57 345 eP        P        21 29 44.7 -1.3
DRV   Dumont d’Urvil   63.89 180  S        S        21 38 29.0 +7.0
YAK   Yakutsk          64.91 355 eP        P        21 29 53.5 -1.2
YAK                               pmax     pmax
      comp=Z,16nm,0.9s,mb5.0
YAK   Yakutsk          64.91 355 eP        P        21 29 53.8 -1.0
      comp=Z,34nm,0.8s,mb5.4
YAK                               LR       LR
      comp=Z,802nm,20.0s,MS4.9
WMQ   Urumqi           65.23 321 ⇑P        P        21 29 57.2 +0.1
WMQ                               AP       pP       21 30 01.7 +1.7
WMQ                               XP       sP       21 30 04.2 +3.1
WMQ                               PCP      PcP      21 30 29.5  0.0
WMQ                               PP       PP       21 32 22.8  0.0
WMQ                               S        S        21 38 38.3 -0.6
WMQ                               AMB      AMB
      comp=Z,25nm,1.0s,mb5.2
WMQ                               AMB      AMB
      comp=Z,43nm,8.5s
BHPL  Bhopal           65.33 297 eP        P        21 30 00.3 +2.2
BHPL                              AMb      AMB      21 30 15.4
      comp=Z,12nm,1.0s,mb4.9
CASY  Casey            66.62 192 eP        P        21 30 06.0 +0.4
      comp=Z,71nm,1.0s,mb5.7
DDI   Dehra Dun        66.76 305 eP        P        21 30 07.3 +0.2
SDNR  Sundarnagar      68.01 305 e         P        21 30 22.2 +7.2
THN   Thein Dam        69.30 306 eP        P        21 30 21.3 -1.7
KSH   Kashi            71.36 313 eP        P        21 30 37.0 +1.6
KSH                              eAP       pP       21 30 41.3 +3.0
KSH                              eXP       sP       21 30 44.1 +4.8
KSH                              ePCP      PcP      21 30 56.9 +1.6
KSH                              ePP       PP       21 33 16.7 +1.0
KSH                              ePPP      PPP      21 34 57.6 +0.6
KSH                              eS        S        21 39 51.4 -0.6
KSH                              eSKS      SKS      21 40 35.5 -3.3
KSH                              eSCS      ScS      21 40 38.4 +1.8
KSH                              eSS       SS       21 44 25.6 -2.7
KSH                               AMB      AMB
      comp=Z,100nm,3.5s
KSH                               LR       LR
      comp=N,290nm,5.3s
KSH                               LR       LR
      comp=E,240nm,5.6s
MIR   Mirnyy           71.38 198⇓eP        P        21 30 36.0 +0.9
MIR                               pmax     pmax
      comp=Z,170nm,1.7s,mb5.7
ZAL   Zalesovo         72.11 330  P        P        21 30 39.0 -0.5
      comp=Z,6.1nm,1.1s,mb4.5,baz=354,slow=4.7,SNR=20
ZAL                               LR       LR       22 02 54.5
      comp=Z,1µm,21.3s,MS5.1,baz=354,slow=36
ZAL   Zalesovo         72.11 330  P        P        21 30 39.0 -0.6
ZAL                               pmax     pmax
      comp=Z,6.0nm,1.1s
ZAL                               MLR      MLR
      comp=Z,1µm,21.3s
KZA   Kyzart           72.75 316  P        P        21 30 44.5 +0.9
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      SNR=26
TKM2  Tokmak 2         72.80 316 eP        P        21 30 42.8 -1.1
      comp=Z,16nm,0.9s,mb5.0
KBK   Karagaybulak     73.15 316  P        P        21 30 45.9 -0.1
      SNR=9.3
UCH   Uchtor           73.31 316  P        P        21 30 49.9 +3.0
      SNR=18
UCH   Uchtor           73.31 316 eP        P        21 30 47.1 +0.2
      comp=Z,34nm,1.1s,mb5.2
NVS   Novosibirsk      73.36 330 eP        P        21 30 45.3 -1.6
NVS                               pmax     pmax
      comp=N,78nm,1.8s
NVS                               pmax     pmax
      comp=E,99nm,1.8s
NVS                               pmax     pmax
      comp=Z,122nm,1.8s,mb5.5
CHMS  Chumysh          73.41 316  P        P        21 30 47.3 -0.2
      SNR=6.6
FRU   Bishkek          73.44 316 eP        P        21 30 50.0 +2.3
FRU                               pmax     pmax
      comp=Z,70nm,2.1s,mb5.2
AAK   Ala-Archa        73.46 316  P        P        21 30 50.1 +2.3
      SNR=6.7
AAK   Ala-Archa        73.46 316 eP        P        21 30 48.2 +0.4
AAK                               pmax     pmax
      comp=Z,22nm,1.3s,mb4.9
AAK                               MLR      MLR
      comp=Z,500nm,19.0s,MS4.8
AAK   Ala-Archa        73.46 316 eP        P        21 30 46.8 -1.0
      comp=Z,32nm,1.5s,mb5.0
AAK                               LR       LR
      comp=Z,127nm,19.0s,MS4.2
USP   Ospenovka        73.67 317  P        P        21 30 48.6 -0.3
      SNR=17
AML   Almayashu        73.85 315  P        P        21 30 53.0 +2.9
      SNR=14
AML   Almayashu        73.85 315 eP        P        21 30 48.3 -1.8
      comp=Z,44nm,1.1s,mb5.3
EKS2  Erkin-Say        73.97 316  P        P        21 30 53.1 +2.4
      SNR=11
EKS2  Erkin-Say        73.97 316 eP        P        21 30 50.9 +0.2
      comp=Z,20nm,1.1s,mb5.0
TIXI  Tiksi            74.47 357 eP        P        21 30 51.4 -1.6
TIXI                              pmax     pmax
      comp=Z,14nm,1.5s,mb4.7
TIXI                              MLR      MLR
      comp=Z,599nm,18.0s,MS4.9
VNDA  Vanda            75.80 175  P        P        21 31 01.0 +0.4
      comp=Z,42nm,0.7s,mb5.5,baz=324,slow=6.4,SNR=184
VNDA                              LR       LR       22 06 45.7
      comp=Z,2µm,18.7s,MS5.4,baz=347,slow=38
VNDA  Vanda            75.80 175  P        P        21 31 01.0 +0.4
VNDA                              pmax     pmax
      comp=Z,43nm,0.7s
VNDA                              MLR      MLR
      comp=Z,2µm,18.7s
SBA   Scott Base       76.56 174 eP        P        21 31 06.5 +1.6
      comp=Z,2.4nm,0.5s,mb4.4
SBA                               LR       LR
      comp=Z,527nm,20.0s,MS4.8
BVAR  Borovoye Array   79.51 325  P        P        21 31 21.2 -0.3
      comp=Z,6.7nm,0.6s,mb4.8,baz=112,slow=7.4,SNR=33
BRVK  Borovoye         79.58 325 eP        P        21 31 21.2 -0.7
      comp=Z,12nm,0.7s,mb4.9
CHKZ  Chkalovo         79.59 326 eP        P        21 31 20.9 -1.1
      comp=Z,37nm,1.4s,mb5.1
MAW   Mawson           82.34 202  P        P        21 31 37.4 +1.3
      comp=Z,11nm,0.8s,mb4.8,baz=74,slow=5.8,SNR=28
MAW                               LR       LR       22 07 10.6
      comp=Z,2µm,19.2s,MS5.4,baz=67,slow=35
MAW   Mawson           82.34 202  P        P        21 31 37.4 +1.3
MAW                               pmax     pmax
      comp=Z,11nm,0.8s
MAW                               MLR      MLR
      comp=Z,2µm,19.2s
MAW   Mawson           82.34 202 eP        P        21 31 36.9 +0.8
      comp=Z,23nm,1.1s,mb5.0
IMA   Indian Mountai   83.34  22 eP        P        21 31 41.5 +0.2
      comp=Z,72nm,1.3s,mb5.5
COLA  College          85.24  24diP        P        21 31 50.1 -0.8
COLA  College          85.24  24 eP        P        21 31 50.1 -0.8
      comp=Z,13nm,0.9s,mb5.1
ILAR  Eielson Array    85.60  24  P        P        21 31 51.6 -1.0
      comp=Z,36nm,1.1s,mb5.5,baz=260,slow=4.6,SNR=168
ILAR  Eielson Array    85.60  24  P        P        21 31 51.7 -1.0
ILAR                              pmax     pmax
      comp=Z,36nm,1.1s
ARU   Arti             86.98 327⇓iP        P        21 31 59.7  0.0
ARU                              e                  21 35 21.9
ARU                              eS        S        21 42 24.5  -12
ARU                              eSS       SS       21 48 21.1 -1.3
ARU                               pmax     pmax
      comp=Z,14nm,1.0s,mb5.2
ARU                               MLR      MLR
      comp=Z,400nm,20.0s,MS4.8
ARU                               MLR      MLR
      comp=N,200nm,19.0s,MS4.8
ARU                               MLR      MLR
      comp=E,300nm,22.0s,MS4.8
ARU   Arti             86.98 327 eP        P        21 31 57.5 -2.2
      comp=E,8.9nm,0.9s,mb5.0
QSPA  South Pole Qui   87.29 180⇓iP        P        21 32 02.0 +1.3
      comp=E,45nm,0.7s,mb5.8
SYO   Syowa Base       90.96 201 ⇓P        P        21 32 18.3 +0.1
SYO   Syowa Base       90.96 201 ⇓PcP      PcP      21 32 19.8 +0.2
INK   Inuvik           91.46  22  P        P        21 32 20.1 -0.4
      comp=E,1.7nm,0.7s,mb4.5,baz=298,slow=4.6,SNR=8.5
INK   Inuvik           91.46  22  P        P        21 32 20.1 -0.4
INK                               pmax     pmax
      comp=Z,2.0nm,0.7s
ZEI   Tsey             95.64 313 i P       P        21 32 37.5 -2.8
ZEI                               pmax     pmax
      comp=Z,5.0nm,1.3s,mb4.8
YBH   Yreka Blue Hor   97.85  48  P        P        21 32 51.4 +1.1
      comp=Z,3.8nm,1.1s,mb4.8,baz=230,slow=7.9,SNR=3.8
YBH   Yreka Blue Hor   97.85  48  P        P        21 32 51.4 +1.1
YBH                               pmax     pmax
      comp=Z,4.0nm,1.1s
YKA   Yellowknife Ar   99.82  27  P        P        21 32 58.6 -0.1
      comp=Z,0.7nm,0.9s,mb4.1,baz=288,slow=5.2,SNR=6.3
YKA                               PKKPbc            21 49 19.1
      comp=Z,0.9nm,0.8s,baz=102,slow=2.9,SNR=8.0
YKA                               LR       LR       22 18 02.7
      comp=Z,276nm,19.8s,MS4.8,baz=275,slow=35
YKA   Yellowknife Ar   99.82  27  P        P        21 32 58.6 -0.2
YKA                               pmax     pmax
      comp=Z,1.0nm,0.9s
YKA                               pmax     pmax
      comp=Z,1.0nm,0.8s
YKA                               MLR      MLR
      comp=Z,277nm,19.8s
YKA   Yellowknife Ar   99.82  27  P        P        21 32 58.6 -0.1
YKA                               PKKPbc            21 49 19.1
YKA                               LR       LR       22 18 02.7
ARCES ARCESS Array B  100.60 341  P        P        21 33 02.9 +0.7
      comp=Z,6.9nm,0.9s,baz=56,slow=4.4,SNR=3.7
ARCES ARCESS Array B  100.60 341  P        P        21 33 02.9 +0.7
ARCES                             pmax     pmax
      comp=Z,7.0nm,0.9s
NVAR  Mina Array Bea  101.48  51  P        P        21 33 07.7 +0.8
      comp=Z,1.8nm,0.8s,baz=258,slow=3.0,SNR=11
SNAA  Sanae           101.85 191  P        P        21 33 08.9 +1.1
      comp=Z,1.9nm,1.1s,baz=357,slow=6.3,SNR=4.1
SNAA  Sanae           101.85 191 eP        P        21 33 08.2 +0.4
FINES FINESS Array B  103.20 333  Pdiff    Pdif     21 33 15.7 +1.7
      comp=Z,1.4nm,0.8s,baz=34,slow=5.0,SNR=2.8
FINES FINESS Array B  103.20 333  P        Pdif     21 33 15.7 +1.7
FINES                             pmax     pmax
      comp=Z,1.0nm,0.8s
PDAR  Pinedale Array  107.36  46  Pdiff    Pdif     21 33 35.3 +2.6
      comp=Z,0.5nm,0.7s,baz=256,slow=1.5,SNR=4.1
PDAR                              PKKPbc            21 48 57.2
      comp=Z,0.2nm,0.7s,baz=146,slow=3.3,SNR=3.7
GERES GERESS Array B  114.65 324  PKP      PKPdf    21 37 54.1 -2.6
      comp=Z,0.7nm,0.7s,baz=90,slow=2.7,SNR=5.2
GERES GERESS Array B  114.65 324  PKIKP    PKPdf    21 37 54.1 -2.6
GERES                             pmax     pmax
      comp=Z,1.0nm,0.7s
TXAR  Lajitas Array   114.90  59  PKKPbc            21 48 34.0
      comp=Z,0.3nm,0.8s,baz=106,slow=6.6,SNR=3.3
CDF   Champ du Feu    118.58 326 ePKP1     PKPdf    21 38 05.6 +1.2
HINF  Hinteralfeld    119.14 325 ePKP1     PKPdf    21 38 05.8 +0.3
HAU   Haudompre       119.33 326 ePKP1     PKPdf    21 38 06.3 +0.5
HAU                              eR
      comp=Z,873nm,19.2s
CABF  La Chapelle     120.23 324 ePKP1     PKPdf    21 38 08.6 +1.0
      comp=Z,12nm,0.8s
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LPG	La Plagne	120.42	323	*e*PKP1	PKPdf	21 38 08.4	+0.4
LPL	La Plagne	120.42	323	*e*PKP1	PKPdf	21 38 09.0	+1.0
PGF	Pioggiola	120.45	319	*e*PKP1	PKPdf	21 38 08.7	+0.5
	comp=Z,71nm,1.2s						
MBDF	Montbardon	120.80	322	*e*PKP1	PKPdf	21 38 09.7	+0.8
	comp=Z,8.9nm,0.9s						
ORIF	Oris-en-Rattie	121.25	323	*e*PKP1	PKPdf	21 38 10.2	+0.5
	comp=Z,13nm,0.9s						
ORIF				*e*R			
	comp=Z,736nm,19.5s						
SSF	Saint Saulge	121.45	326	*e*PKP1	PKPdf	21 38 10.8	+0.7
SMF	Signal de Mont	121.50	325	*e*PKP1	PKPdf	21 38 10.3	+0.1
AVF	Avril sur Loir	121.69	326	*e*PKP1	PKPdf	21 38 11.0	+0.5
VIVF	Saint-Julien-l	122.01	323	*e*PKP1	PKPdf	21 38 11.4	+0.2
BGF	Bois d’Agland	122.11	326	*e*PKP1	PKPdf	21 38 11.5	+0.2
TCF	Toulx Ste Croi	122.63	326	*e*PKP1	PKPdf	21 38 13.8	+1.6
	comp=Z,5.7nm,0.8s						
DBIC	Dimbokro	143.90	278	PKP	PKPdf	21 38 48.8	-4.0
	comp=Z,15nm,0.9s,baz=86,slow=1.7,SNR=14						
DBIC	Dimbokro	143.90	278	PKIKP	PKPdf	21 38 48.8	-4.0
DBIC				pmax	pmax		
	comp=Z,15nm,0.9s						
ARE	Arequipa	144.28	123	*e*P	PKPbc	21 38 51.0	+1.2
MOCB	Mochara	146.05	136	*e*PKPdf	PKPdf	21 38 55.5	-0.8
LPAZ	La Paz	147.13	126	PKPbc	PKPdf	21 38 59.4	+1.2
	comp=Z,4.6nm,0.7s,baz=247,slow=3.2,SNR=20						
LPAZ	La Paz	147.13	126	PKP2	PKPab	21 38 59.4	-1.8
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LPAZ	La Paz	147.13	126	*e*PKPbc	PKPdf	21 38 59.3	+1.0
LPAZ				LR	LR		
	comp=Z,181nm,20.0s,MS4.9						
SDV	Santo Domingo	149.75	77	*e*PKPbc	PKPdf	21 39 04.7	+2.1
SDV				*e*PKPab	PKPab	21 39 11.6	-0.3
SJG	San Juan	150.84	56	*e*PKPbc	PKPdf	21 39 07.2	+3.2

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*NEIC **12** 22:21:37.1, 38.20N×20.21E, h14km, MD3.7(PDG), ML3.9(ATH), After ATH.*
*IDC **12** 22:21:38.0±1.7, 38.62N×20.45E, mb3.8/4, mb1 3.9/8, mb1mx3.7/23, ML3.7/4, Error ellipse: s-maj=31.7km s-min=17.9km az=45.0*
*CSEM **12** 22:21:40.0±0.1, 38.31N×20.33E, h10km, ML3.9, Error ellipse: s-maj=2.4km s-min=1.3km az=17.0*
*THE **12** 22:21:41.3, 38.44N×20.34E, h3km, ML3.8*
*PDG **12** 22:21:42.6±0.1, 38.60N×19.51E, h11km±1km*
ATH 12 22:21:36.9, 38.19N×20.20E, h13km±2km**, MD3.8**/15**, ML3.9, 16C-5D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VLS	Valsamata	0.31	92	⇑*i*PB	Pb	22 21 44.1	+0.4
VLS				*e*SB	Sb	22 21 47.8	-0.5
LKD	Levkas	0.63	34	*e*Pg	Pg	22 21 48.0	-1.6
RLS	Riolos of Patr	1.01	97	⇓*i*PG	Pg	22 21 55.7	-1.5
IGT	Igoumenitsa	1.34	4	*e*Pg	Pg	22 22 01.9	-2.0
IGT				*e*Sg	Sg	22 22 17.4	-4.4
EVR	Evrytania	1.46	60	*e*PN	Pn	22 22 02.5	-0.5
EVR				*e*SB	Sb	22 22 24.7	+3.1
JAN	Janina	1.55	19	⇓*i*PB	Pb	22 22 06.4	+1.4
JAN				*e*SB	Sb	22 22 26.8	+2.4
KEK	Kerkira	1.55	348	*e*PG	Pg	22 22 05.6	-2.4
SRN	Sarande	1.69	355	*i* Pn	Pn	22 22 07.7	+1.2
ITM	Ithomi	1.70	126	*e*PG	Pg	22 22 09.6	-1.3
AGG	Agios Georgios	1.86	63	*e*Pb	Pb	22 22 10.7	+0.3
AGG				*e*Sb	Sb	22 22 33.4	-0.1
LKR	Lokris	2.25	77	*e*PN	Pn	22 22 15.8	+1.4
MGER	Gerania Oros	2.42	94	*e*PN	Pn	22 22 18.5	+1.6
KZN	Kozani	2.44	29	*e*PN	Pn	22 22 19.1	+2.0
NSAL	Nisos Salamina	2.59	95	*e*PB	Pb	22 22 20.0	-2.8
LIT	Litokhoron	2.61	42	*e*Pn	Pn	22 22 20.5	+1.0
LIT				*e*Sn	Sn	22 22 51.0	-0.4
NEO	Neokhori	2.61	64	*e*PB	Pb	22 22 20.6	-2.6
NAIG	Nisos Aigina	2.63	98	*e*PN	Pn	22 22 21.5	+1.6
LCI	Lecce	2.69	324	*e*Pn	Pn	22 22 22.1	+1.5
LCI	Lecce	2.69	324	*e*Pn	Pn	22 22 22.1	+1.4
FNA	Florina	2.75	19	*e*Pn	Pn	22 22 22.4	+0.9
ATH	Athens Observa	2.78	93	*e*PN	Pn	22 22 23.0	+1.0
MPAR	Parnis Oros	2.79	90	*e*PN	Pn	22 22 23.0	+0.9
TIP	Timpagrande	2.87	291	*e*Pn	Pn	22 22 26.1	+2.8
TIP	Timpagrande	2.87	291	*e*Pn	Pn	22 22 26.0	+2.7
PTL	Penteli	2.89	92	*e*PN	Pn	22 22 24.5	+0.9
OHR	Ohrid	2.95	9	*e*Pn	Pn	22 22 26.3	+1.8
BIA	Bitola	2.96	17	*i* Pn	Pn	22 22 26.7	+2.2
BIA				*i*		22 22 31.9	
BIA				*i*		22 22 37.5	
BIA				*i* Sn	Sn	22 22 58.2	-2.0
BIA				*i*		22 23 02.1	
BIA				*i*		22 23 08.3	
BIA	Bitola	2.96	17	*i* Pn	Pn	22 22 26.7	+2.2
BIA				*i* Sn	Sn	22 22 58.2	-2.0
KYTH	Kithira	2.96	129	*e*PB	Pb	22 22 28.0	-1.1
GRI	Girifalco	3.03	283	*e*Pn	Pn	22 22 28.8	+3.2
GRI				*e*Sn	Sn	22 23 02.2	+0.1
GRI	Girifalco	3.03	283	*e*Sn	Sn	22 23 02.2	+0.1
GRI	Girifalco	3.03	283	*e*Pn	Pn	22 22 28.8	+3.2
AOS	Alonnisos	3.04	70	*e*Pn	Pn	22 22 27.2	+1.5
AOS	Alonnisos	3.04	70	P	Pn	22 22 27.2	+1.5
TIR	Tirane	3.16	355	*i* Pn	Pn	22 22 29.0	+1.5
PAIG	Paliouri	3.22	56	*e*Pn	Pn	22 22 28.6	+0.4
GRG	Griva	3.25	31	*e*Pn	Pn	22 22 28.7	+0.1
GRG				*e*Sn	Sn	22 23 05.5	-2.0
GRG	Griva	3.25	31	*e*Pn	Pn	22 22 28.7	+0.1
GRG				*e*Sn	Sn	22 23 05.4	-2.1
PLG	Polygyros	3.33	48	*e*PN	Pn	22 22 30.8	+1.0
QSH	Qafa e Shtames	3.33	356	*i* Pn	Pn	22 22 32.2	+2.3
QSH				*i* Sn	Sn	22 23 08.2	-1.5
ORI	Oriolo Calabro	3.46	304	*e*Pn	Pn	22 22 34.3	+2.6
SCLL	Scilla	3.53	272	*e*Pn	Pn	22 22 35.2	+2.5
SCLL	Scilla	3.53	272	*e*Pn	Pn	22 22 35.2	+2.5
LTRZ	Laterza	3.56	314	*e*Pn	Pn	22 22 34.8	+1.8
LTRZ				*e*Sn	Sn	22 23 14.0	-1.4
LTRZ	Laterza	3.56	314	*e*Sn	Sn	22 23 14.0	-1.4
LTRZ	Laterza	3.56	314	*e*Pn	Pn	22 22 34.8	+1.7
SOH	Sokhos	3.59	42	*e*Pn	Pn	22 22 34.0	+0.6
KNT	Kendrikon	3.62	34	*e*Pn	Pn	22 22 34.1	+0.1
OUR	Ouranopolis	3.63	53	*e*Pn	Pn	22 22 34.9	+0.8
ULC	Ulcinj	3.84	349	⇑*i*Pn	Pn	22 22 36.3	-0.7
ULC				*e*Sn	Sn	22 23 17.3	-5.2
PUK	Puka	3.85	357	*i* Pn	Pn	22 22 36.9	-0.4
PUK				*i* Sn	Sn	22 23 20.6	-2.3
PUK	Puka	3.85	357	*i* Sn	Sn	22 23 20.6	-2.3
SKO	Skopje	3.90	14	*e*Pn	Pn	22 22 37.5	-0.3
SRS	Serrai	3.92	41	*e*Pn	Pn	22 22 38.1	-0.1
MGR	Morigerati	4.10	300	*e*Pn	Pn	22 22 43.1	+2.3
MGR	Morigerati	4.10	300	*e*Pn	Pn	22 22 43.1	+2.3
SLCN	Sala Consilina	4.17	303	*e*Pn	Pn	22 22 44.8	+3.1
SLCN	Sala Consilina	4.17	303	*e*Pn	Pn	22 22 44.8	+3.1
BUM	Brajici-Budva	4.22	347	⇑*i*Pn	Pn	22 22 41.4	-1.2
BUM				*e*Sn	Sn	22 23 26.3	-6.0
BUM	Brajici-Budva	4.22	347	*e*Sn	Sn	22 23 26.3	-6.0
TTG	Podgorica	4.29	351	⇑*i*Pn	Pn	22 22 42.7	-0.9
TTG				*e*Sn	Sn	22 23 28.7	-5.4
PVY	Plav	4.40	358	⇑*i*Pn	Pn	22 22 45.4	+0.3
PVY				*e*Sn	Sn	22 23 33.0	-3.8
HCY	Herceg Novi	4.45	344	⇑*i*Pn	Pn	22 22 43.6	-2.1
HCY				*e*Sn	Sn	22 23 30.8	-7.1
MRLC	Muro Lucano	4.46	307	*e*Pn	Pn	22 22 47.7	+1.9
MRLC	Muro Lucano	4.46	307	*e*Pn	Pn	22 22 47.7	+1.9
SGO	Sicignano	4.47	304	*e*Pn	Pn	22 22 48.8	+2.8
SGO	Sicignano	4.47	304	*e*Pn	Pn	22 22 48.8	+2.8
VAE	Valguarnera	4.64	263	Pn	Pn	22 22 53.4	+5.1
	2.1nm,0.3s,baz=30,slow=7.7,SNR=10.0						
VAE				Sn	Sn	22 23 46.6	+3.9
	1.3nm,0.3s,baz=118,slow=21,SNR=2.5						
VAE	Valguarnera	4.64	263	Pn	Pn	22 22 53.5	+5.1
VAE				Sn	Sn	22 23 46.6	+3.9
IVA	Berane	4.68	357	⇓*i*Pn	Pn	22 22 48.7	-0.4
IVA				*e*Sn	Sn	22 23 39.4	-4.5
NKY	Niksic	4.71	349	⇑*i*Pn	Pn	22 22 48.7	-0.7
NKY				*e*Sn	Sn	22 23 38.2	-6.3
IDI	Anoyia	4.75	126	Pn	Pn	22 22 52.2	+2.2
	0.5nm,0.3s,baz=21,slow=21,SNR=11						
IDI				Sn	Sn	22 23 47.0	+1.5
	1.8nm,0.3s,baz=164,slow=23,SNR=9.9						
FGMS	Monte Sant’Ang	4.79	318	*e*Pn	Pn	22 22 52.0	+1.3
FGMS	Monte Sant’Ang	4.79	318	*e*Pn	Pn	22 22 52.0	+1.4
BRY	Bratogost	4.87	346	⇑*i*Pn	Pn	22 22 50.3	-1.4
BRY				*e*Sn	Sn	22 23 41.3	-7.3
FG5	Orsara di Pugl	4.90	311	*e*Pn	Pn	22 22 54.8	+2.7
FG5	Orsara di Pugl	4.90	311	*e*Pn	Pn	22 22 54.8	+2.7
RGNG	Rignano Grg	4.97	316	*e*Pn	Pn	22 22 54.1	+1.0
RGNG				*e*Sn	Sn	22 23 48.9	-2.1
RGNG	Rignano Grg	4.97	316	*e*Pn	Pn	22 22 54.1	+1.0
RGNG				*e*Sn	Sn	22 23 48.9	-2.1
STON	Ston	5.05	339	*i* Pn	Pn	22 22 52.5	-1.7
STON				*i* Sn	Sn	22 23 47.2	-5.9
STON	Ston	5.05	339	*i* Pn	Pn	22 22 52.5	-1.7
STON				*i* Sn	Sn	22 23 47.1	-6.0
UPM	Unac-Piva	5.10	349	⇑*i*Pn	Pn	22 22 53.8	-1.2
UPM				*e*Sn	Sn	22 23 48.0	-6.5
PLE	Pljevlja	5.17	353	⇑*i*Pn	Pn	22 22 55.4	-0.6
PLE				*e*Sn	Sn	22 23 50.4	-5.7
CII	Carovilli	5.74	310	*e*Pn	Pn	22 23 05.0	+1.0
	9.1nm,0.3s						
CII	Carovilli	5.74	310	*e*Pn	Pn	22 23 05.0	+1.0
	9.1nm,0.3s						
SNTG	Esanatoglia	7.48	315	*e*Pn	Pn	22 23 29.0	+0.6
SNTG	Esanatoglia	7.48	315	*e*Pn	Pn	22 23 29.0	+0.6
NVLJ	Novalja	7.52	330	*i* Pn	Pn	22 23 27.6	-1.4
NVLJ				*i* Sn	Sn	22 24 49.0	-6.0
ARV	Arcevia	7.64	316	*e*Pn	Pn	22 23 30.7	0.0
ARV	Arcevia	7.64	316	*e*Pn	Pn	22 23 30.7	0.0
VOY	Vojsko	9.13	331	*e*Pn	P	22 23 49.3	-2.0
VOY				*e*Sn	Sn	22 25 27.3	-7.6
OBKA	Obir	9.30	335	⇑*i*PN	P	22 23 51.8	-2.0
OBKA				*i* SN	Sn	22 25 29.7	-10
ARSA	Arzberg	9.69	341	⇑*i*PN	P	22 23 56.1	-2.9
ARSA				*i* SN	Sn	22 25 37.6	-11
FVI	Forni Avoltri	10.03	329	*e*Pn	P	22 24 02.4	-1.3
FVI	Forni Avoltri	10.03	329	*e*Pn	P	22 24 02.4	-1.3
CTI	Castel Tesino	10.09	324	*e*Pn	P	22 24 02.2	-2.3
CTI	Castel Tesino	10.09	324	*e*Pn	P	22 24 02.2	-2.4
KBA	Koelnbreinsper	10.21	333	⇓*i*PN	P	22 24 04.2	-2.0
KBA				*i* SN	S	22 25 52.5	-9.1
MOA	Molln	10.58	338	⇑*i*PN	P	22 24 08.8	-2.5
MOA				*i* SN	S	22 26 00.8	-10
WTTA	Wattenberg	11.03	328	⇑*i*PN	P	22 24 16.6	-0.9
WTTA				*i* SN	S	22 26 14.1	-7.6
WATA	Walderalm	11.12	328	⇑*i*PN	P	22 24 17.4	-1.2
WATA				*i* SN	S	22 26 15.9	-7.8
SQTA	Sankt Quirin	11.18	327	⇓*i*PN	P	22 24 19.3	-0.2
SQTA				*i* SN	S	22 26 17.4	-7.9
MOTA	Moosalm	11.32	327	*i* SN	S	22 26 22.5	-6.3
MOTA	Moosalm	11.32	327	⇑*i*Pn	P	22 24 21.3	-0.1
MOTA				*i* Sn	S	22 26 22.5	-6.3
DAVOX	Davos	11.47	322	Pn	P	22 24 21.6	-1.8
	0.2nm,0.3s,baz=150,slow=20,SNR=3.3						
DAVOX				Sn	S	22 26 26.1	-6.3
	0.5nm,0.3s,baz=299,slow=18,SNR=4.4						
GERES	GERESS Array B	11.64	338	Pn	P	22 24 22.1	-3.6
	0.6nm,0.3s,baz=158,slow=14,SNR=24						
GERES				Sn	S	22 26 25.7	-11
	0.2nm,0.3s,baz=149,slow=25,SNR=4.2						
KHC	Kasperske Hory	11.94	339	*e*P	P	22 24 20.5	-9.2
KHC				*e*		22 24 26.5	
KHC	Kasperske Hory	11.94	339	*e*P	P	22 24 20.5	-9.2
KHC				x	x	22 24 26.5	
HFS	Hagfors	22.35	351	P	P	22 26 34.1	-1.6
	4.8nm,0.8s,baz=180,slow=10,SNR=6.3						
NB2	NORSAR Subarra	23.56	349	P	P	22 26 47.9	+0.4
	1.6nm,1.0s,baz=160,slow=11						
FINES	FINESS Array B	23.57	7	P	P	22 26 45.7	-1.8
	2.4nm,0.9s,baz=180,slow=9.5,SNR=6.7						
FINES	FINESS Array B	23.57	7	P	P	22 26 45.7	-1.8
ZAL	Zalesovo	45.86	48	P	P	22 29 58.2	-2.0
	0.9nm,0.3s,baz=203,slow=7.7,SNR=4.9						
SONM	Songino Array	60.65	50	P	P	22 31 47.5	-2.2
	0.7nm,1.0s,baz=344,slow=9.0,SNR=4.2						

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*IDC **12** 22:25:52.5±8.0, 26.71S×179.68E, h444km±87km, mb3.5/5, mb1 3.6/7, mb1mx3.4/16, Error ellipse: s-maj=65.1km s-min=25.3km az=21.0*
*NEIC **12** 22:25:54.2±1.2, 26.83S×179.70E, h472km±18km, mb4.1/3, Error ellipse: s-maj=18.9km s-min=11.8km az=131.0*
ISC 12 22:25:52.4±1.0**, 26.8S**±0.1×**179.6E**±0.2**, h450**km**, n14, σ0^{s}62**/11**, mb3.9**/6**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	11.64	190	P	**P**	**22 28 28.6**	**-0.5**
	2.6nm,0.3s,baz=10,slow=3.7,SNR=8.9						
AFI	Afiamalu	15.15	34	P	**P**	**22 29 06.3**	**+0.1**
	8.3nm,0.5s						
RPZ	Rata Peaks	18.26	200	P	**P**	**22 29 37.9**	**+0.6**
	2.1nm,0.3s,baz=2.1,slow=9.7,SNR=11						
CTA	Charters Tower	31.21	275	P	**P**	**22 31 35.5**	**+0.8**
	2.3nm,0.4s,mb4.0,baz=92,slow=11,SNR=7.3						
CTAO	Charters Tower	31.21	275	*e*P	**P**	**22 31 35.6**	**+0.9**
	2.4nm,0.5s,mb3.9						
STKA	Stephens Creek	33.37	252	P	**P**	**22 31 53.5**	**+0.5**
	1.1nm,0.4s,mb3.6,baz=106,slow=12,SNR=8.8						
STKA	Stephens Creek	33.37	252	*e*P	**P**	**22 31 53.6**	**+0.7**
ASAR	Alice Springs	41.25	264	P	**P**	**22 32 58.3**	**+0.3**
	2.9nm,0.4s,mb4.0,baz=98,slow=7.1,SNR=39						
WRAB	Tennant Creek	41.89	269	*e*P	**P**	**22 33 02.4**	**-0.8**
	4.9nm,0.7s,mb4.0						
WRA	Warramunga Arr	41.89	269	P	**P**	**22 33 02.2**	**-1.0**
	2.4nm,0.4s,mb4.0,baz=106,slow=7.8,SNR=23						
FITZ	Fitzroy Crossi	50.27	268	P	**P**	**22 34 07.9**	**0.0**
	3.0nm,0.6s,mb3.8,baz=189,slow=15,SNR=3.1						
HFS	Hagfors	145.26	348	PKPbc	PKPbc	22 44 37.9	+0.1
	0.9nm,0.3s,baz=63,slow=3.3,SNR=14						
AKASG	Malin Array Be	147.11	325	PKPbc	PKPdf	22 44 43.9	+3.7
	0.7nm,0.5s,baz=41,slow=3.8,SNR=6.4						
EKA	Eskdalemuir Ar	151.39	3	PKPbc	PKPdf	22 44 53.9	+7.1
	0.6nm,0.7s,baz=341,slow=1.3,SNR=3.7						

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*INMG **12** 22:29:20.5±0.5, 36.54N×11.23W, h31km, ML2.0, Error ellipse: s-maj=4.8km s-min=3.1km az=90.0*
MDD 12 22:29:19.7±2.7**, 36.67N×10.99W, mbLg2.2**/3**, Error ellipse: s-maj=23.9km s-min=18.6km az=85.0, PRXIMO, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	Sao Teotonio	2.01	64	*e*Pn	Pn	22 29 53.9	-1.3
PTEO				*e*Sn	Sn	22 30 19.1	-2.3
	4.8nm,0.3s						
PTEO	Sao Teotonio	2.01	64	Pn	Pn	22 29 53.9	-1.3
PTEO				Sn	Sn	22 30 19.1	-2.3
	2.4nm,0.3s						
PLOU	Loures	2.64	33	*e*Pn	Pn	22 30 02.5	-1.8
PLOU				*e*Sn	Sn	22 30 33.7	-3.9
	20nm,0.5s						
PLOU	Loures	2.64	33	Pn	Pn	22 30 02.5	-1.8
PLOU				Sn	Sn	22 30 33.7	-3.9
	10nm,0.5s						
MOE	Montemor	2.79	48	*e*Sn	Sn	22 30 37.8	-3.5
EMIN	Mina Concepcio	3.61	71	P	Pn	22 30 15.4	-2.7
	1.5nm,0.2s,SNR=18						
EMIN				S	Sn	22 30 57.2	-4.8
	1.2nm,0.3s,SNR=7.9						
EBAD	Badajoz	3.77	55	P	Pn	22 30 18.2	-2.2
	0.4nm,0.1s,SNR=7.9						
EBAD				S	Sn	22 30 59.9	-6.3
	1.7nm,0.2s,SNR=7.9						
ESPR	Espera	4.12	86	P	Pn	22 30 22.1	-3.2
	1.2nm,0.1s,SNR=7.9						
PCBR	Castelo Branco	4.20	40	*e*Pn	Pn	22 30 23.8	-2.6
PCBR				*e*Sn	Sn	22 31 10.9	-6.0
	1.3nm,0.3s						
PCBR	Castelo Branco	4.20	40	Pn	Pn	22 30 23.8	-2.6
PCBR				Sn	Sn	22 31 10.9	-6.0
	0.6nm,0.3s						
PVIS	Viseu	4.71	30	*e*Sn	Sn	22 31 23.4	-6.4
	2.3nm,0.1s						
PVIS	Viseu	4.71	30	Sn	Sn	22 31 23.4	-6.4
	1.1nm,0.1s						
EADA	Adamuz	5.31	72	P	Pn	22 30 39.0	-3.3
	0.4nm,0.1s,SNR=11						
EADA				S	Sn	22 31 37.4	-7.6
	0.5nm,0.1s,SNR=7.9						
PBRG	Braganca	6.09	31	*e*Sn	Sn	22 31 55.8	-8.8
	1.1nm,0.3s						
PBRG	Braganca	6.09	31	Sn	Sn	22 31 55.8	-8.8
	0.6nm,0.3s						
ECAL	Calabor	6.21	31	S	Sn	22 31 58.2	-9.3
	0.9nm,0.2s,SNR=7.9						
ESDC	Sonseca Array	6.29	59	P	Pn	22 30 51.9	-4.1
	0.8nm,0.1s,baz=245,slow=13,SNR=7.9						
EQES	Quesada	6.41	77	S	Sn	22 32 04.3	-8.3
	0.5nm,0.3s,SNR=7.9						

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*NIED **12** 22:44:00, 31.80N×129.20E, h5km, Mw4.1 Best double couple: M$_0$1.75×10^{15} NP1:φ$_s$226°, δ78°, λ-121°. NP2: φ$_s$118°, δ33°, λ-21°.*
JMA 12 22:44:05.9±0.1**, 31.76N×129.16E, h14**km±1km**, M4.2, 1C-4D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	Shimokoshiki	0.48	100	⇓P	Pb	22 44 15.3	-0.3
JSJ				S	Sb	22 44 21.8	-0.4
JFU	Fukue jima 2	0.96	339	⇑P	Pb	22 44 24.1	+0.3
JFU				*e*S	Sb	22 44 37.0	+0.9
NGSJ	Nagasakinomoza	1.02	32	P	Pb	22 44 25.0	+0.1
NGSJ				*e*S	Sb	22 44 38.9	+0.9
JSU	Suzuyama	1.13	103	⇓P	Pb	22 44 26.9	+0.1
JSU				*e*S	Sb	22 44 42.0	+0.9
JZO	Okuchi	1.28	72	P	Pb	22 44 28.8	-0.5
JZO				*e*S	Sb	22 44 46.6	+1.2
JIU2	Izumi 2	1.61	60	⇓P	Pn	22 44 33.6	-0.5
JTZ	Takazaki	1.65	85	⇓P	Pn	22 44 34.2	-0.5
JTN	Tanegashima 3	1.91	125	P	Pn	22 44 38.0	-0.4

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*NIED **12** 22:53:00, 31.70N×129.10E, h8km, Mw4.8 Best double couple: M$_0$1.69×10^{16} NP1:φ$_s$190°, δ84°, λ-171°. NP2: φ$_s$99°, δ81°, λ-6°.*
*MOS **12** 22:53:37.5±1.2, 31.79N×129.10E, h10km, mb4.7/6, MS4.6/4, Error ellipse: s-maj=13.1km s-min=8.7km az=88.1*
*IDC **12** 22:53:38.3±0.6, 31.96N×129.05E, mb3.8/15, mb1 4.0/17, mb1mx4.0/25, ML3.5/2, MS4.1/16, Ms1 4.2/16, ms1mx4.0/27, Error ellipse: s-maj=22.3km s-min=13.9km az=74.0*
*NEIC **12** 22:53:39.9±0.4, 31.90N×129.03E, h10km, mb4.4/10, Error ellipse: s-maj=10.2km s-min=7.8km az=71.0*
NEIC Recorded [3 JMA] in Kagoshima and [1 JMA] in Kumamoto and Nagasaki Prefectures.
*JMA **12** 22:53:39.0±0.1, 31.76N×129.19E, h16km±1km, M4.9*
JMA Felt III J1.
*BJI **12** 22:53:40.3, 31.83N×129.05E, h14km, mB4.8, mb4.4, Ms4.8, Msz4.4*
ISC 12 22:53:37.4±1.0**, 31.75N**±0.03×**129.12E**±0.03**, h9**km±6km**, n84, σ1^{s}22**/88**, mb4.1**/29**, MS4.3**/17**, 3C-5D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	Shimokoshiki	0.52	97	⇑P	**Pg**	**22 53 48.1**	**+0.3**
JSJ				S	**Sg**	**22 53 54.0**	**-0.8**
JFU	Fukue jima 2	0.96	341	P	**Pb**	**22 53 56.8**	**+1.1**
JFU				S	**Sb**	**22 54 10.0**	**+1.7**
NGSJ	Nagasakinomoza	1.06	33	⇓P	**Pb**	**22 53 58.2**	**+0.8**
NGSJ				S	**Sb**	**22 54 12.0**	**+0.8**
JHD	Hondo	1.12	50	⇓P	**Pb**	**22 53 58.7**	**+0.1**
JHD				S	**Sb**	**22 54 13.9**	**+0.8**
JSU	Suzuyama	1.17	101	⇓P	**Pb**	**22 53 59.5**	**+0.2**
JSU				S	**Sb**	**22 54 14.8**	**+0.5**
JZO	Okuchi	1.32	72	⇓P	**Pb**	**22 54 01.5**	**-0.4**
JZO				S	**Sb**	**22 54 19.1**	**+0.3**
JTZ	Takazaki	1.69	84	⇓P	**Pn**	**22 54 06.8**	**-0.5**
JTN	Tanegashima 3	1.93	124	P	**Pn**	**22 54 10.3**	**-0.5**
JOW	Kunigami	4.95	189	Pn	**Pn**	**22 54 57.6**	**+3.9**
	2.0nm,0.3s,baz=12,slow=14,SNR=3.1						
JOW				LR	LR	22 56 45.4	
	comp=Z,1µm,22.0s,baz=120,slow=36						
KS15	Wonju Array Si	5.77	350	*e*Pn	**Pn**	**22 55 04.3**	**-1.1**
INCN	Inchon	6.08	341	P	**Pn**	**22 55 07.6**	**-2.1**
MAJO	Matsushiro	8.92	55	*e*Pn	**P**	**22 55 47.9**	**-1.6**
	30nm,1.0s						
MAT	Matsushiro	8.92	55	P	**P**	**22 55 49.8**	**+0.3**
MAT				*e*S	**Sn**	**22 57 31.2**	**0.0**
MAT	Matsushiro	8.92	55	*e*P	**P**	**22 55 50.0**	**+0.5**
	15nm,1.0s						
MAT				S	**Sn**	**22 57 31.0**	**-0.2**
JHJ	Hachijo jima 2	9.12	79	LR	LR	22 59 02.9	
	comp=Z,637nm,21.8s,baz=254,slow=35						
TIA	Tai’an	10.90	297	*e*P	**P**	**22 56 20.0**	**+3.3**
TIA				LR	LR		
	comp=E,2µm,8.8s						
TIA				LR	LR		
	comp=N,4µm,17.0s						
TIA				LR	LR		
	comp=E,3µm,15.0s						
CBIJ	Chichi jima	12.30	109	LR	LR	23 01 18.1	
	comp=E,562nm,19.1s,baz=359,slow=37						
BJT	Baijiatuau	13.34	312	P	**P**	**22 56 47.8**	**-1.8**
	comp=E,13nm,1.0s						
BJI	Beijing	13.35	312	P	**P**	**22 56 51.7**	**+2.1**
BJI				AMB	AMB		
	comp=Z,17nm,1.4s						
BJI				LR	LR		
	comp=N,2µm,13.7s						
BJI				LR	LR		
	comp=E,1µm,18.7s						
BJI				LR	LR		
	comp=Z,1µm,17.6s						
ASAJ	Asahikawa	16.27	37	Pn	**P**	**22 57 27.9**	**+0.2**
	comp=Z,0.6nm,0.3s,baz=273,slow=22,SNR=5.0						
ASAJ				LR	LR	23 03 00.5	
	comp=Z,685nm,21.1s,baz=74,slow=35						
ASAJ	Asahikawa	16.27	37	P	**P**	**22 57 27.9**	**+0.2**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,685nm,21.2s						
HHC	Hu-ho-hao-te	16.79	308	*e*P	**P**	**22 57 39.5**	**+5.2**
HHC				AP		22 57 46.0	
HHC				XP		22 57 50.4	
HHC				PP	PP	22 57 53.2	+4.8
HHC				S	**S**	**23 00 48.5**	**+8.4**
HHC				XS		23 00 52.4	
HHC				AMB	AMB		
	comp=Z,20nm,1.5s						
HHC				AMB	AMB		
	comp=Z,282nm,4.9s						
HHC				LR	LR		
	comp=N,2µm,12.4s						
HHC				LR	LR		
	comp=E,2µm,13.7s						
HHC				LR	LR		
	comp=Z,1µm,14.6s						
ENH	Enshi	16.89	270	*e*P	**P**	**22 57 39.6**	**+3.9**
	comp=Z,36nm,1.5s						
KLR	Kul’dur	17.58	6	*e*P	**P**	**22 57 43.8**	**-0.3**
KLR				MLR	MLR		
	comp=Z,3µm,13.0s						
BTO	Baotou	17.75	305	*e*P	**P**	**22 57 46.3**	**+0.1**
BTO				LR	LR		
	comp=N,406nm,4.5s						
BTO				LR	LR		
	comp=E,519nm,5.7s						
YSS	Yuzh-Sakhalins	18.45	31	*e*P	**P**	**22 57 55.0**	**0.0**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s						
YSS				MLR	MLR		
	comp=Z,1µm,13.0s						
HIA	Hailar	18.87	341	*e*P	**P**	**22 57 59.0**	**-1.1**
HIA				pmax	pmax		
	comp=Z,30nm,1.4s						
HIA	Hailar	18.87	341	*e*P	**P**	**22 57 59.0**	**-1.1**
	comp=Z,30nm,1.4s						
GYA	Guiyang	20.30	261	⇑*i*P	**P**	**22 58 18.5**	**+2.2**
GYA				S	**S**	**23 02 09.8**	**+11**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
GYA				LR	LR		
	comp=N,3µm,16.4s,MS4.8						
GYA				LR	LR		
	comp=E,930nm,13.5s,MS4.8						
GYA				LR	LR		
	comp=Z,690nm,13.8s,MS4.2						
LZH	Lanzhou	21.39	289	*e*P	**P**	**22 58 28.1**	**+0.6**
LZH				AP		22 58 35.5	
LZH				XP		22 58 38.5	
LZH				PP	PP	22 58 54.3	+2.9
LZH				*e*S	**S**	**23 02 27.1**	**+7.1**
LZH				AMB	AMB		
	comp=Z,30nm,1.7s,mb4.3						
LZH				AMB	AMB		
	comp=Z,115nm,4.1s						

LZH				LR	LR		
	comp=N,1µm,12.3s						
LZH				LR	LR		
	comp=Z,2µm,13.1s,MS4.6						
CD2	**Chengdu**	**21.67**	**274**	⇑*i*P	**P**	**22 58 34.8**	**+4.5**
CD2				PP	PP	22 58 56.3	+1.3
CD2				PPP	PPP	22 59 10.7	+6.0
CD2				S	**S**	**23 02 25.9**	**+0.7**
CD2				XS		23 02 38.7	
CD2				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.6						
CD2				AMB	AMB		
	comp=Z,140nm,4.7s						
CD2				LR	LR		
	comp=N,2µm,13.2s						
CD2				LR	LR		
	comp=Z,1µm,9.6s						
ULN	**Ulaanbaatar**	**23.25**	**320**	*e*P	**P**	**22 58 45.8**	**0.0**
ULN				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.4						
ULN	**Ulaanbaatar**	**23.25**	**320**	*e*P	**P**	**22 58 45.8**	**0.0**
	comp=Z,23nm,1.4s,mb4.4						
SONM	**Songino Array**	**23.60**	**319**	P	**P**	**22 58 49.1**	**-0.1**
	comp=Z,3.9nm,0.8s,mb3.9,baz=133,slow=3.8,SNR=25						
KMI	**Kunming**	**24.08**	**261**	*e*P	**P**	**22 58 54.8**	**+0.7**
KMI				XP		22 59 04.2	
KMI				S	**S**	**23 03 14.1**	**+5.6**
KMI				XS		23 03 24.6	
KMI				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.0						
KMI				AMB	AMB		
	comp=Z,51nm,3.1s						
KMI				LR	LR		
	comp=N,2µm,15.8s,MS4.7						
KMI				LR	LR		
	comp=E,877nm,13.6s,MS4.7						
KMI				LR	LR		
	comp=Z,623nm,10.6s,MS4.4						
GTA	**Gaotai**	**24.95**	**296**	*e*P	**P**	**22 59 03.4**	**+1.0**
GTA				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb3.9						
GTA				LR	LR		
	comp=N,2µm,19.0s						
GTA				LR	LR		
	comp=E,475nm,11.0s						
GTA				LR	LR		
	comp=Z,946nm,13.7s						
ZAK	**Zakamensk**	**26.73**	**322**	*e*P	**P**	**22 59 19.1**	**+0.3**
CMAR	**Chiang Mai Arr**	**30.24**	**251**	P	**P**	**22 59 52.8**	**+2.0**
	comp=Z,0.4nm,0.4s,mb3.5,baz=39,slow=5.8,SNR=3.7						
CMAR				LR	LR	23 13 10.4	
	comp=Z,253nm,20.0s,MS3.9,baz=70,slow=39						
SHL	**Shillong**	**33.13**	**269**	*e*	**P**	**23 00 21.5**	**+5.4**
WMQ	**Urumqi**	**34.54**	**302**	*e*P	**P**	**23 00 28.5**	**+0.4**
GUN	**Gumba**	**37.52**	**276**	*e*P	**P**	**23 00 51.9**	**-1.6**
	comp=Z,80nm,1.3s,mb5.3						
PKI	**Pulchoki**	**38.02**	**275**	*e*P	**P**	**23 00 58.6**	**+0.9**
	comp=Z,34nm,1.1s,mb5.0						
KKN	**Kakani**	**38.07**	**276**	*e*P	**P**	**23 00 55.3**	**-2.8**
DMN	**Daman**	**38.27**	**275**	*e*P	**P**	**23 00 59.5**	**-0.3**
ZAL	**Zalesovo**	**38.49**	**318**	P	**P**	**23 00 58.7**	**-2.7**
	comp=Z,0.5nm,0.4s,mb3.6,baz=184,slow=18,SNR=4.5						
ZAL				LR	LR	23 18 52.9	
	comp=Z,574nm,18.9s,MS4.4,baz=350,slow=40						
GKN	**Gorkha**	**38.55**	**276**	*e*P	**P**	**23 00 58.0**	**-4.2**
KOLN	**Koldanda**	**39.50**	**276**	*e*P	**P**	**23 01 08.3**	**-1.7**
TIXI	**Tiksi**	**39.96**	**360**	*e*P	**P**	**23 01 14.9**	**+1.5**
TIXI				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,858nm,14.0s,MS4.8						
TKM2	**Tokmak 2**	**43.34**	**301**	*e*P	**P**	**23 01 42.7**	**+1.4**
	comp=Z,6.7nm,1.2s,mb4.2						
AAK	**Ala-Archa**	**44.16**	**300**	P	**P**	**23 01 46.9**	**-1.2**
AAK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.2						
AAK	**Ala-Archa**	**44.16**	**300**	P	**P**	**23 01 46.9**	**-1.1**
	comp=Z,6.5nm,1.3s,mb4.2						
UCH	**Uchtor**	**44.18**	**300**	*e*P	**P**	**23 01 48.4**	**+0.2**
	comp=Z,6.7nm,1.1s,mb4.3						
PMG	**Port Moresby**	**44.41**	**154**	LR	LR	23 17 40.2	
	comp=Z,264nm,18.8s,MS4.2,baz=19,slow=32						
CHKZ	**Chkalovo**	**46.71**	**316**	*e*P	**P**	**23 02 06.5**	**-1.7**
CHKZ				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.6						
CHKZ	**Chkalovo**	**46.71**	**316**	*e*P	**P**	**23 02 06.5**	**-1.7**
	comp=Z,11nm,1.5s,mb4.6						
BVAR	**Borovoye Array**	**46.81**	**315**	P	**P**	**23 02 06.8**	**-2.2**
	comp=Z,0.9nm,0.5s,mb3.9,baz=101,slow=7.6,SNR=8.5						
BRVK	**Borovoye**	**46.88**	**315**	*e*P	**P**	**23 02 08.1**	**-1.4**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
BRVK	**Borovoye**	**46.88**	**315**	*e*P	**P**	**23 02 08.1**	**-1.4**
	comp=Z,2.1nm,0.6s,mb4.2						
WRA	**Warramunga Arr**	**51.63**	**174**	P	**P**	**23 02 46.5**	**-0.1**
	comp=Z,2.1nm,1.2s,mb3.9,baz=352,slow=8.0,SNR=3.8						
ARU	**Arti**	**53.63**	**319**	*e*P	**P**	**23 02 59.7**	**-1.4**
ARU				*e*		23 04 55.9	
ARU				*e*S	**S**	**23 10 31.0**	**-2.1**
ARU				*e*SS	SS	23 14 18.6	+5.5
ARU				MLR	MLR		
	comp=Z,700nm,17.0s,MS4.8						
ARU				MLR	MLR		
	comp=N,80nm,16.0s,MS4.7						
ARU				MLR	MLR		
	comp=E,500nm,17.0s,MS4.7						
CTA	**Charters Tower**	**54.09**	**160**	P	**P**	**23 03 06.1**	**+1.2**
	comp=E,3.9nm,0.7s,mb4.4,baz=14,slow=7.2,SNR=4.4						
CTAO	**Charters Tower**	**54.09**	**160**	*e*P	**P**	**23 03 04.5**	**-0.4**
CTAO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
CTAO	**Charters Tower**	**54.09**	**160**	*e*P	**P**	**23 03 04.5**	**-0.4**
	comp=Z,5.7nm,0.9s,mb4.5						
ASAR	**Alice Springs**	**55.29**	**175**	P	**P**	**23 03 13.9**	**+0.3**
	comp=Z,0.7nm,0.9s,mb3.7,baz=7.7,slow=8.3,SNR=7.8						
ASAR				LR	LR	23 28 06.5	
	comp=Z,42nm,19.2s,MS3.5,baz=79,slow=37						
IMA	**Indian Mountai**	**56.29**	**29**	P	**P**	**23 03 20.5**	**+0.2**
IMA				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
IMA	**Indian Mountai**	**56.29**	**29**	P	**P**	**23 03 20.5**	**+0.3**
	comp=Z,26nm,1.0s,mb5.2						
ILAR	**Eielson Array**	**59.25**	**30**	P	**P**	**23 03 39.9**	**-1.3**
	comp=Z,0.4nm,0.6s,mb3.6,baz=279,slow=6.7,SNR=3.0						
ILAR				LR	LR	23 27 24.0	
	comp=Z,129nm,19.7s,MS4.1,baz=69,slow=34						
STKA	**Stephens Creek**	**64.37**	**168**	P	**P**	**23 04 19.1**	**+3.1**
	comp=Z,2.5nm,0.7s,mb4.4,baz=335,slow=4.6,SNR=7.1						
ARCES	**ARCESS Array B**	**65.19**	**338**	LR	LR	23 35 48.2	
	comp=Z,327nm,21.3s,MS4.5,baz=32,slow=39						
GNI	**Garni**	**66.40**	**304**	LR	LR	23 37 33.4	
	comp=Z,169nm,18.7s,MS4.3,baz=323,slow=40						
FINES	**FINESS Array B**	**68.48**	**330**	P	**P**	**23 04 40.0**	**-1.7**
	comp=Z,2.7nm,1.0s,mb4.2,baz=104,slow=7.9,SNR=5.8						
FINES				LR	LR	23 37 37.1	
	comp=Z,223nm,20.0s,MS4.4,baz=204,slow=39						
DAG	**Danmarks Havn**	**69.91**	**352**	*e*P	**P**	**23 04 55.0**	**+4.8**
DAG	**Danmarks Havn**	**69.91**	**352**	*i* P	**P**	**23 04 55.0**	**+4.8**
AKASG	**Malin Array Be**	**71.88**	**319**	P	**P**	**23 05 01.6**	**-0.9**
	comp=Z,0.1nm,0.3s,mb3.2,baz=56,slow=5.4,SNR=3.4						
YKA	**Yellowknife Ar**	**73.23**	**26**	P	**P**	**23 05 09.8**	**-0.3**
	comp=Z,0.1nm,0.3s,mb3.3,baz=312,slow=6.1,SNR=3.4						
BRTR	**Keskin Array B**	**74.30**	**307**	P	**P**	**23 05 17.3**	**+0.5**
	comp=Z,0.5nm,0.7s,mb3.6,baz=301,slow=39,SNR=2.9						
NB2	**NORSAR Subarra**	**74.73**	**334**	P	PcP	23 05 36.1	+2.7
	comp=Z,3.1nm,0.9s,baz=52,slow=5.6						
NOA	**NORSAR Array B**	**74.73**	**334**	LR	LR	23 42 23.2	
	comp=Z,133nm,18.0s,MS4.3,baz=110,slow=39						
ASF	**Jabal al Asfar**	**75.55**	**299**	LR	LR	23 41 12.7	
	comp=Z,129nm,19.5s,MS4.2,baz=143,slow=38						
MLR	**Muntele Rosu**	**76.37**	**315**	LR	LR	23 42 04.8	
	comp=Z,339nm,18.8s,MS4.7,baz=238,slow=38						
EIL	**Elat**	**78.23**	**298**	LR	LR	23 42 42.3	
	comp=Z,147nm,18.9s,MS4.3,baz=285,slow=38						
KHC	**Kasperske Hory**	**81.17**	**323**	*e*P	**P**	**23 06 02.2**	**+7.6**
GERES	**GERESS Array B**	**81.28**	**323**	P	**P**	**23 05 57.3**	**+2.1**
	comp=Z,0.1nm,0.3s,mb3.2,baz=241,slow=38,SNR=2.3						
NVAR	**Mina Array Bea**	**86.15**	**47**	P	**P**	**23 06 22.1**	**+2.0**
	comp=Z,0.3nm,0.6s,mb3.7,baz=270,slow=4.5,SNR=2.6						

JMA 12 22:54:27.9±0.1,31.75N×129.23E,h6^{km}±3^{km},M3.8, Kyushu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	**Shimokoshiki**	**0.42**	**100**	P	Pg	22 54 36.0	-0.4
JSJ				*e*S	Sg	22 54 41.7	-0.3
JFU	**Fukue jima 2**	**0.99**	**336**	P	Pb	22 54 46.7	-0.4
JFU				*e*S	Sb	22 55 00.0	-0.2
NGSJ	**Nagasakinomoza**	**1.00**	**29**	P	Pb	22 54 46.8	-0.5
NGSJ				*e*S	Sb	22 55 00.4	-0.2
JSU	**Suzuyama**	**1.07**	**103**	*e*S	Sb	22 55 02.1	-0.5

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*NIED **12** 22:58:00,31.80N×129.20E,h14^{km},Mw4.0 Best double couple: M$_0$1.15×10^{15} NP1:ϕ$_s$106°,δ83°,λ13°. NP2:ϕ$_s$14°, δ77°,λ173°.*

JMA 12 22:58:23.7±0.1,31.76N×129.19E,h16^{km}±1^{km},M4.1, 1C-4D,Kyushu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	**Shimokoshiki**	**0.46**	**100**	⇓P	Pb	22 58 32.6	-0.3
JSJ				S	Sb	22 58 38.5	-0.6
JFU	**Fukue jima 2**	**0.97**	**337**	⇑P	Pb	22 58 41.7	+0.1
JFU				*e*S	Sb	22 58 54.7	+0.7
NGSJ	**Nagasakinomoza**	**1.01**	**31**	P	Pb	22 58 42.8	+0.4
NGSJ				S	Sb	22 58 56.0	+0.8
JHD	**Hondo**	**1.07**	**49**	⇓P	Pb	22 58 43.2	-0.1
JHD				S	Sb	22 58 57.9	+1.1
JSU	**Suzuyama**	**1.11**	**103**	P	Pb	22 58 43.9	-0.1
JSU				S	Sb	22 58 59.0	+1.0
JZO	**Okuchi**	**1.26**	**72**	⇓P	Pb	22 58 46.0	-0.5
JZO				S	Sb	22 59 03.8	+1.5
JTZ	**Takazaki**	**1.62**	**85**	⇓P	Pn	22 58 51.3	-0.6

JMA 12 22:58:58.5±0.1,31.77N×129.19E,h6^{km}±5^{km},M3.8, Kyushu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	**Shimokoshiki**	**0.46**	**101**	P	Pg	22 59 07.3	-0.4
JSJ				S	Sg	22 59 13.4	-0.4
JFU	**Fukue jima 2**	**0.96**	**337**	P	Pb	22 59 16.6	-0.5
JFU				*e*S	Sb	22 59 30.0	+0.2
NGSJ	**Nagasakinomoza**	**1.00**	**31**	S	Sb	22 59 31.6	+0.5
JHD	**Hondo**	**1.06**	**49**	*e*S	Sb	22 59 33.0	+0.2
JSU	**Suzuyama**	**1.11**	**103**	S	Sb	22 59 34.4	+0.1
JZO	**Okuchi**	**1.25**	**73**	S	Sb	22 59 39.0	+0.6

IDC 12 23:02:41.4±44.0,17.06S×174.59W,mb4.2/3,mb1 4.4/3, mb1mx3.9/14,Error ellipse: s-maj=837.0km s-min=170.6km az=79.0,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**42.23**	**241**	P	P	23 10 36.6	-1.5
	1.0nm,0.5s,baz=92,slow=12,SNR=4.1						
WB2	**Warramunga Arr**	**48.36**	**258**	*e*P	P	23 11 25.4	-1.8
WRA	**Warramunga Arr**	**48.38**	**258**	P	P	23 11 24.9	-2.4
	1.2nm,0.5s,baz=96,slow=7.0,SNR=29						
ASAR	**Alice Springs**	**48.53**	**253**	P	P	23 11 26.9	-1.5
	6.7nm,0.6s,baz=87,slow=8.5,SNR=71						
ASPA	**Alice Springs**	**48.53**	**253**	*e*P	P	23 11 26.8	-1.7

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*NIED **12** 23:11:00,31.70N×129.20E,h5^{km},Mw3.9 Best double couple: M$_0$6.75×10^{14} NP1:ϕ$_s$204°,δ79°,λ-137°. NP2: ϕ$_s$104°,δ48°,λ-15°.*

JMA 12 23:11:05.1±0.1,31.75N×129.20E,h17^{km}±1^{km},M3.9, 1C-4D,Kyushu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	**Shimokoshiki**	**0.45**	**99**	⇓P	Pb	23 11 13.8	-0.3
JSJ				S	Sb	23 11 19.7	-0.5
JFU	**Fukue jima 2**	**0.98**	**337**	⇑P	Pb	23 11 23.2	0.0
NGSJ	**Nagasakinomoza**	**1.02**	**30**	P	Pb	23 11 23.8	0.0
NGSJ				S	Sb	23 11 37.7	+1.0
JHD	**Hondo**	**1.07**	**48**	⇓P	Pb	23 11 24.6	-0.1
JHD				*e*S	Sb	23 11 39.4	+1.2
JSU	**Suzuyama**	**1.10**	**102**	⇓P	Pb	23 11 25.3	+0.1
JZO	**Okuchi**	**1.25**	**72**	⇓P	Pb	23 11 27.3	-0.5
JZO				*e*S	Sb	23 11 44.4	+0.8

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*STR **12** 23:22:13.0±0.2,46.22N×1.77E,h5^{km}±1^{km},Ml1.7,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 12 23:22:10.9±0.1,46.28N×1.70E,h5^{km},Md1.7/3,Ml1.7/7, Error ellipse: s-maj=1.9km s-min=1.1km az=145.0, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TCF	**Toulx Ste Croi**	**0.35**	**88**	*e*Pg	Pg	23 22 17.7	-0.3
TCF				*e*Sg	Sg	23 22 22.6	-0.1
BGF	**Bois d'Agland**	**0.84**	**70**	*e*Pg	Pg	23 22 27.0	-0.7
BGF				*e*Sg	Sg	23 22 37.5	-1.4
	9.9nm,0.4s						
RJF	**Les Rejaudoux**	**0.98**	**188**	*e*Pg	Pg	23 22 29.2	-1.4
RJF				*e*Sg	Sg	23 22 41.3	-2.4
	4.7nm,0.2s						
AGO	**Saint Agoulin**	**1.02**	**102**	Pg	Pg	23 22 31.2	-0.1
AGO				Sg	Sg	23 22 44.7	-0.2
AVF	**Avril sur Loir**	**1.25**	**65**	*e*Pg	Pg	23 22 34.1	-1.8
AVF				*e*Sg	Sg	23 22 49.8	-2.7
	0.3nm,0.1s						
MFF	**Saint Martin d**	**1.32**	**285**	*e*Pg	Pg	23 22 35.6	-1.6
MFF				*e*Sg	Sg	23 22 51.9	-2.9
	1.1nm,0.2s						
CAF	**Calviac**	**1.38**	**169**	*e*Pg	Pg	23 22 36.9	-1.5
CAF				*e*Sg	Sg	23 22 53.8	-3.0
	2.1nm,0.2s						
SSF	**Saint Saulge**	**1.47**	**57**	*e*Pg	Pg	23 22 38.1	-2.1
SSF				*e*Sg	Sg	23 22 57.0	-2.8
	1.5nm,0.3s						
LFF	**La Frestale**	**1.50**	**207**	*e*Pg	Pg	23 22 39.2	-1.7
LFF				*e*Sg	Sg	23 22 58.3	-2.6
	2.2nm,0.3s						
SMF	**Signal de Mont**	**1.52**	**75**	*e*Pg	Pg	23 22 39.5	-1.8
SMF				*e*Sg	Sg	23 22 59.2	-2.5
	0.7nm,0.2s						

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*IDC **12** 23:24:56.8±2.2,9.04S×108.55E,mb3.9/6,mb1 4.1/6, mb1mx3.9/16,Error ellipse: s-maj=105.0km s-min=19.6km az=52.0*

*NEIC **12** 23:25:00.8±1.1,9.39S×108.29E,h35^{km},mb4.0/1,Error ellipse: s-maj=21.7km s-min=14.4km az=214.0*

*DJA **12** 23:25:04.1±0.8,11.46S×109.33E,h33^{km},mb5.6/2, ML4.9/2,Error ellipse: s-maj=56.7km s-min=16.3km az=153.0*

ISC 12 23:25:05.7±2.6,9.3S±0.1×108.8E±0.1,h100^{km}±26^{km},n14, σ1^{s}12/20,mb3.7/6,3C-7D,South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**5.38**	**82**	⇑*e*Pn	**P**	**23 26 25.5**	**+0.5**
	147nm,0.2s						
SRDI				⇑*e*Sn	**S**	**23 27 26.2**	**0.0**
KELI	**Kelakatan**	**5.77**	**80**	⇓*e*Pn	**P**	**23 26 32.1**	**+1.9**
KELI				*e*S	**S**	**23 27 36.7**	**+1.0**
KELI	**Kelakatan**	**5.77**	**80**	⇓*e*Pn	**P**	**23 26 32.1**	**+1.9**
	83nm,0.3s						
KELI	**Kelakatan**	**5.77**	**80**	⇓*e*P	**P**	**23 26 33.2**	**+3.0**
KELI				⇑*e*Sn	**S**	**23 27 36.7**	**+1.0**
RATI	**Rata**	**6.72**	**86**	⇓*e*P	**P**	**23 26 43.3**	**-0.1**
	296nm,0.3s						
RATI				⇓*e*S	**S**	**23 27 58.2**	**-0.7**
KEDI	**Kedomdong**	**7.31**	**84**	⇓*e*P	**P**	**23 26 50.2**	**-1.3**
	135nm,0.2s						
KEDI				⇓*e*S	**S**	**23 28 12.6**	**-0.9**
MBWA	**Marble Bar**	**15.85**	**139**	Pn	**P**	**23 28 42.9**	**-1.5**
	14nm,1.1s						
MBWA				*e*Sn	**S**	**23 31 26.4**	**-10**
WRA	**Warramunga Arr**	**26.89**	**116**	P	**P**	**23 30 42.6**	**+3.2**
	0.8nm,0.6s,mb3.4,baz=290,slow=11,SNR=7.7						
ASAR	**Alice Springs**	**27.97**	**124**	P	**P**	**23 30 53.5**	**+4.3**
	0.7nm,0.6s,mb3.4,baz=296,slow=8.7,SNR=3.0						
STKA	**Stephens Creek**	**37.84**	**131**	P	**P**	**23 32 15.9**	**+1.6**
	3.2nm,0.7s,mb4.3,baz=301,slow=7.5,SNR=3.4						
SONM	**Songino Array**	**56.90**	**358**	P	**P**	**23 34 41.6**	**-1.0**
	0.9nm,0.8s,mb3.9,baz=180,slow=7.4,SNR=7.7						
ZAL	**Zalesovo**	**66.16**	**345**	P	**P**	**23 35 45.0**	**+0.3**
	0.6nm,0.6s,mb3.6,baz=340,slow=5.3,SNR=4.4						
ZAL	**Zalesovo**	**66.16**	**345**	P	**P**	**23 35 45.0**	**+0.3**
BVAR	**Borovoye Array**	**70.13**	**337**	P	**P**	**23 36 09.0**	**-0.3**
	1.1nm,0.6s,mb3.9,baz=142,slow=9.8,SNR=10						

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*NEIC **12** 23:25:36.5,35.99N×21.85E,h3^{km},ML3.6(ATH),After ATH.*

*ATH **12** 23:25:36.1,35.98N×21.86E,h5^{km},MD3.7/16,ML3.6*

*THE **12** 23:25:39.0,35.93N×22.00E,h3^{km},ML3.4*

*CSEM **12** 23:25:39.9±0.2,36.06N×22.10E,h2^{km},ML3.6,Error ellipse: s-maj=3.6km s-min=1.5km az=48.0*

ISC 12 23:25:37.2±1.2,35.96N±0.07×21.95E±0.08,h5^{km},n29, σ1^{s}47/32,Central Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KYTH	**Kithira**	**0.94**	**69**	*e*PN	**Pn**	**23 25 55.5**	**-1.3**
VLI	**Veliai**	**1.10**	**46**	*e*PN	**Pn**	**23 25 57.7**	**-1.5**
VLI				*e*SB	**Sb**	**23 26 14.0**	**+1.2**
ITM	**Ithomi**	**1.22**	**359**	*e*PB	**Pb**	**23 25 59.2**	**-1.2**
ITM				*e*SB	**Sb**	**23 26 16.3**	**0.0**
ITM	**Ithomi**	**1.22**	**359**	*e*Sb	**Sb**	**23 26 16.3**	**0.0**
VAM	**Vamos**	**1.91**	**106**	*e*PG	**Pg**	**23 26 12.3**	**-3.1**
RLS	**Riolos of Patr**	**2.13**	**350**	*e*PG	**Pg**	**23 26 15.4**	**-4.4**
NAIG	**Nisos Aigina**	**2.18**	**34**	*e*PG	**Pg**	**23 26 17.5**	**-3.2**
MGER	**Gerania Oros**	**2.28**	**27**	*e*PB	**Pb**	**23 26 16.0**	**-2.5**
NSAL	**Nisos Salamina**	**2.29**	**31**	*e*PG	**Pg**	**23 26 18.5**	**-4.5**
ATH	**Athens Observa**	**2.46**	**35**	*e*PN	**Pn**	**23 26 19.5**	**+0.9**
VLS	**Valsamata**	**2.47**	**334**	*e*PN	**Pn**	**23 26 18.7**	**0.0**
PTL	**Penteli**	**2.59**	**36**	*e*PN	**Pn**	**23 26 22.6**	**+2.1**
MPAR	**Parnis Oros**	**2.62**	**33**	*e*PB	**Pb**	**23 26 21.0**	**-3.2**
THR5	**Thira Island,**	**2.79**	**80**	*e*Pn	**Pn**	**23 26 23.2**	**-0.1**
LKR	**Lokris**	**2.82**	**17**	*e*PB	**Pb**	**23 26 23.5**	**-4.2**
THR6	**Thira Island,**	**2.82**	**81**	*e*Pn	**Pn**	**23 26 24.3**	**+0.5**
THR1	**Thera Island**	**2.87**	**81**	*e*Pn	**Pn**	**23 26 24.4**	**-0.1**
LKD	**Levkas**	**2.94**	**340**	*e*Pn	**Pn**	**23 26 26.7**	**+1.3**
EVR	**Evrytania**	**2.96**	**358**	*e*PN	**Pn**	**23 26 28.3**	**+2.6**
NPS	**Neapolis**	**3.06**	**102**	*e*PN	**Pn**	**23 26 31.0**	**+3.8**
AGG	**Agios Georgios**	**3.08**	**6**	*e*Pn	**Pn**	**23 26 28.4**	**+1.0**
APE	**Apeiranthos**	**3.09**	**68**	*e*PN	**Pn**	**23 26 30.5**	**+2.9**
NEO	**Neokhori**	**3.49**	**16**	*e*PN	**Pn**	**23 26 32.7**	**-0.6**
AOS	**Alonnisos**	**3.56**	**25**	*e*Pn	**Pn**	**23 26 34.9**	**+0.7**
JAN	**Janina**	**3.79**	**347**	*e*PN	**Pn**	**23 26 37.4**	**-0.2**
MEV	**Metsovon**	**3.87**	**352**	*e*Pn	**Pn**	**23 26 39.3**	**+0.7**
LIT	**Litokhoron**	**4.16**	**6**	*e*Pn	**Pn**	**23 26 43.5**	**+0.8**
LIT	**Litokhoron**	**4.16**	**6**	*e*Pn	**Pn**	**23 26 43.5**	**+0.7**
SRN	**Sarande**	**4.21**	**339**	*e*Pn	**Pn**	**23 26 41.3**	**-2.2**
SRN				*i* Sn	**Sn**	**23 27 27.9**	**-5.8**

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*NEIC **12** 23:32:07.8,40.71N×23.16E,h17^{km},MD3.0(ATH),After ATH.*

*ATH **12** 23:32:07.6,40.71N×23.14E,h16^{km}±3^{km},MD3.0/4*

*CSEM **12** 23:32:08.9±0.1,40.67N×23.27E,h10^{km},ML2.6,Error ellipse: s-maj=2.0km s-min=1.6km az=68.0*

*THE **12** 23:32:09.1,40.66N×23.30E,h3^{km},ML2.6*

ISC 12 23:32:08.5±0.4,40.68N±0.02×23.29E±0.04,h12^{km}±4^{km}, n25,σ0^{s}93/34,1C,Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SOH	**Sokhos**	**0.15**	**19**	*e*Pg	**Pg**	**23 32 12.7**	**+0.4**
SOH				*e*Sg	**Sg**	**23 32 15.3**	**+0.7**
SOH	**Sokhos**	**0.15**	**19**	*e*Pg	**Pg**	**23 32 12.6**	**+0.4**
SOH				*e*Sg	**Sg**	**23 32 15.3**	**+0.6**
THE	**Thessaloniki**	**0.25**	**260**	*e*Pg	**Pg**	**23 32 14.0**	**+0.1**
PLG	**Polygyros**	**0.33**	**158**	⇑*i*PB	**Pb**	**23 32 15.6**	**-0.1**
PLG				*e*SB	**Sb**	**23 32 21.4**	**+0.8**
SRS	**Serrai**	**0.50**	**27**	*e*Pg	**Pg**	**23 32 17.8**	**-0.8**
SRS				*e*Sg	**Sg**	**23 32 26.1**	**+0.8**
SRS	**Serrai**	**0.50**	**27**	*e*Pg	**Pg**	**23 32 17.8**	**-0.8**
SRS				*e*Sg	**Sg**	**23 32 26.1**	**+0.7**
KNT	**Kendrikon**	**0.57**	**329**	*e*Pg	**Pg**	**23 32 19.5**	**-0.6**
OUR	**Ouranopolis**	**0.63**	**123**	*e*Pg	**Pg**	**23 32 21.1**	**-0.2**
OUR				*e*Sg	**Sg**	**23 32 29.7**	**0.0**
GRG	**Griva**	**0.73**	**293**	*e*Pg	**Pg**	**23 32 22.9**	**-0.3**
GRG				*e*Sg	**Sg**	**23 32 34.7**	**+1.7**
NVR	**Nevrokopi**	**0.80**	**33**	*e*PN	**Pn**	**23 32 23.4**	**-2.0**
NVR				*e*SN	**Sn**	**23 32 35.6**	**-1.6**
PAIG	**Paliouri**	**0.81**	**158**	*e*Pg	**Pg**	**23 32 23.6**	**-1.1**
LIT	**Litokhoron**	**0.84**	**227**	*e*Pg	**Pg**	**23 32 24.5**	**-0.9**
VAY	**Valandovo**	**0.84**	**320**	*i* Pg	**Pg**	**23 32 24.8**	**-0.7**
VAY				*i* Sg	**Sg**	**23 32 36.3**	**-0.5**
MMB	**Musomiste**	**0.97**	**20**	*i* P	**Pb**	**23 32 25.0**	**-1.8**
KKB	**Krupnik**	**1.20**	**353**	*i* P	**Pb**	**23 32 30.5**	**-0.2**
XOR	**Xorichti**	**1.31**	**183**	*e*Pb	**Pb**	**23 32 32.9**	**+0.3**
NEO	**Neokhori**	**1.37**	**182**	*e*PN	**Pn**	**23 32 33.6**	**+0.1**
FNA	**Florina**	**1.46**	**275**	*e*Pb	**Pb**	**23 32 35.6**	**+0.5**
RZN	**Rozhen**	**1.48**	**46**	*i* P	**Pn**	**23 32 35.5**	**+0.4**
RDO	**Rodhopi**	**1.77**	**74**	*e*PN	**Pn**	**23 32 41.1**	**+1.9**
AGG	**Agios Georgios**	**1.81**	**204**	*e*Pb	**Pb**	**23 32 40.3**	**-0.8**
KDZ	**Kurdzhali**	**1.88**	**58**	P	**Pn**	**23 32 42.0**	**+1.2**
VTS	**Vitosha**	**1.92**	**358**	*i* P	**Pn**	**23 32 42.0**	**+0.7**
PGB	**Panagyurishte**	**1.98**	**19**	*i* P	**Pn**	**23 32 44.0**	**+1.7**
EVR	**Evrytania**	**2.10**	**213**	*e*PN	**Pn**	**23 32 44.4**	**+0.5**

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*IDC **12** 23:41:43.3±1.2,49.27S×125.39E,mb4.2/5,mb1 4.4/6, mb1mx4.3/10,ML2.4/1,MS3.7/3,Ms1 3.6/3,ms1mx3.5/8, Error ellipse: s-maj=43.3km s-min=23.5km az=92.0*

*NEIC **12** 23:41:44.2±0.6,49.31S×125.21E,h10^{km},mb4.3/5,Error ellipse: s-maj=28.9km s-min=11.9km az=101.0*

ISC 12 23:41:42.4±0.6,49.32S±0.08×125.3E±0.3,h10^{km},n19, σ1^{s}23/15,mb4.1/8,MS3.6/3,3C,Western Indian-Antarctic Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NWAO	**Narrogin (SRO)**	**17.46**	**337**	P	**P**	**23 45 48.4**	**+0.9**
	0.6nm,0.3s,baz=154,slow=12,SNR=3.6						
NWAO	**Narrogin (SRO)**	**17.46**	**337**	P	**P**	**23 45 47.1**	**-0.4**
	2.8nm,0.4s						
STKA	**Stephens Creek**	**21.29**	**41**	P	**P**	**23 46 31.6**	**+0.4**
	13nm,0.8s,mb4.3,baz=195,slow=11,SNR=23						
STKA				LR	LR	23 53 09.9	
	comp=Z,276nm,21.8s,MS3.6,baz=206,slow=32						
STKA	**Stephens Creek**	**21.29**	**41**	*e*P	**P**	**23 46 31.4**	**+0.3**
STKA				LR	LR	23 53 09.9	
ASPA	**Alice Springs**	**26.48**	**18**	*e*P	**P**	**23 47 22.2**	**+0.7**
ASAR	**Alice Springs**	**26.48**	**18**	P	**P**	**23 47 21.3**	**-0.2**
	5.9nm,0.9s,mb4.1,baz=192,slow=9.5,SNR=47						
ASAR				LR	LR	23 56 43.3	
	comp=Z,176nm,19.3s,MS3.6,baz=196,slow=34						
WRA	**Warramunga Arr**	**30.19**	**17**	P	**P**	**23 47 53.4**	**-1.7**
	1.9nm,0.9s,mb3.8,baz=196,slow=10.0,SNR=8.2						
VNDA	**Vanda**	**31.52**	**166**	P	**P**	**23 48 06.3**	**+0.2**
	1.5nm,0.6s,mb4.0,baz=321,slow=8.0,SNR=7.0						
VNDA	**Vanda**	**31.52**	**166**	*e*P	**P**	**23 48 05.5**	**-0.7**
	1.6nm,0.6s,mb4.0						
MAW	**Mawson**	**35.46**	**216**	LR	LR	00 01 19.4	
	comp=Z,80nm,19.3s,MS3.5,baz=317,slow=33						
MAW	**Mawson**	**35.46**	**216**	*e*P	**P**	**23 48 37.4**	**-3.0**
	11nm,0.6s,mb5.0						
QSPA	**South Pole Qui**	**40.80**	**180**	*e*P	**P**	**23 49 24.5**	**-0.4**
	6.2nm,1.0s,mb4.2						
SNAA	**Sanae**	**53.88**	**198**	⇑*i*P	**P**	**23 51 06.0**	**-1.2**
	0.3nm,0.9s,mb3.2						
VNA2	**Neumayer--Watz**	**55.37**	**197**	⇑*i*	**P**	**23 51 20.0**	**+1.8**
VNA3	**Neumayer Olymp**	**55.53**	**196**	⇑*i*	**P**	**23 51 21.5**	**+2.1**
CMAR	**Chiang Mai Arr**	**71.43**	**334**	P	**P**	**23 53 05.2**	**+0.4**
	0.9nm,0.3s,mb4.1,baz=181,slow=5.4,SNR=4.9						
YKA	**Yellowknife Ar**	**145.29**	**45**	PKPbc	PKPbc	00 01 21.2	+1.8
	2.4nm,0.9s,baz=269,slow=3.4,SNR=36						
YKA	**Yellowknife Ar**	**145.29**	**45**	PKPbc	PKPbc	00 01 21.2	+1.7
EKA	**Eskdalemuir Ar**	**148.57**	**301**	PKPbc	PKPdf	00 01 30.8	+3.1
	1.4nm,0.7s,baz=108,slow=2.6,SNR=3.7						

WEL 12 23:44:40.2±0.3,37.13S×176.91E,h198^{km}±4^{km},ML3.6/5, 1C-1D,Error ellipse: s-maj=5.8km s-min=4.8km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**1.14**	**172**	PN	P	23 45 10.8	-0.3
URZ				SN	S	23 45 34.5	-0.5
MXZ	**Matakaoa Point**	**1.20**	**112**	⇓PN	P	23 45 11.1	-0.5
MXZ				SN	S	23 45 35.7	0.0
MWZ	**Matawai**	**1.30**	**158**	PN	P	23 45 12.1	-0.3
MWZ				SN	S	23 45 36.9	-0.4
PUZ	**Puketiti**	**1.43**	**132**	⇑PN	P	23 45 13.2	-0.3
PUZ				SN	S	23 45 38.5	-0.7
KNZ	**Kokohu**	**1.98**	**162**	PN	P	23 45 18.4	-0.4

KNZ				SN	S	23 45 47.7	-0.8
BKZ	Black Stump Fm	2.06	189	PN	P	23 45 18.9	-0.8
BKZ				SN	S	23 45 49.3	-0.7
NGZ	Ngauruhoe	2.29	206	PN	P	23 45 22.6	+0.5
TUVZ	Tukino	2.35	204	PN	P	23 45 22.5	-0.3
FWVZ	Far West T-bar	2.38	206	PN	P	23 45 23.2	+0.1
WNVZ	Wahianoa	2.43	205	PN	P	23 45 23.2	-0.5
WNVZ				SN	S	23 45 56.5	-0.7
TSZ	Takapari Road	3.02	194	PN	P	23 45 28.9	-1.6
TSZ				SN	S	23 46 06.7	-2.7
MRZ	Mangatainoka R	3.68	196	PN	P	23 45 35.8	-2.8
MRZ				SN	S	23 46 20.2	-3.4
KIW	Kapiti Island	4.04	202	PN	P	23 45 39.8	-3.2
KIW				SN	S	23 46 28.1	-3.6
MTW	Mount Morrison	4.17	195	PN	P	23 45 41.7	-3.0
CAW	Cannon Point	4.22	199	PN	P	23 45 41.3	-4.1
MSWZ	Moikau Station	4.47	196	PN	P	23 45 45.0	-3.6

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*NEIC **13** 00:05:31.2±0.7, 49.38N×19.81E, h5^{km}, MG2.8(WAR), Error ellipse: s-maj=8.6km s-min=7.3km az=189.0*

*PRU **13** 00:05:31.8, 49.52N×19.83E, h10^{km}, High Tatras*

*CSEM **13** 00:05:32.0±0.3, 49.44N×19.83E, ML2.9/4, Error ellipse: s-maj=5.3km s-min=3.3km az=31.0*

*IPEC **13** 00:05:33.0±0.2, 49.30N×19.78E, ML2.1/3, Error ellipse: s-maj=2.2km s-min=0.9km az=48.0*

ISC 13 00:05:31.3±0.4**, 49.38N**±0.02×**19.89E**±0.03**, h5^{km}, n36, σ1^{s}04**/61**, 2C, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NIE	Niedzica	0.28	81	*e*Pg	Pg	00 05 36.5	-0.4
NIE				*e*Sg	Sg	00 05 40.9	+0.2
LIKS	Likavka	0.61	238	*e*PG	Pg	00 05 40.8	-2.7
LIKS				*e*SG	Sg	00 05 47.6	-4.1
OJC	Ojcow	0.84	356	*e*Pg	Pg	00 05 47.1	-1.1
OJC				*e*Sg	Sg	00 05 58.0	-1.5
VYHS	Vyhne	1.13	219	*i* Pn	Pn	00 05 52.5	-1.2
VYHS				*e*Pg	Pg	00 05 53.8	0.0
VYHS				*e*Sn	Sn	00 06 09.9	+0.3
VYHS	Vyhne	1.13	219	*e*PN	Pg	00 05 53.8	0.0
VYHS				*e*SN	Sn	00 06 09.9	+0.3
VYHS	Vyhne	1.13	219	*e*Pg	Pg	00 05 53.8	0.0
VYHS				*e*Sn	Sn	00 06 09.9	+0.3
CRVS	Cervenica-Dubn	1.14	114	*i* PN	Pn	00 05 53.2	-0.6
CRVS				*e*SN	Sn	00 06 09.6	-0.3
OKC	Ostrava-Krasne	1.23	293	*e*Pg	Pg	00 05 54.8	-1.0
OKC				*e*Sg	Sg	00 06 12.0	-0.1
	baz=116						
KOLL	Kolacno	1.27	231	*e*Pn	Pn	00 05 55.2	-0.5
KOLL				*e*Pg	Pg	00 05 57.1	+0.5
KOLL				*e*Sn	Sn	00 06 13.0	-0.2
KOLL	Kolacno	1.27	231	*e*SN	Sn	00 06 13.0	-0.2
KOLL	Kolacno	1.27	231	*e*Pg	Pg	00 05 57.1	+0.5
KOLL				*e*Sn	Sn	00 06 13.0	-0.2
RAC	Raciborz	1.31	303	*e*Pg	Pg	00 05 56.3	-1.1
RAC				*e*Sg	Sg	00 06 15.2	+0.3
PSZ	Piszkesteto	1.46	180	⇑*e*Pg	Pn	00 05 59.2	+0.8
PSZ				*e*SB	Sb	00 06 17.7	+0.3
PSZ	Piszkesteto	1.46	180	*e*S	Sb	00 06 17.7	+0.3
PSZ	Piszkesteto	1.46	180	*e*Pn	Pn	00 05 59.0	+0.6
	baz=357						
PSZ	Piszkesteto	1.46	180	⇑*e*P	Pn	00 05 59.2	+0.8
PSZ				*e*Sg	Sg	00 06 17.3	-2.7
	baz=357						
JAVC	Velka Javorina	1.55	251	*e*Pn	Pn	00 06 00.9	+1.2
	baz=72						
MORC	Moravsky Berou	1.58	286	*e*Pn	Pn	00 06 00.6	+0.4
	baz=107						
MORC	Moravsky Berou	1.58	286	*e*Sg	Sg	00 06 21.6	-2.4
	31nm,0.4s,baz=107						
KOLS	Kolonicke sedl	1.62	105	*e*PN	Pn	00 06 01.6	+0.8
KOLS				*e*PG	Pg	00 06 03.9	+0.1
KOLS				*e*SN	Sn	00 06 23.8	+1.5
KOLS	Kolonicke sedl	1.62	105	*e*Pg	Pg	00 06 03.9	+0.1
KOLS				*e*Sn	Sn	00 06 23.8	+1.5
SMOL	Smolenice	1.84	243	*e*PN	Pn	00 06 03.9	0.0
SMOL				*e*SN	Sn	00 06 28.7	+0.9
SRO	Srobarova	1.88	214	*e*SG	Sg	00 06 33.5	-0.6
VRAC	Vranov	2.16	269	*e*Pn	Pn	00 06 09.6	+1.2
	baz=89						
VRAC				*e*Sg	Sn	00 06 37.7	+1.8
	8.8nm,0.3s,baz=89						
ZST	Bratislava	2.19	238	*e*SN	Sn	00 06 36.0	-0.7
ZST	Bratislava	2.19	238	*e*Pn	Pn	00 06 08.6	-0.3
	baz=57						
ZST				*e*Sn	Sn	00 06 36.0	-0.7
KRUC	Moravsky	2.31	263	*e*Sg	Sb	00 06 42.5	+0.3
	4.8nm,0.3s,baz=83						
DPC	Dobruska-Polom	2.51	294	*e*PG	Pb	00 06 15.8	-0.7
DPC				*e*SG	Sb	00 06 48.0	+0.3
DPC	Dobruska-Polom	2.51	294	*e*Pn	Pn	00 06 15.4	+2.0
	baz=114						
DPC	Dobruska-Polom	2.51	294	*e*Pg	Pb	00 06 15.8	-0.7
DPC				*e*Sg	Sb	00 06 48.0	+0.3
UPC	Upice	2.75	296	*e*SG	Sb	00 06 56.2	+1.4
PRU	Pruhonice	3.53	282	*e*PG	Pb	00 06 35.5	+1.5
PRU				*e*SG	Sb	00 07 22.1	+4.7
	4.1nm,0.4s						
KHC	Kasperske Hory	4.14	269	*e*P	Pn	00 06 41.0	+4.3
KHC				*e*Sg	Sg	00 07 41.4	-7.9
KHC	Kasperske Hory	4.14	269	*e*x	x	00 06 41.0	
KHC				*e*SG	Sg	00 07 41.4	-7.9
KHC	Kasperske Hory	4.14	269	*e*Sg	Sg	00 07 41.4	-7.9
CLL	Collm	4.82	296	*e*SG	Sg	00 08 05.0	-6.7

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*BER **13** 00:20:10.7±4.9, 67.76N×20.32E, ML2.0, Suspected explosion*

HEL 13 00:20:09.9±0.3**, 67.85N×20.12E, ML2.1, ML1.8**(UPP)**, ML2.0**(BER)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.13	37	*i* P	Pg	00 20 10.9	-1.7
KUA				*i* S	Sg	00 20 12.8	-1.5
NIKU	Nikkaluokta	0.41	273	*i* P	Pg	00 20 16.5	-1.6
DUNU	Dundret	0.75	167	*i* P	Pg	00 20 21.6	-3.3
PAJU	Pajala	1.42	124	*e*P	Pb	00 20 33.4	-3.6
ERTU	Ertsjaerv	1.53	147	*e*P	Pn	00 20 34.8	-3.8
KTK1	Kautokeino	1.64	43	*e*P	Pn	00 20 41.0	+0.9
KTK1				*e*Sg	Sg	00 21 01.7	-2.8
KTK1				AML	AML	00 21 05.4	
	comp=Z,13nm,0.2s						
TRO	Tromso	1.84	347	*e*P	Pn	00 20 44.0	+1.0
TRO				*e*Sg	Sg	00 21 09.1	-2.3
TRO				AML	AML	00 21 11.5	
	comp=Z,18nm,0.4s						
SJUU	Sjulsmark	2.42	165	*e*P	Pn	00 20 49.9	-1.5
SGF	Sodankyl	2.48	97	*e*P	Pn	00 20 51.4	-0.8
SGF				*e*S	Sn	00 21 22.4	-1.3
LOF	Lofoten	2.50	280	*e*Sg	Sg	00 21 33.8	+0.8
LOF				AML	AML	00 21 41.5	
	comp=Z,9.8nm,0.5s						
LOF	Lofoten	2.50	280	AML	AML	00 21 41.5	
	comp=Z,9.8nm,0.5s						
MOR8	Moi Rana	2.79	236	*e*Sg	Sg	00 21 32.4	-11
MOR8				AML	AML	00 21 37.6	
	comp=Z,27nm,0.4s						
KEV	Kevo	3.15	49	*e*P	Pn	00 21 02.1	+0.4
KEV				*e*S	Sn	00 21 37.7	-2.9
OUL	Oulu	3.61	137	*e*P	Pn	00 21 07.8	-0.5
OUL				*e*S	Sn	00 21 50.9	-1.4
OUL				*e*SG	Sg	00 22 00.3	-10
MSF	Maaselka	4.02	115	*e*P	Pn	00 21 13.5	-0.6
MSF				*e*S	Sn	00 22 00.3	-2.2
MSF				*e*SG	Sg	00 22 15.3	-8.3
MSF				MSG		00 22 20.3	
	comp=Z,3.1nm,0.3s						
NSS	Namsos	4.69	229	*e*Sg	Sg	00 22 35.1	-11
NSS				AML	AML	00 22 40.7	
	comp=Z,7.8nm,0.5s						
KJN	Kajaani	4.89	137	*e*P	Pn	00 21 26.2	-0.2
KJN				*e*S	Sn	00 22 19.8	-4.8
KJN				*e*SG	Sg	00 22 40.2	-12
KJN				MSG		00 22 44.3	
	comp=Z,2.2nm,0.4s						
VAF	Ylistaro	4.94	166	*e*P	Pn	00 21 26.2	-1.0
VAF				*e*S	Sn	00 22 22.5	-3.5
VAF				*e*SG	Sg	00 22 42.8	-12

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*NEIC **13** 00:25:37.6, 30.69S×71.72W, h15^{km}, ML3.9(GUC), After GUC.*

GUC 13 00:25:37.6±0.7**, 30.69S×71.72W, h15^{km}**±4^{km}**, MD4.2, ML3.9, 3C, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.46	80	*e*P	Pb	00 25 46.9	0.0
OVCH				*i* S	Sb	00 25 53.6	+0.4
CMCH	Combarbala	0.79	128	⇑*i*P	Pb	00 25 52.2	-0.3
CMCH				*i* S	Sb	00 26 02.9	+0.3
CMCH				AMP		00 26 07.2	
	comp=E,5µm,0.4s						
LSCH	La Serena	0.88	28	⇑*i*P	Pb	00 25 53.3	-0.8
LSCH				*i* S	Sb	00 26 05.4	-0.1
LSCH				AMP		00 26 07.2	
	comp=N,4µm,0.3s						
TLL	Tololo Astrono	0.95	57	*e*P	Pb	00 25 54.9	-0.4
TLL				*i* S	Sb	00 26 08.5	+1.0
TLL				AMP		00 26 11.6	
	comp=N,7µm,0.5s						
ILCH	Illapel	1.05	153	*e*P	Pb	00 25 55.9	-1.2
ILCH				*i* S	Sb	00 26 09.6	-0.9
PTCH	Petorca	1.71	157	*e*P	Pn	00 26 06.7	-0.5
PTCH				*i* S	Sn	00 26 28.6	-0.3
PTCH				AMP		00 26 32.1	
	comp=E,2µm,0.3s						
PACH	Papudo	1.86	172	*e*P	Pn	00 26 07.5	-1.8
JACH	Jahuel	2.21	154	⇑*i*P	Pn	00 26 14.4	0.0
VACH	Vallenar	2.27	22	*e*P	Pn	00 26 15.3	+0.1
VACH				AMP		00 26 53.5	
	comp=N,2µm,0.5s						
ROCH	El Roble	2.35	165	*e*P	Pn	00 26 17.4	+1.0
PEL	Peldehue	2.60	160	*e*P	Pn	00 26 21.3	+1.3
PEL				*i* S	Sn	00 26 52.6	+1.1
PEL				AMP		00 27 01.9	
	comp=N,994nm,0.4s						
CLCH	Cerro Calan	2.88	160	*e*P	Pn	00 26 24.3	+0.4
CLCH				AMP		00 27 12.8	
	comp=E,597nm,0.5s						
FCH	Farellones	2.90	156	*e*P	Pn	00 26 24.9	+0.7
FCH				*i* S	Sn	00 27 00.5	+1.5
FCH				AMP		00 27 13.5	
	comp=E,160nm,0.4s						
TACH	Talagante	3.03	167	*e*P	Pn	00 26 26.2	+0.2
CHCH	Chadas Angostu	3.36	165	*e*P	Pn	00 26 30.3	-0.4
LMEL	Las Melosas	3.40	158	*e*P	Pn	00 26 31.4	+0.1
LMEL				*i* S	Sn	00 27 11.3	-0.5
LMEL				AMP		00 27 22.6	
	comp=N,160nm,0.9s						
SFDO	San Fernando	3.96	171	*e*P	Pn	00 26 38.8	-0.5

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*INMG **13** 00:33:47.3±1.2, 42.82N×7.22W, h6^{km}±4^{km}, ML2.0, Error ellipse: s-maj=2.5km s-min=1.6km az=94.0*

MDD 13 00:33:47.4±0.2**, 42.82N×7.22W, mbLg2.3**/11**, Error ellipse: s-maj=3.1km s-min=1.7km az=104.0, PRXIMO, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EINC	Incio	0.18	211	Pg	Pg	00 33 51.0	-0.1
	56nm,0.1s,SNR=18						
EINC				Lg		00 33 53.4	
	116nm,0.0s,SNR=7.9						
ERUA	La Rua	0.43	172	Pg	Pg	00 33 55.1	-0.8
	5.5nm,0.1s,SNR=16						
ERUA				Lg		00 34 00.7	
	43nm,0.2s,SNR=7.9						
EPON	Pontenova	0.51	6	Pg	Pg	00 33 56.9	-0.7
	3.5nm,0.1s,SNR=21						
EPON				Lg		00 34 03.4	
	23nm,0.1s,SNR=7.9						
ECAL	Calabor	0.95	158	Pg	Pg	00 34 04.8	-1.5
	3.0nm,0.1s,SNR=16						
ECAL				Lg		00 34 17.4	
	29nm,0.2s,SNR=7.9						
STS	Santiago	0.98	274	Pg	Pg	00 34 05.2	-1.8
	13nm,0.1s,SNR=7.9						
STS				Lg		00 34 18.2	
	44nm,0.2s,SNR=7.9						
PBRG	Braganca	1.07	160	*e*P	Pb	00 34 07.1	-1.4
PBRG				*e*S	Sb	00 34 20.9	-2.1
	14nm,0.1s						
PBRG	Braganca	1.07	160	Pg	Pg	00 34 07.1	-1.7
PBRG				Lg		00 34 20.9	
	6.9nm,0.1s						
ELOB	Lobios	1.14	213	Pg	Pg	00 34 07.2	-2.9
	0.8nm,0.1s,SNR=37						
ELOB				Pn	Pn	00 34 08.5	-2.0
	6.9nm,0.1s,SNR=7.9						
ELOB				Lg		00 34 22.0	
	32nm,0.1s,SNR=7.9						
EZAM	Zamans	1.28	239	Pg	Pg	00 34 09.3	-3.6
	0.9nm,0.2s,SNR=8.0						
EZAM				Pn	Pn	00 34 10.9	-1.5
	4.3nm,0.1s,SNR=7.9						
EZAM				Lg		00 34 25.7	
	6.2nm,0.1s,SNR=7.9						
EMAZ	Mazaricos	1.30	276	Pg	Pg	00 34 09.6	-3.7
	0.5nm,0.1s,SNR=17						
EMAZ				Pn	Pn	00 34 11.1	-1.6
	4.1nm,0.1s,SNR=7.9						
EMAZ				Lg		00 34 28.1	
	42nm,0.2s,SNR=7.9						
EARI	Arriondas	1.55	71	Pn	Pn	00 34 14.7	-1.7
	SNR=7.9						
EARI				Pg	Pg	00 34 16.1	-2.3
	2.6nm,0.2s,SNR=37						
EARI				Lg		00 34 36.2	
	2.9nm,0.1s,SNR=7.9						
PVRL	Vila Real	1.58	194	*e*Pg	Pg	00 34 16.5	-2.5
PVRL				*e*Sg	Sg	00 34 37.4	-2.8
	21nm,0.1s						
PVIS	Viseu	2.16	194	*e*Pg	Pg	00 34 26.9	-3.6
PVIS				*e*Sg	Sg	00 34 54.8	-4.5
	9.2nm,0.2s						
MTE	Manteigas	2.43	186	*e*Pg	Pg	00 34 32.4	-3.5
MTE				*e*Sn	Sn	00 34 55.0	-4.8
MTE				*e*Sg	Sg	00 35 03.0	-5.3
	5.2nm,0.3s						
ELAN	Lanestosa	2.81	80	Pn	Pn	00 34 32.7	-1.6
	0.5nm,0.3s,SNR=4.0						
ELAN				Pg	Pg	00 34 38.5	-4.9
	1.3nm,0.2s,SNR=7.9						
ELAN				Sn	Sn	00 35 07.9	-1.5
	1.7nm,0.4s,SNR=7.9						
ELAN				Lg		00 35 17.0	
	1.0nm,0.1s,SNR=7.9						
PCBR	Castelo Branco	2.98	184	*e*Pn	Pn	00 34 33.6	-3.2
PCBR				*e*Sn	Sn	00 35 07.8	-6.0
PCBR				*e*Sg	Sg	00 35 22.0	-4.7
	3.6nm,0.4s						
EBAD	Badajoz	4.06	178	Pn	Pn	00 34 49.2	-3.0
	0.1nm,0.1s,SNR=4.0						
EBAD				Sn	Sn	00 35 34.8	-6.4
	0.3nm,0.1s,SNR=7.9						
EBAD				Lg		00 35 55.2	
	0.5nm,0.1s,SNR=7.9						

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*IDC **13** 00:37:20.4±1.6, 16.80N×99.89W, mb3.6/3, mb1 3.8/6, mb1mx3.7/20, ML3.1/2, MS3.0/1, Ms1 3.0/1, ms1mx2.3/22, Error ellipse: s-maj=35.2km s-min=28.1km az=64.0*

*NEIC **13** 00:37:23.4±1.5, 16.92N×100.05W, h12^{km}±9^{km}, MD4.4(MEX), Error ellipse: s-maj=11.5km s-min=7.0km az=189.0*

*MEX **13** 00:37:24.7±1.1, 16.94N×100.10W, h4^{km}±9^{km}, MD4.4*

ISC 13 00:37:22.6±0.8**, 16.93N**±0.04×**100.08W**±0.03**, h16^{km}**±7^{km}**, n41, σ0^{s}99**/73**, mb3.4**/4**, 1D, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.21	305	*e*P	Pb	00 37 28.3	+0.6
CAIG				*e*S	Sb	00 37 30.9	-0.2
CAIG	El Cayaco	0.21	305	*i* P	Pb	00 37 27.7	0.0
CAIG				*e*S	Sb	00 37 30.9	-0.2
ZIIG	Zihuatanejo	1.48	297	*e*P	Pn	00 37 48.5	-0.4
ZIIG				*e*S	Sb	00 38 05.8	-2.0
ZIIG	Zihuatanejo	1.48	297	*e*P	Pn	00 37 48.5	-0.4
ZIIG				*i* S	Sb	00 38 07.1	-0.7
PLIG	Platanillo	1.56	21	*e*P	Pn	00 37 49.2	-0.8
PLIG				*e*S	Sn	00 38 09.5	-0.4
PLIG	Platanillo	1.56	21	*i* P	Pn	00 37 49.1	-0.9
PLIG				*i* S	Sn	00 38 08.7	-1.3
PNIG	Pinotepa	1.95	106	*e*P	Pn	00 37 55.9	+0.4
PNIG				*i* S	Sn	00 38 17.0	-2.9
PNIG	Pinotepa	1.95	106	*e*P	Pn	00 37 55.8	+0.3
PNIG				*i* S	Sn	00 38 18.3	-1.5
CHVM	Chichinautzin	2.33	22	*e*P	Pn	00 38 02.8	+1.9
CHVM				*i* S	Sn	00 38 33.4	+4.0
IIZ	Mezontepec	2.39	19	*e*P	Pn	00 38 02.0	+0.2
SZVM	Salazar	2.48	16	*e*P	Pn	00 38 03.2	+0.2
SZVM				*i* S	Sn	00 38 33.4	+0.2
PPM	Popocatepetl	2.54	33	*e*P	Pn	00 38 05.1	+1.1
PPM				*i* S	Sn	00 38 32.4	-2.4
PPM				*i* S	Sn	00 38 33.8	-1.1
PPM				*e*S	Sn	00 38 36.5	+1.7
PPM	Popocatepetl	2.54	33	*e*P	Pn	00 38 03.8	-0.3
PPM				*e*P		00 38 05.1	
PPM				*e*P		00 38 05.5	
PPM				*i* S	Sn	00 38 32.4	-2.4
PPM				*i* S	Sn	00 38 33.8	-1.1
PPM				*e*S	Sn	00 38 36.5	+1.7
UNM	Universidad Na	2.54	20	*e*P	Pn	00 38 04.7	+0.7
UNM				*i* S	Sn	00 38 34.0	-0.8
UNM				*i* S	Sn	00 38 34.5	-0.3
UNM	Universidad Na	2.54	20	*i* P	Pn	00 38 02.0	-2.0
UNM				*e*P		00 38 04.7	
UNM				*i* S	Sn	00 38 34.0	-0.8
UNM				*i* S	Sn	00 38 34.5	-0.3
IIB	San Bernardino	2.62	39	*i* P	Pn	00 38 05.0	-0.1
IIB				*i* S	Sn	00 38 40.6	+3.9
MDVM	Presa Madin	2.71	17	*i* P	Pn	00 38 06.9	+0.4
MDVM				*i* S	Sn	00 38 40.2	+1.0
PTVM	Pico Tres Padr	2.81	19	*e*P	Pn	00 38 08.3	+0.5
PTVM				*i* S	Sn	00 38 41.9	+0.2
IIC	Rita Coyotepec	2.93	15	*i* P	Pn	00 38 09.7	+0.1
IIC				*i* S	Sn	00 38 45.2	+0.5
IIO	Organos	2.95	26	*e*P	Pn	00 38 08.2	-1.7
IIO				*i* S	Sn	00 38 44.1	-1.2
VHO	Vista Hermosa	3.21	87	*e*P	Pn	00 38 13.9	+0.4
VHO				*e*S	Sn	00 38 51.7	-0.1
OXX	Oaxaca	3.22	87	*e*P	Pn	00 38 14.1	+0.4
OXX				*i* S	Sn	00 38 52.3	+0.3
IISM	Ciudad Serdan	3.29	51	*e*P	Pn	00 38 14.5	-0.2
IISM				*i* S	Sn	00 38 53.9	0.0
COLM	Colima	4.10	304	*e*P	Pn	00 38 28.4	+2.3
COLM				*e*S	Sn	00 39 13.4	-0.9
CGX	Ciudad Guzman	4.26	311	*i* P	Pn	00 38 28.0	-0.4
LVIG	Laguna Verde	4.46	51	*e*P	Pn	00 38 32.1	+0.8
LVIG				⇓*e*S	Sn	00 39 23.2	-0.2
SFJM	Santa Fe	4.51	322	*i* P	Pn	00 38 41.2	+9.1
SFJM				*i* S	Sn	00 39 31.1	+6.3
CMIG	Matias Romero	4.98	87	*e*P	Pn	00 38 38.1	-0.5
CMIG				*e*S	Sn	00 39 36.7	+0.2
TEIG	Tepich	11.67	72	Pn	P	00 40 07.3	-4.3
	0.1nm,0.3s,baz=265,slow=18,SNR=2.3						
TEIG				Sn	S	00 42 17.8	-4.7
	0.3nm,0.3s,baz=315,slow=20,SNR=3.8						
TEIG	Tepich	11.67	72	*e*Pn	P	00 40 05.9	-5.8
TEIG				*e*Sn	S	00 42 06.4	-16
TXAR	Lajitas Array	12.78	346	Pn	P	00 40 28.1	+1.5
	0.0nm,0.3s,baz=186,slow=9.1,SNR=2.6						
TXAR				Lg		00 44 08.7	
	0.1nm,0.3s,baz=151,slow=28,SNR=3.9						
JTS	JuntasAbangare	16.11	112	P	P	00 41 03.8	-6.5
ANMO	Albuquerque	18.83	344	P	P	00 41 44.8	+0.6
	baz=143,slow=9.8,SNR=3.7						
ANMO				LR	LR	00 50 00.6	
	comp=Z,47nm,19.9s,slow=40						
ANMO	Albuquerque	18.83	344	P	P	00 41 43.4	-0.8
	4.5nm,1.3s						
ANMO				LR	LR	00 50 00.6	
SDCO	Great Sand Dun	21.28	348	*e*P	P	00 42 09.8	-0.9
	2.0nm,0.9s,mb3.5						
ARUT	Antelope Range	23.88	333	*e*P	P	00 42 39.3	+3.0
NVAR	Mina Array Bea	26.72	327	P	P	00 43 05.1	+1.9
	1.8nm,0.8s,mb3.6,baz=131,slow=11,SNR=11						
PDAR	Pinedale Array	27.00	345	P	P	00 43 05.2	-0.5
	0.4nm,0.9s,mb3.0,baz=170,slow=5.5,SNR=2.7						
YKA	Yellowknife Ar	46.65	351	P	P	00 45 50.5	-1.4
	0.5nm,0.6s,mb3.6,baz=157,slow=7.6,SNR=9.8						
WRA	Warramunga Arr	128.46	258	PKP	PKPdf	00 56 29.8	-3.7
	0.5nm,0.7s,baz=87,slow=2.7,SNR=5.7						
ASAR	Alice Springs	129.16	253	PKP	PKPdf	00 56 31.2	-3.6
	0.2nm,0.6s,baz=45,slow=2.6,SNR=4.3						

KRSC 13 00:39:46.8±0.8**, 49.19N×156.15E, h34^{km}**±10^{km}**, ML4.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.50	359	*e*P	P	00 40 10.4	-1.2
SKR				*e*S	S	00 40 29.7	-0.4
ALID	Alaid	1.73	347	*e*P	P	00 40 19.1	+4.2
PAU	Pauzhetka	2.32	10	*e*P	P	00 40 23.4	0.0
PAU				*e*S	S	00 40 49.6	-1.4
PAU				Smax			
	400nm,0.2s						
RUS	Russkaya	3.58	24	*e*P	P	00 40 41.6	+0.3
RUS				*e*S	S	00 41 21.8	-1.1
GRL	Gorelyy	3.58	19	*e*P	P	00 40 42.4	+1.1
GRL				*e*S	S	00 41 23.0	0.0
APC	Apacha	3.79	9	*e*P	P	00 40 46.3	+1.9
APC				*e*S	S	00 41 29.7	+1.2
KRMR	Karymshinskiy	3.85	18	*e*P	P	00 40 46.1	+0.9
KRMR				*e*S	S	00 41 29.2	-0.8
PET	Petropavlovsk	4.15	21	*e*P	P	00 40 50.0	+0.6
PET				*e*S	S	00 41 36.2	-1.3
UGLR	Uglovaya	4.36	22	*e*P	P	00 40 53.1	+0.7
UGLR				*e*S	S	00 41 41.3	-1.5
AVH	Avacha	4.39	21	*e*P	P	00 40 54.2	+1.3
AVH				*e*S	S	00 41 43.5	-0.1
KOK	Koryaka	4.39	20	*e*P	P	00 40 53.6	+0.7
KOK				*e*S	S	00 41 42.1	-1.5
SDLR	Sedlovina	4.44	22	*e*P	P	00 40 53.6	+0.1
SDLR				*e*S	S	00 41 42.4	-2.4
NLC	Nalytchevo	4.46	26	*e*P	P	00 40 52.8	-1.1
NLC				*e*S	S	00 41 40.9	-4.5
SPN	Mys Shipunski	4.61	30	*e*P	P	00 40 56.0	0.0
SPN				*e*S	S	00 41 46.5	-2.6
GNL	Ganaly	4.65	13	*e*P	P	00 40 56.0	-0.5
GNL				*e*S	S	00 41 46.2	-3.8

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*IDC **13** 00:39:54.1±4.7, 35.40N×71.33E, mb3.8/4, mb1 4.0/5, mb1mx3.5/20, ML4.0/1, Error ellipse: s-maj=92.2km s-min=52.9km az=161.0*

*NEIC **13** 00:39:56.4±2.6, 35.44N×70.97E, h10^{km}, mb3.5/2, Error ellipse: s-maj=43.2km s-min=18.6km az=144.0*

*NNC **13** 00:40:20.2±5.0, 37.48N×70.43E, mpv4.0, Error ellipse: s-maj=83.2km s-min=36.5km az=133.0*

ISC 13 00:40:15.0±1.3**, 36.49N**±0.05×**71.7E**±0.2**, h139^{km}**±15^{km}**, n33, σ1^{s}00**/39**, mb3.5**/3**, 3C-1D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	5.21	140	*e*P	P	00 41 31.0	-0.9
THN				*e*		00 42 33.6	
DLH	Dalhousie	5.26	137	*e*P	P	00 41 32.0	-0.6
DLH				*e*S	S	00 42 34.0	+1.4
AML	Almayashu	5.84	14	P	P	00 41 40.5	+0.2
	SNR=36						
AML	Almayashu	5.84	14	⇓*i*Pn	P	00 41 40.3	0.0
	18nm,0.5s						
AML				*e*S	S	00 42 41.2	-5.3
UCH	Uchtor	6.12	20	P	P	00 41 44.8	+0.7
	SNR=9.9						
UCH	Uchtor	6.12	20	*e*P	P	00 41 44.6	+0.4
	5.0nm,0.4s						
UCH				*e*S	S	00 42 53.0	-0.5
KZA	Kyzart	6.21	25	P	P	00 41 46.4	+1.0
	SNR=7.2						
EKS2	Erkin-Say	6.36	14	*e*P	P	00 41 47.2	-0.3
	4.2nm,0.6s						
EKS2				*e*S	S	00 42 57.6	-1.6
AAK	Ala-Archa	6.50	18	⇑P	P	00 41 50.2	+0.9
	6.2nm,0.5s						
AAK				⇑S	S	00 43 01.5	-0.9
	17nm,0.6s						
AAK	Ala-Archa	6.50	18	P	P	00 41 50.1	+0.8
	SNR=16						

AAK	Ala-Archa	6.50	18	*e*P	P	00 41 48.8	-0.5
	11nm,0.4s						
SDNR	Sundarnagar	6.60	137	*e*P	P	00 41 50.8	+0.1
	167nm,0.2s						
SDNR				*e*S	S	00 43 06.2	+1.2
CHMS	Chumysh	6.90	19	P	P	00 41 55.4	+0.6
	SNR=7.7						
TKM2	Tokmak 2	7.08	24	P	P	00 41 57.6	+0.5
	SNR=5.7						
TKM2	Tokmak 2	7.08	24	*e*P	P	00 41 57.0	-0.1
	4.1nm,0.5s						
USP	Ospenovka	7.09	17	P	P	00 41 57.3	-0.1
	SNR=5.9						
MK31	Makanchi Array	12.96	34	P	P	00 43 24.2	+9.5
	1.3nm,0.8s,baz=219,slow=10,SNR=4.8						
KOLN	Koldanda	13.28	128	*e*P	P	00 43 17.9	-1.0
	4.3nm,0.2s						
GKN	Gorkha	13.80	124	*e*P	P	00 43 24.6	-1.0
	18nm,0.4s						
KKN	Kakani	14.37	123	*e*P	P	00 43 31.6	-1.2
	19nm,0.6s						
DMN	Daman	14.37	124	*e*P	P	00 43 33.0	+0.1
	11nm,0.4s						
PKI	Pulchoki	14.60	124	*e*P	P	00 43 35.7	0.0
	12nm,0.5s						
GUN	Gumba	14.70	122	*e*P	P	00 43 36.3	-0.7
	9.5nm,0.3s						
BVA0	Borovoye Array	16.56	357	P	P	00 44 02.1	+2.0
	0.3nm,1.1s,baz=165,slow=12,SNR=5.8						
BVAR	Borovoye Array	16.56	357	P	P	00 44 00.2	0.0
	0.5nm,0.3s,baz=164,slow=11,SNR=5.1						
BRVK	Borovoye	16.60	357	P	P	00 44 02.2	+1.6
	2.5nm,0.5s						
CHKZ	Chkalovo	17.21	358	⇑P	P	00 44 07.7	-0.3
	11nm,2.8s						
CHKZ	Chkalovo	17.21	358	*e*P	P	00 44 07.6	-0.4
	1.0nm,0.4s						
ZAL	Zalesovo	19.67	23	P	P	00 44 37.2	+2.2
	1.7nm,0.4s,baz=226,slow=5.5,SNR=10						
FINES	FINESS Array B	37.83	326	P	P	00 47 18.1	-1.1
	2.5nm,0.9s,mb3.8,baz=90,slow=9.5,SNR=4.0						
NB2	NORSAR Subarra	44.75	323	P	P	00 48 13.9	-1.8
	0.4nm,0.4s,mb3.4,baz=100,slow=7.4						
NOA	NORSAR Array B	44.75	323	P	P	00 48 14.2	-1.5
	1.4nm,0.8s,mb3.6,baz=100,slow=7.7,SNR=4.4						
YKA	Yellowknife Ar	81.23	3	P	P	00 52 17.2	+1.1
	0.3nm,0.6s,mb3.1,baz=348,slow=5.4,SNR=8.0						

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*SNSN **13** 00:53:59.4, 24.87N×36.20E, Ml2.9*
*CSEM **13** 00:54:02.2±0.1, 24.94N×36.06E, h35^{km}, ML2.9, Error ellipse: s-maj=3.1km s-min=2.7km az=125.0*
*HLW **13** 00:54:03.4, 24.94N×36.03E, h24^{km}, Mb3.4*
ISC 13 00:54:00.6±1.0**, 24.91N**±0.05×**36.11E**±0.04**, h21**^{km}±12^{km}**, n15, σ0^{s}62**/18**, 3C-1D, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UMJS	Umm Lajj	1.13	73	P	Pb	00 54 21.3	-0.1
UMJS				S	Sb	00 54 34.6	-1.0
HAGS	Hagol	1.16	243	⇑P	Pb	00 54 22.2	+0.5
EMRS	Mersa Alam	1.16	275	P	Pn	00 54 21.7	-0.1
HADB		1.42	288	⇑P	Pn	00 54 25.2	-0.3
YNBS	Yanbu‘ al Bahr	1.80	108	P	Pn	00 54 32.2	+1.2
YNBS				S	Sn	00 54 52.7	-0.7
HSHL	Bi’r Shalatayn	1.91	200	⇑P	Pn	00 54 33.4	+0.8
HSHL				S	Sn	00 54 55.4	-0.9
HSFG		2.57	310	P	Pn	00 54 41.2	-0.7
HEDF	Idfu	2.67	274	P	Pn	00 54 43.5	+0.1
KBRS	Khaybar	2.98	72	P	Pn	00 54 48.9	+1.1
HHRG	Al Ghardaqah	3.24	316	⇓*e*P	Pn	00 54 50.9	-0.6
TBKS	Tabuk	3.32	7	P	Pn	00 54 52.8	+0.1
JMQS	Jabal Moqyreh	3.96	357	P	Pn	00 55 02.1	+0.4
HAQS	Haql	4.26	346	P	Pn	00 55 06.0	+0.1
JMOS	Jabal al Moall	4.33	348	P	Pn	00 55 07.2	+0.2
HMSM	Jabal Masmas	4.36	243	P	Pn	00 55 07.3	-0.2

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*NEIC **13** 00:58:50.7, 19.39N×155.22W, h34^{km}, ML3.4(HVO), After HVO.*
NEIC Felt [IV] at Glenwood, Hilo and Volcano; [III] at Kalapana and Volcano Golf Course; [II] at Waimea.
*IDC **13** 00:58:57.3±30.0, 20.59N×154.63W, mb3.4/3, mb1 3.9/3, mb1mx3.6/18, Error ellipse: s-maj=633.0km s-min=54.9km az=39.0*
ISC 13 00:58:50.8±1.0**, 19.3N**±0.1×**155.7W**±0.2**, h50**^{km}±10^{km}**, n9, σ0^{s}74**/9**, mb3.5**/3**, Hawaiian Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HPO	Honuapo	0.24	153	*e*P	P	00 58 58.9	-0.5
KKH	Kailua Kona	0.48	317	*e*P	P	00 59 03.6	+1.8
HKL	Haleakala	1.50	339	*e*P	P	00 59 15.4	-0.5
HON	Honolulu	2.97	313	*e*P	P	00 59 35.9	-0.8
KIP	Kipapa	3.05	314	*e*P	P	00 59 37.4	-0.3
ILAR	Eielson Array	45.82	5	P	P	01 07 09.7	+0.3
	0.8nm,0.7s,mb3.7,baz=192,slow=7.2,SNR=8.7						
TXAR	Lajitas Array	48.10	68	P	P	01 07 28.2	+0.5
	0.4nm,0.9s,mb3.4,baz=259,slow=9.2,SNR=3.7						
YKA	Yellowknife Ar	51.56	23	P	P	01 07 53.1	-0.6
	0.4nm,0.9s,mb3.4,baz=230,slow=7.7,SNR=6.4						
WB2	Warramunga Arr	78.88	244	*e*P	P	01 10 51.2	+0.2

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*DJA **13** 01:02:24.3±0.8, 8.61S×117.85E, h240^{km}, MD4.6/4, ML4.5/2, Error ellipse: s-maj=92.5km s-min=20.8km az=3.0*
*IDC **13** 01:02:27.7±7.4, 8.12S×118.37E, h232^{km}±78^{km}, mb3.6/4, mb1 3.8/6, mb1mx3.5/17, Error ellipse: s-maj=41.9km s-min=24.4km az=79.0*
*NEIC **13** 01:02:28.6±3.2, 8.14S×118.43E, h240^{km}±32^{km}, mb4.2/3, Error ellipse: s-maj=29.5km s-min=18.4km az=67.0*
ISC 13 01:02:25.2±1.1**, 8.5S**±0.2×**117.8E**±0.2**, h241**^{km}±15^{km}**, n16, σ0^{s}90**/22**, mb4.0**/4**, 1C-8D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	Kedomdong	1.62	269	⇓*e*Pn	P	01 03 04.2	+0.3
	519nm,0.3s						
KEDI				⇓*e*Sn	S	01 03 34.3	+0.4
RATI	Rata	2.21	263	⇑*e*Pn	P	01 03 09.6	+0.4
RATI				⇓*e*Sn	S	01 03 41.9	-1.5
KELI	Kelakatan	3.23	274	⇓*e*Pn	P	01 03 21.0	+0.8
	94nm,0.2s						
KELI				⇓*e*Sn	S	01 04 02.3	-0.6
SRDI	Scrawed	3.57	270	⇓*e*Pn	P	01 03 24.4	+0.3
SRDI	Scrawed	3.57	270	⇓*e*P	P	01 03 24.9	+0.8
SRDI				⇓*e*Sn	S	01 04 09.8	0.0
FITZ	Fitzroy Crossi	12.27	142	*e*P	P	01 05 14.4	+1.0
	2.4nm,0.3s						
FITZ				*e*S	S	01 07 25.1	-0.9
FITZ	Fitzroy Crossi	12.27	142	P	P	01 05 15.0	+1.6
	1.1nm,0.3s,baz=356,slow=9.7,SNR=25						
FITZ				S	S	01 07 25.8	-0.2
	0.9nm,0.3s,baz=185,slow=23,SNR=7.4						
WRA	Warramunga Arr	19.69	127	P	P	01 06 36.6	-1.3
	1.7nm,0.3s,baz=301,slow=12,SNR=129						
WRAB	Tennant Creek	19.70	127	*e*P	P	01 06 36.6	-1.3
	6.5nm,0.3s						
WB2	Warramunga Arr	19.70	127	*e*P	P	01 06 36.7	-1.3
ASPA	Alice Springs	21.62	136	*e*P	P	01 06 57.9	+1.0
ASAR	Alice Springs	21.63	136	P	P	01 06 57.9	+1.0
	5.7nm,0.4s,mb4.5,baz=313,slow=9.1,SNR=85						
NWAO	Narrogin (SRO)	24.34	181	P	P	01 07 27.6	+4.9
	4.0nm,0.4s,mb4.4,baz=4.0,slow=9.4,SNR=8.5						
NWAO	Narrogin (SRO)	24.34	181	*e*P	P	01 07 27.7	+5.0
	3.6nm,0.5s,mb4.3						
STKA	Stephens Creek	32.15	140	P	P	01 08 33.4	+0.9
	2.7nm,0.7s,mb3.9,baz=310,slow=8.6,SNR=7.8						
SONM	Songino Array	56.95	351	P	P	01 11 47.2	-0.3
	0.3nm,0.4s,mb3.3,baz=168,slow=8.5,SNR=5.2						

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*IDC **13** 01:04:09.9±0.8, 3.36S×135.71E, mb4.3/7, mb1 4.5/11, mb1mx4.4/15, ML4.1/4, MS3.6/6, Ms1 3.6/6, ms1mx3.4/14, Error ellipse: s-maj=44.9km s-min=17.4km az=68.0*
*BJI **13** 01:04:10.9, 4.36S×134.91E, h33^{km}, mB5.1, mb4.9*
*NEIC **13** 01:04:11.4±0.4, 3.42S×135.62E, h10^{km}, mb4.2/8, Error ellipse: s-maj=11.1km s-min=6.8km az=77.0*
ISC 13 01:04:13.8±2.0**, 3.72S**±0.06×**135.6E**±0.1**, h45**^{km}±18^{km}**, n41, σ1^{s}23**/41**, mb4.6**/16**, MS3.7**/3**, 1D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.46	199	*e*P	P	01 06 30.7	+0.4
	30nm,0.5s						
KAKA				*e*S	S	01 08 12.6	-3.8
PMG	Port Moresby	12.84	117	Pn	P	01 07 10.6	-5.6
	0.6nm,0.3s,baz=274,slow=15,SNR=2.9						
PMG	Port Moresby	12.84	117	*e*P	P	01 07 14.6	-1.5
WRAB	Tennant Creek	16.16	184	*e*P	P	01 07 57.3	-2.2
	19nm,0.9s						
WRA	Warramunga Arr	16.17	184	Pn	P	01 07 58.3	-1.3
	0.5nm,0.3s,baz=3.3,slow=13,SNR=11						
WRA				Sn	S	01 10 50.6	-6.5
	1.7nm,0.3s,baz=7.3,slow=22,SNR=8.5						
FITZ	Fitzroy Crossi	17.29	213	*e*P	P	01 08 15.7	+2.1
	6.5nm,0.5s						
FITZ	Fitzroy Crossi	17.29	213	P	P	01 08 13.5	-0.1
	1.7nm,0.3s,baz=23,slow=11,SNR=6.8						
FITZ				S	S	01 11 14.9	-7.6
	6.2nm,0.3s,baz=187,slow=15,SNR=13						
FITZ				LR	LR	01 15 30.8	
	comp=Z,89nm,21.6s,baz=177,slow=39						
CTA	Charters Tower	19.33	148	*e*P	P	01 08 41.1	+2.9
	6.2nm,0.4s						
CTA	Charters Tower	19.33	148	P	P	01 08 40.2	+2.0
	1.4nm,0.3s,baz=321,slow=11,SNR=17						
CTA				LR	LR	01 16 53.7	
	comp=Z,197nm,19.8s,baz=220,slow=39						
CTAO	Charters Tower	19.33	148	*e*P	P	01 08 40.1	+1.8
	13nm,0.8s						
ASAR	Alice Springs	19.90	184	P	P	01 08 47.0	+2.6
	24nm,0.7s,baz=10.0,slow=10.0,SNR=92						
ASAR				S	S	01 12 19.4	-1.4
	2.2nm,0.9s,baz=6.0,slow=17,SNR=4.7						
ASAR				LR	LR	01 16 59.2	
	comp=Z,333nm,18.9s,baz=3.2,slow=38						
ASPA	Alice Springs	19.90	184	*e*P	P	01 08 47.0	+2.6
MBWA	Marble Bar	23.18	220	*e*P	P	01 09 22.1	+4.5
STKA	Stephens Creek	28.58	169	*e*P	P	01 10 09.0	+1.1
	2.5nm,0.8s,mb4.0						
STKA	Stephens Creek	28.58	169	P	P	01 10 08.9	+0.9
	3.5nm,0.8s,mb4.1,baz=343,slow=9.4,SNR=8.3						
STKA				LR	LR	01 23 59.4	
	comp=Z,46nm,20.2s,MS3.1,baz=12,slow=41						
NJ2	Nanjing	38.95	337	*e*P	P	01 11 38.4	+1.1
CMAR	Chiang Mai Arr	42.26	303	P	P	01 12 05.2	+0.3
	0.8nm,0.3s,mb3.8,baz=127,slow=7.2,SNR=7.0						
BJI	Beijing	47.04	340	*e*P	P	01 12 47.7	+4.8
BJI				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.9						
LZH	Lanzhou	49.47	326	*e*P	P	01 13 02.6	+0.8
LZH				AP	pP	01 13 09.1	-5.2
LZH				XP	sP	01 13 11.5	-8.1
HHC	Hu-ho-hao-te	49.48	336	*e*P	P	01 13 00.8	-1.0
HHC				AP	pP	01 13 09.6	-4.7
HHC				XP	sP	01 13 12.3	-7.4
HHC				AMB	AMB		
	comp=Z,8.0nm,0.5s,mb5.0						
HHC				AMB	AMB		
	comp=Z,119nm,5.1s						
SHL	Shillong	51.37	307	⇓*e*P	P	01 13 16.5	+0.1
GTA	Gaotai	54.07	326	*e*P	P	01 13 36.4	+0.1
GTA				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.9						
ULN	Ulaanbaatar	57.12	338	*e*P	P	01 13 56.7	-1.5
SONM	Songino Array	57.34	337	P	P	01 13 58.2	-1.6
	comp=Z,0.7nm,0.8s,mb3.8,baz=159,slow=7.2,SNR=5.6						
SONM				PcP	PcP	01 14 52.7	-0.5
	comp=Z,1.4nm,0.8s,baz=162,slow=3.5,SNR=5.8						
PKI	Pulchoki	57.45	306	*e*P	P	01 14 01.0	+0.2
KKN	Kakani	57.64	306	*e*P	P	01 14 02.3	+0.1
DMN	Daman	57.71	306	*e*P	P	01 14 03.2	+0.6
	comp=Z,17nm,0.8s,mb5.1						
GKN	Gorkha	58.25	306	*e*P	P	01 14 06.8	+0.4
	comp=Z,26nm,0.8s,mb5.3						
KOLN	Koldanda	58.99	305	*e*P	P	01 14 11.7	+0.1
	comp=Z,41nm,1.0s,mb5.4						
ZAL	Zalesovo	71.25	331	P	P	01 15 29.0	-1.2
	comp=Z,1.6nm,0.7s,mb4.0,baz=356,slow=7.0,SNR=12						
ZAL	Zalesovo	71.25	331	P	P	01 15 29.0	-1.2
AAK	Ala-Archa	71.77	317	*e*P	P	01 15 33.1	-0.3
	comp=Z,1.8nm,0.8s,mb4.0						
VNDA	Vanda	75.08	174	LR	LR	01 49 09.2	
	comp=Z,103nm,18.1s,MS4.2,baz=338,slow=36						
SBA	Scott Base	75.89	174	*e*P	P	01 15 59.4	+2.5
	comp=Z,20nm,1.4s,mb4.8						
BVAR	Borovoye Array	78.35	326	P	P	01 16 11.2	+0.2
	comp=Z,4.1nm,0.8s,mb4.4,baz=117,slow=6.6,SNR=22						
BRVK	Borovoye	78.42	326	*e*P	P	01 16 11.3	-0.1
	comp=Z,6.4nm,0.9s,mb4.5						
MAW	Mawson	80.02	202	LR	LR	01 46 31.3	
	comp=Z,45nm,20.0s,MS3.8,baz=245,slow=32						
IMA	Indian Mountai	85.68	23	*e*P	P	01 16 49.1	+0.4
	comp=Z,56nm,1.3s,mb5.6						
ILAR	Eielson Array	88.05	25	P	P	01 16 58.9	-1.4
	comp=Z,2.0nm,0.8s,mb4.4,baz=266,slow=4.4,SNR=17						
LPAZ	La Paz	149.28	131	PKP	PKPdf	01 23 59.4	+5.1
	comp=Z,4.3nm,1.0s,baz=281,slow=3.5,SNR=2.9						
LPAZ				PKPbc	PKPdf	01 24 03.8	+10
	comp=Z,3.5nm,0.8s,baz=216,slow=3.3,SNR=12						
LPAZ	La Paz	149.28	131	*e*PKPdf	PKPdf	01 23 58.3	+4.1
LPAZ				PKP	PKPdf	01 23 59.4	+5.1
LPAZ				*e*PKPbc	PKPdf	01 24 03.0	+8.8
LPAZ				PKPbc	PKPdf	01 24 03.8	+10

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*IDC **13** 01:22:04.3±8.3, 29.17S×178.84W, h386^{km}±83^{km}, mb3.4/3, mb1 3.7/4, mb1mx3.3/14, Error ellipse: s-maj=78.7km s-min=42.9km az=27.0*
*NEIC **13** 01:22:05.1±1.5, 29.24S×178.83W, h400^{km}, mb3.8/2, Error ellipse: s-maj=32.6km s-min=20.6km az=68.0*
ISC 13 01:22:03.2±1.9**, 29.18S**±0.08×**178.7W**±0.4**, h407**^{km}±23^{km}**, n21, σ0^{s}93**/23**, mb3.7**/4**, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	8.73	196	S	S	01 25 46.1	+0.2
PUZ	Puketiti	9.23	195	*e*P	P	01 24 11.9	-1.5
PUZ				*e*S	S	01 25 55.7	-0.6
MWZ	Matawai	9.66	198	*e*P	P	01 24 18.1	-0.3
URZ	Urewera	9.71	200	P	P	01 24 18.4	-0.6
	7.0nm,0.3s,baz=333,slow=4.0,SNR=35						
URZ				S	S	01 26 07.4	+1.1
	6.6nm,0.3s,baz=120,slow=23,SNR=16						
URZ	Urewera	9.71	200	*e*P	P	01 24 18.0	-0.9
MGZ	Maungaku	10.91	205	*e*P	P	01 24 34.9	+2.0
NGZ	Ngauruhoe	11.04	204	*e*P	P	01 24 35.7	+1.3
TUVZ	Tukino	11.10	204	*e*P	P	01 24 35.3	+0.2
KIW	Kapiti Island	12.78	203	*e*P	P	01 24 54.3	+0.3
KIW				*e*S	S	01 27 08.8	-1.4
MTW	Mount Morrison	12.86	200	*e*S	S	01 27 11.1	-0.7
NNZ	Nelson	13.65	206	S	S	01 27 26.8	-0.7
KHZ	Kahutara	14.63	203	*e*P	P	01 25 13.6	-0.1
KHZ				*e*S	S	01 27 47.3	+0.5
MQZ	McQueen’s Vall	16.08	203	*e*S	S	01 28 17.4	+3.2
CTA	Charters Tower	33.05	278	P	P	01 28 05.0	+0.8
	2.8nm,0.5s,mb3.9,baz=102,slow=11,SNR=9.5						
CTAO	Charters Tower	33.05	278	*e*P	P	01 28 04.7	+0.5
	2.7nm,0.5s,mb3.8						
ASAR	Alice Springs	42.61	266	P	P	01 29 23.1	+0.1
	1.6nm,0.7s,mb3.5,baz=108,slow=8.1,SNR=19						
WB2	Warramunga Arr	43.48	271	*e*P	P	01 29 29.8	-0.2
WRAB	Tennant Creek	43.48	271	*e*P	P	01 29 29.1	-0.9
	4.2nm,0.7s,mb3.9						
WRA	Warramunga Arr	43.49	271	P	P	01 29 29.8	-0.3
	3.4nm,0.8s,mb3.8,baz=109,slow=7.9,SNR=27						
FINES	FINESS Array B	143.81	340	PKP	PKPdf	01 40 52.7	+3.0
	0.5nm,0.3s,baz=74,slow=4.2,SNR=9.2						
FINES	FINESS Array B	143.81	340	PKP	PKPdf	01 40 52.7	+3.0

JMA 13 01:33:36.7±0.4**, 44.03N**×**148.06E, M4.2, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	1.81	249	P	Pn	01 34 09.4	+0.1
NEM2				*e*S	Sn	01 34 33.2	-0.1
JRA	Rausu	2.12	269	P	Pn	01 34 14.2	+0.3
JRA				*e*S	Sn	01 34 42.1	+0.8
JNK	Nakash	2.46	261	P	Pn	01 34 18.9	+0.2
JNK				*e*S	Sn	01 34 50.0	+0.1
JAK	Akkeshi	2.66	248	P	Pn	01 34 21.5	0.0
JTKR	Abashiri--Toko	3.00	270	P	Pn	01 34 27.7	+1.3
JAR	Ashorobuto	3.20	258	P	Pn	01 34 30.0	+0.8
JCH	Churui	3.71	249	P	Pn	01 34 36.2	-0.3

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*CSEM **13** 02:02:32.5, 38.94N×48.52E, h33^{km}, ML3.6, After THR*
THR 13 02:02:32.5±0.9**, 38.94N**×**48.52E, h33**^{km}±10^{km}**, ML3.6, 1C, Iran-Armenia-Azerbaijan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GRMI	Germi	0.51	256	*e*PG	Pb	02 02 43.7	+0.4
GRMI				*e*SG	Sb	02 02 50.9	+0.4
GRMI				AMP		02 02 51.6	
	comp=N,7μm,0.1s						
GRMI	Germi	0.51	256	⇑*i*Pg	Pb	02 02 43.7	+0.5
GRMI				*i* Sg	Sb	02 02 50.9	+0.4
	comp=N,7μm,0.1s						
MAKU	Maku	3.02	279	*e*PN	Pn	02 03 20.2	+1.0
MAKU				AMP		02 04 13.2	
	comp=N,110nm,0.6s						
MAKU	Maku	3.02	279	*e*Pn	Pn	02 03 20.2	+1.0
MAKU				Sn	Sn	02 03 55.2	+0.6
	comp=N,113nm,0.5s						
SNGE	Sanandaj	3.95	194	*e*PN	Pn	02 03 33.8	+1.3
ASAO	Ashtian	4.54	164	*e*PN	Pn	02 03 40.9	+0.1
NASN	Na’in	7.04	149	*e*PN	Pn	02 04 16.0	-0.1

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*DJA **13** 02:20:48.8±1.0, 11.36S×117.92E, h133^{km}±23^{km}, mb4.6/1, ML5.5/4, Error ellipse: s-maj=25.3km s-min=16.9km az=163.0*
ISC 13 02:20:46.9±1.5**, 11.5S**±0.1×**117.9E**±0.1**, h113**^{km}±50^{km}**, n9, σ1^{s}18**/12**, 1C-7D, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	Kedomdong	3.44	330	*e*Pn	P	02 21 41.2	+1.3
	3μm,0.2s						
KEDI				⇑*e*Sn	S	02 22 18.7	-1.5
RATI	Rata	3.58	320	⇓*e*Pn	P	02 21 43.0	+1.2
	2μm,0.2s						
KELI	Kelakatan	4.65	314	⇓*e*Pn	P	02 21 58.0	+1.7
	386nm,0.2s						
KELI				⇓*e*Sn	S	02 22 48.8	-0.8
SRDI	Scrawed	4.73	309	⇓*e*Pn	P	02 21 58.4	+1.0
	325nm,0.2s						
SRDI				⇓*e*Sn	S	02 22 50.0	-1.6
NINI	Niniconang	7.25	15	⇓*e*P	P	02 22 32.0	+0.3
	76nm,0.3s						
TANI	Tanete Lipujan	8.13	11	⇓*e*P	P	02 22 43.4	-0.2
FITZ	Fitzroy Crossi	9.98	132	*e*P	P	02 23 06.7	-1.8
	2.3nm,0.3s						
WB2	Warramunga Arr	17.94	120	*e*P	P	02 24 50.8	+0.2
ASPA	Alice Springs	19.48	131	*e*P	P	02 25 14.8	+7.4

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*NEIC **13** 02:57:50.1±1.5, 15.61S×177.79W, h397^{km}±21^{km}, mb4.0/2, Error ellipse: s-maj=75.9km s-min=13.5km az=149.0*
*IDC **13** 02:57:53.2±10.0, 15.64S×177.79W, h427^{km}±112^{km}, mb3.2/7, mb1 3.6/7, mb1mx3.4/14, Error ellipse: s-maj=91.6km s-min=28.2km az=150.0*
ISC 13 02:57:49.0±2.1**, 15.5S**±0.6×**177.9W**±0.4**, h394**^{km}±30^{km}**, n14, σ0^{s}46**/12**, mb3.5**/8**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	6.11	76	*e*P	P	02 59 23.2	0.0
	35nm,0.8s						
STKA	Stephens Creek	40.27	239	P	P	03 04 50.5	-0.5
	1.1nm,0.4s,mb3.5,baz=73,slow=11,SNR=2.9						
STKA	Stephens Creek	40.27	239	*e*P	P	03 04 50.1	-0.9
ASAR	Alice Springs	45.98	252	P	P	03 05 37.4	+0.8
	7.1nm,0.4s,mb4.3,baz=85,slow=8.1,SNR=27						
NVAR	Mina Array Bea	77.36	44	P	P	03 09 03.2	+0.2
	1.5nm,1.0s,mb3.6,baz=213,slow=7.7,SNR=7.0						
NVAR	Mina Array Bea	77.36	44	P	P	03 09 03.2	+0.2
TPNV	Topopah Spring	78.00	46	*e*P	P	03 09 06.1	-0.4
	0.8nm,0.6s,mb3.5						
ILAR	Eielson Array	83.46	13	P	P	03 09 33.8	-0.5
	1.4nm,1.0s,mb3.6,baz=223,slow=5.1,SNR=8.6						
TXAR	Lajitas Array	84.29	58	P	P	03 09 39.3	+0.1
	1.1nm,1.0s,mb3.5,baz=214,slow=6.9,SNR=6.7						
PDAR	Pinedale Array	85.27	43	P	P	03 09 44.2	+0.6
	0.1nm,0.5s,mb2.8,baz=333,slow=2.0,SNR=2.5						
PDAR	Pinedale Array	85.27	43	P	P	03 09 44.2	+0.5
YKA	Yellowknife Ar	91.96	25	P	P	03 10 14.6	0.0
	0.1nm,0.5s,mb3.0,baz=236,slow=4.7,SNR=5.3						
ARCES	ARCESS Array B	124.07	350	PKP	PKPdf	03 16 01.1	+0.2
	5.0nm,0.8s,baz=333,slow=5.4,SNR=3.7						
BRTR	Keskin Array B	143.43	317	PKP	PKPdf	03 16 38.1	+0.7
	1.5nm,0.7s,baz=45,slow=3.5,SNR=5.0						

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*BJI **13** 03:02:18.4, 7.45S×130.78E, h19^{km}, mB5.1, mb4.6, Ms4.5, Msz4.0*
*IDC **13** 03:02:19.0±0.7, 7.13S×130.67E, mb4.2/7, mb1 4.4/12, mb1mx4.4/16, ML4.3/5, MS3.5/3, Ms1 3.5/3, ms1mx3.4/11, Error ellipse: s-maj=39.0km s-min=17.7km az=58.0*
*NEIC **13** 03:02:20.0±0.5, 7.41S×130.53E, h10^{km}, mb4.6/12, Error ellipse: s-maj=15.6km s-min=7.9km az=72.0*
ISC 13 03:02:24.4±1.8**, 7.65S**±0.05×**130.51E**±0.07**, h66**^{km}±19^{km}**, n51, σ1^{s}31**/60**, mb4.5**/26**, 2D, Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	5.36	160	⇓*i*P	P	03 03 45.2	+1.6
	102nm,0.5s						
KAKA				*e*S	S	03 04 46.4	+1.7
FITZ	Fitzroy Crossi	11.42	204	*e*P	P	03 05 07.0	+0.1
	9.3nm,0.4s						
FITZ				*e*S	S	03 07 08.0	-5.7
FITZ	Fitzroy Crossi	11.42	204	Pn	P	03 05 07.0	+0.1
	2.2nm,0.3s,baz=22,slow=12,SNR=11						
FITZ				Sn	S	03 07 11.2	-2.5
	3.7nm,0.3s,baz=192,slow=18,SNR=11						
FITZ				LR	LR	03 10 14.9	
	comp=Z,117nm,18.3s,baz=55,slow=40						
WRAB	Tennant Creek	12.77	163	*e*P	P	03 05 23.0	-2.0
	19nm,0.8s						
WRAB				*e*S	S	03 07 38.6	-7.3
WRA	Warramunga Arr	12.78	163	Pn	P	03 05 23.0	-2.0
	1.9nm,0.3s,baz=342,slow=12,SNR=24						
WRA				Sn	S	03 07 40.8	-5.3
	4.8nm,0.3s,baz=350,slow=22,SNR=12						
WB2	Warramunga Arr	12.78	163	*e*P	P	03 05 23.1	-2.0
WB2				*e*S	S	03 07 39.6	-6.6
ASAR	Alice Springs	16.26	169	Pn	P	03 06 10.7	+0.7
	1.6nm,0.3s,baz=338,slow=8.8,SNR=37						
ASAR				Sn	S	03 09 06.9	-0.9
	1.6nm,0.3s,baz=356,slow=27,SNR=8.2						
ASAR				LR	LR	03 13 10.7	
	comp=Z,103nm,19.3s,baz=342,slow=39						
ASPA	Alice Springs	16.26	169	*e*P	P	03 06 10.3	+0.3
ASPA				*e*S	S	03 09 05.7	-2.1
PMG	Port Moresby	16.56	97	Pn	P	03 06 13.4	-0.5
	4.1nm,0.3s,baz=357,slow=12,SNR=7.7						
MBWA	Marble Bar	17.00	217	*e*P	P	03 06 19.8	+0.5
MBWA				*e*S	S	03 09 25.2	+0.6
CTA	Charters Tower	19.64	131	*e*P	P	03 06 53.3	+2.8
	5.3nm,0.8s						
CTA	Charters Tower	19.64	131	P	P	03 06 52.9	+2.4
	0.5nm,0.3s,baz=298,slow=13,SNR=7.0						
FORT	Forrest	23.13	185	*e*P	P	03 07 34.2	+8.6
	53nm,0.7s,mb5.0						
STKA	Stephens Creek	26.23	158	*e*P	P	03 07 58.8	+3.7
	7.1nm,0.8s,mb4.2						
STKA	Stephens Creek	26.23	158	P	P	03 07 58.9	+3.7
	6.5nm,0.9s,mb4.0,baz=340,slow=7.3,SNR=9.6						
STKA				LR	LR	03 19 48.1	
	comp=Z,310nm,18.1s,baz=217,slow=39						
KLBR	Kellerberrin	26.63	205	*e*P	P	03 08 03.3	+4.5
	14nm,1.0s,mb4.4						
CMAR	Chiang Mai Arr	40.53	310	P	P	03 09 58.4	-0.5
	2.6nm,0.7s,mb4.2,baz=142,slow=7.4,SNR=13						
CMAR				PcP	PcP	03 12 03.6	+2.7
	1.4nm,0.5s,baz=187,slow=3.2,SNR=5.5						
NJ2	Nanjing	41.01	345	*e*P	P	03 09 57.2	-5.5
NJ2				S	S	03 16 15.0	+5.1
NJ2				XS		03 16 23.0	
NJ2				AMB	AMB		
	comp=Z,80nm,0.8s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,370nm,4.8s						
NJ2				LR	LR		
	comp=N,410nm,23.7s						
NJ2				LR	LR		
	comp=E,580nm,26.0s						
NJ2				LR	LR		

	comp=Z,300nm,21.2s						
KMI	**Kunming**	**42.33**	**321**	*e*P	**P**	**03 10 13.7**	**0.0**
KMI				XP	sP	03 10 19.3	-19
KMI				S	**S**	**03 16 38.8**	**+9.2**
KMI				SS	SS	03 19 38.8	+4.8
KMI				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.5						
KMI				LR	LR		
	comp=Z,29nm,16.3s						
LZH	**Lanzhou**	**50.21**	**332**	*e*P	**P**	**03 11 17.3**	**+1.5**
LZH				AP	pP	03 11 20.4	-12
LZH				XP	sP	03 11 22.0	-18
LZH				PP	PP	03 13 13.5	+1.1
LZH				AMB	AMB		
	comp=Z,18nm,1.5s,mb4.8						
LZH				AMB	AMB		
	comp=Z,70nm,4.0s						
CN2	**Changchun**	**51.41**	**355**	*e*P	**P**	**03 11 26.2**	**+1.4**
MDJ	**Mudanjiang**	**52.02**	**359**	P	**P**	**03 11 28.9**	**-0.5**
MDJ				AMB	AMB		
	comp=Z,6.0nm,2.1s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,197nm,6.7s						
MDJ				LR	LR		
	comp=N,28nm,21.5s						
MDJ				LR	LR		
	comp=E,23nm,18.0s						
MDJ				LR	LR		
	comp=Z,28nm,22.7s						
GTA	**Gaotai**	**54.78**	**331**	*e*P	**P**	**03 11 50.3**	**+0.5**
GTA				AP	pP	03 11 54.7	-12
GTA				XP	sP	03 11 57.6	-17
GTA				PP	PP	03 13 55.7	+1.2
GTA				S	**S**	**03 19 31.3**	**+7.6**
GTA				XS		03 19 36.8	
GTA				SS	SS	03 23 12.4	+5.1
GTA				AMB	AMB		
	comp=Z,3.0nm,0.6s,mb4.5						
GTA				AMB	AMB		
	comp=Z,151nm,5.3s						
GTA				LR	LR		
	comp=N,140nm,14.4s						
GTA				LR	LR		
	comp=E,149nm,12.5s						
GTA				LR	LR		
	comp=Z,117nm,11.0s						
GUN	**Gumba**	**55.75**	**311**	*e*P	**P**	**03 11 55.9**	**-1.1**
	comp=Z,21nm,0.6s,mb5.3						
KKN	**Kakani**	**56.14**	**311**	*e*P	**P**	**03 11 58.9**	**-0.9**
	comp=Z,6.4nm,0.5s,mb4.9						
GKN	**Gorkha**	**56.73**	**311**	*e*P	**P**	**03 12 02.7**	**-1.3**
	comp=Z,15nm,0.6s,mb5.2						
KOLN	**Koldanda**	**57.40**	**310**	*e*P	**P**	**03 12 07.8**	**-1.0**
	comp=Z,18nm,0.9s,mb5.1						
ULN	**Ulaanbaatar**	**59.03**	**342**	*e*P	**P**	**03 12 18.9**	**-0.9**
	comp=Z,4.8nm,0.8s,mb4.6						
SONM	**Songino Array**	**59.21**	**341**	P	**P**	**03 12 19.7**	**-1.3**
	comp=Z,1.8nm,0.5s,mb4.3,baz=158,slow=6.8,SNR=24						
SONM				PcP	PcP	03 13 08.1	-0.4
	comp=Z,1.0nm,0.7s,baz=167,slow=3.5,SNR=3.7						
YAK	**Yakutsk**	**69.47**	**360**	*e*P	**P**	**03 13 25.1**	**-2.4**
	comp=Z,23nm,0.6s,mb5.2						
KZA	**Kyzart**	**70.59**	**320**	P	**P**	**03 13 36.1**	**+1.5**
	SNR=7.9						
TKM2	**Tokmak 2**	**70.80**	**320**	P	**P**	**03 13 36.9**	**+1.0**
	SNR=5.8						
TKM2	**Tokmak 2**	**70.80**	**320**	*e*P	**P**	**03 13 36.4**	**+0.5**
	comp=Z,3.1nm,0.6s,mb4.3						
UCH	**Uchtor**	**71.14**	**319**	P	**P**	**03 13 39.9**	**+1.9**
	SNR=8.0						
UCH	**Uchtor**	**71.14**	**319**	*e*P	**P**	**03 13 39.2**	**+1.2**
	comp=Z,5.7nm,0.8s,mb4.5						
AAK	**Ala-Archa**	**71.35**	**320**	*e*P	**P**	**03 13 39.2**	**0.0**
	comp=Z,3.9nm,1.0s,mb4.2						
AML	**Almayashu**	**71.62**	**319**	P	**P**	**03 13 41.7**	**+0.8**
	SNR=7.8						
AML	**Almayashu**	**71.62**	**319**	*e*P	**P**	**03 13 42.0**	**+1.1**
	comp=Z,8.9nm,0.8s,mb4.7						
USP	**Ospenovka**	**71.67**	**320**	P	**P**	**03 13 42.0**	**+0.9**
	SNR=5.9						
EKS2	**Erkin-Say**	**71.83**	**320**	P	**P**	**03 13 43.2**	**+1.2**
	SNR=7.9						
EKS2	**Erkin-Say**	**71.83**	**320**	*e*P	**P**	**03 13 42.9**	**+0.8**
	comp=Z,4.6nm,0.8s,mb4.4						
ZAL	**Zalesovo**	**72.38**	**334**	P	**P**	**03 13 44.2**	**-0.9**
	comp=Z,1.3nm,0.7s,mb3.8,baz=303,slow=3.5,SNR=5.8						
ZAL	**Zalesovo**	**72.38**	**334**	P	**P**	**03 13 44.2**	**-0.9**
MAW	**Mawson**	**74.54**	**202**	P	**P**	**03 14 02.3**	**+4.9**
	comp=Z,3.8nm,0.8s,mb4.2,baz=27,slow=3.1,SNR=4.5						
MAW	**Mawson**	**74.54**	**202**	P	**P**	**03 14 00.6**	**+3.1**
	comp=Z,6.2nm,1.0s,mb4.3						
BVAR	**Borovoye Array**	**78.87**	**328**	P	**P**	**03 14 22.3**	**+0.3**
	comp=Z,0.7nm,0.5s,mb3.8,baz=121,slow=8.6,SNR=4.7						
QSPA	**South Pole Qui**	**82.33**	**180⇓**	*i*P	**P**	**03 14 49.4**	**+10**
	comp=Z,2.6nm,0.6s,mb4.2						
ILAR	**Eielson Array**	**93.71**	**25**	P	**P**	**03 15 33.5**	**-1.2**
	comp=Z,0.3nm,0.6s,mb3.8,baz=251,slow=4.3,SNR=6.1						
TXAR	**Lajitas Array**	**124.82**	**60**	PKP	PKPdf	03 21 19.3	+1.8
	comp=Z,0.2nm,0.5s,baz=261,slow=1.2,SNR=3.9						
LPAZ	**La Paz**	**149.90**	**142**	PKPbc	PKPdf	03 22 14.2	+11
	comp=Z,4.4nm,0.9s,baz=221,slow=2.8,SNR=14						
LPAZ	**La Paz**	**149.90**	**142**	*e*PKPbc	PKPdf	03 22 14.2	+11

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*IDC **13** 03:06:53.2±1.6, 0.74N×30.14E, mb3.9/8, mb1 4.1/9, mb1mx3.9/18, ML4.4/1, MS3.9/7, Ms1 3.9/7, ms1mx3.4/21, Error ellipse: s-maj=38.3km s-min=24.4km az=10.0*

*NEIC **13** 03:06:56.0±0.4, 0.65N×30.17E, h20^{km}, mb4.3/7, Error ellipse: s-maj=11.6km s-min=8.0km az=72.0*

ISC 13 03:06:54.0±0.5**, 0.68N**±0.06×**30.14E**±0.07**, h20**^{km}**, n27, σ0^{s}99**/24**, mb4.1**/14**, MS3.9**/6**, 1C, Uganda**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBAR	**Mbarara**	**1.41**	**155⇑**	*i*Pn	**Pn**	**03 07 20.1**	**+1.3**
MBAR				*e*S	**Sn**	**03 07 35.9**	**-1.0**
KMBO	**Kilima Mbogo**	**7.33**	**104**	Pn	**Pn**	**03 08 41.3**	**-1.5**
	6.5nm,0.3s,baz=278,slow=16,SNR=117						
KMBO				Sn	**Sn**	**03 10 07.2**	**+1.0**
	6.6nm,0.3s,baz=249,slow=20,SNR=7.3						
KMBO				Lg		03 10 40.4	
	9.9nm,0.3s,baz=238,slow=22,SNR=5.1						
KMBO				LR	LR	03 11 42.0	
	comp=Z,1µm,18.9s,baz=286,slow=39						
KMBO	**Kilima Mbogo**	**7.33**	**104**	Pn	**Pn**	**03 08 41.3**	**-1.5**
KMBO				Sn	**Sn**	**03 10 07.2**	**+1.0**
KMBO				Lg		03 10 40.4	
KMBO				*e*Sg	Sn	03 10 41.3	+35
KMBO				LR	LR	03 11 42.0	
LBTB	**Lobatse**	**25.92**	**189**	*e*P	**P**	**03 12 26.0**	**-0.9**
	4.9nm,0.9s,mb4.0						
DBIC	**Dimbokro**	**35.41**	**281**	P	**P**	**03 13 51.2**	**+0.1**
	6.1nm,0.9s,mb4.5,baz=88,slow=8.5,SNR=12						
DBIC				LR	LR	03 27 52.0	
	comp=Z,72nm,21.6s,MS3.4,baz=174,slow=36						
DBIC	**Dimbokro**	**35.41**	**281**	P	**P**	**03 13 51.2**	**+0.1**
DBIC				LR	LR	03 27 52.0	
ISP	**Isparta**	**36.98**	**0**	*e*P	**P**	**03 14 04.2**	**+0.1**
	3.9nm,0.7s,mb4.3						
MALT	**Malatya**	**38.22**	**11**	*e*P	**P**	**03 14 16.0**	**+1.5**
	7.6nm,1.0s,mb4.4						
MALT				*e*		03 14 25.2	
BRTR	**Keskin Array B**	**38.99**	**4**	P	**P**	**03 14 22.4**	**+1.4**
	1.7nm,0.9s,mb3.8,baz=180,slow=9.9,SNR=6.9						
GNI	**Garni**	**41.47**	**17**	LR	LR	03 32 13.4	
	comp=Z,90nm,20.5s,MS3.6,baz=28,slow=37						
ESDC	**Sonseca Array**	**49.72**	**325**	P	**P**	**03 15 46.5**	**-0.6**
	2.7nm,1.0s,mb4.2,baz=126,slow=7.8,SNR=4.1						
AKASG	**Malin Array Be**	**49.84**	**359**	P	**P**	**03 15 46.9**	**-0.9**
	0.1nm,0.3s,mb3.3,baz=187,slow=7.4,SNR=4.8						
GERES	**GERESS Array B**	**50.03**	**346**	P	**P**	**03 15 47.8**	**-1.4**
	0.3nm,0.3s,mb3.8,baz=153,slow=9.0,SNR=5.2						
KHC	**Kasperske Hory**	**50.32**	**346**	*e*P	**P**	**03 15 51.5**	**0.0**
AAK	**Ala-Archa**	**57.61**	**38**	*e*P	**P**	**03 16 45.1**	**-0.1**
	3.6nm,1.2s,mb4.3						
FINES	**FINESS Array B**	**60.68**	**358**	P	**P**	**03 17 05.6**	**-0.5**
	1.4nm,0.8s,mb4.2,baz=214,slow=5.0,SNR=3.8						
NB2	**NORSAR Subarra**	**61.92**	**350**	P	**P**	**03 17 14.0**	**-0.6**
	0.8nm,0.8s,mb3.9,baz=162,slow=6.5						
NOA	**NORSAR Array B**	**61.92**	**350**	P	**P**	**03 17 13.9**	**-0.6**
	0.5nm,0.8s,mb3.7,baz=126,slow=7.6,SNR=3.4						
CHKZ	**Chkalovo**	**62.48**	**26**	*e*P	**P**	**03 17 17.4**	**-1.0**
	3.7nm,0.9s,mb4.5						
CHKZ				*e*	pP	03 17 23.8	-0.8
ZAL	**Zalesovo**	**69.42**	**31**	P	**P**	**03 18 03.1**	**+0.4**
	0.9nm,0.3s,mb4.1,baz=6.6,slow=4.8,SNR=4.0						
CMAR	**Chiang Mai Arr**	**69.70**	**71**	LR	LR	03 47 30.9	
	comp=Z,40nm,18.1s,MS3.7,baz=268,slow=35						
BDFB	**Brasilia**	**78.78**	**254**	LR	LR	03 50 06.1	
	comp=Z,104nm,18.6s,MS4.2,baz=222,slow=33						
PMSA	**Palmer Station**	**92.41**	**205**	*e*P	**P**	**03 20 05.3**	**+1.0**
	29nm,0.8s						
SAML	**Samuel**	**93.39**	**261**	*e*P	**P**	**03 20 11.8**	**+1.7**
	4.4nm,1.3s,mb4.7						
SJG	**San Juan**	**95.77**	**288**	LR	LR	03 57 40.1	
	comp=Z,87nm,20.5s,MS4.2,baz=279,slow=32						
LPAZ	**La Paz**	**98.13**	**254**	LR	LR	04 02 32.6	
	comp=Z,68nm,19.5s,MS4.2,baz=173,slow=34						
TXAR	**Lajitas Array**	**126.78**	**308**	PKP	PKPdf	03 26 00.2	-1.1
	0.3nm,0.8s,baz=135,slow=1.8,SNR=3.5						

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*CASC **13** 03:19:45.0±1.2, 13.43N×90.01W, h34^{km}±3^{km}, MD3.4*

*SSS **13** 03:19:45.4, 13.42N×89.95W, h30^{km}, MD2.9*

GCG 13 03:19:44.7, 13.42N×90.12W, h27^{km}, MD3.8, 2C-4D, Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SBLS	**San Blas**	**0.64**	**49⇓**	*e*P	Pb	03 19 57.0	-0.2
SBLS				*e*S	Sb	03 20 05.7	-0.1
RTR	**El Retiro**	**0.66**	**44⇓**	*e*P	Pb	03 19 57.4	-0.2
RTR				*e*S	Sb	03 20 06.2	-0.3
RBDL	**Robledal**	**0.81**	**31⇑**	*e*P	Pb	03 19 59.5	-0.6
RBDL				*e*S	Sb	03 20 11.7	+1.1
IXG	**Ixpaco**	**0.82**	**336⇓**	*e*P	Pb	03 20 00.1	-0.2
IXG				*e*S	Sb	03 20 12.7	+1.7
BOQS	**Boqueron**	**0.87**	**69**	*e*P	Pb	03 19 59.4	-1.8
BOQS				*e*S	Sb	03 20 11.2	-1.3
LFU	**La Fuente**	**1.03**	**71⇑**	*e*P	Pn	03 20 02.0	-1.5
LFU				*e*S	Sb	03 20 14.9	-2.0
LFRS	**El Faro**	**1.05**	**79⇓**	*e*P	Pn	03 20 02.0	-1.7
LFRS				*e*S	Sb	03 20 15.3	-2.1
LBRS	**Las Brisas**	**1.09**	**73**	*e*P	Pn	03 20 02.7	-1.7
LBRS				*e*S	Sb	03 20 16.2	-2.5
LCBS	**La Ceiba**	**1.13**	**78**	*e*P	Pn	03 20 03.0	-2.0
LCBS				*e*S	Sn	03 20 17.0	-2.7
SNVI	**San Vicente**	**1.26**	**81**	*e*P	Pn	03 20 06.0	-0.8
SNVI				*e*S	Sn	03 20 20.1	-2.8
TP2	**Tecpan 2**	**1.62**	**327**	*e*P	Pn	03 20 12.9	+1.0
TP2				*e*S	Sn	03 20 34.5	+2.5

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*NEIC **13** 03:53:49.7±2.8, 3.52S×139.27E, h67^{km}±28^{km}, mb4.3/2, Error ellipse: s-maj=21.2km s-min=17.9km az=161.0*

*IDC **13** 03:54:00.8±4.8, 3.72S×139.47E, h184^{km}±49^{km}, mb3.6/4, mb1 3.9/8, mb1mx3.7/14, Error ellipse: s-maj=32.3km s-min=16.0km az=118.0*

ISC 13 03:53:47.7±2.7**, 3.6S**±0.1×**139.2E**±0.1**, h54**^{km}±28^{km}**, n15, σ1^{s}00**/18**, mb3.9**/3**, 1C, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**9.82**	**126**	P	**P**	**03 56 08.8**	**-0.2**
	0.9nm,0.3s,baz=299,slow=12,SNR=5.7						
PMG	**Port Moresby**	**9.82**	**126**	*e*P	**P**	**03 56 09.0**	**0.0**
KAKA	**Kakadu**	**11.25**	**216⇑**	*i*P	**P**	**03 56 28.3**	**-0.1**
	27nm,0.4s						
KAKA				*e*S	**S**	**03 58 32.2**	**-1.4**
WRAB	**Tennant Creek**	**16.91**	**196**	*e*P	**P**	**03 57 42.1**	**0.0**
	23nm,0.6s						
WB2	**Warramunga Arr**	**16.91**	**196**	*e*P	**P**	**03 57 42.2**	**0.0**
WRA	**Warramunga Arr**	**16.92**	**196**	P	**P**	**03 57 42.4**	**+0.1**
	2.1nm,0.3s,baz=18,slow=12,SNR=28						
CTA	**Charters Tower**	**17.79**	**158**	P	**P**	**03 57 53.8**	**+0.5**
	0.2nm,0.3s,baz=336,slow=12,SNR=10.0						
CTAO	**Charters Tower**	**17.79**	**158**	*e*P	**P**	**03 57 52.8**	**-0.4**
FITZ	**Fitzroy Crossi**	**19.58**	**222**	*e*P	**P**	**03 58 16.1**	**+2.0**
	9.8nm,1.0s						
FITZ				*e*S	**S**	**04 01 45.1**	**-1.7**
FITZ	**Fitzroy Crossi**	**19.58**	**222**	P	**P**	**03 58 15.8**	**+1.7**
	0.8nm,0.3s,baz=43,slow=6.1,SNR=26						
FITZ				S	**S**	**04 01 49.0**	**+2.2**
	0.5nm,0.3s,baz=180,slow=12,SNR=4.0						
ASAR	**Alice Springs**	**20.59**	**194**	P	**P**	**03 58 25.3**	**+0.6**
	21nm,0.7s,baz=22,slow=9.5,SNR=125						
ASPA	**Alice Springs**	**20.59**	**194**	*e*P	**P**	**03 58 24.9**	**+0.1**
CMAR	**Chiang Mai Arr**	**45.27**	**300**	P	**P**	**04 02 02.8**	**+0.7**
	0.8nm,0.4s,mb3.9,baz=107,slow=5.1,SNR=4.5						
BVAR	**Borovoye Array**	**80.29**	**325**	P	**P**	**04 05 53.5**	**-0.9**
	0.7nm,0.4s,mb4.0,baz=111,slow=7.6,SNR=4.6						
ILAR	**Eielson Array**	**86.44**	**24**	P	**P**	**04 06 21.8**	**-3.6**
	0.6nm,0.6s,mb4.0,baz=269,slow=4.6,SNR=8.4						

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*NEIC **13** 04:09:04.0±0.3, 0.78N×30.17E, mb4.8/35, Error ellipse: s-maj=10.1km s-min=5.9km az=75.0*

*IDC **13** 04:09:04.6±0.6, 0.81N×30.15E, h18^{km}±2^{km}, mb4.2/16, mb1 4.3/17, mb1mx4.2/21, ML4.6/1, MS4.0/11, Ms1 4.1/11, ms1mx3.7/21, Error ellipse: s-maj=17.0km s-min=13.1km az=99.0*

*MOS **13** 04:09:04.2±0.9, 0.76N×30.25E, h33^{km}, mb4.6/15, Error ellipse: s-maj=16.3km s-min=8.4km az=97.5*

ISC 13 04:09:01.9±0.3**, 0.78N**±0.04×**30.18E**±0.05**, h20**^{km}**, h20**^{km}±.8^{km}**:pP-P, n116, σ0^{s}96**/109**, mb4.6**/55**, MS4.0**/13**, 2C-3D, Uganda**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBAR	**Mbarara**	**1.48**	**158***c*	*i*P	**Pn**	**04 09 27.8**	**0.0**
MBAR	**Mbarara**	**1.48**	**158⇑**	*i*Pn	**Pn**	**04 09 27.8**	**0.0**
MBAR				*e*Pg	**Pn**	**04 09 32.8**	**+5.0**
MBAR				*e*S	**Sn**	**04 09 44.6**	**-2.1**
KMBO	**Kilima Mbogo**	**7.32**	**105**	Pn	**Pn**	**04 10 49.7**	**-0.9**
	10nm,0.3s,baz=276,slow=15,SNR=152						
KMBO				Sn	**Sn**	**04 12 14.5**	**+0.5**
	10nm,0.3s,baz=249,slow=19,SNR=3.6						
KMBO				Lg		04 12 49.9	
	21nm,0.3s,baz=18,slow=23,SNR=15						
KMBO				LR	LR	04 13 49.6	
	comp=Z,2µm,18.8s,baz=267,slow=39						
KMBO	**Kilima Mbogo**	**7.32**	**105**	P	**Pn**	**04 10 49.7**	**-0.9**
KMBO						04 12 14.5	
KMBO				pmax	pmax		
	comp=Z,10.0nm,0.3s						
KMBO				smax			
	comp=E,10.0nm,0.3s						
KMBO				MLR	MLR		
	comp=Z,2µm,18.8s						
KMBO	**Kilima Mbogo**	**7.32**	**105**	Pn	**Pn**	**04 10 49.7**	**-0.9**
KMBO				Sn	**Sn**	**04 12 14.5**	**+0.5**
KMBO				Lg		04 12 49.9	
KMBO				LR	LR	04 13 49.5	
LBTB	**Lobatse**	**26.02**	**190**	*e*P	**P**	**04 14 36.3**	**+0.5**
	comp=Z,14nm,1.1s,mb4.4						
BOSA	**Boshof**	**29.60**	**189**	*e*P	**P**	**04 15 07.7**	**-0.6**
SUR	**Sutherland**	**34.15**	**194**	P	**P**	**04 15 49.0**	**+0.9**
	comp=Z,9.3nm,1.1s,mb4.7,baz=15,slow=16,SNR=2.7						
SUR				pP	pP	04 15 55.4	+1.6
	comp=Z,13nm,0.9s,baz=14,slow=2.2,SNR=4.8						
SUR	**Sutherland**	**34.15**	**194**	P	**P**	**04 15 48.4**	**+0.3**
SUR				pP	pP	04 15 55.4	+1.6
DBIC	**Dimbokro**	**35.43**	**280**	P	**P**	**04 15 59.0**	**-0.3**
	comp=Z,9.2nm,0.7s,mb4.8,baz=85,slow=9.6,SNR=28						
DBIC				pP	pP	04 16 04.7	-0.4
	comp=Z,3.1nm,0.4s,baz=41,slow=9.8,SNR=4.0						
DBIC				LR	LR	04 31 12.6	
	comp=Z,117nm,18.7s,MS3.7,baz=41,slow=38						
DBIC	**Dimbokro**	**35.43**	**280**	P	**P**	**04 15 59.0**	**-0.2**
DBIC				*PP	pP	04 16 04.7	-0.4
DBIC				pmax	pmax		
	comp=Z,9.0nm,0.7s						
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.4s						
DBIC				MLR	MLR		
	comp=Z,117nm,18.7s						
DBIC	**Dimbokro**	**35.43**	**280**	*e*P	**P**	**04 15 58.9**	**-0.3**
	comp=Z,6.4nm,0.4s,mb4.9						
DBIC				pP	pP	04 16 04.7	-0.4
DBIC				LR	LR	04 31 12.6	
ISP	**Isparta**	**36.89**	**0**	*e*P	**P**	**04 16 11.4**	**+0.1**
	comp=Z,15nm,1.2s,mb4.7						
MALT	**Malatya**	**38.12**	**11**	*e*P	**P**	**04 16 23.9**	**+2.3**
	comp=Z,6.2nm,0.9s,mb4.3						
BRTR	**Keskin Array B**	**38.89**	**4**	P	**P**	**04 16 30.4**	**+2.4**
	comp=Z,2.9nm,1.0s,mb4.0,baz=180,slow=8.6,SNR=11						
BRTR				pP	pP	04 16 34.7	+0.8
	comp=Z,3.0nm,0.9s,baz=189,slow=9.6,SNR=9.2						
BRTR				PcP	PcP	04 18 39.8	+0.4
	comp=Z,1.3nm,0.8s,baz=180,slow=3.4,SNR=4.8						
BRTR				pPcP		04 18 46.0	
	comp=Z,2.3nm,0.8s,baz=171,slow=4.7,SNR=4.6						
BRTR	**Keskin Array B**	**38.89**	**4**	P	**P**	**04 16 30.5**	**+2.4**
BRTR						04 18 39.8	
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
VAE	**Valguarnera**	**39.31**	**340**	LR	LR	04 34 31.5	
	comp=Z,275nm,18.2s,MS4.1,baz=309,slow=39						
ZEI	**Tsey**	**43.58**	**15**	*i* P	**P**	**04 17 07.0**	**+0.4**
ZEI				*i* *PP	pP	04 17 17.7	+5.3
ZEI				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.5						
KIV	**Kislovodsk**	**44.41**	**13**	*e*P	**P**	**04 17 11.0**	**-2.3**
KIV				pmax	pmax		
	comp=E,7.0nm,1.3s						
KIV				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.6						
KIV				MLR	MLR		
	comp=N,56nm,20.0s						
KIV				MLR	MLR		
	comp=Z,75nm,20.0s,MS3.6						
KIV				MLR	MLR		
	comp=E,30nm,13.0s						
MLR	**Muntele Rosu**	**44.68**	**356**	P	**P**	**04 17 17.5**	**+2.0**
	comp=E,3.5nm,0.8s,mb4.2,baz=146,slow=12,SNR=3.1						
MLR				pP	pP	04 17 22.4	+1.0
	comp=E,8.8nm,0.7s,baz=175,slow=9.7,SNR=6.2						
MLR	**Muntele Rosu**	**44.68**	**356**	P	**P**	**04 17 17.5**	**+2.0**
MLR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
MLR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
PGF	**Pioggiola**	**45.73**	**338**	*e*P	**P**	**04 17 23.4**	**-0.4**
LMR	**La Mourre**	**47.36**	**337**	*e*P	**P**	**04 17 35.7**	**-1.0**
FRF	**La Foret Royal**	**47.49**	**337**	*e*P	**P**	**04 17 37.6**	**-0.2**
PSZ	**Piszkesteto**	**47.80**	**351**	*e*P	**P**	**04 17 40.7**	**+0.6**
	comp=Z,7.3nm,0.7s,mb4.8						
PSZ				*e*	pP	04 17 46.9	+0.9
SMRF	**Simiane la Rot**	**48.27**	**336**	*e*P	**P**	**04 17 42.8**	**-1.0**
	comp=Z,16nm,1.1s,mb4.7						
MBDF	**Montbardon**	**48.43**	**338**	*e*P	**P**	**04 17 45.0**	**0.0**
	comp=Z,42nm,1.2s,mb5.0						
KOLS	**Kolonicke sedl**	**48.45**	**353**	*e*P	**P**	**04 17 44.6**	**-0.5**
KOLS				*e*		04 17 53.1	
KOLS	**Kolonicke sedl**	**48.45**	**353**	*e*P	**P**	**04 17 44.6**	**-0.5**
KOLS				*e*pP	pP	04 17 52.9	+1.8
KOLS				*e*sP	sP	04 17 53.1	-0.3
CRVS	**Cervenica-Dubn**	**48.52**	**352**	*e*P	**P**	**04 17 47.4**	**+1.7**
CRVS				*e*		04 17 56.4	
CRVS	**Cervenica-Dubn**	**48.52**	**352**	*e*P	**P**	**04 17 47.4**	**+1.7**
CRVS				*e*pP	pP	04 17 53.4	+1.8
CRVS				*e*sP	sP	04 17 56.4	+2.4
VYHS	**Vyhne**	**48.53**	**350**	*i* P	**P**	**04 17 46.6**	**+0.8**
VYHS				*e*		04 17 57.3	
VYHS	**Vyhne**	**48.53**	**350**	*i* P	**P**	**04 17 46.6**	**+0.8**
VYHS				*e*pP	pP	04 17 52.6	+0.9
VYHS				*e*		04 17 57.3	
VYHS				*e*PP	PP	04 19 48.9	+11
BNI	**Bardonecchia**	**48.74**	**338**	*e*P	**P**	**04 17 48.0**	**+0.6**
	comp=Z,11nm,0.9s,mb4.9						
ORIF	**Oris-en-Rattie**	**48.93**	**337**	*e*P	**P**	**04 17 48.3**	**-0.6**
	comp=Z,25nm,1.3s,mb4.8						
ORIF				*e*R			
	comp=Z,85nm,19.2s						
LASF	**Ste Croix**	**49.06**	**335**	*e*P	**P**	**04 17 49.6**	**-0.3**
	comp=Z,60nm,1.7s,mb5.0						
LPG	**La Plagne**	**49.09**	**338**	*e*P	**P**	**04 17 49.3**	**-0.8**
	comp=Z,15nm,0.8s,mb4.8						
LPL	**La Plagne**	**49.11**	**338**	*e*P	**P**	**04 17 50.2**	**-0.1**
	comp=Z,9.3nm,0.7s,mb4.6						
MTLF	**Montolieu**	**49.19**	**333**	*e*P	**P**	**04 17 52.1**	**+1.2**
VIVF	**Saint-Julien-l**	**49.36**	**336**	*e*P	**P**	**04 17 51.8**	**-0.4**
	comp=Z,11nm,1.0s,mb4.5						
ESDC	**Sonseca Array**	**49.66**	**325**	P	**P**	**04 17 55.5**	**+0.9**
	comp=Z,4.7nm,1.1s,mb4.4,baz=131,slow=7.0,SNR=8.0						
ESDC				pP	pP	04 18 01.1	+0.5
	comp=Z,1.8nm,0.8s,baz=134,slow=6.6,SNR=6.4						
VRAC	**Vranov**	**49.73**	**348**	P	**P**	**04 17 55.2**	**+0.2**
	comp=Z,2.1nm,0.4s,mb4.5,baz=198,slow=7.1,SNR=4.3						
VRAC				pP	pP	04 18 00.6	-0.4
	comp=Z,4.3nm,0.4s,baz=183,slow=4.6,SNR=5.5						
VRAC	**Vranov**	**49.73**	**348**	P	**P**	**04 17 55.2**	**+0.2**
VRAC				*PP	pP	04 18 00.6	-0.4
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.4s						
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.4s						
AKASG	**Malin Array Be**	**49.75**	**359**	P	**P**	**04 17 55.1**	**0.0**
	comp=Z,0.7nm,0.6s,mb3.9,baz=185,slow=6.6,SNR=9.3						
AKASG				pP	pP	04 18 00.4	-0.7
	comp=Z,6.2nm,1.0s,baz=186,slow=6.8,SNR=8.4						
AKASG				PcP	PcP	04 19 16.7	+0.5
	comp=Z,0.5nm,0.6s,baz=180,slow=4.6,SNR=3.3						
AKASG				pPcP		04 19 22.9	
	comp=Z,1.5nm,1.0s,baz=198,slow=5.3,SNR=4.5						
AKASG	**Malin Array Be**	**49.75**	**359**	P	**P**	**04 17 55.1**	**0.0**
AKASG				*PP	pP	04 18 00.4	-0.7
AKASG						04 19 16.7	
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,6.0nm,1.0s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,1.0s						
EPF	**Esparros**	**49.82**	**331**	*e*P	**P**	**04 17 55.7**	**-0.1**
	comp=Z,42nm,1.5s,mb4.9						
GERES	**GERESS Array B**	**49.95**	**346**	P	**P**	**04 17 57.0**	**+0.4**
	comp=Z,15nm,1.4s,mb4.8,baz=170,slow=8.1,SNR=13						
GERES				pP	pP	04 18 02.7	+0.1
	comp=Z,2.0nm,0.6s,baz=166,slow=8.1,SNR=12						
GERES	**GERESS Array B**	**49.95**	**346**	P	**P**	**04 17 57.0**	**+0.4**
GERES				*PP	pP	04 18 02.7	+0.1
GERES				pmax	pmax		
	comp=Z,15nm,1.5s						
GERES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ETSF	**Etsaut**	**50.16**	**331**	*e*P	**P**	**04 18 01.0**	**+2.7**
	comp=Z,20nm,0.9s,mb4.8						
KHC	**Kasperske Hory**	**50.24**	**346**	*e*P	**P**	**04 17 58.5**	**-0.4**
KHC				*e*x	x	04 18 04.5	
CABF	**La Chapelle**	**50.28**	**339**	*e*P	**P**	**04 17 58.8**	**-0.4**
	comp=Z,18nm,1.0s,mb4.8						
CAF	**Calviac**	**50.51**	**334**	*e*P	**P**	**04 18 00.7**	**-0.3**
	comp=Z,18nm,1.1s,mb4.6						
SJPF	**Ste Jean**	**50.64**	**330**	*e*P	**P**	**04 18 03.8**	**+1.8**
	comp=Z,32nm,1.1s,mb4.9						
DPC	**Dobruska-Polom**	**50.78**	**349**	*e*P	**P**	**04 18 09.2**	**+6.2**
DPC	**Dobruska-Polom**	**50.78**	**349**	*e*x	x	04 18 09.2	
PRU	**Pruhonice**	**50.82**	**347**	*e*P	Px	04 18 21.7	
PRU				*e*x	x	04 18 33.5	
HINF	**Hinteralfeld**	**51.04**	**340**	*e*P	**P**	**04 18 03.9**	**-1.1**
	comp=Z,10nm,0.7s,mb4.6						
RJF	**Les Rejaudoux**	**51.04**	**334**	*e*P	**P**	**04 18 04.7**	**-0.3**
RJF				*e*R			
	comp=Z,111nm,19.0s						
LFF	**La Frestale**	**51.10**	**333**	*e*P	**P**	**04 18 05.3**	**-0.2**
	comp=Z,20nm,0.8s,mb4.8						
SMF	**Signal de Mont**	**51.16**	**337**	*e*P	**P**	**04 18 05.0**	**-0.9**
	comp=Z,20nm,0.9s,mb4.7						
GRA1	**Grafenberg Arr**	**51.36**	**344**	*e*P	**P**	**04 18 07.1**	**-0.3**
GRA1				*e*pP	pP	04 18 13.1	-0.3
GRF	**Grafenberg Arr**	**51.36**	**344**	*e*P	**P**	**04 18 07.1**	**-0.3**
GRF				*e**PP	pP	04 18 13.1	-0.3
HAU	**Haudompre**	**51.38**	**340**	*e*P	**P**	**04 18 06.4**	**-1.1**
HAU				*e*R			
	comp=Z,79nm,20.8s						
CDF	**Champ du Feu**	**51.41**	**341**	*e*P	**P**	**04 18 06.6**	**-1.2**
	comp=Z,13nm,1.0s,mb4.5						
AVF	**Avril sur Loir**	**51.47**	**337**	*e*P	**P**	**04 18 07.4**	**-0.9**
	comp=Z,17nm,0.9s,mb4.7						
TCF	**Toulx Ste Croi**	**51.53**	**335**	*e*P	**P**	**04 18 08.7**	**0.0**
	comp=Z,35nm,1.3s,mb4.8						
NKC	**Novy Kostel**	**51.54**	**346**	*e*P	**P**	**04 18 14.7**	**+6.0**
SSF	**Saint Saulge**	**51.63**	**337**	*e*P	**P**	**04 18 08.4**	**-1.1**
	comp=Z,8.9nm,1.0s,mb4.4						
MEZF	**Maizieres J'vi**	**52.26**	**339**	*e*P	**P**	**04 18 13.8**	**-0.4**
	comp=Z,17nm,0.8s,mb4.7						
CLL	**Collm**	**52.40**	**346**	P	**P**	**04 18 15.0**	**-0.2**

MFF	**Saint Martin d**	**52.78**	**334**	*e*P	**P**	**04 18 18.6**	**+0.5**
SUW	**Suwalki**	**53.37**	**355**	*e*P	**P**	**04 18 21.9**	**-0.5**
	comp=Z,20nm,0.8s,mb5.1						
GIVF	**Givet**	**53.69**	**340**	*e*P	**P**	**04 18 23.4**	**-1.3**
BAIF	**Baives**	**53.87**	**340**	*e*P	**P**	**04 18 24.9**	**-1.1**
LDF	**La Druitiere**	**54.32**	**336**	*e*P	**P**	**04 18 28.4**	**-1.0**
OBN	**Obninsk**	**54.41**	**5**	⇓*e*P	**P**	**04 18 29.2**	**-0.8**
OBN				*e*	pP	04 18 35.9	-0.1
OBN				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
GRR	**Gorron**	**54.47**	**335**	*e*P	**P**	**04 18 30.8**	**+0.3**
	comp=Z,45nm,1.2s,mb5.0						
MOS	**Moscow**	**55.12**	**5**	*e*P	**P**	**04 18 35.7**	**+0.5**
AAK	**Ala-Archa**	**57.52**	**38**	⇓*i*P	**P**	**04 18 52.2**	**-0.3**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.9s,mb4.1						
AAK				MLR	MLR		
	comp=Z,100nm,21.0s,MS3.9						
AAK	**Ala-Archa**	**57.52**	**38**	*e*P	**P**	**04 18 51.9**	**-0.6**
	comp=Z,6.0nm,1.2s,mb4.5						
ARU	**Arti**	**60.01**	**18**	*e*P	**P**	**04 19 09.8**	**+0.2**
ARU				*e*		04 19 52.4	
ARU				*e*		04 21 24.2	
ARU				*e*S	**S**	**04 27 20.2**	**+0.8**
ARU				*e*		04 28 58.2	
ARU				*e*SS	SS	04 31 15.6	-1.7
ARU				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.0						
ARU				MLR	MLR		
	comp=N,50nm,19.0s,MS4.0						
ARU				MLR	MLR		
	comp=E,100nm,19.0s,MS4.0						
ARU	**Arti**	**60.01**	**18**	*e*P	**P**	**04 19 09.9**	**+0.3**
	comp=E,16nm,0.9s,mb5.0						
ARU				*e*	pP	04 19 16.3	+0.6
FINES	**FINESS Array B**	**60.59**	**358**	P	**P**	**04 19 13.7**	**+0.1**
	comp=E,3.3nm,0.9s,mb4.5,baz=180,slow=7.2,SNR=3.6						
FINES				pP	pP	04 19 17.8	-1.9
	comp=E,4.6nm,0.8s,baz=135,slow=8.1,SNR=8.3						
FINES	**FINESS Array B**	**60.59**	**358**	P	**P**	**04 19 13.7**	**+0.2**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
FINES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
FINES	**FINESS Array B**	**60.59**	**358**	P	**P**	**04 19 13.7**	**+0.1**
FINES				pP	pP	04 19 17.8	-1.9
EKA	**Eskdalemuir Ar**	**60.77**	**339**	P	**P**	**04 19 15.2**	**+0.3**
	comp=Z,1.9nm,0.7s,mb4.3,baz=140,slow=5.3,SNR=4.6						
EKA				pP	pP	04 19 20.9	0.0
	comp=Z,3.2nm,0.5s,baz=131,slow=5.8,SNR=7.1						
EKA	**Eskdalemuir Ar**	**60.77**	**339**	P	**P**	**04 19 15.2**	**+0.4**
EKA				*PP	pP	04 19 21.0	+0.1
EKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
EKA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
KAF	**Kangasniemi**	**61.25**	**358**	*e*p	**P**	**04 19 18.0**	**0.0**
	comp=Z,7.3nm,0.8s,mb4.9						
KAF	**Kangasniemi**	**61.25**	**358**	*e*P	**P**	**04 19 18.0**	**0.0**
KAF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
BRVK	**Borovoye**	**61.81**	**26**	*e*P	**P**	**04 19 19.6**	**-2.4**
	comp=Z,4.4nm,0.8s,mb4.6						
BVAR	**Borovoye Array**	**61.84**	**26**	P	**P**	**04 19 22.1**	**0.0**
	comp=Z,2.6nm,0.9s,mb4.3,baz=225,slow=6.3,SNR=7.4						
BVAR				pP	pP	04 19 28.3	+0.1
	comp=Z,4.6nm,0.8s,baz=225,slow=6.3,SNR=12						
NB2	**NORSAR Subarra**	**61.84**	**350**	P	**P**	**04 19 21.3**	**-0.7**
	comp=Z,6.4nm,0.8s,mb4.8,baz=161,slow=6.5						
NOA	**NORSAR Array B**	**61.84**	**350**	P	**P**	**04 19 22.1**	**+0.2**
	comp=Z,1.0nm,0.8s,mb4.0,baz=168,slow=5.1,SNR=8.8						
NOA				pP	pP	04 19 28.0	-0.1
	comp=Z,5.5nm,0.8s,baz=160,slow=6.6,SNR=14						
NOA	**NORSAR Array B**	**61.84**	**350**	P	**P**	**04 19 22.2**	**+0.2**
NOA				*PP	pP	04 19 28.0	-0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CHKZ	**Chkalovo**	**62.38**	**26**	*e*P	**P**	**04 19 25.0**	**-0.7**
	comp=Z,4.4nm,0.9s,mb4.6						
CHKZ				*e*	pP	04 19 31.6	-0.2
ARCES	**ARCESS Array B**	**68.71**	**358**	P	**P**	**04 20 06.2**	**+0.1**
	comp=Z,6.0nm,0.9s,mb4.5,baz=59,slow=7.1,SNR=4.7						
ARCES				pP	pP	04 20 12.7	+0.4
	comp=Z,6.1nm,0.8s,baz=169,slow=6.2,SNR=3.3						
ARCES	**ARCESS Array B**	**68.71**	**358**	P	**P**	**04 20 06.2**	**+0.1**
ARCES				*PP	pP	04 20 12.7	+0.5
ARCES				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ARCES				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ARCES	**ARCESS Array B**	**68.71**	**358**	P	**P**	**04 20 06.2**	**+0.1**
ARCES				pP	pP	04 20 12.7	+0.4
NVS	**Novosibirsk**	**68.98**	**30**	⇓*i*P	**P**	**04 20 08.9**	**+0.8**
NVS				pmax	pmax		
	comp=N,18nm,1.4s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.4s						
NVS				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.2						
ZAL	**Zalesovo**	**69.32**	**31**	P	**P**	**04 20 10.2**	**+0.1**
	comp=Z,0.7nm,0.4s,mb3.9,baz=222,slow=6.9,SNR=3.3						
ZAL				pP	pP	04 20 15.9	-0.3
	comp=Z,2.7nm,0.9s,baz=240,slow=6.8,SNR=5.7						
ZAL				LR	LR	04 55 56.5	
	comp=Z,168nm,18.5s,MS4.3,baz=236,slow=41						
ZAL	**Zalesovo**	**69.32**	**31**	P	**P**	**04 20 10.3**	**+0.2**
ZAL				*PP	pP	04 20 15.9	-0.3
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ZAL				MLR	MLR		
	comp=Z,168nm,18.5s						
CMAR	**Chiang Mai Arr**	**69.63**	**71**	pP	pP	04 20 19.4	+0.7
	comp=Z,3.1nm,1.1s,baz=254,slow=7.0,SNR=2.1						
CMAR				LR	LR	04 48 03.1	
	comp=Z,54nm,20.1s,MS3.8,baz=265,slow=34						
MAW	**Mawson**	**71.94**	**167**	P	**P**	**04 20 27.4**	**+1.6**
	comp=Z,4.2nm,1.0s,mb4.3,baz=358,slow=6.4,SNR=3.6						
MAW				LR	LR	04 47 50.2	
	comp=Z,42nm,19.6s,MS3.7,baz=65,slow=32						
BDFB	**Brasilia**	**78.84**	**254**	P	**P**	**04 21 07.0**	**+1.0**
	comp=Z,3.3nm,0.8s,mb4.3,baz=74,slow=5.0,SNR=4.4						
BDFB				LR	LR	04 51 53.4	
	comp=Z,176nm,19.1s,MS4.4,baz=269,slow=33						
SONM	**Songino Array**	**80.19**	**42**	P	**P**	**04 21 14.7**	**+2.1**
	comp=Z,0.2nm,0.7s,mb3.1,baz=270,slow=7.2,SNR=2.4						
SONM				pP	pP	04 21 20.4	+1.5
	comp=Z,0.9nm,0.8s,baz=265,slow=4.5,SNR=7.6						
BOD	**Bodaibo**	**86.05**	**32**	*e*P	**P**	**04 21 42.4**	**0.0**
BOD				*e*	pP	04 21 49.4	+0.7
QSPA	**South Pole Qui**	**90.80**	**180**	*e*P	**P**	**04 22 07.7**	**+3.0**
	comp=Z,8.5nm,0.8s,mb5.1						
SAML	**Samuel**	**93.44**	**261**	*e*P	**P**	**04 22 19.1**	**+0.8**
	comp=Z,6.2nm,1.5s,mb4.8						
USHA	**Ushuaia**	**95.60**	**215**	LR	LR	05 04 01.6	
	comp=Z,92nm,19.5s,MS4.3,baz=83,slow=34						
SJG	**San Juan**	**95.78**	**288**	LR	LR	05 01 30.9	
	comp=Z,104nm,20.6s,MS4.3,baz=3.6,slow=33						
LPAZ	**La Paz**	**98.20**	**254**	LR	LR	05 01 38.9	
	comp=Z,59nm,20.0s,MS4.1,baz=206,slow=32						
VNDA	**Vanda**	**99.08**	**171**	LR	LR	05 10 16.1	
	comp=Z,89nm,18.5s,MS4.3,baz=259,slow=37						
YKA	**Yellowknife Ar**	**111.55**	**343**	PP	PP	04 28 18.8	-1.9
	comp=Z,0.2nm,0.8s,baz=38,slow=7.8,SNR=4.3						
PDAR	**Pinedale Array**	**123.56**	**325**	PKP	PKPdf	04 28 00.2	-2.5
	comp=Z,0.4nm,0.9s,baz=63,slow=2.0,SNR=3.6						
PDAR				pPKP		04 28 07.7	
	comp=Z,3.2nm,1.3s,baz=63,slow=3.3,SNR=4.9						
TXAR	**Lajitas Array**	**126.75**	**308**	PKP	PKPdf	04 28 08.2	-0.9
	comp=Z,0.6nm,0.9s,baz=45,slow=2.6,SNR=4.5						
TXAR				pPKP		04 28 14.6	
	comp=Z,0.7nm,0.9s,baz=90,slow=3.8,SNR=5.0						
NVAR	**Mina Array Bea**	**131.39**	**327**	PKP	PKPdf	04 28 17.9	+0.1
	comp=Z,0.5nm,0.8s,baz=295,slow=2.1,SNR=4.3						
NVAR				pPKP		04 28 24.1	
	comp=Z,1.2nm,1.0s,baz=274,slow=0.8,SNR=3.8						

MAN 13 04:13:37.5, 11.23N×124.64E, h12^{km}, mb4.3, ML3.1, MS2.8, 1C-1D, Leyte

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OCLP	**Ormoc**	**0.18**	**189**	*e*P	Pg	04 13 42.0	+0.3
OCLP				*e*S	Sg	04 13 44.3	-0.2
PLP	**Palo**	**0.34**	**101**	*e*P	Pg	04 13 45.1	+0.5
PLP				*e*S	Sg	04 13 52.1	+2.8
BESP	**Borongan**	**0.86**	**65**	*e*P	Pb	04 13 54.5	+0.5
BESP				*e*S	Sb	04 14 07.5	+2.3
MSLP	**Maasin**	**1.11**	**169**	*e*P	Pb	04 13 58.1	0.0
LLP	**Lapu-Lapu**	**1.12**	**216**	⇓*e*P	Pb	04 13 57.2	-1.1
LLP				*e*S	Sb	04 14 14.1	+1.4
TBP	**Tagbilaran**	**1.71**	**207**	*e*P	Pn	04 14 07.1	-0.3
TBP				*e*S	Sn	04 14 30.6	+1.3
RCP	**Roxas**	**1.89**	**280**	⇑*e*P	Pn	04 14 09.6	-0.3
GUIM	**Jordan**	**2.10**	**254**	*e*P	Pn	04 14 12.5	-0.5
GUIM				*e*S	Sn	04 14 42.8	+3.6

*IDC **13** 04:30:28.5±4.2, 14.73S×168.44E, mb4.0/3, mb1 4.2/3, mb1mx3.8/14, Error ellipse: s-maj=120.0km s-min=77.8km az=154.0*

ISC 13 04:30:52.7±5.6, 15.4S±0.2×167.4E±0.7, h150^{km}, n4, σ0^{s}24/5, mb3.8/3, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**6.69**	**188**	*e*P	**P**	**04 32 29.6**	**0.0**
DZM				*e*S	**S**	**04 33 44.9**	**0.0**
STKA	**Stephens Creek**	**28.65**	**231**	P	**P**	**04 36 37.3**	**-0.2**
	2.4nm,0.7s,mb4.0,baz=63,slow=9.0,SNR=5.4						
WRA	**Warramunga Arr**	**31.78**	**257**	P	**P**	**04 37 05.1**	**-0.1**
	0.3nm,0.3s,mb3.5,baz=82,slow=7.5,SNR=9.9						
ASAR	**Alice Springs**	**32.55**	**250**	P	**P**	**04 37 12.2**	**+0.3**
	1.3nm,0.4s,mb4.0,baz=75,slow=9.6,SNR=28						
ASAR				PcP	PcP	04 39 51.5	-3.4
	0.3nm,0.7s,baz=106,slow=2.2,SNR=3.8						

*NIED **13** 04:32:00, 43.00N×145.30E, h50^{km}, Mw3.7 Best double couple: $M_0$4.72×10^{14} NP1:ϕ_s25°, δ66°, λ73°. NP2:ϕ_s242°, δ29°, λ124°.*

*MOS **13** 04:32:00.3±1.5, 42.54N×145.60E, h44^{km}, mb4.2/2, Error ellipse: s-maj=43.1km s-min=18.0km az=100.5*

*JMA **13** 04:32:06.0±0.1, 42.99N×145.33E, h48^{km}±1^{km}, M4.1*

JMA Felt II J1.

*IDC **13** 04:32:10.2±5.1, 43.30N×145.24E, h73^{km}±31^{km}, mb3.4/8, mb1 3.6/9, mb1mx3.4/24, MS3.4/1, Ms1 3.6/1, ms1mx2.6/15, Error ellipse: s-maj=87.4km s-min=23.0km az=175.0*

ISC 13 04:32:04.9±0.8, 42.97N±0.07×145.35E±0.07, h53^{km}±5^{km}, n23, σ0^{s}79/31, mb3.7/8, MS3.4/1, 1C-7D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.48**	**274**	⇓P	**P**	**04 32 16.7**	**+0.4**
JAK				*e*S	**S**	**04 32 24.5**	**0.0**
NEM2	**Nemuro 2**	**0.49**	**36**	⇑P	**P**	**04 32 16.5**	**+0.2**
NEM2				S	**S**	**04 32 23.9**	**-0.7**
JNK	**Nakash**	**0.77**	**323**	⇓P	**P**	**04 32 20.0**	**+0.2**
JNK				S	**S**	**04 32 29.9**	**-0.9**
JRA	**Rausu**	**0.98**	**350**	⇓P	**P**	**04 32 23.1**	**+0.4**
JRA				*e*S	**S**	**04 32 35.4**	**-0.5**
JOB	**Onbets**	**1.12**	**267**	⇓P	**P**	**04 32 25.0**	**+0.4**
JOB				*e*S	**S**	**04 32 38.5**	**-0.7**
YUK	**Yuzh-Kuril'sk**	**1.13**	**19**	*e*PN	**P**	**04 32 24.2**	**-0.5**
YUK				pmax	pmax		
	comp=Z,570nm,0.3s						
JAR	**Ashorobuto**	**1.21**	**286**	⇓P	**P**	**04 32 26.4**	**+0.6**
JTKR	**Abashiri--Toko**	**1.45**	**314**	⇓P	**P**	**04 32 30.1**	**+0.7**
JTKR				*e*S	**S**	**04 32 48.1**	**+0.6**
JCH	**Churui**	**1.51**	**257**	⇓P	**P**	**04 32 29.9**	**-0.3**
JCH				*e*S	**S**	**04 32 47.9**	**-0.9**
ASAJ	**Asahikawa**	**2.31**	**301**	P	**P**	**04 32 42.9**	**+1.4**
	comp=Z,27nm,0.3s,baz=114,slow=14,SNR=30						
ASAJ				S	**S**	**04 33 13.2**	**+4.5**
	comp=Z,6.7nm,0.3s,baz=325,slow=26,SNR=5.6						
ASAJ	**Asahikawa**	**2.31**	**301**	PN	**P**	**04 32 42.9**	**+1.5**
ASAJ				S	**S**	**04 33 13.2**	**+4.5**
ASAJ				pmax	pmax		
	comp=Z,27nm,0.3s						
YSS	**Yuzh-Sakhalins**	**4.39**	**336**	PN	**P**	**04 33 14.0**	**+3.2**
SONM	**Songino Array**	**27.57**	**294**	P	**P**	**04 37 48.7**	**-0.1**
	comp=Z,1.3nm,0.6s,mb3.8,baz=89,slow=8.3,SNR=13						
ILAR	**Eielson Array**	**42.89**	**36**	P	**P**	**04 39 59.2**	**-0.1**
	comp=Z,0.4nm,0.8s,mb3.2,baz=269,slow=6.0,SNR=6.7						
CMAR	**Chiang Mai Arr**	**46.05**	**253**	LR	LR	05 01 54.6	
	comp=Z,36nm,18.2s,MS3.4,baz=165,slow=39						
INK	**Inuvik**	**47.74**	**30**	P	**P**	**04 40 37.0**	**-0.8**
	comp=Z,0.4nm,0.5s,mb3.7,baz=284,slow=5.6,SNR=6.8						
BVAR	**Borovoye Array**	**48.99**	**309**	P	**P**	**04 40 47.2**	**-0.5**
	comp=Z,0.5nm,0.4s,mb3.9,baz=77,slow=7.9,SNR=4.9						
NOA	**NORSAR Array B**	**69.85**	**338**	P	**P**	**04 43 10.5**	**-0.9**
	comp=Z,0.9nm,0.7s,mb3.8,baz=34,slow=6.1,SNR=3.8						
NOA	**NORSAR Array B**	**69.85**	**338**	P	**P**	**04 43 10.5**	**-0.8**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
PDAR	**Pinedale Array**	**71.41**	**49**	P	**P**	**04 43 22.1**	**+0.9**
	comp=Z,0.3nm,0.5s,mb3.5,baz=10,slow=0.9,SNR=5.9						
AKASG	**Malin Array Be**	**71.42**	**323**	P	**P**	**04 43 19.8**	**-1.2**
	comp=Z,1.3nm,0.7s,mb4.0,baz=45,slow=6.6,SNR=4.2						
AKASG	**Malin Array Be**	**71.42**	**323**	P	**P**	**04 43 19.8**	**-1.2**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
TXAR	**Lajitas Array**	**84.17**	**55**	P	**P**	**04 44 32.7**	**+1.1**
	comp=Z,0.4nm,1.0s,mb3.5,baz=337,slow=6.9,SNR=3.0						

*IDC **13** 04:48:26.8±5.4, 21.70S×179.50W, h612^{km}±58^{km}, mb3.6/7, mb1 3.8/7, mb1mx3.4/14, Error ellipse: s-maj=48.9km s-min=31.3km az=142.0*

*NEIC **13** 04:48:27.0±4.0, 21.48S×179.62W, h608^{km}±45^{km}, mb4.5/7, Error ellipse: s-maj=40.6km s-min=24.9km az=151.0*

ISC 13 04:48:28.9±1.2, 21.6S±0.3×179.8W±0.2, h650^{km}, n23, σ0^{s}70/18, mb4.2/11, 4D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARMA	**Armidale**	**27.13**	**245**	*e*P	**P**	**04 53 25.7**	**+0.4**
CTA	**Charters Tower**	**31.77**	**266**	*e*P	**P**	**04 54 05.2**	**+0.5**
	4.4nm,0.4s,mb4.3						
CTAO	**Charters Tower**	**31.77**	**266**	*e*P	**P**	**04 54 05.0**	**+0.3**
	6.2nm,0.5s,mb4.4						
PMG	**Port Moresby**	**34.01**	**286**	P	**P**	**04 54 24.5**	**+1.1**
	12nm,0.6s,mb4.6,baz=69,slow=8.7,SNR=6.0						
PMG	**Port Moresby**	**34.01**	**286**	*e*P	**P**	**04 54 23.9**	**+0.5**
	13nm,0.7s,mb4.6						
STKA	**Stephens Creek**	**35.85**	**245**	⇓*i*P	**P**	**04 54 38.6**	**+0.2**
	2.6nm,0.4s,mb4.1						
STKA	**Stephens Creek**	**35.85**	**245**	P	**P**	**04 54 38.6**	**+0.2**
	3.4nm,0.5s,mb4.2,baz=86,slow=9.5,SNR=14						
ASAR	**Alice Springs**	**42.68**	**258**	P	**P**	**04 55 33.1**	**-0.1**
	7.5nm,0.5s,mb4.3,baz=93,slow=8.1,SNR=107						
ASAR				PcP	PcP	04 57 09.9	+0.2
	1.7nm,0.8s,baz=114,slow=3.8,SNR=5.8						
ASPA	**Alice Springs**	**42.69**	**258**	⇓*i*P	**P**	**04 55 33.1**	**-0.1**
WB2	**Warramunga Arr**	**42.83**	**264**	⇓*i*P	**P**	**04 55 33.8**	**-0.5**
WRAB	**Tennant Creek**	**42.83**	**264**	*e*P	**P**	**04 55 33.3**	**-1.1**
	24nm,1.0s,mb4.6						
WRA	**Warramunga Arr**	**42.84**	**264**	P	**P**	**04 55 34.0**	**-0.5**
	4.2nm,0.3s,mb4.3,baz=97,slow=7.6,SNR=102						
KAKA	**Kakadu**	**46.37**	**273**	⇓*i*P	**P**	**04 56 01.2**	**-0.4**
	11nm,0.4s,mb4.5						
FITZ	**Fitzroy Crossi**	**51.27**	**264**	*e*P	**P**	**04 56 37.7**	**+0.2**
	2.5nm,0.3s,mb3.9						
CMAR	**Chiang Mai Arr**	**88.92**	**290**	P	**P**	**05 00 20.9**	**+3.0**
	2.7nm,0.9s,mb4.0,baz=148,slow=3.1,SNR=8.7						
TXAR	**Lajitas Array**	**89.00**	**58**	P	**P**	**05 00 18.4**	**+0.4**
	0.4nm,0.7s,mb3.3,baz=236,slow=3.7,SNR=5.7						
COLA	**College**	**89.59**	**13**	*e*P	**P**	**05 00 19.6**	**-0.3**
ILAR	**Eielson Array**	**89.70**	**13**	P	**P**	**05 00 19.9**	**-0.6**
	4.5nm,1.4s,mb4.1,baz=216,slow=5.4,SNR=5.2						
FINES	**FINESS Array B**	**136.29**	**342**	PKP	PKPdf	05 06 40.6	+2.7
	0.9nm,0.7s,baz=72,slow=6.0,SNR=5.5						
AKASG	**Malin Array Be**	**143.10**	**329**	PKP	PKPdf	05 06 50.0	-0.3
	2.1nm,0.4s,baz=39,slow=4.3,SNR=21						
BRTR	**Keskin Array B**	**146.29**	**310**	PKPbc	PKPbc	05 07 00.7	+2.7
	1.4nm,0.6s,baz=127,slow=4.5,SNR=8.4						
CLL	**Collm**	**148.67**	**345**	*i* PKP1	PKPdf	05 07 06.3	+6.8
CLL				*i* PKP2	PKPab	05 07 12.7	-0.7
GERES	**GERESS Array B**	**150.72**	**342**	PKPbc	PKPdf	05 07 10.7	+8.0
	0.6nm,0.4s,baz=45,slow=1.9,SNR=8.1						
GERES				PKPab	PKPab	05 07 21.9	-0.1
	0.3nm,0.5s,baz=18,slow=3.1,SNR=3.1						

DJA 13 05:08:22.6±0.9, 9.88S×116.24E, h15^{km}, ML4.3/2, 5C-3D, Error ellipse: s-maj=18.6km s-min=13.7km az=155.0, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RATI	**Rata**	**1.34**	**329**	⇓*e*Pn	Pn	05 08 44.0	-2.9
RATI				⇑*e*Sn	Sn	05 09 00.0	-4.4
KEDI	**Kedomdong**	**1.38**	**355**	⇑*e*Pn	Pn	05 08 45.3	-2.2
	483nm,0.2s						
KEDI				⇑*e*Sn	Sn	05 09 01.2	-4.3
KELI	**Kelakatan**	**2.39**	**314**	⇓*e*Pn	Pn	05 08 59.9	-1.9
KELI				⇑*e*Sn	Sn	05 09 27.0	-4.0
SRDI	**Scrawed**	**2.49**	**304**	⇓*e*Pn	Pn	05 09 00.3	-3.0
	90nm,0.2s						
SRDI				⇑*e*Sn	Sn	05 09 28.0	-5.7

*IDC **13** 05:27:46.9±1.9, 5.40S×146.69E, h130^{km}±17^{km}, mb4.2/9, mb1 4.4/12, mb1mx4.3/16, Error ellipse: s-maj=27.6km s-min=12.0km az=101.0*

*NEIC **13** 05:27:46.9±1.4, 5.32S×146.60E, h128^{km}±12^{km}, mb4.5/15, Error ellipse: s-maj=12.3km s-min=9.3km az=106.0*

ISC 13 05:27:43.8±1.7, 5.29S±0.08×146.6E±0.1, h114^{km}±15^{km}, n32, σ0^{s}82/36, mb4.5/18, 3C-3D, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**4.12**	**173**	P	**P**	**05 28 47.8**	**+1.7**
	22nm,0.3s,baz=21,slow=4.3,SNR=71						
PMG				S	**S**	**05 29 32.4**	**-1.2**
	46nm,0.3s,baz=195,slow=21,SNR=22						
PMG	**Port Moresby**	**4.12**	**173**	⇓*i*Pn	**P**	**05 28 47.5**	**+1.5**
PMG				S	**S**	**05 29 32.4**	**-1.2**
CTA	**Charters Tower**	**14.71**	**181**	⇑*i*P	**P**	**05 31 13.6**	**+6.2**
	26nm,1.2s						
CTA	**Charters Tower**	**14.71**	**181**	P	**P**	**05 31 12.4**	**+5.0**
	1.9nm,0.3s,baz=360,slow=11,SNR=15						
CTAO	**Charters Tower**	**14.71**	**181**	*e*P	**P**	**05 31 12.2**	**+4.8**
	42nm,1.0s						
KAKA	**Kakadu**	**15.85**	**241**	⇑*i*P	**P**	**05 31 22.0**	**+0.2**
	28nm,0.5s						
WRAB	**Tennant Creek**	**18.82**	**218**	*e*P	**P**	**05 31 57.5**	**+0.2**
	158nm,0.6s						
WB2	**Warramunga Arr**	**18.83**	**218**	⇓*i*P	**P**	**05 31 56.7**	**-0.6**
WRA	**Warramunga Arr**	**18.84**	**218**	P	**P**	**05 31 57.5**	**+0.1**
	11nm,0.3s,baz=40,slow=11,SNR=312						
ASAR	**Alice Springs**	**22.00**	**213**	P	**P**	**05 32 30.9**	**+1.3**
	46nm,0.8s,mb4.9,baz=48,slow=7.9,SNR=525						
ASAR				S	**S**	**05 36 23.8**	**+3.9**
	4.9nm,1.0s,baz=28,slow=23,SNR=6.9						
ASPA	**Alice Springs**	**22.00**	**213**	⇓*i*P	**P**	**05 32 30.9**	**+1.3**
ASPA				*e*S	**S**	**05 36 22.2**	**+2.2**
FITZ	**Fitzroy Crossi**	**24.13**	**236**	*e*P	**P**	**05 32 50.6**	**+0.2**
	61nm,0.6s,mb5.1						
FITZ	**Fitzroy Crossi**	**24.13**	**236**	P	**P**	**05 32 50.9**	**+0.5**
	63nm,0.5s,mb5.2,baz=37,slow=5.5,SNR=126						
ARMA	**Armidale**	**25.44**	**170**	⇑*i*P	**P**	**05 33 03.7**	**+1.0**
STKA	**Stephens Creek**	**26.86**	**189**	*e*P	**P**	**05 33 15.0**	**-0.8**
	3.7nm,0.6s,mb4.1						
STKA	**Stephens Creek**	**26.86**	**189**	P	**P**	**05 33 15.1**	**-0.7**
	4.3nm,0.5s,mb4.3,baz=352,slow=8.4,SNR=17						
MBWA	**Marble Bar**	**30.47**	**236**	*e*P	**P**	**05 33 46.6**	**-1.7**
	3.4nm,0.7s,mb4.1						
FORT	**Forrest**	**30.78**	**212**	*e*P	**P**	**05 33 50.1**	**-0.8**
	116nm,0.7s,mb5.7						
TOO	**Toolangi**	**32.15**	**182**	*e*P	**P**	**05 34 03.0**	**+0.3**
	6.0nm,0.8s,mb4.4						
KLBR	**Kellerberrin**	**37.63**	**222**	*e*P	**P**	**05 34 48.5**	**-0.9**
	14nm,0.6s,mb5.0						
NWAO	**Narrogin (SRO)**	**38.80**	**221**	P	**P**	**05 34 58.3**	**-0.8**
	3.3nm,0.6s,mb4.3						
MUN	**Mundaring**	**38.91**	**223**	*e*P	**P**	**05 34 59.8**	**-0.2**
	8.2nm,0.8s,mb4.6						
ULN	**Ulaanbaatar**	**63.31**	**331**	*e*P	**P**	**05 38 03.6**	**+0.7**
	4.7nm,0.6s,mb4.6						
SONM	**Songino Array**	**63.60**	**331**	P	**P**	**05 38 05.3**	**+0.5**
	2.5nm,0.8s,mb4.1,baz=147,slow=6.6,SNR=16						
VNDA	**Vanda**	**72.64**	**177**	P	**P**	**05 39 00.2**	**0.0**
	3.7nm,0.7s,mb4.3,baz=333,slow=6.0,SNR=34						
VNDA	**Vanda**	**72.64**	**177**	*e*P	**P**	**05 38 60.0**	**-0.3**
	4.4nm,0.8s,mb4.3						
ZAL	**Zalesovo**	**78.22**	**328**	P	**P**	**05 39 31.6**	**-0.7**
	0.8nm,0.5s,mb3.8,baz=338,slow=3.2,SNR=3.2						
MAW	**Mawson**	**82.75**	**203**	P	**P**	**05 39 55.6**	**-0.4**
	4.0nm,0.9s,mb4.2,baz=94,slow=8.8,SNR=5.0						
COLA	**College**	**84.65**	**23**	*e*P	**P**	**05 40 05.6**	**0.0**
	2.7nm,0.6s,mb4.3						
QSPA	**South Pole Qui**	**84.67**	**180**	*e*P	**P**	**05 40 05.3**	**-0.1**
	5.1nm,0.7s,mb4.6						
ILAR	**Eielson Array**	**84.98**	**23**	P	**P**	**05 40 07.0**	**-0.2**
	2.3nm,0.6s,mb4.3,baz=264,slow=5.2,SNR=25						
BVAR	**Borovoye Array**	**85.98**	**324**	P	**P**	**05 40 12.6**	**+0.2**
	0.7nm,0.5s,mb3.9,baz=90,slow=4.4,SNR=4.1						

*NEIC **13** 05:32:51.6, 17.06N×99.81W, h16^{km}, MD3.8(MEX), After MEX.*

MEX 13 05:32:51.3±0.9, 17.09N×99.84W, h11^{km}±16^{km}, MD3.8, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	**0.24**	**197**	*i* P	Pg	05 32 56.2	-0.2
ACX				*i* S	Sg	05 32 58.8	-1.0
CAIG	**El Cayaco**	**0.41**	**264**	*i* P	Pg	05 32 58.6	-1.0
CAIG				*i* S	Sg	05 33 05.2	0.0
PLIG	**Platanillo**	**1.33**	**14**	*i* P	Pb	05 33 12.7	-3.2
PLIG				*i* S	Sb	05 33 27.3	-5.5
PLIG	**Platanillo**	**1.33**	**14**	*i* P	Pb	05 33 12.1	-3.8
PLIG				*i* S	Sb	05 33 27.3	-5.5
ZIIG	**Zihuatanejo**	**1.63**	**288**	*e*P	Pn	05 33 17.2	-3.0
ZIIG				*i* S	Sn	05 33 36.0	-5.3
PPM	**Popocatepetl**	**2.28**	**30**	*e*P	Pn	05 33 25.0	-4.5
OXX	**Oaxaca**	**2.98**	**90**	*e*P	Pn	05 33 45.0	+5.4
OXX				*i* S	Sn	05 34 15.0	-0.7
OXX	**Oaxaca**	**2.98**	**90**	*i* S	Sn	05 34 15.0	-0.7

*BJI **13** 05:35:01.3, 15.96N×121.94E, h9^{km}, mb4.2, Ms3.8, Msz3.8*

*NEIC **13** 05:35:02.3±0.5, 16.62N×122.92E, h10^{km}, mb4.2/5, Error ellipse: s-maj=24.2km s-min=10.6km az=85.0*

*IDC **13** 05:35:11.9±4.5, 16.54N×122.66E, h90^{km}±43^{km}, mb3.8/10, mb1 4.0/10, mb1mx3.8/20, MS3.5/4, Ms1 3.6/4, ms1mx3.0/18, Error ellipse: s-maj=45.4km s-min=14.9km az=70.0*

ISC 13 05:35:04.0±3.4, 16.51N±0.06×122.69E±0.09, h33^{km}±24^{km}, n34, σ1^{s}26/35, mb4.1/16, MS3.4/4, 4C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVP	**Callao Caves**	**1.45**	**325**	⇑*i*P	**Pn**	**05 35 27.0**	**-1.3**
CVP				*i* S	**Sn**	**05 35 45.0**	**-1.3**
BCPH	**Baguio City Da**	**2.02**	**267**	⇑*i*P	**Pn**	**05 35 35.6**	**-1.0**
BCPH				*i* S	**Sn**	**05 35 60.0**	**-1.0**
LQP	**Lukban**	**2.63**	**205**	⇓*e*P	**Pn**	**05 35 44.1**	**-1.1**
PIP	**Pasuquin**	**2.67**	**313**	⇑*i*P	**Pn**	**05 35 46.7**	**+0.8**
PIP				*i* S	**Sn**	**05 36 21.1**	**+3.7**
TGY	**Tagaytay City**	**2.93**	**215**	*e*P	**Pn**	**05 35 57.0**	**+7.5**
TGY	**Tagaytay City**	**2.93**	**215**	P	**Pn**	**05 35 54.8**	**+5.3**
	207nm,0.3s,baz=0.4,slow=2.2,SNR=11						
TGY				S	**Sn**	**05 36 33.0**	**+9.0**
	162nm,0.3s,baz=124,slow=17,SNR=3.2						
LUBP	**Lubang**	**3.63**	**221**	⇑*e*P	**Pn**	**05 36 02.2**	**+2.7**
CBIJ	**Chichi jima**	**20.91**	**56**	LR	LR	05 45 43.1	
	comp=Z,94nm,20.8s,MS3.1,baz=44,slow=30						
XAN	**Xi'an**	**21.40**	**327**	P	**P**	**05 39 51.0**	**0.0**
XAN				AP		05 39 56.4	
XAN				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.0						
CD2	**Chengdu**	**22.44**	**313**	P	**P**	**05 40 03.4**	**+1.9**
JHJ	**Hachijo jima 2**	**22.62**	**40**	LR	LR	05 47 17.3	
	comp=Z,86nm,19.8s,MS3.2,baz=111,slow=32						
CMAR	**Chiang Mai Arr**	**22.73**	**278**	LR	LR	05 49 07.3	
	comp=Z,91nm,18.9s,MS3.2,baz=85,slow=37						
ULN	**Ulaanbaatar**	**33.81**	**341**	*e*P	**P**	**05 41 44.6**	**-0.5**
SONM	**Songino Array**	**33.99**	**340**	P	**P**	**05 41 46.2**	**-0.5**
	comp=Z,1.1nm,0.6s,mb3.9,baz=156,slow=10,SNR=11						
FITZ	**Fitzroy Crossi**	**34.52**	**175**	P	**P**	**05 41 51.8**	**+0.3**
	comp=Z,2.6nm,0.9s,mb4.2,baz=350,slow=12,SNR=2.0						
MBWA	**Marble Bar**	**37.55**	**185**	*e*P	**P**	**05 42 16.1**	**-1.0**
	comp=Z,1.2nm,0.6s,mb3.8						
WRAB	**Tennant Creek**	**37.99**	**162**	*e*P	**P**	**05 42 20.3**	**-0.5**
	comp=Z,17nm,1.0s,mb4.7						
WRA	**Warramunga Arr**	**37.99**	**162**	P	**P**	**05 42 20.3**	**-0.5**

	comp=Z,2.3nm,0.5s,mb4.1,baz=343,slow=9.5,SNR=13						
WB2	Warramunga Arr	37.99	162	eP	P	05 42 20.2	-0.7
ASAR	Alice Springs	41.41	164	P	P	05 42 50.0	+0.8
	comp=Z,1.5nm,0.8s,mb3.6,baz=350,slow=7.2,SNR=13						
ASPA	Alice Springs	41.41	164	eP	P	05 42 52.9	+3.7
BVAR	Borovoye Array	54.59	324	P	P	05 44 29.1	-2.3
	comp=Z,1.6nm,0.7s,mb4.2,baz=100,slow=9.0,SNR=6.1						
BRVK	Borovoye	54.66	324	eP	P	05 44 30.7	-1.3
	comp=Z,3.9nm,0.8s,mb4.5						
ILAR	Eielson Array	75.40	26	P	P	05 46 46.0	+0.1
	comp=Z,0.6nm,0.8s,mb3.6,baz=268,slow=6.1,SNR=6.2						
ARCES	ARCESS Array B	77.16	339	P	P	05 46 55.9	+0.2
	comp=Z,4.2nm,0.8s,mb4.4,baz=76,slow=11,SNR=3.1						
ARCES	ARCESS Array B	77.16	339	P	P	05 46 55.9	+0.2
DAWY	Dawson	78.72	26	eP	P	05 47 06.4	+1.9
FINES	FINESS Array B	78.78	331	P	P	05 47 04.3	-0.5
	comp=Z,2.3nm,0.8s,mb4.2,baz=72,slow=6.0,SNR=11						
FINES	FINESS Array B	78.78	331	P	P	05 47 04.3	-0.5
INK	Inuvik	79.80	22	eP	P	05 47 08.5	-1.7
	comp=Z,0.9nm,0.8s,mb3.8						
NB2	NORSAR Subarra	85.65	333	P	P	05 47 39.9	-0.4
	comp=Z,1.1nm,0.7s,mb4.2,baz=66,slow=4.6						
NOA	NORSAR Array B	85.65	333	P	P	05 47 39.9	-0.4
	comp=Z,1.2nm,0.6s,mb4.3,baz=66,slow=4.8,SNR=4.8						
NOA				LR	LR	06 29 32.2	
	comp=Z,51nm,18.4s,MS4.0,baz=330,slow=38						
RES	Resolute Bay	85.97	9	eP	P	05 47 42.4	+0.9
	comp=Z,1.6nm,0.6s,mb4.4						
YKA	Yellowknife Ar	89.46	23	P	P	05 47 59.7	+1.1
	comp=Z,1.5nm,1.2s,mb4.2,baz=302,slow=4.3,SNR=9.6						

TUN 13 05:42:45.3, 36.61N×8.63E, h14^{km}, MD3.5
CSEM 13 05:42:46.8±0.1, 36.63N×8.60E, h5^{km}, ML3.0/1
LDG 13 05:42:51.8±0.6, 36.55N×8.46E, h10^{km}, Ml3.0/3, Error ellipse: s-maj=12.8km s-min=7.7km az=142.0
ISC 13 05:42:47.1±1.3, 36.73N±0.09×8.59E±0.05, h2^{km}±16^{km}, n24, $\sigma1^{s}11$/27, Tunisia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BLIT	Baltah	0.29	93	i P	Pg	05 42 53.5	+0.5
GHAT	Ghardimaou	0.33	224	i P	Pg	05 42 53.0	-0.7
KRIT	Krib	0.56	135	i P	Pg	05 42 57.5	-0.7
KCHT	Kechabta	1.15	70	i P	Pb	05 43 10.0	+0.6
ZGN	Zaghouan	1.27	106	i P	Pb	05 43 10.8	-0.7
MBZ	Menzel Bouzelf	1.68	91	i P	Pn	05 43 18.0	+0.3
PGF	Pioggiola	5.82	3	ePn	Pn	05 44 18.5	+2.0
PGF				eSn	Sn	05 45 24.3	-0.5
	1.0nm,0.4s						
EIBI	Ibiza	6.17	294	P	Pn	05 44 23.5	+2.0
	25nm,0.6s,SNR=8.6						
LMR	La Mourre	6.78	347	ePn	Pn	05 44 30.9	+0.7
LMR				eSn	Sn	05 45 45.5	-3.4
	2.6nm,0.4s						
EBEN	Beniarda	7.26	288	P	Pn	05 44 39.2	+2.4
	41nm,1.0s,SNR=7.9						
EMIR	Miracle	7.53	316	P	Pn	05 44 40.2	-0.4
	34nm,1.1s,SNR=7.9						
SMRF	Simiane la Rot	7.59	343	ePn	Pn	05 44 41.8	+0.3
ERTA	Horta de San J	7.70	306	P	Pn	05 44 43.7	+0.7
	68nm,1.9s,SNR=7.9						
EMOS	Mosqueruela	7.97	300	P	Pn	05 44 47.4	+0.6
	51nm,1.1s,SNR=23						
MTLF	Montolieu	8.21	325	ePn	P	05 44 48.7	-1.4
MTLF				eSn	Sn	05 46 17.5	-7.1
	1.3nm,0.3s						
ESAC	San Caprasio	8.61	308	P	P	05 44 56.6	+0.9
	9.4nm,0.3s,SNR=4.5						
EBIE	Bielsa	8.81	315	P	P	05 44 57.5	-1.0
	40nm,1.2s,SNR=10.0						
EPF	Esparros	8.93	317	ePn	P	05 44 59.3	-0.8
EBER	Berja	9.21	274	P	P	05 45 02.6	-1.3
	112nm,1.6s,SNR=7.9						
ETSF	Etsaut	9.35	314	ePn	P	05 45 05.1	-0.8
EQES	Quesada	9.36	280	P	P	05 45 07.4	+1.4
	37nm,1.1s,SNR=17						
SJPF	Ste Jean	9.87	313	ePn	P	05 45 11.8	-1.2
EALK	Alkurruntz	10.09	313	P	P	05 45 14.6	-1.6
	84nm,1.6s,SNR=7.9						
ESDC	Sonseca Array	10.30	290	P	P	05 45 19.7	+0.6
	1.3nm,0.3s,SNR=5.2						

LDG 13 06:14:14.2±0.9, 42.94N×1.44W, h2^{km}, Md2.1/3, Ml2.0/1, Error ellipse: s-maj=15.9km s-min=8.5km az=52.0
MDD 13 06:14:13.1±0.5, 42.87N×1.47W, mbLg1.2/7, 1C, Error ellipse: s-maj=4.1km s-min=2.4km az=37.0, PRXIMO AftershockPLICA, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SJPF	Ste Jean	0.30	36	ePg	Pg	06 14 18.6	-0.5
SJPF				eSg	Sg	06 14 22.6	-0.5
	18nm,0.3s						
EALK	Alkurruntz	0.35	355	⇑Pg	Pg	06 14 19.6	-0.5
	1.0nm,0.1s,SNR=18						
EALK				Lg		06 14 24.1	
	4.0nm,0.1s,SNR=12						
LARF	Larrau	0.39	65	Pg	Pg	06 14 20.1	-0.8
LARF				Lg		06 14 25.9	
ETSF	Etsaut	0.67	87	ePg	Pg	06 14 25.0	-1.5
ETSF				eSg	Sg	06 14 34.4	-1.0
	2.0nm,0.3s						
EBIE	Bielsa	1.20	98	Pg	Pg	06 14 35.6	-1.5
	0.6nm,0.1s,SNR=9.7						
EBIE				Lg		06 14 51.8	
	2.2nm,0.2s,SNR=6.7						
EPF	Esparros	1.34	83	ePg	Pg	06 14 38.9	-0.9
EPF				eSg	Sg	06 14 55.4	-2.2
	2.9nm,0.2s						
ESAC	San Caprasio	1.37	147	Pg	Pg	06 14 37.2	-3.2
	6.6nm,0.3s,SNR=7.9						
ESAC				Lg		06 14 55.7	
	7.1nm,0.2s,SNR=9.4						
ELAN	Lanestosa	1.48	285	Pg	Pg	06 14 40.2	-2.5
	0.9nm,0.1s,SNR=7.9						
ELAN				Lg		06 15 01.5	
	2.2nm,0.3s,SNR=7.9						

MAN 13 06:41:46.5, 16.62N×122.39E, h16^{km}, mb3.9, ML2.7, MS2.3, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALP	Palanan	0.44	5	eP	Pb	06 41 56.5	+1.0
PALP				eS	Sb	06 42 06.2	+4.6
CAUP	Cauayan	0.63	301	eP	Pb	06 41 58.1	-0.5
CVP	Callao Caves	1.21	333	eP	Pb	06 42 07.0	-1.5
CVP				eS	Sb	06 42 25.0	+1.4
APYP	Conner	1.65	319	eP	Pn	06 42 14.8	-0.3
APYP				eS	Sn	06 42 40.0	+3.9

IDC 13 07:17:11.6±1.1, 16.71N×122.89E, mb3.7/5, mb1 4.0/6, mb1mx3.8/19, ML4.6/1, MS3.3/2, Ms1 3.3/2, ms1mx2.6/28, Error ellipse: s-maj=42.0km s-min=20.2km az=87.0
NEIC 13 07:17:13.2±0.7, 16.66N×122.96E, h10^{km}, mb3.9/2, Error ellipse: s-maj=28.8km s-min=14.5km az=90.0
ISC 13 07:17:16.1±1.2, 16.54N±0.05×122.6E±0.1, h45^{km}±12^{km}, n16, $\sigma1^{s}06$/18, mb3.7/7, MS3.2/2, 4C-1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVP	Callao Caves	1.35	329	⇑iP	P	07 17 38.0	-1.0
CVP				eS	S	07 17 56.0	0.0
BCPH	Baguio City Da	1.90	265	⇑iP	P	07 17 45.9	-0.9
BCPH				i S	S	07 18 10.2	+0.6
PIP	Pasuquin	2.56	314	⇑eP	P	07 17 57.5	+1.3
LQP	Lukban	2.61	202	⇓eP	P	07 17 55.4	-1.4
GQP	Guinayangan	2.62	182	⇑eP	P	07 17 58.8	+1.8
GQP				i S	S	07 18 27.8	-0.1
TGY	Tagaytay City	2.88	213	eP	P	07 18 06.0	+5.2
TGY	Tagaytay City	2.88	213	Pn	P	07 18 04.4	+3.7
	71nm,0.3s,baz=358,slow=5.0,SNR=4.7						
TGY				Sn	S	07 18 44.2	+10
	72nm,0.3s,baz=280,slow=23,SNR=4.2						
CBIJ	Chichi jima	21.00	57	LR	LR	07 27 49.5	
	comp=Z,74nm,19.3s,MS3.1,baz=122,slow=31						
ASAJ	Asahikawa	32.30	28	LR	LR	07 36 31.3	
	comp=Z,68nm,21.0s,MS3.3,baz=329,slow=36						
SONM	Songino Array	33.93	340	P	P	07 23 55.9	-1.0
	0.4nm,0.5s,mb3.6,baz=164,slow=9.9,SNR=5.3						
WRAB	Tennant Creek	38.05	162	eP	P	07 24 30.9	-1.3
	1.5nm,0.6s,mb3.9						
WRA	Warramunga Arr	38.06	162	P	P	07 24 31.6	-0.7
	2.3nm,0.8s,mb3.9,baz=343,slow=9.4,SNR=6.4						
ASAR	Alice Springs	41.47	164	P	P	07 25 01.1	+0.7
	1.0nm,0.9s,mb3.4,baz=357,slow=7.2,SNR=7.2						
FINES	FINESS Array B	78.69	331	P	P	07 29 14.2	-0.7
	2.3nm,1.1s,mb4.0,baz=56,slow=6.9,SNR=4.1						
RES	Resolute Bay	85.96	9	eP	P	07 29 53.0	+0.9
	0.5nm,0.6s,mb3.9						
YKA	Yellowknife Ar	89.48	23	P	P	07 30 10.9	+1.6
	0.1nm,0.6s,mb3.3,baz=302,slow=4.6,SNR=5.2						

DJA 13 07:17:36.6±1.0, 5.49S×121.00E, h2^{km}, MD4.6/3, ML4.0/3, 5C-1D, Error ellipse: s-maj=26.3km s-min=22.4km az=49.0, Sulawesi

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NINI	Niniconang	1.63	311	⇓ePn	Pn	07 18 02.4	-4.1
	135nm,0.2s						
NINI				⇑eSn	Sn	07 18 21.5	-6.8
BUNI	Buntu Taipa	1.94	340	⇑ePn	Pn	07 18 07.2	-3.8
	135nm,0.2s						
BUNI				⇑eSn	Sn	07 18 29.3	-7.0
TANI	Tanete Lipujan	2.60	322	⇑ePn	Pn	07 18 17.7	-2.7
	40nm,0.2s						
TANI				⇑eSn	Sn	07 18 47.6	-5.4

IDC 13 07:20:18.8±56.0, 13.82S×167.49E, mb3.9/3, mb1 4.1/3, mb1mx3.7/14, Error ellipse: s-maj=955.0km s-min=115.0km az=65.0, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	29.75	228	P	P	07 26 26.9	-2.3
	1.0nm,0.4s,baz=65,slow=11,SNR=5.1						
WRA	Warramunga Arr	32.26	255	P	P	07 26 49.7	-1.7
	0.3nm,0.3s,baz=84,slow=8.8,SNR=6.8						
ASAR	Alice Springs	33.20	248	P	P	07 26 57.4	-2.2
	0.7nm,0.4s,baz=78,slow=9.8,SNR=18						

IDC 13 07:48:54.4±0.8, 15.94S×174.11W, mb3.9/9, mb1 4.2/9, mb1mx4.1/15, Error ellipse: s-maj=38.3km s-min=18.7km az=134.0
NEIC 13 07:49:07.4±1.3, 16.04S×174.19W, h105^{km}±12^{km}, Error ellipse: s-maj=23.9km s-min=10.4km az=134.0
ISC 13 07:49:06.2±1.9, 16.0S±0.2×174.2W±0.2, h108^{km}±19^{km}, n10, $\sigma0^{s}27$/11, mb3.8/9, 1C, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.17	48	⇑iP	P	07 49 55.4	-0.1
AFI				eS	S	07 50 25.9	-6.8
URZ	Urewera	23.41	197	P	P	07 54 06.7	+0.5
	2.8nm,0.4s,mb4.0,baz=310,slow=7.9,SNR=6.6						
STKA	Stephens Creek	43.04	240	P	P	07 56 57.0	0.0
	1.5nm,0.7s,mb3.8,baz=77,slow=6.7,SNR=4.0						
WRA	Warramunga Arr	48.94	257	P	P	07 57 43.6	-0.1
	0.4nm,0.4s,mb3.7,baz=94,slow=6.9,SNR=4.8						
ASAR	Alice Springs	49.17	252	P	P	07 57 45.4	-0.1
	1.6nm,0.4s,mb4.3,baz=89,slow=7.7,SNR=44						
VNDA	Vanda	62.66	186	P	P	07 59 20.9	-0.4
	1.4nm,0.7s,mb4.0,baz=14,slow=5.7,SNR=7.8						
NVAR	Mina Array Bea	75.33	42	P	P	08 00 40.0	+0.5
	1.7nm,1.1s,mb3.7,baz=232,slow=8.1,SNR=4.9						
TXAR	Lajitas Array	81.62	56	P	P	08 01 13.9	-0.2
	0.6nm,0.8s,mb3.5,baz=190,slow=7.6,SNR=5.2						
ILAR	Eielson Array	83.22	11	P	P	08 01 21.7	+0.1
	0.2nm,0.6s,mb3.2,baz=244,slow=6.8,SNR=5.2						
PDAR	Pinedale Array	83.26	42	P	P	08 01 22.0	-0.2
	0.9nm,0.8s,mb3.7,baz=216,slow=2.5,SNR=8.6						

IDC 13 08:44:51.5±10.0, 9.58S×160.24E, h77^{km}±93^{km}, mb3.7/8, mb1 4.0/9, mb1mx3.9/15, ML4.0/1, MS3.4/1, Ms1 3.4/1, ms1mx2.8/16, Error ellipse: s-maj=40.2km s-min=25.7km az=95.0
NEIC 13 08:44:51.3±4.9, 9.62S×160.27E, h75^{km}±45^{km}, mb4.2/6, Error ellipse: s-maj=27.2km s-min=20.3km az=117.0
ISC 13 08:44:53.7±7.0, 9.7S±0.2×160.2E±0.2, h110^{km}±63^{km}, n18, $\sigma0^{s}81$/17, mb3.9/12, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	12.82	270	LR	LR	08 52 32.4	
	comp=Z,158nm,19.9s,baz=223,slow=36						
CTA	Charters Tower	16.94	231	P	P	08 48 45.9	+0.6
	0.3nm,0.3s,baz=68,slow=12,SNR=12						
CTA	Charters Tower	16.94	231	P	P	08 48 45.9	+0.6
CTAO	Charters Tower	16.94	231	eP	P	08 48 44.8	-0.6
	12nm,0.8s						
WRAB	Tennant Creek	26.91	245	eP	P	08 50 26.4	-0.2
	5.5nm,0.9s,mb4.1						
WRA	Warramunga Arr	26.92	245	P	P	08 50 26.9	+0.2
	2.6nm,0.8s,mb3.8,baz=73,slow=9.5,SNR=24						
WRA				PcP	PcP	08 53 46.1	-0.3
	0.4nm,0.7s,baz=75,slow=2.6,SNR=5.2						
STKA	Stephens Creek	28.00	215	P	P	08 50 37.4	+0.9
	1.4nm,0.6s,mb3.7,baz=51,slow=14,SNR=5.2						
ASAR	Alice Springs	28.66	238	P	P	08 50 40.5	-1.9
	0.3nm,0.4s,mb3.2,baz=59,slow=10,SNR=6.1						
VNDA	Vanda	67.83	180	P	P	08 55 41.9	+0.2
	1.6nm,0.8s,mb3.9,baz=3.0,slow=7.9,SNR=12						
VNDA	Vanda	67.83	180	eP	P	08 55 41.6	0.0
	2.0nm,0.8s,mb4.0						
ULN	Ulaanbaatar	74.03	326	P	P	08 56 20.1	+0.9
	4.5nm,1.1s,mb4.1						
SONM	Songino Array	74.37	326	P	P	08 56 22.1	+0.9
	2.2nm,0.8s,mb3.9,baz=139,slow=5.4,SNR=9.6						
COLA	College	83.79	20	eP	P	08 57 10.7	-0.9
	2.5nm,0.7s,mb4.2						
ILAR	Eielson Array	84.05	20	P	P	08 57 12.2	-0.8
	0.9nm,0.6s,mb3.8,baz=244,slow=5.0,SNR=15						
NVAR	Mina Array Bea	89.40	51	P	P	08 57 40.1	+0.6
	0.7nm,0.9s,mb3.7,baz=248,slow=4.9,SNR=4.2						
TPNV	Topopah Spring	90.68	53	P	P	08 57 46.0	+0.4
	4.0nm,1.3s,mb4.4						
YKA	Yellowknife Ar	96.31	28	P	P	08 58 09.9	-0.7
	0.5nm,0.9s,mb4.0,baz=262,slow=4.7,SNR=9.5						
YKA	Yellowknife Ar	96.31	28	P	P	08 58 09.9	-0.7

GUC 13 08:50:31.3±0.9, 34.21S×72.08W, h31^{km}±21^{km}, MD3.6, ML2.3, 1D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LNV	Longovilo	0.61	66	eP	Pb	08 50 43.0	-0.4
LNV				i S	Sb	08 50 51.8	+0.1
SFDO	San Fernando	0.97	115	⇓iP	Pn	08 50 48.6	-0.3
SFDO				i S	Sn	08 51 02.5	+0.8
TACH	Talagante	1.10	60	eP	Pn	08 50 51.1	+0.4
TACH				i S	Sn	08 51 05.0	0.0
CHCH	Chadas Angostu	1.21	77	eP	Pn	08 50 53.2	+0.8
CHCH				i S	Sn	08 51 08.8	+0.9
CACH	El Canelo	1.23	86	eP	Pn	08 50 52.9	+0.3
RCDM	Rinconada Maip	1.28	56	eP	Pn	08 50 53.5	+0.2
RCDM				i S	Sn	08 51 10.3	+0.8
RCDM				AMP		08 51 15.9	
	comp=E,86nm,0.2s						
PCH	Pirque	1.42	66	eP	Pn	08 50 56.0	+0.6
PCH				i S	Sn	08 51 14.6	+1.4
FCH	Farellones	1.73	60	eP	Pn	08 51 01.1	+1.3
FCH				i S	Sn	08 51 24.4	+3.4
FCH				AMP		08 51 26.9	
	comp=E,57nm,0.3s						

IDC 13 08:50:33.7±0.7, 13.20N×49.62E, mb4.2/20, mb1 4.3/21, mb1mx4.3/25, ML3.2/1, MS3.9/12, Ms1 3.9/12, ms1mx3.7/22, Error ellipse: s-maj=20.0km s-min=15.7km az=61.0
CSEM 13 08:50:33.3±0.1, 13.14N×49.32E, h15^{km}, mb4.9/2, Error ellipse: s-maj=4.5km s-min=3.2km az=176.0
NEIC 13 08:50:35.0±0.4, 13.17N×49.64E, h10^{km}, mb4.5/4, Error ellipse: s-maj=13.1km s-min=10.3km az=72.0
DHMR 13 08:50:35.6±1.2, 13.39N×49.20E, h5^{km}±51^{km}, ML4.3
ISC 13 08:50:32.8±1.8, 13.05N±0.07×49.40E±0.04, h15^{km}±12^{km}, n62, $\sigma1^{s}27$/65, mb4.4/24, MS3.9/11, 4C-4D, Eastern Gulf of Aden

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MUKL	Al Mukalla	1.28	343	⇑iP	Pb	08 50 55.6	-0.5
MUKL				i S	Sb	08 51 11.9	-0.3
MUKL				AML	AML	08 51 12.6	
	comp=N,5µm,0.3s						
MUKL	Al Mukalla	1.28	343	⇑iP	Pb	08 50 55.6	-0.5
MUKL				i S	Sb	08 51 11.7	-0.5
BDHA	Al Bayda’	3.84	284	⇑iP	Pn	08 51 34.5	+1.7
BDHA				AML	AML	08 51 36.7	
	comp=E,2µm,0.3s						
BDHA				i S	Sn	08 52 19.5	+1.4
BDHA	Al Bayda’	3.84	284	⇑eP	Pn	08 51 32.6	-0.2
BDHA				i S	Sn	08 52 16.6	-1.5
ADEN	Aden	4.32	267	⇓iP	Pn	08 51 39.0	-0.5
ADEN				i S	Sn	08 52 29.7	-0.4
DHBB	Dhamar BB	5.10	288	i P	Pn	08 51 51.6	+1.1
DHBB				i S	Sn	08 52 50.5	+0.6
DHBB	Dhamar BB	5.10	288	⇓iP	Pn	08 51 48.9	-1.7
DHBB				i S	Sn	08 52 47.2	-2.6
UDYN	Al ‘Udayn	5.34	280	i P	Pn	08 51 55.0	+1.0
UDYN				i S	Sn	08 52 56.6	+0.7
UDYN	Al ‘Udayn	5.34	280	⇓iP	Pn	08 51 53.2	-0.8
UDYN				i S	Sn	08 52 52.2	-3.7
HAJJ	Hajjah	6.21	296	⇓iP	Pn	08 52 05.0	-1.3
HAJJ				i S	Sn	08 53 15.6	-2.1
TATS	Tathlith	8.60	319	P	P	08 52 40.0	+0.3
BLJS	Baljurashi	10.11	313	P	P	08 52 59.2	-1.4
YNBS	Yanbu‘ al Bahr	15.58	318	P	P	08 54 14.8	+1.2
KBRS	Khaybar	15.87	325	P	P	08 54 19.8	+2.5
HILS	Ha’il	15.94	335	P	P	08 54 22.5	+4.1
UMR	Umm Al-Rimmam	16.50	355	eP	P	08 54 28.2	+2.8
UMR				AMb	AMB	08 54 29.3	
	comp=Z,206nm,0.7s						
RST	Umm Al-Ruwaisa	16.52	353	eP	P	08 54 28.3	+2.6
RST				AMb	AMB	08 54 30.6	
	comp=Z,222nm,1.0s						
KMBO	Kilima Mbogo	18.54	221	P	P	08 54 55.0	+4.0
	comp=Z,0.1nm,0.3s,baz=47,slow=13,SNR=10.0						
KMBO				LR	LR	09 01 46.5	
	comp=Z,324nm,19.6s,baz=306,slow=36						
KMBO	Kilima Mbogo	18.54	221	eP	P	08 54 54.7	+3.7
	comp=Z,8.7nm,1.1s						
KMBO				LR	LR	09 01 46.5	
DBAS	Duba	18.88	320	P	P	08 54 58.1	+3.0
EIL	Elat	21.29	323	LR	LR	09 03 36.8	
	comp=Z,725nm,18.7s,MS4.1,baz=126,slow=37						
ASF	Jabal al Asfar	22.23	331	P	P	08 55 32.8	+2.3
	comp=Z,20nm,1.1s,mb4.5,baz=47,slow=2.9,SNR=12						
ASF				LR	LR	09 04 45.7	
	comp=Z,481nm,18.7s,MS4.0,baz=15,slow=38						
GNI	Garni	27.31	352	P	P	08 56 20.8	+1.9
	comp=Z,10nm,0.8s,mb4.4,baz=77,slow=4.5,SNR=3.9						
GNI				LR	LR	09 09 05.0	
	comp=Z,963nm,18.6s,MS4.4,baz=346,slow=41						
GNI	Garni	27.31	352	P	P	08 56 20.6	+1.8
	comp=Z,34nm,1.3s,mb4.7						
GNI				LR	LR	09 09 05.0	
GNI	Garni	27.31	352	P	P	08 56 20.6	+1.7
	comp=Z,34nm,1.3s,mb4.7						
BRTR	Keskin Array B	29.99	335	P	P	08 56 44.5	+1.4
	comp=Z,2.2nm,0.7s,mb4.0,baz=155,slow=12,SNR=8.7						
KOLN	Koldanda	35.10	60	eP	P	08 57 27.2	-0.5
	comp=Z,112nm,1.5s,mb5.6						
GKN	Gorkha	36.04	60	eP	P	08 57 35.5	-0.2
DMN	Daman	36.33	61	eP	P	08 57 38.0	-0.1
KKN	Kakani	36.52	61	eP	P	08 57 39.4	-0.4
	comp=Z,29nm,0.8s,mb5.1						
PKI	Pulchoki	36.57	61	eP	P	08 57 39.4	-0.8
GUN	Gumba	37.07	61	eP	P	08 57 43.7	-0.6
	comp=Z,85nm,1.4s,mb5.4						
MLR	Muntele Rosu	37.98	333	P	P	08 57 55.4	+3.7
	comp=Z,3.6nm,0.9s,mb4.1,baz=274,slow=11,SNR=3.6						
AKASG	Malin Array Be	40.99	340	P	P	08 58 17.3	+0.6
	comp=Z,2.7nm,0.6s,mb4.1,baz=152,slow=7.4,SNR=15						
BVAR	Borovoye Array	43.25	18	P	P	08 58 34.7	-0.5
	comp=Z,1.6nm,1.0s,mb3.7,baz=203,slow=11,SNR=3.9						
BVAR				PcP	PcP	09 00 27.4	+2.5
	comp=Z,2.6nm,0.8s,baz=207,slow=3.3,SNR=5.3						
GERES	GERESS Array B	46.27	328	P	P	08 59 00.1	+0.7
	comp=Z,0.9nm,0.7s,mb3.8,baz=143,slow=6.7,SNR=7.4						
DAVOX	Davos	47.19	323	P	P	08 59 07.5	+0.7
	comp=Z,2.2nm,0.7s,mb4.2,baz=147,slow=3.3,SNR=3.3						
CMAR	Chiang Mai Arr	47.87	77	P	P	08 59 11.8	-0.7
	comp=Z,3.0nm,0.9s,mb4.3,baz=273,slow=8.8,SNR=12						
CMAR				LR	LR	09 20 48.9	
	comp=Z,51nm,19.8s,MS3.5,baz=280,slow=38						
ZAL	Zalesovo	49.41	27	P	P	08 59 22.4	-1.5
	comp=Z,1.1nm,0.4s,mb4.2,baz=247,slow=6.8,SNR=6.3						
ZAL				LR	LR	09 24 01.1	
	comp=Z,46nm,21.3s,MS3.4,baz=74,slow=41						
ZAL	Zalesovo	49.41	27	P	P	08 59 22.4	-1.5
ZAL				LR	LR	09 24 01.1	
FINES	FINESS Array B	51.19	346	P	P	08 59 37.4	+0.1
	comp=Z,3.0nm,0.8s,mb4.3,baz=143,slow=9.5,SNR=11						
FINES				LR	LR	09 21 45.7	
	comp=Z,134nm,19.0s,MS4.0,baz=128,slow=37						
FINES	FINESS Array B	51.19	346	P	P	08 59 37.4	+0.1
FINES				LR	LR	09 21 45.7	
SUR	Sutherland	52.81	211	P	P	08 59 52.4	+2.4
	comp=Z,3.3nm,0.8s,mb4.3,baz=68,slow=5.4,SNR=2.8						
ESDC	Sonseca Array	53.74	310	P	P	08 59 58.1	+1.4
	comp=Z,1.1nm,0.6s,mb4.0,baz=90,slow=7.4,SNR=4.9						
DBIC	Dimbokro	53.75	269	LR	LR	09 22 27.9	
	comp=Z,57nm,18.9s,MS3.6,baz=56,slow=36						
HFS	Hagfors	53.83	339	P	P	08 59 56.8	-0.2
	comp=Z,4.2nm,0.7s,mb4.5,baz=149,slow=8.6,SNR=8.4						
HFS	Hagfors	53.83	339	P	P	08 59 56.8	-0.2
NB2	NORSAR Subarra	55.34	339	P	P	09 00 07.0	-1.1
	comp=Z,1.6nm,0.8s,mb4.1,baz=143,slow=9.3						
NOA	NORSAR Array B	55.34	339	P	P	09 00 07.5	-0.7
	comp=Z,1.6nm,0.8s,mb4.1,baz=130,slow=7.4,SNR=4.4						
NOA				LR	LR	09 26 40.4	
	comp=Z,102nm,19.5s,MS3.9,baz=115,slow=39						
NOA	NORSAR Array B	55.34	339	P	P	09 00 07.4	-0.7
SONM	Songino Array	58.44	42	P	P	09 00 29.7	-0.6
	comp=Z,1.0nm,0.7s,mb4.0,baz=246,slow=6.8,SNR=9.5						
ARCES	ARCESS Array B	58.44	350	P	P	09 00 29.9	-0.2
	comp=Z,6.2nm,0.8s,mb4.7,baz=76,slow=10.0,SNR=4.9						
ARCES				LR	LR	09 30 07.7	
	comp=Z,122nm,19.4s,MS4.0,baz=189,slow=41						
ARCES	ARCESS Array B	58.44	350	P	P	09 00 29.9	-0.2
ARCES				LR	LR	09 30 07.7	
EKA	Eskdalemuir Ar	58.49	328	P	P	09 00 32.4	+1.8
	comp=Z,1.7nm,0.8s,mb4.1,baz=124,slow=6.0,SNR=4.3						
MAW	Mawson	81.03	175	LR	LR	09 34 07.1	
	comp=Z,76nm,19.6s,MS4.1,baz=64,slow=32						
WRA	Warramunga Arr	89.72	110	P	P	09 03 33.5	+1.1
	comp=Z,2.6nm,0.8s,mb4.6,baz=300,slow=3.6,SNR=24						
WRAB	Tennant Creek	89.73	110	eP	P	09 03 32.9	+0.4
	comp=Z,4.8nm,0.6s,mb5.0						
ASAR	Alice Springs	90.22	114	P	P	09 03 35.6	+0.9
	comp=Z,1.6nm,0.8s,mb4.4,baz=285,slow=4.4,SNR=16						
SCHQ	Schefferville	93.80	329	LR	LR	09 47 14.5	
	comp=Z,47nm,18.9s,MS4.0,baz=283,slow=36						
PDAR	Pinedale Array	121.20	342	PKP	PKPdf	09 09 30.2	+1.0
	comp=Z,0.4nm,0.7s,baz=59,slow=5.3,SNR=2.7						
NVAR	Mina Array Bea	127.52	348	PKP	PKPdf	09 09 42.1	+0.6
	comp=Z,0.6nm,0.6s,baz=352,slow=1.1,SNR=6.0						
TXAR	Lajitas Array	130.49	329	PKP	PKPdf	09 09 47.9	+0.5
	comp=Z,0.5nm,1.0s,baz=27,slow=2.0,SNR=2.9						

CSEM 13 09:11:20.1±0.3, 34.97N×2.81W, h16^{km}±3^{km}, MD2.8, Error ellipse: s-maj=10.8km s-min=6.6km az=92.0
CNRM 13 09:11:21.4, 34.86N×2.67W, h7^{km}, MD2.8
NEIC 13 09:11:22.7, 35.04N×3.15W, MG3.6(MDD), After MDD.
SFS 13 09:11:22.0, 35.04N×3.15W, ML3.6
MDD 13 09:11:23.3±1.8, 35.07N×3.18W, mb3.6/6, Error ellipse: s-maj=18.0km s-min=6.2km az=163.0, PRXIMO AftershockPLICA
ISC 13 09:11:20.7±0.9, 34.98N±0.04×2.85W±0.08, h10^{km}, n20, $\sigma1^{s}41$/31, Morocco

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAI	Zaio	0.09	96	i P	Pg	09 11 23.8	+0.6
MELI	Melilla	0.32	348	P	Pg	09 11 28.9	+1.5
MELI				S	Sg	09 11 32.7	+0.9
MELI	Melilla	0.32	348	eP	Pg	09 11 28.9	+1.6
EMLI	Melilla	0.33	346	P	Pg	09 11 28.0	+0.5
	165nm,0.1s,SNR=5.7						
EMEL	Melilla	0.33	345	P	Pg	09 11 28.0	+0.5

	165nm,0.1s,SNR=5.7						
EMEL				S	Sg	09 11 32.6	+0.5
	477nm,0.2s,SNR=5.6						
TOU	Touzarine	0.74	269	iP	Pb	09 11 38.0	+2.8
TOU				iS	Sb	09 11 49.0	+3.9
MPAL	Palemas	0.93	286	iS	Sb	09 11 55.0	+4.5
TZK	Tazeka	1.41	231	iP	Pn	09 11 46.5	-0.1
TZK				iS	Sb	09 12 04.0	-0.7
EBER	Berja	1.92	359	P	Pn	09 11 54.6	+0.9
	1.6nm,0.3s,SNR=5.0						
EBER				S	Sn	09 12 15.4	-2.7
	41nm,0.5s						
EBER	Berja	1.92	359	P	Pn	09 11 54.6	+0.9
	1.6nm,0.3s,SNR=5.0						
EBER				S	Sn	09 12 15.4	-2.7
	41nm,0.5s						
EMIJ	Mijas	2.22	316	P	Pn	09 11 56.4	-1.7
	1.8nm,0.1s,SNR=6.8						
EMIJ				S	Sn	09 12 21.2	-4.8
	6.5nm,0.2s						
EQES	Quesada	2.82	356	P	Pn	09 12 07.7	+1.0
	2.9nm,0.3s,SNR=7.9						
EQES				S	Sn	09 12 40.7	-0.5
	3.3nm,0.3s,SNR=7.9						
EQES	Quesada	2.82	356	P	Pn	09 12 07.7	+1.0
	2.9nm,0.3s,SNR=7.9						
EQES				S	Sn	09 12 40.7	-0.4
	3.3nm,0.3s,SNR=7.9						
EADA	Adamuz	3.47	337	P	Pn	09 12 15.0	-1.0
	0.1nm,0.1s,SNR=6.8						
EADA				S	Sn	09 12 53.1	-4.4
	2.1nm,0.3s						
EADA	Adamuz	3.47	337	S	Sn	09 12 53.1	-4.5
	2.1nm,0.3s						
EADA	Adamuz	3.47	337	P	Pn	09 12 15.0	-0.9
	0.1nm,0.1s,SNR=6.8						
EMIN	Mina Concepcio	4.15	313	P	Pn	09 12 23.4	-2.2
	1.1nm,0.1s,SNR=11						
EMIN	Mina Concepcio	4.15	313	P	Pn	09 12 23.4	-2.2
	1.1nm,0.1s,SNR=11						
EBAD	Badajoz	5.03	320	P	Pn	09 12 36.0	-2.1
	1.0nm,0.2s,SNR=6.2						
EBAD				S	Sn	09 13 27.0	-10
	1.5nm,0.3s						
EBAD	Badajoz	5.03	320	P	Pn	09 12 36.0	-2.1

IDC 13 09:12:22.9±17.0**, 53.07N×169.35W, mb3.3**/2**, mb1 3.7**/3**, mb1mx3.4**/21**, ML2.4**/1**, Error ellipse: s-maj=317.0km s-min=62.3km az=84.0, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILAR	Eielson Array	16.37	36	Pn	P	09 16 11.0	-4.3
	0.0nm,0.3s,baz=228,slow=13,SNR=3.4						
YKA	Yellowknife Ar	29.78	50	P	P	09 18 30.6	-2.3
	0.2nm,0.7s,baz=280,slow=7.9,SNR=6.6						
PDAR	Pinedale Array	40.26	80	P	P	09 20 01.5	-1.4
	0.4nm,0.7s,baz=304,slow=5.3,SNR=3.6						

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*NEIC **13** 09:14:02.3, 37.39S×177.22E, h147^{km}, After WEL.*

WEL 13 09:14:02.2±0.3**, 37.35S×177.33E, h152^{km}**±2^{km}**, ML3.8**/5**, 5C, Error ellipse: s-maj=1.8km s-min=1.5km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	0.81	105	P	P	09 14 25.6	-0.4
MXZ				S	S	09 14 43.6	-0.6
MXZ	Matakaoa Point	0.81	105	⇑PN	P	09 14 25.6	-0.4
MXZ				SN	S	09 14 43.6	-0.6
MARZ	Manawahe	0.82	219	PN	P	09 14 25.6	-0.4
MYRZ	Mayor Island	0.87	274	PN	P	09 14 26.4	0.0
EDRZ	Edgecumbe	0.89	211	PN	P	09 14 26.3	-0.1
MWZ	Matawai	1.00	171	P	P	09 14 27.1	-0.2
MWZ	Matawai	1.00	171	⇑PN	P	09 14 27.1	-0.1
MWZ				SN	S	09 14 46.5	0.0
PUZ	Puketiti	1.03	135	P	P	09 14 27.5	-0.1
PUZ				S	S	09 14 46.2	-0.9
PUZ	Puketiti	1.03	135	⇑PN	P	09 14 27.5	-0.1
PUZ				SN	S	09 14 45.8	-1.3
TAZ	Tarawera	1.09	216	P	P	09 14 28.5	+0.3
TAZ	Tarawera	1.09	216	PN	P	09 14 28.5	+0.3
KUZ	Kuaotunu	1.42	295	eP	P	09 14 30.3	-1.1
KUZ	Kuaotunu	1.42	295	PN	P	09 14 30.3	-1.1
KNZ	Kokohu	1.69	171	P	P	09 14 33.8	-0.5
KNZ	Kokohu	1.69	171	⇑PN	P	09 14 33.8	-0.5
KNZ				SN	S	09 14 57.3	-1.7
BKZ	Black Stump Fm	1.93	200	P	P	09 14 35.8	-1.1
BKZ	Black Stump Fm	1.93	200	⇑PN	P	09 14 35.8	-1.2
BKZ				eSN	S	09 15 01.8	-1.8
MGZ	Maungaku	2.17	220	PN	P	09 14 39.4	-0.5
NGZ	Ngauruhoe	2.27	216	P	P	09 14 40.6	-0.5
NGZ	Ngauruhoe	2.27	216	PN	P	09 14 40.5	-0.6
CNZ	Chateau	2.32	217	P	P	09 14 41.2	-0.5
CNZ	Chateau	2.32	217	PN	P	09 14 41.0	-0.7
TUVZ	Tukino	2.32	214	P	P	09 14 40.7	-1.1
TUVZ	Tukino	2.32	214	ePN	P	09 14 40.1	-1.7
FWVZ	Far West T-bar	2.36	216	P	P	09 14 40.8	-1.4
FWVZ	Far West T-bar	2.36	216	ePN	P	09 14 40.6	-1.6
MOVZ	Moawhango	2.40	211	PN	P	09 14 40.8	-1.9
PWZ	Pawanui	2.70	188	P	P	09 14 44.4	-2.1
PWZ	Pawanui	2.70	188	PN	P	09 14 44.4	-2.1
PWZ				SN	S	09 15 17.3	-3.1
TSZ	Takapari Road	2.91	201	P	P	09 14 46.6	-2.6
TSZ	Takapari Road	2.91	201	PN	P	09 14 46.6	-2.6
TSZ				SN	S	09 15 22.0	-3.1
BFZ	Birch Farm	3.43	194	P	P	09 14 53.2	-2.7
BFZ	Birch Farm	3.43	194	PN	P	09 14 53.2	-2.7
MRZ	Mangatainoka R	3.58	202	PN	P	09 14 54.2	-3.6
KIW	Kapiti Island	3.98	207	P	P	09 14 58.7	-4.4
KIW	Kapiti Island	3.98	207	ePN	P	09 14 58.3	-4.7
KIW				SN	S	09 15 44.4	-5.4
MTW	Mount Morrison	4.06	200	P	P	09 14 59.7	-4.4
MTW	Mount Morrison	4.06	200	PN	P	09 14 59.7	-4.4
MTW				eSN	S	09 15 45.7	-6.0
MSWZ	Moikau Station	4.37	201	P	P	09 15 03.1	-5.1
MSWZ	Moikau Station	4.37	201	PN	P	09 15 03.3	-4.9
NNZ	Nelson	4.93	217	ePN	P	09 15 10.4	-5.2
NNZ				SN	S	09 16 05.8	-6.4
THZ	Tophouse	5.58	216	eP	P	09 15 19.7	-4.4
THZ	Tophouse	5.58	216	PN	P	09 15 19.7	-4.4
MQZ	McQueen’s Vall	7.28	208	eSN	S	09 16 57.0	-12

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*IDC **13** 09:25:17.8±16.0, 3.35S×123.03E, mb4.1/2, mb1 4.5/3, mb1mx3.9/15, ML4.7/1, Error ellipse: s-maj=355.0km s-min=235.8km az=58.0*

ISC 13 09:25:13.2±2.7**, 3.8S**±0.1×**120.7E**±0.5**, h33^{km}, n7,** σ**0^{s}48**/7**, mb4.1**/2**, 1C-1D, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	14.28	20	⇓iP	P	09 28 35.3	0.0
KAKA	Kakadu	14.67	128	eP	P	09 28 40.3	0.0
	20nm,0.6s						
WRA	Warramunga Arr	20.91	141	P	P	09 29 50.7	-4.7
	2.4nm,0.3s,baz=322,slow=11,SNR=159						
WB2	Warramunga Arr	20.92	141	⇑iP	P	09 29 50.7	-4.8
ASPA	Alice Springs	23.58	148	eP	P	09 30 22.5	+0.6
ASAR	Alice Springs	23.58	148	P	P	09 30 22.2	+0.2
	3.3nm,0.4s,mb4.1,baz=336,slow=12,SNR=74						
STKA	Stephens Creek	34.20	147	P	P	09 31 57.2	-0.7
	1.5nm,0.6s,mb4.1,baz=332,slow=8.2,SNR=6.0						

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*IDC **13** 09:30:48.7±1.2, 8.15N×122.34E, mb3.6/5, mb1 3.9/5, mb1mx3.7/18, Error ellipse: s-maj=44.8km s-min=26.4km az=63.0*

*MAN **13** 09:30:51.8, 8.20N×122.13E, h1^{km}, mb4.2, ML3.0, MS2.8*

ISC 13 09:30:52.0±0.8**, 8.00N**±0.05×**122.01E**±0.04**, h36^{km}**±9^{km}**, n23,** σ**1^{s}20**/35**, mb3.5**/5**, 2C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPIL	Ipil	0.59	110	eP	P	09 31 03.2	-0.7
IPIL				eS	S	09 31 11.6	-0.9
PAGZ	Pagadian	1.37	96	eP	P	09 31 16.3	+1.3
PAGZ				eS	S	09 31 32.8	+0.7
DCPH	Dipolog City	1.45	66	⇓eP	P	09 31 17.0	+0.8
DCPH				eS	S	09 31 34.4	+0.1
SNPH	Sibulan	1.81	42	⇑iP	P	09 31 23.5	+2.2
SNPH				iS	S	09 31 46.0	+2.8
CTBH	Cotabato--PC H	2.35	109	eP	P	09 31 28.4	-0.6
CTBH				iS	S	09 31 55.8	-1.1
AAP	Anini-y	2.41	358	eP	P	09 31 27.0	-2.9
TBP	Tagbilaran	2.49	47	eP	P	09 31 30.8	-0.2
TBP				eS	S	09 31 59.5	-1.0
CUYO	Cuyo Island	3.00	341	eP	P	09 31 39.5	+1.2
CUYO				eS	S	09 32 12.1	-1.4
LLP	Lapu-Lapu	3.01	40	eP	P	09 31 38.5	+0.1
LLP				eS	S	09 32 11.9	-1.8
BUKP	Musuan	3.03	92	eP	P	09 31 43.1	+4.5
BUKP				eS	S	09 32 24.5	+10
MSLP	Maasin	3.53	53	eP	P	09 31 44.8	-1.0
RCP	Roxas	3.62	12	⇑eP	P	09 31 48.7	+1.6
PPR	Puerto Princes	3.69	299	eP	P	09 31 46.9	-1.2
	49µm,1.0s						
ENPP	El Nido	4.08	322	eP	P	09 31 54.3	+0.7
ENPP				eS	S	09 32 38.6	-2.3
OTRP	Odiongan	4.34	0	eP	P	09 31 57.9	+0.5
OTRP				eS	S	09 32 43.6	-3.8
SJMP	San Jose	4.52	349	eP	P	09 32 00.5	+0.6
SJMP				eS	S	09 32 52.6	+0.5
BESP	Borongan	4.92	43	eP	P	09 32 05.8	+0.2
BOAC	Boac	5.43	358	eP	P	09 32 13.7	+1.0
CMAR	Chiang Mai Arr	24.71	297	P	P	09 36 14.2	+2.7
	2.6nm,0.7s,mb3.9,baz=119,slow=8.1,SNR=10						
ASAR	Alice Springs	33.55	160	P	P	09 37 30.6	-0.1
	0.3nm,0.8s,mb3.3,baz=337,slow=6.4,SNR=4.0						
SONM	Songino Array	41.86	344	P	P	09 38 39.4	-0.9
	0.2nm,0.6s,mb3.0,baz=169,slow=7.3,SNR=2.6						
ILAR	Eielson Array	83.30	26	P	P	09 43 16.2	+0.1
	0.7nm,0.7s,mb3.8,baz=252,slow=4.4,SNR=8.7						
YKA	Yellowknife Ar	97.51	23	P	P	09 44 23.3	+0.1
	0.2nm,0.7s,mb3.7,baz=298,slow=4.2,SNR=4.0						

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*NAO **13** 09:33:12.7±3.8, 59.35N×26.98E, ML2.3*

*BER **13** 09:33:13.8±3.0, 59.36N×27.15E, ML2.3(NAO), Suspected explosion*

HEL 13 09:33:11.8±0.2**, 59.32N×27.12E, ML1.6, ML2.3**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VJF	Virojoki	1.25	10	eP	Pb	09 33 34.1	-1.8
VJF				eS	Sb	09 33 49.8	-2.6
PVF	Pernaja	1.39	333	eP	Pb	09 33 36.6	-1.7
PVF				eS	Sb	09 33 54.5	-1.9
FIA0	FINESS Array S	2.20	347	Pn	Pn	09 33 49.6	-0.4
	baz=169,slow=16						
FIA0				Lg		09 34 20.1	
	baz=172,slow=28						
FIA0				Rg		09 34 33.7	
	baz=167,slow=37						
FIA0	FINESS Array S	2.20	347	eP	Pn	09 33 49.4	-0.6
FIA0				eS	Sn	09 34 17.0	-1.3
KAF	Kangasniemi	2.84	352	eP	Pn	09 33 58.2	-0.9
KAF				eS	Sn	09 34 32.3	-2.2
KAF				MSG		09 34 40.5	
	comp=Z,1.4nm,0.2s						
SUF	Sumiainen	3.45	353	MSG		09 35 02.9	
	comp=Z,1.4nm,0.3s						
JOF	Joensuu	4.15	28	eSB	Sb	09 35 15.1	-1.5
HFS	Hagfors	6.84	283	Sn	Sn	09 36 09.8	-5.5
	baz=105,slow=28						
HFS				Lg		09 36 43.5	
	baz=88,slow=28						
HFS	Hagfors	6.84	283	eS	Sn	09 36 09.8	-5.5
HFS				eSG		09 36 43.5	
ARA0	ARCESS Array S	10.29	357	Pn	P	09 35 38.5	-5.1
	baz=172,slow=14						
ARA0				Sn	S	09 37 30.0	-11
	baz=172,slow=28						
ARA0	ARCESS Array S	10.29	357	eP	P	09 35 38.5	-5.1
ARA0				eS	S	09 37 30.0	-11

JMA 13 09:50:51.7±0.2**, 43.78N×147.32E, h17^{km}, M3.6, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.22	251	P	Pb	09 51 13.9	0.0
NEM2				eS	Sb	09 51 30.0	+0.8
JRA	Rausu	1.60	276	P	Pn	09 51 19.5	0.0
JRA				eS	Sn	09 51 40.9	+1.1
JNK	Nakash	1.90	265	P	Pn	09 51 23.8	0.0
JNK				eS	Sn	09 51 47.4	0.0
JAK	Akkeshi	2.07	249	P	Pn	09 51 26.1	-0.1
JAK				eS	Sn	09 51 51.0	-0.7
JTKR	Abashiri--Toko	2.48	276	P	Pn	09 51 32.1	+0.1
JAR	Ashorobuto	2.63	261	P	Pn	09 51 34.6	+0.4
JAR				eS	Sn	09 52 06.2	+0.2
JOB	Onbets	2.69	252	P	Pn	09 51 35.4	+0.3
JOB				eS	Sn	09 52 08.1	+0.5
JCH	Churui	3.12	249	P	Pn	09 51 40.8	-0.4
JCH				eS	Sn	09 52 17.9	-0.5

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*IDC **13** 09:50:54.4±0.6, 0.07N×124.36E, mb4.2/11, mb1 4.4/11, mb1mx4.2/18, MS3.3/1, Ms1 3.5/1, ms1mx2.5/20, Error ellipse: s-maj=32.1km s-min=14.2km az=61.0*

*NEIC **13** 09:51:03.3±1.4, 0.05N×124.46E, h71^{km}±14^{km}, mb4.4/6, Error ellipse: s-maj=14.1km s-min=6.8km az=53.0*

*BJI **13** 09:51:03.0, 0.23N×124.50E, h63^{km}, mb4.8*

*DJA **13** 09:51:05.9±1.3, 0.38S×124.26E, h200^{km}, MD5.0/3, ML5.4/3, Error ellipse: s-maj=110.4km s-min=29.3km az=134.0*

ISC 13 09:51:01.3±1.6**, 0.09N**±0.06×**124.45E**±0.09**, h67^{km}**±15^{km}**, n39,** σ**0^{s}79**/38**, mb4.4**/21**, 2C-3D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUNI	Buntu Taipa	5.56	228	⇓ePn	P	09 52 22.5	-0.7
	974nm,0.2s						
BUNI				⇑eSn	S	09 53 20.3	-6.2
TANI	Tanete Lipujan	6.16	235	⇓ePn	P	09 52 32.2	+0.6
	155nm,0.3s						
NINI	Niniconang	6.49	226	⇓ePn	P	09 52 37.0	+0.7
	312nm,0.2s						
NINI				⇑eSn	S	09 53 42.0	-7.6
KAKA	Kakadu	14.95	148	eP	P	09 54 30.7	+0.3
	27nm,0.6s						
MBWA	Marble Bar	21.62	192	eP	P	09 55 46.7	-0.8
	9.5nm,0.6s,mb4.3						
WRAB	Tennant Creek	22.14	155	eP	P	09 55 52.4	-0.3
	26nm,0.8s,mb4.6						
WRA	Warramunga Arr	22.14	155	P	P	09 55 51.5	-1.2
	4.3nm,0.7s,mb3.9,baz=333,slow=11,SNR=47						
WRA				S	S	09 59 47.6	+0.3
	2.5nm,0.9s,baz=339,slow=16,SNR=5.9						
WB2	Warramunga Arr	22.14	155	eP	P	09 55 52.5	-0.3
WB2				eS	S	09 59 49.1	+1.7
PMG	Port Moresby	24.49	113	P	P	09 56 15.7	-0.1
	3.3nm,0.4s,mb4.0,baz=252,slow=6.4,SNR=2.5						
PMG	Port Moresby	24.49	113	P	P	09 56 15.8	0.0
ASPA	Alice Springs	25.33	159	eP	P	09 56 24.3	+0.6
ASAR	Alice Springs	25.34	159	P	P	09 56 23.6	-0.1
	3.8nm,0.7s,mb4.0,baz=337,slow=7.5,SNR=47						
ASAR				PcP	PcP	09 59 55.8	0.0
	2.2nm,0.5s,baz=352,slow=2.0,SNR=24						
CMAR	Chiang Mai Arr	31.00	307	P	P	09 57 15.1	+0.1
	1.9nm,0.7s,mb3.9,baz=135,slow=7.6,SNR=11						
CMAR				PcP	PcP	10 00 10.3	+0.8
	1.4nm,0.5s,baz=72,slow=2.9,SNR=8.5						
CMAR				LR	LR	10 08 32.4	
	comp=Z,51nm,18.3s,baz=98,slow=34						
CBIJ	Chichi jima	31.81	31	P	P	09 57 22.2	+0.4
	119nm,1.1s,mb5.5,baz=127,slow=20,SNR=5.0						
STKA	Stephens Creek	35.69	155	P	P	09 57 55.4	+0.1
	2.8nm,0.6s,mb4.4,baz=339,slow=8.6,SNR=4.4						
STKA	Stephens Creek	35.69	155	eP	P	09 57 55.2	-0.1
MAT	Matsushiro	38.45	18	P	P	09 58 19.4	+1.1
MAT	Matsushiro	38.45	18	eP	P	09 58 19.0	+0.7
	11nm,0.8s,mb4.8						
GTA	Gaotai	45.16	333	eP	P	09 59 15.1	+1.9
GTA				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.6						
GUN	Gumba	46.16	310	eP	P	09 59 22.4	+1.1
	comp=Z,13nm,0.5s,mb5.0						
PKI	Pulchoki	46.36	309	eP	P	09 59 21.8	-1.1
GKN	Gorkha	47.16	309	eP	P	09 59 29.7	+0.5
KOLN	Koldanda	47.86	309	eP	P	09 59 34.8	+0.1
	comp=Z,18nm,0.7s,mb5.0						
ULN	Ulaanbaatar	49.93	345	eP	P	09 59 49.8	-0.6
	comp=Z,2.0nm,0.5s,mb4.3						
SONM	Songino Array	50.08	344	P	P	09 59 51.5	0.0
	comp=Z,1.6nm,0.5s,mb4.2,baz=156,slow=8.7,SNR=11						
YAK	Yakutsk	61.91	3	eP	P	10 01 16.3	+0.3
	comp=Z,36nm,0.8s,mb5.5						
ZAL	Zalesovo	62.84	335	P	P	10 01 20.8	-1.6
	comp=Z,1.3nm,0.3s,mb4.3,baz=36,slow=5.7,SNR=5.5						
ZAL	Zalesovo	62.84	335	P	P	10 01 20.8	-1.6
BVAR	Borovoye Array	69.16	328	P	P	10 02 01.6	-1.0
	comp=Z,1.3nm,0.5s,mb4.0,baz=135,slow=8.4,SNR=8.5						
BRVK	Borovoye	69.23	328	eP	P	10 02 01.6	-1.4
	comp=Z,1.0nm,0.4s,mb4.0						
VNDA	Vanda	80.14	172	P	P	10 03 05.4	+0.1
	comp=Z,1.3nm,0.7s,mb3.9,baz=316,slow=4.9,SNR=6.9						
VNDA	Vanda	80.14	172	eP	P	10 03 05.0	-0.3
	comp=Z,1.3nm,0.7s,mb3.9						
KMBO	Kilima Mbogo	87.20	269	P	P	10 03 42.8	+0.4
	comp=Z,0.6nm,0.3s,mb3.9,baz=42,slow=15,SNR=4.8						
ASF	Jabal al Asfar	87.88	302	P	P	10 03 45.8	+0.6
	comp=Z,1.7nm,0.5s,mb4.3,baz=88,slow=9.1,SNR=4.0						
YKA	Yellowknife Ar	103.73	24	PKiKP		10 09 15.2	
	comp=Z,0.1nm,0.4s,baz=303,slow=1.8,SNR=6.9						
SCHQ	Schefferville	124.48	8	PKP	PKPdf	10 09 55.2	+2.2
	comp=Z,2.7nm,0.7s,baz=295,slow=1.8,SNR=4.5						
SCHQ	Schefferville	124.48	8	PKP	PKPdf	10 09 55.2	+2.2
LPAZ	La Paz	159.67	143	PKPab	PKPab	10 11 36.5	+2.1
	comp=Z,1.3nm,0.6s,baz=207,slow=2.6,SNR=6.8						
LPAZ	La Paz	159.67	143	PKPab	PKPab	10 11 36.5	+2.1

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*IDC **13** 10:04:36.6±1.0, 15.62S×174.15W, mb4.1/7, mb1 4.4/7, mb1mx4.1/15, Error ellipse: s-maj=50.2km s-min=20.0km az=137.0*

*NEIC **13** 10:04:53.8±1.1, 15.82S×174.21W, h146^{km}±12^{km}, mb4.4/2, Error ellipse: s-maj=26.9km s-min=10.4km az=141.0*

ISC 13 10:04:51.8±1.5**, 15.7S**±0.2×**174.3W**±0.2**, h141^{km}**±18^{km}**, n12,** σ**0^{s}68**/13**, mb4.0**/9**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.03	54	ePn	P	10 05 41.3	+1.4
AFI				eSn	S	10 06 15.6	-1.1
URZ	Urewera	23.69	197	P	P	10 09 51.8	+0.2
	14nm,1.0s,mb4.5,baz=88,slow=9.6,SNR=8.6						
STKA	Stephens Creek	43.13	240	P	P	10 12 40.1	+0.1
	3.6nm,0.7s,mb4.1,baz=71,slow=10,SNR=7.3						
WB2	Warramunga Arr	48.93	257	eP	P	10 13 26.1	+0.3
WRAB	Tennant Creek	48.93	257	eP	P	10 13 25.6	-0.2
	3.5nm,0.5s,mb4.2						
WRA	Warramunga Arr	48.94	257	P	P	10 13 26.2	+0.3
	3.8nm,0.7s,mb4.2,baz=92,slow=6.6,SNR=77						
ASAR	Alice Springs	49.20	252	P	P	10 13 27.7	-0.2
	12nm,0.6s,mb4.7,baz=85,slow=7.6,SNR=165						
ASPA	Alice Springs	49.20	252	eP	P	10 13 27.2	-0.7
MBWA	Marble Bar	62.45	254	eP	P	10 15 02.0	-0.7
	3.8nm,0.6s,mb4.4						
NVAR	Mina Array Bea	75.15	42	P	P	10 16 20.1	-0.3
	0.3nm,0.7s,mb3.0,baz=229,slow=8.3,SNR=3.2						
ILAR	Eielson Array	82.94	11	P	P	10 17 03.2	+1.3
	0.3nm,0.7s,mb3.1,baz=229,slow=6.6,SNR=5.8						
PDAR	Pinedale Array	83.08	42	P	P	10 17 02.8	-0.3
	0.3nm,0.5s,mb3.3,baz=194,slow=3.7,SNR=4.2						

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*IDC **13** 10:16:12.6±1.5, 53.57N×159.13W, mb3.7/3, mb1 4.1/5, mb1mx3.7/22, ML3.9/2, Error ellipse: s-maj=38.0km s-min=31.4km az=148.0*

*NEIC **13** 10:16:18.2, 53.69N×159.08W, h26^{km}, ML3.6(AEIC), After AEIC.*

ISC 13 10:16:14.8±1.8**, 53.71N**±0.07×**158.94W**±0.06**, h24^{km}**±17^{km}**, n35,** σ**0^{s}89**/42**, mb3.6**/3**, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DOL	Dolgoi Island	2.23	311	P	Pn	10 16 51.3	+0.2
DOL				S	Sn	10 17 17.6	-0.7
PVV	Pavlof Volcano	2.35	316	P	Pn	10 16 53.6	+0.7
HAG	Hague Volcano	2.36	314	P	Pn	10 16 54.0	+1.0
DT1	Dutton Round H	2.40	307	P	Pn	10 16 53.5	-0.1
DT1				S	Sn	10 17 22.7	+0.2
DTNA	Dutton South F	2.41	308	P	Pn	10 16 54.0	+0.3
BALA	Baldy Mountain	2.69	305	P	Pn	10 16 58.9	+1.3
BLHA	Black Hill	2.70	319	P	Pn	10 16 59.1	+1.4
FALS	False Pass	2.86	295	P	Pn	10 17 00.5	+0.3
FALS				S	Sn	10 17 33.6	-0.7
SSLS	Shishaldin Sou	3.13	291	P	Pn	10 17 04.8	+0.8
SSLS				S	Sn	10 17 41.6	+0.5
SSLN	Shishaldin Nor	3.16	292	P	Pn	10 17 05.4	+1.0
SSLW	Shishaldin Wes	3.22	291	P	Pn	10 17 05.6	+0.5
WTUG	Tugumak	3.39	292	P	Pn	10 17 08.1	+0.5
WESE	West Dahl East	3.41	285	P	Pn	10 17 07.8	-0.1
WESE				S	Sn	10 17 46.1	-1.9
WESN	West Dahl Nort	3.43	287	P	Pn	10 17 08.4	+0.3
WPOG	Pogromni	3.53	287	P	Pn	10 17 09.9	+0.4
WFAR	Faris Peak	3.53	286	P	Pn	10 17 10.4	+0.8
AHB	Akutan Harbor	4.09	278	P	Pn	10 17 17.2	-0.3
AKLV	Akutan Long Va	4.17	279	P	Pn	10 17 18.4	-0.3
AKGG	Akutan Green G	4.19	280	P	Pn	10 17 18.8	-0.3
LVA	Lava Point	4.22	279	P	Pn	10 17 19.4	0.0
UNV	Unalaska Valle	4.49	275	P	Pn	10 17 21.5	-1.7
MTBL	Makushin Table	4.59	276	P	Pn	10 17 23.9	-0.8
MNAT	Makushin Natee	4.59	275	P	Pn	10 17 23.4	-1.3
MSW	Makushin Switc	4.65	276	P	Pn	10 17 24.4	-1.1
CAHL	Cahill	4.81	24	P	Pn	10 17 27.7	0.0
ANCK	Angle Creek	4.90	22	P	Pn	10 17 29.2	+0.2
CNPM	China Poot	7.21	33	P	Pn	10 18 00.4	-1.1
RC01	Rabbit Creek A	8.90	30	P	P	10 18 23.1	-1.9
THY	Trims Highway	11.89	30	eP	P	10 19 05.0	-0.8
ILAR	Eielson Array	12.66	24	Pn	P	10 19 12.5	-3.6
	0.2nm,0.3s,baz=220,slow=13,SNR=12						
ILAR				Sn	S	10 21 23.4	-14
	0.1nm,0.3s,baz=66,slow=21,SNR=3.1						
INK	Inuvik	18.90	30	P	P	10 20 35.4	-0.4
	0.4nm,0.3s,baz=230,slow=11,SNR=20						
INK				S	S	10 24 07.7	+5.4
	0.1nm,0.3s,baz=60,slow=30,SNR=6.6						
YKA	Yellowknife Ar	24.55	51	P	P	10 21 35.2	+1.8
	0.3nm,0.7s,mb2.9,baz=268,slow=7.8,SNR=12						
YKA				PcP	PcP	10 25 10.6	-1.9
	0.3nm,0.8s,baz=273,slow=2.2,SNR=12						
YKA	Yellowknife Ar	24.55	51	P	P	10 21 35.2	+1.8
YKA				PcP	PcP	10 25 10.6	-1.9
TXAR	Lajitas Array	46.56	99	P	P	10 24 42.5	+0.2
	0.9nm,0.8s,mb3.8,baz=315,slow=5.1,SNR=3.8						
CMAR	Chiang Mai Arr	82.26	291	P	P	10 28 36.4	+0.9
	1.1nm,0.4s,mb4.1,baz=29,slow=3.6,SNR=4.2						

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*IDC **13** 10:26:46.8±1.2, 10.29S×12.31E, mb4.2/7, mb1 4.3/7, mb1mx3.9/18, Error ellipse: s-maj=30.8km s-min=22.0km az=52.0*

*NEIC **13** 10:26:48.5±0.8, 10.24S×12.10E, h10^{km}, mb4.0/1, Error ellipse: s-maj=20.3km s-min=19.4km az=124.0*

ISC 13 10:26:46.3±1.1**, 10.3S**±0.2×**12.2E**±0.2**, h10^{km}, n9,** σ**0^{s}62**/11**, mb4.2**/7**, South Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MBAR	Mbarara	20.79	64	eP	P	10 31 30.6	+0.2
	5.6nm,0.8s						
DBIC	Dimbokro	23.89	314	P	P	10 32 01.8	+0.4
	11nm,0.6s,mb4.5,baz=122,slow=12,SNR=34						
DBIC				S	S	10 36 23.9	+10
	3.6nm,1.1s,baz=320,slow=18,SNR=1.7						
DBIC	Dimbokro	23.89	314	eP	P	10 32 01.8	+0.4
DBIC				S	S	10 36 23.9	+10
BRTR	Keskin Array B	53.57	21	P	P	10 36 10.9	+1.0
	2.9nm,0.7s,mb4.3,baz=192,slow=8.5,SNR=12						
GERES	GERESS Array B	58.86	1	P	P	10 36 46.6	-1.1
	1.1nm,0.6s,mb4.0,baz=188,slow=6.9,SNR=8.5						
SNAA	Sanae	62.05	185	P	P	10 37 09.1	0.0
	0.9nm,0.7s,mb4.0,baz=354,slow=9.2,SNR=4.9						
AKASG	Malin Array Be	62.49	12	P	P	10 37 11.6	-0.8
	2.1nm,0.6s,mb4.5,baz=206,slow=7.2,SNR=5.9						
NOA	NORSAR Array B	71.07	360	P	P	10 38 06.7	+0.2
	2.1nm,1.0s,mb4.0,baz=170,slow=6.2,SNR=3.6						
FINES	FINESS Array B	72.31	7	P	P	10 38 14.0	+0.1
	2.1nm,1.0s,mb4.0,baz=180,slow=6.9,SNR=4.0						

NEIC ***13*** *10:33:33.0±4.8, 20.17S×177.82W, h492^{km}±51^{km}, mb4.2/7, Error ellipse: s-maj=30.3km s-min=16.5km az=52.0*
IDC ***13*** *10:33:40.1±2.7, 20.16S×178.02W, h566^{km}±30^{km}, mb3.5/9, mb1 3.7/10, mb1mx3.5/17, Error ellipse: s-maj=23.2km s-min=15.2km az=159.0*
ISC 13 10:33:36.5±2.4**, 20.3S**±0.1×**178.1W**±0.1**, h532**^{km}±28^{km}**, n29, σ0^{s}95**/24**, mb4.0**/13**, 2C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	18.39	192	P	P	10 37 17.3	-1.8
	2.4nm,0.3s,baz=13,slow=9.3,SNR=16						
RPZ	Rata Peaks	25.07	199	P	P	10 38 16.2	-4.0
	14nm,0.9s,mb4.6,baz=39,slow=17,SNR=2.3						
CTA	Charters Tower	33.43	264	eP	P	10 39 33.9	+1.4
	6.8nm,0.4s,mb4.5						
CTA	Charters Tower	33.43	264	P	P	10 39 33.7	+1.2
	11nm,0.5s,mb4.7,baz=92,slow=10,SNR=32						
CTAO	Charters Tower	33.43	264	eP	P	10 39 33.6	+1.1
	13nm,0.6s,mb4.7						
PMG	Port Moresby	35.22	283	P	P	10 39 48.3	+0.9
	11nm,0.8s,mb4.4,baz=97,slow=3.1,SNR=5.7						
PMG	Port Moresby	35.22	283	P	P	10 39 48.3	+0.9
ASAR	Alice Springs	44.49	257	P	P	10 41 02.6	+0.6
	8.1nm,0.7s,mb4.4,baz=99,slow=7.5,SNR=90						
ASAR				PcP	PcP	10 42 33.5	-0.9
	0.6nm,0.7s,baz=114,slow=2.8,SNR=4.0						
ASAR				S	S	10 46 58.1	-0.7
	1.6nm,1.0s,baz=93,slow=16,SNR=7.4						
ASPA	Alice Springs	44.49	257	eP	P	10 41 02.0	-0.1
ASPA				eS	S	10 46 57.4	-1.5
WB2	Warramunga Arr	44.54	262	eP	P	10 41 02.4	-0.1
WRAB	Tennant Creek	44.54	262	eP	P	10 41 02.0	-0.5
	13nm,1.0s,mb4.4						
WRA	Warramunga Arr	44.55	262	P	P	10 41 02.5	-0.1
	6.1nm,0.6s,mb4.3,baz=97,slow=7.9,SNR=95						
WRA				PcP	PcP	10 42 33.8	-0.8
	0.2nm,0.5s,baz=103,slow=6.2,SNR=3.6						
MBWA	Marble Bar	57.82	257	eP	P	10 42 38.3	-0.8
	3.3nm,0.6s,mb3.7						
SBA	Scott Base	58.08	184	eP	P	10 42 40.5	+0.4
	2.8nm,0.6s,mb3.7						
VNDA	Vanda	58.11	185	P	P	10 42 40.3	0.0
	1.0nm,0.7s,mb3.2,baz=16,slow=4.6,SNR=11						
VNDA	Vanda	58.11	185	eP	P	10 42 40.3	-0.1
	1.2nm,0.6s,mb3.3						
QSPA	South Pole Qui	69.78	180	eP	P	10 43 54.1	0.0
	7.0nm,0.6s,mb4.4						
NVAR	Mina Array Bea	80.92	43	P	P	10 44 55.8	-0.5
	0.6nm,0.8s,mb3.1,baz=221,slow=8.3,SNR=3.5						
ILAR	Eielson Array	88.12	13	P	P	10 45 29.0	-1.8
	0.7nm,0.5s,mb3.6,baz=214,slow=6.1,SNR=9.1						
VNA3	Neumayer Olymp	88.36	176⇑	i	P	10 45 32.8	+1.0
VNA2	Neumayer--Watz	88.80	177⇑	i	P	10 45 35.4	+1.5
CMAR	Chiang Mai Arr	89.97	290	P	P	10 45 41.6	+1.1
	5.3nm,1.2s,mb4.2,baz=112,slow=3.1,SNR=9.5						
BVAR	Borovoye Array	118.87	320	PKP	PKPdf	10 51 23.3	-0.8
	0.6nm,0.5s,baz=135,slow=2.1,SNR=4.6						
FINES	FINESS Array B	135.55	344	PKP	PKPdf	10 51 54.6	-0.9
	0.8nm,0.8s,baz=39,slow=12,SNR=2.3						
HFS	Hagfors	139.32	351	PKhKP		10 51 56.2	
	1.9nm,0.9s,baz=108,slow=4.7,SNR=4.0						
AKASG	Malin Array Be	142.79	331	PKhKP		10 52 05.8	
	1.5nm,0.4s,baz=40,slow=4.3,SNR=17						
BRTR	Keskin Array B	146.64	312	PKPbc	PKPbc	10 52 18.6	+0.9
	0.8nm,0.4s,baz=145,slow=4.4,SNR=4.3						
CLL	Collm	147.84	347⇓	iPKP1	PKPdf	10 52 21.4	+4.2
GERES	GERESS Array B	149.98	344	PKPbc	PKPdf	10 52 26.3	+5.7
	0.7nm,0.6s,baz=27,slow=3.0,SNR=5.9						

SKHL ***13*** *11:09:08.6±2.9, 49.14N×156.42E, h60^{km}±22^{km}, mb5.0/2, Ms4.6/1*
KRSC ***13*** *11:09:11.1±1.0, 49.03N×156.10E, h40^{km}±10^{km}, ML5.4*
NEIC ***13*** *11:09:12.7±0.3, 49.15N×155.60E, mb4.8/39, Error ellipse: s-maj=8.0km s-min=4.2km az=181.0*
BJI ***13*** *11:09:12.6, 49.91N×156.01E, h68^{km}, mB4.8, mb4.5, Ms4.3, Msz4.1*
IDC ***13*** *11:09:13.3±0.6, 49.09N×155.67E, h45^{km}±5^{km}, mb3.9/21, mb1 4.2/23, mb1mx4.1/30, ML4.3/2, MS3.9/13, Ms1 3.9/13, ms1mx3.6/27, Error ellipse: s-maj=18.9km s-min=11.9km az=145.0*
MOS ***13*** *11:09:14.2±0.8, 49.39N×155.76E, h61^{km}, mb5.1/26, MS4.1/7, Error ellipse: s-maj=11.8km s-min=5.2km az=86.1*
ISC 13 11:09:13.2±0.6**, 49.28N**±0.04×**155.71E**±0.05**, h57**^{km}±4^{km}**, h43**^{km}±.8^{km}**:pP-P, n215, σ1^{s}15**/250**, mb4.5**/63**, MS3.9**/16**, 5D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.43	10	i P	P	11 09 36.5	-0.9
SKR				i S	S	11 09 56.0	+0.7
SKR	Severo-Kuril's	1.43	10	i P	P	11 09 33.4	-4.0
SKR				AMB	AMB	11 09 33.6	
	130nm,0.4s						
SKR				AMB	AMB	11 09 33.6	
	210nm,0.4s						
SKR				i S	S	11 09 52.0	-3.3
SKR				A		11 09 56.0	
	12µm,2.0s						
SKR				A		11 09 56.0	
	16µm,2.0s						
SKR				A		11 09 56.0	
	9µm,0.6s						
SKR				A		11 09 56.0	
	6µm,0.6s						
SKR				A		11 09 56.0	
	5µm,0.6s						
SKR				AMS	AMS	11 10 27.0	
	13µm,6.0s						
SKR				AMS	AMS	11 10 27.0	
	10µm,6.0s						
SKR				AMS	AMS	11 10 27.0	
	13µm,6.0s						
SKR				AMS	AMS	11 10 27.0	
	10µm,6.0s						
SKR				AMS	AMS	11 10 27.0	
	9µm,6.0s						
ALID	Alaid	1.59	356	eP	P	11 09 41.3	+1.6
ALID				i S	S	11 10 03.4	+4.2
PAU	Pauzhetka	2.30	17	i P	P	11 09 49.7	+0.1
PAU				eS	S	11 10 17.2	+0.5
PAU				Smax			
	5µm,0.2s						
MIPR	Malaya Ipel'ka	3.07	12	eP	P	11 10 02.4	+1.9
MIPR				eS	S	11 10 39.0	+2.8
GRL	Gorelyy	3.60	24	eP	P	11 10 08.6	+0.6
GRL				eS	S	11 10 50.8	+1.2
RUS	Russkaya	3.62	28	P	P	11 10 07.3	-1.0
RUS				S	S	11 10 48.6	-1.5
RUS	Russkaya	3.62	28	i P	P	11 10 07.2	-1.1
RUS				i S	S	11 10 48.4	-1.7
APC	Apacha	3.76	13	eP	P	11 10 11.7	+1.5
APC				eS	S	11 10 55.4	+1.8
APC				Smax			
	550nm,0.7s						
KRMR	Karymshinskiy	3.87	22	eP	P	11 10 13.0	+1.3
KRMR				eS	S	11 10 59.3	+3.0
PET	Petropavlovsk	4.18	25	P	P	11 10 16.1	0.0
PET				S	S	11 11 03.2	-1.0
PET	Petropavlovsk	4.18	25	i P	P	11 10 16.0	-0.1
PET				i S	S	11 11 03.6	-0.6
PET	Petropavlovsk	4.18	25	ePn	P	11 10 15.9	-0.2
PET				eSn	S	11 11 04.2	0.0
UGLR	Uglovaya	4.39	25	eP	P	11 10 18.2	-0.9
UGLR				eS	S	11 11 07.6	-1.9
KOK	Koryaka	4.41	23	eP	P	11 10 20.8	+1.4
KOK				eS	S	11 11 11.2	+1.1
AVH	Avacha	4.42	24	eP	P	11 10 20.7	+1.2
AVH				eS	S	11 11 11.2	+1.1
SDLR	Sedlovina	4.47	25	eP	P	11 10 19.9	-0.3
SDLR				eS	S	11 11 09.6	-1.8
NLC	Nalytchevo	4.51	29	P	P	11 10 20.6	-0.2
NLC	Nalytchevo	4.51	29	eP	P	11 10 18.7	-2.1
NLC				eS	S	11 11 08.3	-4.3
GNL	Ganaly	4.63	17	eP	P	11 10 24.5	+2.0
GNL				eS	S	11 11 18.5	+2.9
SPN	Mys Shipunski	4.68	34	P	P	11 10 21.8	-1.4
SPN				S	S	11 11 14.2	-2.6
SPN	Mys Shipunski	4.68	34	eP	P	11 10 21.7	-1.5
SPN				eS	S	11 11 14.1	-2.8
TUMR	Tumrok	6.60	23	eP	P	11 10 50.4	+0.5
TUMR				eS	S	11 12 03.0	-1.5
KUR	Kuril'sk	6.70	236⇓	ePN	P	11 10 49.0	-2.3
KUR				eS	S	11 12 10.0	+3.0
KUR				pmax	pmax		
	comp=Z,180nm,1.0s						
KUR				smax			
	comp=N,370nm,1.0s						
KUR				smax			
	comp=E,180nm,1.0s						
KUR	Kuril'sk	6.70	236	eP	P	11 10 49.0	-2.3
KUR				AMB	AMB	11 10 54.5	
	comp=E,160nm,0.9s						
KUR				eS	S	11 12 10.0	+3.0
KUR				A		11 12 11.0	
	comp=E,370nm,1.0s						
KUR				A		11 12 11.0	
	comp=E,180nm,1.0s						
ESO	Esso	6.90	14	eP	P	11 10 54.5	+0.4
ESO				Smax			
	comp=E,70nm,1.0s						
KMNR	Kamenistaya	7.05	21	eP	P	11 10 57.1	+0.9
KMNR				eS	S	11 12 14.7	-0.9
KPT	Kopyto	7.23	21	eP	P	11 11 00.0	+1.2
KPT				eS	S	11 12 16.9	-3.4
KOZ	Kozyrevsk	7.24	19	P	P	11 11 00.0	+1.1
KOZ	Kozyrevsk	7.24	19	eP	P	11 10 59.6	+0.7
KOZ				eS	S	11 12 17.7	-2.8
KOZR	Kozyr	7.25	19	PN	P	11 11 00.0	+1.0
ZLN	Zelenaya	7.42	23	eP	P	11 11 01.2	-0.1
ZLN				eS	S	11 12 20.3	-4.6
LGNR	Loginova	7.45	22	eP	P	11 11 01.8	0.0
LGNR				eS	S	11 12 23.1	-2.6
SRDR	Sredinnyy	7.45	17	eP	P	11 11 03.5	+1.7
SRDR				eS	S	11 12 24.5	-1.2
CIRR	Tsirk	7.50	22	eP	P	11 11 02.7	+0.3
CIRR				eS	S	11 12 25.1	-1.6
KRSR	Krestovskiy	7.54	21	eP	P	11 11 03.1	+0.1
KRSR				eS	S	11 12 25.0	-2.9
KLY	Klyuchi	7.65	21	P	P	11 11 05.2	+0.7
KLY	Klyuchi	7.65	21	eP	P	11 11 04.9	+0.4
KLY				eS	S	11 12 28.0	-2.6
SVLR	Shiveluch	8.03	22	eP	P	11 11 09.4	-0.3
SVLR				eS	S	11 12 34.6	-5.3
KBTR	Krutoberegovo	8.16	29	P	P	11 11 08.5	-3.1
KBTR				S	S	11 12 34.5	-8.8
KBTR	Krutoberegovo	8.16	29	eP	P	11 11 09.4	-2.2
KBTR				eS	S	11 12 37.6	-5.7
KBG	Krutoberegovo	8.17	29	eP	P	11 11 12.7	+1.1
KBG				eS	S	11 12 40.9	-2.5
KBG				Smax			
	comp=E,420nm,0.7s						
TYV	Tymovskoe	8.55	286	eP	P	11 11 16.5	-0.3
TYV				AMS	AMS	11 19 18.5	
	comp=E,1µm,17.0s						
TYV				AMS	AMS	11 20 33.0	
	comp=E,900nm,13.0s						
YSS	Yuzh-Sakhalins	8.98	260⇓	ePN	P	11 11 25.6	+2.9
YSS				MLR	MLR		
	comp=Z,500nm,16.0s						
YSS	Yuzh-Sakhalins	8.98	260⇓	eP	P	11 11 25.6	+2.9
YSS				eS	S	11 13 02.6	-0.8
YSS				AMS	AMS	11 14 30.0	
	comp=Z,500nm,16.0s						
ASAJ	Asahikawa	10.38	245	P	P	11 11 39.9	-2.0
	comp=Z,2.9nm,0.3s,baz=91,slow=12,SNR=16						
ASAJ				LR	LR	11 15 09.8	
	comp=Z,347nm,19.6s,baz=250,slow=35						
ASAJ	Asahikawa	10.38	245	PN	P	11 11 39.9	-2.0
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,347nm,19.6s						
MA2	Magadan	10.70	346	ePN	P	11 11 45.2	-1.0
MA2				pmax	pmax		
	comp=Z,17nm,0.7s						
MA2	Magadan	10.70	346	ePn	P	11 11 45.2	-1.0
	comp=Z,17nm,0.7s						
MA2	Magadan	10.70	346⇓	eP	P	11 11 42.7	-3.5
FX1	Attu Island--F	11.55	65	P	P	11 11 53.9	-3.7
	comp=Z,7.6nm,0.3s,baz=237,slow=5.4,SNR=8.3						
FX1				S	S	11 13 55.4	-10
	comp=Z,27nm,0.3s,baz=58,slow=22,SNR=12						
FX1				LR	LR	11 15 25.4	
	comp=Z,34nm,19.4s,baz=328,slow=32						
FX1	Attu Island--F	11.55	65	ePn	P	11 11 54.0	-3.6
SEY	Seymchan	13.81	354	eP	P	11 12 31.9	+4.6
SEY				eS	S	11 15 01.4	+1.7
SEY				pmax	pmax		
	comp=Z,110nm,1.5s						
SEY				pmax	pmax		
	comp=N,100nm,1.9s						
SEY				pmax	pmax		
	comp=E,10.0nm,0.9s						
SEY				smax			
	comp=N,330nm,5.8s						
SEY				smax			
	comp=E,220nm,5.8s						
SEY				MLR	MLR		
	comp=N,700nm,14.0s						
SEY				MLR	MLR		
	comp=E,240nm,14.0s						
SEY				MLR	MLR		
	comp=Z,1µm,14.0s						
KAMR	Kamenskoye	14.43	20	eP	P	11 12 34.9	-0.5
KAMR				Smax			
	comp=Z,30nm,0.2s						
EKMR	Ekimchan	14.75	294	eP	P	11 12 40.1	+0.4
EKMR				AMB	AMB	11 12 46.5	
	comp=Z,14nm,0.6s						
EKMR				AMB	AMB	11 12 46.5	
	comp=Z,40nm,0.6s						
EKMR				AMB	AMB	11 12 46.5	
	comp=Z,30nm,0.6s						
KLR	Kul'dur	15.63	279	eP	P	11 12 57.0	+5.9
KLR				MLR	MLR		
	comp=N,900nm,13.0s						
KLR				MLR	MLR		
	comp=Z,2µm,13.0s						
BMKR	Bomnak	17.36	298	eP	P	11 13 12.0	-0.7
BMKR				AMB	AMB	11 13 14.8	
	comp=Z,32nm,0.7s						
YASR	Yasnyy	17.75	294	eP	P	11 13 15.6	-2.1
YASR				AMB	AMB	11 13 17.6	
	comp=Z,5.0nm,0.8s						
YASR				AMB	AMB	11 13 17.6	
	comp=Z,7.0nm,0.8s						
YASR				AMB	AMB	11 13 17.6	
	comp=Z,12nm,0.8s						
ZEA	Zeya	18.20	295	eP	P	11 13 21.7	-1.5
ZEA				AMB	AMB	11 13 25.1	
	comp=Z,21nm,1.2s						
ZEA				AMS	AMS	11 14 20.2	
	comp=Z,600nm,18.0s						
MDJ	Mudanjiang	18.39	265	P	P	11 13 27.8	+2.2
MDJ				AMB	AMB		
	comp=Z,12nm,1.2s						
MDJ				AMB	AMB		
	comp=Z,84nm,5.3s						
MDJ				LR	LR		
	comp=N,93nm,19.1s						
MDJ				LR	LR		
	comp=E,123nm,21.1s						
MDJ				LR	LR		
	comp=Z,174nm,22.7s						
YAK	Yakutsk	19.28	321	eP	P	11 13 37.5	+1.9
YAK				eS	S	11 17 10.8	+5.8
YAK				pmax	pmax		
	comp=E,8.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,18nm,1.0s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.1s						
YAK				smax			
	comp=E,4.0nm,1.0s						
YAK				smax			
	comp=N,8.0nm,1.3s						
YAK	Yakutsk	19.28	321	eP	P	11 13 34.4	-1.2
	comp=N,22nm,0.7s						
CN2	Changchun	21.44	267	eP	P	11 13 55.6	-2.6
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.1						
HIA	Hailar	23.34	284	eP	P	11 14 17.8	+1.1
HIA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
HIA	Hailar	23.34	284	eP	P	11 14 17.8	+1.1
	comp=Z,7.7nm,0.9s,mb4.1						
TIXI	Tiksi	25.59	341	eP	P	11 14 35.9	-2.3
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb3.8						
TIXI				MLR	MLR		
	comp=Z,235nm,16.0s,MS3.8						
IMA	Indian Mountai	30.73	38	eP	P	11 15 25.2	+0.5
SSE	Sheshan	31.66	248	P	P	11 15 37.8	+4.7
SSE				S	S	11 20 41.3	+4.2
SSE				XS		11 21 06.3	
SSE				AMB	AMB		
	comp=Z,33nm,0.6s,mb5.3						
SSE				AMB	AMB		
	comp=Z,67nm,4.1s						
SSE				LR	LR		
	comp=N,64nm,25.6s,MS3.3						
SSE				LR	LR		
	comp=E,42nm,25.6s,MS3.3						
MCK	McKinley	32.60	43	eP	P	11 15 40.5	-0.5
MCK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
MCK	McKinley	32.60	43	eP	P	11 15 40.5	-0.4
	comp=Z,2.8nm,0.8s,mb4.2						
TLY	Talaya	32.64	294	i P	P	11 15 40.7	-0.8
TLY				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
TLY				MLR	MLR		
	comp=Z,300nm,21.0s,MS4.0						
SML	Sawmill	32.94	46	eP	P	11 15 43.3	-0.7
SML				e	pP	11 15 53.8	-4.7
COLA	College	33.07	41	i P	P	11 15 45.4	+0.3
COLA	College	33.07	41	eP	P	11 15 45.3	+0.2
	comp=Z,8.8nm,0.9s,mb4.7						
ILAR	Eielson Array	33.48	41	P	P	11 15 48.2	-0.4
	comp=Z,2.3nm,0.7s,mb4.2,baz=250,slow=7.1,SNR=23						
ILAR				pP	pP	11 16 02.0	-1.1
	comp=Z,2.8nm,0.7s,baz=266,slow=7.8,SNR=8.5						
INK	Inuvik	38.58	34	P	P	11 16 32.0	+0.4
	comp=Z,6.0nm,0.8s,mb4.4,baz=277,slow=5.7,SNR=20						
ZAL	Zalesovo	42.60	304	LR	LR	11 36 14.8	
	comp=Z,174nm,19.2s,MS4.0,baz=45,slow=38						
YKA	Yellowknife Ar	47.85	39	P	P	11 17 47.1	+0.4
	comp=Z,1.3nm,0.8s,mb4.0,baz=296,slow=7.3,SNR=14						
YKA	Yellowknife Ar	47.85	39	eP	P	11 17 47.1	+0.5
RES	Resolute Bay	47.87	20	eP	P	11 17 46.9	+0.2
CHKZ	Chkalovo	50.15	309	eP	P	11 18 02.2	-2.3
CHKZ				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.3						
CHKZ	Chkalovo	50.15	309	eP	P	11 18 02.2	-2.3
	comp=Z,4.2nm,1.2s,mb4.3						
BVAR	Borovoye Array	50.61	309	P	P	11 18 06.7	-1.3
	comp=Z,1.0nm,0.6s,mb3.9,baz=68,slow=8.0,SNR=6.1						
BRVK	Borovoye	50.65	309	eP	P	11 18 05.8	-2.5
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
BRVK	Borovoye	50.65	309	eP	P	11 18 05.8	-2.5
	comp=Z,1.5nm,0.6s,mb4.1						
NANT	Nan	53.29	255	P	P	11 18 26.5	-2.0
EDM	Edmonton	53.31	49	eP	P	11 18 27.6	-0.7
EDM				e*PP	pP	11 18 39.4	-4.1
ARU	Arti	54.33	317⇓	iP	P	11 18 33.7	-2.0
ARU				e		11 19 37.3	
ARU				e		11 20 36.3	
ARU				eS	S	11 26 02.6	-5.0
ARU				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.9						
ARU	Arti	54.33	317	eP	P	11 18 33.5	-2.1
	comp=Z,24nm,1.1s,mb5.0						
CHG	Chiang Mai	54.40	257	P	P	11 18 36.2	-0.4
CMAR	Chiang Mai Arr	54.66	257	P	P	11 18 37.9	-0.7
	comp=Z,3.4nm,0.8s,mb4.4,baz=32,slow=7.9,SNR=17						
CMAR				LR	LR	11 42 41.9	
	comp=Z,51nm,20.1s,MS3.6,baz=153,slow=37						
YBH	Yreka Blue Hor	55.04	65	P	P	11 18 41.6	+0.5
	comp=Z,2.4nm,0.6s,mb4.4,baz=22,slow=9.7,SNR=11						
ARCES	ARCESS Array B	56.03	341	LR	LR	11 45 29.0	
	comp=Z,198nm,18.3s,MS4.2,baz=19,slow=39						
SUMG	Summit	58.04	5	P	P	11 19 01.6	-0.4
HLID	Hailey	58.67	58	eP	P	11 19 06.8	0.0
	comp=Z,1.3nm,0.8s,mb4.0						
HLID				epP	pP	11 19 18.5	-3.6
MCMT	McKenzie Canyo	58.72	56	eP	P	11 19 06.5	-0.5
MCMT				epP	pP	11 19 19.1	-3.4
BOZ	Bozeman (W)	58.85	55	eP	P	11 19 08.4	+0.4
BOZ				e*PP	pP	11 19 20.6	-2.8
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
BOZ	Bozeman (W)	58.85	55	eP	P	11 19 08.3	+0.4
	comp=Z,2.6nm,0.9s,mb4.3						
BOZ				epP	pP	11 19 20.6	-2.8
PMG	Port Moresby	58.92	190	LR	LR	11 40 58.9	
	comp=Z,86nm,18.8s,MS3.9,baz=30,slow=32						
QLMT	Earthquake Lak	59.48	56	eP	P	11 19 13.1	+0.7
QLMT				epP	pP	11 19 25.0	-2.8
NVAR	Mina Array Bea	59.75	65	P	P	11 19 14.4	+0.1
	comp=Z,1.8nm,0.6s,mb4.3,baz=294,slow=8.1,SNR=17						
NVAR				pP	pP	11 19 27.4	-2.3
	comp=Z,2.7nm,0.8s,baz=281,slow=9.1,SNR=10						
NVAR				LR	LR	11 41 21.1	
	comp=Z,49nm,18.5s,MS3.7,baz=225,slow=32						
MOOW	Moose Ponds	60.57	56	eP	P	11 19 20.3	+0.5
MOOW				epP	pP	11 19 32.8	-2.5
TPAW	Teton Pass	60.62	56	eP	P	11 19 21.4	+1.1
TPAW				epP	pP	11 19 33.7	-2.0
LOHW	Long Hollow	60.73	56	eP	P	11 19 21.7	+0.8
LOHW				epP	pP	11 19 33.8	-2.7
SNOW	Snow King Moun	60.75	56	eP	P	11 19 21.9	+0.8
SNOW				epP	pP	11 19 34.5	-2.1
DGMT	Dagmar	60.81	49	eP	P	11 19 20.8	-0.6
	comp=Z,12nm,1.2s,mb4.9						
DGMT				epP	pP	11 19 32.6	-4.3
BGU	Big Grassy Mou	61.17	60	P	P	11 19 23.8	-0.1
HWUT	Hardware Ranch	61.54	58	eP	P	11 19 26.5	+0.1
HWUT				epP	pP	11 19 39.0	-2.9
BW06	Boulder Array	61.87	56	eP	P	11 19 28.6	0.0
	comp=Z,19nm,1.5s,mb5.0						
BW06				epP	pP	11 19 41.1	-3.1
PDAR	Pinedale Array	61.87	56	P	P	11 19 28.8	+0.2
	comp=Z,2.1nm,0.8s,mb4.3,baz=322,slow=2.6,SNR=18						
PDAR				pP	pP	11 19 41.2	-2.9
	comp=Z,4.8nm,0.8s,baz=323,slow=2.8,SNR=16						
PDAR				LR	LR	11 46 05.6	
	comp=Z,57nm,21.3s,MS3.7,baz=64,slow=36						
TPNV	Topopah Spring	61.95	65	eP	P	11 19 29.0	-0.2
TPNV				pmax	pmax		
	comp=Z,26nm,1.8s,mb5.1						
TPNV	Topopah Spring	61.95	65	eP	P	11 19 29.0	-0.2
	comp=Z,26nm,1.8s,mb5.1						
NLU	North Lily Min	62.36	60	eP	P	11 19 31.8	-0.1
NLU				epP	pP	11 19 44.9	-2.6
FINES	FINESS Array B	62.48	335	LR	LR	11 49 40.2	
	comp=Z,153nm,21.5s,MS4.1,baz=204,slow=39						
FINES	FINESS Array B	62.48	335	i P	P	11 19 33.8	+1.4
ULM	Lac du Bonnet	63.47	43	LR	LR	11 48 10.6	
	comp=Z,66nm,21.6s,MS3.8,baz=143,slow=37						
SRU	San Rafael	63.81	60	eP	P	11 19 41.4	0.0
SRU				e*PP	pP	11 19 54.1	-3.0
OBN	Obninsk	64.19	326	eP	P	11 19 42.0	-1.6
OBN						11 20 19.0	
OBN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
OBN				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.0						
PV10	Paradox Valley	65.16	60	eP	P	11 19 50.5	+0.4
PV10				epP	pP	11 20 03.5	-2.3
PV01	Paradox Valley	65.59	60	eP	P	11 19 53.0	0.0
ISCO	Idaho Springs	66.06	56	eP	P	11 19 56.8	+0.9
ISCO				e*PP	pP	11 20 08.7	-3.0
ISCO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
ISCO	Idaho Springs	66.06	56	eP	P	11 19 56.8	+0.9
	comp=Z,4.6nm,0.6s,mb4.7						
ISCO				epP	pP	11 20 08.7	-2.9
NOA	NORSAR Array B	66.38	342	P	P	11 19 58.4	+0.8
	comp=Z,1.6nm,1.0s,mb4.0,baz=29,slow=22,SNR=2.9						
NOA				LR	LR	11 53 15.4	
	comp=Z,146nm,18.0s,MS4.2,baz=45,slow=40						
HFS	Hagfors	66.67	340	P	P	11 19 59.6	+0.1
	comp=Z,2.9nm,0.9s,mb4.3,baz=225,slow=2.1,SNR=4.0						
SDCO	Great Sand Dun	67.58	58	P	P	11 20 05.8	+0.2
	comp=Z,15nm,1.4s,mb4.8						
SDCO				epP	pP	11 20 18.3	-3.1
ANMO	Albuquerque	69.04	61	eP	P	11 20 14.6	0.0
ANMO				e*PP	pP	11 20 26.9	-3.6

ANMO				pmax	pmax		
	comp=Z,9.0nm,1.6s						
ANMO	Albuquerque	69.04	61	eP	P	11 20 14.6	-0.1
	comp=Z,9.2nm,1.6s,mb4.5						
ANMO				epP	pP	11 20 26.9	-3.6
SCHQ	Schefferville	70.29	25	P	P	11 20 23.9	+2.0
	comp=Z,1.3nm,0.6s,mb4.0,baz=332,slow=8.7,SNR=5.9						
SCHQ				LR	LR	11 54 54.3	
	comp=Z,77nm,19.0s,MS4.0,baz=73,slow=39						
AKASG	Malin Array Be	70.39	327	P	P	11 20 23.3	+0.8
	comp=Z,0.3nm,0.4s,mb3.6,baz=37,slow=6.8,SNR=5.1						
WRAB	Tennant Creek	71.48	201	eP	P	11 20 27.2	-2.4
WRA	Warramunga Arr	71.49	201	P	P	11 20 27.1	-2.6
	comp=Z,1.7nm,0.8s,mb4.0,baz=19,slow=6.6,SNR=9.9						
SOC	Sochi	71.90	317	eP	P	11 20 35.3	+3.5
SOC				eS	S	11 29 42.7	-4.4
SOC				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.5						
SOC				pmax	pmax		
	comp=N,55nm,0.8s						
SOC				pmax	pmax		
	comp=E,23nm,0.6s						
GNI	Garni	72.20	311	LR	LR	11 54 48.4	
	comp=E,115nm,20.4s,MS4.1,baz=245,slow=38						
GDL2	Guadalupe Moun	72.24	61	eP	P	11 20 33.9	0.0
GDL2				epP	pP	11 20 46.5	-3.4
WMOK	Wichita Mounta	73.47	56	eP	P	11 20 40.9	-0.2
WMOK				e*PP	pP	11 20 53.4	-3.7
WMOK				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
WMOK	Wichita Mounta	73.47	56	eP	P	11 20 40.9	-0.2
	comp=Z,4.3nm,0.7s,mb4.5						
WMOK				epP	pP	11 20 53.4	-3.7
EKA	Eskdalemuir Ar	74.26	348	P	P	11 20 46.5	+1.2
	comp=Z,1.3nm,0.8s,mb3.9,baz=21,slow=6.1,SNR=3.6						
KOLS	Kolonicke sedl	74.26	330	eP	P	11 20 45.2	-0.2
CRVS	Cervenica-Dubn	74.55	331	eP	P	11 20 48.2	+1.1
CRVS				e		11 20 57.2	
TXAR	Lajitas Array	74.75	63	P	P	11 20 49.1	+0.4
	comp=Z,2.4nm,0.5s,mb4.3,baz=295,slow=4.5,SNR=15						
TXAR				pP	pP	11 21 02.5	-2.1
	comp=Z,2.8nm,0.8s,baz=300,slow=4.4,SNR=5.9						
CLL	Collm	74.85	337	iP	P	11 20 48.5	-0.3
CLL				e		11 20 57.0	
CLL				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
CLL	Collm	74.85	337	iP	P	11 20 48.5	-0.3
	comp=Z,10.0nm,1.2s,mb4.6						
CLL				e		11 20 57.0	
CLL	Collm	74.85	337	P	P	11 20 48.5	-0.3
	comp=Z,logA/T=0.9,mb4.6						
CLL				e*PP	pP	11 20 57.0	-7.8
MORC	Moravsky Berou	74.98	333	eP	P	11 20 49.8	+0.3
MORC				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
MORC	Moravsky Berou	74.98	333	eP	P	11 20 49.8	+0.3
	comp=Z,7.2nm,1.1s,mb4.5						
BRG	Berggiesshubel	75.00	336	iP	P	11 20 48.5	-1.1
BRG				e		11 20 57.0	
BRG				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
BRG	Berggiesshubel	75.00	336	iP	P	11 20 48.5	-1.1
	comp=Z,10.0nm,1.2s,mb4.6						
BRG				e		11 20 57.0	
ASAR	Alice Springs	75.18	201	P	P	11 20 49.7	-1.5
	comp=Z,0.8nm,0.7s,mb3.8,baz=8.3,slow=4.8,SNR=10.0						
ASAR				pP	pP	11 21 02.5	-4.8
	comp=Z,0.5nm,0.6s,baz=13,slow=5.8,SNR=4.5						
VYHS	Vyhne	75.74	332	iP	P	11 20 54.7	+0.8
MOX	Moxa	75.81	337	eP	P	11 20 55.0	+0.7
MLR	Muntele Rosu	75.97	326	P	P	11 20 56.8	+1.6
	comp=Z,1.5nm,0.5s,mb4.2,baz=210,slow=11,SNR=4.0						
JCT	Junction City	76.11	59	eP	P	11 20 55.0	-1.4
JCT				e*PP	pP	11 21 08.7	-3.7
ZST	Bratislava	76.53	333	eP	P	11 20 59.0	+0.6
KHC	Kasperske Hory	76.69	336	eP	P	11 21 00.0	+0.8
GRA1	Grafenberg Arr	76.79	337	eP	P	11 21 00.4	+0.6
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	76.79	337	eP	P	11 21 00.4	+0.6
GRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	76.79	337	eP	P	11 21 00.4	+0.6
GRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	76.79	337	eP	P	11 21 00.4	+0.6
	comp=Z,5.0nm,0.8s,mb4.5						
WET	Wettzell	76.86	336	eP	P	11 21 01.0	+0.8
WET				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
WET	Wettzell	76.86	336	eP	P	11 21 01.0	+0.8
	comp=Z,9.0nm,1.2s,mb4.6						
GEC2	GERESS Array S	76.91	335	eP	P	11 21 01.1	+0.6
GEC2				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb4.5						
GEC2	GERESS Array S	76.91	335	eP	P	11 21 01.1	+0.6
	comp=Z,8.0nm,1.4s,mb4.5						
GERES	GERESS Array B	76.91	335	P	P	11 21 00.6	0.0
	comp=Z,1.3nm,0.9s,mb3.8,baz=56,slow=4.8,SNR=7.8						
BRTR	Keskin Array B	77.71	318	P	P	11 21 05.8	+0.7
	comp=Z,3.4nm,1.1s,mb4.2,baz=90,slow=3.7,SNR=5.7						
GIVF	Givet	77.89	341	eP	P	11 21 05.4	-0.5
BAIF	Baives	78.06	342	eP	P	11 21 06.4	-0.4
CDF	Champ du Feu	78.94	339	eP	P	11 21 11.3	-0.4
	comp=Z,34nm,1.3s,mb4.8						
CDF	Champ du Feu	78.94	339	eP	P	11 21 11.3	-0.4
CDF				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.8						
MEZF	Maizieres J'vi	79.36	341	eP	P	11 21 13.9	-0.1
HAU	Haudompre	79.54	340	eP	P	11 21 14.5	-0.5
HAU				eR			
	comp=Z,136nm,19.2s						
HINF	Hinteralfeld	79.60	339	eP	P	11 21 14.8	-0.5
FLN	La Foliniere	80.20	344	eP	P	11 21 18.2	-0.3
FLN				eR			
	comp=Z,134nm,19.8s						
LDF	La Druitiere	80.30	344	eP	P	11 21 18.4	-0.6
	comp=Z,50nm,1.4s,mb5.0						
LDF	La Druitiere	80.30	344	eP	P	11 21 18.4	-0.6
LDF				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
GRR	Gorron	80.63	344	eP	P	11 21 20.6	-0.2
	comp=Z,78nm,1.2s,mb5.2						
GRR	Gorron	80.63	344	eP	P	11 21 20.6	-0.2
GRR				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.2						
CABF	La Chapelle	80.91	339	eP	P	11 21 22.3	0.0
SGMF	Saint Gilles	81.05	345	eP	P	11 21 22.9	-0.1
	comp=Z,13nm,0.6s,mb4.7						
SGMF	Saint Gilles	81.05	345	eP	P	11 21 22.9	-0.1
SGMF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
SSF	Saint Saulge	81.06	341	eP	P	11 21 23.8	+0.7
ROSF	Rostrenen	81.08	346	eP	P	11 21 23.2	0.0
	comp=Z,92nm,1.3s,mb5.2						
ROSF	Rostrenen	81.08	346	eP	P	11 21 23.2	0.0
ROSF				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.2						
AVF	Avril sur Loir	81.34	341	eP	P	11 21 24.4	-0.2
	comp=Z,50nm,1.5s,mb4.9						
AVF	Avril sur Loir	81.34	341	eP	P	11 21 24.4	-0.2
AVF				pmax	pmax		
	comp=Z,25nm,1.5s,mb4.9						
SMF	Signal de Mont	81.38	341	eP	P	11 21 24.7	-0.1
	comp=Z,54nm,1.3s,mb5.0						
SMF	Signal de Mont	81.38	341	eP	P	11 21 24.7	-0.1
SMF				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.0						
QUIF	Quistinic	81.47	346	eP	P	11 21 25.4	+0.2
LPL	La Plagne	81.79	339	eP	P	11 21 27.7	+0.8
	comp=Z,19nm,0.8s,mb4.8						
LPL	La Plagne	81.79	339	eP	P	11 21 27.7	+0.8
LPL				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
LPG	La Plagne	81.80	339	eP	P	11 21 28.0	+1.0
	comp=Z,22nm,0.8s,mb4.8						
LPG	La Plagne	81.80	339	eP	P	11 21 28.0	+1.0
LPG				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
MFF	Saint Martin d	82.22	343	eP	P	11 21 29.4	+0.3
	comp=Z,50nm,1.4s,mb4.9						
MFF	Saint Martin d	82.22	343	eP	P	11 21 29.4	+0.3
MFF				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
PPT	Papeete	82.29	128	eLR	LR	11 46 20.1	
	comp=Z,54nm,23.0s						
ASF	Jabal al Asfar	82.37	311	P	P	11 21 30.3	+0.1
	comp=Z,3.6nm,0.8s,mb4.3,baz=3.4,slow=3.2,SNR=4.6						
ASF				LR	LR	12 02 03.9	
	comp=Z,57nm,21.5s,MS3.9,baz=116,slow=38						
MBDF	Montbardon	82.52	338	eP	P	11 21 30.4	-0.3
	comp=Z,25nm,1.3s,mb4.8						
MBDF	Montbardon	82.52	338	eP	P	11 21 30.4	-0.3
MBDF				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
VIVF	Saint-Julien-l	82.89	340	eP	P	11 21 33.2	+0.6
	comp=Z,22nm,1.2s,mb4.8						
VIVF	Saint-Julien-l	82.89	340	eP	P	11 21 33.2	+0.6
VIVF				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.8						
RJF	Les Rejaudoux	83.14	342	eP	P	11 21 34.2	+0.4
RJF				eR			
	comp=Z,127nm,18.8s						
SBF	Sospel	83.17	337	eP	P	11 21 33.8	-0.2
	comp=Z,90nm,1.3s,mb5.3						
SBF	Sospel	83.17	337	eP	P	11 21 33.8	-0.2
SBF				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.3						
CAF	Calviac	83.39	341	eP	P	11 21 35.7	+0.6
SMRF	Simiane la Rot	83.52	339	eP	P	11 21 36.4	+0.7
FRF	La Foret Royal	83.65	338	eP	P	11 21 36.3	0.0
	comp=Z,44nm,1.2s,mb5.2						
FRF	La Foret Royal	83.65	338	eP	P	11 21 36.3	0.0
FRF				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.2						
LFF	La Frestale	83.65	342	eP	P	11 21 36.6	+0.3
LMR	La Mourre	83.90	338	eP	P	11 21 37.8	+0.2
	comp=Z,42nm,1.3s,mb5.1						
LMR	La Mourre	83.90	338	eP	P	11 21 37.8	+0.2
LMR				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.1						
PGF	Pioggiola	83.99	336	eP	P	11 21 38.2	+0.1
	comp=Z,36nm,1.0s,mb5.1						
PGF	Pioggiola	83.99	336	eP	P	11 21 38.2	+0.1
PGF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.2						
EPF	Esparros	85.56	342	eP	P	11 21 46.6	+0.7
SJPF	Ste Jean	85.79	343	eP	P	11 21 47.5	+0.5
TBI	Tubuai	87.20	131	eLR	LR	11 48 36.4	
	comp=Z,136nm,28.0s,baz=318						
ESDC	Sonseca Array	89.62	344	P	P	11 22 07.5	+2.0
	comp=Z,0.4nm,0.4s,mb4.1,baz=4.2,slow=5.4,SNR=4.5						

CNRM ***13*** *11:14:42.2, 35.27N×2.74W, h2^{km}, MD3.0*
CSEM ***13*** *11:14:46.4±0.1, 35.02N×3.14W, h15^{km}, mb3.3/4, Error ellipse: s-maj=4.0km s-min=2.2km az=101.0*
NEIC ***13*** *11:14:49.5, 35.16N×3.21W, MG3.3(MDD), After MDD.*
MDD ***13*** *11:14:49.5±2.3, 35.16N×3.21W, mb3.3/4, Error ellipse: s-maj=26.8km s-min=6.7km az=175.0, PRXIMO AftershockPLICA*
ISC 13 11:14:46.9±0.7, **35.04N**±0.04×**3.12W**±0.07, **h10**^{km}, **n17**, σ**1^{s}36**/27, **Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMEL	Melilla	0.29	27	P	Pg	11 14 54.3	+1.2
	70nm,0.1s,SNR=7.9						
EMEL				S	Sg	11 14 57.1	-0.1
	267nm,0.2s,SNR=7.9						
EMLI	Melilla	0.30	28	P	Pg	11 14 54.3	+1.2
	70nm,0.1s,SNR=7.9						
TOU	Touzarine	0.52	262	iP	Pg	11 14 58.0	+0.5
TOU				iS	Sg	11 15 10.0	+5.4
MPAL	Palemas	0.70	286	eP	Pb	11 15 00.0	-0.7
MPAL				iS	Sb	11 15 13.0	+2.9
TZK	Tazeka	1.29	223	iS	Sb	11 15 30.0	+2.7
TZK	Tazeka	1.29	223	iP	Pb	11 15 10.0	-0.8
EBER	Berja	1.87	6	P	Pn	11 15 20.8	+1.6
	7.8nm,0.7s,SNR=5.6						
EBER				S	Sn	11 15 39.9	-3.1
	18nm,0.6s,SNR=7.9						
EBER	Berja	1.87	6	P	Pn	11 15 20.8	+1.5
	7.8nm,0.7s,SNR=5.6						
EMIJ	Mijas	2.03	319	P	Pn	11 15 20.4	-1.2
	1.5nm,0.1s,SNR=7.9						
EMIJ				S	Sn	11 15 43.3	-3.9
	3.8nm,0.2s,SNR=4.0						
EMIJ	Mijas	2.03	319	P	Pn	11 15 20.5	-1.1
EQES	Quesada	2.76	1	P	Pn	11 15 32.7	+0.7
	1.1nm,0.1s,SNR=5.3						
EQES				S	Sn	11 16 06.4	+0.6
	5.7nm,0.3s,SNR=7.9						
EQES	Quesada	2.76	1	P	Pn	11 15 32.7	+0.6
	1.1nm,0.1s,SNR=5.3						
EQES				S	Sn	11 16 06.4	+0.6
	5.7nm,0.3s,SNR=7.9						
ZFT	Errachidia	3.17	199	iP	Pn	11 15 37.0	-0.8
ZFT				iS	Sn	11 16 15.0	-1.1
EADA	Adamuz	3.34	340	P	Pn	11 15 39.8	-0.4
	0.6nm,0.1s,SNR=7.9						
EADA				S	Sn	11 16 18.0	-2.3
	1.7nm,0.2s,SNR=4.0						
EADA	Adamuz	3.34	340	P	Pn	11 15 39.8	-0.4
EADA				S	Sn	11 16 18.0	-2.4
EMIN	Mina Concepcio	3.95	315	P	Pn	11 15 47.9	-1.1
	0.5nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	3.95	315	P	Pn	11 15 47.9	-1.1

NEIC ***13*** *11:34:53.2±2.6, 6.69N×72.70W, h185^{km}±23^{km}, Error ellipse: s-maj=39.3km s-min=29.0km az=222.0*
IDC ***13*** *11:35:36.7±3.3, 8.07N×74.22W, h560^{km}±42^{km}, mb3.0/3, mb1 3.1/4, mb1mx2.6/20, Error ellipse: s-maj=47.6km s-min=17.4km az=79.0*
ISC 13 11:34:52.6±5.6, **6.7N**±0.6×**72.6W**±0.3, **h198**^{km}±28^{km}, **n8**, σ**1^{s}26**/6, **mb3.6**/2, **Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SDV	Santo Domingo	2.93	43	ePn	P	11 35 42.1	+0.2
SDV				eSn	S	11 36 19.7	-0.2
TEIG	Tepich	20.25	313	P	P	11 39 14.5	+0.2
	0.2nm,0.3s,baz=12,slow=21,SNR=4.3						
LPAZ	La Paz	23.29	169	P		11 40 17.7	
	1.2nm,0.8s,baz=2.5,slow=9.3,SNR=5.7						
SCHQ	Schefferville	48.20	5	P	P	11 43 15.8	+1.0
	4.0nm,0.7s,mb3.8,baz=184,slow=9.7,SNR=8.1						
YKA	Yellowknife Ar	63.52	340	P	P	11 45 02.5	-1.2
	0.6nm,0.7s,mb3.3,baz=132,slow=6.6,SNR=23						
YKA	Yellowknife Ar	63.52	340	P	P	11 45 02.5	-1.2
ASAR	Alice Springs	149.44	234	PKPbc	PKPdf	11 54 21.6	+7.3
	0.4nm,0.6s,baz=124,slow=3.2,SNR=9.7						
WRA	Warramunga Arr	150.70	241	PKPbc	PKPdf	11 54 24.1	+7.8
	0.1nm,0.3s,baz=108,slow=2.5,SNR=4.9						

IDC ***13*** *11:36:09.9±16.0, 19.02S×168.99E, h295^{km}±152^{km}, mb3.2/5, mb1 3.4/5, mb1mx3.3/12, Error ellipse: s-maj=86.9km s-min=58.9km az=132.0*
ISC 13 11:35:58.0±3.2, **18.8S**±0.6×**169.0E**±0.5, **h185**^{km}±44^{km}, **n10**, σ**1^{s}20**/7, **mb3.7**/5, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.08	215	eP	P	11 37 00.9	-0.1
NOUC	Port Laguerre	4.18	217	eP	P	11 37 02.4	+0.1
STKA	Stephens Creek	27.91	237	P	P	11 41 33.6	+0.6
	0.9nm,0.7s,mb3.6,baz=55,slow=6.3,SNR=3.0						
STKA				pP	pP	11 42 10.6	-0.1
	2.0nm,0.8s,baz=214,slow=11,SNR=3.4						
WRA	Warramunga Arr	32.68	262	P	P	11 42 14.1	-0.8
	0.3nm,0.3s,mb3.5,baz=83,slow=6.6,SNR=8.3						
ASAR	Alice Springs	33.01	255	P	P	11 42 17.3	-0.5
	1.8nm,0.4s,mb4.1,baz=81,slow=8.9,SNR=56						
ASAR				pP	pP	11 42 58.5	+1.7
	0.8nm,0.7s,baz=83,slow=9.1,SNR=5.6						
SONM	Songino Array	86.68	323	P	P	11 48 23.6	+1.7
	0.7nm,0.9s,mb3.5,baz=153,slow=5.5,SNR=5.4						
ILAR	Eielson Array	89.83	17	P	P	11 48 35.4	-1.0
	0.4nm,0.5s,mb3.6,baz=247,slow=5.8,SNR=6.6						
YKA	Yellowknife Ar	100.34	27	P	P	11 49 24.1	-0.3
	0.1nm,0.4s,baz=254,slow=4.7,SNR=5.1						
ARCES	ARCESS Array B	124.53	345	PKP	PKPdf	11 54 33.5	-1.2
	5.2nm,1.0s,baz=75,slow=2.1,SNR=6.5						
GERES	GERESS Array B	143.94	332	PKP	PKPdf	11 55 08.9	-2.2
	0.5nm,0.7s,baz=18,slow=4.2,SNR=5.0						

NIED ***13*** *11:57:00, 33.60N×141.10E, h47^{km}, Mw3.6 Best double couple: $M_0$3.02×10^{14} NP1:ϕ_s209°, δ64°, λ137°. NP2: ϕ_s321°, δ52°, λ33°.*
JMA ***13*** *11:57:31.4±0.1, 33.57N×141.09E, h56^{km}±4^{km}, M3.5*
ISC 13 11:57:31.8±2.2, **33.57N**±0.08×**141.1E**±0.1, **h44**^{km}±54^{km}, **n11**, σ**0^{s}31**/18, **Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BSO1	Boso 1	1.09	356	P	P	11 57 50.7	-0.1
BSO1				eS	S	11 58 04.9	0.0
JHJ2	Mitsune	1.15	247	P	P	11 57 51.7	0.0
JHJ2				S	S	11 58 06.6	+0.1
BSO3	Boso 3	1.32	339	P	P	11 57 54.3	+0.1
JMY	Miyakejima3	1.40	291	P	P	11 57 55.3	0.0
BSO4	Boso 4	1.55	337	P	P	11 57 57.9	+0.5
JKO	Kozu shima	1.73	291	P	P	11 57 59.9	-0.1
JKO				eS	S	11 58 21.2	+0.2
JIM2	Oshima 3	1.79	310	P	P	11 58 00.2	-0.6
JIM2				eS	S	11 58 22.5	+0.2
KTJJ	Kamata 2	2.15	310	P	P	11 58 05.4	-0.6
KTJJ				eS	S	11 58 31.1	-0.4
JIZS	Izushimoda	2.16	303	P	P	11 58 06.2	+0.2
JIZS				eS	S	11 58 32.0	+0.3
JOD2	Odawara 2	2.36	316	P	P	11 58 08.7	-0.3
MAT	Matsushiro	3.79	322	P	P	11 58 29.9	+0.7
MAT				S	S	11 59 13.0	-0.1

IDC ***13*** *12:00:11.7±0.3, 8.02S×124.94E, mb5.6/25, mb1 5.5/26, mb1mx5.5/26, ML5.2/2, MS4.8/17, Ms1 4.9/17, ms1mx4.5/24, Error ellipse: s-maj=13.7km s-min=9.1km az=42.0*
MOS ***13*** *12:00:11.7±0.8, 7.94S×124.90E, h10^{km}, mb5.9/34, MS4.7/12, Error ellipse: s-maj=11.2km s-min=6.7km az=115.2*
NEIC ***13*** *12:00:12.4±0.1, 8.06S×125.07E, h10^{km}, mb5.8/47, MS4.7/12, MW5.4, Error ellipse: s-maj=5.4km s-min=3.7km az=51.0, Moment Tensor Solution. s17 Moment tensor: Scale 10^{17}Nm; M_{rr}1.59; $M_{\theta\theta}$-1.23; $M_{\phi\phi}$-0.35; $M_{r\theta}$0.38; $M_{\theta\phi}$-0.59; $M_{\phi r}$0.01; Best double couple: $M_0$1.6×10^{17} NP1: ϕ_s238°, δ39°, λ82°. NP2:ϕ_s69°, δ52°, λ97°. Principal axes: T 1.64, Plg82°, Azm14°; N -.07, Plg5°, Azm245°; P -1.57, Plg6°, Azm154°;*
NEIC Felt [IV] at Alor.
SYO ***13*** *12:00:12.7, 8.06S×125.12E, h10^{km}, MB5.8, MS4.7*
HRVD ***13*** *12:00:12.4±0.2, 7.98S×125.04E, h13^{km}, MW5.5/56, Centroid moment Tensor Solution. LP body waves: s49,c88;Mantle waves: s56,c111; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}1.11±.04; $M_{\theta\theta}$-0.76±.03; $M_{\phi\phi}$-0.35±.04; $M_{r\theta}$-0.80±.08; $M_{\theta\phi}$-0.86±.03; $M_{\phi r}$-1.04±.09; Best double couple: $M_0$1.84×10^{17} NP1: ϕ_s67°, δ24°, λ115°. NP2:ϕ_s220°, δ68°, λ79°. Principal axes: T 1.7, Plg65°, Azm112°; N .27, Plg10°, Azm224°; P -1.97, Plg23°, Azm318°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
BJI ***13*** *12:00:13.0, 8.10S×125.10E, h10^{km}, mB5.6, mb5.6, Ms4.9, Msz4.6*
CSEM ***13*** *12:00:15.8, 7.98S×124.78E, h33^{km}, mb5.9*
DJA ***13*** *12:00:17.2±0.3, 7.94S×124.93E, h80^{km}, mb6.3/3, MD5.4/1, ML5.8/2, Error ellipse: s-maj=8.5km s-min=7.0km az=172.0*
ISC 13 12:00:12.8±0.2, **8.07S**±0.03×**124.94E**±0.03, **h17**^{km}, **h17**^{km}±1.3^{km}**:pP-P**, **n394**, σ**1^{s}10**/316, **mb5.7**/110, **MS4.8**/44, **83C-15D**, **Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUG	Kupang	2.45	212⇑	ePn	Pn	12 00 57.0	+4.2
NINI	Niniconang	6.30	305⇓	ePn	Pn	12 01 49.9	+2.5
BUNI	Buntu Taipa	6.35	313⇓	ePn	Pn	12 01 48.0	-0.1
BUNI				eSn	Sn	12 02 56.8	-4.1
BUNI	Buntu Taipa	6.35	313⇓	ePn	Pn	12 01 48.0	-0.1
	679nm,0.3s						
TANI	Tanete Lipujan	7.20	309⇑	ePn	Pn	12 02 00.6	+0.6
	383nm,0.5s						
KAKA	Kakadu	8.70	123	eP	P	12 02 17.9	-3.0
	386nm,0.5s						
KAKA				eS	Sn	12 03 49.7	-10
KEDI	Kedomdong	8.75	267⇑	eP	P	12 02 24.2	+2.6
	2μm,0.8s						
RATI	Rata	9.33	265⇑	eP	P	12 02 31.2	+1.5
	934nm,0.9s						
KELI	Kelakatan	10.35	268⇑	eP	P	12 02 43.9	+0.2
	308nm,1.1s						
SRDI	Scrawed	10.69	267⇑	eP	P	12 02 48.6	+0.1
MBWA	Marble Bar	13.95	201	eP	P	12 03 30.7	-1.6
	61nm,1.1s						
MBWA				eS	S	12 05 54.9	-13
WRAB	Tennant Creek	14.90	143	eP	P	12 03 39.6	-5.1
WRAB				pmax	pmax		
	comp=Z,60nm,1.1s						
WRAB	Tennant Creek	14.90	143	eP	P	12 03 39.6	-5.1
	comp=Z,60nm,1.1s						
WRAB				eS	S	12 06 12.8	-17
WRA	Warramunga Arr	14.90	143	Pn	P	12 03 40.2	-4.5
	comp=Z,23nm,0.3s,baz=320,slow=13,SNR=1040						
WRA				Sn	S	12 06 15.2	-15
	comp=Z,12nm,0.3s,baz=317,slow=25,SNR=9.7						
WRA	Warramunga Arr	14.90	143	Pn	P	12 03 40.2	-4.5
WRA				Sn	S	12 06 15.2	-15
WB2	Warramunga Arr	14.91	143	eP	P	12 03 39.8	-5.0
WB2				eS	S	12 06 18.4	-12
MATI	Mati	14.98	5	eP	P	12 03 46.9	+1.2
KCP	Kidapawan	14.98	1⇓	iP	P	12 03 59.2	+13
KCP				iS	rx	12 04 56.4	
DAV	Davao City (W)	15.05	2	eP	P	12 03 55.3	+8.5
CTBH	Cotabato--PC H	15.21	357⇑	eP	P	12 03 50.7	+2.0
CTBH				iS	rx	12 05 04.6	
BUKP	Musuan	15.85	0	eP	P	12 03 57.2	+0.1
PAGZ	Pagadian	15.89	354	eP	P	12 04 00.2	+2.6
BIPH	Bislig	16.21	5⇑	eP	P	12 04 14.1	+12
BIPH				iS	rx	12 05 18.6	
YOMI	Yo Moklole	16.46	72⇑	eP	P	12 04 04.0	-0.8
BUTP	Butuan	16.94	2	eP	P	12 04 23.5	+13
TBP	Tagbilaran	17.68	356⇑	eP	P	12 04 22.6	+2.4
ASPA	Alice Springs	17.73	152	eP	P	12 04 18.3	-2.4
ASPA				eS	S	12 07 21.7	-14
ASAR	Alice Springs	17.73	152	P	P	12 04 19.1	-1.6
	comp=Z,5.5nm,0.3s,baz=327,slow=11,SNR=452						
ASAR				S	S	12 07 24.5	-11
	comp=Z,7.6nm,0.3s,baz=313,slow=17,SNR=21						
ASAR				LR	LR	12 12 09.4	
	comp=Z,5μm,18.2s,baz=317,slow=40						
SCPH	Surigao	17.75	2⇓	eP	P	12 04 27.3	+6.3
GUIM	Jordan	18.72	353	eP	P	12 04 34.0	+1.0
PPR	Puerto Princes	18.78	341	eP	P	12 04 41.0	+7.3
OCLP	Ormoc	19.00	359	eP	P	12 04 45.4	+9.0
CUYO	Cuyo Island	19.20	348	eP	P	12 04 42.7	+3.9
OTRP	Odiongan	20.51	352	eP	P	12 04 58.3	+5.3
SJMP	San Jose	20.75	349	eP	P	12 04 54.4	-1.1
PMG	Port Moresby	22.00	95	P	P	12 05 08.2	0.0
	comp=Z,15nm,0.8s,baz=274,slow=6.0,SNR=3.1						
PMG				S	S	12 09 10.4	+5.2
	comp=Z,43nm,1.2s,baz=281,slow=12,SNR=2.3						
PMG	Port Moresby	22.00	95	iP	P	12 05 06.7	-1.5
PMG	Port Moresby	22.00	95	eP	P	12 05 07.4	-0.7
	comp=Z,541nm,1.1s,mb5.9						
LUBP	Lubang	22.16	348	eP	P	12 05 13.7	+3.9
TGY	Tagaytay City	22.39	350	P	P	12 05 15.2	+3.2
	comp=Z,159nm,0.3s,mb5.9,baz=255,slow=4.6,SNR=6.6						
FORT	Forrest	22.78	173	eP	P	12 05 15.6	-0.2
	comp=Z,1μm,0.9s,mb6.3						
FORT				eS	S	12 09 22.2	+2.9
CTA	Charters Tower	23.84	122	eP	P	12 05 27.7	+1.5
	comp=Z,121nm,1.0s,mb5.3						
CTA	Charters Tower	23.84	122	P	P	12 05 27.8	+1.6
	comp=Z,161nm,1.1s,mb5.4,baz=299,slow=11,SNR=71						
CTA				S	S	12 09 47.7	+10
	comp=Z,14nm,0.9s,baz=279,slow=9.5,SNR=2.1						
CTA				LR	LR	12 14 54.5	
	comp=Z,2μm,19.2s,MS4.7,baz=59,slow=37						
CTA	Charters Tower	23.84	122	eP	P	12 05 27.7	+1.5
CTA				pmax	pmax		
	comp=Z,121nm,1.0s						
CTAO	Charters Tower	23.84	122⇑	iP	P	12 05 27.7	+1.5
CTAO				pmax	pmax		
	comp=Z,389nm,1.3s,mb5.7						
CTAO				MLR	MLR		
	comp=Z,3μm,21.0s,MS4.8						
CTAO	Charters Tower	23.84	122⇑	iP	P	12 05 27.7	+1.4

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       comp=Z,389nm,1.3s,mb5.7
CTAO                             LR      LR
       comp=Z,3µm,21.0s,MS4.8
KLBR   Kellerberrin      24.34 195  eP     P        12 05 31.0  0.0
       comp=Z,174nm,0.9s,mb5.5
KLBR                                eS     S        12 09 54.2 +7.7
NWAO   Narrogin (SRO)    25.74 195  P      P        12 05 44.0 -0.3
       comp=Z,90nm,0.9s,mb5.3,baz=24,slow=11,SNR=35
NWAO   Narrogin (SRO)    25.74 195⇑iP     P        12 05 43.7 -0.7
NWAO                                pmax   pmax
       comp=Z,219nm,1.4s
NWAO   Narrogin (SRO)    25.74 195⇑iP     P        12 05 43.7 -0.6
       comp=Z,219nm,1.4s,mb5.5
CVP    Callao Caves      25.80 353  eP     P        12 05 46.0 +1.0
STKA   Stephens Creek    28.31 149  eP     P        12 06 08.1 +0.3
       comp=Z,60nm,1.0s,mb5.2
STKA                                eS     tx       12 11 28.3
STKA   Stephens Creek    28.31 149  P      P        12 06 08.1 +0.3
       comp=Z,62nm,0.9s,mb5.2,baz=318,slow=9.4,SNR=73
STKA                                LR     LR       12 19 03.3
       comp=Z,7µm,18.2s,MS5.3,baz=309,slow=40
SNG    Songkhla          28.59 301  P      P        12 06 10.0 -0.5
QIZ    Qiongzhong        30.77 331  P      P        12 06 30.5 +0.6
QIZ                                 S      S        12 11 31.8 +0.7
QIZ                                 LR     LR
       comp=N,802nm,13.4s,MS4.6
QIZ                                 LR     LR
       comp=E,782nm,16.5s,MS4.6
QIZ                                 LR     LR
       comp=Z,1µm,16.7s,MS4.6
QIZ    Qiongzhong        30.77 331  eP     P        12 06 29.0 -0.9
NNT    Nongplab          32.39 309  P      P        12 06 45.9 +1.8
GZH    Guangzhou         32.98 340  P      pP       12 06 56.4 +2.1
GZH                                 AMB    AMB
       comp=Z,900nm,5.1s
GZH                                 LR     LR
       comp=N,920nm,19.4s,MS4.7
GZH                                 LR     LR
       comp=E,690nm,14.9s,MS4.7
GZH                                 LR     LR
       comp=Z,1µm,15.2s,MS4.7
QZH    Quanzhou          33.39 349  P      P        12 06 53.3 +0.5
QZH                                 AMB    AMB
       comp=Z,200nm,1.4s,mb5.8
QZH                                 LR     LR
       comp=Z,4µm,44.5s,MS4.8
NST    Nakhon Sawan      34.06 314  P      P        12 06 58.0 -0.7
TOO    Toolangi          34.77 151  eP     P        12 07 06.7 +2.1
       comp=Z,131nm,1.0s,mb5.8
TOO    Toolangi          34.77 151  eP     P        12 07 06.7 +2.1
TOO                                 pmax   pmax
       comp=Z,131nm,1.0s,mb5.8
JOW    Kunigami          34.85   5  P      P        12 07 05.5 +0.2
       comp=Z,84nm,0.9s,mb5.7,baz=158,slow=6.1,SNR=7.1
JOW                                 LR     LR       12 21 46.6
       comp=Z,815nm,19.9s,MS4.5,baz=215,slow=37
CNB    Canberra Magne    35.15 144  eP     P        12 07 08.9 +1.0
       comp=Z,92nm,0.9s,mb5.7
RIV    Riverview         35.24 140  eP     P        12 07 10.7 +2.1
NANT   Nan               35.84 318 ⇑P      P        12 07 15.5 +1.7
CM31   Chiang Mai Arr    36.78 316  eP     P        12 07 21.9 +0.1
       comp=Z,33nm,0.8s,mb5.2
CM31                                ePcP   PcP      12 09 43.6 -0.6
CMAR   Chiang Mai Arr    36.78 316  P      P        12 07 22.7 +0.9
       comp=Z,30nm,0.8s,mb5.2,baz=141,slow=6.8,SNR=161
CMAR                                PcP    PcP      12 09 43.3 -1.0
       comp=Z,21nm,0.8s,baz=165,slow=2.2,SNR=5.4
CMAR                                LR     LR       12 23 34.9
       comp=Z,902nm,20.1s,MS4.5,baz=130,slow=38
CHG    Chiang Mai        37.03 316 ⇑P      P        12 07 24.4 +0.6
       comp=Z,62nm,0.9s,mb5.4
CHRT   Chiangrai         37.21 319 ⇓P      P        12 07 24.5 -0.8
       comp=Z,816nm,1.3s,mb6.4
GYA    Guiyang           38.64 333⇑iP     P        12 07 38.9 +1.6
GYA                                 AP     pP       12 07 42.8 +0.3
GYA                                 XP     sP       12 07 45.6 +1.0
GYA                                 PCP    PcP      12 09 49.0 -1.0
GYA                                 AMB    AMB
       comp=Z,100nm,0.8s,mb5.6
GYA                                 AMB    AMB
       comp=Z,420nm,5.4s
GYA                                 LR     LR
       comp=N,540nm,21.3s,MS4.4
GYA                                 LR     LR
       comp=E,120nm,16.5s,MS4.4
GYA                                 LR     LR
       comp=Z,540nm,19.2s,MS4.4
CBIJ   Chichi jima       38.75  25  P      P        12 07 38.5 +0.2
       comp=Z,258nm,1.0s,mb5.9,baz=160,slow=7.8,SNR=6.7
CBIJ                                LR     LR       12 20 02.4
       comp=Z,589nm,21.9s,MS4.4,baz=237,slow=31
SSE    Sheshan           39.11 355  P      P        12 07 42.1 +0.9
SSE                                 AP     pP       12 07 45.1 -1.2
SSE                                 S      S        12 13 41.9 +2.2
SSE                                 AMB    AMB
       comp=Z,56nm,1.2s,mb5.2
SSE                                 AMB    AMB
       comp=Z,230nm,5.6s
SSE                                 LR     LR
       comp=N,526nm,20.0s,MS4.5
SSE                                 LR     LR
       comp=E,386nm,20.0s,MS4.5
SSE                                 LR     LR
       comp=Z,752nm,20.0s,MS4.5
KMI    Kunming           39.45 327  eP     P        12 07 46.8 +2.7
KMI                                 AP     pP       12 07 55.1 +5.9
KMI                                 XP     sP       12 07 58.6 +7.2
KMI                                 PP     PP       12 09 20.8 +2.2
KMI                                 S      S        12 13 44.4 -0.4
KMI                                 XS              12 13 58.3
KMI                                 AMB    AMB
       comp=Z,71nm,1.1s,mb5.3
KMI                                 AMB    AMB
       comp=Z,294nm,4.5s
KMI                                 LR     LR
       comp=N,803nm,20.8s,MS4.6
KMI                                 LR     LR
       comp=E,636nm,22.7s,MS4.6
KMI                                 LR     LR
       comp=Z,802nm,35.9s
WHN    Wuhan             39.72 346 ⇑P      P        12 07 48.0 +1.8
WHN                                 S      S        12 13 53.5 +4.7
WHN                                 AMB    AMB
       comp=Z,441nm,8.0s
WHN                                 LR     LR
       comp=E,293nm,13.0s
WHN                                 LR     LR
       comp=Z,1µm,11.7s,MS4.9
NJ2    Nanjing           40.32 352  eP     P        12 07 52.5 +1.3
NJ2                                 AP     pP       12 07 57.5 +1.2
NJ2                                 XP     sP       12 07 59.9 +1.4
NJ2                                 PP     PP       12 09 30.3 +2.6
NJ2                                 S      S        12 13 59.0 +1.2
NJ2                                 XS              12 14 10.0
NJ2                                 AMB    AMB
       comp=Z,340nm,1.0s,mb6.0
NJ2                                 AMB    AMB
       comp=Z,690nm,5.8s
NJ2                                 LR     LR
       comp=N,5µm,24.9s,MS5.3
NJ2                                 LR     LR
       comp=E,3µm,27.4s,MS5.3
NJ2                                 LR     LR
       comp=Z,3µm,26.0s,MS5.0
ENH    Enshi             40.91 339⇑iP     P        12 07 56.8 +0.7
       comp=Z,78nm,0.8s,mb5.4
ENH                                 LR     LR
       comp=Z,721nm,19.0s,MS4.5
NOUC   Port Laguerre     42.15 114⇑eP     P        12 08 06.4  0.0
DZM    Mont Dzumac       42.27 114  eP     P        12 08 07.8 +0.4
DZM    Mont Dzumac       42.27 114  eP     P        12 08 06.9 -0.5
JHJ    Hachijo jima 2    43.33  18  LR     LR       12 24 16.8
       comp=Z,574nm,19.1s,MS4.5,baz=101,slow=33
CD2    Chengdu           43.76 333⇑iP     P        12 08 20.1 +0.7
CD2                                 XP     sP       12 08 26.5 -0.2
CD2                                 PPP    PPP      12 10 41.8 +1.9
CD2                                 S      S        12 14 46.4 -2.1
CD2                                 SCS    ScS      12 18 20.3 +4.6
CD2                                 AMB    AMB
       comp=Z,110nm,0.9s,mb5.6
CD2                                 AMB    AMB
       comp=Z,480nm,3.9s
CD2                                 LR     LR
       comp=N,1µm,13.8s
CD2                                 LR     LR
       comp=Z,920nm,15.0s,MS4.8
IMP    Imphal            44.49 318⇓iP     P        12 08 25.7 +0.2
XAN    Xi’an             44.55 341  P      P        12 08 25.6 -0.2
XAN                                 AP     pP       12 08 30.9 -0.1
XAN                                 AMB    AMB
       comp=Z,81nm,0.9s,mb5.5
TIA    Tai’an            44.66 351  eP     P        12 08 25.0 -1.6
TIA                                 AMB    AMB
       comp=Z,59nm,1.2s,mb5.3
KS15   Wonju Array Si    45.36   3⇑eP     P        12 08 32.6 +0.5
AGT    Agartala          45.73 315  i P    P        12 08 37.0 +1.7
AGT                               ⇑i                12 09 25.0
MAJO   Matsushiro        46.09  15⇑iP     P        12 08 37.8 -0.2
MAJO                                pmax   pmax
       comp=Z,162nm,1.0s,mb5.9
MAJO   Matsushiro        46.09  15⇑iP     P        12 08 37.8 -0.2
       comp=Z,162nm,1.0s,mb5.9
MAT    Matsushiro        46.09  15  P      P        12 08 37.4 -0.6
MAT                                 S      S        12 15 17.0 -5.1
MAT    Matsushiro        46.09  15  eP     P        12 08 37.0 -1.0
MAT                                 eS     S        12 15 17.0 -5.1
MAT                                 pmax   pmax
       comp=Z,570nm,1.6s,mb6.2
MAT                                 MLR    MLR
       comp=Z,710nm,20.0s,MS4.6
MAT    Matsushiro        46.09  15  eP     P        12 08 37.0 -1.0
       comp=Z,570nm,1.6s,mb6.2
MAT                                 eS     S        12 15 17.0 -5.1
MAT                                 LR     LR
       comp=Z,710nm,20.0s,MS4.6
SHL    Shillong          46.39 317  eP     P        12 08 40.5  0.0
SHL                                 e               12 15 23.5
DL2    Dalian            46.84 356  P      P        12 08 44.0 +0.2
DL2                                 eS     S        12 15 33.0 +0.3
DL2                                 AMB    AMB
       comp=Z,80nm,0.8s,mb5.7
DL2                                 LR     LR
       comp=N,380nm,20.2s,MS4.5
DL2                                 LR     LR
       comp=E,360nm,16.3s,MS4.5
DL2                                 LR     LR
       comp=Z,290nm,13.1s,MS4.4
CAL    Calcutta          47.02 311  eP     P        12 08 44.8 -0.7
CAL                                 e               12 09 09.5
LZH    Lanzhou           48.20 337 ⇑P      P        12 08 55.5 +0.9
LZH                                 PP     PP       12 10 47.0 +0.5
LZH                                 S      S        12 15 55.0 +3.0
LZH                                 SS     SS       12 19 21.0 +4.7
LZH                                 AMB    AMB
       comp=Z,128nm,1.5s,mb5.7
LZH                                 AMB    AMB
       comp=Z,350nm,4.0s
LZH                                 LR     LR
       comp=N,2µm,14.4s
LZH                                 LR     LR
       comp=Z,2µm,16.3s,MS5.2
VIS    Vishakhapatnam    48.44 302  eP     P        12 08 56.0 -0.6
BJT    Baijiatuau        48.53 351⇑iP     P        12 08 56.4 -0.7
BJT                                 pmax   pmax
       comp=Z,138nm,1.2s
BJT    Baijiatuau        48.53 351⇑iP     P        12 08 56.4 -0.6
       comp=Z,138nm,1.2s,mb5.9
BJI    Beijing           48.55 351  eP     P        12 08 56.6 -0.6
BJI                                 PP     PP       12 10 50.4 +0.4
BJI                                 S      S        12 15 54.8 -2.1
BJI                                 AMB    AMB
       comp=Z,102nm,0.8s,mb5.9
BJI                                 LR     LR
       comp=N,590nm,24.4s,MS4.6
BJI                                 LR     LR
       comp=E,251nm,20.3s,MS4.6
BJI                                 LR     LR
       comp=Z,870nm,38.1s
MDRS   Chennai           49.11 295  e      P        12 08 53.0 -8.9
LSA    Lhasa             49.66 321  P      P        12 09 07.6 +1.6
SNY    Shenyang          49.67 359 ⇑P      P        12 09 04.9 -0.9
SNY                                 AP     pP       12 09 11.0 -0.1
SNY                                 XP     sP       12 09 14.3 +1.2
SNY                                 PP     PP       12 11 03.5 +2.4
SNY                                 S      S        12 16 10.6 -1.9
SNY                                 AMB    AMB
       comp=Z,40nm,0.8s,mb5.5
SNY                                 AMB    AMB
       comp=Z,290nm,9.0s
SNY                                 LR     LR
       comp=N,520nm,15.3s
SNY                                 LR     LR
       comp=Z,680nm,28.4s
HHC    Hu-ho-hao-te      50.21 347  eP     P        12 09 09.6 -0.4
HHC                                 AP     pP       12 09 14.3 -1.0
HHC                                 PCP    PcP      12 10 28.1 -1.3
HHC                                 PP     PP       12 11 05.3 -1.1
HHC                                 SCP             12 14 23.1
HHC                                 PCS             12 14 25.0
HHC                                 S      S        12 16 20.1 +0.1
HHC                                 SCS    ScS      12 18 57.3 -0.2
HHC                                 SS     SS       12 19 49.9 -0.6
HHC                                 AMB    AMB
       comp=Z,52nm,1.0s,mb5.5
HHC                                 AMB    AMB
       comp=Z,437nm,5.9s
HHC                                 LR     LR
       comp=N,448nm,19.2s,MS4.6
HHC                                 LR     LR
       comp=E,339nm,16.7s,MS4.6
HHC                                 LR     LR
       comp=Z,768nm,23.8s
BTO    Baotou            50.35 345  eP     P        12 09 09.3 -1.8
TRD    Trivandrum        50.57 288  eP     P        12 09 11.1 -1.9
TRD                                 AMb    AMB      12 09 14.3
       comp=Z,63nm,0.9s,mb5.5
KOD    Kodaikanal        50.64 290  eP     P        12 09 12.5 -1.1
KOD                                 AMb    AMB      12 09 14.9
       comp=Z,93nm,0.6s,mb5.9
VLA    Vladivostok       51.34   7⇑iP     P        12 09 17.0 -1.5
VLA                                 i S    S        12 16 38.0 +2.5
VLA                                 i PS   PS       12 16 53.0 +6.5
VLA                                 pmax   pmax
       comp=Z,900nm,5.0s
VLA                                 pmax   pmax
       comp=Z,500nm,8.0s
VLA                                 smax
       comp=N,600nm,5.6s
VLA                                 MLR    MLR
       comp=Z,500nm,14.0s,MS4.7
VLA                                 MLR    MLR
       comp=N,500nm,16.0s
CN2    Changchun         51.63   0  eP     P        12 09 19.6 -1.1
CN2                                 eS     S        12 16 36.9 -2.6
CN2                                 AMB    AMB
       comp=Z,30nm,1.0s,mb5.2
CN2                                 AMB    AMB
       comp=Z,500nm,6.0s
CN2                                 LR     LR
       comp=N,500nm,18.0s,MS4.7
CN2                                 LR     LR
       comp=E,500nm,18.0s,MS4.7
CN2                                 LR     LR
       comp=Z,500nm,21.0s,MS4.5
OUZ    Omahuta           52.00 129  P      P        12 09 25.4 +1.7
GUN    Gumba             52.01 315  eP     P        12 09 24.2 +0.4
       comp=Z,634nm,1.1s,mb6.5
GUN    Gumba             52.01 315⇑iP     P        12 09 24.2 +0.4
       comp=Z,313nm,1.1s,mb6.2
MSZ    Milford Sound     52.08 142  P      P        12 09 25.3 +1.2
PKI    Pulchoki          52.14 314⇑iP     P        12 09 24.8  0.0
       comp=Z,43nm,0.5s,mb5.6
KKN    Kakani            52.36 314⇑iP     P        12 09 26.5  0.0
       comp=Z,358nm,1.2s,mb6.2
HYB    Hyderabad         52.37 299⇑eP     P        12 09 25.5 -1.1
HYB                                 eS     S        12 16 42.0 -7.9
HYB                                 pmax   pmax
       comp=Z,125nm,1.0s,mb5.8
HYB    Hyderabad         52.37 299⇑eP     P        12 09 25.5 -1.1
       comp=Z,125nm,1.0s,mb5.8
HYB                                 eS     S        12 16 42.0 -7.9
HYB    Hyderabad         52.37 299⇑iP     P        12 09 25.5 -1.1
       comp=Z,125nm,1.0s,mb5.8
HYB                                 eS     S        12 16 48.0 -1.9
DMN    Daman             52.38 314⇑iP     P        12 09 26.5 -0.1
       comp=Z,287nm,1.0s,mb6.2
MDJ    Mudanjiang        52.61   4  P      P        12 09 28.5 +0.4
MDJ                                 S      S        12 16 53.4 +0.5
MDJ                                 XS              12 17 03.8
MDJ                                 SS     SS       12 20 36.0 +5.8
MDJ                                 AMB    AMB
       comp=Z,251nm,1.0s,mb6.1
MDJ                                 AMB    AMB
       comp=Z,485nm,6.0s
MDJ                                 LR     LR
       comp=N,319nm,24.2s,MS4.2
MDJ                                 LR     LR
       comp=E,84nm,28.6s,MS4.2
MDJ                                 LR     LR
       comp=Z,455nm,26.0s,MS4.4
MDJ    Mudanjiang        52.61   4⇑iP     P        12 09 28.4 +0.3
       comp=Z,197nm,0.9s,mb6.0
MDJ                                 LR     LR
       comp=Z,497nm,22.0s,MS4.5
GTA    Gaotai            52.67 336  P      P        12 09 29.1 +0.4
GTA                                 PCP    PcP      12 10 38.6 +0.1
GTA                                 PP     PP       12 11 29.3 +0.1
GTA                                 PPP    PPP      12 12 34.0 -0.1
GTA                                 SCP             12 14 32.4
GTA                                 PCS             12 14 33.8
GTA                                 S      S        12 16 50.3 -3.5
GTA                                 SCS    ScS      12 19 16.6 +2.1
GTA                                 AMB    AMB
       comp=Z,83nm,1.0s,mb5.6
GTA                                 AMB    AMB
       comp=Z,364nm,6.5s
GTA                                 LR     LR
       comp=N,409nm,14.8s
GTA                                 LR     LR
       comp=E,585nm,22.4s
GTA                                 LR     LR
       comp=Z,696nm,18.3s,MS4.7
GKN    Gorkha            52.94 314⇑iP     P        12 09 30.7 -0.1
       comp=Z,105nm,0.8s,mb5.8
QRZ    Quartz Range      53.30 136  P      P        12 09 34.8 +1.5
LBZ    Lake Benmore      53.34 141  P      P        12 09 33.4 -0.1
KOLN   Koldanda          53.55 313⇑iP     P        12 09 34.9 -0.4
       comp=Z,255nm,1.1s,mb6.1
RPZ    Rata Peaks        53.57 139  P      P        12 09 35.8 +0.6
       comp=Z,288nm,0.8s,mb6.2,baz=270,slow=2.3,SNR=66
RPZ                                 LR     LR       12 32 50.9
       comp=Z,3µm,18.8s,MS5.4,baz=314,slow=36
THZ    Tophouse          53.94 137  P      P        12 09 38.8 +0.9
MNGI   Mangalore         53.99 292  eP     P        12 09 38.3 -0.2
MNGI                                AMb    AMB      12 09 40.0
       comp=Z,80nm,0.8s,mb5.7
NNZ    Nelson            54.05 136  P      P        12 09 40.3 +1.6
ASAJ   Asahikawa         54.35  16  P      P        12 09 41.5 +0.7
       comp=Z,265nm,0.8s,mb6.2,baz=236,slow=10.0,SNR=63
KHZ    Kahutara          54.64 137  P      P        12 09 43.6 +0.5
AKL    Akola             55.10 302  eP     P        12 09 46.5 -0.2
AKL                                 AMb    AMB      12 09 47.6
       comp=Z,106nm,1.0s,mb5.8
URZ    Urewera           55.66 131  P      P        12 09 49.9 -0.7
       comp=Z,63nm,0.9s,mb5.6,baz=314,slow=1.6,SNR=12
URZ                                 LR     LR       12 34 06.2
       comp=Z,2µm,18.5s,MS5.2,baz=281,slow=36
GOA    Goa               55.78 295  eP     P        12 09 55.6 +3.9
GOA                                 AMb    AMB      12 09 57.2
       comp=Z,97nm,0.4s,mb6.1
BHPL   Bhopal            55.91 305  eP     P        12 09 50.6 -1.9
BHPL                                e      pP       12 09 56.0 -1.9
       comp=Z,25nm,0.8s
KAD    Karad             56.14 297⇓iP     P        12 09 52.0 -2.2
PUZ    Puketiti          56.46 131  P      P        12 09 56.0 -0.3
POO    Poona             56.90 298  eP     P        12 09 58.6 -1.2
POO                                 AMb    AMB      12 09 59.5
       comp=Z,42nm,0.6s,mb5.7
PTH    Pithoragarh       57.00 313  eP     P        12 10 00.0 -0.3
PTH                                 e               12 12 05.4
YSS    Yuzh-Sakhalins    57.03  14⇑iP     P        12 09 59.6 -0.7
YSS                                 e               12 17 52.0
YSS    Yuzh-Sakhalins    57.03  14⇑iP     P        12 10 00.1 -0.2
       comp=Z,344nm,1.4s,mb6.2
YSS                                 LR     LR
       comp=Z,495nm,21.0s,MS4.6
HIA    Hailar            57.28 356⇑iP     P        12 10 01.4 -0.6
HIA                                 pmax   pmax
       comp=Z,58nm,0.8s
HIA    Hailar            57.28 356⇑iP     P        12 10 01.4 -0.6
       comp=Z,58nm,0.8s,mb5.7
KLR    Kul’dur           57.37   5  eP     P        12 09 58.7 -3.9
KLR                                 e               12 17 47.5
ULN    Ulaanbaatar       57.90 346⇑iP     P        12 10 05.9 -0.4
ULN                                 pmax   pmax
       comp=Z,94nm,0.9s,mb5.8
ULN                                 MLR    MLR
       comp=Z,334nm,20.0s,MS4.5
ULN    Ulaanbaatar       57.90 346⇑iP     P        12 10 05.9 -0.4
       comp=Z,94nm,0.9s,mb5.8
ULN                                 LR     LR
       comp=Z,334nm,20.0s,MS4.5
BOM    Bombay            57.95 298  eP     P        12 10 06.3 -0.7
BOM                                 AMb    AMB      12 10 07.7
       comp=Z,83nm,0.8s,mb5.8
SONM   Songino Array     58.03 345  P      P        12 10 06.9 -0.4
       comp=Z,54nm,0.8s,mb5.6,baz=159,slow=6.9,SNR=220
SONM                                PKP2bc          12 39 56.0
       comp=Z,2.3nm,1.1s,baz=317,slow=1.4,SNR=5.0
SONM   Songino Array     58.03 345  P      P        12 10 06.9 -0.4
SONM                               ⇑e               12 39 56.0
NDI    New Delhi         58.76 311  eP     P        12 10 10.1 -2.5
NDI                                 AMb    AMB      12 10 11.9
       comp=Z,35nm,0.4s,mb5.7
NDI                                 e               12 18 07.0
DDI    Dehra Dun         58.99 313  eP     P        12 10 11.9 -2.3
DRV    Dumont d’Urvil    59.41 173  S      S        12 18 27.0 +3.9
DRV                                 R               12 28 00.0
AJM    Ajmer             59.66 307⇑iP     P        12 10 17.0 -1.9
SDNR   Sundarnagar       60.41 313  eP     P        12 10 24.2 +0.2
SDNR                                e               12 10 46.2
       comp=Z,194nm,0.2s
SDNR                                e               12 10 49.2
BHK    Bhakra            60.77 313  eP     P        12 10 27.1 +0.7
ZAK    Zakamensk         61.18 344⇑iP     P        12 10 28.4 -0.5
WMQ    Urumqi            61.68 330 ⇑P      P        12 10 32.5 +0.1
WMQ                                 PCP    PcP      12 11 13.3 -0.3
WMQ                                 PP     PP       12 12 50.9 +0.4
WMQ                                 S      S        12 18 53.5 +1.1
WMQ                                 AMB    AMB
       comp=Z,94nm,0.8s,mb6.0
WMQ                                 LR     LR
       comp=N,377nm,24.4s,MS4.6
WMQ                                 LR     LR
       comp=E,432nm,24.6s,MS4.6
WMQ                                 LR     LR
       comp=Z,418nm,23.2s,MS4.5
THN    Thein Dam         61.81 313  eP     P        12 10 31.8 -1.6
AFI    Afiamalu          62.25 101  eP     P        12 10 35.1 -1.5
AFI                                 pmax   pmax
       comp=Z,259nm,1.3s,mb6.2
AFI    Afiamalu          62.25 101  eP     P        12 10 35.1 -1.5
       comp=Z,259nm,1.3s,mb6.2
TLY    Talaya            62.27 345c iP     P        12 10 35.7 -0.6
TLY                                 eS     S        12 18 58.0 -1.7
TLY                                 eSS    SS       12 22 59.6 -5.5
TLY                                 eSSS   SSS      12 25 42.4 -5.0
TLY                                 pmax   pmax
       comp=Z,50nm,0.9s,mb5.6
TLY    Talaya            62.27 345  eP     P        12 10 35.8 -0.5
       comp=Z,41nm,0.8s,mb5.6
IRK    Irkutsk           62.63 346  eP     P        12 10 38.2 -0.4
IRK                                 e               12 10 47.1
IRK                                 e               12 11 18.2
MOY    Mondy             62.97 344  eP     P        12 10 41.0 +0.2
KSH    Kashi             65.52 320⇑iP     P        12 10 58.3 +0.6
KSH                                 AP     pP       12 11 03.0  0.0
KSH                                 PCP    PcP      12 11 28.0 -1.4
KSH                                 PP     PP       12 13 26.4 +2.3
KSH                                 SCP             12 15 30.3
KSH                                 ePCS            12 15 33.0
KSH                                 S      S        12 19 44.3 +4.1
KSH                                 SCS    ScS      12 20 50.3 +1.5
KSH                                 SS     SS       12 24 00.3 +4.6
KSH                                 AMB    AMB
       comp=Z,390nm,1.6s,mb6.2
KSH                                 LR     LR
       comp=N,320nm,6.6s
KSH                                 LR     LR
       comp=E,400nm,6.6s
BOD    Bodaibo           66.27 354  eP     P        12 11 01.5 -0.6
MKAR   Makanchi Array    66.48 329  i P    P        12 11 03.2 -0.5
ULHL   Ulahol            66.93 323  P      P        12 11 06.2 -0.5
       SNR=28
PET    Petropavlovsk     67.27  21  eP     P        12 11 08.2 -0.4
PET                                 e*PP   pP       12 11 28.8 +15
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PET				*e*S	S	12 20 09.4	+8.1
PET				*e*PS		12 20 56.9	
PET				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.8						
PET				pmax	pmax		
	comp=Z,200nm,7.7s						
PET				smax			
	comp=E,700nm,17.6s						
PET	**Petropavlovsk**	**67.27**	**21**	*e*P	**P**	**12 11 08.0**	**-0.6**
	comp=E,137nm,1.4s,mb5.8						
KZA	**Kyzart**	**67.43**	**322**	P	**P**	**12 11 10.7**	**+0.8**
	SNR=103						
TKM2	**Tokmak 2**	**67.71**	**323**	P	**P**	**12 11 11.7**	**+0.1**
	SNR=64						
TKM2	**Tokmak 2**	**67.71**	**323**	⇑*i*P	**P**	**12 11 11.5**	**-0.1**
	comp=E,96nm,1.1s,mb5.7						
KBK	**Karagaybulak**	**67.95**	**322**	P	**P**	**12 11 13.6**	**+0.5**
	SNR=49						
UCH	**Uchtor**	**67.97**	**322**	P	**P**	**12 11 13.6**	**+0.4**
	SNR=81						
UCH	**Uchtor**	**67.97**	**322**	⇑*i*P	**P**	**12 11 13.5**	**+0.3**
	comp=E,60nm,1.0s,mb5.6						
AAK	**Ala-Archa**	**68.21**	**322**	P	**P**	**12 11 15.0**	**+0.3**
	SNR=92						
AAK	**Ala-Archa**	**68.21**	**322**	⇑*i*P	**P**	**12 11 13.8**	**-0.9**
AAK				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.9						
AAK	**Ala-Archa**	**68.21**	**322**	⇑*i*P	**P**	**12 11 13.8**	**-0.9**
	comp=Z,120nm,1.0s,mb5.9						
FRU	**Bishkek**	**68.25**	**322**	⇑*i*P	**P**	**12 11 15.3**	**+0.3**
FRU				pmax	pmax		
	comp=Z,160nm,1.8s,mb5.8						
CHMS	**Chumysh**	**68.26**	**323**	P	**P**	**12 11 14.7**	**-0.3**
	SNR=31						
AML	**Almayashu**	**68.42**	**321**	P	**P**	**12 11 16.4**	**+0.4**
	SNR=58						
AML	**Almayashu**	**68.42**	**321**	⇑*i*P	**P**	**12 11 16.2**	**+0.2**
	comp=Z,144nm,1.0s,mb6.0						
AML				LR	LR		
	comp=Z,441nm,19.0s,MS4.7						
USP	**Ospenovka**	**68.57**	**323**	P	**P**	**12 11 16.7**	**-0.2**
	SNR=99						
EKS2	**Erkin-Say**	**68.66**	**322**	P	**P**	**12 11 17.9**	**+0.4**
	SNR=104						
EKS2	**Erkin-Say**	**68.66**	**322**	⇑*i*P	**P**	**12 11 17.6**	**+0.1**
	comp=Z,121nm,1.0s,mb5.8						
YAK	**Yakutsk**	**69.99**	**2**	⇑*i*P	**P**	**12 11 24.8**	**-0.5**
YAK				pmax	pmax		
	comp=Z,270nm,0.8s,mb6.2						
YAK				MLR	MLR		
	comp=Z,356nm,20.0s,MS4.6						
YAK	**Yakutsk**	**69.99**	**2**	⇑*i*P	**P**	**12 11 24.8**	**-0.5**
	comp=Z,270nm,0.8s,mb6.2						
YAK				*e*		12 11 35.4	
YAK				LR	LR		
	comp=Z,356nm,20.0s,MS4.6						
ZAL	**Zalesovo**	**70.42**	**336**	P	**P**	**12 11 27.1**	**-1.0**
	comp=Z,53nm,0.8s,mb5.5,baz=343,slow=5.0,SNR=245						
ZAL				S	S	12 20 36.4	-2.3
	comp=Z,0.7nm,0.3s,baz=86,slow=24,SNR=9.4						
ZAL				PKPPKP		12 39 26.6	
	comp=Z,1.1nm,0.3s,baz=288,slow=1.5,SNR=7.9						
ZAL				LR	LR	12 47 10.6	
	comp=Z,281nm,19.2s,MS4.5,baz=211,slow=40						
MA2	**Magadan**	**70.52**	**14**	⇑*e*P	**P**	**12 11 28.9**	**+0.4**
MA2				pmax	pmax		
	comp=Z,183nm,1.0s,mb6.0						
MA2	**Magadan**	**70.52**	**14**	⇑*e*P	**P**	**12 11 28.9**	**+0.4**
	comp=Z,183nm,1.0s,mb6.0						
NVS	**Novosibirsk**	**71.71**	**336**	⇑*i*P	**P**	**12 11 33.7**	**-2.1**
NVS				*i* S	S	12 20 48.7	-4.8
NVS				pmax	pmax		
	comp=Z,175nm,1.1s,mb5.9						
NVS				pmax	pmax		
	comp=N,158nm,1.5s						
NVS				pmax	pmax		
	comp=E,94nm,1.2s						
NVS				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
NVS				pmax	pmax		
	comp=N,25nm,2.0s						
NVS				pmax	pmax		
	comp=E,6.0nm,1.1s						
NVS				smax			
	comp=N,39nm,1.5s						
NVS				smax			
	comp=E,53nm,1.4s						
VNDA	**Vanda**	**72.04**	**172**	P	**P**	**12 11 37.6**	**+0.1**
	comp=E,31nm,0.7s,mb5.3,baz=317,slow=6.1,SNR=155						
VNDA				LR	LR	12 43 54.4	
	comp=E,657nm,18.3s,MS4.9,baz=322,slow=36						
MAW	**Mawson**	**72.15**	**201**	*e*P	**P**	**12 11 38.4**	**+0.2**
	comp=E,26nm,0.9s,mb5.2						
MAW	**Mawson**	**72.15**	**201**	P	**P**	**12 11 38.6**	**+0.4**
	comp=E,32nm,0.9s,mb5.2,baz=68,slow=6.7,SNR=30						
MAW				LR	LR	12 39 17.3	
	comp=E,1µm,21.8s,MS5.1,baz=58,slow=32						
MAW	**Mawson**	**72.15**	**201**	*e*P	**P**	**12 11 38.4**	**+0.2**
MAW				pmax	pmax		
	comp=Z,27nm,0.9s						
SBA	**Scott Base**	**72.98**	**172**	⇑*i*P	**P**	**12 11 44.1**	**+1.1**
SBA				pmax	pmax		
	comp=Z,100nm,1.3s,mb5.6						
SBA	**Scott Base**	**72.98**	**172**	⇑*i*P	**P**	**12 11 44.1**	**+1.1**
	comp=Z,100nm,1.3s,mb5.6						
RAR	**Rarotonga**	**73.45**	**110**	P	**P**	**12 11 47.2**	**+0.5**
	comp=Z,81nm,1.1s,mb5.6,baz=245,slow=6.7,SNR=9.3						
RAR				LR	LR	12 40 44.5	
	comp=Z,675nm,20.3s,MS4.9,baz=253,slow=33						
RAR	**Rarotonga**	**73.45**	**110**	*e*P	**P**	**12 11 47.0**	**+0.2**
RAR				pmax	pmax		
	comp=Z,112nm,1.1s						
RAR	**Rarotonga**	**73.45**	**110**	*e*P	**P**	**12 11 47.0**	**+0.2**
	comp=Z,112nm,1.1s,mb5.7						
SEY	**Seymchan**	**73.86**	**13**	*e*P	**P**	**12 11 50.7**	**+2.4**
SEY				*e*		12 12 06.6	
SEY						12 14 33.5	
SEY				*e*PPP	PPP	12 16 22.5	+2.8
SEY				*e*S	S	12 21 16.0	-1.7
SEY						12 21 54.5	
SEY				SS	SS	12 26 01.7	-2.7
SEY				pmax	pmax		
	comp=Z,390nm,0.9s,mb6.3						
SEY				pmax	pmax		
	comp=N,130nm,1.0s						
SEY				pmax	pmax		
	comp=E,80nm,1.0s						
SEY				smax			
	comp=N,170nm,12.4s						
SEY				smax			
	comp=E,670nm,16.3s						
BVA0	**Borovoye Array**	**76.36**	**330**	P	**P**	**12 12 02.3**	**-0.5**
BVA0				pmax	pmax		
	comp=Z,49nm,1.4s,mb5.2						
BVAR	**Borovoye Array**	**76.36**	**330**	P	**P**	**12 12 02.6**	**-0.3**
	comp=Z,72nm,0.9s,mb5.6,baz=135,slow=6.3,SNR=292						
BRVK	**Borovoye**	**76.44**	**330**	⇑*i*P	**P**	**12 12 02.8**	**-0.4**
BRVK				pmax	pmax		
	comp=Z,190nm,1.1s,mb5.9						
BRVK	**Borovoye**	**76.44**	**330**	⇑*i*P	**P**	**12 12 02.8**	**-0.4**
	comp=Z,190nm,1.1s,mb5.9						
CHKZ	**Chkalovo**	**76.62**	**330**	⇑*e*P	**P**	**12 12 03.7**	**-0.5**
CHKZ				pmax	pmax		
	comp=Z,214nm,1.0s,mb6.0						
CHKZ	**Chkalovo**	**76.62**	**330**	⇑*e*P	**P**	**12 12 03.7**	**-0.5**
	comp=Z,214nm,1.0s,mb6.0						
TIXI	**Tiksi**	**79.59**	**1**	⇑*i*P	**P**	**12 12 19.0**	**-1.3**
TIXI				*e*		12 15 23.9	
TIXI				*e*S	S	12 22 22.0	+2.0
TIXI				*e*		12 22 46.5	
TIXI				*e*SP	SP	12 23 01.0	-3.5
TIXI				pmax	pmax		
	comp=Z,86nm,0.9s,mb5.7						
TIXI				MLR	MLR		
	comp=Z,287nm,20.0s,MS4.6						
TIXI	**Tiksi**	**79.59**	**1**	⇑*i*P	**P**	**12 12 19.4**	**-0.9**
SYO	**Syowa Base**	**80.85**	**201**	⇓P	**P**	**12 12 27.2**	**+0.2**
SYO	**Syowa Base**	**80.85**	**201**	⇓pP	pP	12 12 29.2	-3.2
SYO	**Syowa Base**	**80.85**	**201**	⇓PcP	PcP	12 12 35.7	+1.7
SYO	**Syowa Base**	**80.85**	**201**	⇓PP	PP	12 15 29.1	-4.5
SYO	**Syowa Base**	**80.85**	**201**	⇓PKiKP		12 17 51.1	
HON	**Honolulu**	**81.01**	**67**	*e*P	**P**	**12 12 28.3**	**-0.5**
QSPA	**South Pole Qui**	**81.91**	**180**	*e*P	**P**	**12 12 33.7**	**+1.4**
	comp=Z,196nm,0.7s,mb6.2						
QRN	**Al-Qurain**	**82.61**	**300**	*e*P	**P**	**12 12 37.6**	**+0.6**
RDF	**Al-Radifah**	**82.97**	**300**	*e*P	**P**	**12 12 39.6**	**+0.8**
RDF				AMb	AMB	12 12 41.9	
	comp=Z,202nm,1.1s,mb6.1						
UMR	**Umm Al-Rimmam**	**82.97**	**301**	*e*P	**P**	**12 12 38.9**	**+0.1**
UMR				AMb	AMB	12 12 41.6	
	comp=Z,202nm,1.4s,mb6.0						
SVE	**Sverdlovsk**	**83.14**	**330**	⇑*i*P	**P**	**12 12 39.0**	**-0.1**
SVE				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.5						
PPT	**Papeete**	**83.33**	**107**	P	**P**	**12 12 43.2**	**+2.3**
	comp=Z,78nm,0.9s,mb5.8,baz=289,slow=3.8,SNR=5.9						
RST	**Umm Al-Ruwaisa**	**83.57**	**301**	*e*P	**P**	**12 12 41.9**	**-0.1**
RST				AMb	AMB	12 12 42.8	
	comp=Z,264nm,1.4s,mb6.2						
KAMS	**Al Khamasin**	**83.83**	**291**	P	**P**	**12 12 43.5**	**0.0**
MZLS	**Mizel**	**83.98**	**295**	P	**P**	**12 12 44.3**	**+0.1**
ARU	**Arti**	**84.00**	**329**	⇑*i*P	**P**	**12 12 43.0**	**-0.5**
ARU				*e*		12 15 59.7	
ARU				*e*PPP	PPP	12 17 51.9	-2.3
ARU				*e*S	S	12 22 56.2	-9.2
ARU				*e*SS	SS	12 28 37.0	+0.3
ARU				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.5						
ARU	**Arti**	**84.00**	**329**	⇑*i*P	**P**	**12 12 42.6**	**-0.9**
	comp=Z,181nm,1.8s,mb5.9						
TATS	**Tathlith**	**84.71**	**291**	P	**P**	**12 12 48.8**	**+0.9**
AFFS	**‘Afif**	**85.94**	**295**	P	**P**	**12 12 54.5**	**+0.5**
SOKR	**Solikamsk**	**86.13**	**332**	⇓*i*P	**P**	**12 12 51.7**	**-2.3**
SOKR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.7						
BLJS	**Baljurashi**	**86.51**	**291**	P	**P**	**12 12 58.0**	**+1.2**
KMBO	**Kilima Mbogo**	**87.55**	**269**	P	**P**	**12 13 02.2**	**+0.1**
	comp=Z,15nm,1.1s,mb5.1,baz=42,slow=6.8,SNR=19						
KMBO				LR	LR	12 46 17.1	
	comp=Z,528nm,21.6s,MS4.9,baz=276,slow=32						
KMBO	**Kilima Mbogo**	**87.55**	**269**	⇑*i*P	**P**	**12 13 02.1**	**0.0**
KMBO				pmax	pmax		
	comp=Z,17nm,1.1s						
KMBO				MLR	MLR		
	comp=Z,580nm,22.0s						
KMBO	**Kilima Mbogo**	**87.55**	**269**	⇑*i*P	**P**	**12 13 02.1**	**0.0**
	comp=Z,18nm,1.1s,mb5.2						
KMBO				LR	LR		
	comp=Z,580nm,22.0s,MS5.0						
HILS	**Ha’il**	**87.64**	**298**	P	**P**	**12 13 02.9**	**+0.7**
GNI	**Garni**	**87.73**	**311**	P	**P**	**12 13 03.4**	**+1.1**
	comp=Z,16nm,0.8s,mb5.3,baz=146,slow=3.7,SNR=10						
GNI	**Garni**	**87.73**	**311**	*c* *i*P	**P**	**12 13 01.6**	**-0.7**
GNI				pmax	pmax		
	comp=Z,46nm,1.1s						
GNI	**Garni**	**87.73**	**311**	⇑*i*P	**P**	**12 13 02.7**	**+0.4**
	comp=Z,43nm,1.1s,mb5.6						
TI2	**Plekhanov**	**88.06**	**312**	⇑*i*P	**P**	**12 13 04.8**	**+0.9**
TI2				pmax	pmax		
	comp=Z,400nm,1.2s,mb6.5						
ZEI	**Tsey**	**88.90**	**313**	*i* P	**P**	**12 13 06.6**	**-1.2**
ZEI				*i*		12 16 43.2	
ZEI				pmax	pmax		
	comp=Z,81nm,1.2s,mb5.9						
KBRS	**Khaybar**	**89.60**	**296**	P	**P**	**12 13 11.7**	**+0.2**
MAIT	**Maitri**	**89.86**	**198**	*e*P	**P**	**12 13 12.9**	**+1.2**
KIV	**Kislovodsk**	**90.00**	**314**	*e*P	**P**	**12 13 12.1**	**-0.9**
KIV				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.7						
KIV				pmax	pmax		
	comp=N,17nm,0.9s						
KIV				pmax	pmax		
	comp=E,33nm,1.3s						
ERZM	**Erzurum**	**90.22**	**310**	*i* P	**P**	**12 13 14.7**	**+0.6**
ELZG	**Elazig**	**91.81**	**308**	*i* P	**P**	**12 13 21.9**	**+0.5**
MALT	**Malatya**	**92.22**	**308**	*e*P	**P**	**12 13 23.4**	**+0.1**
MALT				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.7						
MALT	**Malatya**	**92.22**	**308**	*e*P	**P**	**12 13 23.4**	**0.0**
	comp=Z,50nm,1.3s,mb5.7						
ASF	**Jabal al Asfar**	**92.59**	**302**	P	**P**	**12 13 25.5**	**+0.3**
	comp=Z,27nm,1.1s,mb5.6,baz=40,slow=1.2,SNR=17						
ASF				LR	LR	12 59 27.8	
	comp=Z,682nm,18.1s,MS5.1,baz=148,slow=38						
GZT	**Gaziantep**	**92.76**	**307**	*i* P	**P**	**12 13 26.0**	**+0.1**
JMQS	**Jabal Moqyreh**	**93.03**	**299**	P	**P**	**12 13 27.4**	**+0.1**
SNAA	**Sanae**	**93.42**	**195**	*e*	pP	12 13 34.2	+0.6
SNAA	**Sanae**	**93.42**	**195**	*e*	sP	12 13 36.2	+0.8
SNAA	**Sanae**	**93.42**	**195**	P	**P**	**12 13 29.2**	**+1.2**
	comp=Z,9.1nm,0.9s,mb5.2,baz=147,slow=3.4,SNR=32						
SNAA	**Sanae**	**93.42**	**195**	⇑*i*P	**P**	**12 13 29.2**	**+1.1**
SNAA				*e*	pP	12 13 34.2	+0.6
SNAA				*e*	pP	12 13 36.2	+2.6
AYUS	**‘Aynunah**	**93.47**	**298**	P	**P**	**12 13 29.3**	**-0.1**
VRSR	**Storozhevoye**	**93.57**	**321**	*e*P	**P**	**12 13 28.3**	**-0.9**
VRSR				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.6						
VRSR				pmax	pmax		
	comp=N,5.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
BDAS	**Al Bad‘**	**93.65**	**298**	P	**P**	**12 13 29.9**	**-0.2**
COBT	**Iskenderun**	**93.69**	**306**	*i* P	**P**	**12 13 35.5**	**+5.4**
JMOS	**Jabal al Moall**	**93.73**	**299**	P	**P**	**12 13 29.8**	**-0.7**
IMA	**Indian Mountai**	**93.83**	**24**	*e*P	**P**	**12 13 29.6**	**-0.5**
HAQS	**Haql**	**93.87**	**299**	P	**P**	**12 13 31.3**	**+0.1**
EIL	**Elat**	**93.93**	**299**	LR	LR	12 59 37.6	
	comp=E,1µm,18.6s,MS5.3,baz=108,slow=38						
EIL	**Elat**	**93.93**	**299**	*e*P	**P**	**12 13 31.0**	**-0.4**
MBAR	**Mbarara**	**94.08**	**269**	*e*P	**P**	**12 13 31.4**	**-1.1**
MBAR				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb5.1						
MBAR	**Mbarara**	**94.08**	**269**	*e*P	**P**	**12 13 31.4**	**-1.1**
	comp=Z,5.0nm,0.6s,mb5.1						
LSZ	**Lusaka**	**94.35**	**254**	⇑*e*P	**P**	**12 13 33.2**	**-0.4**
LSZ				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.4						
LSZ				MLR	MLR		
	comp=Z,493nm,20.0s,MS5.0						
LSZ	**Lusaka**	**94.35**	**254**	⇑*e*P	**P**	**12 13 33.2**	**-0.4**
	comp=Z,14nm,0.9s,mb5.4						
LSZ				LR	LR		
	comp=Z,493nm,20.0s,MS5.0						
BOSA	**Boshof**	**94.59**	**240**	*e*P	**P**	**12 13 34.5**	**0.0**
BOSA				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.7						
BOSA	**Boshof**	**94.59**	**240**	*e*P	**P**	**12 13 34.5**	**+0.1**
	comp=Z,34nm,1.1s,mb5.7						
VNA2	**Neumayer--Watz**	**95.02**	**194**	*e*	**P**	**12 13 43.5**	**+8.1**
VNA2	**Neumayer--Watz**	**95.02**	**194**	*e*	**P**	**12 13 45.1**	**+10**
VNA2	**Neumayer--Watz**	**95.02**	**194**	⇑*i*P	**P**	**12 13 38.6**	**+3.1**
VNA2				*e*	pP	12 13 43.5	+2.5
VNA2				*e*	pP	12 13 45.1	+4.1
VNA3	**Neumayer Olymp**	**95.33**	**193**	*e*	**P**	**12 13 44.6**	**+7.7**
VNA3	**Neumayer Olymp**	**95.33**	**193**	*e*	**P**	**12 13 46.1**	**+9.2**
VNA3	**Neumayer Olymp**	**95.33**	**193**	⇓*i*P	**P**	**12 13 39.5**	**+2.6**
VNA3				*e*	pP	12 13 44.6	+2.2
VNA3				*e*	pP	12 13 46.1	+3.7
MCK	**McKinley**	**95.46**	**26**	*e*P	**P**	**12 13 35.5**	**-2.1**
MCK				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.9						
MCK	**McKinley**	**95.46**	**26**	*e*P	**P**	**12 13 35.5**	**-2.1**
	comp=Z,5.2nm,1.1s,mb4.9						
OBN	**Obninsk**	**95.62**	**325**	⇑*i*P	**P**	**12 13 37.3**	**-1.3**
OBN						12 24 58.0	
OBN				*i* PS	PS	12 26 18.7	+1.2
OBN				*e*SS	SS	12 31 23.8	-0.6
OBN				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.6						
CSS	**Prodhromos**	**95.88**	**304**	*e*P	**P**	**12 13 38.8**	**-1.4**
	comp=Z,26nm,1.1s,mb5.6						
COLA	**College**	**96.06**	**25**	P	**P**	**12 13 40.7**	**+0.4**
COLA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.8						
COLA	**College**	**96.06**	**25**	P	**P**	**12 13 40.7**	**+0.4**
	comp=Z,3.2nm,0.8s,mb4.8						
BRTR	**Keskin Array B**	**96.09**	**309**	P	**P**	**12 13 39.8**	**-1.4**
	comp=Z,9.6nm,0.8s,mb5.3,baz=125,slow=5.8,SNR=31						
SIM	**Simferopol’**	**96.22**	**314**	*e*P	**P**	**12 13 46.8**	**+5.3**
SIM				*e*		12 17 40.0	
SIM				pmax	pmax		
	comp=Z,40nm,13.0s						
SIM				MLR	MLR		
	comp=Z,500nm,24.0s,MS4.9						
ILAR	**Eielson Array**	**96.46**	**26**	P	**P**	**12 13 39.8**	**-2.3**
	comp=Z,3.4nm,0.9s,mb4.8,baz=265,slow=4.6,SNR=17						
ILAR				PP	PP	12 17 31.1	-7.5
	comp=Z,8.0nm,1.1s,baz=267,slow=5.8,SNR=4.1						
ILAR				PKKP	PKKP	12 30 27.0	+4.7
	comp=Z,1.6nm,0.8s,baz=47,slow=1.5,SNR=13						
ILAR				LR	LR	12 51 28.2	
	comp=Z,182nm,22.0s,MS4.5,baz=174,slow=32						
SUR	**Sutherland**	**97.48**	**236**	P	**P**	**12 13 49.3**	**+1.8**
	comp=Z,22nm,0.9s,mb5.6,baz=99,slow=2.7,SNR=10						
SUR	**Sutherland**	**97.48**	**236**	*e*P	**P**	**12 13 48.6**	**+1.1**
SUR				LR	LR		
	comp=Z,215nm,19.0s,MS4.7						
ESKT	**Eskisehir**	**98.22**	**309**	*i* P	**P**	**12 13 49.0**	**-1.7**
AKASG	**Malin Array Be**	**99.81**	**320**	P	**P**	**12 13 56.1**	**-1.5**
	comp=Z,8.2nm,0.9s,mb5.2,baz=75,slow=4.4,SNR=31						
AKASG				PP	PP	12 17 59.9	-4.9
	comp=Z,2.7nm,0.8s,baz=72,slow=6.3,SNR=6.1						
INK	**Inuvik**	**101.72**	**22**	PKKPbc		12 30 12.3	
	comp=Z,2.9nm,0.7s,baz=93,slow=7.5,SNR=6.2						
MLR	**Muntele Rosu**	**102.01**	**315**	P	Pdif	12 14 06.6	-1.1
	comp=Z,7.6nm,1.0s,baz=99,slow=2.3,SNR=8.6						
IDI	**Anoyia**	**102.80**	**304**	P	Pdif	12 14 10.4	-1.0
	comp=Z,9.4nm,1.0s,baz=86,slow=13,SNR=2.6						
NOA	**NORSAR Array B**	**108.41**	**332**	PP	PP	12 19 10.1	+0.8
	comp=Z,3.4nm,0.9s,baz=77,slow=7.5,SNR=5.0						
DAG	**Danmarks Havn**	**108.62**	**352**	*e*P		12 18 34.0	
DAG	**Danmarks Havn**	**108.62**	**352**	*i* P		12 18 34.0	
CRES	**Cresnjev**	**109.31**	**316**	*e*PP	PP	12 19 13.1	-3.5
PDKS	**Podkum**	**109.59**	**316**	*e*PP	PP	12 19 11.9	-6.7
CLL	**Collm**	**109.93**	**322**	*e*PP	PP	12 19 16.0	-4.8
CLL				*e*PPS	PPS	12 29 51.0	+0.1
GERES	**GERESS Array B**	**109.98**	**319**	PKiKP		12 18 44.0	
	comp=Z,0.9nm,0.7s,baz=90,slow=1.3,SNR=4.9						
GERES				PP	PP	12 19 15.1	-6.1
	comp=Z,1.1nm,0.8s,baz=101,slow=6.8,SNR=5.2						
GERES				PKKPbc		12 29 46.4	
	comp=Z,0.2nm,0.3s,baz=270,slow=2.7,SNR=3.7						
GERES				PKKP	PKKP	12 29 59.9	+1.6
	comp=Z,2.0nm,0.9s,baz=252,slow=4.2,SNR=9.7						
YKA	**Yellowknife Ar**	**110.89**	**25**	Pdiff	Pdif	12 14 47.9	+1.5
	comp=Z,0.2nm,0.9s,baz=290,slow=4.3,SNR=4.1						
YKA				PKiKP		12 18 44.4	
	comp=Z,2.3nm,0.9s,baz=297,slow=2.1,SNR=21						
YKA				PP	PP	12 19 21.3	-6.0
	comp=Z,2.8nm,1.0s,baz=294,slow=6.8,SNR=12						
YKA				PKKPbc		12 29 43.2	
	comp=Z,1.7nm,0.7s,baz=108,slow=3.0,SNR=29						
YKA				PKKPab		12 29 53.9	
	comp=Z,0.7nm,0.9s,baz=112,slow=3.3,SNR=5.3						
YKA	**Yellowknife Ar**	**110.89**	**25**	P	Pdif	12 14 47.9	+1.5
YKA						12 18 44.4	
YKA						12 19 21.3	
YKA						12 29 53.9	
YKA	**Yellowknife Ar**	**110.89**	**25**	Pdif	Pdif	12 14 47.9	+1.5
YKA				PKPdf	PKPdf	12 18 44.4	-4.1
YKA				PP	PP	12 19 21.3	-6.0
YKA				PKKPbc		12 29 43.2	
YKA				PKKPab		12 29 53.9	
DAVOX	**Davos**	**112.93**	**317**	PKiKP		12 18 49.4	
	comp=Z,2.5nm,0.6s,baz=170,slow=22,SNR=3.4						
DAVOX	**Davos**	**112.93**	**317**	PKPdf	PKPdf	12 18 49.4	-3.5
CDF	**Champ du Feu**	**114.23**	**320**	*e*PKIKP	PKPdf	12 18 51.2	-4.2
PGF	**Pioggiola**	**114.46**	**313**	*e*PKIKP	PKPdf	12 18 52.2	-3.8
HINF	**Hinteralfeld**	**114.66**	**319**	*e*PKIKP	PKPdf	12 18 52.1	-4.1
	comp=Z,7.0nm,0.8s						
HAU	**Haudompre**	**114.94**	**319**	*e*PKIKP	PKPdf	12 18 52.9	-3.9
HAU				*e*R			
	comp=Z,226nm,20.8s						
GIVF	**Givet**	**115.26**	**322**	*e*PKIKP	PKPdf	12 18 53.7	-3.7
SBF	**Sospel**	**115.28**	**315**	*e*PKIKP	PKPdf	12 18 53.4	-4.2
	comp=Z,18nm,0.7s						
LPG	**La Plagne**	**115.35**	**317**	*e*PKIKP	PKPdf	12 18 54.3	-3.4
LPL	**La Plagne**	**115.36**	**317**	*e*PKIKP	PKPdf	12 18 54.2	-3.5
	comp=Z,14nm,1.1s						
CABF	**La Chapelle**	**115.50**	**318**	*e*PKIKP	PKPdf	12 18 54.5	-3.5
	comp=Z,18nm,0.9s						
MBDF	**Montbardon**	**115.53**	**316**	*e*PKIKP	PKPdf	12 18 54.8	-3.3
	comp=Z,12nm,1.0s						
BAIF	**Baives**	**115.65**	**322**	*e*PKIKP	PKPdf	12 18 54.6	-3.6
	comp=Z,16nm,1.0s						
NVAR	**Mina Array Bea**	**115.88**	**51**	PKiKP		12 18 55.2	
	comp=Z,0.8nm,0.8s,baz=130,slow=0.1,SNR=5.7						
NVAR				PKKPbc		12 29 29.5	
	comp=Z,1.3nm,0.8s,baz=114,slow=3.6,SNR=8.1						
NVAR	**Mina Array Bea**	**115.88**	**51**	PKPdf	PKPdf	12 18 55.2	-3.7
NVAR				PKKPbc		12 29 29.5	
FRF	**La Foret Royal**	**115.91**	**315**	*e*PKIKP	PKPdf	12 18 55.1	-3.8
LMR	**La Mourre**	**116.06**	**314**	*e*PKIKP	PKPdf	12 18 55.2	-4.0
	comp=Z,21nm,1.0s						
ORIF	**Oris-en-Rattie**	**116.10**	**316**	*e*PKIKP	PKPdf	12 18 55.0	-4.2
	comp=Z,10nm,0.8s						
ORIF				*e*R			
	comp=Z,254nm,22.8s						
VIVF	**Saint-Julien-l**	**116.94**	**316**	*e*PKIKP	PKPdf	12 18 57.1	-3.7
	comp=Z,14nm,1.0s						
SMF	**Signal de Mont**	**116.97**	**319**	*e*PKIKP	PKPdf	12 18 56.9	-3.9
SSF	**Saint Saulge**	**117.06**	**319**	*e*PKIKP	PKPdf	12 18 57.3	-3.7
	comp=Z,24nm,0.9s						
AVF	**Avril sur Loir**	**117.24**	**319**	*e*PKIKP	PKPdf	12 18 57.2	-4.1
	comp=Z,12nm,1.0s						
HLID	**Hailey**	**117.56**	**45**	*e*PKPdf	PKPdf	12 18 59.5	-2.5
EKA	**Eskdalemuir Ar**	**117.62**	**330**	PKP	PKPdf	12 18 54.9	-6.9
	comp=Z,1.8nm,0.8s,baz=229,slow=15,SNR=3.0						
BGF	**Bois d’Agland**	**117.65**	**319**	*e*PKIKP	PKPdf	12 18 58.6	-3.5
	comp=Z,68nm,1.2s						
ELK	**Elko**	**117.70**	**48**	*e*PKIKP	PKPdf	12 18 59.5	-2.8
LASF	**Ste Croix**	**117.72**	**316**	*e*PKIKP	PKPdf	12 18 58.7	-3.6
	comp=Z,36nm,1.2s						
TCF	**Toulx Ste Croi**	**118.15**	**319**	*e*PKIKP	PKPdf	12 18 59.5	-3.6
	comp=Z,28nm,1.2s						
PFO	**Pinyon Flat Ob**	**118.20**	**56**	*e*PKIKP	PKPdf	12 18 59.4	-4.1
MCMT	**McKenzie Canyo**	**118.27**	**43**	*e*PKPdf	PKPdf	12 18 59.6	-3.7
CAF	**Calviac**	**118.69**	**317**	*e*PKIKP	PKPdf	12 19 00.9	-3.3
	comp=Z,40nm,1.2s						
LDF	**La Druitiere**	**118.81**	**322**	*e*PKIKP	PKPdf	12 19 00.4	-4.0
	comp=Z,30nm,1.1s						
BOZ	**Bozeman (W)**	**118.82**	**42**	*e*PKIKP	PKPdf	12 19 01.7	-2.8
RJF	**Les Rejaudoux**	**118.93**	**318**	*e*PKIKP	PKPdf	12 19 01.3	-3.4
	comp=Z,20nm,1.1s						
RJF				*e*R			
	comp=Z,157nm,22.2s						
FLN	**La Foliniere**	**118.97**	**322**	*e*PKIKP	PKPdf	12 19 00.7	-4.0
FLN				*e*R			
	comp=Z,238nm,23.0s						
MTLF	**Montolieu**	**119.07**	**315**	*e*PKIKP	PKPdf	12 19 01.0	-4.0
	comp=Z,14nm,1.0s						
NEN	**Nelson**	**119.13**	**54**	*e*PKPdf	PKPdf	12 19 02.0	-3.2
GRR	**Gorron**	**119.35**	**322**	*e*PKIKP	PKPdf	12 19 01.5	-3.8
MFF	**Saint Martin d**	**119.57**	**320**	*e*PKIKP	PKPdf	12 19 01.9	-3.9
	comp=Z,27nm,1.0s						
LFF	**La Frestale**	**119.57**	**318**	*e*PKIKP	PKPdf	12 19 02.5	-3.3
	comp=Z,25nm,0.9s						
TPAW	**Teton Pass**	**119.99**	**44**	*e*PKPdf	PKPdf	12 19 03.7	-3.0
REDW	**Red Top Meadow**	**120.10**	**44**	*e*PKPdf	PKPdf	12 19 03.1	-3.8
SNOW	**Snow King Moun**	**120.13**	**44**	*e*PKPdf	PKPdf	12 19 04.5	-2.5
LOHW	**Long Hollow**	**120.19**	**44**	*e*PKPdf	PKPdf	12 19 03.9	-3.2
SGMF	**Saint Gilles**	**120.44**	**322**	*e*PKIKP	PKPdf	12 19 04.2	-3.3
	comp=Z,10nm,0.9s						
EPF	**Esparros**	**120.47**	**316**	*e*PKIKP	PKPdf	12 19 04.0	-3.7
	comp=Z,8.5nm,0.9s						
MSU	**Marysvale**	**120.55**	**50**	*e*PKIKP	PKPdf	12 19 05.6	-2.4
ROSF	**Rostrenen**	**120.84**	**322**	*e*PKIKP	PKPdf	12 19 04.1	-4.2
QUIF	**Quistinic**	**120.95**	**322**	*e*PKIKP	PKPdf	12 19 04.6	-3.9
ETSF	**Etsaut**	**121.14**	**316**	*e*PKIKP	PKPdf	12 19 06.0	-3.0
	comp=Z,18nm,1.0s						
BW06	**Boulder Array**	**121.19**	**44**	*e*PKPdf	PKPdf	12 19 05.2	-3.9
PDAR	**Pinedale Array**	**121.19**	**44**	PKP	PKPdf	12 19 05.6	-3.5
	comp=Z,3.0nm,0.9s,baz=300,slow=1.3,SNR=13						
PDAR				PKKPbc		12 29 08.0	
	comp=Z,1.6nm,0.7s,baz=111,slow=6.3,SNR=15						
SJPF	**Ste Jean**	**121.53**	**316**	*e*PKIKP	PKPdf	12 19 06.7	-3.1
	comp=Z,23nm,1.1s						
LAO	**LASA Array**	**121.92**	**39**	*e*PKPdf	PKPdf	12 19 07.2	-3.2
DGMT	**Dagmar**	**122.36**	**37**	*e*PKPdf	PKPdf	12 19 07.4	-3.8
PV10	**Paradox Valley**	**122.95**	**49**	*e*PKPdf	PKPdf	12 19 10.1	-2.5
TUC	**Tucson**	**123.12**	**57**	*e*PKIKP	PKPdf	12 19 10.0	-3.0
PV01	**Paradox Valley**	**123.38**	**49**	*e*PKPdf	PKPdf	12 19 10.6	-2.8
ESDC	**Sonseca Array**	**124.66**	**313**	PKP	PKPdf	12 19 12.5	-3.5
	comp=Z,3.5nm,0.9s,baz=60,slow=2.4,SNR=10						
ISCO	**Idaho Springs**	**125.00**	**47**	*e*PKIKP	PKPdf	12 19 13.2	-3.4
PBRG	**Braganca**	**125.80**	**316**	*e*PKPdf	PKPdf	12 19 14.4	-3.7
SDCO	**Great Sand Dun**	**125.80**	**49**	*e*PKPdf	PKPdf	12 19 15.1	-3.0
ANMO	**Albuquerque**	**125.95**	**52**	*i* PKIKP	PKPdf	12 19 15.8	-2.7
ANMO	**Albuquerque**	**125.95**	**52**	*e*PKPdf	PKPdf	12 19 15.7	-2.9
ULM	**Lac du Bonnet**	**126.02**	**31**	PKP	PKPdf	12 19 13.6	-4.6
	comp=Z,6.7nm,0.8s,baz=314,slow=2.5,SNR=8.4						
BNM	**Barren Site**	**126.04**	**53**	*e*PKPdf	PKPdf	12 19 16.0	-2.7
PCBR	**Castelo Branco**	**127.11**	**315**	*e*PKPdf	PKPdf	12 19 18.2	-2.4
TXAR	**Lajitas Array**	**129.77**	**58**	PKP	PKPdf	12 19 22.4	-3.6
	comp=Z,1.1nm,0.8s,baz=288,slow=4.0,SNR=3.5						
TXAR	**Lajitas Array**	**129.77**	**58**	PKP	PKPdf	12 19 22.4	-3.6

DBIC	Dimbokro	130.22	272	PKP	PKPdf	12 19 24.4	-2.8
	comp=Z,4.2nm,0.7s,baz=141,slow=4.6,SNR=9.9						
WMOK	Wichita Mounta	131.95	50	ePKIKP	PKPdf	12 19 25.3	-4.8
SCHQ	Schefferville	132.43	9	PKP	PKPdf	12 19 27.2	-3.2
	comp=Z,7.8nm,0.8s,baz=338,slow=3.1,SNR=6.7						
JCT	Junction City	132.66	56	ePKIKP	PKPdf	12 19 28.8	-2.7
WVT	Waverly	139.11	42	ePKHKP		12 19 30.9	
BINY	Binghamton	141.32	25	ePKPdf	PKPdf	12 19 42.3	-4.7
JSC	Jenkinsville	144.48	39	ePKIKP	PKPdf	12 19 47.2	-5.5
COW	Cow Castle Cre	145.42	40	ePKPdf	PKPdf	12 19 51.0	-3.3
TEIG	Tepich	145.68	66	PKPbc	PKPbc	12 19 52.2	+0.1
	comp=Z,17nm,0.9s,baz=252,slow=8.3,SNR=16						
TEIG	Tepich	145.68	66	ePKPdf	PKPdf	12 19 52.2	-3.0
LVC	Limon Verde	146.62	156	PKPbc	PKPbc	12 19 56.5	+2.2
	comp=Z,43nm,0.7s,baz=236,slow=2.8,SNR=55						
LVC	Limon Verde	146.62	156	ePKPbc	PKPbc	12 19 56.6	+2.3
MOCB	Mochara	149.06	161	ePKPdf	PKPdf	12 19 59.6	-1.1
ARE	Arequipa	150.70	146	eP	PKPdf	12 20 08.0	+4.7
LPAZ	La Paz	152.56	152	PKP	PKPdf	12 20 05.3	-0.8
	comp=Z,4.8nm,0.9s,baz=111,slow=2.8,SNR=15						
LPAZ				PKPbc	PKPdf	12 20 11.7	+5.6
	comp=Z,20nm,0.9s,baz=185,slow=0.7,SNR=32						
LPAZ				PKPab	PKPab	12 20 22.6	+0.5
	comp=Z,34nm,0.8s,baz=208,slow=5.4,SNR=19						
LPAZ				PP	PP	12 23 54.6	-1.1
	comp=Z,5.3nm,1.2s,baz=227,slow=4.2,SNR=4.1						
LPAZ	La Paz	152.56	152	PKPdf	PKPdf	12 20 04.6	-1.4
LPAZ				pPKPdf		12 20 11.6	
LPAZ				PKPab	PKPab	12 20 23.2	+1.1
LPAZ				PP	PP	12 23 54.2	-1.5
LPAZ	La Paz	152.56	152	ePKIKP	PKPdf	12 20 04.8	-1.3
LPAZ				e		12 20 11.5	
LPAZ				e		12 23 53.8	
LPAZ	La Paz	152.56	152	ePKPdf	PKPdf	12 20 04.8	-1.3
LPAZ				ePKPbc	PKPdf	12 20 11.5	+5.5
LPAZ				ePKPab	PKPab	12 20 22.6	+0.4
LPAZ				ePP	PP	12 23 53.8	-1.9
OTAV	Otavalo	155.42	107	ePKPdf	PKPdf	12 20 08.5	-1.6
OTAV				ePKPab	PKPab	12 20 35.2	+0.8
BAO	Brasilia Array	155.43	197	P	PKPdf	12 20 07.1	-2.8
BAO				e		12 20 33.0	
BAO				P		12 20 33.2	
BDFB	Brasilia	155.43	197	PKP	PKPdf	12 20 07.2	-2.8
	comp=Z,4.0nm,0.8s,baz=169,slow=4.8,SNR=4.5						
BDFB				PKPab	PKPab	12 20 34.0	-0.3
	comp=Z,7.8nm,0.8s,baz=164,slow=4.7,SNR=4.9						
BDFB				PP	PP	12 24 08.8	-3.1
	comp=Z,7.7nm,0.9s,baz=212,slow=2.9,SNR=4.4						
SAML	Samuel	161.25	154	ePKPdf	PKPdf	12 20 14.6	-2.5
SAML				ePKPab	PKPab	12 20 58.3	-1.1
SDV	Santo Domingo	164.57	86	ePKPdf	PKPdf	12 20 16.9	-3.5
SDV				ePKPab	PKPab	12 21 13.4	-0.5

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*NEIC **13** 12:21:19.4±0.2, 59.26N×152.88W, h100^{km}±2^{km}, Error ellipse: s-maj=3.1km s-min=1.9km az=131.0*

*IDC **13** 12:21:22.9±6.1, 59.63N×152.94W, h116^{km}±61^{km}, mb3.2/1, mb1 3.6/6, mb1mx3.3/22, Error ellipse: s-maj=50.5km s-min=26.3km az=45.0*

ISC 13 12:21:18.3±0.4**, 59.27N**±0.03×**152.87W**±0.08**, h107**^{km}±4^{km}**, n77, σ0^{s}59**/84**, mb3.6**/1**, Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUE	Augustine Isla	0.27	289	P	P	12 21 34.0	+0.3
AUI	Augustine Isla	0.29	283	P	P	12 21 33.9	+0.1
AUI				S	S	12 21 43.9	-1.4
AUH	Augustine H	0.31	288	P	P	12 21 34.2	+0.3
AUL	Augustine Lava	0.31	291	P	P	12 21 34.3	+0.4
AUL				S	S	12 21 44.7	-0.8
AUW	Augustine West	0.33	288	P	P	12 21 34.2	+0.3
OPT	Oil Point	0.42	334	P	P	12 21 34.7	+0.3
ILS	Iliamna Low So	0.70	352	P	P	12 21 36.6	+0.2
ILS				S	S	12 21 49.3	-0.8
SYI	Shuyak Island	0.71	159	P	P	12 21 37.0	+0.4
IVS	Iliamna South	0.75	352	P	P	12 21 37.4	+0.4
IVS				S	S	12 21 50.4	-0.6
IVE	Iliamna Volcan	0.75	354	P	P	12 21 37.1	+0.1
IVE				S	S	12 21 50.2	-0.8
MCNL	McNeil River	0.76	264	P	P	12 21 37.0	-0.1
INE	Iliamna NE	0.80	353	P	P	12 21 37.6	+0.2
ILW	Iliamna West	0.80	350	P	P	12 21 37.7	+0.2
ILIM	Iliamna	0.81	357	P	P	12 21 37.7	+0.1
CNPM	China Poot	0.87	72	P	P	12 21 39.0	+0.8
KAPH	Katmai Pasha	1.02	229	P	P	12 21 39.9	+0.2
KAPH				S	S	12 21 54.9	-1.0
BRLK	Bradley Lake	1.12	63	P	P	12 21 41.8	+0.8
RSO	Redoubt South	1.20	3	P	P	12 21 42.3	+0.5
REF	Redoubt East F	1.23	4	P	P	12 21 42.5	+0.4
RDN	Redoubt North	1.25	2	P	P	12 21 42.8	+0.4
KAHC	Katmai Hardscr	1.27	242	P	P	12 21 42.5	-0.1
NCT	North Crescent	1.29	359	P	P	12 21 43.2	+0.3
RDT	Redoubt	1.33	10	P	P	12 21 43.6	+0.3
DFR	Drift River	1.33	4	P	P	12 21 43.7	+0.4
KAWH	Katmai	1.34	229	P	P	12 21 43.4	0.0
KAIC	Katmai Ikaglui	1.38	236	P	P	12 21 43.9	0.0
KDAK	Kodiak Island	1.50	174	P	P	12 21 44.9	-0.5
MGLS	Mageik LS	1.67	231	P	P	12 21 47.4	0.0
CAHL	Cahill	1.76	227	P	P	12 21 48.8	+0.1
SLKM	Skilak Lake	1.82	46	P	P	12 21 49.9	+0.5
CNTC	Contact Creek	1.87	239	P	P	12 21 50.2	+0.3
KJL	Kejulik	1.87	230	P	P	12 21 50.6	+0.7
SEW	Seward	1.92	63	P	P	12 21 51.1	+0.5
CKN	Chakachatna No	1.99	10	P	P	12 21 52.3	+0.8
BGL	Barrier Glacie	2.01	7	P	P	12 21 52.7	+1.0
CP2	Crater Peak Tw	2.02	9	P	P	12 21 52.9	+1.0
CRP	Crater Peak	2.03	10	P	P	12 21 53.0	+1.0
CGLM	Capps Glacier	2.09	11	P	P	12 21 53.6	+0.8
STLK	Strandline Lak	2.29	12	P	P	12 21 56.2	+0.6
FIB	Fire Island	2.33	34	P	P	12 21 57.5	+1.5
RC01	Rabbit Creek A	2.40	39	P	P	12 21 57.4	+0.3
PWL	Port Wells	2.77	53	P	P	12 22 02.2	+0.1
PMR	Palmer	2.98	37	P	P	12 22 04.3	-0.6
KNK	Knik Glacier	3.07	44	P	P	12 22 05.9	-0.3
GHO	Glory Hole Cre	3.18	36	P	P	12 22 07.2	-0.4
GLI	Glacier Island	3.31	58	P	P	12 22 08.4	-1.0
SML	Sawmill	3.39	39	P	P	12 22 10.1	-0.4
CUT	Chulitna	3.39	21	P	P	12 22 10.6	0.0
FID	Port Fidalgo	3.53	62	P	P	12 22 11.5	-1.0
JPK	Jack Peak	3.61	58	P	P	12 22 13.3	-0.1
SCM	Sheep Creek Mo	3.75	44	P	P	12 22 15.2	-0.2
VLZ	Valdez	3.76	57	P	P	12 22 15.2	-0.2
EYAK	Cordova Ski Ar	3.81	67	P	P	12 22 15.7	-0.4
TT01	Tatalina	3.96	339	P	P	12 22 17.5	-0.7
DIV	Divide	4.00	59	P	P	12 22 18.8	0.0
TRF	Thorofare Moun	4.37	15	P	P	12 22 23.8	-0.1
KTH	Kantishna Hill	4.40	11	P	P	12 22 24.5	+0.3
TZL	Tazlina	4.60	50	P	P	12 22 27.2	+0.2
MCK	McKinley	4.86	21	P	P	12 22 30.4	0.0
GLB	Gilahina Butte	5.00	60	P	P	12 22 32.1	-0.3
PAX	Paxson	5.16	41	P	P	12 22 34.6	+0.1
BWN	Browne	5.18	17	P	P	12 22 34.7	-0.1
THY	Trims Highway	5.39	36	eP	P	12 22 37.6	0.0
BALM	Baldy	5.55	67	P	P	12 22 39.8	0.0
CCB	Clear Creek Bu	5.90	22	P	P	12 22 43.3	-1.2
COLA	College	6.09	21	P	P	12 22 46.3	-1.0
ILAR	Eielson Array	6.19	24	P	P	12 22 47.6	-1.0
	1.1nm,0.3s,baz=210,slow=14,SNR=60						
ILAR				S	S	12 23 54.0	-4.6
	1.4nm,0.3s,baz=212,slow=23,SNR=8.7						
IL1	Eielson Array	6.19	24	P	P	12 22 47.6	-1.0
IMA	Indian Mountai	6.83	357	eP	P	12 22 57.6	+0.2
PNL	Peninsula	6.88	81	P	P	12 22 57.7	-0.4
BM3	Burnt Mountain	8.97	21	P	P	12 23 25.0	-1.4
DLBC	Dease Lake	11.84	84	P	P	12 24 08.3	+3.7
	0.5nm,0.3s,baz=337,slow=8.8,SNR=31						
DLBC	Dease Lake	11.84	84	P	P	12 24 08.3	+3.7
INK	Inuvik	12.39	35	P	P	12 24 11.8	0.0
	0.1nm,0.3s,baz=243,slow=13,SNR=5.8						
BBB	Bella Bella	15.58	106	P	P	12 24 57.5	+4.9
	0.2nm,0.3s,baz=180,slow=8.1,SNR=1.9						
YKA	Yellowknife Ar	18.70	64	P	P	12 25 30.5	+0.1
	0.1nm,0.3s,baz=277,slow=9.9,SNR=16						
SONM	Songino Array	55.28	306	P	P	12 30 42.1	-0.2
	0.5nm,0.7s,mb3.6,baz=37,slow=6.2,SNR=3.9						

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*IDC **13** 12:44:30.9±52.0, 21.59S×175.19E, mb4.1/3, mb1 4.3/3, mb1mx3.8/12, Error ellipse: s-maj=903.0km s-min=133.7km az=82.0*

ISC 13 12:45:13.9±3.8**, 22.7S**±0.8×**170.4E**±0.3**, h48**^{km}±36^{km}**, n5, σ0^{s}46**/7**, mb4.0**/3**, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.74	279	eP	P	12 46 10.5	-0.2
DZM				eS	S	12 46 53.3	-0.6
NOUC	Port Laguerre	3.86	278	eP	P	12 46 12.5	+0.2
NOUC				eS	S	12 46 57.5	+0.5
STKA	Stephens Creek	27.15	244	P	P	12 50 54.6	-0.1
	1.8nm,0.8s,mb3.7,baz=68,slow=11,SNR=3.9						
ASAR	Alice Springs	33.54	261	P	P	12 51 51.6	+0.2
	11nm,1.3s,mb4.6,baz=91,slow=9.3,SNR=46						
WRA	Warramunga Arr	33.68	268	P	P	12 51 52.5	-0.1
	0.7nm,0.6s,mb3.8,baz=98,slow=8.5,SNR=9.7						

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*NEIC **13** 13:02:00.2, 32.70S×71.47W, h24^{km}, ML2.5(GUC), After GUC.*

GUC 13 13:02:00.2±0.6**, 32.70S×71.47W, h24**^{km}±5^{km}**, MD3.6, ML2.5, 1C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACH	Papudo	0.17	8	⇑iP	Pb	13 02 05.6	+0.2
PACH				iS	Sb	13 02 09.5	+0.6
ROCH	El Roble	0.47	125	⇓iP	Pb	13 02 10.1	+0.2
ROCH				iS	Sb	13 02 17.5	+1.1
JACH	Jahuel	0.74	89	⇓iP	Pb	13 02 14.1	-0.2
JACH				iS	Sb	13 02 24.7	+0.8
PEL	Peldehue	0.79	124	eP	Pb	13 02 14.7	-0.5
PEL				AMP		13 02 27.4	
	comp=N,618nm,0.4s						
RCDM	Rinconada Maip	0.96	145	eP	Pb	13 02 17.4	-0.7
RCDM				iS	Sb	13 02 30.2	-0.2
RCDM				AMP		13 02 31.1	
	comp=E,227nm,0.2s						
CLCH	Cerro Calan	1.04	132	eP	Pn	13 02 18.8	-0.6
CLCH				iS	Sb	13 02 33.2	+0.5
CLCH				AMP		13 02 34.1	
	comp=E,194nm,0.3s						
TACH	Talagante	1.05	155	eP	Pn	13 02 18.6	-0.9
FCH	Farellones	1.17	123	eP	Pn	13 02 21.0	-0.2
FCH				iS	Sb	13 02 37.1	+0.8
FCH				AMP		13 02 37.7	
	comp=N,183nm,0.2s						
PCH	Pirque	1.22	139	eP	Pn	13 02 21.3	-0.6
LNV	Longovilo	1.25	178	iP	Pn	13 02 21.8	-0.6
CHCH	Chadas Angostu	1.40	151	eP	Pn	13 02 24.8	+0.2
CHCH				iS	Sn	13 02 43.3	+0.8
CICH	Cipreses	1.83	152	iP	Pn	13 02 31.6	+0.9

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*NEIC **13** 13:13:34.2, 15.14N×93.87W, h16^{km}, MD4.2(MEX), After MEX.*

MEX 13 13:13:34.0±0.9**, 15.16N×93.88W, h16**^{km}±73^{km}**, MD4.2, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCX	San Cristobal	1.97	37	iP	Pn	13 14 04.2	-3.0
SCX				iS	Sn	13 14 28.5	-3.3
SCX	San Cristobal	1.97	37	iP	Pn	13 14 04.2	-3.0
SCX				iS	Sn	13 14 28.2	-3.6
CCIG	Comitan	2.02	56	iP	Pn	13 14 03.5	-4.4
CCIG				iS	Sn	13 14 27.4	-5.5
CCIG	Comitan	2.02	56	iP	Pn	13 14 03.6	-4.2
CCIG				iS	Sn	13 14 27.4	-5.5
CMIG	Matias Romero	2.15	333	iP	Pn	13 14 07.0	-2.9
CMIG				iS	Sn	13 14 30.6	-5.7
HUIG	Huatulco	2.23	286	iP	Pn	13 14 07.3	-3.7
HUIG				iS	Sn	13 14 32.4	-6.1
OXX	Oaxaca	3.34	305	eP	Pn	13 14 24.0	-2.7
OXX				iS	Sn	13 15 02.0	-4.4
TEIG	Tepich	7.34	46	ePn	Pn	13 15 15.4	-7.9
	8.4nm,0.3s						

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*STR **13** 13:17:11.6±0.4, 44.34N×7.44E, h10^{km}±1^{km}, Ml1.8, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 13 13:17:10.4±0.1**, 44.42N×7.47E, h2**^{km}**, Md2.2**/3**, Ml2.1**/7**, Error ellipse: s-maj=2.5km s-min=1.2km az=70.0, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUTN	L'Aution	0.43	184	Pg	Pg	13 17 18.8	-0.1
AUTN				Sg	Sg	13 17 24.5	-0.1
TOUF	Mont Tournerai	0.44	201	Pg	Pg	13 17 18.7	-0.4
TOUF				Sg	Sg	13 17 24.1	-0.9
SAOF	Saorge	0.44	172	Pg	Pg	13 17 19.2	0.0
SBF	Sospel	0.56	182	ePg	Pg	13 17 21.5	-0.1
SBF				eSg	Sg	13 17 27.7	-1.3
	7.7nm,0.2s						
MVIF	Mont Vial	0.57	203	Pg	Pg	13 17 21.4	-0.4
MVIF				Sg	Sg	13 17 28.4	-1.1
MBDF	Montbardon	0.58	302	ePg	Pg	13 17 21.6	-0.5
MBDF				eSg	Sg	13 17 29.4	-0.5
	9.0nm,0.2s						
CALN	Calern	0.79	212	Pg	Pg	13 17 25.5	-0.6
FRF	La Foret Royal	1.04	215	ePg	Pg	13 17 29.6	-1.7
FRF				eSg	Sg	13 17 44.0	-1.2
	5.5nm,0.2s						
LPG	La Plagne	1.19	335	ePg	Pg	13 17 32.3	-1.9
LPG				eSg	Sg	13 17 47.6	-2.4
	2.2nm,0.2s						
LPL	La Plagne	1.21	335	ePg	Pg	13 17 33.6	-1.0
LPL				eSg	Sg	13 17 48.4	-2.4
	1.4nm,0.3s						
ORIF	Oris-en-Rattie	1.24	294	ePg	Pg	13 17 33.7	-1.4
ORIF				eSg	Sg	13 17 49.3	-2.3
	1.8nm,0.3s						
LMR	La Mourre	1.29	213	ePg	Pg	13 17 34.4	-1.7
LMR				eSg	Sg	13 17 50.9	-2.4
	8.0nm,0.2s						
SMRF	Simiane la Rot	1.43	253	ePg	Pg	13 17 37.3	-1.7
SMRF				eSg	Sg	13 17 56.3	-1.8
	4.4nm,0.3s						
PGF	Pioggiola	2.18	149	ePn	Pn	13 17 45.9	-2.2
PGF				eSn	Sn	13 18 11.4	-4.7
	1.0nm,0.2s						

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*BER **13** 14:01:00.4±1.9, 59.34N×10.37E, ML2.3(NAO), Suspected explosion*

NAO 13 14:00:59.0±6.1**, 59.40N×10.29E, h8**^{km}±35^{km}**, ML2.3, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NC6	NORSAR Subarra	1.47	23	Pn	Pn	14 01 25.9	0.0
NC6				Lg		14 01 46.9	
HFS	Hagfors	1.87	65	Pn	Pn	14 01 32.3	+0.6
	baz=250,slow=18						
HFS				Sn	Sn	14 01 55.1	-0.7
	baz=235,slow=22						
HFS				Lg		14 01 57.3	
	baz=247,slow=37						
SPA0	Spitsbergen Ar	18.97	4	P	P	14 05 20.0	-2.6
	baz=199,slow=18						

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*NEIC **13** 14:09:06.7, 40.96S×174.61E, h40^{km}, ML3.8(WEL), After WEL.*

WEL 13 14:09:06.6±0.1**, 40.96S×174.60E, h42**^{km}±1^{km}**, ML3.7**/7**, 3C-4D, Error ellipse: s-maj=0.9km s-min=0.7km az=90.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIW	Kapiti Island	0.25	68	P	P	14 09 14.1	-0.5
KIW				S	S	14 09 19.9	-0.3
KIW	Kapiti Island	0.25	68	⇓P*	P	14 09 14.1	-0.6
KIW				S*	S	14 09 19.9	-0.2
MRW	Makara Radio	0.28	165	P	P	14 09 14.6	-0.4
MRW				S	S	14 09 20.8	+0.1
MRW	Makara Radio	0.28	165	⇓P*	P	14 09 14.6	-0.4
MRW				S*	S	14 09 20.8	+0.1
WEL	Wellington	0.35	159	P	P	14 09 15.4	-0.3
WEL	Wellington	0.35	159	P*	P	14 09 15.4	-0.2
WEL				S*	S	14 09 22.4	+0.4
CAW	Cannon Point	0.39	114	P	P	14 09 15.8	-0.2
CAW	Cannon Point	0.39	114	⇓P*	P	14 09 15.8	-0.2
CAW				eS*	S	14 09 23.4	+0.8
BHW	Baring Head	0.50	156	P	P	14 09 17.2	-0.2
BHW				S	S	14 09 25.5	+0.4
BHW	Baring Head	0.50	156	P*	P	14 09 17.2	-0.2
BHW				S*	S	14 09 25.6	+0.6
MSWZ	Moikau Station	0.67	133	P	P	14 09 19.6	-0.1
MSWZ				S	S	14 09 30.5	+1.2
MSWZ	Moikau Station	0.67	133	P*	P	14 09 19.6	-0.2
MSWZ				S*	S	14 09 29.9	+0.5
TUWZ	Tuamarina	0.69	226	⇑P*	P	14 09 19.1	-0.8
TUWZ				S*	S	14 09 28.9	-0.8
MTW	Mount Morrison	0.71	107	P	P	14 09 19.9	-0.4
MTW	Mount Morrison	0.71	107	⇑P*	P	14 09 19.9	-0.4
MTW				S*	S	14 09 30.5	+0.2
PAWZ	Paruwai Farm	0.76	125	P*	P	14 09 20.5	-0.4
PAWZ				eS*	S	14 09 32.0	+0.6
MRZ	Mangatainoka R	0.80	69	P*	P	14 09 21.1	-0.4
MRZ				S*	S	14 09 32.8	+0.4
CMWZ	Cape Campbell	0.84	200	P	P	14 09 22.9	+0.7
CMWZ	Cape Campbell	0.84	200	PN	P	14 09 22.8	+0.6
CMWZ				S*	S	14 09 34.9	+1.3
BSWZ	Blackbirch Sta	0.94	216	P	P	14 09 23.1	-0.4
BSWZ	Blackbirch Sta	0.94	216	PN	P	14 09 23.1	-0.3
BSWZ				eS*	S	14 09 35.5	-0.4
NNZ	Nelson	0.96	254	P	P	14 09 22.9	-0.9
NNZ	Nelson	0.96	254	⇑PN	P	14 09 22.9	-0.9
NNZ				SN	S	14 09 36.4	-0.1
WAZ	Wanganui	1.23	14	P	P	14 09 27.6	-0.1
WAZ	Wanganui	1.23	14	PN	P	14 09 27.5	-0.1
BFZ	Birch Farm	1.28	78	P	P	14 09 27.3	-1.0
TSZ	Takapari Road	1.37	50	P	P	14 09 28.4	-1.3
TSZ	Takapari Road	1.37	50	PN	P	14 09 28.4	-1.3
THZ	Tophouse	1.51	237	eP	P	14 09 30.8	-0.9
THZ	Tophouse	1.51	237	PN	P	14 09 30.7	-1.0
QRZ	Quartz Range	1.58	274	P	P	14 09 31.5	-1.1
QRZ	Quartz Range	1.58	274	PN	P	14 09 31.5	-1.2
QRZ				SN	S	14 09 51.0	-1.0
KHZ	Kahutara	1.66	208	eP	P	14 09 32.5	-1.4
KHZ	Kahutara	1.66	208	PN	P	14 09 32.5	-1.4
DFE	Dawson Falls	1.67	347	P	P	14 09 34.0	0.0
DFE	Dawson Falls	1.67	347	PN	P	14 09 33.9	0.0
RAEZ	Rainy Point	1.67	354	P	P	14 09 33.5	-0.5
RAEZ	Rainy Point	1.67	354	PN	P	14 09 33.7	-0.3
MOVZ	Moawhango	1.78	30	PN	P	14 09 34.0	-1.5
VRZ	Vera Road	1.83	4	P	P	14 09 36.0	-0.2
VRZ	Vera Road	1.83	4	PN	P	14 09 35.8	-0.5
TUVZ	Tukino	1.87	26	P	P	14 09 36.2	-0.5
TUVZ	Tukino	1.87	26	PN	P	14 09 36.2	-0.5
WPVZ	Whakapapa	1.89	23	P	P	14 09 36.6	-0.5
WPVZ	Whakapapa	1.89	23	ePN	P	14 09 36.7	-0.4
CNZ	Chateau	1.90	23	P	P	14 09 36.7	-0.5
CNZ	Chateau	1.90	23	PN	P	14 09 36.6	-0.6
NGZ	Ngauruhoe	1.94	24	P	P	14 09 37.1	-0.6
NGZ	Ngauruhoe	1.94	24	PN	P	14 09 37.1	-0.6
TWVZ	Taurewa	1.99	19	P	P	14 09 37.6	-0.8
TWVZ	Taurewa	1.99	19	ePN	P	14 09 37.6	-0.9
WTVZ	West Tongariro	1.99	23	ePN	P	14 09 37.7	-0.7
DSZ	Denniston Nort	2.25	249	eP	P	14 09 40.6	-1.6
DSZ	Denniston Nort	2.25	249	PN	P	14 09 40.5	-1.7
BKZ	Black Stump Fm	2.30	40	eP	P	14 09 40.4	-2.5
BKZ	Black Stump Fm	2.30	40	PN	P	14 09 40.4	-2.6
HIZ	Hauiti	2.44	5	eP	P	14 09 44.3	-0.7
HIZ	Hauiti	2.44	5	⇓PN	P	14 09 44.3	-0.7
LTZ	Lake Taylor	2.52	223	eP	P	14 09 43.9	-2.2
LTZ	Lake Taylor	2.52	223	ePN	P	14 09 43.9	-2.2
CRLZ	Canterbury Las	3.00	209	PN	P	14 09 49.0	-3.9
MQZ	McQueen's Vall	3.11	207	ePN	P	14 09 50.0	-4.5
MQZ				SN	S	14 10 23.0	-7.6
URZ	Urewera	3.32	37	P	P	14 09 52.8	-4.6
URZ	Urewera	3.32	37	PN	P	14 09 52.8	-4.6
MWZ	Matawai	3.46	42	eP	P	14 09 54.7	-4.7
MWZ	Matawai	3.46	42	PN	P	14 09 54.5	-4.9
WVZ	Waitaha Valley	3.58	232	eP	P	14 09 58.5	-2.6
WVZ	Waitaha Valley	3.58	232	ePN	P	14 09 58.4	-2.7
FOZ	Fox Glacier	4.48	233	ePN	P	14 10 09.0	-4.9
ODZ	Otahua Downs	5.01	214	PN	P	14 10 15.9	-5.4
JCZ	Jackson Bay	5.33	232	ePN	P	14 10 21.2	-4.5

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*BJI **13** 14:16:04.8, 36.03N×10.98W, h23^{km}, mB4.8, mb4.8, Ms4.5, Msz4.2*

*NEIC **13** 14:16:08.6±0.2, 36.26N×10.00W, h10^{km}, mb4.8/74, MS4.3/18, MN5.4(MDD), Error ellipse: s-maj=3.6km s-min=2.1km az=157.0*

NEIC Felt at Figueira da Foz and in Algarve, Lisboa and the Tagus Valley, Portugal. Felt [IV] at Cordoba, Huelva and Sevilla; [III] at Badajoz and Caceres; [II] at Porrino and Vigo, Spain.

*BGS **13** 14:16:08.2±3.2, 36.20N×9.95W, h10^{km}, mb4.7*

*HRVD **13** 14:16:08.6±0.6, 36.31N×9.79W, h40^{km}±3^{km}, MW5.0/45, Centroid moment Tensor Solution. LP body waves: s22,c28;Mantle waves: s45,c76; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.94±.22; M$_{\theta\theta}$-0.65±.15; M$_{\phi\phi}$-0.29±.16; M$_{r\theta}$-2.78±.28; M$_{\theta\phi}$-2.21±.12; M$_{\phi r}$-0.46±.15; Best double couple: M$_0$3.64×10^{16} NP1:φ$_s$5°,δ35°,λ16°. NP2:φ$_s$262°,δ81°,λ124°. Principal axes: T 3.35, Plg44°, Azm205°; N .58, Plg34°, Azm76°; P -3.93, Plg28°, Azm326°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ZUR_RM **13** 14:16:08, 36.26N×10.00W, h15^{km}, Mw4.8/12, Moment Tensor Solution. s12 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.34; M$_{\theta\theta}$0.03; M$_{\phi\phi}$-0.37; M$_{r\theta}$-1.20; M$_{\theta\phi}$-1.42; M$_{\phi r}$0.22; Best double couple: M$_0$1.9×10^{16} NP1:φ$_s$263°,δ80°,λ140°. NP2:φ$_s$1°,δ51°,λ13°. Principal axes: T 1.983, Plg34°, Azm214°; N -.166, Plg49°, Azm71°; P -1.816, Plg19°, Azm318°;*

*CSEM **13** 14:16:08.2, 36.36N×9.97W, h10^{km}, mb4.7*

*MED_RC **13** 14:16:08.6±0.4, 36.24N×9.91W, h34^{km}±1^{km}, MW4.9/23, Moment Tensor Solution. Body waves: s23,c33; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$1.07±.10; M$_{\theta\theta}$-0.40±.05; M$_{\phi\phi}$-0.68±.07; M$_{r\theta}$-1.94±.12; M$_{\theta\phi}$-2.33±.07; M$_{\phi r}$0.40±.09; Best double couple: M$_0$3.2×10^{16} NP1:φ$_s$5°, δ50°,λ20°. NP2:φ$_s$262°,δ75°,λ138°. Principal axes: T 3.23, Plg40°, Azm215°; N -.06, Plg46°, Azm66°; P -3.17, Plg16°, Azm319°; nsta1 refers to waves, cutoff=35s.*

*IGIL **13** 14:16:10.9, 36.30N×9.90W, h2^{km}, ML4.9*

*MOS **13** 14:16:10.6±1.3, 36.36N×9.95W, h33^{km}, mb4.9/34, Error ellipse: s-maj=6.7km s-min=2.3km az=51.7*

*IAG **13** 14:16:11, 36.25N×9.98W, h8^{km}, Mw4.8, Moment Tensor Solution. Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.42; M$_{\theta\theta}$0.04; M$_{\phi\phi}$-0.45; M$_{r\theta}$-1.58; M$_{\theta\phi}$-0.87; M$_{\phi r}$-0.21; Best double couple: M$_0$1.87×10^{16} NP1:φ$_s$257°,δ83°,λ119°. NP2:φ$_s$360°,δ30°,λ15°. Principal axes: T 1.83, Plg45°, Azm196°; N .063, Plg29°, Azm73°; P -1.9, Plg32°, Azm323°;*

*SFS **13** 14:16:11.0, 36.25N×9.98W, h81^{km}, ML5.3*

*IDC **13** 14:16:12.4±0.4, 36.30N×9.88W, h39^{km}±2^{km}, mb4.3/28, mb1 4.5/32, mb1mx4.4/34, ML4.9/2, MS4.2/14, Ms1 4.2/14, ms1mx3.9/25, Error ellipse: s-maj=10.7km s-min=8.1km az=167.0*

*MDD **13** 14:16:12.1±0.6, 36.27N×9.99W, h52^{km}±21^{km}, mb5.7/44, Error ellipse: s-maj=6.3km s-min=4.6km az=91.0, PRXIMO II-III BADAJOZ DIZ RDOBA II-III PUNTA A SEVILLA II-III VALVERDE DEL CAMINO II CERES CEE O O VIGO TUI*

MDD EMS: III HUELVA ISLA CRISTINA LEPE.

*INMG **13** 14:16:13.3±1.8, 36.27N×9.94W, h31^{km}±7^{km}, ML5.4, Error ellipse: s-maj=4.0km s-min=2.2km az=104.0*

*LDG **13** 14:16:14.1±0.3, 36.40N×9.89W, h48^{km}, Md4.8/1, Ml5.4/41, ms4.0/7, Error ellipse: s-maj=6.1km s-min=5.2km az=73.0*

*CNRM **13** 14:16:15.7, 35.99N×9.74W, h30^{km}, MD5.0*

*STR **13** 14:16:27.7±0.8, 37.28N×9.10W, h30^{km}±1^{km}, Ml5.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 13 14:16:10.3±0.4**, 36.32N**±0.02×**9.88W**±0.02**, h33**^{km}±3^{km}**, h37**^{km}±1.6^{km}**:pP-P, n722, σ1^{s}28**/850**, mb4.7**/97**, MS4.2**/43**, 58C-24D, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTEO	Sao Teotonio	1.53	37	iP	P	14 16 38.4	+2.8
PTEO				eS	S	14 16 56.3	+1.7
PTEO	Sao Teotonio	1.53	37	⇑P	P	14 16 38.4	+2.7
PTEO				S	S	14 16 56.3	+1.7
PTEO	Sao Teotonio	1.53	37	⇑P	P	14 16 38.4	+2.8
PTEO				S	S	14 16 56.3	+1.7

LIS	**Lisbon**	2.46	13	*e*P	P	14 16 50.9	+2.0
LIS				AML	AML	14 17 02.8	
	comp=Z,3µm,0.5s						
LIS				*e*S	S	14 17 18.9	+0.8
LIS				*e*S	S	14 17 19.0	+0.9
LIS	**Lisbon**	2.46	13	*e*P	P	14 16 50.9	+2.0
LIS				*e*S	S	14 17 18.9	+0.8
	comp=Z,3µm,0.5s						
LIS	**Lisbon**	2.46	13	*e*P	P	14 16 50.9	+2.0
	comp=Z,3µm,0.5s						
LIS				*e*S	S	14 17 18.9	+0.8
PMST	**Lisbon--Monsan**	2.48	13	P	P	14 16 50.9	+1.8
MOE	**Montemor**	2.51	29	*i* P	P	14 16 51.9	+2.2
MOE	**Montemor**	2.51	29	⇑P	P	14 16 51.9	+2.3
MOE	**Montemor**	2.51	29	⇑P	P	14 16 51.9	+2.2
INMG	**Instituto de M**	2.52	14	*e*P	P	14 16 51.9	+2.1
INMG	**Instituto de M**	2.52	14	P	P	14 16 51.9	+2.2
PLOU	**Loures**	2.62	13	*i* P	P	14 16 53.1	+1.9
PLOU				*e*S	S	14 17 22.4	+0.1
PLOU	**Loures**	2.62	13	⇑P	P	14 16 53.1	+1.9
PLOU				S	S	14 17 22.4	+0.1
PLOU	**Loures**	2.62	13	⇑P	P	14 16 53.1	+1.9
PLOU				S	S	14 17 22.4	+0.1
EVO	**Evora**	2.66	33	*e*Pn	P	14 16 52.7	+0.9
EVO				*e*Sn	S	14 17 21.7	-1.5
	comp=Z,30µm,0.3s						
EVO				*e*R			
	comp=Z,45µm,30.9s						
EMIN	**Mina Concepcio**	2.94	60	⇑P	P	14 16 57.3	+1.5
	comp=Z,416nm,0.2s,SNR=18						
EMIN				S	S	14 17 29.6	-0.8
EMIN	**Mina Concepcio**	2.94	60	P	P	14 16 57.3	+1.5
	comp=Z,416nm,0.2s,SNR=18						
SFS	**San Fernando**	2.97	86	*e*Pn	P	14 16 57.9	+1.8
SFS				*e*Sn	S	14 17 31.2	+0.2
SFS	**San Fernando**	2.97	86	⇓P	P	14 16 59.8	+3.6
SFS				S	S	14 17 28.9	-2.1
SFS	**San Fernando**	2.97	86	*e*Sn	S	14 17 31.2	+0.2
SFS	**San Fernando**	2.97	86	*e*Pn	P	14 16 57.9	+1.7
SFS				*e*S	S	14 17 28.9	-2.1
SCRT	**Cerro San Cris**	3.00	83	⇑P	P	14 16 58.8	+2.2
SCRT				S	S	14 17 27.5	-4.3
SCRT	**Cerro San Cris**	3.00	83	*i* P	P	14 16 58.8	+2.2
ALMR	**Almeirim**	3.01	20	*e*P	P	14 16 58.3	+1.5
ALMR				AML	AML	14 17 30.9	
	comp=E,8µm,0.6s						
ALMR				*e*S	S	14 17 32.5	+0.3
ALMR				*e*S	S	14 17 32.5	+0.4
ALMR	**Almeirim**	3.01	20	*e*P	P	14 16 58.3	+1.5
ALMR				*e*S	S	14 17 32.5	+0.4
CNIL	**Conil**	3.09	88	⇓P	P	14 17 00.2	+2.3
CNIL				S	S	14 17 31.1	-3.0
CNIL	**Conil**	3.09	88	*i* S	S	14 17 31.0	-3.1
CNIL	**Conil**	3.09	88	*i* P	P	14 17 00.2	+2.3
GIBL	**Gibalbin**	3.19	80	⇑P	P	14 17 01.1	+1.8
GIBL				S	S	14 17 32.3	-4.4
GIBL	**Gibalbin**	3.19	80	*i* P	P	14 17 01.1	+1.8
ESPR	**Espera**	3.29	79	⇑P	P	14 17 02.3	+1.7
	comp=E,613nm,0.4s,SNR=18						
ESPR				S	S	14 17 37.8	-1.2
ESPR	**Espera**	3.29	79	P	P	14 17 02.3	+1.7
	comp=E,613nm,0.4s,SNR=18						
EBAD	**Badajoz**	3.33	42	⇑P	P	14 17 02.4	+1.1
	comp=E,1µm,0.3s,SNR=18						
EBAD				S	S	14 17 39.3	-1.0
EBAD	**Badajoz**	3.33	42	⇑P	P	14 17 02.5	+1.2
RBA	**Rabat**	3.39	132	⇓P	P	14 17 03.2	+1.0
RBA				S	S	14 17 39.2	-2.6
RBA	**Rabat**	3.39	132	P	P	14 17 03.2	+1.0
	SNR=18						
RBA				S	S	14 17 39.2	-2.6
RTC	**Rabat Centre**	3.40	132	*i* P	P	14 17 02.5	+0.2
PTOM	**Tomar**	3.49	19	*i* P	P	14 17 03.4	-0.2
PTOM				*e*S	S	14 17 41.7	-2.6
PTOM	**Tomar**	3.49	19	⇑P	P	14 17 03.4	-0.2
PTOM				S	S	14 17 41.1	-3.2
PTOM	**Tomar**	3.49	19	⇑P	P	14 17 03.4	-0.2
PTOM				S	S	14 17 41.7	-2.6
AVE	**Averroes**	3.63	145	⇓P	P	14 17 06.2	+0.6
AVE				S	S	14 17 36.0	-12
AVE	**Averroes**	3.63	145	P	P	14 17 06.2	+0.6
	SNR=18						
LIJA	**Lijar**	3.65	79	⇓P	P	14 17 07.3	+1.5
LIJA				S	S	14 17 45.5	-2.8
LIJA	**Lijar**	3.65	79	*i* P	P	14 17 07.3	+1.5
LIJA				*e*S	S	14 17 45.5	-2.8
DKH	**Dar Kharkhour**	3.76	101	*i* P	P	14 17 08.5	+1.1
REAL	**Reales**	3.77	86	⇓P	P	14 17 09.4	+1.9
REAL				S	S	14 17 57.0	+5.5
REAL	**Reales**	3.77	86	*i* S	S	14 17 57.0	+5.5
REAL	**Reales**	3.77	86	*i* P	P	14 17 09.4	+1.8
PCBR	**Castelo Branco**	3.99	28	*i* P	P	14 17 11.7	+1.0
PCBR				*e*S	S	14 17 54.7	-2.3
PCBR	**Castelo Branco**	3.99	28	⇑P	P	14 17 11.7	+1.0
PCBR				S	S	14 17 54.8	-2.3
PCBR	**Castelo Branco**	3.99	28	⇑P	P	14 17 11.7	+1.0
PCBR				S	S	14 17 54.7	-2.3
EMIJ	**Mijas**	4.13	85	P	P	14 17 13.1	+0.5
	comp=E,35nm,0.3s,SNR=18						
EMIJ				S	S	14 17 57.4	-2.9
	SNR=7.9						
EMAL	**Malaga-Limoner**	4.41	83	P	P	14 17 18.1	+1.4
	comp=E,40nm,0.3s,SNR=7.9						
EMAL				S	S	14 18 05.3	-2.3
	SNR=7.9						
MTE	**Manteigas**	4.47	24	*i* P	P	14 17 18.1	+0.6
MTE				*e*S	S	14 18 06.5	-2.5
	comp=E,8µm,0.7s						
MTE	**Manteigas**	4.47	24	⇑P	P	14 17 18.1	+0.6
MTE				S	S	14 18 06.5	-2.5
MTE	**Manteigas**	4.47	24	⇑P	P	14 17 18.1	+0.6
MTE				S	S	14 18 06.5	-2.5
	comp=E,4µm,0.7s						
TGT	**Taghat**	4.54	118	*i* P	P	14 17 18.0	-0.6
EADA	**Adamuz**	4.62	65	⇑P	P	14 17 20.0	+0.5
	comp=E,790nm,0.5s,SNR=18						
EADA				S	S	14 18 08.8	-3.9
EADA	**Adamuz**	4.62	65	P	P	14 17 20.0	+0.4
	comp=E,790nm,0.5s,SNR=18						
PVIS	**Viseu**	4.66	19	*i* P	P	14 17 20.5	+0.4
PVIS				*e*S	S	14 18 11.2	-2.6
	comp=E,5µm,0.4s						
PVIS	**Viseu**	4.66	19	⇑P	P	14 17 20.5	+0.4
PVIS				S	S	14 18 11.2	-2.6
	comp=E,3µm,0.4s						
ELUQ	**Luque**	4.66	73	⇑P	P	14 17 20.9	+0.6
	comp=E,297nm,0.3s,SNR=18						
ELUQ				S	S	14 18 09.8	-4.2
	SNR=4.0						
ELOJ	**Sierra Loja**	4.67	78	P	P	14 17 21.5	+1.1
	comp=E,103nm,0.3s,SNR=112						
ELOJ				S	S	14 18 10.1	-4.1
	comp=E,654nm,0.5s,SNR=4.0						
MIF	**Mishlifen**	4.80	126	*i* P	P	14 17 22.0	-0.2
IFR	**Ifrane**	4.80	124	⇓P	P	14 17 21.5	-0.7
IFR				S	S	14 18 11.0	-6.5
IFR	**Ifrane**	4.80	124	P	P	14 17 21.5	-0.7
	SNR=18						
CIA	**Chichaoua**	4.83	169	*i* P	P	14 17 22.0	-0.7
ERON	**Agron**	4.93	80	⇑P	P	14 17 25.2	+1.2
	comp=E,199nm,0.5s,SNR=18						
ERON				S	S	14 18 15.9	-4.8
	comp=E,763nm,0.5s,SNR=8.1						
MPAL	**Palemas**	4.95	101	*i* P	P	14 17 25.0	+0.7
CZD	**Col de Zad**	5.16	128	*i* P	P	14 17 27.0	-0.2
TZK	**Tazeka**	5.17	114	*i* P	P	14 17 26.5	-0.8
TOU	**Touzarine**	5.17	103	*e*P	P	14 17 29.0	+1.6
PVRL	**Vila Real**	5.23	18	*i* P	P	14 17 28.1	-0.1
PVRL				*e*S	S	14 18 23.9	-4.2
PVRL	**Vila Real**	5.23	18	⇑P	P	14 17 28.1	-0.1
PVRL				S	S	14 18 23.9	-4.2
EQES	**Quesada**	5.64	73	⇑P	P	14 17 33.8	-0.2
	comp=E,381nm,0.5s,SNR=18						
EQES				S	S	14 18 33.8	-4.7
	comp=E,2µm,0.4s,SNR=7.9						
EQES	**Quesada**	5.64	73	P	P	14 17 33.8	-0.2
	comp=E,381nm,0.5s,SNR=18						
EBER	**Berja**	5.65	82	P	P	14 17 34.1	0.0
	comp=E,14nm,0.2s,SNR=96						
EBER				S	S	14 18 33.4	-5.5
	comp=E,3µm,0.7s						
EBER	**Berja**	5.65	82	P	P	14 17 34.1	0.0
	comp=E,14nm,0.2s,SNR=96						
ELOB	**Lobios**	5.72	14	⇑P	P	14 17 34.7	-0.3
	comp=E,256nm,0.3s,SNR=18						
ELOB				S	S	14 18 35.0	-5.4
	comp=E,2µm,0.3s						
ELOB	**Lobios**	5.72	14	P	P	14 17 34.7	-0.3
	comp=E,256nm,0.3s,SNR=18						
EMEL	**Melilla**	5.72	98	P	P	14 17 34.0	-1.0
	comp=E,73nm,0.1s,SNR=7.9						
EMEL				S	S	14 18 33.2	-7.2
	comp=E,2µm,0.3s,SNR=7.9						
EMLI	**Melilla**	5.72	98	P	P	14 17 34.0	-1.1
	comp=E,73nm,0.1s,SNR=7.9						
MELI	**Melilla**	5.74	98	S	S	14 18 33.6	-7.3
ESDC	**Sonseca Array**	5.75	53	Pn	P	14 17 35.1	-0.4
	comp=E,2µm,0.3s,baz=239,slow=13,SNR=2440						
ESDC				Sn	S	14 18 36.6	-4.6
	comp=E,1µm,0.3s,baz=238,slow=23,SNR=7.4						
ESDC	**Sonseca Array**	5.75	53	⇑P	P	14 17 35.0	-0.5
	comp=E,25nm,0.1s,baz=239,slow=13,SNR=18						
ESDC				S	S	14 18 37.1	-4.1
	comp=E,2µm,0.4s,baz=239,slow=24,SNR=49						
ESDC	**Sonseca Array**	5.75	53	P	P	14 17 35.0	-0.5
	comp=E,25nm,0.1s,slow=13,SNR=18						
ESLA	**Sonseca Array**	5.75	53	*e*Pn	P	14 17 34.9	-0.6
	comp=E,333nm,0.4s						
ESLA				*e*Sn	S	14 18 37.6	-3.6
ESLA	**Sonseca Array**	5.75	53	*e*Pn	P	14 17 34.9	-0.6
	comp=E,333nm,0.4s						
ESLA	**Sonseca Array**	5.75	53	*e*Sn	S	14 18 37.6	-3.6
AFS	**Agadir Fac de**	5.89	177	*i* P	P	14 17 36.0	-1.5
EZAM	**Zamans**	5.89	9	⇑P	P	14 17 37.2	-0.3
	comp=E,46nm,0.3s,SNR=18						
ZAI	**Zaio**	5.96	101	*i* P	P	14 17 38.0	-0.5
PBRG	**Braganca**	6.00	23	*e*P	P	14 17 38.5	-0.4
PBRG				*e*S	S	14 18 42.5	-4.9
	comp=E,2µm,0.3s						
PBRG	**Braganca**	6.00	23	P	P	14 17 38.5	-0.5
PBRG				S	S	14 18 42.7	-4.7
PBRG	**Braganca**	6.00	23	P	P	14 17 38.5	-0.4
PBRG				S	S	14 18 42.5	-4.9
	comp=E,879nm,0.3s						
ECAL	**Calabor**	6.12	23	⇑P	P	14 17 40.4	-0.3
	comp=E,595nm,0.4s,SNR=18						
ECAL				S	S	14 18 46.3	-4.2
	comp=E,4µm,0.3s						
ECAL	**Calabor**	6.12	23	P	P	14 17 40.4	-0.3
	comp=E,595nm,0.4s,SNR=18						
ZFT	**Errachidia**	6.27	131	*i* P	P	14 17 41.0	-1.8
TAF	**Taforalt**	6.27	102	P	P	14 17 42.0	-0.8
TAF				S	S	14 18 45.0	-9.2
EVIA	**Vianos**	6.31	66	⇑P	P	14 17 42.3	-1.0
	comp=E,259nm,0.3s,SNR=18						
EVIA				S	S	14 18 47.1	-8.1
	SNR=4.0						
ERUA	**La Rua**	6.42	18	⇑P	P	14 17 44.3	-0.7
	comp=E,97nm,0.3s,SNR=18						
ERUA				S	S	14 18 50.6	-7.5
	SNR=4.0						
EINC	**Incio**	6.63	16	⇑P	P	14 17 47.1	-0.7
	comp=E,177nm,0.4s,SNR=18						
EINC				S	S	14 18 56.5	-6.6
	comp=E,662nm,0.3s						
EINC	**Incio**	6.63	16	P	P	14 17 47.1	-0.8
	comp=E,177nm,0.4s,SNR=18						
STS	**Santiago**	6.64	8	⇑P	P	14 17 47.1	-0.9
	comp=E,52nm,0.2s,SNR=18						
EMAZ	**Mazaricos**	6.66	6	P	P	14 17 47.0	-1.3
	comp=E,17nm,0.2s,SNR=865						
EMAZ				S	S	14 18 55.5	-8.3
	comp=E,5µm,0.2s						
OLHC	**Oulhaca**	6.96	96	P	P	14 17 48.0	-4.5
EMUR	**La Murta**	7.07	75	P	P	14 17 53.0	-1.1
	comp=E,41nm,0.3s,SNR=7.9						
EMUR				S	S	14 19 07.0	-7.2
	comp=E,2µm,0.6s,SNR=7.9						
EMUR	**La Murta**	7.07	75	P	P	14 17 53.0	-1.1
	comp=E,41nm,0.3s,SNR=7.9						
CART	**Cartagena**	7.22	77	*e*Pn	P	14 17 53.9	-2.3
	comp=E,379nm,0.4s						
CART				*e*Sn	S	14 19 10.8	-7.1
CART	**Cartagena**	7.22	77	⇑P	P	14 17 54.6	-1.5
CART				S	S	14 19 09.9	-8.0
CART	**Cartagena**	7.22	77	*e*Pn	P	14 17 53.9	-2.3
	comp=E,379nm,0.4s						
CART	**Cartagena**	7.22	77	*i* P	P	14 17 54.6	-1.6
CART				*e*Sn	S	14 19 10.8	-7.1
EPON	**Pontenova**	7.31	16	P	P	14 17 56.1	-1.3
	comp=E,50nm,0.5s,SNR=252						
EPON				S	S	14 19 13.3	-6.7
	comp=E,1µm,0.4s,SNR=7.9						
EFAM	**Famara**	7.80	204	P	P	14 18 00.6	-3.6
	comp=E,178nm,0.3s,SNR=7.9						
EFAM				S	S	14 19 21.4	-11
	comp=E,2µm,0.7s,SNR=7.9						
EFAM	**Famara**	7.80	204	P	P	14 18 00.6	-3.7
	comp=E,178nm,0.3s,SNR=7.9						
EARI	**Arriondas**	7.84	26	P	P	14 18 03.9	-0.9
	comp=E,198nm,1.0s,SNR=7.9						
EARI				S	S	14 19 27.5	-5.9
	comp=E,1µm,0.7s,SNR=7.9						
ODJA	**Bouhanifia**	7.97	94	P	P	14 18 04.0	-2.5
EBEN	**Beniarda**	8.03	70	P	P	14 18 05.8	-1.7
	comp=E,91nm,0.3s,SNR=7.9						
EBEN				S	S	14 19 31.1	-7.0
	comp=E,551nm,0.4s,SNR=7.9						
CFUE	**Fuerteventura**	8.38	205	P	P	14 18 07.4	-4.9
	comp=E,76nm,0.2s,SNR=7.9						
CFUE				S	S	14 19 36.0	-11
	comp=E,339nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	8.42	59	⇑P	P	14 18 12.6	-0.3
	comp=E,246nm,0.5s,SNR=18						
EMOS				S	S	14 19 41.8	-6.0
	comp=E,1µm,0.7s,SNR=7.9						
EMOS	**Mosqueruela**	8.42	59	P	P	14 18 12.6	-0.3
	comp=E,246nm,0.5s,SNR=18						
ELAN	**Lanestosa**	8.50	34	P	P	14 18 12.5	-1.5
	comp=E,26nm,0.5s,SNR=7.9						
ELAN				S	S	14 19 43.0	-6.7
	comp=E,450nm,0.3s,SNR=7.9						
OKGL	**Djebel Kef Gue**	8.52	89	P	P	14 18 15.0	+0.8
EANR	**'Ain N'Sour**	8.89	89	P	P	14 18 20.5	+1.1
ECHF	**Ech Chlef**	9.07	88	P	P	14 18 26.0	+4.2
ESAC	**San Caprasio**	9.09	51	P	P	14 18 20.4	-1.8
	comp=E,36nm,0.3s,SNR=7.9						
ESAC				S	S	14 19 58.2	-6.3
	comp=E,2µm,0.4s,SNR=7.9						
ETRT	**Tiaret**	9.12	93	P	P	14 18 23.1	+0.5
ERTA	**Horta de San J**	9.23	57	P	P	14 18 22.7	-1.4
	comp=E,50nm,0.5s,SNR=71						
ERTA				S	S	14 19 59.5	-8.5
	comp=E,462nm,0.5s,SNR=7.9						
EBR	**Ebro Roquetas**	9.28	58	*i* PN	P	14 18 24.2	-0.6
EBR				*i* SN	S	14 20 06.0	-3.2
EBR	**Ebro Roquetas**	9.28	58	P	P	14 18 24.6	-0.2
EIBI	**Ibiza**	9.30	70	P	P	14 18 22.5	-2.5
	comp=E,143nm,0.7s,SNR=7.9						
EIBI				S	S	14 20 00.3	-9.3
	comp=E,296nm,0.4s,SNR=7.9						
EALK	**Alkurruntz**	9.43	41	P	P	14 18 25.1	-1.7
	comp=E,323nm,0.3s,SNR=7.9						
EALK				S	S	14 20 04.8	-8.1
	comp=E,635nm,0.4s,SNR=7.9						
EBAJ	**Bajamar**	9.48	217	P	P	14 18 18.2	-9.4
	comp=E,59nm,0.3s,SNR=6.4						
EBAJ				S	S	14 20 00.8	-13
	comp=E,127nm,0.4s,SNR=7.9						
SJPF	**Ste Jean**	9.51	42	*e*Pn	P	14 18 27.4	-0.5
SJPF				*e*Sn	S	14 20 06.7	-8.1
	comp=E,672nm,0.4s						
EOSO	**Osorio**	9.52	212	P	P	14 18 23.1	-5.1
	comp=E,12nm,0.2s,SNR=7.9						
EOSO				S	S	14 20 02.4	-13
	comp=E,63nm,0.3s,SNR=7.9						
OSSF	**Osses**	9.59	41	P	P	14 18 28.1	-0.9
OSSF				S	S	14 20 09.6	-7.1
LARF	**Larrau**	9.59	43	P	P	14 18 27.7	-1.3
FDAF	**Les Forges d'A**	9.68	45	P	P	14 18 29.8	-0.5
ORDF	**Ordiarp**	9.73	42	P	P	14 18 29.9	-1.1
ETSF	**Etsaut**	9.74	45	*e*Pn	P	14 18 30.6	-0.4
ETSF				*e*Sn	S	14 20 12.1	-8.3
	comp=E,2µm,0.8s						
EGRA	**Graus**	9.84	50	P	P	14 18 30.4	-2.0
	comp=E,120nm,0.5s,SNR=7.9						
EGRA				S	S	14 20 14.2	-8.8
	comp=E,298nm,0.8s,SNR=7.9						
CCAN	**Las Canadas**	9.88	217	P	P	14 18 25.9	-7.1
	comp=E,30nm,0.3s,SNR=30						
CCAN				S	S	14 20 09.4	-14
	comp=E,23nm,0.2s,SNR=7.9						
EPOB	**Poblet**	9.91	56	P	P	14 18 30.9	-2.6
	comp=E,155nm,0.4s,SNR=7.9						
EPOB				S	S	14 20 18.0	-6.8
	comp=E,32nm,0.3s,SNR=7.9						
REYF	**Montagne du Re**	9.94	44	P	P	14 18 33.1	-0.7
CHIO	**Chio**	9.96	218	P	P	14 18 27.5	-6.8
	comp=E,95nm,0.2s,SNR=7.9						
CHIO				S	S	14 20 12.9	-13
	comp=E,130nm,0.2s,SNR=4.0						
EBIE	**Bielsa**	10.02	48	P	P	14 18 33.1	-1.8
	comp=E,301nm,0.3s,SNR=7.9						
EBIE				S	S	14 20 19.6	-7.6
	comp=E,632nm,0.5s,SNR=7.9						
VIEF	**Viey**	10.06	46	P	P	14 18 34.9	-0.6
LABF	**Labassere**	10.19	46	P	P	14 18 36.3	-1.0
RESF	**Ens**	10.20	47	P	P	14 18 36.5	-1.0
EGOM	**La Gomera**	10.23	219	P	P	14 18 30.3	-7.6
	comp=E,19nm,0.2s,SNR=23						
EGOM				S	S	14 20 15.7	-17
	comp=E,245nm,0.2s,SNR=7.9						
EHIG	**Higuera**	10.23	223	P	P	14 18 32.0	-5.9
	comp=E,77nm,0.3s,SNR=7.9						
EHIG				S	S	14 20 17.1	-15
	comp=E,361nm,0.3s,SNR=4.0						
EPF	**Esparros**	10.34	46	*e*Pn	P	14 18 38.3	-1.0
EPF				*e*Sn	S	14 20 26.7	-8.4
EMHD	**Djebel Mahouad**	10.37	87	P	P	14 18 35.0	-4.7
EMIR	**Miracle**	10.47	54	P	P	14 18 38.6	-2.5
	comp=E,41nm,0.6s,SNR=7.9						
EMIR				S	S	14 20 28.7	-10
	comp=E,154nm,0.3s,SNR=4.0						
MELF	**Melles**	10.49	48	P	P	14 18 39.7	-1.7
SALF	**Salau**	10.69	50	P	P	14 18 42.7	-1.5
MLS	**Moulis**	10.74	49	P	P	14 18 43.7	-1.2
CHIE	**El Hierro**	10.97	221	S	S	14 20 34.1	-16
	comp=E,86nm,0.9s,SNR=4.0						
VALF	**Valcebollere**	11.03	53	P	P	14 18 47.7	-1.0
CARF	**Carcanieres**	11.24	52	P	P	14 18 51.7	+0.1
FILF	**Fillols**	11.46	53	P	P	14 18 52.2	-2.3
OLEF	**Ile d'Oleron**	11.56	31	P	P	14 18 54.5	-1.4
EJON	**La Jonquera**	11.62	54	P	P	14 18 54.9	-1.8
	comp=E,24nm,0.4s,SNR=52						
EJON				S	S	14 20 55.6	-11
	comp=E,154nm,0.7s,SNR=7.9						
LRDF	**Laroque-de-Fa**	11.63	52	P	P	14 18 55.0	-1.9
SJAF	**Saint Jean de**	11.63	54	P	P	14 18 55.1	-1.8
MTLF	**Montolieu**	11.64	49	*e*Pn	P	14 18 54.7	-2.3
MTLF				*e*Sn	S	14 20 57.8	-9.0
	comp=E,313nm,0.8s						
LFF	**La Frestale**	11.79	40	*e*Pn	P	14 18 57.0	-2.0
LFF				*e*Sn	S	14 21 01.1	-9.4
	comp=E,280nm,0.5s						
LRYF	**La Roche-sur-Y**	12.00	29	P	P	14 19 00.1	-1.7
RJF	**Les Rejaudoux**	12.44	40	*e*Pn	P	14 19 05.2	-2.6
RJF				*e*Sn	S	14 21 15.5	-11
	comp=E,291nm,0.5s						
RJF				*e*R			
	comp=E,1µm,21.2s						
CKHR	**Kef el Ahmar**	12.45	87	P	P	14 19 09.0	+1.1
CAF	**Calviac**	12.49	43	*e*Pn	P	14 19 06.3	-2.1
CAF				*e*Sn	S	14 21 17.3	-10
	comp=E,475nm,0.6s						
MFF	**Saint Martin d**	12.59	32	*e*Pn	P	14 19 07.5	-2.3
MFF				*e*Sn	S	14 21 19.5	-10
	comp=E,233nm,0.5s						
QUIF	**Quistinic**	12.61	21	*e*Pn	P	14 19 08.0	-2.0
QUIF				*e*Sn	S	14 21 20.1	-10
	comp=E,483nm,0.6s						
DFRA	**Djebel Bou Aff**	12.70	84	P	P	14 19 12.0	+0.8
CMER	**Merouana**	12.81	88	P	P	14 19 19.0	+6.3
ROSF	**Rostrenen**	12.96	20	*e*Pn	P	14 19 12.7	-2.0
ROSF				*e*Sn	S	14 21 27.4	-11
	comp=E,280nm,0.5s						
LASF	**Ste Croix**	13.04	49	*e*Pn	P	14 19 14.0	-1.8
LASF				*e*Sn	S	14 21 30.6	-10
	comp=E,185nm,0.5s						
FRNF	**Fournols**	13.05	42	P	P	14 19 13.9	-2.1
SGMF	**Saint Gilles**	13.09	22	*e*Pn	P	14 19 14.4	-2.0
SGMF				*e*Sn	S	14 21 29.7	-12
	comp=E,227nm,0.5s						
CTEI	**Djebel Teioual**	13.16	86	P	P	14 19 21.0	+3.6
CASM	**Ain Smara**	13.21	85	P	P	14 19 19.5	+1.4
VERF	**Verneugheol**	13.24	41	P	P	14 19 16.5	-2.0
RENF	**Rennes**	13.27	25	P	P	14 19 17.9	-0.9
LBL	**Lubilhac**	13.34	44	P	P	14 19 19.4	-0.2
CKFL	**Kef-Lekhel**	13.38	85	P	P	14 19 20.5	+0.2
CAEH	**'Ain El Ouahch**	13.46	83	P	P	14 19 22.0	+0.6
TCF	**Toulx Ste Croi**	13.47	39	*e*Pn	P	14 19 19.2	-2.2
TCF				*e*Sn	S	14 21 38.4	-12
	comp=E,170nm,0.4s						
PYM	**Petit Puy Mans**	13.53	42	P	P	14 19 21.7	-0.4
CFF	**Clermont-Ferra**	13.59	42	P	P	14 19 23.1	+0.2
GELF	**Grande-Etoile**	13.70	54	P	P	14 19 23.8	-0.6
PRAF	**Pradon**	13.72	52	P	P	14 19 23.8	-0.9
COLF	**Collangettes**	13.76	44	P	P	14 19 23.1	-2.1
GRR	**Gorron**	13.77	26	*e*Pn	P	14 19 23.6	-1.7
GRR				*e*Sn	S	14 21 47.1	-11
	comp=E,134nm,0.3s						
GRR	**Gorron**	13.77	26	*e*Sn	S	14 21 47.1	-11
	comp=E,67nm,0.3s						
TREF	**Trevaresse**	13.78	53	P	P	14 19 26.2	+0.7
AGO	**Saint Agoulin**	13.79	41	P	P	14 19 25.0	-0.5
BERF	**Bertagne**	13.85	55	P	P	14 19 25.9	-0.4
CMAH	**Djebel Manchou**	13.93	84	P	P	14 19 28.0	+0.5
VIVF	**Saint-Julien-l**	13.95	48	*e*Pn	P	14 19 26.2	-1.4
VIVF				*e*Sn	S	14 21 51.7	-11
	comp=E,233nm,0.9s						
BGF	**Bois d'Agland**	13.97	39	*e*Pn	P	14 19 26.4	-1.5
BGF				*e*Sn	S	14 21 50.9	-12
	comp=E,420nm,0.4s						
PLDF	**La Plantade**	14.00	42	P	P	14 19 28.1	-0.2
ABSA	**Djebel Ababsia**	14.01	85	P	P	14 19 30.0	+1.6
CABS	**Djebel Ababsia**	14.01	85	P	P	14 19 30.0	+1.6
JSA	**Saint Aubin**	14.04	21	*e*P	P	14 19 27.3	-1.5
JVM	**Valle D.L. Mar**	14.06	21	*e*P	P	14 19 27.4	-1.6
SMRF	**Simiane la Rot**	14.06	52	*e*Pn	P	14 19 28.7	-0.5
SMRF				*e*Sn	S	14 21 55.3	-10
	comp=E,115nm,1.0s						
JQE	**Queens East**	14.09	22	*e*P	P	14 19 27.8	-1.7
VILF	**Villemus**	14.10	53	P	P	14 19 29.7	+0.1
JLP	**Les Platons**	14.11	21	*e*P	P	14 19 28.2	-1.5
CGH1	**Goonhilly**	14.14	13	*e*P	P	14 19 29.9	-0.3
CPZ	**Penzance**	14.18	11	*e*P	P	14 19 29.6	-1.0
CMA1	**Manaccan**	14.18	13	*e*P	P	14 19 30.3	-0.4
CGW	**Gweek**	14.18	12	*e*P	P	14 19 30.3	-0.4
OCF	**Saint Nazaire**	14.19	50	P	P	14 19 30.4	-0.4
OG26	**St.-Nazaire-De**	14.19	50	P	P	14 19 30.4	-0.4
LDF	**La Druitiere**	14.21	27	*e*Pn	P	14 19 29.4	-1.6
LDF				*e*Sn	S	14 21 57.5	-11
	comp=E,143nm,0.5s						
LDF	**La Druitiere**	14.21	27	*e*Sn	S	14 21 57.5	-11
	comp=E,71nm,0.5s						
TAVF	**Tavernes**	14.22	54	P	P	14 19 31.3	+0.1
FLN	**La Foliniere**	14.22	26	*e*Pn	P	14 19 29.7	-1.5
FLN				*e*Sn	S	14 21 58.3	-10
	comp=E,108nm,0.5s						
FLN				*e*R			
	comp=E,2µm,21.9s						
CRQ2	**Rosemanowes 2**	14.26	12	*e*P	P	14 19 31.4	-0.2
CCA1	**Carnmenellis**	14.26	12	*e*P	P	14 19 30.9	-0.8
STOF	**St-Etienne Org**	14.29	53	P	P	14 19 31.8	-0.3
HYF	**Humbligny**	14.36	37	*e*Pn	P	14 19 31.4	-1.7
HYF				*e*Sn	S	14 22 01.5	-11
AVF	**Avril sur Loir**	14.39	39	*e*Pn	P	14 19 31.8	-1.6
AVF				*e*Sn	S	14 22 00.5	-12
	comp=E,116nm,0.7s						
AVF	**Avril sur Loir**	14.39	39	*e*Sn	S	14 22 00.5	-12
	comp=E,58nm,0.7s						
LMR	**La Mourre**	14.40	56	*e*Pn	P	14 19 33.4	-0.2
LMR				*e*Sn	S	14 22 03.5	-9.5
	comp=E,36nm,0.6s						
CSA1	**St Austell**	14.48	13	*e*P	P	14 19 34.3	-0.3
SMF	**Signal de Mont**	14.54	41	*e*Pn	P	14 19 34.0	-1.5
SMF				*e*Sn	S	14 22 06.0	-10
	comp=E,146nm,0.8s						
OG25	**Le Caire**	14.57	52	P	P	14 19 36.5	+0.7
FRF	**La Foret Royal**	14.58	55	*e*Pn	P	14 19 36.0	0.0
FRF				*e*Sn	S	14 22 07.9	-9.4
	comp=E,71nm,0.9s						
SSF	**Saint Saulge**	14.65	39	*e*Pn	P	14 19 35.3	-1.5
SSF				*e*Sn	S	14 22 07.9	-11
	comp=E,65nm,0.7s						

ORIF	**Oris-en-Rattie**	14.71	49	*e*Pn	P	14 19 38.4	+0.7
ORIF				*e*Sn	S	14 22 10.4	-10
	comp=E,77nm,0.8s						
ORIF				*e*R			
	comp=E,1µm,20.9s						
GRN	**Grenoble**	14.80	48	P	P	14 19 39.4	+0.6
CALN	**Calern**	14.82	55	P	P	14 19 39.8	+0.7
CALF	**Calern**	14.84	55	P	P	14 19 39.8	+0.4
GDM	**Grand'Maison**	15.00	49	P	P	14 19 42.7	+1.3
MVIF	**Mont Vial**	15.05	55	P	P	14 19 42.7	+0.6
SURF	**Saint Ours**	15.09	52	P	P	14 19 44.2	+1.6
REVF	**Revere**	15.13	55	P	P	14 19 45.3	+2.1
TOUF	**Mont Tournerai**	15.17	54	P	P	14 19 44.4	+0.8
HTL	**Hartland**	15.17	13	P	P	14 19 45.0	+1.4
MBDF	**Montbardon**	15.17	51	*e*Pn	P	14 19 44.7	+1.0
MBDF				*e*Sn	S	14 22 22.2	-9.0
	comp=E,42nm,0.7s						
SBF	**Sospel**	15.23	55	*e*Pn	P	14 19 45.1	+0.7
SBF				*e*Sn	S	14 22 23.4	-9.0
	comp=E,105nm,0.8s						
BNI	**Bardonecchia**	15.27	50	*e*Pn	P	14 19 46.0	+1.0
	comp=E,74µm,0.8s						
BNI	**Bardonecchia**	15.27	50	*e*Pn	P	14 19 46.0	+1.1
	comp=E,10µm,0.8s						
RRL	**Cesana Torines**	15.27	51	P	P	14 19 46.2	+1.2
AUTN	**L'Aution**	15.28	55	P	P	14 19 45.9	+0.9
PZZ	**Prazzo**	15.28	52	P	P	14 19 46.9	+1.8
PZZ	**Prazzo**	15.28	52	P	P	14 19 46.8	+1.7
STV	**Sta Anna Valdi**	15.31	54	P	P	14 19 46.2	+0.7
STV2	**Anna di Valdie**	15.31	54	P	P	14 19 46.2	+0.7
STV2	**Anna di Valdie**	15.31	54	P	P	14 19 46.2	+0.7
SAOF	**Saorge**	15.36	55	P	P	14 19 46.9	+0.8
ENR	**Entracque**	15.37	54	P	P	14 19 46.9	+0.7
DOI	**San Damiano**	15.38	53	*e*P	P	14 19 48.2	+1.9
NEGI	**Negi**	15.40	55	P	P	14 19 46.4	-0.2
NEGI	**Negi**	15.40	55	P	P	14 19 46.4	-0.2
FENE	**Fenestrelle**	15.50	51	P	P	14 19 50.0	+2.1
FENE	**Fenestrelle**	15.50	51	P	P	14 19 50.0	+2.1
MONE	**Monesi**	15.53	55	P	P	14 19 49.1	+0.9
VSL	**Villasalto**	15.53	72	*e*P	P	14 19 50.0	+1.7
	comp=E,14nm,0.6s						
VSL	**Villasalto**	15.53	72	*e*P	P	14 19 50.0	+1.7
	comp=E,14nm,0.6s						
LPL	**La Plagne**	15.54	49	*e*Pn	P	14 19 50.4	+2.1
LPL				*e*Sn	S	14 22 31.1	-8.5
	comp=E,65nm,0.9s						
LPG	**La Plagne**	15.54	49	*e*Pn	P	14 19 50.4	+2.0
LPG				*e*Sn	S	14 22 31.4	-8.2
	comp=E,89nm,0.9s						
BHB	**Bricherasio**	15.54	52	P	P	14 19 49.9	+1.5
BHB	**Bricherasio**	15.54	52	P	P	14 19 49.9	+1.5
IMI	**Imperia**	15.55	55	*e*P	P	14 19 49.9	+1.4
IMI	**Imperia**	15.55	55	*e*P	P	14 19 49.9	+1.4
RSP	**Reno Superiore**	15.68	50	P	P	14 19 52.7	+2.5
ROB	**Roburent**	15.69	54	P	P	14 19 52.3	+1.9
CABF	**La Chapelle**	15.75	44	*e*Pn	P	14 19 51.4	+0.3
CABF				*e*Sn	S	14 22 35.1	-9.5
	comp=E,149nm,0.8s						
LSD	**Ceresole Reale**	15.76	49	P	P	14 19 54.0	+2.7
PGF	**Pioggiola**	15.85	61	*e*Pn	P	14 19 53.9	+1.5
PGF				*e*Sn	S	14 22 38.2	-8.6
	comp=E,20nm,0.5s						
PGF	**Pioggiola**	15.85	61	*e*Sn	S	14 22 38.2	-8.6
	comp=E,9.8nm,0.5s						
FIN	**Finale Ligure**	15.88	55	*e*P	P	14 19 54.3	+1.5
EMV	**Vieux Emosson**	15.92	47	⇑P	P	14 19 54.8	+1.5
HGH	**Gray Hill**	16.12	16	*e*P	P	14 19 55.6	-0.3
TRAV		16.15	50	P	P	14 19 59.1	+2.8
TRAV		16.15	50	P	P	14 19 59.1	+2.8
SFTF	**Sexfontaines**	16.18	38	*e*Pn	P	14 19 55.7	-0.9
SFTF				*e*Sn	S	14 22 44.3	-10
	comp=E,71nm,0.5s						
DIX	**Grande Dixence**	16.23	48	⇓P	P	14 20 00.0	+2.8
PCP	**Pian Castagno**	16.23	54	P	P	14 19 58.9	+1.6
ORO	**Oropa**	16.35	50	*e*P	P	14 20 01.9	+3.1
ORX	**Oropa**	16.36	50	P	P	14 20 01.6	+2.8
MEZF	**Maizieres J'vi**	16.39	37	*e*Pn	P	14 20 00.3	+1.1
MEZF				*e*Sn	S	14 22 48.6	-11
	comp=E,76nm,0.5s						
MCH1	**Michaelchurch**	16.42	15	*e*P	P	14 20 00.2	+0.6
HTR	**Trewern Hill**	16.44	15	*e*P	P	14 20 00.9	+1.1
LKBD	**Leukerbad**	16.52	47	⇓P	P	14 20 03.4	+2.6
MCGN	**Macugnaga**	16.52	49	*e*P	P	14 20 04.6	+3.8
MCGN	**Macugnaga**	16.52	49	*e*P	P	14 20 04.6	+3.8
MMK	**Mattmark**	16.55	49	⇑P	P	14 20 04.5	+3.3
TSA1	**Sevenoaks**	16.56	23	*e*P	P	14 20 02.8	+1.5
LOMF	**Lomont**	16.59	43	P	P	14 20 00.3	-1.5
THEF	**They Montfort**	16.68	40	P	P	14 20 02.4	-0.4
RFYF	**Reffroy**	16.68	38	*e*Pn	P	14 20 02.7	-0.2
RFYF				*e*Sn	S	14 22 55.7	-10
	comp=E,101nm,0.6s						
HAU	**Haudompre**	16.73	41	*e*Pn	P	14 20 02.7	-0.8
HAU				*e*Sn	S	14 22 57.0	-10
	comp=E,43nm,0.6s						
HAU				*e*R			
	comp=E,984nm,20.2s						
SSP1	**Stoney Pound**	16.79	14	*e*P	P	14 20 06.0	+1.7
HINF	**Hinteralfeld**	16.88	42	*e*Pn	P	14 20 04.6	-0.8
HINF				*e*Sn	S	14 23 01.6	-9.1
	comp=E,24nm,0.6s						
BOB	**Bobbio (Coli)**	16.91	54	*e*P	P	14 20 09.9	+4.1
HLM1	**Long Mynd**	16.93	15	*e*P	P	14 20 07.0	+1.0
VAI	**Varese**	16.95	50	*e*P	P	14 20 10.7	+4.4
BBS	**Basel-Blauen**	17.04	44	*e*P	P	14 20 08.9	+1.6
BBS	**Basel-Blauen**	17.04	44	P	P	14 20 11.1	+3.8
CODM		17.04	56	P	P	14 20 09.2	+1.9
CODM		17.04	56	P	P	14 20 09.2	+1.8
MOF	**Molkenrain**	17.05	42	P	P	14 20 07.1	-0.5
YRE	**Yr Eifl**	17.09	11	*e*P	P	14 20 10.2	+2.2
DSB	**Dublin**	17.10	7	*e*P	P	14 20 10.0	+1.9
	comp=E,39nm,0.8s						
DSB	**Dublin**	17.10	7	*e*P	P	14 20 10.0	+1.9
	comp=E,39nm,0.8s						
BAIF	**Baives**	17.11	32	*e*Pn	P	14 20 09.0	+0.8
BAIF				*e*Sn	S	14 23 07.0	-8.9
	comp=E,80nm,0.7s						
BAIF	**Baives**	17.11	32	*e*Sn	S	14 23 07.0	-8.9
	comp=E,40nm,0.7s						
DCN	**Croghan**	17.12	5	*e*P	P	14 20 10.1	+1.7
DCN				*e*S	S	14 22 56.7	-19
DLF	**Lyons Farm**	17.14	7	*e*P	P	14 20 09.7	+1.1
DLF				*e*S	S	14 22 53.2	-23
BACM		17.14	56	P	P	14 20 10.9	+2.1
BACM		17.14	56	P	P	14 20 10.9	+2.2
VINC	**Vinca**	17.15	57	P	P	14 20 10.9	+2.1
VINC	**Vinca**	17.15	57	P	P	14 20 10.9	+2.1
VINC	**Vinca**	17.15	57	P	P	14 20 10.9	+2.1
GRAM		17.22	56	P	P	14 20 12.3	+2.6
GRAM		17.22	56	P	P	14 20 12.3	+2.7
ECH	**Echery**	17.28	41	P	P	14 20 10.2	-0.3
VALM		17.29	56	P	P	14 20 12.8	+2.3
VALM		17.29	56	P	P	14 20 12.8	+2.3
YLL	**Llanberis**	17.29	12	⇑*e*P	P	14 20 13.2	+2.7
DOU	**Dourbes**	17.30	33	P	P	14 20 11.6	+0.9
	comp=E,50nm,1.0s						
MAIM		17.30	58	P	P	14 20 12.1	+1.4
SARO	**Sassorosso**	17.33	57	P	P	14 20 13.4	+2.3
SARO	**Sassorosso**	17.33	57	P	P	14 20 13.4	+2.3
SARO	**Sassorosso**	17.33	57	P	P	14 20 13.4	+2.3
YRC	**Rhoscolyn**	17.33	11	*e*P	P	14 20 11.0	0.0
GIVF	**Givet**	17.41	33	*e*Pn	P	14 20 12.5	+0.5
GIVF				*e*Sn	S	14 23 14.1	-8.7
	comp=E,89nm,0.5s						
GIVF	**Givet**	17.41	33	*e*Sn	S	14 23 14.1	-8.7
	comp=E,44nm,0.5s						
GRFL	**Gerfalco**	17.41	61	*e*P	P	14 20 15.7	+3.7
GRFL	**Gerfalco**	17.41	61	*e*P	P	14 20 15.7	+3.6
SULZ	**Sulz-Cheisache**	17.41	44	⇑P	P	14 20 14.4	+2.3
MUO	**Muotathal**	17.41	47	⇓P	P	14 20 14.9	+2.8
ERBM	**Eremo**	17.42	56	*e*P	P	14 20 17.3	+5.0
BDI	**Bagni Di Lucca**	17.42	57	*e*P	P	14 20 13.6	+1.3
WPM1	**Penmaenmawr**	17.45	12	⇑*e*P	P	14 20 14.7	+2.2
WCB1	**Church Bay**	17.46	11	⇑*e*P	P	14 20 15.1	+2.4
CDF	**Champ du Feu**	17.47	41	*e*Pn	P	14 20 13.6	+0.9
CDF				*e*Sn	S	14 23 12.8	-11
	comp=E,28nm,0.5s						
WLS	**Welschbruch**	17.51	41	P	P	14 20 13.7	+0.4
GSCL	**Gusciola**	17.52	56	P	P	14 20 17.1	+3.7
WME	**Myndd Eilian**	17.52	11	*e*P	P	14 20 16.6	+3.3
FELD	**Feldberg**	17.54	43	⇓*e*P	P	14 20 15.3	+1.6
FELD	**Feldberg**	17.54	43	P	P	14 20 14.9	+1.2
TUE	**Stuetta**	17.59	49	P	P	14 20 18.1	+3.8
DMUB	**Kingscourt**	17.70	6	*e*P	P	14 20 16.0	+0.4
DMUB				*e*S	S	14 23 11.0	-18
WLF	**Walferdange**	17.71	36	*e*P	P	14 20 16.5	+0.7
WLF				pmax	pmax		
	comp=Z,131nm,0.6s						
WLF	**Walferdange**	17.71	36	*e*P	P	14 20 16.5	+0.7
	comp=Z,131nm,0.6s						
WLF	**Walferdange**	17.71	36	*e*P	P	14 20 16.5	+0.7
	comp=Z,131nm,0.6s						
CSNT	**Castellina Chi**	17.72	60	*e*P	P	14 20 19.7	+3.7
CSNT	**Castellina Chi**	17.72	60	*e*P	P	14 20 19.7	+3.7
UCC	**Uccle**	17.73	31	P	P	14 20 17.4	+1.4
SLE	**Schleitheim**	17.76	44	⇓P	P	14 20 18.1	+1.7
ZCCA	**Zocca**	17.78	57	*e*P	P	14 20 22.0	+5.4
BFO	**Black Forest**	17.98	42	*e*P	P	14 20 20.4	+1.2
BFO				pmax	pmax		
	comp=Z,40nm,1.1s						
BFO	**Black Forest**	17.98	42	*e*P	P	14 20 20.4	+1.2
	comp=Z,40nm,1.1s						
VMG	**Vicchio**	18.04	58	P	P	14 20 22.0	+2.1
DAVOX	**Davos**	18.06	49	P	P	14 20 21.6	+1.4
	comp=Z,0.5nm,0.3s,baz=250,slow=11,SNR=15						
DAVOX				S	S	14 23 37.7	+0.1
	comp=Z,0.4nm,0.3s,baz=72,slow=11,SNR=4.2						
SPAK	**Spaichingen**	18.11	44	⇓*e*P	P	14 20 22.8	+2.0
SPAK	**Spaichingen**	18.11	44	P	P	14 20 22.4	+1.6
PGD	**Poggio Sodo**	18.14	59	*e*P	P	14 20 23.0	+1.8
RUP	**Ruppelstein**	18.17	37	⇓*e*P	P	14 20 22.6	+1.0
RUP	**Ruppelstein**	18.17	37	P	P	14 20 23.8	+2.2
CRE	**Caprese Michel**	18.22	60	*e*P	P	14 20 24.4	+2.1
BRMO	**Bormio**	18.22	50	*e*P	P	14 20 24.9	+2.6
BRMO	**Bormio**	18.22	50	*e*P	P	14 20 24.9	+2.6
SFI	**Santa Sofia**	18.23	59	*e*P	P	14 20 24.1	+1.7
GUT	**Gutenstein**	18.27	44	⇓*e*P	P	14 20 24.7	+1.8
MEM	**Membach**	18.30	34	P	P	14 20 22.7	-0.5
DAVA	**Damuels**	18.31	47	⇑*i*P	P	14 20 25.0	+1.7
	comp=Z,77nm,1.6s						
HGN	**Heimansgroeve**	18.38	33	*e*P	P	14 20 24.2	0.0
	comp=Z,49nm,1.2s						
HGN				*e*x	x	14 20 34.4	
HGN				*e*P		14 23 34.0	
	comp=Z,64nm,1.0s						
HGN				*e*S	S	14 23 55.5	+11
HGN	**Heimansgroeve**	18.38	33	P	P	14 20 25.3	+1.1
KTD	**Kalmit**	18.44	40	P	P	14 20 26.2	+1.2
MNS	**Montasola**	18.45	64	*e*P	P	14 20 25.9	+0.8
CLTB	**Caltabellotta**	18.50	79	P	P	14 20 26.2	+0.4
ABH	**Alteburg**	18.53	38	⇓*e*P	P	14 20 27.0	+0.9
ABH	**Alteburg**	18.53	38	P	P	14 20 26.3	+0.2
MURB	**Monte Urbino**	18.53	61	*e*P	P	14 20 27.9	+1.7
MURB	**Monte Urbino**	18.53	61	*e*P	P	14 20 27.9	+1.8
BUCH	**Bad Urach**	18.61	43	⇓*e*P	P	14 20 28.8	+1.7
BUCH	**Bad Urach**	18.61	43	P	P	14 20 28.6	+1.5
UBR	**Uberruh**	18.64	46	P	P	14 20 29.1	+1.7
FSSB	**Fossombrone**	18.82	60	*e*P	P	14 20 31.3	+1.7
FSSB	**Fossombrone**	18.82	60	*e*P	P	14 20 31.3	+1.7
SNTG	**Esanatoglia**	18.82	61	*e*P	P	14 20 30.9	+1.3
SNTG	**Esanatoglia**	18.82	61	*e*P	P	14 20 30.9	+1.2
CTI	**Castel Tesino**	18.84	52	*e*P	P	14 20 31.6	+1.7
ARV	**Arcevia**	18.88	61	*e*P	P	14 20 32.3	+1.9
ARV	**Arcevia**	18.88	61	*e*P	P	14 20 32.3	+1.9
AQU	**L'Aquila**	18.96	64	*e*P	P	14 20 32.2	+0.9
AQU				pmax	pmax		
	comp=Z,45nm,1.0s						
AQU	**L'Aquila**	18.96	64	*e*P	P	14 20 32.2	+0.9
	comp=Z,45nm,1.0s						
AQU	**L'Aquila**	18.96	64	*e*P	P	14 20 32.2	+0.9
	comp=Z,45nm,1.0s						
CING	**Cingoli**	19.03	61	*e*P	P	14 20 34.4	+2.3
MOTA	**Moosalm**	19.07	48	⇑*i*P	P	14 20 33.1	+0.7
	comp=Z,17nm,1.6s						
MOTA	**Moosalm**	19.07	48	⇑*i*P	P	14 20 33.1	+0.7
MOTA				pmax	pmax		
	comp=Z,17nm,1.6s						
SQTA	**Sankt Quirin**	19.07	49	⇓*i*P	P	14 20 33.7	+1.2
	comp=Z,13nm,1.2s						
SQTA	**Sankt Quirin**	19.07	49	⇓*i*P	P	14 20 33.7	+1.2
SQTA				pmax	pmax		
	comp=Z,13nm,1.2s						
TERO	**Teramo**	19.16	64	*e*P	P	14 20 35.3	+1.7
TERO	**Teramo**	19.16	64	*e*P	P	14 20 35.3	+1.7
HDH	**Heidenheim**	19.16	44	P	P	14 20 35.5	+2.0
BRES	**Bressanone**	19.16	51	P	P	14 20 34.0	+0.4
SIND	**Sindeldorf**	19.26	41	P	P	14 20 36.2	+1.6
WTTA	**Wattenberg**	19.35	49	⇑*i*P	P	14 20 35.8	+0.2
	comp=Z,60nm,1.6s						
WTTA	**Wattenberg**	19.35	49	⇑*i*P	P	14 20 35.8	+0.2
WTTA				pmax	pmax		
	comp=Z,60nm,1.6s						
AOI	**Ancona**	19.36	61	P	P	14 20 39.4	+3.6
VAE	**Valguarnera**	19.45	79	P	P	14 20 36.1	-0.7
	comp=Z,15nm,0.3s,baz=151,slow=21,SNR=9.0						
VAE	**Valguarnera**	19.45	79	P	P	14 20 36.2	-0.7
CII	**Carovilli**	19.52	67	P	P	14 20 36.9	-0.7
	comp=Z,18nm,0.7s						
CII	**Carovilli**	19.52	67	P	P	14 20 36.9	-0.7
	comp=Z,18nm,0.7s						
ESK	**Eskdalemuir**	19.54	11	*e*P	P	14 20 36.8	-0.9
ESK				pmax	pmax		
	comp=Z,18nm,0.8s						
ESK	**Eskdalemuir**	19.54	11	*e*P	P	14 20 36.8	-0.9
	comp=Z,18nm,0.8s						
ESK	**Eskdalemuir**	19.54	11	*e*P	P	14 20 36.8	-0.9
	comp=Z,18nm,0.8s						
EKA	**Eskdalemuir Ar**	19.57	12	P	P	14 20 37.7	-0.2
	comp=Z,1.0nm,0.3s,baz=188,slow=9.9,SNR=30						
EKA				S	S	14 23 58.0	-13
	comp=Z,0.6nm,0.3s,baz=198,slow=16,SNR=3.9						
WTSB	**Winterswijk**	19.62	32	*e*P	P	14 20 41.2	+2.6
	comp=Z,65nm,1.0s						
WTSB				*e*P		14 24 01.4	
	comp=Z,35nm,1.3s						
FVI	**Forni Avoltri**	19.78	52	*e*P	P	14 20 40.3	-0.1
EBL	**Broad Law**	20.01	11	⇑*e*P	P	14 20 43.0	+0.2
EAU	**Auchinoon**	20.02	11	⇑*e*P	P	14 20 44.0	+1.2
EAU				AMb	AMB	14 20 48.0	
	comp=Z,126nm,1.3s						
PTCC	**Patocco-Chiusa**	20.07	53	*e*P	P	14 20 43.2	-0.3
PTCC	**Patocco-Chiusa**	20.07	53	*e*P	P	14 20 43.2	-0.3
TRI	**Trieste**	20.09	55	*e*P	P	14 20 43.6	-0.1
EDI	**Edinburgh**	20.13	11	⇑*e*P	P	14 20 42.5	-1.5
EDI				AMb	AMB	14 20 45.3	
	comp=Z,58nm,0.9s						
SGO	**Sicignano**	20.16	70	P	P	14 20 45.9	+1.5
FG5	**Orsara di Pugl**	20.19	68	P	P	14 20 45.7	+1.0
ESY	**Stoneypath**	20.22	12	⇑*e*P	P	14 20 45.2	+0.3
ESY				AMb	AMB	14 20 47.0	
	comp=Z,58nm,2.4s						
EAB	**Aberfoyle**	20.23	9	⇑*e*P	P	14 20 44.2	-0.9
EAB				AMb	AMB	14 20 50.3	
	comp=Z,77nm,1.9s						
VOY	**Vojsko**	20.29	54	*e*P	P	14 20 45.5	-0.3
VOY				*e*		14 21 00.5	
VOY				*e*		14 21 11.0	
GRA1	**Grafenberg Arr**	20.32	42	*e*P	P	14 20 47.4	+1.3
GRA1				LR	LR		
	comp=Z,500nm,20.0s,MS3.9						
GRF	**Grafenberg Arr**	20.32	42	*e*P	P	14 20 47.4	+1.3
GRF				MLR	MLR		
	comp=Z,500nm,20.0s,MS3.9						
GRF	**Grafenberg Arr**	20.32	42	*e*P	P	14 20 47.4	+1.3
GRF				MLR	MLR		
	comp=Z,500nm,20.0s,MS3.9						
KBA	**Koelnbreinsper**	20.33	51	⇑*i*P	P	14 20 45.7	-0.5
	comp=Z,36nm,2.0s						
KBA	**Koelnbreinsper**	20.33	51	⇑*i*P	P	14 20 45.7	-0.5
KBA				pmax	pmax		
	comp=Z,36nm,2.0s						
JAVS	**Javornik**	20.36	55	*i* P	P	14 20 46.3	-0.2
SLCN	**Sala Consilina**	20.39	71	P	P	14 20 49.1	+2.2
RGNG	**Rignano Grg**	20.47	67	P	P	14 20 47.5	-0.2
CUC	**Castrocucco**	20.51	72	P	P	14 20 47.5	-0.6
LJU	**Ljubljana**	20.71	54	*e*P	P	14 20 50.9	+0.7
LJU				*i*		14 20 54.5	
LJU	**Ljubljana**	20.71	54	*e*P	P	14 20 50.8	+0.7
VISS	**Visnje**	20.84	55	*e*P	P	14 20 51.4	0.0
VISS				*i*		14 20 55.2	
NOTT	**Nottersdorf**	20.88	43	*e*P	P	14 20 52.7	+0.8
	comp=Z,12nm,1.0s						
OBKA	**Obir**	20.88	53	⇓*i*P	P	14 20 52.0	+0.1
	comp=Z,76nm,2.0s						
WET	**Wettzell**	20.97	45	*e*P	P	14 20 53.6	+0.9
WET				pmax	pmax		
	comp=Z,26nm,1.0s						
WET	**Wettzell**	20.97	45	*e*P	P	14 20 53.6	+0.9
	comp=Z,26nm,1.0s						
ORI	**Oriolo Calabro**	21.00	72	*e*P	P	14 20 54.8	+1.6
BOJS	**Bojanci**	21.02	56	*e*P	P	14 20 53.5	+0.1
MOX	**Moxa**	21.07	40	*e*P	P	14 20 58.7	+5.0
MOX				pmax	pmax		
	comp=Z,49nm,1.9s,mb4.5						
MOX				MLR	MLR		
	comp=Z,300nm,18.0s,MS3.7						
MOX	**Moxa**	21.07	40	*i* P	P	14 20 58.7	+5.0
	comp=Z,logA/T=1.4,mb4.5						
MOX				L		14 29 11.0	
MOX	**Moxa**	21.07	40	*e*P	P	14 20 58.7	+5.0
	comp=Z,49nm,1.9s,mb4.5						
MOX				LR	LR		
	comp=Z,300nm,18.0s,MS3.7						
CLZ	**Clausthal**	21.16	37	*e*P	P	14 20 58.3	+3.6
	comp=Z,31nm,1.0s,mb4.6						
MOA	**Molln**	21.21	50	⇑*i*P	P	14 20 54.1	-1.1
	comp=Z,25nm,1.1s,mb4.5						
TIP	**Timpagrande**	21.23	74	*e*P	P	14 20 54.5	-1.0
CRES	**Cresnjev**	21.26	56	*e*P	P	14 20 55.8	+0.1
CRES				*e*		14 21 00.8	
CRES				*e*		14 21 08.9	
GEC2	**GERESS Array S**	21.30	47	*e*P	P	14 20 56.8	+0.7
GEC2				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.5						
GEC2	**GERESS Array S**	21.30	47	*e*P	P	14 20 56.8	+0.7
	comp=Z,22nm,0.8s,mb4.5						
GERES	**GERESS Array B**	21.30	47	P	P	14 20 56.3	+0.2
	comp=Z,14nm,0.7s,mb4.4,baz=240,slow=11,SNR=72						
GERES				S	S	14 24 49.7	+3.8
	comp=Z,1.1nm,0.5s,baz=249,slow=22,SNR=3.5						
GERES	**GERESS Array B**	21.30	47	S	S	14 24 49.7	+3.8
WERD	**Werda**	21.32	42	*e*P	P	14 20 57.9	+1.6
	comp=Z,10.0nm,1.1s,mb4.1						
KHC	**Kasperske Hory**	21.36	46	*e*P	P	14 20 57.6	+0.9
KHC	**Kasperske Hory**	21.36	46	P	P	14 20 57.5	+0.8
DOBS	**Dobrina**	21.36	55	*e*P	P	14 20 57.5	+0.8
CLL	**Collm**	22.16	40	*i* P	P	14 21 07.2	+2.5
CLL				*i*		14 21 25.4	
CLL				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.5						
CLL				MLR	MLR		
	comp=Z,600nm,19.7s,MS4.0						
CLL	**Collm**	22.16	40	*i* P	P	14 21 07.2	+2.5
	comp=Z,19nm,0.9s,mb4.5						
CLL				*i*		14 21 25.4	
CLL				*e*S	S	14 25 17.0	+15
CLL				LR	LR		
	comp=Z,600nm,19.7s,MS4.0						
CLL	**Collm**	22.16	40	P	P	14 21 07.2	+2.5
	comp=Z,logA/T=1.3,mb4.5						
CLL				*i*		14 21 25.4	
CLL				*i*		14 21 43.6	
CLL				*e*S	S	14 25 17.0	+15
BRG	**Berggiesshubel**	22.43	42	*i* P	P	14 21 07.2	-0.2
BRG				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.5						
BRG				MLR	MLR		
	comp=Z,600nm,19.7s,MS4.0						
BRG	**Berggiesshubel**	22.43	42	*i* P	P	14 21 07.2	-0.2
	comp=Z,19nm,0.9s,mb4.5						
BRG				*i*		14 21 25.4	
BRG				*e*S	S	14 25 17.0	+10
BRG				LR	LR		
	comp=Z,600nm,19.7s,MS4.0						
BSEG	**Bad Segeberg**	22.52	32	*e*P	P	14 21 09.3	+1.1
RHK1	**Bakonya**	23.08	56	*e*P	P	14 21 18.1	+4.3
ZST	**Bratislava**	23.10	51	*e*P	P	14 21 16.2	+2.3
ZST				*e*		14 21 25.3	
ZST				*e*		14 21 29.4	
SMOL	**Smolenice**	23.42	50	*e*P	P	14 21 24.9	+7.9
SMOL				*e*		14 21 32.9	
SMOL	**Smolenice**	23.42	50	*e*	P	14 21 24.9	+7.9
SMOL				*e*		14 21 32.9	
PKSM	**Moragy**	23.50	56	P	P	14 21 18.6	+0.8
PKSG		23.66	53	*e*P	P	14 21 19.8	+0.5
KSP	**Ksiaz**	23.71	44	*e*P		14 21 33.5	
KSP				*e*S	S	14 25 37.0	+7.5
KSP				MLR	MLR		
	comp=Z,700nm,23.7s,MS4.0						
KSP	**Ksiaz**	23.71	44	*e*P		14 21 34.1	
KSP				*e*pP	Px	14 21 42.2	
KSP				MLR	MLR	14 30 12.5	
	comp=Z,600nm,23.7s,MS4.0						
MUD	**Monsted U'grnd**	23.90	27	*i* P	P	14 21 22.8	+1.3
MUD				*i*		14 21 38.2	
MUD				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.4						
MUD	**Monsted U'grnd**	23.90	27	*i* P	P	14 21 22.8	+1.3
	comp=Z,9.4nm,0.6s,mb4.4						
MUD				*i*		14 21 38.2	
DIVS	**Divcibare**	24.00	62	⇓*i*P	P	14 21 21.6	-1.1
LKD	**Levkas**	24.28	75	*e*P	P	14 21 23.7	-1.8
VYHS	**Vyhne**	24.29	51	*e*P	P	14 21 29.7	+4.2
VYHS				*e*		14 21 39.7	
VYHS	**Vyhne**	24.29	51	*e*P	P	14 21 29.7	+4.2
VYHS				*e*		14 21 37.1	
VYHS				*e*		14 21 39.7	
VYHS				*e*		14 25 23.8	
GRUS	**Gruza**	24.49	63	⇓*i*P	P	14 21 28.7	+1.2
MEV	**Metsovon**	24.68	72	*e*P	P	14 21 27.4	-1.9
FNA	**Florina**	24.77	70	*e*P	P	14 21 31.5	+1.2
PSZ	**Piszkesteto**	24.79	53	*e*P	P	14 21 31.5	+1.2
PSZ				pmax	pmax		
	comp=Z,66nm,1.7s,mb4.9						
PSZ	**Piszkesteto**	24.79	53	*e*P	P	14 21 31.5	+1.2
	comp=Z,66nm,1.7s,mb4.9						
PSZ	**Piszkesteto**	24.79	53	*e*P	P	14 21 31.5	+1.2
	comp=Z,66nm,1.7s,mb4.9						
SKO	**Skopje**	24.85	67	*e*P	P	14 21 27.8	-3.2
	comp=Z,50nm,0.8s,mb5.1						
SKO				*i*		14 21 46.5	
SKO	**Skopje**	24.85	67	*e*P	P	14 21 27.8	-3.2
SKO				⇑*i*		14 21 46.5	
	comp=Z,0.1nm,0.8s						
BSD	**Bornholm Skovb**	25.32	34	*i* P	P	14 21 34.4	-0.9
BSD				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.5						
BSD	**Bornholm Skovb**	25.32	34	*i* P	P	14 21 34.4	-0.9
	comp=Z,18nm,1.2s,mb4.5						
BSD				*i*		14 21 52.6	
	comp=Z,520nm,20.0s						
GKP	**Gorka Klasztor**	25.41	40	*e*P	pP	14 21 47.1	+1.6
GKP				*e*pP	sP	14 21 52.9	+3.6
GKP				MLR	MLR	14 33 12.9	
	comp=Z,400nm,17.0s,MS4.0						
GRG	**Griva**	25.55	70	*e*P	P	14 21 37.1	-0.6
AGG	**Agios Georgios**	25.57	74	*e*P	P	14 21 41.8	+4.0
LIT	**Litokhoron**	25.64	72	*e*P	P	14 21 37.2	-1.2
KNT	**Kendrikon**	25.93	69	*e*P	P	14 21 40.1	-1.1
CRVS	**Cervenica-Dubn**	26.07	51	*e*P	P	14 21 45.1	+2.7
CRVS				*e*	pP	14 21 54.3	+2.5
XOR	**Xorichti**	26.21	73	*e*P	P	14 21 38.3	-5.5
SOH	**Sokhos**	26.28	70	*e*P	P	14 21 43.0	-1.4
SRS	**Serrai**	26.45	69	*e*P	P	14 21 49.9	+3.9
PAIG	**Paliouri**	26.56	72	*e*P	P	14 21 42.9	-4.0
AOS	**Alonnisos**	26.76	74	*e*P	P	14 21 40.1	-8.8
OUR	**Ouranopolis**	26.77	71	*e*P	P	14 21 44.8	-4.2
KWP	**Kalwaria**	27.07	50	*e*P	pP	14 22 04.8	+3.8
KWP				*e*pP	sP	14 22 09.8	+4.7
KWP				MLR	MLR	14 33 45.6	
	comp=Z,400nm,20.1s,MS4.0						
GVD	**Gavdhos**	27.59	83	P	P	14 21 55.8	-0.6
	comp=Z,19nm,0.5s,mb5.0						
GVD	**Gavdhos**	27.59	83	P	P	14 21 55.8	-0.7
	comp=Z,19nm,0.5s,mb5.0						
LOS	**Limnos**	27.63	72	*e*P	P	14 21 57.1	+0.3
NB2	**NORSAR Subarra**	28.13	22	P	P	14 22 00.5	-0.6
	comp=Z,15nm,1.1s,mb4.5,baz=218,slow=8.6						
NB2	**NORSAR Subarra**	28.13	22	P	P	14 22 00.5	-0.6
NB2				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.5						
NOA	**NORSAR Array B**	28.13	22	P	P	14 22 00.8	-0.3
	comp=Z,2.6nm,0.8s,mb3.9,baz=216,slow=8.5,SNR=5.6						
NOA				sP	sP	14 22 15.6	+0.8
	comp=Z,3.4nm,1.1s,baz=212,slow=8.2,SNR=4.0						
NOA				sPcP		14 25 31.6	
	comp=Z,4.3nm,0.8s,baz=221,slow=2.6,SNR=3.8						
NOA				LR	LR	14 34 42.1	
	comp=Z,277nm,18.8s,MS3.9,baz=230,slow=39						
IDI	**Anoyia**	28.13	82	P	P	14 22 01.2	-0.2
	comp=Z,9.1nm,0.6s,mb4.6,baz=299,slow=9.8,SNR=9.2						

IDI				sP	sP	14 22 16.0	+0.9
	comp=Z,41nm,0.7s,baz=278,slow=7.4,SNR=14						
HFS	**Hagfors**	**28.24**	**25**	P	**P**	**14 22 01.4**	**-0.6**
	comp=Z,5.5nm,0.7s,mb4.3,baz=214,slow=11,SNR=8.6						
HFS				sP	sP	14 22 16.9	+1.1
	comp=Z,13nm,0.5s,baz=211,slow=8.6,SNR=13						
HFS				sPcP		14 25 30.5	
	comp=Z,6.9nm,0.7s,baz=180,slow=4.4,SNR=5.0						
MLR	**Muntele Rosu**	**28.39**	**60**	P	**P**	**14 22 03.6**	**+0.1**
	comp=Z,1.8nm,0.8s,mb3.7,baz=202,slow=11,SNR=3.0						
SUW	**Suwalki**	**28.89**	**42**	P	**P**	**14 22 10.0**	**+2.1**
SUW				*e*		14 22 22.9	
SUW				*e**PP	pP	14 22 24.0	+6.5
SUW				pmax	pmax		
	comp=Z,31nm,0.4s,mb5.4						
SUW	**Suwalki**	**28.89**	**42**	P	**P**	**14 22 10.0**	**+2.0**
	comp=Z,31nm,0.4s,mb5.4						
SUW				*e*		14 22 22.9	
SUW				*e*pP	pP	14 22 24.0	+6.5
SUW	**Suwalki**	**28.89**	**42**	*e*P	sP	14 22 22.4	+0.6
SUW				*e*pP	Px	14 22 24.0	
SUW				MLR	MLR	14 34 00.6	
	comp=Z,200nm,19.6s,MS3.7						
BORG	**Borgarnes**	**29.28**	**350**	LR	LR	14 30 39.7	
	comp=Z,716nm,19.3s,MS4.3,baz=190,slow=30						
DBIC	**Dimbokro**	**29.87**	**170**	P	**P**	**14 22 15.0**	**-2.0**
	comp=Z,17nm,0.6s,mb5.0,baz=343,slow=9.7,SNR=39						
DBIC				LR	LR	14 34 45.0	
	comp=Z,503nm,19.4s,MS4.2,baz=336,slow=37						
FINES	**FINESS Array B**	**33.77**	**31**	P	**P**	**14 22 50.5**	**-0.3**
	comp=Z,9.4nm,0.7s,mb4.8,baz=239,slow=7.2,SNR=51						
FINES				pP	pP	14 23 00.3	-0.1
	comp=Z,12nm,0.7s,baz=241,slow=7.2,SNR=11						
FINES				sP	sP	14 23 05.2	+0.5
	comp=Z,17nm,0.6s,baz=236,slow=6.9,SNR=13						
FINES				LR	LR	14 37 22.2	
	comp=Z,701nm,21.1s,MS4.4,baz=242,slow=38						
FINES	**FINESS Array B**	**33.77**	**31**	P	**P**	**14 22 50.5**	**-0.3**
FINES				pP	pP	14 23 00.3	-0.1
FINES				sP	sP	14 23 05.2	+0.5
FINES				LR	LR	14 37 22.2	
SIM	**Simferopol'**	**34.13**	**62**	*e*P	**P**	**14 22 51.5**	**-2.5**
SIM				*e*S	**S**	**14 28 15.0**	**-1.9**
SIM				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
SIM				MLR	MLR		
	comp=Z,200nm,18.0s,MS3.9						
BRTR	**Keskin Array B**	**34.20**	**71**	P	**P**	**14 22 54.5**	**-0.2**
	comp=Z,1.2nm,0.8s,mb3.9,baz=225,slow=7.0,SNR=3.9						
BRTR				pP	pP	14 23 04.0	-0.4
	comp=Z,1.0nm,0.6s,baz=254,slow=9.0,SNR=3.5						
BRTR				sP	sP	14 23 09.5	+0.8
	comp=Z,6.9nm,1.2s,baz=270,slow=8.6,SNR=5.5						
BRTR	**Keskin Array B**	**34.20**	**71**	P	**P**	**14 22 54.5**	**-0.2**
BRTR				pP	pP	14 23 04.0	-0.4
KAF	**Kangasniemi**	**34.21**	**30**	*e*p	**P**	**14 22 52.4**	**-2.2**
	comp=Z,5.8nm,0.6s,mb4.7						
KAF	**Kangasniemi**	**34.21**	**30**	*e*P	**P**	**14 22 52.4**	**-2.2**
KAF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
JMIC	**Jan Mayen**	**34.74**	**1**	LR	LR	14 35 32.9	
	comp=Z,380nm,18.6s,MS4.2,baz=273,slow=33						
CSS	**Prodhromos**	**34.93**	**79**	*e*P	**P**	**14 23 01.6**	**+0.7**
	comp=Z,11nm,0.8s,mb4.8						
CSS				*e*		14 23 17.9	
CSS	**Prodhromos**	**34.93**	**79**	*e*P	**P**	**14 23 01.6**	**+0.6**
ANN	**Anapa**	**36.49**	**62**	*e*P	**P**	**14 23 01.1**	**-13**
ANN				pmax	pmax		
	comp=Z,128nm,1.3s,mb5.7						
JOF	**Joensuu**	**36.63**	**30**	*e*p	**P**	**14 23 12.7**	**-2.4**
	comp=Z,2.6nm,0.4s,mb4.4						
OBN	**Obninsk**	**36.64**	**44**	P	**P**	**14 23 15.0**	**-0.3**
OBN				*e*	pP	14 23 25.2	+0.2
OBN				*i*		14 23 31.1	
OBN				SS	SS	14 31 18.0	-5.2
OBN				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
OBN				MLR	MLR		
	comp=Z,300nm,20.0s,MS4.1						
VRSR	**Storozhevoye**	**37.70**	**51**	*e*P	**P**	**14 23 22.4**	**-1.8**
VRSR				*e**PP	pP	14 23 33.9	0.0
VRSR				*e**SP	sP	14 23 40.7	+2.5
VRSR				*e*		14 25 39.3	
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
VRSR				pmax	pmax		
	comp=N,20nm,1.4s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
EIL	**Elat**	**37.92**	**87**	*e*P	**P**	**14 23 26.6**	**+0.3**
	comp=E,5.8nm,0.7s,mb4.4						
EIL	**Elat**	**37.92**	**87**	*e*P	**P**	**14 23 26.6**	**+0.3**
	comp=E,5.8nm,0.7s,mb4.4						
MALT	**Malatya**	**38.13**	**72**	*e*P	**P**	**14 23 27.5**	**-0.4**
MALT				*e*		14 23 43.0	
MALT				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.6						
MALT	**Malatya**	**38.13**	**72**	*e*P	**P**	**14 23 27.5**	**-0.5**
	comp=Z,16nm,1.2s,mb4.6						
MALT				*e*		14 23 43.0	
ARCES	**ARCESS Array B**	**38.41**	**19**	P	**P**	**14 23 29.7**	**-0.2**
	comp=Z,13nm,0.5s,mb4.9,baz=227,slow=9.0,SNR=96						
ARCES				sP	sP	14 23 45.5	+1.6
	comp=Z,28nm,0.8s,baz=225,slow=8.6,SNR=9.9						
ARCES				sPcP		14 25 59.5	
	comp=Z,11nm,0.6s,baz=244,slow=2.6,SNR=8.8						
ARCES				LR	LR	14 38 51.4	
	comp=Z,498nm,20.3s,MS4.3,baz=218,slow=35						
ARCES	**ARCESS Array B**	**38.41**	**19**	P	**P**	**14 23 29.7**	**-0.2**
ARCES				sP	sP	14 23 45.5	+1.6
ARCES				sPcP		14 25 59.5	
ARCES				LR	LR	14 38 51.4	
ASF	**Jabal al Asfar**	**38.60**	**82**	P	**P**	**14 23 32.4**	**+0.5**
	comp=Z,1.6nm,0.4s,mb4.1,baz=147,slow=5.3,SNR=4.2						
ASF				pP	pP	14 23 43.1	+1.4
	comp=Z,2.9nm,0.4s,baz=143,slow=11,SNR=2.6						
ASF				sP	sP	14 23 48.6	+2.7
	comp=Z,6.5nm,0.5s,baz=145,slow=6.9,SNR=5.0						
KEV	**Kevo**	**38.95**	**19**	*e*p	**P**	**14 23 33.8**	**-0.6**
	comp=Z,2.0nm,0.4s,mb4.2						
KEV	**Kevo**	**38.95**	**19**	*e*P	**P**	**14 23 33.8**	**-0.6**
KEV				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
DAG	**Danmarks Havn**	**40.74**	**357⇑**	*i*P	**P**	**14 23 50.4**	**+1.2**
DAG				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.7						
DAG	**Danmarks Havn**	**40.74**	**357⇑**	*i*P	**P**	**14 23 50.4**	**+1.2**
	comp=Z,16nm,0.8s,mb4.7						
ZEI	**Tsey**	**41.38**	**64**	*i* P	**P**	**14 23 58.9**	**+4.1**
ZEI				*i* *PP	pP	14 24 12.2	+7.6
ZEI				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
SCHQ	**Schefferville**	**42.62**	**314**	P	**P**	**14 24 04.6**	**-0.3**
	comp=Z,18nm,0.6s,mb5.0,baz=86,slow=7.5,SNR=45						
SCHQ				LR	LR	14 37 58.2	
	comp=Z,221nm,19.1s,MS4.1,baz=106,slow=31						
SCHQ	**Schefferville**	**42.62**	**314**	*e*P	**P**	**14 24 04.1**	**-0.7**
	comp=Z,23nm,0.7s,mb5.0						
SCHQ	**Schefferville**	**42.62**	**314**	*e*P	**P**	**14 24 04.1**	**-0.7**
	comp=Z,23nm,0.7s,mb5.0						
FRB	**Frobisher Bay**	**44.36**	**327**	P	**P**	**14 24 18.2**	**-0.6**
	comp=Z,34nm,1.1s,mb5.0						
SOKR	**Solikamsk**	**47.90**	**39⇓**	*e*P	sP	14 24 57.8	-3.1
SOKR				pmax	pmax		
	comp=Z,20nm,1.8s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,310nm,23.0s,MS4.2						
NCB	**Newcomb**	**48.66**	**300**	*e*P	**P**	**14 24 53.8**	**+0.8**
NCB				LR	LR		
	comp=Z,363nm,20.0s,MS4.4						
NCB	**Newcomb**	**48.66**	**300**	*e*P	**P**	**14 24 53.8**	**+0.8**
ARU	**Arti**	**49.07**	**43⇑**	*i*P	**P**	**14 24 56.1**	**+0.2**
ARU				*e*		14 26 16.8	
ARU				*e*		14 26 47.7	
ARU				*e*PPP	PPP	14 27 39.4	-4.4
ARU				*e*S	**S**	**14 31 59.5**	**+2.2**
ARU				*e*SS	SS	14 35 31.9	+7.8
ARU				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
ARU	**Arti**	**49.07**	**43**	*e*P	**P**	**14 24 56.2**	**+0.3**
	comp=Z,9.8nm,1.2s,mb4.7						
ARU				LR	LR		
	comp=Z,53nm,21.0s,MS3.5						
SADO	**Sadowa**	**51.86**	**302**	P	**P**	**14 25 16.1**	**-1.2**
	comp=Z,35nm,0.6s,mb5.5,baz=85,slow=7.7,SNR=23						
SADO				LR	LR	14 45 36.5	
	comp=Z,486nm,18.6s,MS4.6,baz=95,slow=34						
SSPA	**Standing Stone**	**52.21**	**297**	*e*P	**P**	**14 25 20.4**	**+0.4**
SSPA	**Standing Stone**	**52.21**	**297**	*e*P	**P**	**14 25 20.4**	**+0.4**
MBAR	**Mbarara**	**52.64**	**125**	*i* P	**P**	**14 25 23.0**	**-0.6**
MBAR	**Mbarara**	**52.64**	**125**	*e*P	**P**	**14 25 22.7**	**-0.9**
	comp=Z,12nm,1.1s,mb4.7						
MBAR	**Mbarara**	**52.64**	**125**	*e*P	**P**	**14 25 22.7**	**-0.9**
	comp=Z,12nm,1.1s,mb4.7						
MCWV	**Mont Chateau**	**53.95**	**296**	*e*P	**P**	**14 25 32.5**	**-0.5**
	comp=Z,50nm,1.0s,mb5.4						
MCWV	**Mont Chateau**	**53.95**	**296**	*e*P	**P**	**14 25 32.5**	**-0.5**
	comp=Z,50nm,1.0s,mb5.4						
ACSO	**Alum Creek Sta**	**56.01**	**298**	*e*P	**P**	**14 25 47.8**	**-0.1**
	comp=Z,65nm,0.9s,mb5.7						
ACSO				*e*		14 26 05.3	
ACSO	**Alum Creek Sta**	**56.01**	**298**	*e*P	**P**	**14 25 47.8**	**-0.1**
BRVK	**Borovoye**	**56.40**	**46**	*e*P	**P**	**14 25 50.3**	**-0.2**
BRVK				*e*	pP	14 25 59.4	-1.2
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
BRVK				MLR	MLR		
	comp=Z,63nm,19.0s,MS3.7						
BRVK	**Borovoye**	**56.40**	**46**	*e*P	**P**	**14 25 50.3**	**-0.2**
	comp=Z,3.0nm,0.8s,mb4.4						
BRVK				*e*	pP	14 25 59.4	-1.2
BRVK				LR	LR		
	comp=Z,63nm,19.0s,MS3.7						
CHKZ	**Chkalovo**	**56.41**	**45**	*e*P	**P**	**14 25 50.1**	**-0.4**
CHKZ				*e*	pP	14 25 59.7	-0.9
CHKZ				*e*		14 26 05.5	
CHKZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
CHKZ	**Chkalovo**	**56.41**	**45**	*e*P	**P**	**14 25 50.1**	**-0.5**
	comp=Z,1.9nm,0.6s,mb4.3						
CHKZ				*e*	pP	14 25 59.7	-0.9
CHKZ				*e*		14 26 05.5	
BVAR	**Borovoye Array**	**56.47**	**46**	P	**P**	**14 25 50.9**	**-0.1**
	comp=Z,0.8nm,0.5s,mb4.0,baz=333,slow=6.6,SNR=5.3						
BVAR				pP	pP	14 26 00.5	-0.6
	comp=Z,3.6nm,0.8s,baz=284,slow=6.1,SNR=9.0						
BVAR				sP	sP	14 26 07.3	+2.3
	comp=Z,6.1nm,0.6s,baz=292,slow=7.6,SNR=13						
KMBO	**Kilima Mbogo**	**57.47**	**120**	P	**P**	**14 25 58.7**	**+0.1**
	comp=Z,4.9nm,0.8s,mb4.6,baz=319,slow=6.7,SNR=14						
KMBO				LR	LR	14 51 59.7	
	comp=Z,126nm,19.8s,MS4.0,baz=278,slow=37						
KMBO	**Kilima Mbogo**	**57.47**	**120**	*e*P	**P**	**14 25 59.8**	**+1.1**
KMBO				*e*		14 26 17.3	
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.1s						
KMBO	**Kilima Mbogo**	**57.47**	**120**	*e*P	**P**	**14 25 59.8**	**+1.1**
	comp=Z,9.2nm,1.1s,mb4.7						
KMBO				*e*		14 26 17.3	
WCI	**Wyandotte Cave**	**59.15**	**297**	*e*P	**P**	**14 26 09.5**	**-0.6**
WCI				*e*		14 26 26.9	
WCI				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.4						
WCI	**Wyandotte Cave**	**59.15**	**297**	*e*P	**P**	**14 26 09.5**	**-0.5**
	comp=Z,37nm,0.9s,mb5.4						
WCI				*e*		14 26 26.9	
ULM	**Lac du Bonnet**	**60.77**	**313**	P	**P**	**14 26 20.1**	**-0.9**
	comp=Z,12nm,1.1s,mb5.0,baz=89,slow=6.0,SNR=8.5						
ULM	**Lac du Bonnet**	**60.77**	**313**	P	**P**	**14 26 20.0**	**-1.0**
SDV	**Santo Domingo**	**61.29**	**259**	*e*P	**P**	**14 26 24.9**	**-0.1**
	comp=Z,19nm,0.9s,mb5.2						
SDV				*e*		14 26 42.5	
SDV				LR	LR		
	comp=Z,88nm,19.0s,MS3.9						
LRAL	**Lakeview Retre**	**61.89**	**292**	*e*P	**P**	**14 26 28.0**	**-0.8**
	comp=Z,14nm,1.1s,mb5.0						
LRAL				*e*		14 26 46.1	
LRAL	**Lakeview Retre**	**61.89**	**292**	*e*P	**P**	**14 26 28.0**	**-0.8**
FVM	**French Village**	**62.21**	**298**	*e*P	**P**	**14 26 29.5**	**-1.4**
FVM				*e*		14 26 46.3	
EKS2	**Erkin-Say**	**62.36**	**56**	*e*P	**P**	**14 26 33.3**	**+1.5**
	comp=Z,8.7nm,1.1s,mb4.8						
EKS2	**Erkin-Say**	**62.36**	**56**	*e*P	**P**	**14 26 33.3**	**+1.5**
	comp=Z,8.6nm,1.1s,mb4.8						
AML	**Almayashu**	**62.53**	**56**	*e*P	**P**	**14 26 33.4**	**+0.4**
	comp=Z,20nm,0.6s,mb5.4						
AML	**Almayashu**	**62.53**	**56**	*e*P	**P**	**14 26 33.3**	**+0.4**
	comp=Z,20nm,0.6s,mb5.4						
LSZ	**Lusaka**	**62.66**	**138**	*e*P	**P**	**14 26 32.9**	**-1.3**
LSZ				*e*		14 26 50.1	
LSZ				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
LSZ	**Lusaka**	**62.66**	**138**	*e*P	**P**	**14 26 32.9**	**-1.3**
	comp=Z,16nm,1.0s,mb5.1						
LSZ				*e*		14 26 50.1	
LSZ				*e*		14 27 01.5	
LSZ	**Lusaka**	**62.66**	**138**	*e*P	**P**	**14 26 32.9**	**-1.3**
NVS	**Novosibirsk**	**62.89**	**40**	*e*P	**P**	**14 26 37.3**	**+2.1**
NVS				pmax	pmax		
	comp=Z,18nm,1.6s,mb5.0						
NVS				pmax	pmax		
	comp=N,5.0nm,1.2s						
NVS				pmax	pmax		
	comp=E,8.0nm,0.7s						
BAO	**Brasilia Array**	**62.98**	**222**	P	**P**	**14 26 35.5**	**-0.8**
BDFB	**Brasilia**	**63.00**	**222**	P	**P**	**14 26 35.2**	**-1.2**
	comp=E,19nm,0.7s,mb5.3,baz=33,slow=6.3,SNR=26						
BDFB				LR	LR	14 49 10.7	
	comp=E,229nm,18.5s,MS4.4,baz=212,slow=31						
ZAL	**Zalesovo**	**64.11**	**41**	P	**P**	**14 26 42.8**	**-0.3**
	comp=E,0.7nm,0.7s,mb3.8,baz=235,slow=8.2,SNR=4.7						
ZAL				LR	LR	14 58 10.9	
	comp=E,240nm,20.3s,MS4.4,baz=165,slow=39						
YKA	**Yellowknife Ar**	**64.72**	**330**	P	**P**	**14 26 46.0**	**-0.9**
	comp=E,8.1nm,0.6s,mb5.0,baz=64,slow=6.9,SNR=31						
YKA				pP	pP	14 26 56.6	-0.5
	comp=E,3.3nm,0.8s,baz=61,slow=6.7,SNR=5.4						
YKA				sP	sP	14 27 03.0	+2.1
	comp=E,4.5nm,0.7s,baz=65,slow=6.9,SNR=7.1						
YKA				LR	LR	14 52 47.2	
	comp=E,259nm,18.3s,MS4.5,baz=45,slow=34						
YKA	**Yellowknife Ar**	**64.72**	**330**	P	**P**	**14 26 46.0**	**-0.9**
YKA				pP	pP	14 26 56.6	-0.5
YKA				sP	sP	14 27 03.0	+2.1
YKA				LR	LR	14 52 47.2	
MIAR	**Mount Ida**	**66.04**	**296**	*e*P	**P**	**14 26 55.5**	**-0.3**
DGMT	**Dagmar**	**66.44**	**314**	*e*P	**P**	**14 26 58.1**	**-0.1**
	comp=E,47nm,1.1s,mb5.4						
DGMT				*e*		14 27 12.7	
DGMT	**Dagmar**	**66.44**	**314**	*e*P	**P**	**14 26 58.1**	**0.0**
SAML	**Samuel**	**67.31**	**239**	*e*P	**P**	**14 27 02.7**	**-1.4**
	comp=E,13nm,1.0s,mb4.9						
SAML				*e*		14 27 19.7	
SAML	**Samuel**	**67.31**	**239**	*e*P	**P**	**14 27 02.7**	**-1.5**
TIXI	**Tiksi**	**68.47**	**13⇑**	*i*P	**P**	**14 27 10.8**	**+0.3**
TIXI				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,67nm,16.0s,MS4.0						
LAO	**LASA Array**	**68.51**	**313**	*e*P	**P**	**14 27 11.0**	**-0.2**
	comp=Z,10nm,0.6s,mb4.9						
LAO				*e*		14 27 28.9	
LAO	**LASA Array**	**68.51**	**313**	*e*P	**P**	**14 27 11.0**	**-0.2**
WMOK	**Wichita Mounta**	**69.68**	**299**	*e*P	**P**	**14 27 18.1**	**-0.5**
WMOK				*e*		14 27 35.3	
WMOK				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
WMOK				MLR	MLR		
	comp=Z,295nm,22.0s,MS4.5						
WMOK	**Wichita Mounta**	**69.68**	**299**	*e*P	**P**	**14 27 18.1**	**-0.4**
	comp=Z,16nm,1.1s,mb4.9						
WMOK				*e*		14 27 35.3	
WMOK				LR	LR		
	comp=Z,295nm,22.0s,MS4.5						
WMQ	**Urumqi**	**70.74**	**49**	P	**P**	**14 27 27.6**	**+2.7**
WMQ				AP	pP	14 27 32.0	-3.2
WMQ				XP	sP	14 27 34.6	-4.3
WMQ				PCP	PcP	14 27 48.3	+2.6
WMQ				PP	PP	14 30 07.0	+3.2
WMQ				S	S	14 36 41.6	+5.8
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.5						
WMQ				AMB	AMB		
	comp=Z,29nm,11.1s						
WMQ				LR	LR		
	comp=N,120nm,22.0s,MS4.3						
WMQ				LR	LR		
	comp=E,167nm,22.0s,MS4.3						
WMQ				LR	LR		
	comp=Z,172nm,21.1s,MS4.3						
PHWY	**Pilot Hill**	**70.82**	**307**	*e*P	**P**	**14 27 25.6**	**+0.3**
PHWY				*e*		14 27 38.2	
PHWY				*e*		14 27 43.7	
PHWY	**Pilot Hill**	**70.82**	**307**	*e*P	**P**	**14 27 25.6**	**+0.2**
GCMT	**Greycliff**	**71.02**	**313**	*e*P	**P**	**14 27 26.6**	**+0.1**
GCMT	**Greycliff**	**71.02**	**313**	*e*P	**P**	**14 27 26.6**	**+0.1**
AMTX	**Amarillo**	**71.65**	**300**	*e*P	**P**	**14 27 31.6**	**+1.1**
	comp=Z,23nm,1.2s,mb5.0						
AMTX				*e*	pP	14 27 42.8	+2.0
AMTX				*e*		14 27 47.7	
AMTX				LR	LR		
	comp=Z,502nm,19.0s,MS4.8						
AMTX	**Amarillo**	**71.65**	**300**	*e*P	**P**	**14 27 31.5**	**+1.1**
ISCO	**Idaho Springs**	**71.71**	**306**	*e*P	**P**	**14 27 31.3**	**+0.6**
ISCO				*e*		14 27 46.3	
ISCO				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.7						
ISCO				MLR	MLR		
	comp=Z,478nm,20.0s,MS4.8						
ISCO	**Idaho Springs**	**71.71**	**306**	*e*P	**P**	**14 27 31.3**	**+0.6**
	comp=Z,14nm,1.4s,mb4.7						
ISCO				*e*		14 27 46.3	
ISCO				LR	LR		
	comp=Z,478nm,20.0s,MS4.8						
RWWY	**Rawlins**	**71.73**	**309**	*e*P	**P**	**14 27 31.4**	**+0.7**
RWWY				*e*		14 27 43.8	
RWWY	**Rawlins**	**71.73**	**309**	*e*P	**P**	**14 27 31.5**	**+0.7**
HRY	**Holter Researc**	**71.77**	**315**	*e*P	**P**	**14 27 30.9**	**0.0**
HRY				*e*		14 27 48.3	
HRY	**Holter Researc**	**71.77**	**315**	*e*P	**P**	**14 27 30.9**	**0.0**
BOZ	**Bozeman (W)**	**72.25**	**314**	*e*P	**P**	**14 27 34.3**	**+0.5**
BOZ				*e*		14 27 47.1	
BOZ				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
BOZ				MLR	MLR		
	comp=Z,765nm,22.0s,MS4.9						
BOZ	**Bozeman (W)**	**72.25**	**314**	*e*P	**P**	**14 27 34.3**	**+0.6**
	comp=Z,15nm,1.1s,mb4.8						
BOZ				*e*		14 27 47.1	
BOZ				LR	LR		
	comp=Z,765nm,22.0s,MS4.9						
YMR	**Madison River**	**72.40**	**313**	*e*P	**P**	**14 27 35.6**	**+0.9**
YMR	**Madison River**	**72.40**	**313**	*e*P	**P**	**14 27 35.6**	**+0.9**
BOSA	**Boshof**	**72.56**	**148**	*e*P	**P**	**14 27 34.7**	**-1.3**
BOSA				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
BOSA	**Boshof**	**72.56**	**148**	*e*P	**P**	**14 27 34.6**	**-1.3**
	comp=Z,9.7nm,0.6s,mb4.9						
BOSA	**Boshof**	**72.56**	**148**	*e*P	**P**	**14 27 34.7**	**-1.3**
	comp=Z,9.7nm,0.6s,mb4.9						
BW06	**Boulder Array**	**72.60**	**310**	*e*P	**P**	**14 27 35.3**	**-0.6**
	comp=Z,11nm,0.9s,mb4.8						
BW06				*e*		14 27 52.7	
BW06	**Boulder Array**	**72.60**	**310**	*e*P	**P**	**14 27 35.3**	**-0.6**
PDAR	**Pinedale Array**	**72.60**	**310**	P	**P**	**14 27 35.0**	**-0.9**
	comp=Z,8.7nm,0.8s,mb4.8,baz=68,slow=6.5,SNR=61						
PDAR				pP	pP	14 27 47.8	+1.6
	comp=Z,3.7nm,0.8s,baz=61,slow=5.3,SNR=7.4						
PDAR				sP	sP	14 27 52.5	+2.5
	comp=Z,8.0nm,0.6s,baz=65,slow=6.7,SNR=15						
PDAR	**Pinedale Array**	**72.60**	**310**	P	**P**	**14 27 35.0**	**-0.9**
JCT	**Junction City**	**72.63**	**295**	*e*P	**P**	**14 27 37.0**	**+0.7**
JCT				*e*	pP	14 27 48.6	+2.0
JCT				*e*		14 27 54.1	
JCT				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
JCT				MLR	MLR		
	comp=Z,477nm,19.0s,MS4.8						
JCT	**Junction City**	**72.63**	**295**	*e*P	**P**	**14 27 37.0**	**+0.7**
	comp=Z,14nm,0.9s,mb4.9						
JCT				*e*	pP	14 27 48.6	+2.0
JCT				*e*		14 27 54.1	
JCT				LR	LR		
	comp=Z,477nm,19.0s,MS4.8						
SDCO	**Great Sand Dun**	**72.74**	**304**	*e*P	**P**	**14 27 37.1**	**+0.3**
	comp=Z,13nm,1.4s,mb4.7						
SDCO				*e*		14 27 54.8	
SDCO				LR	LR		
	comp=Z,679nm,20.0s,MS4.9						
SDCO	**Great Sand Dun**	**72.74**	**304**	*e*P	**P**	**14 27 37.2**	**+0.4**
LOHW	**Long Hollow**	**72.77**	**312**	*e*P	**P**	**14 27 36.8**	**-0.2**
LOHW				*e*		14 27 53.9	
LOHW	**Long Hollow**	**72.77**	**312**	*e*P	**P**	**14 27 36.8**	**-0.1**
IMW	**Indian Meadow**	**72.81**	**312**	*e*P	**P**	**14 27 37.6**	**+0.4**
IMW	**Indian Meadow**	**72.81**	**312**	*e*P	**P**	**14 27 37.6**	**+0.4**
MSO	**Missoula**	**72.90**	**316**	*e*P	**P**	**14 27 37.7**	**+0.1**
	comp=Z,8.0nm,1.1s,mb4.6						
MSO				*e*		14 27 55.4	
MSO				LR	LR		
	comp=Z,672nm,21.0s,MS4.9						
MSO	**Missoula**	**72.90**	**316**	*e*P	**P**	**14 27 37.7**	**+0.1**
SNOW	**Snow King Moun**	**72.95**	**312**	P	**P**	**14 27 37.8**	**-0.1**
SNOW	**Snow King Moun**	**72.95**	**312**	P	**P**	**14 27 37.8**	**-0.2**
TPAW	**Teton Pass**	**73.05**	**312**	*e*P	**P**	**14 27 39.2**	**+0.6**
TPAW				*e*		14 27 53.0	
TPAW				*e*		14 27 57.1	
REDW	**Red Top Meadow**	**73.06**	**312**	*e*P	**P**	**14 27 38.0**	**-0.6**
REDW				*e*		14 27 56.8	
REDW	**Red Top Meadow**	**73.06**	**312**	*e*P	**P**	**14 27 38.0**	**-0.7**
MCMT	**McKenzie Canyo**	**73.42**	**314**	*e*P	**P**	**14 27 41.9**	**+1.2**
MCMT				*e*		14 27 59.3	
ILAR	**Eielson Array**	**73.76**	**342**	P	**P**	**14 27 42.9**	**+0.6**
	comp=Z,5.8nm,0.8s,mb4.6,baz=22,slow=5.2,SNR=89						
ILAR				sP	sP	14 27 59.2	+2.9
	comp=Z,8.4nm,0.6s,baz=20,slow=5.6,SNR=17						
RW3	**Ridgway**	**73.91**	**306**	*e*P	**P**	**14 27 44.5**	**+0.8**
RW3				*e*		14 28 01.9	
COLA	**College**	**73.91**	**343**	*i* P	**P**	**14 27 44.5**	**+1.4**
SUR	**Sutherland**	**74.14**	**153**	P	**P**	**14 27 44.4**	**-0.7**
	comp=Z,8.0nm,0.6s,mb4.8,baz=290,slow=3.9,SNR=10						
SUR	**Sutherland**	**74.14**	**153**	*e*P	**P**	**14 27 44.4**	**-0.7**
	comp=Z,8.4nm,0.7s,mb4.8						
IMA	**Indian Mountai**	**74.18**	**345**	*e*P	**P**	**14 27 46.3**	**+1.6**
IMA				*e*	pP	14 27 58.0	+3.0
IMA				*e*		14 28 03.2	
IMA				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.7						
IMA	**Indian Mountai**	**74.18**	**345**	*e*P	**P**	**14 27 46.3**	**+1.6**
	comp=Z,140nm,1.5s,mb5.7						
IMA				*e*	pP	14 27 58.0	+3.0
IMA				*e*		14 28 03.2	
HWUT	**Hardware Ranch**	**74.49**	**310**	*e*P	**P**	**14 27 47.3**	**+0.3**
	comp=Z,50nm,1.2s,mb5.3						
HWUT				*e*		14 28 00.2	
HWUT				*e*		14 28 04.7	
THY	**Trims Highway**	**74.58**	**341**	*e*P	**P**	**14 27 47.9**	**+0.8**
THY				*e*		14 28 00.3	
THY				*e*		14 28 05.3	
CLNB	**Carlsbad**	**74.60**	**299**	*e*P	**P**	**14 27 48.8**	**+1.0**
CLNB				*e*		14 28 05.9	
PV10	**Paradox Valley**	**74.72**	**306**	*e*P	**P**	**14 27 49.4**	**+1.0**
PV10				*e*pP	pP	14 28 01.8	+3.2
TLY	**Talaya**	**74.89**	**36**	P	**P**	**14 27 50.2**	**+1.1**
TLY				*e*		14 28 07.5	
TLY				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
TLY	**Talaya**	**74.89**	**36**	P	**P**	**14 27 50.2**	**+1.1**
	comp=Z,25nm,0.9s,mb5.2						
TLY				*e*		14 28 07.5	
ANMO	**Albuquerque**	**74.91**	**302**	P	**P**	**14 27 49.0**	**-0.6**
	comp=Z,0.6nm,0.4s,mb3.9,baz=334,slow=6.7,SNR=3.6						
ANMO	**Albuquerque**	**74.91**	**302**	*e*P	**P**	**14 27 49.6**	**0.0**
GDL2	**Guadalupe Moun**	**74.98**	**299**	*e*P	**P**	**14 27 51.7**	**+1.7**
GDL2				*e*		14 28 08.9	
DAU	**Daniels Canyon**	**74.98**	**309**	*e*P	**P**	**14 27 50.3**	**+0.5**
DAU				*e*		14 28 05.5	
JLU	**Jordanelle**	**74.99**	**309**	*e*P	**P**	**14 27 50.4**	**+0.4**
JLU				*e*pP	pP	14 28 01.4	+1.2
JLU				*e*		14 28 07.6	
BOD	**Bodaibo**	**75.10**	**27**	*e*P	**P**	**14 27 48.3**	**-1.8**
BOD				*e*		14 28 04.8	
MCK	**McKinley**	**75.13**	**342**	*e*P	**P**	**14 27 50.8**	**+0.6**
MCK				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
MCK	**McKinley**	**75.13**	**342**	*e*P	**P**	**14 27 50.8**	**+0.6**
	comp=Z,10.0nm,1.2s,mb4.6						
HVU	**Hansel Valley**	**75.13**	**311**	*e*P	**P**	**14 27 51.1**	**+0.4**
HVU				*e*		14 28 08.0	
SPUT	**South Promonto**	**75.20**	**310**	*e*P	**P**	**14 27 49.5**	**-1.6**
SRU	**San Rafael**	**75.26**	**308**	*e*P	**P**	**14 27 51.6**	**+0.1**
SRU				*e*		14 28 04.1	
SRU				*e*		14 28 09.7	
BNM	**Barren Site**	**75.47**	**302**	*e*P	**P**	**14 27 53.8**	**+1.0**
ZAK	**Zakamensk**	**75.54**	**37**	*e*P	**P**	**14 28 07.4**	**+15**

TMUT	**Trail Mountain**	75.59	308	*e*P	P	14 27 53.9	+0.5
TMUT				*e*		14 28 11.0	
LAZ	**Ladron**	75.68	302	*e*P	P	14 27 55.2	+1.2
LENM	**Lemitar**	75.70	302	*e*P	P	14 27 55.1	+1.0
LENM				*e*		14 28 13.0	
NLU	**North Lily Min**	75.75	309	*e*P	P	14 27 54.7	+0.4
NLU				*e*		14 28 12.0	
BGU	**Big Grassy Mou**	75.78	310	*e*P	P	14 27 54.6	+0.1
BGU				*e*PcP	PcP	14 28 07.3	0.0
BGU				*e*		14 28 12.1	
LPAZ	**La Paz**	75.89	237	P	P	14 27 54.8	-0.7
	comp=Z,7.9nm,1.1s,mb4.5,baz=40,slow=4.8,SNR=18						
LPAZ				LR	LR	14 56 24.5	
	comp=Z,72nm,21.1s,MS4.0,baz=187,slow=32						
LPAZ	**La Paz**	75.89	237	*e*P	P	14 27 54.9	-0.6
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.7s						
LPAZ	**La Paz**	75.89	237	*e*P	P	14 27 54.9	-0.6
	comp=Z,3.1nm,0.7s,mb4.3						
BMO	**Blue Mountains**	75.97	316	*e*P	P	14 27 55.3	0.0
	comp=Z,4.6nm,0.8s,mb4.5						
BMO				*e*		14 28 12.7	
LTX	**Lajitas**	76.06	296	*e*P	P	14 27 56.2	-0.1
LTX				*e*		14 28 08.7	
LTX				*e*		14 28 14.6	
LTX				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
LTX	**Lajitas**	76.06	296	*e*P	P	14 27 56.2	-0.1
	comp=Z,15nm,1.1s,mb4.8						
LTX				*e*PcP	PcP	14 28 08.7	-0.1
LTX				*e*		14 28 14.6	
TXAR	**Lajitas Array**	76.06	296	P	P	14 27 56.5	+0.2
	comp=Z,1.3nm,0.6s,mb4.1,baz=74,slow=7.0,SNR=6.8						
TXAR				pP	pP	14 28 09.1	+2.5
	comp=Z,1.9nm,0.7s,baz=81,slow=6.1,SNR=5.1						
TXAR				sP	sP	14 28 14.6	+4.3
	comp=Z,4.3nm,0.7s,baz=63,slow=5.6,SNR=8.8						
TXAR	**Lajitas Array**	76.06	296	P	P	14 27 56.5	+0.2
TXAR				pP	pP	14 28 09.1	+2.5
TXAR				sP	sP	14 28 14.6	+4.3
MSU	**Marysvale**	76.66	308	*e*P	P	14 28 00.3	+0.8
MSU				*e*		14 28 17.4	
MVU	**Marysvale**	76.69	308	*e*P	P	14 28 00.5	+0.8
	comp=Z,11nm,1.6s,mb4.5						
MVU				*e*		14 28 18.0	
YAK	**Yakutsk**	76.69	18	*i*P	P	14 27 57.5	-1.6
YAK				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
TNA	**Tin City**	77.02	351	*e*P	P	14 28 01.9	+1.0
	comp=Z,13nm,1.0s,mb4.8						
TNA				*e*PcP	PcP	14 28 12.0	-0.1
ARUT	**Antelope Range**	77.89	308	*e*P	P	14 28 05.9	-0.4
ARUT				*e*	pP	14 28 16.0	-0.7
BMN	**Battle Mountai**	78.63	312	*e*P	P	14 28 11.1	+0.8
SONM	**Songino Array**	78.76	38	P	P	14 28 11.7	+0.8
	comp=Z,1.2nm,0.7s,mb3.9,baz=298,slow=6.0,SNR=4.9						
SONM				pP	pP	14 28 22.9	+1.7
	comp=Z,2.4nm,0.8s,baz=305,slow=6.4,SNR=9.1						
SONM				sP	sP	14 28 28.1	+3.2
	comp=Z,14nm,0.8s,baz=302,slow=6.2,SNR=42						
ULN	**Ulaanbaatar**	79.07	38	PFAKE		14 28 30.0	+17
ULN				LR	LR		
	comp=Z,220nm,19.0s,MS4.5						
TUC	**Tucson**	79.38	302	*e*P	P	14 28 16.6	+2.0
TUC				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
TUC				MLR	MLR		
	comp=Z,222nm,22.0s,MS4.5						
TUC	**Tucson**	79.38	302	*e*P	P	14 28 16.6	+2.0
	comp=Z,1.2nm,0.8s,mb3.9						
TUC				LR	LR		
	comp=Z,222nm,22.0s,MS4.5						
MOD	**Modoc**	79.51	315	*e*P	P	14 28 16.2	+1.0
	comp=Z,3.1nm,0.8s,mb4.3						
MOD				*e*		14 28 34.0	
NEN	**Nelson**	80.08	307	*e*P	P	14 28 18.8	+0.6
TPH	**Tonopah**	80.09	310	*e*P	P	14 28 18.9	+0.6
TPH				pmax	pmax		
	comp=Z,17nm,1.5s,mb4.8						
TPH	**Tonopah**	80.09	310	*e*P	P	14 28 18.9	+0.6
	comp=Z,17nm,1.5s,mb4.8						
TPNV	**Topopah Spring**	80.18	309	*e*P	P	14 28 19.7	+0.9
TPNV				*e*		14 28 37.1	
TPNV				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
TPNV	**Topopah Spring**	80.18	309	*e*P	P	14 28 19.7	+0.9
	comp=Z,3.2nm,0.9s,mb4.2						
TPNV				*e*		14 28 37.1	
NVAR	**Mina Array Bea**	80.53	311	P	P	14 28 21.4	+0.7
	comp=Z,0.6nm,0.7s,mb3.6,baz=66,slow=7.6,SNR=7.2						
NVAR				sP	sP	14 28 39.0	+4.4
	comp=Z,1.3nm,0.7s,baz=52,slow=6.6,SNR=7.5						
LDFC	**Landfair**	80.60	307	*e*P	P	14 28 21.4	+0.3
LVC	**Limon Verde**	80.88	233	P	P	14 28 23.0	+0.2
	comp=Z,18nm,0.7s,mb5.1,baz=38,slow=4.8,SNR=29						
LVC	**Limon Verde**	80.88	233	*e*P	P	14 28 22.6	-0.2
	comp=Z,15nm,0.8s,mb5.0						
YBH	**Yreka Blue Hor**	81.00	316	P	P	14 28 23.9	+0.9
	comp=Z,3.2nm,1.2s,mb4.1,baz=53,slow=15,SNR=3.2						
MTUM	**Tungsten Hills**	81.37	310	*e*P	P	14 28 26.5	+1.4
OHCM	**Honcut**	81.86	313	*e*P	P	14 28 28.3	+0.8
OHCM				*e*		14 28 45.8	
PFO	**Pinyon Flat Ob**	82.38	306	P	P	14 28 32.4	+2.0
PFO				*e*	pP	14 28 43.9	+3.1
BAR	**Barrett**	83.10	306	*e*P	P	14 28 35.5	+1.4
BAR				*e*		14 28 50.5	
SHL	**Shillong**	84.01	63	*e*	P	14 28 39.3	+0.5
CN2	**Changchun**	90.52	31	*e*P	P	14 29 09.6	-0.3
MDJ	**Mudanjiang**	91.47	28	P	P	14 29 13.6	-0.7
MDJ				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,153nm,5.6s						
KMI	**Kunming**	91.87	57	*e*P	P	14 29 16.3	-0.3
KMI				XP	sP	14 29 24.8	-5.8
KMI				PP	PP	14 33 00.0	+1.5
KMI				S	S	14 40 16.8	+4.0
KMI				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.8						
KMI				LR	LR		
	comp=Z,49nm,22.9s,MS3.9						
CMAR	**Chiang Mai Arr**	93.54	64	P	P	14 29 25.8	+1.4
	comp=Z,0.1nm,0.3s,mb3.7,baz=315,slow=5.1,SNR=2.5						
CMAR				LR	LR	15 14 13.3	
	comp=Z,35nm,18.3s,MS3.9,baz=335,slow=37						
NJ2	**Nanjing**	96.76	42	*e*P	P	14 29 38.6	-0.1
NJ2				AP	pP	14 29 43.5	-5.8
NJ2				PP	PP	14 33 35.5	-0.9
NJ2				SKS	SKS	14 40 14.0	+2.2
NJ2				S	S	14 40 54.0	-0.6
NJ2				LR	LR		
	comp=N,300nm,29.4s,MS4.9						
NJ2				LR	LR		
	comp=E,470nm,27.0s,MS4.9						
NJ2				LR	LR		
	comp=Z,270nm,30.0s,MS4.5						
SSE	**Sheshan**	98.75	41	P	P	14 29 46.9	-0.8
SSE				S	S	14 41 13.8	+2.4
SSE				LR	LR		
	comp=N,30nm,31.1s,MS4.2						
SSE				LR	LR		
	comp=E,131nm,31.1s,MS4.2						
SSE				LR	LR		
	comp=Z,83nm,29.0s,MS4.1						
QSPA	**South Pole Qui**	126.20	180⇓	*i*P	PKPdf	14 35 09.6	+1.2
FORT	**Forrest**	144.72	93	*e*P	PKPbc	14 35 44.3	+0.7
	comp=Z,40nm,0.7s						
WRA	**Warramunga Arr**	144.72	72	PKP	PKPdf	14 35 43.5	-0.5
	comp=Z,2.9nm,0.5s,baz=316,slow=2.7,SNR=43						
WB2	**Warramunga Arr**	144.73	72	*e*P	PKPbc	14 35 43.5	-0.4
WB2				*e*S		14 38 35.9	
ASPA	**Alice Springs**	146.39	78	*e*P	PKPdf	14 35 49.2	+2.4
ASPA				*e*S		14 39 17.9	
ASAR	**Alice Springs**	146.39	78	PKPbc	PKPbc	14 35 49.1	+1.1
	comp=Z,2.8nm,0.5s,baz=307,slow=2.6,SNR=64						
ASAR				pPKPbc		14 36 01.4	
	comp=Z,9.5nm,0.8s,baz=306,slow=2.5,SNR=14						
ASAR				sPKPbc		14 36 07.5	
	comp=Z,8.5nm,0.6s,baz=316,slow=2.2,SNR=11						
CTA	**Charters Tower**	153.58	59	PKPab	PKPab	14 36 18.3	-2.3
	comp=Z,2.9nm,0.6s,baz=225,slow=6.5,SNR=5.6						
STKA	**Stephens Creek**	156.01	88	PKPab	PKPab	14 36 28.2	-2.4
	comp=Z,1.8nm,0.7s,baz=55,slow=2.1,SNR=4.7						

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*WAR **13** 14:20:02.1, 50.07N×18.46E, h0^{km}, ML2.5, Mining Induced*
*PRU **13** 14:20:03.5, 50.12N×18.38E*
ISC 13 14:20:01.0±0.6**, 50.15N**±0.04×**18.45E**±0.04**, n13, σ1^{s}09**/23**,**
Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	**Raciborz**	0.18	246	*e*Pg	Pg	14 20 06.7	+2.2
RAC				*e*Sg	Sg	14 20 10.1	+3.2
OKC	**Ostrava-Krasne**	0.37	211	*e*PG	Pg	14 20 08.9	+0.5
OKC				*e*SG	Sg	14 20 14.9	+1.6
OJC	**Ojcow**	0.87	85	*e*Pg	Pg	14 20 19.1	+0.7
OJC				*e*Sg	Sg	14 20 30.7	+0.7
LIKS	**Likavka**	1.19	158	*e*SN	Sn	14 20 41.0	-0.8
DPC	**Dobruska-Polom**	1.38	279	*e*PG	Pg	14 20 28.4	-0.1
DPC				*e*SG	Sg	14 20 46.4	-0.4
	23nm,0.3s						
NIE	**Niedzica**	1.42	121	*e*PG	Pg	14 20 29.0	-0.3
NIE				*e*SG	Sg	14 20 48.0	-0.2
KSP	**Ksiaz**	1.54	297	*e*Pg	Pg	14 20 30.8	-0.9
KSP				*e*Sg	Sg	14 20 52.9	+0.7
KOLL	**Kolacno**	1.58	181	*e*PN	Pn	14 20 31.4	+1.1
KOLL				*e*SN	Sn	14 20 50.5	-1.2
UPC	**Upice**	1.60	284	*e*PG	Pg	14 20 32.6	-0.3
UPC				*e*SG	Sg	14 20 54.2	0.0
VYHS	**Vyhne**	1.68	171	*e*PN	Pn	14 20 31.4	-0.4
VYHS				*e*SN	Sn	14 20 53.4	-1.0
CRVS	**Cervenica-Dubn**	2.33	121	*e*PN	Pn	14 20 45.0	+3.9
CRVS				*e*SN	Sn	14 21 15.7	+4.8
PVCC	**Panska Ves**	2.51	280	*e*PG	Pg	14 20 49.2	-1.9
KHC	**Kasperske Hory**	3.33	254	*e*SG	Sg	14 21 48.2	-3.5

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*JMA **13** 14:28:02.9±0.2, 23.73N×122.93E, h52^{km}±4^{km}, M3.2*
TAP 13 14:28:03.3, 23.70N×122.72E, h13^{km}±1^{km}, ML3.7,
Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	0.80	19	P	Pb	14 28 17.3	-1.3
YOJ				S	Sb	14 28 27.5	-1.6
HATJ	**Hateruma jima**	1.05	70	P	Pb	14 28 18.9	-4.0
HATJ				S	Sb	14 28 30.8	-5.6
IRIF	**Iriomote-Funau**	1.12	55	P	Pb	14 28 20.1	-3.9
IRIF				*e*S	Sb	14 28 33.1	-5.2
JKRS	**Kuro-shima**	1.29	65	P	Pb	14 28 22.7	-4.3
JKRS				S	Sb	14 28 37.2	-6.2
JIJ	**Ishigaki jima**	1.46	63	P	Pn	14 28 24.4	-5.1
JIJ				S	Sb	14 28 40.4	-7.8
JTJ	**Tarama**	2.04	62	P	Pn	14 28 32.9	-4.9
JTJ				S	Sn	14 28 54.8	-8.5
JMJ	**Miyako jima 2**	2.60	64	*e*S	Sn	14 29 08.7	-8.8
JOGS	**Gusukube**	2.67	66	*e*S	Sn	14 29 11.0	-8.3

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*IDC **13** 14:51:19.5±1.1, 43.58N×127.46W, mb3.9/11, mb1 4.2/15, mb1mx4.0/24, ML3.9/3, MS3.9/7, Ms1 3.9/7, ms1mx3.4/29, Error ellipse: s-maj=31.6km s-min=10.9km az=42.0*
*BJI **13** 14:51:20.1, 43.60N×127.50W, h10^{km}, mB4.9, mb4.6, Ms4.1, Msz3.9*
*NEIC **13** 14:51:22.1±0.5, 43.65N×127.46W, h10^{km}, mb4.5/11, Error ellipse: s-maj=6.1km s-min=3.8km az=70.0*
ISC 13 14:51:19.8±2.1**, 43.62N**±0.03×**127.45W**±0.07**, h7**^{km}±13^{km}**,**
n129, σ0^{s}90/128**, mb4.2**/19**, MS3.8**/8**, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HEBO	**Mount Hebo**	3.09	58	P	Pn	14 52 10.2	+0.1
DBO	**Dodson Butte**	3.11	98	P	Pn	14 52 08.7	-1.6
COR	**Corvallis**	3.14	71	*e*P	Pn	14 52 10.1	-0.7
HSO	**Harness Mounta**	3.17	90	P	Pn	14 52 10.5	-0.7
EUO	**Eugene**	3.20	81	P	Pn	14 52 11.0	-0.6
HUMO	**Hull Mountain**	3.44	106	*e*P	Pn	14 52 12.9	-2.2
KMOR	**Kings Mountain**	3.47	53	P	Pn	14 52 15.3	-0.2
BBOR	**Butler Butte**	3.56	100	P	Pn	14 52 15.6	-1.2
BROR	**Big Rock Looko**	3.67	78	P	Pn	14 52 18.4	+0.1
HBO	**Huckleberry Mo**	3.73	85	P	Pn	14 52 18.8	-0.3
NLO	**Nicolai Mounta**	3.77	48	P	Pn	14 52 20.2	+0.6
IRO	**Indian Ridge**	3.78	82	P	Pn	14 52 19.3	-0.6
SSOR	**Sweet Springs**	3.79	69	P	Pn	14 52 20.4	+0.3
FRIS	**Frissel Point**	3.91	79	P	Pn	14 52 21.7	0.0
YBH	**Yreka Blue Hor**	3.97	117	Pn	Pn	14 52 21.5	-1.1
	2.2nm,0.3s,baz=291,slow=13,SNR=62						
YBH				Sn	Sn	14 53 10.3	+0.2
	0.7nm,0.3s,baz=153,slow=9.0,SNR=2.4						
YBH	**Yreka Blue Hor**	3.97	117	*e*P	Pn	14 52 21.2	-1.4
GT2	**Goat Mountain**	4.02	66	P	Pn	14 52 24.0	+0.7
PGO	**Gresham**	4.02	61	P	Pn	14 52 24.3	+1.0
BUOR	**Burton Butte**	4.05	108	P	Pn	14 52 23.2	-0.6
HUOR	**Husband**	4.08	81	P	Pn	14 52 24.5	+0.3
WIFE	**Three Sisters-**	4.10	82	P	Pn	14 52 24.3	-0.1
BMW	**Boistfort Moun**	4.13	45	P	Pn	14 52 24.8	-0.2
RVW	**Rose Valley**	4.19	51	P	Pn	14 52 26.3	+0.6
BKCOR	**Black Crater**	4.21	79	P	Pn	14 52 26.2	+0.2
VLMM	**Larch Mountain**	4.32	62	P	Pn	14 52 28.3	+0.8
LVP	**Lakeview Peak**	4.34	54	P	Pn	14 52 28.6	+0.8
TDH	**Tom, Dick, Har**	4.38	66	P	Pn	14 52 29.2	+0.8
BEND	**Bend**	4.45	82	P	Pn	14 52 29.5	0.0
ERK	**Elk Rock**	4.51	52	P	Pn	14 52 30.7	+0.4
VLL	**Laurance Lake**	4.52	64	P	Pn	14 52 31.3	+0.9
CPW	**Capitol Peak**	4.53	41	P	Pn	14 52 30.1	-0.3
JLK	**June Lake**	4.53	54	P	Pn	14 52 31.4	+0.8
CDFW	**Cedar Flats**	4.58	55	P	Pn	14 52 32.0	+0.8
OCWA	**Octopus Mounta**	4.72	28	*e*P	Pn	14 52 32.8	-0.5
WDC	**Whiskeytown Da**	4.75	128	*e*P	Pn	14 52 35.1	+1.5
ASR	**Mount Adams--S**	4.87	57	P	Pn	14 52 36.1	+0.8
LON	**Longmire**	5.07	50	P	Pn	14 52 38.8	+0.6
RCM	**Mount Rainier-**	5.16	50	P	Pn	14 52 40.4	+0.9
RCS	**Mount Rainier-**	5.18	49	P	Pn	14 52 40.5	+0.8
FMW	**Mount Fremont**	5.25	49	P	Pn	14 52 41.5	+0.8
MOD	**Modoc**	5.54	106	*e*P	Pn	14 52 42.8	-2.0
OHCM	**Honcut**	6.20	132	*e*P	Pn	14 52 54.1	0.0
HAWA	**Hanford**	6.26	61	*e*P	Pn	14 52 54.7	-0.3
NSHM	**Saint Helena R**	6.28	143	*e*P	Pn	14 52 53.5	-1.6
BEKR	**Beckwourth**	6.50	123	*e*P	Pn	14 53 00.1	+1.8
WCN	**Washoe City**	7.21	124	*e*P	Pn	14 53 07.9	-0.4
BMO	**Blue Mountains**	7.39	77	*e*P	Pn	14 53 09.0	-1.9
CMB	**Columbia Colle**	7.73	134	*e*P	Pn	14 53 16.2	+0.5
SAO	**San Andreas Ge**	8.25	144	P	P	14 53 23.1	+0.3
NEW	**Newport**	8.56	54	*e*P	P	14 53 25.1	-2.1
NVAR	**Mina Array Bea**	8.64	124	Pn	P	14 53 28.1	-0.1
	0.5nm,0.3s,baz=293,slow=12,SNR=18						
LRV	**Little Rabbit**	8.72	143	*e*P	P	14 53 27.4	-1.9
OMM	**Old Mammoth Mi**	8.79	130	*e*P	P	14 53 31.1	+0.8
MTUM	**Tungsten Hills**	9.22	130	*e*P	P	14 53 37.2	+0.9
TPH	**Tonopah**	9.53	122	*e*P	P	14 53 41.1	+0.6
MSO	**Missoula**	10.06	67	*e*P	P	14 53 45.8	-1.9
MCMT	**McKenzie Canyo**	10.55	78	*e*P	P	14 53 53.7	-0.9
WALA	**Waterton Lakes**	10.82	55	*e*P	P	14 53 57.4	-0.9
	20nm,0.7s						
BGU	**Big Grassy Mou**	11.02	99	*e*P	P	14 53 59.7	-1.3
HRY	**Holter Researc**	11.45	69	*e*P	P	14 54 05.9	-0.9
BOZ	**Bozeman (W)**	11.46	74	*e*P	P	14 54 05.2	-1.7
QLMT	**Earthquake Lak**	11.56	78	*e*P	P	14 54 08.6	+0.2
HWUT	**Hardware Ranch**	11.88	94	*e*P	P	14 54 12.2	-0.5
MWC	**Mount Wilson**	11.89	139	*e*P	P	14 54 13.3	+0.5
YMR	**Madison River**	11.90	79	*e*P	P	14 54 12.8	0.0
IMW	**Indian Meadow**	11.95	83	*e*P	P	14 54 14.1	+0.5
TPAW	**Teton Pass**	11.98	85	*e*P	P	14 54 14.7	+0.7
YFT	**Old Faithful**	11.99	80	*e*P	P	14 54 13.6	-0.6
REDW	**Red Top Meadow**	12.06	86	*e*P	P	14 54 15.4	+0.3
YNR	**Norris Junctio**	12.10	79	*e*P	P	14 54 16.5	+0.9
ARUT	**Antelope Range**	12.12	114	*e*P	P	14 54 16.4	+0.5
SNOW	**Snow King Moun**	12.12	85	*e*P	P	14 54 16.6	+0.7
LOHW	**Long Hollow**	12.22	84	*e*P	P	14 54 17.2	+0.1
LKWY	**Lake**	12.30	80	*e*P	P	14 54 17.9	-0.4
NEN	**Nelson**	12.55	125	*e*P	P	14 54 22.9	+1.2
MVU	**Marysvale**	12.58	109	*e*P	P	14 54 21.6	-0.5
MSU	**Marysvale**	12.60	109	*e*P	P	14 54 22.5	+0.1
LDFC	**Landfair**	12.80	128	*e*P	P	14 54 25.7	+0.8
BW06	**Boulder Array**	13.09	88	*e*P	P	14 54 28.6	-0.2
PDAR	**Pinedale Array**	13.09	88	Pn	P	14 54 29.6	+0.8
	0.1nm,0.3s,baz=277,slow=12,SNR=21						
PDAR				LR	LR	14 59 51.7	
	comp=Z,605nm,18.8s,baz=316,slow=39						
SRU	**San Rafael**	13.49	104	*e*P	P	14 54 34.7	+0.6
SIT	**Sitka**	14.34	342	*e*P	P	14 54 46.2	+1.0
	68nm,1.2s						
PV10	**Paradox Valley**	14.85	104	*e*P	P	14 54 53.4	+1.4
RWWY	**Rawlins**	15.02	90	P	P	14 54 57.8	+3.6
LAO	**LASA Array**	15.28	71	P	P	14 54 57.4	-0.1
	38nm,1.0s						
PV01	**Paradox Valley**	15.29	105	*e*P	P	14 54 57.1	-0.7
RW3	**Ridgway**	15.86	103	*e*P	P	14 55 04.5	-0.7
PHWY	**Pilot Hill**	16.39	91	*e*P	P	14 55 11.1	-0.8
ISCO	**Idaho Springs**	16.74	96	*e*P	P	14 55 15.6	-0.7
	23nm,1.1s						
DGMT	**Dagmar**	16.83	65	*e*P	P	14 55 17.5	0.0
	43nm,1.1s						
TUC	**Tucson**	17.29	125	*e*P	P	14 55 24.5	+1.2
	21nm,1.5s						
SDCO	**Great Sand Dun**	17.63	102	*e*P	P	14 55 27.6	+0.1
	58nm,1.5s						
ANMO	**Albuquerque**	18.38	111	P	P	14 55 37.4	+0.5
	baz=307,slow=13,SNR=7.1						
ANMO	**Albuquerque**	18.38	111	*e*P	P	14 55 36.7	-0.2
	5.3nm,0.9s						
BNM	**Barren Site**	18.73	113	*e*P	P	14 55 41.5	+0.4
FFC	**Flin Flon**	19.90	47	*e*P	P	14 55 54.2	-0.4
	42nm,1.1s						
YKA	**Yellowknife Ar**	20.35	17	P	P	14 55 58.4	-0.9
	3.4nm,0.7s,baz=206,slow=12,SNR=29						
YKA				LR	LR	15 02 28.3	
	comp=Z,126nm,20.2s,MS3.3,baz=140,slow=33						
YKW3	**Yellowknife Ar**	20.40	17	*e*P	P	14 55 58.9	-1.0
CPRX	**Cap Rock**	21.24	112	*e*P	P	14 56 09.4	+0.7
GDL2	**Guadalupe Moun**	21.42	114	*e*P	P	14 56 10.9	+0.4
DAWY	**Dawson**	21.59	346	*e*P	P	14 56 12.1	+0.1
CLNB	**Carlsbad**	21.70	114	*e*P	P	14 56 14.3	+1.0
AMTX	**Amarillo**	21.71	105	*e*P	P	14 56 13.8	+0.3
	22nm,0.9s,mb4.6						
ULM	**Lac du Bonnet**	22.44	62	P	P	14 56 20.6	+0.1
	8.1nm,1.0s,mb4.1,baz=287,slow=9.9,SNR=6.9						
ULM				LR	LR	15 05 22.2	
	comp=Z,413nm,19.2s,MS3.9,baz=326,slow=38						
ULM	**Lac du Bonnet**	22.44	62	*e*P	P	14 56 20.4	-0.2
	26nm,1.3s,mb4.5						
KSU1	**Kansas State U**	23.51	90	*e*P	P	14 56 31.4	+0.3
TXAR	**Lajitas Array**	23.75	119	P	P	14 56 34.8	+1.3
	1.8nm,0.8s,mb3.6,baz=301,slow=7.3,SNR=7.2						
WMOK	**Wichita Mounta**	23.84	102	*e*P	P	14 56 35.3	+1.0
	48nm,1.4s,mb4.7						
ILAR	**Eielson Array**	23.85	339	P	P	14 56 34.8	+0.7
	3.1nm,0.8s,mb3.8,baz=152,slow=8.4,SNR=32						
ILAR				LR	LR	15 04 20.9	
	comp=Z,217nm,20.8s,MS3.6,baz=179,slow=33						
INK	**Inuvik**	24.95	355	P	P	14 56 43.9	-0.9
	2.3nm,0.8s,mb3.7						
INK				LR	LR	15 06 07.3	
	comp=Z,307nm,18.1s,MS3.9,baz=316,slow=36						
FCC	**Fort Churchill**	25.47	42	*e*P	P	14 56 50.6	+0.9
	10nm,0.9s,mb4.4						
IMA	**Indian Mountai**	26.70	336	*e*P	P	14 57 01.4	+0.3
SADO	**Sadowa**	34.25	71	LR	LR	15 12 22.6	
	comp=Z,286nm,19.0s,MS4.0,baz=114,slow=37						
SCHQ	**Schefferville**	39.93	52	LR	LR	15 15 54.7	
	comp=Z,227nm,19.1s,MS4.0,baz=327,slow=37						
TEIG	**Tepich**	40.10	113	P	P	14 58 57.0	-0.8
	2.7nm,0.8s,mb4.0,baz=207,slow=4.5,SNR=3.7						
MDJ	**Mudanjiang**	68.60	312	P	P	15 02 22.5	-2.8
MDJ				AMB	AMB		
	comp=Z,8.0nm,2.4s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,120nm,6.7s						
NOA	**NORSAR Array B**	70.42	20	P	P	15 02 36.4	+0.3
	comp=Z,1.4nm,1.0s,mb3.8,baz=331,slow=5.9,SNR=2.9						
CN2	**Changchun**	71.36	313	*e*P	P	15 02 41.6	-0.6
FINES	**FINESS Array B**	73.11	13	P	P	15 02 52.4	+0.4
	comp=Z,0.7nm,0.7s,mb3.7,baz=27,slow=6.2,SNR=2.3						
FINES	**FINESS Array B**	73.11	13	P	P	15 02 52.4	+0.3
SONM	**Songino Array**	77.33	326	P	P	15 03 15.5	-0.9
	comp=Z,1.6nm,0.8s,mb4.0,baz=34,slow=4.5,SNR=9.6						
ZAL	**Zalesovo**	78.97	341	P	P	15 03 24.6	-0.7
	comp=Z,0.5nm,0.5s,mb3.7,baz=136,slow=5.9,SNR=3.2						
LPAZ	**La Paz**	80.55	123	P	P	15 03 32.7	-1.8
	comp=Z,1.2nm,0.9s,mb3.8,baz=49,slow=4.5,SNR=3.9						
LPAZ	**La Paz**	80.55	123	P	P	15 03 32.7	-1.8
BVAR	**Borovoye Array**	82.52	349	P	P	15 03 43.9	-0.2
	comp=Z,1.3nm,0.8s,mb4.0,slow=3.0,SNR=6.2						
NJ2	**Nanjing**	83.38	308	*e*P	P	15 03 49.0	0.0
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.1						
WMQ	**Urumqi**	87.45	335	P	P	15 04 11.1	+2.2
WMQ				AP	pP	15 04 15.8	+4.8
WMQ				XP	sP	15 04 18.1	+6.4
WMQ				PP	PP	15 07 38.1	+2.1
WMQ				AMB	AMB		
	comp=Z,2.0nm,0.5s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,52nm,5.2s						
WMQ				LR	LR		
	comp=N,8.0nm,18.6s,MS3.8						
WMQ				LR	LR		
	comp=E,36nm,21.0s,MS3.8						
WMQ				LR	LR		
	comp=Z,34nm,22.0s,MS3.7						
LZH	**Lanzhou**	87.98	321	*e*P	P	15 04 14.9	+3.3
LZH				AP	pP	15 04 18.0	+4.3
LZH				XP	sP	15 04 19.8	+5.4
LZH				AMB	AMB		
	comp=Z,13nm,1.6s,mb4.9						
LZH				AMB	AMB		
	comp=Z,43nm,4.8s						
KMI	**Kunming**	97.54	315	*e*P	P	15 04 52.1	-3.9
KMI				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb5.1						
KMI				LR	LR		
	comp=Z,49nm,22.9s,MS3.9						

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*NEIC **13** 14:56:37.9±2.3, 24.26S×179.77W, h508^{km}±26^{km}, mb3.9/3, Error ellipse: s-maj=20.6km s-min=13.3km az=205.0*
*IDC **13** 14:56:39.6±1.6, 24.27S×179.91W, h522^{km}±17^{km}, mb3.3/11, mb1 3.5/12, mb1mx3.4/16, Error ellipse: s-maj=17.0km s-min=12.9km az=167.0*
ISC 13 14:56:39.8±2.2**, 24.3S**±0.1×**179.9W**±0.1**, h538**^{km}±28^{km}**,**
n29, σ1^{s}01/22**, mb3.7**/11**, 1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	14.16	190	P	P	14 59 38.9	-1.8
	0.7nm,0.3s,baz=9.5,slow=6.1,SNR=4.9						
URZ				S	S	15 02 09.6	+3.2
	0.8nm,0.3s,baz=115,slow=23,SNR=10.0						
QRZ	**Quartz Range**	17.66	199	*e*P	P	15 00 16.3	+1.2
KHZ	**Kahutara**	18.88	195	*e*P	P	15 00 25.9	-0.7
RPZ	**Rata Peaks**	20.75	199	P	P	15 00 44.3	+0.2
	16nm,0.8s,baz=29,slow=3.0,SNR=7.6						
CTA	**Charters Tower**	31.55	271	P	P	15 02 19.5	0.0
	3.5nm,0.4s,mb4.2,baz=94,slow=11,SNR=5.3						
CTA	**Charters Tower**	31.55	271	P	P	15 02 19.5	0.0
CTAO	**Charters Tower**	31.55	271	*e*P	P	15 02 19.6	+0.1
	3.7nm,0.5s,mb4.2						
STKA	**Stephens Creek**	34.64	249	P	P	15 02 46.0	+0.6
	4.5nm,1.2s,mb3.9,baz=121,slow=19,SNR=5.2						
STKA				PcP	PcP	15 05 04.5	-0.4
	2.5nm,0.8s,baz=2.9,slow=16,SNR=3.5						
PMG	**Port Moresby**	34.68	290	P	P	15 02 46.1	+0.2
	8.2nm,0.7s,mb4.4,baz=151,slow=5.8,SNR=9.1						
PMG	**Port Moresby**	34.68	290	*e*P	P	15 02 46.3	+0.4
ASAR	**Alice Springs**	42.04	261	P	P	15 03 45.9	+0.3
	0.7nm,0.8s,mb3.3,baz=96,slow=7.0,SNR=15						
ASAR				PcP	PcP	15 05 28.4	-0.2
	0.5nm,0.8s,baz=95,slow=4.6,SNR=5.1						
ASAR				ScP		15 08 31.6	
	0.9nm,0.7s,baz=107,slow=4.4,SNR=8.5						
ASAR				S	S	15 09 25.6	-1.1
	0.4nm,0.7s,baz=98,slow=14,SNR=4.2						
WRAB	**Tennant Creek**	42.44	267	*e*P	P	15 03 48.5	-0.4
	2.2nm,0.4s,mb4.0						
WRA	**Warramunga Arr**	42.45	267	P	P	15 03 48.3	-0.6
	1.0nm,0.5s,mb3.6,baz=104,slow=8.1,SNR=7.3						
WRA				ScP		15 08 32.4	
	1.8nm,1.0s,baz=103,slow=3.5,SNR=7.4						
WRA				S	S	15 09 32.0	-0.6
	1.1nm,0.9s,baz=107,slow=14,SNR=4.2						
VNDA	**Vanda**	54.00	185	P	P	15 05 13.5	-1.2
	0.4nm,0.3s,mb3.2,baz=217,slow=10,SNR=11						
VNDA	**Vanda**	54.00	185	*e*P	P	15 05 13.4	-1.4
	0.5nm,0.3s,mb3.3						
NVAR	**Mina Array Bea**	84.98	44	P	P	15 08 19.1	-0.2
	0.7nm,0.6s,mb3.4,baz=209,slow=6.5,SNR=6.8						
CMAR	**Chiang Mai Arr**	89.72	290	P	P	15 08 44.1	+2.1
	1.0nm,0.8s,mb3.7,baz=138,slow=3.7,SNR=5.4						
ILAR	**Eielson Array**	92.39	14	P	P	15 08 52.5	-0.7

	0.4nm,0.6s,mb3.6,baz=226,slow=5.2,SNR=6.4						
PDAR	Pinedale Array	92.92	44	P	P	15 08 56.9	+0.7
	0.6nm,0.6s,mb3.8,baz=270,slow=1.5,SNR=4.2						
BVAR	Borovoye Array	120.77	319	PKP	PKPdf	15 14 31.0	+0.8
	1.5nm,0.6s,baz=135,slow=2.1,SNR=9.7						
ARCES	ARCESS Array B	132.28	348	PKP	PKPdf	15 14 52.6	+0.7
	2.9nm,0.9s,slow=2.4,SNR=9.2						
FINES	FINESS Array B	138.83	341	PKP	PKPdf	15 15 06.3	+2.2
	0.6nm,0.5s,baz=90,slow=3.8,SNR=4.1						
FINES	FINESS Array B	138.83	341	PKP	PKPdf	15 15 06.3	+2.2
AKASG	Malin Array Be	145.33	327	PKPbc	PKPbc	15 15 17.4	+0.7
	2.0nm,0.5s,baz=42,slow=4.0,SNR=4.2						
BRTR	Keskin Array B	147.86	307	PKPbc	PKPdf	15 15 25.7	+5.5
	1.8nm,0.7s,baz=137,slow=3.9,SNR=6.2						
KSP	Ksiaz	150.67	339	eP	PKPdf	15 15 32.9	+8.7
CLL	Collm	151.24	343	⇓iPKP1	PKPdf	15 15 34.0	+9.0
BRG	Berggiesshubel	151.37	342	iP	PKPdf	15 15 34.3	+9.1
GERES	GERESS Array B	153.24	340	PKPbc	PKPdf	15 15 36.9	+9.0
	0.6nm,0.6s,slow=1.3,SNR=4.1						

BGS **13** *15:23:39.8, 13.41N×89.33W, h62^{km}, mb5.3*

BJI **13** *15:23:40.0, 13.40N×89.40W, h62^{km}, mB5.5, Ms6.0, Msz5.8*

NEIC **13** *15:23:41.0±0.2, 13.39N×89.37W, mb5.4/165, MW5.9, MD6.1(SNET), Error ellipse: s-maj=5.0km s-min=2.9km az=209.0, Moment Tensor Solution. s40 Moment tensor: Scale 10^{17}Nm; M_{rr}2.59; $M_{\theta\theta}$-3.30; $M_{\phi\phi}$0.72; $M_{r\theta}$6.52; $M_{\theta\phi}$0.64; $M_{\phi r}$-4.14; Best double couple: $M_0$8.3×10^{17} NP1: ϕ_s254°,δ14°,λ43°. NP2:ϕ_s121°,δ80°,λ100°. Principal axes: T 8.2, Plg54°, Azm43°; N .23, Plg10°, Azm299°; P -8.43, Plg35°, Azm202°;*

NEIC Felt [V] at San Salvador. Felt in La Libertad. Also felt at Guatemala City, Guatemala.

HRVD **13** *15:23:41.0±0.1, 13.30N×89.81W, h60^{km}±1^{km}, MW5.9/59, Centroid moment Tensor Solution. LP body waves: s57,c144;Mantle waves: s59,c127; Half duration: 2^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}1.66±.12; $M_{\theta\theta}$-1.32±.11; $M_{\phi\phi}$-0.35±.13; $M_{r\theta}$8.26±.15; $M_{\theta\phi}$1.23±.11; $M_{\phi r}$-4.46±.12; Best double couple: $M_0$9.58×10^{17} NP1: ϕ_s314°,δ6°,λ105°. NP2:ϕ_s118°,δ84°,λ88°. Principal axes: T 9.35, Plg51°, Azm27°; N .46, Plg2°, Azm119°; P -9.81, Plg39°, Azm210°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO **13** *15:23:41.6, 13.37N×89.51W, h62^{km}, MB5.5*

IDC **13** *15:23:42.4±0.5, 13.67N×89.27W, h62^{km}±3^{km}, mb5.0/24, mb1 5.2/25, mb1mx5.0/27, MS5.5/21, Ms1 5.5/21, ms1mx5.2/25, Error ellipse: s-maj=14.8km s-min=8.5km az=55.0*

MOS **13** *15:23:44.8±0.9, 13.53N×89.42W, h100^{km}, mb5.5/52, MS5.7/17, Error ellipse: s-maj=8.0km s-min=4.6km az=104.9*

CASC **13** *15:23:44.8, 13.59N×89.29W, h20^{km}, MD5.0, ML5.6, mb5.4(NEIC)*

ISC 13 15:23:40.2±0.1**, 13.50N**±0.03×**89.47W**±0.02**, h63**^{km}**, h63**^{km}±1.0^{km}**:pP-P, n743,** σ1^{s}**27**/608**, mb5.4**/194**, 115C-34D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CRIN	San Cristobal	2.49	108	⇓eP	P	15 24 23.2	+3.9
TEL3	Telica 3	2.72	110	⇓eP	P	15 24 25.4	+2.9
TELN	Telica	2.72	109	⇓eP	P	15 24 25.4	+2.9
TELN				eS	S	15 24 58.8	+4.4
LEON	Leon	2.73	113	⇓eP	P	15 24 24.6	+1.9
CNGN	Cerro Negro	2.88	110	⇑eP	P	15 24 27.5	+2.7
MIRN	Miramar	2.89	111	⇑eP	P	15 24 27.3	+2.4
MOMJ	Momotombo	3.06	110	⇑eP	P	15 24 29.9	+2.7
MOMJ				eS	S	15 25 07.4	+4.6
COPN	Copaltepe	3.10	115	⇑eP	P	15 24 29.6	+1.7
APYN	Apoyeque	3.29	112	⇓eP	P	15 24 33.2	+2.6
XAVN	Gruta Xavier	3.35	113	⇑eP	P	15 24 34.1	+2.8
MGAN	Managua	3.42	113	⇑eP	P	15 24 34.3	+1.9
MGAN				eP		15 24 35.2	
MGAN				eS	S	15 25 14.1	+2.2
MGAN				i		15 25 24.4	
	comp=N,39μm,0.4s						
PYTN	Playitas	3.46	106	⇑eP	P	15 24 35.8	+2.9
WILN	Americas 2	3.47	112	⇑eP	P	15 24 35.3	+2.2
WILN				eS	S	15 25 15.4	+2.3
TICN	Ticuantepe	3.48	114	⇑eP	P	15 24 35.4	+2.2
MASN	Masaya	3.57	115	⇓eP	P	15 24 38.0	+3.5
MASN				eS	S	15 25 19.5	+3.8
APON	Apoyo	3.67	115	⇑eP	P	15 24 39.3	+3.4
CCIG	Comitan	3.78	317	iP	P	15 24 39.8	+2.4
CCIG				iS	S	15 25 34.4	+13
SCX	San Cristobal	4.44	317	iP	P	15 24 48.0	+1.4
SCX				iS	S	15 25 32.0	-5.5
VCR	Vista de Mar	5.04	131	⇓eP	P	15 24 58.0	+3.0
JTS	JuntasAbangare	5.45	125	P	P	15 25 01.7	+1.1
	comp=N,0.1nm,0.3s,baz=197,slow=19,SNR=2.4						
JTS				S	S	15 26 03.1	+0.3
	comp=N,0.2nm,0.3s,baz=210,slow=19,SNR=3.5						
JTS	JuntasAbangare	5.45	125	d iP	P	15 25 03.1	+2.4
JTS	JuntasAbangare	5.45	125	eP	P	15 25 02.6	+1.9
	comp=N,624nm,0.6s						
JCR	Jicaral	5.60	130	⇑iP	P	15 25 06.3	+3.5
CGA2	Cerro Gallo 2	6.00	125	eP	P	15 25 13.1	+4.8
VPS2	Volcan Poas 2	6.09	122	⇑eP	P	15 25 14.7	+5.1
PRS1	Puriscal	6.14	124	eP	P	15 25 14.8	+4.4
CMIG	Matias Romero	6.33	305	eP	P	15 25 11.6	-1.3
CMIG				iS	S	15 26 20.1	-4.5
TRTC	Tortuguero	6.34	117	⇓eP	P	15 25 16.1	+3.0
LAJ	Bijagual	6.36	124	eP	P	15 25 13.8	+0.4
SJS	Escuela Geolog	6.38	123	eP	P	15 25 16.5	+2.9
SJS				eS	S	15 26 29.2	+3.4
LCR2	La Lucha 2	6.53	124	⇑eP	P	15 25 19.6	+3.9
ICR	Volcan Irazu	6.54	122	eP	P	15 25 20.8	+4.9
URSC	Urasca	6.66	123	⇑eP	P	15 25 22.3	+4.7
TEIG	Tepich	6.78	10	P	P	15 25 24.5	+5.1
	comp=N,66nm,0.3s,baz=106,slow=9.8,SNR=481						
TEIG	Tepich	6.78	10	eP	P	15 25 22.6	+3.3
	comp=N,1μm,0.7s						
BUS	Buena Vista	6.83	124	⇑eP	P	15 25 25.3	+5.2
LIO	Limon	7.20	118	eP	P	15 25 26.9	+1.9
ACR	Cerro Adams	7.84	127	⇑eP	P	15 25 38.3	+4.5
ACR				eS	S	15 27 03.6	+1.6
VHO	Vista Hermosa	7.86	298	eP	P	15 25 33.1	-1.0
VHO				iS	S	15 26 57.8	-4.6
CNI	Changuinola	7.93	120	iP	P	15 25 39.2	+4.1
DVD	David	8.53	125	⇓iP	P	15 25 47.4	+4.0
PNIG	Pinotepa	8.85	290	iP	P	15 25 43.8	-3.9
PNIG				iS	S	15 27 24.9	-2.0
LVIG	Laguna Verde	9.09	314	eP	P	15 25 47.9	-3.1
LVIG				iS	S	15 27 28.7	-4.2
IIB	San Bernardino	10.11	304	eP	P	15 26 11.0	+6.0
PPM	Popocatepetl	10.39	303	eP	P	15 26 09.8	+1.0
PPM				eP		15 26 10.2	
PPM				eP		15 26 11.1	
ACX	Acapulco	10.62	290	iP	P	15 26 09.2	-2.8
UPA	Univ. de Panam	10.73	114	⇑iP	P	15 26 15.9	+2.4
	comp=Z,348nm,1.3s						
UPA				AMb	AMB	15 26 23.0	
	comp=Z,348nm,1.3s						
IIO	Organos	10.74	306	eP	P	15 26 19.3	+5.7
JEF	Cerro Jefe	10.77	112	eP	P	15 26 16.0	+1.9
PLIG	Platanillo	10.80	298	eP	P	15 26 14.4	-0.1
CHVM	Chichinautzin	10.82	302	eP	P	15 26 16.3	+1.6
IIZ	Mezontepec	10.95	302	eP	P	15 26 17.0	+0.5
UNM	Universidad Na	10.97	303	eP	P	15 26 19.0	+2.3
CAIG	El Cayaco	11.00	290	eP	P	15 26 13.4	-3.7
PTVM	Pico Tres Padr	11.05	305	eP	P	15 26 16.3	-1.5
MDVM	Presa Madin	11.13	304	eP	P	15 26 16.3	-2.6
SZVM	Salazar	11.13	303	eP	P	15 26 19.3	+0.4
IIC	Rita Coyotepec	11.26	305	eP	P	15 26 12.0	-8.6
NEJ	Negril	11.71	65	⇓eP	P	15 26 31.5	+4.9
MCJ	Malvern	12.16	67	⇓eP	P	15 26 37.7	+4.9
MBJ	Montego Bay	12.18	65	⇓eP	P	15 26 43.9	+11
ZIIG	Zihuatanejo	12.26	291	iP	P	15 26 32.6	-1.4
CVJ	Coleyville	12.40	66	⇓eP	P	15 26 41.4	+5.4
STH	Stony Hill	13.00	68	⇓eP	P	15 26 49.0	+5.1
HOJ	Hope	13.04	68	⇑eP	P	15 26 45.9	+1.5
PAYG	Puerto Ayora	14.11	183	eP	P	15 26 57.2	-1.2
	comp=Z,552nm,1.1s						
SFJM	Santa Fe	14.71	300	eP	P	15 27 07.5	+1.1
COLM	Colima	14.77	294	iP	P	15 27 06.9	-0.1
CJM	Chamela	16.08	294	eP	P	15 27 24.2	+0.5
DWPF	Disney	16.35	26	Pn	P	15 27 32.2	+5.1
DWPF	Disney	16.35	26	eP	P	15 27 30.5	+3.4
	comp=Z,2μm,1.5s						
OTAV	Otavalo	17.11	139	eP	P	15 27 39.2	+2.5
	comp=Z,54nm,0.9s						
HKT	Hockley	17.40	341	eP	P	15 27 42.6	+2.4
HKT				pmax	pmax		
	comp=Z,1μm,1.8s						
HKT	Hockley	17.40	341	eP	P	15 27 42.6	+2.4
	comp=Z,1μm,1.8s						
SDV	Santo Domingo	19.04	102	eP	P	15 28 00.3	+0.4
	comp=Z,109nm,1.1s						
JCT	Junction City	19.40	332	eP	P	15 28 03.7	-0.2
JCT				pmax	pmax		
	comp=Z,400nm,1.3s						
JCT	Junction City	19.40	332	eP	P	15 28 03.7	-0.1
	comp=Z,402nm,1.3s						
LRAL	Lakeview Retre	19.57	6	eP	P	15 28 06.3	+0.5
	comp=Z,156nm,0.9s						
LTX	Lajitas	20.53	322	eP	P	15 28 16.6	+0.8
LTX				pmax	pmax		
	comp=Z,190nm,1.0s						
LTX	Lajitas	20.53	322	eP	P	15 28 16.6	+0.8
	comp=Z,186nm,1.0s						
TXAR	Lajitas Array	20.53	322	P	P	15 28 17.3	+1.5
	comp=Z,64nm,0.5s,baz=147,slow=9.7,SNR=121						
TXAR				PcP	PcP	15 32 25.6	+0.4
	comp=Z,22nm,0.9s,baz=162,slow=4.0,SNR=7.7						
TXAR				ScP		15 35 57.2	
	comp=Z,7.6nm,0.7s,baz=148,slow=4.8,SNR=9.4						
TXAR				LR	LR	15 38 46.0	
	comp=Z,710nm,18.3s,baz=105,slow=44						
OXF	Oxford	20.92	0	eP	P	15 28 22.3	+2.6
OXF				pmax	pmax		
	comp=Z,2μm,0.9s						
OXF	Oxford	20.92	0	eP	P	15 28 22.3	+2.6
	comp=Z,1μm,0.9s						
HBF	Harts Bluff	21.05	22	P	P	15 28 22.5	+1.4
RGRS	Roger Stewart	21.09	22	P	P	15 28 23.1	+1.6
NHSC	New Hope	21.28	22	eP	P	15 28 26.3	+2.9
	comp=Z,865nm,1.0s,mb6.0						
MIAR	Mount Ida	21.28	351	eP	P	15 28 24.7	+1.3
MIAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MIAR	Mount Ida	21.28	351	eP	P	15 28 24.7	+1.3
	comp=Z,7.8nm,0.8s						
TWB	Tillmans-White	21.31	22	eP	P	15 28 26.8	+3.1
UALR	University of	21.34	353	eP	P	15 28 25.7	+1.8
	comp=Z,428nm,0.8s,mb5.8						
COW	Cow Castle Cre	21.34	21	eP	P	15 28 26.9	+2.9
MET	Memphis--Engin	21.53	359	P	P	15 28 27.2	+1.4
SWET	Sewanee	21.86	8	eP	P	15 28 31.7	+2.6
HBAR	Harrisburg	21.98	357	eP	P	15 28 33.6	+3.2
JSC	Jenkinsville	21.99	18	eP	P	15 28 33.0	+2.6
HALT	Halls	22.31	0	eP	P	15 28 36.6	+3.0
WVT	Waverly	22.58	3	eP	P	15 28 38.5	+2.2
WVT				pmax	pmax		
	comp=Z,110nm,0.6s,mb5.5						
WVT	Waverly	22.58	3	eP	P	15 28 38.5	+2.2
	comp=Z,108nm,0.6s,mb5.5						
GLAT	Glass	22.67	0	eP	P	15 28 40.2	+3.0
UTMT	University of	22.75	1	eP	P	15 28 40.3	+2.4
	comp=Z,1μm,0.9s,mb6.4						
WMOK	Wichita Mounta	22.76	340	eP	P	15 28 38.1	+0.1
WMOK				pmax	pmax		
	comp=Z,220nm,1.0s,mb5.5						
WMOK	Wichita Mounta	22.76	340	eP	P	15 28 38.1	0.0
	comp=Z,215nm,1.0s,mb5.5						
CLNB	Carlsbad	22.87	327	eP	P	15 28 39.8	+0.7
SJG	San Juan	22.89	75	P	P	15 28 40.5	+1.1
	comp=Z,34nm,0.3s,mb5.2,baz=278,slow=3.5,SNR=16						
SJG				PcP	PcP	15 32 30.0	0.0
	comp=Z,117nm,0.8s,baz=311,slow=1.5,SNR=15						
SJG	San Juan	22.89	75	eP	P	15 28 40.0	+0.5
SJG				pmax	pmax		
	comp=Z,52nm,0.6s						
SJG	San Juan	22.89	75	eP	P	15 28 40.0	+0.5
	comp=Z,52nm,0.6s,mb5.1						
PARMO	Parma	23.07	359	eP	P	15 28 44.4	+3.4
GDL2	Guadalupe Moun	23.07	326	eP	P	15 28 41.8	+0.7
CPRX	Cap Rock	23.46	328	eP	P	15 28 45.4	+0.5
AMTX	Amarillo	23.98	335	eP	P	15 28 50.5	+0.7
	comp=Z,284nm,0.9s,mb5.7						
FVM	French Village	24.40	358	eP	P	15 28 54.6	+0.7
FVM				pmax	pmax		
	comp=Z,100nm,0.9s,mb5.2						
FVM	French Village	24.40	358	eP	P	15 28 54.5	+0.7
	comp=Z,102nm,0.8s,mb5.3						
USIN	University of	24.42	3	eP	P	15 28 55.8	+1.8
	comp=Z,279nm,0.7s,mb5.8						
WCI	Wyandotte Cave	24.79	6	eP	P	15 28 59.0	+1.3
WCI				pmax	pmax		
	comp=Z,170nm,0.7s,mb5.7						
WCI	Wyandotte Cave	24.79	6	eP	P	15 28 59.0	+1.3
	comp=Z,172nm,0.7s,mb5.7						
ELN	Prospectdale	24.88	17	eP	P	15 29 01.1	+2.5
BLA	Blacksburg	24.96	17	eP	P	15 29 00.9	+1.6
BLA				pmax	pmax		
	comp=Z,190nm,1.0s,mb5.6						
BLA	Blacksburg	24.96	17	eP	P	15 29 00.9	+1.6
	comp=Z,189nm,1.1s,mb5.5						
SLM	Saint Louis	25.04	359	eP	P	15 29 02.7	+2.6
SLM				pmax	pmax		
	comp=Z,280nm,0.8s,mb5.8						
SLM	Saint Louis	25.04	359	eP	P	15 29 02.7	+2.6
	comp=Z,277nm,0.8s,mb5.8						
BNM	Barren Site	25.79	326	eP	P	15 29 08.0	+0.9
LPM	Los Pinos Moun	25.91	326	eP	P	15 29 09.4	+1.2
LENM	Lemitar	25.99	325	eP	P	15 29 10.4	+1.4
LAZ	Ladron	26.26	325	eP	P	15 29 12.9	+1.4
KSU1	Kansas State U	26.27	347	eP	P	15 29 11.9	+0.4
ANMO	Albuquerque	26.30	327	P	P	15 29 12.6	+0.7
	comp=Z,7.1nm,0.7s,mb4.3,baz=146,slow=12,SNR=18						
ANMO				LR	LR	15 42 27.1	
	comp=Z,4μm,21.1s,slow=43						
ANMO	Albuquerque	26.30	327	iP	P	15 29 12.7	+0.8
ANMO	Albuquerque	26.30	327	eP	P	15 29 12.0	+0.1
	comp=Z,8.3nm,0.7s,mb4.4						
CBN	Corbin	26.85	21	eP	P	15 29 18.5	+1.6
	comp=Z,164nm,0.7s,mb5.7						
TUC	Tucson	27.03	317	P	P	15 29 20.0	+1.4
TUC				pmax	pmax		
	comp=Z,34nm,1.0s,mb4.8						
TUC	Tucson	27.03	317	eP	P	15 29 19.7	+1.1
	comp=Z,34nm,0.9s,mb4.9						
ACSO	Alum Creek Sta	27.23	11	eP	P	15 29 20.9	+0.5
	comp=Z,65nm,0.7s,mb5.3						
SDCO	Great Sand Dun	28.05	332	eP	P	15 29 27.8	0.0
	comp=Z,24nm,0.8s,mb4.9						
SDCO				LR	LR		
	comp=Z,5μm,22.0s						
SDMD	Soldier's Deli	28.11	21	eP	P	15 29 27.7	-0.6
SSPA	Standing Stone	28.87	18	eP	P	15 29 35.0	-0.1
	comp=Z,29nm,0.6s,mb5.2						
AAM	Ann Arbor	29.14	9	eP	P	15 29 37.6	+0.2
AAM				pmax	pmax		
	comp=Z,74nm,0.5s,mb5.7						
AAM	Ann Arbor	29.14	9	eP	P	15 29 37.6	+0.2
	comp=Z,74nm,0.5s,mb5.7						
JFWS	Jewell Farm	29.32	359	eP	P	15 29 37.8	-1.2
JFWS				pmax	pmax		
	comp=Z,41nm,0.5s,mb5.4						
JFWS	Jewell Farm	29.32	359	eP	P	15 29 37.8	-1.2
	comp=Z,41nm,0.5s,mb5.4						
JFWS				epP	pP	15 29 52.9	-1.4
BBSR	BB Station	29.43	46	eP	P	15 29 38.8	-1.3
	comp=Z,269nm,1.3s,mb5.8						
RW3	Ridgway	29.48	330	eP	P	15 29 42.5	+1.9
RW3	Ridgway	29.48	330	eP	P	15 29 40.6	0.0
ISCO	Idaho Springs	29.80	334	P	P	15 29 44.3	+0.9
ISCO				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.2						
ISCO	Idaho Springs	29.80	334	eP	P	15 29 43.7	+0.3
	comp=Z,36nm,0.8s,mb5.2						
PV01	Paradox Valley	29.83	329	eP	P	15 29 44.3	+0.6
BRNJ	Basking Ridge	30.06	23	eP	P	15 29 47.1	+1.5
BRNJ				epP	pP	15 30 02.1	+1.1
PV10	Paradox Valley	30.25	328	eP	P	15 29 47.2	-0.2
CPNY	Central Park	30.39	24	eP	P	15 29 49.1	+0.5
PAL	Palisades	30.59	24	eP	P	15 29 51.1	+0.7
PAL				pmax	pmax		
	comp=Z,66nm,0.8s,mb5.5						
PAL	Palisades	30.59	24	eP	P	15 29 51.1	+0.8
	comp=Z,66nm,0.8s,mb5.5						
GENY	Geneseo	30.85	17	eP	P	15 29 53.1	+0.4
GENY				epP	pP	15 30 09.3	+1.2
BINY	Binghamton	30.89	20	eP	P	15 29 54.0	+0.9
	comp=Z,108nm,0.8s,mb5.7						
BINY				epP	pP	15 30 09.2	+0.7
PHWY	Pilot Hill	31.01	336	eP	P	15 29 54.1	0.0
PHWY				epP	pP	15 30 09.9	+0.4
BAR	Barrett	31.32	312	eP	P	15 29 57.7	+0.8
SRU	San Rafael	31.57	328	eP	P	15 29 59.4	+0.4
LDFC	Landfair	31.57	317	eP	P	15 30 00.7	+1.7
PFO	Pinyon Flat Ob	31.66	314	eP	P	15 30 01.3	+1.5
PFO				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.3						
PFO	Pinyon Flat Ob	31.66	314	eP	P	15 30 01.3	+1.5
	comp=Z,49nm,0.8s,mb5.4						
NEN	Nelson	31.74	318	eP	P	15 30 01.2	+0.7
MSU	Marysvale	32.02	325	P	P	15 30 04.6	+1.6
MSU	Marysvale	32.02	325	eP	P	15 30 03.7	+0.7
MVU	Marysvale	32.04	325	eP	P	15 30 03.5	+0.5
	comp=Z,14nm,1.0s,mb4.8						
RWWY	Rawlins	32.05	335	eP	P	15 30 03.6	+0.5
TMUT	Trail Mountain	32.06	327	eP	P	15 30 03.9	+0.6
ARUT	Antelope Range	32.25	323	eP	P	15 30 06.3	+1.4
QUA2	Belchertown	32.28	24	P	P	15 30 04.5	-0.6
	comp=Z,36nm,0.4s,mb5.6						
BRYW	Bryant College	32.31	25	eP	P	15 30 06.2	+0.7
SADO	Sadowa	32.38	14	P	P	15 30 05.8	-0.3
	comp=Z,76nm,0.7s,mb5.6						
SADO				LR	LR	15 43 49.0	
	comp=Z,26μm,21.6s,baz=334,slow=38						
ACCN	Adirondack Com	32.74	22	eP	P	15 30 09.3	+0.2
WES	Weston	32.79	25	eP	P	15 30 10.7	+1.1
WES				pmax	pmax		
	comp=Z,210nm,1.5s,mb5.8						
WES	Weston	32.79	25	eP	P	15 30 10.7	+1.1
	comp=Z,28nm,0.6s,mb5.4						
WES				epP	pP	15 30 25.1	0.0
HRV	Harvard--Oak R	32.80	25	eP	P	15 30 10.4	+0.8
HRV				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
HRV	Harvard--Oak R	32.80	25	eP	P	15 30 10.4	+0.8
	comp=Z,32nm,0.8s,mb5.3						
MPU	Maple Canyon	32.81	328	eP	P	15 30 10.5	+0.7
DAU	Daniels Canyon	32.92	329	eP	P	15 30 11.7	+1.0
NLU	North Lily Min	33.00	327	eP	P	15 30 12.1	+0.7
NLU				epP	pP	15 30 27.5	+0.5
NCB	Newcomb	33.06	20	eP	P	15 30 12.0	+0.1
	comp=Z,31nm,0.8s,mb5.3						
NCB				epP	pP	15 30 28.1	+0.6
MWC	Mount Wilson	33.11	313	P	P	15 30 13.8	+1.3
MWC	Mount Wilson	33.11	313	eP	P	15 30 13.7	+1.2
JLU	Jordanelle	33.16	329	eP	P	15 30 13.2	+0.4
JLU				epP	pP	15 30 28.5	+0.2
TPNV	Topopah Spring	33.43	319	eP	P	15 30 16.5	+1.3
TPNV				pmax	pmax		
	comp=Z,53nm,0.9s,mb5.5						
TPNV	Topopah Spring	33.43	319	eP	P	15 30 16.5	+1.3
	comp=Z,54nm,0.9s,mb5.5						
HNH	Hanover	33.52	23	P	P	15 30 16.8	+0.9
NOQ	North Oquirrh	33.53	328	eP	P	15 30 16.8	+0.8
NOQ				epP	pP	15 30 30.7	-1.0
FFD	Franklin Falls	33.56	24	eP	P	15 30 16.0	-0.3
	comp=Z,66nm,0.8s,mb5.6						
MSNY	Massena	33.77	19	eP	P	15 30 18.3	+0.3
TRCR	Troy Canyon	33.89	322	eP	P	15 30 19.8	+0.7
DAC	Darwin (Calif)	33.91	317	eP	P	15 30 20.5	+1.2
DAC				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.4						
DAC	Darwin (Calif)	33.91	317	eP	P	15 30 20.5	+1.2
	comp=Z,46nm,0.9s,mb5.4						
BW06	Boulder Array	33.93	333	eP	P	15 30 18.7	-0.7
	comp=Z,16nm,1.0s,mb4.9						
PDAR	Pinedale Array	33.93	333	P	P	15 30 18.7	-0.7
	comp=Z,2.1nm,0.9s,baz=90,slow=5.9,SNR=3.9						
PDAR				PcP	PcP	15 32 56.9	+0.1
	comp=Z,19nm,0.9s,baz=121,slow=5.2,SNR=8.1						
PDAR				ScP		15 36 36.5	
	comp=Z,24nm,1.0s,baz=124,slow=5.3,SNR=21						
PDAR				PKiKP		15 40 20.5	
	comp=Z,5.3nm,1.1s,baz=112,slow=2.4,SNR=8.3						
PDAR				LR	LR	15 47 51.5	
	comp=Z,2μm,20.4s,baz=156,slow=43						
HWUT	Hardware Ranch	33.97	330	eP	P	15 30 19.7	0.0
	comp=Z,76nm,1.4s,mb5.4						
SPUT	South Promonto	34.19	328	eP	P	15 30 22.3	+0.7
BGU	Big Grassy Mou	34.21	327	eP	P	15 30 22.4	+0.5
SAML	Samuel	34.33	129	⇑eP	P	15 30 22.7	-0.4
	comp=Z,424nm,0.9s,mb6.4						
SAML				epP	pP	15 30 37.3	-1.5
AHID	Auburn Hatcher	34.63	331	eP	P	15 30 25.7	+0.3
	comp=Z,53nm,0.9s,mb5.5						
AHID				epP	pP	15 30 40.9	-0.2
ARE	Arequipa	34.67	149	eP	P	15 30 29.0	+3.0
HVU	Hansel Valley	34.70	329	eP	P	15 30 26.4	+0.4
HVU				e		15 32 59.0	
HVU	Hansel Valley	34.70	329	eP	P	15 30 26.4	+0.5
HVU				epP	pP	15 30 40.6	-1.1
HVU				ePcP	PcP	15 32 59.0	0.0
HVU				eScP		15 36 39.0	
TPH	Tonopah	34.73	320	eP	P	15 30 28.0	+1.7
TPH				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
TPH	Tonopah	34.73	320	eP	P	15 30 27.9	+1.6
	comp=Z,38nm,1.0s,mb5.3						
REDW	Red Top Meadow	34.98	332	eP	P	15 30 28.8	+0.4
REDW				epP	pP	15 30 44.0	0.0
SNOW	Snow King Moun	35.02	333	eP	P	15 30 29.5	+0.8
LOHW	Long Hollow	35.07	333	eP	P	15 30 29.3	+0.1
WUWY	Wally Ulrich	35.07	333	eP	P	15 30 29.8	+0.6
WUWY				epP	pP	15 30 45.1	+0.2
TPAW	Teton Pass	35.13	332	eP	P	15 30 30.4	+0.7
MTUM	Tungsten Hills	35.17	318	eP	P	15 30 31.6	+1.5
MOOW	Moose Ponds	35.24	333	eP	P	15 30 30.6	0.0
ELK	Elko	35.27	325	P	P	15 30 32.3	+1.4
ELK				pmax	pmax		
	comp=Z,30nm,1.0s						
ELK	Elko	35.27	325	eP	P	15 30 31.1	+0.1
	comp=Z,30nm,1.0s,mb5.2						
IMW	Indian Meadow	35.44	333	eP	P	15 30 32.4	+0.1
MNV	Mina	35.53	320	eP	P	15 30 34.7	+1.6
MNV				pmax	pmax		
	comp=Z,110nm,0.9s,mb5.8						
MNV	Mina	35.53	320	eP	P	15 30 34.7	+1.6
	comp=Z,109nm,0.9s,mb5.8						
OMM	Old Mammoth Mi	35.60	318	eP	P	15 30 34.9	+1.2
NVAR	Mina Array Bea	35.62	319	P	P	15 30 35.6	+1.6
	comp=Z,104nm,0.8s,mb5.8,baz=160,slow=5.1,SNR=415						
NVAR				PcP	PcP	15 33 02.4	+0.7
	comp=Z,51nm,0.8s,baz=120,slow=5.0,SNR=15						
NVAR				ScP		15 36 43.4	
	comp=Z,23nm,0.8s,baz=127,slow=5.2,SNR=18						
NVAR				PKiKP		15 40 22.9	
	comp=Z,1.9nm,0.9s,baz=206,slow=3.9,SNR=6.9						
NVAR				LR	LR	15 46 41.4	
	comp=Z,4μm,21.9s,baz=220,slow=39						
LKWY	Lake	35.74	334	eP	P	15 30 35.9	+1.0
LKWY				pmax	pmax		
	comp=Z,160nm,1.7s,mb5.7						
LKWY	Lake	35.74	334	eP	P	15 30 35.9	+1.1
	comp=Z,162nm,1.7s,mb5.7						
YFT	Old Faithful	35.84	334	eP	P	15 30 37.5	+1.9
LAO	LASA Array	35.96	340	eP	P	15 30 36.7	+0.1
	comp=Z,146nm,0.9s,mb5.9						
YNR	Norris Junctio	35.98	334	eP	P	15 30 37.8	+0.9
YMR	Madison River	36.07	334	eP	P	15 30 38.8	+1.2
BMN	Battle Mountai	36.20	323	eP	P	15 30 39.6	+0.8
BMN				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
BMN	Battle Mountai	36.20	323	eP	P	15 30 39.6	+0.9
	comp=Z,32nm,1.0s,mb5.2						
LRV	Little Rabbit	36.32	315	eP	P	15 30 40.8	+1.0
LPAZ	La Paz	36.34	144	P	P	15 30 41.5	+1.3
	comp=Z,18nm,0.6s,mb5.2,baz=332,slow=7.5,SNR=106						
LPAZ				pP	pP	15 30 57.7	+1.8
	comp=Z,26nm,0.8s,baz=329,slow=12,SNR=9.1						
LPAZ				LR	LR	15 45 58.0	
	comp=Z,5μm,18.1s,baz=317,slow=37						
LPAZ	La Paz	36.34	144	P	P	15 30 41.3	+1.1
LPAZ				pmax	pmax		
	comp=Z,23nm,0.7s						
LPAZ	La Paz	36.34	144	eP	P	15 30 40.9	+0.7
	comp=Z,23nm,0.7s,mb5.2						
QLMT	Earthquake Lak	36.40	333	eP	P	15 30 41.9	+1.5
GCMT	Greycliff	36.44	336	eP	P	15 30 41.0	+0.2
CMB	Columbia Colle	36.74	317	P	P	15 30 44.4	+1.0
CMB				pmax	pmax		
	comp=Z,65nm,0.9s,mb5.5						

CMB	**Columbia Colle**	36.74	317	*e*P	P	15 30 44.2	+0.8
	comp=Z,65nm,0.9s,mb5.5						
CMB				LR	LR		
	comp=Z,4µm,22.0s						
SAO	**San Andreas Ge**	36.79	315	*e*P	P	15 30 44.6	+0.8
SAO				pmax	pmax		
	comp=Z,76nm,0.9s,mb5.5						
SAO	**San Andreas Ge**	36.79	315	*e*P	P	15 30 44.6	+0.9
	comp=Z,76nm,0.8s,mb5.6						
HLID	**Hailey**	36.83	329	*e*P	P	15 30 44.3	+0.3
	comp=Z,27nm,0.8s,mb5.1						
HLID				LR	LR		
	comp=Z,2µm,20.0s						
DGMT	**Dagmar**	36.94	344	*e*P	P	15 30 45.9	+0.9
	comp=Z,619nm,0.7s						
ULM	**Lac du Bonnet**	37.02	353	P	P	15 30 45.5	0.0
	comp=Z,69nm,0.7s,mb5.6,baz=170,slow=12						
ULM				ScP		15 36 46.9	
	comp=Z,4.6nm,0.5s,baz=134,slow=12,SNR=3.2						
ULM				LR	LR	15 48 34.5	
	comp=Z,10µm,19.7s,baz=172,slow=40						
ULM	**Lac du Bonnet**	37.02	353	*e*P	P	15 30 45.4	-0.1
	comp=Z,97nm,0.7s,mb5.7						
MCMT	**McKenzie Canyo**	37.03	332	*e*P	P	15 30 47.1	+1.4
WCN	**Washoe City**	37.05	320	*e*P	P	15 30 47.3	+1.4
WCN				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.1						
WCN	**Washoe City**	37.05	320	*e*P	P	15 30 47.3	+1.4
	comp=Z,39nm,1.2s,mb5.1						
BOZ	**Bozeman (W)**	37.13	334	P	P	15 30 47.4	+0.9
BOZ				pmax	pmax		
	comp=Z,53nm,0.8s,mb5.4						
BOZ	**Bozeman (W)**	37.13	334	*e*P	P	15 30 47.1	+0.6
	comp=Z,53nm,0.8s,mb5.4						
BEKR	**Beckwourth**	37.76	320	*e*P	P	15 30 53.2	+1.4
	comp=Z,52nm,1.0s,mb5.2						
BEKR				*e*pP	pP	15 31 08.5	+0.9
SAC	**San Andreas**	37.87	315	*e*P	P	15 30 52.5	-0.3
HRY	**Holter Researc**	38.06	335	*e*P	P	15 30 54.8	+0.6
HRY				*e*pP	pP	15 31 09.8	-0.2
OHCM	**Honcut**	38.18	318	*e*P	P	15 30 56.6	+1.3
NSHM	**Saint Helena R**	38.48	316	*e*P	P	15 30 59.3	+1.5
MOD	**Modoc**	38.93	322	*e*P	P	15 31 01.4	-0.1
	comp=Z,18nm,1.0s,mb4.8						
MSO	**Missoula**	39.05	333	*e*P	P	15 31 02.5	0.0
	comp=Z,100nm,1.4s,mb5.3						
MSO				*e*pP	pP	15 31 18.7	+0.4
BMO	**Blue Mountains**	39.20	328	*e*P	P	15 31 03.3	-0.5
	comp=Z,16nm,0.8s,mb4.8						
BMO				*e*pP	pP	15 31 19.0	-0.6
WDC	**Whiskeytown Da**	39.54	319	P	P	15 31 06.3	-0.3
WDC				pmax	pmax		
	comp=Z,88nm,1.9s,mb5.2						
WDC	**Whiskeytown Da**	39.54	319	*e*P	P	15 31 05.3	-1.3
	comp=Z,88nm,1.9s,mb5.2						
YBH	**Yreka Blue Hor**	40.29	321	P	P	15 31 13.0	+0.2
	comp=Z,10nm,0.6s,mb4.7,baz=118,slow=5.9,SNR=21						
YBH				PcP	PcP	15 33 16.4	+0.3
	comp=Z,19nm,0.9s,baz=115,slow=2.7,SNR=6.5						
YBH				ScP		15 37 00.1	
	comp=Z,6.5nm,0.8s,baz=129,slow=5.7,SNR=6.8						
YBH	**Yreka Blue Hor**	40.29	321	P	P	15 31 13.6	+0.8
YBH				pmax	pmax		
	comp=Z,13nm,0.8s						
YBH	**Yreka Blue Hor**	40.29	321	*e*P	P	15 31 12.5	-0.3
	comp=Z,13nm,0.8s,mb4.7						
BUOR	**Burton Butte**	40.32	322	P	P	15 31 14.0	+0.9
KHMM	**Horse Mountain**	40.46	319	*e*P	P	15 31 15.5	+1.3
KRMB	**Red Mountain**	40.92	320	*e*P	P	15 31 18.1	+0.1
BBOR	**Butler Butte**	40.93	322	P	P	15 31 18.7	+0.6
HUMO	**Hull Mountain**	40.94	322	*e*P	P	15 31 17.9	-0.2
	comp=Z,94nm,2.0s,mb5.1						
LVC	**Limon Verde**	41.16	150	P	P	15 31 22.4	+2.3
	comp=Z,71nm,1.0s,mb5.2,baz=312,slow=6.7,SNR=60						
LVC				LR	LR	15 46 02.6	
	comp=Z,5µm,21.6s,baz=318,slow=32						
LVC	**Limon Verde**	41.16	150	*e*P	P	15 31 20.9	+0.7
	comp=Z,111nm,1.1s,mb5.4						
FRIS	**Frissel Point**	41.38	324	P	P	15 31 24.1	+2.3
HAWA	**Hanford**	41.40	328	*e*P	P	15 31 21.1	-0.7
	comp=Z,11nm,0.7s,mb4.6						
NEW	**Newport**	41.55	332	LR	LR	15 52 53.6	
	comp=Z,4µm,21.1s,baz=56,slow=42						
NEW	**Newport**	41.55	332	*e*P	P	15 31 22.8	-0.3
NEW				pmax	pmax		
	comp=Z,15nm,0.9s						
NEW	**Newport**	41.55	332	*e*P	P	15 31 22.8	-0.3
	comp=Z,16nm,0.8s,mb4.7						
NEW				*e*pP	pP	15 31 38.5	-0.5
OD2	**Odessa Site #2**	41.68	330	P	P	15 31 25.9	+1.8
MOCB	**Mochara**	41.72	146	⇓*i*P	P	15 31 27.2	+2.4
MXC	**Moxie City**	41.91	328	P	P	15 31 28.2	+2.1
VLL	**Laurance Lake**	41.92	326	P	P	15 31 28.1	+1.9
RPN	**Rapa Nui**	44.75	205	*e*P	P	15 31 48.4	-1.1
SCHQ	**Schefferville**	44.88	18	P	P	15 31 50.4	+0.3
	comp=Z,176nm,0.8s,mb5.9,baz=213,slow=6.4,SNR=171						
SCHQ				LR	LR	15 53 17.7	
	comp=Z,6µm,18.5s,baz=214,slow=40						
SCHQ	**Schefferville**	44.88	18	*e*P	P	15 31 49.8	-0.2
	comp=Z,265nm,0.9s,mb6.1						
TLL	**Tololo Astrono**	46.99	158	⇓*i*P	P	15 32 08.0	+0.9
FCH	**Farellones**	50.03	159	⇓*i*P	P	15 32 31.5	+0.8
BDFB	**Brasilia**	50.19	124	P	P	15 32 31.8	-0.3
	comp=Z,36nm,0.7s,mb5.5,baz=294,slow=8.0,SNR=34						
BDFB				pP	pP	15 32 47.2	-1.0
	comp=Z,63nm,0.8s,baz=298,slow=10,SNR=13						
BDFB				LR	LR	15 56 22.1	
	comp=Z,6µm,18.4s,baz=57,slow=39						
BAO	**Brasilia Array**	50.21	124	P	P	15 32 31.1	-1.1
BAO				*e*		15 32 42.1	
BAO				*e*	pP	15 32 47.2	-1.2
BAO				*e*		15 33 05.3	
BAO				*e*		15 33 31.6	
YKA	**Yellowknife Ar**	52.10	346	P	P	15 32 45.3	-0.5
	comp=Z,60nm,0.8s,mb5.6,baz=144,slow=7.7,SNR=513						
YKA				ScP		15 37 47.1	
	comp=Z,2.1nm,0.7s,baz=145,slow=4.4,SNR=4.6						
YKA				LR	LR	15 58 44.2	
	comp=Z,4µm,21.1s,baz=145,slow=40						
YKA	**Yellowknife Ar**	52.10	346	*e*P	P	15 32 45.3	-0.5
FRB	**Frobisher Bay**	52.28	12	P	P	15 32 46.5	-0.7
	comp=Z,170nm,0.8s,mb6.0,baz=209,slow=8.2,SNR=248						
RCBR	**Riachuelo**	56.54	106	*e*P	P	15 33 16.5	-2.5
	comp=Z,320nm,1.4s,mb6.2						
LPA	**La Plata**	56.69	149	*de*P	P	15 33 17.0	-2.8
LPA				*e*pP	pP	15 33 31.0	-5.3
LPA				*e*PP	PP	15 35 26.0	-1.8
LPA				*e*S	S	15 41 03.0	-2.6
LPA				*e*sS		15 41 33.0	
	comp=Z,5µm,24.0s						
TRQA	**Tornquist**	57.40	154	*e*P	P	15 33 23.1	-1.7
	comp=Z,83nm,1.3s,mb5.6						
RKT	**Rikitea**	57.52	231	*e*P	P	15 33 24.1	-1.7
	comp=Z,224nm,1.1s,mb6.1						
RKT	**Rikitea**	57.52	231	*e*LQ		15 47 56.8	
RKT				*e*LR	LR	15 50 17.3	
	comp=Z,15µm,27.5s,baz=46						
ADH	**Angra Heroismo**	60.06	53	*i* LR	LR	15 52 12.5	
PDA	**Ponta Delgada**	61.20	54	*e*LR	LR	15 52 49.6	
INK	**Inuvik**	61.62	343	P	P	15 33 52.4	-0.9
	comp=Z,24nm,0.7s,mb5.4,baz=131,slow=8.2,SNR=97						
INK				pP	pP	15 34 09.2	-0.9
	comp=Z,22nm,0.8s,baz=107,slow=6.8,SNR=5.5						
INK				LR	LR	16 04 21.7	
	comp=Z,4µm,18.4s,baz=124,slow=40						
INK	**Inuvik**	61.62	343	P	P	15 33 52.4	-0.9
INK				pP	pP	15 34 09.2	-0.9
INK				LR	LR	16 04 21.8	
DIV	**Divide**	62.31	333	*e*P	P	15 33 57.6	-0.4
	comp=Z,185nm,1.4s,mb6.0						
THY	**Trims Highway**	63.25	335	*e*P	P	15 34 03.1	-1.2
MAUI	**Maui**	63.85	287	*i* P	P	15 34 09.6	+0.7
SLKM	**Skilak Lake**	64.10	331	*e*P	P	15 34 09.6	-0.2
ILAR	**Eielson Array**	64.27	336	P	P	15 34 09.6	-1.2
	comp=Z,23nm,1.0s,mb5.1,baz=118,slow=4.5,SNR=102						
PMOR	**Pomariorio Ree**	64.37	246	*e*P	P	15 34 12.0	-0.3
	comp=Z,352nm,1.5s,mb6.2						
MCK	**McKinley**	64.68	335	P	P	15 34 13.0	-0.5
MCK				pmax	pmax		
	comp=Z,51nm,1.6s,mb5.3						
MCK	**McKinley**	64.68	335	*e*P	P	15 34 12.0	-1.5
	comp=Z,51nm,1.6s,mb5.3						
COLA	**College**	64.69	336	P	P	15 34 12.7	-0.9
COLA				pmax	pmax		
	comp=Z,46nm,1.5s,mb5.3						
COLA	**College**	64.69	336	*e*P	P	15 34 12.2	-1.4
RSO	**Redoubt South**	65.28	331	*e*P	P	15 34 16.5	-0.9
HON	**Honolulu**	65.43	287	*e*P	P	15 34 19.4	+0.3
MEH	**Mehetia**	65.67	243	*e*P	P	15 34 20.1	-0.6
	comp=Z,202nm,1.4s,mb6.0						
SUMG	**Summit**	66.07	15	*e*P	P	15 34 21.9	-0.5
	comp=Z,157nm,1.4s,mb5.8						
SUMG				*e*pP	pP	15 34 39.6	+0.3
TIAR	**Tiarei**	66.66	244	*e*P	P	15 34 26.3	-0.6
	comp=Z,614nm,1.4s,mb6.4						
PPT	**Papeete**	66.87	244	*e*P	P	15 34 27.7	-0.5
	comp=Z,104nm,1.5s,mb5.6						
PPT	**Papeete**	66.87	244	*e*LQ		15 50 55.6	
PPT				*e*LR	LR	15 54 09.4	
	baz=59						
PAE	**Paea**	66.91	244	*e*P	P	15 34 28.0	-0.5
	comp=Z,325nm,1.4s,mb6.2						
IMA	**Indian Mountai**	67.39	337	*e*P	P	15 34 29.4	-1.3
IMA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
IMA	**Indian Mountai**	67.39	337	*e*P	P	15 34 29.9	-0.8
BORG	**Borgarnes**	68.60	25	LR	LR	16 05 34.6	
	comp=Z,3µm,20.6s,baz=326,slow=37						
TBI	**Tubuai**	69.16	238	*e*P	P	15 34 41.4	-1.0
	comp=Z,140nm,1.2s,mb5.8						
TBI				*e*LQ		15 51 36.0	
TBI				*e*LR	LR	15 55 26.5	
	comp=Z,13µm,28.8s,baz=63						
SCO	**Scoresbysund**	69.91	19	*i* P	P	15 34 45.8	-0.4
USHA	**Ushuaia**	70.36	167	LR	LR	15 59 36.7	
	comp=Z,7µm,21.9s,baz=283,slow=31						
UNV	**Unalaska Valle**	71.57	323	*e*P	P	15 34 56.0	-0.5
	comp=Z,60nm,0.7s,mb5.6						
UNV				*e*	pP	15 35 13.2	-0.4
DAG	**Danmarks Havn**	72.58	13	⇓*i*P	P	15 35 01.2	-0.8
DAG				pmax	pmax		
	comp=Z,120nm,1.5s,mb5.6						
DAG				MLR	MLR		
	comp=Z,15µm,23.0s						
DAG	**Danmarks Havn**	72.58	13	⇓*i*P	P	15 35 01.2	-0.8
	comp=Z,122nm,1.5s,mb5.6						
	comp=Z,15µm,23.0s						
TNA	**Tin City**	73.03	335	*e*P	P	15 35 04.4	-0.4
	comp=Z,74nm,1.9s,mb5.3						
EMAZ	**Mazaricos**	74.01	49	P	P	15 35 12.2	+1.1
	comp=Z,24nm,0.6s,mb5.3						
EZAM	**Zamans**	74.27	50	P	P	15 35 14.3	+1.7
	comp=Z,5.0nm,0.4s,mb4.8						
STS	**Santiago**	74.33	49	P	P	15 35 13.1	+0.2
	comp=Z,13nm,0.6s,mb5.0						
JMIC	**Jan Mayen**	74.38	20	LR	LR	16 09 26.6	
	comp=Z,3µm,20.4s,baz=261,slow=37						
JMIC	**Jan Mayen**	74.38	20	AMS	AMS	16 07 15.9	
	comp=Z,4µm,23.4s						
DCN	**Croghan**	74.64	38	*e*P	P	15 35 10.0	-4.5
DMUB	**Kingscourt**	74.84	37	*e*P	P	15 35 12.0	-3.6
EVO	**Evora**	75.09	53	⇑*i*P	P	15 35 15.4	-2.0
	comp=Z,50nm,1.0s,mb5.1						
EVO				*e*R			
	comp=Z,10µm,22.2s						
EINC	**Incio**	75.23	49	P	P	15 35 17.0	-1.1
	comp=Z,5.1nm,0.3s,mb4.9						
MTE	**Manteigas**	75.28	51	*e*P	P	15 35 18.1	-0.3
	comp=Z,84nm,1.6s,mb5.4						
MTE				*e*S	S	15 44 56.9	+5.6
MTE				*e*SS	SS	15 49 44.4	-0.1
MTE				*e*LQ		15 55 37.2	
MTE				*e*LR	LR	15 59 03.3	
	comp=Z,5µm,24.4s						
EPON	**Pontenova**	75.32	48	P	P	15 35 18.2	-0.3
	comp=Z,2.2nm,0.2s,mb4.7						
ECAL	**Calabor**	75.74	50	P	P	15 35 20.1	-0.9
	comp=Z,11nm,0.8s,mb4.8						
PBRG	**Braganca**	75.75	50	*e*P	P	15 35 21.3	+0.2
	comp=Z,55nm,1.4s,mb5.3						
EMIN	**Mina Concepcio**	76.22	54	P	P	15 35 22.3	-1.5
EARI	**Arriondas**	76.73	48	P	P	15 35 25.6	-1.0
	comp=Z,9.5nm,1.0s,mb4.7						
ESK	**Eskdalemuir**	76.90	36	⇑*e*P	P	15 35 25.3	-2.0
ESK				AMb	AMB	15 35 27.6	
	comp=Z,97nm,2.0s,mb5.4						
ESK	**Eskdalemuir**	76.90	36	*e*P	P	15 35 25.4	-1.9
ESK				*e*	pP	15 35 44.1	-0.5
ESK				pmax	pmax		
	comp=Z,94nm,1.3s,mb5.6						
ESK	**Eskdalemuir**	76.90	36	*e*P	P	15 35 25.4	-1.9
	comp=Z,94nm,1.4s,mb5.5						
ESK				*e*	pP	15 35 44.0	-0.6
EKA	**Eskdalemuir Ar**	76.93	36	P	P	15 35 25.6	-1.8
	comp=Z,16nm,0.6s,mb5.1,baz=273,slow=5.4,SNR=32						
EKA				pP	pP	15 35 43.9	-0.9
	comp=Z,34nm,1.0s,baz=261,slow=6.1,SNR=7.2						
ESPR	**Espera**	76.98	55	P	P	15 35 29.8	+1.7
	comp=Z,20nm,0.9s,mb5.1						
RAR	**Rarotonga**	77.15	244	LR	LR	16 00 21.7	
	comp=Z,3µm,20.0s,baz=334,slow=28						
ESY	**Stoneypath**	77.19	35	⇑*e*P	P	15 35 27.3	-1.5
ESY				AMb	AMB	15 35 28.7	
	comp=Z,112nm,1.6s,mb5.5						
ROSF	**Rostrenen**	77.53	43	*e*P	P	15 35 29.1	-1.8
	comp=Z,128nm,1.5s,mb5.3						
QUIF	**Quistinic**	77.65	43	⇑*i*P	P	15 35 29.9	-1.7
	comp=Z,152nm,1.5s,mb5.4						
LHO	**Holmfirth**	77.86	38	⇑*e*P	P	15 35 30.8	-1.8
SGMF	**Saint Gilles**	78.02	43	*e*P	P	15 35 31.4	-2.2
	comp=Z,30nm,1.1s,mb4.8						
ESDC	**Sonseca Array**	78.09	52	P	P	15 35 32.8	-1.4
	comp=Z,14nm,0.8s,mb5.0,baz=287,slow=5.2,SNR=16						
ESDC	**Sonseca Array**	78.09	52	P	P	15 35 33.0	-1.1
	comp=Z,12nm,0.8s,mb4.9						
ESLA	**Sonseca Array**	78.09	52	*e*P	P	15 35 32.7	-1.5
	comp=Z,10nm,1.0s,mb4.7						
ELOJ	**Sierra Loja**	78.29	54	P	P	15 35 37.5	+2.1
	comp=Z,4.7nm,0.3s,mb4.9						
ERON	**Agron**	78.58	55	P	P	15 35 39.6	+2.7
	comp=Z,5.9nm,0.4s,mb4.9						
EQES	**Quesada**	79.05	54	P	P	15 35 41.7	+2.2
	comp=Z,29nm,1.1s,mb5.1						
GRR	**Gorron**	79.13	43	⇑*i*P	P	15 35 38.0	-1.7
	comp=Z,99nm,1.1s,mb5.3						
FLN	**La Foliniere**	79.32	42	⇑*i*P	P	15 35 39.1	-1.6
	comp=Z,90nm,1.1s,mb5.3						
FLN				*e*R			
	comp=Z,6µm,22.8s						
EBER	**Berja**	79.33	55	P	P	15 35 39.8	-1.2
	comp=Z,33nm,0.7s,mb5.4						
EVIA	**Vianos**	79.36	53	P	P	15 35 41.2	+0.1
	comp=Z,15nm,0.8s,mb5.0						
EALK	**Alkurruntz**	79.42	48	P	P	15 35 40.4	-1.0
	comp=Z,31nm,1.1s,mb5.1						
LDF	**La Druitiere**	79.58	42	⇑*i*P	P	15 35 40.5	-1.6
	comp=Z,81nm,1.1s,mb5.3						
SJPF	**Ste Jean**	79.64	48	⇑*i*P	P	15 35 41.3	-1.3
	comp=Z,109nm,1.2s,mb5.4						
LARF	**Larrau**	79.83	48	⇑*e*P	P	15 35 42.7	-0.9
MFF	**Saint Martin d**	79.87	44	⇑*i*P	P	15 35 41.9	-1.8
	comp=Z,93nm,1.4s,mb5.2						
ETSF	**Etsaut**	80.16	48	⇑*i*P	P	15 35 44.2	-1.1
	comp=Z,87nm,1.3s,mb5.2						
PMSA	**Palmer Station**	80.39	169	*e*P	P	15 35 45.9	-0.3
	comp=Z,74nm,1.1s,mb5.5						
VIEF	**Viey**	80.58	48	*e*P	P	15 35 46.6	-1.0
EMOS	**Mosqueruela**	80.64	51	P	P	15 35 48.6	+0.6
	comp=Z,26nm,0.8s,mb5.2						
EBIE	**Bielsa**	80.70	48	P	P	15 35 47.2	-1.0
	comp=Z,13nm,0.8s,mb4.9						
LFF	**La Frestale**	80.75	46	*e*P	P	15 35 46.8	-1.6
	comp=Z,144nm,1.2s,mb5.5						
EPF	**Esparros**	80.79	48	⇑*i*P	P	15 35 47.3	-1.4
	comp=Z,122nm,1.4s,mb5.3						
RESF	**Ens**	80.82	48	*e*P	P	15 35 48.0	-0.9
EGRA	**Graus**	80.91	49	P	P	15 35 50.1	+0.8
	comp=Z,13nm,0.7s,mb5.0						
EBEN	**Beniarda**	81.11	52	P	P	15 35 51.4	+0.9
MELF	**Melles**	81.12	48	*e*P	P	15 35 49.5	-0.9
ERTA	**Horta de San J**	81.14	50	P	P	15 35 52.0	+1.4
	comp=Z,11nm,0.7s,mb4.9						
RJF	**Les Rejaudoux**	81.22	46	⇑*i*P	P	15 35 49.2	-1.7
	comp=Z,134nm,1.4s,mb5.4						
RJF				*e*R			
	comp=Z,5µm,22.0s						
EBR	**Ebro Roquetas**	81.28	50	*e*P	P	15 35 49.5	-1.8
MOL	**Molde**	81.34	28	*e*P	P	15 35 53.6	+2.4
MLS	**Moulis**	81.34	48	⇑*e*P	P	15 35 49.8	-1.8
SALF	**Salau**	81.45	48	*e*P	P	15 35 51.1	-1.1
ODD1	**Odda**	81.47	30	*e*P	P	15 35 50.9	-1.0
ODD1				AMb	AMB	15 35 54.0	
	comp=Z,81nm,1.4s,mb5.5						
ODD1	**Odda**	81.47	30	*e*P	P	15 35 50.9	-1.0
	comp=Z,81nm,1.4s,mb5.5						
BLS5	**Blasjo**	81.49	31	*e*P	P	15 35 52.6	+0.6
BLS5				AMb	AMB	15 35 58.9	
	comp=Z,37nm,1.6s,mb5.1						
BLS5				*e*sP	pP	15 36 16.5	+7.1
BLS5	**Blasjo**	81.49	31	*e*P	P	15 35 52.6	+0.6
	comp=Z,37nm,1.7s,mb5.0						
TCF	**Toulx Ste Croi**	81.53	44	⇑*i*P	P	15 35 50.5	-2.0
	comp=Z,63nm,1.3s,mb5.1						
HYF	**Humbligny**	81.63	43	*e*P	P	15 35 51.5	-1.5
CAF	**Calviac**	81.68	46	⇑*i*P	P	15 35 51.5	-1.8
	comp=Z,89nm,1.4s,mb5.2						
VERF	**Verneugheol**	81.81	45	*e*P	P	15 35 52.1	-1.9
EMIR	**Miracle**	81.85	49	P	P	15 35 56.1	+1.8
	comp=Z,6.6nm,0.6s,mb4.7						
BGF	**Bois d'Agland**	81.91	44	⇑*i*P	P	15 35 52.6	-1.8
BJO	**Bjornoya**	81.96	15	*e*P	P	15 35 58.6	+4.4
BJO				AMS	AMS	16 10 54.3	
	comp=Z,4µm,21.6s						
MTLF	**Montolieu**	82.08	47	⇑*i*P	P	15 35 53.8	-1.6
	comp=Z,89nm,1.2s,mb5.2						
BAIF	**Baives**	82.12	40	⇑*i*P	P	15 35 54.0	-1.4
	comp=Z,61nm,1.3s,mb5.1						
PYM	**Petit Puy Mans**	82.17	45	*e*P	P	15 35 55.3	-0.5
AVF	**Avril sur Loir**	82.20	44	⇑*i*P	P	15 35 53.8	-2.2
	comp=Z,52nm,1.3s,mb5.0						
SSF	**Saint Saulge**	82.25	44	⇑*i*P	P	15 35 54.2	-2.0
	comp=Z,41nm,1.1s,mb5.0						
LBL	**Lubilhac**	82.44	45	*e*P	P	15 35 57.0	-0.2
GIVF	**Givet**	82.50	40	*e*P	P	15 35 56.0	-1.4
	comp=Z,142nm,1.4s,mb5.4						
SMF	**Signal de Mont**	82.56	44	⇑*i*P	P	15 35 55.7	-2.1
	comp=Z,65nm,1.4s,mb5.2						
EJON	**La Jonquera**	82.74	48	P	P	15 36 00.8	+2.0
	comp=Z,13nm,0.8s,mb5.0						
NSS	**Namsos**	82.77	25	*e*P	P	15 35 57.9	-0.6
MEZF	**Maizieres J'vi**	82.98	42	*e*P	P	15 35 58.6	-1.3
	comp=Z,120nm,1.2s,mb5.5						
KONO	**Kongsberg**	82.99	30	AMS	AMS	16 10 21.2	
	comp=Z,3µm,22.0s						
KONO	**Kongsberg**	82.99	30	*i* P	P	15 35 58.7	-1.0
HGN	**Heimansgroeve**	83.05	40	*e*P	P	15 35 58.6	-1.5
	comp=Z,44nm,1.8s,mb5.2						
HGN				*e*x	x	15 36 17.7	
HGN				*e*S	S	15 46 10.8	-2.3
HGN				*e*SS	SS	15 51 42.6	+1.3
LASF	**Ste Croix**	83.10	46	⇑*i*P	P	15 35 59.6	-1.0
	comp=Z,53nm,1.1s,mb5.2						
DBIC	**Dimbokro**	83.25	85	P	P	15 36 00.8	-1.2
	comp=Z,26nm,0.7s,mb5.3,baz=275,slow=5.1,SNR=31						
DBIC				LR	LR	16 09 39.0	
	comp=Z,3µm,21.8s,baz=260,slow=33						
MOR8	**Moi Rana**	83.28	23	*e*P	P	15 36 01.9	+0.9
MOR8				AMb	AMB	15 36 05.0	
	comp=Z,106nm,1.6s,mb5.6						
MOR8	**Moi Rana**	83.28	23	*e*P	P	15 36 01.9	+0.9
	comp=Z,106nm,1.6s,mb5.6						
NAO01	**NORSAR Array S**	83.30	29	*e*P	P	15 36 01.1	-0.1
	comp=Z,55nm,1.1s,mb5.5						
WTSB	**Winterswijk**	83.31	38	*e*P	P	15 36 00.5	-1.0
	comp=Z,84nm,1.2s,mb5.6						
WTSB				*e*x	x	15 36 19.2	
NB2	**NORSAR Subarra**	83.40	29	P	P	15 36 01.8	0.0
	comp=Z,103nm,1.4s,mb5.7,baz=287,slow=5.0						
NB2	**NORSAR Subarra**	83.40	29	P	P	15 36 01.8	0.0
	baz=287,slow=5.1						
NOA	**NORSAR Array B**	83.40	29	P	P	15 36 01.6	-0.1
	comp=Z,10.0nm,0.7s,mb4.9,baz=288,slow=5.1,SNR=27						
NOA				pP	pP	15 36 20.4	+1.1
	comp=Z,14nm,1.0s,baz=287,slow=5.1,SNR=6.0						
NOA				LR	LR	16 09 26.5	
	comp=Z,3µm,21.4s,baz=295,slow=33						
NOA	**NORSAR Array B**	83.40	29	P	P	15 36 01.6	-0.1
NOA				pP	pP	15 36 20.4	+1.1
NOA				LR	LR	16 09 26.5	
WLF	**Walferdange**	83.43	41	*e*P	P	15 36 00.9	-1.2
WLF				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.6						
WLF	**Walferdange**	83.43	41	*e*P	P	15 36 00.9	-1.2
	comp=Z,69nm,1.3s,mb5.5						
VIVF	**Saint-Julien-l**	83.51	46	⇑*i*P	P	15 36 01.8	-0.8
	comp=Z,115nm,1.3s,mb5.5						
MUD	**Monsted U'grnd**	83.58	34	*i* P	P	15 36 02.3	-0.4
MUD				*e*		15 39 16.7	
MUD				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.3						
MUD				MLR	MLR		
	comp=Z,4µm,21.0s						
MUD	**Monsted U'grnd**	83.58	34	*i* P	P	15 36 02.3	-0.4
	comp=Z,31nm,1.1s,mb5.3						
MUD				*e*		15 39 16.7	
MUD				*e*S	S	15 46 20.3	+2.0
	comp=Z,4µm,21.0s						
THEF	**They Montfort**	83.65	42	⇑*e*P	P	15 36 02.1	-1.2
TRO	**Tromso**	83.69	20	*e*P	P	15 36 03.0	0.0
TRO				*e*S	S	15 46 23.0	+3.8
TRO				AMS	AMS	16 12 25.9	
	comp=Z,2µm,19.2s						
FX1	**Attu Island--F**	83.75	323	P	P	15 36 04.6	+1.0
	comp=Z,42nm,0.6s,mb5.8,baz=230,slow=14,SNR=6.4						
FX1	**Attu Island--F**	83.75	323	*e*P	P	15 36 04.2	+0.5
HAU	**Haudompre**	83.93	42	⇑*i*P	P	15 36 03.3	-1.4
	comp=Z,62nm,1.1s,mb5.3						
HAU				*e*R			
	comp=Z,5µm,21.8s						
RUP	**Ruppelstein**	84.00	40	⇑*e*P	P	15 36 04.2	-0.8
RUP	**Ruppelstein**	84.00	40	⇑*e*P	P	15 36 04.3	-0.7
CABF	**La Chapelle**	84.08	44	⇑*i*P	P	15 36 04.4	-1.1
	comp=Z,82nm,1.2s,mb5.4						
ABH	**Alteburg**	84.26	40	⇑*e*P	P	15 36 05.5	-0.8
ABH	**Alteburg**	84.26	40	⇑*e*P	P	15 36 05.6	-0.7
HINF	**Hinteralfeld**	84.31	42	*e*P	P	15 36 05.1	-1.5
	comp=Z,87nm,1.3s,mb5.4						
ORIF	**Oris-en-Rattie**	84.33	45	⇑*i*P	P	15 36 06.0	-0.8
	comp=Z,34nm,1.1s,mb5.1						
ORIF				*e*R			
	comp=Z,2µm,22.0s						
SMRF	**Simiane la Rot**	84.33	46	*e*P	P	15 36 05.2	-1.6
	comp=Z,90nm,1.4s,mb5.4						
LOMF	**Lomont**	84.40	43	⇑*e*P	P	15 36 06.0	-1.1
ECH	**Echery**	84.41	42	⇑*e*P	P	15 36 06.1	-1.0
CDF	**Champ du Feu**	84.44	42	⇑*i*P	P	15 36 06.0	-1.2
	comp=Z,71nm,1.3s,mb5.3						
MOF	**Molkenrain**	84.48	42	*e*P	P	15 36 06.1	-1.4
WLS	**Welschbruch**	84.49	42	⇑*e*P	P	15 36 06.3	-1.2
LANF	**Langenberg**	84.64	41	⇑*e*P	P	15 36 07.3	-0.9
LIBD	**Limburg**	84.72	42	*e*P	P	15 36 07.6	-1.0
LPL	**La Plagne**	84.77	45	⇑*i*P	P	15 36 08.5	-0.5
	comp=Z,31nm,1.1s,mb5.1						
LPG	**La Plagne**	84.79	45	⇑*i*P	P	15 36 08.8	-0.3
	comp=Z,71nm,1.3s,mb5.3						
BBS	**Basel-Blauen**	84.82	43	⇑*e*P	P	15 36 08.1	-1.1
BBS	**Basel-Blauen**	84.82	43	⇑*e*P	P	15 36 07.8	-1.4
HFS	**Hagfors**	84.84	29	P	P	15 36 08.2	-0.8
	comp=Z,13nm,0.6s,mb5.2,baz=225,slow=4.2,SNR=19						
BNI	**Bardonecchia**	84.85	45	*e*P	P	15 36 08.5	-0.9
BNI				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.3						
BNI	**Bardonecchia**	84.85	45	*e*P	P	15 36 08.4	-0.9
	comp=Z,29nm,1.1s,mb5.3						
BSEG	**Bad Segeberg**	84.88	36	*e*P	P	15 36 09.2	-0.1
BSEG				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.7						
RRL	**Cesana Torines**	84.95	45	P	P	15 36 08.8	-1.1
KIZ	**Kirchzarten**	84.97	42	⇑*e*P	P	15 36 08.7	-1.2
MBDF	**Montbardon**	84.99	45	⇑*i*P	P	15 36 09.3	-0.8
	comp=Z,24nm,0.8s,mb5.1						
FELD	**Feldberg**	85.05	42	⇑*e*P	P	15 36 09.0	-1.3
FELD	**Feldberg**	85.05	42	*e*P	P	15 36 09.1	-1.2
LSD	**Ceresole Reale**	85.08	45	P	P	15 36 10.1	-0.4
SURF	**Saint Ours**	85.08	46	*e*P	P	15 36 10.1	-0.4
TOD	**Tromm**	85.12	40	*e*P	P	15 36 09.4	-1.2
FENE	**Fenestrelle**	85.12	45	P	P	15 36 09.7	-1.0
LMR	**La Mourre**	85.14	47	⇑*i*P	P	15 36 09.4	-1.5
	comp=Z,96nm,1.2s,mb5.5						
BFO	**Black Forest**	85.14	42	*e*P	P	15 36 09.3	-1.4
BFO				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.3						
BFO	**Black Forest**	85.14	42	*e*P	P	15 36 09.3	-1.4
	comp=Z,33nm,1.4s,mb5.3						
FRF	**La Foret Royal**	85.18	47	*e*P	P	15 36 09.8	-1.3
	comp=Z,107nm,1.2s,mb5.6						
RSP	**Reno Superiore**	85.22	45	P	P	15 36 10.5	-0.7
PZZ	**Prazzo**	85.27	46	P	P	15 36 11.5	0.0

BHB	Bricherasio	85.30	45	P	P	15 36 10.5	-1.1
CALN	Calern	85.31	46	⇑eP	P	15 36 10.9	-0.8
KTK1	Kautokeino	85.35	19	eP	P	15 36 12.6	+1.3
KTK1				AMb	AMB	15 36 14.6	
	comp=Z,102nm,1.5s,mb5.7						
KTK1	Kautokeino	85.35	19	eP	P	15 36 12.6	+1.3
	comp=Z,102nm,1.5s,mb5.7						
LBG	Lerchenberg	85.36	41	eP	P	15 36 10.9	-0.9
DOI	San Damiano	85.37	45	eP	P	15 36 11.7	-0.3
MVIF	Mont Vial	85.46	46	eP	P	15 36 11.6	-0.8
TRAV		85.47	44	P	P	15 36 10.7	-1.7
CLZ	Clausthal	85.48	38	eP	P	15 36 12.2	-0.1
	comp=Z,63nm,1.3s,mb5.6						
STV	Sta Anna Valdi	85.49	46	P	P	15 36 11.0	-1.6
STV2	Anna di Valdie	85.49	46	P	P	15 36 11.2	-1.4
SPAK	Spaichingen	85.50	42	eP	P	15 36 11.3	-1.2
TOUF	Mont Tournerai	85.50	46	eP	P	15 36 11.6	-1.0
MCGN	Macugnaga	85.52	44	eP	P	15 36 12.8	+0.2
COP	Copenhagen	85.55	34	i P	P	15 36 13.8	+1.2
COP				i		15 39 35.2	
COP				i S	S	15 46 37.4	-0.3
COP				pmax	pmax		
	comp=Z,67nm,1.5s,mb5.7						
COP				MLR	MLR		
	comp=Z,2µm,19.0s						
COP	Copenhagen	85.55	34	i P	P	15 36 13.8	+1.2
	comp=Z,67nm,1.5s,mb5.7						
COP				i		15 39 35.2	
COP				i S	S	15 46 37.4	-0.3
	comp=Z,2µm,19.0s						
ENR	Entracque	85.56	46	P	P	15 36 11.6	-1.3
ORX	Oropa	85.60	44	P	P	15 36 12.2	-0.9
ORO	Oropa	85.60	44	eP	P	15 36 12.2	-0.8
SBF	Sospel	85.66	46	eP	P	15 36 12.2	-1.2
	comp=Z,94nm,0.9s,mb5.7						
SIND	Sindeldorf	85.69	40	eP	P	15 36 12.6	-0.8
GUT	Gutenstein	85.72	42	eP	P	15 36 12.3	-1.3
SAOF	Saorge	85.72	46	eP	P	15 36 12.6	-1.1
BUCH	Bad Urach	85.77	41	⇑eP	P	15 36 13.1	-0.7
ARCES	ARCESS Array B	85.83	19	P	P	15 36 13.8	+0.1
	comp=Z,17nm,0.9s,mb5.3,baz=282,slow=4.7,SNR=53						
ARCES				LR	LR	16 17 42.8	
	comp=Z,2µm,22.0s,baz=308,slow=38						
NEGI	Negi	85.86	46	P	P	15 36 12.8	-1.5
ROB	Roburent	85.86	46	P	P	15 36 13.0	-1.3
IMI	Imperia	85.97	46	P	P	15 36 13.1	-1.8
VAI	Varese	86.07	44	eP	P	15 36 14.2	-1.1
FIN	Finale Ligure	86.12	46	eP	P	15 36 14.6	-1.0
KEV	Kevo	86.19	18	epkp	P	15 36 09.3	-6.1
PCP	Pian Castagno	86.26	45	P	P	15 36 14.5	-1.8
HDH	Heidenheim	86.28	41	⇑eP	P	15 36 15.6	-0.7
DAVA	Damuels	86.43	42	⇑iP	P	15 36 16.6	-0.5
	comp=Z,103nm,1.4s,mb5.9						
UBR	Uberruh	86.47	42	⇑eP	P	15 36 16.5	-0.7
DAVOX	Davos	86.56	43	P	P	15 36 17.6	-0.2
	comp=Z,20nm,0.9s,mb5.3,baz=304,slow=9.4,SNR=16						
MOX	Moxa	86.57	39	eP	P	15 36 17.2	-0.5
MOX				pmax	pmax		
	comp=Z,81nm,1.6s,mb5.7						
MOX				MLR	MLR		
	comp=Z,1µm,22.0s						
MOX	Moxa	86.57	39	i P	P	15 36 17.2	-0.5
	comp=Z,logA/T=1.7,mb5.7						
MOX				S	S	15 46 39.0	-8.6
MOX				L		16 18 08.0	
MOX	Moxa	86.57	39	eP	P	15 36 17.2	-0.5
	comp=Z,81nm,1.6s,mb5.7						
MOX				LR	LR		
	comp=Z,1µm,22.0s						
GRA1	Grafenberg Arr	86.61	40	eP	P	15 36 18.0	+0.1
	comp=Z,60nm,1.2s,mb5.7						
GRA1				ePP	PP	15 39 43.6	+1.2
GRA1				eS	S	15 46 46.2	-1.8
GRA1				eSS	SS	15 52 50.4	+17
GRA1				LR	LR		
	comp=Z,4µm,21.2s						
GRF	Grafenberg Arr	86.61	40	eP	P	15 36 18.0	+0.1
GRF				e		15 39 43.6	
GRF				eS	S	15 46 46.2	-1.8
GRF				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.7						
GRF	Grafenberg Arr	86.61	40	eP	P	15 36 18.0	+0.1
	comp=Z,60nm,1.2s,mb5.7						
GRF				ePP	PP	15 39 43.6	+1.2
GRF				eS	S	15 46 46.2	-1.8
GRF				eSS	SS	15 52 50.4	+17
GRF				LR	LR		
	comp=Z,4µm,21.2s						
BOB	Bobbio (Coli)	86.82	45	eP	P	15 36 14.3	-4.7
BRMO	Bormio	86.98	43	eP	P	15 36 19.8	0.0
BSD	Bornholm Skovb	87.07	34	⇑iP	P	15 36 19.3	-0.7
BSD				i S	S	15 46 47.6	-4.7
BSD				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.6						
BSD				MLR	MLR		
	comp=Z,2µm,22.0s						
BSD	Bornholm Skovb	87.07	34	⇑iP	P	15 36 19.3	-0.7
	comp=Z,49nm,1.2s,mb5.6						
BSD				i		15 40 03.2	
BSD				i S	S	15 46 47.6	-4.7
	comp=Z,2µm,22.0s						
PGF	Pioggiola	87.11	47	⇑iP	P	15 36 19.1	-1.4
	comp=Z,63nm,0.9s,mb5.5						
NKC	Novy Kostel	87.20	39	⇑iP	P	15 36 20.6	-0.2
NKC				eS	S	15 46 48.9	-4.7
NKC				MLR	MLR		
	comp=Z,4µm,21.2s						
NKC	Novy Kostel	87.20	39	⇑iP	P	15 36 20.6	-0.2
NKC				ePP	PP	15 40 08.8	+21
NKC				eS	S	15 46 48.9	-4.7
NKC				AMS	AMS	16 10 20.0	
	comp=Z,4µm,21.2s						
CODM		87.20	45	P	P	15 36 18.8	-2.2
CLL	Collm	87.21	38	⇑iP	P	15 36 19.9	-0.9
CLL				eS	S	15 46 43.0	-11
CLL				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.8						
CLL				MLR	MLR		
	comp=Z,4µm,21.4s						
CLL	Collm	87.21	38	⇑iP	P	15 36 19.9	-0.9
	comp=Z,70nm,1.2s,mb5.8						
CLL				e		15 36 30.0	
CLL				eS	S	15 46 43.0	-11
CLL				LR	LR		
	comp=Z,4µm,21.4s						
CLL	Collm	87.21	38	⇑P	P	15 36 19.9	-0.9
	comp=Z,logA/T=1.8,mb5.8						
CLL				e		15 36 30.0	
CLL				e*PP	pP	15 36 39.0	+0.5
CLL				ePP	PP	15 39 43.0	-4.6
CLL				e*PPP		15 39 58.0	
CLL				e*SPP		15 40 08.0	
CLL				e		15 46 43.0	
CLL				eS	S	15 46 55.0	+1.3
CLL				e		15 48 12.0	
CLL				eSS	SS	15 52 36.0	-5.7
CLL				eSSS	SSS	15 56 30.0	+17
CLL				e		15 59 12.0	
MOTA	Moosalm	87.21	42	⇑iP	P	15 36 20.2	-0.7
	comp=Z,20nm,1.1s,mb5.3						
SQTA	Sankt Quirin	87.31	42	⇑iP	P	15 36 20.8	-0.6
	comp=Z,33nm,1.2s,mb5.4						
GRAM		87.32	45	P	P	15 36 19.8	-1.7
BACM		87.39	45	P	P	15 36 19.6	-2.2
VALM		87.49	45	P	P	15 36 20.0	-2.3
WTTA	Wattenberg	87.58	42	⇓iP	P	15 36 23.0	+0.3
	comp=Z,127nm,2.5s,mb5.7						
SARO	Sassorosso	87.64	45	P	P	15 36 20.9	-2.2
GSCL	Gusciola	87.72	45	eP	P	15 36 24.9	+1.5
WET	Wettzell	87.80	40	eP	P	15 36 23.6	-0.1
WET				pmax	pmax		
	comp=Z,112nm,1.4s,mb5.9						
WET	Wettzell	87.80	40	eP	P	15 36 23.6	-0.1
	comp=Z,112nm,1.4s,mb5.9						
BRG	Berggiesshubel	87.91	38	i P	P	15 36 23.8	-0.3
BRG				i		15 46 48.0	
BRG				pmax	pmax		
	comp=Z,71nm,1.4s,mb5.7						
BRG				MLR	MLR		
	comp=N,2µm,23.1s						
BRG				MLR	MLR		
	comp=E,2µm,23.1s						
BRG				MLR	MLR		
	comp=Z,3µm,23.1s						
BRG	Berggiesshubel	87.91	38	⇑iP	P	15 36 19.9	-4.2
	comp=Z,70nm,1.2s,mb5.8						
BRG				e		15 36 30.0	
BRG				i	pP	15 36 39.9	-2.0
BRG				i pP	pP	15 36 42.9	+1.0
BRG				ePP	PP	15 40 15.0	+22
BRG				eS	S	15 46 43.0	-17
BRG				i SKS	SKS	15 46 48.0	+3.4
BRG				i S		15 47 34.0	
BRG				i SS	tx	15 53 26.0	
CTI	Castel Tesino	87.95	43	eP	P	15 36 23.5	-0.9
ZCCA	Zocca	87.99	45	eP	P	15 36 24.1	-0.6
KHC	Kasperske Hory	88.24	40	⇑iP	P	15 36 25.5	-0.3
KHC				eS		15 46 47.1	
KHC				MLR	MLR		
	comp=Z,5µm,21.9s						
KHC	Kasperske Hory	88.24	40	⇑iP	P	15 36 25.5	-0.3
KHC				ePP	PP	15 40 05.6	+10
KHC				eS		15 46 47.1	
KHC				AMS	AMS	16 12 00.0	
	comp=Z,5µm,21.9s						
GRFL	Gerfalco	88.34	46	eP	P	15 36 25.8	-0.6
PVCC	Panska Ves	88.40	38	eP	P	15 36 27.5	+1.0
PVCC				MLR	MLR		
	comp=Z,3µm,21.6s						
PVCC	Panska Ves	88.40	38	⇑eP	P	15 36 27.5	+1.0
PVCC				ePP	tx	15 40 23.4	
PVCC				eS	tx	15 46 29.1	
PVCC				AMS	AMS	16 11 00.0	
	comp=Z,3µm,21.6s						
GEC2	GERESS Array S	88.41	40	eP	P	15 36 26.3	-0.3
GEC2				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.6						
GEC2	GERESS Array S	88.41	40	eP	P	15 36 26.3	-0.3
	comp=Z,60nm,1.4s,mb5.6						
GERES	GERESS Array B	88.41	40	P	P	15 36 25.9	-0.7
	comp=Z,11nm,1.0s,mb5.0,baz=270,slow=2.7,SNR=52						
GERES				PP	PP	15 39 53.5	-3.8
	comp=Z,2.2nm,0.9s,baz=288,slow=4.2,SNR=5.2						
GERES				PKKPbc		15 54 09.8	
	comp=Z,0.5nm,0.6s,baz=180,slow=1.3,SNR=3.9						
PRU	Pruhonice	88.56	39	⇑iP	P	15 36 26.8	-0.5
PRU				eS		15 46 44.0	
PRU				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.5						
PRU				MLR	MLR		
	comp=Z,2µm,17.0s						
PRU	Pruhonice	88.56	39	⇑iP	P	15 36 26.8	-0.5
	comp=Z,29nm,1.3s,mb5.5						
PRU				ePP	PP	15 40 18.5	+20
PRU				eS		15 46 44.0	
PRU				AMS	AMS	16 13 10.0	
	comp=Z,2µm,17.0s						
PGD	Poggio Sodo	88.64	45	eP	P	15 36 26.6	-1.2
SFI	Santa Sofia	88.72	45	eP	P	15 36 27.4	-0.8
KBA	Koelnbreinsper	88.75	42	⇑iP	P	15 36 27.7	-0.5
	comp=Z,63nm,1.5s,mb5.7						
PTCC	Patocco-Chiusa	88.96	42	eP	P	15 36 28.7	-0.6
GKP	Gorka Klasztor	89.00	35	eP	P	15 36 28.2	-1.0
GKP				eS	S	15 47 11.6	+1.3
GKP				MLR	MLR		
	comp=Z,4µm,21.0s						
GKP	Gorka Klasztor	89.00	35	eP	P	15 36 28.2	-1.0
GKP				ePcP	PcP	15 36 31.0	0.0
GKP				eS	S	15 47 11.6	+1.3
GKP				MLR	MLR	16 15 05.6	
	comp=Z,4µm,21.0s						
MOA	Molln	89.09	41	⇑iP	P	15 36 29.0	-0.8
	comp=Z,236nm,4.1s						
UPC	Upice	89.27	38	⇑iP	P	15 36 30.9	+0.3
CADS	Cadrg	89.27	43	eP	P	15 36 29.9	-0.8
KSP	Ksiaz	89.32	38	eP	P	15 36 30.5	-0.3
KSP				e		15 46 53.5	
KSP	Ksiaz	89.32	38	eP	P	15 36 30.5	-0.3
KSP				ePP	PP	15 39 56.0	-8.5
KSP				eSKS	SKS	15 46 53.5	+0.2
KSP				LR	LR		
	comp=Z,8µm,27.3s						
KSP	Ksiaz	89.32	38	eP	P	15 36 30.7	-0.1
KSP				ePcP	PcP	15 36 32.1	-0.4
KSP				eS	S	15 47 16.9	+3.5
KSP				MLR	MLR	16 09 21.2	
	comp=Z,7µm,27.3s						
TRI	Trieste	89.46	43	eP	P	15 36 31.1	-0.5
DPC	Dobruska-Polom	89.51	38	⇑iP	P	15 36 31.7	0.0
DPC				ePP	PP	15 40 09.3	+3.3
DPC				eS		15 46 51.6	
DPC				AMS	AMS	16 13 30.0	
	comp=Z,4µm,21.4s						
LVZ	Lovozero	89.53	18	eP	P	15 36 25.1	-6.3
LVZ				eS		15 46 51.1	
LVZ	Lovozero	89.53	18	i P	P	15 36 31.0	-0.4
JAVS	Javornik	89.60	43	eP	P	15 36 31.7	-0.6
KAF	Kangasniemi	89.67	25	epkp	P	15 36 27.9	-4.3
SNTG	Esanatoglia	89.67	46	eP	P	15 36 31.5	-1.2
FINES	FINESS Array B	89.89	26	P	P	15 36 32.6	-0.6
	comp=Z,8.7nm,0.9s,mb5.1,baz=270,slow=1.9,SNR=17						
FINES				PP	PP	15 40 05.5	-3.3
	comp=Z,8.3nm,1.1s,baz=304,slow=6.9,SNR=5.6						
FINES				PKKPbc		15 54 05.0	
	comp=Z,1.8nm,0.8s,baz=135,slow=5.4,SNR=4.8						
FINES				LR	LR	16 14 18.5	
	comp=Z,3µm,22.0s,baz=288,slow=34						
FINES	FINESS Array B	89.89	26	P	P	15 36 32.6	-0.6
FINES				PP	PP	15 40 05.5	-3.3
FINES				PKKPbc		15 54 05.0	
FINES				LR	LR	16 14 18.5	
ARSA	Arzberg	90.09	41	⇑iP	P	15 36 33.9	-0.6
	comp=Z,38nm,1.8s,mb5.4						
PDKS	Podkum	90.16	42	eP	P	15 36 34.3	-0.6
SEY	Seymchan	90.21	336	eP	P	15 36 36.8	+2.1
SEY				e		15 40 12.9	
SEY				e*SP	ScS	15 47 26.9	+2.8
SEY				PS	PS	15 48 41.3	+2.2
SEY				eSS	SS	15 53 34.9	+10
SEY				eSSS	SSS	15 56 59.7	-1.4
SEY				pmax	pmax		
	comp=N,10.0nm,0.8s						
SEY				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.7						
SEY				MLR	MLR		
	comp=E,16µm,26.0s						
SEY				MLR	MLR		
	comp=Z,40µm,26.0s						
SEY				MLR	MLR		
	comp=N,16µm,27.0s						
LEGS	Legarje	90.40	42	eP	P	15 36 35.3	-0.7
MORC	Moravsky Berou	90.45	38	eP	P	15 36 35.6	-0.6
MORC				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.6						
MORC	Moravsky Berou	90.45	38	eP	P	15 36 35.6	-0.5
	comp=Z,44nm,1.4s,mb5.6						
CRES	Cresnjev	90.54	43	eP	P	15 36 36.1	-0.5
ZST	Bratislava	90.76	40	eP	P	15 36 37.8	+0.1
ZST				eS	S	15 47 04.8	-22
ZST	Bratislava	90.76	40	eP	P	15 36 37.8	+0.1
ZST				e		15 36 48.5	
ZST				ePP	PP	15 40 06.2	-10
ZST				eS	S	15 47 04.8	-22
ZST	Bratislava	90.76	40	eP	P	15 36 37.8	+0.1
ZST				e		15 36 48.5	
ZST				ePP	PP	15 40 06.2	-10
OKC	Ostrava-Krasne	90.79	38	eP	P	15 36 38.1	+0.3
OKC				MLR	MLR		
	comp=Z,2µm,20.7s						
OKC	Ostrava-Krasne	90.79	38	⇑eP	P	15 36 38.1	+0.3
OKC				ePP	tx	15 40 31.4	
OKC				eS	tx	15 46 42.5	
OKC				AMS	AMS	16 15 00.0	
	comp=Z,2µm,20.7s						
SMOL	Smolenice	90.84	40	eP	P	15 36 34.8	-3.3
SMOL				e		15 36 39.9	
JOF	Joensuu	91.24	23	epkp	P	15 36 37.7	-1.8
TIXI	Tiksi	91.24	349	⇑iP	P	15 36 38.5	-0.9
TIXI				e		15 40 14.7	
TIXI				eS	S	15 47 18.6	-12
TIXI				ePS	PS	15 48 48.7	-2.6
TIXI				eSS	SS	15 53 30.7	-8.8
TIXI				eSSS	SSS	15 57 21.3	+4.1
TIXI				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.5						
TIXI	Tiksi	91.24	349	⇑iP	P	15 36 38.6	-0.8
WAR	Warsaw	91.52	35	eP	P	15 36 40.7	-0.4
WAR				eSKS	SKS	15 47 06.8	+0.6
WAR				eS	S	15 47 35.7	+2.7
WAR				MLR	MLR	16 16 54.5	
	comp=Z,4µm,20.2s						
OJC	Ojcow	91.63	37	eP	P	15 36 41.9	+0.3
OJC				ePP	PP	15 40 20.8	-2.2
OJC				MLR	MLR	16 15 01.5	
	comp=Z,4µm,20.8s						
VSU	Vasula	91.63	28	c iP	P	15 36 40.6	-0.8
VSU	Vasula	91.63	28	⇑iP	P	15 36 40.6	-0.8
VYHS	Vyhne	91.72	39	i P	P	15 36 42.1	0.0
VYHS				e		15 37 09.4	
VYHS				e		15 40 23.2	
VYHS	Vyhne	91.72	39	i P	P	15 36 42.1	0.0
VYHS				epP	pP	15 36 58.7	-1.3
VYHS				esP	sP	15 37 09.4	+3.0
VYHS				ePP	PP	15 40 23.2	-0.5
SUW	Suwalki	91.94	33	eP	P	15 36 41.9	-1.1
SUW				ePP	PP	15 40 22.1	-3.3
SUW				eS	S	15 47 37.1	+0.5
SUW				MLR	MLR	16 09 38.5	
	comp=Z,4µm,31.3s						
PET	Petropavlovsk	91.95	326	eP	P	15 36 54.2	+11
PET				ePS	PS	15 49 04.1	+3.9
PET				ePPS	PPS	15 49 29.8	-3.2
PET				pmax	pmax		
	comp=Z,200nm,17.7s						
PET				MLR	MLR		
	comp=Z,1µm,20.0s						
RHK1	Bakonya	92.14	42	⇑eP	P	15 36 43.5	-0.6
NIE	Niedzica	92.25	38	eP	P	15 36 45.5	+1.0
PKSM	Moragy	92.47	41	eP	P	15 36 45.0	-0.6
MGR	Morigerati	92.54	48	eP	P	15 36 44.8	-1.3
PUL	Pulkovo	92.55	26	eP	P	15 36 48.4	+2.8
PUL	Pulkovo	92.55	26	i P	P	15 36 45.9	+0.3
VAE	Valguarnera	92.58	51	LR	LR	16 12 28.7	
	comp=Z,6µm,21.9s,baz=272,slow=32						
PSZ	Piszkesteto	92.60	39	eP	P	15 36 46.1	0.0
PSZ				pmax	pmax		
	comp=Z,80nm,1.4s,mb6.0						
PSZ	Piszkesteto	92.60	39	e	P	15 36 46.9	+0.8
PSZ	Piszkesteto	92.60	39	eP	P	15 36 46.1	0.0
	comp=Z,80nm,1.4s,mb6.0						
MA2	Magadan	92.64	334	i P	P	15 36 46.5	+0.4
MA2				pmax	pmax		
	comp=Z,27nm,1.6s,mb5.4						
CRVS	Cervenica-Dubn	93.15	38	i P	P	15 36 49.1	+0.4
CRVS				e		15 37 24.5	
CRVS	Cervenica-Dubn	93.15	38	i P	P	15 36 49.1	+0.4
CRVS				epP	pP	15 37 09.0	+2.5
CRVS				e		15 37 24.5	
KWP	Kalwaria	93.58	37	eP	P	15 36 51.5	+0.9
KWP				eSKS	SKS	15 47 16.1	-1.8
KWP				MLR	MLR	16 14 28.6	
	comp=Z,2µm,23.9s						
KOLS	Kolonicke sedl	93.62	38	i P	P	15 36 52.0	+1.2
KOLS				e		15 36 54.7	
SKO	Skopje	95.99	44	eP	P	15 37 01.5	-0.2
AKASG	Malin Array Be	96.77	34	P	P	15 37 03.5	-1.6
	comp=Z,2.5nm,0.7s,mb4.8,baz=274,slow=4.9,SNR=15						
AKASG				PP	PP	15 40 57.1	-6.0
	comp=Z,2.6nm,0.8s,baz=298,slow=6.4,SNR=6.1						
AKASG				PKKPbc		15 53 47.0	
	comp=Z,1.4nm,0.7s,baz=83,slow=2.3,SNR=8.0						
OBN	Obninsk	97.98	28	α iP	P	15 37 09.8	-0.7
OBN				e*PP	pP	15 37 34.2	+5.9
OBN				e		15 37 48.1	
OBN				e		15 41 08.2	
OBN				e		15 47 42.3	
OBN				e		15 48 20.2	
OBN				ePS	PS	15 49 55.3	-10
OBN				eSS	SS	15 55 15.8	+0.5
OBN				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.8						
OBN				pmax	pmax		
	comp=Z,100nm,1.3s,mb6.2						
OBN				pmax	pmax		
	comp=Z,12nm,1.1s,mb5.3						
OBN	Obninsk	97.98	28	i P	P	15 37 09.7	-0.8
OBN				LR	LR		
	comp=Z,4µm,22.0s						
MOS	Moscow	98.08	27	eP	P	15 37 11.6	+0.8
MOS				pmax	pmax		
	comp=Z,54nm,1.2s,mb6.0						
YAK	Yakutsk	98.69	342	i P	P	15 37 12.4	-1.1
YAK				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb5.1						
YAK	Yakutsk	98.69	342	i P	P	15 37 12.5	-1.0
VNA3	Neumayer Olymp	99.43	161	⇑i	P	15 37 19.5	+2.8
VNA3	Neumayer Olymp	99.43	161	⇓i	PP	15 41 25.0	+2.1
VNA1	Neumayer--Stat	99.74	160	⇑i	P	15 37 20.7	+2.6
VNA1	Neumayer--Stat	99.74	160	⇑i	PP	15 41 26.3	+0.9
VNA1	Neumayer--Stat	99.74	160	⇑i		15 41 47.5	
VNA2	Neumayer--Watz	100.08	161	⇑i	P	15 37 21.2	+1.6
VNA2	Neumayer--Watz	100.08	161	⇑i	P	15 37 40.0	+20
VNA2	Neumayer--Watz	100.08	161	⇓i	P	15 37 46.7	+27
VNA2	Neumayer--Watz	100.08	161	⇑i	PP	15 41 33.0	+4.9
VNA2	Neumayer--Watz	100.08	161			15 41 47.4	
VNA2	Neumayer--Watz	100.08	161	⇑i	Px	15 42 15.4	
SNAA	Sanae	101.65	161	⇓i	P	15 37 26.7	0.0
SNAA	Sanae	101.65	161	⇑i	P	15 37 44.8	+18
SNAA	Sanae	101.65	161	⇑i	P	15 37 52.8	+26
SNAA	Sanae	101.65	161	⇑i	PP	15 41 32.7	-7.3
SNAA	Sanae	101.65	161	⇓i		15 41 54.9	
SNAA	Sanae	101.65	161		Px	15 42 12.3	
SIM	Simferopol’	102.64	37	P	Pdif	15 37 45.3	+14
SIM				e		15 41 47.2	
SIM				e		15 48 06.0	
SIM				eS	S	15 48 58.0	-10
SIM				ePS	PS	15 50 41.0	-13
SIM				pmax	pmax		
	comp=Z,400nm,18.0s						
SIM				MLR	MLR		
	comp=Z,3µm,20.0s						
QSPA	South Pole Qui	103.46	180	Pdif	Pdif	15 37 35.3	+0.8
	comp=Z,4.6nm,0.2s						
BRTR	Keskin Array B	105.19	42	PKiKP		15 41 57.1	
	comp=Z,1.6nm,0.8s,baz=160,slow=1.4,SNR=3.9						
BRTR				PKKPbc		15 53 23.4	
	comp=Z,1.0nm,0.7s,baz=108,slow=3.9,SNR=4.1						
ARU	Arti	105.40	18	ePKP		15 41 56.7	
CHKZ	Chkalovo	110.95	13	PKIKP	PKPdf	15 42 06.1	0.0
CHKZ				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CHKZ	Chkalovo	110.95	13	ePKP	PKPdf	15 42 06.8	+0.8
BRVK	Borovoye	111.46	13	i PKP	PKPdf	15 42 08.2	+1.1
ASF	Jabal al Asfar	111.48	47	PKiKP		15 42 09.0	
	comp=Z,3.9nm,0.7s,baz=287,slow=3.4,SNR=6.7						
BVA0	Borovoye Array	111.52	13	i PKIKP	PKPdf	15 42 06.3	-0.9
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BVAR	Borovoye Array	111.52	13	PKiKP		15 42 08.6	
	comp=Z,4.3nm,0.6s,SNR=20						
BVAR				PKKPbc		15 53 02.4	
	comp=Z,1.3nm,0.7s,baz=225,slow=2.1,SNR=7.1						
GNI	Garni	111.77	36	i PKIKP	PKPdf	15 42 08.7	+0.7
MDJ	Mudanjiang	112.15	331	PDIF	Pdif	15 38 12.6	-0.9
MDJ				PP	PP		
	comp=Z,137nm,7.9s						
MDJ				LR	LR		
	comp=N,2µm,24.2s						
MDJ				LR	LR		
	comp=E,2µm,25.1s						
MDJ				LR	LR		
	comp=Z,3µm,22.4s						
ZAL	Zalesovo	112.66	4	PKiKP		15 42 10.9	
	comp=Z,4.1nm,0.6s,baz=218,slow=5.7,SNR=26						
ZAL				PP	PP	15 42 57.4	-4.7
	comp=Z,7.5nm,0.8s,baz=132,slow=8.3,SNR=13						
ZAL	Zalesovo	112.66	4	PKPdf	PKPdf	15 42 10.9	+1.5
ZAL				PP	PP	15 42 57.4	-4.7
CN2	Changchun	114.68	333	ePDIF	Pdif	15 38 28.1	+3.4
CN2				SS	SS	15 59 04.1	+1.7
CN2				LR	LR		
	comp=N,2µm,21.0s						
CN2				LR	LR		
	comp=E,2µm,21.0s						
CN2				LR	LR		
	comp=Z,3µm,21.0s						
UMJS	Umm Lajj	115.41	53	P	PKPdf	15 42 17.6	+2.1
ZAK	Zakamensk	115.42	351	ePKIKP	PKPdf	15 42 16.2	+1.3
ZAK				e		15 43 17.0	
SYO	Syowa Base	115.93	162	⇓PKPdf	PKPdf	15 42 13.9	-1.6

KBRS	**Khaybar**	**116.64**	**52**	P	PKPdf	15 42 20.1	+2.2
ULN	**Ulaanbaatar**	**117.16**	**348**	*e*PKIKP	PKPdf	15 42 19.4	+1.1
SONM	**Songino Array**	**117.32**	**348**	PKP	PKPdf	15 42 19.9	+1.3
	comp=Z,10nm,0.8s,baz=334,slow=1.3,SNR=63						
SONM				pPKP		15 42 38.1	
	comp=Z,4.3nm,0.7s,baz=270,slow=1.2,SNR=5.3						
SONM				PKKPbc		15 52 43.6	
	comp=Z,3.2nm,0.6s,baz=198,slow=3.7,SNR=20						
DRV	**Dumont d'Urvil**	**117.68**	**200**	PP	PP	15 43 26.0	-11
DRV				SP	tx	15 52 00.0	
BOSA	**Boshof**	**117.92**	**115**	*e*PKIKP	PKPdf	15 42 22.1	+1.9
KS15	**Wonju Array Si**	**118.36**	**327**	*e*PKP	PKPdf	15 42 22.4	+1.5
KS15				*e*pPKP		15 42 39.6	
MBAR	**Mbarara**	**119.46**	**83**	*i* PKIKP	PKPdf	15 42 24.4	+0.8
MBAR	**Mbarara**	**119.46**	**83**	*e*PKP	PKPdf	15 42 24.6	+1.0
MKAR	**Makanchi Array**	**119.53**	**6**	*i* PKIKP	PKPdf	15 42 23.4	+0.4
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ARSS	**Ar Rass**	**119.58**	**50**	P	PKPdf	15 42 25.2	+1.7
LSZ	**Lusaka**	**119.77**	**100**	*e*PKIKP	PKPdf	15 42 24.8	+0.7
AFFS	**'Afif**	**120.49**	**52**	P	PKPdf	15 42 27.4	+2.0
BLJS	**Baljurashi**	**121.53**	**56**	P	PKPdf	15 42 29.8	+2.3
USP	**Ospenovka**	**121.63**	**14**	P	PKPdf	15 42 28.8	+1.7
	SNR=37						
BJI	**Beijing**	**121.64**	**337**	PKP	PKPdf	15 42 29.1	+1.9
BJI				PP	PP	15 44 03.9	-0.8
BJI				SKS	SKS	15 49 30.9	+11
BJI				PP	PP		
	comp=Z,376nm,6.3s						
BJI				LR	LR		
	comp=N,2µm,28.2s						
BJI				LR	LR		
	comp=E,1µm,25.2s						
BJI				LR	LR		
	comp=Z,4µm,29.6s						
CHMS	**Chumysh**	**121.95**	**14**	P	PKPdf	15 42 29.3	+1.6
	SNR=14						
EKS2	**Erkin-Say**	**122.03**	**15**	P	PKPdf	15 42 30.1	+2.2
	SNR=31						
TKM2	**Tokmak 2**	**122.21**	**13**	P	PKPdf	15 42 30.0	+1.7
	SNR=25						
AAK	**Ala-Archa**	**122.23**	**14**	P	PKPdf	15 42 30.3	+2.0
	SNR=19						
AAK	**Ala-Archa**	**122.23**	**14**	*i* PKIKP	PKPdf	15 42 28.9	+0.6
AAK				MLR	MLR		
	comp=Z,3µm,23.0s						
AAK	**Ala-Archa**	**122.23**	**14**	*e*PKP	PKPdf	15 42 29.0	+0.7
KBK	**Karagaybulak**	**122.32**	**14**	P	PKPdf	15 42 30.1	+1.6
	SNR=23						
AML	**Almayashu**	**122.51**	**15**	P	PKPdf	15 42 31.4	+2.5
	SNR=33						
HHC	**Hu-ho-hao-te**	**122.52**	**341**	*e*PKP	PKPdf	15 42 31.8	+2.9
HHC				PKS	PKS	15 46 04.1	-0.7
HHC				SKS	SKS	15 49 32.3	+9.5
HHC				PP	PP		
	comp=Z,227nm,11.4s						
HHC				LR	LR		
	comp=N,3µm,23.3s						
HHC				LR	LR		
	comp=E,2µm,21.6s						
HHC				LR	LR		
	comp=Z,3µm,24.7s						
UCH	**Uchtor**	**122.62**	**14**	P	PKPdf	15 42 32.1	+3.0
	SNR=51						
WMQ	**Urumqi**	**122.90**	**2**	⇓PKP	PKPdf	15 42 31.3	+1.7
WMQ				XPKP		15 42 55.5	
WMQ				PP	PP	15 44 15.1	+1.7
WMQ				PKS	PKS	15 46 06.8	+1.4
WMQ				PPP	PPP	15 46 52.0	+1.3
WMQ				PP	PP		
	comp=Z,342nm,11.5s						
WMQ				LR	LR		
	comp=N,8µm,27.8s						
WMQ				LR	LR		
	comp=E,4µm,25.0s						
WMQ				LR	LR		
	comp=Z,7µm,26.8s						
KZA	**Kyzart**	**122.94**	**14**	P	PKPdf	15 42 32.6	+2.9
	SNR=16						
MAW	**Mawson**	**122.99**	**168**	*e*PKP	PKPdf	15 42 30.8	+1.6
	comp=Z,7.6nm,0.6s						
MAW	**Mawson**	**122.99**	**168**	PKP	PKPdf	15 42 30.8	+1.6
	comp=Z,9.3nm,0.6s,baz=275,slow=2.8,SNR=12						
ULHL	**Ulahol**	**122.99**	**13**	P	PKPdf	15 42 32.1	+2.3
	SNR=30						
RYDS	**Riyadh**	**123.07**	**49**	P	PKPdf	15 42 31.4	+1.0
TATS	**Tathlith**	**123.22**	**56**	P	PKPdf	15 42 32.5	+1.8
KAMS	**Al Khamasin**	**123.69**	**54**	P	PKPdf	15 42 32.8	+1.2
PMG	**Port Moresby**	**124.45**	**268**	PKP	PKPdf	15 42 35.8	+2.6
	comp=Z,11nm,0.9s,baz=38,slow=5.8,SNR=9.8						
PMG	**Port Moresby**	**124.45**	**268**	*c i*PKIKP	PKPdf	15 42 35.1	+1.9
PMG	**Port Moresby**	**124.45**	**268**	*e*PKP	PKPdf	15 42 35.9	+2.7
TIA	**Tai'an**	**124.54**	**334**	PKP	PKPdf	15 42 34.9	+1.9
KSH	**Kashi**	**125.54**	**14**	PKP	PKPdf	15 42 37.4	+2.6
KSH				*e*PKS	PKS	15 46 12.0	+1.5
KSH				*e*PPP	PPP	15 47 35.0	+23
KSH				*e*SKS	SKS	15 49 37.0	+4.9
KSH				PP	PP		
	comp=Z,290nm,4.1s						
KSH				LR	LR		
	comp=N,1µm,16.1s						
KSH				LR	LR		
	comp=E,1µm,18.5s						
KMBO	**Kilima Mbogo**	**125.88**	**82**	PKP	PKPdf	15 42 39.4	+3.3
	comp=E,9.8nm,0.8s,baz=33,slow=1.3,SNR=31						
KMBO	**Kilima Mbogo**	**125.88**	**82**	*e*PKIKP	PKPdf	15 42 39.4	+3.3
CTA	**Charters Tower**	**126.45**	**255**	*e*PKP	PKPdf	15 42 39.4	+2.4
	comp=E,21nm,1.7s						
CTA				*i* pPKP		15 42 56.9	
CTA				*e*SKP		15 45 59.7	
CTA	**Charters Tower**	**126.45**	**255**	PKP	PKPdf	15 42 39.3	+2.3
	comp=E,17nm,1.1s,baz=35,slow=1.1,SNR=13						
CTA				pPKP		15 42 57.1	
	comp=E,24nm,1.0s,baz=313,slow=1.3,SNR=8.8						
CTAO	**Charters Tower**	**126.45**	**255**	*e*PKIKP	PKPdf	15 42 38.7	+1.7
GTA	**Gaotai**	**126.66**	**351**	PKP	PKPdf	15 42 38.9	+1.9
GTA				PP	PP	15 44 38.1	-0.1
GTA				PKS	PKS	15 46 14.8	+2.1
GTA				PPP	PPP	15 47 20.1	-1.7
GTA				SKS	SKS	15 49 40.4	+5.0
GTA				SKKS		15 51 24.3	
GTA				SS	SS	16 01 36.0	0.0
GTA				PP	PP		
	comp=Z,108nm,9.5s						
GTA				LR	LR		
	comp=N,2µm,25.5s						
GTA				LR	LR		
	comp=E,2µm,25.5s						
GTA				LR	LR		
	comp=Z,3µm,27.0s						
SSE	**Sheshan**	**126.77**	**327**	PKP	PKPdf	15 42 39.4	+2.0
SSE				SS	SS	16 01 37.3	-0.4
SSE				LR	LR		
	comp=N,901nm,22.7s						
SSE				LR	LR		
	comp=E,1µm,22.7s						
SSE				LR	LR		
	comp=Z,2µm,21.4s						
NJ2	**Nanjing**	**127.20**	**330**	*e*PKP	PKPdf	15 42 40.0	+1.8
NJ2				PP	PP	15 44 44.0	+2.1
NJ2				PP	PP		
	comp=Z,270nm,11.5s						
NJ2				LR	LR		
	comp=N,690nm,31.4s						
NJ2				LR	LR		
	comp=E,450nm,33.6s						
NJ2				LR	LR		
	comp=Z,430nm,29.4s						
LZH	**Lanzhou**	**129.10**	**346**	⇑PKP	PKPdf	15 42 44.0	+2.2
LZH				XPKP		15 43 09.9	
LZH				PP	PP	15 44 57.0	+2.0
LZH				SKS	SKS	15 49 47.0	+4.7
LZH				SKKS		15 51 41.0	
LZH				SS	SS	16 02 07.3	+0.5
LZH				PP	PP		
	comp=Z,289nm,8.2s						
LZH				LR	LR		
	comp=N,3µm,20.0s						
LZH				LR	LR		
	comp=Z,4µm,21.0s						
XAN	**Xi'an**	**129.59**	**340**	PKP	PKPdf	15 42 44.8	+2.1
STKA	**Stephens Creek**	**129.94**	**240**	*e*PKP	PKPdf	15 42 45.7	+2.2
	comp=Z,17nm,0.7s						
STKA				*i* pPKP		15 43 03.6	
STKA				*e*SKP		15 46 07.3	
STKA	**Stephens Creek**	**129.94**	**240**	PKP	PKPdf	15 42 45.6	+2.1
	comp=Z,20nm,0.7s,baz=70,slow=1.4,SNR=35						
WHN	**Wuhan**	**130.57**	**333**	⇓PKP	PKPdf	15 42 46.5	+1.8
WHN				XPKP		15 43 13.5	
WHN				LR	LR		
	comp=N,1µm,23.0s						
WHN				LR	LR		
	comp=Z,4µm,22.6s						
THN	**Thein Dam**	**132.18**	**17**	*e*PKP	PKPdf	15 42 47.8	+0.1
SDNR	**Sundarnagar**	**133.40**	**16**	*e*PKP	PKPdf	15 42 51.8	+1.8
CD2	**Chengdu**	**134.05**	**344**	PKP	PKPdf	15 42 54.0	+2.7
CD2				PKS	PKS	15 46 23.8	-2.7
CD2				PP	PP		
	comp=Z,710nm,12.0s						
CD2				LR	LR		
	comp=N,2µm,21.6s						
CD2				LR	LR		
	comp=E,3µm,21.6s						
DDI	**Dehra Dun**	**134.81**	**15**	*e*	PKPdf	15 42 59.8	+7.1
DDI				*e*		15 46 20.6	
KKR	**Kurukshetra**	**134.81**	**17**	*e*PKP	PKPdf	15 42 54.9	+2.2
JASL	**Jaisalmer**	**135.52**	**25**	*e*PKP	PKPdf	15 42 51.2	-2.8
RTK	**Rohtak**	**135.57**	**18**	*e*PKP	PKPdf	15 42 55.4	+1.3
PTH	**Pithoragarh**	**136.06**	**13**	*e*PKP	PKPdf	15 42 58.4	+3.4
PTH				*e*		15 46 23.0	
LGTI	**Lohaghat**	**136.16**	**13**	*e*PKP	PKPdf	15 42 57.0	+1.8
KHET	**Khetri**	**136.28**	**19**	*e*PKP	PKPdf	15 42 56.8	+1.4
AYAN	**Aya Nagar**	**136.29**	**17**	*e*PKP	PKPdf	15 42 57.0	+1.6
KUDL	**Kundal**	**136.43**	**18**	*e*PKP	PKPdf	15 42 57.3	+1.6
LSA	**Lhasa**	**137.05**	**359**	PKP	PKPdf	15 43 00.6	+3.8
GYA	**Guiyang**	**137.29**	**338**	⇑*i*PKP	PKPdf	15 42 59.3	+2.0
GYA				XPKP		15 43 22.6	
GYA				PKS	PKS	15 46 32.8	+0.3
GYA				LR	LR		
	comp=N,2µm,27.6s						
GYA				LR	LR		
	comp=E,1µm,25.2s						
GYA				LR	LR		
	comp=Z,3µm,28.5s						
WB2	**Warramunga Arr**	**137.64**	**255**	*e*PKP	PKPdf	15 42 48.6	-10
WB2				*i*		15 43 00.6	
WB2				*i*		15 43 17.8	
WB2				*i* SKP		15 46 32.3	
WB2				*e*		15 47 03.9	
WB2				*e*SKKP		15 55 20.7	
WRAB	**Tennant Creek**	**137.64**	**255**	*e*PKHKP		15 42 47.9	
WRA	**Warramunga Arr**	**137.65**	**255**	PKhKP		15 42 47.4	
	comp=Z,2.4nm,0.6s,baz=90,slow=3.0,SNR=14						
WRA				PKP	PKPdf	15 42 59.6	+1.5
	comp=Z,33nm,1.1s,baz=87,slow=1.4,SNR=34						
WRA				pPKP		15 43 17.3	
	comp=Z,45nm,1.0s,baz=85,slow=1.5,SNR=10.0						
WRA				PP	PP	15 45 42.2	-6.8
	comp=Z,14nm,1.3s,baz=91,slow=5.7,SNR=9.4						
WRA				SKP		15 46 30.6	
	comp=Z,18nm,1.0s,baz=87,slow=3.0,SNR=12						
WRA				SKKPbc		15 55 18.3	
	comp=Z,6.3nm,1.0s,baz=287,slow=3.0,SNR=9.7						
AGRA	**Agra**	**137.71**	**17**	*e*PKP	PKPdf	15 42 59.3	+1.2
ASAR	**Alice Springs**	**137.81**	**250**	PKhKP		15 42 46.8	
	comp=Z,2.9nm,0.6s,baz=114,slow=3.9,SNR=27						
ASAR				PKP	PKPdf	15 43 00.1	+1.8
	comp=Z,18nm,1.1s,baz=107,slow=2.3,SNR=18						
ASAR				pPKP		15 43 17.9	
	comp=Z,24nm,0.9s,baz=109,slow=2.5,SNR=8.3						
ASAR				SKP		15 46 31.1	
	comp=Z,22nm,1.0s,baz=107,slow=2.4,SNR=15						
ASAR				PKKP	PKKP	15 52 33.1	+11
	comp=Z,1.3nm,0.7s,baz=288,slow=1.6,SNR=7.5						
ASAR				SKKPbc		15 55 17.6	
	comp=Z,3.3nm,0.8s,baz=287,slow=4.3,SNR=11						
ASPA	**Alice Springs**	**137.81**	**250**	*e*PKP	PKPdf	15 42 50.0	-8.3
ASPA				*e*SKP		15 46 32.2	
ASPA				*e*		15 47 04.9	
ASPA				*e*SKKP		15 55 17.8	
OPO	**Ambohidratompo**	**138.11**	**103**	*e*PKPdf	PKPdf	15 43 02.1	+3.1
OPO				LR	LR		
	comp=Z,1714µm,20.3s						
GKN	**Gorkha**	**138.35**	**8**	*e*P	PKPdf	15 42 53.4	-5.8
	comp=Z,139nm,0.8s						
KOLN	**Koldanda**	**138.43**	**9**	*e*P	PKPdf	15 42 55.1	-4.3
	comp=Z,104nm,0.9s						
GUN	**Gumba**	**138.59**	**6**	*e*P	PKPdf	15 42 53.1	-6.6
	comp=Z,138nm,0.8s						
KKN	**Kakani**	**138.64**	**7**	*e*P	PKPdf	15 42 54.0	-5.8
	comp=Z,119nm,0.8s						
DMN	**Daman**	**138.80**	**7**	*e*P	PKPdf	15 42 54.3	-5.7
	comp=Z,83nm,0.9s						
PKI	**Pulchoki**	**138.87**	**7**	*e*P	PKPdf	15 42 54.6	-5.6
	comp=Z,105nm,0.9s						
KAKA	**Kakadu**	**139.21**	**266**	*e*PKP	PKPdf	15 42 59.2	-1.9
	comp=Z,54nm,1.0s						
KMI	**Kunming**	**139.81**	**343**	*e*PKP	PKPdf	15 43 03.9	+2.0
KMI				PP	PP	15 45 59.3	-2.7
KMI				PKS	PKS	15 46 36.5	-0.4
KMI				LR	LR		
	comp=N,2µm,27.8s						
KMI				LR	LR		
	comp=E,2µm,21.3s						
KMI				LR	LR		
	comp=Z,5µm,28.8s						
SHL	**Shillong**	**141.15**	**358**	*e*PKP	PKPdf	15 43 06.0	+1.6
SHL				*e*		15 46 37.0	
BHPL	**Bhopal**	**141.30**	**19**	⇓*i*PKP	PKPdf	15 43 06.2	+1.5
FORT	**Forrest**	**141.45**	**237**	*e*PKP	PKPdf	15 43 00.2	-4.6
	comp=Z,103nm,0.6s						
IMP	**Imphal**	**141.81**	**355**	*e*	PKS	15 46 39.1	-1.2
QIZ	**Qiongzhong**	**142.49**	**329**	PKP	PKPdf	15 43 10.3	+3.5
QIZ				LR	LR		
	comp=E,1µm,22.0s						
QIZ				LR	LR		
	comp=Z,2µm,21.3s						
AGT	**Agartala**	**142.84**	**359**	⇑*i*	PKPdf	15 43 13.0	+5.7
AGT				*i*		15 43 30.0	
POO	**Poona**	**144.17**	**28**	⇓*i*PKP	PKPdf	15 43 06.0	-3.7
	comp=Z,50nm,1.0s						
KAD	**Karad**	**145.39**	**28**	⇑*i*PKP	PKPdf	15 43 12.0	+0.1
CHRT	**Chiangrai**	**145.61**	**344**	⇓P	PKPdf	15 43 08.5	-3.7
	comp=Z,579nm,1.0s						
NANT	**Nan**	**146.38**	**342**	⇓P	PKPdf	15 43 14.0	+0.4
CHG	**Chiang Mai**	**146.84**	**345**	⇓P	PKPdf	15 43 17.2	+2.9
	comp=Z,65nm,0.8s						
HYB	**Hyderabad**	**147.08**	**21**	*e*P	PKPdf	15 43 15.5	+0.7
HYB				*e*		15 43 33.5	
HYB	**Hyderabad**	**147.08**	**21**	*i* PKP	PKPdf	15 43 15.5	+0.7
	comp=Z,123nm,0.8s						
HYB				*e*pPKP		15 43 33.5	
HYB				*e*PP	PP	15 46 44.0	-1.9
CM31	**Chiang Mai Arr**	**147.18**	**345**	*e*PKP	PKPdf	15 43 17.1	+2.2
CMAR	**Chiang Mai Arr**	**147.18**	**345**	PKPbc	PKPdf	15 43 17.4	+2.5
	comp=Z,63nm,0.8s,baz=336,slow=3.2,SNR=125						
CMAR				SKPbc		15 46 52.1	
	comp=Z,8.7nm,0.8s,baz=294,slow=2.8,SNR=6.4						
UBT	**Ubonrachathani**	**148.04**	**333**	P	PKPdf	15 43 21.5	+5.2
VIS	**Vishakhapatnam**	**148.17**	**13**	*e*PKP	PKPdf	15 43 17.3	+0.8
NWAO	**Narrogin (SRO)**	**148.91**	**227**	PKP	PKPdf	15 43 19.9	+2.7
	comp=Z,34nm,0.9s,baz=219,slow=1.5,SNR=6.9						
NWAO				PKPbc	PKPdf	15 43 23.5	+6.2
	comp=Z,34nm,0.9s,baz=125,slow=7.5,SNR=12						
NWAO	**Narrogin (SRO)**	**148.91**	**227**	*e*PKIKP	PKPdf	15 43 18.7	+1.4
KLBR	**Kellerberrin**	**149.21**	**230**	*e*PKP	PKPdf	15 43 20.5	+2.7
	comp=Z,46nm,0.8s						
MNGI	**Mangalore**	**149.46**	**31**	*i* PKP	PKPdf	15 43 21.4	+2.7
NST	**Nakhon Sawan**	**149.50**	**342**	P	PKPdf	15 43 22.0	+3.3
	comp=Z,108nm,1.2s						
MUN	**Mundaring**	**150.15**	**228**	*e*PKP	PKPdf	15 43 22.0	+2.7
	comp=Z,40nm,0.7s						
MBWA	**Marble Bar**	**151.14**	**251**	*e*PKP	PKPdf	15 43 23.6	+2.5
NNT	**Nongplab**	**152.52**	**340**	P	PKPdf	15 43 26.9	+3.6

CASC 13 15:39:50.5±1.6,13.21N×89.73W,h33^{km}±4^{km},ML4.0, 9C-2D,El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	**San Blas**	**0.64**	**9**	⇑*e*P	P	15 40 03.7	+0.7
SBLS				*e*S	S	15 40 12.5	+0.5
SNET	**Serv Nac Est T**	**0.68**	**45**	*e*P	P	15 40 03.9	+0.3
SNET				*e*S	S	15 40 14.2	+1.1
SNET				*i*		15 40 16.8	
	comp=Z,7µm,0.2s						
BOQS	**Boqueron**	**0.68**	**40**	⇑*e*P	P	15 40 04.2	+0.5
RTR	**El Retiro**	**0.69**	**7**	⇑*e*P	P	15 40 04.4	+0.6
LFRS	**El Faro**	**0.77**	**57**	⇑*i*P	P	15 40 05.1	+0.2
LFU	**La Fuente**	**0.80**	**48**	⇑*e*P	P	15 40 05.9	+0.6
LFU				*e*S	S	15 40 16.7	+0.4
LBRS	**Las Brisas**	**0.85**	**52**	⇑*e*P	P	15 40 06.6	+0.6
LBRS				*e*S	S	15 40 18.8	+1.4
LCBS	**La Ceiba**	**0.85**	**59**	⇑*i*P	P	15 40 06.2	+0.2
LCBS				*e*S	S	15 40 17.6	+0.1
RBDL	**Robledal**	**0.90**	**3**	⇓*e*P	P	15 40 07.4	+0.7
RBDL				*e*S	S	15 40 20.2	+1.5
SNVI	**San Vicente**	**0.95**	**65**	*e*P	P	15 40 08.1	+0.6
SNVI				*e*S	S	15 40 21.0	+0.9
MTO2	**Montecristo 2**	**1.24**	**17**	⇑*i*P	P	15 40 11.8	+0.3
MTO2				*e*S	S	15 40 27.8	+0.4
VSM	**San Miguel**	**1.43**	**81**	*e*P	P	15 40 15.2	+0.8
VSM				*e*S	S	15 40 34.3	+2.1
BLLM	**Bellamira**	**1.47**	**81**	⇑*e*P	P	15 40 15.5	+0.6
BLLM				*e*S	S	15 40 34.4	+1.2
CAHU	**Cacacuatique**	**1.58**	**69**	⇓*i*P	P	15 40 16.6	+0.1
CAHU				*e*S	S	15 40 37.1	+1.2
CNCH	**Conchagua**	**1.85**	**88**	*e*P	P	15 40 20.0	-0.3
CNCH				*e*S	S	15 40 43.1	+0.4
CRIN	**San Cristobal**	**2.66**	**101**	*e*S	S	15 41 03.2	-0.1
MOMJ	**Momotombo**	**3.21**	**104**	*e*P	P	15 40 39.1	-0.7
COPN	**Copaltepe**	**3.23**	**108**	*e*P	P	15 40 39.2	-0.8
APYN	**Apoyeque**	**3.44**	**106**	*e*P	P	15 40 40.8	-2.1
TICN	**Ticuantepe**	**3.61**	**108**	*e*P	P	15 40 43.5	-1.9
APON	**Apoyo**	**3.80**	**109**	*e*P	P	15 40 45.1	-3.1

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*THR **13** 16:03:52.5±0.4,29.93N×51.26E,h15^{km},ML3.1*

*KISR **13** 16:03:59.3±0.6,30.24N×51.88E,h83^{km}±8^{km},ML3.1*

ISC 13 16:04:00.1±1.0,30.51N±0.10×51.70E±0.08,h33^{km},n8, σ0^{s}85/11,Northern and central Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NASN	**Na'in**	**2.47**	**22**	*e*PN	**Pn**	**16 04 44.0**	**+4.9**
UMR	**Umm Al-Rimmam**	**3.58**	**256**	*e*P	**P**	**16 04 55.7**	**+1.0**
UMR				AML	AML	16 05 41.5	
	comp=Z,46nm,0.4s						
QRN	**Al-Qurain**	**3.73**	**243**	*e*P	**P**	**16 04 56.5**	**-0.3**
QRN				*e*S	**S**	**16 05 39.7**	**-0.5**
RDF	**Al-Radifah**	**3.94**	**247**	*e*P	**P**	**16 05 00.2**	**+0.5**
RDF				*e*S	**S**	**16 05 44.9**	**-0.5**
RDF				AML	AML	16 05 45.4	
	comp=Z,20nm,0.4s						
RST	**Umm Al-Ruwaisa**	**4.20**	**257**	*e*P	**P**	**16 05 04.3**	**+0.8**
RST				*e*S	**S**	**16 05 52.0**	**0.0**
RST				AML	AML	16 06 03.3	
	comp=Z,16nm,0.5s						
ASAO	**Ashtian**	**4.26**	**341**	*e*PN	**Pn**	**16 05 05.3**	**+0.8**
ASAO				AMP		16 06 11.3	
	comp=N,7.6nm,0.7s						
ASAO				AMP		16 06 11.8	
	comp=E,10nm,0.6s						
KRBR	**Kerman**	**4.42**	**96**	*e*PN	**Pn**	**16 05 06.3**	**-0.4**
KRBR				AMP		16 06 21.1	
	comp=N,19nm,0.6s						
KRBR				AMP		16 06 29.0	
	comp=E,26nm,0.6s						
SNGE	**Sanandaj**	**5.85**	**322**	*e*PN	**Pn**	**16 05 24.9**	**-2.1**

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*IDC **13** 16:04:38.7±1.0,3.43S×135.27E,mb4.1/5,mb1 4.2/8, mb1mx4.1/14,ML3.7/3,Error ellipse: s-maj=59.5km s-min=17.8km az=65.0*

*NEIC **13** 16:04:41.6±0.6,3.36S×135.25E,h10^{km},mb4.2/5,Error ellipse: s-maj=17.0km s-min=8.6km az=73.0*

ISC 13 16:04:41.6±0.5,3.57S±0.05×135.4E±0.1,h33^{km},n22, σ0^{s}91/26,mb4.5/12,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.54**	**198**	*e*P	**P**	**16 06 59.7**	**0.0**
	14nm,0.5s						
KAKA				*e*S	**S**	**16 08 45.9**	**-1.0**
PMG	**Port Moresby**	**13.07**	**117**	Pn	**P**	**16 07 47.2**	**-0.5**
	0.5nm,0.3s,baz=307,slow=15,SNR=4.7						
PMG	**Port Moresby**	**13.07**	**117**	*e*Pn	**P**	**16 07 46.9**	**-0.8**
WRAB	**Tennant Creek**	**16.30**	**183**	*e*P	**P**	**16 08 29.6**	**-0.1**
	23nm,0.6s						
WRAB				*e*S	**S**	**16 11 43.1**	**+14**
WB2	**Warramunga Arr**	**16.31**	**183**	*e*P	**P**	**16 08 27.7**	**-2.1**
WB2				*e*S	**S**	**16 11 23.2**	**-5.9**
WRA	**Warramunga Arr**	**16.31**	**183**	Pn	**P**	**16 08 25.5**	**-4.3**
	0.3nm,0.3s,baz=6.3,slow=13,SNR=7.4						
WRA				Sn	**S**	**16 11 22.5**	**-6.6**
	0.3nm,0.3s,baz=12,slow=23,SNR=4.7						
CTA	**Charters Tower**	**19.55**	**148**	P	**P**	**16 09 10.7**	**+1.2**
	0.3nm,0.3s,baz=324,slow=12,SNR=8.0						
CTAO	**Charters Tower**	**19.55**	**148**	*e*P	**P**	**16 09 10.5**	**+1.0**
	5.4nm,0.8s						
ASAR	**Alice Springs**	**20.03**	**184**	P	**P**	**16 09 15.6**	**+0.9**
	25nm,0.8s,baz=7.4,slow=11,SNR=195						
ASPA	**Alice Springs**	**20.03**	**184**	*e*P	**P**	**16 09 15.5**	**+0.8**
TGY	**Tagaytay City**	**22.65**	**321**	P	**P**	**16 09 39.4**	**-1.9**
	111nm,0.4s,mb5.6,baz=156,slow=12,SNR=3.0						
MBWA	**Marble Bar**	**23.17**	**220**	*e*P	**P**	**16 09 47.7**	**+1.3**
	9.0nm,0.8s,mb4.2						
STKA	**Stephens Creek**	**28.76**	**169**	P	**P**	**16 10 38.9**	**+0.3**
	4.2nm,1.0s,mb4.1,baz=343,slow=11,SNR=4.4						
SONM	**Songino Array**	**57.14**	**337**	P	**P**	**16 14 26.6**	**-0.8**
	0.4nm,0.6s,mb3.6,baz=158,slow=6.7,SNR=3.8						
KKN	**Kakani**	**57.41**	**306**	*e*P	**P**	**16 14 30.1**	**+0.4**
	3.3nm,0.2s,mb5.0						
DMN	**Daman**	**57.47**	**306**	*e*P	**P**	**16 14 31.1**	**+1.0**
	13nm,0.7s,mb5.1						
GKN	**Gorkha**	**58.01**	**306**	*e*P	**P**	**16 14 34.5**	**+0.6**
	12nm,0.7s,mb5.1						
KOLN	**Koldanda**	**58.76**	**306**	*e*P	**P**	**16 14 39.7**	**+0.6**
	16nm,0.8s,mb5.1						
ZAL	**Zalesovo**	**71.04**	**331**	P	**P**	**16 15 57.8**	**-0.3**
	0.9nm,0.7s,mb3.8,baz=358,slow=4.9,SNR=5.6						
BVAR	**Borovoye Array**	**78.13**	**326**	P	**P**	**16 16 38.3**	**-0.8**
	1.1nm,0.6s,mb4.0,baz=112,slow=8.0,SNR=7.7						
BRVK	**Borovoye**	**78.20**	**326**	*e*P	**P**	**16 16 39.6**	**+0.2**
	2.1nm,0.8s,mb4.1						
CHKZ	**Chkalovo**	**78.25**	**327**	*e*P	**P**	**16 16 39.7**	**0.0**
	1.0nm,0.6s,mb3.9						

IGQ 13 16:19:13.8,2.10S×80.06W,h4^{km}±5^{km},mb4.3,2C-10D, Error ellipse: s-maj=8.8km s-min=3.2km az=93.5,Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGUA	**Igualata**	**1.54**	**67**	⇓P	Pn	16 19 43.9	+1.7
ARRY	**Arrayan**	**1.71**	**70**	⇑P	Pn	16 19 45.8	+1.3
PATA	**Patacocha**	**1.73**	**70**	⇓P	Pn	16 19 46.5	+1.7
PISA	**Pisayambo**	**1.97**	**58**	⇓P	Pn	16 19 50.6	+2.4
PISA				S	Sn	16 20 16.3	+2.7
MARY	**Rancho Maria**	**2.08**	**49**	P	Pn	16 19 52.5	+2.7
VC1	**Cotopaxi 1**	**2.20**	**49**	⇓P	Pn	16 19 54.4	+2.9
VC1				S	Sn	16 20 23.7	+4.2
CGGP	**Crater GGP**	**2.40**	**37**	⇓P	Pn	16 19 56.9	+2.5
CGGP				S	Sn	16 20 25.4	+0.9
GGP	**Refugio Guagua**	**2.41**	**37**	P	Pn	16 19 57.1	+2.6
PINO	**Pino**	**2.41**	**37**	⇓P	Pn	16 19 56.8	+2.3
YANA	**Yana**	**2.47**	**37**	⇓P	Pn	16 19 57.4	+2.1
YANA				S	Sn	16 20 26.4	+0.2
ANTI	**Antisana**	**2.51**	**49**	⇓P	Pn	16 19 58.1	+2.2
ANTI				S	Sn	16 20 29.7	+2.4
CAYR	**Refugio Cayamb**	**2.94**	**44**	⇓P	Pn	16 20 04.4	+2.4
COTA	**Cotacachi**	**2.97**	**35**	⇑P	Pn	16 20 04.5	+2.0
COTA				S	Sn	16 20 40.2	+1.2
CAYA	**Cayambe**	**2.99**	**44**	⇓P	Pn	16 20 04.8	+2.1

IDC 13 16:24:14.7±1.0,0.37S×21.09W,mb3.9/3,mb1 4.1/4, mb1mx3.6/21,ML4.3/1,MS3.9/1,Ms1 3.9/1,ms1mx2.5/18, Error ellipse: s-maj=54.0km s-min=25.7km az=142.0, Central Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBIC	**Dimbokro**	**17.65**	**66**	P	P	16 28 22.3	-1.5
	1.1nm,0.3s,baz=239,slow=16,SNR=13						
DBIC				LR	LR	16 34 09.6	
	comp=Z,390nm,19.8s,baz=120,slow=34						
LPAZ	**La Paz**	**48.98**	**249**	P	P	16 33 04.2	-1.2
	2.8nm,0.6s,baz=79,slow=10,SNR=19						
GERES	**GERESS Array B**	**57.47**	**27**	P	P	16 34 05.0	-3.0
	0.4nm,0.8s,baz=214,slow=9.6,SNR=3.7						
AKASG	**Malin Array Be**	**66.35**	**32**	P	P	16 35 05.7	-1.8

	1.0nm,0.8s,baz=237,slow=5.7,SNR=3.1						
ASAR	**Alice Springs**	**145.93**	**136**	PKPbc	PKPbc	16 43 54.8	-2.5
	0.7nm,0.6s,baz=223,slow=2.8,SNR=15						
WRA	**Warramunga Arr**	**148.59**	**131**	PKPbc	PKPdf	16 44 05.7	+3.1
	0.4nm,0.4s,baz=215,slow=1.2,SNR=4.9						

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*IDC **13** 16:28:51.6±2.9, 48.91N×130.05W, mb4.0/1, mb1 3.9/7, mb1mx3.6/23, ML3.6/6, Error ellipse: s-maj=50.3km s-min=17.1km az=71.0*

*NEIC **13** 16:28:54.7±1.3, 49.12N×129.54W, h10^{km}, mb4.2/2, Error ellipse: s-maj=20.8km s-min=9.4km az=67.0*

*PGC **13** 16:28:54.8, 48.96N×129.27W, h10^{km}, MLSn3.3/1, West of Vancouver Island, British Columbia*

ISC 13 16:28:55.3±0.7**, 49.10N**±0.03×**129.05W**±0.07**, h10^{km}, n44, σ1^{s}25**/62**, mb4.1**/2**, Vancouver Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EDB	**Eliza Dome**	**1.48**	**58**	⇑Pn	**Pn**	**16 29 21.9**	**-0.3**
EDB				Sn	**Sn**	**16 29 42.3**	**+0.6**
EDB				Trac		16 29 45.8	
	comp=Z,9.0nm,0.1s						
HOLB	**Holberg**	**1.66**	**21**	Pn	**Pn**	**16 29 24.2**	**-0.5**
HOLB				Pg	**Pg**	**16 29 26.5**	**-1.9**
HOLB				Sn	**Sn**	**16 29 45.8**	**-0.4**
	comp=Z,64nm,0.3s						
HOLB				Sg	**Sg**	**16 29 49.4**	**-1.1**
HOLB				Trac		16 29 51.1	
	comp=Z,64nm,0.3s						
ETB	**Estevan Point**	**1.67**	**79**	Pn	**Pn**	**16 29 26.6**	**+1.7**
MAYB	**Maynard**	**1.79**	**42**	Pn	**Pn**	**16 29 26.5**	**0.0**
PHC	**Port Hardy**	**1.92**	**32**	Pn	**Pn**	**16 29 28.6**	**+0.1**
PHC				Pg	**Pg**	**16 29 29.9**	**-3.8**
WOSB	**Woss**	**1.93**	**56**	Pn	**Pn**	**16 29 29.1**	**+0.5**
WOSB				Sn	**Sn**	**16 29 55.3**	**+2.1**
	comp=Z,10.0nm,0.2s						
WOSB				Trac		16 29 56.6	
	comp=Z,10.0nm,0.2s						
GDR	**Gold River**	**2.09**	**70**	Pn	**Pn**	**16 29 30.5**	**-0.3**
BTB	**Buttle Lake**	**2.34**	**80**	Pn	**Pn**	**16 29 34.3**	**-0.2**
BTB				Sn	**Sn**	**16 30 04.5**	**+0.9**
	comp=Z,26nm,0.3s						
BTB				Trac		16 30 07.5	
	comp=Z,26nm,0.3s						
NCRB	**Newcastle Ridg**	**2.34**	**55**	Pn	**Pn**	**16 29 35.2**	**+0.7**
OZB	**Mount Ozzard**	**2.35**	**92**	Pn	**Pn**	**16 29 33.0**	**-1.5**
OZB				Sn	**Sn**	**16 30 01.6**	**-2.1**
OZB				Trac		16 30 03.6	
	comp=Z,16nm,0.1s						
CBB	**Campbell River**	**2.58**	**67**	Pn	**Pn**	**16 29 38.0**	**+0.1**
ALB	**Alberni**	**2.78**	**85**	Pn	**Pn**	**16 29 40.3**	**-0.4**
ALB				Sn	**Sn**	**16 30 13.7**	**-0.9**
	comp=Z,13nm,0.3s						
ALB				Trac		16 30 15.6	
	comp=Z,13nm,0.3s						
MGB	**Mount Grey**	**2.87**	**90**	Pn	**Pn**	**16 29 40.6**	**-1.4**
MGB				Sn	**Sn**	**16 30 15.3**	**-1.7**
	comp=Z,6.0nm,0.1s						
MGB				Trac		16 30 18.1	
	comp=Z,6.0nm,0.1s						
TXB	**Texada**	**3.08**	**77**	Pn	**Pn**	**16 29 45.1**	**+0.2**
TXB				Sn	**Sn**	**16 30 24.1**	**+1.9**
	comp=Z,10.0nm,0.3s						
TXB				Trac		16 30 26.4	
	comp=Z,10.0nm,0.3s						
PFB	**Port Renfrew**	**3.09**	**98**	Pn	**Pn**	**16 29 43.5**	**-1.7**
PFB				Sn	**Sn**	**16 30 19.4**	**-3.2**
PFB				Trac		16 30 24.5	
	comp=Z,6.0nm,0.2s						
BBB	**Bella Bella**	**3.15**	**11**	Pn	**Pn**	**16 29 46.0**	**0.0**
	9.5nm,0.3s,baz=206,slow=9.5,SNR=213						
BBB				Sn	**Sn**	**16 30 22.4**	**-1.6**
	11nm,0.3s,baz=287,slow=20,SNR=6.1						
BBB	**Bella Bella**	**3.15**	**11**	Pn	**Pn**	**16 29 45.9**	**-0.1**
BBB				Sn	**Sn**	**16 30 21.8**	**-2.2**
BBB				Trac		16 30 24.8	
	comp=Z,34nm,0.3s						
NLLB	**Nanaimo Lost L**	**3.33**	**86**	Pn	**Pn**	**16 29 48.2**	**-0.3**
NLLB				Sn	**Sn**	**16 30 29.7**	**+1.2**
NLLB				Trac		16 30 30.9	
	comp=Z,15nm,0.3s						
SHB	**Sechelt**	**3.42**	**80**	Pn	**Pn**	**16 29 50.3**	**+0.4**
SHB				Sn	**Sn**	**16 30 32.4**	**+1.4**
SHB				Trac		16 30 35.5	
	comp=Z,3.0nm,0.1s						
LZB	**Mount Lazard**	**3.49**	**96**	Pn	**Pn**	**16 29 49.8**	**-1.0**
LZB				Sn	**Sn**	**16 30 30.5**	**-2.1**
LZB				Trac		16 30 33.5	
	comp=Z,1.0nm,0.1s						
GOBB	**Galiano Island**	**3.65**	**90**	Pn	**Pn**	**16 29 53.9**	**+0.8**
GOBB				Trac		16 30 39.5	
	comp=Z,2.0nm,0.2s						
PGC	**Sidney**	**3.73**	**95**	Pn	**Pn**	**16 29 52.9**	**-1.2**
PGC				Sn	**Sn**	**16 30 36.9**	**-1.7**
PGC				Trac		16 30 41.3	
	comp=Z,3.0nm,0.2s						
PGC	**Sidney**	**3.73**	**95**	P	**Pn**	**16 29 53.9**	**-0.2**
BIB	**Bowen Island**	**3.78**	**83**	Pn	**Pn**	**16 29 54.3**	**-0.6**
BIB				Trac		16 30 44.4	
	comp=Z,4.0nm,0.3s						
VGZ	**Gonzales**	**3.85**	**98**	Trac		16 30 41.5	
	comp=Z,9.0nm,0.2s						
WSLR	**Whistler**	**4.12**	**73**	Pn	**Pn**	**16 30 01.2**	**+1.5**
HNB	**Haney**	**4.25**	**85**	Pn	**Pn**	**16 29 59.1**	**-2.5**
VDB	**Vedder Mountai**	**4.57**	**88**	Pn	**Pn**	**16 30 05.4**	**-0.7**
VDB				Trac		16 31 03.2	
	comp=Z,3.0nm,0.3s						
LLLB	**Lillooet**	**4.88**	**69**	Pn	**Pn**	**16 30 11.1**	**+0.6**
LLLB				Sn	**Sn**	**16 31 10.0**	**+2.2**
LLLB				Trac		16 31 17.4	
	comp=Z,4.0nm,0.5s						
FSB	**Fort Saint Jam**	**6.13**	**27**	Pn	**Pn**	**16 30 31.2**	**+3.0**
BMBC	**Bull Mountain**	**8.13**	**29**	Pn	**P**	**16 30 57.2**	**+1.0**
YBH	**Yreka Blue Hor**	**8.61**	**146**	Pn	**P**	**16 31 02.5**	**-0.4**
	0.1nm,0.3s,baz=354,slow=15,SNR=12						
WALA	**Waterton Lakes**	**9.94**	**85**	P	**P**	**16 31 22.2**	**+1.0**
NVAR	**Mina Array Bea**	**13.18**	**140**	Pn	**P**	**16 32 05.8**	**+0.7**
	0.1nm,0.3s,baz=323,slow=11,SNR=7.2						
BW06	**Boulder Array**	**14.95**	**108**	*e*P	**P**	**16 32 30.8**	**+2.5**
PDAR	**Pinedale Array**	**14.95**	**108**	Pn	**P**	**16 32 35.3**	**+7.1**
	0.1nm,0.3s,baz=309,slow=9.5,SNR=5.8						
YKA	**Yellowknife Ar**	**15.63**	**25**	Pn	**P**	**16 32 36.6**	**-0.4**
	0.2nm,0.3s,baz=214,slow=12,SNR=22						
FFC	**Flin Flon**	**17.56**	**61**	*e*P	**P**	**16 33 02.3**	**+0.7**
	10nm,0.6s						
PV10	**Paradox Valley**	**17.94**	**119**	*e*P	**P**	**16 33 08.5**	**+2.2**
ILAR	**Eielson Array**	**18.36**	**335**	P	**P**	**16 33 06.4**	**-5.1**
	0.0nm,0.3s,baz=156,slow=11,SNR=3.0						
SDCO	**Great Sand Dun**	**20.44**	**115**	P	**P**	**16 33 34.5**	**-0.8**
ULM	**Lac du Bonnet**	**21.41**	**74**	P	**P**	**16 33 47.8**	**+2.6**
	4.2nm,0.6s,mb3.9,baz=275,slow=11,SNR=7.4						
FCC	**Fort Churchill**	**22.50**	**51**	*e*P	**P**	**16 33 56.5**	**+0.5**
	7.8nm,0.7s,mb4.2						
WMOK	**Wichita Mounta**	**26.49**	**111**	P	**P**	**16 34 34.4**	**0.0**

IGQ 13 16:31:39.7, 1.12S×79.44W, h112^{km}±5^{km}, mb4.0, 4C-2D, Error ellipse: s-maj=5.1km s-min=2.1km az=3.5, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGUA	**Igualata**	**0.89**	**115**	⇓P	P	16 32 01.6	+1.4
IGUA				S	S	16 32 15.8	+0.3
MARY	**Rancho Maria**	**1.03**	**68**	⇓P	P	16 32 02.2	+0.5
PISA	**Pisayambo**	**1.06**	**87**	⇑P	P	16 32 02.6	+0.6
PISA				S	S	16 32 18.7	+0.1
ARRY	**Arrayan**	**1.06**	**111**	P	P	16 32 02.7	+0.7
VC1	**Cotopaxi 1**	**1.14**	**66**	P	P	16 32 03.7	+0.8
CGGP	**Crater GGP**	**1.25**	**42**	P	P	16 32 05.2	+1.0
PINO	**Pino**	**1.27**	**41**	⇑P	P	16 32 04.9	+0.6
YANA	**Yana**	**1.32**	**41**	⇑P	P	16 32 05.4	+0.4
ANTI	**Antisana**	**1.44**	**63**	⇑P	P	16 32 06.9	+0.5
COTA	**Cotacachi**	**1.82**	**37**	P	P	16 32 11.9	+1.0
COTA				S	S	16 32 35.7	+1.3
CAYR	**Refugio Cayamb**	**1.82**	**52**	P	P	16 32 12.1	+1.0
CAYA	**Cayambe**	**1.87**	**51**	P	P	16 32 12.6	+0.9

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*IDC **13** 17:27:00.1±0.6, 31.85N×129.31E, mb4.3/18, mb1 4.5/19, mb1mx4.4/23, ML4.0/1, MS4.5/17, Ms1 4.5/17, ms1mx4.4/23, Error ellipse: s-maj=19.6km s-min=13.6km az=91.0*

*NIED **13** 17:27:00, 31.70N×129.10E, h5^{km}, Mw5.1 Best double couple: $M_0$5.51×10^{16} NP1:ϕ_s206°, δ73°, λ-138°. NP2: ϕ_s102°, δ51°, λ-22°.*

*MOS **13** 17:27:00.1±1.2, 31.76N×129.27E, h10^{km}, mb5.1/30, MS5.1/24, Error ellipse: s-maj=11.5km s-min=6.2km az=104.6*

*BJI **13** 17:27:01.7, 31.83N×129.23E, h12^{km}, mB5.2, mb4.7, ML5.7, Ms5.3, Msz4.9*

*JMA **13** 17:27:01.7±0.1, 31.76N×129.16E, h19^{km}±1^{km}, M5.3*

JMA Felt III J1.

*NEIC **13** 17:27:03.0±0.2, 31.82N×129.32E, mb4.9/36, MS4.8/14, MW5.1(NIED), Error ellipse: s-maj=7.1km s-min=5.4km az=88.0*

NEIC Recorded [3 JMA] in Kagoshima; [2 JMA] in Kumamoto, Nagasaki and Saga; [1 JMA] in Fukuoka Prefectures.

*HRVD **13** 17:27:03.0±0.3, 31.81N×129.09E, h12^{km}±1^{km}, MW5.1/50, Centroid moment Tensor Solution. LP body waves: s24,c35;Mantle waves: s50,c101; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.78±.22; $M_{\theta\theta}$4.48±.20; $M_{\phi\phi}$-1.70±.15; $M_{r\theta}$-1.76±.45; $M_{\theta\phi}$4.08±.15; $M_{\phi r}$0.19±.42; Best double couple: $M_0$5.56×10^{16} NP1: ϕ_s202°, δ59°, λ-161°. NP2:ϕ_s102°, δ73°, λ-32°. Principal axes: T 6.74, Plg9°, Azm154°; N -2.36, Plg54°, Azm257°; P -4.38, Plg34°, Azm58°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 13 17:27:02.8±0.5**, 31.77N**±0.03×**129.25E**±0.03**, h25^{km}**±4^{km}**, h17^{km}**±1.2^{km}**:pP-P, n215, σ1^{s}18**/233**, mb4.8**/68**, MS4.8**/41**, 11C-21D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	**Shimokoshiki**	**0.41**	**103**	⇑P	**Pb**	**17 27 11.1**	**-0.3**
JSJ				S	**Sb**	**17 27 17.6**	**+0.3**
NGSJ	**Nagasakinomoza**	**0.98**	**28**	⇓P	**Pb**	**17 27 20.3**	**-0.6**
JFU	**Fukue jima 2**	**0.98**	**334**	⇑P	**Pb**	**17 27 20.1**	**-0.9**
JFU				S	**Sb**	**17 27 33.0**	**-0.5**
JHD	**Hondo**	**1.02**	**47**	⇓P	**Pb**	**17 27 21.5**	**-0.2**
JHD				S	**Sb**	**17 27 36.4**	**+1.7**
JSU	**Suzuyama**	**1.06**	**104**	⇓P	**Pb**	**17 27 22.5**	**+0.2**
JSU				S	**Sb**	**17 27 38.3**	**+2.5**
JZO	**Okuchi**	**1.20**	**72**	⇓P	**Pn**	**17 27 24.4**	**+0.1**
JUR	**Ureshino**	**1.44**	**24**	⇓P	**Pn**	**17 27 27.5**	**-0.2**
JIU2	**Izumi 2**	**1.53**	**59**	⇓P	**Pn**	**17 27 28.9**	**-0.1**
JKC	**Kuchinoerabu**	**1.54**	**148**	⇑P	**Pn**	**17 27 27.8**	**-1.2**
JKC				S	**Sn**	**17 27 53.0**	**+4.7**
JTSR	**Tashiro 2**	**1.55**	**112**	⇓P	**Pn**	**17 27 29.1**	**-0.1**
JTZ	**Takazaki**	**1.57**	**85**	⇓P	**Pn**	**17 27 29.7**	**+0.2**
JTA	**Tamana**	**1.61**	**42**	⇓P	**Pn**	**17 27 29.9**	**-0.2**
JTA				S	**Sn**	**17 27 55.2**	**+5.0**
JNAR	**Kushima--Naru**	**1.74**	**98**	⇓P	**Pn**	**17 27 32.5**	**+0.6**
JTN	**Tanegashima 3**	**1.85**	**126**	⇑P	**Pn**	**17 27 33.0**	**-0.5**
JFI	**Itaya**	**1.91**	**30**	⇓P	**Pn**	**17 27 34.0**	**-0.4**
JNU	**Nakatsue**	**1.93**	**45**	⇓P	**Pn**	**17 27 34.4**	**-0.2**
JTSN	**Tsuno**	**1.97**	**76**	⇓P	**Pn**	**17 27 35.5**	**+0.3**
JKIT	**Kitakata**	**2.05**	**65**	⇓P	**Pn**	**17 27 36.8**	**+0.4**
JII	**Iki**	**2.06**	**11**	⇓P	**Pn**	**17 27 35.9**	**-0.6**
JFA	**Akaike**	**2.33**	**33**	⇓P	**Pn**	**17 27 40.3**	**-0.1**
JTO	**Tosashimizu**	**3.20**	**69**	⇓P	**Pn**	**17 27 52.5**	**-0.2**
JNA	**Nagahama**	**3.25**	**56**	P	**Pn**	**17 27 55.0**	**+1.5**
JHIK	**Hikimi**	**3.55**	**38**	P	**Pn**	**17 27 58.8**	**+1.0**
JKU	**Kubokawa**	**3.57**	**64**	⇓P	**Pn**	**17 27 58.1**	**+0.1**
JAI	**Aioi**	**4.82**	**64**	P	**Pn**	**17 28 15.4**	**-0.4**
JOW	**Kunigami**	**5.00**	**190**	Pn	**Pn**	**17 28 18.4**	**+0.1**
	baz=23,slow=10.0						
JOW				LR	LR	17 29 44.2	
	comp=Z,1µm,21.8s,baz=16,slow=32						
KS15	**Wonju Array Si**	**5.77**	**349**	*e*P	**Pn**	**17 28 27.6**	**-1.5**
JKE	**Kume jima 2**	**5.84**	**202**	P	**Pn**	**17 28 33.2**	**+3.1**
INCN	**Inchon**	**6.09**	**340**	*e*P	**Pn**	**17 28 31.4**	**-2.3**
	124nm,0.8s						
SSE	**Sheshan**	**6.93**	**267**	P	**Pn**	**17 28 40.6**	**-4.8**
SSE				S	**Sn**	**17 30 02.0**	**-2.2**
SSE				LR	LR		
	comp=N,15µm,15.9s						
SSE				LR	LR		
	comp=E,2µm,15.7s						
SSE				LR	LR		
	comp=Z,7µm,10.4s						
MAJO	**Matsushiro**	**8.81**	**55**	P	**P**	**17 29 06.3**	**-5.4**
	comp=Z,18nm,1.0s						
MAT	**Matsushiro**	**8.81**	**55**	P	**P**	**17 29 12.3**	**+0.5**
MAT	**Matsushiro**	**8.81**	**55**	*e*P	**P**	**17 29 12.0**	**+0.2**
	comp=Z,10nm,0.8s						
MAT				*e*S	rx	17 31 41.0	
NJ2	**Nanjing**	**8.84**	**275**	*e*P	**P**	**17 29 11.9**	**-0.3**
NJ2				AP		17 29 15.1	
NJ2				XP		17 29 17.9	
NJ2				S	**Sn**	**17 30 51.6**	**-0.5**
NJ2				AMB	AMB		
	comp=Z,50nm,1.2s						
NJ2				Smax			
	comp=N,2µm,1.4s						
NJ2				Smax			
	comp=E,2µm,1.2s						
NJ2				LR	LR		
	comp=N,8µm,15.8s						
NJ2				LR	LR		
	comp=E,11µm,9.0s						
NJ2				LR	LR		
	comp=Z,7µm,12.6s						
JHJ	**Hachijo jima 2**	**9.00**	**79**	LR	LR	17 32 36.9	
	comp=Z,2µm,20.1s,baz=263,slow=38						
DL2	**Dalian**	**9.46**	**321**	*e*P	**P**	**17 29 24.9**	**+4.3**
DL2				*e*S	**Sn**	**17 31 13.8**	**+6.6**
DL2				LR	LR		
	comp=N,5µm,12.5s						
DL2				LR	LR		
	comp=E,3µm,12.4s						
DL2				LR	LR		
	comp=Z,4µm,11.0s						
SNY	**Shenyang**	**11.02**	**337**	⇑P	**P**	**17 29 41.4**	**-0.6**
SNY				AP		17 29 46.8	
SNY				XP		17 29 48.5	
SNY				AMB	AMB		
	comp=Z,10.0nm,1.8s						
SNY				LR	LR		
	comp=N,6µm,15.1s						
SNY				LR	LR		
	comp=Z,14µm,15.2s						
CBIJ	**Chichi jima**	**12.20**	**109**	LR	LR	17 34 41.7	
	comp=Z,1µm,18.4s,baz=295,slow=38						
CN2	**Changchun**	**12.38**	**347**	*e*P	**P**	**17 30 00.8**	**+0.4**
CN2				*e*XP		17 30 07.8	
CN2				*e*S	**S**	**17 32 20.3**	**+1.7**
CN2				AMB	AMB		
	comp=Z,30nm,1.0s						
CN2				AMB	AMB		
	comp=Z,700nm,10.0s						
CN2				LR	LR		
	comp=N,10µm,10.0s						
CN2				LR	LR		
	comp=Z,11µm,11.0s						
WHN	**Wuhan**	**12.82**	**268**	*e*P	**P**	**17 30 08.0**	**+1.6**
WHN				S	**S**	**17 32 26.0**	**-3.3**
WHN				LR	LR		
	comp=N,3µm,11.6s						
WHN				LR	LR		
	comp=E,10µm,16.6s						
WHN				LR	LR		
	comp=Z,10µm,11.6s						
MDJ	**Mudanjiang**	**12.83**	**1**	P	**P**	**17 30 10.3**	**+3.9**
MDJ				AP		17 30 13.1	
MDJ				SCP		17 39 14.3	
MDJ				AMB	AMB		
	comp=Z,24nm,1.6s						
MDJ				AMB	AMB		
	comp=Z,417nm,8.2s						
MDJ				LR	LR		
	comp=N,3µm,15.8s						
MDJ				LR	LR		
	comp=E,4µm,12.9s						
MDJ				LR	LR		
	comp=Z,4µm,17.7s						
BJI	**Beijing**	**13.42**	**312**	P	**P**	**17 30 14.0**	**-0.2**
BJI				S	**S**	**17 32 47.6**	**+4.0**
BJI				AMB	AMB		
	comp=Z,36nm,1.3s						
BJI				LR	LR		
	comp=N,10µm,17.3s						
BJI				LR	LR		
	comp=E,6µm,17.7s						
BJI				LR	LR		
	comp=Z,3µm,22.9s						
TIY	**Taiyuan**	**15.04**	**298**	*e*P	**P**	**17 30 36.0**	**+0.6**
TIY				S	**S**	**17 33 29.0**	**+7.1**
TIY				LR	LR		
	comp=N,10µm,13.0s						
ASAJ	**Asahikawa**	**16.18**	**37**	Pn	**P**	**17 30 49.2**	**-0.9**
	comp=N,1.0nm,0.3s,baz=228,slow=17,SNR=9.0						
ASAJ				LR	LR	17 36 24.4	
	comp=N,1µm,21.2s,baz=182,slow=35						
ASAJ	**Asahikawa**	**16.18**	**37**	P	**P**	**17 30 49.2**	**-0.9**
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,1µm,21.2s						
GZH	**Guangzhou**	**16.55**	**242**	P	**P**	**17 30 57.0**	**+2.1**
GZH				AMB	AMB		
	comp=Z,50nm,1.4s						
HHC	**Hu-ho-hao-te**	**16.87**	**307**	*e*P	**P**	**17 31 01.3**	**+2.4**
HHC				AP		17 31 05.4	
HHC				XP		17 31 08.6	
HHC				PP	PP	17 31 15.8	+2.9
HHC				S	**S**	**17 34 07.3**	**+2.9**
HHC				XS		17 34 14.5	
HHC				SS	SS	17 34 28.8	+3.6
HHC				AMB	AMB		
	comp=Z,27nm,1.1s						
HHC				AMB	AMB		
	comp=Z,822nm,6.5s						
HHC				LR	LR		
	comp=N,6µm,13.7s						
HHC				LR	LR		
	comp=E,5µm,13.8s						
HHC				LR	LR		
	comp=Z,4µm,15.8s						
XAN	**Xi'an**	**17.22**	**283**	P	**P**	**17 31 04.1**	**+0.7**
XAN				AP		17 31 09.8	
XAN				S	**S**	**17 34 17.9**	**+5.3**
XAN				LR	LR		
	comp=N,11µm,16.1s						
XAN				LR	LR		
	comp=E,2µm,16.5s						
XAN				LR	LR		
	comp=Z,5µm,12.3s						
KLR	**Kul'dur**	**17.54**	**5**	*e*P	**P**	**17 31 07.2**	**0.0**
KLR				pmax	pmax		
	comp=N,13nm,1.2s						
KLR				pmax	pmax		
	comp=Z,50nm,1.2s						
KLR				pmax	pmax		
	comp=N,1µm,11.0s						
KLR				pmax	pmax		
	comp=Z,2µm,11.0s						
KLR				MLR	MLR		
	comp=Z,9µm,12.0s						
BTO	**Baotou**	**17.82**	**305**	*e*P	**P**	**17 31 10.9**	**+0.1**
BTO				AMB	AMB		
	comp=Z,56nm,1.3s						
BTO				LR	LR		
	comp=N,857nm,3.5s						
BTO				LR	LR		
	comp=E,1µm,5.3s						
YSS	**Yuzh-Sakhalins**	**18.37**	**31**	⇓*i*P	**P**	**17 31 17.8**	**+0.3**
YSS				S	**S**	**17 34 43.0**	**+4.5**
YSS				pmax	pmax		
	comp=N,210nm,1.3s						
YSS				pmax	pmax		
	comp=Z,230nm,1.3s						
YSS				pmax	pmax		
	comp=E,260nm,1.7s						
YSS				MLR	MLR		
	comp=N,3µm,13.0s						
YSS				MLR	MLR		
	comp=Z,4µm,13.0s						
YSS				MLR	MLR		
	comp=E,1µm,14.0s						
YSS	**Yuzh-Sakhalins**	**18.37**	**31**	*e*P	**P**	**17 31 17.1**	**-0.5**
	comp=E,270nm,1.4s						
TGY	**Tagaytay City**	**19.17**	**205**	P	**P**	**17 31 27.7**	**+0.4**
	baz=278,slow=17,SNR=4.0						
TGY				LR	LR	17 39 47.5	
	comp=E,593nm,19.3s,baz=80,slow=40						
GYA	**Guiyang**	**20.42**	**261**	⇑*i*P	**P**	**17 31 41.1**	**+0.2**
GYA				AP		17 31 45.3	
GYA				S	**S**	**17 35 32.9**	**+10**
GYA				AMB	AMB		
	comp=Z,40nm,1.3s						
GYA				AMB	AMB		
	comp=Z,90nm,3.0s						
GYA				LR	LR		
	comp=N,2µm,11.4s,MS4.9						
GYA				LR	LR		
	comp=E,2µm,12.0s,MS4.9						
GYA				LR	LR		
	comp=Z,2µm,14.9s,MS4.6						
LZH	**Lanzhou**	**21.50**	**288**	*e*P	**P**	**17 31 51.6**	**-0.2**
LZH				AP		17 31 55.8	
LZH				XP		17 31 58.4	
LZH				PP	PP	17 32 16.0	-0.2
LZH				S	**S**	**17 35 45.1**	**+1.2**
LZH				SS	SS	17 36 20.5	+0.8
LZH				AMB	AMB		
	comp=Z,42nm,1.5s,mb4.5						
LZH				LR	LR		
	comp=E,2µm,12.4s						
LZH				LR	LR		
	comp=Z,3µm,12.8s,MS4.9						
QIZ	**Qiongzhong**	**21.60**	**239**	P	**P**	**17 31 54.5**	**+1.5**
QIZ				LR	LR		
	comp=N,4µm,13.0s,MS5.1						
QIZ				LR	LR		
	comp=E,3µm,13.0s,MS5.1						
QIZ				LR	LR		
	comp=Z,3µm,15.0s,MS4.8						
CD2	**Chengdu**	**21.78**	**274**	⇑*i*P	**P**	**17 31 55.3**	**+0.6**
CD2				AP		17 31 59.9	
CD2				PP	PP	17 32 20.3	+0.3
CD2				PPP	PPP	17 32 31.9	+2.1
CD2				S	**S**	**17 35 52.8**	**+3.5**
CD2				XS		17 35 59.6	
CD2				AMB	AMB		
	comp=Z,140nm,1.3s,mb5.2						
CD2				AMB	AMB		
	comp=Z,430nm,3.6s						
CD2				LR	LR		
	comp=N,11µm,13.7s						
CD2				LR	LR		
	comp=Z,7µm,8.4s						
ULN	**Ulaanbaatar**	**23.31**	**320**	*e*P	**P**	**17 32 09.1**	**-0.5**
ULN				pmax	pmax		
	comp=Z,66nm,1.4s,mb4.9						
ULN	**Ulaanbaatar**	**23.31**	**320**	*e*P	**P**	**17 32 09.1**	**-0.5**
	comp=Z,66nm,1.4s,mb4.9						
SONM	**Songino Array**	**23.65**	**319**	P	**P**	**17 32 12.5**	**-0.5**
	comp=Z,5.1nm,0.9s,mb4.0,baz=127,slow=7.9,SNR=30						
KMI	**Kunming**	**24.20**	**261**	*e*P	**P**	**17 32 21.0**	**+2.5**
KMI				XP		17 32 30.9	
KMI				S	**S**	**17 36 39.6**	**+7.3**
KMI				AMB	AMB		
	comp=Z,14nm,1.4s,mb4.2						
KMI				AMB	AMB		
	comp=Z,149nm,3.2s						
KMI				LR	LR		
	comp=N,3µm,10.6s,MS5.2						
KMI				LR	LR		
	comp=E,3µm,12.1s,MS5.2						
KMI				LR	LR		
	comp=Z,2µm,12.1s,MS4.9						
GTA	**Gaotai**	**25.05**	**296**	*e*P	**P**	**17 32 25.8**	**-0.7**
GTA				AP	pP	17 32 31.3	-2.4
GTA				XP	sP	17 32 33.9	-3.1
GTA				PP	PP	17 33 01.3	-3.1
GTA				PCP	PcP	17 36 06.4	+4.5
GTA				S	**S**	**17 36 48.8**	**+2.3**
GTA				SCS	ScS	17 43 30.8	+5.8
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.1						
GTA				AMB	AMB		
	comp=Z,296nm,6.8s						
GTA				LR	LR		
	comp=N,5µm,15.6s,MS5.2						
GTA				LR	LR		
	comp=E,2µm,11.4s,MS5.2						
GTA				LR	LR		
	comp=Z,3µm,14.1s,MS5.0						

ZAK	Zakamensk	26.78	322	⇑iP	P	17 32 41.4	-1.1
TLY	Talaya	27.35	324	eP	P	17 32 47.5	-0.2
TLY				eS	S	17 37 24.3	0.0
TLY				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.4						
TLY				MLR	MLR		
	comp=Z,1μm,26.0s,MS4.5						
TLY	Talaya	27.35	324	eP	P	17 32 46.6	-1.0
	comp=Z,56nm,1.4s,mb4.9						
IRK	Irkutsk	27.39	326	eP	P	17 32 46.0	-2.0
BOD	Bodaibo	28.07	343	eP	P	17 32 55.1	+1.0
MOY	Mondy	28.70	322	eP	P	17 33 07.0	+7.1
NANT	Nan	28.77	250	P	P	17 33 02.0	+1.2
CHG	Chiang Mai	30.18	252	P	P	17 33 32.4	+19
YAK	Yakutsk	30.27	0	i P	P	17 33 14.7	+0.8
YAK				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.5						
YAK				MLR	MLR		
	comp=Z,1μm,14.0s,MS4.7						
YAK	Yakutsk	30.27	0	P	P	17 33 11.9	-1.9
	comp=Z,15nm,0.8s,mb4.8						
YAK				LR	LR		
	comp=Z,824nm,19.0s,MS4.4						
CM31	Chiang Mai Arr	30.36	251	P	P	17 33 14.1	-1.0
	comp=Z,1.0nm,0.4s,mb3.9						
CMAR	Chiang Mai Arr	30.36	251	P	P	17 33 15.2	+0.1
	comp=Z,4.5nm,1.0s,mb4.2,baz=48,slow=6.6,SNR=17						
CMAR				LR	LR	17 46 31.5	
	comp=Z,919nm,18.4s,MS4.5,baz=65,slow=38						
MA2	Magadan	31.32	21	eP	P	17 33 22.7	-0.4
MA2				eS	S	17 38 31.8	+4.4
MA2				pmax	pmax		
	comp=Z,30nm,1.5s,mb4.9						
MA2				MLR	MLR		
	comp=Z,2μm,28.0s,MS4.5						
LSA	Lhasa	32.71	276	P	P	17 33 40.8	+5.3
SHL	Shillong	33.25	269	eP	P	17 33 39.2	-1.1
SEY	Seymchan	34.49	19	eP	P	17 33 53.6	+3.0
SEY						17 35 09.0	
SEY				e		17 36 28.0	
SEY				eS	S	17 39 25.9	+9.3
SEY				pmax	pmax		
	comp=N,30nm,1.1s						
SEY				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.6						
SEY				pmax	pmax		
	comp=E,40nm,1.2s						
SEY				smax			
	comp=N,2μm,23.9s						
SEY				smax			
	comp=E,1μm,26.8s						
SEY				MLR	MLR		
	comp=E,2μm,15.0s,MS5.1						
SEY				MLR	MLR		
	comp=Z,3μm,15.0s,MS5.2						
SEY				MLR	MLR		
	comp=N,2μm,14.0s,MS5.1						
WMQ	Urumqi	34.63	302	P	P	17 33 51.3	-0.7
WMQ				AP	pP	17 33 55.6	-3.8
WMQ				PP	PP	17 35 07.8	-1.1
WMQ				PPP	PPP	17 35 25.8	-1.1
WMQ				eS	S	17 39 19.3	+0.3
WMQ				AMB	AMB		
	comp=Z,13nm,1.3s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,105nm,10.0s						
WMQ				LR	LR		
	comp=N,3μm,18.6s,MS5.1						
WMQ				LR	LR		
	comp=E,1μm,19.4s,MS5.1						
WMQ				LR	LR		
	comp=Z,1μm,18.6s,MS4.7						
GUN	Gumba	37.64	276	eP	P	17 34 18.0	+0.4
	comp=Z,515nm,1.3s						
FX1	Attu Island--F	37.94	43	LR	LR	17 50 50.0	
	comp=Z,19nm,18.9s,baz=266,slow=38						
PKI	Pulchoki	38.13	275	eP	P	17 34 21.8	0.0
	comp=Z,132nm,1.2s,mb5.5						
KKN	Kakani	38.18	276	eP	P	17 34 22.2	0.0
	comp=Z,342nm,1.4s						
DMN	Daman	38.38	275	eP	P	17 34 23.9	0.0
	comp=Z,477nm,1.8s						
ZAL	Zalesovo	38.55	318	P	P	17 34 24.1	-0.9
	comp=Z,2.3nm,0.9s,mb3.9,baz=358,slow=9.1,SNR=11						
GKN	Gorkha	38.66	276	eP	P	17 34 26.1	-0.2
	comp=Z,310nm,1.6s,mb5.8						
KOLN	Koldanda	39.61	276	eP	P	17 34 33.9	-0.2
	comp=Z,142nm,1.2s,mb5.6						
PTH	Pithoragarh	41.96	280	eP	P	17 34 55.0	+1.6
KSH	Kashi	43.45	296	eP	P	17 35 05.5	+0.1
KSH				eAP	pP	17 35 10.1	-2.8
KSH				eXP	sP	17 35 12.5	-3.5
KSH				ePP	PP	17 36 48.3	-0.2
KSH				ePCP	PcP	17 36 55.3	+1.3
KSH				ePPP	PPP	17 37 23.6	-1.0
KSH				eSCP		17 40 43.4	
KSH				ePCS		17 40 46.3	
KSH				AMB	AMB		
	comp=Z,130nm,4.8s						
DDI	Dehra Dun	43.55	282	e	P	17 35 09.8	+3.4
FRU	Bishkek	44.15	301	eP	P	17 35 12.0	+0.9
FRU				e		17 35 17.0	
FRU				pmax	pmax		
	comp=Z,116nm,2.5s,mb5.2						
AAK	Ala-Archa	44.25	300	eP	P	17 35 10.8	-1.1
AAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
AAK				MLR	MLR		
	comp=Z,215nm,19.0s,MS4.1						
AAK	Ala-Archa	44.25	300	eP	P	17 35 10.8	-1.1
	comp=Z,8.6nm,1.1s,mb4.4						
AAK				LR	LR		
	comp=Z,215nm,19.0s,MS4.1						
NDI	New Delhi	44.72	280	eP	P	17 35 19.0	+3.1
NDI				e		17 48 30.0	
THN	Thein Dam	44.95	286	eP	P	17 35 14.9	-2.8
CHKZ	Chkalovo	46.77	316	eP	P	17 35 30.8	-1.0
CHKZ				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
CHKZ	Chkalovo	46.77	316	eP	P	17 35 30.8	-1.0
	comp=Z,10nm,1.1s,mb4.7						
BRVK	Borovoye	46.94	315	eP	P	17 35 31.9	-1.2
BRVK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
BRVK	Borovoye	46.94	315	eP	P	17 35 31.9	-1.2
	comp=Z,12nm,0.9s,mb4.8						
TNA	Tin City	50.33	29	eP	P	17 35 57.4	-1.9
	comp=Z,18nm,1.3s,mb4.9						
WRAB	Tennant Creek	51.64	174	eP	P	17 36 09.3	-0.4
	comp=Z,11nm,1.0s,mb4.8						
WRA	Warramunga Arr	51.65	174	P	P	17 36 08.2	-1.7
	comp=Z,2.7nm,0.9s,mb4.2,baz=352,slow=8.0,SNR=10						
WB2	Warramunga Arr	51.65	174	eP	P	17 36 08.1	-1.7
SVE	Sverdlovsk	52.52	320	eP	P	17 36 14.5	-1.4
SVE				e		17 36 18.0	
ARU	Arti	53.69	319	⇓iP	P	17 36 23.2	-1.3
ARU				e		17 37 24.2	
ARU				e		17 38 25.2	
ARU				eS	S	17 44 02.3	+7.0
ARU				e		17 46 14.7	
ARU				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
ARU				MLR	MLR		
	comp=N,200nm,17.0s,MS5.1						
ARU				MLR	MLR		
	comp=E,2μm,17.0s,MS5.1						
ARU				MLR	MLR		
	comp=Z,2μm,17.0s,MS5.2						
ARU	Arti	53.69	319	eP	P	17 36 23.0	-1.5
	comp=Z,22nm,1.0s,mb5.0						
ARU				LR	LR		
	comp=Z,392nm,19.0s,MS4.5						
CTA	Charters Tower	54.08	160	eP	P	17 36 27.2	-0.7
	comp=Z,8.4nm,1.0s,mb4.6						
CTA	Charters Tower	54.08	160	eP	P	17 36 27.2	-0.7
CTA				pmax	pmax		
	comp=Z,8.0nm,1.0s						
CTAO	Charters Tower	54.08	160	eP	P	17 36 26.5	-1.4
CTAO				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
CTAO				MLR	MLR		
	comp=Z,374nm,20.0s,MS4.5						
CTAO	Charters Tower	54.08	160	eP	P	17 36 26.5	-1.4
	comp=Z,8.2nm,0.9s,mb4.7						
CTAO				LR	LR		
	comp=Z,374nm,20.0s,MS4.5						
SOKR	Solikamsk	54.43	323	⇓eP	P	17 36 31.4	+1.5
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,680nm,18.0s,MS4.8						
ASAR	Alice Springs	55.30	175	P	P	17 36 35.5	-1.4
	comp=Z,1.3nm,0.8s,mb4.0,baz=357,slow=6.0,SNR=21						
ASAR				LR	LR	18 01 06.2	
	comp=Z,128nm,18.9s,MS4.0,baz=353,slow=37						
ASPA	Alice Springs	55.30	175	eP	P	17 36 36.2	-0.6
IMA	Indian Mountai	56.21	29	eP	P	17 36 42.5	-0.3
IMA				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.4						
IMA	Indian Mountai	56.21	29	eP	P	17 36 42.5	-0.3
	comp=Z,45nm,1.1s,mb5.4						
RSO	Redoubt South	57.12	35	eP	P	17 36 49.1	-0.3
MCK	McKinley	58.45	31	eP	P	17 36 57.0	-1.6
MCK				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.7						
MCK	McKinley	58.45	31	eP	P	17 36 57.0	-1.6
	comp=Z,11nm,1.3s,mb4.7						
COLA	College	58.75	30	eP	P	17 36 59.9	-0.8
COLA				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.9						
COLA				MLR	MLR		
	comp=Z,405nm,22.0s,MS4.5						
COLA	College	58.75	30	eP	P	17 36 59.9	-0.8
	comp=Z,17nm,1.4s,mb4.9						
COLA				LR	LR		
	comp=Z,405nm,22.0s,MS4.5						
ILAR	Eielson Array	59.17	30	P	P	17 37 02.1	-1.5
	comp=Z,1.5nm,0.7s,mb4.1,baz=277,slow=7.5,SNR=16						
ILAR				LR	LR	18 02 48.3	
	comp=Z,276nm,19.8s,MS4.4,baz=45,slow=36						
INK	Inuvik	63.48	24	P	P	17 37 31.1	-1.5
	comp=Z,2.0nm,0.8s,mb4.3,baz=236,slow=3.4,SNR=6.6						
INK				LR	LR	18 04 53.9	
	comp=Z,561nm,19.0s,MS4.8,baz=289,slow=36						
STKA	Stephens Creek	64.37	168	eP	P	17 37 38.1	-0.9
	comp=Z,5.8nm,0.9s,mb4.6						
STKA	Stephens Creek	64.37	168	P	P	17 37 38.5	-0.5
	comp=Z,6.8nm,1.2s,mb4.5,baz=315,slow=8.7,SNR=3.5						
STKA				LR	LR	18 04 09.9	
	comp=Z,218nm,20.6s,MS4.3,baz=266,slow=35						
KEV	Kevo	64.64	338	ep	P	17 37 37.3	-2.8
	comp=Z,5.0nm,0.7s,mb4.7						
KEV	Kevo	64.64	338	eP	P	17 37 37.3	-2.8
KEV				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
ARCES	ARCESS Array B	65.21	338	P	P	17 37 41.3	-2.5
	comp=Z,2.9nm,0.9s,mb4.3,baz=35,slow=14,SNR=2.5						
ARCES				LR	LR	18 10 56.6	
	comp=Z,1μm,18.3s,MS5.1,baz=31,slow=40						
MOS	Moscow	65.26	322	eP	P	17 37 47.2	+2.8
MOS				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.5						
MOS				MLR	MLR		
	comp=Z,1μm,18.2s,MS5.1						
MOS				MLR	MLR		
	comp=E,1μm,17.7s						
JOF	Joensuu	65.67	330	ep	P	17 37 46.5	-0.3
	comp=E,6.3nm,0.7s,mb4.8						
VRSR	Storozhevoye	66.00	316	eP	P	17 37 48.0	-1.1
VRSR				e*PP	pP	17 37 54.0	-2.8
VRSR				e		17 38 17.5	
VRSR				e		17 47 39.6	
VRSR				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,10.0nm,2.2s						
VRSR				MLR	MLR		
	comp=Z,760nm,19.0s,MS4.9						
VRSR				MLR	MLR		
	comp=N,640nm,20.0s,MS4.9						
VRSR				MLR	MLR		
	comp=E,250nm,18.0s,MS4.9						
ZEI	Tsey	66.09	307	i P	P	17 37 46.6	-3.3
ZEI				i *PP	pP	17 37 54.0	-3.6
ZEI				i		17 40 12.4	
ZEI				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.1						
KIV	Kislovodsk	66.47	308	i P	P	17 37 50.3	-2.0
KIV				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.2						
KIV				MLR	MLR		
	comp=Z,700nm,15.0s,MS5.0						
KIV	Kislovodsk	66.47	308	eP	P	17 37 52.3	+0.1
	comp=Z,73nm,1.3s,mb5.5						
GNI	Garni	66.49	304	i P	P	17 37 50.8	-1.6
GNI				pmax	pmax		
	comp=Z,21nm,1.5s						
GNI				MLR	MLR		
	comp=Z,400nm,15.0s						
GNI	Garni	66.49	304	eP	P	17 37 52.6	+0.2
	comp=Z,41nm,1.3s,mb5.3						
GNI				LR	LR		
	comp=Z,498nm,20.0s,MS4.7						
KAF	Kangasniemi	68.12	330	ep	P	17 37 59.8	-2.6
	comp=Z,4.3nm,1.0s,mb4.4						
KAF	Kangasniemi	68.12	330	eP	P	17 37 59.8	-2.6
KAF				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
FINES	FINESS Array B	68.52	330	P	P	17 38 03.0	-1.8
	comp=Z,1.4nm,0.6s,mb4.0,baz=75,slow=6.5,SNR=12						
FINES				LR	LR	18 10 58.1	
	comp=Z,812nm,18.5s,MS5.0,baz=215,slow=38						
SOC	Sochi	68.59	309	eP	P	17 37 56.8	-8.9
SOC				e		17 38 33.8	
SOC				eS	S	17 46 59.1	-6.0
SOC				e		17 48 08.4	
SOC				eSSS	SSS	17 54 29.2	-3.2
SOC				pmax	pmax		
	comp=Z,87nm,1.0s,mb5.6						
SOC				pmax	pmax		
	comp=N,131nm,1.6s						
SOC				pmax	pmax		
	comp=E,164nm,1.6s						
SOC				MLR	MLR		
	comp=Z,705nm,14.0s,MS5.0						
SOC				MLR	MLR		
	comp=N,655nm,20.0s						
SOC				MLR	MLR		
	comp=E,344nm,14.0s						
DLBC	Dease Lake	68.76	34	LR	LR	18 13 30.9	
	comp=E,282nm,18.1s,MS4.5,baz=92,slow=41						
VSU	Vasula	69.59	327	i P	P	17 38 11.5	0.0
SIM	Simferopol’	71.65	312	P	P	17 38 32.5	+8.3
SIM				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
SIM				MLR	MLR		
	comp=Z,600nm,19.0s,MS4.9						
MALT	Malatya	71.71	304	P	P	17 38 25.3	+0.6
MALT				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
MALT	Malatya	71.71	304	P	P	17 38 25.2	+0.5
	comp=Z,7.7nm,0.9s,mb4.6						
AKASG	Malin Array Be	71.94	319	P	P	17 38 24.4	-1.4
	comp=Z,18nm,1.1s,mb4.9,baz=52,slow=5.7,SNR=7.9						
AKASG	Malin Array Be	71.94	319	P	P	17 38 24.4	-1.4
AKASG				pmax	pmax		
	comp=Z,18nm,1.1s						
YKA	Yellowknife Ar	73.15	26	P	P	17 38 31.5	-1.2
	comp=Z,6.8nm,1.3s,mb4.4,baz=308,slow=5.9,SNR=19						
YKA				LR	LR	18 14 55.5	
	comp=Z,330nm,19.3s,MS4.6,baz=325,slow=39						
SUW	Suwalki	73.51	324	eP	P	17 38 34.9	-0.1
SUW				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
SUW	Suwalki	73.51	324	eP	P	17 38 34.9	-0.1
	comp=Z,32nm,1.0s,mb5.2						
SUW	Suwalki	73.51	324	eP	P	17 38 40.2	+5.2
BRTR	Keskin Array B	74.38	307	P	P	17 38 41.0	+0.7
	comp=Z,9.8nm,1.1s,mb4.7,baz=90,slow=4.9,SNR=10						
NB2	NORSAR Subarra	74.76	334	P	P	17 38 41.8	-0.2
	comp=Z,28nm,1.7s,mb4.9,baz=51,slow=5.8						
NB2	NORSAR Subarra	74.76	334	P	P	17 38 41.8	-0.2
	baz=51,slow=5.9						
NOA	NORSAR Array B	74.76	334	P	P	17 38 42.1	0.0
	comp=Z,0.7nm,0.8s,mb3.7,baz=58,slow=5.3,SNR=5.1						
NOA				LR	LR	18 16 03.2	
	comp=Z,360nm,18.2s,MS4.7,baz=350,slow=39						
KWP	Kalwaria	76.09	320	eP	P	17 38 50.1	+0.2
KWP				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
KWP	Kalwaria	76.09	320	eP	P	17 38 50.1	+0.2
	comp=Z,32nm,1.2s,mb5.1						
KWP	Kalwaria	76.09	320	eP	P	17 38 56.2	+6.3
KONO	Kongsberg	76.27	333	P	P	17 38 51.0	+0.3
KOLS	Kolonicke sedl	76.71	320	eP	P	17 38 58.9	+5.5
CRVS	Cervenica-Dubn	77.17	320	eP	P	17 39 02.2	+6.3
OJC	Ojcow	77.33	322	eP	P	17 39 02.7	+5.9
NIE	Niedzica	77.51	321	eP	P	17 39 04.7	+6.9
OKC	Ostrava-Krasne	78.42	322	eP	P	17 39 09.2	+6.4
OKC				AMS	AMS	18 16 20.0	
	comp=Z,1μm,19.9s						
PSZ	Piszkesteto	78.59	320	eP	P	17 39 03.9	+0.2
PSZ				pmax	pmax		
	comp=Z,21nm,1.5s,mb4.8						
PSZ	Piszkesteto	78.59	320	eP	P	17 39 03.9	+0.2
	comp=Z,21nm,1.5s,mb4.8						
MORC	Moravsky Berou	78.77	322	eP	P	17 39 04.4	-0.3
MORC				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
MORC	Moravsky Berou	78.77	322	eP	P	17 39 04.4	-0.3
	comp=Z,13nm,1.2s,mb4.7						
KSP	Ksiaz	78.78	323	eP	P	17 39 10.1	+5.4
KSP				MLR	MLR		
	comp=Z,2μm,18.1s,MS5.4						
KSP	Ksiaz	78.78	323	eP	P	17 39 09.7	+5.0
VYHS	Vyhne	78.84	321	i P	P	17 39 11.7	+6.6
VYHS				epP	pP	17 39 16.1	+3.1
VYHS				esP	sP	17 39 18.7	+3.1
DPC	Dobruska-Polom	79.06	323	eP	P	17 39 09.6	+3.3
DPC				epP	pP	17 39 13.5	-0.6
DPC				AMS	AMS	18 16 50.0	
	comp=Z,2μm,15.5s						
UPC	Upice	79.13	323	eP	P	17 39 13.4	+6.8
SMOL	Smolenice	79.58	321	eP	P	17 39 13.0	+3.9
SMOL				e		17 39 16.3	
PVCC	Panska Ves	79.84	324	eP	P	17 39 17.7	+7.2
PVCC				AMS	AMS	18 18 30.0	
	comp=Z,1μm,14.6s						
BRG	Berggiesshubel	79.94	324	eP	P	17 39 12.0	+1.0
BRG				i		17 39 17.8	
BRG				MLR	MLR		
	comp=Z,2μm,18.3s,MS5.4						
ZST	Bratislava	79.95	321	eP	P	17 39 16.2	+5.1
CLL	Collm	80.13	325	eP	P	17 39 12.0	0.0
CLL				i		17 39 17.8	
CLL				MLR	MLR		
	comp=Z,2μm,18.3s,MS5.4						
CLL	Collm	80.13	325	P	P	17 39 12.0	0.0
CLL				i *SP	sP	17 39 17.8	-4.7
PRU	Pruhonice	80.19	323	eP	P	17 39 16.9	+4.5
PRU				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
PRU				MLR	MLR		
	comp=Z,900nm,12.0s,MS5.3						
PRU	Pruhonice	80.19	323	eP	P	17 39 16.9	+4.5
	comp=Z,13nm,1.2s,mb4.8						
PRU				AMS	AMS	18 17 00.0	
	comp=Z,900nm,12.0s						
NEW	Newport	80.69	38	P	P	17 39 14.9	-0.2
BORG	Borgarnes	81.08	348	LR	LR	18 15 15.2	
	comp=Z,452nm,20.7s,MS4.8,baz=338,slow=36						
NKC	Novy Kostel	81.08	325	eP	P	17 39 16.8	-0.3
NKC				epP	pP	17 39 22.8	-2.2
NKC				AMS	AMS	18 18 20.0	
	comp=Z,1μm,18.7s						
KHC	Kasperske Hory	81.22	323	eP	P	17 39 19.0	+1.2
KHC				epP	pP	17 39 24.5	-1.2
KHC				AMS	AMS	18 18 20.0	
	comp=Z,1μm,18.7s						
MOX	Moxa	81.23	325	eP	P	17 39 20.0	+2.2
MOX				L		18 19 35.0	
GERES	GERESS Array B	81.33	323	P	P	17 39 18.2	-0.2
	comp=Z,0.5nm,0.8s,baz=63,slow=3.0,SNR=4.8						
MOA	Molln	81.67	322	⇑iP	P	17 39 21.0	+0.9
	comp=Z,12nm,1.3s,mb4.7						
GRA1	Grafenberg Arr	82.04	325	eP	P	17 39 25.0	+3.0
	comp=Z,11nm,1.2s,mb4.7						
GRA1				LR	LR		
	comp=Z,1μm,18.0s,MS5.3						
GRF	Grafenberg Arr	82.04	325	eP	P	17 39 25.0	+3.0
GRF				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
GRF				MLR	MLR		
	comp=Z,1μm,18.0s,MS5.3						
GRF	Grafenberg Arr	82.04	325	eP	P	17 39 25.0	+3.0
GRF				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
GRF				MLR	MLR		
	comp=Z,1μm,18.0s,MS5.3						
GRF	Grafenberg Arr	82.04	325	eP	P	17 39 25.0	+3.0
	comp=Z,11nm,1.2s,mb4.7						
GRF				LR	LR		
	comp=Z,1μm,18.0s,MS5.3						
BMO	Blue Mountains	82.69	41	eP	P	17 39 24.8	-0.7
	comp=Z,8.8nm,1.4s,mb4.6						
WTTA	Wattenberg	83.41	323	⇑iP	P	17 39 34.8	+5.6
	comp=Z,13nm,1.1s,mb4.9						
CTI	Castel Tesino	84.20	322	eP	P	17 39 38.7	+5.5
DAVA	Damuels	84.30	323	⇑iP	P	17 39 34.4	+0.8
	comp=Z,21nm,1.2s,mb5.2						
WLF	Walferdange	84.49	327	eP	P	17 39 37.1	+2.6
WLF				pmax	pmax		
	comp=Z,65nm,1.8s,mb5.5						
WLF	Walferdange	84.49	327	eP	P	17 39 37.1	+2.6
	comp=Z,65nm,1.8s,mb5.5						
CMB	Columbia Colle	84.98	48	eP	P	17 39 37.6	+0.3
CMB				MLR	MLR		
	comp=Z,263nm,20.0s,MS4.6						
ARV	Arcevia	85.14	319	eP	P	17 39 41.7	+3.7
PGD	Poggio Sodo	85.58	320	eP	P	17 39 42.1	+2.0
AQU	L’Aquila	85.62	318	eP	P	17 39 41.6	+1.2
AQU				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.3						
AQU	L’Aquila	85.62	318	eP	P	17 39 41.6	+1.2
	comp=Z,23nm,1.1s,mb5.3						
NVAR	Mina Array Bea	86.05	47	P	P	17 39 43.1	+0.5
	comp=Z,1.0nm,0.8s,mb4.1,baz=294,slow=4.4,SNR=6.9						
TPH	Tonopah	86.94	46	eP	P	17 39 47.4	+0.4
TPH				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.7						
TPH	Tonopah	86.94	46	eP	P	17 39 47.4	+0.5
	comp=Z,1.9nm,0.4s,mb4.7						
TPNV	Topopah Spring	88.24	47	P	P	17 39 54.1	+0.8
TPNV				MLR	MLR		
	comp=Z,292nm,20.0s,MS4.7						
BW06	Boulder Array	88.30	39	P	P	17 39 53.2	-0.2
	comp=Z,6.2nm,1.3s,mb4.7						
PDAR	Pinedale Array	88.30	39	P	P	17 39 53.6	+0.3
	comp=Z,2.1nm,1.0s,mb4.3,SNR=7.3						
ULM	Lac du Bonnet	89.09	27	P	P	17 39 56.8	-0.2
	comp=Z,13nm,1.3s,mb5.1,baz=234,slow=3.3,SNR=4.3						
MSU	Marysvale	89.69	44	eP	P	17 40 02.2	+2.1
PV10	Paradox Valley	91.60	42	eP	P	17 40 10.4	+1.5
PV01	Paradox Valley	92.03	42	eP	P	17 40 11.7	+0.7
SCHQ	Schefferville	92.64	9	LR	LR	18 24 08.1	
	comp=Z,367nm,19.2s,MS4.8,baz=170,slow=37						
SDCO	Great Sand Dun	94.03	40	PFAKE		17 40 30.0	+10
SDCO				LR	LR		
	comp=Z,641nm,19.0s,MS5.1						
SDV	Santo Domingo	135.32	29	ePKP	PKPdf	17 46 22.4	-3.6

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*THR **13** 17:45:20.4±0.7, 36.55N×44.57E, h15km, ML2.8*
*ISK **13** 17:45:23.0, 36.49N×44.71E, h19km, MD3.6, ML3.5*
*CSEM **13** 17:45:23.0, 36.49N×44.71E, h19km, MD3.6, After ISK*
ISC 13 17:45:23.1±2.9, **36.6N**±0.1×**44.9E**±0.1, **h9**km±24km, **n9**, σ**0.58**/11, **Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HKR	Hakkari	1.30	317	i PN	Pn	17 45 47.0	-0.5
HKR				i SN	Sn	17 46 04.8	-0.3
VANT	Van	2.15	328	ePN	Pn	17 45 59.4	-0.3
VANB	Van	2.28	330	PN	Pn	17 46 02.0	+0.5
VANB				SN	Sn	17 46 30.3	+0.3
SNGE	Sanandaj	2.54	126	ePN	Pn	17 46 05.6	+0.4
SNGE				AMP		17 46 48.5	
	comp=N,53nm,0.8s						
MAKU	Maku	2.73	357	ePN	Pn	17 46 06.8	-1.0
BTMT	Batman	3.10	301	ePN	Pn	17 46 13.7	+0.5
GRMI	Germi	3.25	47	ePN	Pn	17 46 16.2	+0.9
GRMI				AMP		17 47 01.7	
	comp=N,16nm,0.6s						
VRT	Varto	3.63	315	ePN	Pn	17 46 21.1	+0.4
ASAO	Ashtian	4.70	115	ePN	Pn	17 46 35.1	-0.8

*ROM **13** 17:46:41.7±0.2, 44.19N×10.13E, h10^{km}±5^{km}, MD2.5/5, ML1.9/5, Error ellipse: s-maj=1.5km s-min=1.0km az=90.0*
*NEIC **13** 17:46:42.3, 44.21N×10.13E, h7^{km}, MD2.5(ROM), ML2.3(GEN), ML2.3(LDG), After GEN.*
*LDG **13** 17:46:43.8±0.3, 44.20N×10.07E, h10^{km}, Md2.4/3, Ml2.3/10, Error ellipse: s-maj=5.6km s-min=3.1km az=90.0*
ISC 13 17:46:41.1±0.3, **44.19N**±0.03×**10.07E**±0.03, **h15**^{km}±4^{km}, **n37**, σ**0^{s}95**/62, **2C, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VINC	Vinca	0.08	130	P	Pb	17 46 44.3	-0.1
VINC				S	Sb	17 46 45.8	-0.8
BACM		0.08	4	P	Pb	17 46 44.3	-0.1
BACM				S	Sb	17 46 45.9	-0.7
VALM		0.20	40	P	Pb	17 46 45.8	-0.2
VALM				S	Sb	17 46 48.4	-0.9
VLC	Villacollemand	0.23	99	ePg	Pb	17 46 46.2	-0.4
VLC				eSg	Sb	17 46 48.9	-1.3
SARO	Sassorosso	0.24	92	P	Pb	17 46 46.4	-0.3
SARO				S	Sb	17 46 49.3	-1.1
CODM		0.25	322	P	Pb	17 46 47.7	+0.9
CODM				S	Sb	17 46 51.5	+0.9
GRAM		0.30	0	P	Pb	17 46 48.1	+0.5
GRAM				S	Sb	17 46 52.1	+0.2
ERBM	Eremo	0.34	48	ePG	Pb	17 46 48.5	+0.2
ERBM				SG	Sb	17 46 53.2	+0.1
	280nm,0.3s						
ERBM	Eremo	0.34	48	ePg	Pb	17 46 48.5	+0.2
ERBM				eSg	Sb	17 46 53.2	0.0
BDI	Bagni Di Lucca	0.41	109	ePG	Pb	17 46 49.3	-0.1
BDI				SG	Sb	17 46 54.7	-0.4
	94nm,0.2s						
BDI	Bagni Di Lucca	0.41	109	ePg	Pb	17 46 49.3	-0.1
BDI				eSg	Sb	17 46 54.7	-0.4
GSCL	Gusciola	0.41	67	ePG	Pb	17 46 49.5	0.0
GSCL				SG	Sb	17 46 55.2	+0.1
	139nm,0.2s						
GSCL	Gusciola	0.41	67	ePg	Pb	17 46 49.5	+0.1
GSCL				eSg	Sb	17 46 55.2	0.0
PII	Pisa	0.58	145	⇑iPG	Pb	17 46 53.0	+0.6
PII				SG	Sb	17 47 00.9	+0.8
	259nm,0.2s						
PII	Pisa	0.58	145	⇑iPg	Pb	17 46 53.0	+0.6
PII				eSg	Sb	17 47 00.9	+0.8
ZCCA	Zocca	0.67	76	ePG	Pb	17 46 55.7	+1.7
	27nm,0.4s						
ZCCA	Zocca	0.67	76	ePg	Pb	17 46 55.7	+1.7
BOB	Bobbio (Coli)	0.72	323	ePG	Pb	17 46 56.6	+1.7
	22nm,0.2s						
BOB	Bobbio (Coli)	0.72	323	ePg	Pb	17 46 56.6	+1.7
FNVD	Fontana Vidola	0.76	92	ePG	Pb	17 46 56.1	+0.6
FNVD	Fontana Vidola	0.76	92	ePg	Pb	17 46 56.1	+0.6
FIN	Finale Ligure	1.33	271	ePN	Pn	17 47 06.9	+1.6
	15nm,0.3s						
FIN	Finale Ligure	1.33	271	ePn	Pn	17 47 06.9	+1.6
PGF	Pioggiola	1.82	206	ePn	Pn	17 47 13.2	+1.0
PGF				eSn	Sn	17 47 34.8	-0.3
	11nm,0.3s						
SBF	Sospel	1.93	261	ePn	Pn	17 47 15.0	+1.2
SBF				eSn	Sn	17 47 37.6	-0.2
	18nm,0.4s						
MBDF	Montbardon	2.42	284	ePn	Pn	17 47 22.3	+1.5
MBDF				eSn	Sn	17 47 49.5	-0.8
	4.5nm,0.5s						
FRF	La Foret Royal	2.55	257	ePn	Pn	17 47 23.6	+0.9
FRF				eSn	Sn	17 47 52.7	-1.0
	4.2nm,0.2s						
LPG	La Plagne	2.69	300	ePn	Pn	17 47 26.2	+1.5
LPG				eSn	Sn	17 47 55.8	-1.5
	0.9nm,0.3s						
LPL	La Plagne	2.71	300	ePn	Pn	17 47 26.4	+1.4
LPL				eSn	Sn	17 47 55.9	-1.9
	1.5nm,0.5s						
LMR	La Mourre	2.72	253	ePn	Pn	17 47 25.5	+0.4
LMR				eSn	Sn	17 47 56.4	-1.5
	2.8nm,0.3s						
SMRF	Simiane la Rot	3.24	268	ePn	Pn	17 47 33.2	+0.7
SMRF				eSn	Sn	17 48 09.2	-2.0
	0.3nm,0.2s						
CABF	La Chapelle	3.70	312	ePn	Pn	17 47 39.4	+0.4
VIVF	Saint-Julien-l	3.91	282	ePn	Pn	17 47 42.3	+0.2
HINF	Hinteralfeld	4.26	329	ePn	Pn	17 47 46.2	-0.8
HINF				eSn	Sn	17 48 32.7	-4.2
	1.8nm,0.3s						
LASF	Ste Croix	4.47	271	ePn	Pn	17 47 49.8	-0.2
HAU	Haudompre	4.61	327	ePn	Pn	17 47 50.7	-1.2
HAU				eSn	Sn	17 48 41.1	-4.6
	2.2nm,0.2s						
MTLF	Montolieu	5.75	264	ePn	Pn	17 48 06.9	-1.1

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*NIED **13** 17:50:00, 31.80N×129.20E, h5^{km}, Mw4.0 Best double couple: $M_0$1.04×10^{15} NP1:ϕ_s96°, δ64°, λ-32°. NP2:ϕ_s202°, δ61°, λ-150°.*
JMA 13 17:50:37.2±0.1, **31.77N**×**129.20E, h12**^{km}±3^{km}, **Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	Shimokoshiki	0.45	102	P	Pg	17 50 45.9	-0.5
JSJ				S	Sg	17 50 52.1	-0.5
JFU	Fukue jima 2	0.96	337	P	Pb	17 50 55.1	-0.2
NGSJ	Nagasakinomoza	1.00	30	P	Pb	17 50 55.8	-0.2
JHD	Hondo	1.05	49	P	Pb	17 50 56.9	0.0
JZO	Okuchi	1.25	72	P	Pb	17 51 00.4	+0.2

JMA 13 17:50:43.9±0.1, **31.78N**×**129.15E, h15**^{km}±2^{km}, **M4.1, 2C-5D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	Shimokoshiki	0.49	102	⇑P	Pb	17 50 53.5	-0.2
JSJ				S	Sb	17 50 59.7	-0.7
JFU	Fukue jima 2	0.94	339	⇑P	Pb	17 51 01.6	+0.3
JFU				S	Sb	17 51 15.0	+1.7
NGSJ	Nagasakinomoza	1.01	33	⇓P	Pb	17 51 02.5	-0.1
NGSJ				S	Sb	17 51 17.0	+1.5
JHD	Hondo	1.08	51	⇓P	Pb	17 51 03.7	-0.1
JHD				S	Sb	17 51 19.1	+1.6
JSU	Suzuyama	1.15	103	⇓P	Pb	17 51 04.8	-0.1
JSU				S	Sb	17 51 20.8	+1.4
JZO	Okuchi	1.28	73	P	Pb	17 51 06.6	-0.6
JZO				S	Sb	17 51 25.3	+2.0
JIU2	Izumi 2	1.60	61	⇓P	Pn	17 51 11.2	-0.8
JTZ	Takazaki	1.65	85	⇓P	Pn	17 51 12.0	-0.7
JTN	Tanegashima 3	1.93	125	P	Pn	17 51 15.7	-0.9

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*NEIC **13** 18:04:36.7, 62.10N×148.16W, h36^{km}, ML3.3(AEIC), ML3.3(PMR), After AEIC.*
*IDC **13** 18:04:42.1±1.6, 62.68N×147.51W, mb3.6/2, mb1 3.6/5, mb1mx3.5/20, ML3.2/3, Error ellipse: s-maj=22.2km s-min=18.6km az=127.0*
ISC 13 18:04:35.4±0.3, **62.14N**±0.02×**148.14W**±0.06, **h36**^{km}, **n56**, σ**0^{s}75**/57, **Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SML	Sawmill	0.34	195	P	P	18 04 44.4	+0.5
SML				S	S	18 04 51.1	+1.2
SCM	Sheep Creek Mo	0.49	128	P	P	18 04 45.8	-0.1
GHO	Glory Hole Cre	0.52	225	P	P	18 04 46.4	+0.1
PMR	Palmer	0.72	221	eP	P	18 04 48.4	-0.8
KNK	Knik Glacier	0.74	192	P	P	18 04 49.5	0.0
PWA	Palmer West	0.96	240	P	P	18 04 53.1	+0.6
CUT	Chulitna	1.03	286	P	P	18 04 54.1	+0.6
TZL	Tazlina	1.28	93	P	P	18 04 57.9	+0.8
RC01	Rabbit Creek A	1.30	217	P	P	18 04 57.9	+0.5
RND	Reindeer	1.31	346	P	P	18 04 58.1	+0.4
JPK	Jack Peak	1.32	145	P	P	18 04 57.0	-0.7
VLZ	Valdez	1.33	139	P	P	18 04 56.7	-1.2
GLI	Glacier Island	1.36	158	P	P	18 04 58.2	-0.2
FIB	Fire Island	1.38	226	eP	P	18 04 59.8	+1.2
PAX	Paxson	1.49	55	P	P	18 05 00.6	+0.4
DIV	Divide	1.52	131	P	P	18 04 59.5	-1.0
DIV				S	S	18 05 20.0	+0.6
MCK	McKinley	1.64	348	P	P	18 05 03.2	+0.9
TRF	Thorofare Moun	1.64	324	P	P	18 05 02.9	+0.5
THY	Trims Highway	1.69	40	P	P	18 05 04.5	+1.6
KTH	Kantishna Hill	1.91	319	P	P	18 05 06.7	+0.6
SLKM	Skilak Lake	1.92	212	eP	P	18 05 06.4	+0.1
HIN	Hinchinbrook I	1.92	155	P	P	18 05 06.6	+0.3
EYAK	Cordova Ski Ar	1.97	143	P	P	18 05 07.2	+0.2
CVA	Cordova	1.97	143	P	P	18 05 07.4	+0.4
SPU	Mount Spurr	2.10	244	eP	P	18 05 09.2	+0.3
LTI	Latouche	2.11	176	P	P	18 05 09.1	0.0
BWN	Browne	2.13	344	P	P	18 05 09.6	+0.4
GLB	Gilahina Butte	2.17	107	P	P	18 05 10.1	+0.2
HDA	Harding Lake	2.34	13	P	P	18 05 13.4	+1.1
NEA	Nenana	2.48	351	P	P	18 05 14.2	-0.2
CCB	Clear Creek Bu	2.52	3	P	P	18 05 14.7	-0.2
IL1	Eielson Array	2.70	12	P	P	18 05 17.6	+0.1
ILAR	Eielson Array	2.70	12	Pn	P	18 05 17.5	0.0
	12nm,0.3s,baz=194,slow=14,SNR=643						
ILAR				Lg		18 05 49.0	
	22nm,0.3s,baz=191,slow=16,SNR=14						
BRLK	Bradley Lake	2.73	211	P	P	18 05 17.9	-0.1
COLA	College	2.75	3	P	P	18 05 17.9	-0.3
RDN	Redoubt North	2.76	236	P	P	18 05 18.6	+0.3
RSO	Redoubt South	2.79	235	eP	P	18 05 19.2	+0.5
NCT	North Crescent	2.80	238	P	P	18 05 19.0	+0.2
BALM	Baldy	2.98	109	P	P	18 05 20.6	-0.9
CNPM	China Poot	3.03	211	P	P	18 05 22.0	-0.2
BCA3	Beaver Creek A	3.08	70	P	P	18 05 22.8	-0.1
ILIM	Iliamna	3.12	231	P	P	18 05 23.5	+0.1
MLY	Manley	3.13	339	P	P	18 05 23.3	-0.2
INE	Iliamna NE	3.17	231	P	P	18 05 23.0	-1.2
TT01	Tatalina	3.73	285	P	P	18 05 31.6	-0.6
DAWY	Dawson	4.42	60	eP	P	18 05 40.9	-1.0
IM3	Indian Mountai	4.58	330	P	P	18 05 43.4	-0.7
IMA	Indian Mountai	4.63	331	eP	P	18 05 44.0	-0.9
KAHC	Katmai Hardscr	4.88	227	P	P	18 05 47.0	-1.5
COLD	Coldfoot	5.18	351	P	P	18 05 52.0	-0.7
CAHL	Cahill	5.44	224	P	P	18 05 54.9	-1.4
BM3	Burnt Mountain	5.51	14	P	P	18 05 56.5	-0.7
INK	Inuvik	8.70	38	Pn	P	18 06 39.8	-2.0
	0.3nm,0.3s,baz=245,slow=21,SNR=9.3						
INK				Sn	S	18 08 14.6	-5.1
	0.5nm,0.3s,baz=196,slow=31,SNR=4.5						
YKA	Yellowknife Ar	15.49	74	Pn	P	18 08 14.3	+1.8
	0.0nm,0.3s,baz=290,slow=15,SNR=2.7						
SONM	Songino Array	55.39	308	P	pP	18 14 17.2	-1.3
	0.6nm,0.8s,baz=34,slow=4.5,SNR=4.2						
CMAR	Chiang Mai Arr	84.02	298	P	pP	18 17 14.2	-0.2
	0.5nm,0.8s,baz=8.0,slow=6.0,SNR=4.5						

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*STR **13** 18:15:03.4±0.1, 42.94N×0.27E, h10^{km}±1^{km}, Ml2.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*LDG **13** 18:15:04.2±0.1, 42.96N×0.26E, h6^{km}, Md2.6/3, Ml2.6/11, Error ellipse: s-maj=1.1km s-min=0.9km az=14.0*
*NEIC **13** 18:15:04.2, 42.96N×0.26E, h6^{km}, ML2.6(LDG), ML2.6(STR), MN2.1(MDD), After LDG.*
*CSEM **13** 18:15:04.2±0.1, 42.96N×0.27E, h5^{km}, ML2.7/10, Error ellipse: s-maj=1.0km s-min=0.8km az=159.0*
MDD 13 18:15:04.4±0.2, **42.95N**×**0.26E, h9**^{km}±2^{km}, **mbLg2.0**/20, **1C, Error ellipse: s-maj=1.7km s-min=1.4km az=8.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EPF	Esparros	0.10	35	ePg	Pg	18 15 06.9	-0.1
EPF				eSg	Sg	18 15 08.8	+0.1
	800nm,0.2s						
RESF	Ens	0.15	159	Pg	Pg	18 15 07.7	-0.2
RESF				Sg	Sg	18 15 10.3	+0.1
RESF	Ens	0.15	159	Pg	Pg	18 15 07.8	-0.1
RESF				Lg		18 15 10.3	
LABF	Labassere	0.17	305	Pg	Pg	18 15 07.8	-0.4
LABF				Sg	Sg	18 15 10.7	0.0
LABF	Labassere	0.17	305	Pg	Pg	18 15 07.9	-0.3
LABF				Lg		18 15 10.6	
VIEF	Viey	0.19	249	Pg	Pg	18 15 08.1	-0.4
VIEF				Sg	Sg	18 15 11.0	-0.3
VIEF	Viey	0.19	249	Pg	Pg	18 15 08.1	-0.4
VIEF				Lg		18 15 10.9	
EBIE	Bielsa	0.28	199	⇑Pg	Pg	18 15 09.8	-0.4
	26nm,0.1s,SNR=18						
EBIE				Lg		18 15 13.5	
	28nm,0.0s,SNR=6.6						
EBIE	Bielsa	0.28	199	Pg	Pg	18 15 09.8	-0.4
	26nm,0.1s,SNR=18						
EBIE				Lg		18 15 13.5	
	28nm,0.0s,SNR=6.6						
MELF	Melles	0.37	102	Pg	Pg	18 15 11.2	-0.8
MELF				Sg	Sg	18 15 16.6	-0.5
MELF	Melles	0.37	102	Pg	Pg	18 15 11.3	-0.7
MELF				Lg		18 15 16.6	
REYF	Montagne du Re	0.50	284	Pg	Pg	18 15 13.8	-0.6
REYF				Sg	Sg	18 15 20.8	-0.3
REYF	Montagne du Re	0.50	284	Pg	Pg	18 15 13.4	-1.0
REYF				Lg		18 15 20.6	
ETSF	Etsaut	0.61	265	ePg	Pg	18 15 15.4	-1.2
ETSF				eSg	Sg	18 15 23.3	-1.5
	68nm,0.2s						
MLS	Moulis	0.61	89	Pg	Pg	18 15 15.1	-1.6
MLS				Lg		18 15 23.3	
SALF	Salau	0.71	105	Pg	Pg	18 15 16.9	-1.7
SALF				Sg	Sg	18 15 26.5	-1.6
SALF	Salau	0.71	105	Pg	Pg	18 15 16.9	-1.7
SALF				Lg		18 15 26.3	
ATE	Arette	0.72	281	Pg	Pg	18 15 17.9	-0.9
ATE				Lg		18 15 27.9	
CSOR	Sort	0.86	132	Pg	Pg	18 15 20.6	-1.1
CSOR				Lg		18 15 32.0	
	5.8nm,0.2s						
ORDF	Ordiarp	0.92	287	Lg		18 15 33.7	
LARF	Larrau	0.92	276	Pg	Pg	18 15 21.5	-1.4
LARF				Sg	Sg	18 15 34.1	-1.1
LARF	Larrau	0.92	276	Pg	Pg	18 15 21.6	-1.3
LARF				Lg		18 15 33.8	
GRBF	Gourbit	0.94	96	Pg	Pg	18 15 22.4	-0.9
PAND	Andorre	1.04	114	Lg		18 15 37.6	
CORG	Organya	1.06	132	Pg	Pg	18 15 24.5	-1.1
CORG				Lg		18 15 38.9	
	1.8nm,0.1s						
SJPF	Ste Jean	1.10	279	ePg	Pg	18 15 24.5	-2.0
SJPF				eSg	Sg	18 15 39.1	-2.2
	11nm,0.2s						
CAVN	Les Avellanes	1.13	161	Pg	Pg	18 15 25.5	-1.4
CAVN				Lg		18 15 40.6	
	20nm,0.2s						
EALK	Alkurruntz	1.32	282	Pg	Pg	18 15 29.1	-1.8
	1.9nm,0.2s,SNR=16						
EALK				Lg		18 15 47.1	
	4.8nm,0.2s						
ESAC	San Caprasio	1.34	204	Pg	Pg	18 15 30.3	-1.0
	7.9nm,0.1s,SNR=16						
ESAC				Lg		18 15 47.5	
	31nm,0.2s,SNR=14						
ESAC	San Caprasio	1.34	204	Pg	Pg	18 15 30.3	-0.9
	7.9nm,0.1s,SNR=16						
CLLI	Llivia	1.34	110	Pg	Pg	18 15 29.7	-1.6
CLLI				Lg		18 15 46.9	
	6.7nm,0.2s						
CARF	Carcanieres	1.38	99	Lg		18 15 48.0	
EMIR	Miracle	1.39	138	Pn	Pn	18 15 30.3	+0.2
	1.6nm,0.1s,SNR=5.6						
EMIR				Lg		18 15 49.9	
	2.3nm,0.1s						
EMIR	Miracle	1.39	138	Pn	Pn	18 15 30.3	+0.2
	1.6nm,0.1s,SNR=5.6						
VALF	Valcebollere	1.40	112	Lg		18 15 49.4	
MTLF	Montolieu	1.48	74	ePg	Pg	18 15 31.4	-2.6
MTLF				eSg	Sg	18 15 50.4	-3.4
	5.8nm,0.2s						
CBRU	Bruguera	1.56	115	Pg	Pg	18 15 34.0	-1.6
CBRU				Lg		18 15 54.9	
	4.3nm,0.2s						
EPOB	Poblet	1.71	159	Pg	Pg	18 15 35.7	-2.8
	1.1nm,0.1s,SNR=9.8						
EPOB				Lg		18 15 58.1	
	16nm,0.2s						
EPOB	Poblet	1.71	159	Pg	Pg	18 15 35.7	-2.8
	1.1nm,0.1s,SNR=9.8						
ERTA	Horta de San J	1.99	178	Pg	Pg	18 15 41.2	-3.0
	1.6nm,0.1s,SNR=7.9						
ERTA				Lg		18 16 07.6	
	5.8nm,0.2s,SNR=8.1						
ERTA	Horta de San J	1.99	178	Pg	Pg	18 15 41.2	-3.0
	1.6nm,0.1s,SNR=7.9						
EJON	La Jonquera	2.00	104	Lg		18 16 08.8	
	3.8nm,0.2s,SNR=7.9						
CFON	Fontmartina	2.00	126	Lg		18 16 07.6	
	15nm,0.3s						
LFF	La Frestale	2.02	10	ePg	Pg	18 15 41.5	-3.2
LFF				eSg	Sg	18 16 08.4	-3.2
	21nm,0.3s						
CAF	Calviac	2.37	33	ePg	Pg	18 15 47.9	-3.7
CAF				eSg	Sg	18 16 18.8	-4.4
	4.2nm,0.2s						
RJF	Les Rejaudoux	2.52	21	ePg	Pg	18 15 50.5	-4.2
RJF				eSg	Sg	18 16 21.9	-6.4
	7.3nm,0.2s						
EMOS	Mosqueruela	2.64	192	Pg	Pg	18 15 52.8	-4.3
	SNR=7.9						
EMOS				Lg		18 16 25.6	
	0.9nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	2.64	192	Pg	Pg	18 15 52.8	-4.4
	SNR=7.9						
ELAN	Lanestosa	2.72	277	Lg		18 16 25.8	
	1.4nm,0.2s,SNR=4.0						
LASF	Ste Croix	2.85	65	ePn	Pn	18 15 48.2	-2.6
LASF				ePg	Pg	18 15 56.9	-4.3
LASF				eSg	Sg	18 16 33.2	-6.0
	2.5nm,0.3s						
LASF	Ste Croix	2.85	65	ePg	Pg	18 15 56.9	-4.3
LASF				eSg	Sg	18 16 33.2	-6.0
	1.2nm,0.3s						
TCF	Toulx Ste Croi	3.62	22	ePg	Pg	18 16 10.9	-5.7
TCF				eSg	Sg	18 16 57.7	-7.1
	2.0nm,0.2s						
MFF	Saint Martin d	3.66	356	ePn	Pn	18 15 59.6	-2.8
MFF				ePg	Pg	18 16 11.4	-6.1
MFF				eSg	Sg	18 16 57.7	-8.7
	3.4nm,0.3s						
MFF	Saint Martin d	3.66	356	ePg	Pg	18 16 11.4	-6.1
MFF				eSg	Sg	18 16 57.7	-8.7
	1.7nm,0.3s						
VIVF	Saint-Julien-l	3.71	58	ePn	Pn	18 16 00.3	-2.8
VIVF				ePg	Pg	18 16 13.0	-5.5
VIVF				eSg	Sg	18 17 01.0	-7.0
	1.0nm,0.2s						
VIVF	Saint-Julien-l	3.71	58	ePg	Pg	18 16 13.0	-5.5
VIVF				eSg	Sg	18 17 01.0	-7.0
	0.5nm,0.2s						
EARI	Arriondas	4.02	277	Pn	Pn	18 16 07.7	+0.2
	SNR=4.0						
EARI				Sn	Sn	18 16 52.0	-3.4
	0.3nm,0.2s,SNR=4.0						
EARI	Arriondas	4.02	277	Pn	Pn	18 16 07.7	+0.2
EARI				Sn	Sn	18 16 52.0	-3.3
BGF	Bois d’Agland	4.05	26	ePg	Pg	18 16 19.7	-5.5
BGF				eSg	Sg	18 17 11.3	-7.9
	7.5nm,0.4s						

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*NNC **13** 18:17:19.2±8.0, 39.62N×77.27E, h117^{km}±98^{km}, mpv4.6, Error ellipse: s-maj=106.3km s-min=54.5km az=29.0*
*BJI **13** 18:17:25.2, 40.43N×77.03E, h23^{km}, mb4.0, ML4.3, Ms3.9, Msz3.5*
*NEIC **13** 18:17:27.2±1.5, 40.30N×77.13E, h45^{km}±13^{km}, mb3.9/2, Error ellipse: s-maj=15.6km s-min=13.2km az=195.0*
*MOS **13** 18:17:28.8±1.9, 40.35N×76.89E, h79^{km}, mb4.0/2, Error ellipse: s-maj=21.5km s-min=9.3km az=107.6*
*IDC **13** 18:17:30.5±6.0, 40.69N×77.07E, h52^{km}±52^{km}, mb3.6/8, mb1 3.9/9, mb1mx3.6/20, ML3.9/1, MS3.6/1, Ms1 3.6/1, ms1mx2.8/29, Error ellipse: s-maj=40.8km s-min=21.4km az=14.0*
ISC 13 18:17:26.8±0.5, **40.16N**±0.03×**77.03E**±0.06, **h61**^{km}±6^{km}, **n62**, σ**1^{s}25**/80, **mb3.9**/10, **3C-5D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	1.03	232	⇓iP	P	18 17 46.6	+0.9
KSH				S	S	18 18 04.9	+5.3
KSH				Smax			
	comp=N,4μm,0.4s						
KSH				Smax			
	comp=E,6μm,0.6s						
ULHL	Ulahol	2.17	344	P	P	18 17 59.7	-1.7
	SNR=501						
KZA	Kyzart	2.34	326	P	P	18 18 03.5	-0.3
	SNR=288						
UCH	Uchtor	2.81	318	P	P	18 18 10.9	+0.4
	SNR=80						
UCH	Uchtor	2.81	318	ePn	P	18 18 09.8	-0.7
UCH				eSn	S	18 18 47.6	+4.4
KBK	Karagaybulak	2.95	329	P	P	18 18 12.5	0.0
	SNR=270						
TKM2	Tokmak 2	2.96	339	P	P	18 18 11.9	-0.7
	SNR=356						
TKM2	Tokmak 2	2.96	339	ePn	P	18 18 11.7	-0.9
TKM2				eSn	S	18 18 51.3	+4.1
AAA	Alma-Ata	3.11	359	i PN	P	18 18 16.3	+1.5
AAA				i S	S	18 18 52.9	+2.0
AAA				pmax	pmax		
	comp=Z,489nm,0.6s						
AAA				smax			
	comp=E,2μm,0.6s						
AAK	Ala-Archa	3.12	323	⇑P	P	18 18 14.5	-0.4
	comp=E,416nm,0.8s						
AAK				⇑S	S	18 18 57.5	+6.3
	comp=E,522nm,0.8s						
AAK	Ala-Archa	3.12	323	P	P	18 18 14.7	-0.2
	SNR=95						
AAK	Ala-Archa	3.12	323	ePn	P	18 18 13.4	-1.5
AAK				eSn	S	18 18 54.7	+3.5
AML	Almayashu	3.20	309	P	P	18 18 16.6	+0.6
	SNR=96						
AML	Almayashu	3.20	309	ePn	P	18 18 16.1	+0.2
AML				Sn	S	18 18 57.4	+4.3
FRU	Bishkek	3.23	327	i PN	P	18 18 16.8	+0.4
FRU				eS	S	18 18 58.0	+4.1
FRU				pmax	pmax		
	comp=Z,378nm,1.5s						
FRU				pmax	pmax		
	comp=E,1μm,1.5s						
CHMS	Chumysh	3.31	330	P	P	18 18 17.2	-0.4
	SNR=247						
EKS2	Erkin-Say	3.50	317	P	P	18 18 20.4	+0.2
	SNR=158						
EKS2	Erkin-Say	3.50	317	ePn	P	18 18 19.9	-0.3
EKS2				eSn	S	18 19 09.3	+8.6
USP	Ospenovka	3.64	329	P	P	18 18 21.3	-0.8
	SNR=37						
MK31	Makanchi Array	7.66	28	⇓P	P	18 19 13.9	-4.1
	comp=E,7.5nm,0.6s,baz=204,slow=14,SNR=72						
THN	Thein Dam	7.78	188	eP	P	18 19 18.7	-1.1
THN				eS	S	18 20 48.6	+1.4
	comp=E,2.1nm,0.4s						
SDNR	Sundarnagar	8.64	180	eP	P	18 19 31.2	-0.3
SDNR				eS	S	18 21 09.8	+1.3
	comp=E,58nm,0.4s						
BHK	Bhakra	8.73	183	eS	S	18 21 08.1	-2.8
WMQ	Urumqi	8.74	62	eP	P	18 19 33.5	+0.5
WMQ				S	S	18 21 11.0	-0.1
WMQ				Smax			
	comp=N,32nm,1.0s						
WMQ				Smax			
	comp=E,31nm,0.9s						
SMLA	Simla	9.01	179	⇓i	P	18 19 48.6	+12
SMLA				i		18 21 25.0	
	comp=E,326nm,0.5s						
DDI	Dehra Dun	9.85	175	eP	P	18 19 44.8	-3.3
DDI				eS	S	18 21 39.0	+0.9
KOLN	Koldanda	13.50	154	eP	P	18 20 32.8	-4.2
	comp=E,13nm,0.3s						
KOLN				eS	S	18 23 00.5	-5.4
BVA0	Borovoye Array	13.65	343	⇓P	P	18 20 34.6	-4.2
	comp=E,1.8nm,0.8s,baz=151,slow=16,SNR=57						
BVAR	Borovoye Array	13.65	343	P	P	18 20 34.6	-4.2
	comp=E,0.6nm,0.3s,baz=150,slow=12,SNR=62						
BVAR				Lg		18 24 21.8	
	comp=E,0.3nm,0.3s,baz=168,slow=21,SNR=5.2						
GKN	Gorkha	13.65	150	eP	P	18 20 34.0	-5.0
	comp=E,26nm,0.3s						
BRVK	Borovoye	13.70	343	eP	P	18 20 35.4	-4.1
BRVK				pmax	pmax		
	comp=Z,13nm,0.8s						
BRVK	Borovoye	13.70	343	ePn	P	18 20 35.4	-4.0
	comp=Z,12nm,0.8s						
KKN	Kakani	14.10	149	eP	P	18 20 40.2	-4.6
	comp=Z,33nm,0.5s						
DMN	Daman	14.19	149	eP	P	18 20 41.6	-4.4
	comp=Z,11nm,0.3s						

DMN				eS	S	18 23 16.8	-5.5
CHKZ	Chkalovo	14.21	344	⇑P	P	18 20 41.9	-4.1
	comp=Z,4.2nm,0.9s						
CHKZ	Chkalovo	14.21	344	eP	P	18 20 42.1	-4.0
CHKZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CHKZ	Chkalovo	14.21	344	ePn	P	18 20 42.0	-4.0
	comp=Z,3.9nm,0.9s						
GUN	Gumba	14.24	146	eP	P	18 20 43.1	-3.5
	comp=Z,28nm,0.4s						
PKI	Pulchoki	14.34	149	eP	P	18 20 43.5	-4.5
	comp=Z,34nm,0.7s						
NVS	Novosibirsk	15.27	14	eP	P	18 20 52.5	-7.3
NVS				pmax	pmax		
	comp=Z,8.0nm,1.1s						
NVS				pmax	pmax		
	comp=N,5.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,1.0nm,0.7s						
GTA	Gaotai	17.52	85	eP	P	18 21 31.0	+2.6
GTA				AP		18 21 36.8	
GTA				LG2		18 26 55.4	
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s						
ARU	Arti	20.29	330	⇓iP	P	18 21 54.8	-4.9
ARU				eS	S	18 25 30.2	-8.6
ARU				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ARU	Arti	20.29	330	eP	P	18 21 57.9	-1.9
	comp=Z,5.5nm,0.8s						
ZAK	Zakamensk	21.01	52	eP	P	18 22 05.8	-1.4
SONM	Songino Array	22.38	60	P	P	18 22 20.8	0.0
	comp=Z,1.2nm,0.8s,mb3.4,baz=263,slow=8.2,SNR=10.0						
HYB	Hyderabad	22.70	176	eP	P	18 22 25.0	+0.9
HYB	Hyderabad	22.70	176	i P	P	18 22 25.0	+0.9
ULN	Ulaanbaatar	22.82	60	eP	P	18 22 26.4	+1.4
ULN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.9						
ULN	Ulaanbaatar	22.82	60	eP	P	18 22 26.4	+1.4
	comp=Z,3.5nm,0.9s,mb3.8						
ANN	Anapa	29.36	292	eP	P	18 23 24.5	-1.5
ANN				e*PP	pP	18 23 50.2	+9.1
ANN				e		18 24 26.1	
ANN				eS	S	18 28 15.5	+1.7
BRTR	Keskin Array B	33.03	284	P	P	18 23 59.0	+0.8
	comp=Z,1.0nm,0.7s,mb3.9,baz=100,slow=8.2,SNR=3.9						
NJ2	Nanjing	34.49	90	eP	P	18 24 17.8	+6.9
NJ2				S	S	18 29 42.0	+8.0
NJ2				LR	LR		
	comp=N,540nm,20.6s						
NJ2				LR	LR		
	comp=E,670nm,22.0s						
NJ2				LR	LR		
	comp=Z,200nm,21.9s						
JOF	Joensuu	35.31	325	ep	P	18 24 11.7	-5.9
	comp=Z,2.6nm,0.6s,mb4.3						
SSE	Sheshan	36.70	90	P	P	18 24 34.8	+5.2
SSE				S	S	18 30 13.4	+5.4
SSE				LR	LR		
	comp=N,34nm,22.7s						
SSE				LR	LR		
	comp=E,20nm,22.8s						
SSE				LR	LR		
	comp=Z,37nm,24.4s						
FINES	FINESS Array B	37.31	322	P	P	18 24 34.1	-0.3
	comp=Z,1.9nm,0.7s,mb4.0,baz=108,slow=12,SNR=8.6						
ARCES	ARCESS Array B	39.73	334	P	P	18 24 54.2	-0.3
	comp=Z,12nm,1.1s,mb4.5,baz=102,slow=9.0,SNR=12						
NB2	NORSAR Subarra	44.44	321	P	P	18 25 32.3	-0.7
	comp=Z,2.0nm,0.7s,mb4.0,baz=88,slow=7.9						
NOA	NORSAR Array B	44.44	321	P	P	18 25 32.5	-0.5
	comp=Z,0.6nm,0.6s,mb3.5,baz=94,slow=7.3,SNR=3.6						
GERES	GERESS Array B	44.81	303	P	P	18 25 36.8	+0.7
	comp=Z,1.3nm,0.6s,mb3.9,baz=61,slow=8.6,SNR=11						
TGY	Tagaytay City	46.27	111	LR	LR	18 48 48.8	
	comp=Z,65nm,19.2s,baz=117,slow=40						
YKA	Yellowknife Ar	77.27	6	P	P	18 29 15.3	-0.2
	comp=Z,1.3nm,0.7s,mb4.0,baz=346,slow=5.5,SNR=25						
ASAR	Alice Springs	82.67	129	P	P	18 29 50.8	+5.6
	comp=Z,0.3nm,0.8s,mb3.4,baz=298,slow=5.3,SNR=4.9						

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*IDC **13** 18:38:42.8±3.3, 42.33N×145.58E, mb3.7/7, mb1 3.8/8, mb1mx3.6/22, ML3.6/1, Error ellipse: s-maj=77.9km s-min=24.5km az=1.0*

*JMA **13** 18:38:51.9±0.1, 42.92N×145.49E, h44^{km}±1^{km}, M3.3*

ISC 13 18:38:51.2±1.2**, 42.92N**±0.09×**145.50E**±0.10**, h50**^{km}±7^{km}**, n14, σ0**^{s}**58**/19**, mb3.6**/7**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.48	21	P	P	18 39 02.4	+0.1
NEM2				eS	S	18 39 09.6	-0.6
JAK	Akkeshi	0.60	278	P	P	18 39 04.0	+0.3
JAK				eS	S	18 39 12.3	-0.6
JNK	Nakash	0.88	319	P	P	18 39 07.8	+0.4
JNK				eS	S	18 39 18.8	-0.7
JRA	Rausu	1.05	345	P	P	18 39 10.5	+0.6
JRA				eS	S	18 39 24.2	+0.4
JOB	Onbets	1.23	270	P	P	18 39 12.4	+0.1
JAR	Ashorobuto	1.32	287	P	P	18 39 14.1	+0.2
ASAJ	Asahikawa	2.43	300	Pn	P	18 39 30.3	+0.9
	5.8nm,0.3s,baz=114,slow=12,SNR=33						
ASAJ				Sn	S	18 40 03.5	+5.5
	6.0nm,0.3s,baz=24,slow=28,SNR=9.0						
SONM	Songino Array	27.70	294	P	P	18 44 36.1	-0.4
	0.7nm,0.6s,mb3.5,baz=82,slow=7.7,SNR=5.2						
ILAR	Eielson Array	42.86	36	P	P	18 46 47.1	+1.4
	0.3nm,0.8s,mb3.1,baz=250,slow=11,SNR=3.6						
INK	Inuvik	47.72	30	P	P	18 47 24.1	-0.2
	0.4nm,0.5s,mb3.8,baz=256,slow=6.3,SNR=6.7						
YKA	Yellowknife Ar	57.16	33	P	P	18 48 33.7	-1.0
	0.1nm,0.3s,mb3.3,baz=288,slow=4.4,SNR=3.7						
FINES	FINESS Array B	65.06	333	P	P	18 49 27.8	-0.2
	1.5nm,0.6s,mb4.2,baz=45,slow=8.1,SNR=10.0						
NOA	NORSAR Array B	69.94	338	P	P	18 49 58.2	-0.3
	2.1nm,1.1s,mb4.0,baz=34,slow=6.4,SNR=3.4						
AKASG	Malin Array Be	71.53	323	P	P	18 50 08.0	-0.3
	0.4nm,0.4s,mb3.7,baz=40,slow=6.2,SNR=7.0						

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*AUST **13** 18:48:30.9, 32.32S×138.48E, h10^{km}, ML3.2*

*IDC **13** 18:48:31.7±6.4, 32.10S×138.83E, mb1 3.5/3, mb1mx3.5/10, ML3.2/3, Error ellipse: s-maj=102.0km s-min=19.7km az=18.0*

ISC 13 18:48:27.1±1.1**, 32.45S**±0.07×**138.5E**±0.1**, h10**^{km}**, n6, σ1**^{s}**27**/11**, Near coast of South Australia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	2.72	79	eP	Pn	18 49 11.4	-0.3
STKA				eS	Sn	18 49 47.0	+1.9
	37nm,0.2s						
STKA	Stephens Creek	2.72	79	Pn	Pn	18 49 11.2	-0.6
	6.9nm,0.3s,baz=283,slow=19,SNR=52						
STKA				Pg	Pg	18 49 15.0	-6.5
	7.5nm,0.3s,baz=256,slow=14,SNR=55						
STKA				Lg		18 49 46.8	
	24nm,0.3s,baz=327,slow=18,SNR=9.4						
ARPS	Mount Arapiles	5.13	148	eP	Pn	18 49 47.2	+1.3
ARPS				eS	Sn	18 50 45.4	-0.5
	12nm,0.2s						
CMSA	Cobar Meteorol	6.21	83	eP	Pn	18 49 59.3	-1.9
ASAR	Alice Springs	9.63	334	Pn	P	18 50 50.0	+1.0
	0.1nm,0.3s,baz=150,slow=13,SNR=7.2						
ASAR				Sn	Sn	18 52 31.5	-6.8
	0.2nm,0.3s,baz=154,slow=22,SNR=4.3						
WRA	Warramunga Arr	12.99	343	Pn	P	18 51 33.8	-0.8
	0.2nm,0.3s,baz=151,slow=13,SNR=3.2						
WRA				Sn	S	18 53 50.8	-9.4
	0.1nm,0.3s,baz=152,slow=21,SNR=5.2						

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*BJI **13** 18:52:04.1, 2.86N×99.24E, h180^{km}, mB4.9, mb4.6*

*IDC **13** 18:52:06.0±0.7, 2.91N×98.76E, h175^{km}±5^{km}, mb3.9/15, mb1 3.9/16, mb1mx3.9/21, Error ellipse: s-maj=24.6km s-min=8.9km az=53.0*

*NEIC **13** 18:52:06.2±0.4, 2.94N×98.85E, mb4.4/13, Error ellipse: s-maj=14.9km s-min=6.5km az=59.0*

ISC 13 18:52:04.5±0.5**, 2.94N**±0.06×**98.85E**±0.09**, h176**^{km}**, h176**^{km}±2.6^{km}**:pP-P, n49, σ0**^{s}**95**/51**, mb4.2**/29**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	4.56	23	P	P	18 53 12.5	-0.9
	370nm,0.9s						
NNT	Nongplab	9.62	5	P	P	18 54 21.0	+0.9
UBT	Ubonrachathani	13.65	26	P	P	18 55 17.5	+5.5
CMAR	Chiang Mai Arr	15.42	0	P	P	18 55 35.3	+1.2
	0.4nm,0.3s,baz=191,slow=11,SNR=21						
NANT	Nan	15.86	6	P	P	18 55 43.0	+3.4
QIZ	Qiongzhong	19.27	33	eP	P	18 56 18.7	+0.8
	18nm,0.8s						
SHL	Shillong	23.47	344	eP	P	18 57 00.5	+1.1
TGY	Tagaytay City	24.46	62	P	P	18 57 11.1	+2.2
	98nm,0.8s,baz=149,slow=8.5,SNR=3.4						
GUN	Gumba	27.74	335	eP	P	18 57 39.2	+0.3
KKN	Kakani	27.90	334	eP	P	18 57 40.4	+0.1
GKN	Gorkha	28.37	333	eP	P	18 57 43.7	-0.8
KOLN	Koldanda	28.66	331	eP	P	18 57 47.3	+0.2
ENH	Enshi	28.99	19	eP	P	18 57 48.0	-2.0
	5.0nm,0.4s,mb4.6						
XAN	Xi’an	32.33	16	P	P	18 58 17.8	-1.5
XAN				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
LZH	Lanzhou	33.30	7	eP	P	18 58 27.5	0.0
LZH				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,142nm,5.4s						
GTA	Gaotai	36.31	1	eP	P	18 58 53.1	+0.2
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.2						
KAKA	Kakadu	36.81	116	eP	P	18 58 54.6	-2.8
	comp=Z,4.0nm,0.6s,mb4.2						
NWAO	Narrogin (SRO)	39.69	155	P	P	18 59 22.4	+1.2
	comp=Z,12nm,1.1s,mb4.4,baz=159,slow=10,SNR=3.7						
BJT	Baijiatuau	40.10	21	eP	P	18 59 25.0	+0.5
	comp=Z,10nm,0.6s,mb4.6						
BJI	Beijing	40.13	21	eP	P	18 59 25.3	+0.6
BJI				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.6						
WRA	Warramunga Arr	41.61	125	P	P	18 59 37.1	0.0
	comp=Z,4.2nm,0.4s,mb4.4,baz=303,slow=9.1,SNR=31						
WRA				pP	pP	19 00 16.7	+1.3
	comp=Z,6.6nm,1.0s,baz=302,slow=9.2,SNR=2.8						
WRA				sP	sP	19 00 34.1	-1.9
	comp=Z,3.2nm,0.6s,baz=302,slow=8.8,SNR=2.4						
WRA				ScP		19 05 04.8	
	comp=Z,2.4nm,0.7s,baz=313,slow=3.5,SNR=11						
WRA				S	S	19 05 34.3	-5.3
	comp=Z,1.2nm,1.0s,baz=291,slow=15,SNR=4.2						
WRAB	Tennant Creek	41.61	125	eP	P	18 59 37.0	-0.1
	comp=Z,8.3nm,0.6s,mb4.5						
WB2	Warramunga Arr	41.62	125	eP	P	18 59 37.5	+0.3
ASPA	Alice Springs	43.18	130	eP	P	18 59 50.3	+0.5
ASAR	Alice Springs	43.18	130	P	P	18 59 49.5	-0.3
	comp=Z,2.0nm,0.5s,mb4.0,baz=300,slow=7.7,SNR=30						
ASAR				sP	sP	19 00 48.0	-0.7
	comp=Z,1.5nm,0.6s,baz=299,slow=7.4,SNR=3.1						
ASAR				ScP		19 05 11.5	
	comp=Z,2.2nm,0.7s,baz=306,slow=3.8,SNR=15						
ASAR				S	S	19 05 57.7	-4.7
	comp=Z,1.1nm,0.9s,baz=297,slow=14,SNR=5.5						
SONM	Songino Array	45.19	7	P	P	19 00 05.4	-0.1
	comp=Z,2.4nm,0.6s,mb4.0,baz=189,slow=9.4,SNR=21						
SONM				pP	pP	19 00 44.8	+0.5
	comp=Z,2.7nm,0.8s,baz=189,slow=10.0,SNR=5.7						
SONM				ScP		19 05 18.7	
	comp=Z,0.9nm,0.7s,baz=180,slow=1.2,SNR=4.9						
ULN	Ulaanbaatar	45.31	8	eP	P	19 00 06.8	+0.4
	comp=Z,3.6nm,0.9s,mb4.0						
HIA	Hailar	49.48	18	eP	P	19 00 37.7	-1.1
	comp=Z,3.0nm,0.5s,mb4.2						
PMG	Port Moresby	49.67	105	P	P	19 00 40.1	-0.6
	comp=Z,6.0nm,0.7s,mb4.4,baz=300,slow=17,SNR=6.4						
CTA	Charters Tower	51.84	118	P	P	19 00 56.9	0.0
	comp=Z,2.7nm,0.8s,mb4.0,baz=286,slow=8.2,SNR=3.8						
CTA	Charters Tower	51.84	118	P	P	19 00 56.9	0.0
CTAO	Charters Tower	51.84	118	P	P	19 00 57.2	+0.2
	comp=Z,2.3nm,0.7s,mb3.9						
ZAL	Zalesovo	52.12	350	P	P	19 00 58.7	+0.1
	comp=Z,3.7nm,0.8s,mb4.1,baz=313,slow=6.4,SNR=22						
ZAL				pP	pP	19 01 38.9	+0.4
	comp=Z,3.5nm,0.5s,baz=291,slow=10,SNR=5.7						
ZAL	Zalesovo	52.12	350	P	P	19 00 58.7	+0.1
ZAL				pP	pP	19 01 38.9	+0.4
STKA	Stephens Creek	53.33	134	⇑iP	P	19 01 08.4	+0.5
	comp=Z,5.5nm,0.6s,mb4.5						
STKA	Stephens Creek	53.33	134	P	P	19 01 07.8	0.0
	comp=Z,6.3nm,0.6s,mb4.5,baz=314,slow=6.4,SNR=24						
BVAR	Borovoye Array	55.18	339	P	P	19 01 19.5	-1.5
	comp=Z,3.3nm,0.6s,mb4.3,baz=140,slow=9.5,SNR=29						
BVAR				pP	pP	19 02 00.5	-0.7
	comp=Z,1.4nm,0.6s,baz=135,slow=10,SNR=3.5						
BRVK	Borovoye	55.24	339	eP	P	19 01 20.8	-0.6
	comp=Z,3.4nm,0.7s,mb4.2						
CHKZ	Chkalovo	55.63	340	eP	P	19 01 23.8	-0.4
	comp=Z,6.2nm,0.7s,mb4.5						
CHKZ				epP	pP	19 02 02.9	-1.7
ARU	Arti	62.25	336	eP	P	19 02 09.1	-0.7
	comp=Z,1.9nm,0.6s,mb4.1						
YAK	Yakutsk	63.30	16	eP	P	19 02 14.9	-1.7
	comp=Z,6.0nm,0.5s,mb4.7						
BRTR	Keskin Array B	69.18	311	P	P	19 02 54.2	+0.2
	comp=Z,1.0nm,0.7s,mb3.7,baz=124,slow=6.7,SNR=4.5						
AKASG	Malin Array Be	74.90	322	P	P	19 03 27.0	-0.7
	comp=Z,0.1nm,0.2s,mb3.0,baz=84,slow=5.3,SNR=6.5						
FINES	FINESS Array B	79.23	332	P	P	19 03 51.4	0.0
	comp=Z,2.5nm,0.8s,mb3.9,baz=100,slow=7.5,SNR=16						
FINES				pP	pP	19 04 32.9	-1.5
	comp=Z,1.6nm,1.0s,baz=112,slow=7.5,SNR=1.5						
FINES	FINESS Array B	79.23	332	P	P	19 03 51.4	0.0
FINES				pP	pP	19 04 32.9	-1.5
ARCES	ARCESS Array B	81.46	340	P	P	19 04 02.9	-0.1
	comp=Z,14nm,1.3s,mb4.4,baz=45,slow=5.1,SNR=9.4						
GERES	GERESS Array B	84.60	319	P	P	19 04 20.9	+1.5
	comp=Z,0.6nm,0.8s,mb3.4,baz=108,slow=8.4,SNR=3.9						
NOA	NORSAR Array B	86.30	331	P	P	19 04 28.5	+1.2
	comp=Z,1.6nm,0.8s,mb3.8,baz=94,slow=5.0,SNR=4.9						
NOA	NORSAR Array B	86.30	331	P	P	19 04 28.5	+1.2

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*NEIC **13** 18:56:33.8, 31.20S×68.33W, h36^{km}, ML3.6(GUC), After GUC.*

GUC 13 18:56:33.8±0.7**, 31.20S×68.33W, h36**^{km}**, ML3.6, 4C-2D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	2.29	270	⇑iP	P	18 57 10.6	+0.7
CMCH				i S	S	18 57 38.5	+1.4
CMCH				AMP		18 57 40.7	
	comp=E,1µm,0.5s						
TLL	Tololo Astrono	2.36	295	⇑iP	P	18 57 12.1	+1.0
TLL				i S	S	18 57 41.2	+2.1
TLL				AMP		18 57 43.4	
	comp=N,477nm,0.4s						
FCH	Farellones	2.69	217	⇑iP	P	18 57 17.5	+1.7
FCH				i S	S	18 57 49.3	+1.8
FCH				AMP		18 57 59.3	
	comp=N,80nm,0.4s						
RCDM	Rinconada Maip	3.10	222	i P	P	18 57 21.7	+0.2
RCDM				i S	S	18 57 58.2	+0.5
RCDM				AMP		18 58 03.2	
	comp=E,128nm,0.2s						
TACH	Talagante	3.29	221	⇑iP	P	18 57 24.0	-0.3
TACH				i S	S	18 58 03.0	+0.2
CHCH	Chadas Angostu	3.36	215	⇓iP	P	18 57 25.1	-0.1
CICH	Cipreses	3.58	209	⇓iP	P	18 57 28.3	+0.1
TRQA	Tornquist	8.61	144	ePn	P	18 58 35.5	-3.4
	comp=E,3.6nm,0.6s						

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*CASC **13** 19:03:41.8±1.8, 13.11N×90.56W, h11^{km}±14^{km}, MD4.4, mb3.8(NEIC)*

*NEIC **13** 19:03:48.0±1.4, 13.21N×90.25W, h54^{km}±14^{km}, mb3.8/3, Error ellipse: s-maj=30.2km s-min=11.1km az=214.0*

*IDC **13** 19:04:00.1±5.4, 14.00N×89.48W, h148^{km}±42^{km}, mb3.3/5, mb1 3.8/7, mb1mx3.4/20, MS3.2/2, Ms1 3.2/2, ms1mx2.3/14, Error ellipse: s-maj=69.9km s-min=25.1km az=43.0*

ISC 13 19:03:44.1±0.8**, 12.99N**±0.05×**90.45W**±0.05**, h37**^{km}±12^{km}**, n41, σ1**^{s}**29**/47**, mb3.8**/5**, MS3.0**/2**, 6C-4D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	San Blas	1.16	44	⇓eP	P	19 04 03.0	-1.1
RTR	El Retiro	1.19	41	⇓eP	P	19 04 03.4	-1.1
RBDL	Robledal	1.33	34	⇑eP	P	19 04 05.8	-0.9
BOQS	Boqueron	1.35	57	⇑eP	P	19 04 06.0	-1.0
BOQS				eS	S	19 04 25.1	+1.2
SNET	Serv Nac Est T	1.37	60	eP	P	19 04 06.0	-1.2
LFRS	El Faro	1.49	65	⇑eP	P	19 04 08.1	-0.7
LFRS				eS	S	19 04 31.8	+4.6
LFU	La Fuente	1.50	60	⇑eP	P	19 04 08.5	-0.5
LBRS	Las Brisas	1.55	61	eP	P	19 04 09.4	-0.4
LCBS	La Ceiba	1.57	65	⇑eP	P	19 04 09.4	-0.7
LCBS				eS	S	19 04 30.9	+1.5
SNVI	San Vicente	1.68	68	eP	P	19 04 12.1	+0.5
MTO2	Montecristo 2	1.75	37	⇓eP	P	19 04 12.0	-0.5
MTO2				eS	S	19 04 35.3	+1.4
VSM	San Miguel	2.16	78	⇓eP	P	19 04 18.7	+0.3
BLLM	Bellamira	2.20	78	eP	P	19 04 19.2	+0.2
CAHU	Cacacuatique	2.31	70	eP	P	19 04 21.1	+0.5
CNCH	Conchagua	2.56	83	eP	P	19 04 24.8	+0.7
CCIG	Comitan	3.66	334	i P	P	19 04 40.3	+0.6
CCIG				i S	S	19 05 24.8	+2.6
VCR	Vista de Mar	5.51	121	eP	P	19 05 04.6	-1.4
CMIG	Matias Romero	5.91	314	i P	P	19 05 10.3	-1.3
CMIG				i S	S	19 06 13.2	-5.8
JTS	JuntasAbangare	6.01	116	ePn	P	19 05 13.4	+0.4
	14nm,0.4s						
PRS1	Puriscal	6.72	116	eP	P	19 05 22.1	-0.8
LAJ	Bijagual	6.94	116	eP	P	19 05 22.0	-4.0
LCR2	La Lucha 2	7.10	116	eP	P	19 05 28.5	+0.3
URSC	Urasca	7.25	115	eP	P	19 05 31.4	+1.1
OXX	Oaxaca	7.30	305	i P	P	19 05 34.0	+3.0
OXX				i S	S	19 06 59.0	+5.5
VHO	Vista Hermosa	7.30	305	eP	P	19 05 32.5	+1.4
VHO				i S	S	19 06 57.0	+3.5
BUS	Buena Vista	7.40	117	⇑eP	P	19 05 33.8	+1.5
TEIG	Tepich	7.49	16	P	P	19 05 32.1	-1.5
	0.9nm,0.3s,baz=110,slow=14,SNR=14						
ACR	Cerro Adams	8.35	120	eP	P	19 05 46.2	+0.6
PPM	Popocatepetl	9.91	309	i P	P	19 06 02.6	-4.7
PPM				i S	S	19 07 46.1	-12
ROSC	El Rosal	17.85	115	P	P	19 07 53.2	+1.8
	3.2nm,0.3s,baz=131,slow=14,SNR=6.9						
SDV	Santo Domingo	19.87	100	eP	P	19 08 12.9	-2.3
	3.9nm,0.8s						
LTX	Lajitas	20.37	325	eP	P	19 08 21.6	+1.2
	9.1nm,1.1s						
TXAR	Lajitas Array	20.37	325	P	P	19 08 21.7	+1.3
	3.5nm,0.8s,baz=150,slow=12,SNR=13						
TXAR				LR	LR	19 18 49.1	
	comp=Z,86nm,19.8s,MS3.1,baz=135,slow=44						
ANMO	Albuquerque	26.23	329	LR	LR	19 20 13.4	
	comp=Z,44nm,20.2s,MS3.0,slow=38						
TUC	Tucson	26.78	319	eP	P	19 09 25.7	+3.0
	2.0nm,0.7s,mb3.8						
PDAR	Pinedale Array	33.97	334	P	P	19 10 25.6	-0.6
	0.5nm,0.9s,mb3.4,baz=120,slow=7.3,SNR=2.4						
NVAR	Mina Array Bea	35.40	321	P	P	19 10 41.1	+2.5
	6.2nm,0.8s,mb4.6,baz=136,slow=8.8,SNR=39						
NVAR				PcP	PcP	19 13 09.3	+1.1
	0.9nm,0.8s,baz=146,slow=3.3,SNR=4.6						
YKA	Yellowknife Ar	52.35	346	P	P	19 12 50.6	-3.8
	0.4nm,0.8s,mb3.4,baz=144,slow=7.4,SNR=8.6						
ILAR	Eielson Array	64.36	337	P	P	19 14 14.8	-3.4
	1.0nm,1.1s,mb3.8,baz=164,slow=4.4,SNR=6.1						
ASAR	Alice Springs	136.74	249	PKP	PKPdf	19 23 06.3	+2.7
	0.3nm,0.8s,baz=45,slow=2.0,SNR=3.1						
CMAR	Chiang Mai Arr	147.41	343	PKPbc	PKPdf	19 23 25.4	+3.0
	1.2nm,0.7s,baz=343,slow=2.6,SNR=11						

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*BJI **13** 19:22:56.3, 8.70S×122.10E, h60^{km}, mB5.2, mb4.9*

*IDC **13** 19:23:00.4±2.9, 8.40S×121.35E, h49^{km}±27^{km}, mb4.2/10, mb1 4.3/12, mb1mx4.2/19, ML4.5/2, MS3.6/6, Ms1 3.5/6, ms1mx3.3/17, Error ellipse: s-maj=33.8km s-min=12.9km az=69.0*

*NEIC **13** 19:23:00.1±0.6, 8.40S×121.39E, h42^{km}±6^{km}, mb4.5/11, Error ellipse: s-maj=7.8km s-min=4.9km az=65.0*

NEIC Felt [III] at Ende and [II] at Maumere.

*DJA **13** 19:23:01.3±0.3, 8.34S×121.18E, h60^{km}±17^{km}, mb4.8/1, ML5.2/4, Error ellipse: s-maj=9.3km s-min=7.2km az=64.0*

ISC 13 19:22:57.0±0.8**, 8.42S**±0.04×**121.47E**±0.05**, h33**^{km}±9^{km}**, n52, σ1**^{s}**08**/53**, mb4.5**/23**, MS3.5**/5**, 9C, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUG	Kupang	2.72	129	⇑ePn	P	19 23 46.5	+7.2
NINI	Niniconang	4.32	337	⇑ePn	P	19 24 04.2	+2.2
	386nm,0.6s						
BUNI	Buntu Taipa	4.86	346	⇑ePn	P	19 24 09.5	-0.3
	368nm,0.2s						
KEDI	Kedomdong	5.30	269	⇑ePn	P	19 24 15.6	-0.3
	252nm,0.5s						
TANI	Tanete Lipujan	5.37	337	⇑ePn	P	19 24 17.7	+0.9
RATI	Rata	5.88	267	⇑ePn	P	19 24 23.1	-0.9
	216nm,0.2s						
KELI	Kelakatan	6.91	271	⇑eP	P	19 24 38.8	+0.3
SRDI	Scrawed	7.25	269	⇑eP	P	19 24 42.8	-0.4
	58nm,0.2s						
KAKA	Kakadu	11.56	113	eP	P	19 25 42.9	+0.1
	25nm,0.4s						
KAKA				eS	S	19 27 52.6	+0.9
MBWA	Marble Bar	12.78	187	ePn	P	19 25 58.3	-0.8
	23nm,0.7s						
MBWA				Sn	S	19 28 10.2	-11
WRA	Warramunga Arr	16.93	134	P	P	19 26 50.7	-2.3
	1.9nm,0.3s,baz=307,slow=14,SNR=38						
WRAB	Tennant Creek	16.93	134	eP	P	19 26 50.5	-2.5
	18nm,0.6s						
WRAB				eS	S	19 29 51.2	-7.7
WB2	Warramunga Arr	16.93	134	eP	P	19 26 50.9	-2.2
WB2				eS	S	19 29 51.8	-7.2
ASPA	Alice Springs	19.28	143	eP	P	19 27 22.8	+1.0
ASPA				eS	S	19 30 51.2	-1.0
ASAR	Alice Springs	19.28	143	P	P	19 27 22.4	+0.5
	2.3nm,0.3s,baz=320,slow=11,SNR=102						
ASAR				ScP		19 35 14.7	
	0.0nm,0.3s,baz=328,slow=1.8,SNR=9.5						
ASAR				LR	LR	19 36 02.8	
	comp=Z,174nm,18.2s,baz=315,slow=40						
TGY	Tagaytay City	22.38	359	P	P	19 27 55.0	+1.0
	79nm,0.5s,mb5.4,baz=135,slow=20,SNR=3.3						
FORT	Forrest	23.08	165	eP	P	19 28 02.3	+1.5
	49nm,0.6s,mb5.1						
KLBR	Kellerberrin	23.32	188	eP	P	19 28 04.4	+1.3
	14nm,0.6s,mb4.6						
MUN	Mundaring	23.95	191	eP	P	19 28 11.2	+2.0
	11nm,0.6s,mb4.5						
NWAO	Narrogin (SRO)	24.70	189	P	P	19 28 15.3	-1.3
	13nm,1.0s,mb4.4,baz=3.6,slow=4.1,SNR=2.8						
NWAO	Narrogin (SRO)	24.70	189	eP	P	19 28 16.5	-0.1
PMG	Port Moresby	25.40	94	LR	LR	19 40 10.3	
	comp=Z,84nm,18.5s,MS3.3,baz=83,slow=40						
CTA	Charters Tower	26.63	118	P	P	19 28 35.8	+1.0
	5.5nm,0.9s,mb4.1,baz=289,slow=6.1,SNR=5.0						
CTA				LR	LR	19 39 00.7	
	comp=Z,61nm,21.8s,MS3.1,baz=51,slow=36						
CTAO	Charters Tower	26.63	118	eP	P	19 28 36.2	+1.4
	5.1nm,0.9s,mb4.0						
STKA	Stephens Creek	29.92	144	⇑iP	P	19 29 05.0	+0.8
	4.1nm,0.6s,mb4.3						
STKA	Stephens Creek	29.92	144	P	P	19 29 04.5	+0.4
	5.4nm,0.7s,mb4.4,baz=322,slow=9.5,SNR=25						
STKA				LR	LR	19 42 35.0	
	comp=Z,106nm,18.5s,MS3.5,baz=24,slow=39						
CMAR	Chiang Mai Arr	34.74	320	P	P	19 29 46.4	-0.1
	1.9nm,0.9s,mb4.0,baz=144,slow=6.5,SNR=12						
ENH	Enshi	40.15	344	eP	P	19 30 31.9	+0.2
	5.5nm,0.9s,mb4.3						
CD2	Chengdu	42.63	337	P	P	19 30 52.6	+0.4
XAN	Xi’an	43.87	345	P	P	19 31 02.0	-0.2
LSA	Lhasa	47.83	324	P	P	19 31 35.4	+1.7
BJI	Beijing	48.46	355	eP	P	19 31 38.0	-0.4
BJI				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.7						
GUN	Gumba	49.89	318	eP	P	19 31 49.4	-0.2
	comp=Z,29nm,0.7s,mb5.4						
PKI	Pulchoki	49.98	317	eP	P	19 31 49.7	-0.6
	comp=Z,13nm,0.7s,mb5.0						
KKN	Kakani	50.21	317	eP	P	19 31 51.9	-0.1
	comp=Z,13nm,0.8s,mb5.0						
DMN	Daman	50.21	317	eP	P	19 31 52.2	+0.1
GKN	Gorkha	50.78	317	eP	P	19 31 56.3	-0.1
KOLN	Koldanda	51.34	316	eP	P	19 32 00.2	-0.4
	comp=Z,9.4nm,0.8s,mb4.8						

ULN	Ulaanbaatar	57.47	349	eP	P	19 32 44.8	-0.4
	comp=Z,9.1nm,1.0s,mb4.8						
SONM	Songino Array	57.58	348	P	P	19 32 45.2	-0.7
	comp=Z,6.5nm,0.8s,mb4.7,baz=164,slow=8.5,SNR=47						
AML	Almayashu	66.58	323	eP	P	19 33 46.4	+0.2
	comp=Z,3.2nm,0.8s,mb4.4						
ZAL	Zalesovo	69.39	338	P	P	19 34 02.2	-1.2
	comp=Z,1.6nm,0.4s,mb4.3,baz=342,slow=2.5,SNR=9.2						
MAW	Mawson	70.62	200	P	P	19 34 11.7	+0.9
	comp=Z,3.5nm,0.8s,mb4.3,baz=64,slow=13,SNR=4.2						
MAW				LR	LR	20 03 18.7	
	comp=Z,48nm,19.2s,MS3.8,baz=244,slow=34						
MAW	Mawson	70.62	200	eP	P	19 34 12.0	+1.2
MAW				LR	LR	20 03 18.7	
VNDA	Vanda	72.19	171	P	P	19 34 21.0	+1.0
	comp=Z,0.9nm,0.5s,mb4.0,baz=316,slow=7.6,SNR=19						
VNDA	Vanda	72.19	171	eP	P	19 34 21.4	+1.4
BVAR	Borovoye Array	74.96	331	P	P	19 34 34.5	-2.1
	comp=Z,0.9nm,0.8s,mb3.8,baz=135,slow=6.3,SNR=4.4						
CHKZ	Chkalovo	75.24	332	eP	P	19 34 36.7	-1.5
	comp=Z,1.4nm,0.6s,mb4.1						
QSPA	South Pole Qui	81.57	180	eP	P	19 35 14.0	+1.6
	comp=Z,5.2nm,0.7s,mb4.6						
QSPA				e		19 35 20.4	
KMBO	Kilima Mbogo	84.11	270	LR	LR	20 07 04.6	
	comp=Z,42nm,20.0s,MS3.8,baz=39,slow=32						
LPAZ	La Paz	153.68	159	PKPab	PKPab	19 43 07.1	-1.4
	comp=Z,1.3nm,0.6s,baz=149,slow=2.5,SNR=7.9						
LPAZ	La Paz	153.68	159	ePKPab	PKPab	19 43 08.3	-0.1

*CSEM **13** 19:27:37.2,26.39N×27.01E,h9^{km},ML3.0,After HLW*

HLW 13 19:27:37.2,26.39N×27.01E,h9^{km},Mb3.0,Egypt

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HFRF	Wahat Farafira	1.39	57	P	Pn	19 28 02.1	-0.7
AWBH		2.56	41	P	Pn	19 28 17.9	-1.6
SWA1		3.08	338	P	Pn	19 28 25.4	-1.6
SWA1				S	Sn	19 29 00.7	-3.7
SWA2		3.16	335	P	Pn	19 28 26.4	-1.7
AKRG	Al Kharijah	3.26	105	P	Pn	19 28 28.1	-1.5
GTR	Jabal at Tayr	3.31	105	P	Pn	19 28 28.5	-1.8

*SFS **13** 19:43:03.1,36.10N×5.81W,ML2.6*

*MDD **13** 19:43:05.4±1.1,36.21N×5.99W,h28^{km}±5^{km},mbLg1.9/4, Error ellipse: s-maj=10.5km s-min=7.3km az=180.0, PRXIMO*

*CSEM **13** 19:43:06.8±0.2,36.37N×5.96W,h20^{km},ML2.6,Error ellipse: s-maj=4.0km s-min=1.9km az=7.0*

ISC 13 19:43:05.0±2.0,**36.2N**±0.2×**6.0W**±0.1,**h31**^{km}±9^{km},**n18, σ1^{s}05**/21,**Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNIL	Conil	0.17	341	Pg	Pb	19 43 10.0	-1.0
CNIL				Lg		19 43 14.9	
CNIL	Conil	0.17	341	i P	Pb	19 43 10.0	-1.0
SFS	San Fernando	0.31	325	Pg	Pb	19 43 13.3	+0.7
SFS	San Fernando	0.31	325	eP	Pb	19 43 13.3	+0.7
SCRT	Cerro San Cris	0.45	340	eP	Pb	19 43 16.0	+1.3
GIBL	Gibalbin	0.62	1	Pg	Pb	19 43 17.4	+0.1
GIBL	Gibalbin	0.62	1	eP	Pb	19 43 17.4	+0.1
ESPR	Espera	0.67	9	Pg	Pb	19 43 16.2	-1.9
	5.0nm,0.2s,SNR=31						
ESPR				Lg		19 43 28.3	
	68nm,0.3s,SNR=4.0						
ESPR	Espera	0.67	9	Pg	Pb	19 43 16.2	-1.9
	5.0nm,0.2s,SNR=31						
LIJA	Lijar	0.84	34	Pg	Pn	19 43 19.9	-0.8
LIJA				Lg		19 43 32.6	
LIJA	Lijar	0.84	34	i P	Pn	19 43 20.0	-0.7
LIJA				eS	Sb	19 43 32.6	+0.7
EMIJ	Mijas	1.04	70	Pg	Pn	19 43 24.6	+1.0
	5.8nm,0.3s,SNR=12						
EMIJ				Lg		19 43 41.8	
	17nm,0.4s,SNR=4.0						
EMIN	Mina Concepcio	1.65	341	Pn	Pn	19 43 31.6	-0.7
	0.4nm,0.1s,SNR=7.9						
EMIN				Pg	Pn	19 43 33.6	+1.3
	0.8nm,0.2s,SNR=11						
EMIN				Lg		19 43 55.4	
	6.0nm,0.4s,SNR=4.0						
EMIN	Mina Concepcio	1.65	341	Pn	Pn	19 43 31.6	-0.7
	0.4nm,0.1s,SNR=7.9						
EMIN	Mina Concepcio	1.65	341	Pg	Pn	19 43 33.7	+1.4
	0.8nm,0.2s,SNR=11						
EADA	Adamuz	2.25	30	Pn	Pn	19 43 39.8	-1.2
	0.3nm,0.2s,SNR=7.9						
EADA				Pg	Pn	19 43 46.0	+5.0
	0.6nm,0.2s,SNR=7.9						
EADA				Lg		19 44 13.5	
	2.4nm,0.3s,SNR=4.0						
EADA	Adamuz	2.25	30	Pn	Pn	19 43 39.8	-1.2
	0.3nm,0.2s,SNR=7.9						
EADA	Adamuz	2.25	30	Pg	Pn	19 43 46.0	+5.0
	0.6nm,0.2s,SNR=7.9						

IDC 13 19:43:26.5±1.2,**20.31S**×**66.34E**,**mb3.9**/6,**mb1 4.1**/6, **mb1mx3.8**/17,**MS3.2**/1,**Ms1 3.4**/1,**ms1mx2.8**/18,**Error ellipse: s-maj=43.4km s-min=25.6km az=62.0,Mauritius - Reunion region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	Mawson	47.34	182	P	P	19 52 01.3	-2.3
	2.4nm,0.7s,baz=355,slow=8.1,SNR=4.2						
CMAR	Chiang Mai Arr	50.06	42	LR	LR	20 10 39.2	
	comp=Z,25nm,20.0s,baz=120,slow=33						
ASAR	Alice Springs	62.22	107	P	P	19 53 51.1	-1.4
	0.8nm,0.7s,baz=268,slow=6.3,SNR=12						
WRA	Warramunga Arr	63.40	103	P	P	19 53 57.7	-2.6
	1.0nm,0.6s,baz=261,slow=6.9,SNR=5.8						
BRTR	Keskin Array B	67.07	333	P	P	19 54 22.1	-1.8
	0.8nm,0.7s,baz=160,slow=7.3,SNR=2.9						
ZAL	Zalesovo	75.63	11	P	P	19 55 13.1	-1.8
	0.5nm,0.3s,baz=354,slow=18,SNR=4.2						
SONM	Songino Array	76.75	26	P	P	19 55 19.3	-2.1
	0.6nm,0.8s,baz=214,slow=4.5,SNR=4.4						

*CASC **13** 19:46:32.0±2.0,10.45N×86.26W,h2^{km}±8^{km},MD4.2, ML5.1,mb4.2(NEIC)*

*NEIC **13** 19:46:37.5±1.2,11.14N×85.52W,h42^{km}±13^{km},mb4.2/11, Error ellipse: s-maj=22.7km s-min=10.5km az=57.0*

*IDC **13** 19:46:50.7±1.1,11.56N×85.32W,h158^{km}±12^{km},mb3.7/11, mb1 3.9/12,mb1mx3.6/21,MS3.7/3,Ms1 3.7/3, ms1mx2.9/19,Error ellipse: s-maj=37.0km s-min=12.4km az=60.0*

ISC 13 19:46:29.7±1.2,**10.28N**±0.04×**86.45W**±0.04,**h9**^{km}±8^{km}, **n63,σ0^{s}88**/67,**mb4.2**/23,**MS3.7**/3,**3C-18D,Off coast of Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VCR	Vista de Mar	0.82	100	⇓eP	Pb	19 46 46.1	+0.4
JCR	Jicaral	1.39	108	⇓eP	Pn	19 46 54.8	-0.4
JTS	JuntasAbangare	1.47	89	P	Sg	19 47 19.1	+0.3
	0.3nm,0.3s,baz=210,slow=19,SNR=13						
JTS	JuntasAbangare	1.47	89	ePn	Pn	19 46 55.3	-1.2
APON	Apoyo	1.67	13	⇓eP	Pn	19 46 59.1	-0.3
CRUN	El Crucero	1.70	5	eP	Pn	19 47 00.1	+0.3
MASN	Masaya	1.73	10	⇓eP	Pn	19 46 59.6	-0.5
TICN	Ticuantepe	1.76	7	⇓eP	Pn	19 47 00.6	0.0
TICN				eS	Sn	19 47 24.0	+0.8
XAVN	Gruta Xavier	1.86	4	eP	Pn	19 47 01.7	-0.4
WILN	Americas 2	1.89	8	⇓eP	Pn	19 47 02.1	-0.3
WILN				eS	Sn	19 47 26.5	-0.1
COPN	Copaltepe	1.90	356	⇓eP	Pn	19 47 02.5	0.0
APYN	Apoyeque	1.95	3	⇓eP	Pn	19 47 03.2	-0.1
APYN				eS	Sn	19 47 29.2	+1.2
CGA2	Cerro Gallo 2	1.97	97	⇓eP	Pn	19 47 03.5	-0.1
CGA2				eS	Sn	19 47 28.5	-0.1
MOMJ	Momotombo	2.12	358	⇓eP	Pn	19 47 05.4	-0.4
PRS1	Puriscal	2.13	98	eP	Pn	19 47 05.5	-0.4
MIRN	Miramar	2.17	353	⇓eP	Pn	19 47 06.3	-0.1
LEON	Leon	2.17	349	⇑eP	Pn	19 47 06.8	+0.3
VPS2	Volcan Poas 2	2.18	92	⇑eP	Pn	19 47 07.0	+0.4
CNGN	Cerro Negro	2.22	354	⇓eP	Pn	19 47 06.1	-1.1
PYTN	Playitas	2.28	10	⇓eP	Pn	19 47 07.5	-0.5
TEL3	Telica 3	2.31	350	⇑eP	Pn	19 47 08.8	+0.2
LAJ	Bijagual	2.33	100	eP	Pn	19 47 05.0	-3.8
SJS	Escuela Geolog	2.38	98	⇓eP	Pn	19 47 10.6	+1.0
LCR2	La Lucha 2	2.47	102	⇓eP	Pn	19 47 10.7	-0.1
CRIN	San Cristobal	2.48	346	eP	Pn	19 47 11.4	+0.5
ICR	Volcan Irazu	2.60	96	⇓eP	Pn	19 47 15.0	+2.5
URSC	Urasca	2.67	99	⇓eP	Pn	19 47 14.5	+0.9
TRTC	Tortuguero	2.71	83	⇓eP	Pn	19 47 12.3	-1.9
TRTC				eS	Sn	19 47 46.8	-0.6
BUS	Buena Vista	2.75	105	eP	Pn	19 47 15.8	+1.0
TEIG	Tepich	10.05	350	P	P	19 48 57.3	0.0
	0.1nm,0.3s,baz=76,slow=22,SNR=4.8						
TEIG	Tepich	10.05	350	ePn	P	19 48 50.5	-6.8
LRAL	Lakeview Retre	22.66	359	P	P	19 51 25.4	-7.1
	16nm,0.7s,mb4.5						
SWET	Sewanee	24.83	1	eP	P	19 51 48.9	-4.7
LTX	Lajitas	24.87	322	eP	P	19 51 55.0	+0.8
	6.6nm,0.9s,mb4.2						
TXAR	Lajitas Array	24.87	322	P	P	19 51 54.9	+0.8
	3.2nm,0.6s,mb4.1,baz=144,slow=11,SNR=16						
TXAR				PcP	PcP	19 55 31.2	0.0
	0.5nm,0.3s,baz=135,slow=3.5,SNR=3.5						
TXAR	Lajitas Array	24.87	322	P	P	19 51 54.9	+0.8
TXAR				PcP	PcP	19 55 31.2	0.0
UALR	University of	24.97	348	eP	P	19 51 50.2	-4.8
	25nm,0.8s,mb4.8						
WMOK	Wichita Mounta	26.83	337	eP	P	19 52 11.5	-0.8
	15nm,0.9s,mb4.5						
WCI	Wyandotte Cave	27.83	0	eP	P	19 52 17.1	-4.3
	16nm,0.8s,mb4.7						
ANMO	Albuquerque	30.60	326	eP	P	19 52 47.5	+1.2
	2.0nm,0.8s,mb4.0						
LPAZ	La Paz	32.02	145	P	P	19 53 06.4	+7.5
	0.5nm,0.5s,mb3.6,baz=94,slow=5.5,SNR=3.1						
LPAZ				LR	LR	20 08 26.7	
	comp=Z,75nm,18.1s,MS3.4,baz=286,slow=40						
SDCO	Great Sand Dun	32.28	331	eP	P	19 53 00.8	-0.1
	3.0nm,0.7s,mb4.2						
PV10	Paradox Valley	34.53	328	eP	P	19 53 19.7	-0.9
SADO	Sadowa	34.94	9	P	P	19 53 18.6	-5.3
	12nm,0.9s,mb4.8,baz=206,slow=3.8,SNR=3.0						
LVC	Limon Verde	36.93	152	P	P	19 53 51.8	+11
	1.3nm,0.5s,mb4.0,baz=254,slow=10,SNR=3.2						
PDAR	Pinedale Array	38.14	332	P	P	19 53 49.9	-1.1
	1.1nm,0.7s,mb3.7,baz=124,slow=9.6,SNR=9.6						
PDAR				PcP	PcP	19 56 04.5	-1.8
	0.4nm,0.8s,baz=270,slow=10,SNR=3.3						
BW06	Boulder Array	38.14	332	eP	P	19 53 50.2	-0.7
	1.2nm,0.7s,mb3.7						
REDW	Red Top Meadow	39.20	332	eP	P	19 53 59.8	0.0
TPAW	Teton Pass	39.35	332	eP	P	19 54 01.3	+0.2
MOOW	Moose Ponds	39.45	332	eP	P	19 54 01.7	-0.2
ELK	Elko	39.59	325	eP	P	19 54 03.5	+0.4
	2.8nm,0.8s,mb4.0						
NVAR	Mina Array Bea	39.98	320	P	P	19 54 09.0	+2.6
	3.6nm,0.7s,mb4.2,baz=131,slow=7.5,SNR=34						
NVAR				PcP	PcP	19 56 12.0	-0.2
	1.9nm,0.8s,baz=137,slow=4.4,SNR=10.0						
ULM	Lac du Bonnet	40.61	351	P	P	19 54 05.3	-6.1
	3.3nm,0.8s,mb4.0,baz=181,slow=13						
HLID	Hailey	41.10	329	eP	P	19 54 16.1	+0.7
	2.7nm,0.9s,mb3.9						
MCMT	McKenzie Canyo	41.25	331	eP	P	19 54 17.8	+1.1
BOZ	Bozeman (W)	41.31	333	eP	P	19 54 16.5	-0.7
	2.6nm,0.8s,mb3.9						
BDFB	Brasilia	45.95	124	P	P	19 54 54.9	-0.2
	2.9nm,0.9s,mb4.2,baz=305,slow=12,SNR=3.6						
SCHQ	Schefferville	47.08	15	P	P	19 54 56.2	-7.4
	2.9nm,0.8s,mb4.3,baz=185,slow=3.3,SNR=5.1						
SCHQ				LR	LR	20 13 39.4	
	comp=Z,101nm,18.6s,MS3.8,baz=197,slow=35						
SCHQ	Schefferville	47.08	15	P	P	19 54 56.2	-7.4
SCHQ				LR	LR	20 13 39.4	
YKA	Yellowknife Ar	55.95	345	P	P	19 56 05.8	-4.5
	2.1nm,1.0s,mb4.1,baz=137,slow=7.3,SNR=20						
YKA				PcP	PcP	19 57 05.3	-3.5
	0.6nm,0.8s,baz=151,slow=3.7,SNR=5.2						
YKA				LR	LR	20 21 43.1	
	comp=Z,73nm,18.9s,MS3.8,baz=255,slow=38						
INK	Inuvik	65.56	343	P	P	19 57 12.1	-3.4
	1.7nm,0.9s,mb4.1,baz=107,slow=8.3,SNR=7.4						
ILAR	Eielson Array	68.39	336	P	P	19 57 30.6	-2.9
	1.0nm,0.7s,mb4.0,baz=126,slow=4.4,SNR=12						
CMAR	Chiang Mai Arr	150.96	349	PKPbc	PKPdf	20 06 20.4	-0.6
	0.8nm,0.9s,baz=280,slow=2.4,SNR=6.7						

*IDC **13** 19:59:52.3±31.0,7.05S×112.14E,mb3.8/3,mb1 4.0/3, mb1mx3.6/14,Error ellipse: s-maj=510.0km s-min=160.4km az=131.0*

*DJA **13** 20:00:21.1±1.0,9.66S×113.38E,h2^{km},MD4.9/4,ML5.1/4, Error ellipse: s-maj=22.4km s-min=17.2km az=72.0*

*NEIC **13** 20:00:25.8±4.5,9.35S×113.72E,h89^{km}±71^{km},mb3.8/1, Error ellipse: s-maj=105.2km s-min=43.8km az=196.0*

ISC 13 20:00:21.5±2.6,**9.7S**±0.2×**113.4E**±0.2,**h59**^{km}±32^{km},**n9, σ0^{s}79**/14,**mb3.7**/4,**4C-3D,South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	Scrawed	1.36	31	⇓ePn	P	20 00 44.0	-0.9
	2μm,0.2s						
SRDI				⇑eSn	S	20 01 01.8	-0.3
KELI	Kelakatan	1.77	36	⇓ePn	P	20 00 50.8	+0.4
	878nm,0.2s						
KELI				⇑eSn	S	20 01 12.5	+0.7
RATI	Rata	2.27	66	⇑ePn	P	20 00 57.9	+0.5
	3μm,0.2s						
RATI				⇑eSn	S	20 01 23.8	-0.3
KEDI	Kedomdong	2.89	66	⇓ePn	P	20 01 06.4	+0.2
	405nm,0.2s						
WRA	Warramunga Arr	22.62	119	P	P	20 05 17.7	-0.7
	0.9nm,0.7s,mb3.3,baz=297,slow=11,SNR=5.8						
WRA				S	S	20 09 26.2	+8.8
	0.5nm,0.9s,baz=282,slow=27,SNR=2.8						
WRAB	Tennant Creek	22.62	119	P	P	20 05 17.0	-1.4
	2.4nm,0.6s,mb3.8						
ASAR	Alice Springs	24.00	128	P	P	20 05 33.4	+1.6
	1.0nm,0.7s,mb3.4,baz=301,slow=8.0,SNR=14						
ASAR				S	S	20 09 58.4	+17
	0.3nm,0.8s,baz=313,slow=20,SNR=3.4						
STKA	Stephens Creek	34.19	134	P	P	20 07 03.7	+0.3
	0.9nm,0.3s,mb4.1,baz=334,slow=9.2,SNR=3.2						
STKA	Stephens Creek	34.19	134	P	P	20 07 03.7	+0.3

*IDC **13** 20:16:19.8±1.3,6.45S×76.02W,mb4.1/7,mb1 4.2/11, mb1mx4.0/20,ML3.1/2,Error ellipse: s-maj=55.6km s-min=22.9km az=47.0*

*NEIC **13** 20:16:24.8±0.5,6.46S×76.00W,h35^{km},mb4.2/3,Error ellipse: s-maj=20.9km s-min=8.2km az=62.0*

ISC 13 20:16:20.5±3.6,**6.51S**±0.09×**76.1W**±0.2,**h18**^{km}±27^{km},**n19, σ0^{s}91**/19,**mb4.2**/10,**Northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTAV	Otavalo	7.10	341	P	Pn	20 18 05.2	-1.1
	5.7nm,0.8s						
ROSC	El Rosal	11.43	9	Pn	P	20 19 08.0	+1.9
	0.9nm,0.3s,baz=107,slow=22,SNR=2.1						
ROSC				Lg		20 22 17.2	
	1.0nm,0.3s,baz=72,slow=23,SNR=2.1						
LPAZ	La Paz	12.46	142	Pn	P	20 19 19.2	-0.9
	0.1nm,0.3s,baz=333,slow=14,SNR=3.9						
LPAZ				Lg		20 22 49.9	
	0.3nm,0.3s,baz=183,slow=20,SNR=2.1						
LPAZ	La Paz	12.46	142	Pn	P	20 19 19.2	-0.9
LPAZ				Lg		20 22 49.9	
SDV	Santo Domingo	16.24	20	eP	P	20 20 09.2	-0.5
	3.7nm,0.4s						
LVC	Limon Verde	17.45	157	P	P	20 20 25.8	+1.0
	0.2nm,0.3s,baz=326,slow=11,SNR=5.3						
LTX	Lajitas	44.42	325	P	P	20 24 30.8	-1.6
WMOK	Wichita Mounta	46.28	334	eP	P	20 24 47.1	+0.1
	1.7nm,0.4s,mb4.3						
CPRX	Cap Rock	47.35	328	eP	P	20 24 56.4	+0.8
ANMO	Albuquerque	50.20	327	P	P	20 25 18.8	+1.2
	1.4nm,0.5s,mb4.2,baz=141,slow=13,SNR=3.9						
ANMO	Albuquerque	50.20	327	P	P	20 25 18.8	+1.2
SDCO	Great Sand Dun	51.86	330	eP	P	20 25 31.0	+0.9
	4.7nm,1.0s,mb4.4						
ULM	Lac du Bonnet	59.07	345	P	P	20 26 21.3	-0.8
	1.8nm,0.6s,mb4.3,baz=145,slow=6.6,SNR=4.8						
NVAR	Mina Array Bea	59.44	322	P	P	20 26 25.1	+0.3
	1.1nm,0.8s,mb3.9,baz=139,slow=6.4,SNR=5.9						
SCHQ	Schefferville	61.61	6	P	P	20 26 39.1	-0.2
	3.0nm,1.0s,mb4.4,baz=180,slow=12,SNR=3.5						
YBH	Yreka Blue Hor	64.14	323	P	P	20 26 55.4	-0.9
	2.2nm,0.8s,mb4.2,baz=117,slow=2.3,SNR=3.1						
DBIC	Dimbokro	72.28	81	P	P	20 27 47.2	-0.3
	8.3nm,1.0s,mb4.6,baz=239,slow=5.9,SNR=8.9						
YKA	Yellowknife Ar	74.85	343	P	P	20 28 01.1	-0.6
	0.7nm,0.7s,mb3.7,baz=145,slow=5.3,SNR=9.9						
ILAR	Eielson Array	87.80	336	P	P	20 29 10.4	+0.8
	0.7nm,0.9s,mb3.9,baz=141,slow=3.6,SNR=6.0						

CASC 13 20:18:58.6±2.1,**13.20N**×**89.77W**,**h33**^{km}±6^{km},**MD4.0, 6C-9D,El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SBLS	San Blas	0.65	13	⇓iP	Pn	20 19 11.9	+0.4
RTR	El Retiro	0.70	10	⇓iP	Pn	20 19 12.8	+0.5
RTR				eS	Sb	20 19 23.6	+1.6
BOQS	Boqueron	0.72	42	⇓iP	Pn	20 19 12.6	+0.1
BOQS				eS	Sb	20 19 23.4	+1.1
LFRS	El Faro	0.81	59	⇓eP	Pn	20 19 13.5	-0.3
LFU	La Fuente	0.84	50	⇓eP	Pn	20 19 14.3	+0.1
LFU				eS	Sn	20 19 27.1	+1.6
LBRS	Las Brisas	0.89	53	⇓eP	Pn	20 19 15.0	0.0
LBRS				eS	Sn	20 19 26.3	-0.4
LCBS	La Ceiba	0.90	60	⇓eP	Pn	20 19 14.7	-0.4
LCBS				eS	Sn	20 19 27.5	+0.6
RBDL	Robledal	0.91	5	⇑eP	Pn	20 19 15.8	+0.6
RBDL				eS	Sn	20 19 28.9	+1.6
SNVI	San Vicente	1.00	66	⇓eP	Pn	20 19 16.3	-0.2
SNVI				eS	Sn	20 19 31.5	+2.0
MTO2	Montecristo 2	1.26	18	⇑eP	Pn	20 19 20.4	+0.2
MTO2				eS	Sn	20 19 36.2	+0.1
VSM	San Miguel	1.48	81	⇑eP	Pn	20 19 23.4	+0.1
VSM				eS	Sn	20 19 42.7	+1.0
BLLM	Bellamira	1.52	81	⇑eP	Pn	20 19 23.8	-0.1
BLLM				eS	Sn	20 19 43.8	+1.2
CAHU	Cacacuatique	1.62	69	⇑eP	Pn	20 19 24.9	-0.5
CNCH	Conchagua	1.89	87	⇓eP	Pn	20 19 28.5	-0.7
CNCH				eS	Sn	20 19 52.5	+0.3
CRIN	San Cristobal	2.70	100	eP	Pn	20 19 40.6	-0.2
CRIN				eS	Sn	20 20 13.9	+1.2
LEON	Leon	2.92	105	eP	Pn	20 19 44.4	+0.5
LEON				eS	Sn	20 20 14.9	-3.3
CNGN	Cerro Negro	3.08	103	eP	Pn	20 19 45.9	-0.3
MIRN	Miramar	3.08	104	eP	Pn	20 19 44.7	-1.5
MOMJ	Momotombo	3.25	104	eP	Pn	20 19 45.4	-3.2
COPN	Copaltepe	3.27	108	eP	Pn	20 19 48.5	-0.3
APYN	Apoyeque	3.48	106	⇑eP	Pn	20 19 50.5	-1.3
APYN				eS	Sn	20 20 31.5	-0.8

*NIED **13** 20:55:00,37.30N×139.00E,h5^{km},Mw3.4 Best double couple: $M_0$1.3×10^{14} NP1:ϕ_s71°,δ80°,λ153°. NP2:ϕ_s165°, δ63°,λ11°.*

*JMA **13** 20:55:36.2,37.34N×139.03E,h9^{km}±1^{km},M3.7 Broadband fault plane solution: P waves. NP1:ϕ_s2°,δ50°, λ35°. NP2:ϕ_s248°,δ64°,λ134°. Principal axes: T Plg50°, Azm208°; N Plg39°, Azm44°; P Plg8°, Azm308°;*

JMA Felt II J1.

ISC 13 20:55:36.5±1.0,**37.35N**±0.04×**138.99E**±0.06,**h15**^{km}±10^{km}, **n8,σ0^{s}60**/15,**1C-6D,Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHK	Hiroka	0.10	169	⇓P	Pb	20 55 38.4	-1.3
JHK				S	Sb	20 55 40.2	-1.5
JIZZ	Izumozaki	0.29	309	⇓P	Pg	20 55 43.0	+0.1
JIZZ				S	Sg	20 55 48.6	+1.5
JNS	Sasagawa	0.53	29	⇑P	Pb	20 55 46.1	-0.9
JNS				S	Sb	20 55 53.5	-0.7
JFY	Yanaizu	0.57	84	⇓P	Pb	20 55 46.6	-1.0
JFY				S	Sb	20 55 54.1	-1.1
JKT	Katashina	0.62	161	⇓P	Pb	20 55 47.4	-1.0
JKT				S	Sb	20 55 55.6	-1.0
JSD	Sado	0.90	320	⇓P	Pb	20 55 52.2	-1.1
JAG	Ashikaga	0.99	158	⇓P	Pb	20 55 54.5	-0.4
JAG				S	Sb	20 56 07.4	-0.2
MAT	Matsushiro	1.02	218	P	Pb	20 55 54.5	-0.9
MAT				S	Sb	20 56 07.5	-0.9

BJI 13 20:56:17.8,21.06N×99.38E,h27^{km},ML4.5,Ms4.1, Msz3.5,Myanmar-China border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHG	Chiang Mai	2.27	190	PN	Pn	20 57 00.9	+6.5
CHG				PG	Pn	20 57 07.7	+13
CHG				SG	Sn	20 57 41.4	+20
NANT	Nan	2.57	151	PN	Pn	20 57 05.0	+6.4
NANT				PG	Pn	20 57 13.0	+14
NANT				SG	Sn	20 57 48.0	+19
KMI	Kunming	5.09	37	eP	Pn	20 57 33.9	-0.5
KMI				PG	Pn	20 57 51.4	+17
KMI				SG	Sn	20 58 59.5	+26
KMI				Smax			
	comp=N,71nm,1.1s						
KMI				Smax			
	comp=E,69nm,1.2s						
KMI				LR	LR		
	comp=N,550nm,5.8s						
KMI				LR	LR		
	comp=E,386nm,6.5s						
KMI				LR	LR		
	comp=Z,331nm,7.4s						
NST	Nakhon Sawan	5.41	172	PN	Pn	20 57 31.0	-7.8
NST				PG	Pn	20 57 55.0	+16
NST				SG	Sn	20 59 14.0	+33
SHL	Shillong	8.22	304	eP	P	20 58 15.0	-3.3

*NEIC **13** 21:00:58.7,39.26N×20.49E,h25^{km},MD3.5(ATH),After ATH.*

*ATH **13** 21:00:58.8,39.25N×20.48E,h24^{km}±3^{km},MD3.5/8*

*CSEM **13** 21:00:59.6±0.2,39.30N×20.46E,h20^{km},MD3.6/1,Error ellipse: s-maj=3.9km s-min=3.3km az=36.0*

*THE **13** 21:01:00.1,39.32N×20.53E,h15^{km},ML3.2*

ISC 13 21:00:59.3±0.4,**39.31N**±0.02×**20.50E**±0.03,**h24**^{km}±4^{km}, **n37,σ0^{s}95**/56,**5C-4D,Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGT	Igoumenitsa	0.26	330	ePg	Pb	21 01 05.1	-0.5
IGT				eSg	Sb	21 01 10.2	+0.3
JAN	Janina	0.44	38	⇑iPB	Pb	21 01 08.7	+0.2
LKD	Levkas	0.61	169	ePg	Pb	21 01 11.3	0.0
	comp=Z,30nm,0.5s						
LKD				eSg	Sb	21 01 21.6	+2.1
KEK	Kerkira	0.68	307	⇑iPB	Pb	21 01 11.9	-0.5
KEK				eSN	Sn	21 01 23.4	+0.2
KEK	Kerkira	0.68	307	eSn	Sn	21 01 23.4	+0.2
SRN	Sarande	0.69	326	i Pg	Pb	21 01 12.9	+0.3
SRN				i Sg	Sb	21 01 22.6	+0.9
SRN	Sarande	0.69	326	ePg	Pb	21 01 12.9	+0.3
SRN				i Sg	Sb	21 01 22.6	+0.9
MEV	Metsovon	0.74	50	ePg	Pb	21 01 14.2	+0.7
	comp=Z,17nm,0.4s						
TPE	Tepelena	1.05	339	ePg	Pb	21 01 19.7	+0.9
TPE				i Sg	Sb	21 01 35.0	+2.8
EVR	Evrytania	1.09	111	⇓iPN	Pn	21 01 20.0	+0.7
VLS	Valsamata	1.13	176	⇓iPB	Pb	21 01 18.7	-1.4
VLS				eSN	Sn	21 01 35.6	+0.8
VLS	Valsamata	1.13	176	eSn	Sn	21 01 35.6	+0.8
KZN	Kozani	1.40	44	⇑iPN	Pn	21 01 26.0	+2.3
AGG	Agios Georgios	1.45	101	ePb	Pb	21 01 25.2	-0.3
	comp=Z,14nm,0.3s						
AGG				eSb	Sb	21 01 44.1	+0.5
RLS	Riolos of Patr	1.46	148	⇓iPN	Pn	21 01 25.3	+0.7
FNA	Florina	1.62	24	ePb	Pb	21 01 27.6	-0.8
	comp=Z,2.1nm,0.3s						
FNA				eSb	Sb	21 01 48.1	-0.3
LIT	Litokhoron	1.73	62	ePb	Pb	21 01 29.0	-1.2
	comp=Z,6.0nm,0.3s						
LIT				eSb	Sb	21 01 50.9	-0.7
LKR	Lokris	2.06	108	⇑iPB	Pb	21 01 33.9	-1.9
XOR	Xorichti	2.09	88	ePn	Pn	21 01 33.6	0.0
XOR				eSn	Sn	21 02 00.1	+1.0
NEO	Neokhori	2.11	89	⇑iPn	Pn	21 01 31.0	-3.0
GRG	Griva	2.20	41	ePn	Pn	21 01 34.6	-0.5
GRG				eSn	Sn	21 02 02.7	+0.8

PLG	**Polygyros**	**2.50**	**64⇓**	*i*Pn	**Pn**	**21 01 40.4**	**+0.8**
PLG				*e*Sn	**Sn**	**21 02 09.5**	**-0.2**
PAIG	**Paliouri**	**2.53**	**75**	*e*Pn	**Pn**	**21 01 39.6**	**-0.4**
PAIG				*e*Sn	**Sn**	**21 02 10.0**	**-0.4**
KNT	**Kendrikon**	**2.61**	**44**	*e*Pn	**Pn**	**21 01 41.1**	**+0.1**
KNT				*e*Sn	**Sn**	**21 02 12.5**	**+0.2**
SOH	**Sokhos**	**2.66**	**54**	*e*Pn	**Pn**	**21 01 41.9**	**+0.2**
SOH				*e*Sn	**Sn**	**21 02 14.1**	**+0.4**
PUK	**Puka**	**2.77**	**351**	*e*Pn	**Pn**	**21 01 42.3**	**-1.0**
PUK				*i* Sn	**Sn**	**21 02 12.8**	**-3.6**
OUR	**Ouranopolis**	**2.87**	**68**	*e*Pn	**Pn**	**21 01 44.3**	**-0.5**
OUR				*e*Sn	**Sn**	**21 02 18.9**	**-0.1**
SRS	**Serrai**	**2.98**	**52**	*e*Pn	**Pn**	**21 01 45.7**	**-0.6**
SRS				*e*Sn	**Sn**	**21 02 22.2**	**+0.5**
ORI	**Oriolo Calabro**	**3.21**	**285**	*e*Pn	**Pn**	**21 01 49.8**	**+0.2**
ORI	**Oriolo Calabro**	**3.21**	**285**	*e*Pn	**Pn**	**21 01 49.8**	**+0.1**
SLCN	**Sala Consilina**	**3.90**	**288**	*e*Pn	**Pn**	**21 01 59.0**	**-0.4**
MGR	**Morigerati**	**3.90**	**284**	*e*Pn	**Pn**	**21 01 57.4**	**-2.0**
MGR	**Morigerati**	**3.90**	**284**	*e*Pn	**Pn**	**21 01 57.4**	**-2.0**
MRLC	**Muro Lucano**	**4.11**	**292**	*e*Pn	**Pn**	**21 02 03.3**	**+0.9**
MRLC	**Muro Lucano**	**4.11**	**292**	*e*Pn	**Pn**	**21 02 03.3**	**+0.9**
SGO	**Sicignano**	**4.18**	**289**	*e*Pn	**Pn**	**21 02 02.4**	**-1.1**
SGO	**Sicignano**	**4.18**	**289**	*e*Pn	**Pn**	**21 02 02.3**	**-1.1**

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*NEIC **13** 21:06:53.2, 37.31N×13.32W, MG3.7(MDD), After MDD.*
*MDD **13** 21:06:53.2±3.2, 37.27N×13.30W, mb3.7/6, Error ellipse: s-maj=27.5km s-min=23.5km az=73.0, PRXIMO*
*CSEM **13** 21:06:54.9±0.8, 37.43N×13.18W, h2^{km}, ML2.9/6, Error ellipse: s-maj=15.6km s-min=10.8km az=63.0*
*INMG **13** 21:06:55.8±0.7, 36.95N×13.57W, h10^{km}, ML2.3, Error ellipse: s-maj=10.3km s-min=6.1km az=108.0*
ISC 13 21:06:55.2±1.8**, 37.43N**±0.07×**13.0W**±0.1**, h10^{km}, n24, σ1^{s}03**/34**, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLOU	**Loures**	**3.33**	**63**	*e*Sn	**Sn**	**21 08 32.4**	**+3.8**
	13nm,0.5s						
PLOU	**Loures**	**3.33**	**63**	Sn	**Sn**	**21 08 32.4**	**+3.8**
	6.7nm,0.5s						
PTEO	**Sao Teotonio**	**3.37**	**87**	*e*Pn	**Pn**	**21 07 49.6**	**+0.6**
PTEO				*e*Sn	**Sn**	**21 08 30.6**	**+1.1**
	5.9nm,0.7s						
PTEO	**Sao Teotonio**	**3.37**	**87**	*e*Pn	**Pn**	**21 07 49.6**	**+0.6**
PTEO				*e*Sn	**Sn**	**21 08 30.6**	**+1.1**
	5.9nm,0.7s						
PBEJ	**Beja**	**4.08**	**80**	*e*Pn	**Pn**	**21 08 00.5**	**+1.4**
PBEJ				*e*Sn	**Sn**	**21 08 47.8**	**+0.3**
EBAD	**Badajoz**	**4.87**	**72**	Pn	**Pn**	**21 08 11.6**	**+1.2**
	0.3nm,0.1s,SNR=7.9						
EBAD				Sn	**Sn**	**21 09 07.3**	**-0.2**
	1.6nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**4.87**	**72**	Pn	**Pn**	**21 08 11.6**	**+1.2**
	0.3nm,0.1s,SNR=7.9						
EBAD				Sn	**Sn**	**21 09 07.3**	**-0.2**
	1.6nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**5.00**	**84**	Pn	**Pn**	**21 08 12.1**	**-0.1**
	0.2nm,0.1s,SNR=7.1						
EMIN				Sn	**Sn**	**21 09 09.6**	**-1.1**
	0.5nm,0.2s						
EMIN	**Mina Concepcio**	**5.00**	**84**	Pn	**Pn**	**21 08 12.1**	**-0.1**
	0.2nm,0.1s,SNR=7.1						
EMIN				Sn	**Sn**	**21 09 09.6**	**-1.2**
	0.5nm,0.2s						
PVIS	**Viseu**	**5.13**	**49**	*e*Sn	**Sn**	**21 09 15.7**	**+1.8**
ESPR	**Espera**	**5.70**	**93**	Pn	**Pn**	**21 08 21.3**	**-0.7**
	0.6nm,0.1s,SNR=4.7						
ESPR				Sn	**Sn**	**21 09 27.6**	**-0.7**
	1.6nm,0.3s						
ESPR	**Espera**	**5.70**	**93**	Sn	**Sn**	**21 09 27.6**	**-0.7**
	1.6nm,0.3s						
ESPR	**Espera**	**5.70**	**93**	Pn	**Pn**	**21 08 21.3**	**-0.7**
	0.6nm,0.1s,SNR=4.7						
ELOB	**Lobios**	**5.82**	**39**	Sn	**Sn**	**21 09 29.6**	**-1.8**
	0.5nm,0.1s,SNR=7.9						
ELOB	**Lobios**	**5.82**	**39**	Sn	**Sn**	**21 09 29.6**	**-1.8**
	0.5nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	**6.30**	**28**	Sn	**Sn**	**21 09 39.5**	**-3.8**
	0.7nm,0.2s,SNR=7.9						
EMAZ	**Mazaricos**	**6.30**	**28**	Sn	**Sn**	**21 09 39.5**	**-3.8**
	0.7nm,0.2s,SNR=7.9						
ECAL	**Calabor**	**6.58**	**45**	Sn	**Sn**	**21 09 51.2**	**+0.9**
	0.7nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**6.67**	**81**	Pn	**Pn**	**21 08 35.2**	**-0.6**
	0.3nm,0.1s,SNR=7.9						
EADA				Sn	**Sn**	**21 09 51.9**	**-0.8**
	0.2nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**6.67**	**81**	Pn	**Pn**	**21 08 35.2**	**-0.6**
	0.3nm,0.1s,SNR=7.9						
EADA				Sn	**Sn**	**21 09 51.9**	**-0.8**
	0.2nm,0.1s,SNR=7.9						
EINC	**Incio**	**6.76**	**38**	Pn	**Pn**	**21 08 36.4**	**-0.7**
	0.2nm,0.1s,SNR=7.9						
EINC	**Incio**	**6.76**	**38**	Pn	**Pn**	**21 08 36.4**	**-0.7**
	0.2nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	**7.39**	**70**	Pn	**Pn**	**21 08 45.6**	**-0.3**
	1.0nm,0.3s,baz=254,slow=14,SNR=5.5						
ESDC	**Sonseca Array**	**7.39**	**70**	Pn	**Pn**	**21 08 45.6**	**-0.3**

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*IDC **13** 21:10:47.8±1.3, 34.00N×138.35E, mb3.5/4, mb1 3.7/4, mb1mx3.5/22, Error ellipse: s-maj=50.3km s-min=27.0km az=82.0*
*JMA **13** 21:11:22.3±0.3, 34.29N×137.14E, h354^{km}±4^{km}, M3.2*
ISC 13 21:11:22.4±0.7**, 34.2N**±0.1×**137.2E**±0.1**, h348^{km}**±7^{km}**, n18, σ0^{s}58**/24**, mb3.0**/4**, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAA	**Atsumi**	**0.40**	**356**	P	**P**	**21 12 07.1**	**+0.6**
JIE	**Ise**	**0.42**	**293**	P	**P**	**21 12 07.0**	**+0.5**
JWY	**Kouya**	**1.31**	**270**	P	**P**	**21 12 09.9**	**+0.2**
JWZ	**Kozaga**	**1.40**	**241**	P	**P**	**21 12 10.0**	**-0.1**
JGM	**Miyama**	**1.52**	**346**	P	**P**	**21 12 11.0**	**+0.2**
JGM				*e*S	**S**	**21 12 48.5**	**-0.1**
JWT	**Wachi**	**1.80**	**306**	P	**P**	**21 12 12.6**	**+0.1**
JWT				*e*S	**S**	**21 12 51.0**	**-0.7**
JOD2	**Odawara 2**	**1.88**	**56**	P	**P**	**21 12 13.4**	**+0.3**
JOD2				*e*S	**S**	**21 12 53.2**	**+0.5**
JKG	**Kaga**	**2.16**	**342**	P	**P**	**21 12 14.9**	**-0.1**
JRY	**Ryogami san**	**2.28**	**38**	P	**P**	**21 12 16.3**	**+0.4**
JRY				*e*S	**S**	**21 12 57.5**	**-0.3**
JAI	**Aioi**	**2.31**	**260**	P	**P**	**21 12 16.2**	**0.0**
MAT	**Matsushiro**	**2.46**	**20**	P	**P**	**21 12 17.1**	**-0.3**
MAT				S	**S**	**21 12 59.1**	**-1.3**
MAT	**Matsushiro**	**2.46**	**20**	P	**P**	**21 12 17.3**	**-0.1**
MAT				*e*S	**S**	**21 12 59.2**	**-1.2**
JMN	**Monobe**	**2.79**	**261**	P	**P**	**21 12 20.2**	**+0.1**
JHS	**Saijyo**	**3.44**	**284**	P	**P**	**21 12 26.7**	**+0.6**
SONM	**Songino Array**	**26.70**	**310**	P	**P**	**21 16 36.8**	**+4.2**
	0.2nm,0.4s,mb2.7,baz=118,slow=12,SNR=2.9						
WRA	**Warramunga Arr**	**53.94**	**183**	P	**P**	**21 20 12.1**	**-1.1**
	0.6nm,0.3s,mb3.4,baz=360,slow=7.5,SNR=4.9						
ASAR	**Alice Springs**	**57.66**	**184**	P	**P**	**21 20 38.6**	**-0.6**
	0.2nm,0.3s,mb2.9,baz=16,slow=13,SNR=5.7						
YKA	**Yellowknife Ar**	**67.94**	**28**	P	**P**	**21 21 46.3**	**+0.9**
	0.1nm,0.4s,mb2.9,baz=300,slow=5.0,SNR=3.7						

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*LDG **13** 21:11:37.1±0.1, 43.06N×0.21W, h12^{km}, Md1.5/3, Ml1.4/1, Error ellipse: s-maj=2.5km s-min=0.9km az=178.0*
STR 13 21:11:36.5±0.1**, 43.05N×0.21W, h10^{km}**±1^{km}**, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REYF	**Montagne du Re**	**0.14**	**278**	Pg	Pg	21 11 40.5	+0.8
REYF				Sg	Sg	21 11 43.1	+1.2
LABF	**Labassere**	**0.21**	**91**	Pg	Pg	21 11 41.8	+0.8
LABF				Sg	Sg	21 11 45.0	+1.0
VIEF	**Viey**	**0.24**	**134**	Pg	Pg	21 11 42.4	+0.8
VIEF				Sg	Sg	21 11 46.0	+1.0
ETSF	**Etsaut**	**0.30**	**240**	*e*Pg	Pg	21 11 43.5	+0.8
ETSF				*e*Sg	Sg	21 11 47.6	+0.8
	12nm,0.2s						
EPF	**Esparros**	**0.40**	**93**	*e*Pg	Pg	21 11 45.3	+0.5
EPF				*e*Sg	Sg	21 11 50.9	+0.6
	6.8nm,0.3s						
SJPF	**Ste Jean**	**0.75**	**275**	*e*Pg	Pg	21 11 51.3	-0.2
SJPF				*e*Sg	Sg	21 12 01.6	+0.1
	0.9nm,0.2s						
MTLF	**Montolieu**	**1.80**	**80**	*e*Pn	Pn	21 12 06.2	-1.7
MTLF				*e*Pg	Pg	21 12 10.1	-2.4
MTLF				*e*Sg	Sg	21 12 34.1	-2.4
	0.4nm,0.2s						

NDI 13 21:11:43.7±7.4**, 23.58N×70.09E, h5^{km}, MD4.5, ML4.1, 1D, Southern India**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BHJ	**Bhuj**	**0.51**	**231**	*e*P	Pg	21 11 51.8	-2.1
BHJ				*e*S	Sg	21 12 01.9	+1.2
BHV	**Bhavnagar**	**2.63**	**133**	*e*P	Px	21 12 15.0	
BHV				*e*S	Sx	21 12 48.0	
JASL	**Jaisalmer**	**3.42**	**12**	*i*	Pn	21 12 34.3	-4.4
AJM	**Ajmer**	**5.04**	**54**	*i* P	Pn	21 13 03.0	+1.1
	280nm,0.1s						
AJM				*i*		21 14 08.0	
	233nm,0.3s						
BOM	**Bombay**	**5.30**	**151**	*e*	Pn	21 12 56.6	-9.0
BOM				*e*		21 13 50.4	
POO	**Poona**	**6.13**	**144**	*e*P	Pn	21 13 14.0	-3.1
POO				*e*PP	PP	21 13 21.0	-3.1
	59nm,0.1s						
POO				*i* S	Sn	21 14 19.4	-9.1
POO				*i* S	Sn	21 14 22.0	-6.5
POO				*i*		21 14 34.0	
POO				*i*		21 14 45.0	
KHET	**Khetri**	**6.83**	**48**	*i*	Pn	21 13 21.5	-5.5
KHET				*e*		21 14 29.0	
KHET				*e*S	Sn	21 14 37.6	-8.4
KAD	**Karad**	**7.32**	**148**	*e*P	Pn	21 13 29.0	-5.0
KAD				*i*		21 14 38.7	
KUDL	**Kundal**	**7.34**	**50**	*e*	Sn	21 14 55.0	-3.9
RTK	**Rohtak**	**7.86**	**45**	*e*	Px	21 13 59.2	
RTK				*e*		21 14 56.5	
AGRA	**Agra**	**7.98**	**61**	*e*	rx	21 14 51.9	
AGRA				*e*		21 15 47.1	
BHGR	**Bahadurgarh**	**7.99**	**49**	*e*	rx	21 15 26.9	
AYAN	**Aya Nagar**	**8.00**	**51**	*e*	rx	21 15 19.2	
NDI	**New Delhi**	**8.18**	**50**	*e*	P	21 13 33.5	-12
NDI				*e*		21 15 04.0	
NDI				*e*		21 15 53.0	
KKR	**Kurukshetra**	**8.75**	**42**	*e*S	Sn	21 15 23.7	-10
GOA	**Goa**	**8.78**	**156⇓**	*e*	rx	21 13 44.5	
GOA				*e*S	Sn	21 15 25.4	-9.3
BHK	**Bhakra**	**9.62**	**34**	*e*	rx	21 16 00.2	
DDI	**Dehra Dun**	**9.78**	**45**	*e*	rx	21 15 40.8	
DDI				*e*		21 16 39.5	
SMLA	**Simla**	**9.81**	**38**	*i* P	P	21 14 11.2	+2.7
SMLA				*i* S	Sn	21 15 53.9	-6.2
	243nm,0.5s						
SDNR	**Sundarnagar**	**9.98**	**36**	*e*	Px	21 14 25.2	
	92nm,0.4s						
SDNR				*e*		21 16 49.6	
HYB	**Hyderabad**	**10.02**	**126**	*e*P	Px	21 13 16.5	
HYB				*e*S	Sx	21 15 47.5	
THN	**Thein Dam**	**10.13**	**28**	*e*	P	21 14 01.4	-12
THN				*e*		21 16 58.3	
LGTI	**Lohaghat**	**10.81**	**55**	*e*S	S	21 16 06.0	-19
PTH	**Pithoragarh**	**10.84**	**55**	*e*	rx	21 15 59.6	
PTH				*e*		21 17 10.0	
KOLN	**Koldanda**	**12.88**	**68**	*e*P	P	21 14 34.7	-16
GKN	**Gorkha**	**13.83**	**68**	*e*P	P	21 14 46.9	-16
GKN				*e*S	S	21 17 15.9	-22
DMN	**Daman**	**14.13**	**70**	*e*P	P	21 14 50.9	-16
KKN	**Kakani**	**14.33**	**70**	*e*P	P	21 14 52.6	-17
PKI	**Pulchoki**	**14.39**	**71**	*e*P	P	21 14 53.5	-17
PKI				*e*S	S	21 17 29.6	-22
GUN	**Gumba**	**14.87**	**70**	*e*P	P	21 15 00.6	-16

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*NEIC **13** 21:35:41.4, 16.90N×100.15W, h16^{km}, MD3.6(MEX), After MEX.*
MEX 13 21:35:41.2±0.5**, 16.88N×100.16W, h15^{km}**±3^{km}**, MD3.6, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.20**	**329**	*i* P	Pb	21 35 45.4	-0.6
CAIG				*i* S	Sb	21 35 48.5	-0.8
ACX	**Acapulco**	**0.23**	**92**	*i* P	Pb	21 35 46.0	-0.5
ACX				*i* S	Sb	21 35 49.0	-1.1
ZIIG	**Zihuatanejo**	**1.45**	**300**	*e*P	Pn	21 36 03.4	-3.6
ZIIG				*i* S	Sb	21 36 19.7	-5.7
PLIG	**Platanillo**	**1.63**	**22**	*i* P	Pn	21 36 06.1	-3.6
PLIG				*i* S	Sn	21 36 24.8	-5.6
PLIG	**Platanillo**	**1.63**	**22**	*i* P	Pn	21 36 06.1	-3.6
PLIG				*i* S	Sn	21 36 25.7	-4.7
PPM	**Popocatepetl**	**2.62**	**34**	*e*P	Pn	21 36 15.0	-8.8
PPM				*e*P		21 36 24.6	
PPM				*i* S	Sn	21 36 50.6	-5.0
PPM	**Popocatepetl**	**2.62**	**34**	*e*P	Pn	21 36 15.0	-8.8
PPM				*e*P		21 36 21.7	
PPM				*i* S	Sn	21 36 50.6	-5.0

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*KRSC **13** 22:01:04.2±2.9, 49.82N×154.92E, h170^{km}±6^{km}, ML4.1*
*IDC **13** 22:01:06.9±3.3, 50.31N×153.74E, h244^{km}±31^{km}, mb3.3/4, mb1 3.6/6, mb1mx3.1/23, Error ellipse: s-maj=31.2km s-min=23.0km az=114.0*
ISC 13 22:01:03.5±0.7**, 50.36N**±0.09×**154.0E**±0.1**, h230^{km}**±8^{km}**, n24, σ1^{s}45**/40**, mb3.5**/4**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALID	**Alaid**	**1.11**	**62**	*i* P	**P**	**22 01 35.2**	**-2.0**
ALID				*e*S	**S**	**22 01 51.5**	**-12**
SKR	**Severo-Kuril's**	**1.38**	**76**	*i* P	**P**	**22 01 32.6**	**-6.7**
APC	**Apacha**	**3.23**	**36**	*e*P	**P**	**22 01 58.2**	**+0.4**
APC				*e*S	**S**	**22 02 37.7**	**-2.3**
GRL	**Gorelyy**	**3.36**	**48**	*e*P	**P**	**22 01 59.7**	**+0.4**
GRL				*e*S	**S**	**22 02 40.9**	**-1.7**
RUS	**Russkaya**	**3.50**	**52**	*e*P	**P**	**22 01 59.4**	**-1.6**
RUS				*e*S	**S**	**22 02 40.1**	**-5.5**
KOK	**Koryaka**	**4.11**	**43**	*e*P	**P**	**22 02 09.7**	**+1.5**
KOK				*e*S	**S**	**22 02 55.1**	**-3.4**
GNL	**Ganaly**	**4.13**	**35**	*e*P	**P**	**22 02 11.6**	**+3.1**
GNL				*e*S	**S**	**22 02 59.9**	**+0.9**
AVH	**Avacha**	**4.13**	**43**	*e*P	**P**	**22 02 10.2**	**+1.7**
AVH				*e*S	**S**	**22 02 59.0**	**0.0**
UGLR	**Uglovaya**	**4.13**	**45**	*e*P	**P**	**22 02 10.6**	**+2.1**
UGLR				*e*S	**S**	**22 02 59.8**	**+0.8**
SDLR	**Sedlovina**	**4.20**	**44**	*i* P	**P**	**22 02 10.8**	**+1.4**
SDLR				*i* S	**S**	**22 03 01.6**	**+1.0**
NLC	**Nalytchevo**	**4.35**	**48**	*i* P	**P**	**22 02 10.3**	**-0.9**
NLC				*e*S	**S**	**22 02 58.5**	**-5.3**
SPN	**Mys Shipunski**	**4.63**	**51**	*e*P	**P**	**22 02 13.4**	**-1.3**
SPN				*e*S	**S**	**22 03 03.6**	**-6.5**
KMNR	**Kamenistaya**	**6.58**	**32**	*e*P	**P**	**22 02 42.9**	**+3.7**
KMNR				*e*S	**S**	**22 03 54.8**	**+0.8**
ZLN	**Zelenaya**	**6.98**	**33**	*e*P	**P**	**22 02 48.0**	**+3.6**
ZLN				*e*S	**S**	**22 04 02.4**	**-0.8**
LGNR	**Loginova**	**6.99**	**32**	*e*P	**P**	**22 02 47.5**	**+3.0**
LGNR				*e*S	**S**	**22 04 01.0**	**-2.5**
CIRR	**Tsirk**	**7.04**	**32**	*e*P	**P**	**22 02 49.2**	**+4.1**
KBTR	**Krutoberegovo**	**7.88**	**39**	*i* P	**P**	**22 02 57.1**	**+1.2**
KBTR				*e*S	**S**	**22 04 21.6**	**-2.4**
BKI	**Bering**	**8.72**	**52**	*e*P	**P**	**22 03 03.3**	**-3.4**
ASAJ	**Asahikawa**	**9.96**	**236**	P	**P**	**22 03 22.6**	**+0.2**
	1.6nm,0.3s,baz=81,slow=11,SNR=5.3						
FX1	**Attu Island--F**	**12.17**	**71**	P	**P**	**22 03 55.1**	**+4.8**
	2.0nm,0.3s,baz=250,slow=20,SNR=6.6						
FX1				S	**S**	**22 06 02.7**	**+0.6**
	4.2nm,0.3s,baz=238,slow=20,SNR=7.1						
CMAR	**Chiang Mai Arr**	**53.86**	**254**	P	**P**	**22 10 04.0**	**-0.8**
	0.5nm,0.6s,mb3.2,baz=35,slow=7.1,SNR=5.9						
FINES	**FINESS Array B**	**61.03**	**334**	P	**P**	**22 10 53.5**	**-0.6**
	1.6nm,0.9s,mb3.6,baz=27,slow=4.3,SNR=3.5						
FINES				PcP	PcP	22 11 35.0	0.0
	0.8nm,0.9s,baz=27,slow=4.3,SNR=3.4						
WRA	**Warramunga Arr**	**72.12**	**199**	P	**P**	**22 12 03.7**	**-0.8**
	0.5nm,0.4s,mb3.5,baz=18,slow=6.7,SNR=3.9						
ASAR	**Alice Springs**	**75.82**	**199**	P	**P**	**22 12 25.9**	**+0.2**
	0.7nm,0.6s,mb3.5,baz=7.6,slow=5.2,SNR=8.7						

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*MDD **13** 22:10:12.7±0.4, 36.52N×3.27E, mb4.4/4, Error ellipse: s-maj=5.3km s-min=3.8km az=73.0, PRXIMO*
*NEIC **13** 22:10:15.7, 36.69N×3.18E, MG4.4(MDD), After MDD.*
*LDG **13** 22:10:16.1±0.4, 36.62N×3.41E, h10^{km}, Ml3.0/9, Error ellipse: s-maj=8.0km s-min=4.4km az=168.0*
CSEM 13 22:10:14.1±0.1**, 36.57N×3.22E, ML3.3**/4**, Error ellipse: s-maj=3.3km s-min=2.1km az=6.0, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABA	**Alger-Bouzarea**	**0.28**	**328**	P	Pg	22 10 19.4	-0.2
ABMS	**Boumerdes**	**0.28**	**49**	P	Pg	22 10 18.2	-1.4
EMHD	**Djebel Mahouad**	**0.42**	**211**	P	Pg	22 10 20.0	-2.6
ADJB	**Djebel Djouab**	**0.45**	**157**	P	Pg	22 10 19.4	-3.6
AKET	**Djebel Ketaf**	**0.75**	**134**	P	Pg	22 10 25.5	-3.5
AKF	**Akfadou**	**1.09**	**86**	P	Pb	22 10 31.3	-4.1
EBNR	**Beni Rached**	**1.39**	**259**	P	Pb	22 10 40.5	-0.2
ECHA	**Ech Chlef**	**1.55**	**255**	P	Pn	22 10 43.0	-0.1
ECHF	**Ech Chlef**	**1.57**	**255**	P	Pn	22 10 43.0	-0.4
SET	**Setif**	**1.80**	**101**	P	Pn	22 10 47.0	+0.4
EANR	**'Ain N'Sour**	**1.82**	**251**	P	Pn	22 10 48.0	+1.1
CKHR	**Kef el Ahmar**	**1.93**	**106**	P	Pn	22 10 48.0	-0.5
ETRT	**Tiaret**	**1.95**	**234**	P	Pn	22 10 49.0	+0.2
DFRA	**Djebel Bou Aff**	**2.14**	**90**	P	Pn	22 10 51.5	0.0
CMER	**Merouana**	**2.37**	**113**	P	Pn	22 10 58.0	+3.2
CASM	**Ain Smara**	**2.66**	**96**	P	Pn	22 11 04.0	+5.1
CKFL	**Kef-Lekhel**	**2.83**	**92**	P	Pn	22 11 05.0	+3.7
EIBI	**Ibiza**	**2.87**	**329**	P	Pn	22 10 59.0	-3.0
	4.8nm,0.1s,SNR=26						
EIBI				S	Sn	22 11 32.8	-4.9
	100nm,1.0s,SNR=12						
EIBI	**Ibiza**	**2.87**	**329**	Pn	Pn	22 10 59.0	-2.9
	4.8nm,0.1s,SNR=26						
EIBI				Sn	Sn	22 11 32.8	-4.9
	100nm,1.0s,SNR=12						
CMAH	**Djebel Manchou**	**3.38**	**88**	P	Pn	22 11 06.5	-2.7
CABS	**Djebel Ababsia**	**3.45**	**94**	P	Pn	22 11 07.5	-2.6
EBEN	**Beniarda**	**3.47**	**309**	S	Sn	22 11 46.8	-6.1
	SNR=7.9						
EBEN	**Beniarda**	**3.47**	**309**	Sn	Sn	22 11 46.8	-6.0
	SNR=7.9						
EMOS	**Mosqueruela**	**4.77**	**324**	Pn	Pn	22 11 25.8	-3.2
EMOS				Sn	Sn	22 12 20.9	-4.9
EMOS	**Mosqueruela**	**4.77**	**324**	P	Pn	22 11 25.8	-3.2
	12nm,0.5s,SNR=29						
EMOS				S	Sn	22 12 17.7	-8.2
	12nm,0.6s,SNR=8.6						
EMOS	**Mosqueruela**	**4.77**	**324**	Pn	Pn	22 11 25.8	-3.2
	12nm,0.5s,SNR=29						
EMOS				Sn	Sn	22 12 20.9	-4.9
ERTA	**Horta de San J**	**4.93**	**334**	Pn	Pn	22 11 28.7	-2.5
ERTA				Sn	Sn	22 12 21.6	-8.2
ERTA	**Horta de San J**	**4.93**	**334**	Sn	Sn	22 12 21.6	-8.2
	SNR=7.9						
ERTA	**Horta de San J**	**4.93**	**334**	Pn	Pn	22 11 28.7	-2.5
	SNR=7.9						
EQES	**Quesada**	**5.17**	**286**	P	Pn	22 11 32.6	-2.1
	SNR=7.9						
EQES				S	Sn	22 12 32.1	-3.8
	5.5nm,0.4s,SNR=5.4						
EQES	**Quesada**	**5.17**	**286**	Pn	Pn	22 11 32.6	-2.0
	SNR=7.9						
EQES				Sn	Sn	22 12 32.1	-3.8
	5.5nm,0.4s,SNR=5.4						
EMIR	**Miracle**	**5.50**	**347**	Pn	Pn	22 11 36.3	-3.0
EMIR				Sn	Sn	22 12 36.5	-7.6
EMIR	**Miracle**	**5.50**	**347**	P	Pn	22 11 36.3	-3.0
	10nm,0.2s,SNR=22						
EMIR				S	Sn	22 12 35.4	-8.8
	SNR=7.9						
EMIR	**Miracle**	**5.50**	**347**	Pn	Pn	22 11 36.3	-2.9
	10nm,0.2s,SNR=22						
EMIR				Sn	Sn	22 12 36.5	-7.6
EJON	**La Jonquera**	**5.88**	**358**	P	Pn	22 11 41.0	-3.6
	0.5nm,0.1s,SNR=7.9						
EJON				S	Sn	22 12 48.0	-5.6
	SNR=4.0						
EJON	**La Jonquera**	**5.88**	**358**	Sn	Sn	22 12 48.0	-5.7
	SNR=4.0						
EJON	**La Jonquera**	**5.88**	**358**	Pn	Pn	22 11 41.0	-3.6
	0.5nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	**6.81**	**354**	*e*Pn	Pn	22 11 53.8	-3.9
MTLF				*e*Sn	Sn	22 13 05.9	-11
	1.7nm,0.3s						
EPF	**Esparros**	**6.83**	**342**	*e*Pn	Pn	22 11 55.0	-2.9
EPF				*e*Sn	Sn	22 13 06.5	-11
	1.4nm,0.3s						
ETSF	**Etsaut**	**6.96**	**336**	*e*Pn	Pn	22 11 56.0	-3.8
ETSF				*e*Sn	Sn	22 13 09.5	-11
	3.2nm,0.6s						
LMR	**La Mourre**	**7.21**	**19**	*e*Pn	Pn	22 11 57.4	-6.0
LMR				*e*Sn	Sn	22 13 12.3	-15
	1.6nm,0.3s						
SJPF	**Ste Jean**	**7.38**	**334**	*e*Pn	Pn	22 11 59.8	-5.9
SJPF				*e*Sn	Sn	22 13 20.1	-11
	2.7nm,0.4s						
PGF	**Pioggiola**	**7.46**	**35**	*e*Pn	Pn	22 12 00.7	-6.1
PGF				*e*Sn	Sn	22 13 19.1	-14
	1.2nm,0.3s						
FRF	**La Foret Royal**	**7.46**	**20**	*e*Pn	Pn	22 12 00.7	-6.2
FRF				*e*Sn	Sn	22 13 19.8	-13
	1.7nm,0.3s						
LASF	**Ste Croix**	**7.52**	**4**	*e*Pn	Pn	22 12 02.5	-5.1
LASF				*e*Sn	Sn	22 13 21.8	-13
	2.8nm,0.4s						
SMRF	**Simiane la Rot**	**7.62**	**13**	*e*Pn	Pn	22 12 03.8	-5.2
SBF	**Sospel**	**7.97**	**23**	*e*Pn	Pn	22 12 08.3	-5.6
VIVF	**Saint-Julien-l**	**8.35**	**7**	*e*Pn	P	22 12 14.8	-4.5
CAF	**Calviac**	**8.40**	**354**	*e*Pn	P	22 12 11.4	-8.5
MBDF	**Montbardon**	**8.59**	**17**	*e*Pn	P	22 12 16.7	-5.8
RJF	**Les Rejaudoux**	**8.82**	**352**	*e*Pn	P	22 12 20.7	-5.1
RJF				*e*Sn	Sn	22 13 55.2	-12
	1.6nm,0.3s						
LPG	**La Plagne**	**9.31**	**16**	*e*Pn	P	22 12 26.9	-5.7
LPL	**La Plagne**	**9.32**	**15**	*e*Pn	P	22 12 26.5	-6.3
EARI	**Arriondas**	**9.33**	**319**	P	P	22 12 29.9	-3.0
	4.1nm,0.4s,SNR=20						
EARI	**Arriondas**	**9.33**	**319**	Pn	P	22 12 29.9	-3.0
ECAL	**Calabor**	**9.40**	**308**	Pn	P	22 12 30.4	-3.5
ECAL	**Calabor**	**9.40**	**308**	Pn	P	22 12 30.4	-3.4
TCF	**Toulx Ste Croi**	**9.74**	**356**	*e*Pn	P	22 12 33.2	-5.3
BGF	**Bois d'Agland**	**9.99**	**359**	*e*Pn	P	22 12 36.7	-5.2
SMF	**Signal de Mont**	**10.08**	**2**	*e*Pn	P	22 12 37.9	-5.3
AVF	**Avril sur Loir**	**10.21**	**1**	*e*Pn	P	22 12 39.5	-5.5
CABF	**La Chapelle**	**10.26**	**11**	*e*Pn	P	22 12 39.6	-6.0
MFF	**Saint Martin d**	**10.34**	**347**	*e*Pn	P	22 12 41.4	-5.3
SSF	**Saint Saulge**	**10.49**	**1**	*e*Pn	P	22 12 42.5	-6.3
SGMF	**Saint Gilles**	**12.43**	**342**	*e*Pn	P	22 13 10.4	-4.7

IDC 13 22:10:51.9±6.2**, 17.86S×178.60W, h620^{km}**±72^{km}**, mb3.1**/7**, mb1 3.5**/7**, mb1mx3.2**/15**, Error ellipse: s-maj=71.5km s-min=26.1km az=150.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**34.27**	**280**	P	P	22 16 49.7	-0.4
	10nm,1.0s,baz=90,slow=6.1,SNR=3.5						
WB2	**Warramunga Arr**	**44.45**	**260**	*e*P	P	22 18 09.4	-2.3
WRA	**Warramunga Arr**	**44.46**	**260**	P	P	22 18 09.8	-2.1
	1.1nm,0.7s,baz=96,slow=6.9,SNR=6.9						
ASAR	**Alice Springs**	**44.63**	**254**	P	P	22 18 11.3	-1.8
	2.7nm,0.6s,baz=87,slow=9.1,SNR=43						
ASAR				PcP	PcP	22 19 40.0	-2.2
	0.4nm,0.4s,baz=103,slow=4.0,SNR=5.1						
ASPA	**Alice Springs**	**44.63**	**254**	*e*P	P	22 18 11.1	-2.0
NVAR	**Mina Array Bea**	**79.51**	**44**	P	P	22 21 56.1	-1.0
	0.6nm,0.6s,baz=224,slow=6.9,SNR=5.5						
ILAR	**Eielson Array**	**85.88**	**13**	P	P	22 22 26.1	-2.1
	0.5nm,0.5s,baz=224,slow=4.5,SNR=10.0						
TXAR	**Lajitas Array**	**86.12**	**58**	P	P	22 22 30.1	-0.1
	0.7nm,0.5s,baz=220,slow=7.0,SNR=3.9						
PDAR	**Pinedale Array**	**87.44**	**44**	P	P	22 22 34.5	-1.6
	0.8nm,0.7s,baz=225,slow=4.2,SNR=3.4						
GERES	**GERESS Array B**	**147.52**	**345**	PKPbc	PKPdf	22 29 27.8	+4.0
	0.9nm,0.5s,baz=32,slow=3.4,SNR=10						

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*STR **13** 22:22:09.0±0.1, 43.03N×0.23W, h10^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
LDG 13 22:22:09.9±0.1**, 43.04N×0.22W, h3^{km}, Md2.0**/2**, Ml1.6**/4**, Error ellipse: s-maj=1.7km s-min=1.1km az=169.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
REYF	**Montagne du Re**	**0.13**	**281**	Pg	Pg	22 22 12.9	+0.4
REYF				Sg	Sg	22 22 15.3	+1.0

LABF	**Labassere**	0.22	89	Pg	Pg	22 22 14.2	0.0
LABF				Sg	Sg	22 22 18.2	+1.1
VIEF	**Viey**	0.24	132	Pg	Pg	22 22 14.9	+0.2
VIEF				Sg	Sg	22 22 18.4	+0.4
ETSF	**Etsaut**	0.29	240	*e*Pg	Pg	22 22 15.8	+0.1
ETSF				*e*Sg	Sg	22 22 18.8	-0.7
	10nm,0.2s						
EPF	**Esparros**	0.41	92	*e*Pg	Pg	22 22 17.7	-0.4
EPF				*e*Sg	Sg	22 22 23.4	-0.2
	2.6nm,0.2s						
SJPF	**Ste Jean**	0.74	276	*e*Pg	Pg	22 22 23.5	-1.2
SJPF				*e*Sg	Sg	22 22 33.8	-0.7
	1.3nm,0.3s						
MTLF	**Montolieu**	1.81	80	*e*Pn	Pn	22 22 40.2	-2.0
MTLF				*e*Pg	Pg	22 22 44.3	-1.7
MTLF				*e*Sg	Sg	22 23 06.5	-3.6
	0.4nm,0.3s						
LFF	**La Frestale**	2.02	20	*e*Pn	Pn	22 22 43.4	-1.8
LFF				*e*Pg	Pg	22 22 47.3	-2.9
LFF				*e*Sg	Sg	22 23 13.4	-3.7
	1.3nm,0.2s						
CAF	**Calviac**	2.50	40	*e*Pn	Pn	22 22 49.8	-2.3
CAF				*e*Pg	Pg	22 22 56.6	-3.2
CAF				*e*Sg	Sg	22 23 28.0	-5.2
	0.4nm,0.2s						
RJF	**Les Rejaudoux**	2.58	28	*e*Pn	Pn	22 22 50.7	-2.6
RJF				*e*Sn	Sn	22 23 20.7	-4.9
RJF				*e*Sg	Sg	22 23 30.6	-5.3
	0.8nm,0.3s						

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*IDC **13** 22:24:06.1±0.8, 30.98S×71.62W, mb4.3/7, mb1 4.3/9, mb1mx4.2/17, ML4.2/2, MS3.6/2, Ms1 3.5/2, ms1mx3.1/17, Error ellipse: s-maj=31.0km s-min=18.8km az=90.0*

*NEIC **13** 22:24:09.7, 30.97S×71.78W, h24^{km}, mb4.7/1, ML4.4(GUC), After GUC.*

*GUC **13** 22:24:09.7±0.9, 30.97S×71.78W, h24^{km}±4^{km}, MD4.3, ML4.4*

ISC 13 22:24:09.0±1.1, **30.93S**±0.02×**71.84W**±0.08, **h24**^{km}±8^{km}, **n40**, σ0^{s}**84**/48, **mb4.2**/8, **MS3.7**/1, **13C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OVCH	**Ovalle**	0.64	60	⇓*i*P	Pb	22 24 21.7	+0.3
OVCH				*i* S	Sb	22 24 30.1	+0.3
OVCH				AMP		22 24 30.4	
	comp=E,13µm,0.2s						
CMCH	**Combarbala**	0.76	109	⇑*i*P	Pb	22 24 23.3	-0.1
CMCH				*i* S	Sb	22 24 33.0	-0.4
CMCH				AMP		22 24 39.3	
	comp=E,68µm,0.7s						
ILCH	**Illapel**	0.91	141	⇑*i*P	Pb	22 24 25.2	-0.7
ILCH				*i* S	Sb	22 24 36.4	-1.2
ILCH				AMP		22 24 37.0	
	comp=E,20µm,0.4s						
LSCH	**La Serena**	1.14	27	⇑*i*P	Pn	22 24 30.2	+0.5
LSCH				*i* S	Sb	22 24 44.7	+0.4
LSCH				AMP		22 24 49.2	
	comp=N,8µm,0.7s						
TLL	**Tololo Astrono**	1.18	50	⇓*i*P	Pn	22 24 30.5	+0.4
TLL				*i* S	Sb	22 24 46.1	+0.8
TLL				AMP		22 24 50.1	
	comp=N,15µm,0.7s						
PTCH	**Petorca**	1.54	150	⇑*i*P	Pn	22 24 35.4	+0.1
PTCH				*i* S	Sn	22 24 54.4	-0.4
PTCH				AMP		22 24 58.2	
	comp=E,10µm,0.4s						
PACH	**Papudo**	1.64	168	⇑*i*P	Pn	22 24 36.5	-0.2
PACH				*i* S	Sn	22 24 57.3	+0.1
JACH	**Jahuel**	2.04	149	⇓*i*P	Pn	22 24 43.2	+0.6
JACH				*i* S	Sn	22 25 08.9	+1.3
ROCH	**El Roble**	2.15	161	⇓*i*P	Pn	22 24 44.2	+0.1
LCCH	**Las Cruces**	2.55	175	⇑*i*P	Pn	22 24 49.1	-0.6
DSCH	**Colegio Aleman**	2.69	157	⇑*i*P	Pn	22 24 52.0	+0.3
DSCH				*i* S	Sn	22 25 24.1	+0.2
CLCH	**Cerro Calan**	2.69	156	*i* P	Pn	22 24 52.6	+0.7
CLCH				*i* S	Sn	22 25 24.8	+0.7
CLCH				AMP		22 25 37.8	
	comp=E,6µm,0.7s						
RCDM	**Rinconada Maip**	2.70	161	⇑*i*P	Pn	22 24 51.9	0.0
RCDM				AMP		22 25 37.4	
	comp=E,2µm,0.4s						
FCH	**Farellones**	2.73	152	⇑*i*P	Pn	22 24 52.9	+0.6
FCH				AMP		22 25 37.6	
	comp=E,2µm,0.5s						
TACH	**Talagante**	2.82	164	⇓*i*P	Pn	22 24 53.7	+0.1
TACH				*e*S	Sn	22 25 27.8	+0.5
PCH	**Pirque**	2.91	158	⇓*i*P	Pn	22 24 55.2	+0.3
LNV	**Longovilo**	3.04	173	*e*P	Pn	22 24 57.1	+0.3
CHCH	**Chadas Angostu**	3.16	162	*e*P	Pn	22 24 58.4	-0.1
LMEL	**Las Melosas**	3.22	155	*e*P	Pn	22 24 59.9	+0.6
LMEL				AMP		22 25 50.7	
	comp=N,1µm,0.4s						
CACH	**El Canelo**	3.34	162	⇑*i*P	Pn	22 25 01.4	+0.3
CICH	**Cipreses**	3.58	161	*e*P	Pn	22 25 04.7	+0.2
SFDO	**San Fernando**	3.74	169	*i* P	Pn	22 25 06.1	-0.6
LVC	**Limon Verde**	8.69	18	Pn	P	22 26 13.6	-2.7
	comp=N,0.6nm,0.3s,baz=170,slow=8.4,SNR=6.1						
LVC				Sn	Sn	22 27 54.9	+0.3
	comp=N,1.2nm,0.3s,baz=174,slow=10,SNR=2.4						
LVC				LR	LR	22 29 24.2	
	comp=N,223nm,19.9s,baz=34,slow=37						
TRQA	**Tornquist**	10.80	134	*e*P	P	22 26 43.2	-2.1
LPAZ	**La Paz**	14.97	14	Pn	P	22 27 41.4	+0.5
	comp=N,0.2nm,0.3s,baz=189,slow=8.8,SNR=22						
USHA	**Ushuaia**	24.01	175	P	P	22 29 23.2	+0.5
	comp=N,16nm,0.8s,mb4.5,baz=258,slow=1.5,SNR=6.9						
BDFB	**Brasilia**	26.57	60	P	P	22 29 44.5	-2.7
	comp=N,2.8nm,0.7s,mb3.9,baz=234,slow=7.8,SNR=5.7						
BDFB				LR	LR	22 41 34.7	
	comp=N,184nm,18.6s,MS3.7,baz=282,slow=40						
VNA3	**Neumayer Olymp**	52.14	159		sP	22 33 32.2	+2.9
VNA2	**Neumayer--Watz**	52.78	158	⇑*i*	P	22 33 25.2	+1.2
SNAA	**Sanae**	54.37	159	⇑*i*	P	22 33 33.9	-1.8
SNAA	**Sanae**	54.37	159	P	P	22 33 33.8	-1.8
	comp=N,2.1nm,0.6s,mb4.2,baz=286,slow=7.8,SNR=28						
QSPA	**South Pole Qui**	59.30	180	⇑*i*P	P	22 34 09.6	-1.1
	comp=N,5.2nm,0.8s,mb4.6						
TXAR	**Lajitas Array**	67.16	330	P	P	22 35 04.0	+0.7
	comp=N,0.5nm,0.5s,mb3.8,baz=186,slow=8.2,SNR=3.0						
DBIC	**Dimbokro**	74.06	72	P	P	22 35 43.4	-1.9
	comp=N,2.5nm,0.6s,mb4.3,baz=215,slow=7.8,SNR=7.7						
DBIC	**Dimbokro**	74.06	72	P	P	22 35 43.4	-1.9
NVAR	**Mina Array Bea**	81.47	325	P	P	22 36 26.6	+0.9
	comp=N,0.6nm,0.4s,mb3.9,baz=141,slow=5.8,SNR=6.9						
ULM	**Lac du Bonnet**	83.59	345	P	P	22 36 35.9	-0.5
	comp=N,2.3nm,0.7s,mb4.4,baz=126,slow=3.5,SNR=4.6						
ASAR	**Alice Springs**	120.37	207	PKP	PKPdf	22 42 58.1	-5.2
	comp=N,0.5nm,0.7s,baz=137,slow=3.0,SNR=4.3						
WRA	**Warramunga Arr**	123.51	210	PKP	PKPdf	22 43 04.6	-4.9
	comp=N,0.8nm,0.4s,baz=158,slow=1.7,SNR=5.9						
ZAL	**Zalesovo**	151.51	29	PKPbc	PKPdf	22 44 01.0	+2.3
	comp=N,2.0nm,0.9s,baz=179,slow=2.7,SNR=11						

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*NEIC **13** 22:35:40.2, 31.74S×69.82W, h144^{km}, MD3.7(GUC), After GUC.*

GUC 13 22:35:40.2±0.8, **31.74S×69.82W, h144**^{km}±7^{km}, **MD3.7, ML3.8, 14C-7D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTCH	**Petorca**	1.08	241	⇑*i*P	P	22 36 05.4	0.0
PTCH				*i* S	S	22 36 24.4	-0.3
PTCH				AMP		22 36 25.2	
	comp=E,7µm,0.3s						
JACH	**Jahuel**	1.15	215	⇑*i*P	P	22 36 06.3	+0.2
JACH				*i* S	S	22 36 26.0	+0.1
ILCH	**Illapel**	1.16	275	⇑*i*P	P	22 36 06.5	+0.4
ILCH				*i* S	S	22 36 26.1	-0.1
ILCH				AMP		22 36 27.9	
	comp=N,2µm,0.2s						
CMCH	**Combarbala**	1.16	299	⇓*i*P	P	22 36 06.8	+0.6
CMCH				*i* S	S	22 36 26.5	+0.4
MDZ	**Mendoza**	1.40	145	⇑*i*P	P	22 36 07.4	-1.3
PEL	**Peldehue**	1.58	208	⇑*i*P	P	22 36 10.6	+0.1
PEL				*i* S	S	22 36 33.6	-0.3
PACH	**Papudo**	1.59	240	⇑*i*P	P	22 36 10.7	0.0
ROCH	**El Roble**	1.59	219	⇑*i*P	P	22 36 10.8	+0.2
ROCH				*i* S	S	22 36 34.4	+0.3
FCH	**Farellones**	1.63	194	⇓*i*P	P	22 36 11.8	+0.7
FCH				*i* S	S	22 36 35.7	+0.8
FCH				AMP		22 36 36.7	
	comp=E,648nm,0.4s						
CLCH	**Cerro Calan**	1.76	200	⇓*i*P	P	22 36 12.8	+0.2
CLCH				*i* S	S	22 36 37.7	+0.2
CLCH				AMP		22 36 44.8	
	comp=E,710nm,0.5s						
CLCH				AMP		22 36 45.4	
	comp=E,872nm,0.4s						
DSCH	**Colegio Aleman**	1.77	201	⇑*i*P	P	22 36 12.6	-0.1
DSCH				*i* S	S	22 36 37.6	-0.1
DSCH				AMP		22 36 39.4	
	comp=N,934nm,0.6s						
TLL	**Tololo Astrono**	1.78	331	⇑*i*P	P	22 36 13.2	+0.4
TLL				*i* S	S	22 36 38.2	+0.3
TLL				AMP		22 36 40.0	
	comp=N,582nm,0.7s						
RCDM	**Rinconada Maip**	1.93	205	⇑*i*P	P	22 36 14.7	+0.2
RCDM				*i* S	S	22 36 41.0	+0.1
RCDM				AMP		22 36 42.2	
	comp=N,1µm,0.4s						
PCH	**Pirque**	1.97	197	⇓*i*P	P	22 36 15.4	+0.4
LMEL	**Las Melosas**	2.13	189	⇓*i*P	P	22 36 17.2	+0.3
LMEL				AMP		22 36 51.9	
	comp=N,315nm,0.1s						
TACH	**Talagante**	2.13	206	⇓*i*P	P	22 36 16.8	-0.1
TACH				*i* S	S	22 36 44.9	-0.2
LSCH	**La Serena**	2.20	326	⇑*i*P	P	22 36 17.9	0.0
LSCH				*i* S	S	22 36 45.6	-1.1
LSCH				AMP		22 36 46.7	
	comp=E,729nm,0.4s						
LCCH	**Las Cruces**	2.28	220	*i* P	P	22 36 18.6	-0.2
CHCH	**Chadas Angostu**	2.30	198	⇓*i*P	P	22 36 19.1	0.0
CHCH				*i* S	S	22 36 49.3	+0.5
CACH	**El Canelo**	2.46	195	⇑*i*P	P	22 36 21.8	+0.6
LNV	**Longovilo**	2.59	211	⇑*i*P	P	22 36 21.6	-1.1
CICH	**Cipreses**	2.62	191	⇑*i*P	P	22 36 23.7	+0.5
VACH	**Vallenar**	3.26	345	*i* S	S	22 37 10.5	-0.1
TRQA	**Tornquist**	9.00	137	*e*P	P	22 37 44.0	-4.0

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*NEIC **13** 22:46:30.1±3.9, 17.88S×178.61W, h614^{km}±45^{km}, mb3.9/4, Error ellipse: s-maj=51.5km s-min=20.6km az=153.0*

*IDC **13** 22:46:32.2±5.5, 17.89S×178.64W, h640^{km}±68^{km}, mb3.2/8, mb1 3.5/8, mb1mx3.3/15, Error ellipse: s-maj=56.3km s-min=28.0km az=151.0*

ISC 13 22:46:30.8±1.0, **17.9S**±0.4×**178.7W**±0.2, **h640**^{km}, **n20**, σ0^{s}**77**/15, **mb3.8**/11, **2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	33.16	261	*e*P	P	22 52 19.2	+0.5
	4.5nm,0.8s,mb4.0						
PMG	**Port Moresby**	34.17	280	P	P	22 52 29.1	+2.0
	4.9nm,0.5s,mb4.3,baz=104,slow=4.2,SNR=4.5						
STKA	**Stephens Creek**	38.38	241	*e*P	P	22 53 02.0	+0.6
	2.2nm,1.0s,mb3.5						
STKA	**Stephens Creek**	38.38	241	P	P	22 53 02.1	+0.7
	2.4nm,0.6s,mb3.8,baz=76,slow=11,SNR=7.6						
WB2	**Warramunga Arr**	44.34	260	*e*P	P	22 53 48.1	-0.4
WRAB	**Tennant Creek**	44.34	260	*e*P	P	22 53 47.7	-0.8
WRA	**Warramunga Arr**	44.35	260	P	P	22 53 48.4	-0.3
	2.0nm,0.5s,mb3.7,baz=95,slow=7.5,SNR=26						
ASAR	**Alice Springs**	44.51	254	P	P	22 53 50.0	+0.1
	11nm,0.6s,mb4.4,baz=87,slow=8.7,SNR=178						
ASPA	**Alice Springs**	44.52	254	*e*P	P	22 53 49.1	-0.8
KAKA	**Kakadu**	47.33	269	*e*P	P	22 54 10.9	-0.4
	2.6nm,0.4s,mb3.9						
NVAR	**Mina Array Bea**	79.61	44	P	P	22 57 35.0	+0.1
	0.8nm,0.7s,mb3.3,baz=217,slow=6.8,SNR=5.9						
ILAR	**Eielson Array**	85.94	13	P	P	22 58 04.6	-1.0
	0.6nm,0.5s,mb3.5,baz=221,slow=5.2,SNR=17						
TXAR	**Lajitas Array**	86.23	58	P	P	22 58 09.0	+1.1
	0.7nm,0.5s,mb3.5,baz=225,slow=7.1,SNR=5.8						
BW06	**Boulder Array**	87.54	44	*e*P	P	22 58 13.2	-0.5
	1.0nm,0.6s,mb3.6						
PDAR	**Pinedale Array**	87.54	44	P	P	22 58 13.8	+0.1
	0.8nm,0.5s,mb3.6,baz=222,slow=4.7,SNR=3.5						
ARCES	**ARCESS Array B**	126.25	350	PKP	PKPdf	23 04 22.4	+0.7
	56nm,1.6s,baz=63,slow=2.7,SNR=5.5						
FINES	**FINESS Array B**	133.09	344	PKP	PKPdf	23 04 36.5	+1.5
	3.5nm,1.1s,baz=315,slow=3.9,SNR=4.6						
CLL	**Collm**	145.38	347	⇓*i*PKP1	PKPbc	23 05 00.6	+2.3
BRG	**Berggiesshubel**	145.58	346	⇓*i*P	PKPdf	23 05 00.6	+3.2
GERES	**GERESS Array B**	147.52	345	PKPbc	PKPdf	23 05 06.4	+5.7
	0.9nm,0.5s,baz=23,slow=3.4,SNR=13						

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*INMG **13** 22:46:35.8±0.9, 42.70N×7.68W, h8^{km}±3^{km}, ML2.1, Error ellipse: s-maj=1.8km s-min=1.5km az=101.0*

MDD 13 22:46:35.7±0.3, **42.71N×7.69W, mbLg2.3**/13, **5C, Error ellipse: s-maj=3.0km s-min=1.9km az=6.0, PRXIMO, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EINC	**Incio**	0.25	101	⇑Pg	Pg	22 46 40.3	-0.5
	SNR=18						
EINC				Lg		22 46 43.7	
	360nm,0.1s,SNR=7.9						
ERUA	**La Rua**	0.51	128	Pg	Pg	22 46 45.3	-0.6
	SNR=7.9						
ERUA				Lg		22 46 53.1	
	24nm,0.2s,SNR=8.0						
STS	**Santiago**	0.66	286	Pg	Pg	22 46 47.9	-0.9
	SNR=7.9						
STS				Lg		22 46 57.0	
	37nm,0.1s,SNR=29						
EPON	**Pontenova**	0.73	32	⇑Pg	Pg	22 46 49.1	-1.2
	8.6nm,0.3s,SNR=18						
EPON				Lg		22 46 59.3	
	18nm,0.1s,SNR=7.9						
ELOB	**Lobios**	0.89	198	⇑Pg	Pg	22 46 52.2	-1.2
	2.5nm,0.3s,SNR=18						
ELOB				Lg		22 47 03.7	
	12nm,0.1s,SNR=43						
EZAM	**Zamans**	0.93	233	⇑Pg	Pg	22 46 53.0	-1.3
	5.3nm,0.3s,SNR=18						
EZAM				Lg		22 47 05.5	
	16nm,0.2s,SNR=15						
EMAZ	**Mazaricos**	0.98	285	Pg	Pg	22 46 53.0	-2.2
	4.4nm,0.4s,SNR=19						
EMAZ				Lg		22 47 06.5	
	30nm,0.1s,SNR=7.9						
ECAL	**Calabor**	1.04	137	⇑Pg	Pg	22 46 55.0	-1.5
	9.0nm,0.5s,SNR=18						
ECAL				Lg		22 47 08.7	
	17nm,0.2s,SNR=7.9						
PBRG	**Braganca**	1.15	142	*e*P	Pb	22 46 56.3	-1.8
PBRG				*e*S	Sb	22 47 11.9	-1.4
	27nm,0.1s						
PBRG	**Braganca**	1.15	142	Pg	Pg	22 46 56.3	-2.3
PBRG				Lg		22 47 11.9	
	13nm,0.1s						
PVRL	**Vila Real**	1.43	181	*e*Pg	Pg	22 47 02.2	-2.1
PVRL				*e*Sg	Sg	22 47 20.9	-2.5
	45nm,0.1s						
PVRL	**Vila Real**	1.43	181	Pg	Pg	22 47 02.2	-2.1
PVRL				Lg		22 47 20.9	
	22nm,0.1s						
EARI	**Arriondas**	1.91	71	Pg	Pg	22 47 11.5	-2.4
	1.3nm,0.3s,SNR=21						
EARI				Lg		22 47 35.8	
	0.8nm,0.1s,SNR=5.2						
PVIS	**Viseu**	2.00	184	*e*Sg	Sg	22 47 38.1	-4.1
	10.0nm,0.1s						
PVIS	**Viseu**	2.00	184	Lg		22 47 38.1	
	5.0nm,0.1s						
MTE	**Manteigas**	2.31	177	*e*Sg	Sg	22 47 47.1	-5.5
	10nm,0.4s						
MTE	**Manteigas**	2.31	177	Lg		22 47 47.1	
	5.1nm,0.4s						
PCBR	**Castelo Branco**	2.87	177	*e*Pn	Pn	22 47 20.6	-3.0
PCBR				*e*Sn	Sn	22 47 54.1	-5.2
PCBR				*e*Sg	Sg	22 48 05.5	-5.8
	3.6nm,0.3s						
PCBR	**Castelo Branco**	2.87	177	Pn	Pn	22 47 20.6	-3.0
PCBR				Sn	Sn	22 47 54.1	-5.2
PCBR				Lg		22 48 05.5	
	1.8nm,0.3s						
ELAN	**Lanestosa**	3.17	79	Pn	Pn	22 47 25.4	-2.4
	SNR=7.9						
ELAN				Pg	Pg	22 47 33.8	-5.1
	SNR=7.9						
ELAN				Sn	Sn	22 48 01.8	-5.0
	0.3nm,0.1s,SNR=7.9						
ELAN				Lg		22 48 17.4	
	1.6nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	3.98	172	Sn	Sn	22 48 22.3	-5.2
	SNR=7.9						
EBAD				Lg		22 48 38.5	
	SNR=4.0						

IDC 13 22:58:44.6±0.9, **13.48N×144.87E, mb3.7**/6, **mb1 4.0**/6, **mb1mx3.8**/19, **Error ellipse: s-maj=44.6km s-min=21.6km az=116.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	34.79	198	P	P	23 05 36.8	-2.4
	1.7nm,0.9s,baz=24,slow=10.0,SNR=3.6						
ASAR	**Alice Springs**	38.44	196	P	P	23 06 08.3	-1.7
	0.5nm,0.5s,baz=21,slow=12,SNR=4.1						
CMAR	**Chiang Mai Arr**	44.34	283	P	P	23 06 57.0	-1.6
	0.5nm,0.7s,baz=81,slow=7.0,SNR=4.3						
ILAR	**Eielson Array**	68.67	25	P	P	23 09 49.2	-2.4
	0.4nm,0.4s,baz=257,slow=5.5,SNR=12						
YKA	**Yellowknife Ar**	82.96	27	P	P	23 11 11.4	-1.2
	0.3nm,0.6s,baz=290,slow=6.0,SNR=4.2						
NVAR	**Mina Array Bea**	86.99	51	P	P	23 11 33.0	-0.3
	0.3nm,0.5s,baz=270,slow=8.1,SNR=2.8						

IDC 13 23:04:51.5±57.0, **9.04S×109.63E, mb4.1**/3, **mb1 4.3**/3, **mb1mx3.7**/14, **Error ellipse: s-maj=962.0km s-min=183.1km az=136.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	26.22	117	P	P	23 10 28.0	-2.1
	1.3nm,1.0s,baz=288,slow=12,SNR=3.7						
ASAR	**Alice Springs**	27.39	125	P	P	23 10 39.3	-1.4
	1.1nm,0.8s,baz=300,slow=8.7,SNR=8.9						
STKA	**Stephens Creek**	37.35	132	P	P	23 12 05.8	-1.8
	5.7nm,0.4s,baz=310,slow=7.1,SNR=40						

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*NEIC **13** 23:15:30.2, 30.95S×71.74W, h31^{km}, mb4.3/5, ML4.9(GUC), After GUC.*

*GUC **13** 23:15:30.2±0.7, 30.95S×71.74W, h31^{km}±3^{km}, ML4.9*

*IDC **13** 23:15:33.0±5.7, 30.93S×71.64W, h51^{km}±50^{km}, mb4.3/12, mb1 4.4/14, mb1mx4.3/18, ML4.5/2, MS3.9/5, Ms1 3.9/5, ms1mx3.5/16, Error ellipse: s-maj=28.0km s-min=14.9km az=80.0*

ISC 13 23:15:29.1±0.9, **30.92S**±0.02×**71.84W**±0.06, **h27**^{km}±6^{km}, **n66**, σ0^{s}**86**/66, **mb4.4**/16, **MS4.0**/4, **12C-8D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OVCH	**Ovalle**	0.63	61	⇓*i*P	Pb	23 15 41.8	+0.4
OVCH				*i* S	Sb	23 15 50.2	+0.2
OVCH				AMP		23 15 50.8	
	comp=N,31µm,0.4s						
CMCH	**Combarbala**	0.76	110	⇑*i*P	Pb	23 15 43.5	-0.2
CMCH				*i* S	Sb	23 15 53.0	-0.7
CMCH				AMP		23 15 54.0	
	comp=N,166µm,0.6s						
ILCH	**Illapel**	0.91	142	⇑*i*P	Pb	23 15 45.4	-0.8
ILCH				*i* S	Sb	23 15 56.4	-1.6
ILCH				AMP		23 15 57.2	
	comp=E,35µm,0.4s						
LSCH	**La Serena**	1.13	27	⇓*i*P	Pn	23 15 50.2	+0.8
LSCH				*i* S	Sn	23 16 04.6	+0.5
LSCH				AMP		23 16 09.2	
	comp=N,21µm,0.6s						
TLL	**Tololo Astrono**	1.16	50	⇓*i*P	Pn	23 15 50.6	+0.7
TLL				*i* S	Sn	23 16 05.5	+0.6
TLL				AMP		23 16 10.3	
	comp=N,59µm,0.5s						
PTCH	**Petorca**	1.55	150	⇑*i*P	Pn	23 15 55.5	+0.2
PTCH				*i* S	Sn	23 16 14.7	0.0
PTCH				AMP		23 16 16.8	
	comp=N,30µm,0.4s						
PACH	**Papudo**	1.65	168	⇑*i*P	Pn	23 15 56.8	0.0
PACH				*i* S	Sn	23 16 18.0	+0.7
JACH	**Jahuel**	2.05	149	⇓*i*P	Pn	23 16 03.4	+0.8
JACH				*i* S	Sn	23 16 27.9	+0.4
ROCH	**El Roble**	2.16	161	⇓*i*P	Pn	23 16 04.5	+0.3
PEL	**Peldehue**	2.42	157	⇓*i*P	Pn	23 16 08.3	+0.4
VACH	**Vallenar**	2.52	22	⇓*i*P	Pn	23 16 12.4	+3.2
VACH				*i* S	Sn	23 16 43.0	+3.6
VACH				AMP		23 16 56.4	
	comp=N,16µm,0.6s						
LCCH	**Las Cruces**	2.56	175	⇑*i*P	Pn	23 16 09.3	-0.5
DSCH	**Colegio Aleman**	2.69	157	⇑*i*P	Pn	23 16 11.9	+0.1
DSCH				*i* S	Sn	23 16 43.9	0.0
DSCH				AMP		23 16 54.3	
	comp=E,13µm,0.5s						
CLCH	**Cerro Calan**	2.70	156	*e*P	Pn	23 16 12.5	+0.6
CLCH				*i* S	Sn	23 16 44.5	+0.4
CLCH				AMP		23 16 57.6	
	comp=E,11µm,0.8s						
CLCH				AMP		23 17 01.8	
	comp=N,8µm,0.8s						
RCDM	**Rinconada Maip**	2.71	161	*i* P	Pn	23 16 12.0	+0.1
RCDM				*i* S	Sn	23 16 44.0	-0.1
RCDM				AMP		23 16 57.6	
	comp=E,4µm,0.6s						
SAN	**Santiago**	2.71	159	AMP		23 17 01.4	
	comp=E,7µm,0.5s						
FCH	**Farellones**	2.74	152	⇑*i*P	Pn	23 16 13.2	+0.8
FCH				AMP		23 16 57.8	
	comp=E,4µm,0.7s						
FSR	**Penalolen**	2.78	157	*e*P	Pn	23 16 13.3	+0.3
FSR				*i* S	Sn	23 16 46.4	+0.3
FSR				AMP		23 16 58.0	
	comp=E,9µm,0.6s						
TACH	**Talagante**	2.83	165	*e*P	Pn	23 16 13.8	+0.1
LNV	**Longovilo**	3.05	173	*e*P	Pn	23 16 16.8	0.0
CHCH	**Chadas Angostu**	3.17	162	⇑*i*P	Pn	23 16 18.7	+0.3
LMEL	**Las Melosas**	3.23	155	*e*P	Pn	23 16 19.8	+0.4
LMEL				*i* S	Sn	23 16 57.4	0.0
LMEL				AMP		23 17 14.8	
	comp=N,3µm,0.4s						
CACH	**El Canelo**	3.35	162	⇓*i*P	Pn	23 16 21.8	+0.7
CICH	**Cipreses**	3.59	161	⇑*i*P	Pn	23 16 24.9	+0.4
SFDO	**San Fernando**	3.75	170	*e*P	Pn	23 16 26.9	+0.1
LVC	**Limon Verde**	8.68	18	P	P	23 17 30.3	-5.7
	comp=N,1.2nm,0.3s,baz=163,slow=8.1,SNR=12						
LVC				S	Sn	23 19 21.7	+7.8
	comp=N,5.9nm,0.3s,baz=298,slow=8.9,SNR=4.2						
LVC				LR	LR	23 20 44.1	
	comp=N,452nm,19.0s,baz=208,slow=36						
TRQA	**Tornquist**	10.80	134	*e*P	P	23 18 01.8	-3.5
ARE	**Arequipa**	14.39	1	*e*P		23 19 04.0	
LPAZ	**La Paz**	14.95	14	P	P	23 19 01.5	+0.9
	comp=N,0.6nm,0.3s,baz=194,slow=8.0,SNR=37						
LPAZ	**La Paz**	14.95	14	P	P	23 19 01.5	+0.9
USHA	**Ushuaia**	24.02	175	P	P	23 20 42.8	+0.2
	comp=N,25nm,0.7s,mb4.7,baz=347,slow=5.4,SNR=14						
BDFB	**Brasilia**	26.56	60	P	P	23 21 04.5	-2.4
	comp=N,7.9nm,0.7s,mb4.4,baz=243,slow=6.8,SNR=14						
BDFB				LR	LR	23 32 37.5	
	comp=N,432nm,19.9s,MS4.0,baz=258,slow=39						
BAO	**Brasilia Array**	26.59	60	P	P	23 21 04.7	-2.5
SJG	**San Juan**	49.05	7	P	P	23 24 14.4	-1.7
	comp=N,19nm,0.6s,mb5.3,baz=146,slow=3.6,SNR=5.1						
VNA3	**Neumayer Olymp**	52.15	159		P	23 24 39.9	+0.9
VNA2	**Neumayer--Watz**	52.79	158	⇑*i*	P	23 24 45.4	+1.6
SNAA	**Sanae**	54.38	159	⇑*i*	P	23 24 53.5	-1.9
SNAA	**Sanae**	54.38	159	P	P	23 24 53.8	-1.7
	comp=N,4.3nm,0.6s,mb4.5,baz=280,slow=7.3,SNR=56						
QSPA	**South Pole Qui**	59.31	180	⇑*i*P	P	23 25 29.7	-0.8
	comp=N,14nm,1.2s,mb4.9						
TXAR	**Lajitas Array**	67.15	330	P	P	23 26 22.7	-0.2
	comp=N,1.0nm,0.8s,mb3.9,baz=148,slow=8.5,SNR=3.1						
TXAR				LR	LR	23 50 48.2	
	comp=N,75nm,18.8s,MS3.9,slow=32						
DBIC	**Dimbokro**	74.05	72	P	P	23 27 03.4	-1.5
	comp=N,14nm,0.8s,mb4.9,baz=217,slow=6.0,SNR=26						
MAW	**Mawson**	76.08	164	*e*P	P	23 27 14.5	-1.0
	comp=N,5.7nm,1.1s,mb4.4						
MAW	**Mawson**	76.08	164	P	P	23 27 14.5	-1.0
	comp=N,5.2nm,0.6s,mb4.7,baz=232,slow=6.8,SNR=10						
MAW				LR	LR	23 59 01.4	
	comp=N,96nm,20.8s,MS4.1,baz=64,slow=34						
TPNV	**Topopah Spring**	79.29	325	*e*P	P	23 27 34.2	+0.4
	comp=N,2.4nm,1.0s,mb4.1						
BW06	**Boulder Array**	81.10	333	*e*P	P	23 27 42.8	-0.6

	comp=N,0.9nm,0.8s,mb3.8						
PDAR	**Pinedale Array**	**81.10**	**333**	P	**P**	**23 27 43.5**	**+0.1**
	comp=N,0.8nm,0.8s,mb3.7,baz=162,slow=4.7,SNR=6.5						
PDAR				LR	LR	23 59 08.8	
	comp=N,64nm,20.2s,MS4.0,baz=257,slow=32						
NVAR	**Mina Array Bea**	**81.46**	**325**	P	**P**	**23 27 45.3**	**0.0**
	comp=N,1.0nm,0.8s,mb3.8,baz=146,slow=6.2,SNR=5.2						
ULM	**Lac du Bonnet**	**83.58**	**345**	P	**P**	**23 27 55.5**	**-0.5**
	comp=N,2.8nm,0.6s,mb4.6,baz=172,slow=7.0,SNR=8.0						
HLID	**Hailey**	**83.75**	**330**	*e*P	**P**	**23 27 57.2**	**+0.2**
	comp=N,1.2nm,0.7s,mb4.1						
MCMT	**McKenzie Canyo**	**84.13**	**332**	*e*P	**P**	**23 27 59.8**	**+0.9**
SCHQ	**Schefferville**	**85.51**	**3**	P	**P**	**23 28 05.0**	**-0.6**
	comp=N,7.1nm,1.1s,mb4.8,baz=151,slow=4.6,SNR=3.5						
SCHQ	**Schefferville**	**85.51**	**3**	P	**P**	**23 28 05.0**	**-0.6**
YKA	**Yellowknife Ar**	**99.20**	**341**	P	**P**	**23 29 08.1**	**-0.9**
	comp=N,0.3nm,0.6s,mb4.0,baz=140,slow=4.4,SNR=7.2						
ASAR	**Alice Springs**	**120.38**	**207**	PKP	PKPdf	23 34 18.2	-5.1
	comp=N,0.6nm,0.6s,baz=131,slow=1.7,SNR=8.4						
WB2	**Warramunga Arr**	**123.52**	**210**	*e*P	PKPdf	23 34 24.6	-4.9
WRA	**Warramunga Arr**	**123.52**	**210**	PKP	PKPdf	23 34 24.4	-5.1
	comp=N,1.5nm,0.5s,baz=162,slow=1.6,SNR=17						
CHKZ	**Chkalovo**	**144.72**	**39**	*e*PKP	PKPdf	23 35 02.5	-5.3
BRVK	**Borovoye**	**144.79**	**40**	*e*PKP	PKPdf	23 35 00.6	-7.3
BVAR	**Borovoye Array**	**144.87**	**40**	PKP	PKPdf	23 35 03.1	-5.0
	comp=N,3.2nm,0.7s,baz=288,slow=4.7,SNR=20						
HYB	**Hyderabad**	**149.93**	**110**	*i* P	PKPdf	23 35 18.0	+0.6
AAK	**Ala-Archa**	**150.79**	**57**	*e*PKPbc	PKPdf	23 35 19.0	+1.0
ZAL	**Zalesovo**	**151.50**	**29**	PKPbc	PKPdf	23 35 20.8	+2.1
	comp=N,3.8nm,0.5s,baz=174,slow=2.3,SNR=21						
ZAL	**Zalesovo**	**151.50**	**29**	PKPbc	PKPdf	23 35 20.8	+2.1
TKM2	**Tokmak 2**	**151.52**	**56**	PKPbc	PKPdf	23 35 21.2	+2.2
SONM	**Songino Array**	**163.05**	**4**	PKPab	PKPab	23 36 19.3	-1.2
	comp=N,0.5nm,0.8s,baz=8.1,slow=8.7,SNR=4.9						
CMAR	**Chiang Mai Arr**	**165.04**	**144**	PKPab	PKPab	23 36 28.1	-1.9
	comp=N,3.3nm,1.2s,baz=229,slow=5.8,SNR=6.1						

IDC 13 23:16:46.3±2.7**, 14.72S**×**173.92W, mb4.0**/4**, mb1 4.2**/4**, mb1mx3.9**/14**, Error ellipse: s-maj=216.0km s-min=28.8km az=147.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**43.94**	**239**	P	P	23 24 55.0	-2.0
	3.0nm,1.0s,baz=64,slow=10,SNR=3.6						
WRA	**Warramunga Arr**	**49.51**	**256**	P	P	23 25 38.8	-2.1
	0.5nm,0.6s,baz=89,slow=7.7,SNR=5.4						
ASAR	**Alice Springs**	**49.84**	**251**	P	P	23 25 41.9	-1.7
	1.8nm,0.6s,baz=86,slow=8.5,SNR=24						
NVAR	**Mina Array Bea**	**74.17**	**42**	P	P	23 28 25.2	-1.5
	0.9nm,0.7s,baz=219,slow=7.4,SNR=5.1						

ISC 13 23:32:10.6±0.7**, 46.39N**±0.03×**15.06E**±0.05**, n6, σ0^{s}65**/9**, 1C-1D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PERS	**Pernice**	**0.25**	**10**	*i* Sg	**Sg**	**23 32 19.5**	**+0.7**
GROS	**Grobnik**	**0.32**	**77**	*i* Pg	**Pg**	**23 32 17.4**	**+0.5**
GROS				*i* Sg	**Sg**	**23 32 21.9**	**+0.7**
PDKS	**Podkum**	**0.33**	**187**	*i* Sg	**Sg**	**23 32 21.4**	**-0.3**
	comp=Z,4.0nm,0.2s						
OBKA	**Obir**	**0.37**	**289**	⇓*i*PG	**Pg**	**23 32 18.2**	**+0.2**
OBKA				*i* SG	**Sg**	**23 32 23.3**	**+0.4**
	comp=Z,6.1nm,0.4s						
LEGS	**Legarje**	**0.48**	**158**	*i* Sg	**Sg**	**23 32 26.5**	**-0.1**
ARSA	**Arzberg**	**0.92**	**20**	⇑*i*PG	**Pg**	**23 32 27.7**	**-1.2**
ARSA				*i* SG	**Sg**	**23 32 40.2**	**-0.9**
	comp=Z,0.9nm,0.3s						

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*IDC **13** 23:36:47.4±1.2, 47.53N×155.22E, mb3.9/10, mb1 4.1/11, mb1mx3.9/25, ML3.7/1, Error ellipse: s-maj=31.6km s-min=19.8km az=165.0*

*NEIC **13** 23:36:52.6±0.8, 47.57N×155.11E, h35^{km}, mb4.4/3, Error ellipse: s-maj=20.4km s-min=15.0km az=169.0*

*MOS **13** 23:37:00.5±2.4, 48.55N×155.50E, h83^{km}, mb4.2/2, Error ellipse: s-maj=33.1km s-min=15.9km az=85.6*

ISC 13 23:36:47.2±0.9**, 47.7N**±0.1×**155.2E**±0.2**, h10^{km}, n18, σ1^{s}13**/18**, mb4.0**/12**, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**3.03**	**11**	*e*PN	**Pn**	**23 37 34.5**	**-1.7**
FX1	**Attu Island--F**	**12.58**	**59**	Pn	**P**	**23 39 46.4**	**-2.5**
	1.6nm,0.3s,baz=118,slow=19,SNR=5.0						
FX1	**Attu Island--F**	**12.58**	**59**	PN	**P**	**23 39 46.4**	**-2.5**
FX1				pmax	pmax		
	comp=Z,2.0nm,0.3s						
SONM	**Songino Array**	**32.37**	**289**	P	**P**	**23 43 18.4**	**-0.4**
	comp=Z,0.9nm,1.1s,mb3.5,baz=83,slow=11,SNR=3.2						
INK	**Inuvik**	**40.06**	**33**	P	**P**	**23 44 24.8**	**+0.9**
	comp=Z,0.7nm,0.7s,mb3.5,baz=278,slow=20,SNR=4.6						
YKA	**Yellowknife Ar**	**49.29**	**38**	P	**P**	**23 45 38.4**	**+0.8**
	comp=Z,1.5nm,1.2s,mb3.9,baz=296,slow=7.6,SNR=3.8						
CHKZ	**Chkalovo**	**50.90**	**310**	*e*P	**P**	**23 45 49.0**	**-1.1**
	comp=Z,4.5nm,0.3s,mb4.9						
BVAR	**Borovoye Array**	**51.35**	**310**	P	**P**	**23 45 53.2**	**-0.3**
	comp=Z,1.2nm,0.4s,mb4.2,baz=58,slow=7.2,SNR=5.7						
BVAR				ScP		23 51 07.8	
	comp=Z,0.3nm,0.7s,baz=45,slow=6.3,SNR=3.6						
BRVK	**Borovoye**	**51.39**	**310**	*e*P	**P**	**23 45 52.9**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
BRVK	**Borovoye**	**51.39**	**310**	*e*P	**P**	**23 45 52.9**	**-0.8**
	comp=Z,2.3nm,0.6s,mb4.3						
FINES	**FINESS Array B**	**63.77**	**335**	P	**P**	**23 47 21.3**	**+0.4**
	comp=Z,1.5nm,0.4s,mb4.3,baz=37,slow=7.6,SNR=24						
NB2	**NORSAR Subarra**	**67.77**	**342**	P	**P**	**23 47 47.2**	**+0.6**
	comp=Z,0.9nm,0.5s,mb4.1,baz=29,slow=6.2						
NB2	**NORSAR Subarra**	**67.77**	**342**	P	**P**	**23 47 47.2**	**+0.6**
NB2				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
NOA	**NORSAR Array B**	**67.77**	**342**	P	**P**	**23 47 48.1**	**+1.5**
	comp=Z,0.7nm,0.7s,mb3.8,baz=31,slow=6.5,SNR=3.0						
HFS	**Hagfors**	**68.04**	**340**	P	**P**	**23 47 49.8**	**+1.5**
	comp=Z,1.5nm,0.6s,mb4.2,baz=61,slow=3.6,SNR=13						
ASAR	**Alice Springs**	**73.59**	**200**	P	**P**	**23 48 21.4**	**-1.1**
	comp=Z,0.1nm,0.4s,mb3.1,baz=12,slow=5.1,SNR=4.1						
TXAR	**Lajitas Array**	**75.77**	**62**	P	**P**	**23 48 35.3**	**+0.5**
	comp=Z,0.7nm,0.4s,mb3.9,baz=290,slow=4.2,SNR=4.1						
GERES	**GERESS Array B**	**78.20**	**335**	P	**P**	**23 48 49.5**	**+1.6**
	comp=Z,0.7nm,0.8s,mb3.6,baz=34,slow=4.8,SNR=5.1						

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*CSEM **14** 00:00:58.1±0.5, 67.10N×20.71E, h2^{km}, ML3.2/2, Error ellipse: s-maj=11.9km s-min=7.8km az=47.0, Mining explosion.*

*UPP **14** 00:01:00.6, 67.16N×20.76E, h0^{km}, ML2.8, Suspected Mining explosion.*

*BER **14** 00:01:01.8±3.9, 67.22N×20.60E, ML2.0, ML2.1(NAO), Suspected explosion*

*NAO **14** 00:01:02.1±3.4, 67.18N×21.19E, ML2.1*

HEL 14 00:01:01.3±0.1**, 67.18N**×**20.65E, ML2.7**(UPP)**, ML2.0**(BER)**, ML2.1**(NAO)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	**0.07**	**208**	*i* P	Pg	00 01 02.2	-0.5
DUNU				*i* S	Sg	00 01 03.6	+0.1
DUNU	**Dundret**	**0.07**	**208**	P	Pg	00 01 02.1	-0.5
MASU	**Masugnsbyn**	**0.59**	**61**	*i* P	Pg	00 01 11.1	-2.1
MASU				*i* S	Sg	00 01 19.7	-1.3
MASU	**Masugnsbyn**	**0.59**	**61**	S	Sg	00 01 19.7	-1.3
MASU	**Masugnsbyn**	**0.59**	**61**	P	Pg	00 01 11.0	-2.1
ERTU	**Ertsjaerv**	**0.88**	**135**	*i* P	Pg	00 01 14.9	-3.9
NIKU	**Nikkaluokta**	**0.93**	**319**	*e*P	Pg	00 01 17.8	-2.1
NIKU	**Nikkaluokta**	**0.93**	**319**	P	Pg	00 01 17.7	-2.1
PAJU	**Pajala**	**0.98**	**98**	*e*P	Pb	00 01 18.5	-2.3
PAJU				*e*S	Sg	00 01 31.6	-2.2
PAJU	**Pajala**	**0.98**	**98**	P	Pb	00 01 18.4	-2.4
PAJU				S	Sg	00 01 31.5	-2.3
SJUU	**Sjulsmark**	**1.72**	**167**	*e*P	Pn	00 01 31.4	-1.3
LILU	**Lilltraesk**	**1.93**	**190**	*e*P	Pn	00 01 35.4	-0.3
KTK1	**Kautokeino**	**2.08**	**27**	*e*P	Pn	00 01 38.6	+0.7
KTK1				*e*Sg	Sg	00 02 06.3	-4.3
KTK1				AML	AML	00 02 07.6	
	comp=Z,27nm,0.4s						
KTK1	**Kautokeino**	**2.08**	**27**	Sg	Sg	00 02 06.2	-4.4
	comp=Z,27nm,0.4s						
SGF	**Sodankyl**	**2.29**	**81**	*e*P	Pn	00 01 40.7	-0.2
SGF				*e*S	Sn	00 02 09.5	-0.8
TRO	**Tromso**	**2.54**	**346**	*e*Sg	Sg	00 02 18.2	-7.8
TRO				AML	AML	00 02 18.8	
	comp=Z,17nm,0.7s						
TRO	**Tromso**	**2.54**	**346**	*e*Sg	Sg	00 02 18.2	-7.8
	comp=Z,17nm,0.7s,SNR=90						
MOR8	**Moi Rana**	**2.67**	**251**	*e*Sg	Sg	00 02 19.7	-11
MOR8				AML	AML	00 02 22.0	
	comp=Z,16nm,0.4s						
LOF	**Lofoten**	**2.88**	**293**	*e*Sg	Sg	00 02 29.6	-7.6
ARA0	**ARCESS Array S**	**2.97**	**35**	Pn	Pn	00 01 49.0	-1.6
	baz=210,slow=14						
ARA0				Sn	Sn	00 02 24.7	-2.8
	baz=212,slow=28						
ARA0				Lg		00 02 30.7	
	baz=219,slow=37						
ARA0	**ARCESS Array S**	**2.97**	**35**	*e*P	Pn	00 01 49.0	-1.6
ARA0				*e*S	Sn	00 02 24.7	-2.8
ARA0				*e*SB	Sb	00 02 30.7	-1.3
OUL	**Oulu**	**3.00**	**132**	*e*P	Pn	00 01 52.2	+1.3
OUL				*e*S	Sn	00 02 26.2	-1.9
KEV	**Kevo**	**3.49**	**39**	*e*P	Pn	00 01 56.0	-1.9
KEV				*e*S	Sn	00 02 38.4	-2.2
MSF	**Maaselka**	**3.59**	**107**	*e*P	Pn	00 02 00.5	+1.2
MSF				*e*S	Sn	00 02 40.5	-2.6
NSS	**Namsos**	**4.45**	**237**	*e*Sg	Sg	00 03 20.6	-8.8
APA0	**Apatity Array**	**4.78**	**79**	Lg		00 03 27.8	
	baz=277,slow=28						
APA0	**Apatity Array**	**4.78**	**79**	Lg		00 03 27.8	
	baz=277,slow=28						
APA0	**Apatity Array**	**4.78**	**79**	*e*SG		00 03 27.8	
FIA0	**FINESS Array S**	**6.22**	**155**	Sn	Sn	00 03 42.5	-7.0
	baz=349,slow=22						
FIA0				Lg		00 04 14.1	
	baz=347,slow=28						
FIA0	**FINESS Array S**	**6.22**	**155**	*e*S	Sn	00 03 42.5	-7.0
FIA0				*e*SG		00 04 14.1	

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*NEIC **14** 00:16:01.6, 29.76S×71.75W, h46^{km}, MD3.7(GUC), After GUC.*

GUC 14 00:16:01.6±0.7**, 29.76S**×**71.75W, h46^{km}**±2^{km}**, MD3.7, ML3.3, 2C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSCH	**La Serena**	**0.46**	**109**	⇑*i*P	P	00 16 12.1	-0.1
LSCH				*i* S	S	00 16 20.5	+0.8
LSCH				AMP		00 16 21.6	
	comp=N,564nm,0.2s						
TLL	**Tololo Astrono**	**0.92**	**116**	⇓*i*P	P	00 16 19.0	+0.8
TLL				*i* S	S	00 16 32.6	+2.1
TLL				AMP		00 16 36.8	
	comp=E,1μm,0.5s						
VACH	**Vallenar**	**1.47**	**37**	*i* P	P	00 16 26.3	+0.2
VACH				*i* S	S	00 16 44.9	+0.6
VACH				AMP		00 16 46.0	
	comp=N,1μm,0.1s						
CMCH	**Combarbala**	**1.55**	**155**	⇓*i*P	P	00 16 27.4	+0.2
CMCH				*i* S	S	00 16 47.3	+0.9
CMCH				AMP		00 16 48.4	
	comp=E,2μm,0.6s						
ILCH	**Illapel**	**1.94**	**165**	*e*P	P	00 16 32.9	+0.2
ILCH				*i* S	S	00 16 56.0	+0.2
ILCH				AMP		00 16 57.0	
	comp=N,246nm,0.3s						
PTCH	**Petorca**	**2.59**	**164**	⇑*i*P	P	00 16 41.4	-0.7
PTCH				*i* S	S	00 17 12.0	-0.5
PTCH				AMP		00 17 15.9	
	comp=E,338nm,0.3s						
FCH	**Farellones**	**3.77**	**161**	*e*P	P	00 16 59.0	+0.2
FCH				*e*S	S	00 17 42.4	+0.1
RCDM	**Rinconada Maip**	**3.80**	**168**	*e*P	P	00 16 58.1	-1.2
RCDM	**Rinconada Maip**	**3.80**	**168**	*e*P	P	00 16 58.1	-1.2
RCDM				*e*S	S	00 17 41.2	-2.0

SVSA 14 00:16:33.7±0.8**, 37.60N**×**30.66W, MD3.9, ML3.7, Error ellipse: s-maj=40.3km s-min=6.4km az=151.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CALA	**Caldeira**	**1.83**	**57**	*e*rx	Pn	00 16 59.9	-6.8
HOR	**Horta**	**1.85**	**59**	*e*P	Pn	00 17 01.9	-5.1
PICO	**Pico**	**1.98**	**62**	*e*P	Pn	00 17 03.6	-5.2
PICO				*e*S	Sn	00 17 26.7	-8.0
PMAN	**Manadas**	**2.28**	**62**	*e*rx	Pn	00 17 07.7	-5.3
ASBA	**Santa Barbara**	**2.86**	**66**	*e*P	Pn	00 17 15.7	-5.7
ASBA				*e*S	Sn	00 17 47.5	-9.5
	26nm,0.2s						
PPAD	**Pico dos Padre**	**2.88**	**67**	*e*P	Pn	00 17 16.4	-5.3
PPAD				*e*S	Sn	00 17 47.9	-10
	22nm,0.2s						
ADH	**Angra Heroismo**	**2.90**	**68**	*e*P	Pn	00 17 16.7	-5.3
ADH				*e*S	Sn	00 17 48.9	-9.2
PBIS	**Biscoitos**	**2.92**	**66**	*e*P	Pn	00 17 16.6	-5.7
PBIS				*e*S	Sn	00 17 48.9	-10
RIB2	**Ribeirinha**	**2.95**	**68**	*e*P	Pn	00 17 17.6	-5.1
PVNV	**Vila Nova**	**3.00**	**66**	*e*P	Pn	00 17 18.1	-5.2
PFAV	**Pico das Favas**	**3.03**	**67**	*e*P	Pn	00 17 18.1	-5.7
PFAV				*e*S	Sn	00 17 51.8	-10

ISC 14 00:40:00.8±0.7**, 46.40N**±0.03×**15.08E**±0.05**, n5, σ0^{s}60**/10**, 2C, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PERS	**Pernice**	**0.24**	**7**	*i* Pg	**Pg**	**00 40 06.0**	**+0.5**
PERS				*i* Sg	**Sg**	**00 40 09.1**	**+0.4**
	comp=Z,8.0nm,0.3s						
GROS	**Grobnik**	**0.30**	**78**	*i* Pg	**Pg**	**00 40 06.9**	**+0.2**
GROS				*i* Sg	**Sg**	**00 40 11.6**	**+0.8**
	comp=Z,15nm,0.5s						
OBKA	**Obir**	**0.38**	**287**	⇑*i*PG	**Pg**	**00 40 08.1**	**-0.3**
OBKA				*i* SG	**Sg**	**00 40 14.1**	**+0.6**
	comp=Z,22nm,0.7s						
LEGS	**Legarje**	**0.48**	**160**	*i* Pg	**Pg**	**00 40 10.0**	**-0.4**
LEGS				*e*Sg	**Sg**	**00 40 16.8**	**0.0**
	comp=Z,6.0nm,0.5s						
ARSA	**Arzberg**	**0.91**	**20**	⇑*i*PG	**Pg**	**00 40 17.7**	**-1.1**
ARSA				*i* SG	**Sg**	**00 40 30.2**	**-0.7**
	comp=Z,2.0nm,0.4s						

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*NEIC **14** 00:45:41.3, 37.89S×176.58E, h161^{km}, After WEL.*

WEL 14 00:45:41.6±0.2**, 37.86S**×**176.60E, h157^{km}**±2^{km}**, ML3.6**/7**, 4C, Error ellipse: s-maj=2.7km s-min=2.7km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**0.56**	**135**	P	P	00 46 04.1	-0.5
URZ	**Urewera**	**0.56**	**135**	⇑PN	P	00 46 04.1	-0.5
URZ				SN	S	00 46 21.3	-0.9
URZ				SN	S	00 46 21.5	-0.6
MWZ	**Matawai**	**0.87**	**123**	P	P	00 46 06.1	-0.2
MWZ				S	S	00 46 25.0	-0.3
MWZ	**Matawai**	**0.87**	**123**	⇑PN	P	00 46 06.0	-0.3
MWZ				SN	S	00 46 25.0	-0.4
MXZ	**Matakaoa Point**	**1.38**	**78**	P	P	00 46 10.8	-0.1
MXZ	**Matakaoa Point**	**1.38**	**78**	PN	P	00 46 10.8	-0.2
MXZ				SN	S	00 46 33.0	-0.5
KNZ	**Kokohu**	**1.43**	**144**	P	P	00 46 11.1	-0.3
KNZ	**Kokohu**	**1.43**	**144**	⇑PN	P	00 46 11.1	-0.3
KNZ				SN	S	00 46 32.8	-1.6
NGZ	**Ngauruhoe**	**1.53**	**211**	P	P	00 46 12.3	-0.1
NGZ	**Ngauruhoe**	**1.53**	**211**	PN	P	00 46 12.3	-0.1
CNZ	**Chateau**	**1.57**	**211**	PN	P	00 46 13.2	+0.4
TUVZ	**Tukino**	**1.59**	**208**	P	P	00 46 12.6	-0.4
TUVZ	**Tukino**	**1.59**	**208**	PN	P	00 46 12.6	-0.4
MOVZ	**Moawhango**	**1.68**	**203**	P	P	00 46 12.9	-1.1
MOVZ	**Moawhango**	**1.68**	**203**	*e*PN	P	00 46 12.9	-1.1
TSZ	**Takapari Road**	**2.25**	**193**	P	P	00 46 18.8	-1.8
TSZ				S	S	00 46 48.3	-2.2
TSZ	**Takapari Road**	**2.25**	**193**	⇑PN	P	00 46 18.8	-1.8
TSZ				SN	S	00 46 48.3	-2.2
BFZ	**Birch Farm**	**2.83**	**186**	P	P	00 46 25.2	-2.6
BFZ	**Birch Farm**	**2.83**	**186**	PN	P	00 46 25.2	-2.6
MRZ	**Mangatainoka R**	**2.91**	**196**	P	P	00 46 25.7	-3.1
MRZ				S	S	00 47 01.0	-3.9
MRZ	**Mangatainoka R**	**2.91**	**196**	PN	P	00 46 25.7	-3.1
MRZ				SN	S	00 47 01.0	-3.9
KIW	**Kapiti Island**	**3.27**	**203**	P	P	00 46 29.8	-3.7
KIW	**Kapiti Island**	**3.27**	**203**	PN	P	00 46 29.8	-3.6
KIW				*e*SN	S	00 47 07.6	-5.6
MTW	**Mount Morrison**	**3.40**	**194**	P	P	00 46 31.0	-4.1
MTW	**Mount Morrison**	**3.40**	**194**	PN	P	00 46 31.0	-4.1
CAW	**Cannon Point**	**3.45**	**200**	PN	P	00 46 31.7	-4.1
MRW	**Makara Radio**	**3.67**	**203**	P	P	00 46 34.6	-4.0
MRW	**Makara Radio**	**3.67**	**203**	*e*PN	P	00 46 34.6	-4.0
MSWZ	**Moikau Station**	**3.70**	**196**	P	P	00 46 34.5	-4.5
MSWZ	**Moikau Station**	**3.70**	**196**	*e*PN	P	00 46 34.5	-4.5
NNZ	**Nelson**	**4.18**	**216**	SN	S	00 47 28.2	-6.0
THZ	**Tophouse**	**4.83**	**215**	*e*PN	P	00 46 49.0	-4.8

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*NIED **14** 01:11:00, 36.50N×142.60E, h11^{km}, Mw3.7 Best double couple: M$_0$4.01×10^{14} NP1:φ$_s$200°, δ57°, λ-51°. NP2: φ$_s$324°, δ49°, λ-135°.*

*IDC **14** 01:11:23.5±1.1, 36.42N×142.72E, mb3.6/7, mb1 3.9/8, mb1mx3.7/23, ML3.8/1, MS2.6/1, Ms1 2.6/1, ms1mx2.4/28, Error ellipse: s-maj=31.4km s-min=23.1km az=103.0*

*JMA **14** 01:11:27.5±0.2, 36.49N×142.57E, h87^{km}, M3.5*

*NEIC **14** 01:11:29.2±2.1, 36.39N×142.70E, h40^{km}±18^{km}, mb4.0/1, Error ellipse: s-maj=19.6km s-min=17.7km az=78.0*

ISC 14 01:11:26.9±0.9**, 36.48N**±0.03×**142.67E**±0.06**, h36^{km}**±9^{km}**, n30, σ0^{s}80**/44**, mb3.7**/8**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ONAJ	**Iwakimizuishiy**	**1.62**	**293**	P	**P**	**01 11 53.9**	**+0.3**
ONAJ				S	**S**	**01 12 13.8**	**+0.3**
CHOJ	**Chosi**	**1.66**	**243**	P	**P**	**01 11 54.8**	**+0.8**
CHOJ				S	**S**	**01 12 15.3**	**+1.0**
JFK	**Kawauchi**	**1.69**	**302**	P	**P**	**01 11 54.6**	**+0.1**
JHO	**Hitachi**	**1.69**	**275**	P	**P**	**01 11 54.8**	**+0.2**
JHO				S	**S**	**01 12 15.9**	**+0.7**
JMM	**Marumori**	**2.04**	**313**	P	**P**	**01 11 59.5**	**0.0**
JMM				S	**S**	**01 12 24.8**	**+0.8**
BSO1	**Boso 1**	**2.28**	**218**	P	**P**	**01 12 02.6**	**-0.4**
BSO1				S	**S**	**01 12 30.5**	**+0.4**
JAG	**Ashikaga**	**2.59**	**270**	P	**P**	**01 12 07.9**	**+0.5**
JAG				S	**S**	**01 12 37.5**	**-0.5**
JMK	**Ichinoseki**	**2.72**	**336**	P	**P**	**01 12 08.9**	**-0.4**
JMK				S	**S**	**01 12 40.7**	**-0.7**
JYK	**Kaneyama**	**3.05**	**324**	P	**P**	**01 12 14.0**	**+0.1**
JRY	**Ryogami san**	**3.08**	**263**	P	**P**	**01 12 14.3**	**0.0**
JRY				S	**S**	**01 12 49.6**	**-0.7**
JOD2	**Odawara 2**	**3.15**	**248**	P	**P**	**01 12 15.7**	**+0.4**
JOD2				S	**S**	**01 12 51.2**	**-0.9**
JIM2	**Oshima 3**	**3.17**	**237**	S	**S**	**01 12 50.2**	**-2.4**
JOM	**Ohasama**	**3.18**	**340**	P	**P**	**01 12 15.7**	**-0.1**
JOM				S	**S**	**01 12 52.2**	**-0.8**
JYN	**Shimob**	**3.48**	**255**	P	**P**	**01 12 21.0**	**+0.9**
JYN				S	**S**	**01 13 00.9**	**+0.3**
MAJO	**Matsushiro**	**3.59**	**272**	*e*Pn	**P**	**01 12 22.7**	**+1.0**
MAT	**Matsushiro**	**3.59**	**272**	P	**P**	**01 12 22.7**	**+1.1**
MAT				S	**S**	**01 13 02.2**	**-1.2**
MAT	**Matsushiro**	**3.59**	**272**	P	**P**	**01 12 22.9**	**+1.3**
MAT	**Matsushiro**	**3.59**	**272**	*e*P	**P**	**01 12 23.0**	**+1.4**
MAT				*e*S	**S**	**01 13 02.0**	**-1.4**
JANG	**Nango**	**3.99**	**347**	P	**P**	**01 12 26.2**	**-1.1**
JANG				S	**S**	**01 13 09.8**	**-3.8**
JHJ	**Hachijo jima 2**	**4.10**	**216**	Pn	**P**	**01 12 27.8**	**-1.1**
	15nm,0.3s,baz=41,slow=22,SNR=2.7						
JHJ				Sn	**S**	**01 13 11.2**	**-5.2**
	51nm,0.3s,baz=85,slow=21,SNR=7.0						
ASAJ	**Asahikawa**	**7.63**	**360**	LR	LR	01 16 24.6	
	comp=Z,42nm,19.8s,baz=319,slow=39						
SONM	**Songino Array**	**28.93**	**305**	P	**P**	**01 17 24.2**	**-0.5**
	0.7nm,1.0s,mb3.4,baz=106,slow=10,SNR=3.4						
ZAL	**Zalesovo**	**43.04**	**313**	P	**P**	**01 19 26.0**	**+1.4**
	0.8nm,0.5s,mb3.8,baz=54,slow=7.9,SNR=4.1						
ZAL	**Zalesovo**	**43.04**	**313**	P	**P**	**01 19 26.0**	**+1.4**
ILAR	**Eielson Array**	**49.43**	**32**	P	**P**	**01 20 15.3**	**+0.4**
	0.5nm,0.8s,mb3.6,baz=252,slow=7.6,SNR=5.1						
BVAR	**Borovoye Array**	**51.69**	**313**	P	**P**	**01 20 32.4**	**+0.1**
	0.3nm,0.4s,mb3.6,baz=84,slow=8.7,SNR=5.0						
BRVK	**Borovoye**	**51.74**	**313**	*e*P	**P**	**01 20 33.0**	**+0.3**
	1.1nm,0.7s,mb3.9						
WRA	**Warramunga Arr**	**56.66**	**189**	P	**P**	**01 21 07.9**	**-1.3**
	0.8nm,0.9s,mb3.7,baz=8.1,slow=7.4,SNR=3.8						
YKA	**Yellowknife Ar**	**63.78**	**30**	P	**P**	**01 21 56.9**	**-0.2**
	0.2nm,0.6s,mb3.3,baz=301,slow=6.8,SNR=4.3						
FINES	**FINESS Array B**	**69.77**	**333**	P	**P**	**01 22 35.7**	**+0.8**
	2.5nm,1.0s,mb4.1,baz=63,slow=3.1,SNR=3.5						

SKHL 14 01:17:19.2±0.2**, 49.86N**×**142.27E, h10^{km}, mb4.1**/4**, 3C-1D, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UGL	**Uglegorsk**	**0.79**	**190**	⇓*i*Pg	Pg	01 17 35.0	-0.2
UGL				AMB	AMB	01 17 35.3	
	377nm,0.5s						
UGL				AMB	AMB	01 17 35.3	
	308nm,0.5s						
UGL				AMB	AMB	01 17 35.3	
	362nm,0.5s						
UGL				*e*Sg	Sg	01 17 46.0	+0.2
UGL				A		01 17 47.0	
	3μm,0.5s						
UGL				A		01 17 47.0	
	2μm,0.5s						
UGL				A		01 17 47.0	
	747nm,0.5s						
TYV	**Tymovskoe**	**1.03**	**14**	*e*Pg	Pg	01 17 40.0	+0.1
TYV				⇑*i*rx	rx	01 17 40.8	
TYV				AMB	AMB	01 17 41.6	
	110nm,0.4s						
TYV				AMB	AMB	01 17 41.6	
	140nm,0.4s						
TYV				AMB	AMB	01 17 41.6	
	160nm,0.4s						
TYV				*e*Sg	Sg	01 17 54.5	+0.7
TYV				A		01 17 57.5	
	134nm,0.5s						
TYV				A		01 17 57.5	
	363nm,0.5s						
YSS	**Yuzh-Sakhalins**	**2.93**	**173**	*e*Pn	Pn	01 18 07.8	+1.1
YSS				*e*Pb	Pb	01 18 10.8	-0.3
YSS				⇑*i*Pg	Pg	01 18 17.6	0.0
YSS				AMB	AMB	01 18 20.0	
	50nm,0.8s						
YSS				*e*Sn	Sn	01 18 43.0	+0.7
YSS				*e*Sb	Sb	01 18 44.9	-2.2
YSS				*e*Sg	Sg	01 18 57.8	+1.1
YSS				A		01 18 58.4	
	63nm,0.5s						
YSS				A		01 18 58.4	
	68nm,0.5s						
NKL	**Nikolayevsk**	**3.44**	**344**	⇑*e*Pn	Pn	01 18 12.8	-1.2
NKL				AMB	AMB	01 18 13.3	
	35nm,0.3s						
NKL				AMB	AMB	01 18 13.3	
	50nm,0.3s						
NKL				*e*Sn	Sn	01 18 55.0	-0.3
NKL				*e*Sg	Sg	01 19 15.2	+1.4
NKL				A		01 19 17.6	
	87nm,0.5s						
GRNR	**Gornyy**	**3.86**	**286**	*e*Pg	Pg	01 18 36.0	-0.2
GRNR				*e*Sg	Sg	01 19 28.8	+1.2
GRNR				A		01 19 33.0	
	57nm,0.4s						
TEY	**Ternei**	**6.17**	**221**	*e*Sn	Sn	01 20 05.0	+1.0
EKMR	**Ekimchan**	**6.65**	**302**	*e*Pn	Pn	01 19 00.5	+1.1
EKMR				*e*Pb	Pb	01 19 16.0	+1.2
EKMR				*e*Pg	Pg	01 19 31.0	-1.0
EKMR				AMB	AMB	01 19 41.4	
	3.0nm,0.5s						
EKMR				*e*Sb	Sb	01 20 33.0	-2.2
EKMR				*e*Sg	Sg	01 21 02.5	+1.9
EKMR				A		01 21 05.5	
	12nm,0.8s						
EKMR				A		01 21 05.5	
	11nm,0.8s						
KLR	**Kul'dur**	**6.88**	**269**	*e*rx	rx	01 21 02.2	
YASR	**Yasnyy**	**9.54**	**297**	*e*rx	rx	01 20 55.1	
YASR				*e*S	Sn	01 21 33.1	+5.3
BMKR	**Bomnak**	**9.55**	**306**	*e*S	Sn	01 21 31.5	+3.3
ZEA	**Zeya**	**10.08**	**298**	*e*rx	rx	01 23 00.5	
KROS	**Kirovskiy**	**10.45**	**302**	*e*rx	rx	01 22 54.7	

*IDC **14** 01:45:28.3±0.5,28.57N×142.69E,mb4.3/18,mb1 4.5/18, mb1mx4.5/22,MS3.5/6,Ms1 3.5/6,ms1mx3.4/23,Error ellipse: s-maj=19.0km s-min=12.7km az=104.0*
*BJI **14** 01:45:31.3,28.60N×142.60E,h35^{km},mB4.8,mb4.4, Ms4.2,Msz3.9*
*NEIC **14** 01:45:33.4±0.3,28.59N×142.61E,h35^{km},mb4.8/17,Error ellipse: s-maj=8.9km s-min=7.1km az=65.0*
ISC 14 01:45:27.6±2.2**,28.66N**±0.04×**142.58E**±0.07**,h5**^{km}±13^{km}**, n59,σ0^{s}.99**/59**,mb4.5**/35**,MS3.8**/6**,2C,Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**1.59**	**193**	Pn	**Pn**	**01 45 57.5**	**+0.9**
	52nm,0.3s,baz=357,slow=10,SNR=15						
CBIJ				Sn	**Sn**	**01 46 19.3**	**+1.6**
	123nm,0.3s,baz=267,slow=22,SNR=9.5						
CBIJ				LR	LR	01 46 40.4	
	comp=Z,647nm,19.8s,baz=213,slow=47						
MAJO	**Matsushiro**	**8.69**	**336**	*e*P	**P**	**01 47 36.6**	**-0.3**
MAT	**Matsushiro**	**8.69**	**336**	P	**P**	**01 47 36.8**	**-0.1**
MAT				S	**Sn**	**01 49 10.7**	**-5.6**
MAT	**Matsushiro**	**8.69**	**336**	*e*P	**P**	**01 47 37.0**	**+0.1**
	20nm,1.0s						
MAT				*e*S	**Sn**	**01 49 11.0**	**-5.3**
JOW	**Kunigami**	**12.80**	**265**	LR	LR	01 53 32.8	
	comp=Z,92nm,18.4s,baz=122,slow=38						
KS15	**Wonju Array Si**	**15.11**	**309**	*e*P	**P**	**01 49 08.6**	**+5.2**
ASAJ	**Asahikawa**	**15.43**	**0**	LR	LR	01 54 06.8	
	comp=Z,56nm,20.3s,baz=210,slow=33						
MDJ	**Mudanjiang**	**19.00**	**330**	P	**P**	**01 49 51.9**	**-0.5**
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,70nm,5.2s						
MDJ	**Mudanjiang**	**19.00**	**330**	*e*P	**P**	**01 49 50.2**	**-2.2**
	comp=Z,29nm,1.0s						
CN2	**Changchun**	**20.42**	**322**	*e*P	**P**	**01 50 07.0**	**-1.3**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s						
HIA	**Hailar**	**27.00**	**326**	*e*P	**P**	**01 51 12.6**	**+0.5**
	comp=Z,42nm,1.0s,mb4.9						
HHC	**Hu-ho-hao-te**	**28.09**	**304**	*e*P	**P**	**01 51 22.0**	**-0.2**
HHC				PP	PP	01 52 11.8	-0.4
HHC				S	**S**	**01 56 04.8**	**-1.1**
HHC				SS	SS	01 57 28.8	+1.0
HHC				PCS		01 58 16.0	
HHC				AMB	AMB		
	comp=Z,11nm,0.5s,mb4.7						
HHC				AMB	AMB		
	comp=Z,84nm,5.2s						
HHC				LR	LR		
	comp=N,190nm,10.3s,MS4.1						
HHC				LR	LR		
	comp=E,161nm,11.3s,MS4.1						
HHC				LR	LR		
	comp=Z,230nm,12.5s,MS4.0						
ENH	**Enshi**	**28.81**	**281**	*e*P	**P**	**01 51 27.1**	**-1.6**
	comp=Z,12nm,0.8s,mb4.7						
ULN	**Ulaanbaatar**	**33.46**	**315**	*e*P	**P**	**01 52 08.6**	**-1.0**
	comp=Z,26nm,1.3s,mb5.0						
CD2	**Chengdu**	**33.66**	**284**	*e*P	**P**	**01 52 10.3**	**-1.2**
SONM	**Songino Array**	**33.86**	**314**	P	**P**	**01 52 13.4**	**+0.4**
	comp=Z,4.1nm,1.0s,mb4.3,baz=117,slow=8.3,SNR=17						
GTA	**Gaotai**	**36.73**	**298**	*e*P	**P**	**01 52 37.9**	**+0.3**
GTA				PP	PP	01 54 00.9	-1.6
GTA				S	**S**	**01 58 19.5**	**-1.6**
GTA				SS	SS	02 00 43.6	-4.1
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.3						
GTA				AMB	AMB		
	comp=Z,69nm,4.2s						
GTA				LR	LR		
	comp=N,122nm,13.7s,MS4.1						
GTA				LR	LR		
	comp=E,138nm,10.3s,MS4.1						
GTA				LR	LR		
	comp=Z,119nm,14.4s,MS3.8						
TLY	**Talaya**	**36.97**	**319**	*e*P	**P**	**01 52 41.2**	**+1.7**
	comp=Z,23nm,1.0s,mb5.0						
CMAR	**Chiang Mai Arr**	**41.08**	**266**	P	**P**	**01 53 14.4**	**+0.5**
	comp=Z,1.1nm,0.5s,mb3.7,baz=59,slow=8.4,SNR=7.8						
CMAR				LR	LR	02 09 48.7	
	comp=Z,40nm,19.6s,MS3.3,baz=80,slow=36						
WMQ	**Urumqi**	**45.97**	**305**	P	**P**	**01 53 54.1**	**+0.8**
ZAL	**Zalesovo**	**48.57**	**318**	P	**P**	**01 54 14.7**	**+1.2**
	comp=Z,5.5nm,1.1s,mb4.5,baz=11,slow=8.4,SNR=16						
ZAL				LR	LR	02 16 06.8	
	comp=Z,40nm,19.6s,MS3.4,baz=274,slow=38						
WRAB	**Tennant Creek**	**48.95**	**190**	⇑*e*P	**P**	**01 54 15.7**	**-1.3**
	comp=Z,18nm,0.8s,mb5.2						
WB2	**Warramunga Arr**	**48.96**	**190**	⇑*i*P	**P**	**01 54 15.7**	**-1.4**
WRA	**Warramunga Arr**	**48.96**	**190**	P	**P**	**01 54 15.9**	**-1.2**
	comp=Z,8.8nm,0.5s,mb5.0,baz=11,slow=8.2,SNR=49						
ASAR	**Alice Springs**	**52.69**	**190**	P	**P**	**01 54 43.5**	**-1.9**
	comp=Z,1.4nm,0.5s,mb4.1,baz=8.2,slow=5.7,SNR=22						
TKM2	**Tokmak 2**	**54.82**	**304**	*e*P	**P**	**01 55 01.3**	**+0.5**
	comp=Z,7.4nm,0.9s,mb4.7						
TKM2				*e*		01 55 13.2	
UCH	**Uchtor**	**55.72**	**304**	*e*P	**P**	**01 55 07.5**	**+0.2**
	comp=Z,4.0nm,0.7s,mb4.6						
ILAR	**Eielson Array**	**56.18**	**29**	P	**P**	**01 55 09.2**	**-1.2**
	comp=Z,2.5nm,0.9s,mb4.2,baz=264,slow=6.9,SNR=12						
AML	**Almayashu**	**56.34**	**304**	*e*P	**P**	**01 55 12.1**	**+0.3**
	comp=Z,10nm,0.9s,mb4.8						
CHKZ	**Chkalovo**	**56.95**	**318**	*e*P	**P**	**01 55 15.5**	**-0.6**
	comp=Z,7.9nm,0.7s,mb4.8						
BVAR	**Borovoye Array**	**57.15**	**317**	P	**P**	**01 55 17.8**	**+0.4**
	comp=Z,11nm,0.9s,mb4.9,baz=94,slow=7.9,SNR=28						
BRVK	**Borovoye**	**57.20**	**317**	*e*P	**P**	**01 55 17.5**	**-0.4**
	comp=Z,10nm,0.9s,mb4.9						
DAWY	**Dawson**	**59.43**	**30**	*e*P	**P**	**01 55 32.8**	**-0.5**
STKA	**Stephens Creek**	**60.20**	**181**	P	**P**	**01 55 37.0**	**-2.0**
	comp=Z,2.5nm,0.8s,mb4.3,baz=316,slow=5.0,SNR=3.7						
INK	**Inuvik**	**61.47**	**25**	P	**P**	**01 55 46.4**	**-0.7**
	comp=Z,26nm,1.3s,mb5.2,baz=278,slow=6.8,SNR=33						
INK	**Inuvik**	**61.47**	**25**	*e*P	**P**	**01 55 46.3**	**-0.9**
	comp=Z,12nm,1.0s,mb5.0						
ARU	**Arti**	**63.41**	**322**	*e*P	**P**	**01 55 59.9**	**-0.3**
	comp=Z,32nm,1.0s,mb5.4						
YKA	**Yellowknife Ar**	**70.61**	**29**	P	**P**	**01 56 44.7**	**-0.8**
	comp=Z,1.4nm,0.8s,mb3.9,baz=293,slow=5.6,SNR=18						
YKA	**Yellowknife Ar**	**70.61**	**29**	P	**P**	**01 56 44.7**	**-0.8**
NEW	**Newport**	**75.53**	**43**	P	**P**	**01 57 15.1**	**+0.4**
	comp=Z,1.9nm,0.8s,mb4.1						
FINES	**FINESS Array B**	**76.71**	**334**	P	**P**	**01 57 22.0**	**+1.0**
	comp=Z,5.0nm,1.1s,mb4.4,baz=90,slow=4.2,SNR=5.9						
BMO	**Blue Mountains**	**76.96**	**46**	*e*P	**P**	**01 57 22.8**	**0.0**
	comp=Z,3.5nm,1.0s,mb4.2						
NVAR	**Mina Array Bea**	**79.28**	**52**	P	**P**	**01 57 36.3**	**+0.7**
	comp=Z,1.6nm,0.9s,mb3.9,baz=288,slow=6.8,SNR=7.8						
NVAR				LR	LR	02 29 10.4	
	comp=Z,68nm,20.0s,MS4.0,baz=10.0,slow=33						
RDF	**Al-Radifah**	**80.68**	**298**	*e*P	**P**	**01 57 45.2**	**+1.9**
RST	**Umm Al-Ruwaisa**	**80.84**	**298**	*e*P	**P**	**01 57 44.9**	**+0.8**
AKASG	**Malin Array Be**	**81.57**	**324**	P	**P**	**01 57 47.9**	**+0.4**
	comp=Z,1.4nm,0.7s,mb4.0,baz=45,slow=5.8,SNR=4.5						
AHID	**Auburn Hatcher**	**81.90**	**46**	*e*P	**P**	**01 57 48.1**	**-1.3**
	comp=Z,6.8nm,0.5s,mb4.8						
NB2	**NORSAR Subarra**	**82.30**	**338**	P	**P**	**01 57 51.4**	**+0.3**
	comp=Z,1.0nm,0.6s,mb3.9,baz=41,slow=5.0						
NOA	**NORSAR Array B**	**82.30**	**338**	P	**P**	**01 57 51.3**	**+0.3**
	comp=Z,1.7nm,0.7s,mb4.1,baz=40,slow=5.1,SNR=6.4						
MALT	**Malatya**	**82.79**	**310**	*e*P	**P**	**01 57 54.9**	**+0.7**
	comp=Z,8.5nm,1.1s,mb4.7						
PDAR	**Pinedale Array**	**82.86**	**45**	P	**P**	**01 57 54.8**	**+0.4**
	comp=Z,0.6nm,0.9s,mb3.6,baz=284,slow=5.1,SNR=4.3						
PDAR				LR	LR	02 29 46.7	
	comp=Z,71nm,19.0s,MS4.1,baz=161,slow=32						
BRTR	**Keskin Array B**	**85.20**	**313**	P	**P**	**01 58 07.5**	**+1.2**
	comp=Z,4.1nm,0.8s,mb4.6,baz=103,slow=3.6,SNR=14						
PV10	**Paradox Valley**	**85.58**	**48**	*e*P	**P**	**01 58 08.7**	**+0.5**
RW3	**Ridgway**	**86.53**	**48**	*e*P	**P**	**01 58 13.7**	**+0.7**
GERES	**GERESS Array B**	**90.36**	**329**	P	**P**	**01 58 32.8**	**+1.8**
	comp=Z,0.3nm,0.6s,mb3.8,baz=248,slow=14,SNR=3.9						
TXAR	**Lajitas Array**	**94.39**	**53**	P	**P**	**01 58 51.1**	**+1.2**
	comp=Z,1.3nm,1.0s,mb4.3,baz=294,slow=2.2,SNR=4.8						
SDV	**Santo Domingo**	**130.80**	**46**	*e*PKPdf	PKPdf	02 04 39.8	-3.6
LPAZ	**La Paz**	**149.16**	**73**	PKPbc	PKPdf	02 05 20.6	+4.7
	comp=Z,3.3nm,0.8s,baz=1.6,slow=4.4,SNR=9.7						
LPAZ	**La Paz**	**149.16**	**73**	*e*PKPbc	PKPdf	02 05 20.4	+4.5

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*NEIC **14** 01:54:28.3,34.88N×25.75E,h10^{km},MD3.7(ATH),After ATH.*
*CSEM **14** 01:54:28.3,34.88N×25.75E,h10^{km},MD3.7/8,After ATH*
ATH 14 01:54:28.4,34.89N×25.76E,h10^{km}±5^{km}**,MD3.7**/8**,1C, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
XRY	**Khrisi**	**0.06**	**254**	*e*PG	Pg	01 54 30.4	-0.1
NPS	**Neapolis**	**0.39**	**342**	⇑*i*PB	Pb	01 54 36.0	-0.9
KARP	**Karpathos**	**1.32**	**60**	*e*PB	Pb	01 54 53.3	+0.4
GVD	**Gavdhos**	**1.38**	**268**	*e*PB	Pb	01 54 55.0	+1.2
VAM	**Vamos**	**1.38**	**292**	*e*PN	Pn	01 54 53.2	-0.6
SANT	**Santorini**	**1.50**	**351**	*e*Pn	Pn	01 54 54.9	-0.6
APE	**Apeiranthos**	**2.18**	**355**	*e*PN	Pn	01 55 07.0	+1.7
KYTH	**Kithira**	**2.62**	**303**	*e*PN	Pn	01 55 14.5	+3.0
VLI	**Veliai**	**2.93**	**309**	*e*PN	Pn	01 55 16.0	0.0

ISC 14 01:59:19.5±1.9**,43.15N**±0.10×**15.2E**±0.3**,h10**^{km}**,n7, σ1^{s}.20**/16**,2C,Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NVLJ	**Novalja**	**1.44**	**350**	*i* Pn	**Pn**	**01 59 43.9**	**-1.8**
NVLJ				*i* Pg	**Pg**	**01 59 45.1**	**-3.2**
NVLJ				*i* Sn	**Sn**	**02 00 05.3**	**+0.5**
NVLJ				*i* Sg	**Sg**	**02 00 05.6**	**-1.9**
BOJS	**Bojanci**	**2.36**	**0**	*e*Pn	**Pn**	**01 59 59.2**	**+0.3**
BOJS				*e*Sn	**Sn**	**02 00 29.2**	**+1.0**
KNDS	**Knezji Dol**	**2.46**	**346**	*i* Pn	**Pn**	**02 00 00.3**	**0.0**
KNDS				*e*Sn	**Sn**	**02 00 32.4**	**+1.7**
CRES	**Cresnjev**	**2.68**	**3**	*e*Pn	**Pn**	**02 00 04.3**	**+0.7**
CRES				*e*Sn	**Sn**	**02 00 36.6**	**+0.2**
VOY	**Vojsko**	**3.04**	**342**	*e*Pn	**Pn**	**02 00 12.5**	**+3.9**
VOY				*e*Sn	**Sn**	**02 00 46.8**	**+1.4**
OBKA	**Obir**	**3.40**	**352**	⇑*i*PN	**Pn**	**02 00 13.9**	**+0.2**
OBKA				*i* SN	**Sn**	**02 00 54.8**	**+0.3**
MOA	**Molln**	**4.75**	**352**	⇑*i*PN	**Pn**	**02 00 32.5**	**-0.4**
MOA				*i* SN	**Sn**	**02 01 26.9**	**-1.9**

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*IDC **14** 02:06:08.3±1.2,15.89N×61.52W,mb3.6/3,mb1 4.0/3, mb1mx3.5/20,MS3.5/3,Ms1 3.5/3,ms1mx2.5/23,Error ellipse: s-maj=20.1km s-min=17.4km az=118.0*
*TRN **14** 02:06:09.7,15.84N×61.51W,h23^{km},MD3.6,Md2.9(FDF)*
ISC 14 02:06:11.7±0.5**,15.86N**±0.03×**61.5W**±0.1**,h29**^{km}±4^{km}**,n21, σ0^{s}.91**/25**,mb3.7**/3**,MS3.4**/3**,5C,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MGG	**Marie-Galante**	**0.16**	**70**	⇑*e*P	**Pb**	**02 06 17.3**	**-0.2**
BBL	**Barber's Block**	**0.33**	**179**	⇑*e*P	**Pb**	**02 06 18.1**	**-1.5**
BBL	**Barber's Block**	**0.33**	**179**	*e*P	**Pb**	**02 06 18.9**	**-0.6**
BBL				*e*S	**Sb**	**02 06 24.5**	**-0.4**
SEG	**Port Louis**	**0.54**	**357**	⇑*e*P	**Pb**	**02 06 21.8**	**-0.9**
MDN	**Morne-Daniel**	**0.55**	**171**	*e*P	**Pb**	**02 06 22.7**	**-0.1**
MDN				*e*S	**Sb**	**02 06 30.8**	**+0.4**
DBCT	**Belle View Cho**	**0.60**	**168**	*e*P	**Pb**	**02 06 23.8**	**+0.1**
DEG	**La Desirade**	**0.60**	**42**	⇑*e*P	**Pb**	**02 06 23.6**	**-0.1**
DSTT	**Stowe**	**0.63**	**165**	*e*P	**Pb**	**02 06 24.3**	**+0.1**
DSTT				*e*S	**Sb**	**02 06 34.1**	**+1.3**
DSHT	**Scott's Head**	**0.65**	**171**	*e*P	**Pb**	**02 06 24.4**	**-0.1**
DSHT				*e*S	**Sb**	**02 06 34.4**	**+1.0**
FDF	**Fort de France**	**1.17**	**164**	*e*P	**Pn**	**02 06 31.3**	**-1.0**
FDF				*e*S	**Sn**	**02 06 49.0**	**+1.6**
CRM	**Caravelle**	**1.23**	**154**	⇑*e*P	**Pn**	**02 06 32.9**	**-0.2**
BPA	**Boggy Peak**	**1.23**	**343**	*e*P	**Pn**	**02 06 33.8**	**+0.5**
BPA				*e*S	**Sn**	**02 06 50.4**	**+1.4**
BIM	**Bigot**	**1.39**	**164**	*e*P	**Pn**	**02 06 34.7**	**-0.8**
MVM	**Montagne Vaucl**	**1.42**	**157**	*e*P	**Pn**	**02 06 35.5**	**-0.4**
CPB	**Codrington**	**1.80**	**349**	*e*P	**Pn**	**02 06 42.0**	**+0.6**
CPB				*e*S	**Sn**	**02 07 05.2**	**+1.8**
TEIG	**Tepich**	**25.84**	**284**	LR	LR	02 20 19.1	
	comp=Z,42nm,19.8s,MS3.0,baz=20,slow=33						
ULM	**Lac du Bonnet**	**44.11**	**329**	LR	LR	02 32 55.7	
	comp=Z,55nm,18.7s,MS3.5,baz=167,slow=36						
PDAR	**Pinedale Array**	**48.91**	**313**	P	**P**	**02 14 56.7**	**-0.5**
	0.4nm,0.6s,mb3.7,baz=113,slow=11,SNR=4.9						
YKA	**Yellowknife Ar**	**59.42**	**334**	P	**P**	**02 16 12.0**	**-1.9**
	0.6nm,0.5s,mb3.9,baz=106,slow=7.4,SNR=16						
ILAR	**Eielson Array**	**73.83**	**334**	P	**P**	**02 17 44.0**	**-1.1**
	0.3nm,0.5s,mb3.5,baz=96,slow=4.7,SNR=6.6						
ARCES	**ARCESS Array B**	**74.21**	**21**	LR	LR	02 46 14.5	
	comp=Z,57nm,20.7s,MS3.9,baz=357,slow=32						

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*NIED **14** 02:32:00,31.80N×129.20E,h5^{km},Mw3.7 Best double couple: M$_0$3.47×10^{14} NP1:φ$_s$200°,δ75°,λ-146°. NP2: φ$_s$100°,δ57°,λ-17°.*
JMA 14 02:32:19.4±0.1**,31.76N×129.15E,h14**^{km}±2^{km}**,M3.8, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSJ	**Shimokoshiki**	**0.49**	**99**	P	Pb	02 32 29.0	-0.2
JSJ				S	Sb	02 32 35.3	-0.6
JFU	**Fukue jima 2**	**0.95**	**339**	P	Pb	02 32 37.2	0.0
JFU				*e*S	Sb	02 32 51.0	+1.5
NGSJ	**Nagasakinomoza**	**1.03**	**32**	P	Pb	02 32 38.8	+0.3
NGSJ				*e*S	Sb	02 32 52.8	+1.2
JHD	**Hondo**	**1.09**	**50**	P	Pb	02 32 39.4	-0.2
JHD				*e*S	Sb	02 32 54.7	+1.2
JSU	**Suzuyama**	**1.14**	**102**	P	Pb	02 32 40.3	-0.1
JSU				S	Sb	02 32 55.9	+1.0
JZO	**Okuchi**	**1.29**	**73**	P	Pb	02 32 42.3	-0.6
JZO				*e*S	Sb	02 33 00.2	+1.1

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*NNC **14** 02:52:33.4±17.0,46.31N×85.62E,h8^{km}±36^{km},mpv3.4, Error ellipse: s-maj=161.8km s-min=36.4km az=64.0*
BJI 14 02:52:34.4,45.86N×85.33E,h7^{km}**,ML3.6,4C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MK31	**Makanchi Array**	**2.30**	**295**	⇓Pn	Pn	02 53 15.1	+1.7
	13nm,0.5s,baz=91,slow=14,SNR=306						
MK31				⇑Lg		02 53 48.2	
	151nm,0.6s,baz=119,slow=29,SNR=35						
WMQ	**Urumqi**	**2.64**	**140**	*e*P	Pn	02 53 20.0	+1.8
WMQ				SG	Sg	02 53 53.8	-8.6
WMQ				Smax			
	comp=N,133nm,0.6s						
WMQ				Smax			
	comp=E,122nm,0.7s						
BVA0	**Borovoye Array**	**12.07**	**312**	⇑Sn	S	02 57 38.2	-7.4
	comp=E,0.8nm,2.1s,baz=113,slow=28,SNR=2.9						
BVA0				⇓Lg		02 58 51.1	
	comp=E,5.7nm,1.6s						
CHKZ	**Chkalovo**	**12.30**	**315**	⇑Sn	S	02 57 42.7	-8.5
	comp=E,4.2nm,1.6s						
CHKZ				⇑Lg		02 59 03.0	
	comp=E,12nm,1.2s						

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*NEIC **14** 03:01:59.4±1.3,14.33N×93.44W,h20^{km},mb3.8/4, MD4.2(MEX),Error ellipse: s-maj=22.0km s-min=12.8km az=193.0*
*MEX **14** 03:01:59.6±0.5,14.23N×93.69W,h20^{km},MD4.3*
*IDC **14** 03:02:02.9±9.3,14.38N×93.28W,h52^{km}±62^{km},mb3.5/5, mb1 3.9/7,mb1mx3.5/21,ML3.8/2,MS3.3/2,Ms1 3.3/2, ms1mx2.3/17,Error ellipse: s-maj=80.9km s-min=41.2km az=173.0*
ISC 14 03:01:59.4±1.9**,14.3N**±0.1×**93.59W**±0.05**,h33**^{km}±15^{km}**, n21,σ1^{s}.44**/26**,mb3.8**/7**,MS3.7**/1**,Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CCIG	**Comitan**	**2.38**	**36**	*i* P	**P**	**03 02 37.1**	**+0.1**
CCIG				*i* S	**S**	**03 03 04.5**	**-0.7**
CCIG	**Comitan**	**2.38**	**36**	*i* P	**P**	**03 02 37.2**	**+0.3**
CCIG				*i* S	**S**	**03 03 07.0**	**+1.7**
SCX	**San Cristobal**	**2.55**	**21**	*e*P	**P**	**03 02 39.0**	**-0.3**
SCX				*i* S	**S**	**03 03 10.0**	**+0.5**
SCX	**San Cristobal**	**2.55**	**21**	*e*P	**P**	**03 02 40.3**	**+1.0**
SCX				*i* S	**S**	**03 03 11.3**	**+1.8**
CMIG	**Matias Romero**	**3.00**	**336**	*i* P	**P**	**03 02 44.4**	**-1.3**
CMIG				*i* S	**S**	**03 03 19.0**	**-1.9**
OXX	**Oaxaca**	**4.06**	**312**	*e*P	**P**	**03 03 01.0**	**+0.2**
OXX				*i* S	**S**	**03 03 49.0**	**+1.1**
VHO	**Vista Hermosa**	**4.06**	**312**	*i* S	**S**	**03 03 46.1**	**-1.7**
TEIG	**Tepich**	**7.75**	**40**	P	**P**	**03 03 49.4**	**-3.2**
	1.1nm,0.3s,baz=191,slow=22,SNR=17						
TEIG				S	**S**	**03 05 16.0**	**-4.0**
	0.6nm,0.3s,baz=111,slow=23,SNR=2.0						
TEIG				LR	LR	03 07 09.1	
	comp=Z,108nm,21.5s,baz=197,slow=41						
LTX	**Lajitas**	**17.59**	**330**	P	**P**	**03 06 06.1**	**+2.5**
	2.4nm,0.7s						
TXAR	**Lajitas Array**	**17.59**	**330**	P	**P**	**03 06 05.8**	**+2.1**
	0.1nm,0.3s,baz=157,slow=9.5,SNR=3.9						
MNTX	**Cornudas Mount**	**20.37**	**330**	*e*P	**P**	**03 06 38.2**	**+2.2**
	2.2nm,0.7s						
CPRX	**Cap Rock**	**20.82**	**335**	*e*P	**P**	**03 06 45.7**	**+5.1**
SDV	**Santo Domingo**	**23.13**	**101**	P	**P**	**03 07 03.6**	**-0.2**
	3.9nm,0.8s,mb3.9						
TUC	**Tucson**	**23.79**	**322**	P	**P**	**03 07 12.0**	**+1.9**
	3.4nm,1.0s,mb3.7						
PDAR	**Pinedale Array**	**31.49**	**337**	P	**P**	**03 08 20.9**	**+0.5**
	0.5nm,1.0s,mb3.3,baz=139,slow=8.3,SNR=3.7						
NVAR	**Mina Array Bea**	**32.44**	**322**	P	**P**	**03 08 30.6**	**+1.8**
	1.1nm,0.7s,mb3.8,baz=128,slow=9.9,SNR=9.9						
SCHQ	**Schefferville**	**45.45**	**21**	LR	LR	03 30 05.0	
	comp=Z,89nm,21.8s,MS3.7,baz=170,slow=37						
YKA	**Yellowknife Ar**	**50.35**	**348**	P	**P**	**03 10 53.6**	**-1.4**
	1.8nm,0.7s,mb4.2,baz=154,slow=7.3,SNR=43						
INK	**Inuvik**	**59.68**	**344**	P	**P**	**03 12 01.6**	**-1.1**
	0.8nm,0.7s,mb3.9,baz=129,slow=7.9,SNR=9.3						
ILAR	**Eielson Array**	**61.92**	**337**	P	**P**	**03 12 17.4**	**-0.5**
	0.7nm,1.0s,mb3.7,baz=143,slow=4.2,SNR=5.9						
CMAR	**Chiang Mai Arr**	**145.14**	**339**	PKPbc	PKPbc	03 21 35.1	+0.4
	0.5nm,0.3s,baz=344,slow=4.7,SNR=4.4						

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*NEIC **14** 03:34:01.9,39.20N×23.59E,h20^{km},MD2.7(ATH),After ATH.*
*ATH **14** 03:34:01.5,39.22N×23.62E,h22^{km},MD2.7/5*
*THE **14** 03:34:01.4,39.17N×23.65E,h13^{km},ML2.5*
*CSEM **14** 03:34:01.7±0.1,39.17N×23.64E,h12^{km},ML2.5,Error ellipse: s-maj=2.6km s-min=2.1km az=38.0*
ISC 14 03:34:01.2±0.6**,39.18N**±0.03×**23.64E**±0.04**,h13**^{km}±5^{km}**, n13,σ0^{s}.87**/20**,2D,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AOS	**Alonnisos**	**0.19**	**93**	*e*Pg	**Pg**	**03 34 05.6**	**-0.1**
AOS				*e*Sg	**Sg**	**03 34 08.5**	**0.0**
NEO	**Neokhori**	**0.34**	**291**	⇓*i*PB	**Pb**	**03 34 08.7**	**-0.1**
XOR	**Xorichti**	**0.39**	**298**	*e*Pg	**Pg**	**03 34 09.3**	**0.0**
XOR				*e*Sg	**Sg**	**03 34 14.9**	**+0.1**
LKR	**Lokris**	**0.73**	**223**	⇓*i*PN	**Pn**	**03 34 15.7**	**-1.3**
PAIG	**Paliouri**	**0.75**	**3**	*e*Pg	**Pg**	**03 34 16.1**	**-0.2**
PAIG				*e*Sg	**Sg**	**03 34 27.6**	**+1.3**
AGG	**Agios Georgios**	**1.03**	**262**	*e*Pg	**Pg**	**03 34 20.6**	**-1.4**
AGG				*e*Sg	**Sg**	**03 34 36.1**	**+0.3**
AGG	**Agios Georgios**	**1.03**	**262**	*e*Pg	**Pg**	**03 34 20.5**	**-1.4**
AGG				*e*Sg	**Sg**	**03 34 36.1**	**+0.4**
MPAR	**Parnis Oros**	**1.03**	**176**	*e*PN	**Pn**	**03 34 22.0**	**+0.6**
PTL	**Penteli**	**1.14**	**171**	*e*PN	**Pn**	**03 34 23.5**	**+0.5**
OUR	**Ouranopolis**	**1.18**	**13**	*e*Pb	**Pb**	**03 34 22.3**	**-0.8**
LIT	**Litokhoron**	**1.28**	**316**	*e*Pb	**Pb**	**03 34 24.5**	**-0.2**
LIT				*e*Sb	**Sb**	**03 34 42.6**	**+1.8**
NSAL	**Nisos Salamina**	**1.28**	**186**	*e*PN	**Pn**	**03 34 26.5**	**+1.6**
KNT	**Kendrikon**	**2.06**	**344**	*e*Pn	**Pn**	**03 34 34.9**	**-1.1**
KNT				*e*Sn	**Sn**	**03 35 01.1**	**-0.7**

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*IDC **14** 03:53:07.6±0.7,55.98S×27.78W,h112^{km}±4^{km},mb4.5/10, mb1 4.5/11,mb1mx4.2/16,Error ellipse: s-maj=20.1km s-min=12.5km az=58.0*
*BJI **14** 03:53:10.9,56.00S×27.90W,h155^{km}*
*SYO **14** 03:53:10.9,55.95S×27.85W,h146^{km},MB4.7*
*NEIC **14** 03:53:12.0±1.7,56.00S×27.85W,h155^{km}±15^{km},mb4.7/14, Error ellipse: s-maj=10.6km s-min=6.5km az=217.0*
ISC 14 03:53:09.1±2.9**,55.99S**±0.09×**27.8W**±0.1**,h142**^{km}±28^{km}**, n66,σ0^{s}.91**/35**,mb4.6**/17**,8C-3D,South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA1	**Neumayer--Stat**	**16.98**	**158**		**P**	**03 56 59.9**	**+1.0**
VNA3	**Neumayer Olymp**	**17.16**	**160**	*e*	**P**	**03 57 09.7**	**+8.5**
VNA3	**Neumayer Olymp**	**17.16**	**160**	⇑*i*P	**P**	**03 57 02.0**	**+0.8**
VNA3				*e*		03 57 09.7	
VNA2	**Neumayer--Watz**	**17.38**	**157**	*e*	**P**	**03 57 12.1**	**+8.3**
VNA2	**Neumayer--Watz**	**17.38**	**157**	⇓*i*P	**P**	**03 57 04.7**	**+0.9**
VNA2				*e*		03 57 12.1	
EFI	**East Falkland**	**18.29**	**271**	*e*P	**P**	**03 57 12.9**	**-1.3**
	26nm,0.7s						
SNAA	**Sanae**	**18.94**	**156**	⇑*i*	**P**	**03 57 19.3**	**-1.7**
SNAA	**Sanae**	**18.94**	**156**	*e*	**P**	**03 57 26.2**	**+5.2**
SNAA	**Sanae**	**18.94**	**156**	P	**P**	**03 57 19.3**	**-1.6**
	9.3nm,0.3s,baz=309,slow=11,SNR=890						
SNAA				PcP	PcP	04 01 40.2	-0.5
	0.2nm,0.3s,baz=233,slow=3.8,SNR=5.7						
SNAA				ScP		04 05 03.5	
	0.1nm,0.3s,baz=197,slow=0.7,SNR=5.6						
SNAA	**Sanae**	**18.94**	**156**	⇑*i*P	**P**	**03 57 19.3**	**-1.7**
SNAA				*e*		03 57 26.2	
PMSA	**Palmer Station**	**19.68**	**229**	⇑*e*P	**P**	**03 57 28.3**	**-0.4**
	62nm,0.7s						
PMSA				*e*		03 57 31.9	
USHA	**Ushuaia**	**22.86**	**256**	P	**P**	**03 58 00.6**	**+0.5**
	13nm,0.6s,mb4.5,baz=71,slow=10,SNR=13						
TRQA	**Tornquist**	**28.98**	**294**	*e*P	**P**	**03 58 55.5**	**-1.5**
	9.2nm,0.5s,mb4.8						
SYO	**Syowa Base**	**31.85**	**141**	⇓P	**P**	**03 59 20.8**	**-1.2**
SYO	**Syowa Base**	**31.85**	**141**	⇑pP	pP	03 59 48.1	-4.6
SYO	**Syowa Base**	**31.85**	**141**	⇓PnPn		04 00 28.2	
MAW	**Mawson**	**40.40**	**144**	P	**P**	**04 00 34.4**	**+0.4**
	4.7nm,0.7s,mb4.3,baz=230,slow=7.5,SNR=7.1						
MAW				PcP	PcP	04 02 35.7	+0.8
	6.6nm,0.9s,baz=284,slow=5.8,SNR=4.6						
MAW				ScP		04 06 13.5	
	11nm,1.2s,baz=182,slow=5.2,SNR=4.2						
MAW	**Mawson**	**40.40**	**144**	*e*P	**P**	**04 00 33.7**	**-0.3**
	6.8nm,0.5s,mb4.5						
BAO	**Brasilia Array**	**43.14**	**331**	P	**P**	**04 00 57.9**	**+1.1**
BDFB	**Brasilia**	**43.14**	**331**	P	**P**	**04 00 58.0**	**+1.2**
	4.9nm,0.7s,mb4.3,baz=153,slow=4.9,SNR=12						
BDFB				PcP	PcP	04 02 44.9	+0.4
	2.6nm,0.9s,baz=93,slow=5.8,SNR=2.6						
LVC	**Limon Verde**	**44.97**	**301**	P	**P**	**04 01 12.1**	**+0.7**
	11nm,0.4s,mb4.8,baz=143,slow=5.1,SNR=24						
LVC				PcP	PcP	04 02 51.8	+1.2
	2.9nm,0.5s,baz=197,slow=1.9,SNR=3.0						
LVC				ScP		04 06 31.5	
	1.2nm,0.8s,baz=242,slow=12,SNR=3.0						
LVC	**Limon Verde**	**44.97**	**301**	*e*P	**P**	**04 01 12.0**	**+0.6**
	18nm,0.7s,mb4.8						
LVC				*e*PcP	PcP	04 02 51.2	+0.6
BOSA	**Boshof**	**46.29**	**76**	*e*P	**P**	**04 01 21.4**	**-0.4**
	3.3nm,0.5s,mb4.2						
VNDA	**Vanda**	**46.62**	**183**	P	**P**	**04 01 24.5**	**+0.8**
	22nm,0.7s,mb4.9,baz=187,slow=6.3,SNR=128						
VNDA				PcP	PcP	04 02 56.5	+0.8
	2.3nm,0.7s,baz=15,slow=5.8,SNR=2.7						
VNDA				ScP		04 06 36.8	
	1.4nm,1.1s,baz=36,slow=16,SNR=3.1						
VNDA	**Vanda**	**46.62**	**183**	⇑*e*P	**P**	**04 01 24.4**	**+0.7**
	24nm,0.7s,mb4.9						
VNDA				*e*PcP	PcP	04 02 56.8	+1.1
LBTB	**Lobatse**	**49.33**	**74**	*e*P	**P**	**04 01 44.9**	**-0.4**
	8.7nm,0.7s,mb4.5						
LPAZ	**La Paz**	**50.06**	**306**	P	**P**	**04 01 51.9**	**+0.8**
	6.6nm,0.3s,mb4.7,baz=143,slow=6.1,SNR=39						
LPAZ	**La Paz**	**50.06**	**306**	⇑*e*P	**P**	**04 01 51.9**	**+0.8**
	8.9nm,0.4s,mb4.8						
CASY	**Casey**	**54.08**	**161**	*e*P	**P**	**04 02 20.4**	**+0.1**
	20nm,0.8s,mb4.9						
LSZ	**Lusaka**	**58.68**	**69**	*e*P	**P**	**04 02 53.3**	**-0.4**
	5.4nm,0.7s,mb4.5						
DBIC	**Dimbokro**	**65.26**	**25**	P	**P**	**04 03 37.7**	**+0.1**
	2.7nm,0.5s,mb4.3,baz=154,slow=12,SNR=12						
DBIC	**Dimbokro**	**65.26**	**25**	*e*P	**P**	**04 03 37.5**	**-0.1**
	3.5nm,0.6s,mb4.4						
SDV	**Santo Domingo**	**73.72**	**316**	⇑*e*P	**P**	**04 04 28.6**	**-0.4**
	8.8nm,0.8s,mb4.5						
JTS	**JuntasAbangare**	**81.19**	**303**	*e*P	**P**	**04 05 08.2**	**-2.0**
	14nm,1.0s,mb4.6						
TEIG	**Tepich**	**91.39**	**305**	P	**P**	**04 06 00.8**	**+1.1**
	4.2nm,0.5s,mb4.7,baz=212,slow=1.5,SNR=15						
STKA	**Stephens Creek**	**92.02**	**171**	P	**P**	**04 06 03.2**	**+0.8**
	2.4nm,0.6s,mb4.4,baz=130,slow=4.8,SNR=7.8						
STKA				pP	pP	04 06 34.3	-4.7
	2.6nm,0.9s,baz=342,slow=16,SNR=2.1						
ASAR	**Alice Springs**	**99.15**	**163**	P	**P**	**04 06 35.1**	**0.0**

	1.8nm,0.8s,mb4.6,baz=195,slow=3.9,SNR=19						
ASAR				PP	PP	04 10 39.4	-1.6
	1.2nm,1.1s,baz=188,slow=7.5,SNR=4.0						
WRA	**Warramunga Arr**	**102.87**	**163**	P	Pdif	04 06 52.3	+0.5
	0.7nm,1.0s,baz=194,slow=4.3,SNR=3.1						
SCHQ	**Schefferville**	**114.97**	**336**	PKP	PKPdf	04 11 32.3	+0.3
	2.1nm,0.8s,baz=252,slow=8.7,SNR=3.2						
ULM	**Lac du Bonnet**	**119.97**	**317**	PKP	PKPdf	04 11 42.5	+0.8
	1.7nm,0.8s,baz=198,slow=6.3,SNR=3.0						
PDAR	**Pinedale Array**	**120.02**	**303**	PKP	PKPdf	04 11 42.7	+0.7
	0.4nm,0.6s,baz=131,slow=8.2,SNR=5.2						
NOA	**NORSAR Array B**	**120.67**	**21**	PKP	PKPdf	04 11 44.3	+1.5
	1.1nm,0.8s,baz=327,slow=22,SNR=1.2						
NVAR	**Mina Array Bea**	**121.05**	**294**	PKP	PKPdf	04 11 46.7	+2.5
	0.4nm,0.7s,baz=144,slow=2.5,SNR=6.4						
LOHW	**Long Hollow**	**121.16**	**303**	*e*PKPdf	PKPdf	04 11 44.8	+0.6
FINES	**FINESS Array B**	**124.49**	**28**	PKP	PKPdf	04 11 51.3	+1.1
	3.8nm,0.7s,baz=144,slow=1.9,SNR=24						
KAF	**Kangasniemi**	**125.11**	**28**	*e*p	PKPdf	04 11 52.0	+0.8
	3.9nm,0.6s						
JOF	**Joensuu**	**127.12**	**30**	*e*p	PKPdf	04 11 55.8	+0.8
	4.1nm,0.7s						
ARCES	**ARCESS Array B**	**131.02**	**22**	PKP	PKPdf	04 12 03.6	+1.2
	4.4nm,0.8s,baz=185,slow=1.2,SNR=15						
ARCES				SKPbc		04 15 16.1	
	3.6nm,0.7s,baz=243,slow=2.7,SNR=7.3						
ARCES	**ARCESS Array B**	**131.02**	**22**	PKP	PKPdf	04 12 03.6	+1.2
ARCES				SKPbc		04 15 16.1	
BVAR	**Borovoye Array**	**135.04**	**58**	PKP	PKPdf	04 12 11.6	+1.2
	1.1nm,0.5s,baz=180,slow=1.4,SNR=5.4						
BVAR				SKPbc		04 15 32.1	
	0.7nm,0.7s,baz=225,slow=4.2,SNR=4.9						
YKA	**Yellowknife Ar**	**135.89**	**318**	PKhKP		04 11 58.5	
	0.2nm,0.7s,baz=122,slow=3.5,SNR=8.1						
YKA				PKP	PKPdf	04 12 12.9	+1.3
	1.5nm,0.6s,baz=126,slow=2.1,SNR=6.9						
YKA				pPKP		04 12 42.6	
	0.5nm,0.8s,baz=130,slow=2.2,SNR=1.7						
YKA				SKPbc		04 15 31.8	
	1.1nm,0.8s,baz=128,slow=2.7,SNR=12						
YKA				SKP		04 15 38.0	
	2.2nm,1.0s,baz=113,slow=4.2,SNR=12						
YKA	**Yellowknife Ar**	**135.89**	**318**	PKP	PKPdf	04 12 12.9	+1.3
YKA				pPKP		04 12 42.6	
YKA				SKPbc		04 15 31.8	
YKA				SKP		04 15 38.0	
YKW3	**Yellowknife Ar**	**135.94**	**318**	PKPdf	PKPdf	04 12 12.0	+0.3
ZAL	**Zalesovo**	**142.64**	**64**	PKhKP		04 12 22.8	
	2.0nm,0.4s,baz=284,slow=4.2,SNR=3.8						
INK	**Inuvik**	**145.53**	**321**	*e*PKP	PKPdf	04 12 30.6	+2.2
INK				*e*		04 12 57.9	
DAWY	**Dawson**	**146.49**	**312**	*e*PKPbc	PKPbc	04 12 33.2	+1.6
DIV	**Divide**	**148.33**	**305**	*e*PKPbc	PKPdf	04 12 39.1	+5.9
HHC	**Hu-ho-hao-te**	**149.60**	**103**	*e*PKP	PKPdf	04 12 32.3	-3.5
HHC				PKS	PKS	04 16 11.1	+1.5
SML	**Sawmill**	**149.71**	**306**	*e*PKPbc	PKPdf	04 12 42.2	+6.9
ILAR	**Eielson Array**	**149.82**	**312**	PKPbc	PKPdf	04 12 42.5	+7.0
	13nm,0.7s,baz=118,slow=1.6,SNR=99						
ILAR				pPKPbc		04 13 12.1	
	4.2nm,0.8s,baz=137,slow=1.5,SNR=3.3						
ILAR				sPKPbc		04 13 25.3	
	3.5nm,0.8s,baz=120,slow=1.8,SNR=2.7						
COLA	**College**	**150.24**	**312**	*e*PKPbc	PKPdf	04 12 42.8	+6.8
MCK	**McKinley**	**150.46**	**309**	*e*PKPbc	PKPdf	04 12 44.0	+7.5
SONM	**Songino Array**	**151.07**	**87**	PKPbc	PKPdf	04 12 46.1	+8.3
	7.2nm,0.5s,baz=220,slow=3.6,SNR=109						
SONM				pPKPbc		04 13 15.2	
	3.1nm,0.9s,baz=226,slow=3.0,SNR=3.0						
RSO	**Redoubt South**	**151.40**	**302**	*e*PKPbc	PKPdf	04 12 46.2	+8.3
IMA	**Indian Mountai**	**152.82**	**314**	*e*PKPbc	PKPdf	04 12 50.0	+10
CN2	**Changchun**	**159.05**	**114**	*e*PKP	PKPdf	04 12 47.5	-1.2

IDC ***14*** *04:39:58.9±6.2, 13.37N×89.17W, h42^{km}±37^{km}, mb3.6/5, mb1 3.9/6, mb1mx3.5/19, ML4.3/1, MS2.9/4, Ms1 2.9/4, ms1mx2.5/20, Error ellipse: s-maj=61.0km s-min=47.7km az=177.0*

NEIC ***14*** *04:40:00.0, 13.34N×89.63W, h48^{km}, mb3.8/4, MD4.1(SNET), After SNET.*

NEIC Felt [II] at San Salvador.

CASC ***14*** *04:40:01.4±1.9, 13.25N×89.64W, h39^{km}±48^{km}, MD4.3, ML3.9, mb3.8(NEIC)*

ISC 14 04:40:00.3±0.6, **13.27N**±0.05×**89.65W**±0.04, **h69**^{km}±5^{km}, **n53**, σ**1^{s}01**/64, **mb3.9**/5, **6C-10D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	**San Blas**	**0.57**	**3**	⇓*i*P	**P**	**04 40 13.4**	**-0.5**
SBLS				⇓*e*S	**S**	**04 40 22.8**	**-1.0**
SNET	**Serv Nac Est T**	**0.58**	**44**	⇑*e*P	**P**	**04 40 13.2**	**-0.8**
SNET				*e*S	**S**	**04 40 23.3**	**-0.7**
SNET				*i*		04 40 26.5	
	comp=Z,8μm,0.2s						
BOQS	**Boqueron**	**0.58**	**38**	⇓*i*P	**P**	**04 40 13.9**	**-0.2**
RTR	**El Retiro**	**0.62**	**0**	⇓*i*P	**P**	**04 40 14.2**	**-0.3**
LFRS	**El Faro**	**0.67**	**58**	⇓*i*P	**P**	**04 40 14.7**	**-0.2**
LFRS				*e*S	**S**	**04 40 24.9**	**-0.9**
LFU	**La Fuente**	**0.70**	**48**	⇓*i*P	**P**	**04 40 15.6**	**+0.3**
LFU				*e*S	**S**	**04 40 24.8**	**-1.8**
LBRS	**Las Brisas**	**0.75**	**52**	⇓*e*P	**P**	**04 40 16.2**	**+0.3**
LBRS				*e*S	**S**	**04 40 28.1**	**+0.7**
LCBS	**La Ceiba**	**0.76**	**60**	⇓*i*P	**P**	**04 40 15.9**	**0.0**
RBDL	**Robledal**	**0.84**	**358**	⇓*e*P	**P**	**04 40 17.2**	**+0.3**
RBDL				*e*S	**S**	**04 40 29.3**	**+0.1**
SNVI	**San Vicente**	**0.86**	**67**	⇓*e*P	**P**	**04 40 17.5**	**+0.4**
SNVI				*e*S	**S**	**04 40 30.1**	**+0.4**
MTO2	**Montecristo 2**	**1.16**	**14**	⇑*e*P	**P**	**04 40 21.4**	**+0.4**
MTO2				*e*S	**S**	**04 40 36.6**	**+0.2**
VSM	**San Miguel**	**1.35**	**83**	⇑*e*P	**P**	**04 40 24.6**	**+0.9**
VSM				*e*S	**S**	**04 40 41.0**	**0.0**
BLLM	**Bellamira**	**1.38**	**83**	⇑*e*P	**P**	**04 40 25.2**	**+1.0**
BLLM				*e*S	**S**	**04 40 42.4**	**+0.5**
CAHU	**Cacacuatique**	**1.48**	**70**	⇑*e*P	**P**	**04 40 26.4**	**+0.8**
CAHU				*e*S	**S**	**04 40 45.8**	**+1.6**
CNCH	**Conchagua**	**1.77**	**90**	⇑*e*P	**P**	**04 40 29.8**	**+0.5**
CNCH				*e*S	**S**	**04 40 52.1**	**+1.4**
LEON	**Leon**	**2.82**	**107**	*e*P	**P**	**04 40 44.6**	**+0.6**
LEON				*e*S	**S**	**04 41 15.8**	**-1.2**
TEL3	**Telica 3**	**2.82**	**104**	*e*P	**P**	**04 40 44.3**	**+0.2**
TELN	**Telica**	**2.83**	**103**	*e*P	**P**	**04 40 43.5**	**-0.7**
CNGN	**Cerro Negro**	**2.98**	**105**	*e*P	**P**	**04 40 46.3**	**0.0**
MIRN	**Miramar**	**2.98**	**106**	*e*P	**P**	**04 40 46.1**	**-0.2**
COPN	**Copaltepe**	**3.17**	**110**	*e*P	**P**	**04 40 49.0**	**0.0**
APYN	**Apoyeque**	**3.38**	**107**	*e*P	**P**	**04 40 51.8**	**-0.1**
XAVN	**Gruta Xavier**	**3.43**	**109**	*e*P	**P**	**04 40 52.4**	**-0.3**
MGAN	**Managua**	**3.50**	**108**	*e*P	**P**	**04 40 54.1**	**+0.5**
MGAN				*e*S	**S**	**04 41 31.7**	**-2.4**
MGAN				*i*		04 41 40.0	
	comp=E,349nm,0.5s						
WILN	**Americas 2**	**3.55**	**108**	*e*S	**S**	**04 41 33.8**	**-1.6**
TICN	**Ticuantepe**	**3.56**	**110**	*e*P	**P**	**04 40 54.9**	**+0.6**
APON	**Apoyo**	**3.75**	**111**	*e*P	**P**	**04 40 58.4**	**+1.4**
CCIG	**Comitan**	**3.84**	**322**	*i* P	**P**	**04 40 59.6**	**+1.2**
CCIG				*i* S	**S**	**04 41 48.3**	**+5.8**
JTS	**JuntasAbangare**	**5.47**	**122**	*e*Pn	**P**	**04 41 21.4**	**+0.4**
	comp=E,8.8nm,0.6s						
CMIG	**Matias Romero**	**6.32**	**308**	*e*P	**P**	**04 41 29.9**	**-2.9**
CMIG				*i* S	**S**	**04 42 33.8**	**-11**
TEIG	**Tepich**	**7.04**	**11**	P	**P**	**04 41 43.5**	**+0.6**
	comp=E,5.3nm,0.3s,baz=97,slow=4.5,SNR=39						
TEIG				S	**S**	**04 43 02.7**	**+0.6**
	comp=E,1.4nm,0.3s,baz=324,slow=21,SNR=3.2						
TEIG				LR	LR	04 44 46.7	
	comp=E,65nm,19.9s,baz=29,slow=42						
TEIG	**Tepich**	**7.04**	**11**	*e*Pn	**P**	**04 41 43.1**	**+0.2**
OXX	**Oaxaca**	**7.81**	**300**	*e*P	**P**	**04 41 53.0**	**-0.4**
PPM	**Popocatepetl**	**10.37**	**305**	*e*P	**P**	**04 42 31.0**	**+2.5**
PPM				*i* P		04 42 31.4	
PPM				*i* S	rx	04 43 42.5	
ROSC	**El Rosal**	**17.27**	**118**	LR	LR	04 50 39.0	
	comp=E,35nm,18.1s,baz=342,slow=38						
SDV	**Santo Domingo**	**19.16**	**101**	*e*P	**P**	**04 44 16.3**	**-4.6**
	comp=E,3.0nm,0.7s						
JCT	**Junction City**	**19.52**	**333**	P	**P**	**04 44 22.0**	**-2.7**
	comp=E,3.5nm,0.4s						
LTX	**Lajitas**	**20.61**	**323**	P	**P**	**04 44 36.4**	**+0.3**
	comp=E,2.8nm,0.7s						
TXAR	**Lajitas Array**	**20.61**	**323**	P	**P**	**04 44 37.7**	**+1.6**
	comp=E,1.4nm,0.5s,baz=145,slow=11,SNR=29						
TXAR				LR	LR	04 53 13.6	
	comp=E,26nm,18.8s,baz=350,slow=38						
WMOK	**Wichita Mounta**	**22.92**	**340**	*e*P	**P**	**04 44 56.2**	**-2.8**
	comp=E,3.9nm,0.6s,mb3.9						
ANMO	**Albuquerque**	**26.40**	**328**	LR	LR	04 59 57.1	
	comp=E,38nm,18.3s,slow=45						
PV10	**Paradox Valley**	**30.36**	**329**	P	**P**	**04 46 08.1**	**+0.3**
NVAR	**Mina Array Bea**	**35.69**	**320**	P	**P**	**04 46 55.2**	**+1.3**
	comp=E,0.6nm,0.7s,mb3.6,baz=135,slow=7.7,SNR=6.8						
NVAR				pP	pP	04 47 10.1	-0.9
	comp=E,2.6nm,0.8s,baz=156,slow=7.3,SNR=11						
NVAR				ScP		04 53 04.8	
	comp=E,0.6nm,0.6s,baz=135,slow=3.8,SNR=7.2						
NVAR	**Mina Array Bea**	**35.69**	**320**	P	**P**	**04 46 55.2**	**+1.3**
NVAR				pP	pP	04 47 10.1	-0.9
NVAR				ScP		04 53 04.8	
ULM	**Lac du Bonnet**	**37.23**	**353**	P	**P**	**04 47 06.5**	**-0.2**
	comp=E,0.9nm,0.4s,mb4.0,baz=140,slow=7.9,SNR=3.0						
ULM	**Lac du Bonnet**	**37.23**	**353**	P	**P**	**04 47 06.5**	**-0.2**
SCHQ	**Schefferville**	**45.15**	**18**	P	**P**	**04 48 09.4**	**-2.2**
	comp=E,3.1nm,0.9s,mb4.0,baz=230,slow=8.3,SNR=6.5						
YKA	**Yellowknife Ar**	**52.27**	**346**	P	**P**	**04 49 04.9**	**-1.6**
	comp=E,0.4nm,0.3s,mb3.9,baz=131,slow=7.7,SNR=34						
YKA				pP	pP	04 49 20.2	-4.1
	comp=E,0.4nm,0.7s,baz=146,slow=7.8,SNR=4.9						
YKA	**Yellowknife Ar**	**52.27**	**346**	P	**P**	**04 49 04.9**	**-1.6**
YKA				pP	pP	04 49 20.2	-4.1
WRA	**Warramunga Arr**	**137.42**	**255**	PKP	PKPdf	04 59 19.4	+2.5
	comp=E,0.8nm,1.0s,baz=88,slow=2.2,SNR=4.6						
WRA	**Warramunga Arr**	**137.42**	**255**	PKP	PKPdf	04 59 19.4	+2.5
ASAR	**Alice Springs**	**137.56**	**249**	PKP	PKPdf	04 59 19.3	+2.2
	comp=E,0.3nm,0.8s,baz=98,slow=3.5,SNR=4.1						
CMAR	**Chiang Mai Arr**	**147.35**	**345**	PKPbc	PKPdf	04 59 38.6	+4.2
	comp=E,0.9nm,0.4s,baz=322,slow=4.6,SNR=4.3						

NEIC ***14*** *04:51:49.4, 13.91N×93.72W, h14^{km}, MD4.3(MEX), After MEX.*

MEX ***14*** *04:51:51.2±0.4, 14.04N×93.76W, h16^{km}±49^{km}, MD4.3*

IDC ***14*** *04:51:53.8±10.0, 14.09N×93.22W, h41^{km}±62^{km}, mb3.4/3, mb1 3.8/5, mb1mx3.3/20, ML3.7/2, MS2.7/1, Ms1 2.7/1, ms1mx1.6/16, Error ellipse: s-maj=121.0km s-min=45.1km az=158.0*

ISC 14 04:51:46.4±2.9, **14.0N**±0.1×**93.73W**±0.08, **h12**^{km}±24^{km}, **n13**, σ**1^{s}25**/21, **mb3.6**/3, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	**Comitan**	**2.72**	**34**	*e*P	**Pn**	**04 52 31.6**	**+0.9**
CCIG				*i* S	**Sn**	**04 53 03.2**	**-0.6**
CCIG	**Comitan**	**2.72**	**34**	*e*P	**Pn**	**04 52 31.6**	**+0.9**
CCIG				*i* S	**Sn**	**04 53 03.1**	**-0.7**
SCX	**San Cristobal**	**2.90**	**21**	*i* P	**Pn**	**04 52 34.0**	**+0.8**
SCX				*i* S	**Sn**	**04 53 10.0**	**+1.7**
SCX	**San Cristobal**	**2.90**	**21**	*i* P	**Pn**	**04 52 34.0**	**+0.8**
SCX				*i* S	**Sn**	**04 53 08.5**	**+0.2**
CMIG	**Matias Romero**	**3.25**	**340**	*i* P	**Pn**	**04 52 38.7**	**+0.5**
CMIG				*i* S	**Sn**	**04 53 17.3**	**+0.1**
CMIG	**Matias Romero**	**3.25**	**340**	*i* P	**Pn**	**04 52 38.7**	**+0.5**
CMIG				*i* S	**Sn**	**04 53 15.3**	**-1.9**
OXX	**Oaxaca**	**4.20**	**317**	*e*P	**Pn**	**04 52 51.0**	**-0.7**
OXX				*i* S	**Sn**	**04 53 47.0**	**+5.8**
TEIG	**Tepich**	**8.07**	**39**	P	**P**	**04 53 43.5**	**-2.8**
	1.1nm,0.3s,baz=106,slow=23,SNR=19						
TEIG				S	**Sn**	**04 55 10.6**	**-7.8**
	0.9nm,0.3s,baz=179,slow=23,SNR=3.2						
TEIG				LR	LR	04 57 12.7	
	comp=Z,56nm,19.2s,baz=23,slow=41						
JTS	**JuntasAbangare**	**9.34**	**112**	P	**P**	**04 54 03.8**	**0.0**
TXAR	**Lajitas Array**	**17.80**	**330**	P	**P**	**04 56 00.3**	**+4.6**
	0.1nm,0.3s,baz=153,slow=11,SNR=4.2						
PDAR	**Pinedale Array**	**31.73**	**338**	P	**P**	**04 58 11.3**	**-1.0**
	0.2nm,0.4s,mb3.3,baz=151,slow=9.3,SNR=2.6						
NVAR	**Mina Array Bea**	**32.62**	**323**	P	**P**	**04 58 24.6**	**+4.5**
	0.8nm,0.9s,mb3.6,baz=135,slow=7.7,SNR=4.6						
YKA	**Yellowknife Ar**	**50.63**	**348**	P	**P**	**05 00 48.3**	**+1.2**
	1.0nm,0.6s,mb3.9,baz=155,slow=7.3,SNR=24						

SKHL 14 04:57:43.4±0.6, **56.23N**×**124.23E**, **h14**^{km}±1^{km}, **mb4.5**/4, **Southeastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KROS	**Kirovskiy**	**2.39**	**138**	*e*Pn	Pn	04 58 22.1	-0.7
KROS				*e*Pg	Pg	04 58 27.0	-4.1
KROS				AMB	AMB	04 58 28.8	
	45nm,0.5s						
KROS				AMB	AMB	04 58 28.8	
	30nm,0.5s						
KROS				AMB	AMB	04 58 28.8	
	62nm,0.5s						
KROS				pPg		04 58 32.8	
KROS				*e*Sg	Sg	04 58 58.5	-4.5
KROS				A		04 59 02.0	
	400nm,0.4s						
KROS				A		04 59 02.0	
	320nm,0.4s						
KROS				A		04 59 02.0	
	160nm,0.4s						
BMKR	**Bomnak**	**3.04**	**118**	*e*Pn	Pn	04 58 31.6	-0.4
BMKR				*e*Pg	Pg	04 58 38.1	-5.9
BMKR				AMB	AMB	04 58 40.9	
	36nm,0.5s						
BMKR				AMB	AMB	04 58 40.9	
	41nm,0.5s						
BMKR				AMB	AMB	04 58 40.9	
	45nm,0.5s						
BMKR				sPg		04 58 45.3	
BMKR				*e*rx	rx	04 59 05.0	
BMKR				*e*Sg	Sg	04 59 18.4	-6.1
BMKR				A		04 59 21.6	
	375nm,0.5s						
BMKR				A		04 59 21.6	
	216nm,0.5s						
TUP	**Tupik**	**3.04**	**235**	*e*Pn	Pn	04 58 32.3	+0.2
TUP				*e*Pg	Pg	04 58 38.7	-5.4
TUP				AMB	AMB	04 58 43.0	
	108nm,0.3s						
TUP				*e*Sn	Sn	04 59 09.5	+0.9
TUP				*e*Sg	Sg	04 59 19.3	-5.4
TUP				A		04 59 26.5	
	238nm,0.4s						
ZEA	**Zeya**	**3.04**	**144**	*e*Pn	Pn	04 58 33.5	+1.4
ZEA				*e*Pg	Pg	04 58 38.7	-5.5
ZEA				AMB	AMB	04 58 40.9	
	122nm,0.4s						
ZEA				*e*Sn	Sn	04 59 10.3	+1.6
ZEA				*e*Sg	Sg	04 59 18.6	-6.2
ZEA				A		04 59 24.3	
	588nm,0.5s						
ZEA				A		04 59 24.3	
	500nm,0.5s						
CRS	**Chara**	**3.37**	**284**	*e*Pn	Pn	04 58 37.6	+0.9
YASR	**Yasnyy**	**3.66**	**142**	*e*Pn	Pn	04 58 40.2	-0.7
YASR				*e*Pg	Pg	04 58 49.7	-6.8
EKMR	**Ekimchan**	**5.97**	**118**	*e*Pn	Pn	04 59 11.9	-1.7
EKMR				pPn		04 59 17.0	
EKMR				*e*Sg	Sg	05 00 50.0	-12
EKMR				A		05 01 04.0	
	49nm,0.5s						
EKMR				A		05 01 04.0	
	27nm,0.5s						
EKMR				A		05 01 04.0	
	45nm,0.5s						

SKHL 14 04:59:39.1±0.2, **52.72N**×**142.74E**, **h10**^{km}, **mb4.2**/2, **Sakhalin Island**

SYO ***14*** *05:00:10.7, 3.68S×135.05E, h10^{km}, MB4.3*

NEIC ***14*** *05:00:11.9±0.6, 3.77S×135.08E, h10^{km}, mb4.3/5, Error ellipse: s-maj=20.9km s-min=9.9km az=65.0*

IDC ***14*** *05:00:16.0±7.5, 3.83S×135.10E, h32^{km}±56^{km}, mb3.9/5, mb1 4.3/9, mb1mx4.2/12, ML3.9/4, MS3.6/4, Ms1 3.6/4, ms1mx3.2/13, Error ellipse: s-maj=39.5km s-min=19.1km az=53.0*

ISC 14 05:00:16.2±1.6, **3.84S**±0.05×**135.26E**±0.08, **h56**^{km}±14^{km}, **n32**, σ**1^{s}34**/35, **mb4.4**/13, **MS3.8**/2, **1C, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.24**	**198**	*e*P	**P**	**05 02 30.4**	**+1.1**
	28nm,0.5s						
KAKA				*e*S	**S**	**05 04 13.9**	**+1.0**
PMG	**Port Moresby**	**13.04**	**116**	Pn	**P**	**05 03 20.9**	**+0.1**
	0.7nm,0.3s,baz=308,slow=5.7,SNR=9.2						
PMG	**Port Moresby**	**13.04**	**116**	*e*P	**P**	**05 03 19.8**	**-1.0**
	26nm,0.8s						
WRAB	**Tennant Creek**	**16.02**	**183**	*e*P	**P**	**05 03 58.4**	**-0.9**
	46nm,0.7s						
WRAB				*e*		05 04 04.7	
WRAB				*e*S	**S**	**05 06 49.1**	**-5.8**
WB2	**Warramunga Arr**	**16.03**	**183**	*e*P	**P**	**05 03 58.0**	**-1.5**
WB2				*e*		05 04 05.1	
WB2				*e*S	**S**	**05 06 49.7**	**-5.4**
WRA	**Warramunga Arr**	**16.03**	**183**	Pn	**P**	**05 03 58.5**	**-1.0**
	0.5nm,0.3s,baz=4.5,slow=13,SNR=23						
WRA				Sn	**S**	**05 06 51.3**	**-3.9**
	1.5nm,0.3s,baz=8.3,slow=22,SNR=7.7						
WRA				Lg		05 08 45.2	
	baz=352,slow=28,SNR=3.8						
CTA	**Charters Tower**	**19.38**	**147**	P	**P**	**05 04 41.0**	**+0.8**
	0.4nm,0.3s,baz=328,slow=12,SNR=5.9						
CTA				S	**S**	**05 08 10.7**	**+0.1**
	0.5nm,0.3s,baz=294,slow=6.6,SNR=2.6						
CTA				Lg		05 10 25.3	
	0.3nm,0.3s,baz=250,slow=21,SNR=4.7						
CTA				LR	LR	05 12 36.0	
	comp=Z,82nm,20.6s,baz=211,slow=38						
CTAO	**Charters Tower**	**19.38**	**147**	*e*P	**P**	**05 04 39.3**	**-0.9**
	8.6nm,0.8s						
ASAR	**Alice Springs**	**19.75**	**184**	P	**P**	**05 04 46.8**	**+2.5**
	1.7nm,0.3s,baz=18,slow=9.0,SNR=62						
ASAR				S	**S**	**05 08 20.8**	**+2.2**
	0.3nm,0.3s,baz=2.6,slow=28,SNR=4.4						
ASAR				LR	LR	05 13 13.6	
	comp=Z,183nm,19.0s,baz=11,slow=39						
ASPA	**Alice Springs**	**19.75**	**184**	*e*P	**P**	**05 04 46.9**	**+2.7**
ASPA				*e*S	**S**	**05 08 17.4**	**-1.1**
STKA	**Stephens Creek**	**28.51**	**169**	P	**P**	**05 06 08.5**	**-0.1**
	3.6nm,0.8s,mb4.1,baz=336,slow=5.8,SNR=6.5						
STKA				LR	LR	05 18 55.2	
	comp=Z,93nm,18.9s,MS3.4,baz=203,slow=39						
STKA	**Stephens Creek**	**28.51**	**169**	*e*P	**P**	**05 06 08.4**	**-0.2**
CMAR	**Chiang Mai Arr**	**42.09**	**303**	P	**P**	**05 08 05.2**	**+0.6**
	1.0nm,0.4s,mb3.8,baz=126,slow=7.3,SNR=7.2						
GUN	**Gumba**	**57.05**	**307**	*e*P	**P**	**05 09 59.4**	**+0.2**
	23nm,0.8s,mb5.3						
PKI	**Pulchoki**	**57.29**	**306**	*e*P	**P**	**05 10 01.4**	**+0.6**
SONM	**Songino Array**	**57.35**	**337**	P	**P**	**05 09 59.6**	**-1.3**
	0.3nm,0.6s,mb3.5,baz=162,slow=8.5,SNR=2.8						
KKN	**Kakani**	**57.48**	**306**	*e*P	**P**	**05 10 02.1**	**-0.1**
DMN	**Daman**	**57.55**	**306**	*e*P	**P**	**05 10 03.7**	**+1.0**
GKN	**Gorkha**	**58.09**	**306**	*e*P	**P**	**05 10 06.3**	**-0.1**
	26nm,0.9s,mb5.2						
KOLN	**Koldanda**	**58.83**	**306**	*e*P	**P**	**05 10 11.9**	**+0.3**
	19nm,0.9s,mb5.1						
ZAL	**Zalesovo**	**71.22**	**331**	P	**P**	**05 11 32.1**	**+0.9**
	0.6nm,0.3s,mb4.0,baz=299,slow=6.0,SNR=3.5						
UCH	**Uchtor**	**71.48**	**317**	*e*P	**P**	**05 11 31.9**	**-1.0**
	1.6nm,0.7s,mb4.1						
PPT	**Papeete**	**74.71**	**107**	P	**P**	**05 11 54.8**	**+2.5**
	39nm,0.7s,mb5.4,baz=247,slow=7.7,SNR=3.5						
VNDA	**Vanda**	**74.98**	**174**	LR	LR	05 42 59.5	
	comp=Z,89nm,18.8s,MS4.1,baz=336,slow=34						
BVAR	**Borovoye Array**	**78.30**	**326**	P	**P**	**05 12 11.4**	**-0.4**
	2.4nm,0.9s,mb4.1,baz=127,slow=7.4,SNR=8.3						
BRVK	**Borovoye**	**78.37**	**326**	*e*P	**P**	**05 12 09.1**	**-3.1**
	4.5nm,1.0s,mb4.3						
CHKZ	**Chkalovo**	**78.42**	**327**	*e*P	**P**	**05 12 09.7**	**-2.8**
	1.5nm,0.8s,mb4.0						
ILAR	**Eielson Array**	**88.29**	**25**	P	**P**	**05 13 04.2**	**+1.8**
	0.4nm,0.7s,mb3.8,baz=256,slow=3.7,SNR=5.2						
SYO	**Syowa Base**	**88.48**	**201**	⇑P	**P**	**05 13 01.3**	**-2.0**
CPUP	**Villa Florida**	**147.62**	**159**	PKPbc	PKPdf	05 19 57.6	+5.3
	0.0nm,0.3s,baz=259,slow=20,SNR=1.4						
LPAZ	**La Paz**	**149.42**	**131**	PKPbc	PKPdf	05 20 03.4	+7.9
	1.1nm,0.7s,baz=175,slow=6.5,SNR=4.5						
LPAZ	**La Paz**	**149.42**	**131**	*e*PKPbc	PKPdf	05 20 03.4	+7.9

CSEM ***14*** *05:27:25.6, 35.84N×21.88E, h25^{km}, MD3.4/3, After ATH*

ATH 14 05:27:25.4, 35.80N×21.88E, h27^{km}**, MD3.5**/3, **1C-1D, Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	**Kithira**	**1.05**	**63**	⇑*i*PN	Pn	05 27 45.7	+1.2
VLI	**Veliai**	**1.25**	**43**	⇓*i*PN	Pn	05 27 48.9	+1.5
VLI				*e*SN	Sn	05 28 06.2	+2.7
ITM	**Ithomi**	**1.38**	**2**	*e*PN	Pn	05 27 50.8	+1.6

NIED ***14*** *05:37:00, 38.80N×141.60E, h80^{km}, Mw3.4 Best double couple: $M_0$1.59×10^{14} NP1:ϕ_s298°, δ61°, λ53°. NP2:ϕ_s176°, δ45°, λ138°.*

JMA ***14*** *05:37:28.8, 38.78N×141.62E, h68^{km}±1^{km}, M3.5*

JMA Felt I J1.

ISC 14 05:37:28.6±1.4, **38.76N**±0.05×**141.7E**±0.1, **h63**^{km}±10^{km}, **n10**, σ**0^{s}45**/20, **4C-1D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	**Ofunato**	**0.32**	**358**	⇑P	**P**	**05 37 39.7**	**+0.4**
OFUJ				S	**S**	**05 37 47.6**	**+0.4**
JIO	**Ouri**	**0.40**	**221**	⇑P	**P**	**05 37 40.4**	**+0.4**
JIO				S	**S**	**05 37 48.6**	**+0.3**
JMK	**Ichinoseki**	**0.41**	**299**	⇑P	**P**	**05 37 40.1**	**0.0**
JMK				S	**S**	**05 37 48.4**	**-0.1**
JOM	**Ohasama**	**0.78**	**337**	⇑P	**P**	**05 37 44.0**	**-0.1**
JOM				S	**S**	**05 37 55.3**	**-0.4**
JOU	**Okura**	**0.89**	**244**	P	**P**	**05 37 45.6**	**+0.1**
JOU				S	**S**	**05 37 57.6**	**-0.6**
JYK	**Kaneyama**	**1.05**	**279**	P	**P**	**05 37 47.5**	**-0.2**
JYK				S	**S**	**05 38 01.5**	**-0.3**
JMM	**Marumori**	**1.13**	**219**	P	**P**	**05 37 48.4**	**-0.4**
JMM				S	**S**	**05 38 03.0**	**-0.8**
JYS	**Shirataka**	**1.38**	**248**	⇓P	**P**	**05 37 52.1**	**-0.2**
JYS				S	**S**	**05 38 10.7**	**+0.9**
JFK	**Kawauchi**	**1.53**	**205**	P	**P**	**05 37 54.1**	**-0.2**
JFK				S	**S**	**05 38 13.0**	**-0.3**
MAT	**Matsushiro**	**3.54**	**232**	P	**P**	**05 38 22.5**	**+0.1**
MAT				S	**S**	**05 39 04.4**	**+1.1**

BJI ***14*** *05:40:49.2, 40.60N×77.72E, h14^{km}, ML3.3*

NNC ***14*** *05:40:58.6±5.4, 41.41N×77.86E, mpv3.5, Error ellipse: s-maj=57.4km s-min=18.6km az=164.0*

ISC 14 05:40:42.5±3.0, **40.0N**±0.2×**78.3E**±0.2, **h14**^{km}, **n12**, σ**1^{s}37**/14, **3C-1D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**1.87**	**258**	PG	**Pg**	**05 41 20.0**	**+0.1**
KSH				SG	**Sg**	**05 41 44.8**	**0.0**
KSH				Smax			
	comp=N,550nm,0.3s						
KSH				Smax			
	comp=E,490nm,0.3s						
ULHL	**Ulahol**	**2.79**	**326**	P	**Pn**	**05 41 25.0**	**-2.6**
	SNR=15						
KZA	**Kyzart**	**3.16**	**313**	P	**Pn**	**05 41 31.8**	**-1.0**
	SNR=117						
TKM2	**Tokmak 2**	**3.62**	**326**	P	**Pn**	**05 41 39.8**	**+0.5**
	SNR=13						
UCH	**Uchtor**	**3.68**	**310**	P	**Pn**	**05 41 37.7**	**-2.5**
	SNR=8.6						
KBK	**Karagaybulak**	**3.72**	**318**	P	**Pn**	**05 41 40.6**	**-0.1**
	SNR=10						
AAK	**Ala-Archa**	**3.95**	**314**	⇓Pn	**Pn**	**05 41 45.3**	**+1.3**
	comp=E,29nm,0.6s						
AAK				⇑Lg		05 42 26.5	
	comp=E,73nm,1.2s						
AAK	**Ala-Archa**	**3.95**	**314**	P	**Pn**	**05 41 45.6**	**+1.7**
	SNR=9.7						
CHMS	**Chumysh**	**4.07**	**320**	P	**Pn**	**05 41 47.3**	**+1.5**
	SNR=9.1						
EKS2	**Erkin-Say**	**4.37**	**310**	P	**Pn**	**05 41 54.5**	**+4.4**
	SNR=6.5						
USP	**Ospenovka**	**4.39**	**320**	P	**Pn**	**05 41 53.3**	**+3.0**
	SNR=22						
MK31	**Makanchi Array**	**7.43**	**22**	⇑Pn	**Pn**	**05 42 33.1**	**-0.1**
	comp=E,3.3nm,1.3s,baz=207,slow=14,SNR=8.1						
MK31				⇑Sn	**Sn**	**05 43 51.5**	**-6.5**
	comp=E,0.8nm,0.5s,baz=205,slow=25,SNR=5.5						

NIED ***14*** *05:56:00, 44.10N×141.70E, h5^{km}, Mw5.7 Best double* couple: $M_0$4.44×10^{17} NP1:ϕ_s178°,δ47°,λ73°. NP2:ϕ_s23°, δ46°,λ107°.

BJI **14** 05:56:07.5,44.02N×141.78E,h9^{km},mB5.8,mb5.2,Ms6.0, Msz5.8

PDG **14** 05:56:08.6,44.10N×141.70E,h10^{km}

MOS **14** 05:56:08.8±1.0,44.11N×141.79E,h12^{km},mb5.9/120, MS5.5/66,Error ellipse: s-maj=6.4km s-min=3.4km az=107.7

IDC **14** 05:56:08.6±0.3,44.25N×141.66E,mb5.0/30,mb1 5.1/33, mb1mx5.1/34,ML4.9/2,MS5.4/18,Ms1 5.4/18, ms1mx5.0/27,Error ellipse: s-maj=10.7km s-min=7.0km az=11.0

SYO **14** 05:56:09.9,44.13N×141.77E,h10^{km},MB5.8,MS5.3

NEIC **14** 05:56:10.0±0.1,44.12N×141.79E,h10^{km},mb5.8/183, ME5.8,MS5.3/129,MW5.8,MW5.7(NIED),Error ellipse: s-maj=3.7km s-min=2.7km az=168.0 Broadband fault plane solution: P waves. NP1:ϕ_s190°,δ75°,λ90°. NP2: ϕ_s10°,δ15°,λ90°. Principal axes: T Plg60°, Azm100°; N Plg0°, Azm0°; P Plg30°, Azm280°; Moment Tensor Solution. s56 Moment tensor: Scale 10^{17} Nm; M_{rr}5.79; $M_{\theta\theta}$-0.32; $M_{\phi\phi}$-5.48; $M_{r\theta}$0.00; $M_{\theta\phi}$-1.33; $M_{\phi r}$-2.28; Best double couple: $M_0$6.2×10^{17} NP1:ϕ_s18°,δ35°,λ98°. NP2: ϕ_s189°,δ56°,λ84°. Principal axes: T 6.25, Plg79°, Azm79°; N -.03, Plg5°, Azm192°; P -6.21, Plg10°, Azm283°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.

NEIC Two people injured at Obira and one at Haboro. Some buildings, roads and water lines damaged at Tomamae. Felt in northern and western Hokkaido. Recorded [5U JMA] in the Haboro area; [4 JMA] in the Shibetsu-Numata area; [3 JMA] in the Otararea; [2 JMA] in the Mombetsu area and much of western Hokkaido; [1 JMA] in the Obihiro, Shari-Yubetsu and Setana areas. Also recorded [2 JMA] on Rishiri-to.

HRVD **14** 05:56:10.0±0.1,44.19N×141.59E,h12^{km},MW5.7/67, Centroid moment Tensor Solution. LP body waves: s60,c128;Mantle waves: s67,c169; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M_{rr}4.25±.05; $M_{\theta\theta}$-0.02±.05; $M_{\phi\phi}$-4.23±.05; $M_{r\theta}$-0.32±.16; $M_{\theta\phi}$-0.77±.04; $M_{\phi r}$-2.29±.15; Best double couple: $M_0$4.89×10^{17} NP1: ϕ_s11°,δ31°,λ92°. NP2:ϕ_s189°,δ59°,λ89°. Principal axes: T 4.83, Plg76°, Azm96°; N .11, Plg1°, Azm190°; P -4.95, Plg14°, Azm280°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

JMA **14** 05:56:10.5±0.1,44.08N×141.70E,h9^{km}±2^{km},M6.1 Broadband fault plane solution: P waves. NP1:ϕ_s11°,δ27°, λ89°. NP2:ϕ_s191°,δ63°,λ90°. Principal axes: T Plg72°, Azm102°; N Plg0°, Azm11°; P Plg18°, Azm281°;

ISC 14 05:56:10.3±0.4,**44.08N**±0.02×**141.79E**±0.02,**h21**^{km}±2^{km}, **h16**^{km}±1.6^{km}**:pP-P,n1020,**σ**1^{s}03**/975,**mb5.6**/245, **MS5.5**/173,**162C-41D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSS	**Shosan**	**0.32**	**8**	⇑P	**Pb**	**05 56 17.7**	**+0.3**
JSS				*e*S	**Sb**	**05 56 24.2**	**+2.0**
JHR	**Hokuryu**	**0.34**	**188**	⇑P	**Pb**	**05 56 17.5**	**-0.2**
JHR				*e*S	**Sb**	**05 56 23.5**	**+0.9**
JYG	**Yagishiri**	**0.43**	**323**	⇓P	**Pb**	**05 56 18.0**	**-1.2**
JYG				*e*S	**Sb**	**05 56 24.6**	**-0.6**
ASAJ	**Asahikawa**	**0.58**	**86**	Pg	**Pb**	**05 56 22.4**	**+0.6**
	9µm,0.3s,baz=266,slow=12,SNR=8439						
ASAJ				Lg		05 56 31.9	
	26µm,0.3s,baz=50,slow=28,SNR=48						
ASAJ	**Asahikawa**	**0.58**	**86**	⇓P	**Pb**	**05 56 22.4**	**+0.7**
JAB	**Ashibetsu**	**0.66**	**151**	⇓P	**Pb**	**05 56 23.6**	**+0.7**
JAB				*e*S	**Sb**	**05 56 34.5**	**+2.9**
JKK2	**Kamakawa 2**	**0.72**	**106**	⇓P	**Pb**	**05 56 24.9**	**+0.8**
JSK	**Shakotan**	**1.20**	**233**	⇓P	**Pn**	**05 56 31.1**	**-1.0**
JWK2	**Keihoku**	**1.24**	**4**	⇑P	**Pn**	**05 56 32.9**	**+0.2**
JTKR	**Abashiri--Toko**	**1.53**	**93**	⇑P	**Pn**	**05 56 38.2**	**+1.4**
YUK	**Yuzh-Kuril'sk**	**2.94**	**89**	*e*PN	**Pn**	**05 56 57.4**	**+0.5**
YUK				pmax	pmax		
	comp=N,580nm,0.5s						
YUK				pmax	pmax		
	comp=E,180nm,0.5s						
YUK				pmax	pmax		
	comp=Z,660nm,0.5s						
YUK				pmax	pmax		
	comp=N,7µm,2.0s						
YUK				pmax	pmax		
	comp=Z,19µm,2.0s						
YUK				pmax	pmax		
	comp=E,32µm,3.0s						
YSS	**Yuzh-Sakhalins**	**2.95**	**13**α	*i*PN	**Pn**	**05 56 56.0**	**-1.2**
YSS				*e*S	**Sn**	**05 57 32.0**	**-0.4**
YSS				pmax	pmax		
	comp=N,1µm,1.0s						
YSS				pmax	pmax		
	comp=Z,2µm,1.0s						
YSS				pmax	pmax		
	comp=E,490nm,0.9s						
YSS				pmax	pmax		
	comp=N,9µm,4.0s						
YSS				pmax	pmax		
	comp=E,5µm,4.0s						
YSS				pmax	pmax		
	comp=Z,11µm,4.0s						
YSS				smax			
	comp=E,39µm,4.0s						
YSS				smax			
	comp=N,23µm,3.0s						
YSS				MLR	MLR		
	comp=N,86µm,6.0s						
YSS				MLR	MLR		
	comp=Z,132µm,6.0s						
YSS	**Yuzh-Sakhalins**	**2.95**	**13**	*e*P	**Pn**	**05 56 57.5**	**+0.3**
KUR	**Kuril'sk**	**4.49**	**73**	*e*PN	**Pn**	**05 57 17.0**	**-1.9**
KUR				pmax	pmax		
	comp=N,2µm,1.2s						
KUR				pmax	pmax		
	comp=E,700nm,1.2s						
KUR				pmax	pmax		
	comp=Z,3µm,1.2s						
KUR				MLR	MLR		
	comp=N,79µm,10.0s						
KUR				MLR	MLR		
	comp=E,110µm,10.0s						
KUR				MLR	MLR		
	comp=Z,97µm,10.0s						
UGL	**Uglegorsk**	**5.00**	**2**	*e*PN	**Pn**	**05 57 20.0**	**-6.2**
UGL				pmax	pmax		
	comp=Z,213nm,0.9s						
UGL				pmax	pmax		
	comp=N,14µm,5.0s						
UGL				pmax	pmax		
	comp=E,5µm,5.0s						
UGL				pmax	pmax		
	comp=Z,15µm,5.0s						
UGL				MLR	MLR		
	comp=Z,91µm,9.0s						
UGL				MLR	MLR		
	comp=N,99µm,10.0s						
UGL				MLR	MLR		
	comp=E,77µm,10.0s						
TYV	**Tymovskoe**	**6.81**	**5**	*e*PN	**Pn**	**05 57 47.2**	**-4.5**
TYV				*i* S	**Sn**	**05 59 21.0**	**+12**
TYV				pmax	pmax		
	comp=E,5µm,8.0s						
TYV				pmax	pmax		
	comp=Z,8µm,8.0s						
TYV				smax			
	comp=E,116µm,10.0s						
TYV				smax			
	comp=N,39µm,7.0s						
TYV				MLR	MLR		
	comp=Z,92µm,14.0s						
TYV				MLR	MLR		
	comp=N,74µm,13.0s						
TYV				MLR	MLR		
	comp=E,115µm,20.0s						
VLA	**Vladivostok**	**7.25**	**266**	⇑*i*PN	**Pn**	**05 57 54.0**	**-3.9**
VLA				pmax	pmax		
	comp=Z,4µm,13.0s						
VLA				pmax	pmax		
	comp=E,10µm,20.0s						
MAJO	**Matsushiro**	**8.01**	**201**	*e*PN	**P**	**05 58 07.7**	**-0.8**
MAT	**Matsushiro**	**8.01**	**201**	P	**P**	**05 58 09.1**	**+0.6**
MAT				S	**Sn**	**05 59 40.0**	**+0.6**
MAT	**Matsushiro**	**8.01**	**201**	*e*PN	**P**	**05 58 09.0**	**+0.5**
MAT				pmax	pmax		
	comp=Z,84nm,0.9s						
MAT	**Matsushiro**	**8.01**	**201**	*e*P	**P**	**05 58 09.0**	**+0.5**
	comp=Z,84nm,0.9s						
MAT				*e*S	**Sn**	**05 59 40.0**	**+0.6**
JRY	**Ryogami san**	**8.35**	**196**	P	**P**	**05 58 13.2**	**0.0**
JGN	**Niukaw**	**8.56**	**205**	P	**P**	**05 58 18.2**	**+2.1**
KLR	**Kul'dur**	**8.61**	**310**	⇑*i*PN	**P**	**05 58 12.5**	**-4.4**
KLR				pmax	pmax		
	comp=N,2µm,11.0s						
KLR				pmax	pmax		
	comp=E,3µm,11.0s						
KLR				pmax	pmax		
	comp=Z,7µm,11.0s						
MDJ	**Mudanjiang**	**8.76**	**278**	P	**P**	**05 58 15.6**	**-3.3**
MDJ				S	**Sn**	**05 59 53.6**	**-4.5**
MDJ				PCP	PcP	06 04 42.4	-2.4
MDJ				SCP		06 08 13.6	
MDJ				PCS		06 08 15.9	
MDJ				SCS	ScS	06 11 47.8	+0.7
MDJ				LR	LR		
	comp=N,46µm,15.3s						
MDJ				LR	LR		
	comp=E,24µm,23.4s						
MDJ				LR	LR		
	comp=Z,53µm,15.6s						
MDJ	**Mudanjiang**	**8.76**	**278**	*e*P	**P**	**05 58 17.3**	**-1.6**
OKH	**Okha**	**9.51**	**4**	*i* PN	**P**	**05 58 27.6**	**-1.6**
OKH				pmax	pmax		
	comp=Z,5µm,9.0s						
JHJ	**Hachijo jima 2**	**11.05**	**189**	Pn	**P**	**05 58 52.4**	**+1.9**
	comp=Z,46nm,0.3s,baz=52,slow=21,SNR=6.1						
SKR	**Severo-Kuril's**	**11.74**	**51**	*e*PN	**P**	**05 59 01.2**	**+1.6**
SKR				*e*S	**S**	**06 01 18.0**	**+7.0**
SKR				pmax	pmax		
	comp=N,8µm,4.0s						
SKR				pmax	pmax		
	comp=E,15µm,4.0s						
SKR				pmax	pmax		
	comp=Z,18µm,4.0s						
SKR				pmax	pmax		
	comp=N,220nm,1.0s						
SKR				pmax	pmax		
	comp=E,1µm,1.0s						
SKR				pmax	pmax		
	comp=Z,2µm,1.0s						
SKR				smax			
	comp=N,21µm,20.0s						
SKR				smax			
	comp=E,16µm,12.0s						
SKR				MLR	MLR		
	comp=N,19µm,14.0s						
SKR				MLR	MLR		
	comp=E,22µm,14.0s						
SKR				MLR	MLR		
	comp=Z,16µm,14.0s						
CN2	**Changchun**	**11.79**	**274**	*e*P	**P**	**05 59 02.0**	**+1.7**
CN2				*e*XP		05 59 08.0	
CN2				*e*S	**S**	**06 01 14.3**	**+2.0**
CN2				AMB	AMB		
	comp=Z,50nm,1.3s						
CN2				AMB	AMB		
	comp=Z,3µm,7.0s						
CN2				LR	LR		
	comp=N,75µm,12.0s						
CN2				LR	LR		
	comp=E,58µm,12.0s						
CN2				LR	LR		
	comp=Z,52µm,13.0s						
KS15	**Wonju Array Si**	**12.45**	**243**	*e*P	**P**	**05 59 07.4**	**-1.8**
INCN	**Inchon**	**13.23**	**245**	*e*P	**P**	**05 59 16.2**	**-3.4**
	comp=Z,257nm,1.5s						
SNY	**Shenyang**	**13.53**	**267**	PR	**P**	**05 59 25.3**	**+1.8**
SNY				S	**S**	**06 02 00.3**	**+6.1**
SNY				AMB	AMB		
	comp=Z,110nm,1.6s						
SNY				LR	LR		
	comp=N,47µm,12.0s						
SNY				LR	LR		
	comp=Z,41µm,15.3s						
PET	**Petropavlovsk**	**14.28**	**45**α	*i*P	**P**	**05 59 35.7**	**+2.4**
PET				pmax	pmax		
	comp=N,713nm,1.3s						
PET				pmax	pmax		
	comp=E,505nm,1.4s						
PET				pmax	pmax		
	comp=Z,12µm,10.0s						
PET				pmax	pmax		
	comp=N,8µm,10.1s						
PET				pmax	pmax		
	comp=E,8µm,10.0s						
PET				pmax	pmax		
	comp=Z,5µm,11.2s						
PET				pmax	pmax		
	comp=N,3µm,11.3s						
PET				pmax	pmax		
	comp=E,3µm,11.2s						
PET				MLR	MLR		
	comp=Z,26µm,12.6s						
PET	**Petropavlovsk**	**14.28**	**45**	*e*P	**P**	**05 59 33.6**	**+0.3**
DL2	**Dalian**	**15.96**	**258**	PR	**P**	**05 59 58.8**	**+3.6**
DL2				S	**S**	**06 02 57.3**	**+5.8**
DL2				AMB	AMB		
	comp=Z,100nm,1.0s						
DL2				AMB	AMB		
	comp=Z,3µm,10.6s						
DL2				LR	LR		
	comp=N,13µm,13.4s						
DL2				LR	LR		
	comp=Z,9µm,15.0s						
HIA	**Hailar**	**15.98**	**297**	*e*P	**P**	**05 59 55.7**	**+0.3**
HIA				pmax	pmax		
	comp=Z,545nm,1.5s						
HIA	**Hailar**	**15.98**	**297**	*e*P	**P**	**05 59 55.7**	**+0.3**
	comp=Z,545nm,1.5s						
MA2	**Magadan**	**16.45**	**16***c*	*i*P	**P**	**06 00 01.1**	**-0.3**
MA2				*e*S	**S**	**06 03 01.7**	**-1.2**
MA2				pmax	pmax		
	comp=N,60nm,1.1s						
MA2				pmax	pmax		
	comp=Z,100nm,1.1s						
MA2				pmax	pmax		
	comp=E,30nm,1.0s						
MA2				MLR	MLR		
	comp=Z,16µm,18.0s						
MA2	**Magadan**	**16.45**	**16**	*e*P	**P**	**06 00 00.9**	**-0.4**
	comp=Z,151nm,0.9s						
CLNS	**Chul'man**	**16.63**	**326**	*e*P	**P**	**06 00 03.6**	**-0.1**
CLNS				*e*S	**S**	**06 03 04.1**	**-2.9**
CLNS				pmax	pmax		
	comp=Z,126nm,0.8s						
CLNS				pmax	pmax		
	comp=N,200nm,1.3s						
CLNS				pmax	pmax		
	comp=E,79nm,1.2s						
CLNS				smax			
	comp=N,2µm,11.8s						
CLNS				smax			
	comp=Z,3µm,12.6s						
CLNS				smax			
	comp=E,413nm,10.3s						
CLNS				MLR	MLR		
	comp=Z,26µm,12.0s						
CLNS				MLR	MLR		
	comp=N,16µm,11.0s						
CLNS				MLR	MLR		
	comp=E,4µm,10.0s						
CBIJ	**Chichi jima**	**16.95**	**179**	P	**P**	**06 00 08.0**	**+0.1**
	comp=E,15nm,0.3s,baz=276,slow=5.8,SNR=4.9						
YAK	**Yakutsk**	**19.34**	**343***d*	*i*P	**P**	**06 00 37.1**	**+0.2**
YAK				*e*S	**S**	**06 04 09.8**	**+1.4**
YAK				pmax	pmax		
	comp=E,77nm,0.9s						
YAK				pmax	pmax		
	comp=Z,389nm,0.9s						
YAK				pmax	pmax		
	comp=N,238nm,1.1s						
YAK				smax			
	comp=E,139nm,1.4s						
YAK				smax			
	comp=N,141nm,1.3s						
YAK				MLR	MLR		
	comp=Z,12µm,14.0s						
YAK				MLR	MLR		
	comp=N,14µm,17.0s						
YAK				MLR	MLR		
	comp=E,13µm,13.0s						
YAK	**Yakutsk**	**19.34**	**343**	*e*P	**P**	**06 00 35.4**	**-1.5**
	comp=E,968nm,0.9s						
BJI	**Beijing**	**19.41**	**267**	P	**P**	**06 00 36.0**	**-1.9**
BJI				S	**S**	**06 04 16.6**	**+6.4**
BJI				AMB	AMB		
	comp=Z,65nm,1.2s						
BJI				LR	LR		
	comp=N,24µm,17.1s						
BJI				LR	LR		
	comp=E,32µm,17.7s						
BJI				LR	LR		
	comp=Z,26µm,18.4s						
BJT	**Baijiatuau**	**19.43**	**267**	*e*P	**P**	**06 00 36.0**	**-2.1**
BJT				pmax	pmax		
	comp=Z,575nm,1.4s						
BJT	**Baijiatuau**	**19.43**	**267**	*e*P	**P**	**06 00 36.0**	**-2.1**
	comp=Z,575nm,1.4s						
SEY	**Seymchan**	**19.86**	**14**	*e*P	**P**	**06 00 42.5**	**-0.3**
SEY				*e*S	**S**	**06 04 20.4**	**+0.7**
SEY				pmax	pmax		
	comp=N,70nm,0.9s						
SEY				pmax	pmax		
	comp=E,90nm,0.9s						
SEY				pmax	pmax		
	comp=Z,800nm,0.9s						
SEY				smax			
	comp=N,16µm,7.8s						
SEY				smax			
	comp=E,34µm,12.4s						
SEY				MLR	MLR		
	comp=N,101µm,16.0s						
SEY				MLR	MLR		
	comp=Z,117µm,16.0s						
SEY				MLR	MLR		
	comp=E,41µm,14.0s						
TIA	**Tai'an**	**20.38**	**256**	P	**P**	**06 00 45.0**	**-3.3**
TIA				S	**S**	**06 04 32.0**	**+1.5**
TIA				LR	LR		
	comp=N,20µm,11.0s,MS5.8						
TIA				LR	LR		
	comp=E,12µm,13.0s,MS5.8						
JOW	**Kunigami**	**20.38**	**217**	P	**P**	**06 00 47.6**	**-0.8**
	comp=E,16nm,0.7s,baz=45,slow=7.1,SNR=3.1						
JOW				LR	LR	06 09 29.9	
	comp=E,8µm,18.4s,MS5.1,baz=196,slow=39						
SSE	**Sheshan**	**20.77**	**238**	P	**P**	**06 00 50.5**	**-2.0**
SSE				XP		06 00 54.8	
SSE				S	**S**	**06 04 42.1**	**+3.6**
SSE				XS		06 04 46.9	
SSE				AMB	AMB		
	comp=Z,1µm,11.3s						
SSE				LR	LR		
	comp=N,5µm,24.6s,MS4.9						
SSE				LR	LR		
	comp=E,5µm,24.6s,MS4.9						
SSE				LR	LR		
	comp=Z,7µm,20.7s,MS5.0						
NJ2	**Nanjing**	**21.61**	**244**	*e*P	**P**	**06 00 58.5**	**-2.4**
NJ2				AP		06 01 02.6	
NJ2				XP		06 01 04.9	
NJ2				PP	PP	06 01 23.1	-2.5
NJ2				PPP	PPP	06 01 33.8	-1.4
NJ2				S	**S**	**06 04 50.0**	**-4.3**
NJ2				XS		06 04 58.0	
NJ2				AMB	AMB		
	comp=Z,140nm,1.1s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,1µm,7.9s						
NJ2				LR	LR		
	comp=Z,23µm,14.2s,MS5.7						
BOD	**Bodaibo**	**22.05**	**318**	*e*P	**P**	**06 01 02.9**	**-2.3**
BOD				*e*		06 01 08.2	
FX1	**Attu Island--F**	**22.43**	**56**	P	**P**	**06 01 08.8**	**-0.2**
	comp=Z,54nm,0.9s,mb5.0,baz=243,slow=16,SNR=3.9						
FX1				LR	LR	06 09 49.1	
	comp=Z,225nm,18.2s,baz=273,slow=37						
FX1	**Attu Island--F**	**22.43**	**56**	*e*P	**P**	**06 01 08.6**	**-0.4**
HHC	**Hu-ho-hao-te**	**22.47**	**272**	*e*P	**P**	**06 01 09.4**	**-0.1**
HHC				AP		06 01 13.6	
HHC				XP		06 01 16.5	
HHC				PP	PP	06 01 36.9	-0.4
HHC				PCP	PcP	06 05 05.3	+0.7
HHC				S	**S**	**06 05 10.3**	**+0.2**
HHC				XS		06 05 17.1	
HHC				SS	SS	06 05 50.8	-0.9
HHC				AMB	AMB		
	comp=Z,49nm,1.1s,mb4.8						
HHC				AMB	AMB		
	comp=Z,2µm,9.0s						
HHC				LR	LR		
	comp=N,37µm,14.2s,MS6.1						
HHC				LR	LR		
	comp=E,33µm,12.9s,MS6.1						
SMY	**Shemya**	**22.97**	**56**	*e*P	**P**	**06 01 18.8**	**+4.6**
SMY				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.1						
SMY	**Shemya**	**22.97**	**56**	*e*P	**P**	**06 01 18.8**	**+4.6**
	comp=Z,1µm,1.6s,mb6.1						
TIY	**Taiyuan**	**23.01**	**264**	⇑P	**P**	**06 01 09.1**	**-5.6**
TIY				S	**S**	**06 05 13.0**	**-6.7**
TIY				LR	LR		
	comp=N,18µm,12.0s						
BTO	**Baotou**	**23.66**	**273**	*e*P	**P**	**06 01 20.4**	**-0.6**
BTO				S	**S**	**06 05 36.3**	**+5.2**
BTO				AMB	AMB		
	comp=Z,63nm,1.0s,mb5.0						
BTO				LR	LR		
	comp=N,5µm,12.3s,MS5.6						
BTO				LR	LR		
	comp=E,11µm,11.3s,MS5.6						
ULN	**Ulaanbaatar**	**24.31**	**291**	*e*P	**P**	**06 01 26.2**	**-1.1**
ULN				pmax	pmax		
	comp=Z,87nm,1.1s,mb5.1						
ULN				MLR	MLR		
	comp=Z,26µm,22.0s,MS5.7						
ULN	**Ulaanbaatar**	**24.31**	**291**	*e*P	**P**	**06 01 26.2**	**-1.1**
	comp=Z,86nm,1.1s,mb5.1						
ULN				LR	LR		
	comp=Z,26µm,22.0s,MS5.7						
SONM	**Songino Array**	**24.75**	**291**	P	**P**	**06 01 30.6**	**-1.0**
	comp=Z,35nm,0.9s,mb4.9,baz=78,slow=8.8,SNR=34						
SONM				PcP	PcP	06 05 08.1	-1.1
	comp=Z,5.4nm,0.9s,baz=116,slow=0.7,SNR=7.3						
TATO	**Taipei**	**25.24**	**228**	P	**P**	**06 01 35.1**	**-1.3**
	comp=Z,86nm,0.8s,mb5.3						
TATO				LR	LR		
	comp=Z,10µm,19.0s,MS5.3						
WHN	**Wuhan**	**25.53**	**247**	*e*P	**P**	**06 01 39.0**	**-0.1**
WHN				S	**S**	**06 06 01.0**	**-1.9**
WHN				LR	LR		
	comp=N,5µm,12.5s,MS5.7						
WHN				LR	LR		
	comp=E,14µm,13.8s,MS5.7						
WHN				LR	LR		
	comp=Z,19µm,12.8s,MS5.8						
IRK	**Irkutsk**	**26.08**	**302**	*e*P	**P**	**06 01 43.8**	**-0.2**
IRK				*e*		06 01 52.0	
TLY	**Talaya**	**26.44**	**300**	*e*P	**P**	**06 01 46.9**	**-0.4**
TLY				*e*S	**S**	**06 06 19.7**	**+1.8**
TLY				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.7						
TLY				MLR	MLR		
	comp=Z,25µm,14.0s,MS5.9						
TLY	**Talaya**	**26.44**	**300**	*e*P	**P**	**06 01 45.3**	**-2.0**
	comp=Z,36nm,1.0s,mb4.8						
TLY				LR	LR		
	comp=Z,5µm,22.0s,MS5.0						
ZAK	**Zakamensk**	**26.67**	**297**	*e*P	**P**	**06 01 47.5**	**-1.9**
ZAK				*e*		06 05 14.5	
QZH	**Quanzhou**	**26.86**	**232**	⇑*i*P	**P**	**06 01 52.0**	**+0.6**
QZH				S	**S**	**06 06 27.0**	**+2.0**
QZH				AMB	AMB		
	comp=Z,4µm,9.6s						
QZH				LR	LR		
	comp=N,14µm,12.6s,MS5.9						
QZH				LR	LR		
	comp=E,14µm,12.2s,MS5.9						
QZH				LR	LR		
	comp=Z,17µm,12.8s,MS5.8						
XAN	**Xi'an**	**27.26**	**260**	P	**P**	**06 01 54.3**	**-0.7**
XAN				S	**S**	**06 06 27.1**	**-4.2**
XAN				AMB	AMB		
	comp=Z,1µm,12.0s						
XAN				LR	LR		
	comp=N,5µm,15.4s,MS5.6						

XAN				LR	LR		
	comp=E,11µm,14.2s,MS5.6						
XAN				LR	LR		
	comp=Z,20µm,13.4s,MS5.9						
MOY	**Mondy**	**28.09**	**300**	*e*P	**P**	**06 02 02.2**	**-0.2**
TIXI	**Tiksi**	**28.35**	**351**	⇓*i*P	**P**	**06 02 01.9**	**-2.6**
TIXI				*e*S	**S**	**06 06 52.6**	**+4.0**
TIXI				*e*SS	SS	06 08 15.7	+2.5
TIXI				pmax	pmax		
	comp=Z,65nm,1.3s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,17µm,13.0s,MS5.8						
TIXI	**Tiksi**	**28.35**	**351**	*i* P	**P**	**06 02 02.0**	**-2.5**
TIXI				LR	LR		
	comp=Z,7µm,19.0s,MS5.3						
ENH	**Enshi**	**28.99**	**253**	*e*P	**P**	**06 02 09.7**	**-1.0**
	comp=Z,90nm,1.1s,mb5.4						
ENH				LR	LR		
	comp=Z,7µm,21.0s,MS5.3						
LZH	**Lanzhou**	**29.90**	**268**	⇓P	**P**	**06 02 18.9**	**+0.1**
LZH				AP	pP	06 02 22.1	-2.8
LZH				XP	sP	06 02 23.9	-3.7
LZH				PP	PP	06 03 13.1	-3.3
LZH				S	**S**	**06 07 14.1**	**+0.5**
LZH				XS		06 07 19.0	
LZH				SS	SS	06 08 44.3	-5.7
LZH				AMB	AMB		
	comp=Z,113nm,1.5s,mb5.4						
LZH				AMB	AMB		
	comp=Z,696nm,6.0s						
LZH				LR	LR		
	comp=N,15µm,12.4s						
LZH				LR	LR		
	comp=Z,24µm,18.1s						
GUMO	**Guam**	**30.50**	**174**	PFAKE		06 02 40.0	+16
GUMO				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
GZH	**Guangzhou**	**31.37**	**237**	P	**P**	**06 02 27.8**	**-4.0**
GZH				S	**S**	**06 07 29.8**	**-7.0**
GZH				AMB	AMB		
	comp=Z,1µm,5.4s						
GZH				LR	LR		
	comp=N,12µm,13.2s,MS6.0						
GZH				LR	LR		
	comp=E,17µm,14.7s,MS6.0						
GZH				LR	LR		
	comp=Z,12µm,15.7s,MS5.7						
GTA	**Gaotai**	**31.41**	**276**	*e*P	**P**	**06 02 31.5**	**-0.6**
GTA				AP	pP	06 02 35.0	-3.2
GTA				XP	sP	06 02 37.6	-3.2
GTA				S	**S**	**06 07 35.0**	**-2.4**
GTA				AMB	AMB		
	comp=Z,1µm,6.9s						
GTA				LR	LR		
	comp=N,16µm,11.0s,MS6.1						
GTA				LR	LR		
	comp=E,16µm,11.4s,MS6.1						
GTA				LR	LR		
	comp=Z,21µm,12.2s,MS6.0						
HKC	**Hong Kong**	**31.46**	**235**	*e*P	**P**	**06 02 40.0**	**+7.3**
HKC				*i* S	**S**	**06 07 46.0**	**+7.7**
WAKE	**Wake Island**	**32.30**	**132**	PFAKE		06 02 50.0	+10
WAKE				LR	LR		
	comp=Z,210µm,20.0s						
CD2	**Chengdu**	**32.62**	**259**	P	**P**	**06 02 41.6**	**-1.1**
CD2				PP	PP	06 03 50.5	-1.3
CD2				PPP	PPP	06 04 04.3	-3.1
CD2				S	**S**	**06 07 50.8**	**-5.5**
CD2				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.0						
CD2				AMB	AMB		
	comp=Z,1µm,10.0s						
CD2				LR	LR		
	comp=N,12µm,10.0s						
CD2				LR	LR		
	comp=Z,9µm,15.6s						
GYA	**Guiyang**	**33.32**	**250**	⇑*i*P	**P**	**06 02 48.4**	**-0.4**
GYA				AP	pP	06 02 52.6	-2.4
GYA				XP	sP	06 02 55.8	-1.8
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.1						
GYA				AMB	AMB		
	comp=Z,580nm,8.2s						
GYA				LR	LR		
	comp=N,6µm,10.5s,MS5.7						
GYA				LR	LR		
	comp=E,6µm,13.5s,MS5.7						
GYA				LR	LR		
	comp=Z,6µm,15.2s,MS5.4						
UNV	**Unalaska Valle**	**34.61**	**55**	PFAKE		06 03 10.0	+10
UNV				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
TNA	**Tin City**	**34.72**	**34**	*e*P	**P**	**06 02 57.3**	**-3.2**
	comp=Z,24nm,1.0s,mb5.1						
TNA				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
TGY	**Tagaytay City**	**34.78**	**217**	P	**P**	**06 03 01.4**	**-0.2**
	comp=Z,170nm,0.3s,mb6.4,baz=27,slow=9.0,SNR=4.9						
TGY				LR	LR	06 19 19.4	
	comp=Z,3µm,18.2s,MS5.1,baz=59,slow=40						
MIDW	**Midway**	**36.18**	**102**	PFAKE		06 03 20.0	+6.7
MIDW				LR	LR		
	comp=Z,4µm,21.0s,MS5.2						
QIZ	**Qiongzhong**	**36.56**	**237**	P	**P**	**06 03 15.8**	**-0.8**
QIZ				PP	PP	06 04 42.0	+0.9
QIZ				S	**S**	**06 08 59.1**	**+1.7**
QIZ				XS		06 09 05.4	
QIZ				AMB	AMB		
	comp=Z,941nm,8.6s						
QIZ				LR	LR		
	comp=N,7µm,13.4s,MS5.8						
QIZ				LR	LR		
	comp=E,10µm,14.3s,MS5.8						
QIZ				LR	LR		
	comp=Z,7µm,14.3s,MS5.6						
QIZ	**Qiongzhong**	**36.56**	**237**	PFAKE		06 03 30.0	+13
QIZ				LR	LR		
	comp=Z,6µm,20.0s,MS5.4						
KMI	**Kunming**	**36.86**	**252**	*e*P	**P**	**06 03 19.3**	**+0.2**
KMI				XP	sP	06 03 23.8	-4.1
KMI				PP	PP	06 04 42.1	-2.9
KMI				S	**S**	**06 08 58.8**	**-3.1**
KMI				SCS	ScS	06 13 34.8	+3.6
KMI				LR	LR		
	comp=N,8µm,14.2s,MS5.7						
KMI				LR	LR		
	comp=E,6µm,14.8s,MS5.7						
KMI				LR	LR		
	comp=Z,8µm,15.3s,MS5.6						
ZAL	**Zalesovo**	**37.70**	**306**	P	**P**	**06 03 24.2**	**-1.6**
	comp=Z,14nm,0.8s,mb4.7,baz=28,slow=9.3,SNR=21						
ZAL				PcP	PcP	06 05 42.5	-0.9
	comp=Z,7.4nm,0.7s,baz=35,slow=1.6,SNR=4.5						
ZAL				ScP		06 09 31.6	
	comp=Z,1.7nm,0.6s,baz=217,slow=20,SNR=4.4						
ZAL				LR	LR	06 20 36.6	
	comp=Z,18µm,19.3s,MS5.9,baz=28,slow=39						
WMQ	**Urumqi**	**38.35**	**289**	P	**P**	**06 03 32.0**	**+0.6**
WMQ				AP	pP	06 03 36.3	-1.3
WMQ				XP	sP	06 03 39.0	-1.2
WMQ				PP	PP	06 05 02.8	+0.1
WMQ				PPP	PPP	06 05 25.0	-0.1
WMQ				*e*S	**S**	**06 09 25.0**	**+0.6**
WMQ				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,332nm,6.7s						
WMQ				LR	LR		
	comp=N,22µm,15.4s,MS6.1						
WMQ				LR	LR		
	comp=E,4µm,17.0s,MS6.1						
WMQ				LR	LR		
	comp=Z,25µm,15.8s,MS6.1						
NVS	**Novosibirsk**	**38.47**	**308**	*e*P	**P**	**06 03 29.6**	**-2.7**
NVS				*i*		06 05 03.6	
NVS				*i*		06 05 26.1	
NVS				*i* S	**S**	**06 09 21.4**	**-4.7**
NVS				pmax	pmax		
	comp=Z,111nm,1.8s,mb5.3						
NVS				pmax	pmax		
	comp=N,47nm,1.5s						
NVS				pmax	pmax		
	comp=E,80nm,1.4s						
NVS				pmax	pmax		
	comp=N,93nm,1.6s						
NVS				pmax	pmax		
	comp=E,66nm,1.9s						
NVS				smax			
	comp=N,27nm,1.5s						
NVS				smax			
	comp=E,84nm,2.0s						
IMA	**Indian Mountai**	**40.59**	**34**	*e*P	**P**	**06 03 48.5**	**-1.3**
IMA				pmax	pmax		
	comp=Z,38nm,0.7s,mb5.1						
IMA	**Indian Mountai**	**40.59**	**34**	*e*P	**P**	**06 03 48.5**	**-1.3**
	comp=Z,38nm,0.7s,mb5.1						
MKAR	**Makanchi Array**	**40.97**	**295**	*i* P	**P**	**06 03 52.3**	**-0.8**
MKAR				pmax	pmax		
	comp=Z,101nm,1.1s						
RSO	**Redoubt South**	**41.37**	**43**	P	**P**	**06 03 56.1**	**0.0**
KDAK	**Kodiak Island**	**41.87**	**47**	*e*P	**P**	**06 03 59.1**	**-1.0**
	comp=Z,90nm,1.0s,mb5.4						
KDAK				LR	LR		
	comp=Z,1µm,22.0s,MS4.7						
LSA	**Lhasa**	**42.32**	**268**	*i* P	**P**	**06 04 07.0**	**+2.7**
LSA				*i* S	**S**	**06 10 26.0**	**+2.2**
LSA				SS	SS	06 13 22.0	-5.0
LSA				SCS	ScS	06 14 01.0	-2.0
LSA				LR	LR		
	comp=N,14µm,20.0s,MS6.0						
LSA				LR	LR		
	comp=E,14µm,20.0s,MS6.0						
FIB	**Fire Island**	**42.52**	**42**	PFAKE		06 04 20.0	+14
FIB				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
NANT	**Nan**	**42.55**	**247**	⇓P	**P**	**06 04 04.0**	**-2.3**
	comp=Z,125nm,1.0s,mb5.6						
MCK	**McKinley**	**42.75**	**38**	*e*P	**P**	**06 04 05.1**	**-2.3**
MCK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.6						
MCK				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.2						
MCK	**McKinley**	**42.75**	**38**	*e*P	**P**	**06 04 05.0**	**-2.3**
	comp=Z,12nm,1.0s,mb4.6						
MCK				LR	LR		
	comp=Z,3µm,19.0s,MS5.2						
COLA	**College**	**43.09**	**36**	*e*P	**P**	**06 04 08.7**	**-1.4**
COLA				pmax	pmax		
	comp=Z,121nm,1.6s,mb5.4						
COLA	**College**	**43.09**	**36**	*e*P	**P**	**06 04 08.7**	**-1.4**
	comp=Z,121nm,1.6s,mb5.4						
IMP	**Imphal**	**43.23**	**260**	*e*P	**P**	**06 04 08.7**	**-3.1**
SML	**Sawmill**	**43.30**	**41**	*e*P	**P**	**06 04 09.9**	**-1.9**
ILAR	**Eielson Array**	**43.51**	**36**	P	**P**	**06 04 11.4**	**-2.1**
	comp=Z,13nm,1.1s,mb4.6,baz=284,slow=8.3,SNR=30						
ILAR				LR	LR	06 25 21.8	
	comp=Z,4µm,18.3s,MS5.3,baz=294,slow=40						
CHG	**Chiang Mai**	**43.72**	**249**	⇑P	**P**	**06 04 15.6**	**-0.2**
	comp=Z,89nm,1.0s,mb5.5						
CM31	**Chiang Mai Arr**	**43.97**	**248**	*e*P	**P**	**06 04 17.3**	**-0.6**
	comp=Z,37nm,0.8s,mb5.2						
CM31				LR	LR		
	comp=Z,7µm,19.0s,MS5.6						
CMAR	**Chiang Mai Arr**	**43.97**	**248**	P	**P**	**06 04 17.9**	**+0.1**
	comp=Z,18nm,0.8s,mb4.8,baz=40,slow=6.9,SNR=55						
CMAR				ScP		06 09 57.8	
	comp=Z,2.8nm,0.9s,baz=18,slow=2.1,SNR=5.4						
CMAR				LR	LR	06 23 56.9	
	comp=Z,7µm,18.3s,MS5.6,baz=55,slow=38						
THY	**Trims Highway**	**44.21**	**38**	*e*P	**P**	**06 04 16.8**	**-2.4**
SHL	**Shillong**	**44.21**	**262**	⇑*e*P	**P**	**06 04 19.5**	**-0.2**
SHL				*e*		06 10 47.7	
DIV	**Divide**	**44.63**	**41**	*e*P	**P**	**06 04 22.3**	**-0.3**
	comp=Z,83nm,0.9s,mb5.6						
AGT	**Agartala**	**45.70**	**261**	⇑*i*	**P**	**06 04 35.0**	**+3.3**
AGT				*i*		06 05 04.0	
AAA	**Alma-Ata**	**45.79**	**293**	*d* *i*P	**P**	**06 04 34.0**	**+1.9**
AAA				*e*S	**S**	**06 11 18.0**	**+4.1**
AAA				pmax	pmax		
	comp=Z,1µm,5.0s						
AAA				smax			
	comp=N,2µm,10.0s						
AAA				smax			
	comp=E,3µm,10.0s						
AAA				MLR	MLR		
	comp=N,12µm,13.0s,MS6.2						
AAA				MLR	MLR		
	comp=E,13µm,13.0s,MS6.2						
AAA				MLR	MLR		
	comp=Z,13µm,13.0s,MS6.1						
CHKZ	**Chkalovo**	**45.93**	**308**	P	**P**	**06 04 30.8**	**-2.2**
CHKZ				pmax	pmax		
	comp=Z,183nm,1.6s,mb5.8						
CHKZ	**Chkalovo**	**45.93**	**308**	*e*P	**P**	**06 04 31.4**	**-1.6**
	comp=Z,230nm,1.5s,mb5.9						
BVA0	**Borovoye Array**	**46.27**	**308**	*i* P	**P**	**06 04 34.3**	**-1.4**
BVA0				pmax	pmax		
	comp=Z,27nm,1.6s,mb4.9						
BVAR	**Borovoye Array**	**46.27**	**308**	P	**P**	**06 04 34.0**	**-1.7**
	comp=Z,13nm,0.9s,mb4.9,baz=72,slow=9.4,SNR=30						
BVAR				PcP	PcP	06 06 10.6	-0.9
	comp=Z,13nm,0.9s,baz=101,slow=7.3,SNR=2.7						
BVAR				ScP		06 10 05.3	
	comp=Z,3.2nm,0.9s,slow=1.5,SNR=3.9						
BRVK	**Borovoye**	**46.31**	**308**	*e*P	**P**	**06 04 34.2**	**-1.9**
BRVK				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.5						
BRVK				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
BRVK	**Borovoye**	**46.31**	**308**	*e*P	**P**	**06 04 34.2**	**-1.9**
	comp=Z,64nm,1.1s,mb5.5						
BRVK				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
ULHL	**Ulahol**	**46.70**	**292**	P	**P**	**06 04 39.5**	**+0.2**
	SNR=22						
TKM2	**Tokmak 2**	**46.84**	**293**	P	**P**	**06 04 40.6**	**+0.2**
	SNR=30						
TKM2	**Tokmak 2**	**46.84**	**293**	*e*P	**P**	**06 04 40.0**	**-0.3**
	comp=Z,277nm,1.1s,mb6.1						
TKM2				LR	LR		
	comp=Z,8µm,21.0s,MS5.7						
GUN	**Gumba**	**47.13**	**269**	*e*P	**P**	**06 04 42.5**	**-0.4**
	comp=Z,615nm,1.1s,mb6.5						
GUN	**Gumba**	**47.13**	**269**	⇑*i*P	**P**	**06 04 42.8**	**-0.1**
	comp=Z,134nm,0.7s,mb6.0						
CHMS	**Chumysh**	**47.36**	**293**	P	**P**	**06 04 45.9**	**+1.4**
	SNR=12						
KBK	**Karagaybulak**	**47.38**	**293**	P	**P**	**06 04 44.7**	**0.0**
	SNR=25						
USP	**Ospenovka**	**47.41**	**294**	P	**P**	**06 04 44.4**	**-0.6**
	SNR=24						
KZA	**Kyzart**	**47.43**	**292**	P	**P**	**06 04 46.1**	**+1.0**
	SNR=30						
FRU	**Bishkek**	**47.52**	**293**	*i* P	**P**	**06 04 46.0**	**+0.2**
FRU				*i* S	**S**	**06 11 44.0**	**+5.4**
FRU				pmax	pmax		
	comp=Z,440nm,2.0s,mb6.1						
FRU				smax			
	comp=E,5µm,6.0s						
KKN	**Kakani**	**47.64**	**270**	*e*P	**P**	**06 04 46.4**	**-0.5**
	comp=E,1µm,1.5s,mb6.6						
PKI	**Pulchoki**	**47.67**	**269**	*e*P	**P**	**06 04 46.4**	**-0.8**
	comp=E,665nm,1.2s,mb6.5						
AAK	**Ala-Archa**	**47.69**	**293**	P	**P**	**06 04 47.2**	**0.0**
	SNR=20						
AAK	**Ala-Archa**	**47.69**	**293**	*e*P	**P**	**06 04 45.5**	**-1.6**
AAK				pmax	pmax		
	comp=Z,126nm,1.2s,mb5.8						
AAK				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.0						
AAK	**Ala-Archa**	**47.69**	**293**	*e*P	**P**	**06 04 45.5**	**-1.6**
	comp=Z,126nm,1.2s,mb5.8						
AAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
NNT	**Nongplab**	**47.73**	**242**	⇑P	**P**	**06 04 49.0**	**+1.2**
UCH	**Uchtor**	**47.86**	**292**	P	**P**	**06 04 49.0**	**+0.5**
	SNR=22						
UCH	**Uchtor**	**47.86**	**292**	*e*P	**P**	**06 04 48.4**	**-0.1**
	comp=Z,56nm,1.0s,mb5.5						
UCH				LR	LR		
	comp=Z,14µm,19.0s,MS6.0						
DMN	**Daman**	**47.87**	**270**	*e*P	**P**	**06 04 48.7**	**0.0**
	comp=Z,652nm,1.4s,mb6.5						
GKN	**Gorkha**	**47.98**	**270**	*e*P	**P**	**06 04 48.8**	**-0.8**
	comp=Z,358nm,1.0s,mb6.3						
GKN	**Gorkha**	**47.98**	**270**	⇑*i*P	**P**	**06 04 48.7**	**-0.9**
	comp=Z,185nm,1.0s,mb6.1						
INK	**Inuvik**	**48.06**	**30**	P	**P**	**06 04 47.5**	**-2.2**
	comp=Z,3.1nm,0.6s,baz=294,slow=7.6,SNR=27						
INK	**Inuvik**	**48.06**	**30**	*e*P	**P**	**06 04 46.9**	**-2.8**
	comp=Z,11nm,0.6s,mb5.1						
KSH	**Kashi**	**48.11**	**289**	P	**P**	**06 04 51.3**	**+0.9**
KSH				*e*AP	pP	06 04 56.8	+0.1
KSH				*e*XP	sP	06 04 58.5	-0.7
KSH				PCP	PcP	06 06 17.1	-1.2
KSH				PP	PP	06 06 44.1	+2.0
KSH				*e*PPP	PPP	06 07 34.8	+1.8
KSH				*e*SCP		06 10 10.5	
KSH				*e*PCS		06 10 13.0	
KSH				S	**S**	**06 11 50.3**	**+3.4**
KSH				XS		06 11 58.8	
KSH				*e*SCS	ScS	06 14 40.3	+0.7
KSH				SS	SS	06 15 16.1	+5.2
EKS2	**Erkin-Say**	**48.16**	**293**	P	**P**	**06 04 54.4**	**+3.7**
	SNR=36						
EKS2	**Erkin-Say**	**48.16**	**293**	*e*P	**P**	**06 04 50.1**	**-0.7**
	comp=Z,42nm,0.9s,mb5.5						
EKS2				LR	LR		
	comp=Z,6µm,19.0s,MS5.6						
AML	**Almayashu**	**48.45**	**293**	P	pP	06 04 59.8	+0.5
	SNR=17						
AML	**Almayashu**	**48.45**	**293**	*e*P	**P**	**06 04 53.3**	**+0.3**
	comp=Z,116nm,1.1s,mb5.8						
AML				LR	LR		
	comp=Z,12µm,22.0s,MS5.8						
CAL	**Calcutta**	**48.63**	**262**	*e*	**P**	**06 04 59.2**	**+4.6**
CAL				*e*S	**S**	**06 11 55.3**	**+0.8**
CAL				*e*		06 12 01.5	
KOLN	**Koldanda**	**48.86**	**271**	*e*P	**P**	**06 04 55.8**	**-0.6**
	comp=Z,408nm,1.0s,mb6.4						
SVE	**Sverdlovsk**	**50.21**	**315**	⇓*e*P	**P**	**06 05 04.0**	**-2.3**
SVE				*e*		06 06 22.0	
SVE				*e*		06 07 01.0	
SVE				*e*		06 07 55.0	
SVE				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
LGTI	**Lohaghat**	**50.31**	**275**	*e*P	**P**	**06 05 08.0**	**+0.5**
SIT	**Sitka**	**51.00**	**44**	PFAKE		06 05 20.0	+7.7
SIT				LR	LR		
	comp=Z,4µm,22.0s,MS5.4						
SOKR	**Solikamsk**	**51.05**	**319**	⇓*i*P	**P**	**06 05 09.8**	**-2.8**
SOKR				pmax	pmax		
	comp=Z,140nm,1.1s,mb5.8						
SOKR				MLR	MLR		
	comp=Z,6µm,18.0s,MS5.6						
DDI	**Dehra Dun**	**51.39**	**277**	*e*	**P**	**06 05 11.5**	**-4.2**
ARU	**Arti**	**51.42**	**315**	⇑*i*P	**P**	**06 05 13.4**	**-2.1**
ARU				*e*		06 06 25.8	
ARU				*e*		06 07 08.8	
ARU				*e*PPP	PPP	06 08 08.7	-6.1
ARU				*i* S	**S**	**06 12 32.0**	**-0.6**
ARU				*i*		06 14 56.3	
ARU				pmax	pmax		
	comp=Z,132nm,1.2s,mb5.7						
ARU				MLR	MLR		
	comp=N,4µm,15.0s,MS5.8						
ARU				MLR	MLR		
	comp=E,6µm,15.0s,MS5.8						
ARU				MLR	MLR		
	comp=Z,7µm,15.0s,MS5.8						
ARU	**Arti**	**51.42**	**315**	*e*P	**P**	**06 05 13.0**	**-2.5**
	comp=Z,178nm,1.2s,mb5.9						
ARU				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
SDNR	**Sundarnagar**	**51.51**	**279**	*e*P	**P**	**06 05 15.4**	**-1.2**
	comp=Z,73nm,0.6s,mb5.8						
TAS	**Tashkent**	**51.73**	**294**	*de*P	**P**	**06 05 16.0**	**-2.1**
TAS				*e*S	**S**	**06 12 36.0**	**-1.2**
TAS				pmax	pmax		
	comp=Z,2µm,5.0s						
THN	**Thein Dam**	**51.89**	**281**	*e*P	**P**	**06 05 19.8**	**+0.4**
BHK	**Bhakra**	**51.95**	**279**	*e*	**P**	**06 05 30.9**	**+11**
NDI	**New Delhi**	**52.92**	**276**	*e*P	**P**	**06 05 24.5**	**-2.7**
NDI				*e*		06 12 51.5	
DLBC	**Dease Lake**	**53.02**	**41**	P	**P**	**06 05 27.9**	**+0.3**
	comp=Z,12nm,1.1s,mb4.7,baz=300,slow=7.0,SNR=10						
DLBC				LR	LR	06 30 38.6	
	comp=Z,3µm,18.6s,MS5.3,baz=296,slow=39						
DLBC	**Dease Lake**	**53.02**	**41**	*e*P	**P**	**06 05 27.5**	**0.0**
AYAN	**Aya Nagar**	**53.10**	**276**	*e*P	**P**	**06 05 26.3**	**-2.3**
AYAN				*e*	pP	06 05 34.3	-0.6
	comp=Z,89nm,1.0s						
SONA	**Sohna**	**53.27**	**276**	*e*	**P**	**06 05 35.6**	**+5.8**
	comp=Z,89nm,1.0s,mb5.7						
PMG	**Port Moresby**	**53.45**	**173**	P	**P**	**06 05 32.4**	**+1.1**
	comp=Z,18nm,0.8s,mb5.0,baz=2.2,slow=7.8,SNR=16						
PMG	**Port Moresby**	**53.45**	**173**	*e*P	**P**	**06 05 29.9**	**-1.4**
PMG				pmax	pmax		
	comp=Z,23nm,0.8s						
PMG				MLR	MLR		
	comp=Z,1µm,20.0s						
PMG	**Port Moresby**	**53.45**	**173**	*e*P	**P**	**06 05 29.9**	**-1.4**
	comp=Z,23nm,0.8s,mb5.2						
PMG				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
KUDL	**Kundal**	**53.76**	**276**	*e*P	**P**	**06 05 31.8**	**-1.5**
KUDL				*e*	pP	06 05 39.2	-0.5
	comp=Z,55nm,1.1s						
KHET	**Khetri**	**54.29**	**276**	*e*P	**P**	**06 05 35.6**	**-1.6**
KHET				*e*	pP	06 05 43.9	+0.4
	comp=Z,54nm,1.6s						
RES	**Resolute Bay**	**55.73**	**16**	*e*P	**P**	**06 05 43.7**	**-3.5**
RES				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.4						
RES	**Resolute Bay**	**55.73**	**16**	*e*P	**P**	**06 05 43.7**	**-3.4**
	comp=Z,36nm,1.0s,mb5.4						
LVZ	**Lovozero**	**55.85**	**334**	*e*P	**P**	**06 05 48.9**	**+0.8**
LVZ				*e*S	**S**	**06 13 31.0**	**-1.5**
LVZ				pmax	pmax		
	comp=Z,149nm,2.4s,mb5.6						
LVZ				pmax	pmax		
	comp=N,72nm,2.0s						
LVZ				pmax	pmax		
	comp=E,28nm,1.5s						
LVZ				MLR	MLR		
	comp=E,4µm,15.0s,MS5.9						
LVZ				MLR	MLR		
	comp=Z,5µm,15.0s,MS5.7						
LVZ				MLR	MLR		
	comp=N,5µm,13.0s,MS5.9						
BHPL	**Bhopal**	**56.03**	**270**	*e*P	**P**	**06 05 49.6**	**-0.3**
BHPL				*e*	pP	06 05 55.3	-1.0
	comp=Z,104nm,1.2s						
AJM	**Ajmer**	**56.06**	**275**	⇑*i*P	**P**	**06 05 48.0**	**-2.2**
	comp=Z,75nm,1.5s,mb5.5						
NGP	**Nagpur**	**56.16**	**267**	*e*P	**P**	**06 05 50.7**	**-0.2**
NGP				*e*S	**S**	**06 13 41.9**	**+4.6**
	comp=Z,2µm,16.1s						
BBB	**Bella Bella**	**56.94**	**47**	P	**P**	**06 05 57.1**	**+0.9**
	comp=Z,34nm,1.0s,mb5.3,baz=291,slow=11,SNR=3.1						
KAKA	**Kakadu**	**57.15**	**191**	*e*P	**P**	**06 05 56.4**	**-1.7**
	comp=Z,27nm,0.4s,mb5.6						
ARCES	**ARCESS Array B**	**57.54**	**338**	P	**P**	**06 05 56.7**	**-3.4**
	comp=Z,21nm,1.0s,mb5.1,baz=22,slow=6.5,SNR=9.4						
ARCES				LR	LR	06 35 00.8	
	comp=Z,6µm,18.3s,MS5.8,baz=284,slow=41						
YKW3	**Yellowknife Ar**	**57.60**	**32**	*e*P	**P**	**06 05 58.1**	**-2.5**
YKA	**Yellowknife Ar**	**57.64**	**32**	P	**P**	**06 05 58.6**	**-2.3**
	comp=Z,2.7nm,0.8s,baz=304,slow=6.8,SNR=42						
YKA				LR	LR	06 32 41.5	
	comp=Z,2µm,19.6s,baz=280,slow=38						
YKA				PKPPKP		06 35 40.2	
	comp=Z,0.3nm,0.7s,baz=145,slow=2.3,SNR=5.3						
YKA	**Yellowknife Ar**	**57.64**	**32**	*e*P	**P**	**06 05 58.6**	**-2.3**
AKL	**Akola**	**57.91**	**268**	*e*P	**P**	**06 06 03.5**	**+0.1**
	comp=Z,203nm,1.0s,mb6.1						
AKL				*e*		06 14 00.4	
PECR	**Pechory**	**58.55**	**320**	⇓*i*P	**P**	**06 06 06.8**	**-0.5**
PECR				pmax	pmax		
	comp=Z,900nm,4.4s						
PECR				MLR	MLR		
	comp=Z,4µm,12.0s,MS5.8						
DAG	**Danmarks Havn**	**58.79**	**355**	⇑*i*P	**P**	**06 06 07.8**	**-1.0**
DAG				pmax	pmax		
	comp=Z,130nm,1.6s,mb5.7						
DAG	**Danmarks Havn**	**58.79**	**355**	⇑*i*P	**P**	**06 06 07.8**	**-1.0**
	comp=Z,130nm,1.6s,mb5.7						
HYB	**Hyderabad**	**58.93**	**264**	*e*P	**P**	**06 06 11.0**	**+0.5**
HYB				*e*S	**S**	**06 14 12.0**	**-1.7**
HYB	**Hyderabad**	**58.93**	**264**	⇓*i*P	**P**	**06 06 11.0**	**+0.5**
HYB				*e*S	**S**	**06 14 12.0**	**-1.7**
HYB				LR	LR	06 32 52.0	
	comp=Z,4.1nm,14.0s						
LATR	**Latur**	**59.71**	**267**	*e*P	**P**	**06 06 17.0**	**+1.1**
LATR				*e*P		06 06 17.0	
JOF	**Joensuu**	**59.94**	**330**	*e*p	**P**	**06 06 12.9**	**-3.9**
	comp=Z,24nm,0.8s,mb5.3						

MDRS	**Chennai**	**60.63**	**259**	*e*	**P**	**06 06 23.0**	**+0.8**
OCWA	**Octopus Mounta**	**61.49**	**50**	PFAKE		06 06 40.0	+12
OCWA				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
POO	**Poona**	**61.59**	**269**⇓	*i*	**P**	**06 06 25.0**	**-3.7**
	comp=Z,100nm,1.0s,mb5.9						
MOS	**Moscow**	**61.84**	**322**κ	*i*P	**P**	**06 06 29.8**	**-0.1**
MOS				*e*		06 07 09.0	
MOS				*e*		06 08 47.5	
MOS				*e*PPP	PPP	06 10 12.4	-4.7
MOS				*e*S	**S**	**06 14 55.5**	**+5.1**
MOS				pmax	pmax		
	comp=Z,130nm,1.9s,mb5.7						
MOS				pmax	pmax		
	comp=E,72nm,0.7s						
MOS				MLR	MLR		
	comp=Z,8µm,12.8s,MS6.0						
MOS				MLR	MLR		
	comp=E,9µm,12.6s						
BOM	**Bombay**	**62.10**	**270**	*e*P	**P**	**06 06 33.0**	**+0.9**
BOM				*e*		06 09 38.5	
	comp=E,135nm,1.5s						
KAD	**Karad**	**62.14**	**267**	*e*P	**P**	**06 06 30.7**	**-1.7**
KAF	**Kangasniemi**	**62.22**	**331**	*e*p	**P**	**06 06 27.4**	**-5.0**
	comp=E,36nm,1.2s,mb5.4,baz=43,slow=6.5						
KAF	**Kangasniemi**	**62.22**	**331**	*e*P	**P**	**06 06 27.4**	**-5.0**
KAF				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.4						
OBN	**Obninsk**	**62.70**	**321**	*i* P	**P**	**06 06 34.4**	**-1.2**
OBN				*e*		06 07 13.9	
OBN				*e*		06 08 51.4	
OBN				*e*S	**S**	**06 14 57.2**	**-4.1**
OBN				pmax	pmax		
	comp=Z,102nm,1.6s,mb5.7						
OBN				MLR	MLR		
	comp=Z,6µm,16.0s,MS5.9						
OBN	**Obninsk**	**62.70**	**321**	*e*P	**P**	**06 06 31.8**	**-3.8**
OBN				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
FINES	**FINESS Array B**	**62.76**	**331**	P	**P**	**06 06 33.0**	**-2.9**
	comp=Z,9.0nm,0.5s,mb5.2,baz=53,slow=7.4,SNR=60						
FINES				LR	LR	06 35 37.8	
	comp=Z,8µm,18.9s,MS5.9,baz=224,slow=38						
TTW	**Tolt Reservoir**	**62.88**	**49**	P	**P**	**06 06 38.0**	**+1.1**
VOR	**Voronezh**	**63.57**	**317**	*e*P	**P**	**06 06 41.5**	**+0.2**
VOR				pmax	pmax		
	comp=Z,180nm,2.0s,mb5.8						
SUMG	**Summit**	**63.65**	**0**	*e*P	**P**	**06 06 38.4**	**-3.1**
	comp=Z,33nm,0.8s,mb5.4						
COR	**Corvallis**	**63.84**	**52**	PFAKE		06 06 50.0	+6.8
COR				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
VRSR	**Storozhevoye**	**63.89**	**317**	*e*P	**P**	**06 06 41.4**	**-2.0**
VRSR				*e*		06 07 18.2	
VRSR				*e*SSS	SSS	06 22 16.4	+2.0
VRSR				pmax	pmax		
	comp=Z,90nm,1.7s,mb5.5						
VRSR				pmax	pmax		
	comp=N,50nm,1.0s						
VRSR				pmax	pmax		
	comp=E,40nm,1.6s						
VRSR				MLR	MLR		
	comp=Z,3µm,17.0s,MS5.6						
VRSR				MLR	MLR		
	comp=N,2µm,16.0s,MS5.6						
VRSR				MLR	MLR		
	comp=E,3µm,19.0s,MS5.6						
EBG	**Ellensburg**	**63.96**	**49**	P	**P**	**06 06 44.0**	**0.0**
CTA	**Charters Tower**	**63.98**	**175**	*e*P	**P**	**06 06 44.9**	**+0.4**
	comp=E,13nm,1.2s,mb4.8						
CTA				*e*S	**S**	**06 15 15.8**	**-2.0**
CTA	**Charters Tower**	**63.98**	**175**	P	**P**	**06 06 45.0**	**+0.5**
	comp=E,14nm,1.0s,mb5.0,baz=344,slow=8.6,SNR=7.9						
CTA				LR	LR	06 34 26.6	
	comp=E,837nm,18.5s,MS5.0,baz=354,slow=36						
CTA	**Charters Tower**	**63.98**	**175**	*e*P	**P**	**06 06 44.9**	**+0.4**
CTA				*e*S	**S**	**06 15 15.8**	**-2.0**
CTA				pmax	pmax		
	comp=Z,13nm,1.2s						
CTAO	**Charters Tower**	**63.98**	**175**	*e*P	**P**	**06 06 42.5**	**-2.0**
CTAO				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.4						
CTAO				MLR	MLR		
	comp=Z,863nm,19.0s,MS5.0						
CTAO	**Charters Tower**	**63.98**	**175**	*e*P	**P**	**06 06 42.5**	**-2.1**
	comp=Z,47nm,1.2s,mb5.4						
CTAO				LR	LR		
	comp=Z,863nm,19.0s,MS5.0						
WRAB	**Tennant Creek**	**64.06**	**188**	*e*P	**P**	**06 06 42.8**	**-2.2**
WRAB				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.6						
WRAB				MLR	MLR		
	comp=Z,443nm,21.0s,MS4.6						
WRAB	**Tennant Creek**	**64.06**	**188**	*e*P	**P**	**06 06 42.8**	**-2.2**
	comp=Z,59nm,0.9s,mb5.6						
WRAB				LR	LR		
	comp=Z,443nm,21.0s,MS4.6						
WB2	**Warramunga Arr**	**64.07**	**188**⇑	*i*P	**P**	**06 06 42.9**	**-2.2**
WRA	**Warramunga Arr**	**64.07**	**188**	P	**P**	**06 06 42.9**	**-2.2**
	comp=Z,49nm,1.2s,mb5.4,baz=1.9,slow=6.9,SNR=132						
WRA				PKPPKP		06 35 41.7	
	comp=Z,6.6nm,1.2s,baz=199,slow=2.2,SNR=8.8						
EPH	**Ephrata**	**64.22**	**48**	P	**P**	**06 06 45.2**	**-0.4**
HOOD	**Mount Hood Mea**	**64.33**	**51**	P	**P**	**06 06 48.5**	**+2.1**
MAK	**Makhachkala**	**64.46**	**306***c*	*i*P	**P**	**06 06 48.0**	**+0.7**
MAK				*e*		06 07 22.0	
MAK				*i* S	**S**	**06 15 28.0**	**+4.7**
MAK				*i* PS	PS	06 15 48.0	+2.2
MAK				*i*		06 16 44.0	
MAK				pmax	pmax		
	comp=Z,3µm,8.0s						
MAK				smax			
	comp=N,3µm,7.0s						
MAK				smax			
	comp=E,4µm,9.0s						
VSU	**Vasula**	**64.58**	**328**	*i* P	**P**	**06 06 46.0**	**-1.8**
VSU	**Vasula**	**64.58**	**328**	*i* P	**P**	**06 06 46.1**	**-1.7**
MNGI	**Mangalore**	**64.58**	**263**	*i* P	**P**	**06 06 49.1**	**+0.6**
HAWA	**Hanford**	**64.84**	**49**	*e*P	**P**	**06 06 49.0**	**-0.7**
	comp=E,30nm,0.9s,mb5.3						
HAWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
NEW	**Newport**	**64.97**	**46**	*e*P	**P**	**06 06 49.8**	**-0.7**
NEW				pmax	pmax		
	comp=Z,76nm,1.6s						
NEW				MLR	MLR		
	comp=Z,2µm,20.0s						
NEW	**Newport**	**64.97**	**46**	*e*P	**P**	**06 06 49.8**	**-0.7**
	comp=Z,76nm,1.6s,mb5.5						
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
HUMO	**Hull Mountain**	**65.24**	**54**	*e*P	**P**	**06 06 52.9**	**+0.5**
	comp=Z,109nm,1.6s,mb5.6						
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
GOF	**Gofitskoye**	**65.72**	**310**⇓	*i*P	**P**	**06 06 54.0**	**-1.3**
GOF				pmax	pmax		
	comp=Z,450nm,2.0s,mb6.2						
GOF				pmax	pmax		
	comp=Z,2µm,5.0s						
GOF				MLR	MLR		
	comp=N,13µm,15.0s,MS6.4						
GOF				MLR	MLR		
	comp=E,10µm,15.0s,MS6.4						
GOF				MLR	MLR		
	comp=Z,15µm,15.0s,MS6.3						
BUOR	**Burton Butte**	**65.86**	**54**	P	**P**	**06 06 56.9**	**+0.6**
YBH	**Yreka Blue Hor**	**65.92**	**55**	P	**P**	**06 06 55.9**	**-0.8**
	comp=Z,15nm,0.9s,mb5.0,baz=311,slow=3.8,SNR=17						
YBH	**Yreka Blue Hor**	**65.92**	**55**	*e*P	**P**	**06 06 56.6**	**-0.1**
YBH				*e*		06 07 27.1	
YBH				pmax	pmax		
	comp=Z,38nm,1.0s						
YBH				MLR	MLR		
	comp=Z,1µm,19.0s						
YBH	**Yreka Blue Hor**	**65.92**	**55**	*e*P	**P**	**06 06 56.6**	**-0.1**
	comp=Z,38nm,1.0s,mb5.4						
YBH				*e*PcP	PcP	06 07 27.1	-0.3
YBH				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
TRD	**Trivandrum**	**66.10**	**258**⇓	*e*	**P**	**06 07 04.6**	**+6.3**
TRD				*e*		06 15 32.6	
WALA	**Waterton Lakes**	**66.11**	**44**	*e*P	**P**	**06 06 57.0**	**-0.8**
	comp=Z,35nm,0.9s,mb5.4						
KIV	**Kislovodsk**	**66.60**	**309**	P	**P**	**06 07 01.2**	**+0.2**
	comp=Z,616nm,0.9s,mb6.6,SNR=33						
KIV	**Kislovodsk**	**66.60**	**309**	*de*P	**P**	**06 06 59.6**	**-1.4**
KIV				*e*		06 09 25.3	
KIV				*i* S	S	06 15 55.3	+5.8
KIV				*e*SS	SS	06 20 06.0	-2.6
KIV				pmax	pmax		
	comp=E,88nm,1.5s						
KIV				pmax	pmax		
	comp=Z,160nm,1.5s,mb5.8						
KIV				pmax	pmax		
	comp=N,43nm,1.0s						
KIV				smax			
	comp=N,1µm,3.2s						
KIV				smax			
	comp=E,141nm,1.6s						
KIV				MLR	MLR		
	comp=N,6µm,17.0s,MS5.9						
KIV				MLR	MLR		
	comp=E,3µm,17.0s,MS5.9						
KIV				MLR	MLR		
	comp=Z,9µm,17.0s,MS6.0						
KIV	**Kislovodsk**	**66.60**	**309**	*e*P	**P**	**06 07 00.8**	**-0.2**
	comp=Z,273nm,1.3s,mb6.1						
KIV				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
ZEI	**Tsey**	**66.66**	**307**	*i* P	**P**	**06 07 02.6**	**+1.2**
ZEI				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.5						
WDC	**Whiskeytown Da**	**66.74**	**56**	*e*P	**P**	**06 07 01.3**	**-0.6**
WDC				pmax	pmax		
	comp=Z,57nm,1.2s,mb5.5						
WDC				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
WDC	**Whiskeytown Da**	**66.74**	**56**	*e*P	**P**	**06 07 01.3**	**-0.6**
	comp=Z,57nm,1.2s,mb5.5						
WDC				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
TI2	**Plekhanov**	**66.82**	**306**⇑	*i*P	**P**	**06 07 01.8**	**-0.6**
TI2				*i*		06 07 04.0	
TI2				*i*		06 07 05.0	
TI2				*e*		06 09 32.0	
TI2				*i* S	S	06 15 57.0	+4.8
TI2				MLR	MLR		
	comp=N,5µm,17.0s,MS6.0						
TI2				MLR	MLR		
	comp=E,6µm,17.0s,MS6.0						
TI2				MLR	MLR		
	comp=Z,6µm,17.0s,MS5.9						
MNK	**Minsk**	**66.90**	**325**	*e*P	**P**	**06 07 00.0**	**-2.7**
MNK				MLR	MLR		
	comp=Z,6µm,10.0s,MS6.1						
BMO	**Blue Mountains**	**67.03**	**49**	*e*P	**P**	**06 07 02.9**	**-0.8**
	comp=Z,92nm,1.4s,mb5.6						
BMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
MOD	**Modoc**	**67.22**	**53**	*e*P	**P**	**06 07 05.1**	**+0.1**
	comp=Z,114nm,1.5s,mb5.7						
MOD				*e*PcP	PcP	06 07 33.3	+0.4
MOD				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
HOPS	**Hopland**	**67.41**	**57**	PFAKE		06 07 20.0	+14
HOPS				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
MSO	**Missoula**	**67.54**	**46**	*e*P	**P**	**06 07 05.7**	**-1.2**
	comp=Z,57nm,1.4s,mb5.4						
MSO				LR	LR		
	comp=Z,965nm,19.0s,MS5.0						
FCC	**Fort Churchill**	**67.61**	**28**	*e*P	**P**	**06 07 04.7**	**-2.4**
FCC				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.5						
FCC	**Fort Churchill**	**67.61**	**28**	*e*P	**P**	**06 07 04.7**	**-2.4**
	comp=Z,53nm,1.1s,mb5.5						
FFC	**Flin Flon**	**67.67**	**34**	*e*P	**P**	**06 07 06.2**	**-1.4**
FFC				pmax	pmax		
	comp=Z,69nm,1.1s,mb5.6						
FFC				MLR	MLR		
	comp=Z,486nm,20.0s,MS4.7						
FFC	**Flin Flon**	**67.67**	**34**	*e*P	**P**	**06 07 06.2**	**-1.4**
	comp=Z,69nm,1.1s,mb5.6						
FFC				LR	LR		
	comp=Z,486nm,20.0s,MS4.7						
ASAR	**Alice Springs**	**67.80**	**188**	P	**P**	**06 07 08.0**	**-0.9**
	comp=Z,24nm,0.8s,mb5.3,baz=11,slow=6.0,SNR=169						
ASAR				PKPPKP		06 35 30.4	
	comp=Z,4.7nm,1.1s,baz=185,slow=2.9,SNR=11						
ASAR				LR	LR	06 37 19.7	
	comp=Z,847nm,20.4s,MS5.0,baz=0.2,slow=36						
ASPA	**Alice Springs**	**67.80**	**188**⇑	*i*P	**P**	**06 07 07.9**	**-1.0**
GNI	**Garni**	**67.82**	**305**	*e*P	**P**	**06 07 12.1**	**+3.3**
GNI	**Garni**	**67.82**	**305**	P	**P**	**06 07 11.8**	**+2.9**
	comp=Z,73nm,1.1s,mb5.6,baz=183,slow=7.7,SNR=8.0						
GNI				LR	LR	06 40 43.7	
	comp=Z,6µm,18.1s,MS5.8,baz=250,slow=40						
GNI	**Garni**	**67.82**	**305**	*e*P	**P**	**06 07 10.3**	**+1.5**
GNI				pmax	pmax		
	comp=Z,245nm,1.4s						
GNI				MLR	MLR		
	comp=Z,6µm,20.0s						
GNI	**Garni**	**67.82**	**305**	*e*P	**P**	**06 07 10.2**	**+1.4**
	comp=Z,245nm,1.4s,mb6.0						
GNI				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
NB2	**NORSAR Subarra**	**67.83**	**336**	P	**P**	**06 07 05.9**	**-2.6**
	comp=Z,9.2nm,0.7s,mb4.9,baz=35,slow=6.2						
NB2	**NORSAR Subarra**	**67.83**	**336**	P	**P**	**06 07 05.9**	**-2.6**
NB2				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
NOA	**NORSAR Array B**	**67.83**	**336**	P	**P**	**06 07 05.9**	**-2.5**
	comp=Z,9.0nm,0.6s,mb5.0,baz=36,slow=6.4,SNR=23						
NOA				LR	LR	06 41 19.7	
	comp=Z,4µm,18.3s,MS5.7,baz=25,slow=40						
LEN	**Leninakan**	**67.96**	**306**	*e*P	**P**	**06 07 10.0**	**+0.4**
LEN				*i* S	S	06 16 05.0	-0.9
LEN				MLR	MLR		
	comp=Z,120µm,15.0s						
NSHM	**Saint Helena R**	**67.99**	**57**	*e*P	**P**	**06 07 07.6**	**-2.3**
MBWA	**Marble Bar**	**67.99**	**202**	*e*P	**P**	**06 07 08.6**	**-1.6**
	comp=Z,33nm,0.9s,mb5.4						
MBWA				LR	LR		
	comp=Z,736nm,21.0s,MS4.9						
OHCM	**Honcut**	**68.15**	**56**	*e*P	**P**	**06 07 10.6**	**-0.3**
BEKR	**Beckwourth**	**68.48**	**55**	*e*P	**P**	**06 07 12.6**	**-0.3**
	comp=Z,85nm,1.4s,mb5.6						
SOC	**Sochi**	**68.49**	**310**	*i* P	**P**	**06 07 13.3**	**+0.4**
SOC				*i* S	S	06 16 16.9	+4.7
SOC				*e*		06 17 04.2	
SOC				*e*SSS	SSS	06 23 44.1	+5.3
SOC				pmax	pmax		
	comp=E,36nm,1.5s						
SOC				pmax	pmax		
	comp=Z,114nm,1.5s,mb5.7						
SOC				pmax	pmax		
	comp=N,36nm,1.2s						
SOC				MLR	MLR		
	comp=N,11µm,20.0s,MS6.2						
SOC				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.0						
SOC				MLR	MLR		
	comp=E,3µm,16.0s,MS6.2						
HRY	**Holter Researc**	**68.71**	**45**	*e*P	**P**	**06 07 13.9**	**-0.3**
ANN	**Anapa**	**68.92**	**312**	*e*P	**P**	**06 07 16.7**	**+1.1**
ANN				*e*		06 07 36.5	
ANN				*e*		06 09 53.5	
ANN				*e*S	S	06 16 20.3	+3.0
ANN				*e*SP	SP	06 16 40.4	-2.6
ANN				*e*		06 17 09.9	
ANN				pmax	pmax		
	comp=Z,684nm,2.5s,mb6.1						
ANN				MLR	MLR		
	comp=Z,11µm,23.4s,MS6.0						
ANN				MLR	MLR		
	comp=N,5µm,19.5s,MS6.1						
ANN				MLR	MLR		
	comp=E,10µm,20.8s,MS6.1						
AKASG	**Malin Array Be**	**68.95**	**321**	P	**P**	**06 07 14.4**	**-1.2**
	comp=E,12nm,0.6s,mb5.0,baz=42,slow=6.2,SNR=43						
AKASG				PKPPKP		06 35 26.2	
	comp=E,0.2nm,0.3s,baz=226,slow=3.5,SNR=6.9						
KIEV	**Kiev**	**68.97**	**321**	P	**P**	**06 07 15.0**	**-0.7**
SUW	**Suwalki**	**69.15**	**326**	*e*P	**P**	**06 07 16.0**	**-0.8**
SUW				*e**PP	pP	06 07 19.9	-3.3
SUW				*e*S	S	06 16 18.5	-1.3
SUW	**Suwalki**	**69.15**	**326**	*e*P	**P**	**06 07 16.0**	**-0.8**
SUW				*e*pP	pP	06 07 19.9	-3.3
SUW				*e*PcP	PcP	06 07 31.8	-8.9
SUW				*e*S	S	06 16 18.5	-1.3
SUW				MLR	MLR	06 35 22.1	
	comp=E,3µm,24.9s,MS5.4						
WCN	**Washoe City**	**69.20**	**55**	*e*P	**P**	**06 07 17.6**	**+0.2**
WCN				pmax	pmax		
	comp=Z,229nm,1.7s,mb5.8						
WCN	**Washoe City**	**69.20**	**55**	*e*P	**P**	**06 07 17.6**	**+0.2**
	comp=Z,229nm,1.7s,mb5.8						
COCO	**West Island**	**69.31**	**228**	PFAKE		06 07 30.0	+12
COCO				LR	LR		
	comp=Z,212nm,20.0s						
KONO	**Kongsberg**	**69.43**	**336**	PFAKE		06 07 30.0	+12
KONO				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
MCMT	**McKenzie Canyo**	**69.44**	**47**	*e*P	**P**	**06 07 17.6**	**-1.1**
HLID	**Hailey**	**69.45**	**49**	*e*P	**P**	**06 07 18.9**	**+0.1**
	comp=Z,237nm,2.1s,mb5.8						
HLID				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
BOZ	**Bozeman (W)**	**69.53**	**46**	*e*P	**P**	**06 07 19.1**	**-0.1**
BOZ				pmax	pmax		
	comp=Z,75nm,1.1s,mb5.5						
BOZ				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
BOZ	**Bozeman (W)**	**69.53**	**46**	*e*P	**P**	**06 07 19.1**	**-0.1**
	comp=Z,74nm,1.1s,mb5.5						
BOZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
NOUC	**Port Laguerre**	**69.58**	**156**	*e*P	**P**	**06 07 20.5**	**+0.5**
DZM	**Mont Dzumac**	**69.60**	**156**	*e*P	**P**	**06 07 20.8**	**+0.7**
DZM	**Mont Dzumac**	**69.60**	**156**	*e*P	**P**	**06 07 20.1**	**0.0**
VANB	**Van**	**69.62**	**304**	*e*P	**P**	**06 07 26.0**	**+6.1**
CMB	**Columbia Colle**	**69.64**	**57**	*e*P	**P**	**06 07 19.4**	**-0.7**
CMB				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.4						
CMB				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
CMB	**Columbia Colle**	**69.64**	**57**	*e*P	**P**	**06 07 19.4**	**-0.6**
	comp=Z,67nm,1.3s,mb5.4						
CMB				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
TVAN	**Van**	**69.66**	**304**	*i* P	**P**	**06 07 21.6**	**+1.4**
SAO	**San Andreas Ge**	**69.82**	**58**	P	**P**	**06 07 20.1**	**-1.1**
SAO				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.3						
SAO				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.1						
SAO	**San Andreas Ge**	**69.82**	**58**	P	**P**	**06 07 20.1**	**-1.1**
	comp=Z,62nm,1.5s,mb5.3						
SAO				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
BMN	**Battle Mountai**	**69.94**	**53**	*e*P	**P**	**06 07 21.8**	**-0.1**
BMN				pmax	pmax		
	comp=Z,67nm,1.1s,mb5.5						
BMN				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
BMN	**Battle Mountai**	**69.94**	**53**	*e*P	**P**	**06 07 21.8**	**-0.1**
	comp=Z,67nm,1.1s,mb5.5						
BMN				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
HKR	**Hakkari**	**70.07**	**303**	*e*P	**P**	**06 07 23.3**	**+0.6**
QLMT	**Earthquake Lak**	**70.18**	**46**	*e*P	**P**	**06 07 22.4**	**-0.8**
LRV	**Little Rabbit**	**70.30**	**58**	*e*P	**P**	**06 07 25.1**	**+1.0**
VRT	**Varto**	**70.37**	**306**	*e*P	**P**	**06 07 24.7**	**+0.2**
GCMT	**Greycliff**	**70.43**	**45**	*e*P	**P**	**06 07 24.4**	**-0.4**
YMR	**Madison River**	**70.54**	**46**	*e*P	**P**	**06 07 25.4**	**+0.1**
SIM	**Simferopol’**	**70.57**	**314**	*de*P	**P**	**06 07 27.1**	**+1.5**
SIM				*e*PPP	PPP	06 11 50.0	+5.5
SIM				*e*S	S	06 16 41.0	+4.4
SIM				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.4						
SIM				MLR	MLR		
	comp=Z,6µm,15.0s,MS5.9						
NVAR	**Mina Array Bea**	**70.63**	**55**	P	**P**	**06 07 26.3**	**+0.2**
	comp=Z,8.9nm,0.9s,mb4.7,baz=326,slow=3.9,SNR=34						
NVAR				PKPPKP		06 35 24.0	
	comp=Z,0.2nm,0.4s,baz=121,slow=5.3,SNR=4.1						
NVAR	**Mina Array Bea**	**70.63**	**55**	P	**P**	**06 07 26.3**	**+0.2**
NVAR				P’P’		06 35 24.0	
YNR	**Norris Junctio**	**70.65**	**46**	*e*P	**P**	**06 07 26.9**	**+0.8**
GUMT	**Gumushane**	**70.68**	**308**	*e*P	**P**	**06 07 26.9**	**+0.6**
MNV	**Mina**	**70.72**	**55**	*e*P	**P**	**06 07 26.7**	**+0.1**
MNV				pmax	pmax		
	comp=Z,108nm,1.6s,mb5.5						
MNV				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.1						
MNV	**Mina**	**70.72**	**55**	*e*P	**P**	**06 07 26.7**	**+0.1**
	comp=Z,108nm,1.6s,mb5.5						
MNV				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
OMM	**Old Mammoth Mi**	**70.75**	**56**	*e*P	**P**	**06 07 26.8**	**-0.1**
YFT	**Old Faithful**	**70.75**	**46**	*e*P	**P**	**06 07 28.3**	**+1.6**
ELK	**Elko**	**70.87**	**52**	*e*P	**P**	**06 07 27.8**	**+0.3**
ELK				pmax	pmax		
	comp=Z,110nm,1.6s						
ELK				MLR	MLR		
	comp=Z,2µm,20.0s						
ELK	**Elko**	**70.87**	**52**	*e*P	**P**	**06 07 27.8**	**+0.3**
	comp=Z,110nm,1.6s,mb5.5						
ELK				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
LKWY	**Lake**	**70.90**	**46**	*e*P	**P**	**06 07 28.3**	**+0.7**
LKWY				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
LKWY				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.7						
LKWY	**Lake**	**70.90**	**46**	*e*P	**P**	**06 07 28.3**	**+0.7**
	comp=Z,44nm,1.0s,mb5.3						
LKWY				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
EZC	**Erzincan**	**70.96**	**307**	*e*P	**P**	**06 07 30.1**	**+2.0**
BTMT	**Batman**	**71.02**	**305**	*e*P	**P**	**06 07 30.5**	**+2.1**
IMW	**Indian Meadow**	**71.08**	**47**	*e*P	**P**	**06 07 29.4**	**+0.7**
BINT	**Bingol**	**71.15**	**306**	*e*P	**P**	**06 07 30.1**	**+0.9**
MTUM	**Tungsten Hills**	**71.18**	**56**	*e*P	**P**	**06 07 29.4**	**-0.1**
DGMT	**Dagmar**	**71.20**	**40**	*e*P	**P**	**06 07 28.6**	**-0.7**
	comp=Z,68nm,1.0s,mb5.5						
DGMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
MOOW	**Moose Ponds**	**71.28**	**47**	*e*P	**P**	**06 07 30.6**	**+0.6**
WAR	**Warsaw**	**71.34**	**326**	*e*P	**P**	**06 07 29.5**	**-0.6**
WAR				MLR	MLR	06 39 02.1	
	comp=Z,3µm,19.5s,MS5.6						
BEST	**Besiri**	**71.34**	**305**	*i* P	**P**	**06 07 32.7**	**+2.3**
TPAW	**Teton Pass**	**71.35**	**47**	*e*P	**P**	**06 07 31.0**	**+0.6**
BSD	**Bornholm Skovb**	**71.40**	**331**	*e*P	**P**	**06 07 28.9**	**-1.6**
BSD				*i* S	S	06 16 44.2	-1.9
BSD				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
BSD	**Bornholm Skovb**	**71.40**	**331**	*e*P	**P**	**06 07 28.9**	**-1.6**
	comp=Z,27nm,0.8s,mb5.2						
BSD				*i*		06 14 09.6	
BSD				*i* S	S	06 16 44.2	-1.9
BSD				*e*		06 21 06.7	
BSD	**Bornholm Skovb**	**71.40**	**331**	*i* P	**P**	**06 07 28.9**	**-1.6**
	comp=Z,27nm,0.8s,mb5.2						
BSD				*i*		06 14 09.6	
BSD				*i* S	S	06 16 44.2	-1.9
BSD				*e*		06 21 06.7	
	comp=Z,3µm,18.0s						
WUWY	**Wally Ulrich**	**71.43**	**47**	*e*P	**P**	**06 07 31.4**	**+0.6**
LOHW	**Long Hollow**	**71.45**	**47**	*e*P	**P**	**06 07 31.5**	**+0.6**
SNOW	**Snow King Moun**	**71.47**	**47**	*e*P	**P**	**06 07 32.0**	**+0.9**
TPH	**Tonopah**	**71.50**	**55**	*e*P	**P**	**06 07 31.5**	**+0.1**
TPH				pmax	pmax		
	comp=Z,145nm,1.5s,mb5.7						
TPH				MLR	MLR		
	comp=Z,770nm,20.0s,MS5.0						
TPH	**Tonopah**	**71.50**	**55**	*e*P	**P**	**06 07 31.5**	**+0.2**
	comp=Z,145nm,1.5s,mb5.7						
TPH				LR	LR		
	comp=Z,770nm,20.0s,MS5.0						
LAO	**LASA Array**	**71.52**	**42**	*e*P	**P**	**06 07 31.3**	**0.0**
	comp=Z,264nm,1.8s,mb5.9						
LAO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
AFI	**Afiamalu**	**71.53**	**132**	P	**P**	**06 07 40.0**	**+8.1**
AFI				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
AFI	**Afiamalu**	**71.53**	**132**	PFAKE		06 07 40.0	+8.1
AFI				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
HVU	**Hansel Valley**	**71.54**	**49**	*e*P	**P**	**06 07 31.8**	**+0.3**
KMPD	**K-Podol’skiy**	**71.74**	**321**	P	**P**	**06 07 32.0**	**-0.6**
KIS	**Kishinev**	**71.77**	**318**κ	*i*P	**P**	**06 07 30.0**	**-2.8**
KIS				*e*		06 07 50.0	
KIS				*e*		06 10 20.0	

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KIS                                 e               06 11 57.0
KIS                                 eS      S       06 16 49.0 -1.5
KIS                                 ePS     PS      06 17 22.0 -1.2
KIS                                  pmax   pmax
      comp=Z,2µm,5.0s
KIS                                  MLR    MLR
      comp=Z,9µm,13.0s,MS6.2
KIS                                  MLR    MLR
      comp=N,8µm,12.0s,MS6.3
KIS                                  MLR    MLR
      comp=E,4µm,12.0s,MS6.3
AHID  Auburn Hatcher     71.77  48  eP      P       06 07 32.8 -0.1
      comp=E,22nm,0.9s,mb5.1
AHID                                 LR     LR
      comp=Z,1µm,19.0s,MS5.2
PTK   Pertek             71.78 307   P      P       06 07 34.2 +1.2
COP   Copenhagen         71.79 333  eP      P       06 07 33.6 +0.8
COP                                 i S     S       06 16 43.8 -6.8
COP                                 i               06 17 29.7
COP                                  pmax   pmax
      comp=Z,30nm,0.7s,mb5.3
COP                                  MLR    MLR
      comp=Z,2µm,18.0s,MS5.5
COP   Copenhagen         71.79 333  eP      P       06 07 33.6 +0.8
      comp=Z,30nm,0.7s,mb5.3
COP                                 i S     S       06 16 43.8 -6.8
COP                                 i               06 17 29.7
COP                                 i               06 24 28.3
COP                                  LR     LR
      comp=Z,2µm,18.0s,MS5.5
COP   Copenhagen         71.79 333  i P     P       06 07 33.6 +0.8
      comp=Z,30nm,0.7s,mb5.3
COP                                 i S     S       06 16 43.8 -6.8
COP                                 i               06 17 29.7
COP                                 i               06 24 28.3
      comp=Z,2µm,18.0s
LVV   L'vov              71.90 323  eP      P       06 07 36.5 +3.0
LVV   L'vov              71.90 323  eP      P       06 07 32.0 -1.5
BGU   Big Grassy Mou     71.98  50  eP      P       06 07 34.1 -0.1
GKP   Gorka Klasztor     72.02 329  eP      P       06 07 33.3 -0.9
GKP                                 e*PP    pP      06 07 37.8 -2.8
GKP                                 eS      S       06 16 53.3 +0.1
GKP                                  MLR    MLR
      comp=Z,6µm,20.2s,MS5.8
GKP   Gorka Klasztor     72.02 329  eP      P       06 07 33.3 -0.9
GKP                                 epP     pP      06 07 37.8 -2.8
GKP                                 ePcP    PcP     06 07 43.4 -9.5
GKP                                 eS      S       06 16 53.3 +0.1
GKP                                  MLR    MLR     06 40 51.4
      comp=Z,6µm,20.2s,MS5.8
SPUT  South Promonto     72.04  50  eP      P       06 07 34.8 +0.3
MUD   Monsted U'grnd     72.20 335  eP      P       06 07 35.9 +0.7
MUD                                 i               06 12 05.1
MUD                                 i S     S       06 17 02.1 +6.8
MUD                                 i               06 17 47.0
MUD                                 i               06 24 50.6
MUD                                  pmax   pmax
      comp=Z,27nm,0.9s,mb5.2
MUD   Monsted U'grnd     72.20 335  eP      P       06 07 35.9 +0.7
      comp=Z,27nm,0.9s,mb5.2
MUD                                 i               06 12 05.1
MUD                                 i S     S       06 17 02.1 +6.8
MUD                                 i               06 17 47.0
MUD                                 i               06 24 50.6
MUD   Monsted U'grnd     72.20 335  i P     P       06 07 35.9 +0.7
      comp=Z,27nm,0.9s,mb5.2
MUD                                 i               06 12 05.1
MUD                                 i S     S       06 17 02.1 +6.8
MUD                                 i               06 17 47.0
MUD                                 i               06 24 50.6
      comp=Z,3µm,18.0s
TRCR  Troy Canyon        72.27  54  eP      P       06 07 35.4 -0.5
ELZG  Elazig             72.28 307  i P     P       06 07 37.1 +1.1
HWUT  Hardware Ranch     72.32  49  eP      P       06 07 36.4 +0.3
      comp=Z,186nm,1.5s,mb5.8
HWUT                                 LR     LR
      comp=Z,1µm,20.0s,MS5.3
DAC   Darwin (Calif)     72.48  56   PFAKE          06 07 50.0  +13
DAC                                  LR     LR
      comp=Z,1µm,20.0s,MS5.1
BW06  Boulder Array      72.59  47  eP      P       06 07 37.3 -0.4
      comp=Z,55nm,0.9s,mb5.5
BW06                                 LR     LR
      comp=Z,2µm,20.0s,MS5.3
PDAR  Pinedale Array     72.59  47   P      P       06 07 37.4 -0.3
      comp=Z,18nm,0.8s,mb5.1,baz=278,slow=1.8,SNR=90
PDAR                                 LR     LR      06 42 49.7
      comp=Z,1µm,18.5s,MS5.2,baz=340,slow=39
KWP   Kalwaria           72.61 323  eP      P       06 07 37.8 +0.2
KWP                                 epP     pP      06 07 42.6 -1.5
KWP                                 ePcP    PcP     06 07 51.1 -4.2
KWP                                  MLR    MLR     06 41 38.2
      comp=Z,7µm,22.1s,MS5.9
BYBT  Boyabat            72.62 311  eP      P       06 07 33.7 -4.2
NOQ   North Oquirrh      72.67  50  eP      P       06 07 38.5 +0.3
MYA   Malataya           72.72 307  eP      P       06 07 38.7 +0.2
MALT  Malatya            72.72 307  eP      P       06 07 39.6 +1.0
MALT  Malatya            72.72 307  eP      P       06 07 39.2 +0.6
MALT                                 pmax   pmax
      comp=Z,100nm,1.1s,mb5.7
MALT  Malatya            72.72 307  eP      P       06 07 39.1 +0.6
      comp=Z,100nm,1.1s,mb5.7
UMR   Umm Al-Rimmam      72.81 295  eP      P       06 07 38.1 -1.1
UMR                                  AMb    AMB     06 07 43.1
      comp=Z,151nm,1.7s,mb5.7
TPNV  Topopah Spring     72.83  55  eP      P       06 07 39.4 +0.2
TPNV                                 pmax   pmax
      comp=Z,180nm,1.6s,mb5.8
TPNV                                 MLR    MLR
      comp=Z,1µm,20.0s,MS5.1
TPNV  Topopah Spring     72.83  55  eP      P       06 07 39.4 +0.1
      comp=Z,180nm,1.6s,mb5.8
TPNV                                 LR     LR
      comp=Z,1µm,20.0s,MS5.1
JLU   Jordanelle         73.07  50  eP      P       06 07 40.3 -0.2
URFA  Urfa               73.09 306   P      P       06 07 40.0 -0.7
NLU   North Lily Min     73.17  50  eP      P       06 07 41.4 +0.3
CTKT  Corum              73.19 310  i P     P       06 07 42.6 +1.3
QRN   Al-Qurain          73.21 294  eP      P       06 07 41.1 -0.5
DAU   Daniels Canyon     73.31  50  eP      P       06 07 42.4 +0.4
RST   Umm Al-Ruwaisa     73.31 295  eP      P       06 07 40.8 -1.4
RST                                  AMb    AMB     06 07 45.6
      comp=Z,168nm,1.5s,mb5.7
BALT  Daday              73.32 312  i P     P       06 07 42.7 +0.7
TOS   Tosya              73.32 311  eP      P       06 07 39.1 -2.9
KOLS  Kolonicke sedl     73.32 323  eP      P       06 07 41.4 -0.4
KOLS                                e               06 07 43.9
KOLS                                esP     sP      06 07 47.1 -3.5
KOLS                                e               06 07 54.9
KOLS                                e               06 08 03.1
RDF   Al-Radifah         73.33 294  eP      P       06 07 42.1 -0.2
RDF                                  AMb    AMB     06 07 46.9
      comp=Z,275nm,1.6s,mb5.9
MPU   Maple Canyon       73.38  50  eP      P       06 07 42.5 +0.2
OJC   Ojcow              73.38 325  eP      P       06 07 42.2 +0.1
OJC                                 eS      S       06 17 08.3 -0.4
OJC                                  MLR    MLR     06 40 52.0
      comp=Z,6µm,19.9s,MS5.8
CFR   Carcaliu           73.41 317 ⇓iP      P       06 07 42.1 -0.3
ULM   Lac du Bonnet      73.50  34   P      P       06 07 41.7 -1.1
      comp=Z,20nm,1.1s,mb5.0,baz=319,slow=7.2,SNR=18
ULM                                  LR     LR      06 45 59.6
      comp=Z,2µm,18.8s,MS5.3,baz=127,slow=41
ULM   Lac du Bonnet      73.50  34  eP      P       06 07 41.8 -1.1
      comp=Z,54nm,1.1s,mb5.4
ULM                                  LR     LR
      comp=Z,2µm,19.0s,MS5.5
UZH   Uzhgorod           73.54 323  eP      P       06 07 45.0 +1.9
MWC   Mount Wilson       73.57  58   P      P       06 07 45.4 +1.8
MWC   Mount Wilson       73.57  58  eP      P       06 07 42.1 -1.5
VRI   Vrincioaia         73.58 319 ⇑iP      P       06 07 46.5 +3.1
CRVS  Cervenica-Dubn     73.69 324  eP      P       06 07 42.0 -2.0
CRVS                                epP     pP      06 07 45.9 -4.6
CRVS                                esP     sP      06 07 48.8 -4.0
CRVS                                e               06 07 59.8
NIE   Niedzica           73.78 325  eP      P       06 07 45.0 +0.5
BNN   Bunyan             73.83 309  eP      P       06 07 43.2 -1.8
CANT  Cankiri            73.84 311  eP      P       06 07 44.6 -0.4
HARR  Harsova            73.86 317 ⇑iP      P       06 07 45.7 +0.7
GZT   Gaziantep          73.88 306  i P     P       06 07 46.3 +1.0
ARUT  Antelope Range     73.89  53  eP      P       06 07 45.4  0.0
SAFT  Safranbolu         73.90 312  eP      P       06 07 46.4 +1.1
BSEG  Bad Segeberg       73.93 333  eP      P       06 07 44.3 -0.9
ELDT  Eldivan            74.03 311  i P     P       06 07 48.7 +2.6
KAHT  Ahir Dag           74.09 307  i P     P       06 07 47.5 +1.0
MVU   Marysvale          74.10  52  eP      P       06 07 46.6  0.0
      comp=Z,96nm,1.5s,mb5.5
MVU                                  LR     LR
      comp=Z,1µm,22.0s,MS5.1
TMUT  Trail Mountain     74.11  50  eP      P       06 07 45.8 -0.8
MSU   Marysvale          74.11  52  eP      P       06 07 47.4 +0.8
GAZ   Gaziantep          74.21 307  eP      P       06 07 49.5 +2.3
ISR   Istrita            74.22 318 ⇑iP      P       06 07 48.3 +1.2
MLR   Muntele Rosu       74.23 319 ⇓iP      P       06 07 49.3 +2.1
KSP   Ksiaz              74.29 328 ⇑eP      P       06 07 46.4 -1.0
KSP                                 e*PP    pP      06 07 48.9 -5.0
KSP                                 e               06 10 29.5
KSP                                 eS      S       06 17 16.0 -2.8
KSP                                 e               06 17 53.0
KSP                                  MLR    MLR
      comp=Z,8µm,22.9s,MS6.0
KSP   Ksiaz              74.29 328 ⇑eP      P       06 07 46.4 -1.0
KSP                                 epP     pP      06 07 48.9 -5.0
KSP                                 ePP     PP      06 10 29.5 -5.7
KSP                                 eS      S       06 17 16.0 -2.8
KSP                                 eSKS    SKS     06 17 53.0 -3.0
KSP                                 eSS     SS      06 22 21.0  +14
KSP                                  LR     LR
      comp=Z,8µm,22.9s,MS6.0
KSP   Ksiaz              74.29 328  eP      P       06 07 47.8 +0.4
KSP                                 epP     pP      06 07 52.8 -1.1
KSP                                 ePcP    PcP     06 07 58.2 -4.3
KSP                                  MLR    MLR     06 39 48.8
      comp=Z,7µm,22.9s,MS5.9
OKC   Ostrava-Krasne     74.35 326 ⇓eP      P       06 07 49.4 +1.6
OKC                                  AMS    AMS     06 47 20.0
      comp=Z,5µm,12.3s
RSSD  Black Hills        74.43  43   PFAKE          06 08 00.0  +12
RSSD                                 LR     LR
      comp=Z,2.0nm,19.0s
AVNT  Avonos             74.44 309  i P     P       06 07 49.2 +0.8
BR131 Keskin Array S     74.45 310   PFAKE          06 08 00.0  +11
BR131                                LR     LR
      comp=Z,2µm,20.0s,MS5.4
BRTR  Keskin Array B     74.45 310   P      P       06 07 48.6 +0.1
      comp=Z,25nm,1.1s,mb5.1,baz=72,slow=3.9,SNR=19
NEN   Nelson             74.54  55  eP      P       06 07 49.0 -0.2
LIKS  Likavka            74.57 325  eP      P       06 07 52.7 +3.6
LIKS  Likavka            74.57 325  epP     pP      06 07 52.7 -2.9
RWWY  Rawlins            74.58  46  eP      P       06 07 48.0 -1.2
SRU   San Rafael         74.62  50  eP      P       06 07 49.6  0.0
MORC  Moravsky Berou     74.64 326  eP      P       06 07 48.5 -0.9
MORC                                 pmax   pmax
      comp=Z,72nm,0.9s,mb5.6
MORC  Moravsky Berou     74.64 326  eP      P       06 07 48.5 -1.0
      comp=Z,72nm,0.9s,mb5.6
MORC                                e               06 08 14.3
KAMT  Kaman              74.66 310  eP      P       06 07 48.6 -1.1
UPC   Upice              74.67 328 ⇓eP      P       06 07 49.7 +0.1
DPC   Dobruska-Polom     74.67 327  eP      P       06 07 49.4 -0.2
DPC                                 eS      S       06 17 24.3 +1.2
DPC                                  AMS    AMS     06 45 00.0
      comp=Z,8µm,14.7s
SGKT  Sivrigoynuk        74.71 312  i P     P       06 07 51.5 +1.5
LDFC  Landfair           74.78  56  eP      P       06 07 50.4 -0.1
ANTO  Ankara             74.81 311  eP      P       06 07 47.7 -2.9
PFO   Pinyon Flat Ob     74.97  58  eP      P       06 07 51.0 -0.7
PFO                                  pmax   pmax
      comp=Z,39nm,1.2s,mb5.2
PFO                                  MLR    MLR
      comp=Z,231nm,19.0s,MS4.5
PFO   Pinyon Flat Ob     74.97  58  eP      P       06 07 51.0 -0.7
      comp=Z,39nm,1.2s,mb5.2
PFO                                  LR     LR
      comp=Z,231nm,19.0s,MS4.5
NIG   Nigde              75.04 309  i P     P       06 07 51.3 -0.7
VYHS  Vyhne              75.12 325  eP      P       06 07 52.2  0.0
VYHS                                epP     pP      06 07 54.0 -4.7
VYHS                                esP     sP      06 07 57.7 -3.3
VYHS                                e               06 08 04.8
VYHS                                ePP     PP      06 10 41.1 -1.5
PSZ   Piszkesteto        75.12 324  eP      P       06 07 51.8 -0.5
PSZ                                  pmax   pmax
      comp=Z,172nm,1.4s,mb5.8
PSZ   Piszkesteto        75.12 324 ⇑ePcP    pP      06 07 54.0 -4.8
PSZ   Piszkesteto        75.12 324  eP      P       06 07 51.8 -0.4
      comp=Z,172nm,1.4s,mb5.8
CLL   Collm              75.15 330  i P     P       06 07 51.0 -1.4
CLL                                 eS      S       06 17 30.0 +1.6
CLL                                  pmax   pmax
      comp=Z,83nm,1.0s,mb5.6
CLL   Collm              75.15 330  i P     P       06 07 51.0 -1.4
      comp=Z,83nm,1.0s,mb5.6
CLL                                 i               06 08 16.4
CLL                                 eS      S       06 17 30.0 +1.6
CLL   Collm              75.15 330   P      P       06 07 51.0 -1.4
      comp=Z,logA/T=1.4,mb5.1
CLL                                 i               06 07 53.5
CLL                                 i       pP      06 07 57.1 -1.8
CLL                                 i *SP   sP      06 08 04.7 +3.6
CLL                                 ePP     PP      06 10 38.0 -4.8
CLL                                 eS      S       06 17 30.0 +1.6
CLL                                 eSCS    ScS     06 18 03.0 +2.6
CLL                                 eSS     SS      06 22 30.0  +10
CLL                                 eSSS    tx      06 26 06.0
BRG   Berggiesshubel     75.16 329  i P     P       06 07 51.0 -1.4
BRG                                 eS      S       06 17 30.0 +1.5
BRG                                  pmax   pmax
      comp=Z,83nm,1.0s,mb5.6
BRG   Berggiesshubel     75.16 329  i P     P       06 07 51.0 -1.4
      comp=Z,83nm,1.0s,mb5.6
BRG                                 i               06 08 16.4
BRG                                 eS      S       06 17 30.0 +1.5
CEYT  Ceyhan             75.16 307  eP      P       06 07 52.7  0.0
PVCC  Panska Ves         75.20 328 ⇓eP      P       06 07 52.9 +0.2
PVCC                                 AMS    AMS     06 45 30.0
      comp=Z,6µm,16.3s
COBT  Iskenderun         75.21 307  i P     P       06 07 53.5 +0.5
PRD   Provadia           75.21 316  eP      P       06 07 54.0 +1.1
KOLL  Kolacno            75.23 325  eP      P       06 07 52.8 -0.1
KOLL                                epP     pP      06 07 56.1 -3.3
KOLL                                e       pP      06 07 59.0 -0.4
MDU   Mudurnu            75.23 312  eP      P       06 07 50.0 -3.1
JAVC  Velka Javorina     75.31 326   P      P       06 07 54.6 +1.3
BAR   Barrett            75.47  59  eP      P       06 07 54.0 -0.6
FORT  Forrest            75.55 192 ⇑iP      P       06 07 55.0 -0.1
      comp=Z,255nm,0.7s,mb6.3
HTY   Hatay              75.56 306  eP      P       06 07 54.0 -1.0
STKA  Stephens Creek     75.59 180  eP      P       06 07 54.9 -0.4
      comp=Z,18nm,0.9s,mb5.0
STKA  Stephens Creek     75.59 180   P      P       06 07 55.0 -0.3
      comp=Z,15nm,0.9s,mb4.9,baz=345,slow=6.2,SNR=16
STKA                                 LR     LR      06 40 37.3
      comp=Z,1µm,19.7s,MS5.2,baz=2.0,slow=35
PRA   Prague             75.62 328  ⇓P      P       06 07 59.0 +3.9
PRA                                  AMS    AMS     06 48 00.0
PRU   Pruhonice          75.65 328  eP      P       06 07 55.6 +0.4
PRU                                 eS      S       06 17 32.5 -1.4
PRU                                  pmax   pmax
      comp=Z,166nm,1.6s,mb5.7
PRU                                  MLR    MLR
      comp=Z,5µm,17.0s,MS5.9
PRU   Pruhonice          75.65 328  eP      P       06 07 55.6 +0.4
      comp=Z,166nm,1.6s,mb5.7
PRU                                 eS      S       06 17 32.5 -1.4
PRU                                  LR     LR
      comp=Z,5µm,17.0s,MS5.9
PRU   Pruhonice          75.65 328 ⇓eP      P       06 07 55.6 +0.4
      comp=Z,166nm,1.6s,mb5.7
PRU                                 eS      S       06 17 32.5 -1.4
PRU                                  AMS    AMS     06 45 50.0
CLZ   Clausthal          75.65 331  eP      P       06 07 54.8 -0.4
      comp=Z,219nm,1.6s,mb5.8
KRUC  Moravsky           75.67 326   P      P       06 07 55.6 +0.3
PHWY  Pilot Hill         75.77  46  eP      P       06 07 55.8 -0.4
HRT   Hereke             75.79 314  eP      P       06 07 55.4 -0.8
SRO   Srobarova          75.87 325  eP      P       06 07 59.5 +3.0
SRO   Srobarova          75.87 325  epP     pP      06 07 59.5 -3.5
PV10  Paradox Valley     75.96  50  eP      P       06 07 58.1 +0.8
KIZT  Kizilcal           76.01 311  eP      P       06 07 56.3 -1.2
WIT   Witteveen          76.06 334  eP      P       06 07 58.6 +1.1
      comp=Z,567nm,2.0s,mb6.2
ESKT  Eskisehir          76.11 312  eP      P       06 07 57.2 -0.8
ESKT  Eskisehir          76.11 312  i P     P       06 07 58.1 +0.1
JMB   Yambol             76.16 316  eP      P       06 07 58.0 -0.3
MOX   Moxa               76.20 330  eP      P       06 07 58.9 +0.6
MOX                                  pmax   pmax
      comp=Z,229nm,2.0s,mb5.8
MOX                                  MLR    MLR
      comp=Z,3µm,19.0s,MS5.7
MOX   Moxa               76.20 330 ⇓iP      P       06 07 58.9 +0.6
      comp=Z,logA/T=2.1,mb5.8
MOX                                  S      S       06 17 38.0 -1.9
MOX                                  L              06 43 49.0
MOX   Moxa               76.20 330  eP      P       06 07 58.9 +0.6
      comp=Z,229nm,2.0s,mb5.8
MOX                                  LR     LR
      comp=Z,3µm,19.0s,MS5.7
NKC   Novy Kostel        76.23 329   P      P       06 08 01.0 +2.5
NKC   Novy Kostel        76.23 329   AMS    AMS     06 44 20.0
      comp=Z,6µm,15.9s
VKA   Vienna             76.33 326 ⇑iP      P       06 08 00.8 +1.7
      comp=Z,1µm,4.0s
VKA                                  MLRZ           06 46 00.0
      comp=Z,6.1nm,14.0s
VKA   Vienna             76.33 326 ⇑iP      P       06 08 00.8 +1.7
VKA                                  pmax   pmax
      comp=Z,1µm,4.0s
VKA                                  MLR    MLR
      comp=Z,6µm,14.0s,MS6.1
MEST  Erdemli            76.38 308  i P     P       06 07 58.6 -1.0
PV01  Paradox Valley     76.39  50  eP      P       06 07 59.9 +0.2
KONT  Konya--Tatoy       76.41 310  eP      P       06 07 57.7 -2.1
EDRB  Edirne             76.54 316  eP      P       06 07 53.1 -7.3
ESK   Eskdalemuir        76.62 340   PFAKE          06 08 10.0 +9.4
ESK                                  LR     LR
      comp=Z,809nm,22.0s,MS5.0
SOP   Sopron             76.70 325   P      P       06 08 02.3 +1.1
SOP   Sopron             76.70 325 ⇑esP     sP      06 08 03.5 -6.4
KHC   Kasperske Hory     76.71 328  eP      P       06 08 01.0 -0.2
KHC                                 eS      S       06 17 47.8 +2.3
KHC                                  AMS    AMS     06 46 40.0
      comp=Z,8µm,15.4s
WTSB  Winterswijk        76.74 333  eP      P       06 08 00.8 -0.5
      comp=Z,119nm,1.8s,mb5.5
ISCO  Idaho Springs      76.78  47  eP      P       06 08 02.2 +0.4
ISCO                                 pmax   pmax
      comp=Z,147nm,1.5s,mb5.7
ISCO                                 MLR    MLR
      comp=Z,2µm,20.0s,MS5.4
ISCO  Idaho Springs      76.78  47  eP      P       06 08 02.2 +0.4
      comp=Z,147nm,1.5s,mb5.7
ISCO                                 LR     LR
      comp=Z,2µm,20.0s,MS5.4
RW3   Ridgway            76.80  49  eP      P       06 08 02.4 +0.5
ALT   Altintas           76.84 312  eP      P       06 08 01.7 -0.4
GEC2  GERESS Array S     76.89 328  eP      P       06 08 01.6 -0.6
GEC2                                 pmax   pmax
      comp=Z,111nm,1.6s,mb5.5
GEC2  GERESS Array S     76.89 328  eP      P       06 08 01.6 -0.6
      comp=Z,111nm,1.6s,mb5.5
GERES GERESS Array B     76.89 328   P      P       06 08 02.1 -0.1
      comp=Z,20nm,1.1s,mb4.9,baz=45,slow=5.7,SNR=26
WET   Wettzell           76.97 328  eP      P       06 08 02.5 -0.1
WET                                  pmax   pmax
      comp=Z,273nm,1.8s,mb5.9
WET   Wettzell           76.97 328  eP      P       06 08 02.5 -0.1
      comp=Z,273nm,1.8s,mb5.9
PKSM  Moragy             76.99 323   P      P       06 08 02.3 -0.5
DIM   Dimitrovgrad       76.99 317  eP      P       06 08 03.0 +0.1
BNT   Bandirma           77.04 314  eP      P       06 08 01.7 -1.5
HDMB  Hadim              77.04 309  eP      P       06 07 51.8  -12
EYMN  Ely                77.09  34  eP      P       06 08 01.0 -2.3
      comp=Z,51nm,0.9s,mb5.5
EYMN                                 LR     LR
      comp=Z,2µm,20.0s,MS5.4
GRA1  Grafenberg Arr     77.13 330  eP      P       06 08 03.3 -0.2
      comp=Z,299nm,1.6s,mb6.0
GRA1                                eS      S       06 17 44.8 -5.3
GRA1                                 LR     LR
      comp=Z,6µm,21.1s,MS5.9
GRF   Grafenberg Arr     77.13 330  eP      P       06 08 03.3 -0.2
GRF                                 eS      S       06 17 44.8 -5.3
GRF                                  pmax   pmax
      comp=Z,299nm,1.6s,mb6.0
GRF                                  MLR    MLR
      comp=Z,6µm,21.1s,MS5.9
GRF   Grafenberg Arr     77.13 330  eP      P       06 08 03.3 -0.2
GRF                                 eS      S       06 17 44.8 -5.3
GRF                                  pmax   pmax
      comp=Z,299nm,1.6s,mb6.0
GRF                                  MLR    MLR
      comp=Z,6µm,21.1s,MS5.9
GRF   Grafenberg Arr     77.13 330  eP      P       06 08 03.3 -0.2
      comp=Z,299nm,1.6s,mb6.0
GRF                                 eS      S       06 17 44.8 -5.3
GRF                                  LR     LR
      comp=Z,6µm,21.1s,MS5.9
BEO   Belgrade           77.28 321 ⇑iP      P       06 08 04.3 -0.2
PGB   Panagyurishte      77.28 318  eP      P       06 08 05.0 +0.5
DUSS  Damascus Unive     77.29 304  i P     P       06 08 08.1 +3.4
DUSS                                i P             06 08 08.4
DUSS                                i P             06 08 08.7
DUSS                                e               06 08 09.8
      baz=48,slow=3.5
DUSS                                eS      S       06 17 58.0 +5.8
DUSS                                 AMS    AMS     06 46 52.2
      comp=Z,65µm,16.5s
DUSS                                 AMS    AMS     06 48 02.5
      comp=E,55µm,16.5s
RHK1  Bakonya            77.32 324 ⇓eP      P       06 08 04.3 -0.4
KDZ   Kurdzhali          77.35 317  eP      P       06 08 07.0 +2.1
BOLS  Boljevac           77.35 320 ⇑iP      P       06 08 04.0 -0.9
PLD   Plovdiv            77.36 317  eP      P       06 08 06.0 +1.0
ARSA  Arzberg            77.47 326 ⇑iP      P       06 08 05.6 +0.2
      comp=E,809nm,3.4s
MOA   Molln              77.48 327 ⇑iP      P       06 08 06.1 +0.6
      comp=E,2µm,5.5s
ISP   Isparta            77.50 311  eP      P       06 08 05.8  0.0
RDO   Rodhopi            77.67 316  eP      P       06 08 07.0 +0.3
RZN   Rozhen             77.67 317  eP      P       06 08 07.0 +0.3
VTS   Vitosha            77.71 318  eP      P       06 08 07.0 +0.1
VTS   Vitosha            77.71 318   P      P       06 08 07.9 +1.0
ASF   Jabal al Asfar     77.86 303   LR     LR      06 47 22.0
      comp=E,2µm,18.1s,MS5.5,baz=264,slow=40
GRUS  Gruza              77.88 321 ⇓iP      P       06 08 07.5 -0.2
KSHT  Keshet             77.95 304   P      P       06 08 08.7 +0.3
CSS   Prodhromos         77.99 307  eP      P       06 08 08.4 -0.2
      comp=E,55nm,0.8s,mb5.5
SIND  Sindeldorf         78.00 330 ⇑eP      P       06 08 09.1 +0.8
SIND  Sindeldorf         78.00 330   P      P       06 08 10.1 +1.8
DIVS  Divcibare          78.05 321  eP      P       06 08 08.1 -0.5
HGN   Heimansgroeve      78.05 333  eP      P       06 08 09.3 +0.8
      comp=E,134nm,2.0s,mb5.5
HGN                                 ePP     PP      06 11 01.6 -5.4
HGN                                 ePPP    tx      06 13 50.8
HGN                                 eS      S       06 18 00.2 +0.2
HGN                                 eSS     SS      06 23 10.8 +6.2
HGN                                 eSSS            06 27 04.5
TOD   Tromm              78.07 331 ⇑eP      P       06 08 09.6 +0.9
TOD   Tromm              78.07 331  eP      P       06 08 08.5 -0.2
GROS  Grobnik            78.11 325   P      P       06 08 08.8 -0.2
HILS  Ha'il              78.12 297   P      P       06 08 09.7 +0.3
PERS  Pernice            78.13 326  eP      P       06 08 09.0 -0.1
PERS                                e               06 08 10.9
MZLS  Mizel              78.16 292   P      P       06 08 09.3 -0.4
AKS   Akhisar            78.19 313  eP      P       06 08 06.3 -3.3
SWS   Schriesheim        78.20 331 ⇑eP      P       06 08 10.2 +0.8
SWS   Schriesheim        78.20 331   P      P       06 08 11.6 +2.2
ARSS  Ar Rass            78.21 294   P      P       06 08 09.3 -0.7
MMB   Musomiste          78.22 317  eP      P       06 08 10.0 +0.3
HNTI  Hanita             78.25 305   P      P       06 08 10.2 +0.1
ABH   Alteburg           78.27 332 ⇑eP      P       06 08 10.7 +0.9
ABH   Alteburg           78.27 332 ⇑eP      P       06 08 10.6 +0.8
KKB   Krupnik            78.33 318  eP      P       06 08 10.0 -0.3
SDCO  Great Sand Dun     78.35  48  eP      P       06 08 10.8 +0.3
      comp=E,61nm,1.3s,mb5.4
SDCO                                 LR     LR
      comp=Z,2µm,19.0s,MS5.4
DOBS  Dobrina            78.37 325   P      P       06 08 10.4  0.0
FUR   Furstenfeldbru     78.38 329  eP      P       06 08 10.2 -0.2
FUR                                  pmax   pmax
      comp=Z,516nm,1.8s,mb6.2
FUR   Furstenfeldbru     78.38 329  eP      P       06 08 10.2 -0.2
      comp=Z,516nm,1.8s,mb6.2
GOLS  Golise             78.42 325   P      P       06 08 10.5 -0.2
HDH   Heidenheim         78.42 330 ⇑eP      P       06 08 11.4 +0.8
KLBR  Kellerberrin       78.44 201 ⇑iP      P       06 08 10.5 -0.6
      comp=Z,54nm,1.0s,mb5.4
OBKA  Obir               78.46 326 ⇑iP      P       06 08 10.8 -0.1
      comp=Z,982nm,3.1s
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KBA   Koelnbreinsper   78.47 327⇑iP    P      06 08 11.1 +0.1
      comp=Z,833nm,2.8s,mb6.2
KBA   Koelnbreinsper   78.47 327⇑iP    P      06 08 11.1 +0.1
KBA                              pmax  pmax
      comp=Z,833nm,2.8s,mb6.2
SCHQ  Schefferville    78.50  16  P    P      06 08 10.2 -0.8
      comp=Z,22nm,1.0s,mb5.1,baz=347,slow=5.9,SNR=13
SCHQ                             LR    LR     06 47 00.3
      comp=Z,4µm,18.7s,MS5.8,baz=347,slow=39
SCHQ  Schefferville    78.50  16 eP    P      06 08 09.4 -1.6
      comp=Z,44nm,0.9s,mb5.4
SCHQ                             LR    LR
      comp=Z,6µm,19.0s,MS6.0
SISC  Sisak            78.54 324 i P   P      06 08 13.2 +1.8
KTD   Kalmit           78.56 331 eP    P      06 08 12.2 +0.8
MMLI  Mount Malkishu   78.56 304  P    P      06 08 12.3 +0.5
RUP   Ruppelstein      78.59 332⇑eP    P      06 08 12.4 +0.9
RUP   Ruppelstein      78.59 332⇑eP    P      06 08 12.6 +1.1
LEGS  Legarje          78.60 325  P    P      06 08 11.7  0.0
ELL   Elmali           78.62 311  P    P      06 08 09.4 -2.6
HMDT  Nahal Hemdat     78.63 304  P    P      06 08 12.6 +0.4
STU   Stuttgart        78.63 330 eP    P      06 08 11.2 -0.6
STU                              pmax  pmax
      comp=Z,70nm,0.8s,mb5.6
STU   Stuttgart        78.63 330 eP    P      06 08 11.2 -0.6
      comp=Z,70nm,0.8s,mb5.7
PDKS  Podkum           78.64 325  P    P      06 08 12.0 +0.1
CRES  Cresnjev         78.64 325  P    P      06 08 11.8 -0.1
CRES                              P           06 08 12.4
OFRI  ‘Ofer            78.69 305  P    P      06 08 12.6 +0.1
IZM   Izmir            78.83 313  P    P      06 08 08.1 -5.1
BUCH  Bad Urach        78.84 330⇑eP    P      06 08 14.2 +1.2
BUCH  Bad Urach        78.84 330  P    P      06 08 13.3 +0.3
LJU   Ljubljana        78.84 326 eP    P      06 08 12.6 -0.4
LJU                              i            06 08 14.6
LBG   Lerchenberg      78.86 330 eP    P      06 08 14.1 +1.0
PLE   Pljevlja         78.92 321⇑iP    P      06 08 14.0 +0.5
WLF   Walferdange      78.92 332 eP    P      06 08 13.4  0.0
WLF                              pmax  pmax
      comp=Z,209nm,1.6s,mb5.8
WLF   Walferdange      78.92 332 eP    P      06 08 13.4  0.0
      comp=Z,209nm,1.6s,mb5.8
SLTI  Sal’it           78.93 304  P    P      06 08 14.1 +0.3
LANF  Langenberg       78.94 331⇑eP    P      06 08 12.8 -0.7
WATA  Walderalm        78.95 328⇑iP    P      06 08 13.8 +0.2
      comp=Z,386nm,1.9s,mb6.0
WATA  Walderalm        78.95 328⇑iP    P      06 08 13.8 +0.2
WATA                             pmax  pmax
      comp=Z,386nm,1.9s,mb6.0
BLCB  Balcova          78.96 313 eP    P      06 08 10.8 -3.0
GIVF  Givet            78.98 333⇑iP    P      06 08 12.9 -0.8
      comp=Z,444nm,1.8s,mb5.8
GIVF  Givet            78.98 333⇑iP    P      06 08 12.9 -0.8
GIVF                             pmax  pmax
      comp=Z,222nm,1.8s,mb5.8
BOJS  Bojanci          78.98 325 eP    P      06 08 13.2 -0.6
BOJS                             e            06 08 15.1
BOJS                             e            06 18 07.1
WTTA  Wattenberg       78.99 328⇑iP    P      06 08 14.1 +0.3
      comp=Z,1µm,3.2s
WTTA  Wattenberg       78.99 328⇑iP    P      06 08 14.1 +0.3
WTTA                             pmax  pmax
      comp=Z,1µm,3.2s
VAY   Valandovo        78.99 318 i P   P      06 08 14.2 +0.3
PTCC  Patocco-Chiusa   79.02 326 eP    P      06 08 13.2 -0.8
SKO   Skopje           79.03 319⇑iP    P      06 08 14.7 +0.6
SKO                              i            06 08 17.1
SKO                              pmax  pmax
      comp=Z,140nm,1.0s,mb5.8
SKO   Skopje           79.03 319⇑iP    P      06 08 14.7 +0.6
      comp=Z,140nm,1.0s,mb5.8
SKO                              i            06 08 17.1
SKO   Skopje           79.03 319⇑iP    P      06 08 14.7 +0.6
SKO                              i            06 08 17.1
      comp=Z,0.1nm,1.0s
IVA   Berane           79.05 321⇑iP    P      06 08 14.6 +0.4
MKRJ  Makawir          79.06 303  P    P      06 08 15.0 +0.5
ROBS  Robic            79.09 326 eP    P      06 08 13.4 -1.0
ROBS                             e            06 08 15.0
VOY   Vojsko           79.11 326 eP    P      06 08 13.2 -1.3
MOTA  Moosalm          79.12 328⇑iP    P      06 08 14.7 +0.2
      comp=Z,422nm,1.9s,mb6.0
MOTA  Moosalm          79.12 328⇑iP    P      06 08 14.7 +0.2
MOTA                             pmax  pmax
      comp=Z,422nm,1.9s,mb6.0
CEY   Cerknica         79.13 325  P    P      06 08 14.1 -0.5
FETY  Fethiye          79.16 311 eP    P      06 08 17.2 +2.2
DRGI  Dragot           79.18 304  P    P      06 08 15.4 +0.2
SQTA  Sankt Quirin     79.19 328⇑iP    P      06 08 15.0 +0.1
      comp=Z,328nm,1.7s,mb6.0
SQTA  Sankt Quirin     79.19 328⇑iP    P      06 08 15.0 +0.1
SQTA                             pmax  pmax
      comp=Z,328nm,1.7s,mb6.0
SEST  Monte Rota       79.19 327  P    P      06 08 16.4 +1.5
UBR   Uberruh          79.21 329⇑eP    P      06 08 15.9 +0.9
MUN   Mundaring        79.22 202⇑iP    P      06 08 15.0 -0.4
      comp=Z,20nm,0.8s,mb5.1
MUN   Mundaring        79.22 202⇑iP    P      06 08 15.0 -0.4
MUN                              pmax  pmax
      comp=Z,20nm,0.8s,mb5.1
BAIF  Baives           79.22 334 eP    P      06 08 14.3 -0.7
      comp=Z,326nm,1.9s,mb5.6
BAIF  Baives           79.22 334 eP    P      06 08 14.3 -0.7
BAIF                             pmax  pmax
      comp=Z,163nm,1.9s,mb5.6
PVY   Plav             79.23 320⇑iP    P      06 08 16.4 +1.2
UPM   Unac-Piva        79.24 321⇑iP    P      06 08 14.5 -0.8
GUT   Gutenstein       79.25 330⇑eP    P      06 08 16.6 +1.4
DLF   Lyons Farm       79.27 341 eP    P      06 08 15.5 +0.3
TUC   Tucson           79.28  55 eP    P      06 08 16.1 +0.4
TUC                              pmax  pmax
      comp=Z,38nm,1.3s,mb5.2
TUC                              MLR   MLR
      comp=Z,936nm,21.0s,MS5.1
TUC   Tucson           79.28  55 eP    P      06 08 16.1 +0.4
      comp=Z,38nm,1.3s,mb5.2
TUC                              LR    LR
      comp=Z,936nm,21.0s,MS5.1
PLG   Polygyros        79.29 317 eP    P      06 08 15.5 -0.1
DALT  Dalyan (Mudla)   79.30 311 eP    P      06 08 11.7 -4.1
BFO   Black Forest     79.31 330 eP    P      06 08 15.0 -0.5
BFO                              pmax  pmax
      comp=Z,336nm,1.9s,mb6.0
BFO   Black Forest     79.31 330 eP    P      06 08 15.0 -0.5
      comp=Z,336nm,1.9s,mb6.0
KNDS  Knezji Dol       79.32 325 eP    P      06 08 14.9 -0.8
KNDS                             e            06 08 16.9
SPAK  Spaichingen      79.34 330 eP    P      06 08 16.5 +0.8
SPAK  Spaichingen      79.34 330  P    P      06 08 16.4 +0.7
MLSB  Milas            79.38 312 eP    P      06 08 15.8 -0.4
DCN   Croghan          79.39 342 eP    P      06 08 16.3 +0.5
BRES  Bressanone       79.42 328  P    P      06 08 16.0 -0.1
MENF  Mencas           79.42 335 eP    P      06 08 16.7 +0.6
TRI   Trieste          79.43 326 eP    P      06 08 15.4 -0.8
NKY   Niksic           79.50 321⇑iP    P      06 08 16.1 -0.6
WLS   Welschbruch      79.58 331⇑eP    P      06 08 16.6 -0.4
CDF   Champ du Feu     79.61 331⇑iP    P      06 08 16.7 -0.4
      comp=Z,390nm,1.6s,mb5.8
CDF   Champ du Feu     79.61 331⇑iP    P      06 08 16.7 -0.4
CDF                              pmax  pmax
      comp=Z,195nm,1.6s,mb5.8
DAVA  Damuels          79.63 329⇑iP    P      06 08 17.3  0.0
      comp=Z,722nm,3.4s
SISB  Singen-Sch Ber   79.63 330  P    P      06 08 17.8 +0.6
BRY   Bratogost        79.64 321⇑iP    P      06 08 16.0 -1.4
TTG   Podgorica        79.69 321⇑iP    P      06 08 17.6 -0.1
LIBD  Limburg          79.72 331⇑eP    P      06 08 19.1 +1.4
LIBD  Limburg          79.72 331  P    P      06 08 21.7 +4.0
SLE   Schleitheim      79.73 330 ⇑P    P      06 08 17.1 -0.7
KIZ   Kirchzarten      79.78 331⇑eP    P      06 08 19.0 +1.0
KIZ   Kirchzarten      79.78 331  P    P      06 08 17.7 -0.3
APPI  Appiano          79.79 328  P    P      06 08 18.7 +0.5
FELD  Feldberg         79.81 330⇑eP    P      06 08 19.5 +1.3
FELD  Feldberg         79.81 330⇑eP    P      06 08 17.7 -0.5
ECH   Echery           79.82 331⇑eP    P      06 08 17.7 -0.6
NWAO  Narrogin (SRO)   79.85 201 eP    P      06 08 18.2 -0.5
NWAO                             pmax  pmax
      comp=Z,76nm,0.9s
NWAO                             MLR   MLR
      comp=Z,508nm,20.0s
NWAO  Narrogin (SRO)   79.85 201 eP    P      06 08 18.2 -0.6
      comp=Z,76nm,0.9s,mb5.6
NWAO                             LR    LR
      comp=Z,508nm,20.0s,MS4.9
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ANMO  Albuquerque      79.87  51  P    P      06 08 19.8 +1.0
      comp=Z,24nm,1.2s,mb5.0,baz=314,slow=6.1,SNR=31
ANMO  Albuquerque      79.87  51 i P   P      06 08 19.4 +0.6
ANMO  Albuquerque      79.87  51 eP    P      06 08 19.6 +0.8
      comp=Z,145nm,1.7s,mb5.6
ANMO                             LR    LR
      comp=Z,1µm,19.0s,MS5.3
WILA  Wila             79.88 330 ⇑P    P      06 08 19.7 +1.1
LAZ   Ladron           79.89  52 eP    P      06 08 17.1 -1.8
NVLJ  Novalja          79.90 325 i P   P      06 08 19.3 +0.5
BUM   Brajici-Budva    79.95 321⇑iP    P      06 08 19.7 +0.6
CTI   Castel Tesino    79.99 327 eP    P      06 08 18.1 -1.1
OHR   Ohrid            80.00 319 i P   P      06 08 19.3 -0.1
OHR                              i            06 08 21.5
HCY   Herceg Novi      80.02 321⇑iP    P      06 08 20.0 +0.6
ZUR   Zurich           80.04 330 ⇓P    P      06 08 19.6 +0.2
STON  Ston             80.04 322 i P   P      06 08 18.0 -1.6
ZFRI  Zfri             80.04 303  P    P      06 08 20.1 +0.3
ULC   Ulcinj           80.06 320⇑iP    P      06 08 19.5 -0.2
SULZ  Sulz-Cheisache   80.07 330 ⇑P    P      06 08 19.4 -0.2
BRMO  Bormio           80.12 328 eP    P      06 08 20.3 +0.4
MOF   Molkenrain       80.14 331⇑eP    P      06 08 19.3 -0.7
LENM  Lemitar          80.15  52 eP    P      06 08 19.7 -0.7
KZN   Kozani           80.16 318 eP    P      06 08 21.5 +1.3
THEF  They Montfort    80.22 332⇑eP    P      06 08 19.8 -0.6
LPM   Los Pinos Moun   80.24  51 eP    P      06 08 21.4 +0.6
TIR   Tirane           80.25 320  P    P      06 08 20.9 +0.2
KZIT  Kziot            80.26 304  P    P      06 08 21.1 +0.1
HINF  Hinteralfeld     80.27 331⇑iP    P      06 08 19.8 -0.9
      comp=Z,102nm,1.1s,mb5.4
HINF  Hinteralfeld     80.27 331⇑iP    P      06 08 19.8 -0.9
HINF                             pmax  pmax
      comp=Z,51nm,1.1s,mb5.4
HAU   Haudompre        80.28 331⇑iP    P      06 08 20.1 -0.6
      comp=Z,212nm,1.4s,mb5.6
HAU                              eR
      comp=Z,5µm,21.8s
HAU   Haudompre        80.28 331⇑iP    P      06 08 20.1 -0.6
HAU                              pmax  pmax
      comp=Z,106nm,1.4s,mb5.6
HAU                              MLR   MLR
      comp=Z,5µm,21.8s,MS5.8
PRNI  Paran            80.29 303  P    P      06 08 21.6 +0.4
MEZF  Maizieres J’vi   80.29 332 eP    P      06 08 20.5 -0.3
      comp=Z,625nm,1.7s,mb6.0
LLS   Linth-Limmern    80.32 329 ⇑P    P      06 08 20.9 -0.1
BBS   Basel-Blauen     80.34 330⇑eP    P      06 08 22.5 +1.4
BBS   Basel-Blauen     80.34 330⇑eP    P      06 08 20.8 -0.3
MUO   Muotathal        80.36 330 ⇑P    P      06 08 21.1  0.0
BNM   Barren Site      80.36  51 eP    P      06 08 22.3 +0.9
MABI  Malga Bissina    80.42 328 eP    P      06 08 23.1 +1.5
VDL   Val di Lei       80.45 329 ⇑P    P      06 08 21.9 +0.2
DGAR  Diego Garcia     80.60 250  PFAKE       06 08 30.0 +6.9
DGAR                             LR    LR
      comp=Z,540nm,21.0s,MS4.9
KMTI  Karmit           80.64 303  P    P      06 08 23.1 +0.1
LOMF  Lomont           80.68 331⇑eP    P      06 08 22.6 -0.2
AQBJ  Aqaba            80.71 302  P    P      06 08 23.8 +0.4
MBH   Mount Berech     80.74 303  P    P      06 08 23.9 +0.3
SAL   Salo             80.79 328 eP    P      06 08 23.1 -0.4
JMQS  Jabal Moqyreh    80.80 301  P    P      06 08 24.9 +1.0
EIL   Elat             80.81 302  P    P      06 08 24.3 +0.4
EIL   Elat             80.81 302 eP    P      06 08 24.3 +0.4
      comp=Z,204nm,1.4s,mb5.9
KBRS  Khaybar          80.85 297  P    P      06 08 24.9 +0.7
TBKS  Tabuk            80.85 300  P    P      06 08 25.4 +1.2
ALWS  Ilw as Safayha   81.00 302  P    P      06 08 26.1 +1.2
JMOS  Jabal al Moall   81.07 302  P    P      06 08 26.2 +0.9
JAN   Janina           81.11 318 eP    P      06 08 25.5 +0.2
EVR   Evrytania        81.21 317 eP    P      06 08 23.7 -2.2
LKBD  Leukerbad        81.22 330 ⇑P    P      06 08 25.6 -0.1
LKBD                             ⇓P           06 08 26.0
VAI   Varese           81.24 329 eP    P      06 08 25.3 -0.5
HAQS  Haql             81.26 302  P    P      06 08 27.2 +0.9
MMK   Mattmark         81.38 329 ⇑P    P      06 08 28.8 +2.3
RSM   Repubblica di    81.42 326 eP    P      06 08 27.9 +1.1
MCGN  Macugnaga        81.45 329 eP    P      06 08 26.9  0.0
FSSB  Fossombrone      81.48 325 eP    P      06 08 27.3 +0.1
DIX   Grande Dixence   81.56 330 ⇑P    P      06 08 27.8 +0.3
CABF  La Chapelle      81.57 331⇑iP    P      06 08 27.2 -0.3
      comp=Z,362nm,1.7s,mb5.7
CABF  La Chapelle      81.57 331⇑iP    P      06 08 27.2 -0.3
CABF                             pmax  pmax
      comp=Z,181nm,1.7s,mb5.7
CING  Cingoli          81.57 325 eP    P      06 08 29.3 +1.7
ARV   Arcevia          81.58 325 eP    P      06 08 27.7 +0.1
BDAS  Al Bad‘          81.60 301  P    P      06 08 28.6 +0.5
ZCCA  Zocca            81.66 327 eP    P      06 08 29.4 +1.4
AYUS  ‘Aynunah         81.67 301  P    P      06 08 29.3 +0.9
JFWS  Jewell Farm      81.69  36  PFAKE       06 08 40.0  +12
JFWS                             LR    LR
      comp=Z,2µm,20.0s,MS5.4
SFI   Santa Sofia      81.69 326 eP    P      06 08 29.0 +0.8
ORO   Oropa            81.73 329 eP    P      06 08 28.2 -0.2
FGMS  Monte Sant’Ang   81.75 322 eP    P      06 08 28.4 -0.1
EMV   Vieux Emosson    81.75 330 ⇑P    P      06 08 28.5  0.0
RAO   Raoul Island     81.76 145  PFAKE       06 08 40.0  +11
RAO                              LR    LR
      comp=Z,2µm,20.0s,MS5.5
SEI   Scarperia        81.76 326 eP    P      06 08 30.1 +1.5
PGD   Poggio Sodo      81.76 326 eP    P      06 08 29.7 +1.1
VMG   Vicchio          81.76 326 eP    P      06 08 30.1 +1.5
SNTG  Esanatoglia      81.78 325 eP    P      06 08 28.8 +0.1
FLN   La Foliniere     81.80 336 eP    P      06 08 28.1 -0.6
      comp=Z,353nm,1.6s,mb5.7
FLN                              eR
      comp=Z,4µm,23.0s
FLN   La Foliniere     81.80 336 eP    P      06 08 28.1 -0.6
FLN                              pmax  pmax
      comp=Z,176nm,1.6s,mb5.7
FLN                              MLR   MLR
      comp=Z,4µm,23.0s,MS5.7
GSCL  Gusciola         81.82 327 eP    P      06 08 29.7 +0.9
ERBM  Eremo            81.83 327 eP    P      06 08 30.0 +1.0
LDF   La Druitiere     81.85 336⇑iP    P      06 08 28.3 -0.6
      comp=Z,379nm,1.6s,mb5.8
LDF   La Druitiere     81.85 336⇑iP    P      06 08 28.3 -0.6
LDF                              pmax  pmax
      comp=Z,189nm,1.6s,mb5.8
BADI  Badiali          81.85 325  P    P      06 08 29.8 +0.7
KSU1  Kansas State U   81.86  42 eP    P      06 08 27.5 -1.7
CRE   Caprese Michel   81.88 326 eP    P      06 08 29.7 +0.5
BOB   Bobbio (Coli)    81.91 328 eP    P      06 08 29.5 +0.2
RGNG  Rignano Grg      81.94 322 eP    P      06 08 29.5  0.0
TERO  Teramo           82.02 324 eP    P      06 08 30.0 +0.1
BDI   Bagni Di Lucca   82.06 327 eP    P      06 08 29.9 -0.2
VLC   Villacollemand   82.06 327 eP    P      06 08 30.2 +0.1
      comp=Z,138nm,1.0s,mb5.8
SSF   Saint Saulge     82.06 333⇑iP    P      06 08 29.7 -0.4
      comp=Z,156nm,1.2s,mb5.5
SSF   Saint Saulge     82.06 333⇑iP    P      06 08 29.7 -0.4
SSF                              pmax  pmax
      comp=Z,78nm,1.2s,mb5.5
HYF   Humbligny        82.16 333 eP    P      06 08 30.5 -0.1
LTRZ  Laterza          82.25 321 eP    P      06 08 31.3 +0.1
GRR   Gorron           82.25 336 eP    P      06 08 30.6 -0.4
      comp=Z,267nm,1.3s,mb5.7
GRR   Gorron           82.25 336 eP    P      06 08 30.6 -0.4
GRR                              pmax  pmax
      comp=Z,133nm,1.3s,mb5.7
CSNT  Castellina Chi   82.27 326 eP    P      06 08 30.4 -0.8
LPL   La Plagne        82.28 330⇑iP    P      06 08 31.6 +0.3
      comp=Z,176nm,1.1s,mb5.6
LPL   La Plagne        82.28 330⇑iP    P      06 08 31.6 +0.3
LPL                              pmax  pmax
      comp=Z,88nm,1.1s,mb5.6
LPG   La Plagne        82.29 330⇑iP    P      06 08 31.8 +0.5
      comp=Z,214nm,1.1s,mb5.7
LPG   La Plagne        82.29 330⇑iP    P      06 08 31.8 +0.5
LPG                              pmax  pmax
      comp=Z,107nm,1.1s,mb5.7
SMF   Signal de Mont   82.31 332⇑iP    P      06 08 31.1 -0.3
      comp=Z,354nm,1.2s,mb5.9
SMF   Signal de Mont   82.31 332⇑iP    P      06 08 31.1 -0.3
SMF                              pmax  pmax
      comp=Z,177nm,1.2s,mb5.9
AQU   L’Aquila         82.32 324  P    P      06 08 32.0 +0.5
AQU                              pmax  pmax
      comp=Z,180nm,1.0s,mb6.0
AQU   L’Aquila         82.32 324 eP    P      06 08 32.5 +0.9
VLI   Veliai           82.34 315 eP    P      06 08 32.0 +0.2
AVF   Avril sur Loir   82.35 333⇑iP    P      06 08 31.4 -0.2
      comp=Z,771nm,1.6s,mb6.1
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AVF   Avril sur Loir   82.35 333⇑iP    P      06 08 31.4 -0.2
AVF                              pmax  pmax
      comp=Z,386nm,1.6s,mb6.1
PII   Pisa             82.37 327 eP    P      06 08 31.0 -0.7
VLS   Valsamata        82.39 317 eP    P      06 08 31.0 -1.0
INTR  Introdacqua      82.39 324 eP    P      06 08 31.5 -0.4
FG5   Orsara di Pugl   82.39 322 eP    P      06 08 32.6 +0.7
TATS  Tathlith         82.40 290  P    P      06 08 33.3 +0.9
FG4   Candela          82.41 322  P    P      06 08 32.5 +0.5
CII   Carovilli        82.45 323 eP    P      06 08 34.3 +2.0
ITM   Ithomi           82.50 316 eP    P      06 08 31.8 -0.8
FIAM  Fiamignano       82.52 324  P    P      06 08 32.8 +0.3
AMTX  Amarillo         82.53  48 eP    P      06 08 32.9 +0.1
      comp=Z,56nm,1.1s,mb5.5
AMTX                             LR    LR
      comp=Z,1µm,20.0s,MS5.3
RNI2  Rionero Sannit   82.54 323  P    P      06 08 33.6 +0.9
MIDA  Miranda          82.54 323  P    P      06 08 32.5 -0.2
PTQR  Pietraquaria     82.60 324 eP    P      06 08 33.3 +0.3
MNS   Montasola        82.60 325 eP    P      06 08 32.5 -0.5
PSB1  Pescosannita     82.64 323  P    P      06 08 34.5 +1.3
SDI   San Donato       82.68 323 eP    P      06 08 33.1 -0.3
YNBS  Yanbu‘ al Bahr   82.68 297  P    P      06 08 34.8 +1.0
BNI   Bardonecchia     82.70 330 eP    P      06 08 33.5 +0.1
BNI                              pmax  pmax
      comp=Z,60nm,1.0s,mb5.6
BNI   Bardonecchia     82.70 330 eP    P      06 08 33.5 +0.1
      comp=Z,60nm,1.0s,mb5.6
BGF   Bois d’Agland    82.72 333⇑iP    P      06 08 33.3 -0.2
      comp=Z,345nm,1.7s,mb5.8
BGF   Bois d’Agland    82.72 333⇑iP    P      06 08 33.3 -0.2
BGF                              pmax  pmax
      comp=Z,172nm,1.7s,mb5.8
CPRX  Cap Rock         82.73  50 eP    P      06 08 34.0 +0.2
GDM   Grand’Maison     82.77 330 eP    P      06 08 34.1 +0.3
GDM   Grand’Maison     82.77 330 eP    P      06 08 34.2 +0.4
ORI   Oriolo Calabro   82.85 321 eP    P      06 08 35.2 +0.9
FIN   Finale Ligure    82.85 328 eP    P      06 08 33.2 -1.1
SGMF  Saint Gilles     82.86 337⇑iP    P      06 08 35.2 +1.0
      comp=Z,259nm,1.4s,mb5.8
SGMF  Saint Gilles     82.86 337⇑iP    P      06 08 35.2 +1.0
SGMF                             pmax  pmax
      comp=Z,129nm,1.4s,mb5.8
MNTX  Cornudas Mount   82.87  52 eP    P      06 08 35.0 +0.3
      comp=Z,76nm,1.4s,mb5.5
MNTX                             LR    LR
      comp=Z,1µm,20.0s,MS5.2
MTCE  Montecelio       82.88 324  P    P      06 08 36.2 +1.8
RFI   Roccamonfina     82.94 323  P    P      06 08 34.4 -0.4
MBDF  Montbardon       82.95 329⇑iP    P      06 08 34.3 -0.4
      comp=Z,105nm,0.9s,mb5.6
MBDF  Montbardon       82.95 329⇑iP    P      06 08 34.3 -0.4
MBDF                             pmax  pmax
      comp=Z,53nm,0.9s,mb5.6
SLCN  Sala Consilina   82.95 322 eP    P      06 08 35.0 +0.2
SGO   Sicignano        82.96 322 eP    P      06 08 34.7 -0.2
DOI   San Damiano      82.96 329 eP    P      06 08 33.0 -1.8
ROSF  Rostrenen        82.99 337⇑iP    P      06 08 34.8 -0.1
      comp=Z,199nm,1.1s,mb5.8
ROSF  Rostrenen        82.99 337⇑iP    P      06 08 34.8 -0.1
ROSF                             pmax  pmax
      comp=Z,99nm,1.1s,mb5.8
MSC   Monte Massico    83.03 323 eP    P      06 08 35.0 -0.2
GDL2  Guadalupe Moun   83.07  51 eP    P      06 08 36.1 +0.4
ORIF  Oris-en-Rattie   83.11 330⇑iP    P      06 08 35.7 +0.2
      comp=Z,114nm,1.1s,mb5.5
ORIF                             eR
      comp=Z,4µm,17.2s
SURF  Saint Ours       83.14 329 eP    P      06 08 36.0 +0.3
TOLF  Tolfa            83.15 325  P    P      06 08 37.7 +1.9
TCF   Toulx Ste Croi   83.17 333⇑iP    P      06 08 35.9 +0.1
      comp=Z,232nm,1.3s,mb5.8
TCF   Toulx Ste Croi   83.17 333⇑iP    P      06 08 35.9 +0.1
TCF                              pmax  pmax
      comp=Z,116nm,1.3s,mb5.8
MGR   Morigerati       83.19 321  P    P      06 08 35.8 -0.3
MAON  Monte Argentar   83.21 326  P    P      06 08 37.5 +1.4
IMI   Imperia          83.23 328 eP    P      06 08 35.7 -0.5
SAOF  Saorge           83.29 329 eP    P      06 08 37.3 +0.8
CLNB  Carlsbad         83.30  51 eP    P      06 08 37.3 +0.5
AUTN  L’Aution         83.33 329 eP    P      06 08 36.3 -0.4
QUIF  Quistinic        83.34 337 eP    P      06 08 36.5 -0.2
      comp=Z,187nm,1.4s,mb5.6
QUIF  Quistinic        83.34 337 eP    P      06 08 36.5 -0.2
QUIF                             pmax  pmax
      comp=Z,94nm,1.4s,mb5.6
TOUF  Mont Tournerai   83.38 329 eP    P      06 08 36.7 -0.3
TIP   Timpagrande      83.42 320 eP    P      06 08 37.3 +0.1
BLJS  Baljurashi       83.43 291  P    P      06 08 38.5 +0.8
SBF   Sospel           83.44 329⇑iP    P      06 08 36.6 -0.7
      comp=Z,145nm,1.0s,mb5.6
SBF   Sospel           83.44 329⇑iP    P      06 08 36.6 -0.7
SBF                              pmax  pmax
      comp=Z,73nm,1.0s,mb5.7
NAMS  An Nimas         83.52 290  P    P      06 08 39.5 +1.4
MVIF  Mont Vial        83.52 329 eP    P      06 08 37.3 -0.3
REVF  Revere           83.57 329 eP    P      06 08 38.9 +1.0
VIVF  Saint-Julien-l   83.59 331⇑iP    P      06 08 38.2 +0.3
      comp=Z,263nm,1.2s,mb5.9
VIVF  Saint-Julien-l   83.59 331⇑iP    P      06 08 38.2 +0.3
VIVF                             pmax  pmax
      comp=Z,132nm,1.2s,mb5.9
VENT  Ventotene        83.60 323  P    P      06 08 40.3 +2.2
MFF   Saint Martin d   83.64 335⇑iP    P      06 08 38.3 +0.2
      comp=Z,253nm,1.1s,mb6.0
MFF   Saint Martin d   83.64 335⇑iP    P      06 08 38.3 +0.2
MFF                              pmax  pmax
      comp=Z,127nm,1.1s,mb6.0
GRI   Girifalco        83.86 320  P    P      06 08 39.9 +0.4
PGF   Pioggiola        83.96 327 eP    P      06 08 39.6 -0.3
      comp=Z,220nm,1.4s,mb5.8
PGF   Pioggiola        83.96 327 eP    P      06 08 39.6 -0.3
PGF                              pmax  pmax
      comp=Z,110nm,1.4s,mb5.8
FRF   La Foret Royal   83.99 329 eP    P      06 08 39.6 -0.4
      comp=Z,409nm,1.7s,mb6.0
FRF   La Foret Royal   83.99 329 eP    P      06 08 39.6 -0.4
FRF                              pmax  pmax
      comp=Z,205nm,1.7s,mb6.0
SMRF  Simiane la Rot   84.03 330 eP    P      06 08 40.4 +0.2
      comp=Z,275nm,1.8s,mb5.8
VILF  Villemus         84.08 330 eP    P      06 08 40.8 +0.3
TAVF  Tavernes         84.16 329 eP    P      06 08 41.1 +0.2
WMOK  Wichita Mounta   84.17  46 eP    P      06 08 40.0 -1.1
WMOK                             pmax  pmax
      comp=Z,90nm,1.5s,mb5.7
WMOK                             MLR   MLR
      comp=Z,2µm,20.0s,MS5.4
WMOK  Wichita Mounta   84.17  46 eP    P      06 08 40.0 -1.1
      comp=Z,90nm,1.5s,mb5.7
WMOK                             LR    LR
      comp=Z,2µm,20.0s,MS5.4
LMR   La Mourre        84.24 329⇑iP    P      06 08 41.0 -0.3
      comp=Z,569nm,1.6s,mb6.2
LMR   La Mourre        84.24 329⇑iP    P      06 08 41.0 -0.3
LMR                              pmax  pmax
      comp=Z,284nm,1.6s,mb6.2
RJF   Les Rejaudoux    84.26 333⇑iP    P      06 08 41.6 +0.3
      comp=Z,178nm,1.2s,mb5.8
RJF                              eR
      comp=Z,5µm,22.8s
RJF   Les Rejaudoux    84.26 333⇑iP    P      06 08 41.6 +0.3
RJF                              pmax  pmax
      comp=Z,89nm,1.2s,mb5.8
RJF                              MLR   MLR
      comp=Z,5µm,22.8s,MS5.8
PRAF  Pradon           84.33 330 eP    P      06 08 42.1 +0.4
TREF  Trevaresse       84.40 330 eP    P      06 08 42.6 +0.5
CAF   Calviac          84.42 333⇑iP    P      06 08 42.9 +0.8
      comp=Z,229nm,1.2s,mb5.9
CAF   Calviac          84.42 333⇑iP    P      06 08 42.9 +0.8
CAF                              pmax  pmax
      comp=Z,115nm,1.2s,mb5.9
LASF  Ste Croix        84.55 331⇑iP    P      06 08 43.4 +0.6
      comp=Z,177nm,1.4s,mb5.7
BERF  Bertagne         84.56 329 eP    P      06 08 43.3 +0.4
GELF  Grande-Etoile    84.60 330 eP    P      06 08 43.3 +0.3
SOI   Samo             84.64 320 eP    P      06 08 43.5 +0.1
SLNA  Salina           84.80 321  P    P      06 08 45.7 +1.5
LFF   La Frestale      84.84 333⇑iP    P      06 08 44.9 +0.7
      comp=Z,244nm,1.1s,mb6.0
LFF   La Frestale      84.84 333⇑iP    P      06 08 44.9 +0.7
LFF                              pmax  pmax
      comp=Z,122nm,1.1s,mb5.9
```

AAM	**Ann Arbor**	**84.85**	**32**	PFAKE		06 09 00.0	+16
AAM				LR	LR		
	comp=Z,2μm,20.0s,MS5.5						
MTTG	**Motta San Giov**	**84.86**	**320**	P	**P**	**06 08 45.7**	**+1.2**
SLM	**Saint Louis**	**85.20**	**38**	*e*P	**P**	**06 08 46.0**	**-0.2**
SLM				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.7						
SLM	**Saint Louis**	**85.20**	**38**	*e*P	**P**	**06 08 46.0**	**-0.2**
	comp=Z,52nm,0.9s,mb5.7						
USI	**Ustica**	**85.42**	**322**	P	**P**	**06 08 47.2**	**-0.1**
LTX	**Lajitas**	**85.61**	**53**	*e*P	**P**	**06 08 48.7**	**+0.2**
LTX				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.6						
LTX				MLR	MLR		
	comp=Z,2μm,21.0s,MS5.4						
LTX	**Lajitas**	**85.61**	**53**	*e*P	**P**	**06 08 48.7**	**+0.2**
	comp=Z,43nm,1.1s,mb5.6						
LTX				LR	LR		
	comp=Z,2μm,21.0s,MS5.4						
TXAR	**Lajitas Array**	**85.61**	**53**	P	**P**	**06 08 49.0**	**+0.5**
	comp=Z,16nm,0.9s,mb5.3,baz=292,slow=3.5,SNR=62						
TXAR				PKPPKP		06 34 59.8	
	comp=Z,1.0nm,1.1s,baz=180,slow=2.5,SNR=3.6						
FVM	**French Village**	**85.65**	**39**	*e*P	**P**	**06 08 44.8**	**-3.6**
FVM				pmax	pmax		
	comp=Z,65nm,1.3s,mb5.7						
FVM	**French Village**	**85.65**	**39**	*e*P	**P**	**06 08 44.8**	**-3.6**
	comp=Z,65nm,1.3s,mb5.7						
MTLF	**Montolieu**	**85.77**	**332**	⇑*i*P	**P**	**06 08 49.6**	**+0.7**
	comp=Z,321nm,1.5s,mb6.0						
MTLF	**Montolieu**	**85.77**	**332**	⇑*i*P	**P**	**06 08 49.6**	**+0.7**
MTLF				pmax	pmax		
	comp=Z,160nm,1.5s,mb6.0						
PZI	**Palazzolo**	**85.97**	**320**	*e*P	**P**	**06 08 50.3**	**+0.2**
LRDF	**Laroque-de-Fa**	**86.01**	**331**	*e*P	**P**	**06 08 50.9**	**+0.8**
LRDF	**Laroque-de-Fa**	**86.01**	**331**	*e*P	**P**	**06 08 50.7**	**+0.6**
LRDF				*e*P		06 08 50.9	
ERC	**Erice**	**86.23**	**322**	P	**P**	**06 08 53.4**	**+2.0**
SJAF	**Saint Jean de**	**86.29**	**331**	*e*P	**P**	**06 08 51.7**	**+0.2**
EJON	**La Jonquera**	**86.32**	**331**	P	**P**	**06 08 52.3**	**+0.7**
	comp=Z,494nm,2.7s,mb6.3						
FILF	**Fillols**	**86.34**	**331**	*e*P	**P**	**06 08 52.2**	**+0.5**
FILF	**Fillols**	**86.34**	**331**	*e*P	**P**	**06 08 51.9**	**+0.2**
FILF				*e*P		06 08 52.2	
ERPA	**Erie**	**86.37**	**30**	PFAKE		06 09 00.0	+8.1
ERPA				LR	LR		
	comp=Z,2μm,22.0s,MS5.5						
VSL	**Villasalto**	**86.39**	**325**	*e*P	**P**	**06 08 52.0**	**-0.1**
	comp=Z,113nm,1.3s,mb5.9						
MLS	**Moulis**	**86.49**	**332**	*e*P	**P**	**06 08 53.1**	**+0.6**
SALF	**Salau**	**86.63**	**332**	*e*P	**P**	**06 08 54.4**	**+1.2**
NCB	**Newcomb**	**86.64**	**25**	PFAKE		06 09 00.0	+6.8
NCB				LR	LR		
	comp=Z,2μm,20.0s,MS5.5						
VALF	**Valcebollere**	**86.67**	**331**	*e*P	**P**	**06 08 54.3**	**+1.0**
EPF	**Esparros**	**86.67**	**333**	⇑*i*P	**P**	**06 08 53.6**	**+0.2**
	comp=Z,134nm,1.1s,mb5.8						
EPF	**Esparros**	**86.67**	**333**	⇑*i*P	**P**	**06 08 53.6**	**+0.2**
EPF				pmax	pmax		
	comp=Z,67nm,1.1s,mb5.8						
MELF	**Melles**	**86.67**	**332**	*e*P	**P**	**06 08 53.6**	**+0.2**
ALLY	**Alegheny Colle**	**86.72**	**30**	P	**P**	**06 08 52.6**	**-1.1**
LABF	**Labassere**	**86.75**	**333**	*e*P	**P**	**06 08 53.8**	**+0.1**
RESF	**Ens**	**86.87**	**333**	*e*P	**P**	**06 08 55.8**	**+1.5**
REYF	**Montagne du Re**	**86.88**	**333**	*e*P	**P**	**06 08 56.3**	**+1.9**
USIN	**University of**	**86.88**	**37**	*e*P	**P**	**06 08 54.6**	**0.0**
	comp=Z,58nm,0.9s,mb5.8						
ACSO	**Alum Creek Sta**	**86.89**	**33**	*e*P	**P**	**06 08 54.0**	**-0.5**
	comp=Z,30nm,0.7s,mb5.6						
ACSO				LR	LR		
	comp=Z,3μm,21.0s,MS5.7						
VIEF	**Viey**	**86.91**	**333**	*e*P	**P**	**06 08 55.6**	**+1.1**
JCT	**Junction City**	**86.91**	**50**	*e*P	**P**	**06 08 54.5**	**-0.4**
JCT				pmax	pmax		
	comp=Z,101nm,1.5s,mb5.8						
JCT				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.3						
JCT	**Junction City**	**86.91**	**50**	*e*P	**P**	**06 08 54.5**	**-0.4**
	comp=Z,102nm,1.5s,mb5.8						
JCT				LR	LR		
	comp=Z,1μm,20.0s,MS5.3						
MIAR	**Mount Ida**	**86.95**	**43**	*e*P	**P**	**06 08 54.8**	**-0.2**
	comp=Z,1.9nm,1.0s						
MIAR				LR	LR		
	comp=Z,89nm,20.0s						
OSSF	**Osses**	**86.99**	**334**	*e*P	**P**	**06 08 54.6**	**-0.3**
PARMO	**Parma**	**87.04**	**39**	*e*P	**P**	**06 08 55.3**	**0.0**
EBIE	**Bielsa**	**87.05**	**333**	P	**P**	**06 08 56.6**	**+1.4**
	comp=Z,1μm,3.7s						
ETSF	**Etsaut**	**87.08**	**333**	⇑*i*P	**P**	**06 08 56.5**	**+1.1**
	comp=Z,607nm,1.4s,mb6.3						
ETSF	**Etsaut**	**87.08**	**333**	⇑*i*P	**P**	**06 08 56.5**	**+1.1**
ETSF				pmax	pmax		
	comp=Z,303nm,1.4s,mb6.3						
LARF	**Larrau**	**87.10**	**334**	*e*P	**P**	**06 08 56.5**	**+1.1**
LARF	**Larrau**	**87.10**	**334**	*e*P	**P**	**06 08 56.6**	**+1.2**
EALK	**Alkurruntz**	**87.10**	**334**	P	**P**	**06 08 56.3**	**+0.9**
	comp=Z,534nm,1.9s,mb6.5						
SJPF	**Ste Jean**	**87.11**	**334**	⇑*i*P	**P**	**06 08 56.5**	**+1.0**
	comp=Z,122nm,1.2s,mb5.7						
SJPF	**Ste Jean**	**87.11**	**334**	⇑*i*P	**P**	**06 08 56.5**	**+1.0**
SJPF				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.7						
FDAF	**Les Forges d'A**	**87.16**	**333**	*e*P	**P**	**06 08 56.8**	**+1.1**
FDAF	**Les Forges d'A**	**87.16**	**333**	*e*P	**P**	**06 08 56.6**	**+0.9**
FDAF				*e*P		06 08 56.8	
WCI	**Wyandotte Cave**	**87.25**	**36**	*e*P	**P**	**06 08 54.1**	**-2.2**
WCI				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.6						
WCI				MLR	MLR		
	comp=Z,2μm,20.0s,MS5.4						
WCI	**Wyandotte Cave**	**87.25**	**36**	*e*P	**P**	**06 08 54.1**	**-2.2**
	comp=Z,31nm,0.8s,mb5.6						
WCI				LR	LR		
	comp=Z,2μm,20.0s,MS5.4						
EMIR	**Miracle**	**87.27**	**331**	P	**P**	**06 08 56.5**	**+0.2**
	comp=Z,1μm,3.8s						
WVL	**Waterville**	**87.41**	**22**	PFAKE		06 09 10.0	+13
WVL				LR	LR		
	comp=Z,17μm,22.0s,MS6.4						
HBAR	**Harrisburg**	**87.53**	**40**	*e*P	**P**	**06 08 56.6**	**-1.1**
PPT	**Papeete**	**87.56**	**117**	*e*LR	LR	06 36 08.4	
	comp=Z,7μm,26.0s,baz=317						
ELAN	**Lanestosa**	**87.68**	**335**	P	**P**	**06 08 59.2**	**+0.9**
	comp=Z,1μm,3.6s						
EMMW	**East Machias**	**87.84**	**20**	PFAKE		06 09 10.0	+11
EMMW				LR	LR		
	comp=Z,11μm,19.0s,MS6.3						
EPOB	**Poblet**	**87.92**	**332**	P	**P**	**06 08 58.8**	**-0.6**
	comp=Z,571nm,2.0s,mb6.5						
ESAC	**San Caprasio**	**88.11**	**333**	P	**P**	**06 09 01.9**	**+1.5**
	comp=Z,3μm,3.2s						
EARI	**Arriondas**	**88.14**	**337**	P	**P**	**06 09 01.9**	**+1.5**
	comp=Z,426nm,2.2s,mb6.3						
WVT	**Waverly**	**88.34**	**38**	*e*P	**P**	**06 09 01.5**	**-0.1**
WVT				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.6						
WVT				MLR	MLR		
	comp=Z,2μm,20.0s,MS5.4						
WVT	**Waverly**	**88.34**	**38**	*e*P	**P**	**06 09 01.5**	**-0.1**
	comp=Z,40nm,1.1s,mb5.6						
WVT				LR	LR		
	comp=Z,2μm,20.0s,MS5.4						
SSPA	**Standing Stone**	**88.42**	**29**	*e*P	**P**	**06 09 01.6**	**-0.2**
	comp=Z,268nm,1.8s,mb6.2						
SSPA				LR	LR		
	comp=Z,2μm,20.0s,MS5.6						
ERTA	**Horta de San J**	**88.53**	**332**	P	**P**	**06 09 02.7**	**+0.3**
	comp=Z,622nm,2.2s,mb6.5						
MCWV	**Mont Chateau**	**88.58**	**31**	*e*P	**P**	**06 09 03.1**	**+0.5**
	comp=Z,216nm,1.5s,mb6.3						
MCWV				LR	LR		
	comp=Z,3μm,19.0s,MS5.7						
EBR	**Ebro Roquetas**	**88.59**	**332**	*e*PCP	PcP	06 09 05.2	+0.6
NATX	**Nacogdoches**	**88.64**	**45**	PFAKE		06 09 10.0	+6.9
NATX				LR	LR		
	comp=Z,2μm,19.0s,MS5.5						
EPON	**Pontenova**	**88.66**	**338**	P	**P**	**06 09 03.6**	**+0.7**
	comp=Z,610nm,2.9s,mb6.4						
HRV	**Harvard--Oak R**	**88.77**	**24**	P	**P**	**06 09 10.0**	**+6.5**
HRV				MLR	MLR		
	comp=Z,3μm,20.0s,MS5.7						
HRV	**Harvard--Oak R**	**88.77**	**24**	PFAKE		06 09 10.0	+6.5
HRV				LR	LR		
	comp=Z,3μm,20.0s,MS5.7						
WES	**Weston**	**88.95**	**24**	PFAKE		06 09 20.0	+16
WES				LR	LR		
	comp=Z,4μm,19.0s,MS5.8						
OXF	**Oxford**	**88.97**	**40**	*e*P	**P**	**06 08 59.6**	**-5.0**
OXF				pmax	pmax		
	comp=Z,144nm,1.1s,mb6.2						
OXF				MLR	MLR		
	comp=Z,2μm,19.0s,MS5.6						
OXF	**Oxford**	**88.97**	**40**	*e*P	**P**	**06 08 59.6**	**-5.0**
	comp=Z,144nm,1.1s,mb6.2						
OXF				LR	LR		
	comp=Z,2μm,19.0s,MS5.6						
EMOS	**Mosqueruela**	**89.33**	**332**	P	**P**	**06 09 09.1**	**+2.9**
	comp=Z,737nm,2.8s,mb6.5						
EINC	**Incio**	**89.33**	**338**	P	**P**	**06 09 08.2**	**+2.1**
	comp=Z,788nm,3.6s						
STS	**Santiago**	**89.44**	**339**	P	**P**	**06 09 07.6**	**+1.0**
STS				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.6						
STS	**Santiago**	**89.44**	**339**	P	**P**	**06 09 07.6**	**+1.0**
	comp=Z,42nm,1.2s,mb5.6						
HKT	**Hockley**	**89.46**	**47**	PFAKE		06 09 20.0	+13
HKT				LR	LR		
	comp=Z,2μm,19.0s,MS5.6						
EMAZ	**Mazaricos**	**89.49**	**339**	P	**P**	**06 09 07.6**	**+0.7**
	comp=Z,820nm,3.4s						
ERUA	**La Rua**	**89.52**	**338**	P	**P**	**06 09 08.1**	**+1.1**
ERUA				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.8						
ERUA	**La Rua**	**89.52**	**338**	P	**P**	**06 09 08.1**	**+1.0**
	comp=Z,58nm,1.2s,mb5.8						
ECAL	**Calabor**	**89.83**	**337**	P	**P**	**06 09 09.9**	**+1.4**
	comp=Z,2μm,5.7s						
SDMD	**Soldier's Deli**	**89.88**	**29**	P	**P**	**06 09 08.2**	**-0.6**
SWET	**Sewanee**	**89.94**	**37**	*e*P	**P**	**06 09 07.8**	**-1.4**
PBRG	**Braganca**	**89.95**	**337**	*e*P	**P**	**06 09 10.3**	**+1.2**
	comp=Z,41nm,1.3s,mb5.6						
PBRG	**Braganca**	**89.95**	**337**	*e*P	**P**	**06 09 08.7**	**-0.4**
EZAM	**Zamans**	**90.17**	**339**	P	**P**	**06 09 10.6**	**+0.5**
EZAM				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.8						
EZAM	**Zamans**	**90.17**	**339**	P	**P**	**06 09 10.6**	**+0.5**
	comp=Z,59nm,1.1s,mb5.8						
ELOB	**Lobios**	**90.26**	**338**	P	**P**	**06 09 11.3**	**+0.8**
	comp=Z,609nm,3.2s						
CPCT	**Cooper Cave**	**90.36**	**36**	*e*P	**P**	**06 09 08.4**	**-2.7**
ELN	**Prospectdale**	**90.36**	**33**	*e*P	**P**	**06 09 10.7**	**-0.3**
BLA	**Blacksburg**	**90.50**	**32**	P	**P**	**06 09 10.8**	**-0.9**
BLA				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.8						
BLA				MLR	MLR		
	comp=Z,3μm,19.0s,MS5.8						
BLA	**Blacksburg**	**90.50**	**32**	P	**P**	**06 09 10.8**	**-0.9**
	comp=Z,56nm,1.0s,mb5.8						
BLA				LR	LR		
	comp=Z,3μm,19.0s,MS5.8						
PVRL	**Vila Real**	**90.72**	**338**	*e*P	**P**	**06 09 13.9**	**+1.3**
	comp=Z,132nm,1.5s,mb6.0						
PVRL	**Vila Real**	**90.72**	**338**	*e*P	**P**	**06 09 11.1**	**-1.5**
CBN	**Corbin**	**90.76**	**30**	PFAKE		06 09 20.0	+7.1
CBN				LR	LR		
	comp=Z,3μm,20.0s,MS5.8						
MYNC	**Murphy**	**90.84**	**36**	*e*P	**P**	**06 09 12.8**	**-0.5**
MYNC				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.8						
MYNC				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.4						
MYNC	**Murphy**	**90.84**	**36**	*e*P	**P**	**06 09 12.8**	**-0.5**
	comp=Z,61nm,1.2s,mb5.8						
MYNC				LR	LR		
	comp=Z,1μm,20.0s,MS5.4						
ESDC	**Sonseca Array**	**91.09**	**334**	P	**P**	**06 09 14.4**	**+0.1**
	comp=Z,18nm,1.0s,mb5.4,baz=24,slow=3.3,SNR=35						
ESDC				PP	PP	06 12 52.3	-1.3
	comp=Z,2.1nm,0.8s,baz=32,slow=6.9,SNR=4.8						
ESDC	**Sonseca Array**	**91.09**	**334**	P	**P**	**06 09 14.3**	**-0.1**
	comp=Z,17nm,0.8s,mb5.4						
ESLA	**Sonseca Array**	**91.09**	**334**	*e*P	**P**	**06 09 13.6**	**-0.7**
	comp=Z,34nm,1.4s,mb5.5						
ESLA				LR	LR		
	comp=Z,23μm,21.0s,MS6.6						
PVIS	**Viseu**	**91.29**	**337**	*e*P	**P**	**06 09 17.0**	**+1.8**
	comp=Z,52nm,1.6s,mb5.6						
PVIS	**Viseu**	**91.29**	**337**	*e*P	**P**	**06 09 15.7**	**+0.5**
LRAL	**Lakeview Retre**	**91.31**	**39**	*e*P	**P**	**06 09 15.9**	**+0.4**
	comp=Z,27nm,1.2s,mb5.5						
LRAL				LR	LR		
	comp=Z,2μm,20.0s,MS5.5						
MTE	**Manteigas**	**91.48**	**337**	*e*P	**P**	**06 09 16.8**	**+0.7**
	comp=Z,96nm,1.2s,mb6.0						
MTE				*e*SKS	SKS	06 19 50.0	-2.6
MTE				*e*LQ		06 37 44.3	
MTE				*e*LR	LR	06 43 48.3	
	comp=Z,3μm,18.0s						
MTE	**Manteigas**	**91.48**	**337**	*e*P	**P**	**06 09 15.7**	**-0.4**
	comp=Z,91nm,1.3s,mb5.9						
EVIA	**Vianos**	**91.56**	**333**	P	**P**	**06 09 15.8**	**-0.7**
EVIA				pmax	pmax		
	comp=Z,147nm,1.3s,mb6.2						
EVIA	**Vianos**	**91.56**	**333**	P	**P**	**06 09 15.8**	**-0.7**
	comp=Z,147nm,1.3s,mb6.2						
TBI	**Tubuai**	**91.90**	**121**	*e*LQ		06 34 04.8	
TBI				*e*LR	LR	06 38 14.9	
	comp=Z,3μm,26.5s,baz=310						
PCBR	**Castelo Branco**	**91.98**	**337**	*e*P	**P**	**06 09 19.6**	**+1.1**
	comp=Z,53nm,1.7s,mb5.6						
PCBR	**Castelo Branco**	**91.98**	**337**	*e*P	**P**	**06 09 17.5**	**-1.0**
PTOM	**Tomar**	**92.45**	**337**	*e*P	**P**	**06 09 20.9**	**+0.3**
	comp=Z,88nm,1.4s,mb5.9						
EQES	**Quesada**	**92.51**	**333**	P	**P**	**06 09 21.2**	**+0.3**
	comp=Z,699nm,3.4s						
GOGA	**Godfrey**	**92.55**	**36**	P	**P**	**06 09 30.0**	**+8.8**
GOGA	**Godfrey**	**92.55**	**36**	PFAKE		06 09 30.0	+8.8
GOGA				LR	LR		
	comp=Z,121nm,19.0s						
EADA	**Adamuz**	**92.66**	**334**	P	**P**	**06 09 22.2**	**+0.6**
	comp=Z,372nm,2.3s,mb6.4						
EBAD	**Badajoz**	**92.86**	**336**	P	**P**	**06 09 24.2**	**+1.7**
	comp=Z,646nm,4.0s						
ELUQ	**Luque**	**93.11**	**334**	P	**P**	**06 09 25.6**	**+1.9**
ELUQ				pmax	pmax		
	comp=Z,100nm,1.5s,mb6.0						
ELUQ	**Luque**	**93.11**	**334**	P	**P**	**06 09 25.6**	**+1.9**
	comp=Z,100nm,1.5s,mb6.0						
EVO	**Evora**	**93.35**	**337**	⇑*i*P	**P**	**06 09 26.2**	**+1.4**
	comp=Z,158nm,1.7s,mb5.9						
EVO				*e*R			
	comp=Z,3μm,21.5s						
ELOJ	**Sierra Loja**	**93.45**	**333**	P	**P**	**06 09 25.5**	**+0.2**
ELOJ				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.5						
ELOJ	**Sierra Loja**	**93.45**	**333**	P	**P**	**06 09 25.4**	**+0.2**
	comp=Z,21nm,1.1s,mb5.5						
ERON	**Agron**	**93.46**	**333**	P	**P**	**06 09 26.1**	**+0.8**
	comp=Z,33nm,1.2s,mb5.6						
EMIN	**Mina Concepcio**	**93.67**	**335**	P	**P**	**06 09 26.9**	**+0.6**
	comp=Z,412nm,2.4s,mb6.4						
NHSC	**New Hope**	**94.18**	**34**	PFAKE		06 09 40.0	+11
NHSC				LR	LR		
	comp=Z,3μm,20.0s,MS5.7						
ESPR	**Espera**	**94.25**	**335**	P	**P**	**06 09 28.9**	**0.0**
	comp=Z,409nm,2.4s,mb6.4						
DWPF	**Disney**	**97.99**	**38**	PFAKE		06 10 00.0	+14
DWPF				LR	LR		
	comp=Z,2μm,19.0s,MS5.6						
RKT	**Rikitea**	**101.10**	**111**	*e*PS	PS	06 22 51.8	-20
RKT				*e*LR	LR	06 42 32.4	
	comp=Z,5μm,26.0s,baz=310						
KMBO	**Kilima Mbogo**	**101.21**	**279**	P	P	06 10 02.0	+1.0
	comp=Z,1.5nm,0.8s,baz=21,slow=12,SNR=6.2						
KMBO				PP	PP	06 14 11.1	-1.9
	comp=Z,1.1nm,0.6s,baz=43,slow=15,SNR=4.0						
KMBO	**Kilima Mbogo**	**101.21**	**279**	*e*Pdif	P	06 10 01.4	+0.3
	comp=Z,6.0nm,1.3s						
KMBO				LR	LR		
	comp=Z,3μm,19.0s,MS5.8						
TEIG	**Tepich**	**101.32**	**47**	PFAKE		06 10 10.0	+8.6
TEIG				LR	LR		
	comp=Z,769nm,20.0s,MS5.2						
MBAR	**Mbarara**	**105.43**	**285**	PFAKE		06 14 50.0	
MBAR				LR	LR		
	comp=Z,464nm,19.0s,MS5.0						
JTS	**JuntasAbangare**	**111.29**	**50**	PFAKE		06 15 00.0	+13
JTS				LR	LR		
	comp=Z,180nm,19.0s,MS4.7						
CASY	**Casey**	**112.62**	**193**	PFAKE		06 15 00.0	+12
CASY				LR	LR		
	comp=Z,459nm,19.0s,MS5.1						
SJG	**San Juan**	**113.04**	**29**	PFAKE		06 15 00.0	+10
SJG				LR	LR		
	comp=Z,1μm,20.0s,MS5.5						
LSZ	**Lusaka**	**117.39**	**275**	PFAKE		06 15 10.0	+11
LSZ				LR	LR		
	comp=Z,2μm,20.0s,MS5.8						
SDV	**Santo Domingo**	**119.66**	**38**	*e*PKPdf	PKPdf	06 14 59.5	-3.8
SDV				LR	LR		
	comp=Z,2μm,19.0s,MS5.7						
DBIC	**Dimbokro**	**121.20**	**320**	PKP	PKPdf	06 15 02.6	-3.8
	comp=Z,5.8nm,0.9s,baz=116,slow=3.9,SNR=4.9						
DBIC	**Dimbokro**	**121.20**	**320**	PKIKP	PKPdf	06 15 02.6	-3.8
DBIC				MLR	MLR		
	comp=Z,1μm,21.0s						
ROSC	**El Rosal**	**121.46**	**44**	PKP	PKPdf	06 15 05.5	-1.4
	comp=Z,6.5nm,1.0s,baz=88,slow=22,SNR=5.6						
VNDA	**Vanda**	**121.96**	**175**	PKP	PKPdf	06 15 03.1	-3.4
	comp=Z,4.7nm,1.0s,baz=317,slow=4.7,SNR=19						
VNDA	**Vanda**	**121.96**	**175**	*e*PKIKP	PKPdf	06 15 02.4	-4.0
VNDA				MLR	MLR		
	comp=Z,510nm,21.0s						
OTAV	**Otavalo**	**123.18**	**51**	PFAKE		06 15 20.0	+10
OTAV				LR	LR		
	comp=Z,700nm,20.0s,MS5.3						
LBTB	**Lobatse**	**125.46**	**268**	*e*PKIKP	PKPdf	06 15 10.5	-3.8
LBTB				MLR	MLR		
	comp=Z,1μm,20.0s,MS5.5						
MAW	**Mawson**	**125.96**	**208**	*e*P	PKPdf	06 15 11.3	-2.8
	comp=Z,9.2nm,1.0s						
MAW	**Mawson**	**125.96**	**208**	PKP	PKPdf	06 15 11.0	-3.1
	comp=Z,14nm,1.1s,baz=320,slow=2.1,SNR=7.0						
MAW	**Mawson**	**125.96**	**208**	PKIKP	PKPdf	06 15 11.0	-3.1
MAW				pmax	pmax		
	comp=Z,14nm,1.1s						
MAW	**Mawson**	**125.96**	**208**	*e*P	PKPdf	06 15 11.3	-2.8
MAW				LR	LR		
	comp=Z,632nm,20.0s,MS5.3						
SUR	**Sutherland**	**133.10**	**264**	PFAKE		06 15 40.0	+11
SUR				LR	LR		
	comp=Z,461nm,21.0s,MS5.2						
QSPA	**South Pole Qui**	**133.81**	**180**	⇓*i*P	PKPdf	06 15 26.7	-2.1
NNA	**Nana**	**133.94**	**58**	PFAKE		06 15 40.0	+9.3
NNA				LR	LR		
	comp=Z,142nm,20.0s,MS4.7						
SYO	**Syowa Base**	**134.55**	**210**	⇓PKPdf	PKPdf	06 15 25.0	-5.4
SYO	**Syowa Base**	**134.55**	**210**	⇓PKiKP		06 15 30.6	
SAML	**Samuel**	**138.82**	**39**	PFAKE		06 15 50.0	+10
SAML				LR	LR		
	comp=Z,400nm,20.0s,MS5.2						
RCBR	**Riachuelo**	**141.85**	**356**	PFAKE		06 15 50.0	+4.9
RCBR				LR	LR		
	comp=Z,1μm,20.0s,MS5.6						
LPAZ	**La Paz**	**142.48**	**52**	PKP	PKPdf	06 15 42.5	-3.6
	comp=Z,4.9nm,0.9s,baz=40,slow=2.9,SNR=4.2						
LPAZ	**La Paz**	**142.48**	**52**	PKIKP	PKPdf	06 15 42.5	-3.6
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.9s						
LPAZ	**La Paz**	**142.48**	**52**	*e*PKPdf	PKPdf	06 15 42.4	-3.7
LPAZ				LR	LR		
	comp=Z,631nm,20.0s,MS5.4						
LVC	**Limon Verde**	**146.89**	**60**	PKPbc	PKPbc	06 15 51.5	+0.6
	comp=Z,28nm,0.9s,baz=308,slow=4.1,SNR=5.0						
LVC	**Limon Verde**	**146.89**	**60**	*e*PKPbc	PKPbc	06 15 52.9	+2.0
LVC				LR	LR		
	comp=Z,1μm,20.0s,MS5.6						
SNAA	**Sanae**	**147.52**	**200**	*e*	PKPdf	06 15 57.8	+4.7
SNAA	**Sanae**	**147.52**	**200**	*e*	PKPdf	06 15 59.1	+6.0
SNAA	**Sanae**	**147.52**	**200**	*e*	PKPdf	06 16 02.0	+8.9
SNAA	**Sanae**	**147.52**	**200**	PKPbc	PKPdf	06 15 52.0	-1.1
	comp=Z,23nm,0.8s,baz=164,slow=2.6,SNR=55						
SNAA	**Sanae**	**147.52**	**200**	⇓*i*PKP2	PKPab	06 15 52.1	-3.6
SNAA				*e*		06 19 18.6	
SNAA	**Sanae**	**147.52**	**200**	⇓*i*PKPdf	PKPdf	06 15 52.1	-1.0
SNAA				*e*		06 15 57.8	
SNAA				*e*		06 15 59.1	
SNAA				*e*		06 16 02.0	
SNAA				*e*		06 19 18.6	
MOCB	**Mochara**	**147.84**	**54**	⇑*i*PKPdf	PKPdf	06 15 53.6	-1.5
VNA2	**Neumayer--Watz**	**149.11**	**199**	*e*	PKPdf	06 16 01.6	+5.9
VNA2	**Neumayer--Watz**	**149.11**	**199**	*e*	PKPdf	06 16 03.1	+7.4
VNA2	**Neumayer--Watz**	**149.11**	**199**	*e*	PKPdf	06 16 06.0	+10
VNA2	**Neumayer--Watz**	**149.11**	**199**	⇑*i*PKPdf	PKPdf	06 15 56.5	+0.8
VNA2				*e*		06 16 01.6	
VNA2				*e*		06 16 03.1	
VNA2				*e*		06 16 06.0	
VNA2				*e*		06 19 31.0	
VNA3	**Neumayer Olymp**	**149.40**	**198**	*e*	PKPdf	06 16 02.1	+6.0
VNA3	**Neumayer Olymp**	**149.40**	**198**	⇑*i*PKPdf	PKPdf	06 15 56.8	+0.7
VNA3				*e*		06 16 02.1	
VNA3				*e*		06 19 31.0	
VNA1	**Neumayer--Stat**	**149.51**	**199**	⇑*i*P	PKPdf	06 15 55.2	-1.1
BAO	**Brasilia Array**	**150.45**	**19**	P	PKPdf	06 15 56.9	-2.5
BAO				*e*		06 16 04.0	
BAO				*e*		06 16 25.1	
BDFB	**Brasilia**	**150.46**	**19**	PKP	PKPdf	06 15 57.6	-1.7
	comp=Z,11nm,0.9s,baz=327,slow=3.7,SNR=15						
BDFB				PKPbc	PKPdf	06 16 02.5	+3.1
	comp=Z,39nm,0.9s,baz=310,slow=1.8,SNR=28						
TLL	**Tololo Astrono**	**150.75**	**73**	*i* P	PKPdf	06 16 03.4	+3.9
FCH	**Farellones**	**152.92**	**78**	*i* P	PKPdf	06 16 07.8	+5.2
PMSA	**Palmer Station**	**154.73**	**154**	PFAKE		06 16 10.0	+6.0
PMSA				LR	LR		
	comp=Z,901nm,21.0s,MS5.6						
CPUP	**Villa Florida**	**156.48**	**47**	PKP	PKPdf	06 16 06.7	-0.8
	comp=Z,0.0nm,0.3s,baz=265,slow=7.8,SNR=2.4						
CPUP				PKPab	PKPab	06 16 33.2	-1.3
	comp=Z,0.0nm,0.6s,baz=239,slow=20,SNR=1.7						
TRQA	**Tornquist**	**161.13**	**80**	PFAKE		06 16 20.0	+7.4
TRQA				LR	LR		
	comp=Z,1μm,21.0s						
EFI	**East Falkland**	**164.70**	**127**	PKIKP	PKPdf	06 16 20.0	+4.3
EFI				MLR	MLR		
	comp=Z,324nm,20.0s						
EFI	**East Falkland**	**164.70**	**127**	PFAKE		06 16 20.0	+4.3
EFI				LR	LR		
	comp=Z,324nm,20.0s						

JMA 14 06:00:54.6±0.1**,44.16N**×**141.70E,h9**^{km}±3^{km}**,M2.1,**
Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JYG	**Yagishiri**	**0.33**	**324**	P	Pg	06 01 01.3	-0.1
JYG				*e*S	Sg	06 01 06.7	+0.7

NIED ***14*** *06:01:00,44.10N×141.70E,h5^{km},Mw4.6 Best double couple: $M_0$9.86×10^{15} NP1:ϕ_s355°,δ60°,λ58°. NP2:ϕ_s226°, δ43°,λ133°.*

IDC ***14*** *06:01:15.8±0.6,44.15N×141.62E,mb4.0/16,mb1 4.3/16, mb1mx4.2/23,Error ellipse: s-maj=17.4km s-min=8.0km az=5.0*

MOS ***14*** *06:01:15.7±1.2,44.08N×141.82E,h10^{km},mb5.0/18,Error ellipse: s-maj=14.7km s-min=8.8km az=84.3*

BJI ***14*** *06:01:16.0,44.28N×142.13E,h27^{km},mb4.8*

NEIC ***14*** *06:01:17.4±0.4,44.14N×141.85E,h10^{km},mb4.8/20, MW4.6(NIED),Error ellipse: s-maj=11.4km s-min=8.1km az=128.0*

NEIC Recorded [3 JMA] in the Haboro and Shibetsu areas; [2 JMA] in the Numata area; [1 JMA] in the Otaru area.

JMA ***14*** *06:01:18.0±0.1,44.08N×141.72E,h9^{km}±2^{km},M4.7*

JMA Felt III J1.

ISC 14 06:01:17.9±0.4**,44.09N**±0.03×**141.75E**±0.06**,h24**^{km}±3^{km}**,**
n88,σ**0**$\overset{s}{.}$**97**/83**,mb4.5**/39**,4C-5D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JSS	**Shosan**	**0.32**	**13**	⇑P	**Pb**	**06 01 25.1**	**-0.1**
JSS				*e*S	**Sb**	**06 01 31.0**	**+0.9**
JHR	**Hokuryu**	**0.34**	**183**	⇑P	**Pb**	**06 01 25.1**	**-0.4**
JHR				*e*S	**Sb**	**06 01 31.4**	**+0.8**
JYG	**Yagishiri**	**0.41**	**326**	⇓P	**Pb**	**06 01 25.6**	**-1.0**
JYG				*e*S	**Sb**	**06 01 31.6**	**-0.9**
ASAJ	**Asahikawa**	**0.61**	**87**	Pg	**Pb**	**06 01 29.8**	**0.0**
	1μm,0.3s,baz=268,slow=11,SNR=27						
ASAJ				Lg		06 01 39.4	
	6μm,0.3s,baz=66,slow=34,SNR=63						
ASAJ	**Asahikawa**	**0.61**	**87**	⇓P	**Pb**	**06 01 29.9**	**+0.1**
JAB	**Ashibetsu**	**0.67**	**149**	⇓P	**Pb**	**06 01 30.9**	**0.0**
JKK2	**Kamakawa 2**	**0.75**	**106**	⇓P	**Pb**	**06 01 32.3**	**+0.1**
YSS	**Yuzh-Sakhalins**	**2.95**	**13**	*e*PN	**Pn**	**06 02 05.8**	**+1.3**

MAJO	Matsushiro	8.01	201	*e*PN	P	06 03 16.6	+0.8
MDJ	Mudanjiang	8.73	278	P	P	06 03 26.9	+1.0
MDJ				AMB	AMB		
	comp=Z,54nm,1.9s						
PET	Petropavlovsk	14.30	45	*e*P	P	06 04 37.0	-3.8
BJT	Baijiatuau	19.40	267	P	P	06 05 43.1	-1.9
BJT				pmax	pmax		
	comp=Z,10.0nm,0.7s						
BJT	Baijiatuau	19.40	267	P	P	06 05 43.1	-1.9
	comp=Z,10nm,0.7s						
SONM	Songino Array	24.73	291	P	P	06 06 38.4	-0.2
	comp=Z,10nm,1.3s,mb4.2,baz=69,slow=12,SNR=3.5						
TNA	Tin City	34.73	34	P	P	06 08 04.0	-3.8
	comp=Z,9.0nm,1.2s,mb4.6						
ILAR	Eielson Array	43.52	36	P	P	06 09 19.9	-0.9
	comp=Z,1.1nm,0.8s,mb3.6,baz=254,slow=4.8,SNR=4.8						
CMAR	Chiang Mai Arr	43.95	248	P	P	06 09 25.8	+0.9
	comp=Z,3.3nm,0.8s,mb4.1,baz=42,slow=6.8,SNR=7.0						
BVAR	Borovoye Array	46.24	308	P	P	06 09 42.0	-0.7
	comp=Z,0.9nm,0.5s,mb4.0,baz=89,slow=9.7,SNR=4.8						
TKM2	Tokmak 2	46.81	293	*e*P	P	06 09 47.9	+0.5
	comp=Z,6.8nm,0.6s,mb4.8						
GUN	Gumba	47.11	269	*e*P	P	06 09 50.4	+0.5
	comp=Z,16nm,0.6s,mb5.1						
KKN	Kakani	47.61	270	*e*P	P	06 09 53.9	0.0
	comp=Z,15nm,0.6s,mb5.2						
PKI	Pulchoki	47.64	269	*e*P	P	06 09 54.2	0.0
DMN	Daman	47.84	270	*e*P	P	06 09 56.1	+0.4
	comp=Z,13nm,0.4s,mb5.3						
GKN	Gorkha	47.95	270	*e*P	P	06 09 56.9	+0.3
INK	Inuvik	48.07	30	P	P	06 09 56.4	-0.5
	comp=Z,0.7nm,0.7s,mb3.8,baz=349,slow=5.2,SNR=2.4						
KOLN	Koldanda	48.83	271	*e*P	P	06 10 02.8	-0.5
	comp=Z,12nm,0.9s,mb4.9						
YKA	Yellowknife Ar	57.65	32	P	P	06 11 08.6	+0.5
	comp=Z,0.3nm,0.7s,mb3.4,baz=306,slow=6.8,SNR=2.6						
YKA				PcP	PcP	06 11 60.0	-0.9
	comp=Z,0.6nm,0.9s,baz=306,slow=3.5,SNR=4.0						
FINES	FINESS Array B	62.74	331	P	P	06 11 40.8	-2.2
	comp=Z,3.5nm,0.9s,mb4.5,baz=53,slow=9.5,SNR=6.0						
WRAB	Tennant Creek	64.06	188	P	P	06 11 50.4	-1.9
WRAB				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
WRAB	Tennant Creek	64.06	188	P	P	06 11 50.4	-1.9
	comp=Z,14nm,1.1s,mb4.9						
WRA	Warramunga Arr	64.07	188	P	P	06 11 50.6	-1.7
	comp=Z,3.3nm,0.7s,mb4.5,baz=5.3,slow=6.4,SNR=8.1						
WRA	Warramunga Arr	64.07	188	P	P	06 11 50.6	-1.7
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASAR	Alice Springs	67.80	188	P	P	06 12 15.8	-0.4
	comp=Z,2.2nm,0.7s,mb4.3,baz=11,slow=6.5,SNR=8.8						
NOA	NORSAR Array B	67.81	336	P	P	06 12 13.4	-2.1
	comp=Z,1.5nm,0.8s,mb4.0,baz=40,slow=5.9,SNR=3.2						
AKASG	Malin Array Be	68.93	321	P	P	06 12 21.6	-1.1
	comp=Z,0.6nm,0.5s,mb3.8,baz=38,slow=6.2,SNR=4.4						
AKASG	Malin Array Be	68.93	321	P	P	06 12 21.6	-1.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BOZ	Bozeman (W)	69.54	46	*e*P	P	06 12 24.1	-2.4
BOZ				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
BOZ	Bozeman (W)	69.54	46	*e*P	P	06 12 24.1	-2.4
	comp=Z,5.6nm,1.1s,mb4.4						
NVAR	Mina Array Bea	70.65	55	P	P	06 12 33.8	+0.5
	comp=Z,0.8nm,0.8s,mb3.7,baz=270,slow=1.8,SNR=3.2						
PDAR	Pinedale Array	72.60	47	P	P	06 12 44.8	-0.1
	comp=Z,3.6nm,1.0s,mb4.2,baz=320,slow=2.1,SNR=6.3						
TPNV	Topopah Spring	72.85	55	*e*P	P	06 12 44.8	-1.7
TPNV				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
TPNV	Topopah Spring	72.85	55	*e*P	P	06 12 44.8	-1.7
	comp=Z,2.9nm,0.8s,mb4.3						
CLL	Collm	75.13	330	P	P	06 12 59.0	-0.4
GERES	GERESS Array B	76.88	328	P	P	06 13 09.9	+0.6
	comp=Z,0.6nm,0.6s,mb3.7,baz=27,slow=6.6,SNR=3.2						
CDF	Champ du Feu	79.59	331	*e*P	P	06 13 23.8	-0.4
CABF	La Chapelle	81.55	331	*e*P	P	06 13 34.2	-0.4
FLN	La Foliniere	81.78	336	*e*P	P	06 13 37.6	+1.8
	comp=Z,37nm,1.2s,mb4.9						
FLN	La Foliniere	81.78	336	*e*P	P	06 13 37.6	+1.8
FLN				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
GRR	Gorron	82.23	336	*e*P	P	06 13 40.2	+2.1
	comp=Z,21nm,1.0s,mb4.7						
GRR	Gorron	82.23	336	*e*P	P	06 13 40.2	+2.1
GRR				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
LPL	La Plagne	82.26	330	*e*P	P	06 13 38.8	+0.5
	comp=Z,9.0nm,0.8s,mb4.4						
LPL	La Plagne	82.26	330	*e*P	P	06 13 38.8	+0.5
LPL				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
LPG	La Plagne	82.27	330	*e*P	P	06 13 38.9	+0.5
	comp=Z,15nm,0.9s,mb4.6						
LPG	La Plagne	82.27	330	*e*P	P	06 13 38.9	+0.5
LPG				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
SMF	Signal de Mont	82.30	332	*e*P	P	06 13 38.2	-0.3
	comp=Z,19nm,1.0s,mb4.7						
SMF	Signal de Mont	82.30	332	*e*P	P	06 13 38.2	-0.3
SMF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
AVF	Avril sur Loir	82.33	333	*e*P	P	06 13 38.5	-0.1
	comp=Z,22nm,1.0s,mb4.7						
AVF	Avril sur Loir	82.33	333	*e*P	P	06 13 38.5	-0.1
AVF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
MBDF	Montbardon	82.93	329	*e*P	P	06 13 41.5	-0.3
ROSF	Rostrenen	82.97	337	*e*P	P	06 13 44.7	+2.8
	comp=Z,61nm,1.5s,mb5.1						
ROSF	Rostrenen	82.97	337	*e*P	P	06 13 44.7	+2.8
ROSF				pmax	pmax		
	comp=Z,31nm,1.5s,mb5.1						
ORIF	Oris-en-Rattie	83.09	330	*e*P	P	06 13 42.9	+0.3
TCF	Toulx Ste Croi	83.15	333	*e*P	P	06 13 42.9	0.0
	comp=Z,54nm,1.5s,mb5.0						
TCF	Toulx Ste Croi	83.15	333	*e*P	P	06 13 42.9	0.0
TCF				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.1						
VIVF	Saint-Julien-l	83.57	331	*e*P	P	06 13 45.3	+0.3
LMR	La Mourre	84.22	329	*e*P	P	06 13 48.2	-0.1
RJF	Les Rejaudoux	84.25	333	*e*P	P	06 13 48.7	+0.3
	comp=Z,13nm,1.0s,mb4.7						
RJF	Les Rejaudoux	84.25	333	*e*P	P	06 13 48.7	+0.3
RJF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
CAF	Calviac	84.40	332	*e*P	P	06 13 50.0	+0.8
	comp=Z,11nm,0.9s,mb4.7						
CAF	Calviac	84.40	332	*e*P	P	06 13 50.0	+0.8
CAF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
LFF	La Frestale	84.82	333	*e*P	P	06 13 52.1	+0.8
	comp=Z,26nm,1.1s,mb5.0						
LFF	La Frestale	84.82	333	*e*P	P	06 13 52.1	+0.8
LFF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.0						
TXAR	Lajitas Array	85.63	53	P	P	06 13 56.6	+0.9
	comp=Z,1.4nm,0.8s,mb4.3,baz=260,slow=2.7,SNR=4.1						
MTLF	Montolieu	85.75	332	*e*P	P	06 13 56.7	+0.7
	comp=Z,9.9nm,1.0s,mb4.7						
MTLF	Montolieu	85.75	332	*e*P	P	06 13 56.7	+0.7
MTLF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.7						
EPF	Esparros	86.65	333	*e*P	P	06 14 00.8	+0.4
	comp=Z,17nm,1.0s,mb4.9						
EPF	Esparros	86.65	333	*e*P	P	06 14 00.8	+0.4
EPF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.9						
ETSF	Etsaut	87.07	333	*e*P	P	06 14 03.7	+1.2
	comp=Z,8.2nm,0.7s,mb4.8						
ETSF	Etsaut	87.07	333	*e*P	P	06 14 03.7	+1.2
ETSF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.8						
ESDC	Sonseca Array	91.07	334	P	P	06 14 22.1	+0.7
	comp=Z,0.7nm,0.6s,mb4.2,baz=117,slow=5.7,SNR=4.0						
VNDA	Vanda	121.97	175	PKP	PKPdf	06 20 10.2	-3.7
	comp=Z,0.6nm,0.8s,baz=34,slow=9.6,SNR=3.0						
SNAA	Sanae	147.51	200	⇓*i*	PKPdf	06 20 59.6	-0.9
SNAA	Sanae	147.51	200	PKPbc	PKPdf	06 20 59.9	-0.6
	comp=Z,2.8nm,0.9s,baz=150,slow=4.6,SNR=4.8						
SNAA	Sanae	147.51	200	PKP2	PKPab	06 20 59.9	-2.9
SNAA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNA2	Neumayer--Watz	149.11	199	⇑*i*	PKPdf	06 21 06.6	+3.5
VNA3	Neumayer Olymp	149.40	198	⇑*i*	PKPdf	06 21 06.6	+3.0
BDFB	Brasilia	150.46	19	PKPbc	PKPdf	06 21 09.4	+2.6
	comp=Z,4.1nm,0.9s,baz=350,slow=5.9,SNR=3.4						
CPUP	Villa Florida	156.50	47	PKPab	PKPab	06 21 41.3	-0.4
	comp=Z,0.0nm,0.3s,baz=156,slow=5.3,SNR=1.7						

*NEIC **14** 06:18:04.1±0.7, 11.46S×111.68E, h10^{km}, mb4.4/2, Error ellipse: s-maj=14.9km s-min=10.0km az=61.0*
*IDC **14** 06:18:05.8±2.0, 10.75S×112.26E, mb3.7/6, mb1 3.9/6, mb1mx3.8/14, Error ellipse: s-maj=110.0km s-min=19.1km az=51.0*
*DJA **14** 06:18:08.3±1.3, 10.86S×111.70E, h186^{km}±89^{km}, MD4.7/4, ML5.2/4, Error ellipse: s-maj=171.3km s-min=35.7km az=7.0*
ISC 14 06:18:10.7±2.8, **11.1S**±0.1×**111.9E**±0.1, **h64**^{km}±24^{km}, **n15,** σ**0**^{s}.**72**/15, **mb3.9**/8, **4C-2D, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	3.40	41	⇑*e*Pn	P	06 19 02.5	-0.2
	640nm,0.2s						
SRDI				⇑*e*Sn	S	06 19 42.6	+0.6
KELI	Kelakatan	3.82	42	⇓*e*Pn	P	06 19 08.5	-0.1
	356nm,0.2s						
RATI	Rata	4.28	57	⇓*e*Pn	P	06 19 15.4	+0.4
	1μm,0.2s						
RATI				⇑*e*Sn	S	06 20 03.9	-0.2
KEDI	Kedomdong	4.89	59	⇑*e*Pn	P	06 19 22.8	-0.7
	206nm,0.2s						
MBWA	Marble Bar	12.54	144	*e*P	P	06 20 58.6	-10
WRA	Warramunga Arr	23.33	115	P	P	06 23 13.5	-0.6
	2.0nm,1.1s,mb3.4,baz=290,slow=11,SNR=5.2						
WRAB	Tennant Creek	23.34	115	*e*P	P	06 23 13.4	-0.8
	2.0nm,0.5s,mb3.8						
ASAR	Alice Springs	24.41	124	P	P	06 23 24.6	0.0
	1.3nm,0.6s,mb3.5,baz=301,slow=9.0,SNR=12						
CMAR	Chiang Mai Arr	32.01	336	P	P	06 24 34.1	+0.8
	1.3nm,0.5s,mb4.0,baz=172,slow=8.3,SNR=6.3						
STKA	Stephens Creek	34.34	132	P	P	06 24 55.6	+2.1
	2.4nm,0.9s,mb4.1,baz=295,slow=7.5,SNR=2.4						
SONM	Songino Array	58.85	356	P	P	06 28 04.7	-0.4
	0.5nm,0.7s,mb3.6,baz=178,slow=7.0,SNR=5.0						
TKM2	Tokmak 2	63.15	331	*e*P	P	06 28 33.4	-0.8
	5.2nm,0.6s,mb4.8						
BVAR	Borovoye Array	73.02	335	P	P	06 29 35.5	+0.1
	0.4nm,0.6s,mb3.5,baz=127,slow=7.4,SNR=3.7						
YKA	Yellowknife Ar	118.87	23	PKP	PKPdf	06 36 53.6	+1.9
	0.2nm,0.6s,baz=297,slow=1.9,SNR=4.0						
CPUP	Villa Florida	141.37	196	PKP	PKPdf	06 37 39.1	+4.0
	0.0nm,0.3s,baz=224,slow=18,SNR=1.5						

NEIC 14 06:43:00.8±3.1, **44.46N**×**129.58W, h10**^{km}, **mb4.0**/1, **Error ellipse: s-maj=35.4km s-min=12.9km az=78.0, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SSOR	Sweet Springs	5.09	83	P	Pn	06 44 17.2	-1.9
CPW	Capitol Peak	5.17	59	P	Pn	06 44 17.5	-2.6
IRO	Indian Ridge	5.28	92	P	Pn	06 44 19.8	-2.0
FRIS	Frissel Point	5.37	90	P	Pn	06 44 21.1	-1.9
MEW	McNeil Island	5.57	58	P	Pn	06 44 24.2	-1.6
TDH	Tom, Dick, Har	5.60	79	P	Pn	06 44 24.4	-1.8
GHW	Garrison Hill	5.73	61	P	Pn	06 44 26.0	-2.1
VFP	Flag Point	5.83	79	P	Pn	06 44 27.8	-1.6
ASR	Mount Adams--S	5.88	70	P	Pn	06 44 28.2	-2.0
PGC	Sidney	5.95	43	*e*P	Pn	06 44 28.0	-3.3
FMW	Mount Fremont	6.07	63	P	Pn	06 44 30.6	-2.2
JCW	Jim Creek	6.48	52	P	Pn	06 44 36.6	-2.1
RPW	Rockport	6.85	52	P	Pn	06 44 41.6	-2.3
WRW	Wenatchee Ridg	6.93	58	P	Pn	06 44 43.4	-1.6
BMO	Blue Mountains	8.76	83	*e*P	P	06 45 06.8	-3.7
WMOK	Wichita Mounta	25.51	102	*e*P	P	06 48 29.6	-1.3
	2.1nm,0.6s						

JMA 14 06:54:53.5±0.1, **44.12N**×**141.67E, h6**^{km}±3^{km}, **M3.5, 5C, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSS	Shosan	0.31	25	⇑P	Pg	06 55 00.0	+0.2
JSS				*e*S	Sg	06 55 05.7	+1.8
JYG	Yagishiri	0.35	330	P	Pg	06 55 00.4	-0.2
JYG				*e*S	Sg	06 55 06.1	+0.7
JHR	Hokuryu	0.38	174	⇑P	Pg	06 55 01.2	+0.1
ASAJ	Asahikawa	0.67	90	⇑P	Pg	06 55 05.6	-1.3
JAB	Ashibetsu	0.73	147	⇑P	Pg	06 55 07.5	-0.7
JKK2	Kamakawa 2	0.82	107	⇑P	Pb	06 55 08.5	-1.2

*ROM **14** 06:58:38.4±0.2, 44.83N×7.70E, h12^{km}±5^{km}, MD2.4/3, ML1.8/3, Error ellipse: s-maj=2.9km s-min=1.7km az=90.0*
*LDG **14** 06:58:39.5±0.2, 44.76N×7.63E, h19^{km}, Md2.5/3, Ml2.6/15, Error ellipse: s-maj=3.9km s-min=2.4km az=92.0*
*NEIC **14** 06:58:39.5, 44.76N×7.63E, h19^{km}, MD2.4(ROM), ML2.8(GEN), ML2.6(LDG), ML2.3(STR), After LDG.*
*CSEM **14** 06:58:39.5±0.1, 44.77N×7.65E, h25^{km}, ML2.5/14, Error ellipse: s-maj=1.7km s-min=1.1km az=58.0*
*STR **14** 06:58:40.3±0.6, 44.75N×7.64E, h10^{km}±1^{km}, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*GEN **14** 06:58:40.0, 44.80N×7.58E, h40^{km}, ML2.8*
ISC 14 06:58:39.2±0.3, **44.82N**±0.01×**7.66E**±0.03, **h30**^{km}±2^{km}, **n89,** σ**1**^{s}.**08**/149, **Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BHB	Bricherasio	0.29	275	P	Pb	06 58 47.3	+0.9
BHB				S	Sb	06 58 52.1	+0.6
BHB	Bricherasio	0.29	275	S	Sb	06 58 52.1	+0.7
BHB	Bricherasio	0.29	275	P	Pb	06 58 47.3	+0.8
DOI	San Damiano	0.43	224	*e*PG	Pb	06 58 48.6	+0.1
DOI				SG	Sb	06 58 54.3	-0.6
	99nm,0.2s						
DOI	San Damiano	0.43	224	*e*Pg	Pb	06 58 48.6	+0.1
DOI				*e*Sg	Sb	06 58 54.3	-0.6
DOI	San Damiano	0.43	224	*e*Pg	Pb	06 58 48.6	+0.1
DOI				*e*Sg	Sb	06 58 54.3	-0.6
RSP	Reno Superiore	0.44	319	P	Pb	06 58 49.4	+0.7
RSP				S	Sb	06 58 55.6	+0.4
RSP	Reno Superiore	0.44	319	P	Pb	06 58 49.4	+0.7
FENE	Fenestrelle	0.48	297	P	Pb	06 58 49.8	+0.5
FENE				S	Sb	06 58 55.9	-0.2
FENE	Fenestrelle	0.48	297	P	Pb	06 58 49.8	+0.6
FENE				S	Sb	06 58 55.9	-0.2
PZZ	Prazzo	0.51	232	P	Pb	06 58 49.6	-0.1
PZZ				S	Sb	06 58 55.9	-1.0
PZZ	Prazzo	0.51	232	P	Pb	06 58 49.6	-0.1
ROB	Roburent	0.54	164	P	Pb	06 58 50.9	+0.6
ROB				S	Sb	06 58 58.3	+0.5
ROB	Roburent	0.54	164	P	Pb	06 58 50.9	+0.6
ROB				S	Sb	06 58 58.3	+0.4
ENR	Entracque	0.61	197	P	Pb	06 58 51.2	-0.2
ENR				S	Sb	06 58 58.8	-1.1
ENR	Entracque	0.61	197	P	Pb	06 58 51.2	-0.2
STV2	Anna di Valdie	0.62	203	P	Pb	06 58 51.1	-0.4
STV2				S	Sb	06 58 58.7	-1.3
STV	Sta Anna Valdi	0.62	203	P	Pb	06 58 51.1	-0.4
STV				S	Sb	06 58 58.8	-1.2
STV	Sta Anna Valdi	0.62	203	P	Pb	06 58 51.1	-0.4
RRL	Cesana Torines	0.63	280	P	Pb	06 58 52.5	+0.7
RRL				S	Sb	06 59 00.8	+0.5
RRL	Cesana Torines	0.63	280	S	Sb	06 59 00.8	+0.4
RRL	Cesana Torines	0.63	280	P	Pb	06 58 52.5	+0.8
MBDF	Montbardon	0.64	262	*e*Pg	Pb	06 58 52.2	+0.3
MBDF				*e*Sg	Sb	06 59 00.4	-0.2
	64nm,0.2s						
PCP	Pian Castagno	0.69	113	P	Pb	06 58 53.5	+0.9
PCP	Pian Castagno	0.69	113	P	Pb	06 58 53.5	+0.9
SURF	Saint Ours	0.69	241	Pg	Pb	06 58 53.1	+0.4
SURF				Sg	Sb	06 59 02.3	+0.3
TRAV		0.70	5	P	Pb	06 58 53.0	+0.2
TRAV				S	Sb	06 59 01.6	-0.6
TRAV		0.70	5	P	Pb	06 58 53.0	+0.2
TRAV				S	Sb	06 59 01.6	-0.6
FIN	Finale Ligure	0.72	147	*e*PG	Pb	06 58 53.6	+0.4
FIN				SG	Sb	06 59 03.0	+0.2
	24nm,0.2s						
FIN	Finale Ligure	0.72	147	*e*Pg	Pb	06 58 53.6	+0.4
FIN				*e*Sg	Sb	06 59 03.0	+0.2
FIN	Finale Ligure	0.72	147	P	Pb	06 58 53.5	+0.3
FIN				*e*Sg	Sb	06 59 03.0	+0.2
LSD	Ceresole Reale	0.73	331	P	Pb	06 58 54.2	+0.8
LSD				S	Sb	06 59 03.4	+0.2
LSD	Ceresole Reale	0.73	331	S	Sb	06 59 03.4	+0.2
LSD	Ceresole Reale	0.73	331	P	Pb	06 58 54.2	+0.8
BNI	Bardonecchia	0.74	289	*e*Pn	Pn	06 58 54.3	+0.7
BNI	Bardonecchia	0.74	289	*e*Pn	Pn	06 58 54.3	+0.8
MONE	Monesi	0.74	175	P	Pb	06 58 53.4	-0.1
MONE				S	Sb	06 59 02.3	-1.0
MONE	Monesi	0.74	175	S	Sb	06 59 02.3	-1.0
MONE	Monesi	0.74	175	P	Pb	06 58 53.3	-0.2
SAOF	Saorge	0.83	185	Pg	Pn	06 58 54.7	-0.2
AUTN	L’Aution	0.84	192	Pg	Pn	06 58 54.7	-0.2
AUTN				Sg	Sb	06 59 06.1	0.0
AUTN	L’Aution	0.84	192	Sg	Sb	06 59 06.1	0.0
ORO	Oropa	0.84	15	*e*PG	Pn	06 58 55.1	+0.1
ORO				SG	Sb	06 59 05.6	-0.6
	29nm,0.2s						
ORO	Oropa	0.84	15	*e*Pg	Pn	06 58 55.1	0.0
ORO				*e*Sg	Sb	06 59 05.6	-0.6
ORO	Oropa	0.84	15	*e*Sg	Sb	06 59 05.6	-0.6
ORX	Oropa	0.85	15	P	Pn	06 58 55.3	+0.2
ORX	Oropa	0.85	15	P	Pn	06 58 55.3	+0.2
TOUF	Mont Tournerai	0.86	200	Pg	Pn	06 58 54.8	-0.4
IMI	Imperia	0.92	170	*e*PG	Pn	06 58 56.6	+0.5
IMI				SG	Sn	06 59 09.0	+0.6
	36nm,0.3s						
IMI	Imperia	0.92	170	*e*Pg	Pn	06 58 56.6	+0.5
IMI				*e*Sg	Sn	06 59 09.0	+0.7
IMI	Imperia	0.92	170	P	Pn	06 58 56.5	+0.4
IMI				*e*Sg	Sn	06 59 09.0	+0.6
LPG	La Plagne	0.94	317	*e*Pg	Pn	06 58 57.8	+1.4
LPG				*e*Sg	Sn	06 59 09.2	+0.4
	33nm,0.3s						
LPL	La Plagne	0.96	317	*e*Pg	Pn	06 58 58.3	+1.6
LPL				*e*Sg	Sn	06 59 10.0	+0.6
	26nm,0.4s						
SBF	Sospel	0.97	190	*e*Pg	Pn	06 58 56.7	-0.1
SBF				*e*Sg	Sn	06 59 08.3	-1.3
	35nm,0.2s						
NEGI	Negi	0.97	178	P	Pn	06 58 57.3	+0.4
NEGI	Negi	0.97	178	P	Pn	06 58 57.3	+0.5
MVIF	Mont Vial	0.99	202	Pg	Pn	06 58 57.0	-0.1
REVF	Revere	1.10	191	Pg	Pn	06 58 58.6	-0.1
REVF				Sg	Sn	06 59 15.4	+2.5
MCGN	Macugnaga	1.16	11	*e*PN	Pn	06 59 00.0	+0.4
	4.0nm,0.3s						
MCGN	Macugnaga	1.16	11	*e*Pg	Pn	06 58 60.0	+0.4
ORIF	Oris-en-Rattie	1.27	275	*e*Pg	Pn	06 59 03.2	+2.0
ORIF				*e*Sg	Sn	06 59 18.5	+1.2
	18nm,0.3s						
FRF	La Foret Royal	1.45	211	*e*Pg	Pn	06 59 04.3	+0.6
FRF				*e*Sg	Sn	06 59 21.7	-0.2
	11nm,0.2s						
STOF	St-Etienne Org	1.50	238	Pn	Pn	06 59 07.0	+2.6
STOF				Sg	Sn	06 59 29.5	+6.4
CODM		1.62	104	P	Pn	06 59 06.6	+0.5
CODM		1.62	104	P	Pn	06 59 06.6	+0.5
TAVF	Tavernes	1.66	224	Pn	Pn	06 59 08.0	+1.2
TAVF				Pg	Pn	06 59 09.8	+3.0
TAVF	Tavernes	1.66	224	Pg	Pn	06 59 09.8	+3.0
VILF	Villemus	1.70	236	Pn	Pn	06 59 08.3	+1.1
VILF				Pg	Pn	06 59 11.5	+4.3
VILF				Sg	Sn	06 59 33.1	+5.0
VILF	Villemus	1.70	236	Pg	Pn	06 59 11.5	+4.3
VILF				Sg	Sn	06 59 33.1	+5.0
LMR	La Mourre	1.70	210	*e*Pn	Pn	06 59 07.3	0.0
LMR				*e*Pg	Pn	06 59 09.8	+2.5
LMR				*e*Sn	Sn	06 59 25.5	-2.7
	7.6nm,0.2s						
LMR	La Mourre	1.70	210	*e*Pg	Pn	06 59 09.8	+2.5
LMR				*e*Sn	Sn	06 59 25.5	-2.7
	3.8nm,0.2s						
SMRF	Simiane la Rot	1.72	241	*e*Pn	Pn	06 59 03.7	-3.8
SMRF				*e*Pg	Pn	06 59 11.9	+4.4
SMRF				*e*Sg	Sn	06 59 30.7	+2.1
	7.8nm,0.3s						
SMRF	Simiane la Rot	1.72	241	*e*Pg	Pn	06 59 11.9	+4.4
SMRF				*e*Sg	Sn	06 59 30.7	+2.1
	3.9nm,0.3s						
CABF	La Chapelle	2.11	329	*e*Pn	Pn	06 59 12.2	-0.9
CABF				*e*Sn	Sn	06 59 36.2	-2.4
	2.5nm,0.3s						
VIVF	Saint-Julien-l	2.13	272	*e*Pn	Pn	06 59 10.4	-3.0
VIVF				*e*Pg	Pn	06 59 15.6	+2.2
VIVF				*e*Sn	Sn	06 59 37.4	-1.7
	1.5nm,0.2s						
VIVF				*e*Sg	Sn	06 59 45.8	+6.7
VIVF	Saint-Julien-l	2.13	272	*e*Pn	Pn	06 59 10.4	-3.0
VIVF				*e*Sn	Sn	06 59 37.4	-1.7
	0.8nm,0.2s						
VIVF				*e*Sg	Sn	06 59 45.8	+6.7
VIVF	Saint-Julien-l	2.13	272	*e*Pg	Pn	06 59 15.6	+2.2
PGF	Pioggiola	2.47	156	*e*Pn	Pn	06 59 15.8	-2.4
PGF				*e*Pg	Pn	06 59 24.2	+6.0
PGF				*e*Sn	Sn	06 59 42.6	-5.0
	3.4nm,0.2s						
PGF	Pioggiola	2.47	156	*e*Pg	Pn	06 59 24.2	+6.0
PGF				*e*Sn	Sn	06 59 42.6	-5.0
	1.7nm,0.2s						
LASF	Ste Croix	2.83	256	*e*Pn	Pn	06 59 20.2	-3.2
LASF				*e*Sn	Sn	06 59 50.8	-5.9
	2.0nm,0.2s						
HINF	Hinteralfeld	3.05	350	*e*Pn	Pn	06 59 25.9	-0.7
SMF	Signal de Mont	3.24	306	*e*Pn	Pn	06 59 27.0	-2.3
SMF				*e*Sn	Sn	07 00 04.1	-3.2
	2.6nm,0.3s						
HAU	Haudompre	3.32	345	*e*Pn	Pn	06 59 29.2	-1.1
HAU				*e*Sn	Sn	07 00 05.6	-3.6
	9.2nm,0.3s						
AVF	Avril sur Loir	3.60	305	*e*Pn	Pn	06 59 32.7	-1.7
CDF	Champ du Feu	3.61	356	*e*Pn	Pn	06 59 33.8	-0.7
CDF				*e*Sn	Sn	07 00 11.5	-5.0
	1.1nm,0.2s						
SSF	Saint Saulge	3.67	309	*e*Pn	Pn	06 59 35.3	0.0
BGF	Bois d’Agland	3.80	299	*e*Pn	Pn	06 59 37.4	+0.2
MTLF	Montolieu	4.19	251	*e*Pn	Pn	06 59 39.6	-3.2
MTLF				*e*Sn	Sn	07 00 23.6	-7.8
	2.4nm,0.3s						
HYF	Humbligny	4.27	307	*e*Pn	Pn	06 59 41.5	-2.4

*JMA **14** 07:05:32.0±0.1, 44.09N×141.73E, h9^{km}±2^{km}, M2.9*
ISC 14 07:05:32.1±0.7, **44.09N**±0.03×**141.76E**±0.06, **h9**^{km}, **n6,** σ**0**^{s}.**71**/12, **Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSS	Shosan	0.32	12	P	Pg	07 05 38.9	+0.2
JSS				*e*S	Sg	07 05 44.7	+1.7
JHR	Hokuryu	0.35	184	P	Pg	07 05 39.0	-0.2
JHR				*e*S	Sg	07 05 45.0	+1.1
JYG	Yagishiri	0.41	325	P	Pg	07 05 39.6	-0.9
JYG				*e*S	Sg	07 05 45.9	-0.2
ASAJ	Asahikawa	0.60	87	P	Pg	07 05 43.4	-0.9
ASAJ				*e*S	Sg	07 05 52.2	-0.2
JAB	Ashibetsu	0.67	150	P	Pb	07 05 45.1	-0.5
JAB				*e*S	Sg	07 05 55.0	+0.3
JKK2	Kamakawa 2	0.75	106	P	Pb	07 05 46.4	-0.4
JKK2				*e*S	Sb	07 05 57.1	+0.2

*NIED **14** 07:06:00, 44.10N×141.70E, h5^{km}, Mw4.3 Best double couple: $M_0$3.69×10^{15} NP1:ϕ_s291°, δ89°, λ93°. NP2:ϕ_s30°, δ3°, λ9°.*
JMA 14 07:06:49.7±0.1, **44.08N**×**141.71E, h9**^{km}±2^{km}, **M3.9, 3C-3D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSS	Shosan	0.34	18	⇑P	Pg	07 06 56.8	+0.2
JSS				*e*S	Sg	07 07 02.7	+1.5
JHR	Hokuryu	0.34	178	⇑P	Pg	07 06 56.8	+0.2
JHR				*e*S	Sg	07 07 02.8	+1.6
JYG	Yagishiri	0.40	330	⇓P	Pg	07 06 57.2	-0.7
JYG				*e*S	Sg	07 07 03.5	+0.1
ASAJ	Asahikawa	0.64	86	⇓P	Pg	07 07 01.4	-1.2
JAB	Ashibetsu	0.69	147	⇑P	Pb	07 07 02.9	-0.5
JKK2	Kamakawa 2	0.78	105	⇓P	Pb	07 07 04.3	-0.6

CASC 14 07:07:07.2±1.9,12.79N×88.74W,h39^{km}±162^{km},MD3.7, 4C-4D,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSM	**San Miguel**	**0.78**	**36**	⇓eP	P	07 07 22.2	+0.4
BLLM	**Bellamira**	**0.81**	**37**	⇓eP	P	07 07 22.2	0.0
BLLM				eS	S	07 07 34.9	+1.6
SNVI	**San Vicente**	**0.82**	**353**	⇑eP	P	07 07 22.8	+0.5
SNVI				eP		07 07 23.0	
SNVI				eS	S	07 07 33.9	+0.4
LFRS	**El Faro**	**0.89**	**339**	⇓eP	P	07 07 23.7	+0.4
LFRS				eS	S	07 07 35.8	+0.7
LCBS	**La Ceiba**	**0.89**	**345**	⇓eP	P	07 07 23.7	+0.4
LCBS				eS	S	07 07 35.5	+0.3
LBRS	**Las Brisas**	**0.99**	**343**	eP	P	07 07 25.2	+0.5
LBRS				eS	S	07 07 36.6	-1.1
CNCH	**Conchagua**	**1.01**	**61**	⇑eP	P	07 07 24.7	-0.3
CNCH				eS	S	07 07 38.5	+0.3
LFU	**La Fuente**	**1.02**	**339**	eP	P	07 07 25.6	+0.4
LFU				eS	S	07 07 38.6	0.0
BOQS	**Boqueron**	**1.08**	**331**	⇑eP	P	07 07 26.8	+0.8
BOQS				eS	S	07 07 40.3	+0.4
CAHU	**Cacacuatique**	**1.10**	**28**	⇑eP	P	07 07 26.8	+0.4
CAHU				eS	S	07 07 42.6	+2.0
SBLS	**San Blas**	**1.35**	**321**	eP	P	07 07 30.8	+0.8
SBLS				eS	S	07 07 47.2	+0.3
RTR	**El Retiro**	**1.41**	**321**	eP	P	07 07 32.2	+1.4
RTR				eS	S	07 07 48.0	-0.4
LEON	**Leon**	**1.84**	**101**	eP	P	07 07 36.0	-0.9
TEL3	**Telica 3**	**1.86**	**96**	eP	P	07 07 37.1	-0.2
TELN	**Telica**	**1.87**	**95**	eP	P	07 07 37.2	-0.2
MIRN	**Miramar**	**2.01**	**100**	eP	P	07 07 39.0	-0.4
MIRN				eS	S	07 08 03.3	-0.2
CNGN	**Cerro Negro**	**2.01**	**98**	eP	P	07 07 39.3	-0.1
MOMJ	**Momotombo**	**2.18**	**100**	eP	P	07 07 41.6	-0.2
COPN	**Copaltepe**	**2.19**	**106**	eP	P	07 07 41.1	-0.7
APYN	**Apoyeque**	**2.40**	**103**	eP	P	07 07 44.6	-0.3
MGAN	**Managua**	**2.52**	**104**	eS	S	07 08 14.0	-2.4
WILN	**Americas 2**	**2.57**	**104**	eS	S	07 08 16.0	-1.7

JMA 14 07:11:15.9±0.1,44.11N×141.73E,h10^{km}±2^{km},M3.5, 2C-4D,Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSS	**Shosan**	**0.30**	**17**	⇑P	Pg	07 11 22.3	+0.1
JSS				eS	Sg	07 11 27.7	+1.3
JHR	**Hokuryu**	**0.37**	**181**	⇑P	Pg	07 11 23.5	+0.1
JHR				eS	Sg	07 11 29.9	+1.4
JYG	**Yagishiri**	**0.39**	**326**	⇓P	Pg	07 11 23.1	-0.7
JYG				eS	Sg	07 11 29.1	+0.1
ASAJ	**Asahikawa**	**0.62**	**89**	⇓P	Pb	07 11 27.2	-1.2
ASAJ				eS	Sg	07 11 37.0	+0.1
JAB	**Ashibetsu**	**0.70**	**149**	⇓P	Pb	07 11 29.3	-0.5
JKK2	**Kamakawa 2**	**0.77**	**108**	⇓P	Pb	07 11 30.0	-1.0
JSE	**Soyaes**	**1.05**	**35**	P	Pb	07 11 34.9	-0.7

JMA 14 07:16:28.9±0.1,44.07N×141.69E,h7^{km}±2^{km},M3.6,2C-3D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHR	**Hokuryu**	**0.33**	**176**	⇑P	Pg	07 16 35.7	+0.1
JHR				eS	Sg	07 16 41.4	+1.4
JSS	**Shosan**	**0.35**	**20**	⇑P	Pg	07 16 36.3	+0.3
JSS				S	Sg	07 16 42.5	+1.8
JYG	**Yagishiri**	**0.40**	**332**	⇓P	Pg	07 16 36.4	-0.7
JYG				S	Sg	07 16 42.9	+0.4
ASAJ	**Asahikawa**	**0.66**	**86**	⇓P	Pg	07 16 40.9	-1.1
JKK2	**Kamakawa 2**	**0.79**	**104**	⇓P	Pb	07 16 43.5	-1.0

WEL 14 07:23:01.2±0.8,38.29S×176.56E,h177^{km}±8^{km},ML3.5/3, Error ellipse: s-maj=27.0km s-min=13.9km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MWZ	**Matawai**	**0.77**	**94**	PN	P	07 23 27.2	-0.2
MWZ				SN	S	07 23 46.1	-1.5
BKZ	**Black Stump Fm**	**0.88**	**183**	PN	P	07 23 28.2	+0.1
BKZ				SN	S	07 23 47.6	-1.2
BKZ				SN	S	07 23 47.8	-1.0
TSZ	**Takapari Road**	**1.83**	**194**	PN	P	07 23 36.6	0.0
TSZ				SN	S	07 24 03.0	-0.9
MRZ	**Mangatainoka R**	**2.49**	**197**	PN	P	07 23 43.1	-1.0
MRZ				SN	S	07 24 16.1	-1.1
MTW	**Mount Morrison**	**2.98**	**195**	PN	P	07 23 48.5	-1.6
CAW	**Cannon Point**	**3.04**	**202**	PN	P	07 23 49.1	-1.8

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*LDG **14** 07:28:55.9±0.1,42.49N×2.03E,h10^{km},Md2.3/3,Ml2.5/10, Error ellipse: s-maj=1.2km s-min=0.9km az=121.0*

*NEIC **14** 07:28:55.9,42.49N×2.03E,h10^{km},ML2.8(STR), ML2.5(LDG),MN2.1(MDD),After LDG.*

*CSEM **14** 07:28:56.3±0.1,42.51N×2.04E,h8^{km},ML2.6/11,Error ellipse: s-maj=2.1km s-min=1.5km az=130.0*

MDD 14 07:28:56.3±0.2,42.49N×2.02E,h10^{km}±1^{km},mbLg1.9/18, 2C,Error ellipse: s-maj=1.8km s-min=1.6km az=5.0, PRXIMO,Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CLLI	**Llivia**	**0.04**	**258**	Pg	Pg	07 28 58.1	-0.1
CLLI				Lg		07 28 59.6	
	358nm,0.0s						
VALF	**Valcebollere**	**0.09**	**181**	Pg	Pg	07 28 58.6	-0.1
VALF				Lg		07 29 00.1	
VALF	**Valcebollere**	**0.09**	**181**	Pg	Pg	07 28 58.6	-0.1
VALF				Sg	Sg	07 28 59.9	-0.5
CBRU	**Bruguera**	**0.23**	**149**	Pg	Pg	07 29 00.8	-0.5
CBRU				Lg		07 29 04.3	
	19nm,0.1s						
CARF	**Carcanieres**	**0.24**	**15**	Pg	Pg	07 29 01.4	0.0
CARF				Lg		07 29 05.0	
CARF	**Carcanieres**	**0.24**	**15**	Pg	Pg	07 29 01.3	-0.1
CARF				Sg	Sg	07 29 04.7	0.0
PAND	**Andorre**	**0.35**	**276**	Pg	Pg	07 29 02.9	-0.6
PAND				Lg		07 29 08.0	
FILF	**Fillols**	**0.41**	**79**	Pg	Pg	07 29 02.4	-2.2
FILF				Lg		07 29 06.6	
FILF	**Fillols**	**0.41**	**79**	Pg	Pg	07 29 02.3	-2.3
FILF				Sg	Sg	07 29 06.5	-3.6
GRBF	**Gourbit**	**0.50**	**315**	Pg	Pg	07 29 05.9	-0.6
GRBF				Lg		07 29 12.7	
CORG	**Organya**	**0.58**	**244**	Pg	Pg	07 29 07.1	-0.9
SJAF	**Saint Jean de**	**0.64**	**90**	Pg	Pg	07 29 08.2	-1.0
SJAF				Lg		07 29 16.5	
EJON	**La Jonquera**	**0.64**	**93**	Pg	Pg	07 29 08.5	-0.7
	1.4nm,0.1s,SNR=7.9						
EJON				Lg		07 29 17.0	
	7.7nm,0.1s,SNR=5.0						
EJON	**La Jonquera**	**0.64**	**93**	Pg	Pg	07 29 08.5	-0.8
	1.4nm,0.1s,SNR=7.9						
CSOR	**Sort**	**0.67**	**261**	Pg	Pg	07 29 08.5	-1.2
CSOR				Lg		07 29 17.8	
	3.7nm,0.1s						
SALF	**Salau**	**0.67**	**294**	Pg	Pg	07 29 08.5	-1.3
SALF				Lg		07 29 17.2	
SALF	**Salau**	**0.67**	**294**	Pg	Pg	07 29 08.5	-1.3
SALF				Sg	Sg	07 29 17.4	-1.4
EMIR	**Miracle**	**0.68**	**213**	⇑Pg	Pg	07 29 09.1	-0.9
	2.4nm,0.0s,SNR=18						
EMIR				Lg		07 29 18.4	
	15nm,0.1s,SNR=5.0						
EMIR	**Miracle**	**0.68**	**213**	Pg	Pg	07 29 09.1	-0.9
	2.4nm,0.0s,SNR=18						
CFON	**Fontmartina**	**0.79**	**157**	Pg	Pg	07 29 10.9	-1.2
CFON				Lg		07 29 21.6	
	8.2nm,0.1s						
MLS	**Moulis**	**0.83**	**305**	Pg	Pg	07 29 12.0	-0.9
MLS				Lg		07 29 22.1	
MLS	**Moulis**	**0.83**	**305**	Pg	Pg	07 29 12.0	-0.9
MLS				Sg	Sg	07 29 22.5	-1.5
MTLF	**Montolieu**	**0.87**	**10**	ePn	Pn	07 29 12.8	-1.5
MTLF				eSg	Sg	07 29 22.9	-2.4
MTLF				eSn	Sn	07 29 24.4	-2.6
	7.4nm,0.2s						
MELF	**Melles**	**1.01**	**293**	Sn	Sn	07 29 27.7	-2.9
CAVN	**Les Avellanes**	**1.12**	**238**	Pg	Pg	07 29 17.0	-1.7
CAVN				Lg		07 29 31.9	
	13nm,0.1s						
RESF	**Ens**	**1.28**	**285**	Sn	Sn	07 29 37.6	0.0
EPOB	**Poblet**	**1.33**	**212**	⇑Pg	Pg	07 29 20.8	-2.1
	6.3nm,0.1s,SNR=18						
EPOB				Lg		07 29 38.1	
	6.7nm,0.2s,SNR=7.9						
EPOB	**Poblet**	**1.33**	**212**	Pg	Pg	07 29 20.8	-2.2
	6.3nm,0.1s,SNR=18						
EPF	**Esparros**	**1.35**	**294**	ePg	Pg	07 29 21.8	-1.5
EPF				eSg	Sg	07 29 38.0	-3.4
	7.8nm,0.3s						
CGAR	**Garraf**	**1.36**	**209**	Pg	Pg	07 29 18.5	-5.0
EBIE	**Bielsa**	**1.40**	**279**	Pg	Pg	07 29 22.9	-1.4
	0.2nm,0.1s,SNR=7.9						
EBIE				Lg		07 29 42.2	
	5.5nm,0.2s,SNR=7.9						
EBIE	**Bielsa**	**1.40**	**279**	Pg	Pg	07 29 22.9	-1.4
	0.2nm,0.1s,SNR=7.9						
VIEF	**Viey**	**1.52**	**286**	Lg		07 29 44.3	
ETSF	**Etsaut**	**1.95**	**283**	ePg	Pg	07 29 32.8	-2.4
ETSF				eSg	Sg	07 29 57.8	-3.3
	10nm,0.3s						
ERTA	**Horta de San J**	**1.98**	**220**	Pg	Pg	07 29 33.3	-2.6
ERTA				Lg		07 29 58.4	
ERTA	**Horta de San J**	**1.98**	**220**	Pg	Pg	07 29 33.3	-2.6
	0.8nm,0.1s,SNR=7.9						
ERTA				Lg		07 29 58.4	
	1.4nm,0.1s,SNR=7.9						
ERTA	**Horta de San J**	**1.98**	**220**	Pg	Pg	07 29 33.3	-2.6
	0.8nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**2.00**	**248**	Pg	Pg	07 29 33.4	-2.9
	2.6nm,0.2s,SNR=6.1						
ESAC				Sn	Sn	07 29 55.6	-0.3
	22nm,0.4s,SNR=7.9						
ESAC				Lg		07 29 59.8	
	23nm,0.2s,SNR=5.0						
ESAC	**San Caprasio**	**2.00**	**248**	Pg	Pg	07 29 33.4	-2.9
	2.6nm,0.2s,SNR=6.1						
ESAC				Sn	Sn	07 29 55.6	-0.3
	22nm,0.4s,SNR=7.9						
LASF	**Ste Croix**	**2.08**	**40**	ePn	Pn	07 29 29.1	-2.6
LASF				ePg	Pg	07 29 34.3	-3.5
LASF				eSg	Sg	07 30 01.3	-4.3
	2.2nm,0.2s						
LASF	**Ste Croix**	**2.08**	**40**	ePg	Pg	07 29 34.3	-3.5
LASF				eSg	Sg	07 30 01.3	-4.3
	1.1nm,0.2s						
CAF	**Calviac**	**2.44**	**1**	ePn	Pn	07 29 34.0	-2.8
CAF				ePg	Pg	07 29 41.3	-3.7
CAF				eSg	Sg	07 30 12.4	-5.1
	3.4nm,0.2s						
CAF	**Calviac**	**2.44**	**1**	ePg	Pg	07 29 41.3	-3.7
CAF				eSg	Sg	07 30 12.4	-5.1
	1.7nm,0.2s						
SJPF	**Ste Jean**	**2.47**	**286**	ePg	Pg	07 29 42.2	-3.4
SJPF				eSg	Sg	07 30 13.6	-4.9
	6.9nm,0.6s						
LFF	**La Frestale**	**2.62**	**340**	eSn	Sn	07 30 06.1	-5.5
LFF				eSg	Sg	07 30 17.2	-6.4
	10.0nm,0.3s						
RJF	**Les Rejaudoux**	**2.84**	**353**	eSg	Sg	07 30 23.9	-7.0
	2.4nm,0.2s						
VIVF	**Saint-Julien-l**	**3.05**	**38**	ePn	Pn	07 29 42.3	-3.3
VIVF				ePg	Pg	07 29 52.7	-4.5
VIVF				eSg	Sg	07 30 31.7	-6.2
	1.9nm,0.3s						
VIVF	**Saint-Julien-l**	**3.05**	**38**	ePg	Pg	07 29 52.7	-4.5
VIVF				eSg	Sg	07 30 31.7	-6.2
	0.9nm,0.3s						
BGF	**Bois d'Agland**	**4.11**	**8**	eSg	Sg	07 31 04.6	-8.7
	6.9nm,0.4s						

IDC 14 07:29:35.6±31.0,9.57N×86.69W,mb3.3/3,mb1 3.7/3, mb1mx3.3/18,Error ellipse: s-maj=672.0km s-min=132.1km az=6.0,Off coast of Costa Rica

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	**Lajitas Array**	**25.29**	**323**	P	P	07 35 03.8	-1.7
	0.4nm,0.6s,baz=137,slow=10.0,SNR=5.3						
PDAR	**Pinedale Array**	**38.65**	**333**	P	P	07 37 01.4	-1.3
	0.2nm,0.5s,baz=132,slow=13,SNR=2.5						
YKA	**Yellowknife Ar**	**56.57**	**345**	P	P	07 39 19.7	-2.5
	0.2nm,0.7s,baz=143,slow=7.2,SNR=8.2						

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*NEIC **14** 07:32:05.5±1.3,9.05S×111.24E,h10^{km},mb4.2/2,Error ellipse: s-maj=66.2km s-min=13.3km az=55.0*

*IDC **14** 07:32:06.0±2.9,8.59S×111.87E,mb3.8/5,mb1 3.9/5, mb1mx3.8/14,Error ellipse: s-maj=145.0km s-min=21.2km az=55.0*

*DJA **14** 07:32:09.1±0.9,9.60S×111.51E,h84^{km}±16^{km},MD4.7/4, ML4.9/4,Error ellipse: s-maj=39.2km s-min=20.0km az=175.0*

ISC 14 07:32:06.3±3.8,9.0S±0.1×111.27E±0.07,h30^{km}±28^{km}, n17,σ1^{s}20/21,mb3.9/7,6C-6D,South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**2.89**	**80**	⇑iPn	Pn	07 32 51.0	-0.4
	340nm,0.2s						
SRDI	**Scrawed**	**2.89**	**80**	⇑iP	Pn	07 32 52.1	+0.7
SRDI				⇑iSn	Sn	07 33 26.2	+0.7
KELI	**Kelakatan**	**3.28**	**76**	⇑ePn	Pn	07 32 59.3	+2.3
	230nm,0.3s						
KELI	**Kelakatan**	**3.28**	**76**	⇓iP	Pn	07 33 00.0	+3.0
KELI				⇓iSn	Sn	07 33 34.0	-1.5
RATI	**Rata**	**4.22**	**86**	⇓iPn	Pn	07 33 10.7	+0.3
	591nm,0.2s						
RATI	**Rata**	**4.22**	**86**	⇓iP	Pn	07 33 11.8	+1.4
RATI				⇑iSn	Sn	07 33 54.1	-5.2
KEDI	**Kedomdong**	**4.81**	**84**	⇑iPn	Pn	07 33 17.1	-1.7
	145nm,0.2s						
KEDI	**Kedomdong**	**4.81**	**84**	⇓iP	Pn	07 33 17.5	-1.3
KEDI				⇓iSn	Sn	07 34 06.7	-7.6
MBWA	**Marble Bar**	**14.57**	**147**	eP	P	07 35 30.8	-1.8
WRA	**Warramunga Arr**	**24.80**	**119**	P	P	07 37 26.3	-1.1
	0.8nm,0.4s,mb3.6,baz=293,slow=12,SNR=4.6						
WRAB	**Tennant Creek**	**24.81**	**118**	P	P	07 37 28.4	+0.9
	2.0nm,0.6s,mb3.8						
ASAR	**Alice Springs**	**26.09**	**127**	P	P	07 37 39.9	+0.4
	0.5nm,0.5s,mb3.3,baz=300,slow=8.6,SNR=8.5						
STKA	**Stephens Creek**	**36.17**	**133**	P	P	07 39 10.4	+2.1
	1.3nm,0.8s,mb3.9,baz=315,slow=15,SNR=3.2						
SONM	**Songino Array**	**56.76**	**356**	P	P	07 41 49.7	-0.3
	0.4nm,0.4s,mb3.8,baz=176,slow=7.9,SNR=5.8						
EKS2	**Erkin-Say**	**61.77**	**329**	P	P	07 42 24.2	-0.5
	2.2nm,0.6s,mb4.5						
ZAL	**Zalesovo**	**66.59**	**343**	P	P	07 42 56.0	0.0
	1.2nm,0.5s,mb4.2,baz=40,slow=4.1,SNR=4.0						
ZAL	**Zalesovo**	**66.59**	**343**	P	P	07 42 56.0	0.0

DJA 14 07:36:59.0±0.8,9.62S×115.21E,h33^{km},MD4.9/4, ML3.6/4,6C-4D,Error ellipse: s-maj=18.4km s-min=7.3km az=173.0,South of Bali

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RATI	**Rata**	**0.95**	**20**	⇓iPn	Pn	07 37 14.9	-1.2
	146nm,0.2s						
RATI				⇓iSn	Sn	07 37 25.4	-3.2
KEDI	**Kedomdong**	**1.44**	**38**	⇑iPn	Pn	07 37 22.1	-1.1
	33nm,0.2s						
KEDI				⇓iSn	Sn	07 37 37.8	-3.2
SRDI	**Scrawed**	**1.55**	**317**	⇑iPn	Pn	07 37 23.6	-1.1
	78nm,0.2s						
SRDI	**Scrawed**	**1.55**	**317**	⇓iP	P	07 37 23.9	-0.7
SRDI				⇑iSn	Sn	07 37 41.2	-2.6
KELI	**Kelakatan**	**1.57**	**333**	⇑ePn	Pn	07 37 24.2	-0.8
	27nm,0.2s						
KELI	**Kelakatan**	**1.57**	**333**	⇑iP	P	07 37 24.4	-0.4
KELI				⇑eSn	Sn	07 37 42.6	-1.7

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*FUNV **14** 07:54:45.6,10.48N×61.05W,h26^{km},MW3.2*

*TRN **14** 07:54:48.9,10.54N×61.10W,h29^{km},MD3.6*

ISC 14 07:54:46.4±0.5,10.37N±0.03×61.24W±0.04,h33^{km},n21, σ1^{s}36/38,1C-3D,Trinidad

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TBH	**Brigand Hill**	**0.20**	**57**	eP	P	07 54 53.8	+0.8
TBH				eS	S	07 54 57.8	+0.1
TPP	**Pointe-a-Pierr**	**0.22**	**255**	⇓iP	P	07 54 57.8	+4.6
TPP				eS	S	07 55 05.9	+7.9
TRN	**Trinidad (W)**	**0.32**	**329**	⇑iP	P	07 54 56.3	+1.9
TRN				eS	S	07 55 01.7	+1.6
SIPA	**Siparia**	**0.35**	**229**	⇓iP	P	07 54 59.4	+4.6
SIPA				eS	S	07 55 09.7	+8.9
BUAY	**Buenos Aires**	**0.52**	**239**	eP	P	07 55 02.2	+5.1
TPR	**Prospect**	**0.93**	**29**	⇓iP	P	07 55 03.1	+0.1
TPR				eS	S	07 55 13.4	-1.9
BOT	**Bacolet**	**0.94**	**33**	eP	P	07 55 03.0	-0.3
BOT				eS	S	07 55 14.9	-0.7
GUIV	**Guiria**	**1.01**	**286**	eP	P	07 55 06.2	+1.9
GUIV				eS	S	07 55 20.4	+3.0
GRW	**Mount Saint Ca**	**1.82**	**347**	eP	P	07 55 17.5	+1.6
CRUV	**Carupano**	**1.99**	**279**	eP	P	07 55 18.6	+0.3
ITEV	**Isla Los Testi**	**2.10**	**298**	eP	P	07 55 20.0	+0.1
ITEV				eS	S	07 55 45.5	+0.5
RIOV	**Rio Grande**	**2.36**	**194**	eP	P	07 55 23.9	+0.3
RIOV				eS	S	07 55 52.6	+0.9
ORIV	**Oritupano**	**2.50**	**239**	eP	P	07 55 26.6	+1.0
ORIV				eS	S	07 55 57.5	+2.2
GURV	**El Guri**	**3.17**	**215**	eP	P	07 55 35.5	+0.3
GURV				eS	S	07 56 12.4	+0.1
PCRV	**Puerto La Cruz**	**3.35**	**267**	eP	P	07 55 37.6	-0.1
IBAV	**Isla La Blanqu**	**3.58**	**294**	eP	P	07 55 40.3	-0.6
IBAV				eS	S	07 56 20.9	-1.8
CUPV	**Cœpira**	**4.49**	**266**	eP	P	07 55 53.5	-0.4
CUPV				eS	S	07 56 42.9	-2.8
MERV	**Las Mercedes**	**5.11**	**258**	eP	P	07 56 01.5	-1.2
MERV				eS	S	07 56 58.3	-3.0
CAOV	**Caicara del Or**	**5.87**	**239**	eP	P	07 56 11.0	-2.3
CAOV				eS	S	07 57 15.7	-4.5
BAUV	**El Baul**	**6.86**	**259**	eP	P	07 56 24.9	-2.3
BAUV				eS	S	07 57 38.7	-6.3
PAYV	**Puerto Ayacuch**	**8.04**	**233**	eP	P	07 56 41.9	-1.8
PAYV				eS	S	07 58 06.1	-8.3

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*MAN **14** 07:58:26.9,10.00N×126.05E,h20^{km},MS3.5*

*IDC **14** 07:58:28.5±10.0,9.98N×126.07E,h76^{km}±95^{km},mb3.6/11, mb1 3.8/11,mb1mx3.7/19,MS3.3/2,Ms1 3.4/2, ms1mx2.7/28,Error ellipse: s-maj=54.2km s-min=17.4km az=62.0*

*NEIC **14** 07:58:29.8±6.3,9.97N×126.04E,h88^{km}±59^{km},mb4.4/2, Error ellipse: s-maj=32.0km s-min=10.1km az=63.0*

ISC 14 07:58:26.8±0.7,9.95N±0.04×126.09E±0.07,h76^{km}±6^{km}, n30,σ1^{s}03/39,mb3.9/13,1C-3D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	**Surigao**	**0.62**	**254**	⇓eP	P	07 58 38.5	-2.9
SCPH				eS	S	07 58 46.8	-5.4
BUTP	**Butuan**	**1.08**	**205**	eP	P	07 58 46.2	-0.7
BUTP				eS	S	07 59 02.3	+0.5
MSLP	**Maasin**	**1.23**	**279**	eP	P	07 58 48.1	-0.6
PLP	**Palo**	**1.63**	**318**	eP	P	07 58 53.2	-0.9
PLP				eS	S	07 59 14.2	-0.1
BESP	**Borongan**	**1.76**	**339**	eP	P	07 58 56.1	+0.2
BESP				eS	S	07 59 20.4	+3.1
BIPH	**Bislig**	**1.78**	**171**	⇓eP	P	07 58 54.8	-1.3
BIPH				i S	S	07 59 19.0	+1.2
OCLP	**Ormoc**	**1.82**	**307**	eP	P	07 58 56.8	+0.1
LLP	**Lapu-Lapu**	**2.12**	**280**	eP	P	07 59 01.4	+0.5
LLP				eS	S	07 59 18.8	-7.3
TBP	**Tagbilaran**	**2.21**	**263**	eP	P	07 59 02.3	+0.2
TBP				eS	S	07 59 28.3	0.0
BUKP	**Musuan**	**2.30**	**206**	eP	P	07 59 04.8	+1.4
BUKP				eS	S	07 59 33.7	+3.2
SNPH	**Sibulan**	**2.88**	**258**	eP	P	07 59 12.5	+1.0
CNP	**Catarman**	**2.90**	**331**	eP	P	07 59 11.7	-0.1
CNP				eS	S	07 59 45.3	-0.3
CTBH	**Cotabato--PC H**	**3.27**	**214**	⇑eP	P	07 59 15.1	-1.8
CTBH				i S	S	07 59 51.5	-3.3
PAGZ	**Pagadian**	**3.40**	**232**	eP	P	07 59 18.8	0.0
GUIM	**Jordan**	**3.51**	**281**	eP	P	07 59 21.0	+0.7
RCP	**Roxas**	**3.66**	**296**	⇓eP	P	07 59 23.2	+1.0
TGY	**Tagaytay City**	**6.51**	**310**	LR	LR	08 02 51.5	
	comp=Z,300nm,20.0s,baz=103,slow=41						
CMAR	**Chiang Mai Arr**	**27.61**	**291**	P	P	08 04 09.2	-0.1
	1.0nm,0.4s,mb3.7,baz=99,slow=7.2,SNR=4.6						
CMAR				LR	LR	08 15 44.5	
	comp=Z,58nm,18.2s,baz=98,slow=38						
WRA	**Warramunga Arr**	**30.80**	**165**	P	P	08 04 38.2	+0.5
	0.6nm,0.7s,mb3.4,baz=342,slow=11,SNR=3.9						
ASAR	**Alice Springs**	**34.27**	**167**	P	P	08 05 07.2	-0.6
	0.5nm,0.4s,mb3.7,baz=352,slow=6.8,SNR=11						
ULN	**Ulaanbaatar**	**41.06**	**340**	P	P	08 06 04.6	+0.4
	2.7nm,0.5s,mb4.3						
SONM	**Songino Array**	**41.25**	**340**	P	P	08 06 06.0	+0.1
	0.5nm,0.5s,mb3.6,baz=160,slow=8.8,SNR=7.5						
STKA	**Stephens Creek**	**44.16**	**161**	P	P	08 06 30.0	+0.2
	1.0nm,0.5s,mb3.8,baz=337,slow=12,SNR=3.3						
ZAL	**Zalesovo**	**54.82**	**331**	P	P	08 07 49.6	-1.6
	0.4nm,0.3s,mb3.9,baz=336,slow=17,SNR=3.4						
BVAR	**Borovoye Array**	**61.83**	**326**	P	P	08 08 39.1	-0.9
	1.1nm,0.8s,mb4.0,baz=127,slow=7.4,SNR=4.6						
BVAR				PcP	PcP	08 09 19.4	-0.7
	0.7nm,0.7s,baz=180,slow=3.0,SNR=3.5						
BRVK	**Borovoye**	**61.90**	**326**	eP	P	08 08 38.9	-1.6
	3.8nm,1.0s,mb4.4						
ARCES	**ARCESS Array B**	**84.43**	**340**	P	P	08 10 52.1	+0.4
	2.9nm,0.9s,mb4.1,baz=97,slow=9.8,SNR=3.8						
BRTR	**Keskin Array B**	**85.59**	**309**	P	P	08 10 59.3	+1.1
	0.9nm,0.8s,mb3.8,baz=63,slow=9.7,SNR=2.5						
FINES	**FINESS Array B**	**86.08**	**332**	P	P	08 11 00.1	0.0
	2.4nm,0.9s,mb4.1,baz=90,slow=5.7,SNR=10						
YKA	**Yellowknife Ar**	**94.12**	**24**	P	P	08 11 39.1	+1.4
	0.2nm,0.7s,mb3.5,baz=302,slow=4.8,SNR=6.4						

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*IDC **14** 08:06:36.7±9.4,11.21S×166.60E,h121^{km}±80^{km},mb4.0/9, mb1 4.2/10,mb1mx4.0/16,Error ellipse: s-maj=46.6km s-min=29.0km az=117.0*

*NEIC **14** 08:06:38.4±6.3,11.08S×166.49E,h136^{km}±54^{km},mb4.5/9, Error ellipse: s-maj=32.0km s-min=19.8km az=117.0*

ISC 14 08:06:42.8±3.2,11.3S±0.1×166.4E±0.1,h192^{km}±33^{km}, n25,σ0^{s}98/25,mb4.2/14,1C,Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**10.72**	**180**	eP	P	08 09 12.7	+0.3
DZM				eS	S	08 11 08.3	-1.3
NOUC	**Port Laguerre**	**10.75**	**181**	eP	P	08 09 13.6	+0.9
PMG	**Port Moresby**	**19.04**	**274**	P	P	08 10 51.8	-0.7
	0.5nm,0.3s,baz=57,slow=4.5,SNR=6.0						
PMG	**Port Moresby**	**19.04**	**274**	eP	P	08 10 51.1	-1.4
	15nm,0.9s						
CTA	**Charters Tower**	**21.28**	**243**	eP	P	08 11 16.3	+1.4
	6.5nm,0.6s,mb4.3						
CTA	**Charters Tower**	**21.28**	**243**	P	P	08 11 16.1	+1.2
	9.6nm,0.6s,mb4.5,baz=67,slow=10,SNR=9.9						
CTAO	**Charters Tower**	**21.28**	**243**	eP	P	08 11 15.9	+1.0
	11nm,0.7s,mb4.5						
STKA	**Stephens Creek**	**30.73**	**224**	eP	P	08 12 43.6	+1.6
	5.3nm,0.8s,mb4.2						
STKA	**Stephens Creek**	**30.73**	**224**	P	P	08 12 42.6	+0.6
	6.2nm,0.7s,mb4.3,baz=45,slow=9.2,SNR=10						
WRAB	**Tennant Creek**	**32.01**	**250**	⇑eP	P	08 12 52.5	-0.9
	11nm,0.6s,mb4.6						
WB2	**Warramunga Arr**	**32.02**	**250**	eP	P	08 12 52.9	-0.5
WRA	**Warramunga Arr**	**32.03**	**250**	P	P	08 12 53.0	-0.4
	6.8nm,0.6s,mb4.4,baz=82,slow=8.8,SNR=33						
ASAR	**Alice Springs**	**33.28**	**244**	P	P	08 13 03.6	-0.6
	4.0nm,0.8s,mb4.0,baz=74,slow=9.6,SNR=35						
ASAR				PcP	PcP	08 15 43.2	+1.3
	1.3nm,1.0s,baz=82,slow=2.2,SNR=6.4						
ASPA	**Alice Springs**	**33.28**	**244**	eP	P	08 13 03.8	-0.4
KAKA	**Kakadu**	**33.30**	**264**	eP	P	08 13 03.2	-1.2
	7.6nm,0.5s,mb4.5						
FORT	**Forrest**	**40.45**	**235**	eP	P	08 14 05.6	+1.5
	37nm,0.6s,mb5.0						
MBWA	**Marble Bar**	**45.75**	**251**	eP	P	08 14 47.9	+0.9
	9.9nm,0.7s,mb4.2						
CMAR	**Chiang Mai Arr**	**72.82**	**293**	P	P	08 17 54.0	+1.3
	4.2nm,1.1s,mb4.0,baz=118,slow=5.0,SNR=7.9						
ULN	**Ulaanbaatar**	**78.89**	**324**	eP	P	08 18 24.5	-1.7
	2.6nm,0.9s,mb3.9						
SONM	**Songino Array**	**79.26**	**324**	P	P	08 18 29.0	+0.8
	0.5nm,0.5s,mb3.4,baz=136,slow=5.1,SNR=6.1						
ILAR	**Eielson Array**	**83.53**	**18**	P	P	08 18 50.3	+0.3
	1.0nm,0.7s,mb3.7,baz=249,slow=5.3,SNR=12						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
DAWY	**Dawson**	**85.54**	**21**	*e*P	**P**	**08 18 58.9**	**-1.1**
ZAL	**Zalesovo**	**94.15**	**324**	P	**P**	**08 19 41.6**	**+1.1**
	0.7nm,0.3s,mb4.1,baz=49,slow=7.6,SNR=2.9						
YKA	**Yellowknife Ar**	**94.89**	**27**	P	**P**	**08 19 43.3**	**-0.3**
	0.7nm,0.9s,mb3.8,baz=258,slow=4.5,SNR=15						
ARCES	**ARCESS Array B**	**116.74**	**346**	PKP	PKPdf	08 25 05.7	+2.0
	2.2nm,0.8s,baz=43,slow=2.2,SNR=7.0						

*IDC **14** 08:07:37.3±0.7,12.78S×71.00W,mb4.0/10,mb1 4.1/13, mb1mx4.1/20,ML2.8/3,Error ellipse: s-maj=34.1km s-min=12.1km az=56.0*
*NEIC **14** 08:07:39.6±0.3,12.80S×71.05W,mb4.7/12,Error ellipse: s-maj=10.3km s-min=5.6km az=53.0*
*BJI **14** 08:07:39.6,12.80S×71.10W,h13^{km},mB5.0,Ms4.6, Msz4.3*
*SYO **14** 08:07:39.6,12.80S×71.03W,h14^{km},MB4.7*
ISC 14 08:07:38.2±0.3**,12.81S**±0.05×**71.14W**±0.07**,h14^{km}, h14^{km}**±1.0^{km}**:pP-P,n63,**σ**1^{s}01**/58**,mb4.2**/21**,MS4.3**/1**, 1C-3D,Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	**Arequipa**	**3.65**	**185**	*e*P	**Pb**	**08 08 42.0**	**0.0**
LPAZ	**La Paz**	**4.52**	**140**	Pn	**Pn**	**08 08 48.2**	**+0.4**
	1.3nm,0.3s,baz=323,slow=10,SNR=33						
LPAZ				Pg	**Pb**	**08 08 57.6**	**+0.6**
	8.5nm,0.3s,baz=313,slow=15,SNR=68						
LPAZ				Sn	**Sn**	**08 09 43.0**	**+2.2**
	7.4nm,0.3s,baz=167,slow=24,SNR=2.3						
LPAZ				Lg		08 09 57.1	
	38nm,0.3s,baz=176,slow=22,SNR=6.1						
LPAZ	**La Paz**	**4.52**	**140**	*e*Pn	**Pn**	**08 08 48.2**	**+0.4**
LPAZ				*e*S	**Sn**	**08 09 39.8**	**-0.9**
NNA	**Nana**	**5.63**	**278**	Pn	**Pn**	**08 09 03.3**	**-0.3**
SAML	**Samuel**	**8.70**	**65**	*e*Pn	**P**	**08 09 42.8**	**-3.8**
LVC	**Limon Verde**	**9.98**	**168**	Pn	**P**	**08 10 03.5**	**-0.7**
	1.2nm,0.3s,baz=315,slow=8.7,SNR=30						
LVC	**Limon Verde**	**9.98**	**168**	*e*P	**P**	**08 10 03.4**	**-0.9**
OTAV	**Otavalo**	**14.86**	**330**	P	**P**	**08 11 03.6**	**-6.1**
	1.6nm,0.6s						
ROSC	**El Rosal**	**17.84**	**350**	P	**P**	**08 11 48.0**	**+0.2**
	0.3nm,0.3s,baz=283,slow=19,SNR=3.7						
CPUP	**Villa Florida**	**18.69**	**138**	P	**P**	**08 11 55.4**	**-2.8**
	0.0nm,0.3s,baz=256,slow=14,SNR=1.6						
SDV	**Santo Domingo**	**21.56**	**1**	*e*P	**P**	**08 12 29.8**	**+0.3**
	20nm,0.8s,mb4.6						
BDFB	**Brasilia**	**22.59**	**100**	P	**P**	**08 12 39.4**	**-0.4**
	2.6nm,0.6s,mb3.9,baz=79,slow=5.2,SNR=2.9						
BAO	**Brasilia Array**	**22.61**	**100**	*e*P	**P**	**08 12 41.4**	**+1.4**
TRQA	**Tornquist**	**26.43**	**164**	P	**P**	**08 13 14.9**	**-1.5**
	15nm,1.4s,mb4.3						
JTS	**JuntasAbangare**	**26.74**	**329**	P	**P**	**08 13 17.8**	**-1.6**
	19nm,1.3s,mb4.5						
TXAR	**Lajitas Array**	**52.36**	**324**	P	**P**	**08 16 52.2**	**+0.1**
	0.7nm,0.7s,mb3.7,baz=139,slow=8.3,SNR=2.5						
WMOK	**Wichita Mounta**	**54.08**	**332**	*e*P	**P**	**08 17 03.4**	**-1.4**
	1.2nm,0.7s,mb3.9						
GDL2	**Guadalupe Moun**	**54.91**	**325**	*e*P	**P**	**08 17 11.1**	**+0.2**
CPRX	**Cap Rock**	**55.26**	**326**	*e*P	**P**	**08 17 13.8**	**+0.3**
LPM	**Los Pinos Moun**	**57.74**	**325**	*e*P	**P**	**08 17 29.4**	**-1.7**
SDCO	**Great Sand Dun**	**59.73**	**329**	*e*P	**P**	**08 17 44.5**	**-0.5**
	8.3nm,0.8s,mb4.8						
SDCO				*e*	pP	08 17 49.2	-0.2
RW3	**Ridgway**	**61.24**	**328**	*e*P	**P**	**08 17 55.7**	**+0.5**
ISCO	**Idaho Springs**	**61.38**	**330**	P	**P**	**08 17 55.9**	**-0.3**
	8.3nm,1.1s,mb4.8						
PV01	**Paradox Valley**	**61.62**	**327**	*e*P	**P**	**08 17 58.2**	**+0.4**
PV01				*e*	pP	08 18 02.2	-0.1
SRU	**San Rafael**	**63.38**	**326**	*e*P	**P**	**08 18 09.1**	**-0.4**
SRU				*e*	pP	08 18 13.6	-0.3
MSU	**Marysvale**	**63.86**	**325**	*e*P	**P**	**08 18 13.3**	**+0.6**
MVU	**Marysvale**	**63.87**	**325**	*e*P	**P**	**08 18 13.7**	**+0.9**
	9.8nm,1.0s,mb4.8						
MVU				*e*	pP	08 18 17.9	+0.6
ARUT	**Antelope Range**	**64.08**	**324**	P	**P**	**08 18 15.5**	**+1.3**
ARUT				*e*	pP	08 18 19.8	+1.2
MPU	**Maple Canyon**	**64.62**	**326**	*e*P	**P**	**08 18 18.1**	**+0.4**
DAU	**Daniels Canyon**	**64.70**	**327**	*e*P	**P**	**08 18 18.9**	**+0.7**
JLU	**Jordanelle**	**64.94**	**327**	*e*P	**P**	**08 18 18.9**	**-0.8**
JLU				*e*	pP	08 18 24.3	+0.1
TPNV	**Topopah Spring**	**65.19**	**321**	P	**P**	**08 18 24.7**	**+3.4**
	2.1nm,0.8s,mb4.2						
PDAR	**Pinedale Array**	**65.56**	**330**	P	**P**	**08 18 23.4**	**-0.3**
	1.2nm,0.8s,mb4.0,baz=117,slow=8.4,SNR=6.6						
HWUT	**Hardware Ranch**	**65.73**	**328**	*e*P	**P**	**08 18 24.4**	**-0.3**
	3.5nm,0.8s,mb4.4						
BGU	**Big Grassy Mou**	**66.02**	**326**	P	**P**	**08 18 30.1**	**+3.5**
ULM	**Lac du Bonnet**	**66.43**	**343**	P	**P**	**08 18 26.6**	**-2.4**
	5.6nm,0.8s,mb4.7,baz=143,slow=7.3,SNR=3.2						
ULM	**Lac du Bonnet**	**66.43**	**343**	*e*P	**P**	**08 18 26.5**	**-2.5**
	9.1nm,0.8s,mb4.9						
ULM				*e*	pP	08 18 29.8	-3.7
NVAR	**Mina Array Bea**	**67.39**	**321**	P	**P**	**08 18 36.2**	**+0.9**
	0.3nm,0.7s,mb3.4,baz=135,slow=6.4,SNR=3.3						
NVAR				PcP	PcP	08 19 03.0	0.0
	1.0nm,0.7s,baz=125,slow=4.4,SNR=4.1						
DBIC	**Dimbokro**	**68.63**	**78**	P	**P**	**08 18 43.0**	**-0.6**
	1.7nm,0.7s,mb4.1,baz=128,slow=4.5,SNR=4.9						
DBIC	**Dimbokro**	**68.63**	**78**	P	**P**	**08 18 43.0**	**-0.6**
MCMT	**McKenzie Canyo**	**68.69**	**329**	*e*P	**P**	**08 18 44.2**	**+0.8**
VNA3	**Neumayer Olymp**	**68.95**	**162**	*e*	**P**	**08 18 48.2**	**+3.6**
VNA3	**Neumayer Olymp**	**68.95**	**162**	*e*	**P**	**08 18 50.0**	**+5.4**
VNA3	**Neumayer Olymp**	**68.95**	**162**	⇓*i*P	**P**	**08 18 44.0**	**-0.6**
VNA3				*e*	pP	08 18 48.2	-0.8
VNA3				*e*	pP	08 18 50.0	+1.0
VNA2	**Neumayer--Watz**	**69.52**	**162**	P	**P**	**08 18 48.7**	**+0.7**
MOD	**Modoc**	**70.76**	**323**	*e*P	**P**	**08 18 56.9**	**+0.8**
	9.1nm,0.8s,mb4.8						
BMO	**Blue Mountains**	**71.00**	**327**	*e*P	**P**	**08 18 57.6**	**+0.1**
	3.9nm,0.7s,mb4.5						
SNAA	**Sanae**	**71.15**	**162**	*e*	**P**	**08 19 00.7**	**+2.7**
SNAA	**Sanae**	**71.15**	**162**	*e*	**P**	**08 19 02.5**	**+4.5**
SNAA	**Sanae**	**71.15**	**162**	P	**P**	**08 18 57.0**	**-1.0**
	0.7nm,0.6s,mb3.8,baz=288,slow=7.0,SNR=12						
SNAA	**Sanae**	**71.15**	**162**	⇓*i*P	**P**	**08 18 56.8**	**-1.2**
SNAA				*e*	pP	08 19 00.7	-1.8
SNAA				*e*	pP	08 19 02.5	0.0
YBH	**Yreka Blue Hor**	**72.08**	**322**	P	**P**	**08 19 03.9**	**-0.2**
	2.2nm,0.8s,mb4.1,baz=323,slow=23,SNR=2.7						
YKA	**Yellowknife Ar**	**82.32**	**341**	P	**P**	**08 20 00.0**	**-0.5**
	2.4nm,1.0s,mb4.1,baz=137,slow=5.7,SNR=18						
VNDA	**Vanda**	**84.99**	**190**	P	**P**	**08 20 15.4**	**+1.7**
	0.6nm,0.8s,mb3.8,baz=146,slow=3.6,SNR=4.8						
SYO	**Syowa Base**	**85.35**	**160**	⇑P	**P**	**08 20 15.7**	**0.0**
SYO	**Syowa Base**	**85.35**	**160**	⇓pP	pP	08 20 22.5	+2.2
ZAL	**Zalesovo**	**134.77**	**20**	PKP	PKPdf	08 26 57.4	-2.8
	0.8nm,0.4s,baz=14,slow=4.2,SNR=3.7						
WMQ	**Urumqi**	**144.14**	**26**	PKP	PKPdf	08 27 14.3	-2.9
WMQ				APKP		08 27 18.3	
WMQ				XPKP		08 27 21.3	
WMQ				PP	PP	08 30 32.8	+0.7
WMQ				PP	PP		
	comp=Z,40nm,7.6s						
WMQ				LR	LR		
	comp=N,49nm,16.1s,MS4.4						
WMQ				LR	LR		
	comp=E,19nm,16.0s,MS4.4						
WMQ				LR	LR		
	comp=Z,44nm,17.6s,MS4.3						
MBWA	**Marble Bar**	**144.59**	**198**	*e*PKPdf	PKPdf	08 27 14.6	-4.1
ULN	**Ulaanbaatar**	**145.02**	**2**	*e*PKP	PKPdf	08 27 15.5	-3.2
SONM	**Songino Array**	**145.02**	**3**	PKP	PKPdf	08 27 15.4	-3.2
	comp=Z,1.7nm,0.8s,baz=328,slow=3.0,SNR=10.0						
HHC	**Hu-ho-hao-te**	**151.97**	**356**	*e*PKP	PKPdf	08 27 27.9	-2.1
LZH	**Lanzhou**	**156.39**	**10**	*e*PKP	PKPdf	08 27 32.0	-4.1
LZH				APKP		08 27 37.0	
LZH				XPKP		08 27 39.0	

*IDC **14** 08:17:56.0±0.8,8.33S×124.83E,mb4.1/8,mb1 4.3/10, mb1mx4.2/16,ML3.9/2,MS3.9/2,Ms1 3.8/2,ms1mx3.0/23, Error ellipse: s-maj=43.6km s-min=17.8km az=52.0*
*NEIC **14** 08:17:57.9±0.6,8.55S×124.82E,h15^{km},mb4.6/4,Error ellipse: s-maj=29.8km s-min=9.7km az=53.0*
*BJI **14** 08:17:57.8,8.60S×124.80E,h15^{km},mB4.9,mb4.7,Ms4.6, Msz4.3*
ISC 14 08:18:01.1±2.6**,9.1S**±0.1×**124.5E**±0.1**,h75^{km}**±26^{km}**,n28,** σ**1^{s}19**/29**,mb4.3**/14**,Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**8.62**	**115**	*e*P	**P**	**08 20 05.3**	**+0.1**
	26nm,0.5s						
KAKA				*e*S	**S**	**08 21 42.4**	**+0.6**
WRA	**Warramunga Arr**	**14.40**	**139**	Pn	**P**	**08 21 22.3**	**-0.3**
	0.9nm,0.3s,baz=318,slow=13,SNR=27						
WRA				Sn	**S**	**08 24 01.0**	**+0.2**
	1.6nm,0.3s,baz=317,slow=26,SNR=7.3						
WRAB	**Tennant Creek**	**14.40**	**139**	*e*P	**P**	**08 21 22.2**	**-0.3**
	88nm,1.1s						
WB2	**Warramunga Arr**	**14.41**	**139**	*e*P	**P**	**08 21 22.3**	**-0.4**
WB2				*e*S	**S**	**08 24 00.6**	**-0.4**
ASPA	**Alice Springs**	**17.07**	**149**	*e*P	**P**	**08 22 00.4**	**+4.1**
ASPA				*e*S	S	08 24 39.2	-23
ASAR	**Alice Springs**	**17.07**	**149**	P	**P**	**08 22 00.6**	**+4.2**
	0.4nm,0.3s,baz=317,slow=10,SNR=30						
ASAR				LR	LR	08 29 55.0	
	comp=Z,302nm,18.7s,baz=320,slow=41						
PMG	**Port Moresby**	**22.41**	**93**	P	**P**	**08 22 53.2**	**-1.4**
	5.6nm,0.7s,mb4.0,baz=200,slow=12,SNR=2.3						
PMG	**Port Moresby**	**22.41**	**93**	*e*P	**P**	**08 22 53.4**	**-1.1**
	18nm,0.8s,mb4.5						
CTA	**Charters Tower**	**23.72**	**120**	*e*P	**P**	**08 23 14.4**	**+7.2**
	9.0nm,1.2s,mb4.0						
CTA	**Charters Tower**	**23.72**	**120**	P	**P**	**08 23 11.1**	**+3.8**
	18nm,1.2s,mb4.3,baz=296,slow=9.4,SNR=4.5						
CTA	**Charters Tower**	**23.72**	**120**	P	**P**	**08 23 11.1**	**+3.8**
CTA				*e*P		08 23 14.4	
CTAO	**Charters Tower**	**23.72**	**120**	*e*P	**P**	**08 23 10.2**	**+3.0**
	24nm,1.2s,mb4.4						
STKA	**Stephens Creek**	**27.69**	**147**	P	**P**	**08 23 53.8**	**+9.4**
	4.6nm,1.1s,mb3.9,baz=320,slow=2.8,SNR=3.2						
STKA				LR	LR	08 36 31.7	
	comp=Z,238nm,20.1s,baz=26,slow=40						
CMAR	**Chiang Mai Arr**	**37.20**	**317**	P	**P**	**08 25 06.6**	**-0.5**
	4.2nm,0.8s,mb4.4,baz=135,slow=6.2,SNR=18						
CMAR				PcP	PcP	08 27 29.2	+3.2
	1.8nm,1.0s,baz=180,slow=1.8,SNR=4.6						
SSE	**Sheshan**	**40.09**	**356**	*e*P	**P**	**08 25 31.8**	**+0.8**
SSE				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,91nm,4.6s						
NJ2	**Nanjing**	**41.27**	**353**	*e*P	**P**	**08 25 42.6**	**+1.9**
NJ2				AP	pP	08 25 52.4	-6.7
NJ2				PP	PP	08 27 22.6	+2.5
NJ2				S	**S**	**08 31 57.0**	**+8.1**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
NJ2				AMB	AMB		
	comp=Z,246nm,6.2s						
NJ2				LR	LR		
	comp=N,264nm,14.2s						
NJ2				LR	LR		
	comp=E,426nm,15.6s						
NJ2				LR	LR		
	comp=Z,420nm,18.4s						
LZH	**Lanzhou**	**48.96**	**338**	*e*P	**P**	**08 26 41.0**	**-1.0**
LZH				AP	tx	08 26 47.4	
LZH				XP	tx	08 26 51.0	
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb4.9						
CN2	**Changchun**	**52.66**	**1**	*e*PKP	**P**	**08 27 19.8**	**+10**
MDJ	**Mudanjiang**	**53.67**	**5**	P	**P**	**08 27 16.8**	**-0.7**
MDJ				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,37nm,7.2s						
SONM	**Songino Array**	**58.91**	**346**	P	**P**	**08 27 52.2**	**-2.5**
	comp=Z,0.7nm,0.7s,mb3.8,baz=164,slow=9.0,SNR=4.8						
UCH	**Uchtor**	**68.48**	**322**	P	**P**	**08 28 59.4**	**+1.9**
	comp=Z,3.0nm,1.1s,mb4.0						
VNDA	**Vanda**	**71.09**	**172**	P	**P**	**08 29 19.2**	**+6.4**
	comp=Z,0.4nm,0.6s,mb3.5,baz=359,slow=4.0,SNR=3.7						
ZAL	**Zalesovo**	**71.17**	**337**	P	**P**	**08 29 12.1**	**-1.6**
	comp=Z,3.5nm,1.0s,mb4.1,baz=319,slow=5.6,SNR=11						
BVAR	**Borovoye Array**	**77.01**	**330**	P	**P**	**08 29 48.4**	**+1.0**
	comp=Z,1.0nm,0.8s,mb3.6,baz=135,slow=6.3,SNR=4.8						
IMA	**Indian Mountai**	**94.97**	**24**	*e*P	**P**	**08 31 10.7**	**-5.3**
	comp=Z,17nm,0.9s,mb5.5						
CPUP	**Villa Florida**	**144.73**	**177**	PKPbc	PKPbc	08 37 37.4	+7.4
	comp=Z,0.0nm,0.5s,baz=216,slow=15,SNR=1.9						
LPAZ	**La Paz**	**151.86**	**154**	PKPbc	PKPdf	08 37 55.6	+14
	comp=Z,0.9nm,0.4s,baz=226,slow=7.6,SNR=5.9						
LPAZ				PKPab	PKPab	08 38 08.3	+8.4
	comp=Z,2.0nm,0.9s,baz=183,slow=9.7,SNR=6.0						
LPAZ	**La Paz**	**151.86**	**154**	PKPbc	PKPdf	08 37 55.6	+14
LPAZ				PKPab	PKPab	08 38 08.3	+8.4

*IDC **14** 08:20:33.6±1.1,8.31S×124.63E,mb4.1/5,mb1 4.4/7, mb1mx4.2/14,ML3.9/2,Error ellipse: s-maj=52.7km s-min=21.1km az=53.0*
*NEIC **14** 08:20:34.7±0.7,8.47S×124.61E,h10^{km},mb4.4/1,Error ellipse: s-maj=35.6km s-min=12.3km az=53.0*
ISC 14 08:20:33.3±5.2**,8.8S**±0.2×**124.4E**±0.2**,h24^{km}**±38^{km}**,n10,** σ**1^{s}00**/11**,mb4.1**/6**,Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**14.66**	**140**	Pn	**P**	**08 24 00.3**	**-1.2**
	1.0nm,0.3s,baz=317,slow=13,SNR=7.1						
WRA				Sn	**S**	**08 26 37.9**	**-6.2**
	0.5nm,0.3s,baz=323,slow=23,SNR=5.4						
WRAB	**Tennant Creek**	**14.67**	**140**	*e*P	**P**	**08 24 01.7**	**+0.3**
	40nm,0.7s						
WRAB				*e*		08 24 04.8	
ASAR	**Alice Springs**	**17.36**	**150**	P	**P**	**08 24 39.6**	**+3.7**
	0.4nm,0.3s,baz=326,slow=11,SNR=7.1						
ASAR				S	**S**	**08 27 46.5**	**0.0**
	0.2nm,0.3s,baz=320,slow=20,SNR=6.8						
PMG	**Port Moresby**	**22.46**	**93**	P	**P**	**08 25 33.3**	**+0.9**
	16nm,1.0s,mb4.4,baz=260,slow=6.1,SNR=2.9						
STKA	**Stephens Creek**	**27.97**	**148**	P	**P**	**08 26 29.2**	**+4.8**
	2.9nm,1.1s,mb3.8,baz=329,slow=7.5,SNR=2.9						
CMAR	**Chiang Mai Arr**	**36.94**	**317**	P	**P**	**08 27 43.6**	**+0.9**
	1.5nm,0.5s,mb4.1,baz=132,slow=5.9,SNR=6.0						
SONM	**Songino Array**	**58.59**	**346**	P	**P**	**08 30 29.3**	**-1.4**
	0.6nm,0.8s,mb3.7,baz=191,slow=7.3,SNR=3.0						
AAK	**Ala-Archa**	**68.46**	**323**	P	**P**	**08 31 36.7**	**+0.9**
	2.1nm,0.7s,mb4.3						
ZAL	**Zalesovo**	**70.86**	**336**	P	**P**	**08 31 49.4**	**-0.9**
	1.2nm,0.4s,mb4.2,baz=359,slow=7.1,SNR=5.9						
CPUP	**Villa Florida**	**145.06**	**177**	PKPbc	PKPbc	08 40 14.1	+4.2
	0.0nm,0.9s,baz=201,slow=8.9,SNR=1.7						

*IDC **14** 08:33:02.9±0.5,8.65S×111.77E,mb4.4/16,mb1 4.5/16, mb1mx4.4/19,MS3.9/7,Ms1 4.0/7,ms1mx3.5/23,Error ellipse: s-maj=27.7km s-min=12.8km az=50.0*
*MOS **14** 08:33:06.1±0.7,8.56S×111.85E,h33^{km},mb4.7/12,Error ellipse: s-maj=21.8km s-min=11.5km az=126.0*
*BJI **14** 08:33:11.3,8.70S×111.80E,h75^{km},mB5.1,mb4.9,Ms4.7, Msz4.4*
*SYO **14** 08:33:11.5,8.71S×111.77E,h72^{km},MB4.8*
*NEIC **14** 08:33:12.4±1.3,8.67S×111.84E,h76^{km}±11^{km},mb4.8/16, MD4.7(DJA),Error ellipse: s-maj=13.9km s-min=6.8km az=58.0*
NEIC Felt [III] at Karangkates and Sawahan.
*DJA **14** 08:33:12.0±0.9,9.20S×111.90E,h80^{km},MD4.7/3, ML5.8/4,Error ellipse: s-maj=40.1km s-min=18.3km az=172.0*
ISC 14 08:33:12.1±1.3**,8.64S**±0.06×**111.92E**±0.07**,h89^{km}**±11^{km}**, h66^{km}**±3.7^{km}**:pP-P,n113,**σ**0^{s}99**/99**,mb4.6**/45**,10C-17D, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**2.20**	**86**	⇓*e*Pn	**P**	**08 33 47.8**	**+0.2**
SRDI				⇑*i*P		08 33 48.6	
SRDI	**Scrawed**	**2.20**	**86**	⇓*e*Pn	**P**	**08 33 47.8**	**+0.2**
	4μm,0.2s						
SRDI	**Scrawed**	**2.20**	**86**	⇑*i*P	**P**	**08 33 48.6**	**+1.0**
KELI	**Kelakatan**	**2.58**	**81**	⇓*e*Pn	**P**	**08 33 54.7**	**+1.9**
KELI				⇓*i*P		08 33 55.6	
KELI				*i* Sn	**S**	**08 34 24.0**	**+0.8**
KELI	**Kelakatan**	**2.58**	**81**	⇓*e*Pn	**P**	**08 33 54.7**	**+1.9**
	2μm,0.3s						
KELI	**Kelakatan**	**2.58**	**81**	⇓*i*P	**P**	**08 33 55.6**	**+2.8**
KELI				⇓*i*Sn	**S**	**08 34 24.0**	**+0.8**
RATI	**Rata**	**3.57**	**92**	⇓*e*Pn	**P**	**08 34 06.7**	**+0.1**
	6μm,0.2s						
RATI				⇑*i*Sn	**S**	**08 34 46.7**	**-1.1**
KEDI	**Kedomdong**	**4.15**	**88**	⇑*e*Pn	**P**	**08 34 13.9**	**-0.6**
KEDI				⇓*i*P		08 34 14.9	
KEDI				*i* Sn	**S**	**08 34 59.9**	**-2.2**
KEDI	**Kedomdong**	**4.15**	**88**	⇑*e*Pn	**P**	**08 34 13.9**	**-0.6**
	1μm,0.2s						
KEDI	**Kedomdong**	**4.15**	**88**	⇓*i*P	**P**	**08 34 14.9**	**+0.4**
KEDI				⇓*i*Sn	**S**	**08 34 59.9**	**-2.2**
MBWA	**Marble Bar**	**14.55**	**150**	*e*P	**P**	**08 36 25.3**	**-9.5**
MBWA				*e*S	rx	08 38 51.9	
KAKA	**Kakadu**	**20.56**	**103**	*e*P	**P**	**08 37 45.1**	**-0.8**
	30nm,0.6s						
WRA	**Warramunga Arr**	**24.42**	**120**	P	**P**	**08 38 24.3**	**+0.5**
	14nm,0.8s,mb4.3,baz=293,slow=12,SNR=33						
WRA				S	**S**	**08 42 53.5**	**+19**
	1.2nm,0.6s,baz=295,slow=21,SNR=4.1						
WRAB	**Tennant Creek**	**24.43**	**120*c***	*i*P	**P**	**08 38 24.5**	**+0.7**
WRAB	**Tennant Creek**	**24.43**	**120**	*e*P	**P**	**08 38 24.0**	**+0.2**
	73nm,1.3s,mb4.8						
WB2	**Warramunga Arr**	**24.43**	**120**	*e*P	**P**	**08 38 24.4**	**+0.5**
WB2				*e*S	tx	08 42 50.4	
NWAO	**Narrogin (SRO)**	**24.66**	**169**	P	**P**	**08 38 25.8**	**-0.2**
	5.3nm,0.8s,mb4.0,baz=286,slow=7.4,SNR=2.7						
NWAO	**Narrogin (SRO)**	**24.66**	**169**	P	**P**	**08 38 25.8**	**-0.2**
NWAO				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ASPA	**Alice Springs**	**25.80**	**128**	*e*P	**P**	**08 38 37.0**	**+0.2**
ASPA				*e*S	tx	08 43 28.6	
ASAR	**Alice Springs**	**25.81**	**128**	P	**P**	**08 38 36.7**	**-0.1**
	comp=Z,10nm,0.7s,mb4.3,baz=305,slow=8.7,SNR=107						
ASAR				PcP	PcP	08 42 05.9	+1.1
	comp=Z,2.1nm,0.6s,baz=322,slow=1.7,SNR=6.6						
ASAR				S	tx	08 43 27.4	
	comp=Z,5.2nm,0.9s,baz=300,slow=12,SNR=7.2						
FORT	**Forrest**	**26.69**	**148**	*e*P	**P**	**08 38 45.1**	**+0.2**
	comp=Z,44nm,0.6s,mb5.2						
CMAR	**Chiang Mai Arr**	**29.82**	**335**	P	**P**	**08 39 12.2**	**-0.9**
	comp=Z,0.6nm,0.5s,mb3.5,baz=172,slow=8.6,SNR=5.1						
CMAR				LR	LR	08 52 38.4	
	comp=Z,149nm,19.4s,baz=155,slow=40						
CMAR	**Chiang Mai Arr**	**29.82**	**335**	P	**P**	**08 39 12.3**	**-0.8**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CMAR				MLR	MLR		
	comp=Z,149nm,19.4s						
KMI	**Kunming**	**34.73**	**345**	*e*P	**P**	**08 39 59.3**	**+3.6**
KMI				AP	pP	08 40 16.4	-0.3
KMI				S	**S**	**08 45 24.8**	**+6.4**
KMI				XS		08 45 54.8	
KMI				SS	SS	08 47 43.4	+6.8
KMI				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.9						
KMI				AMB	AMB		
	comp=Z,83nm,5.2s						
KMI				LR	LR		
	comp=N,184nm,21.6s						
KMI				LR	LR		
	comp=E,192nm,24.6s						
KMI				LR	LR		
	comp=Z,183nm,22.1s						
PMG	**Port Moresby**	**34.80**	**94**	P	**P**	**08 39 57.0**	**+0.6**
	comp=Z,5.1nm,0.4s,mb4.7,baz=270,slow=4.0,SNR=4.9						
PMG	**Port Moresby**	**34.80**	**94**	P	**P**	**08 39 57.0**	**+0.6**
PMG				pmax	pmax		
	comp=Z,5.0nm,0.4s						
PMG	**Port Moresby**	**34.80**	**94**	*e*P	**P**	**08 39 55.3**	**-1.1**
	comp=Z,8.7nm,0.5s,mb4.8						
CTA	**Charters Tower**	**35.07**	**113**	P	**P**	**08 39 59.5**	**+0.8**
	comp=Z,2.2nm,0.6s,mb4.2,baz=291,slow=8.6,SNR=3.8						
CTA				LR	LR	08 55 24.5	
	comp=Z,170nm,18.5s,baz=136,slow=38						
CTA	**Charters Tower**	**35.07**	**113**	P	**P**	**08 39 59.5**	**+0.8**
CTA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CTA				MLR	MLR		
	comp=Z,170nm,18.5s						
CTA	**Charters Tower**	**35.07**	**113**	P	**P**	**08 39 59.5**	**+0.8**
STKA	**Stephens Creek**	**35.97**	**134**	*e*P	**P**	**08 40 06.8**	**+0.6**
	comp=Z,6.0nm,0.6s,mb4.7						
STKA	**Stephens Creek**	**35.97**	**134**	P	**P**	**08 40 06.8**	**+0.6**
	comp=Z,5.1nm,0.5s,mb4.7,baz=310,slow=8.1,SNR=29						
STKA				LR	LR	08 55 11.2	
	comp=Z,200nm,19.1s,baz=205,slow=37						
ENH	**Enshi**	**38.76**	**357**	P	**P**	**08 40 31.1**	**+1.7**
	comp=Z,4.9nm,0.5s,mb4.6						
SHL	**Shillong**	**39.20**	**331**	*e*P	**P**	**08 40 34.0**	**+0.8**
CD2	**Chengdu**	**40.09**	**349**	P	**P**	**08 40 42.4**	**+1.8**
CD2				PP	PP	08 42 19.8	+1.9
CD2				PPP	PPP	08 42 47.4	+2.3
CD2				S	**S**	**08 46 46.1**	**+6.2**
CD2				SS	SS	08 49 38.6	+3.3
CD2				SCS	ScS	08 50 40.9	+4.9
CD2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
CD2				AMB	AMB		
	comp=Z,170nm,5.4s						
CD2				LR	LR		
	comp=N,210nm,5.4s						
CD2				LR	LR		
	comp=Z,270nm,13.2s						
SSE	**Sheshan**	**40.49**	**12**	P	**P**	**08 40 42.1**	**-1.7**
SSE				S	**S**	**08 46 47.8**	**+2.0**
SSE				SS	SS	08 49 50.9	+7.3
SSE				AMB	AMB		
	comp=Z,32nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,65nm,5.3s						
NJ2	**Nanjing**	**41.00**	**9**	*e*P	**P**	**08 40 48.8**	**+0.8**
NJ2				PP	PP	08 42 28.0	+1.1
NJ2				S	**S**	**08 46 58.0**	**+4.7**
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.3						
NJ2				LR	LR		
	comp=N,1μm,18.2s						
NJ2				LR	LR		
	comp=E,846nm,17.4s						
NJ2				LR	LR		
	comp=Z,1μm,16.8s						
PKI	**Pulchoki**	**44.21**	**325**	*e*P	**P**	**08 41 15.1**	**+0.8**
GUN	**Gumba**	**44.21**	**326**	*e*P	**P**	**08 41 13.8**	**-0.5**
	comp=Z,15nm,0.6s,mb4.9						
KKN	**Kakani**	**44.45**	**325**	*e*P	**P**	**08 41 16.1**	**-0.2**
GKN	**Gorkha**	**44.98**	**325**	*e*P	**P**	**08 41 19.6**	**-0.9**
LZH	**Lanzhou**	**45.13**	**351**	*e*P	**P**	**08 41 23.1**	**+1.5**
LZH				AP	pP	08 41 40.6	-2.4
LZH				XP	sP	08 41 47.3	-5.9
LZH				PP	PP	08 43 11.0	+1.8
LZH				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,120nm,4.5s						
LZH				LR	LR		
	comp=N,235nm,14.5s						
LZH				LR	LR		
	comp=Z,343nm,16.0s						
KOLN	**Koldanda**	**45.40**	**324**	*e*P	**P**	**08 41 22.8**	**-1.0**
	comp=Z,4.1nm,0.3s,mb4.7						
GTA	**Gaotai**	**49.11**	**348**	*e*P	**P**	**08 41 54.1**	**+1.5**
GTA				PCP	PcP	08 43 16.8	+1.6
GTA				PP	PP	08 43 49.4	+2.2
GTA				SCP		08 47 04.0	
GTA				S	**S**	**08 48 58.3**	**+8.7**
GTA				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.6						
GTA				AMB	AMB		
	comp=Z,102nm,4.9s						
GTA				LR	LR		
	comp=N,294nm,11.8s						
GTA				LR	LR		
	comp=E,183nm,11.4s						
GTA				LR	LR		
	comp=Z,219nm,10.3s						
MAJO	**Matsushiro**	**51.28**	**27**	*e*P	**P**	**08 42 09.2**	**0.0**
	comp=Z,5.0nm,0.6s,mb4.7						
MAT	**Matsushiro**	**51.28**	**27**	P	**P**	**08 42 08.2**	**-1.0**
MAT	**Matsushiro**	**51.28**	**27**	*e*P	**P**	**08 42 08.0**	**-1.2**
CN2	**Changchun**	**53.62**	**12**	*e*P	**P**	**08 42 32.0**	**+5.4**
MDJ	**Mudanjiang**	**55.36**	**15**	P	**P**	**08 42 38.8**	**-0.4**
MDJ				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,53nm,4.5s						
ULN	**Ulaanbaatar**	**56.42**	**356**	*e*P	**P**	**08 42 46.7**	**-0.1**
	comp=Z,2.7nm,0.4s,mb4.6						
SONM	**Songino Array**	**56.44**	**356**	P	**P**	**08 42 46.9**	**0.0**
	comp=Z,2.7nm,0.6s,mb4.4,baz=177,slow=8.3,SNR=23						
SONM				PcP	PcP	08 43 43.5	+0.9
	comp=Z,2.4nm,0.7s,baz=182,slow=4.6,SNR=8.4						
WMQ	**Urumqi**	**56.65**	**339**	⇑P	**P**	**08 42 50.3**	**+1.8**

WMQ				AP	pP	08 43 05.3	-5.4
WMQ				PCP	PcP	08 43 44.5	+1.0
WMQ				PP	PP	08 44 58.8	+2.0
WMQ				S	**S**	**08 50 38.0**	**+6.1**
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.5s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,45nm,9.1s						
WMQ				LR	LR		
	comp=N,90nm,15.4s						
WMQ				LR	LR		
	comp=Z,47nm,15.4s						
KSH	**Kashi**	**58.36**	**328**	*e*P	**P**	**08 42 57.1**	**-3.4**
KSH				*e*PCP	PcP	08 43 48.6	-1.6
KSH				AMB	AMB		
	comp=Z,150nm,4.4s						
ZAK	**Zakamensk**	**59.26**	**354**	*e*P	**P**	**08 43 15.8**	**+9.3**
TKM2	**Tokmak 2**	**61.06**	**330**	*e*P	**P**	**08 43 17.2**	**-1.7**
	comp=Z,10nm,0.8s,mb4.9						
UCH	**Uchtor**	**61.09**	**329**	*e*P	**P**	**08 43 18.1**	**-1.1**
	comp=Z,7.1nm,1.1s,mb4.6						
MKAR	**Makanchi Array**	**61.18**	**337**	*i* P	**P**	**08 43 19.1**	**-0.6**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
AAK	**Ala-Archa**	**61.40**	**329**	*d i*P	**P**	**08 43 20.2**	**-1.0**
AAK				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.8						
AAK	**Ala-Archa**	**61.40**	**329**	*e*P	**P**	**08 43 19.2**	**-2.0**
	comp=Z,14nm,1.1s,mb4.9						
AAK				*e*		08 44 02.3	
YSS	**Yuzh-Sakhalins**	**61.78**	**23**	⇓*e*P	**P**	**08 43 23.9**	**+0.2**
YSS				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.3						
YSS	**Yuzh-Sakhalins**	**61.78**	**23**	⇓*e*P	**P**	**08 43 23.0**	**-0.7**
EKS2	**Erkin-Say**	**61.78**	**329**	*e*P	**P**	**08 43 23.1**	**-0.7**
	comp=Z,10.0nm,0.8s,mb4.9						
ZAL	**Zalesovo**	**66.42**	**343**	P	**P**	**08 43 53.2**	**-0.7**
	comp=Z,3.3nm,0.5s,mb4.4,baz=327,slow=3.8,SNR=11						
ZAL				LR	LR	09 19 00.8	
	comp=Z,231nm,18.8s,baz=188,slow=42						
MAW	**Mawson**	**67.28**	**198**	LR	LR	09 07 17.1	
	comp=Z,112nm,19.0s,baz=60,slow=31						
BVA0	**Borovoye Array**	**70.84**	**335**	*i* P	**P**	**08 44 20.6**	**-0.5**
BVAR	**Borovoye Array**	**70.84**	**335**	P	**P**	**08 44 20.6**	**-0.5**
	comp=Z,2.1nm,0.6s,mb4.2,baz=143,slow=7.4,SNR=12						
BRVK	**Borovoye**	**70.91**	**335**	P	**P**	**08 44 20.7**	**-0.8**
	comp=Z,2.4nm,0.6s,mb4.2						
CHKZ	**Chkalovo**	**71.22**	**335**	*e*P	**P**	**08 44 22.4**	**-1.0**
	comp=Z,5.0nm,0.6s,mb4.5						
CHKZ				*e*	pP	08 44 42.6	-4.0
YAK	**Yakutsk**	**71.80**	**9**	*e*P	**P**	**08 44 25.6**	**-1.1**
YAK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
YAK				pmax	pmax		
	comp=N,4.0nm,1.1s						
YAK	**Yakutsk**	**71.80**	**9**	⇑*i*P	**P**	**08 44 26.5**	**-0.2**
VNDA	**Vanda**	**73.49**	**170**	P	**P**	**08 44 36.4**	**0.0**
	comp=N,2.4nm,1.0s,mb4.0,baz=302,slow=5.5,SNR=7.6						
VNDA				LR	LR	09 13 18.1	
	comp=N,107nm,21.5s,baz=322,slow=33						
KMBO	**Kilima Mbogo**	**74.67**	**271**	P	**P**	**08 44 45.2**	**+0.8**
	comp=N,1.8nm,0.8s,mb3.9,baz=55,slow=7.2,SNR=4.2						
KMBO	**Kilima Mbogo**	**74.67**	**271**	P	**P**	**08 44 45.3**	**+0.9**
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SYO	**Syowa Base**	**75.68**	**201**	⇑P	**P**	**08 44 49.1**	**+0.1**
ARU	**Arti**	**78.24**	**333**	⇑*i*P	**P**	**08 45 03.6**	**+0.1**
ARU				*e*		08 48 00.2	
ARU				*e*S	S	08 54 54.1	+4.5
ARU				*e*SS	SS	08 59 54.0	-2.2
ARU				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.4						
ARU	**Arti**	**78.24**	**333**	⇓*e*P	**P**	**08 45 03.6**	**+0.1**
TIXI	**Tiksi**	**80.91**	**5**	*e*P	**P**	**08 45 17.0**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,56nm,18.0s						
ASF	**Jabal al Asfar**	**82.09**	**304**	P	**P**	**08 45 26.2**	**+1.6**
	comp=Z,1.4nm,0.4s,mb4.1,baz=7.2,slow=4.4,SNR=6.0						
MALT	**Malatya**	**82.60**	**310**	*e*P	**P**	**08 45 26.5**	**-0.6**
	comp=Z,7.6nm,1.1s,mb4.4						
SOC	**Sochi**	**83.28**	**316**	*e*P	**P**	**08 45 30.7**	**+0.3**
SOC				*e*S	S	08 55 45.9	+3.9
SOC				*e*SS	SS	09 01 15.1	+3.5
SOC				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.2						
SOC				pmax	pmax		
	comp=N,20nm,0.6s						
SOC				pmax	pmax		
	comp=E,28nm,0.7s						
BRTR	**Keskin Array B**	**86.57**	**311**	P	**P**	**08 45 47.8**	**+1.0**
	comp=E,2.8nm,0.8s,mb4.2,baz=127,slow=6.2,SNR=10						
BRTR	**Keskin Array B**	**86.57**	**311**	P	**P**	**08 45 47.8**	**+1.0**
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
OBN	**Obninsk**	**88.77**	**326**	⇓*e*P	**P**	**08 45 57.8**	**+0.9**
OBN				*i* *PP	pP	08 46 14.7	-6.3
OBN				*e*		08 56 16.7	
OBN				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.3						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s						
OBN	**Obninsk**	**88.77**	**326**	⇓*e*P	**P**	**08 45 57.9**	**+1.0**
SNAA	**Sanae**	**89.40**	**197**	LR	LR	09 19 21.8	
	comp=Z,27nm,19.5s,baz=184,slow=31						
SNAA	**Sanae**	**89.40**	**197**	*e*P	**P**	**08 45 58.3**	**-1.2**
	comp=Z,6.0nm,0.8s,mb4.7						
AKASG	**Malin Array Be**	**92.02**	**321**	P	**P**	**08 46 11.9**	**-0.3**
	comp=Z,0.3nm,0.3s,mb3.9,baz=83,slow=4.5,SNR=6.3						
FINES	**FINESS Array B**	**95.53**	**331**	P	**P**	**08 46 28.8**	**+0.8**
	comp=Z,1.5nm,0.8s,mb4.5,baz=18,slow=4.4,SNR=3.0						
FINES	**FINESS Array B**	**95.53**	**331**	P	**P**	**08 46 28.8**	**+0.8**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA	**Yellowknife Ar**	**116.62**	**22**	PKP	PKPdf	08 51 47.8	+2.2
	comp=Z,0.5nm,0.7s,baz=317,slow=1.9,SNR=14						
YKA	**Yellowknife Ar**	**116.62**	**22**	PKIKP	PKPdf	08 51 47.8	+2.2
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**116.62**	**22**	PKP	PKPdf	08 51 47.8	+2.2
NVAR	**Mina Array Bea**	**126.10**	**48**	PKP	PKPdf	08 52 09.3	+4.8
	comp=Z,1.6nm,0.8s,baz=249,slow=4.1,SNR=11						
PV10	**Paradox Valley**	**132.78**	**45**	*e*PKPdf	PKPdf	08 52 20.6	+3.3
PV01	**Paradox Valley**	**133.22**	**45**	*e*PKPdf	PKPdf	08 52 21.4	+3.3
TXAR	**Lajitas Array**	**140.79**	**54**	PKhKP		08 52 29.7	
	comp=Z,0.7nm,0.7s,baz=226,slow=2.6,SNR=6.5						
TXAR				PKP	PKPdf	08 52 35.7	+3.3
	comp=Z,0.8nm,0.8s,baz=315,slow=1.8,SNR=6.1						
TXAR	**Lajitas Array**	**140.79**	**54**	PKP	PKPdf	08 52 29.7	-2.6
TXAR				PKP	PKPdf	08 52 35.7	+3.3
JCT	**Junction City**	**143.26**	**49**	*e*PKPdf	PKPdf	08 52 36.5	0.0
CPUP	**Villa Florida**	**143.71**	**196**	PKP	PKPdf	08 52 38.1	+0.8
	comp=Z,0.0nm,0.3s,baz=214,slow=6.9,SNR=2.1						
FVM	**French Village**	**144.50**	**31**	*e*PKP	PKPdf	08 52 38.0	-0.5
MIAR	**Mount Ida**	**145.18**	**38**	*e*PKP	PKPdf	08 52 42.5	+2.8
ACSO	**Alum Creek Sta**	**145.85**	**21**	*e*PKPbc	PKPbc	08 52 44.3	+2.6
PARMO	**Parma**	**145.85**	**32**	*e*PKPbc	PKPbc	08 52 43.5	+1.7
WCI	**Wyandotte Cave**	**146.27**	**26**	*e*PKPbc	PKPbc	08 52 45.7	+2.9
WVT	**Waverly**	**147.25**	**30**	*e*PKPbc	PKPdf	08 52 48.6	+5.5
OXF	**Oxford**	**147.65**	**34**	*e*PKPbc	PKPdf	08 52 49.6	+5.7
BDFB	**Brasilia**	**148.74**	**220**	PKPbc	PKPdf	08 52 53.4	+7.3
	comp=Z,2.8nm,0.4s,baz=158,slow=0.3,SNR=6.4						
BDFB	**Brasilia**	**148.74**	**220**	PKP2	PKPab	08 52 53.4	-2.8
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.4s						
LRAL	**Lakeview Retre**	**150.08**	**33**	*e*PKPbc	PKPdf	08 52 55.6	+7.8
JSC	**Jenkinsville**	**151.75**	**24**	*e*PKPbc	PKPdf	08 52 59.8	+10
LPAZ	**La Paz**	**155.23**	**180**	PKP	PKPdf	08 53 00.3	+4.8
	comp=Z,2.5nm,1.2s,baz=296,slow=3.4,SNR=3.7						
LPAZ				PKPbc	PKPdf	08 53 09.0	+13
	comp=Z,0.7nm,0.5s,baz=210,slow=3.8,SNR=3.2						
LPAZ	**La Paz**	**155.23**	**180**	PKIKP	PKPdf	08 53 00.3	+4.8
LPAZ						08 53 09.0	
LPAZ				pmax	pmax		
	comp=Z,3.0nm,1.2s						
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.5s						
LPAZ	**La Paz**	**155.23**	**180**	PKP	PKPdf	08 53 00.3	+4.8
LPAZ				PKPbc	PKPdf	08 53 09.0	+13

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*NEIC **14** 08:49:19.6, 16.53N×94.28W, h103^{km}, MD3.9(MEX), After MEX.*

MEX 14 08:49:19.6±0.4**, 16.62N×94.27W, h108^{km}±8^{km}, MD3.9, 1D, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	**Matias Romero**	**0.75**	**309**	*i* P	P	08 49 36.9	-1.6
CMIG				*i* S	S	08 49 50.8	-1.8
SCX	**San Cristobal**	**1.57**	**85**	*i* P	P	08 49 46.5	-1.1
SCX				*i* S	S	08 50 07.0	-1.6
CCIG	**Comitan**	**2.07**	**99**	*i* P	P	08 49 52.5	-1.5
CCIG				*i* S	S	08 50 16.3	-3.3
CCIG	**Comitan**	**2.07**	**99**	⇓*i*P	P	08 49 52.4	-1.5
CCIG				*i* S	S	08 50 17.9	-1.8
OXX	**Oaxaca**	**2.39**	**282**	*i* P	P	08 49 57.0	-1.3
VHO	**Vista Hermosa**	**2.40**	**281**	*i* P	P	08 49 57.1	-1.3
VHO				*i* S	S	08 50 25.6	-2.0
VHO	**Vista Hermosa**	**2.40**	**281**	*i* P	P	08 49 57.1	-1.4
VHO				*i* S	S	08 50 25.6	-2.0

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*NEIC **14** 08:49:28.8±0.7, 4.20S×124.21E, h10^{km}, mb4.5/7, MD4.6(DJA), Error ellipse: s-maj=21.2km s-min=9.5km az=217.0*

*IDC **14** 08:49:32.3±0.8, 4.30S×124.77E, mb4.1/8, mb1 4.3/9, mb1mx4.2/17, ML4.0/1, MS4.0/4, Ms1 4.0/4, ms1mx3.1/23, Error ellipse: s-maj=51.9km s-min=16.7km az=57.0*

*DJA **14** 08:49:32.3±0.9, 4.62S×123.99E, h33^{km}, MD4.6/3, ML5.3/3, Error ellipse: s-maj=49.7km s-min=19.3km az=7.0*

ISC 14 08:49:30.2±0.5**, 4.25S**±0.09×**124.13E**±0.07**, h33^{km}, n36, σ1^{s}37**/30**, mb4.2**/9**, MS4.0**/4**, 7C-5D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUNI	**Buntu Taipa**	**3.84**	**279**	⇑*i*Pn	**Pn**	**08 50 28.2**	**-0.5**
BUNI				⇓*i*P		08 50 28.8	
BUNI				*i* Sn	**Sn**	**08 51 03.8**	**-9.5**
BUNI	**Buntu Taipa**	**3.84**	**279**	⇑*i*Pn	**Pn**	**08 50 28.2**	**-0.5**
	186nm,0.2s						
BUNI	**Buntu Taipa**	**3.84**	**279**	⇓*i*P	**P**	**08 50 28.8**	**+0.3**
BUNI				⇑*i*Sn	**Sn**	**08 51 09.2**	**-4.1**
NINI	**Niniconang**	**4.37**	**268**	⇓*i*Pn	**Pn**	**08 50 34.9**	**-1.2**
	2μm,0.5s						
NINI				⇓*i*Sn	**Sn**	**08 51 20.4**	**-6.1**
TANI	**Tanete Lipujan**	**4.81**	**279**	⇑*i*Pn	**Pn**	**08 50 42.7**	**+0.4**
TANI				⇑*i*P		08 50 43.3	
TANI				*i* Sn	**Sn**	**08 51 32.9**	**-4.7**
TANI	**Tanete Lipujan**	**4.81**	**279**	⇑*i*Pn	**Pn**	**08 50 42.7**	**+0.4**
	400nm,0.4s						
TANI	**Tanete Lipujan**	**4.81**	**279**	⇑*i*P	**P**	**08 50 43.3**	**+1.1**
TANI				⇓*i*Sn	**Sn**	**08 51 32.9**	**-4.7**
KAKA	**Kakadu**	**11.75**	**136**	*e*P	**P**	**08 52 22.2**	**+3.6**
	7.2nm,0.6s						
WRAB	**Tennant Creek**	**18.50**	**148**	*e*P	**P**	**08 53 45.4**	**-0.6**
	38nm,1.1s						
WRAB				*e*S	**S**	**08 57 00.4**	**-7.4**
WRA	**Warramunga Arr**	**18.50**	**148**	P	**P**	**08 53 44.2**	**-1.9**
	0.6nm,0.3s,baz=314,slow=13,SNR=24						
WRA				S	**S**	**08 57 00.5**	**-7.3**
	baz=315,slow=23,SNR=6.8						
WB2	**Warramunga Arr**	**18.51**	**148**	*e*P	**P**	**08 53 43.9**	**-2.2**
ASPA	**Alice Springs**	**21.49**	**155**	*e*P	**P**	**08 54 19.4**	**+1.2**
ASAR	**Alice Springs**	**21.49**	**155**	P	**P**	**08 54 19.2**	**+1.0**
	15nm,1.0s,mb4.3,baz=334,slow=11,SNR=66						
ASAR				S	**S**	**08 58 10.2**	**+0.6**
	2.1nm,0.9s,baz=315,slow=21,SNR=6.0						
ASAR				LR	LR	09 02 29.0	
	comp=Z,91nm,19.5s,MS3.2,baz=339,slow=37						
PMG	**Port Moresby**	**23.42**	**104**	P	**P**	**08 54 36.4**	**-1.2**
	7.1nm,0.8s,mb4.2,baz=251,slow=5.5,SNR=4.4						
PMG	**Port Moresby**	**23.42**	**104**	*e*P	**P**	**08 54 35.6**	**-1.9**
	9.2nm,0.9s,mb4.2						
STKA	**Stephens Creek**	**32.00**	**151**	P	**P**	**08 55 57.8**	**+1.8**
	6.8nm,1.1s,mb4.4,baz=317,slow=8.9,SNR=6.5						
CMAR	**Chiang Mai Arr**	**33.54**	**313**	P	pP	08 56 17.6	-1.5
	0.8nm,0.5s,baz=153,slow=6.0,SNR=3.6						
JHJ	**Hachijo jima 2**	**40.01**	**21**	LR	LR	09 10 16.6	
	comp=Z,1μm,21.8s,MS4.7,baz=243,slow=31						
GUN	**Gumba**	**48.79**	**313**	*e*P	pP	08 58 22.0	-2.3
	17nm,0.8s						
PKI	**Pulchoki**	**48.94**	**313**	*e*P	pP	08 58 22.8	-2.7
KKN	**Kakani**	**49.16**	**313**	*e*P	pP	08 58 24.1	-3.0
GKN	**Gorkha**	**49.75**	**313**	*e*P	pP	08 58 28.6	-3.1
	8.5nm,0.6s						
KOLN	**Koldanda**	**50.39**	**312**	*e*P	pP	08 58 33.6	-3.0
	11nm,0.6s						
ASAJ	**Asahikawa**	**50.93**	**17**	LR	LR	09 18 23.8	
	comp=Z,134nm,21.8s,MS3.9,baz=358,slow=34						
ULN	**Ulaanbaatar**	**54.02**	**346**	*e*P	**P**	**08 58 52.6**	**-0.9**
	1.8nm,0.6s,mb4.2						
SONM	**Songino Array**	**54.15**	**345**	tx	**P**	**08 58 53.4**	**-1.1**
	0.9nm,0.5s,mb3.9,baz=152,slow=8.1,SNR=5.9						
SONM				P	pP	08 59 01.2	-3.4
	0.9nm,0.5s,baz=157,slow=8.7,SNR=6.6						
SONM	**Songino Array**	**54.15**	**345**	P	pP	08 59 01.2	-3.4
TKM2	**Tokmak 2**	**64.20**	**322**	*e*P	pP	09 00 12.2	-2.2
	1.6nm,0.4s						
UCH	**Uchtor**	**64.49**	**321**	*e*P	**P**	**09 00 06.6**	**+0.6**
	4.0nm,1.0s,mb4.4						
UCH				*e*	pP	09 00 15.1	-1.2
AAK	**Ala-Archa**	**64.72**	**322**	*e*P	**P**	**09 00 09.8**	**+2.3**
	2.4nm,0.8s,mb4.3						
EKS2	**Erkin-Say**	**65.18**	**321**	P	**P**	**09 00 11.1**	**+0.6**
	2.9nm,0.7s,mb4.4						
ZAL	**Zalesovo**	**66.62**	**336**	P	pP	09 00 24.7	-5.1
	0.9nm,0.3s,baz=48,slow=12,SNR=3.6						
BVAR	**Borovoye Array**	**72.68**	**329**	P	pP	09 01 06.0	-0.9
	0.7nm,0.5s,baz=127,slow=7.4,SNR=4.5						
VNDA	**Vanda**	**75.91**	**172**	P	**P**	**09 01 15.9**	**+1.1**
	0.8nm,0.6s,mb3.8,baz=307,slow=5.9,SNR=13						
VNDA				LR	LR	09 32 23.7	
	comp=Z,82nm,18.8s,MS4.1,baz=262,slow=34						
CPUP	**Villa Florida**	**149.57**	**177**	PKPbc	PKPdf	09 09 23.5	+11
	0.0nm,0.3s,baz=249,slow=16,SNR=1.6						
LPAZ	**La Paz**	**156.26**	**150**	PKPab	PKPab	09 09 58.0	+5.3
	1.1nm,0.7s,baz=168,slow=2.0,SNR=6.5						

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*IDC **14** 08:52:26.3±0.8, 2.89S×68.42E, mb4.1/10, mb1 4.2/10, mb1mx4.1/18, MS3.6/4, Ms1 3.6/4, ms1mx3.2/20, Error ellipse: s-maj=26.8km s-min=20.7km az=38.0*

*NEIC **14** 08:52:27.5±0.5, 2.91S×68.36E, h10^{km}, mb4.3/3, Error ellipse: s-maj=16.2km s-min=13.3km az=208.0*

ISC 14 08:52:26.2±0.5**, 2.9S**±0.1×**68.41E**±0.09**, h10^{km}, n24, σ1^{s}06**/15**, mb4.1**/13**, MS3.6**/4**, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DGAR	**Diego Garcia**	**6.00**	**138**	*e*Pn	**Pn**	**08 53 56.3**	**-0.9**
KMBO	**Kilima Mbogo**	**31.19**	**273**	P	**P**	**08 58 48.4**	**+0.2**
	2.3nm,0.9s,mb4.0,baz=65,slow=21,SNR=5.8						
CMAR	**Chiang Mai Arr**	**36.82**	**54**	P	**P**	**08 59 37.0**	**+0.5**
	1.0nm,0.3s,mb4.1,baz=247,slow=12,SNR=7.6						
CMAR				LR	LR	09 12 02.2	
	comp=Z,51nm,21.5s,MS3.3,baz=55,slow=32						
LSZ	**Lusaka**	**41.48**	**250**	*e*P	**P**	**09 00 15.4**	**+0.1**
	2.0nm,0.7s,mb3.9						
ASF	**Jabal al Asfar**	**45.97**	**322**	LR	LR	09 16 52.6	
	comp=Z,58nm,20.9s,MS3.5,baz=218,slow=32						
LBTB	**Lobatse**	**46.68**	**238**	P	**P**	**09 00 55.8**	**-1.5**
	1.9nm,0.7s,mb4.1						
GNI	**Garni**	**48.05**	**336**	LR	LR	09 19 42.6	
	comp=Z,78nm,19.3s,MS3.7,baz=262,slow=34						
ZAL	**Zalesovo**	**58.30**	**11**	P	**P**	**09 02 21.4**	**-2.1**
	1.9nm,0.7s,mb4.2,baz=255,slow=2.2,SNR=3.5						
SONM	**Songino Array**	**60.48**	**28**	P	**P**	**09 02 38.2**	**-0.5**
	8.0nm,1.1s,mb4.7,baz=221,slow=6.7,SNR=12						
AKASG	**Malin Array Be**	**63.06**	**333**	P	**P**	**09 02 56.1**	**0.0**
	0.2nm,0.3s,mb3.7,baz=126,slow=6.0,SNR=7.6						
MAW	**Mawson**	**64.67**	**182**	LR	LR	09 23 16.6	
	comp=Z,58nm,18.4s,MS3.8,baz=247,slow=29						
WRA	**Warramunga Arr**	**66.39**	**110**	P	**P**	**09 03 17.5**	**-0.6**
	1.3nm,0.9s,mb4.0,baz=286,slow=6.3,SNR=7.0						
WRAB	**Tennant Creek**	**66.40**	**110**	*e*P	**P**	**09 03 19.9**	**+1.8**
	3.3nm,0.8s,mb4.4						
ASAR	**Alice Springs**	**66.41**	**114**	P	**P**	**09 03 18.0**	**-0.2**
	0.8nm,0.9s,mb3.8,baz=281,slow=7.2,SNR=6.2						
FINES	**FINESS Array B**	**71.93**	**340**	P	**P**	**09 03 51.5**	**-0.1**
	1.8nm,0.6s,mb4.2,baz=133,slow=36,SNR=7.0						
MOX	**Moxa**	**72.00**	**326**	*e*P	**P**	**09 03 54.0**	**+1.8**
HFS	**Hagfors**	**75.84**	**335**	P	**P**	**09 04 14.0**	**-0.2**
	2.7nm,0.6s,mb4.3,baz=149,slow=8.4,SNR=3.9						
VNDA	**Vanda**	**87.90**	**167**	P	**P**	**09 05 18.6**	**+1.8**
	0.5nm,0.8s,mb3.8,baz=270,slow=6.1,SNR=2.5						
YKA	**Yellowknife Ar**	**120.54**	**2**	PKP	PKPdf	09 11 17.3	-3.9
	0.2nm,0.7s,baz=348,slow=2.5,SNR=5.7						
PDAR	**Pinedale Array**	**140.30**	**358**	PKP	PKPdf	09 11 58.5	-0.5
	0.4nm,0.7s,baz=63,slow=3.3,SNR=4.3						
NVAR	**Mina Array Bea**	**144.15**	**9**	PKP	PKPdf	09 12 02.7	-3.1
	0.3nm,0.6s,SNR=2.9						
WMOK	**Wichita Mounta**	**146.19**	**341**	*e*PKPdf	PKPdf	09 12 06.5	-2.9
MNTX	**Cornudas Mount**	**150.80**	**349**	*e*PKPbc	PKPdf	09 12 20.2	+3.3
TXAR	**Lajitas Array**	**152.69**	**345**	PKP	PKPdf	09 12 17.3	-2.4
	0.1nm,0.4s,baz=90,slow=0.9,SNR=2.9						
TXAR				PKPbc	PKPdf	09 12 24.7	+4.9
	1.1nm,0.8s,baz=90,slow=1.3,SNR=8.5						

JMA 14 08:54:19.8±0.1**, 44.08N×141.72E, h7^{km}**±3^{km}**, M1.2, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSS	**Shosan**	**0.33**	**17**	P	Pg	08 54 26.9	+0.3
JSS				*e*S	Sg	08 54 32.8	+1.7
JYG	**Yagishiri**	**0.41**	**329**	P	Pg	08 54 27.7	-0.3
JYG				*e*S	Sg	08 54 33.4	-0.1

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*NIED **14** 08:54:00, 44.10N×141.70E, h5^{km}, Mw4.5 Best double couple: $M_0$5.64×10^{15} NP1:ϕ_s341°, δ65°, λ58°. NP2:ϕ_s217°, δ39°, λ139°.*

*MOS **14** 08:54:44.5±1.1, 44.12N×141.72E, h10^{km}, mb4.8/21, Error ellipse: s-maj=10.4km s-min=5.6km az=99.9*

*BJI **14** 08:54:44.2, 44.06N×141.74E, h8^{km}, mB4.9, mb4.7, ML4.0, Ms4.4, Msz4.2*

*IDC **14** 08:54:45.0±0.4, 44.16N×141.60E, mb4.3/26, mb1 4.5/27, mb1mx4.5/29, ML4.5/1, MS3.9/4, Ms1 4.0/4, ms1mx3.4/28, Error ellipse: s-maj=12.4km s-min=7.5km az=8.0*

*NEIC **14** 08:54:46.3±0.2, 44.18N×141.80E, h10^{km}, mb4.8/29, MW4.5(NIED), Error ellipse: s-maj=6.9km s-min=5.5km az=105.0*

NEIC Recorded [3 JMA] in the Rumoi area; [2 JMA] in the Haboro, Otaru and Shibetsu areas; [1 JMA] in the Ebetsu area.

*JMA **14** 08:54:46.9±0.1, 44.09N×141.65E, h7^{km}±3^{km}, M4.8*

JMA Felt III J1.

ISC 14 08:54:46.8±0.4**, 44.10N**±0.02×**141.73E**±0.04**, h23^{km}**±3^{km}**, h15^{km}**±.1^{km}**:pP-P, n176, σ1^{s}14**/178**, mb4.6**/66**, MS4.1**/14**, 14C-6D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSS	**Shosan**	**0.31**	**17**	⇑P	**Pb**	**08 54 54.0**	**+0.2**
JSS				*e*S	**Sb**	**08 54 59.8**	**+1.2**
JHR	**Hokuryu**	**0.36**	**180**	⇑P	**Pb**	**08 54 54.2**	**-0.3**
JHR				*e*S	**Sb**	**08 55 00.4**	**+0.5**
JYG	**Yagishiri**	**0.39**	**327**	⇓P	**Pb**	**08 54 54.0**	**-1.1**
JYG				*e*S	**Sb**	**08 54 59.8**	**-0.9**
ASAJ	**Asahikawa**	**0.63**	**88**	Pg	**Pb**	**08 54 59.1**	**+0.1**
	4μm,0.3s,baz=268,slow=11,SNR=4576						
ASAJ				Lg		08 55 09.9	
	2μm,0.3s,baz=270,slow=20,SNR=44						
ASAJ	**Asahikawa**	**0.63**	**88**	⇑P	**Pb**	**08 54 59.3**	**+0.3**
JAB	**Ashibetsu**	**0.70**	**149**	⇑P	**Pb**	**08 55 00.5**	**+0.4**
JKK2	**Kamakawa 2**	**0.77**	**107**	⇑P	**Pb**	**08 55 01.9**	**+0.5**
JSE	**Soyaes**	**1.05**	**35**	⇑P	**Pb**	**08 55 06.6**	**+0.4**
JRR	**Rishiri**	**1.08**	**344**	P	**Pn**	**08 55 06.8**	**+0.2**
YSS	**Yuzh-Sakhalins**	**2.94**	**14**	*e*PN	**Pn**	**08 55 34.0**	**+0.7**
YSS				*e*		08 56 12.0	
YSS				pmax	pmax		
	comp=E,440nm,0.7s						
YSS				pmax	pmax		
	comp=E,1μm,1.3s						
YSS				MLR	MLR		
	comp=Z,2μm,6.0s						
YSS				MLR	MLR		
	comp=N,2μm,5.0s						
YSS				MLR	MLR		
	comp=E,2μm,8.0s						
YSS	**Yuzh-Sakhalins**	**2.94**	**14**	*e*Pn	**Pn**	**08 55 33.7**	**+0.4**
YUK	**Yuzh-Kuril'sk**	**2.98**	**90**	*e*PN	**Pn**	**08 55 33.6**	**-0.2**
YUK				S	**Sn**	**08 56 18.0**	**+8.8**
YUK				pmax	pmax		
	comp=N,190nm,0.5s						
YUK				pmax	pmax		
	comp=E,120nm,0.5s						
YUK				pmax	pmax		
	comp=Z,290nm,0.5s						
YUK				smax			
	comp=E,570nm,0.7s						
YUK				smax			
	comp=N,1μm,0.8s						
YUK				smax			
	comp=N,5μm,2.0s						
YUK				smax			
	comp=E,11μm,2.0s						
UGL	**Uglegorsk**	**4.98**	**3**	PN	**Pn**	**08 56 00.5**	**-1.7**
UGL				S	**Sn**	**08 57 02.0**	**+2.1**
UGL				smax			
	comp=N,85nm,0.5s						
UGL				smax			
	comp=E,146nm,0.5s						
TYV	**Tymovskoe**	**6.79**	**5**	*e*PN	**Pn**	**08 56 26.0**	**-1.7**
TYV				MLR	MLR		
	comp=Z,2μm,12.0s						
MAJO	**Matsushiro**	**8.01**	**201**	*e*PN	**P**	**08 56 45.6**	**+0.8**
MAT	**Matsushiro**	**8.01**	**201**	P	**P**	**08 56 45.9**	**+1.1**
MAT				*e*S	**Sn**	**08 58 20.0**	**+4.4**
MAT	**Matsushiro**	**8.01**	**201**	*e*PN	**P**	**08 56 46.0**	**+1.2**
MAT				S	**Sn**	**08 58 20.0**	**+4.4**
MAT				pmax	pmax		
	comp=Z,71nm,0.9s						
MAT	**Matsushiro**	**8.01**	**201**	*e*P	**P**	**08 56 46.0**	**+1.2**
	comp=Z,71nm,0.9s						
MAT				S	**Sn**	**08 58 20.0**	**+4.4**
KLR	**Kul'dur**	**8.56**	**310**	*e*PN	**P**	**08 56 52.8**	**+0.4**
KLR				MLR	MLR		
	comp=Z,1μm,14.0s						
MDJ	**Mudanjiang**	**8.71**	**278**	P	**P**	**08 56 54.5**	**0.0**
MDJ				S	**Sn**	**08 58 34.3**	**+1.3**
MDJ				PCP	PcP	09 03 18.5	-2.4
MDJ				SCP		09 06 48.9	
MDJ				PCS		09 06 52.4	
MDJ				SCS	ScS	09 10 25.5	+2.7
MDJ				AMB	AMB		
	comp=Z,15nm,1.3s						
MDJ				AMB	AMB		
	comp=Z,140nm,5.9s						
MDJ				LR	LR		
	comp=N,884nm,11.0s						
MDJ				LR	LR		
	comp=E,424nm,10.5s						
MDJ				LR	LR		
	comp=Z,1μm,14.7s						
MDJ	**Mudanjiang**	**8.71**	**278**	*e*P	**P**	**08 56 54.9**	**+0.4**
CN2	**Changchun**	**11.74**	**274**	*e*P	**P**	**08 57 37.6**	**+1.6**
CN2				*e*XP		08 57 43.5	
CN2				AMB	AMB		
	comp=Z,10.0nm,1.3s						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,1μm,12.0s						
CN2				LR	LR		
	comp=E,1μm,12.0s						
CN2				LR	LR		
	comp=Z,1μm,12.0s						
SKR	**Severo-Kuril's**	**11.76**	**51**	*e*PN	**P**	**08 57 36.0**	**-0.1**
KS15	**Wonju Array Si**	**12.41**	**242**	P	**P**	**08 57 44.8**	**-0.2**
HIA	**Hailar**	**15.93**	**297**	*e*P	**P**	**08 58 31.7**	**+0.8**
HIA				pmax	pmax		
	comp=Z,11nm,0.7s						
HIA	**Hailar**	**15.93**	**297**	*e*P	**P**	**08 58 31.6**	**+0.7**
	comp=Z,11nm,0.7s						
CLNS	**Chul'man**	**16.59**	**326**	*e*P	**P**	**08 58 44.1**	**+4.8**
CLNS				*e*S	**S**	**09 01 47.6**	**+5.5**
CLNS				pmax	pmax		
	comp=N,11nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,37nm,0.8s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.7s						
CLNS				pmax	pmax		
	comp=N,30nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,20nm,1.0s						
CLNS				pmax	pmax		

	comp=E,16nm,0.8s						
CLNS				smax			
	comp=N,37nm,10.6s						
CLNS				smax			
	comp=Z,83nm,13.3s						
CLNS				smax			
	comp=E,15nm,12.2s						
CLNS				MLR	MLR		
	comp=Z,300nm,12.0s						
CLNS				MLR	MLR		
	comp=N,300nm,13.0s						
CLNS				MLR	MLR		
	comp=E,100nm,12.0s						
CBIJ	**Chichi jima**	**16.97**	**179**	P	**P**	**08 58 45.5**	**+1.2**
	comp=E,6.1nm,0.3s,baz=276,slow=18,SNR=3.2						
YAK	**Yakutsk**	**19.30**	**343**	*e*P	**P**	**08 59 10.6**	**-2.1**
YAK				pmax	pmax		
	comp=Z,14nm,1.0s						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.3s						
YAK	**Yakutsk**	**19.30**	**343**	*e*P	**P**	**08 59 12.6**	**-0.1**
	comp=E,70nm,0.8s						
BJI	**Beijing**	**19.37**	**267**	P	**P**	**08 59 11.9**	**-1.7**
BJI				S	**S**	**09 02 43.9**	**-1.4**
BJI				AMB	AMB		
	comp=Z,13nm,0.8s						
BJI				AMB	AMB		
	comp=Z,200nm,5.2s						
BJI				LR	LR		
	comp=N,414nm,15.7s						
BJI				LR	LR		
	comp=E,585nm,15.7s						
BJI				LR	LR		
	comp=Z,385nm,17.4s						
SEY	**Seymchan**	**19.85**	**14**	*e*P	**P**	**08 59 19.8**	**+1.0**
SEY				pmax	pmax		
	comp=Z,50nm,1.1s						
SEY				pmax	pmax		
	comp=N,30nm,0.9s						
SSE	**Sheshan**	**20.75**	**238**	P	**P**	**08 59 24.8**	**-3.6**
SSE				S	**S**	**09 03 13.4**	**-0.6**
SSE				XS		09 03 22.9	
SSE				AMB	AMB		
	comp=Z,25nm,0.7s						
SSE				AMB	AMB		
	comp=Z,47nm,4.9s						
SSE				LR	LR		
	comp=N,57nm,18.4s,MS3.3						
SSE				LR	LR		
	comp=E,111nm,18.4s,MS3.3						
NJ2	**Nanjing**	**21.57**	**244**	*e*P	**P**	**08 59 33.9**	**-2.9**
NJ2				AP		08 59 39.4	
NJ2				XP		08 59 42.6	
NJ2				PP	PP	08 59 57.9	-3.5
NJ2				PPP	PPP	09 00 06.9	-4.1
NJ2				S	**S**	**09 03 25.0**	**-4.7**
NJ2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,1µm,4.5s						
NJ2				LR	LR		
	comp=N,970nm,18.4s						
NJ2				LR	LR		
	comp=E,640nm,13.2s						
NJ2				LR	LR		
	comp=Z,3µm,14.3s,MS4.8						
BOD	**Bodaibo**	**22.01**	**318**	*e*P	**P**	**08 59 40.4**	**-0.5**
ULN	**Ulaanbaatar**	**24.26**	**291**	*e*P	**P**	**09 00 02.6**	**-0.4**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.0						
ULN	**Ulaanbaatar**	**24.26**	**291**	*e*P	**P**	**09 00 02.6**	**-0.4**
	comp=Z,5.0nm,0.8s,mb4.0						
SONM	**Songino Array**	**24.70**	**291**	P	**P**	**09 00 07.2**	**-0.1**
	comp=Z,2.5nm,0.8s,mb3.8,baz=75,slow=8.7,SNR=8.9						
SONM				PcP	PcP	09 03 44.7	-0.5
	comp=Z,1.0nm,0.8s,baz=72,slow=4.6,SNR=4.2						
TIXI	**Tiksi**	**28.32**	**351**	⇑*i*P	**P**	**09 00 38.8**	**-1.6**
TIXI				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.1						
TIXI				MLR	MLR		
	comp=Z,113nm,15.0s,MS3.6						
ENH	**Enshi**	**28.95**	**252**	P	**P**	**09 00 48.0**	**+1.5**
	comp=Z,10.0nm,0.8s,mb4.6						
LZH	**Lanzhou**	**29.86**	**268**	*e*P	**P**	**09 00 57.0**	**+2.5**
LZH				AP	pP	09 01 01.4	0.0
LZH				XP	sP	09 01 03.4	-1.0
LZH				PP	PP	09 01 54.3	+2.3
LZH				*e*S	**S**	**09 05 52.0**	**+3.2**
LZH				XS		09 05 57.0	
LZH				SS	SS	09 07 25.1	+0.1
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb4.8						
LZH				AMB	AMB		
	comp=Z,95nm,4.1s						
LZH				LR	LR		
	comp=E,425nm,13.0s						
LZH				LR	LR		
	comp=Z,638nm,14.6s,MS4.4						
GTA	**Gaotai**	**31.36**	**276**	*e*P	**P**	**09 01 10.3**	**+2.5**
GTA				AP	pP	09 01 14.8	+0.2
GTA				XP	sP	09 01 17.8	+0.1
GTA				PP	PP	09 02 13.8	+2.2
GTA				S	**S**	**09 06 15.8**	**+3.3**
GTA				XS		09 06 22.9	
GTA				SS	SS	09 08 02.1	+1.9
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.4						
GTA				AMB	AMB		
	comp=Z,169nm,4.2s						
GTA				LR	LR		
	comp=N,294nm,10.3s,MS4.5						
GTA				LR	LR		
	comp=E,372nm,10.3s,MS4.5						
GTA				LR	LR		
	comp=Z,393nm,14.5s,MS4.2						
CD2	**Chengdu**	**32.58**	**259**	P	**P**	**09 01 16.9**	**-1.6**
CD2				PP	PP	09 02 26.8	-0.6
CD2				S	**S**	**09 06 35.0**	**+3.4**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
CD2				AMB	AMB		
	comp=Z,160nm,4.2s						
CD2				LR	LR		
	comp=N,320nm,10.2s						
CD2				LR	LR		
	comp=Z,250nm,9.6s						
GYA	**Guiyang**	**33.28**	**250**	P	**P**	**09 01 20.3**	**-4.4**
GYA				S	**S**	**09 06 34.6**	**-8.0**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
GYA				LR	LR		
	comp=N,670nm,16.2s,MS4.6						
GYA				LR	LR		
	comp=E,810nm,16.8s,MS4.6						
GYA				LR	LR		
	comp=Z,720nm,17.0s,MS4.5						
KMI	**Kunming**	**36.83**	**252**	*e*P	**P**	**09 01 55.8**	**+0.9**
KMI				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.8						
ZAL	**Zalesovo**	**37.65**	**306**	P	**P**	**09 02 00.6**	**-1.0**
	comp=Z,3.9nm,0.8s,mb4.2,baz=28,slow=9.6,SNR=15						
ZAL				PcP	PcP	09 04 17.9	-1.3
	comp=Z,1.2nm,0.7s,baz=26,slow=4.9,SNR=4.1						
WMQ	**Urumqi**	**38.30**	**289**	⇓P	**P**	**09 02 09.4**	**+2.3**
WMQ				AP	pP	09 02 13.8	-0.2
WMQ				XP	sP	09 02 16.4	-0.6
WMQ				PP	PP	09 03 40.8	+2.5
WMQ				PCP	PcP	09 04 23.4	+2.0
WMQ				S	**S**	**09 08 03.4**	**+3.9**
WMQ				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,17nm,5.9s						
WMQ				LR	LR		
	comp=N,100nm,14.6s,MS3.9						
WMQ				LR	LR		
	comp=E,90nm,16.0s,MS3.9						
WMQ				LR	LR		
	comp=Z,345nm,13.8s,MS4.3						
ILAR	**Eielson Array**	**43.52**	**36**	P	**P**	**09 02 48.0**	**-1.7**
	comp=Z,1.3nm,1.0s,mb3.6,baz=280,slow=7.9,SNR=9.3						
CMAR	**Chiang Mai Arr**	**43.94**	**248**	P	**P**	**09 02 54.5**	**+0.8**
	comp=Z,5.2nm,0.9s,mb4.2,baz=38,slow=7.5,SNR=10						
CMAR				LR	LR	09 22 55.0	
	comp=Z,130nm,18.4s,MS3.9,baz=55,slow=38						
SHL	**Shillong**	**44.17**	**262**	*e*P	**P**	**09 02 56.0**	**+0.5**
CHKZ	**Chkalovo**	**45.88**	**308**	*e*P	**P**	**09 03 07.1**	**-1.7**
CHKZ				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
CHKZ	**Chkalovo**	**45.88**	**308**	*e*P	**P**	**09 03 07.1**	**-1.7**
	comp=Z,6.7nm,0.8s,mb4.6						
BVAR	**Borovoye Array**	**46.22**	**308**	P	**P**	**09 03 10.8**	**-0.7**
	comp=Z,2.4nm,0.7s,mb4.2,baz=90,slow=7.4,SNR=8.5						
BVAR				PcP	PcP	09 04 47.0	-0.4
	comp=Z,1.0nm,0.5s,baz=63,slow=3.2,SNR=3.4						
BRVK	**Borovoye**	**46.27**	**308**	*e*P	**P**	**09 03 09.4**	**-2.4**
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BRVK	**Borovoye**	**46.27**	**308**	*e*P	**P**	**09 03 09.4**	**-2.4**
	comp=Z,6.0nm,0.9s,mb4.5						
TKM2	**Tokmak 2**	**46.79**	**293**	*e*P	**P**	**09 03 17.1**	**+1.0**
	comp=Z,21nm,0.6s,mb5.2						
TKM2				*e*		09 03 19.4	
GUN	**Gumba**	**47.09**	**269**	*e*P	**P**	**09 03 18.3**	**-0.4**
	comp=Z,33nm,0.6s,mb5.4						
GUN	**Gumba**	**47.09**	**269**	*e*P	**P**	**09 03 18.7**	**0.0**
	comp=Z,13nm,0.6s,mb5.0						
KKN	**Kakani**	**47.59**	**270**	*e*P	**P**	**09 03 22.6**	**-0.1**
	comp=Z,25nm,0.6s,mb5.4						
PKI	**Pulchoki**	**47.62**	**269**	*e*P	**P**	**09 03 22.8**	**-0.2**
	comp=Z,37nm,1.0s,mb5.4						
AAK	**Ala-Archa**	**47.64**	**293**	⇑*e*P	**P**	**09 03 21.1**	**-1.8**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
AAK				MLR	MLR		
	comp=Z,100nm,12.0s,MS4.0						
UCH	**Uchtor**	**47.81**	**292**	*e*P	**P**	**09 03 26.1**	**+1.9**
	comp=Z,3.5nm,0.8s,mb4.4						
DMN	**Daman**	**47.82**	**269**	*e*P	**P**	**09 03 24.0**	**-0.5**
	comp=Z,16nm,0.5s,mb5.3						
GKN	**Gorkha**	**47.93**	**270**	*e*P	**P**	**09 03 24.9**	**-0.4**
	comp=Z,26nm,0.7s,mb5.4						
GKN	**Gorkha**	**47.93**	**270**	*e*P	**P**	**09 03 24.7**	**-0.6**
	comp=Z,10nm,0.5s,mb5.1						
EKS2	**Erkin-Say**	**48.10**	**293**	*e*P	**P**	**09 03 26.7**	**+0.3**
	comp=Z,7.1nm,0.6s,mb4.9						
KOLN	**Koldanda**	**48.81**	**271**	*e*P	**P**	**09 03 31.8**	**-0.3**
	comp=Z,29nm,0.9s,mb5.3						
ARU	**Arti**	**51.37**	**315**	⇓*i*P	**P**	**09 03 50.5**	**-0.8**
ARU				*e*		09 05 04.3	
ARU				*e*		09 05 44.3	
ARU				*e*S	**S**	**09 11 10.2**	**+2.3**
ARU				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
BBB	**Bella Bella**	**56.96**	**47**	LR	LR	09 29 12.2	
	comp=Z,116nm,20.7s,MS4.0,baz=288,slow=36						
KAKA	**Kakadu**	**57.17**	**191**	⇑*i*P	**P**	**09 04 33.0**	**-1.3**
	comp=Z,14nm,0.6s,mb5.2						
YKA	**Yellowknife Ar**	**57.65**	**32**	P	**P**	**09 04 35.2**	**-1.9**
	comp=Z,0.3nm,0.6s,baz=306,slow=6.8,SNR=6.8						
YKA				PcP	PcP	09 05 28.9	-0.9
	comp=Z,0.5nm,0.7s,baz=312,slow=3.7,SNR=8.9						
YKA	**Yellowknife Ar**	**57.65**	**32**	P	**P**	**09 04 35.2**	**-1.8**
YKA						09 05 28.9	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**57.65**	**32**	*e*P	**P**	**09 04 37.3**	**+0.3**
JOF	**Joensuu**	**59.90**	**330**	*e*p	Px	09 05 10.2	
KAF	**Kangasniemi**	**62.18**	**331**	*e*p	**P**	**09 05 06.1**	**-2.1**
OBN	**Obninsk**	**62.65**	**321**	*e*P	**P**	**09 05 12.3**	**+0.9**
OBN				*e*		09 05 50.8	
OBN				*e*S	**S**	**09 13 38.2**	**+1.6**
OBN				*e*SS	SS	09 17 41.8	-1.4
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.6						
OBN				MLR	MLR		
	comp=Z,100nm,15.0s,MS4.1						
FINES	**FINESS Array B**	**62.72**	**331**	P	**P**	**09 05 09.7**	**-2.1**
	comp=Z,3.7nm,0.7s,mb4.6,baz=56,slow=6.9,SNR=11						
CTA	**Charters Tower**	**64.01**	**175**	P	**P**	**09 05 18.9**	**-1.9**
	comp=Z,2.1nm,0.5s,mb4.5,baz=16,slow=5.3,SNR=5.5						
CTAO	**Charters Tower**	**64.01**	**175**	*e*P	**P**	**09 05 18.1**	**-2.7**
CTAO				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
CTAO	**Charters Tower**	**64.01**	**175**	*e*P	**P**	**09 05 18.1**	**-2.7**
	comp=Z,2.8nm,0.5s,mb4.5						
WRAB	**Tennant Creek**	**64.08**	**188**	*e*P	**P**	**09 05 19.7**	**-1.6**
WRAB				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
WRAB	**Tennant Creek**	**64.08**	**188**	*e*P	**P**	**09 05 19.7**	**-1.6**
	comp=Z,16nm,0.8s,mb5.1						
WB2	**Warramunga Arr**	**64.08**	**188**	⇓*i*P	**P**	**09 05 20.2**	**-1.1**
WRA	**Warramunga Arr**	**64.09**	**188**	P	**P**	**09 05 20.1**	**-1.3**
	comp=Z,6.9nm,0.6s,mb4.8,baz=6.2,slow=6.8,SNR=55						
KIV	**Kislovodsk**	**66.55**	**309**	*e*P	**P**	**09 05 38.9**	**+2.1**
KIV				pmax	pmax		
	comp=N,8.0nm,0.7s						
KIV				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
KIV				MLR	MLR		
	comp=N,85nm,17.0s,MS4.1						
KIV				MLR	MLR		
	comp=E,62nm,17.0s,MS4.1						
KIV				MLR	MLR		
	comp=Z,111nm,17.0s,MS4.1						
BMO	**Blue Mountains**	**67.05**	**49**	*e*P	**P**	**09 05 39.8**	**-0.2**
	comp=Z,7.0nm,1.3s,mb4.5						
HFS	**Hagfors**	**67.78**	**335**	P	**P**	**09 05 43.2**	**-1.0**
	comp=Z,5.0nm,0.6s,mb4.7,baz=45,slow=8.4,SNR=10						
NB2	**NORSAR Subarra**	**67.79**	**336**	P	**P**	**09 05 42.0**	**-2.3**
	comp=Z,1.6nm,0.6s,mb4.2,baz=36,slow=6.2						
NB2	**NORSAR Subarra**	**67.79**	**336**	P	**P**	**09 05 42.0**	**-2.3**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
NOA	**NORSAR Array B**	**67.79**	**336**	P	**P**	**09 05 42.6**	**-1.7**
	comp=Z,2.5nm,0.7s,mb4.4,baz=37,slow=6.2,SNR=7.4						
NOA				LR	LR	09 37 15.4	
	comp=Z,86nm,18.4s,MS4.0,baz=295,slow=38						
ASAR	**Alice Springs**	**67.81**	**188**	P	**P**	**09 05 44.6**	**-0.5**
	comp=Z,6.9nm,0.8s,mb4.8,baz=10,slow=5.5,SNR=76						
ASPA	**Alice Springs**	**67.81**	**188**	⇓*i*P	**P**	**09 05 44.9**	**-0.2**
MBWA	**Marble Bar**	**68.00**	**202**	*e*P	**P**	**09 05 45.0**	**-1.3**
	comp=Z,24nm,1.3s,mb5.1						
SOC	**Sochi**	**68.44**	**310**	*e*P	**P**	**09 05 45.9**	**-2.8**
SOC				*e*S	S	09 14 44.2	-3.2
SOC				*e*SSS	SSS	09 22 07.2	-6.6
SOC				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.4						
SOC				pmax	pmax		
	comp=N,26nm,0.9s						
SOC				pmax	pmax		
	comp=E,17nm,0.8s						
HRY	**Holter Researc**	**68.72**	**45**	*e*P	**P**	**09 05 48.9**	**-1.5**
AKASG	**Malin Array Be**	**68.91**	**321**	P	**P**	**09 05 50.3**	**-1.2**
	comp=E,1.6nm,0.7s,mb4.1,baz=41,slow=6.2,SNR=7.7						
AKASG	**Malin Array Be**	**68.91**	**321**	P	**P**	**09 05 50.3**	**-1.2**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BOZ	**Bozeman (W)**	**69.54**	**46**	*e*P	**P**	**09 05 52.3**	**-3.1**
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BOZ	**Bozeman (W)**	**69.54**	**46**	*e*P	**P**	**09 05 52.3**	**-3.1**
	comp=Z,2.8nm,0.7s,mb4.3						
NVAR	**Mina Array Bea**	**70.65**	**55**	P	**P**	**09 06 02.8**	**+0.5**
	comp=Z,1.6nm,1.0s,mb3.9,baz=286,slow=6.1,SNR=7.4						
BW06	**Boulder Array**	**72.61**	**47**	*e*P	**P**	**09 06 13.2**	**-0.6**
	comp=Z,3.0nm,0.8s,mb4.3						
PDAR	**Pinedale Array**	**72.61**	**47**	P	**P**	**09 06 14.2**	**+0.3**
	comp=Z,2.9nm,0.7s,mb4.3,baz=297,slow=2.0,SNR=27						
OJC	**Ojcow**	**73.34**	**325**	*e*P	**P**	**09 06 17.2**	**-0.8**
ULM	**Lac du Bonnet**	**73.51**	**34**	P	**P**	**09 06 20.3**	**+1.3**
	comp=Z,2.1nm,0.8s,mb4.1,baz=340,slow=7.4,SNR=3.4						
ULM	**Lac du Bonnet**	**73.51**	**34**	P	**P**	**09 06 20.3**	**+1.3**
NIE	**Niedzica**	**73.74**	**325**	*e*P	**P**	**09 06 21.5**	**+1.2**
BRTR	**Keskin Array B**	**74.40**	**310**	P	**P**	**09 06 25.0**	**+0.6**
	comp=Z,2.5nm,1.0s,mb4.1,baz=63,slow=2.8,SNR=4.6						
MORC	**Moravsky Berou**	**74.60**	**326**	*e*P	**P**	**09 06 25.4**	**+0.1**
MORC				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
MORC	**Moravsky Berou**	**74.60**	**326**	*e*P	**P**	**09 06 25.4**	**+0.1**
	comp=Z,3.9nm,0.7s,mb4.5						
SRU	**San Rafael**	**74.64**	**50**	*e*P	**P**	**09 06 26.1**	**+0.3**
CLL	**Collm**	**75.11**	**330**	P	**P**	**09 06 31.0**	**+2.8**
BRG	**Berggiesshubel**	**75.12**	**329**	P	**P**	**09 06 31.0**	**+2.7**
VRAC	**Vranov**	**75.35**	**326**	P	**P**	**09 06 31.0**	**+1.4**
	comp=Z,3.1nm,0.6s,mb4.4,baz=339,slow=3.3,SNR=3.2						
FORT	**Forrest**	**75.56**	**192**	⇑*i*P	**P**	**09 06 31.6**	**+0.4**
	comp=Z,111nm,0.7s						
STKA	**Stephens Creek**	**75.61**	**180**	P	**P**	**09 06 32.3**	**+0.8**
	comp=Z,2.3nm,0.7s,mb4.2,baz=353,slow=7.8,SNR=4.4						
PV10	**Paradox Valley**	**75.98**	**50**	*e*P	**P**	**09 06 34.4**	**+1.0**
KHC	**Kasperske Hory**	**76.67**	**328**	⇓*e*P	**P**	**09 06 37.9**	**+0.8**
GERES	**GERESS Array B**	**76.85**	**328**	P	**P**	**09 06 38.7**	**+0.6**
	comp=Z,0.5nm,0.4s,mb3.8,baz=27,slow=6.0,SNR=4.7						
ASF	**Jabal al Asfar**	**77.81**	**303**	P	**P**	**09 06 44.6**	**+0.8**
	comp=Z,3.8nm,0.6s,mb4.5,baz=5.4,slow=4.8,SNR=4.8						
SCHQ	**Schefferville**	**78.49**	**16**	P	**P**	**09 06 47.4**	**+0.4**
	comp=Z,2.1nm,0.7s,mb4.2,baz=51,slow=10,SNR=3.1						
SCHQ				LR	LR	09 45 35.8	
	comp=Z,80nm,18.2s,MS4.1,baz=37,slow=39						
SCHQ	**Schefferville**	**78.49**	**16**	P	**P**	**09 06 47.4**	**+0.4**
CDF	**Champ du Feu**	**79.57**	**331**	*e*P	**P**	**09 06 52.5**	**-0.5**
NWAO	**Narrogin (SRO)**	**79.85**	**201**	P	**P**	**09 06 55.4**	**+0.5**
	comp=Z,20nm,0.8s,mb5.1,baz=23,slow=8.5,SNR=6.8						
NWAO	**Narrogin (SRO)**	**79.85**	**201**	P	**P**	**09 06 55.4**	**+0.5**
NWAO				pmax	pmax		
	comp=Z,20nm,0.8s						
NWAO	**Narrogin (SRO)**	**79.85**	**201**	*e*P	**P**	**09 06 55.2**	**+0.3**
	comp=Z,19nm,0.8s,mb5.1						
ANMO	**Albuquerque**	**79.89**	**51**	*i* P	**P**	**09 06 57.2**	**+2.2**
DAVOX	**Davos**	**80.01**	**329**	P	**P**	**09 06 56.1**	**+0.6**
	comp=Z,2.0nm,0.6s,mb4.2,baz=156,slow=7.0,SNR=3.3						
SSF	**Saint Saulge**	**82.02**	**333**	*e*P	**P**	**09 07 05.4**	**-0.6**
GRR	**Gorron**	**82.21**	**336**	*e*P	**P**	**09 07 06.4**	**-0.5**
LPL	**La Plagne**	**82.24**	**330**	*e*P	**P**	**09 07 07.4**	**+0.3**
	comp=Z,7.9nm,0.8s,mb4.4						
LPL	**La Plagne**	**82.24**	**330**	*e*P	**P**	**09 07 07.4**	**+0.3**
LPL				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LPG	**La Plagne**	**82.25**	**330**	*e*P	**P**	**09 07 07.5**	**+0.3**
	comp=Z,9.3nm,0.8s,mb4.5						
LPG	**La Plagne**	**82.25**	**330**	*e*P	**P**	**09 07 07.5**	**+0.3**
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
SMF	**Signal de Mont**	**82.27**	**332**	*e*P	**P**	**09 07 06.8**	**-0.5**
	comp=Z,36nm,1.1s,mb4.9						
SMF	**Signal de Mont**	**82.27**	**332**	*e*P	**P**	**09 07 06.8**	**-0.5**
SMF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
AVF	**Avril sur Loir**	**82.31**	**333**	*e*P	**P**	**09 07 07.1**	**-0.4**
	comp=Z,19nm,1.0s,mb4.7						
AVF	**Avril sur Loir**	**82.31**	**333**	*e*P	**P**	**09 07 07.1**	**-0.4**
AVF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BGF	**Bois d'Agland**	**82.68**	**333**	*e*P	**P**	**09 07 09.0**	**-0.4**
MBDF	**Montbardon**	**82.91**	**329**	*e*P	**P**	**09 07 09.9**	**-0.7**
TCF	**Toulx Ste Croi**	**83.13**	**333**	*e*P	**P**	**09 07 11.6**	**-0.1**
	comp=Z,11nm,0.9s,mb4.6						
TCF	**Toulx Ste Croi**	**83.13**	**333**	*e*P	**P**	**09 07 11.6**	**-0.1**
TCF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
SBF	**Sospel**	**83.40**	**329**	*e*P	**P**	**09 07 12.4**	**-0.8**
VIVF	**Saint-Julien-l**	**83.55**	**331**	*e*P	**P**	**09 07 13.9**	**+0.1**
MFF	**Saint Martin d**	**83.60**	**335**	*e*P	**P**	**09 07 14.1**	**+0.1**
PGF	**Pioggiola**	**83.92**	**327**	*e*P	**P**	**09 07 15.5**	**-0.3**
SMRF	**Simiane la Rot**	**83.99**	**330**	*e*P	**P**	**09 07 16.3**	**+0.2**
LMR	**La Mourre**	**84.20**	**329**	*e*P	**P**	**09 07 16.8**	**-0.4**
RJF	**Les Rejaudoux**	**84.22**	**333**	*e*P	**P**	**09 07 17.4**	**+0.2**
CAF	**Calviac**	**84.38**	**332**	*e*P	**P**	**09 07 18.7**	**+0.7**
	comp=Z,17nm,1.0s,mb4.8						
CAF	**Calviac**	**84.38**	**332**	*e*P	**P**	**09 07 18.7**	**+0.7**
CAF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
LASF	**Ste Croix**	**84.51**	**331**	*e*P	**P**	**09 07 18.4**	**-0.3**
LFF	**La Frestale**	**84.80**	**333**	*e*P	**P**	**09 07 20.7**	**+0.6**
TXAR	**Lajitas Array**	**85.64**	**53**	P	**P**	**09 07 25.9**	**+1.2**
	comp=Z,1.6nm,0.6s,mb4.4,baz=294,slow=3.4,SNR=19						
MTLF	**Montolieu**	**85.73**	**332**	*e*P	**P**	**09 07 25.4**	**+0.6**
EPF	**Esparros**	**86.63**	**333**	*e*P	**P**	**09 07 29.5**	**+0.2**
	comp=Z,11nm,0.8s,mb4.8						
EPF	**Esparros**	**86.63**	**333**	*e*P	**P**	**09 07 29.5**	**+0.2**
EPF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
ETSF	**Etsaut**	**87.05**	**333**	*e*P	**P**	**09 07 32.3**	**+1.0**
	comp=Z,15nm,0.8s,mb5.0						
ETSF	**Etsaut**	**87.05**	**333**	*e*P	**P**	**09 07 32.3**	**+1.0**
ETSF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.0						
SJPF	**Ste Jean**	**87.07**	**334**	*e*P	**P**	**09 07 32.3**	**+0.9**
ESDC	**Sonseca Array**	**91.05**	**334**	P	**P**	**09 07 51.3**	**+1.1**
	comp=Z,0.2nm,0.3s,mb4.0,baz=25,slow=3.1,SNR=4.9						
VNDA	**Vanda**	**121.99**	**175**	PKP	PKPdf	09 13 39.5	-3.3
	comp=Z,1.0nm,0.7s,baz=307,slow=4.5,SNR=9.1						
LPAZ	**La Paz**	**142.50**	**52**	PKP	PKPdf	09 14 21.9	-0.6
	comp=Z,0.5nm,0.8s,baz=128,slow=11,SNR=2.5						
LVC	**Limon Verde**	**146.92**	**60**	PKPbc	PKPbc	09 14 30.4	+3.4
	comp=Z,2.8nm,0.8s,baz=282,slow=6.3,SNR=5.0						
LVC	**Limon Verde**	**146.92**	**60**	*e*PKPbc	PKPbc	09 14 28.9	+1.9
SNAA	**Sanae**	**147.52**	**200**	*e*	PKPdf	09 14 31.6	+2.2
SNAA	**Sanae**	**147.52**	**200**	*e*	PKPdf	09 14 34.6	+5.2
SNAA	**Sanae**	**147.52**	**200**	PKPbc	PKPdf	09 14 29.4	0.0
	comp=Z,5.5nm,0.8s,baz=153,slow=3.2,SNR=22						
SNAA	**Sanae**	**147.52**	**200**	⇑*i*PKPdf	PKPdf	09 14 29.0	-0.4
SNAA				*e*		09 14 31.6	
SNAA				*e*		09 14 34.6	
MOCB	**Mochara**	**147.86**	**54**	*e*PKPdf	PKPdf	09 14 29.4	-2.1
VNA2	**Neumayer--Watz**	**149.12**	**199**	*e*	PKPdf	09 14 38.2	+6.2
VNA2	**Neumayer--Watz**	**149.12**	**199**	⇑*i*PKPdf	PKPdf	09 14 35.8	+3.8
VNA2				*e*		09 14 38.2	
VNA3	**Neumayer Olymp**	**149.41**	**198**	*e*	PKPdf	09 14 38.3	+5.8
VNA3	**Neumayer Olymp**	**149.41**	**198**	⇑*i*PKPdf	PKPdf	09 14 36.2	+3.7
VNA3				*e*		09 14 38.3	
VNA1	**Neumayer--Stat**	**149.52**	**199**	⇑*i*P	PKPdf	09 14 35.8	+3.1
BDFB	**Brasilia**	**150.45**	**19**	PKPbc	PKPdf	09 14 38.6	+2.9
	comp=Z,5.0nm,0.8s,baz=328,slow=1.9,SNR=6.5						
BDFB				PKPab	PKPab	09 14 45.7	+0.4
	comp=Z,5.7nm,0.8s,baz=57,slow=3.7,SNR=5.6						
CPUP	**Villa Florida**	**156.50**	**47**	PKPab	PKPab	09 15 10.1	-0.6
	comp=Z,0.0nm,0.3s,baz=227,slow=11,SNR=1.8						

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*IDC **14** 09:15:32.0±3.4, 30.49S×71.31W, h47^{km}±31^{km}, mb4.0/11, mb1 4.2/13, mb1mx4.1/17, ML4.5/2, MS3.8/5, Ms1 3.8/5, ms1mx3.3/21, Error ellipse: s-maj=27.3km s-min=16.0km az=76.0*

*NEIC **14** 09:15:32.5, 30.53S×71.40W, h52^{km}, mb4.5/9, MD4.7(GUC), After GUC.*

NEIC Felt [III] at Coquimbo and La Serena.

*GUC **14** 09:15:32.5±0.8, 30.53S×71.40W, h52^{km}±4^{km}, MD4.7, ML5.0*

*SYO **14** 09:15:32.5, 30.53S×71.40W, h52^{km}, MB4.5*

*BJI **14** 09:15:32.0, 30.28S×71.53W, h51^{km}, mB4.5, Ms4.7, Msz4.3*

ISC 14 09:15:32.2±0.4, **30.51S**±0.02×**71.31W**±0.10, **h64**^{km}±3^{km}, **n63, σ0^{s}93**/57, **mb4.3**/18, **7C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	**Ovalle**	**0.14**	**137**	⇑*i*P	**P**	**09 15 40.9**	**-1.0**
OVCH				*i* S	**S**	**09 15 47.6**	**-1.4**
TLL	**Tololo Astrono**	**0.55**	**52**	⇑*i*P	**P**	**09 15 46.3**	**+1.1**
TLL				*i* S	**S**	**09 15 56.8**	**+2.1**
TLL				AMP		09 15 57.5	
	comp=E,75µm,0.4s						
LSCH	**La Serena**	**0.60**	**5**	⇑*i*P	**P**	**09 15 45.7**	**0.0**
LSCH				*i* S	**S**	**09 15 55.9**	**+0.2**
LSCH				AMP		09 15 57.9	
	comp=N,46µm,0.5s						
CMCH	**Combarbala**	**0.71**	**158**	⇓*i*P	**P**	**09 15 46.8**	**-0.2**
CMCH				AMP		09 16 00.6	
	comp=E,164µm,0.7s						
PTCH	**Petorca**	**1.78**	**170**	⇓*i*P	**P**	**09 16 01.2**	**-0.2**
PTCH				*i* S	**S**	**09 16 22.7**	**-0.2**
PTCH				AMP		09 16 30.2	
	comp=E,19µm,0.4s						
VACH	**Vallenar**	**1.98**	**14**	*i* P	**P**	**09 16 07.9**	**+3.7**
VACH				*e*S	**S**	**09 16 32.6**	**+4.9**
VACH				AMP		09 16 38.7	
	comp=E,27µm,0.4s						
JACH	**Jahuel**	**2.25**	**164**	*e*P	**P**	**09 16 08.6**	**+0.6**
JACH				*i* S	**S**	**09 16 35.5**	**+0.9**
CLCH	**Cerro Calan**	**2.95**	**167**	*i* P	**P**	**09 16 17.8**	**-0.2**
CLCH				*i* S	**S**	**09 16 51.8**	**-0.5**
MDZ	**Mendoza**	**3.16**	**139**	⇓*i*P	**P**	**09 16 24.7**	**+3.9**
MDZ				*i*		09 16 34.7	
MDZ				*i* S	rx	09 17 24.0	
CPCH	**Copiapo**	**3.25**	**15**	⇑*i*P	**P**	**09 16 21.9**	**-0.2**
CPCH				*i* S	**S**	**09 16 59.4**	**-0.2**
CPCH				AMP		09 17 13.6	
	comp=E,7µm,0.5s						
LMEL	**Las Melosas**	**3.46**	**165**	⇑*i*P	**P**	**09 16 25.5**	**+0.5**
LMEL				*i* S	**S**	**09 17 05.3**	**+0.3**

LVC	Limon Verde	8.15	16	P	P	09 17 26.3	-3.8
	comp=E,1.0nm,0.3s,baz=179,slow=9.1,SNR=14						
LVC				S	S	09 19 00.5	-1.2
	comp=E,7.3nm,0.3s,baz=240,slow=22,SNR=4.8						
LVC	Limon Verde	8.15	16	eP	P	09 17 24.2	-6.0
TRQA	Tornquist	10.78	137	eP	P	09 18 04.0	-2.0
CPUP	Villa Florida	12.99	75	P	P	09 18 32.4	-3.2
	comp=E,0.0nm,0.3s,baz=239,slow=14,SNR=1.7						
ARE	Arequipa	13.98	359	eP	P	09 18 54.0	+5.3
LPAZ	La Paz	14.45	12	P	P	09 18 56.5	+1.8
	comp=E,0.6nm,0.3s,baz=185,slow=7.7,SNR=30						
LPAZ	La Paz	14.45	12	eP	P	09 18 55.1	+0.4
	comp=E,11nm,0.8s						
SAML	Samuel	22.75	21	eP	P	09 20 30.1	+0.2
	comp=E,6.2nm,0.8s,mb4.1						
USHA	Ushuaia	24.40	176	P	P	09 20 46.5	+1.1
	comp=E,6.6nm,0.7s,mb4.2,baz=254,slow=12,SNR=4.0						
BDFB	Brasilia	25.96	60	P	P	09 21 00.9	+0.2
	comp=E,14nm,0.6s,mb4.7,baz=242,slow=7.7,SNR=28						
BDFB				LR	LR	09 32 30.4	
	comp=E,249nm,21.5s,baz=271,slow=39						
BAO	Brasilia Array	25.99	60	P	P	09 21 00.8	0.0
OTAV	Otavalo	31.32	346	P	P	09 21 48.7	-0.1
	comp=E,4.2nm,1.1s,mb4.2						
SDV	Santo Domingo	39.17	1	eP	P	09 22 54.6	-0.9
	comp=E,2.7nm,0.7s,mb4.1						
VNA3	Neumayer Olymp	52.37	159	⇑iP	pP	09 24 52.7	-3.5
VNA3	Neumayer Olymp	52.37	159	e	sP	09 25 04.2	+0.7
VNA2	Neumayer--Watz	53.00	158	P	P	09 24 53.2	+9.0
VNA2	Neumayer--Watz	53.00	158	e	pP	09 25 04.2	+3.2
VNA2	Neumayer--Watz	53.00	158	e	sP	09 25 08.0	-0.3
SNAA	Sanae	54.59	159	⇑iP	P	09 25 04.7	+8.8
SNAA	Sanae	54.59	159	e	sP	09 25 16.2	-3.9
SNAA	Sanae	54.59	159	P	P	09 24 55.2	-0.6
	comp=E,0.7nm,0.7s,mb3.8,baz=246,slow=9.1,SNR=3.1						
SNAA	Sanae	54.59	159	eP	P	09 24 55.3	-0.6
	comp=E,4.7nm,0.8s,mb4.6						
QSPA	South Pole Qui	59.72	180	⇓iP	P	09 25 32.1	+0.1
	comp=E,7.1nm,0.7s,mb4.8						
TXAR	Lajitas Array	67.02	329	P	P	09 26 20.7	0.0
	comp=E,1.1nm,0.6s,mb4.1,baz=152,slow=8.5,SNR=15						
TXAR				LR	LR	09 51 41.2	
	comp=E,69nm,18.8s,baz=155,slow=32						
VNDA	Vanda	67.64	191	P	P	09 26 24.1	+0.4
	comp=E,1.3nm,1.1s,mb3.9,baz=122,slow=5.4,SNR=3.7						
WVT	Waverly	68.08	346	P	P	09 26 25.6	-1.6
	comp=E,6.5nm,0.9s,mb4.7						
SYO	Syowa Base	68.89	159	⇓P	P	09 26 28.4	-3.2
WMOK	Wichita Mounta	69.87	336	eP	P	09 26 34.8	-3.4
	comp=E,9.3nm,1.4s,mb4.5						
ANMO	Albuquerque	73.05	330	LR	LR	09 54 38.1	
	comp=E,40nm,18.4s,slow=32						
DBIC	Dimbokro	73.49	72	P	P	09 27 00.3	+0.2
	comp=E,6.0nm,0.6s,mb4.7,baz=205,slow=6.9,SNR=11						
DBIC				LR	LR	09 56 55.3	
	comp=E,97nm,19.1s,baz=131,slow=34						
DBIC	Dimbokro	73.49	72	eP	P	09 27 00.3	+0.1
	comp=E,8.0nm,0.6s,mb4.8						
SUR	Sutherland	75.98	119	LR	LR	09 55 59.5	
	comp=E,54nm,18.1s,baz=349,slow=32						
MAW	Mawson	76.35	164	P	P	09 27 15.9	+0.4
	comp=E,3.2nm,0.7s,mb4.3,baz=231,slow=6.5,SNR=4.3						
RW3	Ridgway	76.37	331	eP	P	09 27 16.3	+0.1
PV01	Paradox Valley	76.64	331	eP	P	09 27 17.9	+0.1
PV10	Paradox Valley	77.04	330	eP	P	09 27 20.4	+0.4
MSU	Marysvale	78.53	328	eP	P	09 27 29.2	+1.0
TPNV	Topopah Spring	79.22	325	eP	P	09 27 32.9	+0.9
	comp=E,4.5nm,0.8s,mb4.5						
PDAR	Pinedale Array	80.94	333	P	P	09 27 41.1	+0.1
	comp=E,0.7nm,0.8s,mb3.6,baz=124,slow=5.3,SNR=5.4						
NVAR	Mina Array Bea	81.39	324	P	P	09 27 44.8	+1.2
	comp=E,2.4nm,0.8s,mb4.2,baz=157,slow=6.9,SNR=21						
ULM	Lac du Bonnet	83.30	344	P	P	09 27 52.7	-0.4
	comp=E,3.3nm,0.9s,mb4.4,baz=158,slow=3.7,SNR=6.5						
MCMT	McKenzie Canyo	83.98	332	eP	P	09 27 56.9	+0.4
YKA	Yellowknife Ar	98.96	341	P	P	09 29 05.0	-1.2
	comp=E,0.2nm,0.6s,mb3.8,baz=142,slow=4.5,SNR=8.3						
WRA	Warramunga Arr	124.10	209	PKP	PKPdf	09 34 23.8	-0.1
	comp=E,0.3nm,0.6s,baz=161,slow=1.5,SNR=7.4						
BVAR	Borovoye Array	144.26	40	PKP	PKPdf	09 35 00.8	+0.5
	comp=E,0.5nm,0.6s,baz=270,slow=2.9,SNR=3.7						
EKS2	Erkin-Say	149.66	57	ePKPbc	PKPdf	09 35 16.2	+6.5
AAK	Ala-Archa	150.19	57	ePKPbc	PKPdf	09 35 17.8	+7.3
UCH	Uchtor	150.29	57	ePKPbc	PKPdf	09 35 19.0	+8.4
UCH				e		09 35 33.3	
MDJ	Mudanjiang	158.34	316	PKP	PKPdf	09 35 24.0	+2.5
WMQ	Urumqi	158.71	46	PKP	PKPdf	09 35 25.6	+3.6
WMQ				APKP		09 35 36.8	
WMQ				XPKP		09 35 40.8	
WMQ				PKP2	PKPab	09 36 03.0	+2.8
WMQ				PP	PP	09 39 44.6	+2.9
WMQ				PP	PP		
	comp=Z,31nm,8.1s						
WMQ				LR	LR		
	comp=N,31nm,15.0s						
WMQ				LR	LR		
	comp=E,60nm,16.0s						
WMQ				LR	LR		
	comp=Z,32nm,15.0s						
CN2	Changchun	161.22	320	ePKP	PKPdf	09 35 27.6	+2.9
LZH	Lanzhou	173.11	35	ePKP	PKPdf	09 35 37.8	+3.9
LZH				APKP		09 35 48.9	
LZH				XPKP		09 35 53.0	

NIED **14** *09:20:00,38.80N×141.60E,h74^{km},Mw3.8 Best double couple: M$_0$5.92×10^{14} NP1:ϕ_s222°,δ60°,λ85°. NP2:ϕ_s53°,δ31°,λ99°.*

IDC **14** *09:20:27.1±0.9,37.92N×139.71E,mb3.5/7,mb1 3.7/7,mb1mx3.6/22,Error ellipse: s-maj=34.9km s-min=21.4km az=98.0*

JMA **14** *09:20:30.2,38.80N×141.60E,h69^{km}±1^{km},M3.9 Broadband fault plane solution: P waves. NP1:ϕ_s68°,δ35°,λ108°. NP2:ϕ_s226°,δ57°,λ78°. Principal axes: T Plg75°, Azm102°; N Plg10°, Azm233°; P Plg11°, Azm325°;*

JMA Felt II J1.

NEIC **14** *09:20:41.5±1.9,37.99N×139.86E,h125^{km}±17^{km},mb4.3/2 Error ellipse: s-maj=25.4km s-min=19.2km az=86.0*

NEIC Recorded [2 JMA] in Iwate and Miyagi Prefectures.

ISC 14 09:20:28.7±0.8**,38.80N**±0.05×**141.7E**±0.1**,h75**^{km}±4^{km}**,n23,**σ**0^{s}86**/26**,mb3.9**/6**,7C-2D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.28	355	⇑P	P	09 20 41.2	+0.7
OFUJ				S	S	09 20 49.1	-0.1
JMK	Ichinoseki	0.41	292	⇑P	P	09 20 41.5	+0.2
JMK				S	S	09 20 49.7	-1.0
JIO	Ouri	0.44	219	⇑P	P	09 20 42.1	+0.5
JIO				S	S	09 20 50.6	-0.6
JOM	Ohasama	0.74	335	⇓P	P	09 20 45.3	+0.6
JOM				S	S	09 20 56.3	-0.3
JOU	Okura	0.92	242	⇑P	P	09 20 47.1	+0.4
JOU				S	S	09 20 59.6	-0.7
JYK	Kaneyama	1.05	277	⇑P	P	09 20 48.6	+0.2
JYK				S	S	09 21 02.4	-0.7
JMM	Marumori	1.18	218	P	P	09 20 50.0	0.0
JYS	Shirataka	1.41	246	⇑P	P	09 20 53.5	+0.3
JYA	Atsumi	1.57	263	⇑P	P	09 20 55.5	+0.2
JFK	Kawauchi	1.57	205	⇓P	P	09 20 55.8	+0.5
MAJO	Matsushiro	3.57	232	Pn	P	09 21 14.7	-8.4
MAT	Matsushiro	3.57	232	P	P	09 21 25.1	+2.0
MAT	Matsushiro	3.57	232	eP	P	09 21 25.0	+1.9
MAT				eS	rx	09 22 27.0	
SONM	Songino Array	27.03	301	P	P	09 26 04.8	-0.7
	0.5nm,0.8s,mb3.1,baz=81,slow=9.7,SNR=3.1						
ENH	Enshi	27.76	262	P	P	09 26 14.2	+1.9
	5.9nm,0.4s,mb4.5						
ILAR	Eielson Array	47.89	33	P	pP	09 29 17.6	-1.8
	0.7nm,1.0s,baz=278,slow=6.4,SNR=3.2						
TKM2	Tokmak 2	49.01	297	eP	P	09 29 10.0	+0.5
	1.8nm,0.5s,mb4.3						
BVAR	Borovoye Array	49.57	311	P	P	09 29 13.3	-0.4
	0.7nm,0.5s,mb3.9,baz=73,slow=7.5,SNR=3.9						
INK	Inuvik	52.72	28	P	pP	09 29 53.2	-3.1
	0.5nm,0.5s,baz=280,slow=1.3,SNR=3.5						
WRA	Warramunga Arr	58.84	188	P	P	09 30 19.9	-1.9
	0.9nm,0.6s,mb4.0,baz=5.6,slow=7.1,SNR=12						
YKA	Yellowknife Ar	62.17	31	P	pP	09 31 02.0	-1.5
	0.1nm,0.8s,baz=302,slow=6.5,SNR=4.1						
ASAR	Alice Springs	62.56	188	P	P	09 30 45.6	-1.5
	0.2nm,0.4s,mb3.4,baz=0.2,slow=5.1,SNR=7.3						
MOX	Moxa	80.74	330	eP	P	09 32 40.0	+5.1

IDC 14 09:40:34.9±63.0**,14.50S**×**166.76E,mb3.6**/3**,mb1 3.8**/3**,mb1mx3.6**/13**,Error ellipse: s-maj=1062.0km s-min=120.0km az=65.0,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	28.77	229	P	P	09 46 34.6	-2.0
	0.9nm,0.5s,baz=51,slow=6.2,SNR=3.2						
WRA	Warramunga Arr	31.40	255	P	P	09 46 58.3	-1.8
	0.8nm,1.2s,baz=85,slow=9.1,SNR=4.5						
ASAR	Alice Springs	32.30	249	P	P	09 47 05.5	-2.4
	0.4nm,0.7s,baz=81,slow=9.2,SNR=9.3						

NEIC **14** *09:44:06.4±1.1,51.47N×16.09E,h5^{km},ML3.0(VIE),ML2.8(SZGRF),ML2.5(BRG),Error ellipse: s-maj=12.7km s-min=6.1km az=199.0*

WAR **14** *09:44:07.1,51.48N×16.10E,h1^{km},ML3.0,Mining Induced*

PRU **14** *09:44:07.0,51.45N×16.12E*

ISC 14 09:44:04.9±0.8**,51.44N**±0.04×**16.09E**±0.04**,n17,**σ**1^{s}23**/36**,1C,Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.61	168	ePg	Pg	09 44 19.0	+2.0
KSP				eSg	Sg	09 44 27.5	+2.4
KSP	Ksiaz	0.61	168	ePg	Pg	09 44 18.9	+1.9
KSP				eSg	Sg	09 44 28.2	+3.1
UPC	Upice	0.93	183	ePG	Pg	09 44 25.1	+1.7
DPC	Dobruska-Polom	1.10	172	ePG	Pg	09 44 27.8	+1.0
DPC				eSG	Sg	09 44 42.3	+0.9
PVCC	Panska Ves	1.32	227	ePG	Pg	09 44 32.2	+1.0
BRG	Berggiesshubel	1.46	248	ePn	Pn	09 44 34.3	+1.7
BRG				i Pg	Pg	09 44 34.9	+0.8
BRG				i Sg	Sg	09 44 54.6	+1.1
PRU	Pruhonice	1.75	215	PG	Pg	09 44 39.2	-0.6
PRU				i x	x	09 44 42.9	
PRU				i x	x	09 44 56.6	
PRU				SG	Sg	09 45 02.5	-0.6
	26nm,0.5s						
MORC	Moravsky Berou	1.90	150	ePn	Pn	09 44 39.8	+0.9
CLL	Collm	1.94	267	ePn	Pn	09 44 40.0	+0.6
CLL				ePg	Pg	09 44 43.0	-0.5
CLL				i Sg	Sg	09 45 08.3	-1.0
CLL	Collm	1.94	267	ePN	Pn	09 44 40.0	+0.6
CLL				ePG	Pg	09 44 43.0	-0.5
CLL				e		09 44 46.0	
CLL				i SG	Sg	09 45 08.3	-1.0
OKC	Ostrava-Krasne	2.07	140	eSG	Sg	09 45 11.9	-1.9
NKC	Novy Kostel	2.60	244	ePN	Pn	09 44 50.3	+1.4
NKC				ePG	Pg	09 44 56.0	-0.8
NKC				eSG	Sg	09 45 30.9	-0.6
OJC	Ojcow	2.65	116	ePg	Pg	09 44 56.8	-1.0
OJC				eSg	Sg	09 45 31.6	-1.5
KHC	Kasperske Hory	2.81	216	ePN	Pn	09 44 52.8	+0.9
KHC				ePG	Pg	09 44 58.8	-2.2
KHC				eSN	Sn	09 45 26.8	-0.2
KHC				eSG	Sg	09 45 37.3	-1.2
MOX	Moxa	2.93	256	ePg	Pg	09 45 01.3	-2.1
MOX				eSg	Sg	09 45 41.3	-1.1
NIE	Niedzica	3.37	125	eP	Pg	09 45 13.0	+0.8
NIE				eS	Sg	09 45 55.5	-1.7
MOA	Molln	3.78	199	⇑iPN	Pn	09 45 06.4	+0.8
MOA				i SG	Sg	09 46 10.0	-0.7
	10nm,0.5s						

IDC 14 09:45:09.3±8.8**,7.70S**×**127.81E,h81**^{km}±91^{km}**,mb3.7**/2**,mb1 4.2**/4**,mb1mx3.9**/10**,ML4.4**/2**,MS3.3**/1**,Ms1 3.3**/1**,ms1mx2.6**/12**,Error ellipse: s-maj=250.0km s-min=36.0km az=68.0,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	13.72	153	P	P	09 48 19.3	-2.3
	2.7nm,0.3s,baz=328,slow=14,SNR=92						
WRA				S	S	09 50 41.1	-11
	3.7nm,0.3s,baz=332,slow=22,SNR=9.2						
ASAR	Alice Springs	16.92	160	P	P	09 49 02.5	+0.2
	2.1nm,0.3s,baz=344,slow=12,SNR=137						
ASAR				S	S	09 52 00.3	-6.1
	0.8nm,0.3s,baz=326,slow=21,SNR=4.0						
CTA	Charters Tower	21.70	126	LR	LR	09 57 24.4	
	comp=Z,73nm,19.9s,baz=323,slow=34						
STKA	Stephens Creek	27.27	154	P	P	09 50 46.0	-2.2
	2.7nm,0.8s,baz=320,slow=9.9,SNR=4.9						
SONM	Songino Array	58.44	343	P	P	09 54 56.7	-2.3
	0.8nm,0.6s,baz=161,slow=6.0,SNR=5.2						

IDC 14 09:45:30.7±1.8**,54.51S**×**136.11W,mb4.3**/3**,mb1 4.5**/3**,mb1mx3.8**/13**,MS4.4**/14**,Ms1 4.4**/14**,ms1mx4.1**/17**,Error ellipse: s-maj=750.0km s-min=30.2km az=170.0, Pacific-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	Vanda	31.53	202	LR	LR	10 01 42.4	
	comp=Z,336nm,18.2s,baz=81,slow=31						
URZ	Urewera	35.38	278	LR	LR	10 03 22.2	
	comp=Z,653nm,20.6s,baz=196,slow=30						
RPZ	Rata Peaks	35.43	265	LR	LR	10 03 04.0	
	comp=Z,898nm,19.9s,baz=294,slow=30						
RAR	Rarotonga	37.76	322	LR	LR	10 03 09.4	
	comp=Z,888nm,19.8s,baz=248,slow=28						
MAW	Mawson	57.39	189	LR	LR	10 19 13.2	
	comp=Z,231nm,19.0s,baz=8.6,slow=35						
STKA	Stephens Creek	60.43	256	LR	LR	10 17 17.8	
	comp=Z,329nm,19.6s,baz=66,slow=32						
LPAZ	La Paz	64.12	82	P	P	09 56 07.5	-1.4
	1.6nm,0.9s,baz=225,slow=4.3,SNR=5.6						
LPAZ				LR	LR	10 17 39.5	
	comp=Z,132nm,20.6s,baz=32,slow=30						
CTA	Charters Tower	66.75	268	LR	LR	10 22 07.8	
	comp=Z,163nm,18.3s,baz=48,slow=33						
ASAR	Alice Springs	71.07	256	P	P	09 56 51.5	-1.0
	3.9nm,0.9s,baz=144,slow=6.1,SNR=7.0						
ASAR				LR	LR	10 25 15.3	
	comp=Z,325nm,18.2s,baz=146,slow=34						
WB2	Warramunga Arr	73.75	258	eP	P	09 57 07.8	-0.5
WRA	Warramunga Arr	73.76	258	P	P	09 57 06.0	-2.4
	2.9nm,0.7s,baz=142,slow=5.4,SNR=9.8						
PMG	Port Moresby	74.69	275	LR	LR	10 23 23.5	
	comp=Z,283nm,18.3s,baz=326,slow=30						
BDFB	Brasilia	76.33	98	LR	LR	10 26 05.1	
	comp=Z,405nm,21.6s,baz=213,slow=32						
ROSC	El Rosal	78.08	64	LR	LR	10 25 11.1	
	comp=Z,193nm,19.3s,baz=207,slow=30						
FITZ	Fitzroy Crossi	80.14	253	LR	LR	10 29 22.5	
	comp=Z,3.0nm,18.7s,baz=118,slow=33						
NVAR	Mina Array Bea	93.82	14	LR	LR	10 33 07.2	
	comp=Z,188nm,18.0s,baz=40,slow=30						
PDAR	Pinedale Array	99.52	19	LR	LR	10 35 47.3	
	comp=Z,184nm,19.0s,baz=219,slow=30						

TIR **14** *09:52:36.2,41.91N×20.12E,h45^{km},Ml3.7*

CSEM **14** *09:52:37.8±0.0,42.03N×20.20E,h8^{km},ML3.2,Error ellipse: s-maj=1.3km s-min=1.0km az=33.0*

PDG **14** *09:52:38.1±0.3,41.94N×20.07E,h12^{km}±1^{km}*

THE **14** *09:52:38.1,42.09N×20.24E,h14^{km},ML3.6*

NEIC **14** *09:52:38.1,41.94N×20.07E,h12^{km},ML3.5(PDG),ML3.4(CSEM),After PDG.*

ISC 14 09:52:36.9±0.3**,41.93N**±0.01×**20.14E**±0.02**,h9**^{km}±2^{km}**,n92,**σ**1^{s}07**/138**,14C-7D,Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUK	Puka	0.22	301	i Pg	Pg	09 52 42.6	+1.0
PUK				i Sg	Sg	09 52 46.6	+1.9
BCI	Bajram Curri	0.44	353	i Pg	Pg	09 52 46.7	+0.8
BCI				i Sg	Sg	09 52 54.1	+2.2
QSH	Qafa e Shtames	0.44	204	i pg?	Pg	09 52 48.2	+2.2
QSH				i Sg	Sg	09 52 56.2	+4.2
PRZA	Preza	0.61	216	i pg?	Sg	09 52 59.0	+1.5
PRZA				i Sg	Sg	09 52 59.5	+2.0
TIR	Tirane	0.62	200	i Pg	Pg	09 52 48.6	-0.8
TIR				i Sg	Sg	09 52 57.4	-0.3
ULC	Ulcinj	0.67	273	⇑iPg	Pg	09 52 50.0	-0.4
ULC				eSg	Sg	09 52 59.2	-0.2
PVY	Plav	0.68	349	⇓iPg	Pg	09 52 50.5	-0.1
PVY				eSg	Sg	09 53 01.2	+1.6
TTG	Podgorica	0.82	308	⇑iPg	Pg	09 52 52.5	-1.0
TTG				eSg	Sg	09 53 05.0	+0.5
OHR	Ohrid	0.95	149	i Pg	Pg	09 52 54.4	-1.6
OHR				i Sg	Sg	09 53 08.7	-0.1
IVA	Berane	0.96	349	⇑iPg	Pg	09 52 55.7	-0.5
IVA				eSg	Sg	09 53 10.7	+1.7
SKO	Skopje	0.97	87	⇑iPg	Pg	09 52 55.3	-1.0
SKO				i		09 52 58.3	
SKO				i Sg	Sg	09 53 09.3	0.0
SKO				Lg		09 53 11.5	
	comp=Z,0.4nm,0.6s						
SKO	Skopje	0.97	87	⇑iPg	Pg	09 52 55.3	-1.0
SKO				i Sg	Sg	09 53 09.3	0.0
BUM	Brajici-Budva	1.00	292	⇑iPg	Pg	09 52 56.0	-0.9
BUM				eSg	Sg	09 53 10.9	+0.6
NKY	Niksic	1.23	317	ePg	Pg	09 52 59.7	-1.8
NKY				eSg	Sg	09 53 18.9	+1.1
BIA	Bitola	1.27	135	i Pn	Pn	09 53 02.0	+1.1
BIA				i		09 53 05.9	
BIA				i Sn	Sn	09 53 19.8	+1.7
BIA				i		09 53 21.5	
BIA	Bitola	1.27	135	i Sn	Sn	09 53 19.8	+1.7
HCY	Herceg Novi	1.33	294	⇓iPg	Pg	09 53 01.5	-2.0
HCY				eSg	Sg	09 53 21.9	+0.7
FNA	Florina	1.47	141	ePb	Pb	09 53 03.7	-0.3
	comp=Z,15nm,0.5s						
FNA				eSb	Sb	09 53 25.9	+3.2
FNA	Florina	1.47	141	eSb	Sb	09 53 25.9	+3.1
PLE	Pljevlja	1.50	339	⇑iPg	Pg	09 53 05.4	-1.6
PLE				eSg	Sg	09 53 27.8	+0.6
PLE	Pljevlja	1.50	339	eSg	Sg	09 53 27.8	+0.7
BRY	Bratogost	1.53	310	⇑iPg	Pg	09 53 05.0	-2.6
BRY				eSg	Sg	09 53 27.8	-0.2
UPM	Unac-Piva	1.57	325	⇓iPg	Pg	09 53 06.2	-2.0
UPM				eSg	Sg	09 53 28.7	-0.5
NVSS	Nova Varos 2	1.61	348	⇓iPn	Pn	09 53 06.5	+0.8
NVSS				Sn	Sn	09 53 26.9	+0.1
VAY	Valandovo	1.92	108	ePn	Pn	09 53 10.5	+0.4
VAY				eSn	Sn	09 53 38.7	+4.1
GRG	Griva	1.96	119	ePb	Pb	09 53 11.3	-1.1
GRG				eSb	Sb	09 53 37.0	+0.3
GRUS	Gruza	2.00	12	⇓iPn	Pn	09 53 12.4	+1.1
GRUS				Sn	Sn	09 53 36.6	-0.2
STON	Ston	2.04	298	i Pn	Pn	09 53 12.9	+1.0
STON				i Sg	Sg	09 53 44.0	-1.0
STON	Ston	2.04	298	i Pn	Pn	09 53 12.9	+1.0
STON				i Sg	Sg	09 53 43.9	-1.0
DIVS	Divcibare	2.17	357	⇑iPn	Pn	09 53 14.2	+0.4
DIVS				Sn	Sn	09 53 41.7	+0.7
KKB	Krupnik	2.20	91	i P	Pn	09 53 15.0	+0.9
KNT	Kendrikon	2.21	109	ePn	Pn	09 53 14.2	-0.1
KNT				eSn	Sn	09 53 39.7	-2.2
MEV	Metsovon	2.29	159	ePn	Pn	09 53 17.0	+1.5
	comp=Z,6.0nm,0.3s						
MEV				eSn	Sn	09 53 48.0	+3.9
BOLS	Boljevac	2.32	34	⇑iPn	Pn	09 53 19.9	+4.0
BOLS				Sn	Sn	09 53 52.2	+7.3
VTS	Vitosha	2.37	73	i P	Pn	09 53 17.0	+0.4
IGT	Igoumenitsa	2.40	176	ePn	Pn	09 53 18.5	+1.5
IGT				eSn	Sn	09 53 50.7	+3.9
THE	Thessaloniki	2.49	120	ePn	Pn	09 53 17.3	-1.0
SVIS	Svilajnac	2.50	18	ePn	Pn	09 53 18.6	+0.2
SVIS				Sn	Sn	09 53 50.1	+0.9
LIT	Litokhoron	2.55	135	ePn	Pn	09 53 19.1	0.0
	comp=Z,4.0nm,0.4s						
LIT				eSn	Sn	09 53 51.1	+0.6
SOH	Sokhos	2.66	114	ePn	Pn	09 53 20.8	+0.1
SOH				eSn	Sn	09 53 52.4	-0.9
MMB	Musomiste	2.70	96	i P	Pn	09 53 21.0	-0.4
SRS	Serrai	2.71	106	ePn	Pn	09 53 21.1	-0.4
SRS				eSn	Sn	09 53 53.8	-1.0
LKD	Levkas	3.24	173	ePn	Pn	09 53 29.1	+0.1
OUR	Ouranopolis	3.31	118	ePn	Pn	09 53 30.5	+0.6
AGG	Agios Georgios	3.35	149	ePn	Pn	09 53 31.0	+0.5
AGG				eSn	Sn	09 54 11.9	+1.0
RGNG	Rignano Grg	3.42	267	ePn	Pn	09 53 32.2	+0.7
RGNG	Rignano Grg	3.42	267	ePn	Pn	09 53 32.2	+0.7
RZN	Rozhen	3.43	93	i P	Pn	09 53 30.0	-1.7
XOR	Xorichti	3.45	137	ePn	Pn	09 53 32.3	+0.3
MRLC	Muro Lucano	3.69	253	ePn	Pn	09 53 36.0	+0.6
MRLC	Muro Lucano	3.69	253	ePn	Pn	09 53 36.0	+0.5
TIP	Timpagrande	3.77	224	ePn	Pn	09 53 35.3	-1.2
SGO	Sicignano	3.89	251	ePn	Pn	09 53 38.4	+0.1
SGO	Sicignano	3.89	251	ePn	Pn	09 53 38.4	+0.1
MGR	Morigerati	3.91	244	ePn	Pn	09 53 38.5	0.0
MGR	Morigerati	3.91	244	ePn	Pn	09 53 38.5	+0.1
CSSN	Cassano Irpino	4.00	256	ePn	Pn	09 53 39.7	0.0
CSSN	Cassano Irpino	4.00	256	ePn	Pn	09 53 39.7	0.0
SGG	Gregorio Mates	4.35	265	ePn	Pn	09 53 45.7	+0.9
SGG	Gregorio Mates	4.35	265	ePn	Pn	09 53 45.7	+0.9
PKSM	Moragy	4.42	346	⇓eP	Pn	09 53 45.2	-0.5
PKSM				eS	Sn	09 54 37.1	-0.8
RHK1	Bakonya	4.42	341	⇑eP	Pn	09 53 46.5	+0.7
RHK1				eS	Sn	09 54 37.6	-0.5
	comp=Z,1.3nm,0.3s						
INTR	Introdacqua	4.65	273	ePn	Pn	09 53 48.6	-0.4
INTR	Introdacqua	4.65	273	ePn	Pn	09 53 48.7	-0.4
RFI	Roccamonfina	4.66	264	ePn	Pn	09 53 49.3	+0.1
RFI	Roccamonfina	4.66	264	ePn	Pn	09 53 49.3	+0.1
NVLJ	Novalja	4.67	306	i Pn	Pn	09 53 48.8	-0.4
NVLJ				i Sn	Sn	09 54 44.2	+0.1
NVLJ	Novalja	4.67	306	i Pn	Pn	09 53 48.8	-0.4
NVLJ				i Sn	Sn	09 54 44.2	0.0
TERO	Teramo	4.90	280	ePn	Pn	09 53 52.0	-0.6
TERO	Teramo	4.90	280	ePn	Pn	09 53 52.0	-0.6
BOJS	Bojanci	5.03	317	i Pn	Pn	09 53 55.0	+0.6
BOJS				eSn	Sn	09 54 52.0	-1.5
SNTG	Esanatoglia	5.48	286	ePn	Pn	09 53 59.5	-1.2
KNDS	Knezji Dol	5.51	313	ePn	Pn	09 53 59.6	-1.5
ARV	Arcevia	5.53	289	ePn	Pn	09 54 00.2	-1.2
ARV	Arcevia	5.53	289	ePn	Pn	09 54 00.2	-1.3
MNS	Montasola	5.57	277	ePn	Pn	09 54 02.2	+0.3
MNS	Montasola	5.57	277	ePn	Pn	09 54 02.2	+0.2
FSSB	Fossombrone	5.70	290	ePn	Pn	09 54 02.8	-1.0
FSSB	Fossombrone	5.70	290	ePn	Pn	09 54 02.8	-1.0
MURB	Monte Urbino	5.78	286	ePn	Pn	09 54 02.7	-2.2
MURB	Monte Urbino	5.78	286	ePn	Pn	09 54 02.7	-2.3
PERS	Pernice	5.93	324	ePn	Pn	09 54 07.5	+0.4
OBKA	Obir	6.09	321	⇓iPN	Pn	09 54 09.2	-0.2
OBKA				i SN	Sn	09 55 22.9	+2.9
VOY	Vojsko	6.09	314	ePn	Pn	09 54 08.7	-0.7
VOY				eSn	Sn	09 55 21.1	+1.0
ROBS	Robic	6.44	314	ePn	Pn	09 54 13.2	-1.1
VYHS	Vyhne	6.63	352	eSN	Sn	09 55 28.8	-4.7
KBA	Koelnbreinsper	7.08	319	⇑iPN	Pn	09 54 23.0	-0.3
KBA				i SN	Sn	09 55 47.9	+3.2
MOA	Molln	7.24	327	⇑iPN	Pn	09 54 26.2	+0.6
MOA				i SN	Sn	09 55 47.1	-1.7
KWP	Kalwaria	7.91	12	Pn	Pn	09 54 30.0	-4.9
KWP	Kalwaria	7.91	12	Pn	Pn	09 54 30.0	-4.9
WTTA	Wattenberg	8.08	314	⇑iPN	P	09 54 36.0	-1.3
WTTA				i SN	Sn	09 56 11.0	+1.3
KHC	Kasperske Hory	8.55	330	eP	P	09 54 44.0	+0.2

THE **14** *10:03:01.9,38.91N×23.47E,h5^{km},ML2.9*

NEIC **14** *10:03:02.1,38.92N×23.40E,h25^{km},ML3.3(ATH),After ATH.*

ATH **14** *10:03:02.0,38.91N×23.41E,h25^{km}±1^{km},MD3.2/7,ML3.3*

CSEM **14** *10:03:02.2±0.1,38.89N×23.47E,h8^{km},ML2.9,Error ellipse: s-maj=2.5km s-min=1.8km az=88.0*

ISC 14 10:03:01.4±0.7**,38.90N**±0.03×**23.47E**±0.04**,h8**^{km}±6^{km}**,n17,**σ**0^{s}71**/26**,1C-1D,Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AOS	Alonnisos	0.41	50	ePg	Pg	10 03 10.5	+0.7
AOS				eSg	Sg	10 03 15.7	+0.3
NEO	Neokhori	0.45	334	⇑iPB	Pb	10 03 11.1	0.0
NEO				eSB	Sb	10 03 17.5	-0.2
LKR	Lokris	0.45	236	⇓iPB	Pb	10 03 11.0	-0.1
LKR				eSB	Sb	10 03 17.9	+0.2
XOR	Xorichti	0.51	335	ePg	Pg	10 03 12.1	+0.3
XOR				eSg	Sg	10 03 19.2	+0.6
AGG	Agios Georgios	0.90	278	ePg	Pg	10 03 18.6	-0.8
AGG				eSg	Sg	10 03 31.6	+0.2
AGG	Agios Georgios	0.90	278	ePg	Pg	10 03 18.6	-0.8

AGG				eSg	Sg	10 03 31.6	+0.2
PTL	Penteli	0.91	160	ePB	Pb	10 03 19.2	+0.2
ATH	Athens Observa	0.95	168	ePN	Pn	10 03 20.7	-0.2
NSAL	Nisos Salamina	0.99	180	ePN	Pn	10 03 22.3	+0.7
PAIG	Paliouri	1.03	9	ePg	Pg	10 03 19.5	-2.6
PAIG				eSg	Sg	10 03 36.4	+0.4
NAIG	Nisos Aigina	1.14	179	ePN	Pn	10 03 24.3	+0.6
EVR	Evrytania	1.30	271	ePN	Pn	10 03 25.2	-0.7
LIT	Litokhoron	1.42	328	ePb	Pb	10 03 27.8	+0.1
	comp=Z,3.4nm,0.3s						
LIT				eSb	Sb	10 03 47.3	+1.5
PLG	Polygyros	1.47	359	ePN	Pn	10 03 28.5	+0.1
OUR	Ouranopolis	1.48	15	ePb	Pb	10 03 28.0	-0.8
GRG	Griva	2.21	338	ePn	Pn	10 03 39.0	0.0
GRG				eSn	Sn	10 04 06.6	-0.1
KNT	Kendrikon	2.30	349	ePn	Pn	10 03 39.1	-1.1

NEIC 14 10:03:15.7,40.24N×34.36E,h8^{km},mb4.1/4,MD3.9(ISK), After ISK.

ISK 14 10:03:15.9,40.24N×34.36E,h10^{km},MD3.9

CSEM 14 10:03:15.6±0.1,40.22N×34.34E,h5^{km},mb4.1/4,Error ellipse: s-maj=2.0km s-min=1.5km az=21.0

IDC 14 10:03:17.1±1.3,40.16N×34.40E,mb3.5/2,mb1 3.7/7, mb1mx3.6/20,ML3.8/5,MS3.7/2,Ms1 3.7/2,ms1mx2.9/16, Error ellipse: s-maj=13.1km s-min=8.7km az=105.0

ISC 14 10:03:16.7±0.3,40.24N±0.02×34.36E±0.02,h10^{km},n78, σ1^{s}08/98,mb3.8/5,MS4.3/1,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTKT	Corum	0.51	41	i P	Pg	10 03 26.7	-0.3
CTKT				i S	Sg	10 03 34.1	+0.3
CANT	Cankiri	0.67	303	i PG	Pg	10 03 29.6	-0.6
CANT				i SG	Sg	10 03 38.6	-0.6
CANT	Cankiri	0.67	303	Pg	Pg	10 03 29.6	-0.5
CANT				Sg	Sg	10 03 38.6	-0.6
BRTR	Keskin Array B	0.75	227	Pg	Pg	10 03 30.7	-1.1
	277nm,0.3s,baz=53,slow=16,SNR=2152						
BRTR				Lg		10 03 41.4	
	468nm,0.3s,baz=53,slow=27,SNR=45						
ELDT	Eldivan	0.75	290	i P	Pb	10 03 30.8	-0.6
ELDT				i S	Sb	10 03 39.6	-1.8
TOS	Tosya	0.84	343	i PG	Pg	10 03 32.5	-1.0
TOS	Tosya	0.84	343	Pg	Pg	10 03 32.5	-0.9
YOZ	Yozgat	0.95	129	i PG	Pg	10 03 34.3	-1.5
YOZ				i SG	Sg	10 03 47.3	-1.2
YOZ	Yozgat	0.95	129	Pg	Pg	10 03 34.4	-1.4
YOZ				Sg	Sg	10 03 47.4	-1.2
KAMT	Kaman	1.00	210	i PG	Pg	10 03 35.0	-1.7
ANTO	Ankara	1.25	253	i PN	Pn	10 03 39.8	-0.5
ANTO				i SN	Sn	10 03 57.0	-0.3
ANTO	Ankara	1.25	253	Pn	Pn	10 03 39.9	-0.4
ANTO				Sg	Sg	10 03 56.9	-1.6
ANTO	Ankara	1.25	253	Pn	Pn	10 03 39.9	-0.4
ANTO				Sg	Sg	10 03 56.9	-1.6
BYBT	Boyabat	1.27	14	i PN	Pn	10 03 39.2	-1.3
BYBT				i SN	Sn	10 03 57.2	-0.4
BYBT	Boyabat	1.27	14	Pn	Pn	10 03 39.3	-1.2
BYBT				Sg	Sg	10 03 57.3	-1.7
BYBT	Boyabat	1.27	14	Pn	Pn	10 03 39.3	-1.2
BYBT				Sg	Sg	10 03 57.3	-1.7
LOD	Lodumlu	1.27	255	i PN	Pn	10 03 40.6	+0.1
LOD	Lodumlu	1.27	255	Pn	Pn	10 03 40.6	+0.1
BALT	Daday	1.49	331	i P	Pn	10 03 44.3	+0.7
BALT				i S	Pg	10 03 45.7	-0.7
AVNT	Avonos	1.51	165	i P	Pn	10 03 43.9	0.0
AVNT				i S	Sb	10 04 04.6	+1.2
KVT	Kavak	1.54	56	i PN	Pn	10 03 44.4	+0.1
KVT				i SN	Sn	10 04 05.3	+0.8
KVT	Kavak	1.54	56	Pn	Pn	10 03 44.5	+0.1
KVT				Sg	Sg	10 04 05.5	-2.5
KVT	Kavak	1.54	56	Pn	Pn	10 03 44.5	+0.2
KVT				i Sn	Sn	10 04 05.3	+0.8
SAFT	Safranbolu	1.61	309	i PN	Pn	10 03 46.0	+0.6
SGKT	Sivrigoynuk	1.79	282	i P	Pn	10 03 48.9	+0.9
BNN	Bunyan	1.80	140	ePN	Pn	10 03 48.6	+0.5
BNN	Bunyan	1.80	140	Pn	Pn	10 03 48.6	+0.5
SVST	Sivas	2.05	102	i P	Pn	10 03 52.9	+1.3
SVST				i S	Sn	10 04 25.0	+7.5
NIG	Nigde	2.13	175	PN	Pn	10 03 53.2	+0.3
NIG	Nigde	2.13	175	Pn	Pn	10 03 53.2	+0.3
KIZT	Kizilcal	2.34	235	i PN	Pn	10 03 56.1	+0.2
KIZT	Kizilcal	2.34	235	Pn	Pn	10 03 56.1	+0.2
MDU	Mudurnu	2.41	276	ePN	Pn	10 03 56.9	+0.1
MDU	Mudurnu	2.41	276	Pn	Pn	10 03 57.0	+0.1
KONT	Konya--Tatoy	2.77	215	PN	Pn	10 04 01.7	-0.2
KONT	Konya--Tatoy	2.77	215	Pn	Pn	10 04 01.8	-0.2
ESKT	Eskisehir	2.79	256	ePN	Pn	10 04 02.0	-0.3
ESKT	Eskisehir	2.79	256	i P	Pn	10 04 01.7	-0.5
ALT	Altintas	3.48	252	ePN	Pn	10 04 11.7	-0.4
HDMB	Hadim	3.58	205	ePN	Pn	10 04 13.5	0.0
HDMB	Hadim	3.58	205	Pn	Pn	10 04 13.6	+0.1
HDMB	Hadim	3.58	205	Pn	Pn	10 04 13.6	+0.1
HRT	Hereke	3.62	281	ePN	Pn	10 04 13.6	-0.4
HRT	Hereke	3.62	281	Pn	Pn	10 04 13.7	-0.4
HRT	Hereke	3.62	281	Pn	Pn	10 04 13.7	-0.3
MYA	Malataya	3.69	120	ePN	Pn	10 04 15.5	+0.4
MYA	Malataya	3.69	120	Pn	Pn	10 04 15.7	+0.7
MALT	Malatya	3.70	120	ePN	Pn	10 04 15.2	0.0
MALT	Malatya	3.70	120	Pn	Pn	10 04 15.3	+0.1
MALT	Malatya	3.70	120	Pn	Pn	10 04 15.3	+0.1
GAZ	Gaziantep	3.79	143	PN	Pn	10 04 16.6	+0.1
GAZ	Gaziantep	3.79	143	Pn	Pn	10 04 16.6	+0.1
GZT	Gaziantep	3.82	138	i P	Pn	10 04 17.3	+0.5
ISP	Isparta	3.83	233	ePN	Pn	10 04 16.6	-0.5
ISP	Isparta	3.83	233	Pn	Pn	10 04 16.6	-0.4
GUMT	Gumushane	3.92	85	ePN	Pn	10 04 17.9	-0.4
GUMT	Gumushane	3.92	85	Pn	Pn	10 04 17.9	-0.4
GUMT	Gumushane	3.92	85	Pn	Pn	10 04 18.0	-0.3
ULDT	Uludag	4.00	270	i P	Pn	10 04 18.7	-0.7
COBT	Iskenderun	4.00	157	i P	Pn	10 04 28.3	+8.8
URFA	Urfa	4.47	127	ePN	Pn	10 04 25.5	-0.6
MLR	Muntele Rosu	8.10	313	Pn	P	10 05 18.3	+1.0
	0.4nm,0.3s,baz=157,slow=7.7,SNR=5.8						
MLR				Sn	Sn	10 06 49.7	-0.2
	0.5nm,0.3s,baz=121,slow=19,SNR=3.1						
MLR				LR	LR	10 09 04.4	
	comp=Z,121nm,18.1s,baz=275,slow=42						
MLR	Muntele Rosu	8.10	313	Pn	P	10 05 18.3	+1.0
MLR				Sn	Sn	10 06 49.7	-0.2
ASF	Jabal al Asfar	8.31	165	Pn	P	10 05 18.2	-1.9
	0.2nm,0.3s,baz=290,slow=12,SNR=1.8						
AKASG	Malin Array Be	11.06	343	Pn	P	10 05 54.5	-3.4
	0.9nm,0.3s,baz=153,slow=12,SNR=3.9						
AKASG				Sn	S	10 07 52.7	-10
	0.6nm,0.3s,baz=154,slow=23,SNR=3.1						
GERES	GERESS Array B	17.01	307	Pn	P	10 07 20.4	+4.2
	0.2nm,0.3s,baz=112,slow=11,SNR=3.4						
DAVOX	Davos	18.88	298	P	P	10 07 42.2	+3.0
	0.2nm,0.3s,baz=36,slow=14,SNR=2.9						
MBDF	Montbardon	20.79	292	eP	P	10 08 02.5	+2.2
	11nm,0.9s						
LPG	La Plagne	20.85	294	eP	P	10 08 02.2	+1.2
LPL	La Plagne	20.87	294	eP	P	10 08 02.1	+0.9
CABF	La Chapelle	21.43	297	eP	P	10 08 08.3	+1.5
	47nm,1.3s,mb4.3						
FINES	FINESS Array B	21.83	349	P	P	10 08 13.1	+2.3
	1.7nm,0.8s,mb3.5,baz=175,slow=15,SNR=3.3						
SMF	Signal de Mont	22.97	296	eP	P	10 08 24.1	+2.0
	4.6nm,0.5s,mb3.8						
SSF	Saint Saulge	23.24	297	eP	P	10 08 26.8	+2.1
AVF	Avril sur Loir	23.32	297	eP	P	10 08 26.8	+1.3
	17nm,1.0s,mb4.1						
INK	Inuvik	71.39	355	LR	LR	10 48 12.4	
	comp=Z,162nm,18.8s,MS4.3,baz=294,slow=38						
YKA	Yellowknife Ar	74.61	346	P	P	10 14 57.8	+0.7
	0.2nm,0.6s,mb3.2,baz=28,slow=5.7,SNR=6.8						
YKA	Yellowknife Ar	74.61	346	eP	P	10 14 59.0	+1.9

IDC 14 10:09:25.1±16.0,11.56S×162.14E,h337^{km}±132^{km}, mb3.4/3,mb1 3.4/5,mb1mx3.2/15,Error ellipse: s-maj=143.0km s-min=44.3km az=103.0,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	14.89	277	P	P	10 12 40.7	-1.0
	0.4nm,0.3s,baz=88,slow=9.5,SNR=2.7						
CTA	Charters Tower	17.46	239	P	P	10 13 06.5	-2.3
	0.6nm,0.3s,baz=63,slow=12,SNR=8.7						
WRA	Warramunga Arr	27.99	249	P	P	10 14 45.9	-2.2
	2.3nm,0.5s,baz=78,slow=9.0,SNR=28						
ASAR	Alice Springs	29.41	242	P	P	10 14 59.0	-1.6
	0.8nm,0.7s,baz=71,slow=9.6,SNR=10						
SONM	Songino Array	77.03	325	P	P	10 20 41.7	-1.3
	2.2nm,1.1s,baz=140,slow=6.0,SNR=9.7						

IDC 14 10:17:11.1±5.9,8.82S×155.90E,mb3.6/3,mb1 3.8/3, mb1mx3.6/12,Error ellipse: s-maj=98.5km s-min=76.2km az=11.0,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.59	240	P	P	10 22 23.1	-1.5
	2.1nm,0.9s,baz=67,slow=9.9,SNR=9.7						
ASAR	Alice Springs	25.70	232	P	P	10 22 43.1	-1.8
	0.4nm,0.8s,baz=69,slow=7.7,SNR=3.2						
STKA	Stephens Creek	26.51	208	P	P	10 22 51.5	-0.8
	1.9nm,0.7s,baz=41,slow=14,SNR=3.6						

IDC 14 10:20:52.8±1.0,20.06N×122.40E,mb3.7/6,mb1 4.0/7, mb1mx3.8/19,ML4.2/1,Error ellipse: s-maj=44.7km s-min=20.3km az=80.0

NEIC 14 10:20:57.1±3.9,20.07N×122.45E,h29^{km}±28^{km},mb4.4/3, Error ellipse: s-maj=15.7km s-min=11.1km az=56.0

NEIC Felt [II PIVS] at Basco.

MAN 14 10:20:57.0,20.23N×122.11E,h33^{km},mb4.6,ML3.5, MS3.5

MAN Basco Batanes - Intensity II.

JMA 14 10:21:00.0±0.5,20.46N×122.31E,h48^{km},M4.2

ISC 14 10:20:56.0±1.0,20.23N±0.03×122.40E±0.08,h33^{km}±8^{km}, n25,σ1^{s}23/34,mb3.8/8,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBP	Basco	0.46	298	eP	Pb	10 21 05.9	-0.1
BBP				eS	Sb	10 21 11.4	-1.6
SGCP	Mt. Cagua	2.00	190	eP	Pn	10 21 27.8	-0.5
CVP	Callao Caves	2.57	192	eP	Pn	10 21 37.0	+0.6
CVP				eS	Sn	10 22 05.0	-1.8
APYP	Conner	2.59	205	eP	Pn	10 21 37.0	+0.3
APYP				eS	Sn	10 22 05.2	-2.3
ABRA	Dolores	3.02	212	eP	Pn	10 21 43.1	+0.3
CAUP	Cauayan	3.31	190	eP	Pn	10 21 48.5	+1.6
CAUP				eS	Sn	10 22 30.9	+5.3
HATJ	Hateruma jima	4.03	19	P	Pn	10 21 58.2	+1.1
HATJ				eS	Sn	10 22 42.6	-1.2
YOJ	Yonaguni jima	4.25	8	P	Pn	10 22 01.2	+0.9
JKRS	Kuro-shima	4.26	20	P	Pn	10 22 01.7	+1.3
JKRS				eS	Sn	10 22 48.3	-1.4
IRIF	Iriomote-Funau	4.27	17	P	Pn	10 22 01.6	+1.1
IRIF				eS	Sn	10 22 47.7	-2.2
JIJ	Ishigaki jima	4.42	21	P	Pn	10 22 03.2	+0.5
JIJ				eS	Sn	10 22 51.7	-2.0
BALP	Baler	4.53	190	eP	Pn	10 22 04.2	0.0
JTJ	Tarama	4.88	25	P	Pn	10 22 11.0	+1.8
JTJ				eS	Sn	10 23 03.6	-1.7
JOGS	Gusukube	5.30	31	P	Pn	10 22 16.7	+1.6
JKE	Kume jima 2	7.29	33	P	Pn	10 22 42.9	-0.2
JOW	Kunigami	8.50	38	Pn	P	10 22 59.5	-0.3
	6.7nm,0.3s,baz=225,slow=12,SNR=18						
ENH	Enshi	15.37	313	P	P	10 24 34.2	+2.0
	13nm,0.4s						
SONM	Songino Array	30.44	338	P	P	10 27 08.0	+0.3
	0.5nm,1.0s,mb3.2,baz=63,slow=6.4,SNR=3.3						
WRA	Warramunga Arr	41.60	163	P	P	10 28 40.9	-2.0
	1.6nm,0.9s,mb3.6,baz=343,slow=9.1,SNR=8.8						
ASAR	Alice Springs	45.04	165	P	P	10 29 09.7	-1.1
	0.3nm,0.5s,mb3.4,baz=348,slow=7.1,SNR=6.9						
BVAR	Borovoye Array	51.46	323	P	P	10 30 00.9	+0.8
	0.9nm,0.5s,mb4.0,baz=100,slow=9.0,SNR=5.3						
BRVK	Borovoye	51.53	323	P	P	10 30 01.1	+0.4
	1.9nm,0.5s,mb4.3						
CHKZ	Chkalovo	51.55	323	eP	P	10 30 00.8	+0.1
	2.5nm,0.5s,mb4.4						
ILAR	Eielson Array	72.21	27	P	P	10 32 19.9	+0.7
	0.5nm,0.9s,mb3.4,baz=261,slow=5.2,SNR=3.9						
YKA	Yellowknife Ar	86.16	23	P	P	10 33 36.6	+2.0
	0.8nm,0.5s,mb4.2,baz=308,slow=4.6,SNR=28						

CSEM 14 10:57:34.1±0.2,39.56N×29.28E,h26^{km},MD2.7,Error ellipse: s-maj=9.2km s-min=2.1km az=36.0

ISK 14 10:57:35.1,39.62N×29.38E,h23^{km},MD2.7,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALT	Altintas	0.80	134	ePG	Pb	10 57 50.6	+0.4
ALT				eSG	Sb	10 58 03.1	+2.4
KCT	Karacabey	1.01	310	PG	Pb	10 57 54.3	+0.4
KCT				SG	Sb	10 58 08.4	+1.6
ESKT	Eskisehir	1.14	95	ePN	Pn	10 57 56.2	+0.3
ESKT				eSN	Sn	10 58 11.7	+0.8

NNC 14 11:04:25.8±13.0,43.61N×87.14E,mpv2.8,Error ellipse: s-maj=655.8km s-min=114.4km az=44.0

BJI 14 11:04:23.3,43.42N×87.58E,h9^{km},ML2.9,2C-1D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	Urumqi	0.41	12	⇓iPG	Pg	11 04 32.3	+0.7
WMQ				SG	Sg	11 04 39.3	+2.1
WMQ				Smax			
	comp=N,307nm,0.4s						
WMQ				Smax			
	comp=E,372nm,0.3s						
MK31	Makanchi Array	5.04	314	⇑Pn	Pn	11 05 40.4	-0.5
	comp=E,0.5nm,0.3s,baz=128,slow=13,SNR=56						
MK31				⇑Sn	Sn	11 06 39.2	-0.8
	comp=E,6.8nm,0.8s,baz=136,slow=25,SNR=6.6						

MAN 14 11:35:15.9,19.11N×121.04E,h31^{km},mb4.4,ML3.2, MS3.0,1C,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PIP	Pasuquin	0.88	207	⇑iP	Pn	11 35 32.2	0.0
PIP				eS	Sb	11 35 44.0	+0.1
APYP	Conner	1.26	171	eP	Pn	11 35 37.8	+0.2
APYP				eS	Sn	11 35 54.5	+0.8
SGCP	Mt. Cagua	1.29	132	eP	Pn	11 35 37.7	-0.4
SGCP				eS	Sn	11 35 54.4	-0.1
CVP	Callao Caves	1.59	152	eP	Pn	11 35 42.5	+0.1
CVP				eS	Sn	11 36 02.5	+0.5
CAUP	Cauayan	2.28	161	eP	Pn	11 35 55.3	+3.0

JMA 14 11:42:06.0±0.2,43.76N×146.94E,h94^{km}±3^{km},M3.5

IDC 14 11:42:08.8±3.2,43.92N×146.76E,h135^{km}±27^{km},mb3.3/8, mb1 3.5/8,mb1mx3.3/21,Error ellipse: s-maj=30.2km s-min=26.1km az=81.0

ISC 14 11:42:04.6±1.0,43.75N±0.09×146.9E±0.1,h115^{km}±8^{km}, n21,σ1^{s}02/32,mb3.5/8,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	Nemuro 2	0.94	246	P	P	11 42 25.7	-0.2
NEM2				eS	S	11 42 40.0	-1.8
JRA	Rausu	1.31	279	P	P	11 42 30.0	0.0
JRA				eS	S	11 42 48.4	-0.8
JNK	Nakash	1.60	265	P	P	11 42 33.6	+0.2
JNK				eS	S	11 42 54.0	-1.1
JAK	Akkeshi	1.79	246	P	P	11 42 36.1	+0.5
JAK				eS	S	11 42 58.4	-0.6
JTKR	Abashiri--Toko	2.19	277	P	P	11 42 41.1	+0.4
JTKR				eS	S	11 43 07.7	-0.3
JAR	Ashorobuto	2.33	260	P	P	11 42 43.9	+1.2
JAR				eS	S	11 43 12.0	+0.5
JOB	Onbets	2.40	250	P	P	11 42 44.7	+1.0
JOB				eS	S	11 43 12.5	-0.6
JMP	Maruseppu	2.58	277	P	P	11 42 46.5	+0.4
JMP				eS	S	11 43 18.1	+0.7
JCH	Churui	2.84	248	P	P	11 42 49.8	+0.3
JCH				eS	S	11 43 22.2	-1.2
ASAJ	Asahikawa	3.14	278	P	P	11 42 54.5	+1.0
	1.8nm,0.3s,baz=117,slow=9.0,SNR=5.5						
ASAJ				S	S	11 43 32.4	+1.7
	1.1nm,0.3s,baz=128,slow=19,SNR=4.3						
JFR	Furan	3.20	261	P	P	11 42 55.4	+1.0
JEM	Erimo	3.26	239	P	P	11 42 57.5	+2.3
JNBK	Urakawa-nobuka	3.39	246	P	P	11 42 57.0	+0.1
JNBK				eS	S	11 43 33.7	-3.0
SONM	Songino Array	28.31	293	P	P	11 47 48.9	-0.3
	0.4nm,0.7s,mb3.1,baz=81,slow=8.1,SNR=5.0						
YKA	Yellowknife Ar	55.89	34	P	P	11 51 32.0	-0.1
	0.1nm,0.6s,mb3.1,baz=302,slow=7.2,SNR=3.9						
WRA	Warramunga Arr	64.42	193	P	P	11 52 31.3	+0.5
	0.3nm,0.9s,mb3.1,baz=6.6,slow=6.6,SNR=4.5						
FINES	FINESS Array B	64.80	333	P	P	11 52 29.9	-2.7
	3.4nm,1.0s,mb4.1,baz=18,slow=6.0,SNR=5.3						
NOA	NORSAR Array B	69.54	339	P	P	11 53 01.2	-1.0
	1.1nm,0.8s,mb3.7,baz=242,slow=14,SNR=2.4						
HFS	Hagfors	69.62	337	P	P	11 53 01.4	-1.3
	4.3nm,1.0s,mb4.2,baz=45,slow=2.1,SNR=4.4						
AKASG	Malin Array Be	71.48	324	P	P	11 53 13.6	-0.4
	0.3nm,0.3s,mb3.6,baz=37,slow=5.2,SNR=4.3						
TXAR	Lajitas Array	82.79	56	P	P	11 54 18.2	+1.1
	0.2nm,0.5s,mb3.2,baz=292,slow=4.7,SNR=3.8						

KRSC 14 11:52:17.0±1.4,50.11N×156.70E,ML3.8,Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	0.68	327	eP	Pg	11 52 30.9	+0.2
SKR				eS	Sg	11 52 42.6	+2.8
ALID	Alaid	1.06	316	eP	Pb	11 52 39.9	+2.0
ALID				eS	Sb	11 52 56.9	+4.8
PAU	Pauzhetka	1.36	3	eP	Pb	11 52 44.5	+1.4
PAU				eS	Sb	11 53 04.5	+3.6
PAU				Smax			
	980nm,0.2s						
RUS	Russkaya	2.59	25	eP	Pn	11 53 02.0	+1.1
RUS				eS	Sn	11 53 34.4	+0.9
GRL	Gorelyy	2.59	19	eP	Pn	11 53 02.3	+1.4
GRL				eS	Sn	11 53 35.6	+2.0
APC	Apacha	2.83	6	eP	Pn	11 53 06.9	+2.6
APC				eS	Sn	11 53 43.1	+3.4
PET	Petropavlovsk	3.16	22	eP	Pn	11 53 10.4	+1.4
PET				eS	Sn	11 53 49.0	+1.0
UGLR	Uglovaya	3.37	22	eP	Pn	11 53 13.3	+1.3
UGLR				eS	Sn	11 53 52.7	-0.6
AVH	Avacha	3.41	21	eP	Pn	11 53 15.8	+3.4
KOK	Koryaka	3.41	20	eP	Pn	11 53 15.1	+2.6
KOK				eS	Sn	11 53 57.1	+2.9
SDLR	Sedlovina	3.45	22	eP	Pn	11 53 14.8	+1.7
SDLR				eS	Sn	11 53 56.4	+1.1
NLC	Nalytchevo	3.48	27	eP	Pn	11 53 12.7	-0.8
NLC				eS	Sn	11 53 55.5	-0.5
SPN	Mys Shipunski	3.64	33	eP	Pn	11 53 17.4	+1.6
SPN				eS	Sn	11 54 00.2	+0.1
GNL	Ganaly	3.67	12	eP	Pn	11 53 19.1	+2.9
GNL				eS	Sn	11 54 03.8	+2.9
KBTR	Krutoberegovo	7.13	29	eP	Pn	11 54 04.1	-1.0
KBTR				eS	Sn	11 55 23.0	-4.8

TRN 14 12:01:35.7,17.47N×61.77W,h18^{km},MD3.5,1C, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPB	Codrington	0.18	344	⇑iP	Pb	12 01 41.7	+1.3
CPB				eS	Sb	12 01 45.9	+2.3
BPA	Boggy Peak	0.43	191	eP	Pb	12 01 47.2	+2.8
BPA				eS	Sb	12 01 53.6	+3.2
SEG	Port Louis	1.09	166	eP	Pb	12 01 56.8	+1.1
SEG				eS	Sb	12 02 14.7	+5.2
STAT	Sint Eustatius	1.15	272	eP	Pb	12 01 57.9	+1.1
STAT				eS	Sb	12 02 15.9	+4.6

IDC 14 12:01:53.6±0.7,3.30S×135.56E,mb4.0/8,mb1 4.3/10, mb1mx4.3/13,ML4.0/2,MS3.5/2,Ms1 3.5/2,ms1mx2.8/14, Error ellipse: s-maj=44.5km s-min=16.3km az=69.0

NEIC 14 12:01:55.0±0.5,3.48S×135.30E,h10^{km},mb4.4/10,Error ellipse: s-maj=24.9km s-min=9.7km az=74.0

BJI 14 12:01:55.0,3.50S×135.30E,h10^{km},mB4.6,mb4.5,Ms4.7, Msz4.2

ISC 14 12:01:56.0±2.7,3.66S±0.04×135.3E±0.1,h28^{km}±19^{km}, n40,σ1^{s}33/39,mb4.5/22,1D,Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	9.42	197	eP	P	12 04 14.1	+1.1
	47nm,0.5s						
KAKA				eS	Sn	12 05 57.6	-1.5
WRAB	Tennant Creek	16.20	183	eP	P	12 05 42.2	-1.3
	53nm,0.8s						
WB2	Warramunga Arr	16.20	183	eP	P	12 05 42.0	-1.6
WB2				i S	rx	12 08 14.7	
WRA	Warramunga Arr	16.21	183	Pn	P	12 05 41.6	-2.0
	0.4nm,0.3s,baz=4.6,slow=13,SNR=20						
WRA				Sn	S	12 08 35.7	-6.4
	1.7nm,0.3s,baz=6.8,slow=21,SNR=8.8						
CTA	Charters Tower	19.52	148	P	P	12 06 25.7	+1.4
	0.6nm,0.3s,baz=331,slow=12,SNR=12						
CTA				LR	LR	12 12 55.9	
	comp=Z,94nm,19.2s,baz=346,slow=34						
CTA	Charters Tower	19.52	148	P	P	12 06 25.7	+1.4
CTA				LR	LR	12 12 55.9	
CTAO	Charters Tower	19.52	148	eP	P	12 06 25.0	+0.7
	14nm,0.8s						
ASAR	Alice Springs	19.93	184	P	P	12 06 31.1	+2.3
	22nm,0.6s,baz=9.4,slow=11,SNR=351						
ASAR				S	S	12 10 06.7	+0.6
	5.0nm,0.7s,baz=5.6,slow=27,SNR=5.7						
ASAR				LR	LR	12 14 46.9	
	comp=Z,208nm,18.8s,baz=2.5,slow=38						
ASPA	Alice Springs	19.93	184	⇓iP	P	12 06 31.3	+2.5
ASPA				eS	S	12 10 06.0	-0.1
MBWA	Marble Bar	23.05	220	eP	P	12 07 04.7	+4.3
	35nm,0.7s,mb4.9						
STKA	Stephens Creek	28.68	169	P	P	12 07 53.7	+0.7
	2.6nm,0.7s,mb4.1,baz=354,slow=10,SNR=7.3						
STKA	Stephens Creek	28.68	169	eP	P	12 07 51.4	-1.5
CMAR	Chiang Mai Arr	42.01	303	P	P	12 09 47.3	+0.3
	1.1nm,0.9s,mb3.5,baz=124,slow=5.7,SNR=7.0						
CMAR				PcP	PcP	12 11 42.7	+0.3
	0.7nm,0.7s,baz=181,slow=1.2,SNR=4.4						
CN2	Changchun	48.07	350	eP	P	12 10 37.6	+2.4
SHL	Shillong	51.12	307	e	P	12 11 00.5	+1.7
GTA	Gaotai	53.88	326	eP	P	12 11 20.0	+0.9
GTA				AP	pP	12 11 28.4	+0.7
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.4						
GUN	Gumba	56.97	307	eP	P	12 11 42.5	+0.8
	comp=Z,34nm,0.8s,mb5.5						
ULN	Ulaanbaatar	56.97	338	eP	P	12 11 40.8	-0.7
	comp=Z,2.0nm,0.7s,mb4.3						
SONM	Songino Array	57.19	337	P	P	12 11 41.0	-2.1
	comp=Z,0.5nm,0.6s,mb3.8,baz=156,slow=6.7,SNR=4.9						
PKI	Pulchoki	57.20	306	eP	P	12 11 43.6	+0.2
	comp=Z,18nm,1.0s,mb5.1						
KKN	Kakani	57.40	306	eP	P	12 11 45.0	+0.2
	comp=Z,26nm,0.9s,mb5.3						
DMN	Daman	57.46	306	eP	P	12 11 45.8	+0.6
	comp=Z,38nm,0.9s,mb5.4						
GKN	Gorkha	58.00	306	eP	P	12 11 49.5	+0.5
	comp=Z,31nm,0.7s,mb5.4						
KOLN	Koldanda	58.75	306	eP	P	12 11 55.0	+0.8
	comp=Z,34nm,0.8s,mb5.5						
TKM2	Tokmak 2	70.92	318	eP	P	12 13 11.1	-1.8
	comp=Z,1.7nm,0.6s,mb4.2						
ZAL	Zalesovo	71.08	331	P	P	12 13 12.6	-1.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=358,slow=6.2,SNR=5.8						
UCH	Uchtor	71.37	317	P	P	12 13 13.2	-2.4
	comp=Z,3.8nm,1.0s,mb4.3						
AAK	Ala-Archa	71.55	317	eP	P	12 13 16.1	-0.5
	comp=Z,1.2nm,0.6s,mb4.0						
VNDA	Vanda	75.16	174	P	P	12 13 39.4	+2.2
	comp=Z,0.6nm,0.8s,mb3.5,baz=333,slow=6.8,SNR=2.8						
BVAR	Borovoye Array	78.16	326	P	P	12 13 54.1	-0.3
	comp=Z,1.4nm,0.5s,mb4.2,baz=121,slow=8.6,SNR=9.7						
BRVK	Borovoye	78.23	326	eP	P	12 13 55.1	+0.3
	comp=Z,3.4nm,0.7s,mb4.4						
CHKZ	Chkalovo	78.29	327	eP	P	12 13 54.8	-0.3
	comp=Z,1.7nm,0.7s,mb4.1						
IMA	Indian Mountai	85.74	23	P	P	12 14 37.0	+3.5
MCK	McKinley	87.00	26	eP	P	12 14 39.2	-0.6
	comp=Z,4.8nm,1.0s,mb4.7						

ILAR	**Eielson Array**	**88.12**	**25**	P	**P**	**12 14 42.9**	**-2.3**
	comp=Z,0.7nm,0.5s,mb4.1,baz=274,slow=4.6,SNR=11						
ARCES	**ARCESS Array B**	**100.27**	**340**	P	P	12 15 40.3	-0.5
	comp=Z,4.2nm,1.0s,baz=72,slow=3.8,SNR=5.1						
LVC	**Limon Verde**	**144.77**	**139**	PKP	PKPdf	12 21 34.4	-1.7
	comp=Z,1.4nm,0.7s,baz=274,slow=8.8,SNR=3.6						
CPUP	**Villa Florida**	**147.78**	**158**	PKPbc	PKPdf	12 21 41.8	+0.7
LPAZ	**La Paz**	**149.52**	**131**	PKPbc	PKPdf	12 21 46.9	+2.8
	comp=Z,3.3nm,0.9s,baz=327,slow=1.4,SNR=12						
LPAZ	**La Paz**	**149.52**	**131**	*e*PKPbc	PKPdf	12 21 47.3	+3.2

IDC 14 12:03:42.5±1.4,7.26S×150.18E,mb4.0/5,mb1 4.4/7,mb1mx4.2/13,ML4.3/2,MS3.0/1,Ms1 3.0/1,ms1mx2.3/16,Error ellipse: s-maj=34.6km s-min=25.5km az=126.0

NEIC 14 12:03:49.1±2.7,6.90S×149.67E,h60^{km}±21^{km},mb4.6/2,Error ellipse: s-maj=34.2km s-min=21.0km az=140.0

ISC 14 12:03:48.6±3.7,6.8S±0.3×149.6E±0.2,h74^{km}±28^{km},n11,$\sigma 0^{s}97$/12,mb4.0/6,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.53**	**223**	Pn	**P**	**12 04 41.3**	**-1.0**
	25nm,0.3s,baz=56,slow=6.3,SNR=75						
PMG				Sn	**S**	**12 05 24.9**	**+1.9**
	14nm,0.3s,baz=84,slow=21,SNR=7.9						
PMG				LR	LR	12 06 22.0	
	comp=Z,203nm,20.7s,baz=28,slow=43						
PMG	**Port Moresby**	**3.53**	**223**	*e*Pn	**P**	**12 04 41.4**	**-0.9**
WRAB	**Tennant Creek**	**19.72**	**227**	*e*P	**P**	**12 08 14.1**	**-0.8**
	50nm,0.6s						
WRA	**Warramunga Arr**	**19.74**	**227**	P	**P**	**12 08 14.0**	**-1.0**
	4.0nm,0.3s,baz=55,slow=11,SNR=28						
ASAR	**Alice Springs**	**22.54**	**220**	P	**P**	**12 08 43.5**	**+0.1**
	4.2nm,0.8s,mb3.8,baz=54,slow=9.1,SNR=5.0						
STKA	**Stephens Creek**	**26.04**	**196**	P	**P**	**12 09 16.6**	**-0.2**
	4.5nm,0.8s,mb4.0,baz=25,slow=12,SNR=9.3						
MBWA	**Marble Bar**	**32.20**	**241**	*e*P	**P**	**12 10 12.2**	**+0.2**
	2.8nm,0.6s,mb4.2						
CMAR	**Chiang Mai Arr**	**55.89**	**298**	P	**P**	**12 13 28.6**	**+7.1**
	0.3nm,0.4s,mb3.7,baz=100,slow=10,SNR=2.7						
VNDA	**Vanda**	**70.98**	**177**	P	**P**	**12 14 58.7**	**-1.1**
	1.8nm,0.9s,mb3.9,baz=333,slow=4.2,SNR=6.3						
QSPA	**South Pole Qui**	**83.17**	**180**	*e*P	**P**	**12 16 08.5**	**+1.1**
NVAR	**Mina Array Bea**	**95.83**	**52**	P	**P**	**12 17 09.4**	**+1.2**
	1.1nm,1.2s,mb4.2,baz=259,slow=7.8,SNR=4.5						

CASC 14 12:18:12.8±2.1,13.81N×89.06W,h161^{km}±8^{km},MD4.0,mb4.2(NEIC)

NEIC 14 12:18:13.7±1.6,13.89N×88.81W,h188^{km}±15^{km},mb4.2/2,Error ellipse: s-maj=29.7km s-min=11.1km az=54.0

IDC 14 12:18:17.4±3.0,14.18N×88.92W,h206^{km}±28^{km},mb3.3/8,mb1 3.5/9,mb1mx3.3/20,Error ellipse: s-maj=31.8km s-min=16.3km az=62.0

ISC 14 12:18:11.7±0.4,13.94N±0.09×89.04W±0.07,h171^{km}±3^{km},n41,$\sigma 1^{s}08$/50,mb3.7/8,10C-3D,El Salvador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LBRS	**Las Brisas**	**0.20**	**181**⇑	*e*P	**P**	**12 18 34.9**	**0.0**
LFU	**La Fuente**	**0.21**	**200**⇑	*e*P	**P**	**12 18 34.8**	**-0.1**
LFU				*e*S	**S**	**12 18 52.7**	**+0.1**
LCBS	**La Ceiba**	**0.29**	**168**⇑	*e*P	**P**	**12 18 34.6**	**-0.5**
LCBS				*e*S	**S**	**12 18 50.3**	**-2.8**
BOQS	**Boqueron**	**0.31**	**229**⇑	*e*P	**P**	**12 18 34.8**	**-0.3**
LFRS	**El Faro**	**0.32**	**184**⇑	*i*P	**P**	**12 18 34.5**	**-0.7**
SNVI	**San Vicente**	**0.38**	**149**⇑	*e*P	**P**	**12 18 35.0**	**-0.4**
SNVI				*e*S	**S**	**12 18 54.1**	**+0.6**
MTO2	**Montecristo 2**	**0.55**	**326**⇑	*i*P	**P**	**12 18 37.0**	**+1.0**
MTO2				*e*S	**S**	**12 18 54.5**	**-0.3**
SBLS	**San Blas**	**0.58**	**260**⇑	*i*P	**P**	**12 18 36.0**	**-0.1**
RTR	**El Retiro**	**0.59**	**266**⇑	*i*P	**P**	**12 18 36.1**	**-0.1**
RBDL	**Robledal**	**0.65**	**285**	*e*P	**P**	**12 18 36.6**	**0.0**
RBDL			⇓	*i*P		12 18 36.7	
CAHU	**Cacacuatique**	**0.82**	**102**⇓	*e*P	**P**	**12 18 38.4**	**+1.0**
CAHU				*e*S	**S**	**12 18 57.3**	**-0.1**
BLLM	**Bellamira**	**0.92**	**122**	*e*P	**P**	**12 18 38.0**	**-0.1**
CNCH	**Conchagua**	**1.35**	**119**⇓	*e*P	**P**	**12 18 42.1**	**+0.3**
CNCH				*e*S	**S**	**12 19 05.2**	**+0.1**
MIRN	**Miramar**	**2.71**	**123**	*e*P	**P**	**12 18 58.5**	**+1.5**
MIRN				*e*S	**S**	**12 19 30.8**	**-1.1**
MOMJ	**Momotombo**	**2.87**	**122**	*e*P	**P**	**12 19 00.2**	**+1.3**
COPN	**Copaltepe**	**2.96**	**126**⇑	*e*P	**P**	**12 18 59.7**	**-0.4**
COPN				*e*S	**S**	**12 19 35.0**	**-2.2**
APYN	**Apoyeque**	**3.12**	**123**	*e*P	**P**	**12 19 03.2**	**+1.1**
APYN				*e*S	**S**	**12 19 42.1**	**+1.3**
MGAN	**Managua**	**3.25**	**123**	*e*S	**S**	**12 19 42.9**	**-0.9**
WILN	**Americas 2**	**3.30**	**122**	*e*S	**S**	**12 19 44.4**	**-0.4**
TICN	**Ticuantepe**	**3.33**	**124**	*e*P	**P**	**12 19 05.3**	**+0.5**
TICN				*e*S	**S**	**12 19 46.5**	**+1.0**
JTS	**JuntasAbangare**	**5.40**	**132**	*e*Pn	**P**	**12 19 30.6**	**-0.9**
JTS				*e*Sn	**S**	**12 20 26.3**	**-7.0**
JCR	**Jicaral**	**5.60**	**136**	*e*P	**P**	**12 19 34.2**	**+0.2**
CGA2	**Cerro Gallo 2**	**5.94**	**131**	*e*P	**P**	**12 19 40.4**	**+1.8**
PRS1	**Puriscal**	**6.07**	**130**	*e*P	**P**	**12 19 41.4**	**+1.0**
TEIG	**Tepich**	**6.29**	**7**	P	**P**	**12 19 45.1**	**+1.8**
	0.7nm,0.3s,baz=115,slow=16,SNR=8.4						
TEIG	**Tepich**	**6.29**	**7**	*e*Pn	**P**	**12 19 45.0**	**+1.8**
TEIG				P		12 19 45.1	
LAJ	**Bijagual**	**6.29**	**130**	*e*P	**P**	**12 19 41.4**	**-1.9**
SDV	**Santo Domingo**	**18.73**	**104**	*e*P	**P**	**12 22 17.4**	**-2.4**
	7.9nm,0.6s						
TXAR	**Lajitas Array**	**20.45**	**321**	P	**P**	**12 22 38.1**	**+0.8**
	1.3nm,0.8s,baz=138,slow=10,SNR=12						
LAZ	**Ladron**	**26.14**	**324**	*e*P	**P**	**12 23 32.8**	**+1.0**
PDAR	**Pinedale Array**	**33.73**	**332**	P	**P**	**12 24 38.4**	**-0.4**
	0.4nm,0.6s,mb3.3,baz=121,slow=8.6,SNR=4.1						
SAML	**Samuel**	**34.29**	**130**	*e*P	**P**	**12 24 38.3**	**-5.5**
	3.8nm,1.0s,mb4.1						
NVAR	**Mina Array Bea**	**35.57**	**319**	P	**P**	**12 24 55.5**	**+1.2**
	0.4nm,0.7s,mb3.2,baz=122,slow=8.5,SNR=3.0						
ULM	**Lac du Bonnet**	**36.63**	**353**	P	**P**	**12 25 02.3**	**-0.9**
	2.1nm,0.6s,mb4.0,baz=165,slow=9.1,SNR=6.6						
LVC	**Limon Verde**	**41.34**	**151**	P	**P**	**12 25 44.6**	**+2.3**
	1.2nm,0.6s,mb3.7,baz=289,slow=23,SNR=2.5						
SCHQ	**Schefferville**	**44.33**	**18**	P	**P**	**12 26 05.0**	**-1.1**
	2.7nm,0.4s,mb4.2,baz=220,slow=11,SNR=14						
YKA	**Yellowknife Ar**	**51.78**	**345**	P	**P**	**12 27 02.1**	**-1.4**
	1.2nm,0.5s,mb3.8,baz=147,slow=6.8,SNR=51						
YKA				pP	pP	12 27 42.6	+0.2
	0.8nm,1.0s,baz=145,slow=8.0,SNR=3.5						
YKA	**Yellowknife Ar**	**51.78**	**345**	P	**P**	**12 27 02.1**	**-1.5**
YKA				pP	pP	12 27 42.6	+0.2
ILAR	**Eielson Array**	**64.04**	**336**	P	**P**	**12 28 26.9**	**-2.1**
	0.3nm,0.5s,mb3.4,baz=170,slow=4.6,SNR=7.9						
WRA	**Warramunga Arr**	**138.16**	**256**	PKP	PKPdf	12 37 19.6	+2.4
	0.6nm,0.7s,baz=88,slow=3.2,SNR=3.7						
WRA	**Warramunga Arr**	**138.16**	**256**	PKP	PKPdf	12 37 19.6	+2.4

MAN 14 12:34:03.1,16.45N×122.53E,h15^{km},mb4.5,ML3.4,MS3.3,2C,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAUP	**Cauayan**	**0.84**	**306**	*e*P	Pb	12 34 18.3	-0.6
CAUP				*e*S	Sb	12 34 25.8	-3.9
BALP	**Baler**	**1.16**	**233**	*e*P	Pb	12 34 23.5	-0.8
CVP	**Callao Caves**	**1.42**	**332**	*e*P	Pn	12 34 28.0	-0.5
PCPH	**Palayan**	**1.64**	**238**⇑	*e*P	Pn	12 34 31.0	-0.7
PCPH				*e*S	Sn	12 34 53.2	+0.6
POLP	**Polilio Island**	**1.80**	**199**	*e*P	Sn	12 34 57.2	+0.5
APYP	**Conner**	**1.87**	**319**	*e*P	Pn	12 34 34.2	-0.7
BCPH	**Baguio City Da**	**1.87**	**268**⇑	*i*P	Pn	12 34 35.1	+0.1
BCPH				*i* S	Sn	12 34 43.2	-15
ABRA	**Dolores**	**2.11**	**305**	*e*P	Pn	12 34 38.0	-0.4
BOLP	**Bolinao**	**2.51**	**269**	*e*P	Pn	12 34 43.0	-1.2
GQP	**Guinayangan**	**2.53**	**182**	*e*P	Sn	12 35 14.1	-1.1
GQP				*e*S	Sn	12 35 21.6	+6.4

NAO 14 12:35:38.5±3.7,61.14N×29.27E,ML2.0

BER 14 12:35:41.0±3.2,61.05N×29.11E,ML2.0(NAO),Suspected explosion

HEL 14 12:35:41.7±0.4,60.93N×28.92E,ML1.3,Explosion,Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJF	**Virojoki**	**0.77**	**240**	*e*P	Pg	12 35 55.8	-1.3
VJF				*e*S	Sg	12 36 05.5	-2.0
FIA0	**FINESS Array S**	**1.47**	**292**	Pn	Pn	12 36 07.5	-2.1
	baz=115,slow=16						
FIA0				Lg		12 36 28.4	
	baz=106,slow=37						
FIA0				Rg		12 36 35.5	
	baz=116,slow=37						
FIA0	**FINESS Array S**	**1.47**	**292**	*e*P	Pn	12 36 07.4	-2.1
FIA0				*e*S	Sb	12 36 26.9	-1.8
PVF	**Pernaja**	**1.55**	**257**	*e*P	Pn	12 36 08.8	-1.9
PVF				*e*S	Sb	12 36 29.3	-1.7
KAF	**Kangasniemi**	**1.73**	**315**	*e*P	Pn	12 36 12.4	-0.8
KAF				*e*S	Sb	12 36 34.4	-1.8
SUF	**Sumiainen**	**2.23**	**325**	MSG		12 36 52.3	
	comp=Z,1.2nm,0.1s						
KEF	**Keuruu**	**2.30**	**305**	MSG		12 36 57.7	
	comp=Z,0.7nm,0.1s						
HFS	**Hagfors**	**7.55**	**271**	Lg		12 39 38.4	
	baz=77,slow=28						
HFS	**Hagfors**	**7.55**	**271**	Lg		12 39 38.4	
	baz=77,slow=28						
ARA0	**ARCESS Array S**	**8.76**	**352**	Lg		12 40 07.0	
	baz=160,slow=37						
ARA0	**ARCESS Array S**	**8.76**	**352**	Lg		12 40 07.0	
	baz=160,slow=37						

INMG 14 12:55:27.9±0.6,39.56N×15.84W,h10^{km},ML2.8,Error ellipse: s-maj=6.0km s-min=4.2km az=64.0

CSEM 14 12:55:29.2±0.6,39.87N×15.23W,h2^{km},ML3.4/9,Error ellipse: s-maj=11.9km s-min=8.6km az=59.0

MDD 14 12:55:26.6±2.8,39.64N×15.37W,mb4.4/7,Error ellipse: s-maj=25.3km s-min=18.5km az=53.0,PRXIMO,North Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLOU	**Loures**	**4.88**	**97**	*e*Pn	Pn	12 56 40.8	-2.2
PLOU				*e*Sn	Sn	12 57 34.3	-6.8
	15nm,0.4s						
PLOU	**Loures**	**4.88**	**97**	*e*Pn	Pn	12 56 40.8	-2.2
PLOU				*e*Sn	Sn	12 57 34.3	-6.8
	15nm,0.4s						
PTOM	**Tomar**	**5.37**	**88**	*e*Pn	Pn	12 56 46.5	-3.4
PTOM				*e*Sn	Sn	12 57 45.7	-7.7
	6.3nm,0.1s						
PTOM	**Tomar**	**5.37**	**88**	*e*Pn	Pn	12 56 46.5	-3.4
PTOM				*e*Sn	Sn	12 57 45.7	-7.7
	6.3nm,0.1s						
MOE	**Montemor**	**5.57**	**99**	*e*Sn	Sn	12 57 50.8	-7.6
PTEO	**Sao Teotonio**	**5.61**	**110**	*e*Sn	Sn	12 57 50.6	-8.7
	13nm,0.4s						
PTEO	**Sao Teotonio**	**5.61**	**110**	*e*Sn	Sn	12 57 50.6	-8.7
	13nm,0.4s						
EZAM	**Zamans**	**5.64**	**61**	Pn	Pn	12 56 50.4	-3.3
	1.7nm,0.2s,SNR=7.9						
PVIS	**Viseu**	**5.82**	**77**	*e*Sn	Sn	12 57 57.0	-7.7
	5.5nm,0.1s						
PVIS	**Viseu**	**5.82**	**77**	Sn	Sn	12 57 57.0	-7.7
	2.8nm,0.1s						
EMAZ	**Mazaricos**	**5.84**	**53**	Pn	Pn	12 56 52.8	-3.7
	2.6nm,0.2s,SNR=6.9						
EMAZ				Sn	Sn	12 57 57.1	-8.0
	1.0nm,0.1s						
EMAZ	**Mazaricos**	**5.84**	**53**	Pn	Pn	12 56 52.8	-3.7
	2.6nm,0.2s,SNR=6.9						
EMAZ				Sn	Sn	12 57 57.1	-8.0
	1.0nm,0.1s						
ELOB	**Lobios**	**5.98**	**66**	Pn	Pn	12 56 55.1	-3.3
	1.9nm,0.1s,SNR=9.2						
ELOB				Sn	Sn	12 57 59.2	-9.4
	0.8nm,0.1s						
ELOB	**Lobios**	**5.98**	**66**	Pn	Pn	12 56 55.1	-3.4
	1.9nm,0.1s,SNR=9.2						
ELOB				Sn	Sn	12 57 59.2	-9.4
	0.8nm,0.1s						
MTE	**Manteigas**	**6.05**	**80**	*e*Sn	Sn	12 58 02.6	-7.9
PBEJ	**Beja**	**6.07**	**103**	*e*Sn	Sn	12 58 01.4	-10
STS	**Santiago**	**6.07**	**56**	Pn	Pn	12 56 56.3	-3.6
	2.9nm,0.1s,SNR=7.9						
PCBR	**Castelo Branco**	**6.08**	**86**	*e*Sn	Sn	12 58 03.4	-7.9
	3.2nm,0.2s						
PCBR	**Castelo Branco**	**6.08**	**86**	Sn	Sn	12 58 03.4	-7.9
	1.6nm,0.2s						
EBAD	**Badajoz**	**6.55**	**95**	Pn	Pn	12 57 02.8	-3.7
	0.5nm,0.1s,SNR=4.0						
EBAD				Sn	Sn	12 58 14.7	-8.1
	1.9nm,0.2s,SNR=4.0						
EBAD	**Badajoz**	**6.55**	**95**	Pn	Pn	12 57 02.8	-3.7
	0.5nm,0.1s,SNR=4.0						
EBAD				Sn	Sn	12 58 14.7	-8.2
	1.9nm,0.2s,SNR=4.0						
EINC	**Incio**	**6.76**	**61**	Pn	Pn	12 57 05.7	-3.9
	4.4nm,0.2s,SNR=22						
EINC				Sn	Sn	12 58 19.5	-8.7
	0.9nm,0.2s						
EINC	**Incio**	**6.76**	**61**	Pn	Pn	12 57 05.7	-3.8
	4.4nm,0.2s,SNR=22						
EINC				Sn	Sn	12 58 19.5	-8.7
	0.9nm,0.2s						
ECAL	**Calabor**	**6.94**	**68**	Pn	Pn	12 57 08.3	-3.7
	0.9nm,0.1s,SNR=4.0						
ECAL				Sn	Sn	12 58 22.5	-10
	0.9nm,0.2s,SNR=7.9						
ECAL	**Calabor**	**6.94**	**68**	Pn	Pn	12 57 08.3	-3.7
	0.9nm,0.1s,SNR=4.0						
ECAL				Sn	Sn	12 58 22.5	-10
	0.9nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**7.05**	**103**	Pn	Pn	12 57 09.2	-4.4
	0.3nm,0.1s,SNR=4.0						
EMIN				Sn	Sn	12 58 24.3	-11
	4.4nm,0.7s,SNR=4.0						
EPON	**Pontenova**	**7.18**	**56**	Pn	Pn	12 57 11.6	-3.9
	2.7nm,0.1s,SNR=8.8						
EPON				Sn	Sn	12 58 28.3	-10
	0.3nm,0.1s						
EPON	**Pontenova**	**7.18**	**56**	Pn	Pn	12 57 11.6	-3.9
	2.7nm,0.1s,SNR=8.8						
EPON				Sn	Sn	12 58 28.3	-11
	0.3nm,0.1s						
EARI	**Arriondas**	**8.46**	**61**	Pn	P	12 57 30.4	-2.9
	1.6nm,0.2s,SNR=7.9						
EARI				Sn	Sn	12 58 58.1	-12
	0.3nm,0.3s,SNR=7.9						
EARI	**Arriondas**	**8.46**	**61**	Pn	P	12 57 30.4	-2.8
	1.6nm,0.2s,SNR=7.9						

CSEM 14 13:38:23.8±0.1,40.49N×26.22E,h10^{km},MD2.9,Error ellipse: s-maj=2.9km s-min=2.4km az=51.0

NEIC 14 13:38:24.9,40.51N×26.18E,h34^{km},MD3.1(ATH),After ATH.

ATH 14 13:38:24.9,40.51N×26.16E,h32^{km}±6^{km},MD3.1/4

ISK 14 13:38:24.0,40.42N×26.03E,h28^{km},MD2.9

ISC 14 13:38:23.6±1.0,40.51N±0.03×26.11E±0.06,h9^{km}±8^{km},n12,$\sigma 0^{s}81$/19,Turkey

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BOZC	**Bozcaada**	**0.67**	**184**	*i* P	**Pg**	**13 38 37.5**	**+0.5**
BOZC				*i* S	**Sg**	**13 38 46.6**	**+0.7**
EZN	**Ezine**	**0.70**	**166**	PG	**Pg**	**13 38 36.7**	**-1.0**
EZN				SG	**Sg**	**13 38 47.2**	**+0.1**
RDO	**Rodhopi**	**0.77**	**326**	*e*PN	**Pn**	**13 38 40.7**	**+0.2**
RDO				*e*SN	**Sn**	**13 38 51.4**	**-0.8**
SART	**Tekirdag**	**0.84**	**77**	*i* P	**Pb**	**13 38 39.5**	**-0.5**
SART				*i* S	**Sb**	**13 38 52.8**	**+1.7**
LIA	**Limnos Island**	**0.93**	**230**	*e*PN	**Pn**	**13 38 43.4**	**+0.6**
PRK	**Paraskevi**	**1.27**	**174**	*e*PN	**Pn**	**13 38 48.4**	**+0.9**
PRK				*e*SN	**Sn**	**13 39 04.7**	**-0.1**
AYVA	**Ayvalik**	**1.28**	**159**	*i* P	**Pb**	**13 38 45.5**	**-2.0**
AYVA				*i* S	**Sb**	**13 39 04.2**	**+0.3**
EDC	**Edincik**	**1.35**	**96**	PN	**Pn**	**13 38 47.8**	**-0.9**
BNT	**Bandirma**	**1.39**	**96**	PN	**Pn**	**13 38 48.5**	**-0.8**
EDRB	**Edirne**	**1.42**	**20**	PN	**Pn**	**13 38 50.4**	**+0.6**
EDRB				SN	**Sn**	**13 39 09.0**	**+0.2**
BALB	**Balikesir**	**1.61**	**122**	PN	**Pn**	**13 38 52.2**	**-0.3**
NVR	**Nevrokopi**	**1.90**	**297**	*e*PB	**Pb**	**13 38 58.3**	**+0.3**

IDC 14 13:42:12.8±7.9,11.78N×88.67W,mb3.2/3,mb1 3.7/4,mb1mx3.4/19,ML3.8/1,Error ellipse: s-maj=128.0km s-min=76.5km az=143.0,Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEIG	**Tepich**	**8.41**	**3**	Pn	P	13 44 17.3	-1.5
	1.1nm,0.3s,baz=352,slow=23,SNR=11						
TXAR	**Lajitas Array**	**22.37**	**324**	P	P	13 47 11.1	-3.0
	0.4nm,0.5s,baz=142,slow=11,SNR=8.2						
NVAR	**Mina Array Bea**	**37.44**	**320**	P	P	13 49 29.8	+0.2
	0.4nm,0.7s,baz=136,slow=9.0,SNR=3.9						
YKA	**Yellowknife Ar**	**53.95**	**345**	P	P	13 51 37.3	-3.0
	0.1nm,0.5s,baz=138,slow=7.1,SNR=4.6						

NAO 14 13:51:22.0±3.8,59.34N×26.89E,ML2.4

BER 14 13:51:22.6±2.3,59.38N×27.16E,ML2.4(NAO),Suspected explosion

HEL 14 13:51:22.3±0.1,59.35N×27.09E,ML1.7,ML2.4(NAO),Explosion,Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSU	**Vasula**	**0.91**	**192**	*e*P	Pg	13 51 38.8	-1.8
VSU				*e*S	Sg	13 51 50.3	-2.4
VJF	**Virojoki**	**1.21**	**11**	*e*P	Pb	13 51 44.0	-1.8
VJF				*e*S	Sb	13 51 59.8	-2.1
PVF	**Pernaja**	**1.35**	**333**	*e*P	Pb	13 51 46.6	-1.5
PVF				*e*S	Sb	13 52 03.7	-2.0
FIA0	**FINESS Array S**	**2.16**	**347**	Pn	Pn	13 51 58.8	-1.2
	baz=160,slow=18						
FIA0				Lg		13 52 29.5	
	baz=165,slow=37						
FIA0				Rg		13 52 41.3	
	baz=158,slow=37						
FIA0	**FINESS Array S**	**2.16**	**347**	*e*P	Pn	13 51 59.0	-0.9
FIA0				*e*S	Sn	13 52 26.0	-1.8
FIA0				MSG		13 52 34.2	
	comp=Z,2.5nm,0.1s						
KAF	**Kangasniemi**	**2.79**	**352**	*e*P	Pn	13 52 08.6	-0.5
KAF				*e*S	Sn	13 52 41.2	-2.8
KAF				MSG		13 52 58.6	
	comp=Z,2.0nm,0.2s						
KEF	**Keuruu**	**3.03**	**340**	MSG		13 53 05.9	
	comp=Z,1.7nm,0.2s						
SUF	**Sumiainen**	**3.41**	**353**	MSG		13 53 15.7	
	comp=Z,1.2nm,0.2s						
HFS	**Hagfors**	**6.82**	**282**	Sn	Sn	13 54 17.9	-7.4
	baz=96,slow=22						
HFS				Lg		13 54 52.2	
	baz=91,slow=37						
HFS	**Hagfors**	**6.82**	**282**	*e*S	Sn	13 54 17.9	-7.4
HFS				*e*SG		13 54 52.2	
ARA0	**ARCESS Array S**	**10.25**	**357**	Pn	P	13 53 47.8	-5.7
	baz=174,slow=14						
ARA0	**ARCESS Array S**	**10.25**	**357**	*e*P	P	13 53 47.8	-5.7

MOS 14 14:05:24.9±1.6,51.11N×98.37E,h11^{km},mb4.1/1,Error ellipse: s-maj=31.6km s-min=16.0km az=149.7,Tuva-Buryatia-Mongolia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ORL	**Orlik**	**1.69**	**31**	*e*PN	Pn	14 05 54.8	+0.2
ORL				*e*		14 06 17.5	
ORL				pmax	pmax		
	comp=Z,78nm,0.4s						
ORL				smax			
	comp=N,386nm,0.8s						
MOY	**Mondy**	**1.73**	**70**	*e*PN	Pn	14 05 56.5	+1.2
MOY				*e*		14 06 19.4	
MOY				pmax	pmax		
	comp=Z,61nm,0.4s						
MOY				smax			
	comp=E,510nm,1.2s						
ARS	**Arshan**	**2.66**	**71**	*e*PN	Pn	14 06 12.2	+3.7
ARS				*e*		14 06 46.8	
ARS				pmax	pmax		
	comp=Z,34nm,0.4s						
ARS				smax			
	comp=E,328nm,0.7s						
ZAK	**Zakamensk**	**3.20**	**101**	*e*PN	Pn	14 06 16.8	+0.6
ZAK				*e*		14 06 22.1	
ZAK				*e*S	Sn	14 07 04.5	+10
ZAK				pmax	pmax		
	comp=Z,41nm,1.0s						
ZAK				smax			
	comp=N,372nm,0.9s						
TLY	**Talaya**	**3.35**	**78**	*e*PN	Pn	14 06 17.6	-0.8
TLY				*e*		14 06 25.4	
TLY				*e*		14 07 09.8	
TLY				pmax	pmax		
	comp=Z,17nm,0.6s						
TLY				smax			
	comp=N,166nm,0.9s						
IRK	**Irkutsk**	**3.84**	**71**	*e*PN	Pn	14 06 33.2	+7.9
IRK				*e*		14 07 24.7	
IRK				pmax	pmax		
	comp=Z,50nm,0.2s						
IRK				smax			
	comp=N,475nm,0.7s						
LSTR	**Listvyanka**	**4.11**	**77**	*e*PN	Pn	14 06 37.8	+8.7
LSTR				*e*		14 07 31.3	
LSTR				pmax	pmax		
	comp=Z,23nm,1.2s						
LSTR				smax			
	comp=N,102nm,1.3s						
TRG	**Tyrgan**	**5.21**	**68**	*e*PN	Pn	14 06 42.6	-2.0
TRG				*e*		14 06 57.6	
TRG				*e*S	Sn	14 07 41.7	-3.7
TRG				*e*		14 08 04.7	
TRG				pmax	pmax		
	comp=Z,11nm,0.4s						
TRG				smax			
	comp=E,105nm,1.0s						
KAB	**Kabansk**	**5.25**	**76**	*e*PN	Pn	14 06 59.5	+14
KAB				*e*		14 08 08.5	
KAB				pmax	pmax		
	comp=Z,55nm,0.2s						
KAB				smax			
	comp=N,456nm,1.5s						
OGRR	**Ongureny**	**6.19**	**62**	*e*PN	Pn	14 07 17.9	+19
OGRR				*e*		14 08 36.4	
OGRR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
OGRR				smax			
	comp=E,72nm,0.7s						
ULN	**Ulaanbaatar**	**6.52**	**116**	*i* PN	Pn	14 07 22.1	+19

MAN 14 14:10:31.2,9.98N×126.07E,h12^{km},mb3.9,ML2.6,MS2.2,1D,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	**Surigao**	**0.61**	**251**⇓	*e*P	Pb	14 10 43.1	-0.1
SCPH				*e*S	Sb	14 10 53.5	+2.1
BUTP	**Butuan**	**1.10**	**204**	*e*P	Pb	14 10 50.4	-1.2
BUTP				*e*S	Sb	14 11 07.0	+1.3
MSLP	**Maasin**	**1.21**	**277**	*e*P	Pb	14 10 52.6	-0.8
MSLP				*e*S	Sb	14 11 10.4	+1.6
PLP	**Palo**	**1.60**	**318**	*e*P	Pn	14 10 55.5	-3.9
PLP				*e*S	Sn	14 11 17.0	-3.0
BESP	**Borongan**	**1.73**	**339**	*e*P	Pn	14 11 01.0	-0.3
BESP				*e*S	Sn	14 11 23.4	0.0
BUKP	**Musuan**	**2.31**	**206**	*e*P	Pn	14 11 09.9	+0.2

THR 14 14:17:07.8±0.5,33.13N×47.46E,h42^{km}±5^{km},ML2.9

KISR 14 14:17:08.9±1.2,33.48N×47.48E,h40^{km}±999^{km},ML2.8

ISC 14 14:17:13.0±0.7,33.20N±0.04×47.9E±0.1,h33^{km},n6,$\sigma 0^{s}83$/10,Western Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHGR	**Shooshtar-Gavs**	**1.32**	**145**	*e*PG	**P**	**14 17 35.6**	**+0.2**
SNGE	**Sanandaj**	**1.94**	**346**	*e*PG	**P**	**14 17 42.9**	**-1.3**
SNGE				*e*SG	**S**	**14 18 09.1**	**+1.4**
SNGE				AMP		14 18 12.5	
	comp=N,98nm,0.7s						
RST	**Umm Al-Ruwaisa**	**3.77**	**192**	*e*P	**P**	**14 18 09.6**	**-0.7**
RST				*e*S	**S**	**14 18 53.6**	**-0.6**
RST				AML	AML	14 18 53.8	
	comp=Z,10nm,0.5s						
NASN	**Na'in**	**4.13**	**94**	*e*PN	**Pn**	**14 18 15.6**	**-0.1**
RDF	**Al-Radifah**	**4.27**	**184**	*e*P	**P**	**14 18 17.2**	**-0.3**
RDF				AML	AML	14 19 06.9	
	comp=Z,8.8nm,0.4s						
RDF				*e*S	**S**	**14 19 08.2**	**+1.3**

QRN	Al-Qurain	4.44	180	*e*P	P	14 18 19.2	-0.6
QRN				*e*S	S	14 19 11.8	+0.7
QRN				AML	AML	14 19 12.7	
	comp=Z,9.5nm,0.2s						

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*IDC **14** 14:21:22.8±0.6, 14.24S×172.88E, mb4.3/17, mb1 4.5/17, mb1mx4.5/19, MS4.7/18, Ms1 4.7/18, ms1mx4.5/22, Error ellipse: s-maj=21.7km s-min=15.5km az=136.0*

*NEIC **14** 14:21:24.7±0.3, 14.26S×172.78E, h10^{km}, mb4.8/11, Error ellipse: s-maj=12.8km s-min=7.8km az=134.0*

*SYO **14** 14:21:24.8, 14.29S×172.75E, h10^{km}, MB4.7*

*BJI **14** 14:21:25.6, 14.30S×172.80E, h10^{km}, mB5.1, mb4.5, Ms5.1, Msz4.9*

ISC 14 14:21:29.3±2.5**, 14.40S**±0.07×**172.75E**±0.09**, h59**^{km}±21^{km}**, n66,** σ**1**^{s}**12**/47**, mb4.4**/26**, MS4.7**/20**, 2C, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	9.70	217	*e*P	P	14 23 47.4	-1.4
DZM	Mont Dzumac	9.70	217	*e*P	P	14 23 47.3	-1.4
NOUC	Port Laguerre	9.81	218	*e*P	P	14 23 50.4	+0.2
URZ	Urewera	24.08	172	P	P	14 26 41.4	+1.3
	8.3nm,0.8s,mb4.2,baz=297,slow=21,SNR=3.9						
URZ				LR	LR	14 33 52.1	
	comp=Z,7μm,21.9s,MS5.1,baz=350,slow=31						
PMG	Port Moresby	25.52	278	P	P	14 26 55.2	+1.0
	9.4nm,0.8s,mb4.4,baz=101,slow=7.1,SNR=7.5						
PMG				LR	LR	14 35 53.3	
	comp=Z,1μm,20.0s,MS4.4,baz=79,slow=34						
PMG	Port Moresby	25.52	278	*e*P	P	14 26 53.1	-1.1
	17nm,0.9s,mb4.6						
CTA	Charters Tower	25.91	254	P	P	14 26 58.6	+0.8
	8.1nm,0.8s,mb4.3,baz=81,slow=10.0,SNR=3.1						
CTA				LR	LR	14 35 39.3	
	comp=Z,3μm,21.2s,MS4.7,baz=75,slow=33						
CTAO	Charters Tower	25.91	254	*e*P	P	14 26 58.4	+0.6
	11nm,0.8s,mb4.4						
RAR	Rarotonga	27.00	108	LR	LR	14 35 20.7	
	comp=Z,2μm,19.5s,MS4.6,baz=274,slow=31						
RPZ	Rata Peaks	29.25	183	P	P	14 27 29.7	+1.8
	10nm,0.9s,mb4.5,baz=330,slow=14,SNR=2.7						
STKA	Stephens Creek	33.35	233	⇑*i*P	P	14 28 05.1	+1.1
	20nm,1.9s,mb4.7						
STKA	Stephens Creek	33.35	233	P	P	14 28 05.0	+1.0
	6.6nm,0.8s,mb4.6,baz=45,slow=7.9,SNR=11						
STKA				LR	LR	14 41 09.9	
	comp=Z,1μm,19.2s,MS4.6,baz=59,slow=35						
PPT	Papeete	36.31	100	*e*S	S	14 34 03.8	-1.5
PPT				*e*LQ		14 36 39.6	
PPT				*e*LR	LR	14 38 11.1	
	5μm,27.8s,baz=265						
TBI	Tubuai	36.76	110	*e*S	S	14 34 11.6	-0.4
TBI				*e*LQ		14 36 55.1	
TBI				*e*LR	LR	14 38 27.1	
	2μm,24.8s,baz=288						
WB2	Warramunga Arr	37.04	256	*e*P	P	14 28 34.9	-0.6
WRAB	Tennant Creek	37.04	256	*e*P	P	14 28 34.8	-0.7
	14nm,1.2s,mb4.7						
WRA	Warramunga Arr	37.05	256	P	P	14 28 35.0	-0.6
	5.8nm,0.9s,mb4.4,baz=88,slow=8.9,SNR=29						
ASAR	Alice Springs	37.76	250	P	P	14 28 40.3	-1.2
	35nm,0.7s,mb5.2,baz=77,slow=8.1,SNR=111						
ASAR				LR	LR	14 43 02.9	
	comp=Z,1μm,21.0s,MS4.7,baz=79,slow=34						
ASAR	Alice Springs	37.76	250	P	P	14 28 40.3	-1.2
ASAR				LR	LR	14 43 02.9	
ASPA	Alice Springs	37.76	250	⇑*i*P	P	14 28 39.9	-1.6
RKT	Rikitea	50.03	108	*e*S	S	14 37 24.8	-0.7
RKT				*e*LQ		14 41 53.5	
RKT				*e*LR	LR	14 44 37.1	
	2μm,31.2s,baz=280						
CBIJ	Chichi jima	50.81	324	LR	LR	14 47 27.0	
	comp=Z,766nm,21.0s,MS4.7,baz=55,slow=31						
JHJ	Hachijo jima 2	56.78	327	LR	LR	14 54 07.9	
	comp=Z,632nm,18.0s,MS4.8,baz=100,slow=35						
JOW	Kunigami	59.55	313	LR	LR	14 52 06.5	
	comp=Z,634nm,21.4s,MS4.7,baz=192,slow=31						
VNDA	Vanda	63.37	183	P	P	14 31 54.5	+0.1
	0.8nm,0.6s,mb4.0,baz=340,slow=7.7,SNR=6.2						
VNDA				LR	LR	14 54 34.5	
	comp=Z,974nm,20.9s,MS5.0,baz=25,slow=31						
ASAJ	Asahikawa	64.40	336	P	P	14 32 00.8	-0.7
	4.7nm,0.8s,mb4.6,baz=183,slow=5.3,SNR=2.2						
ASAJ				LR	LR	14 55 17.8	
	comp=Z,1μm,20.9s,MS5.1,baz=190,slow=32						
CASY	Casey	65.88	203	P	P	14 32 08.4	-2.3
	35nm,1.4s,mb5.2						
FX1	Attu Island--F	67.00	0	LR	LR	14 59 31.3	
	comp=Z,23nm,18.9s,MS3.4,baz=191,slow=34						
CN2	Changchun	72.22	326	*e*P	P	14 32 51.5	+1.5
ENH	Enshi	75.33	307	*e*P	P	14 33 09.0	+0.6
	15nm,0.9s,mb4.9						
QSPA	South Pole Qui	75.63	180	*e*P	P	14 33 11.0	+1.8
	3.8nm,0.7s,mb4.4						
KMI	Kunming	78.70	300	*e*P	P	14 33 31.8	+4.5
KMI				PP	PP	14 36 24.3	-3.3
KMI				PPP	PPP	14 38 15.5	-2.2
KMI				S	S	14 43 27.3	+8.8
KMI				SS	SS	14 48 27.3	+0.8
KMI				SSS	SSS	14 51 55.4	+10
KMI				LR	LR		
	comp=N,168nm,17.6s,MS4.7						
KMI				LR	LR		
	comp=E,303nm,18.3s,MS4.7						
KMI				LR	LR		
	comp=Z,433nm,23.1s,MS4.7						
CMAR	Chiang Mai Arr	79.71	292	P	P	14 33 34.6	+1.7
	comp=Z,4.2nm,1.0s,mb4.3,baz=117,slow=4.5,SNR=15						
CMAR				LR	LR	15 08 05.2	
	comp=Z,133nm,20.2s,MS4.3,baz=120,slow=35						
TNA	Tin City	81.04	8	*e*P	P	14 33 38.4	-0.7
	comp=Z,25nm,1.7s,mb4.9						
YBH	Yreka Blue Hor	81.49	43	P	P	14 33 40.9	-1.1
	comp=Z,1.2nm,0.7s,mb3.9,baz=212,slow=7.1,SNR=2.5						
NVAR	Mina Array Bea	83.08	48	P	P	14 33 49.9	-0.3
	comp=Z,0.9nm,0.8s,mb3.9,baz=223,slow=7.5,SNR=4.6						
NVAR				LR	LR	15 04 06.6	
	comp=Z,352nm,18.6s,MS4.8,baz=110,slow=31						
MCK	McKinley	83.28	16	P	P	14 33 49.9	-0.7
	comp=Z,7.2nm,1.3s,mb4.5						
IMA	Indian Mountai	84.05	13	*e*P	P	14 33 54.5	+0.1
MAW	Mawson	84.15	201	LR	LR	15 07 54.6	
	comp=Z,366nm,19.1s,MS4.8,baz=91,slow=33						
ILAR	Eielson Array	84.65	16	P	P	14 33 55.8	-1.6
	comp=Z,1.4nm,0.8s,mb4.1,baz=231,slow=5.4,SNR=11						
ILAR				LR	LR	15 11 42.7	
	comp=Z,414nm,18.3s,MS4.8,baz=239,slow=36						
ULN	Ulaanbaatar	85.08	322	*e*P	P	14 34 00.8	+0.8
	comp=Z,5.5nm,1.0s,mb4.6						
SONM	Songino Array	85.46	322	P	P	14 34 02.3	+0.5
	comp=Z,0.7nm,1.0s,mb3.8,baz=135,slow=5.2,SNR=4.4						
GTA	Gaotai	86.33	312	*e*P	P	14 34 10.6	+4.3
GTA				AP	pP	14 34 14.1	-9.1
GTA				XP	sP	14 34 16.9	-13
GTA				PP	PP	14 37 35.9	+6.2
GTA				SKS	SKS	14 44 33.8	+9.3
GTA				S	S	14 44 44.0	+8.5
GTA				XS		14 44 53.1	
GTA				PS	PS	14 45 47.9	+4.1
GTA				SS	SS	14 50 29.3	+10
GTA				AMB	AMB		
	comp=Z,7.0nm,1.5s,mb4.7						
GTA				AMB	AMB		
	comp=Z,90nm,4.6s						
GTA				LR	LR		
	comp=N,184nm,12.9s						
GTA				LR	LR		
	comp=E,307nm,22.4s						
GTA				LR	LR		
	comp=Z,427nm,18.6s						
DAWY	Dawson	86.33	19	P	P	14 34 07.8	+2.1
SHL	Shillong	88.12	297	*e*P	P	14 34 21.0	+5.7
PV10	Paradox Valley	89.84	50	*e*P	P	14 34 22.1	-1.0
MNTX	Cornudas Mount	90.71	58	*e*P	P	14 34 28.2	+0.8
	comp=Z,12nm,1.5s,mb5.0						
RW3	Ridgway	90.81	51	P	P	14 34 29.4	+1.8
PDAR	Pinedale Array	90.86	46	P	P	14 34 27.2	-0.6
	comp=Z,0.2nm,0.5s,mb3.7,baz=243,slow=4.0,SNR=3.5						
PDAR				LR	LR	15 09 50.7	
	comp=Z,152nm,20.1s,MS4.4,baz=263,slow=32						
TXAR	Lajitas Array	91.48	60	P	P	14 34 30.8	-0.3
	comp=Z,0.7nm,0.8s,mb4.0,baz=214,slow=4.5,SNR=4.5						
TXAR				LR	LR	15 12 56.7	
	comp=Z,344nm,18.3s,MS4.8,baz=275,slow=34						
YKA	Yellowknife Ar	94.86	26	P	P	14 34 45.1	-0.5
	comp=Z,1.4nm,1.0s,mb4.3,baz=254,slow=4.4,SNR=9.1						
YKA				LR	LR	15 11 11.1	
	comp=Z,442nm,19.0s,MS5.0,baz=255,slow=32						
YKA	Yellowknife Ar	94.86	26	*e*P	P	14 34 46.1	+0.5
WMQ	Urumqi	96.32	313	P	P	14 35 01.1	+8.4
FLN	La Foliniere	145.28	352	*e*PKP1	PKPbc	14 41 02.3	+1.5
LDF	La Druitiere	145.40	352	*e*PKP1	PKPbc	14 41 02.1	+1.0
GRR	Gorron	145.70	352	*e*PKP1	PKPbc	14 41 03.5	+1.6
	comp=Z,24nm,0.9s						
CABF	La Chapelle	146.00	343	*e*PKP1	PKPbc	14 41 04.8	+2.1
	comp=Z,41nm,1.0s						
SSF	Saint Saulge	146.22	347	*e*PKP1	PKPbc	14 41 04.9	+1.7
AVF	Avril sur Loir	146.51	347	*e*PKP1	PKPbc	14 41 05.6	+1.7
TCF	Toulx Ste Croi	147.23	348	*e*PKP1	PKPdf	14 41 07.1	+3.4
BNI	Bardonecchia	147.24	342	*e*PKPbc	PKPdf	14 41 09.1	+5.3
MFF	Saint Martin d	147.35	351	*e*PKP1	PKPdf	14 41 06.9	+3.0
	comp=Z,21nm,1.0s						
MBDF	Montbardon	147.51	341	*e*PKP1	PKPdf	14 41 10.4	+6.2
	comp=Z,14nm,0.9s						
ORIF	Oris-en-Rattie	147.60	342	*e*PKP1	PKPdf	14 41 10.3	+5.9
	comp=Z,24nm,1.0s						
PGF	Pioggiola	148.64	337	*e*PKP1	PKPdf	14 41 12.4	+6.3
	comp=Z,20nm,1.0s						
ESDC	Sonseca Array	154.66	354	PKPab	PKPab	14 41 41.3	+0.3
	comp=Z,0.4nm,0.4s,slow=1.3,SNR=4.5						

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*IDC **14** 14:26:39.1±0.8, 0.55N×144.29E, mb3.9/8, mb1 4.1/9, mb1mx4.0/16, ML2.7/1, Error ellipse: s-maj=42.9km s-min=17.6km az=95.0*

*NEIC **14** 14:26:46.3±2.8, 0.42N×144.32E, h56^{km}±27^{km}, mb4.1/1, Error ellipse: s-maj=26.2km s-min=15.0km az=114.0*

ISC 14 14:26:42.3±0.7**, 0.46N**±0.08×**144.3E**±0.2**, h33**^{km}**, n13,** σ**0**^{s}**49**/11**, mb3.9**/8**, Ninigo Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	10.21	164	Pn	P	14 29 09.6	-0.1
	0.3nm,0.3s,baz=335,slow=3.9,SNR=2.3						
CTA	Charters Tower	20.51	175	P	P	14 31 20.1	-0.3
	1.8nm,0.4s,baz=15,slow=14,SNR=2.3						
WRAB	Tennant Creek	22.49	205	*e*P	P	14 31 40.5	+0.2
	5.0nm,0.6s,mb4.1						
WRA	Warramunga Arr	22.51	205	P	P	14 31 40.3	-0.3
	1.8nm,0.7s,mb3.6,baz=33,slow=10,SNR=9.9						
ASAR	Alice Springs	26.02	202	P	P	14 32 15.2	+0.7
	1.0nm,0.4s,mb3.7,baz=26,slow=13,SNR=16						
SONM	Songino Array	57.48	331	P	P	14 36 30.3	-0.4
	0.3nm,0.9s,mb3.3,baz=350,slow=30,SNR=2.3						
BVAR	Borovoye Array	79.99	324	P	P	14 38 49.8	-0.1
	0.8nm,0.5s,mb3.9,baz=132,slow=7.0,SNR=7.5						
ILAR	Eielson Array	80.67	24	P	P	14 38 52.6	-0.7
	1.5nm,1.1s,mb3.8,baz=252,slow=5.5,SNR=6.8						
INK	Inuvik	86.67	22	P	P	14 39 24.5	+1.0
	2.9nm,1.1s,mb4.4,baz=272,slow=12,SNR=6.5						
INK	Inuvik	86.67	22	P	P	14 39 24.5	+1.0
YKA	Yellowknife Ar	94.72	27	P	P	14 40 01.4	+0.2
	0.2nm,0.4s,mb3.9,baz=284,slow=4.3,SNR=5.5						
SDV	Santo Domingo	143.98	74	*e*PKPdf	PKPdf	14 46 16.4	+0.9
LPAZ	La Paz	144.37	118	PKP	PKPdf	14 46 19.0	+2.8
	4.0nm,0.7s,baz=278,slow=3.7,SNR=21						

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*IDC **14** 14:31:33.1±0.9, 15.04S×173.73W, mb3.7/8, mb1 4.0/8, mb1mx3.9/14, Error ellipse: s-maj=50.6km s-min=19.8km az=139.0*

*NEIC **14** 14:31:33.3±0.7, 15.01S×173.41W, h10^{km}, mb4.6/2, Error ellipse: s-maj=35.2km s-min=14.8km az=143.0*

ISC 14 14:31:36.5±0.7**, 15.1S**±0.2×**173.7W**±0.2**, h33**^{km}**, n12,** σ**0**^{s}**83**/12**, mb3.8**/10**, 1D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	2.23	57	⇓*e*Pn	Pn	14 32 03.8	-8.3
STKA	Stephens Creek	43.91	240	P	P	14 39 42.6	+0.6
	1.3nm,0.8s,mb3.7,baz=88,slow=13,SNR=2.5						
WRAB	Tennant Creek	49.60	257	P	P	14 40 27.7	+0.7
	5.7nm,1.0s,mb4.6						
WRA	Warramunga Arr	49.61	257	P	P	14 40 26.9	-0.2
	0.4nm,0.8s,mb3.5,baz=93,slow=7.5,SNR=7.3						
ASAR	Alice Springs	49.91	252	P	P	14 40 28.4	-0.8
	1.1nm,0.7s,mb4.0,baz=90,slow=7.5,SNR=20						
VNDA	Vanda	63.60	186	P	P	14 42 05.6	-0.4
	0.7nm,1.0s,mb3.6,baz=45,slow=6.1,SNR=3.5						
NVAR	Mina Array Bea	74.34	42	P	P	14 43 14.4	+1.7
	0.8nm,1.1s,mb3.6,baz=231,slow=5.8,SNR=3.2						
QSPA	South Pole Qui	74.90	180	*e*P	P	14 43 15.5	+0.2
	2.4nm,0.3s,mb4.6						
ILAR	Eielson Array	82.25	11	P	P	14 43 55.4	-0.3
	0.4nm,0.6s,mb3.5,baz=230,slow=6.4,SNR=8.4						
PDAR	Pinedale Array	82.27	42	P	P	14 43 55.5	-0.7
	0.8nm,0.9s,mb3.7,baz=214,slow=5.3,SNR=5.2						
DAWY	Dawson	83.24	14	P	P	14 44 01.4	+0.7
YKA	Yellowknife Ar	89.98	23	P	P	14 44 32.1	-1.4
	0.1nm,0.4s,mb3.5,baz=245,slow=4.2,SNR=3.9						

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*MOS **14** 14:32:28.2±0.8, 48.41N×152.46E, h122^{km}, mb4.3/3, Error ellipse: s-maj=22.9km s-min=13.1km az=78.6*

*NEIC **14** 14:32:28.1±5.0, 47.98N×152.67E, h126^{km}±45^{km}, mb4.5/2, Error ellipse: s-maj=15.9km s-min=9.3km az=162.0*

*IDC **14** 14:32:30.9±3.5, 47.99N×152.67E, h152^{km}±33^{km}, mb3.7/21, mb1 3.9/22, mb1mx3.8/28, Error ellipse: s-maj=20.2km s-min=13.1km az=154.0*

ISC 14 14:32:27.1±1.3**, 48.1N**±0.1×**152.7E**±0.1**, h128**^{km}±10^{km}**, n39,** σ**0**^{s}**89**/40**, mb4.1**/26**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.44	40	*e*PN	P	14 33 18.7	-1.5
SKR				*e*S	S	14 34 01.2	+0.4
ASAJ	Asahikawa	8.05	244	P	P	14 34 24.4	+2.0
	0.5nm,0.3s,baz=81,slow=13,SNR=3.8						
ASAJ	Asahikawa	8.05	244	PN	P	14 34 24.4	+2.0
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SONM	Songino Array	30.63	287	P	P	14 38 30.1	-0.9
	comp=Z,0.7nm,0.8s,mb3.5,baz=53,slow=7.7,SNR=4.1						
COLA	College	35.28	40	*e*P	P	14 39 11.2	+0.4
COLA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.4						
COLA	College	35.28	40	*e*P	P	14 39 11.2	+0.4
	comp=Z,4.4nm,0.7s,mb4.4						
ILAR	Eielson Array	35.70	40	P	P	14 39 14.3	0.0
	comp=Z,1.3nm,0.9s,mb3.9,baz=269,slow=7.8,SNR=12						
INK	Inuvik	40.69	33	P	P	14 39 57.1	+1.3
	comp=Z,1.9nm,0.6s,mb4.1,baz=298,slow=6.0,SNR=17						
CHKZ	Chkalovo	49.35	309	*e*P	P	14 41 04.1	-0.6
CHKZ				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
CHKZ	Chkalovo	49.35	309	*e*P	P	14 41 04.1	-0.6
	comp=Z,5.7nm,0.6s,mb4.7						
BVAR	Borovoye Array	49.78	308	P	P	14 41 07.7	-0.3
	comp=Z,1.1nm,0.5s,mb4.1,baz=54,slow=7.0,SNR=11						
YKA	Yellowknife Ar	50.03	37	P	P	14 41 10.1	+0.3
	comp=Z,0.8nm,0.6s,mb3.8,baz=298,slow=7.2,SNR=9.0						
YKA	Yellowknife Ar	50.03	37	P	P	14 41 10.2	+0.4
CMAR	Chiang Mai Arr	52.41	255	P	P	14 41 28.3	0.0
	comp=Z,1.1nm,0.8s,mb3.9,baz=38,slow=6.9,SNR=9.3						
ARU	Arti	53.83	317	*e*P	P	14 41 37.2	-1.0
GUN	Gumba	54.60	274	*e*P	P	14 41 44.3	0.0
KKN	Kakani	55.08	274	*e*P	P	14 41 47.8	0.0
	comp=Z,4.2nm,0.6s,mb4.7						
PKI	Pulchoki	55.13	274	*e*P	P	14 41 48.4	+0.2
DMN	Daman	55.31	274	*e*P	P	14 41 49.8	+0.3
GKN	Gorkha	55.37	275	*e*P	P	14 41 48.3	-1.6
	comp=Z,9.6nm,0.7s,mb4.9						
KOLN	Koldanda	56.21	275	*e*P	P	14 41 56.0	0.0
	comp=Z,6.8nm,0.7s,mb4.8						
ARCES	ARCESS Array B	56.49	340	P	P	14 41 57.2	-0.2
	comp=Z,2.5nm,0.8s,mb4.3,baz=36,slow=7.8,SNR=4.0						
FINES	FINESS Array B	62.70	334	P	P	14 42 38.9	-1.0
	comp=Z,2.3nm,0.6s,mb4.3,baz=38,slow=8.5,SNR=25						
PDAR	Pinedale Array	64.20	54	P	P	14 42 49.8	-0.2
	comp=Z,2.4nm,1.3s,mb3.9,baz=315,slow=2.1,SNR=3.7						
NOA	NORSAR Array B	66.86	341	P	P	14 43 06.3	-0.4
	comp=Z,1.1nm,1.0s,mb3.7,baz=39,slow=7.1,SNR=2.6						
HFS	Hagfors	67.10	339	P	P	14 43 07.1	-1.1
	comp=Z,2.1nm,0.4s,mb4.3,baz=56,slow=5.3,SNR=22						
AKASG	Malin Array Be	70.27	326	P	P	14 43 27.1	-0.7
	comp=Z,2.7nm,0.7s,mb4.2,baz=34,slow=6.2,SNR=4.3						
AKASG	Malin Array Be	70.27	326	P	P	14 43 27.1	-0.7
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SCHQ	Schefferville	72.19	23	P	P	14 43 39.5	+0.4
	comp=Z,6.1nm,1.1s,mb4.4,baz=126,slow=4.1,SNR=2.9						
ASAR	Alice Springs	73.39	198	P	P	14 43 44.8	-1.9
	comp=Z,0.4nm,0.6s,mb3.4,baz=13,slow=6.0,SNR=7.3						
EKA	Eskdalemuir Ar	74.97	346	P	P	14 43 55.5	+0.5
	comp=Z,1.1nm,0.5s,mb3.8,baz=24,slow=5.4,SNR=4.3						
CLL	Collm	75.12	335	P	P	14 43 56.7	+0.7
MLR	Muntele Rosu	75.80	324	P	P	14 44 00.5	+0.5
	comp=Z,2.4nm,0.5s,mb4.2,baz=336,slow=5.3,SNR=9.2						
TXAR	Lajitas Array	77.09	61	P	P	14 44 07.4	-0.2
	comp=Z,0.2nm,0.5s,mb3.1,baz=301,slow=5.3,SNR=3.1						
GERES	GERESS Array B	77.12	334	P	P	14 44 07.5	+0.1
	comp=Z,0.7nm,0.3s,mb3.8,baz=37,slow=6.7,SNR=6.9						
BRTR	Keskin Array B	77.21	316	P	P	14 44 08.9	+0.9
	comp=Z,2.8nm,1.1s,mb3.9,baz=90,slow=2.5,SNR=3.6						
DAVOX	Davos	80.10	335	P	P	14 44 25.6	+2.0
	comp=Z,2.8nm,0.5s,mb4.3,baz=337,slow=22,SNR=3.1						
EIL	Elat	84.61	309	P	P	14 44 48.7	+1.7
	comp=Z,3.8nm,0.6s,mb4.5,baz=40,slow=14,SNR=5.1						
EIL	Elat	84.61	309	P	P	14 44 48.7	+1.7

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*IDC **14** 14:54:36.0±1.9, 51.99N×174.20E, mb3.8/9, mb1 4.0/9, mb1mx3.8/24, Error ellipse: s-maj=43.1km s-min=11.7km az=32.0*

ISC 14 14:54:35.0±5.6**, 51.9N**±0.2×**174.1E**±0.3**, h13**^{km}±36^{km}**, n10,** σ**0**^{s}**66**/11**, mb3.8**/9**, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FX1	Attu Island--F	1.17	332	Pn	Pn	14 54 57.5	+0.4
	88nm,0.3s,baz=206,slow=5.7,SNR=276						
FX1				Sn	Sn	14 55 13.3	+0.3
	278nm,0.3s,baz=269,slow=19,SNR=20						
ILAR	Eielson Array	23.78	42	P	P	14 59 47.0	-0.5
	0.5nm,0.5s,mb3.2,baz=248,slow=8.4,SNR=11						
INK	Inuvik	29.68	37	P	P	15 00 41.7	-0.5
	0.7nm,0.9s,mb3.4,baz=167,slow=12,SNR=2.9						
YKA	Yellowknife Ar	38.11	45	P	P	15 01 54.9	+0.1
	0.2nm,0.4s,mb3.2,baz=287,slow=7.8,SNR=4.2						
PDAR	Pinedale Array	50.34	68	P	P	15 03 34.6	+1.4
	0.6nm,0.7s,mb3.7,baz=281,slow=4.6,SNR=4.0						
ARCES	ARCESS Array B	56.76	347	P	P	15 04 19.2	-1.2
	2.3nm,0.8s,mb4.3,baz=45,slow=8.9,SNR=3.5						
BVAR	Borovoye Array	57.55	316	P	P	15 04 26.1	0.0
	1.1nm,0.4s,mb4.2,baz=79,slow=7.6,SNR=6.9						
SCHQ	Schefferville	62.28	35	P	P	15 04 57.9	-0.7
	2.7nm,0.8s,mb4.5,baz=349,slow=10,SNR=3.3						
TXAR	Lajitas Array	62.93	76	P	P	15 05 03.7	+0.5
	0.3nm,0.4s,mb3.8,baz=305,slow=5.2,SNR=6.9						
NOA	NORSAR Array B	66.63	351	P	P	15 05 26.6	+0.1
	1.4nm,0.9s,mb4.0,baz=358,slow=4.6,SNR=2.5						

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*NEIC **14** 15:34:56.3, 39.20N×23.68E, h23^{km}, ML3.4(ATH), After ATH.*

NEIC Felt at Skopelos, Greece.

*ATH **14** 15:34:56.3, 39.20N×23.68E, h23^{km}±2^{km}, MD3.4/15, ML3.4*

*THE **14** 15:34:57.1, 39.19N×23.63E, h10^{km}, ML3.3*

*CSEM **14** 15:34:57.2±0.1, 39.15N×23.64E, h10^{km}, ML3.3, Error ellipse: s-maj=2.0km s-min=1.4km az=101.0*

ISC 14 15:34:56.5±0.5**, 39.16N**±0.02×**23.64E**±0.03**, h9**^{km}±4^{km}**, n32,** σ**1**^{s}**06**/46**, 1C-1D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AOS	Alonnisos	0.18	87	*e*Pg	Pg	15 35 01.1	+0.6
AOS				*e*Sg	Sg	15 35 04.3	+1.1
NEO	Neokhori	0.36	294	⇓*i*PB	Pb	15 35 03.8	-0.7
XOR	Xorichti	0.41	300	*e*Pg	Pg	15 35 04.4	-0.3
XOR				*e*Sg	Sg	15 35 10.4	+0.2
LKR	Lokris	0.72	225	*e*PN	Pn	15 35 10.8	-1.7
PAIG	Paliouri	0.77	2	*e*Pg	Pg	15 35 11.8	0.0
PAIG				*e*Sg	Sg	15 35 23.0	+0.9
MPAR	Parnis Oros	1.01	176	*e*PN	Pn	15 35 17.5	+0.8
AGG	Agios Georgios	1.03	263	*e*Pg	Pg	15 35 16.0	-1.1
	comp=Z,18nm,0.3s						
AGG				*e*Sg	Sg	15 35 31.7	+0.8
PTL	Penteli	1.12	171	*e*PN	Pn	15 35 18.5	+0.2
ATH	Athens Observa	1.19	177	*e*PN	Pn	15 35 19.9	+0.7
ATH				*e*SN	Sn	15 35 35.9	+0.3
OUR	Ouranopolis	1.20	12	*e*Pb	Pb	15 35 18.9	0.0
	comp=Z,15nm,0.4s						
OUR				*e*Sb	Sb	15 35 37.5	+3.1
MGER	Gerania Oros	1.21	194	*e*PN	Pn	15 35 19.7	+0.1
PLG	Polygyros	1.22	353	⇑*i*PN	Pn	15 35 19.0	-0.7
PLG				*e*SN	Sn	15 35 34.9	-1.5
NSAL	Nisos Salamina	1.26	186	*e*PN	Pn	15 35 20.5	+0.2
LIT	Litokhoron	1.29	317	*e*Pb	Pb	15 35 20.2	-0.4
	comp=Z,10.0nm,0.3s						
LIT				*e*Sb	Sb	15 35 39.0	+2.0
LOS	Limnos	1.35	55	*e*Pb	Pb	15 35 21.7	+0.2
LOS				*e*Sb	Sb	15 35 42.6	+3.8
LIA	Limnos Island	1.40	58	*e*PN	Pn	15 35 22.5	+0.2
NAIG	Nisos Aigina	1.41	185	*e*PB	Pb	15 35 22.0	-0.5
EVR	Evrytania	1.45	261	*e*PN	Pn	15 35 23.9	+0.9
THE	Thessaloniki	1.56	341	*e*Pb	Pb	15 35 24.3	-0.8
SOH	Sokhos	1.67	352	*e*Pb	Pb	15 35 26.0	-1.0
SOH				*e*Sb	Sb	15 35 48.6	+0.5
SRS	Serrai	1.95	359	*e*Pb	Pb	15 35 29.9	-1.9
SRS				*e*Sb	Sb	15 35 55.0	-1.2
MEV	Metsovon	1.97	289	*e*Pb	Pb	15 35 30.9	-1.2
	comp=Z,5.4nm,0.5s						
MEV				*e*Sb	Sb	15 35 56.8	+0.1
KNT	Kendrikon	2.08	344	*e*Pn	Pn	15 35 31.9	-0.1
	comp=Z,3.2nm,0.4s						
KNT				*e*Sn	Sn	15 36 00.4	+2.2
NVR	Nevrokopi	2.19	4	*e*PN	Pn	15 35 32.6	-1.0
JAN	Janina	2.22	284	*e*PB	Pb	15 35 34.5	-1.9
LKD	Levkas	2.38	260	*e*Pn	Pn	15 35 37.9	+1.6
FNA	Florina	2.38	314	*e*Pn	Pn	15 35 37.0	+0.7
FNA				*e*Sn	Sn	15 36 07.9	+2.0
ITM	Ithomi	2.40	215	*e*PB	Pb	15 35 38.5	-0.9
RDO	Rodhopi	2.46	36	*e*PN	Pn	15 35 35.6	-1.8
VLI	Veliai	2.50	193	*e*PN	Pn	15 35 38.9	+0.9
APE	Apeiranthos	2.56	144	*e*PN	Pn	15 35 38.2	-0.7
KEK	Kerkira	3.03	282	*e*PN	Pn	15 35 46.5	+1.0

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*IDC **14** 15:44:33.1±13.0, 14.19N×144.56E, h64^{km}±123^{km}, mb3.5/4, mb1 3.8/4, mb1mx3.4/19, Error ellipse: s-maj=125.0km s-min=27.1km az=111.0*

*NEIC **14** 15:44:40.1±3.8, 14.27N×144.11E, h135^{km}±25^{km}, mb4.3/1, Error ellipse: s-maj=100.7km s-min=15.1km az=117.0*

ISC 14 15:44:34.1±1.1**, 14.6N**±0.1×**143.4E**±0.2**, h100**^{km}**, n8,** σ**0**^{s}**31**/6**, mb3.8**/5**, 1C, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.71	125	⇑*i*Pn	P	15 45 03.4	0.0
WRAB	Tennant Creek	35.43	195	*e*P	P	15 51 22.3	-0.3
	4.1nm,0.7s,mb4.4						
WRA	Warramunga Arr	35.44	195	P	P	15 51 22.6	-0.1
	2.9nm,1.0s,mb4.1,baz=20,slow=9.7,SNR=27						
WRA				PcP	PcP	15 53 51.4	+0.9
	0.3nm,0.5s,baz=18,slow=3.1,SNR=5.0						
ASAR	Alice Springs	39.12	194	P	P	15 51 53.9	+0.4
	0.3nm,0.5s,mb3.4,baz=16,slow=6.5,SNR=9.7						
ILAR	Eielson Array	68.29	26	P	P	15 55 26.1	0.0
	0.4nm,0.5s,mb3.5,baz=254,slow=5.3,SNR=9.0						
NVAR	Mina Array Bea	87.41	51	P	P	15 57 11.5	-0.1
	0.7nm,0.7s,mb3.7,baz=288,slow=3.6,SNR=5.5						
LPAZ	La Paz	149.56	97	PKPbc	PKPdf	16 04 13.3	+5.4
	0.5nm,0.4s,baz=290,slow=5.7,SNR=3.0						
LPAZ	La Paz	149.56	97	PKPbc	PKPdf	16 04 13.3	+5.4

TRN 14 15:50:41.9, 15.74N×61.46W, h23^{km}, MD3.8, 4C-1D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBL	Barber's Block	0.21	182	⇑*e*P	Pb	15 50 48.7	+1.1
BBL	Barber's Block	0.21	182	*e*P	Pb	15 50 49.7	+2.0
BBL				*e*S	Sb	15 50 53.2	+1.8
MGG	Marie-Galante	0.23	39	⇑*i*P	Pb	15 50 48.5	+0.7
MDN	Morne-Daniel	0.43	171	*e*P	Pb	15 50 53.7	+2.9
MDN				*e*S	Sb	15 51 00.1	+3.2
DBCT	Belle View Cho	0.48	166	*e*P	Pb	15 50 54.9	+3.2
DBCT				*e*S	Sb	15 51 02.2	+3.8
DSTT	Stowe	0.52	163	*e*P	Pb	15 50 55.4	+3.1

DSTT				eS	Sb	15 51 03.0	+3.6
DSHT	Scott's Head	0.53	171	eP	Pb	15 50 55.6	+3.0
DSHT				eS	Sb	15 51 02.3	+2.5
SEG	Port Louis	0.66	357	eP	Pb	15 50 54.8	+0.1
FDF	Fort de France	1.05	163	⇓eP	Pb	15 51 02.8	+1.6
FDF				eS	Sb	15 51 18.1	+3.5
CRM	Caravelle	1.12	152	eP	Pn	15 51 03.6	+1.3
CRM				eS	Sb	15 51 18.9	+2.4
BIM	Bigot	1.28	163	⇑eP	Pn	15 51 06.3	+1.7
MVM	Montagne Vaucl	1.30	155	eP	Pn	15 51 06.7	+1.7
BPA	Boggy Peak	1.35	344	⇑iP	Pn	15 51 07.0	+1.3
BPA				eS	Sn	15 51 24.1	+1.2
CPB	Codrington	1.92	350	i P	Pn	15 51 14.8	+1.0
CPB				eS	Sn	15 51 40.0	+2.6
SVV	Soufriere Volc	2.42	174	eP	Pn	15 51 24.1	+3.2
SVV				eS	Sn	15 51 53.8	+3.6

BJI ***14*** *16:11:14.7,21.01S×177.32W,h478^{km},mB4.6,mb4.7*
NEIC ***14*** *16:11:18.0±1.3,20.67S×177.95W,h468^{km}±14^{km},mb4.4/9, Error ellipse: s-maj=19.3km s-min=9.6km az=146.0*
IDC ***14*** *16:11:24.2±2.1,20.80S×178.07W,h534^{km}±24^{km}, mb3.6/14,mb1 3.8/15,mb1mx3.7/19,Error ellipse: s-maj=23.4km s-min=10.7km az=156.0*
ISC 14 16:11:20.8±2.4,**20.8S**±0.2×**178.1W**±0.1,**h504**^{km}±30^{km}, **n42,σ0^{s}96**/31,**mb4.2**/22,**1D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	9.13	42	eP	P	16 13 23.2	-7.0
URZ	Urewera	17.89	192	P	P	16 14 58.1	-1.5
	1.1nm,0.3s,baz=338,slow=8.0,SNR=7.9						
RPZ	Rata Peaks	24.58	199	P	P	16 16 02.5	+0.9
	5.6nm,0.6s,mb4.2,baz=66,slow=10,SNR=3.4						
CTA	Charters Tower	33.36	265	P	P	16 17 18.4	+0.5
	4.9nm,0.3s,mb4.3,baz=100,slow=10,SNR=28						
CTAO	Charters Tower	33.36	265	eP	P	16 17 18.4	+0.5
	3.5nm,0.3s,mb4.3						
PMG	Port Moresby	35.31	283	P	P	16 17 34.3	+0.1
	14nm,0.8s,mb4.4,baz=100,slow=4.5,SNR=15						
PMG	Port Moresby	35.31	283	⇓eP	P	16 17 33.8	-0.4
	13nm,0.9s,mb4.3						
TOO	Toolangi	35.64	234	eP	P	16 17 38.1	+1.4
	8.5nm,0.8s,mb4.2						
STKA	Stephens Creek	37.57	244	P	P	16 17 54.4	+1.8
	2.3nm,0.6s,mb3.8,baz=63,slow=9.0,SNR=5.9						
ASAR	Alice Springs	44.35	257	P	P	16 18 47.1	0.0
	7.6nm,0.5s,mb4.4,baz=89,slow=8.7,SNR=189						
ASAR				PcP	PcP	16 20 19.4	-1.4
	2.3nm,0.8s,baz=99,slow=4.3,SNR=8.8						
ASAR				S	S	16 24 44.1	-0.4
	0.8nm,0.9s,baz=86,slow=12,SNR=4.8						
ASPA	Alice Springs	44.36	257	eP	P	16 18 47.0	-0.1
WB2	Warramunga Arr	44.45	262	eP	P	16 18 47.2	-0.7
WRAB	Tennant Creek	44.45	262	eP	P	16 18 46.6	-1.3
	15nm,0.9s,mb4.4						
WRA	Warramunga Arr	44.46	262	P	P	16 18 47.5	-0.5
	2.2nm,0.3s,mb4.0,baz=96,slow=7.6,SNR=60						
WRA				PcP	PcP	16 20 17.3	-3.9
	0.7nm,0.5s,baz=95,slow=3.9,SNR=2.3						
WRA				S	S	16 24 45.6	-0.5
	1.1nm,1.1s,baz=96,slow=7.7,SNR=3.4						
KAKA	Kakadu	47.88	271	eP	P	16 19 13.7	-0.6
	8.7nm,0.3s,mb4.6						
MBWA	Marble Bar	57.69	258	eP	P	16 20 23.7	-0.9
	17nm,0.9s,mb4.4						
ASAJ	Asahikawa	73.93	332	P	P	16 22 06.2	+0.9
	18nm,0.9s,mb4.6,baz=102,slow=9.3,SNR=5.8						
YBH	Yreka Blue Hor	80.58	39	P	P	16 22 41.8	+0.6
	6.1nm,1.1s,mb4.1,baz=208,slow=3.2,SNR=7.6						
PMSA	Palmer Station	81.06	157	eP	P	16 22 35.4	-7.8
	14nm,0.7s,mb4.6						
NVAR	Mina Array Bea	81.31	43	P	P	16 22 45.1	+0.2
	1.7nm,0.8s,mb3.6,baz=231,slow=12,SNR=13						
ENH	Enshi	86.12	304	eP	P	16 23 09.5	+0.5
	17nm,1.0s,mb4.6						
TXAR	Lajitas Array	87.30	57	P	P	16 23 15.0	+0.4
	1.0nm,0.7s,mb3.6,baz=243,slow=5.6,SNR=5.8						
ILAR	Eielson Array	88.62	13	P	P	16 23 18.3	-1.6
	0.8nm,0.7s,mb3.7,baz=225,slow=5.0,SNR=14						
PDAR	Pinedale Array	89.24	43	P	P	16 23 22.8	-0.6
	1.4nm,0.7s,mb3.9,baz=217,slow=2.1,SNR=12						
HHC	Hu-ho-hao-te	89.48	314	eP	P	16 23 25.0	+0.5
HHC				PP	PP	16 27 10.3	+4.2
HHC				SKS	SKS	16 33 07.0	+1.3
HHC				S	S	16 33 35.5	+5.1
HHC				SS	SS	16 39 55.8	+11
HHC				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,112nm,7.5s						
DAWY	Dawson	89.77	16	eP	P	16 23 24.5	-0.8
CMAR	Chiang Mai Arr	90.12	290	P	P	16 23 29.6	+1.7
	comp=Z,4.3nm,0.9s,mb4.3,baz=117,slow=2.9,SNR=32						
ULN	Ulaanbaatar	95.52	319	P	P	16 23 50.5	-1.5
	comp=Z,1.6nm,0.8s,mb4.2						
SONM	Songino Array	95.91	319	P	P	16 23 55.1	+1.4
	comp=Z,0.6nm,1.0s,mb3.7,baz=145,slow=5.1,SNR=3.1						
BVAR	Borovoye Array	119.24	320	PKP	PKPdf	16 29 11.8	0.0
	comp=Z,1.3nm,0.4s,baz=120,slow=2.1,SNR=21						
HSP	Hornsund	123.33	356	eP	PKPdf	16 29 20.2	+1.0
ARCES	ARCESS Array B	129.19	350	PKP	PKPdf	16 29 30.2	-0.3
	comp=Z,3.5nm,0.9s,slow=2.4,SNR=4.8						
FINES	FINESS Array B	136.02	344	PKP	PKPdf	16 29 43.6	+0.2
	comp=Z,2.1nm,0.9s,baz=90,slow=7.6,SNR=5.2						
AKASG	Malin Array Be	143.22	331	PKP	PKPdf	16 29 54.4	-2.0
	comp=Z,7.6nm,0.6s,baz=41,slow=4.3,SNR=39						
MALT	Malatya	144.03	307	ePKPdf	PKPdf	16 29 58.8	+0.6
BRTR	Keskin Array B	146.96	312	PKPbc	PKPbc	16 30 07.1	+1.7
	comp=Z,2.3nm,0.7s,baz=141,slow=4.0,SNR=6.8						
CLL	Collm	148.32	347	i PKP1	PKPdf	16 30 10.2	+5.2
BRG	Berggiesshubel	148.52	345	i P	PKPdf	16 30 10.2	+4.9
BRG				P		16 30 15.8	
CSS	Prodhromos	148.98	304	ePKPbc	PKPdf	16 30 12.5	+5.9
CSS				ePKPab	PKPab	16 30 18.4	-1.3
KHC	Kasperske Hory	150.22	344	eP	PKPdf	16 30 15.4	+7.3
KHC				e		16 30 23.0	
KHC	Kasperske Hory	150.22	344	eP	PKPdf	16 30 15.4	+7.3
KHC				x	x	16 30 23.0	
GERES	GERESS Array B	150.45	344	PKPbc	PKPdf	16 30 15.4	+7.0
	comp=Z,0.7nm,0.5s,baz=27,slow=3.0,SNR=7.1						
GERES				PKPab	PKPab	16 30 24.6	-0.8
	comp=Z,0.5nm,0.5s,baz=18,slow=4.2,SNR=4.5						

NEIC ***14*** *16:16:45.3±4.7,23.72S×179.40W,h562^{km}±48^{km},mb4.4/3, Error ellipse: s-maj=98.1km s-min=25.5km az=65.0*
IDC ***14*** *16:16:46.5±7.3,23.78S×179.55W,h559^{km}±114^{km}, mb3.3/6,mb1 3.3/7,mb1mx3.1/16,Error ellipse: s-maj=127.0km s-min=31.7km az=67.0*
ISC 14 16:16:45.8±4.0,**23.7S**±0.2×**179.3W**±0.6,**h600**^{km},**n14, σ0^{s}35**/14,**mb4.1**/8,**South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	14.81	191	P	P	16 19 51.8	-0.2
	1.7nm,0.3s,baz=144,slow=2.7,SNR=4.4						
URZ				S	S	16 22 21.9	+0.1
	0.4nm,0.3s,baz=223,slow=20,SNR=3.1						
RPZ	Rata Peaks	21.46	199	P	P	16 20 54.2	+0.2
	14nm,1.0s,mb4.5,baz=50,slow=6.0,SNR=4.2						
PPT	Papeete	28.48	83	eLR	LR	16 22 37.9	
	100nm,28.5s						
CTA	Charters Tower	32.09	270	P	P	16 22 26.9	+0.3
	3.7nm,0.3s,mb4.4,baz=87,slow=11,SNR=20						
CTAO	Charters Tower	32.09	270	eP	P	16 22 27.0	+0.3
	6.1nm,0.5s,mb4.5						
PMG	Port Moresby	35.01	288	P	P	16 22 51.8	+0.6
	2.0nm,0.8s,mb3.8,baz=321,slow=17,SNR=3.5						
PMG	Port Moresby	35.01	288	P	P	16 22 51.8	+0.6
STKA	Stephens Creek	35.35	248	P	P	16 22 54.0	+0.2
	2.0nm,1.0s,mb3.7,baz=159,slow=22,SNR=3.4						
ASAR	Alice Springs	42.66	260	P	P	16 23 53.0	+0.2
	1.7nm,0.8s,mb3.7,baz=93,slow=7.9,SNR=24						
ASPA	Alice Springs	42.67	260	eP	P	16 23 53.0	+0.2
WB2	Warramunga Arr	43.02	266	eP	P	16 23 55.0	-0.6
WRAB	Tennant Creek	43.02	266	eP	P	16 23 55.0	-0.6
	5.1nm,0.4s,mb4.4						
WRA	Warramunga Arr	43.03	266	P	P	16 23 55.4	-0.3
	2.2nm,0.3s,mb4.1,baz=96,slow=8.4,SNR=120						
KAKA	Kakadu	46.90	275	eP	P	16 24 25.4	-0.1
	5.2nm,0.9s,mb4.1						

BUC ***14*** *16:18:28.6±0.5,45.44N×26.39E,h133^{km}±4^{km},MD3.7/5, Error ellipse: s-maj=5.3km s-min=2.9km az=30.0*
CSEM ***14*** *16:18:28.9±0.2,45.53N×26.41E,h120^{km}±2^{km},MD3.7/5, Error ellipse: s-maj=3.1km s-min=2.0km az=177.0*
ISC 14 16:18:28.8±1.2,**45.47N**±0.05×**26.46E**±0.06,**h133**^{km}±8^{km}, **n18,σ0^{s}80**/29,**8C-3D,Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ISR	Istrita	0.35	170	⇑iP	P	16 18 47.9	+0.4
ISR				i S	S	16 19 03.0	+1.2
MLR	Muntele Rosu	0.36	274	⇓iP	P	16 18 47.5	-0.1
MLR				i S	S	16 19 01.7	-0.2
BRD	Bordesti	0.41	78	⇑iP	P	16 18 49.1	+1.3
VRI	Vrincioaia	0.44	25	i S	S	16 19 02.6	+0.1
VRI	Vrincioaia	0.44	25	⇑iP	P	16 18 47.9	-0.1
VRI				S	S	16 19 02.6	+0.1
SNX	Sinaia	0.67	261	P	P	16 18 49.1	-0.3
SNX				i S	S	16 19 04.8	-0.3
SNX	Sinaia	0.67	261	S	S	16 19 04.8	-0.3
MTUR	Matau	1.01	257	⇑iP	P	16 18 51.6	-0.7
MTUR				S	S	16 19 08.8	-1.3
BUC	Bucharest	1.09	194	i S	S	16 19 12.4	+1.1
BUC1	Bucharest	1.16	195	i S	S	16 19 12.4	-0.3
BUC1	Bucharest	1.16	195	⇑iP	P	16 18 53.9	+0.2
BUC1				S	S	16 19 12.4	-0.3
CFR	Carcaliu	1.22	103	⇓iP	P	16 18 54.5	+0.1
CFR				i S	S	16 19 13.4	-0.4
HARR	Harsova	1.30	126	⇑iP	P	16 18 55.5	+0.2
HARR				i S	S	16 19 15.2	-0.4
TLCR		1.69	99	⇑iP	P	16 19 00.0	+0.4
TLCR				S	S	16 19 23.4	+0.3
TIRR	Tirgusor	1.72	125	i S	S	16 19 22.6	-1.1
TIRR	Tirgusor	1.72	125	⇑iP	P	16 19 00.1	+0.2
TIRR				S	S	16 19 22.6	-1.1
KIS	Kishinev	2.24	46	eS	S	16 19 32.0	-3.0
	300nm,0.7s						
BURAR	Bucovina Array	2.31	339	⇓iP	P	16 19 07.2	-0.1
BURAR				S	S	16 19 39.9	+3.3

TAP 14 16:27:57.5,23.29N×120.64E,h10^{km},ML3.5,12C-7D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WTP	Ta-pu	0.05	209	⇓iP	Pg	16 28 00.0	+0.6
WTP				S	Sg	16 28 01.8	+1.0
CHN4	Tsaushan	0.07	325	⇓iP	Pg	16 28 00.3	+0.5
CHN4				S	Sg	16 28 02.4	+1.1
TWK	Hsinying	0.14	261	⇑iP	Pg	16 28 01.3	+0.5
TWK				S	Sg	16 28 04.1	+1.1
STYT	Tauyuan	0.17	140	⇑iP	Pg	16 28 02.1	+0.8
STYT				S	Sg	16 28 05.3	+1.6
SGST	Jiashian	0.21	194	⇓iP	Pg	16 28 02.9	+0.8
SGST				S	Sg	16 28 06.9	+1.8
ALS	Alishan	0.27	35	i P	Pg	16 28 03.8	+0.7
ALS				S	Sg	16 28 08.1	+1.2
CHY	Chiayi	0.29	316	⇑iP	Pg	16 28 04.1	+0.7
CHY				S	Sg	16 28 09.2	+1.7
CHN5	Tsauling	0.31	7	⇓iP	Pg	16 28 04.2	+0.3
CHN5				S	Sg	16 28 09.6	+1.5
CHN3	Shinhua	0.33	230	eP	Pg	16 28 05.7	+1.4
CHN3				S	Sg	16 28 11.9	+3.0
YUS	Yu-Shan	0.35	55	⇑iP	Pg	16 28 05.5	+0.8
YUS				S	Sg	16 28 10.8	+1.3
ELDTW	Lidau	0.36	106	⇑P	Pg	16 28 05.5	+0.6
ELDTW				S	Sg	16 28 11.4	+1.6
CHN8	Yiju	0.40	278	eP	Pg	16 28 05.9	+0.3
CHN8				S	Sg	16 28 13.6	+2.6
WGK	Gukeng	0.40	350	P	Pg	16 28 06.3	+0.6
WGK				S	Sg	16 28 13.0	+1.9
SCLT	Jiali	0.43	254	eP	Pg	16 28 07.0	+0.9
SCLT				S	Sg	16 28 14.9	+2.9
TWM1	Shoushan	0.51	203	eP	Pg	16 28 09.5	+1.8
WSF	Szhu	0.52	312	P	Pg	16 28 08.2	+0.2
WSF				S	Sg	16 28 16.6	+1.6
SSD	Sandimen	0.54	181	⇑iP	Pg	16 28 09.1	+0.7
SSD				S	Sg	16 28 17.1	+1.3
SGLT	Jiouru	0.58	194	eP	Pg	16 28 10.0	+0.8
SGLT				S	Sg	16 28 22.3	+5.3
WNT	Mingjian	0.59	4	eP	Pg	16 28 09.8	+0.5
WNT				S	Sg	16 28 18.7	+1.5
TWG	Pinlang	0.61	139	⇑iP	Pg	16 28 10.3	+0.5
TWG				S	Sg	16 28 19.4	+1.3
SMLT	Sun Moon Lake	0.64	22	⇓iP	Pb	16 28 10.5	+0.3
SMLT				S	Sg	16 28 20.8	+1.9
TYC	Yuchr	0.64	18	⇓iP	Pb	16 28 10.7	+0.3
TYC				S	Sg	16 28 20.5	+1.4
EHY	Hungye	0.66	71	⇑iP	Pb	16 28 10.8	+0.1
EHY				S	Sb	16 28 19.9	+0.2
CHKT	Chengkung	0.69	106	P	Pb	16 28 12.0	+0.8
CHKT				S	Sb	16 28 23.0	+2.4
TTN	Taitung	0.71	139	eP	Pb	16 28 12.4	+0.9
TTN				S	Sb	16 28 23.5	+2.5
ECL	Taimali	0.75	157	⇑iP	Pb	16 28 12.6	+0.5
ECL				S	Sb	16 28 22.8	+0.7
TCU	Taichung	0.85	2	eP	Pb	16 28 14.3	+0.3
TCU				S	Sb	16 28 26.9	+1.7
ESL	Shilin	0.90	54	P	Pb	16 28 15.2	+0.5
ESL				S	Sb	16 28 27.1	+0.6
WDGT	Dungji	0.90	268	⇑P	Pb	16 28 14.1	-0.7
WDGT				S	Sb	16 28 26.7	+0.1
SCZT	Fangliau	0.91	181	eP	Pb	16 28 15.8	+0.8
SCZT				S	Sb	16 28 29.8	+2.8
EAST	Anshuo	0.92	168	P	Pb	16 28 15.8	+0.6
EAST				S	Sb	16 28 29.7	+2.4
TAW	Tawu	0.96	166	eP	Pb	16 28 16.8	+1.1
WHF	Hehuan Shan	1.03	34	⇑P	Pb	16 28 17.5	+0.6
WHF				S	Sb	16 28 32.1	+1.8
PNG	Penghu	1.03	286	eP	Pb	16 28 16.3	-0.8
PNG				S	Sb	16 28 30.2	-0.3
TWQ1	Liyutan	1.06	7	P	Pb	16 28 18.0	+0.5
TWQ1				S	Sb	16 28 33.4	+2.2
TWT	Tachien	1.08	27	eP	Pb	16 28 17.5	-0.3
TWT				S	Sb	16 28 32.5	+0.7
NSY	Sanyi	1.13	6	⇓iP	Pb	16 28 19.3	+0.6
NSY				S	Sb	16 28 35.5	+2.3
NNS	Nan Shan	1.33	30	eP	Pb	16 28 22.4	+0.3
NNS				S	Sb	16 28 40.6	+1.6
NSTT	Nanjuang	1.38	14	eP	Pn	16 28 22.4	-0.5
NSTT				S	Sb	16 28 41.7	+1.3
LAY	Lan-yu	1.50	146	eP	Pn	16 28 25.1	+0.4
LAY				S	Sb	16 28 46.0	+1.9
ENA	Nanau	1.52	41	⇑P	Pn	16 28 25.9	+1.0
ENA				S	Sb	16 28 45.9	+1.4
NSK	Sanguang	1.53	25	eP	Pn	16 28 25.4	+0.4
NSK				S	Sb	16 28 45.8	+0.9
ENTT	Nioudou	1.59	32	eP	Pn	16 28 26.7	+0.8
ENTT				S	Sb	16 28 48.9	+2.3
TWE	Neicheng	1.71	33	eP	Pn	16 28 28.5	+0.9
TWE				S	Sn	16 28 52.4	+2.7
TWC	Suao	1.72	40	eP	Pn	16 28 27.9	+0.2
TWC				S	Sn	16 28 52.2	+2.3
TWA	Mucha	1.89	27	eP	Pn	16 28 31.2	+1.0
NWF	Wu-fen Shan	2.06	30	eP	Pn	16 28 35.0	+2.4
TWB1	Santiao Chiao	2.11	35	eP	Pn	16 28 33.9	+0.6

MOS 14 16:40:43.0±1.2,**51.13N×98.36E,h6^{km},mb3.8**/1,**1C-2D, Error ellipse: s-maj=29.3km s-min=17.1km az=143.2, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ORL	Orlik	1.67	32	ePN	Pn	16 41 12.7	-0.4
ORL				e		16 41 35.8	
ORL				pmax	pmax		
	comp=Z,105nm,0.4s						
ORL				smax			
	comp=E,394nm,0.7s						
MOY	Mondy	1.73	71	ePN	Pn	16 41 14.6	+0.7
MOY				e		16 41 38.4	
MOY				pmax	pmax		
	comp=Z,76nm,0.4s						
MOY				smax			
	comp=E,1μm,1.2s						
ZAK	Zakamensk	3.21	102	⇑ePN	Pn	16 41 35.0	0.0
ZAK				i		16 41 39.9	
ZAK				e		16 42 24.0	
ZAK				pmax	pmax		
	comp=Z,41nm,0.8s						
ZAK				smax			
	comp=N,194nm,1.2s						
TLY	Talaya	3.35	78	ePN	Pn	16 41 36.4	-0.7
TLY				e		16 41 43.5	
TLY				e		16 42 27.9	
TLY				pmax	pmax		
	comp=Z,26nm,0.6s						
TLY				smax			
	comp=N,194nm,0.7s						
IRK	Irkutsk	3.84	71	ePN	Pn	16 41 51.5	+7.5
IRK				e		16 42 42.6	
IRK				pmax	pmax		
	comp=Z,60nm,0.1s						
IRK				smax			
	comp=N,723nm,0.5s						
LSTR	Listvyanka	4.11	77	ePN	Pn	16 41 57.8	+10
LSTR				e		16 42 49.3	
LSTR				pmax	pmax		
	comp=Z,31nm,1.2s						
LSTR				smax			
	comp=N,101nm,1.2s						
TRG	Tyrgan	5.20	69	ePN	Pn	16 42 01.4	-1.9
TRG				e		16 42 17.2	
TRG				e		16 43 25.0	
TRG				pmax	pmax		
	comp=Z,9.0nm,0.3s						
TRG				smax			
	comp=N,115nm,0.6s						
OGRR	Ongureny	6.19	62	ePN	Pn	16 42 34.3	+17
OGRR				e		16 43 53.2	
OGRR				pmax	pmax		
	comp=Z,13nm,1.4s						
OGRR				smax			
	comp=N,95nm,0.6s						
ULN	Ulaanbaatar	6.54	117	⇓ePN	Pn	16 42 39.7	+18
TIXI	Tiksi	24.70	23	⇓eP	P	16 46 03.9	-1.6
TIXI				pmax	pmax		
	comp=Z,1.0nm,0.6s						

IDC ***14*** *16:48:43.5±2.5,6.64N×72.87W,h168^{km}±19^{km},mb3.6/6, mb1 3.8/7,mb1mx3.4/21,Error ellipse: s-maj=47.3km s-min=19.5km az=97.0*
NEIC ***14*** *16:48:43.5±0.8,6.59N×72.79W,h172^{km}±8^{km},Error ellipse: s-maj=23.2km s-min=10.1km az=124.0*
ISC 14 16:48:42.2±1.1,**6.6N**±0.2×**72.7W**±0.3,**h180**^{km}±14^{km},**n13, σ0^{s}78**/12,**mb3.9**/5,**Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	2.34	223	P	P	16 49 23.9	+0.4
	82nm,0.3s,baz=91,slow=22,SNR=217						
ROSC				S	S	16 49 54.8	-0.6
	80nm,0.3s,baz=82,slow=20,SNR=7.6						
SDV	Santo Domingo	3.09	42	ePn	P	16 49 33.5	+1.0
SDV				eSn	S	16 50 10.6	-0.7
OTAV	Otavalo	8.51	222	eP	P	16 50 43.3	+0.2
TEIG	Tepich	20.27	313	P	P	16 53 06.2	+0.7
	5.9nm,0.9s,baz=100,slow=12,SNR=3.7						
LPAZ	La Paz	23.19	169	pP		16 54 11.2	
	1.3nm,0.8s,baz=340,slow=16,SNR=3.7						
SADO	Sadowa	38.44	353	P	P	16 55 49.2	+1.2
	1.9nm,0.4s,mb4.1,baz=320,slow=22,SNR=2.1						
ULM	Lac du Bonnet	47.63	340	P	P	16 57 00.6	-1.2
	1.9nm,0.4s,mb4.1,baz=146,slow=8.6,SNR=4.6						
SCHQ	Schefferville	48.33	5	P	P	16 57 07.6	+0.3
	3.2nm,0.8s,mb4.0,baz=224,slow=19,SNR=3.0						
NVAR	Mina Array Bea	51.91	315	P	P	16 57 34.4	-0.2
	0.4nm,0.7s,mb3.2,baz=135,slow=5.1,SNR=2.1						
YKA	Yellowknife Ar	63.61	340	P	P	16 58 54.7	-1.1
	1.7nm,0.6s,mb4.0,baz=132,slow=6.7,SNR=29						
YKA				pP	pP	16 59 34.1	-4.0
	0.1nm,0.4s,baz=131,slow=7.0,SNR=2.2						
YKA	Yellowknife Ar	63.61	340	P	P	16 58 54.7	-1.1
YKA				pP	pP	16 59 34.1	-4.0
ASAR	Alice Springs	149.28	234	PKPbc	PKPdf	17 08 13.1	+7.3
	0.5nm,0.9s,baz=119,slow=3.5,SNR=7.0						
WRA	Warramunga Arr	150.56	241	PKPbc	PKPdf	17 08 16.0	+8.2
	0.3nm,0.4s,baz=108,slow=2.6,SNR=17						

BJI ***14*** *16:59:18.4,0.20N×85.10W,h10^{km},mB4.9,Ms4.8,Msz4.6*
IDC ***14*** *16:59:20.3±0.7,0.48N×85.17W,mb4.3/10,mb1 4.5/11, mb1mx4.3/21,ML2.6/1,MS3.4/5,Ms1 3.5/5,ms1mx2.8/23, Error ellipse: s-maj=26.7km s-min=15.4km az=56.0*
NEIC ***14*** *16:59:20.5±0.4,0.24N×85.06W,h10^{km},mb4.2/7,Error ellipse: s-maj=10.3km s-min=7.3km az=196.0*
ISC 14 16:59:20.0±0.5,**0.44N**±0.08×**85.07W**±0.06,**h10**^{km},**n44, σ1^{s}15**/28,**mb4.2**/15,**MS3.5**/4,**Off coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAYG	Puerto Ayora	5.34	258	eP	Pn	17 00 39.3	-2.4
	31nm,0.6s						
OTAV	Otavalo	6.62	92	eP	Pn	17 00 57.5	-2.2
	6.5nm,0.8s						
JTS	JuntasAbangare	9.79	1	eP	P	17 01 43.8	-0.3
ROSC	El Rosal	11.59	68	Pn	P	17 02 09.4	+0.7
	0.8nm,0.3s,baz=94,slow=20,SNR=6.3						
ROSC				LR	LR	17 05 59.1	
	comp=Z,105nm,19.0s,baz=211,slow=34						
SDV	Santo Domingo	16.64	59	eP	P	17 03 14.0	-1.2
	16nm,0.8s						
LPAZ	La Paz	23.57	136	P	P	17 04 33.5	+1.7
	2.9nm,0.7s,mb3.8,baz=325,slow=9.2,SNR=14						
LPAZ				LR	LR	17 13 41.5	
	comp=Z,54nm,19.9s,MS3.0,baz=254,slow=36						
LPAZ	La Paz	23.57	136	eP	P	17 04 30.2	-1.6
	4.1nm,0.8s,mb3.9						
SAML	Samuel	23.71	114	eP	P	17 04 32.0	-1.2
	8.3nm,1.2s,mb4.0						
SAML				e		17 04 40.0	
SJG	San Juan	25.57	46	P	P	17 04 52.4	+1.2
	11nm,0.5s,mb4.7,baz=299,slow=19,SNR=2.9						
SJG				LR	LR	17 14 52.8	
	comp=Z,50nm,18.6s,MS3.1,baz=215,slow=36						
SJG	San Juan	25.57	46	P	P	17 04 52.4	+1.2
LVC	Limon Verde	27.79	147	P	P	17 05 13.7	+2.2
	2.4nm,0.8s,mb3.9,baz=262,slow=3.9,SNR=3.0						
WMOK	Wichita Mounta	36.45	341	P	P	17 06 27.3	+0.1
MNTX	Cornudas Mount	36.55	330	eP	P	17 06 27.3	-0.7
	2.5nm,0.8s,mb4.1						
CPRX	Cap Rock	36.94	333	eP	P	17 06 32.1	+0.9
CPUP	Villa Florida	37.73	137	P	P	17 06 39.0	+1.2
	0.0nm,0.4s,baz=276,slow=18,SNR=1.6						
ANMO	Albuquerque	39.72	332	eP	P	17 06 55.2	+0.7
	4.9nm,0.9s,mb4.2						
SDCO	Great Sand Dun	41.63	335	P	P	17 07 11.2	+1.0
	2.7nm,0.7s,mb4.0						
MSU	Marysvale	45.33	330	eP	P	17 07 39.2	-1.0
ARUT	Antelope Range	45.44	328	eP	P	17 07 42.6	+1.5
TPNV	Topopah Spring	46.38	325	P	P	17 07 48.5	0.0
	5.3nm,1.3s,mb4.3						
PDAR	Pinedale Array	47.53	336	P	P	17 07 57.2	-0.3
	3.4nm,1.2s,mb4.3,baz=130,slow=8.4,SNR=8.3						
PDAR				PcP	PcP	17 09 26.6	-1.4
	0.7nm,0.7s,baz=135,slow=4.2,SNR=3.7						
NVAR	Mina Array Bea	48.58	325	P	P	17 08 07.1	+1.3
	2.2nm,0.8s,mb4.2,baz=132,slow=8.0,SNR=13						
NVAR				PcP	PcP	17 09 31.8	-0.1
	1.0nm,0.7s,baz=117,slow=4.9,SNR=7.1						
ULM	Lac du Bonnet	50.48	351	P	P	17 08 19.6	-0.6
	2.6nm,0.6s,mb4.5,baz=162,slow=9.4,SNR=6.5						
YKA	Yellowknife Ar	65.75	345	P	P	17 10 05.7	-1.4
	2.0nm,0.7s,mb4.3,baz=141,slow=6.2,SNR=35						
YKA				PcP	PcP	17 10 36.7	-1.6
	0.5nm,0.5s,baz=148,slow=4.6,SNR=4.3						
YKA				LR	LR	17 39 30.9	
	comp=Z,35nm,19.0s,MS3.6,baz=175,slow=37						
YKA	Yellowknife Ar	65.75	345	P	P	17 10 05.7	-1.4
YKA				PcP	PcP	17 10 36.7	-1.6
RAR	Rarotonga	75.92	248	P	P	17 11 09.6	+0.2
	16nm,0.9s,mb5.0,baz=213,slow=18,SNR=3.4						
ILAR	Eielson Array	77.92	337	P	P	17 11 18.9	-0.7
	1.8nm,0.7s,mb4.1,baz=145,slow=4.2,SNR=18						
ESDC	Sonseca Array	82.86	50	P	P	17 11 46.9	+0.5
	1.4nm,0.7s,mb4.1,baz=284,slow=6.1,SNR=4.5						
VNDA	Vanda	95.32	192	LR	LR	17 50 58.7	
	comp=Z,64nm,18.3s,MS4.1,baz=235,slow=32						
ZAL	Zalesovo	125.16	7	PKP	PKPdf	17 18 22.5	-1.6
	0.4nm,0.4s,baz=307,slow=3.2,SNR=4.1						
ZAL	Zalesovo	125.16	7	PKP	PKPdf	17 18 22.5	-1.6
MDJ	Mudanjiang	125.60	330	PKP	PKPdf	17 18 23.1	-2.1
SONM	Songino Array	130.90	350	PKP	PKPdf	17 18 32.9	-2.3

	0.5nm,0.9s,baz=79,slow=7.3,SNR=2.8						
ASAR	Alice Springs	135.72	236	PKP	PKPdf	17 18 41.4	-3.6
	0.7nm,1.0s,baz=109,slow=2.5,SNR=4.9						
WRA	Warramunga Arr	136.84	241	PKP	PKPdf	17 18 44.5	-2.5
	1.0nm,1.0s,baz=106,slow=1.5,SNR=5.3						
NJ2	Nanjing	140.55	327	*e*PKP	PKPdf	17 18 46.3	-7.3
LZH	Lanzhou	142.73	348	*e*PKP	PKPdf	17 18 50.6	-6.6
LZH				APKP		17 18 54.1	
LZH				XPKP		17 18 55.5	
ENH	Enshi	146.46	337	*e*PKPbc	PKPbc	17 19 02.4	+0.3
KOLN	Koldanda	149.92	20	*e*P	PKPdf	17 19 11.4	+1.9
GKN	Gorkha	150.04	18	*e*P	PKPdf	17 19 12.2	+2.5
	18nm,0.8s						
KKN	Kakani	150.44	18	*e*P	PKPdf	17 19 13.3	+3.0
	13nm,0.7s						
GUN	Gumba	150.50	16	*e*P	PKPdf	17 19 13.4	+3.0
	12nm,0.7s						
DMN	Daman	150.56	18	*e*P	PKPdf	17 19 13.4	+2.9
PKI	Pulchoki	150.69	17	*e*P	PKPdf	17 19 13.4	+2.7
	10nm,0.8s						

IDC **14** *17:08:51.7±1.2,21.96S×65.93W,h254^{km}±12^{km},mb3.3/6, mb1 3.5/9,mb1mx3.4/17,Error ellipse: s-maj=18.7km s-min=14.6km az=91.0*

NEIC **14** *17:08:52.6±0.9,21.91S×65.94W,h262^{km}±9^{km},mb3.9/3, Error ellipse: s-maj=16.3km s-min=12.6km az=80.0*

ISC 14 17:08:51.7±1.0**,22.01S**±0.06×**66.1W**±0.1**,h270**^{km}±10^{km}**, n18,**σ1^{s}**15**/22**,mb3.7**/8**,2C-1D,Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	2.70	257	P	P	17 09 43.9	+1.1
	23nm,0.3s,baz=70,slow=7.3,SNR=145						
LVC				S	S	17 10 23.4	+1.0
	17nm,0.3s,baz=256,slow=21,SNR=30						
LVC	Limon Verde	2.70	257	⇑*i*P	P	17 09 43.9	+1.1
LVC				*i* S	S	17 10 24.2	+1.7
ANCH	Antofagasta	4.33	247	⇑*i*P	P	17 10 01.2	+0.4
ANCH				*i* S	S	17 10 52.9	-1.8
CPN1	Cerro Paranal	4.76	236	⇓*i*P	P	17 10 06.1	+0.4
CPN1				*i* S	S	17 11 02.2	-1.4
LPAZ	La Paz	6.02	341	P	P	17 10 21.9	+0.8
	1.1nm,0.3s,baz=170,slow=10,SNR=19						
LPAZ				S	S	17 11 31.6	+0.5
	0.5nm,0.3s,baz=246,slow=20,SNR=7.6						
ARE	Arequipa	7.53	316	*e*P	P	17 10 40.0	+0.1
ARE				*e*S	S	17 12 03.0	-1.8
BDFB	Brasilia	18.22	73	P	P	17 12 45.6	-1.8
	1.0nm,0.3s,baz=246,slow=14,SNR=6.1						
PMSA	Palmer Station	42.77	179	P	P	17 16 27.4	+3.2
	9.2nm,0.5s,mb4.3						
SNAA	Sanae	60.94	161	P	P	17 18 37.8	-0.1
	0.2nm,0.4s,mb3.0,baz=302,slow=9.5,SNR=9.1						
SNAA	Sanae	60.94	161	*e*P	P	17 18 37.5	-0.5
	1.3nm,0.7s,mb3.6						
DBIC	Dimbokro	66.37	72	P	P	17 19 12.4	-1.5
	1.0nm,0.4s,mb3.9,baz=48,slow=15,SNR=3.8						
QSPA	South Pole Qui	68.18	180	*e*P	P	17 19 25.0	+0.8
	1.3nm,0.6s,mb3.8						
PDAR	Pinedale Array	75.90	328	P	P	17 20 10.8	+0.5
	0.5nm,0.6s,mb3.3,baz=122,slow=8.9,SNR=4.9						
ULM	Lac du Bonnet	76.63	341	P	P	17 20 13.8	-0.4
	1.3nm,0.5s,mb4.0,baz=172,slow=3.9,SNR=3.2						
NVAR	Mina Array Bea	77.54	321	P	P	17 20 20.8	+1.4
	0.6nm,0.8s,mb3.4,baz=137,slow=7.6,SNR=4.9						
YKA	Yellowknife Ar	92.56	340	P	P	17 21 33.6	+0.3
	0.7nm,0.8s,mb3.6,baz=127,slow=4.6,SNR=9.2						
ASAR	Alice Springs	130.61	204	PKP	PKPdf	17 27 32.4	+1.2
	0.5nm,0.7s,baz=133,slow=1.9,SNR=11						
WRA	Warramunga Arr	133.78	207	PKP	PKPdf	17 27 38.8	+1.5
	0.3nm,0.4s,baz=160,slow=1.8,SNR=7.1						

TAP 14 17:11:59.0,24.97N×121.65E,h111^{km}**,ML3.5,Taiwan**

NIED **14** *17:29:00,44.10N×141.60E,h5^{km},Mw4.3 Best double couple: M$_0$3.29×10^{15} NP1:φ$_s$181°,δ48°,λ72°. NP2:φ$_s$26°, δ45°,λ108°.*

IDC **14** *17:29:50.5±0.5,44.17N×141.57E,mb4.0/19,mb1 4.2/19, mb1mx4.2/26,MS4.0/3,Ms1 4.0/3,ms1mx3.2/24,Error ellipse: s-maj=15.5km s-min=7.8km az=7.0*

MOS **14** *17:29:50.4±1.2,44.19N×141.62E,h10^{km},mb4.7/17,Error ellipse: s-maj=11.4km s-min=7.3km az=100.9*

BJI **14** *17:29:51.7,44.14N×141.46E,h14^{km},mB4.7,mb4.5, Ms4.3,Msz4.1*

JMA **14** *17:29:51.6,44.10N×141.62E,M4.6*

JMA Felt III J1.

NEIC **14** *17:29:52.8±0.3,44.23N×141.40E,h10^{km},mb4.6/26, MW4.3(NIED),Error ellipse: s-maj=8.9km s-min=7.1km az=112.0*

NEIC Recorded [3 JMA] in the Haboro area and [2 JMA] in the Shibetsu area.

ISC 14 17:29:51.8±0.5**,44.12N**±0.03×**141.62E**±0.05**,h19**^{km}±4^{km}**, n134,**σ1^{s}**09**/125**,mb4.4**/49**,MS4.0**/7**,24C-4D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSS	Shosan	0.33	30	⇑P	Pb	17 29 59.1	+0.2
JSS				*e*S	Sb	17 30 05.4	+1.7
JYG	Yagishiri	0.34	336	⇓P	Pb	17 29 58.8	-0.3
JYG				*e*S	Sb	17 30 04.8	+0.7
JHR	Hokuryu	0.38	169	⇑P	Pb	17 29 59.5	-0.3
JHR				*e*S	Sb	17 30 05.8	+0.6
ASAJ	Asahikawa	0.70	90	Pg	Pb	17 30 04.8	-0.5
	945nm,0.3s,baz=278,slow=7.9,SNR=264						
ASAJ				Lg		17 30 16.2	
	1µm,0.3s,baz=106,slow=20,SNR=26						
ASAJ	Asahikawa	0.70	90	⇑P	Pb	17 30 05.0	-0.2
JAB	Ashibetsu	0.75	144	⇑P	Pb	17 30 06.0	0.0
JKK2	Kamakawa 2	0.85	106	⇑P	Pb	17 30 07.5	-0.2
YSS	Yuzh-Sakhalins	2.95	15	⇓*e*PN	Pn	17 30 40.0	+1.3
YSS				*i*		17 31 15.0	
YSS				pmax	pmax		
	comp=Z,30nm,0.5s						
YSS				pmax	pmax		
	comp=Z,60nm,0.9s						
YSS				pmax	pmax		
	comp=E,50nm,0.6s						
YSS				pmax	pmax		
	comp=N,160nm,0.8s						
YSS				pmax	pmax		
	comp=Z,150nm,0.8s						
YSS				pmax	pmax		
	comp=N,390nm,0.8s						
YSS				pmax	pmax		
	comp=E,250nm,0.8s						
YSS				MLR	MLR		
	comp=Z,1µm,6.0s						
YSS				MLR	MLR		
	comp=N,2µm,9.0s						
YSS				MLR	MLR		
	comp=E,1µm,6.0s						
YSS	Yuzh-Sakhalins	2.95	15	*e*Pn	Pn	17 30 40.3	+1.6
YUK	Yuzh-Kuril'sk	3.06	90	PN	Pn	17 30 38.7	-1.6
YUK				pmax	pmax		
	comp=Z,230nm,0.4s						
YUK				pmax	pmax		
	comp=N,230nm,0.5s						
YUK				pmax	pmax		
	comp=E,570nm,1.0s						
YUK				pmax	pmax		
	comp=N,2µm,1.0s						
YUK				pmax	pmax		
	comp=Z,2µm,1.0s						
YUK				pmax	pmax		
	comp=E,2µm,2.0s						
MAJO	Matsushiro	8.00	200	*e*PN	Pn	17 31 51.6	+1.6
MAJO				pmax	pmax		
	comp=Z,27nm,0.7s						
MAJO	Matsushiro	8.00	200	*e*P	Pn	17 31 51.6	+1.6
	comp=Z,27nm,0.7s						
MAT	Matsushiro	8.00	200	P	Pn	17 31 51.0	+1.0
MAT	Matsushiro	8.00	200	*e*PN	Pn	17 31 51.0	+1.0
MAT				pmax	pmax		
	comp=Z,22nm,0.9s						
MAT	Matsushiro	8.00	200	*e*P	Pn	17 31 51.0	+1.0
	comp=Z,22nm,0.9s						
KLR	Kul'dur	8.50	310	*e*PN	P	17 32 02.0	+5.1
KLR				MLR	MLR		
	comp=Z,2µm,12.0s						
MDJ	Mudanjiang	8.63	278	P	P	17 31 54.8	-4.0
MDJ				S	Sn	17 33 29.3	-7.4
MDJ				PCP	PcP	17 38 25.9	-0.6
MDJ				SCP		17 41 57.4	
MDJ				PCS		17 41 59.4	
MDJ				SCS	ScS	17 45 30.8	+1.9
MDJ				AMB	AMB		
	comp=Z,160nm,4.1s						
MDJ				LR	LR		
	comp=N,430nm,11.7s						
MDJ				LR	LR		
	comp=E,376nm,16.1s						
MDJ				LR	LR		
	comp=Z,850nm,13.2s						
MDJ	Mudanjiang	8.63	278	P	P	17 31 55.2	-3.6
CN2	Changchun	11.66	274	*e*P	P	17 32 38.5	-1.8
PET	Petropavlovsk	14.34	46	*e*P	P	17 33 13.6	-2.2
PET				*e*		17 35 57.9	
PET				MLR	MLR		
	comp=N,300nm,17.0s						
PET				MLR	MLR		
	comp=Z,200nm,15.0s						
PET				MLR	MLR		
	comp=E,300nm,20.0s						
HIA	Hailar	15.85	297	*e*P	P	17 33 34.6	-0.8
HIA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HIA	Hailar	15.85	297	*e*P	P	17 33 34.6	-0.8
	comp=Z,5.6nm,0.7s						
CLNS	Chul'man	16.54	326	*e*P	P	17 33 50.1	+6.0
CLNS				pmax	pmax		
	comp=Z,18nm,0.9s						
CLNS				pmax	pmax		
	comp=N,15nm,0.8s						
CLNS				pmax	pmax		
	comp=E,13nm,0.8s						
YAK	Yakutsk	19.27	343	*e*P	P	17 34 15.2	-2.6
YAK				pmax	pmax		
	comp=Z,25nm,0.6s						
YAK	Yakutsk	19.27	343	*e*P	P	17 34 15.2	-2.6
	comp=Z,25nm,0.6s						
BJI	Beijing	19.30	267	P	P	17 34 18.8	+0.6
BJI				AMB	AMB		
	comp=Z,10.0nm,1.5s						
BJI				AMB	AMB		
	comp=Z,229nm,6.8s						
BJI				LR	LR		
	comp=N,347nm,13.0s						
BJI				LR	LR		
	comp=E,286nm,14.0s						
BJI				LR	LR		
	comp=Z,269nm,19.0s						
BJT	Baijiatuau	19.31	267	P	P	17 34 15.4	-3.0
BJT				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BJT	Baijiatuau	19.31	267	P	P	17 34 15.3	-3.0
	comp=Z,7.8nm,0.6s						
SSE	Sheshan	20.69	238	P	P	17 34 31.6	-1.8
SSE				S	S	17 38 20.1	+1.4
SSE				XS		17 38 33.3	
SSE				AMB	AMB		
	comp=Z,30nm,0.7s						
SSE				AMB	AMB		
	comp=Z,77nm,4.2s						
NJ2	Nanjing	21.51	244	*e*P	P	17 34 41.3	-0.4
NJ2				AP		17 34 50.4	
NJ2				XP		17 34 54.3	
NJ2				PP	PP	17 35 05.0	-1.1
NJ2				PPP	PPP	17 35 15.4	-0.3
NJ2				S	S	17 38 36.0	+1.6
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,1µm,5.2s						
NJ2				LR	LR		
	comp=N,570nm,15.2s,MS4.3						
NJ2				LR	LR		
	comp=E,840nm,15.1s,MS4.3						
NJ2				LR	LR		
	comp=Z,2µm,16.4s,MS4.7						
HHC	Hu-ho-hao-te	22.35	272	*e*P	P	17 34 53.5	+3.5
HHC				AP		17 34 57.8	
HHC				XP		17 35 00.4	
HHC				PCP	PcP	17 38 46.8	+0.7
HHC				S	S	17 38 53.0	+3.3
HHC				XS		17 39 01.1	
HHC				PCS		17 42 26.1	
HHC				AMB	AMB		
	comp=Z,13nm,0.6s,mb4.5						
HHC				AMB	AMB		
	comp=Z,145nm,4.7s						
HHC				LR	LR		
	comp=N,296nm,11.2s,MS4.1						
HHC				LR	LR		
	comp=E,440nm,15.9s,MS4.1						
HHC				LR	LR		
	comp=Z,466nm,15.2s,MS4.0						
ULN	Ulaanbaatar	24.18	291	P	P	17 35 05.1	-2.7
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.7						
ULN	Ulaanbaatar	24.18	291	P	P	17 35 05.1	-2.7
	comp=Z,2.5nm,1.0s,mb3.6						
SONM	Songino Array	24.63	291	P	P	17 35 12.2	+0.1
	comp=Z,2.1nm,0.8s,mb3.7,baz=91,slow=6.9,SNR=11						
SONM				ScP		17 42 32.2	
	comp=Z,0.2nm,0.6s,baz=90,slow=4.3,SNR=3.6						
TIXI	Tiksi	28.30	352	*e*P	P	17 35 43.0	-2.7
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.7						
TIXI				MLR	MLR		
	comp=Z,128nm,12.0s,MS3.7						
CD2	Chengdu	32.51	259	P	P	17 36 22.6	-0.9
CD2				*e*S	S	17 41 35.8	-0.6
CD2				*e*S	S	17 41 37.8	+1.4
CD2				AMB	AMB		
	comp=Z,140nm,4.9s						
CD2				LR	LR		
	comp=E,310nm,9.6s						
CD2				LR	LR		
	comp=Z,210nm,12.0s,MS4.0						
ZAL	Zalesovo	37.58	306	P	P	17 37 06.1	-0.4
	comp=Z,1.3nm,0.8s,mb3.7,baz=25,slow=10.0,SNR=8.0						
ZAL				PcP	PcP	17 39 24.8	0.0
	comp=Z,0.7nm,0.5s,baz=78,slow=1.9,SNR=3.7						
ZAL				LR	LR	17 54 14.5	
	comp=Z,219nm,18.4s,MS4.0,baz=8.7,slow=39						
ILAR	Eielson Array	43.55	36	P	P	17 37 58.5	+2.9
	comp=Z,0.6nm,0.8s,mb3.4,baz=289,slow=8.0,SNR=6.3						
CMAR	Chiang Mai Arr	43.87	248	P	P	17 37 59.9	+1.1
	comp=Z,1.7nm,1.0s,mb3.7,baz=38,slow=7.1,SNR=9.5						
CMAR				LR	LR	17 58 00.9	
	comp=Z,89nm,19.7s,MS3.7,baz=60,slow=38						
SHL	Shillong	44.10	262	*e*	P	17 38 02.2	+1.7
CHKZ	Chkalovo	45.81	308	*e*P	P	17 38 12.1	-1.7
CHKZ				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
CHKZ	Chkalovo	45.81	308	*e*P	P	17 38 12.1	-1.7
	comp=Z,6.6nm,1.1s,mb4.5						
BVAR	Borovoye Array	46.15	308	P	P	17 38 16.1	-0.4
	comp=Z,0.7nm,0.6s,mb3.8,baz=67,slow=11,SNR=5.6						
BVAR				PcP	PcP	17 39 52.3	-0.6
	comp=Z,0.6nm,0.6s,baz=72,slow=4.6,SNR=3.1						
BRVK	Borovoye	46.20	308	*e*P	P	17 38 16.3	-0.6
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
BRVK	Borovoye	46.20	308	*e*P	P	17 38 16.3	-0.6
	comp=Z,7.4nm,1.3s,mb4.5						
TKM2	Tokmak 2	46.71	293	*e*P	P	17 38 21.7	+0.6
	comp=Z,12nm,0.8s,mb4.9						
GUN	Gumba	47.01	269	*e*P	P	17 38 23.8	+0.1
	comp=Z,32nm,1.1s,mb5.2						
KKN	Kakani	47.52	269	*e*P	P	17 38 28.4	+0.7
	comp=Z,48nm,1.4s,mb5.3						
PKI	Pulchoki	47.55	269	*e*P	P	17 38 28.5	+0.5
	comp=Z,68nm,1.7s,mb5.4						
AAK	Ala-Archa	47.57	293	*e*P	P	17 38 24.2	-3.7
AAK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
AAK	Ala-Archa	47.57	293	*e*P	P	17 38 24.2	-3.7
	comp=Z,2.8nm,0.8s,mb4.3						
UCH	Uchtor	47.73	292	*e*P	P	17 38 28.6	-0.6
	comp=Z,2.1nm,0.9s,mb4.2						
DMN	Daman	47.74	269	*e*P	P	17 38 30.2	+0.7
	comp=Z,20nm,0.7s,mb5.3						
GKN	Gorkha	47.85	270	*e*P	P	17 38 30.0	-0.4
	comp=Z,14nm,0.7s,mb5.1						
GKN	Gorkha	47.85	270	*e*P	P	17 38 30.1	-0.3
	comp=Z,6.8nm,0.7s,mb4.8						
EKS2	Erkin-Say	48.03	293	P	P	17 38 30.2	-1.3
	comp=Z,4.6nm,0.9s,mb4.5						
INK	Inuvik	48.09	30	P	P	17 38 30.3	-1.4
	comp=Z,1.4nm,1.1s,mb3.9,baz=304,slow=2.8,SNR=4.7						
INK	Inuvik	48.09	30	*e*P	P	17 38 30.3	-1.3
INK				pmax	pmax		
	comp=Z,5.0nm,1.3s						
INK	Inuvik	48.09	30	*e*P	P	17 38 30.3	-1.3
	comp=Z,5.2nm,1.3s,mb4.4						
KOLN	Koldanda	48.74	271	*e*P	P	17 38 37.2	0.0
	comp=Z,16nm,0.9s,mb5.0						
ARU	Arti	51.31	315	⇑*i*P	P	17 38 55.6	-0.8
ARU				*e*		17 40 47.9	
ARU				*e*PPP	PPP	17 41 49.0	-6.1
ARU				*e*S	S	17 46 13.7	+0.7
ARU				*e*SS	SS	17 49 49.5	+2.8
ARU				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.4						
ARU	Arti	51.31	315	P	P	17 38 54.0	-2.4
	comp=Z,15nm,1.3s,mb4.8						
YKA	Yellowknife Ar	57.67	32	P	P	17 39 41.0	-1.8
	comp=Z,0.3nm,0.7s,mb3.5,baz=304,slow=6.6,SNR=5.6						
YKA	Yellowknife Ar	57.67	32	*e*P	P	17 39 43.5	+0.6
FINES	FINESS Array B	62.67	331	P	P	17 40 15.5	-1.6
	comp=Z,4.3nm,1.1s,mb4.5,baz=56,slow=9.1,SNR=11						
FINES				LR	LR	18 11 21.0	
	comp=Z,199nm,18.3s,MS4.3,baz=335,slow=40						
WRAB	Tennant Creek	64.08	188	*e*P	P	17 40 23.8	-3.1
WRAB				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
WRAB	Tennant Creek	64.08	188	*e*P	P	17 40 23.8	-3.1
	comp=Z,5.1nm,0.8s,mb4.6						
WRA	Warramunga Arr	64.09	188	P	P	17 40 25.5	-1.5
	comp=Z,3.0nm,0.9s,mb4.3,baz=6.9,slow=6.8,SNR=28						
NOA	NORSAR Array B	67.74	336	P	P	17 40 48.8	-0.9
	comp=Z,1.4nm,0.8s,mb4.0,baz=38,slow=6.3,SNR=3.7						
ASAR	Alice Springs	67.82	188	P	P	17 40 50.2	-0.6
	comp=Z,2.5nm,0.8s,mb4.3,baz=12,slow=6.5,SNR=32						
SOC	Sochi	68.37	310	*e*P	P	17 40 49.1	-4.8
SOC				*e*		17 43 24.7	
SOC				*e*PPP	PPP	17 45 05.9	+1.6
SOC				*e*S	S	17 49 47.4	-5.3
SOC				*e*SS	SS	17 54 18.2	+0.3
SOC				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.4						
SOC				pmax	pmax		
	comp=N,26nm,0.7s						
SOC				pmax	pmax		
	comp=E,29nm,0.8s						
AKASG	Malin Array Be	68.85	321	P	P	17 40 56.8	+0.1
	comp=E,0.4nm,0.5s,mb3.6,baz=44,slow=6.3,SNR=5.5						
PDAR	Pinedale Array	72.65	47	P	P	17 41 19.5	-0.3
	comp=E,1.9nm,0.8s,mb4.1,baz=300,slow=1.8,SNR=16						
BRTR	Keskin Array B	74.33	310	P	P	17 41 30.2	+0.6
	comp=E,1.1nm,0.9s,mb3.8,baz=56,slow=4.5,SNR=3.6						
MORC	Moravsky Berou	74.54	326	P	P	17 41 29.4	-1.2
MORC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
MORC	Moravsky Berou	74.54	326	P	P	17 41 29.4	-1.2
	comp=Z,2.8nm,0.9s,mb4.2						
CLL	Collm	75.06	329	P	P	17 41 34.0	+0.4
STKA	Stephens Creek	75.63	180	P	P	17 41 37.0	-0.2
	comp=Z,0.9nm,0.7s,mb3.8,baz=28,slow=5.9,SNR=3.0						
ASF	Jabal al Asfar	77.74	303	P	P	17 41 49.2	+0.2
	comp=Z,2.3nm,0.7s,mb4.2,baz=308,slow=5.6,SNR=4.2						
CDF	Champ du Feu	79.52	331	*e*P	P	17 41 58.4	0.0
NWAO	Narrogin (SRO)	79.84	201	P	P	17 42 00.9	+0.4
	comp=Z,13nm,0.9s,mb4.9,baz=73,slow=7.5,SNR=4.2						
EIL	Elat	80.69	302	P	P	17 42 04.9	-0.1
	comp=Z,4.4nm,0.9s,mb4.4,baz=158,slow=26,SNR=3.1						
SSF	Saint Saulge	81.97	333	*e*P	P	17 42 11.3	-0.1
	comp=Z,7.0nm,0.8s,mb4.3						
SSF	Saint Saulge	81.97	333	*e*P	P	17 42 11.3	-0.1
SSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LPL	La Plagne	82.19	330	*e*P	P	17 42 13.3	+0.8
LPG	La Plagne	82.20	330	*e*P	P	17 42 13.5	+0.9
	comp=Z,11nm,1.0s,mb4.5						
LPG	La Plagne	82.20	330	*e*P	P	17 42 13.5	+0.9
LPG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
SMF	Signal de Mont	82.22	332	*e*P	P	17 42 12.7	0.0
	comp=Z,6.1nm,0.8s,mb4.3						
SMF	Signal de Mont	82.22	332	*e*P	P	17 42 12.7	0.0
SMF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
AVF	Avril sur Loir	82.26	333	*e*P	P	17 42 13.1	+0.2
	comp=Z,25nm,1.2s,mb4.7						
AVF	Avril sur Loir	82.26	333	*e*P	P	17 42 13.1	+0.2
AVF				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
MBDF	Montbardon	82.85	329	*e*P	P	17 42 16.3	+0.3
ORIF	Oris-en-Rattie	83.01	330	*e*P	P	17 42 17.2	+0.4
TCF	Toulx Ste Croi	83.08	333	*e*P	P	17 42 17.5	+0.4
	comp=Z,12nm,1.0s,mb4.6						
TCF	Toulx Ste Croi	83.08	333	*e*P	P	17 42 17.5	+0.4
TCF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
QUIF	Quistinic	83.26	337	*e*P	P	17 42 18.1	+0.1
SBF	Sospel	83.35	329	*e*P	P	17 42 18.2	-0.3
VIVF	Saint-Julien-l	83.50	331	*e*P	P	17 42 19.9	+0.6
MFF	Saint Martin d	83.55	335	*e*P	P	17 42 20.8	+1.3
	comp=Z,12nm,0.9s,mb4.7						
MFF	Saint Martin d	83.55	335	*e*P	P	17 42 20.8	+1.3
MFF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
PGF	Pioggiola	83.86	327	*e*P	P	17 42 22.0	+0.9
	comp=Z,7.3nm,1.0s,mb4.5						
PGF	Pioggiola	83.86	327	*e*P	P	17 42 22.0	+0.9
PGF				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
FRF	La Foret Royal	83.90	329	*e*P	P	17 42 21.3	0.0
SMRF	Simiane la Rot	83.94	330	*e*P	P	17 42 22.3	+0.8
LMR	La Mourre	84.15	329	*e*P	P	17 42 22.7	+0.1
CAF	Calviac	84.33	332	*e*P	P	17 42 24.6	+1.2
	comp=Z,6.7nm,0.8s,mb4.5						
CAF	Calviac	84.33	332	*e*P	P	17 42 24.6	+1.2
CAF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
LASF	Ste Croix	84.46	331	*e*P	P	17 42 25.1	+1.0
LFF	La Frestale	84.75	333	*e*P	P	17 42 26.7	+1.2
MTLF	Montolieu	85.68	332	*e*P	P	17 42 31.4	+1.2
	comp=Z,9.3nm,1.2s,mb4.6						
MTLF	Montolieu	85.68	332	*e*P	P	17 42 31.4	+1.2
MTLF				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.6						
TXAR	Lajitas Array	85.69	53	P	P	17 42 31.2	+0.6
	comp=Z,0.7nm,0.4s,mb4.2,baz=291,slow=4.0,SNR=4.1						
EPF	Esparros	86.58	333	*e*P	P	17 42 35.3	+0.6
ETSF	Etsaut	87.00	333	*e*P	P	17 42 38.4	+1.7
	comp=Z,6.7nm,0.8s,mb4.6						
ETSF	Etsaut	87.00	333	*e*P	P	17 42 38.4	+1.7
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.6						
SNAA	Sanae	147.51	200	⇑*i*	PKPdf	17 49 38.5	+3.8
SNAA	Sanae	147.51	200	⇑*i*	PKPdf	17 49 42.8	+8.1
SNAA	Sanae	147.51	200		PKPdf	17 49 48.6	+14
SNAA	Sanae	147.51	200		PKPdf	17 49 50.3	+16
SNAA	Sanae	147.51	200	PKPbc	PKPdf	17 49 34.5	-0.2
	comp=Z,2.3nm,1.0s,baz=220,slow=3.8,SNR=13						
SNAA	Sanae	147.51	200	PKPdf	PKPdf	17 49 35.1	+0.4
SNAA				⇑*i*P		17 49 38.5	
SNAA				⇑*i*P		17 49 42.8	
SNAA				P		17 49 48.6	
SNAA				P		17 49 50.3	
MOCB	Mochara	147.91	54	*e*PKPdf	PKPdf	17 49 37.8	+1.0
VNA2	Neumayer--Watz	149.11	199	⇑*i*	PKPdf	17 49 46.2	+8.9
VNA2	Neumayer--Watz	149.11	199		PKPdf	17 49 53.6	+16
VNA2	Neumayer--Watz	149.11	199	⇑*i*	PKPdf	17 50 05.2	+28
VNA2	Neumayer--Watz	149.11	199	⇑*i*PKPdf	PKPdf	17 49 42.9	+5.6
VNA2				⇑*i*P		17 49 46.2	
VNA2				P		17 49 53.6	
VNA2				⇑*i*P		17 50 05.2	
VNA3	Neumayer Olymp	149.40	198	⇑*i*	PKPdf	17 49 45.5	+7.8
VNA3	Neumayer Olymp	149.40	198	⇑*i*	PKPdf	17 49 59.2	+21
VNA3	Neumayer Olymp	149.40	198	⇑*i*PKPdf	PKPdf	17 49 40.7	+3.0
VNA3				⇑*i*P		17 49 45.5	
VNA3				⇑*i*P		17 49 59.2	
VNA1	Neumayer--Stat	149.51	199	⇑*i*	PKPdf	17 49 45.6	+7.7
VNA1	Neumayer--Stat	149.51	199	⇓*i*	PKPdf	17 49 59.9	+22
VNA1	Neumayer--Stat	149.51	199	⇑*i*	PKPdf	17 50 04.7	+27
VNA1	Neumayer--Stat	149.51	199	PKPdf	PKPdf	17 49 41.5	+3.6

VNA1				⇑iP		17 49 45.6	
VNA1				⇓iP		17 49 59.9	
VNA1				⇑iP		17 50 04.7	
BDFB	**Brasilia**	**150.46**	**19**	PKPbc	PKPdf	17 49 43.9	+2.9
	comp=Z,2.4nm,0.7s,baz=182,slow=8.7,SNR=3.4						

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*PRU **14** 17:46:25.4,50.26N×18.96E*
WAR 14 17:46:25.5,50.23N×19.04E,h1^{km},Location given by Central Institute of Mining, origin time based upon OJC,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.49**	**91**	*e*Pg	Pg	17 46 35.3	+0.1
OJC				*e*Sg	Sg	17 46 42.6	+0.9
OKC	**Ostrava-Krasne**	**0.70**	**236**	*e*PG	Pg	17 46 39.0	-0.4
NIE	**Niedzica**	**1.16**	**134**	*e*Pg	Pg	17 46 49.0	+0.4
NIE				*e*Sg	Sg	17 47 04.6	+0.5
DPC	**Dobruska-Polom**	**1.75**	**275**	*e*PG	Pg	17 46 56.0	-4.3
DPC				*e*SG	Sg	17 47 19.2	-4.4
UPC	**Upice**	**1.96**	**279**	*e*SG	Sg	17 47 26.7	-4.0
PRU	**Pruhonice**	**2.91**	**267**	*e*SG	Sg	17 47 56.9	-5.3
KHC	**Kasperske Hory**	**3.71**	**255**	*e*PG	Pg	17 47 34.5	-5.1
KHC				*e*SG	Sg	17 48 21.2	-7.9

IDC 14 17:47:54.2±1.6**,46.14N×142.81E,h317^{km}**±18^{km}**,mb3.0**/6**, mb1 3.2**/7**,mb1mx2.9**/22**,Error ellipse: s-maj=27.8km s-min=18.2km az=126.0,Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAJ	**Asahikawa**	**2.03**	**184**	P	P	17 48 43.1	+0.1
	4.6nm,0.3s,baz=32,slow=2.9,SNR=9.1						
ZAL	**Zalesovo**	**37.12**	**304**	P	P	17 54 33.3	-2.9
	0.7nm,0.4s,baz=90,slow=2.0,SNR=2.7						
ILAR	**Eielson Array**	**41.43**	**38**	P	P	17 55 09.3	-2.1
	0.7nm,1.0s,baz=275,slow=9.3,SNR=4.5						
CMAR	**Chiang Mai Arr**	**45.41**	**247**	P	P	17 55 41.6	-2.1
	0.2nm,0.7s,baz=45,slow=10,SNR=3.1						
YKA	**Yellowknife Ar**	**55.52**	**33**	P	P	17 56 56.0	-2.2
	0.3nm,0.6s,baz=303,slow=6.6,SNR=5.4						
FINES	**FINESS Array B**	**61.32**	**331**	P	P	17 57 38.0	0.0
	4.7nm,1.1s,baz=72,slow=6.0,SNR=5.9						
ASAR	**Alice Springs**	**69.94**	**189**	P	P	17 58 31.9	-1.1
	0.5nm,0.7s,baz=357,slow=5.2,SNR=5.9						

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*IDC **14** 17:55:14.9±1.4,23.87S×66.69W,h196^{km}±16^{km}, mb1 3.4/3,mb1mx3.2/15,Error ellipse: s-maj=27.0km s-min=19.7km az=11.0*
*NEIC **14** 17:55:14.0±0.9,24.00S×66.70W,h195^{km}±12^{km},mb4.0/1, Error ellipse: s-maj=17.4km s-min=12.8km az=61.0*
ISC 14 17:55:13.0±1.0**,24.03S**±0.09×**66.8W**±0.2**,h222^{km}**±25^{km}**, n9,σ0^{s}63**/10**,Salta Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**2.38**	**306**	P	**P**	**17 55 58.3**	**+0.9**
	19nm,0.3s,baz=127,slow=5.6,SNR=251						
LVC				S	**S**	**17 56 31.5**	**-0.3**
	19nm,0.3s,baz=286,slow=20,SNR=27						
LPAZ	**La Paz**	**7.79**	**351**	P	**P**	**17 57 04.8**	**+0.5**
	1.5nm,0.3s,baz=169,slow=8.3,SNR=25						
LPAZ				S	**S**	**17 58 31.1**	**-0.4**
	0.1nm,0.3s,baz=325,slow=12,SNR=2.6						
LPAZ	**La Paz**	**7.79**	**351**	P	**P**	**17 57 04.8**	**+0.5**
LPAZ				S	**S**	**17 58 31.1**	**-0.4**
CPUP	**Villa Florida**	**8.90**	**107**	P	**P**	**17 57 18.4**	**-0.2**
	0.0nm,0.3s,baz=214,slow=17,SNR=1.9						
TRQA	**Tornquist**	**14.59**	**165**	*e*P	**P**	**17 58 29.8**	**-0.5**
SAML	**Samuel**	**15.39**	**14**	*e*P	**P**	**17 58 39.5**	**-0.8**
	3.9nm,0.6s						
BDFB	**Brasilia**	**19.55**	**68**	P	**P**	**17 59 26.6**	**+1.0**
	0.4nm,0.3s,baz=228,slow=11,SNR=4.2						
ASAR	**Alice Springs**	**128.50**	**204**	PKP	PKPdf	18 13 59.1	+5.0
	0.3nm,0.8s,baz=141,slow=1.3,SNR=4.1						
WRA	**Warramunga Arr**	**131.68**	**207**	PKP	PKPdf	18 14 05.1	+4.9
	0.2nm,0.5s,baz=155,slow=1.9,SNR=5.4						

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*THR **14** 18:08:38.4±0.3,30.86N×50.11E,h15^{km},ML3.0*
*KISR **14** 18:08:38.5±0.8,31.06N×50.26E,h33^{km},ML2.7*
ISC 14 18:08:40.2±1.1**,31.03N**±0.05×**50.04E**±0.09**,h15^{km},n6, σ0^{s}66**/9**,Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHGR	**Shooshtar-Gavs**	**1.51**	**316**	*e*PG	**Pg**	**18 09 09.0**	**-1.5**
SHGR				*e*SG	**Sg**	**18 09 31.4**	**+0.8**
SHGR				AMP		18 09 34.8	
	comp=N,216nm,0.4s						
SHGR				AMP		18 09 35.6	
	comp=E,141nm,0.3s						
UMR	**Umm Al-Rimmam**	**2.50**	**234**	*e*P	**Pn**	**18 09 21.5**	**+0.5**
UMR				AML	AML	18 09 57.1	
	comp=Z,33nm,0.3s						
QRN	**Al-Qurain**	**2.93**	**220**	*e*P	**Pn**	**18 09 26.7**	**-0.6**
QRN				*e*S	**Sn**	**18 10 02.4**	**-0.1**
NASN	**Na’in**	**2.94**	**52**	*e*PN	**Pn**	**18 09 27.9**	**+0.5**
RDF	**Al-Radifah**	**3.01**	**227**	*e*P	**Pn**	**18 09 28.4**	**+0.1**
RDF				*e*S	**Sn**	**18 10 05.1**	**+0.6**
RDF				AML	AML	18 10 09.4	
	comp=Z,28nm,0.5s						
RST	**Umm Al-Ruwaisa**	**3.04**	**241**	*e*P	**Pn**	**18 09 28.4**	**-0.4**
RST				AML	AML	18 10 05.0	
	comp=Z,14nm,0.5s						

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*IDC **14** 18:14:38.6±5.9,8.90S×129.50E,mb3.7/1,mb1 3.8/4, mb1mx3.6/12,ML3.7/3,MS3.0/1,Ms1 3.0/1,ms1mx2.2/17, Error ellipse: s-maj=79.2km s-min=59.4km az=117.0*
*NEIC **14** 18:14:44.5±2.8,8.98S×129.54E,h40^{km},mb3.8/2,Error ellipse: s-maj=35.2km s-min=17.5km az=176.0*
ISC 14 18:14:39.8±1.6**,8.8S**±0.1×**129.6E**±0.1**,h33^{km},n10, σ1^{s}06**/15**,mb3.6**/1**,Timor Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**4.79**	**145**	*e*P	**P**	**18 15 38.5**	**-13**
	2.6nm,0.1s						
KAKA				*e*S	**S**	**18 16 52.9**	**+6.2**
WRAB	**Tennant Creek**	**12.00**	**158**	*e*P	**P**	**18 17 30.2**	**-1.4**
WRA	**Warramunga Arr**	**12.01**	**158**	Pn	**P**	**18 17 30.7**	**-0.9**
	0.6nm,0.3s,baz=336,slow=13,SNR=36						
WRA				Sn	**S**	**18 19 44.1**	**-1.4**
	1.6nm,0.3s,baz=334,slow=22,SNR=12						
WB2	**Warramunga Arr**	**12.01**	**158**	*e*P	**P**	**18 17 30.7**	**-1.0**
WB2				*e*S	**S**	**18 19 44.8**	**-0.8**
ASAR	**Alice Springs**	**15.37**	**165**	Pn	**P**	**18 18 16.9**	**+0.8**
	0.2nm,0.3s,baz=334,slow=8.8,SNR=18						
ASAR				Sn	**S**	**18 21 07.3**	**+1.7**
	0.4nm,0.3s,baz=353,slow=26,SNR=7.5						
ASAR				LR	LR	18 24 06.4	
	comp=Z,53nm,19.8s,baz=38,slow=37						
ASPA	**Alice Springs**	**15.37**	**165**	*e*P	**P**	**18 18 17.0**	**+0.9**
ASPA				*e*S	**S**	**18 21 06.7**	**+1.1**
MBWA	**Marble Bar**	**15.59**	**217**	*e*P	**P**	**18 18 18.2**	**-0.6**
	4.4nm,0.7s						
CTA	**Charters Tower**	**19.62**	**127**	P	**P**	**18 19 08.9**	**+0.5**
	0.2nm,0.3s,baz=219,slow=4.9,SNR=2.7						
STKA	**Stephens Creek**	**25.54**	**156**	*e*P	**P**	**18 20 08.5**	**+1.1**
	2.3nm,0.9s,mb3.7						
STKA	**Stephens Creek**	**25.54**	**156**	P	**P**	**18 20 08.4**	**+1.0**
	0.9nm,0.6s,mb3.5,baz=309,slow=18,SNR=4.9						

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*NEIC **14** 18:22:05.2±0.4,13.29N×89.37W,mb4.3/12, MD4.5(SNET),Error ellipse: s-maj=14.5km s-min=6.5km az=223.0*
NEIC Felt [III] at San Salvador.
*BJI **14** 18:22:05.2,13.30N×89.40W,h51^{km},mB4.8,Ms4.6, Msz4.7*
*CASC **14** 18:22:05.2±2.2,13.15N×89.64W,h38^{km}±38^{km},MD4.5, ML4.6,mb4.3(NEIC)*
*IDC **14** 18:22:06.1±0.7,13.60N×88.83W,h50^{km}±4^{km},mb4.0/15, mb1 4.2/17,mb1mx4.1/24,MS3.7/12,Ms1 3.7/12, ms1mx3.4/19,Error ellipse: s-maj=28.0km s-min=13.2km az=60.0*
ISC 14 18:22:04.7±0.4**,13.16N**±0.04×**89.61W**±0.03**,h68^{km}**±4^{km}**, h52^{km}**±.9^{km}**:pP-P,n110,σ1^{s}31**/113**,mb4.3**/20**,9C-18D,El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNET	**Serv Nac Est T**	**0.64**	**35**	⇑*e*P	**P**	**18 22 17.9**	**-1.0**
SNET				*e*		18 22 37.1	
	comp=Z,20μm,0.4s						
BOQS	**Boqueron**	**0.65**	**29**	⇓*e*P	**P**	**18 22 18.5**	**-0.5**
SBLS	**San Blas**	**0.67**	**359**	⇑*e*P	**P**	**18 22 18.7**	**-0.5**
LFRS	**El Faro**	**0.70**	**49**	⇓*e*P	**P**	**18 22 19.1**	**-0.5**
SNJE	**San Jose**	**0.70**	**0**	*e*P	**P**	**18 22 19.2**	**-0.3**
RTR	**El Retiro**	**0.73**	**357**	⇓*i*P	**P**	**18 22 19.6**	**-0.3**
LFU	**La Fuente**	**0.76**	**39**	⇓*i*P	**P**	**18 22 20.1**	**-0.2**
LCBS	**La Ceiba**	**0.79**	**51**	⇓*i*P	**P**	**18 22 20.1**	**-0.4**
LBRS	**Las Brisas**	**0.80**	**44**	⇓*i*P	**P**	**18 22 20.6**	**-0.1**
SNVI	**San Vicente**	**0.87**	**59**	⇓*e*P	**P**	**18 22 21.5**	**-0.2**
SNVI				*e*S	**S**	**18 22 34.4**	**+0.2**
RBDL	**Robledal**	**0.95**	**355**	⇑*e*P	**P**	**18 22 22.8**	**+0.2**
MTO2	**Montecristo 2**	**1.25**	**11**	⇓*e*P	**P**	**18 22 26.9**	**+0.2**
VSM	**San Miguel**	**1.33**	**78**	⇑*e*P	**P**	**18 22 28.4**	**+0.6**
VSM				*e*S	**S**	**18 22 46.5**	**+1.7**
BLLM	**Bellamira**	**1.36**	**78**	*e*P	**P**	**18 22 28.5**	**+0.2**
BLLM				⇓*i*P		18 22 28.5	
BLLM				*e*S	**S**	**18 22 46.2**	**+0.4**
CAHU	**Cacacuatique**	**1.49**	**66**	⇓*e*P	**P**	**18 22 30.2**	**+0.3**
CAHU				*e*S	**S**	**18 22 50.6**	**+2.0**
CNCH	**Conchagua**	**1.73**	**86**	⇓*e*P	**P**	**18 22 33.6**	**+0.4**
CNCH				*e*S	**S**	**18 22 55.8**	**+1.5**
CRIN	**San Cristobal**	**2.54**	**100**	⇑*e*P	**P**	**18 22 44.3**	**-0.1**
CRIN				*e*S	**S**	**18 23 14.5**	**+0.3**
LEON	**Leon**	**2.75**	**105**	⇑*e*P	**P**	**18 22 45.9**	**-1.6**
LEON				*e*S	**S**	**18 23 18.7**	**-1.0**
TEL3	**Telica 3**	**2.76**	**102**	⇓*e*P	**P**	**18 22 46.5**	**-1.1**
TEL3				*e*S	**S**	**18 23 19.4**	**-0.4**
TELN	**Telica**	**2.76**	**101**	⇓*e*P	**P**	**18 22 46.5**	**-1.2**
TELN				*e*S	**S**	**18 23 20.3**	**+0.3**
CNGN	**Cerro Negro**	**2.91**	**103**	⇑*e*P	**P**	**18 22 48.7**	**-1.1**
CNGN				*e*S	**S**	**18 23 25.2**	**+1.5**
MIRN	**Miramar**	**2.92**	**104**	⇓*e*P	**P**	**18 22 48.5**	**-1.3**
MIRN				*e*S	**S**	**18 23 26.3**	**+2.5**
MOMJ	**Momotombo**	**3.08**	**104**	⇓*e*P	**P**	**18 22 50.5**	**-1.7**
COPN	**Copaltepe**	**3.10**	**108**	*e*P	**P**	**18 22 50.8**	**-1.7**
APYN	**Apoyeque**	**3.31**	**106**	⇓*e*P	**P**	**18 22 54.1**	**-1.2**
XAVN	**Gruta Xavier**	**3.36**	**107**	*e*P	**P**	**18 22 54.5**	**-1.6**
XAVN				*e*S	**S**	**18 23 34.0**	**-0.8**
MGAN	**Managua**	**3.43**	**107**	*e*P	**P**	**18 22 57.1**	**0.0**
CRUN	**El Crucero**	**3.44**	**110**	*e*P	**P**	**18 22 58.7**	**+1.5**
TICN	**Ticuantepe**	**3.48**	**108**	⇓*e*P	**P**	**18 22 57.1**	**-0.7**
TICN				*e*S	**S**	**18 23 37.9**	**-0.1**
PYTN	**Playitas**	**3.52**	**100**	*e*P	**P**	**18 23 00.7**	**+2.4**
APON	**Apoyo**	**3.67**	**109**	*e*P	**P**	**18 23 00.1**	**-0.3**
CCIG	**Comitan**	**3.95**	**322**	*i* P	**P**	**18 23 05.4**	**+1.1**
CCIG				*i* S	**S**	**18 24 01.9**	**+12**
JTS	**JuntasAbangare**	**5.38**	**122**	*e*P	**P**	**18 23 24.0**	**-0.1**
JCR	**Jicaral**	**5.50**	**126**	*e*P	**P**	**18 23 27.2**	**+1.4**
CGA2	**Cerro Gallo 2**	**5.93**	**121**	*e*P	**P**	**18 23 33.1**	**+1.3**
PRS1	**Puriscal**	**6.08**	**121**	*e*P	**P**	**18 23 36.2**	**+2.5**
PRS1				*e*S	**S**	**18 24 42.1**	**-0.6**
LAJ	**Bijagual**	**6.30**	**121**	⇑*e*P	**P**	**18 23 35.0**	**-1.9**
LAJ				*e*S	**S**	**18 24 40.8**	**-7.4**
CMIG	**Matias Romero**	**6.42**	**308**	*i* P	**P**	**18 23 37.4**	**-1.3**
CMIG				*i* S	**S**	**18 24 51.1**	**-0.1**
LCR2	**La Lucha 2**	**6.46**	**121**	⇓*e*P	**P**	**18 23 42.1**	**+2.9**
ICR	**Volcan Irazu**	**6.48**	**119**	*e*P	**P**	**18 23 40.4**	**+0.8**
URSC	**Urasca**	**6.60**	**119**	*e*P	**P**	**18 23 44.0**	**+2.8**
URSC				*e*S	**S**	**18 24 57.6**	**+1.9**
BUS	**Buena Vista**	**6.76**	**121**	*e*P	**P**	**18 23 44.1**	**+0.7**
TEIG	**Tepich**	**7.14**	**10**	P	**P**	**18 23 49.3**	**+0.7**
	comp=Z,5.0nm,0.3s,baz=108,slow=3.8,SNR=28						
TEIG	**Tepich**	**7.14**	**10**	*e*P	**P**	**18 23 46.8**	**-1.8**
ACR	**Cerro Adams**	**7.75**	**125**	⇑*e*P	**P**	**18 23 59.6**	**+2.5**
ACR				*e*S	**S**	**18 25 23.2**	**-0.9**
OXX	**Oaxaca**	**7.90**	**300**	*e*P	**P**	**18 23 59.0**	**-0.1**
VHO	**Vista Hermosa**	**7.90**	**300**	*i* P	**P**	**18 23 59.8**	**+0.7**
VHO				*i* S	**S**	**18 25 26.9**	**-1.0**
PPM	**Popocatepetl**	**10.46**	**305**	*e*P	**P**	**18 24 32.4**	**-1.8**
PPM				*e*P		18 24 36.0	
PPM				*i* S	**S**	**18 26 25.1**	**-5.6**
PLIG	**Platanillo**	**10.85**	**300**	*e*P	**P**	**18 24 39.1**	**-0.3**
PLIG				*i* S	**S**	**18 26 42.2**	**+2.3**
OTAV	**Otavalo**	**16.95**	**138**	*e*P	**P**	**18 25 56.9**	**-1.9**
ROSC	**El Rosal**	**17.19**	**117**	P	**P**	**18 26 05.4**	**+3.6**
	comp=Z,1.2nm,0.3s,baz=276,slow=21,SNR=4.3						
ROSC				LR	LR	18 33 03.1	
	comp=Z,109nm,21.5s,baz=346,slow=39						
HKT	**Hockley**	**17.67**	**342**	*e*P	**P**	**18 26 05.3**	**-2.5**
	comp=Z,15nm,1.1s						
SDV	**Santo Domingo**	**19.10**	**101**	*e*P	**P**	**18 26 22.4**	**-2.4**
	comp=Z,11nm,0.6s						
JCT	**Junction City**	**19.64**	**333**	*e*P	**P**	**18 26 29.8**	**-0.7**
	comp=Z,20nm,0.8s						
LTX	**Lajitas**	**20.72**	**323**	*e*P	**P**	**18 26 43.8**	**+2.0**
	comp=Z,5.2nm,0.8s						
LTX				*e*		18 26 55.4	
TXAR	**Lajitas Array**	**20.72**	**323**	P	**P**	**18 26 44.1**	**+2.4**
	comp=Z,7.3nm,0.7s,baz=146,slow=11,SNR=54						
TXAR				pP		18 26 55.9	
	comp=Z,7.1nm,0.8s,baz=149,slow=10,SNR=12						
TXAR				pPcP		18 31 06.2	
	comp=Z,0.7nm,0.8s,baz=117,slow=2.8,SNR=3.9						
TXAR				LR	LR	18 36 28.3	
	comp=Z,71nm,20.7s,baz=135,slow=41						
TXAR	**Lajitas Array**	**20.72**	**323**	P	**P**	**18 26 44.1**	**+2.4**
TXAR				pP		18 26 55.9	
TXAR				pPcP		18 31 06.2	
MIAR	**Mount Ida**	**21.59**	**351**	P	**P**	**18 26 44.5**	**-6.0**
UALR	**University of**	**21.66**	**354**	*e*P	**P**	**18 26 52.0**	**+0.8**
	comp=Z,27nm,1.0s,mb4.5						
SWET	**Sewanee**	**22.21**	**8**	*e*P	**P**	**18 26 57.1**	**+0.5**
WMOK	**Wichita Mounta**	**23.03**	**340**	*e*P	**P**	**18 27 03.7**	**-1.0**
	comp=Z,5.6nm,0.8s,mb4.0						
MNTX	**Cornudas Mount**	**23.46**	**324**	*e*P	**P**	**18 27 09.8**	**+1.0**
	comp=Z,15nm,1.1s,mb4.2						
MNTX				*e*		18 27 22.1	
AMTX	**Amarillo**	**24.23**	**335**	P	**P**	**18 27 16.7**	**+0.4**
	comp=Z,23nm,0.8s,mb4.6						
AMTX				*e*		18 27 30.2	
BNM	**Barren Site**	**25.99**	**326**	*e*P	**P**	**18 27 33.9**	**+0.9**
BNM				*e*pP	pP	18 27 47.7	-1.3
LPM	**Los Pinos Moun**	**26.12**	**327**	P	**P**	**18 27 34.1**	**0.0**
LPM				*e*pP	pP	18 27 47.6	-2.5
ANMO	**Albuquerque**	**26.52**	**328**	LR	LR	18 39 34.1	
	comp=Z,78nm,19.5s,slow=40						
LDFC	**Landfair**	**31.73**	**318**	*e*P	**P**	**18 28 26.6**	**+2.2**
LDFC				*e*pP	pP	18 28 39.8	-1.1
NEN	**Nelson**	**31.91**	**319**	*e*P	**P**	**18 28 27.8**	**+1.9**
NEN				*e*pP	pP	18 28 40.6	-1.8
SADO	**Sadowa**	**32.74**	**14**	P	**P**	**18 28 31.3**	**-1.8**
	comp=Z,8.3nm,0.8s,mb4.6,baz=198,slow=6.3,SNR=4.7						
TPNV	**Topopah Spring**	**33.60**	**320**	*e*P	**P**	**18 28 41.6**	**+1.0**
TPNV				*e*pP	pP	18 28 55.2	-2.1
PDAR	**Pinedale Array**	**34.17**	**333**	P	**P**	**18 28 46.5**	**+1.1**
	comp=Z,0.2nm,0.6s,mb3.1,baz=114,slow=8.9,SNR=2.9						
PDAR				PcP	PcP	18 31 21.7	+0.4
	comp=Z,0.5nm,0.5s,baz=132,slow=5.5,SNR=3.7						
PDAR				pPcP		18 31 35.8	
	comp=Z,0.8nm,0.6s,baz=117,slow=3.3,SNR=3.8						
PDAR				ScP		18 35 04.5	
	comp=Z,0.5nm,0.8s,baz=153,slow=2.0,SNR=2.8						
PDAR				LR	LR	18 45 00.4	
	comp=Z,138nm,18.3s,baz=152,slow=40						
SAML	**Samuel**	**34.22**	**129**	*e*P	**P**	**18 28 44.8**	**-1.3**
	comp=Z,11nm,0.8s,mb4.7						
SAML				*e*pP	pP	18 28 58.6	-4.3
MNV	**Mina**	**35.70**	**320**	*e*P	**P**	**18 29 00.9**	**+2.4**
	comp=Z,4.4nm,1.1s,mb4.3						
MNV				*e*pP	pP	18 29 14.0	-1.4
OMM	**Old Mammoth Mi**	**35.76**	**318**	*e*P	**P**	**18 29 01.5**	**+2.5**
OMM				*e*pP	pP	18 29 14.1	-1.7
NVAR	**Mina Array Bea**	**35.79**	**320**	P	**P**	**18 29 02.5**	**+3.2**
	comp=Z,4.2nm,0.7s,mb4.5,baz=128,slow=10,SNR=32						
NVAR				pP	pP	18 29 16.0	-0.1
	comp=Z,15nm,0.8s,baz=126,slow=9.8,SNR=32						
NVAR				PcP	PcP	18 31 27.6	+1.6
	comp=Z,1.6nm,0.6s,baz=117,slow=5.1,SNR=4.5						
NVAR				pPcP		18 31 43.2	
	comp=Z,1.8nm,0.7s,baz=120,slow=5.0,SNR=4.8						
NVAR				ScP		18 35 09.7	
	comp=Z,1.1nm,0.7s,baz=121,slow=5.7,SNR=7.8						
NVAR				LR	LR	18 45 06.9	
	comp=Z,167nm,21.3s,baz=295,slow=38						
LPAZ	**La Paz**	**36.15**	**143**	P	**P**	**18 29 03.6**	**+1.0**
	comp=Z,1.1nm,0.6s,mb4.0,baz=313,slow=6.7,SNR=6.9						
LPAZ				LR	LR	18 44 26.1	
	comp=Z,61nm,20.3s,baz=61,slow=37						
LPAZ	**La Paz**	**36.15**	**143**	*e*P	**P**	**18 29 03.8**	**+1.2**
	comp=Z,1.7nm,0.6s,mb4.2						
ULM	**Lac du Bonnet**	**37.34**	**353**	P	**P**	**18 29 10.1**	**-2.1**
	comp=Z,2.7nm,0.7s,mb4.3,baz=156,slow=9.7,SNR=4.7						
ULM				pP	pP	18 29 24.7	-4.3
	comp=Z,4.2nm,0.9s,baz=178,slow=11,SNR=3.9						
ULM				LR	LR	18 47 05.0	
	comp=Z,76nm,21.7s,baz=357,slow=40						
ULM	**Lac du Bonnet**	**37.34**	**353**	P	**P**	**18 29 10.1**	**-2.1**
ULM				pP	pP	18 29 24.7	-4.3
SCHQ	**Schefferville**	**45.24**	**18**	P	**P**	**18 30 14.7**	**-2.2**
	comp=Z,6.0nm,0.5s,mb4.5,baz=210,slow=4.7,SNR=14						
SCHQ				LR	LR	18 51 15.8	
	comp=Z,75nm,19.6s,baz=261,slow=39						
BDFB	**Brasilia**	**50.12**	**124**	P	**P**	**18 30 54.1**	**-1.3**
	comp=Z,2.4nm,0.4s,mb4.5,baz=309,slow=7.3,SNR=3.6						
BDFB				LR	LR	18 53 06.0	
	comp=Z,68nm,19.7s,baz=134,slow=37						
CPUP	**Villa Florida**	**50.26**	**141**	P	**P**	**18 30 56.2**	**-0.2**
	comp=Z,0.0nm,0.3s,baz=212,slow=11,SNR=2.3						
CPUP	**Villa Florida**	**50.26**	**141**	P	**P**	**18 30 56.2**	**-0.2**
YKA	**Yellowknife Ar**	**52.39**	**346**	P	**P**	**18 31 10.4**	**-1.5**
	comp=Z,2.9nm,0.9s,mb4.3,baz=144,slow=7.7,SNR=29						
YKA				pP	pP	18 31 24.8	-4.6
	comp=Z,2.3nm,0.9s,baz=145,slow=7.8,SNR=6.2						
YKA	**Yellowknife Ar**	**52.39**	**346**	P	**P**	**18 31 10.4**	**-1.5**
YKA				pP	pP	18 31 24.8	-4.6
FRB	**Frobisher Bay**	**52.63**	**12**	P	**P**	**18 31 11.0**	**-2.8**
	comp=Z,13nm,0.8s,mb5.0,baz=211,slow=8.5,SNR=20						
FRB				pP	pP	18 31 24.4	-6.8
	comp=Z,2.9nm,0.6s,baz=232,slow=5.1,SNR=2.5						
DLBC	**Dease Lake**	**54.37**	**335**	P	**P**	**18 31 27.1**	**+0.5**
	comp=Z,1.5nm,0.7s,mb4.1,baz=166,slow=16,SNR=3.8						
DLBC				pP	pP	18 31 40.9	-3.4
	comp=Z,1.7nm,0.8s,baz=133,slow=4.9,SNR=2.5						
INK	**Inuvik**	**61.91**	**343**	P	**P**	**18 32 17.9**	**-1.3**
	comp=Z,1.5nm,0.7s,mb4.2,baz=166,slow=7.3,SNR=6.3						
INK				pP	pP	18 32 32.1	-5.0
	comp=Z,1.0nm,0.7s,baz=147,slow=6.9,SNR=2.5						
INK	**Inuvik**	**61.91**	**343**	*e*P	**P**	**18 32 17.6**	**-1.5**
	comp=Z,1.8nm,0.7s,mb4.2						
ILAR	**Eielson Array**	**64.53**	**336**	P	**P**	**18 32 35.2**	**-1.2**
	comp=Z,0.9nm,1.0s,mb3.5,baz=174,slow=4.5,SNR=5.2						
RAR	**Rarotonga**	**76.88**	**244**	LR	LR	19 00 14.0	
	comp=Z,166nm,20.1s,baz=234,slow=29						
EKA	**Eskdalemuir Ar**	**77.28**	**36**	P	**P**	**18 33 48.0**	**-5.3**
	comp=Z,3.8nm,1.0s,mb4.1,baz=270,slow=6.4,SNR=3.7						
NOA	**NORSAR Array B**	**83.77**	**29**	LR	LR	19 10 26.7	
	comp=Z,147nm,18.8s,baz=280,slow=35						
ARCES	**ARCESS Array B**	**86.19**	**19**	P	**P**	**18 34 37.7**	**-1.6**
	comp=Z,2.9nm,0.8s,mb4.3,baz=292,slow=4.7,SNR=5.6						
FINES	**FINESS Array B**	**90.26**	**26**	LR	LR	19 13 34.2	
	comp=Z,130nm,19.5s,baz=341,slow=34						
CN2	**Changchun**	**114.92**	**333**	*e*PKP	PKPdf	18 40 36.3	-1.7
SONM	**Songino Array**	**117.62**	**348**	PKP	PKPdf	18 40 44.7	+1.6
	comp=Z,0.5nm,0.7s,baz=3.1,slow=1.9,SNR=3.8						
SONM				pPKP		18 41 00.6	
	comp=Z,0.2nm,0.7s,baz=9.8,slow=1.8,SNR=3.4						
HHC	**Hu-ho-hao-te**	**122.80**	**341**	*e*PKP	PKPdf	18 40 54.0	+0.7
WMQ	**Urumqi**	**123.24**	**2**	PKP	PKPdf	18 40 55.5	+1.4
WMQ				XPKP		18 41 16.0	
WMQ				PP	PP	18 42 40.5	+0.8
WMQ				PP	PP		
	comp=Z,20nm,6.2s						
WMQ				LR	LR		
	comp=N,43nm,15.6s						
WMQ				LR	LR		
	comp=E,34nm,17.8s						
WMQ				LR	LR		
	comp=Z,47nm,23.6s						
NJ2	**Nanjing**	**127.42**	**329**	*e*PKP	PKPdf	18 41 06.0	+3.5
WRAB	**Tennant Creek**	**137.42**	**255**	*e*PKPdf	PKPdf	18 41 24.7	+3.2
WRA	**Warramunga Arr**	**137.43**	**255**	PKP	PKPdf	18 41 25.1	+3.6
	comp=Z,0.7nm,0.5s,baz=89,slow=2.6,SNR=12						
WRA				pPKP		18 41 41.0	
	comp=Z,0.7nm,0.7s,baz=85,slow=1.9,SNR=5.7						
WRA				SKP		18 44 58.8	
	comp=Z,0.9nm,0.8s,baz=89,slow=2.9,SNR=11						
ASAR	**Alice Springs**	**137.56**	**249**	PKP	PKPdf	18 41 26.1	+4.4
	comp=Z,0.3nm,0.6s,baz=97,slow=1.9,SNR=6.9						
ASAR				SKP		18 44 58.7	
	comp=Z,0.8nm,0.8s,baz=97,slow=2.6,SNR=6.3						
GKN	**Gorkha**	**138.70**	**8**	*e*P	PKPdf	18 41 26.6	+2.9
	comp=Z,4.1nm,0.5s						
KOLN	**Koldanda**	**138.78**	**9**	*e*P	PKPdf	18 41 25.2	+1.4
GUN	**Gumba**	**138.94**	**6**	*e*P	PKPdf	18 41 25.4	+1.3
KKN	**Kakani**	**138.99**	**7**	*e*P	PKPdf	18 41 26.6	+2.4
	comp=Z,5.7nm,0.8s						
PKI	**Pulchoki**	**139.22**	**7**	*e*P	PKPdf	18 41 25.8	+1.2
	comp=Z,4.3nm,0.8s						
CM31	**Chiang Mai Arr**	**147.47**	**345**	*e*PKPbc	PKPdf	18 41 43.5	+4.3
CMAR	**Chiang Mai Arr**	**147.47**	**345**	PKPbc	PKPdf	18 41 43.4	+4.2
	comp=Z,3.2nm,0.7s,baz=345,slow=3.7,SNR=28						
CMAR				pPKPbc		18 41 59.6	
	comp=Z,2.8nm,0.7s,baz=332,slow=3.7,SNR=7.4						

IDC 14 18:43:53.4±3.0**,1.76S×136.79E,mb3.4**/2**,mb1 3.6**/4**, mb1mx3.4**/14**,ML3.2**/2**,MS3.8**/1**,Ms1 3.8**/1**,ms1mx2.6**/12**, Error ellipse: s-maj=53.9km s-min=48.6km az=109.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**12.81**	**127**	Pn	P	18 46 55.7	-4.0
	0.4nm,0.3s,baz=190,slow=14,SNR=3.6						
WRA	**Warramunga Arr**	**18.23**	**187**	P	P	18 48 07.3	-2.5
	0.1nm,0.3s,baz=8.3,slow=12,SNR=9.2						
CTA	**Charters Tower**	**20.43**	**154**	P	P	18 48 32.6	-2.6
	1.0nm,0.3s,baz=330,slow=14,SNR=3.2						
ASAR	**Alice Springs**	**21.95**	**187**	P	P	18 48 49.3	-1.4
	0.6nm,0.5s,baz=10,slow=10.0,SNR=17						
URZ	**Urewera**	**51.77**	**140**	LR	LR	19 11 26.7	
	comp=Z,86nm,20.1s,baz=100,slow=32						
CPUP	**Villa Florida**	**148.92**	**155**	PKPbc	PKPdf	19 03 43.7	+1.9
	0.0nm,0.3s,baz=228,slow=20,SNR=1.7						

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*NIED **14** 18:51:00,31.80N×129.20E,h5^{km},Mw4.0 Best double couple: $M_0$1.12×10^{15} NP1:ϕ_s124°,δ75°,λ-47°. NP2: ϕ_s230°,δ45°,λ-159°.*
*JMA **14** 18:51:39.7±0.1,31.77N×129.17E,h15^{km}±1^{km},M4.0*
ISC 14 18:51:41.8±0.6**,31.78N**±0.05×**129.29E**±0.04**,h15^{km},n15, σ1^{s}17**/20**,mb4.6**/1**,2C-7D,Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	**Shimokoshiki**	**0.38**	**106**	⇓P	**Pb**	**18 51 48.9**	**-0.8**
JSJ				S	**Sb**	**18 51 55.1**	**+0.1**
NGSJ	**Nagasakinomoza**	**0.95**	**27**	⇓P	**Pb**	**18 51 58.3**	**-1.2**
NGSJ				S	**Sb**	**18 52 12.1**	**+0.5**
JFU	**Fukue jima 2**	**0.98**	**332**	⇑P	**Pb**	**18 51 57.5**	**-2.5**
JHD	**Hondo**	**0.99**	**46**	⇓P	**Pb**	**18 51 59.4**	**-0.7**
JHD				S	**Sb**	**18 52 14.1**	**+1.4**
JSU	**Suzuyama**	**1.03**	**105**	⇓P	**Pb**	**18 52 00.5**	**-0.4**
JSU				S	**Sb**	**18 52 15.6**	**+1.6**
JZO	**Okuchi**	**1.17**	**72**	⇓P	**Pb**	**18 52 02.3**	**-0.9**
JZO				S	**Sb**	**18 52 20.0**	**+2.1**
JIU2	**Izumi 2**	**1.50**	**59**	⇓P	**Pn**	**18 52 06.9**	**-1.5**
JTZ	**Takazaki**	**1.53**	**85**	⇓P	**Pn**	**18 52 07.7**	**-1.2**
JTN	**Tanegashima 3**	**1.83**	**127**	⇑P	**Pn**	**18 52 11.3**	**-1.9**
GUN	**Gumba**	**37.67**	**276**	*e*P	**P**	**18 58 59.1**	**+0.8**
	19nm,0.9s						
PKI	**Pulchoki**	**38.17**	**275**	*e*P	**P**	**18 59 03.3**	**+0.9**
	15nm,1.2s						
KKN	**Kakani**	**38.21**	**276**	*e*P	**P**	**18 59 03.4**	**+0.6**
	14nm,1.0s,mb4.6						
DMN	**Daman**	**38.41**	**275**	*e*P	**P**	**18 59 05.4**	**+0.9**
GKN	**Gorkha**	**38.70**	**276**	*e*P	**P**	**18 59 07.1**	**+0.2**
KOLN	**Koldanda**	**39.64**	**276**	*e*P	**P**	**18 59 15.9**	**+1.1**
	9.4nm,1.1s						

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*IDC **14** 18:54:43.0±2.6,5.52S×151.60E,h37^{km}±19^{km},mb4.1/13, mb1 4.3/15,mb1mx4.3/16,ML3.6/2,MS3.7/9,Ms1 3.7/9, ms1mx3.5/19,Error ellipse: s-maj=23.9km s-min=11.9km az=124.0*
*NEIC **14** 18:54:45.1±1.8,5.44S×151.59E,h57^{km}±15^{km},mb4.5/14, Error ellipse: s-maj=10.8km s-min=10.3km az=79.0*
ISC 14 18:54:40.7±0.4**,5.42S**±0.06×**151.60E**±0.08**,h33^{km},n75, σ0^{s}96**/47**,mb4.5**/27**,MS3.8**/8**,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	5.92	228	Pn	Pn	18 56 10.5	+2.0
	7.3nm,0.3s,baz=44,slow=11,SNR=72						
PMG				Sn	Sn	18 57 15.0	-1.0
	17nm,0.3s,baz=133,slow=18,SNR=11						
PMG	Port Moresby	5.92	228	Pn	Pn	18 56 10.5	+2.0
PMG				Sn	Sn	18 57 15.0	-1.0
CTA	Charters Tower	15.48	199	Pn	P	18 58 23.4	+5.1
	0.3nm,0.3s,baz=17,slow=13,SNR=8.0						
CTA				LR	LR	19 02 18.3	
	comp=Z,72nm,19.0s,baz=263,slow=30						
CTAO	Charters Tower	15.48	199	*e*P	P	18 58 22.2	+3.8
	7.9nm,0.8s						
KAKA	Kakadu	20.25	248	*e*P	P	18 59 15.4	-0.7
	21nm,0.5s						
DZM	Mont Dzumac	21.92	140	*e*P	P	18 59 32.8	-0.2
WRAB	Tennant Creek	22.13	228	*e*P	P	18 59 34.9	-0.2
	27nm,0.6s,mb4.9						
WB2	Warramunga Arr	22.14	228	*e*P	P	18 59 35.1	-0.1
WB2				*e*S	S	19 03 36.1	+4.0
WRA	Warramunga Arr	22.14	228	P	P	18 59 35.6	+0.3
	10nm,0.5s,mb4.5,baz=52,slow=10.0,SNR=143						
WRA				S	S	19 03 36.2	+3.9
	4.9nm,1.2s,baz=54,slow=18,SNR=5.8						
WRA				ScP		19 07 07.8	
	1.0nm,0.7s,baz=48,slow=2.9,SNR=7.7						
ASAR	Alice Springs	24.89	221	P	P	19 00 02.2	0.0
	13nm,0.7s,mb4.6,baz=59,slow=8.1,SNR=61						
ASAR				S	S	19 04 22.4	+1.8
	0.5nm,0.8s,baz=62,slow=13,SNR=2.6						
ASAR				ScP		19 07 14.8	
	0.5nm,0.7s,baz=26,slow=2.8,SNR=5.0						
ASAR				LR	LR	19 09 36.2	
	comp=Z,104nm,19.2s,MS3.4,baz=96,slow=36						
ASPA	Alice Springs	24.90	221	*e*P	P	19 00 03.0	+0.8
STKA	Stephens Creek	27.94	198	P	P	19 00 28.9	-1.4
	3.6nm,1.0s,mb4.0,baz=13,slow=10,SNR=4.2						
STKA				LR	LR	19 12 06.2	
	comp=Z,129nm,18.1s,MS3.5,baz=27,slow=38						
MBWA	Marble Bar	34.63	240	*e*P	P	19 01 28.1	-1.1
	21nm,1.0s,mb5.0						
JOW	Kunigami	39.21	326	LR	LR	19 15 18.9	
	comp=Z,124nm,20.2s,MS3.7,baz=133,slow=32						
CMAR	Chiang Mai Arr	57.06	296	P	P	19 04 27.3	+0.9
	1.1nm,0.6s,mb4.0,baz=120,slow=5.6,SNR=14						
CMAR				PcP	PcP	19 05 22.8	+1.9
	1.0nm,1.1s,baz=112,slow=4.9,SNR=2.8						
CMAR				LR	LR	19 31 19.8	
	comp=Z,27nm,18.5s,MS3.4,baz=284,slow=38						
SHL	Shillong	65.59	301	*e*	P	19 05 25.2	+1.3
ULN	Ulaanbaatar	65.89	329	*e*P	P	19 05 22.4	-3.0
	4.4nm,0.9s,mb4.5						
SONM	Songino Array	66.21	328	P	P	19 05 27.9	+0.4
	baz=144,slow=5.5						
GUN	Gumba	71.42	302	*e*P	P	19 06 00.1	+0.1
	12nm,0.7s,mb4.9						
GUN	Gumba	71.42	302	*e*P	P	19 06 00.3	+0.3
	4.2nm,0.6s,mb4.5						
PKI	Pulchoki	71.72	301	*e*P	P	19 06 01.0	-0.8
	27nm,1.7s,mb4.9						
KKN	Kakani	71.89	301	*e*P	P	19 06 02.5	-0.3
	11nm,0.9s,mb4.8						
DMN	Daman	71.99	301	*e*P	P	19 06 03.5	+0.2
	9.7nm,0.5s,mb5.0						
VNDA	Vanda	72.26	178	P	P	19 06 03.9	-0.3
	0.9nm,0.7s,mb3.8,baz=327,slow=7.4,SNR=3.5						
VNDA	Vanda	72.26	178	P	P	19 06 03.0	-1.2
	1.3nm,0.8s,mb3.9						
GKN	Gorkha	72.50	301	*e*P	P	19 06 06.1	-0.4
	9.8nm,0.7s,mb4.8						
GKN	Gorkha	72.50	301	*e*P	P	19 06 06.3	-0.2
	2.8nm,0.5s,mb4.5						
KOLN	Koldanda	73.32	301	*e*P	P	19 06 10.9	-0.5
	5.7nm,0.6s,mb4.7						
ZAL	Zalesovo	81.01	327	P	P	19 06 53.5	-0.1
	1.8nm,0.5s,mb4.3,baz=360,slow=6.7,SNR=11						
MCK	McKinley	81.89	23	P	P	19 06 58.1	0.0
	2.4nm,0.5s,mb4.4						
ILAR	Eielson Array	83.18	22	P	P	19 07 02.9	-1.8
	1.2nm,0.6s,mb4.1,baz=254,slow=5.2,SNR=19						
AAK	Ala-Archa	84.22	314	*e*P	P	19 07 08.8	-1.6
	3.7nm,0.8s,mb4.6						
MAW	Mawson	84.54	203	P	P	19 07 12.4	+0.9
	0.9nm,0.6s,mb4.1,baz=206,slow=5.7,SNR=2.2						
MAW				LR	LR	19 43 25.4	
	comp=Z,43nm,18.4s,MS3.9,baz=248,slow=35						
QSPA	South Pole Qui	84.55	180	P	P	19 07 10.8	-0.5
	1.6nm,0.4s,mb4.5						
AML	Almayashu	84.69	313	*e*P	P	19 07 14.6	+1.8
	16nm,1.0s,mb5.1						
DLBC	Dease Lake	88.52	31	LR	LR	19 43 26.9	
	comp=Z,126nm,18.3s,MS4.4,baz=274,slow=33						
BVAR	Borovoye Array	89.02	323	P	P	19 07 33.6	+0.1
	1.8nm,0.7s,mb4.5,baz=117,slow=6.6,SNR=11						
INK	Inuvik	89.46	21	P	P	19 07 35.5	+0.3
	1.1nm,0.8s,mb4.2,baz=172,slow=16,SNR=6.5						
INK	Inuvik	89.46	21	*e*P	P	19 07 35.0	-0.3
	1.3nm,0.7s,mb4.4						
YBH	Yreka Blue Hor	90.35	48	P	P	19 07 41.0	+0.9
	2.4nm,1.0s,mb4.5,baz=206,slow=4.2,SNR=5.9						
NVAR	Mina Array Bea	93.40	52	P	P	19 07 55.6	+1.4
	4.3nm,0.8s,mb4.9,baz=256,slow=3.4,SNR=23						
NVAR				LR	LR	19 44 01.9	
	comp=Z,89nm,21.4s,MS4.2,baz=25,slow=32						
TPNV	Topopah Spring	94.94	53	*e*P	P	19 08 01.4	+0.1
	5.9nm,0.9s,mb5.0						
YKA	Yellowknife Ar	96.53	28	P	P	19 08 07.9	+0.1
	0.2nm,0.7s,mb3.7,baz=271,slow=4.5,SNR=5.7						
YKA				LR	LR	19 46 02.7	
	comp=Z,64nm,19.6s,MS4.1,baz=255,slow=32						
YKA	Yellowknife Ar	96.53	28	*e*P	P	19 08 07.9	+0.1
PDAR	Pinedale Array	100.14	48	P	P	19 08 25.0	+0.3
	1.3nm,0.7s,baz=258,slow=2.5,SNR=9.2						
ARCES	ARCESS Array B	107.10	343	PKiKP		19 13 04.3	
	3.2nm,0.7s,slow=3.6,SNR=3.8						
FINES	FINESS Array B	111.11	335	PKiKP		19 13 11.5	
	5.1nm,1.1s,baz=315,slow=5.4,SNR=4.2						
AKASG	Malin Array Be	114.29	324	PKP	PKPdf	19 13 17.6	+0.5
	1.6nm,0.8s,baz=63,slow=2.1,SNR=4.8						
KHC	Kasperske Hory	123.84	328	*e*P	PKPdf	19 13 36.5	+0.9
GERES	GERESS Array B	123.94	328	PKP	PKPdf	19 13 37.0	+1.2
	3.0nm,0.6s,baz=71,slow=1.6,SNR=26						
HINF	Hinteralfeld	128.12	330	*e*PKP1	PKPdf	19 13 44.8	+0.9
	3.8nm,0.5s						
HAU	Haudompre	128.23	331	*e*PKP1	PKPdf	19 13 45.2	+1.1
MEZF	Maizieres J'vi	128.50	332	*e*PKP1	PKPdf	19 13 45.9	+1.3
CABF	La Chapelle	129.32	330	*e*PKP1	PKPdf	19 13 48.0	+1.8
LPL	La Plagne	129.73	328	*e*PKP1	PKPdf	19 13 48.8	+1.7
	3.6nm,0.6s						
LPG	La Plagne	129.73	328	*e*PKP1	PKPdf	19 13 48.9	+1.8
	4.6nm,0.6s						
MBDF	Montbardon	130.23	327	*e*PKP1	PKPdf	19 13 49.4	+1.4
	4.3nm,0.8s						
SSF	Saint Saulge	130.26	332	*e*PKP1	PKPdf	19 13 49.4	+1.4
PGF	Pioggiola	130.37	324	*e*PKP1	PKPdf	19 13 49.6	+1.3
	6.2nm,0.6s						
SMF	Signal de Mont	130.40	331	*e*PKP1	PKPdf	19 13 49.6	+1.3
AVF	Avril sur Loir	130.53	332	*e*PKP1	PKPdf	19 13 49.7	+1.2
ORIF	Oris-en-Rattie	130.58	328	*e*PKP1	PKPdf	19 13 50.2	+1.5
	8.6nm,0.8s						
FLN	La Foliniere	130.72	336	*e*PKP1	PKPdf	19 13 50.0	+1.2
BGF	Bois d'Agland	130.94	332	*e*PKP1	PKPdf	19 13 50.9	+1.6
	4.6nm,0.6s						
FRF	La Foret Royal	131.07	326	*e*PKP1	PKPdf	19 13 50.9	+1.2
	2.0nm,0.4s						
GRR	Gorron	131.17	336	*e*PKP1	PKPdf	19 13 51.3	+1.6
VIVF	Saint-Julien-l	131.25	329	*e*PKP1	PKPdf	19 13 50.9	+0.9
LMR	La Mourre	131.29	326	*e*PKP1	PKPdf	19 13 51.4	+1.3
	5.4nm,0.7s						
TCF	Toulx Ste Croi	131.44	332	*e*PKP1	PKPdf	19 13 52.0	+1.7
	5.5nm,0.7s						
SGMF	Saint Gilles	131.96	337	*e*PKP1	PKPdf	19 13 52.6	+1.4
LASF	Ste Croix	132.21	329	*e*PKP1	PKPdf	19 13 54.2	+2.4
ETSF	Etsaut	135.28	331	*e*PKP1	PKPdf	19 14 00.6	+3.1
	2.7nm,0.5s						
SJPF	Ste Jean	135.44	332	*e*PKP1	PKPdf	19 14 00.6	+2.8
	2.6nm,0.5s						
BDFB	Brasilia	151.45	137	PKPbc	PKPdf	19 14 33.6	+7.6
	2.7nm,0.5s,baz=186,slow=6.5,SNR=5.5						
DBIC	Dimbokro	156.56	274	PKPab	PKPab	19 15 03.8	-0.8
	2.3nm,0.6s,baz=102,slow=7.4,SNR=5.2						

IDC ***14*** *19:16:34.9±2.5,25.04N×123.34E,mb3.5/4,mb1 3.7/4, mb1mx3.5/21,Error ellipse: s-maj=263.0km s-min=22.1km az=68.0*

JMA ***14*** *19:16:34.8±0.4,25.10N×123.32E,h32^{km},M3.3*

ISC 14 19:16:34.4±2.8,**25.07N**±0.08×**123.38E**±0.10,**h8**^{km}±18^{km}, **n9,σ0^{s}46**/13,**mb3.5**/4,**Northeast of Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.69	209	P	Pb	19 16 47.9	-0.3
YOJ				S	Sg	19 16 57.5	-0.1
IRIF	Iriomote-Funau	0.80	157	P	Pb	19 16 50.2	+0.2
JIJ	Ishigaki jima	0.98	135	P	Pb	19 16 53.2	0.0
JIJ				S	Sb	19 17 05.0	-1.1
JKRS	Kuro-shima	1.00	145	P	Pb	19 16 53.9	+0.3
JKRS				*e*S	Sb	19 17 07.5	+0.8
HATJ	Hateruma jima	1.08	159	P	Pb	19 16 54.7	-0.1
HATJ				*e*S	Sb	19 17 09.3	+0.5
SONM	Songino Array	26.40	334	P	P	19 22 13.3	+0.3
	0.6nm,0.8s,mb3.2,baz=141,slow=7.5,SNR=4.7						
ZAL	Zalesovo	40.63	326	P	P	19 24 16.3	+0.1
	0.7nm,0.8s,mb3.3,baz=153,slow=2.3,SNR=4.7						
WRA	Warramunga Arr	45.99	166	P	P	19 24 60.0	-0.2
	1.0nm,0.8s,mb3.8,baz=348,slow=8.7,SNR=8.6						
ASAR	Alice Springs	49.51	167	P	P	19 25 27.1	-0.5
	0.4nm,0.9s,mb3.5,baz=354,slow=6.7,SNR=6.9						

NEIC ***14*** *19:17:28.8,35.90N×21.31E,h36^{km},MD3.6(ATH),After ATH.*

CSEM ***14*** *19:17:28.8,35.90N×21.31E,h36^{km},MD3.6/6,After ATH*

ATH 14 19:17:26.6,35.90N×21.35E,h17^{km}±3^{km},**MD3.5**/4, **Central Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	1.36	20	*e*PN	Pn	19 17 52.0	+1.0
ITM				*e*SN	Sn	19 18 11.2	+2.5
ITM	Ithomi	1.36	20	*e*Pn	Pn	19 17 50.5	-0.5
ITM				*e*Sn	Sn	19 18 11.2	+2.5
KYTH	Kithira	1.42	74	*e*PN	Pn	19 17 53.5	+1.7
VLI	Veliai	1.52	57	*e*PN	Pn	19 17 55.2	+1.9
VLS	Valsamata	2.35	345	*e*PN	Pn	19 18 07.3	+2.1
NSAL	Nisos Salamina	2.62	40	*e*Pb	Pb	19 18 15.2	+2.4
EVR	Evrytania	3.03	7	*e*Pb	Pb	19 18 19.0	-0.8

ISC 14 19:37:47.5±2.6,**37.26N**±0.09×**72.3E**±0.4,**h167**^{km}±20^{km}, **n21,σ0^{s}52**/23,**Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	4.99	12	P	P	19 39 01.3	-0.5
	SNR=70						
UCH	Uchtor	5.26	19	P	P	19 39 05.5	+0.1
	SNR=41						
KZA	Kyzart	5.34	25	P	P	19 39 06.4	0.0
	SNR=7.4						
EKS2	Erkin-Say	5.52	12	P	P	19 39 08.1	-0.7
	SNR=26						
THN	Thein Dam	5.59	148	*e*P	P	19 39 09.9	+0.3
	2.6nm,0.3s						
THN				*e*S	S	19 40 13.6	+0.2
DLH	Dalhousie	5.60	146	*e*S	S	19 40 13.0	-0.8
AAK	Ala-Archa	5.64	17	P	P	19 39 10.6	+0.2
	SNR=41						
KBK	Karagaybulak	5.78	20	P	P	19 39 12.4	+0.3
	SNR=14						
ULHL	Ulahol	5.85	30	P	P	19 39 14.2	+1.1
	SNR=7.8						
CHMS	Chumysh	6.04	18	P	P	19 39 15.6	-0.1
	SNR=14						
TKM2	Tokmak 2	6.21	23	P	P	19 39 18.1	+0.2
	SNR=14						
USP	Ospenovka	6.24	15	P	P	19 39 17.6	-0.8
	SNR=6.0						
SDNR	Sundarnagar	6.93	145	*e*P	P	19 39 28.8	+1.2
	278nm,0.2s						
SDNR				*e*S	S	19 40 45.2	-0.3
DDI	Dehra Dun	8.43	143	*e*S	S	19 41 15.6	-5.4
AJM	Ajmer	10.93	169	*e*P	P	19 40 30.2	+10
AJM				AMb	AMB	19 40 34.6	
	comp=Z,7.8nm,0.1s						
KOLN	Koldanda	13.44	131	*e*P	P	19 40 52.0	-0.4
	comp=Z,6.4nm,0.4s						
GKN	Gorkha	13.91	128	*e*P	P	19 40 58.8	+0.4
	comp=Z,14nm,0.3s						
KKN	Kakani	14.47	127	*e*P	P	19 41 05.2	-0.2
	comp=Z,14nm,0.5s						
DMN	Daman	14.48	128	*e*P	P	19 41 05.2	-0.4
	comp=Z,11nm,0.4s						
PKI	Pulchoki	14.70	127	*e*P	P	19 41 08.3	0.0
	comp=Z,7.7nm,0.6s						
GUN	Gumba	14.77	125	*e*P	P	19 41 09.5	+0.3
	comp=Z,9.1nm,0.4s						

IDC ***14*** *20:00:02.8±1.1,7.62N×121.95E,mb3.7/6,mb1 3.9/6, mb1mx3.7/20,MS3.4/1,Ms1 3.4/1,ms1mx2.7/21,Error ellipse: s-maj=116.0km s-min=19.5km az=64.0*

ISC 14 20:00:05.7±0.8,**7.61N**±0.09×**121.95E**±0.08,**h33**^{km},**n15, σ0^{s}63**/16,**mb3.7**/6,**MS3.3**/1,**1D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAGZ	Pagadian	1.44	80	*e*P	P	20 00 29.6	0.0
PAGZ				*e*S	S	20 00 47.7	+0.2
CTBH	Cotabato--PC H	2.31	99	*e*P	P	20 00 41.7	-0.4
CTBH				*i* S	S	20 01 16.4	+6.7
CTBH	Cotabato--PC H	2.31	99	⇓*e*P	P	20 00 33.2	-8.9
TBP	Tagbilaran	2.80	42	*e*P	P	20 00 48.8	-0.4
BUKP	Musuan	3.10	85	*e*P	P	20 01 01.4	+8.1
KCP	Kidapawan	3.17	101	*e*P	P	20 00 45.7	-8.7
MSLP	Maasin	3.82	49	*e*P	P	20 01 07.7	+4.1
MATI	Mati	4.32	98	*e*P	P	20 01 04.3	-6.4
WRA	Warramunga Arr	29.97	156	P	P	20 06 12.4	-1.0
	0.6nm,0.6s,mb3.5,baz=338,slow=9.4,SNR=5.9						
JHJ	Hachijo jima 2	30.29	31	LR	LR	20 17 15.6	
	comp=Z,80nm,21.4s,MS3.3,baz=59,slow=34						
ASAR	Alice Springs	33.20	160	P	P	20 06 41.5	-0.3
	0.6nm,0.6s,mb3.7,baz=340,slow=7.4,SNR=9.6						
CTA	Charters Tower	36.46	139	P	P	20 07 10.0	+0.3
	1.8nm,0.8s,mb4.1,baz=282,slow=16,SNR=2.4						
SONM	Songino Array	42.22	344	P	P	20 07 57.6	+0.4
	0.6nm,0.8s,mb3.3,baz=149,slow=8.4,SNR=4.5						
STKA	Stephens Creek	43.52	155	P	P	20 08 09.3	+1.2
	1.3nm,0.8s,mb3.7,baz=317,slow=13,SNR=3.2						
BVAR	Borovoye Array	61.51	327	P	P	20 10 21.3	-0.3
	0.7nm,0.8s,mb3.8,baz=115,slow=9.0,SNR=4.6						

LDG ***14*** *20:11:02.2±0.1,46.42N×7.07E,h2^{km},Md2.3/1,Ml2.0/6, Error ellipse: s-maj=2.9km s-min=1.1km az=87.0*

ZUR ***14*** *20:11:03.6,46.35N×6.82E,h2^{km},ML0.9/4*

ISC 14 20:11:04.0±0.7,**46.33N**±0.03×**6.79E**±0.04,**h2**^{km},**n14, σ0^{s}93**/23,**1C-2D,Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AIGLE	Aigle	0.12	83	⇓*i*Pg	Pg	20 11 05.9	-0.4
SALAN	Lac Salanfe	0.22	145	⇓*i*Pg	Pg	20 11 08.8	+0.3
SALAN				*i* Sg	Sg	20 11 12.7	+1.2
GRYON	Gryon	0.24	109	Pg	Pg	20 11 08.7	0.0
GRYON				*i* Sg	Sg	20 11 12.2	+0.3
EMV	Vieux Emosson	0.28	164	⇑*i*Pg	Pg	20 11 09.8	+0.3
SENIN	Lac Senin	0.36	84	*e*Pg	Pg	20 11 10.9	-0.2
SENIN				*e*Sg	Sg	20 11 15.6	-0.3
GIMEL	Gimel	0.42	300	*e*Pg	Pg	20 11 13.4	+1.1
CABF	La Chapelle	0.56	301	*e*Pg	Pg	20 11 15.5	+0.3
CABF				*e*Sg	Sg	20 11 24.9	+2.2
	21nm,0.8s						
LPL	La Plagne	0.81	183	*e*Pg	Pg	20 11 20.1	-0.1
LPL				*e*Sg	Sg	20 11 31.8	+0.8
	3.1nm,0.2s						
LPG	La Plagne	0.83	182	*e*Pg	Pg	20 11 20.4	-0.1
LPG				*e*Sg	Sg	20 11 32.7	+1.1
	7.9nm,0.4s						
HINF	Hinteralfeld	1.49	2	*e*Pg	Pg	20 11 28.3	-5.4
HINF				*e*Sg	Sg	20 11 46.5	-7.1
	2.5nm,0.3s						
ORIF	Oris-en-Rattie	1.55	205	*e*Pg	Pg	20 11 34.5	-0.3
ORIF				*e*Sg	Sg	20 11 55.5	0.0
	3.2nm,0.5s						
MBDF	Montbardon	1.60	180	*e*Pg	Pg	20 11 33.9	-2.0
MBDF				*e*Sg	Sg	20 11 55.8	-1.5
	2.9nm,0.5s						
HAU	Haudompre	1.71	350	*e*Sg	Sg	20 11 54.8	-6.0
	5.3nm,0.4s						
VIVF	Saint-Julien-l	2.09	226	*e*Pg	Pg	20 11 44.9	-0.8

LDG ***14*** *20:14:17.3±0.1,45.57N×2.87E,h7^{km},Md2.3/3,Ml1.9/9, Error ellipse: s-maj=1.1km s-min=0.9km az=101.0*

STR 14 20:14:17.5±0.3,**45.56N×2.85E,h5**^{km}±1^{km},**Ml2.0,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0,France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYM	Petit Puy Mans	0.22	30	Pg	Pg	20 14 22.7	+0.7
PYM				Sg	Sg	20 14 25.7	+0.7
VERF	Verneugheol	0.32	307	Pg	Pg	20 14 23.6	-0.3
VERF				Sg	Sg	20 14 28.0	-0.2
LBL	Lubilhac	0.43	139	Pg	Pg	20 14 26.4	+0.3
LBL				Sg	Sg	20 14 32.5	+0.6
AGO	Saint Agoulin	0.53	22	Pg	Pg	20 14 28.4	+0.3
COLF	Collangettes	0.59	94	Pg	Pg	20 14 28.4	-1.0
COLF				Sg	Sg	20 14 36.2	-1.2
CAF	Calviac	0.84	221	*e*Pg	Pg	20 14 33.5	-0.8
CAF				*e*Pn	Pn	20 14 34.2	-1.6
CAF				*e*Sg	Sg	20 14 44.4	-1.2
CAF				*e*Sn	Sn	20 14 46.2	-2.4
	3.0nm,0.2s						
TCF	Toulx Ste Croi	0.85	329	*e*Pg	Pg	20 14 33.5	-1.1
TCF				*e*Sg	Sg	20 14 44.4	-1.6
	3.1nm,0.2s						
RJF	Les Rejaudoux	0.97	255	*e*Pg	Pg	20 14 36.0	-0.9
RJF				*e*Pn	Pn	20 14 36.3	-1.4
RJF				*e*Sg	Sg	20 14 49.0	-0.9
	2.9nm,0.3s						
BGF	Bois d'Agland	1.00	360	*e*Pg	Pg	20 14 36.1	-1.3
BGF				*e*Sg	Sg	20 14 48.8	-2.0
	12nm,0.3s						
AVF	Avril sur Loir	1.28	16	*e*Pg	Pg	20 14 41.0	-2.1
AVF				*e*Sg	Sg	20 14 57.2	-2.9
	1.2nm,0.2s						
SMF	Signal de Mont	1.29	32	*e*Pg	Pg	20 14 40.3	-2.9
SMF				*e*Sg	Sg	20 14 56.7	-3.6
	1.9nm,0.2s						
VIVF	Saint-Julien-l	1.47	118	*e*Pg	Pg	20 14 44.7	-2.1
VIVF				*e*Sg	Sg	20 15 02.4	-4.0
	2.1nm,0.2s						
SSF	Saint Saulge	1.57	17	*e*Pg	Pg	20 14 46.2	-2.6
SSF				*e*Sg	Sg	20 15 06.5	-3.3
	0.7nm,0.2s						
LFF	La Frestale	1.61	248	*e*Sg	Sg	20 15 09.2	-2.1
	1.7nm,0.2s						
LASF	Ste Croix	1.65	154	*e*Pg	Pg	20 14 48.2	-2.2
LASF				*e*Sg	Sg	20 15 09.2	-3.2
	1.7nm,0.3s						
HYF	Humbligny	1.71	355	*e*Sg	Sg	20 15 11.3	-3.3
MFF	Saint Martin d	2.33	298	*e*Pg	Pg	20 15 00.3	-3.7

IDC ***14*** *20:40:49.7±0.8,55.08S×158.33E,mb4.4/10,mb1 4.5/11, mb1mx4.5/13,ML4.1/1,MS4.3/9,Ms1 4.2/9,ms1mx3.7/18, Error ellipse: s-maj=26.7km s-min=17.6km az=77.0*

SYO ***14*** *20:40:49.9,54.96S×158.72E,h10^{km},MB4.7*

NEIC ***14*** *20:40:51.0±0.5,55.04S×158.38E,h10^{km},mb4.7/7,Error ellipse: s-maj=14.8km s-min=9.4km az=82.0*

ISC 14 20:40:49.1±0.4,**54.97S**±0.06×**158.5E**±0.1,**h10**^{km},**n38, σ1^{s}28**/32,**mb4.6**/13,**MS4.2**/8,**2C-3D,Macquarie Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	Mavora Lakes	11.44	37	P	P	20 43 33.7	-1.8
TUZ	Tuapeka	11.46	43	P	P	20 43 33.1	-2.7
JCZ	Jackson Bay	12.76	36	P	P	20 43 53.5	+0.2
RPZ	Rata Peaks	13.89	41	Pn	P	20 44 08.1	-0.1
	1.0nm,0.3s,baz=228,slow=22,SNR=3.1						
RPZ				LR	LR	20 48 41.3	
	comp=Z,1µm,19.4s,baz=190,slow=34						
URZ	Urewera	20.93	45	P	P	20 45 35.3	+1.1
	21nm,0.8s,baz=254,slow=7.8,SNR=6.1						
URZ				LR	LR	20 54 02.6	
	comp=Z,1µm,18.5s,MS4.3,baz=210,slow=38						
VNDA	Vanda	22.68	178	P	P	20 45 51.3	0.0
	8.0nm,0.9s,mb4.1,baz=356,slow=9.6,SNR=14						
VNDA	Vanda	22.68	178	*e*P	P	20 45 50.0	-1.3
	67nm,1.8s,mb4.8						
STKA	Stephens Creek	26.00	326	*e*P	P	20 46 25.5	+1.8
	5.0nm,0.7s,mb4.2						
STKA	Stephens Creek	26.00	326	P	P	20 46 24.7	+1.0
	6.3nm,0.7s,mb4.2,baz=158,slow=9.7,SNR=14						
STKA				LR	LR	20 55 03.0	
	comp=Z,483nm,21.0s,MS4.0,baz=312,slow=33						
QSPA	South Pole Qui	35.14	180	⇓*i*P	P	20 47 44.9	+0.6
	13nm,0.9s,mb4.9						
CTA	Charters Tower	36.04	340	P	P	20 47 53.4	+1.0
	4.5nm,0.8s,mb4.4,baz=197,slow=13,SNR=2.7						
CTA				LR	LR	20 59 37.6	
	comp=Z,463nm,19.1s,MS4.3,baz=167,slow=31						
CTAO	Charters Tower	36.04	340	P	P	20 47 51.5	-1.0
	20nm,1.2s,mb4.9						
ASAR	Alice Springs	36.21	320	P	P	20 47 54.1	+0.3
	6.6nm,0.8s,mb4.6,baz=157,slow=8.4,SNR=38						
ASAR				LR	LR	21 00 51.2	
	comp=Z,249nm,18.9s,MS4.0,baz=133,slow=33						
ASPA	Alice Springs	36.21	320	*e*P	P	20 47 54.1	+0.3
NWAO	Narrogin (SRO)	36.24	290	P	P	20 47 53.8	-0.3
	8.7nm,0.9s,mb4.7,baz=126,slow=23,SNR=2.5						
WB2	Warramunga Arr	39.46	323	*e*P	P	20 48 20.4	-0.8
WRA	Warramunga Arr	39.47	323	P	P	20 48 20.9	-0.3
	5.3nm,0.7s,mb4.4,baz=157,slow=7.1,SNR=47						
WRAB	Tennant Creek	39.47	323	*e*P	P	20 48 18.9	-2.3
	10nm,0.7s,mb4.7						
MAW	Mawson	42.87	214	P	P	20 48 47.9	-0.5
	3.0nm,0.8s,mb4.0,baz=119,slow=13,SNR=3.5						
MAW				LR	LR	21 06 02.1	
	comp=Z,240nm,18.6s,MS4.1,baz=326,slow=35						
MAW	Mawson	42.87	214	*e*P	P	20 48 48.2	-0.3
	7.8nm,1.1s,mb4.3						
RAR	Rarotonga	45.94	60	LR	LR	21 04 39.8	
	comp=Z,389nm,19.3s,MS4.4,baz=330,slow=31						
PMG	Port Moresby	46.33	344	P	P	20 49 18.7	+1.7
	7.8nm,0.8s,mb4.7,baz=185,slow=5.3,SNR=5.9						
PMG				LR	LR	21 07 46.3	
	comp=Z,408nm,18.9s,MS4.4,baz=352,slow=35						
KAKA	Kakadu	46.83	324	*e*P	P	20 49 11.2	-10
	8.8nm,0.4s,mb5.0						
SYO	Syowa Base	48.57	205	⇓P	P	20 49 32.2	-1.6
SYO	Syowa Base	48.57	205	⇓pP	pP	20 49 34.9	-1.9
TBI	Tubuai	49.61	72	*e*S	S	20 56 53.1	+3.6
TBI				*e*LR	LR	21 03 37.4	
	462nm,30.8s,baz=212						
SNAA	Sanae	52.98	187		P	20 50 07.2	-0.1
VNA3	Neumayer Olymp	53.81	185	⇑*i*	P	20 50 14.9	+1.5
VNA2	Neumayer--Watz	54.01	186		P	20 50 12.8	-2.0
PPT	Papeete	54.24	68	*e*S	S	20 57 56.2	+3.2
PPT				*e*LR	LR	21 05 44.3	
	848nm,27.0s,baz=218						
VNA1	Neumayer--Stat	54.33	185	⇑*i*	P	20 50 20.2	+3.0
TRQA	Tornquist	81.07	149	*e*P	P	20 53 04.6	-0.7
	13nm,1.1s,mb4.8						
CMAR	Chiang Mai Arr	88.84	305	P	P	20 53 45.9	+1.3
	1.5nm,1.0s,mb4.3,baz=173,slow=3.7,SNR=6.9						
CMAR				LR	LR	21 30 33.8	
	comp=Z,81nm,19.3s,MS4.2,baz=175,slow=34						
CPUP	Villa Florida	93.39	148	P	P	20 54 06.4	+0.9
	0.0nm,0.3s,baz=214,slow=11,SNR=1.8						
ILAR	Eielson Array	126.52	26	PKP	PKPdf	20 59 52.3	-1.9
	1.5nm,1.1s,baz=299,slow=3.2,SNR=5.7						
INK	Inuvik	132.69	28	PKP	PKPdf	21 00 07.0	+0.9
	2.2nm,1.1s,baz=220,slow=3.4,SNR=3.5						
YKA	Yellowknife Ar	135.16	41	PKP	PKPdf	21 00 09.9	-0.9
	0.3nm,0.4s,baz=223,slow=3.9,SNR=4.0						
AKASG	Malin Array Be	149.62	283	PKPbc	PKPdf	21 00 37.8	+1.8
	0.8nm,0.6s,baz=93,slow=2.5,SNR=5.9						

NEIC ***14*** *20:41:24.4±1.2,21.30S×178.64W,h523^{km}±15^{km},mb4.1/5, Error ellipse: s-maj=16.3km s-min=11.3km az=133.0*

IDC ***14*** *20:41:30.3±2.1,21.41S×178.86W,h584^{km}±24^{km},mb3.5/9, mb1 3.6/10,mb1mx3.5/17,Error ellipse: s-maj=19.1km s-min=14.6km az=168.0*

ISC 14 20:41:23.1±1.5,**21.3S**±0.1×**178.7W**±0.1,**h514**^{km}±22^{km}, **n25,σ0^{s}75**/20,**mb4.1**/14,**1D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	9.88	43	⇓*e*P	P	20 43 40.7	+0.1
URZ	Urewera	17.28	191	P	P	20 44 55.2	-0.4
	3.9nm,0.3s,baz=354,slow=2.9,SNR=14						
URZ				S	S	20 47 21.2	-26
	1.2nm,0.3s,baz=134,slow=19,SNR=5.8						

RPZ	Rata Peaks	23.92	199	P	P	20 45 57.9	+0.4
	3.9nm,0.4s,mb4.4,baz=231,slow=4.5,SNR=2.7						
CTA	Charters Tower	32.77	266	P	P	20 47 15.2	+0.6
	4.8nm,0.4s,mb4.3,baz=95,slow=10,SNR=18						
PMG	Port Moresby	34.89	285	P	P	20 47 33.4	+1.0
	27nm,0.7s,mb4.9,baz=96,slow=5.3,SNR=21						
STKA	Stephens Creek	36.85	245	P	P	20 47 49.1	+0.6
	1.2nm,0.4s,mb3.8,baz=122,slow=17,SNR=5.3						
ASAR	Alice Springs	43.70	258	P	P	20 48 43.5	-0.2
	7.5nm,0.6s,mb4.4,baz=92,slow=8.4,SNR=42						
ASAR				PcP	PcP	20 50 17.7	-2.3
	1.3nm,0.7s,baz=120,slow=3.9,SNR=5.1						
ASAR				S	S	20 54 32.1	-4.4
	2.4nm,0.8s,baz=92,slow=16,SNR=12						
ASPA	Alice Springs	43.70	258	*e*P	P	20 48 43.6	-0.1
WB2	Warramunga Arr	43.83	263	*e*P	P	20 48 44.1	-0.7
WRAB	Tennant Creek	43.84	263	*e*P	P	20 48 44.0	-0.8
	12nm,0.6s,mb4.6						
WRA	Warramunga Arr	43.84	263	P	P	20 48 44.3	-0.5
	3.3nm,0.3s,mb4.3,baz=94,slow=7.7,SNR=52						
WRA				S	S	20 54 32.8	-5.9
	1.1nm,0.8s,baz=97,slow=14,SNR=5.6						
MBWA	Marble Bar	57.04	258	*e*P	P	20 50 20.5	-1.3
	7.4nm,0.7s,mb4.0						
VNDA	Vanda	57.06	185	P	P	20 50 20.6	-0.6
	0.6nm,0.6s,mb3.0,baz=11,slow=12,SNR=3.7						
MAW	Mawson	80.59	200	*e*P	P	20 52 43.9	+1.7
	1.7nm,0.6s,mb3.6						
ENH	Enshi	85.95	305	P	P	20 53 10.2	+0.6
	5.7nm,0.9s,mb4.2						
MCK	McKinley	87.90	13	*e*P	P	20 53 17.5	-0.5
	1.5nm,0.6s,mb3.9						
ILAR	Eielson Array	89.24	13	P	P	20 53 23.6	-0.7
	0.6nm,0.6s,mb3.6,baz=226,slow=5.1,SNR=6.7						
CMAR	Chiang Mai Arr	89.77	290	P	P	20 53 28.8	+1.0
	1.4nm,0.8s,mb3.9,baz=127,slow=3.2,SNR=12						
ARCES	ARCESS Array B	129.59	349	PKP	PKPdf	20 59 32.9	+0.2
	2.9nm,0.9s,SNR=5.5						
FINES	FINESS Array B	136.35	343	PKP	PKPdf	20 59 43.9	-1.5
	3.7nm,0.9s,baz=135,slow=3.9,SNR=4.0						
AKASG	Malin Array Be	143.39	330	PKP	PKPdf	20 59 56.3	-1.8
	5.0nm,0.5s,baz=39,slow=4.5,SNR=5.3						
BRTR	Keskin Array B	146.88	311	PKPbc	PKPbc	21 00 07.7	+1.0
	1.9nm,0.7s,baz=121,slow=4.8,SNR=7.6						
CLL	Collm	148.69	346	*i* PKP1	PKPdf	21 00 12.4	+5.5
CLL				*i* PKP2	PKPab	21 00 18.5	-1.0
KHC	Kasperske Hory	150.56	343	*e*P	PKPdf	21 00 17.0	+7.1
GERES	GERESS Array B	150.78	343	PKPbc	PKPdf	21 00 17.8	+7.5
	1.2nm,0.7s,baz=45,slow=1.9,SNR=9.9						
GERES				PKPab	PKPab	21 00 27.9	-0.3
	0.2nm,0.4s,baz=72,slow=4.2,SNR=3.9						

IDC 14 20:44:05.4±4.2,31.77S×179.17W,mb4.0/4,mb1 4.1/4, mb1mx3.8/14,Error ellipse: s-maj=145.0km s-min=51.4km az=157.0,Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	33.07	282	P	P	20 50 44.7	-0.3
	2.6nm,0.8s,baz=70,slow=16,SNR=4.1						
STKA	Stephens Creek	33.22	259	P	P	20 50 44.9	-1.3
	1.9nm,0.8s,baz=88,slow=13,SNR=3.2						
ASAR	Alice Springs	42.06	269	P	P	20 51 58.2	-2.4
	1.1nm,0.7s,baz=105,slow=7.4,SNR=5.7						
WRA	Warramunga Arr	43.17	274	P	P	20 52 06.3	-3.5
	0.6nm,0.4s,baz=111,slow=8.0,SNR=5.3						
FINES	FINESS Array B	146.06	338	PKPbc	PKPbc	21 03 46.0	-0.7
	2.0nm,0.8s,baz=45,slow=2.0,SNR=3.7						

IDC 14 20:55:24.9±0.8, 17.24S×173.81W, mb4.2/11, mb1 4.4/12, mb1mx4.3/19, ML4.2/1, Error ellipse: s-maj=49.5km s-min=16.8km az=140.0

NEIC 14 20:55:25.7±0.5, 17.43S×173.58W, h10^{km}, mb4.4/1, Error ellipse: s-maj=19.6km s-min=11.4km az=146.0

ISC 14 20:55:28.5±0.7,17.3S±0.2×173.9W±0.2,h33^{km},n19, σ0^{s}81/18,mb4.1/12,Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	3.89	32	Pn	Pn	20 56 24.0	-3.6
RAR	Rarotonga	13.89	109	Pn	P	20 58 36.1	-9.3
	1.1nm,0.3s,baz=282,slow=11,SNR=3.6						
URZ	Urewera	22.37	199	P	P	21 00 24.4	-0.7
	5.5nm,0.4s,mb4.4,baz=331,slow=4.0,SNR=5.1						
STKA	Stephens Creek	42.73	242	P	P	21 03 24.7	+0.2
	0.8nm,0.6s,mb3.6,baz=58,slow=4.2,SNR=2.4						
STKA	Stephens Creek	42.73	242	P	P	21 03 24.7	+0.2
WB2	Warramunga Arr	48.98	258	*e*P	P	21 04 14.2	+0.1
WRAB	Tennant Creek	48.99	258	*e*P	P	21 04 13.4	-0.7
	2.3nm,0.6s,mb4.4						
WRA	Warramunga Arr	49.00	258	P	P	21 04 14.1	-0.1
	1.1nm,0.7s,mb4.0,baz=98,slow=6.6,SNR=37						
ASAR	Alice Springs	49.12	253	P	P	21 04 15.6	+0.4
	6.1nm,0.6s,mb4.8,baz=90,slow=8.4,SNR=121						
ASPA	Alice Springs	49.12	253	*e*P	P	21 04 15.7	+0.5
YBH	Yreka Blue Hor	75.35	37	P	P	21 07 10.4	-0.1
	3.8nm,0.7s,mb4.4,baz=333,slow=2.3,SNR=8.2						
NVAR	Mina Array Bea	76.01	42	P	P	21 07 14.2	-0.1
	2.0nm,0.2s,mb4.6,baz=225,slow=10,SNR=29						
TXAR	Lajitas Array	82.02	56	P	P	21 07 48.2	+1.1
	0.6nm,0.4s,mb3.9,baz=284,slow=5.2,SNR=3.9						
PDAR	Pinedale Array	83.94	42	P	P	21 07 56.3	-0.4
	1.8nm,0.8s,mb4.2,baz=205,slow=3.2,SNR=14						
ILAR	Eielson Array	84.34	11	P	P	21 07 56.5	-1.6
	1.2nm,1.1s,mb4.0,baz=212,slow=6.3,SNR=4.8						
INK	Inuvik	90.17	14	P	P	21 08 26.8	+0.6
	0.7nm,0.9s,mb4.0,baz=200,slow=11,SNR=2.8						
YKA	Yellowknife Ar	91.97	24	P	P	21 08 36.0	+1.3
	0.1nm,0.4s,mb3.5,baz=240,slow=5.0,SNR=4.0						
YKA	Yellowknife Ar	91.97	24	P	P	21 08 36.0	+1.3
GERES	GERESS Array B	147.89	351	PKPbc	PKPdf	21 15 11.7	+4.6
	0.3nm,0.7s,baz=333,slow=2.2,SNR=3.8						

CASC 14 21:07:06.1±2.8, 13.92N×91.28W, h8^{km}±14^{km}, MD3.8, ML4.2

IDC 14 21:07:14.2±8.2, 14.40N×90.88W, h138^{km}±54^{km}, mb3.2/4, mb1 3.6/6, mb1mx3.3/20, MS3.4/1, Ms1 3.5/1, ms1mx2.2/14, Error ellipse: s-maj=70.8km s-min=42.1km az=174.0

ISC 14 21:07:04.7±0.8,14.08N±0.08×91.47W±0.05,h80^{km}±5^{km}, n23,σ0^{s}95/33,mb3.7/4,4C-3D,Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAT	Jato	0.28	325⇑	*e*P	P	21 07 17.2	+0.1
JAT				*e*S	S	21 07 26.5	+0.3
FUG	Fuego 3	0.71	59⇓	*e*P	P	21 07 19.8	-0.9
TP2	Tecpan 2	0.82	32⇓	*e*P	P	21 07 22.4	+0.4
TP2				*e*S	S	21 07 35.1	+0.4
PCG	Pacaya	0.89	70⇑	*e*P	P	21 07 22.5	-0.2
PCG				*e*S	S	21 07 34.4	-1.8
IXG	Ixpaco	0.99	85⇓	*e*P	P	21 07 22.9	-1.0
IXG				*e*S	S	21 07 33.9	-4.3
GCG	Guatemala City	1.04	61	*e*P	P	21 07 24.3	-0.1
GCG				*e*S	S	21 07 39.4	+0.1
NBG	Las Nubes	1.20	65⇑	*e*P	P	21 07 27.0	+0.5
NBG				*e*S	S	21 07 44.3	+1.4
RBDL	Robledal	1.73	89	*e*P	P	21 07 33.1	-0.5
RTR	El Retiro	1.78	96⇑	*e*P	P	21 07 33.9	-0.3
RTR				*e*S	S	21 07 57.7	+1.7
SBLS	San Blas	1.81	97	*e*P	P	21 07 34.3	-0.3
SBLS				*e*S	S	21 07 55.4	-1.2
SNJE	San Jose	1.82	96	*e*P	P	21 07 34.6	-0.2
SNJE				*e*S	S	21 07 57.3	+0.4
LFU	La Fuente	2.31	98	*e*P	P	21 07 41.5	-0.1
LFRS	El Faro	2.38	101	*e*P	P	21 07 42.6	0.0
LFRS				*e*S	S	21 08 09.1	-1.6
LCBS	La Ceiba	2.46	100	*e*S	S	21 08 14.4	+1.8
SNVI	San Vicente	2.60	100	*e*P	P	21 07 47.1	+1.6
SNVI				*e*S	S	21 08 16.3	+0.2
TEIG	Tepich	6.83	26	P	P	21 08 44.2	0.0
	8.3nm,0.3s,baz=127,slow=8.5,SNR=54						
TEIG				S	S	21 09 57.2	-3.9
	baz=348,slow=19,SNR=3.5						
TXAR	Lajitas Array	18.92	325	P	P	21 11 25.6	+3.8
	baz=152,slow=13,SNR=2.4						
NVAR	Mina Array Bea	33.93	321	P	P	21 13 45.8	+3.5
	1.9nm,0.8s,mb4.0,baz=146,slow=7.2,SNR=11						
LPAZ	La Paz	37.98	142	LR	LR	21 28 14.1	
	comp=Z,57nm,21.8s,baz=128,slow=33						
YKA	Yellowknife Ar	51.07	346	P	P	21 16 00.4	-0.4
	0.3nm,0.5s,mb3.6,baz=146,slow=7.9,SNR=6.7						
INK	Inuvik	60.51	343	P	P	21 17 07.5	-1.0
	0.5nm,0.7s,mb3.6,baz=135,slow=8.6,SNR=4.1						
ILAR	Eielson Array	62.97	337	P	P	21 17 25.3	+0.3
	0.3nm,0.6s,mb3.4,baz=158,slow=4.9,SNR=4.1						
CMAR	Chiang Mai Arr	146.08	342	PKPbc	PKPbc	21 26 38.5	+1.9
	2.5nm,0.9s,baz=337,slow=3.1,SNR=15						

IDC 14 21:13:58.6±14.0,22.77S×179.70W,h611^{km}±199^{km}, mb3.2/6,mb1 3.3/6,mb1mx3.1/15,Error ellipse: s-maj=91.0km s-min=44.3km az=56.0,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	31.76	268	P	P	21 19 35.2	-1.0
	3.4nm,0.4s,baz=104,slow=11,SNR=9.1						
PMG	Port Moresby	34.40	287	P	P	21 19 57.2	-1.1
	6.2nm,0.6s,baz=158,slow=4.1,SNR=6.0						
STKA	Stephens Creek	35.41	247	P	P	21 20 04.6	-1.9
	3.2nm,1.1s,baz=85,slow=12,SNR=5.5						
ASAR	Alice Springs	42.50	259	P	P	21 21 02.5	-1.2
	4.4nm,0.9s,baz=95,slow=8.1,SNR=34						
WB2	Warramunga Arr	42.76	265	*e*P	P	21 21 04.0	-1.7
WRA	Warramunga Arr	42.77	265	P	P	21 21 04.2	-1.6
	2.9nm,0.7s,baz=96,slow=8.3,SNR=55						
VNDA	Vanda	55.52	185	P	P	21 22 37.0	-2.0
	0.7nm,0.8s,baz=28,slow=7.2,SNR=3.8						

WEL 14 21:23:23.1±0.3,35.41S×178.39E,h186^{km}±10^{km},ML3.6/3, Error ellipse: s-maj=11.2km s-min=8.1km az=90.0,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	2.16	182	PN	P	21 24 02.5	-0.2
MXZ				SN	S	21 24 31.9	-1.2
MXZ				SN	S	21 24 32.3	-0.9
PUZ	Puketiti	2.67	182	PN	P	21 24 08.1	-0.5
PUZ				SN	S	21 24 42.3	-1.3
MWZ	Matawai	3.01	193	PN	P	21 24 12.6	-0.1
MWZ				SN	S	21 24 50.8	-0.1
URZ	Urewera	3.03	199	PN	P	21 24 12.4	-0.5
BKZ	Black Stump Fm	4.05	201	PN	P	21 24 24.9	-0.8
BFZ	Birch Farm	5.53	197	PN	P	21 24 41.7	-3.1
MRZ	Mangatainoka R	5.70	202	PN	P	21 24 43.5	-3.5
MRZ				SN	S	21 25 46.5	-5.6
KIW	Kapiti Island	6.10	206	*e*PN	P	21 24 48.1	-4.1

BJI 14 21:26:16.5, 5.84S×150.79E, h94^{km}, mB5.2, mb4.8

NEIC 14 21:26:17.1±0.4, 5.56S×150.49E, mb4.5/15, Error ellipse: s-maj=16.1km s-min=10.1km az=115.0

IDC 14 21:26:18.6±0.7, 5.63S×150.29E, h85^{km}±5^{km}, mb4.1/12, mb1 4.2/14, mb1mx4.2/17, MS3.5/6, Ms1 3.5/6, ms1mx3.2/14, Error ellipse: s-maj=18.0km s-min=10.4km az=115.0

ISC 14 21:26:15.2±1.6,5.53S±0.06×150.36E±0.08,h66^{km}±13^{km}, h77^{km}±1.2^{km}:pP-P,n42,σ1^{s}20/41,mb4.4/23,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	5.00	219	P	P	21 27 31.9	+2.5
	21nm,0.3s,baz=26,slow=4.6,SNR=43						
PMG				S	S	21 28 24.5	-1.9
	21nm,0.3s,baz=359,slow=23,SNR=17						
PMG	Port Moresby	5.00	219	*e*Pn	P	21 27 32.0	+2.6
CTA	Charters Tower	15.02	195	*e*P	P	21 29 49.6	+4.5
	16nm,1.1s						
CTA	Charters Tower	15.02	195	P	P	21 29 49.9	+4.8
	0.5nm,0.3s,baz=20,slow=13,SNR=12						
CTA				LR	LR	21 34 45.6	
	comp=Z,103nm,19.7s,baz=21,slow=34						
CTAO	Charters Tower	15.02	195	*e*P	P	21 29 50.0	+4.9
	62nm,1.3s						
KAKA	Kakadu	19.11	247	*e*P	P	21 30 34.2	-1.3
	77nm,1.6s						
WRAB	Tennant Creek	21.16	226	*e*P	P	21 30 56.7	-0.3
	21nm,0.8s,mb4.5						
WB2	Warramunga Arr	21.16	226	*e*P	P	21 30 56.9	-0.1
WB2				*e*S	S	21 34 45.5	+2.0
WRA	Warramunga Arr	21.17	226	P	P	21 30 57.1	0.0
	5.9nm,0.4s,mb4.3,baz=52,slow=11,SNR=117						
WRA				pP		21 31 12.3	
	7.6nm,0.5s,baz=50,slow=11,SNR=55						
WRA				S	S	21 34 45.4	+1.8
	1.3nm,1.1s,baz=41,slow=18,SNR=4.2						
WRA				ScP		21 38 29.3	
	3.8nm,0.7s,baz=40,slow=2.4,SNR=22						
DZM	Mont Dzumac	22.64	138	*e*P	P	21 31 12.6	+0.9
ASAR	Alice Springs	24.01	220	P	P	21 31 26.2	+1.3
	4.7nm,0.9s,mb3.8,baz=52,slow=8.9,SNR=49						
ASAR				pP		21 31 43.6	
	6.5nm,1.1s,baz=53,slow=8.9,SNR=10						
ASAR				S	S	21 35 33.8	-0.5
	0.3nm,0.5s,baz=51,slow=12,SNR=4.0						
ASAR				ScP		21 38 36.7	
	2.3nm,0.9s,baz=56,slow=3.4,SNR=14						
ASAR				LR	LR	21 41 24.2	
	comp=Z,22nm,19.2s,baz=204,slow=38						
ASPA	Alice Springs	24.01	220	*e*P	P	21 31 26.1	+1.1
ASPA				*e*S	S	21 35 34.6	+0.3
STKA	Stephens Creek	27.47	196	*e*P	P	21 31 56.0	-1.3
	5.0nm,0.5s,mb4.3						
STKA	Stephens Creek	27.47	196	P	P	21 31 56.3	-1.0
	6.1nm,0.5s,mb4.4,baz=358,slow=9.1,SNR=23						
STKA				pP	pP	21 32 13.8	+0.7
	6.7nm,0.9s,baz=11,slow=12,SNR=5.4						
STKA				LR	LR	21 42 17.5	
	comp=Z,105nm,21.8s,baz=198,slow=35						
MBWA	Marble Bar	33.51	239	*e*P	P	21 32 49.4	-1.3
	15nm,0.8s,mb4.9						
URZ	Urewera	40.64	147	P	P	21 33 50.6	+0.2
	6.4nm,0.7s,mb4.6,baz=351,slow=5.3,SNR=6.0						
URZ				LR	LR	21 46 57.3	
	comp=Z,130nm,18.5s,baz=150,slow=30						
RPZ	Rata Peaks	42.17	158	P	P	21 34 03.0	0.0
	7.0nm,0.8s,mb4.4,baz=234,slow=12,SNR=3.2						
RPZ				LR	LR	21 47 49.2	
	comp=Z,166nm,19.4s,baz=25,slow=31						
ENH	Enshi	52.91	315	*e*P	P	21 35 26.6	-0.4
	7.5nm,0.6s,mb4.9						
KMI	Kunming	55.41	306	*e*P	P	21 35 47.3	+1.9
KMI				AP	pP	21 36 06.4	+3.7
KMI				AMB	AMB		
	comp=Z,3.0nm,2.0s,mb4.0						
KMI				LR	LR		
	comp=Z,46nm,31.3s						
HIA	Hailar	60.74	338	*e*P	P	21 36 23.6	+1.3
	comp=Z,11nm,0.7s,mb5.0						
HIA				*e*	pP	21 36 44.4	+4.5
ULN	Ulaanbaatar	65.36	329	*e*P	P	21 36 54.6	+1.8
	comp=Z,2.0nm,0.4s,mb4.3						
SONM	Songino Array	65.67	329	P	P	21 36 56.4	+1.5
	comp=Z,2.0nm,0.4s,mb4.3,baz=146,slow=5.8,SNR=40						
SONM				pP	pP	21 37 17.5	+4.9
	comp=Z,1.9nm,1.0s,baz=146,slow=4.2,SNR=6.0						
CASY	Casey	66.62	196	*e*P	P	21 36 56.4	-4.2
	comp=Z,16nm,0.9s,mb4.8						
VNDA	Vanda	72.21	177	P	P	21 37 34.4	-0.2
	comp=Z,2.5nm,0.7s,mb4.2,baz=322,slow=7.7,SNR=18						
VNDA				pP	pP	21 37 54.2	+1.6
	comp=Z,1.7nm,0.9s,baz=336,slow=6.5,SNR=3.8						
VNDA	Vanda	72.21	177	*e*P	P	21 37 33.8	-0.8
	comp=Z,3.7nm,0.8s,mb4.3						
VNDA				*e*	pP	21 37 53.6	+1.0
ZAL	Zalesovo	80.43	327	P	P	21 38 20.0	-1.2
	comp=Z,1.1nm,0.6s,mb3.9,baz=359,slow=6.0,SNR=8.7						
MCK	McKinley	82.47	23	*e*P	P	21 38 31.0	-0.6
	comp=Z,5.1nm,0.9s,mb4.3						
AAK	Ala-Archa	83.41	314	*e*P	P	21 38 35.5	-1.4
	comp=Z,1.2nm,0.6s,mb3.9						
ILAR	Eielson Array	83.75	23	P	P	21 38 37.0	-1.1
	comp=Z,2.7nm,0.8s,mb4.1,baz=262,slow=5.8,SNR=17						
MAW	Mawson	83.97	203	P	P	21 38 38.7	-0.4
	comp=Z,3.0nm,0.9s,mb4.1,baz=269,slow=22,SNR=4.8						
MAW				LR	LR	22 11 46.9	
	comp=Z,38nm,18.1s,baz=248,slow=32						
QSPA	South Pole Qui	84.44	180	*e*P	P	21 38 41.3	0.0
	comp=Z,9.3nm,0.1s,mb5.6						
QSPA				*e*	pP	21 39 02.0	+2.3
DAWY	Dawson	86.44	24	*e*P	P	21 38 49.9	-1.5
CHKZ	Chkalovo	88.37	324	*e*P	P	21 38 59.8	-1.1
	comp=Z,2.7nm,0.9s,mb4.3						
INK	Inuvik	90.00	21	P	P	21 39 08.1	-0.3
	comp=Z,1.4nm,0.8s,mb4.1,baz=202,slow=3.6,SNR=4.3						
INK	Inuvik	90.00	21	*e*P	P	21 39 07.3	-1.0
	comp=Z,2.6nm,1.0s,mb4.3						
NVAR	Mina Array Bea	94.44	52	P	P	21 39 31.2	+1.8
	comp=Z,0.3nm,0.8s,mb3.7,baz=249,slow=7.7,SNR=3.9						
NVAR				pP	pP	21 39 52.8	+4.6
	comp=Z,0.4nm,0.7s,baz=302,slow=8.5,SNR=2.4						
SADO	Sadowa	121.84	40	PKP	PKPdf	21 45 01.4	-0.8
	comp=Z,5.8nm,0.8s,baz=244,slow=6.6,SNR=2.5						
GERES	GERESS Array B	123.37	327	PKP	PKPdf	21 45 04.4	-0.6
	comp=Z,0.4nm,0.7s,baz=225,slow=1.9,SNR=4.3						
LVC	Limon Verde	132.49	128	PKP	PKPdf	21 45 23.9	+0.7
	comp=Z,1.4nm,0.7s,baz=282,slow=21,SNR=2.5						
SDV	Santo Domingo	139.21	83	*e*PKPdf	PKPdf	21 45 35.0	-0.8
SAML	Samuel	143.60	113	*e*PKPdf	PKPdf	21 45 41.8	-1.7
BDFB	Brasilia	152.19	139	PKPbc	PKPdf	21 46 05.3	+7.9
	comp=Z,1.7nm,0.4s,baz=137,slow=3.9,SNR=3.3						

LDG 14 21:29:24.3±0.3, 15.72N×61.62W, h10^{km}, Mb4.6/18, Ms3.8/3, Error ellipse: s-maj=13.6km s-min=5.8km az=83.0

IDC 14 21:29:24.9±0.5, 15.74N×61.58W, mb4.2/23, mb1 4.4/24, mb1mx4.4/27, ML6.0/1, MS3.4/2, Ms1 3.5/2, ms1mx2.5/19, Error ellipse: s-maj=15.4km s-min=14.5km az=55.0

TRN 14 21:29:25.4, 15.76N×61.41W, h20^{km}, MD4.3

NEIC 14 21:29:26.7±0.2, 15.70N×61.56W, h10^{km}, mb4.6/21, Error ellipse: s-maj=6.5km s-min=5.0km az=156.0

NEIC Felt in northern Dominica.

BJI 14 21:29:26.6, 15.70N×61.60W, h10^{km}, mB5.2, Ms4.7, Msz4.4

ISC 14 21:29:27.2±0.4,15.76N±0.02×61.50W±0.05,h24^{km}±3^{km}, n98,σ0^{s}84/101,mb4.3/46,MS3.8/2,2C-5D,Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	Barber's Block	0.23	173	*e*P	Pb	21 29 32.0	-1.1
BBL	Barber's Block	0.23	173⇓	*i*P	Pb	21 29 33.1	-0.1
BBL				*e*S	Sb	21 29 36.5	-0.7
MGG	Marie-Galante	0.24	48	*i* P	Pb	21 29 32.2	-1.0
DBCT	Belle View Cho	0.51	163	*e*P	Pb	21 29 38.1	+0.7
DPMT	Pointe Michel	0.51	166	*e*P	Pb	21 29 38.3	+0.8
DFBT	Forest Bistro	0.53	165	*e*P	Pb	21 29 38.6	+0.7
DFBT				*e*S	Sb	21 29 46.1	+0.9
DSTT	Stowe	0.54	160	*e*P	Pb	21 29 38.6	+0.6
DSTT				*e*S	Sb	21 29 46.0	+0.6
DSHT	Scott's Head	0.56	167	*e*P	Pb	21 29 39.0	+0.8
SEG	Port Louis	0.64	360⇑	*e*P	Pb	21 29 39.1	-0.6
DEG	La Desirade	0.69	37⇑	*i*P	Pb	21 29 39.3	-1.3
FDF	Fort de France	1.07	162⇓	*e*P	Pn	21 29 46.4	-0.5
FDF				*e*S	Sb	21 30 00.1	-0.5
CRM	Caravelle	1.15	150⇓	*e*P	Pn	21 29 46.9	-1.1
BIM	Bigot	1.30	161	*e*P	Pn	21 29 49.9	-0.3
BIM				*e*S	Sn	21 30 08.3	+1.4
BPA	Boggy Peak	1.32	345⇓	*i*P	Pn	21 29 51.2	+0.7
BPA				*e*S	Sn	21 30 08.8	+1.2
MVM	Montagne Vaucl	1.33	154⇓	*e*P	Pn	21 29 50.0	-0.6
MVM				*e*S	Sn	21 30 07.5	-0.1
CPB	Codrington	1.90	351	*e*P	Pn	21 29 59.1	+0.4
CPB				*e*S	Sn	21 30 24.0	+1.9
SABT	Saba	2.49	318	*e*P	Pn	21 30 07.7	+0.5
GRW	Mount Saint Ca	3.58	183	*e*P	Pn	21 30 24.0	+1.3
SJG	San Juan	5.03	298	Pn	Pn	21 30 42.2	-1.0
	10nm,0.3s,baz=162,slow=23,SNR=6.0						
SJG				Sn	Sn	21 31 46.1	+4.9
	16nm,0.3s,baz=323,slow=17,SNR=3.2						
SJG	San Juan	5.03	298	*e*Pn	Pn	21 30 41.4	-1.8
TRN	Trinidad (W)	5.08	179	*e*P	Pn	21 30 45.0	+1.1
TRN				*e*S	Sn	21 31 40.5	-2.1
SDV	Santo Domingo	11.23	234	*e*P	P	21 32 05.2	-4.4
ROSC	El Rosal	16.62	231	LR	LR	21 40 02.2	
	comp=Z,138nm,21.9s,baz=68,slow=38						
OTAV	Otavalo	22.76	229	*e*P	P	21 34 31.2	+2.0
	6.4nm,0.9s,mb4.0						
SAML	Samuel	24.60	184	*e*P	P	21 34 46.6	-0.6
	16nm,0.9s,mb4.5						
LPAZ	La Paz	32.51	192	P	P	21 35 57.6	-1.0
	0.6nm,0.6s,mb3.7,baz=268,slow=6.3,SNR=2.6						
LPAZ				LR	LR	21 49 34.2	
	comp=Z,69nm,18.4s,MS3.4,baz=61,slow=37						
LPAZ	La Paz	32.51	192	P	P	21 35 57.2	-1.3
	1.8nm,0.9s,mb4.0						
BDFB	Brasilia	33.92	156	P	P	21 36 10.8	-0.1
	3.1nm,0.7s,mb4.3,baz=323,slow=6.6,SNR=4.0						
WMOK	Wichita Mounta	38.37	307	P	P	21 36 44.4	-3.9
	2.7nm,0.9s,mb4.0						
SCHQ	Schefferville	39.21	355	P	P	21 36 55.1	-0.1
	1.3nm,0.7s,mb3.8,baz=42,slow=1.7,SNR=2.6						
TXAR	Lajitas Array	41.00	297	P	P	21 37 11.4	+1.2
	1.0nm,0.8s,mb3.5,baz=135,slow=8.8,SNR=4.0						
TXAR				PcP	PcP	21 39 11.2	+0.6
	1.1nm,0.7s,baz=135,slow=5.3,SNR=4.2						
CPUP	Villa Florida	42.03	174	P	P	21 37 17.5	-1.2
	0.0nm,0.3s,baz=173,slow=4.6,SNR=2.8						
CPUP	Villa Florida	42.03	174	P	P	21 37 17.5	-1.2
MNTX	Cornudas Mount	42.89	300	*e*P	P	21 37 25.1	-0.6
	2.2nm,0.5s,mb4.1						
ULM	Lac du Bonnet	44.18	329	P	P	21 37 35.0	-0.9
	1.8nm,0.5s,mb4.1,baz=124,slow=7.6,SNR=6.0						
PV01	Paradox Valley	46.91	308	P	P	21 37 58.0	+0.2
FRB	Frobisher Bay	48.19	356	P	P	21 38 07.0	-0.4
	2.1nm,0.6s,mb4.4,baz=222,slow=2.0,SNR=3.3						
PDAR	Pinedale Array	48.97	313	P	P	21 38 13.3	-0.4
	2.6nm,0.7s,mb4.4,baz=113,slow=9.6,SNR=23						
MSU	Marysvale	49.76	307	P	P	21 38 21.7	+1.8
AHID	Auburn Hatcher	50.05	313	P	P	21 38 21.1	-1.0
	7.9nm,0.9s,mb4.7						
QLMT	Earthquake Lak	50.90	315	*e*P	P	21 38 29.5	+1.0
EVO	Evora	51.92	53	*e*P	P	21 38 36.7	+0.3
	7.2nm,0.8s,mb4.4						
TPNV	Topopah Spring	52.65	305	P	P	21 38 42.4	+0.6
	2.2nm,0.9s,mb4.1						
NVAR	Mina Array Bea	54.47	306	P	P	21 38 55.0	-0.3
	0.7nm,0.7s,mb3.7,baz=100,slow=6.7,SNR=5.2						
DBIC	Dimbokro	56.15	93	P	P	21 39 07.6	-0.1
	6.5nm,0.8s,mb4.7,baz=274,slow=9.2,SNR=7.5						
ROSF	Rostrenen	57.36	42	*e*P	P	21 39 15.7	-0.2
SJPF	Ste Jean	57.76	49	*e*P	P	21 39 19.3	+0.5
	25nm,0.9s,mb5.0						
ETSF	Etsaut	58.22	49	*e*P	P	21 39 22.6	+0.6
YBH	Yreka Blue Hor	58.26	310	P	P	21 39 20.5	-1.8
	0.7nm,0.4s,mb4.0,baz=262,slow=4.8,SNR=3.4						
EPF	Esparros	58.89	49	*e*P	P	21 39 27.3	+0.6
	19nm,1.1s,mb4.8						
MFF	Saint Martin d	59.09	45	*e*P	P	21 39 28.2	+0.2
	6.3nm,0.7s,mb4.5						
FLN	La Foliniere	59.27	42	*e*P	P	21 39 29.1	-0.1
FLN				*e*R			
	106nm,22.8s						
EKA	Eskdalemuir Ar	59.32	34	P	P	21 39 28.1	-1.4
	2.5nm,0.7s,mb4.3,baz=297,slow=1.9,SNR=4.8						
LFF	La Frestale	59.44	47	*e*P	P	21 39 30.5	+0.1
LDF	La Druitiere	59.47	43	*e*P	P	21 39 30.4	-0.2
	11nm,0.8s,mb4.6						
YKA	Yellowknife Ar	59.51	334	P	P	21 39 28.9	-1.8
	1.4nm,0.5s,mb4.3,baz=107,slow=7.3,SNR=18						
RJF	Les Rejaudoux	60.03	47	*e*P	P	21 39 34.4	-0.1
	11nm,0.9s,mb4.6						
RJF				*e*R			
	206nm,19.8s						
MTLF	Montolieu	60.29	49	*e*P	P	21 39 36.2	-0.1
	13nm,0.9s,mb4.7						
CAF	Calviac	60.37	47	*e*P	P	21 39 36.8	0.0
TCF	Toulx Ste Croi	60.65	46	*e*P	P	21 39 38.7	0.0
	17nm,1.2s,mb4.8						
AVF	Avril sur Loir	61.49	45	*e*P	P	21 39 44.1	-0.3
	20nm,1.2s,mb4.8						
LASF	Ste Croix	61.55	48	*e*P	P	21 39 45.3	+0.5
SSF	Saint Saulge	61.63	45	*e*P	P	21 39 44.9	-0.5
	4.1nm,0.6s,mb4.5						
SMF	Signal de Mont	61.81	45	*e*P	P	21 39 46.2	-0.4
VIVF	Saint-Julien-l	62.20	47	*e*P	P	21 39 49.0	-0.2
SMRF	Simiane la Rot	62.77	48	*e*P	P	21 39 53.9	+0.9
	7.0nm,0.9s,mb4.5						
MEZF	Maizieres J'vi	62.85	43	*e*P	P	21 39 53.3	-0.1
GIVF	Givet	62.90	41	*e*P	P	21 39 53.3	-0.5
	11nm,0.8s,mb4.7						
ORIF	Oris-en-Rattie	63.06	47	*e*P	P	21 39 54.5	-0.4
ORIF				*e*R			
	110nm,18.4s						
LMR	La Mourre	63.41	49	*e*P	P	21 39 56.9	-0.3
	3.3nm,0.7s,mb4.3						
FRF	La Foret Royal	63.52	49	*e*P	P	21 39 57.7	-0.3
	5.7nm,0.6s,mb4.5						

MBDF	Montbardon	63.68	48	*e*P	P	21 39 59.6	+0.6
	7.5nm,0.7s,mb4.5						
LPL	La Plagne	63.71	47	*e*P	P	21 40 00.0	+0.8
	8.8nm,1.0s,mb4.4						
LPG	La Plagne	63.72	47	*e*P	P	21 40 00.2	+1.0
HINF	Hinteralfeld	63.97	44	*e*P	P	21 40 00.1	-0.8
	6.4nm,0.7s,mb4.5						
SBF	Sospel	64.11	49	*e*P	P	21 40 01.8	0.0
CDF	Champ du Feu	64.31	44	*e*P	P	21 40 02.6	-0.5
PGF	Pioggiola	65.21	50	*e*P	P	21 40 08.7	-0.3
DAVOX	Davos	65.96	45	P	P	21 40 15.0	+1.3
	2.6nm,0.7s,mb4.4,baz=264,slow=17,SNR=3.8						
NB2	NORSAR Subarra	67.97	30	P	P	21 40 26.8	+0.6
	5.6nm,0.8s,mb4.7,baz=263,slow=6.5						
NOA	NORSAR Array B	67.97	30	P	P	21 40 27.0	+0.7
	4.2nm,0.8s,mb4.5,baz=262,slow=6.3,SNR=7.6						
NOA	NORSAR Array B	67.97	30	P	P	21 40 27.0	+0.7
GERES	GERESS Array B	68.59	43	P	P	21 40 30.0	-0.2
	1.0nm,0.6s,mb3.9,baz=270,slow=5.3,SNR=11						
INK	Inuvik	68.83	338	P	P	21 40 29.6	-1.9
	3.4nm,0.8s,mb4.3,baz=96,slow=6.1,SNR=9.3						
VRAC	Vranov	70.48	43	P	P	21 40 42.0	+0.2
	4.3nm,1.0s,mb4.3,baz=271,slow=21,SNR=5.5						
DAWY	Dawson	70.66	333	*e*P	P	21 40 42.4	-0.3
ILAR	Eielson Array	73.92	334	P	P	21 41 00.8	-1.0
	1.9nm,1.0s,mb4.0,baz=93,slow=4.4,SNR=10						
ARCES	ARCESS Array B	74.32	21	P	P	21 41 04.8	+0.7
	3.9nm,0.8s,mb4.4,baz=252,slow=7.7,SNR=4.2						
FINES	FINESS Array B	75.15	30	P	P	21 41 09.4	+0.3
	4.2nm,0.7s,mb4.5,baz=225,slow=2.7,SNR=11						
MLR	Muntele Rosu	77.17	46	P	P	21 41 21.8	+1.0
	5.4nm,1.0s,mb4.4,baz=92,slow=4.2,SNR=4.9						
AKASG	Malin Array Be	78.43	40	P	P	21 41 27.6	0.0
	1.3nm,0.6s,mb4.1,baz=278,slow=4.6,SNR=7.5						
BRTR	Keskin Array B	83.96	51	P	P	21 41 57.5	+0.5
	1.6nm,0.7s,mb4.2,baz=283,slow=3.9,SNR=6.2						
WMQ	Urumqi	114.36	24	PKP	PKPdf	21 48 08.4	-1.3
WMQ				XPKP		21 48 15.4	
WMQ				PP	PP	21 49 10.4	+4.2
WMQ				LR	LR		
	comp=N,36nm,20.0s,MS4.4						
WMQ				LR	LR		
	comp=E,74nm,16.6s,MS4.4						
WMQ				LR	LR		
	comp=Z,36nm,14.2s,MS4.1						
MDJ	Mudanjiang	119.07	351	PKP	PKPdf	21 48 12.5	-6.3
CN2	Changchun	120.39	354	*e*PKP	PKPdf	21 48 20.1	-1.3
STKA	Stephens Creek	153.56	229	PKPbc	PKPdf	21 49 26.0	+5.0
	comp=Z,3.7nm,1.0s,baz=292,slow=14,SNR=4.7						
ASAR	Alice Springs	163.51	239	PKP	PKPdf	21 49 29.9	-3.1
	comp=Z,1.2nm,0.7s,baz=102,slow=1.5,SNR=11						
ASAR				PKPab	PKPab	21 50 21.1	-1.0
	comp=Z,1.6nm,0.7s,baz=119,slow=4.2,SNR=9.9						
WRA	Warramunga Arr	164.36	252	PKP	PKPdf	21 49 29.5	-4.4
	comp=Z,1.4nm,0.7s,baz=201,slow=0.1,SNR=10						
WRA				PKPab	PKPab	21 50 25.3	-0.6
	comp=Z,0.9nm,1.0s,baz=116,slow=4.1,SNR=4.8						

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*NEIC **14** 21:35:27.5, 40.30N×20.66E, h5^{km}, mb3.9/2, MD3.7(ATH), MD3.2(PDG), After ATH.*

*ATH **14** 21:35:27.5, 40.29N×20.68E, h5^{km}, MD3.7/8*

*TIR **14** 21:35:27.4, 40.27N×20.67E, h33^{km}, Ml3.5*

*CSEM **14** 21:35:29.8±0.1, 40.28N×20.63E, h2^{km}, mb3.7/1, Error ellipse: s-maj=2.6km s-min=2.2km az=169.0*

*PDG **14** 21:35:30.6±0.2, 40.02N×20.27E, h11^{km}±1^{km}*

*THE **14** 21:35:30.5, 40.23N×20.76E, h10^{km}, ML3.4*

*IDC **14** 21:35:35.9±1.8, 40.15N×20.66E, h86^{km}±28^{km}, mb3.4/4, mb1 3.5/8, mb1mx3.3/23, Error ellipse: s-maj=41.1km s-min=14.1km az=54.0*

ISC 14 21:35:29.7±0.2**, 40.18N**±0.01×**20.71E**±0.02**, h5^{km}, n90, σ1^{s}34**/133**, mb3.7**/3**, 6C, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBN	Korca	0.45	8	*e*Pg	Pg	21 35 36.7	-1.9
KBN				*i* Sg	Sg	21 35 43.4	-1.2
JAN	Janina	0.53	168	*e*PG	Pg	21 35 39.7	-0.7
JAN				*e*SB	Sb	21 35 49.3	+0.5
TPE	Tepelena	0.55	282	*i* Pg	Pg	21 35 38.9	-1.7
TPE				*i* Sg	Sg	21 35 47.9	0.0
TPE	Tepelena	0.55	282	*e*Pg	Pg	21 35 38.9	-1.7
TPE				*i* Sg	Sg	21 35 47.9	0.0
MEV	Metsovon	0.56	134	*e*Pg	Pg	21 35 40.7	-0.3
MEV				*e*Sg	Sg	21 35 49.6	+1.1
SRN	Sarande	0.62	241	*i* Pg	Pg	21 35 41.1	-1.0
SRN				*i* Sg	Sg	21 35 50.8	+0.4
IGT	Igoumenitsa	0.71	204	*e*Pg	Pg	21 35 44.4	+0.6
IGT				*e*Sg	Sg	21 35 56.2	+2.9
FNA	Florina	0.79	40	*e*Pg	Pg	21 35 43.7	-1.8
	comp=Z,32nm,0.4s						
FNA				*e*Sg	Sg	21 35 55.3	-0.7
KZN	Kozani	0.82	81	*e*PB	Pb	21 35 44.3	-1.8
KEK	Kerkira	0.84	237	*e*PB	Pb	21 35 44.8	-1.6
OHR	Ohrid	0.93	4	*e*Pn	Pn	21 35 45.8	-3.4
OHR				*e*		21 35 48.0	
OHR				*e*Sn	Sn	21 36 02.7	-0.4
OHR	Ohrid	0.93	4	*e*Sn	Sn	21 36 02.7	-0.4
BIA	Bitola	0.96	29	*i* Pg	Pg	21 35 46.5	-2.4
BIA				*i*		21 35 48.9	
BIA				*i* Sg	Sg	21 36 02.5	+0.8
BIA	Bitola	0.96	29	*i* Pg	Pg	21 35 46.5	-2.4
BIA				*i* Sg	Sg	21 36 02.5	+0.8
TIR	Tirane	1.33	332	*e*Pn	Pn	21 35 50.0	-4.9
TIR				*i* Sn	Sn	21 36 17.0	+3.8
TIR	Tirane	1.33	332	*i* Sn	Sn	21 36 17.0	+3.8
LIT	Litokhoron	1.37	93	*e*Pb	Pb	21 35 54.8	-0.6
LIT				*e*Sb	Sb	21 36 15.8	+2.7
LKD	Levkas	1.47	182	*e*Pb	Pb	21 35 59.3	+2.1
	comp=Z,15nm,0.5s						
LKD				*e*Sb	Sb	21 36 20.3	+4.2
QSH	Qafa e Shtames	1.47	336	*i* pn?	Pn	21 36 02.0	+5.0
PRZA	Preza	1.48	328	*e*pn?	Pn	21 36 05.2	+8.2
GRG	Griva	1.51	58	*e*Pb	Pb	21 35 57.0	-0.8
GRG				*e*Sb	Sb	21 36 18.3	+1.2
EVR	Evrytania	1.52	146	*e*PG	Pg	21 35 58.1	-2.0
AGG	Agios Georgios	1.71	132	*e*Pb	Pb	21 36 01.8	+0.7
AGG				*e*Sb	Sb	21 36 25.8	+2.9
THE	Thessaloniki	1.78	75	*e*Pb	Pb	21 36 01.3	-1.2
THE				*e*Sb	Sb	21 36 25.9	+0.9
THE	Thessaloniki	1.78	75	*e*Sb	Sb	21 36 25.9	+0.8
SKO	Skopje	1.87	17	*i* Pn	Pn	21 36 04.0	+1.3
SKO				*i*		21 36 12.0	
SKO				*i* Sn	Sn	21 36 29.6	+2.6
SKO				Lg		21 36 39.5	
	comp=Z,0.1nm,0.7s						
SKO	Skopje	1.87	17	*i* Pn	Pn	21 36 04.0	+1.3
SKO				*i* Sn	Sn	21 36 29.6	+2.6
KNT	Kendrikon	1.93	59	*e*Pb	Pb	21 36 02.6	-2.5
	comp=Z,5.5nm,0.5s						
KNT				*e*Sb	Sb	21 36 29.1	-0.4
KNT	Kendrikon	1.93	59	*e*Sb	Sb	21 36 29.1	-0.4
PUK	Puka	1.96	342	*e*pn?	Pn	21 36 05.6	+1.7
PUK				*i* Sn	Sn	21 36 32.0	+2.8
VLS	Valsamata	2.00	183	*e*PN	Pn	21 36 06.4	+1.9
XOR	Xorichti	2.08	112	*e*Pn	Pn	21 36 06.1	+0.5
XOR				*e*Sn	Sn	21 36 33.0	+0.8
ULC	Ulcinj	2.10	329	*e*Pn	Pn	21 36 06.9	+1.0
ULC				*e*Sn	Sn	21 36 34.8	+2.1
PLG	Polygyros	2.10	84	*e*PN	Pn	21 36 06.0	0.0
SOH	Sokhos	2.12	72	*e*Pn	Pn	21 36 05.4	-0.8
SOH				*e*Sn	Sn	21 36 33.2	0.0
NEO	Neokhori	2.13	113	*e*PN	Pn	21 36 07.7	+1.4
RLS	Riolos of Patr	2.20	164	*e*PG	Pg	21 36 10.6	-3.0
PAIG	Paliouri	2.29	95	*e*Pn	Pn	21 36 08.9	+0.2
PAIG				*e*Sn	Sn	21 36 37.1	-0.6
SRS	Serrai	2.39	66	*e*Pn	Pn	21 36 10.2	+0.1
SRS				*e*Sn	Sn	21 36 39.2	-0.8
SRS	Serrai	2.39	66	*e*Pn	Pn	21 36 10.1	+0.1
SRS				*e*Sn	Sn	21 36 39.2	-0.8
KKB	Krupnik	2.46	46	*e*P	Pn	21 36 10.5	-0.6
PVY	Plav	2.48	347	⇑*i*Pn	Pn	21 36 13.5	+2.2
PVY				*e*Sn	Sn	21 36 46.8	+4.6
TTG	Podgorica	2.50	335	⇑*i*Pn	Pn	21 36 12.0	+0.4
TTG				*e*Sn	Sn	21 36 45.3	+2.5
OUR	Ouranopolis	2.51	85	*e*Pn	Pn	21 36 11.4	-0.4
OUR				*e*Sn	Sn	21 36 41.8	-1.4
BUM	Brajici-Budva	2.52	328	*e*Pn	Pn	21 36 12.0	0.0
BUM				*e*Sn	Sn	21 36 44.4	+0.9
AOS	Alonnisos	2.65	111	*e*Pn	Pn	21 36 13.6	-0.2
AOS				*e*Sn	Sn	21 36 47.5	+0.8
NVR	Nevrokopi	2.67	63	*e*PN	Pn	21 36 13.0	-1.0
MMB	Musomiste	2.69	57	*e*P	Pn	21 36 13.0	-1.4
IVA	Berane	2.76	348	⇑*i*Pn	Pn	21 36 17.3	+1.9
IVA				*e*Sn	Sn	21 36 53.1	+3.6
HCY	Herceg Novi	2.81	324	*e*Pn	Pn	21 36 16.0	-0.1
HCY				*e*Sn	Sn	21 36 50.8	0.0
NKY	Niksic	2.93	335	⇑*i*Pn	Pn	21 36 19.1	+1.3
NKY				*e*Sn	Sn	21 36 55.7	+1.9
VTS	Vitosha	3.06	37	*e*P	Pn	21 36 21.0	+1.4
NSAL	Nisos Salamina	3.12	136	*e*PN	Pn	21 36 22.5	+1.9
BRY	Bratogost	3.17	330	*e*Pn	Pn	21 36 21.6	+0.4
BRY				*e*Sn	Sn	21 37 00.7	+0.9
TIP	Timpagrande	3.21	253	*e*Pn	Pn	21 36 20.7	-1.1
TIP	Timpagrande	3.21	253	*e*Pn	Pn	21 36 20.7	-1.0
PLE	Pljevlja	3.30	343	*e*Pn	Pn	21 36 24.1	+1.0
PLE				*e*Sn	Sn	21 37 05.3	+2.2
UPM	Unac-Piva	3.31	337	⇑*i*Pn	Pn	21 36 23.9	+0.8
UPM				*e*Sn	Sn	21 37 04.8	+1.4
RZN	Rozhen	3.39	62	*e*P	Pn	21 36 24.0	-0.3
SLCN	Sala Consilina	3.89	275	*e*Pn	Pn	21 36 30.6	-0.8
SLCN	Sala Consilina	3.89	275	*e*Pn	Pn	21 36 30.6	-0.8
MGR	Morigerati	3.95	271	*e*Pn	Pn	21 36 32.0	-0.3
DIVS	Divcibare	3.95	352	⇑*i*Pn	Pn	21 36 31.4	-0.9
DIVS				Sn	Sn	21 37 18.4	-1.2
MRLC	Muro Lucano	4.02	280	*e*Pn	Pn	21 36 33.6	+0.3
MRLC	Muro Lucano	4.02	280	*e*Pn	Pn	21 36 33.6	+0.3
SGO	Sicignano	4.14	277	*e*Pn	Pn	21 36 35.4	+0.3
SGO	Sicignano	4.14	277	*e*Pn	Pn	21 36 35.4	+0.4
SOI	Samo	4.19	241	*e*Pn	Pn	21 36 33.9	-1.7
SOI	Samo	4.19	241	*e*Pn	Pn	21 36 33.9	-1.7
CII	Carovilli	5.09	290	*e*Pn	Pn	21 36 47.4	-1.0
CII	Carovilli	5.09	290	*e*Pn	Pn	21 36 47.4	-1.0
SDI	San Donato	5.44	289	*e*Pn	Pn	21 36 52.3	-1.1
IDI	Anoyia	5.90	145	P	Pn	21 36 59.5	-0.4
	comp=Z,0.3nm,0.3s,baz=354,slow=19,SNR=2.3						
IDI				S	Sn	21 38 08.5	-0.3
	comp=Z,1.1nm,0.3s,baz=237,slow=7.7,SNR=4.4						
MNS	Montasola	6.43	293	*e*Pn	Pn	21 37 06.9	-0.5
MLR	Muntele Rosu	6.55	34	P	Pn	21 37 10.7	+1.6
	comp=Z,0.4nm,0.3s,baz=134,slow=15,SNR=13						
SNTG	Esanatoglia	6.57	300	*e*Pn	Pn	21 37 07.1	-2.3
SNTG	Esanatoglia	6.57	300	*e*Pn	Pn	21 37 07.1	-2.3
BOJS	Bojanci	6.66	325	*e*Sn	Sn	21 38 21.4	-6.4
FSSB	Fossombrone	6.88	303	*e*Pn	Pn	21 37 10.6	-3.0
FSSB	Fossombrone	6.88	303	*e*Pn	Pn	21 37 10.6	-3.0
JAVS	Javornik	7.50	322	*i* Sn	Sn	21 38 42.6	-6.2
VOY	Vojsko	7.68	322	*e*Pn	Pn	21 37 22.0	-3.0
VOY				*e*Sn	Sn	21 38 47.6	-5.8
GERES	GERESS Array B	10.00	332	P	P	21 37 56.6	-0.4
	comp=Z,0.1nm,0.3s,baz=158,slow=14,SNR=5.7						
DAVOX	Davos	10.26	314	P	P	21 38 00.5	-0.1
	comp=Z,0.3nm,0.3s,baz=125,slow=17,SNR=3.7						
DAVOX				S	S	21 39 54.2	-3.0
	comp=Z,0.2nm,0.3s,baz=337,slow=19,SNR=3.2						
DAVOX	Davos	10.26	314	P	P	21 38 00.5	-0.1
DAVOX				S	S	21 39 54.2	-3.0
HFS	Hagfors	20.45	350	P	P	21 40 06.5	-4.0
	comp=Z,4.0nm,0.7s,baz=173,slow=12,SNR=6.2						
FINES	FINESS Array B	21.55	7	P	P	21 40 17.6	-4.1
	comp=Z,7.8nm,1.1s,mb4.0,baz=190,slow=8.9,SNR=8.7						
NOA	NORSAR Array B	21.69	347	P	P	21 40 20.2	-2.9
	comp=Z,1.7nm,0.9s,mb3.5,baz=150,slow=11,SNR=4.9						
NOA	NORSAR Array B	21.69	347	P	P	21 40 20.2	-2.9
SONM	Songino Array	59.09	52	P	P	21 45 27.6	-5.5
	comp=Z,0.3nm,0.6s,mb3.5,baz=297,slow=5.5,SNR=3.7						

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*LDG **14** 21:50:06.1±0.6, 42.82N×1.42W, h2^{km}, Md2.2/2, Ml2.2/1, Error ellipse: s-maj=12.1km s-min=5.8km az=50.0*

MDD 14 21:50:08.3±0.6**, 42.87N×1.36W, mbLg1.3**/6**, Error ellipse: s-maj=4.4km s-min=2.9km az=29.0, PRXIMO AftershockPLICA, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJPF	Ste Jean	0.26	23	*e*Pg	Pg	21 50 12.7	-0.8
SJPF				*e*Sg	Sg	21 50 16.2	-0.8
	12nm,0.3s						
LARF	Larrau	0.32	59	Pg	Pg	21 50 13.9	-0.9
LARF				Lg		21 50 19.6	
EALK	Alkurruntz	0.36	343	Pg	Pg	21 50 15.1	-0.5
	7.7nm,0.3s,SNR=12						
EALK				Lg		21 50 20.8	
	11nm,0.3s,SNR=5.0						
ETSF	Etsaut	0.59	87	*e*Pg	Pg	21 50 18.2	-1.9
ETSF				*e*Sg	Sg	21 50 27.0	-1.0
	5.8nm,0.3s						
EBIE	Bielsa	1.12	99	Pg	Pg	21 50 30.7	-0.1
	0.7nm,0.1s,SNR=12						
EBIE				Lg		21 50 47.1	
	3.5nm,0.3s,SNR=5.0						
EPF	Esparros	1.26	82	*e*Pg	Pg	21 50 30.5	-3.0
EPF				*e*Sg	Sg	21 50 48.0	-2.3
	5.4nm,0.3s						
ESAC	San Caprasio	1.33	150	Pg	Pg	21 50 33.0	-1.9
	10nm,0.2s,SNR=5.7						
ESAC				Lg		21 50 51.9	
	17nm,0.3s,SNR=5.0						
ELAN	Lanestosa	1.56	284	Pg	Pg	21 50 36.0	-3.5
	0.5nm,0.3s,SNR=7.9						
ELAN				Lg		21 50 59.6	
	1.1nm,0.2s,SNR=4.0						

DJA 14 22:02:58.1±0.8**, 9.63S×113.85E, h33^{km}, MD4.8**/4**, ML3.9**/4**, 6C-3D, Error ellipse: s-maj=18.2km s-min=11.1km az=42.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	1.18	14	⇑*i*Pn	Pn	22 03 16.6	-2.0
	90nm,0.2s						
SRDI				⇓*i*Sn	Sn	22 03 31.1	-2.5
KELI	Kelakatan	1.54	24	⇑*i*Pn	Pn	22 03 22.6	-1.1
	125nm,0.2s						
KELI				⇑*i*Sn	Sn	22 03 41.0	-1.8
RATI	Rata	1.89	62	⇑*i*Pn	Pn	22 03 26.7	-2.0
	313nm,0.2s						
RATI				⇑*i*Sn	Sn	22 03 47.1	-4.5
KEDI	Kedomdong	2.51	63	⇓*i*Pn	Pn	22 03 36.5	-1.0
	30nm,0.2s						
KEDI	Kedomdong	2.51	63	⇑*i*P	P	22 03 36.9	-0.5
KEDI				⇓*i*Sn	Sn	22 04 03.4	-3.9

NDI 14 22:15:55.5±1.6**, 31.45N×84.29E, h10^{km}, mb4.3, 1C, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTH	Pithoragarh	3.99	243	*e*P	Pn	22 16 58.0	-0.1
PTH				*e*S	Sn	22 17 41.0	-4.5
LGTI	Lohaghat	4.02	241	⇑*i*P	Pn	22 16 58.7	+0.2
LGTI				*e*		22 17 52.5	
DDI	Dehra Dun	5.47	260	*e*P	Pn	22 17 16.4	-2.7
SHL	Shillong	8.89	129	*e*P	P	22 18 03.0	-4.0
BHPL	Bhopal	10.20	218	*e*	P	22 18 03.5	-22
BHPL				AMb	AMB	22 18 10.0	
	comp=Z,6.7nm,0.9s						
BHPL				*i* S	S	22 20 07.5	-13

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*ISK **14** 22:24:19.5, 39.77N×36.73E, h5^{km}, MD4.1*

*CSEM **14** 22:24:19.6±0.1, 39.79N×36.73E, h2^{km}, MD4.1, Error ellipse: s-maj=1.8km s-min=1.1km az=24.0*

*NEIC **14** 22:24:20.5, 39.79N×36.75E, h6^{km}, MD4.1(ISK), After ISK.*

ISC 14 22:24:20.9±0.3**, 39.79N**±0.03×**36.77E**±0.02**, h5^{km}, n65, σ0^{s}91**/81**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SVST	Sivas	0.14	98	*i* P	Pg	22 24 23.1	-0.8
SVST				*i* S	Sg	22 24 25.4	-0.4
YOZ	Yozgat	1.13	263	*i* PN	Pn	22 24 41.6	-1.7
YOZ	Yozgat	1.13	263	Pn	Pn	22 24 41.7	-1.6
YOZ				Sg	Sg	22 24 58.7	+0.1
YOZ	Yozgat	1.13	263	Pn	Pn	22 24 41.7	-1.6
YOZ				Sg	Sg	22 24 58.7	+0.1
BNN	Bunyan	1.18	218	*i* Pn	Pn	22 24 42.5	-1.5
BNN				Sg	Sg	22 25 00.5	+0.2
KVT	Kavak	1.40	337	PN	Pn	22 24 46.9	-0.3
KVT				SN	Sn	22 25 08.3	+2.0
CTKT	Corum	1.73	299	*i* P	Pn	22 24 53.1	+1.2
CTKT				*i* S	Sn	22 25 19.1	+4.6
AVNT	Avonos	1.80	236	*i* P	Pn	22 24 53.2	+0.3
AVNT				*i* S	Sn	22 25 18.7	+2.4
MYA	Malataya	1.95	138	PN	Pn	22 24 55.4	+0.4
MYA	Malataya	1.95	138	Pn	Pn	22 24 55.4	+0.4
MALT	Malatya	1.96	138	PN	Pn	22 24 55.0	-0.1
MALT				SN	Sn	22 25 21.8	+1.4
MALT	Malatya	1.96	138	*i* P	Pn	22 24 54.6	-0.5
MALT				*i* S	Sn	22 25 22.1	+1.7
ELZG	Elazig	2.15	126	*i* P	Pn	22 24 58.9	+1.0
ELZG				*i* S	Sn	22 25 27.4	+2.1
KAHT	Ahir Dag	2.16	178	*i* P	Pn	22 24 58.1	+0.1
KAHT				*i* S	Sn	22 25 33.5	+8.0
GUMT	Gumushane	2.18	71	PN	Pn	22 24 58.6	+0.3
PTK	Pertek	2.22	113	PN	Pn	22 24 59.5	+0.6
BYBT	Boyabat	2.27	318	PN	Pn	22 24 59.6	0.0
BYBT	Boyabat	2.27	318	Pn	Pn	22 24 59.7	+0.1
EZC	Erzincan	2.35	90	PN	Pn	22 24 55.4	-5.3
EZC	Erzincan	2.35	90	Pn	Pn	22 24 55.4	-5.3
NIG	Nigde	2.38	226	PN	Pn	22 25 00.8	-0.4
NIG	Nigde	2.38	226	Pn	Pn	22 25 00.9	-0.3
NIG	Nigde	2.38	226	Pn	Pn	22 25 00.9	-0.3
KAMT	Kaman	2.40	261	PN	Pn	22 25 01.1	-0.4
KAMT	Kaman	2.40	261	Pn	Pn	22 25 01.1	-0.3
TOS	Tosya	2.44	302	PN	Pn	22 25 02.4	+0.4
TOS	Tosya	2.44	302	Pn	Pn	22 25 02.4	+0.4
GZT	Gaziantep	2.51	165	*i* P	Pn	22 25 03.0	0.0
GZT				*i* S	Sg	22 25 45.0	+0.5
CANT	Cankiri	2.55	290	PN	Pn	22 25 03.4	-0.2
CANT	Cankiri	2.55	290	Pn	Pn	22 25 03.5	-0.1
GAZ	Gaziantep	2.64	172	*e*PN	Pn	22 25 05.0	+0.1
ELDT	Eldivan	2.66	286	*i* P	Pn	22 25 05.6	+0.4
ELDT				*i* S	Sb	22 25 44.6	+2.9
URFA	Urfa	2.84	145	*e*PN	Pn	22 25 07.3	-0.5
CEYT	Ceyhan	2.89	196	*e*PN	Pn	22 25 07.9	-0.6
CEYT	Ceyhan	2.89	196	Pn	Pn	22 25 08.0	-0.5
CEYT	Ceyhan	2.89	196	Pn	Pn	22 25 08.0	-0.5
BINT	Bingol	3.02	106	*e*PN	Pn	22 25 10.9	+0.5
BINT	Bingol	3.02	106	Pn	Pn	22 25 11.6	+1.2
ANTO	Ankara	3.06	273	*e*PN	Pn	22 25 10.2	-0.7
ANTO	Ankara	3.06	273	Pn	Pn	22 25 10.2	-0.7
LOD	Lodumlu	3.09	273	*e*PN	Pn	22 25 10.6	-0.7
LOD	Lodumlu	3.09	273	Pn	Pn	22 25 10.6	-0.7
BALT	Daday	3.11	305	*i* P	Pn	22 25 11.7	+0.1
BALT				*i* S	Sn	22 25 57.9	+8.3
COBT	Iskenderun	3.29	187	*i* P	Pn	22 25 13.8	-0.4
COBT				*i* S	Sg	22 26 06.5	-4.0
SAFT	Safranbolu	3.43	296	*e*PN	Pn	22 25 15.3	-0.9
SAFT	Safranbolu	3.43	296	Pn	Pn	22 25 15.4	-0.8
SAFT	Safranbolu	3.43	296	Pn	Pn	22 25 15.4	-0.8
EZM	Erzurum	3.54	87	*e*PN	Pn	22 25 17.8	+0.2
ERZM	Erzurum	3.54	87	*i* P	Pb	22 25 23.7	-0.1
ERZM				*i* S	Sg	22 26 17.0	-1.6
HTY	Hatay	3.70	188	*e*PN	Pn	22 25 19.5	-0.4
HTY	Hatay	3.70	188	Pn	Pn	22 25 19.5	-0.4
VRT	Varto	3.74	99	*e*PN	Pn	22 25 21.1	+0.6
VRT	Varto	3.74	99	Pn	Pn	22 25 21.1	+0.6
KIZT	Kizilcal	3.90	258	*e*PN	Pn	22 25 22.0	-0.8
KONT	Konya--Tatoy	3.91	243	*e*PN	Pn	22 25 23.1	+0.2
KONT	Konya--Tatoy	3.91	243	Pn	Pn	22 25 23.2	+0.3
BTMT	Batman	4.01	112	*e*PN	Pn	22 25 23.1	-1.2
MDU	Mudurnu	4.31	281	*e*PN	Pn	22 25 28.1	-0.6
MDU	Mudurnu	4.31	281	Pn	Pn	22 25 28.1	-0.6
ESKT	Eskisehir	4.58	269	*e*PN	Pn	22 25 31.5	-1.0
ESKT	Eskisehir	4.58	269	Pn	Pn	22 25 31.6	-0.9
ESKT	Eskisehir	4.58	269	Pn	Pn	22 25 31.6	-0.9
ELL	Elmali	6.20	243	*e*PN	Pn	22 25 54.3	-1.0
ELL	Elmali	6.20	243	Pn	Pn	22 25 54.4	-0.9
ELL	Elmali	6.20	243	Pn	Pn	22 25 54.4	-0.9

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*PRU **14** 22:28:01.4, 50.31N×18.80E*

WAR 14 22:28:00.5, 50.26N×18.86E, h0^{km}, ML2.6, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.47	248	*e*PG	Pg	22 28 10.0	+0.2
RAC				*e*SG	Sg	22 28 16.0	0.0
OJC	Ojcow	0.60	94	*e*Pg	Pg	22 28 12.9	+0.4
OJC				*e*Sg	Sg	22 28 21.3	+0.8
OKC	Ostrava-Krasne	0.63	228	*e*PG	Pg	22 28 13.2	+0.2
OKC				*e*SG	Sg	22 28 23.1	+1.7
LIKS	Likavka	1.22	173	*e*PN	Pn	22 28 24.9	+0.2
LIKS				*e*SN	Sn	22 28 39.9	-2.3
NIE	Niedzica	1.26	131	*e*PG	Pg	22 28 25.0	-0.7
NIE				*e*SG	Sg	22 28 42.0	-0.5
DPC	Dobruska-Polom	1.63	274	*e*PG	Pg	22 28 30.0	-3.1
DPC				*e*SG	Sg	22 28 51.3	-3.5
	38nm,0.6s						
KSP	Ksiaz	1.74	291	*e*PG	Pg	22 28 33.0	-2.2
KSP				*e*SG	Sg	22 28 56.0	-2.4
VYHS	Vyhne	1.77	181	*e*PN	Pn	22 28 32.0	-0.5
VYHS				*e*SN	Sn	22 28 53.8	-2.2
UPC	Upice	1.84	279	*e*PG	Pg	22 28 32.8	-4.5
UPC				*e*SG	Sg	22 28 57.6	-4.2
SMOL	Smolenice	1.98	209	*e*SN	Sn	22 29 02.1	+0.6
CRVS	Cervenica-Dubn	2.17	128	*e*PN	Pn	22 28 39.0	+0.7
CRVS				*e*PG	Pg	22 28 42.2	-1.6
CRVS				*e*SN	Sn	22 29 10.8	+4.6
CRVS	Cervenica-Dubn	2.17	128	*e*Pg	Pg	22 28 42.2	-1.6
PVCC	Panska Ves	2.76	277	*e*SG	Sg	22 29 28.0	-4.4
PRU	Pruhonice	2.79	266	*e*PG	Pg	22 28 51.6	-4.7
PRU				*e*SG	Sg	22 29 29.0	-4.6
	11nm,0.5s						
KHC	Kasperske Hory	3.61	254	*e*PN	Pn	22 28 56.9	-1.9
KHC				*e*PG	Pg	22 29 06.2	-6.4
KHC				*e*SG	Sg	22 29 54.9	-5.9
CLL	Collm	3.86	288	*e*SG	Sg	22 30 05.0	-4.2
MOA	Molln	3.87	233	*i*	Pn	22 29 04.8	+2.3
MOA	Molln	3.87	233	*i* SG	Sg	22 30 01.9	-7.4
	3.8nm,0.5s						
NKC	Novy Kostel	4.12	272	*e*SG	Sg	22 30 09.1	-8.5

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*MOS **14** 23:04:11.8±0.7, 54.90N×161.80E, h23^{km}, mb4.0/1, Error ellipse: s-maj=38.3km s-min=13.7km az=79.2*

KRSC 14 23:04:11.8±0.8**, 54.95N×161.80E, h21^{km}**±4^{km}**, ML4.4, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TUMR	Tumrok	1.01	290	*i* P	Pb	23 04 30.6	+0.2
TUMR				*i* S	Sb	23 04 44.7	+1.5
KMNR	Kamenistaya	1.20	313	*i* P	Pn	23 04 33.7	+0.1
KMNR				*e*S	Sb	23 04 49.9	+1.0
ZLN	Zelenaya	1.21	332	*i* P	Pn	23 04 33.8	+0.1
ZLN				*e*S	Sb	23 04 49.9	+0.8
LGNR	Loginova	1.30	331	*i* P	Pn	23 04 35.7	+0.7
LGNR				*i* S	Sb	23 04 53.1	+1.4
CIRR	Tsirk	1.31	333	*i* P	Pn	23 04 35.5	+0.3
CIRR				*e*S	Sb	23 04 53.3	+1.2
KPT	Kopyto	1.36	319	*i* P	Pn	23 04 36.1	+0.3
KPT				*e*S	Sn	23 04 54.5	+1.2
KBTR	Krutoberegovo	1.39	24	P	Pn	23 04 36.8	+0.6
KBTR				S	Sn	23 04 55.8	+1.7
KBTR	Krutoberegovo	1.39	24	*i* P	Pn	23 04 36.7	+0.5
KBTR				*e*S	Sn	23 04 55.8	+1.7
KBG	Krutoberegovo	1.41	21	*i* P	Pn	23 04 37.3	+0.8
KBG				*e*S	Sn	23 04 56.2	+1.7
KBG				Smax			
	2µm,0.7s						
KRSR	Krestovskiy	1.45	332	*i* P	Pn	23 04 37.0	-0.1
KRSR				*i* S	Sn	23 04 55.6	-0.1
KLY	Klyuchi	1.51	335	P	Pn	23 04 37.4	-0.6
KLY				S	Sn	23 04 56.8	-0.5
KLY	Klyuchi	1.51	335	*i* P	Pn	23 04 37.3	-0.7
KLY				*i* S	Sn	23 04 56.8	-0.5
KOZR	Kozyr	1.56	317	PN	Pn	23 04 39.7	+1.0
KOZR				S	Sn	23 04 59.9	+1.5
KOZ	Kozyrevsk	1.56	316	*e*P	Pn	23 04 39.7	+1.0
KOZ				*e*S	Sn	23 04 59.9	+1.4
SVLR	Shiveluch	1.66	349	*i* P	Pn	23 04 40.7	+0.5
SVLR				*e*S	Sn	23 05 02.0	+0.9
SRDR	Sredinnyy	1.81	320	*e*P	Pn	23 04 42.3	0.0
SRDR				*e*S	Sn	23 05 05.3	+0.5
ESO	Esso	2.02	300	*e*P	Pn	23 04 44.8	-0.5
ESO				*e*S	Sn	23 05 08.8	-1.3
ESO				Smax			

	500nm,0.5s						
SPN	Mys Shipunski	2.13	210	P	Pn	23 04 45.7	-1.2
SPN				S	Sn	23 05 09.8	-3.2
SPN	Mys Shipunski	2.13	210	*e*P	Pn	23 04 45.7	-1.2
SPN				*i* S	Sn	23 05 10.0	-3.0
NLC	Nalytchevo	2.30	220	P	Pn	23 04 49.0	-0.2
NLC				S	Sn	23 05 16.2	-1.0
NLC	Nalytchevo	2.30	220	*i* P	Pn	23 04 48.9	-0.3
NLC				*i* S	Sn	23 05 16.1	-1.1
SDLR	Sedlovina	2.40	227	*e*P	Pn	23 04 50.7	0.0
SDLR				*e*S	Sn	23 05 18.9	-0.9
BKI	Bering	2.41	82	*i* P	Pn	23 04 50.1	-0.8
BKI				*i* S	Sn	23 05 16.9	-3.2
AVH	Avacha	2.47	228	*i* P	Pn	23 04 52.1	+0.4
AVH				*e*S	Sn	23 05 21.9	+0.3
UGLR	Uglovaya	2.47	226	*e*P	Pn	23 04 52.0	+0.2
UGLR				*e*S	Sn	23 05 21.4	-0.3
KOK	Koryaka	2.50	230	*e*P	Pn	23 04 52.3	+0.2
KOK				*e*S	Sn	23 05 21.8	-0.4
GNL	Ganaly	2.59	242	*e*P	Pn	23 04 53.6	+0.2
GNL				*e*S	Sn	23 05 24.0	-0.5
PET	Petropavlovsk	2.68	225	P	Pn	23 04 54.8	+0.1
PET				S	Sn	23 05 26.1	-0.8
PET	Petropavlovsk	2.68	225	*e*P	Pn	23 04 54.8	+0.1
PET				*e*S	Sn	23 05 26.2	-0.7
PET	Petropavlovsk	2.68	225	*e*PN	Pn	23 04 55.2	+0.5
PET				*i* S	Sn	23 05 27.0	+0.1
PET				pmax	pmax		
	comp=Z,159nm,0.5s						
PET				smax			
	comp=E,256nm,0.4s						
PET				smax			
	comp=N,337nm,0.5s						
KRMR	Karymshinskiy	3.04	227	*e*P	Pn	23 05 00.6	+0.8
KRMR				*e*S	Sn	23 05 36.3	+0.3
RUS	Russkaya	3.19	219	P	Pn	23 05 02.5	+0.5
RUS				S	Sn	23 05 38.6	-1.2
RUS	Russkaya	3.19	219	*e*P	Pn	23 05 02.4	+0.4
RUS				*e*S	Sn	23 05 38.3	-1.5
GRL	Gorelyy	3.27	224	*e*P	Pn	23 05 04.1	+1.0
GRL				*e*S	Sn	23 05 43.1	+1.4
APC	Apacha	3.41	235	*e*P	Pn	23 05 05.8	+0.7
APC				*e*S	Sn	23 05 45.0	-0.4
APC				Smax			
	comp=N,60nm,0.9s						
PAU	Pauzhetka	4.60	223	*e*P	Pn	23 05 23.5	+1.5

IDC 14 23:06:00.7±46.0**, 15.69S**×**175.01W, mb4.2**/3**, mb1 4.4**/3**, mb1mx3.8**/14**, Error ellipse: s-maj=864.0km s-min=174.6km az=78.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	42.55	240	P	P	23 13 58.2	-1.8
	1.2nm,0.4s,baz=85,slow=11,SNR=5.0						
WRA	Warramunga Arr	48.26	257	P	P	23 14 43.9	-1.8
	0.5nm,0.5s,baz=90,slow=8.1,SNR=4.6						
ASAR	Alice Springs	48.54	252	P	P	23 14 46.0	-1.9
	7.5nm,0.5s,baz=89,slow=8.2,SNR=161						

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*IDC **14** 23:13:20.4±4.9, 4.77S×152.47E, h89^{km}±44^{km}, mb3.8/10, mb1 4.0/11, mb1mx3.8/18, MS3.5/2, Ms1 3.5/2, ms1mx3.1/19, Error ellipse: s-maj=26.7km s-min=23.9km az=104.0*

*NEIC **14** 23:13:20.9±2.2, 4.77S×152.46E, h97^{km}±19^{km}, mb4.3/6, Error ellipse: s-maj=19.0km s-min=13.0km az=126.0*

ISC 14 23:13:19.0±3.6**, 4.7S**±0.1×**152.4E**±0.2**, h90**^{km}±31^{km}**, n20, σ0^{s}66**/21**, mb4.0**/14**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	6.99	228	P	P	23 15 00.8	+0.3
	1.8nm,0.3s,baz=52,slow=9.1,SNR=6.4						
PMG				S	S	23 16 18.5	-0.4
	1.9nm,0.3s,baz=130,slow=18,SNR=4.1						
PMG	Port Moresby	6.99	228	P	P	23 15 00.8	+0.3
PMG				S	S	23 16 18.5	-0.4
CTA	Charters Tower	16.40	201	LR	LR	23 21 15.3	
	comp=Z,52nm,20.3s,baz=59,slow=29						
KAKA	Kakadu	21.30	247	*e*P	P	23 18 00.1	0.0
	16nm,1.2s,mb4.2						
WRAB	Tennant Creek	23.19	228	*e*P	P	23 18 19.1	+0.5
	4.7nm,0.5s,mb4.1						
WB2	Warramunga Arr	23.20	228	*e*P	P	23 18 19.4	+0.7
WRA	Warramunga Arr	23.21	228	P	P	23 18 19.1	+0.3
	1.8nm,0.4s,mb3.7,baz=52,slow=10.0,SNR=15						
ASAR	Alice Springs	25.94	222	P	P	23 18 44.9	0.0
	0.7nm,0.4s,mb3.5,baz=58,slow=8.8,SNR=13						
FITZ	Fitzroy Crossi	29.36	241	*e*P	P	23 19 14.6	-1.3
	10nm,1.5s,mb4.2						
FITZ	Fitzroy Crossi	29.36	241	P	P	23 19 14.6	-1.3
	3.1nm,0.3s,mb4.4,baz=55,slow=4.4,SNR=21						
MBWA	Marble Bar	35.68	240	*e*P	P	23 20 09.6	-1.0
	3.8nm,0.6s,mb4.5						
RPZ	Rata Peaks	42.16	160	P	P	23 21 04.5	+0.4
	8.6nm,0.9s,mb4.5,baz=353,slow=13,SNR=2.9						
RPZ				LR	LR	23 35 47.4	
	comp=Z,224nm,19.4s,baz=140,slow=32						
CMAR	Chiang Mai Arr	57.51	295	P	P	23 23 02.8	+1.2
	1.0nm,0.4s,mb4.2,baz=121,slow=5.3,SNR=5.9						
ZAL	Zalesovo	80.90	326	P	P	23 25 24.9	+0.3
	0.5nm,0.6s,mb3.5,baz=54,slow=4.6,SNR=4.4						
MCK	McKinley	80.95	23	P	P	23 25 23.9	-0.9
	1.4nm,0.6s,mb4.0						
ILAR	Eielson Array	82.24	22	P	P	23 25 30.6	-0.8
	1.2nm,0.7s,mb3.9,baz=251,slow=4.9,SNR=13						
INK	Inuvik	88.53	21	P	P	23 26 02.5	+0.1
	0.8nm,0.6s,mb3.9,baz=252,slow=5.4,SNR=5.0						
INK	Inuvik	88.53	21	P	P	23 26 01.7	-0.6
	3.4nm,1.0s,mb4.3						
BVAR	Borovoye Array	88.97	323	P	P	23 26 05.0	+0.3
	0.4nm,0.6s,mb3.6,baz=121,slow=8.4,SNR=3.6						
YKA	Yellowknife Ar	95.55	28	P	P	23 26 35.4	+0.6
	0.6nm,0.7s,mb4.1,baz=271,slow=5.1,SNR=6.7						

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*SOF **14** 23:18:46.9, 41.17N×24.26E, h20^{km}, MD3.0*

*NEIC **14** 23:18:47.0, 41.35N×24.20E, h39^{km}, MD3.4(ATH), After ATH.*

*ATH **14** 23:18:47.6, 41.26N×24.26E, h26^{km}±4^{km}, MD3.4/5*

*CSEM **14** 23:18:48.1±0.1, 41.21N×24.31E, h8^{km}, MD3.4, Error ellipse: s-maj=1.2km s-min=1.1km az=107.0*

*THE **14** 23:18:50.0, 41.11N×24.24E, h13^{km}, ML3.1*

ISC 14 23:18:47.5±0.4**, 41.19N**±0.02×**24.29E**±0.03**, h12**^{km}±3^{km}**, n33, σ1^{s}03**/51**, 1C, Greece-Bulgaria border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVR	Nevrokopi	0.36	297	⇑*i*PB	Pb	23 18 55.5	+0.2
NVR				*e*SB	Sb	23 19 00.2	-0.4
SRS	Serrai	0.53	263	*e*Pg	Pg	23 18 59.4	+1.2
SRS				*e*Sg	Sg	23 19 05.9	+0.4
MMB	Musomiste	0.58	314	*i* Pg	Pg	23 18 58.0	-1.3
RZN	Rozhen	0.59	33	*i* Pg	Pg	23 19 00.0	+0.5
SOH	Sokhos	0.80	243	*e*Pg	Pg	23 19 03.3	-0.1
SOH				*e*Sg	Sg	23 19 14.6	+0.4
OUR	Ouranopolis	0.88	195	*e*Pg	Pg	23 19 05.4	+0.2
OUR				*e*Sg	Sg	23 19 17.2	+0.1
RDO	Rodhopi	0.94	92	*e*PN	Pn	23 19 06.7	+0.2
RDO				*e*SN	Sn	23 19 19.8	-0.1
KDZ	Kurdzhali	0.97	61	*i* Pg	Pg	23 19 05.5	-1.4
PLD	Plovdiv	0.97	19	*i* Pg	Pg	23 19 08.0	+1.1
PLG	Polygyros	1.03	219	*e*PN	Pn	23 19 08.1	+0.4
KNT	Kendrikon	1.05	269	*e*Pg	Pg	23 19 09.1	+0.6
	comp=Z,27nm,0.5s						
KNT				*e*Sg	Sg	23 19 23.8	+1.2
KKB	Krupnik	1.13	307	*i* Pg	Pg	23 19 09.0	-1.1
THE	Thessaloniki	1.15	242	*e*Pg	Pg	23 19 10.5	+0.1
THE				*e*Sg	Sg	23 19 24.8	-1.0
DIM	Dimitrovgrad	1.27	47	*i* Pg	Pg	23 19 14.0	+1.1
PAIG	Paliouri	1.34	200	*e*Pb	Pb	23 19 12.7	+0.6
PAIG				*e*Sb	Sb	23 19 30.4	+1.3
PGB	Panagyurishte	1.36	356	*i* Pg	Pg	23 19 14.0	-0.8
LOS	Limnos	1.39	154	*e*Pb	Pb	23 19 13.3	+0.4
LOS				*e*Sb	Sb	23 19 30.9	+0.4
GRG	Griva	1.45	261	*e*Pb	Pb	23 19 14.8	+0.9
GRG				*e*Sb	Sb	23 19 34.2	+2.1
LIA	Limnos Island	1.46	152	*e*PN	Pn	23 19 14.9	+1.1
LIA				*e*SN	Sn	23 19 36.2	+3.3
VTS	Vitosha	1.62	330	*i* Pg	Pg	23 19 19.0	-0.9
LIT	Litokhoron	1.75	232	*e*Pb	Pb	23 19 18.7	-0.3
LIT				*e*Sb	Sb	23 19 40.5	-0.3
LIT	Litokhoron	1.75	232	*e*Pb	Pb	23 19 18.7	-0.3
LIT				*e*Sb	Sb	23 19 40.5	-0.3
XOR	Xorichti	2.00	205	*e*Pb	Pb	23 19 21.8	-1.6
XOR				*e*Sb	Sb	23 19 45.5	-2.8
AOS	Alonnisos	2.04	189	*e*Pb	Pb	23 19 22.4	-1.7
AOS				*e*Sb	Sb	23 19 48.0	-1.3
NEO	Neokhori	2.05	204	*e*PN	Pn	23 19 22.2	0.0
NEO	Neokhori	2.05	204	*e*Pn	Pn	23 19 21.2	-1.0
PVL	Pavlikeni	2.17	21	*i* Pg	Pg	23 19 28.0	-2.9
FNA	Florina	2.24	261	*e*Pn	Pn	23 19 25.2	+0.2
FNA				*e*Sn	Sn	23 19 52.1	-0.7
SKO	Skopje	2.28	291	*e*Pn	Pn	23 19 28.0	+2.5
PRK	Paraskevi	2.46	141	*e*Pb	Pb	23 19 32.5	+1.2
AGG	Agios Georgios	2.63	215	*e*Pn	Pn	23 19 29.9	-0.7
AGG				*e*Sn	Sn	23 20 01.7	-1.1
MEV	Metsovon	2.72	240	*e*Pn	Pn	23 19 31.9	0.0
IGT	Igoumenitsa	3.44	243	*e*Pn	Pn	23 19 42.1	-0.1
IGT				*e*Sn	Sn	23 20 23.3	-0.1

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*CASC **14** 23:20:04.0, 19.47N×80.77W, h10^{km}, MD6.0, MS6.5, mb6.2(NEIC)*

*JSN **14** 23:20:10.2±0.7, 19.18N×81.36W, h15^{km}, MD6.5*

*SSNC **14** 23:20:11.8±7.9, 18.99N×81.56W, h21^{km}±286^{km}, ML6.6, MS5.3*

*IDC **14** 23:20:12.5±1.7, 18.92N×81.34W, h8^{km}±9^{km}, mb5.5/34, mb1 5.6/37, mb1mx5.6/37, MS6.6/24, Ms1 6.6/24, ms1mx6.3/28, Error ellipse: s-maj=11.0km s-min=8.0km az=52.0*

*MOS **14** 23:20:12.4±1.1, 19.08N×81.40W, h10^{km}, mb6.3/102, MS6.6/70, Error ellipse: s-maj=4.5km s-min=3.3km az=69.1*

*IGIL **14** 23:20:13.4, 18.98N×81.31W, h0^{km}, MS6.6*

*NEIC **14** 23:20:13.4±0.1, 18.96N×81.41W, h10^{km}, mb6.2/208, ME7.5, MS6.7/131, MW6.8, Error ellipse: s-maj=3.1km s-min=2.1km az=9.0 Broadband fault plane solution: P waves. NP1:ϕ_s348°, δ88°, λ175°. NP2:ϕ_s78°, δ85°, λ2°. Principal axes: T Plg5°, Azm303°; N Plg0°, Azm0°; P Plg2°, Azm33°; Moment Tensor Solution. s50 Moment tensor: Scale 10^{19} Nm; M_{rr}0.14; $M_{\theta\theta}$-0.81; $M_{\phi\phi}$0.67; $M_{r\theta}$-0.10; $M_{\theta\phi}$1.81; $M_{\phi r}$0.64; Best double couple: $M_0$2.1×10^{19} NP1: ϕ_s79°, δ71°, λ3°. NP2:ϕ_s348°, δ88°, λ161°. Principal axes: T 2.01, Plg15°, Azm302°; N .1, Plg71°, Azm161°; P -2.11, Plg11°, Azm35°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

NEIC Felt [VI] at Bodden Town and West Bay; [V] at George Town, Grand Cayman. Felt [III-V] in many parts of Cuba. Also felt at Cancun, Mexico and Half Way Tree and New Kingston, Jamaica.

*SYO **14** 23:20:13.5, 19.01N×81.35W, h10^{km}, MB6.2, MS6.6*

*HRVD **14** 23:20:13.4±0.1, 19.05N×81.52W, h12^{km}, MW6.8/70, Centroid moment Tensor Solution. LP body waves: s70,c176;Mantle waves: s68,c162; Half duration: 6^{s}0 Moment tensor: Scale 10^{19}Nm; M_{rr}-0.12±.01; $M_{\theta\theta}$-0.64±.01; $M_{\phi\phi}$0.76±.01; $M_{r\theta}$0.08±.03; $M_{\theta\phi}$1.63±.01; $M_{\phi r}$-0.18±.04; Best double couple: $M_0$1.78×10^{19} NP1: ϕ_s258°, δ84°, λ-2°. NP2:ϕ_s349°, δ88°, λ-174°. Principal axes: T 1.84, Plg3°, Azm123°; N -.11, Plg83°, Azm6°; P -1.73, Plg6°, Azm214°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to mantle waves, cutoff=125s.*

*BJI **14** 23:20:13.0, 19.00N×81.40W, h10^{km}, mB6.5, Ms7.5, Msz7.2*

ISC 14 23:20:11.8±0.1**, 18.98N**±0.01×**81.40W**±0.01**, h9**^{km}**, h9**^{km}±.8^{km}**:pP-P, n1308, σ1^{s}16**/1170**, mb6.0**/259**, MS6.7**/186**, 254C-87D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGV	Manicaragua	3.39	23	⇓*i*P	Pn	23 21 04.2	-1.7
MGV				*i* S	Sn	23 21 42.4	-4.3
	comp=N,494µm,6.4s comp=E,178µm,2.7s						
MCJ	Malvern	3.68	106	*i* P	Pn	23 21 06.0	-4.1
MCJ				*i* S	Sn	23 21 47.8	-6.2
MCJ	Malvern	3.68	106	*e*S	Sn	23 21 47.8	-6.2
CVJ	Coleyville	3.74	101	*i* P	Pn	23 21 06.0	-5.0
CCCC	Cccc	4.07	56	⇑*i*P	Pn	23 21 17.0	+1.4
CCCC				*i* S	Sn	23 22 09.6	+5.7
	comp=N,535µm,8.8s comp=E,177µm,8.8s						
SOR	Soroa	4.08	339	*i* P	Pn	23 21 14.1	-1.7
SOR				*i* S	Sn	23 21 52.7	-12
STH	Stony Hill	4.45	101	*i* P	Pn	23 21 16.5	-4.5
RCC	Rio Carpintero	5.47	78	⇑*i*P	Pn	23 21 30.0	-5.5
RCC				*i* S	Sn	23 22 29.7	-10
	comp=N,173µm,0.4s comp=E,144µm,0.4s						
TEIG	Tepich	6.60	282	Pn	Pn	23 21 49.3	-2.1
	comp=E,4µm,0.3s,baz=230,slow=1.6,SNR=6145						
TEIG				Sn	Sn	23 23 02.1	-5.5
	comp=E,960nm,0.3s,baz=277,slow=24,SNR=29						
MASC	Masc	6.86	79	*i* P	Pn	23 21 52.1	-3.0
MASC				*i* S	Sn	23 23 08.4	-5.7
	comp=N,507µm,11.8s comp=E,523µm,8.2s						
PYTN	Playitas	7.82	216	⇑*e*P	Pn	23 22 09.1	+0.6
MOMJ	Momotombo	8.20	218	*e*P	P	23 22 13.7	-0.1
WILN	Americas 2	8.20	215	*e*P	P	23 22 14.6	+0.7
WILN				*i*		23 26 13.7	
	comp=N,3851µm,22.0s						
TELN	Telica	8.22	220	*e*P	P	23 22 14.8	+0.8
CNGN	Cerro Negro	8.22	219	*e*P	P	23 22 14.7	+0.7
APYN	Apoyeque	8.23	216	*e*P	P	23 22 15.0	+0.7
MGAN	Managua	8.24	215	⇓*e*P	P	23 22 15.7	+1.3
MGAN				*i*		23 25 13.2	
	comp=N,584µm,17.7s						
TEL3	Telica 3	8.25	220	*e*P	P	23 22 15.5	+1.0
MIRN	Miramar	8.27	219	⇑*e*P	P	23 22 15.8	+0.9
CRIN	San Cristobal	8.28	222	*e*P	P	23 22 15.7	+0.8
XAVN	Gruta Xavier	8.29	216	⇑*e*P	P	23 22 15.3	+0.3
MASN	Masaya	8.32	214	*e*P	P	23 22 16.3	+0.7
TICN	Ticuantepe	8.33	215	*e*P	P	23 22 16.8	+1.1
APON	Apoyo	8.34	213	⇑*e*P	P	23 22 16.0	+0.2
CAHU	Cacacuatique	8.34	233	*e*P	P	23 22 16.3	+0.5
CNCH	Conchagua	8.39	228	*e*P	P	23 22 14.5	-1.9
LEON	Leon	8.40	220	*e*P	P	23 22 17.4	+0.8
LEON				*i*		23 25 55.3	
	comp=Z,444µm,17.8s						
CRUN	El Crucero	8.41	215	⇑*e*P	P	23 22 17.8	+1.1
CRUN				*i*		23 26 23.3	
	comp=Z,493µm,25.8s						
COPN	Copaltepe	8.41	217	*e*P	P	23 22 17.4	+0.6
BLLM	Bellamira	8.57	231	*e*P	P	23 22 19.6	+0.6
BLLM				⇑*e*P		23 22 20.3	
VSM	San Miguel	8.61	231	*e*P	P	23 22 19.4	0.0
TRTC	Tortuguero	8.65	195	⇑*e*P	P	23 22 18.4	-1.7
MTO2	Montecristo 2	8.88	240	⇓*e*P	P	23 22 24.2	+0.9
SNVI	San Vicente	8.91	234	*e*P	P	23 22 24.4	+0.7
LCBS	La Ceiba	9.00	235	*e*P	P	23 22 25.9	+1.0
LBRS	Las Brisas	9.00	236	⇑*e*P	P	23 22 26.3	+1.4
FORC	Fortuna	9.03	201	⇑*e*P	P	23 22 25.3	0.0
LFU	La Fuente	9.05	236	⇑*e*P	P	23 22 26.5	+0.9
LFRS	El Faro	9.08	235	⇑*e*P	P	23 22 26.1	+0.1
DWPF	Disney	9.09	360	⇓*i*Pn	P	23 22 23.4	-2.7
VPS2	Volcan Poas 2	9.16	198	⇑*e*P	P	23 22 26.9	-0.2
SNET	Serv Nac Est T	9.18	236	⇓*e*P	P	23 22 28.2	+0.9
SNET				⇑*e*P		23 22 30.5	
BOQS	Boqueron	9.19	237	⇑*e*P	P	23 22 28.6	+1.1
ICR	Volcan Irazu	9.25	195	⇑*e*P	P	23 22 27.9	-0.5
JTS	JuntasAbangare	9.30	202	Pn	P	23 22 26.6	-2.4
	comp=Z,0.1nm,0.3s,baz=17,slow=19,SNR=2.0						
JTS	JuntasAbangare	9.30	202	*e*P	P	23 22 27.1	-1.9
RBDL	Robledal	9.30	240	⇑*e*P	P	23 22 29.5	+0.3
SJS	Escuela Geolog	9.35	196	*e*P	P	23 22 28.0	-1.7
SNJE	San Jose	9.37	238	⇓*e*P	P	23 22 30.4	+0.4
PRS1	Puriscal	9.38	198	*e*P	P	23 22 31.7	+1.5
URSC	Urasca	9.38	195	⇑*e*P	P	23 22 28.6	-1.5
RTR	El Retiro	9.39	239	⇓*e*P	P	23 22 30.5	+0.3
CGA2	Cerro Gallo 2	9.39	199	⇑*e*P	P	23 22 29.5	-0.9
SBLS	San Blas	9.40	238	*e*P	P	23 22 30.9	+0.4
LAJ	Bijagual	9.44	197	⇓*e*P	P	23 22 35.2	+4.2
LCR2	La Lucha 2	9.52	196	*e*P	P	23 22 31.2	-1.1
CNI	Changuinola	9.57	187	*i* P	P	23 22 31.1	-1.8
BUS	Buena Vista	9.64	194	*e*P	P	23 22 32.9	-1.0
VCR	Vista de Mar	9.71	206	*e*P	P	23 22 36.9	+2.1
JCR	Jicaral	9.76	202	⇓*e*P	P	23 22 35.7	+0.2
JEF	Cerro Jefe	9.90	168	*e*P	P	23 22 32.4	-5.0
UPA	Univ. de Panam	10.10	169	*i* P	P	23 22 35.5	-4.8
UPA				AMb	AMB	23 22 39.6	
	comp=Z,349nm,0.8s						
ACR	Cerro Adams	10.41	190	*e*P	P	23 22 41.9	-2.6
DVD	David	10.53	186	*i* P	P	23 22 45.3	-0.8
CCIG	Comitan	10.58	257	*e*P	P	23 22 43.9	-2.9
CCIG				*i* S	S	23 24 55.4	+8.8
SCX	San Cristobal	10.93	260	*e*P	P	23 22 51.0	-0.5
SCX				*i* S	S	23 24 46.4	-8.5
CMIG	Matias Romero	12.96	264	*i* P	P	23 23 15.6	-3.4
CMIG				*i* S	S	23 25 53.6	+9.2
CMIG				*i* S	Sx	23 26 42.1	
EVV	El Vigia	13.23	270	*e*P	P	23 23 14.2	-8.3
EVV				*i* S	S	23 25 30.9	-20
RGRS	Roger Stewart	13.91	4	*e*P	P	23 23 25.8	-5.7
HBF	Harts Bluff	13.93	4	*e*P	P	23 23 25.7	-6.0
CSU	Charleston Sou	14.00	5	*e*P	P	23 23 26.6	-6.1
NHSC	New Hope	14.11	4	*e*P	P	23 23 28.1	-6.0
TWB	Tillmans-White	14.12	4	*e*P	P	23 23 28.6	-5.7
LVIG	Laguna Verde	14.20	275	*i* P	P	23 23 30.5	-4.9
LVIG				*i* S	S	23 25 57.0	-17
COW	Cow Castle Cre	14.36	2	*e*P	P	23 23 30.7	-6.6
SDV	Santo Domingo	14.48	132	Pn	P	23 23 32.6	-6.5
SDV				sS		23 26 50.6	
SDV	Santo Domingo	14.48	132	⇑*i*P	P	23 23 32.5	-6.6
SJG	San Juan	14.49	91	Pn	P	23 23 34.2	-5.0
	comp=Z,54nm,0.3s,baz=258,slow=11,SNR=36						
SJG				Sn	S	23 26 13.6	-7.2
	comp=Z,7.2nm,0.3s,baz=50,slow=21,SNR=2.5						
SJG	San Juan	14.49	91	P	P	23 23 34.2	-5.0
SJG						23 26 13.6	
SJG				pmax	pmax		
	comp=Z,54nm,0.3s						
SJG	San Juan	14.49	91	*e*P	P	23 23 32.9	-6.3
GOGA	Godfrey	14.49	353	⇑*e*P	P	23 23 36.0	-3.1
OXX	Oaxaca	14.70	265	*e*P	P	23 23 40.6	-1.3
VHO	Vista Hermosa	14.71	265	*i* P	P	23 23 38.9	-3.2
VHO				*i* S	S	23 26 12.4	-14
LRAL	Lakeview Retre	14.87	341	*e*P	P	23 23 41.4	-2.6
IISM	Ciudad Serdan	15.11	273	*e*P	P	23 23 45.6	-1.8
JSC	Jenkinsville	15.24	0	⇑*i*P	P	23 23 44.3	-4.6
ROSC	El Rosal	15.64	153	Pn	P	23 23 51.7	-2.5
	comp=Z,14nm,0.3s,baz=11,slow=2.1,SNR=43						
ROSC				Sn	S	23 26 42.9	-5.2
	comp=Z,7.3nm,0.3s,baz=270,slow=20,SNR=3.4						
PNIG	Pinotepa	16.15	263	*i* P	P	23 23 57.6	-3.1
MYNC	Murphy	16.21	352	*e*P	P	23 24 00.2	-1.3
MYNC				pmax	pmax		
	comp=Z,139nm,0.8s						
MYNC	Murphy	16.21	352	*e*P	P	23 24 00.2	-1.3
	comp=Z,139nm,0.8s						
PPM	Popocatepetl	16.29	273	*e*P	P	23 24 01.8	-0.8
PPM				*i* S	S	23 26 58.0	-5.2
PPM	Popocatepetl	16.29	273	*e*P	P	23 24 01.8	-0.7
PPM				⇑*i*P		23 24 03.5	
PPM				*i* S	S	23 26 49.2	-14
PPM				*i* S	S	23 26 58.0	-5.2
IIO	Organos	16.37	275	*i* P	P	23 24 09.5	+6.0
CPCT	Cooper Cave	16.64	351	*e*P	P	23 24 05.3	-1.5
CPCT				*e*S	S	23 27 07.7	-3.4
SWET	Sewanee	16.66	347	*e*P	P	23 24 04.8	-2.4
PTVM	Pico Tres Padr	16.74	275	*e*P	P	23 24 08.5	+0.4
UNM	Universidad Na	16.80	274	⇑*i*P	P	23 24 09.3	+0.3
UNM				*i* S	S	23 27 23.0	+8.0
UNM	Universidad Na	16.80	274	⇑*i*P	P	23 24 09.3	+0.2
UNM				*e*P		23 24 12.0	
UNM				*i* S	S	23 27 23.0	+8.0
MDVM	Presa Madin	16.86	275	*e*P	P	23 24 11.5	+1.7
IIZ	Mezontepec	16.87	274	*e*P	P	23 24 09.8	-0.1
IIC	Rita Coyotepec	16.87	276	*e*P	P	23 24 02.8	-7.1
OXF	Oxford	17.03	337	P	P	23 24 10.8	-1.0
OXF				pmax	pmax		
	comp=Z,510nm,0.8s						
OXF	Oxford	17.03	337	⇑*e*P	P	23 24 10.4	-1.4
	comp=Z,4µm,1.3s						
HKT	Hockley	17.07	313	⇑*i*P	P	23 24 10.3	-2.0
HKT				pmax	pmax		
	comp=Z,5µm,1.7s						
HKT	Hockley	17.07	313	⇑*i*P	P	23 24 10.3	-2.0
	comp=Z,5µm,1.7s						
PLIG	Platanillo	17.16	271	⇑*i*P	P	23 24 11.8	-1.7
PLIG				*i* S	S	23 27 25.6	+2.4
SABT	Saba	17.29	92	*e*P	P	23 24 12.2	-3.0
IIJ	Jocotitlan	17.32	276	*e*P	P	23 24 07.5	-8.0
STMA	St. Maarten, A	17.37	90	*e*P	P	23 24 10.7	-5.5
NATX	Nacogdoches	17.46	319	⇑*e*P	P	23 24 15.7	-1.5
	comp=Z,4µm,1.6s						
NATX				*e*S	S	23 27 17.1	-13
STAT	Sint Eustatius	17.56	92	*e*P	P	23 24 14.6	-4.0
ACX	Acapulco	17.75	266	*i* P	P	23 24 18.3	-2.6
MET	Memphis--Engin	17.77	337	*e*P	P	23 24 18.2	-2.9
WVT	Waverly	18.00	343	⇑*e*P	P	23 24 22.8	-1.1
WVT				pmax	pmax		
	comp=Z,939nm,1.0s						
WVT	Waverly	18.00	343	⇑*e*P	P	23 24 22.8	-1.2
	comp=Z,939nm,1.0s						
WVT				*e*S	S	23 27 29.3	-13
CAIG	El Cayaco	18.05	267	*i* P	P	23 24 21.5	-3.1
CAIG				*i* S	S	23 27 48.0	+4.6
BLA	Blacksburg	18.18	3	⇓*i*P	P	23 24 23.7	-2.5
BLA				*e*S	S	23 27 39.4	-6.9
BLA				pmax	pmax		
	comp=Z,785nm,0.9s						
BLA	Blacksburg	18.18	3	⇓*i*P	P	23 24 23.7	-2.5
	comp=Z,785nm,0.9s						
BLA				*e*S	S	23 27 39.4	-7.0
ELN	Prospectdale	18.19	2	*e*P	P	23 24 24.6	-1.7
HALT	Halls	18.26	339	⇑*i*P	P	23 24 25.6	-1.7
HALT				*e*S	S	23 27 45.3	-2.8
PWV	Princeton	18.29	1	*e*P	P	23 24 26.1	-1.5
PWV				*e*S	S	23 27 42.3	-6.4
HBAR	Harrisburg	18.43	335	⇑*i*P	P	23 24 28.0	-1.3
UALR	University of	18.49	330	⇑*i*P	P	23 24 29.7	-0.3
	comp=Z,1µm,1.3s						
UTMT	University of	18.50	341	⇑*i*P	P	23 24 29.3	-0.9
	comp=Z,6µm,1.1s						
GLAT	Glass	18.57	340	⇑*i*P	P	23 24 29.8	-1.2
CPB	Codrington	18.63	91	*e*P	P	23 24 25.9	-6.0
BPA	Boggy Peak	18.69	93	*e*P	P	23 24 26.7	-5.8
BPA	Boggy Peak	18.69	93	*e*P	P	23 24 27.0	-5.5
OTAV	Otavalo	18.85	171	⇓*i*P	P	23 24 34.7	+0.2
	comp=Z,3µm,2.0s						
MIAR	Mount Ida	18.91	328	⇑*i*P	P	23 24 35.1	0.0
MIAR				pmax	pmax		
	comp=Z,314nm,1.5s						
MIAR	Mount Ida	18.91	328	⇑*i*P	P	23 24 35.1	0.0
	comp=Z,314nm,1.5s						
PARMO	Parma	19.09	339	⇑*i*P	P	23 24 36.7	-0.5
ZIIG	Zihuatanejo	19.10	269	⇑*i*P	P	23 24 37.4	-0.2
ZIIG				*i* S	S	23 28 17.6	+10
CBN	Corbin	19.47	10	⇓*i*P	P	23 24 40.2	-1.6
	comp=Z,631nm,0.6s						
CBN				*e*S	S	23 28 03.1	-12
WCI	Wyandotte Cave	19.65	348	P	P	23 24 42.5	-1.2
WCI				pmax	pmax		
	comp=Z,390nm,0.8s						
WCI	Wyandotte Cave	19.65	348	*e*P	P	23 24 42.4	-1.3
	comp=Z,839nm,1.0s						
USIN	University of	19.69	345	⇑*i*P	P	23 24 43.1	-1.0
	comp=Z,1µm,1.0s						
USIN				*e*S	S	23 28 19.4	-0.8
FDF	Fort de France	19.83	99	⇑*e*P	P	23 24 41.6	-4.2
BIM	Bigot	19.96	100	⇑*e*P	P	23 24 43.3	-4.0
CRM	Caravelle	20.04	99	⇑*e*P	P	23 24 44.0	-4.2
BBSR	BB Station	20.07	45	⇓*e*P	P	23 24 47.0	-1.4
	comp=Z,2µm,1.4s						
MVM	Montagne Vaucl	20.11	100	⇑*e*P	P	23 24 45.1	-3.8
GRW	Mount Saint Ca	20.18	107	*e*P	P	23 24 46.7	-2.9
SLW	Petit Monier	20.22	101	⇑*e*P	P	23 24 46.0	-4.1
JCT	Junction City	20.23	308	⇑*i*P	P	23 24 49.4	-0.6
JCT				pmax	pmax		
	comp=Z,1µm,1.0s						
JCT				MLR	MLR		
	comp=Z,183µm,21.0s,MS6.4						
JCT	Junction City	20.23	308	⇑*i*P	P	23 24 49.4	-0.6
	comp=Z,1µm,1.0s						
JCT				LR	LR		
	comp=Z,183µm,21.0s,MS6.4						
SFJM	Santa Fe	20.43	278	⇑*i*P	P	23 24 53.1	+1.0

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FVM   French Village     20.51 339⇑eP       P         23 24 52.6 -0.3
FVM                                 pmax     pmax
      comp=Z,4µm,1.3s
FVM   French Village     20.51 339⇑eP       P         23 24 52.6 -0.3
      comp=Z,4µm,1.3s
MCWV  Mont Chateau       20.65   3 eP       P         23 24 54.3  0.0
      comp=Z,724nm,1.1s
MCWV                               eS       S         23 28 46.9 +6.8
MCWV                                LR       LR
      comp=Z,489µm,21.0s,MS6.8
SDMD  Soldier’s Deli     20.74  10⇓iP       P         23 24 54.2 -1.1
CGX   Ciudad Guzman      20.88 276 eP       P         23 24 55.0 -1.8
TRN   Trinidad (W)       21.01 110⇓iP       P         23 24 55.0 -3.3
TRN   Trinidad (W)       21.01 110 eP       P         23 24 55.0 -3.2
SLM   Saint Louis        21.04 340⇑iP       P         23 24 58.2 -0.1
SLM                                eS       S         23 28 53.8 +6.1
SLM                                 pmax     pmax
      comp=Z,900nm,1.0s,mb6.0
SLM   Saint Louis        21.04 340⇑iP       P         23 24 58.2 -0.1
      comp=Z,900nm,1.0s,mb6.0
SLM                                eS       S         23 28 53.8 +6.1
COLM  Colima             21.07 274 i P      P         23 24 57.5 -1.3
COLM                               i S      S         23 28 54.0 +5.6
TPP   Pointe-a-Pierr     21.12 111 eP       P         23 24 56.5 -2.8
SIPA  Siparia            21.14 112 eP       P         23 24 57.4 -2.1
ACSO  Alum Creek Sta     21.22 357 eP       P         23 25 00.1 -0.1
      comp=Z,642nm,1.0s,mb5.9
ACSO                                LR       LR
      comp=Z,81µm,19.0s,MS6.1
TPR   Prospect           21.35 108 eP       P         23 24 57.8 -3.9
TBH   Brigand Hill       21.38 110 eP       P         23 24 58.0 -3.9
PAYG  Puerto Ayora       21.39 205⇓eP       P         23 25 02.4 +0.3
      comp=Z,2µm,1.4s,mb6.2
PAYG                                LR       LR
      comp=Z,159µm,20.0s,MS6.4
SSPA  Standing Stone     21.79   7⇓eP       P         23 25 06.2 +0.2
      comp=Z,860nm,1.4s,mb6.0
SSPA                                LR       LR
      comp=Z,53µm,22.0s,MS5.9
BBSP  Saint Philip       21.87 102 eP       P         23 25 02.4 -4.5
WMOK  Wichita Mounta     22.01 319⇑iP       P         23 25 07.9 -0.3
WMOK                                pmax     pmax
      comp=Z,1µm,1.2s,mb6.1
WMOK  Wichita Mounta     22.01 319⇑iP       P         23 25 07.9 -0.2
      comp=Z,1µm,1.2s,mb6.1
CJM   Chamela            22.33 275 i P      P         23 25 08.6 -2.8
BRNJ  Basking Ridge      22.41  14⇓iP       P         23 25 12.5 +0.4
BRNJ                               eS       S         23 29 17.9 +4.6
ALLY  Alegheny Colle     22.62   2 eP       P         23 25 14.6 +0.4
CPNY  Central Park       22.66  15⇓iP       P         23 25 14.4 -0.1
LTX   Lajitas            22.75 301⇑iP       P         23 25 16.1 +0.6
LTX                                 pmax     pmax
      comp=Z,1µm,1.4s,mb6.2
LTX                                 MLR      MLR
      comp=Z,90µm,19.0s,MS6.2
LTX   Lajitas            22.75 301⇑iP       P         23 25 16.1 +0.5
      comp=Z,1µm,1.4s,mb6.2
LTX                                 LR       LR
      comp=Z,90µm,19.0s,MS6.2
TXAR  Lajitas Array      22.75 301  P       P         23 25 15.7 +0.2
      comp=Z,103nm,0.7s,mb5.4,baz=120,slow=10,SNR=125
TXAR                                S        S        23 29 23.1 +3.6
      comp=Z,43nm,0.9s,baz=117,slow=20,SNR=3.5
TXAR                                LR       LR       23 34 17.7
      comp=Z,43µm,21.9s,MS5.8,baz=70,slow=37
TXAR  Lajitas Array      22.75 301  P       P         23 25 15.7 +0.2
TXAR                                S        S        23 29 23.1 +3.6
TXAR                                LR       LR       23 34 17.7
PAL   Palisades          22.87  15  P       P         23 25 17.2 +0.5
PAL                                 pmax     pmax
      comp=Z,390nm,0.7s,mb6.0
PAL   Palisades          22.87  15⇓iP       P         23 25 15.8 -0.9
      comp=Z,1µm,1.3s,mb6.2
ERPA  Erie               23.09   3 eP       P         23 25 17.1 -1.7
      comp=Z,1µm,1.0s,mb6.2
ERPA                                LR       LR
      comp=Z,405µm,22.0s,MS6.8
AAM   Ann Arbor          23.33 356 eP       P         23 25 22.3 +1.2
AAM                                 pmax     pmax
      comp=Z,7µm,2.0s,mb6.7
AAM                                 MLR      MLR
      comp=Z,421µm,20.0s,MS6.9
AAM   Ann Arbor          23.33 356 eP       P         23 25 22.3 +1.2
      comp=Z,7µm,2.0s,mb6.7
AAM                                 LR       LR
      comp=Z,421µm,20.0s,MS6.9
GENY  Geneseo            23.91   7 eP       P         23 25 27.8 +1.1
AMTX  Amarillo           23.97 315⇑iP       P         23 25 28.5 +1.1
      comp=Z,2µm,1.2s,mb6.3
AMTX                                LR       LR
      comp=Z,186µm,22.0s,MS6.5
BUF   Buffalo            23.97   5  P       P         23 25 29.2 +1.9
BUF                                 S        Px       23 27 42.0
KSU1  Kansas State U     23.99 330⇑iP       P         23 25 27.8 +0.3
CLNB  Carlsbad           24.14 308 eP       P         23 25 29.2 +0.1
BRYW  Bryant College     24.36  18 eP       P         23 25 28.0 -3.1
      comp=Z,2µm,1.3s,mb6.4
GDL2  Guadalupe Moun     24.48 307 eP       P         23 25 32.7 +0.3
CPRX  Cap Rock           24.50 309⇑iP       P         23 25 32.8 +0.2
WES   Weston             24.85  18  P       P         23 25 37.1 +1.2
WES                                 pmax     pmax
      comp=Z,770nm,1.1s,mb6.2
WES                                 MLR      MLR
      comp=Z,160µm,20.0s,MS6.5
WES   Weston             24.85  18⇓eP       P         23 25 36.5 +0.6
      comp=Z,593nm,1.2s,mb6.0
WES                                 LR       LR
      comp=Z,156µm,20.0s,MS6.5
HRV   Harvard--Oak R     24.89  17  P       P         23 25 37.7 +1.4
HRV                                 pmax     pmax
      comp=Z,420nm,1.3s,mb5.8
HRV                                 MLR      MLR
      comp=Z,180µm,19.0s,MS6.6
HRV   Harvard--Oak R     24.89  17⇓eP       P         23 25 36.9 +0.6
      comp=Z,246nm,1.3s,mb5.6
HRV                                 LR       LR
      comp=Z,179µm,19.0s,MS6.6
JFWS  Jewell Farm        25.01 344  P       P         23 25 37.4  0.0
JFWS                                pmax     pmax
      comp=Z,66nm,0.9s,mb5.2
JFWS                                MLR      MLR
      comp=Z,410µm,21.0s,MS6.9
JFWS  Jewell Farm        25.01 344⇑eP       P         23 25 37.1 -0.2
      comp=Z,896nm,0.8s,mb6.3
JFWS                                LR       LR
      comp=Z,413µm,21.0s,MS6.9
MNTX  Cornudas Mount     25.04 305  PFAKE             23 25 50.0  +12
MNTX                                LR       LR
      comp=Z,123µm,22.0s,MS6.4
ACCN  Adirondack Com     25.19  13⇓eP       P         23 25 39.8 +0.7
CBKS  Cedar Bluff        25.37 325 eP       P         23 25 40.7 -0.2
      comp=Z,1.3nm,1.0s
NCB   Newcomb            25.64  12⇓eP       P         23 25 43.6 +0.3
      comp=Z,359nm,1.2s,mb5.8
NCB                                 LR       LR
      comp=Z,443µm,20.0s,MS7.0
FFD   Franklin Falls     25.76  16 eP       P         23 25 45.1 +0.6
      comp=Z,4µm,2.2s,mb6.6
SADO  Sadowa             25.78   4  P       P         23 25 44.9 +0.2
      comp=Z,161nm,0.9s,mb5.6,baz=198,slow=10,SNR=28
SADO                                LR       LR       23 35 43.0
      comp=Z,276µm,20.1s,MS6.8,baz=198,slow=36
HNH   Hanover            25.82  15 eP       P         23 25 45.6 +0.6
      comp=Z,80nm,1.0s,mb5.2
PTN   Potsdam (NY)       26.07  10  P       P         23 25 48.2 +0.9
PTN   Potsdam (NY)       26.07  10 eP       P         23 25 47.7 +0.3
MSNY  Massena            26.51  10 eP       P         23 25 51.6 +0.3
FRNY  Flat Rock          26.59  12⇓eP       P         23 25 52.3 +0.2
BNM   Barren Site        27.05 309 eP       P         23 25 56.8 +0.3
LPM   Los Pinos Moun     27.13 309 eP       P         23 25 57.1  0.0
ANMO  Albuquerque        27.31 311  P       P         23 25 59.3 +0.5
      comp=Z,32nm,1.0s,baz=124,slow=9.9,SNR=62
ANMO                                S        S        23 30 44.2 +7.6
      comp=Z,58nm,1.2s,baz=304,slow=11,SNR=1.5
ANMO                                LR       LR       23 40 20.0
      comp=Z,163µm,18.2s,MS6.6,slow=44
ANMO  Albuquerque        27.31 311⇑eP       P         23 25 59.3 +0.5
ANMO  Albuquerque        27.31 311⇑iP       P         23 25 59.5 +0.6
      comp=Z,692nm,1.3s,mb6.0
ANMO                                LR       LR
      comp=Z,140µm,21.0s,MS6.5
LENM  Lemitar            27.32 309 eP       P         23 25 59.0 +0.1
WVL   Waterville         27.33  18⇓eP       P         23 25 59.5 +0.6
      comp=Z,1µm,1.1s,mb6.4
WVL                                 LR       LR
      comp=Z,616µm,19.0s,MS7.2
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LAZ   Ladron             27.55 309 eP       P         23 26 01.7 +0.7
SDCO  Great Sand Dun     28.14 317⇓iP       P         23 26 07.8 +1.5
      comp=Z,154nm,0.5s,mb5.9
SDCO                                LR       LR
      comp=Z,239µm,20.0s,MS6.8
EMMW  East Machias       28.17  21 eP       P         23 26 02.3 -4.2
      comp=Z,716nm,1.1s,mb6.2
EMMW                                LR       LR
      comp=Z,610µm,20.0s,MS7.2
ISCO  Idaho Springs      29.43 320  P       P         23 26 18.2 +0.3
ISCO                                pmax     pmax
      comp=Z,190nm,0.8s,mb5.9
ISCO                                MLR      MLR
      comp=Z,93µm,19.0s,MS6.4
ISCO  Idaho Springs      29.43 320⇑iP       P         23 26 18.6 +0.8
      comp=Z,258nm,1.6s,mb5.7
ISCO                                LR       LR
      comp=Z,93µm,19.0s,MS6.4
TUC   Tucson             29.52 303⇑iP       P         23 26 18.8  0.0
TUC                                 pmax     pmax
      comp=Z,133nm,1.3s,mb5.5
TUC                                 MLR      MLR
      comp=Z,136µm,20.0s,MS6.6
TUC   Tucson             29.52 303⇑iP       P         23 26 18.8  0.0
      comp=Z,133nm,1.3s,mb5.5
TUC                                 LR       LR
      comp=Z,136µm,20.0s,MS6.6
RW3   Ridgway            29.85 316 eP       P         23 26 22.6 +0.9
EYMN  Ely                30.04 346 eP       P         23 26 22.1 -1.1
      comp=Z,4.9nm,0.8s
EYMN                                LR       LR
      comp=Z,387µm,20.0s,MS7.0
PHWY  Pilot Hill         30.28 322⇑iP       P         23 26 25.4  0.0
PV01  Paradox Valley     30.38 315⇑iP       P         23 26 27.8 +1.5
PV10  Paradox Valley     30.82 315⇑iP       P         23 26 31.0 +0.8
NNA   Nana               31.10 171 eP       P         23 26 32.5 -0.4
      comp=Z,467nm,1.5s,mb6.1
NNA                                 LR       LR
      comp=Z,23µm,20.0s,MS5.8
RWWY  Rawlins            31.54 321⇑iP       P         23 26 37.1 +0.5
SRU   San Rafael         32.20 315⇑iP       P         23 26 43.4 +1.1
TMUT  Trail Mountain     32.75 315⇑iP       P         23 26 48.2 +1.1
MSU   Marysvale          33.04 313⇑iP       P         23 26 50.7 +1.0
SAML  Samuel             33.06 146⇑iP       P         23 26 46.7 -3.3
      comp=Z,6.4nm,0.8s
SAML                                LR       LR
      comp=Z,84µm,20.0s,MS6.5
MVU   Marysvale          33.06 313⇑iP       P         23 26 51.3 +1.5
      comp=Z,2µm,1.8s,mb6.7
MVU                                 LR       LR
      comp=Z,154µm,19.0s,MS6.7
ULM   Lac du Bonnet      33.27 343  P       P         23 26 50.5 -1.1
      comp=Z,28nm,0.9s,mb5.2,baz=153,slow=8.1,SNR=38
ULM                                 S        S        23 32 06.7 -4.0
      comp=Z,12nm,1.0s,baz=246,slow=19,SNR=1.8
ULM                                 LR       LR       23 39 57.2
      comp=Z,271µm,18.8s,MS7.0,baz=157,slow=36
ULM   Lac du Bonnet      33.27 343⇑eP       P         23 26 50.2 -1.3
      comp=Z,951nm,1.4s,mb6.5
ULM                                 LR       LR
      comp=Z,324µm,22.0s,MS7.0
DAU   Daniels Canyon     33.34 316  P       P         23 26 53.3 +1.0
DAU   Daniels Canyon     33.34 316⇑iP       P         23 26 53.4 +1.1
MPU   Maple Canyon       33.39 315⇑iP       P         23 26 53.6 +0.9
MPU                                ePP      PP        23 28 08.5 +4.1
JLU   Jordanelle         33.57 316⇑iP       P         23 26 55.1 +0.8
BW06  Boulder Array      33.58 321⇑iP       P         23 26 54.0 -0.4
      comp=Z,315nm,1.3s,mb6.1
BW06                                LR       LR
      comp=Z,77µm,19.0s,MS6.4
PDAR  Pinedale Array     33.58 321  P       P         23 26 54.2 -0.1
      comp=Z,150nm,0.9s,mb5.9,baz=126,slow=8.2,SNR=386
PDAR                                PcP      PcP      23 29 35.9 +1.0
      comp=Z,18nm,0.9s,baz=158,slow=4.9,SNR=2.9
PDAR                                LR       LR       23 42 55.0
      comp=Z,68µm,18.1s,MS6.4,baz=140,slow=40
ARUT  Antelope Range     33.62 311⇑iP       P         23 26 55.5 +0.8
NLU   North Lily Min     33.66 315⇑iP       P         23 26 56.0 +1.0
CTU   Camp Tracy         33.81 316 eP       P         23 26 56.0 -0.3
NEN   Nelson             33.83 306⇑iP       P         23 26 57.0 +0.4
LDFC  Landfair           33.84 305⇑iP       P         23 26 58.3 +1.6
NOQ   North Oquirrh      34.03 316⇑iP       P         23 26 59.3 +1.0
HWUT  Hardware Ranch     34.17 318⇑iP       P         23 26 59.9 +0.5
      comp=Z,310nm,1.0s,mb6.2
HWUT                                LR       LR
      comp=Z,171µm,20.0s,MS6.8
LAO   LASA Array         34.34 329⇑eP       P         23 26 59.3 -1.6
      comp=Z,694nm,1.4s,mb6.4
LAO                                 LR       LR
      comp=Z,126µm,20.0s,MS6.7
BAR   Barrett            34.38 300 eP       P         23 27 00.8 -0.6
PFO   Pinyon Flat Ob     34.45 302⇑iP       P         23 27 02.2 +0.2
PFO                                 pmax     pmax
      comp=Z,81nm,0.9s,mb5.7
PFO                                 MLR      MLR
      comp=Z,18µm,21.0s,MS5.8
PFO   Pinyon Flat Ob     34.45 302⇑iP       P         23 27 02.2 +0.2
      comp=Z,81nm,0.9s,mb5.7
PFO                                 LR       LR
      comp=Z,18µm,21.0s,MS5.8
AHID  Auburn Hatcher     34.51 320⇑iP       P         23 27 02.5 +0.2
      comp=Z,1µm,1.5s,mb6.5
AHID                                LR       LR
      comp=Z,85µm,20.0s,MS6.5
SPUT  South Promonto     34.58 317⇑iP       P         23 27 04.1 +1.1
LOHW  Long Hollow        34.70 321⇑iP       P         23 27 04.1 +0.2
SNOW  Snow King Moun     34.70 321⇑iP       P         23 27 04.6 +0.7
DGMT  Dagmar             34.73 333⇑iP       P         23 27 03.1 -1.1
      comp=Z,484nm,0.8s,mb6.5
DGMT                                LR       LR
      comp=Z,222µm,20.0s,MS6.9
WUWY  Wally Ulrich       34.74 321⇑iP       P         23 27 04.8 +0.5
BGU   Big Grassy Mou     34.77 316  P       P         23 27 04.7 +0.1
TPAW  Teton Pass         34.83 321⇑iP       P         23 27 05.6 +0.5
MOOW  Moose Ponds        34.86 322⇑iP       P         23 27 05.5 +0.1
HVU   Hansel Valley      35.03 317⇑iP       P         23 27 07.2 +0.4
IMW   Indian Meadow      35.06 322⇑iP       P         23 27 07.4 +0.3
LKWY  Lake               35.15 323⇑eP       P         23 27 08.8 +1.0
LKWY                                pmax     pmax
      comp=Z,1µm,1.5s,mb6.6
LKWY                                MLR      MLR
      comp=Z,144µm,21.0s,MS6.7
LKWY  Lake               35.15 323⇑eP       P         23 27 08.8 +1.0
      comp=Z,1µm,1.5s,mb6.6
LKWY                                LR       LR
      comp=Z,144µm,21.0s,MS6.7
YFT   Old Faithful       35.33 323⇑iP       P         23 27 10.9 +1.6
TPNV  Topopah Spring     35.35 308⇑iP       P         23 27 11.3 +1.7
TPNV                                pmax     pmax
      comp=Z,233nm,1.0s,mb6.1
TPNV                                MLR      MLR
      comp=Z,103µm,19.0s,MS6.6
TPNV  Topopah Spring     35.35 308⇑iP       P         23 27 11.3 +1.7
      comp=Z,233nm,1.0s,mb6.1
TPNV                                LR       LR
      comp=Z,103µm,19.0s,MS6.6
TRCR  Troy Canyon        35.39 310⇑iP       P         23 27 11.4 +1.5
YNR   Norris Junctio     35.40 323 eP       P         23 27 10.2 +0.2
YMR   Madison River      35.53 323⇑iP       P         23 27 11.5 +0.5
QLMT  Earthquake Lak     35.89 323 eP       P         23 27 15.0 +0.9
MWC   Mount Wilson       35.90 302⇑iP       P         23 27 14.7 +0.4
DAC   Darwin (Calif)     36.14 306⇑eP       P         23 27 17.2 +0.9
DAC                                e                  23 28 39.7
DAC                                 pmax     pmax
      comp=Z,2µm,2.2s,mb6.7
DAC                                 MLR      MLR
      comp=Z,87µm,20.0s,MS6.5
DAC   Darwin (Calif)     36.14 306⇑eP       P         23 27 17.2 +0.9
      comp=Z,2µm,2.2s,mb6.7
DAC                                ePP      PP        23 28 39.7 +1.0
DAC                                 LR       LR
      comp=Z,87µm,20.0s,MS6.5
ELK   Elko               36.16 314⇑iP       P         23 27 17.7 +1.3
ELK                                 pmax     pmax
      comp=Z,235nm,0.9s
ELK                                 MLR      MLR
      comp=Z,177µm,19.0s
ELK   Elko               36.16 314⇑iP       P         23 27 17.6 +1.2
      comp=Z,234nm,0.9s,mb6.1
ELK                                 LR       LR
      comp=Z,177µm,19.0s,MS6.9
TPH   Tonopah            36.48 309⇑iP       P         23 27 20.5 +1.4
TPH                                 pmax     pmax
      comp=Z,638nm,1.2s,mb6.4
TPH                                 MLR      MLR
      comp=Z,162µm,21.0s,MS6.8
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TPH   Tonopah            36.48 309⇑iP       P         23 27 20.5 +1.4
      comp=Z,638nm,1.2s,mb6.4
TPH                                 LR       LR
      comp=Z,162µm,21.0s,MS6.8
ARE   Arequipa           36.54 164 eP       P         23 27 20.0 +0.2
ARE                                i        pP        23 27 23.1 +0.4
ARE                                i                  23 33 06.0
ARE   Arequipa           36.54 164 eP       P         23 27 20.0 +0.2
ARE                                i        pP        23 27 23.1 +0.4
ARE                                i                  23 28 20.8
ARE                                i                  23 29 56.8
ARE                                i                  23 33 06.0
ARE                                i                  23 37 08.0
MCMT  McKenzie Canyo     36.72 322⇑iP       P         23 27 22.5 +1.4
HLID  Hailey             36.98 319⇑iP       P         23 27 24.2 +0.9
      comp=Z,341nm,1.1s,mb6.1
HLID                                LR       LR
      comp=Z,92µm,19.0s,MS6.6
MTUM  Tungsten Hills     37.23 307 eP       P         23 27 27.1 +1.6
HRY   Holter Researc     37.25 325⇑iP       P         23 27 25.5  0.0
BMN   Battle Mountai     37.39 313⇑iP       P         23 27 27.9 +1.2
BMN                                e                  23 28 50.0
BMN                                 pmax     pmax
      comp=Z,875nm,1.6s,mb6.3
BMN                                 MLR      MLR
      comp=Z,148µm,20.0s,MS6.8
BMN   Battle Mountai     37.39 313⇑iP       P         23 27 27.9 +1.1
      comp=Z,875nm,1.6s,mb6.3
BMN                                ePP      PP        23 28 50.0 -4.4
BMN                                 LR       LR
      comp=Z,148µm,20.0s,MS6.8
LPAZ  La Paz             37.40 159  P       P         23 27 24.6 -2.5
      comp=Z,33nm,0.9s,mb5.1,baz=338,slow=9.8,SNR=29
LPAZ                                LR       LR       23 44 27.5
      comp=Z,28µm,20.4s,MS6.0,baz=152,slow=39
LPAZ  La Paz             37.40 159⇑iP       P         23 27 24.8 -2.2
LPAZ                                pmax     pmax
      comp=Z,312nm,1.3s
LPAZ                                MLR      MLR
      comp=Z,56µm,20.0s
LPAZ  La Paz             37.40 159⇑iP       P         23 27 24.8 -2.2
      comp=Z,312nm,1.3s,mb6.0
LPAZ                                LR       LR
      comp=Z,56µm,20.0s,MS6.4
NVAR  Mina Array Bea     37.40 309  P       P         23 27 27.9 +1.1
      comp=Z,76nm,0.8s,mb5.6,baz=112,slow=8.8,SNR=89
NVAR                                PcP      PcP      23 29 49.0 +2.8
      comp=Z,12nm,0.7s,baz=146,slow=3.3,SNR=4.2
NVAR                                S        S        23 33 19.8 +5.3
      comp=Z,6.6nm,1.2s,baz=163,slow=9.4,SNR=2.1
NVAR                                LR       LR       23 46 23.9
      comp=Z,146µm,19.4s,MS6.8,baz=175,slow=42
NVAR  Mina Array Bea     37.40 309  P       P         23 27 27.9 +1.1
NVAR                                PcP      PcP      23 29 49.0 +2.8
NVAR                                S        S        23 33 19.8 +5.3
NVAR                                LR       LR       23 46 23.9
SCHQ  Schefferville      37.48  14  P       P         23 27 27.4 +0.1
      comp=Z,218nm,1.1s,mb5.9,baz=206,slow=6.8,SNR=102
SCHQ                                LR       LR       23 43 05.0
      comp=Z,141µm,20.2s,MS6.8,baz=206,slow=37
SCHQ  Schefferville      37.48  14⇓eP       P         23 27 27.6 +0.3
      comp=Z,367nm,0.8s,mb6.3
SCHQ                                LR       LR
      comp=Z,217µm,21.0s,MS6.9
OMM   Old Mammoth Mi     37.64 308⇑iP       P         23 27 30.5 +1.7
OMM                                ePP      PP        23 28 53.9 -3.6
CHMT  Chamberlain Mo     38.15 324 eP       P         23 27 32.9 -0.1
MSO   Missoula           38.48 324⇑eP       P         23 27 35.6 -0.3
      comp=Z,98nm,1.1s,mb5.5
MSO                                 LR       LR
      comp=Z,47µm,20.0s,MS6.3
WCN   Washoe City        38.77 310⇑iP       P         23 27 39.8 +1.5
WCN                                 pmax     pmax
      comp=Z,601nm,1.2s,mb6.2
WCN   Washoe City        38.77 310⇑iP       P         23 27 39.8 +1.5
      comp=Z,601nm,1.2s,mb6.2
CMB   Columbia Colle     38.81 308  P       P         23 27 39.6 +0.9
CMB                                 PcS               23 33 42.9
CMB   Columbia Colle     38.81 308⇑iP       P         23 27 39.3 +0.5
CMB                                 pmax     pmax
      comp=Z,341nm,1.1s,mb6.0
CMB                                 MLR      MLR
      comp=Z,135µm,22.0s,MS6.7
CMB   Columbia Colle     38.81 308⇑iP       P         23 27 39.3 +0.6
      comp=Z,341nm,1.1s,mb6.0
CMB                                 LR       LR
      comp=Z,135µm,22.0s,MS6.7
LRV   Little Rabbit      38.83 305 eP       P         23 27 39.5 +0.6
FFC   Flin Flon          38.99 341 eP       P         23 27 38.5 -1.5
FFC                                e                  23 29 08.2
FFC                                 pmax     pmax
      comp=Z,419nm,1.3s,mb6.0
FFC                                 MLR      MLR
      comp=Z,37µm,20.0s,MS6.2
FFC   Flin Flon          38.99 341 eP       P         23 27 38.5 -1.5
      comp=Z,419nm,1.3s,mb6.0
FFC                                ePP      PP        23 29 08.2 -5.2
FFC                                 LR       LR
      comp=Z,37µm,20.0s,MS6.2
SAO   San Andreas Ge     39.25 305⇑iP       P         23 27 42.8 +0.4
SAO                                 pmax     pmax
      comp=Z,234nm,0.9s,mb5.9
SAO                                 MLR      MLR
      comp=Z,102µm,19.0s,MS6.7
SAO   San Andreas Ge     39.25 305⇑iP       P         23 27 42.8 +0.4
      comp=Z,234nm,0.9s,mb5.9
SAO                                 LR       LR
      comp=Z,102µm,19.0s,MS6.7
BEKR  Beckwourth         39.40 310⇑eP       P         23 27 44.1 +0.5
      comp=Z,121nm,1.1s,mb5.5
BMO   Blue Mountains     39.43 319⇑iP       P         23 27 43.4 -0.4
      comp=Z,1µm,1.5s,mb6.3
BMO                                ePP      PP        23 29 15.1 -3.1
BMO                                 LR       LR
      comp=Z,125µm,19.0s,MS6.8
WALA  Waterton Lakes     39.79 326 eP       P         23 27 45.8 -0.9
      comp=Z,401nm,1.4s,mb6.0
OHCM  Honcut             40.04 309⇓iP       P         23 27 50.0 +1.0
MOD   Modoc              40.11 313  PFAKE             23 28 00.0  +11
MOD                                 LR       LR
      comp=Z,132µm,21.0s,MS6.8
SAC   San Andreas        40.22 306 eP       P         23 27 50.2 -0.2
SAC                                e                  23 29 24.7
NSHM  Saint Helena R     40.63 307 eP       P         23 27 54.7 +0.9
LTIM  Timbered Crate     40.66 312  P       P         23 27 54.0  0.0
FCC   Fort Churchill     40.80 350 eP       P         23 27 54.0 -0.9
FCC                                 pmax     pmax
      comp=Z,565nm,1.1s,mb6.1
FCC   Fort Churchill     40.80 350 eP       P         23 27 54.0 -0.9
      comp=Z,565nm,1.1s,mb6.1
NEW   Newport            41.07 324  LR      LR        23 46 00.3
      comp=Z,129µm,18.9s,MS6.8,baz=143,slow=38
NEW   Newport            41.07 324⇑iP       P         23 27 56.8 -0.5
NEW                                 pmax     pmax
      comp=Z,469nm,1.0s
NEW                                 MLR      MLR
      comp=Z,80µm,20.0s
NEW   Newport            41.07 324⇑iP       P         23 27 56.8 -0.5
      comp=Z,469nm,1.0s,mb6.1
NEW                                 LR       LR
      comp=Z,80µm,20.0s,MS6.6
HOPS  Hopland            41.11 308 eP       P         23 27 58.9 +1.1
      comp=Z,632nm,1.4s,mb6.0
HOPS                                LR       LR
      comp=Z,101µm,22.0s,MS6.6
WDC   Whiskeytown Da     41.21 310⇑eP       P         23 27 56.6 -1.9
WDC                                e                  23 29 39.5
WDC                                 pmax     pmax
      comp=Z,234nm,1.3s,mb5.7
WDC                                 MLR      MLR
      comp=Z,61µm,20.0s,MS6.5
WDC   Whiskeytown Da     41.21 310⇑eP       P         23 27 56.6 -1.9
      comp=Z,234nm,1.3s,mb5.7
WDC                                ePP      PP        23 29 39.5 +2.7
WDC                                 LR       LR
      comp=Z,61µm,20.0s,MS6.5
PINOR Pine Mountain      41.25 316  P       P         23 27 59.5 +0.8
HAWA  Hanford            41.54 320⇑eP       P         23 28 01.1  0.0
      comp=Z,248nm,1.6s,mb5.6
HAWA                                LR       LR
      comp=Z,130µm,21.0s,MS6.8
PRW   Prosser            41.55 320  P       P         23 28 01.6 +0.4
YBH   Yreka Blue Hor     41.72 312  P       P         23 28 01.7 -0.9
      comp=Z,28nm,0.8s,mb4.9,baz=96,slow=4.7,SNR=39
YBH                                 S        S        23 34 24.4 +5.0
      comp=Z,2.5nm,1.0s,baz=139,slow=5.6,SNR=2.3
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YBH   Yreka Blue Hor  41.72 312   P      P      23 28 01.7 -1.0
YBH                               S      S      23 34 24.4 +4.9
YBH                               pmax   pmax
      comp=Z,28nm,0.8s
YBH   Yreka Blue Hor  41.72 312  eP      P      23 28 01.8 -0.9
      comp=Z,40nm,1.0s,mb5.0
YBH                               LR     LR
      comp=Z,110µm,21.0s,MS6.7
KHMM  Horse Mountain  42.16 310   P      P      23 28 05.8 -0.6
EDM   Edmonton        42.17 332⇑iP      P      23 28 05.2 -1.0
HUMO  Hull Mountain   42.20 313  eP      P      23 28 04.9 -1.7
      comp=Z,1µm,2.0s,mb6.3
HUMO                             ePP     PP     23 29 43.9 -3.6
HUMO                              LR     LR
      comp=Z,84µm,21.0s,MS6.6
KRMB  Red Mountain    42.50 311  eP      P      23 28 09.4 +0.3
SSOR  Sweet Springs   42.72 316   P      P      23 28 11.4 +0.6
MOCB  Mochara         42.86 158⇑iP      P      23 28 09.6 -2.7
KBO   Bosley Butte    42.95 312  eP      P      23 28 13.6 +0.9
LON   Longmire        43.10 319   P      P      23 28 14.3 +0.4
LVC   Limon Verde     43.10 163   P      P      23 28 13.4 -0.8
      comp=Z,98nm,0.8s,mb5.6,baz=339,slow=6.0,SNR=28
LVC                               S      S      23 34 40.2 +0.2
      comp=Z,0.9nm,0.3s,baz=97,slow=23,SNR=5.7
LVC                               LR     LR     23 48 25.4
      comp=Z,29µm,20.0s,MS6.2,baz=316,slow=39
LVC   Limon Verde     43.10 163⇑iP      P      23 28 13.4 -0.9
      comp=Z,814nm,1.2s,mb6.3
LVC                               LR     LR
      comp=Z,30µm,20.0s,MS6.2
COR   Corvallis       43.16 316⇑iP      P      23 28 14.9 +0.5
COR                               pmax   pmax
      comp=Z,2µm,1.4s,mb6.6
COR                               MLR    MLR
      comp=Z,21µm,22.0s,MS6.0
COR   Corvallis       43.16 316⇑iP      P      23 28 14.9 +0.4
      comp=Z,2µm,1.4s,mb6.6
COR                               LR     LR
      comp=Z,21µm,22.0s,MS6.0
KEBM  Edson Butte     43.24 313  eP      P      23 28 16.1 +1.0
PGC   Sidney          44.93 321  eP      P      23 28 28.8 +0.1
      comp=Z,514nm,1.3s,mb6.2
OCWA  Octopus Mounta  44.98 320  eP      P      23 28 29.8 +0.7
      comp=Z,616nm,1.2s,mb6.3
OCWA                              LR     LR
      comp=Z,95µm,20.0s,MS6.7
FRB   Frobisher Bay   45.58   8   P      P      23 28 32.6 -1.0
      comp=Z,64nm,0.8s,mb5.6,baz=205,slow=8.8,SNR=30
FRB                               LR     LR     23 47 26.2
      comp=Z,268µm,20.5s,MS7.2,baz=188,slow=36
BDFB  Brasilia        47.57 134   P      P      23 28 47.9 -2.2
      comp=Z,256nm,1.2s,mb6.1,baz=314,slow=9.9,SNR=97
BDFB                              LR     LR     23 50 56.2
      comp=Z,54µm,18.5s,MS6.5,baz=309,slow=39
BAO   Brasilia Array  47.58 134  eP      P      23 28 47.8 -2.3
BBB   Bella Bella     49.14 324   LR     LR     23 50 57.0
      comp=Z,67µm,19.9s,MS6.6,baz=72,slow=38
NRS   Narsarsuaq      49.15  22 i P      P      23 29 00.9 -0.8
      comp=Z,269nm,1.1s,mb6.2
YKA   Yellowknife Ar  49.16 340   P      P      23 29 00.2 -1.5
      comp=Z,43nm,0.9s,mb5.5,baz=132,slow=7.9,SNR=3.8
YKA                               PcP    PcP    23 30 24.8 -0.6
      comp=Z,19nm,0.9s,baz=124,slow=3.7,SNR=2.1
YKA                               S      S      23 36 03.5 -2.5
      comp=Z,1.5nm,0.8s,baz=155,slow=16,SNR=2.8
YKA                               LR     LR     23 49 32.3
      comp=Z,142µm,19.6s,MS7.0,baz=110,slow=36
YKA                               PKPPKP        23 59 57.4
      comp=Z,2.0nm,1.0s,baz=354,slow=3.5,SNR=5.5
YKA   Yellowknife Ar  49.16 340  eP      P      23 29 00.2 -1.5
YKW3  Yellowknife Ar  49.21 340  eP      P      23 29 00.6 -1.5
CALA  Caldeira        49.44  55  eP      P      23 29 05.4 +1.2
PCED  Cedros          49.45  55  eP      P      23 29 05.9 +1.7
      comp=Z,676nm,1.1s,mb6.6
HOR   Horta           49.49  55  eP      P      23 29 02.0 -2.6
PICO  Pico            49.64  55  eP      P      23 29 06.8 +1.0
ROSA  Rosais          49.81  55  eP      P      23 29 08.7 +1.6
TLL   Tololo Astrono  49.91 168⇑iP      P      23 29 07.9  0.0
PMAN  Manadas         49.92  55  eP      P      23 29 08.8 +0.9
      comp=Z,806nm,1.3s,mb6.6
STGR  Santa Cruz      50.05  55  eP      P      23 29 09.6 +0.7
      comp=Z,103nm,0.8s,mb5.9
ASBA  Santa Barbara   50.53  55  eP      P      23 29 15.7 +3.2
PPAD  Pico dos Padre  50.55  55  eP      P      23 29 15.6 +2.9
PBIS  Biscoitos       50.59  55  eP      P      23 29 16.0 +3.0
ADH   Angra Heroismo  50.59  55  eP      Px     23 29 29.6
RIB2  Ribeirinha      50.64  55  eP      P      23 29 16.3 +2.9
PVNV  Vila Nova       50.66  55  eP      P      23 29 14.6 +1.1
PFAV  Pico das Favas  50.71  55  eP      P      23 29 15.0 +1.1
      comp=Z,61nm,0.9s,mb5.5
CPUP  Villa Florida   50.74 152   P      P      23 29 09.0 -5.3
      comp=Z,0.0nm,0.3s,baz=146,slow=8.9,SNR=1.6
CPUP  Villa Florida   50.74 152   P      P      23 29 09.0 -5.3
CMCH  Combarbala      50.85 168⇓iP      P      23 29 13.6 -1.5
RCBR  Riachuelo       51.15 114⇑iP      P      23 29 15.4 -2.1
      comp=Z,376nm,1.5s,mb6.1
RCBR                              LR     LR
      comp=Z,46µm,20.0s,MS6.5
SET4  Mosteiros       51.63  56  eP      P      23 29 21.5 +0.6
PDA   Ponta Delgada   51.73  57  eP      P      23 29 26.6 +5.0
PDA   Ponta Delgada   51.73  57  ePP     PP     23 30 56.8  -23
PDA                              eS      S      23 36 58.4  +17
PDA                              eSS     SS     23 40 19.8 +3.5
PDA                              eLQ            23 42 03.4
PDA                              eLR     LR     23 44 32.4
CML   Cha da Macela   51.82  57  eP      P      23 29 23.2 +0.8
PVER  Pico Vermelho   51.85  57  eP      P      23 29 25.1 +2.5
PRCH  Ribeira Ch      51.87  57  eP      P      23 29 26.0 +3.3
LFA   Lagoa do Fogo   51.87  57  eP      P      23 29 24.7 +2.0
PMAT  Coroa da Mata   51.88  56  eP      P      23 29 26.2 +3.4
MESC  Monte Escuro    51.90  57  eP      P      23 29 24.4 +1.4
VIF   Vila Franca     51.90  57  eP      P      23 29 26.5 +3.5
PCNG  Congro          51.94  57  eP      P      23 29 26.2 +2.9
      comp=Z,254nm,1.1s,mb6.1
FRA1  Furnas          51.97  57  eP      P      23 29 31.7 +8.2
PEL   Peldehue        52.83 169⇓iP      P      23 29 29.1 -0.9
DLBC  Dease Lake      52.85 330   P      P      23 29 29.9 +0.1
      comp=Z,31nm,0.9s,mb5.2,baz=122,slow=6.5,SNR=39
DLBC  Dease Lake      52.85 330⇑eP      P      23 29 29.6 -0.1
FCH   Farellones      53.08 168 i P      P      23 29 31.3 -0.6
CLCH  Cerro Calan     53.10 169⇑iP      P      23 29 31.4 -0.6
RPN   Rapa Nui        53.24 211  eP      P      23 29 31.0 -2.1
      comp=Z,478nm,1.6s,mb6.2
RPN                               LR     LR
      comp=Z,7µm,21.0s,MS5.7
LMEL  Las Melosas     53.60 168⇑iP      P      23 29 34.6 -1.1
SIT   Sitka           54.89 327   P      P      23 29 40.4 -4.4
SIT                              e       pP     23 29 44.0 -3.7
SIT                               pmax   pmax
      comp=Z,621nm,1.4s,mb6.5
SIT                               MLR    MLR
      comp=Z,105µm,21.0s,MS6.9
SIT   Sitka           54.89 327   P      P      23 29 40.4 -4.3
      comp=Z,621nm,1.4s,mb6.5
SIT                              eP      pP     23 29 44.0 -3.7
SIT                               LR     LR
      comp=Z,105µm,21.0s,MS6.9
CCHI  Chillan         55.98 171⇑iP      P      23 29 50.9 -2.0
RES   Resolute Bay    56.21 356   P      P      23 29 52.5 -1.6
RES                               pmax   pmax
      comp=Z,190nm,1.0s,mb6.1
RES   Resolute Bay    56.21 356  eP      P      23 29 52.1 -2.0
      comp=Z,149nm,0.9s,mb6.0
LPA   La Plata        58.05 157ceP      P      23 30 07.0 -0.6
LPA                              esP     sP     23 30 13.0 +1.4
LPA                              ePCP    PcP    23 30 58.0 -1.4
LPA                              eS      S      23 38 03.0 -3.6
      comp=Z,28µm,20.0s
CHIE  El Hierro       58.35  69   P      P      23 30 11.4 +1.5
      comp=Z,58nm,0.9s,mb5.6
EHIG  Higuera         58.40  68 ⇓P      P      23 30 14.5 +4.2
      comp=Z,6µm,3.3s
SUMG  Summit          58.87  14  eP      P      23 30 11.9 -1.0
      comp=Z,374nm,1.3s,mb6.3
INK   Inuvik          58.93 340   P      P      23 30 12.3 -1.1
      comp=Z,86nm,0.9s,mb5.8,baz=117,slow=8.2,SNR=129
INK   Inuvik          58.93 340   P      P      23 30 12.3 -1.1
INK                               pmax   pmax
      comp=Z,86nm,0.9s
INK   Inuvik          58.93 340⇑iP      P      23 30 12.2 -1.2
      comp=Z,832nm,1.3s,mb6.6
EGOM  La Gomera       58.97  68   P      P      23 30 13.6 -0.6
      comp=Z,3µm,4.5s
DAWY  Dawson          59.28 334⇑eP      P      23 30 13.9 -1.9
TRQA  Tornquist       59.60 162⇓eP      P      23 30 13.6 -4.8
      comp=Z,166nm,1.5s,mb5.8
TRQA                              LR     LR
      comp=Z,31µm,21.0s,MS6.4
BORG  Borgarnes       60.36  25   P      P      23 30 23.1 -0.1
      comp=Z,117nm,1.2s,mb5.8,baz=243,slow=5.4,SNR=8.7
BORG                              LR     LR     23 56 39.0
      comp=Z,46µm,18.1s,MS6.7,baz=267,slow=36
BORG  Borgarnes       60.36  25  eP      P      23 30 22.7 -0.6
      comp=Z,675nm,1.4s,mb6.5
BORG                              LR     LR
      comp=Z,11µm,19.0s,MS6.0
EYAK  Cordova Ski Ar  61.09 329  eP      P      23 30 26.9 -1.4
DIV   Divide          61.23 330⇑eP      P      23 30 28.5 -0.7
      comp=Z,789nm,0.9s,mb6.8
DIV                               LR     LR
      comp=Z,266µm,19.0s,MS7.4
THY   Trims Highway   61.77 333⇑eP      P      23 30 32.2 -0.6
SCO   Scoresbysund    62.22  19 i P      P      23 30 34.0 -1.8
SCO                               pmax   pmax
      comp=Z,29nm,0.8s,mb5.5
SCO   Scoresbysund    62.22  19 i P      P      23 30 34.0 -1.8
      comp=Z,29nm,0.8s,mb5.5
SML   Sawmill         62.58 331   P      P      23 30 37.8 -0.5
SML   Sawmill         62.58 331⇑eP      P      23 30 37.1 -1.1
ILAR  Eielson Array   62.59 334   P      P      23 30 37.1 -1.2
      comp=Z,29nm,0.6s,mb5.6,baz=90,slow=2.9,SNR=145
ILAR                              S      S      23 39 04.4 -0.2
      comp=Z,1.2nm,0.9s,baz=157,slow=2.2,SNR=3.1
ILAR                              LR     LR     23 58 09.6
      comp=Z,82µm,20.0s,MS6.9,baz=117,slow=36
PMR   Palmer          62.91 330  eP      P      23 30 39.6 -0.8
PMR                               pmax   pmax
      comp=Z,103nm,1.4s,mb5.8
PMR   Palmer          62.91 330  eP      P      23 30 39.6 -0.8
      comp=Z,102nm,1.4s,mb5.8
COLA  College         63.02 334   P      P      23 30 39.8 -1.3
COLA                              S      S      23 39 09.5 -0.4
COLA  College         63.02 334   P      P      23 30 39.9 -1.2
COLA                              pmax   pmax
      comp=Z,180nm,1.3s,mb6.0
COLA  College         63.02 334  eP      P      23 30 39.7 -1.4
      comp=Z,95nm,1.3s,mb5.8
MCK   McKinley        63.23 333⇑eP      P      23 30 41.5 -1.1
      comp=Z,511nm,1.5s,mb6.4
MCK                               LR     LR
      comp=Z,52µm,22.0s,MS6.7
SLKM  Skilak Lake     63.25 329   P      P      23 30 42.2 -0.5
SLKM  Skilak Lake     63.25 329  eP      P      23 30 41.8 -0.9
FIB   Fire Island     63.33 330  eP      P      23 30 42.8 -0.4
FIB                               MLR    MLR
      comp=Z,71µm,22.0s,MS6.8
KDAK  Kodiak Island   64.12 326  eP      P      23 30 47.6 -0.8
      comp=Z,428nm,1.1s,mb6.4
SPU   Mount Spurr     64.23 329  eP      P      23 30 47.6 -1.5
RSO   Redoubt South   64.49 329  eP      P      23 30 49.6 -1.1
PTCN  Pitcairn Islan  64.52 229   P      P      23 30 51.0 -0.6
PTCN                              LR     LR
      comp=Z,30µm,19.0s,MS6.5
EMAZ  Mazaricos       64.58  51 ⇓P      P      23 30 50.8 -0.9
      comp=Z,3µm,3.1s
PLOU  Loures          64.70  55  eP      P      23 30 51.6 -1.0
      comp=Z,155nm,1.7s,mb5.8
LIS   Lisbon          64.72  55  eP      P      23 30 52.6  0.0
LIS                              eS      S      23 39 35.5 +4.0
LIS                              eS      S      23 39 35.5 +4.0
LIS                               AMS    AMS    23 56 19.0
      comp=Z,36µm,18.5s,MS6.6
LIS   Lisbon          64.72  55  eP      P      23 30 52.6 -0.1
LIS                              eS      S      23 39 35.5 +4.1
      comp=Z,36µm,18.5s
EZAM  Zamans          64.83  52 ⇑P      P      23 30 52.9 -0.4
EZAM                              pmax   pmax
      comp=Z,93nm,1.1s,mb5.7
EZAM  Zamans          64.83  52 ⇑P      P      23 30 52.9 -0.5
      comp=Z,93nm,1.1s,mb5.7
STS   Santiago        64.89  51   P      P      23 30 52.6 -1.1
STS                               pmax   pmax
      comp=Z,181nm,1.4s,mb5.9
STS   Santiago        64.89  51   P      P      23 30 52.6 -1.2
      comp=Z,180nm,1.4s,mb5.9
PTEO  Sao Teotonio    65.16  57  eP      P      23 30 54.9 -0.6
      comp=Z,302nm,1.1s,mb6.2
PTEO  Sao Teotonio    65.16  57  eP      P      23 30 54.8 -0.7
PTOM  Tomar           65.22  54  eP      P      23 30 55.1 -0.8
      comp=Z,218nm,1.1s,mb6.1
ELOB  Lobios          65.32  52   P      P      23 30 56.0 -0.4
      comp=Z,1µm,2.9s,mb6.4
MOE   Montemor        65.36  56  eP      P      23 30 56.2 -0.6
DAG   Danmarks Havn   65.52  13⇑iP      P      23 30 55.6 -1.6
DAG                               pmax   pmax
      comp=Z,97nm,1.0s,mb5.8
DAG   Danmarks Havn   65.52  13⇑iP      P      23 30 55.6 -1.6
      comp=Z,97nm,1.0s,mb5.8
PVIS  Viseu           65.53  53  eP      P      23 30 57.0 -0.8
      comp=Z,187nm,1.0s,mb6.1
PVIS  Viseu           65.53  53  eP      P      23 30 56.9 -0.9
PVRL  Vila Real       65.62  53  eP      P      23 30 57.5 -0.9
      comp=Z,158nm,1.1s,mb6.0
EVO   Evora           65.62  56⇓iP      P      23 30 57.1 -1.4
      comp=Z,1µm,1.4s,mb6.5
EVO                              eR
      comp=Z,42µm,21.2s
IMA   Indian Mountai  65.63 335   P      P      23 30 57.6 -0.5
IMA                               pmax   pmax
      comp=Z,3µm,1.6s
IMA   Indian Mountai  65.63 335  eP      P      23 30 57.4 -0.7
      comp=Z,114nm,1.2s,mb5.8
EINC  Incio           65.79  51 ⇓P      P      23 31 00.7 +1.3
      comp=Z,821nm,2.4s,mb6.3
MTE   Manteigas       65.82  54  eP      P      23 30 58.8 -0.9
      comp=Z,199nm,1.2s,mb6.0
MTE                              eS      S      23 39 46.8 +1.9
MTE                              eLQ            23 47 09.2
MTE                              eLR     LR     23 50 04.0
      comp=Z,38µm,19.1s
MTE   Manteigas       65.82  54  eP      P      23 30 58.3 -1.4
      comp=Z,231nm,1.2s,mb6.1
EPON  Pontenova       65.89  50 ⇓P      P      23 30 59.4 -0.8
      comp=Z,1µm,2.6s,mb6.5
PCBR  Castelo Branco  65.92  54  eP      P      23 30 59.4 -0.9
      comp=Z,173nm,1.7s,mb5.8
PCBR  Castelo Branco  65.92  54 i P      P      23 30 59.9 -0.4
ERUA  La Rua          65.96  51   P      P      23 30 59.5 -1.1
ERUA                              pmax   pmax
      comp=Z,161nm,1.6s,mb5.8
ERUA  La Rua          65.96  51   P      P      23 30 59.5 -1.1
      comp=Z,161nm,1.6s,mb5.8
DSB   Dublin          66.09  39  eP      P      23 31 00.8 -0.4
      comp=Z,99nm,1.1s,mb5.8
GCL   Cushendall      66.24  37⇑eP      P      23 31 01.7 -0.5
ECAL  Calabor         66.30  52 ⇓P      P      23 31 02.1 -0.6
      comp=Z,2µm,3.1s
PBRG  Braganca        66.30  52  eP      P      23 31 01.9 -0.9
      comp=Z,159nm,1.2s,mb5.9
PBRG  Braganca        66.30  52  eP      P      23 31 01.8 -1.0
GMM   Mts of Mourne   66.34  38⇑eP      P      23 31 02.1 -0.7
EBAD  Badajoz         66.38  55 ⇑P      P      23 31 02.7 -0.6
      comp=Z,2µm,3.6s
GMK   Mull of Kintyr  66.55  37⇑eP      P      23 31 03.3 -0.8
JMIC  Jan Mayen       66.63  20   P      P      23 31 04.5 +0.1
      comp=Z,86nm,0.3s,mb6.3,baz=170,slow=10,SNR=2.5
JMIC                              LR     LR     23 57 47.1
      comp=Z,53µm,22.0s,MS6.7,baz=90,slow=34
JMIC  Jan Mayen       66.63  20  eP      P      23 31 04.8 +0.4
JMIC                             eS      S      23 39 57.4 +3.1
JMIC                              AMS    AMS    23 58 04.3
      comp=Z,38µm,18.0s,MS6.7
JMIC  Jan Mayen       66.63  20  eP      P      23 31 04.8 +0.4
JMIC                              LR     LR
      comp=Z,38238µm,18.0s
EMIN  Mina Concepcio  66.75  56 ⇓P      P      23 31 05.0 -0.8
      comp=Z,2µm,4.3s
CCA1  Carnmenellis    66.86  43  eP      P      23 31 05.6 -0.6
CRQ2  Rosemanowes 2   66.89  43  eP      P      23 31 05.7 -0.7
CRQ2                              AMb    AMB    23 31 11.7
      comp=Z,124nm,1.6s,mb5.7
CGH1  Goonhilly       66.90  43⇑eP      P      23 31 06.0 -0.4
RKT   Rikitea         66.98 234  eP      P      23 31 04.5 -2.9
      comp=Z,949nm,1.4s,mb6.6
RKT   Rikitea         66.98 234  ePP     PP     23 33 26.9  -10
RKT                              eSS     SS     23 44 22.5 +2.9
RKT                              eLQ            23 47 52.4
RKT                              eLR     LR     23 51 42.7
      comp=Z,60µm,31.5s,baz=51
GAL1  Galloway        67.06  38⇑eP      P      23 31 06.7 -0.7
HPE   Pembroke        67.08  41  eP      P      23 31 07.1 -0.5
WIM   Isle of Man     67.09  38  eP      P      23 31 06.3 -1.3
WIM                               AMb    AMB    23 31 08.4
      comp=Z,194nm,1.3s,mb6.0
YRC   Rhoscolyn       67.17  39  eP      P      23 31 07.5 -0.6
WCB1  Church Bay      67.18  39  eP      P      23 31 07.1 -1.1
SBD   Saint Breward   67.19  42  eP      P      23 31 12.6 +4.3
GIM   North Isle of   67.21  38⇑eP      P      23 31 08.2 -0.1
EAB   Aberfoyle       67.26  36⇑eP      P      23 31 07.5 -1.1
EAB                               AMb    AMB    23 31 16.6
      comp=Z,350nm,1.9s,mb6.1
SFS   San Fernando    67.28  58   P      P      23 31 08.7 -0.4
SFS                               pmax   pmax
      comp=Z,2µm,1.8s,mb6.9
SFS   San Fernando    67.28  58   P      P      23 31 08.7 -0.4
      comp=Z,2µm,1.8s,mb6.9
EARI  Arriondas       67.30  50   P      P      23 31 08.9 -0.2
      comp=Z,3µm,4.5s
WME   Myndd Eilian    67.33  39  eP      P      23 31 08.3 -0.8
ESPR  Espera          67.51  57 ⇑P      P      23 31 09.9 -0.6
      comp=Z,223nm,1.3s,mb6.0
WPM1  Penmaenmawr     67.57  39  eP      P      23 31 09.9 -0.8
HEX   Exmoor          67.72  42  eP      P      23 31 10.3 -1.3
EAU   Auchinoon       67.77  37⇑eP      P      23 31 10.9 -0.9
EAU                               AMb    AMB    23 31 28.5
      comp=Z,560nm,1.8s,mb6.3
MCD   Coleburn Disti  67.85  35⇑eP      P      23 31 11.3 -1.0
LMI   Millom          67.89  38⇑eP      P      23 31 12.4 -0.3
EDI   Edinburgh       67.91  36⇑eP      P      23 31 11.2 -1.5
EDI                               AMb    AMB    23 31 29.5
      comp=Z,389nm,1.9s,mb6.1
ESK   Eskdalemuir     67.92  37⇑eP      P      23 31 11.6 -1.2
ESK                               AMb    AMB    23 31 20.7
      comp=Z,363nm,1.8s,mb6.1
ESK   Eskdalemuir     67.92  37   P      P      23 31 10.8 -2.0
ESK                               pmax   pmax
      comp=Z,360nm,1.4s,mb6.2
ESK   Eskdalemuir     67.92  37  eP      P      23 31 10.4 -2.4
      comp=Z,507nm,1.3s,mb6.4
ESK                               LR     LR
      comp=Z,7µm,22.0s,MS5.8
EKA   Eskdalemuir Ar  67.94  37   P      P      23 31 11.7 -1.3
      comp=Z,72nm,1.0s,mb5.6,baz=271,slow=5.6,SNR=34
CDU1  Dunnerdale      67.95  38  eP      P      23 31 12.2 -0.9
EDU   Dundee          68.00  36⇑eP      P      23 31 12.4 -0.8
EDU                               AMb    AMB    23 31 21.4
      comp=Z,710nm,1.7s,mb6.4
EBL   Broad Law       68.00  37⇑eP      P      23 31 12.2 -1.1
HTR   Trewern Hill    68.01  41⇑eP      P      23 31 12.6 -0.8
HTR                               AMb    AMB    23 31 17.9
      comp=Z,70nm,2.0s,mb5.3
MME1  Meikle Cairn    68.01  35⇑eP      P      23 31 12.1 -1.2
SSP1  Stoney Pound    68.09  40⇑eP      P      23 31 13.0 -0.8
MCH1  Michaelchurch   68.18  41⇑eP      P      23 31 13.4 -1.0
HLM1  Long Mynd       68.22  40⇑eP      P      23 31 13.3 -1.5
HLM1                              AMb    AMB    23 31 25.9
      comp=Z,433nm,1.2s,mb6.4
ESY   Stoneypath      68.23  36⇑eP      P      23 31 14.2 -0.5
ESY                               AMb    AMB    23 31 22.9
      comp=Z,337nm,1.9s,mb6.0
ROSF  Rostrenen       68.24  45  eP      P      23 31 14.1 -0.8
      comp=Z,331nm,1.1s,mb6.0
ROSF  Rostrenen       68.24  45  eP      P      23 31 14.1 -0.8
ROSF                              pmax   pmax
      comp=Z,166nm,1.1s,mb6.0
HGH   Gray Hill       68.32  41⇑eP      P      23 31 14.6 -0.8
HGH                               AMb    AMB    23 31 26.0
      comp=Z,437nm,1.4s,mb6.3
QUIF  Quistinic       68.34  45  eP      P      23 31 14.7 -0.9
      comp=Z,275nm,1.1s,mb5.9
QUIF  Quistinic       68.34  45  eP      P      23 31 14.7 -0.9
QUIF                              pmax   pmax
      comp=Z,137nm,1.1s,mb5.9
EADA  Adamuz          68.35  56 ⇓P      P      23 31 15.2 -0.6
      comp=Z,164nm,1.3s,mb5.9
PAB   San Pablo       68.35  54   P      P      23 31 15.4 -0.3
EMIJ  Mijas           68.41  57   P      P      23 31 17.0 +0.8
      comp=Z,674nm,2.9s,mb6.2
HAE   Alders End      68.45  41⇑eP      P      23 31 15.1 -1.0
HAE                               AMb    AMB    23 31 24.6
      comp=Z,413nm,1.7s,mb6.2
ELAN  Lanestosa       68.60  50   P      P      23 31 17.8 +0.5
      comp=Z,1µm,3.3s
ESDC  Sonseca Array   68.63  54   P      P      23 31 17.0 -0.5
      comp=Z,61nm,0.8s,mb5.6,baz=285,slow=5.5,SNR=110
ESDC                              S      S      23 40 21.5 +2.8
      comp=Z,0.3nm,0.4s,baz=111,slow=38,SNR=2.9
ESDC  Sonseca Array   68.63  54 ⇓P      P      23 31 17.0 -0.5
      comp=Z,52nm,0.8s,mb5.5
ESLA  Sonseca Array   68.63  54⇓eP      P      23 31 16.8 -0.7
      comp=Z,351nm,1.4s,mb6.1
ESLA                              LR     LR
      comp=Z,182µm,21.0s,MS7.3
ELUQ  Luque           68.67  56   P      P      23 31 17.6 -0.2
ELUQ                              pmax   pmax
      comp=Z,58nm,1.2s,mb5.4
ELUQ  Luque           68.67  56   P      P      23 31 17.6 -0.2
      comp=Z,58nm,1.2s,mb5.4
SGMF  Saint Gilles    68.72  45  eP      P      23 31 16.9 -1.0
      comp=Z,565nm,1.3s,mb6.0
SGMF  Saint Gilles    68.72  45  eP      P      23 31 16.9 -1.0
SGMF                              pmax   pmax
      comp=Z,283nm,1.3s,mb6.0
LHO   Holmfirth       68.78  39⇑eP      P      23 31 17.3 -0.9
ELOJ  Sierra Loja     68.82  57 ⇓P      P      23 31 18.8 +0.1
ELOJ                              pmax   pmax
      comp=Z,86nm,1.1s,mb5.6
ELOJ  Sierra Loja     68.82  57 ⇓P      P      23 31 18.8 +0.1
      comp=Z,86nm,1.1s,mb5.6
KWE   Weaver Farm     68.82  40⇑eP      P      23 31 15.3 -3.1
HPK   Haverah Park    68.90  39⇑eP      P      23 31 18.5 -0.4
LCP   Cassop          68.94  38⇑eP      P      23 31 18.3 -0.8
KBI1  Birley Grange   69.00  39⇑eP      P      23 31 15.9 -3.6
ERON  Agron           69.11  57   P      P      23 31 20.9 +0.4
      comp=Z,73nm,1.2s,mb5.5
RENF  Rennes          69.35  45   P      P      23 31 23.5 +1.7
POHA  Pohakuloa       69.37 285   PFAKE         23 31 30.0 +7.6
POHA                              LR     LR
      comp=Z,1.0nm,21.0s
LWH   Whinny Nab      69.43  38⇑eP      P      23 31 21.8 -0.3
LRYF  La Roche-sur-Y  69.57  46  eP      P      23 31 22.3 -0.8
EQES  Quesada         69.58  56   P      P      23 31 23.5 +0.2
      comp=Z,136nm,1.2s,mb5.8
OLEF  Ile d’Oleron    69.78  47  eP      P      23 31 26.4 +2.0
HKL   Haleakala       69.82 286   P      P      23 31 23.1 -2.0
GRR   Gorron          69.84  44  eP      P      23 31 24.0 -0.7
      comp=Z,395nm,1.0s,mb6.0
GRR   Gorron          69.84  44  eP      P      23 31 24.0 -0.7
GRR                               pmax   pmax
      comp=Z,198nm,1.0s,mb6.0
EBER  Berja           69.86  57   P      P      23 31 25.4 +0.4
      comp=Z,1µm,2.4s,mb6.4
EVIA  Vianos          69.89  55 ⇑P      P      23 31 25.4 +0.2
EVIA                              pmax   pmax
      comp=Z,162nm,1.3s,mb5.8
EVIA  Vianos          69.89  55 ⇑P      P      23 31 25.4 +0.2
      comp=Z,162nm,1.3s,mb5.8
EALK  Alkurruntz      70.00  50 ⇓P      P      23 31 26.5 +0.7
      comp=Z,1µm,2.9s,mb6.3
FLN   La Foliniere    70.05  44  eP      P      23 31 25.4 -0.6
      comp=Z,509nm,1.0s,mb6.1
FLN                              eR
      comp=Z,59µm,21.2s
FLN   La Foliniere    70.05  44  eP      P      23 31 25.4 -0.6
FLN                               pmax   pmax
      comp=Z,254nm,1.0s,mb6.1
FLN                               MLR    MLR
      comp=Z,59µm,21.3s,MS6.8
OSSF  Osses           70.17  50  eP      P      23 31 26.0 -0.9
SJPF  Ste Jean        70.22  50  eP      P      23 31 26.8 -0.3
      comp=Z,1µm,1.5s,mb6.3
SJPF  Ste Jean        70.22  50  eP      P      23 31 26.8 -0.3
SJPF                              pmax   pmax
      comp=Z,598nm,1.5s,mb6.3
LDF   La Druitiere    70.30  44  eP      P      23 31 26.9 -0.7
      comp=Z,660nm,1.0s,mb6.2
LDF   La Druitiere    70.30  44  eP      P      23 31 26.9 -0.7
LDF                               pmax   pmax
      comp=Z,330nm,1.0s,mb6.2
ENIJ  Nijar           70.39  57   P      P      23 31 27.7 -0.6
ENIJ                              pmax   pmax
      comp=Z,165nm,1.3s,mb5.8
ENIJ  Nijar           70.39  57   P      P      23 31 27.7 -0.6
      comp=Z,164nm,1.3s,mb5.8
LARF  Larrau          70.40  50  eP      P      23 31 28.4 +0.1
LARF  Larrau          70.40  50  eP      P      23 31 28.4 +0.1
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ORDF  Ordiarp          70.42  50  eP     P       23 31 29.0 +0.7
MFF   Saint Martin d   70.53  46  eP     P       23 31 28.2 -0.8
      comp=Z,171nm,0.9s,mb5.7
MFF   Saint Martin d   70.53  46  eP     P       23 31 28.2 -0.8
MFF                                pmax  pmax
      comp=Z,85nm,0.9s,mb5.7
ETSF  Etsaut           70.73  50  eP     P       23 31 30.0 -0.3
      comp=Z,663nm,1.4s,mb6.1
ETSF  Etsaut           70.73  50  eP     P       23 31 30.0 -0.3
ETSF                               pmax  pmax
      comp=Z,332nm,1.4s,mb6.1
FDAF  Les Forges d'A   70.74  50  eP     P       23 31 28.4 -1.9
FDAF  Les Forges d'A   70.74  50  eP     P       23 31 28.4 -1.9
REYF  Montagne du Re   70.83  50  eP     P       23 31 30.7 -0.2
ESAC  San Caprasio     70.97  51   P     P       23 31 31.6 -0.2
      comp=Z,106nm,0.8s,mb5.8
VIEF  Viey             71.16  50  eP     P       23 31 32.7 -0.2
LABF  Labassere        71.17  50  eP     P       23 31 32.5 -0.4
EMOS  Mosqueruela      71.18  53   P     P       23 31 33.9 +0.8
      comp=Z,70nm,0.8s,mb5.6
CART  Cartagena        71.23  56   P     P       23 31 30.7 -2.7
      comp=Z,302nm,1.5s,mb6.0
KIP   Kipapa           71.25 287  eP     P       23 31 33.6 -0.1
KIP                                pmax  pmax
      comp=Z,673nm,1.3s,mb6.4
KIP                                MLR   MLR
      comp=Z,40µm,21.0s,MS6.7
KIP   Kipapa           71.25 287  eP     P       23 31 33.6 -0.2
      comp=Z,673nm,1.3s,mb6.4
KIP                                LR    LR
      comp=Z,40µm,21.0s,MS6.7
HON   Honolulu         71.26 287  eP     P       23 31 33.6 -0.2
EBIE  Bielsa           71.28  50   P     P       23 31 34.0 +0.5
      comp=Z,60nm,0.7s,mb5.6
EPF   Esparros         71.37  50  eP     P       23 31 33.8 -0.3
      comp=Z,2µm,1.8s,mb6.5
EPF   Esparros         71.37  50  eP     P       23 31 33.8 -0.3
EPF                                pmax  pmax
      comp=Z,1µm,1.8s,mb6.5
LFF   La Frestale      71.37  48  eP     P       23 31 33.4 -0.7
      comp=Z,532nm,1.1s,mb6.1
LFF   La Frestale      71.37  48  eP     P       23 31 33.4 -0.7
LFF                                pmax  pmax
      comp=Z,266nm,1.1s,mb6.1
RESF  Ens              71.40  50  eP     P       23 31 34.4 +0.1
TNA   Tin City         71.47 334⇑eP     P       23 31 34.2 -0.1
      comp=Z,492nm,1.4s,mb6.2
TNA                                LR    LR
      comp=Z,66µm,19.0s,MS6.9
EBEN  Beniarda         71.64  55   P     P       23 31 37.6 +1.8
      comp=Z,107nm,1.2s,mb5.7
ERTA  Horta de San J   71.69  52   P     P       23 31 36.8 +0.7
      comp=Z,36nm,0.9s,mb5.3
MELF  Melles           71.69  50  eP     P       23 31 36.1  0.0
EBR   Ebro Roquetas    71.83  52  eP     P       23 31 36.5 -0.4
RJF   Les Rejaudoux    71.86  47  eP     P       23 31 36.1 -0.9
      comp=Z,298nm,1.1s,mb5.8
RJF                               eR
      comp=Z,62µm,21.0s
RJF   Les Rejaudoux    71.86  47  eP     P       23 31 36.1 -0.9
RJF                                pmax  pmax
      comp=Z,149nm,1.1s,mb5.8
RJF                                MLR   MLR
      comp=Z,62µm,21.0s,MS6.8
MLS   Moulis           71.92  50  eP     P       23 31 36.9 -0.6
SALF  Salau            72.03  50  eP     P       23 31 38.2 +0.1
UNV   Unalaska Valle   72.05 322  eP     P       23 31 36.7 -1.2
      comp=Z,526nm,0.9s,mb6.5
UNV                                LR    LR
      comp=Z,128µm,22.0s,MS7.2
EPOB  Poblet           72.18  52   P     P       23 31 38.9 -0.1
      comp=Z,35nm,0.9s,mb5.3
TCF   Toulx Ste Croi   72.18  46  eP     P       23 31 37.9 -1.0
      comp=Z,317nm,1.1s,mb5.9
TCF   Toulx Ste Croi   72.18  46  eP     P       23 31 37.9 -1.0
TCF                                pmax  pmax
      comp=Z,158nm,1.1s,mb5.9
CAF   Calviac          72.30  48  eP     P       23 31 38.8 -0.8
      comp=Z,350nm,1.0s,mb5.9
CAF   Calviac          72.30  48  eP     P       23 31 38.8 -0.8
CAF                                pmax  pmax
      comp=Z,175nm,1.0s,mb5.9
HYF   Humbligny        72.32  45  eP     P       23 31 39.0 -0.7
EMIR  Miracle          72.41  51   P     P       23 31 40.5 +0.1
      comp=Z,62nm,1.0s,mb5.5
VERF  Verneugheol      72.46  47  eP     P       23 31 39.7 -0.9
STAV  Stavanger        72.47  33  eP     P       23 31 39.2 -1.2
STAV                               AMb   AMB     23 31 47.5
      comp=Z,450nm,1.5s,mb6.2
STAV  Stavanger        72.47  33  eP     P       23 31 39.2 -1.2
      comp=Z,450nm,1.5s,mb6.2
LPEF  Le Peyrat        72.52  50  eP     P       23 31 39.8 -1.2
LPEF  Le Peyrat        72.52  50  eP     P       23 31 39.8 -1.2
BGF   Bois d'Agland    72.58  46  eP     P       23 31 40.2 -1.1
      comp=Z,244nm,1.0s,mb5.8
BGF   Bois d'Agland    72.58  46  eP     P       23 31 40.2 -1.1
BGF                                pmax  pmax
      comp=Z,122nm,1.0s,mb5.8
MTLF  Montolieu        72.67  49  eP     P       23 31 41.1 -0.8
      comp=Z,2µm,1.6s,mb6.4
MTLF  Montolieu        72.67  49  eP     P       23 31 41.1 -0.8
MTLF                               pmax  pmax
      comp=Z,850nm,1.6s,mb6.4
VALF  Valcebollere     72.69  50  eP     P       23 31 42.1 +0.1
CARF  Carcanieres      72.70  50  eP     P       23 31 41.7 -0.4
EIBI  Ibiza            72.79  54   P     P       23 31 44.2 +1.5
PYM   Petit Puy Mans   72.82  47  eP     P       23 31 45.5 +2.8
AGO   Saint Agoulin    72.85  47  eP     P       23 31 45.2 +2.3
AVF   Avril sur Loir   72.88  46  eP     P       23 31 41.7 -1.3
      comp=Z,259nm,1.0s,mb5.8
AVF   Avril sur Loir   72.88  46  eP     P       23 31 41.7 -1.3
AVF                                pmax  pmax
      comp=Z,130nm,1.0s,mb5.8
BAIF  Baives           72.91  42  eP     P       23 31 42.1 -1.0
      comp=Z,1µm,1.7s,mb6.2
BAIF  Baives           72.91  42  eP     P       23 31 42.1 -1.0
BAIF                               pmax  pmax
      comp=Z,538nm,1.7s,mb6.2
SSF   Saint Saulge     72.94  45  eP     P       23 31 42.1 -1.3
      comp=Z,162nm,0.9s,mb5.7
SSF   Saint Saulge     72.94  45  eP     P       23 31 42.1 -1.3
SSF                                pmax  pmax
      comp=Z,81nm,0.9s,mb5.7
LRDF  Laroque-de-Fa    72.97  50  eP     P       23 31 42.7 -1.0
LRDF  Laroque-de-Fa    72.97  50  eP     P       23 31 42.7 -1.0
FILF  Fillols          73.06  50  eP     P       23 31 43.0 -1.2
FILF  Fillols          73.06  50  eP     P       23 31 43.0 -1.2
LBL   Lubilhac         73.07  47  eP     P       23 31 45.2 +1.0
PLDF  La Plantade      73.20  47  eP     P       23 31 47.6 +2.7
SMF   Signal de Mont   73.24  46  eP     P       23 31 43.8 -1.3
      comp=Z,257nm,1.1s,mb5.8
SMF   Signal de Mont   73.24  46  eP     P       23 31 43.8 -1.3
SMF                                pmax  pmax
      comp=Z,129nm,1.1s,mb5.8
EFI   East Falkland    73.26 165   PFAKE         23 32 00.0  +15
EFI                                LR    LR
      comp=Z,7µm,21.0s,MS5.9
GIVF  Givet            73.29  42  eP     P       23 31 44.5 -0.9
      comp=Z,487nm,1.1s,mb6.0
GIVF  Givet            73.29  42  eP     P       23 31 44.5 -0.9
GIVF                               pmax  pmax
      comp=Z,243nm,1.1s,mb6.0
SJAF  Saint Jean de    73.30  50  eP     P       23 31 45.1 -0.5
EJON  La Jonquera      73.31  50   P     P       23 31 45.8 +0.1
      comp=Z,63nm,0.8s,mb5.6
COLF  Collangettes     73.33  47  eP     P       23 31 45.4 -0.3
PMOR  Pomariorio Ree   73.65 247  eP     P       23 31 46.3 -1.8
      comp=Z,664nm,1.4s,mb6.4
LASF  Ste Croix        73.71  48  eP     P       23 31 47.7 -0.2
      comp=Z,2µm,1.8s,mb6.4
MEZF  Maizieres J'vi   73.72  44  eP     P       23 31 47.2 -0.7
      comp=Z,907nm,1.1s,mb6.3
HGN   Heimansgroeve    73.88  41  eP     P       23 31 48.6 -0.1
      comp=Z,89nm,1.7s,mb5.4
HGN                               ePP    PP      23 34 16.7  -19
HGN                               eS     S       23 41 21.9 +2.7
HGN                               eSS    SS      23 45 46.3  -19
HGN                               eSSS   SSS     23 49 45.8  +28
WIT   Witteveen        73.96  39  eP     P       23 31 50.3 +1.1
VIVF  Saint-Julien-l   74.14  48  eP     P       23 31 50.3 -0.1
      comp=Z,3µm,1.9s,mb6.6
VIVF  Saint-Julien-l   74.14  48  eP     P       23 31 50.3 -0.1
VIVF                               pmax  pmax
      comp=Z,1µm,1.9s,mb6.6
WTSB  Winterswijk      74.19  40  eP     P       23 31 50.6 +0.1
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WLF   Walferdange      74.22  42   P     P       23 31 50.4 -0.3
WLF                                pmax  pmax
      comp=Z,370nm,1.5s,mb6.1
WLF   Walferdange      74.22  42  eP     P       23 31 50.2 -0.6
      comp=Z,209nm,0.9s,mb6.1
KONO  Kongsberg        74.33  32   AMS   AMS     00 07 18.4
      comp=Z,30µm,18.0s,MS6.6
KONO  Kongsberg        74.33  32   PFAKE         23 32 00.0 +8.8
KONO                               LR    LR
      comp=Z,39µm,21.0s,MS6.7
USHA  Ushuaia          74.34 172   P     P       23 31 50.5 -0.8
      comp=Z,47nm,1.2s,mb5.3,baz=6.4,slow=5.1,SNR=6.4
THEF  They Montfort    74.38  44  eP     P       23 31 53.5 +1.8
OG05  Jujurieux        74.45  46  eP     P       23 31 52.3 +0.1
NSS   Namsos           74.49  27  eP     P       23 31 50.8 -1.2
NSS                               eS     S       23 41 30.2 +4.5
NSS                               eSS    SS      23 46 18.7 +4.2
NSS                                AMS   AMS     00 12 26.4
      comp=Z,19µm,17.8s,MS6.4
BUG   Bochum--Univer   74.58  40   P     P       23 31 53.3 +0.5
OCF   Saint Nazaire    74.63  48  eP     P       23 31 54.6 +1.4
OG26  St.-Nazaire-De   74.63  48  eP     P       23 31 54.6 +1.4
BJO   Bjornoya         74.66  16  eP     P       23 31 58.4 +5.6
BJO                               eS     S       23 41 30.0 +2.6
BJO                               eSS    SS      23 46 22.7 +5.8
BJO                                AMS   AMS     00 01 34.4
      comp=Z,32µm,23.7s,MS6.5
HAU   Haudompre        74.66  44  eP     P       23 31 52.4 -0.9
      comp=Z,425nm,1.1s,mb6.0
HAU                               eR
      comp=Z,40µm,21.8s
HAU   Haudompre        74.66  44  eP     P       23 31 52.4 -0.9
HAU                                pmax  pmax
      comp=Z,212nm,1.1s,mb6.0
HAU                                MLR   MLR
      comp=Z,40µm,21.8s,MS6.7
PRAF  Pradon           74.69  49  eP     P       23 31 54.4 +0.8
MUD   Monsted U'grnd   74.71  35  i P    P       23 32 00.1 +6.6
MUD                               i S    S       23 41 28.3 -0.1
MUD                                pmax  pmax
      comp=Z,300nm,1.3s,mb6.1
MUD                                MLR   MLR
      comp=Z,32µm,23.0s,MS6.5
MUD   Monsted U'grnd   74.71  35  i P    P       23 32 00.1 +6.6
      comp=Z,296nm,1.3s,mb6.1
MUD                               i S    S       23 41 28.3 -0.1
MUD                               i              23 41 42.2
MUD                               i              23 46 30.3
      comp=Z,32µm,23.0s
NAO01 NORSAR Array S   74.73  30  eP     P       23 31 53.2 -0.2
      comp=Z,241nm,1.0s,mb6.1
NAO01                              LR    LR
      comp=Z,42µm,20.0s,MS6.7
CABF  La Chapelle      74.76  46  eP     P       23 31 53.3 -0.7
      comp=Z,459nm,1.2s,mb6.0
CABF  La Chapelle      74.76  46  eP     P       23 31 53.3 -0.7
CABF                               pmax  pmax
      comp=Z,230nm,1.2s,mb6.0
RUP   Ruppelstein      74.79  42⇑eP     P       23 31 56.6 +2.6
RUP   Ruppelstein      74.79  42  eP     P       23 31 54.0  0.0
OSL   Oslo             74.83  31  eP     P       23 31 54.5 +0.4
OSL                                AMb   AMB     23 32 19.1
      comp=Z,74nm,1.6s,mb5.3
OSL   Oslo             74.83  31  eP     P       23 31 54.5 +0.4
      comp=Z,74nm,1.6s,mb5.4
NB2   NORSAR Subarra   74.85  30   P     P       23 31 53.5 -0.6
      comp=Z,383nm,1.2s,mb6.2,baz=283,slow=5.8
NB2   NORSAR Subarra   74.85  30   P     P       23 31 53.5 -0.6
      baz=283,slow=6.2
NB2   NORSAR Subarra   74.85  30   P     P       23 31 53.5 -0.6
NB2                                pmax  pmax
      comp=Z,383nm,1.2s,mb6.2
NOA   NORSAR Array B   74.85  30   P     P       23 31 53.6 -0.6
      comp=Z,24nm,0.9s,mb5.1,baz=283,slow=5.7,SNR=23
NOA                                LR    LR      00 02 33.5
      comp=Z,22µm,20.1s,MS6.4,baz=270,slow=34
ARBF  Arbois           74.87  49   P     P       23 31 54.6 -0.1
TREF  Trevaresse       74.88  49  eP     P       23 31 55.0 +0.3
SMRF  Simiane la Rot   74.94  48  eP     P       23 31 55.2 +0.1
      comp=Z,1µm,1.8s,mb6.2
GELF  Grande-Etoile    74.96  49  eP     P       23 31 55.8 +0.6
ORIF  Oris-en-Rattie   74.97  47  eP     P       23 31 55.0 -0.2
      comp=Z,918nm,1.9s,mb6.1
ORIF                              eR
      comp=Z,48µm,21.8s
MEH   Mehetia          75.03 245  eP     P       23 31 54.0 -2.1
      comp=Z,498nm,1.3s,mb6.3
HINF  Hinteralfeld     75.03  44  eP     P       23 31 54.3 -1.2
ABH   Alteburg         75.06  42⇑eP     P       23 31 58.1 +2.5
ABH   Alteburg         75.06  42  eP     P       23 31 58.3 +2.7
VILF  Villemus         75.07  48  eP     P       23 31 56.0 +0.2
LOMF  Lomont           75.11  45  eP     P       23 31 57.7 +1.7
ECH   Echery           75.15  44  eP     P       23 31 56.0 -0.2
MOR8  Moi Rana         75.15  25  eP     P       23 31 56.0 +0.2
MOR8                              epP    pP      23 31 59.9 +1.1
MOR8                               AMb   AMB     23 32 20.2
      comp=Z,360nm,1.4s,mb6.1
MOR8  Moi Rana         75.15  25  eP     P       23 31 56.0 +0.2
      comp=Z,360nm,1.4s,mb6.1
DBIC  Dimbokro         75.16  88   P     P       23 31 54.5 -2.5
      comp=Z,44nm,0.9s,mb5.4,baz=269,slow=6.0,SNR=30
DBIC                               LR    LR      00 01 26.9
      comp=Z,12µm,21.3s,MS6.2,baz=266,slow=33
DBIC  Dimbokro         75.16  88   P     P       23 31 54.5 -2.5
DBIC                               LR    LR      00 01 26.9
BERF  Bertagne         75.17  49  eP     P       23 31 56.9 +0.5
CDF   Champ du Feu     75.19  44  eP     P       23 31 55.5 -0.9
      comp=Z,439nm,1.2s,mb6.0
CDF   Champ du Feu     75.19  44  eP     P       23 31 55.5 -0.9
CDF                                pmax  pmax
      comp=Z,220nm,1.2s,mb6.0
MOF   Molkenrain       75.21  44  eP     P       23 31 58.4 +1.9
OG25  Le Caire         75.21  48  eP     P       23 31 56.9 +0.3
WLS   Welschbruch      75.24  44  eP     P       23 31 58.6 +1.9
RSL   Roselend         75.32  46  eP     P       23 31 57.1 -0.1
TAVF  Tavernes         75.36  49  eP     P       23 31 57.1 -0.4
LANF  Langenberg       75.41  43  eP     P       23 31 58.6 +1.0
EMV   Vieux Emosson    75.43  46  ⇑P     P       23 32 00.4 +2.6
LPL   La Plagne        75.43  47  eP     P       23 31 57.8  0.0
      comp=Z,614nm,1.4s,mb6.0
LPL   La Plagne        75.43  47  eP     P       23 31 57.8  0.0
LPL                                pmax  pmax
      comp=Z,307nm,1.4s,mb6.0
LPG   La Plagne        75.45  47  eP     P       23 31 58.1 +0.2
      comp=Z,523nm,1.4s,mb6.0
LPG   La Plagne        75.45  47  eP     P       23 31 58.1 +0.2
LPG                                pmax  pmax
      comp=Z,261nm,1.4s,mb6.0
LIBD  Limburg          75.46  44⇑eP     P       23 32 00.1 +2.2
STR   Strasbourg       75.47  43  eP     P       23 32 00.4 +2.4
BNI   Bardonecchia     75.49  47   P     P       23 31 58.6 +0.4
BNI                                pmax  pmax
      comp=Z,460nm,2.0s,mb6.1
BNI   Bardonecchia     75.49  47  eP     P       23 31 58.3 +0.1
      comp=Z,80nm,1.0s,mb5.6
KTD   Kalmit           75.52  43⇑eP     P       23 32 00.0 +1.8
KTD   Kalmit           75.52  43  eP     P       23 32 01.8 +3.6
BBS   Basel-Blauen     75.54  44⇑eP     P       23 32 00.2 +1.8
BBS   Basel-Blauen     75.54  44  eP     P       23 31 59.9 +1.5
RRL   Cesana Torines   75.59  47   P     P       23 31 59.2 +0.4
MBDF  Montbardon       75.62  47  eP     P       23 31 57.7 -1.3
KIZ   Kirchzarten      75.70  44⇑eP     P       23 32 01.1 +1.8
SURF  Saint Ours       75.71  48  eP     P       23 32 00.1 +0.7
LSD   Ceresole Reale   75.73  47   P     P       23 32 00.0 +0.5
LMR   La Mourre        75.74  49  eP     P       23 31 58.8 -0.9
      comp=Z,644nm,1.6s,mb6.0
LMR   La Mourre        75.74  49  eP     P       23 31 58.8 -0.9
LMR                                pmax  pmax
      comp=Z,322nm,1.6s,mb6.0
FENE  Fenestrelle      75.76  47   P     P       23 32 00.0 +0.3
DIX   Grande Dixence   75.77  46  ⇓P     P       23 32 00.1 +0.3
FELD  Feldberg         75.78  44⇑eP     P       23 32 01.7 +2.0
FELD  Feldberg         75.78  44  eP     P       23 31 59.6 -0.1
FRF   La Foret Royal   75.79  49  eP     P       23 31 59.2 -0.7
      comp=Z,734nm,1.6s,mb6.0
FRF   La Foret Royal   75.79  49  eP     P       23 31 59.2 -0.7
FRF                                pmax  pmax
      comp=Z,367nm,1.6s,mb6.1
LKBD  Leukerbad        75.85  46  ⇑P     P       23 32 00.7 +0.5
RSP   Reno Superiore   75.87  47   P     P       23 32 00.8 +0.5
SWS   Schriesheim      75.88  42⇑eP     P       23 32 01.9 +1.6
SWS   Schriesheim      75.88  42   P     P       23 32 04.9 +4.6
BSEG  Bad Segeberg     75.88  38  eP     P       23 31 59.7 -0.5
BFO   Black Forest     75.89  43  eP     P       23 31 59.3 -1.1
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BFO                                pmax  pmax
      comp=Z,180nm,1.3s,mb5.8
BFO   Black Forest     75.89  43  eP     P       23 31 59.3 -1.1
      comp=Z,180nm,1.3s,mb5.8
PZZ   Prazzo           75.90  48   P     P       23 32 01.3 +0.8
TRO   Tromso           75.91  21  eP     P       23 31 59.8 -0.3
TRO                               eS     S       23 41 41.7 +0.3
TRO                               eSS    SS      23 46 36.4 -0.3
TRO                                AMS   AMS     00 06 01.3
      comp=Z,22µm,18.1s,MS6.5
TRO   Tromso           75.91  21  eP     P       23 31 59.8 -0.3
TRO                                LR    LR
      comp=Z,22350µm,18.1s
TOD   Tromm            75.92  42⇑eP     P       23 32 02.3 +1.8
TOD   Tromm            75.92  42  eP     P       23 32 00.1 -0.4
SULZ  Sulz-Cheisache   75.93  44  ⇓P     P       23 32 02.2 +1.6
BHB   Bricherasio      75.94  47   P     P       23 32 00.6 -0.1
CALF  Calern           75.94  48   P     P       23 32 00.9 +0.1
TIAR  Tiarei           75.99 246  eP     P       23 31 59.4 -2.2
      comp=Z,1µm,1.2s,mb6.7
DOI   San Damiano      76.00  47  eP     P       23 32 01.4 +0.3
MVIF  Mont Vial        76.08  48  eP     P       23 32 01.4 -0.1
TOUF  Mont Tournerai   76.12  48  eP     P       23 32 02.2 +0.5
STV   Sta Anna Valdi   76.12  48   P     P       23 32 02.1 +0.3
LBG   Lerchenberg      76.12  43⇑eP     P       23 32 03.3 +1.6
LBG   Lerchenberg      76.12  43   P     P       23 32 03.8 +2.1
STV2  Anna di Valdie   76.12  48   P     P       23 32 01.2 -0.5
SLE   Schleitheim      76.12  44  ⇓P     P       23 32 01.0 -0.7
TRAV                   76.13  46   P     P       23 32 01.8 +0.1
ENR   Entracque        76.19  48   P     P       23 32 02.5 +0.3
MCGN  Macugnaga        76.19  46  eP     P       23 32 03.1 +1.0
PPT   Papeete          76.20 246   P     P       23 32 05.9 +3.2
      comp=Z,110nm,1.2s,mb5.7,baz=123,slow=11,SNR=5.2
PPT   Papeete          76.20 246  eP     P       23 32 00.9 -1.8
      comp=Z,301nm,1.4s,mb6.0
PPT   Papeete          76.20 246  eSS    SS      23 46 37.3 -4.8
PPT                               eLQ            23 52 19.4
PPT                               eLR    LR      23 56 07.3
      comp=Z,32µm,23.2s,baz=65
PAE   Paea             76.24 246  eP     P       23 32 00.9 -2.0
      comp=Z,1µm,1.2s,mb6.7
SPAK  Spaichingen      76.24  44⇑eP     P       23 32 04.2 +1.8
SPAK  Spaichingen      76.24  44   P     P       23 32 04.4 +2.0
HFS   Hagfors          76.24  31   P     P       23 32 01.2 -0.9
      comp=Z,52nm,1.1s,mb5.4,baz=270,slow=3.0,SNR=22
AUTN  L'Aution         76.25  48  eP     P       23 32 02.2 -0.3
ORX   Oropa            76.26  46   P     P       23 32 02.1 -0.4
ORO   Oropa            76.26  46  eP     P       23 32 03.1 +0.6
REVF  Revere           76.26  48  eP     P       23 32 02.6  0.0
ZUR   Zurich           76.27  44  ⇓P     P       23 32 04.4 +1.9
SBF   Sospel           76.28  48  eP     P       23 32 02.1 -0.6
      comp=Z,2µm,1.8s,mb6.4
SBF   Sospel           76.28  48  eP     P       23 32 02.1 -0.6
SBF                                pmax  pmax
      comp=Z,885nm,1.8s,mb6.4
SAOF  Saorge           76.34  48  eP     P       23 32 02.6 -0.4
STU   Stuttgart        76.35  43   P     P       23 32 04.8 +1.8
STU                                pmax  pmax
      comp=Z,270nm,1.5s,mb6.0
STU   Stuttgart        76.35  43  eP     P       23 32 04.5 +1.6
      comp=Z,121nm,1.0s,mb5.8
CLZ   Clausthal        76.39  40  eP     P       23 32 03.4 +0.3
      comp=Z,804nm,1.8s,mb6.3
CLZ                               eS     S       23 41 51.1 +4.2
MUO   Muotathal        76.40  45  ⇑P     P       23 32 06.1 +2.8
MONE  Monesi           76.46  48   P     P       23 32 03.6 -0.1
GUT   Gutenstein       76.46  44⇑eP     P       23 32 05.3 +1.7
GUT   Gutenstein       76.46  44   P     P       23 32 03.4 -0.2
NEGI  Negi             76.47  48   P     P       23 32 03.5 -0.3
WILA  Wila             76.48  44  ⇓P     P       23 32 05.4 +1.7
SIND  Sindeldorf       76.48  42⇑eP     P       23 32 05.7 +2.0
SIND  Sindeldorf       76.48  42   P     P       23 32 03.6 -0.1
ROB   Roburent         76.49  48   P     P       23 32 03.2 -0.6
BUCH  Bad Urach        76.53  43⇑eP     P       23 32 06.0 +2.0
BUCH  Bad Urach        76.53  43   P     P       23 32 04.0  0.0
IMI   Imperia          76.59  48  eP     P       23 32 04.6 +0.2
COP   Copenhagen       76.67  36  i P    P       23 32 08.9 +4.3
COP                               i S    S       23 41 50.8 +0.9
COP                               i              23 46 52.8
COP                                pmax  pmax
      comp=Z,90nm,0.9s,mb5.7
COP                                MLR   MLR
      comp=Z,16µm,22.0s,MS6.3
COP   Copenhagen       76.67  36  i P    P       23 32 08.9 +4.3
      comp=Z,90nm,0.9s,mb5.7
COP                               i S    S       23 41 50.8 +0.9
COP                               i              23 46 52.8
COP                               i              23 47 32.6
      comp=Z,16µm,22.0s
LLS   Linth-Limmern    76.67  45  ⇓P     P       23 32 05.0 +0.2
VAI   Varese           76.74  46  eP     P       23 32 05.7 +0.5
FIN   Finale Ligure    76.74  48  eP     P       23 32 05.4 +0.1
PCP   Pian Castagno    76.90  47   P     P       23 32 05.2 -0.9
TUE   Stuetta          76.99  45   P     P       23 32 07.8 +1.2
HDH   Heidenheim       77.05  43⇑eP     P       23 32 09.0 +2.1
HDH   Heidenheim       77.05  43   P     P       23 32 06.9  0.0
VDL   Val di Lei       77.07  45  ⇓P     P       23 32 09.4 +2.4
DAVA  Damuels          77.15  44⇓iP     P       23 32 09.7 +2.3
      comp=Z,5µm,6.0s
GENL  Genova Univers   77.23  47   P     P       23 32 07.4 -0.5
DAVOX Davos            77.27  45   P     P       23 32 08.3 +0.2
      comp=Z,26nm,0.7s,mb5.2,baz=274,slow=4.3,SNR=24
DAVOX Davos            77.27  45   P     P       23 32 08.3 +0.2
GRA1  Grafenberg Arr   77.42  42  eP     P       23 32 08.6 -0.3
      comp=Z,569nm,1.9s,mb6.2
GRA1                               LR    LR
      comp=Z,51µm,21.8s,MS6.8
GRF   Grafenberg Arr   77.42  42  eP     P       23 32 08.6 -0.3
GRF                                pmax  pmax
      comp=Z,569nm,1.9s,mb6.2
GRF                                MLR   MLR
      comp=Z,51µm,21.8s,MS6.8
GRF   Grafenberg Arr   77.42  42  eP     P       23 32 08.6 -0.3
GRF                                pmax  pmax
      comp=Z,569nm,1.9s,mb6.2
GRF                                MLR   MLR
      comp=Z,51µm,21.8s,MS6.8
GRF   Grafenberg Arr   77.42  42  eP     P       23 32 08.6 -0.3
      comp=Z,569nm,1.9s,mb6.2
GRF                                LR    LR
      comp=Z,51µm,21.8s,MS6.8
MOX   Moxa             77.43  41  eP     P       23 32 08.7 -0.2
MOX                                pmax  pmax
      comp=Z,417nm,1.8s,mb6.1
MOX                                MLR   MLR
      comp=Z,24µm,19.0s,MS6.5
MOX   Moxa             77.43  41  i P    P       23 32 08.7 -0.2
      comp=Z,logA/T=2.4,mb6.1
MOX                                S     S       23 42 04.0 +5.7
MOX                                SS    SS      23 47 00.0  0.0
MOX                                SSS   SSS     23 50 30.0  +13
MOX                                LR    LR      23 56 00.0
MOX                                L             00 08 05.0
MOX   Moxa             77.43  41  eP     P       23 32 08.7 -0.2
      comp=Z,417nm,1.8s,mb6.1
MOX                                LR    LR
      comp=Z,24µm,19.0s,MS6.5
BOB   Bobbio (Coli)    77.47  47  eP     P       23 32 09.4 +0.1
KTK1  Kautokeino       77.56  21  eP     P       23 32 09.7 +0.4
KTK1                               AMb   AMB     23 32 38.8
      comp=Z,841nm,1.8s,mb6.4
KTK1  Kautokeino       77.56  21  eP     P       23 32 09.7 +0.4
      comp=Z,841nm,1.8s,mb6.4
BRMO  Bormio           77.68  45  eP     P       23 32 10.5 +0.1
PGF   Pioggiola        77.70  49  eP     P       23 32 09.8 -0.8
      comp=Z,2µm,1.6s,mb6.4
PGF   Pioggiola        77.70  49  eP     P       23 32 09.8 -0.8
PGF                                pmax  pmax
      comp=Z,852nm,1.6s,mb6.4
CODM                   77.84  47   P     P       23 32 11.6 +0.2
FUR   Furstenfeldbru   77.84  43  eP     P       23 32 10.7 -0.5
FUR                                pmax  pmax
      comp=Z,828nm,2.2s,mb6.3
FUR   Furstenfeldbru   77.84  43  eP     P       23 32 10.7 -0.5
      comp=Z,828nm,2.2s,mb6.3
MABI  Malga Bissina    77.88  45  eP     P       23 32 14.1 +2.6
MOTA  Moosalm          77.94  44⇑iP     P       23 32 11.8  0.0
      comp=Z,2µm,2.5s,mb6.7
MOTA  Moosalm          77.94  44⇑iP     P       23 32 11.8  0.0
MOTA                               pmax  pmax
      comp=Z,2µm,2.5s,mb6.7
GRAM                   77.97  47   P     P       23 32 12.0  0.0
SAL   Salo             78.00  46  eP     P       23 32 11.2 -0.9
BACM                   78.03  47   P     P       23 32 11.3 -1.1
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SQTA   Sankt Quirin       78.04  44⇓iP      P       23 32 12.3  0.0
       comp=Z,667nm,2.1s,mb6.2
SQTA   Sankt Quirin       78.04  44⇓iP      P       23 32 12.3  0.0
SQTA                                 pmax   pmax
       comp=Z,667nm,2.1s,mb6.2
NKC    Novy Kostel        78.05  41 eP      P       23 32 12.1 -0.2
NKC                                 epP     pP      23 32 15.0 -0.3
NKC                                 eS      S       23 42 09.0 +4.0
NKC                                 eSS     SS      23 47 22.2  +13
NKC                                  AMS    AMS     00 08 10.0
       comp=Z,33µm,19.0s
BERN   Bernov             78.09  41 ⇓P      P       23 32 09.6 -3.0
CLL    Collm              78.11  40 i P     P       23 32 11.4 -1.2
CLL                                 eS      S       23 42 08.0 +2.4
CLL                                  pmax   pmax
       comp=Z,623nm,2.0s,mb6.2
CLL                                  MLR    MLR
       comp=Z,30µm,19.0s,MS6.7
CLL    Collm              78.11  40 i P     P       23 32 11.4 -1.2
       comp=Z,623nm,2.0s,mb6.2
CLL                                 eS      S       23 42 08.0 +2.4
CLL                                  P'P'           23 59 23.0
CLL                                  LR     LR
       comp=Z,30µm,19.0s,MS6.7
CLL    Collm              78.11  40  P      P       23 32 11.4 -1.2
CLL                                 i       pP      23 32 15.0 -0.6
CLL                                 i               23 32 18.8
CLL                                 i               23 32 25.3
CLL                                 i               23 32 31.9
CLL                                 i               23 32 48.0
CLL                                 e               23 33 17.0
CLL                                 ePPP    PPP     23 36 48.0  -12
CLL                                 eS      S       23 42 08.0 +2.4
CLL                                 eSCS    ScS     23 42 33.0 +3.7
CLL                                 eSS     SS      23 47 14.0 +3.9
CLL                                 eSSS    SSS     23 50 36.0 +7.8
CLL                                 ePKPPKP         23 59 23.0
CLL                                 e               23 59 46.0
VINC   Vinca              78.12  47  P      P       23 32 11.6 -1.3
ARCES  ARCESS Array B     78.12  20  P      P       23 32 11.4 -0.9
       comp=Z,38nm,0.7s,mb5.5,baz=285,slow=4.5,SNR=72
ARCES                                LR     LR      00 09 18.2
       comp=Z,34µm,19.3s,MS6.7,baz=307,slow=38
ARE0   ARCESS Array S     78.12  20 eP      P       23 32 10.8 -1.5
VALM                      78.13  47  P      P       23 32 12.3 -0.6
VALM                                 P              23 32 12.9
BSD    Bornholm Skovb     78.18  36 i P     P       23 32 19.3 +6.4
BSD                                 i               23 42 09.9
BSD                                  pmax   pmax
       comp=Z,140nm,1.0s,mb5.8
BSD                                  MLR    MLR
       comp=Z,22µm,22.0s,MS6.4
BSD    Bornholm Skovb     78.18  36 i P     P       23 32 19.3 +6.4
       comp=Z,144nm,1.0s,mb5.9
BSD                                 eS              23 41 29.0
BSD                                 i               23 42 09.9
       comp=Z,22µm,22.0s
ERBM   Eremo              78.23  47 eP      P       23 32 12.8 -0.6
APPI   Appiano            78.25  45  P      P       23 32 14.3 +0.8
WATA   Walderalm          78.25  44⇑iP      P       23 32 12.9 -0.6
       comp=Z,1µm,2.7s,mb6.4
WATA   Walderalm          78.25  44⇑iP      P       23 32 12.9 -0.6
WATA                                 pmax   pmax
       comp=Z,1µm,2.7s,mb6.4
VLC    Villacollemand     78.28  47 eP      P       23 32 12.0 -1.7
       comp=Z,129nm,1.0s,mb5.8
SARO   Sassorosso         78.28  47  P      P       23 32 12.4 -1.4
WTTA   Wattenberg         78.31  44⇓iP      P       23 32 16.0 +2.2
       comp=Z,3µm,3.5s
WTTA   Wattenberg         78.31  44⇓iP      P       23 32 16.0 +2.2
WTTA                                 pmax   pmax
       comp=Z,3µm,3.5s
GSCL   Gusciola           78.36  47 eP      P       23 32 13.4 -0.8
BDI    Bagni Di Lucca     78.45  47 eP      P       23 32 13.9 -0.7
PII    Pisa               78.49  48 eP      P       23 32 13.4 -1.5
KEV    Kevo               78.52  20 ep      P       23 32 13.7 -0.8
BRES   Bressanone         78.53  45  P      P       23 32 13.8 -1.2
TBI    Tubuai             78.61 240 eP      P       23 32 13.8 -2.1
       comp=Z,507nm,1.2s,mb6.3
TBI                                 eSS     SS      23 47 17.9 -0.3
TBI                                 eLQ             23 53 32.0
TBI                                 eLR     LR      23 56 50.1
       comp=Z,26µm,29.5s,baz=61
WET    Wettzell           78.61  42 eP      P       23 32 15.4  0.0
WET                                 eS      S       23 42 13.9 +2.9
WET                                  pmax   pmax
       comp=Z,936nm,2.1s,mb6.3
WET    Wettzell           78.61  42 eP      P       23 32 15.4  0.0
       comp=Z,936nm,2.1s,mb6.3
WET                                 eS      S       23 42 13.9 +2.9
RAVA   Ravarino           78.62  47  P      P       23 32 17.4 +1.8
ZCCA   Zocca              78.63  47 eP      P       23 32 15.5 -0.1
CTI    Castel Tesino      78.64  45 eP      P       23 32 15.8 +0.1
VSL    Villasalto         78.76  52 eP      P       23 32 16.4  0.0
       comp=Z,157nm,1.0s,mb5.9
KIWB   Kanaga Island      78.77 321  P      P       23 32 13.7 -2.6
FNVD   Fontana Vidola     78.78  47 eP      P       23 32 15.8 -0.7
CGRP   Cima Grappa        78.79  45⇑eP      P       23 32 17.0 +0.5
BRG    Berggiesshubel     78.80  40 eP      P       23 32 16.3 -0.1
BRG                                 i               23 32 23.6
BRG                                 i S     S       23 42 19.0 +6.1
BRG                                 i SS    SS      23 47 24.0 +3.6
BRG                                  pmax   pmax
       comp=Z,544nm,1.7s,mb6.2
BRG                                  MLR    MLR
       comp=N,25µm,20.3s,MS6.7
BRG                                  MLR    MLR
       comp=E,25µm,20.3s,MS6.7
BRG                                  MLR    MLR
       comp=Z,28µm,20.3s,MS6.6
BRG    Berggiesshubel     78.80  40 i P     P       23 32 11.4 -5.0
       comp=Z,623nm,2.0s,mb6.2
BRG                                 eP      pP      23 32 16.3 -3.1
BRG                                 i               23 32 23.6
BRG                                 i               23 32 29.2
BRG                                 eS      S       23 42 08.0 -4.9
BRG                                 i S     S       23 42 19.0 +6.1
BRG                                 i SS    SS      23 47 24.0 +3.6
BRG                                 eP'P'           23 59 18.7
BRG                                  P'P'           23 59 23.0
SEST   Monte Rota         78.83  44  P      P       23 32 18.5 +1.8
AFL    Alpe Faloria       78.87  45⇓eP      P       23 32 17.0 +0.1
GRFL   Gerfalco           78.95  48 eP      P       23 32 17.1 -0.4
SEI    Scarperia          78.98  47 eP      P       23 32 18.1 +0.6
KHC    Kasperske Hory     79.06  42 eP      P       23 32 18.4 +0.5
KHC                                 e*PP    pP      23 32 20.4 -0.5
KHC                                 e               23 32 30.0
KHC                                 eS      S       23 42 17.1 +1.4
KHC                                  MLR    MLR
       comp=Z,44µm,19.0s,MS6.8
KHC    Kasperske Hory     79.06  42 eP      P       23 32 18.4 +0.5
KHC                                 epP     pP      23 32 20.4 -0.5
KHC                                 ex      x       23 32 30.0
KHC                                 eS      S       23 42 17.1 +1.4
KHC                                 eSS     SS      23 47 36.2  +12
KHC                                  AMS    AMS     00 07 10.0
       comp=Z,44µm,19.0s
CSNT   Castellina Chi     79.09  48 eP      P       23 32 17.4 -0.8
VMG    Vicchio            79.13  47 eP      P       23 32 17.7 -0.7
CAE    Caneva             79.18  45⇓eP      P       23 32 19.0 +0.4
GERES  GERESS Array B     79.22  42  P      P       23 32 18.4 -0.4
       comp=Z,33nm,1.0s,mb5.2,baz=270,slow=2.7,SNR=50
GERES                                PKKPbc         23 51 08.8
       comp=Z,0.4nm,0.7s,baz=31,slow=5.7,SNR=2.9
GERES                                PKPPKP         23 59 05.8
       comp=Z,0.7nm,0.8s,baz=45,slow=1.4,SNR=4.4
FVI    Forni Avoltri      79.25  44 eP      P       23 32 20.3 +1.3
MLNI   Malnisio           79.26  45⇑eP      P       23 32 21.0 +2.0
PVCC   Panska Ves         79.28  40 eP      P       23 32 19.9 +0.9
PVCC                                epP     pP      23 32 22.5 +0.5
PVCC                                eS      S       23 42 22.0 +4.0
PVCC                                eSS     SS      23 47 31.3 +3.7
PVCC                                 AMS    AMS     00 10 00.0
       comp=Z,24µm,19.8s
PGD    Poggio Sodo        79.28  47 eP      P       23 32 18.5 -0.7
PRA    Prague             79.33  41  P      P       23 32 21.0 +1.7
PRA                                 ex      x       23 35 19.0
PRA                                  AMS    AMS     00 12 30.0
SFI    Santa Sofia        79.36  47 eP      P       23 32 19.3 -0.3
PRU    Pruhonice          79.42  41 eP      P       23 32 19.5 -0.3
PRU                                 e*PP    pP      23 32 22.2 -0.6
PRU                                 eS      S       23 42 20.3 +0.8
PRU                                  pmax   pmax
       comp=Z,607nm,2.0s,mb6.2
PRU                                  MLR    MLR
       comp=Z,32µm,17.0s,MS6.7
PRU    Pruhonice          79.42  41 eP      P       23 32 19.5 -0.3
       comp=Z,608nm,2.0s,mb6.2
PRU                                 epP     pP      23 32 22.2 -0.6
PRU                                 eS      S       23 42 20.3 +0.8
PRU                                 eSS     SS      23 47 42.7  +13
PRU                                  LR     LR
       comp=Z,32µm,17.0s,MS6.7
KBA    Koelnbreinsper     79.48  44⇓iP      P       23 32 21.2 +1.0
       comp=Z,2µm,3.0s
KBA    Koelnbreinsper     79.48  44⇓iP      P       23 32 21.2 +1.0
KBA                                  pmax   pmax
       comp=Z,2µm,3.0s
MPRI   Monte Prat         79.48  45⇑iP      P       23 32 22.0 +1.7
CRE    Caprese Michel     79.51  48 eP      P       23 32 19.7 -0.8
TLI    Talmassons         79.65  45⇑eP      P       23 32 23.0 +1.8
PTCC   Patocco-Chiusa     79.68  45 eP      P       23 32 20.0 -1.3
BADI   Badiali            79.75  48  P      P       23 32 21.5 -0.2
RSM    Repubblica di      79.77  47 eP      P       23 32 22.4 +0.5
ROBS   Robic              79.83  45 eP      P       23 32 23.6 +1.5
ROBS                                ePcP    PcP     23 32 32.1 +1.9
MOA    Molln              79.86  43⇓iP      P       23 32 23.9 +1.6
       comp=Z,4µm,4.9s
TOLF   Tolfa              79.98  49 eP      P       23 32 23.5 +0.5
GKP    Gorka Klasztor     80.03  37 eP      P       23 32 22.8 -0.2
GKP                                 epP     pP      23 32 25.0 -1.0
GKP                                 ePcP    PcP     23 32 29.9 -1.0
GKP                                 eS      S       23 42 26.1 +0.2
GKP                                 eSKS    SKS     23 42 37.4 -3.0
GKP                                  MLR    MLR     23 59 55.0
       comp=Z,40µm,28.8s,MS6.6
FSSB   Fossombrone        80.06  47 eP      P       23 32 23.2 -0.2
VOY    Vojsko             80.15  45 eP      P       23 32 24.2 +0.4
VOY                                 e       pP      23 32 25.7 -1.1
VOY                                 e               23 32 35.0
TRI    Trieste            80.16  45 eP      P       23 32 24.6 +0.7
UPC    Upice              80.16  40 eP      P       23 32 23.5 -0.3
UPC                                 epP     pP      23 32 26.6 -0.2
UPC                                 eS      tx      23 43 10.1
KSP    Ksiaz              80.23  40 eP      P       23 32 24.4 +0.2
KSP                                 e               23 32 31.2
KSP                                 e               23 35 25.0
KSP                                 eS      S       23 42 29.0 +1.0
KSP                                 eSS     SS      23 47 36.0 -5.9
KSP                                  MLR    MLR
       comp=Z,72µm,21.3s,MS7.0
KSP    Ksiaz              80.23  40 eP      P       23 32 24.4 +0.2
KSP                                 ePcP    PcP     23 32 31.2 -0.7
KSP                                 e               23 32 36.6
KSP                                 ePP     PP      23 35 25.0 -3.4
KSP                                 eS      S       23 42 29.0 +1.0
KSP                                 eSS     SS      23 47 36.0 -5.9
KSP                                  LR     LR
       comp=Z,72µm,21.3s,MS7.0
KSP    Ksiaz              80.23  40 eP      P       23 32 25.6 +1.4
KSP                                 epP     pP      23 32 26.9 -0.3
KSP                                 ePcP    PcP     23 32 30.5 -1.4
KSP                                 eS      S       23 42 30.1 +2.1
KSP                                 eSKS    SKS     23 42 41.7 -0.1
KSP                                  MLR    MLR     23 58 56.8
       comp=Z,68µm,30.1s,MS6.8
ARV    Arcevia            80.23  47 eP      P       23 32 24.0 -0.3
SNTG   Esanatoglia        80.30  48 eP      P       23 32 24.5 -0.2
MNS    Montasola          80.37  49 eP      P       23 32 25.4 +0.3
DPC    Dobruska-Polom     80.40  40 eP      P       23 32 25.5 +0.4
DPC                                 epP     pP      23 32 28.1  0.0
DPC                                 eS      S       23 42 33.8 +4.0
DPC                                  AMS    AMS     00 11 50.0
       comp=Z,24µm,18.5s
ROM9   Roma               80.42  49 eP      P       23 32 28.4 +3.0
OBKA   Obir               80.44  44⇓iP      P       23 32 26.2 +0.8
       comp=Z,2µm,3.4s
CING   Cingoli            80.45  47 eP      P       23 32 27.8 +2.3
MA9    Marino             80.53  49  P      P       23 32 26.9 +0.9
LJU    Ljubljana          80.57  45 eP      P       23 32 27.8 +1.7
LJU                                 ePcP    PcP     23 32 35.9 +2.5
LJU                                 eS      S       23 42 36.0 +4.4
LJU                                 e               23 51 11.5
CEY    Cerknica           80.59  45 eP      P       23 32 26.7 +0.5
KNDS   Knezji Dol         80.62  45 eP      P       23 32 28.4 +2.0
KNDS                                ePcP    PcP     23 32 35.0 +1.3
AOI    Ancona             80.68  47  P      P       23 32 28.9 +2.2
PERS   Pernice            80.78  44  P      P       23 32 27.3 +0.2
ARSA   Arzberg            80.85  43⇑iP      P       23 32 27.2 -0.3
       comp=Z,3µm,4.3s
VRAC   Vranov             80.89  41  P      P       23 32 27.8 +0.1
       comp=Z,86nm,1.1s,mb5.6,baz=301,slow=6.1,SNR=22
VRAC                                 LR     LR      00 03 36.1
       comp=Z,40µm,21.9s,MS6.7,baz=289,slow=32
VRAC   Vranov             80.89  41  P      P       23 32 28.1 +0.4
AQU    L'Aquila           80.89  48 eP      P       23 32 28.5 +0.6
TERO   Teramo             80.95  48  P      P       23 32 30.4 +2.2
PTQR   Pietraquaria       80.99  49 eP      P       23 32 28.5 +0.1
GUAR   Guarcino           81.00  49  P      P       23 32 30.0 +1.6
VKA    Vienna             81.05  42⇑iP      P       23 32 28.3 -0.2
       comp=Z,5µm,4.5s
VKA                                  MLRZ           00 09 00.0
       comp=Z,24nm,18.0s
VKA    Vienna             81.05  42⇑iP      P       23 32 28.3 -0.2
VKA                                  pmax   pmax
       comp=Z,5µm,4.5s
VKA                                  MLR    MLR
       comp=Z,24µm,18.0s,MS6.6
GROS   Grobnik            81.08  44  P      P       23 32 30.5 +1.7
BOJS   Bojanci            81.21  45 eP      P       23 32 32.3 +2.8
BOJS                                e       pP      23 32 35.6 +3.1
BOJS                                ePcP    PcP     23 32 40.1 +3.9
BOJS                                eS      S       23 42 39.6 +1.3
BOJS                                eSS     SS      23 47 54.6 -2.2
NVLJ   Novalja            81.25  46 i P     P       23 32 30.2 +0.6
CRES   Cresnjev           81.25  45  P      P       23 32 30.7 +1.0
GOLS   Golise             81.30  44  P      P       23 32 31.1 +1.2
MORC   Moravsky Berou     81.33  40 eP      P       23 32 29.4 -0.6
MORC                                        pP      23 32 33.1 +0.1
MORC                                 pmax   pmax
       comp=Z,135nm,1.2s,mb5.8
MORC   Moravsky Berou     81.33  40 eP      P       23 32 29.4 -0.6
       comp=Z,135nm,1.2s,mb5.8
MORC                                 P      pP      23 32 33.1 +0.1
INTR   Introdacqua        81.35  49 eP      P       23 32 28.0 -2.2
KAF    Kangasniemi        81.37  27 ep      P       23 32 29.6 -0.3
       comp=Z,52nm,0.6s,mb5.6,baz=290,slow=5.2
KAF    Kangasniemi        81.37  27 eP      P       23 32 29.6 -0.3
KAF                                  pmax   pmax
       comp=Z,53nm,0.6s,mb5.7
SDI    San Donato         81.38  49 eP      P       23 32 30.1 -0.3
SOP    Sopron             81.39  43 eP      P       23 32 30.5 +0.2
SOP    Sopron             81.39  43  P      P       23 32 32.5 +2.2
FINES  FINESS Array B     81.55  28  P      P       23 32 30.4 -0.5
       comp=Z,27nm,0.6s,mb5.3,baz=256,slow=2.2,SNR=49
FINES                                LR     LR      00 08 52.3
       comp=Z,25µm,19.5s,MS6.6,baz=121,slow=36
ZST    Bratislava         81.57  42 eP      P       23 32 33.8 +2.6
ZST                                 eS      S       23 42 43.9 +2.0
ZST    Bratislava         81.57  42 eS      S       23 42 43.9 +2.0
ERC    Erice              81.58  53 eP      P       23 32 32.0 +0.4
RAC    Raciborz           81.62  40 eP      P       23 32 33.6 +2.1
RAC                                 eS      S       23 42 46.1 +3.6
RAC                                  LME            00 01 31.9
       comp=Z,41µm,26.5s
RAC                                  LMN            00 01 39.4
       comp=Z,41µm,24.0s
RAC                                  MLR    MLR     00 09 25.8
       comp=Z,35µm,22.1s,MS6.7
RFI    Roccamonfina       81.62  49 eP      P       23 32 32.7 +1.0
MSC    Monte Massico      81.65  49 eP      P       23 32 31.5 -0.3
SMOL   Smolenice          81.67  42 eP      P       23 32 34.8 +3.0
OKC    Ostrava-Krasne     81.68  40 eP      P       23 32 32.0 +0.2
OKC                                 e*PP    pP      23 32 34.7 -0.1
OKC                                 eSS     SS      23 48 06.7 +3.0
OKC    Ostrava-Krasne     81.68  40 eP      P       23 32 32.0 +0.2
OKC                                 epP     pP      23 32 34.7 -0.1
OKC                                 eS      S       23 42 55.1  +12
OKC                                 eSS     SS      23 48 06.7 +3.0
OKC                                  AMS    AMS     00 13 00.0
       comp=Z,26µm,18.4s
CII    Carovilli          81.72  49 eP      P       23 32 33.2 +1.0
USI    Ustica             81.82  52 eP      P       23 32 33.0 +0.2
LVZ    Lovozero           81.84  20c iP     P       23 32 34.4 +2.1
LVZ                                 eS      S       23 42 41.5 -2.8
LVZ                                 eSS     SS      23 48 05.9 +0.2
LVZ                                  pmax   pmax
       comp=Z,3µm,4.1s
LVZ                                  smax
       comp=N,4µm,6.0s
LVZ                                  smax
       comp=E,4µm,6.4s
LVZ                                  MLR    MLR
       comp=Z,26µm,19.0s,MS6.6
LVZ                                  MLR    MLR
       comp=N,11µm,17.0s,MS6.7
LVZ                                  MLR    MLR
       comp=E,30µm,20.0s,MS6.7
LVZ    Lovozero           81.84  20⇑iP      P       23 32 34.6 +2.3
SGG    Gregorio Mates     81.88  49 eP      P       23 32 33.6 +0.6
SISC   Sisak              81.97  45 i P     P       23 32 35.8 +2.4
CLTB   Caltabellotta      82.19  53 eP      P       23 32 35.5 +0.8
SRO    Srobarova          82.46  42 eP      P       23 32 38.5 +2.6
SRO                                 e               23 32 51.4
WAR    Warsaw             82.54  37 eP      P       23 32 38.8 +2.6
WAR                                 epP     pP      23 32 42.5 +3.3
WAR                                 ePcP    PcP     23 32 45.6 +3.7
WAR                                 ePP     PP      23 35 41.1 -6.6
WAR                                 eS      S       23 42 54.2 +2.4
WAR                                 eSKS    SKS     23 42 56.5 -1.5
WAR                                  MLR    MLR     00 00 21.7
       comp=E,47µm,30.3s,MS6.7
OJC    Ojcow              82.55  39 eP      P       23 32 36.7 +0.4
OJC                                 e       pP      23 32 39.2 -0.1
OJC                                 e               23 35 44.1
OJC                                 eS      S       23 42 53.5 +1.6
OJC                                 eSS     SS      23 48 13.9 -2.8
OJC                                  MLR    MLR
       comp=Z,35µm,19.6s,MS6.7
OJC    Ojcow              82.55  39 eP      P       23 32 36.7 +0.4
OJC                                 ePcP    PcP     23 32 39.2 -2.7
OJC                                 ePP     PP      23 35 44.1 -3.6
OJC                                 eS      S       23 42 53.5 +1.6
OJC                                 eScS    ScS     23 43 08.5 +2.9
OJC                                 eSS     SS      23 48 13.9 -2.8
OJC                                  MLR    MLR     00 11 04.4
       comp=Z,35µm,19.6s,MS6.7
FG5    Orsara di Pugl     82.55  49 eP      P       23 32 37.5 +1.0
VYHS   Vyhne              82.56  41 eP      P       23 32 39.7 +3.3
VYHS                                eS      S       23 42 58.4 +6.4
VYHS   Vyhne              82.56  41 eP      P       23 32 39.7 +3.3
VYHS                                e               23 33 05.3
VYHS                                eS      S       23 42 58.4 +6.4
FAVR   Favara             82.63  53 eP      P       23 32 39.1 +2.1
RGNG   Rignano Grg        82.65  49  P      P       23 32 37.0  0.0
PKSG                      82.65  42⇑eP      P       23 32 36.9  0.0
GIB    Gibilmanna         82.68  52 eP      P       23 32 37.0 -0.2
CSLB   Castelbuono        82.72  53  P      P       23 32 37.1 -0.3
FG4    Candela            82.78  49  P      P       23 32 38.2 +0.5
SGO    Sicignano          82.81  50 eP      P       23 32 37.6 -0.3
MRLC   Muro Lucano        82.88  49 eP      P       23 32 36.8 -1.4
RHK1   Bakonya            82.89  44 eP      P       23 32 38.7 +0.5
FGMS   Monte Sant'Ang     82.90  48 eP      P       23 32 37.0 -1.3
FGMS                                 P      pP      23 32 40.5 -0.8
SUW    Suwalki            83.09  35 eP      P       23 32 38.7 -0.3
SUW                                 epP     pP      23 32 40.8 -1.2
SUW                                 ePcP    PcP     23 32 43.0 -1.2
SUW                                 eS      S       23 42 57.0 -0.3
SUW                                  MLR    MLR     00 01 06.7
       comp=Z,37µm,28.0s,MS6.6
VSU    Vasula             83.10  30⇑eP      P       23 32 40.6 +1.6
SLCN   Sala Consilina     83.10  50 eP      P       23 32 41.2 +1.8
SLNA   Salina             83.10  52 eP      P       23 32 37.9 -1.5
MGR    Morigerati         83.12  50 eP      P       23 32 39.2 -0.3
VAE    Valguarnera        83.13  53  P      P       23 32 38.7 -0.8
       comp=Z,38nm,1.1s,mb5.4,baz=7.0,slow=2.5,SNR=14
VAE                                  LR     LR      00 04 07.8
       comp=Z,51µm,20.0s,MS6.9,baz=269,slow=32
NIE    Niedzica           83.14  40 eP      P       23 32 42.8 +3.4
PKSM   Moragy             83.22  44  P      P       23 32 39.8 -0.1
CUC    Castrocucco        83.36  50  P      P       23 32 40.2 -0.5
PSZ    Piszkesteto        83.42  42  P      P       23 32 42.1 +1.2
PSZ                                  pmax   pmax
       comp=Z,1µm,1.8s,mb6.6
PSZ    Piszkesteto        83.42  42⇓ecP             23 32 44.0
PSZ    Piszkesteto        83.42  42 eP      P       23 32 41.8 +0.9
       comp=Z,261nm,1.1s,mb6.2
SMY    Shemya             83.54 324  PFAKE          23 32 50.0 +8.7
SMY                                  LR     LR
       comp=Z,59µm,20.0s,MS7.0
PZI    Palazzolo          83.67  53 eP      P       23 32 46.2 +3.9
WDD    Wield Dalam        83.73  54  P      P       23 32 44.0 +1.3
SSY    Sortino            83.73  53  P      P       23 32 44.1 +1.4
STON   Ston               83.73  47 i P     P       23 32 42.9 +0.3
PKSN   Nyarlorinc         83.77  43 eP      P       23 32 45.4 +2.7
ORI    Oriolo Calabro     83.80  50 eP      P       23 32 42.9 -0.1
SCLL   Scilla             83.85  52  P      P       23 32 43.8 +0.5
LTRZ   Laterza            83.88  49 eP      P       23 32 44.4 +1.0
MTTG   Motta San Giov     83.92  52 eP      P       23 32 44.6 +1.0
FX1    Attu Island--F     84.00 324 eP      P       23 32 42.8 -0.9
IZAR   Zarasai            84.00  33 eP      P       23 32 43.2 -0.4
IZAR                                 AMPb   AMB     23 32 59.8
       comp=Z,117nm,1.1s,mb5.9
ISAL   Salakas            84.02  33 eP      P       23 32 43.4 -0.3
ISAL                                 AMPb   AMB     23 32 52.9
       comp=Z,70nm,1.4s,mb5.6
CRVS   Cervenica-Dubn     84.03  40 eP      P       23 32 48.2 +4.3
CRVS                                eS      S       23 43 08.0 +1.1
CRVS   Cervenica-Dubn     84.03  40 eS      S       23 43 08.0 +1.1
BRT    Bari-Castellan     84.06  49  P      P       23 32 46.1 +1.8
IIGN   Ignalina           84.16  33 eP      P       23 32 44.2 -0.2
PUL    Pulkovo            84.17  28 eP      P       23 32 44.5 +0.2
PUL                                 eS      S       23 43 07.7 -0.2
PUL                                 eSS     SS      23 48 37.3 -2.5
PUL                                  pmax   pmax
       comp=Z,6µm,5.1s
PUL                                  smax
       comp=E,2µm,4.3s
PUL                                  MLR    MLR
       comp=Z,37µm,18.0s,MS6.8
PUL                                  MLR    MLR
       comp=N,14µm,15.0s
PUL                                  MLR    MLR
       comp=E,18µm,21.0s
PUL    Pulkovo            84.17  28⇑eP      P       23 32 44.6 +0.3
SOI    Samo               84.17  52 eP      P       23 32 43.0 -1.9
GRI    Girifalco          84.19  51 eP      P       23 32 43.6 -1.4
BRY    Bratogost          84.31  47⇑iP      P       23 32 46.5 +1.0
TIP    Timpagrande        84.32  51 eP      P       23 32 44.1 -1.5
HCY    Herceg Novi        84.43  47⇑iP      P       23 32 47.1 +1.0
IDID   Didziasalis        84.44  33 eP      P       23 32 45.3 -0.6
IDID                                 AMPb   AMB     23 33 01.7
       comp=Z,64nm,1.1s,mb5.7
UPM    Unac-Piva          84.45  46⇑iP      P       23 32 47.0 +0.8
KWP    Kalwaria           84.51  39 eP      P       23 32 48.5 +2.2
KWP                                 e               23 32 56.4
KWP                                 eS      S       23 43 08.9 -2.7
KWP                                  MLR    MLR     00 01 16.2
       comp=Z,33µm,30.5s,MS6.5
KOLS   Kolonicke sedl     84.52  40 eP      P       23 32 49.8 +3.4
KOLS                                e               23 59 04.5
PMSA   Palmer Station     84.55 173 eP      P       23 32 47.3 +1.1
       comp=Z,310nm,1.5s,mb6.2
PMSA                                 LR     LR
       comp=Z,13µm,21.0s,MS6.3
UZH    Uzhgorod           84.65  40 eP      P       23 32 49.0 +2.0
UZH                                 eS      S       23 43 14.0 +1.1
NKY    Niksic             84.65  47⇑iP      P       23 32 46.8 -0.4
PLE    Pljevlja           84.74  46⇑iP      P       23 32 48.9 +1.3
BUM    Brajici-Budva      84.76  47⇑iP      P       23 32 49.2 +1.4
DIVS   Divcibare          84.86  45⇑iP      P       23 32 48.7 +0.4
NVSS   Nova Varos 2       84.88  46⇓iP      P       23 32 49.7 +1.4
BEO    Belgrade           84.91  44⇑iP      P       23 32 49.6 +1.2
TTG    Podgorica          84.97  47⇑iP      P       23 32 49.4 +0.6
ULC    Ulcinj             85.13  47⇑iP      P       23 32 49.9 +0.3
LVV    L'vov              85.23  39 eP      P       23 32 52.0 +2.1
LVV                                 eS      S       23 43 15.0 -3.6
LVV                                  MLR    MLR
       comp=Z,13µm,18.0s,MS6.4
IVA    Berane             85.25  46⇑iP      P       23 32 51.7 +1.5
MNK    Minsk              85.37  34 eP      P       23 32 48.0 -2.5
MNK                                 eS      S       23 43 16.0 -3.9
PVY    Plav               85.40  47 eP      P       23 32 52.3 +1.4
GRUS   Gruza              85.43  45⇑iP      P       23 32 50.5 -0.5
SVIS   Svilajnac          85.61  45 eP      P       23 32 51.5 -0.4
TRIS   Tristan da Cun     85.63 131  PFAKE          23 33 00.0 +7.8
TRIS                                 LR     LR
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        comp=Z,21µm,22.0s,MS6.5
TIR   Tirane            85.78  48   P       P       23 32 52.3  -0.6
MIDW  Midway            86.26 298   P       P       23 32 57.8  +2.3
        comp=Z,2µm,1.4s,mb7.0
MIDW                                LR      LR
        comp=Z,23µm,20.0s,MS6.6
BOLS  Boljevac          86.28  45⇑iP       P       23 32 54.8  -0.5
KEK   Kerkira           86.33  49  eP       P       23 32 55.5  -0.1
RAR   Rarotonga         86.47 246   P       P       23 32 57.4  +0.7
        comp=Z,18nm,1.0s,mb5.3,baz=252,slow=20,SNR=2.7
RAR   Rarotonga         86.47 246   P       P       23 32 57.4  +0.7
RAR                                 pmax    pmax
        comp=Z,18nm,1.0s
RAR   Rarotonga         86.47 246  eP       P       23 32 58.6  +1.9
        comp=Z,242nm,1.2s,mb6.3
RAR                                 LR      LR
        comp=Z,11µm,19.0s,MS6.3
OHR   Ohrid             86.52  48  i P      P       23 32 57.9  +1.4
OHR                                i S      S       23 43 23.9  -7.4
SKO   Skopje            86.64  47⇑iP       P       23 32 58.1  +1.0
SKO                                i        pP      23 33 00.9  +0.8
SKO                                i                23 36 23.7
SKO                                i S      S       23 43 39.4  +6.9
SKO                                 pmax    pmax
        comp=Z,430nm,1.3s,mb6.5
SKO   Skopje            86.64  47⇑iP       P       23 32 58.1  +1.0
        comp=Z,430nm,1.3s,mb6.5
SKO                                i        pP      23 33 00.9  +0.8
SKO                                i                23 33 15.6
SKO                                i PP     PP      23 36 23.7  +2.4
SKO                                i                23 42 59.0
SKO                                i S      S       23 43 39.4  +6.9
SKO   Skopje            86.64  47⇑iP       P       23 32 58.1  +1.0
SKO                               ⇑i        pP      23 33 00.9  +0.8
SKO                                i                23 33 15.6
        comp=Z,0.4nm,1.3s
SKO                                i PP     PP      23 36 23.7  +2.4
SKO                                i                23 42 59.0
SKO                               ⇓iS       S       23 43 39.4  +6.9
BIA   Bitola            86.92  48  i P      P       23 33 00.3  +1.8
BIA                                i                23 33 18.8
FNA   Florina           87.05  48  eP       P       23 32 59.6  +0.5
JAN   Janina            87.11  49  eP       P       23 33 00.2  +0.8
TIXI  Tiksi             87.26 351  eP       P       23 32 58.9  -0.5
TIXI                               eS       S       23 43 37.9  +0.2
TIXI                               eSS      SS      23 49 24.1  -0.9
TIXI  Tiksi             87.26 351⇑eP       P       23 32 58.7  -0.7
TIXI                                LR      LR
        comp=Z,81µm,20.0s,MS7.1
MEV   Metsovon          87.33  49  eP       P       23 33 02.3  +1.8
KZN   Kozani            87.51  48  eP       P       23 33 03.0  +1.6
VTS   Vitosha           87.61  46  eP       P       23 33 02.0  +0.2
VTS   Vitosha           87.61  46   P       P       23 33 03.4  +1.6
VAY   Valandovo         87.67  47  i P      P       23 33 05.8  +3.7
VAY                                i S      S       23 43 35.3  -7.0
GRG   Griva             87.70  47  eP       P       23 33 03.1  +0.8
MTUR  Matau             87.75  43⇓iP       P       23 33 03.8  +1.4
MTUR  Matau             87.75  43⇓eP       P       23 33 03.8  +1.4
KKB   Krupnik           87.81  46  eP       P       23 33 04.0  +1.3
AKASG Malin Array Be    87.85  37   P       P       23 33 02.6  -0.1
        comp=Z,9.3nm,0.7s,mb5.1,baz=295,slow=3.6,SNR=24
AKASG                               PKKPbc          23 50 49.1
        comp=Z,4.0nm,1.1s,baz=73,slow=2.0,SNR=4.1
KNT   Kendrikon         87.97  47  eP       P       23 33 04.0  +0.5
SNX   Sinaia            87.99  42   P       P       23 33 05.4  +1.9
EVR   Evrytania         88.08  49  eP       P       23 33 06.0  +1.9
LIT   Litokhoron        88.10  48  eP       P       23 33 02.8  -1.3
SEY   Seymchan          88.19 338  eP       P       23 33 04.5  +0.5
SEY                                e                23 36 36.3
SEY                                                 23 43 36.9
SEY                                eS       S       23 43 46.5   0.0
SEY                                 pmax    pmax
        comp=Z,500nm,1.3s,mb6.6
SEY                                 pmax    pmax
        comp=N,60nm,1.2s
SEY                                 pmax    pmax
        comp=E,130nm,1.2s
SEY                                 smax
        comp=E,64µm,25.7s
MLR   Muntele Rosu      88.20  42   P       P       23 33 05.0  +0.5
        comp=E,224nm,1.2s,mb6.3,baz=7.3,slow=4.0,SNR=30
MLR                                 LR      LR      00 07 58.5
        comp=E,25µm,22.0s,MS6.6,baz=143,slow=32
MLR   Muntele Rosu      88.20  42⇑iP       P       23 33 05.6  +1.1
MLR   Muntele Rosu      88.20  42⇓eP       P       23 33 05.7  +1.2
THE   Thessaloniki      88.22  48  eP       P       23 33 04.5  -0.2
PGB   Panagyurishte     88.27  45  eP       P       23 33 09.0  +4.1
MMB   Musomiste         88.36  46  eP       P       23 33 07.0  +1.6
AGG   Agios Georgios    88.41  49  eP       P       23 33 04.3  -1.4
SOH   Sokhos            88.42  47  eP       P       23 33 06.2  +0.6
SRS   Serrai            88.46  47  eP       P       23 33 06.2  +0.4
VRI   Vrincioaia        88.54  42⇓iP       P       23 33 08.9  +2.8
VRI   Vrincioaia        88.54  42⇑iP       P       23 33 11.3  +5.2
PLG   Polygyros         88.66  48  eP       P       23 33 06.0  -0.9
ISR   Istrita           88.75  42⇓iP       P       23 33 11.1  +3.9
ISR   Istrita           88.75  42⇓iP       P       23 33 11.1  +4.0
PVL   Pavlikeni         88.77  44  eP       P       23 33 09.0  +1.7
PLD   Plovdiv           88.82  46  eP       P       23 33 11.0  +3.4
ITM   Ithomi            88.84  51  eP       P       23 33 07.5  -0.3
XOR   Xorichti          88.89  49  eP       P       23 33 06.2  -1.7
NEO   Neokhori          88.93  49  eP       P       23 33 08.5  +0.3
RZN   Rozhen            89.00  46  eP       P       23 33 09.0  +0.6
PAIG  Paliouri          89.01  48  eP       P       23 33 06.5  -2.0
OUR   Ouranopolis       89.05  47  eP       P       23 33 08.9  +0.2
SZH   Strazhica         89.15  44  eP       P       23 33 10.0  +0.9
KIS   Kishinev          89.32  40κiP       P       23 33 10.0  +0.2
KIS                                e                23 36 48.0
KIS                                e                23 43 40.0
KIS                                i S      S       23 43 52.0  -5.4
KIS                                 pmax    pmax
        comp=Z,1µm,3.0s
KIS                                 pmax    pmax
        comp=Z,2µm,5.0s
KIS                                 pmax    pmax
        comp=Z,3µm,10.0s
KIS                                 MLR     MLR
        comp=N,24µm,20.0s,MS6.7
KIS                                 MLR     MLR
        comp=E,20µm,20.0s,MS6.7
KIS                                 MLR     MLR
        comp=Z,28µm,20.0s,MS6.7
KIS                                 MLR     MLR
        comp=Z,27µm,20.0s
OBN   Obninsk           89.45  30⇓iP       P       23 33 09.7  -0.5
OBN                                i                23 36 41.1
OBN                                i PPP    PPP     23 38 37.3  -5.5
OBN                                e                23 43 40.2
OBN                                i PS     PS      23 45 07.2  -0.3
OBN                                eSS      SS      23 50 03.4  +6.3
OBN                                 pmax    pmax
        comp=Z,1µm,4.0s
OBN                                 pmax    pmax
        comp=Z,121nm,1.9s,mb5.9
OBN                                 MLR     MLR
        comp=Z,26µm,18.0s,MS6.7
OBN   Obninsk           89.45  30  eP       P       23 33 09.4  -0.9
        comp=Z,213nm,1.1s,mb6.4
OBN                                 LR      LR
        comp=Z,7µm,20.0s,MS6.1
AOS   Alonnisos         89.45  49  eP       P       23 33 09.4  -1.3
MGER  Gerania Oros      89.49  50  eP       P       23 33 11.5  +0.6
KDZ   Kurdzhali         89.49  46  eP       P       23 33 11.0  +0.2
MOS   Moscow            89.60  30  eP       P       23 33 13.6  +2.7
MOS                                e                23 36 50.3
MOS                                ePPP     PPP     23 38 45.9  +1.9
MOS                                eS       S       23 43 42.0   -18
MOS                                eSS      SS      23 50 02.4  +3.0
MOS                                 pmax    pmax
        comp=Z,239nm,1.5s,mb6.3
MOS                                 MLR     MLR
        comp=Z,30µm,20.0s,MS6.7
MOS                                 MLR     MLR
        comp=N,22µm,20.3s
NSAL  Nisos Salamina    89.67  50  eP       P       23 33 09.3  -2.4
CFR   Carcaliu          89.73  42⇓iP       P       23 33 11.4  -0.4
CFR   Carcaliu          89.73  42⇓eP       P       23 33 11.5  -0.3
MPAR  Parnis Oros       89.77  50  eP       P       23 33 10.5  -1.6
RDO   Rodhopi           89.79  46  eP       P       23 33 13.0  +0.8
HARR  Harsova           89.82  42⇑iP       P       23 33 13.9  +1.7
HARR  Harsova           89.82  42⇓iP       P       23 33 15.5  +3.3
ATH   Athens Observa    89.83  50  eP       P       23 33 13.0  +0.6
PTL   Penteli           89.90  50  eP       P       23 33 14.0  +1.2
JMB   Yambol            89.93  45  eP       P       23 33 14.0  +1.2
KYTH  Kithira           90.01  51  eP       P       23 33 12.0  -1.3
PRD   Provadia          90.14  44  eP       P       23 33 12.0  -1.8
PSN   Preselentsi       90.44  43  eP       P       23 33 16.0  +0.9
BOZC  Bozcaada          90.70  47  i P      P       23 33 16.6  +0.1
MA2   Magadan           90.98 336deP       P       23 33 19.6  +2.4
MA2                                e                23 43 48.7
MA2                                eS       S       23 44 15.7  +3.6
MA2                                eSS      SS      23 50 17.3  -1.7
MA2                                 pmax    pmax
        comp=Z,120nm,1.3s,mb6.1
MA2                                 MLR     MLR
        comp=Z,174µm,22.0s,MS7.5
MA2   Magadan           90.98 336  eP       P       23 33 18.1  +0.9
        comp=Z,126nm,0.9s,mb6.2
MA2                                 LR      LR
        comp=Z,57µm,19.0s,MS7.0
SART  Tekirdag          91.11  46  i P      P       23 33 17.8  -0.5
AYVA  Ayvalik           91.38  48  i P      P       23 33 27.4  +7.9
GVD   Gavdhos           91.38  52  eP       P       23 33 20.1  +0.5
        comp=Z,628nm,1.4s,mb6.8
PET   Petropavlovsk     91.59 328⇑iP       P       23 33 20.2   0.0
PET                                 MLR     MLR
        comp=Z,39µm,19.0s,MS6.9
SANT  Santorini         91.75  51   P       P       23 33 21.5  +0.1
        comp=Z,939nm,1.5s,mb6.9
IDI   Anoyia            91.79  52   P       P       23 33 22.0  +0.4
        comp=Z,84nm,1.1s,mb6.0,baz=310,slow=12,SNR=8.1
BTOK  Tokmak            92.10  47  i P      P       23 33 20.4  -2.4
PECR  Pechory           92.16  27  eP       P       23 33 25.0  +2.3
PECR                                pmax    pmax
        comp=Z,1µm,6.0s
IZM   Izmir             92.17  48  eP       P       23 33 23.3  +0.1
KDAG  Bornova           92.18  48  i P      P       23 33 23.6  +0.3
AKS   Akhisar           92.35  48  eP       P       23 33 23.6  -0.4
VOR   Voronezh          92.66  32  eP       P       23 33 16.0  -9.1
VOR                                 pmax    pmax
        comp=Z,160nm,1.8s,mb6.2
ULDT  Uludag            92.69  46  i P      P       23 33 23.8  -1.7
VRSR  Storozhevoye      92.95  33  eP       P       23 33 28.3  +1.8
VRSR                               e*PP     pP      23 33 29.3  -0.2
VRSR                               e                23 37 06.6
VRSR                               e                23 44 02.1
VRSR                               eSS      SS      23 50 49.2  +1.4
VRSR                                pmax    pmax
        comp=Z,20nm,1.1s,mb5.5
VRSR                                pmax    pmax
        comp=N,10.0nm,1.0s
VRSR                                pmax    pmax
        comp=E,9.0nm,1.0s
VRSR                                MLR     MLR
        comp=E,10µm,17.0s,MS6.5
VRSR                                MLR     MLR
        comp=Z,26µm,17.0s,MS6.8
VRSR                                MLR     MLR
        comp=N,13µm,18.0s,MS6.5
MLSB  Milas             93.03  49  eP       P       23 33 25.6  -1.6
YER   Yerkesik          93.46  49  eP       P       23 33 31.7  +2.5
SIM   Simferopol'       93.55  40  eP       P       23 33 32.4  +3.0
SIM                                e                23 44 04.0
SIM                                eS       S       23 44 33.0  -1.9
SIM                                ePS      PS      23 45 52.0  -2.8
SIM                                eSS      SS      23 51 01.0  +4.7
SIM                                 pmax    pmax
        comp=Z,176nm,2.3s,mb6.1
SIM   Simferopol'       93.55  40  eP       P       23 33 32.0  +2.6
ALT   Altintas          93.86  47  eP       P       23 33 30.4  -0.6
MDU   Mudurnu           93.94  45  eP       P       23 33 30.5  -0.8
ESKT  Eskisehir         94.14  46  eP       P       23 33 33.3  +1.0
ESKT  Eskisehir         94.14  46  i P      P       23 33 32.2  -0.1
SKR   Severo-Kuril's    94.24 327  eP       P       23 33 38.0  +5.6
SKR                                e                23 44 46.0
SKR                                 pmax    pmax
        comp=Z,180nm,1.0s,mb6.5
SKR                                 pmax    pmax
        comp=Z,3µm,10.0s
SKR                                 MLR     MLR
        comp=N,35µm,18.0s,MS7.2
SKR                                 MLR     MLR
        comp=E,60µm,18.0s,MS7.2
SKR                                 MLR     MLR
        comp=Z,32µm,18.0s,MS6.8
SAFT  Safranbolu        94.53  44  eP       P       23 33 30.3  -3.7
SOKR  Solikamsk         94.63  20⇓iP       P       23 33 42.4  +8.4
SOKR                               e                23 37 18.5
SOKR                                pmax    pmax
        comp=Z,20nm,1.6s,mb5.3
SOKR                                MLR     MLR
        comp=Z,26µm,22.0s,MS6.7
ISP   Isparta           94.71  47c iP      P       23 33 37.7  +2.8
ISP   Isparta           94.71  47   P       P       23 33 34.9   0.0
AFI   Afiamalu          94.78 257   PFAKE           23 33 50.0   +14
AFI                                 LR      LR
        comp=Z,20µm,21.0s,MS6.6
BALT  Daday             94.83  43  i P      P       23 33 34.1  -1.2
KIZT  Kizilcal          95.15  46  eP       P       23 33 34.1  -2.8
ELDT  Eldivan           95.39  44  i P      P       23 33 37.0  -1.0
CANT  Cankiri           95.46  44  eP       P       23 33 37.4  -0.8
TOS   Tosya             95.50  43  eP       P       23 33 37.2  -1.3
YAK   Yakutsk           95.57 346  eP       P       23 33 45.1  +6.9
YAK                                e                23 37 29.1
YAK                                ePPP     PPP     23 39 33.3  -3.3
YAK                                eS               23 44 15.8
YAK                                e                23 44 55.1
YAK                                ePS      PS      23 46 14.2  -2.4
YAK                                eSS      SS      23 51 17.2  -7.0
YAK                                eSSS     SSS     23 54 59.0  -8.3
YAK                                 pmax    pmax
        comp=Z,54nm,1.1s,mb5.9
YAK                                 pmax    pmax
        comp=N,19nm,1.3s
YAK                                 pmax    pmax
        comp=E,10.0nm,2.0s
YAK                                 pmax    pmax
        comp=Z,18nm,1.0s,mb5.5
YAK                                 pmax    pmax
        comp=N,8.0nm,1.2s
YAK                                 pmax    pmax
        comp=E,3.0nm,1.7s
YAK                                 MLR     MLR
        comp=Z,23µm,16.0s,MS6.8
YAK                                 MLR     MLR
        comp=N,21µm,15.0s,MS6.8
YAK                                 MLR     MLR
        comp=E,17µm,15.0s,MS6.8
YAK   Yakutsk           95.57 346  eP       P       23 33 39.6  +1.4
        comp=E,185nm,1.2s,mb6.4
YAK                                 LR      LR
        comp=Z,46µm,20.0s,MS7.0
ANN   Anapa             95.62  39  eP       P       23 33 41.0  +2.1
ANN                                i *PP    pP      23 33 49.0  +7.1
ANN                                e                23 37 30.9
ANN                                e                23 44 16.3
ANN                                 pmax    pmax
        comp=Z,112nm,1.8s,mb6.0
ANN                                 MLR     MLR
        comp=N,21µm,19.9s,MS6.7
ANN                                 MLR     MLR
        comp=Z,33µm,19.9s,MS6.8
ANN                                 MLR     MLR
        comp=E,18µm,19.0s,MS6.7
BR131 Keskin Array S    95.92  45   PFAKE           23 33 50.0   +10
BR131                               LR      LR
        comp=Z,8µm,20.0s,MS6.2
BRTR  Keskin Array B    95.92  45   P       P       23 33 40.6  +0.2
        comp=Z,7.5nm,0.8s,mb5.2,baz=288,slow=3.9,SNR=17
BRTR                                PP      PP      23 37 42.1  +7.1
        comp=Z,13nm,1.2s,baz=297,slow=5.5,SNR=4.0
BRTR                                PKKPbc          23 50 28.0
        comp=Z,1.0nm,0.5s,baz=141,slow=3.7,SNR=4.6
KONT  Konya--Tatoy      95.94  47  eP       P       23 33 43.4  +2.8
KAMT  Kaman             96.15  45  eP       P       23 33 37.5  -4.0
SOC   Sochi             97.66  39  i P      P       23 33 48.8  +0.6
SOC                                e                23 37 51.4
SOC                                ePPP     PPP     23 39 59.0  +3.5
SOC                                eS               23 44 26.2
SOC                                ePS      PS      23 46 38.7  -0.6
SOC                                eSS      SS      23 51 53.1  -0.8
SOC                                eSSS     SSS     23 55 45.0  +4.8
SOC                                 pmax    pmax
        comp=Z,60nm,1.0s,mb6.1
SOC                                 pmax    pmax
        comp=N,78nm,1.2s
SOC                                 pmax    pmax
        comp=E,47nm,1.1s
SOC                                 MLR     MLR
        comp=Z,15µm,17.0s,MS6.6
SOC                                 MLR     MLR
        comp=N,2µm,18.0s,MS6.4
SOC                                 MLR     MLR
        comp=E,13µm,22.0s,MS6.4
ARU   Arti              97.68  21⇓iP       P       23 33 50.0  +2.1
ARU                                i                23 37 47.5
ARU                                i PPP    PPP     23 39 56.8  +1.5
ARU                                i S              23 44 23.1
ARU                                i SS     SS      23 51 50.0  -3.9
ARU                                eSSS     SSS     23 55 40.7  +0.4
ARU                                 pmax    pmax
        comp=Z,31nm,1.2s,mb5.7
ARU                                 MLR     MLR
        comp=N,20µm,21.0s,MS6.8
ARU                                 MLR     MLR
        comp=Z,30µm,21.0s,MS6.8
ARU                                 MLR     MLR
        comp=E,19µm,18.0s,MS6.8
ARU   Arti              97.68  21  eP       P       23 33 45.6  -2.4
        comp=E,131nm,1.5s,mb6.2
ARU                               ⇓eP       pP      23 33 50.2  -0.8
ARU                                 LR      LR
        comp=Z,8µm,21.0s,MS6.2
BNN   Bunyan            97.83  44  eP       P       23 33 46.8  -2.3
SVE   Sverdlovsk        98.05  20  eP       P       23 33 54.0  +4.4
SVE                                e                23 37 52.0
SVE                                 pmax    pmax
        comp=Z,630nm,3.8s
CSS   Prodhromos        98.09  49   P       P       23 33 49.2  -1.1
        comp=Z,41nm,1.2s,mb5.8
GOF   Gofitskoye        98.70  36⇓iP       P       23 33 53.0  +0.2
GOF                                 pmax    pmax
        comp=Z,20nm,1.4s,mb5.5
GOF                                 pmax    pmax
        comp=Z,2µm,8.0s
GOF                                 MLR     MLR
        comp=N,14µm,16.0s
GOF                                 MLR     MLR
        comp=Z,23µm,16.0s,MS6.8
KIV   Kislovodsk        99.17  37⇓eP       P       23 33 57.6  +2.6
KIV                                 pmax    pmax
        comp=Z,20nm,1.2s,mb5.5
KIV   Kislovodsk        99.17  37  eP       P       23 33 57.1  +2.2
        comp=Z,24nm,1.0s,mb5.7
KIV                                 LR      LR
        comp=Z,5µm,20.0s,MS6.0
COBT  Iskenderun        99.34  46  i P      P       23 33 57.8  +1.9
MALT  Malatya           99.83  44  eP       P       23 34 00.3  +2.2
MALT                                pmax    pmax
        comp=Z,47nm,1.4s,mb5.7
MALT  Malatya           99.83  44  eP       P       23 34 00.3  +2.2
        comp=Z,47nm,1.4s,mb5.7
ELZG  Elazig           100.09  43  i P      P       23 33 46.5   -13
URFA  Urfa             100.57  44  eP       P       23 33 53.6  -7.9
ZEI   Tsey             100.60  38  eP       P       23 34 06.0  +4.5
ZEI                                eSS      SS      23 52 50.0   +15
ZEI                                 pmax    pmax
        comp=Z,700nm,16.0s
ZEI                                 pmax    pmax
        comp=E,500nm,20.0s
ZEI                                 pmax    pmax
        comp=N,400nm,14.0s
ZEI                                 MLR     MLR
        comp=E,16µm,20.0s,MS6.6
ZEI                                 MLR     MLR
        comp=Z,28µm,20.0s,MS6.8
ZEI                                 MLR     MLR
        comp=N,8µm,18.0s,MS6.6
ERZM  Erzurum          100.80  41  i P      P       23 34 06.3  +3.8
CLNS  Chul'man         101.32 346  eP       P       23 34 20.4   +16
CLNS                               e                23 38 23.7
CLNS                               e                23 45 32.5
CLNS                                pmax    pmax
        comp=Z,16nm,1.1s
CLNS                                pmax    pmax
        comp=N,4.0nm,0.9s
CLNS                                pmax    pmax
        comp=E,2.0nm,0.8s
TI2   Plekhanov        101.74  38  eP       P       23 34 08.0  +1.3
BTMT  Batman           101.88  43  eP       P       23 34 08.4  +1.0
EIL   Elat             101.91  53   P       P       23 34 08.3  +0.6
        comp=E,1.7nm,0.6s,baz=39,slow=25,SNR=2.7
EIL   Elat             101.91  53  ePdif    P       23 34 07.2  -0.5
        comp=E,52nm,1.6s
ASF   Jabal al Asfar   102.07  50   P       Pdif    23 34 11.8  +3.4
        comp=E,3.3nm,1.0s,baz=44,slow=3.9,SNR=3.6
VNA3  Neumayer Olymp   102.12 162   P       Pdif    23 34 11.4  +3.7
VNA3  Neumayer Olymp   102.12 162           PP      23 38 21.8   0.0
VNA1  Neumayer--Stat   102.31 161⇑iP       Pdif    23 34 13.6  +5.0
VNA1  Neumayer--Stat   102.31 161           PP      23 38 20.0  -3.4
BOD   Bodaibo          102.42 352  eP       Pdif    23 34 14.7  +5.3
VNA2  Neumayer--Watz   102.68 161   P       Pdif    23 34 14.2  +4.0
VNA2  Neumayer--Watz   102.68 161           Pdif    23 34 20.2   +10
VNA2  Neumayer--Watz   102.68 161           PP      23 38 22.8  -3.6
VNA2  Neumayer--Watz   102.68 161⇑i                23 38 26.0
VNA2  Neumayer--Watz   102.68 161                   23 44 49.0
GNI   Garni            102.72  39   P       Pdif    23 34 13.0  +1.9
        comp=E,2.0nm,0.6s,baz=213,slow=18,SNR=2.5
GNI   Garni            102.72  39   P       Pdif    23 34 10.4  -0.7
GNI                                 pmax    pmax
        comp=Z,74nm,1.7s
GNI                                 MLR     MLR
        comp=Z,18µm,22.0s
GNI   Garni            102.72  39   Pdif    Pdif    23 34 10.4  -0.7
        comp=Z,74nm,1.7s
GNI                                 LR      LR
        comp=Z,18µm,22.0s,MS6.5
WAKE  Wake Island      103.18 296   PFAKE           23 34 20.0  +6.4
WAKE                                LR      LR
        comp=Z,136µm,20.0s,MS7.5
YSS   Yuzh-Sakhalins   103.27 331   P       Pdif    23 34 27.0   +14
YSS                                eS       S       23 45 57.0  +0.1
YSS                                ePPS     PPS     23 48 28.0  -3.0
YSS                                 pmax    pmax
        comp=N,1µm,9.0s
YSS                                 pmax    pmax
        comp=Z,2µm,9.0s
YSS                                 smax
        comp=N,2µm,14.0s
YSS                                 smax
        comp=E,4µm,14.0s
YSS                                 MLR     MLR
        comp=N,36µm,16.0s,MS7.1
YSS                                 MLR     MLR
        comp=Z,45µm,16.0s,MS7.1
YSS                                 MLR     MLR
        comp=E,36µm,17.0s,MS7.1
YSS   Yuzh-Sakhalins   103.27 331   PFAKE           23 34 20.0  +6.6
YSS                                 LR      LR
        comp=Z,61µm,20.0s,MS7.1
CHKZ  Chkalovo         103.73  17  eP       Pdif    23 34 13.8  -1.4
CHKZ                                pmax    pmax
        comp=Z,10.0nm,1.3s
CHKZ  Chkalovo         103.73  17  ePdif    Pdif    23 34 13.8  -1.4
        comp=Z,10nm,1.3s
BRVK  Borovoye         104.19  17   P       Pdif    23 34 16.6  -0.6
BRVK                                pmax    pmax
        comp=Z,18nm,1.3s
BRVK                                MLR     MLR
        comp=Z,10µm,19.0s,MS6.4
BRVK  Borovoye         104.19  17   Pdif    Pdif    23 34 16.6  -0.7
        comp=Z,18nm,1.3s
BRVK                                LR      LR
        comp=Z,10µm,19.0s,MS6.4
BVAR  Borovoye Array   104.25  17   Pdiff   Pdif    23 34 19.2  +1.8
        comp=Z,0.8nm,0.8s,baz=315,slow=4.1,SNR=3.9
BVAR                                PP      PP      23 38 29.1  -9.1
        comp=Z,6.3nm,1.0s,baz=346,slow=6.1,SNR=4.3
BVAR                                PKKPbc          23 50 02.1
        comp=Z,3.9nm,1.0s,baz=124,slow=5.3,SNR=5.5
SNAA  Sanae            104.32 161   P       Pdif    23 34 19.7  +2.3
SNAA  Sanae            104.32 161           Pdif    23 34 26.0  +8.6
SNAA  Sanae            104.32 161           PP      23 38 34.9  -3.5
SNAA  Sanae            104.32 161  ePdif    Pdif    23 34 16.2  -1.2
SNAA                                Pdif    Pdif    23 34 19.7  +2.3
RAO   Raoul Island     104.54 244   PFAKE           23 34 30.0   +11
RAO                                 LR      LR
        comp=Z,9µm,20.0s,MS6.3
KLR   Kul'dur          105.98 338  eP       Pdif    23 34 36.5   +11
KLR                                e                23 46 18.5
KLR                                e                23 48 07.5
KLR                                 pmax    pmax
        comp=Z,2µm,11.0s
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QSPA	**South Pole Qui**	**108.91**	**180**	*e*Pdif	Pdif	23 34 37.4	-0.1
	comp=Z,1.4nm,0.6s						
HIA	**Hailar**	**109.51**	**345**	*e*PP	PP	23 39 12.6	-5.4
TLY	**Talaya**	**109.51**	**357**	PFAKE		23 39 00.0	
TLY				LR	LR		
	comp=Z,11µm,19.0s,MS6.5						
MOY	**Mondy**	**109.63**	**358**	*e*P	Pdif	23 34 49.9	+8.7
SUR	**Sutherland**	**109.98**	**118**	PFAKE		23 39 00.0	
SUR				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
MDJ	**Mudanjiang**	**110.68**	**337**	PDIF	Pdif	23 34 45.3	-0.7
MDJ				SS	SS	23 54 56.8	+4.4
MDJ				LR	LR		
	comp=N,42µm,31.5s,MS7.3						
MDJ				LR	LR		
	comp=E,105µm,28.3s,MS7.3						
MDJ				LR	LR		
	comp=Z,94µm,26.1s,MS7.2						
ZAK	**Zakamensk**	**110.82**	**357**	*e*P	Pdif	23 34 54.2	+7.7
ZAK				*e*		23 39 22.4	
MBAR	**Mbarara**	**111.10**	**83**	PKIKP	PKPdf	23 38 46.7	-2.7
MBAR				MLR	MLR		
	comp=Z,3µm,19.0s,MS6.0						
LBTB	**Lobatse**	**112.76**	**110**	*e*PKIKP	PKPdf	23 38 51.9	-0.5
LBTB				MLR	MLR		
	comp=Z,18µm,19.0s,MS6.7						
CN2	**Changchun**	**112.85**	**339**	*e*PDIF	Pdif	23 34 58.8	+3.2
CN2				*e*S	tx	23 47 24.4	
CN2				PP	PP		
	comp=Z,900nm,5.0s						
CN2				LR	LR		
	comp=Z,68µm,21.0s,MS7.2						
SBA	**Scott Base**	**112.99**	**192**	*e*PKIKP	PKPdf	23 38 50.3	-1.4
SBA				MLR	MLR		
	comp=Z,12µm,22.0s,MS6.4						
LSZ	**Lusaka**	**113.00**	**99**	PFAKE		23 39 00.0	+7.0
LSZ				LR	LR		
	comp=Z,15µm,21.0s,MS6.5						
ULN	**Ulaanbaatar**	**113.03**	**354**	PKIKP	PKPdf	23 38 50.7	-1.7
ULN	**Ulaanbaatar**	**113.03**	**354**	*e*P	PKPdf	23 38 36.9	-15
ULN				LR	LR		
	comp=Z,57µm,19.0s,MS7.2						
SONM	**Songino Array**	**113.13**	**354**	Pdiff	Pdif	23 35 07.1	+10
	comp=Z,0.5nm,0.8s,baz=326,slow=13,SNR=3.1						
SONM				PKiKP		23 38 51.3	
	comp=Z,2.7nm,0.8s,baz=7.5,slow=2.4,SNR=4.6						
SONM				PP	PP	23 39 38.2	-6.2
	comp=Z,3.8nm,0.8s,slow=7.2,SNR=5.5						
SONM				PKKPbc		23 49 34.7	
	comp=Z,3.4nm,0.9s,baz=204,slow=1.7,SNR=7.4						
SONM	**Songino Array**	**113.13**	**354**	PKPdf	PKPdf	23 38 51.3	-1.3
SONM				PP	PP	23 39 38.2	-6.2
SONM				PKKPbc		23 49 34.7	
MAJO	**Matsushiro**	**113.30**	**326**	PFAKE		23 39 00.0	+6.8
MAJO				LR	LR		
	comp=Z,45µm,22.0s,MS7.0						
MAT	**Matsushiro**	**113.30**	**326**	PP	PP	23 39 38.8	-7.0
VNDA	**Vanda**	**114.09**	**192**	PKP	PKPdf	23 38 52.3	-1.5
	comp=Z,2.0nm,1.0s,baz=67,slow=7.8,SNR=4.5						
VNDA	**Vanda**	**114.09**	**192**	*e*PKIKP	PKPdf	23 38 52.3	-1.5
VNDA				MLR	MLR		
	comp=Z,17µm,20.0s						
EKS2	**Erkin-Say**	**114.54**	**20**	PFAKE		23 39 10.0	+15
EKS2				LR	LR		
	comp=Z,52µm,20.0s,MS7.1						
FRU	**Bishkek**	**114.65**	**19**	*e*PKIKP	PKPdf	23 38 46.0	-10
FRU				*e*		23 39 51.0	
AAK	**Ala-Archa**	**114.79**	**19**	PKPdf	PKPdf	23 38 55.4	-0.5
AAK				LR	LR		
	comp=Z,10µm,20.0s,MS6.4						
TKM2	**Tokmak 2**	**114.87**	**18**	*e*PP	PP	23 39 49.9	-6.7
TKM2				LR	LR		
	comp=Z,36µm,19.0s,MS7.0						
AML	**Almayashu**	**114.98**	**20**	PFAKE		23 39 10.0	+14
AML				LR	LR		
	comp=Z,37µm,20.0s,MS7.0						
UCH	**Uchtor**	**115.16**	**20**	*e*PKPdf	PKPdf	23 38 55.1	-1.5
UCH				LR	LR		
	comp=Z,45µm,19.0s,MS7.1						
SNY	**Shenyang**	**115.23**	**340**	PDIF	Pdif	23 35 10.3	+4.2
SNY				S		23 47 40.3	
SNY				PS	PS	23 49 48.5	+14
SNY				SS	SS	23 55 49.3	-3.5
SNY				PP	PP		
	comp=Z,1µm,9.0s						
SNY				LR	LR		
	comp=Z,74µm,21.6s,MS7.3						
WMQ	**Urumqi**	**116.71**	**9**	PKP	PKPdf	23 38 57.6	-2.1
WMQ				XPKP		23 39 04.6	
WMQ				PP	PP	23 40 10.8	+1.3
WMQ				LR	LR		
	comp=N,14µm,22.0s,MS6.8						
WMQ				LR	LR		
	comp=E,17µm,20.2s,MS6.8						
WMQ				LR	LR		
	comp=Z,16µm,19.2s,MS6.7						
DZM	**Mont Dzumac**	**116.86**	**254**	*e*PKPdf	PKPdf	23 39 00.7	+0.3
KMBO	**Kilima Mbogo**	**117.38**	**81**	PKP	PKPdf	23 39 09.6	+7.9
	comp=Z,12nm,1.4s,baz=19,slow=5.1,SNR=4.1						
KMBO	**Kilima Mbogo**	**117.38**	**81**	PFAKE		23 39 10.0	+8.4
KMBO				LR	LR		
	comp=Z,13µm,19.0s,MS6.5						
KS15	**Wonju Array Si**	**117.47**	**334**	*e*PKPdf	PKPdf	23 38 59.3	-1.9
INCN	**Inchon**	**117.94**	**335**	PFAKE		23 39 10.0	+7.8
INCN				LR	LR		
	comp=Z,86µm,21.0s,MS7.3						
KSH	**Kashi**	**118.08**	**20**	*e*PKP	PKPdf	23 39 05.4	+3.0
KSH				*e*SKS	SKS	23 46 12.8	+15
KSH				PP	PP		
	comp=Z,1µm,4.6s						
KSH				LR	LR		
	comp=N,21µm,22.7s,MS7.0						
KSH				LR	LR		
	comp=E,40µm,23.1s,MS7.0						
SYO	**Syowa Base**	**118.50**	**159**	⇓PKPdf	PKPdf	23 39 01.6	-0.9
BJI	**Beijing**	**119.04**	**345**	PKP	PKPdf	23 39 03.4	-0.9
BJI				PP	PP	23 40 26.9	+1.0
BJI				SKKS		23 47 17.0	
BJI				SS	SS	23 56 47.8	+5.5
BJI				PP	PP		
	comp=Z,945nm,6.3s						
BJI				LR	LR		
	comp=Z,87µm,20.9s,MS7.4						
HHC	**Hu-ho-hao-te**	**119.27**	**349**	*e*PKP	PKPdf	23 39 04.8	+0.2
HHC				PKS	PKS	23 42 39.3	+2.0
HHC				SKS	SKS	23 46 12.1	+10
HHC				PP	PP		
	comp=Z,910nm,11.0s						
HHC				LR	LR		
	comp=N,22µm,22.9s,MS7.3						
HHC				LR	LR		
	comp=E,77µm,25.7s,MS7.3						
HHC				LR	LR		
	comp=Z,45µm,18.8s						
BTO	**Baotou**	**119.78**	**350**	*e*PKP	PKPdf	23 39 08.3	+2.7
BTO				SKS	SKS	23 46 10.8	+7.4
GTA	**Gaotai**	**121.91**	**359**	PKP	PKPdf	23 39 07.1	-2.7
GTA				XPKP		23 39 13.8	
GTA				PP	PP	23 40 46.8	+1.8
GTA				PKS	PKS	23 42 45.3	+2.8
GTA				PPP	PPP	23 43 21.8	+0.9
GTA				SKKS		23 47 34.8	
GTA				SS	SS	23 57 21.0	+1.4
GTA				PP	PP		
	comp=Z,927nm,7.2s						
GTA				LR	LR		
	comp=N,39µm,16.7s,MS7.2						
GTA				LR	LR		
	comp=E,24µm,20.5s,MS7.2						
GTA				LR	LR		
	comp=Z,54µm,17.5s,MS7.2						
TIA	**Tai’an**	**122.38**	**342**	PKP	PKPdf	23 39 11.6	+0.9
TIA				LR	LR		
	comp=N,38µm,19.0s,MS7.2						
TIA				LR	LR		
	comp=E,34µm,18.0s,MS7.2						
GUMO	**Guam**	**124.10**	**302**	PKIKP	PKPdf	23 39 20.0	+5.4
GUMO				MLR	MLR		
	comp=Z,19µm,21.0s,MS6.7						
GUMO	**Guam**	**124.10**	**302**	PFAKE		23 39 20.0	+5.4
GUMO				LR	LR		
	comp=Z,19µm,21.0s,MS6.7						
THN	**Thein Dam**	**124.38**	**23**	*e*PKP	PKPdf	23 39 15.1	+0.3
LZH	**Lanzhou**	**125.01**	**355**	*e*PKP	PKPdf	23 39 15.6	-0.4
LZH				XPKP		23 39 20.3	
LZH				PP	PP	23 41 07.3	+1.4
LZH				PKS	PKS	23 42 50.0	+1.5
LZH				SKS	SKS	23 46 22.0	+1.7
LZH				SKKS		23 47 56.0	
LZH				SS	SS	23 57 56.0	-3.1
LZH				PP	PP		
	comp=Z,936nm,7.6s						
LZH				LR	LR		
	comp=E,50µm,19.0s						
LZH				LR	LR		
	comp=Z,73µm,21.8s,MS7.3						
BHK	**Bhakra**	**125.55**	**23**	*e*	PKPdf	23 39 25.0	+7.9
NJ2	**Nanjing**	**125.67**	**339**	*e*PKP	PKPdf	23 39 17.0	-0.3
NJ2				PP	PP	23 41 07.0	-3.6
NJ2				PKS	PKS	23 42 52.0	+2.1
NJ2				SKS	SKS	23 46 24.0	+1.6
NJ2				PP	PP		
	comp=Z,1µm,11.0s						
NJ2				LR	LR		
	comp=Z,45µm,18.0s,MS7.2						
SDNR	**Sundarnagar**	**125.69**	**23**	*e*PKP	PKPdf	23 39 16.8	-0.6
	comp=Z,53nm,0.6s						
SSE	**Sheshan**	**125.69**	**336**	PKP	PKPdf	23 39 17.4	0.0
SSE				PP	PP	23 41 14.0	+3.3
SSE				SS	SS	23 58 09.4	+2.1
SSE				LR	LR		
	comp=N,21µm,25.3s,MS7.3						
SSE				LR	LR		
	comp=E,73µm,25.5s,MS7.3						
SSE				LR	LR		
	comp=Z,34µm,21.7s,MS7.0						
JOW	**Kunigami**	**126.12**	**327**	PKP	PKPdf	23 39 23.0	+4.7
	comp=Z,37nm,1.1s,baz=81,slow=14,SNR=3.5						
MAW	**Mawson**	**126.37**	**164**	PKP	PKPdf	23 39 14.7	-2.9
	comp=Z,18nm,1.2s,baz=292,slow=6.8,SNR=7.4						
MAW	**Mawson**	**126.37**	**164**	*e*PKIKP	PKPdf	23 39 13.7	-3.9
MAW				MLR	MLR		
	comp=Z,23µm,21.0s						
XAN	**Xi’an**	**126.37**	**349**	PKP	PKPdf	23 39 18.0	-0.5
XAN				LR	LR		
	comp=N,17µm,25.5s,MS7.1						
XAN				LR	LR		
	comp=E,45µm,21.9s,MS7.1						
XAN				LR	LR		
	comp=Z,30µm,26.4s,MS6.8						
JASL	**Jaisalmer**	**127.05**	**31**	*e*	PKPdf	23 39 13.3	-6.7
DDI	**Dehra Dun**	**127.14**	**22**	*e*	PKPdf	23 39 18.4	-1.7
KALG	**Kalgarh**	**128.13**	**22**	*e*	PKPdf	23 39 08.2	-14
BHGR	**Bahadurgarh**	**128.19**	**24**	*e*PKP	PKPdf	23 39 19.6	-2.7
KHET	**Khetri**	**128.28**	**26**	*e*PKP	PKPdf	23 39 20.4	-2.1
NDI	**New Delhi**	**128.31**	**24**	*e*PKP	PKPdf	23 39 19.5	-3.0
NDI				*e*		23 41 31.0	
AYAN	**Aya Nagar**	**128.45**	**24**	*e*PKP	PKPdf	23 39 20.9	-2.0
WHN	**Wuhan**	**128.48**	**343**	PKP	PKPdf	23 39 22.4	-0.4
WHN				LR	LR		
	comp=E,91µm,29.5s						
WHN				LR	LR		
	comp=Z,91µm,18.6s						
KUDL	**Kundal**	**128.50**	**25**	*e*PKP	PKPdf	23 39 21.2	-1.7
PTH	**Pithoragarh**	**128.60**	**21**	*e*	PKPdf	23 39 27.3	+4.2
LGTI	**Lohaghat**	**128.70**	**21**	*e*	PKPdf	23 39 26.7	+3.4
AJM	**Ajmer**	**129.18**	**28**	⇑*i*PKP	PKPdf	23 39 23.0	-1.2
AGRA	**Agra**	**129.89**	**24**	*e*PKP	PKPdf	23 39 25.3	-0.2
ENH	**Enshi**	**129.93**	**348**	*e*PKPdf	PKPdf	23 39 23.1	-2.4
ENH				SKPdf		23 42 54.1	
CD2	**Chengdu**	**130.15**	**354**	PKP	PKPdf	23 39 25.8	-0.2
CD2				PPP	PPP	23 44 26.1	-2.0
CD2				SKS	SKS	23 46 29.5	-5.3
CD2				SKKS		23 48 30.6	
CD2				SS	SS	23 59 00.4	-2.5
CD2				LR	LR		
	comp=E,62µm,26.4s						
CD2				LR	LR		
	comp=Z,42µm,19.2s						
TATO	**Taipei**	**130.96**	**332**	PFAKE		23 39 40.0	+12
TATO				LR	LR		
	comp=Z,44µm,20.0s,MS7.2						
LSA	**Lhasa**	**131.07**	**9**	PKP	PKPdf	23 39 31.0	+3.2
LSA				SKS	SKS	23 46 34.0	-3.1
LSA				LR	LR		
	comp=N,44µm,20.0s,MS7.3						
LSA				LR	LR		
	comp=E,35µm,20.0s,MS7.3						
KOLN	**Koldanda**	**131.31**	**18**	*e*P	PKPdf	23 39 25.9	-2.4
	comp=E,590nm,1.7s						
GKN	**Gorkha**	**131.38**	**17**	*e*P	PKPdf	23 39 25.6	-2.8
	comp=E,1µm,1.8s						
GKN	**Gorkha**	**131.38**	**17**	*e*PKPdf	PKPdf	23 39 25.7	-2.7
OPO	**Ambohidratompo**	**131.47**	**98**	*e*PKPdf	PKPdf	23 39 24.2	-4.6
OPO				LR	LR		
	comp=Z,18786µm,20.5s						
KKN	**Kakani**	**131.75**	**16**	*e*P	PKPdf	23 39 25.9	-3.2
	comp=Z,525nm,1.7s						
GUN	**Gumba**	**131.79**	**15**	*e*P	PKPdf	23 39 25.4	-3.8
	comp=Z,1µm,1.9s						
GUN	**Gumba**	**131.79**	**15**	*e*PKPdf	PKPdf	23 39 25.3	-3.9
PKI	**Pulchoki**	**131.99**	**16**	*e*P	PKPdf	23 39 25.0	-4.6
	comp=Z,477nm,1.7s						
CASY	**Casey**	**132.08**	**186**	*e*PKPdf	PKPdf	23 39 29.1	+0.4
CASY				LR	LR		
	comp=Z,19µm,21.0s,MS6.8						
PMG	**Port Moresby**	**132.11**	**274**	PKP	PKPdf	23 39 28.1	-2.0
	comp=Z,9.2nm,0.8s,baz=198,slow=2.6,SNR=7.3						
PMG	**Port Moresby**	**132.11**	**274**	PKIKP	PKPdf	23 39 28.1	-2.0
PMG				pmax	pmax		
	comp=Z,9.0nm,0.9s						
PMG	**Port Moresby**	**132.11**	**274**	*e*PKPdf	PKPdf	23 39 28.8	-1.3
PMG				LR	LR		
	comp=Z,20µm,20.0s,MS6.8						
QZH	**Quanzhou**	**132.20**	**335**	PKP	PKPdf	23 39 29.8	-0.2
QZH				PP	PP	23 41 52.0	-1.3
QZH				PKS	PKS	23 43 05.6	+3.5
QZH				SS	SS	23 59 26.0	-2.5
QZH				PP	PP		
	comp=Z,7µm,9.4s						
QZH				LR	LR		
	comp=Z,84µm,18.4s,MS7.5						
CNB	**Canberra Magne**	**132.50**	**239**	*e*P	PKPdf	23 39 31.9	+1.6
	comp=Z,96nm,1.1s						
CNB				*e*SKP		23 43 01.7	
BHPL	**Bhopal**	**133.22**	**27**	*e*PKP	PKPdf	23 39 31.1	-0.8
GYA	**Guiyang**	**134.16**	**350**	⇑*i*PKP	PKPdf	23 39 34.4	+0.9
GYA				PP	PP	23 42 07.8	+1.8
GYA				PKS	PKS	23 43 09.3	+3.6
GYA				SKS	SKS	23 46 42.4	-1.6
GYA				SKKS		23 48 55.1	
GYA				SS	SS	23 59 49.8	-2.2
GYA				PP	PP		
	comp=Z,4µm,11.4s						
GYA				LR	LR		
	comp=N,30µm,23.2s,MS7.2						
GYA				LR	LR		
	comp=E,44µm,18.9s,MS7.2						
GYA				LR	LR		
	comp=Z,35µm,22.4s,MS7.0						
BOM	**Bombay**	**134.64**	**35**	*e*PKP	PKPdf	23 39 29.5	-5.2
BOM				*e*		23 42 05.7	
	comp=Z,90nm,1.3s						
CTA	**Charters Tower**	**135.20**	**260**	*e*PKP	PKPdf	23 39 32.2	-3.5
	comp=Z,25nm,0.9s						
CTA				*e*PP	PP	23 42 13.4	+1.1
CTA				*e*PKS	PKS	23 43 10.5	+2.7
CTA	**Charters Tower**	**135.20**	**260**	PKP	PKPdf	23 39 34.0	-1.7
	comp=Z,15nm,0.9s,baz=328,slow=3.9,SNR=8.0						
CTAO	**Charters Tower**	**135.20**	**260**	*e*PKIKP	PKPdf	23 39 33.4	-2.3
CTAO				*e*		23 42 13.4	
CTAO				MLR	MLR		
	comp=Z,17µm,21.0s,MS6.7						
SHL	**Shillong**	**135.24**	**9**	*e*PKP	PKPdf	23 39 33.0	-2.7
SHL				*e*		23 43 07.0	
TOO	**Toolangi**	**135.25**	**235**	*e*P	PKPdf	23 39 36.4	+1.0
	comp=Z,25nm,0.9s						
TOO				*e*PP	PP	23 42 05.9	-6.3
AKL	**Akola**	**135.25**	**29**	*e*PKP	PKPdf	23 39 33.1	-2.7
	comp=Z,122nm,1.9s						
AKL				*e*		23 42 00.2	
POO	**Poona**	**135.50**	**35**	*e*PKP	PKPdf	23 39 33.0	-3.3
POO				*i*		23 39 43.0	
POO				*i*		23 43 10.0	
POO				*e*PPP	tx	23 46 32.0	
POO				*e*		23 49 59.0	
POO				*e*		23 53 25.0	
POO				*e*		23 55 47.0	
NGP	**Nagpur**	**135.76**	**27**	*e*	PKPdf	23 39 37.8	+1.1
NGP				*e*		23 40 24.3	
GZH	**Guangzhou**	**135.78**	**340**	PKP	PKPdf	23 39 33.6	-3.1
GZH				PP	PP	23 42 15.0	-0.8
GZH				LR	LR		
	comp=N,15µm,28.6s						
GZH				LR	LR		
	comp=E,44µm,18.1s						
GZH				LR	LR		
	comp=Z,64µm,21.1s						
KMI	**Kunming**	**135.98**	**355**	*e*PKP	PKPdf	23 39 36.0	-1.0
KMI				XPKP		23 39 42.6	
KMI				PP	PP	23 42 16.3	-0.6
KMI				PKS	PKS	23 43 10.8	+1.7
KMI				PPP	PPP	23 45 13.5	-2.4
KMI				SKS	SKS	23 46 43.8	-3.3
KMI				SKKS		23 49 05.4	
KMI				SS	SS	00 00 08.8	-5.0
KMI				LR	LR		
	comp=N,35µm,17.8s,MS7.2						
KMI				LR	LR		
	comp=E,22µm,20.2s,MS7.2						
KMI				LR	LR		
	comp=Z,34µm,19.5s,MS7.1						
BLSP	**Bilaspur**	**136.08**	**22**	*e*PKP	PKPdf	23 39 38.2	+1.0
BLSP				*e*		23 42 09.6	
HKC	**Hong Kong**	**136.24**	**339**	Pdiff	Px	23 37 44.0	
IMP	**Imphal**	**136.26**	**6**	*e*PKP	PKPdf	23 39 37.7	+0.2
KAD	**Karad**	**136.68**	**35**	*e*PKP	PKPdf	23 39 38.5	+0.2
AGT	**Agartala**	**136.80**	**10**	*i*	PKPdf	23 39 44.0	+5.6
CAL	**Calcutta**	**137.53**	**14**	*e*	PKPdf	23 39 44.8	+4.9
CAL				*e*		23 41 03.1	
CAL				*e*		23 43 20.4	
HYB	**Hyderabad**	**138.81**	**30**	*e*PKIKP	PKPdf	23 39 44.0	+1.7
HYB	**Hyderabad**	**138.81**	**30**	*i* PKP	PKPdf	23 39 44.0	+1.7
HYB				*e*		23 40 46.0	
HYB				*e*PP	PP	23 42 33.0	-2.1
HYB				*e*PPP	PPP	23 45 36.0	-1.7
HYB				*e*SKKS		23 49 32.0	
HYB				*e*PS	PS	23 53 08.0	+8.3
HYB				*e*PPS	PPS	23 54 48.0	-0.5
HYB				*e*SS	SS	00 01 00.0	+13
HYB				LR	LR	00 47 04.0	
	comp=Z,25nm,22.0s						
STKA	**Stephens Creek**	**139.35**	**243**	*e*PKP	PKPdf	23 39 31.4	-12
	comp=Z,44nm,1.0s						
STKA	**Stephens Creek**	**139.35**	**243**	PKP	PKPdf	23 39 40.4	-2.6
	comp=Z,12nm,0.6s,baz=45,slow=1.7,SNR=8.8						
STKA	**Stephens Creek**	**139.35**	**243**	*e*PKPdf	PKPdf	23 39 40.7	-2.3
MNGI	**Mangalore**	**140.56**	**38**	*e*	PKPdf	23 39 48.0	+2.4
QIZ	**Qiongzhong**	**140.65**	**343**	PKP	PKPdf	23 39 39.3	-6.4
QIZ				SS	SS	00 01 12.9	+4.0
QIZ				LR	LR		
	comp=E,53µm,23.4s						
QIZ				LR	LR		
	comp=Z,44µm,20.1s,MS7.2						
NANT	**Nan**	**142.40**	**357**	P	Px	23 40 45.0	
CHG	**Chiang Mai**	**142.44**	**359**	⇑P	PKPdf	23 39 45.5	-3.3
	comp=Z,57nm,1.0s						
CM31	**Chiang Mai Arr**	**142.80**	**359**	PFAKE		23 40 00.0	+11
CM31				LR	LR		
	comp=Z,29µm,20.0s,MS7.0						
CMAR	**Chiang Mai Arr**	**142.80**	**359**	PKP	PKPdf	23 39 47.4	-2.1
	comp=Z,16nm,1.1s,baz=319,slow=2.1,SNR=19						
DAV	**Davao City (W)**	**142.89**	**312**	*e*P	PKPdf	23 39 54.0	+4.3
MDRS	**Chennai**	**143.38**	**31**	*e*PKP	PKPdf	23 39 49.0	-1.5
WB2	**Warramunga Arr**	**146.32**	**262**	*e*PKP	PKPdf	23 39 53.8	-1.7
WRAB	**Tennant Creek**	**146.32**	**262**	*e*PKP2	PKPab	23 39 53.9	-2.7
WRAB				MLR	MLR		
	comp=Z,5µm,22.0s,MS6.3						
WRA	**Warramunga Arr**	**146.33**	**262**	PKPbc	PKPbc	23 39 53.9	+0.2
	comp=Z,47nm,0.7s,baz=84,slow=3.0,SNR=160						
WRA	**Warramunga Arr**	**146.33**	**262**	PKP2	PKPab	23 39 53.9	-2.8
WRA				pmax	pmax		
	comp=Z,47nm,0.7s						
ASAR	**Alice Springs**	**146.84**	**256**	PKPbc	PKPbc	23 39 54.4	-0.4
	comp=Z,22nm,0.6s,baz=100,slow=2.1,SNR=107						
ASPA	**Alice Springs**	**146.84**	**256**	*e*PKP	PKPdf	23 39 54.4	-1.9
KAKA	**Kakadu**	**146.90**	**276**	*e*PKP	PKPdf	23 39 53.5	-3.1
	comp=Z,423nm,1.3s						
PALK	**Pallekele**	**148.51**	**36**	*e*PKPbc	PKPdf	23 40 00.8	+1.6
PALK				LR	LR		
	comp=Z,5µm,21.0s,MS6.3						
NNT	**Nongplab**	**148.61**	**358**	P	PKPdf	23 40 02.0	+2.7
FORT	**Forrest**	**150.90**	**240**	*e*P	PKPdf	23 40 05.9	+3.4
	comp=Z,1µm,0.9s						
DGAR	**Diego Garcia**	**152.11**	**69**	*e*PKIKP	PKPdf	23 40 09.1	+4.3
DGAR				MLR	MLR		
	comp=Z,4µm,20.0s,MS6.2						
SNG	**Songkhla**	**153.93**	**355**	P	PKPdf	23 40 19.0	+12
	comp=Z,162nm,1.0s						
FITZ	**Fitzroy Crossi**	**154.36**	**268**	*e*PKP	PKPdf	23 40 07.4	-0.3
	comp=Z,99nm,1.3s						
FITZ	**Fitzroy Crossi**	**154.36**	**268**	PKP	PKPdf	23 40 07.4	-0.4
	comp=Z,16nm,1.1s,baz=48,slow=4.7,SNR=3.4						
FITZ				PKPbc	PKPdf	23 40 13.1	+5.4
	comp=Z,25nm,0.9s,baz=350,slow=1.2,SNR=10						
NWAO	**Narrogin (SRO)**	**158.29**	**227**	PKP	PKPdf	23 40 12.6	0.0
	comp=Z,16nm,0.9s,baz=122,slow=6.2,SNR=3.0						
NWAO	**Narrogin (SRO)**	**158.29**	**227**	PKIKP	PKPdf	23 40 12.6	+0.1
NWAO				MLR	MLR		
	comp=Z,16µm,20.0s						
KLBR	**Kellerberrin**	**158.65**	**230**	*e*P	PKPdf	23 40 22.1	+9.1
	comp=Z,77nm,1.1s						
MUN	**Mundaring**	**159.54**	**227**	*e*P	PKPdf	23 40 14.4	+0.4
	comp=Z,42nm,1.3s						
MUN				*e*PP	PP	23 44 34.9	+1.3
MBWA	**Marble Bar**	**160.03**	**260**	*e*PKPdf	PKPdf	23 40 13.6	-1.2
MBWA				LR	LR		
	comp=Z,19µm,22.0s						
COCO	**West Island**	**173.04**	**14**	PFAKE		23 40 30.0	+4.9
COCO				LR	LR		
	comp=Z,102µm,22.0s						

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*IDC **14** 23:31:12.3±0.8, 18.87N×81.70W, mb4.0/9, mb1 4.3/10, mb1mx4.1/22, ML4.6/1, Error ellipse: s-maj=26.2km s-min=24.0km az=13.0*

*NEIC **14** 23:31:13.8±0.5, 18.90N×81.73W, h10^{km}, Error ellipse: s-maj=13.8km s-min=11.8km az=111.0*

ISC 14 23:31:15.3±0.6**, 18.88N**±0.10×**81.94W**±0.07**, h33**^{km}**, n15,** σ**0ˢ.74**/13**, mb4.0**/9**, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEIG	**Tepich**	**6.13**	**284**	Pn	**Pn**	**23 32 46.6**	**+0.6**
	12nm,0.3s,baz=7.8,slow=8.5,SNR=6.8						
TEIG				Sn	**Sn**	**23 33 54.8**	**-0.9**
	8.6nm,0.3s,baz=83,slow=23,SNR=6.0						
JTS	**JuntasAbangare**	**9.03**	**199**	*e*P	**P**	**23 33 26.3**	**0.0**
NVAR	**Mina Array Bea**	**37.07**	**309**	P	**P**	**23 38 27.4**	**+3.2**
	1.0nm,0.7s,mb3.8,baz=101,slow=9.2,SNR=2.7						
NVAR				PcP	PcP	23 40 47.0	+2.2
	3.0nm,0.7s,baz=147,slow=4.2,SNR=12						
LVC	**Limon Verde**	**43.16**	**162**	P	**P**	**23 39 14.9**	**0.0**
	7.7nm,1.1s,mb4.3,baz=335,slow=7.8,SNR=4.8						
YKA	**Yellowknife Ar**	**49.08**	**341**	P	**P**	**23 40 01.1**	**-0.1**
	1.1nm,0.7s,mb4.0,baz=132,slow=8.2,SNR=5.3						
YKA				PcP	PcP	23 41 25.0	+0.2
	1.6nm,0.8s,baz=137,slow=3.8,SNR=5.0						
ILAR	**Eielson Array**	**62.45**	**334**	P	**P**	**23 41 37.9**	**+0.5**
	0.9nm,0.8s,mb4.0,baz=106,slow=5.2,SNR=6.1						
EKA	**Eskdalemuir Ar**	**68.33**	**37**	P	**P**	**23 42 14.9**	**-0.3**
	1.7nm,0.6s,mb4.2,baz=276,slow=6.4,SNR=3.4						
ESDC	**Sonseca Array**	**69.10**	**54**	P	**P**	**23 42 19.4**	**-0.8**
	0.8nm,0.6s,mb3.8,baz=292,slow=6.0,SNR=5.8						
NOA	**NORSAR Array B**	**75.19**	**30**	P	**P**	**23 42 56.2**	**+0.2**
	1.9nm,1.0s,mb4.0,baz=112,slow=4.6,SNR=3.4						
NOA	**NORSAR Array B**	**75.19**	**30**	P	**P**	**23 42 56.2**	**+0.2**
GERES	**GERESS Array B**	**79.63**	**42**	P	**P**	**23 43 21.3**	**+0.4**
	0.8nm,0.9s,mb3.6,baz=252,slow=3.1,SNR=3.4						
FINES	**FINESS Array B**	**81.87**	**27**	P	**P**	**23 43 31.6**	**-0.8**
	2.1nm,0.9s,mb4.1,baz=307,slow=6.9,SNR=2.4						
WB2	**Warramunga Arr**	**145.80**	**262**	*e*P	PKPdf	23 50 53.8	+2.5
WRA	**Warramunga Arr**	**145.81**	**262**	PKPbc	PKPbc	23 50 53.7	+1.4
	8.1nm,0.8s,baz=85,slow=3.4,SNR=19						
ASAR	**Alice Springs**	**146.32**	**256**	PKPbc	PKPbc	23 50 54.5	+1.2
	3.3nm,0.9s,baz=95,slow=4.2,SNR=8.7						

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*IDC **14** 23:36:00.0±0.7, 18.86N×81.49W, mb4.3/19, mb1 4.5/20, mb1mx4.3/26, ML4.8/1, Error ellipse: s-maj=21.5km s-min=18.3km az=43.0*

*NEIC **14** 23:36:01.3±0.3, 18.90N×81.62W, h10^{km}, mb4.7/24, Error ellipse: s-maj=8.5km s-min=5.9km az=79.0*

NEIC Felt at West Bay.
*JSN **14** 23:36:04.8±0.6, 18.77N×81.19W, MD4.6, MW3.8*
ISC 14 23:36:03.6±0.4**, 18.79N**±0.06×**81.34W**±0.05**, h33^{km}, n76, σ1^{s}04**/75**, mb4.4**/39**, 2C-1D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEJ	Negril	2.91	100	eS	S	23 37 22.6	-0.1
MCJ	Malvern	3.57	103	eS	S	23 37 39.0	-0.8
MCJ				eS	S	23 37 39.5	-0.2
CVJ	Coleyville	3.65	98	eS	S	23 37 40.5	-1.3
STH	Stony Hill	4.36	99	⇑eP	P	23 37 08.8	-0.5
STH				eS	S	23 37 57.7	-1.9
HOJ	Hope	4.43	99	⇑eP	P	23 37 10.5	+0.2
GWJ	Greenwich	4.43	99	⇓eP	P	23 37 10.3	0.0
TEIG	Tepich	6.70	283	Pn	Pn	23 37 36.3	-6.1
	19nm,0.3s,baz=352,slow=3.8,SNR=38						
TEIG				Sn	Sn	23 38 44.1	-14
	6.9nm,0.3s,baz=290,slow=22,SNR=6.2						
TEIG	Tepich	6.70	283	ePn	Pn	23 37 35.7	-6.7
JTS	JuntasAbangare	9.15	203	eP	P	23 38 15.3	-1.0
DWPF	Disney	9.28	359	eP	P	23 38 12.9	-5.1
SDV	Santo Domingo	14.31	132	eP	P	23 39 23.7	-2.4
COW	Cow Castle Cre	14.54	2	eP	P	23 39 24.7	-4.3
GOGA	Godfrey	14.68	353	eP	P	23 39 26.3	-4.5
LRAL	Lakeview Retre	15.06	341	eP	P	23 39 29.4	-6.4
	12nm,0.5s						
OXF	Oxford	17.23	337	eP	P	23 39 58.3	-5.0
	58nm,0.9s						
OTAV	Otavalo	18.66	171	eP	P	23 40 23.4	+2.0
	13nm,0.9s						
WCI	Wyandotte Cave	19.84	348	eP	P	23 40 30.4	-4.1
	25nm,0.9s						
SSPA	Standing Stone	21.97	7	eP	P	23 40 55.2	-1.2
	19nm,0.9s,mb4.5						
JFWS	Jewell Farm	25.20	345	eP	P	23 41 25.4	-2.4
	28nm,0.7s,mb4.9						
SAML	Samuel	32.87	145	eP	P	23 42 34.9	-2.1
	10.0nm,1.1s,mb4.7						
PDAR	Pinedale Array	33.76	321	P	P	23 42 45.0	+0.6
	0.7nm,0.6s,mb3.8,baz=117,slow=10,SNR=3.5						
LPAZ	La Paz	37.20	159	P	P	23 43 19.6	+5.8
	4.5nm,1.2s,mb4.2,baz=131,slow=8.5,SNR=2.5						
NVAR	Mina Array Bea	37.56	309	P	P	23 43 16.3	-0.4
	0.8nm,0.7s,mb3.5,baz=108,slow=5.8,SNR=3.9						
NVAR				PcP	PcP	23 45 34.9	+0.2
	0.6nm,0.6s,baz=118,slow=6.8,SNR=4.2						
NVAR	Mina Array Bea	37.56	309	P	P	23 43 16.3	-0.4
NVAR				PcP	PcP	23 45 34.9	+0.2
SCHQ	Schefferville	37.65	14	P	P	23 43 17.2	0.0
	5.3nm,0.8s,mb4.3,baz=212,slow=9.3,SNR=3.4						
MOCB	Mochara	42.66	158	eP	P	23 43 58.8	-0.4
LVC	Limon Verde	42.91	163	P	P	23 44 02.7	+1.6
	7.1nm,1.0s,mb4.3,baz=1.7,slow=3.5,SNR=7.3						
LVC	Limon Verde	42.91	163	eP	P	23 43 59.7	-1.5
	13nm,1.0s,mb4.6						
LVC				P		23 44 02.8	
BDFB	Brasilia	47.40	134	P	P	23 44 37.6	+0.5
	9.9nm,1.0s,mb4.7,baz=335,slow=11,SNR=4.5						
YKA	Yellowknife Ar	49.35	340	P	P	23 44 48.5	-3.1
	7.6nm,1.3s,mb4.6,baz=132,slow=8.1,SNR=4.5						
YKA	Yellowknife Ar	49.35	340	P	P	23 44 48.5	-3.1
YKA				eP		23 44 52.0	
INK	Inuvik	59.12	340	P	P	23 46 02.5	-0.6
	5.8nm,1.1s,mb4.5,baz=96,slow=4.0,SNR=3.6						
INK	Inuvik	59.12	340	eP	P	23 46 00.9	-2.1
	16nm,1.2s,mb4.9						
ILAR	Eielson Array	62.78	334	P	P	23 46 26.6	-1.3
	0.8nm,0.7s,mb4.0,baz=118,slow=4.7,SNR=12						
MCK	McKinley	63.42	333	eP	P	23 46 30.6	-1.5
	8.6nm,1.2s,mb4.8						
EVO	Evora	65.68	56	eP	P	23 46 47.3	+0.2
	20nm,0.8s,mb4.9						
EKA	Eskdalemuir Ar	68.06	37	P	P	23 47 01.1	-0.6
	2.9nm,0.9s,mb4.3,baz=252,slow=11,SNR=3.0						
QUIF	Quistinic	68.44	45	eP	P	23 47 05.0	+0.7
	53nm,1.3s,mb5.1						
ESDC	Sonseca Array	68.69	54	P	P	23 47 06.6	+0.6
	4.3nm,0.7s,mb4.5,baz=285,slow=5.9,SNR=18						
FLN	La Foliniere	70.14	44	eP	P	23 47 15.3	+0.6
	51nm,1.2s,mb5.0						
SJPF	Ste Jean	70.30	50	eP	P	23 47 16.7	+0.9
	21nm,1.1s,mb4.7						
LDF	La Druitiere	70.40	44	eP	P	23 47 16.5	+0.2
	34nm,1.1s,mb4.9						
MFF	Saint Martin d	70.61	46	eP	P	23 47 18.0	+0.4
ETSF	Etsaut	70.81	50	eP	P	23 47 19.8	+0.9
	61nm,1.9s,mb4.9						
EPF	Esparros	71.44	50	eP	P	23 47 23.7	+1.0
	27nm,1.3s,mb4.7						
LFF	La Frestale	71.45	48	eP	P	23 47 23.2	+0.5
	20nm,1.1s,mb4.7						
RJF	Les Rejaudoux	71.94	47	eP	P	23 47 25.7	+0.1
TCF	Toulx Ste Croi	72.27	46	eP	P	23 47 27.9	+0.4
CAF	Calviac	72.38	48	eP	P	23 47 29.0	+0.8
	14nm,1.1s,mb4.5						
BGF	Bois d'Agland	72.66	46	eP	P	23 47 30.0	+0.1
MTLF	Montolieu	72.75	49	eP	P	23 47 30.8	+0.3
	30nm,1.4s,mb4.8						
SSF	Saint Saulge	73.03	45	eP	P	23 47 31.9	-0.2
LASF	Ste Croix	73.79	48	eP	P	23 47 37.5	+0.9
MEZF	Maizieres J'vi	73.81	44	eP	P	23 47 36.8	+0.2
VIVF	Saint-Julien-l	74.22	48	eP	P	23 47 40.1	+1.1
	19nm,1.3s,mb4.6						
NOA	NORSAR Array B	74.98	30	P	P	23 47 43.5	+0.4
	2.5nm,0.8s,mb4.2,baz=283,slow=5.9,SNR=4.3						
ORIF	Oris-en-Rattie	75.05	47	eP	P	23 47 44.7	+0.9
DBIC	Dimbokro	75.11	88	P	P	23 47 45.0	+0.2
	4.7nm,1.0s,mb4.4,baz=293,slow=7.8,SNR=3.9						
CDF	Champ du Feu	75.28	44	eP	P	23 47 45.2	+0.1
	4.6nm,0.8s,mb4.2						
LPG	La Plagne	75.53	47	eP	P	23 47 47.8	+1.2
MBDF	Montbardon	75.71	47	eP	P	23 47 47.3	-0.3
	4.7nm,0.9s,mb4.1						
LMR	La Mourre	75.82	49	eP	P	23 47 48.5	+0.2
	4.5nm,0.8s,mb4.1						
FRF	La Foret Royal	75.87	49	eP	P	23 47 49.0	+0.5
	8.3nm,1.0s,mb4.3						
DAVOX	Davos	77.36	45	P	P	23 47 56.7	-0.3
	1.8nm,0.8s,mb4.0,baz=320,slow=21,SNR=2.6						
PGF	Pioggiola	77.78	49	eP	P	23 47 59.6	+0.3
	9.7nm,1.1s,mb4.3						
CLL	Collm	78.21	40	P	P	23 48 02.0	+0.5
CLL				e*PP	pP	23 48 14.0	+2.2
ARCES	ARCESS Array B	78.28	20	P	P	23 48 00.8	-0.6
	2.6nm,0.7s,mb4.3,baz=326,slow=4.4,SNR=7.1						
ARCES	ARCESS Array B	78.28	20	P	P	23 48 00.8	-0.6
GERES	GERESS Array B	79.31	42	P	P	23 48 08.1	+0.6
	0.7nm,0.8s,mb3.7,baz=297,slow=6.0,SNR=6.4						
VRAC	Vranov	81.00	41	P	P	23 48 17.2	+0.7
	3.7nm,0.8s,mb4.4,baz=290,slow=10,SNR=5.6						
FINES	FINESS Array B	81.69	28	P	P	23 48 19.3	-0.5
	2.5nm,0.7s,mb4.3,baz=252,slow=6.0,SNR=8.4						
MLR	Muntele Rosu	88.30	42	P	P	23 48 55.0	+2.0
	1.8nm,0.8s,mb4.3,baz=290,slow=18,SNR=4.5						
WB2	Warramunga Arr	146.35	262	eP	PKPdf	23 55 41.8	+1.2
WRAB	Tennant Creek	146.35	262	ePKPbc	PKPbc	23 55 42.0	+0.2
WRA	Warramunga Arr	146.36	262	PKPbc	PKPbc	23 55 42.1	+0.2
	6.6nm,0.7s,baz=84,slow=3.6,SNR=19						
ASAR	Alice Springs	146.85	255	PKPbc	PKPbc	23 55 42.5	-0.4
	2.9nm,0.7s,baz=92,slow=2.3,SNR=14						

JMA 14 23:41:31.4±0.1**, 44.08N**×**141.69E, h7^{km}**±3^{km}**, M3.5, 3C-3D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHR	Hokuryu	0.34	176	⇑P	Pg	23 41 38.5	+0.2
JHR				eS	Sg	23 41 44.1	+1.3
JSS	Shosan	0.34	20	⇑P	Pg	23 41 38.6	+0.3
JSS				eS	Sg	23 41 44.7	+1.8
JYG	Yagishiri	0.40	331	⇓P	Pg	23 41 38.9	-0.5
JYG				eS	Sg	23 41 45.0	+0.3
ASAJ	Asahikawa	0.65	86	⇓P	Pg	23 41 43.4	-1.1
JAB	Ashibetsu	0.69	146	⇑P	Pg	23 41 44.8	-0.5
JKK2	Kamakawa 2	0.79	105	⇓P	Pb	23 41 45.9	-1.2
JSE	Soyaes	1.09	36	P	Pb	23 41 53.0	+0.9

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*IDC **14** 23:57:01.1±1.2, 18.82N×81.54W, mb3.6/5, mb1 4.1/6, mb1mx3.7/20, ML4.4/1, Error ellipse: s-maj=49.7km s-min=22.2km az=58.0*
*JSN **14** 23:57:02.7±0.7, 19.27N×81.56W, h17^{km}, MD4.5*
ISC 14 23:57:04.6±0.8**, 19.0N**±0.2×**81.43W**±0.09**, h33^{km}, n12, σ0^{s}97**/13**, mb3.6**/5**, 4D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCJ	Malvern	3.70	106	⇓eP	P	23 58 00.7	-0.1
MCJ				eS	S	23 58 45.5	+1.6
CVJ	Coleyville	3.77	101	⇓iP	P	23 58 01.6	-0.2
STH	Stony Hill	4.47	101	⇓eP	P	23 58 11.5	-0.3
STH				eS	S	23 59 02.4	-1.1
HOJ	Hope	4.54	101	⇓eP	P	23 58 12.9	+0.1
TEIG	Tepich	6.58	282	Pn	Pn	23 58 36.3	-5.4
	7.9nm,0.3s,baz=330,slow=4.6,SNR=17						
TEIG				Sn	Sn	23 59 43.9	-12
	4.6nm,0.3s,baz=154,slow=23,SNR=9.4						
TXAR	Lajitas Array	22.73	301	P	P	00 02 05.3	+0.3
	1.4nm,0.7s,mb3.5,baz=114,slow=9.1,SNR=6.2						
NVAR	Mina Array Bea	37.39	309	P	P	00 04 17.6	+1.4
	0.5nm,0.8s,mb3.4,baz=127,slow=6.4,SNR=3.7						
LPAZ	La Paz	37.39	159	P	P	00 04 16.1	-0.4
	0.8nm,0.7s,mb3.7,baz=93,slow=4.0,SNR=2.2						
YKA	Yellowknife Ar	49.16	340	P	P	00 05 50.5	-0.6
	1.4nm,1.0s,mb3.9,baz=134,slow=8.2,SNR=13						
ILAR	Eielson Array	62.59	334	P	P	00 07 27.4	-0.2
	0.5nm,0.8s,mb3.7,baz=117,slow=6.9,SNR=6.4						
WRA	Warramunga Arr	146.30	262	PKPbc	PKPbc	00 16 43.2	+0.5
	3.7nm,0.8s,baz=86,slow=4.0,SNR=19						
ASAR	Alice Springs	146.81	256	PKPbc	PKPbc	00 16 44.1	+0.4
	1.9nm,0.9s,baz=101,slow=3.2,SNR=9.7						

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*IDC **14** 23:59:05.4±0.7, 18.81N×81.63W, mb4.2/19, mb1 4.4/22, mb1mx4.3/27, ML4.6/1, Error ellipse: s-maj=20.6km s-min=14.3km az=37.0*
*NEIC **14** 23:59:07.1±0.3, 18.83N×81.66W, h10^{km}, mb4.4/18, Error ellipse: s-maj=7.0km s-min=5.2km az=224.0*
*JSN **14** 23:59:08.5±1.1, 19.35N×81.26W, h4^{km}±999^{km}, MD4.6*
ISC 14 23:59:08.5±0.4**, 18.78N**±0.05×**81.57W**±0.05**, h33^{km}, n78, σ1^{s}30**/78**, mb4.3**/35**, 5C, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCJ	Malvern	3.78	102	⇑eP	P	00 00 04.2	-1.6
MCJ				eS	S	00 00 48.0	-1.8
CVJ	Coleyville	3.86	98	⇑iP	P	00 00 05.1	-1.9
CVJ				eS	S	00 00 47.8	-4.1
STH	Stony Hill	4.57	98	⇑eP	P	00 00 15.0	-2.1
STH				eS	S	00 01 04.3	-5.4
HOJ	Hope	4.64	99	⇑eP	P	00 00 16.5	-1.6
GWJ	Greenwich	4.64	98	⇑eP	P	00 00 16.5	-1.7
TEIG	Tepich	6.49	284	Pn	Pn	00 00 40.1	-4.2
	14nm,0.3s,baz=9.7,slow=3.0,SNR=15						
TEIG				Sn	Sn	00 01 48.0	-10
	6.8nm,0.3s,baz=260,slow=22,SNR=7.0						
TEIG	Tepich	6.49	284	ePn	Pn	00 00 39.9	-4.4
JTS	JuntasAbangare	9.05	202	eP	P	00 01 18.9	-0.8
DWPF	Disney	9.29	1	eP	P	00 01 22.6	-0.4
SDV	Santo Domingo	14.46	131	eP	P	00 02 29.7	-3.2
SJG	San Juan	14.64	90	Pn	P	00 02 35.1	-0.1
	2.9nm,0.3s,baz=282,slow=9.8,SNR=3.5						
SJG	San Juan	14.64	90	eP	P	00 02 34.0	-1.2
GOGA	Godfrey	14.67	354	eP	P	00 02 33.1	-2.3
	3.1nm,1.1s						
LRAL	Lakeview Retre	15.01	342	eP	P	00 02 36.3	-3.6
	7.3nm,0.3s						
JSC	Jenkinsville	15.44	1	eP	P	00 02 44.2	-1.3
ROSC	El Rosal	15.54	152	Pn	P	00 02 49.1	+2.3
	0.8nm,0.3s,baz=99,slow=21,SNR=4.4						
CPCT	Cooper Cave	16.81	352	eP	P	00 03 01.1	-1.8
HKT	Hockley	17.09	313	eP	P	00 03 04.4	-2.0
	19nm,1.1s						
OXF	Oxford	17.15	338	eP	P	00 03 07.9	+0.7
	83nm,1.1s						
MIAR	Mount Ida	18.99	328	eP	P	00 03 27.7	-2.3
	0.9nm,1.0s						
JCT	Junction City	20.23	309	eP	P	00 03 41.8	-1.7
	9.5nm,0.7s						
SSPA	Standing Stone	22.01	7	P	P	00 04 01.1	-0.4
	12nm,1.0s,mb4.3						
LTX	Lajitas	22.71	302	eP	P	00 04 08.4	-0.3
	9.8nm,0.9s,mb4.2						
TXAR	Lajitas Array	22.71	302	P	P	00 04 08.7	0.0
	3.5nm,0.7s,mb3.9,baz=118,slow=10,SNR=13						
CPRX	Cap Rock	24.50	310	eP	P	00 04 25.7	-0.3
SDCO	Great Sand Dun	28.17	317	P	P	00 04 55.7	-4.3
	14nm,1.4s,mb4.4						
PV10	Paradox Valley	30.85	315	eP	P	00 05 21.9	-1.9
SAML	Samuel	32.98	145	eP	P	00 05 41.0	-1.8
	6.9nm,1.0s,mb4.5						
MSU	Marysvale	33.06	313	eP	P	00 05 44.1	+0.9
PDAR	Pinedale Array	33.64	321	P	P	00 05 47.5	-0.6
	1.6nm,1.1s,mb3.9,baz=124,slow=11,SNR=4.2						
TPH	Tonopah	36.48	309	eP	P	00 06 14.5	+2.1
	1.9nm,0.3s,mb4.5						
LPAZ	La Paz	37.27	158	P	P	00 06 20.6	+1.3
	0.9nm,0.8s,mb3.6,baz=278,slow=9.2,SNR=2.4						
LPAZ	La Paz	37.27	158	P	P	00 06 22.8	+3.6
	8.8nm,1.3s,mb4.4						
NVAR	Mina Array Bea	37.40	309	P	P	00 06 21.1	+0.9
	2.3nm,0.9s,mb4.0,baz=101,slow=11,SNR=10						
NVAR				PcP	PcP	00 08 40.2	+1.2
	1.5nm,0.8s,baz=146,slow=4.5,SNR=6.2						
SCHQ	Schefferville	37.71	14	P	P	00 06 22.9	+0.3
	6.4nm,0.8s,mb4.4,baz=256,slow=13,SNR=7.3						
BDFB	Brasilia	47.55	134	P	P	00 07 42.2	-0.8
	6.7nm,1.1s,mb4.6,baz=332,slow=9.4,SNR=5.8						
YKA	Yellowknife Ar	49.30	340	P	P	00 07 54.5	-1.5
	1.0nm,0.6s,mb4.0,baz=132,slow=8.3,SNR=13						
YKA	Yellowknife Ar	49.30	340	eP	P	00 07 54.5	-1.4
DLBC	Dease Lake	52.94	330	P	P	00 08 21.8	-1.8
	1.5nm,0.9s,mb3.9,baz=314,slow=25,SNR=2.5						
INK	Inuvik	59.06	340	P	P	00 09 05.7	-1.7
	2.0nm,1.0s,mb4.1,baz=155,slow=11,SNR=2.7						
SUMG	Summit	59.10	14	eP	P	00 09 06.9	-0.7
	7.1nm,0.9s,mb4.7						
ILAR	Eielson Array	62.70	334	P	P	00 09 31.6	-0.6
	1.6nm,0.8s,mb4.2,baz=113,slow=4.4,SNR=8.9						
EVO	Evora	65.86	56	eP	P	00 09 53.2	+0.1
	20nm,1.0s,mb4.8						
QUIF	Quistinic	68.60	45	eP	P	00 10 10.9	+0.8
	17nm,0.9s,mb4.7						
ESDC	Sonseca Array	68.87	54	P	P	00 10 12.9	+1.0
	2.3nm,0.7s,mb4.2,baz=285,slow=6.0,SNR=11						
FLN	La Foliniere	70.30	44	eP	P	00 10 21.6	+1.1
SJPF	Ste Jean	70.47	50	eP	P	00 10 23.2	+1.6
LDF	La Druitiere	70.56	44	eP	P	00 10 23.0	+0.9
EPF	Esparros	71.61	50	eP	P	00 10 29.8	+1.3
LFF	La Frestale	71.62	48	eP	P	00 10 29.5	+1.0
RJF	Les Rejaudoux	72.11	47	eP	P	00 10 32.3	+0.9
TCF	Toulx Ste Croi	72.44	46	eP	P	00 10 34.0	+0.7
BGF	Bois d'Agland	72.83	46	eP	P	00 10 36.2	+0.5
	6.1nm,0.7s,mb4.3						
SSF	Saint Saulge	73.19	45	eP	P	00 10 38.2	+0.4
	3.5nm,0.6s,mb4.2						
SMF	Signal de Mont	73.49	46	eP	P	00 10 39.9	+0.3
	4.4nm,0.7s,mb4.2						
LASF	Ste Croix	73.96	48	eP	P	00 10 43.7	+1.4
	4.7nm,0.8s,mb4.2						
VIVF	Saint-Julien-l	74.39	47	eP	P	00 10 46.4	+1.6
	11nm,1.0s,mb4.4						
CABF	La Chapelle	75.02	45	eP	P	00 10 49.4	+1.0
NB2	NORSAR Subarra	75.10	30	P	P	00 10 49.1	+0.5
	1.3nm,0.7s,mb4.0,baz=286,slow=5.8						
NOA	NORSAR Array B	75.10	30	P	P	00 10 49.1	+0.6
	2.2nm,0.8s,mb4.2,baz=285,slow=5.7,SNR=4.1						
ORIF	Oris-en-Rattie	75.22	47	eP	P	00 10 51.1	+1.5
	4.5nm,0.8s,mb4.2						
DBIC	Dimbokro	75.33	88	P	P	00 10 50.9	0.0
	6.7nm,1.1s,mb4.5,baz=304,slow=0.5,SNR=3.4						
CDF	Champ du Feu	75.44	43	eP	P	00 10 51.6	+0.8
LPL	La Plagne	75.68	46	eP	P	00 10 53.8	+1.6
	5.6nm,0.9s,mb4.2						
LPG	La Plagne	75.70	47	eP	P	00 10 54.1	+1.8
SBF	Sospel	76.53	48	eP	P	00 10 58.0	+0.9
DAVOX	Davos	77.52	45	P	P	00 11 03.5	+0.9
	2.4nm,0.8s,mb4.2,baz=247,slow=7.7,SNR=3.5						
PGF	Pioggiola	77.95	49	eP	P	00 11 06.0	+0.9
	8.9nm,0.8s,mb4.5						
ARCES	ARCESS Array B	78.36	20	P	P	00 11 06.6	-0.1
	2.1nm,0.7s,mb4.2,baz=288,slow=3.8,SNR=12						
GERES	GERESS Array B	79.47	42	P	P	00 11 13.9	+0.7
	2.3nm,1.1s,mb4.0,baz=252,slow=4.2,SNR=8.0						
VRAC	Vranov	81.14	41	P	P	00 11 23.6	+1.5
	4.0nm,0.5s,mb4.7,baz=17,slow=18,SNR=6.0						
FINES	FINESS Array B	81.80	28	P	P	00 11 26.3	+1.0
	1.8nm,0.8s,mb4.1,baz=270,slow=5.7,SNR=4.7						
FINES	FINESS Array B	81.80	28	P	P	00 11 26.3	+1.0
MLR	Muntele Rosu	88.46	42	P	P	00 12 00.7	+2.0
	5.3nm,1.1s,mb4.7,baz=300,slow=7.4,SNR=3.9						
WB2	Warramunga Arr	146.13	262	eP	PKPdf	00 18 47.2	+2.1
WRAB	Tennant Creek	146.13	262	ePKPbc	PKPbc	00 18 47.5	+1.4
WRA	Warramunga Arr	146.15	262	PKPbc	PKPbc	00 18 47.4	+1.2
	4.7nm,0.7s,baz=85,slow=3.5,SNR=20						
ASAR	Alice Springs	146.64	255	PKPbc	PKPbc	00 18 48.4	+1.2
	1.8nm,0.6s,baz=101,slow=4.0,SNR=16						

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*IDC **15** 00:17:15.9±2.3, 44.68N×116.32W, mb1 3.3/3, mb1mx3.1/18, ML3.0/3, Error ellipse: s-maj=28.4km s-min=16.2km az=139.0*
*NEIC **15** 00:17:15.5±0.2, 44.57N×116.25W, h5^{km}, ML3.5, Error ellipse: s-maj=5.1km s-min=2.8km az=206.0*
ISC 15 00:17:14.6±0.3**, 44.60N**±0.04×**116.23W**±0.04**, h5^{km}, n36, σ0^{s}82**/41**, 2D, Western Idaho**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BMO	Blue Mountains	0.81	289	⇓eP	Pb	00 17 31.0	+0.3
BMO				eS	Sg	00 17 41.3	-0.2
HLID	Hailey	1.67	128	⇓iP	Pn	00 17 45.0	+0.3
MCMT	McKenzie Canyo	2.42	83	ePn	Pn	00 17 55.9	+0.5
MSO	Missoula	2.75	35	ePn	Pn	00 18 00.9	+0.8
PRW	Prosser	2.92	305	P	Pn	00 18 02.5	-0.1
HAWA	Hanford	2.93	309	ePn	Pn	00 18 02.2	-0.6
RSW	Rattlesnake Hi	2.97	308	P	Pn	00 18 03.0	-0.2
CHMT	Chamberlain Mo	3.11	41	ePn	Pn	00 18 05.6	+0.3
CHMT				ePg	Pg	00 18 11.9	-4.8
VIPM	Ingram Point	3.14	270	P	Pn	00 18 06.3	+0.6
OD2	Odessa Site #2	3.28	329	P	Pn	00 18 07.5	-0.2
QLMT	Earthquake Lak	3.43	84	ePn	Pn	00 18 10.1	+0.3
MXC	Moxie City	3.47	306	P	Pn	00 18 10.9	+0.5
NEW	Newport	3.72	351	ePn	Pn	00 18 13.7	-0.1
NEW				ePg	Pg	00 18 22.8	-5.9
HRY	Holter Researc	3.74	54	ePn	Pn	00 18 13.5	-0.7
YMR	Madison River	3.76	87	Pn	Pn	00 18 14.2	-0.3
HVU	Hansel Valley	3.79	137	ePn	Pn	00 18 13.5	-1.4
SAW	Saint Andrews	3.81	326	P	Pn	00 18 14.5	-0.6
EBG	Ellensburg	3.81	309	P	Pn	00 18 15.9	+0.6
YFT	Old Faithful	3.86	90	Pn	Pn	00 18 16.5	+0.6
IMW	Indian Meadow	3.87	99	ePn	Pn	00 18 16.4	+0.4
ELK	Elko	3.92	169	Pn	Pn	00 18 16.5	-0.3
YNR	Norris Junctio	3.96	86	Pn	Pn	00 18 18.6	+1.3
TPAW	Teton Pass	3.96	104	Pn	Pn	00 18 17.7	+0.3
TBM	Table Mountain	3.99	312	P	Pn	00 18 18.1	+0.4
MOOW	Moose Ponds	4.04	100	ePn	Pn	00 18 18.2	-0.3
WUWY	Wally Ulrich	4.09	103	ePn	Pn	00 18 18.6	-0.6
AHID	Auburn Hatcher	4.15	114	Pn	Pn	00 18 19.9	-0.1
BMN	Battle Mountai	4.23	190	Pn	Pn	00 18 19.6	-1.6
FMW	Mount Fremont	4.46	303	P	Pn	00 18 24.8	+0.3
BW06	Boulder Array	5.17	108	Pn	Pn	00 18 32.9	-1.7
PDAR	Pinedale Array	5.17	108	Pn	Pn	00 18 38.0	+3.4
	0.0nm,0.3s,baz=297,slow=10,SNR=2.6						
PDAR				Pg	Pg	00 18 48.8	-9.1
	0.2nm,0.3s,baz=298,slow=13,SNR=12						
PDAR				Lg		00 19 55.5	
	0.3nm,0.3s,baz=316,slow=26,SNR=4.0						
PDAR	Pinedale Array	5.17	108	Pn	Pn	00 18 38.0	+3.4
PDAR				Pg	Pg	00 18 48.8	-9.1
PDAR				Lg		00 19 55.5	
DAU	Daniels Canyon	5.57	137	Pn	Pn	00 18 40.5	+0.4
NVAR	Mina Array Bea	6.36	195	Pn	Pn	00 18 53.9	+2.7
	0.4nm,0.3s,baz=7.6,slow=14,SNR=6.1						
NVAR				Lg		00 20 35.2	
	0.7nm,0.3s,baz=196,slow=26,SNR=3.1						
NVAR	Mina Array Bea	6.36	195	Pn	Pn	00 18 53.9	+2.6
NVAR				Lg		00 20 35.2	
YKA	Yellowknife Ar	17.95	2	P	P	00 21 24.7	-1.5
	0.1nm,0.3s,baz=188,slow=12,SNR=3.6						

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*IDC **15** 00:17:58.2±9.7, 24.51S×179.51E, h596^{km}±115^{km}, mb3.3/6, mb1 3.5/6, mb1mx3.2/14, Error ellipse: s-maj=91.7km s-min=52.9km az=163.0*
*NEIC **15** 00:17:58.0±1.1, 24.61S×179.54E, h600^{km}, mb4.6/3, Error ellipse: s-maj=79.8km s-min=17.0km az=164.0*
ISC 15 00:17:57.4±1.7**, 24.6S**±0.8×**179.4E**±0.3**, h600^{km}, n13, σ0^{s}37**/12**, mb4.0**/7**, 1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	30.97	272	⇓iP	P	00 23 29.5	+0.6
	4.5nm,0.3s,mb4.6						
CTA	Charters Tower	30.97	272	P	P	00 23 29.3	+0.4
	7.4nm,0.3s,mb4.7,baz=96,slow=11,SNR=15						
CTAO	Charters Tower	30.97	272	eP	P	00 23 29.3	+0.5
	7.2nm,0.4s,mb4.7						
STKA	Stephens Creek	33.99	249	P	P	00 23 54.0	-0.1
	1.1nm,0.5s,mb3.8,baz=82,slow=12,SNR=6.2						
STKA	Stephens Creek	33.99	249	eP	P	00 23 54.2	+0.1
ASAR	Alice Springs	41.42	262	P	P	00 24 54.8	+0.3
	1.1nm,0.5s,mb3.6,baz=91,slow=7.3,SNR=16						
WB2	Warramunga Arr	41.84	267	eP	P	00 24 57.6	-0.4
WRAB	Tennant Creek	41.84	267	eP	P	00 24 57.6	-0.3
	5.6nm,0.5s,mb4.3						
WRA	Warramunga Arr	41.85	267	P	P	00 24 57.5	-0.5
	3.0nm,0.3s,mb4.2,baz=103,slow=8.1,SNR=4.6						
FITZ	Fitzroy Crossi	50.26	266	P	P	00 26 02.4	+0.4
	3.6nm,0.6s,mb4.0,baz=121,slow=4.7,SNR=7.7						
TXAR	Lajitas Array	91.23	58	P	P	00 30 01.0	0.0
	0.5nm,0.9s,mb3.4,baz=225,slow=6.4,SNR=3.5						
TXAR	Lajitas Array	91.23	58	P	P	00 30 01.0	0.0
HFS	Hagfors	143.10	348	PKP	PKPdf	00 36 23.1	0.0
	10nm,1.2s,baz=45,slow=2.0,SNR=5.2						

JSN 15 00:22:55.8±0.6**, 18.99N**×**81.17W, h22^{km}, MD4.4, 1C-1D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCJ	Malvern	3.47	107	eS	Sn	00 24 27.0	-3.9
CVJ	Coleyville	3.53	102	i S	Sn	00 24 28.1	-4.3
STH	Stony Hill	4.24	102	⇑eP	Pn	00 23 57.8	-3.0
STH				eS	Sn	00 24 45.2	-5.0
HOJ	Hope	4.31	102	⇓iP	Pn	00 23 59.6	-2.2

ISC 15 00:34:59.7±0.5**, 46.40N**±0.03×**15.06E**±0.04**, n9, σ0^{s}74**/17**, 3C-1D, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PERS	Pernice	0.24	10	i Pg	Pg	00 35 05.0	+0.5
PERS				eSg	Sg	00 35 09.1	+1.3
	comp=Z,29nm,0.3s						
GROS	Grobnik	0.32	78	i Pg	Pg	00 35 06.1	+0.1
GROS				i Sg	Sg	00 35 10.7	+0.5
	comp=Z,70nm,0.7s						
PDKS	Podkum	0.34	187	i Pg	Pg	00 35 06.4	0.0
PDKS				i Sg	Sg	00 35 11.1	+0.1
	comp=Z,32nm,0.4s						
OBKA	Obir	0.37	288	⇑iPG	Pg	00 35 07.2	+0.2
OBKA				i SG	Sg	00 35 13.0	+1.1
	comp=Z,56nm,0.6s						
LEGS	Legarje	0.48	158	i Pg	Pg	00 35 09.4	0.0
VOY	Vojsko	0.89	246	e(Pg)	Pg	00 35 16.2	-1.1
VOY				e(Sg)	Sg	00 35 32.8	+3.7
ARSA	Arzberg	0.91	20	⇓iPG	Pg	00 35 16.9	-1.0
ARSA				i SG	Sg	00 35 29.3	-0.7
	comp=Z,5.5nm,0.4s						
KBA	Koelnbreinsper	1.36	301	⇑iPG	Pg	00 35 26.3	-0.5
KBA				i SG	Sg	00 35 44.7	-0.2
	comp=Z,5.5nm,0.5s						
MOA	Molln	1.55	340	⇑iPG	Pg	00 35 29.9	-0.7
MOA				i SG	Sg	00 35 51.1	-0.2
	comp=Z,2.0nm,0.6s						

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*NEIC **15** 00:38:07.7±1.1, 36.71N×4.21E, h10^{km}, MG4.4(MDD), Error ellipse: s-maj=13.4km s-min=4.0km az=151.0*
*MDD **15** 00:38:11.0±0.3, 36.96N×4.04E, mb4.4/11, Error ellipse: s-maj=4.6km s-min=3.9km az=46.0, PRXIMO*
*CSEM **15** 00:38:11.9±0.1, 36.87N×4.07E, h40^{km}, ML3.5/15, Error ellipse: s-maj=1.9km s-min=1.4km az=40.0*
*LDG **15** 00:38:14.9±0.4, 36.92N×4.02E, h25^{km}, Ml3.3/10, Error ellipse: s-maj=7.7km s-min=3.9km az=145.0*
ISC 15 00:38:10.3±0.3**, 37.11N**±0.02×**3.91E**±0.03**, h10^{km}, n89, σ1^{s}45**/124**, Western Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABMS	Boumerdes	0.50	224	P	Pg	00 38 19.9	-0.5
ABA	Alger-Bouzarea	0.77	247	P	Pb	00 38 25.6	+0.4
ADJB	Djebel Djouab	1.02	202	P	Pb	00 38 28.4	-1.2
AKET	Djebel Ketaf	1.06	181	P	Pb	00 38 28.6	-1.7
EMHD	Djebel Mahouad	1.19	221	P	Pb	00 38 32.0	-0.5
SET	Setif	1.50	127	P	Pn	00 38 34.0	-3.4
DFRA	Djebel Bou Aff	1.68	109	P	Pn	00 38 37.0	-2.9
CKHR	Kef el Ahmar	1.69	130	P	Pn	00 38 39.5	-0.6
CMER	Merouana	2.19	132	P	Pn	00 38 50.0	+2.8
CASM	Ain Smara	2.24	111	P	Pn	00 38 49.5	+1.5
CTEI	Djebel Teioual	2.26	117	P	Pn	00 38 50.0	+1.7
ECHF	Ech Chlef	2.27	246	P	Pn	00 38 52.0	+3.5
CKFL	Kef-Lekhel	2.37	107	P	Pn	00 38 49.0	-0.8
CAEH	’Ain El Ouahch	2.38	97	P	Pn	00 38 47.0	-3.0
EIBI	Ibiza	2.79	314	Pn	Pn	00 38 58.1	+2.2
	6.2nm,0.1s,SNR=45						
EIBI				Sn	Sn	00 39 30.2	+0.4
	51nm,0.2s,SNR=12						
EIBI	Ibiza	2.79	314	Pn	Pn	00 38 58.1	+2.3
	6.2nm,0.1s,SNR=45						
EIBI				Sn	Sn	00 39 30.2	+0.3
	51nm,0.2s,SNR=12						
CMAH	Djebel Manchou	2.85	99	P	Pn	00 38 54.0	-2.8
EBEN	Beniarda	3.64	297	Pn	Pn	00 39 09.1	+1.2
	1.1nm,0.1s,SNR=7.9						
EBEN				Sn	Sn	00 39 49.3	-2.1
	2.6nm,0.2s,SNR=7.9						
EBEN	Beniarda	3.64	297	Pn	Pn	00 39 09.1	+1.2
	1.1nm,0.1s,SNR=7.9						
EBEN				Sn	Sn	00 39 49.3	-2.1
	2.6nm,0.2s,SNR=7.9						
EMOS	Mosqueruela	4.72	315	Pn	Pn	00 39 24.9	+1.6
	0.6nm,0.1s,SNR=17						
EMOS				Sn	Sn	00 40 17.2	-1.6
	14nm,0.3s,SNR=5.7						
EMOS	Mosqueruela	4.72	315	Pn	Pn	00 39 24.9	+1.6
	0.6nm,0.1s,SNR=17						
ERTA	Horta de San J	4.75	325	Pn	Pn	00 39 24.8	+1.2
	1.1nm,0.1s,SNR=11						
ERTA				Sn	Sn	00 40 16.8	-2.6
	2.0nm,0.2s,SNR=7.9						
ERTA	Horta de San J	4.75	325	Pn	Pn	00 39 24.8	+1.2
	1.1nm,0.1s,SNR=11						
ERTA				Sn	Sn	00 40 16.8	-2.6
	2.0nm,0.2s,SNR=7.9						
EPOB	Poblet	4.77	333	Pn	Pn	00 39 24.9	+0.9
	1.7nm,0.1s,SNR=18						
EPOB				Sn	Sn	00 40 17.1	-3.1
	9.0nm,0.3s,SNR=7.9						
EPOB	Poblet	4.77	333	Pn	Pn	00 39 24.9	+0.9
	1.7nm,0.1s,SNR=18						
EPOB				Sn	Sn	00 40 17.1	-3.0
	9.0nm,0.3s,SNR=7.9						
EMIR	Miracle	5.14	340	Pn	Pn	00 39 31.5	+2.3
	6.1nm,0.1s,SNR=5.9						
EMIR				Sn	Sn	00 40 28.2	-1.2
	33nm,0.4s						
EMIR	Miracle	5.14	340	Pn	Pn	00 39 31.5	+2.3
	6.1nm,0.1s,SNR=5.9						
EMIR				Sn	Sn	00 40 28.2	-1.2
	33nm,0.4s						
EVIA	Vianos	5.30	289	Pn	Pn	00 39 31.7	+0.2
EVIA				Sn	Sn	00 40 30.3	-3.0
EVIA	Vianos	5.30	289	Pn	Pn	00 39 31.7	+0.2
	2.5nm,0.3s,SNR=11						
EVIA				Sn	Sn	00 40 30.3	-3.0
	3.0nm,0.2s,SNR=4.0						
EJON	La Jonquera	5.39	352	Pn	Pn	00 39 34.2	+1.5
	8.1nm,0.2s,SNR=26						
EJON				Sn	Sn	00 40 34.3	-1.3
	2.1nm,0.2s,SNR=7.9						
EJON	La Jonquera	5.39	352	Pn	Pn	00 39 34.2	+1.4
	8.1nm,0.2s,SNR=26						
EJON				Sn	Sn	00 40 34.3	-1.3
	2.1nm,0.2s,SNR=7.9						
SJAF	Saint Jean de	5.43	352	P	Pn	00 39 34.1	+0.8
EBER	Berja	5.45	270	Pn	Pn	00 39 32.4	-1.1
	SNR=4.0						
EBER				Sn	Sn	00 40 33.4	-3.6
	11nm,0.5s,SNR=4.0						
EBER	Berja	5.45	270	Pn	Pn	00 39 32.4	-1.1
	SNR=4.0						
EBER				Sn	Sn	00 40 33.4	-3.6
	11nm,0.5s,SNR=4.0						
VALF	Valcebollere	5.48	345	P	Pn	00 39 36.1	+2.0
FILF	Fillols	5.54	350	P	Pn	00 39 36.9	+2.0
EQES	Quesada	5.60	279	Pn	Pn	00 39 36.6	+0.9
	2.0nm,0.2s,SNR=16						
EQES				Sn	Sn	00 40 40.2	-0.6
	8.0nm,0.3s,SNR=7.9						
EQES	Quesada	5.60	279	Sn	Sn	00 40 40.2	-0.6
	8.0nm,0.3s,SNR=7.9						
EQES	Quesada	5.60	279	Pn	Pn	00 39 36.6	+0.9
	2.0nm,0.2s,SNR=16						
ESAC	San Caprasio	5.72	325	Pn	Pn	00 39 38.6	+1.2
	9.2nm,0.3s,SNR=7.9						
ESAC				Sn	Sn	00 40 42.1	-1.7
	11nm,0.3s,SNR=4.0						
ESAC	San Caprasio	5.72	325	Pn	Pn	00 39 38.6	+1.2
	9.2nm,0.3s,SNR=7.9						
ESAC				Sn	Sn	00 40 42.1	-1.8
	11nm,0.3s,SNR=4.0						
CARF	Carcanieres	5.77	347	P	Pn	00 39 40.2	+2.1
LRDF	Laroque-de-Fa	5.92	350	P	Pn	00 39 41.3	+1.1
EBIE	Bielsa	6.28	334	Pn	Pn	00 39 47.1	+1.9
	1.3nm,0.3s,SNR=7.9						
EBIE				Sn	Sn	00 40 54.7	-3.1
	2.4nm,0.5s,SNR=7.9						
EBIE	Bielsa	6.28	334	Pn	Pn	00 39 47.1	+1.8
	1.3nm,0.3s,SNR=7.9						
MTLF	Montolieu	6.36	349	ePn	Pn	00 39 47.6	+1.2
MTLF				eSn	Sn	00 40 59.1	-0.8
	2.9nm,0.4s						
EPF	Esparros	6.52	336	ePn	Pn	00 39 50.7	+2.1
EPF				eSn	Sn	00 41 02.5	-1.3
	3.6nm,0.3s						
LMR	La Mourre	6.53	17	ePn	Pn	00 39 47.2	-1.6
LMR				eSn	Sn	00 40 58.1	-6.0
	4.0nm,0.2s						
ESDC	Sonseca Array	6.69	295	Pn	Pn	00 39 51.2	+0.1
	0.6nm,0.1s,baz=111,slow=13,SNR=13						
ESDC	Sonseca Array	6.69	295	Pn	Pn	00 39 51.2	+0.1
	0.6nm,0.1s,SNR=13						
PGF	Pioggiola	6.70	34	ePn	Pn	00 39 48.5	-2.7
PGF				eSn	Sn	00 40 59.2	-9.1
	12nm,0.3s						
ETSF	Etsaut	6.72	331	ePn	Pn	00 39 53.1	+1.6
ETSF				eSn	Sn	00 41 06.0	-3.0
	2.0nm,0.3s						
FRF	La Foret Royal	6.78	17	ePn	Pn	00 39 50.5	-1.8
FRF				eSn	Sn	00 41 03.2	-7.1
	4.3nm,0.2s						
EADA	Adamuz	6.82	281	Pn	Pn	00 39 52.4	-0.5
EADA	Adamuz	6.82	281	Pn	Pn	00 39 52.4	-0.5
	SNR=4.0						
LASF	Ste Croix	6.96	360	ePn	Pn	00 39 54.3	-0.6
LASF				eSn	Sn	00 41 10.2	-4.7
	2.4nm,0.4s						
SMRF	Simiane la Rot	6.98	10	ePn	Pn	00 39 55.1	0.0
SMRF				eSn	Sn	00 41 11.9	-3.4
	2.1nm,0.4s						
SJPF	Ste Jean	7.17	328	ePn	Pn	00 39 58.8	+1.0
SJPF				eSn	Sn	00 41 16.9	-3.3
	1.2nm,0.3s						
SJPF	Ste Jean	7.17	328	eSn	Sn	00 41 16.9	-3.3
	0.6nm,0.3s						
SBF	Sospel	7.26	21	ePn	Pn	00 39 56.6	-2.5
SBF				eSn	Sn	00 41 15.0	-7.4
	5.1nm,0.3s						
SBF	Sospel	7.26	21	eSn	Sn	00 41 15.0	-7.4
	2.5nm,0.3s						
EALK	Alkurruntz	7.38	327	Pn	Pn	00 40 02.0	+1.3
	3.6nm,0.2s,SNR=7.9						
EALK				Sn	Sn	00 41 22.1	-3.3
	14nm,0.4s,SNR=7.9						
VIVF	Saint-Julien-l	7.76	4	ePn	Pn	00 40 06.1	0.0
MBDF	Montbardon	7.91	15	ePn	Pn	00 40 08.4	+0.2
CAF	Calviac	7.93	350	ePn	Pn	00 40 09.5	+1.0
ORIF	Oris-en-Rattie	7.94	10	ePn	Pn	00 40 09.1	+0.5
LFF	La Frestale	8.18	344	ePn	P	00 40 12.7	+0.8
ELAN	Lanestosa	8.30	320	Pn	P	00 40 14.7	+1.0
ELAN	Lanestosa	8.30	320	Pn	P	00 40 14.7	+1.0
	SNR=7.9						
RJF	Les Rejaudoux	8.38	348	ePn	P	00 40 15.7	+0.9
EMIN	Mina Concepcio	8.45	278	Pn	P	00 40 14.3	-1.3
	SNR=4.0						
LPG	La Plagne	8.65	13	ePn	P	00 40 18.9	+0.4
LPL	La Plagne	8.66	13	ePn	P	00 40 18.9	+0.2
TCF	Toulx Ste Croi	9.26	353	ePn	P	00 40 27.4	+0.5
EARI	Arriondas	9.32	314	Pn	P	00 40 29.2	+1.4
EARI				Sn	Sn	00 42 08.4	-5.3
EARI	Arriondas	9.32	314	Sn	Sn	00 42 08.4	-5.3
	SNR=4.0						
EARI	Arriondas	9.32	314	Pn	P	00 40 29.2	+1.5
	SNR=4.0						
BGF	Bois d’Agland	9.47	356	ePn	P	00 40 30.3	+0.4
ECAL	Calabor	9.54	304	Pn	P	00 40 30.9	+0.2
	8.4nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	00 42 13.0	-6.0
	SNR=4.0						
ECAL	Calabor	9.54	304	Pn	P	00 40 30.9	+0.2
	8.4nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	00 42 13.0	-6.0
MFF	Saint Martin d	9.96	344	ePn	P	00 40 36.5	+0.1
EINC	Incio	10.27	306	Pn	P	00 40 41.5	+0.7
	2.2nm,0.6s						
EINC	Incio	10.27	306	Pn	P	00 40 41.5	+0.7
	2.2nm,0.6s						
EPON	Pontenova	10.49	310	Pn	P	00 40 44.3	+0.6
	0.6nm,0.2s						
EPON	Pontenova	10.49	310	Pn	P	00 40 44.3	+0.5
	0.6nm,0.2s						
LDF	La Druitiere	11.85	347	ePn	P	00 41 02.4	+0.1
QUIF	Quistinic	11.99	336	ePn	P	00 41 04.7	+0.5
SGMF	Saint Gilles	12.11	339	ePn	P	00 41 05.8	0.0
ROSF	Rostrenen	12.39	337	ePn	P	00 41 10.0	+0.4

IDC 15 01:09:08.5±2.1, 18.78N×81.63W, mb3.0/2, mb1 3.6/3, mb1mx3.3/20, ML4.1/1, Error ellipse: s-maj=60.6km s-min=46.5km az=46.0, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEIG	Tepich	6.43	284	Pn	Pn	01 10 43.5	-3.3
	4.2nm,0.3s,baz=243,slow=23,SNR=20						
TEIG				Sn	Sn	01 11 51.4	-11
	2.1nm,0.3s,baz=250,slow=22,SNR=12						
TXAR	Lajitas Array	22.66	302	P	P	01 14 12.7	-0.1
	0.5nm,0.9s,baz=117,slow=10,SNR=4.3						
YKA	Yellowknife Ar	49.28	341	P	P	01 17 58.4	-2.4
	0.1nm,0.5s,baz=133,slow=8.6,SNR=4.6						
WRA	Warramunga Arr	146.08	262	PKPbc	PKPbc	01 28 50.6	-0.8
	1.2nm,0.8s,baz=85,slow=3.5,SNR=9.6						
ASAR	Alice Springs	146.58	255	PKPbc	PKPbc	01 28 51.9	-0.5
	0.3nm,0.4s,baz=91,slow=4.0,SNR=6.2						

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*ROM **15** 01:10:50.8±0.2, 42.77N×13.76E, h5^{km}, MD3.4/12, ML3.1/24, Error ellipse: s-maj=1.6km s-min=1.1km az=90.0*

*NEIC **15** 01:10:50.8, 42.77N×13.76E, h5^{km}, MD3.6(PDG), MD3.4(ROM), ML3.4(LDG), ML3.3(SZGRF), After ROM.*

*IDC **15** 01:10:51.5±2.7, 43.05N×13.84E, mb3.6/2, mb1 3.9/6, mb1mx3.6/21, ML3.6/4, MS4.3/1, Ms1 4.3/1, ms1mx3.5/25, Error ellipse: s-maj=38.1km s-min=16.6km az=47.0*

*CSEM **15** 01:10:52.9±0.1, 42.84N×13.84E, h40^{km}, ML3.4/17, Error ellipse: s-maj=1.6km s-min=1.2km az=35.0*

*LDG **15** 01:10:53.0±0.2, 42.85N×13.76E, h10^{km}, Ml3.4/18, Error ellipse: s-maj=6.6km s-min=3.2km az=53.0*

*PDG **15** 01:10:54.0±0.3, 42.45N×14.16E, h12^{km}±11^{km}*

ISC 15 01:10:50.4±0.4, **42.83N**±0.02×**13.81E**±0.02, **h19**^{km}±4^{km}, **n224**, σ1§**32**/289, **mb3.6**/2, **20C-6D**, **Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TERO	Teramo	0.25	217	⇑iPG	Pb	01 10 56.0	-0.3
TERO				SG	Sb	01 10 59.0	-1.3
TERO	Teramo	0.25	217	⇑iPg	Pb	01 10 56.0	-0.4
TERO				eSg	Sb	01 10 59.0	-1.3
CAMP	Campotosto	0.41	226	ePG	Pb	01 10 58.4	-0.5
CAMP				SG	Sb	01 11 04.6	-0.2
VCEL	Villa Celiera	0.43	177	ePG	Pb	01 10 59.2	0.0
AQU	L’Aquila	0.56	213	⇓iPG	Pb	01 11 00.6	-0.8
AQU	L’Aquila	0.56	213	⇓iPg	Pb	01 11 00.7	-0.8
FAGN	Fagnano	0.58	197	ePG	Pb	01 11 01.3	-0.5
LNSS	Leonessa	0.61	249	ePG	Pb	01 11 01.7	-0.6
CING	Cingoli	0.71	321	ePG	Pb	01 11 04.2	+0.2
CING				SG	Sb	01 11 18.6	+5.3
CING	Cingoli	0.71	321	ePg	Pb	01 11 04.2	+0.2
CING				eSg	Sb	01 11 18.6	+5.4
CING	Cingoli	0.71	321	Sg	Sb	01 11 18.6	+5.3
SNTG	Esanatoglia	0.77	304	ePG	Pb	01 11 05.5	+0.5
SNTG				SG	Sb	01 11 17.9	+2.9
SNTG	Esanatoglia	0.77	304	ePg	Pb	01 11 05.5	+0.5
SNTG				eSg	Sb	01 11 17.9	+2.9
INTR	Introdacqua	0.82	175	ePG	Pb	01 11 05.0	-0.8
PTQR	Pietraquaria	0.86	201	ePG	Pb	01 11 05.9	-0.6
PTQR	Pietraquaria	0.86	201	ePg	Pb	01 11 06.0	-0.5
ARV	Arcevia	0.93	317	ePG	Pb	01 11 08.7	+1.0
ARV	Arcevia	0.93	317	ePg	Pb	01 11 08.7	+1.0
MNS	Montasola	0.94	243	ePG	Pb	01 11 07.2	-0.8
MNS	Montasola	0.94	243	ePg	Pb	01 11 07.2	-0.8
MURB	Monte Urbino	1.04	295	ePG	Pb	01 11 09.9	+0.3
MURB				SG	Sb	01 11 28.7	+5.9
MURB	Monte Urbino	1.04	295	ePg	Pb	01 11 09.9	+0.3
MURB				eSg	Sb	01 11 28.7	+5.9
CERT	Cerreto	1.07	215	ePG	Pb	01 11 10.1	0.0
CERT	Cerreto	1.07	215	ePg	Pb	01 11 10.1	0.0
SDI	San Donato	1.12	180	ePG	Pb	01 11 10.3	-0.6
SDI	San Donato	1.12	180	ePg	Pb	01 11 10.3	-0.6
MTCE	Montecelio	1.13	225	⇓iPG	Pb	01 11 12.7	+1.6
MTCE	Montecelio	1.13	225	⇓iPg	Pb	01 11 12.7	+1.6
FSSB	Fossombrone	1.15	319	ePN	Pn	01 11 12.9	+1.2
	362nm,0.5s						
CII	Carovilli	1.16	161	ePN	Pn	01 11 13.2	+1.4
	490nm,0.5s						
CII	Carovilli	1.16	161	ePg	Pn	01 11 13.2	+1.3
CII	Carovilli	1.16	161	ePn	Pn	01 11 13.2	+1.4
	490nm,0.5s						
MA9	Marino	1.36	219	ePN	Pn	01 11 16.0	+1.4
MA9	Marino	1.36	219	ePg	Pn	01 11 16.0	+1.4
SGG	Gregorio Mates	1.50	163	ePN	Pn	01 11 19.0	+2.3
RFI	Roccamonfina	1.53	175	ePN	Pn	01 11 19.0	+1.9
	207nm,0.5s						
RFI	Roccamonfina	1.53	175	ePg	Pn	01 11 19.0	+1.9
RFI	Roccamonfina	1.53	175	ePn	Pn	01 11 19.0	+1.9
	207nm,0.5s						
TOLF	Tolfa	1.54	241	ePN	Pn	01 11 18.4	+1.1
TOLF	Tolfa	1.54	241	ePg	Pn	01 11 18.4	+1.1
CRE	Caprese Michel	1.57	301	ePN	Pn	01 11 19.9	+2.2
	123nm,0.4s						
CRE	Caprese Michel	1.57	301	ePg	Pn	01 11 19.9	+2.1
CRE	Caprese Michel	1.57	301	ePn	Pn	01 11 19.9	+2.2
	123nm,0.4s						
RGNG	Rignano Grg	1.75	131	ePN	Pn	01 11 21.0	+0.8
RGNG	Rignano Grg	1.75	131	ePn	Pn	01 11 21.0	+0.7
IPES	Pescosannita	1.76	154	ePN	Pn	01 11 22.4	+1.9
SFI	Santa Sofia	1.79	308	ePN	Pn	01 11 23.7	+2.8
SFI	Santa Sofia	1.79	308	ePn	Pn	01 11 23.7	+2.9
PGD	Poggio Sodo	1.85	305	ePN	Pn	01 11 23.9	+2.2
	89nm,0.5s						
PGD	Poggio Sodo	1.85	305	ePn	Pn	01 11 23.9	+2.2
PGD	Poggio Sodo	1.85	305	ePn	Pn	01 11 23.9	+2.2
	89nm,0.5s						
FG5	Orsara di Pugl	1.89	144	ePN	Pn	01 11 23.5	+1.3
	217nm,0.6s						
FG5	Orsara di Pugl	1.89	144	ePn	Pn	01 11 23.5	+1.3
FG5	Orsara di Pugl	1.89	144	ePn	Pn	01 11 23.5	+1.3
	217nm,0.6s						
NVLJ	Novalja	1.90	24	i Pn	Pn	01 11 23.0	+0.6
NVLJ				i Sn	Sn	01 11 46.5	+0.5
NVLJ				i Sg	Sn	01 11 48.4	+2.4
NVLJ	Novalja	1.90	24	i Pn	Pn	01 11 22.9	+0.5
NVLJ				i Sn	Sn	01 11 46.5	+0.5
NVLJ				i Sg	Sn	01 11 48.4	+2.4
FGMS	Monte Sant’Ang	1.94	124	ePN	Pn	01 11 24.2	+1.2
	840nm,0.6s						
FGMS	Monte Sant’Ang	1.94	124	ePn	Pn	01 11 24.2	+1.2
FGMS	Monte Sant’Ang	1.94	124	ePn	Pn	01 11 24.2	+1.2
	840nm,0.6s						
CSNT	Castellina Chi	1.95	290	ePN	Pn	01 11 24.8	+1.6
	165nm,0.4s						
CSNT	Castellina Chi	1.95	290	ePn	Pn	01 11 24.8	+1.7
CSNT	Castellina Chi	1.95	290	ePn	Pn	01 11 24.8	+1.6
	165nm,0.4s						
VMG	Vicchio	2.00	305	ePN	Pn	01 11 26.4	+2.5
VMG	Vicchio	2.00	305	ePn	Pn	01 11 26.4	+2.5
MAON	Monte Argentar	2.02	260	ePN	Pn	01 11 24.8	+0.7
MAON	Monte Argentar	2.02	260	ePn	Pn	01 11 24.8	+0.7
GRFL	Gerfalco	2.10	280	ePn	Pn	01 11 26.8	+1.4
GRFL	Gerfalco	2.10	280	ePn	Pn	01 11 26.8	+1.5
SEI	Scarperia	2.17	305	ePn	Pn	01 11 28.6	+2.4
SEI	Scarperia	2.17	305	ePn	Pn	01 11 28.6	+2.3
MRLC	Muro Lucano	2.42	148	ePn	Pn	01 11 30.5	+0.7
MRLC	Muro Lucano	2.42	148	ePn	Pn	01 11 30.5	+0.7
SGO	Sicignano	2.52	153	ePn	Pn	01 11 32.4	+1.1
SGO	Sicignano	2.52	153	ePn	Pn	01 11 32.4	+1.0
PII	Pisa	2.56	292	ePn	Pn	01 11 33.0	+1.1
ZCCA	Zocca	2.56	307	ePn	Pn	01 11 35.2	+3.4
ZCCA	Zocca	2.56	307	ePn	Pn	01 11 35.2	+3.3
BDI	Bagni Di Lucca	2.65	299	ePn	Pn	01 11 33.9	+0.8
BDI	Bagni Di Lucca	2.65	299	ePn	Pn	01 11 33.9	+0.8
KNDS	Knezji Dol	2.73	8	⇑iPn	Pn	01 11 34.7	+0.4
KNDS				eSn	Sn	01 12 08.6	+1.4
	comp=Z,101nm,0.5s						
SLCN	Sala Consilina	2.79	150	ePn	Pn	01 11 36.4	+1.2
SLCN	Sala Consilina	2.79	150	ePn	Pn	01 11 36.4	+1.3
GSCL	Gusciola	2.79	304	ePn	Pn	01 11 37.2	+2.1
GSCL	Gusciola	2.79	304	ePn	Pn	01 11 37.2	+2.0
VLC	Villacollemand	2.83	299	ePn	Pn	01 11 36.4	+0.7
VLC	Villacollemand	2.83	299	ePn	Pn	01 11 36.3	+0.7
STON	Ston	2.86	88	i Pn	Pn	01 11 36.4	+0.3
STON				i Sn	Sn	01 12 09.7	-0.7
BOJS	Bojanci	2.87	21	i Pn	Pn	01 11 37.0	+0.7
ERBM	Eremo	2.94	304	ePn	Pn	01 11 40.4	+3.2
ERBM	Eremo	2.94	304	ePn	Pn	01 11 40.4	+3.2
MGR	Morigerati	2.99	153	ePn	Pn	01 11 38.8	+0.8
MGR	Morigerati	2.99	153	ePn	Pn	01 11 38.8	+0.9
VISS	Visnje	3.07	14	i Pn	Pn	01 11 39.4	+0.4
VISS				e		01 12 14.1	
VISS				eSn	Sn	01 12 16.6	+0.9
	comp=Z,60nm,0.5s						
VOY	Vojsko	3.21	1	ePn	Pn	01 11 40.7	-0.3
VOY				e		01 11 49.3	
VOY				eSn	Sn	01 12 19.0	-0.1
VOY	Vojsko	3.21	1	ePn	Pn	01 11 40.7	-0.3
VOY				eSn	Sn	01 12 19.0	-0.1
LJU	Ljubljana	3.26	9	i Pn	Pn	01 11 42.3	+0.5
LJU				e		01 12 17.7	
LJU				eSn	Sn	01 12 21.1	+0.6
LJU	Ljubljana	3.26	9	i Pn	Pn	01 11 42.3	+0.5
LJU				eSn	Sn	01 12 21.0	+0.5
TREB	Trebinje	3.34	90	Sg	Sn	01 12 20.6	-2.0
TREB	Trebinje	3.34	90	Pn	Pn	01 11 43.7	+0.7
ORI	Oriolo Calabro	3.40	143	ePn	Pn	01 11 45.2	+1.5
ORI	Oriolo Calabro	3.40	143	ePn	Pn	01 11 45.2	+1.4
HCY	Herceg Novi	3.48	95	⇑iPn	Pn	01 11 45.1	+0.2
HCY				eSn	Sn	01 12 24.8	-1.2
HCY	Herceg Novi	3.48	95	eSn	Sn	01 12 24.8	-1.3
BRY	Bratogost	3.48	87	⇑iPn	Pn	01 11 46.2	+1.3
BRY				eSn	Sn	01 12 26.1	0.0
PGF	Pioggiola	3.56	267	ePn	Pn	01 11 46.4	+0.4
PGF				eSn	Sn	01 12 25.0	-3.0
	comp=Z,9.4nm,0.4s						
CTI	Castel Tesino	3.57	335	ePn	Pn	01 11 46.5	+0.3
CTI	Castel Tesino	3.57	335	ePn	Pn	01 11 46.5	+0.2
PTCC	Patocco-Chiusa	3.59	355	ePn	Pn	01 11 46.0	-0.6
PTCC	Patocco-Chiusa	3.59	355	ePn	Pn	01 11 46.0	-0.5
SAL	Salo	3.65	321	ePn	Pn	01 11 47.8	+0.5
SAL	Salo	3.65	321	ePn	Pn	01 11 47.8	+0.5
OBKA	Obir	3.72	8	⇓iPN	Pn	01 11 48.5	+0.2
OBKA				i SN	Sn	01 12 32.8	+0.6
UPM	Unac-Piva	3.76	83	⇑iPn	Pn	01 11 50.3	+1.4
UPM				eSn	Sn	01 12 33.9	+0.7
BUM	Brajici-Budva	3.79	96	⇑iPn	Pn	01 11 50.0	+0.7
BUM				eSn	Sn	01 12 32.8	-1.2
BUM	Brajici-Budva	3.79	96	eSn	Sn	01 12 32.8	-1.2
BUM	Brajici-Budva	3.79	96	⇑iPn	Pn	01 11 50.0	+0.6
NKY	Niksic	3.82	88	⇑iPn	Pn	01 11 50.4	+0.7
NKY				eSn	Sn	01 12 33.8	-0.8
NKY	Niksic	3.82	88	eSn	Sn	01 12 33.8	-0.8
FVI	Forni Avoltri	3.84	349	ePn	Pn	01 11 49.7	-0.3
FVI	Forni Avoltri	3.84	349	ePn	Pn	01 11 49.7	-0.4
GENL	Genova Univers	3.85	296	P	Pn	01 11 52.9	+2.7
GENL	Genova Univers	3.85	296	P	Pn	01 11 52.9	+2.7
TTG	Podgorica	4.04	94	ePn	Pn	01 11 53.5	+0.6
TTG				eSn	Sn	01 12 38.4	-1.9
TTG	Podgorica	4.04	94	ePn	Pn	01 11 53.5	+0.6
TTG				eSn	Sn	01 12 38.4	-1.9
ULC	Ulcinj	4.12	100	ePn	Pn	01 11 53.8	-0.2
ULC				eSn	Sn	01 12 39.4	-2.9
ULC	Ulcinj	4.12	100	eSn	Sn	01 12 39.4	-2.9
PLE	Pljevlja	4.12	81	⇑iPn	Pn	01 11 56.1	+2.1
PLE				eSn	Sn	01 12 42.5	+0.2
PCP	Pian Castagno	4.19	296	P	Pn	01 11 55.3	+0.3
KBA	Koelnbreinsper	4.27	356	⇑iPN	Pn	01 11 56.2	+0.1
KBA				i SN	Sn	01 12 46.6	+0.6
FIN	Finale Ligure	4.30	291	P	Pn	01 11 56.9	+0.3
FIN	Finale Ligure	4.30	291	P	Pn	01 11 56.9	+0.3
BRMO	Bormio	4.40	327	ePn	Pn	01 11 58.8	+0.9
BRMO	Bormio	4.40	327	ePn	Pn	01 11 58.8	+0.8
IMI	Imperia	4.45	286	P	Pn	01 11 59.8	+1.0
IMI	Imperia	4.45	286	P	Pn	01 11 59.8	+1.1
RHK1	Bakonya	4.47	42	⇑eP	Pn	01 11 58.1	-0.9
RHK1				eS	Sn	01 12 48.1	-3.1
IVA	Berane	4.48	87	⇑iPn	Pn	01 12 00.8	+1.7
IVA				eSn	Sn	01 12 50.4	-0.9
PVY	Plav	4.55	91	⇑iPn	Pn	01 12 01.5	+1.4
PVY				eSn	Sn	01 12 51.4	-1.7
PVY	Plav	4.55	91	⇑iPn	Pn	01 12 01.5	+1.4
PVY				eSn	Sn	01 12 51.3	-1.8
ROB	Roburent	4.56	291	P	Pn	01 12 00.7	+0.4
ROB	Roburent	4.56	291	P	Pn	01 12 00.7	+0.4
PUK	Puka	4.57	98	i Pn	Pn	01 12 01.1	+0.7
PUK				i Sn	Sn	01 12 52.9	-0.7
NEGI	Negi	4.57	285	P	Pn	01 12 00.4	-0.1
NEGI	Negi	4.57	285	P	Pn	01 12 00.4	0.0
MONE	Monesi	4.58	288	P	Pn	01 12 01.4	+0.8
MONE	Monesi	4.58	288	P	Pn	01 12 01.4	+0.8
ARSA	Arzberg	4.59	15	⇑iPN	Pn	01 11 59.9	-0.8
ARSA				i SN	Sn	01 12 52.6	-1.5
VAI	Varese	4.72	312	ePn	Pn	01 12 01.1	-1.5
VAI	Varese	4.72	312	ePn	Pn	01 12 01.1	-1.5
SBF	Sospel	4.76	285	ePn	Pn	01 12 03.3	+0.1
SBF				eSn	Sn	01 12 53.9	-4.7
	comp=Z,18nm,0.5s						
SQTA	Sankt Quirin	4.77	338	⇑iPN	Pn	01 12 04.2	+1.0
SQTA				i SN	Sn	01 13 00.8	+2.2
WATA	Walderalm	4.78	341	⇑iPN	Pn	01 12 04.4	+1.0
WATA				i SN	Sn	01 13 01.0	+2.0
PKSM	Moragy	4.84	44	eP	Pn	01 12 04.2	0.0
DAVOX	Davos	4.84	326	Pn	Pn	01 12 05.6	+1.3
	comp=Z,2.7nm,0.3s,baz=142,slow=13,SNR=36						
DAVOX				Sn	Sn	01 12 58.9	-1.6
	comp=Z,0.8nm,0.3s,baz=308,slow=21,SNR=2.7						
DAVOX	Davos	4.84	326	Pn	Pn	01 12 05.6	+1.3
DAVOX				Sn	Sn	01 12 58.9	-1.6
ENR	Entracque	4.85	289	P	Pn	01 12 05.0	+0.5
ENR	Entracque	4.85	289	P	Pn	01 12 05.0	+0.6
MOTA	Moosalm	4.91	338	⇓iPN	Pn	01 12 06.9	+1.7
MOTA				i SN	Sn	01 13 03.9	+1.7
STV	Sta Anna Valdi	4.92	289	P	Pn	01 12 06.0	+0.5
STV	Sta Anna Valdi	4.92	289	P	Pn	01 12 06.0	+0.6
STV2	Anna di Valdie	4.92	289	P	Pn	01 12 06.0	+0.5
STV2	Anna di Valdie	4.92	289	P	Pn	01 12 06.0	+0.6
MOA	Molln	5.04	3	⇑iPN	Pn	01 12 06.9	-0.1
MOA				i SN	Sn	01 13 05.2	-0.2
MOA	Molln	5.04	3	ePn	Pn	01 12 07.1	+0.1
ORO	Oropa	5.04	306	ePn	Pn	01 12 05.2	-1.8
ORO	Oropa	5.04	306	ePn	Pn	01 12 05.2	-1.8
ORX	Oropa	5.04	306	P	Pn	01 12 05.1	-2.0
ORX	Oropa	5.04	306	P	Pn	01 12 05.1	-2.0
DOI	San Damiano	5.05	292	ePn	Pn	01 12 06.9	-0.3
DOI	San Damiano	5.05	292	ePn	Pn	01 12 06.9	-0.3
TRAV		5.12	304	P	Pn	01 12 05.9	-2.3
TRAV		5.12	304	P	Pn	01 12 05.9	-2.3
BHB	Bricherasio	5.15	295	P	Pn	01 12 07.2	-1.4
BHB	Bricherasio	5.15	295	P	Pn	01 12 07.2	-1.4
PZZ	Prazzo	5.15	291	P	Pn	01 12 08.1	-0.5
PZZ	Prazzo	5.15	291	P	Pn	01 12 08.1	-0.5
DAVA	Damuels	5.26	329	⇑iPN	Pn	01 12 10.8	+0.7
DAVA				i SN	Sn	01 13 12.4	+1.4
RSP	Reno Superiore	5.27	298	P	Pn	01 12 07.8	-2.5
RSP	Reno Superiore	5.27	298	P	Pn	01 12 07.8	-2.5
FRF	La Foret Royal	5.29	280	ePn	Pn	01 12 10.4	-0.2

FRF				*e*Sn	Sn	01 13 06.4	-5.4
	comp=Z,5.4nm,0.4s						
FENE	Fenestrelle	5.35	297	P	Pn	01 12 09.6	-1.8
FENE	Fenestrelle	5.35	297	P	Pn	01 12 09.6	-1.8
VAE	Valguarnera	5.36	175	LR	LR	01 15 02.6	
	comp=Z,3µm,19.5s,baz=58,slow=45						
LMR	La Mourre	5.37	278	*e*Pn	Pn	01 12 11.1	-0.6
LMR				*e*Sn	Sn	01 13 07.9	-5.9
	comp=Z,4.2nm,0.5s						
MBDF	Montbardon	5.44	293	*e*Pn	Pn	01 12 11.9	-0.8
MBDF				*e*Sn	Sn	01 13 10.1	-5.4
	comp=Z,8.4nm,0.5s						
LSD	Ceresole Reale	5.46	301	P	Pn	01 12 10.2	-2.8
RRL	Cesana Torines	5.49	295	P	Pn	01 12 11.6	-1.8
SKO	Skopje	5.71	96	*e*Pn	Pn	01 12 15.5	-1.0
LPG	La Plagne	5.74	300	*e*Pn	Pn	01 12 15.0	-1.9
LPG				*e*Sn	Sn	01 13 17.5	-5.5
	comp=Z,6.4nm,0.5s						
LPL	La Plagne	5.76	300	*e*Pn	Pn	01 12 15.4	-1.8
LPL				*e*Sn	Sn	01 13 17.7	-5.8
	comp=Z,11nm,0.4s						
IGT	Igoumenitsa	5.92	122	*e*P	Pn	01 12 18.8	-0.6
FNA	Florina	6.01	107	*e*P	Pn	01 12 20.6	-0.1
FNA	Florina	6.01	107	*e*P	Pn	01 12 20.6	-0.1
GEC2	GERESS Array S	6.02	359	*e*Pn	Pn	01 12 19.2	-1.7
GEC2				*e*Sn	Sn	01 13 26.0	-4.1
GERES	GERESS Array B	6.02	359	Pn	Pn	01 12 19.3	-1.6
	comp=Z,1.1nm,0.3s,baz=174,slow=13,SNR=39						
GERES				Sn	Sn	01 13 25.9	-4.1
	comp=Z,2.5nm,0.3s,baz=173,slow=25,SNR=9.1						
ORIF	Oris-en-Rattie	6.10	293	*e*Pn	Pn	01 12 21.6	-0.4
ORIF				*e*Sn	Sn	01 13 26.6	-5.5
	comp=Z,4.0nm,0.4s						
SMRF	Simiane la Rot	6.11	284	*e*Pn	Pn	01 12 21.2	-0.9
KHC	Kasperske Hory	6.31	359	*e*PN	Pn	01 12 23.0	-2.0
KHC				*e*x	x	01 12 30.6	
KHC				*e*SN	Sn	01 13 33.1	-4.2
WET	Wettzell	6.35	354	*e*Pn	Pn	01 12 23.3	-2.3
WET				*e*Sn	Sn	01 13 33.7	-4.7
MEV	Metsovon	6.36	116	*e*P	Pn	01 12 26.2	+0.5
VYHS	Vyhne	6.67	30	*e*SN	Sn	01 13 41.0	-5.4
CABF	La Chapelle	6.68	307	*e*Pn	Pn	01 12 28.1	-2.0
CABF				*e*Sn	Sn	01 13 40.3	-6.2
	comp=Z,4.8nm,0.4s						
GRG	Griva	6.68	103	*e*P	Pn	01 12 28.4	-1.8
BFO	Black Forest	6.71	327	*e*Pn	Pn	01 12 29.4	-1.3
BFO				*e*Sn	Sn	01 13 42.3	-5.1
VIVF	Saint-Julien-l	6.91	290	*e*Pn	Pn	01 12 31.4	-2.0
KNT	Kendrikon	6.97	101	*e*P	Pn	01 12 32.4	-1.9
HINF	Hinteralfeld	7.00	318	*e*Pn	Pn	01 12 31.0	-3.6
HINF				*e*Sn	Sn	01 13 47.4	-7.0
	comp=Z,19nm,0.4s						
LIT	Litokhoron	7.06	110	*e*P	Pn	01 12 26.9	-8.6
PRU	Pruhonice	7.18	4	*e*PN	Pn	01 12 36.3	-0.9
PRU				*e*x	x	01 13 52.7	
CDF	Champ du Feu	7.22	323	*e*Pn	Pn	01 12 35.7	-2.1
CDF				*e*Sn	Sn	01 13 52.9	-7.3
	comp=Z,26nm,0.6s						
LASF	Ste Croix	7.35	283	*e*Pn	Pn	01 12 37.4	-2.2
HAU	Haudompre	7.37	317	*e*Pn	Pn	01 12 37.5	-2.4
HAU				*e*Sn	Sn	01 13 55.5	-8.4
	comp=Z,36nm,0.5s						
AGG	Agios Georgios	7.49	118	*e*P	Pn	01 12 41.1	-0.3
SRS	Serrai	7.49	100	*e*P	Pn	01 12 38.7	-2.8
SMF	Signal de Mont	8.06	302	*e*Pn	P	01 12 46.3	-3.2
SMF				*e*Sn	Sn	01 14 11.7	-9.3
	comp=Z,5.6nm,0.4s						
MEZF	Maizieres J'vi	8.35	316	*e*Pn	P	01 12 50.3	-3.3
MEZF				*e*Sn	Sn	01 14 19.8	-8.6
	comp=Z,7.3nm,0.5s						
AVF	Avril sur Loir	8.43	302	*e*Pn	P	01 12 51.1	-3.5
AVF				*e*Sn	Sn	01 14 21.0	-9.1
	comp=Z,1.7nm,0.4s						
SSF	Saint Saulge	8.45	304	*e*Pn	P	01 12 51.4	-3.5
SSF				*e*Sn	Sn	01 14 19.8	-11
	comp=Z,1.7nm,0.4s						
BGF	Bois d'Agland	8.65	299	*e*Pn	P	01 12 53.8	-4.0
BGF				*e*Sn	Sn	01 14 27.6	-8.3
	comp=Z,6.5nm,0.5s						
CAF	Calviac	8.74	288	*e*Pn	P	01 12 58.0	-1.0
MLR	Muntele Rosu	9.12	69	Pn	P	01 13 04.7	+0.5
	comp=Z,0.2nm,0.3s,baz=293,slow=23,SNR=5.7						
FINES	FINESS Array B	20.04	17	P	P	01 15 22.1	-3.0
	comp=Z,0.1nm,0.3s,baz=201,slow=12,SNR=4.2						
BVAR	Borovoye Array	38.32	54	P	P	01 18 12.9	+1.4
	comp=Z,0.4nm,0.5s,mb3.4,baz=284,slow=5.9,SNR=3.8						
SONM	Songino Array	61.44	50	P	P	01 21 07.9	+0.3
	comp=Z,0.6nm,0.7s,mb3.8,baz=294,slow=8.0,SNR=6.1						

IDC 15 01:12:14.4±34.0**, 18.18N**×**81.13W, mb2.9**/3**, mb1 3.5**/4**, mb1mx3.2**/20**, ML4.1**/1**, Error ellipse: s-maj=636.0km s-min=63.4km az=164.0, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEIG	Tepich	7.06	288	Pn	Pn	01 13 57.6	-3.9
	3.1nm,0.3s,baz=2.6,slow=3.3,SNR=9.2						
TEIG				Sn	Sn	01 15 09.6	-14
	0.7nm,0.3s,baz=102,slow=22,SNR=3.9						
TXAR	Lajitas Array	23.39	303	P	P	01 17 25.6	-0.1
	0.2nm,0.7s,baz=117,slow=12,SNR=2.3						
PDAR	Pinedale Array	34.37	322	P	P	01 19 04.4	-0.7
	0.4nm,1.0s,baz=135,slow=8.9,SNR=2.6						
YKA	Yellowknife Ar	50.00	340	P	P	01 21 09.1	-3.0
	0.1nm,0.7s,baz=132,slow=7.9,SNR=3.1						

CSEM 15 01:20:39.5, 36.50N×**7.01E, ML3.5, After ALG, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CKFL	Kef-Lekhel	0.26	247	P	Pg	01 20 45.0	+0.4
CAEH	'Ain El Ouahch	0.31	335	P	Pg	01 20 46.0	+0.3
CMAH	Djebel Manchou	0.35	69	P	Pg	01 20 47.5	+1.0
ABSA	Djebel Ababsia	0.44	121	P	Pg	01 20 49.0	+0.8
CASM	Ain Smara	0.49	241	P	Pg	01 20 49.0	-0.2
CTEI	Djebel Teioual	0.66	229	P	Pg	01 20 50.0	-2.6
DFRA	Djebel Bou Aff	0.92	273	P	Pg	01 20 58.0	+0.2
CMER	Merouana	1.26	226	P	Pb	01 21 23.0	+19
CKHR	Kef el Ahmar	1.31	249	P	Pb	01 20 50.0	-15
SET	Setif	1.34	258	P	Pb	01 21 09.0	+3.9

MOS ***15*** *01:27:31.7±0.9, 41.69N×143.15E, h67^{km}, mb4.5/1, Error ellipse: s-maj=46.2km s-min=14.7km az=71.6*
JMA ***15*** *01:27:32.1±0.1, 41.76N×142.89E, h43^{km}±2^{km}, M3.8*
JMA Felt I J1.
NEIC ***15*** *01:27:35.0±2.1, 41.82N×142.74E, h74^{km}±20^{km}, mb4.4/1, Error ellipse: s-maj=23.2km s-min=15.4km az=88.0*
IDC ***15*** *01:27:36.6±2.6, 41.83N×142.71E, h86^{km}±23^{km}, mb3.4/7, mb1 3.6/8, mb1mx3.4/22, Error ellipse: s-maj=28.0km s-min=20.5km az=97.0*
ISC 15 01:27:31.2±0.6**, 41.77N**±0.06×**142.90E**±0.06**, h56**^{km}±5^{km}**, n26,** σ1^{s}**03**/37**, mb3.8**/8**, 1C-4D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JEM	Erimo	0.31	38	P	P	01 27 40.8	-0.3
JEM				*e*S	S	01 27 46.3	-1.9
JNBK	Urakawa-nobuka	0.52	348	⇓P	P	01 27 43.2	0.0
JNBK				*e*S	S	01 27 51.7	-0.2
JCH	Churui	0.91	22	⇓P	P	01 27 48.9	+0.8
JCH				S	S	01 28 01.4	+0.7
JBT2	Biratori 2	1.08	339	P	P	01 27 51.2	+0.7
JOB	Onbets	1.33	31	⇓P	P	01 27 55.4	+1.4
JKB	Kayabe	1.40	275	⇑P	P	01 27 54.9	-0.1
JKB				*e*S	S	01 28 11.7	-1.0
JFR	Furan	1.41	351	P	P	01 27 55.8	+0.6
JOT	Ohata	1.44	255	P	P	01 27 55.7	+0.1
JOT				*e*S	S	01 28 13.3	-0.3
JEW	Eniwo	1.52	315	P	P	01 27 57.7	+1.1
JNB	Noboribetsu	1.55	297	⇓P	P	01 27 56.8	-0.3
JNB				*e*S	S	01 28 15.8	-0.4
ASAJ	Asahikawa	2.36	355	P	P	01 28 10.8	+2.4
	15nm,0.3s,baz=262,slow=5.5,SNR=21						
ASAJ				S	S	01 28 41.1	+4.9
	14nm,0.3s,baz=83,slow=20,SNR=9.3						
ASAJ	Asahikawa	2.36	355	P	P	01 28 10.8	+2.4
ASAJ				S	S	01 28 41.1	+4.9
ASAJ				pmax	pmax		
	comp=Z,15nm,0.3s						
YUK	Yuzh-Kuril'sk	3.14	43	*e*P	P	01 28 18.7	-0.8
YUK				*e*S	S	01 28 54.0	-2.0
YUK				pmax	pmax		
	comp=Z,230nm,0.4s						
YUK				smax			
	comp=N,810nm,0.4s						
YUK				smax			
	comp=E,350nm,0.4s						
MAJO	Matsushiro	6.37	216	*e*P	P	01 29 06.7	+2.0
MAJO				pmax	pmax		
	comp=Z,12nm,0.3s						
MAJO	Matsushiro	6.37	216	*e*P	P	01 29 06.7	+2.0
	comp=Z,12nm,0.3s						
MAT	Matsushiro	6.37	216	P	P	01 29 05.2	+0.5
MAT				S	S	01 30 09.4	-7.4
MAT	Matsushiro	6.37	216	P	P	01 29 05.0	+0.3
MAT				*e*S	S	01 30 09.0	-7.8
SONM	Songino Array	26.43	296	P	P	01 33 03.1	-1.3
	comp=Z,0.6nm,0.7s,mb3.2,baz=86,slow=7.9,SNR=4.0						
ILAR	Eielson Array	44.92	35	P	P	01 35 41.8	+0.1
	comp=Z,0.3nm,0.4s,mb3.5,baz=273,slow=5.5,SNR=6.8						
BVAR	Borovoye Array	48.34	310	P	P	01 36 08.0	-0.9
	comp=Z,0.5nm,0.3s,mb4.0,baz=74,slow=10,SNR=5.8						
WRAB	Tennant Creek	61.90	189	P	P	01 37 46.0	-1.3
WRAB				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
WRAB	Tennant Creek	61.90	189	P	P	01 37 46.0	-1.4
	comp=Z,2.4nm,0.8s,mb4.4						
WRA	Warramunga Arr	61.91	189	P	P	01 37 46.3	-1.1
	comp=Z,0.5nm,0.4s,mb4.0,baz=6.8,slow=6.8,SNR=5.5						
FINES	FINESS Array B	65.18	332	P	P	01 38 07.6	-0.6
	comp=Z,2.9nm,0.9s,mb4.3,baz=45,slow=5.4,SNR=4.3						
ASAR	Alice Springs	65.63	189	P	P	01 38 13.0	+1.3
	comp=Z,0.2nm,0.5s,mb3.4,baz=11,slow=8.0,SNR=3.1						
PDAR	Pinedale Array	73.56	47	P	P	01 39 01.0	+1.2
	comp=Z,0.2nm,0.5s,mb3.4,baz=270,slow=2.0,SNR=3.7						

JMA ***15*** *01:27:52.6±0.3, 32.07N×138.30E, h420^{km}, M3.6*
IDC ***15*** *01:27:57.0±0.8, 32.13N×138.10E, h368^{km}±8^{km}, mb3.4/11, mb1 3.6/12, mb1mx3.3/22, Error ellipse: s-maj=22.4km s-min=11.3km az=97.0*
NEIC ***15*** *01:27:60.0±0.4, 32.10N×138.02E, h400^{km}, mb3.8/2, Error ellipse: s-maj=19.6km s-min=9.9km az=99.0*
ISC 15 01:27:55.9±0.4**, 32.08N**±0.06×**138.25E**±0.10**, h379**^{km}±5^{km}**, n35,** σ0^{s}**90**/41**, mb3.8**/18**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	1.66	51	P	P	01 28 49.1	+1.0
	108nm,0.3s,baz=71,slow=6.1,SNR=21						
JHJ				S	S	01 29 29.9	+0.7
	18nm,0.3s,baz=58,slow=23,SNR=2.5						
JHJ2	Mitsune	1.67	52	P	P	01 28 49.1	+0.8
TK01	Tokai 1	1.77	342	P	P	01 28 49.3	+0.4
TK02	Tokai 2	1.91	347	P	P	01 28 50.5	+0.8
JKO	Kozu shima	2.23	19	P	P	01 28 53.0	+1.2
TK04	Tokai 4	2.32	352	P	P	01 28 53.4	+0.9
JIE	Ise	2.65	331	P	P	01 28 55.4	+0.5
JOD2	Odawara 2	3.25	12	P	P	01 28 59.7	-0.4
JOD2				*e*S	S	01 29 51.0	+0.5
JYN	Shimob	3.42	4	P	P	01 29 02.1	+0.5
BSO1	Boso 1	3.43	41	P	P	01 29 00.3	-1.4
BSO1				*e*S	S	01 29 52.4	-1.0
JGM	Miyama	3.83	341	P	P	01 29 05.6	+0.1
JRY	Ryogami san	3.97	8	P	P	01 29 06.3	-0.5
JRY				*e*S	S	01 29 59.7	-2.7
JWT	Wachi	3.98	324	P	P	01 29 06.8	-0.2
JAG	Ashikaga	4.45	13	P	P	01 29 10.0	-1.7
JAG				*e*S	S	01 30 06.6	-4.5
CBIJ	Chichi jima	6.03	144	P	P	01 29 28.5	-0.2
	8.1nm,0.3s,baz=302,slow=23,SNR=6.4						
CBIJ				S	S	01 30 38.8	-2.8
	58nm,0.3s,baz=111,slow=23,SNR=9.2						
CMAR	Chiang Mai Arr	37.84	259	P	P	01 34 39.3	+0.1
	0.9nm,0.5s,mb3.3,baz=49,slow=7.3,SNR=6.0						
GUN	Gumba	45.19	279	*e*P	P	01 35 38.3	-0.1
	16nm,0.6s,mb4.3						
PKI	Pulchoki	45.70	279	*e*P	P	01 35 41.8	-0.6
	7.7nm,0.7s,mb3.9						
KKN	Kakani	45.73	279	*e*P	P	01 35 42.5	-0.1
	11nm,0.7s,mb4.1						
DMN	Daman	45.94	279	*e*P	P	01 35 43.5	-0.7
GKN	Gorkha	46.20	280	*e*P	P	01 35 46.4	+0.1
	5.1nm,0.3s,mb4.2						
KOLN	Koldanda	47.15	280	*e*P	P	01 35 52.4	-1.1
	4.6nm,0.7s,mb3.8						
WRAB	Tennant Creek	51.85	185	*e*P	P	01 36 28.7	-0.2
	2.2nm,0.5s,mb3.7						
WRA	Warramunga Arr	51.86	185	P	P	01 36 29.1	+0.1
	1.0nm,0.5s,mb3.5,baz=0.3,slow=7.7,SNR=13						
ILAR	Eielson Array	55.07	30	P	P	01 36 51.8	+0.2
	0.6nm,0.7s,mb3.1,baz=266,slow=6.2,SNR=8.0						
ASAR	Alice Springs	55.58	185	P	P	01 36 56.2	+0.5
	0.9nm,0.6s,mb3.2,baz=12,slow=13,SNR=12						
MBWA	Marble Bar	55.83	201	*e*P	P	01 36 56.1	-1.4
	2.7nm,0.5s,mb3.8						
STKA	Stephens Creek	63.69	177	P	P	01 37 51.1	+1.1
	1.0nm,0.5s,mb3.7,baz=352,slow=7.1,SNR=5.4						
NWAO	Narrogin (SRO)	67.63	199	P	P	01 38 15.1	+0.3
	2.3nm,0.4s,mb4.3,baz=80,slow=12,SNR=3.2						
ARCES	ARCESS Array B	67.71	339	P	P	01 38 14.7	+0.1
	5.1nm,0.9s,mb4.2,baz=64,slow=7.3,SNR=6.0						
YKA	Yellowknife Ar	69.40	28	P	P	01 38 25.8	+0.8
	0.3nm,0.4s,mb3.4,baz=301,slow=6.3,SNR=9.9						
YKA	Yellowknife Ar	69.40	28	P	P	01 38 25.8	+0.8
FINES	FINESS Array B	71.97	332	P	P	01 38 40.3	-0.1
	1.3nm,0.4s,mb4.0,baz=66,slow=5.7,SNR=14						
NOA	NORSAR Array B	77.71	337	P	P	01 39 12.8	+0.1
	1.2nm,0.8s,mb3.7,baz=49,slow=5.1,SNR=2.6						
TXAR	Lajitas Array	95.24	51	P	P	01 40 41.4	+2.8
	0.4nm,0.7s,mb3.6,baz=309,slow=3.0,SNR=5.2						

IDC 15 01:42:45.0±2.4**, 11.41S**×**162.45E, mb3.6**/5**, mb1 3.9**/5**, mb1mx3.8**/13**, Error ellipse: s-maj=99.4km s-min=27.7km az=138.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	28.33	249	P	P	01 48 40.6	-2.1
	0.5nm,1.0s,baz=77,slow=9.4,SNR=2.2						
ASAR	Alice Springs	29.75	242	P	P	01 48 53.5	-2.1
	0.7nm,1.0s,baz=70,slow=9.2,SNR=5.1						
SONM	Songino Array	77.08	325	P	P	01 54 40.6	-1.2
	0.4nm,0.6s,baz=132,slow=5.1,SNR=5.7						
ILAR	Eielson Array	84.91	19	P	P	01 55 21.6	-1.1
	0.4nm,0.8s,baz=247,slow=3.7,SNR=3.9						
YKA	Yellowknife Ar	96.79	28	P	P	01 56 16.7	-1.9
	0.1nm,0.6s,baz=263,slow=4.7,SNR=4.3						

IDC ***15*** *01:53:32.5±1.1, 21.41S×68.65W, h121^{km}±16^{km}, mb3.8/4, mb1 3.8/5, mb1mx3.6/14, MS3.7/1, Ms1 3.9/1, ms1mx3.0/18, Error ellipse: s-maj=26.9km s-min=24.3km az=105.0*
NEIC ***15*** *01:53:32.5±0.9, 21.44S×68.59W, h122^{km}±11^{km}, Error ellipse: s-maj=19.6km s-min=17.2km az=90.0*
ISC 15 01:53:30.1±0.9**, 21.19S**±0.10×**68.5W**±0.2**, h105**^{km}±15^{km}**, n9,** σ0^{s}**46**/11**, mb3.8**/3**, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.46	193	P	P	01 53 57.1	+0.6
	22nm,0.3s,baz=14,slow=11,SNR=77						
LVC				S	S	01 54 16.0	-0.3
	83nm,0.3s,baz=89,slow=21,SNR=54						
LPAZ	La Paz	4.89	5	P	P	01 54 48.2	+5.6
	1.3nm,0.3s,baz=197,slow=9.1,SNR=16						
LPAZ				LR	LR	01 56 30.6	
	comp=Z,878nm,21.0s,baz=274,slow=35						
LPAZ	La Paz	4.89	5	P	P	01 54 48.2	+5.6
LPAZ				LR	LR	01 56 30.6	
ARE	Arequipa	5.47	329	*e*P	P	01 54 50.0	-0.5
ARE				*e*S	S	01 55 53.0	+0.3
BDFB	Brasilia	20.24	78	P	P	01 57 58.9	-0.2
	11nm,0.4s,baz=255,slow=9.3,SNR=26						
BAO	Brasilia Array	20.26	78	P	P	01 57 59.1	-0.3
BAO				*e*		01 58 01.7	
BAO				*e*		01 58 16.8	
DBIC	Dimbokro	68.32	73	P	P	02 04 23.4	+0.9
	4.1nm,1.1s,mb4.2,baz=237,slow=3.9,SNR=4.2						
PDAR	Pinedale Array	74.01	330	P	P	02 04 56.0	0.0
	0.3nm,0.6s,mb3.2,baz=140,slow=7.0,SNR=3.1						
YKA	Yellowknife Ar	91.01	340	P	P	02 06 22.7	-0.5
	0.7nm,0.5s,mb4.0,baz=132,slow=4.6,SNR=30						

IDC ***15*** *01:59:57.5±2.7, 3.20S×136.41E, mb3.9/3, mb1 4.2/4, mb1mx4.1/10, ML4.2/1, Error ellipse: s-maj=197.0km s-min=28.1km az=80.0*
NEIC ***15*** *02:00:01.2±1.3, 3.36S×135.37E, h10^{km}, mb3.9/3, Error ellipse: s-maj=30.7km s-min=18.7km az=82.0*
ISC 15 02:00:02.7±2.4**, 3.57S**±0.09×**135.1E**±0.2**, h40**^{km}±23^{km}**, n10,** σ1^{s}**35**/15**, mb3.8**/3**, 1D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.46	196	*e*P	P	02 02 21.5	+2.1
	24nm,0.4s						
KAKA				*e*S	S	02 04 05.3	-0.2
WRAB	Tennant Creek	16.28	183	*e*P	P	02 03 48.6	-1.6
	6.3nm,0.6s						
WB2	Warramunga Arr	16.29	183	⇓*i*P	P	02 03 48.8	-1.5
WB2				*i*		02 03 56.1	
WB2				*e*S	S	02 06 41.3	-8.0
WRA	Warramunga Arr	16.29	183	Pn	P	02 03 48.9	-1.4
	0.9nm,0.3s,baz=356,slow=13,SNR=19						
WRA				Sn	S	02 06 40.0	-9.3
	0.8nm,0.3s,baz=9.0,slow=22,SNR=9.1						
CTA	Charters Tower	19.70	147	*e*P	P	02 04 32.4	+0.8
	3.5nm,0.9s						
ASAR	Alice Springs	20.01	183	P	P	02 04 37.2	+2.2
	6.8nm,0.6s,baz=8.7,slow=10,SNR=39						
ASAR				S	S	02 08 12.4	-0.4
	1.8nm,0.8s,baz=7.9,slow=26,SNR=4.6						
ASPA	Alice Springs	20.01	183	*e*P	P	02 04 36.8	+1.8
ASPA				*e*S	S	02 08 12.9	+0.1
MBWA	Marble Bar	23.00	219	*e*P	P	02 05 10.1	+4.9
	6.2nm,0.8s,mb4.1						
STKA	Stephens Creek	28.81	168	P	P	02 05 58.6	-0.9
	0.8nm,0.5s,mb3.7,baz=340,slow=10,SNR=4.2						
SONM	Songino Array	57.03	337	P	P	02 09 46.6	-0.5
	0.6nm,0.8s,mb3.7,baz=152,slow=6.7,SNR=4.4						

JSN ***15*** *02:01:05.9±0.6, 18.55N×81.40W, h50^{km}±999^{km}, MD4.5*
IDC ***15*** *02:01:06.4±1.6, 19.09N×81.42W, mb3.5/5, mb1 4.0/6, mb1mx3.7/20, ML4.7/1, Error ellipse: s-maj=46.0km s-min=29.4km az=10.0*
NEIC ***15*** *02:01:08.2±0.7, 19.09N×81.37W, h10^{km}, mb3.7/2, Error ellipse: s-maj=18.4km s-min=11.7km az=61.0*
ISC 15 02:01:05.5±0.6**, 19.26N**±0.10×**80.89W**±0.07**, h10**^{km}**, n21,** σ**0**^{s}**81**/23**, mb3.5**/6**, 1C-3D, Cuba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCJ	Malvern	3.31	113	⇑*e*P	Pn	02 01 58.2	-0.3
MCJ				*e*S	Sn	02 02 37.3	-1.1
CVJ	Coleyville	3.34	107	⇓*e*P	Pn	02 01 59.1	+0.2
CVJ				*i* S	Sn	02 02 39.7	+0.6
STH	Stony Hill	4.04	106	⇓*e*P	Pn	02 02 08.9	+0.1
STH				*e*S	Sn	02 02 56.4	-0.4
HOJ	Hope	4.12	107	⇓*e*P	Pn	02 02 10.3	+0.4
TEIG	Tepich	7.03	279	Pn	Pn	02 02 43.8	-7.2
	15nm,0.3s,baz=2.9,slow=4.0,SNR=30						
TEIG				Sn	Sn	02 03 54.9	-17
	3.2nm,0.3s,baz=282,slow=22,SNR=6.4						
DWPF	Disney	8.82	357	P	P	02 03 10.9	-5.2
GOGA	Godfrey	14.28	351	*e*P	P	02 04 30.9	+1.0
	0.6nm,0.7s						
SDV	Santo Domingo	14.32	135	*e*P	P	02 04 25.0	-5.6
	6.9nm,0.8s						
HKT	Hockley	17.24	311	*e*P	P	02 05 08.0	0.0
	6.1nm,1.0s						
OTAV	Otavalo	19.06	173	P	P	02 05 31.6	+1.0
WMOK	Wichita Mounta	22.12	318	*e*P	P	02 06 03.9	+1.1
	2.5nm,0.9s,mb3.6						
TXAR	Lajitas Array	23.02	300	P	P	02 06 09.7	-2.1
	1.1nm,1.0s,mb3.2,baz=117,slow=8.4,SNR=4.7						
PDAR	Pinedale Array	33.67	320	P	P	02 07 48.2	-0.4
	1.2nm,0.9s,mb3.8,baz=117,slow=6.6,SNR=9.8						
TPNV	Topopah Spring	35.56	307	P	P	02 08 05.5	+0.5
NVAR	Mina Array Bea	37.60	309	P	P	02 08 21.1	-1.0
	0.3nm,0.6s,mb3.2,baz=119,slow=9.3,SNR=3.0						
LVC	Limon Verde	43.23	164	P	P	02 09 09.0	+0.1
YKA	Yellowknife Ar	49.06	340	P	P	02 09 54.2	-0.2
	0.4nm,0.9s,mb3.4,baz=134,slow=7.9,SNR=6.2						
YKA	Yellowknife Ar	49.06	340	P	P	02 09 54.2	-0.2
ESDC	Sonseca Array	68.07	54	P	P	02 12 11.5	+4.0
	0.8nm,0.7s,mb3.9,baz=281,slow=6.5,SNR=4.0						
WRA	Warramunga Arr	146.84	263	PKPbc	PKPbc	02 20 48.8	+0.3
	0.8nm,0.8s,baz=89,slow=3.1,SNR=5.6						
ASAR	Alice Springs	147.38	256	PKPbc	PKPdf	02 20 51.0	+0.2
	0.7nm,0.6s,baz=103,slow=4.0,SNR=7.2						

IDC ***15*** *02:04:41.0±0.9, 82.60N×28.93W, mb3.8/9, mb1 4.0/10, mb1mx3.8/23, ML3.3/1, MS4.3/1, Ms1 4.3/1, ms1mx3.4/25, Error ellipse: s-maj=33.4km s-min=16.7km az=8.0*
NEIC ***15*** *02:04:42.5±0.5, 82.47N×29.23W, h10^{km}, mb4.0/1, Error ellipse: s-maj=12.1km s-min=8.2km az=212.0*
ISC 15 02:04:40.9±0.6**, 82.41N**±0.09×**29.4W**±0.6**, h10**^{km}**, n19,** σ**0**^{s}**96**/19**, mb3.7**/9**, 2D, Near north coast of Kalaallit Nunaat**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DAG	Danmarks Havn	5.97	156	⇓*e*P	Pn	02 06 12.7	+1.1
	2.1nm,0.5s						
DAG				*i*		02 07 51.8	
DAG	Danmarks Havn	5.97	156	⇓*i*P	Pn	02 06 12.7	+1.1
	2.1nm,0.5s						
DAG				*i*		02 07 51.8	
SUMG	Summit	10.06	196	*e*P	P	02 07 07.2	-1.1
	4.6nm,0.3s						
SCO	Scoresbysund	12.10	168	*e*P	P	02 07 34.1	-2.0
SCO	Scoresbysund	12.10	168	*i* P	P	02 07 34.1	-2.0
ARCES	ARCESS Array B	17.31	105	P	P	02 08 43.9	+0.2
	0.2nm,0.3s,baz=333,slow=10,SNR=6.5						
ARCES				LR	LR	02 15 07.6	
	comp=Z,957nm,18.3s,baz=285,slow=36						
ARCES	ARCESS Array B	17.31	105	P	P	02 08 43.9	+0.2
ARCES				LR	LR	02 15 07.6	
FRB	Frobisher Bay	21.01	232	P	P	02 09 27.3	+0.9
	2.4nm,0.6s,mb3.7,baz=360,slow=9.0,SNR=3.6						
INK	Inuvik	24.77	301	P	P	02 10 03.0	-0.3
	1.8nm,0.6s,mb3.8,baz=15,slow=7.4,SNR=10						
INK	Inuvik	24.77	301	*e*P	P	02 10 03.1	-0.2
	2.5nm,0.7s,mb3.9						
HFS	Hagfors	24.95	126	P	P	02 10 06.6	+1.6
	9.7nm,1.1s,mb4.2,baz=329,slow=8.4,SNR=2.9						
FINES	FINESS Array B	25.11	111	P	P	02 10 06.4	-0.2
	4.5nm,0.9s,mb4.0,baz=326,slow=6.9,SNR=6.0						
YKA	Yellowknife Ar	28.00	280	P	P	02 10 33.0	-0.2
	0.3nm,0.6s,mb3.1,baz=8.6,slow=9.1,SNR=12						
YKA	Yellowknife Ar	28.00	280	P	P	02 10 33.0	-0.2
PDAR	Pinedale Array	46.59	267	P	P	02 13 10.6	+0.4
	0.3nm,0.8s,mb3.3,baz=22,slow=4.9,SNR=3.4						
SONM	Songino Array	48.07	39	P	P	02 13 20.4	-1.4
	0.7nm,0.5s,mb3.9,baz=343,slow=8.4,SNR=6.2						
NVAR	Mina Array Bea	52.02	275	P	P	02 13 52.9	+0.9
	0.5nm,0.6s,mb3.6,baz=22,slow=4.9,SNR=4.9						
NVAR	Mina Array Bea	52.02	275	P	P	02 13 52.9	+0.8
TXAR	Lajitas Array	59.04	259	P	P	02 14 42.6	-0.3
	0.4nm,0.7s,mb3.6,baz=45,slow=5.1,SNR=5.3						

CSEM ***15*** *02:05:21.2±0.9, 39.00N×28.33W, h30^{km}, ML2.5, Error ellipse: s-maj=23.0km s-min=12.2km az=154.0*
PDA ***15*** *02:05:24.6±0.9, 39.05N×28.41W, h3^{km}±7^{km}, MD3.1, ML2.5, Error ellipse: s-maj=4.8km s-min=2.9km az=137.0*
SVSA 15 02:05:24.6±0.9**, 39.05N**×**28.41W, h3**^{km}±7^{km}**, MD3.1, ML2.5, Error ellipse: s-maj=4.8km s-min=2.9km az=137.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STGR	Santa Cruz	0.32	85	*i* P	Pg	02 05 30.4	-0.6
STGR				*i* S	Sg	02 05 34.9	-0.4
	107nm,0.1s						
STGR	Santa Cruz	0.32	85	*i* S	Sg	02 05 34.9	-0.4
	107nm,0.1s						
ROSA	Rosais	0.36	158	*e*P	Pg	02 05 30.8	-1.0
ROSA				*e*S	Sg	02 05 36.1	-0.5
PCED	Cedros	0.48	208	*e*P	Pg	02 05 32.9	-1.3
PCED				*e*S	Sg	02 05 39.7	-1.0
	169nm,0.2s						
PCED	Cedros	0.48	208	*e*P	Pg	02 05 32.9	-1.3

PCED				eS	Sg	02 05 39.7	-1.0
	169nm,0.2s						
PMAN	Manadas	0.49	149	i P	Pg	02 05 32.8	-1.6
PMAN				eS	Sg	02 05 39.8	-1.1
PMAN	Manadas	0.49	149	eS	Sg	02 05 39.8	-1.1
CALA	Caldeira	0.52	206	i P	Pg	02 05 34.0	-1.1
CALA				eS	Sg	02 05 40.9	-1.2
CALA	Caldeira	0.52	206	eS	Sg	02 05 40.9	-1.2
PICO	Pico	0.55	181	eP	Pg	02 05 34.3	-1.3
PICO				eS	Sg	02 05 41.2	-1.8
HOR	Horta	0.55	198	eS	Sg	02 05 41.2	-1.9

CSEM 15 02:07:01.1±0.6,39.06N×28.43W,h10^{km},ML1.4,Error ellipse: s-maj=5.4km s-min=4.3km az=161.0,After PDA
PDA 15 02:07:01.1±0.6,39.06N×28.43W,h10^{km},MD3.0,ML1.4, Error ellipse: s-maj=5.4km s-min=4.3km az=161.0
SVSA 15 02:07:01.1±0.6,39.06N×28.43W,h10^{km},MD3.0,ML1.4, Error ellipse: s-maj=5.4km s-min=4.3km az=161.0, Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSA	Rosais	0.37	157	eP	Pg	02 07 07.6	-1.1
PMAN	Manadas	0.50	148	eP	Pg	02 07 09.6	-1.7
PMAN				eS	Sg	02 07 15.7	-2.3
	8.9nm,0.2s						
	8.9nm,0.2s						
CALA	Caldeira	0.52	204	eP	Pg	02 07 09.7	-2.0
CALA				eS	Sg	02 07 16.7	-2.1
HOR	Horta	0.56	197	erx		02 07 11.2	
PICO	Pico	0.56	180	eP	Pg	02 07 10.2	-2.2
PICO				eS	Sg	02 07 17.2	-2.7

CSEM 15 02:10:11.8±0.1,43.17N×15.36E,h5^{km},ML3.3/2,Error ellipse: s-maj=4.2km s-min=1.8km az=103.0
ROM 15 02:10:14.6±0.6,43.07N×15.21E,h10^{km},MD3.1/11, ML2.0/5,Error ellipse: s-maj=6.2km s-min=3.6km az=90.0
NEIC 15 02:10:14.6,43.07N×15.21E,h10^{km},MD3.1(ROM),After ROM.
ISC 15 02:10:12.7±0.6,43.13N±0.02×15.33E±0.08,h10^{km},n58, σ0^{s}.98/73,3C-1D,Adriatic Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TERO	Teramo	1.37	249	ePN	Pn	02 10 37.6	-0.3
TERO	Teramo	1.37	249	ePn	Pn	02 10 37.6	-0.4
NVLJ	Novalja	1.47	347	i Pn	Pn	02 10 38.3	-1.0
NVLJ				i Pg	Pg	02 10 39.2	-2.8
NVLJ				i Sn	Sn	02 10 59.5	+0.8
NVLJ				i Sg	Sg	02 10 59.6	-2.0
NVLJ	Novalja	1.47	347	i Pg	Pg	02 10 39.1	-2.9
NVLJ				i Sg	Sg	02 10 59.6	-2.0
RGNG	Rignano Grg	1.47	173	ePN	Pn	02 10 39.3	-0.1
RGNG	Rignano Grg	1.47	173	ePn	Pn	02 10 39.3	-0.1
INTR	Introdacqua	1.54	224	ePN	Pn	02 10 40.6	+0.2
INTR	Introdacqua	1.54	224	ePn	Pn	02 10 40.6	+0.2
CING	Cingoli	1.58	280	ePN	Pn	02 10 40.8	-0.1
CING	Cingoli	1.58	280	ePn	Pn	02 10 40.8	-0.2
CII	Carovilli	1.60	209	ePN	Pn	02 10 41.0	-0.3
CII	Carovilli	1.60	209	ePn	Pn	02 10 41.0	-0.3
SNTG	Esanatoglia	1.75	275	ePN	Pn	02 10 43.0	-0.4
	15nm,0.3s						
SNTG	Esanatoglia	1.75	275	ePn	Pn	02 10 43.0	-0.4
SNTG	Esanatoglia	1.75	275	ePn	Pn	02 10 43.0	-0.4
	15nm,0.3s						
ARV	Arcevia	1.78	283	ePN	Pn	02 10 42.8	-1.0
	9.0nm,0.5s						
ARV	Arcevia	1.78	283	ePn	Pn	02 10 42.8	-1.1
ARV	Arcevia	1.78	283	ePn	Pn	02 10 42.8	-1.0
	9.0nm,0.5s						
PTQR	Pietraquaria	1.81	233	ePN	Pn	02 10 44.5	+0.3
	13nm,0.5s						
PTQR	Pietraquaria	1.81	233	ePn	Pn	02 10 44.5	+0.3
PTQR	Pietraquaria	1.81	233	ePn	Pn	02 10 44.5	+0.3
	13nm,0.5s						
SDI	San Donato	1.82	219	ePN	Pn	02 10 42.7	-1.6
SDI	San Donato	1.82	219	ePn	Pn	02 10 42.7	-1.6
SGG	Gregorio Mates	1.89	202	ePN	Pn	02 10 45.0	-0.3
FSSB	Fossombrone	1.94	288	ePN	Pn	02 10 45.9	-0.2
	16nm,0.5s						
FSSB	Fossombrone	1.94	288	ePn	Pn	02 10 45.9	-0.3
FSSB	Fossombrone	1.94	288	ePn	Pn	02 10 45.9	-0.2
	16nm,0.5s						
MURB	Monte Urbino	2.06	275	ePN	Pn	02 10 48.2	+0.4
MURB	Monte Urbino	2.06	275	ePn	Pn	02 10 48.2	+0.4
MNS	Montasola	2.09	250	ePN	Pn	02 10 49.0	+0.7
	11nm,0.5s						
MNS	Montasola	2.09	250	ePn	Pn	02 10 49.0	+0.7
	11nm,0.5s						
BOJS	Bojanci	2.37	359	i Pn	Pn	02 10 53.0	+0.8
BOJS				eSn	Sn	02 11 21.8	+0.2
	comp=Z,19nm,0.4s						
BOJS	Bojanci	2.37	359	Pn	Pn	02 10 53.0	+0.8
BOJS				eSn	Sn	02 11 21.8	+0.2
	comp=Z,19nm,0.4s						
MRLC	Muro Lucano	2.38	177	ePN	Pn	02 10 54.4	+2.0
	comp=Z,6.0nm,0.4s						
MRLC	Muro Lucano	2.38	177	ePn	Pn	02 10 54.4	+2.1
MRLC	Muro Lucano	2.38	177	ePn	Pn	02 10 54.4	+2.0
	comp=Z,6.0nm,0.4s						
SISC	Sisak	2.45	17	i Pn	Pn	02 10 54.0	+0.6
SISC				i Sg	Sg	02 11 31.2	-3.2
SISC	Sisak	2.45	17	i Sg	Sg	02 11 31.1	-3.3
SISC	Sisak	2.45	17	i Pn	Pn	02 10 54.0	+0.6
KNDS	Knezji Dol	2.49	344	i Pn	Pn	02 10 53.7	-0.2
KNDS				i Sn	Sn	02 11 26.5	+1.8
	comp=Z,31nm,0.5s						
KNDS	Knezji Dol	2.49	344	i Pn	Pn	02 10 53.7	-0.2
KNDS				i Sn	Sn	02 11 26.5	+1.8
	comp=Z,31nm,0.5s						
SFI	Santa Sofia	2.65	288	ePN	Pn	02 10 57.3	+1.1
SFI	Santa Sofia	2.65	288	ePn	Pn	02 10 57.3	+1.1
CEY	Cerknica	2.68	346	i Pn	Pn	02 10 56.8	+0.1
CEY				i Sn	Sn	02 11 31.0	+1.4
	comp=Z,20nm,0.4s						
CEY	Cerknica	2.68	346	i Sn	Sn	02 11 31.0	+1.4
PGD	Poggio Sodo	2.73	287	ePN	Pn	02 10 57.7	+0.3
	comp=Z,5.0nm,0.6s						
PGD	Poggio Sodo	2.73	287	ePn	Pn	02 10 57.7	+0.3
PGD	Poggio Sodo	2.73	287	ePn	Pn	02 10 57.7	+0.3
	comp=Z,5.0nm,0.6s						
VOY	Vojsko	3.07	341	ePn	Pn	02 11 02.4	+0.1
VOY				eSn	Sn	02 11 41.1	+1.6
CADS	Cadrg	3.30	340	i Pn	Pn	02 11 04.7	-0.7
OBKA	Obir	3.42	351	⇑iPN	Pn	02 11 06.8	-0.4
OBKA				i SN	Sn	02 11 48.5	+0.2
PTCC	Patocco-Chiusa	3.56	337	ePN	Pn	02 11 09.7	+0.5
PTCC	Patocco-Chiusa	3.56	337	ePn	Pn	02 11 09.7	+0.5
ARSA	Arzberg	4.12	2	⇓iPN	Pn	02 11 16.8	-0.3
ARSA				i SN	Sn	02 12 07.5	+1.6
KBA	Koelnbreinsper	4.19	341	⇑iPN	Pn	02 11 17.4	-0.7
KBA				i SN	Sn	02 12 07.3	-0.4
MOA	Molln	4.78	351	⇑iPn	Pn	02 11 25.9	-0.5
MOA				i Sn	Sn	02 12 21.7	-0.8
KHC	Kasperske Hory	6.12	349	eP	Pn	02 11 41.5	-3.9
KHC				e	Px	02 11 52.5	
KHC	Kasperske Hory	6.12	349	eP	Pn	02 11 41.5	-3.9
KHC				pP	Px	02 11 52.5	

SSNC 15 02:11:37.5±6.7,19.16N×73.28W,MD4.0,ML5.0
IDC 15 02:11:38.3±0.6,19.48N×73.03W,h24^{km}±3^{km},mb4.2/23, mb1 4.3/27,mb1mx4.3/29,ML4.7/1,Error ellipse: s-maj=13.8km s-min=11.8km az=43.0
NEIC 15 02:11:38.8±0.2,19.54N×72.94W,mb4.6/40,Error ellipse: s-maj=4.9km s-min=4.0km az=213.0
NEIC Felt at Pignon.
BJI 15 02:11:38.7,19.50N×72.90W,h25^{km},Ms5.1,Msz4.9
ISC 15 02:11:38.0±1.7,19.55N±0.04×72.93W±0.03,h33^{km}±13^{km}, h25^{km}±.5^{km}:pP-P,n140,σ0^{s}.97/138,mb4.4/57,MS4.8/1, 2C-1D,Haiti region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MASC	Masc	1.37	297	i P	Pn	02 12 01.5	+0.3
MASC				i S	Sn	02 12 17.1	-1.3
	comp=N,191μm,0.3s						
	comp=E,27μm,0.1s						
MOAC	Moa	2.20	300	eP	Pn	02 12 13.6	+0.5
MOAC				eS	Sn	02 12 39.8	+0.3
	comp=N,79μm,0.3s						
	comp=E,63μm,0.3s						
RCC	Rio Carpintero	2.64	280	eP	Pn	02 12 17.9	-1.4
RCC				eS	Sn	02 12 47.3	-3.3
	comp=N,63μm,0.2s						
	comp=E,80μm,0.3s						
HLGC	Holguin	3.23	295	i P	Pn	02 12 28.2	+0.6
HLGC				i S	Sn	02 13 05.4	0.0
	comp=N,90μm,0.3s						
	comp=E,88μm,0.3s						
HOJ	Hope	3.93	248	⇑eP	Pn	02 12 39.5	+1.9
HOJ				eS	Sn	02 13 30.8	+7.6
STH	Stony Hill	3.95	249	eS	Sn	02 13 27.8	+4.0
MCJ	Malvern	4.79	251	eS	Sn	02 13 39.1	-5.7
CCCC	Cccc	4.82	291	⇓iP	Pn	02 12 42.9	-7.4
CCCC				i S	Sn	02 13 32.7	-13
	comp=N,5μm,0.3s						
	comp=E,5μm,0.2s						
SJG	San Juan	6.58	101	Pn	Pn	02 13 14.5	-0.6
	comp=E,3.6nm,0.3s,baz=302,slow=10,SNR=6.1						
SJG	San Juan	6.58	101	eP	Pn	02 13 14.0	-1.1
	comp=E,27nm,0.4s						
MGV	Manicaragua	7.07	292	eP	Pn	02 13 16.2	-5.7
MGV				eS	Sn	02 14 31.9	-10
	comp=N,1μm,0.4s						
	comp=E,1μm,0.4s						
SDV	Santo Domingo	10.83	168	eP	P	02 14 12.6	-1.5
	comp=E,4.8nm,0.4s						
TRN	Trinidad (W)	14.21	127	eP	P	02 15 02.0	+2.7
TEIG	Tepich	14.45	275	Pn	P	02 15 00.1	-2.3
	comp=E,3.1nm,0.3s,baz=15,slow=6.9,SNR=22						
TEIG	Tepich	14.45	275	eP	P	02 15 00.2	-2.1
ROSC	El Rosal	14.67	186	Pn	P	02 15 06.2	+1.0
	comp=E,0.3nm,0.3s,baz=265,slow=22,SNR=2.6						
ROSC				Sn	S	02 17 42.3	-5.1
	comp=E,0.8nm,0.3s,baz=87,slow=24,SNR=2.2						
BBSR	BB Station	14.75	28	eP	P	02 15 03.7	-2.5
	comp=E,82nm,0.4s						
JTS	JuntasAbangare	14.81	233	eP	P	02 15 08.9	+1.8
NHSC	New Hope	14.97	336	eP	P	02 15 09.7	+0.6
BLA	Blacksburg	18.78	341	eP	P	02 15 57.6	+0.7
	comp=E,33nm,1.2s						
ELN	Prospectdale	18.89	340	P	P	02 15 58.8	+0.5
CBN	Corbin	18.99	349	eP	P	02 15 59.1	-0.3
	comp=E,40nm,0.5s						
OTAV	Otavalo	19.94	196	eP	P	02 16 10.4	+0.1
	comp=E,80nm,1.8s						
OXF	Oxford	20.87	319	eP	P	02 16 17.9	-1.9
	comp=E,82nm,1.2s						
WVT	Waverly	21.08	325	eP	P	02 16 21.4	-0.5
	comp=E,15nm,0.6s,mb4.5						
SSPA	Standing Stone	21.44	350	eP	P	02 16 27.1	+1.6
	comp=E,10nm,1.0s,mb4.1						
ACSO	Alum Creek Sta	22.35	339	P	P	02 16 35.5	+0.9
	comp=E,61nm,1.3s,mb4.9						
NATX	Nacogdoches	23.00	306	eP	P	02 16 41.1	0.0
	comp=E,125nm,1.3s,mb5.2						
HKT	Hockley	23.19	301	eP	P	02 16 45.1	+2.1
	comp=E,18nm,1.5s,mb4.3						
ACCN	Adirondack Com	23.77	359	eP	P	02 16 49.7	+1.3
HNH	Hanover	24.09	1	P	P	02 16 51.5	0.0
SADO	Sadowa	25.68	350	P	P	02 17 04.7	-2.0
	comp=E,9.5nm,1.0s,mb4.3,baz=85,slow=8.9,SNR=3.0						
JCT	Junction City	26.61	299	eP	P	02 17 16.0	+0.6
	comp=E,39nm,1.6s,mb4.7						
WMOK	Wichita Mounta	27.42	309	eP	P	02 17 22.3	-0.5
	comp=E,5.9nm,0.6s,mb4.3						
KSU1	Kansas State U	28.24	319	P	P	02 17 27.3	-2.8
TXAR	Lajitas Array	29.55	295	P	P	02 17 41.8	-0.3
	comp=E,1.8nm,1.0s,mb3.8,baz=122,slow=8.3,SNR=13						
TXAR				PcP	PcP	02 20 46.2	-0.4
	comp=E,1.0nm,0.5s,baz=113,slow=3.7,SNR=21						
SAML	Samuel	29.90	160	eP	P	02 17 43.8	-1.5
	comp=E,14nm,0.7s,mb4.8						
MNTX	Cornudas Mount	31.54	299	eP	P	02 17 59.0	-0.6
	comp=E,18nm,1.4s,mb4.7						
EYMN	Ely	32.08	336	eP	P	02 18 02.9	-1.3
	comp=E,15nm,1.1s,mb4.7						
BNM	Barren Site	33.22	303	eP	P	02 18 15.1	+0.9
LPM	Los Pinos Moun	33.27	303	eP	P	02 18 15.3	+0.7
ANMO	Albuquerque	33.34	304	P	P	02 18 15.9	+0.7
	comp=E,1.3nm,0.5s,mb4.2,baz=116,slow=9.8,SNR=5.5						
ANMO	Albuquerque	33.34	304	eP	P	02 18 15.3	+0.1
	comp=E,4.7nm,1.1s,mb4.3						
LENM	Lemitar	33.50	303	eP	P	02 18 18.3	+1.7
SDCO	Great Sand Dun	33.61	310	eP	P	02 18 17.9	+0.4
	comp=E,4.5nm,0.6s,mb4.6						
RW3	Ridgway	35.40	309	eP	P	02 18 32.8	-0.2
SCHQ	Schefferville	35.53	6	P	P	02 18 34.5	+0.6
	comp=E,3.9nm,0.5s,mb4.6,baz=207,slow=6.6,SNR=17						
ULM	Lac du Bonnet	35.65	335	P	P	02 18 34.6	-0.4
	comp=E,1.9nm,0.5s,mb4.2,baz=131,slow=10,SNR=3.9						
ARE	Arequipa	35.81	178	eP	P	02 18 36.0	-0.6
LPAZ	La Paz	35.92	172	P	P	02 18 38.1	+0.6
	comp=E,16nm,1.1s,mb4.9,baz=4.7,slow=7.5,SNR=15						
LPAZ	La Paz	35.92	172	eP	P	02 18 37.8	+0.3
	comp=E,16nm,1.0s,mb4.9						
PV10	Paradox Valley	36.44	309	eP	P	02 18 41.5	-0.2
BW06	Boulder Array	38.52	315	eP	P	02 18 59.0	-0.1
	comp=E,25nm,1.4s,mb4.8						
PDAR	Pinedale Array	38.52	315	P	P	02 18 59.1	0.0
	comp=E,2.8nm,0.5s,mb4.3,baz=119,slow=9.3,SNR=36						
PDAR				PcP	PcP	02 21 10.9	-1.1
	comp=E,0.6nm,0.8s,baz=124,slow=3.3,SNR=3.6						
DAU	Daniels Canyon	38.77	311	eP	P	02 19 01.0	-0.2
JLU	Jordanelle	38.97	311	eP	P	02 19 03.5	+0.6
HWUT	Hardware Ranch	39.42	312	eP	P	02 19 06.6	0.0
	comp=E,8.0nm,1.0s,mb4.4						
ARUT	Antelope Range	39.55	306	eP	P	02 19 08.4	+0.6
LOHW	Long Hollow	39.57	316	eP	P	02 19 08.2	+0.3
MOOW	Moose Ponds	39.73	316	eP	P	02 19 09.3	+0.2
TPAW	Teton Pass	39.75	315	eP	P	02 19 09.4	0.0
IMW	Indian Meadow	39.91	316	eP	P	02 19 11.1	+0.4
NEN	Nelson	40.13	302	eP	P	02 19 13.6	+1.1
QLMT	Earthquake Lak	40.63	317	eP	P	02 19 17.9	+1.3
QLMT				e	pP	02 19 26.9	+0.5
TPNV	Topopah Spring	41.52	304	eP	P	02 19 22.9	-1.1
	comp=E,6.0nm,0.9s,mb4.2						
MCMT	McKenzie Canyo	41.55	316	eP	P	02 19 25.4	+1.3
ELK	Elko	41.74	310	eP	P	02 19 26.1	+0.4
	comp=E,3.4nm,0.9s,mb4.0						
FCC	Fort Churchill	42.08	344	eP	P	02 19 27.5	-0.7
	comp=E,4.2nm,0.5s,mb4.3						
FCC				e		02 19 34.9	
LVC	Limon Verde	42.09	174	P	P	02 19 28.1	-0.7
	comp=E,12nm,1.0s,mb4.5,baz=357,slow=5.8,SNR=9.8						
LVC	Limon Verde	42.09	174	eP	P	02 19 27.9	-0.9
	comp=E,19nm,1.1s,mb4.6						
HLID	Hailey	42.10	314	eP	P	02 19 29.5	+0.9
	comp=E,2.2nm,0.6s,mb4.0						
BDFB	Brasilia	42.70	143	P	P	02 19 33.1	-0.9
	comp=E,7.3nm,1.1s,mb4.3,baz=329,slow=12,SNR=6.4						
BAO	Brasilia Array	42.71	143	P	P	02 19 32.8	-1.1
BAO				e		02 20 08.7	
NVAR	Mina Array Bea	43.43	306	P	P	02 19 39.0	-0.5
	comp=E,4.0nm,1.1s,mb4.0,baz=151,slow=3.6,SNR=13						
FRB	Frobisher Bay	44.27	3	P	P	02 19 46.3	+0.3
	comp=E,11nm,1.1s,mb4.5,baz=189,slow=7.3,SNR=12						
FRB				pP	pP	02 19 53.5	-2.4
	comp=E,8.8nm,0.7s,baz=189,slow=11,SNR=6.4						
BMO	Blue Mountains	44.50	315	eP	P	02 19 47.3	-0.9
	comp=E,11nm,1.5s,mb4.4						
NEW	Newport	45.63	319	P	P	02 19 55.3	-1.8
EDM	Edmonton	45.77	327	eP	P	02 19 57.2	-0.9
YKA	Yellowknife Ar	51.56	337	P	P	02 20 41.7	-1.2
	comp=E,1.1nm,0.5s,mb4.0,baz=111,slow=5.4,SNR=36						
YKA				pP	pP	02 20 48.9	-3.9
	comp=E,4.7nm,1.1s,baz=137,slow=8.9,SNR=15						
RES	Resolute Bay	56.42	353	P	P	02 21 17.6	-0.9
	comp=E,2.3nm,0.2s,mb4.9						
RES				epP	pP	02 21 24.7	-3.8
DLBC	Dease Lake	56.47	328	eP	P	02 21 19.2	+0.2
DLBC				epP	pP	02 21 27.0	-2.0
EVO	Evora	58.68	56	eP	P	02 21 41.8	+7.0
	comp=E,6.1nm,0.6s,mb4.5						
INK	Inuvik	61.25	338	P	P	02 21 50.9	-1.1
	comp=E,2.6nm,0.7s,mb4.5,baz=93,slow=7.7,SNR=9.4						
ESDC	Sonseca Array	61.79	55	P	P	02 21 56.6	+0.5
	comp=E,1.5nm,0.7s,mb4.3,baz=276,slow=7.1,SNR=6.2						
ROSF	Rostrenen	62.19	45	eP	P	02 21 59.0	+0.4
QUIF	Quistinic	62.26	45	eP	P	02 21 58.7	-0.4
	comp=E,5.0nm,0.5s,mb4.6						
EKA	Eskdalemuir Ar	62.66	37	P	P	02 22 00.8	-0.7
	comp=E,2.8nm,0.5s,mb4.6,baz=290,slow=4.0,SNR=10.0						
EKA				pP	pP	02 22 09.2	-2.5
	comp=E,4.0nm,0.5s,baz=287,slow=4.8,SNR=5.6						
SJPF	Ste Jean	63.69	51	eP	P	02 22 11.2	+2.6
GRR	Gorron	63.80	45	eP	P	02 22 08.7	-0.5
FLN	La Foliniere	64.05	45	eP	P	02 22 10.1	-0.8
	comp=E,7.5nm,0.6s,mb4.6						
LDF	La Druitiere	64.29	45	eP	P	02 22 12.1	-0.3
	comp=E,11nm,0.6s,mb4.8						
MFF	Saint Martin d	64.32	47	eP	P	02 22 12.5	-0.1
	comp=E,16nm,0.6s,mb4.9						
EPF	Esparros	64.84	51	eP	P	02 22 16.7	+0.6
LFF	La Frestale	65.01	49	eP	P	02 22 17.2	+0.1
	comp=E,8.1nm,0.5s,mb4.7						
RJF	Les Rejaudoux	65.54	48	eP	P	02 22 21.1	+0.6
ILAR	Eielson Array	65.66	333	P	P	02 22 19.9	-1.0
	comp=E,1.6nm,0.7s,mb4.2,baz=112,slow=4.3,SNR=6.6						
ILAR				pP	pP	02 22 27.7	-3.4
	comp=E,6.2nm,1.1s,baz=102,slow=4.6,SNR=12						
CAF	Calviac	65.95	49	eP	P	02 22 22.8	-0.3
	comp=E,5.9nm,0.7s,mb4.5						
TCF	Toulx Ste Croi	65.96	47	eP	P	02 22 23.0	-0.2
MTLF	Montolieu	66.18	50	eP	P	02 22 24.5	-0.2
	comp=E,3.4nm,0.6s,mb4.3						
BGF	Bois d'Agland	66.38	47	eP	P	02 22 25.2	-0.7
	comp=E,8.0nm,0.7s,mb4.6						
SSF	Saint Saulge	66.80	46	eP	P	02 22 27.7	-0.9
	comp=E,3.4nm,0.7s,mb4.2						
SMF	Signal de Mont	67.06	47	eP	P	02 22 28.9	-1.3
BAIF	Baives	67.07	43	eP	P	02 22 27.0	-3.2
DBIC	Dimbokro	67.16	91	P	P	02 22 31.4	-0.1
	comp=E,3.4nm,0.5s,mb4.6,baz=266,slow=7.8,SNR=16						
VIVF	Saint-Julien-l	67.80	49	eP	P	02 22 35.3	+0.4
RSO	Redoubt South	68.19	328	P	P	02 22 37.0	-0.1
SMRF	Simiane la Rot	68.54	49	eP	P	02 22 40.3	+0.8
IMA	Indian Mountai	68.56	334	eP	P	02 22 39.3	0.0
	comp=E,56nm,1.3s,mb5.3						
IMA				epP	pP	02 22 46.4	-3.0
ORIF	Oris-en-Rattie	68.65	48	eP	P	02 22 40.6	+0.4
LPL	La Plagne	69.18	48	eP	P	02 22 43.7	+0.3
	comp=E,3.0nm,0.4s,mb4.2						
LPG	La Plagne	69.19	48	eP	P	02 22 43.9	+0.4
	comp=E,4.0nm,0.5s,mb4.3						
LMR	La Mourre	69.30	50	eP	P	02 22 43.6	-0.6
FRF	La Foret Royal	69.37	50	eP	P	02 22 44.2	-0.4
SBF	Sospel	69.89	49	eP	P	02 22 46.6	-1.2
NB2	NORSAR Subarra	70.28	31	P	P	02 22 50.8	+0.9
	comp=E,2.4nm,0.6s,mb4.3,baz=286,slow=5.8						
NOA	NORSAR Array B	70.28	31	P	P	02 22 50.9	+1.0
	comp=E,2.6nm,0.8s,mb4.2,baz=276,slow=6.3,SNR=3.5						
NOA				pP	pP	02 22 58.4	-1.7
	comp=E,2.4nm,0.8s,baz=278,slow=6.3,SNR=3.6						
NOA	NORSAR Array B	70.28	31	P	P	02 22 50.9	+1.0
NOA				pP	pP	02 22 58.4	-1.7
PGF	Pioggiola	71.22	51	eP	P	02 22 55.3	-0.6
	comp=E,2.3nm,0.6s,mb4.0						
HFS	Hagfors	71.59	32	P	P	02 22 58.5	+0.7
	comp=E,2.6nm,0.6s,mb4.3,baz=236,slow=5.3,SNR=5.5						
KHC	Kasperske Hory	73.23	43	eP	P	02 23 08.0	+0.3
GERES	GERESS Array B	73.36	43	P	P	02 23 09.2	+0.7
	comp=E,1.1nm,0.7s,mb3.9,baz=270,slow=4.0,SNR=10						
GERES				pP	pP	02 23 17.2	-1.5
	comp=E,1.7nm,0.9s,baz=270,slow=4.1,SNR=3.9						
ARCES	ARCESS Array B	74.77	21	P	P	02 23 16.5	+0.3
	comp=E,3.8nm,0.5s,mb4.6,baz=290,slow=4.0,SNR=36						
ARCES				pP	pP	02 23 24.4	-2.1
	comp=E,3.9nm,0.4s,baz=292,slow=4.1,SNR=3.7						
ARCES	ARCESS Array B	74.77	21	P	P	02 23 16.5	+0.3
ARCES				pP	pP	02 23 24.4	-2.1
ZST	Bratislava	75.71	44	eP	P	02 23 23.5	+1.5
VYHS	Vyhne	76.76	43	eP	P	02 23 29.2	+1.3
KAF	Kangasniemi	77.15	28	ep	P	02 23 29.9	+0.1
FINES	FINESS Array B	77.25	29	P	P	02 23 31.1	+0.8
	comp=E,2.6nm,0.5s,mb4.4,baz=275,slow=2.4,SNR=26						
FINES				pP	pP	02 23 38.8	-1.9
	comp=E,1.4nm,0.5s,baz=297,slow=4.3,SNR=1.8						
KOLS	Kolonicke sedl	78.84	42	eP	P	02 23 42.0	+2.7
AKASG	Malin Array Be	82.51	39	P	P	02 23 58.9	+0.2
	comp=E,1.1nm,0.7s,mb4.0,baz=276,slow=4.9,SNR=7.0						
AKASG				pP	pP	02 24 07.0	-2.1
	comp=E,0.9nm,0.6s,baz=273,slow=3.7,SNR=1.8						
BRTR	Keskin Array B	89.75	48	P	P	02 24 35.9	+1.2
	comp=E,2.4nm,1.0s,mb4.5,baz=239,slow=7.2,SNR=9.0						
WMQ	Urumqi	114.49	15	PKP	PKPdf	02 30 17.3	-2.8
WMQ				XPKP		02 30 24.1	
WMQ				PP	PP	02 31 19.3	+2.8
WMQ				LR	LR		
	comp=N,180nm,20.8s,MS4.9						
WMQ				LR	LR		
	comp=E,256nm,22.0s,MS4.9						
WMQ				LR	LR		
	comp=Z,216nm,22.0s,MS4.7						
LZH	Lanzhou	124.58	3	ePKP	PKPdf	02 30 35.4	-4.6
NJ2	Nanjing	127.47	347	ePKP	PKPdf	02 30 38.0	-7.6
SSE	Sheshan	127.85	345	ePKP	PKPdf	02 30 43.3	-3.1
CTA	Charters Tower	143.19	262	PKhKP		02 31 06.3	
	comp=Z,3.1nm,0.8s,baz=124,slow=3.6,SNR=3.8						
STKA	Stephens Creek	146.70	241	eP	PKPbc	02 31 17.3	+0.6
	comp=Z,1.6nm,0.5s						
STKA	Stephens Creek	146.70	241	PKPbc	PKPbc	02 31 17.0	+0.3
	comp=Z,1.9nm,0.5s,baz=122,slow=7.9,SNR=8.2						
WB2	Warramunga Arr	154.33	264	⇑iP	PKPdf	02 31 35.9	+3.4
WRA	Warramunga Arr	154.34	264	PKP	PKPdf	02 31 28.5	-4.0
	comp=Z,2.0nm,1.0s,baz=62,slow=1.2,SNR=6.2						
WRA				PKPbc	PKPdf	02 31 36.0	+3.5
	comp=Z,2.6nm,0.9s,baz=18,slow=0.9,SNR=9.9						
WRA				PKPab	PKPab	02 31 51.0	-1.0
	comp=Z,2.7nm,0.7s,baz=84,slow=2.8,SNR=11						
ASAR	Alice Springs	154.73	256	PKP	PKPdf	02 31 28.7	-4.2
	comp=Z,0.6nm,0.7s,baz=97,slow=0.8,SNR=6.8						
ASAR				PKPbc	PKPdf	02 31 36.6	+3.7
	comp=Z,1.0nm,0.6s,baz=91,slow=2.8,SNR=7.0						
ASAR				PKPab	PKPab	02 31 52.9	-0.7
	comp=Z,1.6nm,0.6s,baz=96,slow=3.2,SNR=11						

IDC 15 02:14:15.5±55.0,22.87S×173.48W,mb3.8/3,mb1 4.0/3, mb1mx3.7/14,MS4.2/1,Ms1 4.2/1,ms1mx3.4/21,Error ellipse: s-maj=1037.0km s-min=182.1km az=88.0, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	17.33	206	LR	LR	02 23 01.1	
	comp=Z,768nm,20.2s,baz=221,slow=30						
STKA	Stephens Creek	40.65	247	P	P	02 21 57.1	-2.0
	1.0nm,0.4s,baz=87,slow=11,SNR=8.0						
ASAR	Alice Springs	48.11	258	P	P	02 22 57.6	-1.6
	0.5nm,0.7s,baz=99,slow=7.1,SNR=4.8						
WRA	Warramunga Arr	48.46	263	P	P	02 23 00.3	-1.8
	0.7nm,0.4s,baz=101,slow=8.1,SNR=6.3						

JMA 15 02:24:24.1±0.2,25.15N×122.24E,h132^{km}±3^{km},M3.2
TAP 15 02:24:23.3,25.01N×122.21E,h145^{km}±1^{km},ML3.9, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.91	127	P	P	02 24 47.2	+0.1
YOJ				S	S	02 25 04.4	-0.9
IRIF	Iriomote-Funau	1.54	116	P	P	02 24 53.2	-0.1
IRIF				S	S	02 25 15.8	-0.5
HATJ	Hateruma jima	1.73	123	P	P	02 24 56.0	+0.6
HATJ				S	S	02 25 20.4	+0.3
JKRS	Kuro-shima	1.81	115	P	P	02 24 56.6	+0.3
JKRS				S	S	02 25 21.3	-0.3
JIJ	Ishigaki jima	1.87	110	P	P	02 24 57.2	+0.2
JIJ				S	S	02 25 22.7	-0.1
JTJ	Tarama	2.29	99	P	P	02 25 01.8	-0.4
JTJ				eS	S	02 25 32.0	+0.1

IDC 15 02:34:12.5±1.3,25.42N×96.48E,mb3.5/4,mb1 3.8/5, mb1mx3.6/18,ML3.5/1,Error ellipse: s-maj=52.0km s-min=19.0km az=70.0
ISC 15 02:34:15.1±0.8,25.3N±0.1×96.43E±0.08,h33^{km},n12, σ0^{s}.97/13,mb3.5/4,Myanmar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHL	Shillong	4.12	274	ePN	Pn	02 35 19.0	+1.5
SHL				eSN	Sn	02 36 06.2	+1.1
CMAR	Chiang Mai Arr	7.24	161	Pn	Pn	02 36 00.8	-0.6
	0.2nm,0.3s,baz=339,slow=13,SNR=3.8						
CMAR				Pg	P	02 36 27.0	+26
	0.3nm,0.3s,baz=340,slow=16,SNR=9.5						

CMAR				Lg		02 38 00.1	
	baz=330,slow=24,SNR=2.5						
GUN	**Gumba**	**9.78**	**287**	eP	**P**	**02 36 37.0**	**+0.4**
	29nm,0.5s						
PKI	**Pulchoki**	**10.12**	**285**	eP	**P**	**02 36 40.3**	**-1.0**
	13nm,0.5s						
KKN	**Kakani**	**10.28**	**286**	eP	**P**	**02 36 43.3**	**-0.1**
	20nm,0.5s						
DMN	**Daman**	**10.39**	**285**	eP	**P**	**02 36 43.4**	**-1.6**
	8.6nm,0.3s						
GKN	**Gorkha**	**10.88**	**287**	eP	**P**	**02 36 51.4**	**-0.2**
	24nm,0.4s						
KOLN	**Koldanda**	**11.74**	**285**	eP	**P**	**02 37 02.3**	**-1.0**
	8.7nm,0.6s						
SONM	**Songino Array**	**23.79**	**17**	P	**P**	**02 39 26.2**	**+0.6**
	0.5nm,0.7s,mb3.1,baz=207,slow=9.7,SNR=4.6						
WRA	**Warramunga Arr**	**58.17**	**137**	P	**P**	**02 44 07.8**	**-0.7**
	0.9nm,1.1s,mb3.7,baz=327,slow=7.4,SNR=3.5						
ASAR	**Alice Springs**	**60.75**	**140**	P	**P**	**02 44 28.0**	**+1.7**
	0.6nm,0.6s,mb3.9,baz=323,slow=6.4,SNR=4.6						
GERES	**GERESS Array B**	**66.72**	**314**	P	**P**	**02 45 04.8**	**-0.1**
	0.1nm,0.3s,mb3.3,baz=83,slow=7.9,SNR=4.3						

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*PRU **15** 02:38:55.8, 50.13N×19.10E*

WAR 15 02:38:53.3, 50.17N×19.31E, h0^{km}, ML2.5, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.32**	**80**	ePG	Pg	02 39 00.0	+0.3
OJC				eSG	Sg	02 39 05.0	+1.1
OKC	**Ostrava-Krasne**	**0.82**	**247**	ePG	Pg	02 39 08.8	-0.8
NIE	**Niedzica**	**0.99**	**139**	ePg	Pg	02 39 12.2	-0.9
NIE				eSg	Sg	02 39 27.4	+1.1
LIKS	**Likavka**	**1.12**	**187**	ePN	Pn	02 39 14.8	-1.3
LIKS				eSN	Sn	02 39 30.7	-1.8
VYHS	**Vyhne**	**1.70**	**191**	i PN	Pn	02 39 23.4	-1.0
VYHS				eSN	Sn	02 39 46.3	-0.8
CRVS	**Cervenica-Dubn**	**1.89**	**131**	ePN	Pn	02 39 29.0	+2.0
CRVS				eSN	Sn	02 39 54.9	+3.1
DPC	**Dobruska-Polom**	**1.93**	**277**	ePG	Pg	02 39 26.2	-5.6
DPC				eSG	Sg	02 39 51.8	-5.6
KSP	**Ksiaz**	**2.04**	**291**	ePG	Pg	02 39 31.0	-3.1
KSP				eSN	Sn	02 39 57.0	+1.2
KOLS	**Kolonicke sedl**	**2.29**	**121**	ePN	Pn	02 39 37.7	+4.9
KOLS				eSN	Sn	02 40 01.6	-0.5
PRU	**Pruhonice**	**3.08**	**269**	eSG	Sg	02 40 27.7	-8.0
KHC	**Kasperske Hory**	**3.87**	**257**	ePN	Pn	02 39 53.5	-1.7
KHC				ex	x	02 40 08.5	
KHC				ex	x	02 40 42.5	
KHC				eSG	Sg	02 40 55.8	-6.2
MOA	**Molln**	**4.05**	**237**	i SG	Sg	02 41 04.6	-3.5
	4.1nm,0.6s						
CLL	**Collm**	**4.17**	**288**	eSG	Sg	02 41 09.0	-3.0

PRE 15 02:42:25.0±2.1, 28.24S×26.75E, h2^{km}, ML3.5, South Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SEK	**Senekal**	**0.78**	**97**	eP	Pg	02 42 40.0	-0.6
SEK				eS	Sg	02 42 48.6	-2.4
SEK				e		02 42 51.6	
	comp=Z,147nm,0.2s						
KSR	**Koster**	**2.38**	**3**	eP	Pn	02 43 03.7	-1.9
KSR				eS	Sn	02 43 31.1	-4.6
KSR				e		02 43 36.3	
	comp=Z,412nm,0.4s						
SLR	**Silverton**	**2.84**	**29**	eP	Pn	02 43 09.8	-2.4
SLR				eS	Sn	02 43 44.9	-2.6
SLR				e		02 43 56.4	
	comp=Z,209nm,0.4s						
NWL	**Newcastle**	**2.88**	**81**	eP	Pn	02 43 11.4	-1.4
NWL				eS	Sn	02 43 47.3	-1.2
NWL				e		02 43 56.2	
	comp=Z,709nm,0.6s						

IDC 15 02:42:26.2±34.0, 14.70N×89.21W, h192^{km}±137^{km}, mb2.7/2, mb1 3.1/4, mb1mx2.8/19, Error ellipse: s-maj=408.0km s-min=66.5km az=171.0, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TEIG	**Tepich**	**5.56**	**9**	P	P	02 43 47.6	-0.7
	1.5nm,0.3s,baz=296,slow=20,SNR=16						
TXAR	**Lajitas Array**	**19.76**	**320**	P	P	02 46 41.6	-1.6
	0.1nm,0.3s,baz=150,slow=11,SNR=4.5						
NVAR	**Mina Array Bea**	**34.89**	**318**	P	P	02 48 59.7	-1.5
	0.2nm,0.4s,baz=135,slow=7.7,SNR=3.7						
YKA	**Yellowknife Ar**	**51.00**	**345**	P	P	02 51 07.9	-2.2
	0.2nm,0.8s,baz=146,slow=7.9,SNR=4.1						

IDC 15 03:15:35.4±3.6, 33.38S×57.21E, mb3.7/3, mb1 3.9/3, mb1mx3.5/17, Error ellipse: s-maj=177.0km s-min=39.5km az=39.0, Southwest Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**66.73**	**104**	P	P	03 26 28.9	-1.8
	0.5nm,0.7s,baz=238,slow=5.6,SNR=5.3						
WRA	**Warramunga Arr**	**68.84**	**100**	P	P	03 26 42.0	-1.9
	0.5nm,0.5s,baz=240,slow=5.6,SNR=5.5						
BVAR	**Borovoye Array**	**86.80**	**8**	P	P	03 28 21.6	-0.8
	0.5nm,0.6s,baz=180,slow=7.2,SNR=4.4						
ILAR	**Eielson Array**	**145.30**	**18**	PKPbc	PKPbc	03 35 13.1	-1.4
	0.6nm,0.6s,baz=311,slow=3.5,SNR=7.8						
YKA	**Yellowknife Ar**	**150.40**	**352**	PKPbc	PKPdf	03 35 27.4	+3.1
	0.7nm,0.6s,baz=9.6,slow=2.1,SNR=20						

WEL 15 03:23:05.9±0.3, 45.01S×167.44E, h106^{km}±2^{km}, ML3.5/4, 2C-3D, Error ellipse: s-maj=2.5km s-min=1.6km az=90.0, South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	**0.51**	**203**	PN	P	03 23 21.9	-0.6
DCZ				SN	S	03 23 34.2	-0.8
DCZ				SN	S	03 23 34.2	-0.7
MLZ	**Mavora Lakes**	**0.62**	**123**	⇑PN	P	03 23 23.1	-0.2
MLZ				SN	S	03 23 36.0	-0.5
WHZ	**Wether Hill Ro**	**0.95**	**158**	⇑PN	P	03 23 26.1	-0.4
WHZ				SN	S	03 23 40.9	-1.1
WHZ				SN	S	03 23 40.9	-1.1
WKZ	**Wanaka**	**1.14**	**81**	ePN	P	03 23 28.7	+0.1
WKZ				SN	S	03 23 45.7	0.0
JCZ	**Jackson Bay**	**1.33**	**46**	⇓PN	P	03 23 30.4	-0.5
JCZ				SN	S	03 23 48.1	-1.5
EAZ	**Earnscleugh**	**1.34**	**100**	PN	P	03 23 30.5	-0.5
EAZ				SN	S	03 23 47.9	-1.9
TUZ	**Tuapeka**	**1.81**	**122**	⇓PN	P	03 23 35.9	-0.8
TUZ				SN	S	03 23 56.9	-2.8
LBZ	**Lake Benmore**	**2.06**	**73**	PN	P	03 23 38.1	-1.8
LBZ				SN	S	03 24 02.4	-2.9
FOZ	**Fox Glacier**	**2.17**	**49**	PN	P	03 23 40.5	-0.9
ODZ	**Otahua Downs**	**2.27**	**92**	⇓PN	P	03 23 41.1	-1.8
ODZ				SN	S	03 24 07.0	-3.5
LTZ	**Lake Taylor**	**4.14**	**59**	ePN	P	03 24 06.7	-1.6
DSZ	**Denniston Nort**	**4.56**	**46**	ePN	P	03 24 11.3	-2.6
DSZ				SN	S	03 25 00.3	-5.9

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*IDC **15** 03:23:31.6±2.9, 18.85N×81.59W, mb3.4/3, mb1 3.9/4, mb1mx3.5/20, ML4.4/1, Error ellipse: s-maj=61.5km s-min=49.6km az=167.0*

*NEIC **15** 03:23:32.3±0.9, 18.90N×81.46W, h10^{km}, Error ellipse: s-maj=22.5km s-min=13.8km az=50.0*

ISC 15 03:23:32.6±4.3, 18.8N±0.1×81.51W±0.06, h24^{km}±38^{km}, n11, σ1§15/14, mb3.4/3, 1C-1D, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCJ	**Malvern**	**3.74**	**103**	⇑eP	**Pn**	**03 24 31.7**	**+1.4**
MCJ				eS	**Sn**	**03 25 14.6**	**+0.4**
STH	**Stony Hill**	**4.53**	**99**	⇓eP	**Pn**	**03 24 42.1**	**+0.7**
STH				eS	**Sn**	**03 25 32.6**	**-1.4**
TEIG	**Tepich**	**6.53**	**283**	Pn	**Pn**	**03 25 07.5**	**-2.2**
	7.6nm,0.3s,baz=315,slow=1.4,SNR=15						
TEIG				Sn	**Sn**	**03 26 13.3**	**-11**
	3.7nm,0.3s,baz=137,slow=23,SNR=16						
TEIG	**Tepich**	**6.53**	**283**	ePn	**Pn**	**03 25 07.0**	**-2.7**
TEIG				Sn	**Sn**	**03 26 13.3**	**-11**
JTS	**JuntasAbangare**	**9.12**	**202**	P	**P**	**03 25 46.6**	**+0.9**
SDV	**Santo Domingo**	**14.46**	**132**	eP	**P**	**03 26 56.4**	**-1.5**
TXAR	**Lajitas Array**	**22.73**	**302**	P	**P**	**03 28 35.2**	**+1.0**
	0.5nm,0.6s,mb3.1,baz=117,slow=9.8,SNR=9.4						
TXAR	**Lajitas Array**	**22.73**	**302**	P	**P**	**03 28 35.2**	**+1.0**
YKA	**Yellowknife Ar**	**49.27**	**340**	P	**P**	**03 32 21.1**	**0.0**
	0.4nm,0.6s,mb3.6,baz=133,slow=8.2,SNR=13						
ILAR	**Eielson Array**	**62.68**	**334**	P	**P**	**03 33 57.8**	**+0.3**
	0.3nm,0.7s,mb3.5,baz=108,slow=5.7,SNR=4.1						
WRA	**Warramunga Arr**	**146.20**	**262**	PKPbc	PKPbc	03 43 13.7	+1.8
	0.4nm,0.8s,baz=84,slow=3.5,SNR=4.6						

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*IDC **15** 04:16:53.2±2.3, 36.57N×121.09W, mb1 3.5/4, mb1mx3.2/20, ML3.3/4, Error ellipse: s-maj=21.6km s-min=17.5km az=34.0*

NEIC 15 04:16:52.3, 36.64N×121.25W, h11^{km}, MW3.8(BRK), After NCEDC., Central California

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAO	**San Andreas Ge**	**0.20**	**310**	eP	Pg	04 16 56.2	-0.5
LRV	**Little Rabbit**	**0.28**	**138**	eP	Pg	04 16 58.2	-0.1
SAC	**San Andreas**	**1.33**	**316**	eP	Pb	04 17 15.1	-1.7
CMB	**Columbia Colle**	**1.56**	**26**	eP	Pn	04 17 19.3	-0.8
OMM	**Old Mammoth Mi**	**2.06**	**61**	ePn	Pn	04 17 27.4	+0.1
NSHM	**Saint Helena R**	**2.17**	**331**	ePn	Pn	04 17 26.3	-2.6
MTUM	**Tungsten Hills**	**2.27**	**71**	ePn	Pn	04 17 30.8	+0.5
OHCM	**Honcut**	**2.70**	**356**	ePn	Pn	04 17 34.8	-1.7
HOPS	**Hopland**	**2.76**	**329**	ePn	Pn	04 17 35.5	-1.9
WCN	**Washoe City**	**2.91**	**24**	ePn	Pn	04 17 39.7	+0.2
NVAR	**Mina Array Bea**	**2.95**	**52**	Pn	Pn	04 17 40.8	+0.7
	0.6nm,0.3s,baz=235,slow=14,SNR=23						
NVAR				Pg	Pg	04 17 45.4	-5.9
	9.1nm,0.3s,baz=230,slow=20,SNR=129						
NVAR				Lg		04 18 24.6	
	38nm,0.3s,baz=329,slow=31,SNR=10.0						
DAC	**Darwin (Calif)**	**2.97**	**96**	ePn	Pn	04 17 39.0	-1.4
BEKR	**Beckwourth**	**3.30**	**12**	ePn	Pn	04 17 44.7	-0.3
TPH	**Tonopah**	**3.52**	**65**	ePn	Pn	04 17 50.1	+2.0
MWC	**Mount Wilson**	**3.55**	**132**	ePn	Pn	04 17 46.0	-2.6
TPNV	**Topopah Spring**	**4.03**	**84**	ePn	Pn	04 17 54.8	-0.6
WDC	**Whiskeytown Da**	**4.07**	**346**	ePn	Pn	04 17 54.3	-1.6
TRCR	**Troy Canyon**	**4.82**	**68**	Pn	Pn	04 18 04.7	-2.0
BMN	**Battle Mountai**	**4.94**	**39**	Pn	Pn	04 18 03.2	-5.0
PFO	**Pinyon Flat Ob**	**4.96**	**126**	ePn	Pn	04 18 05.8	-2.7
YBH	**Yreka Blue Hor**	**5.21**	**348**	Pn	Pn	04 18 15.8	+3.7
	0.3nm,0.3s,baz=254,slow=6.0,SNR=3.5						
YBH				Lg		04 19 40.8	
	0.3nm,0.3s,baz=108,slow=20,SNR=2.4						
LDFC	**Landfair**	**5.23**	**105**	Pn	Pn	04 18 08.5	-3.8
NEN	**Nelson**	**5.28**	**99**	Pn	Pn	04 18 10.9	-2.2
MOD	**Modoc**	**5.31**	**8**	Pn	Pn	04 18 09.7	-3.8
BAR	**Barrett**	**5.46**	**135**	ePn	Pn	04 18 11.5	-4.1
ELK	**Elko**	**6.24**	**47**	ePn	Pn	04 18 23.8	-2.9
ARUT	**Antelope Range**	**6.34**	**77**	Pn	Pn	04 18 27.3	-0.8
MVU	**Marysvale**	**7.42**	**73**	Pn	Pn	04 18 43.5	+0.2
MSU	**Marysvale**	**7.45**	**73**	Pn	Pn	04 18 42.4	-1.3
HWUT	**Hardware Ranch**	**9.02**	**54**	Pn	P	04 18 59.8	-5.6
PDAR	**Pinedale Array**	**10.89**	**52**	Pn	P	04 19 33.9	+2.7
	0.0nm,0.3s,baz=221,slow=8.3,SNR=2.9						
TXAR	**Lajitas Array**	**16.44**	**111**	Pn	P	04 20 46.1	+1.5
	0.0nm,0.3s,baz=292,slow=14,SNR=6.3						

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*JMA **15** 04:23:56.5±0.4, 23.93N×121.72E, h81^{km}, M2.6*

TAP 15 04:23:56.6, 23.89N×121.74E, h39^{km}±1^{km}, ML3.0, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**1.29**	**64**	P	P	04 24 19.3	+0.8
YOJ				eS	S	04 24 36.8	+1.9
IRIF	**Iriomote-Funau**	**1.87**	**76**	P	P	04 24 27.1	+0.3
IRIF				S	S	04 24 49.8	+0.4
HATJ	**Hateruma jima**	**1.90**	**85**	P	P	04 24 27.7	+0.6
JKRS	**Kuro-shima**	**2.10**	**80**	P	P	04 24 30.6	+0.5
JKRS				S	S	04 24 56.3	+1.1
JIJ	**Ishigaki jima**	**2.25**	**77**	P	P	04 24 31.9	-0.2
JIJ				S	S	04 24 58.1	-0.7

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*ATH **15** 04:27:13.8, 40.77N×27.74E, h9^{km}, MD3.9/7*

*NEIC **15** 04:27:17.5, 40.74N×27.57E, h9^{km}, MD3.9(ATH), MD3.8(ISK), After ISK.*

*CSEM **15** 04:27:17.9±0.0, 40.73N×27.57E, h15^{km}, MD3.8, Error ellipse: s-maj=1.2km s-min=0.8km az=38.0*

*ISK **15** 04:27:17.9, 40.75N×27.58E, h14^{km}, MD3.8*

*SOF **15** 04:27:18.1, 40.71N×27.38E, h10^{km}, MD3.5*

*IDC **15** 04:27:21.1±4.5, 40.58N×27.57E, h25^{km}±42^{km}, mb1 3.7/5, mb1mx3.4/22, ML3.5/5, Error ellipse: s-maj=24.2km s-min=16.9km az=59.0*

ISC 15 04:27:17.0±0.5, 40.75N±0.02×27.55E±0.02, h2^{km}±4^{km}, n113, σ0§99/135, 5C-7D, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SART	**Tekirdag**	**0.29**	**259**	i P	**Pg**	**04 27 24.2**	**+1.4**
SART				i S	**Sg**	**04 27 28.2**	**+1.5**
EDC	**Edincik**	**0.46**	**149**	Pg	**Pg**	**04 27 27.4**	**+1.1**
EDC				Sg	**Sg**	**04 27 32.4**	**-0.1**
EDC	**Edincik**	**0.46**	**149**	i Pg	**Pg**	**04 27 27.3**	**+1.0**
EDC				Sg	**Sg**	**04 27 32.4**	**-0.1**
BNT	**Bandirma**	**0.48**	**144**	i PG	**Pg**	**04 27 27.4**	**+0.8**
BNT	**Bandirma**	**0.48**	**144**	Pg	**Pg**	**04 27 27.5**	**+0.8**
KCT	**Karacabey**	**0.78**	**128**	i PG	**Pg**	**04 27 32.9**	**+0.3**
KCT				i SG	**Sg**	**04 27 43.9**	**+0.9**
ARMT	**Armutlu**	**1.01**	**100**	PG	**Pg**	**04 27 37.4**	**+0.1**
BTOK	**Tokmak**	**1.05**	**159**	i P	**Pb**	**04 27 37.9**	**+0.4**
BTOK				i S	**Sb**	**04 27 52.1**	**+0.5**
BALB	**Balikesir**	**1.13**	**167**	PN	**Pn**	**04 27 39.1**	**-0.7**
BALB	**Balikesir**	**1.13**	**167**	Pn	**Pn**	**04 27 39.3**	**-0.4**
BALB	**Balikesir**	**1.13**	**167**	Pn	**Pn**	**04 27 39.3**	**-0.5**
ISK	**Istanbul-Kandi**	**1.19**	**74**	PN	**Pn**	**04 27 40.1**	**-0.4**
BADT	**Buyukada**	**1.19**	**84**	PN	**Pn**	**04 27 40.3**	**-0.3**
BADT	**Buyukada**	**1.19**	**84**	Pn	**Pn**	**04 27 40.2**	**-0.4**
ORLT	**Orhaneli**	**1.24**	**124**	PN	**Pn**	**04 27 40.2**	**-1.1**
ORLT	**Orhaneli**	**1.24**	**124**	Pn	**Pn**	**04 27 42.3**	**+1.0**
EDRB	**Edirne**	**1.26**	**331**	PN	**Pn**	**04 27 41.9**	**+0.4**
EDRB	**Edirne**	**1.26**	**331**	Pn	**Pn**	**04 27 42.0**	**+0.4**
EZN	**Ezine**	**1.31**	**226**	PN	**Pn**	**04 27 41.9**	**-0.4**
EZN	**Ezine**	**1.31**	**226**	Pn	**Pn**	**04 27 41.9**	**-0.4**
ULDT	**Uludag**	**1.35**	**116**	i P	**Pb**	**04 27 42.9**	**+0.2**
ULDT				i S	**Sb**	**04 28 01.3**	**+1.0**
DST	**Dursunbey**	**1.41**	**144**	PN	**Pn**	**04 27 43.9**	**+0.2**
DST	**Dursunbey**	**1.41**	**144**	Pn	**Pn**	**04 27 44.0**	**+0.3**
BOZC	**Bozcaada**	**1.46**	**232**	i P	**Pn**	**04 27 43.9**	**-0.5**
BOZC				i S	**Sb**	**04 28 03.7**	**+0.3**
RDO	**Rodhopi**	**1.58**	**285**	⇑i PN	**Pn**	**04 27 46.3**	**+0.2**
AYVA	**Ayvalik**	**1.58**	**205**	i P	**Pn**	**04 27 45.8**	**-0.4**
AYVA				i S	**Sb**	**04 28 08.4**	**+1.5**
HRT	**Hereke**	**1.61**	**87**	PN	**Pn**	**04 27 46.1**	**-0.5**
HRT	**Hereke**	**1.61**	**87**	Pn	**Pn**	**04 27 46.1**	**-0.5**
PRK	**Paraskevi**	**1.79**	**214**	⇑i PG	**Pg**	**04 27 48.7**	**-4.1**
PRK				eSN	**Sn**	**04 28 13.7**	**+0.9**
KDZ	**Kurdzhali**	**1.85**	**300**	P	**Pn**	**04 27 50.0**	**0.0**
JMB	**Yambol**	**1.87**	**337**	eP	**Pn**	**04 27 53.0**	**+2.7**
AKS	**Akhisar**	**1.88**	**174**	PN	**Pn**	**04 27 51.0**	**+0.6**
LIA	**Limnos Island**	**2.00**	**246**	ePN	**Pn**	**04 27 51.2**	**-1.0**
LIA				eSN	**Sn**	**04 28 19.8**	**+1.8**
DIM	**Dimitrovgrad**	**2.00**	**311**	P	**Pn**	**04 27 52.3**	**+0.1**
DIM				Pg	**Pg**	**04 27 55.9**	**-1.1**
DIM	**Dimitrovgrad**	**2.00**	**311**	Pg	**Pg**	**04 27 55.9**	**-1.1**
GPA	**Golpazari**	**2.15**	**101**	ePN	**Pn**	**04 27 54.8**	**+0.5**
GPA	**Golpazari**	**2.15**	**101**	Pn	**Pn**	**04 27 54.8**	**+0.5**
RZN	**Rozhen**	**2.34**	**295**	P	**Pn**	**04 27 57.0**	**0.0**
KDAG	**Bornova**	**2.35**	**185**	i P	**Pn**	**04 27 56.6**	**-0.6**
KDAG				i S	**Sn**	**04 28 33.7**	**+6.8**
IZM	**Izmir**	**2.36**	**186**	ePN	**Pn**	**04 27 56.7**	**-0.6**
IZM	**Izmir**	**2.36**	**186**	Pn	**Pn**	**04 27 56.7**	**-0.5**
MANT	**Manisa**	**2.38**	**161**	i P	**Pn**	**04 27 58.8**	**+1.2**
MANT				i S	**Sn**	**04 28 33.1**	**+5.3**
BLCB	**Balcova**	**2.39**	**190**	PN	**Pn**	**04 27 58.4**	**+0.6**
PRD	**Provadia**	**2.46**	**357**	eP	**Pn**	**04 28 01.0**	**+2.3**
PLD	**Plovdiv**	**2.54**	**303**	P	**Pn**	**04 27 59.5**	**-0.3**
HENT	**Hendek**	**2.54**	**87**	i P	**Pn**	**04 27 59.9**	**0.0**
HENT				i S	**Sn**	**04 28 38.5**	**+6.7**
ALT	**Altintas**	**2.59**	**130**	ePN	**Pn**	**04 28 00.7**	**0.0**
ALT	**Altintas**	**2.59**	**130**	Pn	**Pn**	**04 28 00.8**	**+0.1**
SZH	**Strazhica**	**2.79**	**335**	eP	**Pn**	**04 28 08.0**	**+4.5**
MDU	**Mudurnu**	**2.80**	**95**	ePN	**Pn**	**04 28 03.5**	**-0.2**
MDU	**Mudurnu**	**2.80**	**95**	Pn	**Pn**	**04 28 03.6**	**-0.1**
ESKT	**Eskisehir**	**2.81**	**115**	ePN	**Pn**	**04 28 03.7**	**-0.1**
ESKT	**Eskisehir**	**2.81**	**115**	Pn	**Pn**	**04 28 03.8**	**0.0**
ESKT	**Eskisehir**	**2.81**	**115**	i P	**Pn**	**04 28 04.0**	**+0.3**
ESKT				i S	**Sn**	**04 28 47.0**	**+8.3**
NVR	**Nevrokopi**	**2.85**	**283**	ePN	**Pn**	**04 28 03.7**	**-0.7**
KHL	**Karahalli**	**2.86**	**147**	ePN	**Pn**	**04 28 04.8**	**+0.3**
KHL	**Karahalli**	**2.86**	**147**	Pn	**Pn**	**04 28 04.9**	**+0.4**
PVL	**Pavlikeni**	**2.97**	**327**	P	**Pn**	**04 28 06.5**	**+0.4**
PSN	**Preselentsi**	**2.97**	**9**	P	**Pn**	**04 28 06.0**	**-0.1**
MMB	**Musomiste**	**3.01**	**288**	P	**Pn**	**04 28 06.0**	**-0.6**
SMG	**Samos**	**3.08**	**191**	ePN	**Pn**	**04 28 05.9**	**-1.7**
PGB	**Panagyurishte**	**3.11**	**307**	P	**Pn**	**04 28 08.0**	**-0.1**
PGB				Pg	**Pg**	**04 28 16.0**	**-3.2**
PGB	**Panagyurishte**	**3.11**	**307**	Pg	**Pg**	**04 28 16.0**	**-3.2**
PLG	**Polygyros**	**3.15**	**265**	ePN	**Pn**	**04 28 06.9**	**-1.7**
DNZL	**Cakiroluk**	**3.27**	**159**	i P	**Pn**	**04 28 08.3**	**-1.9**
DNZL				i S	**Sn**	**04 28 35.7**	**-14**
KKB	**Krupnik**	**3.55**	**290**	P	**Pn**	**04 28 13.0**	**-1.2**
YER	**Yerkesik**	**3.65**	**171**	ePN	**Pn**	**04 28 15.7**	**0.0**
YER	**Yerkesik**	**3.65**	**171**	Pn	**Pn**	**04 28 15.8**	**+0.1**
BDRM	**Kayabasi**	**3.68**	**181**	i P	**Pn**	**04 28 25.0**	**+8.9**
BDRM				i S	**Sn**	**04 29 16.3**	**+16**
VTS	**Vitosha**	**3.74**	**301**	P	**Pn**	**04 28 17.0**	**0.0**
VTS	**Vitosha**	**3.74**	**301**	P	**Pn**	**04 28 17.3**	**+0.4**
TIRR	**Tirgusor**	**3.76**	**9**	P	**Pn**	**04 28 17.1**	**-0.2**
TIRR	**Tirgusor**	**3.76**	**9**	P	**Pn**	**04 28 17.1**	**-0.2**
VAY	**Valandovo**	**3.81**	**280**	⇓i Pg	**Sn**	**04 29 04.9**	**+0.9**
VAY				i Sg	**Sg**	**04 29 21.3**	**-2.6**
VAY	**Valandovo**	**3.81**	**280**	i Sg	**Sg**	**04 29 21.3**	**-2.6**
KIZT	**Kizilcal**	**3.82**	**118**	ePN	**Pn**	**04 28 17.8**	**-0.3**
KIZT	**Kizilcal**	**3.82**	**118**	Pn	**Pn**	**04 28 17.9**	**-0.2**
KIZT	**Kizilcal**	**3.82**	**118**	Pn	**Pn**	**04 28 17.9**	**-0.2**
SAFT	**Safranbolu**	**3.92**	**81**	ePN	**Pn**	**04 28 19.1**	**-0.4**
SAFT	**Safranbolu**	**3.92**	**81**	Pn	**Pn**	**04 28 19.2**	**-0.3**
SAFT	**Safranbolu**	**3.92**	**81**	Pn	**Pn**	**04 28 19.2**	**-0.3**
HARR	**Harsova**	**3.95**	**4**	⇑i P	**Pn**	**04 28 24.4**	**+4.4**
HARR	**Harsova**	**3.95**	**4**	⇓i P	**Pg**	**04 28 36.0**	**+0.1**
APE	**Apeiranthos**	**4.00**	**204**	ePN	**Pn**	**04 28 19.0**	**-1.6**
APE	**Apeiranthos**	**4.00**	**204**	ePn	**Pn**	**04 28 17.2**	**-3.4**
BCK	**Bucak**	**4.04**	**143**	ePN	**Pn**	**04 28 20.9**	**-0.4**
BCK	**Bucak**	**4.04**	**143**	Pn	**Pn**	**04 28 21.0**	**-0.3**
BCK	**Bucak**	**4.04**	**143**	Pn	**Pn**	**04 28 21.0**	**-0.3**
NSAL	**Nisos Salamina**	**4.25**	**230**	ePN	**Pn**	**04 28 23.8**	**-0.5**
KZN	**Kozani**	**4.43**	**266**	ePN	**Pn**	**04 28 26.0**	**-0.7**
CFR	**Carcaliu**	**4.45**	**5**	⇓i P	**Pn**	**04 28 26.8**	**-0.3**
CFR	**Carcaliu**	**4.45**	**5**	⇓eP	**Pn**	**04 28 26.7**	**-0.4**
CFR	**Carcaliu**	**4.45**	**5**	⇓i P	**Pn**	**04 28 26.8**	**-0.3**
KONT	**Konya--Tatoy**	**4.66**	**125**	ePN	**Pn**	**04 28 30.3**	**+0.2**
KONT	**Konya--Tatoy**	**4.66**	**125**	Pn	**Pn**	**04 28 30.3**	**+0.3**
SKO	**Skopje**	**4.76**	**287**	ePn	**Pn**	**04 28 30.0**	**-1.5**
BRTR	**Keskin Array B**	**4.77**	**100**	Pn	**Pn**	**04 28 30.5**	**-1.1**
	0.6nm,0.3s,baz=272,slow=11,SNR=16						
BRTR				Pg	**Pg**	**04 28 47.6**	**-4.6**
	1.0nm,0.3s,baz=270,slow=16,SNR=12						
BRTR				Sn	**Sn**	**04 29 25.9**	**-2.3**
	1.1nm,0.3s,baz=322,slow=30,SNR=3.8						
BRTR				Lg		04 29 51.6	
	baz=265,slow=16,SNR=2.2						
BRTR	**Keskin Array B**	**4.77**	**100**	Pg	**Pg**	**04 28 47.7**	**-4.6**
MTUR	**Matau**	**4.83**	**339**	P	**Pn**	**04 28 34.0**	**+1.5**
MLR	**Muntele Rosu**	**4.89**	**347**	Pn	**Pn**	**04 28 34.9**	**+1.6**
	2.2nm,0.3s,baz=72,slow=5.1,SNR=38						
MLR				Lg		04 29 58.9	
	1.1nm,0.3s,baz=43,slow=20,SNR=3.1						
MLR	**Muntele Rosu**	**4.89**	**347**	⇑i P	**Pn**	**04 28 35.0**	**+1.8**
MLR	**Muntele Rosu**	**4.89**	**347**	⇑i P	**Pn**	**04 28 35.0**	**+1.7**
TOS	**Tosya**	**4.91**	**85**	ePN	**Pn**	**04 28 33.4**	**-0.2**
TOS	**Tosya**	**4.91**	**85**	Pn	**Pn**	**04 28 33.5**	**-0.2**
TOS	**Tosya**	**4.91**	**85**	Pn	**Pn**	**04 28 33.5**	**-0.1**
KAMT	**Kaman**	**4.92**	**104**	ePN	**Pn**	**04 28 32.9**	**-0.9**
KAMT	**Kaman**	**4.92**	**104**	Pn	**Pn**	**04 28 33.0**	**-0.8**
KAMT	**Kaman**	**4.92**	**104**	Pn	**Pn**	**04 28 33.0**	**-0.8**
VRI	**Vrincioaia**	**5.15**	**354**	⇓i P	**Pn**	**04 28 37.9**	**+0.9**
VRI	**Vrincioaia**	**5.15**	**354**	⇓i P	**Pn**	**04 28 37.9**	**+0.9**
IDI	**Anoyia**	**5.84**	**202**	Pn	**Pn**	**04 28 43.6**	**-3.1**
	0.8nm,0.3s,baz=34,slow=15,SNR=8.5						
IDI				Sn	**Sn**	**04 29 49.7**	**-5.4**
	1.1nm,0.3s,baz=136,slow=15,SNR=2.6						
AKASG	**Malin Array Be**	**10.03**	**6**	Pn	**P**	**04 29 45.4**	**+0.3**
	0.5nm,0.3s,baz=188,slow=12,SNR=3.8						
GERES	**GERESS Array B**	**12.73**	**314**	Pn	**P**	**04 30 23.6**	**+1.9**
	0.1nm,0.3s,baz=138,slow=12,SNR=2.7						

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*NEIC **15** 04:32:45.6±0.8, 18.64N×81.40W, h10^{km}, mb4.2/1, Error ellipse: s-maj=28.1km s-min=14.2km az=34.0*

*IDC **15** 04:32:46.4±1.7, 19.06N×81.48W, mb3.6/6, mb1 4.0/7, mb1mx3.7/20, ML4.7/1, MS3.6/1, Ms1 3.6/1, ms1mx2.0/21, Error ellipse: s-maj=44.6km s-min=32.2km az=176.0*

*JSN **15** 04:32:46.6±0.5, 18.86N×81.25W, h7^{km}±999^{km}, MD4.6*

ISC 15 04:32:45.8±0.8, 18.5N±0.2×81.33W±0.07, h33^{km}, n16, σ1§24/17, mb3.7/7, MS3.5/1, 3D, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MCJ	**Malvern**	**3.52**	**99**	⇓eP	**P**	**04 33 40.4**	**+0.9**
MCJ				eS	**S**	**04 34 21.2**	**+0.7**
STH	**Stony Hill**	**4.32**	**95**	⇓eP	**P**	**04 33 50.9**	**0.0**
STH				eS	**S**	**04 34 39.4**	**-1.5**
HOJ	**Hope**	**4.39**	**96**	⇓eP	**P**	**04 33 52.4**	**+0.6**
HOJ				eS	**S**	**04 34 41.0**	**-1.6**
TEIG	**Tepich**	**6.77**	**286**	Pn	**Pn**	**04 34 23.1**	**-2.5**
	16nm,0.3s,baz=349,slow=3.4,SNR=136						
TEIG				Sn	**Sn**	**04 35 33.4**	**-8.8**
	4.2nm,0.3s,baz=269,slow=23,SNR=6.1						
SDV	**Santo Domingo**	**14.14**	**131**	eP	**P**	**04 36 06.2**	**+0.3**
	12nm,0.5s						
TXAR	**Lajitas Array**	**23.03**	**302**	P	**P**	**04 37 50.1**	**+1.0**
	0.4nm,0.7s,mb3.0,baz=113,slow=9.1,SNR=5.4						
ANMO	**Albuquerque**	**27.65**	**311**	LR	LR	04 51 06.0	
	comp=Z,104nm,18.2s,MS3.5,slow=40						
PDAR	**Pinedale Array**	**33.97**	**321**	P	**P**	**04 39 26.6**	**-1.7**
	0.3nm,0.7s,mb3.4,baz=131,slow=8.3,SNR=3.4						
YKA	**Yellowknife Ar**	**49.60**	**340**	P	**P**	**04 41 34.7**	**-0.9**
	0.2nm,0.7s,mb3.3,baz=136,slow=8.0,SNR=3.1						
YKA	**Yellowknife Ar**	**49.60**	**340**	P	**P**	**04 41 34.7**	**-0.9**
INK	**Inuvik**	**59.36**	**340**	P	**P**	**04 42 47.7**	**+0.8**
	1.7nm,0.9s,mb4.1						
ILAR	**Eielson Array**	**63.02**	**334**	P	**P**	**04 43 12.1**	**+0.5**
	0.3nm,0.8s,mb3.5,baz=90,slow=4.5,SNR=4.1						
ARCES	**ARCESS Array B**	**78.52**	**20**	P	**P**	**04 44 46.3**	**+1.3**
	2.6nm,0.8s,mb4.2,baz=297,slow=2.7,SNR=5.6						
FINES	**FINESS Array B**	**81.91**	**28**	P	**P**	**04 45 06.2**	**+3.0**
	4.4nm,1.0s,mb4.3,baz=315,slow=5.4,SNR=3.6						
WRA	**Warramunga Arr**	**146.33**	**262**	PKPbc	PKPbc	04 52 29.1	+5.1
	0.5nm,0.6s,baz=84,slow=3.7,SNR=5.9						
ASAR	**Alice Springs**	**146.79**	**255**	PKPbc	PKPbc	04 52 30.2	+5.3
	0.5nm,0.7s,baz=101,slow=3.1,SNR=5.1						

JMA 15 05:04:55.3±0.3, 44.10N×141.64E, h9^{km}±3^{km}, M0.9, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSS	**Shosan**	**0.34**	**27**	P	Pg	05 05 02.4	+0.2
JSS				eS	Sg	05 05 08.0	+1.2
JYG	**Yagishiri**	**0.36**	**335**	eS	Sg	05 05 08.2	+0.6

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*NIED **15** 05:05:00, 44.10N×141.70E, h5^{km}, Mw3.7 Best double couple: $M_0 3.47\times10^{14}$ NP1: ϕ_s199°, δ57°, λ114°. NP2: ϕ_s339°, δ40°, λ57°.*

JMA 15 05:05:27.3±0.1, 44.08N×141.65E, M3.6, 5C-1D Broadband fault plane solution: P waves. NP1: ϕ_s358°, δ14°, λ64°. NP2: ϕ_s204°, δ77°, λ96°. Principal axes: T Plg57°, Azm122°; N Plg6°, Azm23°; P Plg32°, Azm289°; **Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHR	**Hokuryu**	**0.34**	**171**	⇑P	Pg	05 05 34.6	+0.5
JHR				eS	Sg	05 05 41.2	+2.5
JSS	**Shosan**	**0.35**	**24**	⇑P	Pg	05 05 35.0	+0.7
JSS				eS	Sg	05 05 41.1	+2.1
JYG	**Yagishiri**	**0.38**	**335**	⇓P	Pg	05 05 35.0	+0.1
JYG				eS	Sg	05 05 41.0	+1.0
ASAJ	**Asahikawa**	**0.68**	**87**	⇑P	Pg	05 05 40.3	-0.6

ASAJ				S	Sg	05 05 50.5	+0.5
JAB	**Ashibetsu**	**0.71**	**144**	⇑P	Pg	05 05 41.1	-0.4
JAB				S	Sg	05 05 52.5	+1.6
JKK2	**Kamakawa 2**	**0.82**	**104**	⇑P	Pg	05 05 42.7	-1.0

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*NEIC **15** 05:13:56.6±2.5, 5.23S×147.09E, h144^{km}±25^{km}, mb4.3/3 Error ellipse: s-maj=35.3km s-min=16.8km az=145.0*

*IDC **15** 05:13:57.9±2.2, 5.48S×147.20E, h154^{km}±21^{km}, mb3.7/3, mb1 4.0/4, mb1mx3.6/12, Error ellipse: s-maj=42.0km s-min=14.6km az=115.0*

ISC 15 05:13:54.3±2.4, 5.3S±0.1×147.2E±0.2, h133^{km}±23^{km}, n9, σ0$\overset{s}{.}$94/12, mb3.9/3, 1D, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**4.07**	**180**	P	**P**	**05 14 58.7**	**+2.7**
	1.9nm,0.3s,baz=108,slow=6.3,SNR=7.0						
PMG				S	**S**	**05 15 42.5**	**-0.9**
	5.1nm,0.3s,baz=345,slow=18,SNR=12						
KAKA	**Kakadu**	**16.32**	**242**	*e*P	**P**	**05 17 37.3**	**+0.1**
	7.3nm,0.7s						
WRAB	**Tennant Creek**	**19.16**	**219**	*e*P	**P**	**05 18 09.1**	**-0.7**
	9.5nm,0.6s						
WB2	**Warramunga Arr**	**19.16**	**219**	⇓*i*P	**P**	**05 18 09.3**	**-0.6**
WRA	**Warramunga Arr**	**19.17**	**220**	P	**P**	**05 18 09.5**	**-0.5**
	1.5nm,0.3s,baz=44,slow=11,SNR=40						
WRA				S	**S**	**05 21 35.3**	**+0.2**
	baz=38,slow=21,SNR=5.1						
ASAR	**Alice Springs**	**22.28**	**214**	P	**P**	**05 18 42.5**	**+1.2**
	3.7nm,0.6s,mb4.0,baz=47,slow=8.6,SNR=23						
ASAR				S	**S**	**05 22 36.4**	**+3.8**
	2.0nm,0.8s,baz=35,slow=23,SNR=17						
FITZ	**Fitzroy Crossi**	**24.58**	**237**	*e*P	**P**	**05 19 03.3**	**-0.2**
	8.0nm,0.5s,mb4.5						
FITZ	**Fitzroy Crossi**	**24.58**	**237**	P	**P**	**05 19 03.3**	**-0.2**
	8.6nm,0.4s,mb4.6,baz=48,slow=5.0,SNR=36						
ILAR	**Eielson Array**	**84.78**	**23**	P	**P**	**05 26 14.3**	**-0.3**
	0.3nm,0.6s,mb3.2,baz=248,slow=5.3,SNR=6.1						

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*NAO **15** 05:13:58.5±1.6, 66.66N×30.40E, ML2.0*

*BER **15** 05:14:01.0±2.7, 66.73N×30.54E, ML2.1, ML2.0(NAO), Suspected explosion*

HEL 15 05:14:01.2±0.2, 66.73N×30.50E, h11^{km}±1^{km}, ML1.9, ML2.1(BER), ML2.0(NAO), Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KU4	**Oulanka**	**0.52**	**225**	*i* P	Pg	05 14 10.7	-1.1
KU4				*i* S	Sg	05 14 17.4	-1.4
MSF	**Maaselka**	**1.01**	**216**	*e*P	Pb	05 14 19.2	-1.0
MSF				*e*S	Sb	05 14 31.5	-1.9
APA0	**Apatity Array**	**1.31**	**47**	Pg	Pg	05 14 24.8	-2.6
	baz=218,slow=18						
APA0				Lg		05 14 40.9	
	baz=229,slow=37						
APA0	**Apatity Array**	**1.31**	**47**	*e*PG	Pg	05 14 24.8	-2.6
APA0				*e*S		05 14 40.9	
SGF	**Sodankyl**	**1.71**	**296**	*e*P	Pn	05 14 31.3	+0.1
SGF				*e*SG	Sg	05 14 53.8	-4.4
OUL	**Oulu**	**2.51**	**231**	*e*P	Pn	05 14 41.9	-0.7
OUL				*e*S	Sn	05 15 14.9	+1.4
OUL				MSG		05 15 17.5	
	comp=Z,4.8nm,0.1s						
KJN	**Kajaani**	**2.90**	**205**	*e*P	Pn	05 14 48.0	-0.2
KJN				*e*S	Sn	05 15 22.0	-1.5
KJN				MSG		05 15 34.4	
	comp=Z,4.1nm,0.2s						
KEV	**Kevo**	**3.30**	**338**	*e*P	Pn	05 14 52.9	-1.0
KEV				*e*S	Sn	05 15 30.2	-3.4
KEV				*e*SB	Sb	05 15 39.6	-0.2
KEV				MSG		05 15 43.1	
	comp=Z,7.3nm,0.3s						
ARA0	**ARCESS Array S**	**3.38**	**329**	Pn	Pn	05 14 53.6	-1.3
	baz=144,slow=16						
ARA0				Sn	Sn	05 15 32.5	-2.9
	baz=152,slow=28						
ARA0				Lg		05 15 44.7	
	baz=143,slow=37						
ARA0	**ARCESS Array S**	**3.38**	**329**	*e*P	Pn	05 14 53.6	-1.3
ARA0				*e*S	Sn	05 15 32.5	-2.9
ARA0				*e*SG		05 15 44.7	
KTK1	**Kautokeino**	**3.57**	**313**	*e*P	Pn	05 14 56.9	-0.8
KTK1				*e*Sg	Sg	05 15 51.9	-8.4
KTK1				AML	AML	05 15 54.2	
	comp=Z,11nm,0.2s						
SUF	**Sumiainen**	**4.44**	**207**	*e*P	Pn	05 15 08.8	-1.2
SUF				*e*S	Sn	05 15 59.5	-2.8
SUF				*e*SB	Sb	05 16 13.9	+1.0
SUF				MSG		05 16 16.9	
	comp=Z,1.3nm,0.2s						
KAF	**Kangasniemi**	**4.98**	**203**	*e*S	Sn	05 16 12.4	-3.7
KAF				MSG		05 16 30.1	
	comp=Z,0.7nm,0.2s						
VAF	**Ylistaro**	**4.98**	**226**	*e*P	Pn	05 15 15.8	-2.0
KEF	**Keuruu**	**5.19**	**211**	*e*P	Pn	05 15 18.0	-2.7
KEF				*e*S	Sn	05 16 15.8	-5.4
KEF				MSG		05 16 18.6	
	comp=Z,0.8nm,0.2s						
FIA0	**FINESS Array S**	**5.65**	**202**	Pn	Pn	05 15 23.5	-3.7
	baz=23,slow=14						
FIA0				Sn	Sn	05 16 26.8	-6.1
	baz=32,slow=22						
FIA0				Lg		05 16 45.4	
	baz=22,slow=28						
FIA0	**FINESS Array S**	**5.65**	**202**	*e*SG	Sg	05 16 56.2	-13
VJF	**Virojoki**	**6.36**	**193**	*e*SG	Sg	05 17 13.8	-19

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*NEIC **15** 05:15:01.3, 39.97S×173.89E, h166^{km}, After WEL.*

WEL 15 05:15:02.6±0.3, 39.99S×173.93E, h152^{km}±3^{km}, ML3.8/8, 13C-5D, Error ellipse: s-maj=1.9km s-min=1.0km az=90.0, Off west coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NRZ	**Ngariki Road**	**0.65**	**0**	P	P	05 15 25.2	-0.2
NRZ	**Ngariki Road**	**0.65**	**0**	PN	P	05 15 25.2	-0.2
DFE	**Dawson Falls**	**0.67**	**11**	P	P	05 15 25.3	-0.2
DFE	**Dawson Falls**	**0.67**	**11**	PN	P	05 15 25.3	-0.2
NWEZ	**Newall Road**	**0.71**	**356**	P	P	05 15 25.7	0.0
NWEZ	**Newall Road**	**0.71**	**356**	PN	P	05 15 25.7	-0.1
NEZ	**North Egmont**	**0.73**	**10**	P	P	05 15 25.5	-0.3
NEZ	**North Egmont**	**0.73**	**10**	PN	P	05 15 25.3	-0.5
RAEZ	**Rainy Point**	**0.79**	**27**	P	P	05 15 25.9	-0.3
RAEZ	**Rainy Point**	**0.79**	**27**	PN	P	05 15 25.8	-0.4
PKE	**Pukeiti**	**0.79**	**3**	P	P	05 15 25.9	-0.3
PKE	**Pukeiti**	**0.79**	**3**	PN	P	05 15 25.9	-0.4
PKE				SN	S	05 15 44.3	-0.1
WAZ	**Wanganui**	**0.84**	**74**	P	P	05 15 27.2	+0.7
WAZ	**Wanganui**	**0.84**	**74**	⇑PN	P	05 15 27.2	+0.6
VRZ	**Vera Road**	**1.07**	**37**	P	P	05 15 26.3	-2.0
VRZ	**Vera Road**	**1.07**	**37**	⇑PN	P	05 15 27.7	-0.6
VRZ				SN	S	05 15 47.1	-1.1
KIW	**Kapiti Island**	**1.15**	**140**	P	P	05 15 29.3	+0.2
KIW				S	S	05 15 48.3	-1.2
KIW	**Kapiti Island**	**1.15**	**140**	⇑PN	P	05 15 29.3	+0.2
KIW				SN	S	05 15 48.2	-1.3
NNZ	**Nelson**	**1.30**	**199**	⇓PN	P	05 15 30.1	-0.5
NNZ				SN	S	05 15 50.3	-1.8
QRZ	**Quartz Range**	**1.36**	**231**	P	P	05 15 29.9	-1.3
QRZ	**Quartz Range**	**1.36**	**231**	⇓PN	P	05 15 29.9	-1.3
QRZ				SN	S	05 15 49.8	-3.4
MRW	**Makara Radio**	**1.37**	**155**	P	P	05 15 31.4	+0.1
MRW	**Makara Radio**	**1.37**	**155**	PN	P	05 15 31.4	+0.1
MRW				SN	S	05 15 51.7	-1.7
CAW	**Cannon Point**	**1.42**	**143**	P	P	05 15 31.9	+0.2
CAW	**Cannon Point**	**1.42**	**143**	⇑PN	P	05 15 31.9	+0.1
MRZ	**Mangatainoka R**	**1.43**	**119**	P	P	05 15 31.9	0.0
MRZ	**Mangatainoka R**	**1.43**	**119**	⇑PN	P	05 15 31.9	0.0
TUWZ	**Tuamarina**	**1.44**	**180**	PN	P	05 15 31.5	-0.5
TUWZ				SN	S	05 15 52.2	-2.5
WEL	**Wellington**	**1.44**	**154**	PN	P	05 15 31.9	-0.1
WEL				SN	S	05 15 52.8	-2.0
WNVZ	**Wahianoa**	**1.45**	**63**	P	P	05 15 31.7	-0.4
WNVZ	**Wahianoa**	**1.45**	**63**	PN	P	05 15 31.7	-0.4
WNVZ				SN	S	05 15 53.0	-1.7
DRZ	**Dome Shelter**	**1.45**	**61**	P	P	05 15 32.2	+0.1
DRZ	**Dome Shelter**	**1.45**	**61**	PN	P	05 15 32.1	0.0
FWVZ	**Far West T-bar**	**1.45**	**60**	P	P	05 15 31.7	-0.4
FWVZ	**Far West T-bar**	**1.45**	**60**	⇓PN	P	05 15 31.6	-0.5
FWVZ				SN	S	05 15 52.9	-1.9
WPVZ	**Whakapapa**	**1.47**	**58**	P	P	05 15 31.7	-0.6
WPVZ	**Whakapapa**	**1.47**	**58**	PN	P	05 15 31.6	-0.7
CNZ	**Chateau**	**1.48**	**58**	P	P	05 15 31.9	-0.5
CNZ	**Chateau**	**1.48**	**58**	PN	P	05 15 31.7	-0.7
TWVZ	**Taurewa**	**1.48**	**52**	P	P	05 15 31.5	-0.9
TWVZ	**Taurewa**	**1.48**	**52**	PN	P	05 15 31.5	-0.9
TUVZ	**Tukino**	**1.51**	**62**	P	P	05 15 32.5	-0.3
TUVZ	**Tukino**	**1.51**	**62**	PN	P	05 15 32.5	-0.3
TUVZ				SN	S	05 15 54.6	-1.3
MOVZ	**Moawhango**	**1.52**	**68**	P	P	05 15 32.1	-0.7
MOVZ	**Moawhango**	**1.52**	**68**	⇑PN	P	05 15 32.1	-0.7
MOVZ				SN	S	05 15 53.3	-2.8
NGZ	**Ngauruhoe**	**1.52**	**58**	P	P	05 15 32.3	-0.6
NGZ	**Ngauruhoe**	**1.52**	**58**	PN	P	05 15 32.2	-0.7
NGZ				SN	S	05 15 54.2	-2.0
WTVZ	**West Tongariro**	**1.55**	**56**	P	P	05 15 32.5	-0.7
WTVZ	**West Tongariro**	**1.55**	**56**	PN	P	05 15 32.4	-0.7
WTVZ				SN	S	05 15 54.5	-2.2
TSZ	**Takapari Road**	**1.56**	**93**	P	P	05 15 33.0	-0.3
TSZ	**Takapari Road**	**1.56**	**93**	⇑PN	P	05 15 33.0	-0.3
OTVZ	**Oturere**	**1.57**	**59**	⇑PN	P	05 15 33.0	-0.4
MGZ	**Maungaku**	**1.59**	**52**	P	P	05 15 32.8	-0.7
MGZ	**Maungaku**	**1.59**	**52**	⇑PN	P	05 15 32.8	-0.7
BHW	**Baring Head**	**1.59**	**154**	SN	S	05 15 55.2	-2.2
HIZ	**Hauiti**	**1.64**	**26**	P	P	05 15 32.8	-1.3
HIZ	**Hauiti**	**1.64**	**26**	PN	P	05 15 32.7	-1.4
HIZ				SN	S	05 15 56.7	-1.7
MTW	**Mount Morrison**	**1.67**	**135**	P	P	05 15 34.3	-0.2
MTW	**Mount Morrison**	**1.67**	**135**	⇑PN	P	05 15 34.3	-0.2
MTW				SN	S	05 15 57.2	-1.9
KATZ	**Kakaramea**	**1.70**	**54**	P	P	05 15 34.2	-0.5
KATZ	**Kakaramea**	**1.70**	**54**	PN	P	05 15 34.1	-0.6
KATZ				SN	S	05 15 57.5	-2.0
BSWZ	**Blackbirch Sta**	**1.73**	**181**	P	P	05 15 34.8	-0.2
BSWZ	**Blackbirch Sta**	**1.73**	**181**	PN	P	05 15 34.6	-0.4
MSWZ	**Moikau Station**	**1.74**	**145**	P	P	05 15 35.0	-0.2
MSWZ	**Moikau Station**	**1.74**	**145**	PN	P	05 15 34.9	-0.3
MSWZ				SN	S	05 15 58.5	-1.8
PAWZ	**Paruwai Farm**	**1.80**	**141**	⇑PN	P	05 15 35.6	-0.2
PAWZ				SN	S	05 15 59.6	-1.8
RATZ	**Rangitukua**	**1.81**	**52**	P	P	05 15 35.6	-0.4
RATZ	**Rangitukua**	**1.81**	**52**	⇑PN	P	05 15 35.6	-0.4
RATZ				SN	S	05 16 00.7	-1.0
BFZ	**Birch Farm**	**1.90**	**112**	P	P	05 15 36.6	-0.4
BFZ	**Birch Farm**	**1.90**	**112**	⇑PN	P	05 15 36.6	-0.4
BFZ				SN	S	05 16 01.2	-2.3
THZ	**Tophouse**	**1.94**	**203**	P	P	05 15 36.3	-1.1
THZ	**Tophouse**	**1.94**	**203**	⇓PN	P	05 15 36.2	-1.2
BKZ	**Black Stump Fm**	**2.14**	**68**	P	P	05 15 38.5	-1.4
BKZ	**Black Stump Fm**	**2.14**	**68**	PN	P	05 15 38.4	-1.5
PWZ	**Pawanui**	**2.25**	**92**	P	P	05 15 40.5	-0.8
PWZ	**Pawanui**	**2.25**	**92**	PN	P	05 15 40.5	-0.8
DSZ	**Denniston Nort**	**2.38**	**222**	P	P	05 15 41.0	-1.9
DSZ	**Denniston Nort**	**2.38**	**222**	PN	P	05 15 40.9	-2.0
KHZ	**Kahutara**	**2.44**	**187**	⇓PN	P	05 15 42.4	-1.3
KHZ				SN	S	05 16 11.2	-3.9
KNZ	**Kokohu**	**3.05**	**73**	*e*P	P	05 15 49.1	-2.3
KNZ	**Kokohu**	**3.05**	**73**	PN	P	05 15 48.8	-2.6
LTZ	**Lake Taylor**	**3.06**	**204**	*e*P	P	05 15 48.9	-2.6
LTZ	**Lake Taylor**	**3.06**	**204**	PN	P	05 15 48.6	-2.9
MWZ	**Matawai**	**3.25**	**61**	*e*P	P	05 15 50.0	-3.9
MWZ	**Matawai**	**3.25**	**61**	*e*PN	P	05 15 50.6	-3.3
MQZ	**McQueen's Vall**	**3.84**	**194**	*e*P	P	05 15 57.5	-4.1
MQZ	**McQueen's Vall**	**3.84**	**194**	PN	P	05 15 57.4	-4.2
WVZ	**Waitaha Valley**	**3.91**	**217**	*e*P	P	05 15 58.6	-3.9
WVZ	**Waitaha Valley**	**3.91**	**217**	PN	P	05 15 58.3	-4.3
LBZ	**Lake Benmore**	**5.20**	**211**	*e*PN	P	05 16 14.4	-5.1
ODZ	**Otahua Downs**	**5.61**	**205**	*e*PN	P	05 16 20.2	-4.7
JCZ	**Jackson Bay**	**5.61**	**222**	*e*P	P	05 16 19.7	-5.3
JCZ	**Jackson Bay**	**5.61**	**222**	PN	P	05 16 19.5	-5.5

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*IDC **15** 05:25:55.4±1.1, 15.30N×105.01W, mb4.2/7, mb1 4.5/9, mb1mx4.2/19, ML3.6/1, MS4.1/12, Ms1 4.1/12, ms1mx3.7/20, Error ellipse: s-maj=45.4km s-min=16.8km az=57.0*

*MEX **15** 05:26:03.2±0.4, 15.58N×104.16W, h20^{km}, MD4.0*

*NEIC **15** 05:26:06.4±2.0, 15.43N×104.54W, h82^{km}±16^{km}, mb4.5/24, Error ellipse: s-maj=15.6km s-min=9.8km az=206.0*

*BJI **15** 05:26:06.4, 15.40N×104.50W, h81^{km}*

ISC 15 05:25:56.4±4.0, 15.2N±0.1×104.37W±0.08, h19^{km}±25^{km}, n85, σ1$\overset{s}{.}$35/76, mb4.5/22, MS4.2/10, Off coast of Michoacan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZIIG	**Zihuatanejo**	**3.67**	**49**	*i* P	**Pn**	**05 26 51.0**	**-2.6**
ZIIG				*i* S	**Sn**	**05 27 29.4**	**-7.5**
COLM	**Colima**	**4.00**	**9**	*i* P	**Pn**	**05 26 55.7**	**-2.6**
CJM	**Chamela**	**4.32**	**352**	*e*P	**Pn**	**05 27 01.5**	**-1.3**
CAIG	**El Cayaco**	**4.35**	**65**	*i* P	**Pn**	**05 27 01.9**	**-1.3**
SFJM	**Santa Fe**	**5.40**	**13**	*i* P	**Pn**	**05 27 17.0**	**-1.1**
PLIG	**Platanillo**	**5.64**	**55**	*i* P	**Pn**	**05 27 20.2**	**-1.2**
PPM	**Popocatepetl**	**6.70**	**54**	*i* P	**Pn**	**05 27 35.0**	**-1.4**
PPM				*i* P		05 27 35.3	
LPIG	**La Paz**	**10.46**	**329**	*e*P	**P**	**05 28 29.3**	**+0.6**
LTX	**Lajitas**	**14.07**	**3**	*e*P	**P**	**05 29 18.3**	**+1.1**
	62nm,1.5s						
TXAR	**Lajitas Array**	**14.07**	**3**	Pn	**P**	**05 29 17.2**	**0.0**
	0.1nm,0.3s,baz=183,slow=8.6,SNR=51						
TXAR				LR	LR	05 34 52.3	
	comp=Z,297nm,18.9s,baz=265,slow=38						
TXAR	**Lajitas Array**	**14.07**	**3**	Pn	**P**	**05 29 17.2**	**0.0**
TXAR				LR	LR	05 34 52.3	
JCT	**Junction City**	**15.77**	**15**	*e*P	**P**	**05 29 41.0**	**+1.7**
	60nm,1.3s						
MNTX	**Cornudas Mount**	**16.44**	**357**	*e*P	**P**	**05 29 47.7**	**-0.1**
	17nm,1.1s						
HKT	**Hockley**	**16.64**	**27**	*e*P	**P**	**05 29 51.9**	**+1.4**
	70nm,1.7s						
GDL2	**Guadalupe Moun**	**16.92**	**0**	*e*P	**P**	**05 29 55.0**	**+1.2**
CLNB	**Carlsbad**	**16.99**	**1**	*e*P	**P**	**05 29 57.1**	**+2.3**
TUC	**Tucson**	**18.00**	**342**	*e*P	**P**	**05 30 08.9**	**+1.5**
	12nm,1.2s						
NATX	**Nacogdoches**	**18.71**	**27**	P	**P**	**05 30 17.3**	**+1.1**
	19nm,0.6s						
BNM	**Barren Site**	**18.97**	**354**	*e*P	**P**	**05 30 21.0**	**+1.7**
LPM	**Los Pinos Moun**	**19.13**	**354**	*e*P	**P**	**05 30 22.3**	**+1.1**
JTS	**JuntasAbangare**	**19.55**	**102**	*e*P	**P**	**05 30 33.9**	**+7.8**
	67nm,1.5s						
AMTX	**Amarillo**	**19.74**	**7**	*e*P	**P**	**05 30 26.9**	**-1.2**
	24nm,0.9s						
ANMO	**Albuquerque**	**19.75**	**355**	P	**P**	**05 30 26.9**	**-1.2**
	baz=176,slow=11,SNR=11						
ANMO				LR	LR	05 39 03.2	
	comp=Z,146nm,18.6s,slow=40						
ANMO	**Albuquerque**	**19.75**	**355**	*e*P	**P**	**05 30 28.6**	**+0.5**
	9.3nm,0.9s						
WMOK	**Wichita Mounta**	**20.09**	**14**	*e*P	**P**	**05 30 30.5**	**-1.3**
	14nm,1.0s						
BAR	**Barrett**	**20.68**	**329**	*e*P	**P**	**05 30 37.4**	**-0.6**
PFO	**Pinyon Flat Ob**	**21.34**	**331**	*e*P	**P**	**05 30 43.5**	**-1.2**
	63nm,1.4s,mb4.8						
LDFC	**Landfair**	**22.01**	**336**	*e*P	**P**	**05 30 53.0**	**+1.5**
UALR	**University of**	**22.29**	**27**	*e*P	**P**	**05 30 55.2**	**+1.0**
	37nm,1.3s,mb4.7						
NEN	**Nelson**	**22.41**	**337**	*e*P	**P**	**05 30 56.0**	**+0.5**
SDCO	**Great Sand Dun**	**22.47**	**358**	*e*P	**P**	**05 30 56.5**	**+0.5**
	19nm,1.1s,mb4.4						
MWC	**Mount Wilson**	**22.61**	**329**	*e*P	**P**	**05 30 57.7**	**+0.3**
PV01	**Paradox Valley**	**23.14**	**352**	*e*P	**P**	**05 31 04.2**	**+1.7**
RW3	**Ridgway**	**23.14**	**353**	*e*P	**P**	**05 31 04.0**	**+1.5**
PV10	**Paradox Valley**	**23.44**	**351**	*e*P	**P**	**05 31 04.5**	**-1.0**
OXF	**Oxford**	**23.48**	**32**	*e*P	**P**	**05 31 08.3**	**+2.5**
	112nm,1.4s,mb5.1						
LRAL	**Lakeview Retre**	**23.74**	**39**	*e*P	**P**	**05 31 10.3**	**+1.9**
	14nm,0.8s,mb4.4						
ARUT	**Antelope Range**	**23.88**	**342**	*e*P	**P**	**05 31 11.8**	**+2.0**
DAC	**Darwin (Calif)**	**24.08**	**333**	*e*P	**P**	**05 31 12.6**	**+0.9**
TPNV	**Topopah Spring**	**24.09**	**336**	*e*P	**P**	**05 31 12.6**	**+0.7**
	62nm,1.7s,mb4.8						
MSU	**Marysvale**	**24.21**	**345**	*e*P	**P**	**05 31 14.3**	**+1.2**
MVU	**Marysvale**	**24.21**	**345**	*e*P	**P**	**05 31 13.6**	**+0.6**
	10nm,1.0s,mb4.2						
SRU	**San Rafael**	**24.42**	**348**	*e*P	**P**	**05 31 14.4**	**-0.6**
ISCO	**Idaho Springs**	**24.52**	**358**	*e*P	**P**	**05 31 16.9**	**+0.9**
	20nm,1.4s,mb4.5						
PARMO	**Parma**	**25.02**	**29**	*e*P	**P**	**05 31 23.1**	**+2.2**
TRCR	**Troy Canyon**	**25.09**	**339**	*e*P	**P**	**05 31 22.4**	**+1.0**
MTUM	**Tungsten Hills**	**25.40**	**333**	*e*P	**P**	**05 31 23.6**	**-0.8**
OMM	**Old Mammoth Mi**	**25.81**	**333**	*e*P	**P**	**05 31 27.6**	**-0.6**
DAU	**Daniels Canyon**	**25.82**	**348**	*e*P	**P**	**05 31 29.3**	**+1.1**
NVAR	**Mina Array Bea**	**26.20**	**335**	P	**P**	**05 31 29.8**	**-1.9**
	2.2nm,0.8s,mb3.7,baz=164,slow=8.9,SNR=16						
GOGA	**Godfrey**	**26.20**	**43**	*e*P	**P**	**05 31 26.5**	**-5.4**
	2.8nm,1.4s,mb3.6						
BGU	**Big Grassy Mou**	**26.71**	**345**	*e*P	**P**	**05 31 35.2**	**-1.3**
BMN	**Battle Mountai**	**27.52**	**338**	*e*P	**P**	**05 31 44.2**	**+0.4**
PDAR	**Pinedale Array**	**27.82**	**352**	P	**P**	**05 31 44.9**	**-1.7**
	2.2nm,0.8s,mb3.8,baz=150,slow=5.9,SNR=17						
OHCM	**Honcut**	**28.34**	**331**	*e*P	**P**	**05 31 50.7**	**-0.6**
SNOW	**Snow King Moun**	**28.68**	**350**	*e*P	**P**	**05 31 53.3**	**-1.0**
TPAW	**Teton Pass**	**28.74**	**350**	*e*P	**P**	**05 31 54.8**	**-0.1**
LOHW	**Long Hollow**	**28.81**	**351**	*e*P	**P**	**05 31 55.0**	**-0.4**
MOOW	**Moose Ponds**	**28.96**	**350**	*e*P	**P**	**05 31 56.7**	**-0.1**
ROSC	**El Rosal**	**31.27**	**106**	P	**P**	**05 32 23.6**	**+5.9**
	4.5nm,0.9s,mb4.3,baz=78,slow=6.9,SNR=6.6						
BMO	**Blue Mountains**	**31.52**	**342**	*e*P	**P**	**05 32 18.7**	**-0.7**
	15nm,1.4s,mb4.6						
HRY	**Holter Researc**	**32.02**	**350**	*e*P	**P**	**05 32 24.4**	**+0.4**
MSO	**Missoula**	**32.52**	**348**	*e*P	**P**	**05 32 26.9**	**-1.4**
	4.6nm,0.9s,mb4.4						
DGMT	**Dagmar**	**33.17**	**0**	*e*P	**P**	**05 32 32.6**	**-1.3**
	18nm,0.8s,mb5.0						
ULM	**Lac du Bonnet**	**35.62**	**9**	LR	LR	05 47 24.2	
	comp=Z,276nm,18.1s,MS4.1,baz=225,slow=36						
FFC	**Flin Flon**	**39.48**	**2**	*e*P	**P**	**05 33 25.1**	**-2.1**
	13nm,1.2s,mb4.5						
SAML	**Samuel**	**47.35**	**118**	*e*P	**P**	**05 34 31.8**	**+0.3**
	6.2nm,1.2s,mb4.4						
LPAZ	**La Paz**	**47.53**	**130**	P	**P**	**05 34 36.1**	**+3.2**
	3.6nm,0.9s,mb4.4,baz=320,slow=8.5,SNR=9.9						
LPAZ				LR	LR	05 52 03.6	
	comp=Z,447nm,21.5s,MS4.4,baz=304,slow=33						
YKA	**Yellowknife Ar**	**47.78**	**354**	P	**P**	**05 34 31.4**	**-2.8**
	3.3nm,0.7s,mb4.5,baz=168,slow=7.3,SNR=48						
YKA				PcP	PcP	05 36 02.9	-0.6
	0.7nm,1.0s,baz=180,slow=3.1,SNR=2.9						
YKA				LR	LR	05 53 35.5	
	comp=Z,263nm,19.0s,MS4.2,baz=125,slow=35						
YKA	**Yellowknife Ar**	**47.78**	**354**	P	**P**	**05 34 31.4**	**-2.8**
YKA				PcP	PcP	05 36 02.9	-0.6
YKA				LR	LR	05 53 35.5	
YKW3	**Yellowknife Ar**	**47.85**	**354**	*e*P	**P**	**05 34 33.7**	**-1.0**
SCHQ	**Schefferville**	**49.04**	**28**	LR	LR	05 58 27.2	
	comp=Z,68nm,21.6s,MS3.6,baz=233,slow=40						
LVC	**Limon Verde**	**51.17**	**137**	LR	LR	05 52 03.5	
	comp=Z,164nm,22.0s,MS4.0,baz=342,slow=30						
DAWY	**Dawson**	**54.42**	**342**	*e*P	**P**	**05 35 22.6**	**-1.8**
SML	**Sawmill**	**55.98**	**337**	*e*P	**P**	**05 35 35.1**	**-0.7**
INK	**Inuvik**	**56.26**	**347**	*e*P	**P**	**05 35 35.1**	**-2.6**
	17nm,1.0s,mb5.0						
ILAR	**Eielson Array**	**57.28**	**340**	P	**P**	**05 35 42.3**	**-2.7**
	3.9nm,0.8s,mb4.5,baz=151,slow=5.1,SNR=40						
ILAR				LR	LR	06 01 28.9	
	comp=Z,112nm,18.4s,MS4.0,baz=167,slow=37						
BDFB	**Brasilia**	**63.55**	**116**	P	**P**	**05 36 34.0**	**+5.5**
	1.8nm,0.7s,mb4.2,baz=8.9,slow=2.9,SNR=3.8						
BDFB				LR	LR	06 03 25.1	
	comp=Z,211nm,18.1s,MS4.4,baz=302,slow=35						
ARCES	**ARCESS Array B**	**88.49**	**16**	LR	LR	06 21 17.1	
	comp=Z,306nm,19.4s,MS4.7,baz=349,slow=38						
NOA	**NORSAR Array B**	**88.58**	**26**	LR	LR	06 22 23.3	
	comp=Z,123nm,19.4s,MS4.3,baz=355,slow=38						
DBIC	**Dimbokro**	**97.38**	**81**	LR	LR	06 21 32.0	
	comp=Z,76nm,18.2s,MS4.2,baz=329,slow=34						
SSE	**Sheshan**	**116.48**	**317**	*e*PKP	PKPdf	05 44 42.3	-1.4
NJ2	**Nanjing**	**117.37**	**319**	*e*PKP	PKPdf	05 44 42.6	-2.7
WRA	**Warramunga Arr**	**124.06**	**256**	PKP	PKPdf	05 44 55.8	-2.8
	1.3nm,1.0s,baz=87,slow=3.0,SNR=4.5						
ASAR	**Alice Springs**	**124.72**	**252**	PKP	PKPdf	05 44 56.3	-3.6
	2.2nm,1.3s,baz=104,slow=3.7,SNR=3.1						

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*NEIC **15** 05:51:22.1, 48.02N×7.31E, h6^{km}, ML2.8(LDG), ML2.4(VIE), ML2.3(STR), ML2.2(SZGRF), After LDG.*

*LDG **15** 05:51:22.1±0.0, 48.02N×7.31E, h6^{km}, Md3.2/3, Ml2.8/20, Error ellipse: s-maj=1.0km s-min=0.8km az=144.0*

*LEDBW **15** 05:51:22.3±0.1, 48.02N×7.34E, h5^{km}±4^{km}, ML2.3, Error ellipse: s-maj=2.0km s-min=2.0km az=20.0*

*BGR **15** 05:51:22.3±0.2, 48.02N×7.34E, h10^{km}, ML2.2/3, Error ellipse: s-maj=2.2km s-min=1.1km az=134.0*

*CSEM **15** 05:51:22.0±0.1, 48.01N×7.33E, h10^{km}, ML2.7/15, Error ellipse: s-maj=1.1km s-min=1.0km az=147.0*

*ZUR **15** 05:51:22.6, 47.91N×7.40E, h1^{km}, ML2.1/9*

STR 15 05:51:22.1±0.1, 48.03N×7.30E, h5^{km}±1^{km}, Ml2.3, 8C-10D, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ECH	**Echery**	**0.21**	**333**	⇓*i*Pg	Pg	05 51 26.8	+0.4
ECH				*i* Sg	Sg	05 51 30.0	+0.8
ECH	**Echery**	**0.21**	**333**	Pg	Pg	05 51 26.6	+0.2
ECH				Sg	Sg	05 51 29.8	+0.6
MOF	**Molkenrain**	**0.21**	**212**	⇑*i*Pg	Pg	05 51 26.6	+0.2
MOF				*i* Sg	Sg	05 51 29.9	+0.6
MOF	**Molkenrain**	**0.21**	**212**	Pg	Pg	05 51 26.5	+0.1
MOF				Sg	Sg	05 51 29.6	+0.3
LIBD	**Limburg**	**0.24**	**59**	⇑*i*Pg	Pg	05 51 27.2	+0.3
LIBD				*e*Sg	Sg	05 51 30.0	-0.1
	SNR=19						
LIBD	**Limburg**	**0.24**	**59**	⇑*i*P	Pg	05 51 27.2	+0.3
LIBD				*e*S	Sg	05 51 30.5	+0.4
LIBD	**Limburg**	**0.24**	**59**	Sg	Sg	05 51 30.0	-0.1
	SNR=19						
LIBD	**Limburg**	**0.24**	**59**	Pg	Pg	05 51 27.0	+0.1
HINF	**Hinteralfeld**	**0.37**	**235**	*e*Pg	Pg	05 51 29.3	-0.2
HINF				*e*Sg	Sg	05 51 33.8	-0.7
	96nm,0.3s						
CDF	**Champ du Feu**	**0.38**	**358**	*e*Pg	Pg	05 51 29.9	+0.1
CDF				*e*Sg	Sg	05 51 35.2	+0.3
	38nm,0.2s						
WLS	**Welschbruch**	**0.39**	**5**	⇓*i*Pg	Pg	05 51 30.1	+0.2
WLS				*e*Sg	Sg	05 51 35.2	+0.2
	SNR=1.4						
WLS	**Welschbruch**	**0.39**	**5**	Pg	Pg	05 51 29.9	+0.1
WLS	**Welschbruch**	**0.39**	**5**	Sg	Sg	05 51 35.2	+0.2
	SNR=1.4						
KIZ	**Kirchzarten**	**0.42**	**100**	⇑*i*Pg	Pg	05 51 29.8	-0.7
KIZ				*i* Sg	Sg	05 51 35.2	-1.0
KIZ	**Kirchzarten**	**0.42**	**100**	Sg	Sg	05 51 35.2	-1.0
FELD	**Feldberg**	**0.50**	**108**	Pg	Pg	05 51 31.3	-0.8
FELD	**Feldberg**	**0.50**	**108**	Pg	Pg	05 51 31.2	-0.9
BBS	**Basel-Blauen**	**0.58**	**166**	⇓*e*Pg	Pg	05 51 33.3	-0.5
BBS	**Basel-Blauen**	**0.58**	**166**	Pg	Pg	05 51 33.4	-0.4
BOURR	**Bourrignon**	**0.64**	**184**	⇓*i*Pg	Pg	05 51 34.5	-0.4
	8.3nm,0.3s						
HAU	**Haudompre**	**0.64**	**268**	*e*Pg	Pg	05 51 34.7	-0.2
HAU				*e*P		05 51 35.7	
HAU				*e*Pn	Pn	05 51 36.1	-1.4
HAU				*e*Sg	Sg	05 51 43.0	-0.4
	60nm,0.2s						
HAU				*e*Sn	Sn	05 51 46.5	-1.6
HAU	**Haudompre**	**0.64**	**268**	*e*Pg	Pg	05 51 34.7	-0.2
HAU				*e*Pn	Pn	05 51 36.1	-1.4
HAU				*e*Sg	Sg	05 51 43.0	-0.4
HAU				*e*Sn	Sn	05 51 46.5	-1.6
HAU	**Haudompre**	**0.64**	**268**	*e*P	Pg	05 51 35.7	+0.8
HAU	**Haudompre**	**0.64**	**268**	*e*Pn	Pn	05 51 36.1	-1.4
BALST	**Balsthal**	**0.74**	**159**	⇓*i*P*P		05 51 35.9	
BALST	**Balsthal**	**0.74**	**159**	⇓*i*P	Pg	05 51 36.2	-0.8
SULZ	**Sulz-Cheisache**	**0.74**	**132**	*e*S*S		05 51 36.2	
SULZ				⇓*i*P*P		05 51 45.8	
SULZ	**Sulz-Cheisache**	**0.74**	**132**	⇓*i*P	Pg	05 51 35.9	-1.1
LOMF	**Lomont**	**0.75**	**205**	Pg	Pg	05 51 36.8	-0.3
LOMF				PmP		05 51 37.9	
LOMF				Sg	Sg	05 51 46.9	-0.3
LOMF				SmS		05 51 49.1	
LOMF	**Lomont**	**0.75**	**205**	P	Pg	05 51 36.8	-0.3
LOMF				P		05 51 37.9	
LOMF				S	Sg	05 51 49.1	+1.9
LOMF	**Lomont**	**0.75**	**205**	Pg	Pg	05 51 36.6	-0.5
LOMF				Sg	Sg	05 51 46.3	-0.8
BFO	**Black Forest**	**0.75**	**66**	Pg	Pg	05 51 36.1	-1.0
BFO				PmP		05 51 37.2	
BFO				Sg	Sg	05 51 45.7	-1.5
BFO	**Black Forest**	**0.75**	**66**	*e*Pg	Pg	05 51 36.4	-0.7
BFO				*e*Sg	Sg	05 51 45.9	-1.3
SLE	**Schleitheim**	**0.84**	**108**	⇑*i*P*P		05 51 37.8	
SLE				*e*S*S		05 51 48.6	
THEF	**They Montfort**	**0.90**	**283**	⇓*e*Pg	Pg	05 51 39.7	-0.5

THEF				PmP		05 51 40.6	
THEF				eSg	Sg	05 51 52.2	0.0
	SNR=4.2						
THEF	**They Montfort**	0.90	283	Pg	Pg	05 51 39.8	-0.3
THEF				Sg	Sg	05 51 51.7	-0.5
SPAK	**Spaichingen**	1.00	85	Pg	Pg	05 51 41.3	-0.8
TRULL	**Truellikon**	1.01	112	eP*P		05 51 41.2	
LANF	**Langenberg**	1.01	19	Pg	Pg	05 51 41.8	-0.5
LANF				eSg	Sg	05 51 54.9	-0.8
	SNR=1.7						
LANF	**Langenberg**	1.01	19	Pg	Pg	05 51 41.2	-1.1
ZUR	**Zurich**	1.09	127	⇑iP*P		05 51 42.9	
STEIN	**Stein am Rhein**	1.12	108	ePn	Pn	05 51 43.4	-0.9
SISB	**Singen-Sch Ber**	1.17	106	⇑ePg	Pg	05 51 44.6	-1.0
SISB				Sg	Sg	05 51 60.0	-1.2
LBG	**Lerchenberg**	1.18	57	Pg	Pg	05 51 43.5	-2.2
LBG				Sg	Sg	05 52 00.1	-1.5
GUT	**Gutenstein**	1.22	87	⇑ePg	Pg	05 51 44.9	-1.5
GUT				PmP		05 51 46.4	
GUT				Sg	Sg	05 52 01.1	-1.6
GUT	**Gutenstein**	1.22	87	⇑eP	Pb	05 51 44.9	-0.3
GUT				S	Sb	05 52 01.1	-0.1
RFYF	**Reffroy**	1.36	297	ePn	Pn	05 51 46.3	-1.5
	baz=118						
RFYF				ePg	Pg	05 51 47.7	-1.5
	baz=117						
RFYF				eSn	Sn	05 52 03.7	-2.6
	baz=112						
RFYF				eSg	Sg	05 52 05.7	-1.6
	69nm,0.2s,baz=118						
KTD	**Kalmit**	1.39	22	ePg	Pg	05 51 48.8	-1.1
	SNR=4.1						
KTD				eSg	Sg	05 52 06.8	-1.6
	SNR=2.7						
BUCH	**Bad Urach**	1.44	72	Pg	Pg	05 51 48.2	-2.5
BUCH				Sg	Sg	05 52 07.9	-2.0
STU	**Stuttgart**	1.47	59	ePn	Pn	05 51 48.1	-1.2
	SNR=1.4						
STU				eSg	Sg	05 52 08.2	-2.7
	SNR=2.3						
STU	**Stuttgart**	1.47	59	ePn	Pn	05 51 48.1	-1.2
STU				eSg	Sg	05 52 08.2	-2.7
SFTF	**Sexfontaines**	1.53	277	ePn	Pn	05 51 48.7	-1.5
SFTF				ePg	Pg	05 51 50.7	-1.9
	baz=102						
SFTF				eSn	Sn	05 52 07.7	-2.9
	baz=103						
SFTF				eSg	Sg	05 52 10.6	-2.3
	14nm,0.2s,baz=104						
MEZF	**Maizieres J'vi**	1.57	288	ePn	Pn	05 51 48.5	-2.4
MEZF				ePg	Pg	05 51 51.5	-2.0
	baz=108						
MEZF				eSn	Sn	05 52 08.7	-3.1
MEZF				eSg	Sg	05 52 12.6	-1.9
	18nm,0.2s						
CABF	**La Chapelle**	1.64	211	ePn	Pn	05 51 49.8	-2.0
CABF				ePg	Pg	05 51 51.9	-3.0
CABF				eSn	Sn	05 52 09.6	-3.9
CABF				eSg	Sg	05 52 14.1	-2.7
	25nm,0.3s						
RUP	**Ruppelstein**	1.68	355	Pg	Pg	05 51 54.1	-1.6
RUP				Sg	Sg	05 52 16.6	-1.5
RUP	**Ruppelstein**	1.68	355	Pg	Pg	05 51 54.0	-1.7
RUP				Sg	Sg	05 52 16.6	-1.5
SWS	**Schriesheim**	1.73	32	Sg	Sg	05 52 18.5	-1.1
WLF	**Walferdange**	1.80	336	ePg	Pg	05 51 56.4	-1.7
WLF				eSg	Sg	05 52 19.6	-2.6
	SNR=4.3						
ABH	**Alteburg**	1.86	5	Pg	Pg	05 51 57.2	-2.1
ABH				Sg	Sg	05 52 21.1	-2.9
ABH	**Alteburg**	1.86	5	Pg	Pg	05 51 57.0	-2.3
TOD	**Tromm**	1.86	32	eSg	Sg	05 52 21.6	-2.6
	SNR=2.8						
DAVA	**Damuels**	1.90	112	⇓iPG	Pg	05 51 56.1	-3.9
DAVA				i SG	Sg	05 52 22.7	-2.5
	4.0nm,0.3s						
UBR	**Uberruh**	1.92	99	Pg	Pg	05 51 59.9	-0.6
UBR				Sn	Sn	05 52 15.7	-5.0
UBR				Sg	Sg	05 52 23.4	-2.7
UBR	**Uberruh**	1.92	99	PG	Pg	05 51 59.9	-0.6
UBR				SG	Sg	05 52 23.4	-2.7
HDH	**Heidenheim**	2.02	73	Sg	Sg	05 52 25.7	-3.6
SIND	**Sindeldorf**	2.02	48	Pg	Pg	05 52 00.1	-2.3
SIND				Sg	Sg	05 52 26.8	-2.5
LPL	**La Plagne**	2.54	189	ePg	Pg	05 52 09.3	-3.6
LPL				eSg	Sg	05 52 41.7	-5.1
	3.7nm,0.3s						
LPG	**La Plagne**	2.56	189	ePn	Pn	05 52 02.5	-2.5
LPG				ePg	Pg	05 52 09.6	-3.6
LPG				eSg	Sg	05 52 42.2	-5.2
	7.3nm,0.4s						
GIVF	**Givet**	2.64	323	eP	Pn	05 52 06.1	0.0
GIVF				ePg	Pg	05 52 11.0	-3.8
GIVF				eSg	Sg	05 52 45.1	-4.8
	15nm,0.5s						
SMF	**Signal de Mont**	2.73	241	ePn	Pn	05 52 04.0	-3.4
SMF				ePg	Pg	05 52 12.5	-4.1
SMF				eSn	Sn	05 52 37.1	-4.1
SMF				eSg	Sg	05 52 46.7	-6.3
	8.7nm,0.2s						
SMF	**Signal de Mont**	2.73	241	eSn	Sn	05 52 37.1	-4.1
SSF	**Saint Saulge**	2.75	251	ePn	Pn	05 52 04.7	-2.9
SSF				ePg	Pg	05 52 13.5	-3.4
SSF				eSg	Sg	05 52 48.2	-5.4
	8.5nm,0.4s						
BAIF	**Baives**	2.87	316	eP	Pn	05 52 09.8	+0.4
BAIF				ePg	Pg	05 52 15.5	-4.0
BAIF				eSg	Sg	05 52 51.9	-5.9
	5.7nm,0.3s						
AVF	**Avril sur Loir**	2.95	247	ePn	Pn	05 52 07.5	-3.1
AVF				ePg	Pg	05 52 16.6	-4.5
AVF				eSg	Sg	05 52 55.2	-5.2
	3.0nm,0.2s						
HYF	**Humbligny**	3.24	258	ePn	Pn	05 52 11.7	-3.0
HYF				ePg	Pg	05 52 23.0	-3.8
HYF				eSg	Sg	05 53 03.6	-6.4
ORIF	**Oris-en-Rattie**	3.26	198	ePn	Pn	05 52 11.9	-3.1
ORIF				eSg	Sg	05 53 04.7	-6.1
	4.8nm,0.4s						
MBDF	**Montbardon**	3.32	187	eSg	Sg	05 53 06.0	-6.8
	4.4nm,0.6s						
BGF	**Bois d'Agland**	3.37	246	ePn	Pn	05 52 13.0	-3.5
BGF				ePg	Pg	05 52 24.0	-5.4
BGF				eSg	Sg	05 53 07.8	-6.5
	9.0nm,0.3s						
VIVF	**Saint-Julien-l**	3.66	211	ePn	Pn	05 52 17.2	-3.4
VIVF				eSg	Sg	05 53 15.8	-8.1
	2.8nm,0.2s						
VIVF	**Saint-Julien-l**	3.66	211	eSg	Sg	05 53 15.8	-8.1
	1.4nm,0.2s						
MOX	**Moxa**	3.85	46	eSg	Sg	05 53 24.0	-6.3
	SNR=2.1						
WET	**Wettzell**	3.87	71	eSg	Sg	05 53 23.3	-7.5
	SNR=1.8						
TCF	**Toulx Ste Croi**	3.88	245	ePg	Pg	05 52 34.0	-5.7
TCF				eSg	Sg	05 53 25.3	-6.2
	5.2nm,0.5s						
GUNZ	**Gunzen**	4.04	53	eSg	Sg	05 53 29.5	-7.2
	SNR=2.4						
TANN	**Tannenbergstha**	4.14	53	eSg	Sg	05 53 32.9	-7.1
	SNR=2.3						
LASF	**Ste Croix**	4.62	212	ePn	Pn	05 52 30.2	-4.1
LASF				eSg	Sg	05 53 45.8	-10
	1.5nm,0.3s						
LASF	**Ste Croix**	4.62	212	eSg	Sg	05 53 45.8	-10
	0.8nm,0.3s						

*JMA **15** 06:09:31.7±0.2, 24.36N×122.27E, h42^{km}, M2.7*
TAP 15 06:09:30.2, 24.02N×122.25E, h11^{km}±1^{km}, ML3.2, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	0.82	58	P	Pb	06 09 45.0	-1.0
YOJ				S	Sb	06 09 54.5	-2.4
IRIF	**Iriomote-Funau**	1.39	77	P	Pn	06 09 54.3	-1.3
IRIF				S	Sb	06 10 11.3	-2.0
HATJ	**Hateruma jima**	1.42	88	S	Sb	06 10 13.0	-1.3
JKRS	**Kuro-shima**	1.62	82	P	Pn	06 09 58.4	-0.6
JKRS				S	Sn	06 10 18.2	-1.8
JIJ	**Ishigaki jima**	1.76	78	P	Pn	06 10 00.3	-0.7
JIJ				S	Sn	06 10 19.7	-3.9
JTJ	**Tarama**	2.32	74	eS	Sn	06 10 35.5	-2.3

*NEIC **15** 06:10:34.1, 16.55N×99.95W, h9^{km}, MD3.8(MEX), After MEX.*
MEX 15 06:10:34.1±1.6, 16.55N×99.95W, h9^{km}±11^{km}, MD3.8, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	**Acapulco**	0.31	6	i P	Pg	06 10 39.0	-1.6
ACX				i S	Sg	06 10 45.0	+0.1
CAIG	**El Cayaco**	0.58	329	i P	Pg	06 10 44.7	-1.0
CAIG				i S	Sg	06 10 52.0	-1.6
PLIG	**Platanillo**	1.88	13	i P	Pn	06 11 04.2	-2.5
PLIG				i S	Sn	06 11 25.6	-5.1
PPM	**Popocatepetl**	2.80	27	eP	Pn	06 11 23.0	+3.1
PPM				i S	Sn	06 11 49.4	-4.7
PPM				i S	Sn	06 11 55.0	+0.8
PPM	**Popocatepetl**	2.80	27	eP	Pn	06 11 17.2	-2.7
PPM				eP		06 11 23.0	
PPM				i S	Sn	06 11 49.4	-4.7
PPM				i S	Sn	06 11 55.0	+0.8
VHO	**Vista Hermosa**	3.13	80	eP	Pn	06 11 22.0	-2.5
VHO				i S	Sn	06 11 58.6	-3.8
OXX	**Oaxaca**	3.14	80	i P	Pn	06 11 31.0	+6.3
OXX				i S	Sn	06 12 10.0	+7.3

*IDC **15** 06:47:02.8±0.4, 81.58N×3.46W, mb4.5/27, mb1 4.7/28, mb1mx4.7/29, ML4.7/1, MS4.1/18, Ms1 4.1/18, ms1mx3.9/28, Error ellipse: s-maj=15.8km s-min=9.0km az=43.0*
*MOS **15** 06:47:02.7±1.0, 81.49N×3.69W, h10^{km}, mb5.2/72, MS4.4/5, Error ellipse: s-maj=40.5km s-min=3.2km az=92.3*
*BJI **15** 06:47:03.8, 81.50N×3.80W, h10^{km}, mB5.2, mb5.0, Ms4.8, Msz4.4*
*NEIC **15** 06:47:05.0±0.1, 81.53N×3.80W, h10^{km}, mb5.0/111, MS4.7/3, Error ellipse: s-maj=4.0km s-min=2.1km az=53.0*
*HRVD **15** 06:47:04.9±0.3, 81.59N×3.45W, h12^{km}, MW4.9/47, Centroid moment Tensor Solution. LP body waves: s15,c18;Mantle waves: s47,c84; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.33±.16; M$_{\theta\theta}$-0.65±.17; M$_{\phi\phi}$2.98±.11; M$_{r\theta}$0.09±.73; M$_{\theta\phi}$0.67±.12; M$_{\phi r}$-0.84±.41; Best double couple: M$_0$2.85×10^{16} NP1:ϕ_s199°,δ37°,λ-77°. NP2:ϕ_s3°,δ54°,λ-99°. Principal axes: T 3.22, Plg8°, Azm100°; N -.73, Plg8°, Azm9°; P -2.48, Plg79°, Azm237°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*ZUR_RM **15** 06:47:04, 81.53N×3.80W, h12^{km}, Mw5.0/5, Moment Tensor Solution. s5 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-3.22; M$_{\theta\theta}$-0.05; M$_{\phi\phi}$3.27; M$_{r\theta}$-1.37; M$_{\theta\phi}$0.67; M$_{\phi r}$0.64; Best double couple: M$_0$3.62×10^{16} NP1:ϕ_s170°,δ52°,λ-118°. NP2:ϕ_s31°,δ46°,λ-59°. Principal axes: T 3.419, Plg3°, Azm279°; N .405, Plg22°, Azm188°; P -3.825, Plg68°, Azm18°;*
*NAO **15** 06:47:05.7±10.0, 81.83N×0.14W, h26^{km}±80^{km}*
*ORF **15** 06:47:27.5, 79.24N×0.01W, h10^{km}, mb4.7*
ISC 15 06:47:03.0±0.1, 81.54N±0.02×3.7W±0.2, h10^{km}, (h19^{km}±2.4^{km}:pP-P), n431, σ0^{s}93/425, mb4.9/159, MS4.2/33, 11C-66D, North of Svalbard

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPA0	**Spitsbergen Ar**	4.86	123	Pn	**Pn**	**06 48 14.3**	**-3.6**
	baz=342,slow=8.6						
SPA0				Sn	**Sn**	**06 49 06.7**	**-8.3**
DAG	**Danmarks Havn**	5.53	218	⇑iP	**Pn**	**06 48 24.9**	**-2.6**
	74nm,0.3s						
DAG				i		06 49 25.2	
HOPEN	**Hopen**	7.33	118	eP	**Pn**	**06 48 47.6**	**-5.1**
HOPEN				eS	**Sn**	**06 50 04.3**	**-13**
HOPEN				AML	AML	06 50 09.2	
	comp=Z,175nm,0.3s						
BJO	**Bjornoya**	8.41	134	eP	**P**	**06 49 05.4**	**-2.4**
BJO				AMb	AMB	06 49 13.8	
	comp=Z,106nm,1.7s						
SUMG	**Summit**	11.57	239	eP	**P**	**06 49 46.3**	**-4.8**
	comp=Z,55nm,0.4s						
SCO	**Scoresbysund**	11.84	211	eP	**P**	**06 49 52.3**	**-2.4**
SCO	**Scoresbysund**	11.84	211	i P	**P**	**06 49 52.3**	**-2.4**
ARA0	**ARCESS Array S**	13.77	134	P	**P**	**06 50 15.5**	**-4.6**
	baz=349,slow=11						
ARCES	**ARCESS Array B**	13.77	134	Pn	**P**	**06 50 15.7**	**-4.4**
	comp=Z,4.7nm,0.3s,baz=352,slow=11,SNR=71						
ARCES				LR	LR	06 55 30.8	
	comp=Z,745nm,20.8s,baz=358,slow=37						
ARE0	**ARCESS Array S**	13.77	134	eP	**P**	**06 50 16.5**	**-3.6**
KTK1	**Kautokeino**	14.04	138	eP	**P**	**06 50 22.4**	**-1.3**
KTK1				AMb	AMB	06 50 43.5	
	comp=Z,116nm,2.0s						
KTK1	**Kautokeino**	14.04	138	eP	**P**	**06 50 22.4**	**-1.3**
	comp=Z,116nm,2.0s						
MOR8	**Moi Rana**	16.08	153	eP	**P**	**06 50 53.1**	**+2.8**
MOR8				AMb	AMB	06 50 54.4	
	comp=Z,117nm,1.6s						
MOR8	**Moi Rana**	16.08	153	eP	**P**	**06 50 53.1**	**+2.8**
	comp=Z,117nm,1.6s						
LVZ	**Lovozero**	16.39	124	⇓eP	**P**	**06 51 03.7**	**+10**
LVZ				pmax	pmax		
	comp=N,53nm,1.3s						
LVZ				pmax	pmax		
	comp=Z,120nm,1.3s						
LVZ				pmax	pmax		
	comp=E,33nm,1.2s						
APA0	**Apatity Array**	16.46	126	P	**P**	**06 50 49.3**	**-5.8**
	baz=348,slow=16						
NSS	**Namsos**	17.56	157	eP	**P**	**06 51 10.2**	**+1.2**
NSS				AMb	AMB	06 51 18.2	
	comp=Z,139nm,1.7s						
NSS	**Namsos**	17.56	157	eP	**P**	**06 51 10.2**	**+1.2**
	comp=Z,139nm,1.7s						
RES	**Resolute Bay**	17.72	299	eP	**P**	**06 51 03.4**	**-7.5**
RES				pmax	pmax		
	comp=Z,94nm,0.9s						
RES	**Resolute Bay**	17.72	299	eP	**P**	**06 51 03.4**	**-7.5**
	comp=Z,94nm,0.9s						
MOL	**Molde**	19.30	164	eP	**P**	**06 51 32.5**	**+2.3**
MOL				AMb	AMB	06 51 34.7	
	comp=Z,164nm,1.8s						
MOL	**Molde**	19.30	164	eP	**P**	**06 51 32.5**	**+2.3**
	comp=Z,164nm,1.8s						
NB2	**NORSAR Subarra**	21.00	160	P	**P**	**06 51 48.1**	**-0.4**
	baz=353,slow=10						
NB2	**NORSAR Subarra**	21.00	160	P	**P**	**06 51 46.6**	**-1.9**
	comp=Z,30nm,0.9s,baz=356,slow=11						
NB2	**NORSAR Subarra**	21.00	160	P	**P**	**06 51 46.6**	**-1.9**
	baz=356,slow=11						
NB2	**NORSAR Subarra**	21.00	160	P	**P**	**06 51 46.6**	**-1.9**
NB2				pmax	pmax		
	comp=Z,31nm,0.9s						
NOA	**NORSAR Array B**	21.00	160	P	**P**	**06 51 47.2**	**-1.3**
	comp=Z,22nm,0.8s,baz=350,slow=11,SNR=34						
NOA				LR	LR	06 58 39.4	
	comp=Z,422nm,21.5s,MS3.8,baz=350,slow=33						
NOA	**NORSAR Array B**	21.00	160	P	**P**	**06 51 47.2**	**-1.3**
NOA				LR	LR	06 58 39.4	
KAF	**Kangasniemi**	21.07	139	epkp	**P**	**06 51 46.9**	**-2.3**
	baz=28,slow=3.5						
NAO01	**NORSAR Array S**	21.18	160	eP	**P**	**06 51 49.0**	**-1.3**
	comp=Z,11nm,0.6s,mb4.4						
FIA0	**FINESS Array S**	21.70	140	P	**P**	**06 51 54.6**	**-1.1**
	baz=356,slow=9.3						
FINES	**FINESS Array B**	21.70	140	P	**P**	**06 51 54.7**	**-0.9**
	comp=Z,30nm,1.0s,mb4.7,baz=353,slow=9.9,SNR=24						
FINES				PcP	PcP	06 55 54.6	-2.5
	comp=Z,4.8nm,0.7s,baz=25,slow=0.7,SNR=8.8						
FINES				LR	LR	07 00 07.1	
	comp=Z,299nm,21.6s,MS3.7,baz=356,slow=36						
HFS	**Hagfors**	22.04	157	P	**P**	**06 51 58.0**	**-1.0**
	baz=2.6,slow=14						
HFS	**Hagfors**	22.04	157	P	**P**	**06 51 58.1**	**-0.8**
	comp=Z,21nm,0.7s,mb4.7,baz=11,slow=7.6,SNR=17						
HFS				PcP	PcP	06 55 55.2	-2.6
	comp=Z,8.7nm,1.1s,baz=63,slow=6.4,SNR=3.1						
PUL	**Pulkovo**	23.77	135	⇑eP	**P**	**06 52 23.2**	**+7.4**
PUL				pmax	pmax		
	comp=Z,131nm,1.0s,mb5.3						
PUL				pmax	pmax		
	comp=E,174nm,0.9s						
FRB	**Frobisher Bay**	23.97	262	P	**P**	**06 52 18.4**	**+0.7**
	comp=E,63nm,1.1s,mb5.0,baz=18,slow=9.8,SNR=37						
FRB				LR	LR	07 02 15.2	
	comp=E,673nm,18.0s,MS4.2,baz=326,slow=38						
VSU	**Vasula**	24.70	140	i P	**P**	**06 52 24.1**	**-0.7**
TIXI	**Tiksi**	25.00	34	eP	**P**	**06 52 28.1**	**+0.6**
TIXI				pmax	pmax		
	comp=Z,28nm,1.0s,mb4.8						
EKA	**Eskdalemuir Ar**	26.33	179	P	**P**	**06 52 39.7**	**-0.4**
	comp=Z,6.7nm,1.0s,mb4.1,baz=358,slow=10.0,SNR=10						
SOKR	**Solikamsk**	27.32	105	i P	**P**	**06 52 47.8**	**-1.4**
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.7						
SOKR				MLR	MLR		
	comp=Z,540nm,18.0s,MS4.2						
INK	**Inuvik**	28.02	323	P	**P**	**06 52 54.1**	**-1.3**
	comp=Z,11nm,1.2s,mb4.4,baz=29,slow=7.6,SNR=22						
INK				PcP	PcP	06 56 09.0	-1.6
	comp=Z,3.7nm,0.7s,baz=112,slow=3.7,SNR=4.1						
INK	**Inuvik**	28.02	323	P	**P**	**06 52 54.1**	**-1.3**
INK						06 56 09.0	
INK				pmax	pmax		
	comp=Z,11nm,1.2s						
INK				pmax	pmax		
	comp=Z,4.0nm,0.7s						
INK	**Inuvik**	28.02	323	eP	**P**	**06 52 54.3**	**-1.1**
	comp=Z,11nm,0.8s,mb4.5						
BSEG	**Bad Segeberg**	28.05	162	eP	**P**	**06 52 55.8**	**0.0**
MOS	**Moscow**	28.53	129	eP	**P**	**06 53 15.8**	**+16**
MOS				e		06 53 50.4	
MOS				e		06 54 12.2	
OBN	**Obninsk**	29.03	130	eP	**P**	**06 53 02.1**	**-2.5**
OBN				i		06 53 10.7	
OBN				eS	**S**	**06 57 58.6**	**+4.1**
OBN				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.9						
OBN				MLR	MLR		
	comp=Z,600nm,18.0s,MS4.2						
OBN	**Obninsk**	29.03	130	eP	**P**	**06 53 03.4**	**-1.2**
	comp=Z,64nm,1.1s,mb5.3						
CLZ	**Clausthal**	30.14	163	eP	**P**	**06 53 15.0**	**+0.3**
	comp=Z,24nm,1.2s,mb4.8						
ARU	**Arti**	30.61	105	eP	**P**	**06 53 18.4**	**-0.3**
ARU				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.2						
ARU	**Arti**	30.61	105	eP	**P**	**06 53 18.4**	**-0.3**
	comp=Z,39nm,0.9s,mb5.2						
CLL	**Collm**	30.80	159	i P	**P**	**06 53 20.1**	**-0.4**
CLL				e		06 53 29.0	
CLL				i		06 56 16.9	
CLL				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.0						
CLL	**Collm**	30.80	159	i P	**P**	**06 53 20.1**	**-0.4**
	comp=Z,35nm,1.3s,mb5.0						
CLL				e		06 53 29.0	
CLL				i PcP	PcP	06 56 16.9	-0.9
CLL	**Collm**	30.80	159	P	**P**	**06 53 20.1**	**-0.4**
	comp=Z,logA/T=1.4,mb5.0						
CLL				e		06 53 29.0	
CLL				i PCP	PcP	06 56 16.9	-0.9
BRG	**Berggiesshubel**	31.29	158	i P	**P**	**06 53 20.1**	**-4.7**
BRG				e		06 53 29.0	
BRG				i		06 56 16.9	
BRG				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.0						
BRG	**Berggiesshubel**	31.29	158	i P	**P**	**06 53 20.1**	**-4.7**
	comp=Z,35nm,1.3s,mb5.0						
BRG				e		06 53 29.0	
BRG				i PcP	PcP	06 56 16.9	-2.2
MOX	**Moxa**	31.40	161	eP	**P**	**06 53 25.7**	**0.0**
MOX				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.2						
MOX	**Moxa**	31.40	161	i P	**P**	**06 53 25.7**	**0.0**
	comp=Z,logA/T=1.6,mb5.2						
MOX	**Moxa**	31.40	161	eP	**P**	**06 53 25.7**	**0.0**
	comp=Z,48nm,1.2s,mb5.2						
KSP	**Ksiaz**	31.45	155	eP	**P**	**06 53 25.8**	**-0.4**
KSP	**Ksiaz**	31.45	155	eP	**P**	**06 53 23.7**	**-2.5**
YKW3	**Yellowknife Ar**	31.58	304	eP	**P**	**06 53 26.2**	**-1.0**
YKA	**Yellowknife Ar**	31.64	304	P	**P**	**06 53 26.3**	**-1.4**
	comp=Z,3.7nm,1.0s,mb4.2,baz=14,slow=9.1,SNR=36						
YKA				PcP	PcP	06 56 18.3	-1.6
	comp=Z,4.4nm,0.8s,baz=12,slow=2.7,SNR=19						
YKA				LR	LR	07 06 18.5	
	comp=Z,658nm,20.2s,MS4.3,baz=30,slow=36						
GIVF	**Givet**	31.68	170	eP	**P**	**06 53 27.3**	**-1.0**
BAIF	**Baives**	31.71	170	⇓iP	**P**	**06 53 27.8**	**-0.7**
	comp=Z,70nm,1.0s,mb5.2						
BAIF	**Baives**	31.71	170	⇓iP	**P**	**06 53 27.8**	**-0.7**
BAIF				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.1						
UPC	**Upice**	31.77	156	eP	**P**	**06 53 28.1**	**-0.9**
NKC	**Novy Kostel**	31.85	160	eP	**P**	**06 53 29.8**	**+0.1**
DPC	**Dobruska-Polom**	31.95	156	eP	**P**	**06 53 30.2**	**-0.4**
RUP	**Ruppelstein**	32.15	167	eP	**P**	**06 53 32.3**	**-0.1**
PRU	**Pruhonice**	32.20	158	eP	**P**	**06 53 33.0**	**+0.2**
SCHQ	**Schefferville**	32.29	255	P	**P**	**06 53 32.9**	**-0.7**
	comp=Z,2.7nm,0.6s,mb4.3,baz=28,slow=11,SNR=11						
SCHQ				LR	LR	07 06 26.8	
	comp=Z,503nm,21.9s,MS4.2,baz=32,slow=36						
OJC	**Ojcow**	32.31	151	eP	**P**	**06 53 32.7**	**-1.0**
TOD	**Tromm**	32.31	165	eP	**P**	**06 53 33.4**	**-0.3**
GRA1	**Grafenberg Arr**	32.33	162	eP	**P**	**06 53 34.1**	**+0.2**
	comp=Z,32nm,1.1s,mb5.1						
GRA1				epP	pP	06 53 42.1	+5.3
GRF	**Grafenberg Arr**	32.33	162	eP	**P**	**06 53 34.1**	**+0.2**
GRF				e*PP	pP	06 53 42.1	+5.3
GRF				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	32.33	162	eP	**P**	**06 53 34.1**	**+0.2**
GRF				e*PP	pP	06 53 42.1	+5.3
GRF				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.1						
GRF	**Grafenberg Arr**	32.33	162	eP	**P**	**06 53 34.1**	**+0.2**
	comp=Z,32nm,1.1s,mb5.1						
GRF				epP	pP	06 53 42.1	+5.3
FCC	**Fort Churchill**	32.49	284	eP	**P**	**06 53 34.0**	**-1.2**
FCC				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.7						
FCC	**Fort Churchill**	32.49	284	eP	**P**	**06 53 34.0**	**-1.2**
	comp=Z,8.8nm,0.7s,mb4.7						
OKC	**Ostrava-Krasne**	32.57	153	eP	**P**	**06 53 35.7**	**-0.3**
ILAR	**Eielson Array**	32.58	332	P	**P**	**06 53 35.8**	**0.0**
	comp=Z,5.9nm,0.9s,mb4.5,baz=6.2,slow=7.6,SNR=52						
ILAR				PcP	PcP	06 56 20.2	-2.2
	comp=Z,2.7nm,0.6s,baz=338,slow=3.3,SNR=19						
ILAR				LR	LR	07 05 22.4	
	comp=Z,66nm,18.9s,MS3.4,baz=179,slow=34						
MORC	**Moravsky Berou**	32.59	154	eP	**P**	**06 53 35.4**	**-0.8**
MORC				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
MORC	**Moravsky Berou**	32.59	154	eP	**P**	**06 53 35.4**	**-0.8**
	comp=Z,21nm,1.1s,mb5.0						
AKASG	**Malin Array Be**	32.61	140	P	**P**	**06 53 35.0**	**-1.4**
	comp=Z,3.3nm,0.6s,mb4.5,baz=350,slow=9.3,SNR=12						
AKASG				PcP	PcP	06 56 20.4	-2.3
	comp=Z,3.3nm,0.6s,baz=352,slow=3.0,SNR=9.0						
AKASG	**Malin Array Be**	32.61	140	P	**P**	**06 53 35.0**	**-1.4**
AKASG						06 56 20.4	
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
DAWY	**Dawson**	32.69	325	eP	**P**	**06 53 37.3**	**+0.4**
DAWY				e		06 53 44.3	
WET	**Wettzell**	32.96	160	eP	**P**	**06 53 40.0**	**+0.6**
WET				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
WET	**Wettzell**	32.96	160	eP	**P**	**06 53 40.0**	**+0.6**
	comp=Z,16nm,1.1s,mb4.9						
VRAC	**Vranov**	33.00	155	P	**P**	**06 53 39.9**	**+0.1**
	comp=Z,12nm,0.5s,mb5.1,baz=357,slow=11,SNR=16						
KHC	**Kasperske Hory**	33.01	159	eP	**P**	**06 53 39.1**	**-0.7**
KHC				ePCP	PcP	06 56 22.5	-1.3
LVV	**L'vov**	33.03	146	eP	**P**	**06 53 39.0**	**-1.0**
LDF	**La Druitiere**	33.10	176	eP	**P**	**06 53 38.7**	**-1.9**
	comp=Z,16nm,0.7s,mb4.8						
LDF	**La Druitiere**	33.10	176	eP	**P**	**06 53 38.7**	**-1.9**
LDF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
KWP	**Kalwaria**	33.11	148	eP	**P**	**06 53 39.9**	**-0.8**
NIE	**Niedzica**	33.14	151	eP	**P**	**06 53 41.4**	**+0.4**
STU	**Stuttgart**	33.16	164	eP	**P**	**06 53 41.6**	**+0.5**
VRSR	**Storozhevoye**	33.16	129	eP	**P**	**06 53 40.0**	**-1.1**
VRSR				e*PP	pP	06 53 47.2	+3.1
VRSR				e		06 56 28.4	
VRSR				eS	**S**	**06 58 49.7**	**-10**

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VRSR                               pmax  pmax
      comp=Z,10.0nm,0.7s,mb4.8
VRSR                               pmax  pmax
      comp=N,40nm,1.4s
VRSR                               pmax  pmax
      comp=E,7.0nm,1.3s
VRSR                               smax
      comp=N,10.0nm,0.9s
VRSR                               smax
      comp=Z,10.0nm,1.5s
VRSR                               smax
      comp=E,8.0nm,0.8s
MEZF  Maizieres J'vi    33.29 169  eP    P      06 53 42.0 -0.3
GEC2  GERESS Array S    33.30 159  eP    P      06 53 43.0 +0.7
GEC2                               pmax  pmax
      comp=Z,37nm,1.1s,mb5.2
GEC2  GERESS Array S    33.30 159  eP    P      06 53 43.0 +0.7
      comp=Z,37nm,1.1s,mb5.2
GERES GERESS Array B    33.30 159  P     P      06 53 42.5 +0.2
      comp=Z,13nm,0.8s,mb4.9,slow=6.7,SNR=64
GERES                              PcP   PcP    06 56 22.3 -2.3
      comp=Z,2.1nm,0.7s,baz=45,slow=1.9,SNR=9.7
GRR   Gorron            33.30 177⇓iP    P      06 53 40.7 -1.6
      comp=Z,29nm,0.8s,mb5.0
GRR   Gorron            33.30 177⇓iP    P      06 53 40.7 -1.6
GRR                                pmax  pmax
      comp=Z,14nm,0.8s,mb4.9
CDF   Champ du Feu      33.45 167⇓iP    P      06 53 43.5 -0.2
      comp=Z,79nm,1.1s,mb5.3
CDF   Champ du Feu      33.45 167⇓iP    P      06 53 43.5 -0.2
CDF                                pmax  pmax
      comp=Z,40nm,1.1s,mb5.3
WLS   Welschbruch       33.45 167  eP    P      06 53 43.6 -0.1
BFO   Black Forest      33.57 165  eP    P      06 53 44.8 +0.1
BFO                                pmax  pmax
      comp=Z,40nm,1.4s,mb5.2
BFO   Black Forest      33.57 165  eP    P      06 53 44.8 +0.1
      comp=Z,40nm,1.4s,mb5.2
THEF  They Montfort     33.59 168  eP    P      06 53 44.8 -0.1
ECH   Echery            33.64 167  eP    P      06 53 45.4 +0.1
KOLS  Kolonicke sedl    33.77 149  eP    P      06 53 46.5 +0.1
HAU   Haudompre         33.83 168⇓iP    P      06 53 46.7 -0.2
      comp=Z,62nm,0.9s,mb5.2
HAU   Haudompre         33.83 168⇓iP    P      06 53 46.7 -0.2
HAU                                pmax  pmax
      comp=Z,31nm,0.9s,mb5.2
THY   Trims Highway     33.84 330  eP    P      06 53 48.0 +1.2
VYHS  Vyhne             33.96 153  i P   P      06 53 48.2 +0.1
VYHS                               ePCP  PcP    06 56 25.9 -0.5
MOF   Molkenrain        34.00 167  eP    P      06 53 48.1 -0.4
FELD  Feldberg          34.01 166  eP    P      06 53 48.6 +0.1
HINF  Hinteralfeld      34.03 167⇓iP    P      06 53 48.2 -0.5
      comp=Z,25nm,1.0s,mb4.8
HINF  Hinteralfeld      34.03 167⇓iP    P      06 53 48.2 -0.5
HINF                               pmax  pmax
      comp=Z,13nm,1.0s,mb4.8
MOA   Molln             34.32 158⇓iP    P      06 53 51.4 +0.2
      comp=Z,37nm,1.7s,mb5.0
BBS   Basel-Blauen      34.40 167  eP    P      06 53 51.7 -0.2
HYF   Humbligny         34.47 172  eP    P      06 53 51.8 -0.7
YAK   Yakutsk           34.49  37  eP    P      06 53 51.2 -1.3
YAK                                e            06 53 58.7
YAK                                pmax  pmax
      comp=Z,14nm,0.4s,mb5.2
YAK   Yakutsk           34.49  37  eP    P      06 53 51.2 -1.3
      comp=Z,14nm,0.4s,mb5.2
YAK                                e            06 53 58.7
LOMF  Lomont            34.49 167  eP    P      06 53 50.8 -1.9
PSZ   Piszkesteto       34.60 152  eP    P      06 53 54.2 +0.6
PSZ                                pmax  pmax
      comp=Z,26nm,1.1s,mb5.1
PSZ   Piszkesteto       34.60 152⇑eP    P      06 53 54.3 +0.7
PSZ   Piszkesteto       34.60 152  eP    P      06 53 54.2 +0.5
      comp=Z,26nm,1.1s,mb5.1
MOTA  Moosalm           34.67 162⇑iP    P      06 53 54.6 +0.4
      comp=Z,25nm,1.3s,mb5.0
MOTA  Moosalm           34.67 162⇑iP    P      06 53 54.6 +0.4
MOTA                               pmax  pmax
      comp=Z,25nm,1.3s,mb5.0
DAVA  Damuels           34.67 164⇑iP    P      06 53 55.1 +0.9
      comp=Z,26nm,1.6s,mb4.9
SSF   Saint Saulge      34.69 171⇓iP    P      06 53 53.6 -0.8
      comp=Z,33nm,0.6s,mb5.1
SSF   Saint Saulge      34.69 171⇓iP    P      06 53 53.6 -0.8
SSF                                pmax  pmax
      comp=Z,16nm,0.6s,mb5.1
WTTA  Wattenberg        34.77 162⇓iP    P      06 53 56.5 +1.4
      comp=Z,22nm,1.6s,mb4.8
WTTA  Wattenberg        34.77 162⇓iP    P      06 53 56.5 +1.4
WTTA                               pmax  pmax
      comp=Z,22nm,1.6s,mb4.8
AVF   Avril sur Loir    34.96 172⇓iP    P      06 53 55.9 -0.8
      comp=Z,73nm,1.0s,mb5.3
AVF   Avril sur Loir    34.96 172⇓iP    P      06 53 55.9 -0.8
AVF                                pmax  pmax
      comp=Z,36nm,1.0s,mb5.3
CHKZ  Chkalovo          35.04  94  eP    P      06 53 57.3  0.0
CHKZ                               pmax  pmax
      comp=Z,49nm,1.0s,mb5.4
CHKZ  Chkalovo          35.04  94  eP    P      06 53 57.3  0.0
      comp=Z,49nm,1.0s,mb5.4
KBA   Koelnbreinsper    35.04 160⇑iP    P      06 53 58.7 +1.3
      comp=Z,17nm,1.1s,mb4.9
KBA   Koelnbreinsper    35.04 160⇑iP    P      06 53 58.7 +1.3
KBA                                pmax  pmax
      comp=Z,17nm,1.1s,mb4.9
MFF   Saint Martin d    35.09 176⇓iP    P      06 53 56.8 -1.0
      comp=Z,18nm,0.9s,mb4.7
MFF   Saint Martin d    35.09 176⇓iP    P      06 53 56.8 -1.0
MFF                                pmax  pmax
      comp=Z,9.0nm,0.9s,mb4.7
SMF   Signal de Mont    35.12 171⇓iP    P      06 53 56.9 -1.2
      comp=Z,18nm,0.7s,mb4.8
SMF   Signal de Mont    35.12 171⇓iP    P      06 53 56.9 -1.2
SMF                                pmax  pmax
      comp=Z,9.0nm,0.7s,mb4.8
DAVOX Davos             35.18 164  P     P      06 53 58.8 +0.2
      comp=Z,2.7nm,0.5s,mb4.4,baz=332,slow=12,SNR=4.2
DAVOX                              PcP   PcP    06 56 28.7 -1.3
      comp=Z,3.4nm,0.6s,baz=297,slow=11,SNR=4.6
BGF   Bois d'Agland     35.18 172⇓iP    P      06 53 57.9 -0.7
      comp=Z,130nm,1.1s,mb5.5
BGF   Bois d'Agland     35.18 172⇓iP    P      06 53 57.9 -0.7
BGF                                pmax  pmax
      comp=Z,65nm,1.1s,mb5.5
CABF  La Chapelle       35.21 168⇓iP    P      06 53 58.6 -0.3
      comp=Z,54nm,0.8s,mb5.2
CABF  La Chapelle       35.21 168⇓iP    P      06 53 58.6 -0.3
CABF                               pmax  pmax
      comp=Z,27nm,0.8s,mb5.2
TCF   Toulx Ste Croi    35.44 173⇓iP    P      06 53 59.9 -0.9
      comp=Z,100nm,1.3s,mb5.3
TCF   Toulx Ste Croi    35.44 173⇓iP    P      06 53 59.9 -0.9
TCF                                pmax  pmax
      comp=Z,50nm,1.3s,mb5.3
PERS  Pernice           35.58 158  eP    P      06 54 02.4 +0.5
BRVK  Borovoye          35.59  95  eP    P      06 54 02.2 +0.2
BRVK                               pmax  pmax
      comp=Z,15nm,0.8s,mb5.0
BRVK  Borovoye          35.59  95  eP    P      06 54 02.2 +0.2
      comp=Z,15nm,0.8s,mb5.0
SML   Sawmill           35.62 332  eP    P      06 54 03.3 +1.2
BVAR  Borovoye Array    35.64  95  P     P      06 54 02.8 +0.4
      comp=Z,3.3nm,0.8s,mb4.3,baz=342,slow=9.4,SNR=10
OBKA  Obir              35.67 158⇑iP    P      06 54 03.7 +0.9
      comp=Z,60nm,1.0s,mb5.5
AGO   Saint Agoulin     35.69 172  eP    P      06 54 03.7 +0.7
MCGN  Macugnaga         35.93 166  eP    P      06 54 05.9 +1.0
CTI   Castel Tesino     35.99 162  eP    P      06 54 05.8 +0.4
PYM   Petit Puy Mans    35.99 172  eP    P      06 54 06.6 +1.1
VOJS  Vojsko            36.11 159  i P   P      06 54 06.3 -0.2
PKSM  Moragy            36.22 153⇑iP    P      06 54 07.7 +0.3
ORX   Oropa             36.25 166  P     P      06 54 08.2 +0.5
JAVS  Javornik          36.26 159  i P   P      06 54 07.6 -0.1
JAVS                               i            06 54 15.3
LPL   La Plagne         36.33 168⇓iP    P      06 54 09.0 +0.7
      comp=Z,77nm,0.9s,mb5.3
LPL   La Plagne         36.33 168⇓iP    P      06 54 09.0 +0.7
LPL                                pmax  pmax
      comp=Z,39nm,0.9s,mb5.3
LPG   La Plagne         36.34 168⇓iP    P      06 54 09.3 +0.9
      comp=Z,135nm,1.1s,mb5.5
LPG   La Plagne         36.34 168⇓iP    P      06 54 09.3 +0.9
LPG                                pmax  pmax
      comp=Z,68nm,1.1s,mb5.5
TRAV                    36.36 166  P     P      06 54 09.4 +0.8
LSD   Ceresole Reale    36.40 167  P     P      06 54 09.9 +1.0
RJF   Les Rejaudoux     36.41 174⇓iP    P      06 54 08.4 -0.6
      comp=Z,144nm,1.2s,mb5.5
RJF   Les Rejaudoux     36.41 174⇓iP    P      06 54 08.4 -0.6
RJF                                pmax  pmax
      comp=Z,72nm,1.2s,mb5.5
CEY   Cerknica          36.43 159  i P   P      06 54 09.2  0.0
LBL   Lubilhac          36.52 172  eP    P      06 54 11.0 +1.1
RSP   Reno Superiore    36.71 167  P     P      06 54 12.2 +0.7
BNI   Bardonecchia      36.79 168  eP    P      06 54 12.5 +0.3
BNI                                e            06 54 21.1
BNI                                e            06 56 35.1
BNI                                pmax  pmax
      comp=Z,16nm,0.8s,mb4.9
BNI   Bardonecchia      36.79 168  eP    P      06 54 12.5 +0.3
      comp=Z,16nm,0.8s,mb4.9
BNI                                e            06 54 21.1
BNI                                ePcP  PcP    06 56 35.1 +0.4
CAF   Calviac           36.80 173⇓iP    P      06 54 11.8 -0.5
      comp=Z,26nm,1.1s,mb4.7
CAF   Calviac           36.80 173⇓iP    P      06 54 11.8 -0.5
CAF                                pmax  pmax
      comp=Z,13nm,1.1s,mb4.7
FENE  Fenestrelle       36.82 167  P     P      06 54 13.2 +0.7
ORIF  Oris-en-Rattie    36.90 169⇓iP    P      06 54 13.3 +0.2
      comp=Z,59nm,0.8s,mb5.2
ORIF  Oris-en-Rattie    36.90 169⇓iP    P      06 54 13.3 +0.2
ORIF                               pmax  pmax
      comp=Z,30nm,0.8s,mb5.2
RRL   Cesana Torines    36.92 168  P     P      06 54 14.1 +0.8
VIVF  Saint-Julien-l    36.92 170⇓iP    P      06 54 13.3  0.0
      comp=Z,74nm,1.0s,mb5.2
VIVF  Saint-Julien-l    36.92 170⇓iP    P      06 54 13.3  0.0
VIVF                               pmax  pmax
      comp=Z,37nm,1.0s,mb5.2
BOD   Bodaibo           37.00  52  eP    P      06 54 11.9 -2.0
BOD                                e            06 54 19.0
BHB   Bricherasio       37.02 167  P     P      06 54 13.7 -0.4
MBDF  Montbardon        37.11 168⇓iP    P      06 54 15.8 +0.9
      comp=Z,62nm,1.0s,mb5.1
MBDF  Montbardon        37.11 168⇓iP    P      06 54 15.8 +0.9
MBDF                               pmax  pmax
      comp=Z,31nm,1.0s,mb5.1
PZZ   Prazzo            37.35 167  P     P      06 54 17.2 +0.3
PCP   Pian Castagno     37.36 166  P     P      06 54 16.6 -0.4
GRAM                    37.47 164  P     P      06 54 18.4 +0.4
MLR   Muntele Rosu      37.48 145  P     P      06 54 18.8 +0.8
      comp=Z,3.9nm,0.7s,mb4.3,baz=54,slow=11,SNR=4.3
MLR                                LR    LR     07 08 50.2
      comp=Z,534nm,18.4s,MS4.4,baz=164,slow=35
CODM                    37.56 164  P     P      06 54 19.4 +0.7
ROB   Roburent          37.58 166  P     P      06 54 18.8 -0.1
STV2  Anna di Valdie    37.61 167  P     P      06 54 18.2 -0.9
STV   Sta Anna Valdi    37.62 167  P     P      06 54 18.3 -0.8
VALM                    37.62 164  P     P      06 54 22.1 +3.0
ENR   Entracque         37.63 167  P     P      06 54 18.4 -0.9
FIN   Finale Ligure     37.68 166  eP    P      06 54 19.4 -0.3
BACM                    37.68 164  P     P      06 54 20.1 +0.4
LASF  Ste Croix         37.69 171⇓iP    P      06 54 20.4 +0.7
      comp=Z,62nm,1.1s,mb4.9
SARO  Sassorosso        37.79 163  P     P      06 54 21.3 +0.7
MONE  Monesi            37.79 167  P     P      06 54 20.4 -0.3
VLC   Villacollemand    37.81 163  eP    P      06 54 21.6 +0.7
      comp=Z,44nm,1.0s,mb5.1
VLC                                e            06 54 29.3
VINC  Vinca             37.82 164  P     P      06 54 21.1 +0.2
SMRF  Simiane la Rot    37.83 169⇓iP    P      06 54 21.2 +0.3
      comp=Z,60nm,0.9s,mb5.0
TOUF  Mont Tournerai    37.84 167  eP    P      06 54 22.0 +0.9
AUTN  L'Aution          37.87 167  eP    P      06 54 21.9 +0.6
SAOF  Saorge            37.88 167  eP    P      06 54 21.4  0.0
MVIF  Mont Vial         37.96 167  eP    P      06 54 22.7 +0.7
VILF  Villemus          37.96 169  eP    P      06 54 22.8 +0.8
IMI   Imperia           37.97 166  eP    P      06 54 22.1  0.0
PRAF  Pradon            37.99 170  eP    P      06 54 23.0 +0.7
SBF   Sospel            38.00 167⇓iP    P      06 54 22.8 +0.4
      comp=Z,140nm,0.8s,mb5.4
SBF   Sospel            38.00 167⇓iP    P      06 54 22.8 +0.4
SBF                                pmax  pmax
      comp=Z,70nm,0.8s,mb5.4
NEGI  Negi              38.02 167  P     P      06 54 22.6  0.0
VMG   Vicchio           38.06 162  eP    P      06 54 24.2 +1.3
SFI   Santa Sofia       38.13 162  eP    P      06 54 24.7 +1.2
PGD   Poggio Sodo       38.16 162  eP    P      06 54 25.1 +1.4
PII   Pisa              38.26 163  eP    P      06 54 23.9 -0.7
FRF   La Foret Royal    38.27 168⇓iP    P      06 54 24.8 +0.1
      comp=Z,118nm,1.0s,mb5.3
FRF   La Foret Royal    38.27 168⇓iP    P      06 54 24.8 +0.1
FRF                                pmax  pmax
      comp=Z,59nm,1.0s,mb5.3
EPON  Pontenova         38.37 184  P     P      06 54 25.1 -0.3
      comp=Z,31nm,1.7s,mb4.8
EARI  Arriondas         38.38 182  P     P      06 54 24.7 -0.9
      comp=Z,49nm,1.6s,mb5.0
MTLF  Montolieu         38.39 173⇓iP    P      06 54 25.6  0.0
      comp=Z,13nm,0.8s,mb4.4
MTLF  Montolieu         38.39 173⇓iP    P      06 54 25.6  0.0
MTLF                               pmax  pmax
      comp=Z,6.0nm,0.8s,mb4.4
FSSB  Fossombrone       38.39 161  eP    P      06 54 26.1 +0.5
CRE   Caprese Michel    38.42 162  eP    P      06 54 26.9 +1.0
ELAN  Lanestosa         38.44 180  P     P      06 54 25.6 -0.6
      comp=Z,60nm,2.1s,mb5.0
EALK  Alkurruntz        38.46 177  P     P      06 54 26.1 -0.2
      comp=Z,18nm,0.6s,mb5.0
BERF  Bertagne          38.49 169  eP    P      06 54 27.1 +0.6
LMR   La Mourre         38.50 168⇓iP    P      06 54 26.6  0.0
      comp=Z,44nm,0.9s,mb4.9
LMR   La Mourre         38.50 168⇓iP    P      06 54 26.6  0.0
LMR                                pmax  pmax
      comp=Z,22nm,0.9s,mb4.9
CSNT  Castellina Chi    38.54 162  eP    P      06 54 26.8 -0.1
SJPF  Ste Jean          38.57 177⇓iP    P      06 54 26.4 -0.8
      comp=Z,11nm,0.6s,mb4.4
SJPF  Ste Jean          38.57 177⇓iP    P      06 54 26.4 -0.8
SJPF                               pmax  pmax
      comp=Z,6.0nm,0.6s,mb4.5
ARV   Arcevia           38.59 161  eP    P      06 54 27.9 +0.5
EPF   Esparros          38.67 175⇓iP    P      06 54 27.3 -0.7
      comp=Z,27nm,0.8s,mb4.7
EPF   Esparros          38.67 175⇓iP    P      06 54 27.3 -0.7
EPF                                pmax  pmax
      comp=Z,13nm,0.8s,mb4.7
EMAZ  Mazaricos         38.77 186  P     P      06 54 29.0 +0.2
      comp=Z,13nm,0.7s,mb4.8
ETSF  Etsaut            38.79 176⇓iP    P      06 54 28.5 -0.5
      comp=Z,21nm,0.8s,mb4.6
ETSF  Etsaut            38.79 176⇓iP    P      06 54 28.5 -0.5
ETSF                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.6
STS   Santiago          38.82 186  P     P      06 54 29.4 +0.1
STS                                pmax  pmax
      comp=Z,13nm,0.9s,mb4.7
STS   Santiago          38.82 186  P     P      06 54 29.4 +0.1
      comp=Z,13nm,0.9s,mb4.7
SNTG  Esanatoglia       38.83 161  eP    P      06 54 29.7 +0.3
EBIE  Bielsa            39.01 176  P     P      06 54 31.8 +0.9
      comp=Z,17nm,0.8s,mb4.8
EINC  Incio             39.03 184  P     P      06 54 31.1 +0.1
      comp=Z,8.4nm,0.8s,mb4.5
ANN   Anapa             39.29 132  eP    P      06 54 30.3 -2.9
ANN                                pmax  pmax
      comp=Z,37nm,1.1s,mb5.0
EJON  La Jonquera       39.29 172  P     P      06 54 34.0 +0.8
      comp=Z,14nm,0.9s,mb4.7
ERUA  La Rua            39.30 184  P     P      06 54 34.1 +0.8
ERUA                               pmax  pmax
      comp=Z,49nm,1.2s,mb5.1
ERUA  La Rua            39.30 184  P     P      06 54 34.1 +0.8
      comp=Z,49nm,1.2s,mb5.1
PGF   Pioggiola         39.37 165⇓iP    P      06 54 33.8 -0.1
      comp=Z,54nm,1.1s,mb4.9
PGF   Pioggiola         39.37 165⇓iP    P      06 54 33.8 -0.1
PGF                                pmax  pmax
      comp=Z,27nm,1.1s,mb4.9
GOF   Gofitskoye        39.68 126⇓iP    P      06 54 44.0 +7.6
GOF                                i            06 56 10.0
GOF                                pmax  pmax
      comp=Z,30nm,1.4s,mb4.8
MNS   Montasola         39.69 161  eP    P      06 54 36.4 -0.1
ECAL  Calabor           39.75 184  P     P      06 54 37.9 +0.9
      comp=Z,7.6nm,0.8s,mb4.5
AQU   L'Aquila          39.76 160  eP    P      06 54 38.1 +1.0
AQU                                pmax  pmax
      comp=Z,33nm,0.9s,mb5.1
AQU   L'Aquila          39.76 160  eP    P      06 54 38.1 +1.0
      comp=Z,34nm,0.9s,mb5.1
ELOB  Lobios            39.84 185  P     P      06 54 37.9 +0.2
      comp=Z,57nm,2.2s,mb4.9
PBRG  Braganca          39.88 184  eP    P      06 54 38.4 +0.3
EPOB  Poblet            40.35 174  P     P      06 54 41.7 -0.3
      comp=Z,26nm,1.0s,mb4.9
SDI   San Donato        40.42 160  eP    P      06 54 42.9 +0.4
CII   Carovilli         40.43 159  eP    P      06 54 43.3 +0.6
      comp=Z,24nm,0.9s,mb4.9
EDM   Edmonton          40.52 299  eP    P      06 54 42.9 -0.3
KIV   Kislovodsk        40.72 127  i P   P      06 54 44.4 -0.6
KIV                                pmax  pmax
      comp=Z,12nm,0.9s,mb4.5
SOC   Sochi             40.75 130  eP    P      06 54 43.4 -1.8
SOC                                ePPP  PPP    06 56 41.3 -9.5
SOC                                eS    S      07 00 45.6  -10
SOC                                eSS   SS     07 03 44.3 -6.7
SOC                                pmax  pmax
      comp=Z,37nm,0.9s,mb5.0
SOC                                pmax  pmax
      comp=N,27nm,0.8s
SOC                                pmax  pmax
      comp=E,9.0nm,0.7s
SOC                                MLR   MLR
      comp=Z,559nm,18.0s,MS4.5
SOC                                MLR   MLR
      comp=N,578nm,16.0s,MS4.6
SOC                                MLR   MLR
      comp=E,254nm,14.0s,MS4.6
RFI   Roccamonfina      40.84 160  eP    P      06 54 47.1 +1.1
ULM   Lac du Bonnet     41.01 282  P     P      06 54 48.0 +0.7
      comp=E,4.1nm,0.7s,mb4.2,baz=9.5,slow=8.8,SNR=4.9
ULM                                PcP   PcP    06 56 46.4 -1.6
      comp=E,6.4nm,1.0s,baz=9.7,slow=3.9,SNR=3.9
ULM                                LR    LR     07 11 53.3
      comp=E,524nm,18.5s,MS4.4,baz=239,slow=36
ULM   Lac du Bonnet     41.01 282  P     P      06 54 48.0 +0.7
ULM                                PcP   PcP    06 56 46.4 -1.6
ULM                                LR    LR     07 11 53.3
MTE   Manteigas         41.30 184  eP    P      06 54 50.2 +0.5
      comp=E,18nm,1.1s,mb4.6
MOY   Mondy             41.38  66  eP    P      06 54 51.6 +1.3
SGO   Sicignano         41.64 158  eP    P      06 54 52.9 +0.5
TLY   Talaya            41.72  63  i P   P      06 54 56.7 +3.8
TLY                                pmax  pmax
      comp=Z,15nm,1.1s,mb4.5
PCBR  Castelo Branco    41.85 184  eP    P      06 54 54.6 +0.4
      comp=Z,24nm,1.2s,mb4.7
ESDC  Sonseca Array     42.00 180  P     P      06 54 55.5 +0.1
      comp=Z,2.6nm,0.6s,mb4.1,baz=1.4,slow=8.7,SNR=12
ESDC                               PcP   PcP    06 56 50.6 -0.6
      comp=Z,0.6nm,0.5s,baz=352,slow=2.0,SNR=5.1
ESDC  Sonseca Array     42.00 180  P     P      06 54 55.5 +0.2
      comp=Z,4.7nm,0.8s,mb4.2
PTOM  Tomar             42.09 185  eP    P      06 54 56.3 +0.2
      comp=Z,35nm,0.9s,mb5.0
ORI   Oriolo Calabro    42.20 157  eP    P      06 54 58.3 +1.3
EBAD  Badajoz           42.93 184  P     P      06 55 03.0  0.0
      comp=Z,7.4nm,0.8s,mb4.5
ZAK   Zakamensk         42.94  64  eP    P      06 55 08.7 +5.8
ZAK                                e            06 56 41.0
EVIA  Vianos            43.03 179  P     P      06 55 04.8 +1.0
EVIA                               pmax  pmax
      comp=Z,10.0nm,0.7s,mb4.7
EVIA  Vianos            43.03 179  P     P      06 55 04.8 +1.0
      comp=Z,9.8nm,0.7s,mb4.7
TIP   Timpagrande       43.10 157  eP    P      06 55 04.8 +0.4
EADA  Adamuz            43.50 181  P     P      06 55 07.3 -0.3
      comp=Z,29nm,1.2s,mb4.9
PBEJ  Beja              43.67 185  eP    P      06 55 09.6 +0.6
      comp=Z,36nm,1.6s,mb4.9
EQES  Quesada           43.87 179  P     P      06 55 11.8 +1.2
      comp=Z,13nm,0.9s,mb4.7
BRTR  Keskin Array B    43.91 138  P     P      06 55 11.8 +0.8
      comp=Z,7.2nm,0.9s,mb4.4,baz=333,slow=5.5,SNR=16
GIB   Gibilmanna        44.14 160  eP    P      06 55 12.4 -0.4
ERON  Agron             44.65 180  P     P      06 55 18.0 +1.0
      comp=Z,9.4nm,1.1s,mb4.5
WALA  Waterton Lakes    44.67 299  eP    P      06 55 17.9 +0.9
      comp=Z,5.7nm,0.7s,mb4.5
GNI   Garni             44.72 125  LR    LR     07 14 31.1
      comp=Z,161nm,18.9s,MS4.0,baz=349,slow=37
USP   Ospenovka         45.77  94  P     P      06 55 26.4 +0.7
      SNR=7.0
MALT  Malatya           45.81 133  eP    P      06 55 27.7 +1.5
MALT                               pmax  pmax
      comp=Z,44nm,1.0s,mb5.3
MALT  Malatya           45.81 133  eP    P      06 55 27.7 +1.6
      comp=Z,44nm,1.0s,mb5.3
SONM  Songino Array     45.85  62  P     P      06 55 26.7 +0.4
      comp=Z,3.2nm,0.7s,mb4.3,baz=338,slow=8.2,SNR=20
NEW   Newport           45.86 301  eP    P      06 55 27.7 +1.3
NEW                                pmax  pmax
      comp=Z,8.0nm,1.0s
NEW   Newport           45.86 301  eP    P      06 55 27.7 +1.3
      comp=Z,8.1nm,1.0s,mb4.6
ULN   Ulaanbaatar       45.91  61  eP    P      06 55 26.9 +0.1
ULN                                pmax  pmax
      comp=Z,45nm,0.9s,mb5.4
ULN   Ulaanbaatar       45.91  61  eP    P      06 55 26.9 +0.1
      comp=Z,44nm,0.9s,mb5.4
CHMS  Chumysh           46.07  94  P     P      06 55 29.2 +1.1
      SNR=16
HIA   Hailar            46.07  49  eP    P      06 55 28.4 +0.4
HIA                                e            06 55 35.9
HIA                                pmax  pmax
      comp=Z,30nm,1.1s
HIA   Hailar            46.07  49  eP    P      06 55 28.4 +0.4
      comp=Z,30nm,1.1s,mb5.1
HIA                                e            06 55 35.9
FRU   Bishkek           46.21  94  eP    P      06 55 30.0 +0.7
FRU                                pmax  pmax
      comp=Z,120nm,1.3s,mb5.7
EKS2  Erkin-Say         46.25  95  P     P      06 55 30.7 +1.1
      SNR=5.6
EKS2  Erkin-Say         46.25  95  eP    P      06 55 30.4 +0.8
      comp=Z,19nm,0.8s,mb5.1
EKS2                               e            06 55 38.0
TKM2  Tokmak 2          46.27  93  P     P      06 55 30.8 +1.1
      SNR=8.1
TKM2  Tokmak 2          46.27  93  eP    P      06 55 31.0 +1.3
      comp=Z,13nm,1.1s,mb4.8
TKM2                               e            06 55 38.4
AAK   Ala-Archa         46.39  94  P     P      06 55 32.0 +1.4
      SNR=13
AAK   Ala-Archa         46.39  94  eP    P      06 55 30.7  0.0
AAK                                e            06 55 38.4
AAK                                pmax  pmax
      comp=Z,55nm,0.9s,mb5.5
AAK   Ala-Archa         46.39  94  eP    P      06 55 30.7 +0.1
      comp=Z,55nm,0.9s,mb5.5
AAK                                e            06 55 38.4
HRY   Holter Researc    46.70 296  eP    P      06 55 33.0 -0.1
AML   Almayashu         46.76  95  P     P      06 55 35.7 +2.1
      SNR=8.8
AML   Almayashu         46.76  95  eP    P      06 55 35.5 +1.8
      comp=Z,9.5nm,0.8s,mb4.8
AML                                e            06 55 43.2
UCH   Uchtor            46.79  94  P     P      06 55 35.4 +1.6
      SNR=18
UCH   Uchtor            46.79  94  eP    P      06 55 36.0 +2.2
      comp=Z,49nm,0.9s,mb5.4
UCH                                e            06 55 43.4
MSO   Missoula          46.86 298  eP    P      06 55 33.8 -0.6
      comp=Z,17nm,1.3s,mb4.8
WMQ   Urumqi            47.17  81 ⇓P     P      06 55 41.0 +4.1
WMQ                                AP    pP     06 55 45.4 +5.5
WMQ                                XP    sP     06 55 48.0 +6.9
WMQ                                PCP   PcP    06 57 12.6 +3.7
WMQ                                S     S      07 02 32.5 +3.9
WMQ                                AMB   AMB
      comp=Z,13nm,1.1s,mb4.8
WMQ                                AMB   AMB
      comp=Z,52nm,7.5s
WMQ                                LR    LR
      comp=N,370nm,20.0s,MS4.5
WMQ                                LR    LR
      comp=E,335nm,16.0s,MS4.5
WMQ                                LR    LR
      comp=Z,359nm,18.2s,MS4.4
KLR   Kul'dur           47.34  39  eP    P      06 55 33.8 -4.3
ACSO  Alum Creek Sta    48.91 267  eP    P      06 55 50.7 +0.3
      comp=Z,24nm,1.1s,mb5.1
BMO   Blue Mountains    49.24 301  eP    P      06 55 52.7 -0.2
      comp=Z,10nm,1.1s,mb4.8
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IMW	Indian Meadow	49.34	294	eP	P	06 55 54.5	+0.8
KSH	Kashi	49.66	93	eP	P	06 55 57.1	+0.9
KSH				eAP	pP	06 56 02.0	+2.7
KSH				eXP	sP	06 56 05.3	+4.8
KSH				ePCP	PcP	06 57 19.8	+1.9
KSH				ePP	PP	06 57 51.1	-0.4
KSH				ePPP	PPP	06 58 44.0	-2.1
KSH				eSCP		07 01 14.0	
KSH				ePCS		07 01 17.4	
KSH				eS	S	07 03 02.3	-1.2
KSH				eSCS	ScS	07 05 45.4	+0.2
KSH				AMB	AMB		
	comp=Z,240nm,3.5s						
KSH				LR	LR		
	comp=N,420nm,6.0s						
KSH				LR	LR		
	comp=E,910nm,6.4s						
TPAW	Teton Pass	49.74	294	eP	P	06 55 58.8	+1.9
PDAR	Pinedale Array	50.27	293	P	P	06 56 01.3	+0.5
	comp=E,2.6nm,1.1s,mb4.2,baz=14,slow=6.1,SNR=12						
PDAR				LR	LR	07 17 31.0	
	comp=E,644nm,18.2s,MS4.7,baz=16,slow=36						
BLA	Blacksburg	51.49	263	eP	P	06 56 10.3	+0.1
BLA				pmax	pmax		
	comp=Z,96nm,1.4s,mb5.5						
BLA	Blacksburg	51.49	263	eP	P	06 56 10.3	+0.1
	comp=Z,96nm,1.4s,mb5.5						
HWUT	Hardware Ranch	51.68	295	eP	P	06 56 11.5	0.0
	comp=Z,5.8nm,0.9s,mb4.5						
HWUT				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
MDJ	Mudanjiang	51.70	41	P	P	06 56 13.2	+1.5
	comp=Z,6.5nm,0.7s,mb4.7						
MDJ				e		06 56 18.4	
ASF	Jabal al Asfar	51.72	135	P	P	06 56 12.3	+0.2
	comp=Z,5.5nm,0.8s,mb4.6,baz=336,slow=4.5,SNR=5.7						
ASF				LR	LR	07 17 20.7	
	comp=Z,108nm,21.7s,MS3.8,baz=220,slow=35						
KSU1	Kansas State U	52.03	280	eP	P	06 56 13.1	-1.1
CN2	Changchun	52.09	45	eP	P	06 56 15.0	+0.4
CN2				eS	S	07 03 39.3	+2.3
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
CN2				AMB	AMB		
	comp=Z,200nm,6.0s						
CN2				LR	LR		
	comp=N,200nm,15.0s,MS4.4						
CN2				LR	LR		
	comp=E,200nm,15.0s,MS4.4						
CN2				LR	LR		
	comp=Z,400nm,18.0s,MS4.5						
SPUT	South Promonto	52.09	295	eP	P	06 56 15.6	+0.9
QURS	Qurayyt al Mil	52.55	135	P	P	06 56 26.9	+8.7
GTA	Gaotai	53.23	70	eP	P	06 56 22.3	-0.9
GTA				PP	PP	06 58 23.3	-1.7
GTA				S	S	07 03 55.6	+3.0
GTA				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.7						
GTA				AMB	AMB		
	comp=Z,160nm,5.3s						
GTA				LR	LR		
	comp=N,187nm,10.7s,MS4.7						
GTA				LR	LR		
	comp=E,329nm,14.1s,MS4.7						
GTA				LR	LR		
	comp=Z,385nm,11.4s,MS4.7						
HHC	Hu-ho-hao-te	53.38	59	eP	P	06 56 31.4	+7.1
HHC				AP	pP	06 56 35.9	+8.5
HHC				XP	sP	06 56 38.4	+10
HHC				PCP	PcP	06 57 37.3	+5.7
HHC				SCP		07 01 32.8	
HHC				SCS	ScS	07 06 15.8	+5.1
HHC				AMB	AMB		
	comp=Z,22nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,142nm,6.1s						
HHC				LR	LR		
	comp=N,255nm,16.7s,MS4.6						
HHC				LR	LR		
	comp=E,393nm,14.7s,MS4.6						
HHC				LR	LR		
	comp=Z,226nm,14.1s,MS4.4						
CCAN	Las Canadas	53.66	194	P	P	06 56 27.1	+0.6
	comp=Z,93nm,3.2s						
EGOM	La Gomera	53.74	195	P	P	06 56 27.2	+0.1
	comp=Z,39nm,0.8s,mb5.4						
SNY	Shenyang	53.84	47	⇓P	P	06 56 34.1	+6.5
SNY				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
TMUT	Trail Mountain	53.90	294	eP	P	06 56 28.2	+0.1
SRU	San Rafael	53.99	293	P	P	06 56 23.9	-4.9
EIL	Elat	54.00	138	LR	LR	07 18 47.8	
	comp=Z,94nm,21.1s,MS3.8,baz=163,slow=35						
EIL	Elat	54.00	138	eP	P	06 56 27.6	-1.4
	comp=Z,31nm,1.0s,mb5.2						
EIL				e		06 56 36.2	
MYNC	Murphy	54.13	266	eP	P	06 56 29.6	-0.3
MYNC				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
MYNC	Murphy	54.13	266	eP	P	06 56 29.6	-0.3
	comp=Z,17nm,0.9s,mb5.0						
SWET	Sewanee	54.26	268	eP	P	06 56 29.4	-1.4
SWET				e		06 56 36.9	
ALWS	Ilw as Safayha	54.37	138	P	P	06 56 38.8	+7.2
RW3	Ridgway	54.45	290	eP	P	06 56 32.6	+0.5
JSC	Jenkinsville	54.49	263	eP	P	06 56 32.4	-0.1
JSC				e		06 56 40.1	
PV10	Paradox Valley	54.51	291	eP	P	06 56 33.4	+0.8
JMOS	Jabal al Moall	54.51	138	P	P	06 56 40.1	+7.3
HAQS	Haql	54.61	138	P	P	06 56 40.5	+7.1
PV01	Paradox Valley	54.68	291	eP	P	06 56 34.3	+0.4
BJI	Beijing	54.75	55	eP	P	06 56 42.0	+7.6
BJI				AMB	AMB		
	comp=Z,22nm,1.1s,mb5.1						
BJI				LR	LR		
	comp=Z,109nm,18.0s,MS4.0						
BJT	Baijiatuau	54.77	55	P	P	06 56 35.2	+0.7
MSU	Marysvale	54.80	294	eP	P	06 56 34.8	0.0
JMQS	Jabal Moqyreh	54.87	137	P	P	06 56 42.9	+7.4
BDAS	Al Bad‘	55.24	138	P	P	06 56 45.1	+6.9
OXF	Oxford	55.47	272	eP	P	06 56 38.6	-1.1
OXF				e		06 56 46.3	
AYUS	‘Aynunah	55.50	138	P	P	06 56 47.1	+7.1
TBKS	Tabuk	55.59	136	P	P	06 56 48.3	+7.6
MNV	Mina	55.67	300	eP	P	06 56 42.0	+0.9
MNV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
MNV				MLR	MLR		
	comp=Z,395nm,21.0s,MS4.5						
MNV	Mina	55.67	300	eP	P	06 56 42.0	+0.9
	comp=Z,1.4nm,0.4s,mb4.3						
MNV				LR	LR		
	comp=Z,395nm,21.0s,MS4.5						
GOGA	Godfrey	55.67	265	eP	P	06 56 40.3	-0.8
GOGA				e		06 56 48.0	
GOGA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
GOGA	Godfrey	55.67	265	eP	P	06 56 40.3	-0.9
	comp=Z,1.4nm,1.0s,mb4.0						
GOGA				e		06 56 48.0	
ARUT	Antelope Range	55.69	295	eP	P	06 56 42.8	+1.6
NVAR	Mina Array Bea	55.69	300	P	P	06 56 41.2	0.0
	comp=Z,5.9nm,1.1s,mb4.5,baz=0.2,slow=4.9,SNR=11						
NVAR				LR	LR	07 21 21.9	
	comp=Z,214nm,20.4s,MS4.2,baz=30,slow=37						
TPH	Tonopah	55.90	299	eP	P	06 56 43.5	+0.8
TPH				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
TPH				MLR	MLR		
	comp=Z,619nm,19.0s,MS4.7						
TPH	Tonopah	55.90	299	eP	P	06 56 43.5	+0.8
	comp=Z,5.8nm,0.8s,mb4.7						
TPH				LR	LR		
	comp=Z,619nm,19.0s,MS4.7						
MIAR	Mount Ida	56.05	276	eP	P	06 56 42.6	-1.3
MIAR				e		06 56 51.2	
MIAR				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.1						
MIAR	Mount Ida	56.05	276	eP	P	06 56 42.5	-1.3
	comp=Z,1.8nm,1.1s,mb4.0						
MIAR				e		06 56 51.2	
DBAS	Duba	56.54	137	P	P	06 56 54.9	+7.4
OMM	Old Mammoth Mi	56.58	301	eP	P	06 56 49.6	+2.0
WMOK	Wichita Mounta	56.62	281	eP	P	06 56 47.4	-0.6
WMOK				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
WMOK	Wichita Mounta	56.62	281	eP	P	06 56 47.4	-0.6
	comp=Z,18nm,1.1s,mb5.0						
TPNV	Topopah Spring	56.88	298	eP	P	06 56 47.3	-2.5
TPNV				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.8						
TPNV	Topopah Spring	56.88	298	eP	P	06 56 47.3	-2.5
	comp=Z,4.0nm,0.4s,mb4.8						
HILS	Ha’il	56.99	131	P	P	06 56 50.7	0.0
LZH	Lanzhou	57.06	67	eP	P	06 56 58.3	+7.2
LZH				AP	pP	06 57 01.5	+7.3
LZH				XP	sP	06 57 03.1	+7.8
LZH				AMB	AMB		
	comp=Z,56nm,1.5s,mb5.4						
LZH				AMB	AMB		
	comp=Z,128nm,5.3s						
LZH				LR	LR		
	comp=E,394nm,14.8s						
LZH				LR	LR		
	comp=Z,499nm,14.7s,MS4.8						
SDNR	Sundarnagar	57.67	94	eP	P	06 56 55.2	-0.3
NEN	Nelson	57.98	296	eP	P	06 56 57.6	+0.1
NEN				e		06 57 05.3	
NATX	Nacogdoches	58.95	276	eP	P	06 57 04.4	0.0
	comp=Z,63nm,1.4s,mb5.5						
DDI	Dehra Dun	58.99	93	eP	P	06 57 03.6	-1.1
YNBS	Yanbu‘ al Bahr	59.59	135	P	P	06 57 15.9	+7.1
CLNB	Carlsbad	59.79	285	eP	P	06 57 09.3	-0.9
GDL2	Guadalupe Moun	59.92	286	eP	P	06 57 10.2	-0.9
NDI	New Delhi	60.48	94	e	P	06 57 04.0	-11
MNTX	Cornudas Mount	60.56	287	eP	P	06 57 14.0	-1.4
	comp=Z,3.8nm,0.9s,mb4.5						
JCT	Junction City	60.96	281	eP	P	06 57 17.8	-0.3
JCT				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.5						
JCT	Junction City	60.96	281	eP	P	06 57 17.8	-0.3
	comp=Z,32nm,0.8s,mb5.5						
LSA	Lhasa	61.53	80	P	P	06 57 22.4	+0.3
CD2	Chengdu	62.14	68	P	P	06 57 25.0	-1.1
GKN	Gorkha	62.24	87	eP	P	06 57 25.4	-1.5
	comp=Z,192nm,1.2s						
KOLN	Koldanda	62.32	88	eP	P	06 57 25.8	-1.6
	comp=Z,77nm,1.2s,mb5.7						
KKN	Kakani	62.55	87	eP	P	06 57 28.1	-0.8
	comp=Z,154nm,0.9s						
TXAR	Lajitas Array	62.64	284	P	P	06 57 28.5	-1.0
	comp=Z,3.8nm,0.7s,mb4.7,baz=41,slow=4.4,SNR=50						
TXAR				LR	LR	07 25 02.1	
	comp=Z,269nm,19.7s,MS4.4,baz=55,slow=36						
DMN	Daman	62.70	87	eP	P	06 57 29.1	-0.8
	comp=Z,97nm,1.2s,mb5.8						
PKI	Pulchoki	62.78	87	eP	P	06 57 29.5	-0.9
	comp=Z,81nm,1.2s,mb5.7						
NJ2	Nanjing	62.96	53	eP	P	06 57 32.3	+0.8
NJ2				AP	pP	06 57 37.1	+2.4
NJ2				XP	sP	06 57 41.1	+5.3
NJ2				PCP	PcP	06 58 09.4	0.0
NJ2				S	S	07 06 02.0	+2.1
NJ2				XS		07 06 11.0	
NJ2				PS	PS	07 06 18.0	-0.9
NJ2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,300nm,8.3s						
NJ2				LR	LR		
	comp=N,420nm,15.9s,MS4.8						
NJ2				LR	LR		
	comp=E,330nm,19.0s,MS4.8						
NJ2				LR	LR		
	comp=Z,280nm,16.4s,MS4.5						
ENH	Enshi	63.54	63	eP	P	06 57 33.8	-1.5
	comp=Z,16nm,1.0s,mb5.0						
WHN	Wuhan	63.89	58	eP	P	06 57 44.3	+6.7
SSE	Sheshan	64.18	51	P	P	06 57 38.3	-1.1
SSE				PP	PP	07 00 00.0	-2.5
SSE				S	S	07 06 15.9	+0.9
SSE				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,64nm,4.3s						
SSE				LR	LR		
	comp=N,43nm,17.5s,MS4.0						
SSE				LR	LR		
	comp=E,81nm,17.5s,MS4.0						
SSE				LR	LR		
	comp=Z,44nm,19.9s,MS3.6						
SHL	Shillong	65.70	81	eP	P	06 57 47.7	-1.7
BHPL	Bhopal	65.85	95	eP	P	06 57 49.0	-1.4
BHPL				AMb	AMB	06 57 59.1	
	comp=Z,23nm,1.4s,mb5.0						
IMP	Imphal	66.77	79	eP	P	06 57 55.8	-0.4
GYA	Guiyang	66.92	66	⇑iP	P	06 57 55.9	-1.2
GYA				PP	PP	07 00 24.5	-1.8
GYA				S	S	07 06 44.4	-4.2
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.4						
GYA				AMB	AMB		
	comp=Z,150nm,4.2s						
GYA				LR	LR		
	comp=N,140nm,17.6s,MS4.4						
GYA				LR	LR		
	comp=E,160nm,18.2s,MS4.4						
GYA				LR	LR		
	comp=Z,150nm,18.9s,MS4.2						
BLSP	Bilaspur	67.64	91	eP	P	06 57 58.6	-3.2
BLSP				AMb	AMB	06 58 09.0	
	comp=Z,24nm,1.2s,mb5.1						
KMI	Kunming	67.69	70	eP	P	06 58 07.8	+5.8
KMI				LR	LR		
	comp=Z,218nm,24.4s,MS4.3						
CMAR	Chiang Mai Arr	73.71	75	P	P	06 58 36.9	-1.5
	comp=Z,3.3nm,0.8s,mb4.3,baz=347,slow=6.9,SNR=14						
CMAR				LR	LR	07 34 05.1	
	comp=Z,84nm,19.7s,MS4.0,baz=345,slow=38						
DBIC	Dimbokro	74.86	181	P	P	06 58 44.0	-1.1
	comp=Z,3.9nm,0.5s,mb4.6,baz=51,slow=3.9,SNR=8.6						
DBIC				LR	LR	07 32 46.7	
	comp=Z,87nm,18.1s,MS4.1,baz=350,slow=37						
TRN	Trinidad (W)	74.97	239	eP	P	06 58 46.0	+0.2
SDV	Santo Domingo	77.93	248	eP	P	06 59 02.0	-0.4
	comp=Z,17nm,0.8s,mb5.0						
ROSC	El Rosal	82.41	252	P	P	06 59 28.5	+2.2
	comp=Z,9.1nm,0.9s,mb4.7,baz=129,slow=5.3,SNR=6.1						
KMBO	Kilima Mbogo	84.69	139	P	P	06 59 39.8	+1.9
	comp=Z,0.7nm,0.7s,mb3.9,baz=11,slow=5.2,SNR=4.4						
BDFB	Brasilia	99.38	223	LR	LR	07 42 34.2	
	comp=Z,44nm,20.7s,MS4.0,baz=204,slow=34						
WRA	Warramunga Arr	116.03	44	PKP	PKPdf	07 05 45.4	-3.4
	comp=Z,1.5nm,0.7s,baz=337,slow=2.4,SNR=22						
ASAR	Alice Springs	119.67	45	PKP	PKPdf	07 05 52.3	-3.3
	comp=Z,2.9nm,0.7s,baz=359,slow=2.0,SNR=40						
STKA	Stephens Creek	128.56	38	PKP	PKPdf	07 06 09.9	-2.7
	comp=Z,1.5nm,0.8s,baz=293,slow=7.9,SNR=2.9						
VNA1	Neumayer--Stat	152.03	183	e	PKPdf	07 07 10.4	+18
VNA1	Neumayer--Stat	152.03	183	⇓iP	PKPdf	07 06 59.5	+7.0
VNA1				e		07 07 10.4	
VNA2	Neumayer--Watz	152.30	183	e	PKPdf	07 07 10.9	+18
VNA2	Neumayer--Watz	152.30	183	⇓iP	PKPdf	07 07 00.0	+7.2
VNA2				e		07 07 10.9	
VNA3	Neumayer Olymp	152.64	184	e	PKPdf	07 07 11.3	+18
VNA3	Neumayer Olymp	152.64	184	⇓iP	PKPdf	07 07 00.5	+7.2
VNA3				e		07 07 11.3	
MAW	Mawson	152.98	129	PKPbc	PKPdf	07 06 59.3	+5.4
	comp=Z,10nm,0.8s,baz=333,slow=3.3,SNR=12						
SNAA	Sanae	153.04	179	e	PKPdf	07 06 59.5	+5.7
SNAA	Sanae	153.04	179	e	PKPdf	07 07 10.1	+16
SNAA	Sanae	153.04	179	PKPbc	PKPdf	07 06 59.6	+5.8
	comp=Z,3.2nm,0.7s,baz=67,slow=0.7,SNR=31						
SNAA	Sanae	153.04	179	ePKIKP	PKPdf	07 06 59.5	+5.7
SNAA				e		07 07 10.1	

IDC 15 06:58:27.1±3.3, 19.14N×82.45W, mb2.8/2, mb1 3.3/2, mb1mx3.0/19, Error ellipse: s-maj=87.0km s-min=63.0km az=81.0, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	Lajitas Array	21.81	302	P	P	07 03 21.0	-1.8
	0.3nm,0.8s,baz=114,slow=11,SNR=3.2						
YKA	Yellowknife Ar	48.67	341	P	P	07 07 12.7	-2.0
	0.1nm,0.5s,baz=132,slow=8.3,SNR=3.4						
WRA	Warramunga Arr	145.36	262	PKPbc	PKPbc	07 18 06.7	-1.4
	0.5nm,0.7s,baz=83,slow=3.4,SNR=5.9						

PDG 15 06:59:19.4±0.1, 36.52N×15.75E, h11km±1km
CSEM 15 06:59:19.0±0.2, 36.19N×15.72E, h10km, ML3.8, Error ellipse: s-maj=4.6km s-min=1.2km az=139.0
NEIC 15 06:59:20.7, 36.34N×15.59E, h5km, ML3.8(ROM), After ROM.
ROM 15 06:59:20.7±0.2, 36.34N×15.59E, h5km, MD3.4/7, ML3.8, 8C-3D, Error ellipse: s-maj=2.1km s-min=1.9km az=90.0, Sicily

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PZI	Palazzolo	0.88	324	ePG	Pg	06 59 38.6	+0.2
PZI				SG	Sg	06 59 51.4	+1.2
	94nm,0.3s						
PZI	Palazzolo	0.88	324	ePg	Pg	06 59 38.6	+0.3
PZI				eSg	Sg	06 59 51.4	+1.2
PZI	Palazzolo	0.88	324	ePn	Pn	06 59 38.6	-1.0
	94nm,0.3s						
SSY	Sortino	0.91	333	ePG	Pg	06 59 39.2	+0.2
SSY				SG	Sg	06 59 52.5	+1.3
SSY	Sortino	0.91	333	ePg	Pg	06 59 39.2	+0.2
SSY				eSg	Sg	06 59 52.5	+1.3
AGST	Augusta-Monte	0.96	342	⇑iPG	Pg	06 59 39.7	-0.2
AGST				SG	Sg	06 59 55.5	+2.7
AGST	Augusta-Monte	0.96	342	⇑iPg	Pg	06 59 39.7	-0.2
AGST				eSg	Sg	06 59 55.5	+2.8
WDD	Wield Dalam	0.98	242	ePG	Pg	06 59 40.2	-0.2
WDD				SG	Sg	06 59 54.3	+0.8
WDD	Wield Dalam	0.98	242	ePg	Pg	06 59 40.2	-0.1
WDD				eSg	Sg	06 59 54.3	+0.8
MMME	Mongiuffi-Meli	1.62	351	ePN	Pn	06 59 49.2	-0.9
MMME				SN	Sn	07 00 11.0	-0.5
MTTG	Motta San Giov	1.66	3	ePN	Pn	06 59 49.7	-1.0
	291nm,0.5s						
MTTG	Motta San Giov	1.66	3	ePn	Pn	06 59 49.7	-1.0
	291nm,0.5s						
SOI	Samo	1.77	12	ePN	Pn	06 59 51.5	-0.8
SOI				SN	Sn	07 00 15.5	+0.1
SOI	Samo	1.77	12	ePg	Pn	06 59 51.5	-0.8
SOI				eSg	Sn	07 00 15.5	+0.1
FAVR	Favara	1.80	302	⇓iPN	Pn	06 59 52.8	+0.1
	1µm,0.7s						
FAVR	Favara	1.80	302	⇓iPg	Pn	06 59 52.8	+0.1
FAVR	Favara	1.80	302	⇓iPn	Pn	06 59 52.8	+0.1
	1µm,0.7s						
GMB	Gambarie	1.84	6	ePN	Pn	06 59 52.8	-0.4
GMB	Gambarie	1.84	6	ePg	Pn	06 59 52.8	-0.4
MSI	Messina ING	1.86	359	ePN	Pn	06 59 53.4	-0.2
	1µm,0.4s						
MSI	Messina ING	1.86	359	ePn	Pn	06 59 53.4	-0.2
	1µm,0.4s						
SCLL	Scilla	1.92	3	ePN	Pn	06 59 53.4	-1.0
	324nm,0.4s						
SCLL	Scilla	1.92	3	ePg	Pn	06 59 53.4	-0.9
SCLL	Scilla	1.92	3	ePn	Pn	06 59 53.4	-1.0
	324nm,0.4s						
MSRU	Castanea	1.92	358	ePN	Pn	06 59 53.7	-0.7
MSRU				SN	Sn	07 00 17.7	-1.6
CSLB	Castelbuono	2.01	323	ePN	Pn	06 59 56.1	+0.4
	251nm,0.2s						
CSLB	Castelbuono	2.01	323	ePg	Pn	06 59 56.1	+0.3
CSLB	Castelbuono	2.01	323	ePn	Pn	06 59 56.1	+0.4
	251nm,0.2s						
PLLN	Pollina	2.02	325	ePN	Pn	06 59 56.3	+0.5
GIB	Gibilmanna	2.07	323	ePN	Pn	06 59 57.0	+0.5
	111nm,0.4s						
GIB	Gibilmanna	2.07	323	ePg	Pn	06 59 57.0	+0.5
GIB	Gibilmanna	2.07	323	ePn	Pn	06 59 57.0	+0.5
	111nm,0.4s						
CLTB	Caltabellotta	2.27	304	ePN	Pn	06 59 58.7	-0.7
	317nm,0.4s						
CLTB	Caltabellotta	2.27	304	ePg	Pn	06 59 58.6	-0.8
CLTB	Caltabellotta	2.27	304	ePn	Pn	06 59 58.7	-0.7
	317nm,0.4s						
SLNA	Salina	2.30	345	ePN	Pn	06 59 59.9	0.0
	571nm,0.3s						
SLNA	Salina	2.30	345	ePn	Pn	06 59 59.9	0.0
SLNA	Salina	2.30	345	ePn	Pn	06 59 59.9	0.0
	571nm,0.3s						
GRI	Girifalco	2.57	15	ePN	Pn	07 00 03.1	-0.5
	280nm,0.2s						
GRI	Girifalco	2.57	15	ePn	Pn	07 00 03.1	-0.6
GRI	Girifalco	2.57	15	ePn	Pn	07 00 03.1	-0.5
	280nm,0.2s						
TIP	Timpagrande	2.98	18	eP	Pn	07 00 08.4	-1.2
TIP	Timpagrande	2.98	18	eP	Pn	07 00 08.4	-1.2
USI	Ustica	3.04	322	ePN	Pn	07 00 08.9	-1.6
	271nm,0.3s						
USI	Ustica	3.04	322	ePn	Pn	07 00 08.9	-1.6
USI	Ustica	3.04	322	ePn	Pn	07 00 08.9	-1.6
	271nm,0.3s						
ORI	Oriolo Calabro	3.78	10	ePN	Pn	07 00 20.0	-0.9
	101nm,0.3s						
ORI	Oriolo Calabro	3.78	10	ePn	Pn	07 00 20.1	-0.9
ORI	Oriolo Calabro	3.78	10	ePn	Pn	07 00 20.0	-0.9
	101nm,0.3s						
MGR	Morigerati	3.79	360	ePN	Pn	07 00 19.1	-2.0
	114nm,0.3s						
MGR	Morigerati	3.79	360	ePn	Pn	07 00 19.1	-2.0
MGR	Morigerati	3.79	360	ePn	Pn	07 00 19.1	-2.0
	114nm,0.3s						
SLCN	Sala Consilina	4.05	0	ePN	Pn	07 00 23.0	-1.7
	56nm,0.3s						
SLCN	Sala Consilina	4.05	0	ePn	Pn	07 00 23.0	-1.6
SLCN	Sala Consilina	4.05	0	ePn	Pn	07 00 23.0	-1.7
	56nm,0.3s						
SGO	Sicignano	4.22	357	ePN	Pn	07 00 25.9	-1.3
	39nm,0.3s						
SGO	Sicignano	4.22	357	ePn	Pn	07 00 25.9	-1.3
SGO	Sicignano	4.22	357	ePn	Pn	07 00 25.9	-1.3
	39nm,0.3s						
VLS	Valsamata	4.39	64	eP	Pn	07 00 25.3	-4.3
KEK	Kerkira	4.73	43	eP	Pn	07 00 30.0	-4.4
ITM	Ithomi	5.16	79	eP	Pn	07 00 37.5	-2.9
JAN	Janina	5.31	50	eP	Pn	07 00 38.5	-4.1
EVR	Evrytania	5.57	61	eP	Pn	07 00 44.5	-1.7
VLI	Veliai	5.93	84	eP	Pn	07 00 48.5	-2.8
QSH	Qafa e Shtames	6.17	32	ePn	Pn	07 00 50.6	-4.2
ULC	Ulcinj	6.30	26	⇑iPn	Pn	07 00 50.9	-5.6
ULC				eSn	Sn	07 01 59.8	-10
BUM	Brajici-Budva	6.48	22	⇑iPn	Pn	07 00 53.5	-5.7
BUM				eSn	Sn	07 02 04.2	-10
HCY	Herceg Novi	6.50	19	ePn	Pn	07 00 53.2	-6.3
HCY				eSn	Sn	07 02 04.7	-10
PUK	Puka	6.60	29	ePn	Pn	07 00 56.5	-4.3
PUK				i Sn	Sn	07 01 08.2	-69
TTG	Podgorica	6.71	24	⇑iPn	Pn	07 00 56.6	-5.8
TTG				eSn	Sn	07 02 09.8	-10
STON	Ston	6.72	13	i Pn	Pn	07 00 57.2	-5.3
STON				i Sn	Sn	07 02 07.4	-13
NEO	Neokhori	6.73	62	eP	Pn	07 00 59.0	-3.6
BRY	Bratogost	6.94	18	⇑iPn	Pn	07 01 00.1	-5.5
BRY				eSn	Sn	07 02 15.2	-11
NKY	Niksic	6.98	21	⇑iPn	Pn	07 01 00.5	-5.7
NKY				eSn	Sn	07 02 15.9	-11
PVY	Plav	7.11	27	ePn	Pn	07 01 02.1	-5.8
PVY				eSn	Sn	07 02 19.3	-11
UPM	Unac-Piva	7.32	19	⇑iPn	Pn	07 01 05.1	-5.8
UPM				eSn	Sn	07 02 24.5	-11
IVA	Berane	7.32	26	ePn	Pn	07 01 05.6	-5.4
IVA				eSn	Sn	07 02 24.6	-11
PLE	Pljevlja	7.57	22	ePn	Pn	07 01 08.8	-5.6
PLE				eSn	Sn	07 02 30.4	-11

IDC 15 07:10:21.5±0.9, 9.97N×126.28E, mb3.9/9, mb1 4.0/9, mb1mx3.9/18, Error ellipse: s-maj=48.1km s-min=17.6km az=72.0
NEIC 15 07:10:23.4±0.6, 9.95N×126.29E, h10km, mb4.3/1, Error ellipse: s-maj=31.0km s-min=10.7km az=71.0
MAN 15 07:10:24.0, 10.04N×126.38E, mb4.4, ML3.2, MS3.4
ISC 15 07:10:26.3±0.9, 10.00N±0.04×126.46E±0.06, h45km±9km, n29, σ1.06/37, mb3.9/10, 2C-3D, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	0.98	257	⇓eP	P	07 10 41.8	-2.0
SCPH				eS	S	07 10 54.5	-2.3
BUTP	Butuan	1.32	219	eP	P	07 10 47.8	-1.0
BUTP				eS	S	07 11 04.7	-0.6

MSLP	**Maasin**	1.58	275	eP	P	07 10 51.8	-0.6
MSLP				eS	S	07 11 09.7	-2.1
BIPH	**Bislig**	1.81	183	⇓eP	P	07 10 56.2	+0.6
BIPH				eS	S	07 11 18.2	+0.7
PLP	**Palo**	1.86	309	eP	P	07 10 55.8	-0.5
PLP				eS	S	07 11 28.4	+10
BESP	**Borongan**	1.88	328	eP	P	07 10 56.7	+0.1
BESP				eS	S	07 11 24.5	+5.4
OCLP	**Ormoc**	2.10	300	eP	P	07 11 00.9	+1.2
LLP	**Lapu-Lapu**	2.48	277	⇑iP	P	07 11 05.5	+0.4
LLP				eS	S	07 11 35.3	+1.1
BUKP	**Musuan**	2.52	213	eP	P	07 11 07.2	+1.5
TBP	**Tagbilaran**	2.58	263	eP	P	07 11 06.5	-0.1
TBP				eS	S	07 11 37.7	+0.8
CNP	**Catarman**	3.05	325	eP	P	07 11 12.5	-0.8
SNPH	**Sibulan**	3.25	259	eP	P	07 11 16.0	0.0
KCP	**Kidapawan**	3.27	205	eP	Px	07 11 33.0	
DCPH	**Dipolog City**	3.38	246	⇓iP	P	07 11 17.6	-0.3
DCPH				i S	S	07 11 59.0	+1.8
PAGZ	**Pagadian**	3.72	235	eP	P	07 11 23.5	+0.8
GUIM	**Jordan**	3.86	280	eP	P	07 11 25.1	+0.4
RCP	**Roxas**	3.96	293	⇑eP	P	07 11 26.7	+0.5
PVCP	**Virac**	4.22	328	eP	P	07 11 29.7	-0.1
OTRP	**Odiongan**	4.95	299	eP	P	07 11 41.8	+1.8
KAKA	**Kakadu**	23.34	165	eP	P	07 15 32.2	+0.7
	5.8nm,0.6s,mb4.2						
CMAR	**Chiang Mai Arr**	27.93	291	P	P	07 16 13.2	-1.6
	0.8nm,0.4s,mb3.7,baz=106,slow=7.7,SNR=6.1						
FITZ	**Fitzroy Crossi**	27.94	182	P	P	07 16 14.0	-0.8
	3.7nm,0.7s,mb4.1,baz=7.6,slow=11,SNR=4.5						
WRA	**Warramunga Arr**	30.75	165	P	P	07 16 38.6	-1.2
	0.3nm,0.7s,mb3.3,baz=344,slow=9.5,SNR=4.4						
ASAR	**Alice Springs**	34.24	168	P	P	07 17 09.2	-1.0
	0.2nm,0.4s,mb3.4,baz=12,slow=8.3,SNR=4.8						
SONM	**Songino Array**	41.33	340	P	P	07 18 09.7	+0.4
	0.6nm,0.5s,mb3.5,baz=160,slow=9.9,SNR=5.4						
ARCES	**ARCESS Array B**	84.51	340	P	P	07 22 55.6	+0.3
	3.1nm,0.9s,mb4.4,baz=78,slow=8.3,SNR=4.0						
FINES	**FINESS Array B**	86.21	332	P	P	07 23 03.6	-0.3
	2.2nm,0.9s,mb4.4,baz=76,slow=7.9,SNR=10						
AKASG	**Malin Array Be**	86.89	321	P	P	07 23 06.7	-0.8
	0.8nm,0.6s,mb4.2,baz=55,slow=5.3,SNR=3.2						
YKA	**Yellowknife Ar**	93.92	24	P	P	07 23 42.4	+2.3
	0.1nm,0.7s,mb3.4,baz=300,slow=4.3,SNR=3.0						

CASC 15 07:19:10.0±2.3, 13.08N×88.98W, h54^{km}±26^{km}, MD3.9, 5C-11D, El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LFRS	**El Faro**	0.54	352	⇓iP	P	07 19 21.9	-0.1
SNVI	**San Vicente**	0.54	15	⇓eP	P	07 19 22.2	+0.2
SNVI				eS	S	07 19 32.3	+1.5
LCBS	**La Ceiba**	0.57	0	⇓eP	P	07 19 22.3	0.0
LCBS				eS	S	07 19 32.8	+1.5
LBRS	**Las Brisas**	0.65	355	⇓eP	P	07 19 23.8	+0.4
LBRS				eS	S	07 19 33.0	-0.3
LFU	**La Fuente**	0.67	349	⇓iP	P	07 19 23.9	+0.3
LFU				eS	S	07 19 35.7	+1.9
BOQS	**Boqueron**	0.71	336	⇓iP	P	07 19 24.3	+0.2
BOQS				eS	S	07 19 35.5	+0.9
VSM	**San Miguel**	0.77	63	⇓eP	P	07 19 23.5	-1.4
VSM				eS	S	07 19 35.1	-0.8
BLLM	**Bellamira**	0.81	64	eP	P	07 19 26.1	+0.7
BLLM				eS	S	07 19 38.1	+1.3
SBLS	**San Blas**	0.98	320	⇑eP	P	07 19 27.7	0.0
SBLS				eS	S	07 19 41.9	+1.0
SNJE	**San Jose**	0.99	322	⇑eP	P	07 19 27.6	-0.2
SNJE				eS	S	07 19 41.9	+0.7
CAHU	**Cacacuatique**	1.01	48	⇓eP	P	07 19 28.8	+0.5
CAHU				eS	S	07 19 43.3	+1.6
RTR	**El Retiro**	1.04	321	⇓eP	P	07 19 28.7	+0.2
RTR				eS	S	07 19 43.0	+0.7
CNCH	**Conchagua**	1.13	80	⇓eP	P	07 19 29.6	-0.3
CNCH				eS	S	07 19 45.6	+0.9
RBDL	**Robledal**	1.23	326	⇑eP	P	07 19 31.4	+0.1
RBDL				eS	S	07 19 48.2	+1.1
MTO2	**Montecristo 2**	1.36	344	⇓iP	P	07 19 33.3	+0.1
LEON	**Leon**	2.14	108	eP	P	07 19 43.0	-1.1
TEL3	**Telica 3**	2.14	103	⇑eP	P	07 19 42.5	-1.6
TELN	**Telica**	2.15	103	eP	P	07 19 43.5	-0.7
TELN				eS	S	07 20 11.7	+2.0
MIRN	**Miramar**	2.30	106	eP	P	07 19 45.2	-1.2
MOMJ	**Momotombo**	2.47	105	eP	P	07 19 48.2	-0.6
COPN	**Copaltepe**	2.50	111	eP	P	07 19 47.3	-1.9
APYN	**Apoyeque**	2.70	108	⇑eP	P	07 19 50.4	-1.6
XAVN	**Gruta Xavier**	2.75	109	eP	P	07 19 51.1	-1.7
TICN	**Ticuantepe**	2.88	111	eP	P	07 19 56.2	+1.6
PYTN	**Playitas**	2.90	100	eP	P	07 19 52.5	-2.4
APON	**Apoyo**	3.07	112	eP	P	07 19 57.4	+0.1
LAJ	**Bijagual**	5.74	123	eP	P	07 20 31.4	-3.2
LAJ				eS	S	07 21 31.8	-8.2
LCR2	**La Lucha 2**	5.90	124	eP	P	07 20 37.0	+0.1
URSC	**Urasca**	6.04	122	eP	P	07 20 39.6	+0.9

DJA 15 07:28:51.6±0.8, 8.71S×115.53E, h96^{km}±6^{km}, ML3.9/2, 5C-3D, Error ellipse: s-maj=32.7km s-min=8.9km az=2.0, Bali region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	**Rata**	0.02	170	⇑ePn	P	07 29 04.7	-0.3
RATI				⇓eSn	S	07 29 14.4	-0.7
KEDI	**Kedomdong**	0.62	69	⇓ePn	P	07 29 07.5	-0.6
KEDI				⇑eSn	S	07 29 19.1	-1.3
KELI	**Kelakatan**	1.14	295	⇑ePn	P	07 29 13.1	-0.5
	99nm,0.2s						
KELI				⇑eSn	S	07 29 28.8	-1.3
SRDI	**Scrawed**	1.39	279	⇑ePn	P	07 29 16.1	-0.6
	212nm,0.1s						
SRDI				⇓eSn	S	07 29 34.2	-1.1

IDC 15 07:53:55.8±20.0, 18.77N×81.35W, mb3.0/3, mb1 3.5/3, mb1mx3.2/19, Error ellipse: s-maj=432.0km s-min=81.2km az=170.0, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	22.89	302	P	P	07 59 01.3	-1.1
	0.2nm,0.8s,baz=139,slow=9.6,SNR=4.3						
YKA	**Yellowknife Ar**	49.38	340	P	P	08 02 46.3	-2.5
	0.2nm,0.6s,baz=132,slow=8.4,SNR=3.5						
ILAR	**Eielson Array**	62.80	334	P	P	08 04 23.2	-2.0
	0.2nm,0.6s,baz=104,slow=4.2,SNR=5.8						

IDC 15 08:01:15.0±28.0, 16.35S×176.23W, mb4.1/4, mb1 4.2/4, mb1mx3.8/15, Error ellipse: s-maj=546.0km s-min=142.6km az=84.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	41.21	240	P	P	08 09 02.3	-0.9
	0.4nm,0.3s,baz=92,slow=10,SNR=6.7						
WRA	**Warramunga Arr**	46.98	258	P	P	08 09 48.0	-2.0
	0.4nm,0.6s,baz=95,slow=7.7,SNR=10						
ASAR	**Alice Springs**	47.23	253	P	P	08 09 49.6	-2.3
	3.7nm,0.5s,baz=89,slow=8.1,SNR=64						
FITZ	**Fitzroy Crossi**	55.36	259	P	P	08 10 51.1	-2.3
	6.7nm,1.2s,baz=59,slow=5.9,SNR=2.6						

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*NEIC **15** 08:05:14.3±0.9, 16.22N×95.24W, mb4.2/14, MD4.5(MEX), Error ellipse: s-maj=15.1km s-min=7.1km az=188.0*
*MEX **15** 08:05:14.1±1.0, 16.03N×95.44W, h12^{km}±12^{km}, MD4.5*
*IDC **15** 08:05:15.5±1.3, 16.53N×95.14W, h37^{km}±4^{km}, mb3.8/7, mb1 4.0/10, mb1mx3.8/19, ML3.5/2, MS3.6/7, Ms1 3.7/7, ms1mx3.2/18, Error ellipse: s-maj=44.3km s-min=15.1km az=42.0*

ISC 15 08:05:12.1±0.4, 16.09N±0.04×95.43W±0.03, h39^{km}, h39^{km}±1.1^{km}:pP-P, n90, σ1^{s}30/95, mb4.2/18, MS3.6/7, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	**Huatulco**	0.72	244	eP	P	08 05 24.9	-0.9
HUIG				i S	S	08 05 35.0	-0.9
HUIG	**Huatulco**	0.72	244	eP	P	08 05 24.9	-0.9
HUIG				i S	S	08 05 35.1	-0.7
CMIG	**Matias Romero**	1.13	28	i P	P	08 05 32.3	+0.7
CMIG				i S	S	08 05 47.3	+1.1
OXX	**Oaxaca**	1.59	309	eP	P	08 05 39.1	+0.9
OXX				i S	S	08 05 58.6	+0.9
VHO	**Vista Hermosa**	1.59	308	eP	P	08 05 39.3	+1.1
VHO				i S	S	08 05 59.3	+1.6
PNIG	**Pinotepa**	2.61	277	eP	P	08 05 52.3	-0.5
PNIG				eS	S	08 06 25.0	+1.5
SCX	**San Cristobal**	2.76	76	i P	P	08 05 57.1	+2.2
SCX				i S	S	08 06 28.2	+0.8
CCIG	**Comitan**	3.17	86	eP	P	08 06 01.6	+0.8
CCIG				i S	S	08 06 39.4	+1.6
IISM	**Ciudad Serdan**	3.43	328	eP	P	08 06 06.2	+1.7
IISM				i S	S	08 06 43.4	-1.1
LVIG	**Laguna Verde**	3.74	346	eP	P	08 06 14.6	+5.8
LVIG				i S	S	08 06 51.2	-1.0
IIB	**San Bernardino**	3.99	316	i P	P	08 06 11.0	-1.4
PPM	**Popocatepetl**	4.25	315	eP	P	08 06 18.7	+2.6
PPM				eS	S	08 07 11.5	+6.3
PPM				i S	S	08 07 14.3	+9.1
PPM	**Popocatepetl**	4.25	315	eP	P	08 06 18.7	+2.6
PPM				eP		08 06 20.3	
PPM				eP		08 06 21.9	
PPM				eS	S	08 07 11.5	+6.3
PPM				i S	S	08 07 14.3	+9.1
ACX	**Acapulco**	4.37	281	i P	P	08 06 12.2	-5.6
ACX				i P		08 06 12.3	
PLIG	**Platanillo**	4.51	301	eP	P	08 06 21.9	+2.1
PLIG				eS	S	08 07 15.8	+3.9
IIO	**Organos**	4.69	319	eP	P	08 06 31.4	+9.1
CAIG	**El Cayaco**	4.73	282	eP	P	08 06 21.9	-1.0
CAIG				eS	S	08 07 16.8	-0.6
IIZ	**Mezontepec**	4.76	311	eP	P	08 06 26.8	+3.4
UNM	**Universidad Na**	4.81	313	eP	P	08 06 26.0	+2.0
UNM				eS	S	08 07 24.7	+5.4
UNM	**Universidad Na**	4.81	313	eP	P	08 06 26.0	+2.0
UNM				eP		08 06 28.1	
UNM				eS	S	08 07 24.7	+5.4
PTVM	**Pico Tres Padr**	4.95	315	eP	P	08 06 33.2	+7.3
IIC	**Rita Coyotepec**	5.16	316	eP	P	08 06 24.7	-4.3
TEIG	**Tepich**	7.95	58	Pn	P	08 07 02.9	-5.0
	0.6nm,0.3s,baz=290,slow=20,SNR=21						
TEIG				Sn	S	08 08 32.6	-5.0
	5.3nm,0.3s,baz=274,slow=23,SNR=3.9						
SFJM	**Santa Fe**	8.45	302	i P	P	08 07 07.0	-7.8
JTS	**JuntasAbangare**	11.71	118	eP	P	08 08 02.4	+2.7
JCT	**Junction City**	14.88	345	eP	P	08 08 42.2	+0.7
	6.1nm,0.9s						
LTX	**Lajitas**	15.21	332	eP	P	08 08 43.8	-2.0
	13nm,1.4s						
TXAR	**Lajitas Array**	15.21	332	Pn	P	08 08 46.0	+0.1
	0.1nm,0.3s,baz=153,slow=14,SNR=10.0						
TXAR	**Lajitas Array**	15.21	332	Pn	P	08 08 46.0	+0.1
NATX	**Nacogdoches**	15.62	2	eP	P	08 08 47.5	-3.7
	19nm,0.6s						
CLNB	**Carlsbad**	17.84	336	eP	P	08 09 19.6	+0.5
GDL2	**Guadalupe Moun**	17.98	335	eP	P	08 09 21.0	+0.2
MNTX	**Cornudas Mount**	17.99	332	eP	P	08 09 20.4	-0.6
	6.8nm,1.0s						
MIAR	**Mount Ida**	18.46	5	eP	P	08 09 24.9	-1.9
	0.9nm,0.7s						
CPRX	**Cap Rock**	18.52	337	eP	P	08 09 29.0	+1.5
WMOK	**Wichita Mounta**	18.82	351	eP	P	08 09 30.3	-0.8
	6.7nm,0.7s						
UALR	**University of**	18.82	8	eP	P	08 09 27.4	-3.8
GOGA	**Godfrey**	20.36	30	P	P	08 09 45.5	-2.5
	0.6nm,0.6s						
BNM	**Barren Site**	20.62	333	eP	P	08 09 50.8	+0.1
LPM	**Los Pinos Moun**	20.76	333	eP	P	08 09 52.2	+0.1
LENM	**Lemitar**	20.79	332	eP	P	08 09 52.9	+0.5
WVT	**Waverly**	21.08	17	eP	P	08 09 54.0	-1.4
	13nm,1.1s,mb4.2						
PARMO	**Parma**	21.11	13	eP	P	08 09 56.0	+0.3
ANMO	**Albuquerque**	21.23	334	P	P	08 09 56.7	-0.2
	12nm,1.2s,mb4.1,baz=147,slow=12,SNR=11						
ANMO				LR	LR	08 19 11.2	
	comp=Z,85nm,21.2s,MS3.1,slow=40						
ANMO	**Albuquerque**	21.23	334	eP	P	08 09 56.4	-0.5
	13nm,1.1s,mb4.2						
TUC	**Tucson**	21.33	322	eP	P	08 09 57.5	-0.4
	16nm,1.0s,mb4.3						
TUC				epP		08 10 08.0	
MYNC	**Murphy**	21.45	26	eP	P	08 09 55.9	-3.2
	21nm,0.9s,mb4.5						
FVM	**French Village**	22.26	10	eP	P	08 10 03.8	-3.3
	7.4nm,0.7s,mb4.2						
KSU1	**Kansas State U**	22.95	358	eP	P	08 10 13.3	-0.7
SDCO	**Great Sand Dun**	23.34	340	eP	P	08 10 19.2	+1.5
	15nm,1.1s,mb4.3						
ROSC	**El Rosal**	23.53	116	P	P	08 10 24.4	+4.5
	11nm,1.1s,mb4.2,baz=97,slow=20,SNR=4.6						
ROSC				sP		08 10 37.3	
	6.9nm,0.7s,baz=100,slow=18,SNR=4.8						
ROSC				LR	LR	08 17 55.5	
	comp=Z,89nm,21.8s,MS3.2,baz=228,slow=32						
BLO	**Bloomington**	24.29	17	P	P	08 10 26.6	-0.4
	19nm,0.8s,mb4.6						
PV01	**Paradox Valley**	24.83	335	eP	P	08 10 33.5	+1.2
PV10	**Paradox Valley**	25.23	334	eP	P	08 10 36.0	0.0
ISCO	**Idaho Springs**	25.24	341	eP	P	08 10 36.5	+0.3
	5.6nm,0.9s,mb4.1						
LDFC	**Landfair**	25.85	321	eP	P	08 10 43.2	+1.3
LDFC				epP	pP	08 10 54.2	+1.9
NEN	**Nelson**	26.07	322	eP	P	08 10 44.3	+0.4
ARUT	**Antelope Range**	26.83	327	P	P	08 10 52.6	+1.7
PDAR	**Pinedale Array**	29.21	338	P	P	08 11 11.3	-1.0
	0.5nm,0.5s,mb3.5,baz=149,slow=8.6,SNR=5.0						
PDAR				pP	pP	08 11 21.1	-1.8
	1.4nm,0.6s,baz=144,slow=9.8,SNR=10.0						
PDAR	**Pinedale Array**	29.21	338	P	P	08 11 11.3	-1.0
PDAR				pP	pP	08 11 21.1	-1.8
NVAR	**Mina Array Bea**	29.99	322	P	P	08 11 20.3	+1.1
	3.1nm,0.9s,mb4.0,baz=147,slow=9.2,SNR=19						
NVAR				pP	pP	08 11 30.4	+0.5
	8.8nm,0.8s,baz=136,slow=8.3,SNR=30						
NVAR				sP	sP	08 11 35.4	+0.4
	1.6nm,0.7s,baz=200,slow=34,SNR=8.1						
NVAR				LR	LR	08 24 46.9	
	comp=Z,280nm,18.2s,MS3.9,baz=115,slow=39						
SNOW	**Snow King Moun**	30.25	338	eP	P	08 11 20.5	-1.0
SNOW				epP	pP	08 11 31.9	-0.3
WUWY	**Wally Ulrich**	30.31	338	eP	P	08 11 20.6	-1.4
WUWY				epP	pP	08 11 32.2	-0.6
TPAW	**Teton Pass**	30.35	337	eP	P	08 11 22.9	+0.5
QLMT	**Earthquake Lak**	31.68	338	P	P	08 11 33.3	-0.8
HLID	**Hailey**	31.80	333	eP	P	08 11 33.6	-1.6
	4.4nm,1.3s,mb4.1						
HLID				epP	pP	08 11 44.8	-1.2
MCMT	**McKenzie Canyo**	32.20	336	eP	P	08 11 39.9	+1.1
MCMT				epP	pP	08 11 50.1	+0.6
HRY	**Holter Researc**	33.45	339	eP	P	08 11 49.0	-0.5
ULM	**Lac du Bonnet**	34.08	359	P	P	08 11 52.5	-2.4
	0.5nm,0.3s,mb3.9,baz=171,slow=12,SNR=3.0						
ULM				sP	sP	08 12 08.7	-2.0
	1.6nm,0.6s,baz=352,slow=17,SNR=3.6						
ULM				LR	LR	08 27 17.4	
	comp=Z,77nm,18.8s,MS3.5,baz=217,slow=39						
BMO	**Blue Mountains**	34.09	332	P	P	08 11 54.4	-0.7
FFC	**Flin Flon**	38.89	354	eP	P	08 12 33.5	-2.0
	3.6nm,0.7s,mb4.2						
FFC				epP	pP	08 12 44.9	-1.5
ARE	**Arequipa**	40.05	143	eP	pP	08 12 55.0	-1.3
LPAZ	**La Paz**	41.96	139	LR	LR	08 29 51.0	
	comp=Z,41nm,19.7s,MS3.3,baz=81,slow=35						
SCHQ	**Schefferville**	44.53	23	LR	LR	08 32 20.9	
	comp=Z,67nm,18.6s,MS3.6,baz=285,slow=37						
YKA	**Yellowknife Ar**	48.28	348	P	P	08 13 49.3	-1.9
	0.5nm,0.4s,mb3.9,baz=154,slow=7.2,SNR=16						
YKA				pP	pP	08 13 59.8	-2.4
	2.4nm,0.7s,baz=151,slow=7.2,SNR=18						
YKA	**Yellowknife Ar**	48.28	348	P	P	08 13 49.3	-1.9
YKA				pP	pP	08 13 59.8	-2.4
BDFB	**Brasilia**	56.43	122	P	P	08 14 52.4	-0.2
	1.0nm,0.4s,mb4.2,baz=346,slow=4.2,SNR=3.0						
ILAR	**Eielson Array**	59.63	337	P	P	08 15 13.1	-1.4
	1.3nm,0.8s,mb4.0,baz=122,slow=5.4,SNR=8.9						
ILAR				pP	pP	08 15 23.9	-1.8
	2.4nm,0.8s,baz=128,slow=4.2,SNR=13						
EVO	**Evora**	78.19	53	eP	P	08 17 07.2	-2.2
	30nm,1.2s,mb4.8						
ESDC	**Sonseca Array**	81.02	51	pP	pP	08 17 35.5	-0.9
	1.1nm,0.7s,baz=288,slow=4.7,SNR=2.1						
GRR	**Gorron**	81.13	42	eP	pP	08 17 34.8	-2.0
	64nm,1.2s						
FLN	**La Foliniere**	81.28	42	eP	pP	08 17 35.7	-1.9
	24nm,0.9s						
LDF	**La Druitiere**	81.56	42	eP	pP	08 17 36.9	-2.1
	23nm,0.9s						
RJF	**Les Rejaudoux**	83.51	45	eP	pP	08 17 48.1	-1.1
TCF	**Toulx Ste Croi**	83.70	44	eP	pP	08 17 48.1	-2.0
NOA	**NORSAR Array B**	83.89	28	pP	pP	08 17 50.6	-0.1
	3.1nm,0.8s,baz=293,slow=4.8,SNR=4.7						
NOA				LR	LR	08 55 19.7	
	comp=Z,176nm,19.9s,MS4.4,baz=290,slow=36						
SSF	**Saint Saulge**	84.33	43	eP	pP	08 17 50.1	-3.2
HAU	**Haudompre**	85.86	41	eP	pP	08 17 59.2	-1.6
HINF	**Hinteralfeld**	86.24	41	eP	pP	08 18 00.9	-1.8
CDF	**Champ du Feu**	86.31	41	eP	pP	08 18 01.4	-1.6

TRN 15 08:05:34.5, 15.77N×61.41W, h21^{km}, MD3.6, 8C-1D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	**Marie-Galante**	0.18	32	⇑iP	Pb	08 05 41.6	+2.1
BBL	**Barber’s Block**	0.24	193	⇓iP	Pb	08 05 41.5	+1.1
SEG	**Port Louis**	0.64	352	⇑iP	Pb	08 05 48.5	+1.6
SEG				eS	Sb	08 05 57.3	+2.0
DEG	**La Desirade**	0.64	32	⇑iP	Pb	08 05 48.7	+1.7
FDF	**Fort de France**	1.06	166	⇑eP	Pb	08 05 55.9	+1.9
FDF				eS	Sb	08 06 10.8	+3.3
CRM	**Caravelle**	1.12	154	eP	Pb	08 05 56.4	+1.4
CRM				eS	Sb	08 06 12.2	+3.1
BIM	**Bigot**	1.29	165	⇑eP	Pn	08 05 59.7	+2.1
BIM				eS	Sb	08 06 17.9	+3.9
MVM	**Montagne Vaucl**	1.30	157	⇑eP	Pn	08 05 59.2	+1.4
MVM				eS	Sb	08 06 17.1	+2.6
BPA	**Boggy Peak**	1.34	342	⇑eP	Pn	08 05 59.4	+1.1
BPA				⇑eS	Sb	08 06 17.0	+1.4
CPB	**Codrington**	1.90	348	eP	Pn	08 06 08.2	+1.8
CPB				i S	Sn	08 06 32.3	+2.4
GRW	**Mount Saint Ca**	3.59	184	eP	Pn	08 06 33.5	+3.0
TRN	**Trinidad (W)**	5.09	180	eP	Pn	08 06 56.5	+4.9

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*CSEM **15** 08:06:47.4±0.1, 45.75N×26.72E, h100^{km}, MD3.8/5, Error ellipse: s-maj=3.6km s-min=3.4km az=71.0*
*BUC **15** 08:06:48.0±0.5, 45.78N×26.78E, h98^{km}±5^{km}, MD3.8/5, Error ellipse: s-maj=4.4km s-min=3.3km az=41.0*
*NEIC **15** 08:06:49.1, 45.77N×26.80E, h90^{km}, After BUC.*
*SOF **15** 08:06:50.2, 45.76N×26.58E, h49^{km}, MD2.7*

ISC 15 08:06:47.2±0.7, 45.78N±0.04×26.80E±0.05, h106^{km}±6^{km}, n31, σ0^{s}89/53, 8C-14D, Romania

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRI	**Vrincioaia**	0.10	330	⇑iP	P	08 07 01.8	-0.2
VRI				i S	S	08 07 12.3	-0.8
VRI	**Vrincioaia**	0.10	330	⇑iP	P	08 07 01.8	-0.3
VRI				i S	S	08 07 12.3	-0.8
VRI	**Vrincioaia**	0.10	330	S	S	08 07 12.3	-0.8
BRD	**Bordesti**	0.27	145	⇓iP	P	08 07 03.8	+1.2
BRD				i S	S	08 07 16.4	+2.4
BRD	**Bordesti**	0.27	145	⇓iP	P	08 07 03.8	+1.2
BRD				i S	S	08 07 16.4	+2.4
MLR	**Muntele Rosu**	0.67	245	⇑iP	P	08 07 05.1	0.0
MLR				i S	S	08 07 17.1	-1.4
MLR	**Muntele Rosu**	0.67	245	⇑iP	P	08 07 05.1	0.0
MLR				i S	S	08 07 17.1	-1.4
ISR	**Istrita**	0.68	196	⇓iP	P	08 07 05.9	+0.7
ISR				i S	S	08 07 19.9	+1.1
ISR	**Istrita**	0.68	196	⇓iP	P	08 07 05.9	+0.7
ISR				i S	S	08 07 19.9	+1.1
SNX	**Sinaia**	1.00	246	⇑iP	P	08 07 08.6	+0.3
SNX				i S	S	08 07 23.9	-0.3
SNX	**Sinaia**	1.00	246	⇑iP	P	08 07 08.6	+0.2
SNX				i S	S	08 07 23.9	-0.4
CFR	**Carcaliu**	1.11	122	⇓iP	P	08 07 10.3	+0.6
CFR				i S	S	08 07 26.0	-0.5
CFR	**Carcaliu**	1.11	122	⇓iP	P	08 07 10.3	+0.6
CFR				i S	S	08 07 26.0	-0.5
HARR	**Harsova**	1.35	143	⇓iP	P	08 07 12.9	+0.5
HARR				i S	S	08 07 29.8	-1.5
HARR	**Harsova**	1.35	143	⇓iP	P	08 07 12.9	+0.5
HARR				i S	S	08 07 29.8	-1.5
IAS	**Iasi**	1.51	20	⇓iP	P	08 07 14.5	+0.1
IAS				i S	S	08 07 33.6	-1.2
IAS	**Iasi**	1.51	20	⇓iP	P	08 07 14.5	+0.1
IAS				i S	S	08 07 33.6	-1.1
TLCR		1.53	112	⇓iP	P	08 07 15.4	+0.8
TLCR				i S	S	08 07 35.3	+0.2
TLCR		1.53	112	⇓iP	P	08 07 15.4	+0.7
TLCR				i S	S	08 07 35.3	+0.1
TIRR	**Tirgusor**	1.74	139	⇑iP	P	08 07 17.9	+0.7
TIRR				i S	S	08 07 38.7	-1.0
TIRR	**Tirgusor**	1.74	139	⇑iP	P	08 07 17.9	+0.7
TIRR				i S	S	08 07 38.7	-0.9
KIS	**Kishinev**	1.85	48	i S	S	08 07 41.0	-1.1
	800nm,0.7s						
BURAR	**Bucovina Array**	2.14	330	⇓iP	P	08 07 23.2	+0.8
BURAR				i S	S	08 07 49.4	+0.7
BURAR	**Bucovina Array**	2.14	330	⇓iP	P	08 07 23.2	+0.8
BURAR				i S	S	08 07 49.4	+0.7
PSN	**Preselentsi**	2.31	154	P	P	08 07 26.0	+1.2
SZH	**Strazhica**	2.58	194	P	P	08 07 27.5	-1.0
PVL	**Pavlikeni**	2.77	203	P	P	08 07 31.6	+0.7
PGB	**Panagyurishte**	3.74	211	P	P	08 07 44.0	-0.2
VTS	**Vitosha**	4.10	220	P	P	08 07 48.0	-1.1
KDZ	**Kurdzhali**	4.25	194	P	P	08 07 50.5	-0.6
KKB	**Krupnik**	4.75	216	P	P	08 07 57.2	-0.7

MAN 15 08:48:47.2, 9.22N×123.13E, h1^{km}, mb4.7, ML3.6, MS3.5, 2C, Negros

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNPH	**Sibulan**	0.16	42	⇑iP	Pg	08 48 51.0	+0.6
DCPH	**Dipolog City**	0.68	161	⇑iP	Pg	08 49 01.0	+0.4
DCPH				eS	Sg	08 49 08.5	-1.2
TBP	**Tagbilaran**	0.86	57	eP	Pg	08 49 03.8	-0.6
TBP				i S	Sg	08 49 15.3	-0.5
LLP	**Lapu-Lapu**	1.36	37	eP	Pb	08 49 11.7	-1.6
LLP				eS	Sb	08 49 30.1	-1.0
PAGZ	**Pagadian**	1.39	170	eP	Pb	08 49 13.9	+0.2
PAGZ				eS	Sb	08 49 30.8	-1.0
GUIM	**Jordan**	1.49	339	eP	Pn	08 49 14.9	-0.3
GUIM				eS	Sb	08 49 34.6	-0.1
MSLP	**Maasin**	1.93	62	eP	Pn	08 49 23.0	+1.4
BUKP	**Musuan**	2.33	125	eP	Pn	08 49 18.5	-8.8

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*CSEM **15** 08:53:38.5±1.0, 38.54N×26.93W, h4^{km}±10^{km}, ML1.4, Error ellipse: s-maj=8.6km s-min=8.0km az=24.0, After PDA*
*PDA **15** 08:53:38.5±1.0, 38.54N×26.93W, h4^{km}±10^{km}, MD2.9, ML1.4, Error ellipse: s-maj=8.6km s-min=8.0km az=24.0*

SVSA 15 08:53:38.5±1.0, 38.54N×26.93W, h4^{km}±10^{km}, MD2.9, ML1.4, Error ellipse: s-maj=8.6km s-min=8.0km az=24.0, Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PFAV	**Pico das Favas**	0.21	325	eP	Pg	08 53 42.8	0.0
PFAV				i S	Sg	08 53 45.1	-0.6
	33nm,0.2s						
PFAV	**Pico das Favas**	0.21	325	eP	Pg	08 53 42.8	0.0
PFAV				i S	Sg	08 53 45.1	-0.6
	33nm,0.2s						
RIB2	**Ribeirinha**	0.23	305	eS	Sg	08 53 46.0	-0.4
	35nm,0.1s						
RIB2	**Ribeirinha**	0.23	305	eS	Sg	08 53 46.0	-0.4
	35nm,0.1s						
PVNV	**Vila Nova**	0.29	322	i S	Sg	08 53 47.7	-0.4
	15nm,0.1s						
PVNV	**Vila Nova**	0.29	322	i S	Sg	08 53 47.7	-0.4
	15nm,0.1s						
PPAD	**Pico dos Padre**	0.32	300	eP	Pg	08 53 44.2	-0.8
PPAD				i S	Sg	08 53 48.9	-0.5
	21nm,0.1s						
ASBA	**Santa Barbara**	0.36	301	eS	Sg	08 53 50.0	-0.5
	33nm,0.1s						
ROSA	**Rosais**	1.04	280	erx	Pg	08 53 52.6	-6.7
PICO	**Pico**	1.17	269	eP	Pb	08 53 56.6	-4.3
PICO				eS	Sb	08 54 10.6	-5.7

CALA	**Caldeira**	**1.39**	**272**	*e*rx	Pn	08 53 58.1	-6.6

IDC 15 09:01:26.2±2.6, 18.88N×81.88W, mb2.8/2, mb1 3.5/3, mb1mx3.2/20, ML3.9/1, Error ellipse: s-maj=62.0km s-min=42.3km az=9.0, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEIG	**Tepich**	**6.18**	**284**	Pn	Pn	09 02 59.3	-1.7
	2.9nm,0.3s,baz=104,slow=19,SNR=66						
TEIG				Sn	Sn	09 04 08.5	-4.8
	1.1nm,0.3s,baz=158,slow=19,SNR=7.5						
TXAR	**Lajitas Array**	**22.41**	**302**	P	P	09 06 27.9	-0.1
	0.2nm,0.5s,baz=119,slow=9.4,SNR=4.7						
YKA	**Yellowknife Ar**	**49.10**	**341**	P	P	09 10 14.5	-2.6
	0.1nm,0.8s,baz=135,slow=8.2,SNR=6.0						
WRA	**Warramunga Arr**	**145.87**	**262**	PKPbc	PKPbc	09 21 07.4	-1.2
	0.8nm,0.8s,baz=85,slow=3.7,SNR=8.7						

MAN 15 09:03:43, 13.83N×120.50E, h98^{km}, mb3.9, ML2.7, MS2.3, 3C-1D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	**Lubang**	**0.26**	**250**	*e*P	P	09 03 59.1	+1.9
LUBP				*e*S	S	09 04 09.0	+1.0
TGY	**Tagaytay City**	**0.51**	**57**	⇑*i*P	P	09 04 00.9	+2.1
TGY				*i* S	S	09 04 13.5	+2.9
QVPH	**Quezon City--P**	**0.99**	**34**	⇑*i*P	P	09 04 18.4	+15
QVPH				*i* S	S	09 04 18.4	-0.2
LQP	**Lukban**	**1.05**	**74**	⇓*e*P	P	09 04 05.6	+1.5
SJMP	**San Jose**	**1.49**	**156**	*e*P	P	09 04 10.0	+0.6
SJMP				*e*S	S	09 04 28.2	-0.7
PCPH	**Palayan**	**1.82**	**19**	⇑*e*P	P	09 04 13.4	-0.3
PCPH				*e*S	S	09 04 40.6	+4.3
OTRP	**Odiongan**	**2.08**	**134**	*e*P	P	09 04 17.1	+0.1
BALP	**Baler**	**2.17**	**29**	*e*P	P	09 04 20.3	+1.9
ENPP	**El Nido**	**2.81**	**202**	*e*P	P	09 04 27.0	0.0
CUYO	**Cuyo Island**	**3.00**	**170**	*e*P	P	09 04 28.9	-0.9

IDC 15 09:16:47.2±1.4, 27.76N×141.45E, mb3.6/3, mb1 3.9/3, mb1mx3.6/19, Error ellipse: s-maj=30.6km s-min=21.8km az=65.0, Bonin Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**0.93**	**135**	Pn	Pn	09 17 07.2	0.0
	109nm,0.3s,baz=289,slow=22,SNR=58						
CBIJ				Sn	Sn	09 17 23.1	+1.5
	334nm,0.3s,baz=322,slow=20,SNR=15						
WB2	**Warramunga Arr**	**47.92**	**189**	*e*P	P	09 25 27.7	-1.7
WRA	**Warramunga Arr**	**47.92**	**189**	P	P	09 25 27.8	-1.7
	2.8nm,0.9s,baz=10.0,slow=8.5,SNR=16						
ASAR	**Alice Springs**	**51.64**	**189**	P	P	09 25 55.0	-2.9
	0.2nm,0.5s,baz=14,slow=7.4,SNR=5.7						
YKA	**Yellowknife Ar**	**71.87**	**28**	P	P	09 28 11.8	-1.7
	0.3nm,0.7s,baz=295,slow=6.3,SNR=7.2						

IDC ***15*** *09:51:25.6±2.4, 13.73N×120.59E, h106^{km}±25^{km}, mb3.8/5, mb1 3.9/5, mb1mx3.5/18, Error ellipse: s-maj=107.0km s-min=15.5km az=70.0*

NEIC ***15*** *09:51:26.2±1.1, 13.73N×120.70E, h113^{km}±12^{km}, mb4.4/2, Error ellipse: s-maj=63.8km s-min=10.1km az=70.0*

MAN ***15*** *09:51:26.2, 13.73N×120.48E, h93^{km}, mb4.4, ML3.2, MS3.0*

ISC 15 09:51:24.7±0.5, 13.74N±0.04×120.51E±0.07, h115^{km}±4^{km}, n23, σ0^{s}.88/30, mb4.2/7, 2D, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	**Lubang**	**0.25**	**269**	*e*P	**P**	**09 51 41.5**	**+0.6**
LUBP				*e*S	**S**	**09 51 51.8**	**-1.3**
TGY	**Tagaytay City**	**0.55**	**49**	*i* P	**P**	**09 51 43.3**	**+0.8**
TGY				*i* S	**S**	**09 51 56.0**	**0.0**
TGY	**Tagaytay City**	**0.55**	**49**	P	**P**	**09 51 43.1**	**+0.6**
	1µm,0.3s,baz=239,slow=1.5,SNR=78						
TGY				S	**S**	**09 51 55.8**	**-0.2**
	3µm,0.3s,baz=328,slow=23,SNR=67						
NBP	**Mount Natib**	**1.00**	**355**	*e*P	**P**	**09 51 46.5**	**-0.1**
LQP	**Lukban**	**1.07**	**70**	⇓*e*P	**P**	**09 51 47.9**	**+0.6**
LQP				*e*S	**S**	**09 52 04.8**	**+0.6**
BOAC	**Boac**	**1.33**	**102**	*e*P	**P**	**09 51 50.7**	**+0.4**
BOAC				*e*S	**S**	**09 52 08.5**	**-1.0**
SJMP	**San Jose**	**1.41**	**155**	*e*P	**P**	**09 51 52.1**	**+1.0**
SJMP				*e*S	**S**	**09 52 10.2**	**-0.8**
POLP	**Polilio Island**	**1.70**	**55**	*e*P	**P**	**09 51 55.5**	**+0.9**
PCPH	**Palayan**	**1.90**	**17**	⇓*e*P	**P**	**09 51 55.3**	**-1.7**
PCPH				*e*S	**S**	**09 52 18.2**	**-3.2**
OTRP	**Odiongan**	**2.02**	**133**	*e*P	**P**	**09 51 59.2**	**+0.7**
BALP	**Baler**	**2.24**	**27**	*e*P	**P**	**09 52 02.5**	**+1.0**
ENPP	**El Nido**	**2.73**	**203**	*e*P	**P**	**09 52 09.2**	**+1.1**
CUYO	**Cuyo Island**	**2.92**	**170**	*e*P	**P**	**09 52 11.0**	**+0.4**
MBWA	**Marble Bar**	**34.69**	**181**	*e*P	**P**	**09 58 05.0**	**-0.4**
	6.7nm,0.8s,mb4.5						
SONM	**Songino Array**	**35.97**	**344**	P	**P**	**09 58 16.8**	**+0.8**
	2.3nm,0.4s,mb4.4,baz=164,slow=9.8,SNR=19						
WRAB	**Tennant Creek**	**36.13**	**158**	*e*P	**P**	**09 58 16.9**	**-0.7**
	1.9nm,0.4s,mb4.4						
WRA	**Warramunga Arr**	**36.13**	**158**	P	**P**	**09 58 17.0**	**-0.7**
	1.0nm,0.5s,mb4.0,baz=333,slow=10.0,SNR=32						
WB2	**Warramunga Arr**	**36.14**	**158**	*e*P	**P**	**09 58 16.1**	**-1.6**
ASAR	**Alice Springs**	**39.42**	**160**	P	**P**	**09 58 45.3**	**+0.3**
	0.8nm,0.5s,mb3.9,baz=338,slow=6.8,SNR=19						
ASPA	**Alice Springs**	**39.42**	**160**	*e*P	**P**	**09 58 44.9**	**-0.1**
BVAR	**Borovoye Array**	**55.63**	**326**	P	**P**	**10 00 51.2**	**+0.3**
	0.4nm,0.3s,mb3.9,baz=141,slow=9.2,SNR=5.3						
BVAR	**Borovoye Array**	**55.63**	**326**	P	**P**	**10 00 51.2**	**+0.3**
ARCES	**ARCESS Array B**	**78.98**	**339**	P	**P**	**10 03 16.8**	**0.0**
	4.3nm,1.0s,mb4.2,baz=83,slow=7.3,SNR=6.9						

IDC ***15*** *10:44:22.0±2.0, 24.21S×66.88W, h172^{km}±13^{km}, mb3.7/7, mb1 4.0/11, mb1mx3.9/16, MS3.1/1, Ms1 3.1/1, ms1mx2.5/22, Error ellipse: s-maj=27.6km s-min=17.8km az=10.0*

NEIC ***15*** *10:44:21.8±0.6, 24.29S×66.88W, h175^{km}±5^{km}, mb4.2/3, Error ellipse: s-maj=8.7km s-min=7.5km az=96.0*

GUC ***15*** *10:44:22.8±0.8, 24.34S×67.22W, h180^{km}, ML4.5*

ISC 15 10:44:20.8±0.8, 24.29S±0.05×66.94W±0.08, h179^{km}±8^{km}, n27, σ0^{s}.84/30, mb3.8/8, 4C, Salta Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**2.46**	**312**	P	**P**	**10 45 05.5**	**+2.0**
	17nm,0.3s,baz=137,slow=7.9,SNR=293						
LVC				S	**S**	**10 45 36.4**	**0.0**
	98nm,0.3s,baz=14,slow=21,SNR=54						
LVC	**Limon Verde**	**2.46**	**312**	*e*P	**P**	**10 45 05.1**	**+1.6**
LVC	**Limon Verde**	**2.46**	**312**	⇑*i*P	**P**	**10 45 05.5**	**+2.0**
LVC				*i* S	**S**	**10 45 36.9**	**+0.5**
LVC				AMP		10 45 39.0	
	comp=N,953nm,0.3s						
CPN1	**Cerro Paranal**	**3.17**	**263**	⇑*i*P	**P**	**10 45 13.0**	**+0.9**
CPN1				*i* S	**S**	**10 45 50.3**	**-1.3**
CPN1				AMP		10 45 52.4	
	comp=E,2µm,0.5s						
ANCH	**Antofagasta**	**3.23**	**280**	⇑*i*P	**P**	**10 45 13.8**	**+1.0**
ANCH				*i* S	**S**	**10 45 51.9**	**-1.0**
CPCH	**Copiapo**	**4.33**	**224**	⇑*i*P	**P**	**10 45 27.4**	**+0.6**
CPCH				*i* S	**S**	**10 46 17.1**	**-0.8**
VACH	**Vallenar**	**5.47**	**218**	*i* S	**S**	**10 46 44.2**	**-0.1**
LPAZ	**La Paz**	**8.04**	**352**	P	**P**	**10 46 16.2**	**+0.8**
	comp=E,3.8nm,0.3s,baz=171,slow=8.3,SNR=85						
LPAZ				S	**S**	**10 47 43.8**	**-1.2**
	comp=E,0.7nm,0.3s,baz=286,slow=20,SNR=3.4						
LPAZ	**La Paz**	**8.04**	**352**	*e*P	**P**	**10 46 16.1**	**+0.6**
	comp=E,13nm,0.5s						
TRQA	**Tornquist**	**14.36**	**164**	*e*P	**P**	**10 47 36.8**	**-0.1**
	comp=E,9.1nm,0.7s						
SAML	**Samuel**	**15.67**	**14**	*e*P	**P**	**10 47 52.2**	**-1.2**
	comp=E,3.3nm,0.6s						
BDFB	**Brasilia**	**19.74**	**68**	P	**P**	**10 48 38.8**	**+0.1**
	comp=E,2.6nm,0.3s,baz=247,slow=10,SNR=42						
BAO	**Brasilia Array**	**19.77**	**68**	P	**P**	**10 48 38.8**	**-0.2**
SNAA	**Sanae**	**59.06**	**161**	LR	LR	11 18 25.8	
	comp=E,16nm,20.6s,baz=4.9,slow=35						
TXAR	**Lajitas Array**	**63.95**	**324**	P	**P**	**10 54 36.6**	**-0.4**
	comp=E,0.9nm,0.9s,mb3.6,baz=157,slow=7.9,SNR=10						
DBIC	**Dimbokro**	**67.84**	**71**	P	**P**	**10 55 00.9**	**-1.2**
	comp=E,3.4nm,0.7s,mb4.2,baz=266,slow=7.7,SNR=6.4						
ANMO	**Albuquerque**	**69.82**	**326**	P	**P**	**10 55 14.6**	**+0.8**
	comp=E,1.8nm,0.7s,mb3.9,baz=111,slow=6.0,SNR=11						
PDAR	**Pinedale Array**	**77.42**	**329**	P	**P**	**10 55 58.2**	**+0.6**
	comp=E,0.6nm,0.6s,mb3.4,baz=131,slow=8.4,SNR=7.0						
ULM	**Lac du Bonnet**	**78.52**	**342**	P	**P**	**10 56 03.5**	**0.0**
	comp=E,2.7nm,0.5s,mb4.1,baz=155,slow=7.0,SNR=8.9						
ULM	**Lac du Bonnet**	**78.52**	**342**	P	**P**	**10 56 03.5**	**0.0**
SCHQ	**Schefferville**	**78.80**	**0**	P	**P**	**10 56 04.3**	**-0.5**
	comp=E,2.9nm,0.8s,mb3.9,baz=168,slow=14,SNR=3.8						
NVAR	**Mina Array Bea**	**78.80**	**321**	P	**P**	**10 56 06.3**	**+1.1**
	comp=E,0.5nm,0.7s,mb3.2,baz=140,slow=7.2,SNR=4.0						
NVAR	**Mina Array Bea**	**78.80**	**321**	P	**P**	**10 56 06.3**	**+1.1**
YKA	**Yellowknife Ar**	**94.42**	**340**	P	**P**	**10 57 21.1**	**+0.2**
	comp=E,1.1nm,0.6s,mb4.2,baz=131,slow=4.5,SNR=42						
YKA	**Yellowknife Ar**	**94.42**	**340**	P	**P**	**10 57 21.1**	**+0.2**
ASAR	**Alice Springs**	**128.22**	**205**	PKP	PKPdf	11 03 08.0	+1.5
	comp=E,0.4nm,0.6s,baz=143,slow=2.2,SNR=9.2						
WRA	**Warramunga Arr**	**131.39**	**207**	PKP	PKPdf	11 03 13.8	+1.3
	comp=E,0.3nm,0.4s,baz=160,slow=1.8,SNR=25						

MAN 15 10:44:27.9, 17.82N×120.86E, h1^{km}, mb3.7, ML2.4, MS1.9, Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABRA	**Dolores**	**0.23**	**220**	*e*P	Pg	10 44 32.4	-0.1
ABRA				*e*S	Sg	10 44 35.2	-0.2
APYP	**Conner**	**0.36**	**84**	*e*P	Pg	10 44 35.2	0.0
APYP				*e*S	Sg	10 44 40.4	+0.3
CVP	**Callao Caves**	**0.92**	**97**	*i* P	Pg	10 44 45.0	-1.3
CVP				*e*S	Sg	10 44 57.0	-1.6
CAUP	**Cauayan**	**1.27**	**133**	*e*P	Pb	10 44 52.4	+0.1

IDC 15 10:45:52.9±2.6, 58.31S×147.02E, mb3.5/2, mb1 3.7/3, mb1mx3.5/9, ML2.8/1, MS3.5/2, Ms1 3.5/2, ms1mx3.0/10, Error ellipse: s-maj=313.0km s-min=29.7km az=76.0, West of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNDA	**Vanda**	**19.95**	**171**	P	P	10 50 26.0	-2.9
	0.0nm,0.3s,baz=359,slow=9.7,SNR=5.2						
URZ	**Urewera**	**27.95**	**57**	LR	LR	11 01 16.8	
	comp=Z,107nm,20.1s,baz=7.2,slow=33						
ASAR	**Alice Springs**	**35.86**	**339**	P	P	10 52 53.9	-2.3
	0.4nm,0.8s,baz=170,slow=9.0,SNR=4.5						
MAW	**Mawson**	**36.38**	**220**	LR	LR	11 07 56.2	
	comp=Z,77nm,19.5s,baz=74,slow=36						
WRA	**Warramunga Arr**	**39.42**	**341**	P	P	10 53 24.5	-1.6
	0.8nm,0.8s,baz=166,slow=7.6,SNR=5.5						

IDC 15 11:01:34.5±3.4, 28.14N×54.88E, mb3.6/5, mb1 3.8/5, mb1mx3.7/18, Error ellipse: s-maj=98.6km s-min=28.3km az=24.0, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BRTR	**Keskin Array B**	**21.02**	**309**	P	P	11 06 21.1	-0.9
	1.1nm,0.6s,baz=130,slow=13,SNR=3.4						
FINES	**FINESS Array B**	**38.44**	**338**	P	P	11 08 57.1	-2.2
	1.3nm,0.7s,baz=153,slow=13,SNR=4.4						
CMAR	**Chiang Mai Arr**	**41.41**	**94**	P	P	11 09 22.9	-1.4
	0.5nm,0.4s,baz=293,slow=9.3,SNR=4.8						
SONM	**Songino Array**	**44.20**	**49**	P	P	11 09 45.6	-1.1
	1.1nm,0.9s,baz=280,slow=7.5,SNR=4.7						
YKA	**Yellowknife Ar**	**89.29**	**355**	P	P	11 14 31.3	-2.0
	0.2nm,0.6s,baz=5.5,slow=5.3,SNR=4.5						

IDC ***15*** *11:34:42.9±5.3, 23.79N×91.87E, mb3.3/2, mb1 3.6/3, mb1mx3.4/19, ML3.9/1, Error ellipse: s-maj=146.0km s-min=34.0km az=75.0*

ISC 15 11:34:58.7±1.0, 24.2N±0.1×94.0E±0.1, h71^{km}±13^{km}, n10, σ0^{s}.88/12, mb3.1/2, 1D, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMP	**Imphal**	**0.55**	**357**	⇓*i*PG	**P**	**11 35 11.1**	**-1.1**
IMP				*i* SG	**S**	**11 35 13.1**	**-9.0**
SHL	**Shillong**	**2.31**	**305**	*e*PN	**P**	**11 35 36.5**	**+1.1**
SHL				*e*SN	**S**	**11 36 03.0**	**+0.3**
CMAR	**Chiang Mai Arr**	**7.38**	**140**	Pn	**P**	**11 36 47.1**	**+1.2**
	0.4nm,0.3s,baz=313,slow=14,SNR=12						
PKI	**Pulchoki**	**8.39**	**295**	*e*P	**P**	**11 36 59.5**	**-0.3**
	11nm,0.4s						
KKN	**Kakani**	**8.58**	**296**	*e*P	**P**	**11 37 02.5**	**+0.2**
	14nm,0.2s						
DMN	**Daman**	**8.66**	**295**	*e*P	**P**	**11 37 03.9**	**+0.5**
GKN	**Gorkha**	**9.19**	**296**	*e*P	**P**	**11 37 10.0**	**-0.6**
	46nm,0.4s						
KOLN	**Koldanda**	**9.97**	**293**	*e*P	**P**	**11 37 20.6**	**-0.8**
	8.8nm,0.3s						
SONM	**Songino Array**	**25.54**	**20**	P	**P**	**11 40 23.3**	**+1.0**
	0.6nm,0.8s,mb3.1,baz=203,slow=9.4,SNR=4.5						
WRA	**Warramunga Arr**	**58.94**	**135**	P	**P**	**11 44 51.7**	**-1.6**
	0.2nm,0.8s,mb3.2,baz=320,slow=7.7,SNR=5.1						

NAO ***15*** *11:53:06.2±3.4, 67.21N×33.05E, ML2.1*

HEL 15 11:53:08.0±0.8, 67.66N×33.91E, ML1.8, ML1.7(BER), ML2.1(NAO), Explosion, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA0	**Apatity Array**	**0.35**	**261**	P	Pg	11 53 13.3	-1.8
	baz=92,slow=14						
APA0				Lg		11 53 18.8	
	baz=104,slow=37						
APA0				Rg		11 53 21.7	
	baz=85,slow=37						
APA0	**Apatity Array**	**0.35**	**261**	*i* P	Pg	11 53 13.3	-1.8
APA0				*i* S	Sg	11 53 18.8	-1.0
APA0				*e*RG		11 53 21.7	
MSF	**Maaselka**	**2.61**	**230**	*e*P	Pn	11 53 53.7	+1.5
MSF				*e*SG	Sg	11 54 28.0	-6.9
SGF	**Sodankyl**	**2.84**	**269**	*e*P	Pn	11 53 54.4	-1.0
SGF				*e*S	Sn	11 54 29.5	-1.4
KEV	**Kevo**	**3.28**	**313**	*e*P	Pn	11 54 00.4	-1.3
KEV				*e*S	Sn	11 54 39.9	-2.0
ARA0	**ARCESS Array S**	**3.61**	**305**	Pn	Pn	11 54 04.0	-2.3
	baz=123,slow=16						
ARA0				Sn	Sn	11 54 46.5	-3.8
	baz=126,slow=22						
ARA0				Lg		11 54 59.6	
	baz=118,slow=37						
ARA0	**ARCESS Array S**	**3.61**	**305**	*e*P	Pn	11 54 04.0	-2.3
ARA0				*e*S	Sn	11 54 46.5	-3.8
ARA0				*e*SG	Sg	11 54 59.6	-8.5
KTK1	**Kautokeino**	**4.18**	**294**	*e*P	Pn	11 54 14.0	-0.5
KTK1				*e*S	Sn	11 55 01.7	-3.1
KTK1				AML	AML	11 55 24.0	
	comp=Z,3.5nm,0.2s						
SUF	**Sumiainen**	**5.94**	**217**	*e*S	Sn	11 55 44.4	-4.7
SUF				MSG		11 56 14.5	
	comp=Z,0.9nm,0.3s						
KEF	**Keuruu**	**6.72**	**219**	*e*S	Sn	11 56 01.8	-6.8
KEF				MSG		11 56 08.4	
	comp=Z,0.4nm,0.2s						

NIED ***15*** *12:05:00, 42.90N×145.20E, h44^{km}, Mw3.5 Best double couple: $M_0$1.75×10^{14} NP1:ϕ_s200°, δ66°, λ102°. NP2: ϕ_s354°, δ27°, λ66°.*

JMA 15 12:05:40.7±0.1, 42.89N×145.23E, h46^{km}±1^{km}, M3.6, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.41**	**285**	P	P	12 05 50.5	-0.1
JAK				*e*S	S	12 05 57.7	+0.1
NEM2	**Nemuro 2**	**0.60**	**38**	P	P	12 05 52.8	-0.3
NEM2				*e*S	S	12 06 00.9	-1.2
JNK	**Nakash**	**0.79**	**332**	P	P	12 05 55.3	-0.3
JNK				*e*S	S	12 06 05.3	-1.2
JOB	**Onbets**	**1.02**	**271**	P	P	12 05 58.5	-0.4
JOB				*e*S	S	12 06 12.0	-0.3
JRA	**Rausu**	**1.05**	**356**	P	P	12 05 59.2	0.0
JRA				*e*S	S	12 06 12.3	-0.7
JAR	**Ashorobuto**	**1.15**	**291**	P	P	12 06 00.3	-0.2
JAR				*e*S	S	12 06 13.7	-1.6
JCH	**Churui**	**1.40**	**259**	P	P	12 06 03.5	-0.8
JCH				*e*S	S	12 06 19.9	-2.0
JTKR	**Abashiri--Toko**	**1.45**	**319**	P	P	12 06 05.2	+0.3
JTKR				*e*S	S	12 06 23.5	+0.6

IDC 15 12:08:49.7±17.0, 24.55S×179.34E, h592^{km}±222^{km}, mb3.2/5, mb1 3.4/5, mb1mx3.1/13, 1D, Error ellipse: s-maj=97.1km s-min=74.7km az=143.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**30.88**	**272**	⇓*i*P	P	12 14 21.1	+0.3
	5.0nm,0.4s						
CTA	**Charters Tower**	**30.88**	**272**	P	P	12 14 20.2	-0.6
	6.5nm,0.4s,baz=95,slow=11,SNR=20						
STKA	**Stephens Creek**	**33.92**	**249**	P	P	12 14 43.9	-2.3
	0.7nm,0.4s,baz=100,slow=6.5,SNR=5.1						
ASAR	**Alice Springs**	**41.34**	**262**	P	P	12 15 45.5	-1.1
	3.1nm,0.9s,baz=92,slow=7.2,SNR=26						
ASPA	**Alice Springs**	**41.34**	**262**	*e*P	P	12 15 46.1	-0.5
WB2	**Warramunga Arr**	**41.75**	**267**	*e*P	P	12 15 48.8	-1.2
WRA	**Warramunga Arr**	**41.76**	**267**	P	P	12 15 48.3	-1.8
	1.2nm,0.3s,baz=99,slow=6.8,SNR=92						
TXAR	**Lajitas Array**	**91.29**	**58**	P	P	12 20 53.4	-0.9
	0.4nm,0.7s,baz=236,slow=4.5,SNR=4.7						

NEIC ***15*** *12:11:28.9±0.6, 22.44N×143.34E, h10^{km}, mb4.5/3, Error ellipse: s-maj=25.8km s-min=13.6km az=85.0*

IDC ***15*** *12:11:46.3±2.1, 22.41N×143.10E, h158^{km}±18^{km}, mb3.7/11, mb1 3.9/12, mb1mx3.7/22, Error ellipse: s-maj=23.8km s-min=11.4km az=93.0*

ISC 15 12:11:45.6±1.7, 22.38N±0.08×143.0E±0.2, h167^{km}±15^{km}, n18, σ0^{s}.90/18, mb3.9/13, 2C, Volcano Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**4.76**	**351**	P	**P**	**12 12 58.5**	**+1.6**
	25nm,0.3s,baz=283,slow=23,SNR=11						
CBIJ				S	**S**	**12 13 50.6**	**-1.3**
	34nm,0.3s,baz=283,slow=23,SNR=9.0						
SONM	**Songino Array**	**38.71**	**320**	P	**P**	**12 18 56.3**	**+1.6**
	0.4nm,0.5s,mb3.3,baz=145,slow=9.6,SNR=3.4						
WB2	**Warramunga Arr**	**42.90**	**192**	⇑*i*P	**P**	**12 19 29.0**	**-0.4**
WRA	**Warramunga Arr**	**42.90**	**192**	P	**P**	**12 19 29.2**	**-0.2**
	2.3nm,0.5s,mb4.1,baz=16,slow=9.0,SNR=37						
WRA				PcP	PcP	12 21 18.0	+0.5
	0.8nm,0.5s,baz=7.7,slow=3.6,SNR=9.5						
ASAR	**Alice Springs**	**46.62**	**192**	P	**P**	**12 19 58.2**	**-0.6**
	0.7nm,0.8s,mb3.4,baz=12,slow=7.2,SNR=11						
ASAR				PcP	PcP	12 21 30.1	-0.2
	0.8nm,1.0s,baz=44,slow=1.8,SNR=5.1						
ZAL	**Zalesovo**	**53.59**	**321**	P	**P**	**12 20 50.1**	**-1.1**
	0.6nm,0.4s,mb3.6,baz=34,slow=11,SNR=4.0						
STKA	**Stephens Creek**	**53.96**	**181**	⇑*i*P	**P**	**12 20 54.3**	**0.0**
	3.0nm,0.4s,mb4.4						
STKA	**Stephens Creek**	**53.96**	**181**	P	**P**	**12 20 54.4**	**+0.1**
	3.8nm,0.4s,mb4.5,baz=359,slow=6.8,SNR=21						
ILAR	**Eielson Array**	**61.51**	**27**	P	**P**	**12 21 45.0**	**-1.6**
	1.0nm,0.8s,mb3.7,baz=259,slow=5.5,SNR=14						
CHKZ	**Chkalovo**	**61.91**	**320**	*e*P	**P**	**12 21 49.2**	**-0.2**
	1.1nm,0.4s,mb4.0						
BVAR	**Borovoye Array**	**62.05**	**319**	P	**P**	**12 21 50.6**	**+0.2**
	3.0nm,0.4s,mb4.5,baz=96,slow=7.7,SNR=29						
BRVK	**Borovoye**	**62.11**	**319**	*e*P	**P**	**12 21 51.2**	**+0.4**
	1.8nm,0.5s,mb4.2						
YKA	**Yellowknife Ar**	**75.94**	**28**	P	**P**	**12 23 15.2**	**+0.2**
	1.8nm,0.4s,mb4.0,baz=292,slow=5.9,SNR=50						
YKA	**Yellowknife Ar**	**75.94**	**28**	P	**P**	**12 23 15.2**	**+0.2**
ARCES	**ARCESS Array B**	**78.23**	**341**	P	**P**	**12 23 27.9**	**+0.3**
	3.9nm,0.9s,mb4.0,baz=82,slow=8.6,SNR=3.5						
FINES	**FINESS Array B**	**82.50**	**334**	P	**P**	**12 23 50.3**	**-0.1**
	4.6nm,0.9s,mb4.1,baz=45,slow=3.9,SNR=6.0						
NVAR	**Mina Array Bea**	**82.85**	**51**	P	**P**	**12 23 54.0**	**+1.4**
	2.3nm,1.0s,mb3.9,baz=264,slow=7.1,SNR=12						
LPAZ	**La Paz**	**150.04**	**84**	PKPbc	PKPdf	12 31 18.0	+6.3
	1.2nm,0.6s,baz=9.7,slow=6.4,SNR=5.5						

CSEM ***15*** *12:25:05.9±0.8, 38.87N×28.99W, h10^{km}, ML2.3, Error ellipse: s-maj=14.7km s-min=5.5km az=69.0, After PDA*

PDA ***15*** *12:25:05.9±0.8, 38.87N×28.99W, h10^{km}, MD2.9, ML2.3, Error ellipse: s-maj=14.7km s-min=5.5km az=69.0*

SVSA 15 12:25:05.9±0.8, 38.87N×28.99W, h10^{km}, MD2.9, ML2.3, Error ellipse: s-maj=14.7km s-min=5.5km az=69.0, Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	**Cedros**	**0.34**	**137**	*e*P	Pg	12 25 12.1	-0.7
PCED				*i* S	Sg	12 25 16.5	-0.9
	50nm,0.3s						
	50nm,0.3s						
CALA	**Caldeira**	**0.37**	**142**	*e*P	Pg	12 25 12.3	-1.2
CALA				*e*S	Sg	12 25 17.1	-1.5
HOR	**Horta**	**0.45**	**140**	*e*P	Pg	12 25 13.4	-1.6
PICO	**Pico**	**0.58**	**130**	*e*P	Pg	12 25 15.2	-2.4
PICO				*e*S	Sg	12 25 22.4	-3.0
ROSA	**Rosais**	**0.61**	**104**	*e*P	Pb	12 25 15.9	-2.2

NIED ***15*** *12:27:00, 42.40N×142.80E, h74^{km}, Mw3.7 Best double couple: $M_0$3.93×10^{14} NP1:ϕ_s37°, δ60°, λ-145°. NP2: ϕ_s288°, δ60°, λ-35°.*

MOS ***15*** *12:27:36.2±1.1, 42.14N×142.83E, h93^{km}, mb4.3/3, Error ellipse: s-maj=26.7km s-min=11.2km az=81.3*

IDC ***15*** *12:27:37.6±2.8, 42.25N×142.89E, h80^{km}±21^{km}, mb3.5/8, mb1 3.7/8, mb1mx3.5/21, Error ellipse: s-maj=25.6km s-min=22.0km az=102.0*

NEIC ***15*** *12:27:37.3±1.4, 42.17N×142.87E, h84^{km}±13^{km}, mb4.4/3, Error ellipse: s-maj=20.2km s-min=11.6km az=113.0*

JMA ***15*** *12:27:39.9±0.1, 42.41N×142.80E, h96^{km}±1^{km}, M3.6*

JMA Felt I J1.

ISC 15 12:27:38.3±0.4, 42.34N±0.04×142.77E±0.04, h103^{km}±2^{km}, n36, σ0^{s}.86/55, mb3.9/11, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNBK	**Urakawa-nobuka**	**0.06**	**194**	P	**P**	**12 27 53.7**	**+1.0**
JNBK				*e*S	**S**	**12 28 04.4**	**+1.0**
JEM	**Erimo**	**0.43**	**139**	P	**P**	**12 27 55.1**	**+1.0**
JEM				*e*S	**S**	**12 28 07.0**	**+1.0**
JCH	**Churui**	**0.51**	**58**	P	**P**	**12 27 55.0**	**+0.3**
JCH				*e*S	**S**	**12 28 06.5**	**-0.4**
JBT2	**Biratori 2**	**0.53**	**325**	P	**P**	**12 27 55.0**	**+0.2**
JBT2				*e*S	**S**	**12 28 06.7**	**-0.5**
JFR	**Furan**	**0.83**	**351**	P	**P**	**12 27 57.8**	**+0.3**
JFR				*e*S	**S**	**12 28 11.2**	**-0.6**
JOB	**Onbets**	**0.96**	**54**	P	**P**	**12 27 59.7**	**+0.9**
JOB				*e*S	**S**	**12 28 14.7**	**+0.5**
JEW	**Eniwo**	**1.10**	**297**	P	**P**	**12 28 01.0**	**+0.6**
JEW				*e*S	**S**	**12 28 17.0**	**+0.1**
JAR	**Ashorobuto**	**1.20**	**37**	P	**P**	**12 28 01.9**	**+0.2**
JAR				*e*S	**S**	**12 28 18.0**	**-1.1**
JAB	**Ashibetsu**	**1.23**	**341**	P	**P**	**12 28 02.5**	**+0.5**
JAB				*e*S	**S**	**12 28 19.6**	**-0.1**
JNB	**Noboribetsu**	**1.29**	**276**	P	**P**	**12 28 02.3**	**-0.4**
JNB				*e*S	**S**	**12 28 19.5**	**-1.5**
JKB	**Kayabe**	**1.37**	**251**	P	**P**	**12 28 03.6**	**0.0**
JKB				*e*S	**S**	**12 28 21.2**	**-1.4**
JKK2	**Kamakawa 2**	**1.53**	**359**	P	**P**	**12 28 06.0**	**+0.4**
JKK2				*e*S	**S**	**12 28 25.7**	**-0.1**
JAK	**Akkeshi**	**1.56**	**65**	P	**P**	**12 28 06.0**	**+0.1**
JAK				*e*S	**S**	**12 28 25.6**	**-0.9**
JHR	**Hokuryu**	**1.60**	**332**	P	**P**	**12 28 07.0**	**+0.6**
JHR				*e*S	**S**	**12 28 28.3**	**+1.0**
JOT	**Ohata**	**1.61**	**234**	P	**P**	**12 28 06.4**	**-0.1**
JOT				*e*S	**S**	**12 28 26.2**	**-1.3**
ASAJ	**Asahikawa**	**1.78**	**356**	P	**P**	**12 28 09.1**	**+0.4**
	165nm,0.3s,baz=225,slow=8.9,SNR=1315						
ASAJ				S	**S**	**12 28 30.9**	**-0.2**
	30nm,0.3s,baz=64,slow=34,SNR=13						
ASAJ	**Asahikawa**	**1.78**	**356**	PN	**P**	**12 28 09.1**	**+0.5**
ASAJ				S	**S**	**12 28 31.0**	**-0.2**
ASAJ				pmax	pmax		
	comp=Z,165nm,0.3s						
JTKR	**Abashiri--Toko**	**1.83**	**27**	P	**P**	**12 28 09.8**	**+0.5**
JTKR				*e*S	**S**	**12 28 31.8**	**-0.5**
YUK	**Yuzh-Kuril'sk**	**2.82**	**52**	*e*PN	**P**	**12 28 22.4**	**-0.3**
YUK				*i* S	**S**	**12 28 54.0**	**-2.1**
YUK				pmax	pmax		

	comp=N,210nm,0.4s						
YUK				pmax	pmax		
	comp=E,350nm,0.4s						
YUK				pmax	pmax		
	comp=Z,390nm,0.4s						
YUK				smax			
	comp=N,2µm,1.0s						
YUK				smax			
	comp=E,1µm,0.7s						
YUK				smax			
	comp=N,890nm,0.5s						
YUK				smax			
	comp=E,690nm,0.5s						
YSS	**Yuzh-Sakhalins**	4.61	360	*e*PN	P	12 28 47.4	+0.3
MAJO	**Matsushiro**	6.78	213	*e*PN	P	12 29 12.1	-4.8
SONM	**Songino Array**	26.10	295	P	P	12 33 04.4	+0.5
	comp=E,0.4nm,0.4s,mb3.2,baz=86,slow=8.2,SNR=4.8						
ZAL	**Zalesovo**	39.32	308	P	P	12 34 59.2	+0.8
	comp=E,2.3nm,0.5s,mb4.3,baz=23,slow=9.5,SNR=12						
ILAR	**Eielson Array**	44.50	35	P	P	12 35 40.7	+0.1
	comp=E,1.1nm,0.5s,mb3.8,baz=259,slow=5.5,SNR=27						
CHKZ	**Chkalovo**	47.58	310	*e*P	P	12 36 04.8	-0.3
CHKZ				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
CHKZ	**Chkalovo**	47.58	310	*e*P	P	12 36 04.8	-0.3
	comp=Z,2.7nm,0.6s,mb4.2						
INK	**Inuvik**	49.22	29	*e*P	P	12 36 17.4	-0.1
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	**Inuvik**	49.22	29	*e*P	P	12 36 17.4	-0.1
	comp=Z,1.9nm,0.6s,mb4.2						
RES	**Resolute Bay**	57.21	15	*e*P	P	12 37 15.1	-1.3
RES				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
RES	**Resolute Bay**	57.21	15	*e*P	P	12 37 15.1	-1.3
	comp=Z,2.3nm,0.6s,mb4.4						
YKA	**Yellowknife Ar**	58.73	32	P	P	12 37 26.2	-0.8
	comp=Z,0.2nm,0.4s,mb3.5,baz=306,slow=6.6,SNR=7.1						
YKA	**Yellowknife Ar**	58.73	32	P	P	12 37 26.3	-0.8
WRA	**Warramunga Arr**	62.46	189	P	P	12 37 51.6	-1.4
	comp=Z,0.3nm,0.8s,mb3.4,baz=7.0,slow=6.9,SNR=2.7						
FINES	**FINESS Array B**	64.63	332	P	P	12 38 05.4	-1.1
	comp=Z,1.1nm,0.4s,mb4.0,baz=66,slow=7.7,SNR=11						
NOA	**NORSAR Array B**	69.71	337	P	P	12 38 40.7	+2.4
	comp=Z,1.0nm,0.9s,mb3.6,baz=41,slow=5.9,SNR=2.6						
AKASG	**Malin Array Be**	70.76	322	P	P	12 38 47.2	+2.3
	comp=Z,0.4nm,0.3s,mb3.7,baz=41,slow=6.4,SNR=4.5						

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*NEIC **15** 12:29:03.1±2.3, 4.91N×77.86W, h63^{km}±23^{km}, mb3.5/2, Error ellipse: s-maj=26.0km s-min=21.4km az=98.0*

*IDC **15** 12:29:16.4±3.6, 5.43N×76.28W, h204^{km}±44^{km}, mb2.8/4, mb1 3.1/5, mb1mx2.9/19, Error ellipse: s-maj=96.4km s-min=20.6km az=71.0*

ISC 15 12:29:01.3±2.4, **4.9N**±0.1×**78.0W**±0.1, **h33**^{km}±29^{km}, **n11**, σ**1$\overset{s}{.}$15**/10, **mb3.3**/4, **Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	3.65	90	P	P	12 29 55.8	-1.0
	5.0nm,0.3s,baz=106,slow=4.6,SNR=5.4						
ROSC				S	S	12 30 40.1	+0.9
	3.1nm,0.3s,baz=69,slow=22,SNR=3.9						
OTAV	**Otavalo**	4.62	186	*e*P	P	12 30 11.1	+0.5
SDV	**Santo Domingo**	8.32	61	*e*P	P	12 30 54.5	-7.9
	4.2nm,0.6s						
SAML	**Samuel**	20.16	133	*e*P	P	12 33 31.1	-4.6
	3.9nm,0.8s						
LPAZ	**La Paz**	23.17	155	P	P	12 34 05.2	-0.9
	0.9nm,0.8s,mb3.2,baz=312,slow=14,SNR=2.8						
LPAZ	**La Paz**	23.17	155	*e*P	P	12 34 06.8	+0.7
	0.8nm,0.8s,mb3.2						
PDAR	**Pinedale Array**	46.98	328	P	P	12 37 30.5	-0.6
	0.2nm,0.7s,mb3.2,baz=117,slow=10,SNR=2.5						
NVAR	**Mina Array Bea**	49.54	318	P	P	12 37 53.1	+2.0
	0.2nm,0.5s,mb3.4,baz=120,slow=7.3,SNR=2.7						
YKA	**Yellowknife Ar**	63.51	342	P	P	12 39 24.7	-5.6
	0.4nm,0.7s,mb3.6,baz=132,slow=6.8,SNR=8.0						
ASAR	**Alice Springs**	144.03	236	PKPbc	PKPbc	12 48 31.1	-2.4
	0.8nm,0.5s,baz=122,slow=3.9,SNR=17						
WRA	**Warramunga Arr**	145.16	242	PKPbc	PKPbc	12 48 35.0	-1.7
	0.8nm,0.7s,baz=101,slow=3.0,SNR=12						

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*IDC **15** 13:05:30.0±11.0, 17.59S×178.72W, h582^{km}±139^{km}, mb3.6/7, mb1 3.7/7, mb1mx3.3/17, Error ellipse: s-maj=60.2km s-min=42.3km az=135.0*

*NEIC **15** 13:05:31.3±0.8, 17.59S×178.80W, h600^{km}, mb4.1/6, Error ellipse: s-maj=29.0km s-min=15.9km az=175.0*

ISC 15 13:05:34.0±1.1, **17.6S**±0.3×**179.0W**±0.2, **h650**^{km}, **n15**, σ**0$\overset{s}{.}$52**/15, **mb4.1**/10, **1D**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	32.98	260	*e*P	P	13 11 19.5	-0.4
	2.2nm,0.6s,mb3.9						
CTA	**Charters Tower**	32.98	260	P	P	13 11 19.2	-0.7
	2.7nm,0.6s,mb4.0,baz=83,slow=12,SNR=5.8						
CTAO	**Charters Tower**	32.98	260	*e*P	P	13 11 18.8	-1.0
	2.6nm,0.6s,mb3.9						
PMG	**Port Moresby**	33.88	279	P	P	13 11 28.2	+0.8
	26nm,1.1s,mb4.7,baz=69,slow=6.7,SNR=7.0						
STKA	**Stephens Creek**	38.33	241	*e*P	P	13 12 04.2	+0.5
	3.4nm,0.5s,mb4.0						
STKA	**Stephens Creek**	38.33	241	P	P	13 12 04.3	+0.6
	4.5nm,0.5s,mb4.1,baz=88,slow=9.7,SNR=22						
WB2	**Warramunga Arr**	44.16	259	*e*P	P	13 12 49.1	-0.7
WRAB	**Tennant Creek**	44.16	259	*e*P	P	13 12 49.3	-0.6
	5.4nm,0.7s,mb4.0						
WRA	**Warramunga Arr**	44.17	259	P	P	13 12 49.4	-0.6
	3.3nm,0.6s,mb3.9,baz=97,slow=6.8,SNR=102						
ASAR	**Alice Springs**	44.37	254	P	P	13 12 51.6	+0.2
	24nm,0.5s,mb4.8,baz=88,slow=8.1,SNR=544						
ASPA	**Alice Springs**	44.38	254	⇓*i*P	P	13 12 51.6	+0.2
KAKA	**Kakadu**	47.06	269	*e*P	P	13 13 12.1	+0.2
	6.2nm,0.4s,mb4.3						
FITZ	**Fitzroy Crossi**	52.56	260	P	P	13 13 52.4	+0.6
	2.2nm,0.4s,mb3.7,baz=158,slow=5.4,SNR=12						
QSPA	**South Pole Qui**	72.48	180	*e*P	P	13 15 57.9	+0.1
	7.0nm,0.9s,mb4.1						
TXAR	**Lajitas Array**	86.26	58	P	P	13 17 10.3	-0.1
	0.8nm,0.8s,mb3.4,baz=219,slow=5.5,SNR=7.7						

DJA 15 13:33:49.6±1.0, **9.86S**×**113.72E**, **h2**^{km}, **ML3.7**/4, **2C-5D**, **Error ellipse: s-maj=21.6km s-min=14.2km az=51.0**, **South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	1.43	17	⇓*i*Pn	Pn	13 34 13.0	-3.6
	27nm,0.2s						
SRDI				⇓*i*Sn	Sn	13 34 31.7	-4.6
KELI	**Kelakatan**	1.80	25	⇓*i*Pn	Pn	13 34 19.3	-2.6
	66nm,0.2s						
KELI				⇑*i*Sn	Sn	13 34 40.6	-5.0
RATI	**Rata**	2.11	58	⇑*e*Pn	Pn	13 34 23.3	-3.1
	136nm,0.2s						
RATI				⇓*i*Sn	Sn	13 34 47.1	-6.5
KEDI	**Kedomdong**	2.73	60	*e*Pn	Pn	13 34 32.1	-3.1
	29nm,0.2s						
KEDI				⇓*i*Sn	Sn	13 34 59.1	-10

IDC 15 14:04:03.4±5.2, **15.99S**×**175.15W**, **mb4.2**/4, **mb1 4.3**/4, **mb1mx3.9**/15, **Error ellipse: s-maj=151.0km s-min=103.7km az=153.0**, **Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	42.28	240	P	P	14 11 59.0	-1.5
	0.4nm,0.3s,baz=95,slow=12,SNR=5.6						
WB2	**Warramunga Arr**	48.06	257	*e*P	P	14 12 45.0	-1.8
WRA	**Warramunga Arr**	48.07	257	P	P	14 12 45.5	-1.4
	0.9nm,0.3s,baz=94,slow=7.5,SNR=56						
ASAR	**Alice Springs**	48.33	252	P	P	14 12 47.0	-1.8
	4.4nm,0.6s,baz=88,slow=8.5,SNR=128						
ASAR				PcP	PcP	14 14 13.8	-2.3
	0.3nm,0.5s,baz=106,slow=3.6,SNR=3.9						
ASPA	**Alice Springs**	48.33	252	*e*P	P	14 12 46.7	-2.2
FITZ	**Fitzroy Crossi**	56.44	259	P	P	14 13 46.4	-3.1
	2.8nm,0.8s,baz=37,slow=5.1,SNR=3.0						

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*IDC **15** 14:31:32.3±0.7, 32.34N×101.70E, mb4.1/12, mb1 4.2/14, mb1mx4.1/21, ML3.9/2, MS3.8/8, Ms1 3.8/8, ms1mx3.5/23, Error ellipse: s-maj=27.7km s-min=15.5km az=65.0*

*BJI **15** 14:31:33.9, 32.32N×101.66E, h22^{km}, mB4.6, mb4.3, ML4.2, Ms4.5, Msz4.2*

*MOS **15** 14:31:35.7±1.4, 32.29N×101.64E, h33^{km}, mb4.3/2, Error ellipse: s-maj=20.8km s-min=10.6km az=88.9*

*NEIC **15** 14:31:36.0±2.6, 32.32N×101.70E, h23^{km}±20^{km}, mb4.1/5, Error ellipse: s-maj=9.7km s-min=7.2km az=84.0*

ISC 15 14:31:31.8±0.3, **32.31N**±0.04×**101.59E**±0.04, **h10**^{km}, **n56**, σ**1$\overset{s}{.}$49**/61, **mb4.0**/18, **MS3.7**/7, **1C**, **Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CD2	**Chengdu**	2.32	126	P	Pn	14 32 14.0	+3.4
CD2				PG	Pg	14 32 16.4	-1.7
CD2				SG	Sg	14 32 48.8	-0.2
CD2				Smax			
	comp=N,4µm,1.0s						
CD2				Smax			
	comp=E,4µm,1.0s						
LZH	**Lanzhou**	4.21	26	*e*P	Pn	14 32 39.0	+1.5
LZH				S	Sn	14 33 20.3	-7.1
LZH				SG	Sg	14 33 48.4	-3.6
LZH				Smax			
	comp=N,504nm,1.2s						
LZH				Smax			
	comp=E,453nm,1.3s						
LZH				LR	LR		
	comp=E,2µm,6.2s						
LZH				LR	LR		
	comp=Z,2µm,10.0s						
XAN	**Xi'an**	6.39	72	P	Pn	14 33 07.8	-0.5
XAN				S	Sn	14 34 26.6	+4.5
XAN				LR	LR		
	comp=N,3µm,10.6s						
XAN				LR	LR		
	comp=E,1µm,12.2s						
XAN				LR	LR		
	comp=Z,2µm,8.0s						
ENH	**Enshi**	7.06	105	*e*P	Pn	14 33 17.0	-0.8
	comp=Z,35nm,0.6s						
KMI	**Kunming**	7.23	172	*e*P	Pn	14 33 22.9	+2.8
KMI				PG	Pg	14 33 45.6	-10
KMI				LR	LR		
	comp=N,1µm,7.2s						
KMI				LR	LR		
	comp=E,1µm,6.1s						
KMI				LR	LR		
	comp=Z,1µm,8.5s						
GTA	**Gaotai**	7.23	349	P	Pn	14 33 23.5	+3.3
GTA				SG	Sg	14 35 23.0	-10
GTA				Smax			
	comp=N,23nm,1.2s						
GTA				Smax			
	comp=E,26nm,2.0s						
GTA				LR	LR		
	comp=N,1µm,12.2s						
GTA				LR	LR		
	comp=E,4µm,11.4s						
GTA				LR	LR		
	comp=Z,617nm,11.0s						
GYA	**Guiyang**	7.32	141	⇑*i*P	Pn	14 33 24.3	+2.9
GYA				LR	LR		
	comp=N,4µm,9.0s						
GYA				LR	LR		
	comp=E,5µm,9.6s						
GYA				LR	LR		
	comp=Z,1µm,8.7s						
LSA	**Lhasa**	9.32	257	P	P	14 33 51.6	+2.3
SHL	**Shillong**	10.83	234	*e*P	P	14 34 09.0	-0.9
SHL				*e*		14 37 11.5	
WHN	**Wuhan**	11.05	96	*e*P	P	14 34 10.5	-2.4
WHN				S	S	14 36 08.9	-8.7
WHN				LR	LR		
	comp=N,550nm,5.9s						
WHN				LR	LR		
	comp=E,1µm,6.0s						
WHN				LR	LR		
	comp=Z,1µm,6.4s						
CM31	**Chiang Mai Arr**	13.99	190	*e*P	P	14 34 52.5	0.0
	comp=Z,9.8nm,0.8s						
CMAR	**Chiang Mai Arr**	13.99	190	Pn	P	14 34 54.1	+1.6
	comp=Z,0.1nm,0.3s,baz=359,slow=12,SNR=13						
CMAR				LR	LR	14 40 43.9	
	comp=Z,694nm,19.2s,baz=10.0,slow=39						
PKI	**Pulchoki**	14.79	256	*e*P	P	14 35 00.6	-2.3
	comp=Z,10nm,0.5s						
KKN	**Kakani**	14.82	257	*e*P	P	14 35 00.8	-2.4
	comp=Z,47nm,1.1s						
DMN	**Daman**	15.03	256	*e*P	P	14 35 03.6	-2.4
	comp=Z,30nm,0.8s						
GKN	**Gorkha**	15.27	258	*e*P	P	14 35 06.1	-3.1
	comp=Z,38nm,0.8s						
WMQ	**Urumqi**	15.84	320	*e*P	P	14 35 14.8	-1.7
SONM	**Songino Array**	15.94	12	Pn	P	14 35 16.7	-0.9
	comp=Z,0.3nm,0.3s,baz=191,slow=13,SNR=10.0						
ULN	**Ulaanbaatar**	16.09	13	*i* P	P	14 35 18.9	-0.6
ULN	**Ulaanbaatar**	16.09	13	*e*P	P	14 35 20.1	+0.5
	comp=Z,4.0nm,0.7s						
KOLN	**Koldanda**	16.21	258	*e*P	P	14 35 18.6	-2.7
	comp=Z,32nm,0.9s						
ZAK	**Zakamensk**	18.10	3	*e*P	P	14 35 44.7	-0.2
DDI	**Dehra Dun**	20.20	271	*e*P	P	14 36 09.2	-0.2
SDNR	**Sundarnagar**	20.91	274	*e*P	P	14 36 16.4	-0.4
HIA	**Hailar**	21.73	33	*e*P	P	14 36 27.6	+2.6
THN	**Thein Dam**	21.84	277	*e*P	P	14 36 24.1	-2.1
KSH	**Kashi**	21.91	296	*e*P	P	14 36 29.0	+2.1
KSH				*e*XP		14 36 36.3	
KSH				AMB	AMB		
	comp=Z,150nm,6.2s						
KSH				LR	LR		
	comp=N,530nm,7.6s						
KSH				LR	LR		
	comp=E,450nm,6.0s						
CN2	**Changchun**	21.94	52	*e*P	P	14 36 28.3	+1.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.1						
BHPL	**Bhopal**	23.17	253	*e*P	P	14 36 39.4	-0.1
BHPL				AMb	AMB	14 36 41.4	
	comp=Z,10nm,1.4s,mb4.1						
UCH	**Uchtor**	23.62	302	*e*P	P	14 36 47.6	+3.9
	comp=Z,18nm,1.3s,mb4.3						
AAK	**Ala-Archa**	23.75	303	*e*P	P	14 36 47.8	+2.9
AAK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
AAK	**Ala-Archa**	23.75	303	*e*P	P	14 36 47.8	+2.9
	comp=Z,3.1nm,0.8s,mb3.8						
JOW	**Kunigami**	23.82	96	LR	LR	14 47 01.6	
	comp=Z,140nm,18.2s,MS3.5,baz=326,slow=39						
AJM	**Ajmer**	24.15	263	*e*P	P	14 36 50.8	+1.9
AML	**Almayashu**	24.19	302	*e*P	P	14 36 53.4	+4.2
	comp=Z,12nm,1.3s,mb4.2						
ZAL	**Zalesovo**	24.73	336	P	P	14 36 54.9	+0.5
	comp=Z,6.4nm,0.9s,mb4.2,baz=337,slow=8.8,SNR=13						
ZAL				LR	LR	14 48 26.0	
	comp=Z,157nm,19.8s,MS3.5,baz=326,slow=41						
HYB	**Hyderabad**	25.54	240	*e*P	P	14 37 05.0	+2.6
HYB	**Hyderabad**	25.54	240	*i* P	P	14 37 05.0	+2.6
BVAR	**Borovoye Array**	30.52	322	P	P	14 37 46.6	-0.6
	comp=Z,0.4nm,0.6s,mb3.5,baz=143,slow=7.2,SNR=2.8						
BVAR	**Borovoye Array**	30.52	322	P	P	14 37 46.6	-0.6
ARU	**Arti**	38.17	322	*e*P	P	14 38 53.3	+0.4
ARU				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
ARU	**Arti**	38.17	322	*e*P	P	14 38 53.3	+0.4
	comp=Z,3.3nm,0.7s,mb4.2						
TIXI	**Tiksi**	42.02	13	*i* P	P	14 39 24.9	+0.4
GNI	**Garni**	45.84	297	LR	LR	15 03 35.5	
	comp=Z,59nm,20.8s,MS3.5,baz=301,slow=42						
BRTR	**Keskin Array B**	54.28	298	P	P	14 41 01.6	+1.4
	comp=Z,4.0nm,1.2s,mb4.2,baz=117,slow=2.8,SNR=4.5						
FINES	**FINESS Array B**	55.37	326	P	P	14 41 07.1	-0.8
	comp=Z,2.5nm,0.8s,mb4.3,baz=90,slow=6.9,SNR=6.9						
FINES				LR	LR	15 07 02.3	
	comp=Z,177nm,20.4s,MS4.1,baz=345,slow=38						
PMG	**Port Moresby**	60.10	126	LR	LR	15 06 40.5	
	comp=Z,31nm,20.5s,MS3.4,baz=119,slow=35						
WRA	**Warramunga Arr**	60.68	144	P	P	14 41 44.5	-1.2
	comp=Z,7.4nm,1.1s,mb4.7,baz=339,slow=7.0,SNR=34						
WB2	**Warramunga Arr**	60.69	144	*e*P	P	14 41 44.7	-1.1
NOA	**NORSAR Array B**	62.49	327	P	P	14 41 57.4	0.0
	comp=Z,0.7nm,0.7s,mb3.9,baz=60,slow=5.9,SNR=3.1						
ASAR	**Alice Springs**	63.65	147	P	P	14 42 05.6	0.0
	comp=Z,1.2nm,0.7s,mb4.0,baz=329,slow=6.4,SNR=17						
KMBO	**Kilima Mbogo**	69.12	255	P	P	14 42 41.6	+1.0
	comp=Z,1.4nm,0.6s,mb4.1,baz=51,slow=15,SNR=4.2						
ILAR	**Eielson Array**	69.67	25	P	P	14 42 43.1	0.0
	comp=Z,1.0nm,0.9s,mb3.7,baz=323,slow=5.5,SNR=6.1						
ILAR				LR	LR	15 19 28.3	
	comp=Z,84nm,18.4s,MS4.0,baz=174,slow=41						
INK	**Inuvik**	71.72	19	P	P	14 42 55.8	+0.3
	comp=Z,2.4nm,0.7s,mb4.2,baz=307,slow=2.0,SNR=8.7						
STKA	**Stephens Creek**	74.20	145	P	P	14 43 10.6	-0.1
	comp=Z,1.8nm,0.9s,mb4.0,baz=329,slow=5.2,SNR=3.0						
YKA	**Yellowknife Ar**	81.16	16	P	P	14 43 49.4	+1.0
	comp=Z,0.4nm,0.7s,mb3.5,baz=331,slow=5.2,SNR=8.1						
YKA				LR	LR	15 23 13.9	
	comp=Z,84nm,19.9s,MS4.1,baz=350,slow=38						

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*NEIC **15** 14:52:49.3±5.6, 21.63N×121.42E, h35^{km}±42^{km}, mb3.9/1, Error ellipse: s-maj=27.1km s-min=11.7km az=75.0*

*TAP **15** 14:52:49.7, 21.95N×121.20E, h8^{km}±1^{km}, ML3.7*

*IDC **15** 14:52:50.0±6.3, 21.65N×121.44E, h42^{km}±59^{km}, mb3.5/6, mb1 3.7/7, mb1mx3.5/20, ML3.3/1, Error ellipse: s-maj=69.3km s-min=21.2km az=81.0*

*JMA **15** 14:52:50.5±0.5, 21.82N×121.36E, h99^{km}, M3.6*

ISC 15 14:52:49.2±1.5, **21.65N**±0.09×**121.5E**±0.1, **h53**^{km}±17^{km}, **n16**, σ**0$\overset{s}{.}$66**/22, **mb3.7**/7, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	3.14	27	P	P	14 53 37.3	-0.2
YOJ				S	S	14 54 15.1	+1.1
HATJ	**Hateruma jima**	3.23	42	P	P	14 53 39.6	+0.9
HATJ				S	S	14 54 16.0	-0.2
TATO	**Taipei**	3.31	0	*e*P	P	14 53 38.5	-1.4
IRIF	**Iriomote-Funau**	3.39	38	P	P	14 53 41.5	+0.5
IRIF				S	S	14 54 20.1	-0.3
JKRS	**Kuro-shima**	3.48	42	P	P	14 53 43.1	+0.8
JKRS				*e*S	S	14 54 22.7	0.0
JIJ	**Ishigaki jima**	3.66	42	P	P	14 53 45.1	+0.3
JIJ				S	S	14 54 26.3	-0.8
JTJ	**Tarama**	4.21	44	P	P	14 53 53.2	+0.6
JTJ				S	S	14 54 40.7	-0.4
JOW	**Kunigami**	8.08	49	P	P	14 54 45.0	-1.5
	0.8nm,0.3s,baz=300,slow=17,SNR=11						
SONM	**Songino Array**	28.80	339	P	P	14 58 44.2	-0.1
	0.4nm,0.5s,mb3.5,baz=143,slow=7.2,SNR=3.3						
FITZ	**Fitzroy Crossi**	39.72	174	P	P	15 00 18.1	-0.2
	4.7nm,1.1s,mb4.1,baz=16,slow=7.4,SNR=2.3						
WRAB	**Tennant Creek**	43.21	162	*e*P	P	15 00 47.1	0.0
	1.4nm,0.6s,mb3.9						
WRA	**Warramunga Arr**	43.21	162	P	P	15 00 46.9	-0.2
	0.8nm,0.5s,mb3.7,baz=343,slow=8.9,SNR=15						
ASAR	**Alice Springs**	46.64	164	P	P	15 01 14.9	+0.4
	0.7nm,1.0s,mb3.5,baz=341,slow=7.0,SNR=8.3						
STKA	**Stephens Creek**	56.61	159	P	P	15 02 28.9	-0.4
	1.0nm,0.6s,mb4.0,baz=333,slow=9.0,SNR=4.5						
YKA	**Yellowknife Ar**	85.20	23	P	P	15 05 21.6	+0.8
	0.1nm,0.5s,mb3.2,baz=317,slow=4.7,SNR=4.2						
YKA	**Yellowknife Ar**	85.20	23	P	P	15 05 21.6	+0.8

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*NEIC **15** 15:18:56.2±0.8, 6.27N×73.98W, h113^{km}±8^{km}, mb4.1/4, Error ellipse: s-maj=13.7km s-min=9.0km az=99.0*

*IDC **15** 15:18:57.0±1.3, 6.18N×74.18W, h120^{km}±13^{km}, mb3.8/7, mb1 3.9/7, mb1mx3.5/21, Error ellipse: s-maj=43.9km s-min=16.9km az=81.0*

ISC 15 15:18:55.1±0.8, **6.29N**±0.08×**74.0W**±0.1, **h116**^{km}±10^{km}, **n18**, σ**0$\overset{s}{.}$89**/16, **mb4.1**/8, **Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	1.48	194	P	P	15 19 22.8	+0.4
	134nm,0.3s,baz=35,slow=1.7,SNR=154						
ROSC				S	S	15 19 42.7	-0.3
	266nm,0.3s,baz=102,slow=22,SNR=7.2						
SDV	**Santo Domingo**	4.19	52	*e*P	P	15 19 58.0	-0.2
OTAV	**Otavalo**	7.50	217	*e*P	P	15 20 44.0	+0.8
	3.6nm,0.6s						
SAML	**Samuel**	18.57	145	*e*P	P	15 23 04.5	-1.1
	1.9nm,0.5s						
LPAZ	**La Paz**	23.17	166	P	P	15 23 53.0	+0.8
	3.4nm,0.6s,mb3.9,baz=13,slow=6.0,SNR=5.8						
LVC	**Limon Verde**	29.15	170	P	P	15 24 46.5	-1.1
	3.2nm,0.9s,mb3.9,baz=354,slow=3.7,SNR=4.2						
LVC	**Limon Verde**	29.15	170	*e*P	P	15 24 46.9	-0.7
	5.8nm,1.0s,mb4.2						
WMOK	**Wichita Mounta**	36.41	324	*e*P	P	15 25 49.2	-0.9
	2.3nm,0.8s,mb4.2						
ULM	**Lac du Bonnet**	47.50	341	P	P	15 27 19.8	-0.4
	1.0nm,0.3s,mb4.1,baz=136,slow=11,SNR=3.3						
ULM	**Lac du Bonnet**	47.50	341	P	P	15 27 19.8	-0.4
PDAR	**Pinedale Array**	48.02	325	P	P	15 27 24.6	+0.2
	0.4nm,0.7s,mb3.4,baz=121,slow=8.6,SNR=4.4						
SCHQ	**Schefferville**	48.74	5	P	P	15 27 30.4	+0.8
	1.4nm,0.3s,mb4.3,baz=171,slow=11,SNR=6.8						
YKA	**Yellowknife Ar**	63.47	340	P	P	15 29 13.7	-1.1
	5.6nm,1.0s,mb4.5,baz=133,slow=6.7,SNR=39						
YKA	**Yellowknife Ar**	63.47	340	P	P	15 29 13.7	-1.1
DAVOX	**Davos**	81.23	44	P	P	15 31 01.9	+2.3
	3.8nm,0.8s,mb4.3,baz=265,slow=6.7,SNR=3.5						
ASAR	**Alice Springs**	148.13	234	PKPbc	PKPdf	15 38 29.1	+4.5
	0.3nm,0.4s,baz=95,slow=3.9,SNR=4.7						
WB2	**Warramunga Arr**	149.34	241	*e*P	PKPdf	15 38 32.2	+5.6
WRA	**Warramunga Arr**	149.35	241	PKPbc	PKPdf	15 38 31.9	+5.3
	0.3nm,0.5s,baz=108,slow=2.6,SNR=12						

DJA 15 15:57:39.2±1.3, **9.69S**×**117.26E**, **h240**^{km}, **MD4.8**/4, **ML4.6**/4, **3C-5D**, **Error ellipse: s-maj=49.0km s-min=35.3km az=5.0**, **Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	1.64	316	⇓*i*Pn	P	15 58 18.7	+0.7
	381nm,0.2s						
KEDI				⇓*i*Sn	S	15 58 45.0	-3.1
RATI	**Rata**	1.96	299	⇑*e*Pn	P	15 58 19.9	-0.8
	639nm,0.2s						
RATI				⇓*i*Sn	S	15 58 52.0	-0.8
KELI	**Kelakatan**	3.10	298	⇑*i*Pn	P	15 58 35.0	+2.4
	85nm,0.2s						
KELI				⇓*i*Sn	S	15 59 14.8	+0.7
SRDI	**Scrawed**	3.30	291	⇓*i*Pn	P	15 58 34.5	-0.4
	210nm,0.2s						
SRDI				⇑*i*Sn	S	15 59 10.3	-7.9

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*NEIC **15** 16:32:13.8, 39.81N×20.39E, h24^{km}, MD3.4(ATH), After ATH.*

*ATH **15** 16:32:13.8, 39.78N×20.37E, h28^{km}±2^{km}, MD3.4/5*

*CSEM **15** 16:32:14.6±0.3, 39.70N×20.29E, h1^{km}±1^{km}, MD3.4, Error ellipse: s-maj=5.7km s-min=2.5km az=113.0*

*THE **15** 16:32:15.3, 39.69N×20.36E, h10^{km}, ML3.3*

ISC 15 16:32:14.8±0.5, **39.66N**±0.03×**20.33E**±0.04, **h10**^{km}, **n26**, σ**1$\overset{s}{.}$06**/40, **1C-7D**, **Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAN	**Janina**	0.41	90	⇓*i*PB	Pb	16 32 21.5	-2.1
JAN				*e*SB	Sb	16 32 29.0	-0.6
KEK	**Kerkira**	0.41	278	⇓*i*PB	Pb	16 32 23.0	-0.7
KEK				*e*SB	Sb	16 32 31.0	+1.3
MEV	**Metsovon**	0.71	79	*e*Pg	Pg	16 32 27.7	-1.4
MEV				*e*Sg	Sg	16 32 38.2	-0.4
LKD	**Levkas**	0.98	165	*e*Pg	Pg	16 32 33.5	-1.0
	comp=Z,30nm,0.3s						
LKD				*e*Sg	Sg	16 32 49.9	+2.3
LKD	**Levkas**	0.98	165	*e*Sg	Sg	16 32 49.9	+2.3
KZN	**Kozani**	1.29	59	*e*PN	Pn	16 32 36.5	-2.4
EVR	**Evrytania**	1.37	122	⇑*i*PN	Pn	16 32 40.2	+0.1
FNA	**Florina**	1.39	35	*e*Pb	Pb	16 32 40.1	-0.3
	comp=Z,5.2nm,0.5s						
FNA				*e*Sb	Sb	16 33 01.0	+3.0
VLS	**Valsamata**	1.49	172	*e*Pb	Pb	16 32 42.5	+0.3
VLS				*e*Sn	Sn	16 33 06.0	+4.5
OHR	**Ohrid**	1.50	14	*e*Pn	Pn	16 32 42.5	+0.5
OHR				*e*Sn	Sn	16 33 06.5	+4.8
BIA	**Bitola**	1.56	29	⇓*i*Pn	Pn	16 32 44.0	+1.1
BIA				*i*		16 32 46.8	
BIA				⇓*i*Sg	Sg	16 33 07.0	+0.1
BIA				⇓*i*		16 33 09.0	
BIA	**Bitola**	1.56	29	⇓*i*Pn	Pn	16 32 44.0	+1.1
BIA				⇓*i*Sg	Sg	16 33 07.0	+0.1
AGG	**Agios Georgios**	1.68	111	*e*Pb	Pb	16 32 44.5	-0.9
	comp=Z,5.5nm,0.4s						
AGG				*e*Sb	Sb	16 33 08.3	+1.8
LIT	**Litokhoron**	1.73	74	*e*Pb	Pb	16 32 45.4	-0.8

	comp=Z,6.5nm,0.3s						
LIT				*e*Sb	Sb	16 33 09.0	+1.1
QSH	**Qafa e Shtames**	1.89	350	*i* Sn	Sn	16 33 16.2	+4.5
GRG	**Griva**	2.05	50	*e*Pn	Pn	16 32 50.4	+0.5
XOR	**Xorichti**	2.24	97	*e*Pn	Pn	16 32 52.8	+0.2
XOR				*e*Sn	Sn	16 33 21.4	+0.9
SKO	**Skopje**	2.46	20	*i* Pn	Pn	16 33 01.3	+5.5
KNT	**Kendrikon**	2.48	52	*e*Pn	Pn	16 32 55.4	-0.5
KNT				*e*Sn	Sn	16 33 26.8	+0.3
SOH	**Sokhos**	2.59	62	*e*Pn	Pn	16 32 58.0	+0.4
AOS	**Alonnisos**	2.80	99	*e*Pn	Pn	16 32 59.8	-0.7
TIP	**Timpagrande**	2.80	261	*e*P	Pn	16 32 59.9	-0.8
TIP	**Timpagrande**	2.80	261	*e*P	Pn	16 32 59.8	-0.8
OUR	**Ouranopolis**	2.89	75	*e*Pn	Pn	16 33 01.4	-0.4
SRS	**Serrai**	2.89	59	*e*Pn	Pn	16 33 01.6	-0.3
SRS				*e*Sn	Sn	16 33 37.5	+0.4
SRS	**Serrai**	2.89	59	*e*Sn	Sn	16 33 37.5	+0.5

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*ATH **15** 16:35:28.9, 39.66N×20.36E, h18^{km}±7^{km}, MD3.4/5*

*NEIC **15** 16:35:29.1, 39.73N×20.34E, h18^{km}, MD3.4(ATH), After ATH.*

*THE **15** 16:35:29.4, 39.71N×20.32E, h10^{km}, ML3.3*

*CSEM **15** 16:35:29.7±0.1, 39.67N×20.34E, h2^{km}, ML3.3, Error ellipse: s-maj=2.4km s-min=1.9km az=126.0*

ISC 15 16:35:28.7±0.7**, 39.70N**±0.03×**20.29E**±0.04**, h4**^{km}±5^{km}**, n27, σ1**§**13**/41**, 2C-2D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	**Igoumenitsa**	0.17	168	*e*Pg	Pg	16 35 32.5	+0.3
IGT				*e*Sg	Sg	16 35 35.6	+0.9
KEK	**Kerkira**	0.38	272	⇓*i*PB	Pb	16 35 37.8	+0.2
JAN	**Janina**	0.44	96	⇓*i*Pb	Pb	16 35 36.0	-2.6
JAN				*e*Sb	Sb	16 35 43.0	-2.2
MEV	**Metsovon**	0.73	83	*e*Pg	Pg	16 35 42.1	-1.2
MEV				*e*Sg	Sg	16 35 52.9	-0.2
LKD	**Levkas**	1.03	164	*e*Pg	Pg	16 35 48.1	-1.3
LKD				*e*Sg	Sg	16 36 05.4	+2.3
KZN	**Kozani**	1.29	62	*e*PN	Pn	16 35 53.0	-0.5
FNA	**Florina**	1.37	37	*e*Pb	Pb	16 35 54.1	-0.4
FNA				*e*Sb	Sb	16 36 13.9	+1.8
FNA	**Florina**	1.37	37	*e*Sb	Sb	16 36 13.9	+1.7
EVR	**Evrytania**	1.42	123	*e*PN	Pn	16 35 55.0	-0.3
EVR	**Evrytania**	1.42	123	*e*Pn	Pn	16 35 56.0	+0.7
OHR	**Ohrid**	1.46	15	*e*Pn	Pn	16 35 58.7	+2.7
OHR				*e*Sn	Sn	16 36 21.0	+5.3
BIA	**Bitola**	1.54	31	⇑*i*Pn	Pn	16 35 58.8	+1.8
BIA				*i*		16 36 01.5	
BIA				⇑*i*Sg	Sg	16 36 21.5	+1.6
VLS	**Valsamata**	1.54	171	*e*Pb	Pb	16 35 57.0	-0.5
VLS				*e*Sn	Sn	16 36 20.0	+2.3
AGG	**Agios Georgios**	1.72	113	*e*Pb	Pb	16 35 58.9	-1.7
AGG				*e*Sb	Sb	16 36 23.5	+0.9
AGG	**Agios Georgios**	1.72	113	*e*Sb	Sb	16 36 23.5	+0.9
LIT	**Litokhoron**	1.74	76	*e*Pb	Pb	16 36 00.8	-0.1
LIT				*e*Sb	Sb	16 36 23.5	+0.4
GRG	**Griva**	2.05	52	*e*Pn	Pn	16 36 04.8	+0.5
GRG				*e*Sn	Sn	16 36 31.1	+0.5
XOR	**Xorichti**	2.27	98	*e*Pn	Pn	16 36 07.9	+0.3
XOR				*e*Sn	Sn	16 36 36.6	+0.3
SKO	**Skopje**	2.43	21	*e*Pn	Pn	16 36 10.0	+0.2
SKO				*i*		16 36 14.5	
KNT	**Kendrikon**	2.47	53	*e*Pn	Pn	16 36 10.6	+0.2
SOH	**Sokhos**	2.60	64	*e*Pn	Pn	16 36 12.1	-0.1
TIP	**Timpagrande**	2.78	260	*e*P	Pn	16 36 14.1	-0.8
AOS	**Alonnisos**	2.83	100	*e*Pn	Pn	16 36 14.6	-1.0
SRS	**Serrai**	2.89	60	*e*Pn	Pn	16 36 16.1	-0.4
OUR	**Ouranopolis**	2.91	76	*e*Pn	Pn	16 36 16.1	-0.5
OUR				*e*Sn	Sn	16 36 52.5	0.0
LOS	**Limnos**	3.70	85	*e*Pn	Pn	16 36 27.0	-0.9
STON	**Ston**	3.72	329	*i* Pn	Pn	16 36 27.1	-1.1
STON				*i* Sn	Sn	16 37 09.6	-3.4

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*IDC **15** 16:38:31.8±1.0, 67.08N×21.12E, mb1 3.4/4, mb1mx3.2/20, ML2.5/4, Error ellipse: s-maj=19.2km s-min=9.0km az=109.0*

*NAO **15** 16:38:32.8±2.0, 67.13N×21.03E, ML2.2*

*BER **15** 16:38:34.8±3.3, 67.14N×20.78E, ML1.7, ML2.2(NAO), Suspected explosion*

HEL 15 16:38:32.0±0.2**, 67.11N×20.91E, ML1.6**(UPP)**, ML1.7**(BER)**, ML2.2**(NAO)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUNU	**Dundret**	0.13	276	*i* P	Pg	16 38 33.4	-1.3
MASU	**Masugnsbyn**	0.55	50	*i* P	Pg	16 38 41.3	-1.6
ERTU	**Ertsjaerv**	0.75	137	*i* P	Pg	16 38 42.9	-4.1
PAJU	**Pajala**	0.87	95	*i* P	Pg	16 38 46.3	-3.1
KUA	**Kurravaara**	0.88	346	*e*P	Pg	16 38 47.5	-2.0
LANU	**Lannavaara**	1.03	23	*e*P	Pb	16 38 50.0	-2.4
NIKU	**Nikkaluokta**	1.05	317	*e*P	Pb	16 38 50.3	-2.4
KTK1	**Kautokeino**	2.10	24	*e*P	Pn	16 39 10.6	+1.7
KTK1				*e*Sg	Sg	16 39 40.0	-2.0
KTK1				AML	AML	16 39 47.8	
	comp=Z,8.3nm,0.3s						
SGF	**Sodankyl**	2.21	79	*e*P	Pn	16 39 10.0	-0.4
SGF				*e*SG	Sg	16 39 43.5	-2.1
TRO	**Tromso**	2.64	345	*e*P	Pn	16 39 16.8	+0.3
TRO				*e*Sg	Sg	16 39 54.3	-5.6
TRO				AML	AML	16 40 03.3	
	comp=Z,5.6nm,0.2s						
MOR8	**Moi Rana**	2.74	253	*e*Sg	Sg	16 39 53.1	-10
MOR8				AML	AML	16 39 59.6	
	comp=Z,10nm,0.3s						
OUL	**Oulu**	2.87	133	*e*P	Pn	16 39 20.2	+0.3
OUL				*e*S	Sn	16 39 59.1	+3.4
ARA0	**ARCESS Array S**	2.98	33	Pn	Pn	16 39 19.8	-1.6
	baz=205,slow=14						
ARA0				Sn	Sn	16 39 57.0	-1.3
	baz=212,slow=28						
ARA0	**ARCESS Array S**	2.98	33	*e*P	Pn	16 39 19.8	-1.6
ARA0				*e*S	Sn	16 39 57.0	-1.3
ARCES	**ARCESS Array B**	2.98	33	Pn	Pn	16 39 20.1	-1.3
	comp=Z,0.7nm,0.3s,baz=211,slow=14,SNR=46						
ARCES				Sn	Sn	16 39 57.0	-1.3
	comp=Z,1.0nm,0.3s,baz=214,slow=22,SNR=6.1						
MSF	**Maaselka**	3.47	106	*e*P	Pn	16 39 28.9	+0.5
KJN	**Kajaani**	4.14	134	*e*P	Pn	16 39 37.4	-0.6
VAF	**Ylistaro**	4.15	169	*e*P	Pn	16 39 36.5	-1.6
NSS	**Namsos**	4.50	239	*e*Sg	Sg	16 40 55.8	-5.9
SUF	**Sumiainen**	4.94	151	*e*P	Pn	16 39 47.1	-2.1
KEF	**Keuruu**	5.25	159	*e*P	Pn	16 39 52.2	-1.3
KAF	**Kangasniemi**	5.53	153	*e*P	Pn	16 39 55.1	-2.4
FIA0	**FINESS Array S**	6.12	156	Pn	Pn	16 40 03.6	-2.2
	baz=345,slow=14						
FIA0				Sn	Sn	16 41 12.4	-5.1
	baz=345,slow=28						
FIA0	**FINESS Array S**	6.12	156	*e*P	Pn	16 40 03.6	-2.2
FIA0				*e*S	Sn	16 41 12.4	-5.1
FINES	**FINESS Array B**	6.12	156	Pn	Pn	16 40 02.6	-3.2
	comp=Z,0.1nm,0.3s,baz=344,slow=12,SNR=11						
FINES				Sn	Sn	16 41 12.5	-5.0
	comp=Z,0.1nm,0.3s,baz=342,slow=23,SNR=6.7						
NOA	**NORSAR Array B**	7.42	219	Pn	Pn	16 40 19.1	-5.0
	comp=Z,0.1nm,0.3s,baz=30,slow=20,SNR=2.5						
HFS	**Hagfors**	7.70	208	Pn	Pn	16 40 25.7	-2.4
	baz=16,slow=14						
HFS	**Hagfors**	7.70	208	Pn	Pn	16 40 24.1	-4.0
	comp=Z,0.0nm,0.3s,baz=23,slow=13,SNR=11						
HFS	**Hagfors**	7.70	208	*e*P	Pn	16 40 25.7	-2.4

IDC 15 16:39:01.6±14.0**, 20.93S×178.28W, h491**^{km}±133^{km}**, mb2.8**/4**, mb1 3.1**/4**, mb1mx2.9**/13**, Error ellipse: s-maj=163.0km s-min=44.5km az=136.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	44.17	257	P	P	16 46 26.6	-0.8
	0.6nm,0.7s,baz=91,slow=8.4,SNR=6.7						
ASAR				PcP	PcP	16 47 59.9	-2.5
	0.7nm,0.8s,baz=110,slow=3.8,SNR=8.3						
WRA	**Warramunga Arr**	44.28	263	P	P	16 46 26.7	-1.8
	0.2nm,0.3s,baz=96,slow=7.0,SNR=20						
ILAR	**Eielson Array**	88.78	13	P	P	16 51 01.9	-0.8
	0.2nm,0.3s,baz=213,slow=5.1,SNR=9.1						
CMAR	**Chiang Mai Arr**	90.01	290	P	P	16 51 09.8	+0.2
	0.5nm,0.7s,baz=129,slow=2.6,SNR=4.2						
BVAR	**Borovoye Array**	119.23	320	PKP	PKPdf	16 56 53.9	-0.1
	0.3nm,0.3s,baz=122,slow=3.3,SNR=5.7						

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*MOS **15** 16:57:19.3±2.3, 55.42N×113.82E, h15^{km}, mb4.0/1, Error ellipse: s-maj=12.0km s-min=9.5km az=67.7*

MOS Felt (II) at Uakit.

BYKL 15 16:57:21.2±0.3**, 55.37N×113.75E, h11**^{km}±4^{km}**, 2C-1D, FELT I=III-IV at Uakit, East of Lake Baykal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UKT	**Uakit**	0.14	330	⇓*i*Pg	Pg	16 57 24.1	-0.5
UKT				*i* Sg	Sg	16 57 26.3	-0.6
UKT	**Uakit**	0.14	330	*e*PG	Pg	16 57 24.0	-0.6
UKT				*e*		16 57 26.3	
UKT				pmax	pmax		
	comp=Z,2µm,0.2s						
UKT				smax			
	comp=N,13µm,0.3s						
YOA	**Uoyan**	1.38	305	*e*Pg	Pg	16 57 46.3	-2.5
YOA				*e*Sg	Sg	16 58 04.9	-2.3
YOA				Pmax			
	comp=N,2µm,0.2s						
YOA				Smax			
	comp=N,5µm,0.5s						
YOA	**Uoyan**	1.38	305	⇑*i*PG	Pg	16 57 46.0	-2.8
YOA				*i*		16 58 04.9	
YOA				pmax	pmax		
	comp=Z,2µm,0.4s						
YOA				smax			
	comp=E,5µm,0.5s						
KMO	**Kumora**	1.54	291	⇑*i*Pg	Pg	16 57 48.5	-3.4
KMO				*e*Sg	Sg	16 58 08.9	-3.5
KMO				Pmax			
	comp=E,678nm,0.6s						
KMO				Smax			
	comp=E,2µm,0.9s						
KMO	**Kumora**	1.54	291	*e*PN	Pn	16 57 48.1	-0.6
KMO				*e*		16 57 48.7	
KMO				*e*		16 58 08.7	
KMO				pmax	pmax		
	comp=Z,547nm,0.7s						
KMO				smax			
	comp=E,1µm,0.9s						
YLYR	**Ulyunkhan**	1.57	253	*e*Pg	Pg	16 57 49.2	-3.3
YLYR				*e*Sg	Sg	16 58 10.6	-2.9
YLYR				Pmax			
	comp=E,222nm,0.4s						
YLYR				Smax			
	comp=E,1µm,0.3s						
YLYR	**Ulyunkhan**	1.57	253	*e*PN	Pn	16 57 49.2	0.0
YLYR				*e*		16 58 10.2	
YLYR				pmax	pmax		
	comp=Z,228nm,0.3s						
YLYR				smax			
	comp=N,2µm,0.4s						
NLYR	**Nelyaty**	1.57	44	*e*Pg	Pg	16 57 49.2	-3.4
NLYR				*e*		16 57 55.0	
NLYR				*e*Sg	Sg	16 58 10.4	-3.2
NLYR				max			
	comp=N,646nm,0.8s						
NLYR				Smax			
	comp=N,2µm,0.7s						
NLYR	**Nelyaty**	1.57	44	*e*PN	Pn	16 57 49.0	-0.2
NLYR				*e*		16 58 09.0	
NLYR				pmax	pmax		
	comp=Z,192nm,0.3s						
NLYR				smax			
	comp=N,2µm,0.8s						
NIZ	**Nizh Angarsk**	2.42	281	*e*Pn	Pn	16 58 00.8	-0.6
NIZ				*e*Pg	Pg	16 58 04.2	-5.4
NIZ				*e*Sn	Sn	16 58 31.5	+0.1
NIZ				*e*Sg	Sg	16 58 35.9	-6.1
NIZ				Pmax			
	comp=N,110nm,0.4s						
NIZ				Smax			
	comp=N,603nm,0.4s						
NIZ	**Nizh Angarsk**	2.42	281	*e*PN	Pn	16 58 01.4	0.0
NIZ				*e*		16 58 03.7	
NIZ				*e*		16 58 35.9	
NIZ				pmax	pmax		
	comp=Z,103nm,0.4s						
NIZ				smax			
	comp=N,581nm,0.4s						
BOD	**Bodaibo**	2.46	3	*e*Pn	Pn	16 57 59.5	-2.4
BOD				*e*Pg	Pg	16 58 04.3	-6.0
BOD				*e*Sn	Sn	16 58 30.2	-2.0
BOD				*e*Sg	Sg	16 58 36.3	-6.8
BOD				Pmax			
	comp=N,125nm,0.7s						
BOD				Smax			
	comp=N,493nm,0.5s						
BOD	**Bodaibo**	2.46	3	*e*PN	Pn	16 57 59.1	-2.8
BOD				*e*		16 58 03.7	
BOD				*e*		16 58 35.6	
BOD				pmax	pmax		
	comp=Z,104nm,0.3s						
BOD				smax			
	comp=E,539nm,0.6s						
SYVR	**Suvo**	2.78	233	*e*Pn	Pn	16 58 07.3	+0.8
SYVR				*e*Pg	Pg	16 58 11.7	-5.0
SYVR				*e*Sg	Sg	16 58 48.1	-5.7
SYVR				Pmax			
	comp=E,61nm,0.5s						
SYVR				Smax			
	comp=E,534nm,0.9s						
SYVR	**Suvo**	2.78	233	*e*PN	Pn	16 58 09.7	+3.2
SYVR				*e*		16 58 46.2	
SYVR				pmax	pmax		
	comp=Z,42nm,0.1s						
SYVR				smax			
	comp=N,234nm,0.2s						
CRS	**Chara**	2.96	57	*e*Pn	Pn	16 58 08.5	-0.6
CRS				*e*Pg	Pg	16 58 13.8	-6.5
CRS				*e*Sg	Sg	16 58 52.8	-6.9
CRS				Pmax			
	comp=N,155nm,1.1s						
CRS				Smax			
	comp=N,434nm,0.6s						
CRS	**Chara**	2.96	57	*e*PN	Pn	16 58 14.0	+4.9
CRS				*e*		16 58 52.7	
CRS				pmax	pmax		
	comp=Z,160nm,0.6s						
CRS				smax			
	comp=E,437nm,0.6s						
CIT	**Chita**	3.36	182	*e*Pn	Pn	16 58 13.3	-1.4
CIT				*e*Pg	Pg	16 58 20.7	-7.6
CIT				*e*Sg	Sg	16 59 04.4	-8.6
CIT				Pmax			
	comp=E,71nm,0.5s						
CIT				Smax			
	comp=E,657nm,0.7s						
CIT	**Chita**	3.36	182	*e*PN	Pn	16 58 20.7	+6.0
CIT				*e*		16 59 04.3	
CIT				pmax	pmax		
	comp=Z,74nm,0.3s						
CIT				smax			
	comp=E,678nm,0.3s						
MXMB	**Maximikha**	3.61	236	*e*Pn	Pn	16 58 20.5	+2.2
MXMB				*e*Pg	Pg	16 58 26.9	-6.4
MXMB				*e*		16 59 03.0	
MXMB				*e*Sg	Sg	16 59 14.3	-7.2
MXMB				Pmax			
	comp=E,54nm,0.5s						
MXMB				Smax			
	comp=E,508nm,0.6s						
TUP	**Tupik**	3.71	102	*e*Pn	Pn	16 58 18.4	-1.3
TUP				*e*Pg	Pg	16 58 27.5	-7.7
TUP				*e*Sn	Sn	16 59 01.9	-1.9
TUP				*e*Sg	Sg	16 59 15.6	-9.0
TUP				Pmax			
	comp=E,99nm,0.6s						
TUP				Smax			
	comp=E,535nm,0.7s						
TUP	**Tupik**	3.71	102	*e*PN	Pn	16 58 15.7	-4.0
TUP				*e*		16 58 26.8	
TUP				*e*		16 59 15.5	
TUP				pmax	pmax		
	comp=Z,79nm,0.3s						
TUP				smax			
	comp=E,681nm,0.8s						
OGRR	**Ongureny**	3.98	247	*e*Pn	Pn	16 58 22.6	-1.0
OGRR				*e*		16 58 30.2	
OGRR				*e*Sg	Sg	16 59 24.0	-10
OGRR				max			
	comp=E,33nm,0.6s						
OGRR				Smax			
	comp=E,178nm,1.1s						
OGRR	**Ongureny**	3.98	247	*e*PN	Pn	16 58 22.8	-0.8
OGRR				*e*		16 58 32.8	
OGRR				*e*		16 59 23.8	
OGRR				pmax	pmax		
	comp=Z,25nm,0.9s						
OGRR				smax			
	comp=N,108nm,0.8s						
TRTB	**Turuntaevo**	4.80	232	*e*Pn	Pn	16 58 34.6	-0.6
TRTB				*e*Pg	Pg	16 58 47.4	-10
TRTB				*e*Sg	Sg	16 59 50.6	-10
TRTB				Pmax			
	comp=N,34nm,1.0s						
TRTB				Smax			
	comp=N,152nm,1.3s						
TRG	**Tyrgan**	5.08	242	*e*Pn	Pn	16 58 38.2	-1.0
TRG				*e*Pg	Pg	16 58 51.0	-12
TRG				*e*Sg	Sg	16 59 56.9	-14
TRG				Pmax			
	comp=N,10.0nm,0.7s						
TRG				Smax			
	comp=N,84nm,0.6s						
TRG	**Tyrgan**	5.08	242	*e*PN	Pn	16 58 38.9	-0.3
TRG				*e*		16 58 50.9	
TRG				*e*S	Sn	16 59 34.5	-4.1
TRG				*e*		16 59 56.5	
TRG				pmax	pmax		
	comp=Z,5.0nm,0.2s						
TRG				smax			
	comp=N,97nm,0.4s						
FFNB	**Fofonovo**	5.32	234	*e*Sg	Sg	17 00 07.5	-11
FFNB				Smax			
	comp=N,273nm,0.6s						
KAB	**Kabansk**	5.37	235	*e*Sg	Sg	17 00 08.8	-11
KAB				Smax			
	comp=N,547nm,1.1s						
HRMR	**Khuramsha**	5.52	230	*e*Pg	Pg	16 59 01.7	-10
HRMR				*e*Sg	Sg	17 00 13.6	-11
HRMR				Pmax			
	comp=N,32nm,0.7s						
HRMR				Smax			
	comp=N,401nm,1.0s						
KPC	**Khapcheranga**	5.74	189	*e*Pn	Pn	16 58 46.2	-2.2
KPC				*e*Pg	Pg	16 59 04.3	-11
KPC				*e*Sg	Sg	17 00 18.3	-14
KPC				Pmax			
	comp=N,10.0nm,0.2s						
KPC				Smax			
	comp=N,158nm,0.8s						
KPC	**Khapcheranga**	5.74	189	*e*PN	Pn	16 58 46.5	-1.9
KPC				*e*		16 59 04.4	
KPC				*e*		17 00 18.3	
KPC				pmax	pmax		
	comp=Z,12nm,0.7s						
KPC				smax			
	comp=E,117nm,0.8s						
BTMB	**Babushkin**	5.98	235	*e*Sg	Sg	17 00 27.5	-13
BTMB				Smax			
	comp=E,96nm,0.7s						
LSTR	**Listvyanka**	6.36	240	*e*Sg	Sg	17 00 38.4	-15
LSTR				Smax			
	comp=E,64nm,1.5s						
CLNS	**Chul'man**	6.41	72	*e*PG	Pg	16 59 15.1	-14
CLNS				*e*S	Sn	17 00 03.7	-8.1
CLNS				*e*		17 00 41.6	
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.6s						
CLNS				pmax	pmax		
	comp=N,4.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,9.0nm,0.7s						
CLNS				pmax	pmax		
	comp=N,13nm,0.8s						
CLNS				pmax	pmax		
	comp=E,3.0nm,0.5s						
CLNS				smax			
	comp=N,29nm,0.9s						
CLNS				smax			
	comp=Z,9.0nm,0.8s						
CLNS				smax			
	comp=E,15nm,0.6s						
CLNS				smax			
	comp=N,192nm,0.8s						
CLNS				smax			
	comp=Z,54nm,0.8s						
CLNS				smax			
	comp=E,119nm,1.0s						
IRK	**Irkutsk**	6.43	245	*e*Sg	Sg	17 00 38.3	-17
IRK				Smax			
	comp=E,173nm,0.5s						
TLY	**Talaya**	7.07	243	*e*Sg	Sg	17 00 57.4	-19
TLY				Smax			
	comp=E,57nm,1.2s						
TLY	**Talaya**	7.07	243	*e*PG	Pg	16 59 27.6	-15
TLY				*e*		17 00 58.3	
TLY				pmax	pmax		
	comp=Z,3.0nm,0.2s						
TLY				smax			
	comp=E,59nm,1.3s						
ARS	**Arshan**	7.57	247	*e*Pn	Pn	16 59 13.6	-0.6
ARS				*e*Pg	Pg	16 59 37.3	-15
ARS				*e*Sg	Sg	17 01 14.5	-19
ARS				Pmax			
	comp=E,9.0nm,0.5s						
ARS				Smax			
	comp=E,184nm,1.2s						
ARS	**Arshan**	7.57	247	*e*PG	Pg	16 59 38.7	-14
ARS				*e*		17 01 13.3	
ARS				pmax	pmax		
	comp=Z,7.0nm,0.5s						
ARS				smax			
	comp=E,134nm,0.7s						
ZAK	**Zakamensk**	8.06	236	*e*Sg	Sg	17 01 28.2	-21
ZAK				Smax			
	comp=E,23nm,1.0s						
ZAK	**Zakamensk**	8.06	236	*e*PG	P	16 59 46.2	+25
ZAK				*e*		17 01 30.0	
ZAK				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ZAK				smax			
	comp=N,24nm,1.0s						
MOY	**Mondy**	8.46	249	*e*Pn	P	16 59 23.4	-3.2
MOY				*e*Sn	Sn	17 00 56.1	-6.9
MOY				*e*Sg	Sg	17 01 41.6	-21
MOY				max			
	comp=N,4.0nm,0.8s						
MOY				Smax			
	comp=N,134nm,1.6s						
MOY	**Mondy**	8.46	249	*e*PN	P	16 59 30.9	+4.3
MOY				*e*		16 59 51.9	
MOY				*e*		17 01 42.9	
MOY				pmax	pmax		
	comp=Z,10.0nm,0.6s						
MOY				smax			
	comp=E,140nm,1.7s						
ULN	**Ulaanbaatar**	8.59	212	*i* PN	P	16 59 22.6	-5.8
ORL	**Orlik**	8.70	257	*e*Pn	P	16 59 27.7	-2.2
ORL				*e*		17 01 06.7	
ORL				*e*Sg	Sg	17 01 50.1	-21
ORL				max			
	comp=E,10.0nm,1.5s						
ORL				Smax			
	comp=E,68nm,1.5s						
ORL	**Orlik**	8.70	257	*e*PN	P	16 59 28.2	-1.7
ORL				*e*		16 59 57.5	
ORL				*e*		17 01 49.1	
ORL				pmax	pmax		
	comp=Z,9.0nm,1.5s						
ORL				smax			
	comp=N,60nm,1.3s						
YAK	**Yakutsk**	10.62	45	*i* P	P	16 59 51.6	-4.6
KRAR	**Krasnoyarsk**	11.79	282	*e*P	P	17 00 06.1	-6.1
KRAR				*e*S	S	17 02 17.5	-7.4
TIXI	**Tiksi**	17.57	16	*e*P	P	17 01 25.7	-1.6
TIXI				pmax	pmax		
	comp=Z,3.0nm,0.8s						

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*MAN **15** 16:57:35.9, 13.13N×120.51E, h42^{km}, mb4.9, ML3.9,*

MS3.9
*IDC **15** 16:57:39.0±1.4,13.31N×120.78E,h70^{km}±14^{km},mb3.9/7,mb1 4.2/7,mb1mx3.8/19,MS3.1/3,Ms1 3.2/3,ms1mx2.9/18,Error ellipse: s-maj=36.4km s-min=16.2km az=66.0*
*NEIC **15** 16:57:38.9±1.2,13.29N×120.82E,h71^{km}±12^{km},mb4.4/3,Error ellipse: s-maj=25.0km s-min=8.6km az=61.0*
*BJI **15** 16:57:38.8,13.30N×120.80E,h70^{km}*
ISC 15 16:57:36.0±0.4,**13.14N**±0.03×**120.52E**±0.04,**h54**^{km}±5^{km},**n48,σ1^{s}06**/57,**mb4.5**/13,**MS3.0**/2,**5D,Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LUBP	**Lubang**	**0.65**	**336**	*e*P	**P**	**16 57 48.9**	**-0.3**
LUBP				*e*S	**S**	**16 57 57.4**	**-1.7**
SJMP	**San Jose**	**0.89**	**139**	*e*P	**P**	**16 57 53.0**	**+0.4**
SJMP				*e*S	**S**	**16 58 05.6**	**+0.7**
TGY	**Tagaytay City**	**1.04**	**23**	*i* P	**P**	**16 57 55.1**	**+0.5**
TGY				*i* S	**S**	**16 58 08.9**	**+0.6**
TGY	**Tagaytay City**	**1.04**	**23**	P	**P**	**16 57 54.9**	**+0.4**
	815nm,0.3s,baz=202,slow=3.1,SNR=125						
TGY				S	**S**	**16 58 08.2**	**-0.1**
	2µm,0.3s,baz=139,slow=23,SNR=47						
BOAC	**Boac**	**1.33**	**76**	*e*P	**P**	**16 57 56.9**	**-1.8**
BOAC				*e*S	**S**	**16 58 17.9**	**+2.3**
LQP	**Lukban**	**1.38**	**46**	⇓*e*P	**P**	**16 57 59.0**	**-0.5**
LQP				*e*S	**S**	**16 58 13.8**	**-3.1**
QVPH	**Quezon City--P**	**1.59**	**19**	⇓*e*P	**P**	**16 58 02.1**	**-0.2**
QVPH				*i* S	**S**	**16 58 23.0**	**+1.1**
OTRP	**Odiongan**	**1.66**	**118**	*e*P	**P**	**16 58 03.0**	**-0.3**
GQP	**Guinayangan**	**2.02**	**68**	⇓*e*P	**P**	**16 58 08.6**	**+0.2**
GQP				*e*S	**S**	**16 58 32.2**	**-0.1**
POLP	**Polilio Island**	**2.09**	**41**	*e*P	**P**	**16 58 08.8**	**-0.5**
POLP				*e*S	**S**	**16 58 33.7**	**-0.5**
AUQP	**San Andres**	**2.10**	**85**	*e*P	**P**	**16 58 12.0**	**+2.4**
ENPP	**El Nido**	**2.20**	**209**	*e*P	**P**	**16 58 11.4**	**+0.4**
CUYO	**Cuyo Island**	**2.33**	**168**	*e*P	**P**	**16 58 12.4**	**-0.3**
PCPH	**Palayan**	**2.47**	**13**	⇓*e*P	**P**	**16 58 13.1**	**-1.7**
PCPH				*e*S	**S**	**16 58 43.7**	**0.0**
SCZP	**Santa Cruz**	**2.68**	**347**	*e*P	**P**	**16 58 17.4**	**-0.4**
BALP	**Baler**	**2.78**	**21**	*e*P	**P**	**16 58 19.9**	**+0.7**
GUIM	**Jordan**	**3.22**	**141**	*e*P	**P**	**16 58 25.2**	**-0.1**
BCPH	**Baguio City Da**	**3.22**	**1**	⇓*e*P	**P**	**16 58 24.8**	**-0.6**
BOLP	**Bolinao**	**3.27**	**350**	*e*P	**P**	**16 58 26.9**	**+0.7**
CAUP	**Cauayan**	**3.98**	**18**	*e*P	**P**	**16 58 36.4**	**+0.2**
ABRA	**Dolores**	**4.48**	**2**	*e*P	**P**	**16 58 42.5**	**-0.7**
CVP	**Callao Caves**	**4.70**	**15**	*i* P	**P**	**16 58 49.0**	**+2.7**
APYP	**Conner**	**4.74**	**8**	*e*P	**P**	**16 58 48.0**	**+1.2**
BATP	**Bataraza**	**5.08**	**212**	*e*P	**P**	**16 58 50.7**	**-0.8**
JOW	**Kunigami**	**15.44**	**27**	LR	LR	17 06 59.0	
	comp=Z,62nm,20.1s,baz=181,slow=37						
ENH	**Enshi**	**19.87**	**331**	*e*P	**P**	**17 02 04.9**	**-0.6**
	9.0nm,1.1s						
CMAR	**Chiang Mai Arr**	**21.42**	**287**	P	**P**	**17 02 23.9**	**+2.4**
	3.8nm,0.9s,mb3.7,baz=96,slow=8.4,SNR=33						
CMAR				PcP	PcP	17 06 23.9	+0.1
	0.4nm,0.6s,baz=135,slow=1.3,SNR=4.8						
CMAR				LR	LR	17 11 05.1	
	comp=Z,41nm,18.4s,MS2.9,baz=125,slow=37						
CD2	**Chengdu**	**23.48**	**322**	*e*P	**P**	**17 02 43.3**	**+1.6**
SHL	**Shillong**	**29.64**	**299**	*e*P	**P**	**17 03 39.2**	**+0.5**
WRAB	**Tennant Creek**	**35.57**	**157**	*e*P	**P**	**17 04 30.2**	**-0.2**
	5.8nm,0.6s,mb4.7						
WRA	**Warramunga Arr**	**35.58**	**157**	P	**P**	**17 04 29.9**	**-0.5**
	4.2nm,0.7s,mb4.5,baz=336,slow=9.4,SNR=45						
WB2	**Warramunga Arr**	**35.58**	**157**	*e*P	**P**	**17 04 30.2**	**-0.2**
PKI	**Pulchoki**	**35.77**	**299**	*e*P	**P**	**17 04 32.6**	**+0.7**
	30nm,1.0s,mb5.2						
KKN	**Kakani**	**35.94**	**299**	*e*P	**P**	**17 04 34.1**	**+0.7**
	22nm,0.9s,mb5.1						
DMN	**Daman**	**36.03**	**299**	*e*P	**P**	**17 04 35.0**	**+0.8**
SONM	**Songino Array**	**36.54**	**344**	P	**P**	**17 04 37.3**	**-1.0**
	2.4nm,0.6s,mb4.2,baz=158,slow=7.8,SNR=3.3						
GKN	**Gorkha**	**36.54**	**299**	*e*P	**P**	**17 04 39.1**	**+0.6**
	19nm,0.8s,mb5.0						
KOLN	**Koldanda**	**37.36**	**299**	*e*P	**P**	**17 04 45.6**	**+0.2**
	9.5nm,0.8s,mb4.7						
ASPA	**Alice Springs**	**38.85**	**160**	*e*P	**P**	**17 04 58.3**	**+0.5**
ASAR	**Alice Springs**	**38.85**	**160**	P	**P**	**17 04 58.4**	**+0.6**
	4.2nm,0.6s,mb4.3,baz=338,slow=7.0,SNR=79						
ASAR				LR	LR	17 20 52.9	
	comp=Z,35nm,20.1s,MS3.2,baz=312,slow=36						
CTAO	**Charters Tower**	**41.61**	**142**	P	**P**	**17 05 20.8**	**+0.1**
STKA	**Stephens Creek**	**49.11**	**156**	P	**P**	**17 06 18.3**	**-2.0**
UCH	**Uchtor**	**49.17**	**315**	*e*P	**P**	**17 06 22.3**	**+1.6**
	5.0nm,1.0s,mb4.5						
BVAR	**Borovoye Array**	**56.13**	**326**	P	**P**	**17 07 10.6**	**-1.7**
	1.0nm,0.6s,mb4.0,baz=121,slow=8.6,SNR=6.3						
FINES	**FINESS Array B**	**80.69**	**331**	P	**P**	**17 09 43.4**	**-1.2**
	4.9nm,1.1s,mb4.4,baz=45,slow=3.9,SNR=4.2						
YKA	**Yellowknife Ar**	**93.36**	**22**	P	**P**	**17 10 45.2**	**-0.9**
	1.3nm,1.1s,mb4.3,baz=307,slow=4.4,SNR=6.4						
YKA	**Yellowknife Ar**	**93.36**	**22**	P	**P**	**17 10 45.2**	**-0.9**
VNDA	**Vanda**	**93.52**	**172**	P	**P**	**17 10 44.5**	**-2.2**

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*PRU **15** 17:26:23.8,50.23N×19.20E*
WAR 15 17:26:24.9,50.17N×19.31E,h0^{km},ML2.6,Mining Induced,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.32**	**80**	*i* PG	Pg	17 26 30.5	-0.8
OJC				*i* SG	Sg	17 26 35.3	-0.2
OKC	**Ostrava-Krasne**	**0.82**	**247**	*e*PG	Pg	17 26 39.7	-1.5
OKC				*e*SG	Sg	17 26 51.5	-0.6
NIE	**Niedzica**	**0.99**	**139**	*e*PG	Pg	17 26 43.0	-1.7
NIE				*e*SG	Sg	17 26 58.0	+0.1
KOLL	**Kolacno**	**1.69**	**201**	*i* PG	Pg	17 26 56.7	-2.0
KOLL				*i* SG	Sg	17 27 19.6	-1.7
VYHS	**Vyhne**	**1.70**	**191**	*i* PG	Pg	17 26 54.1	-4.8
VYHS				*i* SG	Sg	17 27 17.5	-4.0
KECS	**Kecovo**	**1.85**	**155**	*e*SG	Sg	17 27 23.2	-3.3
CRVS	**Cervenica-Dubn**	**1.89**	**131**	*e*PG	Pg	17 27 00.9	-1.7
CRVS				*e*SG	Sg	17 27 26.6	-1.2
DPC	**Dobruska-Polom**	**1.93**	**277**	*e*PG	Pg	17 26 56.9	-6.4
DPC				*e*SG	Sg	17 27 22.9	-6.1
	20nm,0.3s						
KSP	**Ksiaz**	**2.04**	**291**	*e*PN	Pn	17 27 02.0	+1.2
KSP				*e*PG	Pg	17 27 04.0	-1.7
KSP				*e*SN	Sn	17 27 29.0	+1.6
UPC	**Upice**	**2.14**	**280**	*e*SG	Sg	17 27 29.9	-6.3
KOLS	**Kolonicke sedl**	**2.29**	**121**	*e*PG	Pg	17 27 08.8	-1.8
ZST	**Bratislava**	**2.44**	**217**	*e*SG	Sg	17 27 40.5	-5.8
PRU	**Pruhonice**	**3.08**	**269**	*e*SG	Sg	17 27 58.4	-8.9
KHC	**Kasperske Hory**	**3.87**	**257**	*e*PN	Pn	17 27 22.5	-4.3
KHC				*e*x	x	17 27 38.5	
KHC				*e*x	x	17 28 19.0	
KHC				*e*SG	Sg	17 28 26.5	-7.1
MOA	**Molln**	**4.05**	**237**	*i*	Pn	17 27 32.2	+2.8
MOA	**Molln**	**4.05**	**237**	*i* SG	Sg	17 28 33.8	-5.9
	3.8nm,0.5s						
CLL	**Collm**	**4.17**	**288**	*e*SG	Sg	17 28 29.0	-15

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*IDC **15** 17:30:46.7±1.7,58.11S×148.74E,mb4.0/6,mb1 4.2/6,mb1mx3.9/11,MS3.6/9,Ms1 3.6/9,ms1mx3.3/20,Error ellipse: s-maj=105.0km s-min=24.2km az=81.0*
*NEIC **15** 17:30:48.5±0.8,58.06S×148.69E,h10^{km},mb4.4/2,Error ellipse: s-maj=68.8km s-min=10.2km az=79.0*
ISC 15 17:30:46.4±1.1,**58.1S**±0.1×**14 9E**± ,**h10**^{km},**n16,σ0^{s}68**/10,**mb4.1**/7,**MS3.5**/8,**West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	**19.83**	**53**	LR	LR	17 41 40.5	
	comp=Z,283nm,18.3s,baz=355,slow=33						
VNDA	**Vanda**	**20.05**	**172**	P	**P**	**17 35 20.8**	**-1.2**
	1.9nm,0.9s,baz=330,slow=11,SNR=9.4						
VNDA				LR	LR	17 42 15.3	
	comp=Z,128nm,18.9s,MS3.3,baz=348,slow=34						
STKA	**Stephens Creek**	**26.66**	**346**	P	**P**	**17 36 27.1**	**0.0**
	3.9nm,0.9s,mb3.9,baz=193,slow=11,SNR=4.0						
STKA				LR	LR	17 46 19.6	
	comp=Z,82nm,18.6s,MS3.3,baz=201,slow=35						
STKA	**Stephens Creek**	**26.66**	**346**	*e*P	**P**	**17 36 27.2**	**+0.2**
STKA				LR	LR	17 46 19.6	
URZ	**Urewera**	**26.92**	**55**	LR	LR	17 46 58.9	
	comp=Z,281nm,18.7s,MS3.9,baz=95,slow=36						
QSPA	**South Pole Qui**	**32.05**	**180**	*e*P	**P**	**17 37 16.2**	**+1.4**
	7.1nm,1.0s,mb4.5						
ASAR	**Alice Springs**	**36.03**	**336**	P	**P**	**17 37 49.5**	**-0.1**
	1.7nm,0.8s,mb4.0,baz=163,slow=9.4,SNR=13						
ASAR				LR	LR	17 50 24.1	
	comp=Z,36nm,19.7s,MS3.1,baz=45,slow=33						
MAW	**Mawson**	**37.27**	**219**	LR	LR	17 53 09.7	
	comp=Z,224nm,18.2s,MS4.0,baz=68,slow=36						
CTA	**Charters Tower**	**37.97**	**356**	P	**P**	**17 38 06.5**	**+0.6**
	2.3nm,0.8s,mb4.0,baz=169,slow=10,SNR=4.9						
CTA				LR	LR	17 51 34.4	
	comp=Z,143nm,20.5s,MS3.8,baz=217,slow=33						
WB2	**Warramunga Arr**	**39.55**	**338**	*e*P	**P**	**17 38 18.9**	**-0.3**
WRA	**Warramunga Arr**	**39.56**	**338**	P	**P**	**17 38 19.1**	**-0.1**
	2.5nm,0.7s,mb4.0,baz=166,slow=7.5,SNR=28						
WRAB	**Tennant Creek**	**39.56**	**338**	*e*P	**P**	**17 38 18.7**	**-0.5**
	6.4nm,0.9s,mb4.3						
FITZ	**Fitzroy Crossi**	**43.48**	**327**	P	**P**	**17 38 51.5**	**+0.2**
	4.0nm,1.0s,mb4.1,baz=183,slow=8.5,SNR=2.5						
FITZ				LR	LR	17 56 14.3	
	comp=Z,39nm,20.8s,MS3.3,baz=110,slow=35						
SNAA	**Sanae**	**49.08**	**191**	LR	LR	18 00 31.4	
	comp=Z,28nm,18.6s,MS3.3,baz=5.3,slow=36						
AKASG	**Malin Array Be**	**145.26**	**284**	PKPbc	PKPbc	17 50 24.1	+0.6
	0.6nm,0.6s,baz=102,slow=2.5,SNR=2.9						
GERES	**GERESS Array B**	**152.34**	**270**	PKPbc	PKPdf	17 50 41.9	+4.5
	0.3nm,0.5s,baz=124,slow=3.5,SNR=2.6						

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*ATH **15** 17:31:57.5,39.82N×20.37E,h25^{km}±1^{km},MD3.3/4*
*THE **15** 17:31:59.0,39.69N×20.31E,h10^{km},ML3.0*
*NEIC **15** 17:31:59.5,39.66N×20.34E,h6^{km},MD3.2(ATH),After ATH.*
*CSEM **15** 17:31:59.3±0.1,39.67N×20.32E,h2^{km},ML3.0,Error ellipse: s-maj=1.6km s-min=1.4km az=146.0*
ISC 15 17:31:59.0±0.5,**39.69N**±0.03×**20.31E**±0.04,**h10**^{km},**n20,σ1^{s}14**/30,**3D,Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGT	**Igoumenitsa**	**0.15**	**173**	*e*Pg	**Pg**	**17 32 01.7**	**-0.8**
IGT				*e*Sg	**Sg**	**17 32 05.0**	**+0.1**
KEK	**Kerkira**	**0.40**	**274**	⇓*i*PB	**Pb**	**17 32 07.2**	**-0.4**
KEK				*e*SB	**Sb**	**17 32 14.0**	**+0.6**
KEK	**Kerkira**	**0.40**	**274**	⇓*i*Pg	**Pg**	**17 32 07.0**	**-0.1**
KEK				*e*Sb	**Sb**	**17 32 14.0**	**+0.6**
KEK	**Kerkira**	**0.40**	**274**	*e*Sb	**Sb**	**17 32 14.0**	**+0.6**
JAN	**Janina**	**0.42**	**94**	⇓*i*PB	**Pb**	**17 32 05.5**	**-2.5**
JAN				*e*SB	**Sb**	**17 32 12.5**	**-1.6**
JAN	**Janina**	**0.42**	**94**	*e*Sb	**Sb**	**17 32 12.5**	**-1.6**
MEV	**Metsovon**	**0.72**	**82**	*e*Pg	**Pg**	**17 32 11.6**	**-1.8**
LKD	**Levkas**	**1.01**	**165**	*e*Pg	**Pg**	**17 32 17.3**	**-2.0**
LKD				*e*Sg	**Sg**	**17 32 33.4**	**+0.6**
KZN	**Kozani**	**1.28**	**61**	*e*Pb	**Pb**	**17 32 24.5**	**+1.7**
FNA	**Florina**	**1.37**	**36**	*e*Pb	**Pb**	**17 32 24.6**	**+0.4**
FNA				*e*Sb	**Sb**	**17 32 45.0**	**+3.4**
EVR	**Evrytania**	**1.39**	**123**	*e*PN	**Pn**	**17 32 24.0**	**-0.6**
EVR	**Evrytania**	**1.39**	**123**	*e*Pb	**Pb**	**17 32 25.0**	**+0.3**
VLS	**Valsamata**	**1.52**	**172**	*e*PN	**Pn**	**17 32 27.0**	**+0.6**
VLS				*e*SN	**Sn**	**17 32 49.0**	**+2.6**
AGG	**Agios Georgios**	**1.70**	**112**	*e*Pb	**Pb**	**17 32 29.1**	**-0.9**
AGG				*e*Sb	**Sb**	**17 32 53.2**	**+1.9**
LIT	**Litokhoron**	**1.73**	**75**	*e*Pb	**Pb**	**17 32 29.9**	**-0.5**
LIT				*e*Sb	**Sb**	**17 32 53.7**	**+1.6**
GRG	**Griva**	**2.04**	**51**	*e*Pn	**Pn**	**17 32 34.1**	**+0.3**
XOR	**Xorichti**	**2.25**	**97**	*e*Pn	**Pn**	**17 32 36.8**	**-0.1**
XOR				*e*Sn	**Sn**	**17 33 05.4**	**+0.5**
KNT	**Kendrikon**	**2.46**	**52**	*e*Pn	**Pn**	**17 32 39.1**	**-0.8**
SOH	**Sokhos**	**2.59**	**63**	*e*Pn	**Pn**	**17 32 41.9**	**+0.2**
OUR	**Ouranopolis**	**2.89**	**76**	*e*Pn	**Pn**	**17 32 45.8**	**-0.3**

IDC 15 17:35:50.2±2.0,**17.89N**×**82.18W,mb3.4**/2,**mb1 3.9**/3,**mb1mx3.4**/19,**ML3.9**/1,**MS3.1**/1,**Ms1 3.1**/1,**ms1mx1.7**/17,**Error ellipse: s-maj=64.0km s-min=40.8km az=47.0, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEIG	**Tepich**	**6.22**	**293**	Pn	Pn	17 37 23.9	-1.5
	3.0nm,0.3s,baz=22,slow=19,SNR=5.3						
TEIG				Sn	Sn	17 38 36.4	-1.8
	baz=106,slow=20,SNR=2.1						
ROSC	**El Rosal**	**15.06**	**148**	LR	LR	17 45 14.3	
	comp=Z,68nm,19.9s,baz=232,slow=37						
PDAR	**Pinedale Array**	**33.98**	**323**	P	P	17 42 35.0	-2.6
	0.4nm,0.7s,baz=135,slow=5.1,SNR=4.0						
ILAR	**Eielson Array**	**63.24**	**334**	P	P	17 46 20.8	-1.8
	0.3nm,0.7s,baz=119,slow=4.1,SNR=4.2						
WRA	**Warramunga Arr**	**145.43**	**261**	PKPbc	PKPbc	17 55 29.8	-1.7
	0.4nm,0.8s,baz=84,slow=3.6,SNR=5.1						
ASAR	**Alice Springs**	**145.84**	**254**	PKPbc	PKPbc	17 55 31.7	-0.7
	0.4nm,0.9s,baz=109,slow=2.9,SNR=2.3						

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*NIED **15** 17:55:00,42.90N×145.00E,h44^{km},Mw4.1 Best double couple: M$_0$1.62×10^{15} NP1:φ$_s$27°,δ65°,λ79°. NP2:φ$_s$230°,δ27°,λ111°.*
*NEIC **15** 17:55:34.4±1.1,42.21N×145.21E,h10^{km},mb3.9/3,Error ellipse: s-maj=24.7km s-min=12.3km az=127.0*
*MOS **15** 17:55:35.5±1.7,42.27N×145.12E,h33^{km},mb4.2/7,Error ellipse: s-maj=18.2km s-min=10.7km az=80.8*
*SKHL **15** 17:55:41.7±2.5,42.76N×145.22E,h61^{km}±19^{km},mb4.8/3*
*IDC **15** 17:55:43.4±3.2,42.59N×144.95E,h71^{km}±26^{km},mb3.6/10,mb1 3.8/11,mb1mx3.7/21,Error ellipse: s-maj=27.0km s-min=19.7km az=90.0*
*JMA **15** 17:55:43.7±0.1,42.94N×145.04E,h50^{km}±1^{km},M4.0*
JMA Felt I J1.
ISC 15 17:55:40.9±0.8,**42.81N**±0.06×**145.16E**±0.06,**h58**^{km}±5^{km},**n41,σ1^{s}27**/52,**mb3.9**/12,**2C-7D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.39**	**299**	⇓P	**P**	**17 55 52.5**	**+0.8**
JAK				*e*S	**S**	**17 55 59.0**	**-0.6**
NEM2	**Nemuro 2**	**0.70**	**37**	P	**P**	**17 55 56.7**	**+1.6**
NEM2				S	**S**	**17 56 05.9**	**+0.2**
JNK	**Nakash**	**0.84**	**338**	⇓P	**P**	**17 55 57.1**	**+0.2**
JNK				*e*S	**S**	**17 56 06.8**	**-2.1**
JOB	**Onbets**	**0.98**	**276**	⇓P	**P**	**17 55 59.8**	**+1.0**
JOB				*e*S	**S**	**17 56 11.1**	**-1.0**
JRA	**Rausu**	**1.13**	**359**	⇓P	**P**	**17 56 01.6**	**+0.7**
JRA				*e*S	**S**	**17 56 14.6**	**-1.1**
JAR	**Ashorobuto**	**1.13**	**296**	⇓P	**P**	**17 56 01.5**	**+0.6**
JAR				*e*S	**S**	**17 56 14.8**	**-0.9**
YUK	**Yuzh-Kuril'sk**	**1.33**	**22**	⇑*i*P	**P**	**17 56 03.0**	**-0.8**
YUK				AMB	AMB	17 56 03.2	
	140nm,0.3s						
YUK				AMB	AMB	17 56 03.2	
	180nm,0.3s						
YUK				AMB	AMB	17 56 03.2	
	690nm,0.3s						
YUK				*i* S	**S**	**17 56 19.0**	**-1.7**
YUK				A		17 56 21.1	
	6µm,0.5s						
YUK				A		17 56 21.1	
	4µm,0.5s						
YUK				A		17 56 26.3	
	18µm,1.0s						
YUK				A		17 56 26.3	
	4µm,1.0s						
JCH	**Churui**	**1.34**	**262**	⇓P	**P**	**17 56 04.6**	**+0.7**
JCH				*e*S	**S**	**17 56 20.0**	**-0.9**
JTKR	**Abashiri--Toko**	**1.48**	**322**	⇓P	**P**	**17 56 06.5**	**+0.7**
ASAJ	**Asahikawa**	**2.28**	**306**	P	**P**	**17 56 18.4**	**+1.4**
	34nm,0.3s,baz=135,slow=10,SNR=109						
ASAJ				S	**S**	**17 56 47.0**	**+3.2**
	31nm,0.3s,baz=336,slow=9.5,SNR=5.2						
ASAJ	**Asahikawa**	**2.28**	**306**	PN	**P**	**17 56 18.4**	**+1.4**
ASAJ				S	**S**	**17 56 47.1**	**+3.2**
ASAJ				pmax	pmax		
	comp=Z,34nm,0.3s						
KUR	**Kuril'sk**	**3.11**	**38**	⇑*i*P	**P**	**17 56 30.8**	**+2.0**
KUR				AMB	AMB	17 56 36.5	
	comp=Z,110nm,0.5s						
KUR				AMB	AMB	17 56 36.5	
	comp=Z,150nm,0.5s						
KUR				*e*S	**S**	**17 57 03.2**	**-1.7**
KUR				A		17 57 14.2	
	comp=Z,590nm,0.5s						
KUR				A		17 57 14.2	
	comp=Z,530nm,0.5s						
YSS	**Yuzh-Sakhalins**	**4.49**	**338**	*e*P	**P**	**17 56 48.0**	**0.0**
YSS				A		17 58 49.0	
	comp=Z,40nm,1.1s						
MAJO	**Matsushiro**	**8.24**	**223**	*e*PN	**P**	**17 57 27.9**	**-12**
MAJO				pmax	pmax		
	comp=Z,17nm,0.4s						
MAJO	**Matsushiro**	**8.24**	**223**	*e*P	**P**	**17 57 27.9**	**-12**
	comp=Z,17nm,0.4s						
MAT	**Matsushiro**	**8.24**	**223**	P	**P**	**17 57 27.9**	**-12**
MAT				S	S	17 58 41.0	-32
MAT	**Matsushiro**	**8.24**	**223**	*e*PN	**P**	**17 57 28.0**	**-12**
MAT				pmax	pmax		
	comp=Z,12nm,0.5s						
MAT	**Matsushiro**	**8.24**	**223**	*e*P	**P**	**17 57 28.0**	**-12**
	comp=Z,12nm,0.5s						
EKMR	**Ekimchan**	**13.11**	**326**	*e*P	**P**	**17 58 45.2**	**-0.8**
EKMR				AMB	AMB	17 58 47.8	
	comp=Z,10.0nm,1.0s						
HIA	**Hailar**	**18.74**	**299**	P	**P**	**17 59 56.6**	**-0.7**
HIA				pmax	pmax		
	comp=Z,2.0nm,0.4s						
HIA	**Hailar**	**18.74**	**299**	P	**P**	**17 59 56.6**	**-0.7**
	comp=Z,1.5nm,0.4s						
YAK	**Yakutsk**	**21.34**	**340**	P	**P**	**18 00 25.7**	**+1.0**
YAK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.8						
YAK	**Yakutsk**	**21.34**	**340**	P	**P**	**18 00 25.7**	**+1.0**
	comp=Z,3.5nm,0.6s,mb3.9						
BJT	**Baijiatuau**	**21.88**	**273**	P	**P**	**18 00 29.8**	**-0.4**
BJT				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BJT	**Baijiatuau**	**21.88**	**273**	P	**P**	**18 00 29.8**	**-0.4**
	comp=Z,6.0nm,0.6s,mb4.2						
SONM	**Songino Array**	**27.51**	**294**	P	**P**	**18 01 23.6**	**-0.1**
	comp=Z,2.8nm,0.8s,mb3.9,baz=81,slow=7.9,SNR=18						
ILAR	**Eielson Array**	**43.10**	**36**	P	**P**	**18 03 38.9**	**+2.4**
	comp=Z,0.4nm,0.7s,mb3.3,baz=261,slow=6.0,SNR=4.2						
CMAR	**Chiang Mai Arr**	**45.86**	**253**	P	**P**	**18 04 00.2**	**+1.0**
	comp=Z,1.4nm,0.9s,mb3.9,baz=41,slow=7.1,SNR=10						
INK	**Inuvik**	**47.95**	**30**	P	**P**	**18 04 16.3**	**+1.4**
	comp=Z,0.9nm,0.4s,mb4.1,baz=285,slow=6.0,SNR=6.7						
WRA	**Warramunga Arr**	**63.23**	**191**	P	**P**	**18 06 02.6**	**-3.0**
	comp=Z,1.0nm,0.6s,mb4.2,baz=9.2,slow=6.9,SNR=8.7						
WRA	**Warramunga Arr**	**63.23**	**191**	P	**P**	**18 06 02.6**	**-3.0**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**65.05**	**332**	P	**P**	**18 06 15.9**	**-0.8**
	comp=Z,1.2nm,0.6s,mb4.1,baz=56,slow=10.0,SNR=8.0						
FINES	**FINESS Array B**	**65.05**	**332**	P	**P**	**18 06 15.9**	**-0.8**
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	**Alice Springs**	**66.95**	**191**	P	**P**	**18 06 26.7**	**-2.7**
	comp=Z,0.9nm,0.9s,mb3.8,baz=4.2,slow=7.2,SNR=2.8						
NB2	**NORSAR Subarra**	**69.95**	**338**	P	**P**	**18 06 47.5**	**+0.2**
	comp=Z,1.1nm,0.6s,mb4.0,baz=34,slow=6.2						
NOA	**NORSAR Array B**	**69.95**	**338**	P	**P**	**18 06 46.6**	**-0.8**
	comp=Z,1.7nm,0.7s,mb4.1,baz=35,slow=6.1,SNR=5.2						
NOA	**NORSAR Array B**	**69.95**	**338**	P	**P**	**18 06 46.6**	**-0.7**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	**Malin Array Be**	**71.47**	**323**	P	**P**	**18 06 56.6**	**-0.1**
	comp=Z,1.0nm,0.5s,mb4.0,baz=40,slow=5.9,SNR=8.0						
AKASG	**Malin Array Be**	**71.47**	**323**	P	**P**	**18 06 56.6**	**-0.1**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	**GERESS Array B**	**79.26**	**330**	P	**P**	**18 07 41.8**	**+0.7**
	comp=Z,0.5nm,0.5s,mb3.7,baz=37,slow=4.9,SNR=4.5						
GERES	**GERESS Array B**	**79.26**	**330**	P	**P**	**18 07 41.8**	**+0.7**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						

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*NEIC **15** 17:58:26.4±0.5,8.98N×137.93E,h10^{km},mb4.5/4,Error ellipse: s-maj=23.7km s-min=9.4km az=73.0*
*IDC **15** 17:58:33.1±7.8,8.94N×137.94E,h65^{km}±73^{km},mb3.8/11,mb1 4.0/11,mb1mx3.9/18,MS3.8/14,Ms1 3.8/14,ms1mx3.6/26,Error ellipse: s-maj=34.8km s-min=16.3km az=67.0*
ISC 15 17:58:27.8±0.6,**8.93N**±0.09×**137.9E**±0.2,**h33**^{km},**n24,σ0^{s}74**/17,**mb4.0**/11,**MS3.7**/13,**Western Caroline Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	**Tagaytay City**	**17.41**	**289**	LR	LR	18 07 58.5	
	comp=Z,196nm,19.6s,baz=119,slow=32						
JOW	**Kunigami**	**20.01**	**334**	LR	LR	18 08 49.6	
	comp=Z,199nm,20.9s,MS3.4,baz=2.8,slow=31						
PMG	**Port Moresby**	**20.41**	**153**	P	**P**	**18 03 04.7**	**-0.2**
	24nm,0.9s,baz=324,slow=6.9,SNR=8.4						
PMG				LR	LR	18 10 20.2	
	comp=Z,252nm,19.2s,MS3.6,baz=162,slow=35						
JHJ	**Hachijo jima 2**	**24.13**	**4**	LR	LR	18 12 40.0	
	comp=Z,206nm,18.1s,MS3.6,baz=156,slow=35						
WRAB	**Tennant Creek**	**28.90**	**187**	*e*P	**P**	**18 04 25.2**	**-0.8**
	9.0nm,1.1s,mb4.4						
WRA	**Warramunga Arr**	**28.91**	**187**	P	**P**	**18 04 24.9**	**-1.2**
	1.5nm,0.9s,mb3.7,baz=8.2,slow=10,SNR=12						
FITZ	**Fitzroy Crossi**	**29.47**	**204**	LR	LR	18 17 49.8	
	comp=Z,70nm,18.3s,MS3.3,baz=75,slow=39						
CTA	**Charters Tower**	**29.98**	**164**	*e*P	**P**	**18 04 37.1**	**+1.4**
	4.4nm,0.6s,mb4.4						
CTA	**Charters Tower**	**29.98**	**164**	P	**P**	**18 04 37.3**	**+1.6**
	5.8nm,0.7s,mb4.5,baz=329,slow=10,SNR=13						
CTA				LR	LR	18 16 19.5	
	comp=Z,98nm,19.6s,MS3.5,baz=38,slow=36						
CTAO	**Charters Tower**	**29.98**	**164**	*e*P	**P**	**18 04 37.3**	**+1.6**
	6.5nm,0.7s,mb4.5						
ASAR	**Alice Springs**	**32.63**	**187**	P	**P**	**18 04 58.7**	**-0.4**
	1.6nm,0.7s,mb4.1,baz=26,slow=10,SNR=16						
ASAR				PcP	PcP	18 07 44.0	-0.7
	0.4nm,0.6s,baz=344,slow=2.6,SNR=3.8						
ASAR				LR	LR	18 17 50.4	
	comp=Z,114nm,19.7s,MS3.6,baz=334,slow=36						
CMAR	**Chiang Mai Arr**	**38.95**	**288**	P	**P**	**18 05 53.6**	**+0.9**
	1.4nm,0.8s,mb3.8,baz=94,slow=7.1,SNR=12						
CMAR				LR	LR	18 20 25.1	
	comp=Z,46nm,19.6s,MS3.3,baz=111,slow=34						
STKA	**Stephens Creek**	**40.73**	**175**	*e*P	**P**	**18 06 07.5**	**+0.2**
	3.7nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**40.73**	**175**	P	**P**	**18 06 07.7**	**+0.3**
	4.9nm,0.7s,mb4.3,baz=338,slow=8.4,SNR=13						
STKA				LR	LR	18 23 10.2	
	comp=Z,154nm,18.9s,MS3.9,baz=204,slow=36						
ARMA	**Armidale**	**41.28**	**162**	*e*P	**P**	**18 06 12.7**	**+0.8**
SONM	**Songino Array**	**47.04**	**331**	P	**P**	**18 06 58.2**	**+0.1**
	1.3nm,1.1s,mb3.8,baz=124,slow=4.5,SNR=4.2						
URZ	**Urewera**	**59.49**	**145**	LR	LR	18 30 04.2	
	comp=Z,90nm,18.7s,MS3.9,baz=181,slow=32						
ZAL	**Zalesovo**	**61.64**	**327**	P	**P**	**18 08 44.0**	**-0.6**
	0.8nm,0.5s,mb4.2,baz=16,slow=3.1,SNR=4.1						
ZAL				LR	LR	18 34 12.8	
	comp=Z,112nm,18.9s,MS4.0,baz=161,slow=35						
BRVK	**Borovoye**	**69.52**	**323**	*e*P	**P**	**18 09 35.3**	**+0.2**
BRVK				*e*	pP	18 09 47.0	+1.6
ILAR	**Eielson Array**	**75.67**	**25**	P	**P**	**18 10 10.2**	**-1.0**
	0.2nm,0.5s,mb3.3,baz=241,slow=5.5,SNR=3.5						
VNDA	**Vanda**	**87.37**	**175**	P	**P**	**18 11 12.2**	**0.0**
	1.3nm,0.8s,mb4.2,baz=307,slow=7.5,SNR=8.2						
VNDA				LR	LR	18 48 32.3	
	comp=Z,84nm,19.8s,MS4.2,baz=323,slow=34						
YKA	**Yellowknife Ar**	**90.07**	**26**	P	**P**	**18 11 25.9**	**+0.5**
	0.2nm,0.5s,mb3.7,baz=295,slow=4.7,SNR=4.1						
MAW	**Mawson**	**92.56**	**202**	LR	LR	18 50 00.7	
	comp=Z,38nm,20.2s,MS3.8,baz=248,slow=33						
NOA	**NORSAR Array B**	**98.78**	**337**	LR	LR	19 01 13.5	
	comp=Z,109nm,18.9s,MS4.4,baz=90,slow=38						

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*NNC **15** 18:11:46.0±5.4,43.59N×85.53E,h11^{km}±9^{km},mpv2.6,Error ellipse: s-maj=38.5km s-min=30.8km az=55.0*
BJI 15 18:11:45.7,43.01N×84.66E,h15^{km},ML3.3,1C-2D,Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	**Urumqi**	**2.35**	**69**	*e*P	Pn	18 12 26.6	+2.1
WMQ				SG	Sg	18 12 56.8	-7.4
WMQ				Smax			
	comp=N,88nm,0.3s						
WMQ				Smax			
	comp=E,96nm,0.4s						
MK31	**Makanchi Array**	**4.14**	**337**	⇓Pn	Pn	18 12 48.7	-1.2
	comp=E,0.2nm,0.3s,baz=150,slow=13,SNR=42						
MK31				Pg	Pg	18 12 58.3	-10
	comp=E,0.9nm,0.3s,baz=143,slow=16,SNR=31						
MK31				⇓Sn	Sn	18 13 38.9	+0.4
	comp=E,1.9nm,0.5s,baz=144,slow=26,SNR=9.3						
MK31				⇑Lg		18 13 51.3	
	comp=E,14nm,0.7s,baz=141,slow=28,SNR=3.8						

*JMA **15** 18:56:20.2±0.3,22.07N×121.80E,h77^{km},M2.7*

TAP 15 18:56:17.1,22.19N×121.33E,h3^{km}±1^{km},ML2.9,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	2.74	34	*e*S	Sn	18 57 32.4	-4.3
HATJ	**Hateruma jima**	2.94	50	P	Pn	18 57 02.3	-3.3
HATJ				*e*S	Sn	18 57 34.3	-7.5
IRIF	**Iriomote-Funau**	3.07	45	P	Pn	18 57 04.6	-2.8
IRIF				S	Sn	18 57 38.1	-7.1
JKRS	**Kuro-shima**	3.20	50	P	Pn	18 57 06.2	-3.0
JKRS				*e*S	Sn	18 57 40.9	-7.5
JIJ	**Ishigaki jima**	3.37	50	P	Pn	18 57 08.0	-3.7
JIJ				S	Sn	18 57 44.2	-8.6
JTJ	**Tarama**	3.94	51	P	Pn	18 57 16.2	-3.6
JTJ				*e*S	Sn	18 57 58.9	-8.3

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*NIED **15** 19:28:00,42.80N×145.40E,h35^{km},Mw4.4 Best double couple: $M_0$4.23×10^{15} NP1:ϕ_s19°,δ73°,λ68°. NP2:ϕ_s253°,δ27°,λ140°.*

*CSEM **15** 19:28:49.9,42.68N×145.70E,h2^{km},mb5.6*

*MOS **15** 19:28:54.3±0.8,42.66N×145.47E,h33^{km},mb4.9/27,Error ellipse: s-maj=11.2km s-min=6.0km az=100.4*

*BJI **15** 19:28:54.7,42.77N×145.43E,h35^{km},mB5.0,mb4.7,Ms4.0,Msz4.0*

*NEIC **15** 19:28:56.3±2.2,42.75N×145.44E,h34^{km}±15^{km},mb4.7/28,MW4.4(NIED),Error ellipse: s-maj=9.7km s-min=6.9km az=124.0*

*JMA **15** 19:28:56.8±0.1,42.78N×145.37E,h44^{km}±1^{km},M4.2*

JMA Felt I J1.

*SKHL **15** 19:28:57.3±0.0,42.81N×145.51E,h42^{km}±7^{km},mb4.7/10,Ms3.7/1*

*IDC **15** 19:28:59.7±3.0,42.77N×145.49E,h62^{km}±22^{km},mb4.0/19,mb1 4.2/20,mb1mx4.1/27,ML4.7/1,MS3.6/5,Ms1 3.7/5,ms1mx3.2/33,Error ellipse: s-maj=20.5km s-min=15.9km az=149.0*

ISC 15 19:28:55.5±0.7,**42.75N**±0.04×**145.42E**±0.05,**h41**^{km}±4^{km},**h47**^{km}±6.7^{km}**:pP-P,n161,**σ**0**^{s}**98**/165,**mb4.6**/63,**MS3.6**/9,**13C-15D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAK	**Akkeshi**	0.59	295	⇓P	P	19 29 08.4	+1.0
JAK				*e*S	S	19 29 16.5	+0.4
NEM2	**Nemuro 2**	0.66	21	P	P	19 29 09.4	+1.0
NEM2				*e*S	S	19 29 18.6	+0.7
JNK	**Nakash**	0.98	329	⇓P	P	19 29 13.6	+0.6
JNK				*e*S	S	19 29 25.7	-0.2
JOB	**Onbets**	1.18	278	⇓P	P	19 29 16.4	+0.7
JRA	**Rausu**	1.21	350	⇓P	P	19 29 17.2	+1.0
JRA				*e*S	S	19 29 32.5	+0.8
YUK	**Yuzh-Kuril’sk**	1.33	14	⇑*i*PN	P	19 29 18.0	0.0
YUK				*i* S	S	19 29 33.5	-1.2
YUK				pmax	pmax		
	comp=Z,2μm,0.3s						
YUK				pmax	pmax		
	comp=N,860nm,0.2s						
YUK				pmax	pmax		
	comp=E,770nm,0.3s						
YUK				smax			
	comp=N,14μm,0.5s						
YUK				smax			
	comp=E,10μm,0.5s						
YUK				smax			
	comp=N,30μm,0.9s						
YUK				smax			
	comp=E,20μm,0.9s						
YUK	**Yuzh-Kuril’sk**	1.33	14	⇑*i*P	P	19 29 18.0	0.0
YUK				AMB	AMB	19 29 20.5	
	comp=E,860nm,0.2s						
YUK				AMB	AMB	19 29 20.5	
	comp=E,770nm,0.2s						
YUK				AMB	AMB	19 29 20.5	
	comp=E,2μm,0.2s						
YUK				*i* S	S	19 29 33.5	-1.2
YUK				A		19 29 38.5	
	comp=E,14μm,0.5s						
YUK				A		19 29 38.5	
	comp=E,10μm,0.5s						
YUK				A		19 29 38.9	
	comp=E,30μm,1.0s						
YUK				A		19 29 38.9	
	comp=E,20μm,1.0s						
JAR	**Ashorobuto**	1.33	295	⇓P	P	19 29 18.6	+0.6
JCH	**Churui**	1.52	266	P	P	19 29 21.3	+0.6
JTKR	**Abashiri--Toko**	1.65	318	⇓P	P	19 29 23.7	+1.2
ASAJ	**Asahikawa**	2.47	305	P	P	19 29 36.1	+1.9
	comp=E,108nm,0.3s,baz=132,slow=8.1,SNR=201						
ASAJ				S	S	19 30 08.6	+5.2
	comp=E,36nm,0.3s,baz=352,slow=28,SNR=7.3						
ASAJ				LR	LR	19 30 48.7	
	comp=E,1μm,18.0s,baz=326,slow=44						
ASAJ	**Asahikawa**	2.47	305	PN	P	19 29 36.2	+2.0
ASAJ				S	S	19 30 08.6	+5.2
ASAJ				pmax	pmax		
	comp=Z,108nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,1μm,18.0s						
KUR	**Kuril’sk**	3.05	35	*e*P	P	19 29 41.5	-1.0
KUR				AMB	AMB	19 29 46.0	
	comp=Z,90nm,0.5s						
KUR				AMB	AMB	19 29 46.0	
	comp=Z,80nm,0.5s						
KUR				AMB	AMB	19 29 46.0	
	comp=Z,150nm,0.5s						
KUR				*i* S	S	19 30 15.4	-2.7
KUR				A		19 30 27.3	
	comp=Z,10.0nm,0.7s						
KUR				A		19 30 27.3	
	comp=Z,450nm,0.7s						
YSS	**Yuzh-Sakhalins**	4.61	337	*c* *i*PN	P	19 30 06.7	+2.1
YSS	**Yuzh-Sakhalins**	4.61	337	*e*P	P	19 30 04.6	-0.1
YSS	**Yuzh-Sakhalins**	4.61	337	*e*P	P	19 30 06.0	+1.4
YSS				AMB	AMB	19 30 10.0	
	comp=Z,30nm,0.8s						
YSS				*e*S	S	19 30 56.6	-1.0
YSS				A		19 30 57.7	
	comp=Z,40nm,0.8s						
YSS				AMS	AMS	19 32 14.0	
	comp=Z,500nm,16.0s						
YSS				AMS	AMS	19 32 14.0	
	comp=Z,900nm,16.0s						
YSS				AMS	AMS	19 32 14.0	
	comp=Z,500nm,15.0s						
UGL	**Uglegorsk**	6.75	341	*e*P	P	19 30 33.0	-1.6
UGL				AMB	AMB	19 30 34.0	
	comp=Z,25nm,0.5s						
UGL				AMS	AMS	19 33 42.0	
	comp=Z,450nm,14.0s						
MAJO	**Matsushiro**	8.32	224	*e*PN	P	19 30 54.3	-2.2
MAJO				pmax	pmax		
	comp=Z,24nm,0.8s						
MAJO	**Matsushiro**	8.32	224	*e*P	P	19 30 54.3	-2.2
	comp=Z,24nm,0.8s						
MAT	**Matsushiro**	8.32	224	P	P	19 30 54.5	-2.0
MAT				*e*S	S	19 32 30.5	+0.3
MAT	**Matsushiro**	8.32	224	*e*PN	P	19 30 55.0	-1.5
MAT				S	S	19 32 33.0	+2.8
MAT				pmax	pmax		
	comp=Z,10.0nm,0.7s						
MAT	**Matsushiro**	8.32	224	*e*P	P	19 30 55.0	-1.5
	comp=Z,10nm,0.7s						
MAT				S	S	19 32 33.0	+2.8
TYV	**Tymovskoe**	8.34	348	*e*rx	rx	19 31 56.0	
GRNR	**Gornyy**	10.12	326	*e*P	P	19 31 22.0	+0.9
GRNR				AMB	AMB	19 31 23.4	
	comp=Z,40nm,0.8s						
GRNR				AMB	AMB	19 31 23.4	
	comp=Z,20nm,0.8s						
GRNR				AMB	AMB	19 31 23.4	
	comp=Z,50nm,0.8s						
KLR	**Kul’dur**	11.50	309	*e*PN	P	19 31 40.4	+0.5
KLR	**Kul’dur**	11.50	309	*e*rx	rx	19 31 40.4	
MDJ	**Mudanjiang**	11.62	285	*e*P	P	19 31 41.3	-0.2
	comp=Z,6.6nm,0.8s						
EKMR	**Ekimchan**	13.27	325	*e*P	P	19 32 03.4	-0.1
EKMR				AMB	AMB	19 32 06.0	
	comp=Z,10.0nm,0.9s						
PET	**Petropavlovsk**	13.56	36	*i* P	P	19 32 05.2	-2.0
PET	**Petropavlovsk**	13.56	36	*e*P	P	19 32 05.2	-2.0
CN2	**Changchun**	14.59	281	*e*P	P	19 32 20.4	-0.4
CN2				*e*XP		19 32 35.0	
CN2				*e*S	S	19 35 00.8	-1.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s						
CN2				AMB	AMB		
	comp=Z,200nm,3.0s						
CN2				LR	LR		
	comp=N,300nm,11.0s						
CN2				LR	LR		
	comp=E,400nm,11.0s						
CN2				LR	LR		
	comp=Z,500nm,12.0s						
YASR	**Yasnyy**	15.69	318	*e*P	P	19 32 33.3	-1.6
YASR				AMB	AMB	19 32 39.3	
	comp=Z,2.0nm,0.8s						
YASR				AMB	AMB	19 32 39.3	
	comp=Z,7.0nm,0.8s						
BMKR	**Bomnak**	16.16	324	*e*P	P	19 32 39.3	-1.7
BMKR				AMB	AMB	19 32 41.9	
	comp=Z,10.0nm,0.7s						
ZEA	**Zeya**	16.30	319	*e*P	P	19 32 40.9	-1.8
ZEA				AMB	AMB	19 32 42.6	
	comp=Z,10.0nm,0.8s						
ZEA				AMS	AMS	19 39 38.0	
	comp=Z,400nm,16.0s						
ZEA				AMS	AMS	19 39 38.0	
	comp=Z,300nm,14.0s						
ZEA				AMS	AMS	19 39 38.0	
	comp=Z,200nm,13.0s						
KROS	**Kirovskiy**	16.84	320	*e*P	P	19 32 47.9	-1.6
KROS				AMB	AMB	19 32 50.0	
	comp=Z,5.0nm,0.9s						
HIA	**Hailar**	18.94	299	*e*P	P	19 33 11.7	-3.7
HIA				pmax	pmax		
	comp=Z,12nm,0.9s						
HIA	**Hailar**	18.94	299	*e*P	P	19 33 11.7	-3.8
	comp=Z,12nm,0.9s						
JOW	**Kunigami**	21.16	227	LR	LR	19 42 17.9	
	comp=Z,136nm,21.7s,MS3.3,baz=136,slow=38						
YAK	**Yakutsk**	21.46	340	*i* P	P	19 33 41.6	-0.4
YAK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.0						
YAK	**Yakutsk**	21.46	340	P	P	19 33 41.2	-0.8
	comp=Z,3.7nm,0.3s,mb4.2						
BJI	**Beijing**	22.06	273	*e*P	P	19 33 47.4	-0.7
BJI				AMB	AMB		
	comp=Z,27nm,1.1s,mb4.6						
BJI				LR	LR		
	comp=Z,113nm,22.9s,MS3.2						
BJT	**Baijiatuau**	22.07	273	*e*P	P	19 33 47.2	-1.0
BJT				pmax	pmax		
	comp=Z,23nm,0.9s						
BJT	**Baijiatuau**	22.07	273	*e*P	P	19 33 47.2	-1.0
	comp=Z,23nm,0.9s,mb4.6						
SSE	**Sheshan**	22.51	247	P	P	19 33 50.8	-1.9
SSE				XP		19 34 09.8	
SSE				S	S	19 37 52.0	-0.2
SSE				XS		19 38 13.5	
SSE				AMB	AMB		
	comp=Z,30nm,0.7s,mb4.8						
SSE				LR	LR		
	comp=N,49nm,23.3s,MS3.0						
SSE				LR	LR		
	comp=E,55nm,23.3s,MS3.0						
SSE				LR	LR		
	comp=Z,89nm,21.9s,MS3.1						
NJ2	**Nanjing**	23.56	252	*e*P	P	19 34 03.9	+1.0
NJ2				AP		19 34 18.3	
NJ2				PP	PP	19 34 38.9	+3.0
NJ2				S	S	19 38 12.0	+1.3
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
NJ2				AMB	AMB		
	comp=Z,340nm,5.2s						
NJ2				LR	LR		
	comp=N,350nm,13.0s,MS4.2						
NJ2				LR	LR		
	comp=E,520nm,15.4s,MS4.2						
NJ2				LR	LR		
	comp=Z,480nm,19.1s,MS4.0						
HHC	**Hu-ho-hao-te**	25.22	277	*e*P	P	19 34 19.4	+0.6
HHC				AP	pP	19 34 30.9	+1.2
HHC				XP	sP	19 34 36.5	+1.9
HHC				PP	PP	19 34 58.3	+0.5
HHC				PCP	PcP	19 37 54.4	+2.0
HHC				S	S	19 38 38.3	-0.5
HHC				XS		19 38 56.3	
HHC				SS	SS	19 39 38.5	-2.5
HHC				PCS		19 41 33.6	
HHC				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.6						
HHC				AMB	AMB		
	comp=Z,164nm,4.3s						
HHC				LR	LR		
	comp=N,99nm,7.9s						
HHC				LR	LR		
	comp=E,203nm,15.9s						
HHC				LR	LR		
	comp=Z,98nm,15.8s,MS3.4						
BTO	**Baotou**	26.41	277	*e*P	P	19 34 29.8	-0.1
ULN	**Ulaanbaatar**	27.27	294	*d* *i*P	P	19 34 37.7	0.0
ULN	**Ulaanbaatar**	27.27	294	*e*P	P	19 34 37.6	-0.1
	comp=Z,14nm,1.2s,mb4.4						
WHN	**Wuhan**	27.59	254	*e*P	P	19 34 41.0	+0.2
SONM	**Songino Array**	27.71	294	P	P	19 34 41.5	-0.3
	comp=Z,17nm,0.8s,mb4.7,baz=79,slow=8.4,SNR=125						
ZAK	**Zakamensk**	29.63	300	*e*P	P	19 34 50.1	-8.8
ZAK				*e*	pP	19 34 58.9	-11
XAN	**Xi’an**	29.71	265	P	P	19 34 59.0	-0.7
XAN				AMB	AMB		
	comp=Z,5.0nm,1.4s,mb4.0						
ENH	**Enshi**	31.22	258	*e*P	P	19 35 12.7	-0.5
	comp=Z,15nm,1.3s,mb4.7						
GTA	**Gaotai**	34.22	280	*e*P	P	19 35 39.0	-0.1
GTA				AP	pP	19 35 51.9	+1.4
GTA				XP	sP	19 35 55.8	0.0
GTA				PP	PP	19 36 53.1	-1.6
GTA				S	S	19 40 59.8	-2.2
GTA				SS	SS	19 43 13.3	+0.6
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.3						
GTA				AMB	AMB		
	comp=Z,80nm,4.6s						
GTA				LR	LR		
	comp=N,127nm,9.5s						
GTA				LR	LR		
	comp=E,168nm,11.4s						
GTA				LR	LR		
	comp=Z,138nm,8.0s						
CD2	**Chengdu**	35.05	264	P	P	19 35 46.3	0.0
CD2				*e*S	S	19 41 12.5	-2.4
CD2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
IMA	**Indian Mountai**	40.22	34	*e*P	P	19 36 30.6	+1.4
IMA				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.0						
IMA	**Indian Mountai**	40.22	34	*e*P	P	19 36 30.6	+1.3
	comp=Z,32nm,0.9s,mb5.0						
ZAL	**Zalesovo**	40.62	308	P	P	19 36 32.3	-0.3
	comp=Z,2.3nm,0.9s,mb3.8,baz=29,slow=8.4,SNR=12						
ZAL				PcP	PcP	19 38 34.9	+0.1
	comp=Z,1.9nm,0.5s,baz=49,slow=3.1,SNR=5.9						
ZAL				LR	LR	19 55 03.6	
	comp=Z,106nm,18.6s,MS3.7,baz=42,slow=38						
COLA	**College**	42.62	35	*i* P	P	19 36 48.6	-0.3
COLA	**College**	42.62	35	P	P	19 36 47.1	-1.8
ILAR	**Eielson Array**	43.04	36	P	P	19 36 52.9	+0.5
	comp=Z,0.9nm,0.6s,mb3.7,baz=262,slow=5.3,SNR=24						
CMAR	**Chiang Mai Arr**	46.03	253	P	P	19 37 17.8	+0.8
	comp=Z,1.1nm,0.6s,mb4.0,baz=44,slow=7.6,SNR=15						
CMAR				PcP	PcP	19 38 54.4	+1.0
	comp=Z,0.6nm,0.7s,slow=1.8,SNR=4.6						
CMAR				LR	LR	19 56 59.2	
	comp=Z,65nm,19.8s,MS3.6,baz=33,slow=36						
INK	**Inuvik**	47.90	30	P	P	19 37 30.9	-0.1
	comp=Z,3.1nm,0.4s,mb4.7,baz=284,slow=6.6,SNR=28						
INK	**Inuvik**	47.90	30	*e*P	P	19 37 30.9	-0.1
INK				pmax	pmax		
	comp=Z,3.0nm,0.5s						
INK	**Inuvik**	47.90	30	*e*P	P	19 37 30.9	-0.1
	comp=Z,3.3nm,0.5s,mb4.6						
BVAR	**Borovoye Array**	49.16	310	P	P	19 37 40.4	-0.5
	comp=Z,2.5nm,0.4s,mb4.6,baz=79,slow=8.7,SNR=30						
BRVK	**Borovoye**	49.21	310	*e*P	P	19 37 41.3	0.0
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
BRVK	**Borovoye**	49.21	310	*e*P	P	19 37 41.3	0.0
	comp=Z,6.5nm,0.8s,mb4.7						
TKM2	**Tokmak 2**	49.80	295	*e*P	P	19 37 46.2	+0.3
	comp=Z,15nm,1.0s,mb5.0						
KKN	**Kakani**	50.31	273	*e*P	P	19 37 49.7	-0.4
	comp=Z,18nm,0.9s,mb5.1						
PKI	**Pulchoki**	50.34	273	*e*P	P	19 37 49.9	-0.4
	comp=Z,22nm,1.1s,mb5.1						
DMN	**Daman**	50.54	273	*e*P	P	19 37 51.6	-0.2
	comp=Z,28nm,1.2s,mb5.1						
AAK	**Ala-Archa**	50.65	296	*i* P	P	19 37 50.9	-1.6
AAK				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
GKN	**Gorkha**	50.67	274	*e*P	P	19 37 52.2	-0.6
	comp=Z,6.5nm,0.4s,mb4.9						
KOLN	**Koldanda**	51.56	274	*e*P	P	19 37 59.4	-0.1
	comp=Z,9.5nm,0.7s,mb4.8						
ARU	**Arti**	54.21	317	⇑*i*P	P	19 38 17.9	-0.9
ARU				*e*		19 39 16.0	
ARU				*e*		19 40 19.4	
ARU				*e*PPP	PPP	19 41 28.4	-4.7
ARU				*e*S	S	19 45 54.4	+3.0
ARU				*e*SS	SS	19 49 36.8	+3.7
ARU				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
RES	**Resolute Bay**	56.29	16	*e*P	P	19 38 32.4	-1.2
RES				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
RES	**Resolute Bay**	56.29	16	*e*P	P	19 38 32.4	-1.2
	comp=Z,7.9nm,0.7s,mb4.8						
YKA	**Yellowknife Ar**	57.34	33	P	P	19 38 40.7	-0.5
	comp=Z,0.3nm,0.5s,mb3.6,baz=301,slow=7.0,SNR=5.3						
YKA	**Yellowknife Ar**	57.34	33	*i* P	P	19 38 45.7	+4.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	57.34	33	P	P	19 38 40.7	-0.5
KEV	**Kevo**	59.20	339	*e*p	P	19 38 51.9	-2.3
	comp=Z,30nm,1.2s,mb5.2						
KEV	**Kevo**	59.20	339	*e*P	P	19 38 51.9	-2.3
KEV				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
ARCES	**ARCESS Array B**	59.74	339	P	P	19 38 57.3	-0.7
	comp=Z,5.0nm,0.9s,mb4.5,baz=51,slow=7.8,SNR=9.8						
CTA	**Charters Tower**	62.52	179	LR	LR	20 03 54.5	
	comp=Z,38nm,18.3s,MS3.6,baz=45,slow=34						
WRA	**Warramunga Arr**	63.21	192	P	P	19 39 20.8	-1.1
	comp=Z,0.4nm,0.6s,mb3.8,baz=14,slow=7.2,SNR=5.0						
KAF	**Kangasniemi**	64.64	333	*e*p	P	19 39 29.1	-1.4
	comp=Z,2.9nm,0.5s,mb4.6,baz=47,slow=6.3						
KAF	**Kangasniemi**	64.64	333	*e*P	P	19 39 29.1	-1.4
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
SUMG	**Summit**	64.95	1	*e*P	P	19 39 32.4	0.0
	comp=Z,10nm,0.7s,mb5.0						
FINES	**FINESS Array B**	65.19	333	P	P	19 39 33.5	-0.6
	comp=Z,7.6nm,0.4s,mb5.0,baz=52,slow=7.6,SNR=112						
OBN	**Obninsk**	65.37	323	*e*P	P	19 39 35.0	-0.3
OBN				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.1						
VRSR	**Storozhevoye**	66.66	319	*d* *i*P	P	19 39 43.4	-0.2
VRSR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,7.0nm,0.7s						
KIV	**Kislovodsk**	69.48	311	*d* *i*P	P	19 40 02.3	+1.0
KIV				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
ZEI	**Tsey**	69.56	310	*e*P	P	19 40 01.0	-0.8
ZEI				*i* *PP	pP	19 40 18.4	+4.3
ZEI				*i*		19 42 35.8	
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
NB2	**NORSAR Subarra**	70.07	338	P	P	19 40 04.3	-0.3
	comp=Z,4.6nm,0.5s,mb4.7,baz=33,slow=6.2						
NB2	**NORSAR Subarra**	70.07	338	P	P	19 40 04.3	-0.3
NB2				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
NOA	**NORSAR Array B**	70.07	338	P	P	19 40 04.6	0.0
	comp=Z,6.5nm,0.6s,mb4.7,baz=34,slow=6.2,SNR=22						
HFS	**Hagfors**	70.12	337	P	P	19 40 04.6	-0.2
	comp=Z,8.4nm,0.5s,mb4.9,baz=53,slow=7.4,SNR=32						
PDAR	**Pinedale Array**	71.52	49	P	P	19 40 12.8	-0.9
	comp=Z,0.6nm,0.6s,mb3.7,baz=311,slow=1.2,SNR=5.4						
AKASG	**Malin Array Be**	71.63	323	P	P	19 40 13.8	-0.3
	comp=Z,5.3nm,0.5s,mb4.8,baz=40,slow=6.2,SNR=180						
AKASG	**Malin Array Be**	71.63	323	P	P	19 40 13.9	-0.3
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.5s						
ANN	**Anapa**	71.76	315	*e*P	P	19 40 16.2	+1.1
ANN				pmax	pmax		
	comp=Z,47nm,1.7s,mb5.1						
KWP	**Kalwaria**	75.23	326	*e*P	P	19 40 36.7	+1.5
OJC	**Ojcow**	75.95	327	*e*P	P	19 40 40.9	+1.6
CRVS	**Cervenica-Dubn**	76.31	326	*e*P	P	19 40 42.1	+0.8
NIE	**Niedzica**	76.38	327	*e*P	P	19 40 43.5	+1.8
MLR	**Muntele Rosu**	76.95	321	P	P	19 40 45.8	+0.7
	comp=Z,2.5nm,0.8s,mb4.2,baz=207,slow=6.8,SNR=3.2						
UPC	**Upice**	77.18	330	*e*P	P	19 40 47.1	+0.9
DPC	**Dobruska-Polom**	77.19	329	*e*P	P	19 40 47.6	+1.3
BRTR	**Keskin Array B**	77.31	313	P	P	19 40 48.0	+0.8
	comp=Z,1.6nm,0.6s,mb4.1,baz=71,slow=3.4,SNR=6.7						
CLL	**Collm**	77.61	332	⇓*i*P	P	19 40 49.0	+0.4
CLL				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
CLL	**Collm**	77.61	332	⇓*i*P	P	19 40 49.0	+0.4
	comp=Z,15nm,1.2s,mb4.8						
CLL	**Collm**	77.61	332	⇓P	P	19 40 49.0	+0.4
	comp=Z,logA/T=1.1,mb4.8						
BRG	**Berggiesshubel**	77.64	331	⇓*i*P	P	19 40 49.0	+0.3
BRG				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
BRG	**Berggiesshubel**	77.64	331	⇓*i*P	P	19 40 49.0	+0.3
	comp=Z,15nm,1.2s,mb4.8						
VYHS	**Vyhne**	77.71	327	*e*P	P	19 40 50.2	+1.0
VRAC	**Vranov**	77.94	329	P	P	19 40 51.5	+1.1
	comp=Z,2.7nm,0.7s,mb4.3,baz=29,slow=7.6,SNR=3.2						
PRU	**Pruhonice**	78.15	330	*e*P	P	19 40 52.4	+0.8
EKA	**Eskdalemuir Ar**	78.71	342	P	P	19 40 55.4	+0.8
	comp=Z,1.6nm,0.5s,mb4.2,baz=23,slow=5.0,SNR=16						
KHC	**Kasperske Hory**	79.21	330	*e*P	P	19 40 57.9	+0.5
GERES	**GERESS Array B**	79.41	330	P	P	19 40 59.1	+0.7
	comp=Z,0.9nm,0.5s,mb3.9,baz=45,slow=5.7,SNR=8.5						
CDF	**Champ du Feu**	82.02	333	*e*P	P	19 41 12.3	0.0
	comp=Z,3.9nm,0.5s,mb4.3						
CDF	**Champ du Feu**	82.02	333	*e*P	P	19 41 12.3	0.0
CDF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
HINF	**Hinteralfeld**	82.68	333	*e*P	P	19 41 15.8	+0.1
SSF	**Saint Saulge**	84.42	335	*e*P	P	19 41 24.5	+0.1
	comp=Z,4.7nm,0.8s,mb4.4						
SSF	**Saint Saulge**	84.42	335	*e*P	P	19 41 24.5	+0.1
SSF				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
SMF	**Signal de Mont**	84.69	335	*e*P	P	19 41 26.0	+0.2
	comp=Z,7.1nm,0.8s,mb4.6						
SMF	**Signal de Mont**	84.69	335	*e*P	P	19 41 26.0	+0.2
SMF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
AVF	**Avril sur Loir**	84.71	335	*e*P	P	19 41 26.2	+0.3
	comp=Z,9.7nm,0.8s,mb4.7						
AVF	**Avril sur Loir**	84.71	335	*e*P	P	19 41 26.2	+0.3
AVF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
LPG	**La Plagne**	84.74	332	*e*P	P	19 41 26.2	+0.1
	comp=Z,9.6nm,1.0s,mb4.6						
LPG	**La Plagne**	84.74	332	*e*P	P	19 41 26.2	+0.1
LPG				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
BGF	**Bois d’Agland**	85.08	335	*e*P	P	19 41 28.6	+0.9
	comp=Z,6.5nm,0.7s,mb4.6						
BGF	**Bois d’Agland**	85.08	335	*e*P	P	19 41 28.6	+0.9
BGF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.5						
ROSF	**Rostrenen**	85.19	340	*e*P	P	19 41 29.0	+0.8
	comp=Z,74nm,1.3s,mb5.3						
ROSF	**Rostrenen**	85.19	340	*e*P	P	19 41 29.0	+0.8
ROSF				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.3						
MBDF	**Montbardon**	85.40	332	*e*P	P	19 41 30.0	+0.6
ORIF	**Oris-en-Rattie**	85.54	332	*e*P	P	19 41 30.8	+0.8
	comp=Z,6.4nm,0.8s,mb4.6						
ORIF	**Oris-en-Rattie**	85.54	332	*e*P	P	19 41 30.8	+0.8

ORIF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.6						
SBF	Sospel	85.92	331	eP	P	19 41 31.7	-0.2
	comp=Z,8.1nm,0.6s,mb4.9						
SBF	Sospel	85.92	331	eP	P	19 41 31.7	-0.2
SBF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.8						
RJF	Les Rejaudoux	86.61	335	eP	P	19 41 36.2	+0.9
LMR	La Mourre	86.71	331	eP	P	19 41 36.2	+0.4
	comp=Z,8.8nm,0.8s,mb4.7						
LMR	La Mourre	86.71	331	eP	P	19 41 36.2	+0.4
LMR				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
CAF	Calviac	86.78	335	eP	P	19 41 37.4	+1.3
	comp=Z,17nm,1.1s,mb4.9						
CAF	Calviac	86.78	335	eP	P	19 41 37.4	+1.3
CAF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.9						
ETSF	Etsaut	89.43	336	eP	P	19 41 49.8	+1.0
	comp=Z,6.6nm,0.8s,mb4.7						
ETSF	Etsaut	89.43	336	eP	P	19 41 49.8	+1.0
ETSF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.7						
SNAA	Sanae	147.11	198	⇑i	PKPdf	19 48 35.4	+4.9
SNAA	Sanae	147.11	198	⇑i	PKPdf	19 48 37.5	+7.0
SNAA	Sanae	147.11	198	PKPbc	PKPdf	19 48 35.1	+4.6
	comp=Z,1.1nm,0.9s,baz=145,slow=3.7,SNR=5.3						
SNAA	Sanae	147.11	198	PKP2	PKPab	19 48 35.1	-1.3
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
VNA2	Neumayer--Watz	148.66	197	⇑i	PKPdf	19 48 37.7	+4.7
VNA2	Neumayer--Watz	148.66	197	⇑i	PKPdf	19 48 42.2	+9.2
VNA2	Neumayer--Watz	148.66	197	⇑i	PKPdf	19 48 55.1	+22
VNA2	Neumayer--Watz	148.66	197	⇑i	PKPdf	19 48 59.6	+27
VNA3	Neumayer Olymp	148.88	195	⇑i	PKPdf	19 48 37.8	+4.5
VNA3	Neumayer Olymp	148.88	195	⇑i	PKPdf	19 48 41.5	+8.2
VNA3	Neumayer Olymp	148.88	195	⇓i	PKPdf	19 48 55.3	+22
VNA1	Neumayer--Stat	149.06	197	⇑i	PKPdf	19 48 37.0	+3.4

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*IDC **15** 19:35:29.0±0.6, 24.41S×13.26W, mb4.4/15, mb1 4.5/15, mb1mx4.3/21, MS4.2/11, Ms1 4.2/11, ms1mx3.8/21, Error ellipse: s-maj=26.2km s-min=18.0km az=108.0*

*NEIC **15** 19:35:30.8±0.3, 24.36S×13.27W, h10^{km}, mb5.0/38, MS4.8/52, Error ellipse: s-maj=11.5km s-min=6.6km az=113.0*

*HRVD **15** 19:35:30.8±0.3, 24.26S×13.14W, h12^{km}, MW5.0/49, Centroid moment Tensor Solution. LP body waves: s20,c25;Mantle waves: s49,c88; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-3.11±.16; M$_{\theta\theta}$-0.58±.16; M$_{\phi\phi}$3.70±.11; M$_{r\theta}$1.55±.56; M$_{\theta\phi}$0.97±.12; M$_{\phi r}$2.42±.37; Best double couple: M$_0$4.56×10^{16} NP1:φ$_s$354°,δ28°, λ-119°. NP2:φ$_s$207°,δ65°,λ-75°. Principal axes: T 4.84, Plg19°, Azm286°; N -.55, Plg13°, Azm20°; P -4.28, Plg66°, Azm143°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 15 19:35:29.3±0.4**, 24.29S**±0.07×**13.3W**±0.1**, h10^{km}, (h22^{km}**±.5^{km}**:pP-P), n159, σ0^{s}90**/95**, mb4.7**/54**, MS4.7**/58**, 10C-1D, Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCBR	Riachuelo	28.43	307	PFAKE		19 41 40.0	+14
RCBR				LR	LR		
	comp=Z,689nm,20.0s,MS4.2						
SUR	Sutherland	30.99	113	LR	LR	19 51 20.6	
	comp=Z,905nm,20.6s,MS4.4,baz=353,slow=31						
SUR	Sutherland	30.99	113	PFAKE		19 42 00.0	+11
SUR				LR	LR		
	comp=Z,326nm,22.0s,MS4.0						
DBIC	Dimbokro	31.85	16	P	P	19 41 56.8	-0.1
	comp=Z,6.1nm,1.0s,mb4.4,baz=154,slow=8.9,SNR=3.9						
DBIC				LR	LR	19 51 24.4	
	comp=Z,217nm,20.4s,MS3.8,baz=181,slow=30						
BAO	Brasilia Array	33.65	278	P	P	19 42 12.7	+0.2
BAO				i		19 42 19.2	
BDFB	Brasilia	33.66	278	P	P	19 42 13.2	+0.6
	comp=Z,18nm,1.0s,mb4.9,baz=106,slow=6.4,SNR=12						
BDFB				LR	LR	19 53 49.9	
	comp=Z,2µm,19.2s,MS4.7,baz=119,slow=33						
TRQA	Tornquist	43.38	240	eP	P	19 43 34.0	+0.3
	comp=Z,21nm,1.0s,mb4.8						
TRQA				e		19 43 39.6	
TRQA				LR	LR		
	comp=Z,713nm,21.0s,MS4.5						
VNA1	Neumayer--Stat	46.48	178	⇑i	P	19 44 04.3	+6.3
VNA2	Neumayer--Watz	46.79	177	⇑i	P	19 44 02.6	+2.1
VNA3	Neumayer Olymp	47.03	178	⇑i	P	19 43 59.7	-2.7
SNAA	Sanae	47.78	176	⇑i	P	19 44 06.5	-1.8
SNAA	Sanae	47.78	176	P	P	19 44 07.3	-1.0
	comp=Z,1.3nm,0.8s,mb4.0,baz=318,slow=9.8,SNR=7.5						
SNAA				LR	LR	19 59 41.9	
	comp=Z,37nm,18.3s,baz=187,slow=30						
MBAR	Mbarara	48.69	68	PFAKE		19 44 30.0	+14
MBAR				LR	LR		
	comp=Z,73nm,19.0s,MS3.7						
SAML	Samuel	49.90	279	eP	P	19 44 26.0	+0.6
	comp=Z,20nm,1.2s,mb5.0						
SAML				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
LPAZ	La Paz	51.77	268	P	P	19 44 39.0	-0.6
	comp=Z,1.4nm,0.9s,mb3.9,baz=115,slow=6.7,SNR=5.6						
LPAZ				LR	LR	20 07 20.3	
	comp=Z,440nm,18.1s,MS4.5,baz=275,slow=37						
KMBO	Kilima Mbogo	54.01	73	LR	LR	20 07 18.1	
	comp=Z,485nm,19.9s,MS4.6,baz=280,slow=35						
KMBO	Kilima Mbogo	54.01	73	PFAKE		19 45 10.0	+14
KMBO				LR	LR		
	comp=Z,478nm,19.0s,MS4.6						
NNA	Nana	61.16	269	PFAKE		19 46 00.0	+13
NNA				LR	LR		
	comp=Z,67nm,19.0s,MS3.8						
MAW	Mawson	62.53	155	P	P	19 45 53.9	-1.3
	comp=Z,5.2nm,1.0s,mb4.6,baz=263,slow=8.1,SNR=5.3						
MAW				LR	LR	20 07 30.2	
	comp=Z,151nm,18.8s,MS4.2,baz=253,slow=31						
EVO	Evora	62.68	5	eP	P	19 45 55.3	-1.3
	comp=Z,19nm,1.1s,mb4.8						
EVO				eR			
	comp=Z,98nm,20.5s						
ESDC	Sonseca Array	64.22	8	P	P	19 46 05.8	-0.9
	comp=Z,3.2nm,1.1s,mb4.3,baz=179,slow=5.8,SNR=5.1						
SDV	Santo Domingo	64.91	293	eP	P	19 46 12.7	+1.0
	comp=Z,9.9nm,0.9s,mb4.8						
SDV				LR	LR		
	comp=Z,716nm,20.0s,MS4.9						
QSPA	South Pole Qui	65.92	180	eP	P	19 46 17.1	+0.1
	comp=Z,13nm,1.4s,mb4.8						
ROSC	El Rosal	66.04	287	LR	LR	20 13 31.5	
	comp=Z,482nm,20.4s,MS4.7,baz=189,slow=34						
SJG	San Juan	66.56	304	PFAKE		19 46 30.0	+7.9
SJG				LR	LR		
	comp=Z,277nm,21.0s,MS4.5						
VAE	Valguarnera	66.74	24	P	P	19 46 24.7	+1.7
	comp=Z,6.9nm,0.6s,mb4.8,baz=28,slow=10,SNR=3.8						
OTAV	Otavalo	67.55	281	PFAKE		19 46 40.0	+11
OTAV				LR	LR		
	comp=Z,588nm,22.0s,MS4.8						
ETSF	Etsaut	67.87	10	eP	P	19 46 29.1	-1.0
SJPF	Ste Jean	67.98	10	eP	P	19 46 29.1	-1.6
	comp=Z,12nm,1.0s,mb4.6						
EPF	Esparros	68.15	11	eP	P	19 46 31.0	-0.8
	comp=Z,31nm,1.4s,mb4.8						
MTLF	Montolieu	68.79	12	eP	P	19 46 34.9	-0.8
TIP	Timpagrande	69.11	25	eP	P	19 46 38.0	+0.2
MGR	Morigerati	69.51	23	eP	P	19 46 40.2	0.0
PGF	Pioggiola	69.61	17	eP	P	19 46 40.3	-0.5
	comp=Z,27nm,1.2s,mb4.7						
LMR	La Mourre	69.71	15	eP	P	19 46 41.5	+0.1
	comp=Z,20nm,1.1s,mb4.7						
SGO	Sicignano	69.79	23	eP	P	19 46 42.6	+0.7
LASF	Ste Croix	69.82	13	eP	P	19 46 41.3	-0.7
	comp=Z,124nm,1.7s,mb5.3						
FRF	La Foret Royal	69.96	15	eP	P	19 46 42.0	-0.9
	comp=Z,43nm,1.5s,mb4.9						
LFF	La Frestale	70.07	11	eP	P	19 46 42.7	-0.9
	comp=Z,15nm,0.8s,mb4.7						
SMRF	Simiane la Rot	70.10	14	eP	P	19 46 43.4	-0.3
	comp=Z,23nm,1.3s,mb4.7						
CAF	Calviac	70.29	12	eP	P	19 46 44.0	-0.9
SDI	San Donato	70.30	21	eP	P	19 46 45.8	+0.8
PTQR	Pietraquaria	70.45	21	eP	P	19 46 46.6	+0.7
RJF	Les Rejaudoux	70.56	11	eP	P	19 46 45.7	-0.8
RJF				eR			
	comp=Z,162nm,19.5s						
VIVF	Saint-Julien-l	70.74	13	eP	P	19 46 48.3	+0.7
	comp=Z,69nm,1.4s,mb5.1						
FIN	Finale Ligure	70.95	16	eP	P	19 46 50.0	+1.0
ORIF	Oris-en-Rattie	71.06	14	eP	P	19 46 49.4	-0.2
	comp=Z,22nm,1.2s,mb4.7						
ORIF				eR			
	comp=Z,218nm,18.5s						
MBDF	Montbardon	71.09	15	eP	P	19 46 49.7	0.0
	comp=Z,34nm,1.2s,mb4.8						
MFF	Saint Martin d	71.55	10	eP	P	19 46 51.7	-0.8
	comp=Z,80nm,1.7s,mb5.1						
TCF	Toulx Ste Croi	71.64	11	eP	P	19 46 52.5	-0.5
	comp=Z,18nm,1.1s,mb4.6						
GSCL	Gusciola	71.72	18	eP	P	19 46 54.1	+0.6
LPG	La Plagne	71.81	15	eP	P	19 46 54.1	0.0
	comp=Z,52nm,1.3s,mb5.0						
LPL	La Plagne	71.82	15	eP	P	19 46 54.0	-0.1
	comp=Z,42nm,1.1s,mb5.0						
SMF	Signal de Mont	72.28	12	eP	P	19 46 56.2	-0.6
	comp=Z,32nm,1.3s,mb4.8						
AVF	Avril sur Loir	72.33	12	eP	P	19 46 55.9	-1.2
	comp=Z,43nm,1.4s,mb4.9						
QUIF	Quistinic	72.44	7	eP	P	19 46 57.0	-0.8
SSF	Saint Saulge	72.62	12	eP	P	19 46 58.2	-0.6
	comp=Z,38nm,1.3s,mb4.9						
CABF	La Chapelle	72.72	14	eP	P	19 46 58.4	-1.0
	comp=Z,24nm,1.0s,mb4.8						
ROSF	Rostrenen	72.85	7	eP	P	19 46 59.3	-0.8
SGMF	Saint Gilles	72.85	7	eP	P	19 46 59.3	-0.8
	comp=Z,99nm,1.4s,mb5.2						
GRR	Gorron	73.20	9	eP	P	19 47 00.9	-1.3
	comp=Z,184nm,1.8s,mb5.4						
SKO	Skopje	73.34	26	eP	P	19 47 02.8	-0.4
FLN	La Foliniere	73.61	9	eP	P	19 47 04.7	+0.1
FLN				eR			
	comp=Z,136nm,17.5s						
DAVOX	Davos	73.78	16	P	P	19 47 05.4	-0.2
	comp=Z,5.0nm,0.8s,mb4.5,baz=205,slow=5.0,SNR=4.9						
HINF	Hinteralfeld	74.03	14	eP	P	19 47 05.7	-1.3
HAU	Haudompre	74.09	14	eP	P	19 47 06.2	-1.2
HAU				eR			
	comp=Z,102nm,20.0s						
BOJS	Bojanci	74.16	20	eP	P	19 47 08.9	+1.1
VOY	Vojsko	74.21	19	eP	P	19 47 08.9	+0.8
DAVA	Damuels	74.25	16	⇑iP	P	19 47 08.6	+0.3
	comp=Z,26nm,1.2s,mb5.0						
MEZF	Maizieres J'vi	74.30	13	eP	P	19 47 07.9	-0.6
VISS	Visnje	74.30	20	i P	P	19 47 09.5	+0.9
FVI	Forni Avoltri	74.40	18	eP	P	19 47 09.9	+0.7
LJU	Ljubljana	74.42	20	eP	P	19 47 10.4	+1.1
CDF	Champ du Feu	74.68	14	eP	P	19 47 10.3	-0.5
WTTA	Wattenberg	74.69	17	⇑iP	P	19 47 11.4	+0.6
	comp=Z,22nm,1.2s,mb5.0						
DOBS	Dobrina	74.81	20	eP	P	19 47 12.3	+0.7
BFO	Black Forest	74.84	15	eP	P	19 47 11.6	-0.1
	comp=Z,21nm,1.2s,mb4.9						
KBA	Koelnbreinsper	75.00	19	⇑iP	P	19 47 13.6	+1.0
	comp=Z,9.9nm,1.1s,mb4.7						
BAIF	Baives	75.63	12	eP	P	19 47 15.2	-1.0
	comp=Z,47nm,1.3s,mb5.0						
ARSA	Arzberg	75.81	20	⇑iP	P	19 47 18.3	+1.1
	comp=Z,14nm,1.1s,mb4.8						
PKSM	Moragy	75.91	22	⇓iP	P	19 47 18.2	+0.3
MOA	Molln	75.96	19	⇑iP	P	19 47 18.1	0.0
	comp=Z,12nm,1.5s,mb4.6						
GEC2	GERESS Array S	76.70	18	eP	P	19 47 22.5	+0.3
	comp=Z,13nm,1.5s,mb4.6						
GERES	GERESS Array B	76.70	18	P	P	19 47 22.4	+0.2
	comp=Z,0.5nm,0.6s,mb3.6,baz=194,slow=5.5,SNR=8.1						
WET	Wettzell	76.74	17	eP	P	19 47 22.4	-0.1
	comp=Z,19nm,1.4s,mb4.8						
GRA1	Grafenberg Arr	76.81	16	eP	P	19 47 23.0	+0.2
	comp=Z,43nm,1.5s,mb5.2						
GRA1				epP	pP	19 47 30.0	+4.0
GRF	Grafenberg Arr	76.81	16	eP	P	19 47 23.0	+0.2
	comp=Z,43nm,1.5s,mb5.2						
GRF				epP	pP	19 47 30.0	+4.0
KHC	Kasperske Hory	76.92	18	eP	P	19 47 23.5	0.0
KHC				e		19 47 30.0	
KHC	Kasperske Hory	76.92	18	eP	P	19 47 23.5	0.0
KHC				pP	pP	19 47 30.0	+3.4
ZST	Bratislava	77.14	20	i P	P	19 47 26.3	+1.6
ZST				e		19 47 32.2	
BRTR	Keskin Array B	77.28	35	P	P	19 47 26.9	+1.2
	comp=Z,4.5nm,1.0s,mb4.4,baz=207,slow=5.5,SNR=12						
MOX	Moxa	77.79	16	i P	P	19 47 28.6	+0.4
	comp=Z,logA/T=1.0,mb4.7						
MOX	Moxa	77.79	16	eP	P	19 47 28.6	+0.4
	comp=Z,16nm,1.5s,mb4.7						
PSZ	Piszkesteto	77.82	22	⇑eP	P	19 47 29.1	+0.7
PSZ	Piszkesteto	77.82	22	eP	P	19 47 29.1	+0.6
	comp=Z,19nm,1.2s,mb4.9						
VYHS	Vyhne	77.96	21	i P	P	19 47 29.7	+0.5
VYHS				i		19 47 36.0	
VRAC	Vranov	77.96	19	P	P	19 47 28.0	-1.2
	comp=Z,2.7nm,0.8s,mb4.2,baz=233,slow=5.1,SNR=3.0						
PRU	Pruhonice	77.97	18	eP	P	19 47 28.8	-0.4
MLR	Muntele Rosu	78.09	27	P	P	19 47 30.3	+0.3
	comp=Z,22nm,1.1s,mb5.0,baz=167,slow=4.7,SNR=14						
VNDA	Vanda	78.38	179	LR	LR	20 17 19.6	
	comp=Z,109nm,20.4s,MS4.2,baz=172,slow=32						
BRG	Berggiesshubel	78.60	17	eP	P	19 47 33.5	+0.8
	comp=Z,18nm,1.6s,mb4.8						
KOLS	Kolonicke sedl	79.52	23	eP	P	19 47 40.2	+2.5
EKA	Eskdalemuir Ar	79.77	6	P	P	19 47 39.5	+0.6
	comp=Z,3.2nm,0.9s,mb4.2,baz=180,slow=5.0,SNR=3.5						
CASY	Casey	80.30	160	PFAKE		19 47 50.0	+8.4
CASY				LR	LR		
	comp=Z,199nm,20.0s,MS4.5						
AKASG	Malin Array Be	83.57	26	P	P	19 47 59.0	+0.1
	comp=Z,2.8nm,0.8s,mb4.4,baz=222,slow=5.8,SNR=15						
EMMW	East Machias	84.59	325	PFAKE		19 48 20.0	+16
EMMW				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
WES	Weston	85.22	321	PFAKE		19 48 20.0	+13
WES				LR	LR		
	comp=Z,263nm,20.0s,MS4.6						
WVL	Waterville	85.68	323	PFAKE		19 48 20.0	+10
WVL				LR	LR		
	comp=Z,9µm,19.0s						
CBN	Corbin	86.42	315	PFAKE		19 48 30.0	+17
CBN				LR	LR		
	comp=Z,536nm,22.0s,MS4.9						
NOA	NORSAR Array B	87.32	12	P	P	19 48 19.2	+2.0
	comp=Z,1.8nm,1.0s,mb4.2,baz=191,slow=5.6,SNR=2.8						
NOA				LR	LR	20 23 21.3	
	comp=Z,26nm,20.8s,MS3.6,baz=235,slow=33						
NCB	Newcomb	87.86	321	PFAKE		19 48 30.0	+10
NCB				LR	LR		
	comp=Z,579nm,20.0s,MS5.0						
GOGA	Godfrey	88.00	308	PFAKE		19 48 30.0	+8.8
GOGA				LR	LR		
	comp=Z,44nm,21.0s,MS3.9						
ERPA	Erie	90.26	317	PFAKE		19 48 40.0	+8.4
ERPA				LR	LR		
	comp=Z,406nm,21.0s,MS4.8						
FINES	FINESS Array B	91.13	18	P	P	19 48 37.3	+2.1
	comp=Z,5.3nm,1.0s,mb4.8,baz=135,slow=2.7,SNR=3.7						
SCHQ	Schefferville	91.13	332	LR	LR	20 21 33.5	
	comp=Z,156nm,19.6s,MS4.5,baz=127,slow=30						
SCHQ	Schefferville	91.13	332	PFAKE		19 48 50.0	+15
SCHQ				LR	LR		
	comp=Z,920nm,20.0s,MS5.2						
ACSO	Alum Creek Sta	91.17	314	PFAKE		19 48 50.0	+14
ACSO				LR	LR		
	comp=Z,846nm,19.0s,MS5.2						
OXF	Oxford	92.85	307	PFAKE		19 49 00.0	+16
OXF				LR	LR		
	comp=Z,424nm,21.0s,MS4.9						
NATX	Nacogdoches	95.59	302	PFAKE		19 49 10.0	+14
NATX				LR	LR		
	comp=Z,290nm,22.0s,MS4.7						
MIAR	Mount Ida	95.94	305	PFAKE		19 49 10.0	+12
MIAR				LR	LR		
	comp=Z,37nm,19.0s,MS3.9						
PALK	Pallekele	96.59	85	PFAKE		19 49 10.0	+8.7
PALK				LR	LR		
	comp=Z,126nm,19.0s,MS4.4						
JCT	Junction City	99.11	299	PFAKE		19 49 20.0	+7.7
JCT				LR	LR		
	comp=Z,361nm,21.0s,MS4.8						
WMOK	Wichita Mounta	99.95	304	PFAKE		19 49 30.0	+14
WMOK				LR	LR		
	comp=Z,425nm,21.0s,MS4.9						
EYMN	Ely	100.21	318	PFAKE		19 49 30.0	+13
EYMN				LR	LR		
	comp=Z,309nm,20.0s,MS4.8						
LTX	Lajitas	101.79	297	PFAKE		19 49 40.0	+15
LTX				LR	LR		
	comp=Z,371nm,20.0s,MS4.9						
CBKS	Cedar Bluff	102.18	307	PFAKE		19 49 40.0	+14
CBKS				LR	LR		
	comp=Z,5.0nm,20.0s						
AML	Almayashu	103.76	50	PFAKE		19 49 40.0	+7.1
AML				LR	LR		
	comp=Z,395nm,19.0s,MS5.0						
MNTX	Cornudas Mount	104.01	299	PFAKE		19 49 50.0	+16
MNTX				LR	LR		
	comp=Z,276nm,20.0s,MS4.8						
UCH	Uchtor	104.36	50	PFAKE		19 49 50.0	+14
UCH				LR	LR		
	comp=Z,153nm,20.0s,MS4.5						
BRVK	Borovoye	105.34	38	PFAKE		19 54 10.0	
BRVK				LR	LR		
	comp=Z,86nm,22.0s,MS4.2						
TKM2	Tokmak 2	105.35	50	PFAKE		19 54 10.0	
TKM2				LR	LR		
	comp=Z,343nm,20.0s,MS4.9						
SDCO	Great Sand Dun	106.08	304	PFAKE		19 54 10.0	
SDCO				LR	LR		
	comp=Z,510nm,21.0s,MS5.0						
RSSD	Black Hills	106.99	311	PFAKE		19 54 10.0	
RSSD				LR	LR		
	comp=Z,2.0nm,20.0s						
DGMT	Dagmar	108.34	315	PFAKE		19 54 10.0	
DGMT				LR	LR		
	comp=Z,325nm,21.0s,MS4.9						
MVU	Marysvale	111.37	304	PFAKE		19 54 20.0	+13
MVU				LR	LR		
	comp=Z,321nm,20.0s,MS4.9						
LKWY	Lake	111.51	310	PFAKE		19 54 20.0	+13
LKWY				LR	LR		
	comp=Z,427nm,19.0s,MS5.0						
BOZ	Bozeman (W)	112.59	311	PFAKE		19 54 20.0	+11
BOZ				LR	LR		
	comp=Z,366nm,19.0s,MS5.0						
DAC	Darwin (Calif)	115.02	300	PFAKE		19 54 20.0	+6.2
DAC				LR	LR		
	comp=Z,462nm,20.0s,MS5.1						
TPH	Tonopah	115.11	302	PFAKE		19 54 20.0	+6.0
TPH				LR	LR		
	comp=Z,211nm,20.0s,MS4.7						
BMN	Battle Mountai	115.58	305	PFAKE		19 54 30.0	+15
BMN				LR	LR		
	comp=Z,519nm,20.0s,MS5.1						
MNV	Mina	115.90	302	PFAKE		19 54 30.0	+14
MNV				LR	LR		
	comp=Z,248nm,19.0s,MS4.8						
BMO	Blue Mountains	116.39	310	PFAKE		19 54 30.0	+14
BMO				LR	LR		
	comp=Z,382nm,20.0s,MS5.0						
YKA	Yellowknife Ar	116.44	329	PKP	PKPdf	19 54 14.1	-1.9
	comp=Z,0.4nm,0.6s,baz=93,slow=1.8,SNR=5.9						
ASAR	Alice Springs	122.69	144	PKP	PKPdf	19 54 25.9	-3.0
	comp=Z,1.1nm,0.9s,baz=218,slow=2.9,SNR=8.8						
INK	Inuvik	123.40	337	PKP	PKPdf	19 54 26.9	-2.5
	comp=Z,2.0nm,0.7s,baz=91,slow=2.2,SNR=6.3						
TLY	Talaya	125.28	43	PFAKE		19 54 40.0	+6.6
TLY				LR	LR		
	comp=Z,37nm,19.0s,MS4.1						
WRA	Warramunga Arr	125.91	142	PKP	PKPdf	19 54 31.4	-4.0
	comp=Z,0.7nm,0.8s,baz=252,slow=2.0,SNR=6.1						
WRAB	Tennant Creek	125.92	142	PFAKE		19 54 50.0	+15
WRAB				LR	LR		
	comp=Z,70nm,19.0s,MS4.3						
QIZ	Qiongzhong	127.20	84	PFAKE		19 54 50.0	+12
QIZ				LR	LR		
	comp=Z,279nm,20.0s,MS4.9						
ENH	Enshi	129.25	70	PFAKE		19 54 50.0	+8.4
ENH				LR	LR		
	comp=Z,176nm,20.0s,MS4.8						
ILAR	Eielson Array	129.73	336	PKP	PKPdf	19 54 39.7	-1.9
	comp=Z,2.1nm,0.8s,baz=11,slow=1.9,SNR=16						
FIB	Fire Island	132.89	333	PFAKE		19 55 00.0	+12
FIB				LR	LR		
	comp=Z,3µm,19.0s						
BJT	Baijiatuau	135.03	57	PFAKE		19 55 00.0	+7.8
BJT				LR	LR		
	comp=Z,230nm,20.0s,MS4.9						
TNA	Tin City	135.64	345	PFAKE		19 55 00.0	+7.4
TNA				LR	LR		
	comp=Z,244nm,20.0s,MS4.9						
HIA	Hailar	135.81	43	PFAKE		19 55 00.0	+6.6
HIA				LR	LR		
	comp=Z,259nm,19.0s,MS5.0						
PMG	Port Moresby	141.46	148	PFAKE		19 55 10.0	+5.4
PMG				LR	LR		
	comp=Z,125nm,19.0s,MS4.7						
ERM	Erimo	153.66	42	PFAKE		19 55 30.0	+6.6
ERM				LR	LR		
	comp=Z,6.0nm,21.0s						
GUMO	Guam	156.81	113	PFAKE		19 55 40.0	+12
GUMO				LR	LR		
	comp=Z,656nm,20.0s,MS5.5						
WAKE	Wake Island	175.02	180	PFAKE		19 55 50.0	+7.1
WAKE				LR	LR		
	comp=Z,120µm,20.0s						

IDC 15 19:37:53.3±5.0**, 29.75S×178.07W, mb3.7**/2**, mb1 4.0**/2**, mb1mx3.7**/11**, Error ellipse: s-maj=281.0km s-min=73.3km az=166.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	43.09	266	P	P	19 45 55.0	-1.9
	0.5nm,0.8s,baz=100,slow=7.3,SNR=7.1						
WRA	Warramunga Arr	44.02	272	P	P	19 46 02.9	-1.5
	1.0nm,0.5s,baz=111,slow=8.1,SNR=18						
FINES	FINESS Array B	144.51	340	PKP	PKPdf	19 57 30.5	-2.2
	2.9nm,0.9s,baz=33,slow=3.3,SNR=8.5						

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*MOS **15** 19:53:41.9±1.1, 52.38N×172.19E, h10^{km}, mb5.0/40, Error ellipse: s-maj=9.9km s-min=6.0km az=85.1*

*BJI **15** 19:53:43.6, 52.81N×172.39E, h26^{km}, mB5.2, mb5.0, Ms4.6, Msz4.2*

*IDC **15** 19:53:44.3±2.2, 52.56N×172.14E, h10^{km}±13^{km}, mb4.6/27, mb1 4.7/27, mb1mx4.7/30, MS3.8/10, Ms1 3.8/10, ms1mx3.5/32, Error ellipse: s-maj=18.7km s-min=11.8km az=166.0*

*NEIC **15** 19:53:46.7±1.1, 52.51N×172.29E, h27^{km}±7^{km}, mb4.8/55, MS4.6/1, ML4.7(AEIC), Error ellipse: s-maj=7.4km s-min=3.4km az=191.0*

ISC 15 19:53:44.8±1.0**, 52.41N**±0.06×**172.25E**±0.04**, h28^{km}**±6^{km}**, h39^{km}**±2.0^{km}**:pP-P, n249, σ0^{s}99**/255**, mb4.8**/102**, MS4.0**/22**, 5C-8D, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FX1	Attu Island--F	0.73	49	Pg	Pb	19 53 58.8	0.0
	baz=280,slow=11						
FX1	Attu Island--F	0.73	49	P	Pb	19 53 59.0	+0.2
FX1				S	Sb	19 54 08.0	-0.6
SMY	Shemya	1.17	73	P	Pn	19 54 06.5	+1.0
SMY				S	Sn	19 54 21.6	+0.9
KIMD	Kanaga Island	6.51	92	P	Pn	19 55 21.6	+0.3
KIKV	Kanaga Island	6.54	90	P	Pn	19 55 21.9	+0.2
KIWB	Kanaga Island	6.55	91	P	Pn	19 55 23.5	+1.6
PET	Petropavlovsk	8.28	280	eP	P	19 55 45.6	-0.5
PET				eS	Sn	19 57 10.2	-9.5
PET				pmax	pmax		
	comp=Z,62nm,0.4s						
PET				smax			
	comp=E,153nm,0.5s						
PET				smax			
	comp=N,139nm,0.6s						
PET				smax			
	comp=N,300nm,20.6s						
PET				MLR	MLR		
	comp=E,600nm,24.0s						
PET				MLR	MLR		
	comp=Z,600nm,23.0s						
SKR	Severo-Kuril's	10.20	267	eP	P	19 56 07.9	-4.5
SKR				pmax	pmax		
	comp=Z,60nm,0.6s						
UNV	Unalaska Valle	12.84	75	eP	P	19 56 47.3	-0.8
MA2	Magadan	13.95	309	eP	P	19 57 10.9	+8.3

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MA2                                S      S      19 59 45.1 +7.7
MA2                                pmax   pmax
      comp=E,20nm,0.7s
MA2                                pmax   pmax
      comp=Z,30nm,0.7s
MA2                                pmax   pmax
      comp=N,10.0nm,0.9s
TNA   Tin City          16.56  30 eP      P      19 57 36.9 +0.6
      comp=N,7.5nm,0.8s
YSS   Yuzh-Sakhalins    19.77 266 i P     P      19 58 20.4 +5.0
YSS                                pmax   pmax
      comp=Z,16nm,1.0s
RSO   Redoubt South     20.74  53 eP      P      19 58 25.0 -0.4
ASAJ  Asahikawa         21.29 259  P      P      19 58 28.5 -2.6
      comp=Z,7.9nm,0.9s,mb4.0,baz=54,slow=14,SNR=5.9
ASAJ                               LR     LR     20 06 01.0
      comp=Z,209nm,18.0s,MS3.6,baz=242,slow=35
ASAJ  Asahikawa         21.29 259  P      P      19 58 28.5 -2.6
ASAJ                               pmax   pmax
      comp=Z,8.0nm,0.9s
ASAJ                               MLR    MLR
      comp=Z,209nm,18.0s
IMA   Indian Mountai    21.77  38 eP      P      19 58 35.9 +0.1
IMA                                pmax   pmax
      comp=Z,16nm,0.6s,mb4.6
IMA   Indian Mountai    21.77  38 eP      P      19 58 35.9 +0.1
      comp=Z,16nm,0.6s,mb4.6
SLKM  Skilak Lake       21.99  54 eP      P      19 58 36.5 -1.5
SML   Sawmill           23.02  50 eP      P      19 58 48.2 +0.1
MCK   McKinley          23.04  45 eP      P      19 58 47.5 -0.7
MCK                                pmax   pmax
      comp=Z,13nm,0.7s,mb4.5
MCK   McKinley          23.04  45 eP      P      19 58 47.5 -0.7
      comp=Z,14nm,0.7s,mb4.5
COLA  College           23.74  43 eP      P      19 58 55.3 +0.4
COLA                               pmax   pmax
      comp=Z,110nm,1.5s,mb5.1
COLA  College           23.74  43 eP      P      19 58 55.3 +0.4
      comp=Z,110nm,1.5s,mb5.1
ILAR  Eielson Array     24.12  43  P      P      19 58 58.5 -0.2
      comp=Z,23nm,1.0s,mb4.6,baz=246,slow=6.6,SNR=63
ILAR                               LR     LR     20 09 35.5
      comp=Z,81nm,18.7s,MS3.2,baz=114,slow=40
YAK   Yakutsk           24.53 310d iP     P      19 59 01.8 -0.9
YAK                               e*SS           20 04 30.7
YAK                                pmax   pmax
      comp=Z,51nm,0.9s,mb5.0
YAK                                pmax   pmax
      comp=N,6.0nm,1.1s
YAK                                pmax   pmax
      comp=E,22nm,1.1s
YAK                                pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.2
YAK                                pmax   pmax
      comp=N,8.0nm,1.1s
YAK                                pmax   pmax
      comp=E,6.0nm,1.0s
YAK   Yakutsk           24.53 310 eP      P      19 59 01.1 -1.6
      comp=E,103nm,0.8s,mb5.4
KLR   Kul’dur           25.55 279 eP      P      19 59 10.3 -2.2
DAWY  Dawson            27.27  46 eP      P      19 59 26.7 -1.5
INK   Inuvik            29.90  37  P      P      19 59 51.0 -0.9
      comp=E,5.1nm,0.6s,mb4.5,baz=281,slow=5.8,SNR=20
INK                                LR     LR     20 12 47.4
      comp=E,124nm,21.4s,MS3.5,baz=248,slow=38
INK   Inuvik            29.90  37  P      P      19 59 51.0 -0.9
INK                                pmax   pmax
      comp=Z,5.0nm,0.6s
INK                                MLR    MLR
      comp=Z,124nm,21.4s
INK   Inuvik            29.90  37 eP      P      19 59 50.5 -1.4
      comp=Z,7.4nm,0.8s,mb4.5
CN2   Changchun         31.92 273 eP      P      20 00 10.3 +0.4
CN2                               eAP     pP     20 00 21.3 +3.1
CN2                               eS      S      20 05 16.3 -1.7
CN2                                AMB    AMB
      comp=Z,10.0nm,0.6s,mb4.8
CN2                                AMB    AMB
      comp=Z,200nm,5.0s
CN2                                LR     LR
      comp=N,400nm,18.0s,MS4.2
CN2                                LR     LR
      comp=E,300nm,18.0s,MS4.2
CN2                                LR     LR
      comp=Z,500nm,21.0s,MS4.2
DLBC  Dease Lake        32.40  56  P      P      20 00 14.9 +1.0
      comp=Z,10nm,0.8s,mb4.7,baz=292,slow=10,SNR=15
DLBC                               LR     LR     20 13 52.0
      comp=Z,228nm,18.8s,MS3.9,baz=131,slow=37
DLBC  Dease Lake        32.40  56 eP      P      20 00 14.3 +0.4
BOD   Bodaibo           32.84 303 eP      P      20 00 13.4 -4.3
BBB   Bella Bella       35.56  66  P      P      20 00 41.8 +0.6
      comp=Z,28nm,0.9s,mb5.2,baz=263,slow=11,SNR=3.2
BBB                                LR     LR     20 14 18.3
      comp=Z,217nm,18.6s,MS3.9,baz=7.3,slow=35
YKW3  Yellowknife Ar    38.48  45 eP      P      20 01 04.5 -1.1
YKA   Yellowknife Ar    38.51  46  P      P      20 01 05.6 -0.3
      comp=Z,6.7nm,0.5s,mb4.6,baz=289,slow=8.0,SNR=62
ULN   Ulaanbaatar       40.77 291 i P     P      20 01 25.2 +0.5
ULN   Ulaanbaatar       40.77 291 eP      P      20 01 24.9 +0.2
      comp=Z,15nm,1.1s,mb4.5
SONM  Songino Array     41.16 291  P      P      20 01 28.7 +0.8
      comp=Z,8.0nm,0.7s,mb4.5,baz=58,slow=8.5,SNR=69
ZAK   Zakamensk         41.59 296 eP      P      20 01 30.6 -0.7
FMW   Mount Fremont     41.77  70  P      P      20 01 33.4 +0.5
NLW   Nelson Butte      41.92  68  P      P      20 01 34.9 +0.9
HHC   Hu-ho-hao-te      42.05 279 eP      P      20 01 36.6 +1.3
HHC                                AP     pP     20 01 48.8 +5.1
HHC                                AMB    AMB
      comp=Z,15nm,0.6s,mb4.8
HHC                                AMB    AMB
      comp=Z,70nm,4.5s
HHC                                LR     LR
      comp=N,186nm,16.7s,MS4.4
HHC                                LR     LR
      comp=E,317nm,12.7s,MS4.4
HHC                                LR     LR
      comp=Z,119nm,20.2s
ETW   Entiat            42.17  69  P      P      20 01 36.6 +0.4
SSE   Sheshan           42.57 261  P      P      20 01 38.9 -0.8
SSE                                AP     pP     20 01 51.9 +3.8
SSE                                XP     sP     20 01 58.3 +6.7
SSE                                S      S      20 07 59.0 -1.2
SSE                                XS            20 08 20.6
SSE                                AMB    AMB
      comp=Z,33nm,0.7s,mb5.2
SSE                                AMB    AMB
      comp=Z,48nm,5.3s
SSE                                LR     LR
      comp=N,63nm,23.4s,MS3.5
SSE                                LR     LR
      comp=E,39nm,23.4s,MS3.5
VLL   Laurance Lake     42.58  72  P      P      20 01 40.3 +0.8
EPH   Ephrata           42.73  68  P      P      20 01 40.7  0.0
EDM   Edmonton          43.06  58 eP      P      20 01 43.0 -0.3
SNIWA Snively Ranch     43.18  70  P      P      20 01 44.8 +0.4
HAWA  Hanford           43.30  70 eP      P      20 01 45.0 -0.4
      comp=E,38nm,1.1s,mb5.0
NJ2   Nanjing           43.31 264 eP      P      20 01 47.1 +1.4
NJ2                                AP     pP     20 02 00.5 +6.4
NJ2                                XP     sP     20 02 04.4 +6.8
NJ2                                PCP    PcP    20 03 36.0 +1.2
NJ2                                S      S      20 08 10.0 -1.0
NJ2                                XS            20 08 33.0
NJ2                                AMB    AMB
      comp=Z,390nm,3.5s
NJ2                                LR     LR
      comp=N,360nm,16.3s,MS4.5
NJ2                                LR     LR
      comp=E,360nm,18.4s,MS4.5
NJ2                                LR     LR
      comp=Z,660nm,14.9s,MS4.7
KRMB  Red Mountain      43.55  78 eP      P      20 01 47.3 -0.2
NEW   Newport           43.63  66  LR     LR     20 18 11.2
      comp=Z,99nm,20.4s,MS3.7,baz=119,slow=34
NEW   Newport           43.63  66 eP      P      20 01 47.3 -0.7
NEW                                pmax   pmax
      comp=Z,21nm,0.9s
NEW   Newport           43.63  66 eP      P      20 01 47.3 -0.7
      comp=Z,21nm,0.9s,mb4.9
BUOR  Burton Butte      44.09  76  P      P      20 01 52.8 +1.0
YBH   Yreka Blue Hor    44.14  77  P      P      20 01 53.6 +1.3
      comp=Z,9.7nm,0.7s,mb4.7,baz=338,slow=3.3,SNR=25
YBH   Yreka Blue Hor    44.14  77 eP      P      20 01 52.8 +0.5
YBH                                pmax   pmax
      comp=Z,11nm,1.0s
YBH   Yreka Blue Hor    44.14  77 eP      P      20 01 52.8 +0.5
      comp=Z,11nm,1.0s,mb4.5
LHEM  Herd Peak         44.49  77  P      P      20 01 56.2 +1.0
WALA  Waterton Lakes    44.97  63 eP      P      20 01 58.6 -0.3
      comp=Z,51nm,0.9s,mb5.4
BMO   Blue Mountains    45.46  70 eP      P      20 02 01.6 -1.1
      comp=Z,19nm,1.4s,mb4.7
MSO   Missoula          46.22  66 eP      P      20 02 07.9 -0.8
      comp=Z,5.3nm,0.8s,mb4.5
OHCM  Honcut            46.35  79 eP      P      20 02 08.8 -1.1
CHMT  Chamberlain Mo    46.55  65 eP      P      20 02 10.0 -1.3
WHN   Wuhan             47.12 266 eP      P      20 02 17.0 +0.9
HRY   Holter Researc    47.46  65 eP      P      20 02 18.1 -0.5
HLID  Hailey            47.90  70 eP      P      20 02 21.4 -0.6
      comp=Z,10nm,1.0s,mb4.8
MCMT  McKenzie Canyo    48.02  68 eP      P      20 02 22.2 -0.8
BOZ   Bozeman (W)       48.21  66 eP      P      20 02 23.8 -0.6
BOZ                                pmax   pmax
      comp=Z,20nm,0.8s,mb5.2
BOZ   Bozeman (W)       48.21  66 eP      P      20 02 23.8 -0.6
      comp=Z,20nm,0.8s,mb5.2
QLMT  Earthquake Lak    48.82  67 eP      P      20 02 28.4 -0.7
FCC   Fort Churchill    49.14  43 eP      P      20 02 30.4 -1.0
FCC                                pmax   pmax
      comp=Z,17nm,1.0s,mb5.0
FCC   Fort Churchill    49.14  43 eP      P      20 02 30.4 -1.1
      comp=Z,17nm,1.0s,mb5.0
ELK   Elko              49.17  73 eP      P      20 02 31.6 -0.3
ELK                                pmax   pmax
      comp=Z,6.0nm,0.8s
ELK   Elko              49.17  73 eP      P      20 02 31.6 -0.3
      comp=Z,5.9nm,0.8s,mb4.7
YMR   Madison River     49.18  67 eP      P      20 02 31.4 -0.5
ZAL   Zalesovo          49.19 309  P      P      20 02 29.6 -2.3
      comp=Z,0.7nm,0.8s,mb3.8,baz=50,slow=7.1,SNR=6.1
ZAL                                LR     LR     20 26 53.2
      comp=Z,128nm,18.3s,MS4.0,baz=55,slow=41
MTUM  Tungsten Hills    49.38  79 eP      P      20 02 33.8 +0.2
YFT   Old Faithful      49.39  67 eP      P      20 02 33.8 +0.3
NVS   Novosibirsk       49.40 310 i P     P      20 02 31.3 -2.1
NVS                                pmax   pmax
      comp=N,12nm,1.9s
NVS                                pmax   pmax
      comp=Z,23nm,1.9s,mb4.9
NVS                                pmax   pmax
      comp=E,16nm,1.7s
IMW   Indian Meadow     49.67  67 eP      P      20 02 35.5 -0.3
TPH   Tonopah           49.72  77 eP      P      20 02 35.9 -0.2
TPH                                pmax   pmax
      comp=Z,10.0nm,0.9s,mb4.8
TPH   Tonopah           49.72  77 eP      P      20 02 35.9 -0.2
      comp=Z,10nm,0.9s,mb4.9
LZH   Lanzhou           49.75 279 eP      P      20 02 37.8 +1.4
LZH                                AP     pP     20 02 49.9 +4.9
LZH                                PP     PP     20 04 33.0 +1.2
LZH                               eS      S      20 09 41.0 -1.5
LZH                                XS            20 10 02.0
LZH                                SS     SS     20 13 14.0 +2.6
LZH                                AMB    AMB
      comp=Z,32nm,1.5s,mb5.1
LZH                                AMB    AMB
      comp=Z,99nm,5.4s
LZH                                LR     LR
      comp=E,290nm,14.6s
LZH                                LR     LR
      comp=Z,499nm,16.0s,MS4.6
MOOW  Moose Ponds       49.87  67 eP      P      20 02 36.9 -0.3
TPAW  Teton Pass        49.92  68 eP      P      20 02 37.5 -0.2
HVU   Hansel Valley     49.95  71 eP      P      20 02 37.2 -0.7
GTA   Gaotai            49.98 285  P      P      20 02 38.3 +0.1
GTA                                AP     pP     20 02 49.6 +2.8
GTA                                XP     sP     20 02 54.4 +4.3
GTA                                PCP    PcP    20 03 58.3 +0.1
GTA                                PP     PP     20 04 33.0 -1.0
GTA                                S      S      20 09 41.8 -3.9
GTA                                XS            20 10 01.9
GTA                                AMB    AMB
      comp=Z,16nm,1.0s,mb5.0
GTA                                AMB    AMB
      comp=Z,108nm,5.7s
GTA                                LR     LR
      comp=N,197nm,12.9s,MS4.5
GTA                                LR     LR
      comp=E,158nm,10.3s,MS4.5
GTA                                LR     LR
      comp=Z,196nm,15.6s
LOHW  Long Hollow       50.04  68 eP      P      20 02 37.7 -0.8
ENH   Enshi             50.28 270 eP      P      20 02 40.6 +0.1
      comp=Z,5.5nm,0.8s,mb4.6
TRCR  Troy Canyon       50.51  76 eP      P      20 02 41.8 -0.4
DGMT  Dagmar            50.53  59 eP      P      20 02 41.2 -1.0
      comp=Z,20nm,1.0s,mb5.0
HWUT  Hardware Ranch    50.76  70 eP      P      20 02 44.0  0.0
      comp=Z,4.9nm,0.8s,mb4.5
TPNV  Topopah Spring    51.04  78 eP      P      20 02 45.8 -0.4
TPNV                               pmax   pmax
      comp=Z,18nm,0.8s,mb5.0
TPNV  Topopah Spring    51.04  78 eP      P      20 02 45.8 -0.4
      comp=Z,18nm,0.8s,mb5.0
BW06  Boulder Array     51.17  68 eP      P      20 02 46.4 -0.7
      comp=Z,3.5nm,0.7s,mb4.4
PDAR  Pinedale Array    51.17  68  P      P      20 02 46.9 -0.2
      comp=Z,12nm,0.7s,mb5.0,baz=305,slow=3.6,SNR=44
JLU   Jordanelle        51.47  71 eP      P      20 02 49.3 -0.2
NLU   North Lily Min    51.53  72 eP      P      20 02 49.5 -0.5
MVU   Marysvale         52.40  74 eP      P      20 02 56.6 +0.1
      comp=Z,7.6nm,0.9s,mb4.6
MSU   Marysvale         52.42  73 eP      P      20 02 56.4 -0.2
TMUT  Trail Mountain    52.47  72 eP      P      20 02 56.6 -0.4
NEN   Nelson            52.75  78 eP      P      20 02 58.9 -0.2
SRU   San Rafael        52.99  72 eP      P      20 03 00.4 -0.5
RWWY  Rawlins           53.19  67 eP      P      20 03 01.0 -1.3
CD2   Chengdu           53.34 275  P      P      20 03 04.1 +0.5
CD2                                PP     PP     20 05 06.9 +1.5
CD2                                PPP    PPP    20 06 11.6 -1.0
CD2                               eS      S      20 10 30.1 -1.8
CD2                                XS            20 10 51.3
CD2                                SCS    ScS    20 12 45.8 -1.8
CD2                                SS     SS     20 14 10.4 -0.8
CD2                                AMB    AMB
      comp=Z,20nm,1.2s,mb4.9
CD2                                AMB    AMB
      comp=Z,220nm,6.6s
CD2                                LR     LR
      comp=E,160nm,14.4s
CD2                                LR     LR
      comp=Z,190nm,16.2s,MS4.2
ULM   Lac du Bonnet     53.62  53  P      P      20 03 05.2 -0.1
      comp=Z,7.2nm,0.7s,mb4.7,baz=309,slow=8.5,SNR=12
ULM                                LR     LR     20 26 30.7
      comp=Z,220nm,19.2s,MS4.2,baz=59,slow=37
ULM   Lac du Bonnet     53.62  53 eP      P      20 03 04.5 -0.8
      comp=Z,12nm,0.9s,mb4.8
WMQ   Urumqi            54.02 297 ⇓P      P      20 03 08.5 +0.1
WMQ                                AP     pP     20 03 20.8 +3.8
WMQ                                PCP    PcP    20 04 13.0 -0.2
WMQ                                PP     PP     20 05 11.8 +0.4
WMQ                                S      S      20 10 39.5 -1.5
WMQ                                AMB    AMB
      comp=Z,23nm,0.7s,mb5.2
WMQ                                AMB    AMB
      comp=Z,32nm,6.7s
WMQ                                LR     LR
      comp=N,547nm,17.0s,MS4.7
WMQ                                LR     LR
      comp=E,244nm,18.0s,MS4.7
WMQ                                LR     LR
      comp=Z,187nm,15.0s,MS4.3
PV10  Paradox Valley    54.34  72 eP      P      20 03 10.9 +0.1
GYA   Guiyang           54.74 268⇓iP      P      20 03 13.9  0.0
GYA                                AP     pP     20 03 26.8 +4.3
GYA                                XP     sP     20 03 31.6 +5.7
GYA                                PP     PP     20 05 18.3 +0.2
GYA                                SS     SS     20 14 31.0 -2.7
GYA                                AMB    AMB
      comp=Z,20nm,1.0s,mb5.1
GYA                                AMB    AMB
      comp=Z,180nm,3.8s
GYA                                LR     LR
      comp=N,180nm,17.8s,MS4.3
GYA                                LR     LR
      comp=E,130nm,18.0s,MS4.3
GYA                                LR     LR
      comp=Z,150nm,18.2s,MS4.1
FRB   Frobisher Bay     54.90  28  P      P      20 03 12.8 -1.7
      comp=Z,3.3nm,0.5s,mb4.6,baz=296,slow=4.5,SNR=5.0
RW3   Ridgway           55.21  71 eP      P      20 03 17.3 +0.1
ISCO  Idaho Springs     55.35  68 eP      P      20 03 18.6 +0.4
ISCO                               pmax   pmax
      comp=Z,11nm,1.0s,mb4.8
ISCO  Idaho Springs     55.35  68 eP      P      20 03 18.6 +0.4
      comp=Z,11nm,1.0s,mb4.8
KEV   Kevo              55.54 346 ep      P      20 03 15.3 -3.9
ARCES ARCESS Array B    55.96 347  P      P      20 03 20.4 -1.7
      comp=Z,8.3nm,0.8s,mb4.8,baz=29,slow=6.7,SNR=7.3
BVAR  Borovoye Array    56.37 315  P      P      20 03 24.2 -1.1
      comp=Z,13nm,0.8s,mb5.0,baz=53,slow=7.4,SNR=54
BRVK  Borovoye          56.39 315 eP      P      20 03 23.8 -1.7
BRVK                               pmax   pmax
      comp=Z,19nm,1.0s,mb5.1
BRVK  Borovoye          56.39 315 eP      P      20 03 23.8 -1.6
      comp=Z,19nm,1.0s,mb5.1
SDCO  Great Sand Dun    56.82  70 eP      P      20 03 27.8 -1.0
      comp=Z,38nm,1.4s,mb5.2
SDCO                               LR     LR
      comp=Z,510nm,21.0s,MS4.6
EYMN  Ely               57.30  53 eP      P      20 03 30.6 -1.5
KMI   Kunming           58.12 271 eP      P      20 03 36.3 -1.8
KMI                                AMB    AMB
      comp=Z,12nm,0.8s,mb5.0
KMI                                LR     LR
      comp=Z,115nm,33.5s,MS3.8
LAZ   Ladron            58.19  74 eP      P      20 03 38.8 +0.4
ANMO  Albuquerque       58.20  73 eP      P      20 03 38.5  0.0
ANMO                               pmax   pmax
      comp=Z,7.0nm,1.1s
ANMO  Albuquerque       58.20  73 eP      P      20 03 38.5  0.0
      comp=Z,6.5nm,1.1s,mb4.6
LENM  Lemitar           58.45  74 eP      P      20 03 40.3 +0.1
LPM   Los Pinos Moun    58.55  73 eP      P      20 03 41.0 +0.1
ARU   Arti              58.63 323⇓iP      P      20 03 39.8 -1.4
ARU                               e              20 04 27.8
ARU                               e              20 05 49.2
ARU                               ePPP    PPP    20 07 10.7 -5.8
ARU                                pmax   pmax
      comp=Z,12nm,0.8s,mb5.0
MNTX  Cornudas Mount    61.14  75 eP      P      20 03 58.1 -0.7
      comp=Z,15nm,0.9s,mb5.1
USP   Ospenovka         61.35 304  P      P      20 03 59.6 -0.4
      SNR=10
KBK   Karagaybulak      61.56 304  P      P      20 04 01.1 -0.4
      SNR=12
AAK   Ala-Archa         61.81 304  P      P      20 04 02.8 -0.4
      SNR=9.5
AAK   Ala-Archa         61.81 304 i P     P      20 04 01.4 -1.8
AAK                                pmax   pmax
      comp=Z,12nm,1.0s,mb5.0
AAK   Ala-Archa         61.81 304 eP      P      20 04 01.1 -2.0
      comp=Z,9.8nm,0.9s,mb4.9
KZA   Kyzart            61.83 303  P      P      20 04 02.9 -0.3
      SNR=6.0
UCH   Uchtor            62.10 304  P      P      20 04 05.1  0.0
      SNR=5.2
UCH   Uchtor            62.10 304 eP      P      20 04 04.4 -0.7
      comp=Z,3.4nm,1.0s,mb4.4
EKS2  Erkin-Say         62.15 304  P      P      20 04 04.9 -0.5
      SNR=16
EKS2  Erkin-Say         62.15 304 eP      P      20 04 04.3 -1.2
      comp=Z,19nm,1.1s,mb5.1
SCHQ  Schefferville     62.45  34  P      P      20 04 06.0 -1.2
      comp=Z,5.6nm,0.7s,mb4.8,baz=316,slow=3.3,SNR=7.0
SCHQ  Schefferville     62.45  34  P      P      20 04 06.0 -1.2
AML   Almayashu         62.58 304  P      P      20 04 08.6 +0.3
      SNR=10
AML   Almayashu         62.58 304 eP      P      20 04 07.5 -0.8
      comp=Z,4.6nm,0.6s,mb4.8
KAF   Kangasniemi       62.68 343 ep      P      20 04 06.8 -1.9
KSH   Kashi             63.31 301 eP      P      20 04 13.4 +0.3
KSH                               eAP     pP     20 04 25.0 +3.1
KSH                               ePCP    PcP    20 04 51.6 +1.7
KSH                               ePP     PP     20 06 33.4 -0.6
KSH                               ePPP    PPP    20 08 03.6 -1.7
KSH                               eSCP           20 08 47.6
KSH                               ePCS           20 08 52.3
KSH                                AMB    AMB
      comp=Z,250nm,4.0s
FINES FINESS Array B    63.34 343  P      P      20 04 11.7 -1.3
      comp=Z,5.0nm,0.8s,mb4.7,baz=42,slow=9.2,SNR=9.9
LTX   Lajitas           63.87  75 eP      P      20 04 16.5 -0.4
LTX                                pmax   pmax
      comp=Z,17nm,1.1s,mb5.0
LTX   Lajitas           63.87  75 eP      P      20 04 16.5 -0.4
      comp=Z,17nm,1.1s,mb5.0
TXAR  Lajitas Array     63.87  75  P      P      20 04 16.9  0.0
      comp=Z,8.6nm,0.7s,mb4.9,baz=304,slow=4.5,SNR=38
SHL   Shillong          64.42 279⇓eP      P      20 04 20.0 -0.5
CMAR  Chiang Mai Arr    65.43 269  P      P      20 04 27.4 +0.3
      comp=Z,3.0nm,0.7s,mb4.4,baz=24,slow=7.3,SNR=29
NB2   NORSAR Subarra    65.89 350  P      P      20 04 28.2 -1.2
      comp=Z,4.9nm,0.6s,mb4.7,baz=13,slow=6.5
NB2   NORSAR Subarra    65.89 350  P      P      20 04 28.2 -1.2
NB2                                pmax   pmax
      comp=Z,5.0nm,0.6s,mb4.7
NOA   NORSAR Array B    65.89 350  P      P      20 04 28.5 -0.9
      comp=Z,7.7nm,0.8s,mb4.8,baz=13,slow=6.5,SNR=18
HFS   Hagfors           66.49 348  P      P      20 04 31.8 -1.4
      comp=Z,4.9nm,0.5s,mb4.8,baz=45,slow=4.2,SNR=28
KKN   Kakani            66.72 286 eP      P      20 04 35.2 -0.1
      comp=Z,33nm,0.8s,mb5.4
OBN   Obninsk           66.73 334 i P     P      20 04 34.5 -0.3
OBN                               eS      S      20 13 16.5 -6.9
OBN                                pmax   pmax
      comp=Z,17nm,0.9s,mb5.1
OBN                                MLR    MLR
      comp=Z,100nm,15.0s,MS4.2
PKI   Pulchoki          66.81 285 eP      P      20 04 35.6 -0.2
      comp=Z,65nm,1.0s,mb5.6
GKN   Gorkha            66.94 286 eP      P      20 04 36.5 -0.2
      comp=Z,59nm,1.0s,mb5.6
DMN   Daman             66.95 286 eP      P      20 04 37.0 +0.2
      comp=Z,29nm,0.8s,mb5.4
KOLN  Koldanda          67.72 287 eP      P      20 04 41.5 -0.1
      comp=Z,23nm,0.9s,mb5.2
DDI   Dehra Dun         69.00 293 eP      P      20 04 47.3 -2.2
VRSR  Storozhevoye      69.42 331 eP      P      20 04 51.3 -0.4
VRSR                               pmax   pmax
      comp=N,30nm,1.0s
VRSR                               pmax   pmax
      comp=Z,30nm,1.0s,mb5.2
VRSR                               pmax   pmax
      comp=E,10.0nm,1.5s
ALBI  Allahabad         70.62 286 e       PP     20 07 34.3 -3.7
EKA   Eskdalemuir Ar    72.56 357  P      P      20 05 10.4  0.0
      comp=E,4.1nm,0.7s,mb4.5,baz=1.5,slow=5.3,SNR=11
AKASG Malin Array Be    72.61 336  P      P      20 05 10.5 -0.4
      comp=E,8.6nm,0.7s,mb4.8,baz=26,slow=6.0,SNR=35
AKASG Malin Array Be    72.61 336  P      P      20 05 10.5 -0.3
AKASG                              pmax   pmax
      comp=Z,9.0nm,0.7s
GOF   Gofitskoye        73.56 325⇑iP      P      20 05 16.0 -0.5
GOF                                pmax   pmax
      comp=Z,50nm,1.3s,mb5.3
KIV   Kislovodsk        74.64 325 i P     P      20 05 20.3 -2.4
KIV                                pmax   pmax
      comp=Z,9.0nm,1.6s,mb4.5
BHPL  Bhopal            74.77 288 eP      P      20 05 23.0 -0.9
BHPL                               AMb    AMB    20 05 25.3
      comp=Z,18nm,1.4s,mb4.8
KWP   Kalwaria          75.10 340 eP      P      20 05 26.3 +1.0
OJC   Ojcow             75.12 342 eP      P      20 05 26.1 +0.7
CLL   Collm             75.18 347 eP      PcP    20 05 42.0 +2.6
CLL   Collm             75.18 347 e       PcP    20 05 42.0 +2.6
ZEI   Tsey              75.23 323 i P     P      20 05 26.7 +0.5
ZEI                               i *PP   pP     20 05 41.0 +5.9
ZEI                               i              20 08 17.2
ZEI                                pmax   pmax
      comp=Z,12nm,1.1s,mb4.7
BRG   Berggiesshubel    75.47 346 eP      P      20 05 27.2 -0.2
BRG                               e              20 05 42.0
BRG                                pmax   pmax
      comp=Z,10.0nm,1.1s,mb4.7
BRG   Berggiesshubel    75.47 346 eP      P      20 05 27.2 -0.2
      comp=Z,9.8nm,1.1s,mb4.7
BRG                               eP             20 05 42.0
DPC   Dobruska-Polom    75.61 344 eP      P      20 05 28.5 +0.3
DPC                               epP     pP     20 05 36.4 -0.6
KOLS  Kolonicke sedl    75.85 340 i P     P      20 05 30.6 +1.0
KOLS                              e              20 08 24.0
KOLS                              eS      S      20 15 04.1 -4.5
KOLS  Kolonicke sedl    75.85 340 i P     P      20 05 30.6 +1.0
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KOLS				*i*		20 05 55.3	
KOLS				*e*PP	PP	20 08 24.0	+2.4
KOLS				*e*S	S	20 15 04.1	-4.5
SOC	Sochi	75.99	327	*e*P	P	20 05 27.6	-2.9
SOC				*e*		20 08 20.7	
SOC				*e*PPP	PPP	20 10 10.3	+0.4
SOC				*e**SS		20 16 13.2	
SOC				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
SOC				pmax	pmax		
	comp=N,39nm,1.0s						
SOC				pmax	pmax		
	comp=E,16nm,0.8s						
CRVS	Cervenica-Dubn	76.05	341	*i* P	P	20 05 31.7	+1.0
PRU	Pruhonice	76.24	345	*e*P	P	20 05 32.2	+0.4
PRU				*e*pP	pP	20 05 38.8	-1.8
VRAC	Vranov	76.57	344	P	P	20 05 34.3	+0.7
	comp=E,5.4nm,0.9s,mb4.5,baz=103,slow=2.6,SNR=6.0						
VYHS	Vyhne	76.95	342	*i* P	P	20 05 36.8	+1.0
GRF	Grafenberg Arr	77.01	347	*e*P	P	20 05 37.2	+1.2
GRF				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
GRF	Grafenberg Arr	77.01	347	*e*P	P	20 05 37.2	+1.2
	comp=Z,7.0nm,1.3s,mb4.4						
GNI	Garni	77.19	321	*i* P	P	20 05 36.3	-1.0
KHC	Kasperske Hory	77.22	346	*e*P	P	20 05 37.8	+0.6
KHC				*e*pP	pP	20 05 44.3	-1.8
GERES	GERESS Array B	77.48	346	P	P	20 05 39.0	+0.3
	comp=Z,2.3nm,0.6s,mb4.3,baz=34,slow=4.8,SNR=22						
ZST	Bratislava	77.55	343	*i* P	P	20 05 41.2	+2.1
STU	Stuttgart	78.17	349	P	P	20 05 43.5	+1.1
MLR	Muntele Rosu	78.27	337	P	P	20 05 44.3	+1.2
	comp=Z,5.5nm,0.9s,mb4.5,baz=45,slow=8.0,SNR=8.0						
HYB	Hyderabad	78.61	284	*e*P	P	20 05 46.0	+0.5
HYB	Hyderabad	78.61	284	*i* P	P	20 05 46.0	+0.5
ARSA	Arzberg	78.74	344	⇓*i*P	P	20 05 46.8	+1.2
	comp=Z,5.3nm,1.0s,mb4.4						
CDF	Champ du Feu	78.74	350	*e*P	P	20 05 47.1	+1.5
WRAB	Tennant Creek	79.23	216	*e*P	P	20 05 49.4	+0.6
WRA	Warramunga Arr	79.24	216	P	P	20 05 49.6	+0.7
	comp=Z,3.1nm,0.9s,mb4.3,baz=31,slow=6.0,SNR=15						
KBA	Koelnbreinsper	79.26	346	⇓*i*P	P	20 05 50.2	+1.8
	comp=Z,20nm,0.8s,mb5.1						
KBA	Koelnbreinsper	79.26	346	⇓*i*P	P	20 05 50.2	+1.8
KBA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
WTTA	Wattenberg	79.33	347	⇑*i*P	P	20 05 50.4	+1.6
	comp=Z,15nm,1.1s,mb4.8						
WTTA	Wattenberg	79.33	347	⇑*i*P	P	20 05 50.4	+1.6
WTTA				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
PERS	Pernice	79.41	344	*e*P	P	20 05 50.7	+1.4
GROS	Grobnik	79.51	344	*i* P	P	20 05 50.9	+1.1
DAVA	Damuels	79.54	348	⇑*i*P	P	20 05 51.2	+1.2
	comp=Z,5.6nm,1.1s,mb4.4						
OBKA	Obir	79.62	345	⇑*i*P	P	20 05 52.1	+1.7
	comp=Z,12nm,0.8s,mb4.9						
LEGS	Legarje	80.04	344	*e*P	P	20 05 53.4	+0.8
CEY	Cerknica	80.39	344	*e*P	P	20 05 55.5	+1.0
SSF	Saint Saulge	80.44	352	*e*P	P	20 05 54.8	0.0
	comp=Z,6.1nm,0.8s,mb4.2						
SSF	Saint Saulge	80.44	352	*e*P	P	20 05 54.8	0.0
SSF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
POO	Poona	80.52	288	*e*P	P	20 05 56.1	+0.4
POO				AMb	AMB	20 05 57.0	
	comp=Z,9.8nm,0.6s,mb4.9						
AVF	Avril sur Loir	80.72	352	*e*P	P	20 05 57.4	+1.1
MFF	Saint Martin d	81.15	355	*e*P	P	20 05 59.0	+0.5
KAD	Karad	81.28	287	*e*P	P	20 06 00.8	+1.0
KAD				*e*		20 06 02.1	
	comp=Z,22nm,1.6s						
BRTR	Keskin Array B	81.45	329	P	P	20 06 01.3	+1.1
	comp=Z,16nm,1.1s,mb4.8,baz=59,slow=3.2,SNR=20						
LPL	La Plagne	81.66	350	*e*P	P	20 06 03.0	+1.8
	comp=Z,6.6nm,0.8s,mb4.3						
LPL	La Plagne	81.66	350	*e*P	P	20 06 03.0	+1.8
LPL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
LPG	La Plagne	81.68	350	*e*P	P	20 06 03.2	+1.9
	comp=Z,18nm,1.1s,mb4.6						
LPG	La Plagne	81.68	350	*e*P	P	20 06 03.2	+1.9
LPG				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
BOB	Bobbio (Coli)	82.08	348	*e*P	P	20 06 04.6	+1.2
BNI	Bardonecchia	82.13	350	*e*P	P	20 06 04.4	+0.8
BNI				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
BNI	Bardonecchia	82.13	350	*e*P	P	20 06 04.4	+0.8
	comp=Z,9.4nm,1.0s,mb4.7						
ORIF	Oris-en-Rattie	82.34	350	*e*P	P	20 06 06.2	+1.4
	comp=Z,17nm,0.9s,mb4.7						
ORIF	Oris-en-Rattie	82.34	350	*e*P	P	20 06 06.2	+1.4
ORIF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
MBDF	Montbardon	82.44	350	*e*P	P	20 06 06.3	+1.0
	comp=Z,15nm,0.9s,mb4.6						
MBDF	Montbardon	82.44	350	*e*P	P	20 06 06.3	+1.0
MBDF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
PGD	Poggio Sodo	82.63	346	*e*P	P	20 06 08.8	+2.5
CAF	Calviac	82.68	353	*e*P	P	20 06 07.6	+1.1
	comp=Z,24nm,1.2s,mb4.8						
CAF	Calviac	82.68	353	*e*P	P	20 06 07.6	+1.1
CAF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.8						
ASAR	Alice Springs	82.82	215	P	P	20 06 09.3	+1.7
	comp=Z,1.6nm,0.9s,mb4.0,baz=25,slow=5.5,SNR=11						
ASAR				LR	LR	20 43 01.7	
	comp=Z,76nm,18.3s,MS4.1,baz=215,slow=36						
ASAR	Alice Springs	82.82	215	P	P	20 06 09.3	+1.7
ASAR				LR	LR	20 43 01.7	
SBF	Sospel	83.21	349	*e*P	P	20 06 11.4	+2.1
	comp=Z,22nm,0.9s,mb4.9						
SBF	Sospel	83.21	349	*e*P	P	20 06 11.4	+2.1
SBF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
SMRF	Simiane la Rot	83.31	350	*e*P	P	20 06 11.6	+1.8
	comp=Z,34nm,1.1s,mb5.0						
FRF	La Foret Royal	83.60	350	*e*P	P	20 06 12.6	+1.4
LMR	La Mourre	83.84	350	*e*P	P	20 06 13.7	+1.3
	comp=Z,20nm,1.0s,mb4.9						
LMR	La Mourre	83.84	350	*e*P	P	20 06 13.7	+1.3
LMR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
MTLF	Montolieu	84.24	353	*e*P	P	20 06 15.6	+1.2
PGF	Pioggiola	84.32	348	*e*P	P	20 06 15.7	+0.9
	comp=Z,31nm,1.0s,mb5.1						
PGF	Pioggiola	84.32	348	*e*P	P	20 06 15.7	+0.9
PGF				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
EPF	Esparros	84.68	354	*e*P	P	20 06 17.2	+0.6
ETSF	Etsaut	84.87	355	*e*P	P	20 06 18.9	+1.3
	comp=Z,10nm,0.8s,mb4.7						
ETSF	Etsaut	84.87	355	*e*P	P	20 06 18.9	+1.3
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
ASF	Jabal al Asfar	87.18	323	LR	LR	20 53 05.8	
	comp=Z,40nm,18.2s,MS3.9,baz=82,slow=41						

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*IDC **15** 19:58:08.4±1.7, 21.64N×143.01E, h307^{km}±17^{km}, mb3.4/13, mb1 3.5/14, mb1mx3.4/24, Error ellipse: s-maj=22.6km s-min=10.7km az=89.0*
*NEIC **15** 19:58:08.8±2.6, 21.62N×143.00E, h312^{km}±28^{km}, mb3.8/1, Error ellipse: s-maj=17.0km s-min=7.2km az=89.0*
ISC 15 19:58:08.0±1.3, **21.63N**±0.07×**143.0E**±0.2, **h319**^{km}±13^{km}, **n19**, σ**0^{s}63**/20, **mb3.5**/14, **Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	5.49	352	P	P	19 59 33.0	+0.6
	6.6nm,0.3s,baz=32,slow=22,SNR=5.0						
CBIJ				S	S	20 00 38.7	0.0
	10nm,0.3s,baz=262,slow=16,SNR=5.4						
MAJO	Matsushiro	15.44	345	*e*P	P	20 01 30.1	-1.2
SONM	Songino Array	39.28	321	P	P	20 05 07.5	-0.4
	0.4nm,0.5s,mb2.9,baz=129,slow=7.2,SNR=5.9						
CMAR	Chiang Mai Arr	41.40	274	P	P	20 05 26.4	+0.9
	0.6nm,0.6s,mb3.0,baz=67,slow=6.9,SNR=5.0						
CTA	Charters Tower	41.58	175	P	P	20 05 27.6	+0.6
	5.6nm,1.1s,mb3.6,baz=360,slow=9.0,SNR=3.2						
WB2	Warramunga Arr	42.17	192	*e*P	P	20 05 31.4	-0.4
WRA	Warramunga Arr	42.17	192	P	P	20 05 31.8	0.0
	2.6nm,0.6s,mb3.6,baz=16,slow=9.8,SNR=67						
FITZ	Fitzroy Crossi	42.98	205	*e*P	P	20 05 38.4	+0.1
	3.7nm,0.6s,mb3.7						
FITZ				*e*		20 05 59.1	
ASAR	Alice Springs	45.88	192	P	P	20 06 00.8	-0.4
	0.7nm,0.6s,mb3.0,baz=11,slow=9.2,SNR=11						
ASAR	Alice Springs	45.88	192	P	P	20 06 00.8	-0.4
STKA	Stephens Creek	53.22	181	P	P	20 06 55.6	-0.6
	1.1nm,0.7s,mb3.3,baz=12,slow=9.3,SNR=4.0						
ZAL	Zalesovo	54.16	322	P	P	20 07 01.6	-1.1
	0.5nm,0.5s,mb3.1,baz=355,slow=15,SNR=3.4						
ILAR	Eielson Array	62.18	27	P	P	20 07 57.0	-0.6
	0.5nm,0.7s,mb3.2,baz=270,slow=5.4,SNR=6.3						
BVAR	Borovoye Array	62.61	320	P	P	20 08 01.0	+0.5
	3.4nm,0.3s,mb4.3,baz=99,slow=7.5,SNR=19						
INK	Inuvik	67.70	24	P	P	20 08 32.9	+0.3
	0.7nm,0.7s,mb3.5,baz=252,slow=7.2,SNR=2.6						
YKA	Yellowknife Ar	76.60	28	P	P	20 09 25.5	+0.6
	0.7nm,0.7s,mb3.5,baz=290,slow=5.4,SNR=5.9						
ARCES	ARCESS Array B	78.93	341	P	P	20 09 38.5	+1.1
	7.3nm,1.0s,mb4.3,baz=59,slow=7.1,SNR=5.5						
ARCES	ARCESS Array B	78.93	341	P	P	20 09 38.5	+1.1
FINES	FINESS Array B	83.17	334	P	P	20 09 59.5	+0.1
	4.3nm,0.9s,mb4.3,baz=70,slow=6.9,SNR=8.1						

IDC 15 20:06:19.5±4.1, **16.41S**×**177.73W**, **mb4.1**/3, **mb1 4.3**/3, **mb1mx3.8**/13, **Error ellipse: s-maj=167.0km s-min=47.9km az=138.0**, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	39.93	240	*e*P	P	20 13 56.0	-1.2
	1.1nm,0.6s						
STKA	Stephens Creek	39.93	240	P	P	20 13 56.2	-1.0
	1.8nm,0.7s,baz=85,slow=11,SNR=11						
WB2	Warramunga Arr	45.55	258	*e*P	P	20 14 40.7	-2.4
WRA	Warramunga Arr	45.56	258	P	P	20 14 41.0	-2.2
	0.7nm,0.7s,baz=94,slow=8.1,SNR=23						
ASAR	Alice Springs	45.84	253	P	P	20 14 43.2	-2.1
	5.9nm,0.7s,baz=88,slow=8.1,SNR=105						
ASPA	Alice Springs	45.84	253	*e*P	P	20 14 43.1	-2.3
KAKA	Kakadu	48.32	267	*e*P	P	20 15 03.6	-1.4
	3.8nm,0.5s						
GERES	GERESS Array B	146.33	346	PKPbc	PKPbc	20 26 01.6	-0.5
	0.5nm,0.6s,baz=18,slow=3.1,SNR=4.3						

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*IDC **15** 20:20:07.9±0.9, 35.53N×140.91E, mb3.9/9, mb1 4.0/12, mb1mx3.9/24, ML3.8/3, MS3.0/1, Ms1 3.0/1, ms1mx2.0/33, Error ellipse: s-maj=34.1km s-min=14.9km az=87.0*
*JMA **15** 20:20:12.5±0.1, 35.57N×141.03E, h37^{km}±1^{km}, M3.4*
*NEIC **15** 20:20:15.6±2.0, 35.47N×140.89E, h59^{km}±16^{km}, mb4.3/1, Error ellipse: s-maj=24.8km s-min=11.8km az=79.0*
ISC 15 20:20:11.2±0.7, **35.55N**±0.03×**141.15E**±0.08, **h41**^{km}±6^{km}, **n30**, σ**1^{s}06**/40, **mb3.9**/10, **6D**, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOJ	Chosi	0.28	302	⇓P	P	20 20 19.3	-0.1
CHOJ				S	S	20 20 23.8	-1.3
JCN	Nagara	0.78	260	P	P	20 20 26.8	+0.9
KTR	Katsuura	0.79	239	⇓P	P	20 20 26.2	+0.2
BSO2	Boso 2	0.86	202	S	S	20 20 40.0	+1.4
BSO4	Boso 4	0.87	230	⇓P	P	20 20 27.5	+0.4
BSO1	Boso 1	0.91	189	⇓P	P	20 20 28.0	+0.4
BSO1				S	S	20 20 42.4	+2.6
BSO3	Boso 3	0.91	215	⇓P	P	20 20 28.0	+0.3
BSO3				S	S	20 20 40.8	+0.9
JYT	Yasato	1.02	311	⇓P	P	20 20 29.3	0.0
JYT				S	S	20 20 41.3	-1.4
JHO	Hitachi	1.15	336	P	P	20 20 31.5	+0.4
JHO				S	S	20 20 46.9	+0.9
JAG	Ashikaga	1.63	303	P	P	20 20 38.6	+0.7
JIM2	Oshima 3	1.64	240	P	P	20 20 36.7	-1.3
JIM2				S	S	20 20 56.0	-2.0
JOD2	Odawara 2	1.71	261	P	P	20 20 39.3	+0.3
JOD2				S	S	20 21 00.0	+0.2
MAJO	Matsushiro	2.58	293	*e*P	P	20 20 52.5	+1.1
MAT	Matsushiro	2.58	293	P	P	20 20 52.7	+1.2
MAT				*e*S	S	20 21 27.7	+5.8
MAT	Matsushiro	2.58	293	*e*P	P	20 20 53.0	+1.5
MAT				S	S	20 21 32.0	+10
JHJ	Hachijo jima 2	2.68	205	Pn	P	20 20 51.2	-1.6
	27nm,0.3s,baz=215,slow=12,SNR=8.2						
JHJ				Sn	S	20 21 23.9	-0.4
	70nm,0.3s,baz=234,slow=22,SNR=8.5						
CBIJ	Chichi jima	8.48	174	Pn	P	20 22 12.4	-1.9
	7.0nm,0.3s,baz=260,slow=13,SNR=4.0						
CBIJ				Sn	S	20 23 40.6	-9.1
	5.2nm,0.3s,baz=279,slow=19,SNR=3.6						
ASAJ	Asahikawa	8.62	7	Pn	P	20 22 14.4	-1.9
	0.9nm,0.3s,baz=47,slow=25,SNR=5.0						
JOW	Kunigami	14.02	235	LR	LR	20 28 56.9	
	comp=Z,56nm,18.1s,baz=156,slow=38						
SONM	Songino Array	28.46	306	P	P	20 26 03.3	-0.9
	0.8nm,0.6s,mb3.5,baz=110,slow=8.9,SNR=7.9						
ZAL	Zalesovo	42.78	314	P	P	20 28 06.2	+0.1
	1.5nm,0.6s,mb3.9,baz=3.1,slow=8.5,SNR=7.4						
ILAR	Eielson Array	50.86	32	P	P	20 29 11.4	+1.9
	0.3nm,0.6s,mb3.4,baz=263,slow=5.7,SNR=5.2						
BVAR	Borovoye Array	51.42	313	P	P	20 29 14.2	+0.3
	0.4nm,0.4s,mb3.7,baz=101,slow=7.1,SNR=5.1						
WRAB	Tennant Creek	55.56	188	*e*P	P	20 29 43.5	-1.4
	2.5nm,0.7s,mb4.3						
WRA	Warramunga Arr	55.57	188	P	P	20 29 44.1	-0.9
	1.6nm,0.7s,mb4.2,baz=5.3,slow=7.9,SNR=27						
ASAR	Alice Springs	59.29	188	P	P	20 30 11.4	+0.2
	0.3nm,0.5s,mb3.6,baz=12,slow=10,SNR=8.0						
FINES	FINESS Array B	70.02	332	P	P	20 31 20.3	+0.2
	2.0nm,0.8s,mb4.1,baz=34,slow=6.9,SNR=6.3						
AKASG	Malin Array Be	75.34	322	P	P	20 31 51.6	0.0
	0.3nm,0.3s,mb3.6,baz=47,slow=6.2,SNR=5.0						
NB2	NORSAR Subarra	75.47	337	P	P	20 31 53.2	+1.1
	1.3nm,0.7s,mb4.0,baz=40,slow=5.8						
NOA	NORSAR Array B	75.47	337	P	P	20 31 53.2	+1.1
	1.9nm,0.7s,mb4.1,baz=40,slow=5.8,SNR=4.5						

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*LDG **15** 20:26:10.2±0.5, 41.79N×84.87E, h10^{km}, Mb4.6/16, Ms2.7/1, Error ellipse: s-maj=23.5km s-min=4.8km az=161.0*
*MOS **15** 20:26:14.9±0.8, 42.14N×84.97E, h33^{km}, mb4.8/24, Error ellipse: s-maj=11.4km s-min=6.4km az=121.4*
*BJI **15** 20:26:14.6, 41.94N×84.89E, h26^{km}, mb4.3, ML4.5, Ms3.8, Msz3.5*
*NEIC **15** 20:26:15.3±2.3, 42.10N×85.02E, h23^{km}±16^{km}, mb4.6/20, Error ellipse: s-maj=9.9km s-min=5.1km az=209.0*
*IDC **15** 20:26:17.2±3.1, 42.05N×85.05E, h40^{km}±27^{km}, mb3.9/16, mb1 4.1/19, mb1mx4.1/23, ML3.9/3, Error ellipse: s-maj=19.9km s-min=14.0km az=52.0*
*NNC **15** 20:26:17.6±4.0, 42.23N×84.84E, h33^{km}±24^{km}, mpv4.0, Error ellipse: s-maj=29.4km s-min=8.9km az=111.0*
ISC 15 20:26:13.1±1.2, **42.00N**±0.04×**84.92E**±0.04, **h24**^{km}±9^{km}, **n122**, σ**0^{s}88**/133, **mb4.4**/43, **MS3.4**/2, **5C-6D**, **Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	2.73	47	*e*P	Pn	20 27 00.0	+3.4
WMQ				SG	Sn	20 27 39.0	+10
WMQ				Smax			
	comp=N,2µm,1.0s						
WMQ				Smax			
	comp=E,2µm,1.0s						
MK31	Makanchi Array	5.15	339	⇓Pn	Pn	20 27 31.7	+0.8
	comp=E,1.8nm,0.3s,baz=154,slow=12,SNR=677						
MK31				⇑Pg	Pn	20 27 47.8	+17
	comp=E,46nm,0.6s,baz=150,slow=16,SNR=68						
MK31				⇑Lg		20 28 54.3	
	comp=E,241nm,0.7s,baz=154,slow=27,SNR=8.2						
ULHL	Ulahol	6.46	275	P	Pn	20 27 49.4	+0.1
	SNR=25						
TKM2	Tokmak 2	6.96	281	P	Pn	20 27 57.0	+0.7
	SNR=25						
KZA	Kyzart	7.20	274	P	Pn	20 28 00.2	+0.5
	SNR=18						
KSH	Kashi	7.23	253	*e*P	Pn	20 28 01.5	+1.4
KSH				S	Sn	20 29 21.5	-0.8
KSH				Smax			
	comp=N,260nm,0.6s						
KSH				Smax			
	comp=E,340nm,0.7s						
KBK	Karagaybulak	7.42	278	P	Pn	20 28 02.9	+0.1
	SNR=27						
UCH	Uchtor	7.74	275	P	Pn	20 28 06.4	-0.9
	SNR=9.6						
AAK	Ala-Archa	7.75	278	⇓Pn	Pn	20 28 07.0	-0.4
	comp=E,4.4nm,0.6s						
AAK				⇓Lg		20 30 19.1	
	comp=E,51nm,0.7s						
AAK	Ala-Archa	7.75	278	P	Pn	20 28 07.1	-0.4
	SNR=8.9						
AAK	Ala-Archa	7.75	278	*i* P	Pn	20 28 06.8	-0.7
AAK				pmax	pmax		
	comp=Z,5.0nm,0.9s						
USP	Ospenovka	7.79	283	P	Pn	20 28 08.0	0.0
	SNR=13						
EKS2	Erkin-Say	8.28	278	P	P	20 28 14.3	-0.6
	SNR=5.7						
GTA	Gaotai	11.60	98	*e*P	P	20 29 02.0	+1.7
GTA				AP		20 29 08.0	
GTA				PP	PP	20 29 13.1	+3.9
GTA				S	S	20 31 02.5	-7.6
GTA				LG2		20 32 14.6	
GTA				AMB	AMB		
	comp=Z,5.0nm,0.5s						
GTA				LR	LR		
	comp=N,169nm,6.5s						
GTA				LR	LR		
	comp=E,195nm,8.0s						
GTA				LR	LR		
	comp=Z,257nm,11.0s						
ZAL	Zalesovo	11.95	360	Pn	P	20 29 02.0	-3.0
	comp=Z,1.5nm,0.3s,baz=296,slow=8.7,SNR=15						
ZAL				Sn	S	20 31 12.1	-6.5
	comp=Z,1.3nm,0.3s,baz=232,slow=4.8,SNR=3.8						
ZAL	Zalesovo	11.95	360	Pn	P	20 29 02.0	-3.0
ZAL				Sn	S	20 31 12.1	-6.5
THN	Thein Dam	12.03	220	*e*P	P	20 29 01.4	-4.8
	comp=Z,1.2nm,0.3s						
THN				*e*S	S	20 31 14.2	-6.4
NVS	Novosibirsk	12.90	356	*e*P	P	20 29 12.5	-5.2
NVS				pmax	pmax		
	comp=Z,19nm,2.3s						
GKN	Gorkha	13.96	181	*e*P	P	20 29 32.4	+0.6
	comp=Z,19nm,0.4s						
KKN	Kakani	14.18	179	*e*P	P	20 29 33.5	-1.1
	comp=Z,24nm,0.6s						
KOLN	Koldanda	14.23	185	*e*P	P	20 29 31.6	-3.8
	comp=Z,15nm,0.5s						
DMN	Daman	14.36	179	*e*P	P	20 29 34.1	-2.9
	comp=Z,5.3nm,0.4s						
PKI	Pulchoki	14.40	178	*e*P	P	20 29 34.9	-2.6
	comp=Z,8.0nm,0.4s						
BVA0	Borovoye Array	14.74	323	⇓Pn	P	20 29 41.7	0.0
	comp=Z,0.8nm,0.6s						
BVA0				Sn	S	20 32 21.0	-4.1
BVA0				⇑Lg		20 33 52.4	
	comp=Z,11nm,1.8s						
BVAR	Borovoye Array	14.74	323	Pn	P	20 29 41.5	-0.3
	comp=Z,0.7nm,0.3s,baz=127,slow=13,SNR=24						
BVAR				Lg		20 34 01.6	
	comp=Z,0.4nm,0.3s,baz=131,slow=27,SNR=4.0						
BRVK	Borovoye	14.81	323	*e*P	P	20 29 41.8	-0.9
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.7s						
BRVK	Borovoye	14.81	323	*e*P	P	20 29 41.8	-0.9
	comp=Z,7.0nm,0.7s						
KRAR	Krasnoyarsk	14.95	18	*e*P	P	20 29 43.3	-1.2
TLY	Talaya	16.02	46	*i* P	P	20 29 57.9	-0.5
TLY				pmax	pmax		
	comp=Z,6.0nm,1.1s						
SONM	Songino Array	16.27	62	Pn	P	20 30 01.8	+0.2
	comp=Z,0.1nm,0.3s,baz=253,slow=12,SNR=9.3						
ULN	Ulaanbaatar	16.71	62	*i* P	P	20 30 08.1	+0.9
SHL	Shillong	17.37	158	*e*	P	20 30 16.0	+0.4
ARU	Arti	22.28	319	⇓*i*P	P	20 31 09.9	0.0
ARU				*e*		20 31 34.6	
ARU				*e*S	S	20 35 14.2	+5.4
ARU				*e*SS	SS	20 35 44.5	-4.9
ARU				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.4						
ARU	Arti	22.28	319	*e*P	P	20 31 09.3	-0.7
	comp=Z,14nm,0.7s,mb4.5						
KMI	Kunming	22.37	133	*e*P	P	20 31 15.1	+4.1
KMI				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.4						
ENH	Enshi	22.95	113	*e*P	P	20 31 18.7	+2.0
	comp=Z,16nm,1.3s,mb4.3						
BOD	Bodaibo	24.25	39	*e*P	P	20 31 24.8	-4.3
WHN	Wuhan	26.21	106	*e*P	P	20 31 54.4	+6.5
CMAR	Chiang Mai Arr	26.33	149	P	P	20 31 49.5	+0.4
	comp=Z,3.3nm,1.0s,mb3.8,baz=326,slow=9.2,SNR=14						
NJ2	Nanjing	28.69	99	*e*P	P	20 32 10.8	+0.4
KIV	Kislovodsk	30.72	288	*e*P	P	20 32 28.0	-0.4
KIV				*e*S	S	20 37 24.5	-4.2
KIV				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.5						
KIV				pmax	pmax		
	comp=N,10.0nm,1.4s						
KIV				pmax	pmax		
	comp=E,6.0nm,1.4s						
SSE	Sheshan	30.89	99	P	P	20 32 27.5	-2.5
SSE				AP	pP	20 32 38.8	+1.8
SSE				S	S	20 37 29.3	-2.2
SSE				XS		20 37 45.3	
SSE				AMB	AMB		
	comp=Z,21nm,0.7s,mb5.1						
SSE				LR	LR		
	comp=N,41nm,22.4s,MS3.2						
SSE				LR	LR		
	comp=E,46nm,22.5s,MS3.2						
SSE				LR	LR		
	comp=Z,72nm,20.1s,MS3.3						
SOC	Sochi	32.90	288	*e*P	P	20 32 46.3	-1.2
SOC				*e*		20 33 54.9	
SOC				*e*S	S	20 38 03.1	+0.4
SOC				*e*SS	SS	20 40 03.0	+0.6
SOC				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
SOC				pmax	pmax		
	comp=N,16nm,0.8s						
SOC				pmax	pmax		
	comp=E,30nm,0.9s						
YAK	Yakutsk	33.13	37	*i* P	P	20 32 48.5	-0.8
YAK				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb4.8						
OBN	Obninsk	33.88	310	*e*P	P	20 32 54.8	-1.0
OBN				*e*		20 34 10.8	
OBN				*e*S	S	20 38 17.4	-0.3
OBN				*e*SS	SS	20 40 53.6	+29
OBN				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
OBN				MLR	MLR		
	comp=Z,100nm,20.0s,MS3.5						
ANN	Anapa	34.24	291	*e*P	P	20 32 51.3	-7.7
ANN				pmax	pmax		
	comp=Z,84nm,1.7s,mb5.4						
BRTR	Keskin Array B	38.38	284	P	P	20 33 35.6	+1.5
	comp=Z,4.1nm,0.6s,mb4.3,baz=103,slow=9.0,SNR=16						
AKASG	Malin Array Be	38.59	303	P	P	20 33 35.8	0.0
	comp=Z,0.4nm,0.4s,mb3.5,baz=68,slow=8.1,SNR=3.2						
KAF	Kangasniemi	39.57	321	*e*p	P	20 33 41.7	-2.1
	comp=Z,14nm,1.4s,mb4.5,baz=94,slow=7.8						
KAF	Kangasniemi	39.57	321	*e*P	P	20 33 41.7	-2.1
KAF				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.5						
FINES	FINESS Array B	39.65	320	P	P	20 33 44.8	+0.3
	comp=Z,1.3nm,0.5s,mb4.0,baz=102,slow=10,SNR=11						
FINES	FINESS Array B	39.65	320	*i* P	P	20 33 45.5	+1.0
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KEV	Kevo	40.29	333	*e*p	P	20 33 49.6	-0.1
	comp=Z,2.5nm,0.3s,mb4.4						
KEV	Kevo	40.29	333	*e*P	P	20 33 49.6	-0.1
KEV				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.5						
ARCES	ARCESS Array B	40.76	332	P	P	20 33 54.3	+0.7
	comp=Z,4.8nm,0.4s,mb4.5,baz=87,slow=7.6,SNR=48						
OJC	Ojcow	44.58	304	*e*P	P	20 34 25.6	+0.8
NB2	NORSAR Subarra	46.84	320	P	P	20 34 42.6	+0.1
	comp=Z,17nm,1.2s,mb4.8,baz=78,slow=7.9						
NB2	NORSAR Subarra	46.84	320	P	P	20 34 42.6	+0.1
NB2				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
NOA	NORSAR Array B	46.84	320	P	P	20 34 42.8	+0.3
	comp=Z,2.3nm,0.6s,mb4.3,baz=80,slow=7.8,SNR=7.6						
CLL	Collm	48.38	307	P	P	20 34 55.4	+0.6

	comp=Z,logA/T=1.0,mb4.8						
GERES	GERESS Array B	48.78	304	P	P	20 34 58.8	+0.9
	comp=Z,1.6nm,0.7s,mb4.1,baz=59,slow=7.8,SNR=8.5						
GRA1	Grafenberg Arr	50.00	306	*e*P	P	20 35 08.6	+1.3
	comp=Z,8.0nm,1.1s,mb4.7						
GRF	Grafenberg Arr	50.00	306	*e*P	P	20 35 08.6	+1.3
GRF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
GRF	Grafenberg Arr	50.00	306	*e*P	P	20 35 08.6	+1.3
GRF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
GRF	Grafenberg Arr	50.00	306	*e*P	P	20 35 08.6	+1.3
	comp=Z,8.0nm,1.1s,mb4.7						
WTTA	Wattenberg	50.65	302	⇑*i*PN	P	20 35 12.9	+0.7
WTTA				*i*		20 36 27.3	
SQTA	Sankt Quirin	50.93	303	⇑*i*PN	P	20 35 15.0	+0.6
SQTA				*i*		20 36 31.4	
MOTA	Moosalm	50.95	303	⇓*i*PN	P	20 35 15.1	+0.6
MOTA				*i*		20 36 29.1	
CDF	Champ du Feu	52.89	305	*e*P	P	20 35 29.1	0.0
HINF	Hinteralfeld	53.39	305	*e*P	P	20 35 32.8	0.0
BAIF	Baives	54.04	308	*e*P	P	20 35 37.9	+0.4
	comp=Z,17nm,0.9s,mb4.7						
BAIF	Baives	54.04	308	*e*P	P	20 35 37.9	+0.4
BAIF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
MEZF	Maizieres J'vi	54.20	306	*e*P	P	20 35 39.2	+0.5
PGF	Pioggiola	54.33	298	*e*P	P	20 35 40.0	+0.2
	comp=Z,4.0nm,0.6s,mb4.2						
PGF	Pioggiola	54.33	298	*e*P	P	20 35 40.0	+0.2
PGF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
LPG	La Plagne	54.45	302	*e*P	P	20 35 41.6	+1.0
	comp=Z,18nm,0.7s,mb4.8						
LPG	La Plagne	54.45	302	*e*P	P	20 35 41.6	+1.0
LPG				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
LPL	La Plagne	54.46	302	*e*P	P	20 35 41.7	+1.0
	comp=Z,22nm,0.6s,mb5.0						
LPL	La Plagne	54.46	302	*e*P	P	20 35 41.7	+1.0
LPL				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
SBF	Sospel	54.75	300	*e*P	P	20 35 43.0	+0.1
	comp=Z,13nm,0.6s,mb4.8						
SBF	Sospel	54.75	300	*e*P	P	20 35 43.0	+0.1
SBF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
MBDF	Montbardon	54.79	301	*e*P	P	20 35 44.3	+1.2
	comp=Z,4.9nm,0.7s,mb4.4						
MBDF	Montbardon	54.79	301	*e*P	P	20 35 44.3	+1.2
MBDF				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
ORIF	Oris-en-Rattie	55.27	302	*e*P	P	20 35 46.4	-0.2
	comp=Z,9.9nm,0.7s,mb4.7						
ORIF	Oris-en-Rattie	55.27	302	*e*P	P	20 35 46.4	-0.2
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
FRF	La Foret Royal	55.40	300	*e*P	P	20 35 48.0	+0.4
	comp=Z,12nm,0.9s,mb4.6						
FRF	La Foret Royal	55.40	300	*e*P	P	20 35 48.0	+0.4
FRF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
LMR	La Mourre	55.59	300	*e*P	P	20 35 48.1	-0.9
SMF	Signal de Mont	55.75	305	*e*P	P	20 35 49.6	-0.5
	comp=Z,10nm,0.7s,mb4.7						
SMF	Signal de Mont	55.75	305	*e*P	P	20 35 49.6	-0.5
SMF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
SSF	Saint Saulge	55.77	305	*e*P	P	20 35 50.3	+0.1
SMRF	Simiane la Rot	55.89	301	*e*P	P	20 35 51.2	+0.1
AVF	Avril sur Loir	55.98	305	*e*P	P	20 35 51.4	-0.3
	comp=Z,9.2nm,0.9s,mb4.5						
AVF	Avril sur Loir	55.98	305	*e*P	P	20 35 51.4	-0.3
AVF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
VIVF	Saint-Julien-l	56.06	302	*e*P	P	20 35 52.1	-0.2
TCF	Toulx Ste Croi	56.92	305	*e*P	P	20 35 58.4	-0.1
	comp=Z,8.4nm,0.7s,mb4.6						
TCF	Toulx Ste Croi	56.92	305	*e*P	P	20 35 58.4	-0.1
TCF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
LDF	La Druitiere	57.23	308	*e*P	P	20 36 00.0	-0.6
FLN	La Foliniere	57.36	308	*e*P	P	20 36 01.3	-0.3
GRR	Gorron	57.76	308	*e*P	P	20 36 03.8	-0.5
	comp=Z,4.3nm,0.5s,mb4.4						
GRR	Gorron	57.76	308	*e*P	P	20 36 03.8	-0.5
GRR				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
RJF	Les Rejaudoux	57.81	304	*e*P	P	20 36 05.1	+0.3
	comp=Z,8.8nm,0.8s,mb4.5						
RJF	Les Rejaudoux	57.81	304	*e*P	P	20 36 05.1	+0.3
RJF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
MFF	Saint Martin d	58.20	306	*e*P	P	20 36 07.7	+0.3
LFF	La Frestale	58.47	304	*e*P	P	20 36 09.6	+0.2
	comp=Z,5.6nm,0.5s,mb4.6						
LFF	La Frestale	58.47	304	*e*P	P	20 36 09.6	+0.2
LFF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
ETSF	Etsaut	60.31	303	*e*P	P	20 36 22.8	+0.7
KMBO	Kilima Mbogo	60.73	238	P	P	20 36 24.9	-0.4
	comp=Z,0.6nm,0.6s,mb3.9,baz=15,slow=14,SNR=3.6						
KMBO	Kilima Mbogo	60.73	238	*i* P	P	20 36 27.0	+1.6
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KMBO	Kilima Mbogo	60.73	238	P	P	20 36 24.9	-0.4
ILAR	Eielson Array	66.13	22	P	P	20 36 59.3	-0.7
	comp=Z,0.7nm,0.6s,mb3.9,baz=318,slow=7.2,SNR=7.4						
INK	Inuvik	66.31	15	P	P	20 37 00.7	-0.4
	comp=Z,1.6nm,0.6s,mb4.2,baz=336,slow=5.8,SNR=4.9						
FRB	Frobisher Bay	72.52	348	P	P	20 37 38.5	-0.7
	comp=Z,2.7nm,0.7s,mb4.3,baz=151,slow=10,SNR=2.5						
YKA	Yellowknife Ar	74.68	9	P	P	20 37 51.8	0.0
	comp=Z,1.3nm,0.4s,mb4.2,baz=339,slow=6.0,SNR=21						
YKA	Yellowknife Ar	74.68	9	P	P	20 37 51.9	+0.1
WRA	Warramunga Arr	76.69	133	P	P	20 38 04.2	+0.1
	comp=Z,1.5nm,0.6s,mb4.1,baz=332,slow=5.4,SNR=16						
WB2	Warramunga Arr	76.70	133	*e*P	P	20 38 03.7	-0.4
ASAR	Alice Springs	79.49	135	P	P	20 38 19.4	+0.1
	comp=Z,0.9nm,0.9s,mb3.7,baz=331,slow=5.7,SNR=8.3						
SCHQ	Schefferville	80.58	344	P	P	20 38 24.8	+0.2
	comp=Z,1.7nm,0.6s,mb4.2,baz=226,slow=16,SNR=5.2						
PDAR	Pinedale Array	94.62	11	P	P	20 39 32.5	-0.4
	comp=Z,0.6nm,1.0s,mb4.0,baz=277,slow=7.3,SNR=2.5						
LPAZ	La Paz	145.48	310	PKPbc	PKPbc	20 45 51.8	+1.7
	comp=Z,1.3nm,0.7s,baz=270,slow=3.0,SNR=6.5						
LPAZ	La Paz	145.48	310	PKIKP	PKPdf	20 45 51.8	-2.2
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						

CASC 15 20:29:37.9±2.7,14.05N×91.39W,h47^{km}±45^{km},MD3.6, ML4.3,1C-1D,Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	Jato	0.36	317	*e*P	P	20 29 48.3	+0.9
JAT				*e*S	S	20 29 54.8	+0.8
JAT				AML	AML	20 29 58.0	
	comp=E,35µm,0.3s						
TP2	Tecpan 2	0.81	26	*e*P	P	20 29 53.5	+0.5
TP2				*e*S	S	20 30 06.2	+2.1
TP2				AML	AML	20 30 07.6	
	comp=E,5µm,0.3s						
PCG	Pacaya	0.83	66	*e*P	P	20 29 53.5	+0.2
PCG				*e*S	S	20 30 06.2	+1.5
IXG	Ixpaco	0.91	82	*e*P	P	20 29 54.4	0.0
IXG				*e*S	S	20 30 08.0	+1.3
IXG				AML	AML	20 30 14.6	
	comp=E,14µm,0.5s						
NBG	Las Nubes	1.14	62	*e*P	P	20 29 58.2	+0.5
NBG				*e*S	S	20 30 15.3	+2.9
NBG				AML	AML	20 30 17.8	
	comp=E,7µm,0.5s						
RBDL	Robledal	1.65	88	⇓*e*P	P	20 30 04.3	-0.7
RBDL				*e*S	S	20 30 25.9	+0.8
SBLS	San Blas	1.73	97	⇑*e*P	P	20 30 05.9	-0.1
SBLS				*e*S	S	20 30 27.1	+0.2
SNJE	San Jose	1.74	96	*e*P	P	20 30 08.2	+2.0
LFU	La Fuente	2.23	98	*e*P	P	20 30 13.0	-0.1
SNVI	San Vicente	2.51	100	*e*P	P	20 30 17.0	-0.3

IDC ***15*** *20:49:40.9±1.3,5.24N×126.60E,mb3.8/6,mb1 4.0/6, mb1mx3.8/19,Error ellipse: s-maj=96.1km s-min=19.6km az=72.0*

NEIC ***15*** *20:49:42.5±0.8,5.28N×126.68E,h10^{km},mb4.3/2,Error ellipse: s-maj=70.2km s-min=11.0km az=71.0*

ISC 15 20:49:43.7±1.0,**5.4N**±0.2×**126.9E**±0.6,**h33^{km},n10, σ0.^{s}79**/10,**mb3.8**/8,**Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	23.34	183	P	P	20 54 50.9	+0.8
	2.1nm,0.6s,mb3.8,baz=7.9,slow=12,SNR=6.4						
WRAB	Tennant Creek	26.19	164	*e*P	P	20 55 17.5	0.0
	11nm,1.1s,mb4.3						
WRA	Warramunga Arr	26.20	164	P	P	20 55 16.5	-0.9
	2.8nm,0.4s,mb4.1,baz=342,slow=10.0,SNR=37						
WB2	Warramunga Arr	26.20	164	*e*P	P	20 55 18.5	+1.0
ASAR	Alice Springs	29.66	167	P	P	20 55 47.7	-1.0
	0.2nm,0.5s,mb3.1,baz=348,slow=6.5,SNR=5.2						
STKA	Stephens Creek	39.60	160	P	P	20 57 14.2	+0.3
	1.0nm,0.6s,mb3.8,baz=324,slow=8.6,SNR=3.7						
STKA	Stephens Creek	39.60	160	*e*P	P	20 57 13.9	0.0
SONM	Songino Array	45.81	341	P	P	20 58 05.4	+1.2
	0.6nm,0.9s,mb3.5,baz=153,slow=8.2,SNR=4.4						
BVAR	Borovoye Array	66.03	327	P	P	21 00 28.6	-0.6
	0.9nm,0.8s,mb3.8,baz=127,slow=7.2,SNR=4.1						
BRVK	Borovoye	66.10	327	*e*P	P	21 00 29.0	-0.7
	1.5nm,1.0s,mb4.0						

ATH ***15*** *21:13:27.8,34.22N×25.48E,h5^{km},MD3.6/4*

NEIC ***15*** *21:13:28.3,34.23N×25.46E,h2^{km},MD3.6(ATH),After ATH.*

CSEM ***15*** *21:13:30.4±0.3,34.30N×25.39E,h2^{km},MD3.6,Error ellipse: s-maj=6.2km s-min=3.3km az=155.0*

IDC ***15*** *21:13:50.1±20.0,35.21N×25.63E,h157^{km}±147^{km}, mb3.5/4,mb1 3.5/6,mb1mx3.2/21,ML3.9/2,Error ellipse: s-maj=146.0km s-min=31.4km az=4.0*

ISC 15 21:13:27.3±3.2,**34.2N**±0.2×**25.6E**±0.1,**h20^{km}**±17^{km},**n18, σ0.^{s}87**/20,**mb3.9**/4,**Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
XRY	Khrisi	0.73	8	*e*PB	Pb	21 13 41.0	-0.2
XRY				*e*SB	Sb	21 13 50.0	-0.8
NPS	Neapolis	1.11	2	*e*PB	Pb	21 13 47.5	-0.2
NPS				*e*SB	Sb	21 14 02.5	+0.7
GVD	Gavdhos	1.40	300	*e*P	Pn	21 13 53.1	+1.1
GVD	Gavdhos	1.40	300	*e*P	Pn	21 13 53.1	+1.1
VAM	Vamos	1.69	319	*e*PB	Pb	21 13 58.0	+0.5
KARP	Karpathos	1.92	43	*e*PN	Pn	21 14 04.2	+4.8
SOI	Samo	8.63	300	*e*Pn	P	21 15 33.6	-0.6
SOI	Samo	8.63	300	*e*Pn	P	21 15 33.6	-0.6
MTTG	Motta San Giov	8.87	299	*e*Pn	P	21 15 36.9	-0.6
MTTG	Motta San Giov	8.87	299	*e*Pn	P	21 15 36.9	-0.6
SGO	Sicignano	10.37	311	*e*Pn	P	21 15 57.1	-1.1
SGO	Sicignano	10.37	311	*e*Pn	P	21 15 57.1	-1.0
AKASG	Malin Array Be	16.76	8	P	P	21 17 23.3	+0.9
	1.2nm,0.3s,baz=200,slow=11,SNR=8.7						
GERES	GERESS Array B	17.13	333	P	P	21 17 28.4	+1.2
	0.1nm,0.3s,baz=144,slow=12,SNR=6.8						
FINES	FINESS Array B	27.32	1	P	P	21 19 10.2	-2.3
	4.1nm,1.0s,mb3.9,baz=170,slow=12,SNR=4.4						
ZAL	Zalesovo	45.46	45	P	P	21 21 46.8	+0.3
	0.6nm,0.5s,mb3.7,baz=180,slow=9.1,SNR=2.3						
SONM	Songino Array	59.87	50	P	P	21 23 34.2	+0.4
	0.3nm,0.5s,mb3.5,baz=297,slow=8.1,SNR=4.0						
SCHQ	Schefferville	64.18	320	P	P	21 24 02.6	+0.2
	3.2nm,0.9s,mb4.3,baz=45,slow=7.1,SNR=2.6						

WEL 15 21:19:49.4±0.8,**38.35S×175.81E,h154^{km}**±9^{km},**ML3.7**/6, **Error ellipse: s-maj=14.8km s-min=8.1km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BKZ	Black Stump Fm	0.97	147	PN	P	21 20 14.9	+0.5
BKZ				SN	S	21 20 32.7	-1.0
URZ	Urewera	1.02	85	PN	P	21 20 14.3	-0.6
URZ				SN	S	21 20 32.9	-1.7
MOVZ	Moawhango	1.05	183	PN	P	21 20 16.0	+0.8
MWZ	Matawai	1.35	90	PN	P	21 20 17.7	-0.4
TSZ	Takapari Road	1.71	176	PN	P	21 20 21.9	+0.1
TSZ				SN	S	21 20 44.7	-2.1
MRZ	Mangatainoka R	2.31	184	PN	P	21 20 28.0	-1.0
MRZ				SN	S	21 20 57.4	-1.9
KIW	Kapiti Island	2.60	195	PN	P	21 20 31.1	-1.4
CAW	Cannon Point	2.81	192	PN	P	21 20 33.4	-1.8
MTW	Mount Morrison	2.81	185	PN	P	21 20 33.2	-2.0
MSWZ	Moikau Station	3.09	188	PN	P	21 20 36.4	-2.3
NNZ	Nelson	3.42	212	PN	P	21 20 41.0	-2.1
NNZ				SN	S	21 21 21.9	-2.3
QRZ	Quartz Range	3.54	225	PN	P	21 20 42.5	-2.1
KHZ	Kahutara	4.41	202	PN	P	21 20 53.3	-2.7

IDC ***15*** *21:53:13.1±0.7,13.71N×146.19E,mb4.1/12,mb1 4.2/12, mb1mx4.2/20,MS3.4/3,Ms1 3.5/3,ms1mx3.0/22,Error ellipse: s-maj=25.3km s-min=18.6km az=100.0*

NEIC ***15*** *21:53:21.4±2.2,13.58N×146.04E,h62^{km}±19^{km},mb4.3/3, Error ellipse: s-maj=20.7km s-min=12.0km az=87.0*

ISC 15 21:53:22.2±1.8,**13.55N**±0.09×**145.9E**±0.1,**h83^{km}**±14^{km}, **n29,σ1.^{s}00**/25,**mb4.2**/18,**Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	0.99	272	*e*P	P	21 53 41.2	-0.2
JOW	Kunigami	21.12	311	P	P	21 58 03.4	+1.3
	11nm,0.6s,mb4.4,baz=140,slow=16,SNR=6.1						
JOW				LR	LR	22 05 58.8	
	comp=Z,116nm,18.1s,baz=253,slow=36						
WRAB	Tennant Creek	35.16	199	*e*P	P	22 00 09.1	-1.0
WB2	Warramunga Arr	35.16	199	*e*P	P	22 00 10.1	0.0
WB2				*e*S	PcP	22 02 33.7	-6.3
WRA	Warramunga Arr	35.17	199	P	P	22 00 10.2	0.0
	3.5nm,0.7s,mb4.3,baz=20,slow=9.5,SNR=30						
ASAR	Alice Springs	38.80	198	P	P	22 00 41.4	+0.8
	1.0nm,0.6s,mb3.8,baz=20,slow=9.1,SNR=11						
CMAR	Chiang Mai Arr	45.29	283	P	P	22 01 36.2	+2.5
	1.2nm,0.7s,mb3.7,baz=80,slow=6.2,SNR=10						
CMAR				LR	LR	22 19 52.5	
	comp=Z,33nm,19.3s,baz=257,slow=35						
SONM	Songino Array	47.33	324	P	P	22 01 49.8	+0.3
	1.7nm,0.8s,mb3.9,baz=131,slow=7.3,SNR=10						
PKI	Pulchoki	57.82	294	*e*P	P	22 03 08.1	+0.5
	4.7nm,0.6s,mb4.7						
KKN	Kakani	57.94	294	*e*P	P	22 03 08.6	+0.2
DMN	Daman	58.09	294	*e*P	P	22 03 09.1	-0.4
	6.7nm,0.6s,mb4.8						
GKN	Gorkha	58.51	295	*e*P	P	22 03 12.9	+0.5
	7.6nm,0.7s,mb4.8						
KOLN	Koldanda	59.42	294	*e*P	P	22 03 16.7	-2.0
	6.8nm,0.7s,mb4.8						
ZAL	Zalesovo	62.24	324	P	P	22 03 36.3	-1.1
	0.8nm,0.9s,mb3.8,baz=349,slow=12,SNR=5.3						
ZAL				LR	LR	22 29 59.1	
	comp=Z,38nm,19.0s,baz=280,slow=35						
ILAR	Eielson Array	68.18	25	P	P	22 04 11.9	-3.5
	0.9nm,0.8s,mb3.6,baz=251,slow=5.8,SNR=9.2						
BVAR	Borovoye Array	70.57	322	P	P	22 04 30.3	+0.1
	2.9nm,0.5s,mb4.4,baz=108,slow=7.7,SNR=29						
BRVK	Borovoye	70.64	322	*e*P	P	22 04 30.5	-0.1
	3.4nm,0.6s,mb4.3						
BRVK				*e*		22 04 43.3	
INK	Inuvik	74.03	22	P	P	22 04 49.5	-0.9
	1.1nm,0.8s,mb3.6,baz=294,slow=9.3,SNR=3.7						
INK	Inuvik	74.03	22	*e*P	P	22 04 51.1	+0.7
	2.2nm,0.8s,mb3.9						
ARU	Arti	77.36	325	P	P	22 05 08.0	-1.4
ARU				*e*		22 05 20.7	
YKA	Yellowknife Ar	82.44	28	P	P	22 05 36.3	-0.1
	0.3nm,0.5s,mb3.3,baz=283,slow=5.1,SNR=3.4						
RES	Resolute Bay	84.36	13	P	P	22 05 47.0	+1.1
NVAR	Mina Array Bea	86.17	52	P	P	22 05 55.6	0.0
	0.8nm,0.7s,mb3.8,baz=260,slow=6.0,SNR=5.0						
ELK	Elko	87.86	49	*e*P	P	22 06 05.3	+1.5
	2.4nm,0.9s,mb4.2						
FINES	FINESS Array B	91.61	335	P	P	22 06 19.9	-0.9
	4.9nm,1.0s,mb4.7,baz=63,slow=3.1,SNR=6.3						
DBIC	Dimbokro	144.68	303	PKP	PKPdf	22 12 52.5	+2.2
	7.3nm,0.8s,baz=48,slow=4.9,SNR=6.5						
LVC	Limon Verde	145.79	110	PKPbc	PKPbc	22 12 54.9	+2.0
	0.9nm,0.5s,baz=297,slow=3.4,SNR=2.6						
LPAZ	La Paz	147.04	99	PKPbc	PKPdf	22 12 59.5	+5.3
	0.6nm,0.5s,baz=357,slow=2.6,SNR=3.6						
LPAZ	La Paz	147.04	99	PKPbc	PKPdf	22 12 59.5	+5.3

DJA 15 22:20:14.8±1.0,**9.44S×113.52E,h2^{km},MD5.2**/4,**ML4.1**/4, **2C-5D,Error ellipse: s-maj=22.4km s-min=15.7km az=38.0,South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	1.14	33	⇓*i*Pn	Pn	22 20 34.1	-3.5
	151nm,0.2s						
SRDI				⇓*i*Sn	Sn	22 20 48.4	-5.5
KELI	Kelakatan	1.55	39	⇑*i*Pn	Pn	22 20 41.0	-2.5
	79nm,0.2s						
RATI	Rata	2.11	71	⇓*i*Pn	Pn	22 20 48.5	-3.1
	358nm,0.2s						
RATI				⇓*i*Sn	Sn	22 21 13.8	-5.0
KEDI	Kedomdong	2.73	70	⇑*i*Pn	Pn	22 20 56.9	-3.6
	59nm,0.3s						
KEDI				⇓*e*Sn	Sn	22 21 27.5	-7.1

JMA ***15*** *22:34:40.5±0.2,24.83N×122.96E,h120^{km}±3^{km},M2.5*

TAP 15 22:34:39.5,24.72N×122.95E,h122^{km}±2^{km},**ML3.8, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.26	168	P	P	22 34 57.7	+1.1
YOJ				S	S	22 35 11.1	+1.6
IRIF	Iriomote-Funau	0.81	118	P	P	22 35 01.1	+1.0
IRIF				S	S	22 35 16.8	+1.2
HATJ	Hateruma jima	1.02	130	S	S	22 35 21.0	+1.8
JKRS	Kuro-shima	1.08	116	P	P	22 35 04.2	+1.4
JKRS				S	S	22 35 21.7	+1.5
JIJ	Ishigaki jima	1.14	108	P	P	22 35 04.3	+0.8
JIJ				S	S	22 35 22.1	+0.7
JTJ	Tarama	1.60	92	P	P	22 35 09.2	+0.6
JTJ				S	S	22 35 30.6	0.0
JMJ	Miyako jima 2	2.13	87	*e*S	S	22 35 42.6	+0.4
JOGS	Gusukube	2.23	88	P	P	22 35 17.7	+1.2
JOGS				S	S	22 35 44.7	+0.1

IDC ***15*** *22:37:53.5±11.0,7.22S×129.34E,h105^{km}±142^{km}, mb3.2/1,mb1 3.7/4,mb1mx3.4/13,ML3.8/3,Error ellipse: s-maj=77.1km s-min=50.6km az=24.0*

NEIC ***15*** *22:37:54.7±3.9,7.24S×129.47E,h128^{km}±43^{km},mb4.4/3, Error ellipse: s-maj=47.9km s-min=28.2km az=50.0*

ISC 15 22:37:59.3±1.8,**7.54S**±0.10×**129.6E**±0.1,**h215^{km}**±22^{km}, **n8,σ0.^{s}91**/15,**mb3.2**/1,**Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.81	152	*e*P	P	22 39 24.5	-0.5
	8.6nm,0.2s						
KAKA				*e*S	S	22 40 31.4	-0.3
FITZ	Fitzroy Crossi	11.20	200	*e*P	P	22 40 34.2	-0.4
	4.7nm,0.4s						
FITZ				*e*S	S	22 42 37.2	+0.6
FITZ	Fitzroy Crossi	11.20	200	P	P	22 40 34.0	-0.7
	1.9nm,0.3s,baz=23,slow=13,SNR=39						
FITZ				S	S	22 42 36.6	0.0
	2.5nm,0.3s,baz=142,slow=9.6,SNR=5.5						
WRAB	Tennant Creek	13.14	160	*e*P	P	22 40 59.1	+0.1
	2.7nm,0.8s						
WRAB				*e*S	S	22 43 18.8	-2.1
WRA	Warramunga Arr	13.15	160	P	P	22 41 01.0	+1.9
	0.6nm,0.3s,baz=340,slow=13,SNR=16						
WRA				S	S	22 43 21.2	+0.2
	2.4nm,0.3s,baz=326,slow=24,SNR=11						
WB2	Warramunga Arr	13.15	160	*e*P	P	22 40 59.7	+0.6
WB2				*e*S	S	22 43 21.7	+0.6
ASAR	Alice Springs	16.55	166	P	P	22 41 45.4	+4.5
	0.2nm,0.3s,baz=342,slow=11,SNR=7.5						
ASAR				S	S	22 44 47.3	+10
	0.5nm,0.3s,baz=358,slow=27,SNR=6.8						
CMAR	Chiang Mai Arr	39.80	311	P	P	22 45 12.8	-0.5
	0.8nm,0.8s,mb3.2,baz=128,slow=6.6,SNR=4.7						

IDC ***15*** *23:02:33.6±1.4,39.21N×72.14E,mb3.9/6,mb1 4.0/8, mb1mx3.8/22,ML3.6/2,Error ellipse: s-maj=41.7km s-min=21.5km az=59.0*

NEIC ***15*** *23:02:34.6±0.8,39.11N×72.09E,h10^{km},mb4.1/2,Error ellipse: s-maj=17.1km s-min=10.8km az=98.0*

MOS ***15*** *23:02:36.2±1.0,39.14N×72.23E,h33^{km},mb4.3/2,Error ellipse: s-maj=41.4km s-min=17.8km az=77.0*

ISC 15 23:02:41.7±1.0,**39.31N**±0.05×**72.4E**±0.2,**h74^{km}**±9^{km},**n35, σ1.^{s}22**/35,**mb3.8**/7,**Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	2.98	18	P	P	23 03 28.0	+0.2
	SNR=57						
AML	Almayashu	2.98	18	*e*P	P	23 03 25.2	-2.5
UCH	Uchtor	3.32	28	P	P	23 03 32.4	0.0
	SNR=41						
UCH	Uchtor	3.32	28	*e*P	P	23 03 31.4	-1.1
KZA	Kyzart	3.50	37	P	P	23 03 35.7	+0.7
	SNR=18						
EKS2	Erkin-Say	3.50	16	P	P	23 03 35.5	+0.4
	SNR=14						
EKS2	Erkin-Say	3.50	16	*e*P	P	23 03 32.2	-2.9
AAK	Ala-Archa	3.67	24	P	P	23 03 38.3	+0.9
	SNR=30						
AAK	Ala-Archa	3.67	24	*e*PN	P	23 03 35.2	-2.2
KBK	Karagaybulak	3.85	29	P	P	23 03 40.5	+0.7
	SNR=42						
CHMS	Chumysh	4.08	25	P	P	23 03 43.2	+0.1
	SNR=76						
ULHL	Ulahol	4.12	43	P	P	23 03 44.8	+1.2
	SNR=8.3						
USP	Ospenovka	4.25	21	P	P	23 03 45.1	-0.3
	SNR=15						
TKM2	Tokmak 2	4.33	32	P	P	23 03 46.7	+0.1
	SNR=12						
TKM2	Tokmak 2	4.33	32	*e*P	P	23 03 45.4	-1.1
CEP	Cherat	5.49	185	P	P	23 04 06.2	+3.6
CHCP	Chirah Chowk	5.67	173	P	P	23 04 06.4	+1.3
THW	Thamme Wali	6.52	185	P	P	23 04 17.8	+0.8
BVAR	Borovoye Array	13.79	355	Pn	P	23 05 48.0	-6.9
	0.2nm,0.3s,baz=168,slow=13,SNR=6.8						
BRVK	Borovoye	13.84	355	P	P	23 05 47.9	-7.5
KOLN	Koldanda	14.78	138	*e*P	P	23 06 02.3	-5.6
	8.5nm,0.6s						
GKN	Gorkha	15.16	134	*e*P	P	23 06 11.5	-1.2
	25nm,0.4s						
KKN	Kakani	15.68	133	*e*P	P	23 06 17.6	-1.8
	13nm,0.5s						
PKI	Pulchoki	15.92	133	*e*P	P	23 06 19.2	-3.2
	4.9nm,0.3s						
ZAL	Zalesovo	16.88	26	P	P	23 06 35.4	+1.2
	0.6nm,0.3s,baz=272,slow=9.1,SNR=5.9						
SONM	Songino Array	25.87	60	P	P	23 08 09.2	+1.3
	1.0nm,1.2s,mb3.1,baz=273,slow=10,SNR=4.8						
FINES	FINESS Array B	35.85	324	P	P	23 09 34.1	-1.7
	1.9nm,0.7s,mb4.1,baz=127,slow=9.5,SNR=5.8						
ARCES	ARCESS Array B	39.02	336	P	P	23 10 01.9	-0.2
	12nm,1.3s,mb4.6,baz=112,slow=6.5,SNR=5.5						
INK	Inuvik	70.95	10	P	P	23 13 52.9	+0.5
	0.7nm,0.6s,mb3.7,baz=346,slow=8.3,SNR=3.7						
INK	Inuvik	70.95	10	*e*P	P	23 13 52.5	+0.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	Inuvik	70.95	10	*e*P	P	23 13 52.5	+0.1
	comp=Z,0.8nm,0.7s,mb3.7						
WRA	Warramunga Arr	82.54	123	P	P	23 14 58.6	+0.7
	comp=Z,0.5nm,0.6s,mb3.6,baz=325,slow=4.8,SNR=5.1						
WRAB	Tennant Creek	82.54	123	P	P	23 14 56.9	-1.1
WRAB				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.8						
WRAB	Tennant Creek	82.54	123	P	P	23 14 56.9	-1.1
	comp=Z,1.5nm,0.7s,mb3.9						
ASAR	Alice Springs	84.95	126	P	P	23 15 11.8	+1.7
	comp=Z,0.6nm,1.0s,mb3.5,baz=316,slow=4.5,SNR=4.9						

CSEM ***15*** *23:05:05.9±0.3,35.13N×3.97W,h10^{km},MD3.1,Error ellipse: s-maj=8.9km s-min=6.2km az=72.0*

NEIC ***15*** *23:05:06.4,35.07N×4.02W,MG3.0(MDD),After MDD.*

MDD ***15*** *23:05:06.4±2.4,35.07N×4.02W,mb3.0/3,Error ellipse: s-maj=26.2km s-min=7.4km az=16.0,PRXIMO*

*CNRM **15** 23:05:07.0, 35.20N×3.82W, h15^{km}, MD3.1*

ISC 15 23:05:06.9±0.8**, 35.16N**±0.04×**4.01W**±0.05**, h13**^{km}±5^{km}**, n20, σ1^{s}13**/30**, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAL	**Palemas**	**0.09**	**43**	*i* P	**Pg**	**23 05 10.0**	**+0.2**
TOU	**Touzarine**	**0.29**	**133**	*i* P	**Pg**	**23 05 12.0**	**-1.2**
EMEL	**Melilla**	**0.88**	**81**	P	**Pb**	**23 05 23.0**	**-0.4**
	44nm,0.1s,SNR=7.9						
EMEL				S	**Sb**	**23 05 34.6**	**-0.1**
	132nm,0.3s,SNR=7.9						
EMLI	**Melilla**	**0.88**	**81**	P	**Pb**	**23 05 23.0**	**-0.5**
	44nm,0.1s,SNR=7.9						
EMLI				S	**Sb**	**23 05 34.6**	**-0.3**
	132nm,0.3s,SNR=7.9						
TZK	**Tazeka**	**1.08**	**188**	*i* P	**Pb**	**23 05 28.0**	**+1.0**
TZK				*i* S	**Sb**	**23 05 41.0**	**+0.2**
EMIJ	**Mijas**	**1.53**	**336**	P	**Pn**	**23 05 34.2**	**+0.1**
	0.7nm,0.2s,SNR=7.9						
EMIJ				S	**Sb**	**23 05 54.2**	**+0.5**
	4.9nm,0.1s,SNR=7.9						
EBER	**Berja**	**1.96**	**27**	P	**Pn**	**23 05 40.3**	**+0.2**
	0.7nm,0.2s,SNR=7.9						
EBER				S	**Sn**	**23 06 03.8**	**-0.9**
	4.2nm,0.2s,SNR=7.9						
EBER	**Berja**	**1.96**	**27**	S	**Sn**	**23 06 03.8**	**-0.9**
	4.2nm,0.2s,SNR=7.9						
EBER	**Berja**	**1.96**	**27**	P	**Pn**	**23 05 40.3**	**+0.1**
	0.7nm,0.2s,SNR=7.9						
ESPR	**Espera**	**2.26**	**319**	S	**Sn**	**23 06 16.7**	**+4.1**
	SNR=7.9						
ESPR	**Espera**	**2.26**	**319**	S	**Sn**	**23 06 16.7**	**+4.1**
	SNR=7.9						
EQES	**Quesada**	**2.74**	**16**	P	**Pn**	**23 05 53.0**	**+1.6**
	0.6nm,0.3s,SNR=7.9						
EQES				S	**Sn**	**23 06 27.4**	**+2.7**
	2.2nm,0.4s,SNR=7.9						
EQES	**Quesada**	**2.74**	**16**	P	**Pn**	**23 05 53.0**	**+1.6**
	0.6nm,0.3s,SNR=7.9						
EQES				S	**Sn**	**23 06 27.4**	**+2.7**
	2.2nm,0.4s,SNR=7.9						
EADA	**Adamuz**	**3.03**	**352**	P	**Pn**	**23 05 57.3**	**+1.8**
	0.5nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**3.03**	**352**	P	**Pn**	**23 05 57.3**	**+1.7**
	0.5nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.37**	**321**	P	**Pn**	**23 06 00.1**	**-0.2**
	0.3nm,0.1s,SNR=7.9						
EMIN				S	**Sn**	**23 06 38.4**	**-2.1**
	0.4nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.37**	**321**	S	**Sn**	**23 06 38.4**	**-2.2**
	0.4nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.37**	**321**	P	**Pn**	**23 06 00.1**	**-0.2**
	0.3nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**4.32**	**327**	P	**Pn**	**23 06 13.3**	**-0.5**
	0.3nm,0.1s,SNR=7.9						
EBAD				S	**Sn**	**23 07 02.2**	**-2.3**
	1.7nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**4.32**	**327**	P	**Pn**	**23 06 13.3**	**-0.5**
EBAD				S	**Sn**	**23 07 02.2**	**-2.3**

IDC 15 23:32:09.5±2.5**, 24.10S**×**106.61W, mb3.8**/3**, mb1 4.3**/3**, mb1mx3.7**/15**, Error ellipse: s-maj=305.0km s-min=73.1km az=85.0, Easter Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVAR	**Mina Array Bea**	**63.16**	**350**	P	P	23 42 40.0	-1.5
	2.5nm,0.9s,baz=174,slow=9.1,SNR=10						
PDAR	**Pinedale Array**	**66.58**	**358**	P	P	23 43 00.5	-3.2
	0.5nm,0.5s,baz=158,slow=8.0,SNR=4.6						
YKA	**Yellowknife Ar**	**86.53**	**356**	P	P	23 44 54.3	-0.9
	0.2nm,0.6s,baz=171,slow=5.0,SNR=4.8						
SONM	**Songino Array**	**144.72**	**321**	PKP	PKPdf	23 51 46.7	-3.2
	1.2nm,1.0s,baz=78,slow=2.3,SNR=7.2						
ZAL	**Zalesovo**	**148.99**	**347**	PKPbc	PKPdf	23 51 58.5	+1.7
	0.5nm,0.3s,baz=34,slow=1.8,SNR=3.5						
BVAR	**Borovoye Array**	**151.03**	**4**	PKPbc	PKPdf	23 52 04.5	+4.5
	0.4nm,0.9s,slow=3.0,SNR=5.2						

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*IDC **15** 23:38:18.4±2.8, 39.30N×72.08E, mb3.7/5, mb1 3.9/7, mb1mx3.6/22, ML3.6/2, Error ellipse: s-maj=51.6km s-min=33.1km az=11.0*

*NEIC **15** 23:38:19.0±0.8, 39.15N×72.03E, h10^{km}, mb3.8/1, Error ellipse: s-maj=14.9km s-min=10.9km az=141.0*

*MOS **15** 23:38:23.5±1.4, 39.60N×71.96E, h33^{km}, mb4.0/1, Error ellipse: s-maj=36.5km s-min=14.5km az=81.5*

ISC 15 23:38:19.1±4.8**, 39.01N**±0.07×**72.0E**±0.2**, h29**^{km}±36^{km}**, n31, σ0^{s}93**/31**, mb3.6**/6**, Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	**Almayashu**	**3.38**	**22**	P	**Pn**	**23 39 11.8**	**+0.5**
	SNR=118						
AML	**Almayashu**	**3.38**	**22**	*e*P	**Pn**	**23 39 09.7**	**-1.5**
UCH	**Uchtor**	**3.75**	**30**	P	**Pn**	**23 39 16.7**	**+0.2**
	SNR=35						
UCH	**Uchtor**	**3.75**	**30**	*e*P	**Pn**	**23 39 15.8**	**-0.7**
EKS2	**Erkin-Say**	**3.89**	**20**	P	**Pn**	**23 39 18.2**	**-0.4**
	SNR=9.8						
EKS2	**Erkin-Say**	**3.89**	**20**	*e*P	**Pn**	**23 39 17.0**	**-1.6**
KZA	**Kyzart**	**3.95**	**38**	P	**Pn**	**23 39 20.6**	**+1.3**
	SNR=16						
AAK	**Ala-Archa**	**4.09**	**27**	P	**Pn**	**23 39 21.8**	**+0.4**
	SNR=18						
AAK	**Ala-Archa**	**4.09**	**27**	*e*PN	**Pn**	**23 39 19.1**	**-2.3**
KBK	**Karagaybulak**	**4.28**	**31**	P	**Pn**	**23 39 24.9**	**+0.8**
	SNR=30						
CHMS	**Chumysh**	**4.50**	**27**	P	**Pn**	**23 39 27.8**	**+0.5**
	SNR=9.6						
ULHL	**Ulahol**	**4.58**	**44**	P	**Pn**	**23 39 29.2**	**+0.9**
	SNR=8.1						
USP	**Ospenovka**	**4.66**	**23**	P	**Pn**	**23 39 29.3**	**-0.1**
	SNR=17						
TKM2	**Tokmak 2**	**4.77**	**34**	P	**Pn**	**23 39 31.1**	**+0.1**
	SNR=13						
TKM2	**Tokmak 2**	**4.77**	**34**	*e*P	**Pn**	**23 39 30.1**	**-0.9**
BVAR	**Borovoye Array**	**14.06**	**356**	Pn	**P**	**23 41 31.7**	**-6.7**
	0.2nm,0.3s,baz=167,slow=12,SNR=6.2						
BRVK	**Borovoye**	**14.10**	**356**	*e*P	**P**	**23 41 33.0**	**-5.9**
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BRVK	**Borovoye**	**14.10**	**356**	*e*P	**P**	**23 41 33.0**	**-5.9**
	comp=Z,0.9nm,0.6s						
KOLN	**Koldanda**	**14.82**	**136**	*e*P	**P**	**23 41 48.2**	**-0.3**
	comp=Z,4.7nm,0.5s						
GKN	**Gorkha**	**15.22**	**132**	*e*P	**P**	**23 41 55.6**	**+1.9**
	comp=Z,19nm,0.4s						
KKN	**Kakani**	**15.75**	**131**	*e*P	**P**	**23 42 01.6**	**+1.0**
	comp=Z,11nm,0.5s						
DMN	**Daman**	**15.79**	**132**	*e*P	**P**	**23 41 59.1**	**-2.0**
PKI	**Pulchoki**	**15.99**	**132**	*e*P	**P**	**23 42 02.8**	**-0.9**
	comp=Z,9.6nm,0.6s						
ZAL	**Zalesovo**	**17.30**	**26**	P	**P**	**23 42 19.1**	**-0.9**
	comp=Z,0.7nm,0.3s,baz=251,slow=5.5,SNR=6.1						
SONM	**Songino Array**	**26.32**	**59**	P	**P**	**23 43 54.1**	**0.0**
	comp=Z,0.4nm,0.9s,mb3.0,baz=272,slow=9.7,SNR=4.9						
FINES	**FINESS Array B**	**35.87**	**324**	P	**P**	**23 45 18.0**	**-0.1**
	comp=Z,3.9nm,0.9s,mb4.3,baz=108,slow=8.8,SNR=4.7						
ARCES	**ARCESS Array B**	**39.14**	**336**	P	**P**	**23 45 46.2**	**+0.7**
	comp=Z,1.9nm,0.8s,mb3.9,baz=108,slow=8.6,SNR=3.3						
HFS	**Hagfors**	**41.60**	**320**	P	**P**	**23 46 06.2**	**+0.5**
	comp=Z,1.2nm,0.8s,mb3.6,baz=104,slow=9.2,SNR=3.1						
INK	**Inuvik**	**71.30**	**10**	P	**P**	**23 49 36.9**	**-0.4**
	comp=Z,0.5nm,0.6s,mb3.6						
YKA	**Yellowknife Ar**	**78.70**	**3**	P	**P**	**23 50 19.6**	**0.0**
	comp=Z,0.1nm,0.3s,mb3.2,baz=354,slow=5.9,SNR=4.1						
YKA	**Yellowknife Ar**	**78.70**	**3**	P	**P**	**23 50 19.7**	**+0.1**

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*IDC **15** 23:44:31.3±2.8, 5.65S×147.63E, h194^{km}±34^{km}, mb3.6/4, mb1 3.9/6, mb1mx3.7/14, Error ellipse: s-maj=52.4km s-min=21.3km az=127.0*

*NEIC **15** 23:44:31.3±1.9, 5.50S×147.35E, h185^{km}±20^{km}, mb4.5/4, Error ellipse: s-maj=26.6km s-min=15.1km az=126.0*

ISC 15 23:44:28.9±2.5**, 5.4S**±0.2×**147.3E**±0.2**, h173**^{km}±25^{km}**, n12, σ0^{s}86**/13**, mb4.0**/4**, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**3.95**	**182**	P	**P**	**23 45 31.3**	**+1.3**
	38nm,0.3s,baz=3.6,slow=8.4,SNR=83						
PMG				S	**S**	**23 46 15.8**	**-1.1**
	25nm,0.3s,baz=16,slow=15,SNR=11						
CTAO	**Charters Tower**	**14.60**	**184**	P	**P**	**23 47 48.9**	**+0.3**
	12nm,1.1s						
KAKA	**Kakadu**	**16.36**	**243**	*e*P	**P**	**23 48 09.8**	**-0.5**
	6.1nm,0.4s						
WRAB	**Tennant Creek**	**19.12**	**220**	*e*P	**P**	**23 48 40.1**	**-1.0**
	17nm,0.7s						
WB2	**Warramunga Arr**	**19.13**	**220**	*e*P	**P**	**23 48 40.5**	**-0.6**
WRA	**Warramunga Arr**	**19.14**	**220**	P	**P**	**23 48 40.7**	**-0.5**
	2.1nm,0.3s,baz=40,slow=11,SNR=69						
ASAR	**Alice Springs**	**22.24**	**214**	P	**P**	**23 49 13.2**	**+1.2**
	6.5nm,0.7s,mb4.2,baz=50,slow=8.7,SNR=77						
ASPA	**Alice Springs**	**22.24**	**214**	*e*P	**P**	**23 49 13.2**	**+1.1**
FITZ	**Fitzroy Crossi**	**24.60**	**237**	*e*P	**P**	**23 49 35.3**	**+0.5**
	12nm,0.6s,mb4.6						
FITZ	**Fitzroy Crossi**	**24.60**	**237**	P	**P**	**23 49 35.4**	**+0.6**
	4.6nm,0.5s,mb4.3,baz=42,slow=6.7,SNR=23						
SONM	**Songino Array**	**64.04**	**331**	P	**P**	**23 54 46.7**	**+0.3**
	0.8nm,0.9s,mb3.5,baz=127,slow=5.6,SNR=6.9						
ILAR	**Eielson Array**	**84.86**	**23**	P	**P**	**23 56 44.0**	**-1.0**
	0.9nm,0.6s,mb3.7,baz=254,slow=5.4,SNR=11						

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*IDC **15** 23:47:20.5±1.0, 8.09S×125.55E, mb3.9/5, mb1 4.2/8, mb1mx4.1/14, ML3.9/3, MS2.9/1, Ms1 2.9/1, ms1mx2.5/16, Error ellipse: s-maj=80.9km s-min=18.2km az=64.0*

*NEIC **15** 23:47:25.0±6.2, 8.16S×125.51E, h30^{km}±48^{km}, mb4.1/1, Error ellipse: s-maj=29.7km s-min=16.6km az=49.0*

ISC 15 23:47:24.8±2.7**, 8.3S**±0.2×**125.4E**±0.2**, h48**^{km}±27^{km}**, n13, σ0^{s}71**/16**, mb3.8**/6**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	**Fitzroy Crossi**	**9.77**	**179**	Pn	**P**	**23 49 45.2**	**-0.4**
	1.6nm,0.3s,baz=2.3,slow=11,SNR=22						
FITZ				Sn	**S**	**23 51 29.4**	**-5.5**
	3.4nm,0.3s,baz=169,slow=4.8,SNR=9.0						
FITZ				LR	LR	23 54 12.8	
	comp=Z,65nm,20.8s,baz=337,slow=41						
WRAB	**Tennant Creek**	**14.45**	**144**	*e*P	**P**	**23 50 48.1**	**-0.2**
	20nm,0.8s						
WRA	**Warramunga Arr**	**14.45**	**144**	Pn	**P**	**23 50 47.9**	**-0.4**
	0.8nm,0.3s,baz=318,slow=12,SNR=16						
WRA				Sn	**S**	**23 53 24.1**	**-3.8**
	0.3nm,0.3s,baz=325,slow=22,SNR=4.6						
WB2	**Warramunga Arr**	**14.46**	**144**	*e*P	**P**	**23 50 48.5**	**+0.1**
ASAR	**Alice Springs**	**17.32**	**153**	P	**P**	**23 51 26.6**	**+1.8**
	0.3nm,0.3s,baz=327,slow=11,SNR=15						
ASAR				S	**S**	**23 54 34.1**	**0.0**
	0.1nm,0.3s,baz=317,slow=21,SNR=4.3						
STKA	**Stephens Creek**	**27.88**	**150**	P	**P**	**23 53 12.5**	**+0.1**
	0.7nm,0.7s,mb3.4,baz=315,slow=10.0,SNR=2.5						
STKA	**Stephens Creek**	**27.88**	**150**	P	**P**	**23 53 12.5**	**+0.1**
CMAR	**Chiang Mai Arr**	**37.27**	**316**	P	**P**	**23 54 34.0**	**-0.1**
	1.0nm,0.4s,mb4.0,baz=146,slow=6.5,SNR=4.2						
SONM	**Songino Array**	**58.35**	**345**	P	**P**	**23 57 17.2**	**-0.3**
	0.9nm,0.8s,mb3.8,baz=168,slow=6.6,SNR=6.3						
SONM	**Songino Array**	**58.35**	**345**	P	**P**	**23 57 17.2**	**-0.3**
ZAL	**Zalesovo**	**70.81**	**336**	P	**P**	**23 58 37.8**	**-0.5**
	1.2nm,0.8s,mb3.9,baz=297,slow=2.9,SNR=9.5						
BVAR	**Borovoye Array**	**76.79**	**329**	P	**P**	**23 59 13.3**	**+0.2**
	0.7nm,0.8s,mb3.7,baz=108,slow=4.7,SNR=5.0						
BRVK	**Borovoye**	**76.86**	**329**	P	**P**	**23 59 13.8**	**+0.4**
	2.4nm,1.1s,mb4.0						

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*NEIC **15** 23:48:31.2, 30.96S×71.73W, h25^{km}, ML3.9(GUC), After GUC.*

GUC 15 23:48:31.2±0.7**, 30.96S**×**71.73W, h25**^{km}±3^{km}**, MD3.9, ML3.9, 9C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	**Ovalle**	**0.57**	**52**	⇓*i*P	Pb	23 48 42.5	-0.1
OVCH				*i* S	Sb	23 48 51.1	+0.8
CMCH	**Combarbala**	**0.66**	**109**	⇑*i*P	Pb	23 48 44.2	+0.2
CMCH				*i* S	Sb	23 48 53.1	+0.4
CMCH				AMP		23 48 54.4	
	comp=N,11μm,0.3s						
ILCH	**Illapel**	**0.82**	**145**	⇑*i*P	Pb	23 48 46.1	-0.7
ILCH				*i* S	Sb	23 48 57.4	0.0
ILCH				AMP		23 48 57.8	
	comp=E,5μm,0.3s						
TLL	**Tololo Astrono**	**1.12**	**45**	⇓*i*P	Pn	23 48 51.3	-0.2
TLL				*i* S	Sb	23 49 06.8	+0.7
TLL				AMP		23 49 11.0	
	comp=N,4μm,0.6s						
LSCH	**La Serena**	**1.13**	**22**	⇑*i*P	Pn	23 48 50.9	-0.7
LSCH				*i* S	Sb	23 49 05.7	-0.5
LSCH				AMP		23 49 08.8	
	comp=N,2μm,0.6s						
PTCH	**Petorca**	**1.46**	**153**	⇑*i*P	Pn	23 48 56.2	-0.1
PTCH				*i* S	Sn	23 49 15.4	+0.5
PTCH				AMP		23 49 20.7	
	comp=N,5μm,0.3s						
JACH	**Jahuel**	**1.97**	**151**	⇑*i*P	Pn	23 49 04.1	+0.5
JACH				*i* S	Sn	23 49 29.7	+2.1
ROCH	**El Roble**	**2.09**	**163**	⇑*i*P	Pn	23 49 06.7	+1.2
ROCH				*i* S	Sn	23 49 33.5	+2.6
PEL	**Peldehue**	**2.35**	**158**	⇑*i*P	Pn	23 49 09.3	+0.3
PEL				AMP		23 49 49.4	
	comp=N,1μm,0.5s						
LCCH	**Las Cruces**	**2.51**	**177**	⇑*i*P	Pn	23 49 11.7	+0.3
LCCH				*i* S	Sn	23 49 42.8	+1.3
DSCH	**Colegio Aleman**	**2.62**	**158**	AMP		23 49 55.2	
	comp=E,1μm,0.4s						
CLCH	**Cerro Calan**	**2.63**	**158**	⇑*i*P	Pn	23 49 13.4	+0.3
CLCH				*i* S	Sn	23 49 45.4	+0.9
CLCH				AMP		23 49 58.5	
	comp=E,1μm,0.6s						
CLCH				AMP		23 49 59.0	
	comp=E,1μm,0.5s						
RCDM	**Rinconada Maip**	**2.64**	**163**	AMP		23 49 56.6	
	comp=E,496nm,0.3s						
FCH	**Farellones**	**2.65**	**153**	AMP		23 49 58.1	
	comp=E,399nm,0.6s						
TACH	**Talagante**	**2.77**	**166**	*i* P	Pn	23 49 15.3	+0.3
TACH				*i* S	Sn	23 49 48.5	+0.6
PCH	**Pirque**	**2.84**	**159**	*i* P	Pn	23 49 16.5	+0.4
PCH				*i* S	Sn	23 49 50.9	+1.0
LMEL	**Las Melosas**	**3.15**	**156**	*i* P	Pn	23 49 20.7	+0.2
LMEL				*i* S	Sn	23 49 58.5	+0.8
LMEL				AMP		23 50 11.7	
	comp=N,409nm,0.3s						

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*LDG **16** 00:07:50.0±0.3, 45.77N×7.01E, h12^{km}, Md1.8/2, Ml2.1/2, Error ellipse: s-maj=6.9km s-min=3.5km az=171.0*

ZUR 16 00:07:49.1, 45.88N×**7.01E, h6**^{km}**, ML1.1**/3**, 4C-1D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMV	**Vieux Emosson**	**0.20**	**338**	⇑*i*Pg	Pg	00 07 54.4	+1.1
EMV				*e*Sg	Sg	00 07 57.5	+1.4
SALAN	**Lac Salanfe**	**0.27**	**355**	⇑*i*Pg	Pg	00 07 55.7	+1.1
SALAN				*e*Sg	Sg	00 07 59.7	+1.4
RSL	**Roselend**	**0.33**	**235**	Pg	Pg	00 07 55.2	-0.5
RSL				Sg	Sg	00 07 59.0	-1.1
DIX	**Grande Dixence**	**0.35**	**54**	⇓*i*Pg	Pg	00 07 57.2	+1.1
DIX				*e*Sg	Sg	00 08 02.3	+1.5
GRYON	**Gryon**	**0.38**	**11**	⇑*i*Pg	Pg	00 07 57.9	+1.1
LPL	**La Plagne**	**0.41**	**208**	*e*Pg	Pg	00 07 56.7	-0.6
LPL				*e*Sg	Sg	00 08 00.8	-2.0
	4.0nm,0.2s						
LPG	**La Plagne**	**0.42**	**206**	*e*Pg	Pg	00 07 57.0	-0.5
LPG				*e*Sg	Sg	00 08 01.9	-1.2
	11nm,0.2s						
SENIN	**Lac Senin**	**0.53**	**22**	⇑*i*Pg	Pg	00 08 00.5	+0.8
SENIN				*i* Sg	Sg	00 08 08.8	+2.0
MBDF	**Montbardon**	**1.16**	**188**	*e*Pg	Pg	00 08 10.0	-2.3
ORIF	**Oris-en-Rattie**	**1.24**	**220**	*e*Sg	Sg	00 08 27.0	-3.5
	1.6nm,0.2s						
VIVF	**Saint-Julien-l**	**1.94**	**239**	*e*Sg	Sg	00 08 49.5	-4.1
	3.8nm,0.2s						

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*NIED **16** 00:09:00, 24.00N×122.00E, h50^{km}, Mw5.2 Best double couple: M$_0$7.47×10^{16} NP1:ϕ_s60°, δ80°, λ60°. NP2:ϕ_s314°, δ31°, λ161°.*

*MOS **16** 00:09:57.9±1.1, 24.21N×122.46E, h10^{km}, mb5.1/32, MS4.8/18, Error ellipse: s-maj=13.2km s-min=6.3km az=115.7*

*IDC **16** 00:09:58.6±0.5, 24.24N×122.41E, mb4.7/25, mb1 4.8/26, mb1mx4.8/31, ML3.9/1, MS4.3/23, Ms1 4.4/23, ms1mx4.2/33, Error ellipse: s-maj=14.3km s-min=12.7km az=31.0*

*JMA **16** 00:09:58.0±0.3, 23.98N×122.04E, h32^{km}, M5.5*

JMA Felt I J1.

*TAP **16** 00:10:00.3, 23.95N×122.41E, h9^{km}±1^{km}, ML5.1*

TAP Felt I J at Hualien, II J at Nanau, I J at Suao, I J at Shilin, II J at Ilan, I J at Neicheng, I J at Nioudou, I J at Nanshan, I J at Hehuanshan, I J, I J at Chenggung, I J at Taipai, I J at Hsinchu, I J at Lanyu, I J at Chiawan.

*BJI **16** 00:10:01.6, 24.11N×122.39E, h32^{km}, mB5.0, mb4.4, ML5.2, Ms4.9, Msz4.8*

*NEIC **16** 00:10:03.4±0.8, 24.13N×122.37E, h36^{km}±7^{km}, mb5.0/65, MS5.1/4, ML5.2(TAP), Error ellipse: s-maj=6.5km s-min=5.0km az=48.0*

NEIC Recorded [2 TAP] in Hua-lien and I-lan; [1 TAP] in Chang-hua, Nan-t'ou, T'ai-nan, T'ai-pei and T'ai-tung Counties. Recorded [1 JMA] on Yonaguni-jima, Ryukyu Islands.

*HRVD **16** 00:10:03.4±0.3, 23.87N×122.21E, h35^{km}±1^{km}, MW5.1/62, Centroid moment Tensor Solution. LP body waves: s42,c57;Mantle waves: s62,c113; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.75±.20; M$_{\theta\theta}$-3.99±.14; M$_{\phi\phi}$1.24±.14; M$_{r\theta}$2.97±.19; M$_{\theta\phi}$-0.30±.10; M$_{\phi r}$1.79±.17; Best double couple: M$_0$4.93×10^{16} NP1: ϕ_s294°, δ29°, λ136°. NP2:ϕ_s64°, δ70°, λ68°. Principal axes: T 4.62, Plg59°, Azm303°; N .63, Plg21°, Azm72°; P -5.25, Plg22°, Azm171°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **16** 00:10:04.7, 24.12N×122.34E, h47^{km}, MB5.0, MS5.1*

*CSEM **16** 00:10:06.7, 24.98N×122.22E, h33^{km}, mb5.5*

ISC 16 00:10:02.7±0.2**, 24.01N**±0.02×**122.36E**±0.02**, h46**^{km}±1^{km}**, n326, σ1^{s}17**/374**, mb4.9**/100**, MS4.7**/37**, 18C-32D, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HWA	**Hwalien**	**0.69**	**267**	P	**P**	**00 10 14.9**	**-1.3**
HWA				S	**S**	**00 10 25.0**	**-1.1**
ENA	**Nanau**	**0.70**	**306**	⇑*i*P	**P**	**00 10 14.8**	**-1.5**
YOJ	**Yonaguni jima**	**0.74**	**53**	P	**P**	**00 10 16.1**	**-0.9**
YOJ				*e*S	**S**	**00 10 28.9**	**+1.5**
TWC	**Suao**	**0.75**	**322**	⇑*i*P	**P**	**00 10 15.6**	**-1.5**
ESL	**Shilin**	**0.87**	**257**	⇓P	**P**	**00 10 16.8**	**-2.0**
ESL				S	**S**	**00 10 26.2**	**-4.3**
ILA	**Ilan**	**0.93**	**324**	*e*P	**P**	**00 10 19.2**	**-0.3**
ILA				S	**S**	**00 10 32.1**	**0.0**
TWE	**Neicheng**	**0.94**	**318**	⇑*i*P	**P**	**00 10 19.3**	**-0.4**
TWE				S	**S**	**00 10 32.3**	**0.0**
ENTT	**Nioudou**	**0.95**	**311**	⇓*i*P	**P**	**00 10 19.6**	**-0.3**
NNS	**Nan Shan**	**0.99**	**296**	⇓*i*P	**P**	**00 10 19.9**	**-0.6**
NNS				S	**S**	**00 10 33.5**	**0.0**
WHF	**Hehuan Shan**	**1.01**	**278**	⇓*i*P	**P**	**00 10 19.8**	**-0.9**
WHF				S	**S**	**00 10 32.7**	**-1.3**
TWB1	**Santiao Chiao**	**1.05**	**341**	⇓*i*P	**P**	**00 10 20.7**	**-0.5**
TWB1				S	**S**	**00 10 36.4**	**+1.5**
EHY	**Hungye**	**1.07**	**242**	*e*P	**P**	**00 10 20.2**	**-1.4**
EHY				S	**S**	**00 10 33.7**	**-1.9**
TWT	**Tachien**	**1.10**	**283**	P	**P**	**00 10 21.8**	**-0.2**
NSK	**Sanguang**	**1.12**	**306**	⇓*i*P	**P**	**00 10 22.0**	**-0.3**
NWF	**Wu-fen Shan**	**1.18**	**334**	⇓*i*P	**P**	**00 10 23.0**	**0.0**
NWF				S	**S**	**00 10 39.7**	**+1.5**
TWA	**Mucha**	**1.19**	**324**	P	**P**	**00 10 23.8**	**+0.5**
TWA				S	**S**	**00 10 40.6**	**+2.0**
TATO	**Taipei**	**1.24**	**321**	*e*Pn	**P**	**00 10 24.3**	**+0.3**
TAP1	**Taipei**	**1.27**	**324**	⇓P	**P**	**00 10 25.0**	**+0.6**
TAP	**Taipei**	**1.28**	**323**	*e*P	**P**	**00 10 24.9**	**+0.3**
TAP				S	**S**	**00 10 42.7**	**+1.8**
CHKT	**Chengkung**	**1.29**	**225**	*e*P	**P**	**00 10 22.6**	**-2.1**
CHKT				S	**S**	**00 10 37.4**	**-3.7**
IRIF	**Iriomote-Funau**	**1.29**	**75**	P	**P**	**00 10 24.7**	**-0.1**
IRIF				*e*S	**S**	**00 10 44.7**	**+3.5**
HATJ	**Hateruma jima**	**1.32**	**88**	P	**P**	**00 10 25.2**	**-0.1**
HATJ				*e*S	**S**	**00 10 44.6**	**+2.6**
SMLT	**Sun Moon Lake**	**1.34**	**265**	⇓*i*P	**P**	**00 10 24.9**	**-0.6**
SMLT				S	**S**	**00 10 41.1**	**-1.3**
TYC	**Yuchr**	**1.38**	**266**	⇓*i*P	**P**	**00 10 25.4**	**-0.6**
TYC				S	**S**	**00 10 44.0**	**+0.7**
TWS1	**Kuangyinshan**	**1.38**	**322**	P	**P**	**00 10 26.2**	**+0.2**
TWS1				S	**S**	**00 10 46.0**	**+2.7**
NSTT	**Nanjuang**	**1.38**	**297**	P	**P**	**00 10 26.5**	**+0.4**
NSTT				S	**S**	**00 10 44.3**	**+0.9**
YUS	**Yu-Shan**	**1.39**	**248**	⇓P	**P**	**00 10 25.6**	**-0.6**
YUS				S	**S**	**00 10 42.4**	**-1.2**
NCU	**National Centr**	**1.43**	**312**	*e*P	**P**	**00 10 26.8**	**+0.1**
TWY	**Chenhua**	**1.43**	**331**	*e*P	**P**	**00 10 27.0**	**+0.2**
ELDTW	**Lidau**	**1.48**	**237**	*e*P	**P**	**00 10 25.7**	**-1.7**
ELDTW				S	**S**	**00 10 43.0**	**-2.8**
TWQ1	**Liyutan**	**1.48**	**283**	⇓*i*P	**P**	**00 10 28.2**	**+0.7**
TWQ1				S	**S**	**00 10 48.2**	**+2.3**
HSN	**Hsinchu**	**1.49**	**302**	*e*P	**P**	**00 10 27.7**	**+0.1**
ALS	**Alishan**	**1.51**	**251**	⇓*i*P	**P**	**00 10 27.7**	**-0.1**
ALS				S	**S**	**00 10 46.5**	**0.0**
NSY	**Sanyi**	**1.51**	**286**	⇓*i*P	**P**	**00 10 28.9**	**+1.0**
NSY				S	**S**	**00 10 47.8**	**+1.3**
JKRS	**Kuro-shima**	**1.53**	**81**	P	**P**	**00 10 28.2**	**+0.1**
JKRS				*e*S	**S**	**00 10 52.1**	**+5.2**
WNT	**Mingjian**	**1.54**	**265**	*e*P	**P**	**00 10 28.7**	**+0.4**
WNT				S	**S**	**00 10 48.8**	**+1.7**
TCU	**Taichung**	**1.54**	**275**	⇓P	**P**	**00 10 29.0**	**+0.7**
TCU				S	**S**	**00 10 48.9**	**+1.6**
CHN5	**Tsauling**	**1.59**	**255**	⇓*i*P	**P**	**00 10 29.1**	**+0.1**
PCYT	**Pengchaiyu**	**1.63**	**351**	*e*P	**P**	**00 10 28.9**	**-0.7**
PCYT				S	**S**	**00 10 50.8**	**+1.3**
JIJ	**Ishigaki jima**	**1.67**	**78**	P	**P**	**00 10 29.5**	**-0.6**
JIJ				S	**S**	**00 10 53.6**	**+3.2**
TWG	**Pinlang**	**1.67**	**225**	*e*P	**P**	**00 10 28.3**	**-1.8**
TTN	**Taitung**	**1.68**	**222**	*e*P	**P**	**00 10 28.4**	**-1.8**
WGK	**Gukeng**	**1.68**	**259**	*e*P	**P**	**00 10 30.6**	**+0.5**
WGK				S	**S**	**00 10 51.8**	**+1.3**
STYT	**Tauyuan**	**1.69**	**240**	⇓P	**P**	**00 10 29.9**	**-0.5**
STYT				S	**S**	**00 10 50.7**	**-0.4**
CHN4	**Tsaushan**	**1.75**	**248**	*e*P	**P**	**00 10 31.3**	**+0.1**
CHN4				S	**S**	**00 10 54.3**	**+1.9**
WTP	**Ta-pu**	**1.77**	**245**	⇓P	**P**	**00 10 31.7**	**+0.2**
WTP				S	**S**	**00 10 54.2**	**+1.3**
CHY	**Chiayi**	**1.84**	**254**	*e*P	**P**	**00 10 33.4**	**+0.9**
CHY				S	**S**	**00 10 56.5**	**+1.8**
TWK	**Hsinying**	**1.87**	**247**	*e*P	**P**	**00 10 33.4**	**+0.5**
TWK				S	**S**	**00 10 56.9**	**+1.6**
SGST	**Jiashian**	**1.87**	**241**	*e*P	**P**	**00 10 33.2**	**+0.2**
SGST				S	**S**	**00 10 57.0**	**+1.5**
ECL	**Taimali**	**1.91**	**223**	*e*P	**P**	**00 10 31.5**	**-2.0**
WSF	**Szhu**	**1.99**	**260**	*e*P	**P**	**00 10 35.0**	**+0.4**
WSF				S	**S**	**00 11 00.3**	**+1.9**
SSD	**Sandimen**	**2.03**	**232**	*e*P	**P**	**00 10 35.0**	**-0.1**
SSD				S	**S**	**00 11 01.4**	**+2.1**
CHN8	**Yiju**	**2.08**	**252**	*e*P	**P**	**00 10 35.8**	**-0.1**
CHN8				S	**S**	**00 11 01.8**	**+1.3**
LAY	**Lan-yu**	**2.10**	**201**	*e*P	**P**	**00 10 33.3**	**-2.9**
TAW	**Tawu**	**2.13**	**219**	*e*P	**P**	**00 10 37.1**	**+0.5**
EAST	**Anshuo**	**2.13**	**221**	*e*P	**P**	**00 10 35.2**	**-1.5**
TWM1	**Shoushan**	**2.13**	**237**	*e*P	**P**	**00 10 38.3**	**+1.7**
TWM1				S	**S**	**00 11 05.7**	**+3.6**
JTJ	**Tarama**	**2.23**	**73**	P	**P**	**00 10 38.4**	**+0.4**
JTJ				*e*S	**S**	**00 11 07.6**	**+3.2**
SCZT	**Fangliau**	**2.29**	**225**	*e*P	**P**	**00 10 38.7**	**-0.2**
SCZT				S	**S**	**00 11 07.5**	**+1.6**
TWP	**Hsiaoliuchiu**	**2.47**	**228**	*e*P	**P**	**00 10 43.5**	**+2.0**
HEN	**Hengchun**	**2.49**	**217**	*e*P	**P**	**00 10 41.0**	**-0.9**
TWK1	**Hengchun**	**2.51**	**215**	*e*P	**P**	**00 10 41.0**	**-1.0**
TWK1				S	**S**	**00 11 12.0**	**+0.5**
WDGT	**Dungji**	**2.58**	**254**	*e*P	**P**	**00 10 42.2**	**-0.9**
WDGT				S	**S**	**00 11 11.2**	**-2.2**
PNG	**Penghu**	**2.60**	**261**	*e*P	**P**	**00 10 42.4**	**-1.0**
PNG				S	**S**	**00 11 13.6**	**-0.4**
JMJ	**Miyako jima 2**	**2.79**	**73**	*e*S	**S**	**00 11 21.8**	**+3.0**
JOGS	**Gusukube**	**2.88**	**74**	P	**P**	**00 10 48.2**	**+0.9**
JOGS				*e*S	**S**	**00 11 25.5**	**+4.6**
QZH	**Quanzhou**	**3.55**	**286**	⇑*i*P	**P**	**00 10 54.8**	**-2.0**
QZH				S	**S**	**00 11 32.4**	**-5.6**
QZH				Smax			
	comp=N,4μm,1.0s						
QZH				Smax			
	comp=E,2μm,0.9s						
QZH				LR	LR		
	comp=N,17μm,3.1s						

QZH				LR	LR		
	comp=E,9µm,2.7s						
KNM	**Kinmen**	3.60	277	*e*P	P	00 10 57.4	-0.2
KNM				S	S	00 11 38.0	-1.4
JAGN	**Aguni-jima**	5.11	59	P	P	00 11 20.0	+1.2
JAGN				*e*S	S	00 12 17.9	+0.6
JIH	**Iheya**	5.89	58	P	P	00 11 28.1	-1.6
JIH				*e*S	S	00 12 34.7	-2.2
JOW	**Kunigami**	6.04	61	Pn	P	00 11 28.6	-3.2
	comp=E,7.8nm,0.3s,baz=176,slow=12,SNR=13						
JOW				Sn	S	00 12 34.8	-5.7
	baz=153,slow=18						
JOW				LR	LR	00 14 12.6	
	comp=E,796nm,18.1s,baz=250,slow=43						
JOW	**Kunigami**	6.04	61	P	P	00 11 28.7	-3.1
JTK	**Tokunoshima**	7.03	56	P	P	00 11 42.3	-3.3
JTK				*e*S	S	00 13 02.7	-2.3
SSE	**Sheshan**	7.13	352	*e*P	P	00 11 45.6	-1.5
SSE				S	S	00 13 08.9	+1.3
SSE				Smax			
	comp=N,194nm,1.1s						
SSE				Smax			
	comp=E,319nm,1.1s						
SSE				LR	LR		
	comp=N,3µm,22.2s						
SSE				LR	LR		
	comp=E,3µm,22.2s						
SSE				LR	LR		
	comp=Z,6µm,15.5s						
JAM	**Amami Oshima**	7.84	55	P	P	00 11 52.9	-4.0
JAM				*e*S	S	00 13 20.3	-5.0
NJ2	**Nanjing**	8.58	340	*e*P	P	00 12 03.3	-3.9
NJ2				AP		00 12 09.4	
NJ2				S	S	00 13 37.0	-6.7
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s						
NJ2				AMB	AMB		
	comp=Z,1µm,3.6s						
NJ2				Smax			
	comp=N,920nm,0.9s						
NJ2				Smax			
	comp=E,740nm,1.1s						
NJ2				LR	LR		
	comp=N,11µm,15.7s						
NJ2				LR	LR		
	comp=E,6µm,13.5s						
NJ2				LR	LR		
	comp=Z,15µm,13.2s						
WHN	**Wuhan**	9.64	314	P	P	00 12 21.0	-0.8
WHN				S	S	00 14 06.3	-3.6
WHN				LR	LR		
	comp=N,2µm,6.6s						
WHN				LR	LR		
	comp=E,5µm,4.2s						
WHN				LR	LR		
	comp=Z,11µm,17.7s						
QIZ	**Qiongzhong**	12.66	249	*e*P	P	00 13 03.8	+1.2
QIZ				*e*S	S	00 15 24.0	+1.0
QIZ				LR	LR		
	comp=N,1µm,16.0s						
QIZ				LR	LR		
	comp=Z,1µm,19.3s						
QIZ	**Qiongzhong**	12.66	249	P	P	00 12 55.9	-6.7
TIA	**Tai'an**	12.97	341	*e*P	P	00 13 08.8	+2.1
TIA				LR	LR		
	comp=N,4µm,14.0s						
TIA				LR	LR		
	comp=E,2µm,14.0s						
ENH	**Enshi**	13.04	301	*e*P	P	00 13 06.0	-1.7
	comp=E,87nm,1.4s						
INCN	**Inchon**	13.92	14	P	P	00 13 20.6	+1.4
	comp=E,80nm,1.0s						
KS15	**Wonju Array Si**	14.20	18	*e*P	P	00 13 26.0	+3.1
GYA	**Guiyang**	14.41	283	⇑*i*P	P	00 13 24.8	-0.9
GYA				AP		00 13 33.1	
GYA				XP		00 13 36.5	
GYA				S	S	00 15 56.5	-8.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s						
GYA				LR	LR		
	comp=N,2µm,13.2s						
GYA				LR	LR		
	comp=E,4µm,15.9s						
GYA				LR	LR		
	comp=Z,5µm,15.3s						
XAN	**Xi'an**	15.41	313	P	P	00 13 37.3	-1.3
XAN				LR	LR		
	comp=N,920nm,20.0s						
XAN				LR	LR		
	comp=E,3µm,16.7s						
XAN				LR	LR		
	comp=Z,2µm,17.3s						
TIY	**Taiyuan**	16.08	330	PR		00 13 42.0	
TIY				LR	LR		
	comp=N,6µm,14.0s						
TIY				LR	LR		
	comp=Z,1µm,11.0s						
BJT	**Baijiatuau**	16.79	343	*e*P	P	00 13 55.3	-0.7
	comp=Z,25nm,0.9s						
BJI	**Beijing**	16.81	343	*e*P	P	00 13 57.3	+1.0
BJI				AMB	AMB		
	comp=Z,370nm,4.0s						
BJI				LR	LR		
	comp=N,3µm,14.3s						
BJI				LR	LR		
	comp=E,2µm,18.8s						
BJI				LR	LR		
	comp=Z,2µm,22.9s						
JHJ	**Hachijo jima 2**	17.77	55	LR	LR	00 20 23.7	
	comp=Z,688nm,20.0s,baz=285,slow=35						
CD2	**Chengdu**	17.87	297	⇓*i*P	P	00 14 08.6	-1.0
CD2				AP		00 14 16.0	
CD2				S	S	00 17 23.4	-1.0
CD2				XS		00 17 38.1	
CD2				SS	SS	00 17 46.1	-2.1
CD2				PCP	PcP	00 18 43.8	-1.3
CD2				AMB	AMB		
	comp=Z,100nm,0.8s						
CD2				AMB	AMB		
	comp=Z,680nm,9.6s						
CD2				LR	LR		
	comp=E,4µm,12.6s						
CD2				LR	LR		
	comp=Z,5µm,14.9s						
KMI	**Kunming**	17.88	278	*e*P	P	00 14 11.3	+1.5
KMI				AP		00 14 22.3	
KMI				PP	PP	00 14 25.8	+1.0
KMI				S	S	00 17 26.9	+2.1
KMI				XS		00 17 42.6	
KMI				SS	SS	00 17 51.6	+3.0
KMI				AMB	AMB		
	comp=Z,232nm,3.6s						
KMI				LR	LR		
	comp=N,4µm,16.4s						
KMI				LR	LR		
	comp=E,3µm,16.4s						
KMI				LR	LR		
	comp=Z,4µm,15.8s						
CBIJ	**Chichi jima**	18.15	76	LR	LR	00 20 31.6	
	comp=Z,1µm,19.9s,baz=235,slow=35						
MAT	**Matsushiro**	18.50	44	P	P	00 14 14.0	-3.3
MAT				S	S	00 17 45.0	+6.3
MAT	**Matsushiro**	18.50	44	P	P	00 14 14.0	-3.3
MAT				*e*S	S	00 17 45.0	+6.3
BTO	**Baotou**	19.52	331	*e*P	P	00 14 28.4	-0.6
BTO				AMB	AMB		
	comp=Z,47nm,1.0s						
BTO				LR	LR		
	comp=N,416nm,3.3s						
BTO				LR	LR		
	comp=E,664nm,5.6s						
CN2	**Changchun**	19.90	7	*e*P	P	00 14 32.4	-0.7
CN2				*e*XP		00 14 49.5	
CN2				*e*S	S	00 18 07.8	-1.7
CN2				AMB	AMB		
	comp=Z,20nm,1.0s						
CN2				AMB	AMB		
	comp=Z,200nm,5.0s						
CN2				LR	LR		
	comp=N,4µm,15.0s						
CN2				LR	LR		
	comp=E,2µm,15.0s						
CN2				LR	LR		
	comp=Z,4µm,14.0s						
LZH	**Lanzhou**	20.00	311	⇑P	P	00 14 34.4	+0.2
LZH				AP		00 14 37.8	
LZH				PP	PP	00 14 53.4	-0.8
LZH				*e*S	S	00 18 12.1	+0.5
LZH				SS	SS	00 18 40.3	-0.9
LZH				AMB	AMB		
	comp=Z,89nm,1.5s						
LZH				AMB	AMB		
	comp=Z,310nm,4.9s						
LZH				LR	LR		
	comp=E,2µm,12.9s						
LZH				LR	LR		
	comp=Z,4µm,16.8s						
NANT	**Nan**	20.81	260	P	P	00 14 42.8	+0.1
CHRT	**Chiangrai**	21.34	263	⇑P	P	00 14 48.6	+0.6
MDJ	**Mudanjiang**	21.39	14	P	P	00 14 47.8	-0.6
MDJ				AP		00 14 59.3	
MDJ				XP		00 15 05.8	
MDJ				S	S	00 18 42.5	+4.5
MDJ				PCS		00 22 28.3	
MDJ				AMB	AMB		
	comp=Z,11nm,1.3s,mb4.0						
MDJ				AMB	AMB		
	comp=Z,76nm,4.5s						
MDJ				LR	LR		
	comp=N,1µm,17.5s,MS4.7						
MDJ				LR	LR		
	comp=E,2µm,16.1s,MS4.7						
MDJ				LR	LR		
	comp=Z,2µm,13.3s,MS4.7						
MDJ	**Mudanjiang**	21.39	14	*e*P	P	00 14 45.7	-2.6
	comp=Z,77nm,1.4s,mb4.8						
MDJ				*e*		00 15 04.0	
CHG	**Chiang Mai**	22.39	261	⇓P	P	00 15 01.0	+2.5
	comp=Z,19nm,1.2s,mb4.4						
CM31	**Chiang Mai Arr**	22.50	260	*e*P	P	00 14 56.0	-3.7
	comp=Z,13nm,0.9s,mb4.4						
CMAR	**Chiang Mai Arr**	22.50	260	P	P	00 15 00.2	+0.6
	comp=Z,3.7nm,0.8s,mb3.9,baz=62,slow=8.7,SNR=15						
CMAR				PcP	PcP	00 18 53.9	+0.1
	comp=Z,5.2nm,1.2s,baz=14,slow=0.6,SNR=6.7						
CMAR				S	S	00 19 11.3	+13
	comp=Z,1.4nm,0.3s,baz=328,slow=30,SNR=4.6						
CMAR				ScP		00 22 36.5	
	comp=Z,1.1nm,0.5s,baz=3.1,slow=1.0,SNR=4.6						
CMAR				LR	LR	00 24 38.7	
	comp=Z,815nm,18.0s,MS4.2,baz=75,slow=39						
CMAR	**Chiang Mai Arr**	22.50	260	P	P	00 15 00.3	+0.6
CMAR						00 18 53.9	
CMAR				S	S	00 19 11.4	+13
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
CMAR				pmax	pmax		
	comp=Z,5.0nm,1.2s						
CMAR				smax			
	comp=E,1.0nm,0.4s						
CMAR				pmax	pmax		
	comp=E,1.0nm,0.5s						
CMAR				MLR	MLR		
	comp=Z,815nm,18.0s						
GTA	**Gaotai**	24.47	314	*e*P	P	00 15 18.8	+0.2
GTA				AP		00 15 32.8	
GTA				PP	PP	00 15 54.6	-0.7
GTA				PCP	PcP	00 18 58.4	+0.7
GTA				S	S	00 19 30.6	-2.3
GTA				SS	SS	00 20 26.8	-2.9
GTA				SCP		00 22 31.6	
GTA				SCS	ScS	00 26 20.4	+2.9
GTA				AMB	AMB		
	comp=Z,16nm,1.7s,mb4.2						
GTA				AMB	AMB		
	comp=Z,334nm,5.6s						
GTA				LR	LR		
	comp=N,737nm,14.8s,MS4.7						
GTA				LR	LR		
	comp=E,2µm,16.3s,MS4.7						
GTA				LR	LR		
	comp=Z,2µm,16.3s,MS4.7						
HIA	**Hailar**	25.29	356	*i* P	P	00 15 24.1	-2.3
HIA	**Hailar**	25.29	356	*e*P	P	00 15 25.3	-1.1
	comp=Z,18nm,0.9s,mb4.6						
ASAJ	**Asahikawa**	26.01	35	LR	LR	00 25 35.8	
	comp=Z,789nm,22.0s,MS4.2,baz=208,slow=36						
KLR	**Kul'dur**	26.23	14	*e*P	P	00 15 33.3	-1.9
KLR				MLR	MLR		
	comp=N,2µm,13.0s						
KLR				MLR	MLR		
	comp=Z,4µm,13.0s,MS5.1						
ULN	**Ulaanbaatar**	26.73	337	*d i*P	P	00 15 38.7	-1.1
ULN	**Ulaanbaatar**	26.73	337	*e*P	P	00 15 38.0	-1.8
	comp=Z,63nm,1.0s,mb5.1						
ULN				*e*PcP	PcP	00 19 02.5	-0.2
SONM	**Songino Array**	26.95	336	P	P	00 15 40.3	-1.5
	comp=Z,54nm,0.8s,mb5.1,baz=150,slow=8.9,SNR=307						
SONM				PcP	PcP	00 19 03.9	+0.8
	comp=Z,2.9nm,1.1s,baz=168,slow=3.1,SNR=4.3						
SONM				ScP		00 22 44.0	
	comp=Z,1.6nm,1.1s,baz=162,slow=3.9,SNR=5.6						
SHL	**Shillong**	27.68	280	*e*P	P	00 15 48.5	-0.2
YSS	**Yuzh-Sakhalins**	28.12	30	P	P	00 15 50.0	-2.4
YSS				MLR	MLR		
	comp=Z,900nm,16.0s,MS4.5						
YSS				MLR	MLR		
	comp=E,1µm,17.0s						
LSA	**Lhasa**	28.36	288	P	P	00 15 55.0	+0.3
LSA				LR	LR		
	comp=N,1µm,15.0s,MS4.9						
LSA				LR	LR		
	comp=E,2µm,15.0s,MS4.9						
ZAK	**Zakamensk**	30.21	335	⇑*i*P	P	00 16 07.9	-3.1
TLY	**Talaya**	31.14	337	⇓*i*P	P	00 16 18.3	-0.9
TLY				*e*S	S	00 21 20.6	+0.1
TLY				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.2						
TLY				MLR	MLR		
	comp=Z,2µm,15.0s,MS4.9						
TLY	**Talaya**	31.14	337	*e*P	P	00 16 17.8	-1.4
	comp=Z,35nm,0.8s,mb5.2						
MOY	**Mondy**	32.11	335	*e*P	P	00 16 25.9	-1.8
PKI	**Pulchoki**	33.38	284	*e*P	P	00 16 38.7	-0.3
	comp=Z,7.8nm,0.7s,mb4.8						
KKN	**Kakani**	33.48	284	*e*P	P	00 16 39.1	-0.8
	comp=Z,18nm,0.7s,mb5.1						
DMN	**Daman**	33.64	284	*e*P	P	00 16 41.5	+0.2
	comp=Z,14nm,0.8s,mb5.0						
GKN	**Gorkha**	34.04	285	*e*P	P	00 16 44.3	-0.4
BOD	**Bodaibo**	34.31	352	*e*P	P	00 16 37.2	-9.4
WMQ	**Urumqi**	34.55	313	⇓P	P	00 16 49.0	+0.1
WMQ				AP	pP	00 17 02.0	+0.8
WMQ				XP	sP	00 17 07.6	+0.6
WMQ				PP	PP	00 18 05.5	-0.6
WMQ				PPP	PPP	00 18 24.0	-0.2
WMQ				PCP	PcP	00 19 24.0	+0.9
WMQ				*e*S	S	00 22 13.0	-0.6
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,91nm,10.4s						
WMQ				LR	LR		
	comp=N,461nm,17.8s,MS4.4						
WMQ				LR	LR		
	comp=E,349nm,16.2s,MS4.4						
WMQ				LR	LR		
	comp=Z,464nm,16.2s,MS4.3						
KOLN	**Koldanda**	34.97	285	*e*P	P	00 16 52.0	-0.7
	comp=Z,25nm,1.1s,mb5.1						
KAKA	**Kakadu**	37.81	164	⇑*i*P	P	00 17 15.7	-1.0
	comp=Z,12nm,0.8s,mb4.7						
YAK	**Yakutsk**	38.33	6	*e*P	P	00 17 18.3	-2.2
YAK				*e*		00 18 51.6	
YAK				*e*SS	ScS	00 27 25.8	+0.3
YAK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
YAK				pmax	pmax		
	comp=N,3.0nm,0.9s						
YAK				MLR	MLR		
	comp=N,500nm,15.0s,MS4.5						
YAK				MLR	MLR		
	comp=Z,700nm,15.0s,MS4.6						
YAK				MLR	MLR		
	comp=E,300nm,13.0s,MS4.5						
YAK	**Yakutsk**	38.33	6	P	P	00 17 19.3	-1.2
	comp=E,18nm,0.5s,mb5.0						
MKAR	**Makanchi Array**	39.21	316	*i* P	P	00 17 27.3	-0.7
MKAR				pmax	pmax		
	comp=Z,54nm,1.0s						
DDI	**Dehra Dun**	39.72	289	*e*P	P	00 17 32.5	+0.1
NDI	**New Delhi**	40.54	287	*e*P	P	00 17 37.5	-1.7
SDNR	**Sundarnagar**	40.62	291	*e*P	P	00 17 39.6	-0.3
MA2	**Magadan**	40.74	22	*i* P	P	00 17 38.0	-2.6
ZAL	**Zalesovo**	40.98	327	P	P	00 17 40.8	-1.8
	comp=Z,28nm,0.9s,mb4.9,baz=358,slow=6.6,SNR=79						
ZAL				LR	LR	00 36 42.7	
	comp=Z,2µm,19.7s,MS5.0,baz=346,slow=39						
ZAL	**Zalesovo**	40.98	327	P	P	00 17 40.8	-1.8
ZAL				pmax	pmax		
	comp=Z,29nm,0.9s						
ZAL				MLR	MLR		
	comp=Z,2µm,19.7s						
PMG	**Port Moresby**	41.11	141	P	P	00 17 47.2	+3.1
	comp=Z,6.6nm,0.7s,mb4.4,baz=193,slow=6.5,SNR=3.5						
PMG	**Port Moresby**	41.11	141	*i* P	P	00 17 44.6	+0.5
PMG	**Port Moresby**	41.11	141	*e*P	P	00 17 45.0	+0.9
	comp=Z,16nm,1.1s,mb4.5						
KSH	**Kashi**	41.89	303	*e*P	P	00 17 52.0	+1.7
KSH				*e*AP	pP	00 18 05.5	+2.7
KSH				*e*PP	PP	00 19 33.5	+2.9
KSH				*e*PCP	PcP	00 19 48.5	+2.5
KSH				*e*PPP	PPP	00 20 05.3	+2.7
KSH				*e*SCP		00 23 32.3	
KSH				*e*PCS		00 23 38.8	
KSH				*e*S	S	00 24 05.6	+0.7
KSH				*e*SS	SS	00 27 07.1	0.0
KSH				*e*SCS	ScS	00 27 47.4	+0.7
KSH				AMB	AMB		
	comp=Z,260nm,3.5s						
KSH				LR	LR		
	comp=N,390nm,5.2s						
KSH				LR	LR		
	comp=E,350nm,5.2s						
NVS	**Novosibirsk**	42.23	327	⇑*i*P	P	00 17 50.0	-2.8
NVS				*e*		00 19 33.0	
NVS				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.7						
NVS				pmax	pmax		
	comp=E,14nm,0.9s						
TKM2	**Tokmak 2**	42.71	308	P	P	00 17 57.5	+0.5
	SNR=30						
TKM2	**Tokmak 2**	42.71	308	*e*P	P	00 17 57.5	+0.5
	comp=E,42nm,1.0s,mb5.1						
KZA	**Kyzart**	42.82	307	P	P	00 17 59.3	+1.5
	SNR=9.9						
KBK	**Karagaybulak**	43.13	307	P	P	00 18 01.3	+0.9
	SNR=18						
CHMS	**Chumysh**	43.34	308	P	P	00 18 02.2	+0.1
	SNR=14						
UCH	**Uchtor**	43.38	307	P	P	00 18 02.2	-0.2
	SNR=31						
UCH	**Uchtor**	43.38	307	*e*P	P	00 18 03.6	+1.2
	comp=E,43nm,1.0s,mb5.1						
FRU	**Bishkek**	43.41	308	*e*P	P	00 18 04.0	+1.4
FRU				pmax	pmax		
	comp=Z,50nm,2.0s,mb4.9						
FRU				MLR	MLR		
	comp=Z,1µm,18.0s,MS4.8						
AAK	**Ala-Archa**	43.46	307	P	P	00 18 03.5	+0.5
	SNR=9.2						
AAK	**Ala-Archa**	43.46	307	⇓*i*P	P	00 18 02.9	-0.2
AAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
AAK				MLR	MLR		
	comp=Z,1µm,18.0s,MS4.8						
AAK	**Ala-Archa**	43.46	307	*e*P	P	00 18 02.2	-0.9
	comp=Z,9.7nm,0.9s,mb4.5						
USP	**Ospenovka**	43.57	308	P	P	00 18 03.9	0.0
	SNR=8.1						
AML	**Almayashu**	43.97	306	P	P	00 18 08.4	+1.2
	SNR=18						
AML	**Almayashu**	43.97	306	*e*P	P	00 18 07.9	+0.7
	comp=Z,29nm,0.9s,mb5.0						
EKS2	**Erkin-Say**	43.99	307	P	P	00 18 07.6	+0.3
	SNR=12						
EKS2	**Erkin-Say**	43.99	307	*e*P	P	00 18 07.4	+0.1
	comp=Z,9.6nm,0.8s,mb4.6						
MBWA	**Marble Bar**	44.97	183	P	P	00 18 15.7	+0.2
	comp=Z,18nm,1.1s,mb4.8						
WRAB	**Tennant Creek**	45.22	164	*e*P	P	00 18 17.4	-0.1
	comp=Z,23nm,0.9s,mb5.0						
WRA	**Warramunga Arr**	45.22	164	P	P	00 18 17.9	+0.4
	comp=Z,11nm,0.9s,mb4.7,baz=346,slow=8.5,SNR=42						
WRA	**Warramunga Arr**	45.22	164	P	P	00 18 17.9	+0.4
WRA				pmax	pmax		
	comp=Z,11nm,0.9s						
WB2	**Warramunga Arr**	45.23	164	⇑*i*P	P	00 18 17.8	+0.3
TIXI	**Tiksi**	47.81	3	*e*P	P	00 18 35.1	-2.1
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,3µm,17.0s,MS5.3						
BVA0	**Borovoye Array**	48.48	321	P	P	00 18 41.2	-1.5
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
BRVK	**Borovoye**	48.56	321	*e*P	P	00 18 41.5	-1.7
	comp=Z,30nm,0.8s,mb5.4						
ASAR	**Alice Springs**	48.70	166	P	P	00 18 45.5	+0.8
	comp=Z,3.0nm,0.6s,mb4.5,baz=352,slow=13,SNR=43						
ASAR				LR	LR	00 40 40.8	
	comp=Z,130nm,18.3s,MS4.0,baz=340,slow=38						
ASPA	**Alice Springs**	48.70	166	⇑*i*P	P	00 18 45.6	+0.8
CTAO	**Charters Tower**	49.63	150	*e*P	P	00 18 53.0	+1.0
	comp=Z,23nm,1.3s,mb5.0						
ARU	**Arti**	55.89	323	⇓*i*P	P	00 19 36.4	-1.6
ARU				*e*		00 20 32.1	
ARU				*e*		00 21 40.1	
ARU				*e*S	S	00 27 22.2	+1.8
ARU				*e*		00 29 25.0	
ARU				*e*SS	SS	00 31 11.1	+4.5
ARU				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
ARU				MLR	MLR		
	comp=Z,400nm,21.0s,MS4.5						
ARU				MLR	MLR		
	comp=N,100nm,17.0s,MS4.4						
ARU				MLR	MLR		
	comp=E,300nm,20.0s,MS4.4						
ARU	**Arti**	55.89	323	*e*P	P	00 19 35.3	-2.6
	comp=E,22nm,0.9s,mb5.2						
ARU				*e*		00 20 35.0	
STKA	**Stephens Creek**	58.54	161	*e*P	P	00 19 57.4	+0.3
	comp=E,5.9nm,0.6s,mb4.8						
STKA	**Stephens Creek**	58.54	161	P	P	00 19 58.1	+1.0
	comp=E,3.0nm,0.7s,mb4.4,baz=330,slow=7.1,SNR=6.3						
STKA				LR	LR	00 47 45.6	
	comp=E,238nm,18.9s,MS4.3,baz=25,slow=39						
GNI	**Garni**	65.78	305	P	P	00 20 46.3	+1.0
	comp=E,5.0nm,0.7s,mb4.7,baz=8.3,slow=19,SNR=4.3						
GNI				LR	LR	00 53 35.4	
	comp=E,279nm,18.1s,MS4.5,baz=92,slow=40						
GNI	**Garni**	65.78	305	P	P	00 20 46.3	+1.0
GNI				pmax	pmax		
	comp=Z,5.0nm,0.7s						
GNI				MLR	MLR		
	comp=Z,279nm,18.1s						
ZEI	**Tsey**	65.89	308	*i* P	P	00 20 44.7	-1.2
ZEI				*i*		00 23 09.8	
ZEI				*e*S	S	00 29 30.5	+2.4
ZEI				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.1						
GOF	**Gofitskoye**	66.08	310	⇑*i*P	P	00 20 46.0	-1.1
GOF				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.2						
KIV	**Kislovodsk**	66.53	309	P	P	00 20 50.3	+0.3
	comp=Z,223nm,1.1s,SNR=7.5						
KIV	**Kislovodsk**	66.53	309	*d i*P	P	00 20 50.5	+0.5
KIV				*e*		00 21 18.4	
KIV				*e*		00 23 19.1	
KIV				*e*S	S	00 29 40.0	+4.2
KIV				pmax	pmax		
	comp=N,19nm,1.0s						
KIV				pmax	pmax		
	comp=E,24nm,1.0s						
KIV				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.4						
KIV				MLR	MLR		
	comp=N,272nm,20.0s,MS4.7						
KIV				MLR	MLR		
	comp=E,350nm,20.0s,MS4.7						
KIV				MLR	MLR		
	comp=Z,412nm,20.0s,MS4.6						
KIV	**Kislovodsk**	66.53	309	*e*P	P	00 20 49.4	-0.5
	comp=Z,57nm,1.1s,mb5.5						
VRSR	**Storozhevoye**	67.48	317	*e*P	P	00 20 55.2	-0.6
VRSR				pmax	pmax		

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             comp=Z,20nm,1.1s,mb5.1
VRSR                                  pmax    pmax
             comp=N,10.0nm,1.5s
VRSR                                  pmax    pmax
             comp=E,20nm,1.4s
OBN    Obninsk           68.30 322  i P       P          00 21 00.1  -0.8
OBN                                   pmax    pmax
             comp=Z,29nm,1.7s,mb5.0
OBN                                   MLR     MLR
             comp=Z,500nm,20.0s,MS4.7
SOC    Sochi             68.71 309  eP        P          00 21 02.5  -1.1
SOC                                 e                    00 21 26.0
SOC                                 e                    00 23 33.2
SOC                                 ePPP      PPP        00 25 12.1  -3.6
SOC                                 eS        S          00 30 03.0  +1.0
SOC                                   pmax    pmax
             comp=Z,38nm,1.1s,mb5.2
SOC                                   pmax    pmax
             comp=N,42nm,1.0s
SOC                                   pmax    pmax
             comp=E,57nm,1.3s
SOC                                   MLR     MLR
             comp=Z,472nm,16.0s,MS4.8
SOC                                   MLR     MLR
             comp=N,227nm,17.0s,MS4.7
SOC                                   MLR     MLR
             comp=E,351nm,20.0s,MS4.7
ILAR   Eielson Array     68.87  27    LR      LR         00 52 07.9
             comp=E,129nm,18.5s,MS4.2,baz=157,slow=37
KEV    Kevo              69.53 338  ep        P          00 21 06.7  -1.5
             comp=E,7.7nm,0.8s,mb4.7
KEV    Kevo              69.53 338  eP        P          00 21 06.7  -1.5
KEV                                   pmax    pmax
             comp=Z,8.0nm,0.8s,mb4.7
ANN    Anapa             70.02 311⇑eP         P          00 21 10.9  -0.7
ANN                                 i                    00 21 14.0
ANN                                   pmax    pmax
             comp=Z,73nm,1.0s,mb5.6
ARCES  ARCESS Array B    70.10 338    P       P          00 21 11.1  -0.6
             comp=Z,23nm,1.2s,mb5.0,baz=56,slow=4.4,SNR=5.2
ARCES                                 LR      LR         00 58 25.4
             comp=Z,451nm,18.9s,MS4.7,baz=24,slow=42
MALT   Malatya           70.98 304  eP        P          00 21 18.1  +0.6
             comp=Z,30nm,0.8s,mb5.3
KAMS   Al Khamasin       71.26 284    P       P          00 21 18.3  -1.2
HILS   Ha'il             71.43 292    P       P          00 21 20.5  +0.1
AFFS   'Afif             71.47 288    P       P          00 21 20.7   0.0
KAF    Kangasniemi       71.83 331  ep        P          00 21 21.0  -1.2
             comp=Z,1.4nm,0.4s,mb4.2
KAF    Kangasniemi       71.83 331  eP        P          00 21 21.0  -1.2
KAF                                   pmax    pmax
             comp=Z,1.0nm,0.4s,mb4.1
FINES  FINESS Array B    72.13 330    P       P          00 21 23.2  -0.8
             comp=Z,2.4nm,0.4s,mb4.5,baz=59,slow=6.1,SNR=44
FINES                                 LR      LR         00 56 33.5
             comp=Z,1μm,18.8s,MS5.1,baz=245,slow=39
FINES  FINESS Array B    72.13 330    P       P          00 21 23.2  -0.8
FINES                                 pmax    pmax
             comp=Z,2.0nm,0.4s
FINES                                 MLR     MLR
             comp=Z,1μm,18.8s
DAWY   Dawson            72.20  27  eP        P          00 21 24.1  -0.3
SIM    Simferopol'       72.25 312  eP        P          00 21 24.9  -0.1
SIM                                   pmax    pmax
             comp=Z,31nm,0.7s,mb5.3
TATS   Tathlith          72.49 284    P       P          00 21 26.5  -0.3
INK    Inuvik            72.98  22    P       P          00 21 28.2  -0.7
             comp=Z,3.4nm,0.6s,mb4.5,baz=306,slow=5.5,SNR=14
INK    Inuvik            72.98  22    P       P          00 21 28.2  -0.7
INK                                   pmax    pmax
             comp=Z,3.0nm,0.6s
INK    Inuvik            72.98  22  eP        P          00 21 27.1  -1.7
             comp=Z,4.8nm,0.7s,mb4.5
AKASG  Malin Array Be    73.71 319    P       P          00 21 32.0  -1.5
             comp=Z,8.5nm,0.7s,mb4.8,baz=57,slow=6.3,SNR=35
AKASG  Malin Array Be    73.71 319    P       P          00 21 32.0  -1.5
AKASG                                 pmax    pmax
             comp=Z,9.0nm,0.7s
ASF    Jabal al Asfar    73.99 298    P       P          00 21 37.3  +1.8
             comp=Z,12nm,0.9s,mb4.8,baz=288,slow=1.7,SNR=10.0
ASF                                   LR      LR         01 01 12.2
             comp=Z,199nm,18.0s,MS4.5,baz=162,slow=42
BRTR   Keskin Array B    74.14 307    P       P          00 21 36.1  -0.1
             comp=Z,22nm,0.9s,mb5.1,baz=106,slow=5.0,SNR=48
BRTR   Keskin Array B    74.14 307    P       P          00 21 36.1  -0.1
BRTR                                  pmax    pmax
             comp=Z,22nm,0.9s
CSS    Prodhromos        75.90 302  eP        P          00 21 43.8  -2.6
             comp=Z,40nm,0.8s,mb5.4
SUW    Suwalki           76.08 323  eP        P          00 21 47.1  +0.1
             comp=Z,79nm,1.0s,mb5.6
EIL    Elat              76.39 297    P       P          00 21 50.6  +1.3
             comp=Z,12nm,1.1s,mb4.7,baz=45,slow=8.9,SNR=4.3
EIL    Elat              76.39 297  eP        P          00 21 48.7  -0.6
             comp=Z,21nm,1.2s,mb4.9
ALWS   Ilw as Safayha    76.42 296    P       P          00 21 47.0  -2.5
JMOS   Jabal al Moall    76.43 296    P       P          00 21 48.2  -1.3
HAQS   Haql              76.62 296    P       P          00 21 50.7  +0.1
AYUS   'Aynunah          76.64 295    P       P          00 21 51.7  +1.0
BDAS   Al Bad'           76.69 295    P       P          00 21 51.3  +0.3
MLR    Muntele Rosu      77.54 314    P       P          00 21 55.5  +0.1
             comp=Z,26nm,1.2s,mb5.0,baz=203,slow=2.2,SNR=22
MLR                                   LR      LR         00 59 14.1
             comp=Z,530nm,21.9s,MS4.8,baz=60,slow=38
MLR    Muntele Rosu      77.54 314    P       P          00 21 55.5  +0.1
MLR                                   pmax    pmax
             comp=Z,26nm,1.2s
MLR                                   MLR     MLR
             comp=Z,530nm,21.9s
KWP    Kalwaria          78.01 319  eP        P          00 21 58.3  +0.5
             comp=Z,45nm,1.0s,mb5.3
HFS    Hagfors           78.24 331    P       P          00 21 59.4  +0.5
             comp=Z,5.4nm,0.8s,mb4.5,baz=104,slow=6.1,SNR=8.8
HFS    Hagfors           78.24 331    P       P          00 21 59.4  +0.5
HFS                                   pmax    pmax
             comp=Z,5.0nm,0.9s
KOLS   Kolonicke sedl    78.54 319  i P       P          00 22 01.5  +0.7
DLBC   Dease Lake        78.55  31  eP        P          00 22 01.7  +1.1
RES    Resolute Bay      78.66   9  eP        P          00 21 59.0  -1.9
             comp=Z,3.6nm,0.6s,mb4.5
NB2    NORSAR Subarra    78.87 332    P       P          00 22 01.2  -1.2
             comp=Z,3.1nm,0.7s,mb4.3,baz=58,slow=5.3
NOA    NORSAR Array B    78.87 332    P       P          00 22 01.7  -0.7
             comp=Z,4.9nm,0.8s,mb4.5,baz=58,slow=5.6,SNR=10
NOA                                   LR      LR         01 00 27.9
             comp=Z,717nm,19.4s,MS5.0,baz=65,slow=38
NOA    NORSAR Array B    78.87 332    P       P          00 22 01.7  -0.7
NOA                                   pmax    pmax
             comp=Z,5.0nm,0.8s
NOA                                   MLR     MLR
             comp=Z,717nm,19.5s
NOA    NORSAR Array B    78.87 332    P       P          00 22 01.7  -0.7
NOA                                   LR      LR         01 00 27.9
CRVS   Cervenica-Dubn    79.05 319  eP        P          00 22 03.0  -0.6
CRVS                                i                    00 22 07.1
JMIC   Jan Mayen         79.27 345    LR      LR         01 02 31.4
             comp=Z,598nm,18.6s,MS5.0,baz=82,slow=40
OJC    Ojcow             79.49 320  eP        P          00 22 06.1  +0.1
NIE    Niedzica          79.52 319  eP        P          00 22 07.0  +0.8
PSZ    Piszkesteto       80.41 318⇑eP         P          00 22 11.8  +0.9
OKC    Ostrava-Krasne    80.62 320  eP        P          00 22 10.4  -1.6
VYHS   Vyhne             80.80 319  i P       P          00 22 13.9  +0.9
VYHS                                i                    00 22 17.0
RPZ    Rata Peaks        80.85 147    LR      LR         00 55 26.9
             comp=Z,206nm,19.8s,MS4.5,baz=100,slow=34
DPC    Dobruska-Polom    81.44 321  eP        P          00 22 17.0  +0.7
DPC                                 ex        x          00 23 43.7
UPC    Upice             81.54 322  eP        P          00 22 17.9  +1.1
SMOL   Smolenice         81.63 320  eP        P          00 22 19.2  +1.9
VRAC   Vranov            81.76 320    P       P          00 22 19.9  +1.9
             comp=Z,5.1nm,0.8s,mb4.5,baz=52,slow=6.2,SNR=5.1
VRAC   Vranov            81.76 320    P       P          00 22 19.9  +1.9
VRAC                                  pmax    pmax
             comp=Z,5.0nm,0.8s
PKSM   Moragy            81.92 317⇓eP         P          00 22 18.6  -0.3
SKO    Skopje            81.92 312  eP        P          00 22 19.0   0.0
ZST    Bratislava        81.97 319  eP        P          00 22 22.6  +3.5
BRG    Berggiesshubel    82.53 323  eP        P          00 22 21.2  -0.7
BRG                                   pmax    pmax
             comp=Z,5.0nm,1.0s,mb4.5
BRG                                   MLR     MLR
             comp=N,790nm,19.3s,MS5.2
BRG                                   MLR     MLR
             comp=E,480nm,19.3s,MS5.2
BRG                                   MLR     MLR
             comp=Z,870nm,19.3s,MS5.1
BRG    Berggiesshubel    82.53 323  eP        P          00 22 21.2  -0.7
             comp=Z,5.0nm,1.0s,mb4.5
BRG                                   LR      LR
             comp=Z,870nm,19.3s,MS5.1
PRU    Pruhonice         82.62 322  eP        P          00 22 22.5  +0.1
YKW3   Yellowknife Ar    82.66  23  eP        P          00 22 22.1  -0.3
YKA    Yellowknife Ar    82.71  23    P       P          00 22 22.5  -0.1
             comp=Z,4.4nm,0.8s,mb4.5,baz=313,slow=4.8,SNR=77
YKA                                   LR      LR         01 06 49.0
             comp=Z,151nm,19.5s,MS4.4,baz=5.0,slow=41
SUMG   Summit            82.78 354  eP        P          00 22 22.9  +0.1
             comp=Z,7.1nm,0.7s,mb4.8
KHC    Kasperske Hory    83.58 321  eP        P          00 22 28.2  +0.9
GERES  GERESS Array B    83.65 321    P       P          00 22 28.7  +1.0
             comp=Z,4.8nm,0.9s,mb4.7,baz=56,slow=4.8,SNR=30
GERES  GERESS Array B    83.65 321    P       P          00 22 28.7  +1.1
GERES                                 pmax    pmax
             comp=Z,5.0nm,0.9s
MOA    Molln             83.81 320⇓iP         P          00 22 29.5  +1.0
             comp=Z,22nm,1.9s,mb5.0
MOX    Moxa              83.92 323  eP        P          00 22 30.3  +1.3
MOX                                   pmax    pmax
             comp=Z,30nm,1.7s,mb5.2
MOX                                   MLR     MLR
             comp=Z,800nm,18.0s,MS5.1
MOX    Moxa              83.92 323  i P       P          00 22 30.3  +1.3
             comp=Z,logA/T=1.2,mb5.1
MOX                                   L                  01 04 18.0
MOX    Moxa              83.92 323  eP        P          00 22 30.3  +1.3
             comp=Z,30nm,1.7s,mb5.2
MOX                                   LR      LR
             comp=Z,800nm,18.0s,MS5.1
OBKA   Obir              84.29 319⇑iP         P          00 22 31.3  +0.4
             comp=Z,5.9nm,0.8s,mb4.8
BOJS   Bojanci           84.34 318  i P       P          00 22 30.7  -0.6
LJU    Ljubljana         84.53 318  i P       P          00 22 26.1  -6.0
GRA1   Grafenberg Arr    84.63 323  eP        P          00 22 33.5  +1.0
             comp=Z,14nm,1.1s,mb5.0
GRA1                                  LR      LR
             comp=Z,600nm,19.5s,MS5.0
GRF    Grafenberg Arr    84.63 323  eP        P          00 22 33.5  +1.0
             comp=Z,14nm,1.1s,mb5.0
GRF                                   LR      LR
             comp=Z,600nm,19.5s,MS5.0
KBA    Koelnbreinsper    84.73 320⇑iP         P          00 22 33.8  +0.7
             comp=Z,13nm,1.2s,mb4.9
VOY    Vojsko            84.92 318  eP        P          00 22 33.3  -0.8
VOY                                 e                    00 22 36.9
WTTA   Wattenberg        85.65 320⇑iP         P          00 22 38.6  +1.0
             comp=Z,15nm,1.2s,mb5.1
KMBO   Kilima Mbogo      85.98 267    P       P          00 22 42.9  +2.8
             comp=Z,3.6nm,0.9s,mb4.6,baz=37,slow=8.6,SNR=11
KMBO                                  LR      LR         01 03 11.1
             comp=Z,76nm,19.1s,MS4.1,baz=274,slow=37
KMBO   Kilima Mbogo      85.98 267    P       P          00 22 42.9  +2.8
KMBO                                  pmax    pmax
             comp=Z,4.0nm,0.9s
KMBO                                  MLR     MLR
             comp=Z,77nm,19.1s
KMBO   Kilima Mbogo      85.98 267  eP        P          00 22 42.0  +2.0
             comp=Z,6.7nm,1.0s,mb4.8
TIP    Timpagrande       86.36 311  eP        P          00 22 41.8  +0.5
DAVOX  Davos             86.92 321    P       P          00 22 45.0  +1.1
             comp=Z,4.2nm,0.9s,mb4.7,baz=23,slow=20,SNR=3.8
DAVOX  Davos             86.92 321    P       P          00 22 45.0  +1.1
AQU    L'Aquila          87.05 315  eP        P          00 22 45.6  +1.0
             comp=Z,31nm,1.1s,mb5.5
BORG   Borgarnes         87.17 345    LR      LR         01 05 37.2
             comp=Z,11nm,20.9s,baz=335,slow=38
CDF    Champ du Feu      87.51 323  eP        P          00 22 46.6  -0.1
             comp=Z,45nm,1.4s,mb5.2
RPW    Rockport          88.06  37    P       P          00 22 50.8  +1.4
HINF   Hinteralfeld      88.08 323  eP        P          00 22 48.8  -0.6
HAU    Haudompre         88.25 323  eP        P          00 22 49.7  -0.5
HAU                                 eR
             comp=Z,576nm,17.5s
EKA    Eskdalemuir Ar    88.36 332    P       P          00 22 50.1  -0.4
             comp=Z,2.2nm,0.8s,mb4.5,baz=45,slow=1.2,SNR=5.3
EKA    Eskdalemuir Ar    88.36 332    P       P          00 22 50.2  -0.4
EKA                                   pmax    pmax
             comp=Z,2.0nm,0.8s
GSM    Grass Mountain    88.62  38    P       P          00 22 53.9  +1.9
MEZF   Maizieres J'vi    88.67 324  eP        P          00 22 52.0  -0.2
ETW    Entiat            89.20  37    P       P          00 22 56.3  +1.6
EDM    Edmonton          89.23  30  eP        P          00 22 55.5  +0.8
WTV    Waterville        89.35  37    P       P          00 22 56.8  +1.3
LPG    La Plagne         89.44 321  eP        P          00 22 56.1  +0.1
             comp=Z,15nm,0.7s,mb5.1
LPL    La Plagne         89.44 321  eP        P          00 22 56.0   0.0
             comp=Z,13nm,0.7s,mb5.1
PGF    Pioggiola         89.73 317  eP        P          00 22 57.3  -0.1
             comp=Z,23nm,0.9s,mb5.2
MBDF   Montbardon        89.87 320  eP        P          00 22 57.2  -0.8
             comp=Z,6.8nm,0.9s,mb4.7
SBF    Sospel            89.96 319  eP        P          00 22 57.7  -0.7
             comp=Z,14nm,0.7s,mb5.1
ORIF   Oris-en-Rattie    90.28 321  eP        P          00 22 59.7  -0.2
             comp=Z,10nm,0.8s,mb4.9
ORIF                                eR
             comp=Z,565nm,18.2s
HAWA   Hanford           90.35  38  eP        P          00 23 01.5  +1.2
             comp=Z,12nm,0.9s,mb5.2
SSF    Saint Saulge      90.36 323  eP        P          00 22 59.7  -0.5
             comp=Z,17nm,1.1s,mb5.0
SMF    Signal de Mont    90.43 323  eP        P          00 23 00.0  -0.6
             comp=Z,54nm,1.3s,mb5.4
NEW    Newport           90.53  35  eP        P          00 23 01.9  +0.9
             comp=Z,19nm,1.0s,mb5.4
FRF    La Foret Royal    90.60 319  eP        P          00 23 00.8  -0.7
             comp=Z,12nm,0.9s,mb4.9
AVF    Avril sur Loir    90.61 323  eP        P          00 23 00.7  -0.7
             comp=Z,27nm,1.1s,mb5.2
VIVF   Saint-Julien-l    91.02 321  eP        P          00 23 02.9  -0.5
             comp=Z,17nm,1.0s,mb5.0
LHEM   Herd Peak         91.52  43    P       P          00 23 07.9  +2.1
TCF    Toulx Ste Croi    91.54 323  eP        P          00 23 05.5  -0.3
             comp=Z,92nm,1.8s,mb5.5
WALA   Waterton Lakes    91.68  33  eP        P          00 23 06.8  +0.5
             comp=Z,9.6nm,0.9s,mb5.1
FCC    Fort Churchill    92.18  18  eP        P          00 23 07.8  -0.5
             comp=Z,5.8nm,1.0s,mb4.9
CAF    Calviac           92.46 322  eP        P          00 23 10.3  +0.3
             comp=Z,37nm,1.3s,mb5.3
LBCM   Butte Creek Ri    92.51  43    P       P          00 23 11.9  +1.5
BMO    Blue Mountains    92.53  38  eP        P          00 23 10.4  +0.1
             comp=Z,4.4nm,1.0s,mb4.8
RJF    Les Rejaudoux     92.53 323  eP        P          00 23 10.6  +0.3
             comp=Z,46nm,1.1s,mb5.5
RJF                                 eR
             comp=Z,470nm,17.5s
FFC    Flin Flon         92.86  24  eP        P          00 23 12.0  +0.5
             comp=Z,11nm,1.0s,mb5.2
CMB    Columbia Colle    94.73  45  eP        P          00 23 21.5  +1.0
HLID   Hailey            94.96  38  eP        P          00 23 23.3  +1.9
             comp=Z,4.5nm,1.1s,mb4.8
PPT    Papeete           95.28 107  eLR       LR         00 53 54.5
             comp=Z,376nm,23.5s,baz=285
NVAR   Mina Array Bea    95.82  43    P       P          00 23 26.8  +1.3
             comp=Z,1.9nm,0.7s,mb4.6,baz=293,slow=5.7,SNR=12
NVAR                                  LR      LR         00 59 37.7
             comp=Z,89nm,20.9s,MS4.2,baz=315,slow=31
TPH    Tonopah           96.72  43    P       P          00 23 29.8  +0.3
             comp=Z,3.2nm,0.8s,mb4.8
TBI    Tubuai            97.63 112  eLR       LR         00 54 58.9
             comp=Z,160nm,24.0s
PDAR   Pinedale Array    98.14  36    LR      LR         01 15 27.2
             comp=Z,69nm,18.1s,MS4.2,baz=178,slow=40
ULM    Lac du Bonnet     98.68  24    LR      LR         01 13 06.9
             comp=Z,162nm,19.2s,MS4.5,baz=316,slow=38
SYO    Syowa Base       109.63 202 ⇓Pdiff     Pdif       00 24 30.7  +4.4
SYO    Syowa Base       109.63 202 ⇓pPdiff               00 24 44.0
RKT    Rikitea          110.04 107  eLR       LR         01 00 44.1
             comp=Z,375nm,24.5s
VNA2   Neumayer--Watz   125.06 198⇓iP         PKPdf      00 28 59.3  +1.8
VNA1   Neumayer--Stat   125.45 198⇓iP         PKPdf      00 28 59.4  +1.1
SDV    Santo Domingo    144.93  23  ePKPdf    PKPdf      00 29 35.5  -0.2
ROSC   El Rosal         147.02  32    PKPbc   PKPdf      00 29 44.8  +5.5
             comp=Z,6.8nm,0.6s,baz=93,slow=22,SNR=3.9
OTAV   Otavalo          148.56  43  ePKPbc    PKPdf      00 29 47.0  +5.3
LPAZ   La Paz           167.51  54    PKP     PKPdf      00 30 09.6  +5.4
             comp=Z,1.1nm,0.7s,baz=344,slow=7.7,SNR=3.7
LPAZ                                  PKPab   PKPab      00 31 13.9  +1.8
             comp=Z,2.1nm,1.0s,baz=321,slow=3.6,SNR=3.6
LPAZ   La Paz           167.51  54    PKIKP   PKPdf      00 30 09.6  +5.4
LPAZ                                  pmax    pmax
             comp=Z,1.0nm,0.7s
LPAZ                                  pmax    pmax
             comp=Z,2.0nm,1.0s
BDFB   Brasilia         167.70 311    PKPab   PKPab      00 31 14.6  +1.7
             comp=Z,1.2nm,0.4s,baz=78,slow=7.1,SNR=3.7
CPUP   Villa Florida    177.68 187    PKP     PKPdf      00 30 13.8  +5.5
             comp=Z,0.0nm,0.4s,baz=215,slow=16,SNR=3.0
```

CSEM ***16*** *00:35:44.4±0.7, 38.66N×28.57W, h7^{km}±4^{km}, ML1.4, Error ellipse: s-maj=3.4km s-min=1.7km az=155.0, After PDA*

PDA ***16*** *00:35:44.4±0.7, 38.66N×28.57W, h7^{km}±4^{km}, MD3.0, ML1.4, Error ellipse: s-maj=3.4km s-min=1.7km az=155.0*

SVSA 16 00:35:44.4±0.7**, 38.66N×28.57W, h7**^{km}±4^{km}**, MD3.0, ML1.4, Error ellipse: s-maj=3.4km s-min=1.7km az=155.0, Azores Islands**

```
Code   Station Name       Δ°   AZ°     Phase ID              Time      Res
                                     Op        ISC         h  m  s     ISC
CALA   Caldeira           0.13 234  eP        Pg         00 35 46.9  -0.4
CALA                                eS        Sg         00 35 49.3  +0.1
HOR    Horta              0.14 200  eP        Pg         00 35 47.3  -0.1
PICO   Pico               0.19 145  eP        Pg         00 35 47.8  -0.6
PICO                                eS        Sg         00 35 51.0  -0.1
ROSA   Rosais             0.26  77  eP        Pg         00 35 49.1  -0.7
ROSA                                eS        Sg         00 35 53.0  -0.4
PMAN   Manadas            0.38  94  eS        Sg         00 35 56.0  -1.1
             34nm,0.2s
             34nm,0.2s
PID    Ribeirinha         0.41 121  eP        Pg         00 35 51.7  -1.0
```

IDC ***16*** *00:42:59.0±11.0, 17.26S×179.07W, h500^{km}±134^{km}, mb3.3/8, mb1 3.6/8, mb1mx3.3/16, Error ellipse: s-maj=91.3km s-min=34.1km az=164.0*

NEIC ***16*** *00:42:58.1±1.2, 17.59S×178.97W, h498^{km}±16^{km}, mb4.3/7, Error ellipse: s-maj=25.7km s-min=10.1km az=152.0*

ISC 16 00:42:56.8±1.5**, 17.6S**±0.2×**179.0W**±0.1**, h493**^{km}±21^{km}**, n22, σ0^{s}85**/21**, mb4.0**/12**, 1D, Fiji Islands region**

```
Code   Station Name       Δ°   AZ°     Phase ID              Time      Res
                                     Op        ISC         h  m  s     ISC
AFI    Afiamalu           7.88  63  ePn       P          00 44 52.5  -0.3
CTA    Charters Tower    32.94 260    P       P          00 48 52.5  +1.6
             2.8nm,0.7s,mb3.8,baz=59,slow=11,SNR=4.6
CTAO   Charters Tower    32.94 260  eP        P          00 48 50.2  -0.8
             4.9nm,0.9s,mb3.9
STKA   Stephens Creek    38.27 241⇓iP         P          00 49 37.0  +1.9
             3.5nm,0.5s,mb4.0
STKA   Stephens Creek    38.27 241    P       P          00 49 37.0  +1.9
             6.1nm,0.7s,mb4.2,baz=87,slow=9.7,SNR=18
WB2    Warramunga Arr    44.12 259  eP        P          00 50 21.7  -0.4
WRAB   Tennant Creek     44.12 259  eP        P          00 50 21.5  -0.6
             4.7nm,0.8s,mb4.0
WRA    Warramunga Arr    44.13 259    P       P          00 50 21.8  -0.4
             2.0nm,0.8s,mb3.6,baz=94,slow=7.8,SNR=14
ASAR   Alice Springs     44.32 254    P       P          00 50 24.1  +0.4
             16nm,0.7s,mb4.6,baz=88,slow=8.1,SNR=145
ASPA   Alice Springs     44.33 254  eP        P          00 50 24.1  +0.4
MIDW   Midway            45.60   2  eP        P          00 50 34.4  +0.8
             348nm,1.3s
KAKA   Kakadu            47.02 269  eP        P          00 50 44.7  +0.1
             8.6nm,0.4s,mb4.5
FORT   Forrest           49.62 244  eP        P          00 51 03.5  -0.5
             29nm,0.6s,mb4.8
FITZ   Fitzroy Crossi    52.52 260  eP        P          00 51 25.4   0.0
             7.4nm,1.6s,mb3.8
FITZ   Fitzroy Crossi    52.52 260    P       P          00 51 25.8  +0.4
             4.2nm,0.8s,mb3.8,baz=160,slow=11,SNR=10
MBWA   Marble Bar        57.59 256    P       P          00 51 59.2  -1.7
             51nm,1.5s,mb4.6
VNDA   Vanda             60.67 185    P       P          00 52 20.9  +0.2
             0.4nm,0.8s
NVAR   Mina Array Bea    79.62  44    P       P          00 54 13.9  +0.6
             0.8nm,0.8s,mb3.3,baz=228,slow=9.7,SNR=3.9
ENH    Enshi             83.65 304    P       P          00 54 29.4  -4.7
TXAR   Lajitas Array     86.33  58    P       P          00 54 47.6  +0.5
             0.6nm,0.8s,mb3.3,baz=232,slow=5.9,SNR=7.5
PDAR   Pinedale Array    87.54  44    P       P          00 54 51.1  -1.4
             0.3nm,0.5s,mb3.2,baz=214,slow=3.3,SNR=3.1
GERES  GERESS Array B   147.20 344    PKPbc   PKPdf      01 01 44.5  +4.0
             0.4nm,0.5s,slow=4.0,SNR=4.1
```

IDC ***16*** *00:42:55.0±1.3, 7.85S×125.60E, mb3.6/3, mb1 4.0/5, mb1mx3.9/12, ML3.5/3, Error ellipse: s-maj=68.8km s-min=21.5km az=67.0*

NEIC ***16*** *00:42:59.9±2.6, 8.11S×125.41E, h40^{km}±26^{km}, mb4.6/3, Error ellipse: s-maj=37.3km s-min=18.3km az=65.0*

ISC 16 00:42:58.8±2.2**, 8.18S**±0.08×**125.1E**±0.1**, h46**^{km}±21^{km}**, n13, σ1^{s}35**/19**, mb4.1**/6**, Timor region**

```
Code   Station Name       Δ°   AZ°     Phase ID              Time      Res
                                     Op        ISC         h  m  s     ISC
KAKA   Kakadu             8.43 123  eP        P          00 45 02.8  +1.6
             5.0nm,0.4s
KAKA                                eS        S          00 46 36.6  +0.6
FITZ   Fitzroy Crossi     9.88 177  eP        P          00 45 19.4  -1.7
             14nm,2.0s
FITZ                                eS        S          00 47 04.4  -7.3
FITZ   Fitzroy Crossi     9.88 177    Pn      P          00 45 21.9  +0.7
             0.5nm,0.3s,baz=7.0,slow=10.0,SNR=14
FITZ                                  Sn      S          00 47 11.9  +0.2
             0.8nm,0.3s,baz=152,slow=3.5,SNR=5.4
WRAB   Tennant Creek     14.70 144  eP        P          00 46 23.2  -2.5
             14nm,1.0s
WRA    Warramunga Arr    14.70 144    Pn      P          00 46 25.6  -0.1
             0.3nm,0.3s,baz=319,slow=13,SNR=23
WRA                                   Sn      S          00 49 07.3  -0.6
             0.2nm,0.3s,baz=320,slow=23,SNR=4.7
WB2    Warramunga Arr    14.71 144  eP        P          00 46 22.7  -3.0
WB2                                 eS        S          00 49 00.2  -7.8
ASAR   Alice Springs     17.54 152    P       P          00 47 02.9  +1.1
             0.2nm,0.3s,baz=333,slow=11,SNR=18
ASAR                                  S       S          00 50 14.2  +0.9
             0.0nm,0.3s,baz=314,slow=20,SNR=4.3
CMAR   Chiang Mai Arr    37.00 316    P       P          00 50 07.8  +1.8
             0.4nm,0.4s,mb3.6,baz=134,slow=7.1,SNR=4.5
SONM   Songino Array     58.19 345    P       P          00 52 49.4  -1.3
             0.3nm,0.8s,mb3.4,baz=207,slow=6.4,SNR=2.6
ZAL    Zalesovo          70.60 336    P       P          00 54 10.9  -0.3
             0.5nm,0.4s,mb3.8,baz=8.3,slow=3.4,SNR=4.3
VNDA   Vanda             71.91 172    P       P          00 54 17.0  -1.7
             5.3nm,1.5s,mb4.2
MAW    Mawson            72.12 201    P       P          00 54 22.0  +1.9
             16nm,1.6s,mb4.7
SBA    Scott Base        72.85 172  eP        P          00 54 24.2  -0.1
             12nm,1.4s,mb4.6
```

ISC 16 00:48:35.3±0.9**, 46.40N**±0.06×**15.09E**±0.06**, n6, σ0^{s}55**/9**, 3C, Northwestern Balkan Peninsula**

```
Code   Station Name       Δ°   AZ°     Phase ID              Time      Res
                                     Op        ISC         h  m  s     ISC
PERS   Pernice            0.23   5  i Pg      Pg         00 48 40.5  +0.6
GROS   Grobnik            0.29  78  i Pg      Pg         00 48 41.4  +0.3
DOBS   Dobrina            0.37 134  i Pg      Pg         00 48 42.7  +0.1
OBKA   Obir               0.39 286⇑iPG        Pg         00 48 42.7  -0.4
OBKA                                i SG      Sg         00 48 49.2  +1.0
             31nm,0.8s
ARSA   Arzberg            0.90  19⇑iPG        Pg         00 48 52.5  -0.7
ARSA                                i SG      Sg         00 49 05.4  +0.2
             1.9nm,0.4s
KBA    Koelnbreinsper     1.38 300⇑iPG        Pg         00 49 02.0  -0.8
KBA                                 i SG      Sg         00 49 20.9  -0.2
             4.4nm,0.6s
```

ISC 16 00:50:36.9±1.0**, 46.40N**±0.06×**15.06E**±0.06**, n6, σ0^{s}65**/9**, 2C-1D, Northwestern Balkan Peninsula**

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Code   Station Name       Δ°   AZ°     Phase ID              Time      Res
                                     Op        ISC         h  m  s     ISC
PERS   Pernice            0.24   9  i Pg      Pg         00 50 42.3  +0.7
GROS   Grobnik            0.31  79  i Pg      Pg         00 50 43.3  +0.2
OBKA   Obir               0.37 287⇑iPG        Pg         00 50 44.6  +0.3
OBKA                                i SG      Sg         00 50 50.3  +1.1
             20nm,0.5s
DOBS   Dobrina            0.38 132  i Pg      Pg         00 50 44.4  -0.1
ARSA   Arzberg            0.91  20⇓iPG        Pg         00 50 54.2  -0.8
ARSA                                i SG      Sg         00 51 07.3  +0.3
             2.6nm,0.3s
KBA    Koelnbreinsper     1.36 300⇑iPG        Pg         00 51 03.1  -1.0
KBA                                 i SG      Sg         00 51 21.5  -0.7
             3.7nm,0.5s
```

IDC 16 01:12:06.4±5.0**,15.56S**×**172.95W,mb3.8**/4**,mb1 4.0**/4**, mb1mx3.7**/16**,Error ellipse: s-maj=220.0km s-min=36.0km az=136.0,Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	44.34	240	P	P	01 20 19.1	-1.1
	0.8nm,0.8s,baz=80,slow=18,SNR=3.7						
WRA	Warramunga Arr	50.23	257	P	P	01 21 04.3	-2.3
	0.3nm,0.5s,baz=96,slow=7.1,SNR=7.1						
ASAR	Alice Springs	50.48	252	P	P	01 21 06.2	-2.2
	3.8nm,0.4s,baz=89,slow=8.1,SNR=72						
ILAR	Eielson Array	82.51	11	P	P	01 24 30.6	-1.4
	0.3nm,0.8s,baz=214,slow=6.5,SNR=4.1						

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*CSEM **16** 01:43:01.3±0.1,38.46N×39.25E,h10^{km},MD2.9,Error ellipse: s-maj=3.4km s-min=2.8km az=138.0*
*ISK **16** 01:43:02.0,38.59N×39.14E,h33^{km},MD2.9*
ISC 16 01:43:01.5±0.6**,38.45N**±0.04×**39.27E**±0.05**,h10^{km},n10, σ0^{s}53**/15**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ELZG	Elazig	0.23	282	*i* P	Pg	01 43 06.6	+0.2
ELZG				*i* S	Sg	01 43 10.0	+0.2
PTK	Pertek	0.45	12	*i* PG	Pg	01 43 10.8	+0.1
PTK				*i* SG	Sg	01 43 17.6	+0.7
MYA	Malataya	0.68	260	PG	Pg	01 43 14.8	-0.4
MALT	Malatya	0.68	259	PG	Pg	01 43 14.5	-0.7
MALT	Malatya	0.68	259	*i* P	Pb	01 43 14.5	-0.5
MALT				*i* S	Sb	01 43 24.1	0.0
DIY	Diyarbakir	0.93	126	PN	Pn	01 43 21.0	+0.5
BINT	Bingol	1.04	65	*e*PN	Pn	01 43 21.7	-0.4
URFA	Urfa	1.07	200	*e*PN	Pn	01 43 23.4	+1.0
URFA				*e*SN	Sn	01 43 37.9	+0.5
GZT	Gaziantep	1.74	232	*i* P	Pn	01 43 32.0	-0.1
GZT				*i* S	Sn	01 44 00.1	+5.7
BTMT	Batman	1.76	98	*e*PN	Pn	01 43 31.4	-1.0

IDC 16 01:54:57.5±1.3**,21.43N**×**143.80E,mb3.8**/4**,mb1 4.0**/4**, mb1mx3.6**/21**,Error ellipse: s-maj=99.8km s-min=26.6km az=101.0,Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	42.15	193	P	P	02 02 51.9	-1.7
	0.7nm,0.7s,baz=14,slow=8.6,SNR=8.6						
ASAR	Alice Springs	45.85	193	P	P	02 03 21.3	-2.1
	0.2nm,0.4s,baz=14,slow=7.4,SNR=3.7						
YKA	Yellowknife Ar	76.42	28	P	P	02 06 48.7	-1.5
	0.1nm,0.4s,baz=290,slow=5.6,SNR=3.9						
FINES	FINESS Array B	83.67	335	P	P	02 07 27.8	-1.2
	7.8nm,1.2s,baz=90,slow=3.8,SNR=4.2						

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*NEIC **16** 01:55:54.2±0.3,21.28N×144.29E,h20^{km},mb4.4/19,Error ellipse: s-maj=12.3km s-min=7.8km az=93.0*
*IDC **16** 01:55:59.5±0.7,21.34N×144.08E,h61^{km}±6^{km},mb3.8/10, mb1 4.1/10,mb1mx3.9/21,Error ellipse: s-maj=25.5km s-min=14.3km az=99.0*
ISC 16 01:55:58.0±0.4**,21.29N**±0.07×**144.2E**±0.1**,h62^{km}, h62^{km}**±2.9^{km}**:pP-P,n36,σ0^{s}86**/36**,mb4.3**/29**,1C,Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GUMO	Guam	7.69	175	P	P	01 57 42.8	-6.9
MA2	Magadan	38.54	5	P	P	02 03 11.6	-4.3
	16nm,1.0s,mb4.7						
ULN	Ulaanbaatar	39.85	321	P	P	02 03 28.2	+1.2
	1.9nm,0.8s,mb3.9						
SONM	Songino Array	40.23	320	P	P	02 03 30.0	-0.1
	0.6nm,0.5s,mb3.6,baz=128,slow=6.7,SNR=9.3						
SONM				pP	pP	02 03 44.3	-1.5
	0.4nm,0.6s,baz=143,slow=7.3,SNR=2.6						
WRAB	Tennant Creek	42.07	194	*e*P	P	02 03 44.8	-0.8
	8.1nm,0.8s,mb4.4						
WB2	Warramunga Arr	42.08	194	⇑*i*P	P	02 03 45.8	+0.1
WRA	Warramunga Arr	42.08	194	P	P	02 03 45.1	-0.7
	2.6nm,0.6s,mb4.1,baz=14,slow=8.8,SNR=24						
WRA				pP	pP	02 04 02.6	+1.2
	1.0nm,0.6s,baz=14,slow=7.9,SNR=3.2						
FITZ	Fitzroy Crossi	43.14	206	*e*P	P	02 03 55.4	+1.0
	5.9nm,1.5s,mb4.1						
ASAR	Alice Springs	45.78	193	P	P	02 04 15.1	-0.4
	0.9nm,0.5s,mb3.9,baz=19,slow=8.5,SNR=15						
ASAR				pP	pP	02 04 31.2	-0.1
	0.6nm,0.8s,baz=11,slow=7.3,SNR=2.9						
ASPA	Alice Springs	45.78	193	*e*P	P	02 04 15.7	+0.2
ZAL	Zalesovo	55.10	322	P	P	02 05 25.3	-0.6
	1.2nm,0.4s,mb4.3,baz=36,slow=1.5,SNR=7.0						
TKM2	Tokmak 2	60.30	308	*e*P	P	02 06 03.4	+0.8
	2.5nm,0.8s,mb4.3						
UCH	Uchtor	61.14	307	*e*P	P	02 06 09.6	+1.2
	2.4nm,0.9s,mb4.3						
EKS2	Erkin-Say	61.65	308	*e*P	P	02 06 11.7	-0.1
	2.9nm,1.1s,mb4.3						
AML	Almayashu	61.75	307	*e*P	P	02 06 13.0	+0.6
	3.9nm,1.0s,mb4.5						
ILAR	Eielson Array	62.00	27	P	P	02 06 11.9	-1.8
	1.9nm,0.9s,mb4.2,baz=257,slow=5.8,SNR=13						
ILAR				pP	pP	02 06 29.1	-1.2
	1.0nm,1.0s,baz=262,slow=7.1,SNR=2.8						
BRVK	Borovoye	63.63	320	P	P	02 06 24.4	-0.4
	5.2nm,0.9s,mb4.6						
INK	Inuvik	67.59	23	*e*P	P	02 06 49.3	-0.4
	2.7nm,0.9s,mb4.3						
ARU	Arti	70.12	324	P	P	02 07 04.8	-0.7
YKA	Yellowknife Ar	76.40	28	P	P	02 07 42.3	+0.2
	1.3nm,0.6s,mb4.0,baz=292,slow=5.6,SNR=20						
YKA				pP	pP	02 07 58.2	-1.1
	0.4nm,0.6s,baz=292,slow=5.7,SNR=3.2						
YKA	Yellowknife Ar	76.40	28	P	P	02 07 42.3	+0.2
YKA				pP	pP	02 07 58.2	-1.1
ARCES	ARCESS Array B	79.59	342	P	P	02 07 58.7	-0.9
	2.1nm,0.8s,mb4.1,baz=74,slow=8.8,SNR=4.6						
ARCES	ARCESS Array B	79.59	342	P	P	02 07 58.7	-1.0
NEW	Newport	79.99	42	*e*P	P	02 08 02.1	-0.1
	2.2nm,0.8s,mb4.1						
BMO	Blue Mountains	81.08	45	*e*P	P	02 08 08.6	+0.6
	2.8nm,0.8s,mb4.2						
CMB	Columbia Colle	81.30	53	*e*P	P	02 08 09.7	+0.4
	2.8nm,0.8s,mb4.2						
NVAR	Mina Array Bea	82.69	52	P	P	02 08 17.9	+1.5
	1.4nm,0.7s,mb4.1,baz=272,slow=6.2,SNR=12						
KAF	Kangasniemi	83.47	335	*e*p	P	02 08 18.6	-1.3
FINES	FINESS Array B	83.94	335	P	P	02 08 21.9	-0.4
	2.0nm,0.5s,mb4.5,baz=72,slow=5.2,SNR=27						
TPNV	Topopah Spring	84.76	52	*e*P	P	02 08 27.6	+0.7
	2.4nm,0.8s,mb4.4						
HWUT	Hardware Ranch	86.21	47	*e*P	P	02 08 32.9	-1.1
	5.4nm,1.1s,mb4.7						
SUMG	Summit	86.36	1	*e*P	P	02 08 34.9	+0.9
	3.9nm,0.7s,mb4.8						
FCC	Fort Churchill	87.01	26	*e*P	P	02 08 37.4	-0.1
	1.8nm,0.7s,mb4.4						
PDAR	Pinedale Array	87.05	45	P	P	02 08 39.6	+1.6
	0.3nm,0.5s,mb3.8,baz=27,slow=1.0,SNR=4.4						
ANMO	Albuquerque	92.78	51	*e*P	P	02 09 05.8	+0.6
	1.5nm,0.9s,mb4.4						
SCHQ	Schefferville	99.69	18	P	P	02 09 34.3	-1.7
	12nm,1.1s,mb5.2						

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*LDG **16** 02:01:16.2±0.3,12.11S×167.07E,h10^{km},Mb4.6/2, Ms4.2/1,Error ellipse: s-maj=49.7km s-min=16.0km az=88.0*
*IDC **16** 02:01:44.4±1.0,11.94S×166.72E,h215^{km}±8^{km},mb4.0/13, mb1 4.1/14,mb1mx4.0/20,Error ellipse: s-maj=15.1km s-min=11.5km az=146.0*
*SYO **16** 02:01:44.2,11.84S×166.79E,h224^{km},MB4.6*
*NEIC **16** 02:01:46.2±2.4,11.87S×166.73E,h241^{km}±22^{km}, mb4.6/19,Error ellipse: s-maj=13.6km s-min=10.2km az=176.0*
*BJI **16** 02:01:46.2,11.90S×166.70E,h241^{km},mB5.2,mb4.6*
ISC 16 02:01:44.1±2.7**,11.93S**±0.09×**166.70E**±0.07**, h229^{km}**±26^{km}**,h210^{km}**±3.5^{km}**:pP-P,n67,σ1^{s}04**/42**, mb4.4**/28**,1C-4D,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	19.37	276	P	P	02 05 55.9	+1.4
	1.3nm,0.3s,baz=321,slow=11,SNR=3.6						
PMG	Port Moresby	19.37	276	*e*P	P	02 05 54.1	-0.3
	18nm,0.9s						
AFI	Afiamalu	21.07	98	P	P	02 06 11.0	-0.3
	36nm,0.9s,mb4.9						
CTA	Charters Tower	21.25	245	⇓*i*P	P	02 06 14.6	+1.5
	9.0nm,0.6s,mb4.5						
CTA	Charters Tower	21.25	245	P	P	02 06 14.8	+1.7
	20nm,0.8s,mb4.7,baz=76,slow=12,SNR=21						
CTAO	Charters Tower	21.25	245	*e*P	P	02 06 14.5	+1.4
	28nm,1.0s,mb4.8						
URZ	Urewera	27.82	162	P	P	02 07 14.4	+0.1
	6.5nm,0.5s,mb4.5,baz=164,slow=11,SNR=5.1						
STKA	Stephens Creek	30.47	225	*e*P	P	02 07 38.4	+0.6
	5.6nm,0.8s,mb4.2						
STKA	Stephens Creek	30.47	225	P	P	02 07 38.5	+0.7
	6.4nm,0.7s,mb4.3,baz=45,slow=8.0,SNR=21						
STKA				pP	pP	02 08 19.3	-4.7
	1.7nm,0.8s,baz=38,slow=7.1,SNR=2.1						
STKA	Stephens Creek	30.47	225	*e*P	P	02 07 38.0	+0.2
RPZ	Rata Peaks	31.89	174	P	P	02 07 49.8	-0.2
	28nm,1.0s,mb4.8,baz=52,slow=3.9,SNR=4.2						
WB2	Warramunga Arr	32.06	251	⇓*i*P	P	02 07 50.8	-1.0
WRAB	Tennant Creek	32.06	252	*e*P	P	02 07 50.8	-1.0
	9.8nm,0.8s,mb4.4						
WRA	Warramunga Arr	32.08	251	P	P	02 07 51.0	-0.9
	4.5nm,0.6s,mb4.2,baz=84,slow=8.7,SNR=52						
WRA				pP	pP	02 08 35.0	-3.4
	1.9nm,0.8s,baz=82,slow=9.0,SNR=3.5						
WRA				PcP	PcP	02 10 36.3	+0.7
	0.8nm,0.6s,baz=78,slow=3.5,SNR=6.1						
WRA				S	S	02 12 45.7	-0.3
	0.5nm,0.8s,baz=80,slow=14,SNR=2.9						
ASAR	Alice Springs	33.25	245	P	P	02 08 01.1	-0.9
	5.0nm,0.5s,mb4.3,baz=74,slow=9.7,SNR=65						
ASAR				pP	pP	02 08 44.9	-3.9
	3.2nm,0.7s,baz=73,slow=9.3,SNR=6.0						
ASAR				PcP	PcP	02 10 39.1	+0.3
	0.8nm,0.6s,baz=72,slow=2.2,SNR=7.3						
ASAR				ScP		02 14 06.2	
	2.1nm,0.8s,baz=81,slow=3.5,SNR=15						
ASPA	Alice Springs	33.25	245	*e*P	P	02 08 01.1	-0.8
KAKA	Kakadu	33.51	265	*e*P	P	02 08 03.6	-0.6
	9.3nm,0.3s,mb4.8						
FITZ	Fitzroy Crossi	40.07	256	*e*P	P	02 08 59.5	+0.5
	17nm,1.0s,mb4.4						
FITZ	Fitzroy Crossi	40.07	256	P	P	02 08 59.6	+0.6
	14nm,0.8s,mb4.4,baz=110,slow=3.6,SNR=38						
FITZ				pP	pP	02 09 45.1	-2.1
	4.6nm,1.0s,baz=119,slow=4.6,SNR=2.7						
FORT	Forrest	40.32	236	⇑*i*P	P	02 09 01.7	+0.8
	44nm,0.7s,mb5.0						
MBWA	Marble Bar	45.81	252	*e*P	P	02 09 45.6	+0.5
	12nm,0.8s,mb4.3						
MBWA				*e*		02 10 25.7	
VNDA	Vanda	65.63	181	P	P	02 12 04.0	-1.2
	1.1nm,0.6s,mb3.7,baz=344,slow=5.5,SNR=11						
VNDA	Vanda	65.63	181	*e*P	P	02 12 04.6	-0.6
	1.5nm,0.7s,mb3.7						
CASY	Casey	65.90	202	P	P	02 12 13.9	+6.9
	20nm,0.6s,mb4.9						
SBA	Scott Base	65.92	180	P	P	02 11 57.6	-9.4
	42nm,1.6s,mb4.8						
COCO	West Island	68.13	262	*e*P	P	02 12 20.5	-1.3
	47nm,0.7s,mb5.2						
KMI	Kunming	72.38	301	*e*P	P	02 12 50.0	+2.7
KMI				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.7						
MA2	Magadan	72.41	352	*e*P	P	02 12 50.4	+3.5
	comp=Z,13nm,1.0s,mb4.5						
HIA	Hailar	73.60	330	P	P	02 12 53.4	-0.6
	comp=Z,11nm,1.2s,mb4.3						
QSPA	South Pole Qui	78.08	180	⇓*i*P	P	02 13 19.9	+1.4
	comp=Z,8.7nm,0.9s,mb4.4						
ULN	Ulaanbaatar	79.56	324	*e*P	P	02 13 27.6	+0.5
	comp=Z,4.6nm,0.9s,mb4.1						
SONM	Songino Array	79.93	324	P	P	02 13 30.4	+1.4
	comp=Z,1.1nm,0.8s,mb3.6,baz=136,slow=6.1,SNR=8.5						
MCK	McKinley	82.68	18	*e*P	P	02 13 40.2	-2.7
	comp=Z,49nm,1.9s,mb4.9						
COLA	College	83.83	18	*e*P	P	02 13 48.0	-0.7
	comp=Z,12nm,1.1s,mb4.5						
YBH	Yreka Blue Hor	83.84	45	P	P	02 13 50.5	+1.2
	comp=Z,2.6nm,1.1s,mb3.9,baz=177,slow=1.6,SNR=4.4						
ILAR	Eielson Array	84.05	18	P	P	02 13 49.5	-0.4
	comp=Z,5.9nm,0.6s,mb4.5,baz=240,slow=4.9,SNR=66						
NVAR	Mina Array Bea	85.88	50	P	P	02 14 00.4	+0.9
	comp=Z,1.1nm,0.7s,mb3.7,baz=232,slow=9.1,SNR=10						
SYO	Syowa Base	91.21	197	⇓P	P	02 14 24.5	+0.6
GCMT	Greycliff	94.06	44	*e*P	P	02 14 32.3	-5.2
YKA	Yellowknife Ar	95.33	27	P	P	02 14 41.8	-1.1
	comp=Z,0.5nm,0.5s,mb3.9,baz=258,slow=4.7,SNR=16						
YKA	Yellowknife Ar	95.33	27	P	P	02 14 41.8	-1.1
ARCES	ARCESS Array B	117.42	346	PKP	PKPdf	02 20 03.3	+1.4
	comp=Z,4.2nm,0.8s,baz=81,slow=2.2,SNR=8.8						
LPAZ	La Paz	118.95	116	PKP	PKPdf	02 20 08.8	+2.6
	comp=Z,0.8nm,0.7s,baz=302,slow=6.5,SNR=4.6						
LPAZ	La Paz	118.95	116	PKP	PKPdf	02 20 08.8	+2.6
KAF	Kangasniemi	122.40	339	*e*p	PKPdf	02 20 11.9	+0.2
	comp=Z,0.4nm,0.4s						
FINES	FINESS Array B	122.93	339	PKP	PKPdf	02 20 14.3	+1.5
	comp=Z,2.6nm,1.0s,baz=90,slow=1.9,SNR=7.7						
GERES	GERESS Array B	136.91	334	PKP	PKPdf	02 20 41.5	+2.0
	comp=Z,0.6nm,0.7s,baz=72,slow=4.2,SNR=3.9						
HAU	Haudompre	140.46	339	*e*PKP1	PKPdf	02 20 45.5	-0.5
SSF	Saint Saulge	142.23	341	*e*PKP1	PKPdf	02 20 47.2	-1.9
	comp=Z,7.7nm,0.9s						
SMF	Signal de Mont	142.49	341	*e*PKP1	PKPdf	02 20 48.6	-0.9
	comp=Z,4.7nm,0.6s						
AVF	Avril sur Loir	142.51	341	*e*PKP1	PKPdf	02 20 48.5	-1.1
	comp=Z,5.9nm,0.9s						
BGF	Bois d’Agland	142.88	341	*e*PKP1	PKPdf	02 20 49.7	-0.5
ORIF	Oris-en-Rattie	143.25	337	*e*PKP1	PKPbc	02 20 50.3	+0.9
	comp=Z,10nm,0.7s						
SBF	Sospel	143.50	334	*e*PKP1	PKPbc	02 20 51.0	+0.8
	comp=Z,19nm,0.7s						
MFF	Saint Martin d	143.69	345	*e*PKP1	PKPbc	02 20 51.4	+0.7
	comp=Z,20nm,0.9s						
VIVF	Saint-Julien-l	143.76	338	*e*PKP1	PKPbc	02 20 51.9	+0.9
	comp=Z,15nm,0.9s						
PGF	Pioggiola	143.86	332	*e*PKP1	PKPbc	02 20 51.5	+0.2
	comp=Z,24nm,1.1s						
FRF	La Foret Royal	144.08	335	*e*PKP1	PKPbc	02 20 52.4	+0.4
	comp=Z,23nm,0.9s						
SMRF	Simiane la Rot	144.17	336	*e*PKP1	PKPbc	02 20 53.4	+1.2
	comp=Z,20nm,0.9s						
LMR	La Mourre	144.32	335	*e*PKP1	PKPbc	02 20 53.4	+0.8
	comp=Z,27nm,0.8s						
RJF	Les Rejaudoux	144.41	342	*e*PKP1	PKPbc	02 20 53.8	+1.0
	comp=Z,17nm,1.0s						
CAF	Calviac	144.59	341	*e*PKP1	PKPbc	02 20 54.7	+1.4
	comp=Z,9.9nm,0.8s						
LASF	Ste Croix	144.73	338	*e*PKP1	PKPbc	02 20 55.2	+1.5
	comp=Z,60nm,1.2s						
LFF	La Frestale	144.98	343	*e*PKP1	PKPbc	02 20 55.7	+1.3
MTLF	Montolieu	145.94	340	*e*PKP1	PKPbc	02 20 58.9	+2.0
	comp=Z,17nm,0.8s						
ETSF	Etsaut	147.22	343	*e*PKP1	PKPdf	02 21 02.6	+4.8
	comp=Z,15nm,0.9s						
ESDC	Sonseca Array	151.16	345	PKPbc	PKPdf	02 21 12.7	+8.6
	comp=Z,1.4nm,0.7s,baz=30,slow=2.3,SNR=6.8						
ESDC				PKPab	PKPab	02 21 21.3	+0.1
	comp=Z,1.1nm,0.5s,baz=13,slow=4.0,SNR=9.0						

TRN 16 02:10:59.4,15.83N×**61.43W,h27^{km},MD3.6,4C-1D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MGG	Marie-Galante	0.14	53	⇑*i*P	Pb	02 11 06.8	+2.3
BBL	Barber’s Block	0.31	187	⇑*i*P	Pb	02 11 07.5	+0.8
SEG	Port Louis	0.57	353	⇑*e*P	Pb	02 11 11.7	+0.9
SEG				*e*S	Sb	02 11 19.5	+0.9
DEG	La Desirade	0.59	37	⇑*i*P	Pb	02 11 13.2	+2.0
DEG				*i* S	Sb	02 11 22.7	+3.5
FDF	Fort de France	1.13	166	⇓*e*P	Pn	02 11 21.0	+1.4
FDF				*e*S	Sn	02 11 36.6	+2.3
BPA	Boggy Peak	1.27	341	*e*P	Pn	02 11 23.6	+1.9
BPA				*e*S	Sn	02 11 39.5	+1.5
CPB	Codrington	1.83	348	*e*P	Pn	02 11 31.8	+2.1
CPB				*e*S	Sn	02 11 54.5	+2.2

BJI 16 02:21:18.5,34.65N×**97.70E,h14^{km},ML3.8,Ms3.8, Msz3.3,Qinghai**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GTA	Gaotai	5.04	19	PG	Pg	02 22 50.3	-8.9
GTA				Smax			
	comp=N,26nm,1.2s						
GTA				Smax			
	comp=E,28nm,1.8s						
GTA				LR	LR		
	comp=N,308nm,5.7s						
GTA				LR	LR		
	comp=E,841nm,8.4s						
GTA				LR	LR		
	comp=Z,142nm,6.5s						
LZH	Lanzhou	5.22	72	*e*P	Pn	02 22 37.5	-0.6
LZH				PG	Pg	02 22 53.0	-10
LZH				SG	Sg	02 24 04.1	-8.3
LZH				Smax			
	comp=N,151nm,1.2s						
LZH				Smax			
	comp=E,125nm,1.2s						
LZH				LR	LR		
	comp=E,217nm,6.8s						
LZH				LR	LR		
	comp=Z,296nm,8.2s						
CD2	Chengdu	6.32	124	*e*PG	Pg	02 23 12.6	-12
LSA	Lhasa	7.43	230	*e*P	Pn	02 23 11.0	+1.8

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*NDI **16** 02:35:28.9±5.4,30.37N×70.82E,h10^{km},ML3.4*
ISC 16 02:35:22.8±1.0**,30.56N**±0.05×**70.65E**±0.05**,h10^{km},n20, σ1^{s}29**/32**,Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JASL	Jaisalmer	3.63	176	*i* P	Pn	02 36 21.5	+1.2
JASL				*i* SG	Sg	02 37 24.2	+0.5
THN	Thein Dam	4.71	65	*e*	Pn	02 36 35.8	+0.2
THN				*e*SB	Sb	02 37 47.2	+4.8
DLH	Dalhousie	4.95	65	*e*S	Sn	02 37 38.0	+1.0
BHK	Bhakra	5.02	79	*e*S	Sn	02 37 40.0	+1.1
KHET	Khetri	5.14	118	*e*P	Pn	02 36 45.3	+3.6
KHET				*e*		02 37 41.8	
KHET				*e*		02 38 34.1	
	comp=E,69nm,1.0s						
KHET				*e*		02 38 34.6	
	comp=N,69nm,0.4s						
RTK	Rohtak	5.23	105	*i* P	Pn	02 36 45.3	+2.3
RTK				*e*SG	Sg	02 38 17.1	+0.1
KKR	Kurukshetra	5.37	95	*e*SG	Sg	02 38 22.5	+0.9
AJM	Ajmer	5.37	138	*e*P	Pn	02 36 43.8	-1.1
AJM				AML	AML	02 37 23.6	
	comp=E,30nm,0.3s						
AJM				AML	AML	02 37 23.7	
	comp=N,40nm,0.7s						
SDNR	Sundarnagar	5.50	79	*e*P	Pn	02 36 47.4	+0.6
SDNR				*e*S	Sn	02 37 50.6	-0.3
KUDL	Kundal	5.63	114	*e*P	Pn	02 36 50.2	+1.6
KUDL				*i* Pg	Pg	02 37 11.7	-3.6
KUDL				*e*Sg	Sg	02 38 30.2	-0.2
BHGR	Bahadurgarh	5.78	107	*e*	Sx	02 38 03.1	
AYAN	Aya Nagar	6.01	109	*e*P	Pn	02 36 55.2	+1.2
AYAN				*e*		02 38 05.8	
AYAN				*i* SG	Sg	02 38 42.1	-0.7
AYAN				*e*		02 38 48.5	
	comp=Z,79nm,1.2s						
NDI	New Delhi	6.01	107	*e*PN	Pn	02 36 54.5	+0.5
NDI				*e*		02 37 53.5	
DDI	Dehra Dun	6.40	90	*e*P	Pn	02 37 00.2	+0.8
DDI				*e*SG	Sg	02 38 55.5	-0.2
AGRA	Agra	7.20	116	*e*	Sb	02 38 59.9	+5.1
AGRA				*e*		02 39 09.5	
AGRA				AML	AML	02 39 23.1	
	comp=N,54nm,0.2s						
AGRA				AML	AML	02 39 23.4	
	comp=E,69nm,0.5s						
KOLN	Koldanda	11.65	101	*e*P	P	02 38 10.8	-1.4
	comp=E,16nm,0.7s						
KOLN				*e*S	S	02 40 19.4	-4.0
GKN	Gorkha	12.47	98	*e*P	P	02 38 21.3	-1.9
	comp=E,6.6nm,0.3s						
GKN				*e*S	S	02 40 35.5	-7.8
DMN	Daman	12.98	100	*e*P	P	02 38 28.1	-1.9
DMN				*e*S	S	02 40 49.1	-6.4
KKN	Kakani	13.08	99	*e*P	P	02 38 28.9	-2.4
	comp=E,13nm,0.6s						
KKN				*e*S	S	02 40 50.5	-7.3
PKI	Pulchoki	13.25	99	*e*P	P	02 38 31.3	-2.2
PKI				*e*S	S	02 40 54.0	-7.9

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*NEIC **16** 03:03:33.1±1.2,21.46S×178.94W,h501^{km}±14^{km}, mb4.0/11,Error ellipse: s-maj=22.6km s-min=9.4km az=149.0*
*BJI **16** 03:03:33.0,21.50S×178.90W,h500^{km},mB4.9,mb4.4*
*IDC **16** 03:03:43.1±2.2,21.78S×179.19W,h620^{km}±29^{km}, mb3.4/11,mb1 3.7/12,mb1mx3.5/16,Error ellipse: s-maj=42.0km s-min=10.8km az=160.0*
ISC 16 03:03:41.4±1.9**,21.7S**±0.2×**179.23W**±0.10**,h611^{km}**±26^{km}**, n52,σ0^{s}90**/31**,mb3.9**/19**,4C,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	10.53	44	*e*P	P	03 05 50.7	-15
URZ	Urewera	16.76	190	P	P	03 07 04.5	-1.5
	2.9nm,0.3s,baz=312,slow=8.9,SNR=13						
CTA	Charters Tower	32.24	267	⇑*i*P	P	03 09 23.7	+0.7
	4.2nm,0.6s,mb4.2						
CTA	Charters Tower	32.24	267	P	P	03 09 23.1	+0.1
	4.7nm,0.4s,mb4.5,baz=109,slow=9.9,SNR=11						
CTAO	Charters Tower	32.24	267	*e*P	P	03 09 23.9	+0.9
	4.7nm,0.5s,mb4.4						
PMG	Port Moresby	34.53	286	*e*P	P	03 09 45.5	+3.4
	6.7nm,0.7s,mb4.4						
STKA	Stephens Creek	36.22	245	⇑*i*P	P	03 09 57.1	+1.2
	2.2nm,0.6s,mb3.9						
STKA	Stephens Creek	36.22	245	P	P	03 09 56.3	+0.5
	2.8nm,0.6s,mb4.0,baz=92,slow=7.7,SNR=10						
ASAR	Alice Springs	43.13	258	P	P	03 10 51.6	+0.2
	2.4nm,0.4s,mb4.1,baz=88,slow=8.0,SNR=49						
ASAR				PcP	PcP	03 12 27.1	0.0
	1.1nm,0.4s,baz=110,slow=3.8,SNR=9.7						
ASAR				S	S	03 16 35.6	+0.3
	1.7nm,0.9s,baz=87,slow=15,SNR=8.5						
ASPA	Alice Springs	43.13	258	*e*P	P	03 10 51.5	+0.1
ASPA				*i* S	S	03 16 35.4	0.0
WB2	Warramunga Arr	43.30	264	⇑*i*P	P	03 10 52.2	-0.5
WB2				*e*S	S	03 16 36.3	-1.5
WRAB	Tennant Creek	43.30	264	*e*P	P	03 10 52.0	-0.8
	9.4nm,1.0s,mb4.3						
WRA	Warramunga Arr	43.31	264	P	P	03 10 52.6	-0.2
	1.7nm,0.3s,mb4.1,baz=98,slow=8.6,SNR=89						
WRA				S	S	03 16 36.4	-1.5
	1.0nm,0.8s,baz=100,slow=19,SNR=7.9						
MBWA	Marble Bar	56.47	258	*e*P	P	03 12 28.2	-0.7
	14nm,1.4s,mb4.0						
NWAO	Narrogin (SRO)	56.79	244	P	P	03 12 33.0	+2.1
	5.3nm,0.8s,mb3.8						
MAW	Mawson	80.01	200	P	P	03 14 50.2	+1.1
	1.6nm,0.6s,mb3.5						
CMB	Columbia Colle	81.15	43	*e*P	P	03 14 55.0	-0.6
	1.6nm,0.7s,mb3.6						
YBH	Yreka Blue Hor	81.97	39	P	P	03 15 01.0	+1.2
	1.6nm,0.7s,mb3.7,baz=57,slow=6.1,SNR=5.1						
NVAR	Mina Array Bea	82.71	44	P	P	03 15 03.6	+0.1
	1.6nm,0.6s,mb3.7,baz=226,slow=9.4,SNR=12						
TPH	Tonopah	83.21	45	*e*P	P	03 15 05.8	-0.1
	5.7nm,1.1s,mb4.0						
TPNV	Topopah Spring	83.23	46	*e*P	P	03 15 05.6	-0.5
	2.1nm,0.8s,mb3.7						
TXAR	Lajitas Array	88.69	58	P	P	03 15 32.8	+0.4
	1.8nm,1.1s,mb3.8,baz=210,slow=6.0,SNR=11						
CMAR	Chiang Mai Arr	89.45	290	P	P	03 15 37.1	+1.0
	2.9nm,0.9s,mb4.1,baz=123,slow=3.0,SNR=10.0						
MCMT	McKenzie Canyo	89.64	41	*e*P	P	03 15 36.5	+0.1
ILAR	Eielson Array	89.78	13	P	P	03 15 35.0	-1.5
	0.7nm,0.5s,mb3.7,baz=235,slow=3.5,SNR=9.2						
PDAR	Pinedale Array	90.65	44	P	P	03 15 40.5	-0.6
	1.5nm,0.9s,mb3.9,baz=214,slow=1.9,SNR=11						
YKA	Yellowknife Ar	98.11	25	P	P	03 16 14.5	+0.2
	0.1nm,0.6s,mb3.3,baz=252,slow=5.0,SNR=4.0						
WMQ	Urumqi	106.87	311	PDIF	Pdif	03 16 58.0	+4.4
WMQ				*e*PP	PP	03 21 35.4	+4.9
WMQ				*e*S	tx	03 28 16.8	
ARCES	ARCESS Array B	129.92	349	PKP	PKPdf	03 21 42.4	+0.4

	1.9nm,0.5s,baz=332,slow=1.7,SNR=14						
FINES	FINESS Array B	136.62	343	PKP	PKPdf	03 21 55.7	+1.1
	2.6nm,0.9s,baz=90,slow=1.9,SNR=5.6						
NB2	NORSAR Subarra	140.06	352	PKP	PKPdf	03 21 54.5	-6.4
	0.4nm,0.4s,baz=7.0,slow=2.8						
NB2	NORSAR Subarra	140.06	352	⇑PKPab	PKPdf	03 21 54.5	-6.4
MBAR	Mbarara	143.28	237	*e*PKPdf	PKPdf	03 22 08.1	+0.2
AKASG	Malin Array Be	143.51	329	PKP	PKPdf	03 22 06.3	-0.8
	2.4nm,0.4s,baz=40,slow=4.4,SNR=30						
BRTR	Keskin Array B	146.79	310	PKPbc	PKPbc	03 22 17.1	+1.9
	2.3nm,0.6s,baz=142,slow=4.3,SNR=10						
BSEG	Bad Segeberg	147.04	350	*e*PKPbc	PKPdf	03 22 17.6	+4.6
KOLS	Kolonicke sedl	147.91	333	*i* PKP	PKPdf	03 22 20.6	+6.1
CRVS	Cervenica-Dubn	148.28	334	*i* PKP	PKPdf	03 22 21.1	+6.0
UPC	Upice	148.89	341	*e*PKPbc	PKPdf	03 22 22.6	+6.6
DPC	Dobruska-Polom	148.93	341	*e*PKPbc	PKPdf	03 22 22.8	+6.8
DPC				*e*PKPab	PKPab	03 22 29.6	-0.6
CLL	Collm	148.98	345	*i* PKP1	PKPdf	03 22 22.4	+6.3
CLZ	Clausthal	149.04	348	*e*PKPbc	PKPdf	03 22 23.0	+6.8
BRG	Berggiesshubel	149.15	344	*i* P	PKPdf	03 22 23.1	+6.7
PVCC	Panska Ves	149.29	343	*e*PKPbc	PKPdf	03 22 23.8	+7.2
VYHS	Vyhne	149.65	336	*i* PKP	PKPdf	03 22 24.2	+7.0
PRU	Pruhonice	149.78	342	*e*PKPbc	PKPdf	03 22 24.4	+7.0
	7.3nm,0.6s						
NKC	Novy Kostel	150.11	345	*e*PKPbc	PKPdf	03 22 25.3	+7.4
KHC	Kasperske Hory	150.83	343	*e*PKPbc	PKPdf	03 22 26.9	+7.9
KHC				*e*PKPab	PKPab	03 22 37.3	-0.7
GRA1	Grafenberg Arr	150.90	346	*e*PKPbc	PKPdf	03 22 28.1	+9.0
GRF	Grafenberg Arr	150.90	346	*e*PKP	PKPdf	03 22 28.1	+9.0
GEC2	GERESS Array S	151.05	342	*e*PKPbc	PKPdf	03 22 27.3	+8.0
GERES	GERESS Array B	151.05	342	PKPbc	PKPdf	03 22 27.2	+7.9
	1.5nm,0.5s,baz=37,slow=2.0,SNR=19						

IDC ***16*** *03:13:05.1±0.8,24.42S×13.25W,mb4.1/8,mb1 4.2/8, mb1mx3.9/17,MS3.9/7,Ms1 3.9/7,ms1mx3.5/18,Error ellipse: s-maj=31.8km s-min=23.6km az=131.0*

NEIC ***16*** *03:13:05.5±0.3,24.71S×13.15W,h10^{km},mb4.7/11,Error ellipse: s-maj=12.6km s-min=9.1km az=133.0*

ISC 16 03:13:04.0±0.4**,24.59S**±0.08×**13.17W**±0.10**,h10**^{km}**,n39, σ1^{s}06**/31**,mb4.4**/20**,MS3.9**/7**,2D,Southern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SUR	Sutherland	30.76	112	LR	LR	03 28 33.9	
	comp=Z,298nm,21.8s,MS3.9,baz=326,slow=30						
DBIC	Dimbokro	32.11	16	P	P	03 19 32.5	-1.3
	3.4nm,0.9s,mb4.2,baz=162,slow=10,SNR=3.3						
BDFB	Brasilia	33.83	279	P	P	03 19 50.0	+1.2
	2.2nm,0.7s,mb4.2,baz=123,slow=10,SNR=4.4						
BDFB				LR	LR	03 31 26.6	
	comp=Z,377nm,19.3s,MS4.1,baz=111,slow=33						
LBTB	Lobatse	35.11	99	*e*P	P	03 19 59.4	-0.3
	18nm,1.3s,mb4.8						
TRQA	Tornquist	43.34	240	*e*P	P	03 21 07.1	-0.9
	7.2nm,0.8s,mb4.5						
EFI	East Falkland	43.50	220	*e*P	P	03 21 06.9	-2.1
	157nm,1.4s,mb5.5						
VNA2	Neumayer--Watz	46.48	177	*e*	P	03 21 43.7	+11
VNA2	Neumayer--Watz	46.48	177	⇓*i*P	P	03 21 35.9	+3.3
VNA2				*e*		03 21 43.7	
VNA3	Neumayer Olymp	46.72	178	⇓*i*	P	03 21 43.7	+9.1
VNA3	Neumayer Olymp	46.72	178	*e*	P	03 21 51.4	+17
SNAA	Sanae	47.47	176	*e*P	P	03 21 38.5	-2.0
SAML	Samuel	50.07	279	*e*P	P	03 22 01.9	+0.6
	5.2nm,1.1s,mb4.5						
LPAZ	La Paz	51.88	268	P	P	03 22 15.6	+0.6
	1.6nm,1.1s,mb3.8,baz=202,slow=2.9,SNR=3.6						
LPAZ				LR	LR	03 45 06.0	
	comp=Z,100nm,18.5s,MS3.9,baz=93,slow=37						
KMBO	Kilima Mbogo	53.98	72	LR	LR	03 43 42.2	
	comp=Z,113nm,21.6s,MS3.9,baz=273,slow=34						
KMBO	Kilima Mbogo	53.98	72	P	P	03 22 31.7	+1.0
	4.0nm,1.3s,mb4.2						
MAW	Mawson	62.20	155	P	P	03 23 29.6	+1.9
	2.5nm,1.0s,mb4.3,baz=273,slow=4.1,SNR=4.4						
MAW				LR	LR	03 45 13.5	
	comp=Z,64nm,18.6s,MS3.8,baz=245,slow=31						
EVO	Evora	62.98	5	*e*P	P	03 23 32.1	-1.1
	7.8nm,0.7s,mb4.6						
SDV	Santo Domingo	65.15	293	*e*P	P	03 23 48.7	+0.9
ROSC	El Rosal	66.25	288	LR	LR	03 50 47.8	
	comp=Z,133nm,19.8s,MS4.2,baz=140,slow=34						
SJPF	Ste Jean	68.26	9	*e*P	P	03 24 06.0	-1.1
IDI	Anoyia	69.61	33	P	P	03 24 17.5	+2.0
	10.0nm,0.8s,mb4.8,baz=201,slow=14,SNR=3.2						
LFF	La Frestale	70.35	10	*e*P	P	03 24 19.3	-0.6
VIVF	Saint-Julien-l	71.01	13	*e*P	P	03 24 23.4	-0.5
	31nm,1.3s,mb4.8						
EIL	Elat	71.03	43	LR	LR	03 51 33.6	
	comp=Z,25nm,18.7s,MS3.5,baz=268,slow=32						
MBDF	Montbardon	71.35	15	*e*P	P	03 24 26.0	0.0
	8.6nm,0.8s,mb4.5						
TCF	Toulx Ste Croi	71.91	11	*e*P	P	03 24 28.8	-0.5
LPG	La Plagne	72.07	15	*e*P	P	03 24 30.5	+0.2
	15nm,1.0s,mb4.6						
LPL	La Plagne	72.09	15	*e*P	P	03 24 30.5	+0.2
	16nm,0.9s,mb4.6						
SSF	Saint Saulge	72.89	12	*e*P	P	03 24 35.2	+0.1
	12nm,1.0s,mb4.5						
CABF	La Chapelle	72.98	14	*e*P	P	03 24 35.6	0.0
	12nm,0.8s,mb4.6						
DAVOX	Davos	74.03	16	P	P	03 24 41.6	-0.1
GERES	GERESS Array B	76.95	18	P	P	03 24 58.5	+0.2
	0.3nm,0.7s,mb3.4,baz=202,slow=7.2,SNR=3.7						
BRTR	Keskin Array B	77.46	35	P	P	03 25 03.0	+1.7
	2.4nm,0.9s,mb4.1,baz=195,slow=3.7,SNR=9.4						
CASY	Casey	79.97	160	*e*P	P	03 25 13.8	-0.6
AKASG	Malin Array Be	83.79	26	P	P	03 25 33.6	-1.0
	1.1nm,0.7s,mb4.1,baz=223,slow=5.1,SNR=7.1						
YKA	Yellowknife Ar	116.77	329	PKP	PKPdf	03 31 49.2	-2.1
	0.2nm,0.7s,baz=89,slow=1.5,SNR=4.6						
YKA	Yellowknife Ar	116.77	329	PKP	PKPdf	03 31 49.2	-2.1
ASAR	Alice Springs	122.37	144	PKP	PKPdf	03 32 02.4	-0.7
	0.5nm,0.9s,baz=200,slow=3.5,SNR=4.3						
ILAR	Eielson Array	130.06	336	PKP	PKPdf	03 32 15.5	-1.3
	1.3nm,0.7s,baz=350,slow=1.5,SNR=9.3						

TRN 16 03:28:05.6,15.76N×61.44W,h24^{km}**,MD3.8,4C-2D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	Marie-Galante	0.20	38	⇑*i*P	Pb	03 28 12.6	+1.5
BBL	Barber's Block	0.23	186	⇑*i*P	Pb	03 28 12.6	+1.0
SEG	Port Louis	0.64	355	⇑*i*P	Pb	03 28 19.5	+1.4
FDF	Fort de France	1.06	164	⇓*e*P	Pn	03 28 27.0	+1.8
FDF				*e*S	Sb	03 28 41.6	+3.0
CRM	Caravelle	1.12	153	*e*P	Pn	03 28 27.3	+1.3
CRM				*e*S	Sb	03 28 42.5	+2.1
BIM	Bigot	1.29	164	⇑*e*P	Pn	03 28 30.7	+2.3
BIM				*e*S	Sn	03 28 49.8	+4.8
MVM	Montagne Vaucl	1.31	156	⇓*e*P	Pn	03 28 30.4	+1.6
MVM				*e*S	Sn	03 28 48.0	+2.5
BPA	Boggy Peak	1.34	343	*e*P	Pn	03 28 30.4	+1.3
BPA				*e*S	Sn	03 28 48.0	+1.7
CPB	Codrington	1.91	349	*e*P	Pn	03 28 39.1	+1.9
CPB				*e*S	Sn	03 29 03.0	+2.3

MAN ***16*** *03:34:58.6,10.21N×125.24E,h1^{km},mb5.0,ML4.0,MS4.1*

IDC ***16*** *03:34:59.1±0.8,10.01N×125.34E,mb3.9/10,mb1 4.1/10, mb1mx4.0/19,MS3.1/2,Ms1 3.1/2,ms1mx2.8/21,Error ellipse: s-maj=46.3km s-min=15.9km az=64.0*

NEIC ***16*** *03:35:02.4±0.5,10.03N×125.29E,h20^{km},mb4.8/8,Error ellipse: s-maj=29.1km s-min=10.8km az=73.0*

ISC 16 03:34:58.6±0.4**,10.15N**±0.03×**125.35E**±0.05**,h10**^{km}**,n36, σ1^{s}30**/39**,mb4.2**/17**,MS2.8**/1**,1C-2D,Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSLP	Maasin	0.48	268	*e*P	Pg	03 35 06.8	-1.5
PLP	Palo	1.07	340	*e*P	Pb	03 35 17.5	-1.3
PLP				*e*S	Sb	03 35 32.2	-0.5
OCLP	Ormoc	1.15	321	*e*P	Pb	03 35 19.8	-0.3
BUTP	Butuan	1.20	167	*e*P	Pb	03 35 22.1	+1.1
LLP	Lapu-Lapu	1.37	277	*e*P	Pn	03 35 21.7	-2.1
LLP				*i* S	Sb	03 35 43.3	+2.0
BESP	Borongan	1.45	4	*e*P	Pn	03 35 22.9	-2.0
BIPH	Bislig	2.19	153	⇓*e*P	Pn	03 35 38.9	+3.3
BIPH				*e*S	Sn	03 36 12.1	+9.1
SNPH	Sibulan	2.23	249	*e*P	Pn	03 35 40.0	+3.9
BUKP	Musuan	2.27	187	*e*P	Pn	03 35 34.7	-2.1
CNP	Catarman	2.44	344	*e*P	Pn	03 35 39.4	+0.2
DCPH	Dipolog City	2.51	232	⇑*e*P	Pn	03 35 39.8	-0.3
GUIM	Jordan	2.75	280	*e*P	Pn	03 35 43.4	-0.3
RCP	Roxas	2.92	299	⇓*e*P	Pn	03 35 45.3	-0.6
RCP				*e*S	Sn	03 36 28.1	+6.8
PAGZ	Pagadian	3.00	220	*e*P	Pn	03 35 48.0	+0.8
PVCP	Virac	3.62	341	*e*P	Pn	03 35 56.2	+0.3
PVCP				*e*S	Sn	03 36 39.3	+0.1
TATO	Taipei	15.20	347	P	P	03 38 36.4	+1.3
	150nm,1.2s						
JOW	Kunigami	16.82	9	LR	LR	03 44 22.3	
	comp=Z,86nm,18.5s,baz=353,slow=33						
CMAR	Chiang Mai Arr	26.86	291	P	P	03 40 42.6	+1.2
	2.2nm,1.0s,mb3.6,baz=109,slow=7.9,SNR=9.5						
KS15	Wonju Array Si	27.27	4	P	P	03 40 49.5	+4.4
FITZ	Fitzroy Crossi	28.07	179	LR	LR	03 53 29.2	
	comp=Z,24nm,19.0s,MS2.8,baz=105,slow=40						
WRAB	Tennant Creek	31.18	163	P	P	03 41 19.2	-1.0
	13nm,1.4s,mb4.6						
WRA	Warramunga Arr	31.18	164	P	P	03 41 19.1	-1.3
	0.3nm,0.6s,mb3.3,baz=196,slow=18,SNR=8.1						
WRA				PcP	PcP	03 44 14.3	-1.0
	0.6nm,0.9s,baz=352,slow=2.7,SNR=4.7						
ASAR	Alice Springs	34.63	166	P	P	03 41 49.0	-1.4
	1.1nm,0.5s,mb4.0,baz=344,slow=6.8,SNR=16						
ASAR				PcP	PcP	03 44 24.6	-0.1
	0.3nm,0.4s,baz=326,slow=3.3,SNR=3.4						
ULN	Ulaanbaatar	40.63	341	*e*P	P	03 42 41.3	+0.9
	2.3nm,0.9s,mb3.8						
SONM	Songino Array	40.82	340	P	P	03 42 43.0	+1.1
	0.7nm,1.0s,mb3.3,baz=153,slow=9.7,SNR=3.3						
NWAO	Narrogin (SRO)	43.53	190	P	P	03 42 58.9	-5.4
	22nm,1.4s,mb4.7						
STKA	Stephens Creek	44.59	160	P	P	03 43 11.9	-1.0
	4.6nm,0.9s,mb4.3,baz=311,slow=6.6,SNR=9.7						
MA2	Magadan	52.90	16	P	P	03 44 20.3	+3.4
	18nm,1.0s,mb5.0						
ZAL	Zalesovo	54.30	332	P	P	03 44 26.6	-0.5
	0.6nm,0.3s,mb4.0,baz=21,slow=14,SNR=3.0						
BVAR	Borovoye Array	61.25	326	P	P	03 45 18.2	+2.0
	0.4nm,0.6s,mb3.8,baz=135,slow=6.1,SNR=2.9						
MCK	McKinley	79.08	27	P	P	03 47 02.7	-1.7
	12nm,1.6s,mb4.6						
INK	Inuvik	84.73	21	P	P	03 47 33.5	-0.3
	5.5nm,1.2s,mb4.6						
KMBO	Kilima Mbogo	88.32	269	P	P	03 47 52.0	-0.6
	1.1nm,0.8s,mb4.1,baz=84,slow=15,SNR=3.7						
VNDA	Vanda	89.93	173	P	P	03 48 00.0	+1.2
	1.9nm,0.8s,mb4.5,baz=317,slow=5.8,SNR=5.2						
SBA	Scott Base	90.84	172	P	P	03 48 05.1	+2.1
	12nm,1.1s,mb5.1						
YKA	Yellowknife Ar	94.23	24	P	P	03 48 20.4	+1.5
	0.2nm,0.5s,mb3.8,baz=296,slow=4.5,SNR=4.6						

NEIC ***16*** *03:35:42.9±0.4,10.08N×125.45E,h20^{km},mb4.4/6,Error ellipse: s-maj=22.4km s-min=9.6km az=70.0*

IDC ***16*** *03:35:46.0±8.0,10.10N×125.36E,h40^{km}±71^{km},mb3.9/10, mb1 4.1/10,mb1mx3.9/20,MS3.2/1,Ms1 3.2/1, ms1mx2.7/21,Error ellipse: s-maj=43.4km s-min=15.7km az=67.0*

ISC 16 03:35:42.9±0.5**,10.14N**±0.07×**125.4E**±0.2**,h33**^{km}**,n20, σ1^{s}05**/20**,mb4.1**/16**,MS3.1**/1**,Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLP	Palo	1.08	340	*e*P	P	03 36 00.0	-1.8
PLP				*e*S	S	03 36 14.5	-1.3
ENH	Enshi	24.90	326	P	P	03 41 04.0	-0.4
	14nm,1.3s,mb4.3						
CMAR	Chiang Mai Arr	26.87	291	P	P	03 41 23.2	+0.4
	5.1nm,1.1s,mb4.0,baz=106,slow=7.1,SNR=7.4						
FITZ	Fitzroy Crossi	28.06	179	P	P	03 41 32.3	-1.5
	5.4nm,0.7s,mb4.3,baz=0.5,slow=12,SNR=6.7						
WRAB	Tennant Creek	31.17	163	P	P	03 42 00.3	-1.0
	7.0nm,1.0s,mb4.5						
WRA	Warramunga Arr	31.17	164	P	P	03 42 00.8	-0.6
	1.0nm,0.7s,mb3.8,baz=342,slow=9.3,SNR=8.0						
WRA				PcP	PcP	03 44 55.5	-0.4
	1.1nm,0.7s,baz=340,slow=3.0,SNR=8.9						
ASAR	Alice Springs	34.62	166	P	P	03 42 30.9	-0.4
	2.6nm,0.6s,mb4.3,baz=344,slow=7.2,SNR=16						
ASAR				PcP	PcP	03 45 05.5	0.0
	1.1nm,0.7s,baz=332,slow=2.0,SNR=8.7						
ASAR				LR	LR	03 56 00.1	
	comp=Z,33nm,19.4s,MS3.1,baz=354,slow=35						
ASAR	Alice Springs	34.62	166	P	P	03 42 30.9	-0.4
ASAR				PcP	PcP	03 45 05.5	0.0
ASAR				LR	LR	03 56 00.1	
SONM	Songino Array	40.83	340	P	P	03 43 25.2	+2.1
	0.3nm,0.6s,mb3.1,baz=187,slow=10.0,SNR=3.6						
SONM				PcP	PcP	03 45 22.3	-1.9
	0.7nm,0.8s,baz=118,slow=1.1,SNR=3.7						
STKA	Stephens Creek	44.58	160	P	P	03 43 54.9	+1.1
	2.2nm,0.7s,mb4.1,baz=334,slow=8.5,SNR=4.3						
STKA	Stephens Creek	44.58	160	P	P	03 43 50.7	-3.1
TKM2	Tokmak 2	54.13	316	*e*P	P	03 45 07.8	+0.7
	1.3nm,0.8s,mb3.9						
UCH	Uchtor	54.63	315	*e*P	P	03 45 11.4	+0.6
	2.6nm,0.9s,mb4.3						
BVAR	Borovoye Array	61.26	326	P	P	03 45 58.0	+0.8
	0.7nm,0.6s,mb4.0,baz=108,slow=4.7,SNR=4.3						
BVAR				PcP	PcP	03 46 37.9	-1.3
	0.9nm,0.8s,baz=90,slow=3.0,SNR=4.0						
MCK	McKinley	79.08	27	P	P	03 47 44.9	-0.5
	2.4nm,0.6s,mb4.3						
ILAR	Eielson Array	79.95	26	P	P	03 47 50.0	0.0
	1.0nm,0.7s,mb3.9,baz=241,slow=5.6,SNR=5.4						
INK	Inuvik	84.73	21	*e*P	P	03 48 15.2	+0.6
	2.5nm,0.8s,mb4.4						
VNDA	Vanda	89.92	173	P	P	03 48 40.9	+1.4
	1.9nm,0.9s,mb4.4,baz=272,slow=6.9,SNR=2.8						
YKA	Yellowknife Ar	94.24	24	P	P	03 49 00.5	+0.9
	0.4nm,0.6s,mb4.0,baz=301,slow=4.7,SNR=8.1						
TXAR	Lajitas Array	118.59	49	PKP	PKPdf	03 54 31.4	+3.3
	0.5nm,0.8s,baz=346,slow=0.9,SNR=4.5						

IDC 16 03:49:25.3±0.8**,19.24N**×**145.53E,mb3.9**/8**,mb1 4.2**/8**, mb1mx3.9**/21**,MS3.5**/2**,Ms1 3.5**/2**,ms1mx3.0**/26**,Error ellipse: s-maj=65.1km s-min=18.8km az=111.0,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOW	Kunigami	17.57	299	LR	LR	03 58 59.5	
	comp=Z,180nm,20.6s,baz=175,slow=33						
WRA	Warramunga Arr	40.46	196	P	P	03 57 05.4	-2.0
	0.6nm,0.5s,baz=20,slow=8.9,SNR=13						
FITZ	Fitzroy Crossi	41.94	209	P	P	03 57 18.9	-0.8
	4.0nm,0.9s,baz=358,slow=9.8,SNR=5.1						
ASAR	Alice Springs	44.13	195	P	P	03 57 34.7	-2.8
	0.2nm,0.4s,baz=13,slow=6.9,SNR=4.4						
ASAR				LR	LR	04 16 52.0	
	comp=Z,47nm,19.4s,baz=313,slow=37						
ILAR	Eielson Array	63.23	26	P	P	03 59 55.4	-2.1
	0.8nm,0.9s,baz=253,slow=5.9,SNR=5.5						
YKA	Yellowknife Ar	77.59	28	P	P	04 01 22.7	-1.8
	0.3nm,0.5s,baz=288,slow=5.4,SNR=7.6						
NVAR	Mina Array Bea	82.93	52	P	P	04 01 53.2	-0.3
	0.5nm,0.8s,baz=260,slow=2.9,SNR=4.8						
FINES	FINESS Array B	86.33	335	P	P	04 02 07.7	-2.4
	2.9nm,0.9s,baz=143,slow=9.5,SNR=3.7						
NOA	NORSAR Array B	92.01	340	P	P	04 02 37.2	+0.3
	1.4nm,0.8s,baz=231,slow=6.7,SNR=3.7						

NEIC ***16*** *03:51:12.7,38.20S×178.77E,h12^{km},ML3.9(WEL),After WEL.*

WEL 16 03:51:11.7±0.4**,38.20S**×**178.86E,h12**^{km}**,ML3.8**/4**,1C-1D, Error ellipse: s-maj=3.3km s-min=1.5km az=90.0,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	0.49	284	P	Pg	03 51 20.4	-1.3
PUZ	Puketiti	0.49	284	⇓P*	Pb	03 51 20.4	-1.3
PUZ				S*	Sb	03 51 28.1	-0.4
MXZ	Matakaoa Point	0.77	325	P	Pb	03 51 26.5	+0.1
MXZ	Matakaoa Point	0.77	325	P*	Pb	03 51 25.4	-1.1
MXZ				S*	Sb	03 51 37.1	+0.5
MWZ	Matawai	1.06	262	P	Pb	03 51 31.0	-0.4
MWZ	Matawai	1.06	262	⇑P*	Pb	03 51 31.0	-0.4
MWZ				S*	Sb	03 51 44.8	-0.1
KNZ	Kokohu	1.24	228	*e*P	Pb	03 51 34.1	-0.4
KNZ	Kokohu	1.24	228	P*	Pb	03 51 34.1	-0.5
URZ	Urewera	1.38	267	P	Pn	03 51 35.9	-0.9
URZ	Urewera	1.38	267	PN	Pn	03 51 35.9	-0.9
URZ				SN	Sn	03 51 53.9	-1.1
BKZ	Black Stump Fm	2.09	242	*e*P	Pn	03 51 46.0	-1.0
BKZ	Black Stump Fm	2.09	242	PN	Pn	03 51 46.0	-1.0
BKZ				SN	Sn	03 52 10.6	-2.5
MRZ	Mangatainoka R	3.54	225	SN	Sn	03 52 44.3	-5.5
KHZ	Kahutara	5.86	222	SN	Sn	03 53 37.8	-10

IDC ***16*** *03:54:38.0±1.1,11.30S×161.98E,mb3.9/8,mb1 4.1/9, mb1mx4.0/16,ML3.9/1,Error ellipse: s-maj=38.4km s-min=22.6km az=134.0*

NEIC ***16*** *03:54:46.9±6.5,11.21S×161.80E,h64^{km}±55^{km},mb4.1/3, Error ellipse: s-maj=35.3km s-min=26.5km az=103.0*

ISC 16 03:54:41.7±0.8**,11.2S**±0.2×**161.8E**±0.2**,h33**^{km}**,n16, σ1^{s}07**/16**,mb4.0**/11**,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	17.35	238	P	P	03 58 43.5	+0.5
	0.2nm,0.3s,baz=74,slow=18,SNR=2.1						
CTAO	Charters Tower	17.35	238	*e*P	P	03 58 47.2	+4.2
	8.0nm,1.1s						
STKA	Stephens Creek	27.74	219	P	P	04 00 29.8	+0.2
	1.1nm,0.8s,mb3.6,baz=62,slow=12,SNR=3.1						
STKA	Stephens Creek	27.74	219	P	P	04 00 29.8	+0.2
STKA				P		04 00 30.5	
WRAB	Tennant Creek	27.78	248	P	P	04 00 28.9	-1.1
	11nm,1.4s,mb4.3						
WRA	Warramunga Arr	27.80	248	P	P	04 00 30.6	+0.5
	0.6nm,0.7s,mb3.4,baz=76,slow=9.7,SNR=4.6						
ASAR	Alice Springs	29.27	241	P	P	04 00 42.8	-0.5
	1.0nm,0.7s,mb3.6,baz=70,slow=9.5,SNR=10						
FITZ	Fitzroy Crossi	35.59	255	P	P	04 01 38.9	+0.4
	4.0nm,1.1s,mb4.2,baz=121,slow=5.9,SNR=3.5						
MDJ	Mudanjiang	62.78	335	P	P	04 05 00.1	-6.2
	62nm,1.7s,mb5.5						
VNDA	Vanda	66.27	180	P	P	04 05 26.8	-1.6
	1.3nm,1.0s,mb3.9,baz=332,slow=8.8,SNR=3.9						
VNDA	Vanda	66.27	180	P	P	04 05 26.8	-1.7
ULN	Ulaanbaatar	76.22	326	*e*P	P	04 06 27.3	-1.3
	1.5nm,0.7s,mb4.0						
SONM	Songino Array	76.57	325	P	P	04 06 31.0	+0.4
	1.4nm,0.8s,mb3.9,baz=143,slow=5.3,SNR=11						
MAW	Mawson	83.08	202	*e*P	P	04 07 07.5	+2.5
NVAR	Mina Array Bea	89.12	51	P	P	04 07 34.8	-0.6
	0.3nm,0.6s,mb3.8,baz=235,slow=7.6,SNR=4.1						
YKA	Yellowknife Ar	96.93	28	P	P	04 08 11.9	+1.2
	0.3nm,0.8s,mb3.8,baz=258,slow=4.8,SNR=5.1						

IDC ***16*** *04:29:14.5±0.5,20.23S×173.89W,mb4.7/17,mb1 4.9/19, mb1mx4.8/22,ML5.0/2,MS4.6/16,Ms1 4.6/16, ms1mx4.5/19,Error ellipse: s-maj=23.7km s-min=13.3km az=139.0*

NEIC ***16*** *04:29:21.5±0.2,20.37S×173.80W,h50^{km},mb4.9/37, Error ellipse: s-maj=10.8km s-min=5.7km az=144.0*

HRVD ***16*** *04:29:21.5±0.2,20.59S×173.12W,h15^{km}±1^{km},MW5.1/61, Centroid moment Tensor Solution. LP body waves: s33,c53;Mantle waves: s61,c102; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.60±.20; $M_{\theta\theta}$0.08±.13; $M_{\phi\phi}$-3.69±.15; $M_{r\theta}$2.50±.53; $M_{\theta\phi}$-0.72±.11; $M_{\phi r}$2.98±.45; Best double couple: $M_0$5.37×10^{16} NP1:ϕ_s173°,δ26°,λ55°. NP2:ϕ_s31°,δ69°,λ106°. Principal axes: T 5.52, Plg63°, Azm325°; N -.3, Plg15°, Azm205°; P -5.23, Plg22°, Azm109°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***16*** *04:29:21.4,20.40S×173.74W,h50^{km},MB4.9*

BJI ***16*** *04:29:21.4,20.40S×173.80W,h50^{km},mB5.5,mb5.1, Ms5.3,Msz5.0*

ISC 16 04:29:18.5±0.2**,20.46S**±0.07×**173.75W**±0.06**,h37**^{km}**, h37**^{km}±.9^{km}**:pP-P,n158,σ1^{s}05**/106**,mb5.0**/60**,MS4.7**/23**, 6C-1D,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	6.79	16	*e*Pn	P	04 30 49.0	-9.2
RAR	Rarotonga	13.10	96	Pn	P	04 32 12.5	-12
	13nm,0.3s,baz=254,slow=8.3,SNR=20						
RAR				Sn	S	04 34 24.3	-26
	2.0nm,0.3s,baz=44,slow=20,SNR=2.4						
RAR				LR	LR	04 36 38.2	
	comp=Z,3µm,18.3s,baz=268,slow=34						
RAR	Rarotonga	13.10	96	*e*P	P	04 32 11.6	-13
DZM	Mont Dzumac	18.53	261	*e*P	P	04 33 34.7	+0.5
NOUC	Port Laguerre	18.66	261	*e*P	P	04 33 36.3	+0.5
URZ	Urewera	19.42	202	P	P	04 33 45.1	+0.7
	2.7nm,0.3s,baz=13,slow=4.3,SNR=12						
URZ				S	S	04 37 11.2	-4.9
	0.7nm,0.3s,baz=306,slow=9.1,SNR=3.5						
TBI	Tubuai	22.72	102	*e*P	P	04 34 12.3	-6.0
	311nm,1.3s,mb5.6						
TBI				*e*LQ		04 38 16.9	
TBI				*e*LR	LR	04 39 03.1	
	2µm,30.5s,baz=278						
PPT	Papeete	23.04	87	*e*P	P	04 34 14.8	-6.7
	40nm,1.1s,mb4.8						
PPT	Papeete	23.04	87	*e*LQ		04 38 21.6	
PPT				*e*LR	LR	04 39 04.3	
	1µm,21.2s,baz=258						
TIAR	Tiarei	23.25	87	*e*P	P	04 34 17.0	-6.6
	128nm,1.1s,mb5.3						
RPZ	Rata Peaks	26.43	205	P	P	04 34 52.7	-1.0
	20nm,0.8s,mb4.7,baz=203,slow=5.7,SNR=5.3						
RKT	Rikitea	36.04	101	*e*LR	LR	04 45 12.4	
	2µm,30.2s,baz=273						
CTA	Charters Tower	37.45	263	*e*P	P	04 36 28.9	-1.4
	5.3nm,0.6s,mb4.5						
CTA	Charters Tower	37.45	263	P	P	04 36 28.4	-1.9
	6.1nm,0.5s,mb4.7,baz=106,slow=11,SNR=14						
CTA				LR	LR	04 49 49.7	
	comp=Z,615nm,19.4s,MS4.4,baz=92,slow=33						
CTAO	Charters Tower	37.45	263	*e*P	P	04 36 28.9	-1.3
	8.0nm,0.7s,mb4.7						
PMG	Port Moresby	39.23	280	P	P	04 36 43.8	-1.4
	21nm,0.8s,mb4.9,baz=18,slow=3.8,SNR=7.5						
PMG				LR	LR	04 51 10.2	
	comp=Z,685nm,19.0s,MS4.5,baz=36,slow=34						
PMG	Port Moresby	39.23	280	*e*P	P	04 36 43.6	-1.5
	32nm,0.9s,mb5.1						
PMG				*e*PcP	PcP	04 38 48.5	-5.9
STKA	Stephens Creek	41.40	245	*e*P	P	04 37 02.1	-0.8
	10nm,1.0s,mb4.4						
STKA	Stephens Creek	41.40	245	P	P	04 37 02.3	-0.6
	12nm,0.9s,mb4.5,baz=89,slow=8.7,SNR=8.8						
STKA				LR	LR	04 52 31.9	
	comp=Z,1µm,18.7s,MS4.7,baz=45,slow=34						
ASAR	Alice Springs	48.40	256	P	P	04 37 57.6	-1.5
	12nm,0.9s,mb4.9,baz=95,slow=7.8,SNR=62						
ASAR				PcP	PcP	04 39 26.1	+0.6
	5.5nm,0.7s,baz=102,slow=3.9,SNR=10						
ASAR				LR	LR	04 57 44.5	
	comp=Z,653nm,18.5s,MS4.6,baz=92,slow=35						
ASPA	Alice Springs	48.40	256	*e*P	P	04 37 58.5	-0.6
WB2	Warramunga Arr	48.53	261	*e*P	P	04 37 58.5	-1.7
WRAB	Tennant Creek	48.53	261	*e*P	P	04 37 56.3	-3.9
	15nm,0.9s,mb5.0						
WRAB				*e*PcP	PcP	04 39 26.0	0.0
WRAB				*e*PP	PP	04 39 45.8	-7.0
WRAB				*e*ScP		04 43 10.3	
WRA	Warramunga Arr	48.54	261	P	P	04 37 58.1	-2.2
	7.0nm,0.8s,mb4.7,baz=98,slow=7.8,SNR=33						
WRA				PcP	PcP	04 39 26.3	+0.3
	6.5nm,0.9s,baz=92,slow=4.0,SNR=7.6						
KAKA	Kakadu	51.95	270	*e*P	P	04 38 24.5	-1.8
	11nm,0.8s,mb4.8						
GUMO	Guam	52.91	306	P	P	04 38 34.0	+0.6
	628nm,1.6s,mb6.3						
FORT	Forrest	52.96	246	*e*P	P	04 38 33.0	-0.7
	60nm,0.7s,mb5.6						
FITZ	Fitzroy Crossi	56.97	261	*e*P	P	04 39 01.9	-1.1
	13nm,1.6s,mb4.7						
FITZ	Fitzroy Crossi	56.97	261	P	P	04 39 00.9	-2.1
	6.1nm,0.6s,mb4.8,baz=163,slow=7.3,SNR=16						
SBA	Scott Base	58.20	185	*e*P	P	04 39 12.0	+1.1
	18nm,1.0s,mb5.0						
VNDA	Vanda	58.33	186	P	P	04 39 13.2	+1.5
	6.4nm,1.0s,mb4.6,baz=7.8,slow=6.9,SNR=16						
VNDA				LR	LR	04 59 57.6	
	comp=Z,296nm,18.7s,MS4.4,baz=12,slow=32						

VNDA	Vanda	58.33	186	eP	P	04 39 13.2	+1.4
	7.0nm,0.9s,mb4.7						
VNDA				e	pP	04 39 21.9	-0.9
KLBR	Kellerberrin	61.67	244	eP	P	04 39 36.1	+0.9
	27nm,0.9s,mb5.4						
MBWA	Marble Bar	61.74	256	eP	P	04 39 33.8	-2.0
	8.4nm,0.7s,mb5.0						
NWAO	Narrogin (SRO)	61.94	243	eP	P	04 39 36.5	-0.5
	24nm,1.1s,mb5.2						
MUN	Mundaring	62.92	244	eP	P	04 39 44.5	+0.9
	24nm,1.0s,mb5.3						
QSPA	South Pole Qui	69.61	180	P	P	04 40 26.0	+0.7
	13nm,0.9s,mb4.9						
MAJO	Matsushiro	72.61	321	P	P	04 40 42.7	-1.4
PFO	Pinyon Flat Ob	76.63	46	eP	P	04 41 05.4	-1.9
	28nm,1.6s,mb4.9						
CMB	Columbia Colle	76.79	41	eP	P	04 41 06.8	-1.3
	7.3nm,0.9s,mb4.6						
CMB				e	pP	04 41 18.6	-1.0
MTUM	Tungsten Hills	77.49	42	eP	P	04 41 13.1	+1.0
MTUM				e	pP	04 41 23.5	0.0
YSS	Yuzh-Sakhalins	77.71	331	eP	P	04 41 13.4	+0.2
	23nm,0.8s,mb5.2						
YBH	Yreka Blue Hor	77.83	37	P	P	04 41 14.3	+0.4
	4.2nm,0.8s,mb4.4,baz=196,slow=2.7,SNR=8.1						
NVAR	Mina Array Bea	78.31	41	P	P	04 41 15.6	-1.0
	12nm,0.9s,mb4.8,baz=227,slow=8.7,SNR=39						
NVAR				LR	LR	05 11 37.0	
	comp=Z,409nm,18.6s,MS4.8,baz=280,slow=32						
LDFC	Landfair	78.39	46	eP	P	04 41 16.9	-0.2
MNV	Mina	78.41	41	eP	P	04 41 16.1	-1.0
	19nm,1.0s,mb5.0						
MNV				e	pP	04 41 27.2	-1.4
TPNV	Topopah Spring	78.72	44	eP	P	04 41 18.9	0.0
	9.1nm,0.9s,mb4.7						
TPH	Tonopah	78.78	42	eP	P	04 41 18.5	-0.6
	19nm,1.0s,mb5.0						
TPH				e	pP	04 41 29.5	-1.1
NEN	Nelson	78.89	45	eP	P	04 41 20.6	+0.8
NEN				e	pP	04 41 29.8	-1.5
SSE	Sheshan	80.76	308	P	P	04 41 29.8	-0.2
SSE				S	S	04 51 34.1	+0.5
SSE				SS	SS	04 56 49.3	-1.1
SSE				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,173nm,3.7s						
SSE				LR	LR		
	comp=N,67nm,30.0s,MS4.0						
SSE				LR	LR		
	comp=E,94nm,29.9s,MS4.0						
SSE				LR	LR		
	comp=Z,122nm,27.6s,MS4.1						
ARUT	Antelope Range	81.03	44	eP	P	04 41 31.1	-0.2
ARUT				e	pP	04 41 42.6	-0.2
MVU	Marysvale	82.24	44	eP	P	04 41 37.0	-0.4
	comp=Z,8.7nm,0.9s,mb4.7						
MSU	Marysvale	82.26	44	eP	P	04 41 37.9	+0.3
MSU				e	pP	04 41 49.5	+0.3
MDJ	Mudanjiang	82.83	323	P	P	04 41 42.3	+1.9
MDJ				PP	PP	04 44 49.3	-3.4
MDJ				S	S	04 51 59.3	+4.8
MDJ				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,139nm,3.4s						
MDJ				LR	LR		
	comp=N,259nm,17.6s,MS4.8						
MDJ				LR	LR		
	comp=E,248nm,19.1s,MS4.8						
MDJ				LR	LR		
	comp=Z,463nm,18.6s,MS4.9						
BMO	Blue Mountains	82.86	37	eP	P	04 41 40.1	-0.4
	comp=Z,6.6nm,1.2s,mb4.5						
MAW	Mawson	82.92	199	P	P	04 41 42.4	+2.1
	comp=Z,4.4nm,0.9s,mb4.5,baz=94,slow=5.2,SNR=6.1						
MAW				LR	LR	05 18 16.8	
	comp=Z,607nm,18.6s,MS5.0,baz=83,slow=35						
MAW	Mawson	82.92	199	P	P	04 41 42.4	+2.1
MAW				LR	LR	05 18 16.8	
NJ2	Nanjing	82.96	308	eP	P	04 41 42.6	+1.3
NJ2				PP	PP	04 44 53.3	-0.7
NJ2				S	S	04 51 55.0	-1.1
NJ2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.5						
NJ2				LR	LR		
	comp=N,160nm,26.4s,MS4.5						
NJ2				LR	LR		
	comp=E,270nm,28.7s,MS4.5						
NJ2				LR	LR		
	comp=Z,400nm,25.4s,MS4.7						
TMUT	Trail Mountain	83.33	44	eP	P	04 41 43.9	+0.8
TMUT				e		04 41 52.0	
MNTX	Cornudas Mount	83.52	53	eP	P	04 41 43.2	-1.0
	comp=Z,6.4nm,1.1s,mb4.7						
MNTX				e	pP	04 41 54.6	-1.1
SRU	San Rafael	83.67	44	eP	P	04 41 44.6	-0.2
SRU				e	pP	04 41 56.5	+0.1
TXAR	Lajitas Array	83.72	56	P	P	04 41 44.4	-0.9
	comp=Z,3.4nm,1.1s,mb4.4,baz=219,slow=8.0,SNR=17						
TXAR				LR	LR	05 12 23.0	
	comp=Z,356nm,19.6s,MS4.8,baz=345,slow=31						
LTX	Lajitas	83.72	56	eP	P	04 41 44.7	-0.6
	comp=Z,5.3nm,1.0s,mb4.6						
HLID	Hailey	83.75	39	eP	P	04 41 45.0	0.0
	comp=Z,13nm,1.0s,mb5.0						
HLID				e	pP	04 41 54.6	-2.0
HLID				e		04 42 10.6	
LPM	Los Pinos Moun	83.87	50	eP	P	04 41 45.8	-0.1
LPM				e	pP	04 41 57.6	+0.1
PV10	Paradox Valley	84.27	46	eP	P	04 41 46.6	-1.3
PV10				e	pP	04 41 59.2	-0.2
ANMO	Albuquerque	84.31	50	eP	P	04 41 47.9	-0.3
	comp=Z,13nm,1.2s,mb4.9						
ANMO				e	pP	04 41 59.8	+0.1
HWUT	Hardware Ranch	84.37	42	eP	P	04 41 47.7	-0.6
	comp=Z,8.4nm,1.1s,mb4.8						
HWUT				e	pP	04 41 58.0	-1.8
PV01	Paradox Valley	84.46	46	eP	P	04 41 48.6	-0.2
PV01				e	pP	04 41 59.9	-0.4
GDL2	Guadalupe Moun	84.52	53	eP	P	04 41 49.2	0.0
CN2	Changchun	84.75	321	eP	P	04 41 52.4	+2.3
CPRX	Cap Rock	85.28	52	eP	P	04 41 52.8	-0.2
CPRX				e	pP	04 42 04.5	-0.1
MCMT	McKenzie Canyo	85.40	39	eP	P	04 41 53.6	+0.3
MCMT				e	pP	04 42 04.1	-0.8
SNOW	Snow King Moun	85.89	41	eP	P	04 41 55.9	+0.1
MCK	McKinley	86.13	11	eP	P	04 41 56.5	+0.1
	comp=Z,15nm,0.9s,mb5.2						
MCK				e	pP	04 42 08.3	+0.3
MCK				e		04 42 23.0	
QLMT	Earthquake Lak	86.23	39	eP	P	04 41 57.6	+0.2
QLMT				e	pP	04 42 09.9	+0.9
PDAR	Pinedale Array	86.25	42	P	P	04 41 57.7	+0.2
	comp=Z,3.7nm,1.0s,mb4.6,baz=223,slow=2.8,SNR=17						
PDAR				LR	LR	05 15 46.1	
	comp=Z,320nm,20.2s,MS4.7,baz=160,slow=32						
SDCO	Great Sand Dun	86.36	48	eP	P	04 41 58.9	+0.7
	comp=Z,5.0nm,1.2s,mb4.6						
DLBC	Dease Lake	86.51	21	LR	LR	05 14 28.6	
	comp=Z,281nm,18.2s,MS4.7,baz=42,slow=31						
DLBC	Dease Lake	86.51	21	P	P	04 41 57.8	-0.6
BOZ	Bozeman (W)	86.57	38	eP	P	04 41 58.3	-0.7
	comp=Z,7.5nm,0.9s,mb4.9						
BOZ				e	pP	04 42 10.2	-0.4
COLA	College	87.37	11	eP	P	04 42 02.4	-0.1
	comp=Z,19nm,0.9s,mb5.3						
COLA				e	pP	04 42 15.2	+1.1
COLA				e		04 42 28.5	
ILAR	Eielson Array	87.45	11	P	P	04 42 01.9	-0.9
	comp=Z,2.6nm,0.8s,mb4.5,baz=214,slow=5.5,SNR=18						
ILAR				LR	LR	05 18 36.6	
	comp=Z,221nm,20.0s,MS4.6,baz=48,slow=34						
IMA	Indian Mountai	87.60	8	P	P	04 42 03.8	+0.3
SYO	Syowa Base	87.60	191	⇑P	P	04 42 03.0	-0.4
SYO	Syowa Base	87.60	191	⇑PcP	PcP	04 42 06.2	+0.4
VNA3	Neumayer Olymp	87.87	175	e	P	04 42 23.5	+19
VNA3	Neumayer Olymp	87.87	175	⇓iP	P	04 42 10.1	+5.4
VNA3				e	pP	04 42 23.5	+7.1
VNA3				e		04 42 29.9	
SNAA	Sanae	87.89	177	e	P	04 42 18.5	+14
SNAA	Sanae	87.89	177	e	P	04 42 24.0	+19
SNAA	Sanae	87.89	177	⇑iP	P	04 42 04.7	-0.1
SNAA				e	pP	04 42 18.5	+2.0
SNAA				e		04 42 24.0	
VNA2	Neumayer--Watz	88.36	176	e	P	04 42 24.9	+18
VNA2	Neumayer--Watz	88.36	176	⇑iP	P	04 42 12.6	+5.5
VNA2				e	pP	04 42 24.9	+6.2
VNA2				e		04 42 30.7	
DAWY	Dawson	88.38	14	eP	P	04 42 08.4	+1.1
VNA1	Neumayer--Stat	88.56	175	⇑iP	P	04 42 18.4	+10
VNA1				e	pP	04 42 32.0	+12
VNA1				e		04 42 37.8	
BJT	Baijiatuau	88.69	314	eP	P	04 42 10.4	+1.0
	comp=Z,13nm,1.0s,mb5.2						
BJI	Beijing	88.70	314	eP	P	04 42 11.3	+1.9
BJI				S	S	04 52 54.3	+2.8
BJI				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb5.1						
BJI				LR	LR		
	comp=Z,122nm,21.9s,MS4.3						
EFI	East Falkland	88.92	146	P	P	04 42 10.4	+0.2
	comp=Z,37nm,1.0s,mb5.7						
ENH	Enshi	89.34	303	eP	P	04 42 14.7	+1.9
	comp=Z,30nm,1.1s,mb5.5						
WMOK	Wichita Mounta	89.82	53	eP	P	04 42 14.7	-0.2
	comp=Z,4.2nm,1.2s,mb4.6						
GYA	Guiyang	90.11	298	P	P	04 42 21.8	+5.4
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.2						
GYA				AMB	AMB		
	comp=Z,130nm,7.5s						
GYA				LR	LR		
	comp=N,170nm,17.2s,MS4.7						
GYA				LR	LR		
	comp=E,180nm,16.0s,MS4.7						
GYA				LR	LR		
	comp=Z,390nm,17.7s,MS4.9						
HHC	Hu-ho-hao-te	92.21	313	eP	P	04 42 28.8	+3.0
HHC				SKS	SKS	04 52 57.1	+2.9
HHC				S	S	04 53 25.8	+2.9
HHC				AMB	AMB		
	comp=Z,12nm,0.6s,mb5.4						
HHC				AMB	AMB		
	comp=Z,193nm,4.3s						
HHC				LR	LR		
	comp=N,217nm,11.6s,MS5.0						
HHC				LR	LR		
	comp=E,280nm,11.7s,MS5.0						
HHC				LR	LR		
	comp=Z,170nm,22.6s						
DGMT	Dagmar	92.38	39	eP	P	04 42 27.6	+1.2
	comp=Z,20nm,1.1s,mb5.4						
DGMT				e	pP	04 42 38.1	+0.1
KMI	Kunming	92.90	296	eP	P	04 42 33.0	+3.7
KMI				AP	pP	04 42 44.8	+3.8
KMI				PP	PP	04 46 15.3	+0.6
KMI				SKS	SKS	04 53 01.8	+3.3
KMI				S	S	04 53 29.9	+0.5
KMI				SS	SS	04 59 45.8	-1.9
KMI				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb5.1						
KMI				AMB	AMB		
	comp=Z,184nm,8.3s						
KMI				LR	LR		
	comp=N,238nm,16.1s,MS4.9						
KMI				LR	LR		
	comp=E,317nm,19.4s,MS4.9						
KMI				LR	LR		
	comp=Z,384nm,20.6s,MS4.8						
CMAR	Chiang Mai Arr	93.87	288	P	P	04 42 35.5	+1.7
	comp=Z,2.5nm,0.8s,mb4.7,baz=105,slow=2.6,SNR=11						
CMAR				LR	LR	05 23 16.1	
	comp=Z,87nm,19.3s,MS4.2,baz=115,slow=35						
YKA	Yellowknife Ar	94.85	24	P	P	04 42 37.0	-0.3
	comp=Z,1.6nm,0.9s,mb4.5,baz=234,slow=4.2,SNR=25						
YKA				LR	LR	05 20 14.4	
	comp=Z,178nm,18.6s,MS4.6,baz=240,slow=32						
YKA	Yellowknife Ar	94.85	24	P	P	04 42 37.0	-0.3
YKA				LR	LR	05 20 14.4	
LZH	Lanzhou	95.93	306	eP	P	04 42 44.3	+1.5
LZH				ePP	PP	04 46 39.5	+1.7
LZH				SKS	SKS	04 53 15.3	+0.5
LZH				eS	S	04 53 55.0	-0.1
LZH				AMB	AMB		
	comp=Z,25nm,1.5s,mb5.4						
LZH				AMB	AMB		
	comp=Z,102nm,6.2s						
LZH				LR	LR		
	comp=N,526nm,15.2s						
LZH				LR	LR		
	comp=Z,757nm,17.9s,MS5.2						
ULM	Lac du Bonnet	98.05	39	LR	LR	05 21 44.0	
	comp=Z,394nm,18.1s,MS4.9,baz=256,slow=32						
SONM	Songino Array	98.37	318	P	P	04 42 54.7	+1.1
	comp=Z,0.4nm,0.6s,mb4.1,baz=104,slow=5.9,SNR=2.9						
LPAZ	La Paz	98.38	111	LR	LR	05 18 34.9	
	comp=Z,221nm,19.7s,MS4.7,baz=150,slow=30						
ARCES	ARCESS Array B	129.54	351	PKP	PKPdf	04 48 23.5	+0.4
	comp=Z,21nm,1.3s,baz=63,slow=2.0,SNR=3.7						
FINES	FINESS Array B	136.77	346	PKP	PKPdf	04 48 36.9	+0.1
	comp=Z,3.9nm,1.0s,baz=18,slow=4.4,SNR=3.3						
FINES	FINESS Array B	136.77	346	PKP	PKPdf	04 48 36.9	+0.1
KMBO	Kilima Mbogo	142.82	238	PKP	PKPdf	04 48 49.0	+0.1
	comp=Z,3.1nm,1.0s,baz=47,slow=5.1,SNR=7.5						
KMBO	Kilima Mbogo	142.82	238	ePKPdf	PKPdf	04 48 48.9	0.0
EKA	Eskdalemuir Ar	144.47	9	PKP	PKPdf	04 48 50.5	-0.1
	comp=Z,6.0nm,0.8s,baz=326,slow=3.0,SNR=6.4						
AKASG	Malin Array Be	144.80	334	PKP	PKPdf	04 48 51.3	0.0
	comp=Z,10.0nm,0.6s,baz=38,slow=4.3,SNR=65						
MALT	Malatya	147.02	310	ePKPbc	PKPdf	04 48 60.0	+4.5
KWP	Kalwaria	148.08	340	ePKPbc	PKPdf	04 49 03.1	+6.3
MBAR	Mbarara	148.17	232	ePKPbc	PKPdf	04 49 05.2	+7.1
MBAR				e		04 49 14.0	
KSP	Ksiaz	148.66	348	ePKP	PKPdf	04 49 05.0	+7.3
KSP				epPKP		04 49 18.7	
CLL	Collm	148.76	352	i PKP	PKPdf	04 49 04.8	+7.0
CLL				i pPKP		04 49 18.4	
CLL	Collm	148.76	352	i PKP1	PKPdf	04 49 04.0	+6.2
CLL				i *PPKP		04 49 18.4	
KOLS	Kolonicke sedl	148.82	339	eP	PKPab	04 49 10.9	+2.9
KOLS				e		04 49 18.2	
KOLS	Kolonicke sedl	148.82	339	e	PKPab	04 49 10.9	+2.9
KOLS	Kolonicke sedl	148.82	339	ePKP		04 49 18.2	
UPC	Upice	149.04	348	ePKPab	PKPab	04 49 08.2	-0.6
UPC				epPKP		04 49 17.7	
BRG	Berggiesshubel	149.05	351	eP	PKPab	04 49 05.3	-3.6
DPC	Dobruska-Polom	149.13	347	ePKPbc	PKPdf	04 49 06.2	+7.8
OKC	Ostrava-Krasne	149.20	345	ePKPab	PKPab	04 49 08.3	-1.2
PVCC	Panska Ves	149.28	350	ePKPab	PKPab	04 49 10.4	+0.6
PVCC				epPKP		04 49 21.0	
MORC	Moravsky Berou	149.40	346	ePKPbc	PKPdf	04 49 06.1	+7.2
MOX	Moxa	149.58	353	ePKP	PKPdf	04 49 05.7	+6.5
BRTR	Keskin Array B	149.69	315	PKPbc	PKPdf	04 49 06.0	+6.3
	comp=Z,2.1nm,0.7s,baz=116,slow=3.0,SNR=9.9						
PRU	Pruhonice	149.81	349	ePKPbc	PKPdf	04 49 07.0	+7.5
PRU				epPKP		04 49 16.9	
NKC	Novy Kostel	149.89	352	ePKPbc	PKPdf	04 49 07.0	+7.3
VRAC	Vranov	150.05	346	PKPbc	PKPdf	04 49 06.9	+6.9
	comp=Z,2.5nm,0.7s,baz=98,slow=7.1,SNR=2.8						
VYHS	Vyhne	150.25	343	i P	PKPdf	04 49 08.7	+8.4
VYHS				e		04 49 22.5	
GIVF	Givet	150.40	2	ePKP1	PKPdf	04 49 09.3	+8.8
BAIF	Baives	150.42	3	ePKP1	PKPdf	04 49 08.6	+8.1
PSZ	Piszkesteto	150.47	341	PKPdf	PKPdf	04 49 02.4	+1.7
PSZ				PKPbc	PKPdf	04 49 07.4	+6.8
GRF	Grafenberg Arr	150.57	353	ePKP	PKPdf	04 49 08.1	+7.4
KHC	Kasperske Hory	150.80	350	ePKPbc	PKPdf	04 49 08.3	+7.2
KHC				epPKP		04 49 23.5	
SRO	Srobarova	151.02	343	ePKP	PKPdf	04 49 18.4	+17
GERES	GERESS Array B	151.06	350	PKPbc	PKPdf	04 49 09.3	+7.8
	comp=Z,3.9nm,1.0s,baz=45,slow=1.9,SNR=16						
FLN	La Foliniere	151.25	9	ePKP1	PKPdf	04 49 10.8	+9.0
	comp=Z,96nm,1.2s						
LDF	La Druitiere	151.47	9	ePKP1	PKPdf	04 49 11.2	+9.1
	comp=Z,85nm,1.2s						
GRR	Gorron	151.56	10	ePKP1	PKPdf	04 49 11.7	+9.5
	comp=Z,36nm,1.0s						
CDF	Champ du Feu	152.10	359	ePKP1	PKPdf	04 49 10.5	+7.5
	comp=Z,20nm,1.1s						
HAU	Haudompre	152.52	360	ePKP1	PKPdf	04 49 12.3	+8.6
HINF	Hinteralfeld	152.71	359	ePKP1	PKPdf	04 49 12.6	+8.7
WTTA	Wattenberg	152.91	352	⇑iP	PKPdf	04 49 15.0	+11
SSF	Saint Saulge	153.38	4	ePKP1	PKPdf	04 49 16.1	+11
	comp=Z,30nm,1.2s						
DAVOX	Davos	153.58	354	PKPab	PKPab	04 49 26.1	-1.8
	comp=Z,4.3nm,0.8s,baz=325,slow=5.6,SNR=4.5						
AVF	Avril sur Loir	153.63	4	ePKP1	PKPdf	04 49 15.4	+10
EVO	Evora	158.18	31	ePKP2	PKPab	04 49 47.5	-0.3
	comp=Z,13nm,1.0s						
DBIC	Dimbokro	162.57	140	PKP	PKPdf	04 49 20.6	+3.7
	comp=Z,4.1nm,0.9s,baz=198,slow=6.4,SNR=3.6						

NEIC ***16*** *04:48:22.5±1.0, 21.79S×179.19W, h577^{km}±12^{km}, mb4.3/18, Error ellipse: s-maj=12.8km s-min=7.8km az=141.0*

BJI ***16*** *04:48:22.5, 21.80S×179.20W, h577^{km}, mB4.7, mb4.7*

SYO ***16*** *04:48:23.1, 21.65S×179.24W, h577^{km}, MB4.3*

IDC ***16*** *04:48:28.5±2.1, 21.70S×179.46W, h642^{km}±24^{km}, mb3.4/12, mb1 3.7/13, mb1mx3.6/15, Error ellipse: s-maj=20.5km s-min=10.9km az=158.0*

ISC 16 04:48:21.3±1.1**, 21.85S**±0.06×**179.20W**±0.08**, h572**^{km}±15^{km}**, n82,** $\sigma 0^{s}93$/52**, mb4.2**/30**, 5C-1D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	10.59	43	eP	P	04 50 46.5	+0.5
	70nm,0.9s						
DZM	Mont Dzumac	13.32	266	eP	P	04 51 15.8	+2.4
URZ	Urewera	16.66	190	P	P	04 51 45.0	-1.0
	8.4nm,0.3s,baz=304,slow=1.0,SNR=29						
URZ				S	S	04 54 32.5	+1.6
	1.1nm,0.3s,baz=157,slow=15,SNR=5.9						
BKZ	Black Stump Fm	17.65	191	P	P	04 51 55.0	-0.4
CAW	Cannon Point	19.80	193	P	P	04 52 15.1	-0.5
QRZ	Quartz Range	20.18	198	P	P	04 52 20.5	+1.5
THZ	Tophouse	20.94	197	P	P	04 52 25.6	-0.4
LTZ	Lake Taylor	22.06	197	P	P	04 52 35.1	-1.1
WVZ	Waitaha Valley	22.77	199	P	P	04 52 42.1	-0.5
RPZ	Rata Peaks	23.26	198	P	P	04 52 46.2	-0.8
	13nm,0.8s,mb4.6,baz=2.8,slow=5.5,SNR=6.1						
LBZ	Lake Benmore	24.13	199	P	P	04 52 53.1	-1.6
CTAO	Charters Tower	32.27	267	eP	P	04 54 05.5	+0.3
	3.8nm,0.7s,mb4.0						
STKA	Stephens Creek	36.20	246	eP	P	04 54 39.1	+1.2
	6.1nm,0.9s,mb4.1						
STKA	Stephens Creek	36.20	246	P	P	04 54 38.9	+1.1
	4.4nm,0.5s,mb4.2,baz=90,slow=10.0,SNR=11						
ASAR	Alice Springs	43.14	258	P	P	04 55 33.9	+0.1
	1.5nm,0.5s,mb3.8,baz=90,slow=8.2,SNR=18						
ASAR				PcP	PcP	04 57 08.2	-2.5
	3.4nm,0.9s,baz=103,slow=4.4,SNR=8.3						
ASAR				ScP		05 00 02.2	
	0.5nm,0.6s,baz=105,slow=4.3,SNR=4.1						
ASAR				S	S	05 01 15.1	-4.8
	2.3nm,0.9s,baz=96,slow=15,SNR=9.3						
WB2	Warramunga Arr	43.31	264	⇓iP	P	04 55 34.8	-0.3
WRAB	Tennant Creek	43.31	264	eP	P	04 55 34.7	-0.5
	5.1nm,0.8s,mb4.1						
WRA	Warramunga Arr	43.32	264	P	P	04 55 34.9	-0.3
	1.8nm,0.3s,mb4.1,baz=95,slow=7.9,SNR=30						
WRA				S	S	05 01 15.9	-6.6
	1.7nm,0.8s,baz=94,slow=14,SNR=9.7						
KAKA	Kakadu	46.94	273	⇑iP	P	04 56 02.3	-0.8
	5.9nm,0.3s,mb4.6						
FITZ	Fitzroy Crossi	51.75	264	eP	P	04 56 38.4	-0.3
	6.0nm,1.4s,mb3.7						
VNDA	Vanda	56.48	185	P	P	04 57 12.3	+1.4
	1.8nm,0.8s,mb3.4,baz=10,slow=6.2,SNR=14						
VNDA	Vanda	56.48	185	eP	P	04 57 12.2	+1.2
	2.0nm,0.7s,mb3.5						
MBWA	Marble Bar	56.48	258	eP	P	04 57 10.5	-1.2
	26nm,1.3s,mb4.3						
NWAO	Narrogin (SRO)	56.77	244	P	P	04 57 13.2	-0.4
	4.8nm,1.0s,mb3.7						
QSPA	South Pole Qui	68.23	180	⇑iP	P	04 58 27.6	+1.2
	7.8nm,0.8s,mb4.3						
MAJO	Matsushiro	70.64	325	P	P	04 58 40.6	-0.8
	15nm,0.9s,mb4.5						
KS15	Wonju Array Si	77.18	319	P	P	04 59 21.4	+3.3
SSE	Sheshan	77.70	311	eP	P	04 59 21.5	+0.5
SSE				AMB	AMB		
	comp=Z,22nm,0.7s,mb4.6						
SSE				AMB	AMB		
	comp=Z,168nm,5.0s						
NJ2	Nanjing	79.89	310	eP	P	04 59 36.5	+4.0
MAW	Mawson	79.92	200	P	P	04 59 31.5	-0.4
	comp=Z,1.4nm,0.9s,mb3.3,baz=153,slow=4.5,SNR=3.1						
CN2	Changchun	82.69	323	eP	P	04 59 50.9	+4.4
NVAR	Mina Array Bea	82.77	44	P	P	04 59 47.9	+0.8
	comp=Z,2.4nm,0.8s,mb3.8,baz=221,slow=8.4,SNR=16						
SYO	Syowa Base	85.17	193	⇑pP	pP	05 02 02.6	+0.7
ENH	Enshi	85.88	305	eP	P	05 00 02.7	+0.2
	comp=Z,12nm,0.8s,mb4.6						
BMO	Blue Mountains	87.06	39	eP	P	05 00 07.7	0.0
	comp=Z,4.5nm,1.1s,mb4.0						
MCK	McKinley	88.53	13	eP	P	05 00 13.2	-0.9
	comp=Z,3.2nm,0.8s,mb4.2						
TXAR	Lajitas Array	88.72	58	P	P	05 00 16.7	+0.8
	comp=Z,1.7nm,0.9s,mb3.9,baz=220,slow=5.8,SNR=15						
TXAR	Lajitas Array	88.72	58	P	P	05 00 16.7	+0.8
HIA	Hailar	89.14	325	P	P	05 00 10.8	-6.6
	comp=Z,20nm,1.8s,mb4.6						
HHC	Hu-ho-hao-te	89.50	315	eP	P	05 00 19.8	+0.6
HHC				AP	pP	05 02 29.6	+5.4
HHC				PP	PP	05 04 05.1	+2.6
HHC				SKS	SKS	05 09 53.0	-1.7
HHC				S	S	05 10 19.9	-0.3
HHC				SS	SS	05 16 39.8	+2.2
HHC				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
HHC				AMB	AMB		
	comp=Z,101nm,5.1s						
CM31	Chiang Mai Arr	89.52	290	eP	P	05 00 21.1	+1.3
	comp=Z,12nm,0.9s,mb4.7						
CMAR	Chiang Mai Arr	89.52	290	P	P	05 00 19.2	-0.5
	comp=Z,5.0nm,0.7s,mb4.4,baz=136,slow=3.3,SNR=26						
MCMT	McKenzie Canyo	89.70	41	eP	P	05 00 20.1	0.0
COLA	College	89.76	13	eP	P	05 00 18.5	-1.3
	comp=Z,6.5nm,1.0s,mb4.4						
ILAR	Eielson Array	89.87	13	P	P	05 00 19.1	-1.2
	comp=Z,1.8nm,0.9s,mb3.9,baz=219,slow=5.0,SNR=12						
PDAR	Pinedale Array	90.70	44	P	P	05 00 24.9	+0.3
	comp=Z,1.5nm,0.9s,mb3.9,baz=209,slow=4.8,SNR=8.3						
SDCO	Great Sand Dun	91.08	50	eP	P	05 00 26.8	+0.3
	comp=Z,2.5nm,1.0s,mb4.1						
LZH	Lanzhou	92.70	308	⇑P	P	05 00 34.8	+0.8
LZH				AP	pP	05 02 41.3	+1.8
LZH				XP	sP	05 03 37.5	+1.7
LZH				PP	PP	05 04 29.6	+1.9
LZH				AMB	AMB		
	comp=Z,24nm,1.5s,mb5.0						
YKA	Yellowknife Ar	98.20	25	P	P	05 00 57.3	-0.8
	comp=Z,0.4nm,0.9s,mb3.8,baz=238,slow=4.0,SNR=6.4						
YKA	Yellowknife Ar	98.20	25	P	P	05 00 57.3	-0.8
WMQ	Urumqi	106.96	311	ePDIF	Pdif	05 01 38.0	+0.6
WMQ				PP	PP	05 06 15.0	+0.9
WMQ				PP	PP		
	comp=Z,32nm,8.1s						
ARCES	ARCESS Array B	130.03	349	PKP	PKPdf	05 06 25.6	-0.4
	comp=Z,4.5nm,0.8s,baz=91,slow=2.0,SNR=13						
FINES	FINESS Array B	136.73	343	PKhKP		05 06 26.3	
	comp=Z,1.9nm,0.8s,baz=32,slow=4.0,SNR=10						
FINES				PKP	PKPdf	05 06 37.8	-0.7
	comp=Z,3.0nm,0.8s,slow=3.8,SNR=7.2						
NB2	NORSAR Subarra	140.17	352	PKP	PKPdf	05 06 38.6	-6.2
	comp=Z,0.5nm,0.6s,baz=17,slow=2.6						
NB2	NORSAR Subarra	140.17	352	⇑PKPab	PKPdf	05 06 38.6	-6.2
NOA	NORSAR Array B	140.17	352	PKhKP		05 06 37.2	
	comp=Z,0.7nm,0.8s,baz=46,slow=3.2,SNR=3.2						
HFS	Hagfors	140.68	350	PKhKP		05 06 39.2	
	comp=Z,3.7nm,0.3s,baz=54,slow=2.9,SNR=55						
AKASG	Malin Array Be	143.62	329	PKP	PKPdf	05 06 49.2	-1.8
	comp=Z,4.7nm,0.3s,baz=38,slow=4.3,SNR=42						
SUW	Suwalki	143.68	338	ePKP	PKPdf	05 06 50.8	-0.2
MALT	Malatya	143.83	306	eP	PKPbc	05 06 52.6	+1.3
ASF	Jabal al Asfar	146.38	296	PKPbc	PKPbc	05 06 59.8	+1.6
	comp=Z,5.8nm,0.8s,baz=340,slow=4.9,SNR=5.6						
BRTR	Keskin Array B	146.88	310	PKPbc	PKPbc	05 06 59.6	+0.5
	comp=Z,3.6nm,0.7s,baz=131,slow=4.6,SNR=13						
KWP	Kalwaria	147.31	333	ePKP	PKPdf	05 07 01.3	+4.0
KOLS	Kolonicke sedl	148.03	333	i PKP	PKPdf	05 07 04.3	+5.9
CRVS	Cervenica-Dubn	148.39	334	i PKP	PKPdf	05 07 04.7	+5.7
CRVS				i		05 07 15.7	
NIE	Niedzica	148.44	335	ePKP	PKPdf	05 07 05.0	+6.0
KSP	Ksiaz	148.62	341	ePKP	PKPdf	05 07 04.9	+5.6
KSP				e		05 07 11.1	
MLR	Muntele Rosu	148.71	325	PKPbc	PKPdf	05 07 04.4	+4.8
	comp=Z,4.4nm,0.8s,baz=24,slow=2.6,SNR=13						
MLR	Muntele Rosu	148.71	325	PKPbc	PKPdf	05 07 04.4	+4.8
OKC	Ostrava-Krasne	148.89	338	ePKPbc	PKPdf	05 07 05.5	+5.8
UPC	Upice	149.00	341	ePKPbc	PKPdf	05 07 06.1	+6.2

DPC	Dobruska-Polom	149.04	341	ePKPbc	PKPdf	05 07 06.1	+6.1
CLL	Collm	149.09	345	i PKP1	PKPdf	05 07 05.5	+5.5
CLL				i PKP2	PKPab	05 07 12.3	-1.8
BRG	Berggiesshubel	149.26	344	i PKP	PKPdf	05 07 06.5	+6.2
BRG				i		05 07 13.2	
PVCC	Panska Ves	149.40	343	ePKPbc	PKPdf	05 07 07.1	+6.6
VYHS	Vyhne	149.76	336	i PKP	PKPdf	05 07 07.8	+6.6
VYHS				i		05 07 16.0	
VRAC	Vranov	149.87	339	PKPbc	PKPdf	05 07 07.0	+5.6
	comp=Z,6.0nm,0.9s,baz=71,slow=2.6,SNR=4.9						
PRU	Pruhonice	149.90	342	ePKPbc	PKPdf	05 07 07.4	+6.1
NKC	Novy Kostel	150.22	345	ePKPbc	PKPdf	05 07 08.8	+7.0
KHC	Kasperske Hory	150.94	343	ePKPbc	PKPdf	05 07 10.1	+7.2
KHC				PKPab	PKPab	05 07 20.5	-1.4
GRF	Grafenberg Arr	151.01	346	ePKP	PKPdf	05 07 08.5	+5.5
GERES	GERESS Array B	151.16	342	PKPbc	PKPdf	05 07 10.0	+6.8
	comp=Z,5.4nm,0.9s,baz=45,slow=1.9,SNR=18						

IDC 16 05:03:19.6±15.0**,17.78S**×**179.02W,h662**^{km}±215^{km}**, mb3.1**/5**,mb1 3.3**/5**,mb1mx3.0**/15**,1D,Error ellipse: s-maj=116.0km s-min=72.5km az=154.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	32.89	260	P	P	05 09 02.9	-1.2
	2.1nm,0.6s,baz=211,slow=5.7,SNR=3.7						
STKA	Stephens Creek	38.18	241	P	P	05 09 46.0	-1.4
	1.5nm,0.3s,baz=99,slow=13,SNR=3.2						
WB2	Warramunga Arr	44.07	259	eP	P	05 10 32.0	-2.0
WRA	Warramunga Arr	44.08	259	P	P	05 10 32.1	-2.0
	1.0nm,0.5s,baz=95,slow=7.1,SNR=22						
ASAR	Alice Springs	44.26	254	P	P	05 10 34.0	-1.5
	8.4nm,0.5s,baz=88,slow=8.3,SNR=138						
ASPA	Alice Springs	44.27	254	⇓iP	P	05 10 33.9	-1.6
TXAR	Lajitas Array	86.42	58	P	P	05 14 54.6	-1.1
	0.4nm,0.9s,baz=225,slow=5.3,SNR=3.8						

IDC 16 05:44:02.4±16.0**,1.38S**×**127.50E,mb3.4**/2**,mb1 3.6**/3**, mb1mx3.4**/15**,ML3.7**/1**,Error ellipse: s-maj=250.0km s-min=177.7km az=140.0,Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	19.63	161	P	P	05 48 32.6	-2.9
	0.2nm,0.3s,baz=340,slow=11,SNR=9.1						
ASAR	Alice Springs	23.01	165	P	P	05 49 09.1	-1.2
	0.7nm,0.7s,baz=343,slow=10,SNR=7.7						
STKA	Stephens Creek	33.13	158	P	P	05 50 40.8	-1.9
	0.3nm,0.3s,baz=342,slow=13,SNR=3.0						

IDC 16 05:53:54.4±12.0**,8.37N**×**104.15W,mb3.4**/4**,mb1 3.9**/4**, mb1mx3.6**/17**,MS3.7**/2**,Ms1 3.6**/2**,ms1mx2.6**/15**,Error ellipse: s-maj=366.0km s-min=105.0km az=116.0, Northern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	Lajitas Array	20.86	1	P	P	05 58 37.5	-3.0
	1.0nm,0.8s,baz=181,slow=11,SNR=13						
TXAR				LR	LR	06 06 10.0	
	comp=Z,168nm,18.2s,baz=250,slow=35						
PDAR	Pinedale Array	34.59	353	P	P	06 00 45.7	-1.3
	0.9nm,0.8s,baz=168,slow=8.3,SNR=8.5						
YKA	Yellowknife Ar	54.56	354	P	P	06 03 24.6	-1.8
	0.1nm,0.7s,baz=163,slow=7.3,SNR=3.1						
BDFB	Brasilia	60.50	113	LR	LR	06 29 25.0	
	comp=Z,55nm,18.5s,baz=169,slow=35						
ILAR	Eielson Array	63.76	341	P	P	06 04 27.0	-3.1
	0.9nm,0.9s,baz=153,slow=5.3,SNR=4.6						

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*BJI **16** 05:55:42.0,22.30S×68.20W,h103^{km},mB4.9*
*SYO **16** 05:55:43.7,22.35S×68.00W,h109^{km},MB4.3*
*IDC **16** 05:55:44.6±0.7,22.36S×68.35W,h106^{km}±6^{km},mb3.9/10, mb1 4.0/12,mb1mx3.9/16,Error ellipse: s-maj=20.1km s-min=13.3km az=85.0*
*NEIC **16** 05:55:44.0±0.6,22.33S×68.22W,h103^{km}±6^{km},mb4.4/15, Error ellipse: s-maj=10.5km s-min=7.2km az=83.0*
*GUC **16** 05:55:44.8±0.7,22.71S×68.17W,h99^{km}±11^{km},ML4.7*
ISC 16 05:55:43.5±0.6**,22.42S**±0.04×**68.29W**±0.07**,h116**^{km}±5^{km}**, n52,σ1^{s}22**/51**,mb4.2**/19**,3C-4D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	0.61	251	P	P	05 56 03.2	+1.4
	1µm,0.3s,baz=46,slow=7.2						
LVC				S	S	05 56 16.3	+0.5
	6µm,0.3s,baz=284,slow=19,SNR=235						
LVC	Limon Verde	0.61	251	ePn	P	05 56 02.9	+1.0
LVC				eSn	S	05 56 15.4	-0.4
LVC	Limon Verde	0.61	251	⇑iP	P	05 56 02.8	+0.9
LVC				i S	S	05 56 16.6	+0.8
LVC				AMP		05 56 17.4	
	comp=E,38µm,0.5s						
ANCH	Antofagasta	2.32	237	⇑iP	P	05 56 22.0	+0.4
ANCH				i S	S	05 56 49.5	-0.7
CPN1	Cerro Paranal	2.93	221	⇑iP	P	05 56 29.8	+0.1
CPN1				i S	S	05 57 04.0	-0.6
CPN1				AMP		05 57 12.9	
	comp=E,2µm,0.6s						
CPCH	Copiapo	5.26	200	⇓iP	P	05 56 59.9	-1.3
LPAZ	La Paz	6.10	1	P	P	05 57 13.6	+1.1
	comp=E,5.3nm,0.3s,baz=175,slow=8.8,SNR=158						
LPAZ				S	S	05 58 22.1	+0.6
	comp=E,0.7nm,0.3s,baz=106,slow=20,SNR=1.7						
LPAZ	La Paz	6.10	1	ePn	P	05 57 13.2	+0.7
LPAZ				e		05 57 28.0	
ARE	Arequipa	6.65	332	eP	P	05 57 18.0	-2.1
ARE				i S	S	05 58 27.1	-7.7
NNA	Nana	13.19	320	P	P	05 58 49.4	+1.9
SAML	Samuel	14.26	21	eP	P	05 58 57.9	-3.4
	comp=E,5.3nm,0.7s						
SAML				e		05 59 04.8	
TRQA	Tornquist	16.51	162	eP	P	05 59 29.2	-0.2
	comp=E,6.8nm,0.8s						
TRQA				eS		06 03 15.2	
BDFB	Brasilia	20.31	74	P	P	06 00 11.4	-0.9
	comp=E,4.6nm,0.3s,baz=240,slow=9.3,SNR=34						
BAO	Brasilia Array	20.33	74	P	P	06 00 12.0	-0.6
BAO				e		06 00 15.7	
OTAV	Otavalo	24.60	335	eP	P	06 00 55.3	+0.9
	comp=E,2.5nm,0.7s,mb3.8						
ROSC	El Rosal	27.74	347	P	P	06 01 26.1	+2.6
	comp=E,9.0nm,0.3s,mb4.7,baz=90,slow=20,SNR=12						
SJG	San Juan	40.33	3	eP	P	06 03 08.6	-2.8
	comp=E,8.8nm,0.8s,mb4.6						
BBSR	BB Station	54.59	4	eP	P	06 04 59.4	-2.9
	comp=E,263nm,1.6s						
JCT	Junction City	60.68	329	eP	P	06 05 43.8	-1.2
	comp=E,215nm,0.7s						
WVT	Waverly	61.09	342	eP	P	06 05 45.5	-2.3
	comp=E,7.3nm,0.9s,mb4.7						
SNAA	Sanae	61.23	161	P	P	06 05 48.9	+0.7
	comp=E,0.9nm,0.8s,mb3.9,baz=261,slow=8.4,SNR=6.3						
SNAA	Sanae	61.23	161	eP	P	06 05 48.4	+0.2
	comp=E,6.6nm,1.2s,mb4.5						
SNAA				e		06 06 30.1	
TXAR	Lajitas Array	61.70	325	P	P	06 05 50.9	-1.1
	comp=E,0.7nm,0.6s,mb3.9,baz=155,slow=8.0,SNR=14						
WMOK	Wichita Mounta	63.79	332	eP	P	06 06 03.5	-2.2
	comp=E,1.7nm,0.8s,mb3.9						
GDL2	Guadalupe Moun	64.34	326	eP	P	06 06 08.6	-0.7
ANMO	Albuquerque	67.58	327	P	P	06 06 30.0	+0.1
	comp=E,4.4nm,0.7s,mb4.4,baz=145,slow=7.1,SNR=24						
ANMO	Albuquerque	67.58	327	eP	P	06 06 29.9	+0.1
	comp=E,7.1nm,0.9s,mb4.5						
QSPA	South Pole Qui	67.78	180	⇓iP	P	06 06 32.5	+2.1
	comp=E,4.7nm,0.8s,mb4.4						
DBIC	Dimbokro	68.45	73	P	P	06 06 36.0	+0.4
	comp=E,3.4nm,0.8s,mb4.2,baz=173,slow=7.9,SNR=5.0						
SDCO	Great Sand Dun	69.32	329	eP	P	06 06 40.5	0.0
	comp=E,7.1nm,0.9s,mb4.5						
SDCO				e		06 07 03.7	
PV01	Paradox Valley	71.12	327	eP	P	06 06 51.8	+0.4
PDAR	Pinedale Array	75.19	330	P	P	06 07 14.9	-0.1
	comp=E,0.4nm,0.8s,baz=100,slow=9.0,SNR=4.0						
HWUT	Hardware Ranch	75.26	328	eP	P	06 07 15.6	+0.2
	comp=E,2.9nm,0.8s,mb4.1						
SYO	Syowa Base	75.45	159	⇓P	P	06 07 17.6	+1.7
SYO	Syowa Base	75.45	159	⇓PcP	PcP	06 07 29.8	+1.0
TPH	Tonopah	75.70	322	eP	P	06 07 18.9	+0.9
	comp=E,3.0nm,0.8s,mb4.1						
ULM	Lac du Bonnet	76.36	342	P	P	06 07 20.6	-0.8
	comp=E,3.3nm,0.8s,mb4.1,baz=155,slow=5.8,SNR=4.8						
NVAR	Mina Array Bea	76.56	322	P	P	06 07 23.6	+0.8
	comp=E,1.0nm,0.8s,mb3.6,baz=151,slow=6.6,SNR=8.3						
HLID	Hailey	78.12	328	eP	P	06 07 32.6	+1.3
	comp=E,5.1nm,0.9s,mb4.2						
MCMT	McKenzie Canyo	78.30	329	eP	P	06 07 33.5	+1.2
MAW	Mawson	83.29	163	P	P	06 08 00.4	+2.2
	comp=E,1.0nm,0.8s,mb3.7,baz=239,slow=6.3,SNR=7.2						
FCC	Fort Churchill	83.65	347	eP	P	06 08 00.2	+0.1
	comp=E,5.5nm,0.8s,mb4.4						
CASY	Casey	91.58	180	eP	P	06 08 36.4	-1.6
	comp=E,39nm,0.9s						
YKA	Yellowknife Ar	92.24	340	P	P	06 08 41.4	+0.3
	comp=E,2.0nm,0.4s,mb4.7,baz=136,slow=4.4,SNR=105						
YKW3	Yellowknife Ar	92.29	340	eP	P	06 08 41.3	0.0
ASAR	Alice Springs	129.36	207	PKP	PKPdf	06 14 41.0	+1.8
	comp=E,1.4nm,0.7s,baz=150,slow=2.5,SNR=15						
WRA	Warramunga Arr	132.45	209	PKP	PKPdf	06 14 47.3	+2.2
	comp=E,1.1nm,0.5s,baz=156,slow=1.7,SNR=21						
ZAL	Zalesovo	142.53	26	PKP	PKPdf	06 15 05.4	+3.0
	comp=E,1.2nm,0.6s,baz=41,slow=2.5,SNR=5.0						
WMQ	Urumqi	150.86	37	PKP	PKPdf	06 15 16.0	-0.5
WMQ				PKP2	PKPab	06 15 31.0	-1.2
WMQ				APKP		06 15 43.0	
WMQ				XPKP		06 15 53.5	
WMQ				PP	PP		
	comp=Z,31nm,8.3s						
WMQ				LR	LR		
	comp=N,31nm,16.4s						
WMQ				LR	LR		
	comp=E,47nm,17.8s						
WMQ				LR	LR		
	comp=Z,25nm,16.4s						
SONM	Songino Array	154.28	8	PKPbc	PKPdf	06 15 32.3	+11
	comp=Z,0.8nm,1.0s,baz=310,slow=0.9,SNR=4.6						
LZH	Lanzhou	164.76	25	ePKP	PKPdf	06 15 34.4	+0.8
LZH				APKP		06 16 01.6	
LZH				XPKP		06 16 12.5	
LZH				LR	LR		
	comp=N,174nm,18.0s						
LZH				LR	LR		
	comp=Z,247nm,20.2s						
NJ2	Nanjing	168.49	328	ePKP	PKPdf	06 15 37.3	+0.9

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*CSEM **16** 05:57:33.2±0.9,72.87N×13.13E,h35^{km},ML2.8,Error ellipse: s-maj=31.7km s-min=12.6km az=71.0*
*BER **16** 05:57:35.6±4.6,73.17N×14.92E,h10^{km},MD3.3,ML2.0, ML1.9(NAO)*
*NAO **16** 05:57:37.4±8.2,73.34N×16.44E,h16^{km}±127^{km},ML1.9*
HEL 16 05:57:33.6±0.6**,73.10N**×**14.90E,h10**^{km}**,ML2.8, MD3.3**(BER)**,ML2.0**(BER)**,Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TRO	Tromso	3.72	158	eP	Pn	05 58 31.2	-1.2
TRO				eS	Sn	05 59 11.7	-5.0
TRO				AML	AML	05 59 14.3	
	comp=Z,3.6nm,0.3s						
TRO	Tromso	3.72	158	P	Pn	05 58 31.1	-1.2
TRO				S	Sn	05 59 11.7	-5.0
	comp=Z,3.6nm,0.3s						
KTK1	Kautokeino	4.92	143	eP	Pn	05 58 49.5	+0.1
KTK1				eS	Sn	05 59 44.9	-2.2
KTK1				AML	AML	05 59 49.9	
	comp=Z,5.8nm,0.4s						
ARA0	ARCESS Array S	4.94	131	Pn	Pn	05 58 48.5	-1.2
	baz=320,slow=11						
ARA0				Sn	Sn	05 59 43.1	-4.5
	baz=319,slow=22						
ARA0	ARCESS Array S	4.94	131	eP	Pn	05 58 48.5	-1.2
ARA0				eS	Sn	05 59 41.7	-5.9
KEV	Kevo	5.12	125	eP	Pn	05 58 50.8	-1.5
KEV				eS	Sn	05 59 46.0	-6.1
KEV				MSN		05 59 50.3	
	comp=Z,5.2nm,0.2s						
SPA0	Spitsbergen Ar	5.12	3	Pn	Pn	05 58 49.6	-2.7
	baz=159,slow=18						
SPA0	Spitsbergen Ar	5.12	3	eP	Pn	05 58 49.6	-2.7
SGF	Sodankyl	6.90	140	eP	Pn	05 59 15.0	-2.3
SGF				eS	Sn	06 00 29.3	-7.4
SGF				MSN		06 00 34.5	
	comp=Z,1.4nm,0.2s						
MOR8	Moi Rana	6.97	182	eS	Sn	06 00 27.5	-11
MOR8				AML	AML	06 00 30.3	
	comp=Z,4.5nm,0.4s						
MOR8	Moi Rana	6.97	182	eS	Sn	06 00 27.5	-11
	comp=Z,4.5nm,0.4s,SNR=47						
APA0	Apatity Array	8.18	123	Pn	P	05 59 32.3	-3.0
	baz=320,slow=9.3						
APA0				Sn	Sn	06 00 59.8	-9.0
	baz=309,slow=22						
APA0	Apatity Array	8.18	123	eP	P	05 59 32.3	-3.0
APA0				eS	Sn	06 00 59.8	-9.0
KU4	Oulanka	8.44	136	eS	Sn	06 01 05.8	-9.3
KJN	Kajaani	10.16	146	eP	P	05 59 57.9	-4.5
KJN				eS	S	06 01 45.7	-12
KJN				MSN		06 01 51.2	
	comp=Z,0.8nm,0.2s						

FUNV 16 05:57:57.8,6.72N×**73.19W,h176**^{km}**,MD3.9,2C-1D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	Capacho	1.43	37	⇑iP	P	05 58 28.5	-0.7
CAPV				eS	S	05 58 50.5	-2.9
VIGV	El Vigia	2.78	41	⇑iP	P	05 58 42.9	-1.3
VIGV				eS	S	05 59 16.0	-3.8
SOCV	Socops	2.79	56	eP	P	05 58 43.2	-1.1
SOCV				eS	S	05 59 15.7	-4.3
VIRV	Villa del Rosa	3.84	12	eP	P	05 58 55.2	-2.2
VIRV				eS	S	05 59 38.1	-5.4
DABV	Dabajuro	4.88	31	eP	P	05 59 08.6	-2.3
BAUV	El Baul	5.56	66	⇓iP	P	05 59 16.6	-3.1
BAUV				eS	S	06 00 16.1	-7.2

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*IDC **16** 05:59:09.1±3.0,23.94S×179.87W,h521^{km}±32^{km},mb3.6/6, mb1 3.8/7,mb1mx3.5/15,Error ellipse: s-maj=35.4km s-min=22.3km az=169.0*
*NEIC **16** 05:59:14.9±4.3,24.28S×179.93W,h606^{km}±51^{km},mb4.7/7, Error ellipse: s-maj=35.7km s-min=19.3km az=208.0*
ISC 16 05:59:11.9±3.9**,24.0S**±0.2×**179.9E**±0.2**,h564**^{km}±53^{km}**, n22,σ0^{s}53**/21**,mb4.4**/10**,6D,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	14.39	189	P	P	06 02 14.0	-0.6
	0.4nm,0.3s,baz=250,slow=22,SNR=1.9						
URZ				S	S	06 04 42.3	+0.5
	0.8nm,0.3s,baz=342,slow=22,SNR=7.4						
CTA	Charters Tower	31.41	270	⇓iP	P	06 04 49.8	+0.8
	6.0nm,0.3s,mb4.6						
CTAO	Charters Tower	31.41	270	eP	P	06 04 49.7	+0.7
	13nm,0.5s,mb4.7						
PMG	Port Moresby	34.47	289	P	P	06 05 15.4	+0.7
	14nm,0.8s,mb4.5,baz=126,slow=5.0,SNR=4.2						
PMG	Port Moresby	34.47	289	eP	P	06 05 15.0	+0.3
	16nm,0.8s,mb4.6						
STKA	Stephens Creek	34.61	248	⇓iP	P	06 05 16.5	+0.8
	1.3nm,0.6s,mb3.6						
STKA	Stephens Creek	34.61	248	P	P	06 05 16.3	+0.6
	1.3nm,0.5s,mb3.8,baz=87,slow=7.9,SNR=7.6						
STKA	Stephens Creek	34.61	248	eP	P	06 05 16.1	+0.4
ASAR	Alice Springs	41.95	261	P	P	06 06 15.8	+0.4
	4.1nm,0.7s,mb4.1,baz=95,slow=8.0,SNR=41						
ASPA	Alice Springs	41.95	261	⇓iP	P	06 06 15.7	+0.3
WB2	Warramunga Arr	42.32	266	⇓iP	P	06 06 18.1	-0.3
WRAB	Tennant Creek	42.32	266	eP	P	06 06 18.1	-0.3
	15nm,0.6s,mb4.7						
WRA	Warramunga Arr	42.33	266	P	P	06 06 18.3	-0.2
	6.6nm,0.3s,mb4.6,baz=97,slow=8.3,SNR=91						
WRA				ScP		06 11 01.1	
	0.8nm,0.7s,baz=101,slow=3.7,SNR=5.6						
FORT	Forrest	46.20	250	⇓iP	P	06 06 47.7	-0.7
	41nm,0.6s,mb5.1						
KAKA	Kakadu	46.25	275	⇓iP	P	06 06 48.3	-0.6
	4.9nm,0.3s,mb4.5						
FITZ	Fitzroy Crossi	50.75	266	eP	P	06 07 23.1	+0.6
	6.7nm,0.7s,mb4.1						
FITZ	Fitzroy Crossi	50.75	266	P	P	06 07 22.5	0.0
	12nm,0.8s,mb4.2,baz=135,slow=5.2,SNR=8.2						
MBWA	Marble Bar	55.28	260	P	P	06 07 53.7	-0.9
TXAR	Lajitas Array	90.55	58	P	P	06 11 15.8	+0.3
	0.9nm,0.7s,mb3.8,baz=211,slow=6.3,SNR=12						
TXAR	Lajitas Array	90.55	58	P	P	06 11 15.8	+0.3
HFS	Hagfors	142.65	349	PKhKP		06 17 38.5	
	2.2nm,0.6s,baz=45,slow=2.1,SNR=7.8						
EKA	Eskdalemuir Ar	148.64	3	PKPbc	PKPdf	06 17 54.5	+4.1
	2.6nm,1.0s,baz=308,slow=3.3,SNR=4.0						

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*NEIC **16** 06:15:05.0,16.99N×100.43W,h12^{km},MD3.7(MEX),After MEX.*
MEX 16 06:15:05.0±1.0**,16.98N**×**100.42W,h14**^{km}±6^{km}**,MD3.7, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	El Cayaco	0.16	65	i P	Pg	06 15 08.1	-1.0
CAIG				i S	Sg	06 15 11.3	-0.5
ACX	Acapulco	0.49	103	i P	Pb	06 15 14.5	-0.4
ACX				i S	Sb	06 15 20.0	-1.6
ACX	Acapulco	0.49	103	i P	Pb	06 15 14.5	-0.4
ACX				i S	Sb	06 15 19.5	-2.1
ZIIG	Zihuatanejo	1.18	302	eP	Pb	06 15 23.6	-3.0
ZIIG				i S	Sb	06 15 37.0	-4.5
PLIG	Platanillo	1.66	32	eP	Pn	06 15 30.9	-2.9
PLIG				i S	Sn	06 15 50.0	-4.9
PPM	Popocatepetl	2.69	39	eP	Pn	06 15 47.0	-1.6
PPM				i S	Sn	06 16 22.0	+0.8

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*NEIC **16** 06:26:22.3±5.3,0.99N×126.49E,h34^{km}±39^{km},mb4.5/16, Error ellipse: s-maj=23.7km s-min=8.8km az=73.0*
*BJI **16** 06:26:22.3,1.00N×126.50E,h33^{km},mB4.8,mb4.7,Ms4.4, Msz4.3*
*IDC **16** 06:26:23.9±4.0,1.09N×127.01E,h48^{km}±38^{km},mb3.9/11, mb1 4.2/12,mb1mx4.0/18,ML4.0/1,Error ellipse: s-maj=38.8km s-min=11.4km az=68.0*
ISC 16 06:26:16.1±3.0**,0.98N**±0.07×**126.3E**±0.2**,h1**^{km}±18^{km}**,n38, σ1^{s}10**/41**,mb4.5**/26**,MS4.0**/2**,1C,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	14.90	156	eP	P	06 29 48.0	-1.9
	13nm,0.9s						
FITZ	Fitzroy Crossi	18.97	182	eP	P	06 30 41.5	+0.2
	7.4nm,1.1s						
FITZ	Fitzroy Crossi	18.97	182	P	P	06 30 41.1	-0.2
	0.4nm,0.3s,baz=355,slow=8.5,SNR=7.5						
WRAB	Tennant Creek	22.22	160	eP	P	06 31 16.2	+0.3
	32nm,0.8s,mb4.8						
WRA	Warramunga Arr	22.23	160	P	P	06 31 15.9	-0.1
	24nm,1.0s,mb4.6,baz=338,slow=11,SNR=50						
WRA				S	S	06 35 16.7	+0.2
	0.2nm,0.3s,baz=327,slow=15,SNR=5.6						
WB2	Warramunga Arr	22.23	160	eP	P	06 31 16.4	+0.4
WB2				eS	S	06 35 16.9	+0.3
MBWA	Marble Bar	22.92	196	eP	P	06 31 24.4	+1.5
	10.0nm,0.9s,mb4.3						
PMG	Port Moresby	23.18	117	P	P	06 31 19.4	-6.1
	12nm,0.9s,mb4.4,baz=62,slow=5.6,SNR=3.1						
PMG	Port Moresby	23.18	117	P	P	06 31 19.4	-6.1
ASAR	Alice Springs	25.58	164	P	P	06 31 49.1	+0.5
	13nm,1.1s,mb4.5,baz=349,slow=15,SNR=63						
ASAR				PcP	PcP	06 35 19.9	-0.6
	0.5nm,0.6s,baz=350,slow=2.5,SNR=3.2						
ASPA	Alice Springs	25.58	164	eP	P	06 31 50.5	+1.9
FORT	Forrest	31.62	177	eP	P	06 32 42.5	-0.5
	29nm,0.5s,mb5.5						
CMAR	Chiang Mai Arr	31.99	305	P	P	06 32 51.6	+5.3
	0.6nm,0.4s,mb3.9,baz=106,slow=5.4,SNR=4.4						
ENH	Enshi	33.23	333	P	P	06 32 55.8	-1.3
	5.3nm,0.7s,mb4.6						
STKA	Stephens Creek	35.74	157	eP	P	06 33 18.3	-0.3
	4.8nm,0.7s,mb4.4						
STKA	Stephens Creek	35.74	157	P	P	06 33 18.3	-0.3
	5.5nm,0.7s,mb4.5,baz=330,slow=9.0,SNR=17						
KS15	Wonju Array Si	36.31	2	P	P	06 33 17.7	-5.6
BJT	Baijiatuau	39.94	348	P	P	06 33 54.9	+1.2
	9.8nm,0.5s,mb4.7						
LZH	Lanzhou	40.68	332	eP	P	06 34 03.1	+3.3
LZH				PP	PP	06 35 41.6	+4.6
LZH				AMB	AMB		
	comp=Z,21nm,1.5s,mb4.7						
LZH				AMB	AMB		
	comp=Z,101nm,5.3s						
LZH				LR	LR		
	comp=N,255nm,13.2s						
LZH				LR	LR		
	comp=Z,393nm,17.0s,MS4.3						
CN2	Changchun	42.65	359	eP	P	06 34 19.8	+3.9
MDJ	Mudanjiang	43.55	3	eP	P	06 34 25.1	+1.9
	comp=Z,18nm,1.0s,mb4.8						
HIA	Hailar	48.44	354	eP	P	06 35 02.6	+0.7
SONM	Songino Array	49.77	343	P	P	06 35 12.1	-0.2
	comp=Z,0.8nm,0.6s,mb3.8,baz=164,slow=9.0,SNR=4.7						
SONM				PcP	PcP	06 36 34.1	+0.6
	comp=Z,0.6nm,0.6s,baz=205,slow=2.3,SNR=3.7						
WMQ	Urumqi	54.75	326	⇑P	P	06 35 51.5	+1.9
WMQ				XP	sP	06 36 10.5	+21
WMQ				PCP	PcP	06 36 53.0	+0.9
WMQ				PP	PP	06 37 56.5	+2.7
WMQ				S	S	06 43 24.8	-4.7
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,15nm,4.9s						
WMQ				LR	LR		
	comp=N,44nm,14.7s,MS3.9						
WMQ				LR	LR		
	comp=E,72nm,15.8s,MS3.9						
WMQ				LR	LR		
	comp=Z,38nm,18.0s,MS3.5						
TKM2	Tokmak 2	61.54	320	eP	P	06 36 35.9	-1.4
	comp=Z,5.5nm,1.2s,mb4.7						
UCH	Uchtor	61.93	319	eP	P	06 36 38.1	-1.8
	comp=Z,2.7nm,0.8s,mb4.5						
AAK	Ala-Archa	62.12	319	eP	P	06 36 41.2	0.0
	comp=Z,2.1nm,0.8s,mb4.4						
AML	Almayashu	62.43	318	eP	P	06 36 43.9	+0.6
	comp=Z,2.3nm,0.8s,mb4.5						
EKS2	Erkin-Say	62.61	319	eP	P	06 36 44.6	+0.2
	comp=Z,3.3nm,1.0s,mb4.4						
ZAL	Zalesovo	62.85	334	P	P	06 36 45.5	-0.4
	comp=Z,1.1nm,0.4s,mb4.3,baz=354,slow=4.2,SNR=3.5						
ZAL	Zalesovo	62.85	334	P	P	06 36 45.5	-0.4
BVAR	Borovoye Array	69.40	328	P	P	06 37 27.4	-0.3
	comp=Z,0.7nm,0.5s,mb4.2,baz=146,slow=5.3,SNR=7.1						
BRVK	Borovoye	69.47	328	eP	P	06 37 27.9	-0.2
	comp=Z,3.4nm,0.9s,mb4.6						
ARU	Arti	77.03	328	eP	P	06 38 11.7	-0.7
	comp=Z,15nm,1.3s,mb5.0						
VNDA	Vanda	80.77	173	P	P	06 38 30.3	-2.0
	comp=Z,1.1nm,0.7s,mb4.0,baz=315,slow=13,SNR=5.1						
VNDA	Vanda	80.77	173	eP	P	06 38 30.6	-1.7
	comp=Z,1.6nm,0.8s,mb4.1						
ILAR	Eielson Array	87.75	25	P	P	06 39 06.1	-1.6
	comp=Z,0.2nm,0.5s,mb3.8,baz=243,slow=4.7,SNR=4.6						
FINES	FINESS Array B	94.05	332	P	P	06 39 37.3	+0.2
	comp=Z,1.2nm,0.8s,mb4.3,baz=63,slow=3.1,SNR=2.3						

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*NEIC **16** 07:29:51.9,61.72N×150.71W,h55^{km},ML3.9(PMR), ML3.6(AEIC),After AEIC.*
*IDC **16** 07:29:53.1±4.8,61.92N×150.73W,h84^{km}±40^{km},mb3.5/7, mb1 3.7/11,mb1mx3.6/22,Error ellipse: s-maj=40.5km s-min=15.7km az=54.0*
ISC 16 07:29:50.0±0.2**,61.74N**±0.02×**150.67W**±0.05**,h73**^{km}±4^{km}**, n68,σ0^{s}76**/75**,mb3.7**/7**,Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PWA	Palmer West	0.39	102	P	P	07 30 01.9	-0.3
STLK	Strandline Lak	0.60	247	P	P	07 30 03.8	-0.5
FIB	Fire Island	0.62	157	P	P	07 30 05.0	+0.5
CUT	Chulitna	0.70	16	P	P	07 30 05.3	+0.1
PMR	Palmer	0.75	100	P	P	07 30 05.4	-0.4
PMR				S	S	07 30 17.2	-0.5
VOGL	Vogel Lake	0.75	171	P	P	07 30 06.7	+0.8
CGLM	Capps Glacier	0.77	237	P	P	07 30 06.0	-0.1
RC01	Rabbit Creek A	0.79	145	P	P	07 30 05.9	-0.4
RC01				S	S	07 30 18.2	-0.3
GHO	Glory Hole Cre	0.83	87	P	P	07 30 07.3	+0.5

CRP	Crater Peak	0.85	237	P	P	07 30 07.2	+0.2
CRP				S	S	07 30 19.5	-0.3
SPU	Mount Spurr	0.87	231	*e*P	P	07 30 07.0	-0.2
CKN	Chakachatna No	0.89	235	P	P	07 30 07.6	+0.1
CKT	Bend	0.91	235	P	P	07 30 07.6	-0.1
CKT				S	S	07 30 20.3	-0.7
BGL	Barrier Glacie	0.95	241	P	P	07 30 08.3	+0.1
CKL	Chakachamna La	0.97	237	P	P	07 30 08.4	-0.1
SLKM	Skilak Lake	1.25	170	P	P	07 30 11.8	-0.4
HUR	Hurricane	1.34	21	P	P	07 30 14.3	+0.9
MPA	Moose Pass	1.40	152	P	P	07 30 14.2	0.0
PWL	Port Wells	1.43	127	P	P	07 30 14.3	-0.4
RDT	Redoubt	1.44	217	P	P	07 30 14.7	-0.1
DFR	Drift River	1.51	221	P	P	07 30 15.6	0.0
RDN	Redoubt North	1.59	221	P	P	07 30 16.8	0.0
SCM	Sheep Creek Mo	1.59	85	P	P	07 30 17.2	+0.5
REF	Redoubt East F	1.59	219	P	P	07 30 17.1	+0.3
REF				S	S	07 30 37.2	+0.7
NCT	North Crescent	1.61	224	P	P	07 30 17.4	+0.4
RSO	Redoubt South	1.63	219	P	P	07 30 17.7	+0.4
TRF	Thorofare Moun	1.73	6	P	P	07 30 19.5	+0.8
SEW	Seward	1.74	159	P	P	07 30 18.9	+0.1
KTH	Kantishna Hill	1.83	356	P	P	07 30 20.9	+0.9
KTH				S	S	07 30 43.6	+1.6
RND	Reindeer	1.88	26	P	P	07 30 21.3	+0.7
BRLK	Bradley Lake	1.98	183	P	P	07 30 22.7	+0.7
ILIM	Iliamna	2.00	215	P	P	07 30 22.8	+0.4
INE	Iliamna NE	2.05	216	P	P	07 30 23.3	+0.3
ILW	Iliamna West	2.07	217	P	P	07 30 23.1	-0.2
MCK	McKinley	2.16	21	P	P	07 30 25.2	+0.7
CNPM	China Poot	2.23	187	P	P	07 30 25.0	-0.6
DIV	Divide	2.43	102	*e*P	P	07 30 27.1	-1.3
TZL	Tazlina	2.50	81	P	P	07 30 30.2	+0.8
BWN	Browne	2.51	12	P	P	07 30 30.5	+1.1
EYAK	Cordova Ski Ar	2.67	114	*e*P	P	07 30 30.3	-1.4
PAX	Paxson	2.72	61	P	P	07 30 33.2	+0.8
TT01	Tatalina	2.76	298	P	P	07 30 32.5	-0.5
THY	Trims Highway	2.83	51	*e*P	P	07 30 34.7	+0.6
CCB	Clear Creek Bu	3.20	23	P	P	07 30 38.9	-0.2
COLA	College	3.40	21	P	P	07 30 41.6	-0.3
IL1	Eielson Array	3.50	28	P	P	07 30 43.1	-0.1
ILAR	Eielson Array	3.50	28	P	P	07 30 42.5	-0.7
	6.6nm,0.3s,baz=215,slow=14,SNR=302						
ILAR				S	S	07 31 22.9	-0.7
	14nm,0.3s,baz=219,slow=24,SNR=8.9						
KAHC	Katmai Hardscr	3.78	217	P	P	07 30 46.8	-0.4
KDAK	Kodiak Island	4.08	195	P	P	07 30 51.4	0.0
GCSA	Galena City Sc	4.12	320	P	P	07 30 52.0	0.0
BCA3	Beaver Creek A	4.34	68	P	P	07 30 55.0	-0.1
IM3	Indian Mountai	4.48	344	P	P	07 30 56.4	-0.6
IMA	Indian Mountai	4.55	344	*e*P	P	07 30 57.7	-0.2
DAWY	Dawson	5.66	61	P	P	07 31 12.6	-0.7
BM3	Burnt Mountain	6.27	22	P	P	07 31 21.1	-0.7
ANM	Nome	7.23	299	*e*P	P	07 31 35.6	+0.5
TNA	Tin City	8.57	304	*e*P	P	07 31 52.0	-1.4
INK	Inuvik	9.77	40	P	P	07 32 07.5	-2.1
	0.2nm,0.3s,baz=248,slow=22,SNR=8.1						
INK	Inuvik	9.77	40	P	P	07 32 07.5	-2.1
DLBC	Dease Lake	10.81	99	P	P	07 32 21.6	-2.0
	0.1nm,0.3s,baz=323,slow=15,SNR=3.5						
YKA	Yellowknife Ar	16.75	71	P	P	07 33 41.1	+0.4
	0.1nm,0.3s,baz=281,slow=10.0,SNR=7.9						
YBH	Yreka Blue Hor	26.12	127	P	P	07 35 19.9	+1.5
	0.9nm,0.8s,mb3.2,baz=62,slow=2.6,SNR=3.4						
NVAR	Mina Array Bea	30.67	124	P	P	07 36 00.8	+1.5
	1.1nm,0.7s,mb3.7,baz=323,slow=9.0,SNR=8.2						
PDAR	Pinedale Array	30.79	109	P	P	07 36 01.6	+1.2
	0.5nm,0.5s,mb3.5,baz=327,slow=4.6,SNR=8.2						
TXAR	Lajitas Array	44.60	115	P	P	07 37 57.8	+1.6
	0.7nm,0.6s,mb3.6,baz=322,slow=6.3,SNR=11						
SONM	Songino Array	54.69	306	P	P	07 39 12.7	-0.5
	1.2nm,0.9s,mb3.9,baz=39,slow=7.9,SNR=5.7						
FINES	FINESS Array B	57.12	2	P	P	07 39 28.8	-1.6
	1.6nm,0.8s,mb4.1,slow=5.7,SNR=5.0						
AKASG	Malin Array Be	67.91	0	P	P	07 40 40.4	-1.6
	1.4nm,0.6s,mb4.0,baz=0.9,slow=6.0,SNR=8.5						

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*TRN **16** 08:28:12.1,15.82N×61.43W,h23^{km}*
*IDC **16** 08:28:14.6±1.3,16.45N×61.43W,mb3.7/4,mb1 4.1/4,mb1mx3.6/20,Error ellipse: s-maj=42.3km s-min=31.1km az=91.0*
ISC 16 08:28:13.7±0.7**,15.82N**±0.04×**61.5W**±0.1**,h24^{km}**±6^{km}**,n15,**σ**0ˢ79**/21**,mb3.7**/4**,3C-5D,Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGG	Marie-Galante	0.18	58	⇑*i*P	Pb	08 28 18.5	-0.4
BBL	Barber's Block	0.29	180	⇓*i*P	Pb	08 28 19.8	-0.8
DWS	Wesley	0.30	149	*e*P	Pb	08 28 20.4	-0.1
DWS				*e*S	Sb	08 28 25.8	+0.6
SEG	Port Louis	0.58	357	⇑*e*P	Pb	08 28 25.1	0.0
DEG	La Desirade	0.63	39	⇑*e*P	Pb	08 28 25.5	-0.5
FDF	Fort de France	1.13	164	⇓*e*P	Pn	08 28 34.0	-0.2
FDF				*e*S	Sb	08 28 49.2	+0.5
CRM	Caravelle	1.19	153	⇓*e*P	Pn	08 28 34.3	-0.8
CRM				*e*S	Sb	08 28 51.3	+0.8
BPA	Boggy Peak	1.27	343	*e*P	Pn	08 28 37.6	+1.3
BPA				*e*S	Sn	08 28 53.7	+1.0
BIM	Bigot	1.35	163	⇓*e*P	Pn	08 28 37.6	+0.2
BIM				*e*S	Sn	08 28 55.5	+0.7
MVM	Montagne Vaucl	1.38	156	⇓*e*P	Pn	08 28 37.4	-0.4
CPB	Codrington	1.84	349	*e*P	Pn	08 28 43.2	-1.2
CPB				*e*S	Sn	08 29 08.5	+1.4
LPAZ	La Paz	32.58	192	P	P	08 34 54.0	+8.2
	0.9nm,0.7s,mb3.8,baz=184,slow=8.3,SNR=4.6						
PDAR	Pinedale Array	48.94	313	P	P	08 36 59.8	-0.3
	0.3nm,0.6s,mb3.5,baz=96,slow=8.2,SNR=5.0						
YKA	Yellowknife Ar	59.46	334	P	P	08 38 15.2	-1.7
	0.2nm,0.7s,mb3.2,baz=101,slow=7.3,SNR=4.4						
GERES	GERESS Array B	68.52	43	P	P	08 39 16.2	-0.2
	2.8nm,0.5s,mb4.5,baz=121,slow=39,SNR=25						

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*NEIC **16** 08:31:21.9,30.97S×71.80W,h18^{km},ML3.9(GUC),After GUC.*
GUC 16 08:31:21.9±0.9**,30.97S×71.80W,h18^{km}**±5^{km}**,MD4.0,ML3.9,9C-5D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	Ovalle	0.63	56	⇑*i*P	Pb	08 31 34.0	-0.1
OVCH				*i* S	Sb	08 31 42.5	+0.2
OVCH				AMP		08 31 43.4	
	comp=E,3μm,0.7s						
CMCH	Combarbala	0.72	107	⇑*i*P	Pb	08 31 35.6	0.0
CMCH				*i* S	Sb	08 31 45.3	+0.3
CMCH				AMP		08 31 45.9	
	comp=N,15μm,0.4s						
ILCH	Illapel	0.86	141	⇑*i*P	Pb	08 31 37.5	-0.5
ILCH				*i* S	Sb	08 31 48.9	-0.2
ILCH				AMP		08 31 49.3	
	comp=N,7μm,0.2s						
LSCH	La Serena	1.16	25	⇑*i*P	Pb	08 31 42.4	-0.7
LSCH				*i* S	Sb	08 31 57.2	-0.5
LSCH				AMP		08 31 59.7	
	comp=N,2μm,0.3s						
TLL	Tololo Astrono	1.17	48	⇓*i*P	Pb	08 31 42.9	-0.4
TLL				*i* S	Sb	08 31 58.8	+0.7
TLL				AMP		08 32 02.7	
	comp=N,3μm,0.4s						
PTCH	Petorca	1.49	150	⇑*i*P	Pn	08 31 47.6	-0.5
PTCH				*i* S	Sn	08 32 07.1	-0.2
PTCH				AMP		08 32 10.1	
	comp=E,4μm,0.4s						
JACH	Jahuel	2.00	149	⇑*i*P	Pn	08 31 55.6	+0.3
PEL	Peldehue	2.37	157	*i* P	Pn	08 32 02.7	+2.1
PEL				*i* S	Sn	08 32 32.5	+3.0
LCCH	Las Cruces	2.51	176	*e*P	Pn	08 32 03.0	+0.3
VACH	Vallenar	2.55	21	⇑*i*P	Pn	08 32 05.5	+2.3
VACH				*i* S	Sn	08 32 37.3	+3.2
DSCH	Colegio Aleman	2.64	157	⇓*i*P	Pn	08 32 04.5	0.0
DSCH				*i* S	Sn	08 32 38.1	+1.7
CLCH	Cerro Calan	2.65	156	⇓*i*P	Pn	08 32 04.6	0.0
CLCH				AMP		08 32 50.0	
	comp=E,1μm,0.4s						
CLCH				AMP		08 32 50.6	
	comp=E,1μm,0.5s						
FCH	Farellones	2.68	152	⇓*i*P	Pn	08 32 05.3	+0.2
FCH				*i* S	Sn	08 32 39.9	+2.4
TACH	Talagante	2.78	165	⇑*i*P	Pn	08 32 06.3	-0.1
CHCH	Chadas Angostu	3.12	162	⇓*i*P	Pn	08 32 11.0	-0.3
LMEL	Las Melosas	3.18	155	⇑*i*P	Pn	08 32 12.5	+0.3
LMEL				*i* S	Sn	08 32 50.6	+0.7
LMEL				AMP		08 33 03.0	
	comp=N,549nm,0.7s						
SFDO	San Fernando	3.70	170	*e*P	Pn	08 32 18.8	-0.7

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*IDC **16** 08:47:16.4±2.1,52.35N×168.63W,mb3.6/8,mb1 3.8/8,mb1mx3.7/24,Error ellipse: s-maj=54.0km s-min=24.0km az=15.0*
*NEIC **16** 08:47:19.3±3.2,52.29N×168.52W,h22^{km}±18^{km},mb3.7/1,Error ellipse: s-maj=27.3km s-min=12.4km az=193.0*
ISC 16 08:47:18.9±4.1**,52.2N**±0.3×**168.6W**±0.2**,h34^{km}**±27^{km}**,n12,**σ**0ˢ60**/12**,mb3.6**/9**,Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIKO	Nikolski	0.76	348	*e*P	P	08 47 33.1	+0.1
UNV	Unalaska Valle	2.05	37	*e*P	P	08 47 51.5	-0.1
INK	Inuvik	23.20	33	P	P	08 52 22.9	0.0
	0.7nm,0.6s,mb3.3,baz=238,slow=8.5,SNR=4.0						
YKA	Yellowknife Ar	29.97	49	P	P	08 53 25.9	+0.1
	0.1nm,0.4s,mb2.9,baz=270,slow=10,SNR=6.5						
BW06	Boulder Array	39.96	79	*e*P	P	08 54 50.8	-0.6
	1.4nm,0.9s,mb3.7						
PDAR	Pinedale Array	39.96	79	P	P	08 54 52.7	+1.4
	0.3nm,0.6s,mb3.2,baz=338,slow=4.9,SNR=3.4						
MNTX	Cornudas Mount	49.56	89	P	P	08 56 07.1	-1.3
SONM	Songino Array	51.78	301	P	P	08 56 24.9	0.0
	0.3nm,0.4s,mb3.6,baz=50,slow=7.5,SNR=2.9						
TXAR	Lajitas Array	52.27	89	P	P	08 56 29.5	+0.6
	0.1nm,0.6s,mb2.9,baz=300,slow=5.1,SNR=3.2						
BVAR	Borovoye Array	64.09	325	P	P	08 57 51.3	+0.2
	0.6nm,0.5s,mb3.9,baz=34,slow=5.2,SNR=4.0						
FINES	FINESS Array B	66.07	352	P	P	08 58 03.4	-0.4
	2.9nm,1.0s,mb4.3,baz=29,slow=5.6,SNR=9.0						
HFS	Hagfors	67.97	359	P	P	08 58 15.8	0.0
	1.0nm,0.4s,mb4.2,slow=2.9,SNR=9.1						

TIF 16 08:59:23.4,41.52N×43.77E,h8^{km},Mpv3.5,2C-2D,Turkey-Georgia-Armenia border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKH	Akhalkalaki	0.24	242	⇑*i*P	Pg	08 59 27.2	-1.1
AKH				*i* S	Sg	08 59 32.4	+0.8
TBLG	Delisi	0.76	73	⇑*i*P	Pb	08 59 39.0	+0.6
TBLG				*i* S	Sb	08 59 50.6	+2.0
DUS	Dusheti	0.90	50	⇓*i*P	Pb	08 59 42.3	+1.4
DUS				*i* S	Sb	08 59 56.6	+3.8
ONI	Oni	1.09	347	⇓*i*P	Pb	08 59 46.0	+2.0
ONI				*i* S	Sb	09 00 03.5	+5.3

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*IDC **16** 09:01:33.9±0.9,0.50S×20.09W,mb4.2/11,mb1 4.3/13,mb1mx4.1/24,ML4.7/1,MS3.8/7,Ms1 3.9/7,ms1mx3.5/20,Error ellipse: s-maj=35.4km s-min=19.7km az=146.0*
*NEIC **16** 09:01:35.0±0.5,0.64S×20.07W,h10^{km},mb4.5/10,Error ellipse: s-maj=17.6km s-min=9.5km az=154.0*
*BJI **16** 09:01:35.0,0.60S×20.10W,h10^{km}*
*SYO **16** 09:01:36.8,0.40S×20.35W,h10^{km},MB4.5*
ISC 16 09:01:32.7±0.8**,0.8S**±0.2×**19.96W**±0.10**,h10^{km},n34,**σ**0ˢ93**/24**,mb4.3**/20**,MS3.9**/6**,1C-1D,Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DBIC	Dimbokro	16.79	64	Pn	P	09 05 31.1	+1.3
	3.0nm,0.3s,baz=239,slow=15,SNR=36						
DBIC				LR	LR	09 10 34.7	
	comp=Z,350nm,19.0s,baz=228,slow=32						
BDFB	Brasilia	31.38	240	LR	LR	09 19 08.8	
	comp=Z,244nm,19.1s,MS3.9,baz=89,slow=34						
MTE	Manteigas	42.52	14	*e*P	P	09 09 31.1	+0.9
	14nm,1.1s,mb4.6						
ESDC	Sonseca Array	42.84	18	P	P	09 09 33.4	+0.6
	0.4nm,0.3s,mb3.6,baz=200,slow=7.7,SNR=4.9						
ESLA	Sonseca Array	42.84	18	*e*P	P	09 09 34.2	+1.4
	1.6nm,0.8s,mb3.8						
SAML	Samuel	43.78	258	*e*P	P	09 09 41.2	+0.5
	13nm,1.6s,mb4.4						
SJG	San Juan	49.14	295	LR	LR	09 26 26.6	
	comp=Z,83nm,18.8s,MS3.8,baz=89,slow=30						
LPAZ	La Paz	49.90	249	P	P	09 10 30.0	+1.1
	2.0nm,0.7s,mb4.2,baz=69,slow=5.7,SNR=12						
LPAZ				LR	LR	09 31 26.1	
	comp=Z,74nm,18.8s,MS3.7,baz=134,slow=36						
LPAZ	La Paz	49.90	249	*e*P	P	09 10 29.2	+0.3
	3.1nm,0.8s,mb4.4						
LBTB	Lobatse	50.14	122	P	P	09 10 37.8	+7.1
	16nm,1.2s,mb4.9						
MBAR	Mbarara	50.70	90	P	P	09 10 34.5	-0.5
	6.0nm,1.0s,mb4.5						
SDV	Santo Domingo	51.38	282	P	P	09 10 39.7	-0.5
DAVOX	Davos	54.10	25	P	P	09 10 58.2	-1.8
	2.1nm,0.4s,mb4.5,baz=226,slow=16,SNR=5.9						
KMBO	Kilima Mbogo	57.20	91	LR	LR	09 33 43.1	
	comp=Z,157nm,18.6s,MS4.2,baz=86,slow=34						
GERES	GERESS Array B	57.34	26	P	P	09 11 22.6	-0.8
	1.3nm,0.7s,mb4.1,baz=217,slow=6.7,SNR=6.0						
EIL	Elat	60.42	55	P	P	09 11 43.5	-1.5
	5.6nm,0.8s,mb4.7						
ASF	Jabal al Asfar	62.84	53	P	P	09 12 02.1	+0.8
	10nm,1.2s,mb4.8,baz=45,slow=4.3,SNR=3.0						
BRTR	Keskin Array B	63.32	44	P	P	09 12 04.2	-0.1
	3.0nm,0.9s,mb4.4,baz=233,slow=6.2,SNR=7.8						
AKASG	Malin Array Be	66.09	32	P	P	09 12 21.3	-0.9
	3.0nm,0.8s,mb4.3,baz=235,slow=7.3,SNR=7.1						
NOA	NORSAR Array B	66.13	16	LR	LR	09 45 02.5	
	comp=Z,39nm,18.2s,MS3.6,baz=5.0,slow=40						
MALT	Malatya	66.17	47	*e*P	P	09 12 23.3	+0.4
	10.0nm,0.8s,mb4.9						
FINES	FINESS Array B	71.23	21	P	P	09 12 53.7	-0.2
	3.9nm,0.9s,mb4.3,baz=207,slow=6.2,SNR=6.0						
WVT	Waverly	72.72	308	P	P	09 13 01.6	-1.7
	2.7nm,0.8s,mb4.2						
SYO	Syowa Base	78.75	162	⇑pP	pP	09 13 45.9	+6.0
TXAR	Lajitas Array	84.89	299	P	P	09 14 10.7	+1.0
	1.0nm,0.9s,mb4.0,baz=112,slow=7.4,SNR=8.3						
ANMO	Albuquerque	87.56	305	P	P	09 14 23.1	+0.4
	0.4nm,0.4s,mb4.0,baz=99,slow=7.6,SNR=6.1						
ANMO	Albuquerque	87.56	305	*e*P	P	09 14 23.2	+0.5
	2.5nm,1.0s,mb4.4						
BVAR	Borovoye Array	90.83	37	P	P	09 14 37.2	-0.4
	0.9nm,0.7s,mb4.2,baz=326,slow=10,SNR=4.8						
YKA	Yellowknife Ar	92.84	332	P	P	09 14 46.5	-0.2
	0.4nm,0.9s,mb3.9,baz=87,slow=4.9,SNR=5.2						
ZAL	Zalesovo	99.29	35	LR	LR	10 00 35.2	
	comp=Z,53nm,18.2s,MS4.1,baz=255,slow=36						
CN2	Changchun	127.25	31	*e*PKP	PKPdf	09 20 36.9	-4.1
ASPA	Alice Springs	144.85	135	⇓*i*P	PKPbc	09 21 13.8	+2.8
ASPA				*i*		09 21 27.0	
ASAR	Alice Springs	144.85	135	PKPbc	PKPbc	09 21 13.7	+2.7
	5.9nm,0.6s,baz=226,slow=2.9,SNR=82						
WRA	Warramunga Arr	147.47	131	PKPbc	PKPdf	09 21 20.6	+2.2
	0.4nm,0.6s,baz=239,slow=3.2,SNR=7.7						

IDC 16 09:04:43.9±1.6**,16.51S×178.31W,mb3.9**/6**,mb1 4.2**/6**,mb1mx3.9**/14**,1D,Error ellipse: s-maj=107.0km s-min=21.9km az=148.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	39.40	240	P	P	09 12 15.0	-2.2
	1.6nm,0.6s,baz=95,slow=7.9,SNR=6.8						
WB2	Warramunga Arr	44.98	258	*e*P	P	09 13 01.1	-1.9
WRA	Warramunga Arr	44.99	258	P	P	09 13 01.8	-1.3
	0.9nm,0.5s,baz=95,slow=6.9,SNR=19						
ASAR	Alice Springs	45.27	253	P	P	09 13 03.5	-1.9
	7.3nm,0.5s,baz=88,slow=8.3,SNR=146						
ASPA	Alice Springs	45.28	253	⇓*i*P	P	09 13 03.3	-2.0
ILAR	Eielson Array	84.51	13	P	P	09 17 18.2	-1.4
	0.1nm,0.4s,baz=227,slow=5.3,SNR=4.2						
TXAR	Lajitas Array	85.17	58	P	P	09 17 23.4	-0.4
	0.3nm,0.7s,baz=236,slow=4.5,SNR=3.7						
PDAR	Pinedale Array	86.28	43	P	P	09 17 27.5	-1.5
	0.3nm,0.6s,baz=214,slow=3.3,SNR=3.4						

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*ATH **16** 09:07:17.3,36.92N×27.75E,h10^{km},MD3.0/3*
*ISK **16** 09:07:18.8,37.11N×27.88E,h21^{km},MD3.1*
*CSEM **16** 09:07:18.5±0.1,37.00N×27.84E,h40^{km},MD3.1,Error ellipse: s-maj=3.4km s-min=2.6km az=43.0*
ISC 16 09:07:18.1±0.6**,36.98N**±0.04×**27.75E**±0.05**,h18^{km}**±7^{km}**,n17,**σ**1ˢ07**/24**,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BDRM	Kayabasi	0.26	288	*i* P	Pb	09 07 24.2	+0.1
BDRM				*i* S	Sb	09 08 08.3	+40
YER	Yerkesik	0.45	70	PG	Pb	09 07 25.8	-1.4
AYDN	Tasoluk	0.68	8	*i* P	Pb	09 07 31.1	-0.1
AYDN				*i* S	Sb	09 07 40.7	+0.6
DALT	Dalyan (Mudla)	0.74	107	PG	Pb	09 07 32.7	+0.6
DALT				SG	Sb	09 07 43.6	+1.9
ARG	Arkhangelos	0.82	159	*e*PB	Pb	09 07 32.0	-1.5
ARG	Arkhangelos	0.82	159	*e*Pb	Pb	09 07 33.6	+0.1
SMG	Samos	1.03	315	*e*PB	Pb	09 07 37.5	+0.5
FETY	Fethiye	1.12	108	PG	Pn	09 07 40.1	+1.1
FETY				SG	Sb	09 07 53.4	+0.6
DNZL	Cakiroluk	1.25	55	*i* P	Pn	09 07 40.6	-0.2
DNZL				*i* S	Sb	09 07 56.3	-0.1
DENT	Denizli	1.28	53	PG	Pn	09 07 39.3	-1.9
DENT				SG	Sb	09 07 55.5	-1.8
IZM	Izmir	1.47	345	*e*PN	Pn	09 07 43.7	-0.2
KDAG	Bornova	1.47	345	*i* P	Pn	09 07 45.9	+1.9
KDAG				*i* S	Sn	09 08 02.7	-0.2
BLCB	Balcova	1.51	338	*e*PN	Pn	09 07 45.1	+0.5
KARP	Karpathos	1.51	199	*e*PB	Pb	09 07 44.5	-0.8
MANT	Manisa	1.63	23	*i* P	Pn	09 07 46.8	+0.4
MANT				*i* S	Sn	09 08 08.3	+1.3
ELL	Elmali	1.74	97	*e*PN	Pn	09 07 47.1	-0.8
AKS	Akhisar	1.89	1	*e*PN	Pn	09 07 48.3	-1.7

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*IDC **16** 09:33:31.4±1.2,76.31N×6.89E,mb3.5/4,mb1 4.0/5,mb1mx3.7/19,ML3.0/1,MS3.6/6,Ms1 3.6/6,ms1mx3.3/19,Error ellipse: s-maj=59.6km s-min=16.9km az=42.0*
*BER **16** 09:33:31.3±35.0,78.07N×29.92E,h15^{km}±999^{km},ML2.0(NAO)*
*NAO **16** 09:33:33.6±3.8,76.44N×9.22E,ML2.0*
ISC 16 09:33:31.1±3.8**,76.39N**±0.09×**8.1E**±0.3**,h14^{km}**±27^{km}**,n13,**σ**0ˢ86**/12**,mb3.5**/4**,MS3.7**/4**,1D,Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSP	Hornsund	1.84	67	*e*P	Pn	09 34 03.4	+0.7
HSP				*e*S	Sn	09 34 20.1	-5.9
SPA0	Spitsbergen Ar	2.57	42	Pn	Pn	09 34 13.0	-0.1
	baz=208,slow=12						
SPA0				Sn	Sn	09 34 43.6	-0.8
	baz=226,slow=18						
DAG	Danmarks Havn	6.19	286	⇓*i*P	Pn	09 35 04.3	-0.1
	2.8nm,0.5s						
DAG				*i*		09 36 02.2	
ARA0	ARCESS Array S	8.53	135	Pn	P	09 35 36.2	-1.0
	baz=329,slow=11						
ARA0				Sn	Sn	09 37 07.5	-6.7
	baz=330,slow=22						
ARCES	ARCESS Array B	8.53	135	Pn	P	09 35 37.0	-0.1
	0.2nm,0.3s,baz=332,slow=13,SNR=7.6						
ARCES				LR	LR	09 38 40.8	
	comp=Z,214nm,20.5s,baz=20,slow=36						
FINES	FINESS Array B	16.21	148	LR	LR	09 43 22.5	
	comp=Z,116nm,21.3s,baz=170,slow=36						
FRB	Frobisher Bay	26.54	285	LR	LR	09 50 40.6	
	comp=Z,95nm,18.3s,MS3.4,baz=1.1,slow=39						
YKA	Yellowknife Ar	36.76	319	P	P	09 40 38.6	-0.6
	0.5nm,0.9s,mb3.3,baz=22,slow=9.3,SNR=6.3						
ILAR	Eielson Array	38.20	343	P	P	09 40 52.3	+1.0
	0.5nm,0.8s,mb3.3,baz=7.6,slow=6.5,SNR=4.9						
ULM	Lac du Bonnet	44.90	298	LR	LR	10 00 02.9	
	comp=Z,99nm,21.2s,MS3.7,baz=35,slow=36						
PDAR	Pinedale Array	54.80	307	LR	LR	10 06 38.3	
	comp=Z,86nm,20.4s,MS3.8,baz=200,slow=36						
TXAR	Lajitas Array	66.61	298	P	P	09 44 22.0	-0.6
	0.2nm,0.6s,mb3.3,baz=28,slow=3.9,SNR=4.1						
TXAR				LR	LR	10 13 44.4	
	comp=Z,58nm,19.8s,MS3.8,baz=330,slow=36						
CMAR	Chiang Mai Arr	72.41	85	P	P	09 45 00.4	+2.0
	0.6nm,0.4s,mb3.9,baz=346,slow=7.4,SNR=3.0						

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*IDC **16** 09:44:09.0±1.0,10.87S×121.99E,mb4.0/4,mb1 4.5/7,mb1mx4.3/12,ML4.3/3,MS3.4/3,Ms1 3.5/3,ms1mx3.0/13,Error ellipse: s-maj=79.5km s-min=19.1km az=64.0*
*NEIC **16** 09:44:09.6±0.5,11.08S×121.65E,h10^{km},mb4.7/7,Error ellipse: s-maj=16.1km s-min=7.7km az=224.0*
ISC 16 09:44:10.5±0.5**,11.55S**±0.10×**121.33E**±0.09**,h33^{km},n29,**σ**1ˢ55**/40**,mb4.3**/8**,MS3.4**/2**,4C-8D,South of Timor**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	Kedomdong	5.97	300	⇓*i*Pn	Pn	09 45 40.3	+1.2
KEDI				⇓*i*Pg	P	09 45 41.5	+2.6
KEDI				*i* Sn	Sn	09 46 46.2	-0.9
KEDI	Kedomdong	5.97	300	⇓*i*Pn	Pn	09 45 40.3	+1.2
	147nm,0.2s						
KEDI	Kedomdong	5.97	300	⇓*i*Pg	P	09 45 41.5	+2.6
KEDI				⇓*i*Sn	Sn	09 46 46.2	-0.9
RATI	Rata	6.36	296	⇑*i*Pn	Pn	09 45 44.4	-0.2
	189nm,0.2s						
RATI				⇓*i*Sn	Sn	09 46 53.6	-3.2
SRDI	Scrawed	7.71	293	⇓*i*Pn	Pn	09 46 02.5	-0.9
SRDI				⇓*i*Sn	Sn	09 47 24.6	-5.9
FITZ	Fitzroy Crossi	7.73	148	⇑*i*P	P	09 46 06.2	+2.7
	16nm,0.3s						
FITZ				*e*S	S	09 47 29.7	-1.1
FITZ	Fitzroy Crossi	7.73	148	Pn	Pn	09 46 06.2	+2.5
	6.9nm,0.3s,baz=344,slow=6.3,SNR=108						
FITZ				Sn	Sn	09 47 29.5	-1.5
	8.7nm,0.3s,baz=194,slow=20,SNR=10						
MBWA	Marble Bar	9.68	189	*e*P	P	09 46 34.4	+3.8
	9.4nm,0.7s						
MBWA				*e*S	S	09 48 11.6	-7.7
WRA	Warramunga Arr	15.04	125	Pn	P	09 47 41.3	-1.2
	1.3nm,0.3s,baz=308,slow=14,SNR=100						
WRA				Sn	S	09 50 18.6	-10
	0.6nm,0.3s,baz=309,slow=25,SNR=6.3						
WRAB	Tennant Creek	15.04	125	*e*P	P	09 47 41.3	-1.2
	27nm,0.7s						
WRAB				*e*S	S	09 50 18.7	-10
WB2	Warramunga Arr	15.05	125	⇑*i*P	P	09 47 41.2	-1.4
WB2				*e*S	S	09 50 19.7	-9.1
ASPA	Alice Springs	16.98	137	⇑*i*P	P	09 48 08.8	+1.7
ASPA				*e*S	S	09 51 09.0	-4.5
ASAR	Alice Springs	16.98	137	Pn	P	09 48 08.8	+1.6
	0.9nm,0.3s,baz=315,slow=12,SNR=139						
ASAR				Sn	S	09 51 07.8	-5.7
	0.2nm,0.3s,baz=312,slow=25,SNR=8.1						
ASAR				LR	LR	09 55 16.9	
	comp=Z,107nm,20.6s,baz=313,slow=39						
FORT	Forrest	20.13	163	*e*P	P	09 48 49.8	+5.3
	35nm,0.7s						
NWAO	Narrogin (SRO)	21.61	189	*e*P	P	09 49 06.3	+6.6
	8.6nm,0.7s,mb4.3						
CTA	Charters Tower	25.41	113	LR	LR	10 00 28.4	
	comp=Z,129nm,18.9s,MS3.5,baz=229,slow=39						
CTAO	Charters Tower	25.41	113	P	P	09 49 38.7	+1.8
STKA	Stephens Creek	27.54	140	P	P	09 49 59.2	+2.7
GUMO	Guam	34.19	44	P	P	09 50 48.5	-6.7
	262nm,1.2s						
CMAR	Chiang Mai Arr	37.11	323	P	P	09 51 19.6	-0.4
	0.7nm,0.7s,mb3.6,baz=149,slow=6.8,SNR=4.4						
CMAR				LR	LR	10 10 09.7	
	comp=Z,39nm,18.2s,MS3.2,baz=332,slow=42						
SONM	Songino Array	60.59	349	P	P	09 54 18.4	-1.9
	1.1nm,0.7s,mb4.1,baz=166,slow=7.3,SNR=7.6						
AML	Almayashu	69.01	324	*e*P	P	09 55 15.9	+1.0
	2.3nm,0.8s,mb4.2						
VNDA	Vanda	69.13	171	P	P	09 55 21.0	+5.9
	0.7nm,0.5s,mb3.8,baz=1.9,slow=5.5,SNR=7.5						
VNDA	Vanda	69.13	171	*e*P	P	09 55 19.0	+3.9
	1.3nm,0.8s,mb3.9						
SBA	Scott Base	70.12	171	P	P	09 55 19.9	-1.2
	28nm,1.7s,mb4.9						
ZAL	Zalesovo	72.23	338	P	P	09 55 33.4	-0.7
	1.1nm,0.3s,mb4.2,baz=336,slow=3.4,SNR=4.8						
ZAL	Zalesovo	72.23	338	P	P	09 55 33.4	-0.7
GNI	Garni	87.34	312	*e*P	P	09 56 59.3	+3.7
	17nm,1.2s,mb5.1						
LPAZ	La Paz	150.80	161	PKPab	PKPab	10 04 12.1	+2.3
	0.8nm,0.5s,baz=186,slow=6.7,SNR=5.0						

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*NEIC **16** 09:49:49.2,17.04N×100.49W,h6^{km},MD3.6(MEX),After*

MEX.

MEX 16 09:49:49.5±0.8**, 17.01N×100.48W, h5^{km}, MD3.6, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	**El Cayaco**	**0.20**	**79**	*e*P	Pg	09 49 52.7	-0.9
CAIG				*i* S	Sg	09 49 56.2	-0.2
ACX	**Acapulco**	**0.55**	**105**	*i* P	Pg	09 50 00.5	-0.1
ACX				*i* S	Sg	09 50 07.5	-0.5
ZIIG	**Zihuatanejo**	**1.12**	**302**	*e*P	Pb	09 50 08.0	-3.0
ZIIG				*i* S	Sb	09 50 20.5	-5.1
ZIIG	**Zihuatanejo**	**1.12**	**302**	*e*P	Pb	09 50 08.0	-3.0
ZIIG				*i* S	Sb	09 50 22.3	-3.3
PLIG	**Platanillo**	**1.66**	**34**	*e*P	Pn	09 50 15.4	-4.1
PLIG				*i* S	Sb	09 50 35.5	-5.9
PLIG	**Platanillo**	**1.66**	**34**	*e*P	Pn	09 50 15.4	-4.1
PLIG				*i* S	Sb	09 50 37.1	-4.2
PPM	**Popocatepetl**	**2.70**	**40**	*e*P	Pn	09 50 33.0	-1.3
PPM				*i* S	Sn	09 51 10.0	+2.2
PPM	**Popocatepetl**	**2.70**	**40**	*e*P	Pn	09 50 35.0	+0.7

MAN 16 09:54:38.2, 17.85N×120.32E, h28^{km}, mb4.2, ML3.0, MS2.7, 1C-2D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABRA	**Dolores**	**0.42**	**118**	*e*P	Pb	09 54 48.7	+1.5
PIP	**Pasuquin**	**0.55**	**31**	⇓*i*P	Pb	09 54 50.5	+1.2
PIP				*i* S	Sb	09 54 59.5	+2.5
APYP	**Conner**	**0.88**	**89**	*e*P	Pb	09 54 54.7	-0.1
APYP				*e*S	Sb	09 55 06.5	+0.4
CVP	**Callao Caves**	**1.44**	**95**	⇓*i*P	Pn	09 55 03.0	+0.2
CVP				*i* S	Sn	09 55 19.0	-1.8
BCPH	**Baguio City Da**	**1.48**	**170**	⇑*i*P	Pn	09 55 06.6	+3.3
BCPH				*i* S	Sn	09 55 22.8	+0.9
BOLP	**Bolinao**	**1.51**	**195**	*e*P	Pn	09 55 05.4	+1.6
SGCP	**Mt. Cagua**	**1.69**	**76**	*e*P	Pn	09 55 05.5	-0.9
SGCP				*e*S	Sn	09 55 27.4	+0.2
CAUP	**Cauayan**	**1.69**	**122**	*e*P	Pn	09 55 07.3	+0.9
BALP	**Baler**	**2.41**	**150**	*e*P	Pn	09 55 18.3	+1.5

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*NEIC **16** 09:55:03.0, 17.60S×125.12E, h12^{km}, mb3.9/3, ML3.6(AUST), After AUST.*

AUST 16 09:55:03.5, 17.60S×125.12E, h12^{km}, ML3.6, 3C-1D, Western Australia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	**0.70**	**136**	⇑*i*P	Pb	09 55 16.5	-0.7
FITZ				*e*S	Sb	09 55 25.4	-1.2
	2μm,0.5s						
KNA	**Kununurra**	**3.95**	**63**	*e*P	Pn	09 56 01.6	-3.7
KNA				*e*S	Sn	09 56 46.5	-5.6
	18nm,0.2s						
MBWA	**Marble Bar**	**6.20**	**234**	*e*P	Pn	09 56 32.8	-4.3
MBWA				*e*S	Sn	09 57 39.3	-9.4
KAKA	**Kakadu**	**8.57**	**57**	*e*P	P	09 57 04.8	-5.6
KAKA				*e*S	Sn	09 58 34.6	-13
	20nm,0.2s						
KAKA	**Kakadu**	**8.57**	**57**	*e*P	P	09 57 04.8	-5.6
	20nm,0.2s						
KAKA				*e*S	Sn	09 58 34.6	-13
WRAB	**Tennant Creek**	**9.05**	**106**	*e*Pn	P	09 57 11.2	-5.8
	632nm,3.1s						
WRAB				*e*Sn	Sn	09 58 45.1	-15
WB2	**Warramunga Arr**	**9.05**	**106**	⇓*i*P	P	09 57 11.6	-5.4
WB2				*e*S	Sn	09 58 46.0	-14
ASPA	**Alice Springs**	**10.20**	**128**	*e*P	P	09 57 29.5	-3.4
ASPA				*e*S	S	09 59 17.5	-11
MEEK	**Meekatharra**	**10.83**	**213**	*e*P	P	09 57 36.4	-5.1
MEEK				*e*S	S	09 59 29.0	-15
KMBL	**Kambalda**	**14.02**	**192**	*e*P	P	09 58 16.9	-7.4
KMBL				*e*S	S	10 00 42.4	-18
	58nm,0.4s						
KMBL	**Kambalda**	**14.02**	**192**	*e*P	P	09 58 16.9	-7.4
	58nm,0.4s						
KMBL				*e*S	S	10 00 42.4	-18
MORW	**Morawa**	**14.13**	**214**	*e*P	P	09 58 18.7	-7.1
	6.8nm,0.4s						
MORW				*e*S	S	10 00 44.1	-19
	9.8nm,0.4s						
BLDU	**Ballidu**	**15.05**	**209**	⇑*i*P	P	09 58 31.1	-6.7
BLDU				*e*S	S	10 01 04.2	-21
	2.3nm,0.4s						
BLDU	**Ballidu**	**15.05**	**209**	⇑*i*P	P	09 58 31.1	-6.7
	2.3nm,0.4s						
BLDU				*e*S	S	10 01 04.2	-21
MUN	**Mundaring**	**16.43**	**208**	*e*P	P	09 58 49.3	-6.3
MUN				*e*S	S	10 01 37.8	-20
	11nm,0.8s						
MUN	**Mundaring**	**16.43**	**208**	*e*P	P	09 58 49.3	-6.3
	11nm,0.8s						
MUN				*e*S	S	10 01 37.8	-20
STKA	**Stephens Creek**	**20.60**	**137**	*e*P	P	09 59 42.8	-2.4
	3.0nm,0.6s						

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*PRU **16** 10:46:29.5, 50.25N×19.04E*

WAR 16 10:46:29.3, 50.07N×19.13E, h1^{km}, Location given by Central Institute of Mining, origin time based upon OJC, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.46**	**71**	*e*Pg	Pg	10 46 38.5	+0.1
OJC				*e*Sg	Sg	10 46 45.1	+0.6
OKC	**Ostrava-Krasne**	**0.67**	**250**	*e*PG	Pg	10 46 43.3	+0.5
OKC				*e*SG	Sg	10 46 52.3	+0.5
NIE	**Niedzica**	**1.01**	**130**	*e*Pg	Pg	10 46 49.4	0.0
NIE				*e*Sg	Sg	10 47 07.0	+4.1
DPC	**Dobruska-Polom**	**1.82**	**280**	*e*PG	Pg	10 47 01.7	-4.0
DPC				*e*SG	Sg	10 47 25.6	-4.4

IDC 16 10:59:53.7±1.4**, 6.95N×75.75W, mb3.5**/1**, mb1 3.7**/2**, mb1mx3.4**/18**, ML2.1**/1**, Error ellipse: s-maj=102.0km s-min=24.4km az=61.0, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	**El Rosal**	**2.51**	**146**	Pn	Pn	11 00 36.8	+0.4
	7.8nm,0.3s,baz=104,slow=23,SNR=8.0						
ROSC				Sn	Sn	11 01 07.9	-0.3
	13nm,0.3s,baz=92,slow=21,SNR=5.6						
YKA	**Yellowknife Ar**	**62.27**	**341**	P	P	11 10 17.2	-2.4
	0.4nm,0.8s,baz=134,slow=6.8,SNR=14						
WRA	**Warramunga Arr**	**148.09**	**243**	PKPbc	PKPdf	11 19 41.6	+0.8
	0.3nm,0.5s,baz=99,slow=2.7,SNR=7.7						

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*IDC **16** 11:16:06.0±1.0, 0.41S×16.08W, mb4.1/8, mb1 4.2/9, mb1mx4.0/21, ML3.6/1, MS3.8/7, Ms1 3.8/7, ms1mx3.5/22, Error ellipse: s-maj=33.6km s-min=23.6km az=119.0*

*NEIC **16** 11:16:07.8±0.5, 0.39S×16.06W, h10^{km}, mb4.7/10, Error ellipse: s-maj=17.9km s-min=13.5km az=127.0*

ISC 16 11:16:06.2±0.6**, 0.3S**±0.1×**16.1W**±0.1**, h10^{km}, n25, σ1^{s}06**/19**, mb4.4**/15**, MS3.8**/6**, 1C, North of Ascension Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DBIC	**Dimbokro**	**13.13**	**58**	Pn	**P**	**11 19 13.6**	**-1.9**
	0.3nm,0.3s,baz=202,slow=14,SNR=3.4						
DBIC				LR	LR	11 23 20.5	
	comp=Z,286nm,20.7s,baz=257,slow=33						
BDFB	**Brasilia**	**35.05**	**243**	LR	LR	11 33 47.9	
	comp=Z,128nm,20.1s,MS3.7,baz=107,slow=30						
MBAR	**Mbarara**	**46.80**	**91**	*e*P	**P**	**11 24 39.2**	**+0.9**
	9.6nm,1.2s,mb4.6						
LBTB	**Lobatse**	**47.18**	**125**	*e*P	**P**	**11 24 40.7**	**-0.5**
	4.8nm,0.8s,mb4.5						
LBTB				*e*		11 24 47.4	
SUR	**Sutherland**	**47.22**	**136**	P	**P**	**11 24 40.5**	**-0.9**
	4.1nm,0.8s,mb4.4,baz=259,slow=5.2,SNR=2.5						
SUR	**Sutherland**	**47.22**	**136**	*e*P	**P**	**11 24 40.5**	**-0.9**
	12nm,0.9s,mb4.8						
SAML	**Samuel**	**47.71**	**258**	*e*P	**P**	**11 24 44.6**	**-0.9**
	2.9nm,0.9s,mb4.3						
SAML				*e*		11 24 51.9	
KMBO	**Kilima Mbogo**	**53.31**	**91**	LR	LR	11 45 22.0	
	comp=Z,151nm,19.4s,MS4.1,baz=78,slow=33						
LPAZ	**La Paz**	**53.73**	**250**	P	**P**	**11 25 30.3**	**-0.9**
	0.8nm,0.7s,mb3.8,baz=63,slow=6.8,SNR=3.2						
LPAZ				LR	LR	11 47 03.7	
	comp=Z,98nm,18.3s,MS3.9,baz=105,slow=35						
LPAZ	**La Paz**	**53.73**	**250**	*e*P	**P**	**11 25 30.4**	**-0.8**
	1.9nm,0.9s,mb4.0						
GERES	**GERESS Array B**	**55.24**	**24**	P	**P**	**11 25 42.2**	**+0.4**
	1.2nm,0.6s,mb4.1,baz=202,slow=7.1,SNR=10.0						
EIL	**Elat**	**56.95**	**54**	LR	LR	11 53 13.0	
	comp=Z,56nm,18.9s,MS3.7,baz=282,slow=39						
MLR	**Muntele Rosu**	**58.70**	**33**	LR	LR	11 56 03.2	
	comp=Z,104nm,18.1s,MS4.0,baz=352,slow=41						
BRTR	**Keskin Array B**	**60.26**	**43**	P	**P**	**11 26 18.1**	**+0.7**
	1.2nm,0.9s,mb3.9,baz=219,slow=9.2,SNR=4.2						
AKASG	**Malin Array Be**	**63.64**	**30**	P	**P**	**11 26 38.7**	**-1.1**
	0.2nm,0.3s,mb3.6,baz=233,slow=6.9,SNR=7.1						
NB2	**NORSAR Subarra**	**64.61**	**14**	P	**P**	**11 26 46.4**	**+0.4**
	5.3nm,1.0s,mb4.5,baz=210,slow=6.5						
NOA	**NORSAR Array B**	**64.61**	**14**	P	**P**	**11 26 46.6**	**+0.6**
	2.7nm,0.8s,mb4.3,baz=209,slow=6.5,SNR=4.8						
NOA				LR	LR	11 57 11.7	
	comp=Z,44nm,20.4s,MS3.6,baz=355,slow=38						
FINES	**FINESS Array B**	**69.36**	**20**	P	**P**	**11 27 16.6**	**+0.6**
	2.2nm,0.5s,mb4.3,baz=202,slow=4.2,SNR=17						
SNAA	**Sanae**	**71.81**	**176**	P	**P**	**11 27 26.8**	**-3.9**
	4.1nm,1.0s,mb4.3						
PMSA	**Palmer Station**	**73.09**	**199**	P	**P**	**11 27 32.9**	**-5.5**
	28nm,1.1s,mb5.1						
ARCES	**ARCESS Array B**	**74.99**	**14**	P	**P**	**11 27 49.8**	**+0.6**
	10.0nm,1.1s,mb4.7,baz=264,slow=8.2,SNR=5.2						
MAW	**Mawson**	**85.55**	**158**	*e*P	**P**	**11 28 46.9**	**+1.4**
	4.9nm,0.9s,mb4.7						
MAW				*e*		11 28 58.6	
QSPA	**South Pole Qui**	**89.81**	**180**	⇑*i*P	**P**	**11 29 07.4**	**+1.5**
	13nm,1.1s,mb5.2						
ASAR	**Alice Springs**	**142.37**	**131**	PKP	PKPdf	11 35 42.7	-0.4
	0.8nm,0.8s,baz=233,slow=1.7,SNR=6.2						
WRA	**Warramunga Arr**	**144.73**	**126**	PKP	PKPdf	11 35 44.1	-3.2
	1.8nm,0.8s,baz=239,slow=2.9,SNR=22						

NEIC 16 11:37:51.3, 33.87N×118.73W, ML3.6(PAS)**, After PAS., Southern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWC	**Mount Wilson**	**0.66**	**58**	*e*P	Pg	11 38 03.0	-1.5
PFO	**Pinyon Flat Ob**	**1.92**	**97**	*e*P	Pn	11 38 22.1	-3.4
BAR	**Barrett**	**2.09**	**124**	*e*Pn	Pn	11 38 23.8	-4.3
DAC	**Darwin (Calif)**	**2.58**	**21**	*e*Pn	Pn	11 38 31.9	-3.1
LRV	**Little Rabbit**	**3.16**	**324**	*e*Pn	Pn	11 38 40.5	-2.8
MTUM	**Tungsten Hills**	**3.48**	**2**	*e*Pn	Pn	11 38 46.8	-1.0
SAO	**San Andreas Ge**	**3.64**	**323**	*e*Pn	Pn	11 38 47.2	-2.9
NEN	**Nelson**	**3.66**	**60**	*e*Pn	Pn	11 38 47.3	-3.1
TPNV	**Topopah Spring**	**3.68**	**33**	*e*Pn	Pn	11 38 48.8	-1.9
OMM	**Old Mammoth Mi**	**3.75**	**357**	*e*Pn	Pn	11 38 50.3	-1.3
CMB	**Columbia Colle**	**4.37**	**343**	*e*Pn	Pn	11 38 57.7	-2.7
TPH	**Tonopah**	**4.37**	**16**	*e*Pn	Pn	11 38 58.3	-2.2
MNV	**Mina**	**4.58**	**6**	Pn	Pn	11 39 01.0	-2.4
ARUT	**Antelope Range**	**5.81**	**46**	*e*Pn	Pn	11 39 19.0	-1.8
MVU	**Marysvale**	**7.01**	**47**	*e*Pn	Pn	11 39 35.6	-2.2
MSU	**Marysvale**	**7.04**	**47**	*e*Pn	Pn	11 39 35.3	-2.8

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*JMA **16** 11:38:25.8±0.1, 33.24N×137.21E, h41^{km}±2^{km}, M3.7*

ISC 16 11:38:26.1±0.9**, 33.26N**±0.06×**137.20E**±0.03**, h41^{km}, n19, σ0^{s}67**/36**, 9D, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	**Tokai 1**	**0.60**	**32**	P	**P**	**11 38 38.0**	**-0.3**
TK01				S	**S**	**11 38 46.8**	**-0.2**
TK02	**Tokai 2**	**0.83**	**34**	⇓P	**P**	**11 38 41.4**	**0.0**
TK02				S	**S**	**11 38 53.1**	**+0.4**
TK03	**Tokai 3**	**1.11**	**35**	⇓P	**P**	**11 38 45.1**	**-0.2**
TK03				S	**S**	**11 38 59.8**	**+0.1**
JIE	**Ise**	**1.21**	**340**	⇓P	**P**	**11 38 47.4**	**+0.7**
JIE				S	**S**	**11 39 03.1**	**+0.9**
TK04	**Tokai 4**	**1.26**	**26**	⇓P	**P**	**11 38 47.7**	**+0.2**
TK04				S	**S**	**11 39 03.4**	**-0.1**
JWZ	**Kozaga**	**1.27**	**283**	⇓P	**P**	**11 38 47.6**	**-0.2**
JWZ				S	**S**	**11 39 02.8**	**-1.2**
TSUJ	**Tsu 2**	**1.59**	**336**	P	**P**	**11 38 52.7**	**+0.4**
TSUJ				S	**S**	**11 39 11.6**	**-0.2**
JWY	**Kouya**	**1.65**	**306**	⇓P	**P**	**11 38 53.9**	**+0.7**
JWY				S	**S**	**11 39 13.3**	**0.0**
JWM	**Minabe**	**1.65**	**291**	P	**P**	**11 38 53.3**	**+0.1**
JWM				S	**S**	**11 39 12.5**	**-0.9**
JHE	**Heguri**	**1.88**	**318**	⇓P	**P**	**11 38 56.8**	**+0.4**
JHE				S	**S**	**11 39 19.2**	**+0.1**
SHZ3	**Shizuoka 3**	**1.99**	**25**	P	**P**	**11 38 57.6**	**-0.4**
SHZ3				S	**S**	**11 39 20.3**	**-1.5**
JIZS	**Izushimoda**	**2.02**	**43**	P	**P**	**11 38 58.1**	**-0.2**
JIM2	**Oshima 3**	**2.35**	**51**	P	**P**	**11 39 03.7**	**+0.5**
JIM2				*e*S	**S**	**11 39 30.9**	**-0.2**
JAI	**Aioi**	**2.36**	**284**	P	**P**	**11 39 04.9**	**+1.6**
JAI				S	**S**	**11 39 29.2**	**-2.0**
JGM	**Miyama**	**2.47**	**351**	⇓P	**P**	**11 39 05.1**	**+0.3**
JGM				S	**S**	**11 39 34.2**	**+0.2**
JYN	**Shimob**	**2.50**	**26**	P	**P**	**11 39 05.3**	**+0.1**
JWT	**Wachi**	**2.51**	**324**	⇓P	**P**	**11 39 06.1**	**+0.6**
JWT				S	**S**	**11 39 35.5**	**+0.4**
JOD2	**Odawara 2**	**2.54**	**37**	P	**P**	**11 39 05.9**	**+0.1**
JOD2				S	**S**	**11 39 34.4**	**-1.3**
MAT	**Matsushiro**	**3.38**	**14**	P	**P**	**11 39 18.5**	**+0.7**
MAT				S	**S**	**11 39 57.2**	**+0.1**

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*IDC **16** 12:04:31.9±0.8, 27.52N×140.28E, h469^{km}±13^{km}, mb3.0/4, mb1 3.1/4, mb1mx2.7/21, Error ellipse: s-maj=38.8km s-min=19.9km az=85.0*

*JMA **16** 12:04:32.5±0.1, 27.75N×140.87E, h489^{km}, M3.8*

ISC 16 12:04:31.5±0.8**, 27.5N**±0.1×**140.3E**±0.3**, h481^{km}**±10^{km}**, n13, σ0^{s}75**/15**, mb3.3**/4**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**1.71**	**105**	P	**P**	**12 05 33.5**	**-0.5**
	8.9nm,0.3s,baz=251,slow=18,SNR=5.4						
CBIJ				S	**S**	**12 06 22.4**	**-1.0**
	12nm,0.3s,baz=290,slow=23,SNR=4.6						
CBIJ	**Chichi jima**	**1.71**	**105**	P	**P**	**12 05 33.7**	**-0.2**
JHHJ	**Haha-jima-NKT**	**1.88**	**118**	P	**P**	**12 05 35.6**	**+0.9**
JHHJ				*e*S	**S**	**12 06 25.5**	**+0.7**
JIE	**Ise**	**7.50**	**336**	P	**P**	**12 06 25.0**	**+1.6**
JRY	**Ryogami san**	**8.54**	**352**	P	**P**	**12 06 34.4**	**0.0**
JYT	**Yasato**	**8.66**	**359**	P	**P**	**12 06 35.3**	**-0.5**
JAG	**Ashikaga**	**8.89**	**355**	P	**P**	**12 06 37.2**	**-1.0**
JNG	**Nsakai**	**9.04**	**348**	P	**P**	**12 06 39.2**	**-0.6**
JHK	**Hiroka**	**9.74**	**354**	P	**P**	**12 06 47.6**	**+0.3**
WRA	**Warramunga Arr**	**47.56**	**188**	P	**P**	**12 12 23.6**	**-0.6**
	0.2nm,0.3s,mb2.9,baz=7.5,slow=7.9,SNR=11						
BVAR	**Borovoye Array**	**56.60**	**317**	P	**P**	**12 13 28.8**	**-0.4**
	1.4nm,0.4s,mb3.6,baz=95,slow=7.2,SNR=14						
YKA	**Yellowknife Ar**	**72.53**	**28**	P	**P**	**12 15 10.4**	**+0.9**
	0.3nm,0.6s,mb3.0,baz=296,slow=6.1,SNR=5.5						
FINES	**FINESS Array B**	**76.81**	**333**	P	**P**	**12 15 33.8**	**+0.2**
	0.9nm,0.4s,mb3.6,baz=75,slow=5.3,SNR=8.8						

IDC 16 12:18:41.2±7.0**, 5.56S×147.15E, h164^{km}**±40^{km}**, mb3.1**/3**, mb1 3.1**/5**, mb1mx3.0**/14**, Error ellipse: s-maj=70.2km s-min=49.1km az=45.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**3.82**	**180**	P	P	12 19 40.2	0.0
	2.0nm,0.3s,baz=11,slow=5.7,SNR=12						
PMG				S	S	12 20 25.1	-0.6
	0.8nm,0.3s,baz=276,slow=22,SNR=2.3						
WRA	**Warramunga Arr**	**18.96**	**220**	P	P	12 22 50.6	-1.7
	0.1nm,0.3s,baz=44,slow=9.7,SNR=7.7						
ASAR	**Alice Springs**	**22.06**	**214**	P	P	12 23 23.5	+0.1
	0.2nm,0.5s,baz=46,slow=8.3,SNR=4.8						
FITZ	**Fitzroy Crossi**	**24.43**	**238**	P	P	12 23 44.4	-1.9
	4.0nm,1.0s,baz=27,slow=9.0,SNR=4.0						
STKA	**Stephens Creek**	**26.69**	**191**	P	P	12 24 05.1	-2.0
	0.8nm,0.8s,baz=4.4,slow=13,SNR=2.7						

ISC 16 12:29:19.6±2.4**, 46.0N**±0.1×**13.6E**±0.2**, n6, σ0^{s}21**/6**, 1C, Austria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRE	**Drenchia**	**0.13**	**16**	⇑*i*Pg	**Pg**	**12 29 22.1**	**-0.1**
VOJS	**Vojsko**	**0.20**	**94**	*i* Pg	**Pg**	**12 29 23.6**	**-0.1**
ROBS	**Robic**	**0.21**	**344**	*i* Pg	**Pg**	**12 29 24.0**	**+0.2**
CADS	**Cadrg**	**0.21**	**29**	*i* Pg	**Pg**	**12 29 23.6**	**-0.2**
	comp=Z,4.0nm,0.1s						
VOY	**Vojsko**	**0.21**	**93**	*e*Sg	**Sg**	**12 29 26.8**	**+0.2**
VOY				*e*Rg		12 29 28.7	
JAVS	**Javornik**	**0.36**	**114**	*i* Pg	**Pg**	**12 29 26.8**	**-0.1**

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*NEIC **16** 12:35:28.6, 54.00N×162.08W, h20^{km}, After AEIC.*

*IDC **16** 12:36:06.7±9.6, 55.32N×154.37W, mb3.0/2, mb1 3.4/3, mb1mx3.3/21, ML3.1/1, Error ellipse: s-maj=173.0km s-min=38.0km az=78.0*

ISC 16 12:35:27.1±1.3**, 54.0N**±0.1×**162.0W**±0.1**, h50^{km}**±22^{km}**, n27, σ0^{s}68**/30**, mb2.9**/1**, South of Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DRIA	**Deer Island**	**1.01**	**352**	P	**P**	**12 35 44.6**	**-0.6**
DT1	**Dutton Round H**	**1.15**	**353**	P	**P**	**12 35 46.7**	**-0.5**
DOL	**Dolgoi Island**	**1.19**	**4**	P	**P**	**12 35 47.3**	**-0.3**
DTNA	**Dutton South F**	**1.19**	**354**	P	**P**	**12 35 47.5**	**-0.2**
FALS	**False Pass**	**1.21**	**318**	P	**P**	**12 35 47.3**	**-0.6**
FALS				S	**S**	**12 36 02.2**	**-1.2**
BALA	**Baldy Mountain**	**1.31**	**340**	P	**P**	**12 35 50.0**	**+0.5**
HAG	**Hague Volcano**	**1.35**	**3**	P	**P**	**12 35 50.4**	**+0.3**
SSLS	**Shishaldin Sou**	**1.38**	**304**	P	**P**	**12 35 50.7**	**+0.2**
PVV	**Pavlof Volcano**	**1.42**	**5**	P	**P**	**12 35 50.9**	**-0.1**
PVV				S	**S**	**12 36 10.4**	**+1.7**
SSLN	**Shishaldin Nor**	**1.43**	**307**	P	**P**	**12 35 51.8**	**+0.6**
PS1A	**Pavlof South-1**	**1.47**	**6**	P	**P**	**12 35 52.3**	**+0.6**
SSLW	**Shishaldin Wes**	**1.47**	**304**	P	**P**	**12 35 51.9**	**+0.1**
WESN	**West Dahl Nort**	**1.62**	**293**	P	**P**	**12 35 54.3**	**+0.4**
WTUG	**Tugumak**	**1.64**	**303**	P	**P**	**12 35 54.8**	**+0.6**
WPOG	**Pogromni**	**1.72**	**293**	P	**P**	**12 35 55.4**	**+0.2**
BLHA	**Black Hill**	**1.74**	**359**	P	**P**	**12 35 56.4**	**+0.9**
UNV	**Unalaska Valle**	**2.65**	**269**	P	**P**	**12 36 08.7**	**+0.2**
UNV				S	**S**	**12 36 38.9**	**-0.8**
MTBL	**Makushin Table**	**2.75**	**272**	P	**P**	**12 36 10.3**	**+0.4**
MNAT	**Makushin Natee**	**2.76**	**270**	P	**P**	**12 36 10.4**	**+0.4**
MSW	**Makushin Switc**	**2.82**	**271**	P	**P**	**12 36 10.9**	**+0.1**
MSW				S	**S**	**12 36 43.2**	**-0.5**
CAHL	**Cahill**	**5.56**	**40**	P	**P**	**12 36 48.2**	**-1.2**
ANCK	**Angle Creek**	**5.60**	**38**	P	**P**	**12 36 49.0**	**-0.9**
MGLS	**Mageik LS**	**5.67**	**39**	P	**P**	**12 36 49.8**	**-1.0**
ILAR	**Eielson Array**	**13.25**	**29**	Pn	**P**	**12 38 29.2**	**-5.2**
	0.1nm,0.3s,baz=208,slow=15,SNR=3.7						
YKA	**Yellowknife Ar**	**25.82**	**52**	P	**P**	**12 40 55.7**	**+0.8**
	0.2nm,0.5s,mb2.9,baz=270,slow=9.0,SNR=7.8						
YKA	**Yellowknife Ar**	**25.82**	**52**	P	**P**	**12 40 55.7**	**+0.8**
TXAR	**Lajitas Array**	**48.40**	**96**	P	pP	12 44 17.9	-1.5
	0.4nm,0.9s,baz=306,slow=7.8,SNR=3.8						

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*CSEM **16** 12:43:29.1, 32.28N×47.57E, h38^{km}, ML3.5, After THR*

THR 16 12:43:29.1±0.3**, 32.28N×47.57E, h38^{km}**±3^{km}**, ML3.5, Iran-Iraq border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHGR	**Shooshtar-Gavs**	**1.06**	**99**	*e*Pg	P	12 43 48.9	+1.2
SHGR				*e*Sg	S	12 44 03.4	+1.9
	1μm,0.6s						
SNGE	**Sanandaj**	**2.81**	**356**	*e*PN	P	12 44 13.6	+0.9
SNGE				*e*SG	S	12 44 55.1	+9.4
SNGE				AMP		12 45 02.5	
	comp=N,99nm,0.7s						
SNGE	**Sanandaj**	**2.81**	**356**	*e*Pn	P	12 44 13.6	+0.9
SNGE				*e*Sg	S	12 44 55.1	+9.4
	comp=N,99nm,0.7s						
NASN	**Na’in**	**4.46**	**82**	*e*PN	P	12 44 36.4	+0.3

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*NDI **16** 12:46:39.9±3.7, 17.38N×73.80E, h8^{km}±10^{km}, MD3.4, ML3.5*

ISC 16 12:46:41.6±0.5**, 17.45N**±0.04×**74.22E**±0.06**, h36^{km}**±9^{km}**, n17, σ1^{s}04**/25**, 3C, Southern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAD	**Karad**	**0.15**	**194**	⇑*i*P	**P**	**12 46 47.0**	**-1.1**
KAD				*e*S	**S**	**12 46 52.7**	**+0.1**
KAD				AML	AML	12 46 52.9	
	comp=E,2μm,0.2s						
KAD				AML	AML	12 46 52.9	
	comp=N,2μm,0.1s						
POO	**Poona**	**1.13**	**342**	*e*P	**P**	**12 47 02.0**	**+0.8**
POO				*e*S	**S**	**12 47 18.2**	**+2.4**
POO				AML	AML	12 47 18.8	
	comp=E,737nm,0.1s						
POO				AML	AML	12 47 20.6	
	comp=N,859nm,0.2s						
BOM	**Bombay**	**1.96**	**317**	*e*P	**P**	**12 47 11.6**	**-1.5**
BOM				*e*SB	**S**	**12 47 36.5**	**-0.3**
	comp=N,5μm,0.3s						
GOA	**Goa**	**1.99**	**191**	⇑*i*PB	**P**	**12 47 14.9**	**+1.4**
GOA				*i* S	**S**	**12 47 37.0**	**-0.3**
LATR	**Latur**	**2.42**	**66**	*e*	**P**	**12 47 16.3**	**-3.4**
LATR				*e*		12 47 24.0	
AKL	**Akola**	**4.17**	**39**	⇑*i*	**P**	**12 47 54.0**	**+9.4**
AKL				*i*		12 49 00.1	
	comp=N,34nm,0.5s						
BHV	**Bhavnagar**	**4.70**	**336**	*e*S	**S**	**12 48 39.5**	**-6.7**
BHPL	**Bhopal**	**6.50**	**27**	*i* P	**P**	**12 48 17.6**	**+0.3**
BHPL				*e*S	**S**	**12 49 31.7**	**+0.7**
BHPL				AML	AML	12 50 19.5	
	comp=N,58nm,0.5s						
BHPL				AML	AML	12 50 19.6	
	comp=E,105nm,0.3s						
VIS	**Vishakhapatnam**	**8.69**	**87**	*e*P	**P**	**12 48 49.2**	**+1.4**
KHET	**Khetri**	**10.67**	**8**	*e*P	**P**	**12 49 14.2**	**-1.0**
KHET				*i* S	**S**	**12 51 05.2**	**-9.4**
KHET				*e*		12 52 31.7	
	comp=N,19nm,0.2s						
KHET				*e*		12 52 31.9	
	comp=E,22nm,0.7s						
KUDL	**Kundal**	**10.85**	**11**	*e*P	**P**	**12 49 17.9**	**+0.3**
KUDL				*e*S	**S**	**12 51 13.1**	**-5.6**
NDI	**New Delhi**	**11.51**	**13**	*e*	rx	12 50 48.0	
NDI				*i* S	**S**	**12 51 27.9**	**-7.1**
KOLN	**Koldanda**	**13.43**	**38**	*e*P	**P**	**12 49 53.2**	**+1.1**
	comp=E,4.9nm,0.3s						
KOLN				*e*S	**S**	**12 52 19.6**	**-1.4**
GKN	**Gorkha**	**14.22**	**41**	*e*P	**P**	**12 50 01.6**	**-1.1**
PKI	**Pulchoki**	**14.42**	**44**	*e*P	**P**	**12 50 05.6**	**+0.3**
	comp=E,6.9nm,0.6s						
KKN	**Kakani**	**14.48**	**43**	*e*P	**P**	**12 50 05.9**	**-0.2**
	comp=E,9.0nm,0.5s						
GUN	**Gumba**	**14.96**	**44**	*e*P	**P**	**12 50 12.0**	**-0.3**
	comp=E,5.0nm,0.3s						

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*PRU **16** 12:55:53.2, 50.33N×18.95E*

WAR 16 12:55:52.5, 50.23N×19.07E, h0^{km}, ML2.6, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.47**	**92**	*e*PG	Pg	12 56 02.0	+0.2
OJC				*e*SG	Sg	12 56 09.0	+0.9
OJC	**Ojcow**	**0.47**	**92**	*e*Pg	Pg	12 56 01.8	0.0
OJC				*e*Sg	Sg	12 56 09.0	+0.9
OKC	**Ostrava-Krasne**	**0.72**	**237**	*e*PG	Pg	12 56 06.4	-0.4
OKC				*e*SG	Sg	12 56 16.6	+0.3
NIE	**Niedzica**	**1.15**	**135**	*e*PG	Pg	12 56 16.0	+0.6
NIE	**Niedzica**	**1.15**	**135**	*e*Pg	Pg	12 56 15.6	+0.2
NIE				*e*Sg	Sg	12 56 32.6	+2.0
VYHS	**Vyhne**	**1.75**	**185**	*e*PN	Pn	12 56 23.1	-1.1
VYHS				*e*SN	Sn	12 56 46.3	-1.2
DPC	**Dobruska-Polom**	**1.77**	**275**	*e*PG	Pg	12 56 23.2	-4.6
DPC				*e*SG	Sg	12 56 48.0	-3.3
KSP	**Ksiaz**	**1.87**	**290**	*e*PN	Pn	12 56 25.0	-1.0
KSP				*e*PG	Pg	12 56 27.0	-2.9
KSP				*e*SG	Sg	12 56 52.0	-2.9
UPC	**Upice**	**1.98**	**279**	*e*SG	Sg	12 56 54.1	-4.2
CRVS	**Cervenica-Dubn**	**2.05**	**130**	*e*PN	Pn	12 56 31.5	+3.0
CRVS				*e*SN	Sn	12 57 01.5	+6.3
KHC	**Kasperske Hory**	**3.73**	**255**	*e*PN	Pn	12 56 52.0	-0.6
KHC				*e*x	x	12 57 48.0	

*IDC **16** 13:30:04.5±1.7, 10.06S×161.46E, h49^{km}±7^{km}, mb3.9/6, mb1 4.0/7, mb1mx3.9/15, MS3.6/7, Ms1 3.7/7, ms1mx3.5/18, Error ellipse: s-maj=55.5km s-min=18.1km az=128.0*

*NEIC **16** 13:30:17.6±7.7, 10.25S×161.37E, h170^{km}±70^{km}, mb4.4/7, Error ellipse: s-maj=33.3km s-min=23.1km az=100.0*

ISC 16 13:30:00.7±0.9**, 10.1S**±0.2×**161.5E**±0.2**, h33**^{km}**, (h49**^{km}±1.9^{km}**:pP-P), n21,** σ**1**^{s}**08**/17**, mb4.3**/12**, MS3.7**/5**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**14.18**	**272**	LR	LR	13 38 33.1	
	comp=Z,167nm,18.6s,baz=86,slow=36						
CTA	**Charters Tower**	**17.75**	**234**	P	**P**	**13 34 10.0**	**+3.1**
	0.3nm,0.3s,baz=74,slow=15,SNR=6.2						
CTA				LR	LR	13 40 26.1	
	comp=Z,104nm,18.4s,baz=224,slow=35						
CTAO	**Charters Tower**	**17.75**	**234**	*e*P	**P**	**13 34 11.8**	**+4.8**
	3.9nm,0.7s						
WRAB	**Tennant Creek**	**27.96**	**246**	*e*P	**P**	**13 35 50.2**	**-0.3**
	8.6nm,0.9s,mb4.4						
WRA	**Warramunga Arr**	**27.97**	**246**	P	**P**	**13 35 50.4**	**-0.3**
	3.6nm,0.8s,mb4.0,baz=75,slow=9.2,SNR=22						
WRA				pP	pP	13 36 04.2	+4.1
	1.9nm,0.9s,baz=74,slow=9.6,SNR=6.3						
STKA	**Stephens Creek**	**28.44**	**218**	P	**P**	**13 35 56.5**	**+1.8**
	0.9nm,0.6s,mb3.6,baz=32,slow=9.9,SNR=3.3						
STKA				LR	LR	13 46 41.3	
	comp=Z,83nm,18.5s,MS3.4,baz=24,slow=35						
STKA	**Stephens Creek**	**28.44**	**218**	P	**P**	**13 35 56.1**	**+1.4**
STKA				LR	LR	13 46 41.3	
ASAR	**Alice Springs**	**29.59**	**239**	P	**P**	**13 36 04.1**	**-0.9**
	1.4nm,0.9s,mb3.7,baz=70,slow=9.2,SNR=12						
ASAR				LR	LR	13 48 17.2	
	comp=Z,74nm,18.6s,MS3.3,baz=232,slow=37						
FITZ	**Fitzroy Crossi**	**35.64**	**253**	P	**P**	**13 36 56.7**	**-1.1**
	3.4nm,0.6s,mb4.5,baz=24,slow=9.7,SNR=7.8						
FITZ				pP	pP	13 37 08.9	+1.4
	3.7nm,0.7s,baz=160,slow=2.7,SNR=3.4						
RAR	**Rarotonga**	**38.75**	**111**	LR	LR	13 49 51.8	
	comp=Z,92nm,19.7s,MS3.6,baz=88,slow=31						
NWAO	**Narrogin (SRO)**	**46.59**	**234**	P	**P**	**13 38 28.8**	**+1.3**
	22nm,1.4s,mb4.9						
MAJO	**Matsushiro**	**51.35**	**336**	P	**P**	**13 39 00.8**	**-3.4**
	33nm,1.3s,mb5.1						
VNDA	**Vanda**	**67.37**	**180**	P	**P**	**13 40 52.4**	**-1.8**
CMAR	**Chiang Mai Arr**	**67.95**	**295**	pP	pP	13 41 12.5	+3.3
	1.6nm,1.0s,baz=137,slow=6.1,SNR=4.4						
ULN	**Ulaanbaatar**	**75.16**	**325**	*e*P	**P**	**13 41 41.6**	**+0.1**
	6.3nm,1.0s,mb4.5						
ULN				*e*		13 41 56.4	
SONM	**Songino Array**	**75.52**	**325**	P	**P**	**13 41 44.0**	**+0.5**
	3.1nm,0.7s,mb4.4,baz=142,slow=5.1,SNR=20						
SONM				pP	pP	13 41 58.2	+4.4
	2.8nm,0.9s,baz=127,slow=6.2,SNR=8.0						
MCK	**McKinley**	**82.66**	**20**	P	**P**	**13 42 22.4**	**+0.5**
	1.6nm,0.9s,mb4.0						
COLA	**College**	**83.76**	**19**	P	**P**	**13 42 27.8**	**+0.3**
	18nm,1.7s,mb4.9						
ILAR	**Eielson Array**	**84.01**	**20**	P	**P**	**13 42 28.9**	**+0.1**
	1.0nm,1.0s,mb3.9,baz=257,slow=4.8,SNR=7.6						
ILAR				pP	pP	13 42 42.7	+3.5
	0.5nm,0.5s,baz=245,slow=4.6,SNR=3.2						
ILAR				LR	LR	14 14 13.6	
	comp=Z,69nm,20.0s,MS4.0,baz=138,slow=32						
ILAR	**Eielson Array**	**84.01**	**20**	P	**P**	**13 42 28.9**	**+0.1**
ILAR				pP	pP	13 42 42.7	+3.4
ILAR				LR	LR	14 14 13.6	
TXAR	**Lajitas Array**	**99.04**	**62**	LR	LR	14 23 00.1	
	comp=Z,77nm,18.2s,MS4.2,baz=160,slow=32						

*IDC **16** 13:44:20.8±0.9, 51.37N×168.38W, mb3.9/12, mb1 4.1/13, mb1mx4.0/24, ML3.4/1, Error ellipse: s-maj=27.7km s-min=17.1km az=2.0*

*NEIC **16** 13:44:27.1±0.7, 51.56N×168.36W, h40^{km}, mb3.6/1, Error ellipse: s-maj=12.6km s-min=9.3km az=147.0*

ISC 16 13:44:24.3±0.7**, 51.47N**±0.08×**168.4W**±0.1**, h33**^{km}**, n28,** σ**0**^{s}**81**/28**, mb3.8**/13**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIKO	**Nikolski**	**1.53**	**349**	*e*P	**P**	**13 44 48.8**	**-0.8**
MNAT	**Makushin Natee**	**2.62**	**22**	P	**P**	**13 45 05.1**	**0.0**
MSW	**Makushin Switc**	**2.63**	**21**	P	**P**	**13 45 05.4**	**+0.1**
UNV	**Unalaska Valle**	**2.63**	**25**	P	**P**	**13 45 04.9**	**-0.5**
MCIR	**Makushin Cirqu**	**2.64**	**19**	P	**P**	**13 45 06.0**	**+0.6**
MTBL	**Makushin Table**	**2.70**	**22**	P	**P**	**13 45 06.9**	**+0.6**
FALS	**False Pass**	**4.51**	**39**	P	**P**	**13 45 32.5**	**+0.4**
DT1	**Dutton Round H**	**5.15**	**43**	P	**P**	**13 45 40.6**	**-0.5**
DTNA	**Dutton South F**	**5.19**	**42**	P	**P**	**13 45 41.1**	**-0.5**
DOL	**Dolgoi Island**	**5.36**	**44**	P	**P**	**13 45 44.5**	**+0.5**
HAG	**Hague Volcano**	**5.46**	**43**	P	**P**	**13 45 45.3**	**0.0**
ILAR	**Eielson Array**	**17.37**	**32**	P	**P**	**13 48 23.6**	**-1.6**
	0.1nm,0.3s,baz=225,slow=12,SNR=3.7						
DAWY	**Dawson**	**19.71**	**39**	*e*P	**P**	**13 48 54.1**	**+0.8**
INK	**Inuvik**	**23.77**	**32**	P	**P**	**13 49 36.2**	**+2.2**
	3.4nm,0.6s,mb4.0,baz=244,slow=9.0,SNR=13						
YKA	**Yellowknife Ar**	**30.38**	**48**	P	**P**	**13 50 35.3**	**+0.5**
	0.8nm,0.6s,mb3.6,baz=268,slow=7.7,SNR=21						
YKA	**Yellowknife Ar**	**30.38**	**48**	P	**P**	**13 50 35.3**	**+0.5**
NVAR	**Mina Array Bea**	**37.03**	**91**	P	**P**	**13 51 32.3**	**-0.2**
	0.5nm,0.4s,mb3.7,baz=315,slow=8.9,SNR=1.0						
BW06	**Boulder Array**	**39.97**	**79**	*e*P	**P**	**13 51 56.8**	**-0.1**
	0.6nm,0.6s,mb3.5						
PDAR	**Pinedale Array**	**39.97**	**79**	P	**P**	**13 51 55.4**	**-1.5**
	0.5nm,0.8s,mb3.3,baz=284,slow=6.1,SNR=4.0						
TXAR	**Lajitas Array**	**52.14**	**89**	P	**P**	**13 53 33.1**	**-0.2**
	0.4nm,0.4s,mb3.7,baz=309,slow=5.8,SNR=3.3						
SONM	**Songino Array**	**52.30**	**302**	P	**P**	**13 53 32.9**	**-1.3**
	0.4nm,0.7s,mb3.5,baz=27,slow=3.2,SNR=3.1						
ZAL	**Zalesovo**	**58.52**	**318**	P	**P**	**13 54 18.6**	**-0.6**
	0.7nm,0.3s,mb4.1,baz=107,slow=3.7,SNR=2.7						
ARCES	**ARCESS Array B**	**58.88**	**354**	P	**P**	**13 54 21.6**	**+0.1**
	5.7nm,0.9s,mb4.6,baz=32,slow=8.5,SNR=3.7						
BVAR	**Borovoye Array**	**64.80**	**325**	P	**P**	**13 55 01.8**	**+0.6**
	1.4nm,0.5s,mb4.3,baz=38,slow=5.9,SNR=7.9						
FINES	**FINESS Array B**	**66.84**	**353**	P	**P**	**13 55 15.1**	**+0.9**
	1.3nm,0.8s,mb4.0,slow=6.9,SNR=3.5						
CMAR	**Chiang Mai Arr**	**77.43**	**284**	P	**P**	**13 56 17.5**	**-0.3**
	0.6nm,0.7s,mb3.6,baz=24,slow=6.1,SNR=5.3						
ASAR	**Alice Springs**	**90.30**	**231**	P	**P**	**13 57 24.2**	**+1.3**
	0.6nm,0.6s,mb4.1,baz=36,slow=4.5,SNR=12						
ASPA	**Alice Springs**	**90.30**	**231**	*e*P	**P**	**13 57 28.1**	**+5.2**

*ISK **16** 13:45:33.2, 39.85N×38.96E, h5^{km}, MD3.5*

*CSEM **16** 13:45:33.2, 39.85N×38.96E, h5^{km}, MD3.5, After ISK*

ISC 16 13:45:34.2±0.4**, 39.82N**±0.03×**39.02E**±0.03**, h5**^{km}**, n24,** σ**0**^{s}**94**/35**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EZC	**Erzincan**	**0.62**	**96**	*i* PG	**Pg**	**13 45 40.1**	**-6.4**
GUMT	**Gumushane**	**0.73**	**29**	*i* PG	**Pg**	**13 45 48.2**	**-0.6**
GUMT				*i* SG	**Sg**	**13 45 57.7**	**-0.8**
PTK	**Pertek**	**0.97**	**163**	*i* PG	**Pg**	**13 45 52.3**	**-1.2**
ELZG	**Elazig**	**1.32**	**181**	*i* P	**Pb**	**13 45 58.2**	**-0.9**
ELZG				*i* S	**Sb**	**13 46 16.6**	**+0.4**
BINT	**Bingol**	**1.48**	**129**	PN	**Pn**	**13 46 02.4**	**+0.9**
MYA	**Malataya**	**1.56**	**197**	PN	**Pn**	**13 46 02.7**	**0.0**
SVST	**Sivas**	**1.59**	**269**	*i* P	**Pn**	**13 46 02.8**	**-0.4**
SVST				*i* S	**Sb**	**13 46 26.3**	**+2.2**
EZM	**Erzurum**	**1.80**	**87**	PN	**Pn**	**13 46 07.4**	**+1.2**
ERZM	**Erzurum**	**1.81**	**87**	*i* P	**Pn**	**13 46 07.2**	**+0.9**
ERZM				*i* S	**Sn**	**13 46 29.8**	**+0.1**
VRT	**Varto**	**2.06**	**109**	*e*PN	**Pn**	**13 46 10.9**	**+1.1**
DIY	**Diyarbakir**	**2.14**	**154**	*e*PN	**Pn**	**13 46 11.2**	**+0.2**
URFA	**Urfa**	**2.38**	**184**	*e*PN	**Pn**	**13 46 15.2**	**+0.8**
BTMT	**Batman**	**2.52**	**129**	*e*PN	**Pn**	**13 46 16.2**	**-0.2**
BCA	**Borcka**	**2.56**	**50**	*e*PN	**Pn**	**13 46 17.5**	**+0.5**
BEST	**Besiri**	**2.60**	**137**	*i* P	**Pn**	**13 46 15.4**	**-2.3**
BEST				*i* S	**Sn**	**13 46 56.3**	**+6.2**
GZT	**Gaziantep**	**2.71**	**205**	*i* P	**Pn**	**13 46 18.7**	**-0.5**
GZT				*i* S	**Sn**	**13 47 01.5**	**+8.7**
KAHT	**Ahir Dag**	**2.76**	**218**	*i* P	**Pn**	**13 46 20.0**	**+0.1**
GAZ	**Gaziantep**	**3.00**	**209**	*e*PN	**Pn**	**13 46 22.3**	**-1.0**
CTKT	**Corum**	**3.34**	**285**	*i* P	**Pn**	**13 46 28.6**	**+0.5**
CTKT				*i* S	**Sn**	**13 47 07.2**	**-1.4**
AVNT	**Avonos**	**3.40**	**254**	*i* P	**Pn**	**13 46 28.8**	**-0.1**
AVNT				*i* S	**Sn**	**13 47 25.0**	**+15**
BOYT	**Boyabat**	**3.52**	**298**	*i* P	**Pn**	**13 46 35.9**	**+5.2**
BOYT				*i* S	**Sn**	**13 47 12.2**	**-1.1**
COBT	**Iskenderun**	**3.95**	**214**	*i* P	**Pn**	**13 46 46.8**	**+10**
COBT				*i* S	**Sn**	**13 47 32.1**	**+8.0**
ELDT	**Eldivan**	**4.34**	**281**	*i* P	**Pn**	**13 46 42.6**	**+0.3**
BALT	**Daday**	**4.62**	**294**	*i* P	**Pn**	**13 46 45.8**	**-0.4**
BALT				*i* S	**Sn**	**13 47 42.7**	**+1.7**

*NEIC **16** 14:08:16.7±1.6, 4.23S×143.44E, h115^{km}±17^{km}, mb4.3/10, Error ellipse: s-maj=14.1km s-min=9.1km az=110.0*

*IDC **16** 14:08:19.5±2.3, 4.38S×143.58E, h149^{km}±26^{km}, mb3.7/8, mb1 3.8/11, mb1mx3.8/16, Error ellipse: s-maj=26.2km s-min=10.7km az=99.0*

ISC 16 14:08:12.2±2.0**, 4.17S**±0.06×**143.53E**±0.09**, h89**^{km}±20^{km}**, n26,** σ**0**^{s}**71**/32**, mb4.1**/14**, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**6.32**	**145**	P	**P**	**14 09 48.5**	**+4.0**
	1.6nm,0.3s,baz=360,slow=2.2,SNR=7.5						
PMG				S	**S**	**14 10 55.4**	**-0.5**
	3.6nm,0.3s,baz=118,slow=22,SNR=7.1						
PMG	**Port Moresby**	**6.32**	**145**	P	**P**	**14 09 48.5**	**+4.0**
PMG				S	**S**	**14 10 55.4**	**-0.5**
KAKA	**Kakadu**	**13.89**	**232**	*e*P	**P**	**14 11 26.4**	**+0.1**
	7.0nm,0.4s						
CTA	**Charters Tower**	**16.04**	**171**	P	**P**	**14 11 56.0**	**+2.2**
	0.1nm,0.3s,baz=0.8,slow=18,SNR=2.6						
CTAO	**Charters Tower**	**16.04**	**171**	P	**P**	**14 11 54.0**	**+0.2**
	24nm,1.5s						
WRAB	**Tennant Creek**	**18.04**	**209**	*e*P	**P**	**14 12 18.6**	**0.0**
	21nm,0.7s						
WB2	**Warramunga Arr**	**18.05**	**209**	*e*P	**P**	**14 12 18.5**	**-0.1**
WB2				*e*S	**S**	**14 15 33.5**	**-0.1**
WRA	**Warramunga Arr**	**18.06**	**209**	P	**P**	**14 12 18.8**	**+0.1**
	2.2nm,0.3s,baz=34,slow=10,SNR=108						
WRA				S	**S**	**14 15 33.4**	**-0.4**
	0.1nm,0.3s,baz=29,slow=23,SNR=4.0						
ASAR	**Alice Springs**	**21.49**	**205**	P	**P**	**14 12 55.4**	**+0.2**
	3.8nm,0.6s,mb3.9,baz=29,slow=12,SNR=56						
ASAR				S	**S**	**14 16 44.7**	**+1.7**
	0.6nm,0.8s,baz=28,slow=19,SNR=2.6						
ASPA	**Alice Springs**	**21.50**	**205**	*e*P	**P**	**14 12 55.7**	**+0.5**
ASPA				*e*S	**S**	**14 16 50.8**	**+7.7**
FITZ	**Fitzroy Crossi**	**22.32**	**230**	*e*P	**P**	**14 13 02.9**	**-0.5**
	12nm,1.0s,mb4.2						
FITZ	**Fitzroy Crossi**	**22.32**	**230**	P	**P**	**14 13 03.1**	**-0.2**
	11nm,0.5s,mb4.5,baz=38,slow=5.8,SNR=51						
STKA	**Stephens Creek**	**27.62**	**184**	P	**P**	**14 13 52.8**	**-0.6**
	1.0nm,0.4s,mb3.7,baz=28,slow=8.7,SNR=2.9						
MBWA	**Marble Bar**	**28.63**	**232**	*e*P	**P**	**14 14 01.6**	**-1.0**
FORT	**Forrest**	**30.22**	**207**	*e*P	**P**	**14 14 16.2**	**-0.5**
	31nm,1.0s,mb4.9						
NWAO	**Narrogin (SRO)**	**37.71**	**218**	P	**P**	**14 15 20.9**	**+0.1**
	8.1nm,0.8s,mb4.6,baz=58,slow=9.5,SNR=4.5						
KS15	**Wonju Array Si**	**43.89**	**342**	P	**P**	**14 16 10.9**	**-0.7**
CMAR	**Chiang Mai Arr**	**49.35**	**299**	P	**P**	**14 16 55.0**	**+0.2**
	0.8nm,0.5s,mb3.9,baz=119,slow=6.3,SNR=7.2						
BJT	**Baijiatuau**	**50.66**	**333**	*e*P	**P**	**14 17 05.6**	**+1.0**
	5.5nm,0.5s,mb4.8						
ULN	**Ulaanbaatar**	**60.88**	**333**	P	**P**	**14 18 17.2**	**-0.5**
	2.4nm,0.8s,mb4.3						
SONM	**Songino Array**	**61.16**	**332**	P	**P**	**14 18 19.9**	**+0.2**
	0.6nm,0.8s,mb3.7,baz=150,slow=5.6,SNR=3.3						
ZAL	**Zalesovo**	**75.66**	**329**	P	**P**	**14 19 48.9**	**-0.3**
	0.9nm,0.8s,mb3.6,baz=354,slow=6.1,SNR=5.2						
TKM2	**Tokmak 2**	**76.93**	**316**	*e*P	**P**	**14 19 56.4**	**-0.3**
	1.0nm,0.6s,mb3.7						
UCH	**Uchtor**	**77.48**	**315**	*e*P	**P**	**14 20 01.4**	**+1.7**
	2.2nm,1.0s,mb3.8						
BRVK	**Borovoye**	**83.35**	**324**	*e*P	**P**	**14 20 30.4**	**-0.2**
	2.5nm,0.8s,mb4.1						
ILAR	**Eielson Array**	**85.19**	**24**	P	**P**	**14 20 39.0**	**-0.5**
	1.1nm,0.7s,mb3.9,baz=274,slow=3.9,SNR=7.8						

*IDC **16** 14:19:41.3±3.8, 17.10S×73.07W, h48^{km}±38^{km}, mb3.8/6, mb1 4.1/8, mb1mx4.0/16, ML4.5/2, MS3.3/4, Ms1 3.3/4, ms1mx2.9/21, Error ellipse: s-maj=31.4km s-min=22.8km az=104.0*

*NEIC **16** 14:19:41.7±1.5, 16.86S×72.94W, h46^{km}±13^{km}, Error ellipse: s-maj=21.1km s-min=13.6km az=219.0*

NEIC Felt [II] at Camana.

ISC 16 14:19:38.7±1.4**, 17.15S**±0.07×**73.13W**±0.08**, h46**^{km}±15^{km}**, n16,** σ**0**^{s}**99**/15**, mb3.9**/5**, MS3.3**/2**, 1D, Off coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	**Arequipa**	**1.71**	**67**	⇓*i*P	**P**	**14 20 06.1**	**-0.6**
ARE				*e*S	**S**	**14 20 27.0**	**-0.5**
LPAZ	**La Paz**	**4.87**	**81**	P	**P**	**14 20 52.8**	**+1.5**
	5.5nm,0.3s,baz=266,slow=9.8,SNR=105						
LPAZ				S	**S**	**14 21 47.5**	**+0.3**
	baz=344,slow=13,SNR=1.2						
LPAZ				LR	LR	14 22 56.9	
	comp=Z,448nm,18.1s,baz=263,slow=41						
LPAZ	**La Paz**	**4.87**	**81**	*e*P	**P**	**14 20 52.8**	**+1.4**
NNA	**Nana**	**6.26**	**325**	*e*P	**P**	**14 21 10.1**	**-0.7**
	15nm,0.3s						
LVC	**Limon Verde**	**6.73**	**145**	P	**P**	**14 21 19.0**	**+1.6**
	3.4nm,0.3s,baz=321,slow=8.4,SNR=49						
LVC				S	**S**	**14 22 32.2**	**-1.4**
	5.8nm,0.3s,baz=91,slow=22,SNR=8.3						
LVC				LR	LR	14 23 56.6	
	comp=Z,132nm,20.3s,baz=275,slow=38						
LVC	**Limon Verde**	**6.73**	**145**	*e*P	**P**	**14 21 19.0**	**+1.6**
	19nm,0.6s						
SAML	**Samuel**	**12.66**	**51**	*e*P	**P**	**14 22 32.5**	**-6.1**
BDFB	**Brasilia**	**24.14**	**90**	P	**P**	**14 24 51.0**	**-0.6**
	3.2nm,0.7s,mb3.9,baz=232,slow=10,SNR=3.1						
BDFB				LR	LR	14 34 15.8	
	comp=Z,39nm,18.1s,MS2.9,baz=88,slow=36						
PDAR	**Pinedale Array**	**68.39**	**332**	P	**P**	**14 30 37.5**	**-0.2**
	0.4nm,0.7s,mb3.6,baz=162,slow=2.9,SNR=3.3						
NVAR	**Mina Array Bea**	**69.63**	**324**	P	**P**	**14 30 46.7**	**+1.3**
	0.2nm,0.5s,mb3.4,baz=180,slow=6.4,SNR=4.0						
ULM	**Lac du Bonnet**	**70.04**	**345**	P	**P**	**14 30 46.3**	**-1.3**
	0.9nm,0.4s,mb4.1,baz=143,slow=5.1,SNR=3.0						
VNDA	**Vanda**	**80.41**	**190**	LR	LR	15 05 12.8	
	comp=Z,32nm,19.1s,MS3.7,baz=225,slow=34						
YKA	**Yellowknife Ar**	**85.81**	**342**	P	**P**	**14 32 14.6**	**+0.6**
	1.7nm,0.6s,mb4.5,baz=135,slow=5.4,SNR=39						
ASAR	**Alice Springs**	**131.60**	**214**	PKP	PKPdf	14 38 51.1	+3.8
	0.7nm,1.1s,baz=124,slow=1.5,SNR=6.5						
ZAL	**Zalesovo**	**139.48**	**20**	PKP	PKPdf	14 39 03.5	+2.5
	0.4nm,0.4s,baz=265,slow=3.2,SNR=3.1						
SONM	**Songino Array**	**149.40**	**1**	PKPbc	PKPdf	14 39 26.1	+8.0
	1.2nm,0.7s,baz=331,slow=1.4,SNR=9.6						

TRN 16 14:36:06.6, 15.75N×61.43W, h23^{km}**, MD3.9, 6C-1D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGG	**Marie-Galante**	**0.20**	**33**	⇑*i*P	Pb	14 36 14.1	+2.1
DWS	**Wesley**	**0.21**	**148**	⇑*i*P	Pb	14 36 14.1	+1.9
DWS				*e*S	Sb	14 36 18.1	+2.1
BBL	**Barber's Block**	**0.23**	**190**	⇑*e*P	Pb	14 36 13.1	+0.7
SEG	**Port Louis**	**0.65**	**354**	⇑*e*P	Pb	14 36 20.8	+1.6
DEG	**La Desirade**	**0.66**	**32**	⇑*i*P	Pb	14 36 21.0	+1.7
FDF	**Fort de France**	**1.05**	**165**	⇑*e*P	Pb	14 36 27.7	+1.8
FDF				*e*S	Sb	14 36 42.4	+3.1
CRM	**Caravelle**	**1.11**	**153**	*e*P	Pn	14 36 28.2	+1.3
CRM				*e*S	Sb	14 36 43.6	+2.6
BIM	**Bigot**	**1.28**	**164**	*e*P	Pn	14 36 31.4	+2.2
BIM				*e*S	Sn	14 36 50.0	+4.3
MVM	**Montagne Vaucl**	**1.30**	**156**	⇓*e*P	Pn	14 36 31.2	+1.7
MVM				*e*S	Sn	14 36 49.0	+2.8
BPA	**Boggy Peak**	**1.35**	**342**	*i* P	Pn	14 36 32.5	+2.2
BPA				*e*S	Sn	14 36 50.4	+2.7
CPB	**Codrington**	**1.92**	**349**	*e*P	Pn	14 36 38.6	+0.2
CPB				*e*S	Sn	14 37 05.6	+3.6

IDC 16 15:00:14.7±1.8**, 20.17S×167.19E, mb4.0**/5**, mb1 4.2**/5**, mb1mx3.9**/13**, Error ellipse: s-maj=38.6km s-min=35.5km az=162.0, Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	**23.70**	**173**	P	P	15 05 28.4	-0.4
	6.1nm,0.8s,baz=61,slow=12,SNR=3.8						
STKA	**Stephens Creek**	**25.71**	**238**	P	P	15 05 46.4	-2.0
	1.3nm,0.6s,baz=92,slow=8.0,SNR=7.0						
WB2	**Warramunga Arr**	**30.82**	**265**	*e*P	P	15 06 32.7	-1.9
WRA	**Warramunga Arr**	**30.83**	**265**	P	P	15 06 32.3	-2.5
	0.7nm,0.7s,baz=95,slow=8.0,SNR=16						
ASAR	**Alice Springs**	**31.03**	**257**	P	P	15 06 35.0	-1.5
	5.1nm,0.5s,baz=89,slow=7.7,SNR=211						
ILAR	**Eielson Array**	**91.70**	**18**	P	P	15 13 23.4	-1.4
	0.4nm,1.0s,baz=228,slow=5.9,SNR=4.2						

*IDC **16** 15:01:02.6±17.0, 6.65N×126.08E, mb4.3/5, mb1 4.4/5, mb1mx3.9/20, Error ellipse: s-maj=307.0km s-min=78.1km az=175.0*

*MAN **16** 15:01:08.1, 7.06N×126.04E, h26^{km}, mb4.1, ML3.0, MS2.7*

*NEIC **16** 15:01:10.9±7.2, 6.90N×126.01E, h95^{km}±71^{km}, mb4.2/9, Error ellipse: s-maj=30.7km s-min=12.9km az=82.0*

ISC 16 15:01:06.1±0.4**, 6.95N**±0.04×**126.10E**±0.05**, h66**^{km}±4^{km}**, n27,** σ**0**^{s}**82**/33**, mb4.2**/12**, 2C-2D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	**Mati**	**0.16**	**93**	*e*P	**P**	**15 01 15.9**	**-0.2**
MATI				*e*S	**S**	**15 01 23.2**	**-0.3**
DMPH	**Davao City--Mi**	**0.60**	**282**	⇓*i*P	**P**	**15 01 20.3**	**+0.5**
DMPH				*i* S	**S**	**15 01 30.1**	**+0.4**
KCP	**Kidapawan**	**1.00**	**273**	⇓*i*P	**P**	**15 01 24.6**	**-0.1**
KCP				*i* S	**S**	**15 01 38.4**	**-0.1**
BIPH	**Bislig**	**1.25**	**12**	⇑*i*P	**P**	**15 01 28.5**	**+0.5**
BIPH				*i* S	**S**	**15 01 44.8**	**+0.5**
BUKP	**Musuan**	**1.38**	**312**	*e*P	**P**	**15 01 29.6**	**-0.3**
BUKP				*e*S	**S**	**15 01 47.1**	**-0.3**
BUTP	**Butuan**	**2.06**	**347**	*e*P	**P**	**15 01 40.9**	**+1.8**
BUTP				*e*S	**S**	**15 02 01.0**	**-2.5**
SCPH	**Surigao**	**2.87**	**348**	⇑*e*P	**P**	**15 01 50.2**	**-0.5**
MSLP	**Maasin**	**3.39**	**339**	*e*P	**P**	**15 01 57.9**	**+0.1**
KAKA	**Kakadu**	**20.53**	**162**	*e*P	**P**	**15 05 41.6**	**+0.1**
	12nm,0.6s						
FITZ	**Fitzroy Crossi**	**24.90**	**181**	*e*P	**P**	**15 06 25.9**	**+1.4**
	2.8nm,0.4s,mb4.0						
FITZ	**Fitzroy Crossi**	**24.90**	**181**	P	**P**	**15 06 25.4**	**+0.9**
	3.3nm,0.4s,mb4.1,baz=360,slow=9.7,SNR=30						
WRAB	**Tennant Creek**	**27.93**	**163**	*e*P	**P**	**15 06 51.4**	**-1.1**
	2.5nm,0.4s,mb4.1						
WRA	**Warramunga Arr**	**27.93**	**163**	P	**P**	**15 06 51.6**	**-0.9**
	0.9nm,0.4s,mb3.6,baz=341,slow=9.2,SNR=17						
WB2	**Warramunga Arr**	**27.93**	**163**	*e*P	**P**	**15 06 52.0**	**-0.5**
MBWA	**Marble Bar**	**28.63**	**192**	P	**P**	**15 06 57.4**	**-1.3**
	1.9nm,0.6s,mb3.9						
ASAR	**Alice Springs**	**31.37**	**166**	P	**P**	**15 07 22.5**	**-0.5**
	2.1nm,0.4s,mb4.2,baz=342,slow=7.2,SNR=35						
ASPA	**Alice Springs**	**31.37**	**166**	*e*P	**P**	**15 07 22.8**	**-0.2**
MAJO	**Matsushiro**	**31.46**	**19**	*e*P	**P**	**15 07 28.2**	**+4.6**
	3.6nm,0.7s,mb4.2						
FORT	**Forrest**	**37.56**	**177**	*e*P	**P**	**15 08 16.6**	**+0.7**
	22nm,0.5s,mb5.2						
KLBR	**Kellerberrin**	**39.15**	**191**	*e*P	**P**	**15 08 29.7**	**+0.7**
MUN	**Mundaring**	**39.85**	**193**	*e*P	**P**	**15 08 35.6**	**+0.8**
	6.6nm,1.1s,mb4.4						
NWAO	**Narrogin (SRO)**	**40.55**	**191**	P	**P**	**15 08 41.6**	**+1.0**
	5.0nm,0.6s,mb4.5,baz=22,slow=9.0,SNR=9.1						
NWAO	**Narrogin (SRO)**	**40.55**	**191**	*e*P	**P**	**15 08 38.4**	**-2.2**
	24nm,1.3s,mb4.9						
STKA	**Stephens Creek**	**41.35**	**160**	P	**P**	**15 08 48.0**	**+0.8**
	1.3nm,0.4s,mb4.1,baz=328,slow=8.5,SNR=9.1						
STKA	**Stephens Creek**	**41.35**	**160**	P	**P**	**15 08 48.0**	**+0.8**
ULN	**Ulaanbaatar**	**43.88**	**342**	*e*P	**P**	**15 09 08.2**	**+0.5**
	1.7nm,0.8s,mb3.8						
TLY	**Talaya**	**48.29**	**341**	*e*P	**P**	**15 09 42.5**	**0.0**
	4.5nm,1.0s,mb4.2						

MAN 16 15:02:38.2, 16.42N×122.50E, h8^{km}**, mb4.2, ML3.0, MS2.7, 1C, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALP	**Palanan**	**0.65**	**353**	*e*P	Pg	15 02 51.0	-0.2
CAUP	**Cauayan**	**0.83**	**309**	*e*P	Pb	15 02 53.6	-1.0
BALP	**Baler**	**1.12**	**233**	*e*P	Pb	15 02 58.9	-0.4
CVP	**Callao Caves**	**1.43**	**333**	*e*P	Pn	15 03 04.0	-0.6
CVP				*e*S	Sb	15 03 23.0	-0.1
PCPH	**Palayan**	**1.60**	**238**	⇑*e*P	Pn	15 03 06.5	-0.5
PCPH				*i* S	Sb	15 03 28.1	+0.2

*IDC **16** 15:07:15.1±17.0, 17.14S×173.61W, mb4.1/5, mb1 4.3/5, mb1mx3.9/17, Error ellipse: s-maj=333.0km s-min=155.8km az=81.0*

*NEIC **16** 15:07:27.6±3.1, 16.44S×174.89W, h35^{km}, mb4.4/4, Error ellipse: s-maj=112.0km s-min=27.9km az=136.0*

ISC 16 15:07:27.0±2.9**, 16.2S**±0.5×**175.2W**±0.5**, h33**^{km}**, n11,** σ**1**^{s}**10**/11**, mb4.3**/7**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**36.77**	**258**	P	**P**	**15 14 36.2**	**+2.6**
	1.2nm,0.4s,mb4.1,baz=80,slow=11,SNR=4.0						
CTAO	**Charters Tower**	**36.77**	**258**	P	**P**	**15 14 36.3**	**+2.7**
	3.3nm,0.8s,mb4.2						
STKA	**Stephens Creek**	**42.12**	**240**	P	**P**	**15 15 17.2**	**-0.7**
	1.3nm,0.3s,mb4.0,baz=105,slow=12,SNR=4.1						
WB2	**Warramunga Arr**	**47.96**	**258**	*e*P	**P**	**15 16 05.3**	**+0.5**
WRAB	**Tennant Creek**	**47.96**	**258**	*e*P	**P**	**15 16 02.6**	**-2.2**
	3.0nm,0.9s,mb4.3						
WRA	**Warramunga Arr**	**47.97**	**258**	P	**P**	**15 16 05.0**	**+0.1**
	0.8nm,0.5s,mb4.0,baz=96,slow=6.9,SNR=20						
ASAR	**Alice Springs**	**48.20**	**253**	P	**P**	**15 16 06.2**	**-0.4**
	3.0nm,0.7s,mb4.4,baz=94,slow=7.3,SNR=66						
ASPA	**Alice Springs**	**48.21**	**253**	*e*P	**P**	**15 16 06.7**	**0.0**
FITZ	**Fitzroy Crossi**	**56.34**	**259**	P	**P**	**15 17 08.6**	**+1.1**
	1.8nm,0.8s,mb4.2,baz=133,slow=4.5,SNR=3.1						
MDJ	**Mudanjiang**	**78.63**	**323**	P	**P**	**15 19 26.3**	**-0.9**
INK	**Inuvik**	**89.48**	**14**	P	**P**	**15 20 22.1**	**+0.6**
	6.4nm,1.2s,mb4.8						

*MOS **16** 15:30:23.7±0.9, 36.42N×71.47E, h33^{km}, mb4.9/29, Error ellipse: s-maj=9.2km s-min=5.7km az=119.8*

*IDC **16** 15:30:30.7±0.6, 36.42N×71.42E, h87^{km}±5^{km}, mb4.1/19, mb1 4.2/20, mb1mx4.1/24, MS3.7/7, Ms1 3.7/7, ms1mx3.4/23, Error ellipse: s-maj=17.6km s-min=10.6km az=37.0*

*NEIC **16** 15:30:31.2±0.3, 36.43N×71.46E, mb4.8/35, Error ellipse: s-maj=5.9km s-min=5.5km az=219.0*

*BJI **16** 15:30:31.2, 36.72N×71.27E, h106^{km}, mB5.0, mb4.7*

*NNC **16** 15:30:45.6±52.0, 38.38N×71.82E, mpv4.7, Error ellipse: s-maj=750.6km s-min=458.2km az=120.0*

ISC 16 15:30:29.1±0.4**, 36.35N**±0.02×**71.48E**±0.03**, h88**^{km}±4^{km}**, h92**^{km}±2.0^{km}**:pP-P, n213,** σ**1**^{s}**20**/245**, mb4.6**/61**, 12C-9D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CEP	**Cherat**	**2.54**	**172**	⇓P	**P**	**15 31 13.1**	**+3.8**
CHCP	**Chirah Chowk**	**3.06**	**151**	⇑P	**P**	**15 31 20.9**	**+4.4**
THW	**Thamme Wali**	**3.55**	**176**	⇑P	**P**	**15 31 26.0**	**+2.7**
SBDP	**Sheikh Budin**	**4.08**	**188**	P	**P**	**15 31 32.0**	**+1.5**
SARP	**Sargodha**	**4.52**	**167**	⇑P	**P**	**15 31 38.1**	**+1.4**
JMU	**Jammu**	**4.59**	**141**	*e*P	**P**	**15 31 40.5**	**+2.9**
DRP	**Derazinda**	**4.71**	**193**	⇑P	**P**	**15 31 41.5**	**+2.2**
KSH	**Kashi**	**4.76**	**47**	P	**P**	**15 31 43.5**	**+3.6**
KSH				*e*XP		15 32 07.1	
KSH				S	**S**	**15 32 36.6**	**+2.3**
KSH				LR	LR		
	comp=N,3µm,3.4s						
KSH				LR	LR		
	comp=E,2µm,3.7s						
THN	**Thein Dam**	**5.25**	**137**	*e*P	**P**	**15 31 48.2**	**+1.6**
	comp=E,17nm,0.3s						
THN				*e*S	**S**	**15 32 49.3**	**+3.0**
DLH	**Dalhousie**	**5.31**	**134**	*e*P	**P**	**15 31 49.0**	**+1.6**
DLH				*e*		15 32 52.0	
PONG	**Pong**	**5.74**	**138**	*e*	**S**	**15 32 58.5**	**0.0**
PONG				*e*S	**S**	**15 33 00.0**	**+1.5**
AML	**Almayashu**	**6.03**	**16**	P	**P**	**15 31 57.0**	**-0.3**
	SNR=347						
AML	**Almayashu**	**6.03**	**16**	*e*Pn	**P**	**15 31 57.0**	**-0.3**
	comp=E,183nm,0.5s						
AML				*e*Sn	**S**	**15 33 02.7**	**-2.9**
UCH	**Uchtor**	**6.33**	**21**	P	**P**	**15 32 01.5**	**0.0**
	SNR=86						
UCH	**Uchtor**	**6.33**	**21**	*e*Pn	**P**	**15 32 01.9**	**+0.4**
	comp=E,35nm,0.5s						
UCH				*e*Sn	**S**	**15 33 04.3**	**-8.7**
BHK	**Bhakra**	**6.41**	**139**	*e*P	**P**	**15 32 05.0**	**+2.4**

BHK				*e*		15 33 46.6	
KZA	**Kyzart**	**6.43**	**26**	P	**P**	**15 32 03.4**	**+0.5**
	SNR=18						
EKS2	**Erkin-Say**	**6.55**	**15**	P	**P**	**15 32 04.0**	**-0.6**
	SNR=133						
EKS2	**Erkin-Say**	**6.55**	**15**	*e*Pn	**P**	**15 32 03.8**	**-0.8**
	comp=E,104nm,0.6s						
EKS2				*e*Sn	**S**	**15 33 09.1**	**-9.4**
SDNR	**Sundarnagar**	**6.65**	**135**	*e*P	**P**	**15 32 06.8**	**+0.8**
AAK	**Ala-Archa**	**6.70**	**19**	⇑Pg	**P**	**15 32 07.0**	**+0.3**
	comp=E,50nm,0.3s						
AAK				⇓Lg		15 33 19.7	
	comp=E,152nm,0.7s						
AAK	**Ala-Archa**	**6.70**	**19**	P	**P**	**15 32 06.8**	**+0.1**
	SNR=167						
AAK	**Ala-Archa**	**6.70**	**19**	*e*PN	**P**	**15 32 05.7**	**-1.0**
AAK				*e*		15 33 18.5	
AAK				pmax	pmax		
	comp=Z,125nm,0.6s						
AAK	**Ala-Archa**	**6.70**	**19**	*e*Pn	**P**	**15 32 05.7**	**-1.0**
	comp=Z,125nm,0.6s						
AAK				*e*Sn	**S**	**15 33 18.5**	**-3.6**
KBK	**Karagaybulak**	**6.85**	**22**	P	**P**	**15 32 09.2**	**+0.4**
	SNR=56						
FRU	**Bishkek**	**6.92**	**20**	⇓*e*PN	**P**	**15 32 10.2**	**+0.5**
FRU				*e*S	**S**	**15 33 25.0**	**-2.4**
FRU				pmax	pmax		
	comp=Z,260nm,1.9s						
FRU				smax			
	comp=N,420nm,1.6s						
ULHL	**Ulahol**	**6.95**	**31**	P	**P**	**15 32 11.0**	**+0.8**
	SNR=8.2						
SMLA	**Simla**	**7.04**	**136**	⇑*i*	**P**	**15 32 25.7**	**+14**
SMLA				*i*		15 33 45.7	
CHMS	**Chumysh**	**7.11**	**20**	P	**P**	**15 32 12.1**	**-0.2**
	SNR=20						
USP	**Ospenovka**	**7.29**	**18**	P	**P**	**15 32 13.9**	**-0.9**
	SNR=63						
TKM2	**Tokmak 2**	**7.29**	**25**	P	**P**	**15 32 15.3**	**+0.4**
	SNR=22						
TKM2	**Tokmak 2**	**7.29**	**25**	*e*Pn	**P**	**15 32 14.5**	**-0.4**
DDI	**Dehra Dun**	**8.14**	**136**	*e*P	**P**	**15 32 26.2**	**-0.2**
DDI				*e*		15 34 27.0	
RTK	**Rohtak**	**8.39**	**149**	*i* P	**P**	**15 32 30.2**	**+0.4**
RTK				*e*S	**S**	**15 34 01.1**	**-2.6**
BHGR	**Bahadurgarh**	**8.92**	**147**	*e*P	**P**	**15 32 36.3**	**-0.6**
KHET	**Khetri**	**9.02**	**155**	*e*P	**P**	**15 32 37.0**	**-1.4**
KHET				AMb	AMB	15 32 39.9	
	comp=Z,29nm,0.6s						
KHET				*e*		15 34 13.9	
NDI	**New Delhi**	**9.04**	**146**	*e*P	**P**	**15 32 40.5**	**+1.9**
NDI				AMb	AMB	15 32 42.9	
	comp=Z,28nm,0.5s						
NDI				*e*S	**S**	**15 34 17.5**	**-2.1**
AYAN	**Aya Nagar**	**9.18**	**147**	*e*P	**P**	**15 32 39.9**	**-0.6**
AYAN				AMb	AMB	15 32 41.3	
	comp=Z,19nm,0.8s						
AYAN				*e*S	**S**	**15 34 21.3**	**-1.5**
KUDL	**Kundal**	**9.21**	**151**	*e*P	**P**	**15 32 40.2**	**-0.7**
KUDL				*e*S	**S**	**15 34 20.7**	**-3.0**
JASL	**Jaisalmer**	**9.41**	**183**	*e*P	**P**	**15 32 40.8**	**-2.7**
PTH	**Pithoragarh**	**9.99**	**130**	*e*P	**P**	**15 32 52.0**	**+0.6**
PTH				*e*		15 34 33.6	
LGTI	**Lohaghat**	**10.08**	**131**	*e*P	**P**	**15 32 51.7**	**-0.9**
LGTI				*e*		15 34 42.0	
AJM	**Ajmer**	**10.20**	**164**	*e*P	**P**	**15 32 53.0**	**-1.3**
AJM				*e*S	**S**	**15 34 42.6**	**-5.0**
AGRA	**Agra**	**10.62**	**147**	*e*P	**P**	**15 32 58.9**	**-1.0**
AGRA				*e*S	**S**	**15 34 52.5**	**-5.2**
JHNI	**Jhansi**	**12.42**	**149**	*e*	**S**	**15 35 35.0**	**-5.7**
JHNI				*e*		15 37 22.0	
MK31	**Makanchi Array**	**13.19**	**34**	⇓P	**P**	**15 33 34.3**	**+0.3**
	comp=Z,9.9nm,0.7s,baz=211,slow=9.7,SNR=59						
MKAR	**Makanchi Array**	**13.19**	**34**	*i* P	**P**	**15 33 34.6**	**+0.5**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KOLN	**Koldanda**	**13.36**	**126**	*e*P	**P**	**15 33 34.6**	**-1.7**
	comp=Z,69nm,0.5s						
KOLN				*e*S	**S**	**15 35 57.7**	**-5.3**
GKN	**Gorkha**	**13.90**	**123**	*e*P	**P**	**15 33 41.7**	**-1.5**
	comp=Z,277nm,0.8s						
GKN				*e*S	**S**	**15 36 10.0**	**-5.6**
BHPL	**Bhopal**	**14.04**	**157**	*i*	**P**	**15 33 43.7**	**-1.4**
BHPL				*i*		15 36 15.2	
ALBI	**Allahabad**	**14.12**	**138**	*e*	**P**	**15 33 42.0**	**-4.1**
DMN	**Daman**	**14.47**	**123**	*e*P	**P**	**15 33 49.3**	**-1.3**
	comp=Z,64nm,0.4s						
DMN				*e*S	**S**	**15 36 23.6**	**-5.6**
KKN	**Kakani**	**14.47**	**122**	*e*P	**P**	**15 33 49.1**	**-1.6**
	comp=Z,77nm,0.6s						
KKN				*e*S	**S**	**15 36 22.5**	**-6.7**
WMQ	**Urumqi**	**14.47**	**54**	P	**P**	**15 33 50.5**	**-0.1**
WMQ				AP		15 34 03.8	
WMQ				PP	PP	15 34 05.1	+2.1
WMQ				XP		15 34 18.3	
WMQ				S	**S**	**15 36 28.5**	**-0.7**
WMQ				XS		15 36 49.0	
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.0s						
WMQ				LR	LR		
	comp=N,120nm,15.8s						
WMQ				LR	LR		
	comp=E,131nm,16.2s						
WMQ				LR	LR		
	comp=Z,59nm,17.5s						
PKI	**Pulchoki**	**14.70**	**123**	*e*P	**P**	**15 33 51.8**	**-1.8**
	comp=Z,103nm,0.6s						
PKI				*e*S	**S**	**15 36 27.3**	**-7.3**
GUN	**Gumba**	**14.81**	**121**	*e*P	**P**	**15 33 52.6**	**-2.4**
	comp=Z,223nm,0.9s						
GUN				*e*S	**S**	**15 36 29.3**	**-7.8**
AKL	**Akola**	**16.32**	**161**	⇑*i*P	**P**	**15 34 15.6**	**+1.4**
	comp=Z,103nm,0.8s						
AKL				*i*		15 37 08.0	
NGP	**Nagpur**	**16.52**	**154**	*e*	**P**	**15 34 10.8**	**-5.9**
BVA0	**Borovoye Array**	**16.70**	**358**	P	**P**	**15 34 14.9**	**-3.7**
	comp=Z,1.0nm,0.7s,baz=166,slow=12,SNR=79						
BVA0	**Borovoye Array**	**16.70**	**358**	*i* P	**P**	**15 34 14.8**	**-3.8**
BVA0				pmax	pmax		
	comp=Z,4.0nm,1.3s						
BVAR	**Borovoye Array**	**16.70**	**358**	P	**P**	**15 34 14.5**	**-4.1**
	comp=Z,1.2nm,0.3s,baz=172,slow=12,SNR=24						
BVAR				S	**S**	**15 37 22.6**	**+2.5**
	comp=Z,0.1nm,0.3s,baz=160,slow=22,SNR=5.2						
BRVK	**Borovoye**	**16.73**	**357**	*e*P	**P**	**15 34 15.5**	**-3.5**
BRVK				*e*S	**S**	**15 37 16.4**	**-4.6**
BRVK				pmax	pmax		
	comp=Z,35nm,1.1s						
BRVK	**Borovoye**	**16.73**	**357**	*e*P	**P**	**15 34 15.5**	**-3.6**
	comp=Z,35nm,1.1s						
BRVK				*e*S	**S**	**15 37 16.4**	**-4.6**
BLSP	**Bilaspur**	**16.93**	**144**	*e*	**P**	**15 34 21.2**	**-0.5**
LSA	**Lhasa**	**17.76**	**106**	P	**P**	**15 34 32.3**	**+0.2**
POO	**Poona**	**17.87**	**173**	*e*P	**P**	**15 34 33.0**	**-0.4**
POO				*e*PP	PP	15 34 48.0	-1.3
POO				*i* PPP	PPP	15 34 57.0	-2.7
POO				*i* S	**S**	**15 37 56.0**	**+9.4**
POO				*i* SSS	SSS	15 38 32.5	+3.3
LATR	**Latur**	**18.42**	**165**	*e*P	**P**	**15 34 42.5**	**+2.7**
LATR				*e*		15 37 45.7	
KAD	**Karad**	**19.11**	**172**	*e*	**P**	**15 34 55.0**	**+7.4**
HYB	**Hyderabad**	**19.87**	**160**	*e*P	**P**	**15 34 56.5**	**+0.8**
HYB				*e*S	**S**	**15 38 28.5**	**-0.9**
HYB				pmax	pmax		
	comp=Z,70nm,1.0s						
HYB	**Hyderabad**	**19.87**	**160**	*e*P	**P**	**15 34 56.5**	**+0.8**
	comp=Z,70nm,1.0s						
HYB				*e*S	**S**	**15 38 28.5**	**-0.9**
HYB	**Hyderabad**	**19.87**	**160**	⇑*i*P	**P**	**15 34 56.5**	**+0.8**
	comp=Z,70nm,1.0s						
HYB				*e*S	**S**	**15 38 28.5**	**-0.9**
ZAL	**Zalesovo**	**19.88**	**24**	LR	LR	15 44 11.5	
	comp=Z,141nm,19.0s,baz=246,slow=41						
NVS	**Novosibirsk**	**20.19**	**20**	⇑*i*P	**P**	**15 34 56.2**	**-2.6**
NVS				*i*		15 35 24.9	
NVS				*i* S	**S**	**15 38 34.8**	**-0.7**
NVS				*e*		15 39 14.0	
NVS				pmax	pmax		
	comp=Z,28nm,0.9s						
NVS				pmax	pmax		
	comp=N,43nm,0.8s						
NVS				smax			
	comp=N,76nm,2.2s						
UMR	**Umm Al-Rimmam**	**21.03**	**258**	*e*P	**P**	**15 35 07.2**	**-0.3**
QRN	**Al-Qurain**	**21.23**	**256**	*e*P	**P**	**15 35 09.5**	**0.0**
GNI	**Garni**	**21.31**	**288**	P	**P**	**15 35 09.8**	**-0.3**
	comp=N,12nm,0.6s,mb4.4,baz=279,slow=4.7,SNR=9.2						
GNI				LR	LR	15 43 59.2	
	comp=N,80nm,19.9s,slow=38						
GNI	**Garni**	**21.31**	**288**	*e*P	**P**	**15 35 08.7**	**-1.5**
GNI				pmax	pmax		
	comp=Z,54nm,1.0s						
GNI	**Garni**	**21.31**	**288**	*e*P	**P**	**15 35 08.7**	**-1.5**
	comp=Z,54nm,1.0s,mb4.8						
GNI				*e*		15 37 12.4	
VIS	**Vishakhapatnam**	**21.31**	**147**	*e*P	**P**	**15 35 15.2**	**+4.8**
VIS				*e*		15 39 34.5	
TI2	**Plekhanov**	**21.41**	**293**	⇓*i*P	**P**	**15 35 11.8**	**+0.7**
RDF	**Al-Radifah**	**21.43**	**257**	*e*P	**P**	**15 35 11.4**	**-0.1**
RDF				AMb	AMB	15 35 13.7	
	comp=Z,80nm,0.7s,mb5.2						
RST	**Umm Al-Ruwaisa**	**21.62**	**259**	*e*P	**P**	**15 35 12.4**	**-1.0**
RST				AMb	AMB	15 35 13.7	
	comp=Z,70nm,0.9s,mb5.0						
HASS	**Wahat al Ahsa’**	**21.72**	**245**	P	**P**	**15 35 13.4**	**-1.0**
ARU	**Arti**	**21.91**	**341**	⇓*i*P	**P**	**15 35 15.2**	**-0.8**
ARU				*i*		15 35 36.1	
ARU				*e*S	**S**	**15 39 11.0**	**+3.7**
ARU				pmax	pmax		
	comp=Z,60nm,0.9s,mb4.9						
ARU	**Arti**	**21.91**	**341**	*e*P	**P**	**15 35 14.7**	**-1.3**
	comp=Z,183nm,1.3s,mb5.2						
ARU				*e*		15 35 35.8	
ZEI	**Tsey**	**22.15**	**295**	*e*P	**P**	**15 35 18.6**	**+0.1**
ZEI				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.3						
GTA	**Gaotai**	**22.54**	**74**	P	**P**	**15 35 26.8**	**+4.5**
GTA				AP		15 35 47.4	
GTA				PP	PP	15 35 57.3	+4.3
GTA				XP		15 35 59.5	
GTA				S	**S**	**15 39 19.1**	**+0.5**
GTA				XS		15 39 54.1	
GTA				SS	SS	15 40 08.1	+1.2
GTA				AMB	AMB		
	comp=Z,38nm,0.8s,mb4.8						
GTA				AMB	AMB		
	comp=Z,101nm,6.1s						
GTA				LR	LR		
	comp=N,178nm,12.9s						
GTA				LR	LR		
	comp=E,175nm,13.3s						
GTA				LR	LR		
	comp=Z,209nm,14.5s						
GOF	**Gofitskoye**	**23.16**	**301**	*e*P	**P**	**15 35 31.0**	**+2.8**
GOF				*i*		15 40 28.0	
GOF				pmax	pmax		
	comp=Z,50nm,1.4s,mb4.7						
KIV	**Kislovodsk**	**23.20**	**298**	*e*P	**P**	**15 35 29.0**	**+0.4**
KIV				pmax	pmax		
	comp=Z,47nm,1.1s,mb4.7						
KIV	**Kislovodsk**	**23.20**	**298**	*e*P	**P**	**15 35 29.0**	**+0.4**
	comp=Z,47nm,1.1s,mb4.7						
KRAR	**Krasnoyarsk**	**24.44**	**30**	*e*P	**P**	**15 35 41.4**	**+0.9**
SOC	**Sochi**	**25.29**	**296**	*e*P	**P**	**15 35 47.5**	**-1.2**
SOC				*e*		15 36 39.5	
SOC				*e*S	**S**	**15 40 06.8**	**+1.3**
SOC				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.4						
SOC				pmax	pmax		
	comp=N,5.0nm,0.5s						
SOC				pmax	pmax		
	comp=E,13nm,0.8s						
MZLS	**Mizel**	**25.73**	**249**	P	**P**	**15 35 53.0**	**0.0**
MOY	**Mondy**	**25.94**	**45**	*e*P	**P**	**15 35 59.8**	**+5.1**
LZH	**Lanzhou**	**26.05**	**81**	*e*P	**P**	**15 35 57.5**	**+1.6**
LZH				AP	pP	15 36 19.1	+3.5
LZH				XP	sP	15 36 31.0	+4.8
LZH				*e*PP	PP	15 36 43.3	+3.1
LZH				*e*S	**S**	**15 40 19.3**	**+1.0**
LZH				XS		15 40 56.5	
LZH				SS	SS	15 41 32.5	+0.8
LZH				AMB	AMB		
	comp=Z,24nm,1.3s,mb4.5						
LZH				AMB	AMB		
	comp=Z,112nm,4.5s						
LZH				LR	LR		
	comp=N,567nm,10.2s						
LZH				LR	LR		
	comp=Z,899nm,12.3s						
ARSS	**Ar Rass**	**26.25**	**255**	P	**P**	**15 35 56.6**	**-1.2**
MALT	**Malatya**	**26.28**	**284**	*e*P	**P**	**15 35 58.2**	**+0.2**
MALT				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.1						
MALT	**Malatya**	**26.28**	**284**	*e*P	**P**	**15 35 58.2**	**+0.3**
	comp=Z,8.8nm,1.1s,mb4.1						
HILS	**Ha’il**	**26.67**	**259**	P	**P**	**15 36 01.2**	**-0.5**
ZAK	**Zakamensk**	**26.80**	**48**	*e*P	**P**	**15 36 04.1**	**+1.5**
ZAK				*e*		15 36 45.3	
ANN	**Anapa**	**27.05**	**299**	*e*P	**P**	**15 35 50.0**	**-15**
ANN				*i*		15 36 01.8	
CD2	**Chengdu**	**27.34**	**92**	P	**P**	**15 36 11.4**	**+3.6**
CD2				AP	pP	15 36 32.1	+4.4
CD2				XP	sP	15 36 43.5	+5.4
CD2				PP	PP	15 36 59.1	+1.1
CD2				S	**S**	**15 40 38.5**	**-0.9**
CD2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
CD2				AMB	AMB		
	comp=Z,140nm,4.2s						
CD2				LR	LR		
	comp=N,190nm,7.8s						
CD2				LR	LR		
	comp=Z,210nm,5.4s						
VRSR	**Storozhevoye**	**27.38**	**313**	*e*P	**P**	**15 36 08.0**	**+0.1**
VRSR				*e*		15 36 51.8	
VRSR				*e*		15 39 26.0	
VRSR				*e*S	**S**	**15 40 37.4**	**-2.3**
VRSR				*e*SS	SS	15 41 58.1	-5.0
VRSR				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.8						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.3s						
VRSR				pmax	pmax		
	comp=E,20nm,1.6s						
VRSR				smax			
	comp=N,10.0nm,0.9s						
VRSR				smax			
	comp=Z,7.0nm,0.9s						
VRSR				smax			
	comp=E,10.0nm,1.2s						
TLY	**Talaya**	**27.47**	**46**	*i* P	**P**	**15 36 08.8**	**+0.1**
SONM	**Songino Array**	**28.11**	**55**	P	**P**	**15 36 15.0**	**+0.4**
	comp=E,1.1nm,0.4s,mb3.7,baz=267,slow=8.9,SNR=30						
ULN	**Ulaanbaatar**	**28.55**	**55**	*e*P	**P**	**15 36 18.2**	**-0.3**
KMI	**Kunming**	**28.99**	**104**	*e*P	**P**	**15 36 23.8**	**+1.2**
KMI				AP	pP	15 36 44.4	+1.7
KMI				S	**S**	**15 41 10.3**	**+4.5**
KMI				AMB	AMB		
	comp=Z,6.0nm,0.5s,mb4.5						
KMI				AMB	AMB		
	comp=Z,60nm,4.4s						
KMI				LR	LR		
	comp=Z,75nm,40.4s						
BRTR	**Keskin Array B**	**29.85**	**288**	P	**P**	**15 36 29.6**	**-0.6**
	comp=Z,0.8nm,0.6s,mb3.5,baz=90,slow=11,SNR=4.6						
CMAR	**Chiang Mai Arr**	**30.04**	**119**	P	**P**	**15 36 32.8**	**+0.7**
	comp=Z,1.2nm,0.8s,mb3.6,baz=303,slow=8.8,SNR=10						
CMAR				LR	LR	15 50 47.2	
	comp=Z,43nm,22.0s,baz=102,slow=40						
OBN	**Obninsk**	**30.31**	**319***c*	*i*P	**P**	**15 36 32.8**	**-1.2**
OBN				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.0						
OBN	**Obninsk**	**30.31**	**319**	*e*P	**P**	**15 36 32.4**	**-1.6**
	comp=Z,39nm,0.5s,mb5.3						
OBN				*e*		15 36 59.4	
OBN				*e*		15 37 17.2	
EIL	**Elat**	**31.21**	**268**	P	**P**	**15 36 40.5**	**-1.8**
	comp=Z,5.0nm,0.9s,mb4.2,baz=80,slow=11,SNR=3.0						
EIL	**Elat**	**31.21**	**268**	P	**P**	**15 36 35.1**	**-7.1**
	comp=Z,10nm,1.1s,mb4.5						
EIL				P		15 36 40.5	
HHC	**Hu-ho-hao-te**	**31.46**	**69**	*e*P	**P**	**15 36 46.3**	**+2.1**
HHC				AP	pP	15 37 08.0	+3.4
HHC				XP	sP	15 37 20.3	+5.3
HHC				PP	PP	15 37 50.3	-0.5
HHC				S	**S**	**15 41 40.3**	**-4.2**
HHC				SCS	ScS	15 47 09.0	+3.2
HHC				AMB	AMB		
	comp=Z,13nm,0.5s,mb4.9						
HHC				AMB	AMB		
	comp=Z,156nm,5.8s						
HHC				LR	LR		
	comp=N,70nm,17.2s						
HHC				LR	LR		
	comp=E,160nm,18.3s						
HHC				LR	LR		
	comp=Z,230nm,17.3s						
AKASG	**Malin Array Be**	**33.34**	**309**	P	**P**	**15 36 58.9**	**-1.6**
	comp=Z,23nm,0.8s,mb5.1,baz=81,slow=7.1,SNR=50						
AKASG				PP	PP	15 38 18.7	+4.1
	comp=Z,3.4nm,0.6s,baz=89,slow=11,SNR=6.3						
AKASG	**Malin Array Be**	**33.34**	**309**	P	**P**	**15 36 58.9**	**-1.6**
AKASG						15 38 18.7	
AKASG				pmax	pmax		
	comp=Z,23nm,0.8s						
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
BOD	**Bodaibo**	**35.23**	**39**	*e*P	**P**	**15 37 06.2**	**-10**
KWP	**Kalwaria**	**37.41**	**306**	P	**P**	**15 37 34.0**	**-1.0**
KWP				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
KWP	**Kalwaria**	**37.41**	**306**	P	**P**	**15 37 34.0**	**-1.1**
	comp=Z,21nm,1.1s,mb5.0						
SUW	**Suwalki**	**37.50**	**314**	P	**P**	**15 37 32.5**	**-3.2**
SUW				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.3						
SUW	**Suwalki**	**37.50**	**314**	P	**P**	**15 37 32.5**	**-3.2**
	comp=Z,42nm,0.9s,mb5.3						
KOLS	**Kolonicke sedl**	**37.68**	**305**	*e*P	**P**	**15 37 38.1**	**+0.8**
KOLS				*e*		15 39 04.8	
KOLS	**Kolonicke sedl**	**37.68**	**305**	*e*P	**P**	**15 37 38.1**	**+0.8**
KOLS				*e*		15 38 06.8	
KOLS				*e*PP	PP	15 39 04.8	-2.4
FINES	**FINESS Array B**	**37.83**	**326**	P	**P**	**15 37 38.1**	**-0.3**
	comp=Z,6.4nm,0.4s,mb4.8,baz=120,slow=9.7,SNR=86						
FINES				PP	PP	15 38 57.6	-11
	comp=Z,4.3nm,0.9s,baz=124,slow=20,SNR=2.2						
FINES				LR	LR	15 53 20.8	
	comp=Z,179nm,19.0s,baz=155,slow=36						
KAF	**Kangasniemi**	**37.96**	**327**	*e*p	**P**	**15 37 39.0**	**-0.5**
	comp=Z,1.7nm,0.3s,mb4.3,baz=111,slow=8.4						
KAF	**Kangasniemi**	**37.96**	**327**	*e*P	**P**	**15 37 39.0**	**-0.5**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.4						
NJ2	**Nanjing**	**39.11**	**82**	*e*P	**P**	**15 37 50.1**	**+0.7**
NJ2				AP	pP	15 38 12.8	+2.5
NJ2				XP	sP	15 38 24.3	+3.6
NJ2				PP	PP	15 39 25.8	+1.7
NJ2				S	**S**	**15 43 42.0**	**-0.2**
NJ2				XS		15 44 21.0	
NJ2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.9						
NJ2				LR	LR		
	comp=N,970nm,22.0s						
NJ2				LR	LR		
	comp=E,640nm,24.4s						
NJ2				LR	LR		
	comp=Z,370nm,20.6s						
VYHS	**Vyhne**	**39.96**	**305**	*e*P	**P**	**15 37 57.8**	**+1.6**
MORC	**Moravsky Berou**	**40.77**	**307**	P	**P**	**15 38 01.3**	**-1.5**
MORC				pmax	pmax		
	comp=Z,32nm,1.6s,mb4.9						
MORC	**Moravsky Berou**	**40.77**	**307**	P	**P**	**15 38 01.2**	**-1.5**
	comp=Z,32nm,1.6s,mb4.9						
KEV	**Kevo**	**41.09**	**338**	*e*p	**P**	**15 38 04.2**	**-1.0**
	comp=Z,5.8nm,0.3s,mb4.9						
KEV	**Kevo**	**41.09**	**338**	*e*P	**P**	**15 38 04.2**	**-1.0**
KEV				pmax	pmax		
	comp=Z,6.0nm,0.3s,mb4.9						
SSE	**Sheshan**	**41.31**	**82**	*e*P	**P**	**15 38 08.3**	**+0.8**
SSE				AMB	AMB		
	comp=Z,45nm,0.7s,mb5.4						
SSE				AMB	AMB		
	comp=Z,67nm,6.1s						
CN2	**Changchun**	**41.34**	**62**	*e*P	**P**	**15 38 07.5**	**0.0**
ARCES	**ARCESS Array B**	**41.43**	**338**	P	**P**	**15 38 08.2**	**+0.1**
	comp=Z,14nm,0.4s,mb5.1,baz=113,slow=7.8,SNR=86						
ARCES				LR	LR	15 55 37.7	
	comp=Z,143nm,21.6s,baz=190,slow=36						
ARE0	**ARCESS Array S**	**41.43**	**338**	*e*P	**P**	**15 38 07.9**	**-0.2**
KTK1	**Kautokeino**	**41.91**	**336**	*e*P	**P**	**15 38 12.6**	**+0.7**
KTK1				AMb	AMB	15 38 15.3	
	comp=Z,28nm,0.4s,mb5.3						
KTK1	**Kautokeino**	**41.91**	**336**	*e*P	**P**	**15 38 12.6**	**+0.7**
	comp=Z,28nm,0.4s,mb5.3						
PERS	**Pernice**	**42.63**	**302**	*e*P	**P**	**15 38 18.8**	**+0.8**
BOJS	**Bojanci**	**42.68**	**300**	*e*P	**P**	**15 38 19.2**	**+0.7**
PRU	**Pruhonice**	**42.69**	**307**	*e*P	**P**	**15 38 20.0**	**+1.4**
BRG	**Berggiesshubel**	**43.02**	**308**	*e*P	**P**	**15 38 21.4**	**+0.2**
BRG				pmax	pmax		
	comp=Z,21nm,1.5s,mb4.7						
BRG	**Berggiesshubel**	**43.02**	**308**	*e*P	**P**	**15 38 21.4**	**+0.2**
	comp=Z,21nm,1.5s,mb4.6						
BRG				*e*		15 38 50.8	
GERES	**GERESS Array B**	**43.33**	**305**	P	**P**	**15 38 24.0**	**+0.2**
	comp=Z,0.7nm,0.4s,mb3.7,baz=79,slow=6.8,SNR=6.5						
GERES				PP	PP	15 40 03.6	-4.3
	comp=Z,0.4nm,0.6s,baz=45,slow=4.2,SNR=3.3						
GERES				ScP		15 43 52.7	
	comp=Z,0.3nm,0.5s,baz=39,slow=8.5,SNR=3.5						
KHC	**Kasperske Hory**	**43.39**	**306**	*e*P	**P**	**15 38 13.0**	**-11**
KHC				*e*		15 38 26.0	
KHC				*e*		15 40 06.0	
KHC	**Kasperske Hory**	**43.39**	**306**	*e*P	**P**	**15 38 26.0**	**+1.8**
KHC				*e*PP	PP	15 40 06.0	-2.5
TRO	**Tromso**	**43.56**	**336**	*e*P	**P**	**15 38 24.2**	**-1.2**
TRO				AMb	AMB	15 38 25.9	
	comp=Z,88nm,1.9s,mb5.2						
TRO				*e*pP	pP	15 38 45.3	-1.2
TRO	**Tromso**	**43.56**	**336**	*e*P	**P**	**15 38 24.2**	**-1.2**
	comp=Z,88nm,1.9s,mb5.2						
CLL	**Collm**	**43.59**	**309**	*i* P	**P**	**15 38 27.2**	**+1.4**
CLL	**Collm**	**43.59**	**309**	P	**P**	**15 38 27.2**	**+1.4**
CLL				*e*PP	PP	15 40 11.0	+0.6
YAK	**Yakutsk**	**43.87**	**35**	*e*P	**P**	**15 38 27.9**	**0.0**
YAK				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.8						
YAK	**Yakutsk**	**43.87**	**35**	*e*P	**P**	**15 38 27.9**	**0.0**
	comp=Z,17nm,0.8s,mb4.8						
MOR8	**Moi Rana**	**44.14**	**331**	*e*P	**P**	**15 38 29.2**	**-0.8**
MOR8				AMb	AMB	15 38 31.0	
	comp=Z,47nm,0.9s,mb5.2						
MOR8	**Moi Rana**	**44.14**	**331**	*e*P	**P**	**15 38 29.2**	**-0.8**
	comp=Z,47nm,0.9s,mb5.2						
MOX	**Moxa**	**44.51**	**308**	*e*P	**P**	**15 38 34.0**	**+0.7**
NB2	**NORSAR Subarra**	**44.73**	**323**	P	**P**	**15 38 34.0**	**-0.9**
	comp=Z,18nm,0.5s,mb5.0,baz=97,slow=7.9						
NB2	**NORSAR Subarra**	**44.73**	**323**	P	**P**	**15 38 34.0**	**-0.9**
	baz=97,slow=7.9						
NB2	**NORSAR Subarra**	**44.73**	**323**	P	**P**	**15 38 34.0**	**-0.9**
NB2				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.1						
NOA	**NORSAR Array B**	**44.73**	**323**	P	**P**	**15 38 34.0**	**-0.9**
	comp=Z,16nm,0.5s,mb5.0,baz=97,slow=7.7,SNR=46						
NOA				PP	PP	15 40 19.2	-2.5
	comp=Z,4.6nm,1.2s,baz=97,slow=10.0,SNR=2.2						
GRA1	**Grafenberg Arr**	**44.86**	**307**	*e*P	**P**	**15 38 36.9**	**+0.8**
	comp=Z,19nm,1.5s,mb4.6						
GRA1				*e*pP	pP	15 39 05.3	+8.1
GRF	**Grafenberg Arr**	**44.86**	**307**	*e*P	**P**	**15 38 36.9**	**+0.8**
GRF				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.6						
GRF	**Grafenberg Arr**	**44.86**	**307**	*e*P	**P**	**15 38 36.9**	**+0.8**
GRF				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.6						
GRF	**Grafenberg Arr**	**44.86**	**307**	*e*P	**P**	**15 38 36.9**	**+0.8**
	comp=Z,19nm,1.5s,mb4.6						
GRF				*e*pP	pP	15 39 05.3	+8.1
NAO01	**NORSAR Array S**	**44.88**	**323**	*e*P	**P**	**15 38 33.9**	**-2.2**
	comp=Z,29nm,0.9s,mb5.0						
LOF	**Lofoten**	**44.95**	**333**	*e*P	**P**	**15 38 38.5**	**+2.0**
LOF				AMb	AMB	15 38 44.6	
	comp=Z,175nm,1.7s,mb5.5						
LOF	**Lofoten**	**44.95**	**333**	*e*P	**P**	**15 38 38.5**	**+2.0**
	comp=Z,175nm,1.7s,mb5.5						
TIXI	**Tiksi**	**45.77**	**22**	⇓*i*P	**P**	**15 38 42.6**	**-0.4**
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
LPG	**La Plagne**	**48.56**	**302**	*e*P	**P**	**15 39 05.4**	**+0.3**
LPL	**La Plagne**	**48.56**	**302**	*e*P	**P**	**15 39 05.5**	**+0.3**
	comp=Z,3.4nm,0.3s,mb4.4						
LPL	**La Plagne**	**48.56**	**302**	*e*P	**P**	**15 39 05.5**	**+0.3**
LPL				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						

```
MBDF  Montbardon         48.72 301  eP        P          15 39 06.5 +0.1
      comp=Z,10nm,0.8s,mb4.5
MBDF  Montbardon         48.72 301  eP        P          15 39 06.5 +0.1
MBDF                                 pmax     pmax
      comp=Z,5.0nm,0.8s,mb4.5
CABF  La Chapelle        48.76 304  eP        P          15 39 07.6 +0.9
      comp=Z,5.1nm,0.4s,mb4.5
CABF  La Chapelle        48.76 304  eP        P          15 39 07.6 +0.9
CABF                                 pmax     pmax
      comp=Z,3.0nm,0.4s,mb4.6
KMBO  Kilima Mbogo       49.01 228   P        P          15 39 10.5 +1.4
      comp=Z,1.1nm,0.6s,mb4.0,baz=48,slow=18,SNR=2.7
VIVF  Saint-Julien-l     50.14 302  eP        P          15 39 17.6 +0.3
SMF   Signal de Mont     50.26 304  eP        P          15 39 17.7 -0.5
      comp=Z,6.9nm,0.5s,mb4.6
SMF   Signal de Mont     50.26 304  eP        P          15 39 17.7 -0.5
SMF                                  pmax     pmax
      comp=Z,3.0nm,0.5s,mb4.5
AVF   Avril sur Loir     50.55 304  eP        P          15 39 19.9 -0.5
      comp=Z,6.7nm,0.5s,mb4.7
AVF   Avril sur Loir     50.55 304  eP        P          15 39 19.9 -0.5
AVF                                  pmax     pmax
      comp=Z,3.0nm,0.5s,mb4.6
TCF   Toulx Ste Croi     51.44 304  eP        P          15 39 27.1 -0.1
FLN   La Foliniere       52.57 308  eP        P          15 39 36.0 +0.4
YSS   Yuzh-Sakhalins     52.60  55  i P       P          15 39 35.2 -0.6
MBAR  Mbarara            52.73 235   P        P          15 39 36.3 -1.0
MBAR                                 pmax     pmax
      comp=Z,3.0nm,0.8s,mb4.4
MBAR  Mbarara            52.73 235   P        P          15 39 36.3 -1.0
      comp=Z,2.7nm,0.8s,mb4.3
MA2   Magadan            54.25  38  i P       P          15 39 59.8  +12
ETSF  Etsaut             54.33 301  eP        P          15 39 48.9 +0.3
      comp=Z,7.1nm,0.5s,mb4.7
ETSF  Etsaut             54.33 301  eP        P          15 39 48.9 +0.3
ETSF                                 pmax     pmax
      comp=Z,4.0nm,0.5s,mb4.7
DAG   Danmarks Havn      54.99 344⇓iP         P          15 39 53.5 +0.5
DAG                                  pmax     pmax
      comp=Z,16nm,0.7s,mb5.2
DAG   Danmarks Havn      54.99 344⇓iP         P          15 39 53.5 +0.5
      comp=Z,16nm,0.7s,mb5.2
INK   Inuvik             74.00   9  eP        P          15 41 55.6 -0.6
INK                                  pmax     pmax
      comp=Z,7.0nm,0.9s
INK   Inuvik             74.00   9  eP        P          15 41 55.6 -0.5
      comp=Z,7.0nm,0.9s,mb4.4
FITZ  Fitzroy Crossi     74.49 127  eP        P          15 42 03.0 +3.0
      comp=Z,4.7nm,1.1s,mb4.1
FITZ  Fitzroy Crossi     74.49 127   P        P          15 42 00.5 +0.5
      comp=Z,1.9nm,0.8s,mb3.9,baz=304,slow=3.6,SNR=3.8
ILAR  Eielson Array      74.82  16   P        P          15 42 00.5 -0.5
      comp=Z,1.8nm,1.0s,mb3.7,baz=318,slow=5.9,SNR=7.9
ILAR                                 pP       pP         15 42 23.7 -0.3
      comp=Z,0.8nm,0.8s,baz=321,slow=5.6,SNR=4.1
ILAR                                 sP       sP         15 42 32.5 -1.1
      comp=Z,1.9nm,0.9s,baz=318,slow=3.4,SNR=6.5
ILAR                                 PP       PP         15 44 47.9 -3.4
      comp=Z,0.5nm,0.9s,baz=323,slow=9.0,SNR=4.2
ILAR                                 LR       LR         16 20 35.2
      comp=Z,62nm,19.3s,baz=357,slow=40
ILAR  Eielson Array      74.82  16   P        P          15 42 00.5 -0.5
ILAR                                 *PP      pP         15 42 23.8 -0.3
ILAR                                                     15 44 47.9
LBTB  Lobatse            74.82 222  eP        P          15 42 01.8  0.0
LBTB                                 pmax     pmax
      comp=Z,4.0nm,0.8s,mb4.2
LBTB  Lobatse            74.82 222  eP        P          15 42 01.8  0.0
      comp=Z,4.4nm,0.8s,mb4.2
RSO   Redoubt South      76.94  21  eP        P          15 42 05.6 -7.5
NWAO  Narrogin (SRO)     81.11 142   P        P          15 42 37.4 +1.1
      comp=Z,4.1nm,0.8s,mb4.3,baz=326,slow=7.3,SNR=1.9
YKA   Yellowknife Ar     81.38   3   P        P          15 42 37.4 +0.4
      comp=Z,2.2nm,0.5s,mb4.2,baz=351,slow=5.4,SNR=32
WRA   Warramunga Arr     81.58 122   P        P          15 42 39.1 +0.2
      comp=Z,1.2nm,0.4s,mb4.1,baz=324,slow=5.0,SNR=66
WRA                                  pP       pP         15 43 02.7 +0.4
      comp=Z,1.7nm,0.7s,baz=323,slow=5.0,SNR=5.2
WRAB  Tennant Creek      81.58 122  eP        P          15 42 40.6 +1.7
WRAB  Tennant Creek      81.58 122  eP        P          15 42 38.9  0.0
      comp=Z,9.5nm,1.0s,mb4.6
WB2   Warramunga Arr     81.59 122  eP        P          15 42 40.5 +1.5
ASAR  Alice Springs      83.85 125   P        P          15 42 50.4  0.0
      comp=Z,1.1nm,0.5s,mb3.9,baz=312,slow=4.9,SNR=18
ASAR                                 pP       pP         15 43 14.3 +0.4
      comp=Z,1.5nm,0.8s,baz=318,slow=5.7,SNR=4.7
CTA   Charters Tower     90.13 115   P        P          15 43 21.4 +0.5
      comp=Z,4.9nm,1.1s,mb4.5,baz=311,slow=9.3,SNR=4.9
ULM   Lac du Bonnet      93.06 352   P        P          15 43 34.1 +0.4
      comp=Z,1.9nm,0.6s,mb4.6,baz=25,slow=4.0,SNR=3.3
ULM                                  LR       LR         16 30 18.0
      comp=Z,96nm,18.4s,baz=44,slow=39
PDAR  Pinedale Array    101.26   1   P        P          15 44 11.2 +0.2
      comp=Z,0.3nm,0.9s,baz=323,slow=4.5,SNR=2.4
SNAA  Sanae             119.39 200   P        PKPdf      15 49 05.4 -2.0
VNA2  Neumayer--Watz    120.40 202   P        PKPdf      15 49 07.2 -2.2
VNA1  Neumayer--Stat    120.56 202⇑iP         PKPdf      15 49 08.3 -1.5
VNA3  Neumayer Olymp    121.21 202⇑iP         PKPdf      15 49 09.8 -1.2
```

IDC 16 15:37:11.3±24.0**, 16.53S**×**172.55W, mb4.1**/4**, mb1 4.2**/4**, mb1mx3.8**/17**, Error ellipse: s-maj=460.0km s-min=169.4km az=71.0, Samoa Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
CTA   Charters Tower     39.20 258   P        P          15 44 40.9 -2.2
      1.7nm,0.4s,baz=86,slow=14,SNR=4.0
STKA  Stephens Creek     44.19 241   P        P          15 45 23.1 -0.8
      0.9nm,0.4s,baz=90,slow=6.1,SNR=3.2
WRA   Warramunga Arr     50.39 258   P        P          15 46 10.6 -2.1
      0.8nm,0.5s,baz=97,slow=6.8,SNR=19
ASAR  Alice Springs      50.55 253   P        P          15 46 11.8 -2.0
      3.4nm,0.9s,baz=93,slow=7.2,SNR=30
```

MEX 16 15:49:27.1±0.4**, 17.03N**×**99.78W, h47**^{km}±5^{km}**, MD3.5, Guerrero**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
ACX   Acapulco            0.21 220  i P       P          15 49 33.8 -1.4
ACX                                 i S       S          15 49 39.2 -1.7
CAIG  El Cayaco           0.47 273  eP        P          15 49 36.3 -1.5
CAIG                                i S       S          15 49 43.7 -1.8
PLIG  Platanillo          1.38  11  eP        P          15 49 48.7 -1.7
PLIG                                i S       S          15 50 05.1 -2.7
```

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*IDC **16** 16:10:16.5±2.4, 44.77N×146.31E, h193^{km}±24^{km}, mb2.9/4, mb1 3.2/5, mb1mx3.0/22, Error ellipse: s-maj=36.7km s-min=20.8km az=126.0*

*JMA **16** 16:10:17.2±0.4, 44.59N×146.36E, h176^{km}, M3.6*

ISC 16 16:10:14.8±0.8**, 44.5N**±0.1×**146.4E**±0.2**, h197**^{km}±9^{km}**, n16,** σ**0**^{s}**97**/21**, mb3.0**/4**, Kuril Islands**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
JRA   Rausu               1.10 238   P        P          16 10 45.3  0.0
NEM2  Nemuro 2            1.26 203   P        P          16 10 46.7 +0.1
NEM2                                eS        S          16 11 09.3 -1.8
JNK   Nakash              1.54 233   P        P          16 10 50.9 +1.8
JTKR  Abashiri--Toko      1.89 254   P        P          16 10 52.3 -0.1
JAK   Akkeshi             1.97 220   P        P          16 10 53.9 +0.7
JAK                                 eS        S          16 11 22.3 -0.5
JMP   Maruseppu           2.26 258   P        P          16 10 56.3  0.0
JAR   Ashorobuto          2.27 238   P        P          16 10 57.6 +1.1
JOB   Onbets              2.48 230   P        P          16 10 59.9 +1.1
JOB                                 eS        S          16 11 32.4 -0.3
JKK2  Kamakawa 2          2.72 257   P        P          16 11 02.0 +0.4
ASAJ  Asahikawa           2.77 263   P        P          16 11 02.6 +0.5
      3.7nm,0.3s,baz=78,slow=11,SNR=18
JCH   Churui              2.93 230   P        P          16 11 04.6 +0.6
JCH                                 eS        S          16 11 40.3 -1.7
JNBK  Urakawa-nobuka      3.49 231   P        P          16 11 10.6 -0.2
JNBK                                eS        S          16 11 50.1 -4.0
SONM  Songino Array      27.69 291   P        P          16 15 45.1 -1.2
      0.2nm,0.5s,mb3.0,baz=86,slow=9.5,SNR=4.3
ILAR  Eielson Array      41.18  37   P        P          16 17 40.0 -1.0
      0.4nm,0.7s,mb3.0,baz=269,slow=7.7,SNR=8.6
YKA   Yellowknife Ar     55.45  34   P        P          16 19 29.6 -0.8
      0.2nm,0.5s,mb2.9,baz=304,slow=6.8,SNR=3.7
WRA   Warramunga Arr     65.10 193   P        P          16 20 37.8 +1.4
      0.3nm,0.5s,mb3.2,baz=8.9,slow=6.7,SNR=6.5
```

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*IDC **16** 16:19:35.7±0.8, 6.83S×149.91E, mb4.3/8, mb1 4.6/10, mb1mx4.4/15, ML4.2/2, MS3.5/7, Ms1 3.5/7, ms1mx3.2/18, Error ellipse: s-maj=28.9km s-min=17.7km az=126.0*

*NEIC **16** 16:19:38.2±10.0, 6.86S×149.84E, h14^{km}±62^{km}, mb4.6/10, Error ellipse: s-maj=23.7km s-min=15.0km az=69.0*

*BJI **16** 16:19:39.0, 7.25S×150.08E, h35^{km}, mB5.0, mb4.8, Ms4.7, Msz4.6*

*SYO **16** 16:19:46.7, 7.05S×149.55E, h72^{km}, MB4.6*

ISC 16 16:19:45.5±3.1**, 7.12S**±0.10×**149.6E**±0.2**, h73**^{km}±24^{km}**, n33,** σ**0**^{s}**98**/29**, mb4.3**/15**, 2C-1D, New Britain region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
PMG   Port Moresby        3.30 226   Pn       P          16 20 36.8 +0.7
      13nm,0.3s,baz=69,slow=4.9,SNR=38
PMG                                  Sn       S          16 21 20.7 +6.3
      31nm,0.3s,baz=245,slow=23,SNR=7.1
PMG                                  LR       LR         16 22 04.8
      comp=Z,482nm,21.2s,baz=31,slow=40
PMG   Port Moresby        3.30 226  eP        P          16 20 36.4 +0.3
CTA   Charters Tower     13.29 194   LR       LR         16 27 60.0
      comp=Z,118nm,18.1s,baz=45,slow=37
KAKA  Kakadu             17.80 251  eP        P          16 23 47.7 -2.4
      6.6nm,0.5s
WRAB  Tennant Creek      19.51 228  eP        P          16 24 08.8 -0.7
      59nm,0.8s
WRAB                                e                    16 24 20.4
WB2   Warramunga Arr     19.52 228  eP        P          16 24 09.0 -0.6
WRA   Warramunga Arr     19.52 228   P        P          16 24 09.6 -0.1
      2.9nm,0.3s,baz=52,slow=11,SNR=180
ASAR  Alice Springs      22.30 221   P        P          16 24 39.1 +1.2
      5.2nm,0.6s,mb4.0,baz=52,slow=9.9,SNR=106
ASAR                                 LR       LR         16 33 19.8
      comp=Z,64nm,18.9s,baz=33,slow=36
ASPA  Alice Springs      22.30 221  eP        P          16 24 38.9 +1.0
STKA  Stephens Creek     25.74 196  eP        P          16 25 10.4 -0.6
      9.3nm,1.0s,mb4.2
STKA  Stephens Creek     25.74 196   P        P          16 25 10.3 -0.7
      7.8nm,0.7s,mb4.2,baz=16,slow=12,SNR=14
STKA                                 LR       LR         16 35 24.1
      comp=Z,156nm,18.1s,baz=20,slow=36
FITZ  Fitzroy Crossi     25.75 243  eP        P          16 25 11.9 +0.7
      18nm,0.8s,mb4.6
FITZ  Fitzroy Crossi     25.75 243   P        P          16 25 12.0 +0.8
      25nm,0.8s,mb4.7,baz=86,slow=4.3,SNR=36
FITZ                                 LR       LR         16 37 22.1
      comp=Z,65nm,18.1s,baz=84,slow=41
ASAJ  Asahikawa          51.38 354   LR       LR         16 47 26.6
      comp=Z,42nm,19.2s,baz=180,slow=33
CN2   Changchun          55.19 339  eP        P          16 29 14.0 +0.9
CMAR  Chiang Mai Arr     56.03 298   P        P          16 29 17.9 -1.5
      1.0nm,1.0s,mb3.8,baz=123,slow=5.8,SNR=5.8
LZH   Lanzhou            60.73 318  eP        P          16 29 52.5 +0.5
LZH                                  XP       sP         16 30 12.0 -7.5
LZH                                  PP       PP         16 32 09.3 +0.8
LZH                                  AMB      AMB
      comp=Z,24nm,1.5s,mb5.0
LZH                                  AMB      AMB
      comp=Z,98nm,5.5s
LZH                                  LR       LR
      comp=N,319nm,13.5s
LZH                                  LR       LR
      comp=Z,493nm,17.3s
VNDA  Vanda              70.67 177   P        P          16 30 55.0 +0.1
      comp=Z,2.5nm,0.5s,mb4.3,baz=313,slow=14,SNR=4.3
VNDA  Vanda              70.67 177  eP        P          16 30 55.1 +0.2
      comp=Z,6.6nm,0.9s,mb4.5
WMQ   Urumqi             75.31 319 ⇓P         P          16 31 24.5 +1.9
WMQ                                  PCP      PcP        16 31 38.0 +2.0
WMQ                                  PP       PP         16 34 16.0 +2.0
WMQ                                  S        S          16 40 55.9 +1.2
WMQ                                  AMB      AMB
      comp=Z,4.0nm,0.5s,mb4.4
WMQ                                  AMB      AMB
      comp=Z,17nm,5.6s
WMQ                                  LR       LR
      comp=N,138nm,16.2s
WMQ                                  LR       LR
      comp=E,18nm,16.2s
WMQ                                  LR       LR
      comp=Z,59nm,17.1s
QSPA  South Pole Qui     82.86 180  eP        P          16 32 03.6 +0.8
      comp=Z,20nm,1.1s,mb4.9
UCH   Uchtor             83.83 314  eP        P          16 32 08.8 +0.4
      comp=Z,2.2nm,0.9s,mb4.0
UCH                                 e                    16 32 18.9
AAK   Ala-Archa          83.95 314   P        P          16 32 08.3 -0.7
      comp=Z,2.7nm,1.1s,mb4.0
AML   Almayashu          84.39 314  eP        P          16 32 11.5 +0.3
      comp=Z,7.7nm,1.1s,mb4.5
AML                                 e                    16 32 21.8
EKS2  Erkin-Say          84.46 314  eP        P          16 32 12.1 +0.5
      comp=Z,5.6nm,1.2s,mb4.3
ILAR  Eielson Array      85.50  23   P        P          16 32 11.8 -4.4
      comp=Z,1.2nm,0.9s,mb3.8,baz=256,slow=5.9,SNR=5.4
BVAR  Borovoye Array     89.18 324   P        P          16 32 33.1 -1.1
      comp=Z,0.4nm,0.7s,mb3.5,baz=153,slow=3.2,SNR=2.8
SYO   Syowa Base         90.43 200 ⇑P         P          16 32 30.5 -9.2
SYO   Syowa Base         90.43 200 ⇑P         P          16 32 38.9 -0.8
NVAR  Mina Array Bea     96.03  52   P        P          16 33 04.8 -1.3
      comp=Z,2.0nm,1.1s,mb4.5,baz=273,slow=3.6,SNR=6.1
NVAR                                 LR       LR         17 08 53.0
      comp=Z,72nm,21.7s,baz=45,slow=31
PDAR  Pinedale Array    102.77  48   P        Pdif       16 33 34.4 -2.0
      comp=Z,0.5nm,0.9s,baz=307,slow=4.5,SNR=3.6
GERES GERESS Array B    124.26 326   PKP      PKPdf      16 38 36.5 +0.3
      comp=Z,0.8nm,0.7s,baz=45,slow=4.2,SNR=5.5
BDFB  Brasilia          151.45 142   PKPbc    PKPdf      16 39 32.5 +6.8
      comp=Z,9.4nm,1.1s,baz=151,slow=6.6,SNR=5.1
BDFB                                 PKPab    PKPab      16 39 40.8 -2.0
      comp=Z,6.6nm,1.0s,baz=162,slow=2.4,SNR=5.0
```

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*NEIC **16** 16:24:54.6, 35.26S×71.26W, h85^{km}, MD3.2(GUC), After GUC.*

GUC 16 16:24:54.6±0.8**, 35.26S**×**71.26W, h85**^{km}±3^{km}**, MD3.2, ML3.5, 12C-5D, Central Chile**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
TALC  Talca               0.33 246⇑iP         P          16 25 07.5 -0.2
TALC                                i S       S          16 25 17.6 +0.1
TALC                                 AMP                 16 25 18.7
      comp=E,20μm,0.1s
SFDO  San Fernando        0.68  18⇓iP         P          16 25 10.5 -0.1
SFDO                                i S       S          16 25 23.2 +0.6
CICH  Cipreses            1.17  37⇑iP         P          16 25 17.0 +0.7
CICH                                i S       S          16 25 32.9 +0.4
CACH  El Canelo           1.27  26⇑iP         P          16 25 17.1 -0.4
CACH                                i S       S          16 25 34.9 +0.1
LNV   Longovilo           1.31 355⇓iP         P          16 25 18.2 +0.1
LNV                                 i S       S          16 25 35.5 -0.1
CHCH  Chadas Angostu      1.42  21⇑iP         P          16 25 19.3 -0.2
CHCH                                i S       S          16 25 38.2 +0.2
CCHI  Chillan             1.49 206⇑iP         P          16 25 20.4 -0.1
CCHI                                i S       S          16 25 39.6  0.0
CCHI                                 AMP                 16 25 43.9
      comp=N,478nm,0.6s
TACH  Talagante           1.63  10⇑iP         P          16 25 21.9 -0.3
TACH                                i S       S          16 25 42.8 +0.1
LMEL  Las Melosas         1.66  32⇑iP         P          16 25 23.9 +1.2
LMEL                                i S       S          16 25 45.2 +1.8
LMEL                                 AMP                 16 25 47.3
      comp=E,424nm,0.2s
PCH   Pirque              1.75  21⇑iP         P          16 25 23.9 +0.1
PCH                                 i S       S          16 25 46.6 +1.2
LCCH  Las Cruces          1.80 352⇑iP         P          16 25 23.9 -0.6
LCCH                                i S       S          16 25 46.8 +0.3
RCDM  Rinconada Maip      1.81  12⇑iP         P          16 25 24.4 -0.2
RCDM                                i S       S          16 25 47.2 +0.4
RCDM                                 AMP                 16 25 48.1
      comp=E,602nm,0.2s
CLCH  Cerro Calan         1.96  18⇓iP         P          16 25 26.6 +0.1
CLCH                                i S       S          16 25 51.2 +1.0
CLCH                                 AMP                 16 25 58.2
      comp=E,391nm,0.4s
FCH   Farellones          2.09  23⇓iP         P          16 25 29.1 +0.6
FCH                                 i S       S          16 25 55.1 +1.7
FCH                                  AMP                 16 26 01.4
      comp=N,417nm,0.2s
PEL   Peldehue            2.17  13⇑iP         P          16 25 29.6  0.0
PEL                                 i S       S          16 25 56.1 +0.7
PEL                                  AMP                 16 26 02.2
      comp=N,478nm,0.3s
ROCH  El Roble            2.29   5⇑iP         P          16 25 31.4 +0.1
ROCH                                i S       S          16 25 59.5 +1.0
JACH  Jahuel              2.63  12⇓iP         P          16 25 35.5 -0.5
JACH                                i S       S          16 26 06.8 -0.2
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*NEIC **16** 16:38:50.7±1.3, 6.33S×150.17E, h10^{km}, mb4.9/5, Error ellipse: s-maj=31.1km s-min=13.1km az=107.0*

*IDC **16** 16:39:03.9±8.7, 6.97S×149.75E, h64^{km}±58^{km}, mb3.6/3, mb1 3.9/5, mb1mx3.6/14, ML3.6/2, Error ellipse: s-maj=61.2km s-min=54.6km az=16.0*

ISC 16 16:39:00.5±4.1**, 6.6S**±0.2×**149.6E**±0.3**, h59**^{km}±29^{km}**, n13,** σ**0**^{s}**93**/14**, mb4.4**/7**, New Britain region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
PMG   Port Moresby        3.64 221   P        P          16 39 56.3 +0.5
      4.4nm,0.3s,baz=47,slow=9.2,SNR=25
PMG                                  S        S          16 40 37.4 -0.4
      14nm,0.3s,baz=102,slow=21,SNR=7.1
KAKA  Kakadu             17.93 249  eP        P          16 43 08.1 +0.6
      2.0nm,0.4s
WRAB  Tennant Creek      19.83 227  eP        P          16 43 28.6 -0.5
      7.5nm,0.6s
WB2   Warramunga Arr     19.83 227  eP        P          16 43 28.9 -0.3
WRA   Warramunga Arr     19.84 227   P        P          16 43 28.8 -0.5
      0.8nm,0.3s,baz=53,slow=11,SNR=72
ASAR  Alice Springs      22.66 220   P        P          16 43 58.1 +0.3
      1.2nm,0.7s,mb3.4,baz=51,slow=10,SNR=21
ASPA  Alice Springs      22.66 220  eP        P          16 43 58.3 +0.5
FITZ  Fitzroy Crossi     25.97 242   P        P          16 44 31.0 +1.4
      2.6nm,0.4s,mb4.2,baz=38,slow=4.9,SNR=28
STKA  Stephens Creek     26.19 196   P        P          16 44 30.1 -1.4
      1.2nm,0.8s,mb3.5,baz=18,slow=14,SNR=2.3
MAJO  Matsushiro         44.26 347  eP        P          16 46 59.0 -7.1
      52nm,0.5s,mb5.5
COCO  West Island        52.26 260   P        P          16 48 07.6 -0.8
      55nm,0.9s,mb5.5
ULN   Ulaanbaatar        65.92 330   P        P          16 49 41.7 -0.8
      2.3nm,1.0s,mb4.2
MAW   Mawson             82.64 203  eP        P          16 51 20.9 +2.3
      14nm,1.4s,mb4.8
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*IDC **16** 16:41:05.8±5.1, 6.83S×149.69E, h60^{km}±42^{km}, mb3.9/6, mb1 4.2/8, mb1mx3.9/14, ML4.1/2, MS3.1/3, Ms1 3.1/3, ms1mx2.9/19, Error ellipse: s-maj=45.2km s-min=29.3km az=119.0*

*NEIC **16** 16:41:05.4±2.2, 6.87S×149.74E, h52^{km}±18^{km}, mb4.4/10, Error ellipse: s-maj=21.0km s-min=10.7km az=105.0*

ISC 16 16:41:04.3±3.0**, 6.8S**±0.1×**149.7E**±0.2**, h55**^{km}±25^{km}**, n25,** σ**1**^{s}**00**/22**, mb4.2**/10**, MS3.1**/2**, 1D, New Britain region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
PMG   Port Moresby        3.57 224   P        P          16 41 58.3 -0.2
      15nm,0.3s,baz=61,slow=5.6,SNR=17
PMG                                  S        S          16 42 41.0 +1.2
      41nm,0.3s,baz=98,slow=19,SNR=7.8
PMG   Port Moresby        3.57 224  ePn       P          16 41 59.3 +0.7
CTA   Charters Tower     13.58 194   LR       LR         16 49 15.7
      comp=Z,39nm,20.5s,baz=40,slow=36
KAKA  Kakadu             17.99 250  eP        P          16 45 12.3 +0.1
      4.4nm,0.4s
WRAB  Tennant Creek      19.77 227  eP        P          16 45 31.4 -1.2
      26nm,0.6s
WB2   Warramunga Arr     19.77 227  eP        P          16 45 31.9 -0.8
WRA   Warramunga Arr     19.78 227   P        P          16 45 31.8 -1.0
      2.3nm,0.3s,baz=55,slow=10,SNR=37
WRA                                  PcP      PcP        16 49 46.0 -3.0
      baz=45,slow=2.6,SNR=2.9
WRA                                  pPcP                16 49 54.5
      0.0nm,0.3s,baz=38,slow=1.7,SNR=4.7
GUMO  Guam               20.85 347  eP        P          16 45 42.8 -1.1
      137nm,1.0s
ASAR  Alice Springs      22.57 220   P        P          16 46 01.1 -0.1
      2.8nm,0.7s,mb3.8,baz=53,slow=9.8,SNR=19
ASAR                                 LR       LR         16 54 16.9
      comp=Z,48nm,21.5s,MS2.9,baz=14,slow=35
ASPA  Alice Springs      22.58 220  eP        P          16 46 01.3 +0.1
FITZ  Fitzroy Crossi     25.96 242  eP        P          16 46 33.9 +0.1
      7.5nm,0.4s,mb4.6
FITZ  Fitzroy Crossi     25.96 242   P        P          16 46 34.0 +0.2
      12nm,0.6s,mb4.6,baz=30,slow=8.0,SNR=29
STKA  Stephens Creek     26.03 196  eP        P          16 46 32.7 -1.6
      2.2nm,0.6s,mb3.9
STKA  Stephens Creek     26.03 196   P        P          16 46 32.8 -1.5
      2.9nm,0.7s,mb3.9,baz=14,slow=8.7,SNR=8.8
STKA                                 LR       LR         16 56 36.6
      comp=Z,89nm,18.3s,MS3.3,baz=23,slow=36
MDJ   Mudanjiang         54.32 342   P        P          16 50 33.9 +6.4
      5.2nm,0.8s,mb4.5
VNDA  Vanda              70.94 177   P        P          16 52 17.8 +0.4
      0.5nm,0.6s,mb3.7,baz=322,slow=9.8,SNR=4.3
VNDA  Vanda              70.94 177  eP        P          16 52 17.8 +0.4
      2.0nm,0.8s,mb4.1
QSPA  South Pole Qui     83.14 180⇓iP         P          16 53 25.9 +0.7
      5.5nm,0.9s,mb4.6
AML   Almayashu          84.27 314   P        P          16 53 34.1 +2.5
      6.7nm,1.3s,mb4.6
EKS2  Erkin-Say          84.34 314   P        P          16 53 36.2 +4.2
      1.9nm,0.9s,mb4.2
ILAR  Eielson Array      85.21  23   P        P          16 53 35.2 -0.6
      0.3nm,0.5s,mb3.6,baz=257,slow=4.6,SNR=4.1
NVAR  Mina Array Bea     95.78  52   P        P          16 54 27.2 +1.2
      1.0nm,1.1s,mb4.2,baz=260,slow=11,SNR=3.5
GERES GERESS Array B    124.09 326   PKP      PKPdf      16 59 57.6 +0.7
      0.3nm,0.6s,baz=90,slow=2.7,SNR=3.8
GERES GERESS Array B    124.09 326   PKP      PKPdf      16 59 57.6 +0.7
BDFB  Brasilia          151.61 142   PKPbc    PKPdf      17 00 54.0 +7.0
      2.7nm,0.5s,baz=220,slow=7.9,SNR=3.4
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*NIED **16** 16:48:00, 37.30N×139.00E, h5^{km}, Mw3.9 Best double couple: $M_0$8.1×10^{14} NP1:ϕ_s19°, δ70°, λ90°. NP2:ϕ_s199°, δ20°, λ89°.*

*JMA **16** 16:48:38.4±0.1, 37.33N×138.99E, h2^{km}±2^{km}, M3.6 Broadband fault plane solution: P waves. NP1:ϕ_s29°, δ5°, λ-74°. NP2:ϕ_s193°, δ85°, λ-91°. Principal axes: T Plg40°, Azm284°; N Plg1°, Azm193°; P Plg50°, Azm101°;*

JMA Felt II J1.

*NEIC **16** 16:48:44.0±1.6, 37.11N×138.66E, h48^{km}±14^{km}, mb4.3/7 Error ellipse: s-maj=19.4km s-min=12.8km az=57.0*

*IDC **16** 16:48:47.0±11.0, 37.19N×138.52E, h72^{km}±108^{km}, mb3.5/9, mb1 3.7/9, mb1mx3.5/22, Error ellipse: s-maj=30.2km s-min=18.6km az=79.0*

ISC 16 16:48:37.8±0.4**, 37.32N**±0.03×**138.97E**±0.05**, h18**^{km}±4^{km}**, n27,** σ**0**^{s}**97**/32**, mb4.0**/16**, 1C-3D, Near west coast of eastern Honshu**

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Code  Station Name        Δ°   AZ°   Phase ID              Time     Res
                                     Op       ISC        h  m  s    ISC
JHK   Hiroka              0.08 150 ⇓P         Pb         16 48 40.4 -0.9
JHK                                  S        Sb         16 48 42.0 -1.7
JIZZ  Izumozaki           0.30 316 ⇑P         Pb         16 48 45.1 +0.8
JNS   Sasagawa            0.57  29   P        Pb         16 48 49.2 +0.2
JNS                                  S        Sb         16 48 56.8 +0.2
JFY   Yanaizu             0.59  81 ⇓P         Pb         16 48 49.6 +0.2
JFY                                  S        Sb         16 48 57.7 +0.4
JKT   Katashina           0.59 158 ⇓P         Pb         16 48 49.8 +0.5
JKT                                  S        Sb         16 48 58.1 +0.8
JSD   Sado                0.91 322   P        Pb         16 48 54.7 -0.1
MAJO  Matsushiro          0.98 218  ePn       Pn         16 48 56.6 -0.2
MAT   Matsushiro          0.98 218   P        Pb         16 48 56.8 +0.8
MAT                                  S        Sb         16 49 10.0 +1.5
MAT   Matsushiro          0.98 218  eP        Pb         16 48 57.0 +1.0
MAT                                 eS        Sb         16 49 10.0 +1.5
KS15  Wonju Array Si      8.82 274  ePn       P          16 50 47.7 +0.1
ENH   Enshi              25.42 263  eP        P          16 54 04.9 -1.1
      3.8nm,0.7s,mb4.0
SONM  Songino Array      26.01 304   P        P          16 54 11.0 -0.3
      1.5nm,1.0s,mb3.5,baz=100,slow=7.5,SNR=6.8
TKM2  Tokmak 2           47.77 298  eP        P          16 57 13.4 -2.3
      2.7nm,1.1s,mb4.2
BRVK  Borovoye           48.99 312   P        P          16 57 25.0  0.0
      2.3nm,1.1s,mb4.1
AML   Almayashu          49.34 297   P        P          16 57 29.2 +1.3
      2.0nm,0.6s,mb4.3
ILAR  Eielson Array      50.30  32   P        P          16 57 39.1 +4.3
      0.5nm,0.7s,mb3.6,baz=277,slow=6.2,SNR=5.0
ARU   Arti               54.85 318   P        P          16 58 08.3 -0.7
      2.7nm,0.6s,mb4.5
INK   Inuvik             55.02  27   P        P          16 58 20.2  +10
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	6.5nm,1.1s,mb4.6						
WRAB	Tennant Creek	57.11	185	eP	P	16 58 23.9	-1.8
	9.3nm,1.2s,mb4.7						
WRA	Warramunga Arr	57.12	185	P	P	16 58 24.8	-1.0
	0.9nm,0.8s,mb3.9,baz=0.7,slow=7.5,SNR=18						
ASAR	Alice Springs	60.84	185	P	P	16 58 50.9	-0.7
	0.3nm,0.7s,mb3.5,baz=4.6,slow=12,SNR=7.3						
FINES	FINESS Array B	67.64	331	P	P	16 59 34.5	-0.8
	2.2nm,0.9s,mb4.2,baz=90,slow=5.7,SNR=3.7						
AKASG	Malin Array Be	72.87	321	P	P	17 00 07.2	0.0
	0.9nm,0.5s,mb3.9,baz=52,slow=6.2,SNR=9.2						
NVAR	Mina Array Bea	76.37	52	P	P	17 00 29.6	+2.0
	0.8nm,0.8s,mb3.7,baz=294,slow=4.9,SNR=4.9						
BRTR	Keskin Array B	77.19	310	P	P	17 00 33.1	+1.0
	1.1nm,0.9s,mb3.8,baz=72,slow=4.6,SNR=4.5						
GERES	GERESS Array B	81.43	327	P	P	17 00 55.5	+0.7
	0.6nm,0.7s,mb3.6,baz=56,slow=4.8,SNR=4.2						
LPAZ	La Paz	148.20	56	PKPbc	PKPdf	17 08 26.9	+3.2
	0.8nm,0.8s,baz=315,slow=4.0,SNR=3.6						

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*NEIC **16** 17:03:24.1±3.6, 36.21N×71.19E, h176^{km}±25^{km}, mb3.8/3, Error ellipse: s-maj=42.7km s-min=17.6km az=224.0*

*IDC **16** 17:03:30.4±11.0, 36.33N×71.20E, h234^{km}±109^{km}, mb3.4/5, mb1 3.6/5, mb1mx3.1/18, Error ellipse: s-maj=78.0km s-min=30.8km az=43.0*

ISC 16 17:03:29.2±1.5, **36.67N**±0.07×**71.5E**±0.2, **h218**^{km}±14^{km}, **n21**, σ**0**^{s}**.86**/25, **mb3.5**/6, **Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	5.47	139	eP	P	17 04 50.8	+0.1
	2.0nm,0.4s						
THN				eS	S	17 05 52.6	-1.5
AML	Almayashu	5.71	17	ePn	P	17 04 54.7	+1.0
AML				eSn	S	17 05 57.8	-1.7
UCH	Uchtor	6.02	22	ePn	P	17 04 58.7	+1.1
	2.8nm,0.5s						
UCH				eSn	S	17 06 02.0	-4.5
AAK	Ala-Archa	6.39	20	ePn	P	17 05 02.5	+0.1
	1.7nm,0.5s						
AAK				eSn	S	17 06 14.2	-0.8
TKM2	Tokmak 2	6.99	26	ePn	P	17 05 10.8	+0.6
KOLN	Koldanda	13.54	128	eP	P	17 06 33.7	0.0
	3.6nm,0.2s						
GKN	Gorkha	14.06	124	eP	P	17 06 40.9	+0.8
	12nm,0.3s						
KKN	Kakani	14.63	123	eP	P	17 06 47.2	0.0
	7.9nm,0.5s						
DMN	Daman	14.63	124	eP	P	17 06 47.5	+0.3
	3.1nm,0.3s						
PKI	Pulchoki	14.86	124	eP	P	17 06 50.4	+0.4
GUN	Gumba	14.96	122	eP	P	17 06 51.8	+0.6
BVAR	Borovoye Array	16.37	358	P	P	17 07 09.5	+1.4
	0.1nm,0.3s,baz=180,slow=10,SNR=3.0						
BVAR	Borovoye Array	16.37	358	P	P	17 07 09.5	+1.4
BRVK	Borovoye	16.41	357	eP	P	17 07 08.3	-0.3
FINES	FINESS Array B	37.57	326	P	P	17 10 23.0	-0.8
	1.9nm,0.8s,mb3.6,baz=116,slow=11,SNR=6.0						
ARCES	ARCESS Array B	41.14	337	P	P	17 10 53.1	-0.1
	16nm,1.2s,mb4.3,baz=114,slow=8.1,SNR=7.7						
NOA	NORSAR Array B	44.49	323	P	P	17 11 19.1	-0.9
	2.8nm,1.1s,mb3.5,baz=110,slow=8.3,SNR=3.1						
INK	Inuvik	73.67	9	eP	P	17 14 41.0	+1.1
	1.6nm,0.8s,mb3.7						
YKA	Yellowknife Ar	81.06	3	P	P	17 15 20.7	+0.1
	0.2nm,0.5s,mb3.0,baz=352,slow=5.6,SNR=5.0						
YKA	Yellowknife Ar	81.06	3	P	P	17 15 20.7	+0.1
WRA	Warramunga Arr	81.74	122	P	P	17 15 23.3	-1.7
	0.6nm,1.2s,mb3.1,baz=330,slow=5.2,SNR=4.4						

TAP 16 17:03:42.2, 22.81N×120.70E, h17^{km}, ML3.5, Taiwan

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*IDC **16** 17:15:04.6±2.4, 25.29N×94.67E, h28^{km}±6^{km}, mb3.8/5, mb1 4.0/6, mb1mx3.6/20, ML3.7/1, Error ellipse: s-maj=95.2km s-min=19.2km az=77.0*

ISC 16 17:15:12.5±0.8, **25.2N**±0.1×**94.31E**±0.09, **h137**^{km}±8^{km}, **n14**, σ**0**^{s}**.70**/22, **mb3.8**/5, **1C**, **Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	Imphal	0.54	219	⇑iPN	P	17 15 29.2	-4.0
IMP				i SN	S	17 15 50.0	+1.0
SHL	Shillong	2.22	280	ePG	P	17 15 58.1	+8.0
SHL				eSG	S	17 16 18.7	-0.1
CMAR	Chiang Mai Arr	7.97	146	Pn	P	17 17 04.2	-2.5
	0.3nm,0.3s,baz=329,slow=13,SNR=22						
CMAR				Lg		17 19 12.5	
	0.1nm,0.3s,baz=321,slow=29,SNR=2.9						
GUN	Gumba	8.02	291	eP	P	17 17 07.1	-0.1
	40nm,0.3s						
GUN				eS	S	17 18 37.0	+0.3
PKI	Pulchoki	8.32	288	eP	P	17 17 11.3	0.0
	68nm,0.5s						
PKI				eS	S	17 18 44.1	0.0
KKN	Kakani	8.49	290	eP	P	17 17 13.4	-0.2
	30nm,0.2s						
KKN				eS	S	17 18 47.6	-0.5
DMN	Daman	8.59	288	eP	P	17 17 15.0	+0.1
	15nm,0.2s						
DMN				eS	S	17 18 50.9	+0.4
GKN	Gorkha	9.10	290	eP	P	17 17 21.5	-0.1
	58nm,0.4s						
GKN				eS	S	17 19 02.7	+0.2
KOLN	Koldanda	9.93	287	eP	P	17 17 32.4	-0.3
	42nm,0.6s						
KOLN				eS	S	17 19 21.8	-0.6
SONM	Songino Array	24.53	20	P	P	17 20 19.7	-0.7
	0.6nm,0.9s,mb3.1,baz=202,slow=11,SNR=4.5						
SONM				pP		17 20 28.0	
	0.5nm,0.7s,baz=195,slow=11,SNR=3.7						
ZAL	Zalesovo	29.57	349	P	P	17 21 07.1	+0.8
	0.4nm,0.3s,mb3.6,baz=335,slow=10,SNR=2.9						
FITZ	Fitzroy Crossi	52.76	142	P	P	17 24 16.2	+0.5
	2.7nm,1.0s,mb3.9,baz=347,slow=12,SNR=2.7						
WRA	Warramunga Arr	59.40	135	P	P	17 25 03.4	+0.3
	2.9nm,0.6s,mb4.3,baz=322,slow=7.5,SNR=57						
WRA				pP	pP	17 25 12.3	-23
	0.2nm,0.3s,baz=322,slow=7.4,SNR=2.4						
ASAR	Alice Springs	61.90	139	P	P	17 25 20.9	+1.0
	1.9nm,0.7s,mb4.1,baz=322,slow=6.9,SNR=48						
ASAR				pP	pP	17 25 29.7	-23
	0.4nm,0.9s,baz=315,slow=6.0,SNR=1.8						
ASAR				PcP	PcP	17 26 01.3	+2.3
	1.0nm,1.0s,baz=317,slow=4.4,SNR=6.4						

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*NEIC **16** 17:22:01.0±0.5, 34.22N×16.16W, h10^{km}, mb4.4/4, Error ellipse: s-maj=11.8km s-min=4.3km az=121.0*

*MDD **16** 17:22:02.9±1.9, 34.28N×16.29W, h27^{km}±22^{km}, mb4.9/22, Error ellipse: s-maj=23.5km s-min=5.4km az=118.0, PRXIMO*

*SFS **16** 17:22:02.0, 34.27N×16.30W, ML5.0*

*PDA **16** 17:22:02.7, 34.30N×16.30W, h26^{km}, mb5.0*

*IDC **16** 17:22:03.3±0.9, 34.22N×15.72W, mb4.0/9, mb1 4.3/10, mb1mx3.9/23, ML5.6/1, Error ellipse: s-maj=25.1km s-min=21.5km az=54.0*

*CSEM **16** 17:22:03.7±0.2, 33.85N×15.42W, h30^{km}, mb4.6/1, Error ellipse: s-maj=8.1km s-min=2.8km az=125.0*

*LDG **16** 17:22:04.5±0.2, 34.26N×16.23W, h30^{km}, Md4.4/1, Ml4.1/4, Error ellipse: s-maj=8.8km s-min=2.9km az=119.0*

*INMG **16** 17:22:06.3±2.2, 34.30N×16.31W, h10^{km}, MD3.9, ML3.8, Error ellipse: s-maj=14.0km s-min=3.4km az=114.0*

*CNRM **16** 17:22:17.7, 34.75N×15.14W, h34^{km}, MD4.4*

ISC 16 17:22:00.7±0.4, **33.98N**±0.03×**15.41W**±0.04, **h10**^{km}, **n120**, σ**1**^{s}**.51**/182, **mb4.1**/12, **2C-2D**, **Madeira Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CFUE	Fuerteventura	5.47	166	P	Pn	17 23 27.9	+3.7
	63nm,0.2s,SNR=7.9						
CFUE				S	Sn	17 24 30.3	+2.3
	255nm,0.3s,SNR=7.9						
EBAJ	Bajamar	5.49	189	P	Pn	17 23 25.7	+1.2
	SNR=6.8						
EBAJ				S	Sn	17 24 26.2	-2.2
	80nm,0.4s,SNR=5.2						
EBAJ	Bajamar	5.49	189	P	Pn	17 23 25.7	+1.2
	17nm,0.3s,SNR=6.8						
EBAJ				S	Sn	17 24 26.2	-2.2
	80nm,0.4s,SNR=5.2						
EHIG	Higuera	5.79	201	P	Pn	17 23 27.0	-1.7
	15nm,0.2s,SNR=7.9						
EHIG				S	Sn	17 24 29.4	-6.6
	199nm,0.3s,SNR=7.9						
EHIG	Higuera	5.79	201	P	Pn	17 23 27.0	-1.7
	15nm,0.2s,SNR=7.9						
EHIG				S	Sn	17 24 29.4	-6.6
	199nm,0.3s,SNR=7.9						
CCAN	Las Canadas	5.83	190	P	Pn	17 23 29.3	-0.1
	9.8nm,0.5s,SNR=7.9						
CCAN				S	Sn	17 24 32.9	-4.3
	12nm,0.3s,SNR=7.9						
CHIO	Chio	5.85	192	P	Pn	17 23 29.5	-0.2
	16nm,0.2s,SNR=4.0						
CHIO				S	Sn	17 24 33.7	-3.9
	64nm,0.2s,SNR=7.9						
EOSO	Osorio	5.89	181	P	Pn	17 23 31.5	+1.3
	27nm,0.3s,SNR=7.9						
EOSO				S	Sn	17 24 37.2	-1.5
	48nm,0.2s,SNR=7.9						
EOSO	Osorio	5.89	181	P	Pn	17 23 31.5	+1.2
	27nm,0.3s,SNR=7.9						
EGOM	La Gomera	6.01	195	P	Pn	17 23 30.6	-1.3
	16nm,0.2s,SNR=7.8						
EGOM				S	Sn	17 24 34.9	-6.7
	161nm,0.3s,SNR=7.9						
EGOM	La Gomera	6.01	195	S	Sn	17 24 34.9	-6.6
	161nm,0.3s,SNR=7.9						
EGOM	La Gomera	6.01	195	P	Pn	17 23 30.6	-1.3
	16nm,0.2s,SNR=7.8						
PTEO	Sao Teotonio	6.49	55	ePn	Pn	17 23 42.5	+3.8
PTEO				eSn	Sn	17 24 53.9	+0.3
	85nm,0.3s						
PTEO	Sao Teotonio	6.49	55	P	Pn	17 23 42.5	+3.8
PTEO				S	Sn	17 24 53.9	+0.3
	42nm,0.3s						
CHIE	El Hierro	6.61	200	P	Pn	17 23 38.3	-2.0
	6.8nm,0.3s,SNR=7.9						
CHIE				S	Sn	17 24 49.2	-7.4
	35nm,0.3s,SNR=9.4						
CHIE	El Hierro	6.61	200	S	Sn	17 24 49.2	-7.4
	35nm,0.3s,SNR=9.4						
PLOU	Loures	7.02	44	eSn	Sn	17 25 02.9	-4.0
	94nm,0.6s						
PLOU	Loures	7.02	44	eS	Sn	17 25 02.9	-4.0
	94nm,0.6s						
RTC	Rabat Centre	7.10	88	eS	Sn	17 25 09.0	+0.1
MOE	Montemor	7.28	50	ePn	Pn	17 23 51.4	+1.6
MOE				eSn	Sn	17 25 08.0	-5.3
PBEJ	Beja	7.32	54	ePn	Pn	17 23 53.4	+3.0
PBEJ				eSn	Sn	17 25 13.1	-1.3
	35nm,0.6s						
PBEJ	Beja	7.32	54	P	Pn	17 23 53.4	+3.0
PBEJ				S	Sn	17 25 13.1	-1.3
	18nm,0.6s						
EVO	Evora	7.50	51	ePn	Pn	17 23 52.9	0.0
EVO				eSn	Sn	17 25 11.8	-7.1
	76nm,0.4s						
PTOM	Tomar	7.94	43	ePn	Pn	17 23 59.3	+0.2
PTOM				eSn	Sn	17 25 24.2	-5.7
	36nm,0.3s						
PTOM	Tomar	7.94	43	eP	Pn	17 23 59.3	+0.2
PTOM				eS	Sn	17 25 24.2	-5.7
	36nm,0.3s						
CNIL	Conil	8.02	70	P	P	17 24 06.0	+5.9
CNIL				S	Sn	17 25 48.0	+16
CNIL	Conil	8.02	70	eP	P	17 24 06.0	+5.9
EMIN	Mina Concepcio	8.03	59	P	P	17 24 04.1	+3.8
	28nm,0.3s,SNR=130						
EMIN				S	Sn	17 25 29.8	-2.3
	26nm,0.2s						
EMIN	Mina Concepcio	8.03	59	P	P	17 24 04.1	+3.8
	28nm,0.3s,SNR=130						
EBAD	Badajoz	8.28	52	P	P	17 24 05.9	+2.2
	13nm,0.3s,SNR=6.3						
EBAD				S	Sn	17 25 34.2	-4.0
	17nm,0.2s						
EBAD	Badajoz	8.28	52	P	P	17 24 05.9	+2.2
	13nm,0.3s,SNR=6.3						
ESPR	Espera	8.31	67	⇑P	P	17 24 09.2	+5.1
ESPR				S	Sn	17 25 40.1	+1.1
ESPR	Espera	8.31	67	⇑P	P	17 24 09.2	+5.1
	42nm,0.2s,SNR=18						
ESPR				S	Sn	17 25 39.7	+0.7
	230nm,0.3s						
ESPR	Espera	8.31	67	P	P	17 24 09.2	+5.0
	42nm,0.2s,SNR=18						
ESPR				S	Sn	17 25 40.2	+1.1
MIF	Mishlifen	8.50	91	i S	Sn	17 25 45.0	+1.2
PCBR	Castelo Branco	8.63	45	ePn	P	17 24 08.7	+0.1
PCBR				eSn	Sn	17 25 41.6	-5.4
	20nm,0.4s						
PCBR	Castelo Branco	8.63	45	P	P	17 24 08.7	+0.1
PCBR				S	Sn	17 25 41.6	-5.4
	9.9nm,0.4s						
PCBR	Castelo Branco	8.63	45	eS	Sn	17 25 41.6	-5.4
	20nm,0.4s						
LIJA	Lijar	8.67	68	⇓P	P	17 24 14.0	+4.9
LIJA				S	Sn	17 25 48.0	0.0
LIJA	Lijar	8.67	68	i P	P	17 24 14.0	+4.9
CZD	Col de Zad	8.71	93	i S	Sn	17 25 50.0	+1.1
MTE	Manteigas	8.96	42	ePn	P	17 24 13.8	+0.6
MTE				eSn	Sn	17 25 46.3	-9.0
	35nm,0.6s						
MTE	Manteigas	8.96	42	ePn	P	17 24 12.6	-0.6
MTE				eSn	Sn	17 25 42.3	-13
MTE	Manteigas	8.96	42	P	P	17 24 13.8	+0.6
MTE				S	Sn	17 25 46.3	-9.0
	18nm,0.6s						
MTE	Manteigas	8.96	42	eP	P	17 24 12.6	-0.6
PVIS	Viseu	8.99	39	ePn	P	17 24 12.8	-0.8
PVIS				eSn	Sn	17 25 46.0	-10
	22nm,0.3s						
PVIS	Viseu	8.99	39	P	P	17 24 12.8	-0.8
PVIS				S	Sn	17 25 46.0	-10
	11nm,0.3s						
EMIJ	Mijas	9.07	70	P	P	17 24 19.8	+5.1
	7.9nm,0.3s,SNR=8.2						
EMIJ				S	Sn	17 25 59.0	+1.1
	20nm,0.3s,SNR=4.7						
TZK	Tazeka	9.32	86	i S	Sn	17 26 02.0	-2.0
PVRL	Vila Real	9.49	38	eSn	Sn	17 25 58.9	-10
	15nm,0.3s						
PVRL	Vila Real	9.49	38	S	Sn	17 25 58.9	-10
	7.6nm,0.3s						
ELOJ	Sierra Loja	9.70	68	P	P	17 24 28.2	+4.8
	3.0nm,0.5s						
ELOJ				S	Sn	17 26 15.0	+1.6
ELOJ	Sierra Loja	9.70	68	P	P	17 24 28.2	+4.8
	3.0nm,0.5s,SNR=4.0						
ELOJ				S	Sn	17 26 15.0	+1.6
	12nm,0.4s,SNR=4.0						
ELOJ	Sierra Loja	9.70	68	S	Sn	17 26 15.0	+1.6
	12nm,0.4s,SNR=4.0						
EADA	Adamuz	9.71	61	⇓P	P	17 24 27.3	+3.8
	13nm,0.4s,SNR=18						
EADA				S	Sn	17 26 11.6	-2.1
	34nm,0.4s,SNR=5.0						
EADA	Adamuz	9.71	61	P	P	17 24 27.3	+3.8
	13nm,0.4s,SNR=18						
EZAM	Zamans	9.71	31	P	P	17 24 22.0	-1.6
	4.7nm,0.3s,SNR=7.9						
EZAM				S	Sn	17 25 59.9	-14
	17nm,0.4s,SNR=7.9						
ELOB	Lobios	9.77	34	P	P	17 24 23.4	-1.0
ELOB				S	Sn	17 26 02.0	-13
ELOB	Lobios	9.77	34	P	P	17 24 23.1	-1.4
	8.6nm,0.4s,SNR=13						
ELOB				S	Sn	17 26 02.0	-13
	11nm,0.2s,SNR=7.9						
ERON	Agron	9.93	69	P	P	17 24 32.0	+5.4
	9.1nm,0.6s						
ERON				S	Sn	17 26 19.4	+0.2
ERON	Agron	9.93	69	P	P	17 24 32.0	+5.4
	9.1nm,0.6s,SNR=4.0						
ERON				S	Sn	17 26 23.3	+4.1
	6.5nm,0.3s,SNR=4.0						
ERON	Agron	9.93	69	P	P	17 24 32.0	+5.4
	9.1nm,0.6s,SNR=4.0						
ERON				S	Sn	17 26 19.4	+0.2
EMAZ	Mazaricos	10.27	27	P	P	17 24 29.2	-2.0
	52nm,1.0s						
EMAZ				S	S	17 26 10.7	-17
EMAZ	Mazaricos	10.27	27	P	P	17 24 29.2	-2.0
	52nm,1.0s,SNR=6.5						
EMAZ				S	S	17 26 13.1	-14
	8.8nm,0.2s,SNR=4.9						
ECAL	Calabor	10.48	38	P	P	17 24 32.9	-1.2
	9.2nm,0.2s,SNR=18						
ECAL				S	S	17 26 23.2	-9.4
	53nm,0.6s,SNR=7.9						
EBER	Berja	10.62	71	P	P	17 24 41.4	+5.4
	23nm,0.7s,SNR=7.9						
EBER				S	S	17 26 36.7	+0.7
	21nm,0.6s,SNR=7.9						
EBER	Berja	10.62	71	S	S	17 26 36.7	+0.7
	21nm,0.6s,SNR=7.9						
EQES	Quesada	10.71	66	P	P	17 24 41.5	+4.3
	3.6nm,0.2s,SNR=7.5						
EQES				S	S	17 26 37.3	-0.9
	12nm,0.3s,SNR=7.1						
EQES	Quesada	10.71	66	P	P	17 24 41.5	+4.3
	3.6nm,0.2s,SNR=7.5						
EQES				S	S	17 26 37.3	-0.9
	12nm,0.3s,SNR=7.1						
EINC	Incio	10.72	34	P	P	17 24 35.4	-2.0
	7.7nm,0.3s,SNR=14						
EINC				S	S	17 26 25.0	-14
	11nm,0.3s,SNR=7.9						
ESDC	Sonseca Array	10.78	55	Pn	P	17 24 40.1	+1.9
	12nm,0.3s,baz=244,slow=13,SNR=56						
ESDC				Sn	S	17 26 34.8	-5.3
	2.8nm,0.3s,baz=246,slow=24,SNR=4.5						
ESDC	Sonseca Array	10.78	55	P	P	17 24 40.4	+2.1
	32nm,0.3s,baz=246,slow=13,SNR=35						
ESDC				S	S	17 26 36.3	-3.8
	9.7nm,0.3s,baz=246,slow=23,SNR=8.6						
ESDC	Sonseca Array	10.78	55	P	P	17 24 40.4	+2.1
	32nm,0.3s,SNR=35						
ESLA	Sonseca Array	10.78	55	eP	P	17 24 38.5	+0.2
ESLA				eS	S	17 26 35.4	-4.6
EPON	Pontenova	11.34	32	P	P	17 24 45.1	-0.7
	4.1nm,0.2s						
EPON				S	S	17 26 40.4	-13
EPON	Pontenova	11.34	32	P	P	17 24 45.1	-0.7
	4.1nm,0.2s,SNR=4.0						
EPON				S	S	17 26 42.0	-12
	30nm,0.7s,SNR=7.9						
ROSA	Rosais	11.38	298	eP	P	17 24 31.6	-15
EVIA	Vianos	11.40	62	P	P	17 24 50.6	+3.9
	21nm,0.5s,SNR=12						
EVIA				S	S	17 26 51.6	-3.5
	13nm,0.4s,SNR=7.9						
PICO	Pico	11.44	297	eP	P	17 24 32.2	-15
CALA	Caldeira	11.67	297	eP	P	17 24 33.8	-16
EMUR	La Murta	12.11	67	P	P	17 25 01.2	+4.9
	3.3nm,0.3s,SNR=4.0						
EMUR				S	S	17 27 11.9	-0.6
	42nm,1.1s,SNR=4.0						
EMUR	La Murta	12.11	67	S	S	17 27 11.9	-0.6
	42nm,1.1s,SNR=4.0						
CART	Cartagena	12.24	69	P	P	17 24 58.6	+0.6
CART	Cartagena	12.24	69	P	P	17 24 58.6	+0.6
EARI	Arriondas	12.24	38	P	P	17 24 57.8	-0.2
	6.5nm,0.7s,SNR=4.0						
EARI				S	S	17 27 06.7	-9.0
	157nm,1.7s,SNR=4.0						
EBEN	Beniarda	13.11	65	P	P	17 25 14.1	+4.4
	6.0nm,0.5s,SNR=7.9						
EBEN				S	S	17 27 33.7	-2.9
	26nm,0.7s,SNR=7.9						
EBEN	Beniarda	13.11	65	S	S	17 27 33.7	-2.9
	26nm,0.7s,SNR=7.9						
ELAN	Lanestosa	13.14	42	P	P	17 25 10.7	+0.7
	10nm,0.7s,SNR=7.9						
ELAN				S	S	17 27 28.1	-9.1
	4.2nm,0.3s,SNR=7.9						
ELAN	Lanestosa	13.14	42	P	P	17 25 10.7	+0.7
	10nm,0.7s,SNR=7.9						
EMOS	Mosqueruela	13.50	58	P	P	17 25 17.3	+2.6
	6.9nm,0.5s,SNR=4.0						
EMOS				S	S	17 27 43.0	-2.9
	58nm,1.4s,SNR=7.9						
EMOS	Mosqueruela	13.50	58	P	P	17 25 17.4	+2.6
	6.9nm,0.5s						
ESAC	San Caprasio	14.09	52	P	P	17 25 25.8	+3.2
	9.0nm,0.3s,SNR=4.0						
ESAC				S	S	17 27 53.5	-6.5
	26nm,0.4s,SNR=4.0						
ESAC	San Caprasio	14.09	52	P	P	17 25 25.8	+3.2
	9.0nm,0.3s						
EALK	Alkurruntz	14.24	46	P	P	17 25 26.8	+2.4
	5.8nm,0.5s,SNR=4.0						
SJPF	Ste Jean	14.35	46	ePn	P	17 25 26.8	+0.9
SJPF				eSn	S	17 27 57.7	-8.3
	6.2nm,0.5s						
ETSF	Etsaut	14.63	48	ePn	P	17 25 31.4	+1.8
ETSF				eSn	S	17 28 08.0	-4.8
	3.9nm,0.5s						
EBIE	Bielsa	14.96	50	P	P	17 25 37.0	+3.0
	6.8nm,0.3s,SNR=17						
EBIE				S	S	17 28 15.0	-5.6
	6.2nm,0.6s,SNR=7.9						
EBIE	Bielsa	14.96	50	P	P	17 25 37.0	+3.1
	6.8nm,0.3s						
EPF	Esparros	15.26	49	ePn	P	17 25 40.0	+2.1
EPF				eSn	S	17 28 23.2	-4.5
	1.8nm,0.3s						
MTLF	Montolieu	16.61	51	ePn	P	17 25 58.8	+3.6
QUIF	Quistinic	16.68	30	ePn	P	17 25 56.9	+0.9
CAF	Calviac	17.32	46	ePn	P	17 26 07.7	+3.6
LASF	Ste Croix	18.00	50	ePn	P	17 26 17.3	+4.7
TCF	Toulx Ste Croi	18.18	42	ePn	P	17 26 19.1	+4.2
GERES	GERESS Array B	26.20	47	P	P	17 27 41.7	+4.6
	0.6nm,0.8s,mb3.2,baz=247,slow=10,SNR=4.1						
DBIC	Dimbokro	28.88	158	P	P	17 28 08.1	+6.2
	5.1nm,0.5s,mb4.5,baz=334,slow=11,SNR=12						
NOA	NORSAR Array B	32.05	24	P	P	17 28 32.3	+2.8
	2.1nm,0.8s,mb4.0,baz=252,slow=9.2,SNR=3.8						
FINES	FINESS Array B	38.09	31	P	P	17 29 21.9	+0.9
	2.2nm,0.9s,mb3.9,baz=236,slow=6.9,SNR=7.2						
SCHQ	Schefferville	41.10	317	P	P	17 29 46.8	+0.7
	2.3nm,0.8s,mb3.9,baz=37,slow=10,SNR=3.6						
ARCES	ARCESS Array B	42.13	20	P	P	17 29 54.3	0.0
	7.0nm,0.9s,mb4.3,baz=229,slow=8.3,SNR=3.7						
MALT	Malatya	43.18	68	P	P	17 30 04.3	+1.0
	5.4nm,1.1s,mb4.2						
SDV	Santo Domingo	56.38	257	eP	P	17 31 40.1	-4.6
	3.2nm,0.9s,mb4.3						
YKA	Yellowknife Ar	64.46	329	P	P	17 32 39.2	+0.1
	1.3nm,0.8s,mb4.0,baz=64,slow=7.9,SNR=8.5						
YKA	Yellowknife Ar	64.46	329	P	P	17 32 39.2	+0.1
WMOK	Wichita Mounta	66.76	297	eP	P	17 32 42.3	-12
	8.5nm,0.4s,mb5.1						
PDAR	Pinedale Array	70.60	309	P	P	17 33 17.9	-0.2
	1.0nm,0.7s,mb3.9,baz=76,slow=7.4,SNR=8.6						
ILAR	Eielson Array	74.53	341	P	P	17 33 42.9	+2.1
	0.6nm,0.6s,mb3.7,baz=44,slow=9.0,SNR=3.0						
WRA	Warramunga Arr	149.76	70	PKPbc	PKPdf	17 41 54.1	+4.5
	0.8nm,0.7s,baz=315,slow=2.3,SNR=11						
WRAB	Tennant Creek	149.76	70	ePKPbc	PKPdf	17 41 49.4	-0.2
ASAR	Alice Springs	151.31	77	PKPbc	PKPdf	17 41 57.8	+6.0
	0.4nm,0.7s,baz=285,slow=1.8,SNR=8.3						
ASAR				PKPab	PKPab	17 42 08.3	+3.1
	0.3nm,0.7s,baz=307,slow=2.0,SNR=4.4						

PRE 16 17:26:02.3±2.0, **28.07S**×**26.86E**, **h2**^{km}, **ML3.8**, **South Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SEK	Senekal	0.72	111	eP	Pg	17 26 15.9	-0.9
SEK				eS	Sg	17 26 24.7	-1.7
SEK				e		17 26 27.8	
	comp=Z,394nm,0.2s						
KSR	Koster	2.21	1	eP	Pn	17 26 39.8	-0.7
KSR				eS	Sn	17 27 07.1	-1.6
KSR				e		17 27 08.3	
	comp=Z,1µm,0.2s						
SLR	Silverton	2.65	29	eP	Pn	17 26 43.9	-2.9
SLR				eS	Sn	17 27 21.7	+1.7
SLR				e		17 27 30.0	
	comp=Z,475nm,0.4s						
NWL	Newcastle	2.76	84	eP	Pn	17 26 51.4	+3.0
NWL				eS	Sn	17 27 20.2	-2.6
NWL				e		17 27 31.7	
	comp=Z,1µm,0.4s						

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*JMA **16** 17:29:21.9±0.2, 24.61N×122.18E, h51^{km}, M2.1*

TAP 16 17:29:22.6,24.49N×122.06E,h16^{km},ML2.9,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	0.87	92	P	Pb	17 29 36.7	-2.1
YOJ				S	Sb	17 29 47.5	-2.4
IRIF	**Iriomote-Funau**	1.53	95	P	Pn	17 29 45.9	-3.6
IRIF				S	Sb	17 30 03.7	-5.4
HATJ	**Hateruma jima**	1.65	105	P	Pn	17 29 48.0	-3.2
JKRS	**Kuro-shima**	1.79	98	P	Pn	17 29 50.3	-3.0
JKRS				S	Sn	17 30 10.8	-5.1
JIJ	**Ishigaki jima**	1.90	93	P	Pn	17 29 51.2	-3.6
JIJ				S	Sn	17 30 12.2	-6.4

IDC ***16*** *17:29:38.8±0.8,27.52N×91.29E,mb3.9/9,mb1 4.1/10, mb1mx3.9/20,ML3.8/1,Error ellipse: s-maj=45.8km s-min=15.3km az=53.0*

ISC 16 17:29:42.9±2.1,27.5N±0.1×91.3E±0.2,h46^{km}±23^{km},n12, σ0^{s}81/13,mb3.9/9,1D,Bhutan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SHL	**Shillong**	2.00	164	*e*PN	P	17 30 14.5	-0.4
SHL				*e*SN	S	17 30 39.4	+0.7
IMP	**Imphal**	3.61	138	⇓*i*P	P	17 30 38.4	+0.6
CMAR	**Chiang Mai Arr**	11.44	140	Pn	P	17 32 23.6	-2.8
	0.2nm,0.3s,baz=309,slow=12,SNR=14						
SONM	**Songino Array**	23.50	26	P	P	17 34 49.4	+0.2
	0.6nm,0.6s,mb3.2,baz=208,slow=11,SNR=6.3						
BVAR	**Borovoye Array**	29.85	334	P	P	17 35 48.7	+0.8
	0.4nm,0.5s,mb3.4,baz=135,slow=4.1,SNR=5.6						
AKASG	**Malin Array Be**	51.73	314	P	P	17 38 46.9	-0.8
	0.6nm,0.4s,mb3.8,baz=79,slow=6.4,SNR=3.9						
FINES	**FINESS Array B**	54.42	328	P	P	17 39 06.2	-1.1
	14nm,1.3s,mb4.7,baz=117,slow=8.5,SNR=4.7						
ARCES	**ARCESS Array B**	56.07	337	P	P	17 39 20.0	+0.7
	4.2nm,0.9s,mb4.5,baz=108,slow=8.6,SNR=3.1						
NOA	**NORSAR Array B**	61.58	327	P	P	17 39 57.6	0.0
	1.2nm,0.8s,mb4.1,baz=80,slow=9.0,SNR=3.3						
GERES	**GERESS Array B**	61.89	313	P	P	17 40 00.2	+0.3
	0.3nm,0.5s,mb3.7,baz=90,slow=6.7,SNR=4.7						
WRA	**Warramunga Arr**	62.95	134	P	P	17 40 07.3	-0.1
	0.6nm,0.6s,mb3.9,baz=324,slow=7.0,SNR=18						
ASAR	**Alice Springs**	65.43	137	P	P	17 40 23.9	+0.4
	0.7nm,0.5s,mb4.0,baz=319,slow=6.7,SNR=20						
ASAR				PcP	PcP	17 40 55.2	+0.3
	0.4nm,0.7s,baz=321,slow=4.2,SNR=4.4						

NEIC ***16*** *17:43:25.9±0.7,5.80N×60.12E,h10^{km},mb4.5/8,Error ellipse: s-maj=15.5km s-min=14.7km az=133.0*

IDC ***16*** *17:43:28.0±1.1,6.15N×60.74E,mb3.8/9,mb1 3.9/9, mb1mx3.8/18,Error ellipse: s-maj=28.7km s-min=23.1km az=23.0*

ISC 16 17:43:26.9±0.7,6.1N±0.1×60.7E±0.1,h10^{km},n22, σ1^{s}35/21,mb4.1/16,Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HYB	**Hyderabad**	20.81	56	*e*P	P	17 48 15.5	+4.3
HYB	**Hyderabad**	20.81	56	*i* P	P	17 48 15.5	+4.3
KMBO	**Kilima Mbogo**	24.44	254	P	P	17 48 51.3	+4.0
	5.9nm,1.0s,mb4.0,baz=50,slow=11,SNR=4.4						
KMBO	**Kilima Mbogo**	24.44	254	*e*P	P	17 48 40.4	-6.9
	9.1nm,1.0s,mb4.2						
MBAR	**Mbarara**	30.59	258	*e*P	P	17 49 42.1	-1.5
	2.9nm,1.0s,mb4.1						
EIL	**Elat**	33.73	317	P	P	17 50 13.0	+2.1
	17nm,1.2s,mb4.9						
GNI	**Garni**	36.81	339	P	P	17 50 35.1	-1.8
	16nm,1.0s,mb4.8						
AML	**Almayashu**	37.72	16	P	P	17 50 42.5	-2.1
UCH	**Uchtor**	38.04	17	*e*P	P	17 50 47.6	+0.3
	8.2nm,1.4s,mb4.3						
EKS2	**Erkin-Say**	38.24	16	*e*P	P	17 50 51.0	+2.1
	16nm,1.2s,mb4.6						
LSZ	**Lusaka**	38.54	236	P	P	17 50 53.9	+2.2
TKM2	**Tokmak 2**	38.99	18	P	P	17 50 55.8	+0.5
	2.1nm,0.8s,mb3.9						
TKM2				*e*		17 51 01.8	
CMAR	**Chiang Mai Arr**	39.28	68	P	P	17 50 59.7	+1.8
	1.9nm,0.9s,mb3.8,baz=258,slow=10.0,SNR=10						
BRTR	**Keskin Array B**	41.39	328	P	P	17 51 16.1	+1.0
	1.5nm,0.9s,mb3.6,baz=135,slow=8.7,SNR=4.7						
BVAR	**Borovoye Array**	47.47	8	P	P	17 52 03.2	-0.7
	0.6nm,0.8s,mb3.6,baz=198,slow=4.7,SNR=4.2						
ZAL	**Zalesovo**	51.58	18	P	P	17 52 34.9	-0.5
	0.8nm,0.9s,mb3.6,baz=230,slow=5.4,SNR=4.1						
AKASG	**Malin Array Be**	51.62	335	P	P	17 52 34.6	-1.1
	0.1nm,0.3s,mb3.3,baz=135,slow=6.7,SNR=4.8						
SONM	**Songino Array**	56.95	35	P	P	17 53 15.1	+0.2
	1.6nm,1.0s,mb4.0,baz=248,slow=6.7,SNR=7.9						
WRA	**Warramunga Arr**	76.87	112	P	P	17 55 21.2	-0.4
	0.6nm,0.8s,mb3.6,baz=295,slow=4.5,SNR=4.7						
ASAR	**Alice Springs**	77.25	116	P	P	17 55 23.6	0.0
	1.7nm,1.2s,mb3.9,baz=288,slow=4.9,SNR=5.4						
CTAO	**Charters Tower**	87.95	110	P	P	17 56 17.4	-1.6
	11nm,1.2s,mb5.0						
NVAR	**Mina Array Bea**	135.71	359	PKP	PKPdf	18 02 52.6	+1.2
	0.5nm,0.8s,baz=48,slow=2.4,SNR=4.3						

ATH ***16*** *17:47:48.8,34.97N×23.58E,h41^{km}±3^{km},MD3.7/15, ML3.8*

CSEM ***16*** *17:47:48.7±0.3,34.98N×23.48E,h30^{km},ML3.8,Error ellipse: s-maj=6.9km s-min=2.5km az=34.0*

IDC ***16*** *17:47:49.8±4.1,35.03N×23.32E,h58^{km}±25^{km},mb3.7/8, mb1 3.7/12,mb1mx3.6/25,ML3.9/4,Error ellipse: s-maj=46.3km s-min=19.0km az=28.0*

NEIC ***16*** *17:47:49.1,35.06N×23.53E,h28^{km},mb3.6/2, ML3.8(ATH),After ATH.*

ISC 16 17:47:47.5±1.4,34.9N±0.1×23.41E±0.09,h64^{km}±7^{km},n64, σ1^{s}07/66,mb3.8/9,Crete

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GVD	**Gavdhos**	0.56	99	*e*P	P	17 47 59.1	-1.5
VAM	**Vamos**	0.81	53	*e*P	P	17 48 03.2	-0.2
IDI	**Anoyia**	1.27	73	P	P	17 48 10.2	+0.6
	48nm,0.3s,baz=263,slow=12,SNR=401						
IDI				S	S	17 48 29.1	+3.1
	114nm,0.3s,baz=166,slow=20,SNR=16						
IDI	**Anoyia**	1.27	73	S	S	17 48 29.0	+3.1
KYTH	**Kithira**	1.39	347	*e*P	P	17 48 13.5	+2.2
VLI	**Veliai**	1.83	348	*e*P	P	17 48 20.0	+2.7
VLI	**Veliai**	1.83	348	*e*Pn	P	17 48 20.5	+3.2
NPS	**Neapolis**	1.84	79	*e*P	P	17 48 19.0	+1.6
XRY	**Khrisi**	1.88	91	*e*P	P	17 48 18.0	0.0
XRY	**Khrisi**	1.88	91	*e*Pn	P	17 48 23.0	+5.0
THR6	**Thira Island,**	2.16	48	*e*P	P	17 48 22.3	+0.4
THR5	**Thira Island,**	2.17	46	*e*P	P	17 48 21.7	-0.4
THR3	**Thira Island,**	2.20	47	*e*P	P	17 48 22.5	0.0
SANT	**Santorini**	2.21	49	*e*Pn	P	17 48 22.0	-0.6
SANT				*e*		17 48 29.9	
SANT	**Santorini**	2.21	49	*e*Pn	P	17 48 22.0	-0.6
THR1	**Thera Island**	2.21	49	*e*P	P	17 48 22.8	+0.2
ITM	**Ithomi**	2.55	332	*e*Pb	P	17 48 31.6	+4.1
APE	**Apeiranthos**	2.75	38	*e*P	P	17 48 29.8	-0.4
NAIG	**Nisos Aigina**	2.83	1	*e*P	P	17 48 32.3	+0.9
NSAL	**Nisos Salamina**	2.98	1	*e*P	P	17 48 34.8	+1.3
NSAL	**Nisos Salamina**	2.98	1	*e*Pn	P	17 48 34.2	+0.7
ATH	**Athens Observa**	3.05	5	*e*P	P	17 48 35.7	+1.1
MGER	**Gerania Oros**	3.06	358	*e*P	P	17 48 35.5	+0.9
KARP	**Karpathos**	3.13	77	*e*P	P	17 48 35.0	-0.7
KARP	**Karpathos**	3.13	77	*e*Pn	P	17 48 35.8	+0.1
PTL	**Penteli**	3.14	7	*e*P	P	17 48 36.5	+0.7
MPAR	**Parnis Oros**	3.23	5	*e*P	P	17 48 38.0	+0.9
VLS	**Valsamata**	3.96	326	*e*Pn	P	17 48 45.0	-2.3
ARG	**Arkhangelos**	4.05	70	*e*P	P	17 48 48.5	-0.1
AGG	**Agios Georgios**	4.18	348	*e*P	P	17 48 50.5	+0.2
EVR	**Evrytania**	4.19	343	*e*P	P	17 48 53.0	+2.6
AOS	**Alonnisos**	4.25	5	*e*P	P	17 48 50.9	-0.5
NEO	**Neokhori**	4.38	358	*e*P	P	17 48 53.5	+0.4
NEO	**Neokhori**	4.38	358	*e*Pn	P	17 48 53.1	0.0
XOR	**Xorichti**	4.44	358	*e*P	P	17 48 53.2	-0.7
LOS	**Limnos**	5.17	14	*e*P	P	17 49 02.2	-2.0
LIT	**Litokhoron**	5.22	352	*e*P	P	17 49 03.4	-1.3
OUR	**Ouranopolis**	5.42	5	*e*P	P	17 49 07.0	-0.6
SOH	**Sokhos**	5.89	360	*e*P	P	17 49 13.9	-0.1
FNA	**Florina**	6.07	345	*e*P	P	17 49 15.9	-0.6
FNA	**Florina**	6.07	345	*e*P	P	17 49 15.9	-0.6
GRG	**Griva**	6.08	353	*e*P	P	17 49 15.4	-1.3
SRS	**Serrai**	6.18	1	*e*P	P	17 49 17.1	-1.1
KNT	**Kendrikon**	6.24	356	*e*P	P	17 49 17.5	-1.5
TIP	**Timpagrande**	6.80	311	*e*Pn	P	17 49 22.7	-4.2
TIP				*e*Sn	S	17 50 31.0	-13
CSS	**Prodhromos**	8.15	87	Pn	P	17 49 33.9	-11
CSS				*e*Sn	S	17 51 06.2	-11
BRTR	**Keskin Array B**	9.45	57	P	P	17 50 01.7	-1.5
	0.2nm,0.3s,baz=238,slow=14,SNR=5.7						
MALT	**Malatya**	12.53	70	P	P	17 50 43.5	-1.3
VRAC	**Vranov**	15.23	343	P	P	17 51 20.3	+0.4
	0.5nm,0.3s,baz=175,slow=12,SNR=2.8						
MORC	**Moravsky Berou**	15.46	346	P	P	17 51 28.1	+5.4
	1.6nm,0.6s						
GERES	**GERESS Array B**	15.66	336	P	P	17 51 25.1	-0.2
	0.1nm,0.3s,baz=146,slow=11,SNR=2.8						
KHC	**Kasperske Hory**	15.94	336	*e*P	P	17 51 34.3	+5.3
KHC				x	x	17 51 53.5	
DPC	**Dobruska-Polom**	16.26	344	*e*P	P	17 51 37.3	+4.4
AKASG	**Malin Array Be**	16.33	13	P	P	17 51 34.0	+0.3
	1.5nm,0.3s,baz=209,slow=9.6,SNR=12						
HFS	**Hagfors**	26.00	349	P	P	17 53 16.1	+0.3
	3.5nm,0.8s,mb4.0,baz=159,slow=10,SNR=12						
FINES	**FINESS Array B**	26.59	3	P	P	17 53 20.3	-1.0
	4.2nm,1.1s,mb3.9,baz=180,slow=9.5,SNR=3.7						
NOA	**NORSAR Array B**	27.28	347	P	P	17 53 27.9	+0.3
	1.2nm,0.9s,mb3.4,baz=145,slow=8.2,SNR=2.5						
ARCES	**ARCESS Array B**	34.68	1	P	P	17 54 32.1	-0.4
	2.4nm,0.8s,mb4.2,baz=191,slow=10,SNR=6.8						
BVAR	**Borovoye Array**	37.55	46	P	P	17 54 57.0	+0.1
	0.6nm,0.7s,mb3.4,baz=243,slow=6.6,SNR=3.8						
TKM2	**Tokmak 2**	40.82	63	P	P	17 55 24.3	+0.2
	1.0nm,0.7s,mb3.5						
ZAL	**Zalesovo**	46.19	46	P	P	17 56 07.5	+0.1
	1.2nm,0.5s,mb4.1,baz=180,slow=9.8,SNR=5.0						
SONM	**Songino Array**	60.74	50	P	P	17 57 55.5	+0.9
	1.3nm,0.7s,mb4.2,baz=287,slow=6.5,SNR=19						
YKA	**Yellowknife Ar**	77.22	341	P	P	17 59 38.0	+2.3
	0.3nm,0.4s,mb3.6,baz=41,slow=6.0,SNR=4.3						
ASAR	**Alice Springs**	119.42	100	PKP	PKPdf	18 06 33.2	+3.2
	0.5nm,0.8s,baz=297,slow=2.0,SNR=6.0						

IDC ***16*** *17:49:31.0±0.9,6.18N×60.66E,mb3.9/9,mb1 4.1/9, mb1mx3.9/18,MS3.8/8,Ms1 3.8/8,ms1mx3.7/18,Error ellipse: s-maj=26.4km s-min=21.1km az=25.0*

NEIC ***16*** *17:49:32.7±0.6,6.17N×60.63E,h10^{km},mb4.5/8,Error ellipse: s-maj=16.1km s-min=14.7km az=154.0*

ISC 16 17:49:30.6±1.0,6.2N±0.1×60.6E±0.1,h10^{km},n28, σ1^{s}00/18,mb4.1/16,MS3.8/8,Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
POO	**Poona**	17.86	45	*e*	P	17 53 42.0	+0.9
KMBO	**Kilima Mbogo**	24.37	254	P	P	17 54 53.3	+3.0
	3.6nm,0.8s,mb3.9,baz=56,slow=11,SNR=9.0						
KMBO				LR	LR	18 03 18.9	
	comp=Z,240nm,21.1s,MS3.7,baz=97,slow=34						
KMBO	**Kilima Mbogo**	24.37	254	*e*P	P	17 54 52.7	+2.4
	37nm,1.7s,mb4.5						
KMBO				*e*		17 55 00.6	
KMBO				LR	LR	18 03 18.9	
EIL	**Elat**	33.62	317	LR	LR	18 09 17.6	
	comp=Z,134nm,18.9s,MS3.7,baz=286,slow=35						
ASF	**Jabal al Asfar**	34.03	323	LR	LR	18 09 44.2	
	comp=Z,105nm,18.8s,MS3.6,baz=102,slow=36						
GNI	**Garni**	36.71	340	LR	LR	18 12 11.4	
	comp=Z,82nm,18.2s,MS3.5,baz=293,slow=37						
UCH	**Uchtor**	38.00	17	P	P	17 56 51.4	+0.8
	11nm,1.7s,mb4.3						
EKS2	**Erkin-Say**	38.20	16	*e*P	P	17 56 53.8	+1.6
	28nm,1.6s,mb4.7						
AAK	**Ala-Archa**	38.37	17	*e*P	P	17 56 54.2	+0.5
	23nm,1.9s,mb4.6						
CM31	**Chiang Mai Arr**	39.34	68	*e*P	P	17 57 02.6	+0.6
	6.4nm,0.9s,mb4.3						
CMAR	**Chiang Mai Arr**	39.34	68	P	P	17 57 02.9	+0.8
	3.8nm,1.1s,mb4.0,baz=255,slow=9.2,SNR=19						
CMAR				LR	LR	18 10 25.2	
	comp=Z,107nm,20.9s,MS3.7,baz=260,slow=32						
BRTR	**Keskin Array B**	41.28	328	P	P	17 57 18.4	+0.5
	0.3nm,0.4s,mb3.3,baz=159,slow=12,SNR=2.8						
BVAR	**Borovoye Array**	47.42	8	P	P	17 58 06.9	-0.2
	0.7nm,1.0s,mb3.5,baz=180,slow=5.8,SNR=3.8						
BVAR				PcP	PcP	17 59 37.2	-0.8
	0.9nm,0.9s,baz=180,slow=4.3,SNR=3.8						
BRVK	**Borovoye**	47.44	8	P	P	17 58 05.6	-1.6
	5.1nm,1.4s,mb4.3						
AKASG	**Malin Array Be**	51.52	335	P	P	17 58 37.5	-1.2
	0.3nm,0.2s,mb3.9,baz=142,slow=6.6,SNR=5.7						
ZAL	**Zalesovo**	51.54	18	P	P	17 58 38.0	-0.8
	0.7nm,0.6s,mb3.7,baz=227,slow=5.7,SNR=5.5						
SONM	**Songino Array**	56.95	35	P	P	17 59 17.6	-0.9
	1.9nm,1.1s,mb4.0,baz=236,slow=8.9,SNR=8.5						
ULN	**Ulaanbaatar**	57.34	35	P	P	17 59 20.3	-1.0
	9.2nm,1.7s,mb4.5						
FINES	**FINESS Array B**	60.84	342	LR	LR	18 24 11.0	
	comp=Z,32nm,19.6s,MS3.5,baz=187,slow=34						
ARCES	**ARCESS Array B**	67.30	347	LR	LR	18 31 55.1	
	comp=Z,142nm,18.5s,MS4.2,baz=17,slow=38						
MAW	**Mawson**	73.60	179	*e*P	P	18 00 59.7	-5.9
	2.4nm,0.5s,mb4.4						
WRA	**Warramunga Arr**	76.98	112	P	P	18 01 25.3	-0.6
	2.8nm,1.1s,mb4.1,baz=289,slow=5.4,SNR=8.4						
ASAR	**Alice Springs**	77.36	116	P	P	18 01 27.4	-0.5
	2.2nm,1.0s,mb4.0,baz=290,slow=4.8,SNR=12						
VNDA	**Vanda**	98.41	168	LR	LR	18 43 52.2	
	comp=Z,68nm,18.8s,MS4.2,baz=315,slow=33						
PDAR	**Pinedale Array**	130.49	350	PKP	PKPdf	18 08 43.5	-1.7
	0.9nm,1.1s,baz=63,slow=3.3,SNR=4.1						
NVAR	**Mina Array Bea**	135.63	359	PKP	PKPdf	18 08 55.9	+1.0
	1.2nm,1.1s,baz=56,slow=1.9,SNR=4.2						
TBI	**Tubuai**	146.43	124	*e*LR	LR	18 09 32.9	
	249nm,29.8s						
PPT	**Papeete**	148.46	114	*e*LR	LR	18 09 17.2	
	274nm,31.2s						

IDC ***16*** *17:55:18.4±1.4,15.75S×178.43E,mb4.1/9,mb1 4.4/9, mb1mx4.2/15,MS3.6/5,Ms1 3.6/5,ms1mx3.4/17,Error ellipse: s-maj=77.0km s-min=19.4km az=148.0*

NEIC ***16*** *17:55:19.5±0.9,15.90S×178.50E,h10^{km},mb4.7/3,Error ellipse: s-maj=58.4km s-min=13.7km az=149.0*

ISC 16 17:55:22.8±0.7,15.5S±0.2×178.1E±0.2,h33^{km},n22, σ0^{s}73/15,mb4.1/12,MS3.5/5,Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAR	**Rarotonga**	21.72	109	LR	LR	18 06 05.0	
	comp=Z,196nm,18.1s,MS3.5,baz=352,slow=30						
CTA	**Charters Tower**	30.69	257	LR	LR	18 12 13.0	
	comp=Z,116nm,19.8s,MS3.5,baz=46,slow=33						
PMG	**Port Moresby**	30.82	278	LR	LR	18 12 54.2	
	comp=Z,59nm,18.1s,MS3.3,baz=314,slow=34						
STKA	**Stephens Creek**	37.04	237	P	P	18 02 31.2	-0.4
	1.7nm,0.7s,mb4.0,baz=56,slow=9.7,SNR=6.3						
STKA				LR	LR	18 15 40.8	
	comp=Z,93nm,20.5s,MS3.6,baz=25,slow=33						
STKA	**Stephens Creek**	37.04	237	*e*P	P	18 02 30.8	-0.8
WRAB	**Tennant Creek**	41.87	257	*e*P	P	18 03 05.8	-6.1
	5.2nm,0.9s,mb4.2						
WRA	**Warramunga Arr**	41.88	257	P	P	18 03 11.5	-0.5
	2.4nm,0.9s,mb3.8,baz=90,slow=8.6,SNR=4.9						
ASAR	**Alice Springs**	42.34	252	P	P	18 03 15.5	-0.2
	2.5nm,0.9s,mb3.8,baz=85,slow=8.5,SNR=36						
ASAR				LR	LR	18 19 34.7	
	comp=Z,98nm,18.9s,MS3.7,baz=134,slow=34						
ASPA	**Alice Springs**	42.34	252	*e*P	P	18 03 15.7	-0.1
KAKA	**Kakadu**	44.35	268	*e*P	P	18 03 36.9	+4.8
	7.2nm,0.6s,mb4.6						
SBA	**Scott Base**	62.67	183	*e*P	P	18 05 47.0	+0.8
	6.8nm,1.0s,mb4.7						
YBH	**Yreka Blue Hor**	78.78	41	P	P	18 07 24.0	-0.1
	1.1nm,0.6s,mb4.0,baz=180,slow=10,SNR=2.3						
NVAR	**Mina Array Bea**	80.02	46	P	P	18 07 30.3	-0.5
	1.0nm,0.8s,mb3.8,baz=216,slow=7.5,SNR=6.1						
NVAR	**Mina Array Bea**	80.02	46	P	P	18 07 30.3	-0.5
ILAR	**Eielson Array**	84.30	14	P	P	18 07 52.8	+0.4
	3.0nm,0.9s,mb4.4,baz=229,slow=6.5,SNR=15						
CMAR	**Chiang Mai Arr**	84.94	291	P	P	18 07 59.9	+3.2
	2.8nm,1.2s,mb4.3,baz=117,slow=2.9,SNR=7.1						
PDAR	**Pinedale Array**	87.89	45	P	P	18 08 09.8	-0.7
	0.8nm,0.9s,mb3.9,baz=252,slow=2.9,SNR=4.6						
SONM	**Songino Array**	89.55	320	P	P	18 08 18.7	+0.5
	0.8nm,1.0s,mb4.0,baz=135,slow=2.0,SNR=4.3						
KHC	**Kasperske Hory**	144.12	343	*e*PKP	PKPdf	18 14 55.5	+0.4
GRA1	**Grafenberg Arr**	144.23	345	*e*PKP	PKPdf	18 14 56.2	+0.9
GRF	**Grafenberg Arr**	144.23	345	*e*PKP	PKPdf	18 14 56.2	+0.9
GERES	**GERESS Array B**	144.34	342	PKP	PKPdf	18 14 56.4	+0.9
	1.9nm,0.9s,baz=18,slow=3.1,SNR=10						

WAR ***16*** *18:01:39.6,50.18N×19.30E,h0^{km},ML2.4,Mining Induced*

PRU ***16*** *18:01:39.4,50.23N×19.24E*

ISC 16 18:01:38.4±0.8,50.24N±0.07×19.23E±0.04,n8,σ1^{s}52/15, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	0.36	94	*e*PG	Pg	18 01 46.0	+0.3
OJC				*i* SG	Sg	18 01 51.0	+0.5
OKC	**Ostrava-Krasne**	0.81	240	*e*PG	Pg	18 01 55.4	+0.8
OKC				*e*SG	Sg	18 02 06.5	+1.1
NIE	**Niedzica**	1.08	139	*e*PG	Pg	18 01 59.0	-1.0
NIE				*e*SG	Sg	18 02 14.0	-0.4
NIE	**Niedzica**	1.08	139	*e*Pg	Pg	18 01 58.6	-1.4
NIE				*e*Sg	Sg	18 02 13.7	-0.7
DPC	**Dobruska-Polom**	1.87	274	*e*PG	Pg	18 02 12.8	-3.0
DPC				*e*SG	Sg	18 02 38.0	-2.7
KSP	**Ksiaz**	1.97	289	*e*PG	Pg	18 02 19.0	+1.2
KSP				*e*SN	Sn	18 02 44.0	+4.8
PRU	**Pruhonice**	3.03	267	*e*SG	Sg	18 03 16.9	-2.4
KHC	**Kasperske Hory**	3.84	255	*e*SN	Sn	18 03 29.0	+2.5
KHC				*e*SG	Sg	18 03 42.3	-3.9

CSEM ***16*** *18:14:49.0±0.7,38.68N×28.48W,h15^{km},ML1.6,Error ellipse: s-maj=8.1km s-min=2.5km az=29.0,After PDA*

PDA ***16*** *18:14:49.0±0.7,38.68N×28.48W,h15^{km},MD2.9,ML1.6, Error ellipse: s-maj=8.1km s-min=2.5km az=29.0*

SVSA 16 18:14:49.0±0.7,38.68N×28.48W,h15^{km},MD2.9,ML1.6, Error ellipse: s-maj=8.1km s-min=2.5km az=29.0, Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	**Cedros**	0.18	254	*e*P	Pb	18 14 52.5	-1.0
PCED				*e*S	Sb	18 14 55.7	-0.8
	57nm,0.2s						
PCED	**Cedros**	0.18	254	*e*P	Pb	18 14 52.5	-1.0
PCED				*e*S	Sb	18 14 55.7	-0.8
	57nm,0.2s						
PICO	**Pico**	0.18	167	*i* P	Pb	18 14 53.0	-0.5
PICO				*i* S	Sb	18 14 55.8	-0.7
PICO	**Pico**	0.18	167	*i* S	Sb	18 14 55.8	-0.7
ROSA	**Rosais**	0.19	77	*e*rx	Sb	18 14 56.6	-0.1
HOR	**Horta**	0.19	218	*e*rx	Pb	18 14 54.5	+0.8
CALA	**Caldeira**	0.20	241	*e*P	Pb	18 14 53.2	-0.6
CALA				*e*S	Sb	18 14 56.0	-1.0
PPNO	**Prainha do Nor**	0.27	141	*e*S	Sb	18 14 57.6	-1.3
	17nm,0.1s						
PID	**Ribeirinha**	0.37	130	*e*rx	Pb	18 14 56.0	-0.7

NEIC ***16*** *18:18:09.5±0.7,2.79S×101.41E,h100^{km},mb4.4/2,Error ellipse: s-maj=26.1km s-min=12.2km az=63.0*

IDC ***16*** *18:18:15.1±5.0,2.60S×101.71E,h140^{km}±35^{km},mb3.1/7, mb1 3.3/7,mb1mx3.2/16,Error ellipse: s-maj=92.4km s-min=14.8km az=60.0*

ISC 16 18:18:13.6±0.7,2.7S±0.1×101.6E±0.2,h150^{km},n15, σ0^{s}97/15,mb3.8/13,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	21.21	353	P	P	18 22 48.0	-0.7
	1.1nm,0.7s,mb3.3,baz=187,slow=8.8,SNR=13						
ENH	**Enshi**	33.66	12	*e*P	P	18 24 40.2	-2.0
	4.3nm,0.5s,mb4.4						
PKI	**Pulchoki**	33.93	334	*e*P	P	18 24 46.2	+1.6
GUN	**Gumba**	34.02	335	*e*P	P	18 24 45.9	+0.6
	12nm,0.4s,mb4.9						
DMN	**Daman**	34.10	333	*e*P	P	18 24 46.9	+0.9
KKN	**Kakani**	34.18	334	*e*P	P	18 24 46.8	+0.1
	5.1nm,0.5s,mb4.5						
GKN	**Gorkha**	34.65	333	*e*P	P	18 24 51.0	+0.3
	3.8nm,0.3s,mb4.5						
KOLN	**Koldanda**	34.93	331	*e*P	P	18 24 53.9	+0.8
	6.8nm,0.8s,mb4.3						
WRA	**Warramunga Arr**	36.23	121	P	P	18 25 04.2	+0.1
	0.1nm,0.4s,mb2.8,baz=284,slow=7.9,SNR=6.9						
WRA				PcP	PcP	18 27 27.3	+0.9
	0.2nm,0.4s,baz=316,slow=2.3,SNR=5.9						
ASAR	**Alice Springs**	37.52	126	P	P	18 25 16.0	+1.1
	0.1nm,0.4s,mb2.8,baz=299,slow=7.6,SNR=8.8						
ASAR				PcP	PcP	18 27 32.0	+1.7
	0.4nm,0.9s,baz=324,slow=2.5,SNR=5.4						
ASAR				ScP		18 31 04.0	
	0.1nm,0.6s,baz=310,slow=3.7,SNR=4.1						
STKA	**Stephens Creek**	47.46	132	P	P	18 26 35.1	-0.2
	1.0nm,0.8s,mb3.5,baz=352,slow=15,SNR=3.2						
SONM	**Songino Array**	50.52	4	P	P	18 26 58.7	+0.2
	0.5nm,0.3s,mb3.5,baz=186,slow=9.7,SNR=17						
ZAL	**Zalesovo**	58.18	348	P	P	18 27 53.4	-0.6
	0.6nm,0.3s,mb3.9,baz=289,slow=7.6,SNR=4.5						
BVAR	**Borovoye Array**	61.42	339	P	P	18 28 15.2	-1.1
	0.2nm,0.4s,mb3.3,baz=149,slow=8.4,SNR=3.3						
LBTB	**Lobatse**	76.19	245	P	P	18 29 45.8	-1.6
	6.8nm,1.1s,mb4.2						

BGR ***16*** *18:30:19.0±0.6,51.50N×16.27E,h1^{km},ML3.5/10,Error ellipse: s-maj=6.7km s-min=4.4km az=161.0*

NEIC ***16*** *18:30:19.1±0.4,51.59N×16.17E,h5^{km},ML3.6(VIE), ML3.5(SZGRF),ML3.3(CLL),ML3.2(BRG),Error ellipse: s-maj=5.0km s-min=4.3km az=212.0*

IPEC ***16*** *18:30:19.6±0.3,51.57N×16.21E,ML2.7/3,Error ellipse: s-maj=2.0km s-min=1.5km az=34.0*

IDC ***16*** *18:30:20.7±0.6,51.50N×16.15E,mb3.5/2,mb1 3.7/10, mb1mx3.6/24,ML3.2/7,Error ellipse: s-maj=10.7km s-min=6.2km az=106.0*

PRU ***16*** *18:30:20.7,51.52N×16.13E,Felt In Harrachov*

CSEM ***16*** *18:30:20.8±0.2,51.52N×16.10E,h0^{km},ML3.7/5,Error ellipse: s-maj=2.6km s-min=1.6km az=27.0*

WAR ***16*** *18:30:21.1,51.54N×16.13E,h1^{km},ML3.5,Mining Induced*

LDG ***16*** *18:30:24.5±0.2,51.20N×15.89E,h1^{km},Ml3.7/4,Error ellipse: s-maj=4.4km s-min=3.0km az=3.0,Suspected Mining induced.*

ISC 16 18:30:18.7±0.4,51.46N±0.02×16.11E±0.02,n107, σ1^{s}50/191,mb3.6/2,16C-2D,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	0.63	169	*i* PG	Pg	18 30 34.0	+2.7
KSP				*e*SG	Sg	18 30 43.0	+3.3
KSP	**Ksiaz**	0.63	169	⇓*i*Pg	Pg	18 30 34.0	+2.7
KSP				*e*Sg	Sg	18 30 43.3	+3.6
KSP				*e*		18 30 49.5	
KSP	**Ksiaz**	0.63	169	⇓*i*Pg	Pg	18 30 34.0	+2.7
KSP				*e*Sg	Sg	18 30 43.3	+3.6
KSP	**Ksiaz**	0.63	169	*e*Pg	Pg	18 30 34.1	+2.8
KSP				*e*P*	Pb	18 30 35.0	+2.7
KSP				*e*Sg	Sg	18 30 43.2	+3.5
KSP				*e*Sn	Sn	18 30 47.9	+2.5
UPC	**Upice**	0.96	184	*e*PG	Pg	18 30 40.1	+2.3
DPC	**Dobruska-Polom**	1.12	173	*e*PG	Pg	18 30 42.8	+1.7
DPC				*e*SG	Sg	18 30 58.1	+2.1
PVCC	**Panska Ves**	1.35	227	*e*PG	Pg	18 30 47.0	+1.3
PVCC	**Panska Ves**	1.35	227	Pg	Pg	18 30 47.0	+1.3
PVCC				*e*Sg	Sg	18 31 05.8	+2.2
BRG	**Berggiesshubel**	1.48	248	*e*Pg	Pg	18 30 47.6	-0.8
BRG				*e*Sg	Sg	18 31 10.2	+2.0
BRG	**Berggiesshubel**	1.48	248	*e*Pn	Pn	18 30 47.5	+0.7
BRG				*i* Pg	Pg	18 30 49.1	+0.7
BRG				*i* Sg	Sg	18 31 10.0	+1.8
BRG	**Berggiesshubel**	1.48	248	*i* Pg	Pg	18 30 49.1	+0.7
BRG				Sg	Sg	18 31 10.2	+2.0
RUE	**Ruedersdorf**	1.77	306	*e*Pn	Pn	18 30 49.7	-1.1
RUE				*e*Sn	Sn	18 31 17.2	+2.9
RUE	**Ruedersdorf**	1.77	306	*e*Pn	Pn	18 30 49.7	-1.1
PRU	**Pruhonice**	1.78	215	*i* PN	Pn	18 30 52.2	+1.2
PRU				PG	Pg	18 30 54.4	+0.1
PRU				*i* x	x	18 30 58.7	
PRU				*i* x	x	18 31 11.4	
PRU				SG	Sg	18 31 18.7	+0.7

	98nm,0.3s						
PRU	Pruhonice	1.78	215	Pg	Pg	18 30 54.4	+0.1
PRU				Sg	Sg	18 31 18.7	+0.7
	98nm,0.3s						
RAC	Raciborz	1.91	135	eP	Pn	18 30 56.0	+3.1
RAC				eS	Sn	18 31 23.0	+5.0
RAC	Raciborz	1.91	135	eSg	Sg	18 31 23.2	+0.8
MORC	Moravsky Berou	1.92	151	ePn	Pn	18 30 53.8	+0.9
MORC				eSn	Sn	18 31 20.9	+2.8
MORC	Moravsky Berou	1.92	151	ePn	Pn	18 30 53.8	+0.8
MORC				eSg	Sg	18 31 22.3	-0.3
	66nm,0.4s						
GKP	Gorka Klasztor	1.94	20	eP	Pn	18 31 00.0	+6.7
GKP				eS	Sn	18 31 23.0	+4.3
GKP	Gorka Klasztor	1.94	20	ePn	Pn	18 30 59.8	+6.5
GKP				ePg	Pg	18 31 02.6	+5.1
GKP				eSn	Sn	18 31 22.9	+4.2
GKP				eSg	Sg	18 31 27.2	+3.9
CLL	Collm	1.95	267	ePn	Pn	18 30 53.7	+0.2
CLL				eSg	Sg	18 31 24.0	+0.3
CLL	Collm	1.95	267	i Pn	Pn	18 30 53.7	+0.2
CLL				i Pg	Pg	18 30 57.3	-0.4
CLL				i Sg	Sg	18 31 23.3	-0.4
CLL	Collm	1.95	267	i PN	Pn	18 30 53.7	+0.2
	logA/T=1.6						
CLL				i PG	Pg	18 30 57.3	-0.4
CLL				i		18 31 00.3	
CLL				i SG	Sg	18 31 23.3	-0.4
CLL				i		18 31 29.2	
CLL	Collm	1.95	267	i Pg	Pg	18 30 57.3	-0.4
CLL	Collm	1.95	267	Sg	Sg	18 31 24.0	+0.3
OKC	Ostrava-Krasne	2.08	141	ePN	Pn	18 30 55.6	+0.3
OKC				ePG	Pg	18 31 00.0	-0.3
OKC				eSG	Sg	18 31 26.9	-1.1
OKC	Ostrava-Krasne	2.08	141	Pg	Pg	18 31 00.0	-0.3
OKC				Sg	Sg	18 31 26.9	-1.1
VRAC	Vranov	2.18	172	Pn	Pn	18 30 59.0	+2.3
	3.9nm,0.3s,baz=353,slow=16,SNR=26						
VRAC				Pg	Pg	18 31 02.4	+0.2
	10nm,0.3s,baz=355,slow=15,SNR=18						
VRAC				Lg		18 31 31.6	
	20nm,0.3s,baz=92,slow=22,SNR=11						
VRAC	Vranov	2.18	172	ePn	Pn	18 30 58.5	+1.8
VRAC	Vranov	2.18	172	Pg	Pg	18 31 02.4	+0.2
VRAC				eSg	Sg	18 31 30.6	-0.6
	53nm,0.3s						
KRUC	Moravsky	2.41	176	ePn	Pn	18 31 01.9	+1.9
KRUC				eSg	Sg	18 31 37.9	-1.0
	21nm,0.3s						
TANN	Tannenbergstha	2.53	247	ePn	Pn	18 31 03.4	+1.6
TANN				eSg	Sg	18 31 42.6	-0.5
WERD	Werda	2.61	249	ePn	Pn	18 31 03.8	+0.9
NKC	Novy Kostel	2.63	244	ePN	Pn	18 31 04.6	+1.5
NKC				ePG	Pg	18 31 10.4	-0.8
NKC				eSG	Sg	18 31 48.4	+2.2
	143nm,0.4s						
NKC	Novy Kostel	2.63	244	eSg	Sg	18 31 48.4	+2.2
	143nm,0.4s						
NKC	Novy Kostel	2.63	244	ePg	Pg	18 31 10.4	-0.8
GUNZ	Gunzen	2.63	247	ePn	Pn	18 31 04.2	+1.0
GUNZ				eSg	Sg	18 31 46.3	0.0
GUNZ	Gunzen	2.63	247	Sg	Sg	18 31 46.3	0.0
OJC	Ojcow	2.65	117	ePG	Pg	18 31 09.0	-2.6
OJC				eSG	Sg	18 31 46.0	-0.9
OJC	Ojcow	2.65	117	ePg	Pg	18 31 09.5	-2.1
OJC				eSg	Sg	18 31 45.6	-1.3
NEUB	Neuenburg	2.73	266	ePn	Pn	18 31 04.5	-0.1
NEUB				eSg	Sg	18 31 49.3	-0.3
KHC	Kasperske Hory	2.84	216	ePN	Pn	18 31 07.2	+1.0
KHC				ePG	Pg	18 31 13.3	-2.2
KHC				eSG	Sg	18 31 52.7	-0.6
	52nm,0.4s						
KHC	Kasperske Hory	2.84	216	ePg	Pg	18 31 13.3	-2.2
KHC				Sg	Sg	18 31 52.7	-0.6
	52nm,0.4s						
MOX	Moxa	2.95	256	ePn	Pn	18 31 07.9	+0.2
MOX				eSg	Sg	18 31 56.9	-0.1
MOX	Moxa	2.95	256	i P	Pn	18 31 08.0	+0.3
MOX				Pg	Pg	18 31 16.0	-1.7
MOX				Sg	Sg	18 31 57.0	0.0
MOX	Moxa	2.95	256	ePn	Pn	18 31 08.0	+0.3
MOX				ePg	Pg	18 31 16.3	-1.4
MOX				eSg	Sg	18 31 57.0	0.0
MOX	Moxa	2.95	256	ePg	Pg	18 31 16.3	-1.4
MOX				Sg	Sg	18 31 56.9	-0.1
GEC2	GERESS Array S	3.04	212	ePn	Pn	18 31 10.0	+0.9
GEC2				eSg	Sg	18 31 58.0	-2.0
GEC2	GERESS Array S	3.04	212	ePn	Pn	18 31 10.0	+1.0
GEC2				eSg	Sg	18 31 58.0	-2.0
GEC2	GERESS Array S	3.04	212	Sg	Sg	18 31 58.0	-2.0
GERES	GERESS Array B	3.04	212	Pn	Pn	18 31 10.3	+1.3
	4.0nm,0.3s,baz=29,slow=12,SNR=119						
GERES				Pg	Pg	18 31 17.5	-2.0
	6.1nm,0.3s,baz=27,slow=15,SNR=41						
GERES				Lg		18 31 58.5	
	9.5nm,0.3s,baz=33,slow=27,SNR=6.5						
GERES	GERESS Array B	3.04	212	Pg	Pg	18 31 17.5	-2.0
SMOL	Smolenice	3.07	163	ePG	Pg	18 31 20.4	+0.4
SMOL				eSG	Sg	18 32 00.5	-0.5
WET	Wettzell	3.11	223	ePn	Pn	18 31 11.1	+1.1
WET				eSg	Sg	18 32 00.7	-1.6
WET	Wettzell	3.11	223	ePn	Pn	18 31 11.1	+1.1
WET				eSg	Sg	18 32 00.7	-1.6
VKA	Vienna	3.20	177	⇑iPN	Pn	18 31 14.5	+3.2
VKA				i PG	Pg	18 31 22.9	+0.2
VKA				i SG	Sg	18 32 06.4	+1.1
VKA	Vienna	3.20	177	i Pg	Pg	18 31 22.9	+0.2
VKA				i Sg	Sg	18 32 06.4	+1.1
KOLL	Kolacno	3.24	152	ePN	Pn	18 31 12.8	+0.9
KOLL				ePG	Pg	18 31 23.9	+0.4
KOLL	Kolacno	3.24	152	ePg	Pg	18 31 23.9	+0.4
ZST	Bratislava	3.33	168	eSG	Sg	18 32 09.5	-0.1
NIE	Niedzica	3.38	126	eP	Pn	18 31 23.9	+10
NIE				eS	Sn	18 32 09.2	+14
VYHS	Vyhne	3.45	148	ePN	Pn	18 31 15.0	+0.1
VYHS				i PG	Pg	18 31 26.4	-1.3
VYHS	Vyhne	3.45	148	i Pg	Pg	18 31 26.4	-1.3
GRA1	Grafenberg Arr	3.58	242	ePn	Pn	18 31 16.4	-0.3
GRA1	Grafenberg Arr	3.58	242	Pn	Pn	18 31 16.4	-0.3
GRF	Grafenberg Arr	3.58	242	ePn	Pn	18 31 16.4	-0.4
BSD	Bornholm Skovb	3.73	349	i P	Pn	18 31 15.7	-3.1
BSD				eS	Sn	18 31 58.4	-5.7
MOA	Molln	3.81	199	⇑iPN	Pn	18 31 21.3	+1.4
MOA				i SG	Sg	18 32 24.4	-1.1
	22nm,0.4s						
ARSA	Arzberg	4.23	185	⇑iPN	Pn	18 31 28.5	+2.6
ARSA				i SG	Sg	18 32 37.3	-2.3
	37nm,0.6s						
CRVS	Cervenica-Dubn	4.29	125	ePG	Pg	18 31 41.4	-2.9
CRVS				eSG	Sg	18 32 39.4	-2.1
PSZ	Piszkesteto	4.31	144	ePn	Pn	18 31 24.6	-2.5
KWP	Kalwaria	4.59	111	ePN	Pn	18 31 46.0	+15
KBA	Koelnbreinsper	4.74	203	⇑iPN	Pn	18 31 34.6	+1.4
KBA				i SG	Sg	18 32 54.8	-1.9
	18nm,0.5s						
OBKA	Obir	5.06	192	⇑iPN	Pn	18 31 38.6	+0.9
OBKA				i SG	Sg	18 33 04.6	-2.6
	14nm,0.7s						
OBKA	Obir	5.06	192	⇑iPn	Pn	18 31 38.6	+0.9
	14nm,0.7s						
OBKA				i Sg	Sg	18 33 04.6	-2.6
WATA	Walderalm	5.08	217	⇑iPN	Pn	18 31 38.5	+0.5
WATA				i SG	Sg	18 33 04.1	-3.7
	13nm,0.6s						
WATA	Walderalm	5.08	217	⇑iPn	Pn	18 31 38.5	+0.5
	13nm,0.6s						
WATA				i Sg	Sg	18 33 04.1	-3.7
WTTA	Wattenberg	5.12	217	⇑iPN	Pn	18 31 38.8	+0.3
WTTA				i SG	Sg	18 33 04.2	-4.9
	9.2nm,0.5s						
WTTA	Wattenberg	5.12	217	⇑iPn	Pn	18 31 38.8	+0.3
	9.2nm,0.5s						
WTTA				i Sg	Sg	18 33 04.2	-4.9
WTTA	Wattenberg	5.12	217	i Sg	Sg	18 33 04.2	-4.9
MOTA	Moosalm	5.26	220	⇑iPN	Pn	18 31 40.5	0.0
MOTA				i SG	Sg	18 33 10.0	-3.8
	14nm,0.9s						
MOTA	Moosalm	5.26	220	⇑iPn	Pn	18 31 40.5	0.0
	14nm,0.9s						
MOTA				i Sg	Sg	18 33 10.0	-3.8
SQTA	Sankt Quirin	5.32	219	⇑iPN	Pn	18 31 42.1	+0.8
SQTA				i SG	Sg	18 33 12.4	-3.3
	6.1nm,0.5s						
SQTA	Sankt Quirin	5.32	219	⇑iPn	Pn	18 31 42.1	+0.8
	6.1nm,0.5s						
SQTA				i Sg	Sg	18 33 12.4	-3.3
DAVA	Damuels	5.83	227	⇑iPN	Pn	18 31 48.3	-0.2
DAVA				i SG	Sg	18 33 29.0	-3.8
	7.9nm,0.5s						
DAVA	Damuels	5.83	227	⇑iPn	Pn	18 31 48.3	-0.2
	7.9nm,0.5s						
DAVA				i Sg	Sg	18 33 29.0	-3.8
DAVA	Damuels	5.83	227	i Sg	Sg	18 33 29.0	-3.8
DAVOX	Davos	6.22	224	Pn	Pn	18 31 53.9	-0.1
	0.4nm,0.3s,baz=20,slow=15,SNR=4.7						
DAVOX				Lg		18 33 38.6	
	0.5nm,0.3s,baz=103,slow=16,SNR=3.2						
CDF	Champ du Feu	6.47	245	ePn	Pn	18 31 56.5	-1.0
CDF				eSg	Sg	18 33 40.4	-14
	37nm,0.9s						
HINF	Hinteralfeld	7.03	242	ePn	Pn	18 32 02.1	-3.4
HINF				eSg	Sg	18 33 56.7	-16
	18nm,0.8s						
HAU	Haudompre	7.21	245	ePn	Pn	18 32 05.6	-2.4
HAU				eSg	Sg	18 34 03.1	-16
	11nm,0.6s						
BAIF	Baives	7.68	264	ePn	Pn	18 32 12.2	-2.4
AKASG	Malin Array Be	8.30	90	Pn	P	18 32 18.9	-4.3
	1.9nm,0.3s,baz=280,slow=12,SNR=7.2						
HFS	Hagfors	8.80	352	Pn	P	18 32 26.1	-4.0
	0.0nm,0.3s,baz=170,slow=16,SNR=2.9						
MLR	Muntele Rosu	8.85	129	Pn	P	18 32 28.6	-2.3
	0.1nm,0.3s,baz=288,slow=20,SNR=2.5						
MLR	Muntele Rosu	8.85	129	Pn	P	18 32 28.6	-2.3
MBDF	Montbardon	9.18	226	ePn	P	18 32 31.7	-3.8
SSF	Saint Saulge	9.34	247	ePn	P	18 32 34.5	-3.1
ORIF	Oris-en-Rattie	9.46	230	ePn	P	18 32 35.1	-4.1
SBF	Sospel	9.59	221	ePn	P	18 32 37.5	-3.5
VIVF	Saint-Julien-l	10.09	234	ePn	P	18 32 44.4	-3.5
FINES	FINESS Array B	11.41	25	Pn	P	18 33 00.6	-5.3
	0.1nm,0.3s,baz=209,slow=11,SNR=7.2						
FINES				Sn	S	18 35 00.0	-15
	0.2nm,0.3s,baz=205,slow=20,SNR=3.4						
FINES	FINESS Array B	11.41	25	Pn	P	18 33 00.6	-5.3
FINES				Sn	S	18 35 00.0	-15
ARCES	ARCESS Array B	18.67	10	Pn	P	18 34 35.2	-4.8
	0.1nm,0.3s,baz=193,slow=12,SNR=3.9						
BVAR	Borovoye Array	32.61	66	P	P	18 36 53.1	-0.7
	0.8nm,0.8s,mb3.7,baz=281,slow=7.6,SNR=3.7						
YKA	Yellowknife Ar	59.90	336	P	P	18 40 26.2	-1.9
	0.3nm,0.6s,mb3.5,baz=35,slow=6.5,SNR=3.9						

IDC 16 18:44:12.0±1.5**,12.02N**×**142.15E,mb3.7**/4**,mb1 3.9**/4**, mb1mx3.6**/18**,MS3.4**/1**,Ms1 3.6**/1**,ms1mx2.7**/25**,Error ellipse: s-maj=72.5km s-min=28.7km az=94.0,South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	32.67	194	P	P	18 50 46.0	-2.4
	0.5nm,0.5s,baz=17,slow=9.6,SNR=10.0						
ASAR	Alice Springs	36.37	193	P	P	18 51 18.3	-1.7
	0.2nm,0.4s,baz=20,slow=9.1,SNR=3.7						
CMAR	Chiang Mai Arr	42.10	284	LR	LR	19 09 50.2	
	comp=Z,40nm,18.1s,baz=65,slow=36						
ZAL	Zalesovo	61.38	325	P	P	18 54 29.7	-2.4
	0.4nm,0.3s,baz=190,slow=11,SNR=3.3						
PDAR	Pinedale Array	94.95	45	P	P	18 57 36.9	-0.8
	0.3nm,0.8s,baz=315,slow=2.6,SNR=3.7						

IDC 16 18:45:25.7±47.0**,15.91S**×**175.28W,mb4.1**/3**,mb1 4.3**/3**, mb1mx3.8**/14**,Error ellipse: s-maj=887.0km s-min=162.0km az=78.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	42.22	240	P	P	18 53 20.8	-1.5
	1.9nm,0.7s,baz=78,slow=9.4,SNR=7.6						
WRA	Warramunga Arr	47.96	257	P	P	18 54 06.5	-2.0
	0.3nm,0.3s,baz=92,slow=8.1,SNR=21						
ASAR	Alice Springs	48.23	252	P	P	18 54 08.4	-2.0
	4.7nm,0.5s,baz=88,slow=8.3,SNR=118						

IDC 16 18:50:51.4±1.2**,19.62S**×**69.13W,h119**^{km}±13^{km}**,mb3.5**/3**, mb1 3.7**/5**,mb1mx3.5**/16**,Error ellipse: s-maj=37.8km s-min=9.8km az=96.0,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	2.98	176	P	P	18 51 37.4	-0.9
	23nm,0.3s,baz=356,slow=10.0,SNR=141						
LVC				S	S	18 52 14.0	+0.1
	34nm,0.3s,baz=287,slow=23,SNR=7.0						
LPAZ	La Paz	3.45	16	P	P	18 51 44.5	-0.1
	3.1nm,0.3s,baz=189,slow=7.9,SNR=100						
LPAZ				S	S	18 52 25.3	+0.2
	0.9nm,0.3s,baz=253,slow=11,SNR=2.6						
BDFB	Brasilia	20.50	82	P	P	18 55 20.2	-1.7
	1.5nm,0.4s,baz=277,slow=9.2,SNR=3.1						
PDAR	Pinedale Array	72.39	330	P	P	19 02 04.8	-1.5
	0.2nm,0.6s,baz=120,slow=7.3,SNR=4.4						
YKA	Yellowknife Ar	89.36	341	P	P	19 03 33.5	-1.7
	1.4nm,0.6s,baz=134,slow=4.6,SNR=36						
SONM	Songino Array	151.62	6	PKPbc	PKPdf	19 10 31.5	+6.5
	0.7nm,0.4s,baz=329,slow=2.7,SNR=8.9						
SONM				PKPab	PKPab	19 10 41.4	-1.4
	0.2nm,0.6s,baz=342,slow=1.1,SNR=4.1						

*IDC **16** 18:59:13.0±1.1,41.91N×127.88E,mb3.5/5,mb1 3.7/6, mb1mx3.6/22,ML3.7/1,MS2.9/1,Ms1 2.9/1,ms1mx2.3/29, Error ellipse: s-maj=30.7km s-min=24.0km az=122.0*

*NEIC **16** 18:59:14.6±0.6,41.80N×127.98E,h10^{km},mb4.0/8,Error ellipse: s-maj=11.7km s-min=8.6km az=101.0*

*BJI **16** 18:59:15.5,42.02N×127.76E,h12^{km},mB4.7,mb4.0, ML4.3,Ms4.0,Msz3.8*

ISC 16 18:59:12.6±0.5**,41.92N**±0.04×**127.97E**±0.07**,h10**^{km}**,n29, σ1**^{s}**34**/43**,mb4.0**/14**,MS3.7**/1**,2C-1D,North Korea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CN2	Changchun	2.64	316	eP	Pn	18 59 57.8	+1.8
CN2				ePG	Pg	19 00 03.5	-1.8
CN2				eS	Sn	19 00 28.8	+0.4
CN2				eSG	Sg	19 00 38.0	-2.6
CN2				Smax			
	comp=N,2µm,0.6s						
CN2				Smax			
	comp=E,2µm,0.6s						
MDJ	Mudanjiang	2.95	23	P	Pn	19 00 03.4	+3.0
MDJ				PG	Pg	19 00 10.0	-1.4
MDJ				SG	Sg	19 00 49.9	-0.8
MDJ				Smax			
	comp=N,797nm,0.6s						
MDJ				Smax			
	comp=E,2µm,0.8s						
SNY	Shenyang	3.28	270	⇓P	Pn	19 00 05.4	+0.3
SNY				PG	Pg	19 00 13.3	-4.8
SNY				SG	Sg	19 00 56.0	-5.8
SNY				Smax			
	comp=N,630nm,0.7s						
SNY				Smax			
	comp=E,920nm,0.4s						
KS15	Wonju Array Si	4.47	181	ePn	Pn	19 00 21.9	-0.2
KS15				ePg	Pg	19 00 36.1	-5.8
KS15				eS	Sn	19 01 31.6	+17
INCN	Inchon	4.55	194	ePn	Pn	19 00 21.7	-1.4
INCN				ePg	Pg	19 00 37.6	-5.8
INCN				eS	Sn	19 01 32.2	+15
DL2	Dalian	5.70	240	P	Pn	19 00 38.9	-0.5
DL2				S	Sn	19 01 52.8	+7.2
DL2				SG	Sg	19 02 09.8	-12
DL2				Smax			
	comp=N,290nm,0.5s						
DL2				Smax			
	comp=E,180nm,0.7s						
JHJ	Hachijo jima 2	12.84	129	LR	LR	19 06 35.2	
	comp=E,46nm,19.3s,baz=53,slow=34						
ULN	Ulaanbaatar	15.95	299	eP	P	19 02 60.0	+1.4
	comp=E,8.7nm,1.5s						
SONM	Songino Array	16.37	298	Pn	P	19 03 04.5	+0.5
	comp=E,0.1nm,0.3s,baz=101,slow=12,SNR=4.1						
SONM				Lg		19 07 51.4	
	comp=E,0.1nm,0.3s,baz=98,slow=27,SNR=5.1						
ENH	Enshi	18.88	238	P	P	19 03 33.4	-1.9
	comp=E,5.6nm,1.0s						
YAK	Yakutsk	20.17	2	P	P	19 03 52.0	+2.3
	comp=E,11nm,0.9s						
GTA	Gaotai	21.47	273	eP	P	19 04 06.3	+3.1
GTA				AP		19 04 10.1	
GTA				XP		19 04 13.0	
GTA				S	S	19 08 00.1	+3.8
GTA				AMB	AMB		
	comp=Z,2.0nm,0.7s,mb3.6						
GTA				AMB	AMB		
	comp=Z,133nm,4.2s						
GTA				LR	LR		
	comp=N,242nm,16.7s,MS3.8						
GTA				LR	LR		
	comp=E,189nm,14.4s,MS3.8						
GTA				LR	LR		
	comp=Z,244nm,16.4s,MS3.7						
GTA	Gaotai	21.47	273	eP	P	19 04 06.3	+3.1
	comp=Z,2.0nm,0.7s,mb3.6						
GTA				pP		19 04 10.1	
GTA				sP		19 04 13.0	
GTA				S	S	19 08 00.1	+3.8
GTA				LR	LR		
	comp=Z,240nm,16.4s,MS3.7						
GYA	Guiyang	23.32	235	⇑iP	P	19 04 23.5	+1.8
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.2						
GYA	Guiyang	23.32	235	⇑iP	P	19 04 23.5	+1.8
	comp=Z,10.0nm,1.1s,mb4.2						
CMAR	Chiang Mai Arr	34.02	235	P	P	19 05 58.2	-0.6
	comp=Z,0.8nm,0.8s,mb3.7,baz=27,slow=8.5,SNR=7.0						
GUN	Gumba	36.86	261	eP	P	19 06 23.7	+0.8
	comp=Z,4.4nm,0.5s,mb4.5						
KKN	Kakani	37.37	262	eP	P	19 06 27.1	-0.1
	comp=Z,2.3nm,0.5s,mb4.3						
PKI	Pulchoki	37.40	261	eP	P	19 06 28.0	+0.6
	comp=Z,4.5nm,0.6s,mb4.5						
DMN	Daman	37.60	262	eP	P	19 06 29.8	+0.7
	comp=Z,4.7nm,0.7s,mb4.3						
KOLN	Koldanda	38.63	263	eP	P	19 06 36.1	-1.6
AAK	Ala-Archa	39.02	290	eP	P	19 06 41.6	+0.7
	comp=Z,1.3nm,0.8s,mb3.7						
ILAR	Eielson Array	51.07	33	P	P	19 08 16.6	-0.1
	comp=Z,0.7nm,0.8s,mb3.6,baz=284,slow=7.0,SNR=9.3						
INK	Inuvik	54.77	27	P	P	19 08 40.4	-3.8
	comp=Z,6.6nm,1.2s,mb4.5						
FINES	FINESS Array B	59.35	327	P	P	19 09 15.5	-1.3
	comp=Z,1.7nm,0.9s,mb4.1,baz=72,slow=8.8,SNR=4.1						
WRAB	Tennant Creek	61.82	173	P	P	19 09 30.7	-3.4
	comp=Z,2.9nm,0.8s,mb4.5						
YKA	Yellowknife Ar	64.54	27	P	P	19 09 52.1	+0.7
	comp=Z,0.1nm,0.4s,mb3.2,baz=310,slow=6.6,SNR=3.9						
ASAR	Alice Springs	65.48	174	P	P	19 09 57.7	-0.5
	comp=Z,0.3nm,0.8s,mb3.4,baz=356,slow=8.2,SNR=4.2						
ASAR	Alice Springs	65.48	174	P	P	19 09 57.7	-0.5

*NEIC **16** 19:35:20.3,30.83S×71.34W,h48^{km},MD4.0(GUC),After GUC.*

GUC 16 19:35:20.3±0.7**,30.83S**×**71.34W,h48**^{km}±3^{km}**,MD4.0, ML4.0,3C-2D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	Ovalle	0.25	29	⇑iP	P	19 35 29.1	+0.3
OVCH				i S	S	19 35 35.4	+0.6
OVCH				AMP		19 35 36.0	
	comp=E,20µm,0.1s						
CMCH	Combarbala	0.45	140	⇑iP	P	19 35 31.5	+0.6
CMCH				i S	S	19 35 39.5	+1.2
CMCH				AMP		19 35 39.8	
	comp=N,49µm,0.1s						
TLL	Tololo Astrono	0.81	35	⇓iP	P	19 35 36.4	+0.9
TLL				i S	S	19 35 48.4	+1.8
ILCH	Illapel	0.82	170	⇑iP	P	19 35 35.7	+0.1
ILCH				i S	S	19 35 47.4	+0.5
ILCH				AMP		19 35 50.3	
	comp=E,5µm,0.2s						
LSCH	La Serena	0.92	5	⇓iP	P	19 35 37.2	+0.1
LSCH				i S	S	19 35 49.8	+0.3
PTCH	Petorca	1.47	166	i P	P	19 35 45.0	+0.1
PTCH				i S	S	19 36 03.3	+0.1
PTCH				AMP		19 36 06.0	
	comp=E,5µm,0.2s						
JACH	Jahuel	1.96	161	i P	P	19 35 51.9	+0.2
JACH				i S	S	19 36 15.8	+0.8
VACH	Vallenar	2.30	13	i P	P	19 35 56.4	-0.3
VACH				i S	S	19 36 24.0	+0.1
VACH				AMP		19 36 32.8	
	comp=N,888nm,0.2s						
FCH	Farellones	2.65	161	eP	P	19 36 02.2	+0.7
FCH				i S	S	19 36 33.2	+0.6
FCH				AMP		19 36 46.3	
	comp=E,444nm,0.2s						
CLCH	Cerro Calan	2.65	165	AMP		19 36 47.3	
	comp=N,595nm,0.6s						
RCDM	Rinconada Maip	2.69	170	eP	P	19 36 01.7	-0.5
RCDM				i S	S	19 36 33.1	-0.6
CHCH	Chadas Angostu	3.15	169	eP	P	19 36 08.4	-0.3
CHCH				i S	S	19 36 44.5	-0.9

*MOS **16** 19:44:18.2±1.4,14.67N×146.61E,h33^{km},mb4.6/17,Error ellipse: s-maj=22.0km s-min=10.7km az=100.9*

*BJI **16** 19:44:18.6,14.81N×146.85E,h36^{km},mB5.3,mb4.6, Ms4.8,Msz4.3*

*NEIC **16** 19:44:20.9±1.3,14.50N×146.66E,h45^{km}±11^{km},mb4.6/11, Error ellipse: s-maj=13.0km s-min=7.1km az=92.0*

*IDC **16** 19:44:23.6±7.9,14.48N×146.72E,h67^{km}±72^{km},mb4.0/16, mb1 4.1/16,mb1mx4.0/24,MS3.9/14,Ms1 3.9/14, ms1mx3.7/26,Error ellipse: s-maj=26.5km s-min=14.1km az=75.0*

ISC 16 19:44:20.6±1.2**,14.55N**±0.05×**146.58E**±0.08**,h56**^{km}±10^{km}**, n84,σ1**^{s}**20**/73**,mb4.6**/47**,MS3.9**/17**,1C-3D,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	1.92	240	eP	P	19 44 50.4	-1.2
ANAT	Anatahan	2.01	334	P	P	19 44 54.6	+1.8
SARN	Sarigan	2.28	340	⇓eP	P	19 44 56.7	0.0
JOW	Kunigami	21.01	308	P	P	19 49 02.4	+0.6
	22nm,0.7s,mb4.6,baz=101,slow=11,SNR=4.6						
JOW				LR	LR	19 56 21.4	
	comp=Z,217nm,18.3s,MS3.6,baz=123,slow=34						
PMG	Port Moresby	23.80	179	P	P	19 49 29.8	+0.5
	11nm,0.8s,mb4.3,baz=353,slow=16,SNR=3.7						
PMG				LR	LR	19 58 23.8	
	comp=Z,155nm,18.4s,MS3.5,baz=140,slow=35						
PMG	Port Moresby	23.80	179	P	P	19 49 29.8	+0.4
PMG				pmax	pmax		
	comp=Z,11nm,0.8s						
PMG				MLR	MLR		
	comp=Z,155nm,18.5s						
PMG	Port Moresby	23.80	179	eP	P	19 49 28.0	-1.4
	comp=Z,56nm,0.9s,mb5.0						
SSE	Sheshan	28.52	310	P	P	19 50 09.9	-3.2
SSE				S	S	19 54 51.9	-3.5
SSE				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,152nm,7.7s						
ASAJ	Asahikawa	29.67	354	LR	LR	20 01 22.9	
	comp=Z,230nm,18.2s,MS3.9,baz=319,slow=34						
KAKA	Kakadu	30.49	208	eP	P	19 50 30.2	-0.6
	comp=Z,7.2nm,0.6s,mb4.6						
NJ2	Nanjing	30.72	309	eP	P	19 50 33.1	+0.4
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
CTA	Charters Tower	34.42	181	P	P	19 51 04.9	0.0
	comp=Z,2.9nm,0.9s,mb4.2,baz=326,slow=2.4,SNR=3.4						
CTA				LR	LR	20 03 06.4	
	comp=Z,50nm,20.7s,MS3.2,baz=32,slow=33						
CTA	Charters Tower	34.42	181	P	P	19 51 04.9	0.0
CTA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
CTA				MLR	MLR		
	comp=Z,51nm,20.7s						
WRAB	Tennant Creek	36.31	200	eP	P	19 51 23.3	+2.2
WRAB	Tennant Creek	36.31	200	eP	P	19 51 20.2	-0.9
	comp=Z,5.7nm,0.8s,mb4.5						
WRA	Warramunga Arr	36.33	200	P	P	19 51 20.2	-1.0
	comp=Z,1.6nm,0.6s,mb4.1,baz=20,slow=9.3,SNR=20						

WRA	Warramunga Arr	36.33	200	P	P	19 51 20.2	-1.0
WRA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BJT	Baijiatuau	36.76	319	eP	P	19 51 23.3	-1.3
	comp=Z,19nm,0.9s,mb4.9						
BJI	Beijing	36.77	320	eP	P	19 51 24.3	-0.4
BJI				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.7						
BJI				LR	LR		
	comp=Z,156nm,21.4s,MS3.8						
ENH	Enshi	37.50	301	eP	P	19 51 32.4	+1.6
	comp=Z,22nm,1.1s,mb4.9						
FITZ	Fitzroy Crossi	38.46	213	eP	P	19 51 39.7	+0.8
	comp=Z,7.5nm,0.9s,mb4.4						
FITZ	Fitzroy Crossi	38.46	213	LR	LR	20 05 42.2	
	comp=Z,38nm,20.7s,MS3.2,baz=90,slow=33						
ASAR	Alice Springs	39.95	198	P	P	19 51 50.8	-0.5
	comp=Z,0.7nm,0.6s,mb3.6,baz=21,slow=7.2,SNR=13						
ASAR				LR	LR	20 07 51.9	
	comp=Z,114nm,18.2s,MS3.8,baz=32,slow=35						
ASPA	Alice Springs	39.95	198	eP	P	19 51 52.0	+0.7
HHC	Hu-ho-hao-te	40.16	318	eP	P	19 51 54.4	+1.5
HHC				AP	pP	19 52 06.6	-0.9
HHC				XP	sP	19 52 12.0	-2.2
HHC				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.7						
HHC				AMB	AMB		
	comp=Z,195nm,4.1s						
HHC				LR	LR		
	comp=N,189nm,11.8s						
HHC				LR	LR		
	comp=E,195nm,9.6s						
HHC				LR	LR		
	comp=Z,233nm,19.0s						
HIA	Hailar	41.01	333	eP	P	19 51 59.0	-0.8
	comp=Z,6.3nm,1.0s,mb4.2						
BTO	Baotou	41.06	316	eP	P	19 52 02.3	+2.0
BTO				AMB	AMB		
	comp=Z,16nm,1.1s,mb4.6						
KMI	Kunming	42.40	291	eP	P	19 52 09.4	-2.1
KMI				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.1						
MA2	Magadan	45.06	3	eP	P	19 52 30.2	-2.4
MA2				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.7						
CM31	Chiang Mai Arr	45.74	282	eP	P	19 52 37.0	-1.6
	comp=Z,6.9nm,0.9s,mb4.6						
CMAR	Chiang Mai Arr	45.74	282	P	P	19 52 40.9	+2.3
	comp=Z,4.2nm,0.9s,mb4.4,baz=81,slow=5.9,SNR=27						
CMAR				LR	LR	20 12 46.5	
	comp=Z,81nm,19.1s,MS3.7,baz=95,slow=37						
CMAR	Chiang Mai Arr	45.74	282	P	P	19 52 40.9	+2.3
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CMAR				MLR	MLR		
	comp=Z,81nm,19.1s						
STKA	Stephens Creek	46.40	186	P	P	19 52 43.8	+0.2
	comp=Z,2.0nm,0.8s,mb4.1,baz=19,slow=10,SNR=4.5						
STKA				LR	LR	20 12 16.5	
	comp=Z,129nm,18.6s,MS3.9,baz=23,slow=36						
ULN	Ulaanbaatar	46.57	324	eP	P	19 52 45.0	+0.3
ULN	Ulaanbaatar	46.57	324	eP	P	19 52 44.1	-0.6
	comp=Z,4.0nm,0.8s,mb4.4						
SONM	Songino Array	46.93	323	P	P	19 52 49.8	+2.2
	comp=Z,6.8nm,1.1s,mb4.5,baz=140,slow=8.1,SNR=22						
GTA	Gaotai	47.80	310	eP	P	19 52 55.3	+0.8
GTA				AP	pP	19 53 07.9	-1.4
GTA				XP	sP	19 53 13.0	-2.8
GTA				S	S	19 59 51.8	+5.8
GTA				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.5						
GTA				AMB	AMB		
	comp=Z,195nm,7.2s						
GTA				LR	LR		
	comp=N,159nm,17.1s,MS4.2						
GTA				LR	LR		
	comp=E,157nm,16.4s,MS4.2						
GTA				LR	LR		
	comp=Z,291nm,18.2s,MS4.3						
SEY	Seymchan	48.50	4	eP	P	19 52 57.9	-1.6
SEY				pmax	pmax		
	comp=N,20nm,1.2s						
SEY				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.4						
YAK	Yakutsk	48.93	350	eP	P	19 53 00.9	-2.0
YAK				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
ZAK	Zakamensk	49.99	325	eP	P	19 53 09.5	-1.7
GUN	Gumba	57.62	294	eP	P	19 54 08.7	+1.1
	comp=Z,43nm,0.9s,mb5.5						
PKI	Pulchoki	58.04	294	eP	P	19 54 10.0	-0.5
	comp=Z,19nm,0.9s,mb5.1						
TIXI	Tiksi	58.07	353	eP	P	19 54 07.5	-2.6
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
TIXI				MLR	MLR		
	comp=Z,59nm,16.0s,MS3.8						
KKN	Kakani	58.15	294	eP	P	19 54 11.6	+0.3
	comp=Z,41nm,1.2s,mb5.3						
DMN	Daman	58.30	294	eP	P	19 54 13.1	+0.7
	comp=Z,37nm,1.0s,mb5.4						
GKN	Gorkha	58.72	294	eP	P	19 54 15.6	+0.4
	comp=Z,75nm,1.1s,mb5.6						
KOLN	Koldanda	59.64	294	eP	P	19 54 22.3	+0.7
	comp=Z,40nm,1.2s,mb5.3						
ZAL	Zalesovo	61.84	324	P	P	19 54 36.1	0.0
	comp=Z,1.8nm,0.7s,mb4.3,baz=354,slow=8.0,SNR=13						
ZAL				LR	LR	20 21 29.6	
	comp=Z,191nm,19.0s,MS4.3,baz=359,slow=36						
ZAL	Zalesovo	61.84	324	P	P	19 54 36.1	-0.1
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ZAL				MLR	MLR		
	comp=Z,191nm,19.0s						
MKAR	Makanchi Array	61.97	315	iP	P	19 54 36.8	-0.3
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.4s						
NVS	Novosibirsk	62.95	325	eP	P	19 54 41.9	-1.7
NVS				pmax	pmax		
	comp=Z,22nm,1.8s,mb5.0						
NVS				pmax	pmax		
	comp=E,16nm,1.6s						
HYB	Hyderabad	65.16	283	eP	P	19 54 59.0	+0.4
HYB	Hyderabad	65.16	283	iP	P	19 54 59.0	+0.4
ILAR	Eielson Array	67.00	25	P	P	19 55 08.7	-0.8
	comp=E,1.9nm,0.8s,mb4.2,baz=255,slow=5.7,SNR=16						
ILAR				LR	LR	20 23 24.5	
	comp=E,114nm,18.6s,MS4.1,baz=359,slow=35						
ILAR	Eielson Array	67.00	25	P	P	19 55 08.7	-0.7
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ILAR				MLR	MLR		
	comp=Z,115nm,18.6s						
AAK	Ala-Archa	67.16	310	⇑iP	P	19 55 10.3	-0.5
AAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.3						
BVA0	Borovoye Array	70.22	321	P	P	19 55 29.4	-0.1
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
BVAR	Borovoye Array	70.22	321	P	P	19 55 29.7	+0.1
	comp=Z,8.7nm,0.6s,mb4.8,baz=90,slow=7.4,SNR=32						
BRVK	Borovoye	70.28	321	eP	P	19 55 29.3	-0.6
	comp=Z,9.9nm,0.8s,mb4.8						
INK	Inuvik	72.85	23	P	P	19 55 46.0	+1.0
	comp=Z,3.1nm,0.9s,mb4.2,baz=275,slow=5.1,SNR=3.7						
INK	Inuvik	72.85	23	P	P	19 55 46.0	+1.0
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ARU	Arti	76.93	325	⇓iP	P	19 56 08.4	-0.2
ARU				i		19 56 17.6	
ARU				e		19 59 03.9	
ARU				eS	S	20 05 51.4	+0.5
ARU				eSS	SS	20 10 54.0	+2.7
ARU				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
YKA	Yellowknife Ar	81.25	28	P	P	19 56 31.1	-0.8
	comp=Z,1.8nm,0.8s,mb4.1,baz=287,slow=5.4,SNR=13						
YKA				LR	LR	20 27 48.5	
	comp=Z,150nm,21.6s,MS4.3,baz=255,slow=32						
YKA	Yellowknife Ar	81.25	28	iP	P	19 56 32.9	+1.0
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NVAR	Mina Array Bea	85.03	52	P	P	19 56 53.6	+1.9
	comp=Z,1.2nm,0.8s,mb4.0,baz=270,slow=3.1,SNR=5.5						
MNV	Mina	85.14	52	P	P	19 56 53.4	+1.2
ARCES	ARCESS Array B	86.68	342	P	P	19 57 00.3	+1.3
	comp=Z,2.2nm,0.7s,mb4.5,baz=59,slow=7.1,SNR=5.2						
ARCES	ARCESS Array B	86.68	342	P	P	19 57 00.4	+1.4
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ELK	Elko	86.70	49	eP	P	19 57 00.5	+0.7
	comp=Z,5.4nm,1.4s,mb4.6						
NLU	North Lily Min	89.24	49	P	P	19 57 11.0	-1.0
PDAR	Pinedale Array	90.11	46	LR	LR	20 33 56.7	
	comp=Z,120nm,21.1s,MS4.3,baz=162,slow=33						
FINES	FINESS Array B	90.99	336	P	P	19 57 19.1	-0.6
	comp=Z,3.3nm,0.9s,mb4.7,baz=62,slow=5.0,SNR=6.0						
FINES	FINESS Array B	90.99	336	P	P	19 57 19.1	-0.6
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA	Vanda	92.31	177	LR	LR	20 36 59.6	
	comp=Z,48nm,18.0s,MS4.0,baz=335,slow=34						
JMIC	Jan Mayen	92.98	352	P	P	19 57 30.8	+2.1
	comp=Z,256nm,0.5s,baz=146,slow=9.9,SNR=3.9						
NOA	NORSAR Array B	96.74	340	LR	LR	20 43 52.8	
	comp=Z,110nm,20.3s,MS4.3,baz=275,slow=37						
SNAA	Sanae	120.04	191	⇓iP	PKPdf	20 03 05.9	+1.2
VNA2	Neumayer--Watz	121.45	190	P	PKPdf	20 03 07.8	+0.4
DBIC	Dimbokro	144.69	305	PKP	PKPdf	20 03 53.0	+0.9
	comp=Z,14nm,0.6s,baz=32,slow=4.2,SNR=23						
DBIC	Dimbokro	144.69	305	PKIKP	PKPdf	20 03 53.1	+1.0
DBIC				pmax	pmax		
	comp=Z,14nm,0.6s						
LVC	Limon Verde	145.48	109	ePKP	PKPdf	20 03 54.6	+1.4
LPAZ	La Paz	146.51	98	PKPbc	PKPbc	20 03 58.3	+1.8
	comp=Z,5.6nm,1.1s,baz=30,slow=2.9,SNR=7.6						
LPAZ	La Paz	146.51	98	PKP2	PKPab	20 03 58.3	-1.5
LPAZ				pmax	pmax		
	comp=Z,6.0nm,1.1s						
SAML	Samuel	150.35	83	ePKPbc	PKPdf	20 04 08.6	+7.2

BJI 16 19:49:38.9, 21.83N×111.64E, h22^{km}, ML3.3, Ms3.5, Msz3.7, 1D, Southeastern China

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GZH	Guangzhou	2.01	51	P	Pn	19 50 14.3	+2.1
GZH				SG	Sn	19 50 36.4	-0.5
GZH				Smax			
	comp=N,190nm,0.9s						
GZH				Smax			
	comp=E,210nm,0.7s						
QIZ	Qiongzhong	3.26	211	PG	Pn	19 50 36.9	+7.0
QIZ				SG	Sn	19 51 20.8	+12
QIZ				Smax			
	comp=N,92nm,0.6s						
QIZ				Smax			
	comp=E,120nm,0.6s						
LZH	Lanzhou	15.75	336	⇓P	P	19 53 21.8	+0.7
LZH				AP		19 53 24.1	
LZH				LR	LR		
	comp=N,117nm,10.2s						
LZH				LR	LR		
	comp=Z,239nm,12.3s						

NEIC 16 19:58:49.3, 45.90N×27.36E, h6^{km}, MG2.6(BUC), After BUC.

THE 16 19:58:50.4, 45.63N×27.15E, h8^{km}

CSEM 16 19:58:50.1±0.1, 45.87N×27.09E, h25^{km}, MD3.5/4, Error ellipse: s-maj=2.8km s-min=2.6km az=115.0

BUC 16 19:58:49.4±1.4, 45.94N×27.32E, h12^{km}±8^{km}, MD3.5/4, 14C-8D, Error ellipse: s-maj=11.5km s-min=6.5km az=18.0, Romania

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRI	Vrincioaia	0.42	260	⇑iP	Pg	19 58 58.0	-0.1
VRI				iS	Sg	19 59 04.1	+0.2
VRI	Vrincioaia	0.42	260	⇑iP	Pg	19 58 58.0	-0.1
VRI				iS	Sg	19 59 04.1	+0.3
BRD	Bordesti	0.44	208	⇑iP	Pg	19 58 59.7	+1.3
BRD				iS	Sg	19 59 07.3	+3.0
BRD	Bordesti	0.44	208	⇑iP	Pg	19 58 59.7	+1.3
BRD				iS	Sg	19 59 07.3	+3.0
CFR	Carcaliu	0.95	143	⇓iP	Pb	19 59 07.2	-0.1
CFR				iS	Sb	19 59 20.1	+0.4
CFR	Carcaliu	0.95	143	⇓iP	Pb	19 59 07.2	-0.2
CFR				iS	Sb	19 59 20.1	+0.4
ISR	Istrita	0.98	214	⇑iP	Pb	19 59 09.4	+1.5
ISR	Istrita	0.98	214	⇑iP	Pb	19 59 09.4	+1.5
MLR	Muntele Rosu	1.06	246	⇓iP	Pb	19 59 10.0	+0.8
MLR				iS	Sb	19 59 25.5	+2.6
MLR	Muntele Rosu	1.06	246	iS	Sb	19 59 25.5	+2.6
MLR	Muntele Rosu	1.06	246	⇓iP	Pb	19 59 10.0	+0.7
MLR				S	Sb	19 59 25.5	+2.6
IAS	Iasi	1.27	7	P	Pb	19 59 14.0	+1.3
IAS	Iasi	1.27	7	P	Pb	19 59 14.0	+1.3
TLCR		1.29	125	⇑iP	Pb	19 59 14.4	+1.3
TLCR				iS	Sb	19 59 32.9	+3.4
TLCR		1.29	125	⇑iP	Pb	19 59 14.4	+1.2
TLCR				iS	Sb	19 59 32.9	+3.4
SNX	Sinaia	1.39	246	⇑iP	Pn	19 59 15.3	+0.5
SNX	Sinaia	1.39	246	⇑iP	Pn	19 59 15.3	+0.5
KIS	Kishinev	1.48	44	eP	Pn	19 59 17.5	+1.5
	130nm,0.6s						
KIS				iS	Sb	19 59 37.0	+1.9
	2μm,0.8s						
TIRR	Tirgusor	1.67	152	⇑iP	Pn	19 59 18.1	-0.6
TIRR				iS	Sn	19 59 40.6	+0.5
TIRR	Tirgusor	1.67	152	iS	Sn	19 59 40.7	+0.5
TIRR	Tirgusor	1.67	152	⇑iP	Pn	19 59 18.1	-0.6
TIRR				iS	Sn	19 59 40.7	+0.5
MTUR	Matau	1.74	247	⇓iP	Pn	19 59 20.9	+1.2
MTUR				iS	Sn	19 59 45.8	+3.8
MTUR	Matau	1.74	247	⇓iP	Pn	19 59 20.9	+1.2
MTUR				iS	Sn	19 59 45.8	+3.9
BUC1	Bucharest	1.83	210	⇑iP	Pn	19 59 21.4	+0.3
BUC1				iS	Sn	19 59 46.0	+1.6
BUC1	Bucharest	1.83	210	⇑iP	Pn	19 59 21.4	+0.3
BUC1				iS	Sn	19 59 46.0	+1.6
BURAR	Bucovina Array	2.21	320	⇓iP	Pn	19 59 27.0	+0.5
BURAR				iS	Sn	20 00 00.5	+6.4
BURAR	Bucovina Array	2.21	320	⇓iP	Pn	19 59 27.0	+0.5
BURAR				S	Sn	20 00 00.5	+6.4
PSN	Preselentsi	2.34	164	iP	Pn	19 59 28.0	-0.3
SZH	Strazhica	2.85	201	iP	Pn	19 59 34.0	-1.6
JMB	Yambol	3.51	189	iP	Pn	19 59 43.0	-2.0
VTS	Vitosha	4.46	223	P	Pn	19 59 56.0	-2.6
VTS	Vitosha	4.46	223	iP	Pn	19 59 56.0	-2.5
KDZ	Kurdzhali	4.50	198	iP	Pn	19 59 57.0	-2.1
RZN	Rozhen	4.65	205	iP	Pn	19 59 58.5	-2.7
MMB	Musomiste	5.07	212	iP	Pn	20 00 03.0	-4.1
KKB	Krupnik	5.09	218	iP	Pn	20 00 05.0	-2.4
ALN	Alexandroupoli	5.12	191	ePn	Pn	20 00 04.0	-3.8
ALN				eSn	Sn	20 00 60.0	-7.7
PSZ	Piszkesteto	5.46	294	ePn	Pn	20 00 08.6	-4.0
PSZ	Piszkesteto	5.46	294	ePn	Pn	20 00 08.6	-4.0
HENT	Hendek	5.74	152	iP	Pn	20 00 13.5	-3.0
KNT	Kendrikon	5.75	216	ePn	Pn	20 00 13.1	-3.6
KNT				eSn	Sn	20 01 15.5	-8.0
SOH	Sokhos	5.87	211	ePn	Pn	20 00 14.2	-4.2
OUR	Ouranopolis	6.11	205	ePn	Pn	20 00 16.4	-5.4
GRG	Griva	6.13	217	ePn	Pn	20 00 18.1	-4.0
GRG				eSn	Sn	20 01 25.8	-7.1
BALT	Daday	6.22	133	iP	Pn	20 00 20.9	-2.5
LOS	Limnos	6.22	196	ePn	Pn	20 00 18.5	-4.9
SGKT	Sivrigoynuk	6.38	146	iP	Pn	20 00 24.7	-0.9
FNA	Florina	6.73	222	ePn	Pn	20 00 25.1	-5.5
LIT	Litokhoron	6.82	213	ePn	Pn	20 00 26.2	-5.7
ESKT	Eskisehir	6.92	157	iP	Pn	20 00 31.0	-2.2
BOYT	Boyabat	7.11	127	eP	Pn	20 00 26.4	-9.5
AOS	Alonnisos	7.22	202	ePn	Pn	20 00 31.7	-5.8
XOR	Xorichti	7.24	206	ePn	Pn	20 00 33.5	-4.1
AGG	Agios Georgios	7.83	210	ePn	Pn	20 00 40.8	-5.2

NIED 16 20:11:00, 23.90N×123.40E, h20^{km}, Mw3.8 Best double couple: M$_0$6.68×10^{14} NP1:ϕ_s52°, δ71°, λ80°. NP2:ϕ_s261°, δ21°, λ117°.

IDC 16 20:11:50.0±1.1, 23.94N×123.35E, mb3.5/5, mb1 3.6/6, mb1mx3.5/21, ML2.8/1, Error ellipse: s-maj=39.6km s-min=24.0km az=77.0

JMA 16 20:11:54.4±0.2, 23.89N×123.39E, h26^{km}±3^{km}, M3.8

ISC 16 20:11:52.7±1.1, 23.84N±0.07×123.33E±0.05, h29^{km}±6^{km}, n15, σ0^{s}89/21, mb3.4/5, Southwestern Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HATJ	Hateruma jima	0.49	64	P	Pb	20 12 03.0	+0.1
HATJ				S	Sb	20 12 09.6	-0.2
IRIF	Iriomote-Funau	0.61	37	P	Pb	20 12 05.1	+0.2
IRIF				eS	Sb	20 12 12.5	-0.8
YOJ	Yonaguni jima	0.68	335	P	Pb	20 12 07.4	+1.4
YOJ				S	Sb	20 12 15.3	+0.2
JKRS	Kuro-shima	0.74	58	P	Pb	20 12 07.4	+0.4
JKRS				S	Sb	20 12 17.1	+0.3
JIJ	Ishigaki jima	0.91	55	P	Pn	20 12 09.6	-0.1
JIJ				S	Sb	20 12 20.9	-0.7
JTJ	Tarama	1.49	57	P	Pn	20 12 18.7	+0.8
JTJ				eS	Sn	20 12 37.2	+0.6
JMJ	Miyako jima 2	2.04	61	eS	Sn	20 12 51.0	+0.4
JOGS	Gusukube	2.11	64	eS	Sn	20 12 53.9	+1.6
JKE	Kume jima 2	4.00	51	P	Pn	20 12 51.9	-1.8
JOW	Kunigami	5.38	55	Pn	Pn	20 13 11.2	-2.1
	0.7nm,0.3s,baz=275,slow=15,SNR=2.5						
SONM	Songino Array	27.48	335	P	P	20 17 37.1	-1.3
	0.5nm,0.9s,mb3.0,baz=146,slow=5.2,SNR=2.5						
WRA	Warramunga Arr	44.82	165	P	P	20 20 05.7	-0.7
	0.3nm,0.7s,mb3.2,baz=347,slow=8.4,SNR=4.4						
ASAR	Alice Springs	48.33	167	P	P	20 20 34.9	+1.0
	0.2nm,0.6s,mb3.4,baz=353,slow=15,SNR=5.2						
BRTR	Keskin Array B	74.95	307	P	P	20 23 33.5	+0.4
	1.7nm,0.9s,mb4.0,baz=87,slow=6.4,SNR=5.0						
YKA	Yellowknife Ar	82.52	23	P	P	20 24 13.6	-0.1
	0.2nm,0.6s,mb3.4,baz=304,slow=5.3,SNR=4.9						

DMN 16 20:47:57.4±40.0, 25.40N×88.63E, h33^{km}, Mb4.0/1, Error ellipse: s-maj=1062.8km s-min=60.5km az=127.0

ISC 16 20:46:48.2±2.4, 23.3N±0.2×93.6E±0.2, h33^{km}, n8, σ0^{s}62/9, 1D, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	Imphal	1.55	10	⇓iP	P	20 47 13.3	-0.4
SHL	Shillong	2.81	326	ePN	Pn	20 47 33.1	+1.2
SHL				eSN	Sn	20 48 04.7	-0.3
GUN	Gumba	8.40	305	eP	P	20 48 51.4	+0.9
	3.8nm,0.2s						
PKI	Pulchoki	8.60	302	eP	P	20 48 52.9	-0.3
	1.4nm,0.2s						
KKN	Kakani	8.80	303	eP	P	20 48 55.8	-0.2
	4.4nm,0.4s						
DMN	Daman	8.85	301	eP	P	20 48 56.9	+0.2
GKN	Gorkha	9.40	302	eP	P	20 49 04.0	-0.3
	3.6nm,0.3s						
KOLN	Koldanda	10.12	298	eP	P	20 49 13.5	-0.8
	2.1nm,0.3s						

IDC 16 20:55:22.3±1.4, 6.99N×60.39E, mb3.6/4, mb1 3.8/4, mb1mx3.5/17, Error ellipse: s-maj=61.5km s-min=28.5km az=158.0, Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	24.45	252	P	P	21 00 43.2	-1.0
	1.5nm,0.9s,baz=68,slow=19,SNR=4.8						
CMAR	Chiang Mai Arr	39.21	69	P	P	21 02 51.6	-2.5
	0.8nm,0.9s,baz=258,slow=8.3,SNR=6.2						
SONM	Songino Array	56.37	36	P	P	21 05 06.0	-1.6
	0.5nm,0.8s,baz=252,slow=4.6,SNR=4.6						
WRA	Warramunga Arr	77.46	112	P	P	21 07 20.7	-1.1
	0.6nm,0.9s,baz=305,slow=4.5,SNR=4.8						

IDC 16 20:59:23.5±1.0, 6.15N×60.83E, mb3.8/8, mb1 4.0/8, mb1mx3.8/18, MS3.9/10, Ms1 4.0/10, ms1mx3.9/16, Error ellipse: s-maj=27.4km s-min=23.4km az=14.0

NEIC 16 20:59:25.0±0.5, 6.20N×60.81E, h10^{km}, mb4.3/6, Error ellipse: s-maj=14.8km s-min=11.5km az=173.0

ISC 16 20:59:23.5±0.7, 6.3N±0.1×60.78E±0.08, h10^{km}, n24, σ0^{s}97/18, mb4.1/15, MS4.0/10, 1D, Carlsberg Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TRD	Trivandrum	16.19	81	⇓eP	P	21 03 14.6	+1.6
HYB	Hyderabad	20.59	56	eP	P	21 04 10.5	+5.0
HYB	Hyderabad	20.59	56	iP	P	21 04 05.0	-0.5
KMBO	Kilima Mbogo	24.61	253	P	P	21 04 47.0	+1.4
	3.6nm,1.0s,mb3.9,baz=51,slow=12,SNR=7.9						
KMBO				LR	LR	21 13 55.1	
	comp=Z,349nm,20.2s,MS3.9,baz=99,slow=35						
EIL	Elat	33.67	317	eP	P	21 06 07.4	+0.4
	15nm,1.2s,mb4.8						
GNI	Garni	36.67	339	LR	LR	21 22 26.4	
	comp=Z,74nm,18.7s,MS3.5,baz=26,slow=38						
MALT	Malatya	37.78	331	eP	P	21 06 40.9	-0.9
	6.7nm,1.2s,mb4.2						
LSZ	Lusaka	38.75	236	eP	P	21 06 49.7	-0.5
	5.4nm,1.2s,mb4.2						
CM31	Chiang Mai Arr	39.09	68	eP	P	21 06 52.4	-0.6
	6.1nm,1.1s,mb4.2						
CMAR	Chiang Mai Arr	39.09	68	P	P	21 06 53.1	+0.2
	2.2nm,1.0s,mb3.8,baz=260,slow=8.9,SNR=14						
CMAR				LR	LR	21 22 21.5	
	comp=Z,108nm,19.5s,MS3.7,baz=265,slow=35						
COCO	West Island	40.27	117	eP	P	21 06 55.1	-7.6
	98nm,1.0s,mb5.5						
KIV	Kislovodsk	40.75	340	P	P	21 07 03.5	-2.8
	8.5nm,1.2s,mb4.2						
BRTR	Keskin Array B	41.29	328	P	P	21 07 11.3	+0.5
	0.4nm,0.4s,mb3.4,baz=149,slow=8.4,SNR=3.3						
BVAR	Borovoye Array	47.26	8	P	P	21 07 59.2	+0.4
	0.4nm,0.7s,mb3.5,baz=162,slow=4.6,SNR=2.7						
MLR	Muntele Rosu	49.37	328	LR	LR	21 29 02.3	
	comp=Z,167nm,19.9s,MS4.0,baz=61,slow=36						
ZAL	Zalesovo	51.35	18	P	P	21 08 30.1	-0.1
	0.7nm,0.8s,mb3.6,baz=240,slow=9.4,SNR=4.5						
ZAL				LR	LR	21 28 20.3	
	comp=Z,167nm,20.6s,MS4.0,baz=233,slow=34						
SONM	Songino Array	56.72	35	P	P	21 09 10.5	+0.7
	1.0nm,0.9s,mb3.8,baz=233,slow=6.2,SNR=7.0						
DBIC	Dimbokro	65.17	274	LR	LR	21 38 43.0	
	comp=Z,131nm,18.8s,MS4.2,baz=13,slow=36						
NOA	NORSAR Array B	65.88	336	LR	LR	21 42 20.1	
	comp=Z,109nm,18.3s,MS4.1,baz=255,slow=39						
ESLA	Sonseca Array	66.64	311	eP	P	21 10 20.7	+4.0
	2.1nm,1.1s,mb4.1						
MAW	Mawson	73.72	179	LR	LR	21 36 08.2	
	comp=Z,126nm,18.8s,MS4.2,baz=63,slow=30						
WRA	Warramunga Arr	76.83	112	P	P	21 11 17.0	-1.0
	2.1nm,1.2s,mb3.9,baz=285,slow=4.7,SNR=3.9						
ASAR	Alice Springs	77.22	116	P	P	21 11 19.3	-0.7
	2.5nm,1.2s,mb4.0,baz=287,slow=6.1,SNR=5.8						
ASAR				LR	LR	21 40 27.8	
	comp=Z,78nm,19.6s,MS4.0,baz=99,slow=32						
VNDA	Vanda	98.49	168	LR	LR	21 47 49.4	
	comp=Z,52nm,19.7s,MS4.0,baz=321,slow=30						

LDG 16 21:10:04.0±0.2, 43.00N×0.14W, h2^{km}, Md2.0/2, Ml2.0/4, Error ellipse: s-maj=5.6km s-min=2.6km az=155.0

STR 16 21:10:03.7±0.1, 43.04N×0.16W, h5^{km}±1^{km}, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LABF	Labassere	0.17	87	Pg	Pg	21 10 07.7	+0.5
LABF				Sg	Sg	21 10 10.3	+0.7
REYF	Montagne du Re	0.17	280	Pg	Pg	21 10 07.6	+0.3
REYF				Sg	Sg	21 10 10.4	+0.8
VIEF	Viey	0.21	139	Pg	Pg	21 10 08.3	+0.4
VIEF				Sg	Sg	21 10 11.3	+0.6
ETSF	Etsaut	0.33	244	ePg	Pg	21 10 10.3	0.0
ETSF				eSg	Sg	21 10 14.7	+0.1
	14nm,0.2s						
EPF	Esparros	0.37	91	ePg	Pg	21 10 10.9	-0.2
EPF				eSg	Sg	21 10 16.1	+0.1
	8.3nm,0.2s						
RESF	Ens	0.43	122	Pg	Pg	21 10 12.4	0.0
RESF				Sg	Sg	21 10 18.3	+0.1
MTLF	Montolieu	1.77	79	eSg	Sg	21 10 58.9	-3.6
	1.1nm,0.3s						
LFF	La Frestale	2.01	19	eSg	Sg	21 11 08.3	-2.2
	4.3nm,0.3s						
CAF	Calviac	2.48	40	eSg	Sg	21 11 21.6	-4.6
	1.8nm,0.2s						
RJF	Les Rejaudoux	2.56	27	eSg	Sg	21 11 26.3	-2.8
	2.5nm,0.2s						

IDC 16 21:30:00.1±4.5, 18.03S×172.92W, mb3.9/4, mb1 4.1/4, mb1mx3.8/17, Error ellipse: s-maj=304.0km s-min=27.4km az=152.0, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	38.58	260	P	P	21 37 25.6	-1.1
	1.8nm,0.4s,baz=73,slow=14,SNR=4.0						
WRA	**Warramunga Arr**	49.74	259	P	P	21 38 54.7	-1.8
	0.9nm,0.7s,baz=96,slow=7.5,SNR=12						
ASAR	**Alice Springs**	49.78	254	P	P	21 38 54.3	-2.5
	0.7nm,0.5s,baz=91,slow=7.7,SNR=8.2						
KAKA	**Kakadu**	52.80	268	*e*P	P	21 39 20.3	+0.5
	2.9nm,0.8s						
NVAR	**Mina Array Bea**	75.97	41	P	P	21 41 49.5	-1.5
	0.3nm,0.5s,baz=270,slow=3.6,SNR=2.8						

IDC 16 21:39:47.1±2.9, 18.75N×82.60W, mb3.1/2, mb1 3.7/3, mb1mx3.4/20, ML3.9/1, MS3.0/1, Ms1 3.0/1, ms1mx2.3/11, Error ellipse: s-maj=67.6km s-min=44.1km az=12.0, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEIG	**Tepich**	5.55	286	Pn	Pn	21 41 10.9	-2.1
	3.7nm,0.3s,baz=335,slow=3.9,SNR=11						
TEIG				Sn	Sn	21 42 18.6	+0.2
	1.9nm,0.3s,baz=99,slow=23,SNR=9.5						
ROSC	**El Rosal**	15.99	149	LR	LR	21 49 18.6	
	comp=Z,56nm,19.5s,baz=19,slow=36						
TXAR	**Lajitas Array**	21.90	303	P	P	21 44 41.2	-2.6
	0.3nm,0.6s,baz=110,slow=11,SNR=2.0						
YKA	**Yellowknife Ar**	49.00	341	P	P	21 48 35.5	-1.7
	0.2nm,0.5s,baz=132,slow=8.3,SNR=3.9						
ASAR	**Alice Springs**	145.68	255	PKPbc	PKPbc	21 59 27.9	-1.0
	0.3nm,0.8s,baz=95,slow=2.8,SNR=3.5						

JMA 16 21:46:45.9±0.3, 25.08N×122.47E, h169^{km}, M2.5

TAP 16 21:46:42.6, 25.08N×122.44E, h190^{km}±1^{km}, ML3.5, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	0.81	140	P	P	21 47 11.0	+0.6
YOJ				*e*S	S	21 47 30.7	-1.1
IRIF	**Iriomote-Funau**	1.39	122	P	P	21 47 15.8	+0.9
IRIF				*e*S	S	21 47 37.6	-2.1
HATJ	**Hateruma jima**	1.61	129	S	S	21 47 43.0	-0.3
JKRS	**Kuro-shima**	1.66	120	P	P	21 47 18.6	+1.3
JKRS				S	S	21 47 43.9	-0.2
JIJ	**Ishigaki jima**	1.71	114	P	P	21 47 18.7	+0.9
JIJ				S	S	21 47 43.7	-1.2
JTJ	**Tarama**	2.10	102	P	P	21 47 23.5	+1.6
JTJ				S	S	21 47 52.4	+0.2
JKE	**Kume jima 2**	4.11	72	P	P	21 47 48.5	+2.3
JKE				*e*S	S	21 48 36.5	+1.2

IDC 16 22:11:39.1±4.0, 6.96S×129.48E, h117^{km}±38^{km}, mb3.7/7, mb1 4.0/11, mb1mx3.9/16, Error ellipse: s-maj=31.3km s-min=15.6km az=56.0

NEIC 16 22:11:39.1±1.4, 6.73S×129.73E, h120^{km}±15^{km}, mb4.5/13, Error ellipse: s-maj=10.2km s-min=8.3km az=62.0

ISC 16 22:11:38.0±1.6, 6.91S±0.05×129.58E±0.08, h128^{km}±17^{km}, n36, $\sigma 1^{s}17$/43, mb4.5/20, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	6.39	154	*e*P	**P**	**22 13 12.7**	**+1.9**
	187nm,0.4s						
KAKA				*e*S	**S**	**22 14 20.7**	**-2.2**
FITZ	**Fitzroy Crossi**	11.77	199	*e*P	**P**	**22 14 24.7**	**+1.9**
	8.2nm,0.2s						
FITZ				*e*S	**S**	**22 16 27.1**	**-4.8**
FITZ	**Fitzroy Crossi**	11.77	199	P	**P**	**22 14 22.6**	**-0.2**
	1.8nm,0.3s,baz=18,slow=8.8,SNR=43						
FITZ				S	**S**	**22 16 27.8**	**-4.0**
	9.8nm,0.3s,baz=176,slow=16,SNR=10						
WRAB	**Tennant Creek**	13.74	161	*e*P	**P**	**22 14 47.1**	**-1.5**
	11nm,0.4s						
WRAB				*e*S	**S**	**22 17 09.6**	**-8.8**
WRA	**Warramunga Arr**	13.75	161	P	**P**	**22 14 47.4**	**-1.2**
	3.0nm,0.3s,baz=346,slow=13,SNR=33						
WRA				S	**S**	**22 17 11.4**	**-7.1**
	5.5nm,0.3s,baz=331,slow=24,SNR=9.7						
MBWA	**Marble Bar**	17.07	213	*e*P	**P**	**22 15 33.5**	**+3.2**
	11nm,0.8s						
MBWA				*e*S	**S**	**22 18 31.5**	**-2.7**
ASAR	**Alice Springs**	17.17	166	P	**P**	**22 15 33.0**	**+1.5**
	2.9nm,0.3s,baz=345,slow=9.8,SNR=154						
ASAR				S	**S**	**22 18 36.2**	**-0.2**
	1.2nm,0.3s,baz=346,slow=26,SNR=6.3						
ASPA	**Alice Springs**	17.17	166	*e*P	**P**	**22 15 33.0**	**+1.5**
ASPA				*e*S	**S**	**22 18 37.5**	**+1.1**
PMG	**Port Moresby**	17.58	99	P	**P**	**22 15 37.2**	**+0.7**
	0.9nm,0.3s,baz=325,slow=12,SNR=2.9						
PMG	**Port Moresby**	17.58	99	*e*P	**P**	**22 15 34.7**	**-1.8**
	14nm,0.8s						
CTA	**Charters Tower**	20.81	131	P	**P**	**22 16 12.0**	**+1.1**
	3.7nm,0.5s,baz=322,slow=13,SNR=5.0						
CTAO	**Charters Tower**	20.81	131	*e*P	**P**	**22 16 11.9**	**+1.0**
	8.7nm,0.9s						
FORT	**Forrest**	23.79	183	*e*P	**P**	**22 16 43.5**	**+3.6**
	34nm,0.5s,mb4.9						
GUMO	**Guam**	25.40	37	*e*P	**P**	**22 16 52.6**	**-2.9**
	57nm,0.8s,mb5.0						
STKA	**Stephens Creek**	27.25	157	*e*P	**P**	**22 17 12.8**	**+0.5**
	1.1nm,0.4s,mb3.7						
STKA	**Stephens Creek**	27.25	157	P	**P**	**22 17 12.8**	**+0.5**
	2.6nm,0.4s,mb4.1,baz=316,slow=8.6,SNR=13						
STKA	**Stephens Creek**	27.25	157	*e*P	**P**	**22 17 12.4**	**+0.1**
COCO	**West Island**	32.70	258	*e*P	**P**	**22 18 01.5**	**+0.9**
	93nm,1.0s,mb5.6						
CM31	**Chiang Mai Arr**	39.36	310	*e*P	**P**	**22 18 57.3**	**+0.7**
	2.9nm,0.8s,mb4.2						
CMAR	**Chiang Mai Arr**	39.36	310	P	**P**	**22 18 57.9**	**+1.3**
	2.1nm,0.7s,mb4.1,baz=139,slow=7.2,SNR=17						
ENH	**Enshi**	41.70	333	P	**P**	**22 19 15.1**	**-0.8**
	3.0nm,0.7s,mb4.1						
GUN	**Gumba**	54.58	311	*e*P	**P**	**22 20 55.3**	**-0.3**
	16nm,0.4s,mb5.4						
PKI	**Pulchoki**	54.75	311	*e*P	**P**	**22 20 56.3**	**-0.5**
	5.2nm,0.5s,mb4.8						
YSS	**Yuzh-Sakhalins**	54.89	11	P	**P**	**22 20 54.0**	**-3.6**
	62nm,1.1s,mb5.5						
KKN	**Kakani**	54.97	311	*e*P	**P**	**22 20 58.5**	**+0.1**
	5.7nm,0.5s,mb4.9						
DMN	**Daman**	55.00	311	*e*P	**P**	**22 20 59.0**	**+0.4**
	6.7nm,0.6s,mb4.9						
GKN	**Gorkha**	55.56	311	*e*P	**P**	**22 21 02.2**	**-0.5**
	12nm,0.4s,mb5.3						
KOLN	**Koldanda**	56.23	310	*e*P	**P**	**22 21 07.0**	**-0.4**
	4.0nm,0.3s,mb4.9						
ULN	**Ulaanbaatar**	58.05	342	*e*P	**P**	**22 21 19.9**	**0.0**
	1.2nm,0.6s,mb4.1						
SONM	**Songino Array**	58.23	342	P	**P**	**22 21 21.1**	**-0.1**
	0.3nm,0.3s,mb3.8,baz=165,slow=6.3,SNR=7.3						
ZAL	**Zalesovo**	71.32	334	P	**P**	**22 22 45.1**	**-0.5**
	1.0nm,0.4s,mb4.0,baz=295,slow=2.0,SNR=4.3						
VNDA	**Vanda**	72.58	173	P	**P**	**22 22 53.0**	**+0.4**
	0.6nm,0.6s,mb3.6,baz=300,slow=8.9,SNR=4.3						
VNDA	**Vanda**	72.58	173	P	**P**	**22 22 53.0**	**+0.4**
BVAR	**Borovoye Array**	77.77	328	P	**P**	**22 23 22.6**	**+0.2**
	2.5nm,1.1s,mb3.9,baz=127,slow=7.4,SNR=8.8						
BRVK	**Borovoye**	77.84	328	*e*P	**P**	**22 23 22.7**	**-0.2**
	1.5nm,0.8s,mb3.8						
LPAZ	**La Paz**	151.04	143	PKPbc	PKPdf	22 31 19.8	+9.1
	1.0nm,0.4s,baz=270,slow=2.0,SNR=6.8						

IDC 16 22:47:30.8±1.5, 5.18S×150.08E, h309^{km}±13^{km}, mb3.8/10, mb1 3.9/12, mb1mx3.8/16, Error ellipse: s-maj=21.0km s-min=10.5km az=113.0

NEIC 16 22:47:30.2±1.3, 5.11S×150.08E, h305^{km}±12^{km}, mb4.4/17, Error ellipse: s-maj=16.1km s-min=8.0km az=101.0

ISC 16 22:47:28.4±1.0, 5.13S±0.07×150.2E±0.1, h306^{km}±9^{km}, n36, $\sigma 0^{s}97$/38, mb4.2/22, 1C-1D, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	5.23	216	P	**P**	**22 48 49.8**	**+0.5**
	3.8nm,0.3s,baz=34,slow=5.9,SNR=7.8						
PMG				S	**S**	**22 49 53.2**	**+0.5**
	3.6nm,0.3s,baz=43,slow=6.8,SNR=4.4						
CTA	**Charters Tower**	15.36	194	P	**P**	**22 50 51.7**	**-0.1**
	0.4nm,0.3s,baz=21,slow=11,SNR=4.1						
CTA	**Charters Tower**	15.36	194	P	**P**	**22 50 51.7**	**-0.1**
CTAO	**Charters Tower**	15.36	194	*e*P	**P**	**22 50 52.0**	**+0.2**
	6.5nm,0.7s						
KAKA	**Kakadu**	19.14	246	⇑*i*P	**P**	**22 51 29.9**	**-1.2**
	28nm,0.6s						
KAKA				*e*S	**S**	**22 54 47.9**	**+0.9**
GUMO	**Guam**	19.35	344	*e*P	**P**	**22 51 32.6**	**-0.5**
	125nm,1.1s						
WRAB	**Tennant Creek**	21.34	225	*e*P	**P**	**22 51 53.3**	**+0.7**
	78nm,0.6s,mb5.2						
WRAB				*e*S	**S**	**22 55 28.6**	**+2.9**
WRA	**Warramunga Arr**	21.35	225	P	**P**	**22 51 53.5**	**+0.8**
	24nm,0.4s,mb4.9,baz=52,slow=9.9,SNR=144						
WRA				S	**S**	**22 55 28.4**	**+2.5**
	2.4nm,0.7s,baz=46,slow=18,SNR=5.5						
WRA				PcP	PcP	22 55 46.2	+0.4
	2.6nm,0.4s,baz=38,slow=2.0,SNR=6.8						
ASAR	**Alice Springs**	24.23	219	P	**P**	**22 52 19.9**	**0.0**
	6.0nm,0.4s,mb4.3,baz=52,slow=8.0,SNR=97						
ASAR				PcP	PcP	22 55 52.2	+0.4
	2.0nm,0.9s,baz=59,slow=2.9,SNR=6.5						
ASAR				S	**S**	**22 56 14.1**	**-0.1**
	0.8nm,0.5s,baz=47,slow=13,SNR=5.1						
ASPA	**Alice Springs**	24.23	219	*e*P	**P**	**22 52 19.6**	**-0.2**
ASPA				*e*S	**S**	**22 56 12.8**	**-1.4**
FITZ	**Fitzroy Crossi**	27.27	240	⇓*i*P	**P**	**22 52 45.7**	**-1.8**
	15nm,0.4s,mb4.8						
FITZ	**Fitzroy Crossi**	27.27	240	P	**P**	**22 52 45.9**	**-1.6**
	12nm,0.4s,mb4.7,baz=58,slow=5.0,SNR=71						
STKA	**Stephens Creek**	27.81	196	P	**P**	**22 52 51.4**	**-0.8**
	1.8nm,0.6s,mb3.7,baz=21,slow=13,SNR=6.1						
STKA	**Stephens Creek**	27.81	196	*e*P	**P**	**22 52 51.2**	**-1.0**
MBWA	**Marble Bar**	33.60	239	*e*P	**P**	**22 53 41.2**	**-1.3**
	8.2nm,0.6s,mb4.4						
KLBR	**Kellerberrin**	40.24	225	*e*P	**P**	**22 54 36.3**	**-1.3**
	11nm,0.3s,mb4.7						
NWAO	**Narrogin (SRO)**	41.35	224	P	**P**	**22 54 45.6**	**-1.1**
	6.2nm,0.6s,mb4.0,baz=69,slow=8.7,SNR=9.7						
NWAO	**Narrogin (SRO)**	41.35	224	*e*P	**P**	**22 54 45.3**	**-1.3**
	32nm,1.3s,mb4.4						
MUN	**Mundaring**	41.55	226	*e*P	**P**	**22 54 47.8**	**-0.5**
	16nm,1.0s,mb4.2						
CMAR	**Chiang Mai Arr**	55.72	296	P	**P**	**22 56 36.2**	**+0.2**
	0.7nm,0.7s,mb3.2,baz=115,slow=5.6,SNR=4.5						
HIA	**Hailar**	60.32	338	*e*P	**P**	**22 57 07.8**	**+0.4**
	19nm,1.6s,mb4.4						
TBI	**Tubuai**	60.76	114	*e*LR	LR	22 57 49.8	
	258nm,29.2s						
MA2	**Magadan**	64.51	0	P	**P**	**22 57 33.2**	**-1.3**
	22nm,1.3s,mb4.6						
ULN	**Ulaanbaatar**	64.95	329	*e*P	**P**	**22 57 38.8**	**+1.3**
	2.1nm,0.9s,mb3.8						
SONM	**Songino Array**	65.27	329	P	**P**	**22 57 40.9**	**+1.4**
	1.6nm,0.5s,mb3.9,baz=144,slow=5.4,SNR=30						
VNDA	**Vanda**	72.60	177	P	**P**	**22 58 24.4**	**+0.5**
	1.7nm,0.8s,mb3.8,baz=325,slow=6.8,SNR=10						
BILL	**Bilibino**	73.87	6	*e*P	**P**	**22 58 32.7**	**+1.3**
	6.4nm,1.1s,mb4.2						
ZAL	**Zalesovo**	80.03	327	P	**P**	**22 59 04.6**	**-0.8**
	1.4nm,0.8s,mb3.7,baz=338,slow=6.4,SNR=5.7						
MCK	**McKinley**	82.16	23	*e*P	**P**	**22 59 16.3**	**0.0**
	2.1nm,0.6s,mb4.0						
COLA	**College**	83.12	22	*e*P	**P**	**22 59 21.2**	**+0.1**
	3.6nm,0.8s,mb4.2						
ILAR	**Eielson Array**	83.44	23	P	**P**	**22 59 22.4**	**-0.4**
	1.5nm,0.6s,mb4.0,baz=252,slow=5.0,SNR=19						
MAW	**Mawson**	84.28	203	*e*P	**P**	**22 59 27.1**	**+0.2**
	11nm,1.4s,mb4.5						
QSPA	**South Pole Qui**	84.83	180	*e*P	**P**	**22 59 31.2**	**+1.8**
	12nm,1.4s,mb4.5						
GERES	**GERESS Array B**	122.97	327	PKP	PKPdf	23 05 49.6	+1.0
	0.5nm,0.7s,baz=270,slow=1.3,SNR=4.8						
LPAZ	**La Paz**	136.49	120	PKP	PKPdf	23 06 19.2	+4.2
	0.5nm,0.3s,baz=3.6,slow=7.6,SNR=5.6						
BDFB	**Brasilia**	152.57	139	PKPbc	PKPdf	23 06 52.4	+10
	5.4nm,0.4s,baz=217,slow=1.3,SNR=12						

THE 16 23:29:45.6, 38.15N×22.85E, h3^{km}, ML2.6

NEIC 16 23:29:46.3, 38.16N×22.74E, h33^{km}, ML2.7(ATH), After ATH.

ATH 16 23:29:46.1, 38.17N×22.77E, h25^{km}±1^{km}, MD3.0/9, ML2.7

CSEM 16 23:29:46.2±0.1, 38.18N×22.71E, h12^{km}, ML2.7, Error ellipse: s-maj=2.1km s-min=1.7km az=104.0

ISC 16 23:29:45.0±1.1, 38.14N±0.03×22.77E±0.05, h7^{km}±9^{km}, n25, $\sigma 1^{s}13$/31, Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGER	**Gerania Oros**	0.42	112	*e*Pb	**Pb**	**23 29 57.0**	**+2.6**
LKR	**Lokris**	0.54	20	*e*PN	**Pn**	**23 29 56.3**	**-2.5**
NSAL	**Nisos Salamina**	0.60	113	*e*PN	**Pn**	**23 29 58.4**	**-1.2**
NAIG	**Nisos Aigina**	0.69	124	*e*PN	**Pn**	**23 30 00.0**	**-0.9**
NAIG	**Nisos Aigina**	0.69	124	*e*Pn	**Pn**	**23 30 02.5**	**+1.6**
MPAR	**Parnis Oros**	0.76	89	*e*PN	**Pn**	**23 30 02.0**	**0.0**
MPAR	**Parnis Oros**	0.76	89	*e*Pn	**Pn**	**23 30 03.0**	**+1.0**
ATH	**Athens Observa**	0.77	102	*e*PN	**Pn**	**23 30 00.9**	**-1.2**
PTL	**Penteli**	0.87	96	*e*PN	**Pn**	**23 30 04.0**	**+0.5**
PTL	**Penteli**	0.87	96	*e*Pn	**Pn**	**23 30 04.3**	**+0.8**
AGG	**Agios Georgios**	0.94	339	*e*Pg	**Pg**	**23 30 03.8**	**-0.1**
	comp=Z,3.2nm,0.3s						
AGG				*e*Sg	**Sg**	**23 30 17.3**	**+0.8**
RLS	**Riolos of Patr**	1.03	266	*e*PN	**Pn**	**23 30 06.2**	**+0.4**
EVR	**Evrytania**	1.08	316	*e*PN	**Pn**	**23 30 06.3**	**-0.2**
ITM	**Ithomi**	1.17	215	*e*PN	**Pn**	**23 30 08.8**	**+1.0**
ITM	**Ithomi**	1.17	215	*e*Pb	**Pb**	**23 30 07.0**	**-0.2**
NEO	**Neokhori**	1.22	17	*e*PN	**Pn**	**23 30 08.9**	**+0.4**
XOR	**Xorichti**	1.27	15	*e*Pb	**Pb**	**23 30 09.6**	**+0.8**
XOR				*e*Sb	**Sb**	**23 30 27.5**	**+2.3**
AOS	**Alonnisos**	1.35	40	*e*Pb	**Pb**	**23 30 10.3**	**+0.1**
AOS				*e*Sb	**Sb**	**23 30 28.2**	**+0.7**
VLI	**Veliai**	1.43	175	*e*Pn	**Pn**	**23 30 12.6**	**+1.1**
VLI				*e*Sn	**Sn**	**23 30 30.0**	**-0.7**
LIT	**Litokhoron**	1.97	354	*e*Pb	**Pb**	**23 30 19.6**	**-1.3**
LIT				*e*Sb	**Sb**	**23 30 44.8**	**-0.8**
OUR	**Ouranopolis**	2.38	23	*e*Pn	**Pn**	**23 30 24.4**	**-0.8**
SOH	**Sokhos**	2.71	9	*e*Pn	**Pn**	**23 30 28.3**	**-1.6**
GRG	**Griva**	2.83	354	*e*Pn	**Pn**	**23 30 30.3**	**-1.2**
FNA	**Florina**	2.85	338	*e*Pn	**Pn**	**23 30 32.5**	**+0.6**
FNA				*e*Sn	**Sn**	**23 31 08.6**	**+1.7**
KNT	**Kendrikon**	3.02	2	*e*Pn	**Pn**	**23 30 32.9**	**-1.3**

NEIC 16 23:38:36.0, 31.00S×71.41W, h58^{km}, MD3.8(GUC), After GUC.

GUC 16 23:38:36.0±0.9, 31.00S×71.41W, h58^{km}±7^{km}, MD3.8, ML3.8, 5C-6D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	**Combarbala**	0.39	116	⇓*i*P	P	23 38 47.1	+0.5
CMCH				*i* S	S	23 38 55.2	+0.7
CMCH				AMP		23 38 55.5	
	comp=E,19µm,0.2s						
OVCH	**Ovalle**	0.43	24	⇓*i*P	P	23 38 47.4	+0.3
OVCH				*i* S	S	23 38 55.5	+0.3
OVCH				AMP		23 38 55.8	
	comp=N,8µm,0.1s						
ILCH	**Illapel**	0.66	162	⇑*i*P	P	23 38 50.3	+0.6
ILCH				*i* S	S	23 39 00.5	+0.6
ILCH				AMP		23 39 01.5	
	comp=N,7µm,0.1s						
TLL	**Tololo Astrono**	0.98	32	⇑*i*P	P	23 38 54.4	+0.5
TLL				*i* S	S	23 39 08.2	+1.1
TLL				AMP		23 39 10.2	
	comp=E,5µm,0.4s						
LSCH	**La Serena**	1.10	7	⇑*i*P	P	23 38 55.6	+0.1
LSCH				*i* S	S	23 39 10.5	+0.4
LSCH				AMP		23 39 10.7	
	comp=E,2µm,0.2s						
PTCH	**Petorca**	1.32	162	⇓*i*P	P	23 38 58.9	+0.1
PTCH				*i* S	S	23 39 15.5	-0.1
PTCH				AMP		23 39 17.7	
	comp=E,5µm,0.1s						
JACH	**Jahuel**	1.81	158	⇑*i*P	P	23 39 05.8	+0.4
ROCH	**El Roble**	1.99	170	⇓*i*P	P	23 39 08.2	+0.2
LCCH	**Las Cruces**	2.47	183	⇓*i*P	P	23 39 13.5	-1.3
VACH	**Vallenar**	2.48	13	*i* P	P	23 39 18.5	+3.5
VACH				*i* S	S	23 39 48.5	+4.4
DSCH	**Colegio Aleman**	2.49	164	*e*P	P	23 39 14.7	-0.4
RCDM	**Rinconada Maip**	2.53	169	⇑*i*P	P	23 39 15.5	-0.2
RCDM				*i* S	S	23 39 44.7	-0.6
RCDM				AMP		23 39 54.3	
	comp=E,492nm,0.1s						
TACH	**Talagante**	2.67	172	*i* P	P	23 39 17.3	-0.4
PCH	**Pirque**	2.72	164	⇓*i*P	P	23 39 18.1	-0.2
SFDO	**San Fernando**	3.62	175	*e*P	P	23 39 30.4	-0.6

IDC 16 23:58:51.5±13.0, 29.52S×178.76W, h173^{km}±116^{km}, mb4.1/4, mb1 4.3/4, mb1mx3.9/12, MS3.3/1, Ms1 3.3/1, ms1mx2.8/19, Error ellipse: s-maj=132.0km s-min=45.6km az=158.0

NEIC 16 23:59:19.4±0.9, 28.16S×179.41W, h400^{km}, mb4.4/5, Error ellipse: s-maj=43.0km s-min=24.3km az=181.0

ISC 16 23:58:53.3±1.1, 29.5S±0.3×178.9W±0.2, h200^{km}, n25, $\sigma 0^{s}81$/13, mb4.3/7, 2C-1D, Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	16.30	207	LR	LR	00 07 33.8	
	comp=Z,108nm,21.9s,baz=52,slow=32						
CTA	**Charters Tower**	32.92	279	*e*P	**P**	**00 05 14.2**	**+3.3**
	9.1nm,0.6s,mb4.5						
CTAO	**Charters Tower**	32.92	279	⇓*i*P	**P**	**00 05 14.2**	**+3.3**
	23nm,0.9s,mb4.7						
STKA	**Stephens Creek**	33.96	256	⇑*i*P	**P**	**00 05 19.1**	**-0.5**
	10nm,0.5s,mb4.6						
STKA	**Stephens Creek**	33.96	256	P	**P**	**00 05 19.5**	**-0.1**
	19nm,0.7s,mb4.7,baz=93,slow=10.0,SNR=36						
ASAR	**Alice Springs**	42.41	266	P	**P**	**00 06 29.4**	**-0.6**
	2.0nm,0.5s,mb3.8,baz=104,slow=7.2,SNR=38						
WRA	**Warramunga Arr**	43.32	272	P	**P**	**00 06 37.3**	**+0.1**
	4.3nm,0.4s,mb4.2,baz=112,slow=7.7,SNR=38						
PMSA	**Palmer Station**	73.37	156	P	**P**	**00 10 17.0**	**+12**
	21nm,1.1s,mb4.7						
SNAA	**Sanae**	79.05	179	P	**P**	**00 10 51.6**	**+16**
	9.5nm,1.3s,mb4.3						
VNA3	**Neumayer Olymp**	79.23	176	*e*	**P**	**00 10 29.2**	**-7.8**
VNA3	**Neumayer Olymp**	79.23	176	*e*	**P**	**00 10 36.5**	**-0.5**
VNA2	**Neumayer--Watz**	79.66	177	*e*	**P**	**00 10 33.0**	**-6.3**
VNA2	**Neumayer--Watz**	79.66	177	*e*	**P**	**00 10 40.3**	**+1.0**
NVAR	**Mina Array Bea**	88.11	43	P	**P**	**00 11 22.1**	**-0.2**
	2.3nm,1.1s,mb3.9,baz=223,slow=9.9,SNR=6.1						
BVAR	**Borovoye Array**	125.25	316	PKP	PKPdf	00 17 30.8	+1.0
	0.5nm,0.5s,baz=125,slow=1.6,SNR=6.2						
ARCES	**ARCESS Array B**	137.57	348	PKP	PKPdf	00 17 53.8	+1.2
	3.5nm,0.9s,baz=45,slow=5.1,SNR=4.8						
KAF	**Kangasniemi**	143.47	340	*e*p	PKPbc	00 18 02.0	+0.2
	1.9nm,0.7s						
FINES	**FINESS Array B**	144.06	340	PKP	PKPdf	00 18 04.9	+0.7
	4.5nm,0.7s,baz=55,slow=4.1,SNR=25						
NB2	**NORSAR Subarra**	147.77	351	PKP	PKPdf	00 18 15.5	+5.1
	1.5nm,0.5s,baz=13,slow=2.6						
NB2	**NORSAR Subarra**	147.77	351	⇑PKPab	PKPab	00 18 15.5	-3.2
NOA	**NORSAR Array B**	147.77	351	PKPbc	PKPdf	00 18 14.9	+4.5
	2.8nm,0.8s,baz=15,slow=4.1,SNR=5.9						
HFS	**Hagfors**	148.23	348	PKPbc	PKPdf	00 18 16.1	+4.9
	2.4nm,0.5s,baz=45,slow=2.1,SNR=10						
AKASG	**Malin Array Be**	150.15	323	PKPbc	PKPdf	00 18 21.1	+6.7
	2.8nm,0.7s,baz=48,slow=2.6,SNR=7.9						
BRTR	**Keskin Array B**	151.52	300	PKPbc	PKPdf	00 18 24.9	+8.0
	0.5nm,0.6s,baz=165,slow=7.4,SNR=3.8						
VRAC	**Vranov**	156.99	333	PKP	PKPdf	00 18 25.4	+1.4
	1.2nm,0.7s,baz=353,slow=15,SNR=3.3						

DJA 17 00:14:06.3±0.9, 8.38S×115.95E, h92^{km}±7^{km}, MD4.4/3, ML4.3/2, 1C-7D, Error ellipse: s-maj=32.7km s-min=12.5km az=179.0, Bali region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	0.19	123	⇓*e*Pn	P	00 14 19.3	-0.3
	700nm,0.2s						
KEDI				⇓*i*Sn	S	00 14 28.7	-0.9
RATI	**Rata**	0.54	231	⇓*e*Pn	P	00 14 21.2	-0.6
	1µm,0.2s						
RATI				⇓*i*Sn	S	00 14 32.9	-0.4
KELI	**Kelakatan**	1.46	276	⇑*e*Pn	P	00 14 31.7	-0.4
	150nm,0.2s						
KELI				⇓*i*Sn	S	00 14 49.4	-1.7
SRDI	**Scrawed**	1.79	267	⇓*e*Pn	P	00 14 35.8	-0.6
	323nm,0.2s						
SRDI				⇓*i*Sn	S	00 14 57.7	-0.9

ROM 17 00:17:13.0±0.9, 43.37N×15.63E, h10^{km}, MD2.9/7, ML2.2/2, Error ellipse: s-maj=6.3km s-min=4.9km az=90.0

LDG 17 00:17:13.7±0.7, 43.47N×15.69E, h10^{km}, Ml2.9/5, Error ellipse: s-maj=21.4km s-min=12.6km az=26.0

CSEM 17 00:17:15.3±0.2, 43.25N×15.31E, h10^{km}, ML2.9/5, Error ellipse: s-maj=5.3km s-min=3.1km az=84.0

NEIC 17 00:17:17.7±1.4, 43.18N×14.98E, h10^{km}, ML3.4(VIE), ML2.9(LDG), Error ellipse: s-maj=18.2km s-min=9.8km az=117.0

ISC 17 00:17:17.5±0.9, 43.22N±0.03×14.86E±0.07, h8^{km}±6^{km}, n34, $\sigma 1^{s}33$/52, 2C-1D, Adriatic Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVLJ	**Novalja**	1.34	0	*i* Pn	**Pn**	**00 17 41.8**	**-0.8**
NVLJ				*i* Pg	**Pg**	**00 17 42.6**	**-1.8**
NVLJ				*i* Sg	**Sg**	**00 18 02.8**	**+0.5**
NVLJ	**Novalja**	1.34	0	*i* Pg	**Pg**	**00 17 42.5**	**-1.8**
NVLJ				*i* Sg	**Sg**	**00 18 02.7**	**+0.4**
INTR	**Introdacqua**	1.40	211	*e*PN	**Pn**	**00 17 44.2**	**+0.8**
SNTG	**Esanatoglia**	1.41	272	*e*PN	**Pn**	**00 17 45.4**	**+1.9**
SNTG				SN	**Sn**	**00 18 09.9**	**+7.5**
	11nm,0.3s						
SNTG	**Esanatoglia**	1.41	272	*e*Pn	**Pn**	**00 17 45.4**	**+1.9**
	11nm,0.3s						
SNTG				Sn	**Sn**	**00 18 09.9**	**+7.5**
ARV	**Arcevia**	1.43	282	*e*PN	**Pn**	**00 17 46.6**	**+2.7**
ARV				SN	**Sn**	**00 18 08.2**	**+5.2**
CII	**Carovilli**	1.55	196	*e*PN	**Pn**	**00 17 45.6**	**0.0**
CII	**Carovilli**	1.55	196	*e*Pn	**Pn**	**00 17 44.6**	**-0.9**
CII	**Carovilli**	1.55	196	*e*Pn	**Pn**	**00 17 44.7**	**-0.9**
PTQR	**Pietraquaria**	1.61	223	*e*PN	**Pn**	**00 17 49.2**	**+2.7**
PTQR				SN	**Sn**	**00 18 14.9**	**+7.3**
SDI	**San Donato**	1.70	208	*e*PN	**Pn**	**00 17 47.2**	**-0.5**
SDI				SN	**Sn**	**00 18 14.5**	**+4.7**
	17nm,0.4s						
SDI	**San Donato**	1.70	208	*e*Pn	**Pn**	**00 17 47.2**	**-0.5**
	17nm,0.4s						
MURB	**Monte Urbino**	1.71	272	*e*PN	**Pn**	**00 17 50.6**	**+2.7**
MNS	**Montasola**	1.81	243	*e*PN	**Pn**	**00 17 52.0**	**+2.7**
SGG	**Gregorio Mates**	1.87	191	*e*PN	**Pn**	**00 17 48.8**	**-1.3**
BLY	**Banja Luka**	2.27	47	Sg	**Sg**	**00 18 22.4**	**-11**
BOJS	**Bojanci**	2.30	7	*i* Pn	**Pn**	**00 17 55.8**	**-0.5**
BOJS				*i* Sn	**Sn**	**00 18 26.1**	**+1.0**
CEY	**Cerknica**	2.54	353	*i* Pn	**Pn**	**00 17 59.9**	**+0.2**
GCIS	**Gornji Cirnik**	2.70	11	*i* Pn	**Pn**	**00 18 00.9**	**-1.2**
OBKA	**Obir**	3.30	356	⇓*i*PN	**Pn**	**00 18 10.0**	**-0.5**
OBKA				*i* SN	**Sn**	**00 18 52.0**	**+1.6**
OBKA				*i* SG	**Sg**	**00 19 08.2**	**+0.9**
	24nm,0.6s						
KBA	**Koelnbreinsper**	4.01	345	⇑*i*PN	**Pn**	**00 18 20.6**	**0.0**
KBA				*i* SN	**Sn**	**00 19 10.3**	**+2.0**
KBA	**Koelnbreinsper**	4.01	345	*i* Sn	**Sn**	**00 19 10.3**	**+2.0**
PGF	**Pioggiola**	4.36	263	*e*Pn	**Pn**	**00 18 26.3**	**+0.7**
MOA	**Molln**	4.65	355	⇑*i*PN	**Pn**	**00 18 29.2**	**-0.5**
MOA				*i* SN	**Sn**	**00 19 23.8**	**-0.8**
SBF	**Sospel**	5.44	279	*e*Pn	**Pn**	**00 18 41.1**	**+0.2**
KHC	**Kasperske Hory**	5.98	352	*e*P	**Sn**	**00 19 53.5**	**-4.5**
FRF	**La Foret Royal**	6.00	276	*e*Pn	**Pn**	**00 18 48.6**	**-0.2**
FRF				*e*Sn	**Sn**	**00 19 58.7**	**+0.2**
	0.6nm,0.3s						
MBDF	**Montbardon**	6.03	287	*e*Pn	**Pn**	**00 18 48.2**	**-1.0**
MBDF				*e*Sn	**Sn**	**00 19 58.4**	**-0.9**
	1.9nm,0.3s						
LMR	**La Mourre**	6.10	274	*e*Pn	**Pn**	**00 18 49.5**	**-0.7**
LMR				*e*Sn	**Sn**	**00 20 01.0**	**-0.1**
	0.8nm,0.3s						
LPG	**La Plagne**	6.25	294	*e*Pn	**Pn**	**00 18 49.1**	**-3.2**
LPG				*e*Sn	**Sn**	**00 20 02.3**	**-2.4**
	5.1nm,0.4s						
LPG	**La Plagne**	6.25	294	*e*Sn	**Sn**	**00 20 02.3**	**-2.4**
	2.5nm,0.4s						
LPL	**La Plagne**	6.26	294	*e*Pn	**Pn**	**00 18 49.7**	**-2.8**
LPL				*e*Sn	**Sn**	**00 20 02.6**	**-2.6**
	4.3nm,0.4s						
LPL	**La Plagne**	6.26	294	*e*Sn	**Sn**	**00 20 02.6**	**-2.6**
	2.2nm,0.4s						

ORIF	Oris-en-Rattie	6.69	288	*e*Pn	Pn	00 18 58.1	-0.4

IDC 17 00:31:47.4±10.0**, 31.20S**×**179.14W, h213**^{km}±105^{km}**, mb3.5**/3**, mb1 3.6**/4**, mb1mx3.4**/13**, Error ellipse: s-maj=98.2km s-min=44.3km az=175.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	7.69	203	P	P	00 33 37.6	+0.3
	0.5nm,0.3s,baz=76,slow=12,SNR=2.5						
URZ				S	S	00 35 01.6	-1.7
	1.2nm,0.3s,baz=5.1,slow=19,SNR=4.6						
STKA	Stephens Creek	33.35	258	P	P	00 38 06.8	-0.5
	2.5nm,0.7s,baz=101,slow=9.9,SNR=8.3						
ASAR	Alice Springs	42.10	268	P	P	00 39 18.1	-2.0
	0.6nm,0.4s,baz=104,slow=7.5,SNR=8.1						
WRA	Warramunga Arr	43.16	274	P	P	00 39 26.5	-2.2
	1.3nm,0.5s,baz=112,slow=8.1,SNR=16						
FINES	FINESS Array B	145.55	339	PKPbc	PKPbc	00 50 58.8	-1.2
	4.9nm,1.1s,baz=72,slow=4.4,SNR=4.5						

IDC 17 00:51:13.2±15.0**, 0.48S**×**127.73E, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.6**/15**, MS3.0**/1**, Ms1 3.2**/1**, ms1mx2.7**/12**, Error ellipse: s-maj=233.0km s-min=159.2km az=150.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	20.40	162	P	P	00 55 52.8	-1.8
	1.1nm,0.7s,baz=340,slow=11,SNR=5.0						
ASAR	Alice Springs	23.82	166	P	P	00 56 28.4	-0.4
	0.5nm,0.4s,baz=345,slow=12,SNR=8.1						
STKA	Stephens Creek	33.87	159	P	P	00 57 56.9	-2.9
	0.7nm,0.5s,baz=321,slow=6.5,SNR=3.2						
CMAR	Chiang Mai Arr	33.98	305	LR	LR	01 10 35.2	
	comp=Z,22nm,18.3s,baz=20,slow=34						

IDC 17 00:54:44.9±3.4**, 18.52S**×**177.00W, h317**^{km}±42^{km}**, mb3.2**/7**, mb1 3.4**/7**, mb1mx3.3**/16**, Error ellipse: s-maj=103.0km s-min=17.5km az=151.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	34.67	261	P	P	01 01 05.2	-1.8
	2.0nm,0.4s,baz=76,slow=8.3,SNR=3.7						
STKA	Stephens Creek	39.52	242	P	P	01 01 46.4	-0.7
	1.0nm,0.5s,baz=90,slow=11,SNR=4.9						
WRA	Warramunga Arr	45.84	260	P	P	01 02 35.5	-2.5
	0.2nm,0.3s,baz=97,slow=6.6,SNR=6.7						
WRA				S	S	01 08 56.6	-0.5
	1.6nm,0.9s,baz=108,slow=25,SNR=5.3						
ASAR	Alice Springs	45.92	255	P	P	01 02 37.0	-1.6
	2.1nm,0.4s,baz=92,slow=8.3,SNR=49						
FITZ	Fitzroy Crossi	54.25	261	P	P	01 03 39.7	-1.1
	2.1nm,0.9s,baz=110,slow=3.5,SNR=6.1						
NVAR	Mina Array Bea	78.94	43	P	P	01 06 14.6	-0.6
	0.3nm,0.8s,baz=221,slow=9.6,SNR=4.2						
ILAR	Eielson Array	86.18	12	P	P	01 06 49.7	-1.7
	0.6nm,0.9s,baz=218,slow=6.3,SNR=6.5						

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*NEIC **17** 01:24:46.8, 46.20N×122.19W, MD3.1(SEA), After SEA.*
*IDC **17** 01:24:49.6±1.3, 46.10N×122.31W, mb3.3/1, mb1 3.6/5, mb1mx3.4/21, ML3.3/3, Error ellipse: s-maj=23.0km s-min=14.8km az=83.0*
ISC 17 01:24:47.0±0.3**, 46.21N**±0.03×**122.19W**±0.04**, n38,** σ**0^{s}78**/38**, mb3.4**/1**, 4C-16D, Washington**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YEL	Yellow Rock	0.01	336	⇓P	Pg	01 24 47.1	0.0
ESD	East Dome	0.03	107	P	Pg	01 24 47.5	0.0
HSR	South Ridge	0.03	178	⇓P	Pg	01 24 47.5	-0.1
SHW	Mount Saint He	0.04	251	⇓P	Pg	01 24 47.7	-0.1
STD	Studebaker Rid	0.04	321	⇑P	Pg	01 24 47.9	+0.1
SOSW	Source of Smit	0.05	40	P	Pg	01 24 48.2	+0.1
JLK	June Lake	0.06	159	⇓P	Pg	01 24 48.1	-0.1
CDFW	Cedar Flats	0.13	133	⇑P	Pg	01 24 49.7	+0.1
ERK	Elk Rock	0.15	313	⇓P	Pg	01 24 50.3	+0.3
MTMW	Mount Mitchell	0.18	186	⇓P	Pg	01 24 50.9	+0.3
LVP	Lakeview Peak	0.21	229	⇓P	Pg	01 24 51.2	0.0
KOSW	Kosmos	0.26	359	P	Pg	01 24 52.4	+0.2
RVW	Rose Valley	0.39	262	P	Pg	01 24 54.8	0.0
ASR	Mount Adams--S	0.41	97	P	Pg	01 24 55.2	-0.1
LMW	Ladd Mountain	0.47	351	⇓P	Pg	01 24 56.9	+0.6
GULW	Guler Mountain	0.50	124	⇑P	Pg	01 24 56.8	-0.1
LON	Longmire	0.60	25	⇓P	Pg	01 24 58.9	-0.1
RCM	Mount Rainier-	0.70	26	⇓P	Pg	01 25 00.8	-0.2
RCS	Mount Rainier-	0.74	25	⇓P	Pg	01 25 01.3	-0.4
BMW	Boistfort Moun	0.77	291	⇓P	Pg	01 25 01.6	-0.8
FMW	Mount Fremont	0.81	26	⇓P	Pg	01 25 02.6	-0.5
GSM	Grass Mountain	1.03	15	⇑P	Pb	01 25 06.3	-1.1
EBG	Ellensburg	1.32	57	⇓P	Pb	01 25 12.8	+0.4
MXC	Moxie City	1.36	73	⇓P	Pb	01 25 13.0	-0.1
CROR	Criterion Ridg	1.48	145	⇓P	Pn	01 25 14.6	-0.4
COR	Corvallis	1.80	206	*e*P	Pn	01 25 18.0	-1.6
HAWA	Hanford	1.85	83	*e*P	Pn	01 25 19.8	-0.4
OCWA	Octopus Mounta	2.06	319	*e*Pn	Pn	01 25 24.1	+0.8
RPW	Rockport	2.29	11	P	Pn	01 25 27.3	+0.7
PGC	Sidney	2.59	341	*e*Pn	Pn	01 25 30.4	-0.5
HUMO	Hull Mountain	3.64	189	*e*Pn	Pn	01 25 43.8	-2.0
YBH	Yreka Blue Hor	4.49	185	Pn	Pn	01 25 59.9	+2.1
	0.2nm,0.3s,baz=359,slow=14,SNR=6.2						
NVAR	Mina Array Bea	8.28	158	Pn	P	01 26 54.2	+3.0
	0.0nm,0.3s,baz=337,slow=12,SNR=6.1						
NVAR	Mina Array Bea	8.28	158	Pn	P	01 26 54.2	+3.0
PDAR	Pinedale Array	9.66	106	Pn	P	01 27 14.0	+3.8
	0.1nm,0.3s,baz=297,slow=10,SNR=4.0						
YKA	Yellowknife Ar	16.89	12	Pn	P	01 28 45.7	-0.3
	0.0nm,0.3s,baz=197,slow=12,SNR=8.1						
YKA	Yellowknife Ar	16.89	12	Pn	P	01 28 45.7	-0.3
ILAR	Eielson Array	23.00	333	P	P	01 29 55.4	+1.3
	1.1nm,0.9s,mb3.4,baz=139,slow=8.3,SNR=8.2						

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*NEIC **17** 01:33:38.1, 39.14S×174.91E, h214^{km}, After WEL.*
WEL 17 01:33:38.0±0.4**, 39.11S**×**174.92E, h212**^{km}±3^{km}**, ML4.0**/6**, 8C-3D, Error ellipse: s-maj=3.5km s-min=2.5km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VRZ	Vera Road	0.13	263	*e*P	P	01 34 05.0	-1.0
VRZ	Vera Road	0.13	263	PN	P	01 34 05.0	-1.0
VRZ				SN	S	01 34 26.6	-0.8
TWVZ	Taurewa	0.40	85	PN	P	01 34 05.8	-0.7
MGZ	Maungaku	0.49	77	P	P	01 34 06.4	-0.4
MGZ	Maungaku	0.49	77	PN	P	01 34 06.4	-0.5
CNZ	Chateau	0.49	101	PN	P	01 34 06.4	-0.4
FWVZ	Far West T-bar	0.51	107	P	P	01 34 06.7	-0.2
FWVZ	Far West T-bar	0.51	107	PN	P	01 34 06.6	-0.2
FWVZ				*e*SN	S	01 34 28.6	-0.6
DRZ	Dome Shelter	0.52	109	PN	P	01 34 06.4	-0.5
NGZ	Ngauruhoe	0.53	97	PN	P	01 34 06.6	-0.3
OTVZ	Oturere	0.58	96	PN	P	01 34 07.1	-0.1
TUVZ	Tukino	0.59	106	P	P	01 34 07.0	-0.2
TUVZ	Tukino	0.59	106	⇑PN	P	01 34 07.0	-0.1
HIZ	Hauiti	0.60	355	⇑PN	P	01 34 05.9	-1.3
HIZ				SN	S	01 34 28.6	-1.2
WAZ	Wanganui	0.65	176	P	P	01 34 07.5	+0.1
WAZ	Wanganui	0.65	176	⇑PN	P	01 34 07.5	+0.1
WAZ				SN	S	01 34 29.2	-1.0
NEZ	North Egmont	0.66	256	P	P	01 34 07.4	-0.1
NEZ	North Egmont	0.66	256	PN	P	01 34 07.4	-0.1
DFE	Dawson Falls	0.67	251	P	P	01 34 07.2	-0.3
DFE	Dawson Falls	0.67	251	PN	P	01 34 07.2	-0.3
MOVZ	Moawhango	0.71	115	P	P	01 34 07.0	-0.7
MOVZ	Moawhango	0.71	115	PN	P	01 34 07.0	-0.6
MOVZ				SN	S	01 34 28.7	-1.9
NRZ	Ngariki Road	0.80	253	P	P	01 34 07.6	-0.5
NRZ	Ngariki Road	0.80	253	PN	P	01 34 07.6	-0.5
NWEZ	Newall Road	0.84	258	P	P	01 34 08.0	-0.3
NWEZ	Newall Road	0.84	258	PN	P	01 34 08.0	-0.3
TSZ	Takapari Road	1.24	140	P	P	01 34 10.9	-0.1
TSZ	Takapari Road	1.24	140	PN	P	01 34 10.9	-0.2
TSZ				SN	S	01 34 35.7	-0.9
MRZ	Mangatainoka R	1.63	162	PN	P	01 34 13.5	-0.9
MRZ				SN	S	01 34 40.8	-1.5
KIW	Kapiti Island	1.75	180	P	P	01 34 14.5	-0.9
KIW				S	S	01 34 42.3	-1.9
KIW	Kapiti Island	1.75	180	⇑PN	P	01 34 14.5	-0.9
KIW				SN	S	01 34 42.3	-1.9
BFZ	Birch Farm	1.87	147	PN	P	01 34 15.9	-0.7
CAW	Cannon Point	2.00	177	P	P	01 34 16.7	-1.1
CAW	Cannon Point	2.00	177	PN	P	01 34 16.7	-1.1
CAW				SN	S	01 34 46.7	-1.7
MRW	Makara Radio	2.12	185	P	P	01 34 17.8	-1.3
MRW	Makara Radio	2.12	185	⇑PN	P	01 34 17.8	-1.3
MRW				SN	S	01 34 48.8	-1.9
MWZ	Matawai	2.18	70	P	P	01 34 17.4	-2.3
MWZ	Matawai	2.18	70	⇓PN	P	01 34 17.4	-2.3
MWZ				SN	S	01 34 47.1	-4.7
BHW	Baring Head	2.30	181	PN	P	01 34 19.3	-1.6
PAWZ	Paruwai Farm	2.30	171	PN	P	01 34 19.5	-1.5
PAWZ				SN	S	01 34 51.7	-2.4
MSWZ	Moikau Station	2.31	174	⇑PN	P	01 34 19.6	-1.5
MSWZ				SN	S	01 34 52.0	-2.4
NNZ	Nelson	2.42	209	⇑PN	P	01 34 20.3	-1.9
NNZ				SN	S	01 34 54.0	-2.3
TUWZ	Tuamarina	2.44	198	PN	P	01 34 21.2	-1.2
TUWZ				SN	S	01 34 54.0	-2.7
KUZ	Kuaotunu	2.44	15	PN	P	01 34 20.1	-2.4
QRZ	Quartz Range	2.52	226	⇑PN	P	01 34 20.7	-2.6
QRZ				SN	S	01 34 54.5	-3.8
BSWZ	Blackbirch Sta	2.72	197	P	P	01 34 24.4	-1.2
BSWZ	Blackbirch Sta	2.72	197	PN	P	01 34 24.1	-1.5
PUZ	Puketiti	2.81	69	P	P	01 34 23.9	-2.7
PUZ	Puketiti	2.81	69	PN	P	01 34 23.9	-2.7
PUZ				SN	S	01 34 58.9	-5.3
THZ	Tophouse	3.06	210	P	P	01 34 27.4	-2.1
THZ	Tophouse	3.06	210	⇓PN	P	01 34 27.3	-2.2
THZ				SN	S	01 35 06.2	-3.2
MXZ	Matakaoa Point	3.08	61	PN	P	01 34 26.2	-3.4
KHZ	Kahutara	3.47	197	⇓PN	P	01 34 32.2	-2.1
KHZ				SN	S	01 35 14.2	-3.8
LTZ	Lake Taylor	4.18	208	*e*P	P	01 34 40.2	-2.9
LTZ	Lake Taylor	4.18	208	PN	P	01 34 40.2	-2.9
LTZ				SN	S	01 35 28.9	-4.6
MQZ	McQueen's Vall	4.90	200	*e*P	P	01 34 47.9	-4.2
MQZ	McQueen's Vall	4.90	200	PN	P	01 34 48.0	-4.1
MQZ				SN	S	01 35 43.1	-6.5
WVZ	Waitaha Valley	5.07	217	*e*P	P	01 34 50.5	-3.8
WVZ	Waitaha Valley	5.07	217	PN	P	01 34 50.4	-3.9
WVZ				SN	S	01 35 46.0	-7.5
RPZ	Rata Peaks	5.44	211	PN	P	01 34 54.7	-4.3
FOZ	Fox Glacier	5.94	220	PN	P	01 34 59.3	-6.1
LBZ	Lake Benmore	6.35	212	*e*P	P	01 35 06.2	-4.5
LBZ	Lake Benmore	6.35	212	*e*PN	P	01 35 05.9	-4.8
ODZ	Otahua Downs	6.73	207	*e*P	P	01 35 12.2	-3.4
ODZ	Otahua Downs	6.73	207	PN	P	01 35 12.0	-3.6
JCZ	Jackson Bay	6.78	221	*e*P	P	01 35 11.6	-4.6
JCZ	Jackson Bay	6.78	221	*e*PN	P	01 35 10.8	-5.4
EAZ	Earnscleugh	7.40	212	SN	S	01 36 38.1	-9.2

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*IDC **17** 01:39:45.6±0.9, 30.79N×138.61E, h376^{km}±14^{km}, mb3.0/5, mb1 3.2/6, mb1mx3.0/21, Error ellipse: s-maj=39.3km s-min=17.9km az=84.0*
*JMA **17** 01:39:46.0±0.3, 31.10N×139.16E, h415^{km}, M3.9*
ISC 17 01:39:44.8±0.6**, 30.86N**±0.07×**139.1E**±0.2**, h401**^{km}±10^{km}**, n16,** σ**0^{s}67**/21**, mb3.4**/4**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	2.31	14	P	P	01 40 44.3	+1.0
JHJ	Hachijo jima 2	2.32	14	P	P	01 40 43.5	+0.2
	46nm,0.3s,baz=107,slow=20,SNR=26						
JHJ				S	S	01 41 29.8	+0.5
	34nm,0.3s,baz=90,slow=18,SNR=4.6						
TK02	Tokai 2	3.29	340	P	P	01 40 51.6	+0.7
JIE	Ise	4.07	330	P	P	01 40 58.3	+0.2
BSO1	Boso 1	4.09	22	P	P	01 40 58.5	+0.2
BSO1				*e*S	S	01 41 56.1	+0.1
BSO3	Boso 3	4.09	16	P	P	01 40 58.5	+0.1
BSO3				*e*S	S	01 41 56.1	0.0
BSO4	Boso 4	4.24	14	P	P	01 40 59.9	+0.1
BSO4				*e*S	S	01 41 58.9	+0.3
CBIJ	Chichi jima	4.61	144	S	S	01 42 04.2	-1.0
	25nm,0.3s,baz=296,slow=21,SNR=8.9						
JRY	Ryogami san	5.14	358	P	P	01 41 08.9	0.0
JRY				*e*S	S	01 42 13.9	-1.0
JAG	Ashikaga	5.55	3	P	P	01 41 12.0	-1.2
JHO	Hitachi	5.86	11	P	P	01 41 16.0	-0.5
SONM	Songino Array	30.17	314	P	P	01 45 20.2	-1.1
	0.3nm,0.4s,mb3.0,baz=121,slow=8.8,SNR=5.7						
WRA	Warramunga Arr	50.72	186	P	P	01 48 07.7	+0.1
	2.1nm,0.5s,mb3.7,baz=1.6,slow=7.9,SNR=48						
ASAR	Alice Springs	54.45	186	P	P	01 48 35.1	+0.4
	1.1nm,0.6s,mb3.3,baz=357,slow=5.7,SNR=16						
STKA	Stephens Creek	62.44	178	P	P	01 49 29.1	+0.3
	0.8nm,0.4s,mb3.6,baz=5.9,slow=4.4,SNR=4.2						
YKA	Yellowknife Ar	70.11	28	P	P	01 50 19.4	+3.4
	0.0nm,0.4s,baz=299,slow=6.4,SNR=4.0						

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*STR **17** 01:41:57.3±8.8, 42.94N×15.67E, h10^{km}±1^{km}, Ml3.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*PDG **17** 01:42:00.3±0.7, 43.09N×15.27E, h11^{km}±2^{km}*
*IDC **17** 01:42:00.6±2.3, 43.29N×15.42E, mb3.9/2, mb1 3.9/8, mb1mx3.7/23, ML3.6/6, Error ellipse: s-maj=29.8km s-min=14.4km az=47.0*
*LDG **17** 01:42:00.6±0.1, 43.11N×15.30E, h10^{km}, Ml3.9/17, Error ellipse: s-maj=3.4km s-min=2.1km az=30.0*
*NEIC **17** 01:42:00.6±0.3, 43.07N×15.19E, h10^{km}, MD3.8(PDG), ML4.3(VIE), ML3.9(LDG), Error ellipse: s-maj=4.6km s-min=2.6km az=183.0*
*CSEM **17** 01:42:00.2±0.0, 43.16N×15.39E, h10^{km}, ML3.9/11, Error ellipse: s-maj=1.3km s-min=1.0km az=27.0*
*ROM **17** 01:42:00.9±0.2, 43.09N×15.37E, h10^{km}, ML4.2, Error ellipse: s-maj=2.8km s-min=1.8km az=90.0*
*THE **17** 01:42:04.2, 42.92N×15.78E, h10^{km}*
ISC 17 01:41:58.5±0.6**, 43.13N**±0.01×**15.23E**±0.02**, h1**^{km}±4^{km}**, n189,** σ**1^{s}45**/264**, mb4.0**/2**, 14C-12D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TERO	Teramo	1.30	248	*e*PN	Pn	01 42 25.3	+1.6
TERO				SN	Sn	01 42 42.7	+0.8
NVLJ	Novalja	1.46	350	*i* Pn	Pn	01 42 26.5	+0.6
NVLJ				*i* Pg	Pg	01 42 27.3	-0.2
NVLJ				*i* Sg	Sg	01 42 48.1	+1.3
NVLJ	Novalja	1.46	350	*i* Pg	Pg	01 42 27.3	-0.2
NVLJ				*i* Sg	Sg	01 42 48.1	+1.2
RGNG	Rignano Grg	1.48	170	*e*PN	Pn	01 42 25.8	-0.5
RGNG				SN	Sn	01 42 46.8	+0.3
INTR	Introdacqua	1.49	222	*e*PN	Pn	01 42 28.8	+2.4
CING	Cingoli	1.51	280	*e*PN	Pn	01 42 29.0	+2.3
CING				SN	Sn	01 42 50.3	+3.1
FGMS	Monte Sant'Ang	1.52	159	*e*PN	Pn	01 42 28.2	+1.3
AQU	L'Aquila	1.56	241	*e*PN	Pn	01 42 29.2	+1.8
AQU	L'Aquila	1.56	241	*e*Pn	Pn	01 42 27.8	+0.5
CII	Carovilli	1.57	206	*e*PN	Pn	01 42 28.5	+1.0
CII	Carovilli	1.57	206	*e*Pn	Pn	01 42 28.2	+0.7
SNTG	Esanatoglia	1.68	275	*e*PN	Pn	01 42 30.8	+1.7
	108nm,0.3s						
SNTG	Esanatoglia	1.68	275	*e*Pn	Pn	01 42 30.8	+1.7
	108nm,0.3s						
ARV	Arcevia	1.71	283	⇓*i*PN	Pn	01 42 31.4	+1.8
PTQR	Pietraquaria	1.75	231	*e*PN	Pn	01 42 32.6	+2.5
SDI	San Donato	1.77	217	*e*PN	Pn	01 42 30.9	+0.5
	321nm,0.7s						
SDI	San Donato	1.77	217	*e*Pn	Pn	01 42 30.9	+0.5
	321nm,0.7s						
FG5	Orsara di Pugl	1.85	179	*e*PN	Pn	01 42 31.5	0.0
	372nm,0.6s						
FG5	Orsara di Pugl	1.85	179	*e*Pn	Pn	01 42 31.5	0.0
	372nm,0.6s						
SGG	Gregorio Mates	1.85	200	*e*PN	Pn	01 42 32.8	+1.2
FSSB	Fossombrone	1.87	288	⇓*i*PN	Pn	01 42 33.9	+2.0
	193nm,0.4s						
FSSB	Fossombrone	1.87	288	⇓*i*Pn	Pn	01 42 33.9	+2.0
	193nm,0.4s						
IPES	Pescosannita	1.92	189	*e*PN	Pn	01 42 32.7	+0.1
MURB	Monte Urbino	1.98	275	*e*PN	Pn	01 42 35.8	+2.3
MNS	Montasola	2.02	249	*e*PN	Pn	01 42 36.1	+2.1
	133nm,0.4s						
MNS	Montasola	2.02	249	*e*Pn	Pn	01 42 36.1	+2.1
	133nm,0.4s						
BLY	Banja Luka	2.15	40	Sg	Sg	01 43 06.7	-3.2
BLY	Banja Luka	2.15	40	Pn	Pn	01 42 37.8	+2.0
MSC	Monte Massico	2.15	206	*e*PN	Pn	01 42 37.9	+2.0
RSM	Repubblica di	2.17	292	*e*PN	Pn	01 42 38.5	+2.3
	55nm,0.3s						
RSM	Repubblica di	2.17	292	*e*Pn	Pn	01 42 38.5	+2.3
	55nm,0.3s						
TREB	Trebinje	2.33	99	Pn	Pn	01 42 38.8	+0.4
TREB				Sn	Sn	01 43 07.9	-0.2
BOJS	Bojanci	2.37	0	*i* Pn	Pn	01 42 41.3	+2.2
BOJS				*i* Sn	Sn	01 43 11.5	+2.3
	comp=Z,260nm,0.4s						
BOJS	Bojanci	2.37	0	*i* Pn	Pn	01 42 41.3	+2.3
BOJS				*i* Sn	Sn	01 43 11.5	+2.3
	comp=Z,260nm,0.4s						
MRLC	Muro Lucano	2.38	175	*e*PN	Pn	01 42 38.1	-1.1
BRY	Bratogost	2.44	94	⇑*i*Pn	Pn	01 42 41.2	+1.2
BRY				*e*Sn	Sn	01 43 12.0	+1.1
CRE	Caprese Michel	2.44	283	*e*PN	Pn	01 42 42.6	+2.6
	comp=Z,61nm,0.4s						
CRE	Caprese Michel	2.44	283	*e*Pn	Pn	01 42 42.6	+2.6
	comp=Z,61nm,0.4s						
KNDS	Knezji Dol	2.47	346	*i* Pn	Pn	01 42 42.4	+1.9
KNDS				*i* Sn	Sn	01 43 13.9	+2.2
	comp=Z,107nm,0.2s						
KNDS	Knezji Dol	2.47	346	*i* Pn	Pn	01 42 42.4	+1.9
KNDS				*i* Sn	Sn	01 43 13.9	+2.2
	comp=Z,107nm,0.2s						
SISC	Sisak	2.48	19	*i* Pn	Pn	01 42 43.0	+2.4
SISC				*i* Sg	Sg	01 43 20.4	-0.5
HCY	Herceg Novi	2.50	105	⇓*i*Pn	Pn	01 42 41.8	+0.9
HCY				*e*Sn	Sn	01 43 14.2	+1.7
SGO	Sicignano	2.57	179	*e*PN	Pn	01 42 41.0	-0.9
	comp=Z,55nm,0.7s						
SGO	Sicignano	2.57	179	*e*Pn	Pn	01 42 41.0	-0.9
	comp=Z,55nm,0.7s						
SFI	Santa Sofia	2.58	289	*e*PN	Pn	01 42 44.2	+2.2
	comp=Z,51nm,0.2s						
SFI	Santa Sofia	2.58	289	*e*Pn	Pn	01 42 44.2	+2.2
	comp=Z,51nm,0.2s						
PGD	Poggio Sodo	2.66	287	*e*PN	Pn	01 42 46.0	+2.8
	comp=Z,42nm,0.4s						
PGD	Poggio Sodo	2.66	287	*e*Pn	Pn	01 42 46.0	+2.8
	comp=Z,42nm,0.4s						
CEY	Cerknica	2.67	348	*e*Pn	Pn	01 42 45.0	+1.7
UPM	Unac-Piva	2.69	87	⇓*i*Pn	Pn	01 42 44.8	+1.2
UPM				*e*Sn	Sn	01 43 18.8	+1.5
SLCN	Sala Consilina	2.76	174	*e*PN	Pn	01 42 44.1	-0.4
NKY	Niksic	2.78	95	⇑*i*Pn	Pn	01 42 45.4	+0.4
NKY				*e*Sn	Sn	01 43 20.5	+0.9
TRI	Trieste	2.78	338	*e*PN	Pn	01 42 46.2	+1.3
	comp=Z,153nm,0.4s						
TRI	Trieste	2.78	338	*e*Pn	Pn	01 42 46.2	+1.3
	comp=Z,153nm,0.4s						
VMG	Vicchio	2.81	288	*e*PN	Pn	01 42 48.1	+2.9
	comp=Z,63nm,0.2s						
VMG	Vicchio	2.81	288	*e*Pn	Pn	01 42 48.1	+2.9
	comp=Z,63nm,0.2s						
BUM	Brajici-Budva	2.83	106	⇑*i*Pn	Pn	01 42 46.0	+0.4
BUM				*e*Sn	Sn	01 43 21.7	+0.9
JAVS	Javornik	2.88	344	*i* Pn	Pn	01 42 47.8	+1.5
CSNT	Castellina Chi	2.90	278	*e*PN	Pn	01 42 47.9	+1.4
	comp=Z,50nm,0.6s						
CSNT	Castellina Chi	2.90	278	*e*Pn	Pn	01 42 47.9	+1.4
	comp=Z,50nm,0.6s						
LJU	Ljubljana	2.96	350	*i* Pn	Pn	01 42 49.3	+1.9
LJU				*e*Sn	Sn	01 43 24.0	0.0
	comp=Z,426nm,0.9s						
SEI	Scarperia	2.96	289	*e*PN	Pn	01 42 50.1	+2.6
	comp=Z,249nm,0.4s						
SEI	Scarperia	2.96	289	*e*Pn	Pn	01 42 50.1	+2.6
	comp=Z,249nm,0.4s						
MGR	Morigerati	3.00	175	*e*PN	Pn	01 42 47.0	-1.0
	comp=Z,37nm,0.7s						
MGR	Morigerati	3.00	175	*e*Pn	Pn	01 42 47.0	-1.0
	comp=Z,37nm,0.7s						
PLE	Pljevlja	3.05	85	⇑*i*Pn	Pn	01 42 49.6	+0.9
PLE				*e*Sn	Sn	01 43 27.0	+0.6
TTG	Podgorica	3.05	102	⇓*i*Pn	Pn	01 42 49.0	+0.3
TTG				*e*Sn	Sn	01 43 27.3	+0.9
VOY	Vojsko	3.05	342	*e*Pn	Pn	01 42 50.2	+1.4
VOY				*e*(Sn)	Sn	01 43 28.0	+1.5
VOY				*e*		01 43 42.8	
VOY	Vojsko	3.05	342	*e*Pn	Pn	01 42 50.2	+1.4
VOY				Sn	Sn	01 43 28.0	+1.5
ULC	Ulcinj	3.19	110	⇓*i*Pn	Pn	01 42 51.4	+0.7
ULC				*e*Sn	Sn	01 43 30.7	+0.7
ORI	Oriolo Calabro	3.20	163	*e*PN	Pn	01 42 51.0	+0.2
	comp=Z,127nm,0.8s						
ORI	Oriolo Calabro	3.20	163	*e*Pn	Pn	01 42 51.0	+0.2
	comp=Z,127nm,0.8s						
OBKA	Obir	3.41	352	⇑*i*PN	Pn	01 42 55.0	+1.1
OBKA				*i* SN	Sn	01 43 37.1	+1.6
OBKA				*i* SG	Sg	01 43 54.0	+2.0
	comp=Z,229nm,0.6s						
IVA	Berane	3.43	93	⇓*i*Pn	Pn	01 42 55.0	+0.9
IVA				*e*Sn	Sn	01 43 36.2	+0.1
PII	Pisa	3.48	281	*e*PN	Pn	01 42 55.7	+0.9
	comp=Z,46nm,0.2s						
PII	Pisa	3.48	281	*e*Pn	Pn	01 42 55.7	+0.9
	comp=Z,46nm,0.2s						
PVY	Plav	3.53	97	*e*Pn	Pn	01 42 55.8	+0.3
PVY				*e*Sn	Sn	01 43 38.7	+0.2
DIVS	Divcibare	3.59	73	⇑*i*Pn	Pn	01 42 56.0	-0.4
DIVS				Sn	Sn	01 43 32.8	-7.2
RHK1	Bakonya	3.59	33	⇓*e*P	Pn	01 42 56.2	-0.2
RHK1				*e*S	Sn	01 43 39.0	-1.1
	comp=Z,4.4nm,0.8s						
PKSM	Moragy	3.92	37	*e*P	Pn	01 43 01.8	+0.7
GRUS	Gruza	4.06	77	⇓*i*Pn	Pn	01 43 02.8	-0.3
GRUS				Sn	Sn	01 43 49.0	-3.0
ARSA	Arzberg	4.12	3	⇑*i*PN	Pn	01 43 04.8	+0.8
ARSA				*i* SN	Sn	01 43 52.5	-1.1
ARSA	Arzberg	4.12	3	⇑*i*Pn	Pn	01 43 04.8	+0.8
ARSA				*e*Sn	Sn	01 43 52.4	-1.2
KBA	Koelnbreinsper	4.17	342	⇑*i*PN	Pn	01 43 05.9	+1.3
KBA				*i* SN	Sn	01 43 55.7	+1.1
PGF	Pioggiola	4.62	265	*e*Pn	Pn	01 43 12.4	+1.4
SKO	Skopje	4.73	102	*e*Pn	Pn	01 43 13.3	+0.7
MOA	Molln	4.77	352	⇑*i*PN	Pn	01 43 14.0	+0.9
MOA				*i* SN	Sn	01 44 09.0	-0.8
PKSG		4.81	27	⇓*i*P	Pn	01 43 13.4	-0.3
WTTA	Wattenberg	4.85	330	⇑*i*PN	Pn	01 43 15.4	+1.1
WTTA				*i* SN	Sn	01 44 12.4	+0.5
WATA	Walderalm	4.93	330	⇓*i*PN	Pn	01 43 16.3	+0.8
WATA				*i* SN	Sn	01 44 14.7	+0.7
SQTA	Sankt Quirin	4.98	327	⇑*i*PN	Pn	01 43 17.6	+1.5
SQTA				*i* SN	Sn	01 44 15.9	+0.7
PCP	Pian Castagno	5.04	289	P	Pn	01 43 16.3	-0.6
FNA	Florina	5.15	115	*e*Pn	Pn	01 43 17.1	-1.3
FNA				*e*Sn	Sn	01 44 13.5	-6.0
FNA	Florina	5.15	115	*e*Pn	Pn	01 43 17.1	-1.4
FNA				*e*Sn	Sn	01 44 13.5	-5.9
FIN	Finale Ligure	5.21	284	P	Pn	01 43 17.8	-1.5
FIN	Finale Ligure	5.21	284	P	Pn	01 43 17.8	-1.5
DAVOX	Davos	5.26	316	Pn	Pn	01 43 21.6	+1.4
	comp=Z,1.8nm,0.3s,baz=146,slow=13,SNR=16						
DAVOX				Sn	Sn	01 44 26.9	+4.5
	comp=Z,2.1nm,0.3s,baz=311,slow=20,SNR=3.2						
IMI	Imperia	5.39	281	P	Pn	01 43 20.7	-1.3
IMI	Imperia	5.39	281	P	Pn	01 43 20.7	-1.3
ROB	Roburent	5.46	285	P	Pn	01 43 22.4	-0.5
ROB	Roburent	5.46	285	P	Pn	01 43 22.4	-0.5
MONE	Monesi	5.51	282	P	Pn	01 43 23.4	-0.3
MONE	Monesi	5.51	282	P	Pn	01 43 23.4	-0.2
NEGI	Negi	5.52	280	P	Pn	01 43 23.1	-0.7
NEGI	Negi	5.52	280	P	Pn	01 43 23.1	-0.7
DAVA	Damuels	5.62	320	⇑*i*PN	Pn	01 43 26.5	+1.4
DAVA				*i* SN	Sn	01 44 29.5	-1.7
SAOF	Saorge	5.64	281	P	Pn	01 43 25.8	+0.3
SBF	Sospel	5.72	280	*e*Pn	Pn	01 43 26.3	-0.2
SBF				*e*Sn	Sn	01 44 26.9	-6.8
	comp=Z,20nm,0.2s						
SBF	Sospel	5.72	280	*e*Sn	Sn	01 44 26.9	-6.8
	comp=Z,9.8nm,0.2s						
AUTN	L'Aution	5.74	281	P	Pn	01 43 27.7	+0.9
GRG	Griva	5.76	110	*e*Pn	Pn	01 43 25.0	-2.2
GRG				*e*Sn	Sn	01 44 28.9	-6.0
ORX	Oropa	5.76	298	P	Pn	01 43 25.2	-2.0
ENR	Entracque	5.77	284	P	Pn	01 43 26.5	-0.8
ENR	Entracque	5.77	284	P	Pn	01 43 26.5	-0.8
PSZ	Piszkesteto	5.80	33	⇑*e*Pn	Pn	01 43 30.0	+2.3
PSZ				*e*Sn	Sn	01 44 33.5	-2.3

PSZ	Piszkesteto	5.80	33	eS	Sn	01 44 33.5	-2.3
GEC2	GERESS Array S	5.81	350	ePn	Pn	01 43 27.7	-0.2
GERES	GERESS Array B	5.81	350	Pn	Pn	01 43 27.7	-0.1
	comp=Z,1.9nm,0.3s,baz=170,slow=13,SNR=88						
GERES				Sn	Sn	01 44 32.8	-3.3
	comp=Z,8.6nm,0.3s,baz=164,slow=25,SNR=20						
STV2	Anna di Valdie	5.84	284	P	Pn	01 43 27.8	-0.5
STV2	Anna di Valdie	5.84	284	P	Pn	01 43 27.8	-0.4
STV	Sta Anna Valdi	5.84	284	P	Pn	01 43 28.2	-0.1
STV	Sta Anna Valdi	5.84	284	P	Pn	01 43 28.2	-0.1
TOUF	Mont Tournerai	5.87	281	P	Pn	01 43 28.9	+0.3
VYHS	Vyhne	5.92	24	ePN	Pn	01 43 29.0	-0.5
VYHS				eSN	Sn	01 44 35.4	-3.5
BHB	Bricherasio	6.00	289	P	Pn	01 43 28.7	-1.7
BHB	Bricherasio	6.00	289	P	Pn	01 43 28.7	-1.8
KNT	Kendrikon	6.03	106	ePn	Pn	01 43 29.1	-1.8
KNT	Kendrikon	6.03	106	ePn	Pn	01 43 29.1	-1.8
PZZ	Prazzo	6.04	286	P	Pn	01 43 29.7	-1.4
PZZ	Prazzo	6.04	286	P	Pn	01 43 29.7	-1.4
RSP	Reno Superiore	6.08	292	P	Pn	01 43 29.0	-2.7
RSP	Reno Superiore	6.08	292	P	Pn	01 43 29.0	-2.7
KHC	Kasperske Hory	6.11	350	ePN	Pn	01 43 31.6	-0.5
KHC				ex	x	01 43 40.0	
KHC				eSN	Sn	01 44 39.2	-4.3
FENE	Fenestrelle	6.18	291	P	Pn	01 43 30.2	-2.9
FENE	Fenestrelle	6.18	291	P	Pn	01 43 30.2	-2.9
LIT	Litokhoron	6.23	117	ePn	Pn	01 43 31.6	-2.1
LIT				eSn	Sn	01 44 39.3	-7.2
WET	Wettzell	6.23	346	ePn	Pn	01 43 33.1	-0.7
SURF	Saint Ours	6.24	285	P	Pn	01 43 33.9	0.0
LSD	Ceresole Reale	6.24	295	P	Pn	01 43 33.5	-0.4
LSD	Ceresole Reale	6.24	295	P	Pn	01 43 33.5	-0.5
VRAC	Vranov	6.25	8	Pn	Pn	01 43 34.0	-0.1
	comp=Z,0.7nm,0.3s,baz=196,slow=12,SNR=5.7						
VRAC				Sn	Sn	01 44 42.0	-5.1
	comp=Z,1.0nm,0.3s,baz=110,slow=23,SNR=5.1						
FRF	La Foret Royal	6.27	277	eSn	Sn	01 44 40.2	-7.5
	comp=Z,10nm,0.4s						
FRF	La Foret Royal	6.27	277	ePn	Pn	01 43 33.8	-0.6
FRF				eSn	Sn	01 44 40.2	-7.5
MBDF	Montbardon	6.31	288	eSn	Sn	01 44 41.3	-7.3
	comp=Z,14nm,0.3s						
MBDF	Montbardon	6.31	288	ePn	Pn	01 43 33.8	-1.1
MBDF				eSn	Sn	01 44 41.3	-7.3
	comp=Z,7.2nm,0.3s						
RRL	Cesana Torines	6.35	289	P	Pn	01 43 33.9	-1.5
LMR	La Mourre	6.38	275	ePn	Pn	01 43 34.3	-1.5
LMR				eSn	Sn	01 44 42.0	-8.2
	comp=Z,4.0nm,0.2s						
LMR	La Mourre	6.38	275	eSn	Sn	01 44 42.0	-8.2
	comp=Z,2.0nm,0.2s						
SOH	Sokhos	6.48	108	ePn	Pn	01 43 34.8	-2.4
LPG	La Plagne	6.53	294	ePn	Pn	01 43 35.8	-2.1
LPG				eSn	Sn	01 44 46.4	-7.6
	comp=Z,37nm,0.4s						
SRS	Serrai	6.54	105	ePn	Pn	01 43 36.1	-1.9
SRS				eSn	Sn	01 44 47.9	-6.2
LPL	La Plagne	6.54	294	ePn	Pn	01 43 36.8	-1.4
LPL				eSn	Sn	01 44 46.8	-7.6
	comp=Z,48nm,0.3s						
LPL	La Plagne	6.54	294	eSn	Sn	01 44 46.8	-7.6
	comp=Z,24nm,0.3s						
AGG	Agios Georgios	6.75	125	ePn	Pn	01 43 39.5	-1.7
AGG				eSn	Sn	01 44 53.1	-6.6
GDM	Grand'Maison	6.87	291	P	Pn	01 43 43.3	+0.5
PRU	Pruhonice	6.88	356	ePN	Pn	01 43 41.7	-1.2
PRU				eSN	Sn	01 44 57.3	-5.4
ORIF	Oris-en-Rattie	6.97	288	ePn	Pn	01 43 42.9	-1.3
ORIF				eSn	Sn	01 44 57.0	-8.1
	comp=Z,13nm,0.3s						
XOR	Xorichti	7.08	119	ePn	Pn	01 43 43.7	-2.0
XOR				eSn	Sn	01 45 00.5	-7.4
BFO	Black Forest	7.09	320	ePn	Pn	01 43 42.9	-3.0
OUR	Ouranopolis	7.12	110	ePn	Pn	01 43 44.0	-2.3
GRN	Grenoble	7.14	290	P	Pn	01 43 46.6	+0.1
NKC	Novy Kostel	7.36	346	ePN	Pn	01 43 49.0	-0.6
NKC				eSN	Sn	01 45 09.4	-5.3
CABF	La Chapelle	7.37	301	ePn	Pn	01 43 47.9	-1.9
CABF				eSn	Sn	01 45 06.1	-8.9
	comp=Z,14nm,0.6s						
MOF	Molkenrain	7.39	312	P	Pn	01 43 49.6	-0.5
HINF	Hinteralfeld	7.52	311	ePn	Pn	01 43 49.0	-2.9
HINF				eSn	Sn	01 45 10.2	-8.7
	comp=Z,9.5nm,0.4s						
ECH	Echery	7.60	315	P	Pn	01 43 53.1	+0.1
CDF	Champ du Feu	7.67	316	ePn	Pn	01 43 52.4	-1.6
CDF				eSn	Sn	01 45 12.7	-10
	comp=Z,7.4nm,0.6s						
BRG	Berggiesshubel	7.79	354	ePn	Pn	01 43 54.0	-1.7
BRG				i		01 45 34.5	
BRG				i Sg	rx	01 47 00.0	
VIVF	Saint-Julien-l	7.81	286	ePn	Pn	01 43 53.9	-2.0
VIVF				eSn	Sn	01 45 16.4	-10
	comp=Z,5.9nm,0.4s						
HAU	Haudompre	7.91	311	ePn	Pn	01 43 56.0	-1.3
HAU				eSn	Sn	01 45 20.3	-8.2
	comp=Z,31nm,0.4s						
MOX	Moxa	7.91	343	i P	Pn	01 43 55.7	-1.7
MOX				S	Sn	01 45 20.0	-8.6
MOX				Sg	Sg	01 46 09.0	-13
MOX	Moxa	7.91	343	ePn	Pn	01 43 55.7	-1.7
MOX				eSn	Sn	01 45 20.7	-7.9
MOX				eSg	Sg	01 46 08.7	-13
MLR	Muntele Rosu	8.04	69	Pn	P	01 43 57.9	-1.2
	comp=Z,0.1nm,0.3s,baz=228,slow=14,SNR=3.4						
LASF	Ste Croix	8.31	280	ePn	P	01 43 59.8	-3.1
CLL	Collm	8.32	350	i Pn	P	01 44 02.6	-0.5
CLL				eSg	Sg	01 46 32.0	-3.4
CLL	Collm	8.32	350	i PN	P	01 44 02.6	-0.5
CLL				e		01 45 49.0	
CLL				e		01 46 20.0	
CLL				eSG	Sg	01 46 32.0	-3.4
ALN	Alexandroupoli	8.36	102	ePn	P	01 44 01.6	-2.0
SMF	Signal de Mont	8.81	297	ePn	P	01 44 06.5	-3.4
SMF				eSn	Sn	01 45 40.8	-10
	comp=Z,16nm,0.4s						
SSF	Saint Saulge	9.18	299	ePn	P	01 44 12.5	-2.4
SSF				eSn	Sn	01 45 49.5	-11
	comp=Z,4.0nm,0.4s						
AVF	Avril sur Loir	9.18	298	ePn	P	01 44 12.7	-2.3
AVF				eSn	Sn	01 45 49.3	-11
	comp=Z,3.4nm,0.4s						
BGF	Bois d'Agland	9.44	296	ePn	P	01 44 15.6	-3.0
BGF				eSn	Sn	01 45 56.1	-11
	comp=Z,16nm,0.4s						
CAF	Calviac	9.65	285	ePn	P	01 44 19.9	-1.6
TCF	Toulx Ste Croi	9.79	293	ePn	P	01 44 20.5	-2.9
RJF	Les Rejaudoux	10.08	287	ePn	P	01 44 24.0	-3.4
BRTR	Keskin Array B	14.22	98	Pn	P	01 45 31.0	+7.9
	comp=Z,0.1nm,0.3s,baz=309,slow=9.2,SNR=3.3						
FINES	FINESS Array B	19.45	16	P	P	01 46 26.5	-2.4
	comp=Z,0.3nm,0.3s,baz=191,slow=11,SNR=12						
FINES	FINESS Array B	19.45	16	P	P	01 46 26.5	-2.4
ZAL	Zalesovo	45.53	51	P	P	01 50 19.3	-1.7
	comp=Z,1.0nm,0.3s,mb4.3,baz=208,slow=2.3,SNR=3.3						
SONM	Songino Array	60.44	51	P	P	01 52 09.8	-1.9
	comp=Z,0.5nm,0.8s,mb3.6,baz=289,slow=6.2,SNR=3.7						

IDC 17 01:58:19.6±1.1, 12.97N×93.33E, mb3.7/5, mb1 3.9/6, mb1mx3.7/18, ML4.2/1, Error ellipse: s-maj=48.1km s-min=21.7km az=43.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.68	44	Pn	Pn	02 00 13.2	-2.2
	1.0nm,0.3s,baz=235,slow=15,SNR=37						
WRA	Warramunga Arr	51.95	128	P	P	02 07 30.5	-2.3
	0.2nm,0.4s,baz=305,slow=9.9,SNR=9.6						
ASAR	Alice Springs	53.85	132	P	P	02 07 44.8	-2.1
	0.4nm,0.5s,baz=310,slow=6.9,SNR=6.7						
BRTR	Keskin Array B	58.57	309	P	P	02 08 18.8	-1.8
	0.6nm,0.6s,baz=116,slow=8.9,SNR=5.2						
FINES	FINESS Array B	67.87	331	P	P	02 09 19.0	-2.7
	1.2nm,0.8s,baz=124,slow=10.0,SNR=5.4						
GERES	GERESS Array B	73.54	317	P	P	02 09 54.8	-1.4
	0.6nm,0.7s,baz=90,slow=6.7,SNR=6.0						

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*NIED **17** 02:07:00, 24.20N×122.30E, h29^{km}, Mw4.0 Best double couple: M$_0$1.01×10^{15} NP1:φ$_s$242°, δ89°, λ-65°. NP2: φ$_s$334°, δ25°, λ-178°.*

*IDC **17** 02:07:07.8±3.5, 24.07N×122.42E, mb4.0/6, mb1 4.1/6, mb1mx3.8/21, Error ellipse: s-maj=87.5km s-min=54.6km az=11.0*

*NEIC **17** 02:07:09.8±6.8, 24.04N×122.40E, h13^{km}±27^{km}, mb4.0/2, Error ellipse: s-maj=63.3km s-min=41.1km az=183.0*

*TAP **17** 02:07:12.2, 24.05N×122.29E, h13^{km}, ML4.2*

*JMA **17** 02:07:13.1±0.3, 24.21N×122.26E, h41^{km}, M3.7*

ISC 17 02:07:12.1±1.8, 24.2N±0.2×122.22E±0.05, h30^{km}±9^{km}, n18, σ0^{s}74/23, mb3.9/8, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.78	68	P	Pb	02 07 27.0	0.0
YOJ				S	Sb	02 07 36.7	-0.5
TATO	Taipei	1.05	320	ePg	Pn	02 07 33.9	+3.0
IRIF	Iriomote-Funau	1.39	83	P	Pn	02 07 36.2	+0.4
IRIF				eS	Sn	02 07 54.3	+1.1
HATJ	Hateruma jima	1.45	94	P	Pn	02 07 37.0	+0.3
HATJ				eS	Sn	02 07 54.9	0.0
JKRS	Kuro-shima	1.63	87	P	Pn	02 07 39.8	+0.5
JIJ	Ishigaki jima	1.76	83	P	Pn	02 07 40.3	-0.9
JIJ				eS	Sn	02 08 02.2	-0.6
JTJ	Tarama	2.31	78	P	Pn	02 07 49.2	+0.2
JTJ				eS	Sn	02 08 16.8	+0.1
JMJ	Miyako jima 2	2.87	76	eS	Sn	02 08 31.9	+1.0
JOGS	Gusukube	2.96	78	eS	Sn	02 08 32.4	-0.8
JKE	Kume jima 2	4.66	62	P	Pn	02 08 22.1	-0.3
ULN	Ulaanbaatar	26.54	337	P	P	02 12 49.2	+0.1
	1.7nm,0.6s,mb3.8						
SONM	Songino Array	26.76	336	P	P	02 12 51.2	0.0
	3.5nm,0.7s,mb4.0,baz=149,slow=9.7,SNR=33						
ZAL	Zalesovo	40.78	327	P	P	02 14 51.8	-0.4
	1.8nm,0.9s,mb3.7,baz=12,slow=7.6,SNR=12						
BVAR	Borovoye Array	48.29	320	P	P	02 15 52.4	-0.1
	0.8nm,0.5s,mb4.0,baz=112,slow=8.0,SNR=7.1						
BRVK	Borovoye	48.36	321	eP	P	02 15 53.1	+0.1
	1.6nm,0.7s,mb4.2						
FINES	FINESS Array B	71.94	330	P	P	02 18 32.6	-1.8
	3.6nm,1.0s,mb4.2,baz=68,slow=7.5,SNR=5.3						
BRTR	Keskin Array B	73.94	307	P	P	02 18 47.0	+0.5
	1.1nm,0.6s,mb4.0,baz=90,slow=4.1,SNR=8.1						
YKA	Yellowknife Ar	82.61	23	P	P	02 19 33.1	-0.4
	0.2nm,0.8s,mb3.2,baz=311,slow=4.5,SNR=6.2						

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*IDC **17** 02:10:19.4±2.5, 6.67S×149.92E, mb4.1/5, mb1 4.4/6, mb1mx4.0/14, ML3.2/1, Error ellipse: s-maj=60.3km s-min=34.2km az=163.0*

*NEIC **17** 02:10:26.6±1.7, 6.80S×149.78E, h45^{km}, mb4.3/3, Error ellipse: s-maj=44.4km s-min=19.2km az=156.0*

ISC 17 02:10:26.7±4.9, 6.8S±0.3×149.7E±0.3, h63^{km}±32^{km}, n12, σ0^{s}61/13, mb3.9/4, 1D, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	3.63	224	Pn	P	02 11 21.9	+0.1
	14nm,0.3s,baz=50,slow=11,SNR=30						
PMG				Sn	S	02 12 04.1	+0.4
	15nm,0.3s,baz=101,slow=21,SNR=8.1						
PMG	Port Moresby	3.63	224	ePn	P	02 11 21.7	-0.1
PMG				Sn	S	02 12 04.1	+0.4
WRAB	Tennant Creek	19.83	227	eP	P	02 14 54.3	-0.7
	16nm,0.5s						
WRAB				epP		02 15 04.9	
WRAB				esP		02 15 10.9	
WRA	Warramunga Arr	19.84	227	P	P	02 14 54.5	-0.7
	9.5nm,0.5s,baz=53,slow=11,SNR=140						
ASAR	Alice Springs	22.64	220	P	P	02 15 23.7	+0.3
	2.5nm,0.7s,mb3.8,baz=56,slow=9.2,SNR=34						
ASPA	Alice Springs	22.64	220	eP	P	02 15 23.7	+0.3
FITZ	Fitzroy Crossi	26.02	242	eP	P	02 15 56.1	+0.2
	4.8nm,0.4s,mb4.4						
FITZ	Fitzroy Crossi	26.02	242	P	P	02 15 56.5	+0.6
	8.9nm,0.8s,mb4.3,baz=45,slow=7.8,SNR=25						
STKA	Stephens Creek	26.09	196	⇓iP	P	02 15 55.4	-1.0
	1.3nm,0.6s,mb3.6						
STKA	Stephens Creek	26.09	196	P	P	02 15 55.4	-1.0
	1.6nm,0.5s,mb3.8,baz=15,slow=9.9,SNR=8.5						
VNDA	Vanda	70.98	177	P	P	02 21 40.1	+1.0
	0.7nm,0.6s,mb3.8,baz=320,slow=7.9,SNR=4.5						
BDFB	Brasilia	151.63	142	PKPbc	PKPdf	02 30 16.9	+8.5
	1.7nm,0.5s,baz=200,slow=2.1,SNR=3.8						

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*NEIC **17** 02:24:16.6, 18.44N×68.66W, h187^{km}, MD3.7(RSPR), After RSPR.*

RSPR 17 02:24:16.6, 18.44N×68.66W, h187^{km}±2^{km}, MD3.7/10, MD3.7/10, 10C, Mona Passage

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSP	Las Mesas	1.51	100	eS	S	02 25 15.1	-0.1
LSP	Las Mesas	1.51	100	⇑eP	P	02 24 49.4	-0.2
LSP				eS	S	02 25 15.1	-0.1
MGP	Maguayo	1.55	106	⇑eP	P	02 24 49.3	-0.7
MGP				eS	S	02 25 15.2	-0.5
LRS	Lares	1.73	94	⇑eP	P	02 24 51.9	+0.2
AOPR	Arecibo Observ	1.81	93	eS	S	02 25 20.3	0.0
AOPR	Arecibo Observ	1.81	93	⇑eP	P	02 24 52.4	-0.1
AOPR				eS	S	02 25 20.3	0.0
PORP	Portuguez	1.96	101	⇑eP	P	02 24 53.9	-0.1
PORP				eS	S	02 25 23.2	+0.3
CELP	Cerrillos	2.00	100	⇑eP	P	02 24 54.3	-0.2
CELP				eS	S	02 25 24.5	+0.7
CSB	Colonia Sabana	2.38	93	⇑eP	P	02 24 58.7	-0.1
SJG	San Juan	2.40	97	⇑eP	P	02 24 59.2	+0.1
CBYP	Canovanas	2.66	93	eS	S	02 25 37.2	0.0
CBYP	Canovanas	2.66	93	⇑eP	P	02 25 01.8	-0.3
CBYP				eS	S	02 25 37.2	0.0
MTP	Monte Pirata	2.96	96	⇑eP	P	02 25 05.6	-0.1

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*IDC **17** 02:48:01.4±4.7, 18.83S×169.25E, h277^{km}±46^{km}, mb4.0/14, mb1 4.2/14, mb1mx4.1/18, Error ellipse: s-maj=21.4km s-min=14.0km az=32.0*

*NEIC **17** 02:48:01.7±3.2, 18.78S×169.21E, h280^{km}±31^{km}, mb4.4/12, Error ellipse: s-maj=14.0km s-min=11.4km az=216.0*

ISC 17 02:47:58.1±1.4, 18.78S±0.10×169.19E±0.09, h255^{km}±12^{km}, n41, σ1^{s}04/36, mb4.3/21, 3D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	4.17	218	⇑iP	P	02 49 04.4	-0.3
NOUC	Port Laguerre	4.28	219	⇑eP	P	02 49 05.7	-0.2
ARMA	Armidale	19.70	231	eP	P	02 52 11.7	+1.9
URZ	Urewera	20.61	162	P	P	02 52 18.8	+0.1
	12nm,0.5s,baz=347,slow=5.3,SNR=12						
CTA	Charters Tower	21.67	263	eP	P	02 52 31.6	+2.4
	6.0nm,0.7s,mb4.0						
CTA	Charters Tower	21.67	263	P	P	02 52 31.7	+2.5
	6.0nm,0.5s,mb4.2,baz=96,slow=13,SNR=11						
CTAO	Charters Tower	21.67	263	eP	P	02 52 31.2	+2.0
	6.7nm,0.5s,mb4.2						
PMG	Port Moresby	23.29	291	P	P	02 52 46.0	+1.1
	42nm,0.9s,mb4.8,baz=152,slow=4.0,SNR=8.3						
PMG	Port Moresby	23.29	291	eP	P	02 52 46.1	+1.3
RPZ	Rata Peaks	24.91	177	P	P	02 52 59.1	-0.5
	20nm,0.9s,mb4.5,baz=333,slow=3.6,SNR=4.9						
STKA	Stephens Creek	28.06	237	⇓iP	P	02 53 28.4	+0.1
	9.3nm,0.6s,mb4.4						
STKA				e	pP	02 54 19.5	+1.5
STKA	Stephens Creek	28.06	237	P	P	02 53 28.8	+0.5
	10nm,0.6s,mb4.5,baz=66,slow=8.5,SNR=55						
WRAB	Tennant Creek	32.86	262	eP	P	02 54 08.7	-1.6
	6.6nm,0.8s,mb4.2						
WRA	Warramunga Arr	32.87	262	P	P	02 54 09.3	-1.0
	3.4nm,0.3s,mb4.3,baz=82,slow=6.3,SNR=219						
ASAR	Alice Springs	33.20	255	P	P	02 54 12.8	-0.3
	37nm,0.4s,mb5.2,baz=83,slow=8.9,SNR=731						
ASPA	Alice Springs	33.20	255	⇓iP	P	02 54 12.8	-0.4
MBWA	Marble Bar	46.40	258	eP	P	02 56 01.2	-0.1
	14nm,0.4s,mb4.7						
NWAO	Narrogin (SRO)	48.39	242	P	P	02 56 15.4	-1.0
	5.6nm,0.7s,mb4.0,baz=94,slow=5.2,SNR=3.6						
NWAO	Narrogin (SRO)	48.39	242	eP	P	02 56 15.7	-0.8
SBA	Scott Base	59.12	181	eP	P	02 57 33.1	-0.5
	11nm,0.9s,mb4.3						
QSPA	South Pole Qui	71.28	180	⇓iP	P	02 58 50.1	-0.8
	6.8nm,0.9s,mb4.3						
MAW	Mawson	78.85	202	P	P	02 59 34.3	+0.4
	4.0nm,0.7s,mb4.2,baz=123,slow=5.4,SNR=5.9						
CMB	Columbia Colle	86.88	48	eP	P	03 00 15.2	-0.2
	6.9nm,0.9s,mb4.5						
NVAR	Mina Array Bea	88.53	49	P	P	03 00 23.8	+0.7
	2.5nm,0.8s,mb4.1,baz=213,slow=6.5,SNR=16						
NVAR	Mina Array Bea	88.53	49	P	P	03 00 23.8	+0.6
TPNV	Topopah Spring	89.39	51	eP	P	03 00 27.3	+0.1
	5.9nm,0.9s,mb4.4						
SNAA	Sanae	89.62	183	e	P	03 00 26.4	-1.1
SNAA	Sanae	89.62	183	P	P	03 00 26.4	-1.1
	1.2nm,0.7s,mb3.8,baz=254,slow=7.4,SNR=9.0						
SNAA	Sanae	89.62	183	eP	P	03 00 26.1	-1.3
	2.7nm,0.7s,mb4.2						
ILAR	Eielson Array	89.80	17	P	P	03 00 26.6	-1.9
	1.2nm,0.5s,mb4.0,baz=239,slow=5.0,SNR=25						
VNA3	Neumayer Olymp	90.21	180	e	P	03 00 31.3	+1.0
VNA2	Neumayer--Watz	90.50	181	e	P	03 00 33.0	+1.4
TUC	Tucson	91.79	57	eP	P	03 00 39.1	+0.7
	5.1nm,1.0s,mb4.4						
INK	Inuvik	96.12	18	eP	P	03 00 55.2	-2.2
	2.3nm,0.4s,mb4.7						
PDAR	Pinedale Array	96.33	47	P	P	03 01 00.7	+1.7
	0.3nm,0.5s,mb3.7,baz=180,slow=3.0,SNR=3.7						
TXAR	Lajitas Array	96.58	61	P	P	03 01 00.9	+0.4
	0.4nm,0.6s,mb3.9,baz=220,slow=7.0,SNR=3.8						
YKA	Yellowknife Ar	100.28	27	P	P	03 01 16.7	+0.3
	1.0nm,0.7s,baz=254,slow=4.5,SNR=15						
ARCES	ARCESS Array B	124.61	345	PKP	PKPdf	03 06 26.8	+0.1
	2.4nm,0.8s,baz=71,slow=1.7,SNR=6.5						
FINES	FINESS Array B	130.14	338	SKPbc		03 09 37.5	
	0.7nm,0.5s,baz=45,slow=2.7,SNR=4.8						
GERES	GERESS Array B	144.06	332	PKP	PKPdf	03 07 02.8	-0.2
	1.7nm,1.0s,baz=18,slow=4.2,SNR=6.1						
DAVOX	Davos	147.30	333	PKPbc	PKPdf	03 07 12.5	+3.7
	3.3nm,0.4s,baz=240,slow=6.0,SNR=7.0						

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*NIED **17** 02:48:00, 44.10N×141.60E, h5^{km}, Mw3.7 Best double couple: M$_0$4.37×10^{14} NP1:φ$_s$197°, δ72°, λ108°. NP2: φ$_s$331°, δ25°, λ47°.*

JMA 17 02:48:28.3±0.1, 44.08N×141.63E, M3.5, 5C-1D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHR	Hokuryu	0.34	168	⇑P	Pg	02 48 35.7	+0.5
JHR				eS	Sg	02 48 41.7	+2.0
JSS	Shosan	0.36	27	⇑P	Pg	02 48 36.1	+0.7
JYG	Yagishiri	0.38	337	⇓P	Pg	02 48 36.0	+0.2
JYG				eS	Sg	02 48 42.4	+1.6
ASAJ	Asahikawa	0.70	87	⇑P	Pg	02 48 41.5	-0.7
JAB	Ashibetsu	0.72	143	⇑P	Pg	02 48 42.2	-0.4
JKK2	Kamakawa 2	0.83	104	⇑P	Pg	02 48 43.9	-1.0

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*ROM **17** 02:48:45.1±1.9, 43.56N×16.35E, h10^{km}, MD3.1/9, ML2.8/7, Error ellipse: s-maj=15.4km s-min=9.0km az=90.0*

*LDG **17** 02:48:50.1±1.1, 43.57N×15.93E, h10^{km}, Ml2.8/5, Error ellipse: s-maj=27.7km s-min=9.1km az=57.0*

*CSEM **17** 02:48:55.4±0.2, 43.28N×15.45E, h25^{km}, ML2.8/5, Error ellipse: s-maj=4.7km s-min=2.6km az=100.0*

*NEIC **17** 02:48:56.1±1.7, 43.30N×14.98E, h10^{km}, ML2.8(LDG), Error ellipse: s-maj=21.4km s-min=10.9km az=85.0*

ISC 17 02:48:54.2±0.6, 43.19N±0.03×15.07E±0.06, h10^{km}, n45, σ1^{s}55/61, 2C-2D, Adriatic Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVLJ	Novalja	1.38	354	i Pn	Pn	02 49 18.6	-1.0
NVLJ				i Pg	Pg	02 49 19.6	-2.2
NVLJ				i Sg	Sg	02 49 39.9	-0.3
NVLJ	Novalja	1.38	354	i Pg	Pg	02 49 19.6	-2.2
NVLJ				i Sg	Sg	02 49 39.9	-0.3
AQU	L'Aquila	1.49	236	ePN	Pn	02 49 26.2	+5.0
	47nm,0.7s						
AQU	L'Aquila	1.49	236	ePn	Pn	02 49 23.9	+2.7
AQU	L'Aquila	1.49	236	ePn	Pn	02 49 23.9	+2.7
SNTG	Esanatoglia	1.56	273	ePN	Pn	02 49 25.3	+3.1
RGNG	Rignano Grg	1.56	166	ePN	Pn	02 49 18.3	-4.0
RGNG				SN	Sn	02 49 41.3	-1.4
RGNG	Rignano Grg	1.56	166	Sn	Sn	02 49 41.3	-1.4
CII	Carovilli	1.57	201	ePN	Pn	02 49 23.5	+1.1
	48nm,0.4s						
CII	Carovilli	1.57	201	ePn	Pn	02 49 24.4	+2.0
CII	Carovilli	1.57	201	ePn	Pn	02 49 24.4	+2.0
ARV	Arcevia	1.58	282	ePN	Pn	02 49 23.6	+1.0
	10.0nm,0.4s						
ARV	Arcevia	1.58	282	ePn	Pn	02 49 23.6	+1.0
	10.0nm,0.4s						
PTQR	Pietraquaria	1.70	227	ePN	Pn	02 49 28.2	+4.0
	20nm,0.5s						
PTQR	Pietraquaria	1.70	227	ePn	Pn	02 49 28.2	+4.0
	20nm,0.5s						
FSSB	Fossombrone	1.74	287	ePN	Pn	02 49 26.0	+1.2
	20nm,0.4s						
FSSB	Fossombrone	1.74	287	ePn	Pn	02 49 26.0	+1.2
	20nm,0.4s						
SDI	San Donato	1.75	213	ePN	Pn	02 49 27.0	+2.0
	60nm,0.5s						
SDI	San Donato	1.75	213	ePn	Pn	02 49 27.0	+2.0
	60nm,0.5s						
MNS	Montasola	1.94	246	ePN	Pn	02 49 32.0	+4.4
	13nm,0.5s						
MNS	Montasola	1.94	246	ePn	Pn	02 49 32.0	+4.4
	13nm,0.5s						
BLY	Banja Luka	2.18	44	Sg	Sg	02 50 00.3	-6.5
CRE	Caprese Michel	2.31	282	ePN	Pn	02 49 34.7	+1.7
	9.0nm,0.4s						
CRE	Caprese Michel	2.31	282	ePn	Pn	02 49 34.7	+1.7
	9.0nm,0.4s						
BOJS	Bojanci	2.31	3	i Pn	Pn	02 49 33.5	+0.4
SEI	Scarperia	2.83	289	ePN	Pn	02 49 42.1	+1.7
	24nm,0.4s						
SEI	Scarperia	2.83	289	ePn	Pn	02 49 42.1	+1.7
	24nm,0.4s						
VOY	Vojsko	2.96	344	ePn	Pn	02 49 42.3	0.0
VOY				e(Sn)	Sn	02 50 19.7	+1.5
VOY				e		02 50 33.0	
VOY	Vojsko	2.96	344	ePn	Pn	02 49 42.3	0.0
VOY				Sn	Sn	02 50 19.7	+1.5
OBKA	Obir	3.34	354	⇓iPN	Pn	02 49 47.8	+0.2
OBKA				i SN	Sn	02 50 30.8	+3.1
OBKA				i SG	Sg	02 50 47.8	+2.4
	28nm,0.6s						
ARSA	Arzberg	4.07	4	⇑iPN	Pn	02 49 56.6	-1.4
ARSA				i SN	Sn	02 50 44.7	-1.6
KBA	Koelnbreinsper	4.07	343	⇑iPN	Pn	02 49 58.1	0.0
KBA				i SN	Sn	02 50 48.2	+1.8
PGF	Pioggiola	4.51	264	ePn	Pn	02 50 05.0	+0.8
MOA	Molln	4.69	353	⇓iPN	Pn	02 50 06.5	-0.3
MOA				i SN	Sn	02 51 02.5	+0.5
SBF	Sospel	5.59	279	ePn	Pn	02 50 18.4	-1.1
SBF				eSn	Sn	02 51 24.3	-0.3
	1.2nm,0.2s						
SBF	Sospel	5.59	279	eSn	Sn	02 51 24.3	-0.3
	0.6nm,0.2s						
FRF	La Foret Royal	6.15	276	ePn	Pn	02 50 25.9	-1.5
FRF				eSn	Sn	02 51 37.7	-0.9
	0.4nm,0.3s						
FRF	La Foret Royal	6.15	276	eSn	Sn	02 51 37.7	-0.9
	0.2nm,0.3s						
MBDF	Montbardon	6.18	287	ePn	Pn	02 50 25.8	-2.1
MBDF				eSn	Sn	02 51 38.5	-1.0
	0.6nm,0.2s						
MBDF	Montbardon	6.18	287	eSn	Sn	02 51 38.5	-1.0
	0.3nm,0.2s						
LPG	La Plagne	6.39	294	ePn	Pn	02 50 28.1	-2.8
LPG				eSn	Sn	02 51 41.7	-3.0
	2.8nm,0.4s						
LPG	La Plagne	6.39	294	eSn	Sn	02 51 41.7	-3.0
	1.4nm,0.4s						
LPL	La Plagne	6.41	294	ePn	Pn	02 50 28.5	-2.6
LPL				eSn	Sn	02 51 42.2	-3.0
	4.4nm,0.5s						
LPL	La Plagne	6.41	294	eSn	Sn	02 51 42.2	-3.0
	2.2nm,0.5s						
ORIF	Oris-en-Rattie	6.84	288	ePn	Pn	02 50 35.7	-1.5

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*BJI **17** 02:50:14.8, 0.66S×123.89E, h157^{km}, mB5.0, mb4.8*

*IDC **17** 02:50:21.2±0.7, 0.09N×123.20E, h144^{km}±6^{km}, mb4.6/25, mb1 4.7/26, mb1mx4.7/27, MS4.1/4, Ms1 4.2/4, ms1mx3.5/19, Error ellipse: s-maj=15.2km s-min=7.1km az=65.0*

*SYO **17** 02:50:21.7, 0.02N×123.23E, h150^{km}, MB5.0*

*NEIC **17** 02:50:22.6±0.8, 0.01S×123.20E, h158^{km}±7^{km}, mb5.0/36, Error ellipse: s-maj=8.8km s-min=4.7km az=70.0*

*DJA **17** 02:50:22.7±0.3, 0.15S×123.31E, h33^{km}, mb6.0/3, Error ellipse: s-maj=71.1km s-min=6.4km az=133.0*

*HRVD **17** 02:50:22.6±0.2, 0.10S×123.28E, h154^{km}±1^{km}, MW5.3/70, Centroid moment Tensor Solution. LP body waves: s48,c74;Mantle waves: s70,c130; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.65±.02; $M_{\theta\theta}$-0.67±.02; $M_{\phi\phi}$0.01±.02; $M_{r\theta}$-0.63±.02; $M_{\theta\phi}$-0.11±.02; $M_{\phi r}$-0.24±.02; Best double couple: M_0.95×10^{17} NP1:ϕ_s90°, δ23°, λ107°. NP2:ϕ_s252°, δ68°, λ83°. Principal axes: T .94, Plg66°, Azm150°; N .01, Plg6°, Azm255°; P -.96, Plg23°, Azm348°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **17** 02:50:26.2±1.0, 0.05N×123.28E, h213^{km}, mb4.8/19 Error ellipse: s-maj=19.8km s-min=8.5km az=112.3*

ISC 17 02:50:21.6±0.6**, 0.02S**±0.03×**123.29E**±0.05**, h162**^{km}±5^{km}**, h147**^{km}±2.1^{km}**:pP-P, n226,** σ1^{s}30/196**, mb4.8**/73**, 20C-10D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MNI	Manado	2.13	47	eP	P	02 50 56.5	-2.8
MNI				eS	S	02 51 07.5	-21
BUNI	Buntu Taipa	4.67	219⇓	iP	P	02 51 30.1	-1.6
BUNI			⇓	iS	S	02 52 16.0	-10
TANI	Tanete Lipujan	5.17	229⇓	iP	P	02 51 38.5	+0.3
	310nm,0.3s						
NINI	Niniconang	5.62	219⇓	ipP		02 51 45.9	
NINI	Niniconang	5.62	219⇓	iP	P	02 51 44.4	+0.3
KCP	Kidapawan	7.21	14⇓	eP	P	02 52 09.3	+3.9
DAV	Davao City (W)	7.41	18	eP	P	02 52 12.0	+4.0
IPIL	Ipil	7.79	355	eP	P	02 52 16.6	+3.5
PAGZ	Pagadian	7.82	1	eP	P	02 52 13.7	+0.3
BUKP	Musuan	8.05	13	eP	P	02 52 17.7	+1.2
KEDI	Kedomdong	11.04	220⇑	iP	P	02 53 01.4	+5.6
	302nm,0.8s						
RATI	Rata	11.59	222⇑	iP	P	02 53 09.1	+6.0
	265nm,0.6s						
SRDI	Scrawed	12.39	227⇑	iP	P	02 53 20.7	+7.3
	179nm,1.0s						
SRDI	Scrawed	12.39	227⇑	iP	P	02 53 18.3	+4.9
LUBP	Lubang	14.00	348⇑	eP	P	02 53 40.1	+6.1
TGY	Tagaytay City	14.23	351	P	P	02 53 39.3	+2.4
	57nm,0.3s,baz=147,slow=6.8,SNR=9.7						
TGY				S	S	02 56 27.0	+16
	55nm,0.3s,baz=82,slow=6.4,SNR=5.5						
KAKA	Kakadu	15.53	145	eP	P	02 53 52.5	-0.8
	161nm,0.5s						
FITZ	Fitzroy Crossi	18.11	173⇑	iP	P	02 54 23.0	-0.9
	156nm,0.6s						
FITZ				eS	S	02 57 40.5	+3.0
FITZ				eSCP		03 02 11.0	
FITZ	Fitzroy Crossi	18.11	173	P	P	02 54 23.1	-0.8
	32nm,0.3s,baz=2.5,slow=10,SNR=554						
FITZ				S	S	02 57 39.9	+2.3
	baz=173,slow=23,SNR=12						
MBWA	Marble Bar	21.29	189	eP	P	02 54 55.8	-0.6
	68nm,0.9s,mb5.0						
WRAB	Tennant Creek	22.56	152c	iP	P	02 55 09.2	+0.3
WRAB	Tennant Creek	22.56	152	eP	P	02 55 08.9	+0.1
	153nm,0.8s,mb5.5						
WRA	Warramunga Arr	22.56	152	P	P	02 55 09.5	+0.6
	94nm,0.5s,mb5.5,baz=331,slow=10,SNR=240						
WRA				pP		02 55 36.5	
	24nm,0.7s,baz=329,slow=11,SNR=3.7						
WRA				S	S	02 59 02.9	+2.5
	1.3nm,0.6s,baz=318,slow=13,SNR=4.9						
WRA				ScP		03 02 21.4	
	5.6nm,0.8s,baz=339,slow=3.2,SNR=12						
WRA				PKiKP		03 06 42.0	
	0.3nm,0.5s,baz=304,slow=1.3,SNR=4.6						
WRA	Warramunga Arr	22.56	152	P	P	02 55 09.5	+0.6
WRA				S	S	02 59 02.9	+2.5
WRA				pmax	pmax		
	comp=Z,94nm,0.5s						
WRA				pmax	pmax		
	comp=Z,24nm,0.7s						
WRA				smax			
	comp=N,1.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
QIZ	Qiongzhong	23.08	326	P	P	02 55 14.6	+0.7
QIZ				AP		02 55 45.0	
QIZ				PP	PP	02 55 52.9	+3.0
QIZ				S	S	02 59 11.1	+1.9
QIZ				AMB	AMB		
	comp=Z,88nm,1.6s,mb4.9						
QIZ				AMB	AMB		
	comp=Z,166nm,4.1s						
QIZ	Qiongzhong	23.08	326	eP	P	02 55 14.6	+0.7
	comp=Z,272nm,1.6s,mb5.4						
GZH	Guangzhou	24.92	338	P	P	02 55 33.6	+2.2
GZH				S	S	02 59 47.8	+7.6
GZH				LR	LR		
	comp=E,530nm,14.1s						
GZH				LR	LR		
	comp=N,580nm,15.1s						
GZH				LR	LR		
	comp=Z,940nm,15.4s						
PMG	Port Moresby	25.53	112	P	P	02 55 36.9	-0.2
	comp=Z,21nm,0.6s,mb5.0,baz=312,slow=8.3,SNR=10						
PMG	Port Moresby	25.53	112c	iP	P	02 55 37.4	+0.3
PMG	Port Moresby	25.53	112	eP	P	02 55 36.5	-0.6
	comp=Z,156nm,1.6s,mb5.4						
ASPA	Alice Springs	25.66	157	eP	P	02 55 38.2	-0.1
ASPA				ePCP	PcP	02 59 05.0	0.0
ASPA				eSCS	ScS	03 06 17.1	+1.4
ASAR	Alice Springs	25.66	157	P	P	02 55 38.3	0.0
	comp=Z,13nm,0.5s,mb4.8,baz=331,slow=7.1,SNR=60						
ASAR				pP	pP	02 56 09.4	-1.9
	comp=Z,17nm,0.8s,baz=332,slow=8.9,SNR=6.0						
ASAR				PcP	PcP	02 59 05.0	+0.1
	comp=Z,7.2nm,0.4s,baz=355,slow=1.9,SNR=12						
ASAR				ScP		03 02 30.1	
	comp=Z,3.7nm,0.7s,baz=349,slow=1.9,SNR=12						
JOW	Kunigami	27.13	10	P	P	02 55 52.9	+1.3
	comp=Z,20nm,0.4s,mb5.1,baz=180,slow=7.9,SNR=12						
JOW				LR	LR	03 05 47.6	
	comp=Z,353nm,18.9s,baz=219,slow=34						
CTA	Charters Tower	30.05	133	eP	P	02 56 18.3	+0.4
	comp=Z,11nm,0.6s,mb4.8						
CTA	Charters Tower	30.05	133	P	P	02 56 17.9	0.0
	comp=Z,16nm,0.7s,mb4.8,baz=314,slow=12,SNR=15						
CTA				ScP		03 02 44.4	
	comp=Z,5.7nm,0.8s,baz=269,slow=2.3,SNR=4.1						
CTA	Charters Tower	30.05	133	P	P	02 56 17.9	0.0
CTA				pmax	pmax		
	comp=Z,16nm,0.7s						
CTA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CTAO	Charters Tower	30.05	133	eP	P	02 56 17.5	-0.3
	comp=Z,65nm,1.5s,mb5.1						
CM31	Chiang Mai Arr	30.16	309	eP	P	02 56 18.8	0.0
	comp=Z,20nm,0.6s,mb5.0						
CMAR	Chiang Mai Arr	30.16	309	P	P	02 56 18.5	-0.3
	comp=Z,17nm,0.6s,mb5.0,baz=132,slow=7.4,SNR=61						
CMAR				PcP	PcP	02 59 16.2	+0.3
	comp=Z,0.9nm,0.3s,baz=164,slow=2.0,SNR=4.8						
CMAR				ScP		03 02 43.9	
	comp=Z,6.1nm,0.8s,baz=161,slow=2.5,SNR=21						
CMAR				LR	LR	03 07 25.3	
	comp=Z,281nm,18.4s,baz=130,slow=34						
CMAR	Chiang Mai Arr	30.16	309	P	P	02 56 18.5	-0.3
CMAR						02 59 16.3	
CMAR				pmax	pmax		
	comp=Z,17nm,0.6s						
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CMAR				MLR	MLR		
	comp=Z,281nm,18.4s						
GYA	Guiyang	30.82	330	P	P	02 56 26.3	+1.8
GYA				AP	pP	02 56 56.0	-2.7
GYA				XP	sP	02 57 12.8	-4.7
GYA				PP	PP	02 57 32.9	+0.9
GYA				S	S	03 01 19.3	+4.6
GYA				SCP		03 02 45.6	
GYA				SCS	ScS	03 06 42.8	+3.6
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
GYA				AMB	AMB		
	comp=Z,210nm,4.0s						
GYA				LR	LR		
	comp=N,540nm,15.0s						
GYA				LR	LR		
	comp=E,400nm,16.4s						
GYA				LR	LR		
	comp=Z,370nm,12.9s						
FORT	Forrest	30.92	172⇑	iP	P	02 56 24.5	-0.9
	comp=Z,506nm,0.6s						
FORT				ePCP	PcP	02 59 17.8	0.0
SSE	Sheshan	31.01	356	eP	P	02 56 26.6	+0.4
SSE				AP	pP	02 57 00.8	+0.4
SSE				XP	sP	02 57 13.4	-5.8
SSE				S	S	03 01 24.4	+6.7
SSE				XS		03 02 17.0	
SSE				AMB	AMB		
	comp=Z,23nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,79nm,3.6s						
SSE				LR	LR		
	comp=N,254nm,42.4s						
SSE				LR	LR		
	comp=E,300nm,42.3s						
SSE				LR	LR		
	comp=Z,358nm,41.9s						
WHN	Wuhan	31.56	345	eP	P	02 56 29.3	-1.7
KLBR	Kellerberrin	31.83	189⇑	iP	P	02 56 32.0	-1.3
	comp=Z,44nm,0.5s,mb5.5						
KLBR				i PCP	PcP	02 59 20.2	-0.1
KMI	Kunming	31.93	323	eP	P	02 56 36.6	+2.3
KMI				AP	pP	02 57 07.3	-1.4
KMI				PP	PP	02 57 46.5	+0.5
KMI				PCP	PcP	02 59 20.9	+0.3
KMI				S	S	03 01 34.4	+2.2
KMI				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.9						
KMI				AMB	AMB		
	comp=Z,143nm,3.3s						
KMI				LR	LR		
	comp=N,272nm,16.3s						
KMI				LR	LR		
	comp=E,287nm,15.7s						
KMI				LR	LR		
	comp=Z,395nm,30.2s						
NJ2	Nanjing	32.18	353	eP	P	02 56 38.5	+2.2
NJ2				AP	pP	02 57 08.8	-2.0
NJ2				XP	sP	02 57 25.4	-4.1
NJ2				PP	PP	02 57 52.0	+3.0
NJ2				S	S	03 01 41.0	+5.2
NJ2				XS		03 02 35.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,290nm,4.1s						
NJ2				LR	LR		
	comp=N,920nm,23.5s						
NJ2				LR	LR		
	comp=E,840nm,16.4s						
NJ2				LR	LR		
	comp=Z,780nm,22.6s						
MUN	Mundaring	32.48	191	eP	P	02 56 37.7	-1.2
	comp=Z,13nm,0.7s,mb4.8						
CBIJ	Chichi jima	32.51	32	P	P	02 56 38.0	-1.3
	comp=Z,268nm,0.4s,baz=223,slow=3.5,SNR=35						
ENH	Enshi	32.87	338	eP	P	02 56 43.4	+1.2
	comp=Z,22nm,0.6s,mb5.1						
NWAO	Narrogin (SRO)	33.22	189	P	P	02 56 44.5	-0.7
	comp=Z,28nm,0.5s,mb5.3,baz=19,slow=8.0,SNR=34						
NWAO	Narrogin (SRO)	33.22	189	P	P	02 56 44.5	-0.8
NWAO				pmax	pmax		
	comp=Z,28nm,0.5s						
NWAO	Narrogin (SRO)	33.22	189	eP	P	02 56 44.0	-1.2
	comp=Z,18nm,0.5s,mb5.1						
CD2	Chengdu	35.92	331	P	P	02 57 09.4	+1.3
CD2				AP	pP	02 57 42.4	-0.8
CD2				XP	sP	02 57 56.3	-5.9
CD2				PP	PP	02 58 35.1	+0.4
CD2				S	S	03 02 37.1	+3.5
CD2				AMB	AMB		
	comp=Z,200nm,7.8s						
CD2				LR	LR		
	comp=N,200nm,8.4s						
CD2				LR	LR		
	comp=Z,190nm,14.4s						
STKA	Stephens Creek	36.11	153⇑	iP	P	02 57 10.2	+0.5
	comp=Z,51nm,0.6s,mb5.3						
STKA				ePCP	PcP	02 59 32.3	-0.1
STKA				eSCP		03 03 04.7	
STKA	Stephens Creek	36.11	153	P	P	02 57 10.2	+0.5
	comp=Z,108nm,1.0s,mb5.4,baz=325,slow=8.6,SNR=135						
STKA				PcP	PcP	02 59 32.3	-0.1
	comp=Z,11nm,0.4s,baz=342,slow=5.4,SNR=7.0						
STKA				ScP		03 03 04.8	
	comp=Z,8.8nm,0.9s,baz=317,slow=6.8,SNR=8.0						
XAN	Xi’an	36.47	340	P	P	02 57 13.4	+0.7
XAN				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.5						
IMP	Imphal	37.62	313⇓	iP	P	02 57 22.7	+0.2
MAJO	Matsushiro	38.93	19	eP	P	02 57 31.4	-1.8
	comp=Z,20nm,0.6s,mb4.9						
MAT	Matsushiro	38.93	19	P	P	02 57 31.4	-1.8
MAT				eS	S	03 03 17.0	-2.0
MAT	Matsushiro	38.93	19	eP	P	02 57 31.0	-2.2
	comp=Z,17nm,0.6s,mb4.8						
MAT				S	S	03 03 17.0	-2.0
SHL	Shillong	39.58	312	eP	P	02 57 38.2	-0.5
SHL				e		03 03 16.2	
LZH	Lanzhou	40.22	335	P	P	02 57 44.1	+0.3
LZH				AP	pP	02 58 16.8	-2.7
LZH				XP	sP	02 58 33.0	-5.6
LZH				PP	PP	02 59 24.1	+2.3
LZH				S	S	03 03 40.1	+1.8
LZH				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.8						
LZH				LR	LR		
	comp=N,319nm,13.0s						
LZH				LR	LR		
	comp=E,591nm,15.9s						
BJI	Beijing	40.40	352	eP	P	02 57 40.3	-5.0
BJI				S	S	03 03 42.4	+1.5
BJI				SS	SS	03 06 47.0	+6.3
BJI				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.5						
ARMA	Armidale	40.49	141⇑	iP	P	02 57 48.3	+2.2
HHC	Hu-ho-hao-te	42.05	347	eP	P	02 57 58.6	-0.3
HHC				AP	pP	02 58 33.8	-0.9
HHC				XP	sP	02 58 52.3	-1.4
HHC				PCS		03 03 41.8	
HHC				S	S	03 04 04.4	-0.8
HHC				SCS	ScS	03 07 40.8	-0.5
HHC				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,177nm,5.2s						
LSA	Lhasa	42.56	317	P	P	02 58 05.3	+2.1
TOO	Toolangi	42.62	154⇑	iP	P	02 58 05.3	+1.8
	comp=Z,20nm,0.6s,mb4.9						
CNB	Canberra Magne	42.71	148	eP	P	02 58 05.7	+1.4
	comp=Z,29nm,0.5s,mb5.2						
VIS	Vishakhapatnam	43.08	296	eP	P	02 58 06.2	-1.2
VIS				AMb	AMB	02 58 11.2	
	comp=Z,23nm,1.0s,mb4.8						
CN2	Changchun	43.67	2	eP	P	02 58 12.9	+1.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.7						
CN2				AMB	AMB		
	comp=Z,300nm,3.0s						
MDJ	Mudanjiang	44.80	6	P	P	02 58 20.5	-0.4
MDJ				PCP	PcP	03 00 00.0	-0.4
MDJ				PP	PP	03 00 07.6	-0.9
MDJ				PCS		03 03 53.9	
MDJ				S	S	03 04 48.0	+3.1
MDJ				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,38nm,3.3s						
MDJ				LR	LR		
	comp=N,78nm,22.6s						
MDJ				LR	LR		
	comp=E,241nm,34.9s						
MDJ				LR	LR		
	comp=Z,206nm,38.1s						
MDJ	Mudanjiang	44.80	6	eP	P	02 58 20.4	-0.4
	comp=Z,8.9nm,0.5s,mb4.7						
GUN	Gumba	45.35	311	eP	P	02 58 26.4	+0.9
	comp=Z,122nm,0.5s,mb5.8						
PKI	Pulchoki	45.53	310	eP	P	02 58 27.7	+0.8
	comp=Z,26nm,0.5s,mb5.1						
KKN	Kakani	45.74	310	eP	P	02 58 29.4	+0.8
	comp=Z,36nm,0.5s,mb5.3						
DMN	Daman	45.78	310	eP	P	02 58 29.9	+1.0
	comp=Z,19nm,0.4s,mb5.1						
GKN	Gorkha	46.34	310	eP	P	02 58 33.9	+0.6
	comp=Z,83nm,0.6s,mb5.5						
KOLN	Koldanda	47.02	309	eP	P	02 58 39.9	+1.3
	comp=Z,112nm,0.6s,mb5.7						
ASAJ	Asahikawa	47.20	19	P	P	02 58 39.8	0.0
	comp=Z,18nm,0.4s,mb5.1,baz=215,slow=7.4,SNR=9.0						
ASAJ	Asahikawa	47.20	19	P	P	02 58 39.8	+0.1
ASAJ				pmax	pmax		
	comp=Z,18nm,0.4s						
NOUC	Port Laguerre	47.29	121⇑	eP	P	02 58 41.8	+1.0
HYB	Hyderabad	47.31	294	eP	P	02 58 40.0	-0.9
HYB	Hyderabad	47.31	294	i P	P	02 58 40.0	-0.9
HYB				epP	pP	02 59 16.0	-1.4
HYB				eS	S	03 05 20.0	-0.8
DZM	Mont Dzumac	47.40	120	eP	P	02 58 43.0	+1.4
HIA	Hailar	49.19	357	eP	P	02 58 53.5	-1.6
	comp=Z,8.1nm,0.8s,mb4.4						
ULN	Ulaanbaatar	49.74	346d	iP	P	02 58 59.8	+0.5
ULN	Ulaanbaatar	49.74	346	eP	P	02 58 58.7	-0.6
	comp=Z,12nm,0.5s,mb4.8						
SONM	Songino Array	49.88	345	P	P	02 58 59.8	-0.5
	comp=Z,7.9nm,0.4s,mb4.7,baz=160,slow=9.3,SNR=112						
SONM				pP	pP	02 59 31.3	-5.8
	comp=Z,6.1nm,0.6s,baz=163,slow=8.4,SNR=3.3						
SONM				ScP		03 03 58.0	
	comp=Z,3.6nm,0.9s,baz=157,slow=4.6,SNR=7.4						
BHPL	Bhopal	50.18	301	eP	P	02 59 01.9	-1.0
BHPL				AMb	AMB	02 59 05.0	
	comp=Z,34nm,0.9s,mb5.0						
KAD	Karad	51.30	292	eP	P	02 59 07.7	-3.7
POO	Poona	51.91	294	eP	P	02 59 07.0	-9.1
NDI	New Delhi	52.46	307	eP	P	02 59 17.5	-2.5
ZAK	Zakamensk	53.04	344	eP	P	02 59 23.5	-0.5
SDNR	Sundarnagar	53.86	310	eP	P	02 59 31.2	+1.0
WMQ	Urumqi	53.96	329	⇑P	P	02 59 31.8	+1.0
WMQ				AP	pP	03 00 04.3	-3.8
WMQ				XP	sP	03 00 19.8	-6.2
WMQ				PCP	PcP	03 00 35.3	+1.5
WMQ				PP	PP	03 01 36.6	+1.4
WMQ				S	S	03 06 54.9	+3.0
WMQ				AMB	AMB		
	comp=Z,13nm,0.6s,mb4.8						
WMQ				LR	LR		
	comp=N,145nm,24.0s						
WMQ				LR	LR		
	comp=E,252nm,30.1s						
WMQ				LR	LR		
	comp=Z,148nm,25.2s						
MOY	Mondy	54.84	343	eP	P	02 59 37.8	+0.8
THN	Thein Dam	55.23	311	eP	P	02 59 39.1	-1.1
THN				e		03 04 20.2	
BOD	Bodaibo	58.14	354	eP	P	02 59 58.2	-2.2
KSH	Kashi	58.39	318	eP	P	03 00 05.0	+2.7
KSH				eAP	pP	03 00 38.3	-1.9
KSH				XP	sP	03 00 53.6	-4.4
KSH				ePP	PP	03 02 17.0	+2.0
KSH				ePPP	PPP	03 03 42.3	+2.6
KSH				ePCS		03 04 44.8	
KSH				S	S	03 07 55.0	+4.6
KSH				eSCS	ScS	03 09 36.8	+4.9
KSH				AMB	AMB		
	comp=Z,480nm,6.7s						
KSH				LR	LR		
	comp=N,490nm,5.8s						
KSH				LR	LR		
	comp=E,630nm,6.8s						
MKAR	Makanchi Array	58.78	328	i P	P	03 00 03.7	-1.3
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.4s						
KZA	Kyzart	60.16	320	P	P	03 00 14.1	-0.4
	SNR=8.5						
TKM2	Tokmak 2	60.38	321	P	P	03 00 15.4	-0.6
	SNR=13						
UCH	Uchtor	60.71	320	P	P	03 00 18.6	+0.4
	SNR=6.1						
RPZ	Rata Peaks	60.81	142	P	P	03 00 19.5	+0.6
	comp=Z,76nm,0.7s,mb5.7,baz=342,slow=1.1,SNR=28						
AAK	Ala-Archa	60.93	321	P	P	03 00 19.3	-0.4
	SNR=5.1						
AAK	Ala-Archa	60.93	321⇑	iP	P	03 00 18.1	-1.6
AAK				pmax	pmax		
	comp=Z,12nm,1.6s,mb4.5						
AAK				MLR	MLR		
	comp=Z,100nm,18.0s						
AAK	Ala-Archa	60.93	321	eP	P	03 00 17.8	-1.9
	comp=Z,12nm,1.3s,mb4.6						
AML	Almayashu	61.19	320	P	P	03 00 21.3	-0.2
	SNR=7.1						
EKS2	Erkin-Say	61.40	320	P	P	03 00 22.4	-0.4
	SNR=8.8						
YAK	Yakutsk	62.08	3c	iP	P	03 00 25.5	-1.7
YAK				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.2						
YAK	Yakutsk	62.08	3	eP	P	03 00 25.5	-1.7
	comp=Z,36nm,0.9s,mb5.2						
URZ	Urewera	62.29	134	P	P	03 00 28.7	-0.2
	comp=Z,23nm,0.5s,mb5.3,baz=259,slow=5.9,SNR=23						
ZAL	Zalesovo	62.45	335	P	P	03 00 27.5	-2.2
	comp=Z,3.1nm,0.4s,mb4.5,baz=349,slow=4.4,SNR=12						
ZAL				pP	pP	03 01 02.2	-5.9
	comp=Z,2.8nm,0.4s,baz=346,slow=8.7,SNR=2.7						
ZAL				S	S	03 08 41.2	-0.7
	comp=Z,2.2nm,0.8s,baz=118,slow=20,SNR=9.5						
ZAL	Zalesovo	62.45	335	P	P	03 00 27.5	-2.2
ZAL				*PP	pP	03 01 02.3	-5.8
ZAL				S	S	03 08 41.2	-0.7
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ZAL				smax			
	comp=N,2.0nm,0.8s						
ZAL	Zalesovo	62.45	335	P	P	03 00 27.5	-2.2
ZAL				pP	pP	03 01 02.2	-5.9
ZAL				S	S	03 08 41.2	-0.7
MA2	Magadan	63.18	15c	eP	P	03 00 34.4	0.0
MA2				e*PP	pP	03 01 09.8	-3.1
MA2				eS	S	03 08 53.6	+2.7
MA2				pmax	pmax		
	comp=N,10.0nm,0.7s						
MA2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.1						
MA2	Magadan	63.18	15	eP	P	03 00 33.9	-0.5
	comp=Z,27nm,0.8s,mb5.1						
NVS	Novosibirsk	63.74	335	eP	P	03 00 35.8	-2.3
NVS				e	pP	03 01 10.6	-6.1
NVS				eS	S	03 08 52.1	-5.8
NVS				pmax	pmax		
	comp=Z,15nm,1.6s,mb4.6						
NVS				pmax	pmax		
	comp=N,20nm,1.5s						
NVS				pmax	pmax		
	comp=E,14nm,1.5s						
NVS				smax			
	comp=N,43nm,1.6s						
NVS				smax			
	comp=E,38nm,1.4s						
CASY	Casey	66.74	186	eP	P	03 00 56.2	-1.0
BVA0	Borovoye Array	68.65	329	P	P	03 01 07.4	-1.8
BVA0				pmax	pmax		
	comp=Z,1.0nm,1.0s						
BVAR	Borovoye Array	68.65	329	P	P	03 01 07.4	-1.8
	comp=Z,1.2nm,0.4s,mb4.0,baz=140,slow=8.9,SNR=12						
BVAR				S	S	03 09 59.2	+2.0
	comp=Z,1.3nm,0.8s,baz=25,slow=28,SNR=6.1						
BRVK	Borovoye	68.72	329	eP	P	03 01 07.3	-2.3
	comp=Z,16nm,1.3s,mb4.6						
TIXI	Tiksi	71.65	2⇓	iP	P	03 01 25.4	-1.6
TIXI				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,74nm,15.0s						
ARU	Arti	76.30	329⇑	iP	P	03 01 52.2	-1.7
ARU				e		03 02 00.9	
ARU				e		03 04 44.5	
ARU				eS	S	03 11 24.5	+0.9
ARU				eSS	SS	03 16 18.2	-5.8
ARU				pmax	pmax		

	comp=Z,16nm,1.4s,mb4.5						
ARU	Arti	76.30	329	eP	P	03 01 51.4	-2.5
	comp=Z,15nm,1.0s,mb4.6						
MAW	Mawson	79.07	200	eP	P	03 02 09.6	+0.7
	comp=Z,15nm,1.1s,mb4.5						
MAW	Mawson	79.07	200	P	P	03 02 09.5	+0.6
	comp=Z,14nm,0.9s,mb4.6,baz=69,slow=5.1,SNR=13						
MAW				LR	LR	03 35 22.1	
	comp=Z,101nm,19.1s,baz=62,slow=34						
MZLS	Mizel	79.12	294	P	P	03 02 10.1	0.0
VNDA	Vanda	80.18	172	P	P	03 02 15.4	+0.6
	comp=Z,23nm,0.9s,mb4.8,baz=317,slow=6.3,SNR=85						
VNDA				LR	LR	03 34 30.1	
	comp=Z,180nm,20.9s,baz=335,slow=33						
VNDA	Vanda	80.18	172	eP	P	03 02 15.3	+0.5
	comp=Z,20nm,0.8s,mb4.8						
TATS	Tathlith	80.40	290	P	P	03 02 17.8	+0.7
ARSS	Ar Rass	81.06	296	P	P	03 02 21.0	+0.6
SBA	Scott Base	81.13	172	eP	P	03 02 20.7	+0.8
	comp=Z,22nm,1.1s,mb4.7						
GNI	Garni	81.26	311	P	P	03 02 20.5	-0.6
	comp=Z,16nm,1.1s,mb4.6						
BLJS	Baljurashi	82.19	290	P	P	03 02 19.9	-6.5
ZEI	Tsey	82.22	313	eP	P	03 02 25.5	-0.6
ZEI				i		03 05 38.7	
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.2						
HILS	Ha’il	82.45	297	P	P	03 02 29.1	+1.5
SOC	Sochi	85.35	314	eP	P	03 02 39.3	-2.5
SOC				e		03 05 58.1	
SOC				ePPP	PPP	03 08 05.8	+5.0
SOC				eS	S	03 12 49.7	-7.2
SOC				eSS	SS	03 18 30.5	-8.2
SOC				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.1						
SOC				pmax	pmax		
	comp=N,13nm,0.9s						
SOC				pmax	pmax		
	comp=E,21nm,0.9s						
YNBS	Yanbu‘ al Bahr	85.72	294	P	P	03 02 44.1	0.0
MALT	Malatya	85.97	308	eP	P	03 02 45.6	+0.6
	comp=E,8.9nm,1.3s,mb4.3						
KMBO	Kilima Mbogo	86.04	269	P	P	03 02 46.2	+0.3
	comp=E,4.4nm,0.9s,mb4.2,baz=54,slow=8.2,SNR=14						
KMBO	Kilima Mbogo	86.04	269	i P	P	03 02 47.1	+1.2
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KMBO	Kilima Mbogo	86.04	269	eP	P	03 02 45.7	-0.2
	comp=Z,7.1nm,1.0s,mb4.3						
VRSR	Storozhevoye	86.31	321	eP	P	03 02 45.2	-1.1
VRSR				e		03 06 04.7	
VRSR				e		03 12 55.0	
VRSR				eS	S	03 13 06.6	+0.7
VRSR				eSS	SS	03 18 51.7	-0.9
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.8						
VRSR				pmax	pmax		
	comp=N,4.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
VRSR				smax			
	comp=Z,3.0nm,0.6s						
VRSR				smax			
	comp=N,20nm,0.8s						
VRSR				smax			
	comp=E,10.0nm,0.8s						
UMJS	Umm Lajj	86.37	295	P	P	03 02 48.8	+1.6
ASF	Jabal al Asfar	86.95	302	P	P	03 02 50.4	+0.5
	comp=E,7.0nm,1.0s,mb4.5,baz=336,slow=11,SNR=4.4						
TBKS	Tabuk	87.13	298	P	P	03 02 51.5	+0.7
SYO	Syowa Base	87.71	201	⇓P	P	03 02 52.9	+0.3
SYO	Syowa Base	87.71	201	⇑P	P	03 02 55.4	+2.8
JMQS	Jabal Moqyreh	87.74	299	P	P	03 02 54.7	+1.0
OBN	Obninsk	88.14	325	P	P	03 02 53.0	-1.9
OBN				e		03 03 43.9	
OBN				eS	S	03 13 05.6	-17
OBN				e		03 13 22.2	
OBN				e		03 14 23.1	
OBN				MLR	MLR		
	comp=Z,300nm,16.0s						
JMOS	Jabal al Moall	88.42	299	P	P	03 02 58.9	+2.0
EIL	Elat	88.56	300	P	P	03 02 59.4	+1.8
	comp=Z,2.4nm,0.6s,mb4.3,slow=10,SNR=2.5						
BRTR	Keskin Array B	89.74	310	P	P	03 03 01.2	-1.7
	comp=Z,1.5nm,0.8s,mb4.0,baz=76,slow=5.9,SNR=4.0						
BRTR	Keskin Array B	89.74	310	P	P	03 03 01.2	-1.7
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
QSPA	South Pole Qui	89.91	180	⇑iP	P	03 03 04.3	+1.5
	comp=Z,13nm,0.5s,mb5.1						
ILAR	Eielson Array	89.95	25	P	P	03 03 01.9	-1.3
	comp=Z,0.6nm,0.4s,mb3.8,baz=252,slow=4.2,SNR=14						
ILAR				PKKPbc		03 20 34.8	
	comp=Z,1.0nm,0.8s,baz=97,slow=1.9,SNR=8.6						
ILAR	Eielson Array	89.95	25	P	P	03 03 01.9	-1.3
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
THY	Trims Highway	90.45	27	P	P	03 03 05.9	+0.3
AKASG	Malin Array Be	92.60	321	P	P	03 03 14.0	-1.9
	comp=Z,1.1nm,0.5s,mb4.3,baz=66,slow=4.7,SNR=9.3						
AKASG	Malin Array Be	92.60	321	P	P	03 03 14.0	-1.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ARCES	ARCESS Array B	92.75	340	P	P	03 03 14.4	-1.7
	comp=Z,7.5nm,1.1s,mb4.7,baz=89,slow=3.8,SNR=8.5						
ARCES				PKKPbc		03 20 27.7	
	comp=Z,3.0nm,0.8s,baz=297,slow=2.7,SNR=8.0						
ARCES	ARCESS Array B	92.75	340	P	P	03 03 14.4	-1.7
ARCES						03 20 27.7	
ARCES				pmax	pmax		
	comp=Z,8.0nm,1.1s						
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	FINESS Array B	93.48	331	P	P	03 03 17.7	-1.9
	comp=Z,1.3nm,0.5s,mb4.3,baz=90,slow=5.7,SNR=6.9						
FINES	FINESS Array B	93.48	331	P	P	03 03 17.7	-1.9
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	Inuvik	94.89	21	eP	P	03 03 26.0	+0.2
	comp=Z,1.8nm,0.5s,mb4.6						
LSZ	Lusaka	94.92	255	eP	P	03 03 26.4	-0.8
	comp=Z,29nm,1.0s,mb5.5						
HFS	Hagfors	99.68	331	P	P	03 03 45.7	-2.2
	comp=Z,4.4nm,0.9s,mb4.9,baz=72,slow=4.7,SNR=5.0						
HFS	Hagfors	99.68	331	P	P	03 03 45.7	-2.1
HFS				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SNAA	Sanae	100.73	195	P	P	03 03 53.2	+0.9
	comp=Z,0.9nm,0.8s,baz=211,slow=5.9,SNR=7.6						
SNAA	Sanae	100.73	195	P	P	03 03 53.2	+0.9
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SNAA	Sanae	100.73	195	ePdif	P	03 03 52.1	-0.2
YKA	Yellowknife Ar	104.31	24	PKiKP		03 08 24.5	
	comp=Z,0.3nm,0.4s,baz=301,slow=1.8,SNR=14						
YKA				PKKPbc		03 19 53.8	
	comp=Z,1.1nm,0.7s,baz=113,slow=2.5,SNR=21						
NVAR	Mina Array Bea	111.96	48	PKiKP		03 08 40.9	
	comp=Z,1.5nm,0.7s,baz=274,slow=0.5,SNR=14						
CHMT	Chamberlain Mo	112.23	38	ePKP	PKPdf	03 08 40.0	+2.2
HLID	Hailey	112.87	42	ePKP	PKPdf	03 08 42.3	+3.1
ELK	Elko	113.39	45	ePKP	PKPdf	03 08 43.1	+2.8
FFC	Flin Flon	114.12	27	ePKP	PKPdf	03 08 43.1	+1.6
FCC	Fort Churchill	114.49	20	ePKP	PKPdf	03 08 43.5	+1.5
HVU	Hansel Valley	114.70	43	ePKP	PKPdf	03 08 45.2	+2.3
TPAW	Teton Pass	115.19	41	ePKPdf	PKPdf	03 08 46.6	+2.8
SNOW	Snow King Moun	115.33	41	ePKPdf	PKPdf	03 08 46.9	+2.8
LOHW	Long Hollow	115.36	40	ePKPdf	PKPdf	03 08 46.9	+2.7
HWUT	Hardware Ranch	115.59	43	ePKPdf	PKPdf	03 08 46.3	+1.7
FRB	Frobisher Bay	115.83	6	PKP	PKPdf	03 08 46.2	+1.6
	comp=Z,4.1nm,1.1s,baz=20,slow=1.8,SNR=5.0						
FRB	Frobisher Bay	115.83	6	PKIKP	PKPdf	03 08 46.2	+1.7
FRB				pmax	pmax		
	comp=Z,4.0nm,1.1s						
FRB	Frobisher Bay	115.83	6	PKP	PKPdf	03 08 46.2	+1.6
MSU	Marysvale	116.42	46	ePKPdf	PKPdf	03 08 49.4	+3.1
BW06	Boulder Array	116.42	41	ePKPdf	PKPdf	03 08 48.2	+2.0
PDAR	Pinedale Array	116.42	41	PKP	PKPdf	03 08 48.5	+2.3
	comp=Z,1.2nm,0.6s,baz=159,slow=2.0,SNR=18						
PDAR				PKKPbc		03 19 17.1	
	comp=Z,1.4nm,0.7s,baz=117,slow=3.3,SNR=5.5						
TMUT	Trail Mountain	116.80	45	ePKPdf	PKPdf	03 08 50.0	+3.0
SRU	San Rafael	117.36	45	ePKPdf	PKPdf	03 08 49.9	+1.9
PV10	Paradox Valley	118.72	45	ePKPdf	PKPdf	03 08 53.6	+2.8
PV01	Paradox Valley	119.16	45	ePKPdf	PKPdf	03 08 54.3	+2.7
TUC	Tucson	119.81	52	ePKPdf	PKPdf	03 08 55.3	+2.3
ULM	Lac du Bonnet	119.87	28	PKP	PKPdf	03 08 54.2	+1.6
	comp=Z,3.0nm,0.5s,baz=348,slow=3.5,SNR=6.3						
ISCO	Idaho Springs	120.44	42	ePKPdf	PKPdf	03 08 56.1	+2.0
SDCO	Great Sand Dun	121.50	44	ePKPdf	PKPdf	03 08 58.9	+2.7
ANMO	Albuquerque	122.07	48	ePKPdf	PKPdf	03 09 00.0	+2.7
LPM	Los Pinos Moun	122.22	48	ePKPdf	PKPdf	03 09 00.2	+2.6
BNM	Barren Site	122.29	49	ePKPdf	PKPdf	03 09 00.2	+2.5
MNTX	Cornudas Mount	124.27	51	ePKPdf	PKPdf	03 09 03.9	+2.2
USHA	Ushuaia	124.48	172	PKP	PKPdf	03 09 04.4	+2.9
	comp=Z,7.6nm,0.9s,baz=280,slow=3.5,SNR=6.5						
SCHQ	Schefferville	124.74	7	PKP	PKPdf	03 09 03.9	+1.9
	comp=Z,3.9nm,0.6s,baz=282,slow=1.6,SNR=22						
GDL2	Guadalupe Moun	124.84	50	ePKPdf	PKPdf	03 09 04.8	+2.0
LTX	Lajitas	126.60	53	ePKPdf	PKPdf	03 09 08.3	+2.0
TXAR	Lajitas Array	126.60	53	PKP	PKPdf	03 09 09.1	+2.9
	comp=Z,1.3nm,0.6s,baz=270,slow=1.3,SNR=9.4						
TXAR				SKPbc		03 12 11.3	
	comp=Z,5.4nm,1.2s,baz=249,slow=2.1,SNR=8.7						
TXAR	Lajitas Array	126.60	53	PKP	PKPdf	03 09 09.1	+2.9
TXAR				SKPbc		03 12 11.3	
WMOK	Wichita Mounta	127.70	44	ePKPdf	PKPdf	03 09 09.5	+1.2
DBIC	Dimbokro	127.85	278	PKP	PKPdf	03 09 10.6	+1.5
	comp=Z,3.4nm,0.8s,baz=74,slow=1.8,SNR=9.5						
DBIC				SKPbc		03 12 14.1	
	comp=Z,4.3nm,0.9s,baz=84,slow=2.3,SNR=5.0						
DBIC	Dimbokro	127.85	278	PKIKP	PKPdf	03 09 10.6	+1.5
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.8s						
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
JCT	Junction City	129.10	49	ePKPdf	PKPdf	03 09 12.7	+1.7
WVT	Waverly	133.89	35	ePKPdf	PKPdf	03 09 22.1	+2.1
TEIG	Tepich	143.16	55	PKP	PKPdf	03 09 36.7	-0.4
	comp=Z,5.5nm,0.5s,baz=157,slow=1.7,SNR=9.2						
JTS	JuntasAbangare	150.12	69	ePKPdf	PKPdf	03 09 51.7	+3.0
JTS				ePKPbc	PKPdf	03 09 56.2	+7.5
LVC	Limon Verde	154.56	153	PKPbc	PKPdf	03 10 07.7	+13
	comp=Z,3.0nm,0.5s,baz=193,slow=3.4,SNR=7.3						
LVC				PKPab	PKPab	03 10 23.0	+1.8
	comp=Z,8.0nm,0.6s,baz=224,slow=5.8,SNR=12						
LVC	Limon Verde	154.56	153	ePKPdf	PKPdf	03 09 57.9	+3.0
LVC				ePKPbc	PKPdf	03 10 06.8	+12
LVC				PKPbc	PKPdf	03 10 07.7	+13
LVC				ePKPab	PKPab	03 10 22.1	+0.9
LVC				PKPab	PKPab	03 10 23.1	+1.8
OTAV	Otavalo	158.26	89	ePKPdf	PKPdf	03 10 02.9	+2.8
LPAZ	La Paz	160.26	146	PKP	PKPdf	03 10 06.3	+4.1
	comp=Z,6.3nm,1.1s,baz=199,slow=1.6,SNR=15						
LPAZ				PKPab	PKPab	03 10 48.1	+2.3
	comp=Z,12nm,1.1s,baz=182,slow=5.4,SNR=8.0						
LPAZ	La Paz	160.26	146	PKIKP	PKPdf	03 10 06.3	+4.1
LPAZ				pmax	pmax		
	comp=Z,6.0nm,1.1s						
LPAZ				pmax	pmax		
	comp=Z,12nm,1.1s						
ROSC	El Rosal	161.76	74	PKP	PKPdf	03 10 06.9	+3.1
	comp=Z,2.0nm,0.4s,baz=283,slow=6.8,SNR=5.6						
ROSC				PKPab	PKPab	03 10 54.4	+1.9
	comp=Z,2.1nm,0.4s,baz=288,slow=3.2,SNR=3.6						
BDFB	Brasilia	162.22	209	PKPab	PKPab	03 10 54.3	-0.1
	comp=Z,6.4nm,0.9s,baz=178,slow=3.9,SNR=8.5						
BDFB	Brasilia	162.22	209	PKP2	PKPab	03 10 54.3	-0.1
BDFB				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SDV	Santo Domingo	163.57	57	ePKPdf	PKPdf	03 10 07.4	+1.8
SDV				ePKPab	PKPab	03 11 01.0	+0.6
SAML	Samuel	169.00	144	ePKPdf	PKPdf	03 10 12.2	+2.4

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*MOS **17** 03:17:14.6±0.7, 36.51N×71.09E, h194^{km}, mb4.2/2, Error ellipse: s-maj=27.4km s-min=12.7km az=89.3*

*NEIC **17** 03:17:14.7±2.6, 36.42N×71.06E, h181^{km}±20^{km}, mb3.8/3, Error ellipse: s-maj=23.1km s-min=11.4km az=211.0*

*BJI **17** 03:17:16.5, 36.66N×70.92E, h183^{km}*

*IDC **17** 03:17:17.4±6.5, 36.48N×71.12E, h206^{km}±58^{km}, mb3.5/10, mb1 3.7/12, mb1mx3.5/21, Error ellipse: s-maj=32.9km s-min=15.2km az=21.0*

*NDI **17** 03:17:21.8±3.1, 32.66N×70.37E, h10^{km}, mb4.1, mb3.8(NEIC)*

*NNC **17** 03:17:22.1±13.0, 36.70N×73.02E, mpv4.5, Error ellipse: s-maj=327.1km s-min=106.4km az=89.0*

ISC 17 03:17:17.9±1.0, 36.70N±0.05×71.1E±0.1, h215^{km}±9^{km}, n44, $\sigma 0\overset{s}{.}81$/50, mb3.6/12, 3C-3D, Afghanistan-Tajikistan border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSH	Kashi	4.79	53	⇓iP	P	03 18 31.6	+0.9
KSH				S	S	03 19 27.3	0.0
KSH				Smax			
	comp=N,620nm,0.4s						
KSH				Smax			
	comp=E,1μm,0.4s						
THN	Thein Dam	5.74	137	ePB	P	03 18 40.7	-2.0
	comp=E,4.2nm,0.3s						
THN				e		03 19 43.9	
AML	Almayashu	5.80	20	P	P	03 18 43.4	-0.1
	SNR=313						
DLH	Dalhousie	5.80	134	ePB	P	03 18 42.0	-1.5
DLH				eSB	S	03 19 44.0	-6.1
UCH	Uchtor	6.13	25	P	P	03 18 48.2	+0.4
	SNR=226						
KZA	Kyzart	6.28	30	P	P	03 18 49.3	-0.4
	SNR=29						
EKS2	Erkin-Say	6.31	19	P	P	03 18 50.3	+0.2
	SNR=64						
AAK	Ala-Archa	6.49	23	⇑P	P	03 18 52.6	+0.2
	comp=E,20nm,0.4s						
AAK				⇑S	S	03 20 03.8	-2.4
	comp=E,39nm,0.7s						
AAK	Ala-Archa	6.49	23	P	P	03 18 52.9	+0.4
	SNR=64						
AAK	Ala-Archa	6.49	23	ePn	P	03 18 51.5	-0.9
	comp=E,36nm,0.4s						
AAK				eSn	S	03 19 56.1	-10
KBK	Karagaybulak	6.66	26	P	P	03 18 55.3	+0.6
	SNR=43						
ULHL	Ulahol	6.84	34	P	P	03 18 56.9	0.0
	SNR=24						
BHK	Bhakra	6.90	138	e	S	03 20 11.6	-3.9
CHMS	Chumysh	6.90	23	P	P	03 18 58.1	+0.3
	SNR=11						
USP	Ospenovka	7.07	21	P	P	03 18 59.2	-0.7
	SNR=22						
TKM2	Tokmak 2	7.13	28	P	P	03 19 00.9	+0.2
	SNR=24						
SDNR	Sundarnagar	7.14	135	ePB	P	03 19 01.4	+0.6
	comp=E,94nm,0.2s						
SDNR				eSB	S	03 20 15.0	-6.2
SMLA	Simla	7.53	136	⇓iPG	P	03 19 17.8	+12
SMLA				i SG	S	03 20 39.0	+8.8
MK31	Makanchi Array	13.11	36	⇑P	P	03 20 17.6	+0.6
	comp=E,6.8nm,0.8s,baz=216,slow=11,SNR=45						
KOLN	Koldanda	13.85	126	eP	P	03 20 26.8	+0.4
	comp=E,4.0nm,0.2s						
GKN	Gorkha	14.38	123	eP	P	03 20 33.9	+1.0
	comp=E,12nm,0.3s						
DMN	Daman	14.95	123	eP	P	03 20 40.4	+0.5
	comp=E,16nm,0.6s						
KKN	Kakani	14.95	122	eP	P	03 20 41.4	+1.4
	comp=E,14nm,0.4s						
PKI	Pulchoki	15.18	123	eP	P	03 20 43.8	+1.0
	comp=E,9.2nm,0.4s						
BVA0	Borovoye Array	16.33	359	P	P	03 20 56.3	-0.3
	comp=E,0.8nm,0.8s,baz=152,slow=12,SNR=38						
BVAR	Borovoye Array	16.33	359	P	P	03 20 56.3	-0.3
	comp=E,2.4nm,0.3s,baz=161,slow=11,SNR=27						
BRVK	Borovoye	16.37	358	eP	P	03 20 56.4	-0.6
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.4s						
BRVK	Borovoye	16.37	358	eP	P	03 20 56.4	-0.6
	comp=Z,5.2nm,0.4s						
ZAL	Zalesovo	19.70	25	P	P	03 21 32.3	0.0
	comp=Z,3.0nm,0.3s,baz=256,slow=7.6,SNR=22						
NVS	Novosibirsk	19.98	21	⇓iP	P	03 21 34.5	-0.6
NVS				pmax	pmax		
	comp=Z,7.0nm,0.8s						
NVS				pmax	pmax		
	comp=N,6.0nm,0.7s						
SONM	Songino Array	28.19	56	P	P	03 22 52.6	+0.2
	comp=N,1.0nm,0.6s,mb3.6,baz=267,slow=9.8,SNR=9.6						
ULN	Ulaanbaatar	28.63	56	eP	P	03 22 55.8	-0.5
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
ULN	Ulaanbaatar	28.63	56	eP	P	03 22 55.8	-0.5
	comp=Z,1.7nm,0.6s,mb3.9						
AKASG	Malin Array Be	32.85	309	P	P	03 23 33.0	-0.2
	comp=Z,0.2nm,0.3s,mb3.1,baz=81,slow=7.0,SNR=4.4						
FINES	FINESS Array B	37.34	326	P	P	03 24 11.8	+0.8
	comp=Z,0.8nm,0.4s,mb3.6,baz=123,slow=9.8,SNR=9.0						
KAF	Kangasniemi	37.48	327	ep	P	03 24 19.6	+7.5
	comp=Z,0.1nm,0.3s,mb2.8						
ARCES	ARCESS Array B	40.98	337	P	P	03 24 41.8	+0.9
	comp=Z,2.1nm,0.5s,mb3.8,baz=111,slow=8.8,SNR=18						
HFS	Hagfors	42.94	322	P	P	03 24 57.2	+0.5
	comp=Z,3.1nm,0.5s,mb4.0,baz=98,slow=10,SNR=16						
NB2	NORSAR Subarra	44.25	323	P	P	03 25 07.2	0.0
	comp=Z,1.4nm,0.4s,mb3.6,baz=98,slow=7.4						
NOA	NORSAR Array B	44.25	323	P	P	03 25 07.5	+0.3
	comp=Z,2.5nm,0.6s,mb3.7,baz=97,slow=7.7,SNR=7.0						
ILAR	Eielson Array	74.58	16	P	P	03 28 34.0	-0.3
	comp=Z,0.7nm,0.6s,mb3.5,baz=303,slow=4.6,SNR=9.9						
YKA	Yellowknife Ar	81.05	3	P	P	03 29 10.2	+0.6
	comp=Z,0.9nm,0.4s,mb3.7,baz=350,slow=5.4,SNR=32						
WRA	Warramunga Arr	82.06	122	P	P	03 29 13.8	-1.9
	comp=Z,2.3nm,1.2s,mb3.7,baz=325,slow=4.9,SNR=9.5						
ASAR	Alice Springs	84.33	125	P	P	03 29 25.8	-1.4
	comp=Z,0.8nm,0.6s,mb3.6,baz=307,slow=4.8,SNR=8.7						

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*IDC **17** 03:28:26.4±2.3, 18.75N×81.39W, mb3.2/3, mb1 3.8/4, mb1mx3.5/20, ML4.4/1, MS3.1/1, Ms1 3.1/1, ms1mx1.8/14, Error ellipse: s-maj=59.2km s-min=44.4km az=52.0*

*NEIC **17** 03:28:30.3±0.8, 18.55N×81.40W, h35^{km}, Error ellipse: s-maj=36.4km s-min=12.6km az=216.0*

ISC 17 03:28:27.6±1.1, 18.3N±0.2×81.6W±0.1, h33^{km}, n8, $\sigma 1\overset{s}{.}58$/6, mb3.2/3, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TEIG	Tepich	6.56	288	Pn	Pn	03 30 05.1	+0.7
	7.9nm,0.3s,baz=90,slow=3.6,SNR=62						
TEIG				Sn	Sn	03 31 17.8	-1.0
	1.8nm,0.3s,baz=282,slow=23,SNR=6.1						
SDV	Santo Domingo	14.21	130	ePn	P	03 31 48.4	-0.4
ROSC	El Rosal	15.16	151	LR	LR	03 37 16.7	
	comp=Z,62nm,18.2s,baz=167,slow=34						
TXAR	Lajitas Array	22.91	303	P	P	03 33 32.4	+2.7
	0.2nm,0.7s,mb2.7,baz=108,slow=14,SNR=3.0						
PDAR	Pinedale Array	33.96	322	P	P	03 35 10.1	+0.1
	0.7nm,0.9s,mb3.6,baz=117,slow=9.9,SNR=5.0						
YKA	Yellowknife Ar	49.70	341	P	P	03 37 17.2	-1.0
	0.3nm,0.8s,mb3.4,baz=133,slow=8.2,SNR=3.7						
WRA	Warramunga Arr	146.02	261	PKPbc	PKPbc	03 48 09.1	+4.0
	0.5nm,0.8s,baz=84,slow=3.4,SNR=5.2						
ASAR	Alice Springs	146.46	255	PKPbc	PKPbc	03 48 10.5	+4.5
	0.4nm,0.6s,baz=106,slow=3.9,SNR=4.3						

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*NEIC **17** 03:39:46.1, 15.70N×94.13W, h20^{km}, mb3.7/4, MD4.3(MEX), After MEX.*

*MEX **17** 03:39:46.1±1.1, 15.69N×94.13W, h35^{km}±563^{km}, MD4.3*

*IDC **17** 03:39:51.9±7.7, 16.35N×93.82W, h110^{km}±45^{km}, mb3.7/7, mb1 3.9/10, mb1mx3.6/21, Error ellipse: s-maj=78.5km s-min=22.6km az=7.0*

ISC 17 03:39:44.8±0.8, 15.88N±0.09×94.08W±0.04, h80^{km}±6^{km}, n33, $\sigma 1\overset{s}{.}23$/44, mb3.8/10, 1D, Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	Matias Romero	1.43	327	⇓iP	P	03 40 10.2	+0.5
CMIG				i S	S	03 40 28.2	+0.1
SCX	San Cristobal	1.62	58	i P	P	03 40 13.2	+1.0
SCX				i S	S	03 40 32.1	-0.4
SCX	San Cristobal	1.62	58	i P	P	03 40 13.2	+1.0
SCX				i S	S	03 40 32.5	0.0
CCIG	Comitan	1.91	78	i P	P	03 40 16.9	+0.9
CCIG				i S	S	03 40 38.2	-0.7
HUIG	Huatulco	1.96	267	i P	P	03 40 14.2	-2.5
HUIG				i S	S	03 40 35.5	-4.7
OXX	Oaxaca	2.81	296	i P	P	03 40 29.0	+0.5
OXX				i S	S	03 41 00.0	-1.4
VHO	Vista Hermosa	2.81	295	i P	P	03 40 29.4	+0.8
IISM	Ciudad Serdan	4.41	315	eP	P	03 40 55.0	+4.2
PPM	Popocatepetl	5.38	307	eP	P	03 41 06.0	+2.0
PPM				i S	S	03 42 05.2	0.0
PPM	Popocatepetl	5.38	307	eP	P	03 41 06.0	+2.0
PPM				eP		03 41 06.7	
PPM				i S	S	03 42 05.2	0.0
PLIG	Platanillo	5.76	296	eP	P	03 41 10.0	+0.7
PLIG				i S	S	03 42 12.1	-2.6
TEIG	Tepich	7.01	51	P	P	03 41 24.3	-2.3
	3.4nm,0.3s,baz=254,slow=18,SNR=31						
TEIG				S	S	03 42 40.0	-5.5
	15nm,0.3s,baz=253,slow=23,SNR=20						
TEIG	Tepich	7.01	51	ePn	P	03 41 24.1	-2.6
TEIG				S	S	03 42 40.0	-5.5
JTS	JuntasAbangare	10.48	121	Pn	P	03 42 14.0	-0.1
JCT	Junction City	15.45	341	eP	P	03 43 23.7	+4.3
TXAR	Lajitas Array	16.04	328	P	P	03 43 28.6	+1.8
	0.2nm,0.3s,baz=151,slow=16,SNR=6.6						
CLNB	Carlsbad	18.59	333	eP	P	03 43 58.4	+0.4
GDL2	Guadalupe Moun	18.75	332	eP	P	03 44 00.0	+0.2
CPRX	Cap Rock	19.24	334	eP	P	03 44 04.8	-0.4
WMOK	Wichita Mounta	19.25	348	eP	P	03 44 04.0	-1.3
	2.0nm,0.4s						
AMTX	Amarillo	20.12	342	eP	P	03 44 13.5	-1.0
	27nm,0.5s						
ANMO	Albuquerque	22.00	332	P	P	03 44 34.6	+1.1
	1.8nm,0.6s,mb3.6,baz=145,slow=11,SNR=13						
ANMO	Albuquerque	22.00	332	eP	P	03 44 34.8	+1.3
	1.9nm,0.7s,mb3.5						
TUC	Tucson	22.31	320	eP	P	03 44 39.0	+2.4
	2.1nm,0.7s,mb3.6						
SDCO	Great Sand Dun	24.01	337	eP	P	03 44 54.6	+1.6
	1.9nm,0.7s,mb3.5						
PV10	Paradox Valley	26.00	332	P	P	03 45 11.3	-0.5
PDAR	Pinedale Array	29.90	337	P	P	03 45 46.8	-0.3
	0.6nm,0.7s,mb3.3,baz=146,slow=9.8,SNR=5.8						
NVAR	Mina Array Bea	30.96	321	P	P	03 45 57.8	+1.4
	2.3nm,0.8s,mb4.0,baz=129,slow=10,SNR=10						
ULM	Lac du Bonnet	34.31	358	P	P	03 46 22.9	-2.5
	2.4nm,0.4s,mb4.4,baz=177,slow=9.7,SNR=4.8						
YKA	Yellowknife Ar	48.76	347	P	P	03 48 21.8	-1.3
	2.0nm,0.6s,mb4.2,baz=153,slow=7.2,SNR=50						
ILAR	Eielson Array	60.33	337	P	P	03 49 46.0	-1.3
	1.2nm,1.2s,mb3.8,baz=169,slow=4.6,SNR=4.9						
NOA	NORSAR Array B	83.45	28	P	P	03 52 04.6	+0.1
	1.1nm,1.1s,mb3.6,baz=90,slow=5.6,SNR=3.2						
ARCES	ARCESS Array B	84.98	18	P	P	03 52 12.5	+0.6
	3.7nm,0.9s,mb4.3,baz=309,slow=5.8,SNR=14						

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*IDC **17** 03:52:35.7±0.8, 15.01S×173.83W, mb3.8/10, mb1 4.1/10, mb1mx4.0/16, MS3.6/2, Ms1 3.6/2, ms1mx3.1/15, Error ellipse: s-maj=37.3km s-min=18.0km az=132.0*

*NEIC **17** 03:52:37.2±0.4, 15.01S×173.84W, h10^{km}, mb4.6/1, Error ellipse: s-maj=20.7km s-min=10.6km az=128.0*

ISC 17 03:52:38.9±0.6, 15.0S±0.1×173.8W±0.2, h33^{km}, n16, $\sigma 1\overset{s}{.}09$/16, mb3.9/11, MS3.5/2, 1D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	2.24	61	ePn	Pn	03 53 10.1	-4.5
AFI				eSn	Sn	03 53 30.1	-11
URZ	Urewera	24.51	197	P	P	03 57 57.2	+0.7
	6.9nm,0.9s,mb4.2,baz=344,slow=18,SNR=3.4						
URZ				LR	LR	04 05 53.4	
	comp=Z,128nm,21.8s,MS3.4,baz=133,slow=32						
URZ	Urewera	24.51	197	P	P	03 57 57.2	+0.7
URZ				LR	LR	04 05 53.4	
STKA	Stephens Creek	43.90	240	P	P	04 00 44.7	+0.4
	1.4nm,0.8s,mb3.7,baz=148,slow=6.5,SNR=3.7						
STKA	Stephens Creek	43.90	240	P	P	04 00 44.7	+0.3
WRA	Warramunga Arr	49.56	256	P	P	04 01 27.7	-1.3
	0.6nm,0.6s,mb3.8,baz=94,slow=6.2,SNR=15						
ASAR	Alice Springs	49.87	252	P	P	04 01 30.7	-0.7
	3.5nm,0.7s,mb4.5,baz=85,slow=8.3,SNR=37						
ASAR				LR	LR	04 19 41.1	
	comp=Z,78nm,21.8s,MS3.7,baz=45,slow=33						
VNDA	Vanda	63.72	186	P	P	04 03 08.5	-0.6
	1.3nm,1.2s,mb3.9,baz=345,slow=5.2,SNR=5.5						
VNDA	Vanda	63.72	186	P	P	04 03 08.5	-0.6
YBH	Yreka Blue Hor	73.52	37	P	P	04 04 10.9	+0.5
	1.8nm,0.9s,mb4.0,baz=214,slow=7.3,SNR=4.9						

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NVAR	**Mina Array Bea**	74.30	42	P	P	04 04 14.6	-0.3
	0.4nm,0.5s,mb3.6,baz=228,slow=11,SNR=3.0						
QSPA	**South Pole Qui**	75.03	180	⇓*i*P	P	04 04 18.5	+0.2
	5.2nm,0.9s,mb4.5						
TXAR	**Lajitas Array**	80.71	56	P	P	04 04 51.4	+0.7
	0.3nm,0.8s,mb3.3,baz=201,slow=7.7,SNR=2.7						
ILAR	**Eielson Array**	82.14	11	P	P	04 04 57.9	+0.4
	0.3nm,0.6s,mb3.4,baz=232,slow=7.1,SNR=5.6						
YKA	**Yellowknife Ar**	89.89	24	P	P	04 05 36.8	+1.3
	0.3nm,0.8s,mb3.7,baz=249,slow=4.6,SNR=5.1						
BRTR	**Keskin Array B**	145.62	321	PKPbc	PKPbc	04 12 17.1	+2.3
	1.7nm,0.9s,baz=135,slow=3.5,SNR=8.3						

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*NEIC **17** 03:55:41.8±0.8, 19.36S×68.93W, h120^{km}±9^{km}, mb4.1/1, Error ellipse: s-maj=16.6km s-min=10.1km az=89.0*

*IDC **17** 03:55:43.1±1.9, 19.47S×68.81W, h130^{km}±17^{km}, mb3.5/3, mb1 3.6/5, mb1mx3.3/16, Error ellipse: s-maj=33.7km s-min=24.3km az=97.0*

ISC 17 03:55:40.2±1.0**, 19.33S**±0.08×**69.0W**±0.1**, h122**^{km}±16^{km}**, n12,** σ**0**$\overset{s}{.}$**94**/12**, mb4.0**/2**, 1C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	**La Paz**	3.12	15	P	P	03 56 33.5	+4.4
	3.9nm,0.3s,baz=194,slow=7.6,SNR=129						
LPAZ	**La Paz**	3.12	15	*e*Pn	P	03 56 32.4	+3.3
LVC	**Limon Verde**	3.27	179	P	P	03 56 31.5	+0.6
	7.0nm,0.3s,baz=356,slow=9.5,SNR=87						
LVC	**Limon Verde**	3.27	179	*e*Pn	P	03 56 31.5	+0.5
LVC				*e*Sn	S	03 57 03.2	-6.4
ARE	**Arequipa**	3.74	319	⇑*i*P	P	03 56 37.6	+0.3
ARE				*e*S	S	03 57 20.0	-1.0
SAML	**Samuel**	11.73	29	Pn	P	03 58 24.8	+0.1
TRQA	**Tornquist**	19.62	163	*e*P	P	04 00 00.6	-0.8
	10nm,1.0s						
BDFB	**Brasilia**	20.30	83	P	P	04 00 07.6	-0.8
	1.1nm,0.6s,baz=253,slow=4.6,SNR=3.9						
DBIC	**Dimbokro**	68.17	74	P	P	04 06 29.4	-0.4
	2.2nm,1.0s,mb4.0,baz=207,slow=4.5,SNR=4.8						
YKA	**Yellowknife Ar**	89.14	341	P	P	04 08 24.0	+1.4
	1.2nm,0.8s,mb4.0,baz=133,slow=4.7,SNR=20						
WRA	**Warramunga Arr**	134.79	212	PKP	PKPdf	04 14 47.3	+2.0
	0.3nm,0.5s,baz=144,slow=1.6,SNR=5.6						
SONM	**Songino Array**	151.31	7	PKPbc	PKPdf	04 15 21.4	+8.5
	0.5nm,0.5s,baz=322,slow=1.0,SNR=6.6						

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*PRU **17** 03:59:46.5, 42.87N×15.34E*

*ROM **17** 03:59:52.9±0.7, 43.13N×15.16E, h10^{km}, MD3.0/4, ML2.3/2, Error ellipse: s-maj=6.0km s-min=5.3km az=0.0*

*CSEM **17** 03:59:53.7±0.1, 43.23N×15.21E, h35^{km}, ML2.3/2, Error ellipse: s-maj=4.4km s-min=1.4km az=81.0*

ISC 17 03:59:51.1±1.3**, 43.17N**±0.03×**15.2E**±0.1**, h7**^{km}±8^{km}**, n18,** σ**0**$\overset{s}{.}$**90**/26**, 2C-1D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NVLJ	**Novalja**	1.41	350	*i* Pn	Pn	04 00 16.6	-0.7
NVLJ				*i* Sn	Sn	04 00 37.9	+1.6
NVLJ	**Novalja**	1.41	350	*i* Pn	Pn	04 00 16.5	-0.8
RGNG	**Rignano Grg**	1.52	169	*e*PN	Pn	04 00 19.5	+0.7
RGNG				SN	Sn	04 00 37.9	-1.2
FGMS	**Monte Sant'Ang**	1.56	159	*e*PN	Pn	04 00 20.1	+0.7
FGMS				SN	Sn	04 00 40.1	0.0
CII	**Carovilli**	1.59	205	*e*PN	Pn	04 00 20.6	+0.8
SNTG	**Esanatoglia**	1.66	274	*e*PN	Pn	04 00 22.3	+1.5
	21nm,0.6s						
SNTG	**Esanatoglia**	1.66	274	*e*Pn	Pn	04 00 22.3	+1.5
	21nm,0.6s						
SDI	**San Donato**	1.79	216	*e*PN	Pn	04 00 22.1	-0.5
	47nm,0.5s						
SDI	**San Donato**	1.79	216	*e*Pn	Pn	04 00 22.1	-0.5
	47nm,0.5s						
FSSB	**Fossombrone**	1.84	287	*e*PN	Pn	04 00 23.0	-0.4
SGG	**Gregorio Mates**	1.89	199	*e*PN	Pn	04 00 24.4	+0.4
BLY	**Banja Luka**	2.13	41	*e*Pn	Pn	04 00 28.6	+1.1
BOJS	**Bojanci**	2.33	1	*i* Pn	Pn	04 00 30.5	0.0
VOY	**Vojsko**	3.01	342	*e*Pn	Pn	04 00 39.7	-0.4
VOY				*e*(Sn)	Sn	04 01 16.4	-0.4
VOY				*e*		04 01 30.1	
OBKA	**Obir**	3.37	352	⇑*i*PN	Pn	04 00 44.5	-0.7
OBKA				*i* SN	Sn	04 01 27.1	+1.1
OBKA				*i* SG	Sg	04 01 43.7	+0.4
	28nm,0.5s						
KBA	**Koelnbreinsper**	4.12	342	⇓*i*PN	Pn	04 00 55.0	-0.9
KBA				*i* SN	Sn	04 01 45.1	+0.1
MOA	**Molln**	4.72	352	⇑*i*PN	Pn	04 01 03.5	-1.0
MOA				*i* SN	Sn	04 01 59.8	-0.5
KHC	**Kasperske Hory**	6.07	350	*e*PN	Pn	04 01 20.6	-2.8
KHC				x	x	04 01 29.5	
KHC				*e*x	x	04 02 29.8	

KRSC 17 04:02:46.8±0.9**, 48.66N**×**155.50E, h40**^{km}±28^{km}**, ML4.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	2.06	11	*e*P	P	04 03 23.5	+3.8
SKR				*e*S	S	04 03 44.0	-0.4
ALID	**Alaid**	2.21	1	*e*P	P	04 03 21.7	-0.1
ALID				*e*S	S	04 03 47.4	-0.7
PAU	**Pauzhetka**	2.93	16	*e*P	P	04 03 32.8	+0.7
PAU				*e*S	S	04 04 05.1	-1.4
PAU				Smax			
	200nm,0.3s						
GRL	**Gorelyy**	4.23	22	*e*P	P	04 03 51.4	+0.9
GRL				*e*S	S	04 04 38.3	-0.9
RUS	**Russkaya**	4.24	26	*e*P	P	04 03 49.8	-0.8
RUS				*i* S	S	04 04 36.4	-3.1
UGLR	**Uglovaya**	5.02	24	*e*P	P	04 04 02.6	+1.0
UGLR				*e*S	S	04 04 57.9	-1.2
KOK	**Koryaka**	5.04	22	*e*P	P	04 04 01.9	-0.1
KOK				*e*S	S	04 04 57.7	-2.1
AVH	**Avacha**	5.04	23	*e*P	P	04 04 02.8	+0.8
AVH				*e*S	S	04 04 57.6	-2.2
SDLR	**Sedlovina**	5.09	24	*e*P	P	04 04 02.8	+0.1
SDLR				*e*S	S	04 04 58.6	-2.5
NLC	**Nalytchevo**	5.13	27	P	P	04 04 02.1	-1.1
NLC				*e*S	S	04 04 58.0	-4.0
GNL	**Ganaly**	5.27	16	*e*P	P	04 04 05.1	-0.1
GNL				*e*S	S	04 05 01.7	-3.8
SPN	**Mys Shipunski**	5.29	31	*e*P	P	04 04 04.9	-0.5
SPN				*e*S	S	04 05 02.0	-3.9
KBTR	**Krutoberegovo**	8.78	28	*e*P	P	04 04 52.5	-1.6
BKI	**Bering**	9.20	41	*e*S	S	04 06 32.0	-11

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*JSN **17** 04:38:04.7±1.1, 19.11N×81.09W, h0^{km}±999^{km}, MD4.6*

*IDC **17** 04:38:06.5±4.3, 19.37N×81.68W, mb3.8/6, mb1 4.0/7, mb1mx3.7/20, ML4.5/1, MS3.3/2, Ms1 3.3/2, ms1mx2.3/22, Error ellipse: s-maj=99.9km s-min=29.3km az=175.0*

ISC 17 04:38:02.3±1.2**, 18.5N**±0.3×**81.43W**±0.09**, h33**^{km}**, n14,** σ**1**$\overset{s}{.}$**20**/17**, mb3.7**/6**, MS3.2**/2**, 3C-3D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCJ	**Malvern**	3.60	98	⇓*e*P	P	04 38 58.3	+1.2
MCJ				*e*S	S	04 39 39.1	0.0
BBJ	**Bamboo Saint A**	3.95	91	⇑*e*P	P	04 39 01.5	-0.7
BBJ				*e*S	S	04 39 45.8	-2.3
BNJ	**Bonny Gate**	4.26	92	⇓*i*P	P	04 39 06.0	-0.4
STH	**Stony Hill**	4.41	95	⇑*e*P	P	04 39 08.8	+0.1
STH				*e*S	S	04 39 55.7	-3.8
HOJ	**Hope**	4.47	95	⇓*e*P	P	04 39 10.2	+0.6
GWJ	**Greenwich**	4.49	95	⇑*e*P	P	04 39 10.2	+0.5
TEIG	**Tepich**	6.69	286	Pn	Pn	04 39 40.1	-0.8
	11nm,0.3s,baz=316,slow=1.0,SNR=281						
TEIG				Sn	Sn	04 40 52.5	-4.2
	2.8nm,0.3s,baz=290,slow=22,SNR=7.7						
ANMO	**Albuquerque**	27.61	311	LR	LR	04 55 00.3	
	comp=Z,43nm,22.0s,MS3.0,slow=38						
PDAR	**Pinedale Array**	33.94	322	P	P	04 44 43.6	-0.9
	0.5nm,0.8s,mb3.5,baz=104,slow=7.4,SNR=3.7						
SCHQ	**Schefferville**	37.96	14	P	P	04 45 19.2	+0.7
	1.2nm,0.7s,mb3.7,baz=156,slow=7.0,SNR=3.8						
SCHQ				LR	LR	05 01 49.9	
	comp=Z,61nm,18.1s,MS3.5,baz=36,slow=38						
YKA	**Yellowknife Ar**	49.61	341	P	P	04 46 51.5	-0.7
	0.2nm,0.8s,mb3.2,baz=135,slow=8.5,SNR=5.5						
ILAR	**Eielson Array**	63.02	334	P	P	04 48 30.9	+2.8
	0.3nm,0.7s,mb3.5,baz=116,slow=5.3,SNR=3.4						
ARCES	**ARCESS Array B**	78.59	20	P	P	04 50 04.9	+3.1
	4.0nm,0.9s,mb4.3,baz=281,slow=4.6,SNR=6.7						
FINES	**FINESS Array B**	82.00	28	P	P	04 50 24.8	+4.7
	2.1nm,0.8s,mb4.1,baz=288,slow=6.0,SNR=4.0						

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*IDC **17** 04:49:28.0±8.4, 6.94S×130.60E, h102^{km}±74^{km}, mb3.6/2, mb1 3.7/5, mb1mx3.5/14, ML3.9/3, Error ellipse: s-maj=55.8km s-min=48.6km az=175.0*

*NEIC **17** 04:49:28.4±9.7, 7.01S×130.60E, h98^{km}±44^{km}, mb3.9/1, Error ellipse: s-maj=102.1km s-min=32.4km az=171.0*

ISC 17 04:49:19.7±2.3**, 6.5S**±0.1×**130.4E**±0.1**, h84**^{km}±21^{km}**, n10,** σ**0**$\overset{s}{.}$**89**/16**, mb3.9**/1**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	6.49	163	*e*P	P	04 50 54.9	+0.4
	4.5nm,0.1s						
KAKA				*e*S	S	04 52 08.1	+0.4
FITZ	**Fitzroy Crossi**	12.47	202	*e*P	P	04 52 16.4	+0.9
	3.6nm,0.6s						
FITZ				*e*S	S	04 54 31.9	-1.1
FITZ	**Fitzroy Crossi**	12.47	202	P	P	04 52 16.9	+1.4
	0.6nm,0.3s,baz=13,slow=8.7,SNR=35						
FITZ				S	S	04 54 32.6	-0.4
	1.4nm,0.3s,baz=184,slow=17,SNR=5.3						
WRAB	**Tennant Creek**	13.92	164	*e*Pn	P	04 52 32.4	-2.1
	3.9nm,0.6s						
WRA	**Warramunga Arr**	13.93	165	P	P	04 52 33.1	-1.4
	0.7nm,0.3s,baz=350,slow=13,SNR=21						
WRA				S	S	04 55 01.6	-5.9
	1.8nm,0.3s,baz=333,slow=23,SNR=13						
ASAR	**Alice Springs**	17.43	169	P	P	04 53 20.0	+1.1
	0.6nm,0.3s,baz=347,slow=14,SNR=17						
ASAR				S	S	04 56 28.1	+0.2
	0.3nm,0.3s,baz=353,slow=26,SNR=6.1						
ASPA	**Alice Springs**	17.43	169	*e*P	P	04 53 19.3	+0.4
ASPA				*e*S	S	04 56 28.0	+0.1
CTA	**Charters Tower**	20.48	133	P	P	04 53 53.0	-0.1
	3.1nm,0.8s,baz=326,slow=15,SNR=2.8						
STKA	**Stephens Creek**	27.35	159	*e*P	P	04 54 59.6	+0.5
	1.2nm,0.3s,mb3.9						
STKA	**Stephens Creek**	27.35	159	P	P	04 54 59.0	-0.1
	1.2nm,0.3s,mb3.8,baz=348,slow=9.1,SNR=8.7						

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*CSEM **17** 04:55:26.9±1.3, 40.57N×43.47E, h32^{km}, MD3.5, Error ellipse: s-maj=46.7km s-min=20.9km az=7.0, After ISK*

ISK 17 04:55:26.9, 40.57N×**43.47E, h32**^{km}**, MD3.5, Turkey-Georgia-Armenia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KARS	**Kars**	0.29	279	*e*PG	Pb	04 55 34.2	-0.2
GNI	**Garni**	1.06	113	PG	Pn	04 55 46.0	+0.3
GNI				SG	Sn	04 55 59.4	0.0
EZM	**Erzurum**	1.75	248	PN	Pn	04 55 56.2	+0.7
VRT	**Varto**	2.08	227	PN	Pn	04 56 00.7	+0.5
VRT				SN	Sn	04 56 24.4	-0.9

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*NEIC **17** 05:12:07.6, 15.66N×94.09W, h35^{km}, mb3.8/8, MD4.4(MEX), After MEX.*

*MEX **17** 05:12:07.6±1.1, 15.66N×94.09W, h35^{km}±26^{km}, MD4.4*

*IDC **17** 05:12:11.0±3.8, 16.07N×93.78W, h107^{km}±31^{km}, mb3.8/11, mb1 3.9/14, mb1mx3.7/22, Error ellipse: s-maj=31.2km s-min=14.9km az=42.0*

ISC 17 05:12:06.4±0.4**, 15.90N**±0.05×**94.11W**±0.03**, h82**^{km}±5^{km}**, n49,** σ**1**$\overset{s}{.}$**36**/60**, mb3.9**/14**, 3C, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMIG	**Matias Romero**	1.40	328	*i* P	P	05 12 32.2	+1.2
CMIG				*i* S	S	05 12 51.1	+1.9
SCX	**San Cristobal**	1.65	59	*i* P	P	05 12 34.5	+0.3
SCX				*i* S	S	05 12 53.0	-1.7
HUIG	**Huatulco**	1.93	266	*i* P	P	05 12 36.4	-1.5
HUIG				*i* S	S	05 12 58.2	-2.9
CCIG	**Comitan**	1.94	78	*e*P	P	05 12 37.7	-0.4
CCIG				*i* S	S	05 13 00.0	-1.4
OXX	**Oaxaca**	2.77	296	*i* P	P	05 12 50.0	+0.3
OXX				*i* S	S	05 13 22.0	-0.1
VHO	**Vista Hermosa**	2.77	295	*e*P	P	05 12 51.1	+1.4
VHO				*i* S	S	05 13 23.5	+1.4
PNIG	**Pinotepa**	3.89	278	*e*P	P	05 13 04.1	-1.1
PNIG				*i* S	S	05 13 48.2	-1.8
IISM	**Ciudad Serdan**	4.38	315	*e*P	P	05 13 13.0	+1.0
IISM				*i* S	S	05 14 01.0	-1.1
RBDL	**Robledal**	4.63	112	*e*P	P	05 13 17.0	+1.5
RTR	**El Retiro**	4.75	114	⇑*e*P	P	05 13 17.5	+0.3
SBLS	**San Blas**	4.80	115	⇑*e*P	P	05 13 18.5	+0.7
SNJE	**San Jose**	4.80	114	⇑*e*P	P	05 13 18.7	+0.9
BOQS	**Boqueron**	5.14	114	*e*P	P	05 13 23.9	+1.4
LFU	**La Fuente**	5.29	113	*e*P	P	05 13 24.8	+0.3
PPM	**Popocatepetl**	5.34	307	*e*P	P	05 13 28.2	+3.1
PPM				*i* S	S	05 14 25.3	-0.7
PPM	**Popocatepetl**	5.34	307	*e*P	P	05 13 28.2	+3.1
PPM				*e*P		05 13 30.0	
PPM				*i* S	S	05 14 25.3	-0.7
LFRS	**El Faro**	5.38	114	*e*P	P	05 13 26.5	+0.7
LCBS	**La Ceiba**	5.44	113	*e*P	P	05 13 26.6	-0.1
SNVI	**San Vicente**	5.58	113	*e*P	P	05 13 27.6	-1.0
ACX	**Acapulco**	5.65	281	*e*P	P	05 13 28.0	-1.5
CNCH	**Conchagua**	6.61	112	*e*P	P	05 13 36.4	-6.5
TEIG	**Tepich**	7.03	51	P	P	05 13 45.8	-2.8
	18nm,0.3s,baz=280,slow=20,SNR=100						
TEIG				S	S	05 15 02.2	-5.4
	15nm,0.3s,baz=319,slow=22,SNR=11						
TXAR	**Lajitas Array**	16.01	328	P	P	05 15 51.6	+3.6
	0.2nm,0.3s,baz=146,slow=14,SNR=4.1						
GDL2	**Guadalupe Moun**	18.72	332	*e*P	P	05 16 25.9	+4.8
MNTX	**Cornudas Mount**	18.79	329	*e*P	P	05 16 25.5	+3.7
	1.9nm,0.9s						
CPRX	**Cap Rock**	19.21	334	P	P	05 16 26.8	+0.3
WMOK	**Wichita Mounta**	19.23	348	*e*P	P	05 16 26.6	-0.1
	2.0nm,0.5s						
AMTX	**Amarillo**	20.09	342	*e*P	P	05 16 33.4	-2.4
	9.3nm,0.6s						
WVT	**Waverly**	20.91	14	P	P	05 16 44.5	+0.3
	2.6nm,0.7s						
LPM	**Los Pinos Moun**	21.52	331	*e*P	P	05 16 53.2	+3.0
OTAV	**Otavalo**	21.93	134	P	P	05 16 54.7	+0.2
	2.0nm,0.7s,mb3.6						
ANMO	**Albuquerque**	21.97	332	P	P	05 16 56.6	+1.9
	1.4nm,0.9s,mb3.3,baz=158,slow=9.7,SNR=5.3						
ANMO	**Albuquerque**	21.97	332	*e*P	P	05 16 56.9	+2.2
	1.6nm,0.9s,mb3.4						
ROSC	**El Rosal**	22.31	117	P	P	05 17 00.0	+1.8
	4.6nm,0.6s,mb4.0,baz=98,slow=22,SNR=8.2						
SDV	**Santo Domingo**	23.95	104	*e*P	P	05 17 12.8	-1.4
	3.6nm,0.6s,mb3.9						
PDAR	**Pinedale Array**	29.87	337	P	P	05 18 07.3	-1.0
	1.7nm,1.3s,mb3.5,baz=117,slow=8.1,SNR=2.6						
NVAR	**Mina Array Bea**	30.92	321	P	P	05 18 19.8	+2.2
	0.5nm,0.6s,mb3.4,baz=136,slow=9.4,SNR=5.3						
SNOW	**Snow King Moun**	30.92	336	*e*P	P	05 18 19.0	+1.4
MOOW	**Moose Ponds**	31.16	336	*e*P	P	05 18 20.3	+0.7
ULM	**Lac du Bonnet**	34.29	358	P	P	05 18 44.2	-2.5
	3.0nm,0.7s,mb4.2,baz=183,slow=8.3,SNR=4.8						
YKA	**Yellowknife Ar**	48.73	348	P	P	05 20 43.9	-0.5
	2.8nm,0.6s,mb4.4,baz=153,slow=7.3,SNR=82						
YKA	**Yellowknife Ar**	48.73	348	P	P	05 20 43.9	-0.5
FRB	**Frobisher Bay**	50.96	14	P	P	05 20 58.3	-3.1
	1.4nm,0.5s,mb4.3,baz=220,slow=13,SNR=4.7						
BDFB	**Brasilia**	55.26	122	P	P	05 21 30.8	-3.0
	2.5nm,0.6s,mb4.4,baz=299,slow=11,SNR=8.7						
ILAR	**Eielson Array**	60.30	337	P	P	05 22 07.5	-1.0
	0.3nm,0.9s,mb3.3,baz=125,slow=5.1,SNR=4.9						
NB2	**NORSAR Subarra**	83.45	28	P	P	05 24 26.1	+0.1
	1.5nm,0.8s,mb3.9,baz=292,slow=5.3						
NOA	**NORSAR Array B**	83.45	28	P	P	05 24 26.5	+0.5
	6.8nm,1.1s,mb4.4,baz=291,slow=5.2,SNR=4.9						
ARCES	**ARCESS Array B**	84.98	18	P	P	05 24 33.9	+0.5
	2.5nm,0.6s,mb4.3,baz=309,slow=5.1,SNR=14						
GERES	**GERESS Array B**	89.43	39	P	P	05 24 54.5	-0.9
	1.3nm,0.9s,mb4.0,baz=297,slow=3.0,SNR=5.0						

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*NIED **17** 05:18:00, 31.80N×129.20E, h5^{km}, Mw3.6 Best double couple: $M_0 2.63\times10^{14}$ NP1: ϕ_s356°, δ90°, λ160°. NP2: ϕ_s86°, δ70°, λ0°.*

JMA 17 05:18:09.6±0.1**, 31.76N**×**129.18E, h12**^{km}±2^{km}**, M3.5, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JSJ	**Shimokoshiki**	0.46	100	P	Pg	05 18 18.6	-0.5
JSJ				S	Sg	05 18 24.8	-0.7
JFU	**Fukue jima 2**	0.96	338	P	Pb	05 18 27.6	-0.2
JFU				S	Sb	05 18 41.5	+1.3
NGSJ	**Nagasakinomoza**	1.02	31	P	Pb	05 18 28.8	+0.2
NGSJ				S	Sb	05 18 42.6	+0.9
JHD	**Hondo**	1.07	49	P	Pb	05 18 29.4	-0.2
JHD				S	Sb	05 18 45.1	+1.7
JSU	**Suzuyama**	1.12	103	P	Pb	05 18 30.3	-0.1
JSU				S	Sb	05 18 45.5	+0.8
JZO	**Okuchi**	1.26	72	P	Pb	05 18 32.1	-0.8
JZO				S	Sb	05 18 49.5	+0.6

IDC 17 05:35:06.5±17.0**, 16.71S**×**174.06W, mb4.2**/5**, mb1 4.3**/5**, mb1mx3.9**/17**, Error ellipse: s-maj=334.0km s-min=48.7km az=65.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	22.83	198	P	P	05 40 11.2	-1.1
	7.5nm,0.6s,baz=352,slow=2.4,SNR=7.8						
STKA	**Stephens Creek**	42.84	241	P	P	05 43 06.0	-2.2
	2.1nm,0.9s,baz=64,slow=9.2,SNR=5.0						
WRA	**Warramunga Arr**	48.94	258	P	P	05 43 54.7	-2.0
	0.4nm,0.4s,baz=94,slow=6.8,SNR=17						
ASAR	**Alice Springs**	49.11	253	P	P	05 43 56.3	-1.7
	9.8nm,0.6s,baz=88,slow=8.4,SNR=205						
FITZ	**Fitzroy Crossi**	57.32	259	P	P	05 44 56.8	-2.2
	2.4nm,1.0s,baz=90,slow=3.0,SNR=2.8						

IDC 17 05:47:20.0±12.0**, 34.38S**×**179.24E, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.7**/12**, ML3.3**/1**, Error ellipse: s-maj=225.0km s-min=37.1km az=86.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	4.24	203	Pn	Pn	05 48 26.7	-0.6
	1.8nm,0.3s,baz=107,slow=19,SNR=14						
URZ				Sn	Sn	05 49 14.1	-4.2
	1.0nm,0.3s,baz=45,slow=18,SNR=3.8						
STKA	**Stephens Creek**	31.51	264	P	P	05 53 44.0	-1.8
	0.4nm,0.4s,baz=169,slow=16,SNR=2.6						
ASAR	**Alice Springs**	40.77	273	P	P	05 55 03.1	-1.4
	1.2nm,0.9s,baz=113,slow=7.2,SNR=10						
WRA	**Warramunga Arr**	42.12	278	P	P	05 55 13.7	-2.1
	0.8nm,0.6s,baz=118,slow=7.5,SNR=9.8						

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*JMA **17** 05:57:12.2±0.2, 22.41N×121.16E, h147^{km}, M3.0*

TAP 17 05:57:11.3, 22.36N×**120.97E, h42**^{km}**, ML3.8, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	2.81	41	P	P	05 57 55.5	+0.6
YOJ				*e*S	S	05 58 29.1	+1.3
HATJ	**Hateruma jima**	3.11	57	P	P	05 57 59.1	0.0
HATJ				S	S	05 58 34.9	-0.5
IRIF	**Iriomote-Funau**	3.21	52	P	P	05 58 00.5	-0.1
IRIF				*e*S	S	05 58 37.8	-0.2
JKRS	**Kuro-shima**	3.36	56	P	P	05 58 02.6	-0.1
JKRS				*e*S	S	05 58 41.0	-0.8
JIJ	**Ishigaki jima**	3.53	55	P	P	05 58 04.4	-0.7
JIJ				S	S	05 58 44.5	-1.7

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*PRU **17** 06:53:07.6, 51.38N×16.17E*

WAR 17 06:53:07.3, 51.45N×**16.19E, h1**^{km}**, ML2.7, Mining Induced, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	0.61	174	*i* PG	Pg	06 53 18.4	-1.1
KSP				*e*SG	Sg	06 53 26.4	-1.2
UPC	**Upice**	0.95	187	*e*PG	Pg	06 53 24.7	-1.5
DPC	**Dobruska-Polom**	1.10	176	*e*PG	Pg	06 53 27.3	-2.0
DPC				*e*SG	Sg	06 53 40.6	-3.4
PVCC	**Panska Ves**	1.38	229	*e*PG	Pg	06 53 33.0	-1.8
PRU	**Pruhonice**	1.80	216	PG	Pg	06 53 39.4	-3.8
PRU				*i* x	x	06 53 43.3	
PRU				*i* x	x	06 53 56.6	
CLL	**Collm**	2.00	267	*i* PG	Pg	06 53 44.2	-3.0
CLL				*e*SG	Sg	06 54 11.0	-2.9
OKC	**Ostrava-Krasne**	2.04	141	*e*SG	Sg	06 54 10.4	-4.7
NKC	**Novy Kostel**	2.66	244	*e*PG	Pg	06 53 56.3	-4.2
NKC				*e*SG	Sg	06 54 31.2	-4.8
KHC	**Kasperske Hory**	2.86	217	*e*PG	Pg	06 53 58.9	-5.5
KHC				*e*SG	Sg	06 54 36.9	-5.6

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*MOS **17** 07:13:08.4±0.9, 21.72S×179.35W, h567^{km}, mb5.5/35, Error ellipse: s-maj=9.3km s-min=7.5km az=46.3*

*BJI **17** 07:13:09.9, 21.53S×178.53W, h606^{km}, mB5.3, mb5.6*

*IDC **17** 07:13:11.0±0.3, 21.89S×179.34W, h587^{km}±3^{km}, mb5.1/28, mb1 5.1/30, mb1mx5.1/30, Error ellipse: s-maj=8.2km s-min=6.3km az=152.0*

*NEIC **17** 07:13:11.0±0.1, 21.90S×179.30W, mb5.5/80, MW5.8, Error ellipse: s-maj=5.1km s-min=3.0km az=125.0, Moment Tensor Solution. s18 Moment tensor: Scale 10^{17} Nm; M_{rr}0.56; $M_{\theta\theta}$1.62; $M_{\phi\phi}$-2.19; $M_{r\theta}$-2.10; $M_{\theta\phi}$0.53; $M_{\phi r}$-4.01; Best double couple: $M_0 4.9\times10^{17}$ NP1: ϕ_s309°, δ23°, λ11°. NP2: ϕ_s209°, δ86°, λ112°. Principal axes: T 4.75, Plg45°, Azm141°; N .4, Plg22°, Azm27°; P -5.15, Plg37°, Azm279°;*

*SYO **17** 07:13:11.1, 21.90S×179.31W, h594^{km}, MB5.5*

*HRVD **17** 07:13:11.0±0.2, 21.92S×179.15W, h607^{km}±1^{km}, MW5.8/64, Centroid moment Tensor Solution. LP body waves: s64,c127; Half duration: $1\overset{s}{.}9$ Moment tensor: Scale 10^{17}Nm; M_{rr}1.72±.09; $M_{\theta\theta}$0.88±.13; $M_{\phi\phi}$-2.60±.12; $M_{r\theta}$-2.73±.12; $M_{\theta\phi}$-0.88±.12; $M_{\phi r}$-4.38±.12; Best double couple: $M_0 5.68\times10^{17}$ NP1: ϕ_s344°, δ16°, λ43°. NP2: ϕ_s212°, δ79°, λ102°. Principal axes: T 5.31, Plg54°, Azm136°; N .74, Plg12°, Azm30°; P -6.05, Plg33°, Azm292°; nsta1 refers to body waves, cutoff=40s.*

*BGS **17** 07:13:14.4±4.6, 21.90S×179.30W, h590^{km}*

ISC 17 07:13:09.8±0.1**, 21.95S**±0.02×**179.36W**±0.03**, h592**^{km}**, h592**^{km}±.9^{km}**:pP-P, n802,** σ**0**$\overset{s}{.}$**97**/414**, mb5.5**/124**, 121C-70D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	10.77	43	*e*P	P	07 15 31.9	-4.4
AFI				pmax	pmax		
	comp=Z,742nm,0.8s						
AFI	**Afiamalu**	10.77	43	*e*P	P	07 15 31.9	-4.4
	comp=Z,742nm,0.8s						
DZM	**Mont Dzumac**	13.17	267	⇓*i*P	P	07 16 02.3	+2.1
DZM				*e*S	S	07 18 15.1	-1.8
NOUC	**Port Laguerre**	13.30	267	⇓*e*P	P	07 16 03.4	+2.0
NOUC				*e*S	S	07 18 26.8	+7.6
WCZ	**Waipu Caves**	14.98	200	*e*P	P	07 16 22.7	+4.9
WCZ	**Waipu Caves**	14.98	200	P	P	07 16 22.0	+4.2
KUZ	**Kuaotunu**	15.35	195	*e*P	P	07 16 25.0	+3.6
KUZ	**Kuaotunu**	15.35	195	P	P	07 16 24.6	+3.2
MTAZ	**Motutapu**	15.60	197	*e*P	P	07 16 28.3	+4.5
MTAZ	**Motutapu**	15.60	197	P	P	07 16 28.3	+4.5
OTAZ	**Otara**	15.75	197	*e*P	P	07 16 29.3	+4.1
WTAZ	**Waiatarua**	15.83	198	*e*P	P	07 16 30.4	+4.4
MKAZ	**Moumakai**	15.84	196	P	P	07 16 29.7	+3.7
PUZ	**Puketiti**	16.20	187	*e*P	P	07 16 30.1	+0.6
PUZ	**Puketiti**	16.20	187	P	P	07 16 29.6	+0.1
URZ	**Urewera**	16.54	190	P	P	07 16 31.6	-1.1
	comp=Z,41nm,0.3s,baz=293,slow=2.6,SNR=102						
URZ				S	S	07 19 15.6	-0.5
	comp=Z,12nm,0.3s,baz=103,slow=23,SNR=13						
URZ				ScP		07 23 27.2	
	comp=Z,0.8nm,0.3s,baz=58,slow=16,SNR=3.9						
URZ	**Urewera**	16.54	190	⇑P	P	07 16 31.5	-1.2
MWZ	**Matawai**	16.55	189	P	P	07 16 32.6	-0.2
MWZ	**Matawai**	16.55	189	P	P	07 16 32.2	-0.6
MWZ				pP		07 17 35.3	
MWZ				*e*S	S	07 19 14.1	-2.2
TUVZ	**Tukino**	17.78	193	P	P	07 16 45.3	+0.9
MOVZ	**Moawhango**	17.90	192	P	P	07 16 45.0	-0.5
RAR	**Rarotonga**	18.23	91	P	P	07 16 47.7	-1.0
	comp=Z,2.7nm,0.3s,baz=238,slow=7.2,SNR=30						
RAR				S	S	07 19 38.7	-6.2
	baz=255,slow=6.0,SNR=2.2						

TSZ	**Takapari Road**	18.49	191	P	P	07 16 50.6	-0.5
TSZ	**Takapari Road**	18.49	191	P	P	07 16 50.9	-0.2
MRZ	**Mangatainoka R**	19.14	192	P	P	07 16 55.4	-1.7
MRZ	**Mangatainoka R**	19.14	192	P	P	07 16 55.3	-1.8
KIW	**Kapiti Island**	19.47	193	P	P	07 16 59.8	-0.4
MTW	**Mount Morrison**	19.64	192	P	P	07 17 00.8	-0.9
MTW	**Mount Morrison**	19.64	192	P	P	07 17 00.6	-1.1
MRW	**Makara Radio**	19.87	193	P	P	07 17 03.5	-0.3
MSWZ	**Moikau Station**	19.93	192	P	P	07 17 03.7	-0.7
BHW	**Baring Head**	20.00	193	P	P	07 17 04.2	-0.9
QRZ	**Quartz Range**	20.03	198	P	P	07 17 06.6	+1.2
QRZ				*e*S	S	07 20 14.0	-0.7
NNZ	**Nelson**	20.17	196	P	P	07 17 06.3	-0.3
NNZ				pP		07 18 02.3	
BSWZ	**Blackbirch Sta**	20.51	195	P	P	07 17 09.7	0.0
THZ	**Tophouse**	20.80	196	*e*P	P	07 17 12.1	-0.2
THZ	**Tophouse**	20.80	196	⇑P	P	07 17 11.9	-0.4
THZ				*e*S	S	07 20 23.4	-3.7
KHZ	**Kahutara**	21.26	195	*e*P	P	07 17 15.0	-1.5
KHZ	**Kahutara**	21.26	195	P	P	07 17 15.3	-1.2
KHZ				*e*S	S	07 20 31.0	-3.6
KHZ				ScP		07 23 38.2	
LTZ	**Lake Taylor**	21.92	197	⇑P	P	07 17 21.2	-1.4
WVZ	**Waitaha Valley**	22.63	199	⇑P	P	07 17 28.6	-0.3
WVZ				*e*S	S	07 20 51.7	-4.9
MQZ	**McQueen’s Vall**	22.69	195	*e*P	P	07 17 28.5	-0.9
MQZ	**McQueen’s Vall**	22.69	195	P	P	07 17 28.5	-0.9
RPZ	**Rata Peaks**	23.12	198	P	P	07 17 32.6	-0.6
	comp=Z,40nm,0.4s,mb5.4,baz=354,slow=2.4,SNR=14						
RPZ				S	S	07 20 59.7	-4.8
	comp=Z,5.6nm,0.5s,baz=298,slow=22,SNR=2.4						
FOZ	**Fox Glacier**	23.40	200	P	P	07 17 34.3	-1.5
FOZ				*e*S	S	07 21 02.7	-6.1
LBZ	**Lake Benmore**	23.99	199	P	P	07 17 39.7	-1.3
JCZ	**Jackson Bay**	24.16	201	P	P	07 17 42.7	+0.2
JCZ	**Jackson Bay**	24.16	201	P	P	07 17 42.5	0.0
JCZ				*e*S	S	07 21 19.1	-1.8
JCZ				ScP		07 23 47.4	
ODZ	**Otahua Downs**	24.46	197	*e*P	P	07 17 44.5	-0.6
ODZ	**Otahua Downs**	24.46	197	P	P	07 17 44.5	-0.6
WKZ	**Wanaka**	24.74	200	P	P	07 17 46.9	-0.8
WKZ	**Wanaka**	24.74	200	P	P	07 17 46.8	-0.9
MSZ	**Milford Sound**	24.97	202	P	P	07 17 50.0	+0.4
EAZ	**Earnscleugh**	25.02	199	*e*P	P	07 17 49.6	-0.5
EAZ	**Earnscleugh**	25.02	199	P	P	07 17 49.3	-0.8
MLZ	**Mavora Lakes**	25.48	201	*e*P	P	07 17 54.8	+0.7
MLZ	**Mavora Lakes**	25.48	201	P	P	07 17 54.5	+0.4
TUZ	**Tuapeka**	25.58	198	P	P	07 17 55.3	+0.3
TUZ	**Tuapeka**	25.58	198	P	P	07 17 55.0	0.0
ARMA	**Armidale**	27.31	246	⇓*i*P	P	07 18 12.7	+2.4
ARMA				*e*S	S	07 22 13.5	+3.2
ARMA				*e*SCP		07 23 58.3	
ARMA				*e*SCS	ScS	07 27 53.5	+7.1
TBI	**Tubuai**	27.61	99	*e*P	P	07 18 12.2	-0.7
	comp=Z,614nm,1.0s,mb6.2						
TBI				*e*ScP		07 24 02.6	
	comp=Z,136nm,1.0s						
PAE	**Paea**	28.32	87	*e*P	P	07 18 18.0	-1.1
	comp=Z,409nm,1.2s,mb5.9						
PAE				*e*pP		07 19 45.4	
	comp=Z,364nm,1.2s						
PPT	**Papeete**	28.34	86	P	P	07 18 17.8	-1.5
	comp=Z,186nm,1.0s,mb5.7,baz=219,slow=4.6,SNR=8.8						
PPT	**Papeete**	28.34	86	*e*P	P	07 18 18.4	-0.9
	comp=Z,316nm,1.3s,mb5.8						
PPT				*e*pP		07 19 46.0	
	comp=Z,221nm,1.4s						
RIV	**Riverview**	28.52	239	⇓*i*P	P	07 18 22.8	+2.1
RIV				*e*SCP		07 24 02.2	
TIAR	**Tiarei**	28.56	87	*e*P	P	07 18 20.3	-0.8
	comp=Z,622nm,1.0s,mb6.2						
TIAR				*e*pP		07 19 48.2	
	comp=Z,420nm,1.1s						
TIAR				*e*ScP		07 23 59.5	
	comp=Z,248nm,0.9s						
TVO	**Taravao**	28.59	87	*e*P	P	07 18 20.5	-0.9
	comp=Z,359nm,0.7s,mb6.1						
TVO				*e*ScP		07 23 59.6	
	comp=Z,141nm,0.8s						
MEH	**Mehetia**	29.67	88	*e*P	P	07 18 29.4	-1.2
	comp=Z,329nm,1.1s,mb5.9						
CNB	**Canberra Magne**	30.37	237	⇓*i*P	P	07 18 38.8	+2.3
	comp=Z,914nm,1.0s,mb6.4						
CNB				*e*S	S	07 22 59.8	+2.1
CNB				*e*SCP		07 24 08.2	
CNB				*e*SCS	ScS	07 28 05.9	+4.9
PMOR	**Pomariorio Ree**	30.59	82	*e*P	P	07 18 37.6	-0.9
	comp=Z,691nm,1.1s,mb6.2						
PMOR				*e*ScP		07 24 05.8	
	comp=Z,136nm,1.0s						
CTA	**Charters Tower**	32.12	267	⇓*i*P	P	07 18 52.7	+1.4
	comp=Z,630nm,0.6s,mb6.4						
CTA				*i* S	S	07 23 23.8	-0.7
CTA				*e*SCP		07 24 13.6	
CTA				*e*SCS	ScS	07 28 15.2	+5.2
CTA	**Charters Tower**	32.12	267	P	P	07 18 52.3	+1.0
	comp=Z,658nm,0.7s,mb6.4,baz=96,slow=11,SNR=761						
CTA				S	S	07 23 23.2	-1.3
	comp=Z,9.5nm,0.8s,baz=182,slow=18,SNR=3.6						
CTA				ScP		07 24 13.2	
	comp=Z,104nm,1.0s,baz=109,slow=2.4,SNR=12						
CTA				P3KPbc		07 50 05.9	
	comp=Z,6.1nm,0.8s,baz=303,slow=4.4,SNR=6.4						
CTA	**Charters Tower**	32.12	267	P	P	07 18 52.3	+1.0
CTA				S	S	07 23 23.2	-1.3
CTA				pmax	pmax		
	comp=Z,658nm,0.7s						
CTA				smax			
	comp=N,10.0nm,0.8s						
CTA				pmax	pmax		
	comp=Z,104nm,1.0s						
CTA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CTAO	**Charters Tower**	32.12	267	*e*P	P	07 18 52.3	+1.0
CTAO				pmax	pmax		
	comp=Z,907nm,0.8s,mb6.5						
CTAO	**Charters Tower**	32.12	267	*e*P	P	07 18 52.3	+1.0
	comp=Z,908nm,0.8s,mb6.5						
TOO	**Toolangi**	34.03	235	⇓*i*P	P	07 19 09.1	+2.0
	comp=Z,168nm,0.9s,mb5.7						
TOO				*e*S	S	07 23 53.4	+0.1
TOO				*e*SS	SS	07 27 15.1	+22
TOO				*e*SCS	ScS	07 28 22.2	+2.3
TOO	**Toolangi**	34.03	235	⇓*i*P	P	07 19 09.1	+2.0
TOO				*e*S	S	07 23 53.4	+0.1
TOO				*e*		07 28 22.2	
TOO				pmax	pmax		
	comp=Z,168nm,0.9s,mb5.7						
PMG	**Port Moresby**	34.48	286	P	P	07 19 11.8	+0.7
	comp=Z,1µm,0.7s,baz=85,slow=5.4,SNR=371						
PMG				ScP		07 24 21.4	
	comp=Z,153nm,1.0s,baz=61,slow=5.2,SNR=15						
PMG	**Port Moresby**	34.48	286	*e*P	P	07 19 11.7	+0.6
	comp=Z,2µm,0.8s						
STKA	**Stephens Creek**	36.03	246	⇓*i*P	P	07 19 25.8	+2.1
	comp=Z,456nm,0.8s,mb6.1						
STKA				*i* S	S	07 24 22.7	-0.6
STKA				*e*SCP		07 24 28.2	
STKA				*e*SCS	ScS	07 28 34.2	+3.2
STKA	**Stephens Creek**	36.03	246	P	P	07 19 25.8	+2.1
	comp=Z,494nm,0.8s,mb6.1,baz=88,slow=8.9,SNR=1019						
STKA				ScP		07 24 26.9	
	comp=Z,65nm,0.8s,baz=14,slow=5.2,SNR=8.4						
RKT	**Rikitea**	40.89	100	*e*P	P	07 20 02.7	-0.5
	comp=Z,471nm,1.2s,mb5.9						
ASAR	**Alice Springs**	42.97	258	P	P	07 20 20.5	+0.8
	comp=Z,833nm,0.7s,mb6.4,baz=90,slow=8.4,SNR=3421						
ASAR				ScP		07 24 54.8	
	comp=Z,52nm,0.9s,baz=112,slow=4.4,SNR=13						
ASAR				S	S	07 26 03.2	-0.4
	comp=Z,88nm,0.9s,baz=94,slow=15,SNR=15						
ASAR				ScS	ScS	07 29 17.2	+4.6
	comp=Z,39nm,0.9s,baz=97,slow=6.9,SNR=17						
ASAR				P3KPbc		07 49 18.8	
	comp=Z,0.4nm,0.6s,baz=287,slow=4.1,SNR=4.9						
ASAR				PKP2ab		07 53 15.8	
	comp=Z,1.1nm,0.9s,baz=272,slow=2.5,SNR=4.0						
ASAR	**Alice Springs**	42.97	258	P	P	07 20 20.5	+0.8
ASAR				ScP		07 24 54.8	
ASAR				S	S	07 26 03.2	-0.4
ASAR				ScS	ScS	07 29 17.2	+4.6
ASAR				*e*		07 49 18.8	
ASAR				P’P’ab		07 53 15.8	
ASPA	**Alice Springs**	42.97	258	⇓*i*P	P	07 20 20.5	+0.8
ASPA				*e*SCP		07 24 55.4	
ASPA				*e*S	S	07 26 02.9	-0.8
ASPA				*e*SCS	ScS	07 29 17.1	+4.5
ASPA	**Alice Springs**	42.97	258	⇓*i*P	P	07 20 20.5	+0.8
ASPA				*e*S	S	07 26 02.9	-0.8
ASPA				*e*		07 29 17.1	
WRAB	**Tennant Creek**	43.16	264	*e*P	P	07 20 20.8	-0.4
WRAB				pmax	pmax		
	comp=Z,3µm,1.0s						
WRAB	**Tennant Creek**	43.16	264	*e*P	P	07 20 20.8	-0.4
	comp=Z,3µm,1.0s						
WRA	**Warramunga Arr**	43.17	264	P	P	07 20 20.7	-0.5
	comp=Z,943nm,0.8s,mb6.4,baz=97,slow=6.0,SNR=867						
WRA				ScP		07 24 55.3	
	comp=Z,127nm,1.0s,baz=98,slow=4.2,SNR=26						
WRA				S	S	07 26 03.8	-2.7
	comp=Z,39nm,1.1s,baz=96,slow=14,SNR=9.9						
WRA				P3KPbc		07 49 18.3	
	comp=Z,1.1nm,0.8s,baz=293,slow=3.1,SNR=8.3						
WRA				PKP2bc		07 52 25.7	
	comp=Z,3.8nm,1.0s,baz=294,slow=3.7,SNR=11						
WRA	**Warramunga Arr**	43.17	264	P	P	07 20 20.7	-0.5
WRA				S	S	07 26 03.8	-2.6
WRA	**Warramunga Arr**	43.17	264	P	P	07 20 20.7	-0.5
WRA				ScP		07 24 55.3	
WRA				S	S	07 26 03.8	-2.7
WRA				*e*		07 49 18.3	
WRA				⇑*e*		07 52 25.7	
KAKA	**Kakadu**	46.76	273	⇓*i*P	P	07 20 48.8	-0.1
	comp=Z,632nm,0.4s,mb6.5						
KAKA				*i* SCP		07 25 09.9	
KAKA				*e*S	S	07 26 54.1	-2.5
FORT	**Forrest**	47.57	248	⇓*i*P	P	07 20 54.9	+0.1
	comp=Z,2µm,0.8s						
FORT				*e*SCP		07 25 14.1	
FORT				*e*S	S	07 27 05.6	-1.9
GUMO	**Guam**	49.79	312	P	P	07 21 11.0	-0.5
GUMO	**Guam**	49.79	312	*e*P	P	07 21 10.5	-1.0
GUMO				pmax	pmax		
	comp=Z,1µm,0.9s,mb6.3						
GUMO	**Guam**	49.79	312	*e*P	P	07 21 10.5	-1.0
	comp=Z,1µm,0.9s,mb6.3						
FITZ	**Fitzroy Crossi**	51.60	264	⇓*i*P	P	07 21 25.0	+0.4
	comp=Z,789nm,0.9s,mb6.0						
FITZ				*e*S	S	07 28 02.8	+0.7
FITZ	**Fitzroy Crossi**	51.60	264	P	P	07 21 25.0	+0.4
	comp=Z,831nm,1.0s,mb6.0,baz=110,slow=2.8,SNR=358						
FITZ				ScP		07 25 32.3	
	comp=Z,67nm,0.9s,baz=294,slow=1.2,SNR=4.3						
FITZ				S	S	07 28 02.9	+0.8
	comp=Z,53nm,1.0s,baz=352,slow=19,SNR=8.7						
FITZ				PKPPKP		07 51 48.8	
	comp=Z,18nm,1.1s,baz=6.8,slow=4.5,SNR=7.7						
KLBR	**Kellerberrin**	56.30	246	⇓*i*P	P	07 21 57.6	+0.2
	comp=Z,708nm,1.0s,mb5.8						
MBWA	**Marble Bar**	56.31	259	*e*P	P	07 21 57.5	0.0
	comp=Z,712nm,0.9s,mb5.9						
SBA	**Scott Base**	56.35	184	*e*P	P	07 21 59.5	+2.4
SBA				pmax	pmax		
	comp=Z,330nm,1.2s,mb5.4						
SBA	**Scott Base**	56.35	184	*e*P	P	07 21 59.0	+1.9
	comp=Z,334nm,1.3s,mb5.4						
VNDA	**Vanda**	56.36	185	P	P	07 21 58.7	+1.5
	comp=Z,57nm,1.1s,mb4.7,baz=1.9,slow=7.3,SNR=220						
VNDA				ScP		07 25 50.8	
	comp=Z,8.0nm,0.9s,baz=326,slow=7.7,SNR=3.5						
VNDA	**Vanda**	56.36	185	P	P	07 21 58.7	+1.5
VNDA						07 25 50.8	
VNDA				pmax	pmax		
	comp=Z,57nm,1.1s						
VNDA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
VNDA	**Vanda**	56.36	185	⇑*i*P	P	07 21 59.1	+1.9
	comp=Z,211nm,1.4s,mb5.2						
NWAO	**Narrogin (SRO)**	56.59	244	P	P	07 21 59.6	+0.2
	comp=Z,161nm,0.9s,mb5.2,baz=106,slow=6.8,SNR=36						
NWAO	**Narrogin (SRO)**	56.59	244	*e*P	P	07 21 59.1	-0.3
NWAO				pmax	pmax		
	comp=Z,159nm,1.0s						
NWAO	**Narrogin (SRO)**	56.59	244	*e*P	P	07 21 59.1	-0.3
	comp=Z,159nm,1.0s,mb5.2						
MUN	**Mundaring**	57.56	245	*e*P	P	07 22 06.0	0.0
	comp=Z,176nm,1.0s,mb5.2						
MUN				*i* S	S	07 29 20.6	+1.1
MUN	**Mundaring**	57.56	245	*e*P	P	07 22 06.0	0.0
MUN				*i* S	S	07 29 20.6	+1.1
MUN				pmax	pmax		
	comp=Z,177nm,1.0s,mb5.2						
BUNI	**Buntu Taipa**	61.16	278	⇓*e*P	P	07 22 30.8	+0.8
	comp=Z,80nm,0.5s,mb5.2						
CBIJ	**Chichi jima**	61.33	321	P	P	07 22 29.8	-1.2
	comp=Z,872nm,0.6s,mb6.1,baz=211,slow=1.3,SNR=47						
NINI	**Niniconang**	61.39	277	*e*P	P	07 22 32.4	+0.9
NINI				pmax	pmax		
	comp=Z,744nm,0.9s,mb5.9						
NINI	**Niniconang**	61.39	277	*e*P	P	07 22 32.4	+0.9
	comp=Z,744nm,0.9s,mb5.9						
KCP	**Kidapawan**	61.56	291	⇓*e*P	P	07 22 30.0	-2.6
BUKP	**Musuan**	62.01	292	*e*P	P	07 22 34.0	-1.5
BUTP	**Butuan**	62.08	294	*e*P	P	07 22 34.7	-1.3
CASY	**Casey**	62.12	205	*e*P	P	07 22 36.0	+0.5
CASY				*i* S	S	07 30 15.8	+0.1
SCPH	**Surigao**	62.61	294	⇑*e*P	P	07 22 38.8	-0.6
RPN	**Rapa Nui**	63.18	110	*e*P	P	07 22 43.6	+0.8
	comp=Z,710nm,1.4s,mb5.8						
KEDI	**Kedomdong**	63.29	271	⇑*e*P	P	07 22 43.2	-0.5
KEDI				pmax	pmax		
	comp=Z,992nm,0.7s,mb6.2						
KEDI	**Kedomdong**	63.29	271	⇑*e*P	P	07 22 43.2	-0.5
	comp=Z,992nm,0.7s,mb6.2						
MSLP	**Maasin**	63.32	294	*e*P	P	07 22 41.6	-2.2
PAGZ	**Pagadian**	63.45	291	*e*P	P	07 22 43.6	-1.1
BESP	**Borongan**	63.59	296	*e*P	P	07 22 44.0	-1.6
PLP	**Palo**	63.74	295	*e*P	P	07 22 45.1	-1.6
RATI	**Rata**	63.75	271	⇓*e*P	P	07 22 46.6	-0.1
	comp=Z,5µm,0.7s						
TBP	**Tagbilaran**	63.94	293	⇓*i*P	P	07 22 47.5	-0.4
OCLP	**Ormoc**	64.00	295	*e*P	P	07 22 48.3	0.0
CNP	**Catarman**	64.71	296	*e*P	P	07 22 52.8	0.0
KELI	**Kelakatan**	64.89	271	⇓*e*P	P	07 22 53.6	-0.3
SRDI	**Scrawed**	65.13	271	⇑*e*P	P	07 22 54.6	-0.8
SRDI				pmax	pmax		
	comp=Z,590nm,1.0s,mb6.0						
SRDI	**Scrawed**	65.13	271	⇑*e*P	P	07 22 54.6	-0.8
	comp=Z,590nm,1.0s,mb6.0						
GUIM	**Jordan**	65.49	294	*e*P	P	07 22 55.9	-1.8
PVCP	**Virac**	65.70	297	*e*P	P	07 22 59.1	+0.2
RCP	**Roxas**	65.83	295	⇓*e*P	P	07 22 59.2	-0.5
OTRP	**Odiongan**	66.84	295	*e*P	P	07 23 05.4	-0.5
CUYO	**Cuyo Island**	66.94	293	*e*P	P	07 23 06.4	-0.1
JHJ	**Hachijo jima 2**	67.22	323	P	P	07 23 06.2	-1.7
	comp=Z,664nm,0.5s,mb6.3,baz=187,slow=12,SNR=22						
GQP	**Guinayangan**	67.27	297	*e*P	P	07 23 08.4	-0.1
BOAC	**Boac**	67.55	296	*e*P	P	07 23 10.1	-0.1
SJMP	**San Jose**	67.65	294	*e*P	P	07 23 11.0	+0.2
QSPA	**South Pole Qui**	68.12	180	⇑*i*P	P	07 23 14.7	+2.1
	comp=Z,497nm,1.1s,mb5.8						
LBPH	**Los Banos**	68.45	296	*e*P	P	07 23 15.3	-0.3
ENPP	**El Nido**	68.48	292	*e*P	P	07 23 15.8	0.0
TGY	**Tagaytay City**	68.63	296	P	P	07 23 16.6	-0.1
	comp=Z,1µm,1.0s,mb6.2,baz=138,slow=8.9,SNR=26						
PALP	**Palanan**	68.94	299	*e*P	P	07 23 17.4	-1.1
LUBP	**Lubang**	69.02	295	*e*P	P	07 23 18.0	-1.0
MIR	**Mirnyy**	69.15	205	⇑*e*P	P	07 23 19.0	+0.1
MIR				*e*S	S	07 31 39.0	+0.4
MIR				pmax	pmax		
	comp=Z,150nm,1.2s,mb5.3						
CAUP	**Cauayan**	69.37	299	*e*P	P	07 23 21.0	0.0
CVP	**Callao Caves**	69.77	300	⇑*e*P	P	07 23 24.5	+1.1
JOW	**Kunigami**	70.14	311	P	P	07 23 26.1	+0.6
	comp=Z,378nm,0.8s,mb5.9,baz=154,slow=5.5,SNR=54						
JOW				PP	PP	07 26 14.2	+3.1
	comp=Z,66nm,0.9s,baz=130,slow=14,SNR=5.7						
APYP	**Conner**	70.32	299	*e*P	P	07 23 25.1	-1.5
ABRA	**Dolores**	70.64	299	*e*P	P	07 23 29.0	+0.5
BOLP	**Bolinao**	70.64	297	*e*P	P	07 23 28.0	-0.5
MAJO	**Matsushiro**	70.64	325	⇓*i*P	P	07 23 27.6	-0.6
MAJO				*e**PP	pP	07 25 26.5	-3.1
MAJO				pmax	pmax		
	comp=Z,235nm,0.8s,mb5.8						
MAJO	**Matsushiro**	70.64	325	⇓*i*P	P	07 23 27.6	-0.6
	comp=Z,235nm,0.8s,mb5.8						
MAJO				*e*pP	pP	07 25 26.5	-3.1
MAT	**Matsushiro**	70.64	325	P	P	07 23 27.3	-0.9
MAT				S	S	07 31 52.0	-4.0
MAT	**Matsushiro**	70.64	325	*e*P	P	07 23 27.0	-1.2
MAT				*e*S	S	07 31 52.0	-4.0
MAT				pmax	pmax		
	comp=Z,267nm,1.0s,mb5.7						
MAT	**Matsushiro**	70.64	325	*e*P	P	07 23 27.0	-1.2
	comp=Z,267nm,1.0s,mb5.7						
MAT				*e*S	S	07 31 52.0	-4.0
PIP	**Pasuquin**	71.07	300	⇓*i*P	P	07 23 30.8	-0.1
BBP	**Basco**	71.12	302	*e*P	P	07 23 29.7	-1.6
TATO	**Taipei**	73.98	306	P	P	07 23 47.1	-0.5
ASAJ	**Asahikawa**	74.41	333	P	P	07 23 50.9	+1.3
	comp=Z,160nm,0.7s,mb5.7,baz=219,slow=5.8,SNR=48						
ASAJ				pP	pP	07 25 51.6	-1.0
	comp=Z,23nm,0.9s,baz=225,slow=10.0,SNR=2.5						
ASAJ	**Asahikawa**	74.41	333	P	P	07 23 50.9	+1.4
ASAJ				*PP	pP	07 25 51.7	-1.0
ASAJ				pmax	pmax		
	comp=Z,160nm,0.7s						
ASAJ				pmax	pmax		
	comp=Z,23nm,0.9s						
FX1	**Attu Island--F**	74.80	355	P	P	07 23 49.9	-1.6
	comp=Z,176nm,0.6s,mb5.7,baz=170,slow=2.2,SNR=37						
FX1	**Attu Island--F**	74.80	355	P	P	07 23 49.9	-1.6
FX1				pmax	pmax		
	comp=Z,176nm,0.6s						
FX1	**Attu Island--F**	74.80	355	⇓*e*P	P	07 23 49.8	-1.7
UNV	**Unalaska Valle**	76.29	8	*e*P	P	07 23 57.5	-2.3
	comp=Z,135nm,0.9s,mb5.4						
YSS	**Yuzh-Sakhalins**	76.63	334	*e*P	P	07 24 01.8	+0.1
YSS				pmax	pmax		
	comp=Z,150nm,0.8s,mb5.5						
YSS	**Yuzh-Sakhalins**	76.63	334	*e*P	P	07 24 01.8	+0.1
	comp=Z,150nm,0.8s,mb5.5						
YSS				*e*pP	pP	07 26 09.2	+3.3
PET	**Petropavlovsk**	77.07	347	⇓*i*P	P	07 24 03.1	-0.8
PET				*e**PP	pP	07 26 02.7	-5.5
PET				*e**SP	sP	07 26 56.3	-11
PET				*e*S	S	07 33 03.8	-1.6
PET				pmax	pmax		
	comp=Z,110nm,0.7s,mb5.4						
PET				pmax	pmax		
	comp=Z,200nm,13.1s						
PET				pmax	pmax		
	comp=Z,200nm,15.0s						
PET				pmax	pmax		
	comp=Z,300nm,17.9s						
PET	**Petropavlovsk**	77.07	347	⇓*e*P	P	07 24 02.8	-1.1
	comp=Z,39nm,0.6s,mb5.0						
KS15	**Wonju Array Si**	77.16	319	⇓*e*P	P	07 24 05.1	+0.3
SSE	**Sheshan**	77.66	311	⇓P	P	07 24 07.6	0.0
SSE				AP	pP	07 26 17.8	+5.7
SSE				XP	sP	07 27 11.3	+0.3
SSE				PP	PP	07 27 17.0	+3.0
SSE				S	S	07 33 13.4	+1.4
SSE				SCS	ScS	07 33 35.1	+4.7
SSE				XS		07 36 52.5	
SSE				SS	SS	07 38 36.9	+4.3
SSE				AMB	AMB		
	comp=Z,112nm,1.0s,mb5.2						
SSE				AMB	AMB		
	comp=Z,341nm,6.6s						
INCN	**Inchon**	77.95	319	⇓*e*P	P	07 24 09.5	+0.6
	comp=Z,205nm,1.0s,mb5.5						
GZH	**Guangzhou**	79.34	300	P	P	07 24 19.4	+2.8
GZH				AMB	AMB		
	comp=Z,580nm,1.9s,mb5.6						
MAW	**Mawson**	79.78	200	*e*P	P	07 24 19.1	+1.1
	comp=Z,35nm,0.9s,mb4.7						
MAW				*i* S	S	07 33 33.0	0.0
MAW	**Mawson**	79.78	200	P	P	07 24 19.6	+1.6
	comp=Z,45nm,1.0s,mb4.8,baz=122,slow=7.2,SNR=34						
MAW				S	S	07 33 31.0	-2.0
	comp=Z,3.4nm,1.1s,baz=206,slow=16,SNR=2.0						
MAW	**Mawson**	79.78	200	*e*P	P	07 24 19.1	+1.1
MAW				*i* S	S	07 33 33.0	0.0
MAW				pmax	pmax		
	comp=Z,35nm,0.9s						
NJ2	**Nanjing**	79.84	311	*e*P	P	07 24 20.1	+1.1
NJ2				AP	pP	07 26 27.1	+2.7
NJ2				XP	sP	07 27 26.8	+3.7
NJ2				PP	PP	07 27 34.1	+2.5
NJ2				S	S	07 33 37.0	+2.6
NJ2				XS		07 37 19.0	
NJ2				AMB	AMB		
	comp=Z,560nm,1.0s,mb5.8						
NJ2				AMB	AMB		
	comp=Z,760nm,7.0s						
COCO	**West Island**	79.87	261	*e*P	P	07 24 20.2	+0.7
SAO	**San Andreas Ge**	79.95	44	⇑*i*P	P	07 24 19.7	+0.2
SAO				*e**PP	pP	07 26 24.8	-0.1
SAO				pmax	pmax		
	comp=Z,88nm,1.1s,mb5.0						
SAO	**San Andreas Ge**	79.95	44	⇑*i*P	P	07 24 19.7	+0.2
	comp=Z,88nm,1.1s,mb5.0						
SAO				*e*pP	pP	07 26 24.8	-0.2
LRV	**Little Rabbit**	80.02	44	*e*P	P	07 24 20.0	+0.1
NSHM	**Saint Helena R**	80.28	42	*e*P	P	07 24 21.4	+0.3
HOPS	**Hopland**	80.29	41	⇑*i*P	P	07 24 21.5	+0.4
	comp=Z,179nm,1.1s,mb5.3						
QIZ	**Qiongzhong**	80.31	295	P	P	07 24 22.8	+1.2
QIZ				PP	PP	07 27 35.3	-0.5
QIZ				S	S	07 33 40.4	+1.1
QIZ				AMB	AMB		
	comp=Z,66nm,1.6s,mb4.7						
QIZ				AMB	AMB		
	comp=Z,391nm,6.2s						
QIZ	**Qiongzhong**	80.31	295	⇓*i*P	P	07 24 22.6	+0.9
	comp=Z,382nm,2.0s,mb5.4						
PMSA	**Palmer Station**	80.46	157	*e*P	P	07 24 22.6	+1.1
	comp=Z,387nm,1.3s,mb5.6						
MWC	**Mount Wilson**	80.71	47	⇑*i*P	P	07 24 23.2	-0.3
MWC				*e**PP	pP	07 26 28.4	-0.8
BAR	**Barrett**	80.82	49	⇑*i*P	P	07 24 24.0	-0.1
MDJ	**Mudanjiang**	80.99	326	P	P	07 24 25.3	+0.7
MDJ				AP	pP	07 26 29.8	-0.7
MDJ				XP	sP	07 27 29.8	+0.7
MDJ				PP	PP	07 27 43.6	+2.3
MDJ				S	S	07 33 46.9	+1.3
MDJ				XS		07 37 28.3	
MDJ				AMB	AMB		
	comp=Z,150nm,1.1s,mb5.3						
MDJ				AMB	AMB		
	comp=Z,381nm,7.1s						
MDJ	**Mudanjiang**	80.99	326	⇓*i*P	P	07 24 25.3	+0.7
	comp=Z,202nm,1.1s,mb5.5						
MDJ				*e*pP	pP	07 26 29.5	-1.0
KHMM	**Horse Mountain**	81.07	39	⇑*e*P	P	07 24 26.2	+1.1
CMB	**Columbia Colle**	81.38	43	P	P	07 24 26.9	+0.1
CMB				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.2						
CMB	**Columbia Colle**	81.38	43	⇑*e*P	P	07 24 26.7	-0.1
	comp=Z,113nm,0.9s,mb5.3						
OHCM	**Honcut**	81.47	42	*e*P	P	07 24 26.8	-0.4
PFO	**Pinyon Flat Ob**	81.48	49	⇑*i*P	P	07 24 27.6	+0.2
PFO				*e**PP	pP	07 26 33.1	-0.3
PFO				pmax	pmax		
	comp=Z,59nm,1.1s,mb4.9						
PFO	**Pinyon Flat Ob**	81.48	49	⇑*i*P	P	07 24 27.6	+0.2
	comp=Z,59nm,1.1s,mb4.9						
PFO				*e*pP	pP	07 26 33.1	-0.3
WDC	**Whiskeytown Da**	81.59	40	⇑*i*P	P	07 24 28.4	+0.6
WDC				*e**PP	pP	07 26 34.6	+0.7
WDC				pmax	pmax		
	comp=Z,201nm,1.3s,mb5.5						
WDC	**Whiskeytown Da**	81.59	40	⇑*i*P	P	07 24 28.4	+0.6
	comp=Z,201nm,1.3s,mb5.5						
WDC				*e*pP	pP	07 26 34.5	+0.7
KEBM	**Edson Butte**	81.99	37	*e*P	P	07 24 30.1	+0.3
KEBM				*e*pP	pP	07 26 36.4	+0.4
OMM	**Old Mammoth Mi**	82.03	44	⇑*i*P	P	07 24 30.6	+0.5
MTUM	**Tungsten Hills**	82.16	45	*e*P	P	07 24 31.0	+0.2
MTUM				*e*pP	pP	07 26 37.3	+0.3
YBH	**Yreka Blue Hor**	82.21	39	P	P	07 24 32.0	+1.1
	comp=Z,68nm,0.7s,mb5.3,baz=187,slow=1.6,SNR=248						
YBH				pP	pP	07 26 37.2	0.0
	comp=Z,9.8nm,0.9s,baz=178,slow=6.6,SNR=4.6						
YBH	**Yreka Blue Hor**	82.21	39	⇑*i*P	P	07 24 31.8	+0.9
YBH				*e**PP	pP	07 26 37.8	+0.6
YBH				pmax	pmax		
	comp=Z,102nm,0.9s						
YBH	**Yreka Blue Hor**	82.21	39	⇑*i*P	P	07 24 31.8	+0.9
	comp=Z,102nm,0.9s,mb5.3						
YBH				*e*pP	pP	07 26 37.8	+0.7

SNY	**Shenyang**	**82.51**	**321**	⇓P	**P**	**07 24 32.6**	**+0.2**
SNY				S	S	07 33 59.8	-0.8
SNY				AMB	AMB		
	comp=Z,140nm,0.7s,mb5.6						
SNY				AMB	AMB		
	comp=Z,320nm,5.1s						
WCN	**Washoe City**	**82.53**	**42**	P	**P**	**07 24 32.9**	**+0.3**
WCN				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.5						
WCN	**Washoe City**	**82.53**	**42**	⇑*i*P	**P**	**07 24 33.2**	**+0.7**
	comp=Z,142nm,1.0s,mb5.5						
HUMO	**Hull Mountain**	**82.61**	**38**	⇑*i*P	**P**	**07 24 34.0**	**+1.1**
	comp=Z,142nm,1.1s,mb5.4						
HUMO				*e*pP	pP	07 26 39.9	+0.6
CN2	**Changchun**	**82.68**	**323**	⇓*i*P	**P**	**07 24 33.8**	**+0.6**
CN2				*e*AP	pP	07 26 38.6	-1.1
CN2				*e*S	S	07 34 02.5	+0.3
CN2				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.7						
CN2				AMB	AMB		
	comp=Z,1μm,5.0s						
BUOR	**Burton Butte**	**82.82**	**39**	P	**P**	**07 24 35.0**	**+1.0**
NVAR	**Mina Array Bea**	**82.94**	**44**	P	**P**	**07 24 35.2**	**+0.5**
	comp=Z,74nm,0.8s,mb5.2,baz=210,slow=6.7,SNR=352						
NVAR				pP	pP	07 26 41.0	-0.2
	comp=Z,10nm,1.0s,baz=216,slow=6.1,SNR=5.0						
NVAR				PKKPbc		07 42 55.3	
	comp=Z,6.0nm,1.2s,baz=83,slow=4.3,SNR=8.2						
NVAR				PKPPKP		07 50 59.2	
	comp=Z,1.0nm,0.9s,baz=66,slow=5.8,SNR=4.3						
NVAR	**Mina Array Bea**	**82.94**	**44**	P	**P**	**07 24 35.2**	**+0.5**
NVAR				pP	pP	07 26 41.0	-0.2
NVAR				PKKPbc		07 42 55.3	
NVAR				P'P'		07 50 59.2	
BBOR	**Butler Butte**	**82.94**	**38**	P	**P**	**07 24 35.3**	**+0.7**
MNV	**Mina**	**83.04**	**44**	⇑*i*P	**P**	**07 24 35.3**	**+0.2**
MNV				pmax	pmax		
	comp=Z,108nm,1.0s,mb5.3						
MNV	**Mina**	**83.04**	**44**	⇑*i*P	**P**	**07 24 35.3**	**+0.2**
	comp=Z,108nm,1.0s,mb5.3						
MNV				*e*pP	pP	07 26 42.7	+1.0
KLR	**Kul'dur**	**83.14**	**330**	α*i*P	**P**	**07 24 32.8**	**-2.6**
KLR				*e*	pP	07 26 37.0	-5.0
KLR				*e*		07 27 33.0	
KLR				*e*S	S	07 33 55.5	-11
KLR				pmax	pmax		
	comp=Z,150nm,1.8s,mb5.2						
LDFC	**Landfair**	**83.21**	**48**	⇑*i*P	**P**	**07 24 36.9**	**+0.9**
TIA	**Tai'an**	**83.33**	**313**	⇓P	**P**	**07 24 37.3**	**+0.7**
TIA				AMB	AMB		
	comp=Z,196nm,1.0s,mb5.6						
TPNV	**Topopah Spring**	**83.46**	**46**	⇑*i*P	**P**	**07 24 37.5**	**+0.3**
TPNV				*e**PP	pP	07 26 44.5	+0.6
TPNV				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.3						
TPNV	**Topopah Spring**	**83.46**	**46**	⇑*i*P	**P**	**07 24 37.5**	**+0.3**
	comp=Z,92nm,1.0s,mb5.3						
TPNV				*e*pP	pP	07 26 44.5	+0.6
USHA	**Ushuaia**	**83.61**	**147**	P	**P**	**07 24 39.6**	**+2.1**
	comp=Z,82nm,1.1s,mb5.2,baz=222,slow=5.8,SNR=21						
COR	**Corvallis**	**83.66**	**37**	*e*P	**P**	**07 24 38.4**	**+0.4**
COR				pmax	pmax		
	comp=Z,58nm,0.8s,mb5.2						
COR	**Corvallis**	**83.66**	**37**	*e*P	**P**	**07 24 38.4**	**+0.4**
	comp=Z,58nm,0.8s,mb5.2						
NEN	**Nelson**	**83.70**	**48**	*e*P	**P**	**07 24 38.2**	**-0.2**
NEN				*e*pP	pP	07 26 45.0	-0.3
MOD	**Modoc**	**83.74**	**40**	⇑*i*P	**P**	**07 24 39.0**	**+0.5**
	comp=Z,103nm,1.1s,mb5.3						
MOD				*e*pP	pP	07 26 46.2	+0.9
HBO	**Huckleberry Mo**	**83.75**	**38**	P	**P**	**07 24 39.2**	**+0.7**
TRCR	**Troy Canyon**	**84.67**	**45**	*e*P	**P**	**07 24 43.0**	**-0.1**
MA2	**Magadan**	**84.85**	**345**	*d* *i*P	**P**	**07 24 42.8**	**-0.7**
MA2				*e*		07 34 11.3	
MA2				*e*		07 40 19.3	
MA2				*e*		07 43 50.1	
MA2				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.3						
MA2				pmax	pmax		
	comp=E,20nm,1.1s						
MA2				pmax	pmax		
	comp=N,30nm,1.0s						
MA2	**Magadan**	**84.85**	**345**	⇓*i*P	**P**	**07 24 42.5**	**-1.0**
	comp=N,133nm,1.0s,mb5.5						
MA2				*e*pP	pP	07 26 48.7	-1.9
TUC	**Tucson**	**84.86**	**52**	⇑*i*P	**P**	**07 24 45.3**	**+1.0**
TUC				*e**PP	pP	07 26 52.6	+1.2
TUC				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.4						
TUC	**Tucson**	**84.86**	**52**	⇑*i*P	**P**	**07 24 45.3**	**+1.0**
	comp=Z,104nm,1.0s,mb5.4						
TUC				*e*pP	pP	07 26 52.6	+1.2
RSO	**Redoubt South**	**84.92**	**13**	*e*P	**P**	**07 24 42.6**	**-1.2**
RSO				*e*pP	pP	07 26 50.7	-0.4
SYO	**Syowa Base**	**85.04**	**193**	⇓P	**P**	**07 24 44.7**	**+0.5**
SYO	**Syowa Base**	**85.04**	**193**	⇑PcP	PcP	07 24 46.4	-0.2
SYO	**Syowa Base**	**85.04**	**193**	⇓pP	pP	07 26 53.5	+2.0
OOW	**Octopus West**	**85.20**	**34**	P	**P**	**07 24 46.8**	**+1.3**
OCWA	**Octopus Mounta**	**85.21**	**34**	⇑*i*P	**P**	**07 24 46.6**	**+1.1**
	comp=Z,135nm,0.8s,mb5.6						
SLKM	**Skilak Lake**	**85.51**	**14**	*e*P	**P**	**07 24 46.2**	**-0.5**
SLKM				*e**PP	pP	07 26 53.0	-1.1
ARUT	**Antelope Range**	**85.79**	**46**	P	**P**	**07 24 49.2**	**+0.6**
ARUT	**Antelope Range**	**85.79**	**46**	*e*P	**P**	**07 24 48.7**	**+0.1**
ENH	**Enshi**	**85.81**	**305**	⇓*i*P	**P**	**07 24 49.9**	**+1.0**
	comp=Z,375nm,1.0s,mb6.0						
SQM	**Sequim**	**86.00**	**34**	P	**P**	**07 24 50.5**	**+1.2**
BJT	**Baijiatuau**	**86.03**	**316**	⇓*i*P	**P**	**07 24 50.3**	**+0.6**
BJT				*e**PP	pP	07 26 58.0	+0.8
BJT				pmax	pmax		
	comp=Z,123nm,0.8s						
BJT	**Baijiatuau**	**86.03**	**316**	⇓*i*P	**P**	**07 24 50.3**	**+0.6**
	comp=Z,123nm,0.8s,mb5.6						
BJT				*e*pP	pP	07 26 58.0	+0.7
BJI	**Beijing**	**86.04**	**316**	*e*P	**P**	**07 24 50.4**	**+0.7**
BJI				AP	pP	07 26 57.8	+0.5
BJI				XP	sP	07 27 57.0	+1.3
BJI				AMB	AMB		
	comp=Z,160nm,0.8s,mb5.7						
PGC	**Sidney**	**86.16**	**33**	⇑*i*P	**P**	**07 24 50.3**	**+0.2**
	comp=Z,302nm,1.4s,mb5.7						
ELK	**Elko**	**86.20**	**43**	⇑*i*P	**P**	**07 24 50.3**	**-0.2**
ELK				*e**PP	pP	07 26 57.9	-0.2
ELK				pmax	pmax		
	comp=Z,47nm,1.0s						
ELK	**Elko**	**86.20**	**43**	⇑*i*P	**P**	**07 24 50.3**	**-0.1**
	comp=Z,47nm,1.0s,mb5.1						
ELK				*e*pP	pP	07 26 57.9	-0.1
GYA	**Guiyang**	**86.27**	**300**	⇓*i*P	**P**	**07 24 52.4**	**+1.3**
GYA				AP	pP	07 27 01.3	+2.5
GYA				XP	sP	07 28 01.6	+4.4
GYA				AMB	AMB		
	comp=Z,110nm,1.1s,mb5.4						
GYA				AMB	AMB		
	comp=Z,360nm,5.9s						
SNAA	**Sanae**	**86.60**	**179**	*e*	pP	07 27 00.6	+1.3
SNAA	**Sanae**	**86.60**	**179**	P	**P**	**07 24 52.0**	**+0.4**
	comp=Z,5.7nm,0.6s,baz=195,slow=5.7,SNR=30						
SNAA				pP	pP	07 27 00.2	+0.8
	comp=Z,4.3nm,1.0s,baz=227,slow=3.9,SNR=2.9						
SNAA	**Sanae**	**86.60**	**179**	⇑*i*P	**P**	**07 24 51.8**	**+0.2**
SNAA				*e*		07 28 28.0	
SNAA				pmax	pmax		
	comp=Z,41nm,1.1s						
SNAA	**Sanae**	**86.60**	**179**	⇑*i*P	**P**	**07 24 51.8**	**+0.2**
	comp=Z,41nm,1.1s,mb5.1						
SNAA				*e*	pP	07 27 00.6	+1.3
SNAA				*e*		07 28 28.0	
PMR	**Palmer**	**86.72**	**14**	*e*P	**P**	**07 24 52.4**	**0.0**
PMR				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.7						
PMR	**Palmer**	**86.72**	**14**	*e*P	**P**	**07 24 52.4**	**0.0**
	comp=Z,8.4nm,0.5s,mb4.7						
TBM	**Table Mountain**	**86.74**	**36**	P	**P**	**07 24 53.5**	**+0.6**
VNA3	**Neumayer Olymp**	**86.78**	**177**	*e*	pP	07 27 02.6	+2.3
VNA3	**Neumayer Olymp**	**86.78**	**177**	⇑*i*P	**P**	**07 24 54.8**	**+2.3**
VNA3				*e*	pP	07 27 02.6	+2.3
VNA3				*e*		07 28 30.7	
HAWA	**Hanford**	**86.86**	**37**	⇑*e*P	**P**	**07 24 54.0**	**+0.5**
	comp=Z,132nm,0.9s,mb5.7						
HAWA				*e*pP	pP	07 27 02.0	+0.8
MSU	**Marysvale**	**87.02**	**46**	*e*P	**P**	**07 24 55.0**	**+0.6**
SML	**Sawmill**	**87.09**	**14**	P	**P**	**07 24 52.7**	**-1.4**
SML	**Sawmill**	**87.09**	**14**	*e*P	**P**	**07 24 52.0**	**-2.1**
DIV	**Divide**	**87.11**	**16**	*e*P	**P**	**07 24 53.3**	**-0.9**
	comp=Z,77nm,0.9s,mb5.4						
DIV				*e*pP	pP	07 27 02.0	-0.1
VNA2	**Neumayer--Watz**	**87.20**	**177**	*e*	pP	07 27 05.1	+2.7
VNA2	**Neumayer--Watz**	**87.20**	**177**	⇑*i*P	**P**	**07 24 57.4**	**+2.9**
VNA2				*e*	pP	07 27 05.1	+2.7
VNA2				*e*		07 28 34.1	
BMO	**Blue Mountains**	**87.23**	**39**	⇑*i*P	**P**	**07 24 55.1**	**-0.1**
BMO				*e**PP	pP	07 27 02.3	-0.8
BMO				pmax	pmax		
	comp=Z,62nm,0.9s,mb5.3						
BMO	**Blue Mountains**	**87.23**	**39**	⇑*i*P	**P**	**07 24 55.1**	**-0.1**
	comp=Z,62nm,0.9s,mb5.3						
BMO				*e*pP	pP	07 27 02.3	-0.8
VNA1	**Neumayer--Stat**	**87.44**	**177**	⇑*i*P	**P**	**07 24 58.3**	**+2.7**
SEY	**Seymchan**	**87.50**	**347**	P	**P**	**07 25 00.1**	**+4.1**
SEY				*PP	pP	07 27 06.6	+2.6
SEY				*SP	sP	07 28 03.5	+1.1
SEY						07 34 28.1	
SEY				*e*S	S	07 34 49.4	+2.4
SEY				SP	SP	07 35 56.3	-1.6
SEY				smax			
	comp=N,1μm,6.0s						
SEY				smax			
	comp=E,1μm,6.8s						
TNA	**Tin City**	**87.67**	**5**	*e*P	**P**	**07 24 56.2**	**-0.5**
	comp=E,23nm,1.2s,mb4.8						
TNA				*e*pP	pP	07 27 04.3	-0.5
BGU	**Big Grassy Mou**	**87.71**	**44**	*e*P	**P**	**07 24 57.2**	**-0.3**
NLU	**North Lily Min**	**87.83**	**45**	⇑*e*P	**P**	**07 24 58.4**	**+0.3**
XAN	**Xi'an**	**88.01**	**308**	P	**P**	**07 25 00.5**	**+1.4**
XAN				AMB	AMB		
	comp=Z,197nm,1.0s,mb5.8						
XAN				AMB	AMB		
	comp=Z,359nm,11.5s						
TMUT	**Trail Mountain**	**88.07**	**46**	⇑*i*P	**P**	**07 25 00.3**	**+1.0**
TMUT				*e*pP	pP	07 27 08.5	+1.1
MPU	**Maple Canyon**	**88.15**	**45**	⇑*i*P	**P**	**07 24 59.9**	**+0.3**
MPU				*e*pP	pP	07 27 08.4	+0.6
NOQ	**North Oquirrh**	**88.16**	**45**	*e*P	**P**	**07 24 59.2**	**-0.5**
HLID	**Hailey**	**88.25**	**41**	⇑*e*P	**P**	**07 25 00.7**	**+0.7**
	comp=Z,75nm,0.9s,mb5.4						
HLID				*e*pP	pP	07 27 08.7	+0.5
SPUT	**South Promonto**	**88.29**	**44**	⇑*i*P	**P**	**07 25 00.5**	**+0.2**
SPUT				*e*pP	pP	07 27 08.6	+0.1
HVU	**Hansel Valley**	**88.32**	**43**	P	**P**	**07 25 00.9**	**+0.5**
HVU	**Hansel Valley**	**88.32**	**43**	⇑*e*P	**P**	**07 25 00.7**	**+0.3**
HVU				*e*pP	pP	07 27 08.9	+0.3
SRU	**San Rafael**	**88.44**	**47**	⇑*i*P	**P**	**07 25 01.2**	**+0.2**
SRU				*e**PP	pP	07 27 08.6	-0.7
LENM	**Lemitar**	**88.56**	**52**	*e*P	**P**	**07 25 02.0**	**+0.4**
LENM				*e*pP	pP	07 27 07.9	-2.1
JLU	**Jordanelle**	**88.57**	**45**	⇑*i*P	**P**	**07 25 01.6**	**0.0**
JLU				*e*pP	pP	07 27 10.2	+0.2
DAU	**Daniels Canyon**	**88.60**	**45**	P	**P**	**07 25 02.2**	**+0.4**
DAU	**Daniels Canyon**	**88.60**	**45**	*e*P	**P**	**07 25 01.8**	**0.0**
MNTX	**Cornudas Mount**	**88.62**	**55**	⇑*i*P	**P**	**07 25 02.4**	**+0.3**
	comp=Z,116nm,0.9s,mb5.7						
MNTX				*e*pP	pP	07 27 11.2	+0.8
MCK	**McKinley**	**88.66**	**13**	*e*P	**P**	**07 25 00.1**	**-1.3**
MCK				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.9						
MCK	**McKinley**	**88.66**	**13**	*e*P	**P**	**07 25 00.1**	**-1.3**
	comp=Z,9.1nm,0.5s,mb4.9						
BNM	**Barren Site**	**88.80**	**52**	*e*P	**P**	**07 25 02.8**	**0.0**
BNM				*e*pP	pP	07 27 11.3	+0.1
TCUT	**Toone Canyon**	**88.86**	**44**	⇑*i*P	**P**	**07 25 03.4**	**+0.4**
TCUT				*e*pP	pP	07 27 10.8	-0.5
LPM	**Los Pinos Moun**	**88.87**	**52**	*e*P	**P**	**07 25 03.3**	**+0.1**
LPM				*e*pP	pP	07 27 12.6	+1.0
KMI	**Kunming**	**88.89**	**298**	⇓*i*P	**P**	**07 25 05.6**	**+2.2**
KMI				AP	pP	07 27 12.8	+1.0
KMI				XP	sP	07 28 11.9	+1.6
KMI				PP	PP	07 28 45.1	-0.1
KMI				SKS	SKS	07 34 38.3	+1.9
KMI				S	S	07 35 02.5	+2.1
KMI				AMB	AMB		
	comp=Z,122nm,1.6s,mb5.5						
KMI				AMB	AMB		
	comp=Z,535nm,3.1s						
LTX	**Lajitas**	**88.90**	**58**	⇑*i*P	**P**	**07 25 04.2**	**+0.8**
LTX				pmax	pmax		
	comp=Z,168nm,1.1s,mb5.8						
LTX	**Lajitas**	**88.90**	**58**	⇑*i*P	**P**	**07 25 04.2**	**+0.7**
	comp=Z,168nm,1.1s,mb5.8						
LTX				*e*pP	pP	07 27 15.6	+3.8
TXAR	**Lajitas Array**	**88.90**	**58**	P	**P**	**07 25 04.2**	**+0.8**
	comp=Z,96nm,1.0s,mb5.6,baz=225,slow=5.3,SNR=300						
TXAR				pP	pP	07 27 12.3	+0.5
	comp=Z,9.6nm,1.0s,baz=214,slow=4.5,SNR=4.8						
TXAR				PKKPbc		07 42 40.4	
	comp=Z,1.7nm,0.7s,baz=74,slow=3.5,SNR=12						
TXAR				PKPPKP		07 50 46.7	
	comp=Z,0.3nm,0.7s,baz=153,slow=2.8,SNR=3.7						
TXAR	**Lajitas Array**	**88.90**	**58**	P	**P**	**07 25 04.2**	**+0.8**
TXAR				pP	pP	07 27 12.3	+0.5
TXAR				PKKPbc		07 42 40.4	
TXAR				P'P'		07 50 46.7	
HWUT	**Hardware Ranch**	**89.01**	**44**	⇑*i*P	**P**	**07 25 03.5**	**-0.1**
	comp=Z,60nm,0.8s,mb5.5						
PV10	**Paradox Valley**	**89.08**	**48**	*e*P	**P**	**07 25 03.5**	**-0.6**
THY	**Trims Highway**	**89.08**	**14**	*e*P	**P**	**07 25 03.1**	**-0.4**
THY				*e*pP	pP	07 27 10.7	-1.2
HIA	**Hailar**	**89.14**	**325**	⇓*i*P	**P**	**07 25 03.7**	**-0.4**
HIA				*e**PP	pP	07 27 12.5	0.0
HIA				pmax	pmax		
	comp=Z,72nm,1.2s						
HIA	**Hailar**	**89.14**	**325**	⇓*i*P	**P**	**07 25 03.7**	**-0.3**
	comp=Z,72nm,1.2s,mb5.4						
HIA				*e*pP	pP	07 27 12.5	0.0
MENT	**Mentasta**	**89.16**	**15**	*e*P	**P**	**07 25 03.7**	**-0.1**
NEW	**Newport**	**89.29**	**36**	*e*P	**P**	**07 25 03.8**	**-0.9**
NEW				pmax	pmax		
	comp=Z,5.0nm,0.5s						
NEW	**Newport**	**89.29**	**36**	*e*P	**P**	**07 25 03.8**	**-1.0**
	comp=Z,5.3nm,0.5s,mb4.6						
NEW				*e*pP	pP	07 27 14.0	+0.7
PV01	**Paradox Valley**	**89.29**	**48**	*e*P	**P**	**07 25 04.6**	**-0.5**
ANMO	**Albuquerque**	**89.29**	**52**	⇑*i*P	**P**	**07 25 05.2**	**+0.1**
ANMO				*e**PP	pP	07 27 12.1	-1.5
ANMO				pmax	pmax		
	comp=Z,69nm,1.0s						
ANMO	**Albuquerque**	**89.29**	**52**	⇑*i*P	**P**	**07 25 05.2**	**+0.1**
	comp=Z,69nm,1.0s,mb5.4						
ANMO				*e*pP	pP	07 27 12.1	-1.5
CM31	**Chiang Mai Arr**	**89.41**	**290**	*e*P	**P**	**07 25 07.4**	**+1.3**
	comp=Z,302nm,1.0s,mb6.1						
CMAR	**Chiang Mai Arr**	**89.41**	**290**	P	**P**	**07 25 08.2**	**+2.2**
	comp=Z,167nm,0.9s,mb5.9,baz=130,slow=3.2,SNR=484						
CMAR				pP	pP	07 27 13.4	-1.1
	comp=Z,10nm,1.0s,baz=132,slow=3.8,SNR=4.7						
CMAR				PP	PP	07 28 44.5	-5.1
	comp=Z,12nm,0.8s,baz=126,slow=6.5,SNR=4.1						
CMAR				PKKPbc		07 42 38.3	
	comp=Z,4.6nm,0.7s,baz=291,slow=4.4,SNR=13						
CMAR				SKKPbc		07 45 20.1	
	comp=Z,1.6nm,0.7s,baz=287,slow=3.7,SNR=8.9						
CMAR				PKPPKP		07 50 47.4	
	comp=Z,1.6nm,0.8s,baz=283,slow=3.6,SNR=6.2						
HHC	**Hu-ho-hao-te**	**89.47**	**315**	⇓P	**P**	**07 25 07.1**	**+1.3**
HHC				AP	pP	07 27 13.1	-1.2
HHC				XP	sP	07 28 17.0	+4.3
HHC				PP	PP	07 28 52.1	+2.7
HHC				SKS	SKS	07 34 40.1	+0.6
HHC				S	S	07 35 07.0	+1.9
HHC				SS	SS	07 41 27.3	+4.0
HHC				AMB	AMB		
	comp=Z,158nm,1.0s,mb5.8						
HHC				AMB	AMB		
	comp=Z,368nm,5.8s						
GDL2	**Guadalupe Moun**	**89.61**	**55**	*e*P	**P**	**07 25 06.7**	**0.0**
GDL2				*e*pP	pP	07 27 16.3	+1.0
MCMT	**McKenzie Canyo**	**89.87**	**41**	*e*P	**P**	**07 25 07.8**	**+0.3**
MCMT				*e*pP	pP	07 27 16.8	+0.6
DLBC	**Dease Lake**	**89.88**	**24**	P	**P**	**07 25 08.0**	**+0.8**
	comp=Z,9.6nm,0.8s,mb4.7,baz=212,slow=7.7,SNR=10						
DLBC				pP	pP	07 27 15.7	-0.1
	comp=Z,14nm,1.2s,baz=236,slow=8.3,SNR=3.2						
DLBC	**Dease Lake**	**89.88**	**24**	P	**P**	**07 25 08.0**	**+0.8**
DLBC				pP	pP	07 27 15.7	-0.1
IMA	**Indian Mountai**	**89.89**	**10**	*e*P	**P**	**07 25 07.6**	**+0.5**
IMA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.8						
IMA	**Indian Mountai**	**89.89**	**10**	*e*P	**P**	**07 25 07.6**	**+0.5**
	comp=Z,14nm,0.8s,mb4.9						
COLA	**College**	**89.89**	**13**	*e*P	**P**	**07 25 06.2**	**-0.9**
COLA				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.2						
COLA	**College**	**89.89**	**13**	*e*P	**P**	**07 25 06.2**	**-0.9**
	comp=Z,32nm,0.8s,mb5.2						
AHID	**Auburn Hatcher**	**89.89**	**43**	*e*P	**P**	**07 25 07.6**	**0.0**
	comp=Z,95nm,0.8s,mb5.7						
AHID				*e*pP	pP	07 27 17.2	+0.9
ILAR	**Eielson Array**	**90.01**	**13**	P	**P**	**07 25 06.7**	**-1.0**
	comp=Z,8.7nm,0.8s,mb4.7,baz=220,slow=5.0,SNR=102						
ILAR				pP	pP	07 27 15.0	-1.3
	comp=Z,20nm,1.1s,baz=230,slow=5.6,SNR=5.5						
ILAR				PKiKP		07 29 58.2	
	comp=Z,1.3nm,0.8s,baz=270,slow=3.4,SNR=4.6						
ILAR				PKKPbc		07 42 35.1	
	comp=Z,0.4nm,0.4s,baz=321,slow=3.1,SNR=8.2						
ILAR				PKPPKP		07 50 41.9	
	comp=Z,0.7nm,1.0s,baz=355,slow=3.3,SNR=4.1						
CLNB	**Carlsbad**	**90.01**	**55**	*e*P	**P**	**07 25 08.3**	**-0.2**
CLNB				*e*pP	pP	07 27 18.3	+1.1
MSO	**Missoula**	**90.29**	**39**	*e*P	**P**	**07 25 08.2**	**-1.1**
	comp=Z,4.8nm,0.7s						
BILL	**Bilibino**	**90.35**	**355**	*d* *i*P	**P**	**07 25 08.7**	**-0.5**
BILL				*i* *PP	pP	07 27 15.2	-2.7
BILL				*e*		07 28 48.8	
BILL				pmax	pmax		
	comp=Z,71nm,0.9s,mb5.5						
BILL	**Bilibino**	**90.35**	**355**	⇓*i*P	**P**	**07 25 08.4**	**-0.8**
	comp=Z,59nm,0.9s,mb5.4						
BILL				*e*pP	pP	07 27 15.0	-3.0
REDW	**Red Top Meadow**	**90.35**	**43**	⇑*e*P	**P**	**07 25 10.2**	**+0.4**
TPAW	**Teton Pass**	**90.36**	**43**	⇑*e*P	**P**	**07 25 10.2**	**+0.5**
CPRX	**Cap Rock**	**90.36**	**54**	*e*P	**P**	**07 25 09.8**	**-0.3**
CPRX				*e*pP	pP	07 27 20.2	+1.4
BTO	**Baotou**	**90.37**	**314**	*e*P	**P**	**07 25 10.1**	**+0.2**
BTO				AMB	AMB		
	comp=Z,75nm,1.4s,mb5.3						
SNOW	**Snow King Moun**	**90.47**	**43**	⇑*i*P	**P**	**07 25 10.7**	**+0.4**
SNOW				*e*pP	pP	07 27 20.1	+1.0
CD2	**Chengdu**	**90.51**	**303**	⇓*i*P	**P**	**07 25 12.3**	**+1.5**
CD2				AP	pP	07 27 23.8	+4.2
CD2				SKS	SKS	07 34 45.8	0.0
CD2				S	S	07 35 17.6	+3.0
CD2				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.5						
CD2				AMB	AMB		
	comp=Z,380nm,4.9s						
WUWY	**Wally Ulrich**	**90.51**	**43**	⇑*i*P	**P**	**07 25 10.7**	**+0.2**
WUWY				*e*pP	pP	07 27 20.0	+0.7
IMW	**Indian Meadow**	**90.57**	**42**	⇑*i*P	**P**	**07 25 11.1**	**+0.3**
IMW				*e*pP	pP	07 27 20.6	+1.0
MOOW	**Moose Ponds**	**90.61**	**42**	⇑*i*P	**P**	**07 25 11.0**	**0.0**
MOOW				*e*pP	pP	07 27 18.9	-0.9
LOHW	**Long Hollow**	**90.64**	**43**	⇑*e*P	**P**	**07 25 11.3**	**+0.2**
LOHW				*e*pP	pP	07 27 19.3	-0.6
CHMT	**Chamberlain Mo**	**90.73**	**39**	*e*P	**P**	**07 25 11.0**	**-0.5**
CHMT				*e*pP	pP	07 27 20.4	+0.1
QLMT	**Earthquake Lak**	**90.74**	**41**	*e*P	**P**	**07 25 12.3**	**+0.8**
QLMT				*e*pP	pP	07 27 21.2	+0.9
BW06	**Boulder Array**	**90.88**	**44**	⇑*i*P	**P**	**07 25 11.7**	**-0.5**
	comp=Z,72nm,1.1s,mb5.5						
PDAR	**Pinedale Array**	**90.88**	**44**	P	**P**	**07 25 12.0**	**-0.2**
	comp=Z,42nm,0.9s,mb5.4,baz=205,slow=3.2,SNR=218						
PDAR				pP	pP	07 27 19.6	-1.5
	comp=Z,1.3nm,0.8s,baz=225,slow=5.1,SNR=2.2						
PDAR				PKKPbc		07 42 34.8	
	comp=Z,1.7nm,0.8s,baz=81,slow=4.5,SNR=11						
PDAR				PKPPKP		07 50 42.1	
	comp=Z,0.7nm,0.9s,baz=72,slow=4.7,SNR=4.9						
YFT	**Old Faithful**	**90.91**	**42**	*e*P	**P**	**07 25 13.6**	**+1.2**
YMR	**Madison River**	**90.94**	**42**	⇑*i*P	**P**	**07 25 13.2**	**+0.8**
YMR				*e*pP	pP	07 27 22.5	+1.2
BOZ	**Bozeman (W)**	**91.03**	**40**	*e*P	**P**	**07 25 12.3**	**-0.5**
BOZ				*e**PP	pP	07 27 20.9	-0.8
BOZ				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
BOZ	**Bozeman (W)**	**91.03**	**40**	*e*P	**P**	**07 25 12.2**	**-0.6**
	comp=Z,40nm,0.9s,mb5.3						
BOZ				*e*pP	pP	07 27 20.9	-0.9
YNR	**Norris Junctio**	**91.14**	**42**	*e*P	**P**	**07 25 13.6**	**+0.2**
YNR				*e*pP	pP	07 27 23.4	+1.1
DAWY	**Dawson**	**91.20**	**16**	*e*P	**P**	**07 25 12.5**	**-0.7**
DAWY				*e*pP	pP	07 27 21.6	-0.5
SDCO	**Great Sand Dun**	**91.26**	**50**	*e*P	**P**	**07 25 13.6**	**-0.5**
	comp=Z,106nm,1.3s,mb5.6						
SDCO				*e*pP	pP	07 27 21.8	-1.2
CLNS	**Chul'man**	**91.34**	**333**	*e*P	**P**	**07 25 14.1**	**+0.2**
CLNS				pmax	pmax		
	comp=N,36nm,1.4s						
CLNS				pmax	pmax		
	comp=Z,83nm,1.4s,mb5.5						
CLNS				pmax	pmax		
	comp=E,19nm,1.1s						
HRY	**Holter Researc**	**91.46**	**39**	*e*P	**P**	**07 25 14.5**	**-0.3**
HRY				*e*pP	pP	07 27 23.5	-0.2
WALA	**Waterton Lakes**	**91.50**	**37**	*e*P	**P**	**07 25 14.2**	**-0.7**
	comp=E,17nm,0.8s,mb5.0						
WALA				*e*pP	pP	07 27 23.4	-0.4
RWWY	**Rawlins**	**91.89**	**46**	*e*P	**P**	**07 25 16.5**	**-0.3**
RWWY				*e*pP	pP	07 27 26.7	+0.8
ISCO	**Idaho Springs**	**92.11**	**48**	*e*P	**P**	**07 25 17.7**	**-0.1**
ISCO				*e**PP	pP	07 27 27.0	+0.1
ISCO				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
ISCO	**Idaho Springs**	**92.11**	**48**	*e*P	**P**	**07 25 17.7**	**-0.1**
	comp=Z,12nm,0.8s,mb5.0						
ISCO				*e*pP	pP	07 27 27.0	+0.1
JCT	**Junction City**	**92.42**	**58**	P	**P**	**07 25 19.0**	**-0.5**
JCT				pmax	pmax		
	comp=Z,1.0nm,0.7s						
JCT	**Junction City**	**92.42**	**58**	⇑*i*P	**P**	**07 25 18.9**	**-0.6**
	comp=Z,20nm,0.7s,mb5.3						
LZH	**Lanzhou**	**92.65**	**308**	⇑P	**P**	**07 25 22.4**	**+2.0**
LZH				AP	pP	07 27 32.5	+3.0
LZH				PP	PP	07 29 17.5	+3.1
LZH				SKS	SKS	07 34 58.0	+0.4
LZH				S	S	07 35 36.5	+3.6
LZH				AMB	AMB		
	comp=Z,139nm,1.5s,mb5.8						
LZH				AMB	AMB		
	comp=Z,498nm,6.3s						
AMTX	**Amarillo**	**92.79**	**54**	*e*P	**P**	**07 25 20.3**	**-0.8**
	comp=Z,32nm,1.1s,mb5.3						
PHWY	**Pilot Hill**	**92.89**	**46**	*e*P	**P**	**07 25 20.8**	**-0.5**
FCH	**Farellones**	**92.91**	**128**	⇑*i*P	**P**	**07 25 23.0**	**+1.3**
YAK	**Yakutsk**	**92.98**	**338**	*d* *i*P	**P**	**07 25 20.6**	**-0.7**
YAK				*e*		07 28 25.3	
YAK				*e*S		07 34 54.3	
YAK				*e**SS		07 35 35.1	
YAK				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
YAK				pmax	pmax		
	comp=N,7.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,12nm,1.1s						
YAK				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.3						
YAK				pmax	pmax		
	comp=N,3.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,11nm,0.9s						
YAK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				smax			
	comp=E,19nm,1.2s						
YAK				smax			
	comp=Z,5.0nm,1.0s						
YAK				smax			
	comp=N,41nm,1.1s						
YAK	**Yakutsk**	**92.98**	**338**	*i* P	**P**	**07 25 20.5**	**-0.8**
EDM	**Edmonton**	**94.01**	**33**	*e*P	**P**	**07 25 25.7**	**-0.5**
EDM	**Edmonton**	**94.01**	**33**	*e*P	**P**	**07 25 25.1**	**-1.0**
EDM				*e*pP	pP	07 27 35.3	0.0
LAO	**LASA Array**	**94.83**	**41**	*e*P	**P**	**07 25 30.4**	**+0.4**
	comp=N,38nm,0.9s,mb5.5						
LAO				*e*pP	pP	07 27 40.0	+0.7
ULN	**Ulaanbaatar**	**95.63**	**320**	*e*P	**P**	**07 25 33.2**	**-0.4**
ULN				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.3						
ULN	**Ulaanbaatar**	**95.63**	**320**	*e*P	**P**	**07 25 33.2**	**-0.4**

	comp=Z,17nm,0.8s,mb5.3						
ULN				*e*pP	pP	07 27 43.3	+0.4
INK	**Inuvik**	**96.00**	**16**	P	**P**	**07 25 30.3**	**-4.5**
	comp=Z,3.6nm,0.8s,mb4.7,baz=171,slow=4.9,SNR=4.7						
INK				pP	pP	07 27 43.5	-0.7
	comp=Z,13nm,1.1s,baz=208,slow=5.4,SNR=6.2						
INK	**Inuvik**	**96.00**	**16**	P	**P**	**07 25 32.4**	**-2.4**
INK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
INK	**Inuvik**	**96.00**	**16**	P	**P**	**07 25 32.4**	**-2.3**
	comp=Z,3.0nm,0.6s,mb4.7						
INK				*e*pP	pP	07 27 42.6	-1.5
SONM	**Songino Array**	**96.02**	**319**	P	**P**	**07 25 35.0**	**-0.3**
	comp=Z,8.5nm,0.9s,mb5.0,baz=132,slow=3.7,SNR=33						
SONM				pP	pP	07 27 43.9	-0.8
	comp=Z,14nm,1.0s,baz=90,slow=3.7,SNR=7.5						
SONM				PP	PP	07 29 31.8	-7.6
	comp=Z,12nm,1.0s,baz=127,slow=6.2,SNR=6.6						
SONM				S		07 35 15.6	
	comp=Z,6.1nm,1.0s,baz=169,slow=6.3,SNR=13						
SONM				PKPPKP		07 50 30.8	
	comp=Z,0.6nm,0.8s,baz=288,slow=3.9,SNR=4.0						
IMP	**Imphal**	**96.11**	**294**	⇑*i*PKP	**P**	**07 25 36.2**	**-0.1**
IMP				*e*		07 35 08.8	
BOD	**Bodaibo**	**96.72**	**330**	*e*P	**P**	**07 25 36.0**	**-2.2**
DGMT	**Dagmar**	**96.84**	**40**	*e*P	**P**	**07 25 39.0**	**-0.1**
	comp=Z,44nm,0.9s,mb5.7						
DGMT				*e*pP	pP	07 27 49.9	+1.5
GTA	**Gaotai**	**96.91**	**310**	⇓P	**P**	**07 25 40.8**	**+1.2**
GTA				AP	pP	07 27 52.1	+3.1
GTA				XP	sP	07 28 48.0	+1.3
GTA				PP	PP	07 29 50.3	+3.7
GTA				SKS	SKS	07 35 19.0	-1.0
GTA				S	S	07 36 11.5	+2.7
GTA				PS	PS	07 39 00.1	+4.5
GTA				SS	SS	07 43 12.3	+5.2
GTA				AMB	AMB		
	comp=Z,33nm,1.6s,mb5.3						
GTA				AMB	AMB		
	comp=Z,188nm,6.2s						
NATX	**Nacogdoches**	**96.98**	**59**	P	**P**	**07 25 40.2**	**+0.1**
JTS	**JuntasAbangare**	**97.82**	**82**	P	**P**	**07 25 42.2**	**-2.0**
SHL	**Shillong**	**98.13**	**294**	⇓*e*PKP	**P**	**07 25 45.7**	**+0.3**
SHL				*e*		07 29 49.7	
SHL				*e*S		07 35 26.0	
KSU1	**Kansas State U**	**98.18**	**51**	*e*P	**P**	**07 25 45.2**	**-0.1**
YKA	**Yellowknife Ar**	**98.36**	**25**	P	**P**	**07 25 44.8**	**-0.7**
	comp=Z,2.4nm,0.8s,mb4.6,baz=244,slow=4.4,SNR=50						
YKA				pP	pP	07 27 54.7	-0.2
	comp=Z,3.2nm,1.0s,baz=244,slow=4.5,SNR=6.5						
YKA				PP	PP	07 29 56.4	-0.5
	comp=Z,1.1nm,0.9s,baz=242,slow=6.2,SNR=4.3						
YKA				PKiKP		07 30 13.7	
	comp=Z,0.7nm,0.6s,baz=252,slow=1.5,SNR=7.2						
YKA				PKKPbc		07 42 13.5	
	comp=Z,0.3nm,0.3s,baz=56,slow=2.6,SNR=15						
YKA				PKPPKP		07 50 29.3	
	comp=Z,0.7nm,1.0s,baz=50,slow=1.8,SNR=6.3						
YKA	**Yellowknife Ar**	**98.36**	**25**	P	**P**	**07 25 44.8**	**-0.7**
YKA						07 29 56.4	
YKA	**Yellowknife Ar**	**98.36**	**25**	P	**P**	**07 25 44.8**	**-0.7**
YKA				pP	pP	07 27 54.7	-0.2
YKA				PP	PP	07 29 56.4	-0.5
ZAK	**Zakamensk**	**98.94**	**321**	*e*P	**P**	**07 25 47.7**	**-0.7**
TIXI	**Tiksi**	**99.82**	**345**	*e*P	**P**	**07 25 50.7**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,11nm,1.5s,mb5.0						
ULM	**Lac du Bonnet**	**102.55**	**41**	P	Pdif	07 26 03.7	-0.8
	comp=Z,0.8nm,0.6s,baz=294,slow=18,SNR=2.4						
ULM				PKiKP		07 30 20.7	
	comp=Z,4.0nm,0.8s,baz=205,slow=2.9,SNR=5.4						
ULM	**Lac du Bonnet**	**102.55**	**41**	P	Pdif	07 26 03.7	-0.9
LPAZ	**La Paz**	**102.66**	**113**	P	Pdif	07 26 04.5	-1.3
	comp=Z,0.9nm,0.5s,baz=132,slow=24,SNR=3.7						
LPAZ				PP	PP	07 30 29.1	-0.9
	comp=Z,22nm,1.4s,baz=253,slow=4.9,SNR=8.2						
LPAZ				PKKPbc		07 42 02.3	
	comp=Z,1.4nm,0.8s,baz=301,slow=1.2,SNR=5.0						
VIS	**Vishakhapatnam**	**103.01**	**284**	*e*	Px	07 30 01.4	
VIS				*e*		07 30 01.7	
VIS				*e*		07 30 32.4	
	comp=Z,125nm,1.3s						
GUN	**Gumba**	**103.96**	**295**	*e*P	Pdif	07 26 12.0	+0.7
GUN	**Gumba**	**103.96**	**295**	*e*P		07 41 59.2	
	comp=Z,50nm,1.0s						
PKI	**Pulchoki**	**104.26**	**294**	*e*P	Pdif	07 26 11.6	-1.0
PKI	**Pulchoki**	**104.26**	**294**	*e*P		07 41 57.5	
	comp=Z,14nm,0.8s						
KKN	**Kakani**	**104.43**	**294**	*e*P	Pdif	07 26 12.8	-0.6
	comp=Z,19nm,0.8s						
KKN	**Kakani**	**104.43**	**294**	*e*P		07 41 57.6	
	comp=Z,16nm,0.8s						
DMN	**Daman**	**104.53**	**294**	*e*P	Pdif	07 26 12.5	-1.3
	comp=Z,24nm,0.8s						
DMN	**Daman**	**104.53**	**294**	*e*P		07 41 57.0	
	comp=Z,12nm,0.6s						
GKN	**Gorkha**	**105.04**	**294**	*e*P	Pdif	07 26 16.2	+0.2
	comp=Z,26nm,0.8s						
GKN	**Gorkha**	**105.04**	**294**	*e*P		07 41 55.8	
	comp=Z,27nm,0.8s						
ROSC	**El Rosal**	**105.73**	**91**	PKKPbc		07 41 53.4	
	comp=Z,3.3nm,0.6s,baz=93,slow=15,SNR=4.8						
KOLN	**Koldanda**	**105.85**	**294**	*e*P	Pdif	07 26 19.5	-0.1
	comp=Z,17nm,0.8s						
KOLN	**Koldanda**	**105.85**	**294**	*e*P		07 41 52.7	
	comp=Z,22nm,1.2s						
WMQ	**Urumqi**	**106.92**	**311**	⇑PDIF	Pdif	07 26 24.0	+0.1
WMQ				PP	PP	07 31 02.5	+1.8
WMQ				PPP	PPP	07 33 24.3	+2.2
WMQ				S		07 37 31.0	
WMQ				PP	PP		
	comp=Z,62nm,9.7s						
HYB	**Hyderabad**	**107.23**	**282**	*e*P	PP	07 30 52.0	-11
HYB	**Hyderabad**	**107.23**	**282**	*i* PKP		07 30 24.0	
HYB				*e*PP	PP	07 30 49.0	-14
HYB				*e*SKS	SKS	07 36 10.0	+1.6
HYB				*e*		07 37 04.0	
RES	**Resolute Bay**	**109.54**	**16**	*e*PKP		07 30 32.4	
BHPL	**Bhopal**	**109.94**	**288**	*e*	PP	07 31 09.1	-14
BHPL				*e*		07 31 27.4	
	comp=Z,37nm,1.0s						
AGRA	**Agra**	**110.54**	**292**	*e*PKP	PKPdf	07 30 36.4	+0.7
AGRA				*e*		07 31 22.2	
ZAL	**Zalesovo**	**110.83**	**321**	Pdiff	Pdif	07 26 40.0	-0.8
	comp=Z,0.8nm,0.6s,baz=275,slow=4.8,SNR=5.3						
ZAL				PKiKP		07 30 36.4	
	comp=Z,4.0nm,0.5s,baz=354,slow=4.3,SNR=12						
ZAL				PP	PP	07 31 17.4	-11
	comp=Z,2.1nm,0.8s,baz=317,slow=2.1,SNR=3.1						
ZAL	**Zalesovo**	**110.83**	**321**	Pdif	Pdif	07 26 40.0	-0.8
ZAL				PKPdf	PKPdf	07 30 36.4	+0.8
ZAL				PP	PP	07 31 17.4	-11
ASOR	**Ausora**	**111.07**	**293**	*i* PKP	PKPdf	07 30 35.4	-1.4
ASOR				*e*		07 31 18.0	
DDI	**Dehra Dun**	**111.20**	**295**	*e*PKP	PKPdf	07 30 34.6	-2.4
DDI				*e*		07 32 24.6	
NDI	**New Delhi**	**111.52**	**293**	*e*PKP	PKPdf	07 30 35.0	-2.7
NDI				*e*		07 37 24.0	
SONA	**Sohna**	**111.53**	**293**	*e*PKP	PKPdf	07 30 37.2	-0.4
SONA				*e*		07 31 20.3	
AYAN	**Aya Nagar**	**111.55**	**293**	*e*PKP	PKPdf	07 30 37.9	+0.2
AYAN				*e*		07 31 26.4	
BHGR	**Bahadurgarh**	**111.76**	**293**	*e*PKP	PKPdf	07 30 39.0	+0.9
POO	**Poona**	**111.83**	**282**	*e*	PKPdf	07 30 57.0	+19
	comp=Z,69nm,1.3s						
POO				*e*		07 31 15.8	
POO				*e*		07 31 29.4	
	comp=Z,69nm,1.3s						
NVS	**Novosibirsk**	**111.86**	**322**	*e*PKIKP	PKPdf	07 30 37.0	-0.7
NVS				*i* S	SKS	07 36 25.2	-1.2
NVS				smax			
	comp=E,251nm,1.9s						
KUDL	**Kundal**	**112.02**	**293**	*e*PKP	PKPdf	07 30 39.4	+0.8
KUDL				*e*		07 31 23.0	
RTK	**Rohtak**	**112.29**	**293**	*e*PKP	PKPdf	07 30 37.9	-1.3
SDNR	**Sundarnagar**	**112.38**	**296**	*e*PKP	PKPdf	07 30 41.2	+1.9
	comp=E,53nm,0.6s						
SDNR				*e*S	SKS	07 36 29.2	+0.2
KHET	**Khetri**	**112.58**	**292**	*e*PKP	PKPdf	07 30 40.6	+0.8
KHET				*e*		07 31 26.4	
BHK	**Bhakra**	**112.82**	**296**	*e*		07 36 31.2	
THN	**Thein Dam**	**113.61**	**297**	*e*	Px	07 31 28.2	
KSH	**Kashi**	**114.67**	**305**	*e*PKP	PKPdf	07 30 39.0	-4.6
KSH				*e*PPP	PPP	07 34 08.0	-19
KSH				*e*PKS	PKS	07 34 14.0	-4.6
KSH				*e*SKS	SKS	07 36 55.0	+17
KSH				PP	PP		
	comp=Z,210nm,5.2s						
ULHL	**Ulahol**	**114.86**	**308**	P	PKPdf	07 30 45.8	+1.8
	SNR=7.8						
ULHL	**Ulahol**	**114.86**	**308**	P		07 33 26.6	
	SNR=5.8						
ULHL	**Ulahol**	**114.86**	**308**	P		07 41 25.4	
	SNR=7.6						
TKM2	**Tokmak 2**	**115.42**	**308**	P	PKPdf	07 30 45.9	+1.0
	SNR=10.0						
TKM2	**Tokmak 2**	**115.42**	**308**	P		07 33 27.4	
	SNR=5.5						
TKM2	**Tokmak 2**	**115.42**	**308**	P		07 41 22.7	
	SNR=5.9						
CHMS	**Chumysh**	**116.04**	**308**	P	PKPdf	07 30 47.3	+1.1
	SNR=6.6						
CHMS	**Chumysh**	**116.04**	**308**	P		07 33 28.6	
	SNR=6.6						
CHMS	**Chumysh**	**116.04**	**308**	P		07 41 20.6	
	SNR=6.5						
FRU	**Bishkek**	**116.12**	**308**	*e*PKIKP	PKPdf	07 30 48.0	+1.7
FRU				*i*		07 32 02.5	
UCH	**Uchtor**	**116.13**	**307**	P	PKPdf	07 30 48.4	+2.1
	SNR=13						
UCH	**Uchtor**	**116.13**	**307**	P		07 33 30.0	
	SNR=5.9						
UCH	**Uchtor**	**116.13**	**307**	P		07 41 21.0	
	SNR=9.4						
AAK	**Ala-Archa**	**116.19**	**308**	P		07 41 20.2	
	SNR=10						
AAK	**Ala-Archa**	**116.19**	**308**	PKIKP	PKPdf	07 30 46.8	+0.4
AAK	**Ala-Archa**	**116.19**	**308**	*e*PKPdf	PKPdf	07 30 45.6	-0.8
USP	**Ospenovka**	**116.25**	**309**	P	PKPdf	07 30 47.6	+1.1
	SNR=7.7						
USP	**Ospenovka**	**116.25**	**309**	P		07 41 19.7	
	SNR=6.3						
JASL	**Jaisalmer**	**116.57**	**290**	*e*PKP	PKPdf	07 30 43.6	-3.9
EKS2	**Erkin-Say**	**116.72**	**308**	P	PKPdf	07 30 49.1	+1.7
	SNR=7.0						
AML	**Almayashu**	**116.72**	**307**	P	PKPdf	07 30 49.6	+2.1
	SNR=12						
AML	**Almayashu**	**116.72**	**307**	P		07 33 30.9	
	SNR=5.2						
SJG	**San Juan**	**117.57**	**80**	PKIKP	PKPdf	07 30 50.0	+0.3
SJG	**San Juan**	**117.57**	**80**	*e*PKPdf	PKPdf	07 30 49.6	-0.1
FRB	**Frobisher Bay**	**118.66**	**28**	PKKPbc		07 41 12.2	
	comp=Z,3.4nm,0.9s,baz=139,slow=3.5,SNR=5.0						
BVAR	**Borovoye Array**	**119.36**	**319**	PKP	PKPdf	07 30 52.9	+0.5
	comp=Z,14nm,0.4s,baz=125,slow=1.7,SNR=99						
BVAR				PP	PP	07 32 15.6	-12
	comp=Z,8.0nm,0.9s,baz=112,slow=8.0,SNR=4.6						
BVAR				SKP		07 33 33.4	
	comp=Z,19nm,1.0s,baz=108,slow=4.7,SNR=5.8						
BVAR				PKKPbc		07 41 09.0	
	comp=Z,1.8nm,0.5s,baz=297,slow=3.3,SNR=8.9						
BDFB	**Brasilia**	**119.42**	**124**	PKP	PKPdf	07 30 54.5	+1.1
	comp=Z,6.5nm,0.4s,baz=242,slow=1.0,SNR=18						
BDFB				PKKPbc		07 41 08.7	
	comp=Z,11nm,0.7s,baz=110,slow=4.1,SNR=10						
BDFB				PKKPab		07 41 13.0	
	comp=Z,2.6nm,0.5s,baz=106,slow=5.7,SNR=3.0						
BRVK	**Borovoye**	**119.42**	**319**	PKIKP	PKPdf	07 30 53.0	+0.5
BRVK	**Borovoye**	**119.42**	**319**	*e*PKPdf	PKPdf	07 30 52.8	+0.4
BAO	**Brasilia Array**	**119.44**	**124**	*e*P	PKPdf	07 30 54.2	+0.8
SCHQ	**Schefferville**	**120.59**	**38**	PKP	PKPdf	07 30 54.3	-0.4
	comp=Z,17nm,1.1s,baz=351,slow=1.7,SNR=20						
SCHQ	**Schefferville**	**120.59**	**38**	*e*PKPdf	PKPdf	07 30 54.1	-0.6
SUR	**Sutherland**	**122.64**	**200**	PKP	PKPdf	07 31 01.6	+2.4
	comp=Z,38nm,0.8s,baz=147,slow=2.7,SNR=24						
SUR	**Sutherland**	**122.64**	**200**	*e*PKPdf	PKPdf	07 31 01.0	+1.8
DAG	**Danmarks Havn**	**124.30**	**5**	⇑*i*P	PKPdf	07 31 01.1	-0.3
	comp=Z,5.2nm,0.8s						
SUMG	**Summit**	**124.85**	**13**	*e*PKPdf	PKPdf	07 31 03.2	+0.8
ARU	**Arti**	**125.66**	**325**	⇓*i*PKIKP	PKPdf	07 31 05.3	+1.0
ARU				*e*		07 33 03.0	
ARU				*e*		07 37 15.0	
ARU				pmax	pmax		
	comp=Z,32nm,0.7s						
SOKR	**Solikamsk**	**125.67**	**329**	⇓*i*PKIKP	PKPdf	07 31 04.3	0.0
SOKR				*e*		07 33 03.2	
SOKR				pmax	pmax		
	comp=Z,40nm,0.9s						
KEV	**Kevo**	**129.64**	**348**	*e*pkp	PKPdf	07 31 10.9	-0.8
KEV	**Kevo**	**129.64**	**348**	*e*pkp		07 33 40.7	
SCO	**Scoresbysund**	**129.65**	**10**	*i* P		07 33 42.0	
	comp=Z,19nm,0.7s						
ARCES	**ARCESS Array B**	**130.10**	**349**	PKhKP		07 31 01.9	
	comp=Z,3.1nm,0.7s,baz=45,slow=6.9,SNR=6.2						
ARCES				PKP	PKPdf	07 31 13.3	+0.7
	comp=Z,18nm,0.5s,baz=31,slow=1.3,SNR=50						
ARCES				pPKP		07 33 30.3	
	comp=Z,7.0nm,0.8s,baz=45,slow=6.9,SNR=3.3						
ARCES				SKPbc		07 33 43.3	
	comp=Z,154nm,1.0s,baz=18,slow=3.8,SNR=49						
ARCES				PKKPbc		07 40 25.7	
	comp=Z,5.9nm,0.9s,baz=202,slow=3.9,SNR=5.4						
ARCES	**ARCESS Array B**	**130.10**	**349**	PKHKP		07 31 02.0	
ARCES						07 31 13.3	
ARCES						07 33 43.3	
ARCES	**ARCESS Array B**	**130.10**	**349**	PKP	PKPdf	07 31 01.9	-11
ARCES				PKP	PKPdf	07 31 13.3	+0.7
ARCES				pPKP		07 33 30.3	
ARCES				SKPbc		07 33 43.3	
ARCES				PKKPbc		07 40 25.7	
LSZ	**Lusaka**	**134.20**	**218**	*e*PKIKP	PKPdf	07 31 22.3	+0.7
BORG	**Borgarnes**	**134.83**	**13**	PKP	PKPdf	07 31 23.3	+1.8
	comp=Z,15nm,0.8s,baz=297,slow=4.8,SNR=4.0						
KAF	**Kangasniemi**	**136.18**	**343**	*e*pkp	PKPdf	07 31 10.4	-14
KAF	**Kangasniemi**	**136.18**	**343**	*e*pkp		07 34 01.3	
FINES	**FINESS Array B**	**136.78**	**342**	PKhKP		07 31 11.0	
	comp=Z,5.1nm,0.9s,baz=117,slow=4.3,SNR=4.8						
FINES				PKP	PKPdf	07 31 25.0	-0.2
	comp=Z,11nm,0.5s,baz=90,slow=3.8,SNR=16						
FINES				SKPbc		07 34 04.5	
	comp=Z,46nm,0.9s,baz=72,slow=6.0,SNR=21						
FINES				SKPab		07 34 09.7	
	comp=Z,88nm,1.2s,baz=72,slow=6.0,SNR=9.5						
OBN	**Obninsk**	**137.40**	**330**	*e*PKHKP		07 31 18.9	
OBN				*i*		07 31 27.9	
OBN				*i*		07 34 18.7	
OBN				*e*		07 37 37.0	
OBN				*e*SS	SS	07 51 50.3	+5.8
OBN				SSS	SSS	07 57 02.0	-0.3
OBN				pmax	pmax		
	comp=Z,27nm,1.2s						
OBN				pmax	pmax		
	comp=Z,26nm,0.7s						
OBN	**Obninsk**	**137.40**	**330**	*i* PKP	PKPdf	07 31 27.0	+0.5
KMBO	**Kilima Mbogo**	**137.55**	**242**	PKhKP		07 31 20.9	
	comp=Z,2.1nm,0.6s,baz=165,slow=2.7,SNR=7.1						
KMBO				PKP	PKPdf	07 31 30.2	+2.4
	comp=Z,7.0nm,0.7s,baz=70,slow=3.0,SNR=14						
KMBO				SKPbc		07 34 09.7	
	comp=Z,53nm,1.1s,baz=55,slow=3.0,SNR=35						
KMBO	**Kilima Mbogo**	**137.55**	**242**	*e*PKPpre		07 31 19.9	
KMBO				*e*PKPdf	PKPdf	07 31 29.7	+1.8
KMBO				PKP	PKPdf	07 31 30.2	+2.4
KMBO				SKPbc		07 34 09.7	
TI2	**Plekhanov**	**138.19**	**309**	*e*PKHKP		07 31 21.6	
VRSR	**Storozhevoye**	**138.21**	**324**	*e*PKIKP	PKPdf	07 31 29.1	+1.1
VRSR				pmax	pmax		
	comp=Z,20nm,0.8s						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.5s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.3s						
ZEI	**Tsey**	**138.53**	**310**	*e*PKIKP	PKPdf	07 31 32.8	+3.9
ZEI				pmax	pmax		
	comp=Z,11nm,0.9s						
GNI	**Garni**	**138.56**	**306**	PKhKP		07 31 22.9	
	comp=Z,2.6nm,0.3s,baz=344,slow=12,SNR=3.5						
GNI				PKP	PKPdf	07 31 30.7	+1.7
	comp=Z,15nm,0.8s,baz=7.3,slow=10,SNR=5.8						
GNI				SKPbc		07 34 11.8	
	comp=Z,30nm,0.8s,baz=309,slow=4.8,SNR=9.2						
GNI				SKPab		07 34 19.7	
	comp=Z,25nm,0.8s,baz=211,slow=22,SNR=6.0						
KIV	**Kislovodsk**	**139.02**	**312**	*i* PKIKP	PKPdf	07 31 31.6	+1.9
KIV				pmax	pmax		
	comp=Z,13nm,0.7s						
KIV	**Kislovodsk**	**139.02**	**312**	*i* PKP	PKPdf	07 31 31.7	+2.0
MZLS	**Mizel**	**139.05**	**282**	P	PKPdf	07 31 24.7	-5.5
TVAN	**Van**	**139.92**	**304**	*i* P		07 34 16.1	
TATS	**Tathlith**	**139.96**	**275**	P	PKPdf	07 31 29.3	-2.8
NB2	**NORSAR Subarra**	**140.25**	**352**	PKP	PKPdf	07 31 26.0	-5.4
	comp=Z,6.9nm,0.8s,baz=16,slow=3.1						
NOA	**NORSAR Array B**	**140.25**	**352**	PKhKP		07 31 26.0	
	comp=Z,8.7nm,0.7s,baz=15,slow=4.5,SNR=18						
NOA				PKP	PKPdf	07 31 34.6	+3.2
	comp=Z,5.8nm,1.0s,baz=24,slow=3.9,SNR=4.3						
NOA				SKPbc		07 34 14.7	
	comp=Z,19nm,0.8s,baz=15,slow=4.3,SNR=19						
NOA				SKPab		07 34 26.8	
	comp=Z,14nm,1.0s,baz=16,slow=3.2,SNR=6.8						
NOA				SKKPbc		07 42 46.8	
	comp=Z,5.2nm,1.0s,baz=189,slow=4.2,SNR=4.1						
HFS	**Hagfors**	**140.75**	**350**	PKhKP		07 31 27.4	
	comp=Z,12nm,0.4s,baz=63,slow=3.3,SNR=62						
HFS				PKP	PKPdf	07 31 34.6	+2.4
	comp=Z,8.3nm,0.5s,baz=45,slow=4.2,SNR=8.9						
HFS				SKPbc		07 34 15.7	
	comp=Z,40nm,0.7s,SNR=18						
ARSS	**Ar Rass**	**140.99**	**284**	P	PKPdf	07 31 31.5	-2.2
AFFS	**‘Afif**	**141.04**	**281**	P	PKPdf	07 31 32.0	-1.8
ERZM	**Erzurum**	**141.14**	**307**	*i* P	PKPdf	07 31 31.4	-2.1
ERZM	**Erzurum**	**141.14**	**307**	*i* P		07 33 48.8	
EZM	**Erzurum**	**141.14**	**307**	*e*P	PKPdf	07 31 31.4	-2.2
SOC	**Sochi**	**141.17**	**313**	*i* PKIKP	PKPdf	07 31 39.1	+5.6
SOC				*e*		07 34 44.2	
SOC				*e*SS	SS	07 52 23.4	-5.0
SOC				*e*SSS	SSS	07 57 56.5	+0.9
SOC				pmax	pmax		
	comp=Z,20nm,0.7s						
SOC				pmax	pmax		
	comp=N,22nm,0.9s						
SOC				pmax	pmax		
	comp=E,13nm,0.6s						
MNK	**Minsk**	**141.59**	**335**	*e*PKHKP		07 31 28.0	
BEST	**Besiri**	**141.70**	**304**	*i* P	PKPdf	07 31 32.1	-2.4
BEST	**Besiri**	**141.70**	**304**	*i* P		07 34 19.1	
BLJS	**Baljurashi**	**141.76**	**275**	P	PKPdf	07 31 35.7	+0.5
BINT	**Bingol**	**142.06**	**306**	*e*P	PKPdf	07 31 34.0	-1.1
ANN	**Anapa**	**142.21**	**316**	*i* PKHKP		07 31 29.6	
ANN				pmax	pmax		
	comp=Z,135nm,1.4s						
EZC	**Erzincan**	**142.33**	**307**	*e*P	PKPdf	07 31 36.6	+0.9
HILS	**Ha’il**	**142.34**	**287**	P	PKPdf	07 31 36.4	+0.4
GUMT	**Gumushane**	**142.37**	**308**	*e*P	PKPdf	07 31 35.4	-0.3
PTK	**Pertek**	**142.88**	**306**	*e*P	PKPdf	07 31 37.2	+0.6
MBAR	**Mbarara**	**143.06**	**237**	PKIKP	PKPdf	07 31 38.4	+0.7
MBAR	**Mbarara**	**143.06**	**237**	*e*PKPdf	PKPdf	07 31 38.2	+0.5
ELZG	**Elazig**	**143.30**	**305**	*i* P	PKPdf	07 31 38.8	+1.5
AKASG	**Malin Array Be**	**143.63**	**329**	PKP	PKPdf	07 31 37.0	-0.5
	comp=Z,155nm,0.7s,baz=40,slow=4.3,SNR=617						
AKASG				pPKP		07 33 54.8	
	comp=Z,4.8nm,0.7s,baz=46,slow=4.3,SNR=3.1						
AKASG				SKPbc		07 34 22.8	
	comp=Z,83nm,1.1s,baz=41,slow=2.8,SNR=25						
AKASG				SKKPbc		07 42 31.4	
	comp=Z,0.1nm,0.2s,baz=180,slow=1.0,SNR=4.5						
URFA	**Urfa**	**143.69**	**304**	*e*P	PKPbc	07 31 39.3	+1.9
SUW	**Suwalki**	**143.72**	**338**	⇓*e*PKP	PKPdf	07 31 38.0	+0.5
SUW				*e*pPKP		07 34 22.9	
SUW	**Suwalki**	**143.72**	**338**	*e*PKP	PKPdf	07 31 38.0	+0.5
SUW				*e*pPKP		07 34 22.9	
MYA	**Malataya**	**143.77**	**305**	*e*P	PKPbc	07 31 40.1	+2.4
MALT	**Malatya**	**143.77**	**305**	*e*P	PKPbc	07 31 39.3	+1.7
MALT	**Malatya**	**143.77**	**305**	*e*PKPdf	PKPdf	07 31 39.5	+1.4
MALT				*e*SKPbc		07 34 24.7	
SIM	**Simferopol’**	**144.25**	**318**	*i* PKIKP	PKPdf	07 31 40.8	+2.0
SIM				*e*		07 34 46.0	
SIM				pmax	pmax		
	comp=Z,200nm,1.0s						
SVST	**Sivas**	**144.43**	**308**	*i* P	PKPdf	07 31 42.4	+3.2
KVT	**Kavak**	**144.62**	**311**	*e*P	PKPdf	07 31 42.4	+2.8
GZT	**Gaziantep**	**144.68**	**304**	*i* P	PKPdf	07 31 42.6	+2.9
MUD	**Monsted U’grnd**	**144.97**	**352**	*i* P	PKPdf	07 31 41.8	+2.2
	comp=Z,44nm,0.6s						
GAZ	**Gaziantep**	**145.00**	**304**	*e*P	PKPdf	07 31 43.0	+2.7
KAHT	**Ahir Dag**	**145.14**	**305**	*i* P	PKPdf	07 31 43.9	+3.4
BSD	**Bornholm Skovb**	**145.20**	**346**	⇓*i*P	PKPdf	07 31 42.2	+2.2
	comp=Z,131nm,0.6s						
BOYT	**Boyabat**	**145.29**	**312**	*i* P	PKPdf	07 31 44.2	+3.6
BOYT	**Boyabat**	**145.29**	**312**	*i* P		07 34 28.6	
BYBT	**Boyabat**	**145.36**	**312**	*e*P	PKPdf	07 31 44.7	+3.9
BNN	**Bunyan**	**145.54**	**307**	*e*P	PKPdf	07 31 44.6	+3.4
EAB	**Aberfoyle**	**145.61**	**5**	*e*P	PKPdf	07 31 43.2	+2.5
EAB				AMb	AMB	07 31 44.5	
	comp=Z,101nm,0.9s						
CTKT	**Corum**	**145.68**	**311**	*i* P	PKPdf	07 31 44.9	+3.5
CTKT	**Corum**	**145.68**	**311**	*i* P		07 34 02.0	
COBT	**Iskenderun**	**145.91**	**303**	*i* P	PKPdf	07 31 44.9	+3.0
COBT	**Iskenderun**	**145.91**	**303**	*i* P		07 34 02.8	
WAR	**Warsaw**	**145.91**	**338**	*e*PKP	PKPdf	07 31 45.7	+4.3
WAR				*e*pPKP		07 34 04.6	
EDI	**Edinburgh**	**145.95**	**4**	*e*P	PKPdf	07 31 44.5	+3.2
EDI				AMb	AMB	07 31 46.7	
	comp=Z,176nm,1.6s						
ESY	**Stoneypath**	**145.99**	**3**	⇑*e*P	PKPdf	07 31 43.6	+2.2
ESY				AMb	AMB	07 31 48.1	
	comp=Z,83nm,1.2s						
EAU	**Auchinoon**	**146.01**	**4**	⇑*e*P	PKPdf	07 31 44.6	+3.2
EAU				AMb	AMB	07 31 47.3	
	comp=Z,238nm,1.9s						
QURS	**Qurayyt al Mil**	**146.03**	**294**	P	PKPdf	07 31 47.6	+5.4
TOS	**Tosya**	**146.05**	**312**	*e*P	PKPdf	07 31 46.3	+4.3
HTY	**Hatay**	**146.11**	**303**	*e*P	PKPdf	07 31 46.5	+4.2
EBL	**Broad Law**	**146.11**	**4**	*e*P	PKPdf	07 31 44.8	+3.2
CEYT	**Ceyhan**	**146.17**	**304**	*e*P	PKPdf	07 31 47.0	+4.7
KIS	**Kishinev**	**146.21**	**324**	*e*PKIKP	PKPdf	07 31 44.0	+2.0
KIS				*i*		07 31 47.0	
KIS				*e*		07 59 02.0	
GKP	**Gorka Klasztor**	**146.26**	**342**	*e*PKP	PKPdf	07 31 46.0	+4.1
GKP				*e*PKIKP	PKPdf	07 31 48.6	+6.7
BALT	**Daday**	**146.28**	**313**	*i* P	PKPdf	07 31 47.1	+4.7
BALT	**Daday**	**146.28**	**313**	*i* P		07 33 55.8	
ASF	**Jabal al Asfar**	**146.29**	**295**	PKPbc	PKPbc	07 31 47.3	+2.8
	comp=Z,67nm,0.8s,baz=335,slow=0.8,SNR=64						
ASF				SKPbc		07 34 30.1	
	comp=Z,11nm,0.7s,baz=42,slow=1.1,SNR=4.7						
AVNT	**Avonos**	**146.29**	**308**	*i* P	PKPdf	07 31 43.9	+1.4
AVNT	**Avonos**	**146.29**	**308**	*i* P		07 34 06.2	
UMJS	**Umm Lajj**	**146.30**	**283**	P	PKPdf	07 31 48.3	+5.4
GMK	**Mull of Kintyr**	**146.33**	**6**	⇑*e*P	PKPdf	07 31 45.2	+3.3
CANT	**Cankiri**	**146.50**	**311**	*e*P	PKPdf	07 31 47.7	+4.9
EKA	**Eskdalemuir Ar**	**146.54**	**4**	PKPbc	PKPbc	07 31 46.0	+1.7
	comp=Z,38nm,0.8s,baz=338,slow=2.5,SNR=51						
EKA				pPKPbc		07 33 59.6	
	comp=Z,10nm,0.9s,baz=343,slow=2.5,SNR=4.7						
EKA				SKKPbc		07 42 21.6	
	comp=Z,5.0nm,0.9s,baz=225,slow=5.9,SNR=5.2						
ELDT	**Eldivan**	**146.68**	**311**	*i* P	PKPdf	07 31 47.5	+4.5
ELDT	**Eldivan**	**146.68**	**311**	*i* P		07 33 59.1	
NIG	**Nigde**	**146.70**	**307**	*e*P	PKPdf	07 31 48.1	+4.9
BRTR	**Keskin Array B**	**146.83**	**310**	PKP	PKPdf	07 31 44.9	+1.5
	comp=Z,40nm,0.7s,baz=109,slow=1.5,SNR=113						
BRTR				PKPbc	PKPbc	07 31 48.0	+2.5
	comp=Z,56nm,0.9s,baz=139,slow=4.0,SNR=132						
BRTR				pPKPbc		07 34 00.6	
	comp=Z,10nm,1.0s,baz=135,slow=3.5,SNR=4.4						
BRTR				sPKPbc		07 34 56.8	
	comp=Z,15nm,0.9s,baz=124,slow=4.5,SNR=4.5						
BRTR	**Keskin Array B**	**146.83**	**310**	PKIKP	PKPdf	07 31 44.9	+1.6
BRTR						07 31 48.1	
BRTR						07 34 56.8	
SAFT	**Safranbolu**	**146.88**	**313**	*e*P	PKPdf	07 31 48.1	+4.8
GAL1	**Galloway**	**146.89**	**6**	⇑*e*P	PKPdf	07 31 46.6	+3.7
KAMT	**Kaman**	**146.91**	**309**	*e*P	PKPdf	07 31 48.0	+4.5
KSHT	**Keshet**	**147.06**	**297**	P	PKPdf	07 31 49.8	+5.9
KSDI	**Kefar Szold**	**147.15**	**298**	P	PKPdf	07 31 49.9	+5.8
BSEG	**Bad Segeberg**	**147.23**	**349**	*e*PKP2	PKPab	07 31 52.4	-0.8
KWP	**Kalwaria**	**147.33**	**333**	PKIKP	PKPdf	07 31 45.6	+1.8
KWP	**Kalwaria**	**147.33**	**333**	⇓*e*PKP	PKPdf	07 31 48.9	+5.1
KWP				*e*PKPdf	PKPdf	07 31 52.3	+8.5
KWP				*e*pPKP		07 34 08.5	
KWP	**Kalwaria**	**147.33**	**333**	*e*PKP	PKPdf	07 31 48.9	+5.1
KWP				*e*PKIKP	PKPdf	07 31 52.3	+8.5
KWP				*e*pPKP		07 34 08.5	
ANTO	**Ankara**	**147.38**	**311**	*e*P	PKPdf	07 31 48.8	+4.6
LOD	**Lodumlu**	**147.39**	**311**	*e*P	PKPdf	07 31 50.0	+5.8
HMDT	**Nahal Hemdat**	**147.42**	**296**	P	PKPdf	07 31 50.7	+6.2
MKRJ	**Makawir**	**147.44**	**295**	P	PKPdf	07 31 50.7	+6.1
GIM	**North Isle of**	**147.48**	**6**	⇑*e*P	PKPdf	07 31 48.5	+4.6
MMLI	**Mount Malkishu**	**147.48**	**296**	P	PKPdf	07 31 50.9	+6.3
DBAS	**Duba**	**147.51**	**286**	P	PKPdf	07 31 50.7	+5.9
JMQS	**Jabal Moqyreh**	**147.52**	**290**	P	PKPdf	07 31 51.0	+6.3

MEST	**Erdemli**	147.53	304	*i* P	PKPdf	07 31 48.9	+4.3
HNTI	**Hanita**	147.57	297	P	PKPdf	07 31 50.5	+5.8
SGKT	**Sivrigoynuk**	147.60	312	*i* P	PKPdf	07 31 49.8	+5.3
SGKT	**Sivrigoynuk**	147.60	312	*i* P		07 34 06.0	
WIM	**Isle of Man**	147.60	6	⇑*e*P	PKPdf	07 31 48.8	+4.7
WIM				AMb	AMB	07 31 50.1	
	comp=Z,131nm,0.8s						
DRGI	**Dragot**	147.64	295	P	PKPdf	07 31 50.9	+6.0
LMI	**Millom**	147.64	4	⇑*e*P	PKPdf	07 31 49.0	+4.9
MZDA	**Masada**	147.71	294	P	PKPdf	07 31 51.2	+6.2
HAF	**Haifa**	147.75	297	P	PKPdf	07 31 51.0	+6.0
OFRI	**‘Ofer**	147.81	297	P	PKPdf	07 31 51.2	+6.1
SLTI	**Sal’it**	147.83	296	P	PKPdf	07 31 51.5	+6.3
RUE	**Ruedersdorf**	147.88	345	*e*PKPbc	PKPdf	07 31 50.2	+5.6
ZFRI	**Zfri**	147.96	293	P	PKPdf	07 31 51.9	+6.5
IKL	**Isikli**	147.98	304	*e*P	PKPdf	07 31 50.7	+5.4
OJC	**Ojcow**	148.01	337	*e*PKPdf	PKPdf	07 31 50.5	+5.6
OJC				*e*pPKPdf		07 34 10.3	
KOLS	**Kolonicke sedl**	148.05	333	*i* PKP	PKPdf	07 31 51.7	+6.7
KOLS				*e*		07 34 06.2	
KOLS	**Kolonicke sedl**	148.05	333	*e*PKP		07 34 11.6	
KOLS				*e*		07 34 20.8	
AYUS	**‘Aynunah**	148.10	288	P	PKPdf	07 31 52.1	+6.4
PRNI	**Paran**	148.14	292	P	PKPdf	07 31 52.4	+6.7
AQBJ	**Aqaba**	148.17	291	P	PKPdf	07 31 52.4	+6.6
JMOS	**Jabal al Moall**	148.17	290	P	PKPdf	07 31 52.5	+6.7
ALWS	**Ilw as Safayha**	148.19	290	P	PKPdf	07 31 52.6	+6.8
MDU	**Mudurnu**	148.22	313	*e*P	PKPdf	07 31 51.2	+5.7
BDAS	**Al Bad‘**	148.23	289	P	PKPdf	07 31 52.5	+6.6
MASH	**Mash‘abbe Sade**	148.24	294	P	PKPdf	07 31 52.4	+6.6
EIL	**Elat**	148.26	291	PKP	PKPdf	07 31 47.6	+1.7
	comp=Z,6.6nm,0.8s,baz=80,slow=13,SNR=5.0						
EIL				PKPbc	PKPdf	07 31 52.5	+6.6
	comp=Z,48nm,0.7s,baz=22,slow=2.6,SNR=32						
EIL				pPKPbc		07 34 08.9	
	comp=Z,83nm,1.1s,baz=76,slow=8.3,SNR=6.7						
EIL	**Elat**	148.26	291	P	PKPdf	07 31 52.7	+6.8
EIL	**Elat**	148.26	291	*e*PKPdf	PKPdf	07 31 47.2	+1.3
EIL				*e*PKPbc	PKPdf	07 31 52.2	+6.3
EIL				*e*PKPab	PKPab	07 31 58.0	-0.1
HENT	**Hendek**	148.28	313	*i* P	PKPdf	07 31 46.7	+1.1
HENT	**Hendek**	148.28	313	*i* P		07 34 05.1	
MBH	**Mount Berech**	148.28	291	P	PKPdf	07 31 52.7	+6.8
HAQS	**Haql**	148.34	290	P	PKPdf	07 31 52.8	+6.7
WCB1	**Church Bay**	148.37	6	⇑*e*P	PKPdf	07 31 50.1	+4.8
WCB1				AMb	AMB	07 31 51.6	
	comp=Z,92nm,0.8s						
KMTI	**Karmit**	148.41	292	P	PKPdf	07 31 52.7	+6.6
CRVS	**Cervenica-Dubn**	148.41	333	*e*PKP	PKPdf	07 31 52.5	+7.0
CRVS				*e*		07 34 07.4	
CRVS	**Cervenica-Dubn**	148.41	333	*e*PKP		07 34 13.5	
KIZT	**Kizilcal**	148.42	309	*e*P	PKPdf	07 31 52.0	+6.2
KONT	**Konya--Tatoy**	148.42	307	*e*P	PKPdf	07 31 51.6	+5.7
NIE	**Niedzica**	148.47	335	*e*PKP	PKPdf	07 31 52.5	+6.9
NIE				*e*pPKP		07 34 12.3	
YRC	**Rhoscolyn**	148.50	6	⇑*e*P	PKPdf	07 31 50.4	+4.9
YRC				AMb	AMB	07 31 51.9	
	comp=Z,82nm,1.0s						
PSN	**Preselentsi**	148.54	320	*i* P	PKPdf	07 31 52.8	+6.9
KZIT	**Kziot**	148.58	294	P	PKPdf	07 31 53.4	+7.0
CSS	**Prodhromos**	148.62	302	*e*PKPbc	PKPdf	07 31 52.3	+6.0
KSP	**Ksiaz**	148.67	341	*i* PKP2	PKPab	07 31 58.6	-0.5
KSP	**Ksiaz**	148.67	341	*e*PKP	PKPdf	07 31 52.4	+6.6
KSP				*i* PKPdf	PKPab	07 31 58.6	-0.5
KSP				*e*		07 32 04.3	
KSP	**Ksiaz**	148.67	341	*e*PKP	PKPdf	07 31 52.8	+7.0
KSP				*e*PKIKP	PKPdf	07 31 54.6	+8.8
KSP				*e*		07 31 58.9	
KSP				*e*pPKP		07 34 12.5	
HDMB	**Hadim**	148.67	306	*e*P	PKPdf	07 31 51.7	+5.4
RAC	**Raciborz**	148.70	338	*e*PKPdf	PKPdf	07 31 53.0	+7.1
MLR	**Muntele Rosu**	148.71	325	PKPbc	PKPdf	07 31 52.4	+6.3
	comp=Z,44nm,0.8s,baz=3.3,slow=2.9,SNR=22						
MLR				pPKPbc		07 34 10.1	
	comp=Z,126nm,1.3s,baz=20,slow=6.1,SNR=5.4						
ESKT	**Eskisehir**	148.88	311	*e*P	PKPdf	07 31 52.8	+6.3
ESKT	**Eskisehir**	148.88	311	*i* P	PKPdf	07 31 52.9	+6.4
ESKT	**Eskisehir**	148.88	311	*i* P		07 34 08.7	
LEF	**Lefka**	148.93	302	*e*P	PKPdf	07 31 53.1	+6.3
OKC	**Ostrava-Krasne**	148.93	338	*i* PKP2	PKPab	07 31 53.2	-7.0
OKC	**Ostrava-Krasne**	148.93	338	⇑*i*PKPB		07 31 53.2	
OKC				*e*PKPAB	PKPab	07 31 59.4	-0.8
OKC				*e*pPKP		07 34 12.1	
SZAC	**Souni-Zanaja**	149.03	301	⇓P	PKPdf	07 31 53.8	+6.9
SZAC	**Souni-Zanaja**	149.03	301	P		07 34 08.8	
UPC	**Upice**	149.05	341	*i* PKP2	PKPab	07 31 53.7	-7.0
UPC	**Upice**	149.05	341	⇑*i*PKPB		07 31 53.7	
UPC				*e*PKPAB	PKPab	07 32 00.4	-0.3
UPC				*e*pPKP		07 34 11.1	
DPC	**Dobruska-Polom**	149.09	340	*i* PKP2	PKPab	07 31 53.8	-7.0
DPC	**Dobruska-Polom**	149.09	340	⇑*i*PKPB		07 31 53.8	
DPC				*e*PKPAB	PKPab	07 32 00.1	-0.7
DPC				*e*pPKP		07 34 10.0	
HRT	**Hereke**	149.10	314	*e*P	PKPdf	07 31 53.2	+6.4
ALFC	**Alevga**	149.14	302	⇓P	PKPdf	07 31 53.5	+6.4
	comp=Z,4.4nm,0.8s						
ALFC	**Alevga**	149.14	302	P		07 34 08.6	
	comp=Z,1.8nm,0.7s						
ALFC	**Alevga**	149.14	302	⇓*i*P	PKPdf	07 31 53.5	+6.4
KECS	**Kecovo**	149.14	334	*e*PKP	PKPdf	07 31 54.4	+7.7
KECS				*e*		07 32 00.6	
KECS				*e*		07 34 09.3	
KECS	**Kecovo**	149.14	334	*e*PKP		07 34 15.2	
CLL	**Collm**	149.15	345	*i* PKP	PKPdf	07 31 53.4	+6.8
CLL				*i* PKP	PKPab	07 32 00.0	-1.1
CLL				*i* pPKP		07 34 13.4	
CLL	**Collm**	149.15	345	*i* PKP1	PKPdf	07 31 53.4	+6.8
CLL				*i* PKP2	PKPab	07 32 00.0	-1.1
CLL				*i* *PPKP		07 34 10.2	
CLL				*i* *PPKP		07 34 13.4	
CLL				*e*PP	PP	07 35 28.0	-3.5
MORC	**Moravsky Berou**	149.19	338	*e*PKHKP		07 31 53.4	
PRD	**Provadia**	149.28	320	*i* P	PKPdf	07 31 54.5	+7.4
BRG	**Berggiesshubel**	149.31	343	*e*PKHKP		07 31 48.9	
BRG				*i*		07 32 00.4	
BRG	**Berggiesshubel**	149.31	343	*e*PKP	PKPdf	07 31 48.9	+2.0
BRG				*i*		07 31 54.0	
BRG				*i*		07 32 00.4	
BRG				*i* pPKP		07 33 58.3	
BRG				*i*		07 34 03.7	
HLM1	**Long Mynd**	149.37	4	⇑*e*P	PKPdf	07 31 53.2	+6.3
HLM1				AMb	AMB	07 31 54.4	
	comp=Z,121nm,1.2s						
AKMC	**Akamas**	149.39	302	⇓P	PKPdf	07 31 53.7	+6.2
AKMC	**Akamas**	149.39	302	P		07 34 08.6	
AKMC	**Akamas**	149.39	302	⇓*e*P	PKPdf	07 31 53.7	+6.2
PPCY	**Paphos**	149.42	302	P	PKPdf	07 31 53.9	+6.3
SSP1	**Stoney Pound**	149.45	5	⇑*e*P	PKPdf	07 31 53.3	+6.3
PVCC	**Panska Ves**	149.45	342	*i* PKHKP		07 31 54.5	
PVCC				*e*		07 32 01.6	
PVCC	**Panska Ves**	149.45	342	⇑*i*PKPB		07 31 54.5	
PVCC				*e*PKPAB	PKPab	07 32 01.6	-0.7
PVCC				*e*pPKP		07 34 13.7	
WTSB	**Winterswijk**	149.66	352	pPKP		07 31 54.1	
	comp=Z,160nm,0.6s						
WTSB				*e*x	x	07 32 05.0	
WTSB				*e*x	x	07 34 15.2	
HTR	**Trewern Hill**	149.77	5	⇑*e*P	PKPdf	07 31 53.7	+6.2
HTR				AMb	AMB	07 31 55.2	
	comp=Z,77nm,1.0s						
ULDT	**Uludag**	149.78	313	*i* P	PKPdf	07 31 55.4	+7.4
ULDT	**Uludag**	149.78	313	*i* P		07 34 02.2	
VYHS	**Vyhne**	149.79	336	*i* PKP	PKPdf	07 31 55.1	+7.4
VYHS				*e*		07 32 03.5	
VYHS				*e*		07 34 08.4	
VYHS	**Vyhne**	149.79	336	*e*PKP		07 34 17.1	
VYHS				*e*		07 35 25.8	
ISP	**Isparta**	149.82	308	*e*PKHKP		07 31 54.6	
PSZ	**Piszkesteto**	149.83	334	⇓*e*PKP/p	PKPdf	07 31 55.2	+7.4
PSZ				*e*		07 34 12.7	
PSZ	**Piszkesteto**	149.83	334	⇓*e*P	PKPdf	07 31 55.2	+7.4
PSZ				*e*S	Px	07 34 12.7	
HAE	**Alders End**	149.87	4	*e*P	PKPdf	07 31 54.3	+6.6
HAE				AMb	AMB	07 31 56.1	
	comp=Z,88nm,1.2s						
MCH1	**Michaelchurch**	149.88	4	⇑*e*P	PKPdf	07 31 54.2	+6.5
VRAC	**Vranov**	149.91	339	PKPbc	PKPdf	07 31 55.6	+7.8
	comp=Z,27nm,0.7s,baz=32,slow=3.4,SNR=24						
VRAC				PKPab	PKPab	07 32 03.3	-0.9
	comp=Z,68nm,0.8s,baz=48,slow=4.7,SNR=8.2						
VRAC				pPKPbc		07 34 09.6	
	comp=Z,7.7nm,0.6s,baz=46,slow=4.0,SNR=3.4						
PRU	**Pruhonice**	149.95	342	*i* PKHKP		07 31 55.3	
PRU				*e*		07 32 03.5	
PRU	**Pruhonice**	149.95	342	⇑*i*PKPB		07 31 55.3	
PRU				*e*PKPAB	PKPab	07 32 03.5	-0.9
PRU				*e*pPKP		07 34 12.9	
MOX	**Moxa**	150.10	346	*e*PKP	PKPdf	07 31 55.5	+7.4
MOX				*e*		07 32 03.9	
MOX				*e*		07 34 14.3	
SZH	**Strazhica**	150.11	321	*i* P	PKPdf	07 31 56.0	+7.6
HGH	**Gray Hill**	150.25	4	⇑*e*P	PKPdf	07 31 54.8	+6.5
HGH				AMb	AMB	07 31 56.3	
	comp=Z,121nm,1.0s						
NKC	**Novy Kostel**	150.28	345	*i* PKIKP	PKPdf	07 31 56.3	+7.9
NKC				*e*		07 32 04.3	
NKC	**Novy Kostel**	150.28	345	⇑*i*PKPB		07 31 56.3	
NKC				*e*PKPAB	PKPab	07 32 04.3	-1.4
NKC				*e*pPKP		07 34 12.9	
SMOL	**Smolenice**	150.29	337	*e*PKP	PKPdf	07 31 57.4	+8.9
SMOL				*e*		07 32 06.4	
BNT	**Bandirma**	150.49	315	*e*P	PKPdf	07 31 56.4	+7.4
SRO	**Srobarova**	150.55	335	*e*PKP	PKPdf	07 31 57.1	+8.2
SRO				*e*		07 32 07.0	
SRO				*e*		07 34 16.4	
SRO	**Srobarova**	150.55	335	*e*PKP		07 34 20.6	
ELL	**Elmali**	150.68	307	*e*P	PKPdf	07 31 57.4	+7.9
ZST	**Bratislava**	150.68	337	*e*PKP	PKPdf	07 31 57.7	+8.6
ZST				*e*		07 32 07.5	
ZST				*e*		07 34 12.1	
ZST	**Bratislava**	150.68	337	*e*PKP		07 34 17.4	
BTOK	**Tokmak**	150.71	314	*i* P	PKPdf	07 31 57.1	+7.7
VKA	**Vienna**	150.90	338	⇓*i*PKP	PKPdf	07 31 58.1	+8.7
VKA				*i*		07 32 07.7	
DNZL	**Cakiroluk**	150.94	309	*i* P	PKPdf	07 31 58.7	+8.9
MANT	**Manisa**	150.94	311	*i* P	PKPdf	07 31 58.1	+8.3
HGN	**Heimansgroeve**	150.94	353	pPKP		07 31 57.0	
	comp=Z,38nm,1.0s						
HGN				*e*x	x	07 32 06.9	
HGN				*e*x	x	07 34 18.8	
KHC	**Kasperske Hory**	150.99	342	*e*PKIKP	PKPdf	07 31 51.1	+1.6
KHC				*e*		07 32 08.1	
KHC	**Kasperske Hory**	150.99	342	*e*PKPDF	PKPdf	07 31 51.1	+1.6
KHC				⇑*i*PKPB		07 31 57.9	
KHC				*e*PKPAB	PKPab	07 32 08.1	-0.7
KHC				*e*pPKP		07 34 13.0	
DIM	**Dimitrovgrad**	151.07	320	*i* P	PKPdf	07 31 58.7	+8.9
GRF	**Grafenberg Arr**	151.08	346	*e*PKP	PKPdf	07 31 57.7	+8.1
GRF				*e*PKP	PKPab	07 32 08.8	-0.3
GRF				pPKPbc		07 34 10.9	
GRF				*e*PP	PP	07 35 38.9	-4.0
SBD	**Saint Breward**	151.14	7	⇑*e*P	PKPdf	07 31 52.3	+2.7
KSL	**Kastellorizon**	151.14	306	*e*P	PKPdf	07 31 56.8	+6.7
WET	**Wettzell**	151.17	343	*e*PKIKP	PKPdf	07 31 58.3	+8.5
GEC2	**GERESS Array S**	151.22	342	*e*PKIKP	PKPdf	07 31 58.2	+8.4
GERES	**GERESS Array B**	151.22	342	PKP	PKPdf	07 31 51.4	+1.6
	comp=Z,2.0nm,0.7s,SNR=12						
GERES				PKPbc	PKPdf	07 31 58.1	+8.3
	comp=Z,24nm,0.7s,baz=36,slow=1.8,SNR=106						
GERES				PKPab	PKPab	07 32 09.1	-0.6
	comp=Z,27nm,0.9s,baz=27,slow=3.0,SNR=15						
GERES				pPKPbc		07 34 13.6	
	comp=Z,32nm,0.9s,slow=1.3,SNR=4.9						
GERES	**GERESS Array B**	151.22	342	PKIKP	PKPdf	07 31 51.4	+1.6
GERES						07 32 09.1	
FETY	**Fethiye**	151.34	307	*e*P	PKPdf	07 31 58.0	+7.5
KDZ	**Kurdzhali**	151.38	319	*i* P	PKPdf	07 31 58.7	+8.4
PGB	**Panagyurishte**	151.57	322	*i* P	PKPdf	07 31 59.5	+9.0
RDO	**Rodhopi**	151.59	318	*e*P	PKPdf	07 31 59.0	+8.4
RZN	**Rozhen**	151.78	320	*i* P	PKPdf	07 31 59.7	+8.8
AYVA	**Ayvalik**	151.84	314	*i* P	PKPdf	07 31 55.9	+4.9
AYVA	**Ayvalik**	151.84	314	*i* P		07 34 19.5	
KDAG	**Bornova**	151.88	312	*i* P	PKPdf	07 31 59.5	+8.4
KDAG	**Bornova**	151.88	312	*i* P		07 34 08.7	
IZM	**Izmir**	151.89	312	*e*P	PKPdf	07 31 59.5	+8.4
MOA	**Molln**	151.94	340	⇑*i*P	PKPdf	07 31 55.3	+4.4
MOA				*i*		07 31 59.7	
MOA				*i*		07 32 12.5	
MOA				*i*		07 34 18.5	
BEO	**Belgrade**	151.97	329	⇑*i*P		07 34 15.2	
SVIS	**Svilajnac**	151.98	328	*e*P	PKPdf	07 31 59.4	+8.4
WLF	**Walferdange**	152.00	352	*e*PKIKP	PKPdf	07 31 59.9	+9.0
WLF				*e*		07 32 11.4	
ARSA	**Arzberg**	152.04	338	⇑*i*P	PKPdf	07 31 51.4	+0.4
ARSA				*i*		07 31 59.1	
ARSA				*i*		07 32 12.6	
ARSA				*i*		07 34 19.1	
VTS	**Vitosha**	152.09	323	*i* P	PKPdf	07 32 00.3	+9.0
PRK	**Paraskevi**	152.15	314	*e*P	PKPab	07 32 13.6	-0.3
ARG	**Arkhangelos**	152.21	307	*e*P	PKPdf	07 32 01.0	+9.4
STU	**Stuttgart**	152.38	348	*e*PKIKP	PKPdf	07 32 00.3	+8.8
MMB	**Musomiste**	152.43	321	*i* P	PKPdf	07 32 00.7	+8.9
FUR	**Furstenfeldbru**	152.49	344	*e*PKIKP	PKPdf	07 32 00.6	+9.0
SMG	**Samos**	152.50	311	*e*P	PKPdf	07 32 01.5	+10
GRUS	**Gruza**	152.52	327	⇑*i*P		07 34 15.7	
KKB	**Krupnik**	152.63	322	*i* P	PKPdf	07 32 01.5	+9.5
DIVS	**Divcibare**	152.73	329	⇓*i*P	PKPdf	07 31 57.0	+5.0
DIVS	**Divcibare**	152.73	329	⇓*i*P		07 34 15.2	
KBA	**Koelnbreinsper**	152.91	341	⇑*i*P	PKPdf	07 31 52.9	+0.7
KBA				*i*		07 32 02.0	
KBA				*i*		07 32 16.3	
KBA				*i*		07 34 16.7	
KBA	**Koelnbreinsper**	152.91	341	⇑*i*PKIKP	PKPdf	07 31 52.9	+0.7
KBA				*i*		07 32 16.3	
BFO	**Black Forest**	152.97	349	*e*PKIKP	PKPdf	07 32 02.0	+10
WATA	**Walderalm**	153.18	343	⇑*i*P	PKPdf	07 31 54.2	+1.6
WATA				*i*		07 32 02.6	
WATA				*i*		07 32 18.0	
WATA				*i*		07 34 17.8	
KARP	**Karpathos**	153.19	306	*e*P	PKPdf	07 32 03.0	+10
WTTA	**Wattenberg**	153.23	343	⇑*i*P	PKPdf	07 31 53.7	+1.0
WTTA				*i*		07 32 02.8	
WTTA				*i*		07 32 18.1	
WTTA				*i*		07 34 16.8	
WTTA	**Wattenberg**	153.23	343	⇑*i*PKIKP	PKPdf	07 31 53.7	+1.0
WTTA				*i*		07 32 18.1	
FLN	**La Foliniere**	153.23	2	*e*PKIKP	PKPdf	07 31 53.6	+1.0
	comp=Z,63nm,1.1s						
PDKS	**Podkum**	153.25	337	*e*PKPbc	PKPdf	07 32 02.3	+10
PDKS				*e*PKPab	PKPab	07 32 16.7	-1.6
CRES	**Cresnjev**	153.29	337	*e*PKPbc	PKPdf	07 32 02.4	+10
MOTA	**Moosalm**	153.29	344	⇓*i*P	PKPdf	07 31 54.4	+1.6
MOTA				*i*		07 32 03.0	
MOTA				*i*		07 32 17.9	
MOTA				*i*		07 34 18.3	
MOTA	**Moosalm**	153.29	344	⇓*i*PKIKP	PKPdf	07 31 54.4	+1.6
MOTA				*i*		07 32 17.9	
NVSS	**Nova Varos 2**	153.31	328	⇑*i*P		07 34 17.0	
PLG	**Polygyros**	153.33	319	*e*P	PKPab	07 32 18.2	-0.7
SQTA	**Sankt Quirin**	153.38	344	⇑*i*P	PKPdf	07 31 54.6	+1.7
SQTA				*i*		07 32 02.9	
SQTA				*i*		07 32 18.3	
SQTA				*i*		07 34 17.2	
SQTA	**Sankt Quirin**	153.38	344	⇑*i*PKIKP	PKPdf	07 31 54.6	+1.7
SQTA				*i*		07 32 18.3	
LDF	**La Druitiere**	153.41	1	*e*PKIKP	PKPdf	07 31 54.0	+1.1
LJU	**Ljubljana**	153.43	338	*i* PKPbc	PKPdf	07 32 03.1	+10
LJU				*e*		07 34 18.0	
SKO	**Skopje**	153.48	324	*e*PKHKP		07 32 03.2	
SKO				⇑*i*PKP2	PKPab	07 32 19.8	+0.3
SKO				⇑*i*pPKP2		07 34 33.7	
ROSF	**Rostrenen**	153.49	6	*e*PKIKP	PKPdf	07 31 53.7	+0.7
	comp=Z,82nm,1.2s						
GRR	**Gorron**	153.59	2	*e*PKIKP	PKPdf	07 31 54.9	+1.8
	comp=Z,130nm,1.4s						
SGMF	**Saint Gilles**	153.63	5	*e*PKIKP	PKPdf	07 31 53.9	+0.7
DAVA	**Damuels**	153.65	346	⇑*i*P	PKPdf	07 31 52.6	-0.6
DAVA				*i*		07 32 04.0	
DAVA				*i*		07 32 19.3	
DAVA				*i*		07 34 22.9	
VOY	**Vojsko**	153.66	339	*e*PKPdf	PKPdf	07 31 55.4	+2.1
VOY				*e*PKPbc	PKPdf	07 32 03.0	+10
VOY				*e*PKPab	PKPab	07 32 18.4	-1.7
VOY				*e*		07 34 21.8	
QUIF	**Quistinic**	153.91	6	*e*PKIKP	PKPdf	07 31 54.4	+0.9
SANT	**Santorini**	154.10	309	*e*PKPbc	PKPdf	07 32 02.8	+8.7
SANT				*e*PKPab	PKPab	07 32 20.0	-2.2
DAVOX	**Davos**	154.12	345	PKP	PKPdf	07 31 55.5	+1.6
	comp=Z,11nm,0.8s,baz=6.7,slow=3.0,SNR=13						
DAVOX				PKPbc	PKPdf	07 32 04.9	+11
	comp=Z,23nm,0.6s,baz=300,slow=0.4,SNR=22						
DAVOX				PKPab	PKPab	07 32 21.7	-0.3
	comp=Z,35nm,0.7s,baz=26,slow=2.6,SNR=15						
DAVOX				pPKPbc		07 34 21.7	
	comp=Z,38nm,0.9s,baz=18,slow=3.2,SNR=6.9						
KZN	**Kozani**	154.38	320	*e*P	PKPab	07 32 22.8	-0.5
MPAR	**Parnis Oros**	154.41	314	*e*P	PKPab	07 32 22.5	-1.0
NPS	**Neapolis**	154.46	307	*e*P	PKPab	07 32 23.0	-0.8
XRY	**Khrisi**	154.56	306	*e*P	PKPab	07 32 23.5	-0.7
NSAL	**Nisos Salamina**	154.72	314	*e*P	PKPab	07 32 22.1	-2.7
NAIG	**Nisos Aigina**	154.78	314	*e*P	PKPab	07 32 23.2	-1.9
MGER	**Gerania Oros**	154.81	314	*e*P	PKPab	07 32 23.2	-2.0
SSF	**Saint Saulge**	154.84	355	*e*PKIKP	PKPdf	07 31 56.2	+1.4
	comp=Z,26nm,1.0s						
IDI	**Anoyia**	154.99	307	PKP	PKPdf	07 31 58.0	+2.6
	comp=Z,18nm,1.1s,baz=72,slow=9.6,SNR=6.1						
IDI				PKPbc	PKPdf	07 32 07.0	+12
	comp=Z,14nm,0.7s,baz=5.5,slow=12,SNR=8.1						
IDI				PKPab	PKPab	07 32 24.8	-1.2
	comp=Z,29nm,0.6s,baz=156,slow=18,SNR=7.8						
CABF	**La Chapelle**	155.00	351	*e*PKIKP	PKPdf	07 31 57.0	+1.9
	comp=Z,74nm,1.2s						
EVR	**Evrytania**	155.22	318	*e*P	PKPdf	07 32 07.0	+11
SMF	**Signal de Mont**	155.23	355	*e*PKIKP	PKPdf	07 31 56.5	+1.1
	comp=Z,36nm,1.1s						
JAN	**Janina**	155.34	320	*e*P	PKPab	07 32 27.2	-0.2
BGF	**Bois d’Agland**	155.39	356	*e*PKIKP	PKPdf	07 31 57.1	+1.5
	comp=Z,20nm,0.8s						
MFF	**Saint Martin d**	155.40	1	*e*PKIKP	PKPdf	07 31 56.8	+1.2
	comp=Z,52nm,1.0s						
VAM	**Vamos**	155.44	308	*e*P	PKPab	07 32 29.0	+1.0
TCF	**Toulx Ste Croi**	155.69	357	*e*PKIKP	PKPdf	07 31 57.3	+1.3
	comp=Z,31nm,1.0s						
VLI	**Veliai**	155.70	312	*e*P	PKPab	07 32 27.0	-2.0
GVD	**Gavdhos**	155.78	307	*e*PKPdf	PKPdf	07 31 58.2	+1.7
KYTH	**Kithira**	155.86	311	*e*P	PKPab	07 32 29.0	-0.7
KEK	**Kerkira**	155.92	322	*e*P	PKPab	07 32 26.5	-3.4
LPL	**La Plagne**	155.97	349	*e*PKIKP	PKPdf	07 31 58.4	+2.0
LPG	**La Plagne**	155.99	349	*e*PKIKP	PKPdf	07 31 58.6	+2.2
	comp=Z,39nm,1.3s						
ITM	**Ithomi**	156.14	314	*e*P	PKPab	07 32 30.0	-0.9
VLS	**Valsamata**	156.42	318	*e*P	PKPab	07 32 31.5	-0.6
BNI	**Bardonecchia**	156.43	349	*e*PKIKP	PKPdf	07 31 59.0	+2.0
ORIF	**Oris-en-Rattie**	156.69	351	*e*PKIKP	PKPdf	07 31 59.0	+1.7
	comp=Z,17nm,0.9s						
RJF	**Les Rejaudoux**	156.69	358	*e*PKIKP	PKPdf	07 31 58.7	+1.4
	comp=Z,35nm,1.2s						
MBDF	**Montbardon**	156.73	349	*e*PKIKP	PKPdf	07 31 59.9	+2.5
	comp=Z,20nm,0.8s						
VIVF	**Saint-Julien-l**	156.91	353	*e*PKIKP	PKPdf	07 31 59.2	+1.6
CAF	**Calviac**	157.06	357	*e*PKIKP	PKPdf	07 31 59.4	+1.6
LFF	**La Frestale**	157.07	360	*e*PKIKP	PKPdf	07 31 59.6	+1.8
SBF	**Sospel**	157.43	347	*e*PKIKP	PKPdf	07 32 01.3	+3.0
SMRF	**Simiane la Rot**	157.66	351	*e*PKIKP	PKPdf	07 32 00.6	+2.0
LASF	**Ste Croix**	157.77	354	*e*PKIKP	PKPdf	07 32 00.4	+1.6
	comp=Z,37nm,1.1s						
FRF	**La Foret Royal**	157.88	348	*e*PKIKP	PKPdf	07 32 00.9	+2.0
TIP	**Timpagrande**	157.98	325	*e*PKPdf	PKPdf	07 32 00.4	+1.2
PGF	**Pioggiola**	158.30	343	*e*PKIKP	PKPdf	07 32 02.1	+2.6
MTLF	**Montolieu**	158.63	357	*e*PKIKP	PKPdf	07 32 01.2	+1.4
	comp=Z,41nm,1.2s						
SJPF	**Ste Jean**	158.84	4	*e*PKIKP	PKPdf	07 32 02.1	+2.1
	comp=Z,35nm,1.1s						
EPF	**Esparros**	158.98	1	*e*PKIKP	PKPdf	07 32 01.9	+1.7
	comp=Z,75nm,1.4s						
ETSF	**Etsaut**	159.09	2	*e*PKIKP	PKPdf	07 32 02.2	+1.9
	comp=Z,40nm,1.1s						
PBRG	**Braganca**	159.25	16	*e*PKPdf	PKPdf	07 32 02.8	+2.3
PBRG				*e*PKPab	PKPab	07 32 43.9	-0.2
PVRL	**Vila Real**	159.48	18	*e*PKPdf	PKPdf	07 32 03.4	+2.6
PVRL				*e*PKPab	PKPab	07 32 45.2	+0.1
PVIS	**Viseu**	159.94	19	*e*PKPdf	PKPdf	07 32 03.7	+2.4
MTE	**Manteigas**	160.34	19	*e*PKPdf	PKPdf	07 32 03.9	+2.1
MTE				*e*PKPab	PKPab	07 32 48.2	-0.6
PCBR	**Castelo Branco**	160.87	19	*e*PKPdf	PKPdf	07 32 04.8	+2.5
PCBR				*e*PKPab	PKPab	07 32 50.7	-0.5
EVO	**Evora**	161.88	22	⇑*i*PKIKP	PKPdf	07 32 05.6	+2.3
	comp=Z,65nm,1.1s						
ESDC	**Sonseca Array**	161.90	12	PKP	PKPdf	07 32 04.9	+1.6
	comp=Z,1.1nm,0.6s,baz=331,slow=3.3,SNR=7.4						
ESDC				PKPab	PKPab	07 32 52.9	-2.8
	comp=Z,2.1nm,0.6s,baz=347,slow=4.1,SNR=9.1						
PBEJ	**Beja**	162.38	23	*e*PKPdf	PKPdf	07 32 06.5	+2.6
PBEJ				*e*PKPab	PKPab	07 32 57.0	-0.8
PTEO	**Sao Teotonio**	162.48	25	*e*PKPdf	PKPdf	07 32 06.4	+2.4
DBIC	**Dimbokro**	163.91	160	PKP	PKPdf	07 32 07.5	+1.4
	comp=Z,35nm,0.8s,baz=132,slow=1.1,SNR=40						
DBIC				PKPab	PKPab	07 33 05.9	+0.8
	comp=Z,19nm,0.5s,baz=181,slow=5.1,SNR=20						

NEIC **17** *07:23:05.5, 36.96N×28.30E, h72^{km}, After ATH.*
ATH **17** *07:23:07.4, 36.94N×27.85E, h26^{km}±3^{km}, MD3.6/7*
ISK **17** *07:23:07.2, 36.96N×27.78E, h15^{km}, MD3.7*
CSEM **17** *07:23:07.4±0.1, 36.96N×27.85E, h15^{km}, MD3.7, Error ellipse: s-maj=1.9km s-min=1.4km az=36.0*
NIC **17** *07:23:10.2±0.2, 36.70N×27.69E, h56^{km}, mb4.3, ML3.8, MW3.4*
ISC 17 07:23:07.7±0.5**, 36.96N**±0.02×**27.83E**±0.03**, h13**^{km}±3^{km}**, n49,** σ**1§00**/65**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BDRM	**Kayabasi**	0.33	289	*i* P	**Pg**	**07 23 14.4**	**-0.3**
BDRM				*i* S	**Sg**	**07 23 19.6**	**+0.4**
MLSB	**Milas**	0.34	353	*i* PG	**Pg**	**07 23 14.5**	**-0.4**
MLSB				*i* SG	**Sg**	**07 23 20.1**	**+0.5**
YER	**Yerkesik**	0.40	64	*i* PG	**Pg**	**07 23 15.8**	**-0.3**
DALT	**Dalyan (Mudla)**	0.68	106	PG	**Pg**	**07 23 21.8**	**+0.4**
DALT				SG	**Sg**	**07 23 32.5**	**+1.9**
AYDN	**Tasoluk**	0.70	3	*i* P	**Pb**	**07 23 21.4**	**+0.2**
AYDN				*i* S	**Sb**	**07 23 30.5**	**0.0**
ARG	**Arkhangelos**	0.78	162	*e*PN	**Pn**	**07 23 22.6**	**-1.6**
FETY	**Fethiye**	1.06	107	*e*PN	**Pn**	**07 23 28.0**	**-0.2**
SMG	**Samos**	1.09	314	*e*PN	**Pn**	**07 23 29.0**	**+0.4**
DNZL	**Cakiroluk**	1.21	53	*i* P	**Pb**	**07 23 30.5**	**+0.4**
DNZL				*i* S	**Sb**	**07 23 49.5**	**+4.0**
DENT	**Denizli**	1.24	50	PN	**Pn**	**07 23 31.0**	**+0.1**
IZM	**Izmir**	1.50	343	*e*PN	**Pn**	**07 23 35.1**	**+0.5**
IZM				*e*SN	**Sn**	**07 23 54.5**	**+0.4**
KDAG	**Bornova**	1.51	343	*i* P	**Pn**	**07 23 34.4**	**-0.2**
KDAG				*i* S	**Sb**	**07 23 55.6**	**+1.6**
KARP	**Karpathos**	1.51	201	*e*PN	**Pn**	**07 23 34.5**	**-0.2**
KARP				*e*SN	**Sn**	**07 23 55.0**	**+0.8**
BLCB	**Balcova**	1.55	337	*e*PN	**Pn**	**07 23 34.6**	**-0.7**
KSL	**Kastellorizon**	1.63	119	*e*PN	**Pn**	**07 23 36.0**	**-0.3**
MANT	**Manisa**	1.63	21	*i* P	**Pn**	**07 23 36.5**	**+0.1**
MANT				*i* S	**Sn**	**07 23 54.3**	**-3.1**
APE	**Apeiranthos**	1.84	274	*e*PN	**Pn**	**07 23 38.7**	**-0.7**
APE	**Apeiranthos**	1.84	274	*e*P	**Pn**	**07 23 39.2**	**-0.2**
KHL	**Karahalli**	1.91	44	*e*PN	**Pn**	**07 23 40.5**	**+0.1**
AKS	**Akhisar**	1.92	360	*e*PN	**Pn**	**07 23 40.4**	**-0.1**
BCK	**Bucak**	2.26	76	*e*PN	**Pn**	**07 23 45.8**	**+0.4**
ISP	**Isparta**	2.31	67	*e*PN	**Pn**	**07 23 47.0**	**+0.9**
NPS	**Neapolis**	2.47	227	*e*P	**Pn**	**07 23 50.0**	**+1.6**
AYVA	**Ayvalik**	2.51	339	*i* P	**Pg**	**07 23 55.8**	**-2.1**
AYVA				*i* S	**Sg**	**07 24 29.6**	**-1.8**
PRK	**Paraskevi**	2.59	332	*e*PN	**Pn**	**07 23 51.0**	**+0.9**
BALB	**Balikesir**	2.68	1	*e*PN	**Pn**	**07 23 50.7**	**-0.6**
ALT	**Altintas**	2.76	40	*e*PN	**Pn**	**07 23 52.7**	**+0.2**
BTOK	**Tokmak**	2.80	3	*i* P	**Pn**	**07 23 52.4**	**-0.7**
BTOK				*i* S	**Sn**	**07 24 35.0**	**+8.0**
ULDT	**Uludag**	3.34	17	*i* P	**Pn**	**07 24 02.6**	**+1.9**
ULDT				*i* S	**Sg**	**07 24 58.5**	**-0.5**
LPK	**Lapseki**	3.51	347	*e*PN	**Pn**	**07 24 02.9**	**-0.3**
HDMB	**Hadim**	3.73	89	*e*PN	**Pn**	**07 24 06.1**	**-0.2**
KIZT	**Kizilcal**	3.73	58	*e*PN	**Pn**	**07 24 06.7**	**+0.3**
KONT	**Konya--Tatoy**	3.74	73	*e*PN	**Pn**	**07 24 07.5**	**+1.1**
AKMC	**Akamas**	4.13	117	P	**Pn**	**07 24 11.3**	**-0.7**
AKMC				S	**Sn**	**07 24 58.0**	**-2.6**
ALFC	**Alevga**	4.26	114	P	**Pn**	**07 24 13.6**	**-0.3**
	3.6nm,0.2s						
ALFC				S	**Sn**	**07 25 02.9**	**-1.2**
LEF	**Lefka**	4.49	113	*e*PN	**Pn**	**07 24 16.7**	**-0.5**
HENT	**Hendek**	4.54	31	*i* P	**Pg**	**07 24 34.7**	**-3.8**
RDO	**Rodhopi**	4.54	338	*e*PN	**Pn**	**07 24 16.5**	**-1.4**
SZAC	**Souni-Zanaja**	4.66	117	P	**Pn**	**07 24 19.1**	**-0.4**
	3.2nm,0.3s						
SZAC				S	**Sn**	**07 25 12.9**	**-1.1**
MEST	**Erdemli**	5.08	92	*i* P	**Pn**	**07 24 28.6**	**+3.1**
MEST				*i* S	**Sn**	**07 25 28.6**	**+3.9**
BALT	**Daday**	6.28	42	*i* P	**Pn**	**07 24 43.3**	**+0.9**
COBT	**Iskenderun**	6.78	91	*i* P	**Pn**	**07 24 50.4**	**+0.9**

KHC	Kasperske Hory	15.98	324	eP	P	07 27 02.5	+8.8
MBDF	Montbardon	17.69	303	eP	P	07 27 26.7	+11
LPG	La Plagne	17.96	305	eP	P	07 27 28.0	+9.3
LPL	La Plagne	17.98	305	eP	P	07 27 28.7	+10
SMF	Signal de Mont	20.26	306	eP	P	07 27 44.4	-1.1
	15nm,0.8s						
SSF	Saint Saulge	20.62	307	eP	P	07 27 51.4	+2.1
	9.2nm,0.6s						
GRR	Gorron	23.84	308	eP	P	07 28 21.2	0.0

IDC 17 07:26:53.6±52.0**,17.84S**×**170.69W,mb3.8**/3**,mb1 3.9**/3**, mb1mx3.7**/16**,Error ellipse: s-maj=1021.0km s-min=177.7km az=82.0,Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	45.16	243	P	P	07 35 11.9	-2.0
	2.1nm,1.1s,baz=143,slow=20,SNR=3.1						
WRA	Warramunga Arr	51.86	258	P	P	07 36 04.2	-1.9
	0.3nm,0.3s,baz=97,slow=6.9,SNR=15						
ASAR	Alice Springs	51.88	254	P	P	07 36 04.0	-2.1
	0.5nm,0.6s,baz=90,slow=7.4,SNR=8.3						

IDC 17 07:29:42.2±9.5,21.46S×179.34W,h634^{km}±104^{km}, mb3.3/7,mb1 3.5/7,mb1mx3.3/16,Error ellipse: s-maj=75.4km s-min=28.7km az=60.0

NEIC 17 07:29:44.5±6.5,21.53S×179.48W,h656^{km}±68^{km},mb4.3/5, Error ellipse: s-maj=69.1km s-min=23.8km az=54.0

ISC 17 07:29:41.8±3.7**,21.5S**±0.4×**179.4W**±0.5**,h650**^{km}**,n16, σ0^{s}37**/15**,mb4.0**/9**,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARMA	Armidale	27.46	245	eP	P	07 34 41.1	+0.1
CTA	Charters Tower	32.12	266	eP	P	07 35 20.9	+0.4
	5.6nm,0.5s,mb4.3						
CTA	Charters Tower	32.12	266	P	P	07 35 21.0	+0.5
	8.3nm,0.5s,mb4.5,baz=82,slow=8.7,SNR=14						
CTAO	Charters Tower	32.12	266	eP	P	07 35 20.7	+0.2
	7.1nm,0.5s,mb4.5						
PMG	Port Moresby	34.34	285	P	P	07 35 39.3	+0.3
	12nm,0.9s,mb4.4,baz=189,slow=16,SNR=3.0						
PMG	Port Moresby	34.34	285	P	P	07 35 39.3	+0.2
STKA	Stephens Creek	36.18	245	eP	P	07 35 54.2	+0.2
	1.8nm,0.4s,mb4.0						
STKA	Stephens Creek	36.18	245	P	P	07 35 54.2	+0.3
	2.4nm,0.4s,mb4.0,baz=85,slow=11,SNR=17						
ASAR	Alice Springs	43.03	258	P	P	07 36 49.0	+0.2
	5.1nm,0.6s,mb4.2,baz=100,slow=7.9,SNR=68						
ASPA	Alice Springs	43.03	258	eP	P	07 36 48.7	-0.1
WRAB	Tennant Creek	43.18	263	eP	P	07 36 49.3	-0.7
	5.7nm,0.4s,mb4.3						
WRA	Warramunga Arr	43.19	263	P	P	07 36 49.7	-0.4
	2.7nm,0.3s,mb4.1,baz=96,slow=7.6,SNR=78						
FITZ	Fitzroy Crossi	51.62	264	P	P	07 37 53.5	+0.5
	2.1nm,0.3s,mb3.8,baz=122,slow=5.4,SNR=9.2						
MBWA	Marble Bar	56.37	258	eP	P	07 38 25.5	-0.5
	2.5nm,0.5s,mb3.6						
VNDA	Vanda	56.77	185	P	P	07 38 28.1	0.0
	0.7nm,1.0s,mb2.8,baz=344,slow=7.1,SNR=5.1						
AKASG	Malin Array Be	143.26	329	PKP	PKPdf	07 48 04.7	+1.2
	0.4nm,0.4s,baz=45,slow=4.7,SNR=5.9						

IDC 17 07:32:33.4±0.8,35.87N×143.80E,mb4.0/9,mb1 4.3/12, mb1mx4.0/25,ML4.1/3,Error ellipse: s-maj=33.2km s-min=16.3km az=116.0

NEIC 17 07:32:37.0±0.6,35.95N×143.57E,h25^{km},Error ellipse: s-maj=17.4km s-min=12.8km az=179.0

JMA 17 07:32:38.1±0.3,36.19N×143.24E,h99^{km},M3.7

ISC 17 07:32:37.0±1.0**,36.16N**±0.03×**143.34E**±0.07**,h44**^{km}±11^{km}**, n31,σ1^{s}02**/48**,mb4.0**/9**,Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHOJ	Chosi	2.07	258	P	P	07 33 11.2	+1.2
CHOJ				eS	S	07 33 36.4	+1.8
ONAJ	Iwakimizuishiy	2.25	295	P	P	07 33 13.2	+0.6
ONAJ				eS	S	07 33 39.2	-0.1
JHO	Hitachi	2.28	282	P	P	07 33 13.6	+0.5
JHO				eS	S	07 33 40.5	+0.4
JFK	Kawauchi	2.32	302	P	P	07 33 14.0	+0.4
JFK				eS	S	07 33 41.0	0.0
BSO1	Boso 1	2.45	233	P	P	07 33 15.0	-0.4
BSO1				eS	S	07 33 44.8	+0.5
JMM	Marumori	2.66	311	P	P	07 33 18.4	0.0
JMM				eS	S	07 33 49.5	-0.1
JAG	Ashikaga	3.15	276	P	P	07 33 25.9	+0.5
JAG				eS	S	07 34 01.8	-0.4
JMK	Ichinoseki	3.25	329	P	P	07 33 26.8	-0.1
JMK				eS	S	07 34 03.9	-0.9
JIM2	Oshima 3	3.50	247	P	P	07 33 29.9	-0.5
JIM2				eS	S	07 34 10.2	-0.9
JOD2	Odawara 2	3.58	257	P	P	07 33 32.3	+0.9
JOD2				eS	S	07 34 12.5	-0.4
JRY	Ryogami san	3.60	269	P	P	07 33 32.1	+0.3
JYK	Kaneyama	3.63	320	P	P	07 33 32.7	+0.5
JYK				eS	S	07 34 15.3	+1.0
JOM	Ohasama	3.68	334	P	P	07 33 32.3	-0.6
JOM				eS	S	07 34 12.9	-2.7
JYN	Shimob	3.95	262	P	P	07 33 37.7	+0.9
MAJO	Matsushiro	4.16	277	ePn	P	07 33 41.0	+1.3
MAT	Matsushiro	4.16	277	P	P	07 33 40.7	+1.0
MAT				eS	S	07 34 25.7	-2.0
MAT	Matsushiro	4.16	277	P	P	07 33 39.7	0.0
MAT	Matsushiro	4.16	277	eP	P	07 33 41.0	+1.3
MAT				S	S	07 34 26.0	-1.7
JHJ2	Mitsune	4.21	225	P	P	07 33 38.8	-1.6
JHJ	Hachijo jima 2	4.22	225	Pn	P	07 33 38.9	-1.7
	18nm,0.3s,baz=65,slow=17,SNR=8.0						
JHJ				Sn	S	07 34 23.3	-5.9
	51nm,0.3s,baz=66,slow=22,SNR=8.3						
ASAJ	Asahikawa	7.97	356	Pn	P	07 34 29.9	-3.1
	1.7nm,0.3s,baz=216,slow=31,SNR=5.9						
ASAJ				Sn	S	07 35 59.6	-3.1
	1.5nm,0.3s,baz=89,slow=29,SNR=3.7						
CBIJ	Chichi jima	9.09	187	Pn	P	07 34 40.5	-8.0
	14nm,0.3s,baz=285,slow=20,SNR=7.2						
CBIJ				Sn	S	07 36 14.9	-16
	25nm,0.3s,baz=314,slow=20,SNR=8.0						
FX1	Attu Island--F	26.77	42	P	P	07 38 15.3	+0.8
	8.6nm,0.7s,mb4.4,baz=312,slow=23,SNR=1.9						
SONM	Songino Array	29.56	305	P	P	07 38 44.2	+4.6
	1.0nm,0.6s,mb3.7,baz=101,slow=8.4,SNR=5.8						
ILAR	Eielson Array	49.41	32	P	P	07 41 24.6	+0.7
	0.7nm,0.6s,mb3.9,baz=253,slow=6.3,SNR=8.2						
WRA	Warramunga Arr	56.44	190	P	P	07 42 15.9	-0.9
	2.6nm,0.6s,mb4.5,baz=12,slow=7.5,SNR=34						
ASAR	Alice Springs	60.17	190	P	P	07 42 41.9	-0.9
	1.4nm,0.5s,mb4.3,baz=4.0,slow=7.0,SNR=37						
STKA	Stephens Creek	67.70	182	P	P	07 43 30.4	-1.4
	1.2nm,0.8s,mb4.0,baz=307,slow=21,SNR=4.2						
NVAR	Mina Array Bea	74.26	54	P	P	07 44 11.9	+0.7
	0.7nm,0.7s,mb3.7,baz=280,slow=4.5,SNR=3.8						
PDAR	Pinedale Array	77.16	46	P	P	07 44 28.1	+0.4
	0.3nm,0.5s,mb3.5,baz=270,slow=1.5,SNR=3.9						
TXAR	Lajitas Array	89.41	54	P	P	07 45 32.1	+1.7
	0.4nm,0.6s,mb3.9,baz=308,slow=4.1,SNR=3.1						

IDC 17 07:47:47.0±1.5,32.94S×178.71W,mb4.3/5,mb1 4.5/7, mb1mx4.2/16,ML4.5/2,MS4.0/9,Ms1 4.0/9,ms1mx3.5/28, Error ellipse: s-maj=52.9km s-min=28.3km az=149.0

NEIC 17 07:48:14.3±2.8,34.56S×179.95E,h178^{km}±18^{km},mb4.6/4, Error ellipse: s-maj=35.6km s-min=14.7km az=52.0

ISC 17 07:47:56.6±1.4**,33.84S**±0.08×**178.6W**±0.2**,h104**^{km}±13^{km}**, n59,σ1^{s}59**/55**,mb4.5**/8**,3C-3D,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	4.48	213	eP	P	07 49 06.7	+3.0
MXZ	Matakaoa Point	4.48	213	P	P	07 49 06.6	+2.9
MXZ				eS	S	07 50 04.1	+9.1
PUZ	Puketiti	4.93	210	eP	P	07 49 12.4	+2.6
PUZ	Puketiti	4.93	210	P	P	07 49 12.2	+2.4
PUZ				eS	S	07 50 15.1	+9.1
MWZ	Matawai	5.47	214	P	P	07 49 18.6	+1.6
MWZ				eS	S	07 50 29.2	+10
KUZ	Kuaotunu	5.47	236	eP	P	07 49 19.0	+1.9
KUZ	Kuaotunu	5.47	236	P	P	07 49 19.1	+2.0
URZ	Urewera	5.61	217	Pn	P	07 49 20.2	+1.2
	24nm,0.3s,baz=34,slow=4.6,SNR=51						
URZ				Sn	S	07 50 30.1	+7.4
	31nm,0.3s,baz=268,slow=21,SNR=6.6						
URZ				LR	LR	07 51 49.3	
	comp=Z,806nm,18.0s,baz=229,slow=38						
WCZ	Waipu Caves	6.16	248	eP	P	07 49 25.9	-0.6
WCZ	Waipu Caves	6.16	248	⇓P	P	07 49 25.9	-0.6
OUZ	Omahuta	6.58	256	⇓P	P	07 49 29.4	-3.0
BKZ	Black Stump Fm	6.62	215	eP	P	07 49 33.8	+0.9
BKZ	Black Stump Fm	6.62	215	eP	P	07 49 33.4	+0.5
HIZ	Hauiti	7.05	227	eP	P	07 49 40.9	+2.1
TSZ	Takapari Road	7.58	213	eP	P	07 49 45.0	-1.0
BFZ	Birch Farm	7.96	210	eP	P	07 49 50.6	-0.6
BFZ	Birch Farm	7.96	210	eP	P	07 49 51.5	+0.3
MRZ	Mangatainoka R	8.23	213	eP	P	07 49 54.2	-0.6
MRZ	Mangatainoka R	8.23	213	P	P	07 49 53.5	-1.3
MRZ				S	S	07 51 29.4	+2.6
MTW	Mount Morrison	8.67	211	P	P	07 49 59.1	-1.7
KIW	Kapiti Island	8.70	214	P	P	07 49 59.2	-1.9
CAW	Cannon Point	8.82	213	P	P	07 50 00.8	-2.0
MSWZ	Moikau Station	8.99	211	P	P	07 50 05.0	0.0
NNZ	Nelson	9.73	219	P	P	07 50 13.6	-1.3
NNZ				eS	S	07 52 05.3	+2.3
BSWZ	Blackbirch Sta	9.85	215	P	P	07 50 15.0	-1.6
THZ	Tophouse	10.37	218	eP	P	07 50 22.3	-1.2
THZ	Tophouse	10.37	218	eP	P	07 50 21.1	-2.4
THZ				eS	S	07 52 18.2	-0.1
KHZ	Kahutara	10.56	214	eP	P	07 50 24.8	-1.2
KHZ	Kahutara	10.56	214	eP	P	07 50 24.4	-1.6
KHZ				S	S	07 52 22.1	-0.7
RPZ	Rata Peaks	12.73	216	Pn	P	07 50 51.2	-3.7
	1.3nm,0.3s,baz=227,slow=5.1,SNR=7.3						
RPZ				Sn	S	07 53 13.0	-1.5
	1.8nm,0.3s,baz=187,slow=24,SNR=6.3						
STKA	Stephens Creek	33.35	262	P	P	07 54 28.2	+1.4
	16nm,1.6s,mb4.6,baz=79,slow=10,SNR=3.1						
STKA				LR	LR	08 06 42.3	
	comp=Z,333nm,18.5s,baz=292,slow=34						
STKA	Stephens Creek	33.35	262	P	P	07 54 28.2	+1.4
STKA				LR	LR	08 06 42.3	
CTA	Charters Tower	34.01	285	P	P	07 54 31.1	-1.4
	2.8nm,0.8s,mb4.2,baz=122,slow=19,SNR=2.5						
CTA				LR	LR	08 04 28.6	
	comp=Z,158nm,21.2s,baz=88,slow=30						
CTAO	Charters Tower	34.01	285	P	P	07 54 32.7	+0.2
	15nm,1.2s,mb4.7						
PMG	Port Moresby	39.74	300	LR	LR	08 08 37.6	
	comp=Z,147nm,18.2s,baz=166,slow=32						
ASAR	Alice Springs	42.53	271	P	P	07 55 43.8	+0.3
	3.0nm,0.7s,mb4.1,baz=113,slow=7.5,SNR=23						
ASAR				LR	LR	08 11 24.9	
	comp=Z,97nm,18.0s,baz=104,slow=33						
ASPA	Alice Springs	42.53	271	eP	P	07 55 44.4	+0.9
WRAB	Tennant Creek	43.83	276	eP	P	07 55 56.3	+2.2
	29nm,1.4s,mb4.8						
WRA	Warramunga Arr	43.83	276	P	P	07 55 52.8	-1.3
	1.8nm,0.8s,mb3.9,baz=117,slow=7.6,SNR=13						
FITZ	Fitzroy Crossi	51.93	273	P	P	07 56 57.1	0.0
	3.5nm,0.8s,mb4.4,baz=171,slow=2.1,SNR=4.3						
QSPA	South Pole Qui	56.28	180	⇓iP	P	07 57 39.5	+11
	12nm,0.7s,mb5.0						
MAW	Mawson	68.92	201	LR	LR	08 28 00.3	
	comp=Z,107nm,19.5s,baz=240,slow=35						
SNAA	Sanae	74.74	179	⇑i	P	07 59 36.4	+10
SNAA	Sanae	74.74	179	P	P	07 59 31.1	+5.0
	9.0nm,1.1s,mb4.4						
VNA3	Neumayer Olymp	74.91	176	e	P	07 59 49.0	+22
VNA3	Neumayer Olymp	74.91	176	⇑iP	P	07 59 38.7	+12
VNA3				e		07 59 49.0	
VNA2	Neumayer--Watz	75.34	177	e	P	07 59 51.8	+22
VNA2	Neumayer--Watz	75.34	177	⇑iP	P	07 59 42.1	+13
VNA2				e		07 59 51.8	
NVAR	Mina Array Bea	91.10	43	LR	LR	08 34 34.2	
	comp=Z,74nm,21.9s,baz=240,slow=31						
TXAR	Lajitas Array	94.67	58	LR	LR	08 35 51.7	
	comp=Z,81nm,18.1s,baz=330,slow=31						
ANMO	Albuquerque	96.11	52	LR	LR	08 33 02.2	
	comp=Z,552nm,20.8s,slow=28						
KEV	Kevo	141.34	346	ep	PKPdf	08 07 22.4	+8.2
	4.0nm,0.8s						
KAF	Kangasniemi	147.58	338	ep	PKPdf	08 07 34.4	+9.4
	1.2nm,0.4s						
FINES	FINESS Array B	148.16	338	PKPbc	PKPdf	08 07 32.0	+6.0
	3.8nm,0.8s,baz=45,slow=2.7,SNR=4.2						
NB2	NORSAR Subarra	152.06	350	PKP	PKPdf	08 07 50.3	+18
	4.3nm,1.1s,baz=27,slow=2.9						
NOA	NORSAR Array B	152.06	350	PKPbc	PKPdf	08 07 41.3	+9.3
	2.4nm,1.0s,baz=30,slow=2.4,SNR=2.9						
NOA				PKPab	PKPab	08 07 48.4	-2.5
	1.3nm,0.8s,baz=42,slow=2.7,SNR=3.3						
NOA	NORSAR Array B	152.06	350	PKPbc	PKPdf	08 07 41.3	+9.3
NOA				PKPab	PKPab	08 07 48.4	-2.5
BRTR	Keskin Array B	153.61	292	PKPbc	PKPdf	08 07 47.3	+13
	0.4nm,0.4s,baz=100,slow=6.0,SNR=2.9						
BRTR				PKPab	PKPab	08 07 56.6	-1.5
	0.7nm,0.5s,baz=153,slow=2.8,SNR=3.9						
AKASG	Malin Array Be	153.62	318	PKPbc	PKPdf	08 07 46.4	+12
	0.2nm,0.2s,baz=68,slow=1.2,SNR=2.4						
AKASG				PKPab	PKPab	08 07 54.1	-3.6
	0.8nm,0.6s,baz=50,slow=2.2,SNR=4.5						

IDC 17 08:04:12.3±29.0,21.28S×178.75W,h475^{km}±269^{km}, mb3.7/4,mb1 3.9/4,mb1mx3.3/13,Error ellipse: s-maj=189.0km s-min=91.9km az=69.0

NEIC 17 08:04:27.9±3.5,21.54S×179.68W,h600^{km},mb4.3/6, Error ellipse: s-maj=81.8km s-min=43.0km az=122.0

ISC 17 08:04:16.2±5.2**,21.2S**±0.6×**179.2W**±0.8**,h500**^{km}**,n13, σ0^{s}93**/12**,mb4.1**/8**,2D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARMA	Armidale	27.72	245	eP	P	08 09 26.5	+1.3
CTA	Charters Tower	32.29	266	eP	P	08 10 06.1	+1.6
	4.9nm,0.4s,mb4.3						
CTAO	Charters Tower	32.29	266	eP	P	08 10 05.9	+1.4
	6.5nm,0.5s,mb4.3						
STKA	Stephens Creek	36.44	245	⇓iP	P	08 10 39.4	+0.3
	3.1nm,0.4s,mb4.1						
STKA	Stephens Creek	36.44	245	P	P	08 10 39.1	-0.1
	3.5nm,0.4s,mb4.1,baz=92,slow=9.9,SNR=30						
ASAR	Alice Springs	43.24	258	P	P	08 11 34.0	-0.1
	6.1nm,0.6s,mb4.2,baz=100,slow=7.9,SNR=102						
ASAR				PcP	PcP	08 13 10.6	-2.3
	0.8nm,0.7s,baz=114,slow=3.6,SNR=4.1						
ASPA	Alice Springs	43.25	258	⇓iP	P	08 11 33.9	-0.3
WRAB	Tennant Creek	43.37	263	eP	P	08 11 34.7	-0.5
	6.0nm,0.5s,mb4.3						
WRA	Warramunga Arr	43.37	263	P	P	08 11 34.9	-0.4
	3.0nm,0.4s,mb4.1,baz=97,slow=7.6,SNR=111						
FITZ	Fitzroy Crossi	51.80	263	eP	P	08 12 38.4	-0.8
	3.5nm,0.4s,mb4.0						
MBWA	Marble Bar	56.58	258	eP	P	08 13 11.1	-1.8
	6.8nm,0.6s,mb4.2						
CMAR	Chiang Mai Arr	89.29	290	P	P	08 16 20.9	+0.9
	0.6nm,0.3s,mb3.9,baz=130,slow=4.5,SNR=4.8						
AKASG	Malin Array Be	143.09	330	PKP	PKPdf	08 22 50.4	-1.8
	0.7nm,0.3s,baz=38,slow=4.3,SNR=4.7						

KRSC 17 08:11:47.2±1.5**,49.80N**×**155.95E,ML4.1,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	0.89	7	eP	Pg	08 12 05.0	0.0
SKR				eS	Sg	08 12 18.3	+1.5
ALID	Alaid	1.10	347	eP	Pb	08 12 10.9	+2.1
ALID				eS	Sb	08 12 28.8	+5.3
PAU	Pauzhetka	1.76	18	eP	Pn	08 12 20.9	+1.8
PAU				eS	Sn	08 12 45.4	+2.9
PAU				Smax			
	500nm,0.3s						
GRL	Gorelyy	3.06	25	eP	Pn	08 12 40.1	+2.3
GRL				eS	Sn	08 13 17.8	+2.1
RUS	Russkaya	3.09	31	eP	Pn	08 12 39.2	+1.0
RUS				eS	Sn	08 13 16.6	+0.2
APC	Apacha	3.22	13	eP	Pn	08 12 42.7	+2.7
APC				eS	Sn	08 13 24.0	+4.3
APC				Smax			
	20nm,1.0s						
KRMR	Karymshinskiy	3.33	23	eP	Pn	08 12 42.9	+1.3
KRMR				eS	Sn	08 13 25.9	+3.5
PET	Petropavlovsk	3.65	27	eP	Pn	08 12 48.4	+2.3
PET				eS	Sn	08 13 32.4	+2.0
UGLR	Uglovaya	3.86	27	eP	Pn	08 12 51.3	+2.2
UGLR				eS	Sn	08 13 37.2	+1.4
KOK	Koryaka	3.88	25	eP	Pn	08 12 52.4	+3.0
KOK				eS	Sn	08 13 40.4	+4.1
SDLR	Sedlovina	3.94	27	eP	Pn	08 12 52.0	+1.8
SDLR				eS	Sn	08 13 39.1	+1.3
NLC	Nalytchevo	3.99	31	eP	Pn	08 12 51.0	+0.1
NLC				eS	Sn	08 13 39.5	+0.4

PRU 17 08:22:13.7,50.06N×18.38E

WAR 17 08:22:12.6,50.07N×**18.43E,h1**^{km}**,Location given by Central Institute of Mining, origin time based upon RAC,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	Raciborz	0.15	277	ePg	Pg	08 22 16.3	+0.7
RAC				eSg	Sg	08 22 19.4	+1.8
OKC	Ostrava-Krasne	0.29	219	ePG	Pg	08 22 18.6	+0.2
OKC				eSG	Sg	08 22 23.2	+0.9
OJC	Ojcow	0.90	80	ePg	Pg	08 22 29.7	-0.8
OJC				eSg	Sg	08 22 44.4	+2.0
DPC	Dobruska-Polom	1.38	283	ePG	Pg	08 22 38.2	-2.0
DPC				eSG	Sg	08 22 56.7	-1.9
UPC	Upice	1.61	287	eSG	Sg	08 23 03.7	-2.5
KHC	Kasperske Hory	3.29	255	eSG	Sg	08 23 56.1	-6.0

SKHL 17 08:36:07.5±0.1,46.74N×141.14E,h9^{km}±2^{km},mb4.3/4

MOS 17 08:36:08.6±1.4,46.56N×141.26E,h10^{km},mb4.0/1,Error ellipse: s-maj=31.0km s-min=17.2km az=83.2

NEIC 17 08:36:09.7±2.2,46.56N×141.35E,h8^{km}±13^{km},Error ellipse: s-maj=18.5km s-min=14.1km az=139.0

IDC 17 08:36:11.4±4.6,46.59N×141.29E,h19^{km}±28^{km},mb3.7/9, mb1 4.0/10,mb1mx3.8/22,ML3.8/1,MS3.3/1,Ms1 3.3/1, ms1mx2.6/26,Error ellipse: s-maj=24.8km s-min=16.5km az=101.0

ISC 17 08:36:07.8±0.6**,46.72N**±0.02×**141.18E**±0.04**,h7**^{km}±4^{km}**, n29,σ1^{s}26**/53**,mb3.8**/9**,MS3.3**/1**,2D,Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YSS	Yuzh-Sakhalins	1.11	77	⇓iPN	Pg	08 36 30.0	+0.1
YSS				i S	Sb	08 36 45.4	+2.1
YSS				pmax	pmax		
	comp=Z,180nm,0.4s						
YSS				pmax	pmax		
	comp=N,90nm,0.5s						
YSS				smax			
	comp=E,2µm,1.0s						
YSS				smax			
	comp=N,3µm,0.4s						
YSS				smax			
	comp=E,2µm,0.4s						
YSS	Yuzh-Sakhalins	1.11	77	eP	Pb	08 36 29.8	+0.9
YSS				eS	Sb	08 36 45.1	+1.8
YSS	Yuzh-Sakhalins	1.11	77	⇓iPg	Pg	08 36 30.0	+0.1
YSS				AMB	AMB	08 36 30.5	
	comp=E,160nm,0.4s						
YSS				AMB	AMB	08 36 31.0	
	comp=E,90nm,0.4s						
YSS				AMB	AMB	08 36 31.0	
	comp=E,180nm,0.4s						
YSS				pP		08 36 32.0	
YSS				sP		08 36 35.0	
YSS				i Sg	Sg	08 36 45.6	+0.9
YSS				A		08 36 46.0	
	comp=E,2µm,1.0s						
YSS				A		08 36 46.2	
	comp=E,3µm,0.4s						
YSS				A		08 36 46.4	
	comp=E,3µm,0.4s						
YSS				A		08 36 46.4	
	comp=E,2µm,0.3s						
YSS				A		08 36 48.5	
	comp=E,3µm,0.4s						
YSS				A		08 36 48.5	
	comp=E,2µm,0.4s						
YSS				AMS	AMS	08 37 04.0	
	comp=E,1µm,6.0s						
UGL	Uglegorsk	2.44	14	ePN	Pn	08 36 52.5	+3.9
UGL				e		08 37 25.0	
UGL				pmax	pmax		
	comp=Z,120nm,0.7s						
UGL				smax			
	comp=N,350nm,0.6s						
UGL				smax			
	comp=E,670nm,0.6s						
UGL				smax			
	comp=Z,200nm,0.6s						
UGL	Uglegorsk	2.44	14	ePb	Pb	08 36 51.5	-0.1
UGL				ePg	Pg	08 36 55.6	-0.8
UGL				AMB	AMB	08 36 57.0	
	comp=Z,140nm,0.7s						
UGL				AMB	AMB	08 36 57.0	
	comp=Z,120nm,0.7s						
UGL				eSn	Sn	08 37 16.4	-2.6
UGL				eSb	Sb	08 37 20.0	-1.8
UGL				eSg	Sg	08 37 29.2	+0.3
UGL				A		08 37 30.0	
	comp=Z,250nm,0.5s						
UGL				A		08 37 30.0	
	comp=Z,540nm,0.5s						
ASAJ	Asahikawa	2.79	158	Pn	Pn	08 36 53.5	-0.1
	comp=Z,11nm,0.3s,baz=316,slow=10,SNR=35						
ASAJ				Sn	Sn	08 37 26.4	-1.6
	comp=Z,12nm,0.3s,baz=102,slow=26,SNR=7.5						
ASAJ	Asahikawa	2.79	158	PN	Pn	08 36 53.6	0.0
ASAJ						08 37 26.4	
ASAJ				pmax	pmax		
	comp=Z,11nm,0.3s						
TEY	Ternei	3.61	244	ePn	Pn	08 37 03.8	-1.5
TEY				ePb	Pb	08 37 13.0	+1.3
TEY				ePg	Pg	08 37 19.0	-0.9
TEY				AMB	AMB	08 37 19.4	
	comp=Z,37nm,0.3s						
TEY				eSb	Sb	08 37 54.0	-2.0
TEY				eSg	Sg	08 38 09.0	+1.0
TEY				A		08 38 10.0	
	comp=Z,110nm,0.6s						
TEY				A		08 38 10.0	
	comp=Z,74nm,0.6s						
TYV	Tymovskoe	4.26	13	ePn	Pn	08 37 14.0	-0.6
TYV				ePb	Pb	08 37 21.5	-1.3
TYV				AMB	AMB	08 37 22.4	
	comp=Z,120nm,0.8s						
TYV				sP		08 37 27.0	
TYV				ePg	Pg	08 37 32.4	-0.4
TYV				AMB	AMB	08 37 36.6	
	comp=Z,14nm,0.5s						
TYV				eSb	Sb	08 38 11.4	-3.5
GRNR	Gornyy	5.13	324	ePg	Pg	08 37 51.2	+1.0
GRNR				AMB	AMB	08 37 53.8	
	comp=Z,34nm,0.8s						
GRNR				eSb	Sb	08 38 38.8	-1.3
GRNR				eSg	Sg	08 38 58.5	-0.1
GRNR				A		08 39 02.0	
	comp=Z,110nm,0.8s						
NKL	Nikolayevsk	6.45	357	ePn	Pn	08 37 46.0	+0.5
NKL				ePb	Pb	08 37 59.6	-0.6
NKL				ePg	Pg	08 38 14.5	-2.0
NKL				eSn	Sn	08 38 59.2	-1.0
NKL				eSb	Sb	08 39 12.8	-5.5
NKL				eSg	Sg	08 39 43.0	+0.6
KLR	Kul'dur	6.81	295	eSg	Sg	08 39 45.8	-8.7
EKMR	Ekimchan	8.28	323	eP	P	08 38 10.8	-0.4
EKMR				eS	Sn	08 39 49.0	+3.0
YASR	Yasnyy	10.73	313	eP	P	08 38 45.9	+1.0
YASR				eS	S	08 40 51.9	+5.5
BMKR	Bomnak	11.17	320	eS	S	08 40 58.5	+1.3
ZEA	Zeya	11.34	313	eS	S	08 41 16.0	+15
KROS	Kirovskiy	11.87	316	eP	P	08 39 03.7	+3.4
KROS				eS	S	08 41 15.0	+0.9
SONM	Songino Array	23.51	286	P	P	08 41 21.7	+2.9
	comp=Z,1.9nm,1.0s,mb3.5,baz=79,slow=8.9,SNR=8.1						
ZAK	Zakamensk	25.17	292	eP	P	08 41 38.3	+3.5
TGY	Tagaytay City	36.68	214	LR	LR	08 56 55.3	
	comp=Z,52nm,21.2s,MS3.3,baz=180,slow=34						
ILAR	Eielson Array	41.66	38	P	P	08 43 58.7	+0.9
	comp=Z,0.6nm,0.5s,mb3.5,baz=292,slow=12,SNR=17						
YKA	Yellowknife Ar	55.65	33	P	P	08 45 46.3	+0.1
	comp=Z,1.3nm,0.5s,mb4.2,baz=306,slow=6.9,SNR=57						

YKA				ScP		08 50 43.0	
	comp=Z,0.1nm,0.4s,baz=282,slow=5.7,SNR=3.9						
YKA	**Yellowknife Ar**	55.65	33	P	P	08 45 46.3	+0.1
YKA				ScP		08 50 43.0	
FINES	**FINESS Array B**	60.25	330	P	P	08 46 18.8	+0.3
	comp=Z,2.3nm,0.7s,mb4.3,baz=117,slow=4.3,SNR=4.5						
WRA	**Warramunga Arr**	66.63	187	P	P	08 46 58.8	-2.4
	comp=Z,0.6nm,0.4s,mb3.9,baz=3.3,slow=7.0,SNR=8.7						
NVAR	**Mina Array Bea**	69.48	56	P	P	08 47 18.7	+0.1
	comp=Z,0.4nm,0.6s,mb3.5,baz=302,slow=5.6,SNR=5.3						
ASAR	**Alice Springs**	70.36	187	P	P	08 47 23.8	-0.5
	comp=Z,1.4nm,0.6s,mb4.1,baz=3.3,slow=5.6,SNR=20						
PDAR	**Pinedale Array**	71.11	47	P	P	08 47 28.3	-0.1
	comp=Z,0.2nm,0.5s,mb3.3,SNR=3.4						
TXAR	**Lajitas Array**	84.36	53	P	P	08 48 43.1	+1.4
	comp=Z,0.4nm,0.8s,mb3.6,baz=306,slow=2.9,SNR=4.5						

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*CSEM **17** 08:38:25.7±0.6, 38.80N×29.06W, h9^{km}±6^{km}, ML2.9, Error ellipse: s-maj=25.6km s-min=4.6km az=41.0, After PDA*

*PDA **17** 08:38:25.7±0.6, 38.80N×29.06W, h9^{km}±6^{km}, MD2.9, ML2.9, Error ellipse: s-maj=25.6km s-min=4.6km az=41.0*

SVSA 17 08:38:25.7±0.6**, 38.80N×29.06W, h9^{km}±6^{km}, MD2.9, ML2.9, Error ellipse: s-maj=25.6km s-min=4.6km az=41.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	**Cedros**	0.32	121	eP	Pg	08 38 31.3	-1.1
PCED				eS	Sg	08 38 35.8	-1.0
	264nm,0.1s						
	264nm,0.1s						
CALA	**Caldeira**	0.35	128	eP	Pg	08 38 32.2	-0.7
HOR	**Horta**	0.43	129	eP	Pg	08 38 33.0	-1.4
HOR				eS	Sg	08 38 38.3	-1.9
PICO	**Pico**	0.57	121	eP	Pg	08 38 35.2	-2.1
PICO				eS	Sg	08 38 42.6	-2.4

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*CSEM **17** 08:38:27.5±0.7, 38.92N×28.85W, h3^{km}±6^{km}, ML3.1, Error ellipse: s-maj=17.7km s-min=4.9km az=74.0, After PDA*

*PDA **17** 08:38:27.5±0.7, 38.92N×28.85W, h3^{km}±6^{km}, MD3.2, ML3.1, Error ellipse: s-maj=17.7km s-min=4.9km az=74.0*

SVSA 17 08:38:27.5±0.7**, 38.92N×28.85W, h3^{km}±6^{km}, MD3.2, ML3.1, Error ellipse: s-maj=17.7km s-min=4.9km az=74.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	**Cedros**	0.31	158	eP	Pg	08 38 33.0	-0.8
PCED				eS	Sg	08 38 37.5	-0.4
	324nm,0.1s						
PCED	**Cedros**	0.31	158	eP	Pg	08 38 33.0	-0.8
PCED				eS	Sg	08 38 37.5	-0.4
	324nm,0.1s						
	324nm,0.1s						
CALA	**Caldeira**	0.36	161	eP	Pg	08 38 33.9	-0.7
CALA	**Caldeira**	0.36	161	eP	Pg	08 38 33.9	-0.7
HOR	**Horta**	0.43	156	eP	Pg	08 38 34.9	-1.1
HOR				eS	Sg	08 38 40.9	-0.9
HOR	**Horta**	0.43	156	eP	Pg	08 38 34.9	-1.1
HOR				eS	Sg	08 38 40.9	-0.9
PICO	**Pico**	0.53	142	eP	Pg	08 38 37.1	-1.0
PICO				eS	Sg	08 38 43.6	-1.7
PICO	**Pico**	0.53	142	eP	Pg	08 38 37.1	-1.0

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*PRU **17** 08:49:39.2, 51.42N×16.23E*

WAR 17 08:49:40.7, 51.40N×16.21E, h1^{km}, ML2.7, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	0.56	175	i PG	Pg	08 49 51.0	-0.9
KSP				eSG	Sg	08 49 58.0	-1.5
UPC	**Upice**	0.91	188	ePG	Pg	08 49 57.1	-1.7
DPC	**Dobruska-Polom**	1.06	176	ePG	Pg	08 49 59.8	-2.0
DPC				eSG	Sg	08 50 13.7	-2.2
PVCC	**Panska Ves**	1.36	230	ePG	Pg	08 50 05.9	-1.9
PRU	**Pruhonice**	1.77	217	PG	Pg	08 50 12.5	-3.5
PRU				i x	x	08 50 15.2	
PRU				i x	x	08 50 28.9	
PRU				SG	Sg	08 50 36.2	-3.4
	13nm,0.3s						
OKC	**Ostrava-Krasne**	2.00	141	eSG	Sg	08 50 42.2	-4.9
CLL	**Collm**	2.01	269	ePG	Pg	08 50 18.0	-2.9
CLL				eSG	Sg	08 50 45.0	-2.7
NKC	**Novy Kostel**	2.66	245	eSG	Sg	08 51 06.2	-3.0
KHC	**Kasperske Hory**	2.83	218	ePG	Pg	08 50 31.9	-5.3
KHC				eSG	Sg	08 51 09.5	-5.5

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*IDC **17** 10:08:27.4±2.2, 24.74S×179.99E, h500^{km}±26^{km}, mb3.6/8, mb1 3.8/9, mb1mx3.7/14, Error ellipse: s-maj=27.4km s-min=14.1km az=159.0*

*NEIC **17** 10:08:29.7±2.8, 24.81S×179.98E, h534^{km}±35^{km}, mb4.6/10, Error ellipse: s-maj=26.0km s-min=13.9km az=186.0*

ISC 17 10:08:28.3±2.1**, 24.7S**±0.1**×179.9E**±0.1**, h521^{km}**±27^{km}**, n25, σ0^{s}79**/27**, mb4.3**/15**, 2D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	13.71	189	P	P	10 11 24.2	-0.9
	1.8nm,0.3s,baz=180,slow=10,SNR=11						
URZ				S	S	10 13 48.0	+0.6
	0.3nm,0.3s,baz=85,slow=23,SNR=3.2						
QRZ	**Quartz Range**	17.21	199	P	P	10 12 00.4	+0.7
THZ	**Tophouse**	17.97	197	P	P	10 12 07.0	-0.1
KHZ	**Kahutara**	18.42	195	P	P	10 12 11.1	-0.4
RPZ	**Rata Peaks**	20.29	199	P	P	10 12 27.8	-1.3
	8.2nm,0.4s,baz=62,slow=2.9,SNR=10.0						
ARMA	**Armidale**	25.64	251	eP	P	10 13 18.7	+1.1
CTA	**Charters Tower**	31.37	272	⇓iP	P	10 14 08.5	+1.0
	15nm,0.4s,mb4.9						
CTAO	**Charters Tower**	31.37	272	eP	P	10 14 08.3	+0.8
	18nm,0.5s,mb4.9						
TOO	**Toolangi**	31.91	238	eP	P	10 14 12.8	+0.8
	3.0nm,0.6s,mb4.0						
STKA	**Stephens Creek**	34.32	249	⇓iP	P	10 14 33.3	+1.1
	4.1nm,0.4s,mb4.3						
STKA	**Stephens Creek**	34.32	249	P	P	10 14 33.4	+1.2
	5.7nm,0.4s,mb4.4,baz=93,slow=9.8,SNR=36						
PMG	**Port Moresby**	34.65	290	eP	P	10 14 35.1	-0.1
	15nm,0.9s,mb4.5						
ASAR	**Alice Springs**	41.79	262	P	P	10 15 33.8	+0.5
	3.2nm,0.5s,mb4.1,baz=88,slow=7.5,SNR=85						
ASAR				S	S	10 21 14.6	+0.9
	0.2nm,0.6s,baz=97,slow=16,SNR=4.7						
ASPA	**Alice Springs**	41.79	262	eP	P	10 15 33.3	0.0
WRAB	**Tennant Creek**	42.23	267	eP	P	10 15 36.2	-0.6
	14nm,0.4s,mb4.8						
WRA	**Warramunga Arr**	42.24	267	P	P	10 15 36.8	-0.1
	8.0nm,0.3s,mb4.7,baz=100,slow=8.1,SNR=248						
WRA				ScP		10 20 24.1	
	2.3nm,0.7s,baz=100,slow=3.8,SNR=18						
WRA				S	S	10 21 18.7	-1.4
	0.6nm,1.0s,baz=99,slow=14,SNR=3.0						
FORT	**Forrest**	45.92	250	eP	P	10 16 04.6	-0.9
	58nm,0.5s,mb5.4						
KAKA	**Kakadu**	46.31	276	eP	P	10 16 07.5	-1.1
	5.8nm,0.5s,mb4.4						
FITZ	**Fitzroy Crossi**	50.65	266	eP	P	10 16 41.3	+0.1
	11nm,0.7s,mb4.3						
KLBR	**Kellerberrin**	54.57	248	eP	P	10 17 08.4	-0.7
	5.5nm,0.5s,mb4.0						
NVAR	**Mina Array Bea**	85.41	44	P	P	10 20 11.8	+0.5
	0.9nm,0.7s,mb3.4,baz=215,slow=6.3,SNR=6.8						
TXAR	**Lajitas Array**	90.96	58	P	P	10 20 38.5	+1.0
	1.2nm,0.7s,mb4.0,baz=213,slow=6.0,SNR=13						
ILAR	**Eielson Array**	92.84	14	P	P	10 20 43.9	-1.4
	0.3nm,0.8s,mb3.4,baz=218,slow=4.5,SNR=4.9						
PDAR	**Pinedale Array**	93.35	44	P	P	10 20 48.5	+0.3
	0.6nm,0.8s,mb3.7,baz=207,slow=3.3,SNR=5.9						
HFS	**Hagfors**	143.31	348	PKP	PKPdf	10 27 01.0	-1.0
	3.9nm,0.4s,baz=63,slow=3.3,SNR=31						

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*NEIC **17** 10:12:08.9, 31.75S×70.19W, h138^{km}, MD3.6(GUC), After GUC.*

GUC 17 10:12:08.9±0.7**, 31.75S×70.19W, h138^{km}**±5^{km}**, MD3.6, ML3.9, 12C-5D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTCH	**Petorca**	0.81	231	⇓iP	P	10 12 31.2	-0.1
PTCH				i S	S	10 12 48.0	-0.5
PTCH				AMP		10 12 49.4	
	comp=N,4μm,0.3s						
ILCH	**Illapel**	0.84	278	⇑iP	P	10 12 32.1	+0.5
ILCH				i S	S	10 12 49.0	0.0
ILCH				AMP		10 12 50.4	
	comp=E,3μm,0.2s						
CMCH	**Combarbala**	0.90	309	⇑iP	P	10 12 32.9	+0.9
CMCH				i S	S	10 12 50.2	+0.5
JACH	**Jahuel**	0.99	200	⇑iP	P	10 12 32.8	+0.2
JACH				i S	S	10 12 50.9	0.0
ROCH	**El Roble**	1.40	210	⇑iP	P	10 12 37.4	+0.5
ROCH				i S	S	10 12 58.8	+0.4
PEL	**Peldehue**	1.45	197	⇑iP	P	10 12 37.4	0.0
PEL				i S	S	10 12 58.9	-0.4
MDZ	**Mendoza**	1.60	135	⇑iP	P	10 12 35.9	-3.1
MDZ				i		10 12 55.7	
MDZ				S	S	10 12 59.7	-2.4
CLCH	**Cerro Calan**	1.67	190	AMP		10 13 10.3	
	comp=E,1μm,0.6s						
TLL	**Tololo Astrono**	1.67	341	⇑iP	P	10 12 40.5	+0.7
TLL				i S	S	10 13 03.7	+0.3
TLL				AMP		10 13 04.9	
	comp=E,994nm,0.7s						
DSCH	**Colegio Aleman**	1.67	191	i P	P	10 12 40.1	+0.2
DSCH				i S	S	10 13 03.6	0.0
DSCH				AMP		10 13 09.7	
	comp=E,2μm,0.3s						
FSR	**Penalolen**	1.75	189	i P	P	10 12 41.2	+0.5
FSR				i S	S	10 13 05.2	+0.1
FSR				AMP		10 13 05.9	
	comp=N,1μm,0.5s						
RCDM	**Rinconada Maip**	1.81	197	eP	P	10 12 41.7	+0.3
RCDM				i S	S	10 13 06.4	+0.1
RCDM				AMP		10 13 08.3	
	comp=E,2μm,0.1s						
PCH	**Pirque**	1.88	188	⇓iP	P	10 12 42.7	+0.4
PCH				i S	S	10 13 07.9	+0.1
SJCH	**San Jose de Ma**	1.89	184	⇑iP	P	10 12 42.6	+0.3
SJCH				i S	S	10 13 08.2	+0.3
SJCH				AMP		10 13 10.1	
	comp=N,558nm,0.3s						
TACH	**Talagante**	2.00	198	⇑iP	P	10 12 43.6	0.0
LSCH	**La Serena**	2.05	333	⇑iP	P	10 12 44.5	+0.2
LSCH				i S	S	10 13 10.8	-0.6
LSCH				AMP		10 13 14.5	
	comp=E,496nm,0.2s						
LMEL	**Las Melosas**	2.09	180	⇑iP	P	10 12 45.2	+0.4
LMEL				i S	S	10 13 12.8	+0.5
LMEL				AMP		10 13 21.3	
	comp=N,796nm,0.2s						
CHCH	**Chadas Angostu**	2.21	190	⇓iP	P	10 12 46.4	+0.1
CHCH				i S	S	10 13 14.8	-0.2
CACH	**El Canelo**	2.38	188	⇓iP	P	10 12 49.1	+0.5
CACH				i S	S	10 13 20.3	+1.4
LNV	**Longovilo**	2.43	205	⇓iP	P	10 12 48.7	-0.5
SFDO	**San Fernando**	2.94	193	⇑iP	P	10 12 55.3	-0.5
SFDO				i S	S	10 13 30.8	-0.7

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*BJI **17** 10:32:25.7, 21.28S×179.25W, h544^{km}, mB5.0, mb4.9*

*NEIC **17** 10:32:26.6±0.9, 21.76S×179.25W, h565^{km}±11^{km}, mb4.7/34, Error ellipse: s-maj=8.4km s-min=6.6km az=124.0*

*IDC **17** 10:32:29.6±0.6, 21.66S×179.43W, h588^{km}±6^{km}, mb4.2/21, mb1 4.2/24, mb1mx4.2/26, Error ellipse: s-maj=13.0km s-min=7.3km az=154.0*

ISC 17 10:32:28.1±0.9**, 21.96S**±0.05**×179.32W**±0.05**, h596^{km}**±11^{km}**, h584^{km}**±7.1^{km}**:pP-P, n238, σ1^{s}14**/139**, mb4.6**/54**, 3C-22D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	10.74	43	ePn	P	10 34 49.7	-4.7
	37nm,0.6s						
DZM	**Mont Dzumac**	13.21	267	eP	P	10 35 20.2	+1.3
NOUC	**Port Laguerre**	13.34	267	eP	P	10 35 21.4	+1.3
KUZ	**Kuaotunu**	15.36	195	P	P	10 35 43.0	+3.3
MTAZ	**Motutapu**	15.61	197	P	P	10 35 46.2	+4.1
MTAZ	**Motutapu**	15.61	197	P	P	10 35 46.1	+4.0
OTAZ	**Otara**	15.76	197	eP	P	10 35 46.2	+2.7
WTAZ	**Waiatarua**	15.84	198	P	P	10 35 48.3	+4.0
MKAZ	**Moumakai**	15.84	196	P	P	10 35 48.0	+3.7
PUZ	**Puketiti**	16.20	187	eP	P	10 35 48.6	+0.9
PUZ	**Puketiti**	16.20	187	P	P	10 35 47.8	+0.1
PUZ				eS	S	10 38 28.5	+0.1
URZ	**Urewera**	16.54	190	P	P	10 35 49.3	-1.6
	18nm,0.3s,baz=284,slow=3.5,SNR=99						
URZ				S	S	10 38 31.8	-2.4
	8.3nm,0.3s,baz=52,slow=23,SNR=12						
URZ				ScS	ScS	10 46 20.9	-2.5
	0.5nm,0.3s,baz=154,slow=17,SNR=4.3						
MWZ	**Matawai**	16.55	189	eP	P	10 35 50.7	-0.3
MWZ	**Matawai**	16.55	189	P	P	10 35 50.4	-0.6
RAR	**Rarotonga**	18.19	91	P	P	10 36 05.1	-1.5
	1.5nm,0.3s,baz=247,slow=8.1,SNR=4.7						
TSZ	**Takapari Road**	18.49	191	P	P	10 36 09.1	-0.2
MRZ	**Mangatainoka R**	19.14	192	eP	P	10 36 13.8	-1.6
MRZ	**Mangatainoka R**	19.14	192	P	P	10 36 13.8	-1.6
KIW	**Kapiti Island**	19.47	193	P	P	10 36 17.7	-0.7
KIW	**Kapiti Island**	19.47	193	eP	P	10 36 18.0	-0.4
MTW	**Mount Morrison**	19.64	192	P	P	10 36 19.3	-0.6
MTW	**Mount Morrison**	19.64	192	eP	P	10 36 19.0	-0.9
CAW	**Cannon Point**	19.68	193	P	P	10 36 19.7	-0.6
CAW	**Cannon Point**	19.68	193	P	P	10 36 19.5	-0.8
MRW	**Makara Radio**	19.87	193	P	P	10 36 21.6	-0.4
MRW	**Makara Radio**	19.87	193	P	P	10 36 21.5	-0.5
QRZ	**Quartz Range**	20.04	198	eP	P	10 36 24.9	+1.3
QRZ	**Quartz Range**	20.04	198	P	P	10 36 24.9	+1.3
NNZ	**Nelson**	20.17	196	P	P	10 36 24.7	-0.1
NNZ	**Nelson**	20.17	196	P	P	10 36 24.6	-0.2
NNZ				eS	S	10 39 30.6	-4.4
BSWZ	**Blackbirch Sta**	20.52	195	P	P	10 36 28.4	+0.5
THZ	**Tophouse**	20.81	197	eP	P	10 36 30.4	-0.2
THZ	**Tophouse**	20.81	197	P	P	10 36 30.4	-0.2
THZ				eS	S	10 39 41.4	-3.9
DSZ	**Denniston Nort**	21.10	199	P	P	10 36 33.7	+0.4
DSZ	**Denniston Nort**	21.10	199	P	P	10 36 33.5	+0.2
KHZ	**Kahutara**	21.26	195	eP	P	10 36 34.1	-0.7
KHZ	**Kahutara**	21.26	195	P	P	10 36 34.1	-0.7
KHZ				eS	S	10 39 49.1	-3.6
LTZ	**Lake Taylor**	21.93	197	eP	P	10 36 39.8	-1.0
LTZ	**Lake Taylor**	21.93	197	P	P	10 36 39.6	-1.2
WVZ	**Waitaha Valley**	22.64	199	eP	P	10 36 46.9	-0.2
WVZ	**Waitaha Valley**	22.64	199	P	P	10 36 46.6	-0.5
RPZ	**Rata Peaks**	23.13	198	P	P	10 36 50.4	-1.0
	20nm,0.5s,mb5.0,baz=313,slow=2.0,SNR=20						
RPZ				S	S	10 40 20.0	-2.6
	62nm,1.4s,baz=140,slow=18,SNR=3.1						
RPZ				ScP		10 43 01.1	
	5.4nm,0.7s,baz=302,slow=21,SNR=4.0						
FOZ	**Fox Glacier**	23.41	200	eP	P	10 36 52.3	-1.7
LBZ	**Lake Benmore**	23.99	199	eP	P	10 36 57.8	-1.4
LBZ	**Lake Benmore**	23.99	199	P	P	10 36 57.8	-1.4
JCZ	**Jackson Bay**	24.17	201	eP	P	10 37 00.4	-0.3
JCZ	**Jackson Bay**	24.17	201	eP	P	10 37 00.7	0.0
JCZ				eS	S	10 40 35.9	-3.1
JCZ				ScP		10 43 05.3	
WKZ	**Wanaka**	24.75	200	eP	P	10 37 05.2	-0.7
WKZ	**Wanaka**	24.75	200	P	P	10 37 05.1	-0.8
ARMA	**Armidale**	27.34	246	⇓iP	P	10 37 30.6	+1.9
CNB	**Canberra Magne**	30.40	237	⇓iP	P	10 37 56.8	+2.0
	122nm,0.7s,mb5.6						
CTA	**Charters Tower**	32.15	267	⇓iP	P	10 38 10.4	+0.6
	61nm,0.4s,mb5.6						
CTA				i		10 43 31.8	
CTA	**Charters Tower**	32.15	267	P	P	10 38 10.4	+0.7
	80nm,0.5s,mb5.6,baz=94,slow=10,SNR=172						
CTA				PcP	PcP	10 40 41.0	+0.2
	9.0nm,0.9s,baz=132,slow=6.8,SNR=3.4						
CTA				ScP		10 43 31.9	
	11nm,1.0s,baz=230,slow=4.7,SNR=3.7						
CTAO	**Charters Tower**	32.15	267	eP	P	10 38 10.3	+0.6
	77nm,0.5s,mb5.6						
TOO	**Toolangi**	34.05	235	⇓iP	P	10 38 27.2	+1.7
	23nm,0.6s,mb5.0						
PMG	**Port Moresby**	34.51	286	P	P	10 38 29.5	0.0
	89nm,0.7s,mb5.5,baz=90,slow=4.6,SNR=30						
STKA	**Stephens Creek**	36.06	246	⇓iP	P	10 38 43.7	+1.6
	34nm,0.4s,mb5.2						
STKA				e		10 43 44.9	
STKA	**Stephens Creek**	36.06	246	P	P	10 38 43.8	+1.7
	47nm,0.5s,mb5.3,baz=91,slow=9.7,SNR=260						
STKA				S	S	10 43 41.9	+0.2
	7.3nm,1.0s,baz=186,slow=22,SNR=3.0						
ASAR	**Alice Springs**	43.01	258	P	P	10 39 38.3	+0.3
	87nm,0.6s,mb5.5,baz=100,slow=7.9,SNR=1395						
ASAR				PcP	PcP	10 41 14.9	+0.2
	10.0nm,0.7s,baz=112,slow=3.4,SNR=6.8						
ASAR				ScP		10 44 12.9	
	3.3nm,0.6s,baz=105,slow=4.4,SNR=8.2						
ASAR				S	S	10 45 20.1	-2.0
	3.8nm,0.8s,baz=96,slow=16,SNR=6.4						
ASAR				ScS	ScS	10 48 34.6	+4.1
	2.2nm,0.9s,baz=96,slow=7.2,SNR=11						
ASPA	**Alice Springs**	43.01	258	⇓iP	P	10 39 38.3	+0.3
ASPA				i		10 41 15.0	
ASPA				eS	S	10 45 20.4	-1.6
ASPA				eSCS	ScS	10 48 34.8	+4.3
WRAB	**Tennant Creek**	43.19	264	⇓iP	P	10 39 38.7	-0.9
	147nm,0.8s,mb5.6						
WRA	**Warramunga Arr**	43.20	264	P	P	10 39 39.0	-0.6
	65nm,0.7s,mb5.3,baz=98,slow=5.9,SNR=528						
WRA				PcP	PcP	10 41 16.0	+0.4
	5.0nm,0.8s,baz=105,slow=3.5,SNR=4.6						
WRA				ScP		10 44 13.8	
	5.6nm,0.9s,baz=96,slow=4.4,SNR=10						
WRA				S	S	10 45 21.9	-2.9
	1.7nm,0.8s,baz=104,slow=16,SNR=7.1						
KAKA	**Kakadu**	46.80	273	⇓iP	P	10 40 06.5	-0.8
	79nm,0.4s,mb5.6						
FORT	**Forrest**	47.60	248	⇓iP	P	10 40 13.0	-0.1
	342nm,0.6s						
FITZ	**Fitzroy Crossi**	51.63	264	⇓iP	P	10 40 42.8	-0.1
	40nm,1.1s,mb4.7						
FITZ				eS	S	10 47 20.9	+0.5
FITZ	**Fitzroy Crossi**	51.63	264	P	P	10 40 42.8	-0.1
	40nm,0.4s,mb5.1,baz=144,slow=2.5,SNR=173						
FITZ				S	S	10 47 20.9	+0.5
	3.5nm,0.9s,baz=259,slow=19,SNR=3.0						
KLBR	**Kellerberrin**	56.34	246	⇓iP	P	10 41 15.6	-0.1
	43nm,0.7s,mb4.8						
SBA	**Scott Base**	56.35	184	eP	P	10 41 17.9	+2.7
	25nm,1.2s,mb4.3						
MBWA	**Marble Bar**	56.35	259	⇓iP	P	10 41 15.3	-0.5
	80nm,0.6s,mb5.1						
VNDA	**Vanda**	56.36	185	P	P	10 41 17.6	+2.4
	3.6nm,0.5s,mb3.9,baz=357,slow=7.3,SNR=64						
VNDA	**Vanda**	56.36	185	eP	P	10 41 17.1	+1.8
	4.0nm,0.5s,mb3.9						
NWAO	**Narrogin (SRO)**	56.63	244	P	P	10 41 17.7	+0.1
	23nm,0.9s,mb4.4,baz=124,slow=8.0,SNR=12						
NWAO	**Narrogin (SRO)**	56.63	244	eP	P	10 41 17.3	-0.3
	8.5nm,0.3s,mb4.5						
MUN	**Mundaring**	57.60	245	⇓iP	P	10 41 24.5	+0.3
	16nm,0.5s,mb4.4						
CBIJ	**Chichi jima**	61.36	321	P	P	10 41 47.5	-1.6
	118nm,1.0s,mb5.1,baz=277,slow=16,SNR=2.7						
CASY	**Casey**	62.13	205	P	P	10 41 54.5	+0.8
	4.8nm,0.4s,mb4.1						
JHJ	**Hachijo jima 2**	67.25	323	P	P	10 42 24.9	-1.2
QSPA	**South Pole Qui**	68.12	180	⇑iP	P	10 42 33.0	+2.4
	28nm,0.8s,mb4.7						
JOW	**Kunigami**	70.17	311	P	P	10 42 43.8	+0.1
	42nm,0.8s,mb4.9,baz=186,slow=6.8,SNR=6.4						
MAJO	**Matsushiro**	70.67	325	⇓iP	P	10 42 45.3	-1.1
	25nm,0.9s,mb4.7						
MAT	**Matsushiro**	70.67	325	P	P	10 42 45.2	-1.2
MAT	**Matsushiro**	70.67	325	eP	P	10 42 45.0	-1.4
	16nm,0.7s,mb4.7						
FX1	**Attu Island--F**	74.81	355	P	P	10 43 08.1	-1.5
	25nm,0.6s,mb4.9,baz=343,slow=1.1,SNR=7.0						
MDJ	**Mudanjiang**	81.01	326	P	P	10 43 43.3	+0.6
MDJ				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.4						
MDJ				AMB	AMB		
	comp=Z,112nm,4.3s						
MDJ	**Mudanjiang**	81.01	326	eP	P	10 43 42.1	-0.7
	comp=Z,8.3nm,0.6s,mb4.3						
MTUM	**Tungsten Hills**	82.13	45	eP	P	10 43 48.9	+0.3
YBH	**Yreka Blue Hor**	82.19	39	P	P	10 43 49.6	+0.8
	comp=Z,4.2nm,0.7s,mb4.1,baz=128,slow=1.1,SNR=15						
WHN	**Wuhan**	82.33	307	eP	P	10 43 50.5	+0.8
CN2	**Changchun**	82.71	323	⇓P	P	10 43 51.1	-0.2
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.5						
NVAR	**Mina Array Bea**	82.92	44	P	P	10 43 53.2	+0.7
	comp=Z,3.8nm,0.9s,mb3.9,baz=211,slow=6.8,SNR=18						
NVAR				pP	pP	10 45 56.3	-3.4
	comp=Z,0.4nm,0.7s,baz=225,slow=3.8,SNR=2.7						
NVAR	**Mina Array Bea**	82.92	44	P	P	10 43 53.2	+0.7
NVAR				pP	pP	10 45 56.3	-3.4
TPNV	**Topopah Spring**	83.43	46	eP	P	10 43 55.6	+0.5
	comp=Z,3.4nm,1.0s,mb3.8						
USHA	**Ushuaia**	83.58	147	P	P	10 43 58.3	+2.9
	comp=Z,4.1nm,0.8s,mb4.0,baz=242,slow=9.7,SNR=5.4						
MA2	**Magadan**	84.86	345	eP	P	10 43 60.0	-1.6
	comp=Z,19nm,1.0s,mb4.7						
RSO	**Redoubt South**	84.92	13	eP	P	10 44 00.9	-0.9
ENH	**Enshi**	85.85	305	⇓iP	P	10 44 07.5	+0.5
	comp=Z,35nm,1.0s,mb4.9						
BJT	**Baijiatuau**	86.06	316	eP	P	10 44 08.3	+0.5
	comp=Z,13nm,0.6s,mb4.8						
BJI	**Beijing**	86.07	316	eP	P	10 44 08.5	+0.7
BJI				AMB	AMB		
	comp=Z,19nm,0.7s,mb4.8						
ELK	**Elko**	86.18	43	eP	P	10 44 08.7	+0.3
	comp=Z,2.0nm,0.9s,mb3.8						
SNAA	**Sanae**	86.59	179	⇓i	P	10 44 10.4	+0.8
SNAA	**Sanae**	86.59	179	eP	P	10 44 10.0	+0.5
	comp=Z,1.8nm,0.5s,mb4.1						
VNA3	**Neumayer Olymp**	86.77	177	⇑i	P	10 44 13.4	+3.0
VNA2	**Neumayer--Watz**	87.20	177	⇑i	P	10 44 15.8	+3.4
XAN	**Xi’an**	88.04	308	P	P	10 44 18.3	+1.0
XAN				AMB	AMB		
	comp=Z,22nm,1.0s,mb4.8						
HLID	**Hailey**	88.23	41	eP	P	10 44 18.7	+0.8
	comp=Z,3.7nm,1.0s,mb4.1						
MCK	**McKinley**	88.66	13	eP	P	10 44 18.2	-1.2
	comp=Z,6.5nm,0.9s,mb4.5						
TXAR	**Lajitas Array**	88.87	58	P	P	10 44 22.8	+1.5
	comp=Z,0.6nm,0.7s,baz=194,slow=5.2,SNR=5.1						
TXAR				pP	pP	10 46 29.9	-0.5
	comp=Z,0.4nm,0.8s,baz=214,slow=6.5,SNR=3.2						
TXAR				PKKPbc		11 01 58.9	
	comp=Z,0.2nm,0.6s,baz=56,slow=6.2,SNR=4.8						
HWUT	**Hardware Ranch**	88.99	44	eP	P	10 44 21.4	-0.2
	comp=Z,2.7nm,0.8s,mb4.1						
HIA	**Hailar**	89.17	325	eP	P	10 44 21.6	-0.6
	comp=Z,3.8nm,0.5s,mb4.5						
ANMO	**Albuquerque**	89.27	52	P	P	10 44 24.0	+1.0
	comp=Z,0.9nm,0.7s,mb3.7,baz=235,slow=5.4,SNR=4.0						
CMAR	**Chiang Mai Arr**	89.45	290	P	P	10 44 26.1	+1.9
	comp=Z,19nm,0.8s,mb5.0,baz=132,slow=3.2,SNR=93						
CMAR				PP	PP	10 48 05.9	-2.0
	comp=Z,0.8nm,0.4s,baz=130,slow=7.0,SNR=3.4						
HHC	**Hu-ho-hao-te**	89.49	315	eP	P	10 44 24.6	+0.7
HHC				AMB	AMB		
	comp=Z,23nm,0.7s,mb5.1						
HHC				AMB	AMB		
	comp=Z,121nm,4.4s						
DLBC	**Dease Lake**	89.87	23	P	P	10 44 25.2	0.0
	comp=Z,3.2nm,0.8s,mb4.2,baz=119,slow=12,SNR=3.5						
DLBC	**Dease Lake**	89.87	23	P	P	10 44 25.2	0.0
COLA	**College**	89.89	13	eP	P	10 44 23.5	-1.6
	comp=Z,5.2nm,0.6s,mb4.5						
ILAR	**Eielson Array**	90.00	13	P	P	10 44 24.6	-1.0
	comp=Z,0.8nm,0.6s,mb3.7,baz=163,slow=26,SNR=18						
ILAR				pP	pP	10 46 33.7	-1.3
	comp=Z,0.5nm,0.9s,baz=231,slow=5.8,SNR=2.6						
TPAW	**Teton Pass**	90.33	43	eP	P	10 44 27.9	+0.3
BILL	**Bilibino**	90.36	355	eP	P	10 44 26.2	-0.9
	comp=Z,5.8nm,0.6s,mb4.6						
SNOW	**Snow King Moun**	90.44	43	eP	P	10 44 28.6	+0.4
LOHW	**Long Hollow**	90.61	43	eP	P	10 44 29.4	+0.5
BW06	**Boulder Array**	90.86	44	eP	P	10 44 29.9	-0.2
	comp=Z,2.2nm,1.0s,mb4.0						
PDAR	**Pinedale Array**	90.86	44	P	P	10 44 30.1	0.0
	comp=Z,1.4nm,0.8s,mb4.0,baz=209,slow=3.1,SNR=13						
LZH	**Lanzhou**	92.68	308	⇓P	P	10 44 39.6	+1.1
LZH				AMB	AMB		
	comp=Z,25nm,1.3s,mb5.1						
YAK	**Yakutsk**	93.00	338	eP	P	10 44 38.3	-1.1
	comp=Z,22nm,0.8s,mb5.2						
SONM	**Songino Array**	96.05	319	P	P	10 44 52.8	-0.6
	comp=Z,0.5nm,0.5s,mb4.0,baz=140,slow=3.4,SNR=6.1						

YKA	Yellowknife Ar	98.34	25	P	P	10 45 02.3	-1.1
	comp=Z,1.3nm,1.1s,mb4.2,baz=245,slow=4.4,SNR=9.3						
YKA				PKiKP		10 49 32.2	
	comp=Z,0.1nm,0.4s,baz=252,slow=1.5,SNR=4.8						
YKA				PKKPbc		11 01 31.4	
	comp=Z,0.1nm,0.4s,baz=40,slow=2.5,SNR=7.1						
AAK	Ala-Archa	116.22	308	*e*PKPdf	PKPdf	10 50 04.5	+0.1
BVAR	Borovoye Array	119.39	319	PKP	PKPdf	10 50 10.7	+0.4
	comp=Z,6.2nm,0.3s,baz=121,slow=2.0,SNR=70						
BRVK	Borovoye	119.45	319	*e*PKPdf	PKPdf	10 50 10.6	+0.1
SCHQ	Schefferville	120.57	38	PKP	PKPdf	10 50 12.4	-0.2
	comp=Z,1.7nm,0.8s,baz=234,slow=19,SNR=3.8						
HOPEN	Hopen	124.05	353	*e*P	PKPdf	10 50 24.2	+5.3
HOPEN				*e*S	Px	10 50 29.8	
KEV	Kevo	129.65	348	*e*p	PKPdf	10 50 30.2	+0.6
	comp=Z,0.6nm,0.4s						
ARCES	ARCESS Array B	130.12	349	PKP	PKPdf	10 50 30.8	+0.2
	comp=Z,6.6nm,0.5s,baz=70,slow=1.3,SNR=22						
ARCES	ARCESS Array B	130.12	349	PKP	PKPdf	10 50 30.8	+0.2
KAF	Kangasniemi	136.19	343	*e*p	PKPdf	10 50 38.3	-3.7
	comp=Z,1.6nm,0.3s						
FINES	FINESS Array B	136.80	342	PKhKP		10 50 33.1	
	comp=Z,12nm,1.2s,baz=90,slow=1.9,SNR=5.6						
FINES				PKP	PKPdf	10 50 43.0	-0.1
	comp=Z,2.9nm,0.5s,baz=78,slow=2.6,SNR=11						
FINES				SKPbc		10 53 22.8	
	comp=Z,3.8nm,0.8s,baz=45,slow=5.4,SNR=5.1						
FINES	FINESS Array B	136.80	342	PKP	PKPdf	10 50 33.1	-10
FINES				PKP	PKPdf	10 50 43.0	-0.2
FINES				SKPbc		10 53 22.8	
KMBO	Kilima Mbogo	137.58	242	PKP	PKPdf	10 50 49.5	+3.7
	comp=Z,1.3nm,0.5s,baz=236,slow=21,SNR=5.2						
KMBO				SKPbc		10 53 28.4	
	comp=Z,4.5nm,1.1s,baz=59,slow=6.9,SNR=6.4						
NB2	NORSAR Subarra	140.26	352	PKP	PKPdf	10 50 43.8	-5.6
	comp=Z,1.1nm,0.6s,baz=10.0,slow=3.1						
NOA	NORSAR Array B	140.26	352	PKhKP		10 50 43.6	
	comp=Z,2.9nm,0.6s,baz=15,slow=4.5,SNR=8.2						
NOA				PKP	PKPdf	10 50 52.7	+3.3
	comp=Z,1.6nm,0.6s,baz=14,slow=4.0,SNR=4.7						
NOA				SKPbc		10 53 32.4	
	comp=Z,1.2nm,0.8s,baz=12,slow=4.2,SNR=3.8						
NOA	NORSAR Array B	140.26	352	PKP	PKPdf	10 50 43.6	-5.7
NOA				PKP	PKPdf	10 50 52.7	+3.3
NOA				SKPbc		10 53 32.4	
HFS	Hagfors	140.76	350	PKhKP		10 50 45.1	
	comp=Z,6.5nm,0.4s,baz=63,slow=3.3,SNR=48						
HFS				PKP	PKPdf	10 50 53.2	+3.0
	comp=Z,3.9nm,0.9s,baz=45,slow=4.2,SNR=5.2						
HFS				SKPbc		10 53 33.5	
	comp=Z,3.8nm,0.7s,slow=7.2,SNR=5.1						
HFS	Hagfors	140.76	350	PKP	PKPdf	10 50 45.1	-5.1
HFS				PKP	PKPdf	10 50 53.2	+3.0
HFS				SKPbc		10 53 33.5	
HFS				SKPbc		10 53 40.1	
ARSS	Ar Rass	141.03	284	P	PKPdf	10 50 49.0	-2.7
ERZM	Erzurum	141.17	307	*i* P	PKPdf	10 50 49.4	-2.1
HILS	Ha’il	142.38	287	P	PKPdf	10 50 53.7	-0.3
ELZG	Elazig	143.33	305	*i* P	PKPbc	10 50 57.0	+2.8
AKASG	Malin Array Be	143.66	329	PKP	PKPdf	10 50 54.8	-0.7
	comp=Z,12nm,0.4s,baz=40,slow=4.5,SNR=128						
AKASG				SKPbc		10 53 40.1	
	comp=Z,0.3nm,0.3s,baz=40,slow=2.1,SNR=6.6						
SUW	Suwalki	143.74	338	*e*PKPdf	PKPdf	10 50 55.4	-0.1
MALT	Malatya	143.80	305	⇓*i*PKPdf	PKPdf	10 50 57.7	+1.5
SVST	Sivas	144.46	308	*i* P	PKPdf	10 51 00.3	+3.1
KBRS	Khaybar	144.60	284	P	PKPdf	10 51 01.0	+3.1
GZT	Gaziantep	144.72	304	*i* P	PKPdf	10 51 00.5	+2.7
KAHT	Ahir Dag	145.17	305	*i* P	PKPdf	10 51 01.9	+3.4
BOYT	Boyabat	145.32	312	*i* P	PKPdf	10 51 02.5	+3.9
YNBS	Yanbu‘ al Bahr	145.68	281	P	PKPdf	10 51 04.1	+4.4
CTKT	Corum	145.71	311	*i* P	PKPdf	10 51 03.3	+4.0
COBT	Iskenderun	145.95	303	*i* P	PKPdf	10 51 04.1	+4.2
BALT	Daday	146.31	313	*i* P	PKPdf	10 51 04.9	+4.5
ASF	Jabal al Asfar	146.32	295	PKPbc	PKPbc	10 51 05.2	+2.6
	comp=Z,13nm,0.8s,baz=350,slow=2.8,SNR=18						
AVNT	Avonos	146.32	308	*i* P	PKPdf	10 51 04.5	+4.0
UMJS	Umm Lajj	146.34	283	P	PKPdf	10 51 05.9	+5.0
EKA	Eskdalemuir Ar	146.55	4	PKPbc	PKPbc	10 51 03.9	+1.6
	comp=Z,10.0nm,0.8s,baz=337,slow=3.0,SNR=14						
ELDT	Eldivan	146.71	311	*i* P	PKPdf	10 51 05.6	+4.5
BRTR	Keskin Array B	146.87	310	PKPbc	PKPbc	10 51 05.5	+2.0
	comp=Z,10nm,0.6s,baz=135,slow=4.4,SNR=52						
TBKS	Tabuk	147.01	288	P	PKPdf	10 51 07.6	+5.6
KSHT	Keshet	147.09	297	P	PKPdf	10 51 07.6	+5.7
GLH	Golan-Tel Qazi	147.28	297	P	PKPdf	10 51 08.0	+5.8
HMDT	Nahal Hemdat	147.46	296	P	PKPdf	10 51 08.4	+5.9
MKRJ	Makawir	147.47	295	P	PKPdf	10 51 10.5	+7.9
MMLI	Mount Malkishu	147.51	296	P	PKPdf	10 51 08.7	+6.1
DBAS	Duba	147.55	286	P	PKPdf	10 51 08.7	+5.8
JMQS	Jabal Moqyreh	147.56	290	P	PKPdf	10 51 08.9	+6.1
MEST	Erdemli	147.56	304	*i* P	PKPdf	10 51 08.0	+5.4
SGKT	Sivrigoynuk	147.63	312	*i* P	PKPdf	10 51 07.4	+4.9
DRGI	Dragot	147.68	295	P	PKPdf	10 51 08.6	+5.7
MZDA	Masada	147.74	294	P	PKPdf	10 51 08.9	+5.9
ZFRI	Zfri	148.00	293	P	PKPdf	10 51 09.7	+6.3
OJC	Ojcow	148.03	337	*e*PKP	PKPdf	10 51 08.5	+5.7
KOLS	Kolonicke sedl	148.07	333	*i* PKP	PKPdf	10 51 09.2	+6.3
PRNI	Paran	148.17	292	P	PKPdf	10 51 10.1	+6.4
AQBJ	Aqaba	148.20	291	P	PKPdf	10 51 10.2	+6.4
JMOS	Jabal al Moall	148.21	290	P	PKPdf	10 51 10.2	+6.4
ALWS	Ilw as Safayha	148.23	290	P	PKPdf	10 51 10.4	+6.6
BDAS	Al Bad‘	148.27	289	P	PKPdf	10 51 10.4	+6.6
EIL	Elat	148.29	291	PKPbc	PKPdf	10 51 10.2	+6.3
	comp=Z,13nm,0.7s,baz=27,slow=3.1,SNR=11						
EIL				PKPab	PKPab	10 51 16.3	+0.1
	comp=Z,16nm,0.8s,baz=21,slow=5.4,SNR=7.3						
EIL	Elat	148.29	291	P	PKPdf	10 51 10.4	+6.5
EIL	Elat	148.29	291	*e*PKPdf	PKPdf	10 51 05.5	+1.6
EIL				*e*PKPbc	PKPdf	10 51 09.8	+5.9
EIL				PKPbc	PKPdf	10 51 10.2	+6.3
EIL				*e*PKPab	PKPab	10 51 15.7	-0.5
EIL				PKPab	PKPab	10 51 16.3	+0.1
HENT	Hendek	148.31	313	*i* P	PKPdf	10 51 05.7	+2.2
MBH	Mount Berech	148.31	291	P	PKPdf	10 51 10.5	+6.6
HAQS	Haql	148.37	290	P	PKPdf	10 51 10.6	+6.6
CRVS	Cervenica-Dubn	148.44	333	*e*PKP	PKPdf	10 51 10.1	+6.6
KMTI	Karmit	148.44	292	P	PKPdf	10 51 10.5	+6.4
KZIT	Kziot	148.62	294	P	PKPdf	10 51 11.1	+6.8
CSS	Prodhromos	148.66	302	*e*PKPbc	PKPdf	10 51 09.9	+5.7
KSP	Ksiaz	148.69	341	*e*PKP	PKPdf	10 51 10.3	+6.5
KSP				*e*		10 51 16.3	
MLR	Muntele Rosu	148.74	325	PKPbc	PKPdf	10 51 10.1	+6.0
	comp=Z,11nm,0.7s,baz=339,slow=6.1,SNR=14						
ESKT	Eskisehir	148.92	311	*i* P	PKPdf	10 51 10.7	+6.2
OKC	Ostrava-Krasne	148.94	338	*e*PKPbc	PKPdf	10 51 11.0	+6.8
OKC				*e*PKPab	PKPab	10 51 17.8	-0.4
UPC	Upice	149.07	341	*e*PKPbc	PKPdf	10 51 11.4	+7.0
DPC	Dobruska-Polom	149.11	340	*e*PKPbc	PKPdf	10 51 11.5	+7.0
KECS	Kecovo	149.16	334	*e*PKP	PKPdf	10 51 12.0	+7.4
CLL	Collm	149.17	345	*i* PKP	PKPdf	10 51 11.1	+6.6
CLL				*i* PKP	PKPab	10 51 17.6	-1.5
CLL				*e*pPKP		10 53 28.0	
CLL	Collm	149.17	345	⇓*i*PKP1	PKPdf	10 51 11.1	+6.6
CLL				*i* PKP2	PKPab	10 51 17.6	-1.5
CLL				*e*		10 51 36.0	
CLL				*e**PPKP		10 53 28.0	
MORC	Moravsky Berou	149.21	338	*e*PKPbc	PKPdf	10 51 11.3	+6.7
BRG	Berggiesshubel	149.33	343	*i* PKP	PKPdf	10 51 11.8	+7.0
BRG				*i*		10 51 18.4	
PVCC	Panska Ves	149.47	342	*e*PKPbc	PKPdf	10 51 12.3	+7.2
VYHS	Vyhne	149.81	336	*i* PKP	PKPdf	10 51 13.1	+7.4
ULDT	Uludag	149.81	313	*i* P	PKPdf	10 51 12.9	+6.9
ISP	Isparta	149.85	308	⇓*i*PKPbc	PKPdf	10 51 12.0	+5.9
PSZ	Piszkesteto	149.85	334	⇓*e*P	PKPdf	10 51 12.8	+7.0
VRAC	Vranov	149.93	339	PKPbc	PKPdf	10 51 13.5	+7.6
	comp=Z,8.5nm,0.7s,baz=21,slow=3.4,SNR=7.2						
VRAC				PKPab	PKPab	10 51 21.5	-0.8
	comp=Z,9.9nm,0.6s,baz=95,slow=1.7,SNR=8.2						
PRU	Pruhonice	149.96	342	*e*PKPbc	PKPdf	10 51 13.2	+7.3
PRU				*e*PKPab	PKPab	10 51 21.9	-0.5
MOX	Moxa	150.11	346	*e*PKP	PKPdf	10 51 13.6	+7.5
NKC	Novy Kostel	150.30	345	*e*PKPbc	PKPdf	10 51 14.1	+7.7
NKC				*e*PKPab	PKPab	10 51 22.7	-1.1
SMOL	Smolenice	150.31	337	*e*PKP	PKPab	10 51 22.5	-1.4
KHC	Kasperske Hory	151.01	342	*e*PKPbc	PKPdf	10 51 15.7	+8.2
KHC				*e*PKPab	PKPab	10 51 25.8	-1.0
GRF	Grafenberg Arr	151.09	346	*e*PKP	PKPdf	10 51 15.8	+8.2
GERES	GERESS Array B	151.23	342	PKPbc	PKPdf	10 51 16.0	+8.2
	comp=Z,5.4nm,0.5s,baz=31,slow=2.0,SNR=41						
GERES				PKPab	PKPab	10 51 26.7	-1.1
	comp=Z,3.6nm,0.8s,baz=18,slow=4.2,SNR=6.6						
GERES				pPKPbc		10 53 32.6	
	comp=Z,0.3nm,0.3s,baz=45,slow=1.4,SNR=2.1						
GIVF	Givet	151.72	354	*e*PKP1	PKPdf	10 51 17.0	+8.6
	comp=Z,23nm,0.6s						
BAIF	Baives	151.82	355	*e*PKP1	PKPdf	10 51 17.3	+8.7
	comp=Z,9.7nm,0.5s						
WLF	Walferdange	152.01	352	*e*PKPbc	PKPdf	10 51 17.3	+8.5
CDF	Champ du Feu	153.08	350	*e*PKP1	PKPdf	10 51 20.6	+10
GCIS	Gornji Cirnik	153.21	336	*i* PKPbc	PKPdf	10 51 20.3	+10
GCIS				*i* PKPab	PKPab	10 51 34.9	-1.3
FLN	La Foliniere	153.24	2	*e*PKP1	PKPdf	10 51 19.9	+9.3
	comp=Z,22nm,0.5s						
MEZF	Maizieres J’vi	153.28	354	*e*PKP1	PKPdf	10 51 20.6	+10
CRES	Cresnjev	153.31	337	*i* PKPbc	PKPdf	10 51 20.3	+10
LDF	La Druitiere	153.41	1	*e*PKP1	PKPdf	10 51 20.2	+9.4
	comp=Z,6.1nm,0.4s						
VISS	Visnje	153.55	337	*i* PKPbc	PKPdf	10 51 21.1	+10
GRR	Gorron	153.60	2	*e*PKP1	PKPdf	10 51 20.7	+10
HAU	Haudompre	153.61	351	*e*PKP1	PKPdf	10 51 21.6	+11
SGMF	Saint Gilles	153.63	5	*e*PKP1	PKPdf	10 51 21.1	+10
BOJS	Bojanci	153.66	337	*i* PKPbc	PKPdf	10 51 21.4	+10
DAVOX	Davos	154.13	345	PKPbc	PKPdf	10 51 22.4	+11
	comp=Z,5.7nm,0.6s,baz=252,slow=4.0,SNR=7.4						
DAVOX				PKPab	PKPab	10 51 39.1	-0.9
	comp=Z,5.9nm,0.6s,baz=20,slow=4.2,SNR=6.3						
IDI	Anoyia	155.02	307	PKPab	PKPab	10 51 47.3	+3.1
	comp=Z,5.6nm,0.8s,baz=240,slow=5.4,SNR=3.8						
ESDC	Sonseca Array	161.90	12	PKPab	PKPab	10 52 11.6	-2.1
	comp=Z,0.3nm,0.3s,baz=328,slow=4.2,SNR=5.4						
DBIC	Dimbokro	163.89	160	PKP	PKPdf	10 51 25.6	+1.6
	comp=Z,1.6nm,0.5s,baz=108,slow=9.2,SNR=4.9						
DBIC				PKPab	PKPab	10 52 24.2	+1.1
	comp=Z,5.2nm,0.8s,baz=182,slow=4.7,SNR=11						
DBIC	Dimbokro	163.89	160	PKP	PKPdf	10 51 25.6	+1.6
DBIC				PKPab	PKPab	10 52 24.2	+1.1

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*IDC **17** 10:59:43.5±2.2,64.59N×32.05E,mb1 3.4/4, mb1mx3.2/20,ML3.1/4,Error ellipse: s-maj=27.8km s-min=9.8km az=103.0*

*HEL **17** 10:59:45.7±0.3,64.72N×30.93E,ML2.1,ML2.5(NAO), Explosion*

*NAO **17** 10:59:46.1±2.3,64.73N×30.47E,ML2.5*

*BER **17** 10:59:47.0±3.5,64.68N×30.78E,ML2.5(NAO), Suspected explosion*

ISC 17 10:59:43.7±0.7**,64.76N**±0.03×**30.8E**±0.1**,n20,**σ**1^{s}21**/38**,**

Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	Maaselka	1.39	328	*e*P	Pb	11 00 11.3	+1.2
MSF				*e*S	Sb	11 00 29.4	+1.1
KJN	Kajaani	1.52	245	*e*P	Pn	11 00 12.0	-0.2
KJN				*e*S	Sb	11 00 32.5	+0.4
JOF	Joensuu	1.86	173	*e*P	Pn	11 00 17.0	0.0
JOF				*e*S	Sn	11 00 41.1	-0.4
OUL	Oulu	2.13	281	*e*P	Pn	11 00 23.4	+2.4
OUL				*e*S	Sn	11 00 50.2	+1.6
SUF	Sumiainen	2.92	228	*e*P	Pn	11 00 34.5	+2.3
SUF				*e*S	Sn	11 01 08.1	-0.5
SUF				MSG		11 01 14.9	
	comp=Z,7.2nm,0.3s						
KAF	Kangasniemi	3.34	220	*e*P	Pn	11 00 40.4	+2.1
KAF				*e*S	Sn	11 01 19.2	-0.1
KAF				MSG		11 01 29.6	
	comp=Z,3.5nm,0.3s						
KEF	Keuruu	3.73	229	*e*P	Pn	11 00 44.2	+0.5
KEF				*e*S	Sn	11 01 28.7	-0.4
FIA0	FINESS Array S	3.97	215	Pn	Pn	11 00 46.9	-0.2
	baz=35,slow=14						
FIA0				Pg	Pg	11 00 56.1	-6.7
	baz=32,slow=16						
FIA0				Lg		11 01 48.2	
	baz=32,slow=28						
FIA0	FINESS Array S	3.97	215	*e*P	Pn	11 00 48.3	+1.2
FIA0				*e*S	Sn	11 01 34.0	-1.0
FINES	FINESS Array B	3.97	215	Pn	Pn	11 00 46.6	-0.5
	comp=Z,0.3nm,0.3s,baz=37,slow=13,SNR=12						
FINES				Pg	Pg	11 00 56.3	-6.6
	comp=Z,1.1nm,0.3s,baz=35,slow=16,SNR=16						
FINES				Sn	Sn	11 01 35.3	+0.3
	comp=Z,0.6nm,0.3s,baz=36,slow=20,SNR=3.5						
FINES				Lg		11 01 43.4	
	comp=Z,1.0nm,0.3s,baz=39,slow=29,SNR=4.9						
VAF	Ylistaro	4.00	248	*e*P	Pn	11 00 48.3	+0.7
VAF				*e*S	Sn	11 01 34.5	-1.4
ARA0	ARCESS Array S	5.23	339	Pn	Pn	11 01 04.8	-0.2
	baz=153,slow=14						
ARA0				Sn	Sn	11 02 05.8	-1.2
	baz=156,slow=28						
ARA0				Lg		11 02 28.8	
	baz=144,slow=37						
ARA0	ARCESS Array S	5.23	339	*e*P	Pn	11 01 04.8	-0.2
ARA0				*e*S	Sn	11 02 05.8	-1.2
ARA0				*e*SG		11 02 28.8	
ARCES	ARCESS Array B	5.23	339	Pn	Pn	11 01 05.4	+0.4
	comp=Z,0.7nm,0.3s,baz=154,slow=14,SNR=44						
ARCES				Sn	Sn	11 02 06.0	-1.0
	comp=Z,0.8nm,0.3s,baz=153,slow=24,SNR=5.8						
ARCES				Lg		11 02 27.4	
	comp=Z,0.9nm,0.3s,baz=143,slow=36,SNR=5.0						
HFS	Hagfors	9.18	248	Pn	P	11 01 59.6	-0.8
	comp=Z,0.1nm,0.3s,baz=59,slow=12,SNR=12						
HFS				Lg		11 04 25.9	
	comp=Z,0.1nm,0.3s,baz=60,slow=28,SNR=2.8						
HFS	Hagfors	9.18	248	Pn	P	11 01 54.4	-6.0
HFS				Sn	Sn	11 03 38.1	-7.6
	baz=55,slow=22						
HFS				Lg		11 04 27.2	
	baz=51,slow=28						
HFS	Hagfors	9.18	248	*e*P	P	11 01 54.4	-6.0
HFS				*e*S	Sn	11 03 38.1	-7.6
HFS				*e*SG		11 04 27.2	
NOA	NORSAR Array B	9.68	256	Pn	P	11 02 04.9	-2.2
	comp=Z,0.3nm,0.3s,baz=130,slow=11,SNR=2.7						
NOA				Sn	Sn	11 03 55.4	-2.4
	comp=Z,0.1nm,0.3s,baz=254,slow=9.6,SNR=2.6						
SPA0	Spitsbergen Ar	14.17	348	P	P	11 03 05.5	-1.7
	baz=159,slow=18						
SPA0	Spitsbergen Ar	14.17	348	*e*P	P	11 03 05.5	-1.7

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*WAR **17** 11:05:45.2,50.07N×18.46E,h1^{km},Location given by Central Institute of Mining, origin time based upon OJC*

*PRU **17** 11:05:45.7,50.12N×18.44E*

ISC 17 11:05:44.1±0.9**,50.11N**±0.08×**18.42E**±0.06**,n4,**σ**0^{s}37**/6**,**

Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.90	82	*e*Pg	Pg	11 06 01.7	-0.2
OJC				*e*Sg	Sg	11 06 14.1	+0.2
DPC	Dobruska-Polom	1.37	281	*e*PG	Pg	11 06 10.9	-0.5
DPC				*e*SG	Sg	11 06 29.8	+0.2
UPC	Upice	1.59	285	*e*SG	Sg	11 06 37.3	+0.2
VYHS	Vyhne	1.64	170	*e*SN	Sn	11 06 36.5	+0.1

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*IDC **17** 11:08:46.0±0.5,10.77N×125.75E,h48^{km}±5^{km},mb4.1/20, mb1 4.2/20,mb1mx4.2/25,MS3.3/6,Ms1 3.4/6, ms1mx3.1/24,Error ellipse: s-maj=21.0km s-min=9.2km az=73.0*

*NEIC **17** 11:08:45.9±0.3,10.84N×125.80E,mb4.6/13,Error ellipse: s-maj=15.6km s-min=5.7km az=75.0*

ISC 17 11:08:46.4±0.6**,10.88N**±0.03×**125.89E**±0.06**,h66**^{km}±6^{km}**,**

h45^{km}±1.5^{km}**:pP-P,n69,**σ**1^{s}09**/73**,mb4.4**/30**,4C-8D,Leyte**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	0.84	328	*e*P	P	11 09 02.5	-0.3
BESP				*e*S	S	11 09 14.3	-0.8
PLP	Palo	0.94	287	*i* P	P	11 09 03.1	-1.0
PLP				*i* S	S	11 09 14.5	-2.8
SCPH	Surigao	1.17	200	⇓*e*P	P	11 09 07.2	+0.1
SCPH				*e*S	S	11 09 23.7	+1.1
MSLP	Maasin	1.26	234	*e*P	P	11 09 07.2	-1.2
MSLP				*e*S	S	11 09 24.1	-0.7
OCLP	Ormoc	1.27	278	*e*P	P	11 09 07.8	-0.8
BUTP	Butuan	1.92	188	*e*P	P	11 09 19.6	+2.1
LLP	Lapu-Lapu	1.98	254	⇓*i*P	P	11 09 18.5	+0.3
LLP				*i* S	S	11 09 50.4	+8.6
CNP	Catarman	2.02	323	*e*P	P	11 09 18.7	-0.1
TBP	Tagbilaran	2.32	239	⇓*e*P	P	11 09 24.1	+1.0
TBP				*e*S	S	11 09 44.1	-6.5
MMPH	Masbate	2.66	304	*e*P	P	11 09 30.0	+2.0
CGP	Cagayan de Oro	2.69	206	⇓*e*P	P	11 09 28.0	-0.3
BIPH	Bislig	2.72	170	⇓*e*P	P	11 09 28.4	-0.4
BIPH				*e*S	S	11 09 58.5	-2.2
SNPH	Sibulan	3.03	240	⇓*i*P	P	11 09 33.5	+0.3
BUKP	Musuan	3.10	195	*e*P	P	11 09 35.0	+0.9
BUKP				*e*S	S	11 10 12.5	+2.5
RCP	Roxas	3.16	283	⇓*e*P	P	11 09 35.5	+0.6
PVCP	Virac	3.19	328	*e*P	P	11 09 34.1	-1.3
PVCP				*e*S	S	11 09 44.0	-28
GUIM	Jordan	3.25	266	*e*P	P	11 09 35.0	-1.3
KALP	Kalibo	3.57	283	*e*P	P	11 09 28.1	-13
DAV	Davao City (W)	3.80	185	*e*P	P	11 09 53.0	+9.0
PAGZ	Pagadian	3.90	220	*e*P	P	11 09 46.0	+0.6
KCP	Kidapawan	3.93	192	⇑*e*P	P	11 09 54.2	+8.4
OTRP	Odiongan	4.07	292	*e*P	P	11 09 47.8	+0.1
IPIL	Ipil	4.49	227	*e*P	P	11 09 54.8	+1.2
BOAC	Boac	4.71	303	*e*P	P	11 09 59.4	+2.7
CUYO	Cuyo Island	4.79	270	*e*P	P	11 09 57.9	+0.1
SJMP	San Jose	4.93	289	*e*P	P	11 10 00.5	+0.8
POLP	Polilio Island	5.43	315	*e*P	P	11 10 10.0	+3.5
LUBP	Lubang	6.20	298	*e*P	P	11 10 19.0	+1.7
CAUP	Cauayan	7.20	327	*e*P	P	11 10 29.9	-1.4
JOW	Kunigami	16.02	8	LR	LR	11 17 25.8	
	comp=Z,138nm,20.9s,baz=250,slow=32						
CBIJ	Chichi jima	22.26	41	LR	LR	11 20 06.2	
	comp=Z,163nm,21.4s,baz=339,slow=30						
KAKA	Kakadu	24.30	164	*e*P	P	11 13 58.9	-0.2
	30nm,0.6s,mb4.8						
JHJ	Hachijo jima 2	25.55	28	LR	LR	11 21 33.3	
	comp=Z,133nm,21.4s,baz=122,slow=30						
CMAR	Chiang Mai Arr	27.11	289	P	P	11 14 24.9	-0.5
	3.4nm,1.1s,mb3.8,baz=102,slow=7.3,SNR=8.9						
CMAR				pP	pP	11 14 37.6	-3.5
	0.6nm,0.4s,baz=103,slow=5.8,SNR=2.2						
CMAR				LR	LR	11 27 02.5	
	comp=Z,41nm,18.6s,baz=125,slow=41						
FITZ	Fitzroy Crossi	28.80	180	⇑*i*P	P	11 14 39.6	-1.0
	13nm,1.1s,mb4.5						
FITZ	Fitzroy Crossi	28.80	180	P	P	11 14 39.6	-1.0
	4.6nm,0.4s,mb4.4,baz=10,slow=7.4,SNR=32						
WRAB	Tennant Creek	31.73	165	*e*P	P	11 15 04.2	-2.4
	3.6nm,0.6s,mb4.3						
WRA	Warramunga Arr	31.74	165	P	P	11 15 04.7	-1.9
	1.6nm,0.5s,mb4.0,baz=349,slow=9.0,SNR=30						
WRA				pP	pP	11 15 17.8	-4.9
	1.5nm,0.5s,baz=346,slow=9.6,SNR=6.2						
WRA				S	S	11 20 04.3	-6.2
	0.5nm,0.8s,baz=345,slow=16,SNR=3.3						
ASPA	Alice Springs	35.22	167	*e*P	P	11 15 35.6	-0.9
ASAR	Alice Springs	35.22	167	P	P	11 15 35.5	-1.0
	2.3nm,0.4s,mb4.3,baz=345,slow=6.8,SNR=78						
ASAR				S	S	11 21 01.8	-2.6
	0.4nm,0.6s,slow=20,SNR=3.0						
ASAR				ScP		11 21 44.7	
	0.7nm,0.8s,baz=346,slow=4.4,SNR=4.2						
ASAJ	Asahikawa	36.12	21	P	P	11 15 46.2	+2.2
	33nm,1.3s,mb5.1,baz=122,slow=31,SNR=3.0						
ASAJ				LR	LR	11 31 35.0	
	comp=Z,50nm,18.1s,baz=354,slow=38						
CTA	Charters Tower	36.73	147	P	P	11 15 49.8	+0.5
	5.4nm,0.7s,mb4.6,baz=328,slow=12,SNR=5.7						
ULN	Ulaanbaatar	40.12	340	*e*P	P	11 16 17.4	+0.1
	3.2nm,0.7s,mb4.3						
ULN				*e*	pP	11 16 30.6	-3.2
SONM	Songino Array	40.32	340	P	P	11 16 19.8	+0.9
	0.7nm,0.6s,mb3.7,baz=158,slow=9.7,SNR=5.4						
SONM				pP	pP	11 16 31.9	-3.5
	1.5nm,0.6s,baz=159,slow=8.2,SNR=9.7						
FORT	Forrest	41.48	177	⇓*i*P	P	11 16 28.8	+0.2
	39nm,0.4s,mb5.6						
NWAO	Narrogin (SRO)	44.34	190	P	P	11 16 51.3	-0.7
	3.6nm,0.7s,mb4.2,baz=52,slow=18,SNR=4.0						
STKA	Stephens Creek	45.10	161	⇑*i*P	P	11 16 57.9	-0.2
	4.0nm,0.6s,mb4.3						
STKA	Stephens Creek	45.10	161	P	P	11 16 58.1	+0.1
	5.7nm,0.6s,mb4.5,baz=339,slow=7.1,SNR=21						
CNB	Canberra Magne	51.03	155	*e*P	P	11 17 45.0	+0.9
	40nm,1.6s,mb5.2						
YAK	Yakutsk	51.13	2	*e*P	P	11 17 44.4	-0.1
	21nm,0.6s,mb5.3						
TOO	Toolangi	51.59	160	⇑*i*P	P	11 17 48.8	+0.5
	2.8nm,0.5s,mb4.5						
ZAL	Zalesovo	53.91	331	P	P	11 18 06.5	+1.2
	1.1nm,0.4s,mb4.2,baz=0.8,slow=4.2,SNR=4.7						
ZAL				pP	pP	11 18 17.7	-4.8
	1.2nm,0.4s,baz=350,slow=7.0,SNR=2.6						
FX1	Attu Island--F	56.42	32	LR	LR	11 42 51.1	
	comp=Z,12nm,18.8s,baz=43,slow=36						
BVAR	Borovoye Array	60.95	325	P	P	11 18 54.1	-0.8
	0.9nm,0.6s,mb4.0,baz=127,slow=7.4,SNR=7.7						
BVAR				pP	pP	11 19 07.5	-4.9
	3.0nm,1.0s,baz=112,slow=7.8,SNR=6.5						
BRVK	Borovoye	61.02	325	*e*P	P	11 18 54.4	-1.0
	5.7nm,0.9s,mb4.6						
BRVK				*e*	pP	11 19 08.0	-4.8
BILL	Bilibino	62.92	16	P	P	11 19 07.9	0.0
	1.6nm,0.5s,mb4.2						
RPZ	Rata Peaks	68.10	146	P	P	11 19 41.5	+0.1
	15nm,1.1s,mb4.8,baz=224,slow=13,SNR=4.9						
MCK	McKinley	78.18	27	*e*P	P	11 20 40.5	+0.5
	4.7nm,0.6s,mb4.4						
ILAR	Eielson Array	79.05	26	P	P	11 20 45.5	+0.7
	2.2nm,0.9s,mb4.0,baz=245,slow=4.9,SNR=13						
ILAR				pP	pP	11 20 58.0	-4.9
	0.6nm,0.6s,baz=246,slow=6.3,SNR=3.1						
ARCES	ARCESS Array B	83.49	340	P	P	11 21 07.9	0.0
	4.6nm,0.9s,mb4.3,baz=77,slow=7.2,SNR=12						
INK	Inuvik	83.86	22	P	P	11 21 10.7	+1.0
	2.9nm,1.0s,mb4.0,baz=292,slow=4.8,SNR=4.4						
INK				pP	pP	11 21 23.3	-4.8
	3.0nm,0.8s,baz=270,slow=2.0,SNR=5.7						
INK	Inuvik	83.86	22	*e*P	P	11 21 10.6	+0.9
	3.4nm,0.8s,mb4.2						
INK				pP	pP	11 21 23.3	-4.8
BRTR	Keskin Array B	84.86	309	P	P	11 21 14.9	-0.5
	0.8nm,0.7s,mb3.8,baz=53,slow=6.2,SNR=4.0						
FINES	FINESS Array B	85.18	332	P	P	11 21 15.7	-0.8
	0.7nm,0.5s,mb3.9,baz=63,slow=4.3,SNR=5.3						
AKASG	Malin Array Be	85.86	321	P	P	11 21 18.9	-1.2
	0.5nm,0.4s,mb3.8,baz=57,slow=5.1,SNR=5.0						
VNDA	Vanda	90.58	173	P	P	11 21 42.5	+0.4
	1.0nm,0.9s,mb4.0,baz=309,slow=1.9,SNR=3.4						
YKA	Yellowknife Ar	93.35	24	P	P	11 21 56.4	+1.3
	2.0nm,1.0s,mb4.4,baz=301,slow=4.7,SNR=22						
YKA				PKKP	PKKP	11 39 00.5	+11
	0.1nm,0.6s,baz=124,slow=2.8,SNR=3.9						
TXAR	Lajitas Array	117.70	49	PKP	PKPdf	11 27 28.1	+2.5
	0.3nm,0.6s,baz=88,slow=0.5,SNR=7.2						
TXAR				pPKP		11 27 43.4	
	0.3nm,0.7s,baz=90,slow=1.3,SNR=2.7						
LPAZ	La Paz	165.35	113	PKPab	PKPab	11 29 47.2	+3.0
	1.5nm,0.9s,baz=276,slow=9.2,SNR=4.9						

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*NEIC **17** 11:20:56.0±0.6,7.79N×122.35E,h40^{km},Error ellipse: s-maj=41.6km s-min=11.8km az=73.0*

*IDC **17** 11:21:01.0±9.3,7.74N×122.31E,h89^{km}±87^{km},mb3.5/9, mb1 3.7/9,mb1mx3.6/20,MS3.7/3,Ms1 3.8/3,ms1mx3.4/13, Error ellipse: s-maj=53.1km s-min=17.6km az=68.0*

ISC 17 11:20:51.6±1.5**,7.70N**±0.05×**121.89E**±0.05**,h20**^{km}±12^{km}**,**

n27,σ**1^{s}29**/31**,mb3.7**/9**,MS3.6**/3**,3D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPIL	Ipil	0.68	83	*e*P	Pb	11 21 03.3	-1.3
IPIL				*e*S	Sb	11 21 09.6	-3.9
PAGZ	Pagadian	1.48	84	*e*P	Pn	11 21 17.0	-0.5
PAGZ				*e*S	Sn	11 21 35.6	-0.9
TBP	Tagbilaran	2.78	44	*e*P	Pn	11 21 37.2	+1.2
TBP				*i* S	Sn	11 22 11.0	+1.8
CGP	Cagayan de Oro	2.88	75	⇓*e*P	Pn	11 21 37.0	-0.4
CGP				*e*S	Sn	11 22 16.0	+4.2
GUIM	Jordan	2.99	13	*e*P	Pn	11 21 39.2	+0.2
GUIM				*e*S	Sn	11 22 13.0	-1.6
BUKP	Musuan	3.15	87	*e*P	Pn	11 21 41.9	+0.7
CUYO	Cuyo Island	3.25	345	*e*P	Pn	11 21 43.3	+0.7
CUYO				*e*S	Sn	11 22 20.0	-1.1
KCP	Kidapawan	3.25	102	⇓*e*P	Pn	11 21 44.4	+1.7
DAV	Davao City (W)	3.71	99	*e*P	Pn	11 21 52.5	+3.3
PPR	Puerto Princes	3.74	304	⇓*i*P	Sn	11 22 33.9	+0.1
MSLP	Maasin	3.80	50	*e*P	Pn	11 21 49.1	-1.4
ENPP	El Nido	4.25	325	*e*P	Pn	11 21 55.8	-1.1
ENPP				*e*S	Sn	11 22 43.0	-3.5
OTRP	Odiongan	4.63	2	*e*P	Pn	11 22 03.4	+1.0

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJMP	**San Jose**	4.79	351	*e*P	Pn	11 22 06.9	+2.3
CMAR	**Chiang Mai Arr**	24.74	298	LR	LR	11 36 07.6	
	comp=Z,140nm,18.0s,MS3.5,baz=293,slow=36						
FITZ	**Fitzroy Crossi**	25.90	172	P	P	11 26 25.8	+1.5
	2.5nm,0.7s,mb3.9,baz=16,slow=15,SNR=4.8						
WRA	**Warramunga Arr**	30.08	156	P	P	11 26 60.0	-2.2
	0.7nm,0.6s,mb3.6,baz=338,slow=9.6,SNR=9.5						
JHJ	**Hachijo jima 2**	30.24	31	LR	LR	11 39 20.1	
	comp=Z,142nm,18.3s,MS3.6,baz=65,slow=37						
ASAR	**Alice Springs**	33.31	160	P	P	11 27 29.1	-1.3
	0.7nm,0.6s,mb3.8,baz=339,slow=7.5,SNR=18						
ASAR				PcP	PcP	11 30 09.7	-2.8
	0.2nm,0.5s,baz=353,slow=3.6,SNR=6.4						
ASAJ	**Asahikawa**	40.53	23	LR	LR	11 44 56.3	
	comp=Z,102nm,19.2s,MS3.7,baz=3.2,slow=36						
SONM	**Songino Array**	42.11	344	P	P	11 28 45.1	+1.0
	0.5nm,0.6s,mb3.3,baz=162,slow=9.0,SNR=6.2						
STKA	**Stephens Creek**	43.62	155	P	P	11 28 56.5	-0.2
	1.6nm,0.9s,mb3.8,baz=3.8,slow=7.5,SNR=5.0						
BVAR	**Borovoye Array**	61.40	327	P	P	11 31 08.6	0.0
	0.3nm,0.4s,mb3.8,baz=131,slow=13,SNR=3.9						
ILAR	**Eielson Array**	83.61	26	P	P	11 33 18.1	-1.6
	0.6nm,0.7s,mb3.8,baz=254,slow=6.2,SNR=5.9						
BRTR	**Keskin Array B**	83.80	309	P	P	11 33 22.7	+1.5
	0.5nm,0.6s,mb3.9,baz=135,slow=4.1,SNR=2.5						
YKA	**Yellowknife Ar**	97.82	23	P	P	11 34 26.4	-0.2
	0.2nm,0.7s,mb3.7,baz=303,slow=4.2,SNR=5.6						
YKA	**Yellowknife Ar**	97.82	23	P	P	11 34 26.4	-0.2

IDC 17 11:32:38.1±8.2**, 17.66S×178.59W, h657**^{km}±88^{km}**, mb2.8**/5**, mb1 3.1**/5**, mb1mx2.8**/15**, Error ellipse: s-maj=178.0km s-min=24.9km az=152.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	44.51	259	P	P	11 39 54.2	-2.0
	0.7nm,0.4s,baz=95,slow=6.7,SNR=23						
WRA				PcP	PcP	11 41 22.4	-2.3
	0.2nm,0.8s,baz=88,slow=3.3,SNR=5.3						
ASAR	**Alice Springs**	44.69	254	P	P	11 39 56.0	-1.5
	2.2nm,0.7s,baz=91,slow=8.0,SNR=38						
ASAR				PcP	PcP	11 41 23.1	-2.1
	0.4nm,0.5s,baz=104,slow=4.0,SNR=8.2						
FITZ	**Fitzroy Crossi**	52.90	260	P	P	11 40 56.0	-1.8
	1.8nm,0.8s,baz=90,slow=4.0,SNR=3.3						
NVAR	**Mina Array Bea**	79.36	44	P	P	11 43 38.5	-0.9
	0.1nm,0.5s,baz=198,slow=2.9,SNR=2.8						
TXAR	**Lajitas Array**	86.01	58	P	P	11 44 11.7	-1.0
	0.3nm,0.7s,baz=231,slow=5.8,SNR=3.7						

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*NAO **17** 12:00:30.6±3.7, 69.25N×30.55E, ML2.0*

*BER **17** 12:00:34.2±1.1, 69.28N×30.34E, ML1.7, ML2.0(NAO), Suspected explosion*

HEL 17 12:00:30.9±0.2**, 69.37N×30.65E, ML1.7, ML1.7**(BER)**, ML2.0**(NAO)**, Explosion, Norway-Murmansk border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEV	**Kevo**	1.34	289	*e*P	Pb	12 00 54.8	-1.7
KEV				*e*S	Sb	12 01 12.2	-1.9
ARA0	**ARCESS Array S**	1.82	278	Pn	Pn	12 01 02.8	-1.0
	baz=98,slow=18						
ARA0				Lg		12 01 27.2	
	baz=97,slow=28						
ARA0				Rg		12 01 38.5	
	baz=96,slow=37						
ARA0	**ARCESS Array S**	1.82	278	*e*P	Pn	12 01 02.8	-1.0
ARA0				*e*SN	Sn	12 01 27.2	-0.7
ARA0				*e*RG		12 01 38.5	
SGF	**Sodankyl**	2.46	220	*e*P	Pn	12 01 12.2	-0.7
SGF				*e*S	Sn	12 01 42.3	-1.8
KTK1	**Kautokeino**	2.67	266	*e*P	Pn	12 01 15.8	-0.1
KTK1				AML	AML	12 01 54.6	
	comp=Z,7.7nm,0.3s						
MSF	**Maaselka**	3.53	191	*e*P	Pn	12 01 27.1	-0.9
MSF				*e*S	Sn	12 02 06.4	-4.7
MSF				*e*SG	Sg	12 02 18.0	-10
MSF				MSG		12 02 18.6	
	comp=Z,1.6nm,0.2s						
KJN	**Kajaani**	5.43	194	*e*S	Sn	12 02 53.5	-5.7

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*BER **17** 12:27:51.6±0.8, 59.28N×11.18E, ML2.0(NAO), Suspected explosion*

NAO 17 12:27:51.1±8.2**, 59.29N×11.21E, h11**^{km}±50^{km}**, ML2.0, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NC6	**NORSAR Subarra**	1.47	5	Pn	Pn	12 28 16.9	-0.7
NC6				Lg		12 28 37.7	
HFS	**Hagfors**	1.52	55	Pn	Pn	12 28 18.1	-0.2
	baz=237,slow=18						
HFS				Lg		12 28 39.0	
	baz=238,slow=37						
NB2	**NORSAR Subarra**	1.76	0	Pn	Pn	12 28 22.1	+0.3
NB2				Lg		12 28 45.6	

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*CSEM **17** 12:30:19.5, 13.66N×48.04E, h29^{km}, ML3.3, After DHMR*

DHMR 17 12:30:19.3±1.0**, 13.47N×48.24E, h66**^{km}**, ML3.5, 2C-2D, Eastern Gulf of Aden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MUKL	**Al Mukalla**	1.11	43	*i* P	P	12 30 41.2	+2.0
MUKL				*i* S	S	12 30 59.2	+5.2
MUKL				AML	AML	12 31 04.1	
	comp=N,476nm,0.3s						
MUKL	**Al Mukalla**	1.11	43	⇓*i*P	P	12 30 41.2	+1.9
MUKL				*i* S	S	12 30 58.8	+4.8
BDHA	**Al Bayda’**	2.64	281	⇓*i*P	P	12 31 01.1	+0.4
BDHA				AML	AML	12 31 02.1	
	comp=E,549nm,0.3s						
BDHA				*i* S	S	12 31 33.3	+1.7
BDHA	**Al Bayda’**	2.64	281	⇑*e*P	P	12 31 00.9	+0.3
BDHA				*i* S	S	12 31 31.0	-0.6
LBOS		2.93	278	⇑*i*P	P	12 31 04.6	-0.1
LBOS				*i* S	S	12 31 39.2	+0.4

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*NAO **17** 12:30:41.5±3.7, 80.01N×22.12E, ML2.1*

BER 17 12:30:44.0±4.8**, 80.01N×22.18E, h15**^{km}±46^{km}**, MD3.1, ML2.4, ML2.1**(NAO)**, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SPA0	**Spitsbergen Ar**	2.15	214	Pn	Pn	12 31 16.9	-3.0
	baz=48,slow=18						
SPA0				Pg	Pg	12 31 21.0	-6.0
	baz=32,slow=14						
SPA0				Lg		12 31 50.1	
	baz=16,slow=111						
HSP	**Hornsund**	3.30	207	*e*P	Pn	12 31 41.5	+5.3
HSP				*e*S	Sn	12 32 22.4	+6.9
HOPEN	**Hopen**	3.57	169	*e*P	Pn	12 31 38.0	-2.1
HOPEN				*e*S	Sn	12 32 18.1	-4.3
HOPEN				AML	AML	12 32 45.7	
	comp=Z,20nm,0.2s						
ARA0	**ARCESS Array S**	10.57	174	Pn	P	12 33 12.9	-4.9
ARA0				Sn	S	12 35 03.5	-13
	baz=9.6,slow=22						

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*NAO **17** 12:55:51.2±6.1, 67.41N×33.24E, ML2.0*

HEL 17 12:55:51.4±0.5**, 67.63N×33.77E, ML2.0, ML1.6**(BER)**, ML2.0**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSF	**Maaselka**	2.55	229	*e*PB	Pb	12 56 36.2	-1.6
MSF				*e*SG	Sg	12 57 09.0	-7.2
SGF	**Sodankyl**	2.79	269	*e*P	Pn	12 56 36.2	-1.9
SGF				*e*S	Sn	12 57 11.0	-1.9
KEV	**Kevo**	3.26	314	*e*P	Pn	12 56 43.9	-0.9
KEV				*e*S	Sn	12 57 22.6	-2.3
KEV				*e*SG	Sg	12 57 31.6	-8.4
ARA0	**ARCESS Array S**	3.58	306	Pn	Pn	12 56 47.6	-1.8
	baz=122,slow=16						
ARA0				Sn	Sn	12 57 29.6	-3.3
	baz=128,slow=28						
ARA0				Lg		12 57 43.0	
	baz=116,slow=37						
ARA0	**ARCESS Array S**	3.58	306	*e*P	Pn	12 56 47.6	-1.8
ARA0				*e*S	Sn	12 57 29.6	-3.3
ARA0				*e*SG	Sg	12 57 43.0	-7.6
OUL	**Oulu**	4.07	235	*e*P	Pn	12 56 55.5	-0.8
OUL				*e*S	Sn	12 57 40.8	-4.6
OUL				*e*SG	Sg	12 57 58.1	-8.9
OUL				MSG		12 58 03.2	
	comp=Z,2.8nm,0.3s						
KTK1	**Kautokeino**	4.14	294	*e*P	Pn	12 56 56.3	-1.1
KTK1				AML	AML	12 58 11.5	
	comp=Z,3.2nm,0.6s						
KJN	**Kajaani**	4.34	218	*e*P	Pn	12 56 58.7	-1.4
KJN				*e*S	Sn	12 57 47.6	-4.6
KJN				*e*SG	Sg	12 58 05.3	-11
KJN				MSG		12 58 10.3	
	comp=Z,1.7nm,0.3s						

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*NAO **17** 13:06:59.1±3.6, 67.39N×33.05E, ML2.1*

HEL 17 13:06:58.1±0.5**, 67.67N×33.77E, ML2.1, ML2.1**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSF	**Maaselka**	2.57	229	*e*PG	Pg	13 07 43.8	-5.7
MSF				*e*SG	Sg	13 08 17.0	-6.7
SGF	**Sodankyl**	2.79	269	*e*PG	Pg	13 07 47.8	-6.0
SGF				*e*S	Sn	13 08 16.4	-3.3
KEV	**Kevo**	3.24	313	*e*P	Pn	13 07 50.4	-0.8
KEV				*e*S	Sn	13 08 28.5	-2.6
KEV				*e*SG	Sg	13 08 37.5	-8.4
KEV				MSG		13 08 41.4	
	comp=Z,6.0nm,0.4s						
ARA0	**ARCESS Array S**	3.56	306	Pn	Pn	13 07 54.9	-1.0
	baz=124,slow=16						
ARA0				Sn	Sn	13 08 36.5	-2.7
	baz=124,slow=22						
ARA0				Lg		13 08 49.7	
	baz=125,slow=37						
ARA0	**ARCESS Array S**	3.56	306	*e*P	Pn	13 07 54.9	-1.0
ARA0				*e*S	Sn	13 08 36.5	-2.7
ARA0				*e*SG		13 08 49.7	
OUL	**Oulu**	4.09	234	*e*SB	Sb	13 09 00.2	-1.1
OUL				MSG		13 09 03.9	
	comp=Z,2.2nm,0.4s						
KJN	**Kajaani**	4.37	217	*e*S	Sn	13 08 56.1	-3.6
KJN				*e*SG	Sg	13 09 12.6	-11
FIA0	**FINESS Array S**	7.07	212	Lg		13 10 29.3	
	baz=24,slow=28						
FIA0	**FINESS Array S**	7.07	212	Lg		13 10 29.3	
	baz=24,slow=28						
FIA0	**FINESS Array S**	7.07	212	*e*SB		13 10 29.3	

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*JMA **17** 13:08:56.9±0.1, 33.64N×140.35E, h87^{km}±2^{km}, M4.4*

JMA Felt II J1.

*IDC **17** 13:08:57.3±0.6, 33.54N×140.20E, h90^{km}±6^{km}, mb3.8/16, mb1 4.0/17, mb1mx4.0/24, Error ellipse: s-maj=18.3km s-min=12.7km az=84.0*

*NEIC **17** 13:08:58.0±0.9, 33.54N×140.20E, h96^{km}±8^{km}, mb4.2/12, Error ellipse: s-maj=8.4km s-min=6.9km az=101.0*

NEIC Recorded [2 JMA] on Hachijo-jima.

*NIED **17** 13:09:00, 33.60N×140.40E, h80^{km}, Mw4.2 Best double couple: M$_0$2.36×10^{15} NP1:ϕ$_s$200°, δ66°, λ105°. NP2: ϕ$_s$347°, δ29°, λ60°.*

ISC 17 13:08:56.2±0.4**, 33.58N**±0.04×**140.31E**±0.06**, h94**^{km}±3^{km}**, n56,** σ**0^{s}91**/64**, mb4.1**/27**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	0.62	221	P	**P**	**13 09 13.1**	**+0.5**
JHJ2				S	**S**	**13 09 25.7**	**+0.9**
JHJ	**Hachijo jima 2**	0.64	224	P	**P**	**13 09 13.0**	**+0.3**
	942nm,0.3s,baz=263,slow=22,SNR=364						
JHJ				S	**S**	**13 09 25.2**	**+0.2**
	5μm,0.3s,baz=66,slow=19,SNR=68						
JMY	**Miyakejima3**	0.82	307	P	**P**	**13 09 14.4**	**-0.1**
JMY				S	**S**	**13 09 29.0**	**+0.9**
JKO	**Kozu shima**	1.15	302	P	**P**	**13 09 18.5**	**+0.2**
JKO				S	**S**	**13 09 34.7**	**0.0**
NJJJ	**Nii jima 2**	1.18	314	P	**P**	**13 09 18.8**	**+0.1**
NJJJ				S	**S**	**13 09 35.0**	**-0.4**
BSO1	**Boso 1**	1.20	27	P	**P**	**13 09 18.1**	**-0.9**
BSO1				S	**S**	**13 09 34.9**	**-1.0**
BSO3	**Boso 3**	1.23	8	P	**P**	**13 09 18.8**	**-0.5**
JIM2	**Oshima 3**	1.35	327	P	**P**	**13 09 20.3**	**-0.4**
JIM2				S	**S**	**13 09 37.3**	**-1.5**
BSO4	**Boso 4**	1.40	1	P	**P**	**13 09 21.4**	**0.0**
JIZS	**Izushimoda**	1.64	314	P	**P**	**13 09 24.8**	**+0.4**
JIZS				S	**S**	**13 09 45.3**	**+0.1**
KTJJ	**Kamata 2**	1.69	323	P	**P**	**13 09 25.2**	**+0.2**
KTJJ				S	**S**	**13 09 45.8**	**-0.5**
JOD2	**Odawara 2**	1.96	329	P	**P**	**13 09 28.6**	**+0.1**
TK04	**Tokai 4**	2.18	292	P	**P**	**13 09 32.8**	**+1.3**
TK01	**Tokai 1**	2.28	275	P	**P**	**13 09 33.5**	**+0.7**
SHZ3	**Shizuoka 3**	2.28	311	P	**P**	**13 09 34.2**	**+1.3**
JYN	**Shimob**	2.40	323	P	**P**	**13 09 35.4**	**+0.8**
MAJO	**Matsushiro**	3.42	330	*e*Pn	**P**	**13 09 48.1**	**-0.5**
MAT	**Matsushiro**	3.42	330	P	**P**	**13 09 48.6**	**0.0**
MAT				*e*S	**S**	**13 10 26.4**	**-1.9**
MAT	**Matsushiro**	3.42	330	*e*P	**P**	**13 09 49.0**	**+0.4**
MAT				S	**S**	**13 10 26.0**	**-2.3**
CBIJ	**Chichi jima**	6.67	165	P	**P**	**13 10 30.6**	**-2.6**
	10nm,0.3s,baz=270,slow=20,SNR=3.9						
CBIJ				S	**S**	**13 11 39.2**	**-9.0**
	25nm,0.3s,baz=307,slow=20,SNR=4.0						
KS15	**Wonju Array Si**	10.83	294	*e*Pn	**P**	**13 11 30.5**	**+0.8**
HIA	**Hailar**	21.88	322	*e*P	**P**	**13 13 43.4**	**+1.0**
	5.8nm,0.6s,mb4.1						
ULN	**Ulaanbaatar**	28.71	310	*e*P	**P**	**13 14 46.1**	**-0.3**
	7.7nm,0.7s,mb4.4						
SONM	**Songino Array**	29.12	309	P	**P**	**13 14 50.0**	**-0.1**
	3.4nm,0.6s,mb4.1,baz=109,slow=8.5,SNR=29						
ZAL	**Zalesovo**	43.66	315	P	**P**	**13 16 52.2**	**-0.6**
	1.7nm,0.4s,mb4.2,baz=6.4,slow=7.4,SNR=6.9						
AAK	**Ala-Archa**	51.40	301	*e*P	**P**	**13 17 51.6**	**-1.8**
	2.5nm,0.8s,mb4.3						
MCK	**McKinley**	52.01	32	*e*P	**P**	**13 17 57.9**	**+0.2**
	2.9nm,1.0s,mb4.3						
BVAR	**Borovoye Array**	52.27	314	P	**P**	**13 17 58.6**	**-1.2**
	1.7nm,0.7s,mb4.2,baz=90,slow=8.9,SNR=8.9						
BRVK	**Borovoye**	52.33	314	*e*P	**P**	**13 17 59.4**	**-0.8**
	2.4nm,0.6s,mb4.4						
COLA	**College**	52.49	31	*e*P	**P**	**13 18 01.5**	**+0.3**
	1.9nm,0.7s,mb4.2						
ILAR	**Eielson Array**	52.90	31	P	**P**	**13 18 04.3**	**0.0**
	1.9nm,0.7s,mb4.2,baz=265,slow=6.9,SNR=18						
WRAB	**Tennant Creek**	53.52	187	*e*P	**P**	**13 18 07.9**	**-1.5**
	7.9nm,0.8s,mb4.8						
WRA	**Warramunga Arr**	53.53	187	P	**P**	**13 18 07.8**	**-1.7**
	5.4nm,0.7s,mb4.7,baz=4.8,slow=7.6,SNR=80						
WRA				ScP		13 23 03.3	
	1.0nm,0.9s,baz=1.8,slow=4.6,SNR=7.3						
ASAR	**Alice Springs**	57.26	187	P	**P**	**13 18 35.4**	**-0.9**
	2.1nm,0.6s,mb4.4,baz=16,slow=12,SNR=40						
ASPA	**Alice Springs**	57.26	187	*e*P	**P**	**13 18 35.1**	**-1.2**
STKA	**Stephens Creek**	65.12	179	*e*P	**P**	**13 19 28.9**	**-0.3**
	2.5nm,0.6s,mb4.2						
STKA	**Stephens Creek**	65.12	179	P	**P**	**13 19 28.6**	**-0.7**
	3.6nm,0.7s,mb4.3,baz=324,slow=7.8,SNR=12						
RES	**Resolute Bay**	66.16	14	*e*P	**P**	**13 19 35.1**	**-0.1**
	1.9nm,0.8s,mb4.0						
YKA	**Yellowknife Ar**	67.25	29	P	**P**	**13 19 42.0**	**-0.1**
	0.5nm,0.6s,mb3.6,baz=295,slow=6.2,SNR=12						
YKA	**Yellowknife Ar**	67.25	29	P	**P**	**13 19 42.0**	**-0.1**
FINES	**FINESS Array B**	71.45	332	P	**P**	**13 20 08.1**	**+0.2**
	2.3nm,0.9s,mb4.0,baz=108,slow=6.0,SNR=4.3						
YBH	**Yreka Blue Hor**	73.19	51	P	**P**	**13 20 19.4**	**+1.0**
	2.5nm,0.8s,mb4.1,baz=298,slow=4.6,SNR=6.3						
NEW	**Newport**	73.25	43	*e*P	**P**	**13 20 19.8**	**+1.2**
	2.1nm,0.8s,mb4.0						
BMO	**Blue Mountains**	74.95	46	*e*P	**P**	**13 20 29.7**	**+1.2**
	2.6nm,1.1s,mb3.9						
AKASG	**Malin Array Be**	76.47	322	P	**P**	**13 20 36.4**	**-0.6**
	0.9nm,0.4s,mb3.9,baz=47,slow=6.3,SNR=5.2						
NOA	**NORSAR Array B**	77.01	337	P	**P**	**13 20 40.1**	**+0.2**
	0.8nm,0.8s,mb3.5,baz=292,slow=24,SNR=2.4						
NVAR	**Mina Array Bea**	77.80	52	P	**P**	**13 20 46.1**	**+1.5**
	1.4nm,0.9s,mb3.7,baz=290,slow=3.6,SNR=9.4						
TPNV	**Topopah Spring**	79.98	52	P	**P**	**13 20 57.6**	**+1.1**
	0.9nm,0.4s,mb4.0						
PDAR	**Pinedale Array**	80.74	44	P	**P**	**13 21 00.7**	**+0.2**
	0.3nm,0.5s,mb3.3,baz=297,slow=3.3,SNR=4.7						
PV10	**Paradox Valley**	83.74	48	*e*P	**P**	**13 21 18.4**	**+2.4**
GERES	**GERESS Array B**	85.16	328	P	**P**	**13 21 22.9**	**+0.1**
	0.3nm,0.3s,mb3.6,baz=45,slow=3.8,SNR=3.8						
TXAR	**Lajitas Array**	92.95	52	P	**P**	**13 22 01.6**	**+1.4**
	1.1nm,0.7s,mb4.3,baz=290,slow=3.0,SNR=16						
SAML	**Samuel**	147.30	47	*e*PKPbc	PKPdf	13 28 31.3	+4.5
LPAZ	**La Paz**	149.14	63	PKPbc	PKPdf	13 28 37.0	+7.3
	1.1nm,0.7s,baz=38,slow=13,SNR=5.9						
LPAZ	**La Paz**	149.14	63	*e*PKPbc	PKPdf	13 28 36.7	+7.0
LVC	**Limon Verde**	152.09	75	*e*PKPbc	PKPdf	13 28 43.2	+9.2

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*BER **17** 13:34:02.9±1.7, 59.67N×14.30E, ML2.1(NAO), Suspected explosion*

NAO 17 13:34:01.0±4.7**, 59.57N×14.26E, ML2.1, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HFS	**Hagfors**	0.63	333	Pg	Pg	13 34 12.6	-1.0
	baz=153,slow=18						
HFS				Lg		13 34 21.2	
	baz=145,slow=37						
HFS				Rg		13 34 23.0	
	baz=142,slow=56						

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*IDC **17** 14:39:33.8±1.8, 7.09S×68.40E, mb3.8/6, mb1 4.0/6, mb1mx3.8/17, MS3.5/3, Ms1 3.6/3, ms1mx3.4/16, Error ellipse: s-maj=72.1km s-min=24.0km az=51.0*

ISC 17 14:39:31.4±1.5**, 7.5S**±0.2×**67.9E**±0.3**, h10**^{km}**, n16,** σ**1^{s}02**/12**, mb4.3**/12**, MS3.5**/3**, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	**Kilima Mbogo**	31.19	280	LR	LR	14 56 04.9	
	comp=Z,94nm,18.4s,MS3.5,baz=97,slow=31						
KOLN	**Koldanda**	38.25	23	*e*P	**P**	**14 46 54.0**	**+0.3**
	17nm,1.2s,mb4.6						
DMN	**Daman**	38.71	25	*e*P	**P**	**14 46 58.8**	**+1.2**
	20nm,1.0s,mb4.8						
PKI	**Pulchoki**	38.81	25	*e*P	**P**	**14 46 59.4**	**+1.1**
	29nm,1.8s,mb4.7						
GKN	**Gorkha**	38.87	24	*e*P	**P**	**14 46 58.8**	**-0.1**
	11nm,0.6s,mb4.7						
KKN	**Kakani**	38.95	25	*e*P	**P**	**14 46 59.8**	**+0.3**
	14nm,1.0s,mb4.7						
GUN	**Gumba**	39.30	26	*e*P	**P**	**14 47 01.8**	**-0.7**
	28nm,1.1s,mb4.9						
CMAR	**Chiang Mai Arr**	40.08	50	LR	LR	15 01 05.8	
	comp=Z,39nm,18.6s,MS3.3,baz=245,slow=33						
BRTR	**Keskin Array B**	56.70	329	P	**P**	**14 49 18.4**	**+0.7**
	0.2nm,0.4s,mb3.5,baz=124,slow=10,SNR=2.1						
MAW	**Mawson**	60.07	182	LR	LR	15 10 04.2	
	comp=Z,53nm,18.1s,MS3.7,baz=64,slow=30						
ZAL	**Zalesovo**	62.89	11	P	**P**	**14 49 57.2**	**-2.7**
	0.4nm,0.3s,mb4.0,baz=244,slow=6.5,SNR=3.4						
SONM	**Songino Array**	64.76	28	P	**P**	**14 50 10.3**	**-2.1**
	1.0nm,0.7s,mb4.0,baz=218,slow=5.7,SNR=7.3						
ASAR	**Alice Springs**	65.06	113	P	**P**	**14 50 14.8**	**+0.1**
	1.0nm,0.9s,mb3.9,baz=276,slow=5.8,SNR=11						
WRA	**Warramunga Arr**	65.36	108	P	**P**	**14 50 16.9**	**+0.2**
	1.5nm,1.1s,mb3.9,baz=284,slow=6.1,SNR=6.1						
STKA	**Stephens Creek**	72.23	121	P	**P**	**14 50 59.1**	**+0.1**
	1.2nm,0.7s,mb3.9,baz=270,slow=11,SNR=3.4						
NVAR	**Mina Array Bea**	148.75	9	PKPbc	PKPdf	14 59 22.6	+4.0
	0.9nm,0.7s,baz=45,slow=1.2,SNR=8.2						

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*NEIC **17** 14:45:10.0±0.8, 52.24N×170.89W, h52^{km}±7^{km}, mb3.9/1, Error ellipse: s-maj=18.5km s-min=6.4km az=166.0*

*IDC **17** 14:45:12.8±4.3, 52.29N×170.89W, h77^{km}±39^{km}, mb3.4/7, mb1 3.6/9, mb1mx3.5/24, ML3.5/2, Error ellipse: s-maj=39.1km s-min=16.6km az=178.0*

ISC 17 14:45:09.2±1.2**, 52.3N**±0.2×**170.9W**±0.1**, h58**^{km}±10^{km}**, n18,** σ**0^{s}78**/19**, mb3.6**/8**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NIKO	**Nikolski**	1.40	61	P	**P**	**14 45 32.6**	**-0.4**
NIKO				S	**S**	**14 45 48.2**	**-2.4**
OKER	**East Rim**	2.05	55	P	**P**	**14 45 43.0**	**+0.9**
MCIR	**Makushin Cirqu**	2.90	54	P	**P**	**14 45 54.8**	**+0.6**
MSW	**Makushin Switc**	2.94	55	P	**P**	**14 45 55.4**	**+0.7**
MNAT	**Makushin Natee**	2.97	57	P	**P**	**14 45 55.0**	**-0.2**
MTBL	**Makushin Table**	3.02	55	P	**P**	**14 45 56.4**	**+0.6**
UNV	**Unalaska Valle**	3.05	58	P	**P**	**14 45 56.2**	**-0.1**
KIWB	**Kanaga Island**	3.90	266	*e*P	**P**	**14 46 07.4**	**-0.8**
FX1	**Attu Island--F**	9.73	280	P	**P**	**14 47 30.1**	**+1.2**
	1.6nm,0.3s,baz=162,slow=14,SNR=3.2						
ILAR	**Eielson Array**	17.52	35	P	**P**	**14 49 10.8**	**+0.1**
	0.1nm,0.3s,baz=229,slow=11,SNR=5.6						
YKA	**Yellowknife Ar**	30.97	49	P	**P**	**14 51 22.6**	**0.0**
	0.1nm,0.3s,mb3.1,baz=274,slow=7.8,SNR=4.1						
NVAR	**Mina Array Bea**	38.59	90	P	**P**	**14 52 27.5**	**-0.4**
	0.8nm,0.7s,mb3.6,baz=285,slow=11,SNR=5.5						
BW06	**Boulder Array**	41.32	78	*e*P	**P**	**14 52 50.8**	**+0.3**
	1.3nm,0.6s,mb3.7						
PDAR	**Pinedale Array**	41.32	78	P	**P**	**14 52 51.5**	**+1.0**
	1.7nm,0.6s,mb3.9,baz=308,slow=4.4,SNR=17						
SONM	**Songino Array**	50.53	300	P	**P**	**14 54 02.5**	**-0.8**
	0.2nm,0.6s,mb3.2,baz=45,slow=8.2,SNR=2.8						
BVAR	**Borovoye Array**	63.20	324	P	**P**	**14 55 32.4**	**-0.8**
	0.5nm,0.7s,mb3.8,baz=53,slow=7.4,SNR=4.5						
CMAR	**Chiang Mai Arr**	75.72	282	P	**P**	**14 56 50.7**	**+0.4**
	0.5nm,0.4s,mb3.8,baz=30,slow=7.3,SNR=5.2						
ASAR	**Alice Springs**	89.66	229	P	**P**	**14 58 01.4**	**-0.5**
	0.5nm,0.8s,mb3.9,baz=25,slow=4.8,SNR=7.9						

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*JMA **17** 15:17:06.7±0.2, 23.94N×122.87E, M2.8*

TAP 17 15:17:07.4, 23.92N×122.62E, h4^{km}±1^{km}**, ML2.7, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	0.65	33	P	Pg	15 17 17.6	-2.8
YOJ				S	Sg	15 17 25.0	-4.0
HATJ	**Hateruma jima**	1.09	83	P	Pb	15 17 23.7	-4.9
HATJ				S	Sb	15 17 35.7	-7.3
IRIF	**Iriomote-Funau**	1.09	68	P	Pb	15 17 23.7	-4.9
IRIF				S	Sb	15 17 36.6	-6.5
JKRS	**Kuro-shima**	1.31	76	P	Pb	15 17 27.8	-4.4
JKRS				S	Sb	15 17 42.8	-6.5
JIJ	**Ishigaki jima**	1.46	72	P	Pn	15 17 30.2	-4.5
JIJ				S	Sb	15 17 46.1	-7.6
JTJ	**Tarama**	2.03	69	P	Pn	15 17 40.2	-2.7
JTJ				*e*S	Sn	15 18 04.5	-4.5

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*CSEM **17** 15:18:07.5, 35.22N×51.09E, h6^{km}, ML3.5, After THR*

THR 17 15:18:03.2±1.0**, 35.91N×53.29E, h14**^{km}±17^{km}**, ML3.4, 1D, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DAMV	**Damavand**	1.11	256	*e*PG	Pg	15 18 23.5	-1.9
DAMV				*e*SG	Sg	15 18 39.5	-0.8
DAMV				AMP		15 18 42.6	
	comp=N,651nm,0.4s						
DAMV				AMP		15 18 43.6	
	comp=E,932nm,0.4s						
DAMV	**Damavand**	1.11	256	⇓*i*Pg	Pg	15 18 23.5	-1.9
DAMV				*e*Sg	Sg	15 18 35.6	-4.7
	comp=E,2μm,0.5s						
NASN	**Na’in**	3.13	187	*e*PN	Pn	15 18 54.8	+1.6
NASN				*e*SG	Sg	15 19 40.9	-6.5
NASN				AMP		15 19 54.5	
	comp=N,105nm,0.4s						
NASN				AMP		15 19 55.0	
	comp=E,81nm,0.4s						
NASN	**Na’in**	3.13	187	*e*Pn	Pn	15 18 55.1	+2.0
SNGE	**Sanandaj**	4.92	262	*e*PN	Pn	15 19 19.1	+0.6
SHGR	**Shooshtar-Gavs**	5.32	226	*e*Pn	Pn	15 19 06.4	-18

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*JMA **17** 15:25:48.9±0.2, 24.25N×122.12E, h56^{km}, M2.8*

TAP 17 15:25:48.8, 24.15N×122.16E, h24^{km}**, ML3.7, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

YOJ	Yonaguni jima	0.84	68	P	Pb	15 26 04.8	+0.3
YOJ				S	Sb	15 26 16.6	+1.3
IRIF	Iriomote-Funau	1.45	82	P	Pn	15 26 13.4	-0.3
IRIF				S	Sn	15 26 31.4	-0.7
HATJ	Hateruma jima	1.51	93	S	Sn	15 26 33.6	0.0
JKRS	Kuro-shima	1.69	87	P	Pn	15 26 17.6	+0.3
JKRS				S	Sn	15 26 39.2	+0.9
JIJ	Ishigaki jima	1.82	83	P	Pn	15 26 18.6	-0.5
JIJ				S	Sn	15 26 40.4	-1.3
JTJ	Tarama	2.37	78	P	Pn	15 26 27.2	+0.2
JTJ				S	Sn	15 26 54.5	-1.1
JKE	Kume jima 2	4.72	62	P	Pn	15 26 58.8	-1.5
JKE				eS	Sn	15 27 54.2	-0.8

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*IDC **17** 15:27:57.8±4.8, 6.91S×149.76E, h64^{km}±41^{km}, mb3.8/7, mb1 4.1/9, mb1mx4.0/13, ML4.1/2, MS3.2/4, Ms1 3.2/4, ms1mx2.8/19, Error ellipse: s-maj=34.3km s-min=25.8km az=97.0*

*NEIC **17** 15:27:57.2±2.4, 6.90S×149.72E, h58^{km}±20^{km}, mb4.3/4, Error ellipse: s-maj=23.1km s-min=15.3km az=108.0*

ISC 17 15:27:56.9±3.2, 6.9S±0.1×149.7E±0.2, h70^{km}±25^{km}, n20, σ0$\overset{s}{.}$85/19, mb4.0/8, 4C, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.54	224	P	P	15 28 50.4	-0.4
	14nm,0.3s,baz=60,slow=6.1,SNR=33						
PMG				S	S	15 29 33.0	+1.3
	14nm,0.3s,baz=86,slow=23,SNR=8.8						
PMG				LR	LR	15 30 18.6	
	comp=Z,286nm,21.1s,baz=45,slow=39						
PMG	Port Moresby	3.54	224	ePn	P	15 28 50.0	-0.8
PMG				S	S	15 29 33.0	+1.3
PMG				LR	LR	15 30 18.6	
CTA	Charters Tower	13.56	194	LR	LR	15 35 46.2	
	comp=Z,107nm,18.5s,baz=38,slow=35						
WRAB	Tennant Creek	19.74	227	eP	P	15 32 22.9	-0.9
	22nm,0.6s						
WRA	Warramunga Arr	19.75	227	P	P	15 32 23.1	-0.7
	2.2nm,0.3s,baz=52,slow=11,SNR=74						
ASAR	Alice Springs	22.55	220	P	P	15 32 52.5	+0.4
	3.0nm,0.6s,mb3.8,baz=56,slow=9.5,SNR=55						
ASAR				LR	LR	15 42 16.2	
	comp=Z,36nm,20.0s,baz=40,slow=38						
ASPA	Alice Springs	22.55	220	⇑iP	P	15 32 52.4	+0.2
FITZ	Fitzroy Crossi	25.94	242	⇑iP	P	15 33 25.4	+0.7
	12nm,0.6s,mb4.5						
FITZ	Fitzroy Crossi	25.94	242	P	P	15 33 25.4	+0.7
	11nm,0.5s,mb4.5,baz=50,slow=4.9,SNR=21						
STKA	Stephens Creek	26.01	196	eP	P	15 33 23.3	-1.9
	4.4nm,0.8s,mb3.9						
STKA	Stephens Creek	26.01	196	P	P	15 33 23.4	-1.9
	3.2nm,0.6s,mb3.9,baz=5.4,slow=8.2,SNR=14						
STKA				LR	LR	15 44 09.9	
	comp=Z,105nm,20.0s,baz=27,slow=37						
CMAR	Chiang Mai Arr	55.98	298	P	P	15 37 30.4	-0.5
	0.5nm,0.9s,mb3.5,baz=105,slow=6.5,SNR=4.4						
IMP	Imphal	62.68	302	⇑iP	P	15 38 16.6	-0.4
SONM	Songino Array	66.45	330	pP	pP	15 38 53.5	-6.3
	0.3nm,0.5s,baz=147,slow=4.9,SNR=5.1						
VNDA	Vanda	70.92	177	P	P	15 39 08.0	-0.2
	1.3nm,0.7s,mb3.9,baz=326,slow=4.7,SNR=10						
VNDA	Vanda	70.92	177	eP	P	15 39 07.8	-0.4
	1.5nm,0.7s,mb3.9						
QSPA	South Pole Qui	83.12	180	⇑iP	P	15 40 17.2	+1.3
	6.2nm,0.6s,mb4.6						
ILAR	Eielson Array	85.23	23	P	P	15 40 27.3	+0.6
	0.3nm,0.6s,mb3.4,baz=248,slow=5.2,SNR=5.7						
NVAR	Mina Array Bea	95.81	52	P	P	15 41 17.5	+0.6
	0.2nm,0.5s,mb3.9,baz=225,slow=5.1,SNR=3.3						
NVAR				pP	pP	15 41 29.1	-7.5
	0.8nm,0.9s,baz=254,slow=4.5,SNR=3.7						
BDFB	Brasilia	151.61	142	PKPbc	PKPdf	15 47 46.1	+8.3
	2.8nm,0.6s,baz=208,slow=4.9,SNR=4.1						

DJA 17 15:30:14.3±0.9, 9.45S×114.00E, h2^{km}, MD5.3/4, ML3.9/2, 3C-3D, Error ellipse: s-maj=19.4km s-min=10.3km az=38.0, South of Bali

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	0.97	8	ePn	Pn	15 30 31.6	-3.2
	59nm,0.2s						
SRDI				eSn	Sn	15 30 44.2	-5.2
KELI	Kelakatan	1.32	22	⇓ePn	Pn	15 30 36.9	-2.8
KELI				⇑eSn	Sn	15 30 53.7	-4.4
RATI	Rata	1.68	65	⇑ePn	Pn	15 30 41.9	-2.9
	241nm,0.3s						
RATI				⇑eSn	Sn	15 31 01.4	-5.8
KEDI	Kedomdong	2.29	66	⇓ePn	Pn	15 30 50.2	-3.5
KEDI				⇓eSn	Sn	15 31 16.7	-6.2

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*IDC **17** 15:40:12.4±1.4, 6.84S×129.81E, mb3.9/4, mb1 4.4/7, mb1mx4.1/14, ML4.5/3, Error ellipse: s-maj=68.9km s-min=19.9km az=68.0*

*NEIC **17** 15:40:27.0±3.0, 7.43S×129.17E, h124^{km}±31^{km}, mb4.2/2, Error ellipse: s-maj=38.7km s-min=21.0km az=56.0*

ISC 17 15:40:29.3±1.7, 7.64S±0.08×129.3E±0.1, h172^{km}±18^{km}, n12, σ1$\overset{s}{.}$40/19, mb3.6/4, 2D, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	5.91	149	eP	P	15 41 56.7	+1.0
	60nm,0.2s						
KAKA				eS	S	15 43 01.1	-1.8
FITZ	Fitzroy Crossi	11.00	199	⇓iP	P	15 43 03.0	+0.1
	17nm,0.3s						
FITZ				eS	S	15 45 03.0	-0.3
FITZ	Fitzroy Crossi	11.00	199	Pn	P	15 43 03.1	+0.2
	5.5nm,0.3s,baz=17,slow=10,SNR=70						
FITZ				Sn	S	15 45 02.3	-1.0
	3.8nm,0.3s,baz=220,slow=16,SNR=4.4						
WRAB	Tennant Creek	13.16	159	ePn	P	15 43 30.6	0.0
	25nm,0.8s						
WRAB				eSn	S	15 45 51.4	-2.1
WRA	Warramunga Arr	13.17	159	Pn	P	15 43 30.6	-0.1
	3.3nm,0.3s,baz=329,slow=14,SNR=66						
WRA				Sn	S	15 45 50.2	-3.3
	3.3nm,0.3s,baz=339,slow=22,SNR=13						
ASPA	Alice Springs	16.54	165	⇓iP	P	15 44 15.7	+2.9
ASPA				eS	S	15 47 12.8	+2.8
ASAR	Alice Springs	16.54	165	P	P	15 44 14.7	+1.9
	1.2nm,0.3s,baz=345,slow=14,SNR=128						
ASAR				S	S	15 47 09.9	-0.1
	0.2nm,0.3s,baz=341,slow=22,SNR=3.7						
STKA	Stephens Creek	26.69	156	eP	P	15 45 58.4	+3.9
	1.2nm,0.6s,mb3.7						
STKA	Stephens Creek	26.69	156	P	P	15 45 57.6	+3.2
	2.0nm,0.7s,mb3.8,baz=340,slow=11,SNR=5.9						
CMAR	Chiang Mai Arr	39.63	311	P	P	15 47 45.3	-0.6
	1.7nm,0.8s,mb3.7,baz=147,slow=7.3,SNR=14						
ZAL	Zalesovo	71.85	334	P	P	15 51 34.0	-1.1
	0.9nm,0.8s,mb3.5,baz=335,slow=2.2,SNR=4.9						
BVAR	Borovoye Array	78.24	328	P	P	15 52 11.2	-0.1
	0.4nm,0.5s,mb3.3,baz=135,slow=8.2,SNR=4.0						

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*IDC **17** 15:43:52.4±1.7, 46.00N×27.28E, mb4.0/1, mb1 3.7/4, mb1mx3.4/19, ML3.2/3, Error ellipse: s-maj=28.6km s-min=8.0km az=131.0*

*NEIC **17** 15:43:53.0±0.6, 45.97N×27.35E, h10^{km}, Error ellipse: s-maj=7.8km s-min=6.9km az=77.0*

*BUC **17** 15:43:52.7±1.7, 45.92N×27.37E, h10^{km}±11^{km}, MD3.8/3, Error ellipse: s-maj=10.5km s-min=8.6km az=44.0*

*CSEM **17** 15:43:52.3±0.2, 45.89N×27.31E, h10^{km}, MD3.8/3, Error ellipse: s-maj=4.2km s-min=3.9km az=76.0*

ISC 17 15:43:52.3±0.8, 45.93N±0.03×27.38E±0.04, h1^{km}±6^{km}, n35, σ1$\overset{s}{.}$20/59, mb4.0/1, 9C-12D, Romania

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRD	Bordesti	0.45	213	⇑iP	Pg	15 44 03.1	+1.7
BRD				i S	Sg	15 44 08.2	+0.8
BRD	Bordesti	0.45	213	⇑iP	Pg	15 44 03.1	+1.8
BRD				i S	Sg	15 44 08.1	+0.7
VRI	Vrincioaia	0.46	262	⇓iP	Pg	15 44 01.4	-0.1
VRI				i S	Sg	15 44 07.5	-0.1
VRI	Vrincioaia	0.46	262	⇓iP	Pg	15 44 01.4	-0.1
VRI				i S	Sg	15 44 07.5	-0.1
VRI	Vrincioaia	0.46	262	i S	Sg	15 44 07.5	-0.1
CFR	Carcaliu	0.92	145	⇓iP	Pg	15 44 10.6	-0.2
CFR				i S	Sg	15 44 23.5	+0.4
CFR	Carcaliu	0.92	145	⇓iP	Pg	15 44 10.6	-0.2
CFR				i S	Sg	15 44 23.5	+0.4
ISR	Istrita	1.00	216	⇑iP	Pb	15 44 12.9	+0.7
ISR				i S	Sb	15 44 27.5	+1.8
ISR	Istrita	1.00	216	⇑iP	Pb	15 44 12.9	+0.7
ISR				i S	Sb	15 44 27.5	+1.8
MLR	Muntele Rosu	1.10	247	Pg	Pg	15 44 13.4	-0.8
	33nm,0.3s,baz=128,slow=2.6,SNR=319						
MLR				Lg		15 44 29.0	
	98nm,0.3s,baz=152,slow=17,SNR=26						
MLR	Muntele Rosu	1.10	247	⇓iP	Pb	15 44 13.4	-0.4
MLR				i S	Sb	15 44 28.8	+0.4
MLR	Muntele Rosu	1.10	247	i S	Sb	15 44 28.8	+0.4
MLR	Muntele Rosu	1.10	247	⇓iP	Pb	15 44 13.4	-0.4
MLR				i S	Sb	15 44 28.8	+0.4
TLCR		1.26	126	⇓iP	Pb	15 44 17.9	+1.4
TLCR				i S	Sb	15 44 35.1	+2.0
TLCR		1.26	126	⇓iP	Pb	15 44 17.9	+1.4
TLCR				i S	Sb	15 44 35.1	+2.0
IAS	Iasi	1.27	6	⇓iP	Pb	15 44 17.6	+0.9
IAS				i S	Sb	15 44 33.9	+0.5
IAS	Iasi	1.27	6	i S	Sb	15 44 33.9	+0.5
IAS	Iasi	1.27	6	⇓iP	Pb	15 44 17.6	+0.9
IAS				i S	Sb	15 44 33.9	+0.5
SNX	Sinaia	1.43	247	⇑iP	Pn	15 44 19.3	-0.1
SNX				i S	Sb	15 44 41.6	+3.5
SNX	Sinaia	1.43	247	⇑iP	Pn	15 44 19.3	-0.2
SNX				i S	Sb	15 44 41.6	+3.5
KIS	Kishinev	1.46	43	eP	Pn	15 44 20.0	+0.1
KIS				i S	Sb	15 44 39.5	+0.6
	2μm,0.8s						
TIRR	Tirgusor	1.65	153	⇑iP	Pn	15 44 21.7	-0.9
TIRR				i S	Sb	15 44 43.2	-1.1
TIRR	Tirgusor	1.65	153	⇑iP	Pn	15 44 21.7	-0.9
TIRR				i S	Sb	15 44 43.3	-1.1
TIRR	Tirgusor	1.65	153	⇑iP	Pn	15 44 21.7	-0.9
TIRR				i S	Sb	15 44 43.2	-1.2
BURAR	Bucovina Array	2.24	319	⇓iP	Pn	15 44 30.0	-1.1
BURAR				i S	Sn	15 45 01.3	+1.5
BURAR	Bucovina Array	2.24	319	⇓iP	Pn	15 44 30.0	-1.1
BURAR				i S	Sn	15 45 01.3	+1.4
PRD	Provadia	2.73	180	i P	Pn	15 44 32.0	-6.1
PGB	Panagyurishte	4.09	215	i P	Pn	15 44 55.0	-2.5
VTS	Vitosha	4.49	223	P	Pn	15 45 01.0	-2.0
KDZ	Kurdzhali	4.51	199	P	Pn	15 45 00.0	-3.4
AKASG	Malin Array Be	4.93	14	Pn	Pn	15 45 08.0	-1.3
	1.6nm,0.3s,baz=203,slow=13,SNR=5.6						
AKASG				Pg	Pg	15 45 23.1	-7.6
	3.3nm,0.3s,baz=190,slow=17,SNR=6.1						
AKASG				Sn	Sn	15 46 01.8	-6.0
	5.0nm,0.3s,baz=224,slow=24,SNR=6.9						
AKASG				Lg		15 46 23.9	
	13nm,0.3s,baz=197,slow=29,SNR=9.1						
KKB	Krupnik	5.11	219	P	Pn	15 44 59.0	-13
BRTR	Keskin Array B	7.72	141	Pn	Pn	15 45 46.4	-2.2
	0.2nm,0.3s,baz=301,slow=31,SNR=5.1						
FINES	FINESS Array B	15.56	358	Pn	P	15 47 29.2	-5.1
	0.1nm,0.3s,baz=180,slow=12,SNR=2.2						
ARCES	ARCESS Array B	23.69	358	P	P	15 49 05.4	-0.4
	7.0nm,1.3s,mb4.0,baz=186,slow=11,SNR=5.0						

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*NIED **17** 15:50:00, 42.90N×145.10E, h50^{km}, Mw3.8 Best double couple: $M_0$4.92×10^{14} NP1:ϕ_s31°, δ65°, λ81°. NP2:ϕ_s231°, δ27°, λ109°.*

*JMA **17** 15:50:08.9±0.1, 42.93N×145.05E, h50^{km}±1^{km}, M3.8*
JMA Felt I J1.

*IDC **17** 15:50:11.8±3.4, 43.01N×145.02E, h75^{km}±27^{km}, mb3.3/8, mb1 3.5/9, mb1mx3.3/23, Error ellipse: s-maj=27.1km s-min=20.0km az=95.0*

ISC 17 15:50:07.6±0.7, 42.90N±0.06×145.10E±0.06, h55^{km}±5^{km}, n17, σ0$\overset{s}{.}$70/25, mb3.5/8, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAK	Akkeshi	0.32	289	P	P	15 50 17.7	+0.3
JAK				S	S	15 50 24.1	-0.4
NEM2	Nemuro 2	0.66	45	P	P	15 50 21.8	+0.6
NEM2				eS	S	15 50 30.9	-0.3
JNK	Nakash	0.74	338	P	P	15 50 22.3	+0.1
JNK				eS	S	15 50 32.1	-0.9
JOB	Onbets	0.93	271	P	P	15 50 25.0	+0.3
JOB				eS	S	15 50 36.8	-0.7
JRA	Rausu	1.04	1	P	P	15 50 26.8	+0.5
JRA				eS	S	15 50 39.6	-0.5
JAR	Ashorobuto	1.06	293	P	P	15 50 26.7	+0.2
JAR				eS	S	15 50 40.1	-0.3
JCH	Churui	1.31	258	P	P	15 50 29.9	-0.3
JCH				eS	S	15 50 46.4	-0.5
JTKR	Abashiri--Toko	1.38	321	P	P	15 50 31.7	+0.6
ASAJ	Asahikawa	2.19	305	P	P	15 50 43.6	+1.2
	29nm,0.3s,baz=128,slow=9.4,SNR=50						
ASAJ				S	S	15 51 10.6	+2.1
	7.3nm,0.3s,baz=297,slow=32,SNR=4.3						
SONM	Songino Array	27.44	294	P	P	15 55 49.7	-0.4
	1.2nm,1.0s,mb3.4,baz=87,slow=8.6,SNR=7.1						
ILAR	Eielson Array	43.06	36	P	P	15 58 03.7	+0.5
	0.2nm,0.4s,mb3.2,baz=257,slow=5.8,SNR=8.8						
CMAR	Chiang Mai Arr	45.85	253	P	P	15 58 26.5	+0.3
	0.4nm,0.6s,mb3.5,baz=48,slow=6.3,SNR=4.5						
BVAR	Borovoye Array	48.89	309	P	P	15 58 49.0	-0.5
	0.2nm,0.3s,mb3.6,baz=83,slow=9.2,SNR=5.4						
WRA	Warramunga Arr	63.30	191	P	P	16 00 33.6	+0.4
	0.4nm,1.0s,mb3.5,baz=7.9,slow=6.8,SNR=4.9						
FINES	FINESS Array B	64.95	332	P	P	16 00 41.8	-1.4
	0.9nm,0.7s,mb3.9,baz=68,slow=10,SNR=6.0						
ASAR	Alice Springs	67.03	191	P	P	16 00 57.4	+0.3
	0.3nm,0.6s,mb3.5,baz=359,slow=5.3,SNR=6.3						
NOA	NORSAR Array B	69.85	338	P	P	16 01 13.0	-0.8
	0.9nm,0.7s,mb3.8,baz=37,slow=6.2,SNR=2.9						

OTT 17 16:14:26.2±0.3, 52.90N×66.91W, MN2.7/6, Blast, Labrador City, Nl Mining explosion., Northern Quebec

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	Schefferville	1.94	1	PN	Pn	16 15 00.4	-0.3
SCHQ				SN	Sn	16 15 25.0	-1.2
SCHQ				Trac		16 15 27.3	
	comp=Z,5.4nm,0.1s						
MNQ	Manicouagan	2.64	207	PN	Pn	16 15 11.2	+0.5
MNQ				SN	Sn	16 15 45.8	+1.9
MNQ				Trac		16 15 53.8	
	comp=Z,4.7nm,0.1s						
SMQ	Clarke City	2.68	177	PN	Pn	16 15 09.8	-1.6
SMQ				SN	Sn	16 15 43.3	-1.8
SMQ				Trac		16 15 52.1	
	comp=Z,9.3nm,0.1s						
ICQ	Pointe Anglais	3.39	184	PN	Pn	16 15 19.7	-1.7
ICQ				SN	Sn	16 15 58.7	-4.3
CNQ	Baie Comeau	3.67	192	PN	Pn	16 15 23.8	-1.7
CNQ				SN	Sn	16 16 09.2	-1.0
CNQ				Trac		16 16 20.4	
	comp=Z,2.7nm,0.1s						
GSQ	Grosses Roches	4.00	182	PN	Pn	16 15 27.3	-2.8
GSQ				SN	Sn	16 16 15.1	-3.2
GSQ				SG	Sg	16 16 26.6	-13
GSQ				Trac		16 16 37.5	
	comp=Z,8.8nm,0.3s						
LG4Q	La Grande 4	4.38	282	PN	Pn	16 15 32.7	-2.8
LG4Q				PG	Pg	16 15 42.8	-11
LG4Q				SN	Sn	16 16 22.5	-5.4
LG4Q				SG	Sg	16 16 37.4	-15
LG4Q				Trac		16 16 43.1	
	comp=Z,2.7nm,0.2s						
LMQ	La Malbaie	5.79	204	PN	Pn	16 15 51.6	-3.7
DRLN	Deer Lake	6.96	118	PN	Pn	16 16 08.2	-3.7
MALO	McAlpine Lake	8.53	255	PN	P	16 16 29.2	-4.6
MALO				SN	Sn	16 17 58.4	-14
MALO				SG	Sg	16 18 44.8	-25
VIMO	Victor Mine	10.19	276	PN	P	16 16 49.6	-7.0
VIMO				SN	S	16 18 35.2	-18
SILO	Sutton Inlier	10.79	286	PN	P	16 16 57.7	-7.2
SILO				LG		16 19 51.0	

MAN 17 16:31:09.2, 16.93N×120.04E, h9^{km}, mb4.5, ML3.4, MS3.2, 2C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BCPH	Baguio City Da	0.75	137	⇑iP	Pb	16 31 23.6	-0.4
BCPH				i S	Sb	16 31 33.3	-0.8
ABRA	Dolores	0.96	42	eP	Pb	16 31 27.2	-0.3
ABRA				eS	Sb	16 31 40.0	-0.2
SCZP	Santa Cruz	1.15	186	eP	Pb	16 31 30.7	-0.3
SCZP				eS	Sb	16 31 54.6	+8.7
APYP	Conner	1.47	51	eP	Pn	16 31 34.9	-1.2
APYP				eS	Sb	16 31 51.5	-3.6
PCPH	Palayan	1.69	143	⇑eP	Pn	16 31 38.5	-0.8
PCPH				i S	Sn	16 32 01.8	+0.6
CAUP	Cauayan	1.70	89	eP	Pn	16 31 39.1	-0.3
CAUP				eS	Sn	16 32 00.8	-0.7
BALP	Baler	1.89	129	eP	Pn	16 31 41.0	-1.0
BALP				eS	Sn	16 32 05.5	-0.7

OTT 17 17:10:25.8±0.3, 53.01N×66.89W, MN2.7/7, Blast, Labrador City, Nl Mining explosion., Labrador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	Schefferville	1.83	1	PN	Pn	17 10 58.0	-0.6
SCHQ				SN	Sn	17 11 22.7	-0.1
SCHQ				Trac		17 11 24.8	
	comp=Z,17nm,0.1s						
MNQ	Manicouagan	2.74	206	PN	Pn	17 11 11.9	+0.1
MNQ				Trac		17 11 50.5	
	comp=Z,6.6nm,0.1s						
SMQ	Clarke City	2.79	177	PN	Pn	17 11 10.6	-1.9
SMQ				Trac		17 11 53.9	
	comp=Z,7.5nm,0.1s						
ICQ	Pointe Anglais	3.50	184	PN	Pn	17 11 20.5	-2.1
ICQ				SN	Sn	17 12 02.3	-3.1
ICQ				Trac		17 12 05.2	
	comp=Z,2.5nm,0.1s						
CNQ	Baie Comeau	3.79	192	PN	Pn	17 11 26.0	-0.7
CNQ				SN	Sn	17 12 09.2	-3.3
CNQ				SG	Sg	17 12 22.3	-10
CNQ				Trac		17 12 26.8	
	comp=Z,2.9nm,0.1s						
GSQ	Grosses Roches	4.11	182	PN	Pn	17 11 28.9	-2.3
GSQ				SN	Sn	17 12 16.5	-4.2
GSQ				Trac		17 12 21.6	
	comp=Z,3.0nm,0.1s						
LG4Q	La Grande 4	4.36	281	PN	Pn	17 11 31.2	-3.7
LG4Q				SN	Sn	17 12 16.8	-10
LG4Q				Trac		17 12 40.1	
	comp=Z,2.1nm,0.1s						
LMQ	La Malbaie	5.89	203	PN	Pn	17 11 52.0	-4.5
DRLN	Deer Lake	7.00	119	PN	Pn	17 12 07.7	-4.4
MALO	McAlpine Lake	8.56	255	PN	P	17 12 27.6	-6.3
VIMO	Victor Mine	10.18	276	PN	P	17 12 49.5	-6.6
SILO	Sutton Inlier	10.77	285	PN	P	17 12 56.9	-7.3

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*NNC **17** 17:12:29.3±19.0, 43.75N×87.38E, mpv2.6, Error ellipse: s-maj=138.6km s-min=110.1km az=132.0*

BJI 17 17:12:26.6, 43.37N×87.58E, h25^{km}, ML2.7, 3C-1D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	0.46	10	⇓iPG	Pb	17 12 34.5	-1.6
WMQ				SG	Sb	17 12 41.8	-0.8
WMQ				Smax			
	comp=N,220nm,0.3s						
WMQ				Smax			
	comp=E,327nm,0.2s						
MK31	Makanchi Array	5.07	314	⇑Pn	Pn	17 13 41.7	-1.4
	comp=E,0.4nm,0.3s,baz=125,slow=14,SNR=6.7						
MK31				⇑Sn	Sn	17 14 38.0	-3.7
	comp=E,0.8nm,0.4s,baz=124,slow=24,SNR=3.7						
MK31				⇑Lg		17 14 59.7	
	comp=E,1.9nm,0.5s,baz=134,slow=27,SNR=3.8						

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*IDC **17** 17:26:40.4±1.2, 23.14S×176.10W, mb4.1/7, mb1 4.4/9, mb1mx4.2/17, ML4.9/2, MS3.6/1, Ms1 3.6/1, ms1mx2.8/21, Error ellipse: s-maj=38.5km s-min=26.6km az=159.0*

*NEIC **17** 17:26:54.1±6.4, 23.62S×176.17W, h113^{km}±55^{km}, mb4.2/1, Error ellipse: s-maj=37.1km s-min=22.7km az=204.0*

ISC 17 17:26:43.4±3.9, 23.3S±0.1×175.7W±0.2, h62^{km}±43^{km}, n14, σ1$\overset{s}{.}$10/15, mb4.1/8, Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	14.85	85	Pn	P	17 30 10.7	-0.6
	4.4nm,0.3s,baz=240,slow=6.8,SNR=17						
RAR				Sn	S	17 32 49.0	-5.6
	3.8nm,0.3s,baz=87,slow=17,SNR=3.5						
RAR	Rarotonga	14.85	85	Pn	P	17 30 10.7	-0.6
RAR				Sn	S	17 32 49.0	-5.7
URZ	Urewera	16.11	201	Pn	P	17 30 28.6	+1.3
	4.7nm,0.3s,baz=325,slow=2.7,SNR=19						
URZ				Sn	S	17 33 22.4	-1.2
	0.5nm,0.3s,baz=66,slow=13,SNR=3.4						
RPZ	Rata Peaks	23.09	205	LR	LR	17 40 16.5	
	comp=Z,134nm,18.1s,baz=165,slow=35						
CTA	Charters Tower	35.47	268	P	P	17 33 36.6	+0.6
	3.8nm,0.4s,mb4.7,baz=92,slow=12,SNR=25						
STKA	Stephens Creek	38.63	248	P	P	17 34 03.6	+1.2
	1.2nm,0.6s,mb3.8,baz=93,slow=8.7,SNR=3.2						
ASAR	Alice Springs	46.06	259	P	P	17 35 03.4	+0.2
	1.7nm,0.9s,mb4.0,baz=90,slow=7.1,SNR=30						
WRAB	Tennant Creek	46.42	264	P	P	17 35 04.1	-1.9
	3.1nm,0.7s,mb4.3						
WRA	Warramunga Arr	46.43	264	P	P	17 35 05.0	-1.1
	0.9nm,0.5s,mb4.0,baz=96,slow=8.2,SNR=22						
VNDA	Vanda	55.30	186	P	P	17 36 16.0	+3.5
	0.9nm,0.9s,mb3.8,baz=30,slow=7.5,SNR=3.9						
VNDA	Vanda	55.30	186	P	P	17 36 13.0	+0.5
MAW	Mawson	79.63	199	P	P	17 38 46.1	+0.9
	2.3nm,0.3s,mb4.6,baz=258,slow=23,SNR=18						
TXAR	Lajitas Array	86.78	56	P	P	17 39 28.9	+6.4
	0.3nm,0.5s,mb3.8,baz=201,slow=7.7,SNR=3.3						
AKASG	Malin Array Be	146.54	331	PKPbc	PKPbc	17 46 20.2	+2.8
	2.7nm,0.7s,baz=38,slow=3.8,SNR=9.8						

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*NNC **17** 17:29:48.0±25.0, 43.65N×87.59E, mpv2.5, Error ellipse: s-maj=184.3km s-min=131.1km az=131.0*

BJI 17 17:29:46.9, 43.40N×87.56E, h20^{km}, ML2.8, 2C-2D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	0.43	13	⇓iPG	Pb	17 29 55.3	-0.4
WMQ				SG	Sb	17 30 02.5	+0.7
WMQ				Smax			
	comp=N,317nm,0.4s						
WMQ				Smax			
	comp=E,361nm,0.3s						
MK31	Makanchi Array	5.04	314	⇓Pn	Pn	17 31 02.7	-0.7
	comp=E,0.3nm,0.3s,baz=124,slow=14						
MK31				⇑Sn	Sn	17 32 01.2	-0.6
	comp=E,1.4nm,0.5s,baz=122,slow=23						
MK31				⇑Lg		17 32 22.9	
	comp=E,3.6nm,0.6s,baz=133,slow=28						

IDC 17 18:38:16.3±11.0, 9.63N×94.37E, mb3.2/2, mb1 3.5/3, mb1mx3.3/18, ML3.6/1, Error ellipse: s-maj=279.0km s-min=43.3km az=90.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.83	26	Pn	P	18 40 38.8	-3.3
	0.2nm,0.3s,baz=217,slow=14,SNR=4.1						
WRA	Warramunga Arr	49.11	127	P	P	18 47 06.0	-1.9
	0.2nm,0.5s,baz=305,slow=8.5,SNR=6.2						
ASAR	Alice Springs	50.88	131	P	P	18 47 19.3	-2.1
	0.1nm,0.5s,baz=306,slow=7.4,SNR=4.9						

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*IDC **17** 18:45:31.6±0.8, 38.73N×22.56E, mb4.1/15, mb1 4.3/24, mb1mx4.2/30, ML3.9/9, MS3.9/8, Ms1 3.9/8, ms1mx3.4/31, Error ellipse: s-maj=16.3km s-min=13.2km az=56.0*

*MOS **17** 18:45:31.9±1.2, 38.75N×22.70E, h10^{km}, mb4.2/3, Error ellipse: s-maj=7.4km s-min=3.6km az=98.9*

*NEIC **17** 18:45:32.0, 38.71N×22.74E, h15^{km}, mb4.3/6, MD4.0(PDG), ML4.3(ATH), After ATH.*

BJI ***17*** *18:45:32.0, 38.70N×22.70E, h15^{km}, mb4.4*

ZUR_RM ***17*** *18:45:32, 38.71N×22.74E, h12^{km}, Mw4.4/24, Moment Tensor Solution. s24 Moment tensor: Scale 10^{15}Nm; M_{rr}-2.72; $M_{\theta\theta}$2.23; $M_{\phi\phi}$0.49; $M_{r\theta}$-3.08; $M_{\theta\phi}$1.54; $M_{\phi r}$-0.19; Best double couple: $M_0$4.27×10^{15} NP1:ϕ_s79°,δ69°,λ-74°. NP2:ϕ_s220°,δ26°,λ-126°. Principal axes: T 4.283, Plg22°, Azm157°; N -.034, Plg15°, Azm253°; P -4.249, Plg63°, Azm14°;*

ATH ***17*** *18:45:32.0, 38.70N×22.73E, h14^{km}±2^{km}, MD4.0/24, ML4.3*

CSEM ***17*** *18:45:35.1±0.1, 38.73N×22.93E, h40^{km}, mb4.3/5, Error ellipse: s-maj=2.6km s-min=1.6km az=60.0*

PDG ***17*** *18:45:39.3±0.1, 38.85N×21.96E, h11^{km}±1^{km}*

ISC 17 18:45:32.0±0.2, **38.70N**±0.02×**22.67E**±0.03, **h14^{km}, n193, σ1^{s}44**/227, **mb4.1**/17, **MS4.0**/8, **19C-6D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EVR	Evrytania	0.70	288	ePB	Pb	18 45 45.5	-0.1
NEO	Neokhori	0.74	35	ePB	Pb	18 45 46.0	-0.2
MGER	Gerania Oros	0.85	147	ePB	Pb	18 45 47.0	-1.1
MPAR	Parnis Oros	1.00	123	ePN	Pn	18 45 50.8	-0.8
NSAL	Nisos Salamina	1.01	141	ePB	Pb	18 45 51.0	+0.2
ATH	Athens Observa	1.10	131	ePN	Pn	18 45 52.5	-0.5
NAIG	Nisos Aigina	1.14	145	ePB	Pb	18 45 53.6	+0.6
PTL	Penteli	1.15	124	ePN	Pn	18 45 53.1	-0.5
ITM	Ithomi	1.63	201	ePG	Pg	18 46 02.8	-1.8
JAN	Janina	1.70	305	ePG	Pg	18 46 04.8	-1.3
VLS	Valsamata	1.71	253	ePN	Pn	18 46 04.6	+2.9
KZN	Kozani	1.75	337	ePN	Pn	18 46 04.2	+2.0
PLG	Polygyros	1.78	20	ePN	Pn	18 46 03.3	+0.7
VLI	Veliai	1.99	174	ePB	Pb	18 46 06.3	-1.3
LSK	Leskovik	2.16	313	ePn	Pg	18 46 13.5	-1.7
LSK				i Sn	Sg	18 46 44.5	+0.5
LSK	Leskovik	2.16	313	i Pn	Pg	18 46 13.5	-1.7
KBN	Korca	2.41	324	i Pn	Pn	18 46 14.2	+2.5
KBN				i Sn	Sn	18 46 44.8	+3.7
KBN	Korca	2.41	324	ePn	Pn	18 46 14.2	+2.5
KBN				i Sn	Sn	18 46 44.8	+3.7
KYTH	Kithira	2.43	173	ePB	Pb	18 46 13.0	-2.1
KEK	Kerkira	2.45	295	ePN	Pn	18 46 15.5	+3.3
BIA	Bitola	2.54	336	⇑iPn	Pn	18 46 16.1	+2.6
BIA				i Pb	Pb	18 46 20.5	+3.6
BIA				i Pg	Pg	18 46 23.0	+0.3
BIA				i Sn	Sn	18 46 49.9	+5.5
BIA				i Sb	Sb	18 46 58.3	+10
BIA				i Sg	Sg	18 47 01.5	+5.0
VAY	Valandovo	2.62	358	i Pn	Pn	18 46 15.7	+1.0
VAY				eSn	Sn	18 46 45.5	-1.0
APE	Apeiranthos	2.79	125	ePN	Pn	18 46 16.5	-0.7
APE	Apeiranthos	2.79	125	c iP	Pn	18 46 17.0	-0.2
OHR	Ohrid	2.80	330	i Pn	Pn	18 46 19.1	+1.8
OHR				eSn	Sn	18 46 56.0	+4.8
PRK	Paraskevi	2.86	78	ePB	Pb	18 46 20.0	-2.5
BOZC	Bozcaada	2.86	66	i P	Pn	18 46 20.4	+2.2
MMB	Musomiste	3.00	15	i P	Pn	18 46 19.5	-0.6
KKB	Krupnik	3.18	6	i P	Pn	18 46 23.0	+0.3
AYVA	Ayvalik	3.19	78	i P	Pn	18 46 24.3	+1.5
RDO	Rodhopi	3.29	41	ePN	Pn	18 46 23.0	-1.3
RDO	Rodhopi	3.29	41	ePn	Pn	18 46 22.5	-1.8
RZN	Rozhen	3.37	27	i P	Pn	18 46 25.5	+0.1
SKO	Skopje	3.40	344	⇑iPn	Pn	18 46 27.1	+1.3
SKO				i		18 46 33.4	
SKO				i		18 46 42.0	
	comp=Z,0.1nm,0.7s						
SKO				i Sn	Sb	18 47 17.8	+4.7
SKO				i		18 47 30.1	
SKO				Lg		18 47 30.5	
	comp=Z,0.2nm,1.0s						
TIR	Tirane	3.41	322	ePn	Pn	18 46 30.0	+4.1
TIR				i Sn	Sb	18 47 16.0	+2.7
SMG	Samos	3.43	105	ePN	Pn	18 46 26.5	+0.2
VAM	Vamos	3.51	159	ePN	Pn	18 46 28.1	+0.7
KDAG	Bornova	3.62	93	i P	Pn	18 46 30.2	+1.3
KDZ	Kurdzhali	3.62	35	i P	Pn	18 46 27.3	-1.7
PLD	Plovdiv	3.74	24	i P	Pn	18 46 32.0	+1.4
IDI	Anoyia	3.84	152	Pn	Pn	18 46 33.4	+1.3
	comp=Z,6.8nm,0.3s,baz=311,slow=14,SNR=39						
IDI				Sn	Sn	18 47 17.2	-0.4
	comp=Z,6.4nm,0.3s,baz=250,slow=21,SNR=4.4						
VTS	Vitosha	3.91	6	i P	Pn	18 46 33.7	+0.7
PGB	Panagyurishte	4.01	16	P	Pn	18 46 34.0	-0.5
BDRM	Kayabasi	4.12	112	i P	Pg	18 46 48.7	-5.6
NPS	Neapolis	4.16	145	ePN	Pn	18 46 38.4	+1.7
ULC	Ulcinj	4.17	322	⇑iPn	Pn	18 46 38.2	+1.4
ULC				eSn	Sn	18 47 23.0	-3.0
BTOK	Tokmak	4.30	74	i P	Pn	18 46 40.1	+1.5
PVY	Plav	4.40	333	⇑iPn	Pn	18 46 42.4	+2.4
PVY				eSn	Sn	18 47 30.2	-1.3
XRY	Khrisi	4.53	147	ePN	Pn	18 46 43.5	+1.7
TTG	Podgorica	4.54	326	⇑iPn	Pn	18 46 43.8	+1.8
TTG				eSn	Sn	18 47 32.1	-3.0
BUM	Brajici-Budva	4.60	323	⇑iPn	Pn	18 46 44.0	+1.1
BUM				eSn	Sn	18 47 33.7	-3.0
MANT	Manisa	4.62	91	i P	Pn	18 46 44.0	+0.8
TIP	Timpagrande	4.63	278	ePn	Pn	18 46 43.6	+0.3
TIP	Timpagrande	4.63	278	ePn	Pn	18 46 43.6	+0.3
IVA	Berane	4.67	334	⇑iPn	Pn	18 46 46.1	+2.4
IVA				eSn	Sn	18 47 37.1	-1.3
KARP	Karpathos	4.78	130	ePN	Pn	18 46 47.2	+1.9
HCY	Herceg Novi	4.91	321	⇑iPn	Pn	18 46 48.4	+1.2
HCY				eSn	Sn	18 47 40.6	-3.8
PVL	Pavlikeni	4.94	23	i P	Pn	18 46 45.0	-2.7
NKY	Niksic	4.96	327	⇑iPn	Pn	18 46 49.2	+1.3
NKY				eSn	Sn	18 47 42.5	-3.4
NKY	Niksic	4.96	327	⇑iPn	Pn	18 46 49.2	+1.2
NKY				eSn	Sn	18 47 42.5	-3.3
DNZL	Cakiroluk	5.13	99	i P	Pn	18 46 51.0	+0.8
BOLS	Boljevac	5.15	354	⇓iP	Pn	18 46 49.9	-0.8
ULDT	Uludag	5.21	72	i P	Pn	18 46 58.6	+7.1
BRY	Bratogost	5.23	325	ePn	Pn	18 46 52.8	+1.0
BRY				eSn	Sn	18 47 48.9	-3.8
BRY	Bratogost	5.23	325	ePn	Pn	18 46 52.8	+1.0
BRY				eSn	Sn	18 47 48.8	-3.8
PLE	Pljevlja	5.24	333	⇑iPn	Pn	18 46 54.4	+2.4
PLE				eSn	Sn	18 47 50.8	-2.1
PLE	Pljevlja	5.24	333	⇑iPn	Pn	18 46 54.3	+2.3
PLE				eSn	Sn	18 47 50.8	-2.1
NVSS	Nova Varos 2	5.30	336	⇓iPn	Pn	18 46 54.2	+1.5
NVSS				Sn	Sn	18 47 56.0	+1.7
NVSS	Nova Varos 2	5.30	336	Pn	Pn	18 46 54.2	+1.5
UPM	Unac-Piva	5.32	329	⇑iPn	Pn	18 46 54.8	+1.8
UPM				eSn	Sn	18 47 51.8	-3.1
GRUS	Gruza	5.39	345	⇓iPn	Pn	18 46 54.0	0.0
GRUS				Sn	Sb	18 48 16.7	+6.0
PRD	Provadia	5.75	37	i P	Pn	18 46 58.0	-1.1
DIVS	Divcibare	5.75	340	⇓iPn	Pn	18 46 58.8	-0.4
DIVS				Sn	Sn	18 48 05.2	-0.5
ESKT	Eskisehir	6.42	80	i P	Pn	18 47 09.5	+1.0
VAE	Valguarnera	6.62	262	Pn	Pn	18 47 12.7	+1.3
	comp=Z,1.9nm,0.3s,baz=92,slow=9.2,SNR=3.9						
VAE				Sn	Sn	18 48 31.7	+4.2
	comp=Z,3.5nm,0.3s,baz=158,slow=3.6,SNR=5.1						
HENT	Hendek	6.69	69	i P	Pn	18 47 12.6	+0.3
MLR	Muntele Rosu	7.21	19	Pn	Pn	18 47 19.5	-0.1
	comp=Z,2.6nm,0.3s,baz=185,slow=5.3,SNR=20						
MLR				LR	LR	18 50 24.4	
	comp=Z,537nm,20.2s,baz=40,slow=41						
SGKT	Sivrigoynuk	7.48	73	i P	Pn	18 47 22.4	-1.1
PKSM	Moragy	8.07	340	⇓eP	P	18 47 31.0	-0.7
RHK1	Bakonya	8.13	337	eP	P	18 47 31.3	-1.2
ELDT	Eldivan	8.50	74	i P	P	18 47 36.0	-1.6
BRTR	Keskin Array B	8.58	80	Pn	P	18 47 38.6	-0.1
	comp=Z,0.4nm,0.3s,baz=264,slow=12,SNR=9.0						
BALT	Daday	8.69	68	i P	P	18 47 26.3	-14
DOBS	Dobrina	9.15	327	ePn	P	18 47 47.5	+0.9
GROS	Grobnik	9.38	328	i Pn	P	18 47 48.2	-1.6
PSZ	Piszkesteto	9.43	349	eP	P	18 47 50.3	-0.2
PSZ				eS	Sn	18 49 41.3	+3.9
PSZ	Piszkesteto	9.43	349	e	P	18 47 50.3	-0.2
PSZ				eSB	Sn	18 49 41.4	+4.0
PERS	Pernice	9.68	327	i Pn	P	18 47 52.4	-1.5
OBKA	Obir	9.83	325	⇓iPN	P	18 47 54.2	-1.8
OBKA				i SN	Sn	18 49 40.3	-6.8
KECS	Kecovo	9.90	352	i PN	P	18 47 58.3	+1.3
ARSA	Arzberg	10.02	331	⇑iPN	P	18 47 57.4	-1.1
ARSA				i SN	S	18 49 45.8	-5.9
VYHS	Vyhne	10.17	345	i PN	P	18 48 00.9	+0.2
VYHS				i SN	S	18 49 54.2	-1.4
KOLS	Kolonicke sedl	10.23	359	i PN	P	18 48 04.0	+2.5
CRVS	Cervenica-Dubn	10.23	356	i PN	P	18 48 03.0	+1.5
ZST	Bratislava	10.31	339	ePN	P	18 48 10.0	+7.4
SMOL	Smolenice	10.52	341	eSN	S	18 50 03.0	-0.9
NIE	Niedzica	10.85	352	eP	P	18 48 11.7	+1.8
KWP	Kalwaria	10.93	0	eP	P	18 48 13.8	+2.8
MOA	Molln	11.00	329	⇑iPN	P	18 48 10.4	-1.6
MOA				i SN	S	18 50 09.1	-6.7
PGF	Pioggiola	11.07	295	eP	P	18 48 12.3	-0.7
OKC	Ostrava-Krasne	11.59	345	eP	P	18 48 36.7	+17
OJC	Ojcow	11.70	351	eP	P	18 48 21.7	+0.2
WTTA	Wattenberg	11.76	320	i SN	S	18 50 27.0	-7.3
WTTA	Wattenberg	11.76	320	⇑iPn	P	18 48 20.1	-2.2
WTTA				i Sn	S	18 50 27.0	-7.3
GZT	Gaziantep	11.83	92	i P	P	18 48 30.3	+7.0
GERES	GERESS Array B	12.02	330	Pn	P	18 48 24.1	-1.8
	comp=Z,0.2nm,0.3s,baz=156,slow=13,SNR=8.9						
GERES				Sn	S	18 50 36.2	-4.6
	comp=Z,0.1nm,0.3s,baz=147,slow=16,SNR=2.7						
GERES	GERESS Array B	12.02	330	Pn	P	18 48 24.0	-1.9
KHC	Kasperske Hory	12.30	331	eP	P	18 48 28.1	-1.6
KHC				x	x	18 48 32.0	
DAVOX	Davos	12.38	315	Pn	P	18 48 31.5	+0.8
	comp=Z,0.5nm,0.3s,baz=143,slow=17,SNR=5.8						
DAVOX				Sn	S	18 50 47.1	-2.3
	comp=Z,0.3nm,0.3s,baz=344,slow=22,SNR=3.2						
DAVOX	Davos	12.38	315	Pn	P	18 48 31.5	+0.8
DAVOX				Sn	S	18 50 47.1	-2.3
DAVA	Damuels	12.68	317	i SN	S	18 50 50.2	-6.6
DAVA	Damuels	12.68	317	⇑iPn	P	18 48 33.4	-1.4
DAVA				i Sn	S	18 50 50.2	-6.6
AKASG	Malin Array Be	12.87	19	Pn	P	18 48 36.3	-0.8
	comp=Z,0.4nm,0.3s,baz=204,slow=13,SNR=4.6						
ASF	Jabal al Asfar	13.30	115	Pn	P	18 48 44.4	+1.4
	comp=Z,0.1nm,0.3s,baz=113,slow=6.7,SNR=3.3						
MBDF	Montbardon	13.31	302	eP	P	18 48 41.8	-1.2
	comp=Z,20nm,1.1s						
MBDF	Montbardon	13.31	302	eP	P	18 48 41.8	-1.2
MBDF				pmax	pmax		
	comp=Z,10.0nm,1.0s						
EIL	Elat	13.57	128	Pn	P	18 48 48.3	+1.8
	comp=Z,0.9nm,0.3s,baz=291,slow=18,SNR=6.2						
LPG	La Plagne	13.62	305	eP	P	18 48 53.6	+6.5
	comp=Z,32nm,1.1s						
LPG	La Plagne	13.62	305	eP	P	18 48 53.6	+6.5
LPG				pmax	pmax		
	comp=Z,16nm,1.1s						
LPL	La Plagne	13.64	305	eP	P	18 48 52.7	+5.4
SOC	Sochi	13.74	64	eP	P	18 48 54.5	+5.8
SOC				pmax	pmax		
	comp=Z,18nm,0.7s						
SOC				pmax	pmax		
	comp=N,22nm,1.1s						
SOC				pmax	pmax		
	comp=E,15nm,0.6s						
ALWS	Ilw as Safayha	13.90	129	P	P	18 48 48.0	-2.8
ORIF	Oris-en-Rattie	13.97	302	eP	P	18 48 51.0	-0.7
HAQS	Haql	14.00	130	P	P	18 48 50.1	-2.1
JMOS	Jabal al Moall	14.03	129	P	P	18 48 49.7	-2.8
CLL	Collm	14.32	335	e	P	18 49 04.0	+7.7
CLL				e		18 49 32.0	
CABF	La Chapelle	14.52	308	eP	P	18 49 02.8	+3.9
BDAS	Al Bad‘	14.56	131	P	P	18 48 57.7	-1.8
JMQS	Jabal Moqyreh	14.70	128	P	P	18 48 58.0	-3.4
AYUS	‘Aynunah	14.84	131	P	P	18 49 01.1	-2.0
SUW	Suwalki	15.32	1	eP	P	18 49 13.8	+4.5
SUW				e		18 49 17.4	
TBKS	Tabuk	15.58	128	P	P	18 49 11.4	-1.5
KIV	Kislovodsk	15.92	64	i P	P	18 49 22.9	+5.8
KIV				pmax	pmax		
	comp=Z,14nm,1.2s						
SMF	Signal de Mont	15.94	306	eP	P	18 49 20.9	+3.6
	comp=Z,139nm,1.6s						
SMF	Signal de Mont	15.94	306	eP	P	18 49 20.9	+3.6
SMF				pmax	pmax		
	comp=Z,69nm,1.6s						
DBAS	Duba	15.98	132	P	P	18 49 17.7	-0.3
AVF	Avril sur Loir	16.30	306	eP	P	18 49 26.3	+4.3
	comp=Z,135nm,1.7s						
AVF	Avril sur Loir	16.30	306	eP	P	18 49 26.3	+4.3
AVF				pmax	pmax		
	comp=Z,67nm,1.7s						
SSF	Saint Saulge	16.31	307	eP	P	18 49 21.6	-0.5
ZEI	Tsey	16.59	69	eP	P	18 49 30.1	+4.4
ZEI				eS	S	18 52 20.6	-8.4
ZEI				pmax	pmax		
	comp=Z,3.0nm,1.1s						
TCF	Toulx Ste Croi	16.86	303	eP	P	18 49 29.2	+0.2
VRSR	Storozhevoye	17.07	38	eP	P	18 49 36.8	+5.1
VRSR				pmax	pmax		
	comp=Z,5.0nm,0.5s						
VRSR				pmax	pmax		
	comp=N,8.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.1s						
GNI	Garni	17.12	78	i P	P	18 49 35.8	+3.5
OBN	Obninsk	18.91	25	eP	P	18 49 51.6	-2.8
OBN				pmax	pmax		
	comp=Z,30nm,1.2s						
KBRS	Khaybar	19.01	128	P	P	18 49 56.3	+0.5
LDF	La Druitiere	19.16	308	eP	P	18 49 58.8	+1.3
	comp=Z,97nm,1.4s						
LDF	La Druitiere	19.16	308	eP	P	18 49 58.8	+1.3
LDF				pmax	pmax		
	comp=Z,49nm,1.4s						
YNBS	Yanbu‘ al Bahr	19.34	133	P	P	18 50 03.1	+3.3
HILS	Ha’il	19.57	120	P	P	18 50 01.9	-0.3
MOS	Moscow	19.77	26	eP	P	18 50 02.0	-2.3
MOS				pmax	pmax		
	comp=Z,48nm,1.3s						
VSU	Vasula	19.95	6	i P	P	18 50 04.7	-1.6
ESDC	Sonseca Array	20.64	281	P	P	18 50 13.3	-0.4
	comp=Z,9.6nm,1.0s,baz=79,slow=10,SNR=13						
ESLA	Sonseca Array	20.64	281	eP	P	18 50 13.4	-0.3
	comp=Z,7.7nm,1.3s						
ESLA	Sonseca Array	20.64	281	eP	P	18 50 13.4	-0.3
	comp=Z,7.7nm,1.3s						
ARSS	Ar Rass	21.52	120	P	P	18 50 25.5	+2.7
HFS	Hagfors	22.19	348	P	P	18 50 28.2	-1.0
	comp=Z,2.9nm,0.5s,mb4.0,baz=153,slow=9.9,SNR=15						
FINES	FINESS Array B	22.87	4	P	P	18 50 35.0	-0.7
	comp=Z,4.6nm,0.9s,mb3.9,baz=180,slow=9.5,SNR=8.1						
FINES				LR	LR	19 00 18.4	
	comp=Z,362nm,18.7s,MS3.8,baz=180,slow=39						
FINES	FINESS Array B	22.87	4	P	P	18 50 35.0	-0.7
FINES				LR	LR	19 00 18.4	
FINES	FINESS Array B	22.87	4	P	P	18 50 35.0	-0.7
NB2	NORSAR Subarra	23.48	346	P	P	18 50 40.7	-1.0
	comp=Z,8.3nm,0.9s,mb4.2,baz=161,slow=10						
NB2	NORSAR Subarra	23.48	346	P	P	18 50 40.7	-1.0
NB2				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.2						
NOA	NORSAR Array B	23.48	346	P	P	18 50 42.1	+0.4
	comp=Z,3.2nm,0.6s,mb3.9,baz=159,slow=10.0,SNR=7.9						
NOA				LR	LR	19 01 06.9	
	comp=Z,121nm,19.1s,MS3.4,baz=280,slow=40						
KAF	Kangasniemi	23.55	4	ep	P	18 50 41.1	-1.2
	comp=Z,2.6nm,0.8s,mb3.7						
KAF	Kangasniemi	23.55	4	eP	P	18 50 41.1	-1.2
KAF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb3.8						
EKA	Eskdalemuir Ar	24.01	322	P	P	18 50 46.9	-0.1
	comp=Z,10.0nm,0.7s,mb4.3,baz=118,slow=8.8,SNR=21						
EKA	Eskdalemuir Ar	24.01	322	P	P	18 50 46.8	-0.1
ARU	Arti	29.55	41	eP	P	18 51 39.6	+1.4
ARCES	ARCESS Array B	30.93	2	P	P	18 51 49.6	-0.6
	comp=Z,3.9nm,1.0s,mb4.2,baz=190,slow=10,SNR=3.7						
ARCES				LR	LR	19 05 40.8	
	comp=Z,259nm,21.3s,MS3.9,baz=27,slow=39						
AAK	Ala-Archa	39.01	67	i P	P	18 53 03.2	+3.6
DBIC	Dimbokro	40.44	225	P	P	18 53 10.7	-1.1
	comp=Z,10.0nm,1.2s,mb4.4,baz=11,slow=7.8,SNR=6.6						
DBIC	Dimbokro	40.44	225	P	P	18 53 10.6	-1.1
ZAL	Zalesovo	44.07	49	P	P	18 53 39.8	-1.1
	comp=Z,1.1nm,0.4s,mb3.9,baz=193,slow=7.1,SNR=4.6						
TIXI	Tiksi	58.57	21	eP	P	18 55 31.1	+1.1
TIXI				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.2						
TIXI				MLR	MLR		
	comp=Z,342nm,17.0s,MS4.5						
SONM	Songino Array	58.82	52	P	P	18 55 31.5	-0.6
	comp=Z,1.1nm,0.8s,mb4.0,baz=293,slow=8.2,SNR=7.6						
BOD	Bodaibo	58.92	39	eP	P	18 55 27.9	-4.8
SCHQ	Schefferville	59.21	318	P	P	18 55 33.8	-0.9
	comp=Z,5.3nm,0.6s,mb4.7,baz=67,slow=6.9,SNR=4.2						
HHC	Hu-ho-hao-te	65.35	57	eP	P	18 56 17.8	+2.0
HHC				AP	pP	18 56 25.8	+5.6
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb5.0						
CMAR	Chiang Mai Arr	68.15	83	P	P	18 56 35.5	+1.5
	comp=Z,0.6nm,0.7s,mb3.7,baz=303,slow=7.0,SNR=5.4						
SADO	Sadowa	71.16	313	LR	LR	19 29 45.2	
	comp=Z,130nm,19.6s,MS4.2,baz=67,slow=37						
CN2	Changchun	72.29	48	eP	P	18 56 59.3	+0.5
YKA	Yellowknife Ar	73.46	341	P	P	18 57 04.5	-0.6
	comp=Z,1.1nm,0.9s,mb3.8,baz=34,slow=5.4,SNR=9.6						
YKA	Yellowknife Ar	73.46	341	P	P	18 57 04.6	-0.6
ULM	Lac du Bonnet	76.27	325	P	P	18 57 23.2	+1.7
	comp=Z,3.4nm,0.8s,mb4.3,baz=34,slow=4.5,SNR=4.5						
ULM				LR	LR	19 29 52.4	
	comp=Z,122nm,20.0s,MS4.2,baz=352,slow=35						
ILAR	Eielson Array	76.54	355	P	P	18 57 22.7	-0.1
	comp=Z,0.4nm,0.7s,mb3.5,baz=351,slow=2.8,SNR=6.8						
SSE	Sheshan	77.26	60	eP	P	18 57 26.5	-1.0
PDAR	Pinedale Array	88.05	327	P	P	18 58 25.2	+2.3
	comp=Z,0.7nm,0.9s,mb3.9,baz=27,slow=3.3,SNR=5.5						
NVAR	Mina Array Bea	95.28	330	LR	LR	19 41 21.1	
	comp=Z,42nm,18.8s,MS3.9,baz=200,slow=35						
TXAR	Lajitas Array	95.81	315	LR	LR	19 41 43.2	
	comp=Z,60nm,19.2s,MS4.1,baz=320,slow=35						
VNA1	Neumayer--Stat	111.31	191	P	PKPdf	19 04 06.6	-1.4
VNA2	Neumayer--Watz	111.43	190	P	PKPdf	19 04 06.1	-2.1
SNAA	Sanae	111.55	188	⇑iP	PKPdf	19 04 06.9	-1.5
VNA3	Neumayer Olymp	112.04	191	P	PKPdf	19 04 07.5	-1.8
ASAR	Alice Springs	120.56	97	PKP	PKPdf	19 04 23.9	-3.3
	comp=Z,0.2nm,0.3s,baz=304,slow=2.0,SNR=4.0						

NNC ***17*** *18:53:36.5±21.0, 43.70N×87.55E, mpv3.0, Error ellipse: s-maj=158.4km s-min=132.6km az=131.0*

BJI 17 18:53:36.8, 43.48N×87.27E, h17^{km}, ML2.9, 2C-1D, Northern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WMQ	Urumqi	0.46	42	⇓iPG	Pb	18 53 43.5	-2.6
WMQ				SG	Sb	18 53 51.0	-1.4
WMQ				Smax			
	comp=N,282nm,0.3s						
WMQ				Smax			
	comp=E,346nm,0.2s						
MK31	Makanchi Array	4.84	315	⇑Pn	Pn	18 54 50.5	-0.1
	comp=E,0.7nm,0.3s,baz=124,slow=15,SNR=90						
MK31				Sn	Sn	18 55 48.0	+1.1
	baz=122,slow=23						
MK31				⇑Lg		18 56 11.1	
	comp=E,3.5nm,0.5s,baz=134,slow=24,SNR=4.6						

OTT 17 19:01:21.6±0.3, **61.38N×73.37W, h18^{km}, MN2.4**/5, **Boothia Ungava Seismic Zone. 58km southeast from Purtuniq, Qc, Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FRB	Frobisher Bay	3.26	41	PN	Pn	19 02 11.1	-2.0
FRB				SN	Sn	19 02 48.7	-3.1
FRB				Trac		19 02 55.7	
	comp=Z,5.8nm,0.3s						
FRB				SG	Sn	19 02 56.2	+4.4
KUQ	Kuujjuuaa	4.13	140	SG	Sn	19 03 30.1	+16
KUQ				Trac		19 03 37.4	
	comp=Z,4.4nm,0.2s						
SCHQ	Schefferville	7.42	149	PN	Pn	19 03 10.9	-0.9
SCHQ				SN	Sn	19 04 23.8	-13
LG4Q	La Grande 4	7.78	183	PN	Pn	19 03 11.5	-5.4
LG4Q				SN	Sn	19 04 37.6	-7.8
LG4Q				LG		19 05 20.6	
LG4Q				Trac		19 05 28.5	
	comp=Z,0.7nm,0.2s						
SILO	Sutton Inlier	9.23	227	PN	P	19 03 32.0	-5.0
SILO				SN	Sn	19 05 10.1	-11
SILO				LG		19 05 59.6	
SILO				Trac		19 06 11.2	
	comp=Z,0.4nm,0.2s						
VIMO	Victor Mine	10.26	218	PN	P	19 03 46.6	-4.3
VIMO				SN	S	19 05 37.1	-9.3
VIMO				Trac		19 05 39.3	
	comp=Z,0.4nm,0.2s						
VIMO				LG		19 06 32.7	
MALO	McAlpine Lake	11.93	200	PN	P	19 04 06.2	-7.5
MALO				SN	S	19 06 10.8	-17

IDC ***17*** *19:11:09.8±0.5, 33.37S×68.89W, h27^{km}±3^{km}, mb4.1/8, mb1 4.3/11, mb1mx4.2/17, ML4.5/2, MS3.8/3, Ms1 3.7/3, ms1mx3.4/18, Error ellipse: s-maj=20.8km s-min=15.3km az=78.0*

NEIC ***17*** *19:11:09.4±0.3, 33.41S×68.78W, mb4.5/10, ML4.2(GUC), Error ellipse: s-maj=6.2km s-min=4.7km az=152.0*

NEIC Felt [IV] at Mendoza.

SYO ***17*** *19:11:09.1, 33.43S×68.76W, h25^{km}, MB4.5*

GUC ***17*** *19:11:10.4±0.7, 33.36S×68.93W, h26^{km}±4^{km}, MD4.3, ML4.2*

ISC 17 19:11:08.1±0.4, **33.43S**±0.04×**68.75W**±0.03, **h25^{km}, h25^{km}**±.3^{km}**:pP-P, n70, σ1^{s}00**/78, **mb4.4**/17, **MS3.8**/2, **18C-7D, Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	Mendoza	0.55	352	eP	Pb	19 11 19.7	+0.6
MDZ				i S	Sb	19 11 27.0	+0.4
LMEL	Las Melosas	1.28	250	⇓iP	Pn	19 11 30.3	-0.3
LMEL				i S	Sn	19 11 46.2	-1.0
LMEL				AMP		19 11 49.0	
	comp=N,8µm,0.7s						
FCH	Farellones	1.29	274	⇓iP	Pn	19 11 29.8	-1.0
FCH				i S	Sn	19 11 45.2	-2.2
FCH				AMP		19 11 50.4	
	comp=E,4µm,0.8s						
SJCH	San Jose de Ma	1.35	260	⇑iP	Pn	19 11 30.8	-0.9
SJCH				i S	Sn	19 11 47.4	-1.6
SJCH				AMP		19 11 48.5	
	comp=N,6µm,0.7s						
FSR	Penalolen	1.48	268	⇑iP	Pn	19 11 33.7	+0.1
FSR				i S	Sn	19 11 51.5	-0.7
FSR				AMP		19 11 54.1	
	comp=E,15µm,0.5s						
PCH	Pirque	1.48	262	⇑iP	Pn	19 11 33.5	-0.1
DSCH	Colegio Aleman	1.52	271	eP	Pn	19 11 34.1	0.0
DSCH				i S	Sn	19 11 52.4	-0.8
DSCH				AMP		19 11 58.5	
	comp=E,13µm,0.5s						
STL	Santa Lucia	1.58	269	⇑iP	Pn	19 11 35.3	+0.3
STL				i S	Sn	19 11 54.0	-0.7
STL				AMP		19 12 00.0	
	comp=E,3µm,0.7s						
PEL	Peldehue	1.64	279	⇑iP	Pn	19 11 35.9	+0.1
PEL				i S	Sn	19 11 55.3	-1.1
CICH	Cipreses	1.65	237	⇑iP	Pn	19 11 37.4	+1.5
CHCH	Chadas Angostu	1.66	252	⇑iP	Pn	19 11 37.0	+0.9
CHCH				i S	Sn	19 11 57.4	+0.6
CACH	El Canelo	1.69	245	⇓iP	Pn	19 11 37.8	+1.3
CACH				i S	Sn	19 11 59.5	+2.1
JACH	Jahuel	1.71	295	⇑iP	Pn	19 11 37.0	+0.1
JACH				i S	Sn	19 11 57.5	-0.7
RCDM	Rinconada Maip	1.72	267	⇑iP	Pn	19 11 37.5	+0.6
RCDM				i S	Sn	19 11 58.3	+0.1
RCDM				AMP		19 12 00.6	
	comp=N,3µm,0.6s						
TACH	Talagante	1.84	262	⇑iP	Pn	19 11 39.5	+0.8
TACH				i S	Sn	19 12 01.5	+0.2
ROCH	El Roble	1.95	283	eP	Pn	19 11 41.3	+1.1
ROCH				i S	Sn	19 12 04.5	+0.4
PTCH	Petorca	2.17	302	⇑iP	Pn	19 11 44.9	+1.5
PTCH				i S	Sn	19 12 10.8	+1.1
PTCH				AMP		19 12 13.6	
	comp=N,6µm,0.6s						
SFDO	San Fernando	2.22	237	⇓iP	Pn	19 11 45.9	+1.8
LNV	Longovilo	2.28	256	⇑iP	Pn	19 11 45.5	+0.6
LCCH	Las Cruces	2.35	268	⇓iP	Pn	19 11 46.5	+0.4
PACH	Papudo	2.42	291	i P	Pn	19 11 47.1	+0.1
IHA	Instituto Hidr	2.45	279	⇓iP	Pn	19 11 48.1	+0.6
CMCH	Combarbala	2.94	319	eP	Pn	19 11 55.5	+1.1
TLL	Tololo Astrono	3.69	331	eP	Pn	19 12 06.1	+1.1
LVC	Limon Verde	10.77	359	Pn	P	19 13 45.5	+1.5
	comp=N,0.7nm,0.3s,baz=202,slow=8.7,SNR=6.3						

LVC				Sn	S	19 15 48.5	+3.6
	comp=N,0.3nm,0.3s,baz=327,slow=10,SNR=3.5						
LVC				Lg		19 16 37.6	
	comp=N,0.8nm,0.3s,baz=309,slow=18,SNR=3.0						
LVC				LR	LR	19 18 08.6	
	comp=N,373nm,18.9s,baz=30,slow=39						
ARE	Arequipa	17.07	351	eP	P	19 15 13.0	+6.1
LPAZ	La Paz	17.07	2	P	P	19 15 08.4	+1.5
	comp=N,0.5nm,0.3s,baz=185,slow=8.7,SNR=10						
LPAZ	La Paz	17.07	2	eP	P	19 15 08.4	+1.5
	comp=N,2.2nm,0.6s						
USHA	Ushuaia	21.40	179	P	P	19 15 56.4	+0.4
	comp=N,17nm,0.9s,mb4.4,baz=342,slow=7.3,SNR=4.5						
BDFB	Brasilia	25.79	52	P	P	19 16 38.9	-0.1
	comp=N,5.3nm,0.5s,mb4.3,baz=237,slow=9.5,SNR=11						
BDFB				pP	pP	19 16 46.4	+0.1
	comp=N,9.4nm,0.8s,baz=225,slow=7.5,SNR=6.1						
BDFB				LR	LR	19 28 03.2	
	comp=N,354nm,19.5s,MS3.9,baz=185,slow=39						
BAO	Brasilia Array	25.81	52	eP	P	19 16 38.6	-0.6
BAO				i	pP	19 16 45.8	-0.7
VNA3	Neumayer Olymp	48.87	158	⇑i	P	19 19 57.4	+4.2
VNA3	Neumayer Olymp	48.87	158	⇑i	P	19 20 04.0	+11
VNA1	Neumayer--Stat	49.14	157	⇑i	P	19 19 59.2	+3.9
VNA2	Neumayer--Watz	49.49	158		P	19 20 01.3	+3.3
VNA2	Neumayer--Watz	49.49	158		P	19 20 08.6	+11
SNAA	Sanae	51.09	158	⇑i	P	19 20 10.0	-0.2
SNAA	Sanae	51.09	158	⇑i	P	19 20 17.7	+7.5
SNAA	Sanae	51.09	158	P	P	19 20 11.1	+0.9
	comp=N,13nm,1.3s,mb4.7,baz=269,slow=7.3,SNR=13						
SNAA				pP	pP	19 20 18.2	+0.3
	comp=N,2.9nm,0.7s,baz=256,slow=9.3,SNR=6.5						
QSPA	South Pole Qui	56.81	180	eP	P	19 20 52.0	-0.2
	comp=N,6.8nm,0.8s,mb4.7						
VNDA	Vanda	65.19	191	P	P	19 21 48.7	-0.1
	comp=N,0.8nm,0.6s,mb3.9,baz=108,slow=9.5,SNR=5.1						
VNDA				LR	LR	19 51 49.6	
	comp=N,37nm,19.3s,MS3.6,baz=149,slow=37						
VNDA	Vanda	65.19	191	P	P	19 21 48.7	-0.1
VNDA				LR	LR	19 51 49.6	
SYO	Syowa Base	65.38	158	⇑P	P	19 21 46.2	-3.9
SYO	Syowa Base	65.38	158	⇓pP	pP	19 21 52.0	-6.0
TXAR	Lajitas Array	70.64	328	P	P	19 22 22.2	-1.5
	comp=N,1.8nm,0.9s,mb4.0,baz=162,slow=7.9,SNR=4.3						
TXAR				pP	pP	19 22 30.3	-1.2
	comp=N,1.1nm,0.6s,baz=149,slow=9.1,SNR=3.4						
TXAR	Lajitas Array	70.64	328	P	P	19 22 22.2	-1.5
TXAR				pP	pP	19 22 30.3	-1.2
WVT	Waverly	71.46	344	eP	P	19 22 26.3	-2.2
	comp=N,24nm,0.7s,mb5.2						
WVT				epP	pP	19 22 34.2	-2.2
DBIC	Dimbokro	72.41	69	P	P	19 22 34.8	+0.3
	comp=N,2.2nm,0.9s,mb4.1,baz=162,slow=9.7,SNR=2.8						
DBIC				pP	pP	19 22 42.5	+0.1
	comp=N,7.2nm,0.8s,baz=191,slow=6.2,SNR=7.7						
GDL2	Guadalupe Moun	73.40	329	eP	P	19 22 38.1	-1.9
MNTX	Cornudas Mount	73.42	328	eP	P	19 22 37.3	-2.9
	comp=N,4.0nm,0.8s,mb4.4						
MNTX				epP	pP	19 22 45.7	-2.3
CPRX	Cap Rock	73.91	330	eP	P	19 22 41.8	-1.1
CPRX				epP	pP	19 22 49.4	-1.5
ANMO	Albuquerque	76.65	329	P	P	19 22 58.2	-0.4
	comp=N,3.8nm,0.8s,mb4.4,baz=142,slow=4.8,SNR=8.2						
ANMO				pP	pP	19 23 06.4	-0.1
	comp=N,3.6nm,0.9s,baz=158,slow=7.0,SNR=5.1						
ANMO	Albuquerque	76.65	329	eP	P	19 22 57.7	-0.9
	comp=N,4.5nm,0.9s,mb4.4						
SDCO	Great Sand Dun	78.64	331	eP	P	19 23 08.8	-0.6
	comp=N,2.7nm,0.8s,mb4.2						
SDCO				epP	pP	19 23 17.0	-0.5
ISCO	Idaho Springs	80.45	332	P	P	19 23 19.1	-0.1
	comp=N,3.7nm,0.7s,mb4.4						
PV10	Paradox Valley	80.65	329	eP	P	19 23 19.2	-1.1
PHWY	Pilot Hill	81.68	333	eP	P	19 23 25.2	-0.4
PHWY				epP	pP	19 23 32.8	-0.9
HWUT	Hardware Ranch	84.41	329	eP	P	19 23 38.7	-0.9
	comp=N,1.9nm,0.7s,mb4.3						
HWUT				epP	pP	19 23 46.5	-1.2
PDAR	Pinedale Array	84.53	331	P	P	19 23 39.2	-0.9
	comp=N,0.5nm,0.5s,mb3.9,baz=129,slow=5.8,SNR=7.6						
NVAR	Mina Array Bea	85.02	323	P	P	19 23 42.8	+0.1
	comp=N,1.5nm,0.7s,mb4.2,baz=146,slow=7.0,SNR=12						
NVAR				pP	pP	19 23 51.6	+0.8
	comp=N,2.4nm,0.7s,baz=136,slow=5.6,SNR=11						
ELK	Elko	85.35	326	eP	P	19 23 43.7	-0.6
	comp=N,2.0nm,0.7s,mb4.4						
ELK				epP	pP	19 23 51.9	-0.5
HLID	Hailey	87.23	329	eP	P	19 23 53.3	-0.2
	comp=N,2.5nm,0.8s,mb4.5						
HLID				epP	pP	19 24 01.3	-0.3
MCMT	McKenzie Canyo	87.58	330	eP	P	19 23 55.2	0.0
MCMT				epP	pP	19 24 03.3	+0.1
ASAR	Alice Springs	119.26	204	PKP	PKPdf	19 29 55.1	-5.0
	comp=N,0.3nm,0.5s,baz=133,slow=1.4,SNR=8.2						
ASAR				pPKP		19 30 02.6	
	comp=N,0.4nm,1.1s,baz=224,slow=39,SNR=1.6						
AKASG	Malin Array Be	119.80	47	PKP	PKPdf	19 29 55.3	-5.2
	comp=N,0.2nm,0.3s,baz=257,slow=3.1,SNR=3.1						
AKASG				pPKP		19 30 04.4	
	comp=N,1.8nm,0.8s,baz=264,slow=2.6,SNR=2.1						
WRA	Warramunga Arr	122.53	206	PKP	PKPdf	19 30 01.8	-4.8
	comp=N,0.8nm,0.5s,baz=168,slow=1.6,SNR=32						
BVAR	Borovoye Array	144.99	44	PKPbc	PKPbc	19 30 44.1	+1.3
	comp=N,0.6nm,0.5s,baz=297,slow=3.3,SNR=7.4						
BVAR				pPKPbc		19 30 52.8	
	comp=N,1.5nm,0.6s,baz=270,slow=1.5,SNR=8.9						
ZAL	Zalesovo	152.24	34	PKPbc	PKPdf	19 31 02.5	+3.7
	comp=N,4.2nm,0.5s,baz=141,slow=1.2,SNR=21						
ZAL				pPKPbc		19 31 11.1	
	comp=N,4.0nm,0.5s,baz=98,slow=4.1,SNR=7.9						
ZAL	Zalesovo	152.24	34	PKPbc	PKPdf	19 31 02.5	+3.7
ZAL				pPKPbc		19 31 11.1	
SONM	Songino Array	165.15	13	PKPab	PKPab	19 32 08.3	-0.5
	comp=N,0.3nm,0.6s,slow=5.8,SNR=3.4						
SONM				pPKPab		19 32 16.3	
	comp=N,0.8nm,0.7s,baz=329,slow=4.4,SNR=5.7						

IDC 17 19:42:27.8±23.0**, 23.33S**×**178.01E, h698**^{km}±188^{km}**, mb3.2**/6**, mb1 3.3**/6**, mb1mx3.1**/14**, Error ellipse: s-maj=238.0km s-min=82.9km az=85.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	29.65	270	P	P	19 47 43.1	-0.6
	6.7nm,0.3s,baz=94,slow=11,SNR=28						
STKA	Stephens Creek	33.25	247	P	P	19 48 11.5	-2.1
	2.2nm,0.5s,baz=91,slow=9.9,SNR=6.5						
ASAR	Alice Springs	40.33	260	P	P	19 49 09.4	-1.6
	2.1nm,0.4s,baz=96,slow=7.2,SNR=83						
WRA	Warramunga Arr	40.62	266	P	P	19 49 11.6	-1.8
	2.8nm,0.3s,baz=93,slow=8.5,SNR=163						
FITZ	Fitzroy Crossi	49.05	266	eP	P	19 50 15.7	-1.8
	4.9nm,0.7s						
FITZ	Fitzroy Crossi	49.05	266	P	P	19 50 15.8	-1.6
	4.4nm,0.6s,baz=46,slow=0.6,SNR=14						
CMAR	Chiang Mai Arr	87.61	291	P	P	19 54 05.5	-1.2
	0.2nm,0.7s,baz=135,slow=5.1,SNR=5.0						

DJA 17 19:43:35.3±1.0**, 8.53S**×**115.98E, h193**^{km}±7^{km}**, ML3.7**/1**, 2C-1D, Error ellipse: s-maj=55.7km s-min=15.9km az=2.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	0.13	73	ePg	P	19 44 00.6	-0.3
KEDI				eSg	S	19 44 18.8	-1.8
RATI	Rata	0.49	246	ePg	P	19 44 01.4	-0.5
RATI	Rata	0.49	246	ePn	P	19 44 01.9	0.0
RATI				eSg	S	19 44 20.8	-1.6
KELI	Kelakatan	1.51	282	⇑ePn	P	19 44 09.0	+0.2
	62nm,0.2s						
SRDI	Scrawed	1.82	271	⇑ePn	P	19 44 11.5	-0.3
SRDI				⇓eSn	S	19 44 38.6	-1.4

IDC 17 20:04:01.9±4.0**, 1.15N**×**99.82E, h210**^{km}±25^{km}**, mb3.3**/5**, mb1 3.5**/5**, mb1mx3.2**/16**, Error ellipse: s-maj=93.4km s-min=16.1km az=58.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	39.81	124	P	P	20 11 14.7	-1.7
	0.3nm,0.4s,baz=302,slow=9.0,SNR=14						
WRA				PcP	PcP	20 13 16.3	-2.4
	0.2nm,0.4s,baz=313,slow=2.7,SNR=7.6						
WRA				ScP		20 16 45.3	
	0.4nm,1.0s,baz=310,slow=3.5,SNR=6.0						
ASAR	Alice Springs	41.30	129	P	P	20 11 27.7	-0.9
	0.2nm,0.7s,baz=292,slow=7.0,SNR=2.6						
ASAR				ScP		20 16 51.5	
	0.7nm,1.0s,baz=311,slow=4.4,SNR=8.4						
SONM	Songino Array	46.85	6	P	P	20 12 10.6	-1.9
	0.2nm,0.3s,baz=188,slow=7.9,SNR=5.9						
ZAL	Zalesovo	54.05	349	P	P	20 13 04.8	-1.8
	2.5nm,0.7s,baz=322,slow=5.8,SNR=11						
ARCES	ARCESS Array B	83.47	340	P	P	20 16 05.3	-1.5
	4.6nm,1.0s,baz=100,slow=5.5,SNR=5.4						

*IDC **17** 20:08:03.4±1.1, 36.26N×58.27E, mb4.0/6, mb1 4.2/10, mb1mx3.9/21, ML3.8/3, MS3.0/1, Ms1 3.0/1, ms1mx2.7/24, Error ellipse: s-maj=31.9km s-min=16.8km az=15.0*

*CSEM **17** 20:08:03.2±0.1, 36.32N×58.12E, h14^{km}, ML4.2/1, Error ellipse: s-maj=5.2km s-min=3.1km az=160.0*

*MOS **17** 20:08:06.9±1.8, 36.23N×58.31E, h33^{km}, mb4.1/1, Error ellipse: s-maj=28.1km s-min=17.1km az=38.9*

*NEIC **17** 20:08:06.7, 36.32N×58.31E, h12^{km}, mb3.6/2, MN3.9(TEH), After TEH.*

*THR **17** 20:08:07.1±0.5, 36.33N×57.70E, h15^{km}, ML4.1*

ISC 17 20:08:04.3±0.3**, 36.33N**±0.05×**58.18E**±0.03**, h12**^{km}**, n46, σ1**^{s}**26**/53**, mb4.3**/12**, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IPAY	Payeh	0.67	80	Pg	Pg	20 08 17.0	-0.9
IQHU	Quchan	0.79	22	Pg	Pg	20 08 20.6	+0.4
IMOG	Moghan	0.97	103	Pg	Pg	20 08 22.3	-1.5
MHI	Mashhad	1.05	91	Pg	Pg	20 08 24.0	-1.3
IMYA	Miamay	1.55	89	Pn	Pn	20 08 32.7	+0.7
IANJ	Anjiloo	3.57	257	Pn	Pn	20 09 02.9	+2.2
ISHM	Shahmirzad	3.99	264	Pn	Pn	20 09 09.7	+2.9
ILAS	Lasjerd	4.34	259	Pn	Pn	20 09 13.4	+1.6
IFIR	Firoozkooh	4.45	263	Pn	Pn	20 09 14.3	+1.0
IFIR				Sn	Sn	20 10 05.5	-0.2
IDMV	Damavand	5.04	263	Pn	Pn	20 09 22.1	+0.4
ICHK	Chekchek	5.13	218	Pn	Pn	20 09 23.4	+0.4
IBAF	Bafgh	5.20	205	Pn	Pn	20 09 24.3	+0.3
IVRN	Varamin	5.42	258	Pn	Pn	20 09 27.0	0.0
IVRN				Sn	Sn	20 10 28.3	-1.7
NASN	Na’in	5.66	233	ePN	Pn	20 09 29.2	-1.2
NASN	Na’in	5.66	233	ePn	Pn	20 09 29.2	-1.2
NASN				Sn	Sn	20 10 28.6	-7.5
	40nm,0.5s						
IMEH	Mehriz	5.75	212	Pn	Pn	20 09 31.9	+0.2
ISAD	Sadrabad	5.77	221	Pn	Pn	20 09 31.9	-0.1
IQOM	Qom	5.98	258	Pn	Pn	20 09 35.3	+0.4
IQOM				Sn	Sn	20 10 41.6	-2.5
IGZV	Gazvin	6.42	273	Pn	Pn	20 09 43.9	+2.7
IGZV				Sn	Sn	20 10 52.2	-3.0
KRBR	Kerman	6.44	191	ePN	Pn	20 09 43.0	+1.5
KRBR				AMP		20 11 39.0	
	comp=N,64nm,0.7s						
KRBR				AMP		20 11 43.7	
	comp=E,44nm,0.7s						
IRAZ	Razeghan	6.76	265	Pn	Pn	20 09 45.8	-0.1
IRAZ				Sn	Sn	20 11 00.1	-3.5
GRMI	Germi	8.53	290	ePN	P	20 10 07.9	-2.8
SHGR	Shooshtar-Gavs	8.83	244	ePn	P	20 10 11.8	-3.0
SNGE	Sanandaj	8.89	265	ePN	P	20 10 11.9	-3.8
SNGE	Sanandaj	8.89	265	ePn	P	20 10 12.4	-3.3
GNI	Garni	11.23	294	Pn	P	20 10 48.4	+0.6
	comp=E,0.5nm,0.3s,baz=14,slow=10,SNR=8.4						
GNI				LR	LR	20 16 25.2	
	comp=E,86nm,20.8s,baz=161,slow=44						
MALT	Malatya	15.84	283	P	P	20 11 54.0	+5.3
MALT				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MALT	Malatya	15.84	283	P	P	20 11 54.0	+5.3
	comp=Z,2.5nm,0.9s						
ASF	Jabal al Asfar	18.07	263	P	P	20 12 18.3	+1.4
	comp=Z,0.1nm,0.3s,baz=334,slow=11,SNR=3.2						
BVAR	Borovoye Array	18.77	23	P	P	20 12 24.3	-1.1
	comp=Z,0.6nm,0.3s,baz=210,slow=11,SNR=13						
BRTR	Keskin Array B	19.61	287	P	P	20 12 35.3	0.0
	comp=Z,0.2nm,0.3s,baz=117,slow=8.3,SNR=8.7						
ARU	Arti	20.10	1	eP	P	20 12 43.2	+2.6
ARU				e		20 13 02.8	
ARU				eS	S	20 16 21.0	+0.3
KOLN	Koldanda	23.13	104	eP	P	20 13 12.2	+0.9
	comp=Z,15nm,0.8s,mb4.5						
GKN	Gorkha	23.84	103	eP	P	20 13 18.3	+0.1
	comp=Z,32nm,0.9s,mb4.8						
DMN	Daman	24.38	103	eP	P	20 13 24.3	+0.8
	comp=Z,16nm,0.7s,mb4.6						
KKN	Kakani	24.44	103	eP	P	20 13 24.4	+0.4
	comp=Z,16nm,0.8s,mb4.5						
PKI	Pulchoki	24.64	103	eP	P	20 13 26.2	+0.2
	comp=Z,21nm,0.8s,mb4.7						
GUN	Gumba	24.86	102	eP	P	20 13 28.5	+0.4
	comp=Z,23nm,0.7s,mb4.8						
AKASG	Malin Array Be	25.23	314	P	P	20 13 32.2	+0.8
	comp=Z,2.4nm,0.7s,mb3.8,baz=117,slow=8.3,SNR=9.3						
AKASG	Malin Array Be	25.23	314	P	P	20 13 32.3	+0.9
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	25.23	314	P	P	20 13 32.3	+0.9
	comp=Z,2.0nm,0.7s,mb3.8						
ZAL	Zalesovo	25.50	38	P	P	20 13 33.9	0.0
	comp=Z,0.6nm,0.3s,mb3.6,baz=323,slow=11,SNR=1.9						
FINES	FINESS Array B	32.22	331	P	P	20 14 33.1	-1.1
	comp=Z,2.4nm,0.7s,mb4.1,baz=166,slow=7.9,SNR=7.2						
CMAR	Chiang Mai Arr	39.99	105	P	P	20 15 39.6	-1.1
	comp=Z,1.8nm,0.5s,mb4.0,baz=296,slow=8.4,SNR=21						
ESDC	Sonseca Array	48.22	294	P	P	20 16 46.5	-0.2
	comp=Z,1.9nm,0.6s,mb4.3,baz=68,slow=8.2,SNR=9.5						
WRA	Warramunga Arr	91.05	114	P	P	20 21 08.3	-1.9
	comp=Z,0.3nm,0.6s,mb3.8,baz=318,slow=4.2,SNR=8.7						

*IDC **17** 20:10:55.9±2.0, 20.36S×168.80E, mb3.8/6, mb1 4.0/6, mb1mx3.8/13, Error ellipse: s-maj=100.0km s-min=25.6km az=152.0*

ISC 17 20:10:55.2±4.1**, 20.6S**±0.4×**168.9E**±0.3**, h7**^{km}±26^{km}**, n8, σ0**^{s}**62**/10**, mb3.7**/6**, Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	2.70	236	eP	Pn	20 11 40.0	+0.2
DZM				eS	Sn	20 12 12.4	-0.6
NOUC	Port Laguerre	2.83	237	⇑eP	Pn	20 11 41.6	0.0
NOUC				eS	Sn	20 12 16.9	+0.7
STKA	Stephens Creek	26.85	240	P	P	20 16 38.4	+0.1
	2.3nm,1.1s,mb3.6,baz=70,slow=12,SNR=2.3						
WRA	Warramunga Arr	32.36	265	P	P	20 17 26.8	-0.7
	0.4nm,1.0s,mb3.2,baz=95,slow=8.8,SNR=3.4						
ASAR	Alice Springs	32.48	258	P	P	20 17 27.7	-0.9
	0.3nm,0.6s,mb3.3,baz=70,slow=9.3,SNR=6.3						
FITZ	Fitzroy Crossi	40.77	266	P	P	20 18 39.8	+1.1
	3.2nm,0.6s,mb4.1,baz=166,slow=11,SNR=5.9						
NVAR	Mina Array Bea	89.95	49	P	P	20 23 56.3	-0.4
	0.6nm,0.7s,mb4.0,baz=217,slow=7.4,SNR=5.1						
ILAR	Eielson Array	91.61	17	P	P	20 24 04.2	+0.5
	0.3nm,0.6s,mb3.8,baz=232,slow=4.5,SNR=5.1						

*IDC **17** 20:43:32.6±0.6, 56.18S×27.17W, h102^{km}±5^{km}, mb4.7/9, mb1 4.8/10, mb1mx4.4/15, Error ellipse: s-maj=20.5km s-min=13.4km az=59.0*

*BJI **17** 20:43:36.9, 56.20S×27.20W, h149^{km}, mB5.2*

*NEIC **17** 20:43:38.0±1.7, 56.21S×27.16W, h150^{km}±14^{km}, mb5.0/8, Error ellipse: s-maj=13.7km s-min=6.5km az=54.0*

*SYO **17** 20:43:37.3, 56.16S×27.03W, h144^{km}, MB5.0*

*HRVD **17** 20:43:38.0±0.9, 56.23S×26.98W, h146^{km}±11^{km}, MW4.9/38, Centroid moment Tensor Solution. LP body waves: s3,c3;Mantle waves: s38,c43; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.46±.24; $M_{\theta\theta}$-0.94±.38; $M_{\phi\phi}$-0.52±.27; $M_{r\theta}$-1.47±.22; $M_{\theta\phi}$1.65±.29; $M_{\phi r}$0.56±.17; Best double couple: $M_0$2.54×10^{16} NP1: ϕ_s159°, δ32°, λ132°. NP2: ϕ_s292°, δ67°, λ67°. Principal axes: T 2.18, Plg61°, Azm167°; N .72, Plg21°, Azm301°; P -2.9, Plg19°, Azm39°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 17 20:43:36.1±3.3**, 56.2S**±0.1×**27.1W**±0.2**, h147**^{km}±31^{km}**, n91, σ0**^{s}**72**/33**, mb4.8**/12**, 14C-4D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	16.66	158	⇓i	P	20 47 23.7	+1.9
VNA1	Neumayer--Stat	16.66	158	⇑i	P	20 47 38.7	+17
VNA3	Neumayer Olymp	16.85	160	⇑i	P	20 47 24.2	0.0
VNA3	Neumayer Olymp	16.85	160	⇑i	P	20 47 32.6	+8.4
VNA3	Neumayer Olymp	16.85	160	⇑i	P	20 47 40.1	+16
VNA2	Neumayer--Watz	17.05	158	⇑i	P	20 47 26.6	0.0
VNA2	Neumayer--Watz	17.05	158	⇑i	P	20 47 36.2	+10
VNA2	Neumayer--Watz	17.05	158	⇑i	P	20 47 38.8	+12
SNAA	Sanae	18.60	156	⇑i	P	20 47 41.5	-2.7
SNAA	Sanae	18.60	156	⇑i	P	20 47 47.2	+3.0
SNAA	Sanae	18.60	156	P	P	20 47 41.6	-2.6
	6.4nm,0.3s,baz=308,slow=10,SNR=394						
SNAA				PcP	PcP	20 52 05.7	-1.0
	0.4nm,0.3s,baz=276,slow=4.2,SNR=5.4						
SNAA	Sanae	18.60	156	⇑iP	P	20 47 41.5	-2.7
USHA	Ushuaia	23.20	256	P	P	20 48 29.8	-0.4
	6.2nm,0.5s,mb4.3,baz=70,slow=11,SNR=6.7						
SYO	Syowa Base	31.45	141	⇓P	P	20 49 43.8	-1.4
SYO	Syowa Base	31.45	141	⇓pP	pP	20 50 10.2	-6.4
SYO	Syowa Base	31.45	141	⇑PnPn		20 50 48.0	
SYO	Syowa Base	31.45	141	⇓PP	PP	20 50 53.6	-0.7
QSPA	South Pole Qui	34.07	180	⇑iP	P	20 50 07.5	-0.1
	62nm,0.6s,mb5.5						
MAW	Mawson	40.02	143	⇑iP	P	20 50 57.7	+0.2
	22nm,0.7s,mb4.9						
MAW	Mawson	40.02	143	P	P	20 50 57.6	+0.1
	16nm,0.4s,mb5.0,baz=232,slow=9.3,SNR=57						
BAO	Brasilia Array	43.50	330	eP	P	20 51 26.9	+0.5
BDFB	Brasilia	43.50	330	P	P	20 51 26.1	-0.2
	6.1nm,0.7s,mb4.3,baz=144,slow=2.4,SNR=9.2						
LVC	Limon Verde	45.41	300	P	P	20 51 41.0	-0.5
	34nm,0.5s,mb5.2,baz=145,slow=3.6,SNR=65						
LVC				PcP	PcP	20 53 18.6	0.0
	14nm,0.7s,baz=252,slow=3.5,SNR=5.0						
LVC	Limon Verde	45.41	300	eP	P	20 51 41.2	-0.3
	36nm,0.6s,mb5.2						
VNDA	Vanda	46.45	183	P	P	20 51 49.0	0.0
	22nm,0.7s,mb4.9,baz=187,slow=6.4,SNR=233						
VNDA	Vanda	46.45	183	eP	P	20 51 49.0	0.0
	18nm,0.6s,mb4.9						
LPAZ	La Paz	50.49	305	P	P	20 52 20.9	-0.1
	18nm,0.4s,mb5.1,baz=142,slow=6.0,SNR=83						
LPAZ				PcP	PcP	20 53 38.0	+0.9
	6.8nm,0.6s,baz=135,slow=4.3,SNR=3.1						
LPAZ	La Paz	50.49	305	eP	P	20 52 21.0	+0.1
	19nm,0.5s,mb5.0						
LPAZ				ePcP	PcP	20 53 37.8	+0.8
ARE	Arequipa	51.91	301	eP	P	20 52 32.0	+0.4
DBIC	Dimbokro	65.26	24	P	P	20 54 04.0	-0.2
	5.8nm,0.5s,mb4.7,baz=157,slow=7.7,SNR=21						
DBIC				pP	pP	20 54 27.9	-12
	2.8nm,0.7s,baz=167,slow=9.6,SNR=2.5						
TOO	Toolangi	86.40	174	eP	P	20 56 02.7	+0.3
	5.1nm,0.6s,mb4.4						
MUN	Mundaring	86.80	149	eP	P	20 56 05.0	+0.6
	9.1nm,0.6s,mb4.8						
STKA	Stephens Creek	91.77	170	eP	P	20 56 28.2	+0.4
	8.3nm,0.8s,mb4.8						
STKA	Stephens Creek	91.77	170	P	P	20 56 28.1	+0.3
	7.5nm,0.5s,mb4.9,baz=167,slow=5.3,SNR=43						
STKA				PP	PP	21 00 05.1	-5.8
	2.2nm,0.7s,baz=180,slow=5.2,SNR=4.7						
ASPA	Alice Springs	98.85	162	eP	P	20 57 00.3	0.0
ASAR	Alice Springs	98.85	162	P	P	20 57 00.1	-0.1
	6.2nm,0.9s,mb5.0,baz=184,slow=4.1,SNR=57						
ASAR				PP	PP	21 00 59.1	-6.2
	2.1nm,0.7s,baz=187,slow=7.1,SNR=11						
ASAR				PKKPbc		21 13 24.6	
	0.4nm,0.7s,baz=24,slow=1.5,SNR=6.7						
WRA	Warramunga Arr	102.57	162	P	Pdif	20 57 16.6	-0.3
	1.3nm,0.5s,baz=195,slow=4.4,SNR=28						
WRA				PP	PP	21 01 25.8	-8.1
	0.4nm,0.5s,baz=190,slow=6.0,SNR=5.0						
WRA				PKKPbc		21 13 16.1	
	0.5nm,0.3s,baz=358,slow=2.8,SNR=25						
EKA	Eskdalemuir Ar	112.85	15	PKKPbc		21 12 42.7	
	1.1nm,0.6s,baz=356,slow=2.7,SNR=5.8						
AKASG	Malin Array Be	116.27	36	PKP	PKPdf	21 02 01.7	+0.6
	0.6nm,0.4s,baz=243,slow=1.6,SNR=5.2						
MSU	Marysvale	118.45	297	ePKPdf	PKPdf	21 02 07.9	+2.2
MVU	Marysvale	118.47	297	ePKPdf	PKPdf	21 02 07.5	+1.9
TPNV	Topopah Spring	119.31	293	ePKPdf	PKPdf	21 02 09.2	+1.9
BW06	Boulder Array	120.45	302	ePKPdf	PKPdf	21 02 10.6	+1.2
PDAR	Pinedale Array	120.45	302	PKP	PKPdf	21 02 10.0	+0.6
	1.0nm,0.4s,baz=115,slow=5.1,SNR=13						
HWUT	Hardware Ranch	120.53	300	ePKPdf	PKPdf	21 02 10.7	+1.1
NB2	NORSAR Subarra	120.71	21	PKPdf	PKPdf	21 02 09.9	+0.4
	1.2nm,0.8s,baz=202,slow=1.9						
NB2	NORSAR Subarra	120.71	21	PKPdf	PKPdf	21 02 09.9	+0.4
NB2				⇑PKPab		21 12 14.7	
NOA	NORSAR Array B	120.71	21	PKP	PKPdf	21 02 10.6	+1.2
	2.4nm,0.8s,baz=206,slow=2.0,SNR=4.3						
MTUM	Tungsten Hills	120.81	292	ePKPdf	PKPdf	21 02 12.6	+2.3
NVAR	Mina Array Bea	121.49	293	PKP	PKPdf	21 02 13.8	+2.3
	3.1nm,0.5s,baz=115,slow=3.1,SNR=31						
NVAR	Mina Array Bea	121.49	293	PKP	PKPdf	21 02 13.8	+2.3
LOHW	Long Hollow	121.59	302	ePKPdf	PKPdf	21 02 12.7	+1.1
TPAW	Teton Pass	121.67	302	PKPdf	PKPdf	21 02 13.8	+2.1
ELK	Elko	121.68	297	ePKPdf	PKPdf	21 02 13.6	+1.8
MOOW	Moose Ponds	121.76	302	ePKPdf	PKPdf	21 02 12.5	+0.6
IMW	Indian Meadow	121.97	302	ePKPdf	PKPdf	21 02 13.7	+1.4
HLID	Hailey	123.39	300	ePKPdf	PKPdf	21 02 16.9	+1.9
OHCM	Honcut	123.82	291	ePKPdf	PKPdf	21 02 18.0	+2.0
KOLN	Koldanda	124.01	90	eP	PKPdf	21 02 17.8	+1.1
	4.7nm,0.3s						
FINES	FINESS Array B	124.47	28	PKP	PKPdf	21 02 17.2	+0.5
	11nm,0.6s,baz=150,slow=2.3,SNR=111						
DMN	Daman	124.73	91	eP	PKPdf	21 02 16.9	-1.1
	5.1nm,0.7s						
GKN	Gorkha	124.77	91	eP	PKPdf	21 02 19.2	+1.1
	4.6nm,0.5s						
PKI	Pulchoki	124.87	92	eP	PKPdf	21 02 19.0	+0.7
	3.6nm,0.5s						
KKN	Kakani	124.97	91	eP	PKPdf	21 02 19.3	+0.8
	4.9nm,0.5s						
CMAR	Chiang Mai Arr	124.97	111	PKP	PKPdf	21 02 20.3	+1.6
	2.3nm,0.7s,baz=227,slow=3.7,SNR=22						
CMAR				pPKP		21 02 46.6	
	0.8nm,0.9s,baz=234,slow=3.5,SNR=1.9						
KAF	Kangasniemi	125.09	27	epkp	PKPdf	21 02 17.7	0.0
CHMT	Chamberlain Mo	125.30	303	ePKPdf	PKPdf	21 02 20.2	+1.6
GUN	Gumba	125.39	92	eP	PKPdf	21 02 20.5	+1.2
	9.1nm,0.8s						
MSO	Missoula	125.56	303	ePKPdf	PKPdf	21 02 20.1	+1.0
BMO	Blue Mountains	125.74	299	ePKPdf	PKPdf	21 02 21.1	+1.6
AAK	Ala-Archa	129.97	71	ePKPdf	PKPdf	21 02 28.3	+0.7
ARCES	ARCESS Array B	131.04	22	PKP	PKPdf	21 02 30.2	+1.3
	3.9nm,0.5s,baz=193,slow=1.7,SNR=47						
KEV	Kevo	131.53	22	epkp	PKPdf	21 02 31.2	+1.3
YKA	Yellowknife Ar	136.30	318	PKhKP		21 02 21.0	
	0.2nm,0.3s,baz=25,slow=32,SNR=2.8						
YKA				PKP	PKPdf	21 02 40.1	+1.2
	2.3nm,0.5s,baz=124,slow=2.2,SNR=5.4						
YKA				pPKP		21 03 07.8	
	1.5nm,0.6s,baz=124,slow=2.0,SNR=2.9						
YKA				PP	PP	21 05 16.7	-7.6
	0.8nm,0.7s,baz=112,slow=6.7,SNR=3.7						
YKA				SKPbc		21 05 59.8	
	0.8nm,0.7s,baz=120,slow=2.0,SNR=6.7						
YKA	Yellowknife Ar	136.30	318	PKP	PKPdf	21 02 40.1	+1.2
YKA				pPKP		21 03 07.8	
YKA				PP	PP	21 05 16.8	-7.6
YKA				SKPbc		21 05 59.8	
ZAL	Zalesovo	142.36	64	PKhKP		21 02 45.9	
	2.5nm,0.3s,baz=316,slow=0.9,SNR=9.4						
INK	Inuvik	145.93	320	ePKPdf	PKPdf	21 02 57.6	+2.0
INK				ePKPbc	PKPbc	21 02 58.3	+1.7
DAWY	Dawson	146.91	312	ePKPdf	PKPdf	21 03 00.1	+2.8
DAWY				ePKPbc	PKPbc	21 03 01.1	+2.0
EYAK	Cordova Ski Ar	148.56	304	ePKPbc	PKPdf	21 03 06.2	+6.1
DIV	Divide	148.77	305	ePKPbc	PKPdf	21 03 06.7	+6.3
HHC	Hu-ho-hao-te	149.17	102	ePKP	PKPdf	21 03 07.8	+6.1
HHC				PP	PP	21 06 41.9	+0.2
HHC				SKS	SKS	21 09 56.9	+3.6
HHC				PP	PP		
	comp=Z,124nm,6.2s						
THY	Trims Highway	149.43	309	ePKPbc	PKPdf	21 03 08.7	+7.3
SML	Sawmill	150.15	305	ePKPbc	PKPdf	21 03 09.8	+7.3
ILAR	Eielson Array	150.24	311	PKP	PKPdf	21 03 02.0	-0.6
	comp=Z,1.3nm,0.9s,baz=332,slow=2.6,SNR=10.0						
ILAR				PKPbc	PKPdf	21 03 09.7	+7.1
	comp=Z,31nm,0.7s,baz=146,slow=2.7,SNR=157						

ILAR				pPKPbc		21 03 36.6	
	comp=Z,11nm,0.8s,baz=118,slow=0.2,SNR=4.6						
SLKM	**Skilak Lake**	**150.65**	**302**	*e*PKPbc	PKPdf	21 03 10.8	+7.5
SONM	**Songino Array**	**150.68**	**87**	PKP	PKPdf	21 03 05.6	+1.9
	comp=Z,0.8nm,0.8s,baz=219,slow=0.7,SNR=5.2						
SONM				PKPbc	PKPdf	21 03 11.7	+8.0
	comp=Z,7.8nm,0.5s,baz=221,slow=3.9,SNR=125						
SONM				pPKPbc		21 03 40.5	
	comp=Z,3.3nm,0.5s,baz=219,slow=3.6,SNR=4.7						
MCK	**McKinley**	**150.89**	**309**	*e*PKPbc	PKPdf	21 03 11.5	+8.0
KDAK	**Kodiak Island**	**150.92**	**296**	*e*PKPbc	PKPdf	21 03 11.7	+7.9
BJI	**Beijing**	**151.08**	**108**	*e*PKP	PKPdf	21 03 11.4	+6.8
RSO	**Redoubt South**	**151.84**	**301**	*e*PKPbc	PKPdf	21 03 13.6	+8.5
IMA	**Indian Mountai**	**153.24**	**313**	*e*PKPbc	PKPdf	21 03 16.8	+10
IMA				*e*PKPab	PKPab	21 03 29.6	+0.2

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*IDC **17** 21:07:34.9±0.7,14.14N×144.91E,mb4.6/10,mb1 4.7/10,mb1mx4.4/21,MS3.4/1,Ms1 3.4/1,ms1mx2.6/23,Error ellipse: s-maj=27.2km s-min=15.2km az=101.0*

*NEIC **17** 21:07:41.6±6.9,14.10N×144.85E,h48^{km}±63^{km},mb4.8/6,Error ellipse: s-maj=20.9km s-min=11.1km az=78.0*

ISC 17 21:07:38.5±0.6,**14.10N**±0.09×**144.7E**±0.2,**h33**^{km}**,n21,** σ**0^{s}.76**/20,**mb4.5**/13,**MS3.4**/1,**1D,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**23.48**	**174**	P	**P**	**21 12 47.2**	**+0.8**
	50nm,1.0s,mb4.9,baz=9.8,slow=6.2,SNR=8.1						
KAKA	**Kakadu**	**29.30**	**205**	*e*P	**P**	**21 13 39.8**	**-0.5**
	12nm,0.7s,mb4.8						
CTA	**Charters Tower**	**34.01**	**177**	*e*P	**P**	**21 14 21.6**	**0.0**
	4.4nm,0.4s,mb4.7						
CTA	**Charters Tower**	**34.01**	**177**	P	**P**	**21 14 21.6**	**-0.1**
	4.9nm,0.5s,mb4.7,baz=1.8,slow=7.9,SNR=13						
WRA	**Warramunga Arr**	**35.34**	**197**	P	**P**	**21 14 32.7**	**-0.4**
	14nm,0.6s,mb5.1,baz=17,slow=8.9,SNR=74						
FITZ	**Fitzroy Crossi**	**37.13**	**211**	*e*P	**P**	**21 14 48.2**	**0.0**
	9.5nm,0.9s,mb4.6						
FITZ	**Fitzroy Crossi**	**37.13**	**211**	P	**P**	**21 14 48.4**	**+0.3**
	9.6nm,0.7s,mb4.8,baz=22,slow=8.1,SNR=22						
FITZ				PcP	PcP	21 17 08.0	-0.4
	3.2nm,0.7s,baz=307,slow=2.8,SNR=4.1						
FITZ				LR	LR	21 29 32.2	
	comp=Z,56nm,18.3s,MS3.4,baz=261,slow=35						
ASAR	**Alice Springs**	**39.00**	**196**	P	**P**	**21 15 03.6**	**-0.1**
	5.1nm,0.5s,mb4.5,baz=19,slow=13,SNR=57						
ASAR				PcP	PcP	21 17 13.6	-0.6
	1.4nm,1.0s,baz=31,slow=3.8,SNR=4.4						
ASPA	**Alice Springs**	**39.01**	**196**	*e*P	**P**	**21 15 03.8**	**0.0**
DZM	**Mont Dzumac**	**41.78**	**149**	*e*P	**P**	**21 15 27.7**	**+0.9**
CMAR	**Chiang Mai Arr**	**44.09**	**282**	P	**P**	**21 15 46.9**	**+1.2**
	0.1nm,0.5s,baz=6.1,slow=40,SNR=2.9						
STKA	**Stephens Creek**	**45.81**	**184**	⇓*i*P	**P**	**21 15 58.2**	**-1.1**
	5.6nm,0.6s,mb4.7						
STKA	**Stephens Creek**	**45.81**	**184**	P	**P**	**21 15 58.3**	**-1.0**
	9.0nm,0.7s,mb4.8,baz=1.1,slow=7.8,SNR=24						
SONM	**Songino Array**	**46.24**	**325**	P	**P**	**21 16 02.4**	**-0.1**
	0.5nm,0.9s,mb3.4,baz=134,slow=4.8,SNR=2.5						
FORT	**Forrest**	**47.42**	**200**	*e*P	**P**	**21 16 11.6**	**-0.4**
	52nm,0.6s						
TOO	**Toolangi**	**51.40**	**179**	*e*P	**P**	**21 16 42.7**	**+0.3**
	8.6nm,0.6s,mb4.9						
ILAR	**Eielson Array**	**68.16**	**25**	P	**P**	**21 18 35.0**	**-2.2**
	0.4nm,0.5s,mb3.7,baz=254,slow=5.3,SNR=8.6						
YBH	**Yreka Blue Hor**	**82.63**	**49**	P	**P**	**21 20 00.7**	**+0.6**
	1.4nm,0.6s,mb4.2,baz=293,slow=0.8,SNR=6.1						
NVAR	**Mina Array Bea**	**86.70**	**51**	P	**P**	**21 20 21.1**	**+0.6**
	0.8nm,0.4s,mb4.3,baz=282,slow=5.0,SNR=9.1						
VNDA	**Vanda**	**91.98**	**176**	P	**P**	**21 20 44.3**	**-0.3**
	1.7nm,0.8s,mb4.4,baz=316,slow=5.0,SNR=9.8						
LPAZ	**La Paz**	**148.22**	**98**	PKPbc	PKPdf	21 27 23.5	+4.8
	1.1nm,0.4s,baz=89,slow=2.1,SNR=4.5						

DJA 17 21:27:51.1±1.0**,7.83S×119.19E,h240**^{km}**,ML4.4**/2**,6C, Error ellipse: s-maj=48.8km s-min=6.7km az=134.0, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	**3.11**	**258**	⇑*e*Pn	P	21 28 45.5	+0.8
KEDI				⇑*e*Sn	S	21 29 26.1	-0.2
NINI	**Niniconang**	**3.43**	**9**	*e*Pn	P	21 28 49.0	+0.7
	116nm,0.2s						
NINI				⇑*e*Sn	S	21 29 31.5	-1.3
RATI	**Rata**	**3.73**	**256**	⇑*e*Pn	P	21 28 52.8	+1.1
BUNI	**Buntu Taipa**	**4.30**	**15**	⇑*e*Pn	P	21 29 00.0	+1.4
	62nm,0.3s						
SRDI	**Scrawed**	**5.04**	**262**	⇑*e*Pn	P	21 29 08.9	+1.3

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*IDC **17** 21:30:26.9±3.6,6.58S×129.94E,h106^{km}±34^{km},mb3.9/8,mb1 4.1/12,mb1mx4.0/17,Error ellipse: s-maj=29.8km s-min=14.2km az=62.0*

*NEIC **17** 21:30:28.7±1.8,6.58S×129.99E,h123^{km}±17^{km},mb4.4/5,Error ellipse: s-maj=16.4km s-min=11.6km az=56.0*

ISC 17 21:30:28.0±1.8**,6.67S**±0.07×**130.0E**±0.1**,h135**^{km}±19^{km}, **n28,**σ**1^{s}.05**/32**,mb4.5**/13**,1C-1D,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.49**	**158**	*e*P	**P**	**21 32 03.3**	**+1.1**
	61nm,0.2s						
KAKA				*e*S	**S**	**21 33 11.7**	**-3.6**
FITZ	**Fitzroy Crossi**	**12.12**	**200**	*e*P	**P**	**21 33 18.2**	**+1.0**
	6.0nm,0.2s						
FITZ				*e*S	**S**	**21 35 25.7**	**-4.2**
FITZ	**Fitzroy Crossi**	**12.12**	**200**	P	**P**	**21 33 15.9**	**-1.3**
	2.3nm,0.3s,baz=18,slow=9.0,SNR=22						
FITZ				S	**S**	**21 35 21.9**	**-8.0**
	2.6nm,0.3s,baz=4.9,slow=14,SNR=4.8						
WRA	**Warramunga Arr**	**13.87**	**163**	P	**P**	**21 33 38.6**	**-1.2**
	1.4nm,0.3s,baz=346,slow=13,SNR=33						
WRA				S	**S**	**21 36 01.7**	**-9.1**
	5.9nm,0.3s,baz=350,slow=22,SNR=13						
PMG	**Port Moresby**	**17.25**	**100**	P	**P**	**21 34 22.0**	**-0.2**
	0.3nm,0.3s,baz=282,slow=18,SNR=2.1						
PMG	**Port Moresby**	**17.25**	**100**	P	**P**	**21 34 22.0**	**-0.2**
ASAR	**Alice Springs**	**17.32**	**168**	P	**P**	**21 34 24.1**	**+1.1**
	4.5nm,0.3s,baz=344,slow=9.3,SNR=156						
ASAR				S	**S**	**21 37 25.1**	**-4.3**
	1.2nm,0.3s,baz=358,slow=25,SNR=5.8						
ASPA	**Alice Springs**	**17.32**	**168**	⇑*i*P	**P**	**21 34 24.9**	**+1.9**
ASPA				*e*S	**S**	**21 37 29.3**	**-0.1**
CTA	**Charters Tower**	**20.70**	**132**	*e*P	**P**	**21 34 59.5**	**+0.3**
	13nm,0.8s						
CTA	**Charters Tower**	**20.70**	**132**	P	**P**	**21 35 00.7**	**+1.5**
	14nm,0.6s,baz=310,slow=12,SNR=14						
STKA	**Stephens Creek**	**27.34**	**158**	⇓*i*P	**P**	**21 36 02.1**	**-0.3**
	4.9nm,0.3s,mb4.6						
STKA	**Stephens Creek**	**27.34**	**158**	P	**P**	**21 36 01.8**	**-0.6**
	6.3nm,0.3s,mb4.7,baz=332,slow=8.8,SNR=38						
NWAO	**Narrogin (SRO)**	**28.68**	**203**	P	**P**	**21 36 15.8**	**+1.3**
	11nm,1.0s,mb4.5,baz=268,slow=9.4,SNR=3.2						
CMAR	**Chiang Mai Arr**	**39.48**	**310**	P	**P**	**21 37 47.5**	**+0.5**
	1.4nm,0.7s,mb3.7,baz=139,slow=7.3,SNR=13						
GUN	**Gumba**	**54.70**	**311**	*e*P	**P**	**21 39 45.9**	**+0.2**
	38nm,0.6s,mb5.3						
PKI	**Pulchoki**	**54.87**	**310**	*e*P	**P**	**21 39 46.8**	**-0.2**
	10nm,0.6s,mb4.8						
KKN	**Kakani**	**55.09**	**311**	*e*P	**P**	**21 39 48.4**	**-0.1**
	19nm,0.7s,mb5.0						
DMN	**Daman**	**55.12**	**310**	*e*P	**P**	**21 39 48.7**	**-0.1**
	18nm,0.8s,mb4.9						
GKN	**Gorkha**	**55.68**	**310**	*e*P	**P**	**21 39 52.6**	**-0.2**
	37nm,0.6s,mb5.4						
KOLN	**Koldanda**	**56.35**	**310**	*e*P	**P**	**21 39 57.7**	**+0.1**
	27nm,0.8s,mb5.1						
SONM	**Songino Array**	**58.11**	**342**	P	**P**	**21 40 08.4**	**-1.2**
	0.5nm,0.4s,mb3.7,baz=160,slow=7.5,SNR=18						
AAK	**Ala-Archa**	**70.26**	**320**	*e*P	**P**	**21 41 28.9**	**+0.3**
	6.7nm,1.5s,mb4.2						
ZAL	**Zalesovo**	**71.27**	**334**	P	**P**	**21 41 33.3**	**-1.1**
	0.6nm,0.3s,mb3.7,baz=24,slow=4.5,SNR=3.4						
VNDA	**Vanda**	**72.78**	**173**	P	**P**	**21 41 43.6**	**+0.6**
	2.5nm,0.6s,mb4.1,baz=315,slow=7.5,SNR=22						
VNDA	**Vanda**	**72.78**	**173**	*e*P	**P**	**21 41 43.0**	**+0.1**
	1.8nm,0.5s,mb4.1						
BVAR	**Borovoye Array**	**77.76**	**328**	P	**P**	**21 42 11.7**	**+0.1**
	0.2nm,0.4s,baz=112,slow=6.7,SNR=5.9						
LVC	**Limon Verde**	**145.54**	**148**	PKPbc	PKPbc	21 49 54.7	+3.0
	8.6nm,0.9s,baz=267,slow=4.1,SNR=6.3						
LPAZ	**La Paz**	**151.01**	**142**	PKPbc	PKPdf	21 50 08.7	+8.9
	4.3nm,1.1s,baz=198,slow=3.2,SNR=2.6						

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*IDC **17** 21:40:13.6±7.7,55.79S×27.24W,h58^{km}±68^{km},mb4.0/5,mb1 4.0/6,mb1mx3.7/14,ML3.9/1,MS3.3/5,Ms1 3.3/5,ms1mx2.9/13,Error ellipse: s-maj=53.9km s-min=17.4km az=54.0*

*NEIC **17** 21:40:18.8±4.1,55.84S×27.42W,h107^{km}±38^{km},mb4.6/2,Error ellipse: s-maj=42.3km s-min=14.4km az=54.0*

ISC 17 21:40:21.4±5.2**,55.8S**±0.2×**27.1W**±0.6**,h154**^{km}±55^{km}**,n20,** σ**0^{s}.74**/16**,mb4.1**/6**,8C,South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	**Neumayer--Stat**	**17.02**	**158**	⇑*i*	**P**	**21 44 10.8**	**-0.3**
VNA3	**Neumayer Olymp**	**17.22**	**161**	⇑*i*	**P**	**21 44 17.2**	**+3.7**
VNA3	**Neumayer Olymp**	**17.22**	**161**	⇑*i*	**P**	**21 44 22.7**	**+9.2**
VNA2	**Neumayer--Watz**	**17.41**	**158**		**P**	**21 44 16.6**	**+0.8**
VNA2	**Neumayer--Watz**	**17.41**	**158**	⇑*i*	**P**	**21 44 23.9**	**+8.1**
SNAA	**Sanae**	**18.96**	**156**	⇑*i*	**P**	**21 44 29.4**	**-3.2**
SNAA	**Sanae**	**18.96**	**156**	⇑*i*	**P**	**21 44 33.1**	**+0.5**
SNAA	**Sanae**	**18.96**	**156**	P	**P**	**21 44 29.9**	**-2.7**
	0.4nm,0.3s,baz=309,slow=8.2,SNR=47						
SNAA				LR	LR	21 50 20.0	
	comp=Z,35nm,20.1s,baz=5.0,slow=32						
SNAA	**Sanae**	**18.96**	**156**	⇑*i*P	**P**	**21 44 29.4**	**-3.2**
USHA	**Ushuaia**	**23.31**	**255**	LR	LR	21 51 52.8	
	comp=Z,142nm,18.6s,baz=297,slow=30						
QSPA	**South Pole Qui**	**34.46**	**180**	⇑*i*P	**P**	**21 46 55.2**	**-0.3**
	10.0nm,0.7s,mb4.7						
MAW	**Mawson**	**40.33**	**144**	P	**P**	**21 47 44.9**	**+0.3**
	3.0nm,0.7s,mb4.1,baz=227,slow=12,SNR=4.1						
MAW				LR	LR	22 02 07.9	
	comp=Z,58nm,18.8s,baz=272,slow=33						
BDFB	**Brasilia**	**43.16**	**330**	P	**P**	**21 48 07.9**	**-0.3**
	1.1nm,0.4s,mb3.8,baz=197,slow=11,SNR=2.2						
BDFB				LR	LR	22 04 16.5	
	comp=Z,47nm,18.6s,baz=240,slow=34						
LVC	**Limon Verde**	**45.22**	**300**	P	**P**	**21 48 24.3**	**-0.2**
	2.3nm,0.6s,mb4.0,baz=110,slow=5.4,SNR=5.8						
VNDA	**Vanda**	**46.84**	**183**	P	**P**	**21 48 36.8**	**+0.2**
	4.3nm,0.7s,mb4.2,baz=189,slow=6.0,SNR=23						
VNDA				LR	LR	22 07 00.1	
	comp=Z,22nm,18.4s,baz=51,slow=34						
LPAZ	**La Paz**	**50.27**	**305**	P	**P**	**21 49 04.4**	**+0.6**
	1.8nm,0.6s,mb3.9,baz=157,slow=5.5,SNR=9.3						
LPAZ	**La Paz**	**50.27**	**305**	*e*P	**P**	**21 49 04.2**	**+0.5**
	2.1nm,0.6s,mb3.9						
CMAR	**Chiang Mai Arr**	**125.10**	**110**	PKP	PKPdf	21 59 06.8	+3.6
	0.7nm,1.1s,baz=245,slow=3.1,SNR=4.2						
ILAR	**Eielson Array**	**149.98**	**312**	PKPbc	PKPdf	21 59 54.9	+8.3
	2.2nm,0.8s,baz=95,slow=0.8,SNR=12						
SONM	**Songino Array**	**150.65**	**86**	PKPbc	PKPdf	21 59 58.4	+10
	2.7nm,0.5s,baz=214,slow=3.9,SNR=36						

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*IDC **17** 21:41:17.0±1.0,3.32S×135.57E,mb3.8/7,mb1 4.1/10,mb1mx4.0/14,ML3.9/3,Error ellipse: s-maj=44.1km s-min=18.8km az=74.0*

*NEIC **17** 21:41:20.2±0.8,3.32S×135.53E,h10^{km},Error ellipse: s-maj=23.6km s-min=9.5km az=80.0*

ISC 17 21:41:20.0±3.1**,3.49S**±0.09×**135.5E**±0.2**,h34**^{km}±28^{km}, **n19,**σ**0^{s}.81**/23**,mb4.2**/11**,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**9.64**	**198**	*e*P	**P**	**21 43 38.8**	**-0.8**
	9.6nm,0.4s						
KAKA				*e*S	**S**	**21 45 22.8**	**-5.2**
WRA	**Warramunga Arr**	**16.39**	**184**	Pn	**P**	**21 45 06.3**	**-2.9**
	0.2nm,0.3s,baz=5.6,slow=13,SNR=8.9						
WRA				Sn	**S**	**21 47 59.8**	**-10**
	0.3nm,0.3s,baz=0.9,slow=23,SNR=5.3						
FITZ	**Fitzroy Crossi**	**17.43**	**213**	*e*P	**P**	**21 45 23.4**	**+1.1**
	3.2nm,0.6s						
FITZ	**Fitzroy Crossi**	**17.43**	**213**	P	**P**	**21 45 23.8**	**+1.4**
	0.8nm,0.3s,baz=42,slow=5.1,SNR=9.1						
FITZ				S	**S**	**21 48 24.9**	**-8.4**
	0.3nm,0.3s,baz=183,slow=11,SNR=3.3						
CTA	**Charters Tower**	**19.56**	**148**	P	**P**	**21 45 48.8**	**+0.8**
	0.3nm,0.3s,baz=326,slow=11,SNR=3.9						
ASAR	**Alice Springs**	**20.11**	**184**	P	**P**	**21 45 54.4**	**+0.5**
	19nm,0.6s,baz=10,slow=11,SNR=98						
ASAR				S	**S**	**21 49 31.9**	**-1.1**
	0.7nm,0.7s,baz=7.2,slow=28,SNR=3.4						
ASPA	**Alice Springs**	**20.11**	**184**	*e*P	**P**	**21 45 54.2**	**+0.3**
STKA	**Stephens Creek**	**28.81**	**169**	P	**P**	**21 47 17.9**	**+0.6**
	1.1nm,0.7s,mb3.7,baz=346,slow=6.0,SNR=4.1						
CMAR	**Chiang Mai Arr**	**42.08**	**303**	P	**P**	**21 49 11.1**	**+0.3**
	0.4nm,0.7s,mb3.1,baz=127,slow=7.1,SNR=4.4						
GUN	**Gumba**	**57.02**	**307**	*e*P	**P**	**21 51 05.4**	**+0.1**
	9.5nm,0.7s,mb5.0						
SONM	**Songino Array**	**57.11**	**337**	P	**P**	**21 51 04.9**	**-0.7**
	0.3nm,0.6s,mb3.5,baz=170,slow=7.5,SNR=4.1						
PKI	**Pulchoki**	**57.26**	**306**	*e*P	**P**	**21 51 06.8**	**-0.2**
KKN	**Kakani**	**57.45**	**306**	*e*P	**P**	**21 51 08.3**	**-0.1**
	9.4nm,0.9s,mb4.8						
DMN	**Daman**	**57.52**	**306**	*e*P	**P**	**21 51 09.4**	**+0.6**
	13nm,1.0s,mb4.9						
GKN	**Gorkha**	**58.06**	**306**	*e*P	**P**	**21 51 12.3**	**-0.3**
	11nm,0.7s,mb5.0						
KOLN	**Koldanda**	**58.81**	**305**	*e*P	**P**	**21 51 18.4**	**+0.6**
	10nm,0.7s,mb5.0						
ZAL	**Zalesovo**	**71.03**	**331**	P	**P**	**21 52 35.1**	**-1.4**
	0.6nm,0.7s,mb3.6,baz=1.5,slow=9.3,SNR=3.9						
BVAR	**Borovoye Array**	**78.13**	**326**	P	**P**	**21 53 18.1**	**+0.7**
	0.9nm,0.8s,mb3.8,baz=117,slow=6.6,SNR=6.5						
ILAR	**Eielson Array**	**87.88**	**25**	P	**P**	**21 54 06.8**	**-0.2**
	0.3nm,0.6s,mb3.7,baz=274,slow=4.2,SNR=4.1						

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*NIED **17** 21:45:00,36.30N×140.30E,h98^{km},Mw3.7 Best double couple: $M_0$4.7×10^{14} NP1:ϕ_s144°,δ85°,λ-107°. NP2:ϕ_s38°,δ17°,λ-17°.*

*NEIC **17** 21:45:35.4±0.5,35.94N×141.10E,h10^{km},mb4.1/1,Error ellipse: s-maj=15.6km s-min=11.6km az=117.0*

NEIC Recorded [1 JMA] in Fukushima, Gumma, Ibaraki and Tochigi Prefectures.

*IDC **17** 21:45:42.2±2.8,36.38N×139.66E,h79^{km}±22^{km},mb3.5/5,mb1 3.8/8,mb1mx3.5/25,Error ellipse: s-maj=84.3km s-min=11.1km az=101.0*

*JMA **17** 21:45:45.3±0.1,36.25N×140.28E,h95^{km}±1^{km},M3.8 Broadband fault plane solution: P waves. NP1:ϕ_s54°,δ31°,λ-3°. NP2:ϕ_s147°,δ88°,λ-121°. Principal axes: T Plg36°, Azm263°; N Plg31°, Azm148°; P Plg39°, Azm29°;*

JMA Felt I J1.

ISC 17 21:45:43.6±0.4**,36.21N**±0.04×**140.39E**±0.07**,h103**^{km}±4^{km}, **n26,**σ**0^{s}.82**/36**,mb3.9**/6**,1C-6D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JYT	**Yasato**	**0.16**	**277**	⇓P	**P**	**21 45 59.0**	**+0.9**
JYT				S	**S**	**21 46 09.2**	**+0.2**
JAG	**Ashikaga**	**0.78**	**286**	⇓P	**P**	**21 46 02.5**	**+0.2**
JAG				S	**S**	**21 46 14.6**	**-1.6**
JKT	**Katashina**	**1.07**	**302**	⇓P	**P**	**21 46 05.7**	**+0.4**
JKT				S	**S**	**21 46 21.2**	**-0.4**
JRY	**Ryogami san**	**1.22**	**261**	⇓P	**P**	**21 46 07.5**	**+0.4**
JRY				S	**S**	**21 46 23.9**	**-0.8**
JFK	**Kawauchi**	**1.22**	**19**	⇑P	**P**	**21 46 07.5**	**+0.4**
JFK				S	**S**	**21 46 24.0**	**-0.7**
JFT	**Otama**	**1.31**	**358**	S	**S**	**21 46 26.4**	**-0.1**
JFY	**Yanaizu**	**1.31**	**336**	P	**P**	**21 46 08.6**	**+0.4**
JOD2	**Odawara 2**	**1.42**	**229**	⇓P	**P**	**21 46 09.9**	**+0.5**
BSO1	**Boso 1**	**1.63**	**163**	⇓P	**P**	**21 46 12.8**	**+0.8**
JYN	**Shimob**	**1.66**	**245**	P	**P**	**21 46 13.3**	**+0.9**
JIM2	**Oshima 3**	**1.68**	**208**	P	**P**	**21 46 12.8**	**+0.1**
JIM2				S	**S**	**21 46 34.0**	**-0.3**
MAT	**Matsushiro**	**1.79**	**281**	P	**P**	**21 46 14.8**	**+0.7**
MAT				*e*S	**S**	**21 46 37.0**	**+0.3**
MAT	**Matsushiro**	**1.79**	**281**	P	**P**	**21 46 15.0**	**+0.9**
MAT	**Matsushiro**	**1.79**	**281**	*e*P	**P**	**21 46 15.0**	**+0.9**
MAT				S	**S**	**21 46 37.0**	**+0.3**
JNS	**Sasagawa**	**1.82**	**332**	P	**P**	**21 46 14.8**	**+0.4**
JHJ	**Hachijo jima 2**	**3.12**	**189**	P	**P**	**21 46 32.3**	**+0.2**
	48nm,0.3s,baz=268,slow=22,SNR=47						
JHJ				S	**S**	**21 47 08.8**	**+0.1**
	160nm,0.3s,baz=263,slow=22,SNR=12						
ASAJ	**Asahikawa**	**8.08**	**11**	P	**P**	**21 47 37.6**	**-2.1**
	2.4nm,0.3s,baz=21,slow=27,SNR=9.6						
ASAJ				S	**S**	**21 49 03.9**	**-6.2**
	0.8nm,0.3s,baz=305,slow=33,SNR=3.3						
CBIJ	**Chichi jima**	**9.21**	**170**	P	**P**	**21 47 52.1**	**-2.9**
	7.9nm,0.3s,baz=300,slow=20,SNR=4.5						
ILAR	**Eielson Array**	**50.63**	**32**	P	**P**	**21 54 34.1**	**+0.4**
	1.4nm,0.5s,mb4.2,baz=265,slow=5.8,SNR=14						
INK	**Inuvik**	**55.50**	**27**	*e*P	**P**	**21 55 09.8**	**+0.2**
	1.2nm,0.6s,mb4.1						
FITZ	**Fitzroy Crossi**	**55.79**	**197**	P	**P**	**21 55 12.0**	**-0.4**
	2.6nm,1.0s,mb4.2,baz=151,slow=6.4,SNR=3.4						
WRA	**Warramunga Arr**	**56.14**	**187**	P	**P**	**21 55 13.5**	**-1.3**
	0.6nm,0.3s,mb4.0,baz=1.0,slow=7.6,SNR=11						
ASAR	**Alice Springs**	**59.87**	**187**	P	**P**	**21 55 40.4**	**-0.4**
	0.4nm,0.8s,mb3.5,baz=7.5,slow=6.8,SNR=3.6						
RES	**Resolute Bay**	**63.60**	**14**	P	**P**	**21 56 06.6**	**+1.5**
YKA	**Yellowknife Ar**	**64.93**	**30**	P	**P**	**21 56 13.9**	**+0.1**
	0.7nm,0.9s,mb3.5,baz=301,slow=6.5,SNR=5.7						
YKA	**Yellowknife Ar**	**64.93**	**30**	P	**P**	**21 56 13.9**	**+0.1**

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*IDC **17** 21:54:46.9±0.9,15.69S×174.06W,mb4.1/7,mb1 4.4/7,mb1mx4.2/14,Error ellipse: s-maj=43.4km s-min=22.4km az=142.0*

*NEIC **17** 21:54:50.3±0.5,15.57S×174.16W,h20^{km},mb4.5/2,Error ellipse: s-maj=21.5km s-min=12.8km az=144.0*

ISC 17 21:54:50.6±0.8**,15.7S**±0.2×**174.2W**±0.2**,h33**^{km}**,n14,** σ**0^{s}.70**/11**,mb4.2**/9**,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**43.26**	**240**	P	**P**	**22 02 50.7**	**-0.2**
	3.0nm,0.5s,mb4.3,baz=90,slow=8.4,SNR=7.2						
WRAB	**Tennant Creek**	**49.05**	**257**	*e*P	**P**	**22 03 36.3**	**-0.5**
	3.4nm,0.6s,mb4.5						
WRA	**Warramunga Arr**	**49.06**	**257**	P	**P**	**22 03 36.5**	**-0.4**
	2.3nm,0.6s,mb4.4,baz=96,slow=6.8,SNR=38						
WRA				PcP	PcP	22 04 59.8	-0.9
	0.6nm,0.5s,baz=97,slow=3.6,SNR=8.0						
ASAR	**Alice Springs**	**49.32**	**252**	P	**P**	**22 03 38.8**	**-0.1**
	10nm,0.5s,mb5.2,baz=88,slow=7.7,SNR=155						
ASPA	**Alice Springs**	**49.32**	**252**	*e*P	**P**	**22 03 38.8**	**-0.1**
VNDA	**Vanda**	**63.04**	**186**	P	**P**	**22 05 15.6**	**-0.9**
	0.5nm,0.6s,mb3.8,baz=14,slow=3.4,SNR=6.4						
VNDA	**Vanda**	**63.04**	**186**	P	**P**	**22 05 16.8**	**+0.3**
QSPA	**South Pole Qui**	**74.38**	**180**	*e*P	**P**	**22 06 27.0**	**+0.7**
	5.1nm,0.9s,mb4.5						
NVAR	**Mina Array Bea**	**75.03**	**42**	P	**P**	**22 06 30.1**	**-0.8**
	0.7nm,0.7s,mb3.7,baz=231,slow=13,SNR=5.4						
PDAR	**Pinedale Array**	**82.96**	**42**	P	**P**	**22 07 13.9**	**+0.1**
	0.5nm,0.7s,mb3.7,baz=214,slow=5.3,SNR=3.5						
CMAR	**Chiang Mai Arr**	**91.99**	**288**	P	**P**	**22 07 59.8**	**+1.8**
	0.6nm,0.7s,mb4.0,baz=107,slow=3.1,SNR=5.0						
CLL	**Collm**	**143.98**	**352**	*e*PKIKP	PKPdf	22 14 21.0	-1.6
BRTR	**Keskin Array B**	**145.88**	**320**	PKPbc	PKPbc	22 14 28.4	+1.2
	2.5nm,0.8s,baz=100,slow=3.3,SNR=13						
GERES	**GERESS Array B**	**146.29**	**351**	PKPbc	PKPbc	22 14 29.3	+1.5
	1.0nm,0.6s,slow=2.7,SNR=6.5						

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*PNSN **17** 22:14:50.8,48.02N×124.31W,h20^{km},MD2.1,Fault plane solution: NP1:ϕ_s60°,δ35°, NP2:ϕ_s194°,δ64°, Principal axes: T Plg16°, Azm302°; P Plg63°, Azm65°; Fault plane solution: NP1:ϕ_s205°,δ60°, NP2:ϕ_s25°,δ30°, Principal axes: T Plg15°, Azm295°; P Plg75°, Azm115°;*

PGC 17 22:14:49.8,48.04N×124.32W,h29^{km}±9^{km}**,ML2.4**/22, **MD2.2**(SEA)**,1C-3D,West coast Olympic Peninsula, Washington.,Vancouver Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTR	**Olympics--Tyee**	**0.05**	**344**	⇓P	Pn	22 14 54.3	-0.2
OBC	**Olympics--Boni**	**0.17**	**90**	⇑P	Pb	22 14 55.1	-0.5
OCWA	**Octopus Mounta**	**0.30**	**161**	⇑P	Pb	22 14 56.7	-0.5
OCWA				S	Sb	22 15 02.2	0.0
OOW	**Octopus West**	**0.31**	**163**	⇑P	Pb	22 14 57.0	-0.3
OOW				S	Sb	22 15 03.0	+0.5
STW	**Striped Peak**	**0.45**	**75**	⇑P	Pb	22 14 59.0	-0.4
OSD	**Olympics--Snow**	**0.47**	**117**	⇑P	Pb	22 14 59.3	-0.4
PFB	**Port Renfrew**	**0.54**	**352**	⇑P	Pb	22 14 60.0	-0.9
PFB				S	Sb	22 15 07.9	-0.5
PFB				Trac		22 15 08.8	
	comp=Z,295nm,0.1s						
OSR	**Olympics--Salm**	**0.58**	**155**	⇑P	Pb	22 15 00.7	-0.8
LZB	**Mount Lazard**	**0.67**	**30**	P	Pb	22 15 01.9	-1.0
LZB				S	Sb	22 15 11.2	-0.7
LZB				Trac		22 15 11.7	
	comp=Z,112nm,0.1s						
VGZ	**Gonzales**	**0.77**	**60**	P	Pb	22 15 03.1	-1.4
VGZ				S	Sb	22 15 13.7	-1.0
VGZ				Trac		22 15 14.1	
	comp=Z,250nm,0.1s						
PGC	**Sidney**	**0.85**	**43**	⇓P	Pn	22 15 04.5	-1.4
PGC				S	Sb	22 15 15.8	-1.1
PGC				Trac		22 15 16.3	
	comp=Z,134nm,0.2s						
BLN	**Blyn Mountain**	**0.91**	**91**	⇑P	Pn	22 15 06.4	-0.3
HDW	**Hoodsport**	**0.94**	**114**	⇑P	Pn	22 15 06.8	-0.4
MGB	**Mount Grey**	**1.00**	**346**	⇑P	Pn	22 15 06.5	-1.5
MGB				S	Sn	22 15 20.0	-1.1
MGB				Trac		22 15 20.9	
	comp=Z,163nm,0.2s						
GOBB	**Galiano Island**	**1.06**	**30**	P	Pn	22 15 08.0	-0.9
GOBB				S	Sn	22 15 21.6	-1.2
GOBB				Trac		22 15 24.1	
	comp=Z,28nm,0.1s						
SNB	**Saturna Island**	**1.07**	**46**	P	Pn	22 15 08.2	-0.8
SNB				S	Sn	22 15 21.6	-1.3
SNB				Trac		22 15 23.4	
	comp=Z,47nm,0.2s						
OZB	**Mount Ozzard**	**1.21**	**320**	P	Pn	22 15 09.0	-2.0
NLLB	**Nanaimo Lost L**	**1.21**	**10**	P	Pn	22 15 10.0	-1.1
NLLB				S	Sn	22 15 24.8	-1.9
NLLB				Trac		22 15 26.0	
	comp=Z,47nm,0.1s						
ALB	**Alberni**	**1.28**	**345**	⇓P	Pn	22 15 10.4	-1.7
ALB				S	Sn	22 15 27.9	-0.5
ALB				Trac		22 15 28.6	
	comp=Z,46nm,0.2s						
BIB	**Bowen Island**	**1.53**	**26**	P	Pn	22 15 14.6	-1.0
BIB				S	Sn	22 15 32.6	-2.1
BIB				Trac		22 15 35.3	
	comp=Z,18nm,0.1s						
SHB	**Sechelt**	**1.59**	**11**	P	Pn	22 15 15.4	-1.1
SHB				S	Sn	22 15 35.0	-1.3
SHB				Trac		22 15 38.1	
	comp=Z,86nm,0.2s						
BTB	**Buttle Lake**	**1.64**	**332**	⇑P	Pn	22 15 15.4	-1.8
BTB				S	Sn	22 15 39.6	+2.2
BTB				Trac		22 15 42.4	
	comp=Z,27nm,0.2s						
TXB	**Texada**	**1.67**	**357**	P	Pn	22 15 16.7	-0.8
TXB				S	Sn	22 15 37.0	-1.1
TXB				Trac		22 15 43.1	
	comp=Z,80nm,0.3s						
HNB	**Haney**	**1.70**	**42**	P	Pn	22 15 17.1	-0.9
HNB				S	Sn	22 15 37.7	-1.2
HNB				Trac		22 15 39.1	
	comp=Z,40nm,0.2s						
VDB	**Vedder Mountai**	**1.78**	**55**	P	Pn	22 15 18.7	-0.5
VDB				S	Sn	22 15 41.1	+0.1
VDB				Trac		22 15 45.7	
	comp=Z,7.0nm,0.1s						
WPB	**Watts Point**	**1.78**	**24**	P	Pn	22 15 18.5	-0.7
WPB				S	Sn	22 15 40.1	-0.9
WPB				Trac		22 15 41.0	
	comp=Z,24nm,0.1s						
GDR	**Gold River**	**2.08**	**328**	P	Pn	22 15 21.7	-1.8
GDR				Pg	Pn	22 15 24.8	+1.3
GDR				Sg	Sn	22 15 51.3	+2.6
GDR				Trac		22 15 53.4	
	comp=Z,12nm,0.3s						
CBB	**Campbell River**	**2.11**	**341**	P	Pn	22 15 23.0	-1.0
CBB				Pg	Pn	22 15 26.0	+2.0
CBB				S	Sn	22 15 49.4	-0.2
CBB				Sg	Sn	22 15 53.0	+3.5
CBB				Trac		22 15 58.6	
	comp=Z,17nm,0.3s						
WSLR	**Whistler**	**2.29**	**23**	P	Pn	22 15 26.0	-0.5
WSLR				S	Sn	22 15 54.3	+0.4
WSLR				Trac		22 16 03.3	
	comp=Z,13nm,0.2s						
WOSB	**Woss**	**2.59**	**326**	P	Pn	22 15 29.4	-1.4
WOSB				Trac		22 16 09.6	
	comp=Z,3.0nm,0.2s						
NCRB	**Newcastle Ridg**	**2.63**	**335**	P	Pn	22 15 30.0	-1.3
NCRB				Sg	Sn	22 16 07.3	+4.7

NCRB				Trac		22 16 12.2	
	comp=Z,4.0nm,0.3s						
MAYB	Maynard	3.02	323	P	Pn	22 15 36.0	-0.8
LLLB	Lillooet	3.03	31	P	Pn	22 15 36.2	-0.9
LLLB				Sg	Sn	22 16 23.6	+11
LLLB				Trac		22 16 25.9	
	comp=Z,7.0nm,0.4s						
PHC	Port Hardy	3.36	324	P	Pn	22 15 40.5	-1.2
HOLB	Holberg	3.61	318	P	Pn	22 15 44.4	-0.8

IDC 17 22:44:48.1±10.0**,3.07S**×**154.87E,mb3.7**/3**,mb1 4.0**/4**, mb1mx3.7**/14**,ML3.6**/1**,MS4.2**/1**,Ms1 4.2**/1**,ms1mx2.9**/18**, Error ellipse: s-maj=173.0km s-min=94.5km az=16.0, North of Solomon Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	9.92	230	Pn	P	22 47 12.7	-2.4
	2.8nm,0.3s,baz=42,slow=10.0,SNR=7.9						
WRA	Warramunga Arr	26.13	229	P	P	22 50 24.1	-1.8
	1.9nm,0.5s,baz=54,slow=9.9,SNR=31						
ASAR	Alice Springs	28.81	223	P	P	22 50 48.0	-2.3
	0.2nm,0.4s,baz=58,slow=9.0,SNR=3.0						
STKA	Stephens Creek	31.26	202	P	P	22 51 10.0	-2.0
	0.9nm,0.7s,baz=39,slow=15,SNR=3.8						
CBIJ	Chichi jima	32.39	339	LR	LR	23 01 04.0	
	comp=Z,410nm,21.4s,baz=54,slow=30						

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*JMA **17** 22:50:32.0±0.2,24.77N×122.58E,h98^{km},M1.8*

TAP 17 22:50:31.2,24.72N×**122.56E,h106**^{km}**,ML3.1,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.48	122	P	P	22 50 47.7	0.0
IRIF	Iriomote-Funau	1.13	110	P	P	22 50 53.8	-0.1
IRIF				*e*S	S	22 51 10.5	-0.4
JKRS	Kuro-shima	1.41	110	P	P	22 50 57.5	+0.4
JKRS				*e*S	S	22 51 16.3	-0.2
JIJ	Ishigaki jima	1.48	104	P	P	22 50 58.0	-0.1
JIJ				*e*S	S	22 51 17.2	-1.0
JTJ	Tarama	1.95	92	P	P	22 51 04.3	+0.4
JTJ				*e*S	S	22 51 28.7	+0.5

ISC 17 22:53:40.0±4.9**,36.9N**±0.2×**71.7E**±0.8**,h143**^{km}±29^{km}**,n11,** σ**0**^{s}**57**/12**,Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	5.50	16	P	P	22 55 00.4	-0.4
	SNR=28						
THN	Thein Dam	5.54	142	*e*P	P	22 55 01.7	+0.3
	1.4nm,0.4s						
THN				*e*S	S	22 56 04.4	-0.2
UCH	Uchtor	5.80	22	P	P	22 55 06.0	+1.1
	SNR=6.9						
EKS2	Erkin-Say	6.02	15	P	P	22 55 07.5	-0.4
	SNR=6.9						
AAK	Ala-Archa	6.17	20	P	P	22 55 09.9	+0.1
	SNR=9.1						
CHMS	Chumysh	6.58	20	P	P	22 55 15.1	-0.3
	SNR=7.6						
KOLN	Koldanda	13.56	129	*e*P	P	22 56 47.3	-0.2
	3.0nm,0.2s						
GKN	Gorkha	14.07	125	*e*P	P	22 56 53.0	-0.9
	7.4nm,0.3s						
KKN	Kakani	14.63	124	*e*P	P	22 57 01.0	-0.1
	4.1nm,0.3s						
PKI	Pulchoki	14.87	125	*e*P	P	22 57 05.2	+1.2
	3.4nm,0.2s						
GUN	Gumba	14.96	123	*e*P	P	22 57 05.1	-0.1
	6.4nm,0.4s						

WEL 17 23:24:19.6±0.7**,36.27S**×**176.82E,h283**^{km}±14^{km}**,ML3.6**/5**, Error ellipse: s-maj=24.7km s-min=10.6km az=90.0,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWZ	Matawai	2.14	165	PN	P	23 25 06.2	-0.2
MWZ				SN	S	23 25 41.8	-1.0
BKZ	Black Stump Fm	2.91	185	PN	P	23 25 13.7	+0.1
BFZ	Birch Farm	4.43	186	*e*SN	S	23 26 25.1	-0.6
MRZ	Mangatainoka R	4.50	192	PN	P	23 25 30.1	-1.0
MRZ				*e*SN	S	23 26 26.2	-0.8
KIW	Kapiti Island	4.83	198	PN	P	23 25 34.5	-0.4
MTW	Mount Morrison	5.00	192	PN	P	23 25 36.2	-0.7
CAW	Cannon Point	5.03	195	PN	P	23 25 36.4	-0.8
TUWZ	Tuamarina	5.63	203	SN	S	23 26 50.8	-0.2
NNZ	Nelson	5.63	208	PN	P	23 25 44.5	-0.1
NNZ				SN	S	23 26 50.6	-0.5
QRZ	Quartz Range	5.66	215	PN	P	23 25 45.3	+0.4
KHZ	Kahutara	6.65	201	PN	P	23 25 56.8	-0.2
MQZ	McQueen's Vall	8.09	202	*e*SN	S	23 27 41.9	-3.5

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*CSEM **17** 23:39:33.3±0.7,38.63N×28.55W,h5^{km},ML1.9,Error ellipse: s-maj=2.4km s-min=1.6km az=160.0*

*PDA **17** 23:39:33.3±0.7,38.63N×28.55W,h5^{km},MD2.9,ML1.9, Error ellipse: s-maj=2.4km s-min=1.6km az=160.0*

SVSA 17 23:39:33.3±0.7**,38.63N**×**28.55W,h5**^{km}**,MD2.9,ML1.9, Error ellipse: s-maj=2.4km s-min=1.6km az=160.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	Cedros	0.12	270	*i* P	Pg	23 39 35.4	-0.4
PCED				*e*S	Sg	23 39 37.7	+0.2
	79nm,0.2s						
PCED	Cedros	0.12	270	*e*S	Sg	23 39 37.7	+0.2
	79nm,0.2s						
HOR	Horta	0.12	211	*i* P	Pg	23 39 35.2	-0.6
HOR				*e*S	Sg	23 39 37.4	-0.1
HOR	Horta	0.12	211	*e*S	Sg	23 39 37.4	-0.1
CALA	Caldeira	0.13	249	*i* P	Pg	23 39 35.9	-0.1
CALA				*e*S	Sg	23 39 38.6	+0.8
CALA	Caldeira	0.13	249	*e*S	Sg	23 39 38.6	+0.8
PICO	Pico	0.16	142	*i* P	Pg	23 39 36.3	-0.3
PICO				*i* S	Sg	23 39 39.0	+0.1
PICO	Pico	0.16	142	*i* S	Sg	23 39 39.0	+0.1
ROSA	Rosais	0.26	69	*i* P	Pg	23 39 38.3	-0.2
ROSA				*e*S	Sg	23 39 41.6	-0.4
ROSA	Rosais	0.26	69	*e*S	Sg	23 39 41.6	-0.4
PMAN	Manadas	0.36	89	*e*P	Pg	23 39 39.6	-1.0
PMAN				*e*S	Sg	23 39 44.7	-0.7
	53nm,0.1s						
PID	Ribeirinha	0.39	119	*e*rx	Sg	23 39 45.7	-0.5

WEL 17 23:51:08.0±0.2**,44.04S**×**172.91E,h26**^{km}**,ML3.5**/11**,3C, Error ellipse: s-maj=2.1km s-min=1.0km az=90.0,Off east coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MQZ	McQueen's Vall	0.38	331	⇑P*	Pb	23 51 16.1	-0.2
MQZ				S*	Sb	23 51 22.1	+0.1
MQZ				S*	Sb	23 51 22.1	+0.1
LTZ	Lake Taylor	1.34	339	PN	Pn	23 51 30.9	-0.4
LTZ				SN	Sn	23 51 47.0	-1.4
KHZ	Kahutara	1.68	16	PN	Pn	23 51 35.2	-1.1
KHZ				SN	Sn	23 51 55.6	-1.5
WVZ	Waitaha Valley	1.85	301	*e*PN	Pn	23 51 37.8	-0.8
ODZ	Otahua Downs	1.91	237	PN	Pn	23 51 38.0	-1.5
ODZ				SN	Sn	23 51 59.1	-3.6
LBZ	Lake Benmore	1.99	259	⇑PN	Pn	23 51 39.7	-0.9
THZ	Tophouse	2.27	360	PN	Pn	23 51 43.9	-0.7
FOZ	Fox Glacier	2.38	280	*e*PN	Pn	23 51 44.3	-1.9
BSWZ	Blackbirch Sta	2.43	17	PN	Pn	23 51 46.0	-0.9
EAZ	Earnscleugh	2.83	244	⇑PN	Pn	23 51 51.2	-1.5
NNZ	Nelson	2.84	7	*e*PN	Pn	23 51 51.2	-1.5
TUZ	Tuapeka	3.01	229	PN	Pn	23 51 53.2	-2.0
CAW	Cannon Point	3.33	29	PN	Pn	23 51 57.1	-2.7
MTW	Mount Morrison	3.46	35	PN	Pn	23 51 57.0	-4.5
MRZ	Mangatainoka R	3.91	31	SN	Sn	23 52 47.5	-6.1

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*NDI **18** 00:02:36.9±3.4,23.49N×70.06E,h5^{km},ML3.7*

ISC 18 00:02:35.5±0.9**,23.54N**±0.05×**70.05E**±0.07**,h33**^{km}**,n17,** σ**1**^{s}**72**/24**,1C,Southern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BHJ	Bhuj	0.46	232	⇑*e*P	P	00 02 45.8	+0.2
	9μm,0.2s						
BHV	Bhavnagar	2.63	132	*e*	P	00 03 18.5	+2.0
BHV				*e*PB	Pb	00 03 24.0	+2.2
BHV				*e*SB	Sb	00 03 57.0	+3.1
JASL	Jaisalmer	3.46	13	*e*	P	00 03 26.0	-2.4
AJM	Ajmer	5.09	54	*e*P	P	00 03 52.4	+0.9
AJM				*i* S	S	00 04 51.8	+1.9
AJM				AML	AML	00 05 24.8	
	comp=E,168nm,0.4s						
AJM				AML	AML	00 05 24.9	
	comp=N,162nm,0.3s						
BOM	Bombay	5.29	150	*e*	P	00 03 49.9	-4.4
BOM				*e*		00 04 57.9	
POO	Poona	6.12	144	*e*P	P	00 04 06.9	+1.0
POO				*i* S	S	00 05 13.7	-1.9
POO				AML	AML	00 06 02.2	
	comp=N,38nm,0.5s						
POO				AML	AML	00 06 02.3	
	comp=E,58nm,0.6s						
BHPL	Bhopal	6.78	91	*e*P	P	00 04 15.8	+0.6
BHPL				*i* S	S	00 05 30.8	-1.3
BHPL				AML	AML	00 06 17.0	
	comp=E,56nm,0.4s						
BHPL				AML	AML	00 06 18.1	
	comp=N,130nm,1.4s						
KHET	Khetri	6.88	48	*e*P	P	00 04 16.8	+0.2
KHET				*e*S	S	00 05 33.4	-1.1
KAD	Karad	7.31	147	*e*	P	00 04 34.2	+12
KAD				*i* SN	Sn	00 05 40.3	-5.2
KUDL	Kundal	7.39	50	*e*P	P	00 04 25.3	+1.5
DDI	Dehra Dun	9.83	45	*e*	S	00 06 50.7	+2.8
SDNR	Sundarnagar	10.03	36	*e*	P	00 05 09.4	+9.1
SDNR				*e*		00 07 46.6	
KOLN	Koldanda	12.92	68	*e*P	P	00 05 38.6	-1.0
	comp=N,12nm,0.4s						
GKN	Gorkha	13.87	68	*e*P	P	00 05 50.1	-1.9
KKN	Kakani	14.37	70	*e*P	P	00 05 55.8	-2.8
	comp=N,18nm,0.6s						
PKI	Pulchoki	14.43	71	*e*P	P	00 05 56.6	-2.8
	comp=N,15nm,0.5s						
GUN	Gumba	14.91	70	*e*P	P	00 06 03.2	-2.5
	comp=N,14nm,0.4s						

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*HEL **18** 00:33:18.5±0.1,67.83N×20.17E,ML1.6,ML1.8(UPP), ML1.7(BER),Explosion*

*BER **18** 00:33:19.2±3.6,67.84N×20.17E,ML1.7,Suspected explosion*

ISC 18 00:33:16.8±0.6**,67.80N**±0.03×**20.19E**±0.09**,n18,** σ**1**^{s}**03**/23**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.17	19	*i* P	Pg	00 33 20.8	+0.7
KUA				*i* S	Sg	00 33 22.9	+0.5
NIKU	Nikkaluokta	0.45	280	*i* P	Pg	00 33 26.3	+0.6
DUNU	Dundret	0.69	168	*i* P	Pg	00 33 31.4	+0.7
LANU	Lannavaara	0.72	69	*i* P	Pg	00 33 31.3	0.0
MASU	Masugnsbyn	0.77	115	*i* P	Pg	00 33 32.6	+0.4
PAJU	Pajala	1.37	123	*e*P	Pb	00 33 43.2	+0.2
KTK1	Kautokeino	1.66	41	*e*P	Pn	00 33 48.7	+1.3
KTK1				*e*Sg	Sg	00 34 10.3	-1.8
KTK1				AML	AML	00 34 13.1	
	comp=Z,7.8nm,0.3s						
TRO	Tromso	1.90	347	*e*P	Pn	00 33 50.3	-0.5
TRO				*e*Sg	Sg	00 34 15.4	-4.7
TRO				AML	AML	00 34 17.8	
	comp=Z,5.8nm,0.4s						
SGF	Sodankyl	2.45	95	*e*P	Pn	00 33 59.8	+1.2
SGF				*e*S	Sn	00 34 31.1	+1.3
SGF				MSG		00 34 34.1	
	comp=Z,1.2nm,0.2s						
LOF	Lofoten	2.53	281	*e*Sg	Sg	00 34 39.9	-1.2
LOF				AML	AML	00 34 41.8	
	comp=Z,11nm,1.0s						
LOF	Lofoten	2.53	281	AML	AML	00 34 41.8	
	comp=Z,11nm,1.0s						
MOR8	Moi Rana	2.79	237	*e*Sg	Sg	00 34 40.7	-8.9
MOR8				AML	AML	00 34 42.0	
	comp=Z,13nm,0.4s						
KEV	Kevo	3.16	48	*e*P	Pn	00 34 09.2	+0.3
KEV				*e*S	Sn	00 34 46.8	-1.1
OUL	Oulu	3.56	137	*e*SG	Sg	00 35 09.6	-5.7
MSF	Maaselka	3.97	114	*e*P	Pn	00 34 20.7	+0.4
MSF				*e*S	Sn	00 35 06.7	-1.6
MSF				MSG		00 35 25.6	
	comp=Z,0.9nm,0.3s						
NSS	Namsos	4.68	229	*e*Sg	Sg	00 35 44.4	-8.1
KJN	Kajaani	4.83	137	*e*S	Sn	00 35 28.1	-2.0
KJN				MSG		00 35 49.1	
	comp=Z,0.8nm,0.3s						
VAF	Ylistaro	4.89	167	*e*SG	Sg	00 35 49.7	-10

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*IDC **18** 00:35:26.5±0.5,19.20N×64.66W,mb4.6/19,mb1 4.8/20, mb1mx4.6/25,ML3.5/1,MS4.1/18,Ms1 4.1/18, ms1mx3.8/26,Error ellipse: s-maj=12.0km s-min=10.7km az=122.0*

*TRN **18** 00:35:27.1,19.62N×64.48W,h53^{km}*

*BJI **18** 00:35:30.5,19.10N×64.60W,h35^{km},mB5.3,Ms5.1, Msz4.7*

*NEIC **18** 00:35:32.5,19.13N×64.64W,h36^{km},mb5.0/26, MD4.8(RSPR),After RSPR.*

*RSPR **18** 00:35:32.5,19.13N×64.64W,h36^{km}±23^{km},MD4.8/13, MD4.8/13*

*HRVD **18** 00:35:32.5±0.8,19.17N×64.75W,h37^{km}±1^{km},MW4.8/28, Centroid moment Tensor Solution. LP body waves: s17,c18;Mantle waves: s28,c32; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.78±.25; $M_{\theta\theta}$-1.22±.20; $M_{\phi\phi}$-0.56±.23; $M_{r\theta}$0.62±.11; $M_{\theta\phi}$0.77±.11; $M_{\phi r}$0.31±.14; Best double couple: $M_0$1.88×10^{16} NP1:ϕ_s319°,δ42°,λ115°. NP2:ϕ_s107°,δ53°,λ70°. Principal axes: T 1.99, Plg73°, Azm321°; N -.23, Plg16°, Azm120°; P -1.76, Plg6°, Azm211°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 18 00:35:30.4±0.6**,19.19N**±0.04×**64.65W**±0.02**,h36**^{km}±7^{km}**, n143,** σ**0**^{s}**82**/138**,mb4.8**/44**,MS4.2**/23**,8C-10D,Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTP	Monte Pirata	1.39	219	*e*S	S	00 36 09.6	-1.4
MTP	Monte Pirata	1.39	219	⇓*e*P	P	00 35 53.6	-0.1
MTP				*e*S	S	00 36 09.6	-1.4
CBYP	Canovanas	1.47	232	*e*S	S	00 36 12.9	0.0
CPD	Cerro la Pandu	1.66	227	*e*S	S	00 36 17.4	-0.4
CPD	Cerro la Pandu	1.66	227	⇓*e*P	P	00 35 57.7	+0.2
CPD				*e*S	S	00 36 17.4	-0.4
CSB	Colonia Sabana	1.69	238	⇑*e*P	P	00 35 57.6	-0.3
SJG	San Juan	1.78	233	*e*S	S	00 36 20.1	-0.8
SJG	San Juan	1.78	233	⇓*e*P	P	00 35 59.5	+0.2
SJG				*e*S	S	00 36 20.0	-0.9
SJG	San Juan	1.78	233	Pn	P	00 35 59.3	0.0
	174nm,0.3s,baz=45,slow=7.4,SNR=192						
SJG				Lg		00 36 21.0	
	2μm,0.3s,baz=253,slow=20,SNR=22						
SJG				LR	LR	00 36 39.7	
	comp=Z,2μm,20.8s,baz=44,slow=41						
SJG	San Juan	1.78	233	⇓*e*P	P	00 35 59.1	-0.1
SJG				*e*S	S	00 36 20.1	-0.8
STMA	St. Maarten, A	1.85	128	*e*P	P	00 36 01.0	+0.8
STMA				*e*S	S	00 36 24.5	+2.0
SABT	Saba	2.05	139	*e*P	P	00 36 04.8	+1.8
CELP	Cerrillos	2.14	239	⇓*e*P	P	00 36 04.8	+0.4
AOPR	Arecibo Observ	2.16	248	*e*S	S	00 36 30.5	0.0
AOPR	Arecibo Observ	2.16	248	⇓*e*P	P	00 36 04.6	0.0
AOPR				*e*S	S	00 36 30.5	0.0
OBIP	Obispado Ponce	2.18	239	*e*S	S	00 36 31.0	+0.1
OBIP	Obispado Ponce	2.18	239	⇓*e*P	P	00 36 05.3	+0.3
OBIP				*e*S	S	00 36 31.0	+0.1
PORP	Portuguez	2.20	239	⇑*e*P	P	00 36 05.3	+0.1
LSP	Las Mesas	2.52	247	⇑*e*P	P	00 36 10.1	+0.3
MPR	Mayaguez	2.55	248	*e*S	S	00 36 39.7	-0.7
MPR	Mayaguez	2.55	248	⇑*e*P	P	00 36 10.6	+0.4
MPR				*e*S	S	00 36 39.7	-0.7
MGP	Maguayo	2.60	244	⇑*e*P	P	00 36 11.1	+0.2
MGP	Maguayo	2.60	244	*e*S	S	00 36 41.4	-0.2
MGP	Maguayo	2.60	244	⇓*e*P	P	00 36 11.1	+0.2
MGP				*e*S	S	00 36 41.4	-0.2
CPB	Codrington	3.09	119	*e*P	P	00 36 17.0	-0.9
CPB				*e*S	S	00 37 03.8	+10
BPA	Boggy Peak	3.40	128	*e*P	P	00 36 21.5	-0.8
BPA				*e*S	S	00 37 02.6	+0.6
SEG	Port Louis	4.08	132	⇑*e*P	P	00 36 30.9	-1.0
MGG	Marie-Galante	4.54	135	⇓*e*P	P	00 36 37.9	-0.7
BBL	Barber's Block	4.74	140	*e*P	P	00 36 41.3	0.0
FDF	Fort de France	5.55	142	⇑*e*P	P	00 36 53.0	+0.3
ROSC	El Rosal	17.09	215	P	P	00 39 30.8	+2.6
	3.2nm,0.3s,baz=38,slow=3.7,SNR=13						
ROSC				S	S	00 42 45.2	+10
	0.2nm,0.3s,baz=266,slow=21,SNR=5.1						
CSU	Charleston Sou	19.48	318	P	P	00 39 56.9	-0.1
CSU				*e*		00 40 02.9	
RGRS	Roger Stewart	19.51	318	*e*P	P	00 39 56.5	-0.8
RGRS				*e*		00 40 03.3	
TWB	Tillmans-White	19.58	318	*e*P	P	00 39 57.6	-0.5
TWB				*e*		00 40 04.2	
NHSC	New Hope	19.63	318	*e*P	P	00 39 58.1	-0.5
	234nm,0.7s						
NHSC				*e*		00 40 04.4	
HBF	Harts Bluff	19.64	317	*e*P	P	00 39 57.8	-1.0
HBF				*e*		00 40 04.4	
COW	Cow Castle Cre	20.14	318	*e*P	P	00 40 02.4	-1.7
COW				*e*		00 40 11.2	
JSC	Jenkinsville	21.08	319	*e*P	P	00 40 13.0	-0.9
JSC				*e*		00 40 23.7	
CBN	Corbin	21.95	332	*e*P	P	00 40 23.1	+0.6
	116nm,1.1s,mb5.2						
CBN				*e*		00 40 33.9	
CBN				*e*S	S	00 44 12.0	-5.6
BLA	Blacksburg	22.65	326	*e*P	P	00 40 29.9	+0.3
	64nm,1.3s,mb4.9						
BLA				*e*		00 40 44.5	
SDMD	Soldier's Deli	22.74	335	*e*P	P	00 40 31.3	+0.9
SDMD				*e*		00 40 37.4	
SDMD				*e*		00 40 47.1	
SDMD				*e*S	S	00 44 21.3	-11
ELN	Prospectdale	22.84	325	*e*P	P	00 40 32.5	+1.1
ELN				*e*		00 40 49.4	
PWV	Princeton	23.08	325	*e*P	P	00 40 35.1	+1.3
PWV				*e*		00 40 52.8	
FWV	Forest Hill	23.13	326	*e*P	P	00 40 36.2	+1.9
FWV				*e*		00 40 53.8	
PAL	Palisades	23.15	342	*e*P	P	00 40 34.5	+0.2
	40nm,0.8s,mb4.9						
PAL				*e*		00 40 52.2	
CPCT	Cooper Cave	23.89	317	*e*P	P	00 40 41.8	+0.2
CPCT				*e*		00 41 02.6	
MCWV	Mont Chateau	24.25	330	P	P	00 40 49.1	+4.0
	26nm,0.7s,mb4.8						
MCWV				*e*		00 41 08.8	
LRAL	Lakeview Retre	24.28	309	*e*P	P	00 40 46.3	+0.9
	58nm,1.1s,mb4.9						
SWET	Sewanee	24.68	315	*e*P	P	00 40 44.6	-4.8
SWET				*e*		00 40 50.3	
ACCN	Adirondack Com	25.29	344	*e*P	P	00 40 55.2	+0.1
ACCN				*e*		00 41 22.4	
MIV	Mineville/With	25.91	345	*e*P	P	00 41 00.5	-0.4
MIV				*e*		00 41 31.0	
ACSO	Alum Creek Sta	26.23	327	*e*P	P	00 41 03.8	-0.1
	39nm,1.1s,mb4.8						
ACSO				*e*		00 41 34.8	
OXF	Oxford	26.75	310	*e*P	P	00 41 08.3	-0.4
	82nm,1.1s,mb5.2						
OXF				*e*		00 41 40.5	
SAML	Samuel	27.99	177	*e*P	P	00 41 18.1	-2.1
	38nm,1.2s,mb4.9						
SADO	Sadowa	28.23	338	P	P	00 41 21.3	-0.7
	7.3nm,0.7s,mb4.4,baz=170,slow=7.1,SNR=6.1						
SADO				LR	LR	00 51 12.1	
	comp=Z,545nm,20.3s,MS4.1,baz=92,slow=34						
SADO	Sadowa	28.23	338	P	P	00 41 21.3	-0.7
SADO				LR	LR	00 51 12.1	
WMOK	Wichita Mounta	33.94	304	*e*P	P	00 42 11.3	-1.1
	8.1nm,0.9s,mb4.7						
LPAZ	La Paz	35.42	186	P	P	00 42 25.5	+0.3
	4.3nm,1.1s,mb4.3,baz=16,slow=14,SNR=5.4						
LPAZ				LR	LR	00 58 18.0	
	comp=Z,296nm,18.1s,MS4.1,baz=69,slow=39						
SCHQ	Schefferville	35.62	358	P	P	00 42 25.1	-1.4
	13nm,0.9s,mb4.9,baz=158,slow=6.5,SNR=8.7						
SCHQ				LR	LR	00 54 42.5	
	comp=Z,181nm,20.5s,MS3.8,baz=191,slow=32						
AMTX	Amarillo	36.27	303	*e*P	P	00 42 32.4	+0.2
	41nm,1.1s,mb5.3						
TXAR	Lajitas Array	36.83	293	P	P	00 42 37.2	+0.2
	2.2nm,0.9s,mb4.0,baz=110,slow=9.4,SNR=22						
TXAR				PcP	PcP	00 44 59.7	+0.9
	1.1nm,0.8s,baz=135,slow=5.3,SNR=4.2						
TXAR				LR	LR	00 59 27.2	
	comp=Z,114nm,18.3s,MS3.7,baz=145,slow=39						
TXAR	Lajitas Array	36.83	293	P	P	00 42 37.2	+0.2
TXAR				PcP	PcP	00 44 59.7	+0.9
TXAR				LR	LR	00 59 27.2	
CPRX	Cap Rock	37.60	299	*e*P	P	00 42 43.2	-0.2
GDL2	Guadalupe Moun	37.85	298	*e*P	P	00 42 45.9	+0.4
BDFB	Brasilia	38.28	154	P	P	00 42 49.5	+0.2
	7.5nm,1.1s,mb4.3,baz=336,slow=12,SNR=5.2						
BDFB				LR	LR	00 59 45.2	
	comp=Z,385nm,19.1s,MS4.2,baz=337,slow=38						
BAO	Brasilia Array	38.29	154	P	P	00 42 48.1	-1.2
MNTX	Cornudas Mount	38.62	297	*e*P	P	00 42 51.6	-0.3
	6.6nm,1.0s,mb4.3						
ULM	Lac du Bonnet	39.71	329	P	P	00 43 00.3	-0.5
	7.7nm,0.8s,mb4.5,baz=134,slow=8.0,SNR=9.0						
ULM				LR	LR	00 58 31.3	
	comp=Z,280nm,20.2s,MS4.1,baz=229,slow=35						
SDCO	Great Sand Dun	40.02	306	*e*P	P	00 43 04.2	+0.8
	51nm,1.1s,mb5.2						
BNM	Barren Site	40.08	300	*e*P	P	00 43 04.5	+0.5
ANMO	Albuquerque	40.10	302	LR	LR	00 58 52.9	
	comp=Z,87nm,20.4s,MS3.6,slow=35						
LPM	Los Pinos Moun	40.11	301	*e*P	P	00 43 05.3	+1.0
ISCO	Idaho Springs	40.70	309	*e*P	P	00 43 09.8	+0.6
	25nm,1.1s,mb4.8						
PHWY	Pilot Hill	41.08	311	*e*P	P	00 43 13.1	+0.8
LVC	Limon Verde	41.75	186	P	P	00 43 17.9	-0.1
	5.1nm,0.9s,mb4.2,baz=6.3,slow=9.2,SNR=6.3						
RWWY	Rawlins	42.45	311	*e*P	P	00 43 24.1	+0.5
PV01	Paradox Valley	42.46	306	*e*P	P	00 43 23.9	+0.3
PV01				*e*PcP	PcP	00 45 18.0	+1.3
PV10	Paradox Valley	42.88	306	*e*P	P	00 43 26.7	-0.4
SRU	San Rafael	44.18	307	*e*P	P	00 43 38.1	+0.6
PDAR	Pinedale Array	44.45	312	P	P	00 43 40.2	+0.6
	16nm,0.9s,mb4.8,baz=115,slow=8.5,SNR=105						
PDAR				PcP	PcP	00 45 23.2	-0.1
	4.3nm,0.9s,baz=108,slow=4.7,SNR=6.4						
PDAR				LR	LR	01 04 05.4	
	comp=Z,236nm,19.4s,MS4.1,baz=120,slow=39						
FRB	Frobisher Bay	44.60	358	P	P	00 43 40.1	-0.6
	23nm,0.8s,mb5.0,baz=165,slow=7.3,SNR=17						
FRB				LR	LR	01 00 47.2	
	comp=Z,289nm,20.9s,MS4.2,baz=137,slow=34						
TMUT	Trail Mountain	44.74	307	*e*P	P	00 43 42.9	+0.9
TMUT				*e*PcP	PcP	00 45 24.2	-0.2
JLU	Jordanelle	45.22	309	*e*P	P	00 43 46.2	+0.3
MSU	Marysvale	45.31	306	*e*P	P	00 43 47.0	+0.4
LOHW	Long Hollow	45.43	313	*e*P	P	00 43 47.9	+0.3
LOHW				*e*PcP	PcP	00 45 26.7	0.0
SNOW	Snow King Moun	45.49	313	*e*P	P	00 43 48.6	+0.6
REDW	Red Top Meadow	45.53	312	*e*P	P	00 43 48.7	+0.4
AHID	Auburn Hatcher	45.53	312	*e*P	P	00 43 48.8	+0.4
	37nm,1.0s,mb5.3						
AHID				*e*PcP	PcP	00 45 26.8	-0.3
HWUT	Hardware Ranch	45.55	310	*e*P	P	00 43 48.6	0.0
	25nm,0.9s,mb5.2						
HWUT				*e*PcP	PcP	00 45 27.4	+0.2
MOOW	Moose Ponds	45.57	313	*e*P	P	00 43 48.4	-0.3
TPAW	Teton Pass	45.63	313	*e*P	P	00 43 49.7	+0.5
NOQ	North Oquirrh	45.73	308	*e*P	P	00 43 50.9	+0.9
IMW	Indian Meadow	45.75	313	*e*P	P	00 43 50.7	+0.6
YMR	Madison River	46.00	314	*e*P	P	00 43 51.3	-0.8
SPUT	South Promonto	46.12	309	*e*P	P	00 43 53.3	+0.2
ARUT	Antelope Range	46.16	304	*e*P	P	00 43 54.0	+0.6
BGU	Big Grassy Mou	46.46	309	*e*P	P	00 43 56.1	+0.4
HVU	Hansel Valley	46.48	310	*e*P	P	00 43 56.5	+0.7
NEN	Nelson	46.98	301	*e*P	P	00 44 00.9	+1.1
ELK	Elko	48.07	308	*e*P	P	00 44 08.9	+0.6
	24nm,1.2s,mb5.1						

ELK				ePcP	PcP	00 45 36.1	0.0
ELK				LR	LR		
	comp=Z,268nm,21.0s,MS4.2						
TPNV	Topopah Spring	48.26	303	eP	P	00 44 11.5	+1.7
	comp=Z,12nm,1.0s,mb4.9						
BMN	Battle Mountai	49.50	307	eP	P	00 44 20.1	+0.7
	comp=Z,20nm,1.0s,mb5.1						
MNV	Mina	49.93	304	eP	P	00 44 23.0	+0.3
	comp=Z,20nm,1.1s,mb5.0						
NVAR	Mina Array Bea	50.05	304	P	P	00 44 24.6	+1.0
	comp=Z,9.7nm,1.1s,mb4.8,baz=96,slow=7.4,SNR=41						
NVAR				PcP	PcP	00 45 44.4	+1.1
	comp=Z,7.7nm,1.2s,baz=133,slow=3.7,SNR=4.9						
NVAR				LR	LR	01 06 59.6	
	comp=Z,202nm,18.5s,MS4.2,baz=95,slow=38						
BMO	Blue Mountains	50.40	313	eP	P	00 44 25.4	-0.9
	comp=Z,9.7nm,1.2s,mb4.7						
EDM	Edmonton	50.50	324	P	P	00 44 25.6	-1.3
NEW	Newport	51.12	317	eP	P	00 44 31.0	-0.6
	comp=Z,14nm,1.0s,mb4.9						
NEW				LR	LR		
	comp=Z,339nm,20.0s,MS4.4						
OHCM	Honcut	52.61	305	eP	P	00 44 43.0	+0.1
YKA	Yellowknife Ar	55.13	334	P	P	00 44 59.1	-2.0
	comp=Z,5.8nm,0.7s,mb4.8,baz=110,slow=7.5,SNR=93						
YKA				LR	LR	01 07 35.4	
	comp=Z,280nm,19.3s,MS4.3,baz=90,slow=35						
YKW3	Yellowknife Ar	55.17	334	eP	P	00 44 58.9	-2.5
YKW3				e	pP	00 45 12.2	-0.1
ESDC	Sonseca Array	55.60	55	P	P	00 45 04.4	-0.5
	comp=Z,5.5nm,0.9s,mb4.6,baz=267,slow=6.4,SNR=18						
ESLA	Sonseca Array	55.60	55	eP	P	00 45 04.7	-0.2
	comp=Z,2.0nm,0.9s,mb4.2						
BBB	Bella Bella	58.84	320	LR	LR	01 12 29.2	
	comp=Z,176nm,18.4s,MS4.2,baz=153,slow=38						
DBIC	Dimbokro	59.33	94	P	P	00 45 30.9	-0.6
	comp=Z,6.9nm,1.0s,mb4.6,baz=281,slow=6.8,SNR=5.4						
DBIC				LR	LR	01 09 57.6	
	comp=Z,91nm,18.2s,MS3.9,baz=326,slow=35						
DLBC	Dease Lake	60.99	327	LR	LR	01 11 53.9	
	comp=Z,209nm,18.8s,MS4.3,baz=110,slow=36						
DAG	Danmarks Havn	62.02	11	⇑iP	P	00 45 47.9	-1.1
	comp=Z,5.0nm,0.9s,mb4.6						
INK	Inuvik	64.54	337	LR	LR	01 12 11.7	
	comp=Z,189nm,21.4s,MS4.2,baz=235,slow=34						
INK	Inuvik	64.54	337	eP	P	00 46 03.2	-2.3
	comp=Z,11nm,1.0s,mb4.8						
DAWY	Dawson	66.25	332	eP	P	00 46 15.7	-0.9
NOA	NORSAR Array B	66.56	31	LR	LR	01 10 53.8	
	comp=Z,182nm,20.2s,MS4.3,baz=350,slow=32						
THY	Trims Highway	69.05	332	eP	P	00 46 34.4	+0.3
ILAR	Eielson Array	69.52	333	P	P	00 46 36.0	-1.0
	comp=Z,15nm,1.3s,mb4.8,baz=90,slow=4.8,SNR=22						
ILAR				LR	LR	01 16 12.3	
	comp=Z,152nm,19.6s,MS4.2,baz=167,slow=35						
ARCES	ARCESS Array B	72.25	22	P	P	00 46 52.4	-0.9
	comp=Z,2.0nm,0.7s,mb4.2,slow=3.6,SNR=4.9						
IMA	Indian Mountai	72.26	335	eP	P	00 46 52.5	-1.0
	comp=Z,37nm,1.0s,mb5.3						
FINES	FINESS Array B	73.69	30	P	P	00 47 01.8	-0.2
	comp=Z,5.0nm,1.0s,mb4.4,baz=166,slow=7.9,SNR=3.7						
FINES				LR	LR	01 13 30.5	
	comp=Z,310nm,18.7s,MS4.6,baz=182,slow=31						
FINES	FINESS Array B	73.69	30	P	P	00 47 01.8	-0.2
FINES				LR	LR	01 13 30.5	
MLR	Muntele Rosu	76.98	46	P	P	00 47 21.3	+0.2
	comp=Z,6.7nm,0.9s,mb4.6,baz=54,slow=2.5,SNR=6.4						
IDI	Anoyia	78.81	57	P	P	00 47 31.8	+0.4
	comp=Z,18nm,0.9s,mb5.0,baz=337,slow=8.0,SNR=4.3						
BRTR	Keskin Array B	84.09	50	P	P	00 47 59.5	+0.5
	comp=Z,4.4nm,0.9s,mb4.6,baz=270,slow=3.7,SNR=15						
WMQ	Urumqi	112.37	21	⇓PKP	PKPdf	00 54 02.0	-0.5
WMQ				XPKP		00 54 16.5	
WMQ				PP	PP	00 54 51.4	-1.6
WMQ				PKS	PKS	00 57 37.4	-1.0
WMQ				SKKS		01 01 41.5	
WMQ				PP	PP		
	comp=Z,21nm,10.8s						
WMQ				LR	LR		
	comp=N,11nm,17.0s,MS4.5						
WMQ				LR	LR		
	comp=E,105nm,18.6s,MS4.5						
WMQ				LR	LR		
	comp=Z,68nm,19.4s,MS4.2						
CN2	Changchun	116.64	352	ePKP	PKPdf	00 54 10.5	-0.4
LZH	Lanzhou	123.96	11	ePKP	PKPdf	00 54 25.0	-0.3
LZH				XPKP		00 54 40.3	
LZH				ePP	PP	00 56 12.1	-1.9
LZH				SKKS		01 03 00.3	
LZH				PP	PP		
	comp=Z,126nm,8.5s						
LZH				LR	LR		
	comp=N,737nm,18.2s						
LZH				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
NJ2	Nanjing	128.94	356	ePKP	PKPdf	00 54 35.3	+0.3
SSE	Sheshan	129.69	353	ePKP	PKPdf	00 54 35.4	-1.0
KMI	Kunming	134.28	16	ePKP	PKPdf	00 54 43.0	-2.3
KMI				LR	LR		
	comp=Z,53nm,22.3s,MS4.2						
CMAR	Chiang Mai Arr	139.27	24	PKP	PKPdf	00 54 56.8	+2.3
	comp=Z,0.8nm,0.4s,baz=307,slow=2.4,SNR=5.5						
ARMA	Armidale	145.36	244	eP	PKPdf	00 55 06.8	+1.9
CNB	Canberra Magne	145.97	235	eP	PKPdf	00 55 08.5	+2.7
	comp=Z,22nm,1.2s						
TOO	Toolangi	147.97	229	eP	PKPdf	00 55 16.3	+7.2
	comp=Z,5.5nm,1.2s						
STKA	Stephens Creek	153.24	237	PKPbc	PKPdf	00 55 26.3	+9.1
	comp=Z,4.0nm,1.0s,baz=307,slow=3.7,SNR=4.3						
STKA				PKPab	PKPab	00 55 37.9	-1.1
	comp=Z,5.3nm,0.9s,baz=126,slow=3.0,SNR=5.0						
STKA	Stephens Creek	153.24	237	ePKPbc	PKPdf	00 55 25.3	+8.1
WRA	Warramunga Arr	162.09	264	PKP	PKPdf	00 55 29.4	+1.1
	comp=Z,2.4nm,1.0s,baz=62,slow=0.8,SNR=12						
WRA				PKPab	PKPab	00 56 15.8	-1.5
	comp=Z,1.1nm,0.8s,baz=86,slow=4.5,SNR=4.8						
ASAR	Alice Springs	162.17	252	PKP	PKPdf	00 55 29.5	+1.2
	comp=Z,2.2nm,1.1s,baz=100,slow=0.5,SNR=10.0						
ASAR				PKPab	PKPab	00 56 16.6	-1.0
	comp=Z,2.7nm,0.9s,baz=106,slow=4.3,SNR=11						

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*NEIC **18** 00:36:32.0±0.5, 13.62N×120.85E, mb3.8/1, Error ellipse: s-maj=18.4km s-min=11.0km az=53.0*

*IDC **18** 00:36:32.3±0.7, 13.67N×120.89E, h137^{km}±5^{km}, mb3.6/9, mb1 3.8/9, mb1mx3.6/20, Error ellipse: s-maj=34.3km s-min=14.2km az=65.0*

*MAN **18** 00:36:33.6, 13.68N×120.65E, h114^{km}, mb4.2, ML3.0, MS2.8*

ISC 18 00:36:31.6±0.4, **13.65N**±0.05×**120.72E**±0.08, **h141**^{km}±4^{km}, **n33**, σ1ˢ**05**/39, **mb3.9**/13, **4C-1D, Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	Lubang	0.47	280	⇑iP	P	00 36 51.6	-0.7
LUBP	Lubang	0.47	280	eP	P	00 36 51.7	-0.6
LUBP				eS	S	00 36 59.2	-9.0
TGY	Tagaytay City	0.49	25	⇑iP	P	00 36 52.5	+0.1
TGY				i S	S	00 37 06.5	-1.9
TGY	Tagaytay City	0.49	25	P	P	00 36 52.9	+0.4
	1µm,0.3s,baz=213,slow=2.0,SNR=61						
TGY				S	S	00 37 07.9	-0.4
	420nm,0.3s,baz=240,slow=20,SNR=7.6						
LQP	Lukban	0.91	60	⇑eP	P	00 36 56.5	+1.5
QVPH	Quezon City--P	1.04	18	⇑eP	P	00 36 54.1	-2.1
QVPH				i S	S	00 37 13.3	-1.6
BOAC	Boac	1.11	100	eP	P	00 36 57.0	+0.3
BOAC				eS	S	00 37 15.0	-1.1
SJMP	San Jose	1.25	162	eP	P	00 36 59.1	+0.9
SJMP				eS	S	00 37 18.4	-0.1
POLP	Polilio Island	1.59	48	eP	P	00 37 03.4	+1.5
GQP	Guinayangan	1.69	81	eP	P	00 37 04.5	+1.5
OTRP	Odiongan	1.80	135	eP	P	00 37 04.6	+0.4
PCPH	Palayan	1.93	11	⇓iP	P	00 37 05.2	-0.6
PCPH				eS	S	00 37 36.7	+4.8
BALP	Baler	2.23	22	eP	P	00 37 10.8	+1.3
BOLP	Bolinao	2.82	344	eP	P	00 37 17.6	+0.5
APYP	Conner	4.21	7	eP	P	00 37 36.8	+1.4
CM31	Chiang Mai Arr	21.46	286	P	P	00 41 11.6	+1.7
CMAR	Chiang Mai Arr	21.46	286	P	P	00 41 12.0	+2.1
	5.4nm,0.8s,mb3.9,baz=91,slow=7.5,SNR=28						
GUN	Gumba	35.39	299	eP	P	00 43 16.7	+1.0
PKI	Pulchoki	35.69	298	eP	P	00 43 18.2	-0.1
	23nm,0.9s,mb4.8						
KKN	Kakani	35.86	299	eP	P	00 43 19.8	+0.1
DMN	Daman	35.96	298	eP	P	00 43 19.0	-1.6
WRA	Warramunga Arr	35.97	158	P	P	00 43 18.6	-2.1
	1.1nm,1.1s,mb3.4,baz=332,slow=9.9,SNR=6.8						
WRA				pP	pP	00 43 49.0	-2.8
	0.6nm,0.7s,baz=336,slow=9.7,SNR=3.6						
SONM	Songino Array	36.11	344	P	P	00 43 21.2	-0.4
	0.9nm,0.6s,mb3.6,baz=162,slow=8.1,SNR=12						
GKN	Gorkha	36.47	299	eP	P	00 43 24.8	0.0
	3.3nm,0.3s,mb4.5						
KOLN	Koldanda	37.30	298	eP	P	00 43 31.0	-0.8
	7.4nm,0.8s,mb4.4						
ASAR	Alice Springs	39.27	161	P	P	00 43 47.8	-0.4
	0.5nm,0.4s,mb3.5,baz=339,slow=6.6,SNR=12						
ASAR				pP	pP	00 44 17.4	-2.2
	0.3nm,0.6s,baz=344,slow=6.6,SNR=2.4						
ZAL	Zalesovo	49.11	333	P	P	00 45 06.0	-0.5
	2.1nm,0.4s,mb4.1,baz=342,slow=4.6,SNR=13						
AAK	Ala-Archa	49.12	315	P	P	00 45 06.6	-0.2
	1.2nm,0.7s,mb3.6						
BVAR	Borovoye Array	55.83	326	P	P	00 45 55.7	-0.8
	0.3nm,0.3s,mb3.6,baz=117,slow=6.4,SNR=5.8						
ARCES	ARCESS Array B	79.14	339	P	P	00 48 21.2	-0.4
	1.9nm,0.7s,mb3.8,baz=72,slow=7.7,SNR=6.9						
HFS	Hagfors	86.53	331	P	P	00 48 59.4	-0.2
	3.4nm,0.8s,mb4.2,baz=63,slow=3.3,SNR=4.4						
YKA	Yellowknife Ar	92.81	22	P	P	00 49 29.2	+0.3
	0.2nm,0.4s,mb3.6,baz=307,slow=4.5,SNR=5.5						
TXAR	Lajitas Array	119.49	45	PKP	PKPdf	00 55 07.0	+1.9
	0.1nm,0.4s,baz=14,slow=3.7,SNR=4.7						

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*NEIC **18** 00:43:16.5, 19.08N×64.60W, h25^{km}, MD3.6(RSPR), After RSPR.*

RSPR 18 00:43:16.5, 19.08N×64.60W, h25^{km}±27^{km}, **MD3.5**/10, **MD3.5**/10, **12C-2D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTP	Monte Pirata	1.34	223	eS	Sn	00 43 53.9	-3.3
MTP	Monte Pirata	1.34	223	⇑eP	Pn	00 43 37.2	-2.8
MTP				eS	Sn	00 43 53.9	-3.3
CBYP	Canovanas	1.44	236	eS	Sn	00 43 56.1	-3.6
CBYP	Canovanas	1.44	236	⇑eP	Pn	00 43 38.6	-2.9
CBYP				eS	Sn	00 43 56.1	-3.6
CPD	Cerro la Pandu	1.63	231	eS	Sn	00 44 01.2	-3.2
CPD	Cerro la Pandu	1.63	231	⇑eP	Pn	00 43 42.1	-1.9
CPD				eS	Sn	00 44 01.2	-3.2
CSB	Colonia Sabana	1.68	242	⇑eP	Pn	00 43 42.3	-2.5
CSB				eS	Sn	00 44 02.9	-2.8
SJG	San Juan	1.76	237	eS	Sn	00 44 04.3	-3.6
SJG	San Juan	1.76	237	⇓eP	Pn	00 43 43.9	-2.1
SJG				eS	Sn	00 44 04.8	-3.1
SJG	San Juan	1.76	237	⇑eP	Pn	00 43 42.9	-3.1
SJG				eS	Sn	00 44 04.3	-3.6
CELP	Cerrillos	2.13	242	⇑eP	Pn	00 43 48.3	-3.1
AOPR	Arecibo Observ	2.17	251	⇑eP	Pn	00 43 49.6	-2.2
AOPR				eS	Sn	00 44 14.9	-3.3
OBIP	Obispado Ponce	2.17	242	eS	Sn	00 44 14.4	-3.8
OBIP	Obispado Ponce	2.17	242	⇑eP	Pn	00 43 49.1	-2.7
OBIP				eS	Sn	00 44 14.4	-3.8
PORP	Portuguez	2.19	242	⇑eP	Pn	00 43 49.3	-2.8
PORP				eS	Sn	00 44 15.0	-3.7
LSP	Las Mesas	2.53	250	⇑eP	Pn	00 43 55.3	-1.6
LSP				eS	Sn	00 44 23.2	-4.1
MGP	Maguayo	2.60	246	⇓eP	Pn	00 43 55.2	-2.8
MGP				eS	Sn	00 44 25.4	-3.6
MGP	Maguayo	2.60	246	⇑eP	Pn	00 43 55.6	-2.3
MGP	Maguayo	2.60	246	eS	Sn	00 44 25.8	-3.2
MGP	Maguayo	2.60	246	⇑eP	Pn	00 43 55.6	-2.3
MGP				eS	Sn	00 44 25.8	-3.2

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*PDA **18** 01:03:18.9±1.0, 38.60N×29.54W, MD3.3, ML2.6, Error ellipse: s-maj=15.7km s-min=6.8km az=171.0*

*CSEM **18** 01:03:20.5±0.3, 38.63N×29.21W, h20^{km}, ML2.6, Error ellipse: s-maj=10.6km s-min=4.8km az=171.0*

SVSA 18 01:03:18.9±1.0, **38.60N×29.54W, MD3.3, ML2.6, Error ellipse: s-maj=15.7km s-min=6.8km az=171.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CALA	Caldeira	0.66	92	eP	Pg	01 03 30.3	-1.8
CALA				eS	Sg	01 03 39.0	-1.9
CALA	Caldeira	0.66	92	eS	Sg	01 03 39.0	-1.9
PCED	Cedros	0.66	87	i P	Pg	01 03 30.2	-1.9
PCED				eS	Sg	01 03 38.9	-2.0
	132nm,0.2s						
PCED	Cedros	0.66	87	eS	Sg	01 03 38.9	-2.0
	132nm,0.2s						
HOR	Horta	0.72	96	eP	Pg	01 03 31.2	-2.1
HOR				eS	Sg	01 03 39.8	-3.1
PICO	Pico	0.88	96	eP	Pg	01 03 33.8	-2.7
PICO				eS	Sg	01 03 45.2	-3.1
ROSA	Rosais	1.03	83	eP	Pb	01 03 35.7	-3.5
ROSA				eS	Sg	01 03 48.0	-5.1
PID	Ribeirinha	1.13	98	eP	Pb	01 03 37.5	-3.5
PID				eS	Sb	01 03 50.5	-5.6
PMAN	Manadas	1.14	88	eS	Sb	01 03 51.2	-5.2
	39nm,0.2s						
PMAN	Manadas	1.14	88	eS	Sb	01 03 51.2	-5.2
	39nm,0.2s						
ASBA	Santa Barbara	1.74	85	eS	Sn	01 04 05.7	-8.1
	12nm,0.1s						
ASBA	Santa Barbara	1.74	85	eS	Sn	01 04 05.7	-8.1
	12nm,0.1s						
PSBA	Serra de Santa	1.75	84	eS	Sn	01 04 05.9	-8.0
	28nm,0.3s						
PSBA	Serra de Santa	1.75	84	eS	Sn	01 04 05.9	-8.0
	28nm,0.3s						
PPAD	Pico dos Padre	1.77	86	eS	Sn	01 04 06.4	-8.2
	12nm,0.2s						
PBIS	Biscoitos	1.80	84	erx	Sn	01 04 07.8	-7.5
RIB2	Ribeirinha	1.86	87	eS	Sn	01 04 08.6	-8.2
PVNV	Vila Nova	1.88	84	eS	Sn	01 04 09.1	-8.1
PFAV	Pico das Favas	1.93	86	erx	Sn	01 04 10.9	-7.7

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*NEIC **18** 01:27:17.6, 38.69N×22.74E, h17^{km}, mb3.7/1, ML4.0(ATH), After ATH.*

*ATH **18** 01:27:17.5, 38.70N×22.73E, h18^{km}±2^{km}, MD3.9/16, ML4.0*

*CSEM **18** 01:27:18.6±0.1, 38.79N×22.79E, h30^{km}, ML4.0, Error ellipse: s-maj=2.4km s-min=1.8km az=79.0*

*MOS **18** 01:27:19.4±0.9, 38.75N×22.72E, h33^{km}, mb3.8/1, Error ellipse: s-maj=11.5km s-min=5.4km az=86.3*

*IDC **18** 01:27:21.3±1.7, 38.77N×22.72E, h38^{km}±16^{km}, mb3.6/14, mb1 3.8/20, mb1mx3.8/28, ML3.7/7, MS3.5/2, Ms1 3.5/2, ms1mx2.6/34, Error ellipse: s-maj=15.1km s-min=14.6km az=149.0*

ISC 18 01:27:17.7±0.7, **38.75N**±0.02×**22.75E**±0.04, **h21**^{km}±6^{km}, **n77**, σ1ˢ**35**/86, **mb3.8**/13, **MS3.9**/1, **4C-1D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEO	Neokhori	0.67	33	ePN	Pn	01 27 31.5	-0.3
EVR	Evrytania	0.76	283	ePN	Pn	01 27 31.6	-1.5
MPAR	Parnis Oros	0.97	127	ePN	Pn	01 27 36.5	+0.3
NSAL	Nisos Salamina	1.01	146	ePB	Pb	01 27 35.5	-0.8
ATH	Athens Observa	1.08	135	ePN	Pn	01 27 38.2	+0.5
PTL	Penteli	1.12	128	ePN	Pn	01 27 38.0	-0.2
NAIG	Nisos Aigina	1.14	149	ePN	Pn	01 27 38.5	-0.1
ITM	Ithomi	1.70	203	ePN	Pn	01 27 47.5	+1.0
PLG	Polygyros	1.71	18	ePB	Pb	01 27 48.2	-0.1
KZN	Kozani	1.73	334	ePN	Pn	01 27 49.4	+2.3
JAN	Janina	1.74	302	ePN	Pn	01 27 49.0	+1.9
JAN	Janina	1.74	302	ePn	Pn	01 27 51.0	+3.9
VLS	Valsamata	1.79	252	ePN	Pn	01 27 50.0	+2.1
VLI	Veliai	2.03	176	ePB	Pb	01 27 51.2	-2.5
LSK	Leskovik	2.18	311	ePn	Pn	01 27 58.5	+5.1
LSK				i Sn	Sn	01 28 33.0	+13
KYTH	Kithira	2.47	175	ePN	Pn	01 27 58.2	+0.6
KEK	Kerkira	2.49	294	ePB	Pb	01 28 01.0	-0.6
BIA	Bitola	2.52	335	i Pn	Pn	01 28 01.3	+2.9
BIA				i		01 28 10.3	
BIA				i		01 28 36.0	
BIA				i		01 28 42.4	
APE	Apeiranthos	2.76	126	ePN	Pn	01 28 02.5	+0.7
APE	Apeiranthos	2.76	126	ePn	Pn	01 28 01.5	-0.3
BOZC	Bozcaada	2.78	66	P	Pn	01 28 01.0	-1.1
PRK	Paraskevi	2.79	79	ePB	Pb	01 28 05.0	-1.6
OHR	Ohrid	2.80	328	ePn	Pn	01 28 04.7	+2.4
OHR				eSn	Sn	01 28 39.3	+3.5
MMB	Musomiste	2.94	14	i P	Pn	01 28 05.5	+1.3
KKB	Krupnik	3.13	5	i P	Pn	01 28 08.5	+1.6
RZN	Rozhen	3.30	26	i P	Pn	01 28 09.3	-0.1
SKO	Skopje	3.38	343	⇑iPn	Pn	01 28 12.2	+1.7
SKO				i		01 28 15.8	
SKO				i		01 28 24.5	
SKO				i		01 29 14.0	
SKO				i		01 29 22.0	
SMG	Samos	3.38	107	ePB	Pb	01 28 13.5	-3.2
TIR	Tirane	3.42	320	i Pn	Pn	01 28 14.0	+2.9
TIR				i Sn	Sn	01 29 08.0	+17
VAM	Vamos	3.53	160	ePN	Pn	01 28 12.6	-0.1
QSH	Qafa e Shtames	3.53	323	i Pn	Pn	01 28 17.0	+4.3
KDZ	Kurdzhali	3.54	34	i P	Pn	01 28 12.5	-0.4
KDAG	Bornova	3.55	94	P	Pn	01 28 19.4	+6.4
PLD	Plovdiv	3.67	23	i P	Pn	01 28 16.5	+1.8
IDI	Anoyia	3.85	153	Pn	Pn	01 28 16.9	-0.4
	7.2nm,0.3s,baz=309,slow=16,SNR=31						
IDI				Sn	Sn	01 29 03.3	+0.9
	5.7nm,0.3s,baz=292,slow=19,SNR=2.5						
VTS	Vitosha	3.86	5	i P	Pn	01 28 19.3	+2.0
PGB	Panagyurishte	3.95	15	P	Pn	01 28 17.5	-1.1
NPS	Neapolis	4.16	146	ePN	Pn	01 28 23.0	+1.3
BTOK	Tokmak	4.22	74	P	Pn	01 28 24.0	+1.5
PVL	Pavlikeni	4.87	23	i P	Pn	01 28 30.0	-1.7
DNZL	Cakiroluk	5.07	100	P	Pn	01 28 39.7	+5.2
ESKT	Eskisehir	6.34	80	P	Pn	01 28 53.9	+1.4
VAE	Valguarnera	6.70	262	Pn	Pn	01 28 59.5	+2.0
	0.7nm,0.3s,baz=75,slow=12,SNR=3.6						
VAE				Sn	Sn	01 30 13.9	0.0
	1.5nm,0.3s,baz=52,slow=19,SNR=2.7						
MLR	Muntele Rosu	7.14	18	Pn	Pn	01 29 04.7	+1.0
	2.9nm,0.3s,baz=243,slow=5.6,SNR=28						
MLR				Sn	Sn	01 30 31.1	+6.0
	baz=90,slow=20,SNR=1.0						
MLR				LR	LR	01 31 04.2	
	comp=Z,185nm,20.5s,baz=201,slow=31						
SGKT	Sivrigoynuk	7.41	73	P	Pn	01 29 07.3	-0.1
BRTR	Keskin Array B	8.50	80	Pn	P	01 29 22.4	-0.4
	0.1nm,0.3s,baz=257,slow=11,SNR=4.5						
PSZ	Piszkesteto	9.40	348	⇓e	P	01 29 37.2	+2.1
VOY	Vojsko	9.79	321	ePn	P	01 29 38.7	-1.7
VOY				eSn	Sn	01 31 27.3	-3.5
OBKA	Obir	9.83	325	⇑iPN	P	01 29 38.9	-2.1
OBKA				i SN	Sn	01 31 28.8	-3.0
ARSA	Arzberg	10.01	330	⇑iPN	P	01 29 42.4	-1.0
ARSA				i SN	S	01 31 34.6	-1.5
MOA	Molln	10.99	329	i SN	S	01 31 58.7	-1.6
MOA	Molln	10.99	329	⇑iPn	P	01 29 55.9	-1.0
MOA				i Sn	S	01 31 58.7	-1.6
GERES	GERESS Array B	12.02	330	Pn	P	01 30 10.0	-0.8
	0.1nm,0.3s,baz=138,slow=16,SNR=1.6						
KHC	Kasperske Hory	12.30	331	eP	P	01 30 14.5	0.0
AKASG	Malin Array Be	12.80	19	Pn	P	01 30 17.9	-3.4
	0.8nm,0.3s,baz=357,slow=16,SNR=4.4						
AKASG	Malin Array Be	12.80	19	P	P	01 30 17.9	-3.3
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
EIL	Elat	13.55	128	Pn	P	01 30 30.9	-0.3
	comp=Z,0.2nm,0.3s,baz=345,slow=12,SNR=3.6						
ZEI	Tsey	16.51	69	eP	P	01 31 09.1	-0.5
ZEI				pmax	pmax		
	comp=Z,3.0nm,1.0s						
OBN	Obninsk	18.84	25	eP	P	01 31 40.7	+2.3
OBN				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ESDC	Sonseca Array	20.70	281	P	P	01 31 57.8	-1.2
	comp=Z,1.2nm,0.7s,baz=77,slow=11,SNR=5.6						
HFS	Hagfors	22.16	348	P	P	01 32 12.0	-1.6
	comp=Z,2.5nm,0.5s,mb3.9,baz=141,slow=9.5,SNR=12						
FINES	FINESS Array B	22.82	4	P	P	01 32 21.4	+1.4
	comp=Z,3.1nm,0.8s,mb3.8,baz=180,slow=12,SNR=5.6						
NB2	NORSAR Subarra	23.45	346	P	P	01 32 25.8	-0.3
	comp=Z,1.5nm,0.6s,mb3.6,baz=148,slow=10						
NB2	NORSAR Subarra	23.45	346	P	P	01 32 25.8	-0.3
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.7						
NOA	NORSAR Array B	23.45	346	P	P	01 32 25.9	-0.3
	comp=Z,2.8nm,0.6s,mb3.9,baz=159,slow=10.0,SNR=4.8						
EKA	Eskdalemuir Ar	24.02	322	P	P	01 32 32.3	+0.6
	comp=Z,6.7nm,0.7s,mb4.2,baz=115,slow=9.8,SNR=15						
ARCES	ARCESS Array B	30.89	2	P	P	01 33 32.8	-1.7
	comp=Z,4.7nm,0.9s,mb4.3,baz=197,slow=12,SNR=3.9						
BVAR	Borovoye Array	35.41	50	P	P	01 34 13.8	-0.1
	comp=Z,0.2nm,0.5s,mb3.3,baz=270,slow=2.9,SNR=4.0						
DBIC	Dimbokro	40.52	225	P	P	01 34 56.6	-0.4
	comp=Z,3.0nm,0.8s,mb4.0,baz=14,slow=7.8,SNR=4.8						
ZAL	Zalesovo	43.99	49	P	P	01 35 24.9	0.0
	comp=Z,1.5nm,0.9s,mb3.7,baz=193,slow=8.7,SNR=7.6						
SONM	Songino Array	58.74	52	P	P	01 37 15.5	-0.7
	comp=Z,0.5nm,0.7s,mb3.6,baz=288,slow=7.8,SNR=7.8						
BOD	Bodaibo	58.84	39	eP	P	01 37 13.2	-3.5
SCHQ	Schefferville	59.23	318	P	P	01 37 18.0	-1.5
	comp=Z,4.4nm,0.9s,mb4.5,baz=94,slow=8.7,SNR=9.5						
YKA	Yellowknife Ar	73.44	341	P	P	01 38 49.3	-0.4
	comp=Z,0.4nm,0.6s,mb3.5,baz=34,slow=5.4,SNR=10.0						
ULM	Lac du Bonnet	76.27	325	LR	LR	02 15 45.2	
	comp=Z,62nm,20.0s,MS3.9,baz=340,slow=38						
ILAR	Eielson Array	76.50	355	P	P	01 39 06.5	-0.6
	comp=Z,0.3nm,0.7s,mb3.3,baz=350,slow=5.5,SNR=3.9						
PDAR	Pinedale Array	88.05	327	P	P	01 40 06.4	-1.0
	comp=Z,0.3nm,0.7s,mb3.6,baz=72,slow=8.6,SNR=3.0						

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*NEIC **18** 01:28:52.8, 38.75N×22.84E, h10^{km}, ML3.5(ATH), After ATH.*

*CSEM **18** 01:28:52.8, 38.75N×22.84E, h10^{km}, MD3.2/6, After ATH*

ATH 18 01:28:53.5, 38.75N×22.94E, h10^{km}, **MD3.3**/6, **ML3.5, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEO	Neokhori	0.60	22	ePB	Pb	01 29 05.0	-0.6
MPAR	Parnis Oros	0.86	133	ePB	Pb	01 29 10.0	-0.1
MPAR	Parnis Oros	0.86	133	ePn	Pn	01 29 11.5	0.0
NSAL	Nisos Salamina	0.94	154	ePG	Pg	01 29 11.0	-1.3
ATH	Athens Observa	0.99	142	ePG	Pg	01 29 11.7	-1.6
PTL	Penteli	1.01	134	ePB	Pb	01 29 12.1	-0.5
NAIG	Nisos Aigina	1.08	156	ePN	Pn	01 29 14.0	-0.6

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*IDC **18** 02:00:49.0±1.0, 19.56S×176.65W, mb3.9/7, mb1 4.2/7, mb1mx4.1/14, MS3.9/7, Ms1 3.9/7, ms1mx3.5/24, Error ellipse: s-maj=42.7km s-min=22.9km az=146.0*

*NEIC **18** 02:00:51.3±0.5, 19.57S×176.67W, h15^{km}, mb4.1/2, Error ellipse: s-maj=27.6km s-min=11.7km az=146.0*

ISC 18 02:00:52.4±0.7, **19.7S**±0.2×**176.7W**±0.2, **h33**^{km}, **n12**, σ**0ˢ42**/9, **mb4.0**/9, **MS4.0**/6, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	15.90	98	LR	LR	02 08 32.4	
	comp=Z,296nm,19.5s,baz=260,slow=29						
STKA	Stephens Creek	39.28	243	P	P	02 08 20.1	+0.3
	3.5nm,1.0s,mb4.0,baz=76,slow=9.7,SNR=3.5						
STKA				LR	LR	02 24 17.9	
	comp=Z,88nm,18.4s,MS3.6,baz=26,slow=36						
ASAR	Alice Springs	45.94	256	P	P	02 09 14.3	+0.1
	2.1nm,0.8s,mb4.1,baz=87,slow=8.4,SNR=18						
ASAR				LR	LR	02 28 39.0	
	comp=Z,66nm,18.4s,MS3.6,baz=8.6,slow=36						
WRA	Warramunga Arr	45.97	261	P	P	02 09 14.0	-0.5
	1.3nm,0.8s,mb3.9,baz=95,slow=7.1,SNR=10						
VNDA	Vanda	58.84	185	P	P	02 10 49.7	-0.1
	0.7nm,0.8s,mb3.7,baz=29,slow=6.3,SNR=3.8						
NVAR	Mina Array Bea	79.56	43	P	P	02 12 57.4	-0.5
	0.6nm,0.7s,mb3.6,baz=220,slow=7.0,SNR=4.1						
NVAR				LR	LR	02 38 51.5	
	comp=Z,88nm,19.9s,MS4.1,baz=80,slow=29						
TPNV	Topopah Spring	80.07	45	eP	P	02 13 00.0	-0.6
	1.2nm,0.8s,mb3.9						
MNTX	Cornudas Mount	85.25	54	eP	P	02 13 27.4	+0.1
	1.6nm,1.0s,mb4.1						
TXAR	Lajitas Array	85.55	57	P	P	02 13 29.4	+0.5
	1.2nm,1.1s,mb4.0,baz=225,slow=5.1,SNR=3.9						
TXAR				LR	LR	02 45 49.8	
	comp=Z,69nm,19.1s,MS4.1,baz=280,slow=32						
NEW	Newport	85.97	35	LR	LR	02 42 47.7	
	comp=Z,240nm,20.9s,MS4.6,baz=90,slow=29						
ILAR	Eielson Array	87.23	12	P	P	02 13 36.8	+0.6
	1.5nm,1.2s,mb4.1,baz=219,slow=5.8,SNR=4.1						
PDAR	Pinedale Array	87.50	43	LR	LR	02 44 41.6	
	comp=Z,66nm,21.6s,MS4.0,baz=155,slow=30						

*NEIC **18** 02:03:53.7, 19.15N×64.57W, h36^{km}, MD3.6(RSPR), After RSPR.*

*RSPR **18** 02:03:53.7, 19.15N×64.57W, h35^{km}±28^{km}, MD3.6/11, MD3.6/11*

*IDC **18** 02:03:56.0±4.9, 19.03N×64.75W, h66^{km}±69^{km}, mb3.1/4, mb1 3.5/4, mb1mx3.2/19, MS2.9/1, Ms1 2.9/1, ms1mx1.9/18, Error ellipse: s-maj=70.7km s-min=10.4km az=7.0*

ISC 18 02:03:52.3±1.4**, 19.1N**±0.1×**64.58W**±0.09**, h50**^{km}±17^{km}**, n27, σ0^{s}52**/39**, mb3.4**/4**, 10C-3D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MTP	**Monte Pirata**	1.38	222	eS	S	02 04 33.4	+0.3
MTP	**Monte Pirata**	1.38	222	⇓eP	P	02 04 15.5	-0.2
MTP				eS	S	02 04 33.4	+0.3
CBYP	**Canovanas**	1.48	235	eS	S	02 04 35.4	+0.1
CBYP	**Canovanas**	1.48	235	⇑eP	P	02 04 16.9	-0.2
CBYP				eS	S	02 04 35.4	+0.1
CPD	**Cerro la Pandu**	1.66	230	eS	S	02 04 40.1	+0.2
CPD	**Cerro la Pandu**	1.66	230	⇑eP	P	02 04 19.9	+0.2
CPD				eS	S	02 04 40.1	+0.2
CSB	**Colonia Sabana**	1.71	241	⇑eP	P	02 04 19.9	-0.4
CSB				eS	S	02 04 41.4	+0.4
SJG	**San Juan**	1.80	236	eS	S	02 04 42.2	-1.0
SJG	**San Juan**	1.80	236	⇑eP	P	02 04 21.7	+0.2
SJG				eS	S	02 04 43.0	-0.2
SJG	**San Juan**	1.80	236	P	P	02 04 21.9	+0.4
	31nm,0.3s,baz=65,slow=11,SNR=23						
SJG				S	S	02 04 42.4	-0.8
	104nm,0.3s,baz=296,slow=16,SNR=20						
SJG	**San Juan**	1.80	236	⇑eP	P	02 04 21.7	+0.2
SJG				eS	S	02 04 42.2	-1.0
CELP	**Cerrillos**	2.16	241	⇑eP	P	02 04 26.8	+0.1
AOPR	**Arecibo Observ**	2.20	250	eS	S	02 04 52.6	-0.5
AOPR	**Arecibo Observ**	2.20	250	⇓eP	P	02 04 26.8	-0.4
AOPR				eS	S	02 04 52.6	-0.5
OBIP	**Obispado Ponce**	2.20	241	eS	S	02 04 52.9	-0.4
OBIP	**Obispado Ponce**	2.20	241	⇑eP	P	02 04 27.4	+0.1
OBIP				eS	S	02 04 52.9	-0.4
PORP	**Portuguez**	2.22	242	⇑eP	P	02 04 27.6	+0.1
PORP				eS	S	02 04 53.4	-0.4
LSP	**Las Mesas**	2.56	249	⇑eP	P	02 04 32.8	+0.5
LSP				eS	S	02 05 02.7	+0.4
MGP	**Maguayo**	2.62	245	⇑eP	P	02 04 33.3	0.0
MGP				eS	S	02 05 04.2	+0.2
MGP	**Maguayo**	2.62	245	eS	S	02 05 04.5	+0.5
MGP	**Maguayo**	2.62	245	⇓eP	P	02 04 33.0	-0.3
MGP				eS	S	02 05 04.5	+0.5
SDV	**Santo Domingo**	11.75	211	eP	P	02 06 39.8	-0.1
ROSC	**El Rosal**	17.08	215	LR	LR	02 15 07.1	
	comp=Z,43nm,19.0s,baz=140,slow=40						
PDAR	**Pinedale Array**	44.53	312	P	P	02 12 01.6	+0.7
	0.5nm,0.8s,mb3.4,baz=117,slow=9.9,SNR=5.4						
NVAR	**Mina Array Bea**	50.13	304	P	P	02 12 46.1	+1.3
	0.3nm,0.7s,mb3.4,baz=90,slow=4.5,SNR=3.0						
YKA	**Yellowknife Ar**	55.22	334	P	P	02 13 20.8	-1.5
	0.3nm,0.5s,mb3.5,baz=114,slow=7.7,SNR=6.7						
ILAR	**Eielson Array**	69.60	333	P	P	02 14 57.6	-0.3
	0.2nm,0.6s,mb3.2,baz=104,slow=4.3,SNR=5.2						

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*NEIC **18** 02:20:33.1, 37.29S×176.67E, h224^{km}, After WEL.*

WEL 18 02:20:33.2±0.3**, 37.30S×176.64E, h221**^{km}±2^{km}**, ML4.4**/8**, 1D, Error ellipse: s-maj=2.4km s-min=1.7km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MWZ	**Matawai**	1.25	146	eP	P	02 21 07.2	0.0
MWZ				S	S	02 21 33.2	-0.2
MWZ	**Matawai**	1.25	146	PN	P	02 21 07.2	0.0
MWZ				SN	S	02 21 33.0	-0.4
MXZ	**Matakaoa Point**	1.35	102	P	P	02 21 07.6	-0.4
MXZ				S	S	02 21 34.3	-0.5
MXZ	**Matakaoa Point**	1.35	102	PN	P	02 21 07.6	-0.3
MXZ				SN	S	02 21 34.3	-0.5
PUZ	**Puketiti**	1.50	121	P	P	02 21 08.9	-0.3
PUZ	**Puketiti**	1.50	121	PN	P	02 21 08.8	-0.4
PUZ				SN	S	02 21 35.8	-1.0
RATZ	**Rangitukua**	1.71	203	P	P	02 21 12.1	+1.1
RATZ	**Rangitukua**	1.71	203	PN	P	02 21 11.3	+0.4
MGZ	**Maungaku**	1.91	207	P	P	02 21 13.1	+0.3
MGZ	**Maungaku**	1.91	207	PN	P	02 21 13.5	+0.7
NGZ	**Ngauruhoe**	2.04	203	P	P	02 21 14.9	+0.8
NGZ	**Ngauruhoe**	2.04	203	ePN	P	02 21 13.6	-0.5
CNZ	**Chateau**	2.08	204	P	P	02 21 15.3	+0.8
CNZ	**Chateau**	2.08	204	PN	P	02 21 14.7	+0.2
CNZ				SN	S	02 21 45.2	-1.1
TUVZ	**Tukino**	2.11	201	P	P	02 21 15.2	+0.4
TUVZ	**Tukino**	2.11	201	PN	P	02 21 15.2	+0.4
FWVZ	**Far West T-bar**	2.13	203	P	P	02 21 16.3	+1.3
FWVZ	**Far West T-bar**	2.13	203	PN	P	02 21 15.2	+0.2
WNVZ	**Wahianoa**	2.18	202	P	P	02 21 15.8	+0.3
WNVZ	**Wahianoa**	2.18	202	PN	P	02 21 15.7	+0.1
MOVZ	**Moawhango**	2.21	198	P	P	02 21 15.7	-0.2
MOVZ	**Moawhango**	2.21	198	PN	P	02 21 15.5	-0.4
MOVZ				SN	S	02 21 48.2	-0.7
WCZ	**Waipu Caves**	2.29	306	P	P	02 21 16.3	-0.4
WCZ	**Waipu Caves**	2.29	306	PN	P	02 21 16.2	-0.5
WAZ	**Wanganui**	2.77	207	eP	P	02 21 22.1	+0.2
WAZ	**Wanganui**	2.77	207	PN	P	02 21 21.9	0.0
TSZ	**Takapari Road**	2.80	191	P	P	02 21 21.6	-0.6
TSZ	**Takapari Road**	2.80	191	⇓PN	P	02 21 21.6	-0.6
TSZ				SN	S	02 21 59.6	-0.6
BFZ	**Birch Farm**	3.39	185	eP	P	02 21 27.4	-1.6
BFZ	**Birch Farm**	3.39	185	PN	P	02 21 27.4	-1.6
BFZ				SN	S	02 22 10.2	-2.0
MRZ	**Mangatainoka R**	3.45	194	P	P	02 21 28.1	-1.7
MRZ	**Mangatainoka R**	3.45	194	PN	P	02 21 27.9	-1.9
MRZ				SN	S	02 22 10.0	-3.6
KIW	**Kapiti Island**	3.80	200	P	P	02 21 32.2	-1.7
KIW	**Kapiti Island**	3.80	200	PN	P	02 21 31.9	-2.1
KIW				SN	S	02 22 17.3	-3.7
MTW	**Mount Morrison**	3.95	193	P	P	02 21 33.3	-2.5
MTW	**Mount Morrison**	3.95	193	PN	P	02 21 33.3	-2.4
CAW	**Cannon Point**	3.99	197	P	P	02 21 34.0	-2.3
CAW	**Cannon Point**	3.99	197	PN	P	02 21 34.0	-2.3
CAW				SN	S	02 22 21.6	-3.5
PAWZ	**Paruwai Farm**	4.18	193	PN	P	02 21 36.2	-2.4
PAWZ				SN	S	02 22 24.8	-4.5
MRW	**Makara Radio**	4.20	200	P	P	02 21 36.7	-2.1
MRW	**Makara Radio**	4.20	200	PN	P	02 21 36.6	-2.3
MRW				SN	S	02 22 26.3	-3.4
MSWZ	**Moikau Station**	4.25	194	P	P	02 21 36.7	-2.7
MSWZ	**Moikau Station**	4.25	194	PN	P	02 21 36.6	-2.8
MSWZ				SN	S	02 22 26.6	-4.1
TUWZ	**Tuamarina**	4.62	206	PN	P	02 21 41.1	-3.0
NNZ	**Nelson**	4.66	212	eP	P	02 21 41.8	-2.7
NNZ	**Nelson**	4.66	212	PN	P	02 21 41.8	-2.7
QRZ	**Quartz Range**	4.75	221	eP	P	02 21 42.8	-2.9
QRZ	**Quartz Range**	4.75	221	PN	P	02 21 42.8	-2.9
BSWZ	**Blackbirch Sta**	4.90	205	P	P	02 21 45.3	-2.2
THZ	**Tophouse**	5.31	212	eP	P	02 21 49.7	-3.0
THZ	**Tophouse**	5.31	212	PN	P	02 21 49.4	-3.3
KHZ	**Kahutara**	5.64	204	PN	P	02 21 54.0	-2.9
DSZ	**Denniston Nort**	5.80	219	eP	P	02 21 54.8	-4.2
LTZ	**Lake Taylor**	6.42	210	eP	P	02 22 03.3	-3.6
LTZ	**Lake Taylor**	6.42	210	PN	P	02 22 03.3	-3.6
MQZ	**McQueen's Vall**	7.08	204	eP	P	02 22 11.2	-4.2
MQZ	**McQueen's Vall**	7.08	204	PN	P	02 22 11.2	-4.1
MQZ				SN	S	02 23 26.9	-8.2
WVZ	**Waitaha Valley**	7.32	216	PN	P	02 22 14.4	-4.1
ODZ	**Otahua Downs**	8.96	208	eP	P	02 22 36.4	-3.2
ODZ	**Otahua Downs**	8.96	208	PN	P	02 22 36.4	-3.2

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*PRU **18** 02:42:50.3, 50.07N×18.41E*

WAR 18 02:42:50.0, 50.06N×18.45E, h1^{km}**, Location given by Central Institute of Mining, origin time based upon RAC, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	0.17	278	i Pg	Pg	02 42 54.1	+0.8
RAC				i Sg	Sg	02 42 57.3	+1.8
OKC	**Ostrava-Krasne**	0.30	221	ePG	Pg	02 42 56.1	+0.2
OKC				eSG	Sg	02 43 00.8	+0.9
OJC	**Ojcow**	0.88	79	ePg	Pg	02 43 06.9	-0.7
OJC				eSg	Sg	02 43 19.0	-0.4
DPC	**Dobruska-Polom**	1.40	283	ePG	Pg	02 43 15.9	-2.0
DPC				eSG	Sg	02 43 34.4	-2.1
UPC	**Upice**	1.63	287	eSG	Sg	02 43 41.2	-2.9
PRU	**Pruhonice**	2.52	270	eSG	Sg	02 44 07.7	-6.2
KHC	**Kasperske Hory**	3.30	255	ePG	Pg	02 43 50.0	-5.9
KHC				eSG	Sg	02 44 32.9	-7.1

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*CSEM **18** 02:54:08.4±0.1, 38.75N×22.89E, h8^{km}, ML3.6, Error ellipse: s-maj=3.1km s-min=1.9km az=67.0*

*NEIC **18** 02:54:09.1, 38.72N×22.84E, h27^{km}, ML3.6(ATH), After ATH.*

*ATH **18** 02:54:09.1, 38.71N×22.82E, h25^{km}±2^{km}, MD3.5/17, ML3.6*

ISC 18 02:54:09.6±0.4**, 38.74N**±0.03×**22.80E**±0.06**, h25**^{km}**, n28, σ1^{s}13**/30**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEO	**Neokhori**	0.65	30	ePN	Pn	02 54 22.5	-0.6
EVR	**Evrytania**	0.79	283	ePN	Pn	02 54 24.0	-1.2
MPAR	**Parnis Oros**	0.94	129	ePN	Pn	02 54 26.8	-0.5
NSAL	**Nisos Salamina**	0.98	148	ePn	Pn	02 54 28.0	+0.1
NSAL				eSn	Sn	02 54 42.2	+1.1
ATH	**Athens Observa**	1.05	137	ePN	Pn	02 54 28.8	-0.1
ATH				eSN	Sn	02 54 43.5	+0.6
PTL	**Penteli**	1.09	129	ePN	Pn	02 54 29.2	-0.2
NAIG	**Nisos Aigina**	1.12	151	ePB	Pb	02 54 29.0	-1.2
NAIG	**Nisos Aigina**	1.12	151	ePn	Pn	02 54 31.6	+1.7
PLG	**Polygyros**	1.70	17	ePB	Pb	02 54 38.5	-1.5
PLG	**Polygyros**	1.70	17	ePn	Pn	02 54 37.5	-0.7
ITM	**Ithomi**	1.71	204	ePB	Pb	02 54 38.5	-1.6
KZN	**Kozani**	1.75	333	ePN	Pn	02 54 41.4	+2.5
KZN	**Kozani**	1.75	333	ePn	Pn	02 54 42.4	+3.5
JAN	**Janina**	1.77	302	ePN	Pn	02 54 41.5	+2.4
VLS	**Valsamata**	1.82	253	ePN	Pn	02 54 42.0	+2.1
VLI	**Veliai**	2.02	177	ePN	Pn	02 54 43.5	+0.7
VLI	**Veliai**	2.02	177	ePn	Pn	02 54 41.4	-1.4
KYTH	**Kithira**	2.46	176	ePN	Pn	02 54 48.5	-0.6
KEK	**Kerkira**	2.52	293	ePB	Pb	02 54 52.5	-1.5
KEK	**Kerkira**	2.52	293	ePb	Pb	02 54 53.0	-1.0
APE	**Apeiranthos**	2.73	127	ePN	Pn	02 54 53.5	+0.6
MMB	**Musomiste**	2.93	14	i P	Pn	02 54 55.5	-0.2
KKB	**Krupnik**	3.13	4	i P	Pn	02 54 59.0	+0.5
RZN	**Rozhen**	3.29	26	i P	Pn	02 55 01.0	+0.2
SKO	**Skopje**	3.39	343	ePn	Pn	02 55 02.2	0.0
VAM	**Vamos**	3.51	161	ePN	Pn	02 55 03.2	-0.8
KDZ	**Kurdzhali**	3.53	34	i P	Pn	02 55 03.5	-0.7
VTS	**Vitosha**	3.86	4	P	Pn	02 55 11.0	+2.1

MAN 18 03:15:58.7, 16.54N×122.09E, h18^{km}**, mb4.1, ML2.9, MS2.5, 1C, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAUP	**Cauayan**	0.47	327	eP	Pb	03 16 08.6	+0.4
PALP	**Palanan**	0.61	32	eP	Pb	03 16 10.8	+0.3
BALP	**Baler**	0.94	212	eP	Pb	03 16 15.3	-0.7
BALP				eS	Sb	03 16 30.1	+2.1
CVP	**Callao Caves**	1.18	348	eP	Pb	03 16 19.0	-1.2
PCPH	**Palayan**	1.36	225	⇑eP	Pn	03 16 22.9	-0.1
PCPH				eS	Sb	03 16 45.4	+5.0
APYP	**Conner**	1.54	328	eP	Pn	03 16 24.2	-1.4
APYP				eS	Sn	03 16 51.7	+6.5

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*NAO **18** 03:28:14.0±2.0, 67.11N×20.73E, ML2.0*

*BER **18** 03:28:16.4±4.1, 67.12N×20.71E, ML2.0, ML2.0(NAO), Suspected explosion*

HEL 18 03:28:15.0±0.1**, 67.17N×20.63E, ML2.2, ML2.0**(UPP)**, ML2.0**(BER)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	0.06	206	i P	Pg	03 28 16.0	-0.2
DUNU				i S	Sg	03 28 17.0	+0.1
MASU	**Masugnsbyn**	0.60	61	i P	Pg	03 28 25.5	-1.5
KUA	**Kurravaara**	0.79	352	i P	Pg	03 28 29.3	-1.5
NIKU	**Nikkaluokta**	0.93	319	eP	Pg	03 28 31.5	-2.0
PAJU	**Pajala**	0.98	98	eP	Pb	03 28 32.3	-2.3
LANU	**Lannavaara**	1.02	30	eP	Pb	03 28 33.3	-2.0
SJUU	**Sjulsmark**	1.72	166	eP	Pn	03 28 44.9	-1.4
KTK1	**Kautokeino**	2.09	27	eP	Pn	03 28 52.6	+0.9
KTK1				eSg	Sg	03 29 20.8	-3.8
KTK1				AML	AML	03 29 22.1	
	comp=Z,28nm,0.4s						
SGF	**Sodankyl**	2.30	81	eP	Pn	03 28 54.9	+0.2
SGF				eSB	Sb	03 29 24.9	-1.4
TRO	**Tromso**	2.55	346	eP	Pn	03 28 57.0	-1.3
TRO				eS	Sn	03 29 29.6	-0.9
TRO				AML	AML	03 29 34.9	
	comp=Z,8.7nm,0.5s						
MOR8	**Moi Rana**	2.66	251	eSg	Sg	03 29 32.5	-11
MOR8				AML	AML	03 29 36.9	
	comp=Z,19nm,0.5s						
LOF	**Lofoten**	2.88	293	eSg	Sg	03 29 49.4	-1.3
LOF				AML	AML	03 29 57.9	
	comp=Z,13nm,0.7s						
LOF	**Lofoten**	2.88	293	AML	AML	03 29 57.9	
	comp=Z,13nm,0.7s						
ARA0	**ARCESS Array S**	2.98	35	Pn	Pn	03 29 03.0	-1.5
	baz=210,slow=14						
ARA0				Sn	Sn	03 29 39.0	-2.5
	baz=215,slow=28						
ARA0	**ARCESS Array S**	2.98	35	eP	Pn	03 29 03.0	-1.5
ARA0				eS	Sn	03 29 39.0	-2.5
OUL	**Oulu**	3.00	132	eSB	Sb	03 29 45.5	-0.9
OUL				MSG		03 29 48.5	
	comp=Z,5.1nm,0.4s						
KEV	**Kevo**	3.50	39	eS	Sn	03 29 51.6	-2.9
MSF	**Maaselka**	3.59	107	eSG	Sg	03 30 04.9	-10
MSF				MSG		03 30 07.5	
	comp=Z,4.3nm,0.4s						
VAF	**Ylistaro**	4.24	167	eSG	Sg	03 30 27.1	-8.9
VAF				MSG		03 30 29.2	
	comp=Z,6.5nm,0.3s						
NSS	**Namsos**	4.44	237	eSg	Sg	03 30 34.2	-8.5
FIA0	**FINESS Array S**	6.22	155	Pn	Pn	03 29 46.5	-3.8
	baz=355,slow=14						
FIA0				Sn	Sn	03 30 53.9	-9.2
	baz=348,slow=22						
FIA0				Lg		03 31 27.1	
	baz=342,slow=28						
FIA0	**FINESS Array S**	6.22	155	eP	Pn	03 29 46.5	-3.8
FIA0				eS	Sn	03 30 53.9	-9.2
FIA0				eSG		03 31 27.1	
HFS	**Hagfors**	7.70	207	Pn	Pn	03 30 06.1	-5.1
	baz=34,slow=16						
HFS				Sn	Sn	03 31 31.4	-8.8
	baz=37,slow=22						
HFS				Lg		03 32 12.9	
	baz=27,slow=28						
HFS	**Hagfors**	7.70	207	eP	Pn	03 30 06.1	-5.1
HFS				eS	Sn	03 31 31.4	-8.8
HFS				eSG		03 32 12.9	

IDC 18 03:42:15.1±7.1**, 16.43S×175.16W, mb3.7**/3**, mb1 4.0**/3**, mb1mx3.7**/14**, Error ellipse: s-maj=312.0km s-min=35.5km az=140.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	47.96	258	P	P	03 50 55.7	-2.1
	0.2nm,0.3s,baz=95,slow=7.9,SNR=11						
ASAR	**Alice Springs**	48.18	253	P	P	03 50 57.8	-1.7
	2.2nm,0.8s,baz=87,slow=8.8,SNR=36						
ILAR	**Eielson Array**	83.78	12	P	P	03 54 45.7	-1.4
	0.2nm,0.5s,baz=220,slow=7.0,SNR=7.3						

IDC 18 03:50:47.1±3.2**, 33.03S×179.19W, mb3.5**/2**, mb1 3.8**/3**, mb1mx3.6**/13**, ML3.7**/1**, Error ellipse: s-maj=70.6km s-min=46.6km az=112.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	6.02	209	Pn	Pn	03 52 17.0	-2.6
	2.0nm,0.3s,baz=5.1,slow=18,SNR=13						
URZ				Sn	Sn	03 53 22.2	-8.1
	7.3nm,0.3s,baz=276,slow=22,SNR=8.0						
ASAR	**Alice Springs**	42.03	270	P	P	03 58 40.8	-1.2
	0.4nm,0.5s,baz=111,slow=7.9,SNR=8.5						
WRA	**Warramunga Arr**	43.26	276	P	P	03 58 50.1	-2.0
	0.3nm,0.5s,baz=116,slow=7.9,SNR=6.8						
FINES	**FINESS Array B**	147.22	338	PKPbc	PKPdf	04 10 30.7	-0.3
	3.5nm,0.9s,baz=63,slow=3.1,SNR=3.8						

IDC 18 04:49:56.7±4.4**, 23.25S×148.90E, mb1 3.6**/4**, mb1mx3.5**/10**, ML3.2**/4**, Error ellipse: s-maj=42.1km s-min=25.3km az=83.0, Queensland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	4.00	321	Pn	Pn	04 51 00.8	+0.2
	1.3nm,0.3s,baz=139,slow=16,SNR=15						
CTA				Pg	Pg	04 51 11.5	-5.1
	1.9nm,0.3s,baz=153,slow=18,SNR=12						
CTA				Lg		04 52 03.8	
	5.3nm,0.3s,baz=240,slow=23,SNR=9.7						
STKA	**Stephens Creek**	10.76	215	Pn	P	04 52 30.4	-4.7
	0.3nm,0.3s,baz=38,slow=10,SNR=6.1						
ASAR	**Alice Springs**	13.77	265	Pn	P	04 53 12.5	-3.3
	0.1nm,0.3s,baz=91,slow=13,SNR=9.8						
ASAR				Sn	S	04 55 46.3	-4.4
	0.1nm,0.3s,baz=95,slow=22,SNR=4.0						
ASAR				Lg		04 57 13.5	
	0.1nm,0.3s,baz=81,slow=25,SNR=4.1						
WRA	**Warramunga Arr**	13.94	281	Pn	P	04 53 15.3	-2.8
	0.1nm,0.3s,baz=100,slow=12,SNR=5.6						
WRA				Sn	S	04 55 53.5	-1.1
	0.1nm,0.3s,baz=102,slow=24,SNR=3.1						
WRA				Lg		04 57 18.5	
	0.2nm,0.3s,baz=103,slow=23,SNR=8.4						

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*PRU **18** 04:51:17.6, 51.51N×16.15E, Felt -in Harrachov*

*IDC **18** 04:51:18.8±0.7, 51.41N×16.19E, mb1 3.6/6, mb1mx3.4/21, ML2.9/6, Error ellipse: s-maj=13.3km s-min=6.5km az=107.0*

*NEIC **18** 04:51:19.4±0.8, 51.35N×16.11E, h5^{km}, ML3.1(VIE), ML2.8(CLL), ML2.6(BRG), Error ellipse: s-maj=10.9km s-min=8.5km az=46.0*

WAR 18 04:51:18, 51.51N×16.13E, h1^{km}**, ML3.2, 3C-1D, Mining Induced, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	0.68	171	i PG	Pg	04 51 30.8	-0.7
KSP				eSG	Sg	04 51 39.8	-0.7
KSP	**Ksiaz**	0.68	171	⇓iPg	Pg	04 51 30.8	-0.7
KSP				eSg	Sg	04 51 39.3	-1.2
KSP	**Ksiaz**	0.68	171	ePg	Pg	04 51 30.7	-0.8
KSP				ePn	Pn	04 51 31.9	-2.5
KSP				eSg	Sg	04 51 39.3	-1.2
UPC	**Upice**	1.01	184	ePG	Pg	04 51 36.9	-1.2
DPC	**Dobruska-Polom**	1.17	174	ePG	Pg	04 51 39.6	-1.7
DPC				eSG	Sg	04 51 54.8	-2.1
	49nm,0.4s						
PVCC	**Panska Ves**	1.39	226	ePG	Pg	04 51 43.8	-2.0
BRG	**Berggiesshubel**	1.52	246	i Pn	Pn	04 51 45.4	-1.0
BRG				i Pg	Pg	04 51 46.2	-2.1
BRG				i Sg	Sg	04 52 06.8	-1.7
RUE	**Ruedersdorf**	1.75	305	P	Pn	04 51 51.2	+1.5
PRU	**Pruhonice**	1.83	214	ePN	Pn	04 51 49.3	-1.5
PRU				PG	Pg	04 51 51.3	-3.2
PRU				i x	x	04 51 55.6	
PRU				i x	x	04 52 08.4	
PRU				SG	Sg	04 52 15.5	-3.3
	28nm,0.3s						
GKP	**Gorka Klasztor**	1.89	21	ePn	Pn	04 51 56.8	+5.1
GKP				ePg	Pg	04 52 00.6	+4.9
GKP				eSn	Sn	04 52 20.1	+3.6
GKP				eSg	Sg	04 52 23.5	+2.6
MORC	**Moravsky Berou**	1.96	152	eP	Pn	04 51 50.6	-2.1
CLL	**Collm**	1.97	265	i Pn	Pn	04 51 51.0	-1.8
CLL				ePg	Pg	04 51 54.0	-3.3
CLL				i Sg	Sg	04 52 20.8	-2.8
CLL	**Collm**	1.97	265	i PN	Pn	04 51 51.0	-1.8
CLL				ePG	Pg	04 51 54.0	-3.3
CLL				i		04 51 57.2	
CLL				i		04 51 58.4	
CLL				i SG	Sg	04 52 20.8	-2.8
OKC	**Ostrava-Krasne**	2.11	142	ePN	Pn	04 51 53.3	-1.6
OKC				ePG	Pg	04 51 57.2	-2.9
OKC				eSG	Sg	04 52 24.3	-3.9
VRAC	**Vranov**	2.22	172	Pn	Pn	04 51 54.6	-1.9
	1.4nm,0.3s,baz=336,slow=14,SNR=17						
VRAC				Pg	Pg	04 51 59.1	-3.3
	3.3nm,0.3s,baz=352,slow=12,SNR=19						
VRAC				Lg		04 52 25.1	
	1.9nm,0.3s,baz=41,slow=15,SNR=4.1						
OJC	**Ojcow**	2.66	118	ePG	Pg	04 52 07.0	-4.1
OJC				eSG	Sg	04 52 42.0	-4.5
NKC	**Novy Kostel**	2.66	243	ePN	Pn	04 52 01.9	-0.8
NKC				ePG	Pg	04 52 09.1	-2.0
NKC				eSG	Sg	04 52 44.2	-2.4
KHC	**Kasperske Hory**	2.89	215	ePN	Pn	04 52 04.6	-1.4
KHC				ePG	Pg	04 52 10.7	-5.0
KHC				eSG	Sg	04 52 49.0	-5.2
MOX	**Moxa**	2.98	255	ePg	Pg	04 52 13.5	-3.9
MOX				eSg	Sg	04 52 53.1	-4.0
GERES	**GERESS Array B**	3.09	211	Pn	Pn	04 52 08.2	-0.6
	1.1nm,0.3s,baz=33,slow=13,SNR=16						
GERES				Pg	Pg	04 52 14.4	-5.3
	2.5nm,0.3s,baz=30,slow=17,SNR=16						
GERES				Sn	Sn	04 52 44.7	-2.3
	2.0nm,0.3s,baz=35,slow=21,SNR=5.9						
GERES				Lg		04 52 54.0	
	3.7nm,0.3s,baz=37,slow=26,SNR=8.4						
SMOL	**Smolenice**	3.11	164	eSG	Sg	04 52 57.3	-4.4
VKA	**Vienna**	3.25	178	⇑iPG	Pg	04 52 18.1	-4.8
VKA				i SG	Sg	04 53 01.3	-4.9
ZST	**Bratislava**	3.38	169	eSG	Sg	04 53 05.3	-5.1
NIE	**Niedzica**	3.40	126	eP	Pn	04 52 21.6	+8.4
NIE				eS	Sn	04 53 07.0	+12
VYHS	**Vyhne**	3.49	149	ePN	Pn	04 52 12.1	-2.4
VYHS				ePG	Pg	04 52 22.8	-4.8
BSD	**Bornholm Skovb**	3.68	349	i P	Pn	04 52 13.8	-3.5
BSD				i S	Sn	04 52 54.3	-7.7
MOA	**Molln**	3.86	199	⇑iPN	Pn	04 52 18.2	-1.6
MOA				i SG	Sg	04 53 21.2	-5.3
	11nm,0.6s						
ARSA	**Arzberg**	4.28	186	⇑iPN	Pn	04 52 24.7	-1.1
ARSA				i SG	Sg	04 53 32.9	-7.7
	12nm,0.7s						
CRVS	**Cervenica-Dubn**	4.31	125	ePG	Pg	04 52 39.5	-4.5
KWP	**Kalwaria**	4.59	112	ePn	Pn	04 52 42.2	+12
KOLS	**Kolonicke sedl**	4.71	121	ePN	Pn	04 52 29.9	-2.0
AKASG	**Malin Array Be**	8.28	90	Pn	P	04 53 16.8	-5.4
	0.8nm,0.3s,baz=279,slow=12,SNR=4.3						
HFS	**Hagfors**	8.75	352	Pn	P	04 53 25.0	-3.6
	0.0nm,0.3s,baz=169,slow=15,SNR=2.8						
FINES	**FINESS Array B**	11.36	25	Pn	P	04 53 58.1	-6.2
	0.1nm,0.3s,baz=220,slow=11,SNR=4.5						
FINES				Sn	S	04 56 01.2	-12
	0.2nm,0.3s,baz=207,slow=22,SNR=3.0						
ARCES	**ARCESS Array B**	18.62	10	Pn	P	04 55 33.4	-5.1
	0.1nm,0.3s,baz=196,slow=13,SNR=3.6						

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*NEIC **18** 04:55:38.9±4.7, 36.23N×70.87E, h156^{km}±35^{km}, mb3.7/1, Error ellipse: s-maj=54.6km s-min=18.0km az=56.0*

*IDC **18** 04:55:40.4±9.1, 36.28N×71.04E, h165^{km}±80^{km}, mb3.3/6, mb1 3.5/7, mb1mx3.2/20, Error ellipse: s-maj=47.4km s-min=25.2km az=39.0*

*NNC **18** 04:55:40.1±25.0, 37.06N×70.06E, mpv4.1, Error ellipse: s-maj=547.4km s-min=215.6km az=126.0*

ISC 18 04:55:44.0±1.3**, 36.55N**±0.06×**71.0E**±0.2**, h205**^{km}±12^{km}**, n37, σ1^{s}01**/44**, mb3.4**/5**, 2C-2D, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THN	**Thein Dam**	5.65	135	eP	P	04 57 08.1	+0.6
THN				eS	S	04 58 11.9	-0.6
DLH	**Dalhousie**	5.72	133	eP	P	04 57 09.0	+0.6
DLH				eS	S	04 58 13.0	-1.0
AML	**Almayashu**	5.95	20	P	P	04 57 11.6	+0.3
	SNR=168						
UCH	**Uchtor**	6.28	24	P	P	04 57 16.2	+0.5
	SNR=46						
KZA	**Kyzart**	6.42	29	P	P	04 57 17.5	0.0
	SNR=9.2						

EKS2	**Erkin-Say**	6.46	18	P	P	04 57 18.2	+0.2
	SNR=12						
AAK	**Ala-Archa**	6.64	23	⇓Pn	P	04 57 20.4	0.0
	7.0nm,0.5s						
AAK				⇑Sn	S	04 58 33.9	-1.6
	24nm,0.6s						
AAK	**Ala-Archa**	6.64	23	P	P	04 57 20.8	+0.4
	SNR=20						
AAK	**Ala-Archa**	6.64	23	*e*P	P	04 57 19.0	-1.4
KBK	**Karagaybulak**	6.81	25	P	P	04 57 23.2	+0.6
	SNR=17						
CHMS	**Chumysh**	7.05	23	P	P	04 57 25.7	0.0
	SNR=11						
SDNR	**Sundarnagar**	7.06	134	*e*P	P	04 57 25.6	-0.2
	472nm,0.2s						
SDNR				*e*S	S	04 58 41.4	-3.8
USP	**Ospenovka**	7.22	21	P	P	04 57 28.0	+0.1
	SNR=10						
TKM2	**Tokmak 2**	7.27	28	P	P	04 57 29.0	+0.4
	SNR=42						
KHET	**Khetri**	9.37	153	*e*	Px	04 58 40.7	
KHET				*i* S	S	04 59 32.2	-6.8
KHET				AML	AML	04 59 36.1	
	comp=E,35nm,0.6s						
KHET				AML	AML	04 59 36.4	
	comp=N,23nm,0.1s						
NDI	**New Delhi**	9.43	145	*e*	S	04 59 32.0	-8.2
AYAN	**Aya Nagar**	9.55	146	*e*	S	04 59 35.9	-7.3
AYAN				*e*S	S	04 59 37.7	-5.6
AYAN				*e*		04 59 40.4	
	comp=Z,35nm,0.5s						
KUDL	**Kundal**	9.57	150	*e*	S	04 59 36.6	-7.1
KUDL				*i* S	S	04 59 37.6	-6.1
KUDL				*e*		04 59 40.0	
	comp=Z,12nm,0.3s						
SONA	**Sohna**	9.73	147	*e*	S	04 59 38.4	-9.0
SONA				*i* S	S	04 59 40.9	-6.5
SONA				AML	AML	04 59 42.4	
	comp=N,15nm,0.6s						
SONA				*e*		04 59 42.4	
	comp=Z,17nm,0.4s						
SONA				AML	AML	04 59 43.0	
	comp=E,18nm,0.4s						
MK31	**Makanchi Array**	13.24	36	⇓P	P	04 58 46.1	+1.0
	comp=E,2.1nm,0.8s,baz=223,slow=13,SNR=6.1						
KOLN	**Koldanda**	13.78	126	*e*P	P	04 58 51.0	-1.0
	comp=E,2.9nm,0.3s						
GKN	**Gorkha**	14.32	123	*e*P	P	04 59 02.9	+4.2
	comp=E,8.6nm,0.3s						
DMN	**Daman**	14.89	123	*e*P	P	04 59 06.7	+1.0
KKN	**Kakani**	14.89	122	*e*P	P	04 59 08.9	+3.1
	comp=E,17nm,0.5s						
PKI	**Pulchoki**	15.12	122	*e*P	P	04 59 11.1	+2.5
	comp=E,10nm,0.6s						
GUN	**Gumba**	15.23	120	*e*P	P	04 59 11.8	+1.9
	comp=E,6.2nm,0.4s						
BVA0	**Borovoye Array**	16.48	359	⇑P	P	04 59 23.9	-1.0
	comp=E,0.3nm,0.6s,baz=168,slow=8.7,SNR=17						
BVAR	**Borovoye Array**	16.48	359	P	P	04 59 24.4	-0.5
	comp=E,0.8nm,0.3s,baz=168,slow=14,SNR=18						
BRVK	**Borovoye**	16.51	358	*e*P	P	04 59 24.5	-0.9
	comp=E,2.0nm,0.6s						
ZAL	**Zalesovo**	19.85	25	P	P	05 00 01.2	+0.5
	comp=E,1.3nm,0.8s,baz=256,slow=10,SNR=4.9						
ZAL	**Zalesovo**	19.85	25	P	P	05 00 01.2	+0.5
AKASG	**Malin Array Be**	32.92	309	P	P	05 02 00.6	-0.1
	comp=E,0.2nm,0.3s,mb3.1,baz=81,slow=7.5,SNR=5.2						
ARCES	**ARCESS Array B**	41.10	338	P	P	05 03 09.0	+0.1
	comp=E,2.8nm,0.8s,mb3.7,baz=90,slow=9.7,SNR=4.2						
YKA	**Yellowknife Ar**	81.19	3	P	P	05 07 38.8	+1.2
	comp=E,0.5nm,0.4s,mb3.5,baz=351,slow=5.3,SNR=16						
YKA	**Yellowknife Ar**	81.19	3	P	P	05 07 38.8	+1.2
WRA	**Warramunga Arr**	82.01	122	P	P	05 07 40.7	-1.9
	comp=E,0.4nm,0.5s,mb3.3,baz=323,slow=4.8,SNR=7.3						
ASAR	**Alice Springs**	84.27	125	P	P	05 07 53.4	-0.7
	comp=E,0.4nm,0.5s,mb3.4,baz=317,slow=5.0,SNR=9.1						

IDC 18 05:16:00.6±12.0, 14.25N×90.55W, mb3.4/2, mb1 3.8/3, mb1mx3.4/18, ML3.8/1, Error ellipse: s-maj=235.0km s-min=101.8km az=3.0, Guatemala

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TXAR	**Lajitas Array**	19.30	323	P	P	05 20 27.8	-2.1
	0.1nm,0.3s,baz=152,slow=13,SNR=9.8						
NVAR	**Mina Array Bea**	34.38	320	P	P	05 22 49.7	-1.8
	0.7nm,0.7s,baz=128,slow=9.3,SNR=7.4						
YKA	**Yellowknife Ar**	51.12	346	P	P	05 25 04.6	-2.3
	0.1nm,0.4s,baz=148,slow=7.6,SNR=7.4						

IDC ***18*** *05:32:43.8±3.7, 6.37S×128.09E, h387^{km}±45^{km}, mb3.3/2, mb1 3.7/5, mb1mx3.4/13, Error ellipse: s-maj=52.8km s-min=13.7km az=62.0*
NEIC ***18*** *05:32:45.1±1.6, 6.46S×128.00E, h402^{km}±19^{km}, mb4.5/3, Error ellipse: s-maj=27.2km s-min=14.4km az=51.0*
ISC 18 05:32:36.8±2.0, 6.06S±0.10×128.3E±0.2, h319^{km}±24^{km}, n10, σ1^{s}23/14, mb3.5/2, 2C, Banda Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	7.72	149	⇑*i*P	P	05 34 35.1	+7.1
	112nm,0.6s						
FITZ	**Fitzroy Crossi**	12.25	192	*e*P	P	05 35 22.7	-0.6
	3.9nm,0.6s						
FITZ	**Fitzroy Crossi**	12.25	192	P	P	05 35 22.8	-0.5
	0.7nm,0.3s,baz=25,slow=6.7,SNR=17						
FITZ				S	S	05 37 35.5	+0.6
	0.4nm,0.3s,baz=17,slow=6.5,SNR=3.8						
WRAB	**Tennant Creek**	14.98	158	*e*P	P	05 35 54.8	-0.5
	8.6nm,0.4s						
WRA	**Warramunga Arr**	14.99	158	P	P	05 35 55.1	-0.2
	1.8nm,0.3s,baz=333,slow=11,SNR=88						
WRA				S	S	05 38 38.5	+4.6
	0.2nm,0.3s,baz=329,slow=20,SNR=6.2						
ASAR	**Alice Springs**	18.31	164	P	P	05 36 29.8	-0.4
	2.7nm,0.3s,baz=344,slow=12,SNR=120						
ASAR				S	S	05 39 38.0	-0.4
	0.2nm,0.3s,baz=349,slow=25,SNR=5.6						
ASPA	**Alice Springs**	18.31	164	⇑*i*P	P	05 36 30.1	-0.1
ASPA				*e*S	S	05 39 38.9	+0.5
CTAO	**Charters Tower**	22.31	130	P	P	05 37 10.8	+1.6
STKA	**Stephens Creek**	28.53	156	P	P	05 38 03.3	-2.5
	0.9nm,0.4s,mb3.4,baz=335,slow=7.5,SNR=4.8						
CMAR	**Chiang Mai Arr**	37.86	311	P	P	05 39 25.9	+0.5
	1.6nm,0.4s,mb3.6,baz=136,slow=6.5,SNR=7.9						

IDC ***18*** *05:37:01.5±8.6, 6.83S×149.94E, h58^{km}±60^{km}, mb3.5/3, mb1 3.8/5, mb1mx3.6/14, ML3.6/2, Error ellipse: s-maj=63.4km s-min=55.7km az=158.0*
NEIC ***18*** *05:37:07.0±11.0, 7.21S×149.72E, h76^{km}±41^{km}, mb4.0/1, Error ellipse: s-maj=131.0km s-min=45.4km az=215.0*
ISC 18 05:36:59.4±5.3, 6.8S±0.4×150.0E±0.3, h62^{km}±34^{km}, n7, σ0^{s}67/9, mb3.6/3, New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	3.80	227	P	P	05 37 57.0	+0.1
	6.7nm,0.3s,baz=48,slow=6.5,SNR=13						
PMG				S	S	05 38 40.9	+0.1
	10nm,0.3s,baz=8.6,slow=23,SNR=9.4						
PMG	**Port Moresby**	3.80	227	P	P	05 37 57.0	+0.1
PMG				S	S	05 38 40.9	+0.1
WRAB	**Tennant Creek**	20.01	228	*e*P	P	05 41 28.7	-1.0
	5.6nm,0.6s						
WRA	**Warramunga Arr**	20.02	228	P	P	05 41 28.9	-1.0
	0.6nm,0.3s,baz=53,slow=11,SNR=8.8						
ASAR	**Alice Springs**	22.79	221	P	P	05 41 58.6	+0.8
	0.9nm,0.8s,mb3.2,baz=52,slow=8.9,SNR=4.3						
STKA	**Stephens Creek**	26.15	196	P	P	05 42 30.0	+0.2
	1.9nm,0.7s,mb3.7,baz=14,slow=11,SNR=3.8						
FITZ	**Fitzroy Crossi**	26.24	242	P	P	05 42 31.5	+0.8
	1.2nm,0.3s,mb3.8,baz=57,slow=7.0,SNR=6.0						

TAP ***18*** *05:45:57.0, 21.18N×122.02E, h3^{km}±1^{km}, ML4.0*
IDC ***18*** *05:45:57.6±1.2, 21.13N×121.92E, mb3.7/5, mb1 3.9/6, mb1mx3.7/19, ML4.0/1, Error ellipse: s-maj=56.2km s-min=21.6km az=84.0*
JMA ***18*** *05:46:02.4±0.2, 21.28N×122.28E, h110^{km}, M3.4*
ISC 18 05:46:00.8±0.8, 21.22N±0.06×122.2E±0.2, h40^{km}±12^{km}, n15, σ0^{s}79/22, mb3.6/5, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HATJ	**Hateruma jima**	3.20	28	P	P	05 46 50.4	+0.5
HATJ				*e*S	S	05 47 27.2	0.0
YOJ	**Yonaguni jima**	3.32	13	P	P	05 46 52.3	+0.7
YOJ				*e*S	S	05 47 30.3	+0.1
IRIF	**Iriomote-Funau**	3.42	24	P	P	05 46 53.4	+0.5
IRIF				*e*S	S	05 47 32.3	-0.4
JKRS	**Kuro-shima**	3.44	29	P	P	05 46 53.9	+0.5
JKRS				*e*S	S	05 47 33.7	+0.3
APYP	**Conner**	3.45	195	*e*P	P	05 46 52.7	-0.8
APYP				*e*S	S	05 47 31.9	-1.8
CVP	**Callao Caves**	3.51	186	*e*P	P	05 46 55.0	+0.7
JIJ	**Ishigaki jima**	3.61	30	P	P	05 46 55.7	-0.1
JIJ				*e*S	S	05 47 36.6	-1.1
JTJ	**Tarama**	4.12	34	P	P	05 47 03.1	+0.1
JTJ				*e*S	S	05 47 50.0	-0.6
BALP	**Baler**	5.48	186	*e*P	P	05 47 23.4	+1.4
JOW	**Kunigami**	7.88	44	Pn	P	05 47 55.0	-0.6
	4.3nm,0.3s,baz=217,slow=17,SNR=8.3						
SONM	**Songino Array**	29.45	338	P	P	05 52 02.3	-0.6
	0.7nm,0.8s,mb3.5,baz=162,slow=7.8,SNR=5.7						
WRA	**Warramunga Arr**	42.60	163	P	P	05 53 54.2	-0.8
	1.2nm,0.7s,mb3.7,baz=343,slow=8.9,SNR=5.5						
ASAR	**Alice Springs**	46.05	165	P	P	05 54 23.1	+0.4
	0.4nm,0.4s,mb3.7,baz=344,slow=7.0,SNR=6.2						
STKA	**Stephens Creek**	55.97	160	P	P	05 55 38.8	+1.2
	2.5nm,1.0s,mb4.2,baz=344,slow=9.6,SNR=3.2						
YKA	**Yellowknife Ar**	85.33	23	P	P	05 58 38.4	+3.9
	0.1nm,0.5s,mb3.2,baz=314,slow=4.9,SNR=3.3						

IDC 18 05:57:45.0±27.0, 7.95N×92.94E, mb3.6/3, mb1 3.8/3, mb1mx3.5/18, Error ellipse: s-maj=598.0km s-min=288.4km az=157.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	49.28	125	P	P	06 06 36.4	-1.5
	0.4nm,0.6s,baz=307,slow=8.8,SNR=5.7						
ASAR	**Alice Springs**	50.88	129	P	P	06 06 48.1	-2.0
	0.3nm,0.6s,baz=302,slow=8.3,SNR=4.4						
STKA	**Stephens Creek**	61.02	133	P	P	06 08 00.3	-2.7
	0.7nm,0.4s,baz=350,slow=12,SNR=2.3						

NIED ***18*** *06:22:00, 46.70N×141.10E, h5^{km}, Mw4.1 Best double couple: M$_0$1.83×10^{15} NP1:φ$_s$44°, δ74°, λ-132°. NP2: φ$_s$296°, δ44°, λ-24°.*
JMA ***18*** *06:22:07.7±0.3, 46.69N×141.08E, h7^{km}, M4.6*
SKHL ***18*** *06:22:08.4±0.2, 46.76N×141.18E, h10^{km}, mb4.2/3, msh4.9/1*
MOS ***18*** *06:22:10.2±1.4, 46.63N×141.49E, h10^{km}, mb4.1/2, Error ellipse: s-maj=21.8km s-min=11.3km az=80.6*
NEIC ***18*** *06:22:14.3±2.0, 46.63N×141.63E, h26^{km}±15^{km}, mb3.9/2, Error ellipse: s-maj=18.2km s-min=10.8km az=129.0*
IDC ***18*** *06:22:15.3±6.5, 46.54N×141.57E, h33^{km}±51^{km}, mb3.7/14, mb1 4.0/15, mb1mx3.9/24, ML3.8/1, MS3.0/1, Ms1 3.0/1, ms1mx2.3/28, Error ellipse: s-maj=19.5km s-min=15.5km az=119.0*
ISC 18 06:22:07.7±0.5, 46.72N±0.02×141.18E±0.03, h6^{km}±4^{km}, n47, σ1^{s}15/74, mb3.9/15, 2D, Sakhalin Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YSS	**Yuzh-Sakhalins**	1.10	77	⇓*i*PN	Pn	06 22 29.8	+0.2
YSS				*i* S	Sb	06 22 45.5	+2.2
YSS				pmax	pmax		
	comp=N,160nm,0.7s						
YSS				pmax	pmax		
	comp=E,220nm,0.7s						
YSS				pmax	pmax		
	comp=Z,260nm,0.7s						
YSS				smax			
	comp=N,2µm,0.4s						
YSS				smax			
	comp=E,4µm,0.4s						
YSS	**Yuzh-Sakhalins**	1.10	77	*e*P	Pb	06 22 30.1	+1.3
YSS	**Yuzh-Sakhalins**	1.10	77	⇓*i*Pg	Pg	06 22 30.0	+0.3
YSS				AMB	AMB	06 22 30.5	
	comp=E,160nm,0.7s						
YSS				AMB	AMB	06 22 30.5	
	comp=E,220nm,0.7s						
YSS				AMB	AMB	06 22 30.5	
	comp=E,260nm,0.7s						
YSS				AMB	AMB	06 22 31.0	
	comp=E,220nm,0.5s						
YSS				AMB	AMB	06 22 31.0	
	comp=E,310nm,0.5s						
YSS				pP		06 22 33.9	
YSS				*i* Sg	Sg	06 22 45.4	+0.9
YSS				A		06 22 46.0	
	comp=E,2µm,0.4s						
YSS				A		06 22 46.0	
	comp=E,4µm,0.4s						
YSS				A		06 22 46.6	
	comp=E,2µm,0.3s						
YSS				A		06 22 46.6	
	comp=E,4µm,0.4s						
YSS				AMS	AMS	06 23 24.0	
	comp=E,2µm,5.5s						
YSS				AMS	AMS	06 23 24.0	
	comp=E,2µm,5.8s						
YSS				AMS	AMS	06 23 24.0	
	comp=E,2µm,6.0s						
JWK2	**Keihoku**	1.49	160	P	Pn	06 22 34.9	-0.3
JWK2				*e*S	Sb	06 22 53.7	-0.8
JRR	**Rishiri**	1.59	177	P	Pn	06 22 36.2	-0.3
JRR				*e*S	Sb	06 22 57.1	-0.2
JSE	**Soyaes**	2.02	150	P	Pn	06 22 41.9	-0.8
JSE				*e*S	Sn	06 23 06.7	-1.8
JYG	**Yagishiri**	2.30	176	P	Pn	06 22 46.9	+0.1
JYG				*e*S	Sn	06 23 15.1	-0.6
JSS	**Shosan**	2.37	168	P	Pn	06 22 47.7	0.0
UGL	**Uglegorsk**	2.43	14	PN	Pb	06 22 51.0	-0.5
UGL				S	Sn	06 23 25.5	+6.4
UGL				pmax	pmax		
	comp=Z,132nm,0.8s						
UGL				smax			
	comp=N,279nm,0.7s						
UGL				smax			
	comp=E,651nm,0.7s						
UGL				smax			
	comp=N,2µm,3.0s						
UGL				smax			
	comp=E,2µm,2.0s						
UGL	**Uglegorsk**	2.43	14	*e*Pb	Pb	06 22 51.0	-0.5
UGL				*e*Pg	Pg	06 22 55.6	-0.6
UGL				AMB	AMB	06 22 57.0	
	comp=E,132nm,0.8s						
UGL				*e*Sb	Sb	06 23 20.2	-1.7
UGL				*e*Sg	Sg	06 23 28.4	-0.3
UGL				A		06 23 28.5	
	comp=E,279nm,0.7s						
UGL				A		06 23 28.5	
	comp=E,651nm,0.7s						
UGL				A		06 23 30.0	
	comp=E,2µm,2.0s						
UGL				A		06 23 30.0	
	comp=E,2µm,3.0s						
ASAJ	**Asahikawa**	2.79	159	Pn	Pn	06 22 53.3	-0.4
	comp=E,14nm,0.3s,baz=312,slow=12,SNR=35						
ASAJ				Sn	Sn	06 23 28.4	+0.3
	comp=E,26nm,0.3s,baz=102,slow=24,SNR=8.6						
ASAJ				LR	LR	06 23 55.6	
	comp=E,328nm,21.1s,baz=3.3,slow=40						
ASAJ	**Asahikawa**	2.79	159	P	Pn	06 22 52.9	-0.8
ASAJ	**Asahikawa**	2.79	159	PN	Pn	06 22 53.3	-0.4
ASAJ						06 23 28.5	
ASAJ				pmax	pmax		
	comp=Z,14nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,328nm,21.1s						
JHR	**Hokuryu**	3.00	172	P	Pn	06 22 56.6	-0.2
JKK2	**Kamakawa 2**	3.06	158	P	Pn	06 22 57.3	-0.2
JMP	**Maruseppu**	3.12	150	P	Pn	06 22 57.2	-1.2
TEY	**Ternei**	3.62	244	*e*Pn	Pn	06 23 05.8	+0.3
TEY				*e*Pb	Pb	06 23 14.0	+2.2
TEY				*e*Pg	Pg	06 23 20.0	+0.1
TEY				*e*Sg	Sg	06 24 09.8	+1.7
TEY				A		06 24 11.8	
	comp=Z,52nm,0.5s						
TEY				A		06 24 11.8	
	comp=Z,70nm,0.5s						
TYV	**Tymovskoe**	4.26	13	*e*Pn	Pn	06 23 14.2	-0.4
TYV				*e*Pb	Pb	06 23 21.8	-1.0
TYV				AMB	AMB	06 23 23.0	
	comp=Z,10.0nm,0.7s						
TYV				*e*Pg	Pg	06 23 31.8	-0.9
TYV				AMB	AMB	06 23 33.8	
	comp=Z,9.0nm,0.5s						
TYV				*e*Sb	Sb	06 24 12.0	-2.9
TYV				*e*Sg	Sg	06 24 30.0	+0.5
TYV				A		06 24 31.5	
	comp=Z,33nm,0.8s						
TYV				A		06 24 31.5	
	comp=Z,13nm,0.8s						
GRNR	**Gornyy**	5.13	324	*e*Pn	Pn	06 23 26.6	-0.4
GRNR				*e*Pg	Pg	06 23 48.8	-1.3
GRNR				*e*Sb	Sb	06 24 37.8	-2.4
GRNR				*e*Sg	Sg	06 24 59.2	+0.7
GRNR				A		06 25 06.0	
	comp=Z,56nm,0.8s						
GRNR				A		06 25 06.0	
	comp=Z,62nm,0.8s						
NKL	**Nikolayevsk**	6.45	357	*e*rx	rx	06 23 41.0	
NKL				*e*Pb	Pb	06 24 00.5	+0.3
NKL				*e*Pg	Pg	06 24 15.8	-0.5
NKL				*e*Sb	Sb	06 25 11.0	-7.4
NKL				*e*Sg	Sg	06 25 45.0	+2.8
KLR	**Kul’dur**	6.81	295	*e*Pg	Pg	06 24 23.2	-0.5
KLR				*e*rx	rx	06 26 02.3	
EKMR	**Ekimchan**	8.28	323	*e*P	P	06 24 10.5	-0.7
EKMR				*e*S	Sn	06 25 47.0	+0.8
MAT	**Matsushiro**	10.41	193	P	P	06 24 35.7	-4.9
MAT	**Matsushiro**	10.41	193	*e*PN	P	06 24 42.0	+1.4
YASR	**Yasnyy**	10.73	313	*e*P	P	06 24 43.9	-1.1
YASR				*e*S	S	06 26 52.4	+5.8
BMKR	**Bomnak**	11.18	320	*e*P	P	06 24 49.0	-2.0
BMKR				*e*S	S	06 26 58.5	+1.1
ZEA	**Zeya**	11.34	313	*e*rx	rx	06 27 43.4	
KROS	**Kirovskiy**	11.87	316	*e*P	P	06 24 57.5	-2.9
KROS				*e*S	S	06 27 18.5	+4.2
SONM	**Songino Array**	23.51	286	P	P	06 27 24.2	+5.2
	comp=Z,2.2nm,0.9s,mb3.6,baz=84,slow=9.0,SNR=11						
ZAK	**Zakamensk**	25.17	292	*e*P	P	06 27 39.3	+4.3
ZAL	**Zalesovo**	35.86	303	P	P	06 29 14.4	+4.5
	comp=Z,0.7nm,0.3s,mb4.1,baz=64,slow=1.5,SNR=4.1						
COLA	**College**	41.23	38	P	P	06 29 53.5	-1.1
COLA				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.0						
COLA	**College**	41.23	38	P	P	06 29 53.5	-1.1
	comp=Z,2.5nm,0.8s,mb3.9						
ILAR	**Eielson Array**	41.66	38	P	P	06 30 01.2	+3.3
	comp=Z,2.1nm,0.9s,mb3.8,baz=282,slow=9.2,SNR=23						
CMAR	**Chiang Mai Arr**	44.62	245	P	P	06 30 27.4	+4.8
	comp=Z,1.3nm,0.8s,mb3.8,baz=31,slow=7.3,SNR=4.3						
INK	**Inuvik**	46.00	31	P	P	06 30 36.2	+3.2
	comp=Z,0.6nm,0.6s,mb3.7,baz=306,slow=6.4,SNR=5.3						
INK	**Inuvik**	46.00	31	P	P	06 30 36.2	+3.2
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	**Inuvik**	46.00	31	P	P	06 30 34.6	+1.6
	comp=Z,0.5nm,0.5s,mb3.7						
YKA	**Yellowknife Ar**	55.65	33	P	P	06 31 46.4	+0.1
	comp=Z,1.2nm,0.6s,mb4.1,baz=305,slow=6.8,SNR=27						
FINES	**FINESS Array B**	60.25	330	P	P	06 32 19.9	+1.2
	comp=Z,2.7nm,0.9s,mb4.3,baz=350,slow=12,SNR=5.2						
HFS	**Hagfors**	65.25	334	P	P	06 32 56.0	+4.3
	comp=Z,3.4nm,0.9s,mb4.4,baz=53,slow=7.4,SNR=5.4						
WRA	**Warramunga Arr**	66.64	187	P	P	06 33 02.5	+1.2
	comp=Z,0.6nm,0.5s,mb3.9,baz=3.6,slow=7.1,SNR=12						
AKASG	**Malin Array Be**	66.64	320	P	P	06 33 10.8	+10
	comp=Z,0.1nm,0.2s,mb3.4,baz=37,slow=4.8,SNR=5.9						
NVAR	**Mina Array Bea**	69.48	56	P	P	06 33 19.3	+0.6
	comp=Z,0.8nm,0.7s,mb3.8,baz=293,slow=7.1,SNR=8.0						
ASAR	**Alice Springs**	70.36	187	P	P	06 33 23.8	-0.5
	comp=Z,1.8nm,0.7s,mb4.1,baz=3.6,slow=5.3,SNR=22						
PDAR	**Pinedale Array**	71.10	47	P	P	06 33 29.2	+0.7
	comp=Z,0.7nm,0.7s,mb3.7,baz=280,slow=2.7,SNR=4.9						
TXAR	**Lajitas Array**	84.35	53	P	P	06 34 43.8	+1.9
	comp=Z,0.5nm,0.7s,mb3.7,baz=290,slow=3.2,SNR=6.6						

IDC ***18*** *06:35:43.6±6.2, 33.67S×179.76E, h154^{km}±63^{km}, mb4.0/5, mb1 4.2/7, mb1mx3.9/16, Error ellipse: s-maj=60.2km s-min=23.8km az=3.0*
NEIC ***18*** *06:35:52.1±1.2, 34.79S×179.82E, h264^{km}±13^{km}, mb4.2/2, Error ellipse: s-maj=19.8km s-min=14.4km az=156.0*
ISC 18 06:35:51.6±1.4, 34.8S±0.2×179.8E±0.2, h270^{km}±15^{km}, n55, σ1^{s}03/56, mb3.9/6, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	2.99	203	*e*P	P	06 36 44.6	-1.1
MXZ	**Matakaoa Point**	2.99	203	P	P	06 36 44.0	-1.7
MXZ				S	S	06 37 31.5	+3.8
PUZ	**Puketiti**	3.48	200	P	P	06 36 50.3	-0.6
PUZ	**Puketiti**	3.48	200	P	P	06 36 50.0	-0.9
PUZ				S	S	06 37 43.2	+6.1
MWZ	**Matawai**	3.96	207	P	P	06 36 56.4	+0.1
MWZ	**Matawai**	3.96	207	P	P	06 36 55.9	-0.4
URZ	**Urewera**	4.06	211	P	P	06 36 58.5	+1.0
	15nm,0.3s,baz=251,slow=2.2,SNR=107						
URZ				S	S	06 37 55.3	+6.5
	62nm,0.3s,baz=32,slow=1.8,SNR=11						
BKZ	**Black Stump Fm**	5.08	210	*e*P	P	06 37 09.3	-0.2
BKZ	**Black Stump Fm**	5.08	210	P	P	06 37 09.3	-0.2
MGZ	**Maungaku**	5.39	218	P	P	06 37 14.6	+1.3
MGZ	**Maungaku**	5.39	218	P	P	06 37 14.5	+1.2
NGZ	**Ngauruhoe**	5.50	216	P	P	06 37 15.4	+0.9
CNZ	**Chateau**	5.54	217	P	P	06 37 17.4	+2.3
TUVZ	**Tukino**	5.54	215	P	P	06 37 16.1	+1.0
FWVZ	**Far West T-bar**	5.58	216	*e*P	P	06 37 16.5	+0.9
FWVZ	**Far West T-bar**	5.58	216	P	P	06 37 16.0	+0.4
MOVZ	**Moawhango**	5.61	214	P	P	06 37 15.7	-0.2
WNVZ	**Wahianoa**	5.62	215	P	P	06 37 16.4	+0.4
TSZ	**Takapari Road**	6.06	209	*e*P	P	06 37 19.9	-1.5
TSZ	**Takapari Road**	6.06	209	P	P	06 37 19.5	-1.9
WAZ	**Wanganui**	6.25	216	*e*P	P	06 37 26.0	+2.3
WAZ	**Wanganui**	6.25	216	P	P	06 37 25.4	+1.7
BFZ	**Birch Farm**	6.49	205	S	S	06 38 49.1	+7.6
MRZ	**Mangatainoka R**	6.72	209	*e*P	P	06 37 28.9	-0.8
MRZ	**Mangatainoka R**	6.72	209	P	P	06 37 27.9	-1.8
KIW	**Kapiti Island**	7.17	211	P	P	06 37 34.2	-1.0
MTW	**Mount Morrison**	7.18	207	P	P	06 37 34.2	-1.2
MTW	**Mount Morrison**	7.18	207	P	P	06 37 33.8	-1.6
CAW	**Cannon Point**	7.31	209	P	P	06 37 36.0	-1.0
MSWZ	**Moikau Station**	7.50	207	P	P	06 37 38.6	-0.8
MRW	**Makara Radio**	7.56	211	P	P	06 37 40.1	0.0
NNZ	**Nelson**	8.15	216	*e*P	P	06 37 46.7	-0.9
NNZ	**Nelson**	8.15	216	P	P	06 37 46.0	-1.6
BSWZ	**Blackbirch Sta**	8.31	212	P	P	06 37 49.5	-0.1
THZ	**Tophouse**	8.80	216	*e*P	P	06 37 55.2	-0.5
KHZ	**Kahutara**	9.03	211	*e*P	P	06 37 58.4	-0.1
KHZ	**Kahutara**	9.03	211	P	P	06 37 58.4	-0.1
LTZ	**Lake Taylor**	9.88	214	*e*P	P	06 38 08.5	-0.7
LTZ	**Lake Taylor**	9.88	214	P	P	06 38 08.5	-0.7
MQZ	**McQueen’s Vall**	10.46	210	*e*P	P	06 38 16.1	-0.3
MQZ	**McQueen’s Vall**	10.46	210	P	P	06 38 16.1	-0.3
WVZ	**Waitaha Valley**	10.85	218	*e*P	P	06 38 22.9	+1.6
RPZ	**Rata Peaks**	11.17	215	P	P	06 38 26.6	+1.3
	3.8nm,0.3s,baz=98,slow=17,SNR=14						
ODZ	**Otahua Downs**	12.39	212	*e*P	P	06 38 41.5	+1.1
CTA	**Charters Tower**	33.01	288	P	P	06 42 02.1	-1.3
	7.4nm,0.9s,mb4.2,baz=107,slow=8.5,SNR=6.3						
CTAO	**Charters Tower**	33.01	288	*e*P	P	06 42 02.0	-1.4
	11nm,0.9s,mb4.4						
ASAR	**Alice Springs**	41.24	273	P	P	06 43 12.9	+0.9
	1.8nm,0.4s,mb3.6,baz=110,slow=7.7,SNR=43						
WRAB	**Tennant Creek**	42.63	278	*e*P	P	06 43 22.4	-0.9
	3.4nm,0.5s,mb3.8						
WRA	**Warramunga Arr**	42.64	278	P	P	06 43 22.8	-0.5
	2.2nm,0.5s,mb3.7,baz=115,slow=7.8,SNR=69						
QSPA	**South Pole Qui**	55.30	180	*e*P	P	06 45 11.6	+13
YBH	**Yreka Blue Hor**	92.63	39	P	P	06 48 33.7	+0.1
	1.7nm,0.9s,mb4.0,baz=303,slow=5.9,SNR=5.1						
NVAR	**Mina Array Bea**	92.72	44	P	P	06 48 34.7	+0.6
	1.6nm,0.8s,mb4.0,baz=230,slow=9.1,SNR=11						
MNV	**Mina**	92.81	44	*e*P	P	06 48 35.1	+0.6
FINES	**FINESS Array B**	148.53	336	PKPbc	PKPdf	06 55 06.8	+5.4
	1.9nm,0.5s,baz=49,slow=4.5,SNR=22						
AKASG	**Malin Array Be**	153.42	316	PKPbc	PKPdf	06 55 22.2	+13
	1.4nm,0.8s,baz=32,slow=2.3,SNR=5.3						

BJI **18** 06:46:16.6, 49.06N×156.25E, h10^{km}, mB6.2, mb5.6, Ms6.6, Msz6.3

IDC **18** 06:46:18.6±0.3, 48.96N×156.19E, mb5.3/38, mb1 5.4/40, mb1mx5.4/41, ML4.8/2, MS6.1/17, Ms1 6.1/17, ms1mx5.6/32, Error ellipse: s-maj=11.5km s-min=8.6km az=132.0

MOS **18** 06:46:18.1±1.2, 48.84N×156.21E, h10^{km}, mb5.8/93, MS6.4/50, Error ellipse: s-maj=6.3km s-min=3.3km az=99.3 Broadband fault plane solution: P waves. $M_0$3.4×10^{18} NP1:ϕ_s152°,δ30°,λ36°. NP2:ϕ_s30°,δ72°, λ115°. Principal axes: T Plg55°, Azm332°; N Plg24°, Azm202°; P Plg23°, Azm101°;

MOS Fault plane solution : P-wave C63, D11 . Felt (I-II) at Severo-Kuril'sk.

IGIL **18** 06:46:19.4, 48.86N×156.16E, h0^{km}, MS6.5

KRSC **18** 06:46:19.2±1.3, 48.78N×156.32E, h55^{km}±16^{km}, ML5.8

HRVD **18** 06:46:19.9±0.1, 48.77N×156.58E, h15^{km}, MW6.2/74, Centroid moment Tensor Solution. LP body waves: s74,c182;Mantle waves: s65,c109; Half duration: 2^{s}7 Moment tensor: Scale 10^{18}Nm; M_{rr}1.45±.01; $M_{\theta\theta}$-0.58±.02; $M_{\phi\phi}$-0.87±.01; $M_{r\theta}$0.88±.05; $M_{\theta\phi}$-0.80±.01; $M_{\phi r}$1.21±.05; Best double couple: $M_0$2.11×10^{18} NP1: ϕ_s223°,δ23°,λ95°. NP2:ϕ_s37°,δ68°,λ88°. Principal axes: T 2.07, Plg67°, Azm303°; N .09, Plg2°, Azm38°; P -2.16, Plg22°, Azm129°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s.

SYO **18** 06:46:19.3, 48.85N×156.21E, h10^{km}, MB5.5, MS6.0

SKHL **18** 06:46:19.5±3.4, 48.82N×156.52E, h37^{km}±4^{km}, mb6.8/10, mbh6.6/9, Ms6.6/5, msh6.3/5

SKHL Felt (I-II) at Severo-Kurilsk.

NEIC **18** 06:46:19.9±0.1, 48.84N×156.31E, h11^{km}, mb5.5/164, ME5.9, MS6.1/113, MW6.2, MW6.3(MOS), Error ellipse: s-maj=4.4km s-min=3.0km az=176.0 Broadband fault plane solution: P waves. NP1:ϕ_s40°,δ75°,λ90°. NP2: ϕ_s220°,δ15°,λ90°. Principal axes: T Plg60°, Azm310°; N Plg0°, Azm0°; P Plg30°, Azm130°; Moment Tensor Solution. s40 Moment tensor: Scale 10^{18} Nm; M_{rr}0.67; $M_{\theta\theta}$-0.41; $M_{\phi\phi}$-0.25; $M_{r\theta}$1.57; $M_{\theta\phi}$-0.39; $M_{\phi r}$1.85; Best double couple: $M_0$2.5×10^{18} NP1:ϕ_s243°,δ8°,λ112°. NP2: ϕ_s41°,δ82°,λ87°. Principal axes: T 2.51, Plg53°, Azm307°; N .04, Plg3°, Azm41°; P -2.55, Plg37°, Azm134°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.

NEIC Felt [II] at Severo-Kuril'sk.

CSEM **18** 06:46:21.3, 48.87N×156.45E, h30^{km}, mb5.7

ISC 18 06:46:19.2±0.1**, 48.87N**±0.02×**156.37E**±0.02**, h16**^{km}**, h16**^{km}±2.1^{km}**:pP-P, n1004, σ1^{s}19**/971**, mb5.5**/246**, MS6.2**/170**, 126C-28D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.82**	**355**	*i* P	**Pn**	**06 46 48.6**	**-1.7**
SKR				*e*S	**Sn**	**06 47 10.7**	**-2.5**
SKR	**Severo-Kuril's**	**1.82**	**355**	⇑*i*PN	**Pn**	**06 46 48.6**	**-1.7**
SKR				*e*S	**Sn**	**06 47 10.7**	**-2.5**
SKR				pmax	pmax		
	comp=N,310nm,0.5s						
SKR				pmax	pmax		
	comp=E,230nm,0.5s						
SKR				pmax	pmax		
	comp=Z,850nm,0.5s						
SKR				pmax	pmax		
	comp=N,84µm,6.0s						
SKR				pmax	pmax		
	comp=E,51µm,6.0s						
SKR				pmax	pmax		
	comp=Z,56µm,6.0s						
SKR				smax			
	comp=N,504µm,12.0s						
SKR				smax			
	comp=E,504µm,12.0s						
SKR	**Severo-Kuril's**	**1.82**	**355**	⇑*i*P	**Pn**	**06 46 49.2**	**-1.1**
SKR	**Severo-Kuril's**	**1.82**	**355**	⇑*i*P	**Pn**	**06 46 48.6**	**-1.7**
SKR				⇑*i*P		06 46 48.6	
SKR				⇑*i*P		06 46 48.6	
SKR				AMB	AMB	06 46 50.0	
	comp=E,310nm,0.5s						
SKR				AMB	AMB	06 46 50.0	
	comp=E,230nm,0.5s						
SKR				AMB	AMB	06 46 50.0	
	comp=E,850nm,0.5s						
SKR				AMB	AMB	06 46 54.0	
	comp=E,84µm,6.0s						
SKR				AMB	AMB	06 46 54.0	
	comp=E,50µm,6.0s						
SKR				AMB	AMB	06 46 54.0	
	comp=E,56µm,6.0s						
SKR				AMB	AMB	06 46 54.0	
	comp=E,84µm,6.0s						
SKR				AMB	AMB	06 46 54.0	
	comp=E,51µm,6.0s						
SKR				AMB	AMB	06 46 54.0	
	comp=E,56µm,6.0s						
SKR				*e*S	**Sn**	**06 47 10.7**	**-2.5**
SKR				A		06 47 24.0	
	comp=E,504µm,12.0s						
SKR				A		06 47 24.0	
	comp=E,197µm,12.0s						
SKR				A		06 47 24.0	
	comp=E,475µm,12.0s						
SKR				A		06 47 24.0	
	comp=E,658µm,12.0s						
SKR				A		06 47 24.0	
	comp=E,182µm,12.0s						
SKR				AMS	AMS	06 47 40.0	
	comp=E,365µm,16.0s						
SKR				AMS	AMS	06 47 40.0	
	comp=E,700µm,16.0s						
SKR				AMS	AMS	06 47 40.0	
	comp=E,1169µm,16.0s						
SKR				AMS	AMS	06 47 40.0	
	comp=E,303µm,16.0s						
ALID	**Alaid**	**2.07**	**345**	*e*P	**Pn**	**06 46 54.4**	**+0.6**
ALID				*e*S	**Sn**	**06 47 18.8**	**-0.7**
PAU	**Pauzhetka**	**2.62**	**6**	*i* P	**Pn**	**06 47 02.5**	**+0.9**
PAU				*e*S	**Sn**	**06 47 33.5**	**+0.2**
PAU				Smax			
	comp=E,13µm,0.9s						
MIPR	**Malaya Ipel'ka**	**3.42**	**4**	*e*P	**Pn**	**06 47 12.9**	**-0.2**
MIPR				*e*S	**Sn**	**06 47 52.5**	**-1.2**
RUS	**Russkaya**	**3.82**	**20**	*i* P	**Pn**	**06 47 19.0**	**+0.2**
RUS				*e*S	**Sn**	**06 48 03.1**	**-0.7**
GRL	**Gorelyy**	**3.84**	**16**	*e*P	**Pn**	**06 47 19.5**	**+0.4**
GRL				*e*S	**Sn**	**06 48 04.0**	**-0.4**
PET	**Petropavlovsk**	**4.40**	**18**	*i* P	**Pn**	**06 47 26.8**	**-0.3**
PET				*e*S	**Sn**	**06 48 16.7**	**-1.9**
PET	**Petropavlovsk**	**4.40**	**18**	*c i*PN	**Pn**	**06 47 26.7**	**-0.4**
PET	**Petropavlovsk**	**4.40**	**18**	*e*Pn	**Pn**	**06 47 26.5**	**-0.5**
UGLR	**Uglovaya**	**4.61**	**19**	*i* P	**Pn**	**06 47 30.3**	**+0.3**
UGLR				*e*S	**Sn**	**06 48 21.9**	**-2.0**
AVH	**Avacha**	**4.65**	**18**	*i* P	**Pn**	**06 47 30.2**	**-0.3**
KOK	**Koryaka**	**4.65**	**17**	*i* P	**Pn**	**06 47 30.8**	**+0.2**
KOK				*e*S	**Sn**	**06 48 21.6**	**-3.3**
SDLR	**Sedlovina**	**4.69**	**19**	*i* P	**Pn**	**06 47 30.8**	**-0.3**
SDLR				*e*S	**Sn**	**06 48 22.7**	**-3.1**
NLC	**Nalytchevo**	**4.70**	**22**	*i* P	**Pn**	**06 47 30.5**	**-0.7**
NLC				*e*S	**Sn**	**06 48 22.4**	**-3.6**
SPN	**Mys Shipunski**	**4.82**	**27**	*i* P	**Pn**	**06 47 31.9**	**-1.1**
SPN				*e*S	**Sn**	**06 48 25.5**	**-3.6**
GNL	**Ganaly**	**4.93**	**11**	*i* P	**Pn**	**06 47 34.4**	**-0.1**
GNL				*e*S	**Sn**	**06 48 28.6**	**-3.3**
TUMR	**Tumrok**	**6.83**	**18**	*i* P	**Pn**	**06 48 01.3**	**0.0**
KUR	**Kuril'sk**	**6.85**	**241**	*e*PN	**Pn**	**06 47 56.5**	**-5.1**
KUR				pmax	pmax		
	comp=N,650nm,0.8s						
KUR				pmax	pmax		
	comp=E,710nm,0.8s						
KUR				pmax	pmax		
	comp=Z,4µm,0.8s						
KUR				pmax	pmax		
	comp=Z,32µm,3.0s						
KUR				MLR	MLR		
	comp=N,734µm,15.0s						
KUR				MLR	MLR		
	comp=E,684µm,15.0s						
KUR				MLR	MLR		
	comp=Z,522µm,15.0s						
KUR	**Kuril'sk**	**6.85**	**241**	*e*P	**Pn**	**06 47 56.5**	**-5.1**
KUR				AMB	AMB	06 48 11.8	
	comp=Z,650nm,0.8s						
KUR				AMB	AMB	06 48 11.8	
	comp=Z,710nm,0.8s						
KUR				AMB	AMB	06 48 11.8	
	comp=Z,4µm,0.8s						
KUR				AMB	AMB	06 48 20.0	
	comp=Z,32µm,3.0s						
KUR				*i* S	**Sn**	**06 49 14.7**	**-5.3**
KUR				A		06 49 25.0	
	comp=Z,41µm,6.0s						
KUR				A		06 49 25.0	
	comp=Z,15µm,6.0s						
KUR				A		06 49 35.5	
	comp=Z,14µm,1.2s						
KUR				A		06 49 35.5	
	comp=Z,10µm,1.2s						
KUR				AMS	AMS	06 50 38.0	
	comp=Z,734µm,15.0s						
KUR				AMS	AMS	06 50 38.0	
	comp=Z,684µm,15.0s						
KUR				AMS	AMS	06 50 38.0	
	comp=Z,522µm,15.0s						
KUR				AMS	AMS	06 50 54.0	
	comp=Z,281µm,16.0s						
KUR				AMS	AMS	06 50 54.0	
	comp=Z,275µm,16.0s						
KUR				AMS	AMS	06 50 54.0	
	comp=Z,253µm,16.0s						
KMNR	**Kamenistaya**	**7.29**	**17**	*e*P	**Pn**	**06 48 07.2**	**-0.6**
KPT	**Kopyto**	**7.49**	**17**	*e*P	**Pn**	**06 48 09.5**	**-1.0**
KOZ	**Kozyrevsk**	**7.51**	**15**	*e*P	**Pn**	**06 48 10.0**	**-0.8**
ZLN	**Zelenaya**	**7.65**	**19**	*i* P	**Pn**	**06 48 12.6**	**-0.2**
LGNR	**Loginova**	**7.69**	**18**	*e*P	**Pn**	**06 48 12.8**	**-0.5**
CIRR	**Tsirk**	**7.73**	**19**	*e*P	**Pn**	**06 48 13.9**	**0.0**
SRDR	**Sredinnyy**	**7.73**	**14**	*i* P	**Pn**	**06 48 12.7**	**-1.2**
KRSR	**Krestovskiy**	**7.79**	**18**	*e*P	**Pn**	**06 48 14.0**	**-0.7**
KLY	**Klyuchi**	**7.90**	**18**	*e*P	**Pn**	**06 48 15.6**	**-0.6**
SVLR	**Shiveluch**	**8.26**	**19**	*i* P	**P**	**06 48 20.1**	**-1.2**
KBTR	**Krutoberegovo**	**8.33**	**26**	*i* P	**P**	**06 48 19.2**	**-3.1**
KBTR				*e*S	**Sn**	**06 49 49.1**	**-7.9**
BKI	**Bering**	**8.67**	**39**	*e*P	**P**	**06 48 22.0**	**-5.0**
BKI				*e*S	**Sn**	**06 49 50.7**	**-15**
BKI				Smax			
	comp=Z,820nm,0.9s						
YUK	**Yuzh-Kuril'sk**	**8.71**	**240**	α *i*PN	**P**	**06 48 24.0**	**-3.6**
YUK				pmax	pmax		
	comp=Z,1µm,0.4s						
YUK				pmax	pmax		
	comp=N,370nm,0.5s						
YUK				pmax	pmax		
	comp=E,380nm,0.5s						
YUK				pmax	pmax		
	comp=N,10µm,7.0s						
YUK				pmax	pmax		
	comp=Z,20µm,7.0s						
YUK				pmax	pmax		
	comp=E,18µm,9.0s						
YUK				MLR	MLR		
	comp=E,489µm,17.0s						
YUK				MLR	MLR		
	comp=Z,397µm,17.0s						
YUK				MLR	MLR		
	comp=N,315µm,18.0s						
YUK	**Yuzh-Kuril'sk**	**8.71**	**240**	⇑*i*P	**P**	**06 48 24.0**	**-3.6**
YUK				⇑*i*P		06 48 24.0	
YUK				AMB	AMB	06 48 27.0	
	comp=N,370nm,0.5s						
YUK				AMB	AMB	06 48 27.0	
	comp=N,380nm,0.5s						
YUK				AMB	AMB	06 48 27.0	
	comp=N,1µm,0.5s						
YUK				AMB	AMB	06 48 33.0	
	comp=N,18µm,9.0s						
YUK				AMB	AMB	06 48 33.0	
	comp=N,10µm,7.0s						
YUK				AMB	AMB	06 48 33.0	
	comp=N,20µm,7.0s						
YUK				*i* S	**Sn**	**06 50 01.5**	**-5.0**
YUK				A		06 50 06.0	
	comp=N,21µm,11.0s						
YUK				A		06 50 06.0	
	comp=N,23µm,8.0s						
YUK				A		06 50 09.0	
	comp=N,2µm,0.6s						
YUK				A		06 50 09.0	
	comp=N,840nm,0.6s						
YUK				AMS	AMS	06 51 49.0	
	comp=N,489µm,17.0s						
YUK				AMS	AMS	06 51 49.0	
	comp=N,397µm,17.0s						
YUK				AMS	AMS	06 51 49.0	
	comp=N,315µm,18.0s						
TYV	**Tymovskoe**	**9.08**	**288**	*e*P	**P**	**06 48 32.0**	**-0.7**
TYV				AMB	AMB	06 48 41.0	
	comp=N,1µm,1.6s						
TYV				AMB	AMB	06 48 47.0	
	comp=N,28µm,8.0s						
TYV				AMB	AMB	06 48 47.0	
	comp=N,23µm,8.0s						
YSS	**Yuzh-Sakhalins**	**9.34**	**263**	α *i*PN	**P**	**06 48 37.0**	**+0.7**
YSS				*e*S	**Sn**	**06 50 23.5**	**+1.4**
YSS				pmax	pmax		
	comp=N,290nm,1.0s						
YSS				pmax	pmax		
	comp=Z,530nm,1.0s						
YSS				pmax	pmax		
	comp=E,970nm,1.2s						
YSS				pmax	pmax		
	comp=E,11µm,8.0s						
YSS				pmax	pmax		
	comp=Z,13µm,8.0s						
YSS				pmax	pmax		
	comp=N,8µm,10.0s						
YSS				smax			
	comp=N,28µm,16.0s						
YSS				MLR	MLR		
	comp=E,35µm,14.0s						
YSS				MLR	MLR		
	comp=Z,99µm,14.0s						
YSS				MLR	MLR		
	comp=N,53µm,12.0s						
YSS	**Yuzh-Sakhalins**	**9.34**	**263**	*e*Pn	**P**	**06 48 37.2**	**+0.9**
YSS	**Yuzh-Sakhalins**	**9.34**	**263**	⇑*i*P	**P**	**06 48 37.0**	**+0.7**
YSS				⇑*i*P		06 48 37.0	
YSS				AMB	AMB	06 48 41.5	
	comp=N,290nm,1.1s						
YSS				AMB	AMB	06 48 41.5	
	comp=N,970nm,1.1s						
YSS				AMB	AMB	06 48 41.5	
	comp=N,530nm,1.1s						
YSS				AMB	AMB	06 48 41.8	
	comp=N,460nm,1.0s						
YSS				AMB	AMB	06 48 41.8	
	comp=N,220nm,1.2s						
YSS				AMB	AMB	06 48 41.8	
	comp=N,530nm,1.2s						
YSS				AMB	AMB	06 48 45.0	
	comp=N,6µm,9.5s						
YSS				AMB	AMB	06 48 45.0	
	comp=N,12µm,7.5s						
YSS				AMB	AMB	06 48 45.0	
	comp=N,15µm,7.5s						
YSS				AMB	AMB	06 48 46.0	
	comp=N,6µm,10.0s						
YSS				AMB	AMB	06 48 46.0	
	comp=N,12µm,8.0s						
YSS				AMB	AMB	06 48 46.0	
	comp=N,11µm,8.0s						
YSS				AMB	AMB	06 48 46.0	
	comp=N,13µm,8.0s						
YSS				AMB	AMB	06 48 46.0	
	comp=N,8µm,10.0s						
YSS				AMB	AMB	06 48 46.0	
	comp=N,17µm,9.0s						
YSS				*i* sP		06 48 52.0	
YSS				*e*S	**Sn**	**06 50 23.5**	**+1.4**
YSS				A		06 50 34.0	
	comp=N,28µm,16.0s						
YSS				A		06 50 34.0	
	comp=N,43µm,20.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,108µm,14.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,50µm,13.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,32µm,13.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,129µm,14.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,34µm,14.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,53µm,12.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,35µm,14.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,99µm,14.0s						
YSS				AMS	AMS	06 53 12.0	
	comp=N,53µm,12.0s						
UGL	**Uglegorsk**	**9.41**	**277**	⇑*i*PN	**P**	**06 48 37.2**	**-0.1**
UGL				S	**Sn**	**06 50 31.7**	**+7.9**
UGL				pmax	pmax		
	comp=N,225nm,1.0s						
UGL				pmax	pmax		
	comp=E,337nm,1.0s						
UGL				pmax	pmax		
	comp=Z,515nm,1.0s						
UGL				pmax	pmax		
	comp=N,6µm,8.0s						
UGL				pmax	pmax		
	comp=E,23µm,8.0s						
UGL				pmax	pmax		
	comp=Z,32µm,8.0s						
UGL				smax			
	comp=N,449nm,1.0s						
UGL				smax			
	comp=E,224nm,1.0s						
UGL	**Uglegorsk**	**9.41**	**277**	⇑*i*P	**P**	**06 48 37.2**	**-0.1**
UGL				*e*P		06 48 37.2	
UGL				AMB	AMB	06 48 41.0	
	comp=E,225nm,1.0s						
UGL				AMB	AMB	06 48 41.0	
	comp=E,337nm,1.0s						
UGL				AMB	AMB	06 48 41.0	
	comp=E,515nm,1.0s						
UGL				AMB	AMB	06 48 50.0	
	comp=E,6µm,8.0s						
UGL				AMB	AMB	06 48 50.0	
	comp=E,23µm,8.0s						
UGL				AMB	AMB	06 48 50.0	
	comp=E,32µm,8.0s						
UGL				A		06 50 39.0	
	comp=E,449nm,1.0s						
UGL				A		06 50 39.0	
	comp=E,224nm,1.0s						
OKH	**Okha**	**9.64**	**304**	*i* PN	**P**	**06 48 38.6**	**-1.7**
OKH				pmax	pmax		
	comp=E,21µm,9.0s						
OKH				pmax	pmax		
	comp=Z,26µm,9.0s						
OKH				pmax	pmax		
	comp=N,9µm,8.0s						
OKH	**Okha**	**9.64**	**304**	⇑*i*P	**P**	**06 48 38.6**	**-1.7**
OKH				*e*P		06 48 39.1	
OKH				AMB	AMB	06 48 43.0	
	comp=N,400nm,1.0s						
OKH				AMB	AMB	06 48 45.8	
	comp=N,9µm,8.0s						
OKH				AMB	AMB	06 48 45.8	
	comp=N,21µm,9.0s						
OKH				*e*S	**Sn**	**06 50 26.0**	**-3.3**
OKH				AMS	AMS	06 52 37.8	
	comp=N,194µm,17.0s						
OKH				AMS	AMS	06 52 37.8	
	comp=N,137µm,18.0s						
OKH				AMS	AMS	06 52 37.8	
	comp=N,183µm,18.0s						
ASAJ	**Asahikawa**	**10.62**	**249**	Pn	**P**	**06 48 53.5**	**-0.2**
	comp=N,12nm,0.3s,baz=80,slow=13,SNR=72						
ASAJ				LR	LR	06 52 48.3	
	comp=N,130µm,19.3s,baz=66,slow=37						
ASAJ	**Asahikawa**	**10.62**	**249**	PN	**P**	**06 48 53.5**	**-0.2**
ASAJ				pmax	pmax		
	comp=Z,12nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,130µm,19.3s						
NKL	**Nikolayevsk**	**10.77**	**299**	*i* P	**P**	**06 48 52.0**	**-3.8**
NKL				AMB	AMB	06 49 01.0	
	comp=Z,23µm,8.0s						
NKL				AMB	AMB	06 49 01.0	
	comp=Z,21µm,8.0s						
NKL				AMB	AMB	06 49 01.0	
	comp=Z,5µm,7.0s						
NKL				AMB	AMB	06 49 09.8	
	comp=Z,2µm,2.0s						
NKL				AMB	AMB	06 49 09.8	
	comp=Z,3µm,2.0s						
NKL				*e*S	**S**	**06 50 58.0**	**+1.1**
NKL				A		06 51 10.0	
	comp=Z,8µm,9.0s						
NKL				*e*L		06 52 07.0	
NKL				AMS	AMS	06 53 43.0	
	comp=Z,126µm,18.0s						
NKL				AMS	AMS	06 53 43.0	
	comp=Z,184µm,17.0s						
MA2	**Magadan**	**11.21**	**345**	*d i*PN	**P**	**06 49 00.9**	**-0.9**
MA2	**Magadan**	**11.21**	**345**	*e*Pn	**P**	**06 49 00.6**	**-1.2**
FX1	**Attu Island--F**	**11.34**	**63**	Pn	**P**	**06 49 02.0**	**-1.6**
	comp=Z,19nm,0.3s,baz=187,slow=11,SNR=44						
FX1				Sn	**S**	**06 50 57.7**	**-13**
	comp=Z,136nm,0.3s,baz=72,slow=22,SNR=13						
FX1	**Attu Island--F**	**11.34**	**63**	*e*Pn	**P**	**06 49 00.7**	**-2.8**
SMY	**Shemya**	**11.86**	**64**	*e*PN	**P**	**06 49 07.4**	**-3.2**
SMY				pmax	pmax		
	comp=Z,166nm,0.4s						
SMY	**Shemya**	**11.86**	**64**	*e*P	**P**	**06 49 07.4**	**-3.2**
	comp=Z,166nm,0.4s						
GRNR	**Gornyy**	**13.02**	**286**	*e*P	**P**	**06 49 29.4**	**+3.3**
GRNR				AMB	AMB	06 49 31.0	
	comp=Z,90nm,1.1s						
TEY	**Ternei**	**14.03**	**262**	*e*P	**P**	**06 49 38.0**	**-1.3**
TEY				AMB	AMB	06 49 42.0	
	comp=Z,80nm,1.0s						
TEY				AMB	AMB	06 49 42.0	
	comp=Z,200nm,1.3s						
TEY				AMB	AMB	06 49 42.0	
	comp=Z,250nm,1.3s						
TEY				AMB	AMB	06 49 42.0	
	comp=Z,80nm,1.3s						
TEY				AMB	AMB	06 49 52.0	
	comp=Z,25µm,10.0s						
TEY				AMB	AMB	06 49 52.0	
	comp=Z,32µm,10.0s						
TEY				AMB	AMB	06 49 52.0	
	comp=Z,7µm,9.0s						
SEY	**Seymchan**	**14.27**	**353**	*e*P	**P**	**06 49 40.6**	**-1.8**
SEY				*e*S	**S**	**06 52 15.4**	**-5.8**
EKMR	**Ekimchan**	**15.31**	**295**	*e*P	**P**	**06 49 55.0**	**-1.1**
EKMR				AMB	AMB	06 50 14.0	
	comp=Z,85nm,0.8s						
EKMR				AMB	AMB	06 50 14.0	
	comp=Z,130nm,0.8s						
EKMR				AMB	AMB	06 50 14.0	
	comp=Z,180nm,0.8s						
KLR	**Kul'dur**	**16.13**	**281**	*de*P	**P**	**06 50 04.8**	**-1.9**
KLR				*e*S	**S**	**06 53 10.0**	**+5.0**
KLR				pmax	pmax		
	comp=N,140nm,2.2s						
KLR				pmax	pmax		
	comp=Z,540nm,2.2s						
KLR				pmax	pmax		
	comp=N,6µm,10.0s						
KLR				pmax	pmax		
	comp=E,26µm,10.0s						
KLR				pmax	pmax		
	comp=Z,42µm,10.0s						
KLR				smax			
	comp=N,23µm,10.0s						
KLR				smax			
	comp=E,15µm,10.0s						
KLR	**Kul'dur**	**16.13**	**281**	*e*P	**P**	**06 50 04.8**	**-1.9**
KLR				⇓*i*P		06 50 05.0	
KLR				AMB	AMB	06 50 11.5	
	comp=E,140nm,2.2s						
KLR				AMB	AMB	06 50 11.5	
	comp=E,540nm,2.2s						
KLR				AMB	AMB	06 50 20.5	
	comp=E,6µm,10.0s						
KLR				AMB	AMB	06 50 20.5	
	comp=E,26µm,10.0s						
KLR				AMB	AMB	06 50 20.5	
	comp=E,42µm,10.0s						
KIWB	**Kanaga Island**	**17.12**	**70**	*e*P	**P**	**06 50 17.7**	**-1.5**
VLA	**Vladivostok**	**17.91**	**260**	⇓*i*P	**P**	**06 50 26.0**	**-3.1**
VLA				AMB	AMB	06 50 37.0	

	comp=E,11µm,13.0s						
BMKR	**Bomnak**	**17.93**	**299**	⇑*i*P	**P**	**06 50 26.0**	**-3.3**
BMKR				AMB	AMB	06 50 30.8	
	comp=E,64nm,0.7s						
BMKR				AMB	AMB	06 50 30.8	
	comp=E,115nm,0.7s						
BMKR				AMB	AMB	06 50 30.8	
	comp=E,124nm,0.7s						
MAJO	**Matsushiro**	**18.11**	**234**	Pn	**P**	**06 50 28.5**	**-3.1**
MAJO				Sn	**S**	**06 54 01.3**	**+11**
MAJO	**Matsushiro**	**18.11**	**234**	*e*P	**P**	**06 50 27.1**	**-4.5**
MAJO				pmax	pmax		
	comp=Z,255nm,0.9s						
MAJO	**Matsushiro**	**18.11**	**234**	*e*P	**P**	**06 50 27.1**	**-4.5**
	comp=Z,255nm,0.9s						
MAT	**Matsushiro**	**18.11**	**234**	P	**P**	**06 50 27.9**	**-3.7**
MAT				S	**S**	**06 53 52.0**	**+1.6**
MAT	**Matsushiro**	**18.11**	**234**	*e*P	**P**	**06 50 28.0**	**-3.6**
MAT				*e*S	**S**	**06 53 52.0**	**+1.6**
MAT				pmax	pmax		
	comp=Z,40nm,0.8s						
MAT	**Matsushiro**	**18.11**	**234**	*e*P	**P**	**06 50 28.0**	**-3.6**
	comp=Z,40nm,0.8s						
MAT				*e*S	**S**	**06 53 52.0**	**+1.6**
YASR	**Yasnyy**	**18.31**	**295**	*i* P	**P**	**06 50 30.4**	**-3.7**
YASR				pP		06 50 37.8	
ZEA	**Zeya**	**18.77**	**296**	⇑*e*P	**P**	**06 50 34.4**	**-5.2**
ZEA				⇑*e*P		06 50 34.7	
ZEA				AMB	AMB	06 50 42.7	
	comp=Z,330nm,1.8s						
ZEA				AMB	AMB	06 50 42.7	
	comp=Z,350nm,1.8s						
ZEA				AMB	AMB	06 50 42.7	
	comp=Z,420nm,1.8s						
ZEA				AMB	AMB	06 50 46.0	
	comp=Z,3µm,11.0s						
ZEA				AMB	AMB	06 50 46.0	
	comp=Z,19µm,11.0s						
ZEA				AMB	AMB	06 50 46.0	
	comp=Z,21µm,11.0s						
ZEA				sP		06 50 52.6	
ZEA				*e*S	**S**	**06 54 07.0**	**+1.7**
ZEA				A		06 54 27.0	
	comp=Z,7µm,13.0s						
ZEA				A		06 54 27.0	
	comp=Z,12µm,13.0s						
ZEA				AMS	AMS	06 58 34.0	
	comp=Z,47µm,15.0s						
ZEA				AMS	AMS	06 58 34.0	
	comp=Z,55µm,15.0s						
ZEA				AMS	AMS	06 58 34.0	
	comp=Z,76µm,18.0s						
ZEA				AMS	AMS	06 58 34.0	
	comp=Z,55µm,16.0s						
MDJ	**Mudanjiang**	**18.80**	**267**	P	**P**	**06 50 36.9**	**-3.1**
MDJ				AP		06 50 40.1	
MDJ				PP	PP	06 50 50.8	-5.4
MDJ				S	**S**	**06 54 06.9**	**+1.1**
MDJ				XS		06 54 15.6	
MDJ				SS	SS	06 54 30.4	-0.7
MDJ				AMB	AMB		
	comp=Z,231nm,1.6s						
MDJ				AMB	AMB		
	comp=Z,10µm,15.6s						
MDJ				LR	LR		
	comp=N,80µm,17.1s						
MDJ				LR	LR		
	comp=E,37µm,16.4s						
MDJ				LR	LR		
	comp=Z,85µm,16.4s						
MDJ	**Mudanjiang**	**18.80**	**267**	*e*P	**P**	**06 50 36.3**	**-3.7**
	comp=Z,834nm,1.6s						
KROS	**Kirovskiy**	**18.98**	**298**	*i* P	**P**	**06 50 36.9**	**-5.3**
KROS				AMB	AMB	06 50 46.0	
	comp=Z,6.0nm,0.5s						
KROS				AMB	AMB	06 50 46.0	
	comp=Z,29nm,0.5s						
KROS				AMB	AMB	06 50 46.0	
	comp=Z,36nm,0.5s						
KROS				sP		06 50 52.0	
BILL	**Bilibino**	**19.86**	**11**	⇑*i*P	**P**	**06 50 50.7**	**-1.4**
BILL				*e*S	**S**	**06 54 33.5**	**+4.1**
BILL				pmax	pmax		
	comp=Z,103nm,0.9s						
BILL				MLR	MLR		
	comp=Z,89µm,19.0s						
BILL	**Bilibino**	**19.86**	**11**	*e*P	**P**	**06 50 49.3**	**-2.9**
	comp=Z,177nm,0.8s						
YAK	**Yakutsk**	**19.87**	**321**	*c i*P	**P**	**06 50 48.9**	**-3.4**
YAK				*e*S	**S**	**06 54 32.0**	**+2.3**
YAK				pmax	pmax		
	comp=Z,230nm,0.9s						
YAK				pmax	pmax		
	comp=N,40nm,1.1s						
YAK				pmax	pmax		
	comp=E,93nm,1.1s						
YAK				smax			
	comp=N,7µm,13.7s						
YAK				smax			
	comp=Z,14µm,16.1s						
YAK				smax			
	comp=E,7µm,15.5s						
YAK				MLR	MLR		
	comp=E,48µm,15.0s						
YAK				MLR	MLR		
	comp=Z,55µm,15.0s						
YAK				MLR	MLR		
	comp=N,20µm,16.0s						
YAK	**Yakutsk**	**19.87**	**321**	*e*P	**P**	**06 50 49.0**	**-3.4**
	comp=N,514nm,0.8s						
JHJ	**Hachijo jima 2**	**20.04**	**224**	P	**P**	**06 50 53.0**	**-1.3**
	comp=N,1µm,0.9s,baz=214,slow=3.3,SNR=22						
JHJ				LR	LR	06 58 38.3	
	comp=N,13µm,19.3s,MS5.3,baz=212,slow=37						
CLNS	**Chul'man**	**20.46**	**305**	*e*P	**P**	**06 50 57.1**	**-1.4**
CLNS				*e*		06 51 13.0	
CLNS				*e*		06 54 45.1	
CLNS				pmax	pmax		
	comp=Z,154nm,0.8s						
CLNS				pmax	pmax		
	comp=N,66nm,0.9s						
CLNS				pmax	pmax		
	comp=E,98nm,0.9s						
CLNS				pmax	pmax		
	comp=E,113nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,247nm,0.9s						
CLNS				pmax	pmax		
	comp=N,183nm,1.0s						
CLNS				smax			
	comp=N,21µm,13.0s						
CLNS				smax			
	comp=Z,23µm,12.1s						
CLNS				smax			
	comp=E,1µm,10.1s						
CLNS				MLR	MLR		
	comp=E,67µm,14.0s,MS6.2						
CLNS				MLR	MLR		
	comp=Z,164µm,14.0s,MS6.5						
CLNS				MLR	MLR		
	comp=N,51µm,15.0s,MS6.2						
CN2	**Changchun**	**21.85**	**268**	⇑P	**P**	**06 51 07.8**	**-5.0**
CN2				*e*AP		06 51 11.3	
CN2				*e*S	**S**	**06 55 01.8**	**-6.8**
CN2				AMB	AMB		
	comp=Z,100nm,0.8s,mb5.3						
CN2				AMB	AMB		
	comp=Z,6µm,10.0s						
CN2				LR	LR		
	comp=N,93µm,16.0s,MS6.4						
CN2				LR	LR		
	comp=E,72µm,16.0s,MS6.4						
CN2				LR	LR		
	comp=Z,83µm,17.0s,MS6.2						
KS15	**Wonju Array Si**	**23.57**	**252**	*e*P	**P**	**06 51 28.9**	**-0.7**
HIA	**Hailar**	**23.86**	**285**	*e*P	**P**	**06 51 29.6**	**-2.7**
HIA				pmax	pmax		
	comp=Z,279nm,1.3s						
HIA				MLR	MLR		
	comp=Z,153µm,19.0s						
HIA	**Hailar**	**23.86**	**285**	*e*P	**P**	**06 51 29.6**	**-2.6**
	comp=Z,279nm,1.3s,mb5.5						
HIA				LR	LR		
	comp=Z,153µm,19.0s,MS6.5						
SNY	**Shenyang**	**23.96**	**265**	⇑*i*P	**P**	**06 51 32.3**	**-1.1**
SNY				XP		06 51 39.3	
SNY				PP	PP	06 52 08.0	+0.5
SNY				S	**S**	**06 55 49.3**	**+3.2**
SNY				XS		06 55 57.3	
SNY				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.8						
SNY				LR	LR		
	comp=N,36µm,12.4s,MS6.2						
SNY				LR	LR		
	comp=E,38µm,15.1s,MS6.2						
SNY				LR	LR		
	comp=Z,39µm,16.7s,MS6.0						
INCN	**Inchon**	**24.33**	**253**	*e*P	**P**	**06 51 36.7**	**-0.3**
	comp=Z,722nm,1.3s,mb5.9						
CBIJ	**Chichi jima**	**24.36**	**212**	P	**P**	**06 51 38.5**	**+1.0**
	comp=Z,185nm,0.8s,mb5.5,baz=37,slow=1.9,SNR=4.8						
ANM	**Nome**	**25.67**	**38**	*e*P	**P**	**06 51 50.7**	**+1.2**
BOD	**Bodaibo**	**26.43**	**306**	*e*P	**P**	**06 51 53.6**	**-3.0**
BOD				*e*		07 02 48.1	
DL2	**Dalian**	**26.74**	**261**	⇑*i*P	**P**	**06 51 58.4**	**-1.2**
DL2				AMB	AMB		
	comp=Z,100nm,1.3s,mb5.2						
DL2				AMB	AMB		
	comp=Z,3µm,11.2s						
DL2				LR	LR		
	comp=N,26µm,15.6s,MS5.9						
DL2				LR	LR		
	comp=E,15µm,19.2s,MS5.9						
DL2				LR	LR		
	comp=Z,21µm,16.0s,MS5.8						
BJI	**Beijing**	**29.72**	**268**	*e*P	**P**	**06 52 25.3**	**-1.3**
BJI				AMB	AMB		
	comp=Z,87nm,1.4s,mb5.3						
BJI				AMB	AMB		
	comp=Z,4µm,6.6s						
BJI				LR	LR		
	comp=N,79µm,17.6s,MS6.4						
BJI				LR	LR		
	comp=E,34µm,16.9s,MS6.4						
BJI				LR	LR		
	comp=Z,37µm,16.9s,MS6.1						
BJT	**Baijiatuau**	**29.74**	**268**	*e*P	**P**	**06 52 24.3**	**-2.5**
BJT				pmax	pmax		
	comp=Z,194nm,1.6s						
BJT				MLR	MLR		
	comp=Z,42µm,20.0s						
BJT	**Baijiatuau**	**29.74**	**268**	*e*P	**P**	**06 52 24.3**	**-2.5**
	comp=Z,194nm,1.6s,mb5.6						
BJT				LR	LR		
	comp=Z,42µm,20.0s,MS6.1						
IMA	**Indian Mountai**	**30.80**	**38**	*e*P	**P**	**06 52 36.0**	**+0.2**
IMA				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
IMA	**Indian Mountai**	**30.80**	**38**	*e*P	**P**	**06 52 36.0**	**+0.2**
	comp=Z,9.8nm,0.7s,mb4.8						
RSO	**Redoubt South**	**30.82**	**49**	*e*P	**P**	**06 52 35.7**	**-0.4**
KDAK	**Kodiak Island**	**31.07**	**54**	*e*P	**P**	**06 52 36.6**	**-1.8**
	comp=Z,45nm,0.8s,mb5.3						
KDAK				LR	LR		
	comp=Z,10µm,19.0s,MS5.5						
SPU	**Mount Spurr**	**31.15**	**47**	*e*P	**P**	**06 52 39.0**	**0.0**
TIA	**Tai'an**	**31.21**	**261**	⇑P	**P**	**06 52 37.6**	**-2.2**
TIA				S	**S**	**06 57 46.1**	**+2.0**
TIA				AMB	AMB		
	comp=Z,23nm,0.9s,mb5.0						
TIA				AMB	AMB		
	comp=Z,2µm,8.0s						
TIA				LR	LR		
	comp=N,10µm,14.5s,MS5.9						
TIA				LR	LR		
	comp=E,15µm,14.7s,MS5.9						
SSE	**Sheshan**	**31.91**	**249**	⇑P	**P**	**06 52 45.4**	**-0.6**
SSE				AP	pP	06 52 48.0	-2.7
SSE				XP	sP	06 52 49.6	-3.2
SSE				S	**S**	**06 57 54.1**	**-0.9**
SSE				XS		06 57 59.4	
SSE				AMB	AMB		
	comp=Z,153nm,1.4s,mb5.6						
SSE				AMB	AMB		
	comp=Z,4µm,8.4s						
SSE				LR	LR		
	comp=N,52µm,17.7s,MS6.3						
SSE				LR	LR		
	comp=E,16µm,17.7s,MS6.3						
SSE				LR	LR		
	comp=Z,56µm,17.8s,MS6.3						
ULN	**Ulaanbaatar**	**32.32**	**287**	*e*P	**P**	**06 52 47.2**	**-2.2**
ULN				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.1						
ULN	**Ulaanbaatar**	**32.32**	**287**	*e*P	**P**	**06 52 47.2**	**-2.1**
	comp=Z,42nm,1.2s,mb5.2						
HHC	**Hu-ho-hao-te**	**32.36**	**273**	*e*P	**P**	**06 52 48.4**	**-1.4**
HHC				AP	pP	06 52 53.0	-1.5
HHC				XP	sP	06 52 55.4	-1.2
HHC				PP	PP	06 53 55.3	-2.4
HHC				PCP	PcP	06 55 36.4	-1.2
HHC				S	**S**	**06 57 59.1**	**-2.9**
HHC				XS		06 58 06.3	
HHC				PCS		06 59 20.0	
HHC				SS	SS	06 59 53.1	-4.2
HHC				SCS	ScS	07 03 16.8	-0.4
HHC				AMB	AMB		
	comp=Z,176nm,1.4s,mb5.7						
HHC				AMB	AMB		
	comp=Z,3µm,11.2s						
HHC				LR	LR		
	comp=N,78µm,16.6s,MS6.5						
HHC				LR	LR		
	comp=E,44µm,16.6s,MS6.5						
HHC				LR	LR		
	comp=Z,55µm,17.8s,MS6.3						
PMR	**Palmer**	**32.55**	**46**	*e*P	**P**	**06 52 52.5**	**+1.3**
PMR				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.5						
PMR	**Palmer**	**32.55**	**46**	*e*P	**P**	**06 52 52.5**	**+1.3**
	comp=Z,65nm,1.1s,mb5.5						
MCK	**McKinley**	**32.61**	**42**	P	**P**	**06 52 51.3**	**-0.4**
MCK				pmax	pmax		
	comp=Z,72nm,1.5s,mb5.4						
MCK	**McKinley**	**32.61**	**42**	*e*P	**P**	**06 52 50.6**	**-1.2**
	comp=Z,72nm,1.6s,mb5.4						
MCK				LR	LR		
	comp=Z,20µm,19.0s,MS5.8						
IRK	**Irkutsk**	**32.68**	**296**	*e*P	**P**	**06 52 49.8**	**-2.7**
IRK				*e*		06 54 16.6	
NJ2	**Nanjing**	**32.72**	**253**	*e*P	**P**	**06 52 51.3**	**-1.7**
NJ2				AP	pP	06 52 59.6	+1.8
NJ2				XP	sP	06 53 03.8	+4.0
NJ2				PP	PP	06 54 00.4	-2.0
NJ2				PPP	PPP	06 54 15.5	-2.7
NJ2				S	**S**	**06 58 13.0**	**+5.4**
NJ2				AMB	AMB		
	comp=Z,200nm,1.3s,mb5.9						
NJ2				AMB	AMB		
	comp=Z,8µm,9.8s						
NJ2				LR	LR		
	comp=N,200µm,16.6s,MS6.9						
NJ2				LR	LR		
	comp=E,43µm,14.7s,MS6.9						
NJ2				LR	LR		
	comp=Z,540µm,18.9s,MS7.3						
SONM	**Songino Array**	**32.75**	**287**	P	**P**	**06 52 49.7**	**-3.3**
	comp=Z,6.2nm,0.9s,mb4.5,baz=65,slow=8.2,SNR=23						
SONM				PcP	PcP	06 55 38.1	-0.4
	comp=Z,7.9nm,0.8s,baz=97,slow=1.2,SNR=5.7						
SML	**Sawmill**	**32.92**	**46**	P	**P**	**06 52 53.9**	**-0.6**
SML	**Sawmill**	**32.92**	**46**	*e*P	**P**	**06 52 53.7**	**-0.8**
COLA	**College**	**33.11**	**40**	*e*P	**P**	**06 52 56.0**	**-0.1**
COLA				pmax	pmax		
	comp=Z,196nm,1.8s,mb5.7						
COLA	**College**	**33.11**	**40**	*e*P	**P**	**06 52 56.0**	**-0.1**
	comp=Z,196nm,1.8s,mb5.7						
TLY	**Talaya**	**33.21**	**295**	*e*P	**P**	**06 52 54.7**	**-2.4**
TLY				*e*S	**S**	**06 58 12.9**	**-2.2**
TLY				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.4						
TLY				MLR	MLR		
	comp=Z,60µm,17.0s,MS6.4						
TLY	**Talaya**	**33.21**	**295**	*e*P	**P**	**06 52 54.9**	**-2.2**
	comp=Z,68nm,1.0s,mb5.5						
BTO	**Baotou**	**33.50**	**273**	*e*P	**P**	**06 52 57.5**	**-2.2**
BTO				S	**S**	**06 58 20.3**	**+0.6**
BTO				AMB	AMB		
	comp=Z,64nm,1.5s,mb5.3						
BTO				LR	LR		
	comp=N,5µm,14.1s,MS5.7						
BTO				LR	LR		
	comp=E,8µm,11.3s,MS5.7						
ILAR	**Eielson Array**	**33.52**	**40**	P	**P**	**06 52 58.4**	**-1.2**
	comp=E,8.3nm,0.9s,mb4.7,baz=247,slow=7.9,SNR=120						
ZAK	**Zakamensk**	**33.82**	**293**	⇑*i*P	**P**	**06 53 00.2**	**-2.2**
ZAK				*e*		06 54 25.1	
ZAK				*e*		06 55 40.9	
THY	**Trims Highway**	**34.04**	**43**	*e*P	**P**	**06 53 04.6**	**+0.4**
DIV	**Divide**	**34.20**	**47**	*e*P	**P**	**06 53 05.3**	**-0.3**
	comp=E,185nm,0.8s,mb6.1						
DIV				LR	LR		
	comp=Z,91µm,22.0s,MS6.5						
EYAK	**Cordova Ski Ar**	**34.27**	**48**	*e*P	**P**	**06 53 05.8**	**-0.4**
MOY	**Mondy**	**34.79**	**296**	*e*P	**P**	**06 53 09.4**	**-1.4**
MENT	**Mentasta**	**34.99**	**44**	*e*P	**P**	**06 53 13.4**	**+1.1**
WHN	**Wuhan**	**36.59**	**256**	⇑*i*P	**P**	**06 53 23.8**	**-2.4**
WHN				S	**S**	**06 59 04.0**	**-3.5**
WHN				LR	LR		
	comp=N,45µm,14.5s,MS6.6						
WHN				LR	LR		
	comp=E,56µm,16.1s,MS6.6						
WHN				LR	LR		
	comp=Z,63µm,15.7s,MS6.5						
DAWY	**Dawson**	**36.80**	**41**	*e*P	**P**	**06 53 27.4**	**-0.3**
XAN	**Xi'an**	**37.88**	**265**	P	**P**	**06 53 35.1**	**-2.0**
XAN				PP	PP	06 55 02.3	-4.5
XAN				S	**S**	**06 59 28.8**	**+1.4**
XAN				LR	LR		
	comp=N,26µm,15.8s,MS6.2						
XAN				LR	LR		
	comp=E,12µm,17.3s,MS6.2						
XAN				LR	LR		
	comp=Z,37µm,15.6s,MS6.3						
XAN	**Xi'an**	**37.88**	**265**	P	**P**	**06 53 35.1**	**-2.0**
QZH	**Quanzhou**	**37.93**	**245**	⇑*i*P	**P**	**06 53 35.8**	**-1.7**
QZH				PP	PP	06 55 05.3	-2.1
QZH				S	**S**	**06 59 24.8**	**-3.4**
QZH				AMB	AMB		
	comp=Z,390nm,1.5s,mb5.9						
QZH				AMB	AMB		
	comp=Z,9µm,9.4s						
QZH				LR	LR		
	comp=N,71µm,13.6s,MS6.7						
QZH				LR	LR		
	comp=E,37µm,13.2s,MS6.7						
QZH				LR	LR		
	comp=Z,40µm,18.2s,MS6.3						
INK	**Inuvik**	**38.68**	**34**	P	**P**	**06 53 43.9**	**+0.5**
	comp=Z,22nm,0.7s,mb5.0,baz=288,slow=7.0,SNR=98						
INK	**Inuvik**	**38.68**	**34**	P	**P**	**06 53 43.9**	**+0.5**
INK				pmax	pmax		
	comp=Z,22nm,0.7s						
INK	**Inuvik**	**38.68**	**34**	*e*P	**P**	**06 53 43.6**	**+0.2**
	comp=Z,129nm,1.1s,mb5.6						
ENH	**Enshi**	**39.90**	**260**	*e*P	**P**	**06 53 52.2**	**-1.7**
	comp=Z,493nm,1.2s,mb6.1						
ENH				LR	LR		
	comp=Z,21µm,19.0s,MS6.0						
LZH	**Lanzhou**	**40.02**	**272**	⇑P	**P**	**06 53 54.3**	**-0.6**
LZH				AP	pP	06 53 57.5	-2.2
LZH				XP	sP	06 53 59.1	-2.6
LZH				PP	PP	06 55 29.6	-1.2
LZH				S	**S**	**06 59 58.3**	**-1.3**
LZH				XS		07 00 05.3	
LZH				SS	SS	07 02 47.5	-3.1
LZH				AMB	AMB		
	comp=Z,467nm,1.2s,mb6.1						
LZH				AMB	AMB		
	comp=Z,4µm,6.3s						
LZH				LR	LR		
	comp=N,30µm,13.8s						
LZH				LR	LR		
	comp=Z,46µm,15.7s,MS6.4						
SIT	**Sitka**	**40.33**	**52**	PFAKE		06 54 10.0	+13
SIT				LR	LR		
	comp=Z,23µm,19.0s,MS6.0						
GTA	**Gaotai**	**40.82**	**279**	⇑P	**P**	**06 54 00.4**	**-1.0**
GTA				AP	pP	06 54 04.3	-1.9
GTA				XP	sP	06 54 06.6	-1.6
GTA				PP	PP	06 55 38.4	-0.3
GTA				PCP	PcP	06 56 02.0	-0.9
GTA				SCP		06 59 51.9	
GTA				PCS		06 59 54.4	
GTA				S	**S**	**07 00 08.0**	**-3.4**
GTA				XS		07 00 17.1	
GTA				SS	SS	07 03 01.5	-6.4
GTA				SCS	ScS	07 04 03.8	-0.2
GTA				AMB	AMB		
	comp=Z,36nm,0.9s,mb5.0						
GTA				AMB	AMB		
	comp=Z,4µm,6.5s						
GTA				LR	LR		
	comp=N,62µm,15.2s,MS6.8						
GTA				LR	LR		
	comp=E,73µm,16.0s,MS6.8						
GTA				LR	LR		
	comp=Z,103µm,15.6s,MS6.8						
CVP	**Callao Caves**	**41.81**	**234**	⇓*e*P	**P**	**06 54 09.0**	**-0.7**
	comp=Z,17µm,5.0s						
DLBC	**Dease Lake**	**42.54**	**48**	P	**P**	**06 54 17.0**	**+1.8**
	comp=Z,29nm,0.8s,mb5.0,baz=293,slow=8.8,SNR=36						
DLBC	**Dease Lake**	**42.54**	**48**	*e*P	**P**	**06 54 16.6**	**+1.4**
HKC	**Hong Kong**	**42.58**	**247**	⇑*i*P	**P**	**06 54 18.0**	**+2.1**
HKC				*i* S	**S**	**07 00 40.0**	**+2.4**
ZAL	**Zalesovo**	**43.19**	**305**	P	**P**	**06 54 18.1**	**-2.4**
	comp=Z,9.4nm,0.5s,mb4.8,baz=49,slow=7.0,SNR=33						
ZAL				PcP	PcP	06 56 08.8	-1.7
	comp=Z,18nm,1.1s,baz=43,slow=5.0,SNR=6.3						
ZAL				LR	LR	07 14 01.0	
	comp=Z,45µm,18.9s,MS6.4,baz=46,slow=39						
ZAL	**Zalesovo**	**43.19**	**305**	P	**P**	**06 54 18.1**	**-2.4**
ZAL				PcP	PcP	06 56 08.8	-1.7
ZAL				LR	LR	07 14 01.1	
CD2	**Chengdu**	**43.24**	**265**	⇑*i*P	**P**	**06 54 20.4**	**-0.9**
CD2				PPP	PPP	06 56 34.8	-4.5
CD2				S	**S**	**07 00 42.3**	**-4.9**
CD2				SS	SS	07 03 50.6	-3.2
CD2				SCS	ScS	07 04 18.6	-0.1
CD2				AMB	AMB		
	comp=Z,230nm,1.4s,mb5.7						
CD2				AMB	AMB		
	comp=Z,6µm,10.3s						
CD2				LR	LR		
	comp=N,43µm,15.6s						
CD2				LR	LR		
	comp=Z,46µm,16.8s,MS6.5						
NVS	**Novosibirsk**	**43.66**	**307**	*i* P	**P**	**06 54 21.0**	**-3.3**
NVS				*e*		06 56 14.2	
NVS				*i* S	SS	07 04 14.4	+13
NVS				pmax	pmax		
	comp=N,189nm,2.0s						
NVS				pmax	pmax		
	comp=E,351nm,2.0s						
NVS				pmax	pmax		
	comp=Z,386nm,2.0s,mb5.8						
GYA	**Guiyang**	**44.31**	**258**	⇑*i*P	**P**	**06 54 29.3**	**-0.7**
GYA				LR	LR		
	comp=N,33µm,20.3s,MS6.3						
GYA				LR	LR		
	comp=E,16µm,20.3s,MS6.3						
GYA				LR	LR		
	comp=Z,15µm,19.1s,MS5.9						
TGY	**Tagaytay City**	**45.27**	**232**	P	**P**	**06 54 39.2**	**+1.4**
	comp=Z,466nm,0.9s,mb6.3,baz=271,slow=3.5,SNR=16						
KIP	**Kipapa**	**45.33**	**111**	PFAKE		06 54 50.0	+12
KIP				LR	LR		
	comp=Z,25µm,19.0s,MS6.2						
QIZ	**Qiongzhong**	**47.69**	**248**	⇑*i*P	**P**	**06 54 56.6**	**-0.3**
QIZ				AP	pP	06 55 00.4	-1.4
QIZ				XP	sP	06 55 03.9	+0.2
QIZ				PP	PP	06 56 49.8	+1.8
QIZ				S	**S**	**07 01 50.8**	**-0.3**
QIZ				XS		07 01 58.9	
QIZ				AMB	AMB		
	comp=Z,3µm,11.3s						
QIZ				LR	LR		
	comp=N,20µm,19.6s,MS6.4						
QIZ				LR	LR		
	comp=E,32µm,16.9s,MS6.4						
QIZ				LR	LR		
	comp=Z,42µm,17.3s,MS6.5						
QIZ	**Qiongzhong**	**47.69**	**248**	*e*P	**P**	**06 54 57.9**	**+1.0**
	comp=Z,158nm,1.3s,mb5.9						
QIZ				LR	LR		
	comp=Z,27µm,19.0s,MS6.2						
KMI	**Kunming**	**47.77**	**260**	*e*P	**P**	**06 54 56.9**	**-0.6**

KMI				AP	pP	06 54 59.9	-2.5
KMI				PP	PP	06 56 48.3	-0.4
KMI				PPP	PPP	06 57 35.5	-2.8
KMI				S	S	07 01 49.6	-2.6
KMI				SS	SS	07 05 16.8	+1.6
KMI				AMB	AMB		
	comp=Z,164nm,1.5s,mb5.8						
KMI				AMB	AMB		
	comp=Z,3µm,7.7s						
KMI				LR	LR		
	comp=N,32µm,18.5s,MS6.4						
KMI				LR	LR		
	comp=E,14µm,16.5s,MS6.4						
KMI				LR	LR		
	comp=Z,20µm,20.6s,MS6.1						
YKW3	Yellowknife Ar	47.87	39	eP	P	06 54 57.3	-0.4
YKA	Yellowknife Ar	47.91	39	P	P	06 54 57.8	-0.1
	comp=Z,26nm,0.8s,mb5.3,baz=295,slow=7.6,SNR=117						
YKA	Yellowknife Ar	47.91	39	P	P	06 54 57.9	-0.1
POHA	Pohakuloa	48.11	110	PFAKE		06 55 10.0	+10
POHA				LR	LR		
	comp=Z,1.0nm,22.0s						
RES	Resolute Bay	48.11	20	P	P	06 54 59.9	+0.4
RES				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.4						
RES	Resolute Bay	48.11	20	eP	P	06 54 59.6	+0.1
	comp=Z,51nm,1.0s,mb5.5						
DAV	Davao City (W)	49.10	222	eP	P	06 55 09.5	+1.7
PGC	Sidney	50.45	58	eP	P	06 55 17.0	-0.7
	comp=Z,62nm,1.3s,mb5.5						
OCWA	Octopus Mounta	50.52	59	PFAKE		06 55 30.0	+12
OCWA				LR	LR		
	comp=Z,9µm,19.0s,MS5.8						
BVAR	Borovoye Array	51.21	309	P	P	06 55 21.2	-2.3
	comp=Z,28nm,0.8s,mb5.3,baz=63,slow=8.2,SNR=63						
BVAR				PcP	PcP	06 56 38.8	-0.1
	comp=Z,18nm,0.6s,baz=92,slow=2.5,SNR=5.7						
BRVK	Borovoye	51.24	309	P	P	06 55 21.5	-2.2
BRVK				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.5						
BRVK	Borovoye	51.24	309	eP	P	06 55 21.1	-2.6
	comp=Z,61nm,0.8s,mb5.6						
BRVK				LR	LR		
	comp=Z,6µm,19.0s,MS5.6						
LSA	Lhasa	52.34	274	P	P	06 55 32.5	+0.2
LSA				PPP	PPP	06 58 26.0	-10
LSA				XS		07 03 02.1	
LSA				LR	LR		
	comp=E,21µm,15.0s						
COR	Corvallis	52.80	62	PFAKE		06 55 50.0	+14
COR				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
TBM	Table Mountain	52.87	58	P	P	06 55 35.6	-0.4
AAA	Alma-Ata	53.02	296	eP	P	06 55 38.0	+0.7
AAA				pmax	pmax		
	comp=Z,3µm,5.0s						
EBG	Ellensburg	53.03	58	P	P	06 55 37.4	+0.1
SSOR	Sweet Springs	53.13	61	P	P	06 55 38.2	+0.2
EDM	Edmonton	53.27	49	eP	P	06 55 38.1	-0.8
EDM	Edmonton	53.27	49	eP	P	06 55 37.9	-1.0
NANT	Nan	53.61	256	⇑P	PcP	06 56 39.0	-9.3
BJO	Bjornoya	53.62	347	eP	P	06 55 40.6	-0.6
BJO				AMS	AMS	07 23 58.6	
	comp=Z,10µm,16.5s,MS6.0						
IMP	Imphal	53.79	267	⇓iP	P	06 55 41.3	-1.8
OD2	Odessa Site #2	53.79	57	P	P	06 55 42.1	-0.7
SOKR	Solikamsk	53.81	322	⇓iP	P	06 55 40.9	-1.8
SOKR				i S	S	07 03 22.3	+7.2
SOKR				SS	SS	07 07 01.7	+6.0
SOKR				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,17µm,18.0s,MS6.2						
CROR	Criterion Ridg	53.91	61	P	P	06 55 43.8	+0.1
HAWA	Hanford	53.91	58	eP	P	06 55 43.2	-0.5
	comp=Z,14nm,0.9s,mb4.9						
HAWA				LR	LR		
	comp=Z,7µm,19.0s,MS5.8						
TKM2	Tokmak 2	54.03	296	P	P	06 55 41.4	-3.2
	SNR=17						
NEW	Newport	54.16	55	P	P	06 55 45.1	-0.4
NEW				pmax	pmax		
	comp=Z,75nm,1.8s						
NEW	Newport	54.16	55	eP	P	06 55 43.1	-2.4
	comp=Z,25nm,1.0s,mb5.1						
NEW				LR	LR		
	comp=Z,11µm,20.0s,MS5.9						
HUMO	Hull Mountain	54.16	64	eP	P	06 55 46.3	+0.7
	comp=Z,8.4nm,0.6s,mb4.8						
HUMO				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
USP	Ospenovka	54.47	297	P	P	06 55 46.2	-1.6
	SNR=35						
CHMS	Chumysh	54.48	297	P	P	06 55 46.1	-1.8
	SNR=19						
KBK	Karagaybulak	54.57	296	P	P	06 55 47.1	-1.5
	SNR=21						
DAG	Danmarks Havn	54.60	359	⇓iP	P	06 55 47.0	-1.4
DAG				pmax	pmax		
	comp=Z,91nm,1.2s,mb5.7						
DAG				MLR	MLR		
	comp=Z,18µm,17.0s,MS6.2						
DAG	Danmarks Havn	54.60	359	⇓iP	P	06 55 47.0	-1.4
	comp=Z,91nm,1.2s,mb5.7						
	comp=Z,18µm,17.0s						
SHL	Shillong	54.60	269	⇑eP	P	06 55 49.0	-0.1
SHL				eS	S	07 03 28.0	+1.7
FRU	Bishkek	54.66	297	eP	P	06 55 47.0	-2.3
FRU				e		06 59 08.0	
FRU				pmax	pmax		
	comp=Z,140nm,1.6s,mb5.7						
FRU				MLR	MLR		
	comp=Z,29µm,18.0s,MS6.4						
CHG	Chiang Mai	54.73	258	⇑P	P	06 55 49.4	-0.7
	comp=Z,150nm,1.0s,mb6.0						
KHMM	Horse Mountain	54.73	66	eP	P	06 55 50.5	+0.6
KZA	Kyzart	54.74	296	P	P	06 55 49.0	-0.8
	SNR=23						
YBH	Yreka Blue Hor	54.83	65	P	P	06 55 51.1	+0.6
	comp=Z,8.5nm,0.7s,mb4.9,baz=337,slow=3.2,SNR=30						
YBH	Yreka Blue Hor	54.83	65	P	P	06 55 51.3	+0.8
YBH				pmax	pmax		
	comp=Z,16nm,1.0s						
YBH	Yreka Blue Hor	54.83	65	eP	P	06 55 51.0	+0.5
	comp=Z,17nm,0.9s,mb5.1						
AAK	Ala-Archa	54.85	297	P	P	06 55 49.0	-1.7
	SNR=25						
AAK	Ala-Archa	54.85	297	⇑eP	P	06 55 47.9	-2.8
AAK				pmax	pmax		
	comp=Z,53nm,1.4s,mb5.4						
AAK				MLR	MLR		
	comp=Z,64µm,14.0s,MS6.8						
AAK	Ala-Archa	54.85	297	eP	P	06 55 47.6	-3.1
	comp=Z,37nm,1.0s,mb5.4						
AAK				LR	LR		
	comp=Z,14µm,19.0s,MS6.1						
ARU	Arti	54.93	318	⇓iP	P	06 55 48.4	-2.6
ARU				i		06 56 49.6	
ARU				i		06 57 48.9	
ARU				i S	S	07 03 26.6	-3.5
ARU				pmax	pmax		
	comp=Z,104nm,0.9s,mb5.9						
ARU				MLR	MLR		
	comp=E,16µm,18.0s,MS6.3						
ARU				MLR	MLR		
	comp=Z,23µm,18.0s,MS6.3						
ARU				MLR	MLR		
	comp=N,14µm,17.0s,MS6.3						
ARU	Arti	54.93	318	eP	P	06 55 48.3	-2.7
	comp=N,46nm,0.6s,mb5.7						
CM31	Chiang Mai Arr	54.99	258	eP	P	06 55 50.4	-1.6
	comp=N,103nm,0.9s,mb5.9						
CM31				LR	LR		
	comp=Z,29µm,20.0s,MS6.3						
CMAR	Chiang Mai Arr	54.99	258	P	P	06 55 51.5	-0.5
	comp=Z,99nm,1.1s,mb5.7,baz=34,slow=7.3,SNR=80						
CMAR				LR	LR	07 20 30.8	
	comp=Z,24µm,19.6s,MS6.3,baz=60,slow=37						
UCH	Uchtor	55.09	296	P	P	06 55 50.9	-1.6
	SNR=8.3						
EKS2	Erkin-Say	55.26	297	P	P	06 55 52.0	-1.7
	SNR=25						
WALA	Waterton Lakes	55.41	53	eP	P	06 55 53.8	-0.8
	comp=Z,37nm,0.9s,mb5.4						
AML	Almayashu	55.63	297	P	P	06 55 55.7	-0.7
	SNR=15						
WDC	Whiskeytown Da	55.63	66	P	P	06 55 57.4	+1.0
WDC				pmax	pmax		
	comp=Z,23nm,0.5s,mb5.5						
WDC	Whiskeytown Da	55.63	66	eP	P	06 55 56.1	-0.2
	comp=Z,23nm,0.5s,mb5.5						
LVZ	Lovozero	55.68	337	eP	P	06 55 55.5	-0.9
LVZ				i		06 57 59.8	
LVZ				eS	S	07 03 46.6	+6.5
LVZ				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.6						
LVZ				pmax	pmax		
	comp=N,13nm,0.8s						
LVZ				pmax	pmax		
	comp=E,19nm,1.0s						
LVZ				smax			
	comp=N,905nm,4.0s						
LVZ				smax			
	comp=Z,1µm,4.9s						
LVZ				smax			
	comp=E,1µm,5.4s						
LVZ				MLR	MLR		
	comp=E,31µm,18.0s,MS6.4						
LVZ				MLR	MLR		
	comp=Z,41µm,18.0s,MS6.6						
LVZ				MLR	MLR		
	comp=N,11µm,22.0s,MS6.4						
LVZ	Lovozero	55.68	337	i P	P	06 55 55.6	-0.8
KSH	Kashi	55.86	293	P	P	06 55 55.8	-2.2
KSH				eAP	pP	06 56 01.1	-1.9
KSH				XP	sP	06 56 02.4	-2.5
KSH				ePCP	PcP	06 56 56.3	-0.4
KSH				PP	PP	06 58 01.4	-2.9
KSH				PPP	PPP	06 59 15.6	-3.8
KSH				eSCP		07 00 54.0	
KSH				PCS		07 00 55.5	
KSH				S	S	07 03 38.3	-4.6
KSH				PS	PS	07 03 50.5	-6.1
KSH				SCS	ScS	07 05 40.5	-2.7
KSH				SS	SS	07 07 21.1	-7.8
KSH				AMB	AMB		
	comp=Z,340nm,7.6s						
KSH				LR	LR		
	comp=N,45µm,17.6s,MS6.8						
KSH				LR	LR		
	comp=E,49µm,15.0s,MS6.8						
KEV	Kevo	56.06	341	ep	P	06 55 55.6	-3.5
	comp=E,8.0nm,0.6s,mb4.9						
KEV	Kevo	56.06	341	eP	P	06 55 55.6	-3.5
KEV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
BMO	Blue Mountains	56.08	59	eP	P	06 55 59.0	-0.6
	comp=Z,15nm,1.0s,mb5.0						
BMO				LR	LR		
	comp=Z,9µm,19.0s,MS5.9						
MOD	Modoc	56.15	63	eP	P	06 55 59.5	-0.6
	comp=Z,37nm,0.9s,mb5.4						
NST	Nakhon Sawan	56.28	254	P	P	06 56 04.0	+2.7
HOPS	Hopland	56.29	68	PFAKE		06 56 10.0	+8.9
HOPS				LR	LR		
	comp=Z,9µm,19.0s,MS5.9						
ARCES	ARCESS Array B	56.56	341	P	P	06 56 00.3	-2.3
	comp=Z,12nm,0.8s,mb5.0,baz=40,slow=5.7,SNR=17						
ARCES				LR	LR	07 25 36.4	
	comp=Z,36µm,18.1s,MS6.5,baz=31,slow=42						
ARCES	ARCESS Array B	56.56	341	P	P	06 56 00.3	-2.3
ARCES				LR	LR	07 25 36.4	
ARE0	ARCESS Array S	56.56	341	eP	P	06 55 60.0	-2.7
MSO	Missoula	56.74	55	eP	P	06 56 03.6	-0.6
	comp=Z,14nm,1.1s,mb4.9						
MSO				LR	LR		
	comp=Z,6µm,20.0s,MS5.7						
NSHM	Saint Helena R	56.87	68	eP	P	06 56 05.2	-0.1
GUN	Gumba	56.98	276	eP	P	06 56 05.2	-1.1
	comp=Z,380nm,0.9s,mb6.5						
OHCM	Honcut	57.04	66	eP	P	06 56 05.5	-1.0
KTK1	Kautokeino	57.46	342	eP	P	06 56 07.4	-1.6
KTK1				AMb	AMB	06 56 21.5	
	comp=Z,90nm,1.6s,mb5.5						
KTK1	Kautokeino	57.46	342	eP	P	06 56 07.4	-1.6
	comp=Z,90nm,1.6s,mb5.5						
KKN	Kakani	57.46	276	eP	P	06 56 08.5	-1.1
	comp=Z,2µm,1.5s						
PKI	Pulchoki	57.52	276	eP	P	06 56 09.1	-1.0
	comp=Z,1µm,1.4s						
DMN	Daman	57.70	276	eP	P	06 56 10.6	-0.7
	comp=Z,2µm,1.4s						
GKN	Gorkha	57.74	277	eP	P	06 56 10.7	-0.9
	comp=Z,2µm,1.2s						
TRO	Tromso	57.78	344	eP	P	06 56 07.6	-3.6
TRO				AMb	AMB	06 56 17.6	
	comp=Z,66nm,1.7s,mb5.4						
TRO				eS	S	07 04 10.7	+2.8
TRO				AMS	AMS	07 25 43.0	
	comp=Z,10µm,21.3s,MS5.9						
TRO	Tromso	57.78	344	eP	P	06 56 07.6	-3.6
	comp=Z,66nm,1.7s,mb5.4						
HRY	Holter Researc	57.95	54	eP	P	06 56 12.9	+0.1
WCN	Washoe City	58.10	65	P	P	06 56 13.7	-0.2
WCN				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
WCN	Washoe City	58.10	65	eP	P	06 56 13.2	-0.7
	comp=Z,14nm,0.9s,mb5.0						
FCC	Fort Churchill	58.27	35	P	P	06 56 13.9	-1.0
FCC				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
FCC	Fort Churchill	58.27	35	eP	P	06 56 13.7	-1.2
	comp=Z,31nm,0.9s,mb5.3						
SUMG	Summit	58.41	5	eP	P	06 56 15.4	-0.2
	comp=Z,160nm,1.0s,mb6.0						
HLID	Hailey	58.52	58	eP	P	06 56 16.2	-0.5
	comp=Z,55nm,1.7s,mb5.3						
HLID				LR	LR		
	comp=Z,9µm,20.0s,MS5.9						
CMB	Columbia Colle	58.53	67	P	P	06 56 17.1	+0.2
CMB				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb5.0						
CMB	Columbia Colle	58.53	67	eP	P	06 56 16.0	-0.9
	comp=Z,5.5nm,0.4s,mb4.9						
CMB				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
KOLN	Koldanda	58.57	277	eP	P	06 56 16.5	-0.9
	comp=Z,597nm,1.2s,mb6.5						
MCMT	McKenzie Canyo	58.59	56	eP	P	06 56 17.0	-0.2
PMG	Port Moresby	58.59	191	P	P	06 56 17.1	-0.5
	comp=Z,21nm,0.7s,mb5.3,baz=338,slow=7.5,SNR=7.9						
PMG	Port Moresby	58.59	191	eP	P	06 56 15.1	-2.6
PMG				pmax	pmax		
	comp=Z,149nm,1.2s						
PMG				MLR	MLR		
	comp=Z,9µm,19.0s						
PMG	Port Moresby	58.59	191	eP	P	06 56 15.1	-2.5
	comp=Z,149nm,1.2s,mb5.9						
PMG				LR	LR		
	comp=Z,9µm,19.0s,MS5.9						
BOZ	Bozeman (W)	58.73	55	P	P	06 56 18.4	+0.2
BOZ				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
BOZ	Bozeman (W)	58.73	55	eP	P	06 56 18.6	+0.3
	comp=Z,81nm,1.3s,mb5.6						
BOZ				LR	LR		
	comp=Z,21µm,19.0s,MS6.3						
NNT	Nongplab	58.86	252	P	P	06 56 20.2	+0.7
BMN	Battle Mountai	58.89	63	P	P	06 56 20.0	+0.6
BMN				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
BMN	Battle Mountai	58.89	63	eP	P	06 56 19.5	+0.1
	comp=Z,15nm,0.8s,mb5.1						
BMN				LR	LR		
	comp=Z,9µm,19.0s,MS5.9						
CAL	Calcutta	59.03	269	e	P	06 56 24.9	+4.2
CAL				e		06 56 27.7	
QLMT	Earthquake Lak	59.36	56	eP	P	06 56 22.9	+0.2
NVAR	Mina Array Bea	59.53	65	P	P	06 56 23.6	-0.3
	comp=Z,11nm,0.8s,mb4.9,baz=304,slow=5.3,SNR=58						
NVAR				PKP2bc		07 26 03.1	
	comp=Z,1.7nm,1.1s,baz=149,slow=3.1,SNR=4.7						
NVAR	Mina Array Bea	59.53	65	P	P	06 56 23.6	-0.3
NVAR				⇑e		07 26 03.1	
PTH	Pithoragarh	59.59	281	eP	P	06 56 26.0	+1.6
MNV	Mina	59.62	65	P	P	06 56 24.2	-0.3
MNV				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
MNV	Mina	59.62	65	eP	P	06 56 23.3	-1.2
	comp=Z,37nm,1.2s,mb5.3						
MNV				LR	LR		
	comp=Z,10µm,19.0s,MS6.0						
LGTI	Lohaghat	59.64	281	eP	P	06 56 25.0	+0.3
YMR	Madison River	59.72	56	eP	P	06 56 25.5	+0.4
BOK	Bokaro	59.78	272	⇑iP	P	06 56 25.3	-0.5
BOK				i	pP	06 56 28.9	-1.9
ELK	Elko	59.84	61	P	P	06 56 26.6	+0.6
ELK				pmax	pmax		
	comp=Z,15nm,0.9s						
ELK	Elko	59.84	61	eP	P	06 56 26.0	0.0
	comp=Z,16nm,0.8s,mb5.1						
ELK				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
YNR	Norris Junctio	59.84	55	eP	P	06 56 27.2	+1.2
YFT	Old Faithful	59.93	56	eP	P	06 56 27.3	+0.7
JMIC	Jan Mayen	59.96	354	LR	LR	07 21 20.3	
	comp=Z,6µm,19.1s,MS5.8,baz=281,slow=35						
JMIC	Jan Mayen	59.96	354	eP	P	06 56 29.2	+2.8
JMIC				eS	S	07 04 44.1	+7.9
JMIC				AMS	AMS	07 28 32.0	
	comp=Z,5µm,12.5s,MS5.9						
MTUM	Tungsten Hills	60.07	66	eP	P	06 56 27.6	0.0
LKWY	Lake	60.09	55	eP	P	06 56 30.3	+2.6
LKWY				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.5						
LKWY				MLR	MLR		
	comp=Z,20µm,19.0s,MS6.3						
LKWY	Lake	60.09	55	eP	P	06 56 30.3	+2.6
	comp=Z,37nm,0.8s,mb5.5						
LKWY				LR	LR		
	comp=Z,20µm,19.0s,MS6.3						
IMW	Indian Meadow	60.23	56	eP	P	06 56 29.4	+0.8
DLH	Dalhousie	60.33	287	eP	P	06 56 30.0	+0.6
SDNR	Sundarnagar	60.38	285	eP	P	06 56 28.0	-1.8
	comp=Z,93nm,0.6s,mb6.0						
JOF	Joensuu	60.39	334	ep	P	06 56 26.4	-3.0
	comp=Z,18nm,0.6s,mb5.3						
TPH	Tonopah	60.41	65	P	P	06 56 29.5	-0.4
TPH				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
TPH	Tonopah	60.41	65	eP	P	06 56 29.1	-0.8
	comp=Z,15nm,0.9s,mb5.0						
TPH				LR	LR		
	comp=Z,5µm,19.0s,MS5.6						
MOOW	Moose Ponds	60.44	56	eP	P	06 56 30.7	+0.7
DDI	Dehra Dun	60.47	283	eP	P	06 56 27.1	-3.3
TPAW	Teton Pass	60.49	57	eP	P	06 56 31.5	+1.1
SMLA	Simla	60.50	285	i		07 04 55.4	
THN	Thein Dam	60.56	287	eP	P	06 56 27.3	-3.7
WUWY	Wally Ulrich	60.57	56	eP	P	06 56 31.6	+0.6
HVU	Hansel Valley	60.59	59	P	P	06 56 31.7	+0.6
HVU	Hansel Valley	60.59	59	eP	P	06 56 31.2	+0.1
LOHW	Long Hollow	60.60	56	eP	P	06 56 31.4	+0.3
SNOW	Snow King Moun	60.62	57	eP	P	06 56 32.3	+1.0
REDW	Red Top Meadow	60.63	57	eP	P	06 56 32.0	+0.7
DGMT	Dagmar	60.76	49	eP	P	06 56 31.2	-1.0
	comp=Z,76nm,1.0s,mb5.8						
DGMT				LR	LR		
	comp=Z,11µm,20.0s,MS6.0						
BHK	Bhakra	60.79	285	e	P	06 56 36.9	+4.3
AHID	Auburn Hatcher	60.88	57	eP	P	06 56 33.2	+0.2
	comp=Z,15nm,0.9s,mb5.1						
AHID				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
LAO	LASA Array	60.91	51	eP	P	06 56 33.1	-0.1
	comp=Z,134nm,1.0s,mb6.0						
LAO				LR	LR		
	comp=Z,22µm,19.0s,MS6.3						
SCO	Scoresbysund	60.95	359	i P	P	06 56 32.9	-0.3
SCO				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.6						
SCO	Scoresbysund	60.95	359	i P	P	06 56 32.9	-0.3
	comp=Z,35nm,0.7s,mb5.6						
BUNI	Buntu Taipa	60.97	222	⇓eP	P	06 56 33.6	-0.5
	comp=Z,9.6nm,0.6s,mb5.1						
BGU	Big Grassy Mou	61.00	60	eP	P	06 56 31.3	-2.5
PECR	Pechory	61.05	324	eP	P	06 56 32.0	-2.0
PECR				e		07 00 19.0	
PECR				e		07 05 02.4	
PECR				MLR	MLR		
	comp=N,47µm,14.0s,MS6.8						
PECR				MLR	MLR		
	comp=E,16µm,16.0s,MS6.8						
SPUT	South Promonto	61.08	59	eP	P	06 56 34.7	+0.3
TANI	Tanete Lipujan	61.20	223	⇑eP	P	06 56 33.2	-2.4
TRCR	Troy Canyon	61.20	64	eP	P	06 56 35.1	-0.2
DAC	Darwin (Calif)	61.36	67	PFAKE		06 56 50.0	+14
DAC				LR	LR		
	comp=Z,9µm,19.0s,MS6.0						
HWUT	Hardware Ranch	61.38	59	eP	P	06 56 36.6	+0.1
	comp=Z,25nm,0.9s,mb5.3						
HWUT				LR	LR		
	comp=Z,10µm,20.0s,MS6.0						
ALBI	Allahabad	61.42	277	eP	P	06 56 33.5	-3.4
MOR8	Moi Rana	61.64	343	eP	P	06 56 33.7	-4.1
MOR8				AMb	AMB	06 56 48.1	
	comp=Z,79nm,1.9s,mb5.5						
MOR8	Moi Rana	61.64	343	eP	P	06 56 33.7	-4.1
	comp=Z,79nm,1.9s,mb5.5						
NOQ	North Oquirrh	61.70	60	eP	P	06 56 39.3	+0.7
TPNV	Topopah Spring	61.73	65	P	P	06 56 38.3	-0.6
TPNV				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
TPNV	Topopah Spring	61.73	65	eP	P	06 56 38.1	-0.8
	comp=Z,32nm,1.1s,mb5.4						
TPNV				LR	LR		
	comp=Z,10µm,19.0s,MS6.0						
BW06	Boulder Array	61.73	57	PFAKE		06 56 50.0	+11
BW06				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
PDAR	Pinedale Array	61.73	57	P	P	06 56 38.2	-0.6
	comp=Z,13nm,0.7s,mb5.2,baz=265,slow=2.0,SNR=54						
PDAR				PKP2bc		07 25 54.5	
	comp=Z,1.5nm,1.1s,baz=135,slow=2.1,SNR=5.6						
PDAR	Pinedale Array	61.73	57	P	P	06 56 38.2	-0.6
PDAR				⇑e		07 25 54.5	
TCUT	Toone Canyon	61.80	59	eP	P	06 56 39.2	0.0
NINI	Niniconang	61.91	222	eP	P	06 56 39.4	-1.0
NINI				pmax	pmax		
	comp=Z,199nm,0.9s,mb6.2						
NINI	Niniconang	61.91	222	eP	P	06 56 39.4	-1.0
	comp=Z,199nm,0.9s,mb6.2						
NDI	New Delhi	62.11	282	eP	P	06 56 39.5	-2.1
NDI				eS	S	07 05 06.0	+1.8
JLU	Jordanelle	62.11	59	eP	P	06 56 41.8	+0.4
NLU	North Lily Min	62.19	60	eP	P	06 56 41.8	-0.1
DAU	Daniels Canyon	62.35	59	P	P	06 56 43.8	+0.8
DAU	Daniels Canyon	62.35	59	eP	P	06 56 42.6	-0.4
MPU	Maple Canyon	62.40	60	eP	P	06 56 43.3	0.0
KAF	Kangasniemi	62.42	336	ep	P	06 56 40.4	-2.8
	comp=Z,11nm,0.6s,mb5.2						
KAF	Kangasniemi	62.42	336	eP	P	06 56 40.4	-2.8
KAF				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.2						
MWC	Mount Wilson	62.44	69	P	P	06 56 42.6	-1.1
MWC	Mount Wilson	62.44	69	eP	P	06 56 42.4	-1.3
SNG	Songkhla	62.49	248	P	P	06 56 45.0	+0.7
ARUT	Antelope Range	62.84	63	P	P	06 56 46.5	+0.2
ARUT	Antelope Range	62.84	63	eP	P	06 56 46.1	-0.1
FINES	FINESS Array B	63.03	336	P	P	06 56 45.0	-2.2
	comp=Z,13nm,0.5s,mb5.3,baz=43,slow=8.2,SNR=75						
FINES				LR	LR	07 27 25.9	
	comp=Z,36µm,18.9s,MS6.6,baz=28,slow=39						
FINES	FINESS Array B	63.03	336	P	P	06 56 45.0	-2.2
FINES				LR	LR	07 27 25.9	
MVU	Marysvale	63.08	62	eP	P	06 56 47.9	+0.1
	comp=Z,5.3nm,0.8s,mb4.7						
MVU				LR	LR		
	comp=Z,6µm,20.0s,MS5.8						
MSU	Marysvale	63.09	62	P	P	06 56 47.8	-0.1
MSU	Marysvale	63.09	62	eP	P	06 56 47.2	-0.7
TMUT	Trail Mountain	63.12	60	eP	P	06 56 47.9	-0.2
PUL	Pulkovo	63.19	333	deP	P	06 56 46.0	-2.2
PUL				i		06 59 07.1	
PUL				eS	S	07 05 19.2	+1.9
PUL				pmax	pmax		
	comp=Z,4µm,5.9s						
PUL				pmax	pmax		
	comp=E,1µm,3.0s						
PUL				smax			
	comp=E,4µm,19.1s						
PUL				smax			
	comp=Z,2µm,10.5s						
PUL				MLR	MLR		
	comp=N,26µm,19.0s,MS6.6						
PUL				MLR	MLR		
	comp=Z,47µm,19.0s,MS6.7						

PUL				MLR	MLR		
	comp=E,31µm,18.0s,MS6.6						
BLSP	**Bilaspur**	**63.41**	**274**	*e*P	**P**	**06 56 48.8**	**-1.4**
ULM	**Lac du Bonnet**	**63.48**	**43**	P	**P**	**06 56 50.3**	**0.0**
	comp=E,17nm,0.9s,mb5.2,baz=315,slow=6.6,SNR=17						
ULM				LR	LR	07 26 54.0	
	comp=E,10µm,20.5s,MS6.0,baz=326,slow=38						
ULM	**Lac du Bonnet**	**63.48**	**43**	*e*P	**P**	**06 56 49.3**	**-1.0**
	comp=E,25nm,0.9s,mb5.3						
ULM				LR	LR		
	comp=Z,16µm,21.0s,MS6.2						
NSS	**Namsos**	**63.58**	**344**	*e*P	**P**	**06 56 53.3**	**+2.7**
NSS				*e*S	**S**	**07 05 24.4**	**+2.5**
NSS				AMS	AMS	07 30 42.0	
	comp=Z,24µm,18.8s,MS6.4						
SRU	**San Rafael**	**63.64**	**60**	P	**P**	**06 56 51.3**	**-0.2**
SRU	**San Rafael**	**63.64**	**60**	*e*P	**P**	**06 56 51.1**	**-0.4**
RWWY	**Rawlins**	**63.75**	**56**	P	**P**	**06 56 52.0**	**-0.1**
PFO	**Pinyon Flat Ob**	**63.84**	**68**	*e*P	**P**	**06 56 51.6**	**-1.3**
PFO				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
PFO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
PFO	**Pinyon Flat Ob**	**63.84**	**68**	*e*P	**P**	**06 56 51.6**	**-1.3**
	comp=Z,13nm,1.0s,mb4.9						
PFO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
MOS	**Moscow**	**63.91**	**326**	*e*P	**P**	**06 56 50.8**	**-2.1**
MOS				*e*		06 57 28.3	
MOS				*e*S	**S**	**07 05 22.6**	**-3.6**
MOS				*e*PS	PS	07 05 45.5	-2.2
MOS				pmax	pmax		
	comp=Z,51nm,0.6s,mb5.7						
MOS				MLR	MLR		
	comp=Z,34µm,16.6s,MS6.6						
MOS				MLR	MLR		
	comp=N,31µm,15.8s,MS6.6						
MOS				MLR	MLR		
	comp=E,18µm,17.2s,MS6.6						
JBP	**Jabalpur**	**64.10**	**276⇑**	*e*	PcP	06 57 21.6	-8.2
JBP				*e*		07 06 00.8	
OBN	**Obninsk**	**64.78**	**327α**	*i*P	**P**	**06 56 56.4**	**-2.2**
OBN				*i*		06 57 38.5	
OBN				*i*		06 59 18.2	
OBN				*i* S	**S**	**07 05 34.4**	**-2.5**
OBN				*e*SS	SS	07 09 44.3	-5.8
OBN				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.3						
OBN				pmax	pmax		
	comp=Z,1µm,3.4s						
OBN				MLR	MLR		
	comp=Z,27µm,18.0s,MS6.5						
OBN	**Obninsk**	**64.78**	**327**	P	**P**	**06 56 56.0**	**-2.6**
	comp=Z,29nm,0.7s,mb5.4						
OBN				LR	LR		
	comp=Z,7µm,20.0s,MS5.9						
KAKA	**Kakadu**	**64.87**	**206⇑**	*i*P	**P**	**06 56 58.0**	**-1.8**
	comp=Z,106nm,1.2s,mb5.8						
PHWY	**Pilot Hill**	**64.97**	**55**	*e*P	**P**	**06 57 00.1**	**0.0**
PV10	**Paradox Valley**	**64.99**	**60**	*e*P	**P**	**06 57 00.5**	**+0.2**
AJM	**Ajmer**	**65.28**	**282⇓**	*i*P	**P**	**06 56 59.0**	**-3.3**
PV01	**Paradox Valley**	**65.42**	**60**	*e*P	**P**	**06 57 03.0**	**-0.1**
BHPL	**Bhopal**	**65.72**	**278⇑**	*i*P	**P**	**06 57 04.3**	**-0.9**
VIS	**Vishakhapatnam**	**65.75**	**269**	*e*P	**P**	**06 57 03.0**	**-2.4**
	comp=Z,182nm,1.1s,mb6.0						
ISCO	**Idaho Springs**	**65.93**	**57**	P	**P**	**06 57 06.8**	**+0.5**
ISCO				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.3						
ISCO	**Idaho Springs**	**65.93**	**57**	*e*P	**P**	**06 57 06.3**	**+0.1**
	comp=Z,17nm,0.9s,mb5.1						
ISCO				LR	LR		
	comp=Z,15µm,21.0s,MS6.2						
NGP	**Nagpur**	**66.13**	**275⇑**	*e*P	**P**	**06 57 06.4**	**-1.4**
NGP				*e*S	S	07 05 56.6	+2.5
MOL	**Molde**	**66.17**	**345**	*e*P	**P**	**06 57 09.8**	**+2.4**
MOL				AMb	AMB	06 57 10.8	
	comp=Z,139nm,1.8s,mb5.7						
MOL	**Molde**	**66.17**	**345**	*e*P	**P**	**06 57 09.8**	**+2.4**
	comp=Z,139nm,1.8s,mb5.7						
DOMB	**Dombas**	**66.39**	**344**	*e*P	**P**	**06 57 07.1**	**-1.7**
DOMB				AMb	AMB	06 57 22.2	
	comp=Z,102nm,2.2s,mb5.5						
DOMB	**Dombas**	**66.39**	**344**	*e*P	**P**	**06 57 07.1**	**-1.7**
	comp=Z,102nm,2.2s,mb5.5						
BORG	**Borgarnes**	**66.71**	**359**	P	**P**	**06 57 10.9**	**+0.1**
	comp=Z,89nm,1.0s,mb5.7,baz=315,slow=1.8,SNR=6.7						
BORG	**Borgarnes**	**66.71**	**359**	P	**P**	**06 57 10.9**	**+0.1**
BORG				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
VRSR	**Storozhevoye**	**66.79**	**322**	*e*P	**P**	**06 57 09.3**	**-2.2**
VRSR				*e**PP	pP	06 57 18.1	+1.6
VRSR				*e*		06 57 39.7	
VRSR				*e*S	S	07 05 54.2	-7.3
VRSR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
VRSR				pmax	pmax		
	comp=N,20nm,0.7s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.7s						
VRSR				smax			
	comp=N,10.0nm,1.1s						
VRSR				smax			
	comp=E,10.0nm,1.1s						
VRSR				smax			
	comp=Z,7.0nm,1.4s						
VRSR				MLR	MLR		
	comp=Z,24µm,17.0s,MS6.5						
VRSR				MLR	MLR		
	comp=N,17µm,16.0s,MS6.4						
VRSR				MLR	MLR		
	comp=E,13µm,20.0s,MS6.4						
NB2	**NORSAR Subarra**	**66.90**	**342**	P	**P**	**06 57 10.5**	**-1.6**
	comp=E,102nm,1.4s,mb5.7,baz=25,slow=6.5						
NB2	**NORSAR Subarra**	**66.90**	**342**	P	**P**	**06 57 10.5**	**-1.6**
	baz=25,slow=6.5						
NB2	**NORSAR Subarra**	**66.90**	**342**	P	**P**	**06 57 10.5**	**-1.6**
NB2				pmax	pmax		
	comp=Z,102nm,1.4s,mb5.7						
NOA	**NORSAR Array B**	**66.90**	**342**	P	**P**	**06 57 10.4**	**-1.6**
	comp=Z,18nm,0.7s,mb5.2,baz=25,slow=6.5,SNR=51						
NOA				LR	LR	07 31 10.9	
	comp=Z,31µm,18.9s,MS6.5,baz=10.0,slow=40						
EYMN	**Ely**	**67.13**	**43**	*e*P	**P**	**06 57 12.7**	**-1.1**
	comp=Z,88nm,1.4s,mb5.6						
EYMN				LR	LR		
	comp=Z,10µm,20.0s,MS6.0						
NAO01	**NORSAR Array S**	**67.15**	**342**	*e*P	**P**	**06 57 12.0**	**-1.7**
	comp=Z,53nm,1.1s,mb5.5						
NAO01				LR	LR		
	comp=Z,36µm,19.0s,MS6.6						
KEDI	**Kedomdong**	**67.15**	**224⇑**	*e*P	**P**	**06 57 09.1**	**-5.4**
KEDI				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.3						
KEDI	**Kedomdong**	**67.15**	**224⇑**	*e*P	**P**	**06 57 09.1**	**-5.4**
	comp=Z,27nm,0.8s,mb5.3						
HFS	**Hagfors**	**67.21**	**341**	P	**P**	**06 57 12.8**	**-1.2**
	comp=Z,19nm,0.6s,mb5.3,baz=45,slow=2.1,SNR=46						
HFS				PcP	PcP	06 57 39.9	-2.1
	comp=Z,22nm,0.7s,baz=27,slow=6.6,SNR=5.6						
HFS	**Hagfors**	**67.21**	**341**	P	**P**	**06 57 12.9**	**-1.2**
HFS						06 57 39.9	
SDCO	**Great Sand Dun**	**67.43**	**58**	*e*P	**P**	**06 57 15.8**	**-0.1**
	comp=Z,11nm,0.9s,mb4.9						
SDCO				LR	LR		
	comp=Z,13µm,19.0s,MS6.2						
RATI	**Rata**	**67.62**	**224⇑**	*e*P	**P**	**06 57 09.9**	**-7.6**
AKL	**Akola**	**67.78**	**276⇑**	*i*P	**P**	**06 57 19.4**	**+1.1**
AKL				*i* S	S	07 06 18.2	+4.2
TUC	**Tucson**	**68.18**	**66**	P	**P**	**06 57 20.0**	**-0.7**
TUC				pmax	pmax		
	comp=Z,47nm,0.4s,mb5.9						
TUC	**Tucson**	**68.18**	**66**	*e*P	**P**	**06 57 19.5**	**-1.1**
	comp=Z,10nm,1.1s,mb4.8						
MNK	**Minsk**	**68.28**	**331**	*e*P	**P**	**06 57 17.0**	**-3.9**
MNK				*e*S	S	07 06 24.0	+4.6
KONO	**Kongsberg**	**68.50**	**343**	PFAKE		06 57 30.0	+7.8
KONO				LR	LR		
	comp=Z,31µm,19.0s,MS6.6						
RUND	**Rundenannen**	**68.57**	**345**	*e*P	**P**	**06 57 22.6**	**0.0**
RUND				*e*pP	pP	06 57 25.5	-2.1
RUND				AMb	AMB	06 57 28.2	
	comp=Z,291nm,1.4s,mb6.0						
AFI	**Afiamalu**	**68.58**	**147**	PFAKE		06 57 30.0	+6.6
AFI				LR	LR		
	comp=Z,10µm,19.0s,MS6.1						
BER	**Bergen**	**68.60**	**345**	*e*S	S	07 06 26.3	+3.2
BER				AMS	AMS	07 34 17.4	
	comp=Z,7µm,16.9s,MS6.0						
ANMO	**Albuquerque**	**68.86**	**61**	*i* P	**P**	**06 57 25.6**	**+0.7**
ANMO	**Albuquerque**	**68.86**	**61**	*e*P	**P**	**06 57 24.6**	**-0.2**
	comp=Z,18nm,0.9s,mb5.0						
ANMO				LR	LR		
	comp=Z,7µm,19.0s,MS5.9						
NRS	**Narsarsuaq**	**68.93**	**11**	*i* P	**P**	**06 57 26.0**	**+1.2**
HYB	**Hyderabad**	**69.12**	**273⇑**	*e*P	**P**	**06 57 25.0**	**-1.7**
HYB				*e*S	S	07 06 34.0	+4.1
HYB				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
HYB	**Hyderabad**	**69.12**	**273⇑**	*e*P	**P**	**06 57 25.0**	**-1.7**
	comp=Z,120nm,1.0s,mb5.8						
HYB				*e*S	S	07 06 34.0	+4.1
HYB	**Hyderabad**	**69.12**	**273⇑**	*i*P	**P**	**06 57 25.0**	**-1.7**
	comp=Z,120nm,1.0s,mb5.8						
HYB				*e*PcP	PcP	06 57 49.0	-1.7
HYB				*e*PP	PP	06 59 51.0	-11
HYB				*e*S	S	07 06 33.0	+3.1
HYB				*e*ScS	ScS	07 07 30.0	+6.9
HYB				*e*SS	SS	07 11 00.0	+1.9
HYB				LR	LR	07 30 32.0	
	comp=Z,26nm,25.0s						
LENM	**Lemitar**	**69.12**	**62**	*e*P	**P**	**06 57 26.8**	**+0.4**
LPM	**Los Pinos Moun**	**69.22**	**61**	*e*P	**P**	**06 57 27.9**	**+0.9**
CTA	**Charters Tower**	**69.23**	**190**	*e*P	**P**	**06 57 25.7**	**-1.6**
	comp=Z,22nm,1.1s,mb5.0						
CTA				*i* S	S	07 06 31.1	-0.2
CTA	**Charters Tower**	**69.23**	**190**	P	**P**	**06 57 29.1**	**+1.8**
	comp=Z,7.5nm,0.5s,mb4.8,baz=11,slow=7.3,SNR=13						
CTA	**Charters Tower**	**69.23**	**190**	*e*P	**P**	**06 57 25.7**	**-1.6**
CTA				*i* S	S	07 06 31.1	-0.2
CTA				pmax	pmax		
	comp=Z,22nm,1.1s						
CTAO	**Charters Tower**	**69.23**	**190**	*e*P	**P**	**06 57 25.7**	**-1.6**
CTAO				pmax	pmax		
	comp=Z,88nm,1.7s,mb5.4						
CTAO				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.0						
CTAO	**Charters Tower**	**69.23**	**190**	*e*P	**P**	**06 57 25.7**	**-1.6**
	comp=Z,88nm,1.7s,mb5.4						
CTAO				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
BLS5	**Blasjo**	**69.31**	**344**	*e*P	**P**	**06 57 27.9**	**+0.8**
BLS5				AMb	AMB	06 57 37.5	
	comp=Z,51nm,2.0s,mb5.1						
BLS5	**Blasjo**	**69.31**	**344**	*e*P	**P**	**06 57 27.9**	**+0.8**
	comp=Z,51nm,2.0s,mb5.1						
MAK	**Makhachkala**	**69.31**	**312*d***	*i*P	**P**	**06 57 27.0**	**-0.5**
MAK				*e*PPP	PPP	07 01 47.0	+5.5
MAK				*e*S	S	07 06 39.0	+7.1
MAK				*i*		07 07 22.0	
MAK				pmax	pmax		
	comp=Z,7µm,10.0s						
MAK				smax			
	comp=N,6µm,13.0s						
MAK				smax			
	comp=E,5µm,13.0s						
BNM	**Barren Site**	**69.34**	**62**	*e*P	**P**	**06 57 28.2**	**+0.4**
LATR	**Latur**	**69.71**	**275**	*e*P	**P**	**06 57 29.2**	**-1.1**
GOF	**Gofitskoye**	**69.85**	**316⇑**	*i*P	**P**	**06 57 30.0**	**-0.7**
GOF				*e*		07 00 14.0	
GOF				*e*PPP	PPP	07 01 46.0	-0.9
GOF				pmax	pmax		
	comp=Z,160nm,1.6s,mb5.7						
GOF				pmax	pmax		
	comp=Z,4µm,11.0s						
GOF				pmax	pmax		
	comp=Z,2µm,5.0s						
SUW	**Suwalki**	**70.15**	**333**	*e*P	**P**	**06 57 30.8**	**-1.6**
SUW				*e**PP	pP	06 57 38.6	+1.2
SUW				*e*		06 57 47.4	
SUW				*e*S	S	07 06 45.0	+3.5
SUW	**Suwalki**	**70.15**	**333**	*e*P	**P**	**06 57 30.8**	**-1.6**
SUW				*e*pP	pP	06 57 38.6	+1.2
SUW				*e*PcP	PcP	06 57 47.4	-7.1
SUW				*e*PP	PP	07 00 01.5	-8.0
SUW				*e*S	S	07 06 45.0	+3.5
SUW				MLR	MLR	07 31 04.7	
	comp=Z,39µm,19.2s,MS6.7						
SCHQ	**Schefferville**	**70.48**	**25**	P	**P**	**06 57 33.9**	**-0.5**
	comp=Z,32nm,0.8s,mb5.3,baz=344,slow=6.1,SNR=18						
SCHQ				LR	LR	07 34 11.9	
	comp=Z,9µm,18.6s,MS6.1,baz=344,slow=41						
SCHQ	**Schefferville**	**70.48**	**25**	*e*P	**P**	**06 57 33.7**	**-0.7**
	comp=Z,52nm,0.9s,mb5.5						
SCHQ				LR	LR		
	comp=Z,16µm,19.0s,MS6.3						
KIV	**Kislovodsk**	**70.86**	**316**	P	**P**	**06 57 36.7**	**-0.2**
	comp=Z,565nm,0.7s,SNR=33						
KIV	**Kislovodsk**	**70.86**	**316**	*e*P	**P**	**06 57 35.7**	**-1.2**
KIV				*i*	pP	06 57 40.6	-1.3
KIV				*e*		07 00 11.4	
KIV				*i* S	S	07 06 48.0	-2.0
KIV				*i* SS	SS	07 11 19.7	-4.9
KIV				pmax	pmax		
	comp=Z,121nm,2.2s,mb5.4						
KIV				MLR	MLR		
	comp=Z,17µm,18.0s,MS6.3						
KIV	**Kislovodsk**	**70.86**	**316**	*e*P	**P**	**06 57 36.1**	**-0.7**
	comp=Z,85nm,0.8s,mb5.7						
KIV				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
AKASG	**Malin Array Be**	**70.97**	**328**	P	**P**	**06 57 36.1**	**-1.3**
	comp=Z,26nm,0.6s,mb5.3,baz=32,slow=6.2,SNR=62						
AKASG	**Malin Array Be**	**70.97**	**328**	P	**P**	**06 57 36.2**	**-1.2**
AKASG				pmax	pmax		
	comp=Z,26nm,0.6s						
MDRS	**Chennai**	**71.15**	**268⇑**	*e*P	**P**	**06 57 39.0**	**-0.1**
MDRS				*e*		07 00 18.0	
MDRS				*e*		07 07 10.0	
ZEI	**Tsey**	**71.20**	**314**	*i* P	**P**	**06 57 38.0**	**-0.9**
ZEI				*e*		07 00 16.0	
ZEI				*e*S	S	07 07 00.0	+6.1
ZEI				pmax	pmax		
	comp=E,1µm,10.0s						
ZEI				pmax	pmax		
	comp=Z,4µm,10.0s						
ZEI				pmax	pmax		
	comp=N,2µm,8.0s						
ZEI				MLR	MLR		
	comp=N,500nm,17.0s,MS6.5						
ZEI				MLR	MLR		
	comp=E,23µm,17.0s,MS6.5						
ZEI				MLR	MLR		
	comp=Z,22µm,17.0s,MS6.5						
WRAB	**Tennant Creek**	**71.25**	**202*c***	*i*P	**P**	**06 57 38.0**	**-1.6**
KSU1	**Kansas State U**	**71.26**	**52**	*e*P	**P**	**06 57 35.5**	**-3.8**
WRA	**Warramunga Arr**	**71.27**	**202**	P	**P**	**06 57 38.0**	**-1.7**
	comp=Z,50nm,0.9s,mb5.5,baz=19,slow=6.5,SNR=86						
POO	**Poona**	**71.41**	**277⇑**	*i*P	**P**	**06 57 38.0**	**-2.6**
	comp=Z,42nm,1.0s,mb5.3						
POO				*i*		06 57 56.0	
POO				*i* PP	PP	07 00 19.5	-1.6
POO				*i* S	S	07 07 00.0	+3.2
POO				*e*		07 07 30.0	
POO				*e*		07 07 44.0	
POO				*i*		07 07 44.0	
POO				*e*		07 11 42.0	
BSD	**Bornholm Skovb**	**71.46**	**338**	*i* P	**P**	**06 57 39.8**	**-0.5**
BSD				*i* S	S	07 06 59.4	+2.7
BSD				pmax	pmax		
	comp=Z,87nm,0.9s,mb5.7						
BSD	**Bornholm Skovb**	**71.46**	**338**	*i* P	**P**	**06 57 39.8**	**-0.5**
	comp=Z,87nm,0.9s,mb5.7						
BSD				*i* S	S	07 06 59.4	+2.7
BSD				*i*		07 13 48.6	
	comp=Z,33µm,18.0s						
JFWS	**Jewell Farm**	**71.52**	**45**	PFAKE		06 57 50.0	+9.1
JFWS				LR	LR		
	comp=Z,14µm,20.0s,MS6.2						
COP	**Copenhagen**	**71.54**	**339⇑**	*i*P	**P**	**06 57 40.3**	**-0.4**
COP				*i* S	S	07 07 01.8	+4.2
COP				pmax	pmax		
	comp=Z,107nm,1.0s,mb5.7						
COP				MLR	MLR		
	comp=Z,14µm,17.0s,MS6.3						
COP	**Copenhagen**	**71.54**	**339⇑**	*i*P	**P**	**06 57 40.3**	**-0.4**
	comp=Z,107nm,1.0s,mb5.7						
COP				*i* S	S	07 07 01.8	+4.2
	comp=Z,14µm,17.0s						
MUD	**Monsted U'grnd**	**71.55**	**342**	*i* P	**P**	**06 57 40.2**	**-0.6**
	comp=Z,88nm,1.0s,mb5.7						
MUD				*e*S	S	07 07 03.1	+5.4
	comp=Z,18µm,18.0s						
TI2	**Plekhanov**	**71.58**	**313⇑**	*i*P	**P**	**06 57 41.0**	**-0.3**
TI2				*i*		06 57 49.2	
TI2				*e*		07 00 20.0	
TI2				*e*PPP	PPP	07 02 00.0	-3.6
TI2				*i* S	S	07 07 03.0	+4.6
TI2				pmax	pmax		
	comp=Z,400nm,2.0s,mb6.0						
AMTX	**Amarillo**	**71.63**	**58**	*e*P	**P**	**06 57 42.3**	**+0.6**
	comp=Z,28nm,1.4s,mb5.0						
AMTX				LR	LR		
	comp=Z,7µm,19.0s,MS6.0						
CPRX	**Cap Rock**	**71.74**	**61**	*e*P	**P**	**06 57 42.0**	**-0.3**
MNTX	**Cornudas Mount**	**71.82**	**63**	*e*P	**P**	**06 57 42.4**	**-0.5**
	comp=Z,35nm,0.9s,mb5.3						
MNTX				LR	LR		
	comp=Z,7µm,20.0s,MS5.9						
GDL2	**Guadalupe Moun**	**72.05**	**62**	*e*P	**P**	**06 57 43.6**	**-0.6**
FITZ	**Fitzroy Crossi**	**72.07**	**211⇑**	*i*P	**P**	**06 57 43.7**	**-0.8**
	comp=Z,62nm,0.9s,mb5.5						
FITZ				*i* S	S	07 07 05.6	+1.3
FITZ	**Fitzroy Crossi**	**72.07**	**211**	P	**P**	**06 57 43.8**	**-0.8**
	comp=Z,40nm,0.8s,mb5.4,baz=6.4,slow=6.7,SNR=26						
KAD	**Karad**	**72.07**	**276⇑**	*i*P	**P**	**06 57 43.0**	**-1.6**
WAR	**Warsaw**	**72.34**	**333**	*e*P	**P**	**06 57 46.0**	**+0.4**
WAR				*e**PP	pP	06 57 53.5	+2.9
WAR				*e*		06 58 01.7	
WAR				MLR	MLR		
	comp=Z,48µm,19.4s,MS6.8						
WAR	**Warsaw**	**72.34**	**333**	*e*P	**P**	**06 57 46.0**	**+0.4**
WAR				*e*pP	pP	06 57 53.5	+2.9
WAR				*e*PcP	PcP	06 58 01.7	-2.1
WAR				*e*S	S	07 06 56.2	-11
WAR				*e*sS		07 07 18.8	
WAR				MLR	MLR	07 32 31.7	
	comp=Z,48µm,19.4s,MS6.8						
RGN	**Rugen**	**72.36**	**338**	*e*P	**P**	**06 57 46.0**	**+0.3**
	comp=Z,538nm,1.1s,mb6.4						
SOC	**Sochi**	**72.50**	**317**	*i* P	**P**	**06 57 45.7**	**-0.9**
SOC				*i*		07 00 25.5	
SOC				*i* S	S	07 07 11.8	+3.0
SOC				pmax	pmax		
	comp=N,131nm,1.4s						
SOC				pmax	pmax		
	comp=Z,201nm,1.4s,mb5.9						
SOC				pmax	pmax		
	comp=E,111nm,1.3s						
SOC				pmax	pmax		
	comp=Z,5µm,8.2s						
SOC				MLR	MLR		
	comp=Z,20µm,15.0s,MS6.5						
SOC				MLR	MLR		
	comp=N,9µm,17.0s,MS6.5						
SOC				MLR	MLR		
	comp=E,18µm,19.0s,MS6.5						
GKP	**Gorka Klasztor**	**72.51**	**336**	*e*P	**P**	**06 57 46.0**	**-0.4**
GKP				*e**PP	pP	06 57 52.4	+0.9
GKP				*e*S	S	07 07 14.1	+5.4
GKP				MLR	MLR		
	comp=Z,54µm,19.1s,MS6.8						
GKP	**Gorka Klasztor**	**72.51**	**336**	*e*P	**P**	**06 57 46.0**	**-0.4**
GKP				*e*pP	pP	06 57 52.4	+0.9
GKP				*e*PcP	PcP	06 57 57.2	-7.2
GKP				*e*S	S	07 07 14.1	+5.4
GKP				MLR	MLR	07 33 18.7	
	comp=Z,54µm,19.1s,MS6.8						
ANN	**Anapa**	**72.55**	**319**	*e*P	**P**	**06 57 40.9**	**-5.9**
ANN				*e*		06 58 05.7	
ANN				*i*		07 00 26.3	
ANN				*e*		07 07 52.2	
ANN				pmax	pmax		
	comp=Z,202nm,1.4s,mb5.9						
GNI	**Garni**	**72.79**	**312**	P	**P**	**06 57 48.9**	**+0.5**
GNI	**Garni**	**72.79**	**312**	P	**P**	**06 57 50.0**	**+1.6**
	comp=Z,52nm,0.6s,mb5.7,baz=24,slow=3.8,SNR=25						
GNI				LR	LR	07 29 37.5	
	comp=Z,6µm,21.4s,MS5.9,baz=40,slow=36						
BCA	**Borcka**	**73.30**	**315**	*e*P	**P**	**06 57 51.6**	**+0.3**
LVV	**L'vov**	**73.49**	**330**	*i* P	**P**	**06 57 55.1**	**+2.8**
LVV				*e*S	S	07 07 25.8	+6.0
GOA	**Goa**	**73.62**	**275⇓**	*i*P	**P**	**06 57 56.1**	**+2.4**
GOA				*i*		07 07 29.4	
BSEG	**Bad Segeberg**	**73.63**	**340**	*e*P	**P**	**06 57 53.1**	**+0.1**
BSEG				pmax	pmax		
	comp=Z,105nm,1.0s,mb5.7						
SIM	**Simferopol'**	**73.83**	**321*c***	*e*P	**P**	**06 57 53.5**	**-0.8**
SIM				*e*PPP	PPP	07 02 24.0	-1.5
SIM				*e*S	S	07 07 30.0	+6.3
SIM				pmax	pmax		
	comp=Z,1µm,10.0s						
EAB	**Aberfoyle**	**74.08**	**349**	*e*P	**P**	**06 57 54.0**	**-1.5**
EAB				AMb	AMB	06 57 59.2	
	comp=Z,217nm,1.4s,mb5.9						
KWP	**Kalwaria**	**74.09**	**331**	*e*P	**P**	**06 57 55.7**	**0.0**
KWP				*e*pP	pP	06 58 03.4	+2.6
KWP				*e*PcP	PcP	06 58 07.3	-3.9
KWP				*e*S	S	07 07 28.2	+1.7
KWP				MLR	MLR	07 34 53.3	
	comp=Z,27µm,18.3s,MS6.6						
ESY	**Stoneypath**	**74.12**	**348**	*e*P	**P**	**06 57 55.2**	**-0.6**
ESY				AMb	AMB	06 58 02.5	
	comp=Z,135nm,1.4s,mb5.7						
RUE	**Ruedersdorf**	**74.13**	**337**	*e*P	**P**	**06 57 55.8**	**-0.1**
	comp=Z,198nm,0.9s,mb6.0						
EDI	**Edinburgh**	**74.19**	**348**	*e*P	**P**	**06 57 55.6**	**-0.6**
EDI				AMb	AMB	06 57 59.0	
	comp=Z,214nm,1.4s,mb5.9						
KIS	**Kishinev**	**74.21**	**326κ**	*i*P	**P**	**06 57 54.0**	**-2.5**
KIS				*e*		07 00 40.0	
KIS				*e*		07 02 28.0	
KIS				*e*S	S	07 07 22.0	-5.9
KIS				pmax	pmax		
	comp=Z,500nm,2.0s,mb6.1						
KIS				pmax	pmax		
	comp=Z,4µm,10.0s						
KIS				MLR	MLR		
	comp=N,15µm,15.0s,MS6.5						
KIS				MLR	MLR		
	comp=Z,18µm,15.0s,MS6.5						
KIS				MLR	MLR		
	comp=E,10µm,14.0s,MS6.5						
EAU	**Auchinoon**	**74.30**	**348**	*e*P	**P**	**06 57 56.5**	**-0.2**
EAU				AMb	AMB	06 57 59.9	
	comp=Z,298nm,2.1s,mb5.9						
OJC	**Ojcow**	**74.48**	**333⇑**	*e*P	**P**	**06 57 57.9**	**-0.1**
OJC				*e*pP	pP	06 58 00.7	-2.4
OJC				*e*S	S	07 07 36.6	+5.7
OJC				LR	LR		
	comp=Z,35µm,19.1s,MS6.7						
OJC	**Ojcow**	**74.48**	**333**	*e*P	**P**	**06 57 57.9**	**-0.1**
OJC				*e*pP	pP	06 58 00.7	-2.4
OJC				*e*S	S	07 07 36.6	+5.7
OJC				MLR	MLR	07 33 52.9	
	comp=Z,35µm,19.1s,MS6.7						
IAS	**Iasi**	**74.51**	**327**	P	**P**	**06 57 57.9**	**-0.3**
LTX	**Lajitas**	**74.56**	**63**	P	**P**	**06 57 58.6**	**-0.3**
LTX				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
LTX	**Lajitas**	**74.56**	**63**	*e*P	**P**	**06 57 57.2**	**-1.6**
	comp=Z,6.9nm,0.7s,mb4.7						
LTX				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
TXAR	**Lajitas Array**	**74.56**	**63**	P	**P**	**06 57 58.4**	**-0.5**
	comp=Z,5.7nm,0.6s,mb4.7,baz=300,slow=4.7,SNR=96						
TXAR				PKPPKP		07 25 27.2	
	comp=Z,0.4nm,0.9s,baz=143,slow=6.3,SNR=3.5						
ERZM	**Erzurum**	**74.62**	**314**	*i* P	**P**	**06 58 00.3**	**+1.2**
EZM	**Erzurum**	**74.62**	**314**	P	**P**	**06 58 00.1**	**+1.1**
VANB	**Van**	**74.66**	**312**	P	**P**	**06 57 59.5**	**+0.3**
TVAN	**Van**	**74.70**	**312**	*i* P	**P**	**06 58 00.7**	**+1.2**
EKA	**Eskdalemuir Ar**	**74.76**	**348**	P	**P**	**06 57 59.6**	**+0.1**
	comp=Z,13nm,0.5s,mb5.1,baz=17,slow=5.0,SNR=104						
VANT	**Van**	**74.78**	**311**	P	**P**	**06 57 59.5**	**-0.4**
ESK	**Eskdalemuir**	**74.78**	**348**	*e*P	**P**	**06 57 58.8**	**-0.8**
ESK				AMb	AMB	06 58 05.8	
	comp=Z,92nm,1.8s,mb5.4						
ESK	**Eskdalemuir**	**74.78**	**348**	PFAKE		06 58 10.0	+10
ESK				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
MNGI	**Mangalore**	**74.83**	**272**	*i* P	**P**	**06 57 58.9**	**-1.7**
MNGI				*e*S	S	07 07 38.7	+3.3
KOLS	**Kolonicke sedl**	**74.84**	**331**	*i* P	**P**	**06 57 59.6**	**-0.5**
SADO	**Sadowa**	**74.88**	**37**	P	**P**	**06 58 00.4**	**-0.1**
	comp=Z,52nm,1.3s,mb5.3,baz=319,slow=6.1,SNR=5.0						

KSP	**Ksiaz**	74.94	335	⇑*e*P	P	06 58 00.4	-0.3
KSP				*e*pP	pP	06 58 02.1	-3.6
KSP				*e*PcP	PcP	06 58 13.9	-1.0
KSP				*e*S	S	07 07 35.5	-0.6
KSP				*e*SS	SS	07 12 25.0	-1.9
KSP				LR	LR		
	comp=Z,98µm,19.1s,MS7.1						
KSP	**Ksiaz**	74.94	335	*e*P	P	06 58 00.6	-0.1
KSP				*e*PcP	PcP	06 58 07.9	-7.0
KSP				*e*pP	pP	06 58 11.6	+5.9
KSP				*e*S	S	07 07 36.1	0.0
KSP				MLR	MLR	07 34 57.2	
	comp=Z,85µm,19.1s,MS7.1						
ASAR	**Alice Springs**	74.95	201	P	P	06 58 00.7	-0.5
	comp=Z,23nm,0.8s,mb5.1,baz=13,slow=5.1,SNR=68						
ASAR				LR	LR	07 31 00.4	
	comp=Z,4µm,18.9s,MS5.7,baz=8.6,slow=36						
ASPA	**Alice Springs**	74.95	201	*e*P	P	06 58 00.7	-0.5
ASPA				*e*		06 58 15.4	
ASPA				*e*S	S	07 07 38.6	+1.9
AAM	**Ann Arbor**	75.00	42	P	P	06 58 02.7	+1.5
AAM				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
AAM	**Ann Arbor**	75.00	42	*e*P	P	06 58 00.9	-0.3
	comp=Z,50nm,1.1s,mb5.4						
AAM				LR	LR		
	comp=Z,12µm,21.0s,MS6.2						
NIE	**Niedzica**	75.03	332	*i* P	P	06 58 01.3	+0.1
GUMT	**Gumushane**	75.07	315	P	P	06 58 02.3	+0.7
RAC	**Raciborz**	75.08	334	*e*P	P	06 58 01.8	+0.3
RAC				*e*S	S	07 07 38.2	+0.6
RAC				LME		07 34 26.9	
	comp=Z,38µm,17.7s						
RAC				MLR	MLR	07 34 29.2	
	comp=Z,53µm,19.0s,MS6.9						
RAC				LMN		07 34 34.4	
	comp=Z,39µm,18.6s						
UZH	**Uzhgorod**	75.09	330	*i* P	P	06 57 57.0	-4.6
CRVS	**Cervenica-Dubn**	75.12	331	*i* P	P	06 58 00.7	-1.0
CRVS				*e*S	S	07 07 44.3	+6.2
CRVS				*e*SS	tx	07 13 29.0	
VRT	**Varto**	75.15	313	*e*P	P	06 58 03.0	+1.0
HKR	**Hakkari**	75.27	311	*e*P	P	06 58 03.2	+0.4
OKC	**Ostrava-Krasne**	75.31	334	P	P	06 58 02.8	0.0
OKC	**Ostrava-Krasne**	75.31	334	⇑*i*P	P	06 58 02.7	-0.1
OKC				*e*S	S	07 07 37.3	-2.9
OKC				AMS	AMS	07 34 30.0	
	comp=Z,37µm,18.9s						
UPC	**Upice**	75.33	335	⇑*i*P	P	06 58 02.7	-0.1
DPC	**Dobruska-Polom**	75.38	335	⇑*i*P	P	06 58 03.4	+0.2
DPC				AMS	AMS	07 35 00.0	
	comp=Z,56µm,18.7s						
CLL	**Collm**	75.40	337	⇑*i*P	P	06 58 02.7	-0.6
CLL				*e*S	S	07 07 45.0	+3.9
CLL				pmax	pmax		
	comp=Z,188nm,1.0s,mb6.0						
CLL				MLR	MLR		
	comp=Z,31µm,17.0s,MS6.7						
CLL	**Collm**	75.40	337	⇑*i*P	P	06 58 02.7	-0.6
	comp=Z,188nm,1.0s,mb6.0						
CLL				*e*S	S	07 07 45.0	+3.9
CLL				LR	LR		
	comp=Z,31µm,17.0s,MS6.7						
CLL	**Collm**	75.40	337	⇑P	P	06 58 02.7	-0.6
	comp=Z,logA/T=2.0,mb5.7						
CLL				*i*		06 58 04.5	
CLL				*e*		06 58 12.0	
CLL				*e*S	S	07 07 45.0	+3.9
CLL				*e*SS	tx	07 13 24.0	
CLL				*e*SSS	SSS	07 16 18.0	+30
WIT	**Witteveen**	75.48	342	*e*P	P	06 58 07.0	+3.4
	comp=Z,675nm,1.3s,mb6.4						
EZC	**Erzincan**	75.48	315	*e*P	P	06 58 06.0	+2.1
MORC	**Moravsky Berou**	75.55	334	P	P	06 58 04.3	+0.2
MORC				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.0						
MORC	**Moravsky Berou**	75.55	334	*e*P	P	06 58 03.7	-0.4
	comp=Z,194nm,0.9s,mb6.0						
BRG	**Berggiesshubel**	75.56	336	⇑*i*P	P	06 58 03.8	-0.3
BRG				*i*		06 58 05.8	
BRG				*i* S	S	07 07 36.0	-6.8
BRG				*i* SS	SS	07 12 39.0	+2.5
BRG				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.5						
BRG				MLR	MLR		
	comp=Z,44µm,19.0s,MS6.8						
BRG	**Berggiesshubel**	75.56	336	⇑*i*P	P	06 58 03.8	-0.3
	comp=Z,71nm,1.0s,mb5.5						
BRG				*i*		06 58 05.8	
BRG				*i* S	S	07 07 36.0	-6.8
BRG				*i* SS	SS	07 12 39.0	+2.5
BRG				LR	LR		
	comp=Z,44µm,19.0s,MS6.8						
PVCC	**Panska Ves**	75.70	336	⇑*i*P	P	06 58 04.9	-0.1
PVCC				AMS	AMS	07 35 10.0	
	comp=Z,50µm,18.7s						
LIKS	**Likavka**	75.73	333	*i* P	P	06 58 07.1	+1.9
KECS	**Kecovo**	75.80	331	*i* P	P	06 58 05.6	0.0
BINT	**Bingol**	75.85	314	*e*P	P	06 58 06.8	+0.7
HPK	**Haverah Park**	75.87	347	*e*P	P	06 58 05.5	-0.3
BTMT	**Batman**	75.91	313	*e*P	P	06 58 07.8	+1.4
VRI	**Vrincioaia**	75.94	326	P	P	06 58 06.7	+0.3
JCT	**Junction City**	75.95	60	*e*P	P	06 58 07.2	+0.4
JCT				pmax	pmax		
	comp=Z,357nm,1.1s,mb6.2						
JCT				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.0						
JCT	**Junction City**	75.95	60	*e*P	P	06 58 07.2	+0.4
	comp=Z,357nm,1.1s,mb6.2						
JCT				LR	LR		
	comp=Z,7µm,20.0s,MS6.0						
KVT	**Kavak**	76.14	318	*e*P	P	06 58 08.2	+0.6
PRA	**Prague**	76.15	336	⇑P	P	06 58 09.0	+1.5
PRA				AMS	AMS	07 35 30.0	
BLO	**Bloomington**	76.20	45	P	P	06 58 07.3	-0.7
BLO				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
BLO	**Bloomington**	76.20	45	*e*P	P	06 58 06.6	-1.4
	comp=Z,15nm,0.9s,mb4.9						
PRU	**Pruhonice**	76.20	336	⇑*i*P	P	06 58 07.8	0.0
PRU				*e*S	S	07 07 53.0	+3.1
PRU				pmax	pmax		
	comp=Z,193nm,1.3s,mb5.9						
PRU				MLR	MLR		
	comp=Z,47µm,19.0s,MS6.8						
PRU	**Pruhonice**	76.20	336	⇑*i*P	P	06 58 07.8	0.0
	comp=Z,193nm,1.3s,mb5.9						
PRU				*e*S	S	07 07 53.0	+3.1
PRU				AMS	AMS	07 35 30.0	
	comp=Z,47µm,19.0s						
VRAC	**Vranov**	76.24	334	P	P	06 58 08.5	+0.5
	comp=Z,130nm,0.9s,mb5.9,baz=29,slow=5.9,SNR=58						
WTSB	**Winterswijk**	76.25	341	*e*P	P	06 58 08.2	+0.1
	comp=Z,107nm,1.2s,mb5.7						
WTSB	**Winterswijk**	76.25	341	P	P	06 58 10.0	+2.0
BEST	**Besiri**	76.25	312	*i* P	P	06 58 09.1	+0.8
MIAR	**Mount Ida**	76.29	53	PFAKE		06 58 20.0	+11
MIAR				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
VYHS	**Vyhne**	76.31	332	*i* P	P	06 58 08.1	-0.3
VYHS				*e*S	S	07 07 54.0	+3.0
VYHS				*e*SS	tx	07 13 31.4	
LHO	**Holmfirth**	76.31	347	*e*P	P	06 58 08.3	0.0
JAVC	**Velka Javorina**	76.33	333	P	P	06 58 09.7	+1.1
MSNY	**Massena**	76.36	35	P	P	06 58 08.1	-0.7
PTK	**Pertek**	76.36	314	*e*P	P	06 58 10.3	+1.4
KOLL	**Kolacno**	76.36	333	*i* P	P	06 58 09.0	+0.3
MOX	**Moxa**	76.36	338	*e*P	P	06 58 08.4	-0.3
MOX				pmax	pmax		
	comp=Z,217nm,1.6s,mb5.8						
MOX				MLR	MLR		
	comp=Z,23µm,18.0s,MS6.5						
MOX	**Moxa**	76.36	338	⇑*i*P	P	06 58 08.4	-0.3
	comp=Z,logA/T=2.1,mb5.8						
MOX				PP	PP	07 01 00.0	-2.0
MOX				S	S	07 07 57.0	+5.4
MOX				SS	SS	07 13 10.0	+21
MOX				LR	LR	07 17 10.0	
MOX				L		07 37 02.0	
MOX	**Moxa**	76.36	338	*e*P	P	06 58 08.4	-0.3
	comp=Z,217nm,1.6s,mb5.8						
MOX				LR	LR		
	comp=Z,23µm,18.0s,MS6.5						
BOYT	**Boyabat**	76.36	319	*i* P	P	06 58 10.0	+1.1
BYBT	**Boyabat**	76.38	319	*e*P	P	06 58 09.4	+0.4
PSZ	**Piszkesteto**	76.49	332	⇑*e*P	P	06 58 09.9	+0.4
TIRR	**Tirgusor**	76.50	325	P	P	06 58 09.4	-0.2
KRUC	**Moravsky**	76.52	334	P	P	06 58 09.8	+0.2
NKC	**Novy Kostel**	76.53	337	⇑*i*P	P	06 58 09.7	+0.1
NKC				*e*S	S	07 08 03.1	+10
NKC				AMS	AMS	07 36 50.0	
	comp=Z,29µm,17.5s						
KBI1	**Birley Grange**	76.54	347	*e*P	P	06 58 08.4	-1.2
MLR	**Muntele Rosu**	76.55	327	P	P	06 58 10.6	+0.8
	comp=Z,99nm,0.7s,mb5.9,baz=278,slow=1.4,SNR=141						
MLR				LR	LR	07 34 15.5	
	comp=Z,21µm,19.6s,MS6.5,baz=34,slow=38						
TRD	**Trivandrum**	76.68	268	⇑*e*	P	06 58 14.6	+3.4
	comp=Z,124nm,2.1s,mb5.5						
SMOL	**Smolenice**	76.71	333	*i* P	P	06 58 11.3	+0.6
ERPA	**Erie**	76.72	40	*e*P	P	06 58 11.1	+0.2
	comp=Z,61nm,1.0s,mb5.5						
ERPA				LR	LR		
	comp=Z,11µm,19.0s,MS6.2						
DIY	**Diyarbakir**	76.75	313	*e*P	P	06 58 14.1	+2.9
SVST	**Sivas**	76.78	316	*i* P	P	06 58 12.4	+1.1
KWE	**Weaver Farm**	76.82	347	*e*P	P	06 58 09.7	-1.5
ELZG	**Elazig**	76.86	314	*i* P	P	06 58 12.6	+0.9
BALT	**Daday**	76.92	320	*i* P	P	06 58 12.9	+0.9
ACSO	**Alum Creek Sta**	76.97	43	*e*P	P	06 58 11.8	-0.5
	comp=Z,56nm,1.4s,mb5.3						
ACSO				LR	LR		
	comp=Z,12µm,21.0s,MS6.2						
MBWA	**Marble Bar**	76.99	215	PFAKE		06 58 20.0	+7.2
MBWA				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
ALLY	**Alegheny Colle**	77.05	40	*e*P	P	06 58 12.2	-0.5
TOS	**Tosya**	77.06	319	*e*P	P	06 58 14.2	+1.4
CTKT	**Corum**	77.06	318	*i* P	P	06 58 13.6	+0.7
SRO	**Srobarova**	77.07	332	*i* P	P	06 58 14.1	+1.4
ZST	**Bratislava**	77.09	333	*i* P	P	06 58 13.7	+0.9
ZST				*e*S	S	07 08 01.2	+1.6
BUD	**Budapest**	77.14	332	⇑*e*P	P	06 58 13.6	+0.5
KHC	**Kasperske Hory**	77.24	336	⇑*i*P	P	06 58 14.0	+0.4
KHC				PCP	PcP	06 58 26.0	+1.2
KHC				*e*S	S	07 08 05.0	+3.8
KHC				AMS	AMS	07 36 10.0	
	comp=Z,54µm,18.6s						
PSN	**Preselentsi**	77.25	324	*e*P	P	06 58 14.0	+0.2
VKA	**Vienna**	77.26	334	⇑*i*P	P	06 58 14.2	+0.4
	comp=Z,1µm,4.0s						
VKA				MLRZ		07 36 30.0	
	comp=Z,23nm,19.0s						
VKA	**Vienna**	77.26	334	⇑*i*P	P	06 58 14.2	+0.4
VKA				pmax	pmax		
	comp=Z,1µm,4.0s						
VKA				MLR	MLR		
	comp=Z,23µm,19.0s,MS6.5						
MYA	**Malataya**	77.27	315	P	P	06 58 15.4	+1.4
MALT	**Malatya**	77.27	315	*e*P	P	06 58 15.3	+1.2
MALT	**Malatya**	77.27	315	P	P	06 58 15.2	+1.1
MALT				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.8						
UTMT	**University of**	77.31	49	P	P	06 58 16.2	+2.0
GRF	**Grafenberg Arr**	77.34	338	*e*P	P	06 58 14.7	+0.5
GRF				*e*		07 01 10.2	
GRF				pmax	pmax		
	comp=Z,166nm,1.0s,mb5.9						
GRF	**Grafenberg Arr**	77.34	338	*e*P	P	06 58 14.7	+0.5
GRF				*e*		07 01 10.2	
GRF				pmax	pmax		
	comp=Z,166nm,1.0s,mb5.9						
GRF				MLR	MLR		
	comp=Z,27µm,18.2s,MS6.6						
GRF	**Grafenberg Arr**	77.34	338	*e*P	P	06 58 14.7	+0.5
	comp=Z,166nm,1.0s,mb5.9						
GRF				*e*PP	PP	07 01 10.2	0.0
GRF				*e*S	S	07 08 13.0	+11
GRF				LR	LR		
	comp=Z,27µm,18.2s,MS6.6						
WET	**Wettzell**	77.42	336	P	P	06 58 15.0	+0.4
PKSG		77.42	332	⇑*e*P	P	06 58 15.0	+0.3
SAFT	**Safranbolu**	77.47	320	P	P	06 58 15.3	+0.2
GEC2	**GERESS Array S**	77.47	336	*e*P	P	06 58 14.9	0.0
GEC2				pmax	pmax		
	comp=Z,44nm,1.1s,mb5.3						
GERES	**GERESS Array B**	77.47	336	P	P	06 58 15.0	+0.1
	comp=Z,49nm,1.0s,mb5.4,baz=33,slow=5.1,SNR=58						
NCB	**Newcomb**	77.47	35	*e*P	P	06 58 14.1	-0.9
	comp=Z,23nm,1.0s,mb5.1						
NCB				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
CORM	**Corum**	77.50	318	P	P	06 58 16.6	+1.4
HGN	**Heimansgroeve**	77.56	341	*e*P	P	06 58 14.8	-0.6
	comp=Z,103nm,1.5s,mb5.5						
HGN				*e*x	x	06 59 54.0	
HGN				*e*PP	PP	07 01 04.9	-7.3
HGN				*e*PPP	PPP	07 03 01.4	+0.7
HGN				*i* S	S	07 08 05.3	+0.7
HGN				*e*SS	SS	07 13 32.8	+26
HGN	**Heimansgroeve**	77.56	341	P	P	06 58 16.4	+1.0
CANT	**Cankiri**	77.59	319	*e*P	P	06 58 17.2	+1.5
SOP	**Sopron**	77.71	333	*e*P	P	06 58 16.9	+0.6
ELDT	**Eldivan**	77.77	319	*i* P	P	06 58 17.7	+1.0
URFA	**Urfa**	77.78	314	P	P	06 58 18.4	+1.5
NATX	**Nacogdoches**	77.85	55	*e*P	P	06 58 17.4	0.0
	comp=Z,235nm,1.7s,mb5.8						
NATX				LR	LR		
	comp=Z,10µm,20.0s,MS6.1						
PRD	**Provadia**	77.96	324	*e*P	P	06 58 18.0	+0.3
TOD	**Tromm**	78.01	339	⇑*e*P	P	06 58 17.9	+0.1
BNN	**Bunyan**	78.03	317	P	P	06 58 19.0	+0.8
ABH	**Alteburg**	78.04	340	⇑*e*P	P	06 58 18.1	+0.1
ABH	**Alteburg**	78.04	340	*e*P	P	06 58 17.9	-0.1
SIND	**Sindeldorf**	78.06	339	⇑*e*P	P	06 58 17.9	-0.2
SIND	**Sindeldorf**	78.06	339	P	P	06 58 18.9	+0.8
SWS	**Schriesheim**	78.14	339	⇑*e*P	P	06 58 18.7	+0.1
SWS	**Schriesheim**	78.14	339	P	P	06 58 19.5	+0.9
MOA	**Molln**	78.22	335	⇑*i*P	P	06 58 19.6	+0.6
	comp=Z,54nm,0.8s,mb5.5						
SGKT	**Sivrigoynuk**	78.28	320	*i* P	P	06 58 20.3	+0.7
BINY	**Binghamton**	78.29	37	PFAKE		06 58 30.0	+10
BINY				LR	LR		
	comp=Z,10µm,20.0s,MS6.2						
BR131	**Keskin Array S**	78.30	319	PFAKE		06 58 30.0	+10
BR131				LR	LR		
	comp=Z,11µm,19.0s,MS6.2						
BRTR	**Keskin Array B**	78.30	319	P	P	06 58 19.8	+0.1
	comp=Z,66nm,1.0s,mb5.5,baz=56,slow=2.9,SNR=58						
RUP	**Ruppelstein**	78.32	340	⇑*e*P	P	06 58 19.6	+0.1
RUP	**Ruppelstein**	78.32	340	*e*P	P	06 58 20.3	+0.8
PKSM	**Moragy**	78.40	332	⇑*i*P	P	06 58 19.3	-0.7
ARSA	**Arzberg**	78.41	334	⇑*i*P	P	06 58 20.7	+0.6
	comp=Z,59nm,1.0s,mb5.5						
GIVF	**Givet**	78.42	342	*e*P	P	06 58 20.0	-0.1
KTD	**Kalmit**	78.44	339	*e*P	P	06 58 19.9	-0.3
GZT	**Gaziantep**	78.45	315	*i* P	P	06 58 21.7	+1.2
SZH	**Strazhica**	78.46	325	*e*P	P	06 58 20.0	-0.4
OXF	**Oxford**	78.47	50	*e*P	P	06 58 21.0	+0.3
OXF				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.4						
OXF				MLR	MLR		
	comp=Z,13µm,19.0s,MS6.3						
OXF	**Oxford**	78.47	50	*e*P	P	06 58 20.9	+0.2
	comp=Z,44nm,0.9s,mb5.4						
OXF				LR	LR		
	comp=Z,13µm,19.0s,MS6.3						
AVNT	**Avonos**	78.54	317	*i* P	P	06 58 21.5	+0.5
LOD	**Lodumlu**	78.55	319	*e*P	P	06 58 18.2	-2.8
KAHT	**Ahir Dag**	78.55	315	*i* P	P	06 58 22.4	+1.3
ANTO	**Ankara**	78.55	319	*e*P	P	06 58 21.1	+0.1
WLF	**Walferdange**	78.55	341	*e*P	P	06 58 22.7	+1.9
WLF				pmax	pmax		
	comp=Z,318nm,1.9s,mb5.9						
WLF	**Walferdange**	78.55	341	*e*P	P	06 58 22.7	+1.9
	comp=Z,318nm,1.9s,mb5.9						
HENT	**Hendek**	78.56	321	*i* P	P	06 58 22.9	+1.8
KAMT	**Kaman**	78.56	318	*e*P	P	06 58 19.8	-1.3
BAIF	**Baives**	78.59	342	*e*P	P	06 58 21.1	+0.1
HKT	**Hockley**	78.59	57	PFAKE		06 58 30.0	+8.6
HKT				LR	LR		
	comp=Z,7µm,19.0s,MS6.0						
WVL	**Waterville**	78.61	32	PFAKE		06 58 30.0	+8.7
WVL				LR	LR		
	comp=Z,36µm,19.0s,MS6.7						
HDH	**Heidenheim**	78.62	338	⇑*e*P	P	06 58 21.2	0.0
HDH	**Heidenheim**	78.62	338	P	P	06 58 21.7	+0.5
RHK1	**Bakonya**	78.68	332	⇑*e*P	P	06 58 21.2	-0.4
STU	**Stuttgart**	78.69	339	*e*P	P	06 58 21.6	0.0
STU				pmax	pmax		
	comp=Z,95nm,1.1s,mb5.6						
STU	**Stuttgart**	78.69	339	*e*P	P	06 58 21.6	0.0
	comp=Z,95nm,1.1s,mb5.6						
PVL	**Pavlikeni**	78.73	326	*e*P	P	06 58 22.5	+0.6
MDU	**Mudurnu**	78.73	321	*e*P	P	06 58 22.1	+0.1
FUR	**Furstenfeldbru**	78.73	337	*e*P	P	06 58 22.2	+0.3
FUR				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.4						
FUR	**Furstenfeldbru**	78.73	337	P	P	06 58 23.4	+1.5
GAZ	**Gaziantep**	78.76	315	*e*P	P	06 58 23.4	+1.2
MCWV	**Mont Chateau**	78.82	41	*e*P	P	06 58 22.6	+0.1
	comp=Z,167nm,1.7s,mb5.7						
MCWV				LR	LR		
	comp=Z,15µm,20.0s,MS6.3						
LANF	**Langenberg**	78.82	339	*e*P	P	06 58 22.4	+0.1
LBG	**Lerchenberg**	78.89	339	⇑*e*P	P	06 58 22.6	-0.1
LBG	**Lerchenberg**	78.89	339	P	P	06 58 24.4	+1.7
JMB	**Yambol**	78.90	325	*e*P	P	06 58 20.0	-2.9
BUCH	**Bad Urach**	78.95	338	*e*P	P	06 58 23.6	+0.6
BUCH	**Bad Urach**	78.95	338	P	P	06 58 23.9	+0.9
HEX	**Exmoor**	79.00	347	*e*P	P	06 58 23.1	-0.2
ARMA	**Armidale**	79.04	184	*i* S	S	07 08 25.0	+4.1
ARMA	**Armidale**	79.04	184	⇑*i*P	P	06 58 24.3	+0.4
ARMA				*i* S	S	07 08 25.0	+4.1
BEO	**Belgrade**	79.04	330	⇑*i*P	P	06 58 23.5	-0.1
HRT	**Hereke**	79.07	322	*e*P	P	06 58 24.0	+0.1
PERS	**Pernice**	79.08	334	*e*P	P	06 58 24.1	+0.3
ISK	**Istanbul-Kandi**	79.11	322	*e*P	P	06 58 22.9	-1.2
GROS	**Grobnik**	79.13	334	P	P	06 58 24.3	+0.3
KBA	**Koelnbreinsper**	79.18	335	⇑*i*P	P	06 58 25.8	+1.5
	comp=Z,248nm,1.4s,mb6.0						
KBA	**Koelnbreinsper**	79.18	335	⇑*i*P	P	06 58 25.8	+1.5
KBA				pmax	pmax		
	comp=Z,248nm,1.4s,mb6.0						
NIG	**Nigde**	79.20	317	*e*P	P	06 58 25.4	+0.7
EMMW	**East Machias**	79.23	30	PFAKE		06 58 40.0	+15
EMMW				LR	LR		
	comp=Z,53µm,19.0s,MS6.9						
BFO	**Black Forest**	79.31	339	*e*P	P	06 58 25.0	0.0
BFO				pmax	pmax		
	comp=Z,68nm,1.3s,mb5.4						
OBKA	**Obir**	79.36	334	⇑*i*P	P	06 58 25.9	+0.6
	comp=Z,106nm,1.7s,mb5.5						
GUT	**Gutenstein**	79.36	338	⇑*e*P	P	06 58 25.6	+0.3
GUT	**Gutenstein**	79.36	338	P	P	06 58 26.8	+1.5
EDRB	**Edirne**	79.37	324	*e*P	P	06 58 25.6	+0.1
UMR	**Umm Al-Rimmam**	79.37	303	*e*P	P	06 58 25.5	-0.2
UMR				AMb	AMB	06 58 31.1	
	comp=Z,225nm,0.6s,mb6.2						
BOLS	**Boljevac**	79.41	328	⇓*i*P	P	06 58 24.1	-1.6
SPAK	**Spaichingen**	79.42	339	*e*P	P	06 58 25.7	+0.1
WATA	**Walderalm**	79.42	336	⇑*i*P	P	06 58 26.4	+0.8
	comp=Z,208nm,1.5s,mb5.8						
WATA	**Walderalm**	79.42	336	⇑*i*P	P	06 58 26.4	+0.8
WATA				pmax	pmax		
	comp=Z,208nm,1.5s,mb5.8						
WLS	**Welschbruch**	79.46	340	*e*P	P	06 58 26.0	+0.2
WTTA	**Wattenberg**	79.47	336	⇑*i*P	P	06 58 26.9	+1.0
	comp=Z,124nm,1.2s,mb5.7						
WTTA	**Wattenberg**	79.47	336	⇑*i*P	P	06 58 26.9	+1.0
WTTA				pmax	pmax		
	comp=Z,124nm,1.2s,mb5.7						
CDF	**Champ du Feu**	79.48	340	*e*P	P	06 58 25.8	-0.1
	comp=Z,155nm,1.2s,mb5.5						
CDF	**Champ du Feu**	79.48	340	*e*P	P	06 58 25.8	-0.1
CDF				pmax	pmax		
	comp=Z,78nm,1.2s,mb5.5						
UBR	**Uberruh**	79.48	338	⇑*e*P	P	06 58 26.0	+0.1
UBR	**Uberruh**	79.48	338	P	P	06 58 28.0	+2.1
MOTA	**Moosalm**	79.54	337	⇑*i*P	P	06 58 26.8	+0.6
	comp=Z,79nm,1.2s,mb5.5						
MOTA	**Moosalm**	79.54	337	⇑*i*P	P	06 58 26.8	+0.6
MOTA				pmax	pmax		
	comp=Z,79nm,1.2s,mb5.5						
CEYT	**Ceyhan**	79.58	316	*e*P	P	06 58 25.5	-1.2
SQTA	**Sankt Quirin**	79.62	337	⇑*i*P	P	06 58 27.5	+0.8
	comp=Z,174nm,1.4s,mb5.8						
SQTA	**Sankt Quirin**	79.62	337	⇑*i*P	P	06 58 27.5	+0.8
SQTA				pmax	pmax		
	comp=Z,174nm,1.4s,mb5.8						
SWET	**Sewanee**	79.64	47	*e*P	P	06 58 25.9	-1.2
LEGS	**Legarje**	79.65	334	P	P	06 58 27.1	+0.2
LIBD	**Limburg**	79.65	339	*e*P	P	06 58 27.2	+0.4
ESKT	**Eskisehir**	79.67	320	*e*P	P	06 58 26.6	-0.6
ESKT	**Eskisehir**	79.67	320	*i* P	P	06 58 27.3	+0.2
ECH	**Echery**	79.69	340	*e*P	P	06 58 26.9	-0.2
CRES	**Cresnjev**	79.72	333	P	P	06 58 27.7	+0.5
HRV	**Harvard--Oak R**	79.72	34	PFAKE		06 58 40.0	+13
HRV				LR	LR		
	comp=Z,10µm,20.0s,MS6.2						
PGB	**Panagyurishte**	79.73	326	*e*P	P	06 58 28.0	+0.6
COBT	**Iskenderun**	79.74	315	*i* P	P	06 58 29.1	+1.5
KIZ	**Kirchzarten**	79.76	339	⇑*e*P	P	06 58 26.9	-0.5
SISB	**Singen-Sch Ber**	79.76	338	P	P	06 58 29.5	+2.1
SISC	**Sisak**	79.76	333	*i* P	P	06 58 25.4	-2.2
KIZT	**Kizilcal**	79.77	319	*e*P	P	06 58 27.8	+0.1
FVI	**Forni Avoltri**	79.78	335	P	P	06 58 28.4	+0.8
GRUS	**Gruza**	79.78	329	⇑*i*P	P	06 58 27.7	+0.1
LJU	**Ljubljana**	79.79	334	*e*P	P	06 58 27.1	-0.5
SEST	**Monte Rota**	79.79	336	P	P	06 58 29.3	+1.7
PTCC	**Patocco-Chiusa**	79.79	335	P	P	06 58 27.2	-0.4
RST	**Umm Al-Ruwaisa**	79.80	303	*e*P	P	06 58 27.5	-0.6
RST				AMb	AMB	06 58 31.6	
	comp=Z,324nm,0.6s,mb6.4						
FELD	**Feldberg**	79.81	339	⇑*e*P	P	06 58 27.7	0.0
FELD	**Feldberg**	79.81	339	*e*P	P	06 58 26.7	-1.0
ULDT	**Uludag**	79.86	322	*i* P	P	06 58 28.8	+0.6
MEZF	**Maizieres J'vi**	79.89	341	*e*P	P	06 58 28.4	+0.3
DAVA	**Damuels**	79.90	338	⇑*i*P	P	06 58 28.8	+0.6
	comp=Z,61nm,1.0s,mb5.5						
RDF	**Al-Radifah**	79.94	303	*e*P	P	06 58 29.5	+0.7
RDF				AMb	AMB	06 58 32.6	
	comp=Z,420nm,1.1s,mb6.3						
THEF	**They Montfort**	79.94	340	*e*P	P	06 58 29.0	+0.6
BRES	**Bressanone**	79.97	336	P	P	06 58 29.2	+0.6
RAR	**Rarotonga**	79.97	139	PFAKE		06 58 40.0	+11
RAR				LR	LR		
	comp=Z,8µm,20.0s,MS6.1						
WILA	**Wila**	80.03	338	⇑P	P	06 58 29.1	+0.2
MOF	**Molkenrain**	80.04	340	*e*P	P	06 58 29.0	+0.1
KDZ	**Kurdzhali**	80.04	325	*e*P	P	06 58 30.0	+0.9
VTS	**Vitosha**	80.05	327	P	P	06 58 29.0	-0.1
VTS	**Vitosha**	80.05	327	P	P	06 58 29.1	0.0
BOJS	**Bojanci**	80.07	333	*e*P	P	06 58 21.7	-7.4
BOJS				*e*PcP	PcP	06 58 32.5	-4.5
BOJS				*e*S	S	07 08 37.9	+6.5
HAU	**Haudompre**	80.07	340	*e*P	P	06 58 28.9	-0.2
	comp=Z,133nm,1.2s,mb5.5						
HAU				*e*R			
	comp=Z,14µm,18.5s						
HAU	**Haudompre**	80.07	340	*e*P	P	06 58 28.9	-0.2
HAU				pmax	pmax		
	comp=Z,67nm,1.2s,mb5.5						
HAU				MLR	MLR		
	comp=Z,14µm,18.5s,MS6.3						
HTY	**Hatay**	80.12	315	*e*P	P	06 58 30.1	+0.5
HINF	**Hinteralfeld**	80.14	340	*e*P	P	06 58 29.2	-0.2
ZUR	**Zurich**	80.15	338	⇓P	P	06 58 28.6	-0.9
BNT	**Bandirma**	80.17	323	*e*P	P	06 58 20.9	-9.0
COCO	**West Island**	80.22	239	PFAKE		06 58 40.0	+9.4
COCO				LR	LR		
	comp=Z,936nm,19.0s,MS5.2						
RZN	**Rozhen**	80.28	325	*e*P	P	06 58 31.0	+0.7
KNDS	**Knezji Dol**	80.30	334	*e*P	P	06 58 26.3	-4.1
APPI	**Appiano**	80.31	336	P	P	06 58 30.1	-0.3
BBS	**Basel-Blauen**	80.31	339	*e*P	P	06 58 31.1	+0.7
BBS	**Basel-Blauen**	80.31	339	*e*P	P	06 58 30.8	+0.4
TRI	**Trieste**	80.31	334	P	P	06 58 30.5	+0.1
KONT	**Konya--Tatoy**	80.33	318	*e*P	P	06 58 30.2	-0.5
ALT	**Altintas**	80.37	320	*e*P	P	06 58 30.7	-0.2
DAVOX	**Davos**	80.37	337	P	P	06 58 32.7	+1.9
	comp=Z,21nm,0.7s,mb5.2,baz=17,slow=4.4,SNR=12						
PMOR	**Pomariorio Ree**	80.44	126	*e*P	P	06 58 29.3	-2.4
	comp=Z,72nm,1.0s,mb5.6						
NVSS	**Nova Varos 2**	80.46	330	⇓*i*P	P	06 58 31.6	+0.4
MUO	**Muotathal**	80.51	338	⇓P	P	06 58 33.0	+1.6
LLS	**Linth-Limmern**	80.53	338	⇓P	P	06 58 33.1	+1.5
BRMO	**Bormio**	80.53	337	P	P	06 58 32.7	+1.1
LOMF	**Lomont**	80.58	340	*e*P	P	06 58 31.2	-0.6
BLA	**Blacksburg**	80.59	43	P	P	06 58 33.1	+1.0
BLA				pmax	pmax		

	comp=Z,42nm,1.3s,mb5.2						
BLA	**Blacksburg**	**80.59**	**43**	eP	**P**	**06 58 31.6**	**-0.5**
	comp=Z,42nm,1.3s,mb5.2						
BLA				LR	LR		
	comp=Z,11μm,20.0s,MS6.2						
CTI	**Castel Tesino**	**80.59**	**336**	P	**P**	**06 58 31.6**	**-0.3**
MYNC	**Murphy**	**80.63**	**46**	eP	**P**	**06 58 33.7**	**+1.4**
MYNC				pmax	pmax		
	comp=Z,51nm,1.5s,mb5.2						
MYNC				MLR	MLR		
	comp=Z,11μm,19.0s,MS6.2						
MYNC	**Murphy**	**80.63**	**46**	eP	**P**	**06 58 33.7**	**+1.3**
	comp=Z,51nm,1.5s,mb5.2						
MYNC				LR	LR		
	comp=Z,11μm,19.0s,MS6.2						
BTOK	**Tokmak**	**80.64**	**322**	iP	**P**	**06 58 30.3**	**-2.0**
MEST	**Erdemli**	**80.66**	**316**	iP	**P**	**06 58 32.4**	**-0.1**
FLN	**La Foliniere**	**80.71**	**345**	eP	**P**	**06 58 32.6**	**+0.1**
	comp=Z,265nm,1.2s,mb5.8						
FLN				eR			
	comp=Z,26μm,18.5s						
FLN	**La Foliniere**	**80.71**	**345**	eP	**P**	**06 58 32.6**	**+0.1**
FLN				pmax	pmax		
	comp=Z,133nm,1.2s,mb5.7						
FLN				MLR	MLR		
	comp=Z,26μm,18.5s,MS6.6						
KKB	**Krupnik**	**80.72**	**327**	eP	**P**	**06 58 32.0**	**-0.7**
MMB	**Musomiste**	**80.73**	**326**	eP	**P**	**06 58 31.0**	**-1.7**
VDL	**Val di Lei**	**80.75**	**338**	⇑P	**P**	**06 58 33.7**	**+1.0**
TUE	**Stuetta**	**80.80**	**338**	P	**P**	**06 58 33.9**	**+0.9**
BALB	**Balikesir**	**80.80**	**322**	eP	**P**	**06 58 33.3**	**+0.2**
LDF	**La Druitiere**	**80.81**	**344**	eP	**P**	**06 58 32.9**	**-0.1**
	comp=Z,143nm,1.1s,mb5.5						
LDF	**La Druitiere**	**80.81**	**344**	eP	**P**	**06 58 32.9**	**-0.1**
LDF				pmax	pmax		
	comp=Z,72nm,1.1s,mb5.5						
LRAL	**Lakeview Retre**	**80.86**	**50**	eP	**P**	**06 58 32.2**	**-1.4**
	comp=Z,3.3nm,0.6s,mb4.4						
LRAL				LR	LR		
	comp=Z,9μm,19.0s,MS6.1						
MABI	**Malga Bissina**	**80.89**	**337**	P	**P**	**06 58 35.7**	**+2.3**
CBN	**Corbin**	**81.09**	**40**	eP	**P**	**06 58 33.8**	**-0.9**
	comp=Z,45nm,1.1s,mb5.3						
CBN				LR	LR		
	comp=Z,13μm,19.0s,MS6.3						
RAO	**Raoul Island**	**81.10**	**157**	PFAKE		06 58 50.0	+15
RAO				LR	LR		
	comp=Z,12μm,19.0s,MS6.3						
GRR	**Gorron**	**81.14**	**345**	eP	**P**	**06 58 35.0**	**+0.3**
	comp=Z,266nm,1.1s,mb5.8						
GRR	**Gorron**	**81.14**	**345**	eP	**P**	**06 58 35.0**	**+0.3**
GRR				pmax	pmax		
	comp=Z,133nm,1.1s,mb5.8						
SKO	**Skopje**	**81.22**	**328**	iP	**P**	**06 58 38.8**	**+3.5**
	comp=Z,0.1nm,1.2s						
ISP	**Isparta**	**81.22**	**320**	eP	**P**	**06 58 35.4**	**0.0**
ISP	**Isparta**	**81.22**	**320**	eP	**P**	**06 58 35.3**	**-0.1**
ISP				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.4						
LKBD	**Leukerbad**	**81.30**	**339**	⇑P	**P**	**06 58 38.0**	**+2.4**
VAY	**Valandovo**	**81.39**	**327**	iP	**P**	**06 58 38.7**	**+2.5**
CABF	**La Chapelle**	**81.45**	**340**	eP	**P**	**06 58 37.3**	**+0.9**
	comp=Z,117nm,1.2s,mb5.4						
CABF	**La Chapelle**	**81.45**	**340**	eP	**P**	**06 58 37.3**	**+0.9**
CABF				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.4						
STKA	**Stephens Creek**	**81.46**	**193**	iS	S	07 08 49.0	+2.9
STKA	**Stephens Creek**	**81.46**	**193**	P	**P**	**06 58 38.7**	**+1.9**
	comp=Z,9.8nm,0.8s,mb4.8,baz=349,slow=5.6,SNR=14						
STKA				LR	LR	07 38 18.7	
	comp=Z,7μm,18.1s,MS6.1,baz=7.1,slow=38						
STKA	**Stephens Creek**	**81.46**	**193**	eP	**P**	**06 58 36.0**	**-0.8**
	comp=Z,18nm,1.1s,mb4.9						
STKA				iS	S	07 08 49.0	+2.9
AKS	**Akhisar**	**81.47**	**322**	eP	**P**	**06 58 37.0**	**+0.3**
VAI	**Varese**	**81.50**	**338**	P	**P**	**06 58 38.0**	**+1.3**
MMK	**Mattmark**	**81.53**	**338**	⇓P	**P**	**06 58 39.2**	**+2.4**
SGMF	**Saint Gilles**	**81.55**	**346**	eP	**P**	**06 58 37.5**	**+0.6**
	comp=Z,120nm,0.9s,mb5.5						
SGMF	**Saint Gilles**	**81.55**	**346**	eP	**P**	**06 58 37.5**	**+0.6**
SGMF				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
HYF	**Humbligny**	**81.56**	**342**	eP	**P**	**06 58 37.4**	**+0.4**
SSF	**Saint Saulge**	**81.58**	**342**	eP	**P**	**06 58 37.0**	**-0.1**
	comp=Z,77nm,1.0s,mb5.3						
SSF	**Saint Saulge**	**81.58**	**342**	eP	**P**	**06 58 37.0**	**-0.1**
SSF				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
ROSF	**Rostrenen**	**81.59**	**346**	eP	**P**	**06 58 37.6**	**+0.5**
	comp=Z,162nm,1.0s,mb5.6						
ROSF	**Rostrenen**	**81.59**	**346**	eP	**P**	**06 58 37.6**	**+0.5**
ROSF				pmax	pmax		
	comp=Z,81nm,1.0s,mb5.6						
HASS	**Wahat al Ahsa'**	**81.59**	**299**	P	**P**	**06 58 37.2**	**-0.4**
MCGN	**Macugnaga**	**81.61**	**338**	P	**P**	**06 58 38.2**	**+0.9**
DIX	**Grande Dixence**	**81.64**	**339**	⇑P	**P**	**06 58 38.6**	**+1.2**
PPT	**Papeete**	**81.69**	**129**	eP	**P**	**06 58 35.8**	**-2.4**
	comp=Z,64nm,1.2s,mb5.4						
PPT	**Papeete**	**81.69**	**129**	ePP	PP	07 01 25.0	-22
PPT				eSS	SS	07 13 59.9	-10
PPT				eLR	LR	07 23 27.8	
	comp=Z,6μm,24.0s,baz=328						
PAE	**Paea**	**81.77**	**129**	eP	**P**	**06 58 36.2**	**-2.4**
	comp=Z,128nm,1.1s,mb5.8						
EMV	**Vieux Emosson**	**81.78**	**339**	⇑P	**P**	**06 58 39.0**	**+0.9**
TIAR	**Tiarei**	**81.81**	**129**	eP	**P**	**06 58 36.4**	**-2.4**
	comp=Z,220nm,1.0s,mb6.1						
AVF	**Avril sur Loir**	**81.87**	**342**	eP	**P**	**06 58 38.9**	**+0.3**
	comp=Z,88nm,0.8s,mb5.5						
AVF	**Avril sur Loir**	**81.87**	**342**	eP	**P**	**06 58 38.9**	**+0.3**
AVF				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.4						
SMF	**Signal de Mont**	**81.91**	**341**	eP	**P**	**06 58 39.1**	**+0.3**
	comp=Z,53nm,0.7s,mb5.3						
SMF	**Signal de Mont**	**81.91**	**341**	eP	**P**	**06 58 39.1**	**+0.3**
SMF				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.3						
ORX	**Oropa**	**81.92**	**338**	P	**P**	**06 58 39.9**	**+1.1**
ORO	**Oropa**	**81.92**	**338**	P	**P**	**06 58 40.5**	**+1.6**
DNZL	**Cakiroluk**	**81.97**	**320**	iP	**P**	**06 58 40.5**	**+1.2**
QUIF	**Quistinic**	**81.98**	**346**	eP	**P**	**06 58 39.6**	**+0.5**
	comp=Z,174nm,1.3s,mb5.5						
QUIF	**Quistinic**	**81.98**	**346**	eP	**P**	**06 58 39.6**	**+0.5**
QUIF				pmax	pmax		
	comp=Z,87nm,1.3s,mb5.5						
TVO	**Taravao**	**82.04**	**129**	eP	**P**	**06 58 37.8**	**-2.2**
	comp=Z,38nm,0.8s,mb5.4						
TRAV		**82.09**	**338**	P	**P**	**06 58 41.9**	**+2.2**
KDAG	**Bornova**	**82.10**	**322**	iP	**P**	**06 58 34.8**	**-5.2**
IZM	**Izmir**	**82.11**	**322**	eP	**P**	**06 58 40.1**	**+0.1**
BGF	**Bois d'Agland**	**82.20**	**342**	eP	**P**	**06 58 40.6**	**+0.3**
	comp=Z,34nm,0.7s,mb5.1						
BGF	**Bois d'Agland**	**82.20**	**342**	eP	**P**	**06 58 40.6**	**+0.3**
BGF				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
BLCB	**Balcova**	**82.21**	**322**	eP	**P**	**06 58 39.0**	**-1.5**
LSD	**Ceresole Reale**	**82.28**	**339**	P	**P**	**06 58 42.3**	**+1.6**
GOGA	**Godfrey**	**82.30**	**47**	PFAKE		06 58 50.0	+8.9
GOGA				LR	LR		
	comp=Z,11μm,19.0s,MS6.2						
RSM	**Repubblica di**	**82.32**	**335**	P	**P**	**06 58 42.7**	**+1.7**
LPL	**La Plagne**	**82.33**	**339**	eP	**P**	**06 58 42.2**	**+1.2**
	comp=Z,70nm,0.7s,mb5.4						
LPL	**La Plagne**	**82.33**	**339**	eP	**P**	**06 58 42.2**	**+1.2**
LPL				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.4						
LPG	**La Plagne**	**82.34**	**339**	eP	**P**	**06 58 42.5**	**+1.5**
	comp=Z,69nm,0.6s,mb5.5						
LPG	**La Plagne**	**82.34**	**339**	eP	**P**	**06 58 42.5**	**+1.5**
LPG				pmax	pmax		
	comp=Z,35nm,0.6s,mb5.5						
CSS	**Prodhromos**	**82.37**	**316**	eP	**P**	**06 58 41.1**	**-0.3**
	comp=Z,56nm,0.8s,mb5.5						
ERBM	**Eremo**	**82.43**	**336**	P	**P**	**06 58 44.2**	**+2.7**
FSSB	**Fossombrone**	**82.44**	**334**	P	**P**	**06 58 42.4**	**+0.8**
GSCL	**Gusciola**	**82.44**	**336**	P	**P**	**06 58 43.1**	**+1.5**
GRAM		**82.45**	**336**	P	**P**	**06 58 42.9**	**+1.3**
SEI	**Scarperia**	**82.51**	**335**	P	**P**	**06 58 44.1**	**+2.2**
SFI	**Santa Sofia**	**82.51**	**335**	P	**P**	**06 58 44.5**	**+2.5**
VALM		**82.54**	**336**	P	**P**	**06 58 44.9**	**+2.8**
VMG	**Vicchio**	**82.54**	**335**	P	**P**	**06 58 43.9**	**+1.8**
RSP	**Reno Superiore**	**82.55**	**339**	P	**P**	**06 58 43.6**	**+1.5**
PGD	**Poggio Sodo**	**82.57**	**335**	P	**P**	**06 58 44.5**	**+2.2**
ARV	**Arcevia**	**82.58**	**334**	P	**P**	**06 58 44.1**	**+1.8**
TCF	**Toulx Ste Croi**	**82.59**	**342**	eP	**P**	**06 58 42.9**	**+0.6**
	comp=Z,80nm,0.9s,mb5.4						
TCF	**Toulx Ste Croi**	**82.59**	**342**	eP	**P**	**06 58 42.9**	**+0.6**
TCF				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
PLDF	**La Plantade**	**82.60**	**341**	eP	**P**	**06 58 44.2**	**+1.8**
CODM		**82.60**	**336**	P	**P**	**06 58 42.9**	**+0.5**
SALA	**Sala**	**82.61**	**312**	⇑P	**P**	**06 58 39.9**	**-2.8**
AGO	**Saint Agoulin**	**82.62**	**342**	eP	**P**	**06 58 45.4**	**+2.9**
BACM		**82.65**	**336**	P	**P**	**06 58 43.9**	**+1.2**
VLC	**Villacollemand**	**82.68**	**336**	eP	**P**	**06 58 43.6**	**+0.8**
	comp=Z,201nm,1.2s,mb6.0						
FENE	**Fenestrelle**	**82.71**	**339**	P	**P**	**06 58 44.7**	**+1.7**
BDI	**Bagni Di Lucca**	**82.71**	**336**	P	**P**	**06 58 44.2**	**+1.2**
KSDI	**Kefar Szold**	**82.73**	**313**	P	**P**	**06 58 45.2**	**+1.8**
MFF	**Saint Martin d**	**82.74**	**344**	eP	**P**	**06 58 43.7**	**+0.6**
	comp=Z,142nm,1.1s,mb5.6						
MFF	**Saint Martin d**	**82.74**	**344**	eP	**P**	**06 58 43.7**	**+0.6**
MFF				pmax	pmax		
	comp=Z,71nm,1.1s,mb5.6						
VINC	**Vinca**	**82.76**	**336**	P	**P**	**06 58 42.3**	**-0.9**
GDM	**Grand'Maison**	**82.77**	**339**	eP	**P**	**06 58 46.3**	**+3.0**
BNI	**Bardonecchia**	**82.78**	**339**	eP	**P**	**06 58 44.9**	**+1.6**
BNI				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.3						
BNI	**Bardonecchia**	**82.78**	**339**	eP	**P**	**06 58 44.9**	**+1.6**
	comp=Z,19nm,0.6s,mb5.3						
SNTG	**Esanatoglia**	**82.80**	**334**	P	**P**	**06 58 44.4**	**+0.9**
PCP	**Pian Castagno**	**82.80**	**337**	P	**P**	**06 58 44.9**	**+1.5**
BHB	**Bricherasio**	**82.84**	**338**	P	**P**	**06 58 44.2**	**+0.6**
RRL	**Cesana Torines**	**82.88**	**339**	P	**P**	**06 58 44.5**	**+0.7**
PYM	**Petit Puy Mans**	**82.94**	**342**	eP	**P**	**06 58 46.8**	**+2.7**
ASF	**Jabal al Asfar**	**82.97**	**312**	P	**P**	**06 58 45.2**	**+0.6**
	comp=Z,41nm,1.0s,mb5.4,baz=276,slow=2.7,SNR=13						
ASF				LR	LR	07 40 19.5	
	comp=Z,10μm,19.9s,MS6.2,baz=87,slow=39						
HNTI	**Hanita**	**83.06**	**314**	P	**P**	**06 58 45.3**	**+0.3**
MBDF	**Montbardon**	**83.06**	**339**	eP	**P**	**06 58 45.9**	**+1.1**
	comp=Z,44nm,0.7s,mb5.3						
MBDF	**Montbardon**	**83.06**	**339**	eP	**P**	**06 58 45.9**	**+1.1**
MBDF				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.3						
CSNT	**Castellina Chi**	**83.07**	**335**	P	**P**	**06 58 47.2**	**+2.4**
ORIF	**Oris-en-Rattie**	**83.09**	**339**	eP	**P**	**06 58 46.0**	**+1.0**
ORIF				eR			
	comp=Z,15μm,18.0s						
NRCA	**Norcia**	**83.14**	**334**	P	**P**	**06 58 46.4**	**+1.2**
DOI	**San Damiano**	**83.16**	**338**	P	**P**	**06 58 45.8**	**+0.5**
PZZ	**Prazzo**	**83.19**	**338**	P	**P**	**06 58 45.1**	**-0.4**
FIN	**Finale Ligure**	**83.20**	**338**	P	**P**	**06 58 46.4**	**+0.9**
ROB	**Roburent**	**83.20**	**338**	P	**P**	**06 58 45.1**	**-0.4**
FORT	**Forrest**	**83.23**	**204**	eS	S	07 09 02.4	-1.8
FORT	**Forrest**	**83.23**	**204**	eP	**P**	**06 58 45.5**	**-0.5**
	comp=Z,248nm,1.3s,mb6.1						
FORT				eS	S	07 09 02.4	-1.8
SURF	**Saint Ours**	**83.29**	**339**	eP	**P**	**06 58 48.8**	**+2.8**
ENR	**Entracque**	**83.38**	**338**	P	**P**	**06 58 45.7**	**-0.7**
LBL	**Lubilhac**	**83.38**	**341**	eP	**P**	**06 58 46.8**	**+0.4**
STV2	**Anna di Valdie**	**83.38**	**338**	P	**P**	**06 58 44.9**	**-1.5**
STV	**Sta Anna Valdi**	**83.38**	**338**	P	**P**	**06 58 45.4**	**-1.1**
VIVF	**Saint-Julien-l**	**83.43**	**340**	eP	**P**	**06 58 47.4**	**+0.7**
	comp=Z,87nm,1.1s,mb5.4						
VIVF	**Saint-Julien-l**	**83.43**	**340**	eP	**P**	**06 58 47.4**	**+0.7**
VIVF				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.4						
MONE	**Monesi**	**83.43**	**338**	P	**P**	**06 58 45.9**	**-0.9**
RGNG	**Rignano Grg**	**83.44**	**332**	P	**P**	**06 58 48.5**	**+1.7**
MMLI	**Mount Malkishu**	**83.47**	**313**	P	**P**	**06 58 47.6**	**+0.5**
AQU	**L'Aquila**	**83.49**	**333**	eP	**P**	**06 58 48.5**	**+1.5**
AQU				pmax	pmax		
	comp=Z,120nm,1.2s,mb5.8						
AQU	**L'Aquila**	**83.49**	**333**	eP	**P**	**06 58 48.5**	**+1.4**
	comp=Z,120nm,1.2s,mb5.8						
OFRI	**'Ofer**	**83.53**	**314**	P	**P**	**06 58 46.5**	**-0.9**
IMI	**Imperia**	**83.56**	**338**	P	**P**	**06 58 46.6**	**-0.6**
HMDT	**Nahal Hemdat**	**83.57**	**313**	P	**P**	**06 58 48.1**	**+0.5**
SAOF	**Saorge**	**83.57**	**338**	eP	**P**	**06 58 46.2**	**-1.1**
AUTN	**L'Aution**	**83.59**	**338**	eP	**P**	**06 58 49.2**	**+1.8**
TOUF	**Mont Tournerai**	**83.62**	**338**	eP	**P**	**06 58 49.4**	**+1.8**
NEGI	**Negi**	**83.66**	**338**	P	**P**	**06 58 46.9**	**-0.9**
RJF	**Les Rejaudoux**	**83.67**	**342**	eP	**P**	**06 58 48.2**	**+0.4**
RJF				eR			
	comp=Z,21μm,18.8s						
MNS	**Montasola**	**83.67**	**334**	P	**P**	**06 58 48.9**	**+1.0**
SBF	**Sospel**	**83.72**	**338**	eP	**P**	**06 58 48.2**	**+0.1**
	comp=Z,209nm,1.2s,mb5.8						
SBF	**Sospel**	**83.72**	**338**	eP	**P**	**06 58 48.2**	**+0.1**
SBF				pmax	pmax		
	comp=Z,105nm,1.2s,mb5.8						
MVIF	**Mont Vial**	**83.75**	**338**	eP	**P**	**06 58 49.6**	**+1.3**
CII	**Carovilli**	**83.79**	**332**	P	**P**	**06 58 47.9**	**-0.7**
	comp=Z,162nm,1.3s,mb6.0						
PTQR	**Pietraquaria**	**83.79**	**333**	P	**P**	**06 58 49.1**	**+0.6**
SLTI	**Sal'it**	**83.81**	**313**	P	**P**	**06 58 49.3**	**+0.4**
CAF	**Calviac**	**83.92**	**342**	eP	**P**	**06 58 50.1**	**+1.0**
SDI	**San Donato**	**83.96**	**333**	P	**P**	**06 58 50.4**	**+1.0**
SMRF	**Simiane la Rot**	**84.06**	**339**	eP	**P**	**06 58 50.0**	**+0.2**
NHSC	**New Hope**	**84.10**	**45**	P	**P**	**06 58 49.9**	**-0.4**
	comp=Z,88nm,1.1s,mb5.8						
NHSC				LR	LR		
	comp=Z,13μm,20.0s,MS6.3						
RYDS	**Riyadh**	**84.12**	**300**	P	**P**	**06 58 50.0**	**-0.6**
LFF	**La Frestale**	**84.17**	**343**	eP	**P**	**06 58 51.2**	**+0.8**
DRGI	**Dragot**	**84.17**	**313**	P	**P**	**06 58 51.0**	**+0.3**
FRF	**La Foret Royal**	**84.19**	**338**	eP	**P**	**06 58 50.6**	**+0.1**
HILS	**Ha'il**	**84.30**	**306**	P	**P**	**06 58 52.2**	**+0.8**
LASF	**Ste Croix**	**84.35**	**340**	eP	**P**	**06 58 51.8**	**+0.5**
	comp=Z,18nm,0.8s,mb5.0						
MZDA	**Masada**	**84.42**	**313**	P	**P**	**06 58 52.4**	**+0.5**
LMR	**La Mourre**	**84.44**	**338**	eP	**P**	**06 58 52.2**	**+0.5**
PGF	**Pioggiola**	**84.55**	**336**	eP	**P**	**06 58 52.1**	**-0.2**
ARSS	**Ar Rass**	**84.70**	**304**	P	**P**	**06 58 53.5**	**0.0**
MZLS	**Mizel**	**85.06**	**301**	P	**P**	**06 58 55.4**	**+0.2**
ZFRI	**Zfri**	**85.13**	**312**	P	**P**	**06 58 55.7**	**+0.2**
KZIT	**Kziot**	**85.22**	**313**	P	**P**	**06 58 55.7**	**-0.2**
TIP	**Timpagrande**	**85.32**	**330**	eP	**P**	**06 58 58.5**	**+2.3**
PRNI	**Paran**	**85.38**	**312**	P	**P**	**06 58 56.9**	**+0.1**
MTLF	**Montolieu**	**85.41**	**341**	eP	**P**	**06 58 57.1**	**+0.5**
	comp=Z,95nm,1.3s,mb5.5						
MTLF	**Montolieu**	**85.41**	**341**	eP	**P**	**06 58 57.1**	**+0.5**
MTLF				pmax	pmax		
	comp=Z,47nm,1.3s,mb5.5						
AQBJ	**Aqaba**	**85.87**	**312**	P	**P**	**06 59 00.9**	**+1.7**
MBH	**Mount Berech**	**85.89**	**312**	P	**P**	**06 59 00.9**	**+1.6**
EIL	**Elat**	**85.97**	**312**	P	**P**	**06 59 00.4**	**+0.7**
	comp=Z,37nm,0.7s,mb5.7,baz=13,slow=7.6,SNR=32						
EIL	**Elat**	**85.97**	**312**	P	**P**	**06 58 59.7**	**0.0**
EIL	**Elat**	**85.97**	**312**	eP	**P**	**06 58 59.6**	**-0.1**
	comp=Z,32nm,0.6s,mb5.7						
EPF	**Esparros**	**86.09**	**343**	eP	**P**	**06 58 59.6**	**-0.4**
	comp=Z,20nm,0.5s,mb5.3						
EPF	**Esparros**	**86.09**	**343**	eP	**P**	**06 58 59.6**	**-0.4**
EPF				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.3						
JMQS	**Jabal Moqyreh**	**86.15**	**311**	P	**P**	**06 59 02.9**	**+2.3**
ALWS	**Ilw as Safayha**	**86.21**	**312**	P	**P**	**06 59 02.9**	**+2.0**
EALK	**Alkurruntz**	**86.26**	**344**	P	**P**	**06 59 02.9**	**+2.1**
	comp=Z,17nm,0.6s,mb5.4						
JMOS	**Jabal al Moall**	**86.30**	**311**	P	**P**	**06 59 03.9**	**+2.5**
SJPF	**Ste Jean**	**86.31**	**344**	eP	**P**	**06 59 02.2**	**+1.2**
	comp=Z,18nm,0.7s,mb5.1						
SJPF	**Ste Jean**	**86.31**	**344**	eP	**P**	**06 59 02.2**	**+1.2**
SJPF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.1						
TBKS	**Tabuk**	**86.35**	**310**	P	**P**	**06 59 03.9**	**+2.3**
AFFS	**'Afif**	**86.38**	**303**	P	**P**	**06 59 03.6**	**+1.7**
ETSF	**Etsaut**	**86.39**	**343**	eP	**P**	**06 59 02.3**	**+0.8**
	comp=Z,34nm,0.6s,mb5.5						
ETSF	**Etsaut**	**86.39**	**343**	eP	**P**	**06 59 02.3**	**+0.8**
ETSF				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.5						
EBIE	**Bielsa**	**86.46**	**343**	P	**P**	**06 59 05.2**	**+3.4**
	comp=Z,19nm,0.8s,mb5.4						
HAQS	**Haql**	**86.48**	**312**	P	**P**	**06 59 04.6**	**+2.4**
SOI	**Samo**	**86.55**	**330**	P	**P**	**06 59 04.8**	**+2.4**
ELAN	**Lanestosa**	**86.58**	**345**	P	**P**	**06 59 03.9**	**+1.6**
TBI	**Tubuai**	**86.60**	**132**	ePP	PP	07 02 13.7	-13
TBI				eSS	SS	07 15 18.8	-2.9
TBI				eLR	LR	07 25 21.7	
	comp=Z,14μm,31.8s,baz=325						
TOO	**Toolangi**	**86.60**	**189**	iS	S	07 09 40.2	+3.2
TOO	**Toolangi**	**86.60**	**189**	eP	**P**	**06 59 04.4**	**+1.8**
TOO				iS	S	07 09 40.2	+3.2
TOO				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.2						
TOO	**Toolangi**	**86.60**	**189**	eP	**P**	**06 59 04.4**	**+1.8**
	comp=Z,15nm,1.0s,mb5.2						
TOO				i		06 59 17.0	
TOO				iS	S	07 09 40.2	+3.2
EARI	**Arriondas**	**86.80**	**347**	P	**P**	**06 59 07.5**	**+4.1**
	comp=Z,84nm,1.3s,mb5.8						
BDAS	**Al Bad'**	**86.91**	**311**	P	**P**	**06 59 06.2**	**+1.8**
EMIR	**Miracle**	**86.92**	**341**	P	**P**	**06 59 06.2**	**+2.1**
	comp=Z,13nm,0.7s,mb5.3						
KBRS	**Khaybar**	**86.92**	**307**	P	**P**	**06 59 07.0**	**+2.5**
AYUS	**'Aynunah**	**87.03**	**311**	P	**P**	**06 59 07.4**	**+2.5**
EPON	**Pontenova**	**87.05**	**348**	P	**P**	**06 59 07.2**	**+2.5**
	comp=Z,34nm,1.0s,mb5.5						
KLBR	**Kellerberrin**	**87.20**	**212**	⇑iP	**P**	**06 59 04.3**	**-1.4**
	comp=Z,28nm,0.9s,mb5.5						
EPOB	**Poblet**	**87.55**	**342**	P	**P**	**06 59 08.4**	**+1.3**
DWPF	**Disney**	**87.64**	**48**	PFAKE		06 59 20.0	+12
DWPF				LR	LR		
	comp=Z,10μm,20.0s,MS6.2						
STS	**Santiago**	**87.67**	**349**	P	**P**	**06 59 08.5**	**+0.8**
EINC	**Incio**	**87.73**	**348**	P	**P**	**06 59 08.4**	**+0.5**
	comp=Z,10.0nm,0.6s,mb5.2						
PZI	**Palazzolo**	**87.84**	**330**	P	**P**	**06 59 11.7**	**+3.1**
MUN	**Mundaring**	**88.11**	**213**	iS	S	07 09 54.1	+2.7
MUN	**Mundaring**	**88.11**	**213**	eP	**P**	**06 59 08.0**	**-2.0**
MUN				iS	S	07 09 54.1	+2.7
MUN				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.0						
MUN	**Mundaring**	**88.11**	**213**	eP	**P**	**06 59 08.0**	**-2.0**
	comp=Z,10nm,1.0s,mb5.0						
MUN				iS	S	07 09 54.1	+2.7
UMJS	**Umm Lajj**	**88.40**	**308**	P	**P**	**06 59 13.7**	**+2.1**
PBRG	**Braganca**	**88.49**	**347**	eP	**P**	**06 59 11.5**	**-0.1**
	comp=Z,38nm,2.1s,mb5.2						
PBRG	**Braganca**	**88.49**	**347**	eP	**P**	**06 59 11.2**	**-0.4**
NWAO	**Narrogin (SRO)**	**88.60**	**212**	PFAKE		06 59 20.0	+7.6
NWAO				LR	LR		
	comp=Z,3μm,19.0s,MS5.7						
URZ	**Urewera**	**88.68**	**164**	LR	LR	07 31 35.7	
	comp=Z,6μm,21.2s,MS6.0,baz=5.7,slow=31						
PVRL	**Vila Real**	**89.14**	**348**	eP	**P**	**06 59 14.5**	**-0.3**
PVRL	**Vila Real**	**89.14**	**348**	eP	**P**	**06 59 14.7**	**-0.1**
TATS	**Tathlith**	**89.57**	**300**	D		06 59 17.4	
PVIS	**Viseu**	**89.72**	**348**	eP	**P**	**06 59 17.5**	**0.0**
PVIS	**Viseu**	**89.72**	**348**	eP	**P**	**06 59 16.6**	**-0.9**
MTE	**Manteigas**	**89.98**	**348**	eP	**P**	**06 59 18.1**	**-0.6**
MTE				eS	S	07 09 57.9	-11
MTE				eLR	LR	07 30 20.9	
	comp=Z,12μm,16.4s						
MTE	**Manteigas**	**89.98**	**348**	eP	**P**	**06 59 17.8**	**-0.9**
ESDC	**Sonseca Array**	**90.13**	**345**	P	**P**	**06 59 20.8**	**+1.4**
	comp=Z,4.0nm,0.5s,mb5.0,baz=358,slow=3.9,SNR=20						
ESDC	**Sonseca Array**	**90.13**	**345**	P	**P**	**06 59 19.2**	**-0.3**
	comp=Z,4.0nm,0.5s,mb5.0						
ESLA	**Sonseca Array**	**90.13**	**345**	eP	**P**	**06 59 18.6**	**-0.8**
	comp=Z,30nm,1.5s,mb5.4						
ESLA				LR	LR		
	comp=Z,93μm,19.0s,MS7.2						
BLJS	**Baljurashi**	**90.37**	**301**	P	**P**	**06 59 22.9**	**+2.0**
TEIG	**Tepich**	**90.42**	**58**	PFAKE		06 59 30.0	+8.8
TEIG				LR	LR		
	comp=Z,3μm,19.0s,MS5.7						
PCBR	**Castelo Branco**	**90.52**	**348**	eP	**P**	**06 59 20.9**	**-0.3**
PCBR	**Castelo Branco**	**90.52**	**348**	eP	**P**	**06 59 20.5**	**-0.7**
EVIA	**Vianos**	**90.88**	**344**	P	**P**	**06 59 24.4**	**+1.5**
EVIA				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.4						
EVIA	**Vianos**	**90.88**	**344**	P	**P**	**06 59 24.4**	**+1.5**
	comp=Z,12nm,0.6s,mb5.4						
BBSR	**BB Station**	**91.21**	**34**	PFAKE		06 59 40.0	+15
BBSR				LR	LR		
	comp=Z,6μm,20.0s,MS6.0						
LIS	**Lisbon**	**91.85**	**349**	eP	**P**	**06 59 28.4**	**+1.1**
LIS				eS	S	07 10 03.3	-22
LIS				eS	S	07 10 03.4	-22
LIS				AMS	AMS	07 48 42.7	
	comp=Z,12μm,15.2s,MS6.5						
LIS	**Lisbon**	**91.85**	**349**	eP	**P**	**06 59 28.4**	**+1.1**
LIS				eS	S	07 10 03.3	-22
	comp=Z,12μm,15.2s						
EMIN	**Mina Concepcio**	**92.44**	**347**	P	**P**	**06 59 32.7**	**+2.7**
	comp=Z,3.7nm,0.5s,mb5.0						
ELOJ	**Sierra Loja**	**92.63**	**345**	P	**P**	**06 59 31.9**	**+0.9**
ELOJ				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb5.1						
ELOJ	**Sierra Loja**	**92.63**	**345**	P	**P**	**06 59 31.9**	**+1.0**
	comp=Z,6.7nm,0.8s,mb5.1						
ADH	**Angra Heroismo**	**92.80**	**3**	eLR	LR	07 31 00.0	
RPZ	**Rata Peaks**	**93.10**	**169**	LR	LR	07 37 08.4	
	comp=Z,9μm,18.8s,MS6.2,baz=345,slow=33						
PDA	**Ponta Delgada**	**93.74**	**2**	eLR	LR	07 30 16.0	
RKT	**Rikitea**	**94.13**	**121**	ePP	PP	07 03 12.2	-15
RKT				ePS	PS	07 12 03.3	-4.3
RKT				eSS	SS	07 17 10.5	+0.5
RKT				eLR	LR	07 29 04.8	
	comp=Z,9μm,35.2s,baz=321						
PTCN	**Pitcairn Islan**	**98.44**	**118**	PFAKE		07 00 10.0	+12
PTCN				LR	LR		
	comp=Z,9μm,19.0s,MS6.3						
JTS	**JuntasAbangare**	**100.29**	**61**	PFAKE		07 00 20.0	+14
JTS				LR	LR		
	comp=Z,748nm,19.0s,MS5.2						
SJG	**San Juan**	**103.34**	**41**	PFAKE		07 00 30.0	+10
SJG				LR	LR		
	comp=Z,7μm,20.0s,MS6.2						
PAYG	**Puerto Ayora**	**105.69**	**72**	PFAKE		07 05 00.0	
PAYG				LR	LR		
	comp=Z,2μm,20.0s,MS5.7						
SDV	**Santo Domingo**	**109.25**	**50**	PFAKE		07 05 00.0	
SDV				LR	LR		
	comp=Z,6μm,20.0s,MS6.2						
KMBO	**Kilima Mbogo**	**109.63**	**292**	PKiKP		07 04 52.3	
	comp=Z,0.6nm,0.6s,baz=33,slow=19,SNR=3.9						
KMBO	**Kilima Mbogo**	**109.63**	**292**	PKPdf		07 04 52.3	
KMBO				LR	LR		
	comp=Z,12μm,19.0s,MS6.5						
OTAV	**Otavalo**	**112.17**	**62**	PFAKE		07 05 10.0	+12
OTAV				LR	LR		
	comp=Z,2μm,19.0s,MS5.8						
RPN	**Rapa Nui**	**112.62**	**106**	PFAKE		07 05 10.0	+12
RPN				LR	LR		
	comp=Z,1μm,19.0s,MS5.5						
MBAR	**Mbarara**	**113.11**	**298**	PFAKE		07 05 10.0	+10
MBAR				LR	LR		
	comp=Z,1μm,19.0s,MS5.5						
DRV	**Dumont d'Urvil**	**115.88**	**187**	PP	PP	07 06 11.0	+2.2
DRV				SP	tx	07 14 52.0	
CASY	**Casey**	**120.05**	**200**	PFAKE		07 05 20.0	+8.2
CASY				LR	LR		
	comp=Z,3μm,19.0s,MS5.9						
DBIC	**Dimbokro**	**122.30**	**338**	PKP	PKPdf	07 05 15.6	-1.9
	comp=Z,4.4nm,1.0s,baz=351,slow=6.8,SNR=4.0						
NNA	**Nana**	**122.81**	**69**	PFAKE		07 05 30.0	+12
NNA				LR	LR		
	comp=Z,594nm,19.0s,MS5.3						
VNDA	**Vanda**	**126.16**	**179**	PKP	PKPdf	07 05 21.5	-1.9
	comp=Z,24nm,0.4s,baz=266,slow=22,SNR=20						
VNDA	**Vanda**	**126.16**	**179**	ePKIKP	PKPdf	07 05 21.1	-2.2
LSZ	**Lusaka**	**126.20**	**290**	PKIKP	PKPdf	07 05 22.7	-2.2
LSZ	**Lusaka**	**126.20**	**290**	PFAKE		07 05 30.0	+5.1
LSZ				LR	LR		
	comp=Z,9μm,19.0s,MS6.4						
SBA	**Scott Base**	**126.61**	**177**	ePKIKP	PKPdf	07 05 20.9	-3.3
SBA				MLR	MLR		
	comp=Z,3μm,20.0s,MS6.0						
SAML	**Samuel**	**128.25**	**53**	ePKPdf	PKPdf	07 05 24.9	-4.1
LPAZ	**La Paz**	**131.42**	**64**	PKP	PKPdf	07 05 34.4	-0.6
	comp=Z,5.1nm,1.1s,baz=14,slow=5.8,SNR=10						
LBTB	**Lobatse**	**134.99**	**284**	ePKIKP	PKPdf	07 05 40.3	-1.2
MAW	**Mawson**	**135.16**	**213**	PKP	PKPdf	07 05 40.0	-0.6
	comp=Z,6.1nm,0.8s,baz=318,slow=4.1,SNR=6.6						
LVC	**Limon Verde**	**135.76**	**70**	PKP	PKPdf	07 05 41.7	-1.2
	comp=Z,3.7nm,1.0s,baz=206,slow=1.5,SNR=2.4						
LVC	**Limon Verde**	**135.76**	**70**	PKP	PKPdf	07 05 41.7	-1.2
LVC				LR	LR		
	comp=Z,3μm,20.0s,MS6.0						
BOSA	**Boshof**	**137.69**	**280**	ePKIKP	PKPdf	07 05 44.7	-1.6
QSPA	**South Pole Qui**	**138.61**	**180**	⇑iP	PKPdf	07 05 36.0	-11
QSPA				LR	LR		
	comp=Z,3μm,19.0s,MS6.1						
BDFB	**Brasilia**	**141.32**	**40**	PKP	PKPdf	07 05 51.5	-1.7
	comp=Z,2.4nm,0.7s,baz=329,slow=10,SNR=4.2						
BAO	**Brasilia Array**	**141.32**	**39**	P	PKPdf	07 05 47.4	-5.8
SUR	**Sutherland**	**143.05**	**280**	PKP	PKPdf	07 05 54.5	-1.2

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            comp=Z,5.5nm,0.7s,baz=350,slow=9.3,SNR=4.3
SYO   Syowa Base          143.88 213 ⇓PKPdf   PKPdf    07 05 50.3  -5.6
SYO   Syowa Base          143.88 213 ⇓PKiKP            07 05 57.7
CPUP  Villa Florida       145.52  62  PKPbc   PKPbc    07 05 56.9  -0.1
TRQA  Tornquist           150.44  83 ePKPdf   PKPdf    07 06 05.7  -2.0
TRQA                                 ePKPbc   PKPdf    07 06 10.3  +2.5
USHA  Ushuaia             152.08 119  PKPbc   PKPdf    07 06 13.0  +3.3
            comp=Z,18nm,0.9s,baz=289,slow=3.4,SNR=6.6
MAIT  Maitri              152.50 205 ePKP     PKPdf    07 06 13.5  +3.7
PMSA  Palmer Station      153.38 142 ePKPbc   PKPdf    07 06 16.1  +4.9
PMSA                                  LR      LR
            comp=Z,6µm,19.0s,MS6.4
SNAA  Sanae               155.19 196 e        PKPdf    07 06 37.3   +24
SNAA  Sanae               155.19 196  PKP     PKPdf    07 06 12.5  -1.0
            comp=Z,0.9nm,0.8s,baz=285,slow=7.6,SNR=3.9
SNAA                                  PKPab   PKPab    07 06 36.1  -1.1
            comp=Z,14nm,1.0s,baz=193,slow=3.4,SNR=11
SNAA  Sanae               155.19 196  PKIKP   PKPdf    07 06 10.2  -3.2
SNAA                                 e                 07 10 10.7
SNAA  Sanae               155.19 196  PKPdf   PKPdf    07 06 10.2  -3.2
SNAA                                 e                 07 06 37.3
SNAA                                 e                 07 10 10.7
VNA2  Neumayer--Watz      156.59 193 e        PKPdf    07 06 44.2   +29
VNA2  Neumayer--Watz      156.59 193 e        PKPdf    07 06 47.8   +33
VNA2  Neumayer--Watz      156.59 193⇓iPKPdf   PKPdf    07 06 15.7  +0.4
VNA2                                 e                 07 06 44.2
VNA2                                 e                 07 06 47.8
VNA2                                 e                 07 10 21.2
VNA3  Neumayer Olymp      156.62 191 e        PKPdf    07 06 43.8   +28
VNA3  Neumayer Olymp      156.62 191 e        PKPdf    07 06 47.7   +32
VNA3  Neumayer Olymp      156.62 191⇓iPKPdf   PKPdf    07 06 14.8  -0.5
VNA3                                 e                 07 06 43.8
VNA3                                 e                 07 06 47.7
VNA3                                 e                 07 10 20.8
VNA1  Neumayer--Stat      156.97 193 e        PKPdf    07 06 47.0   +31
VNA1  Neumayer--Stat      156.97 193⇓iPKPdf   PKPdf    07 06 18.2  +2.4
VNA1                                 e                 07 06 47.0
EFI   East Falkland       157.94 110  PFAKE            07 06 30.0   +12
EFI                                   LR      LR
            comp=Z,2µm,19.0s,MS6.0
TRIS  Tristan da Cun      165.61 321  PFAKE            07 06 30.0  +3.9
TRIS                                  LR      LR
            comp=Z,5µm,21.0s
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*SKHL **18** 07:19:14.6±3.6, 48.75N×156.36E, h42^{km}±12^{km}, mb4.9/2*
*BJI **18** 07:19:14.2, 49.07N×156.68E, h31^{km}, mb4.6, Ms4.7, Msz4.9*
*NEIC **18** 07:19:16.6±0.4, 48.81N×156.17E, h10^{km}, mb4.9/12, Error ellipse: s-maj=9.8km s-min=6.2km az=165.0*
*IDC **18** 07:19:21.0±0.5, 48.85N×156.16E, h44^{km}±3^{km}, mb3.9/24, mb1 4.1/26, mb1mx4.1/31, Error ellipse: s-maj=14.1km s-min=10.5km az=157.0*
*MOS **18** 07:19:20.0±1.0, 49.10N×156.01E, h35^{km}, mb4.9/12, Error ellipse: s-maj=12.6km s-min=6.2km az=94.1*
ISC 18 07:19:16.1±2.0, **48.93N**±0.05×**156.20E**±0.09, **h16**^{km}±13^{km}, **h41**^{km}±.8^{km}**:pP-P, n110,** σ**1**^{s}**09**/112, **mb4.5**/47, **MS4.7**/1, **5C-4D, East of Kuril Islands**

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Code  Station Name           Δ°   AZ°    Phase ID            Time      Res
                                       Op       ISC        h  m  s    ISC
SKR   Severo-Kuril's        1.75 358 ePN      Pn       07 19 45.4  -0.8
SKR                                  i S      Sn       07 20 08.5  +0.2
SKR                                   pmax    pmax
            comp=N,150nm,0.5s
SKR                                   pmax    pmax
            comp=E,90nm,0.5s
SKR                                   pmax    pmax
            comp=Z,230nm,0.5s
SKR                                   smax
            comp=N,3µm,0.5s
SKR                                   smax
            comp=E,1µm,0.5s
SKR   Severo-Kuril's        1.75 358 eP       Pn       07 19 45.4  -0.8
SKR                                   AMB     AMB      07 19 48.3
            comp=E,150nm,0.5s
SKR                                   AMB     AMB      07 19 48.3
            comp=E,90nm,0.5s
SKR                                   AMB     AMB      07 19 48.3
            comp=E,230nm,0.5s
SKR                                  i S      Sn       07 20 08.5  +0.2
SKR                                   A                07 20 27.5
            comp=E,3µm,0.5s
SKR                                   A                07 20 27.5
            comp=E,1µm,0.5s
SKR                                   A                07 20 27.5
            comp=E,620nm,0.5s
PET   Petropavlovsk         4.38  20 ePN      Pn       07 20 24.7  +1.1
PET                                  eS       Sn       07 21 14.6  -0.3
PET                                   pmax    pmax
            comp=Z,90nm,0.5s
PET                                   smax
            comp=N,518nm,0.4s
PET                                   smax
            comp=E,287nm,0.5s
PET   Petropavlovsk         4.38  20 eP       Pn       07 20 23.8  +0.2
KUR   Kuril'sk              6.79 240 ePN      Pn       07 20 59.4  +1.8
KUR                                   S       Sn       07 22 24.0  +8.8
KUR                                   pmax    pmax
            comp=Z,220nm,0.7s
KUR                                   smax
            comp=N,1µm,1.4s
KUR                                   smax
            comp=E,600nm,1.4s
KUR   Kuril'sk              6.79 240 eP       Pn       07 20 59.4  +1.8
KUR                                   AMB     AMB      07 21 07.0
            comp=E,220nm,0.7s
KUR                                   A                07 22 30.5
            comp=E,1µm,1.4s
KUR                                   A                07 22 30.5
            comp=E,600nm,1.4s
YSS   Yuzh-Sakhalins        9.24 263⇑ePN      P        07 21 33.5  +1.7
YSS   Yuzh-Sakhalins        9.24 263 eP       P        07 21 33.5  +1.7
ASAJ  Asahikawa            10.53 248  P       P        07 21 49.8  +0.3
            comp=E,1.6nm,0.3s,baz=77,slow=18,SNR=12
ASAJ  Asahikawa            10.53 248  PN      P        07 21 49.8  +0.3
ASAJ                                  pmax    pmax
            comp=Z,2.0nm,0.3s
MA2   Magadan              11.12 346⇑ePN      P        07 21 58.2  +0.7
FX1   Attu Island--F       11.41  63  P       P        07 21 58.1  -3.3
            comp=Z,5.5nm,0.3s,baz=16,slow=16,SNR=13
FX1                                   S       S        07 23 56.0   -14
            comp=Z,13nm,0.3s,baz=64,slow=19,SNR=19
FX1   Attu Island--F       11.41  63 eP       P        07 22 00.7  -0.7
MAT   Matsushiro           18.05 233  P       P        07 23 30.4  +2.5
MAT   Matsushiro           18.05 233  P       P        07 23 30.0  +2.1
YAK   Yakutsk              19.75 321⇓eP       P        07 23 46.2  -1.7
YAK                                   pmax    pmax
            comp=Z,18nm,0.5s
YAK   Yakutsk              19.75 321 eP       P        07 23 45.4  -2.5
            comp=Z,24nm,0.6s
BILL  Bilibino             19.82  11⇑eP       P        07 23 47.9  -0.7
BILL                                  pmax    pmax
            comp=Z,8.0nm,0.9s
CN2   Changchun            21.74 268 eP       P        07 24 05.3  -3.3
CN2                                   AMB     AMB
            comp=Z,10.0nm,1.0s,mb4.2
HIA   Hailar               23.73 285 eP       P        07 24 24.5  -3.4
BOD   Bodaibo              26.30 306 eP       P        07 24 50.1  -2.2
SSE   Sheshan              31.82 249 eP       P        07 25 40.9  -1.2
SSE                                   AMB     AMB
            comp=Z,37nm,0.7s,mb5.3
SSE                                   LR      LR
            comp=N,482nm,16.8s,MS4.6
SSE                                   LR      LR
            comp=E,1µm,18.2s,MS4.6
SSE                                   LR      LR
            comp=Z,2µm,18.0s,MS4.8
SONM  Songino Array        32.62 287  P       P        07 25 48.2  -0.7
            comp=Z,0.5nm,0.6s,mb3.6,baz=74,slow=6.7,SNR=4.1
SONM                                  PcP     PcP      07 28 33.4  -1.7
            comp=Z,0.6nm,1.0s,baz=56,slow=5.2,SNR=2.7
COLA  College              33.13  40⇑eP       P        07 25 53.2   0.0
COLA  College              33.13  40 eP       P        07 25 53.1  -0.1
            comp=Z,8.9nm,0.8s,mb4.8
ILAR  Eielson Array        33.54  41  P       P        07 25 56.2  -0.6
            comp=Z,0.7nm,0.6s,mb3.8,baz=245,slow=7.5,SNR=18
INK   Inuvik               38.69  34  P       P        07 26 41.4  +1.0
            comp=Z,2.9nm,0.7s,mb4.1,baz=285,slow=6.0,SNR=15
INK                                   pP      pP       07 26 53.2  +8.0
            comp=Z,5.7nm,0.8s,baz=309,slow=7.6,SNR=8.7
INK   Inuvik               38.69  34  P       P        07 26 41.4  +1.0
INK                                   *PP     pP       07 26 53.2  +8.0
INK                                   pmax    pmax
            comp=Z,3.0nm,0.7s
INK                                   pmax    pmax
            comp=Z,6.0nm,0.8s
INK   Inuvik               38.69  34 eP       P        07 26 41.2  +0.9
            comp=Z,2.7nm,0.8s,mb4.0
GTA   Gaotai               40.70 278 eP       P        07 26 56.5  -0.8
GTA                                   AMB     AMB
            comp=Z,9.0nm,1.1s,mb4.3
ZAL   Zalesovo             43.06 305  P       P        07 27 14.9  -1.4
            comp=Z,0.7nm,0.6s,mb3.6,baz=46,slow=10,SNR=4.3
ZAL                                   pP      pP       07 27 27.7  +6.4
            comp=Z,0.8nm,0.4s,baz=49,slow=8.5,SNR=1.7
GYA   Guiyang              44.21 258  P       P        07 27 25.8  -0.3
GYA                                   AMB     AMB
            comp=Z,20nm,1.1s,mb4.8
KMI   Kunming              47.67 260 eP       P        07 27 54.0  +0.4
KMI                                   XP      sP       07 28 05.5  +5.0
KMI                                   AMB     AMB
            comp=Z,12nm,1.1s,mb4.8
YKA   Yellowknife Ar       47.93  39  P       P        07 27 55.5  +0.5
            comp=Z,1.8nm,0.9s,mb4.1,baz=296,slow=7.3,SNR=14
YKA                                   pP      pP       07 28 07.5  +7.5
            comp=Z,1.8nm,0.8s,baz=297,slow=7.4,SNR=10
RES   Resolute Bay         48.09  20 eP       P        07 27 57.3  +1.1
RES                                   pmax    pmax
            comp=Z,4.0nm,1.1s,mb4.4
RES   Resolute Bay         48.09  20 eP       P        07 27 57.3  +1.0
            comp=Z,3.6nm,1.1s,mb4.3
BVAR  Borovoye Array       51.08 309  P       P        07 28 17.9  -1.4
            comp=Z,0.7nm,0.4s,mb4.0,baz=54,slow=8.7,SNR=7.3
BVAR                                  pP      pP       07 28 31.0  +6.6
            comp=Z,2.6nm,0.7s,baz=53,slow=7.4,SNR=9.3
AAK   Ala-Archa            54.72 297⇓eP       P        07 28 44.5  -2.1
ARU   Arti                 54.80 318 eP       P        07 28 45.2  -1.8
CMAR  Chiang Mai Arr       54.89 257  P       P        07 28 48.3  +0.1
            comp=Z,3.6nm,0.8s,mb4.5,baz=34,slow=7.2,SNR=12
CMAR                                  pP      pP       07 29 00.2  +7.1
            comp=Z,2.5nm,0.5s,baz=26,slow=7.8,SNR=2.7
ARCES ARCESS Array B       56.46 341  P       P        07 28 56.9  -2.0
            comp=Z,3.6nm,0.8s,mb4.4,baz=41,slow=8.3,SNR=4.0
GUN   Gumba                56.87 276 eP       P        07 29 01.5  -0.8
            comp=Z,9.1nm,0.4s,mb5.2
KKN   Kakani               57.34 276 eP       P        07 29 05.8  +0.1
            comp=Z,7.8nm,0.2s,mb5.4
PKI   Pulchoki             57.40 276 eP       P        07 29 05.4  -0.7
            comp=Z,49nm,0.8s,mb5.6
DMN   Daman                57.58 276 eP       P        07 29 07.0  -0.3
            comp=Z,55nm,1.0s,mb5.5
GKN   Gorkha               57.62 277 eP       P        07 29 07.1  -0.5
            comp=Z,60nm,1.1s,mb5.5
KOLN  Koldanda             58.45 277 eP       P        07 29 13.1  -0.4
            comp=Z,22nm,1.0s,mb5.1
NVAR  Mina Array Bea       59.60  65  P       P        07 29 20.0  -1.3
            comp=Z,0.2nm,0.3s,mb3.7,baz=320,slow=31,SNR=6.6
NVAR                                  pP      pP       07 29 33.8  +7.4
            comp=Z,1.1nm,0.8s,baz=289,slow=6.4,SNR=5.8
PDAR  Pinedale Array       61.79  56  P       P        07 29 36.6  +0.4
            comp=Z,0.9nm,0.9s,mb3.9,baz=285,slow=3.2,SNR=6.7
PDAR                                  pP      pP       07 29 49.1  +7.8
            comp=Z,1.8nm,0.9s,baz=236,slow=2.1,SNR=8.6
KAF   Kangasniemi          62.32 336 ep       P        07 29 35.4  -4.0
FINES FINESS Array B       62.93 336  P       P        07 29 41.9  -1.5
            comp=Z,2.6nm,0.5s,mb4.6,baz=39,slow=7.6,SNR=28
FINES                                 pP      pP       07 29 56.0  +7.5
            comp=Z,1.7nm,0.6s,baz=18,slow=6.0,SNR=1.5
OBN   Obninsk              64.66 326  P       P        07 29 53.2  -1.5
OBN                                   pmax    pmax
            comp=Z,6.0nm,0.8s,mb4.7
NB2   NORSAR Subarra       66.81 342  P       P        07 30 08.1  -0.3
            comp=Z,20nm,1.4s,mb5.0,baz=30,slow=6.5
NB2   NORSAR Subarra       66.81 342  P       P        07 30 08.1  -0.3
NB2                                   pmax    pmax
            comp=Z,20nm,1.4s,mb5.0
NOA   NORSAR Array B       66.81 342  P       P        07 30 07.7  -0.7
            comp=Z,1.2nm,0.7s,mb4.0,baz=26,slow=6.4,SNR=4.1
NOA                                   pP      pP       07 30 21.3  +7.8
            comp=Z,2.0nm,0.7s,baz=25,slow=6.4,SNR=4.0
HFS   Hagfors              67.11 341  P       P        07 30 09.4  -1.0
            comp=Z,8.1nm,1.0s,mb4.7,slow=1.5,SNR=7.7
ANMO  Albuquerque          68.93  61  P       P        07 30 21.6  -0.5
            comp=Z,0.3nm,0.6s,mb3.4,baz=326,slow=7.3,SNR=2.2
ANMO                                  pP      pP       07 30 35.6  +8.3
            comp=Z,1.2nm,0.8s,baz=319,slow=5.5,SNR=3.1
GOF   Gofitskoye           69.73 316 eP       P        07 30 27.5  +0.6
KIV   Kislovodsk           70.73 315 eP       P        07 30 32.2  -0.8
KIV                                   pmax    pmax
            comp=Z,3.0nm,0.5s,mb4.5
AKASG Malin Array Be       70.86 327  P       P        07 30 32.6  -1.0
            comp=Z,2.5nm,0.6s,mb4.3,baz=32,slow=6.1,SNR=11
AKASG                                 pP      pP       07 30 45.0  +6.3
            comp=Z,1.3nm,0.5s,baz=30,slow=6.1,SNR=4.8
AKASG Malin Array Be       70.86 327  P       P        07 30 32.6  -1.0
AKASG                                 *PP     pP       07 30 45.0  +6.3
AKASG                                 pmax    pmax
            comp=Z,3.0nm,0.6s
AKASG                                 pmax    pmax
            comp=Z,1.0nm,0.5s
ZEI   Tsey                 71.07 314 eP       P        07 30 35.6  +0.5
ZEI                                  i *PP    pP       07 30 49.8   +10
ZEI                                  i                 07 33 13.4
ZEI                                   pmax    pmax
            comp=Z,5.0nm,1.5s,mb4.2
WRA   Warramunga Arr       71.28 202  P       P        07 30 34.5  -2.2
            comp=Z,1.6nm,1.0s,mb3.9,baz=18,slow=6.5,SNR=5.9
WRA                                   pP      pP       07 30 46.8  +5.0
            comp=Z,3.7nm,1.1s,baz=18,slow=6.4,SNR=9.0
GNI   Garni                72.67 312  P       P        07 30 45.2  +0.7
            comp=Z,6.5nm,0.7s,mb4.7,baz=60,slow=22,SNR=4.8
KWP   Kalwaria             73.98 331 eP       P        07 30 52.6  +0.6
KWP                                   pmax    pmax
            comp=Z,40nm,1.1s,mb5.3
KWP   Kalwaria             73.98 331 eP       P        07 30 52.6  +0.7
            comp=Z,40nm,1.1s,mb5.3
OJC   Ojcow                74.38 333 eP       P        07 30 54.6  +0.3
TXAR  Lajitas Array        74.63  63  P       P        07 30 54.5  -1.6
            comp=Z,0.4nm,0.5s,mb3.6,baz=297,slow=5.3,SNR=16
EKA   Eskdalemuir Ar       74.67 348  P       P        07 30 55.4  -0.5
            comp=Z,3.1nm,0.7s,mb4.3,baz=16,slow=4.8,SNR=13
EKA                                   pP      pP       07 31 08.1  +7.0
            comp=Z,4.9nm,0.7s,baz=22,slow=4.5,SNR=5.4
KOLS  Kolonicke sedl       74.73 331 i P      P        07 30 56.7  +0.4
KSP   Ksiaz                74.84 335 eP       P        07 30 56.6  -0.3
KSP                                  e*PP     pP       07 31 08.8  +6.7
NIE   Niedzica             74.92 332 eP       P        07 30 58.5  +1.0
ASAR  Alice Springs        74.97 201  P       P        07 30 57.2  -1.0
            comp=Z,1.5nm,1.1s,mb3.8,slow=4.3,SNR=5.0
ASAR                                  pP      pP       07 31 09.8  +6.5
            comp=Z,1.7nm,0.9s,baz=7.6,slow=5.1,SNR=6.7
CRVS  Cervenica-Dubn       75.02 331 i P      P        07 30 58.4  +0.4
CRVS                                 ePP      PP       07 33 49.5  +1.3
OKC   Ostrava-Krasne       75.21 333 eP       P        07 31 00.1  +1.0
DPC   Dobruska-Polom       75.28 335 eP       P        07 31 00.2  +0.7
CLL   Collm                75.30 337 i P      P        07 30 59.5  -0.1
CLL                                  i                 07 31 11.3
CLL                                   pmax    pmax
            comp=Z,17nm,0.8s,mb5.0
CLL   Collm                75.30 337 i P      P        07 30 59.5  -0.1
            comp=Z,17nm,0.8s,mb5.0
CLL                                  i                 07 31 11.3
CLL   Collm                75.30 337  P       P        07 30 59.5  -0.1
            comp=Z,logA/T=1.3,mb5.0
CLL                                  i *PP    pP       07 31 11.3  +6.6
MORC  Moravsky Berou       75.44 334 eP       P        07 31 00.7  +0.3
MORC                                 e                 07 31 13.0
MORC                                  pmax    pmax
            comp=Z,14nm,0.9s,mb4.9
MORC  Moravsky Berou       75.44 334 eP       P        07 31 00.7  +0.3
            comp=Z,14nm,0.9s,mb4.9
MORC                                 e                 07 31 13.0
BRG   Berggiesshubel       75.45 336 i P      P        07 31 00.0  -0.4
BRG                                   pmax    pmax
            comp=Z,6.0nm,1.1s,mb4.4
BRG   Berggiesshubel       75.45 336 i P      P        07 31 00.0  -0.4
            comp=Z,5.6nm,1.1s,mb4.4
PRU   Pruhonice            76.10 336 eP       P        07 31 04.6  +0.5
VYHS  Vyhne                76.20 332 i P      P        07 31 05.6  +0.9
MOX   Moxa                 76.26 338 eP       P        07 31 05.0   0.0
NKC   Novy Kostel          76.43 337 eP       P        07 31 07.9  +1.9
MLR   Muntele Rosu         76.43 326  P       P        07 31 07.2  +1.1
            comp=Z,4.5nm,0.5s,mb4.7,baz=216,slow=6.9,SNR=14
KHC   Kasperske Hory       77.14 336 eP       P        07 31 10.9  +0.9
KHC                                  e                 07 31 22.5
KHC   Kasperske Hory       77.14 336 eP       P        07 31 10.9  +0.9
KHC                                   PCP     PcP      07 31 22.5  +1.3
GRF   Grafenberg Arr       77.24 338 eP       P        07 31 11.6  +1.1
GRF                                   pmax    pmax
            comp=Z,16nm,1.2s,mb4.8
GRF   Grafenberg Arr       77.24 338 eP       P        07 31 11.6  +1.1
GRF                                   pmax    pmax
            comp=Z,16nm,1.2s,mb4.8
GRF   Grafenberg Arr       77.24 338 eP       P        07 31 11.6  +1.1
            comp=Z,16nm,1.2s,mb4.8
GERES GERESS Array B       77.36 336  P       P        07 31 12.1  +0.9
            comp=Z,2.3nm,0.7s,mb4.2,baz=37,slow=6.7,SNR=17
GERES                                 pP      pP       07 31 23.8  +7.4
            comp=Z,2.7nm,0.6s,baz=35,slow=4.9,SNR=8.2
BRTR  Keskin Array B       78.18 318  P       P        07 31 16.2  +0.4
            comp=Z,4.3nm,0.9s,mb4.4,baz=63,slow=2.8,SNR=13
BRTR                                  pP      pP       07 31 28.6  +7.5
            comp=Z,4.1nm,1.0s,baz=45,slow=3.5,SNR=5.3
CDF   Champ du Feu         79.38 340 eP       P        07 31 22.7  +0.4
DAVOX Davos                80.27 337  P       P        07 31 28.5  +1.5
            comp=Z,3.3nm,0.8s,mb4.3,baz=341,slow=20,SNR=3.1
DAVOX                                 pP      pP       07 31 42.0   +10
            comp=Z,4.2nm,0.6s,baz=3.4,slow=6.0,SNR=4.1
GRR   Gorron               81.05 345 eP       P        07 31 32.0  +0.8
            comp=Z,52nm,1.0s,mb5.1
GRR   Gorron               81.05 345 eP       P        07 31 32.0  +0.8
GRR                                   pmax    pmax
            comp=Z,26nm,1.0s,mb5.1
SGMF  Saint Gilles         81.47 346 eP       P        07 31 34.3  +1.0
SSF   Saint Saulge         81.49 342 eP       P        07 31 33.9  +0.4
SMF   Signal de Mont       81.81 341 eP       P        07 31 36.0  +0.8
LPL   La Plagne            82.23 339 eP       P        07 31 39.1  +1.7
LPG   La Plagne            82.24 339 eP       P        07 31 39.3  +1.9
            comp=Z,22nm,1.0s,mb4.8
LPG   La Plagne            82.24 339 eP       P        07 31 39.3  +1.9
LPG                                   pmax    pmax
            comp=Z,11nm,1.0s,mb4.7
MBDF  Montbardon           82.97 339 eP       P        07 31 42.8  +1.6
ORIF  Oris-en-Rattie       83.00 339 eP       P        07 31 42.7  +1.4
VNA2  Neumayer--Watz      156.62 194⇑iP       PKPdf    07 39 09.1  -3.2
VNA3  Neumayer Olymp      156.66 192⇓iP       PKPdf    07 39 07.0  -5.3
VNA1  Neumayer--Stat      157.00 193⇓iP       PKPdf    07 39 07.3  -5.5
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*SKHL **18** 07:24:15.6, 48.60N×156.75E, h40^{km}±10^{km}, mb5.2/5*
*BJI **18** 07:24:16.2, 49.09N×156.42E, h14^{km}, mB6.1, mb5.0, Ms5.6, Msz5.2*
*NEIC **18** 07:24:19.7±0.2, 48.83N×156.31E, h10^{km}, mb5.0/31, Error ellipse: s-maj=5.4km s-min=3.3km az=162.0*
*HRVD **18** 07:24:19.7±1.0, 48.96N×156.85E, h24^{km}±2^{km}, MW5.0/31, Centroid moment Tensor Solution. LP body waves: s10,c11;Mantle waves: s31,c49; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.87±.68; $M_{\theta\theta}$-1.48±.37; $M_{\phi\phi}$-2.39±.37; $M_{r\theta}$-0.39±.52; $M_{\theta\phi}$-1.33±.14; $M_{\phi r}$1.10±.37; Best double couple: $M_0$3.77×10^{16} NP1:ϕ_s226°,δ41°,λ107°. NP2:ϕ_s23°,δ52°,λ75°. Principal axes: T 4.13, Plg77°, Azm239°; N -.72, Plg11°, Azm33°; P -3.41, Plg6°, Azm124°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*KRSC **18** 07:24:19.4±2.7, 48.68N×157.03E, h42^{km}±26^{km}, ML5.1*
*MOS **18** 07:24:21.8±1.3, 48.99N×156.12E, h33^{km}, mb5.3/34, Error ellipse: s-maj=10.2km s-min=5.3km az=99.3*
*IDC **18** 07:24:24.9±0.4, 48.87N×156.22E, h49^{km}±3^{km}, mb4.1/25, mb1 4.3/28, mb1mx4.3/31, Error ellipse: s-maj=13.1km s-min=9.3km az=154.0*
*CSEM **18** 07:24:43.4, 52.38N×154.21E, h33^{km}, mb5.6*
ISC 18 07:24:23.7±0.3, **49.04N**±0.04×**156.19E**±0.05, **h48**^{km}, **h48**^{km}±1.2^{km}**:pP-P, n224,** σ**1**^{s}**36**/237, **mb4.8**/79, **MS5.2**/2, **15C-13D, Kuril Islands**

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Code  Station Name           Δ°   AZ°    Phase ID            Time      Res
                                       Op       ISC        h  m  s    ISC
SKR   Severo-Kuril's        1.64 358 i P      P        07 24 55.6  +4.9
SKR                                  eS       S        07 25 16.5  +5.8
SKR   Severo-Kuril's        1.64 358 ePN      P        07 24 47.5  -3.2
SKR                                  eS       S        07 25 11.5  +0.8
SKR                                   pmax    pmax
            comp=N,390nm,0.5s
SKR                                   pmax    pmax
            comp=E,150nm,0.5s
SKR                                   pmax    pmax
            comp=Z,620nm,0.5s
SKR                                   smax
            comp=N,5µm,0.5s
SKR                                   smax
            comp=E,2µm,0.5s
SKR                                   smax
            comp=N,12µm,2.0s
SKR                                   smax
            comp=E,9µm,2.0s
SKR   Severo-Kuril's        1.64 358 eP       P        07 24 47.5  -3.2
SKR                                   AMB     AMB      07 24 53.5
            comp=E,390nm,0.5s
SKR                                   AMB     AMB      07 24 53.5
            comp=E,150nm,0.5s
SKR                                   AMB     AMB      07 24 53.5
            comp=E,620nm,0.5s
ALID  Alaid                 1.87 348 i P      P        07 24 56.4  +2.5
ALID                                 eS       S        07 25 24.9  +8.5
PAU   Pauzhetka             2.46   9 i P      P        07 25 02.4  +0.1
PAU                                  eS       S        07 25 34.7  +3.5
MIPR  Malaya Ipel'ka        3.26   6 eP       P        07 25 15.0  +1.4
MIPR                                 eS       S        07 25 56.1  +4.6
RUS   Russkaya              3.70  23 eP       P        07 25 17.6  -2.3
RUS                                  eS       S        07 26 00.7  -2.0
GRL   Gorelyy               3.71  18 eP       P        07 25 19.3  -0.7
GRL                                  eS       S        07 26 03.2  +0.3
PET   Petropavlovsk         4.28  20 i P      P        07 25 26.3  -1.7
PET                                  eS       S        07 26 16.0  -1.3
PET   Petropavlovsk         4.28  20⇑iPN      P        07 25 26.5  -1.5
PET                                   pmax    pmax
            comp=Z,189nm,0.7s
PET   Petropavlovsk         4.28  20 eP       P        07 25 26.4  -1.6
PET   Petropavlovsk         4.28  20 eP       P        07 25 26.7  -1.3
UGLR  Uglovaya              4.49  21 eP       P        07 25 30.2  -0.8
AVH   Avacha                4.52  20 eP       P        07 25 31.1  -0.4
KOK   Koryaka               4.52  19 i P      P        07 25 31.5   0.0
SDLR  Sedlovina             4.57  21 i P      P        07 25 30.6  -1.5
NLC   Nalytchevo            4.59  24 eP       P        07 25 29.2  -3.2
NLC                                  eS       S        07 26 20.4  -4.6
SPN   Mys Shipunski         4.72  29 eP       P        07 25 31.4  -2.9
SPN                                  eS       S        07 26 23.9  -4.6
GNL   Ganaly                4.79  13 eP       P        07 25 35.2   0.0
KUR   Kuril'sk              6.84 239 eP       P        07 25 58.0  -5.9
KUR                                   AMB     AMB      07 26 11.5
            comp=Z,140nm,0.6s
KUR                                   AMB     AMB      07 26 11.5
            comp=Z,90nm,0.6s
KUR                                   AMB     AMB      07 26 11.5
            comp=Z,290nm,0.6s
KUR                                  i S      S        07 27 14.8  -6.4
KUR                                   A                07 27 44.0
            comp=Z,2µm,1.5s
KUR                                   A                07 27 44.0
            comp=Z,1µm,1.5s
KOZ   Kozyrevsk             7.38  16 eP       P        07 26 09.6  -1.8
LGNR  Loginova              7.56  20 eP       P        07 26 12.5  -1.5
KBTR  Krutoberegovo         8.23  27 eP       P        07 26 19.0  -4.1
BKI   Bering                8.61  41 eP       P        07 26 20.5  -8.0
BKI                                  eS       S        07 27 48.8   -16
BKI                                   Smax
            comp=Z,130nm,1.2s
TYV   Tymovskoe             8.92 287 eP       P        07 26 30.0  -2.6
TYV                                   AMB     AMB      07 26 48.0
            comp=Z,50nm,1.0s
YSS   Yuzh-Sakhalins        9.25 262⇓ePN      P        07 26 37.0  -0.2
YSS                                  e                 07 28 23.7
YSS                                   pmax    pmax
            comp=E,100nm,1.2s
YSS                                   pmax    pmax
            comp=Z,80nm,1.2s
YSS   Yuzh-Sakhalins        9.25 262 eP       P        07 26 38.6  +1.4
            comp=Z,30nm,0.6s
UGL   Uglegorsk             9.28 276 erx      rx       07 26 43.0
ASAJ  Asahikawa            10.57 247  P       P        07 26 53.0  -2.3
            comp=Z,1.5nm,0.3s,baz=75,slow=13,SNR=10.0
ASAJ  Asahikawa            10.57 247  PN      P        07 26 53.0  -2.2
ASAJ                                  pmax    pmax
            comp=Z,2.0nm,0.3s
NKL   Nikolayevsk          10.58 299 eP       P        07 26 52.8  -2.6
NKL                                  erx      rx       07 27 05.2
MA2   Magadan              11.01 345 ePN      P        07 27 01.2   0.0
MA2                                  e                 07 29 10.5
MA2                                   pmax    pmax
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	comp=Z,20nm,0.9s						
FX1	Attu Island--F	11.37	64	P	P	07 27 00.2	-5.8
	comp=Z,2.5nm,0.3s,baz=290,slow=6.6,SNR=7.0						
FX1				S	S	07 28 58.2	-14
	comp=Z,13nm,0.3s,baz=66,slow=22,SNR=8.1						
FX1	Attu Island--F	11.37	64	eP	P	07 27 04.3	-1.7
EKMR	Ekimchan	15.14	294	eP	P	07 27 55.0	-0.6
EKMR				AMB	AMB	07 28 09.6	
	comp=Z,340nm,1.0s						
KLR	Kul'dur	15.98	280	eP	P	07 28 05.7	-0.8
KLR	Kul'dur	15.98	280	erx	rx	07 28 05.7	
BMKR	Bomnak	17.75	299	eP	P	07 28 25.9	-2.7
BMKR				AMB	AMB	07 28 27.1	
	comp=Z,12nm,0.6s						
MAT	Matsushiro	18.11	233	P	P	07 28 27.1	-6.2
MAT	Matsushiro	18.11	233	eP	P	07 28 27.0	-6.3
MAT				pmax	pmax		
	comp=Z,38nm,1.2s						
MAT	Matsushiro	18.11	233	eP	P	07 28 27.0	-6.3
	comp=Z,38nm,1.2s						
YASR	Yasnyy	18.14	294	eP	P	07 28 30.4	-3.0
YASR				AMB	AMB	07 28 35.0	
	comp=Z,10.0nm,1.0s						
YASR				AMB	AMB	07 28 35.0	
	comp=Z,30nm,1.0s						
ZEA	Zeya	18.59	296	eP	P	07 28 34.6	-4.4
ZEA				AMB	AMB	07 28 35.6	
	comp=Z,50nm,1.6s						
MDJ	Mudanjiang	18.69	266	P	P	07 28 36.8	-3.4
MDJ				AMB	AMB		
	comp=Z,18nm,1.1s						
MDJ				AMB	AMB		
	comp=Z,3µm,17.4s						
MDJ	Mudanjiang	18.69	266	eP	P	07 28 36.0	-4.1
	comp=Z,16nm,0.9s						
KROS	Kirovskiy	18.80	298	eP	P	07 28 37.0	-4.4
KROS				AMB	AMB	07 28 40.7	
	comp=Z,10.0nm,0.5s						
YAK	Yakutsk	19.66	321	c iP	P	07 28 49.0	-2.0
YAK				pmax	pmax		
	comp=Z,87nm,0.6s						
YAK	Yakutsk	19.66	321	eP	P	07 28 48.8	-2.2
	comp=Z,128nm,0.8s						
BILL	Bilibino	19.71	11	⇓eP	P	07 28 49.4	-2.1
BILL				pmax	pmax		
	comp=Z,30nm,0.8s						
CLNS	Chul'man	20.26	304	eP	P	07 28 57.0	-0.4
CLNS				pmax	pmax		
	comp=Z,33nm,0.9s						
CLNS				pmax	pmax		
	comp=N,27nm,1.0s						
CLNS				pmax	pmax		
	comp=E,23nm,1.0s						
CN2	Changchun	21.74	268	eP	P	07 29 07.8	-4.7
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
HIA	Hailar	23.70	284	eP	P	07 29 29.8	-1.7
HIA				pmax	pmax		
	comp=Z,11nm,0.9s						
HIA	Hailar	23.70	284	eP	P	07 29 29.8	-1.7
	comp=Z,10nm,0.9s,mb4.3						
TIXI	Tiksi	25.92	341	⇑eP	P	07 29 50.7	-1.8
TIXI				i *SP	sP	07 30 07.4	-3.3
TIXI				pmax	pmax		
	comp=Z,29nm,0.9s,mb4.8						
IMA	Indian Mountai	30.73	38	eP	P	07 30 34.9	-1.0
IMA				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.8						
IMA	Indian Mountai	30.73	38	eP	P	07 30 34.9	-1.0
	comp=Z,17nm,1.0s,mb4.8						
SSE	Sheshan	31.86	249	eP	P	07 30 41.4	-4.8
SSE				AMB	AMB		
	comp=Z,39nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,3µm,12.0s						
ULN	Ulaanbaatar	32.16	287	⇓eP	P	07 30 47.0	-1.6
ULN	Ulaanbaatar	32.16	287	eP	P	07 30 46.8	-1.8
	comp=Z,8.1nm,1.4s,mb4.4						
HHC	Hu-ho-hao-te	32.23	272	eP	P	07 30 48.3	-1.1
HHC				AP	pP	07 30 52.8	-9.3
HHC				XP	sP	07 30 55.4	-13
HHC				PP	PP	07 31 54.8	-2.8
HHC				PCP	PcP	07 33 36.3	-0.8
HHC				S	S	07 35 59.6	+1.6
HHC				SS	SS	07 37 53.0	-1.4
HHC				SCS	ScS	07 41 16.3	+3.3
HHC				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.1						
HHC				AMB	AMB		
	comp=Z,2µm,5.7s						
HHC				LR	LR		
	comp=N,7µm,13.6s,MS5.6						
HHC				LR	LR		
	comp=E,5µm,12.3s,MS5.6						
HHC				LR	LR		
	comp=Z,5µm,11.4s,MS5.5						
SONM	Songino Array	32.58	287	P	P	07 30 50.9	-1.4
	comp=Z,1.1nm,0.7s,mb3.9,baz=69,slow=8.1,SNR=6.8						
SONM				pP	pP	07 31 06.0	+0.9
	comp=Z,1.0nm,0.7s,baz=80,slow=6.6,SNR=3.5						
SONM				PcP	PcP	07 33 37.2	-0.7
	comp=Z,1.5nm,0.9s,baz=74,slow=2.8,SNR=6.1						
NJ2	Nanjing	32.65	253	eP	P	07 30 52.3	-0.8
NJ2				PP	PP	07 32 03.4	+0.3
NJ2				S	S	07 36 04.0	-0.7
NJ2				XS		07 36 23.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				LR	LR		
	comp=N,1µm,18.4s,MS4.7						
NJ2				LR	LR		
	comp=E,1µm,19.2s,MS4.7						
NJ2				LR	LR		
	comp=Z,2µm,18.6s,MS4.8						
TLY	Talaya	33.03	295	⇓eP	P	07 30 54.3	-1.9
TLY				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
COLA	College	33.05	40	⇓eP	P	07 30 55.8	-0.4
ILAR	Eielson Array	33.46	41	P	P	07 30 58.4	-1.4
	comp=Z,2.0nm,0.7s,mb4.2,baz=259,slow=6.3,SNR=14						
ILAR				pP	pP	07 31 13.0	+0.5
	comp=Z,3.6nm,0.6s,baz=256,slow=7.3,SNR=12						
ZAK	Zakamensk	33.64	293	eP	P	07 30 52.6	-8.9
ZAK				e		07 30 59.7	
WHN	Wuhan	36.52	255	eP	P	07 31 24.8	-1.4
DAWY	Dawson	36.75	42	eP	P	07 31 26.3	-1.5
INK	Inuvik	38.60	34	P	P	07 31 43.9	+0.8
	comp=Z,2.5nm,0.6s,mb4.1,baz=285,slow=7.9,SNR=12						
INK				pP	pP	07 31 56.0	-0.1
	comp=Z,12nm,1.0s,baz=267,slow=9.9,SNR=12						
ENH	Enshi	39.82	259	eP	P	07 31 52.1	-1.6
	comp=Z,21nm,0.8s,mb4.9						
LZH	Lanzhou	39.90	271	eP	P	07 31 52.1	-2.2
LZH				AMB	AMB		
	comp=Z,35nm,1.3s,mb4.9						
GTA	Gaotai	40.67	278	eP	P	07 32 00.4	-0.3
GTA				AP	pP	07 32 11.1	-2.6
GTA				XP	sP	07 32 14.3	-5.2
GTA				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.7						
ZAL	Zalesovo	42.99	305	P	P	07 32 18.5	-1.0
	comp=Z,1.5nm,0.7s,mb3.8,baz=54,slow=5.7,SNR=6.9						
ZAL				pP	pP	07 32 32.3	-0.2
	comp=Z,1.4nm,0.7s,baz=48,slow=6.1,SNR=3.0						
ZAL				PcP	PcP	07 34 09.8	+0.1
	comp=Z,1.3nm,0.6s,baz=19,slow=6.2,SNR=5.5						
GYA	Guiyang	44.23	258	⇓iP	P	07 32 28.3	-1.5
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
WMQ	Urumqi	46.04	291	eP	P	07 32 44.0	0.0
KMI	Kunming	47.69	260	eP	P	07 33 01.0	+3.7
KMI				AMB	AMB		
	comp=Z,15nm,1.4s,mb4.8						
MKAR	Makanchi Array	47.74	297	i P	P	07 32 56.0	-1.4
MKAR				pmax	pmax		
	comp=Z,11nm,0.7s						
YKA	Yellowknife Ar	47.84	39	P	P	07 32 57.8	-0.1
	comp=Z,3.2nm,0.8s,mb4.4,baz=298,slow=7.5,SNR=20						
YKA				pP	pP	07 33 11.1	+0.1
	comp=Z,4.3nm,0.7s,baz=295,slow=7.0,SNR=11						
YKA	Yellowknife Ar	47.84	39	P	P	07 32 57.9	-0.1
YKA				*PP	pP	07 33 11.2	+0.1
BVA0	Borovoye Array	51.01	309	P	P	07 33 20.6	-1.8
BVAR	Borovoye Array	51.01	309	P	P	07 33 21.1	-1.3
	comp=Z,2.6nm,0.5s,mb4.4,baz=59,slow=8.6,SNR=12						
BVAR				pP	pP	07 33 35.0	-0.5
	comp=Z,2.9nm,0.6s,baz=53,slow=7.4,SNR=5.1						
BVAR				PcP	PcP	07 34 39.3	+1.2
	comp=Z,2.2nm,0.6s,baz=68,slow=2.5,SNR=4.2						
BRVK	Borovoye	51.05	309	eP	P	07 33 21.4	-1.2
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BRVK	Borovoye	51.05	309	eP	P	07 33 21.4	-1.2
	comp=Z,5.3nm,0.8s,mb4.5						
LSA	Lhasa	52.21	273	eP	P	07 33 27.0	-4.7
EDM	Edmonton	53.24	49	eP	P	07 33 37.7	-1.4
IMP	Imphal	53.68	267	eP	P	07 33 41.8	-0.9
DAG	Danmarks Havn	54.42	359	⇓eP	P	07 33 46.9	-0.6
DAG				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
DAG	Danmarks Havn	54.42	359	⇓eP	P	07 33 46.9	-0.6
	comp=Z,18nm,1.0s,mb5.0						
DAG	Danmarks Havn	54.42	359	⇓iP	P	07 33 46.9	-0.6
	comp=Z,18nm,1.0s,mb5.0						
SHL	Shillong	54.49	269	eP	P	07 33 48.0	-0.7
AAK	Ala-Archa	54.67	296	⇓eP	P	07 33 46.9	-2.8
AAK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
ARU	Arti	54.72	318	⇓iP	P	07 33 48.0	-1.9
ARU				e		07 34 48.3	
ARU				e		07 35 51.7	
ARU				eS	S	07 41 26.0	+1.0
ARU				eSS	SS	07 45 16.3	+8.3
ARU				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.2						
YBH	Yreka Blue Hor	54.86	65	P	P	07 33 50.9	-0.2
	comp=Z,2.6nm,1.0s,mb4.2,baz=292,slow=3.0,SNR=3.9						
YBH				pP	pP	07 34 04.9	+0.3
	comp=Z,3.2nm,1.1s,baz=335,slow=7.9,SNR=4.2						
CMAR	Chiang Mai Arr	54.91	257	P	P	07 33 51.6	-0.1
	comp=Z,7.6nm,0.9s,mb4.7,baz=34,slow=7.2,SNR=19						
CMAR				pP	pP	07 34 05.0	-0.3
	comp=Z,8.5nm,0.9s,baz=32,slow=7.5,SNR=5.6						
BMO	Blue Mountains	56.09	59	eP	P	07 33 60.0	0.0
	comp=Z,2.6nm,0.9s,mb4.3						
ARCES	ARCESS Array B	56.36	341	P	P	07 34 00.1	-1.4
	comp=Z,3.0nm,0.8s,mb4.4,baz=45,slow=6.9,SNR=4.2						
GUN	Gumba	56.85	276	eP	P	07 34 05.2	-0.5
	comp=Z,31nm,0.7s,mb5.5						
KKN	Kakani	57.32	276	eP	P	07 34 08.9	-0.1
	comp=Z,138nm,1.1s,mb5.9						
PKI	Pulchoki	57.39	276	eP	P	07 34 08.9	-0.6
	comp=Z,83nm,1.1s,mb5.7						
DMN	Daman	57.56	276	eP	P	07 34 10.7	0.0
	comp=Z,150nm,1.1s,mb5.9						
GKN	Gorkha	57.60	277	eP	P	07 34 10.5	-0.5
	comp=Z,141nm,1.1s,mb5.9						
FCC	Fort Churchill	58.20	35	eP	P	07 34 13.4	-1.3
FCC				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
FCC	Fort Churchill	58.20	35	eP	P	07 34 13.4	-1.3
	comp=Z,6.6nm,0.8s,mb4.7						
SUMG	Summit	58.25	5	eP	P	07 34 15.4	+0.5
	comp=Z,34nm,1.0s,mb5.3						
KOLN	Koldanda	58.44	277	eP	P	07 34 16.4	-0.4
	comp=Z,84nm,1.2s,mb5.6						
QLMT	Earthquake Lak	59.36	56	eP	P	07 34 23.1	+0.2
NVAR	Mina Array Bea	59.56	65	P	P	07 34 24.1	-0.4
	comp=Z,1.5nm,0.8s,mb4.0,baz=297,slow=6.6,SNR=9.6						
ELK	Elko	59.87	61	eP	P	07 34 26.7	+0.2
ELK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ELK	Elko	59.87	61	eP	P	07 34 26.7	+0.2
	comp=Z,1.8nm,0.8s,mb4.2						
JOF	Joensuu	60.18	334	ep	P	07 34 26.3	-2.0
	comp=Z,5.5nm,0.7s,mb4.7						
SCO	Scoresbysund	60.78	359	i P	P	07 34 32.7	+0.4
PDAR	Pinedale Array	61.74	56	P	P	07 34 38.5	-0.6
	comp=Z,1.4nm,0.8s,mb4.2,baz=307,slow=1.9,SNR=12						
PDAR				pP	pP	07 34 53.7	+1.0
	comp=Z,3.0nm,0.8s,baz=270,slow=1.5,SNR=9.4						
TPNV	Topopah Spring	61.76	65	P	P	07 34 38.5	-0.9
FINES	FINESS Array B	62.83	336	P	P	07 34 45.1	-1.0
	comp=Z,2.8nm,0.6s,mb4.6,baz=39,slow=7.3,SNR=21						
OBN	Obninsk	64.57	326	P	P	07 34 55.9	-1.6
OBN				e*PP	pP	07 35 11.2	0.0
OBN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
PV10	Paradox Valley	65.01	60	eP	P	07 35 00.8	+0.1
VRSR	Storozhevoye	66.58	322	eP	P	07 35 08.2	-2.2
VRSR				pmax	pmax		
	comp=N,5.0nm,0.5s						
VRSR				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.8s						
NB2	NORSAR Subarra	66.70	342	P	P	07 35 10.4	-0.6
	comp=E,3.9nm,0.6s,mb4.6,baz=26,slow=6.5						
NB2	NORSAR Subarra	66.70	342	P	P	07 35 10.4	-0.6
NB2				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
NOA	NORSAR Array B	66.70	342	P	P	07 35 10.7	-0.3
	comp=Z,5.2nm,0.6s,mb4.7,baz=25,slow=6.4,SNR=14						
ANMO	Albuquerque	68.88	61	P	P	07 35 26.2	+1.1
	comp=Z,0.8nm,0.8s,baz=274,slow=6.0,SNR=4.0						
ANMO				pP	pP	07 35 40.1	+1.1
	comp=Z,1.8nm,0.9s,baz=315,slow=9.3,SNR=4.0						
HYB	Hyderabad	68.99	273	eP	P	07 35 26.0	0.0
HYB	Hyderabad	68.99	273	i P	P	07 35 26.0	0.0
HYB				e	pP	07 35 38.0	-1.9
HYB				ePcP	PcP	07 35 50.0	-0.1
GOF	Gofitskoye	69.65	316	⇑iP	P	07 35 30.0	+0.4
GOF				pmax	pmax		
	comp=Z,50nm,1.6s,mb5.2						
SCHQ	Schefferville	70.38	25	P	P	07 35 33.8	-0.1
	comp=Z,6.5nm,0.8s,mb4.6,baz=314,slow=9.5,SNR=4.6						
KIV	Kislovodsk	70.65	315	P	P	07 35 34.8	-0.9
AKASG	Malin Array Be	70.76	327	P	P	07 35 35.9	-0.3
	comp=Z,7.9nm,0.6s,mb4.8,baz=32,slow=6.0,SNR=28						
AKASG				pP	pP	07 35 50.5	+0.4
	comp=Z,1.2nm,0.5s,baz=32,slow=6.1,SNR=2.9						
AKASG	Malin Array Be	70.76	327	P	P	07 35 35.9	-0.4
AKASG				*PP	pP	07 35 50.6	+0.5
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.6s						
ZEI	Tsey	70.99	314	eP	P	07 35 36.2	-1.6
ZEI				i *PP	pP	07 35 50.4	-1.3
ZEI				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.6						
WRA	Warramunga Arr	71.38	202	P	P	07 35 37.9	-2.7
	comp=Z,3.1nm,0.8s,mb4.3,baz=19,slow=6.4,SNR=13						
WRA				pP	pP	07 35 52.0	-2.4
	comp=Z,4.4nm,0.9s,baz=20,slow=6.5,SNR=8.8						
CPRX	Cap Rock	71.76	61	P	P	07 35 42.0	-0.5
GDL2	Guadalupe Moun	72.08	62	P	P	07 35 42.6	-1.8
FITZ	Fitzroy Crossi	72.16	211	P	P	07 35 43.1	-2.0
	comp=Z,4.8nm,1.0s,mb4.4,baz=31,slow=9.7,SNR=3.7						
GNI	Garni	72.59	312	⇑eP	P	07 35 49.3	+2.0
GNI				pmax	pmax		
	comp=Z,43nm,1.3s						
GNI	Garni	72.59	312	eP	P	07 35 49.6	+2.3
	comp=Z,25nm,1.0s,mb5.1						
WMOK	Wichita Mounta	73.34	56	eP	P	07 35 52.0	+0.2
WMOK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
WMOK	Wichita Mounta	73.34	56	eP	P	07 35 52.0	+0.1
	comp=Z,4.9nm,0.9s,mb4.4						
BSEG	Bad Segeberg	73.43	340	eP	P	07 35 52.0	+0.1
BSEG				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
OJC	Ojcow	74.28	333	⇑eP	P	07 35 57.7	+0.8
OJC	Ojcow	74.28	333	eP	P	07 35 57.7	+0.8
ERZM	Erzurum	74.42	314	i P	P	07 36 00.4	+2.5
EKA	Eskdalemuir Ar	74.56	348	P	P	07 35 59.9	+1.4
	comp=Z,3.4nm,0.6s,mb4.5,baz=20,slow=5.1,SNR=17						
EKA				pP	pP	07 36 13.6	+1.1
	comp=Z,1.4nm,0.5s,baz=21,slow=4.9,SNR=2.0						
TXAR	Lajitas Array	74.58	63	P	P	07 35 58.1	-1.0
	comp=Z,0.9nm,0.6s,mb3.9,baz=300,slow=4.5,SNR=12						
TXAR				pP	pP	07 36 12.8	-0.3
	comp=Z,2.8nm,0.8s,baz=297,slow=4.1,SNR=13						
TXAR	Lajitas Array	74.58	63	P	P	07 35 58.1	-1.0
TXAR				pP	pP	07 36 12.8	-0.3
KOLS	Kolonicke sedl	74.63	330	i P	P	07 36 00.0	+1.0
KSP	Ksiaz	74.74	335	⇑eP	P	07 36 00.2	+0.6
KSP				e*PP	pP	07 36 11.6	-1.9
NIE	Niedzica	74.82	332	eP	P	07 36 01.2	+1.1
CRVS	Cervenica-Dubn	74.92	331	i P	P	07 36 01.6	+1.0
CRVS				eS	ScS	07 46 10.9	+5.8
ASAR	Alice Springs	75.07	201	P	P	07 36 00.2	-1.8
	comp=Z,1.7nm,0.8s,mb4.0,baz=10,slow=5.3,SNR=11						
ASAR				pP	pP	07 36 13.8	-2.2
	comp=Z,2.2nm,0.8s,baz=11,slow=5.1,SNR=7.2						
OKC	Ostrava-Krasne	75.11	333	eP	P	07 36 03.0	+1.3
UPC	Upice	75.12	335	eP	P	07 36 02.6	+0.8
DPC	Dobruska-Polom	75.17	335	eP	P	07 36 03.3	+1.2
CLL	Collm	75.20	337	⇑iP	P	07 36 02.6	+0.4
CLL				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.3						
CLL	Collm	75.20	337	⇑iP	P	07 36 02.6	+0.4
	comp=Z,48nm,1.1s,mb5.3						
CLL	Collm	75.20	337	⇑P	P	07 36 02.6	+0.4
	comp=Z,logA/T=1.6,mb5.3						
MORC	Moravsky Berou	75.34	334	eP	P	07 36 04.2	+1.2
MORC				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.3						
MORC	Moravsky Berou	75.34	334	eP	P	07 36 04.2	+1.1
	comp=Z,43nm,1.0s,mb5.3						
BRG	Berggiesshubel	75.35	336	eP	P	07 36 03.9	+0.8
BRG				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
BRG	Berggiesshubel	75.35	336	eP	P	07 36 03.9	+0.8
	comp=Z,16nm,1.0s,mb4.9						
PVCC	Panska Ves	75.50	336	eP	P	07 36 04.5	+0.6
KECS	Kecovo	75.59	331	eP	P	07 36 05.8	+1.3
PRU	Pruhonice	75.99	336	eP	P	07 36 08.0	+1.2
BEST	Besiri	76.05	312	i P	P	07 36 09.1	+1.8
VYHS	Vyhne	76.10	332	i P	P	07 36 08.6	+1.2
BOYT	Boyabat	76.16	319	i P	P	07 36 09.6	+1.7
MOX	Moxa	76.16	338	eP	P	07 36 08.5	+0.8
MOX				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
MOX	Moxa	76.16	338	i P	P	07 36 08.5	+0.8
	comp=Z,logA/T=1.3,mb5.0						
MOX	Moxa	76.16	338	eP	P	07 36 08.5	+0.8
	comp=Z,28nm,1.3s,mb5.0						
NKC	Novy Kostel	76.32	337	eP	P	07 36 09.6	+1.0
MLR	Muntele Rosu	76.34	326	P	P	07 36 10.5	+1.7
	comp=Z,14nm,0.7s,mb5.0,baz=225,slow=2.5,SNR=20						
SMOL	Smolenice	76.50	333	i P	P	07 36 11.5	+1.8
ELZG	Elazig	76.66	314	i P	P	07 36 13.4	+2.6
BALT	Daday	76.72	320	i P	P	07 36 12.8	+1.8
CTKT	Corum	76.86	318	i P	P	07 36 13.7	+1.8
KHC	Kasperske Hory	77.03	336	eP	P	07 36 13.7	+1.0
KHC				ex	x	07 36 25.0	
MALT	Malatya	77.07	314	eP	P	07 36 14.9	+1.8
MALT				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
MALT	Malatya	77.07	314	eP	P	07 36 14.9	+1.8
	comp=Z,34nm,1.1s,mb5.2						
GRF	Grafenberg Arr	77.13	338	eP	P	07 36 14.8	+1.6
GRF				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
GRF	Grafenberg Arr	77.13	338	eP	P	07 36 14.8	+1.6
GRF				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
GRF	Grafenberg Arr	77.13	338	eP	P	07 36 14.8	+1.6
	comp=Z,39nm,1.0s,mb5.3						
WET	Wettzell	77.21	336	eP	P	07 36 15.2	+1.5
WET				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.1						
GEC2	GERESS Array S	77.26	336	eP	P	07 36 14.6	+0.6
GEC2				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
GERES	GERESS Array B	77.26	336	P	P	07 36 14.7	+0.7
	comp=Z,4.9nm,0.9s,mb4.4,baz=34,slow=4.8,SNR=16						
GERES				pP	pP	07 36 27.6	-0.3
	comp=Z,2.4nm,0.6s,baz=34,slow=4.8,SNR=5.4						
ELDT	Eldivan	77.56	319	i P	P	07 36 17.7	+2.0
MOA	Molln	78.01	335	⇑iP	P	07 36 19.6	+1.5
	comp=Z,7.4nm,0.9s,mb4.6						
SGKT	Sivrigoynuk	78.08	320	i P	P	07 36 20.2	+1.6
BRTR	Keskin Array B	78.10	318	P	P	07 36 20.1	+1.3
	comp=Z,10nm,0.9s,mb4.8,baz=63,slow=2.8,SNR=29						
GZT	Gaziantep	78.24	314	i P	P	07 36 21.2	+1.6
KAHT	Ahir Dag	78.34	315	i P	P	07 36 21.7	+1.6
BAIF	Baives	78.39	342	eP	P	07 36 20.9	+0.8
BFO	Black Forest	79.11	339	eP	P	07 36 24.0	-0.1
BFO				pmax	pmax		
	comp=Z,50nm,2.1s,mb5.1						
WTTA	Wattenberg	79.27	336	⇑iP	P	07 36 26.9	+1.9
	comp=Z,33nm,1.7s,mb5.0						
WTTA	Wattenberg	79.27	336	⇑iP	P	07 36 26.9	+1.9
WTTA				pmax	pmax		
	comp=Z,33nm,1.7s,mb5.0						
CDF	Champ du Feu	79.28	340	eP	P	07 36 25.9	+0.9
MOTA	Moosalm	79.33	337	⇑iP	P	07 36 26.8	+1.5
	comp=Z,74nm,2.1s,mb5.2						
MOTA	Moosalm	79.33	337	⇑iP	P	07 36 26.8	+1.5
MOTA				pmax	pmax		
	comp=Z,74nm,2.1s,mb5.2						
SQTA	Sankt Quirin	79.42	337	⇓iP	P	07 36 27.4	+1.6
	comp=Z,70nm,2.0s,mb5.2						
SQTA	Sankt Quirin	79.42	337	⇓iP	P	07 36 27.4	+1.6
SQTA				pmax	pmax		
	comp=Z,70nm,2.0s,mb5.2						
SSF	Saint Saulge	81.38	341	eP	P	07 36 36.9	+0.7
AVF	Avril sur Loir	81.67	342	eP	P	07 36 38.7	+0.9
	comp=Z,36nm,1.2s,mb4.9						
AVF	Avril sur Loir	81.67	342	eP	P	07 36 38.7	+0.9
AVF				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
SMF	Signal de Mont	81.71	341	eP	P	07 36 38.9	+1.0
LPL	La Plagne	82.13	339	eP	P	07 36 42.2	+2.1
	comp=Z,14nm,0.6s,mb4.7						
LPL	La Plagne	82.13	339	eP	P	07 36 42.2	+2.1
LPL				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
LPG	La Plagne	82.14	339	eP	P	07 36 42.3	+2.1
	comp=Z,27nm,0.8s,mb4.9						
LPG	La Plagne	82.14	339	eP	P	07 36 42.3	+2.1
LPG				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
MFF	Saint Martin d	82.54	344	eP	P	07 36 43.2	+1.0
ASF	Jabal al Asfar	82.76	312	P	P	07 36 45.9	+2.2
	comp=Z,12nm,1.0s,mb4.9,baz=262,slow=1.4,SNR=8.7						
ASF				pP	pP	07 36 59.8	+2.0
	comp=Z,10nm,1.0s,baz=231,slow=1.1,SNR=4.1						
MBDF	Montbardon	82.86	339	eP	P	07 36 46.2	+2.3
ORIF	Oris-en-Rattie	82.89	339	eP	P	07 36 46.3	+2.3
SBF	Sospel	83.51	338	eP	P	07 36 48.2	+1.1
	comp=Z,79nm,1.1s,mb5.4						
SBF	Sospel	83.51	338	eP	P	07 36 48.2	+1.1
SBF				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.5						
HILS	Ha'il	84.10	306	P	P	07 36 52.4	+1.9
LMR	La Mourre	84.23	338	eP	P	07 36 51.8	+1.0
	comp=Z,56nm,1.1s,mb5.3						
LMR	La Mourre	84.23	338	eP	P	07 36 51.8	+1.0
LMR				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.3						
ARSS	Ar Rass	84.51	304	P	P	07 36 53.7	+1.1
MZLS	Mizel	84.87	301	P	P	07 36 55.5	+1.1
EIL	Elat	85.77	312	P	P	07 37 00.3	+1.6
	comp=Z,6.4nm,0.6s,mb5.0,baz=357,slow=10.0,SNR=6.4						
JMQS	Jabal Moqyreh	85.95	311	P	P	07 37 03.1	+3.5
JMOS	Jabal al Moall	86.10	311	P	P	07 37 01.9	+1.5
AFFS	‘Afif	86.18	303	P	P	07 37 02.6	+1.7
BDAS	Al Bad‘	86.71	311	P	P	07 37 02.9	-0.5
ESDC	Sonseca Array	89.94	345	P	P	07 37 20.4	+1.9
	comp=Z,0.9nm,0.5s,mb4.4,baz=355,slow=4.0,SNR=6.3						
ESDC				pP	pP	07 37 33.0	+0.1
	comp=Z,2.9nm,0.8s,baz=12,slow=5.4,SNR=3.0						
VNDA	Vanda	126.34	178	eP	Pdif	07 40 00.3	+0.7

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*NEIC **18** 07:27:13.3, 16.73N×94.74W, h107km, MD3.8(MEX), After MEX.*

MEX 18 07:27:13.3±1.0**, 16.73N×94.74W, h107km**±12km**, MD3.8, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.39	339	i P	P	07 27 28.0	-1.2
CMIG				i S	S	07 27 39.1	-2.1
HUIG	Huatulco	1.63	234	i P	P	07 27 39.5	-2.4
HUIG				i S	S	07 28 01.8	-1.5
OXX	Oaxaca	1.94	281	i P	P	07 27 45.5	-0.3
OXX				i S	S	07 28 07.7	-2.3
VHO	Vista Hermosa	1.94	280	eP	P	07 27 44.9	-1.0
VHO				i S	S	07 28 08.2	-1.9

MAN 18 07:36:34.2, 13.71N×120.66E, h105km, mb4.0, ML2.8, MS2.5, Mindoro

*NEIC **18** 07:40:33.2±0.5, 48.75N×156.23E, h10^{km}, mb4.3/1, Error ellipse: s-maj=13.6km s-min=7.2km az=161.0*
*BJI **18** 07:40:33.1, 48.70N×156.20E, h10^{km}, mb4.7*
*MOS **18** 07:40:34.6±1.1, 48.84N×156.17E, h33^{km}, mb4.4/2, Error ellipse: s-maj=21.4km s-min=10.7km az=93.3*
*IDC **18** 07:40:38.1±0.6, 48.83N×156.17E, h48^{km}±5^{km}, mb3.7/20, mb1 4.0/22, mb1mx3.9/28, Error ellipse: s-maj=16.7km s-min=12.8km az=151.0*
ISC 18 07:40:36.3±0.6**, 48.87N**±0.09×**156.2E**±0.1**, h48^{km}, h48^{km}**±1.3^{km}**:pP-P, n46,** σ1^{s}**11**/47**, mb4.1**/25**, 1C, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PET	Petropavlovsk	4.45	20	⇑*i*PN	P	07 41 40.7	-2.4
PET	Petropavlovsk	4.45	20	*e*P	P	07 41 34.8	-8.3
YSS	Yuzh-Sakhalins	9.20	263	*e*PN	P	07 42 48.9	-0.2
ASAJ	Asahikawa	10.48	248	P	P	07 42 58.4	-8.2
	1.6nm,0.3s,baz=50,slow=19,SNR=8.4						
ASAJ	Asahikawa	10.48	248	PN	P	07 42 58.4	-8.2
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MA2	Magadan	11.17	346	*e*PN	P	07 43 16.0	0.0
MA2				pmax	pmax		
	comp=Z,4.0nm,0.8s						
FX1	Attu Island--F	11.47	63	P	P	07 43 14.2	-5.8
	comp=Z,3.1nm,0.3s,baz=157,slow=18,SNR=7.9						
FX1				S	S	07 45 13.9	-14
	comp=Z,11nm,0.3s,baz=34,slow=19,SNR=12						
FX1	Attu Island--F	11.47	63	P	P	07 43 16.3	-3.7
YAK	Yakutsk	19.78	322	*e*P	P	07 45 01.5	-3.4
YAK				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SONM	Songino Array	32.60	287	P	P	07 47 04.9	-0.3
	comp=Z,0.2nm,0.4s,mb3.4,baz=75,slow=7.2,SNR=3.3						
ILAR	Eielson Array	33.61	40	P	P	07 47 12.8	-0.9
	comp=Z,0.6nm,1.0s,mb3.5,baz=262,slow=7.1,SNR=4.1						
ILAR				pP	pP	07 47 25.1	-1.3
	comp=Z,1.1nm,0.9s,baz=252,slow=7.1,SNR=4.8						
INK	Inuvik	38.76	34	P	P	07 47 59.0	+1.9
	comp=Z,1.8nm,1.0s,mb3.8,baz=285,slow=7.0,SNR=4.2						
INK	Inuvik	38.76	34	P	P	07 47 59.0	+1.9
INK				pmax	pmax		
	comp=Z,2.0nm,1.0s						
INK	Inuvik	38.76	34	P	P	07 47 56.5	-0.6
ENH	Enshi	39.76	260	*e*P	P	07 48 05.5	-0.4
	comp=Z,5.6nm,0.7s,mb4.4						
GTA	Gaotai	40.67	278	*e*P	P	07 48 14.4	+1.1
GTA				AP	pP	07 48 18.1	-8.2
GTA				XP	sP	07 48 20.6	-12
GTA				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.4						
ZAL	Zalesovo	43.07	305	P	P	07 48 32.1	-0.6
	comp=Z,0.7nm,0.5s,mb3.7,baz=348,slow=9.0,SNR=3.6						
YKA	Yellowknife Ar	48.00	39	P	P	07 49 11.7	0.0
	comp=Z,0.3nm,0.6s,mb3.5,baz=295,slow=7.4,SNR=5.4						
BVAR	Borovoye Array	51.09	309	P	P	07 49 34.9	-0.8
	comp=Z,0.6nm,0.3s,mb3.9,baz=62,slow=7.9,SNR=5.6						
BVAR				pP	pP	07 49 47.7	-1.2
	comp=Z,0.7nm,0.4s,baz=31,slow=8.6,SNR=4.0						
BRVK	Borovoye	51.13	309	*e*P	P	07 49 33.6	-2.3
ARU	Arti	54.83	318	*e*P	P	07 50 01.8	-1.5
ARU	Arti	54.83	318	*e*P	P	07 50 01.8	-1.5
CMAR	Chiang Mai Arr	54.84	257	P	P	07 50 04.2	+0.3
	comp=Z,2.4nm,0.7s,mb4.3,baz=35,slow=7.3,SNR=9.4						
CMAR				pP	pP	07 50 17.4	0.0
	comp=Z,6.7nm,1.0s,baz=34,slow=7.5,SNR=4.3						
GUN	Gumba	56.84	276	*e*P	P	07 50 04.5	-14
	comp=Z,9.3nm,0.5s,mb5.1						
KKN	Kakani	57.31	276	*e*P	P	07 50 08.4	-13
DMN	Daman	57.55	276	*e*P	P	07 50 09.6	-14
GKN	Gorkha	57.59	277	*e*P	P	07 50 09.5	-14
	comp=Z,33nm,1.0s,mb5.3						
KOLN	Koldanda	58.43	277	*e*P	P	07 50 15.1	-14
	comp=Z,25nm,1.1s,mb5.2						
NVAR	Mina Array Bea	59.66	65	P	P	07 50 37.2	-0.5
	comp=Z,0.4nm,0.8s,mb3.5,baz=291,slow=7.7,SNR=3.3						
NVAR				pP	pP	07 50 51.1	-0.2
	comp=Z,0.4nm,0.7s,baz=300,slow=6.1,SNR=3.4						
PDAR	Pinedale Array	61.86	56	P	P	07 50 52.8	+0.3
	comp=Z,0.6nm,0.9s,mb3.7,baz=333,slow=3.3,SNR=4.7						
PDAR				pP	pP	07 51 06.6	+0.4
	comp=Z,0.6nm,0.8s,baz=308,slow=2.1,SNR=3.2						
FINES	FINESS Array B	62.97	336	P	P	07 50 58.7	-1.1
	comp=Z,0.9nm,0.5s,mb4.2,baz=40,slow=9.4,SNR=11						
NOA	NORSAR Array B	66.86	342	P	P	07 51 26.2	+1.6
	comp=Z,1.3nm,0.8s,mb4.0,baz=13,slow=8.9,SNR=3.6						
NOA				pP	pP	07 51 39.2	+0.8
	comp=Z,0.8nm,0.7s,baz=127,slow=11,SNR=3.0						
HFS	Hagfors	67.16	341	P	P	07 51 27.4	+0.9
	comp=Z,8.1nm,1.0s,mb4.7,baz=27,slow=3.3,SNR=5.4						
AKASG	Malin Array Be	70.89	327	P	P	07 51 49.2	-0.4
	comp=Z,2.6nm,0.6s,mb4.3,baz=33,slow=6.2,SNR=6.9						
AKASG				pP	pP	07 52 02.8	-0.7
	comp=Z,1.9nm,0.9s,baz=33,slow=6.1,SNR=2.1						
AKASG	Malin Array Be	70.89	327	P	P	07 51 49.3	-0.4
AKASG				*PP	pP	07 52 02.8	-0.8
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRA	Warramunga Arr	71.21	202	P	P	07 51 50.8	-1.3
	comp=Z,2.8nm,0.9s,mb4.2,baz=19,slow=6.7,SNR=15						
WRA				pP	pP	07 52 06.4	+0.4
	comp=Z,0.8nm,0.6s,baz=16,slow=6.0,SNR=3.6						
TXAR	Lajitas Array	74.69	63	P	P	07 52 12.0	-0.4
	comp=Z,0.3nm,0.5s,mb3.5,baz=298,slow=4.7,SNR=7.3						
EKA	Eskdalemuir Ar	74.73	348	P	P	07 52 13.2	+1.2
	comp=Z,1.1nm,0.5s,mb4.1,baz=23,slow=5.4,SNR=7.2						
ASAR	Alice Springs	74.89	201	P	P	07 52 13.9	+0.3
	comp=Z,0.9nm,0.8s,mb3.8,baz=12,slow=6.7,SNR=6.8						
CLL	Collm	75.34	337	*e*P	P	07 52 16.0	+0.4
CLL	Collm	75.34	337	P	P	07 52 16.0	+0.4
PRU	Pruhonice	76.14	336	*e*P	P	07 52 21.3	+1.1
VRAC	Vranov	76.18	334	P	P	07 52 21.5	+1.1
	comp=Z,8.7nm,0.9s,mb4.7,baz=27,slow=3.9,SNR=7.5						
KHC	Kasperske Hory	77.18	336	*e*P	P	07 52 27.0	+0.9
GERES	GERESS Array B	77.41	336	P	P	07 52 28.7	+1.4
	comp=Z,1.3nm,0.9s,mb3.9,baz=63,slow=3.0,SNR=4.7						
BRTR	Keskin Array B	78.21	318	P	P	07 52 33.5	+1.6
	comp=Z,2.9nm,0.9s,mb4.2,baz=27,slow=2.8,SNR=7.7						

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*NEIC **18** 07:46:04.4±0.4, 48.81N×156.38E, h10^{km}, mb4.4/10, Error ellipse: s-maj=11.7km s-min=6.3km az=154.0*
*BJI **18** 07:46:04.3, 48.80N×156.40E, h10^{km}, mb4.7, Ms4.9, Msz4.9*
*MOS **18** 07:46:08.9±1.1, 49.29N×156.21E, h38^{km}, mb4.6/12, Error ellipse: s-maj=16.5km s-min=7.0km az=96.3*
*IDC **18** 07:46:09.3±0.5, 48.88N×156.26E, h48^{km}±4^{km}, mb3.8/21, mb1 4.0/24, mb1mx4.0/30, Error ellipse: s-maj=16.1km s-min=10.5km az=157.0*
ISC 18 07:46:08.0±0.4**, 49.04N**±0.05×**156.21E**±0.08**, h45^{km}, h45^{km}**±2.1^{km}**:pP-P, n95,** σ1^{s}**22**/101**, mb4.4**/42**, MS4.9**/2**, 6C-2D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.65	358	*e*PN	P	07 46 32.5	-2.6
SKR				*e*S	S	07 46 54.0	-1.2
SKR				smax			
	comp=N,1.0nm,0.5s						
PET	Petropavlovsk	4.28	20	⇓*i*PN	P	07 47 11.6	-0.8
PET				*e*S	S	07 48 02.9	+1.2
PET				pmax	pmax		
	comp=Z,142nm,0.6s						
PET				smax			
	comp=E,106nm,0.6s						
PET				smax			
	comp=N,172nm,0.5s						
PET	Petropavlovsk	4.28	20	*e*P	P	07 47 10.8	-1.6
KUR	Kuril'sk	6.84	239	PN	P	07 47 42.0	-6.3
KUR				pmax	pmax		
	comp=Z,130nm,0.8s						
YSS	Yuzh-Sakhalins	9.26	262	*e*PN	P	07 48 24.2	+2.4
ASAJ	Asahikawa	10.58	247	P	P	07 48 38.4	-1.4
	comp=Z,0.8nm,0.3s,baz=92,slow=15,SNR=5.9						
ASAJ	Asahikawa	10.58	247	PN	P	07 48 38.4	-1.4
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MA2	Magadan	11.03	345	*e*PN	P	07 48 42.3	-3.5
MA2				pmax	pmax		
	comp=Z,10.0nm,1.0s						
FX1	Attu Island--F	11.36	64	P	P	07 48 44.6	-5.7
	comp=Z,1.5nm,0.3s,baz=216,slow=15,SNR=5.9						
FX1				S	S	07 50 42.2	-15
	comp=Z,11nm,0.3s,baz=71,slow=20,SNR=12						
MAT	Matsushiro	18.12	233	P	P	07 50 10.7	-7.1
MAT	Matsushiro	18.12	233	P	P	07 50 11.0	-6.8
MAT				pmax	pmax		
	comp=Z,17nm,1.2s						
MAT	Matsushiro	18.12	233	P	P	07 50 11.0	-6.8
	comp=Z,17nm,1.2s						
MDJ	Mudanjiang	18.70	266	*e*P	P	07 50 22.5	-2.4
	comp=Z,7.2nm,0.8s						
YAK	Yakutsk	19.68	321	⇑*e*P	P	07 50 33.8	-1.9
YAK				pmax	pmax		
	comp=Z,35nm,0.7s						
YAK	Yakutsk	19.68	321	*e*P	P	07 50 33.7	-2.0
	comp=Z,45nm,0.8s						
BILL	Bilibino	19.72	11	⇑*e*P	P	07 50 34.5	-1.6
BILL				*e*S	S	07 54 03.6	-7.1
BILL				pmax	pmax		
	comp=Z,14nm,0.8s						
TIXI	Tiksi	25.93	341	*e*P	P	07 51 36.1	-1.1
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.4						
TIXI				MLR	MLR		
	comp=Z,3µm,13.0s,MS5.0						
BOD	Bodaibo	26.25	306	*e*P	P	07 51 34.8	-5.5
SSE	Sheshan	31.87	249	*e*P	P	07 52 34.1	+3.2
SONM	Songino Array	32.60	287	P	P	07 52 36.7	-0.4
	comp=Z,0.5nm,0.9s,mb3.5,baz=45,slow=8.7,SNR=4.0						
SONM				pP	pP	07 52 49.9	+0.7
	comp=Z,0.4nm,0.8s,baz=39,slow=7.9,SNR=3.3						
SONM				PcP	PcP	07 55 21.7	-1.0
	comp=Z,0.6nm,0.9s,baz=135,slow=3.5,SNR=4.3						
NJ2	Nanjing	32.66	253	*e*P	P	07 52 43.3	+5.5
NJ2				S	S	07 57 55.0	+5.3
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.5						
NJ2				LR	LR		
	comp=N,1µm,18.6s,MS4.8						
NJ2				LR	LR		
	comp=E,1µm,16.0s,MS4.8						
NJ2				LR	LR		
	comp=Z,2µm,18.2s,MS4.9						
SML	Sawmill	32.88	46	*e*P	P	07 52 38.3	-1.1
SML				*e*	pP	07 52 50.4	-1.1
COLA	College	33.05	40	⇑*e*P	P	07 52 39.7	-1.1
COLA	College	33.05	40	P	P	07 52 39.6	-1.2
	comp=Z,3.9nm,0.8s,mb4.4						
ILAR	Eielson Array	33.46	41	P	P	07 52 42.8	-1.6
	comp=Z,0.8nm,0.8s,mb3.7,baz=262,slow=7.5,SNR=13						
INK	Inuvik	38.60	34	P	P	07 53 28.2	+0.4
	comp=Z,1.6nm,0.6s,mb3.9,baz=269,slow=6.4,SNR=9.0						
INK				pP	pP	07 53 40.5	+0.4
	comp=Z,4.4nm,0.8s,baz=285,slow=8.8,SNR=11						
INK	Inuvik	38.60	34	*e*P	P	07 53 28.3	+0.5
INK				*e*	pP	07 53 39.0	-1.1
INK				pmax	pmax		
	comp=Z,6.0nm,1.3s						
INK	Inuvik	38.60	34	*e*P	P	07 53 28.3	+0.5
	comp=Z,5.7nm,1.3s,mb4.1						
INK				*e*	pP	07 53 39.0	-1.1
ENH	Enshi	39.83	260	*e*P	P	07 53 37.2	-1.2
	comp=Z,7.9nm,0.7s,mb4.5						
LZH	Lanzhou	39.91	271	*e*P	P	07 53 37.5	-1.5
LZH				AP	pP	07 53 47.6	-3.7
LZH				XP	sP	07 53 51.4	-5.5
LZH				AMB	AMB		
	comp=Z,24nm,1.4s,mb4.7						
GTA	Gaotai	40.69	278	*e*P	P	07 53 45.5	+0.1
GTA				AP	pP	07 53 53.5	-4.3
GTA				XP	sP	07 53 57.0	-6.3
GTA				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.3						
DLBC	Dease Lake	42.51	48	P	P	07 54 01.0	+0.9
	comp=Z,2.1nm,1.0s,mb3.8,baz=353,slow=9.0,SNR=3.1						
ZAL	Zalesovo	43.01	305	P	P	07 54 03.4	-0.8
	comp=Z,0.7nm,0.4s,mb3.7,baz=2.1,slow=4.8,SNR=4.5						
ZAL				PcP	PcP	07 55 53.8	-0.6
	comp=Z,0.6nm,0.3s,baz=53,slow=3.1,SNR=4.0						
GYA	Guiyang	44.24	258	P	P	07 54 13.8	-0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
YKA	Yellowknife Ar	47.84	39	P	P	07 54 42.2	-0.4
	comp=Z,1.2nm,0.6s,mb4.1,baz=296,slow=7.4,SNR=18						
YKA				pP	pP	07 54 55.2	+0.2
	comp=Z,1.3nm,0.7s,baz=297,slow=7.2,SNR=7.6						
BVAR	Borovoye Array	51.02	309	P	P	07 55 06.2	-0.9
	comp=Z,0.7nm,0.4s,mb3.9,baz=79,slow=7.6,SNR=8.2						
BVAR				pP	pP	07 55 19.9	+0.2
	comp=Z,1.0nm,0.6s,baz=63,slow=6.6,SNR=3.9						
BRVK	Borovoye	51.06	309	*e*P	P	07 55 04.7	-2.7
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
BRVK	Borovoye	51.06	309	*e*P	P	07 55 04.7	-2.7
	comp=Z,3.3nm,0.9s,mb4.3						
SHL	Shillong	54.50	269	*e*P	P	07 55 33.0	-0.4
AAK	Ala-Archa	54.69	296	⇓*e*P	P	07 55 33.2	-1.3
AAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
ARU	Arti	54.73	318	⇑*i*P	P	07 55 33.3	-1.3
ARU				*e*		07 56 31.7	
ARU				*e*S	S	08 03 06.1	-3.9
ARU				*e*		08 05 13.0	
ARU				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.9						
CMAR	Chiang Mai Arr	54.92	257	P	P	07 55 36.4	-0.1
	comp=Z,3.8nm,0.9s,mb4.4,baz=35,slow=7.4,SNR=10						
CMAR				pP	pP	07 55 49.1	-0.1
	comp=Z,4.0nm,1.0s,baz=33,slow=7.0,SNR=2.8						
GUN	Gumba	56.87	276	*e*P	P	07 55 50.3	-0.1
	comp=Z,16nm,0.7s,mb5.2						
KKN	Kakani	57.34	276	*e*P	P	07 55 54.3	+0.6
PKI	Pulchoki	57.40	276	*e*P	P	07 55 54.6	+0.4
	comp=Z,45nm,1.1s,mb5.4						
DMN	Daman	57.57	276	*e*P	P	07 55 56.0	+0.6
GKN	Gorkha	57.62	277	*e*P	P	07 55 55.6	-0.1
	comp=Z,88nm,1.2s						
KOLN	Koldanda	58.45	277	*e*P	P	07 56 01.4	-0.1
	comp=Z,35nm,1.1s,mb5.3						
NVAR	Mina Array Bea	59.55	65	P	P	07 56 09.1	+0.1
	comp=Z,0.5nm,0.7s,mb3.7,baz=282,slow=11,SNR=5.7						
NVAR				pP	pP	07 56 22.4	+0.5
	comp=Z,0.8nm,0.9s,baz=302,slow=7.8,SNR=3.5						
NVAR	Mina Array Bea	59.55	65	P	P	07 56 09.1	+0.1
NVAR				pP	pP	07 56 22.4	+0.5
PDAR	Pinedale Array	61.73	56	P	P	07 56 22.6	-1.1
	comp=Z,1.3nm,0.8s,mb4.1,baz=293,slow=1.9,SNR=10						
PDAR				pP	pP	07 56 36.6	0.0
	comp=Z,1.2nm,0.8s,baz=315,slow=2.1,SNR=5.6						
FINES	FINESS Array B	62.84	336	P	P	07 56 29.3	-1.6
	comp=Z,2.6nm,0.9s,mb4.3,slow=3.8,SNR=4.9						
PV10	Paradox Valley	65.00	60	*e*P	P	07 56 44.7	-0.5
NB2	NORSAR Subarra	66.71	342	P	P	07 56 55.7	0.0
	comp=Z,1.4nm,0.7s,mb4.1,baz=25,slow=6.5						
NB2	NORSAR Subarra	66.71	342	P	P	07 56 55.7	0.0
NB2				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
NOA	NORSAR Array B	66.71	342	P	P	07 56 54.9	-0.9
	comp=Z,2.1nm,0.7s,mb4.3,baz=24,slow=6.4,SNR=4.2						
HFS	Hagfors	67.02	341	P	P	07 56 58.7	+1.0
	comp=Z,3.6nm,1.1s,mb4.3,baz=246,slow=43,SNR=4.1						
ANMO	Albuquerque	68.88	61	P	P	07 57 10.4	+0.7
	comp=Z,0.5nm,0.8s,mb3.5,baz=354,slow=9.2,SNR=1.8						
ANMO				pP	pP	07 57 24.0	+1.1
	comp=Z,0.8nm,0.8s,baz=303,slow=11,SNR=2.7						
AKASG	Malin Array Be	70.78	327	P	P	07 57 20.8	-0.2
	comp=Z,3.0nm,0.7s,mb4.4,baz=31,slow=5.8,SNR=16						
AKASG	Malin Array Be	70.78	327	P	P	07 57 20.8	-0.2
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRA	Warramunga Arr	71.38	202	P	P	07 57 22.6	-2.5
	comp=Z,1.9nm,0.8s,mb4.1,baz=18,slow=6.4,SNR=9.7						
WRA				pP	pP	07 57 35.9	-2.4
	comp=Z,2.4nm,0.8s,baz=20,slow=6.5,SNR=7.9						
GNI	Garni	72.61	312	*i* P	P	07 57 35.3	+3.3
GNI				pmax	pmax		
	comp=Z,17nm,1.0s						
KWP	Kalwaria	73.89	331	*e*P	P	07 57 40.7	+1.3
KWP				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.2						
KWP	Kalwaria	73.89	331	*e*P	P	07 57 40.7	+1.3
	comp=Z,22nm,0.7s,mb5.2						
OJC	Ojcow	74.29	333	*e*P	P	07 57 42.6	+1.0
EKA	Eskdalemuir Ar	74.58	348	P	P	07 57 43.0	-0.1
	comp=Z,3.7nm,1.0s,mb4.3,baz=23,slow=5.7,SNR=4.9						
EKA	Eskdalemuir Ar	74.58	348	P	P	07 57 43.1	-0.1
EKA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
TXAR	Lajitas Array	74.58	63	P	P	07 57 42.8	-1.0
	comp=Z,0.4nm,0.5s,mb3.6,baz=298,slow=4.9,SNR=12						
TXAR				pP	pP	07 57 58.6	+1.6
	comp=Z,1.4nm,0.7s,baz=305,slow=4.3,SNR=7.9						
KOLS	Kolonicke sedl	74.64	330	*i* P	P	07 57 44.6	+0.9
KSP	Ksiaz	74.75	335	*e*P	P	07 57 45.0	+0.7
NIE	Niedzica	74.84	332	*e*P	P	07 57 46.5	+1.7
CRVS	Cervenica-Dubn	74.93	331	*i* P	P	07 57 46.4	+1.0
ASAR	Alice Springs	75.06	201	P	P	07 57 45.0	-1.7
	comp=Z,1.0nm,0.8s,mb3.8,baz=12,slow=4.6,SNR=6.9						
OKC	Ostrava-Krasne	75.12	333	*e*P	P	07 57 47.3	+0.9
DPC	Dobruska-Polom	75.19	335	*e*P	P	07 57 48.0	+1.2
DPC				*e*pP	pP	07 57 54.8	-5.2
CLL	Collm	75.21	337	⇑*i*P	P	07 57 47.5	+0.6
CLL				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
CLL	Collm	75.21	337	⇑P	P	07 57 47.5	+0.6
	comp=Z,logA/T=1.3,mb5.0						
MORC	Moravsky Berou	75.35	334	*e*P	P	07 57 49.0	+1.2
MORC				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
MORC	Moravsky Berou	75.35	334	*e*P	P	07 57 49.0	+1.2
	comp=Z,21nm,1.0s,mb5.0						
BRG	Berggiesshubel	75.36	336	*e*P	P	07 57 48.8	+1.0
BRG				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
LIKS	Likavka	75.53	332	*e*P	P	07 57 48.5	-0.3
PRU	Pruhonice	76.01	336	*e*P	P	07 57 52.5	+1.0
VRAC	Vranov	76.05	334	P	P	07 57 53.4	+1.6
	comp=Z,6.7nm,0.6s,mb4.8,baz=31,slow=6.6,SNR=8.9						
VYHS	Vyhne	76.11	332	*i* P	P	07 57 53.5	+1.4
NKC	Novy Kostel	76.34	337	*e*P	P	07 57 55.0	+1.6
SMOL	Smolenice	76.52	333	*i* P	P	07 57 56.0	+1.6
KHC	Kasperske Hory	77.05	336	*e*P	P	07 57 58.9	+1.5
KHC				*e*pP	pP	07 58 05.1	-5.5
GRF	Grafenberg Arr	77.15	338	*e*P	P	07 57 59.4	+1.5
GRF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
GERES	GERESS Array B	77.28	336	P	P	07 58 00.2	+1.6
	comp=Z,1.9nm,0.9s,mb4.0,baz=34,slow=4.8,SNR=4.4						
GERES				pP	pP	07 58 11.8	-0.1
	comp=Z,0.5nm,0.5s,baz=146,slow=45,SNR=2.8						
GERES	GERESS Array B	77.28	336	P	P	07 58 00.2	+1.5
GERES				*PP	pP	07 58 11.8	-0.1
GERES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BRTR	Keskin Array B	78.11	318	P	P	07 58 04.8	+1.3
	comp=Z,4.7nm,0.9s,mb4.4,baz=56,slow=4.5,SNR=14						
BRTR				pP	pP	07 58 18.1	+1.4
	comp=Z,1.6nm,0.8s,baz=18,slow=3.9,SNR=2.2						
BRTR	Keskin Array B	78.11	318	P	P	07 58 04.8	+1.3
BRTR				*PP	pP	07 58 18.1	+1.4
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
MIB	Mutribah	79.20	303	*e*P	P	07 58 10.8	+1.2
MIB				AMb	AMB	07 58 12.2	
	comp=Z,30nm,0.7s,mb5.3						
RST	Umm Al-Ruwaisa	79.63	303	*e*P	P	07 58 12.2	+0.2
RST				AMb	AMB	07 58 14.6	
	comp=Z,32nm,1.4s,mb5.0						
RDF	Al-Radifah	79.76	302	*e*P	P	07 58 12.8	+0.1
RDF				AMb	AMB	07 58 15.4	
	comp=Z,110nm,1.1s						

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*NEIC **18** 07:50:28.2±0.5, 48.95N×156.14E, h10^{km}, mb4.3/9, Error ellipse: s-maj=14.9km s-min=9.7km az=156.0*
*BJI **18** 07:50:28.2, 49.00N×156.10E, h10^{km}, mb4.5*
*MOS **18** 07:50:31.2±1.2, 49.08N×156.04E, h42^{km}, mb4.8/5, Error ellipse: s-maj=15.6km s-min=8.9km az=83.2*
*IDC **18** 07:50:32.9±0.6, 48.94N×155.99E, h47^{km}±4^{km}, mb3.6/17, mb1 3.9/19, mb1mx3.9/26, Error ellipse: s-maj=17.5km s-min=12.3km az=159.0*
ISC 18 07:50:27.7±2.5**, 48.95N**±0.06×**156.14E**±0.09**, h21^{km}**±17^{km}**, h42^{km}**±1.2^{km}**:pP-P, n53,** σ1^{s}**19**/57**, mb4.0**/24**, 3C, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.73	360	*e*PN	Pn	07 50 56.0	-1.1
SKR				*e*S	Sn	07 51 19.5	+0.8
SKR				smax			
	comp=N,1.0nm,0.5s						
SKR				smax			
	comp=E,1.0nm,0.5s						
PET	Petropavlovsk	4.37	20	*e*PN	Pn	07 51 36.9	+2.2
PET				*e*S	Sn	07 52 27.0	+1.3
PET				pmax	pmax		
	comp=Z,62nm,0.8s						
PET				smax			
	comp=E,145nm,0.6s						
PET				smax			
	comp=N,104nm,0.5s						
PET	Petropavlovsk	4.37	20	*e*P	Pn	07 51 32.1	-2.7
KUR	Kuril'sk	6.76	240	*e*PN	Pn	07 52 10.3	+1.9
KUR				S	Sn	07 53 34.0	+8.4
KUR				pmax	pmax		
	comp=Z,140nm,0.6s						
KUR				smax			
	comp=N,170nm,0.9s						
KUR				smax			
	comp=E,300nm,0.9s						
YSS	Yuzh-Sakhalins	9.20	262	*e*PN	P	07 52 46.1	+3.7
YSS				*e*		07 54 32.0	
ASAJ	Asahikawa	10.51	248	P	P	07 53 01.8	+1.5
	comp=E,5.4nm,0.3s,baz=75,slow=13,SNR=21						
ASAJ	Asahikawa	10.51	248	PN	P	07 53 01.8	+1.5
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
MA2	Magadan	11.09	346	*e*PN	P	07 53 15.9	+7.7
MA2				pmax	pmax		
	comp=Z,5.0nm,0.7s						
FX1	Attu Island--F	11.44	63	P	P	07 53 10.1	-2.8
	comp=Z,2.2nm,0.3s,baz=94,slow=21,SNR=10.0						
FX1				S	S	07 55 09.8	-11
	comp=Z,6.2nm,0.3s,baz=40,slow=19,SNR=10						
MDJ	Mudanjiang	18.65	267	*e*P	P	07 54 51.8	+5.6
	comp=Z,6.3nm,0.6s						
YAK	Yakutsk	19.71	321	*e*P	P	07 54 56.4	-2.1
YAK				pmax	pmax		
	comp=Z,20nm,0.8s						
YAK	Yakutsk	19.71	321	*e*P	P	07 54 56.4	-2.1
	comp=Z,20nm,0.8s						
SONM	Songino Array	32.58	287	P	P	07 56 59.7	+0.3
	comp=Z,0.7nm,0.9s,mb3.6,baz=90,slow=6.2,SNR=4.0						
SML	Sawmill	32.97	46	*e*P	P	07 57 02.4	-0.4
COLA	College	33.14	40	*e*P	P	07 57 03.6	-0.6
COLA				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
COLA	College	33.14	40	*e*P	P	07 57 03.6	-0.6
	comp=Z,2.1nm,0.8s,mb4.1						
ILAR	Eielson Array	33.55	41	P	P	07 57 07.7	-0.1
	comp=Z,0.7nm,0.9s,mb3.6,baz=260,slow=7.1,SNR=4.2						
INK	Inuvik	38.69	34	P	P	07 57 53.5	+2.1
	comp=Z,0.8nm,0.6s,mb3.6,baz=311,slow=11,SNR=3.7						
INK				pP	pP	07 58 05.0	+7.4
	comp=Z,3.5nm,1.0s,baz=289,slow=6.2,SNR=5.0						
INK	Inuvik	38.69	34	P	P	07 57 53.5	+2.2
INK				*PP	pP	07 58 05.0	+7.4
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK				pmax	pmax		
	comp=Z,4.0nm,1.0s						
INK	Inuvik	38.69	34	*e*P	P	07 57 51.6	+0.3
	comp=Z,5.4nm,1.1s,mb4.2						
ENH	Enshi	39.77	260	*e*P	P	07 57 59.6	-1.1
	comp=Z,5.5nm,0.7s,mb4.4						
GTA	Gaotai	40.65	278	*e*P	P	07 58 07.8	-0.1
GTA				AP	pP	07 58 16.0	+1.8
GTA				XP	sP	07 58 19.5	+2.7
GTA				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.3						
ZAL	Zalesovo	43.02	305	P	P	07 58 24.8	-2.1
	comp=Z,0.7nm,0.6s,mb3.6,baz=47,slow=5.4,SNR=3.2						
ZAL				pP	pP	07 58 37.9	+4.6
	comp=Z,0.5nm,0.5s,baz=53,slow=6.1,SNR=2.1						
YKA	Yellowknife Ar	47.93	39	P	P	07 59 06.8	+0.7

	comp=Z,1.2nm,0.9s,mb3.9,baz=296,slow=7.5,SNR=6.7						
YKA				pP	pP	07 59 19.3	+6.9
	comp=Z,1.1nm,0.7s,baz=298,slow=7.5,SNR=6.9						
BVAR	Borovoye Array	51.04	309	P	P	07 59 28.9	-1.1
	comp=Z,1.5nm,0.8s,mb4.0,baz=45,slow=8.4,SNR=6.1						
BVAR				pP	pP	07 59 41.5	+5.1
	comp=Z,2.1nm,0.7s,baz=53,slow=7.4,SNR=8.0						
BRVK	Borovoye	51.08	309	*e*P	P	07 59 28.6	-1.7
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
BRVK	Borovoye	51.08	309	*e*P	P	07 59 28.6	-1.7
	comp=Z,3.2nm,0.8s,mb4.3						
ARU	Arti	54.76	318	*e*P	P	07 59 56.1	-1.6
CMAR	Chiang Mai Arr	54.86	257	P	P	07 59 58.9	0.0
	comp=Z,3.2nm,0.7s,mb4.5,baz=31,slow=7.2,SNR=11						
CMAR				pP	pP	08 00 11.8	+6.6
	comp=Z,2.6nm,0.5s,baz=32,slow=7.3,SNR=3.3						
NVAR	Mina Array Bea	59.63	65	P	P	08 00 32.5	+0.1
	comp=Z,0.5nm,0.9s,mb3.5,baz=300,slow=7.3,SNR=2.8						
NVAR				pP	pP	08 00 45.2	+6.2
	comp=Z,2.0nm,1.2s,baz=302,slow=5.5,SNR=4.4						
PDAR	Pinedale Array	61.81	56	P	P	08 00 49.0	+1.8
	comp=Z,0.3nm,0.6s,mb3.6,baz=342,slow=4.7,SNR=3.7						
PDAR				pP	pP	08 01 01.4	+7.7
	comp=Z,1.1nm,0.9s,baz=297,slow=3.3,SNR=5.6						
FINES	FINESS Array B	62.90	336	P	P	08 00 53.8	-0.3
	comp=Z,2.5nm,0.9s,mb4.3,baz=34,slow=6.9,SNR=6.7						
PV10	Paradox Valley	65.08	60	*e*P	P	08 01 10.1	+1.4
AKASG	Malin Array Be	70.82	327	P	P	08 01 44.4	+0.1
	comp=Z,0.5nm,0.5s,mb3.7,baz=33,slow=6.3,SNR=6.0						
AKASG				pP	pP	08 01 56.6	+5.7
	comp=Z,0.7nm,0.4s,baz=33,slow=6.2,SNR=3.1						
AKASG	Malin Array Be	70.82	327	P	P	08 01 44.4	+0.1
AKASG				*PP	pP	08 01 56.6	+5.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	71.29	202	P	P	08 01 47.0	-0.7
	comp=Z,0.8nm,0.8s,mb3.7,baz=19,slow=6.5,SNR=5.0						
WRA				pP	pP	08 02 00.0	+5.8
	comp=Z,2.5nm,1.1s,baz=17,slow=6.5,SNR=6.8						
EKA	Eskdalemuir Ar	74.65	348	P	P	08 02 05.9	-0.7
	comp=Z,1.6nm,0.7s,mb4.1,baz=18,slow=5.3,SNR=5.3						
EKA				pP	pP	08 02 19.8	+6.6
	comp=Z,2.7nm,0.6s,baz=17,slow=4.9,SNR=3.7						
TXAR	Lajitas Array	74.66	63	P	P	08 02 07.3	+0.1
	comp=Z,1.1nm,1.1s,mb3.7,baz=302,slow=4.8,SNR=9.8						
TXAR				pP	pP	08 02 21.8	+8.0
	comp=Z,1.2nm,0.9s,baz=294,slow=3.5,SNR=5.1						
ASAR	Alice Springs	74.97	201	P	P	08 02 07.9	-1.3
	comp=Z,0.7nm,0.9s,mb3.6,baz=33,slow=7.0,SNR=4.5						
DPC	Dobruska-Polom	75.24	335	*e*P	P	08 02 11.2	+1.0
CLL	Collm	75.27	337	⇑*i*P	P	08 02 10.2	-0.1
CLL				*i*		08 02 23.2	
CLL				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
CLL	Collm	75.27	337	⇑*i*P	P	08 02 10.2	-0.1
	comp=Z,12nm,0.9s,mb4.8						
CLL				*i*		08 02 23.2	
CLL	Collm	75.27	337	⇑P	P	08 02 10.2	-0.1
	comp=Z,logA/T=1.1,mb4.8						
CLL				*i* *PP	pP	08 02 23.2	+6.3
MORC	Moravsky Berou	75.40	334	*e*P	P	08 02 11.3	+0.2
BRG	Berggiesshubel	75.42	336	*e*P	P	08 02 11.3	+0.1
BRG				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
BRG	Berggiesshubel	75.42	336	*e*P	P	08 02 11.3	+0.1
	comp=Z,5.1nm,1.2s,mb4.3						
PRU	Pruhonice	76.06	336	*e*P	P	08 02 15.8	+1.0
KHC	Kasperske Hory	77.10	336	*e*P	P	08 02 21.9	+1.2
KHC				*e*pP	pP	08 02 33.9	+6.6
GRF	Grafenberg Arr	77.20	337	*e*P	P	08 02 21.6	+0.4
GRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	Grafenberg Arr	77.20	337	*e*P	P	08 02 21.6	+0.4
GRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	Grafenberg Arr	77.20	337	*e*P	P	08 02 21.6	+0.4
	comp=Z,8.0nm,0.9s,mb4.7						
GERES	GERESS Array B	77.33	336	P	P	08 02 21.1	-0.8
	comp=Z,1.2nm,0.7s,mb3.9,baz=180,slow=1.3,SNR=5.7						
GERES				pP	pP	08 02 36.6	+8.1
	comp=Z,2.9nm,1.0s,baz=51,slow=8.5,SNR=3.2						
BRTR	Keskin Array B	78.14	318	P	P	08 02 27.6	+1.1
	comp=Z,5.2nm,1.1s,mb4.4,baz=72,slow=3.9,SNR=8.1						
BRTR				pP	pP	08 02 41.9	+8.6
	comp=Z,1.4nm,0.8s,baz=72,slow=3.9,SNR=5.0						

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*IDC **18** 07:53:08.7±3.5, 55.40N×153.74W, mb3.6/4, mb1 3.8/6, mb1mx3.6/23, ML3.5/2, Error ellipse: s-maj=71.3km s-min=31.2km az=154.0*

*NEIC **18** 07:53:19.0±2.7, 56.25N×153.47W, h38^{km}±16^{km}, ML3.0(AEIC), Error ellipse: s-maj=31.5km s-min=10.0km az=163.0*

ISC 18 07:53:17.5±2.0**, 56.2N**±0.1×**153.4W**±0.2**, h44**^{km}±15^{km}**, n21, σ0^{s}86**/24**, mb3.9**/3**, Kodiak Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KDAK	Kodiak Island	1.60	15	P	P	07 53 43.8	-0.1
KDAK				S	S	07 54 05.2	+1.6
CAHL	Cahill	2.10	331	P	P	07 53 51.5	+0.5
KJL	Kejulik	2.18	327	P	P	07 53 52.6	+0.5
ANCK	Angle Creek	2.28	330	P	P	07 53 54.1	+0.5
ANPK	Aniakchak Peak	2.71	285	P	P	07 53 59.3	-0.3
XLV	Seldovia	3.34	15	P	P	07 54 08.8	+0.2
CNPM	China Poot	3.48	18	P	P	07 54 09.8	-0.8
CNPM				S	S	07 54 50.8	-0.3
BRLK	Bradley Lake	3.77	19	P	P	07 54 13.2	-1.4
BRLK				S	S	07 54 57.3	-1.1
IVE	Iliamna Volcan	3.79	3	P	P	07 54 15.1	+0.2
ILW	Iliamna West	3.83	2	P	P	07 54 15.7	+0.2
INE	Iliamna NE	3.83	2	P	P	07 54 15.9	+0.3
ILIM	Iliamna	3.86	3	P	P	07 54 15.9	0.0
RDN	Redoubt North	4.30	4	P	P	07 54 22.0	-0.2
NCT	North Crescent	4.34	3	P	P	07 54 22.4	-0.3
ILAR	Eielson Array	9.13	18	Pn	P	07 55 28.8	-0.8
	0.2nm,0.3s,baz=204,slow=13,SNR=12						
INK	Inuvik	15.11	29	Pn	P	07 56 52.8	+3.6
	0.1nm,0.3s,baz=224,slow=11,SNR=4.4						
YKA	Yellowknife Ar	20.46	56	P	P	07 57 54.8	+1.3
	0.5nm,0.6s,baz=269,slow=11,SNR=7.8						
YKA	Yellowknife Ar	20.46	56	P	P	07 57 54.8	+1.3
ARCES	ARCESS Array B	54.53	0	P	P	08 02 42.6	+0.1
	2.0nm,0.8s,mb4.2,slow=9.0,SNR=5.0						
SONM	Songino Array	56.90	308	P	P	08 02 57.2	-2.6
	0.5nm,1.0s,mb3.5,baz=39,slow=9.2,SNR=4.1						
BVAR	Borovoye Array	65.32	333	P	P	08 03 57.2	+0.7
	0.7nm,0.6s,mb3.9,baz=27,slow=9.7,SNR=3.8						

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*IDC **18** 08:09:47.2±0.9, 15.29S×175.29W, mb3.9/8, mb1 4.2/8, mb1mx4.0/15, MS4.5/2, Ms1 4.5/2, ms1mx3.7/25, Error ellipse: s-maj=47.9km s-min=20.1km az=140.0*

*NEIC **18** 08:09:49.6±0.6, 15.32S×175.31W, h15^{km}, mb4.8/1, Error ellipse: s-maj=32.8km s-min=11.8km az=143.0*

ISC 18 08:09:50.6±0.7**, 15.4S**±0.2×**175.3W**±0.2**, h33**^{km}**, n13, σ0^{s}44**/12**, mb4.0**/9**, MS4.5**/2**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	42.45	239	P	P	08 17 43.5	-0.7
	2.5nm,0.8s,mb3.9,baz=108,slow=17,SNR=3.1						
STKA	Stephens Creek	42.45	239	*e*P	P	08 17 43.2	-1.0
WRA	Warramunga Arr	48.06	257	P	P	08 18 29.1	0.0
	0.7nm,0.8s,mb3.7,baz=92,slow=7.9,SNR=5.9						
ASAR	Alice Springs	48.37	252	P	P	08 18 31.9	+0.5
	5.5nm,0.7s,mb4.7,baz=86,slow=8.4,SNR=47						
ASAR				LR	LR	08 36 47.0	
	comp=Z,529nm,18.1s,MS4.6,baz=7.1,slow=34						
ASPA	Alice Springs	48.37	252	*e*P	P	08 18 31.9	+0.4
FITZ	Fitzroy Crossi	56.41	258	LR	LR	08 40 24.4	
	comp=Z,395nm,19.5s,MS4.5,baz=256,slow=32						
NWAO	Narrogin (SRO)	63.02	241	*e*P	P	08 20 16.4	-0.4
	8.1nm,1.1s,mb4.8						
VNDA	Vanda	63.18	185	P	P	08 20 17.7	+0.4
	2.0nm,1.0s,mb4.2,baz=18,slow=5.7,SNR=7.1						
YBH	Yreka Blue Hor	74.73	38	P	P	08 21 28.8	-0.2
	1.4nm,1.0s,mb3.9,baz=239,slow=5.9,SNR=3.1						
NVAR	Mina Array Bea	75.58	43	P	P	08 21 33.7	-0.2
	1.1nm,0.9s,mb3.8,baz=229,slow=8.3,SNR=8.3						
PDAR	Pinedale Array	83.51	43	P	P	08 22 16.3	-0.3
	0.6nm,0.8s,mb3.8,SNR=5.3						
YKA	Yellowknife Ar	90.85	24	P	P	08 22 52.3	+0.6
	0.1nm,0.4s,mb3.5,baz=237,slow=4.7,SNR=2.5						
YKA	Yellowknife Ar	90.85	24	P	P	08 22 52.3	+0.6

IDC 18 08:13:23.2±7.9**, 18.31S**×**176.35W, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.5**/14**, Error ellipse: s-maj=345.0km s-min=40.1km az=143.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.49	260	P	P	08 21 52.5	-1.7
	0.2nm,0.3s,baz=96,slow=7.6,SNR=3.7						
ASAR	Alice Springs	46.57	254	P	P	08 21 52.9	-1.9
	0.4nm,0.7s,baz=88,slow=8.9,SNR=6.1						
ILAR	Eielson Array	85.85	12	P	P	08 26 04.2	-1.3
	0.2nm,0.6s,baz=214,slow=5.7,SNR=4.1						

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*PRU **18** 08:25:37.8, 51.52N×16.03E*

WAR 18 08:25:37.4, 51.56N×16.01E, h1^{km}**, ML2.7, Mining Induced, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.74	166	*e*PG	Pg	08 25 51.0	-1.2
KSP				*e*SG	Sg	08 26 01.0	-1.1
UPC	Upice	1.06	180	*e*PG	Pg	08 25 57.7	-0.8
DPC	Dobruska-Polom	1.23	171	*e*PG	Pg	08 25 59.9	-2.0
DPC				*e*SG	Sg	08 26 15.8	-2.5
PVCC	Panska Ves	1.38	222	*e*PG	Pg	08 26 03.5	-1.4
PRU	Pruhonice	1.83	211	*e*SG	Sg	08 26 35.1	-3.2
	3.9nm,0.4s						
CLL	Collm	1.90	263	*i* PG	Pg	08 26 12.6	-2.7
CLL				*e*SG	Sg	08 26 39.0	-1.6
NKC	Novy Kostel	2.62	241	*e*SG	Sg	08 27 01.0	-3.5
KHC	Kasperske Hory	2.89	214	*e*SG	Sg	08 27 08.7	-4.9

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*IDC **18** 08:33:53.6±0.7, 15.37S×175.17W, mb4.0/11, mb1 4.3/11, mb1mx4.2/15, MS4.6/7, Ms1 4.6/7, ms1mx4.4/25, Error ellipse: s-maj=39.1km s-min=17.4km az=137.0*

*NEIC **18** 08:33:55.0±0.5, 15.41S×175.19W, h10^{km}, mb4.5/5, Error ellipse: s-maj=23.3km s-min=12.1km az=137.0*

ISC 18 08:33:57.1±0.5**, 15.4S**±0.1×**175.2W**±0.1**, h33**^{km}**, n31, σ1^{s}12**/20**, mb4.1**/14**, MS4.7**/6**, 1D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	3.61	65	*e*P	P	08 34 45.6	-6.4
RAR	Rarotonga	15.69	114	LR	LR	08 42 17.9	
	comp=Z,764nm,20.4s,baz=265,slow=32						
NOUC	Port Laguerre	18.75	247	*e*P	P	08 38 17.5	+1.6
PPT	Papeete	24.61	99	*e*LQ		08 43 47.4	
PPT				*e*LR	LR	08 44 46.7	
	2μm,25.8s						
TBI	Tubuai	25.45	112	*e*LQ		08 44 07.5	
TBI				*e*LR	LR	08 45 09.1	
	1μm,27.0s						
RPZ	Rata Peaks	30.54	200	LR	LR	08 49 25.9	
	comp=Z,804nm,19.6s,MS4.4,baz=21,slow=30						
CTA	Charters Tower	36.98	257	LR	LR	08 52 19.6	
	comp=Z,603nm,20.0s,MS4.4,baz=68,slow=30						
RKT	Rikitea	38.60	108	*e*LR	LR	08 51 14.4	
	847nm,27.2s						
STKA	Stephens Creek	42.55	240	*e*P	P	08 41 50.3	-1.3
	6.5nm,1.0s,mb4.3						
STKA	Stephens Creek	42.55	240	P	P	08 41 51.6	0.0
	5.7nm,0.9s,mb4.3,baz=75,slow=7.9,SNR=5.8						
STKA				LR	LR	08 56 31.1	
	comp=Z,853nm,20.5s,MS4.6,baz=74,slow=32						
WRAB	Tennant Creek	48.17	257	*e*P	P	08 42 37.6	+1.1
	7.8nm,1.2s,mb4.6						
WRA	Warramunga Arr	48.18	257	P	P	08 42 35.6	-1.0
	0.6nm,0.8s,mb3.6,baz=89,slow=7.2,SNR=3.7						
ASAR	Alice Springs	48.48	252	P	P	08 42 37.8	-1.1
	4.1nm,0.7s,mb4.6,baz=86,slow=7.8,SNR=32						
ASAR				LR	LR	09 01 19.5	
	comp=Z,1μm,21.6s,MS4.9,baz=147,slow=34						
ASPA	Alice Springs	48.49	252	*e*P	P	08 42 37.6	-1.3
CBIJ	Chichi jima	59.18	315	LR	LR	09 05 50.8	
	comp=Z,1μm,20.8s,MS5.0,baz=321,slow=32						
SBA	Scott Base	63.08	184	*e*P	P	08 44 20.9	-2.3
VNDA	Vanda	63.17	185	P	P	08 44 23.5	-0.2
	3.1nm,1.0s,mb4.4,baz=1.7,slow=7.4,SNR=8.0						
VNDA	Vanda	63.17	185	*e*P	P	08 44 24.5	+0.7
	3.6nm,1.0s,mb4.5						
QSPA	South Pole Qui	74.60	180	⇓*i*P	P	08 45 34.9	+0.9
	7.1nm,1.0s,mb4.5						
YBH	Yreka Blue Hor	74.67	38	P	P	08 45 33.7	-1.4
	0.5nm,0.4s,mb3.8,baz=274,slow=6.2,SNR=3.4						
NVAR	Mina Array Bea	75.50	43	P	P	08 45 40.3	+0.3
	1.4nm,0.9s,mb3.9,baz=229,slow=11,SNR=7.2						
TPH	Tonopah	76.02	44	P	P	08 45 43.3	+0.3
	1.3nm,0.6s,mb4.0						
TXAR	Lajitas Array	82.05	57	P	P	08 46 16.1	+0.2
	0.6nm,1.0s,mb3.5,baz=214,slow=4.5,SNR=3.7						
ILAR	Eielson Array	82.82	12	P	P	08 46 20.4	+1.3
	0.5nm,0.6s,mb3.7,baz=223,slow=5.9,SNR=7.2						
PDAR	Pinedale Array	83.43	42	P	P	08 46 22.2	-0.5
	0.6nm,0.9s,mb3.6,baz=243,slow=3.3,SNR=4.1						
MAW	Mawson	87.21	199	P	P	08 46 42.7	+1.9
	4.3nm,0.9s,mb4.7,baz=100,slow=6.7,SNR=4.2						
YKA	Yellowknife Ar	90.81	24	P	P	08 46 58.1	+0.1
	0.2nm,0.7s,mb3.6,baz=236,slow=4.5,SNR=3.2						
SNAA	Sanae	92.94	178	LR	LR	09 23 25.1	
	comp=Z,221nm,18.4s,MS4.7,baz=62,slow=32						
KMBO	Kilima Mbogo	143.98	246	PKP	PKPdf	08 53 30.4	+0.2
	0.6nm,0.3s,baz=135,slow=20,SNR=3.9						
KMBO	Kilima Mbogo	143.98	246	PKP	PKPdf	08 53 30.4	+0.2
BRTR	Keskin Array B	145.10	320	PKPbc	PKPbc	08 53 33.3	+1.6
	1.0nm,0.7s,baz=40,slow=4.0,SNR=2.2						

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*BJI **18** 08:50:02.8, 49.07N×156.12E, h7^{km}, mB5.7, mb5.4, Ms5.7, Msz5.5*

*KRSC **18** 08:50:03.4±4.9, 48.35N×156.87E, h73^{km}±16^{km}, ML5.9*

*SKHL **18** 08:50:03.7±3.7, 48.61N×156.52E, h38^{km}±3^{km}, mb6.3/10, mbh6.3/7, Ms5.6/7, msh5.9/6*

*IDC **18** 08:50:04.3±0.4, 48.90N×156.09E, mb4.9/29, mb1 5.1/32, mb1mx5.1/33, ML4.8/3, MS5.2/17, Ms1 5.3/17, ms1mx5.0/28, Error ellipse: s-maj=14.3km s-min=9.1km az=147.0*

*MOS **18** 08:50:04.7±0.9, 48.80N×156.13E, h10^{km}, mb5.9/65, MS5.6/36, Error ellipse: s-maj=7.3km s-min=3.8km az=98.2*

*SYO **18** 08:50:05.5, 48.72N×156.08E, h10^{km}, MB5.4*

*NEIC **18** 08:50:06.1±0.1, 48.77N×156.17E, h10^{km}, mb5.6/119, MS5.8/9, Error ellipse: s-maj=3.5km s-min=2.1km az=173.0*

*HRVD **18** 08:50:06.1±0.2, 48.81N×156.46E, h15^{km}, MW5.5/68, Centroid moment Tensor Solution. LP body waves: s55,c104; Mantle waves: s68,c149; Half duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}1.45±.03; $M_{\theta\theta}$-0.53±.03; $M_{\phi\phi}$-0.92±.03; $M_{r\theta}$0.76±.11; $M_{\theta\phi}$-0.88±.02; $M_{\phi r}$1.72±.10; Best double couple: $M_0$2.43×10^{17} NP1: ϕ_s232°, δ21°, λ114°. NP2: ϕ_s27°, δ71°, λ81°. Principal axes: T 2.38, Plg63°, Azm283°; N .1, Plg8°, Azm30°; P -2.48, Plg25°, Azm124°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CSEM **18** 08:50:13.6, 49.68N×155.41E, h33^{km}, mb5.9*

ISC 18 08:50:05.9±0.1**, 48.80N**±0.02×**156.17E**±0.03**, h18**^{km}**, h18**^{km}±2.7^{km}**:pP-P, n706, σ1^{s}04**/734**, mb5.4**/182**, MS5.5**/59**, 161C-14D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.88	359	*i* P	Pn	08 50 45.0	+7.3
SKR				*i* S	Sn	08 51 08.5	+7.4
SKR	Severo-Kuril's	1.88	359	⇑*i*PN	Pn	08 50 35.0	-2.7
SKR				*i* S	Sn	08 50 58.5	-2.6
SKR				pmax	pmax		
	comp=Z,2μm,1.0s						
SKR				pmax	pmax		
	comp=N,390nm,0.5s						
SKR				pmax	pmax		
	comp=E,390nm,0.5s						
SKR				pmax	pmax		
	comp=N,16μm,2.0s						
SKR				pmax	pmax		
	comp=Z,15μm,2.0s						
SKR				pmax	pmax		
	comp=E,18μm,4.0s						
SKR				smax			
	comp=N,66μm,5.0s						
SKR				smax			
	comp=E,102μm,8.0s						
SKR	Severo-Kuril's	1.88	359	⇑*i*P	Pn	08 50 35.0	-2.7
SKR				⇑*i*P		08 50 35.0	
SKR				AMB	AMB	08 50 36.0	
	comp=E,17μm,4.0s						
SKR				AMB	AMB	08 50 36.0	
	comp=E,16μm,2.0s						
SKR				AMB	AMB	08 50 36.0	
	comp=E,15μm,2.0s						
SKR				AMB	AMB	08 50 36.0	
	comp=E,16μm,2.0s						
SKR				AMB	AMB	08 50 36.0	
	comp=E,15μm,2.0s						
SKR				AMB	AMB	08 50 36.0	
	comp=E,18μm,4.0s						
SKR				AMB	AMB	08 50 37.0	
	comp=E,390nm,0.8s						
SKR				AMB	AMB	08 50 37.0	
	comp=E,2μm,0.8s						
SKR				pP		08 50 45.2	
SKR				*i* S	Sn	08 50 58.5	-2.6
SKR				A		08 51 08.0	
	comp=E,65μm,5.0s						
SKR				A		08 51 08.0	
	comp=E,56μm,5.0s						
SKR				A		08 51 08.0	
	comp=E,102μm,8.0s						
SKR				A		08 51 08.0	
	comp=E,102μm,8.0s						
SKR				A		08 51 08.0	
	comp=E,66μm,5.0s						
SKR				A		08 51 08.0	
	comp=E,55μm,5.0s						
SKR				AMS	AMS	08 51 35.0	
	comp=E,171μm,16.0s						
SKR				AMS	AMS	08 51 35.0	
	comp=E,230μm,16.0s						
SKR				AMS	AMS	08 51 35.0	
	comp=E,8μm,16.0s						
SKR				AMS	AMS	08 51 35.0	
	comp=E,171μm,16.0s						
SKR				AMS	AMS	08 51 35.0	
	comp=E,230μm,16.0s						
SKR				AMS	AMS	08 51 35.0	
	comp=E,8μm,16.0s						
SKR				*e*rx	rx	08 53 51.7	
ALID	Alaid	2.11	349	*i* P	Pn	08 50 45.1	+4.2
ALID				*e*S	Sn	08 51 16.2	+9.4
PAU	Pauzhetka	2.70	9	*i* P	Pn	08 50 50.2	+0.8
PAU				*e*S	Sn	08 51 26.9	+5.0
PAU				Smax			
	comp=E,17μm,1.0s						
MIPR	Malaya Ipel'ka	3.50	6	*e*P	Pn	08 51 03.0	+2.3
RUS	Russkaya	3.93	21	*e*P	Pn	08 51 07.4	+0.6
RUS				*e*S	Sn	08 51 54.9	+1.9
GRL	Gorelyy	3.94	17	*e*P	Pn	08 51 08.1	+1.1
GRL				*e*S	Sn	08 51 57.3	+3.9
PET	Petropavlovsk	4.51	19	*e*P	Pn	08 51 14.1	-1.0
PET				*e*S	Sn	08 52 07.8	+0.1
PET	Petropavlovsk	4.51	19	⇑*e*PN	Pn	08 51 14.2	-0.9
PET	Petropavlovsk	4.51	19	*e*P	Pn	08 51 14.2	-0.9
UGLR	Uglovaya	4.72	20	*e*P	Pn	08 51 17.7	-0.4
UGLR				*e*S	Sn	08 52 13.3	+0.3
AVH	Avacha	4.75	19	*e*P	Pn	08 51 18.6	+0.1
AVH				*e*S	Sn	08 52 14.5	+0.6
KOK	Koryaka	4.76	18	*i* P	Pn	08 51 18.0	-0.6
KOK				*e*S	Sn	08 52 14.8	+0.8
SDLR	Sedlovina	4.80	20	*e*P	Pn	08 51 18.2	-1.0
SDLR				*e*S	Sn	08 52 15.7	+0.7
NLC	Nalytchevo	4.81	23	*e*P	Pn	08 51 17.8	-1.6
NLC				*e*S	Sn	08 52 13.7	-1.6
SPN	Mys Shipunski	4.94	28	*e*P	Pn	08 51 19.9	-1.3
SPN				*e*S	Sn	08 52 17.2	-1.4
GNL	Ganaly	5.03	12	*i* P	Pn	08 51 22.8	+0.4
GNL				*e*S	Sn	08 52 22.4	+1.7
KUR	Kuril'sk	6.70	241	*c* *i*PN	Pn	08 51 43.6	-2.4
KUR				*e*S	Sn	08 53 10.0	+7.3
KUR				pmax	pmax		
	comp=N,6μm,2.0s						
KUR				pmax	pmax		
	comp=E,15μm,2.0s						
KUR				pmax	pmax		
	comp=Z,12μm,2.0s						
KUR				pmax	pmax		
	comp=N,2μm,1.4s						
KUR				pmax	pmax		
	comp=E,3μm,1.4s						
KUR				pmax	pmax		
	comp=Z,6μm,1.4s						
KUR				smax			
	comp=N,50μm,5.0s						
KUR				smax			
	comp=E,28μm,5.0s						
KUR				smax			
	comp=N,2μm,0.8s						
KUR				smax			
	comp=E,2μm,0.8s						
KUR				MLR	MLR		
	comp=N,55μm,15.0s						
KUR				MLR	MLR		
	comp=E,61μm,15.0s						
KUR				MLR	MLR		
	comp=Z,68μm,15.0s						
KUR	Kuril'sk	6.70	241	*e*P	Pn	08 51 43.6	-2.4
KUR				⇑*i*P		08 51 43.6	
KUR				AMB	AMB	08 51 55.0	
	comp=Z,6μm,2.0s						
KUR				AMB	AMB	08 51 55.0	
	comp=Z,15μm,2.0s						
KUR				AMB	AMB	08 51 55.0	
	comp=Z,12μm,2.0s						
KUR				AMB	AMB	08 51 56.2	
	comp=Z,2μm,1.4s						
KUR				AMB	AMB	08 51 56.2	
	comp=Z,3μm,1.4s						
KUR				AMB	AMB	08 51 56.2	
	comp=Z,6μm,1.4s						
KUR				A		08 53 31.0	
	comp=Z,50μm,5.0s						
KUR				A		08 53 31.0	
	comp=Z,28μm,5.0s						
KUR				A		08 53 34.2	
	comp=Z,2μm,0.8s						
KUR				A		08 53 34.2	
	comp=Z,2μm,0.8s						
KUR				AMS	AMS	08 54 35.0	
	comp=Z,55μm,15.0s						
KUR				AMS	AMS	08 54 35.0	
	comp=Z,61μm,15.0s						
KUR				AMS	AMS	08 54 35.0	
	comp=Z,68μm,15.0s						
KUR				AMS	AMS	08 54 36.0	
	comp=Z,28μm,15.0s						
KUR				AMS	AMS	08 54 36.0	
	comp=Z,30μm,15.0s						
KUR				AMS	AMS	08 54 36.0	
	comp=Z,33μm,15.0s						
TUMR	Tumrok	6.94	19	*e*P	Pn	08 51 48.4	-0.9
KMNR	Kamenistaya	7.40	18	*e*P	Pn	08 51 55.2	-0.6
KPT	Kopyto	7.59	18	*e*P	Pn	08 51 57.2	-1.3
KOZ	Kozyrevsk	7.61	16	*e*P	Pn	08 51 56.8	-2.0
ZLN	Zelenaya	7.76	20	*e*P	Pn	08 51 59.9	-0.9
LGNR	Loginova	7.80	19	*e*P	Pn	08 52 00.7	-0.6
LGNR				*e*S	Sn	08 53 27.1	-2.9
SRDR	Sredinnyy	7.83	15	*e*P	Pn	08 51 59.9	-1.9
CIRR	Tsirk	7.84	19	*e*P	Pn	08 52 01.5	-0.4
KRSR	Krestovskiy	7.89	18	*e*P	Pn	08 52 01.9	-0.8
KLY	Klyuchi	8.00	18	*e*P	P	08 52 03.2	-1.0
KLY				*e*S	Sn	08 53 33.4	-1.8
SVLR	Shiveluch	8.37	20	*e*P	P	08 52 07.2	-2.1
KBTR	Krutoberegovo	8.45	26	*e*P	P	08 52 07.7	-2.7
KBTR				*e*S	Sn	08 53 40.4	-5.9
YUK	Yuzh-Kuril'sk	8.57	240	⇓*i*P	P	08 52 10.7	-1.3
YUK				AMB	AMB	08 52 18.5	
	comp=Z,5μm,2.0s						
YUK				AMB	AMB	08 52 18.5	
	comp=Z,5μm,3.0s						
YUK				AMB	AMB	08 52 18.5	
	comp=Z,4μm,3.0s						
YUK				A		08 53 32.0	
	comp=Z,10μm,3.0s						

YUK				A		08 53 32.0	
	comp=Z,8μm,3.0s						
YUK				A		08 54 10.0	
	comp=Z,420nm,0.6s						
YUK				A		08 54 10.0	
	comp=Z,310nm,0.6s						
TYV	**Tymovskoe**	**8.98**	**288**	*e*P	**P**	**08 52 17.7**	**0.0**
TYV				AMB	AMB	08 52 31.0	
	comp=Z,2μm,4.0s						
TYV				AMB	AMB	08 52 31.0	
	comp=Z,6μm,4.0s						
TYV				AMB	AMB	08 52 31.0	
	comp=Z,4μm,4.0s						
TYV				AMB	AMB	08 52 31.5	
	comp=Z,560nm,1.3s						
TYV				A		08 55 28.0	
	comp=Z,9μm,8.0s						
TYV				AMS	AMS	08 56 14.0	
	comp=Z,85μm,17.0s						
YSS	**Yuzh-Sakhalins**	**9.20**	**263**	α *i*PN	**P**	**08 52 22.6**	**+1.7**
YSS				*e*S	**Sn**	**08 54 09.0**	**+4.0**
YSS				pmax	pmax		
	comp=E,350nm,1.2s						
YSS				pmax	pmax		
	comp=Z,200nm,1.2s						
YSS				pmax	pmax		
	comp=Z,3μm,8.0s						
YSS				MLR	MLR		
	comp=E,5μm,14.0s						
YSS				MLR	MLR		
	comp=Z,11μm,14.0s						
YSS				MLR	MLR		
	comp=N,7μm,13.0s						
YSS	**Yuzh-Sakhalins**	**9.20**	**263**	*e*Pn	**P**	**08 52 22.8**	**+1.9**
YSS	**Yuzh-Sakhalins**	**9.20**	**263**	⇑*e*P	**P**	**08 52 22.6**	**+1.7**
YSS				⇑*i*P		08 52 22.6	
YSS				AMB	AMB	08 52 24.6	
	comp=N,350nm,1.2s						
YSS				AMB	AMB	08 52 24.6	
	comp=N,200nm,1.2s						
YSS				AMB	AMB	08 52 28.2	
	comp=N,3μm,8.0s						
YSS				*e*sP		08 52 36.7	
YSS				*e*S	**Sn**	**08 54 09.0**	**+4.0**
YSS				AMS	AMS	08 56 54.0	
	comp=N,5μm,14.0s						
YSS				AMS	AMS	08 56 54.0	
	comp=N,11μm,14.0s						
YSS				AMS	AMS	08 56 54.0	
	comp=N,6μm,13.0s						
YSS				AMS	AMS	08 56 54.0	
	comp=N,5μm,14.0s						
YSS				AMS	AMS	08 56 54.0	
	comp=N,14μm,14.0s						
YSS				AMS	AMS	08 56 54.0	
	comp=N,7μm,13.0s						
UGL	**Uglegorsk**	**9.29**	**277**	*e*P	**P**	**08 52 21.0**	**-1.1**
UGL				AMB	AMB	08 52 28.0	
	comp=N,225nm,1.0s						
UGL				AMB	AMB	08 52 28.0	
	comp=N,403nm,1.0s						
UGL				AMB	AMB	08 52 30.0	
	comp=N,2μm,7.0s						
UGL				AMB	AMB	08 52 30.0	
	comp=N,5μm,7.0s						
UGL				AMB	AMB	08 52 30.0	
	comp=N,5μm,7.0s						
UGL				AMS	AMS	08 56 30.0	
	comp=N,56μm,15.0s						
UGL				AMS	AMS	08 56 30.0	
	comp=N,75μm,15.0s						
UGL				AMS	AMS	08 56 30.0	
	comp=N,50μm,15.0s						
OKH	**Okha**	**9.57**	**305**	*e*PN	**P**	**08 52 25.8**	**0.0**
OKH				*e*S	**Sn**	**08 54 18.6**	**+4.6**
OKH				pmax	pmax		
	comp=Z,6μm,10.0s						
OKH				smax			
	comp=E,5μm,7.5s						
OKH	**Okha**	**9.57**	**305**	*e*P	**P**	**08 52 25.7**	**-0.1**
OKH				*e*P		08 52 25.8	
OKH				AMB	AMB	08 52 26.0	
	comp=E,500nm,1.2s						
OKH				AMB	AMB	08 52 29.0	
	comp=E,2μm,10.0s						
OKH				AMB	AMB	08 52 29.0	
	comp=E,6μm,10.0s						
OKH				AMB	AMB	08 52 29.0	
	comp=E,6μm,10.0s						
OKH				*e*S	**Sn**	**08 54 18.6**	**+4.6**
OKH				A		08 54 26.0	
	comp=E,5μm,9.0s						
OKH				A		08 54 26.0	
	comp=E,5μm,6.0s						
OKH				AMS	AMS	08 56 10.0	
	comp=E,19μm,15.0s						
OKH				AMS	AMS	08 56 10.0	
	comp=E,49μm,15.0s						
OKH				AMS	AMS	08 56 10.0	
	comp=E,24μm,15.0s						
ASAJ	**Asahikawa**	**10.47**	**248**	Pn	**P**	**08 52 37.0**	**-1.1**
	comp=E,6.9nm,0.3s,baz=76,slow=13,SNR=60						
ASAJ				LR	LR	08 56 31.9	
	comp=E,23nm,18.9s,baz=66,slow=37						
ASAJ	**Asahikawa**	**10.47**	**248**	PN	**P**	**08 52 37.1**	**-1.1**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,23μm,18.9s						
NKL	**Nikolayevsk**	**10.69**	**300**	*i* P	**P**	**08 52 39.0**	**-2.1**
NKL				AMB	AMB	08 52 45.0	
	comp=Z,4μm,7.0s						
NKL				AMB	AMB	08 52 45.0	
	comp=Z,5μm,8.0s						
NKL				AMB	AMB	08 52 52.5	
	comp=Z,330nm,1.7s						
NKL				AMB	AMB	08 52 52.5	
	comp=Z,1μm,1.7s						
NKL				*e*S	**S**	**08 54 40.0**	**-1.4**
NKL				A		08 54 49.0	
	comp=Z,3μm,11.0s						
NKL				AMS	AMS	08 57 18.0	
	comp=Z,6μm,18.0s						
NKL				AMS	AMS	08 57 18.0	
	comp=Z,19μm,18.0s						
NKL				AMS	AMS	08 57 18.0	
	comp=Z,26μm,18.0s						
MA2	**Magadan**	**11.24**	**346**	*e*PN	**P**	**08 52 47.9**	**-0.8**
MA2				*e*SS	SS	08 55 03.8	-5.2
MA2				pmax	pmax		
	comp=Z,90nm,1.2s						
MA2				MLR	MLR		
	comp=Z,130μm,14.0s						
MA2	**Magadan**	**11.24**	**346**	*e*P	**P**	**08 52 47.5**	**-1.3**
FX1	**Attu Island--F**	**11.49**	**63**	Pn	**P**	**08 52 47.6**	**-4.4**
	comp=Z,26nm,0.3s,baz=282,slow=3.3,SNR=80						
FX1				Sn	**S**	**08 54 42.8**	**-18**
	comp=Z,84nm,0.3s,baz=87,slow=21,SNR=20						
FX1				LR	LR	08 56 43.4	
	comp=Z,159nm,20.0s,baz=275,slow=35						
FX1	**Attu Island--F**	**11.49**	**63**	*e*P	**P**	**08 52 46.3**	**-5.8**
SMY	**Shemya**	**12.01**	**64**	*e*PN	**P**	**08 52 54.9**	**-4.2**
SMY				pmax	pmax		
	comp=Z,115nm,0.3s						
SMY	**Shemya**	**12.01**	**64**	*e*P	**P**	**08 52 54.9**	**-4.2**
	comp=Z,115nm,0.3s						
GRNR	**Gornyy**	**12.91**	**286**	*e*P	**P**	**08 53 13.0**	**+1.8**
GRNR				AMB	AMB	08 53 15.6	
	comp=Z,160nm,1.2s						
GRNR				AMB	AMB	08 53 15.6	
	comp=Z,260nm,1.2s						
GRNR				AMB	AMB	08 53 15.6	
	comp=Z,140nm,1.2s						
TEY	**Ternei**	**13.89**	**262**	*e*P	**P**	**08 53 24.0**	**0.0**
TEY				AMB	AMB	08 53 35.0	
	comp=Z,5μm,10.0s						
TEY				AMB	AMB	08 53 35.0	
	comp=Z,6μm,10.0s						
TEY				AMS	AMS	08 59 11.0	
	comp=Z,4μm,16.0s						
TEY				AMS	AMS	08 59 11.0	
	comp=Z,12μm,16.0s						
TEY				AMS	AMS	08 59 11.0	
	comp=Z,19μm,16.0s						
SEY	**Seymchan**	**14.32**	**353**	*i* P	**P**	**08 53 29.2**	**-0.3**
SEY				*e*S	**S**	**08 56 04.6**	**-4.2**
SEY				pmax	pmax		
	comp=Z,400nm,1.4s						
SEY				pmax	pmax		
	comp=N,200nm,1.6s						
SEY				pmax	pmax		
	comp=E,60nm,1.3s						
SEY				MLR	MLR		
	comp=N,27μm,19.0s						
SEY				MLR	MLR		
	comp=Z,59μm,19.0s						
SEY				MLR	MLR		
	comp=E,57μm,17.0s						
EKMR	**Ekimchan**	**15.22**	**295**	*e*P	**P**	**08 53 40.8**	**-0.6**
EKMR				AMB	AMB	08 53 53.0	
	comp=E,23nm,0.7s						
EKMR				AMB	AMB	08 53 53.0	
	comp=E,110nm,0.7s						
EKMR				AMB	AMB	08 53 53.0	
	comp=E,130nm,0.7s						
KLR	**Kul'dur**	**16.01**	**281**	⇓*i*P	**P**	**08 53 50.8**	**-0.8**
KLR				pmax	pmax		
	comp=N,150nm,2.4s						
KLR				pmax	pmax		
	comp=E,340nm,2.4s						
KLR				pmax	pmax		
	comp=Z,440nm,2.4s						
KLR	**Kul'dur**	**16.01**	**281**	*i* P	**P**	**08 53 50.8**	**-0.8**
KLR				*e*P		08 53 51.0	
KLR				AMB	AMB	08 53 57.2	
	comp=Z,150nm,2.4s						
KLR				AMB	AMB	08 53 57.2	
	comp=Z,340nm,2.4s						
KLR				AMB	AMB	08 53 57.2	
	comp=Z,440nm,2.4s						
KLR				A		08 57 17.5	
	comp=Z,3μm,10.0s						
KLR				A		08 57 17.5	
	comp=Z,2μm,10.0s						
BMKR	**Bomnak**	**17.85**	**300**	*i* P	**P**	**08 54 12.0**	**-2.7**
BMKR				AMB	AMB	08 54 15.5	
	comp=Z,30nm,0.9s						
BMKR				AMB	AMB	08 54 15.5	
	comp=Z,90nm,0.9s						
BMKR				AMB	AMB	08 54 15.5	
	comp=Z,120nm,0.9s						
MAJO	**Matsushiro**	**17.96**	**234**	P	**P**	**08 54 12.7**	**-3.5**
MAJO				pmax	pmax		
	comp=Z,110nm,1.1s						
MAJO	**Matsushiro**	**17.96**	**234**	*e*P	**P**	**08 54 12.4**	**-3.9**
	comp=Z,144nm,0.9s						
MAT	**Matsushiro**	**17.96**	**234**	P	**P**	**08 54 12.2**	**-4.0**
MAT				S	**S**	**08 57 40.0**	**+6.6**
MAT	**Matsushiro**	**17.96**	**234**	*e*P	**P**	**08 54 12.0**	**-4.2**
MAT				*e*S	**S**	**08 57 40.0**	**+6.6**
MAT				pmax	pmax		
	comp=Z,163nm,1.3s						
MAT	**Matsushiro**	**17.96**	**234**	*e*P	**P**	**08 54 12.0**	**-4.2**
	comp=Z,164nm,1.3s						
MAT				*e*S	**S**	**08 57 40.0**	**+6.6**
YASR	**Yasnyy**	**18.22**	**295**	*e*P	**P**	**08 54 17.2**	**-2.2**
YASR				pP		08 54 25.8	
YASR				AMB	AMB	08 54 29.0	
	comp=Z,20nm,0.9s						
YASR				AMB	AMB	08 54 29.0	
	comp=Z,30nm,0.9s						
YASR				AMB	AMB	08 54 29.0	
	comp=Z,80nm,0.9s						
MDJ	**Mudanjiang**	**18.66**	**267**	P	**P**	**08 54 22.8**	**-2.0**
MDJ				S	**S**	**08 57 53.4**	**+4.3**
MDJ				XS		08 58 00.9	
MDJ				SS	SS	08 58 17.0	+3.0
MDJ				SCS	ScS	09 06 08.0	+1.4
MDJ				AMB	AMB		
	comp=Z,83nm,1.6s						
MDJ				AMB	AMB		
	comp=Z,2μm,13.2s						
MDJ				LR	LR		
	comp=N,10μm,17.6s						
MDJ				LR	LR		
	comp=E,5μm,18.8s						
MDJ				LR	LR		
	comp=Z,11μm,17.6s						
MDJ	**Mudanjiang**	**18.66**	**267**	*e*P	**P**	**08 54 21.9**	**-3.0**
	comp=Z,135nm,1.1s						
ZEA	**Zeya**	**18.68**	**296**	*e*P	**P**	**08 54 20.7**	**-4.3**
ZEA				AMB	AMB	08 54 24.3	
	comp=Z,190nm,2.0s						
ZEA				AMB	AMB	08 54 24.3	
	comp=Z,250nm,2.0s						
ZEA				AMB	AMB	08 54 24.3	
	comp=Z,300nm,2.0s						
ZEA				AMB	AMB	08 54 30.0	
	comp=Z,2μm,10.0s						
ZEA				AMB	AMB	08 54 30.0	
	comp=Z,2μm,10.0s						
ZEA				sP		08 54 39.0	
ZEA				AMS	AMS	09 02 17.0	
	comp=Z,3μm,17.0s						
ZEA				AMS	AMS	09 02 17.0	
	comp=Z,10μm,17.0s						
ZEA				AMS	AMS	09 02 17.0	
	comp=Z,11μm,17.0s						
KROS	**Kirovskiy**	**18.90**	**298**	*e*P	**P**	**08 54 22.7**	**-4.9**
KROS				AMB	AMB	08 54 30.5	
	comp=Z,80nm,1.6s						
KROS				AMB	AMB	08 54 30.5	
	comp=Z,300nm,1.6s						
KROS				AMB	AMB	08 54 30.5	
	comp=Z,310nm,1.6s						
KROS				sP		08 54 39.3	
YAK	**Yakutsk**	**19.84**	**322**	*c* *i*P	**P**	**08 54 35.3**	**-3.1**
YAK				*e*S	**S**	**08 58 16.5**	**+1.1**
YAK				pmax	pmax		
	comp=Z,145nm,1.1s						
YAK				pmax	pmax		
	comp=N,34nm,1.2s						
YAK				pmax	pmax		
	comp=E,135nm,1.3s						
YAK				smax			
	comp=N,62nm,1.3s						
YAK				smax			
	comp=Z,14nm,1.1s						
YAK				smax			
	comp=E,29nm,1.2s						
YAK				MLR	MLR		
	comp=N,3μm,15.0s						
YAK				MLR	MLR		
	comp=E,8μm,15.0s						
YAK				MLR	MLR		
	comp=Z,8μm,15.0s						
YAK	**Yakutsk**	**19.84**	**322**	*e*P	**P**	**08 54 34.9**	**-3.5**
	comp=Z,159nm,0.8s						
JHJ	**Hachijo jima 2**	**19.90**	**224**	P	**P**	**08 54 38.6**	**-0.6**
	comp=Z,12nm,0.3s,baz=95,slow=4.2,SNR=18						
JHJ				LR	LR	09 00 21.9	
	comp=Z,2μm,20.3s,baz=68,slow=31						
BILL	**Bilibino**	**19.95**	**11**	⇓*e*P	**P**	**08 54 36.3**	**-3.3**
BILL				*e*S	**S**	**08 58 15.3**	**-2.4**
BILL				pmax	pmax		
	comp=Z,109nm,1.0s						
BILL				MLR	MLR		
	comp=Z,13μm,19.0s						
BILL	**Bilibino**	**19.95**	**11**	*e*P	**P**	**08 54 36.8**	**-2.8**
	comp=Z,276nm,1.4s						
CLNS	**Chul'man**	**20.39**	**305**	*e*P	**P**	**08 54 43.3**	**-0.9**
CLNS				*e*		08 54 59.1	
CLNS				*e*	**S**	**08 58 28.4**	**+1.7**
CLNS				*e*S	tx	08 58 50.1	
CLNS				pmax	pmax		
	comp=Z,157nm,0.9s						
CLNS				pmax	pmax		
	comp=N,94nm,1.0s						
CLNS				pmax	pmax		
	comp=E,99nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,186nm,1.2s						
CLNS				pmax	pmax		
	comp=N,187nm,1.1s						
CLNS				pmax	pmax		
	comp=E,160nm,1.1s						
CLNS				MLR	MLR		
	comp=Z,27μm,15.0s,MS5.7						
CLNS				MLR	MLR		
	comp=N,5μm,14.0s,MS5.2						
CLNS				MLR	MLR		
	comp=E,4μm,14.0s,MS5.2						
CN2	**Changchun**	**21.72**	**268**	⇑P	**P**	**08 54 54.6**	**-3.2**
CN2				*e*XP		08 55 00.6	
CN2				*e*S	**S**	**08 58 47.0**	**-5.4**
CN2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.0						
CN2				AMB	AMB		
	comp=Z,570nm,4.0s						
CN2				LR	LR		
	comp=N,15μm,17.0s,MS5.5						
CN2				LR	LR		
	comp=E,10μm,17.0s,MS5.5						
CN2				LR	LR		
	comp=Z,10μm,17.0s,MS5.3						
KS15	**Wonju Array Si**	**23.42**	**252**	*e*P	**P**	**08 55 14.7**	**+0.1**
HIA	**Hailar**	**23.75**	**285**	*e*P	**P**	**08 55 15.6**	**-2.0**
HIA				pmax	pmax		
	comp=Z,82nm,1.2s						
HIA	**Hailar**	**23.75**	**285**	*e*P	**P**	**08 55 15.6**	**-2.0**
	comp=Z,82nm,1.2s,mb5.0						
HIA				*e*		08 55 29.0	
INCN	**Inchon**	**24.19**	**253**	*e*P	**P**	**08 55 23.4**	**+1.4**
	comp=Z,237nm,1.1s,mb5.5						
ANM	**Nome**	**25.81**	**38**	*e*P	**P**	**08 55 38.8**	**+1.6**
TIXI	**Tiksi**	**26.14**	**341**	⇑*i*P	**P**	**08 55 37.2**	**-3.1**
TIXI				*e*SS	SS	09 01 35.2	+19
TIXI				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,9μm,14.0s,MS5.5						
TIXI	**Tiksi**	**26.14**	**341**	⇑*e*P	**P**	**08 55 37.3**	**-3.0**
BOD	**Bodaibo**	**26.36**	**306**	*e*P	**P**	**08 55 38.8**	**-3.6**
DL2	**Dalian**	**26.59**	**261**	⇑P	**P**	**08 55 41.6**	**-3.1**
DL2				S	**S**	**09 00 20.8**	**+4.2**
DL2				AMB	AMB		
	comp=Z,40nm,1.1s,mb4.9						
DL2				AMB	AMB		
	comp=Z,720nm,11.0s						
DL2				LR	LR		
	comp=N,3μm,16.5s,MS5.1						
DL2				LR	LR		
	comp=E,3μm,15.9s,MS5.1						
DL2				LR	LR		
	comp=Z,3μm,16.3s,MS4.9						
BJI	**Beijing**	**29.59**	**268**	*e*P	**P**	**08 56 09.9**	**-1.9**
BJI				AMB	AMB		
	comp=Z,39nm,1.2s,mb5.0						
BJI				LR	LR		
	comp=N,8μm,15.1s,MS5.5						
BJI				LR	LR		
	comp=E,6μm,16.0s,MS5.5						
BJI				LR	LR		
	comp=Z,5μm,15.3s,MS5.3						
BJT	**Baijiatuau**	**29.60**	**268**	*e*P	**P**	**08 56 09.6**	**-2.4**
BJT				pmax	pmax		
	comp=Z,111nm,1.3s						
BJT	**Baijiatuau**	**29.60**	**268**	*e*P	**P**	**08 56 09.6**	**-2.4**
	comp=Z,111nm,1.3s,mb5.4						
BJT				*e*		08 56 23.6	
JOW	**Kunigami**	**30.80**	**235**	P	**P**	**08 56 21.9**	**-0.8**
	comp=Z,55nm,1.0s,mb5.3,baz=25,slow=7.6,SNR=5.2						
IMA	**Indian Mountai**	**30.93**	**38**	*e*P	**P**	**08 56 23.9**	**+0.5**
IMA				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.8						
IMA	**Indian Mountai**	**30.93**	**38**	*e*P	**P**	**08 56 23.9**	**+0.5**
	comp=Z,26nm,1.5s,mb4.8						
KDAK	**Kodiak Island**	**31.22**	**54**	*e*P	**P**	**08 56 23.2**	**-2.8**
	comp=Z,54nm,0.9s,mb5.4						
SPU	**Mount Spurr**	**31.30**	**47**	*e*P	**P**	**08 56 26.6**	**-0.1**
SSE	**Sheshan**	**31.76**	**249**	*e*P	**P**	**08 56 27.8**	**-3.3**
SSE				AP	pP	08 56 31.3	-5.1
SSE				S	**S**	**09 01 37.8**	**-1.2**
SSE				XS		09 01 44.5	
SSE				AMB	AMB		
	comp=Z,37nm,0.6s,mb5.4						
SSE				AMB	AMB		
	comp=Z,781nm,9.5s						
SSE				LR	LR		
	comp=N,6μm,18.2s,MS5.3						
SSE				LR	LR		
	comp=E,2μm,18.2s,MS5.3						
SSE				LR	LR		
	comp=Z,7μm,17.5s,MS5.4						
ULN	**Ulaanbaatar**	**32.21**	**287**	⇑*i*P	**P**	**08 56 32.7**	**-2.2**
ULN	**Ulaanbaatar**	**32.21**	**287**	*e*P	**P**	**08 56 32.4**	**-2.5**
	comp=Z,26nm,1.2s,mb4.9						
SLKM	**Skilak Lake**	**32.22**	**48**	*e*P	**P**	**08 56 33.4**	**-1.4**
HHC	**Hu-ho-hao-te**	**32.23**	**273**	*e*P	**P**	**08 56 34.3**	**-0.8**
HHC				AP	pP	08 56 38.8	-1.6
HHC				XP	sP	08 56 41.3	-1.4
HHC				PP	PP	08 57 40.8	-1.7
HHC				PCP	PcP	08 59 22.0	-1.6
HHC				S	**S**	**09 01 45.5**	**-0.7**
HHC				XS		09 01 52.3	
HHC				PCS		09 03 06.3	
HHC				AMB	AMB		
	comp=Z,127nm,1.1s,mb5.7						
HHC				AMB	AMB		
	comp=Z,779nm,4.9s						
HHC				LR	LR		
	comp=N,10μm,15.5s,MS5.7						
HHC				LR	LR		
	comp=E,6μm,15.5s,MS5.7						
HHC				LR	LR		
	comp=Z,7μm,16.7s,MS5.4						
NJ2	**Nanjing**	**32.57**	**253**	*e*P	**P**	**08 56 37.6**	**-0.5**
NJ2				PP	PP	08 57 47.8	+0.8
NJ2				S	**S**	**09 01 48.0**	**-3.6**
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,4μm,6.4s						
NJ2				LR	LR		
	comp=N,24μm,21.4s,MS5.9						
NJ2				LR	LR		
	comp=E,9μm,18.0s,MS5.9						
NJ2				LR	LR		
	comp=Z,26μm,18.9s,MS6.0						
IRK	**Irkutsk**	**32.59**	**296**	*e*P	**P**	**08 56 34.9**	**-3.2**
SONM	**Songino Array**	**32.64**	**287**	P	**P**	**08 56 35.9**	**-2.7**
	comp=Z,10nm,1.2s,mb4.6,baz=63,slow=8.3,SNR=30						
SONM				PcP	PcP	08 59 21.3	-3.3
	comp=Z,5.3nm,0.8s,baz=78,slow=2.5,SNR=6.8						
SONM				ScP		09 03 05.5	
	comp=Z,4.3nm,1.3s,baz=54,slow=11,SNR=3.6						
MCK	**McKinley**	**32.75**	**42**	P	**P**	**08 56 39.6**	**+0.2**
MCK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
MCK	**McKinley**	**32.75**	**42**	*e*P	**P**	**08 56 38.9**	**-0.5**
	comp=Z,13nm,1.1s,mb4.8						
SML	**Sawmill**	**33.06**	**46**	P	**P**	**08 56 41.5**	**-0.6**
SML	**Sawmill**	**33.06**	**46**	*e*P	**P**	**08 56 41.2**	**-0.9**
TLY	**Talaya**	**33.12**	**295**	*e*P	**P**	**08 56 41.2**	**-1.5**
TLY				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.2						
TLY				MLR	MLR		
	comp=Z,9μm,15.0s,MS5.6						
TLY	**Talaya**	**33.12**	**295**	*e*P	**P**	**08 56 40.6**	**-2.1**
	comp=Z,44nm,1.1s,mb5.3						
COLA	**College**	**33.24**	**40**	*e*P	**P**	**08 56 44.2**	**+0.5**
COLA				pmax	pmax		
	comp=Z,77nm,1.5s,mb5.4						
COLA	**College**	**33.24**	**40**	*e*P	**P**	**08 56 44.2**	**+0.5**
	comp=Z,77nm,1.5s,mb5.4						
BTO	**Baotou**	**33.37**	**273**	*e*P	**P**	**08 56 40.5**	**-4.5**
BTO				AMB	AMB		
	comp=Z,28nm,1.0s,mb5.2						
BTO				LR	LR		
	comp=N,735nm,13.5s,MS4.9						
BTO				LR	LR		
	comp=E,1μm,12.0s,MS4.9						
ILAR	**Eielson Array**	**33.66**	**40**	P	**P**	**08 56 46.0**	**-1.2**
	comp=E,4.5nm,0.7s,mb4.5,baz=249,slow=7.7,SNR=61						
ILAR				LR	LR	09 11 41.5	
	comp=E,2μm,19.8s,MS4.8,baz=294,slow=39						
ZAK	**Zakamensk**	**33.72**	**293**	*e*P	**P**	**08 56 45.9**	**-2.1**
THY	**Trims Highway**	**34.18**	**43**	*e*P	**P**	**08 56 52.4**	**+0.6**
DIV	**Divide**	**34.34**	**47**	*e*P	**P**	**08 56 52.7**	**-0.5**
	comp=E,79nm,0.9s,mb5.6						
MENT	**Mentasta**	**35.13**	**44**	*e*P	**P**	**08 57 00.0**	**0.0**
WHN	**Wuhan**	**36.44**	**256**	⇑*i*P	**P**	**08 57 10.5**	**-0.9**
WHN				S	**S**	**09 02 59.0**	**+7.4**
WHN				LR	LR		
	comp=Z,9μm,15.6s,MS5.7						
DAWY	**Dawson**	**36.94**	**41**	*e*P	**P**	**08 57 15.5**	**+0.3**
XAN	**Xi'an**	**37.75**	**265**	P	**P**	**08 57 20.9**	**-1.4**
XAN				PP	PP	08 58 53.8	+2.3
XAN				LR	LR		
	comp=N,4μm,16.2s,MS5.3						

XAN				LR	LR		
	comp=E,2µm,18.7s,MS5.3						
XAN				LR	LR		
	comp=Z,6µm,17.2s,MS5.5						
QZH	Quanzhou	37.78	245	⇑iP	P	08 57 23.0	+0.3
QZH				PP	PP	08 58 49.0	-3.0
QZH				S	S	09 03 16.0	+3.8
QZH				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.4						
QZH				AMB	AMB		
	comp=Z,2µm,8.2s						
QZH				LR	LR		
	comp=N,5µm,14.6s,MS5.6						
QZH				LR	LR		
	comp=E,6µm,16.4s,MS5.6						
QZH				LR	LR		
	comp=Z,5µm,16.0s,MS5.4						
INK	Inuvik	38.81	34	P	P	08 57 31.1	+0.3
	comp=Z,25nm,0.9s,mb5.0,baz=282,slow=7.0,SNR=69						
INK				LR	LR	09 14 44.4	
	comp=Z,3µm,20.8s,MS5.0,baz=277,slow=38						
INK	Inuvik	38.81	34	P	P	08 57 31.2	+0.3
INK				pmax	pmax		
	comp=Z,25nm,0.9s						
INK				MLR	MLR		
	comp=Z,3µm,20.8s						
INK	Inuvik	38.81	34	eP	P	08 57 30.9	+0.1
	comp=Z,45nm,0.9s,mb5.2						
ENH	Enshi	39.76	260	eP	P	08 57 38.2	-1.0
	comp=Z,267nm,1.2s,mb5.8						
LZH	Lanzhou	39.89	271	⇑P	P	08 57 39.8	-0.4
LZH				AP	pP	08 57 42.9	-2.7
LZH				XP	sP	08 57 44.3	-3.5
LZH				eS	S	09 03 43.8	-0.1
LZH				XS		09 03 50.9	
LZH				SS	SS	09 06 32.5	-1.5
LZH				AMB	AMB		
	comp=Z,106nm,1.3s,mb5.4						
LZH				AMB	AMB		
	comp=Z,165nm,6.5s						
LZH				LR	LR		
	comp=N,2µm,13.3s						
LZH				LR	LR		
	comp=Z,3µm,17.2s,MS5.3						
GTA	Gaotai	40.70	278	⇑iP	P	08 57 46.4	-0.4
GTA				AP	pP	08 57 53.6	+1.4
GTA				XP	sP	08 57 57.3	+2.9
GTA				PP	PP	08 59 23.9	0.0
GTA				PCP	PcP	08 59 49.5	+0.6
GTA				SCP		09 03 35.8	
GTA				PCS		09 03 39.9	
GTA				S	S	09 03 53.1	-2.8
GTA				XS		09 04 05.3	
GTA				SS	SS	09 06 46.8	-4.8
GTA				SCS	ScS	09 07 50.8	+1.4
GTA				AMB	AMB		
	comp=Z,72nm,1.2s,mb5.2						
GTA				AMB	AMB		
	comp=Z,762nm,9.9s						
GTA				LR	LR		
	comp=N,10µm,14.4s,MS5.9						
GTA				LR	LR		
	comp=E,9µm,14.8s,MS5.9						
GTA				LR	LR		
	comp=Z,15µm,15.2s,MS6.0						
CVP	Callao Caves	41.66	234	eP	P	08 57 54.0	-0.9
DLBC	Dease Lake	42.69	48	P	P	08 58 04.0	+1.2
	comp=Z,14nm,1.0s,mb4.7,baz=313,slow=12,SNR=14						
DLBC				LR	LR	09 16 52.7	
	comp=Z,3µm,21.0s,MS5.2,baz=303,slow=38						
DLBC	Dease Lake	42.69	48	eP	P	08 58 04.7	+1.9
CD2	Chengdu	43.10	265	⇑iP	P	08 58 06.0	-0.5
CD2				PP	PP	08 59 48.9	-0.1
CD2				PPP	PPP	09 00 16.5	-7.4
CD2				S	S	09 04 25.8	-5.6
CD2				SCS	ScS	09 08 07.8	+3.8
CD2				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.5						
CD2				LR	LR		
	comp=E,4µm,17.9s						
CD2				LR	LR		
	comp=Z,7µm,16.8s,MS5.6						
ZAL	Zalesovo	43.12	305	P	P	08 58 03.7	-2.7
	comp=Z,4.0nm,0.8s,baz=45,slow=7.9,SNR=28						
ZAL				PcP	PcP	08 59 55.6	-1.0
	comp=Z,9.4nm,0.9s,baz=51,slow=5.7,SNR=9.2						
ZAL				LR	LR	09 17 54.2	
	comp=Z,6µm,19.1s,MS5.5,baz=49,slow=39						
NVS	Novosibirsk	43.60	307	i P	P	08 58 07.2	-3.0
NVS				e		08 59 50.9	
NVS				e		09 04 45.9	
NVS				pmax	pmax		
	comp=N,115nm,1.8s						
NVS				pmax	pmax		
	comp=E,125nm,1.8s						
NVS				pmax	pmax		
	comp=Z,146nm,1.8s,mb5.4						
GYA	Guiyang	44.16	258	⇑iP	P	08 58 15.3	+0.1
GYA				AP	pP	08 58 20.3	-0.3
GYA				XP	sP	08 58 22.6	-0.3
GYA				PP	PP	08 59 59.8	+0.1
GYA				S	S	09 04 52.3	+5.5
GYA				AMB	AMB		
	comp=Z,140nm,1.3s,mb5.5						
GYA				AMB	AMB		
	comp=Z,600nm,7.8s						
GYA				LR	LR		
	comp=N,4µm,20.4s,MS5.4						
GYA				LR	LR		
	comp=E,2µm,20.4s,MS5.4						
GYA				LR	LR		
	comp=Z,3µm,19.8s,MS5.2						
TGY	Tagaytay City	45.12	232	P	P	08 58 23.7	+0.7
	comp=Z,247nm,0.6s,mb6.2,baz=228,slow=4.3,SNR=11						
WMQ	Urumqi	46.11	291	⇑iP	P	08 58 30.0	-0.5
WMQ				AP	pP	08 58 34.3	-1.6
WMQ				XP	sP	08 58 37.0	-1.1
WMQ				PCP	PcP	09 00 06.8	-0.3
WMQ				PP	PP	09 00 18.3	-0.7
WMQ				S	S	09 05 14.1	-0.5
WMQ				AMB	AMB		
	comp=Z,48nm,1.2s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,344nm,9.4s						
WMQ				LR	LR		
	comp=N,5µm,18.2s,MS5.5						
WMQ				LR	LR		
	comp=E,2µm,18.8s,MS5.5						
WMQ				LR	LR		
	comp=Z,4µm,17.5s,MS5.4						
BBB	Bella Bella	46.24	56	LR	LR	09 16 50.8	
	comp=Z,1µm,18.4s,MS5.0,baz=300,slow=35						
QIZ	Qiongzhong	47.54	248	P	P	08 58 42.9	+0.8
QIZ				XP	sP	08 58 49.6	-0.2
QIZ				S	S	09 05 35.0	-0.2
QIZ				XS		09 05 43.4	
QIZ				AMB	AMB		
	comp=Z,40nm,1.4s,mb5.3						
QIZ				AMB	AMB		
	comp=Z,572nm,10.1s						
QIZ				LR	LR		
	comp=N,3µm,19.1s,MS5.5						
QIZ				LR	LR		
	comp=E,4µm,16.6s,MS5.5						
QIZ				LR	LR		
	comp=Z,5µm,17.1s,MS5.6						
QIZ	Qiongzhong	47.54	248	eP	P	08 58 40.3	-1.8
	comp=Z,92nm,1.4s,mb5.6						
KMI	Kunming	47.63	260	eP	P	08 58 42.5	-0.3
KMI				XP	sP	08 58 54.8	+4.4
KMI				PP	PP	09 00 33.4	-0.4
KMI				PPP	PPP	09 01 22.0	-0.9
KMI				S	S	09 05 35.5	-1.0
KMI				SS	SS	09 09 02.6	+3.8
KMI				AMB	AMB		
	comp=Z,97nm,1.2s,mb5.7						
KMI				AMB	AMB		
	comp=Z,1µm,6.8s						
KMI				LR	LR		
	comp=N,5µm,19.1s,MS5.6						
KMI				LR	LR		
	comp=E,2µm,16.1s,MS5.6						
KMI				LR	LR		
	comp=Z,3µm,18.9s,MS5.3						
MKAR	Makanchi Array	47.84	297	i P	P	08 58 42.1	-2.0
YKW3	Yellowknife Ar	48.01	39	eP	P	08 58 45.2	0.0
YKW3				e		08 58 59.0	
YKA	Yellowknife Ar	48.04	39	P	P	08 58 45.1	-0.4
	comp=Z,17nm,0.9s,mb5.1,baz=297,slow=7.5,SNR=82						
RES	Resolute Bay	48.22	20	eP	P	08 58 46.6	-0.1
RES				pmax	pmax		
	comp=Z,66nm,1.3s,mb5.5						
RES	Resolute Bay	48.22	20	eP	P	08 58 46.6	-0.1
	comp=Z,66nm,1.3s,mb5.5						
RES				e		08 58 59.0	
BVA0	Borovoye Array	51.15	309	i P	P	08 59 07.4	-2.0
BRVK	Borovoye	51.19	309	P	P	08 59 07.7	-2.0
BRVK				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.3						
BRVK	Borovoye	51.19	309	eP	P	08 59 07.5	-2.1
	comp=Z,38nm,1.0s,mb5.3						
LSA	Lhasa	52.21	274	P	P	08 59 18.6	+0.8
EDM	Edmonton	53.41	48	eP	P	08 59 25.8	-0.5
EDM				epP	pP	08 59 37.4	+5.5
NANT	Nan	53.46	256	⇑P	PcP	09 00 25.0	-9.1
	comp=Z,106nm,1.0s						
IMP	Imphal	53.65	267	⇓iP	P	08 59 27.2	-1.3
SOKR	Solikamsk	53.78	321	⇑iP	P	08 59 24.6	-4.3
SOKR				i S	S	09 06 52.8	-8.1
SOKR				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
SOKR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
TKM2	Tokmak 2	53.94	296	P	P	08 59 29.1	-1.3
	SNR=14						
NEW	Newport	54.30	55	P	P	08 59 31.5	-1.4
	comp=Z,6.1nm,0.9s,mb4.5,baz=308,slow=11,SNR=5.4						
NEW				LR	LR	09 23 18.8	
	comp=Z,2µm,20.9s,MS5.0,baz=307,slow=37						
NEW	Newport	54.30	55	P	P	08 59 32.6	-0.3
NEW				pmax	pmax		
	comp=Z,14nm,1.2s						
NEW	Newport	54.30	55	eP	P	08 59 31.8	-1.2
	comp=Z,14nm,1.2s,mb4.8						
BBOR	Butler Butte	54.31	63	P	P	08 59 33.2	+0.1
USP	Ospenovka	54.38	297	P	P	08 59 32.4	-1.2
	SNR=29						
SHL	Shillong	54.47	269	eP	P	08 59 35.0	+0.5
SHL				e		09 05 28.0	
SHL				eS	S	09 07 14.0	+3.3
KBK	Karagaybulak	54.48	296	P	P	08 59 33.2	-1.1
	SNR=20						
FRU	Bishkek	54.57	297	eP	P	08 59 33.0	-2.0
FRU				pmax	pmax		
	comp=Z,100nm,1.4s,mb5.7						
CHG	Chiang Mai	54.58	258	⇑P	P	08 59 35.6	+0.2
	comp=Z,115nm,1.0s,mb5.9						
KZA	Kyzart	54.65	296	P	P	08 59 35.1	-0.5
	SNR=16						
DAG	Danmarks Havn	54.66	359	⇑iP	P	08 59 34.3	-1.0
DAG				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.5						
DAG	Danmarks Havn	54.66	359	⇑iP	P	08 59 34.3	-1.0
	comp=Z,52nm,1.1s,mb5.5						
AAK	Ala-Archa	54.77	297c	iP	P	08 59 34.0	-2.4
AAK				MLR	MLR		
	comp=Z,10µm,14.0s,MS6.0						
AAK	Ala-Archa	54.77	297	eP	P	08 59 33.9	-2.5
	comp=Z,53nm,1.3s,mb5.4						
CM31	Chiang Mai Arr	54.84	257	eP	P	08 59 37.7	+0.3
	comp=Z,105nm,1.0s,mb5.8						
CMAR	Chiang Mai Arr	54.84	257	P	P	08 59 37.5	+0.2
	comp=Z,33nm,0.9s,mb5.4,baz=32,slow=7.6,SNR=103						
CMAR				LR	LR	09 24 14.2	
	comp=Z,3µm,19.2s,MS5.4,baz=60,slow=37						
CMAR	Chiang Mai Arr	54.84	257	P	P	08 59 37.5	+0.2
CMAR				LR	LR	09 24 14.2	
KHMM	Horse Mountain	54.88	66	eP	P	08 59 37.5	+0.2
ARU	Arti	54.89	318	⇓iP	P	08 59 34.9	-2.3
ARU				e		09 01 35.5	
ARU				ePPP	PPP	09 02 48.3	-5.5
ARU				eS	S	09 07 12.7	-3.1
ARU				pmax	pmax		
	comp=Z,168nm,1.1s,mb6.0						
ARU				MLR	MLR		
	comp=E,3µm,16.0s,MS5.5						
ARU				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.6						
ARU				MLR	MLR		
	comp=N,2µm,17.0s,MS5.5						
ARU	Arti	54.89	318	eP	P	08 59 34.8	-2.3
	comp=N,207nm,1.1s,mb6.1						
BUOR	Burton Butte	54.93	64	P	P	08 59 37.6	0.0
YBH	Yreka Blue Hor	54.98	65	P	P	08 59 37.8	-0.3
	comp=N,8.9nm,0.9s,mb4.8,baz=310,slow=1.8,SNR=21						
YBH	Yreka Blue Hor	54.98	65	P	P	08 59 38.3	+0.2
YBH				pmax	pmax		
	comp=Z,9.0nm,1.0s						
YBH	Yreka Blue Hor	54.98	65	eP	P	08 59 38.1	0.0
	comp=Z,9.3nm,1.0s,mb4.8						
UCH	Uchtor	55.00	296	P	P	08 59 37.4	-0.8
	SNR=6.7						
EKS2	Erkin-Say	55.17	297	P	P	08 59 38.2	-1.2
	SNR=12						
LHEM	Herd Peak	55.33	64	P	P	08 59 40.4	-0.2
AML	Almayashu	55.54	297	P	P	08 59 41.4	-0.7
	SNR=12						
WALA	Waterton Lakes	55.55	53	eP	P	08 59 40.7	-1.4
	comp=Z,12nm,0.8s,mb5.0						
LVZ	Lovozero	55.69	337	eP	P	08 59 36.9	-5.9
LVZ				eS	S	09 07 29.0	+2.5
LVZ				pmax	pmax		
	comp=N,17nm,1.0s						
LVZ				pmax	pmax		
	comp=E,5.0nm,1.0s						
LVZ				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.4						
LVZ				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.6						
LVZ				MLR	MLR		
	comp=N,2µm,17.0s,MS5.5						
LVZ				MLR	MLR		
	comp=E,4µm,19.0s,MS5.5						
KSH	Kashi	55.77	293	eP	P	08 59 43.1	-0.7
KSH				eAP	pP	08 59 47.5	-1.8
KSH				eXP	sP	08 59 50.4	-1.0
KSH				ePCP	PcP	09 00 44.0	+1.3
KSH				ePP	PP	09 01 48.3	-1.5
KSH				ePPP	PPP	09 03 03.1	-1.6
KSH				eS	S	09 07 27.5	-0.4
KSH				eXS		09 07 34.8	
KSH				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.8						
KSH				LR	LR		
	comp=N,6µm,19.1s,MS6.0						
KSH				LR	LR		
	comp=E,9µm,15.2s,MS6.0						
WDC	Whiskeytown Da	55.78	66	eP	P	08 59 43.1	-0.7
WDC				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
WDC	Whiskeytown Da	55.78	66	eP	P	08 59 43.1	-0.7
	comp=Z,9.2nm,1.0s,mb4.8						
LTIM	Timbered Crate	56.05	64	P	P	08 59 45.5	-0.2
NST	Nakhon Sawan	56.13	254	P	P	08 59 47.1	+0.4
BMO	Blue Mountains	56.23	59	eP	P	08 59 45.2	-1.8
	comp=Z,9.9nm,1.1s,mb4.8						
LBCM	Butte Creek Ri	56.34	65	P	P	08 59 47.2	-0.6
ARCES	ARCESS Array B	56.58	341	P	P	08 59 46.1	-3.1
	comp=Z,13nm,0.9s,mb4.9,baz=23,slow=9.2,SNR=9.4						
ARCES				LR	LR	09 29 29.8	
	comp=Z,4µm,18.4s,MS5.6,baz=30,slow=42						
GUN	Gumba	56.86	276	eP	P	08 59 51.3	-0.5
	comp=Z,134nm,0.8s,mb6.0						
MSO	Missoula	56.89	55	eP	P	08 59 50.6	-1.1
	comp=Z,18nm,1.3s,mb4.9						
OHCM	Honcut	57.19	66	eP	P	08 59 52.4	-1.5
KKN	Kakani	57.34	276	eP	P	08 59 54.8	-0.3
	comp=Z,382nm,1.0s,mb6.4						
PKI	Pulchoki	57.40	276	eP	P	08 59 55.0	-0.6
	comp=Z,480nm,1.2s,mb6.4						
DMN	Daman	57.57	276	eP	P	08 59 56.6	-0.2
	comp=Z,807nm,1.1s						
GKN	Gorkha	57.62	277	eP	P	08 59 56.7	-0.4
	comp=Z,686nm,1.1s						
HRY	Holter Researc	58.10	54	eP	P	09 00 00.4	+0.2
WCN	Washoe City	58.25	65	P	P	09 00 01.0	-0.4
WCN				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
WCN	Washoe City	58.25	65	eP	P	09 00 00.9	-0.5
	comp=Z,8.2nm,0.9s,mb4.8						
FCC	Fort Churchill	58.41	35	P	P	09 00 01.4	-0.8
FCC				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
FCC	Fort Churchill	58.41	35	eP	P	09 00 00.8	-1.4
	comp=Z,49nm,1.2s,mb5.4						
KOLN	Koldanda	58.45	277	eP	P	09 00 02.6	-0.3
	comp=Z,314nm,1.1s,mb6.3						
SUMG	Summit	58.49	5	eP	P	09 00 02.0	-0.6
	comp=Z,183nm,1.1s,mb6.0						
SUMG				epP	pP	09 00 14.5	+6.3
HLID	Hailey	58.66	58	eP	P	09 00 03.9	-0.3
	comp=Z,44nm,1.5s,mb5.3						
CMB	Columbia Colle	58.67	67	P	P	09 00 03.5	-0.9
CMB	Columbia Colle	58.67	67	eP	P	09 00 03.1	-1.3
	comp=Z,5.8nm,1.0s,mb4.6						
NNT	Nongplab	58.71	252	P	P	09 00 05.6	+0.7
MCMT	McKenzie Canyo	58.73	56	eP	P	09 00 03.6	-1.0
BOZ	Bozeman (W)	58.88	55	P	P	09 00 05.6	-0.1
BOZ				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.2						
BOZ	Bozeman (W)	58.88	55	eP	P	09 00 05.5	-0.2
	comp=Z,62nm,1.4s,mb5.5						
CAL	Calcutta	58.90	269	e	P	09 00 01.3	-4.8
CAL				e		09 00 47.2	
BMN	Battle Mountai	59.04	63	P	P	09 00 08.5	+1.6
BMN				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
BMN	Battle Mountai	59.04	63	eP	P	09 00 06.6	-0.3
	comp=Z,11nm,0.9s,mb4.9						
PTH	Pithoragarh	59.47	281	eP	P	09 00 08.8	-1.2
PTH				e		09 01 43.0	
QLMT	Earthquake Lak	59.51	56	eP	P	09 00 09.9	-0.1
LGTI	Lohaghat	59.52	281	eP	P	09 00 11.0	+0.7
NVAR	Mina Array Bea	59.68	65	P	P	09 00 09.4	-1.9
	comp=Z,6.5nm,0.8s,mb4.7,baz=305,slow=5.9,SNR=29						
YMR	Madison River	59.87	55	eP	P	09 00 12.3	-0.2
YNR	Norris Junctio	59.99	55	eP	P	09 00 13.4	+0.1
ELK	Elko	59.99	61	P	P	09 00 13.3	-0.1
ELK				pmax	pmax		
	comp=Z,9.0nm,0.9s						
ELK	Elko	59.99	61	eP	P	09 00 12.6	-0.8
	comp=Z,8.8nm,0.9s,mb4.8						
JMIC	Jan Mayen	60.01	354	LR	LR	09 27 02.7	
	comp=Z,1µm,18.7s,MS5.0,baz=47,slow=37						
YFT	Old Faithful	60.08	56	eP	P	09 00 13.9	0.0
MTUM	Tungsten Hills	60.22	66	eP	P	09 00 14.1	-1.0
LKWY	Lake	60.24	55	P	P	09 00 16.2	+1.1
SDNR	Sundarnagar	60.27	285	eP	P	09 00 13.8	-1.7
DDI	Dehra Dun	60.35	283	e	P	09 00 23.3	+7.2
IMW	Indian Meadow	60.38	56	eP	P	09 00 16.3	+0.3
SMLA	Simla	60.39	284	i	P	09 00 28.7	+12
	comp=Z,202nm,2.8s,mb5.7						
SMLA				i		09 10 15.1	
JOF	Joensuu	60.39	334	ep	P	09 00 13.0	-2.8
TPH	Tonopah	60.55	65	eP	P	09 00 16.6	-0.7
TPH				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.3						
TPH	Tonopah	60.55	65	eP	P	09 00 16.6	-0.7
	comp=Z,30nm,1.2s,mb5.3						
MOOW	Moose Ponds	60.58	56	eP	P	09 00 17.4	-0.1
TPAW	Teton Pass	60.64	57	eP	P	09 00 18.2	+0.4
LOHW	Long Hollow	60.75	56	eP	P	09 00 18.7	+0.1
SNOW	Snow King Moun	60.77	56	eP	P	09 00 19.2	+0.6
REDW	Red Top Meadow	60.78	57	eP	P	09 00 19.0	+0.3
DGMT	Dagmar	60.90	49	eP	P	09 00 19.2	-0.3
	comp=Z,34nm,0.9s,mb5.5						
SCO	Scoresbysund	61.02	359	i P	P	09 00 20.0	0.0
SCO				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.1						
SCO	Scoresbysund	61.02	359	i P	P	09 00 20.0	0.0
	comp=Z,18nm,1.1s,mb5.1						
AHID	Auburn Hatcher	61.03	57	eP	P	09 00 20.4	-0.1
	comp=Z,24nm,1.4s,mb5.1						
LAO	LASA Array	61.06	51	eP	P	09 00 20.8	+0.2
	comp=Z,55nm,1.1s,mb5.6						
SPUT	South Promonto	61.23	59	eP	P	09 00 21.6	-0.3
HWUT	Hardware Ranch	61.53	58	eP	P	09 00 23.4	-0.4
	comp=Z,9.4nm,1.1s,mb4.8						
NOQ	North Oquirrh	61.85	60	eP	P	09 00 25.6	-0.4
TPNV	Topopah Spring	61.88	65	P	P	09 00 25.6	-0.7
TPNV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
TPNV	Topopah Spring	61.88	65	eP	P	09 00 25.2	-1.1
	comp=Z,9.1nm,0.9s,mb4.9						
PDAR	Pinedale Array	61.88	56	P	P	09 00 25.5	-0.8
	comp=Z,8.4nm,1.0s,mb4.8,baz=283,slow=2.2,SNR=25						
TCUT	Toone Canyon	61.94	59	eP	P	09 00 26.7	0.0
NDI	New Delhi	61.99	282	eP	P	09 00 24.5	-2.7
NDI				e		09 10 25.0	
JLU	Jordanelle	62.26	59	eP	P	09 00 28.6	-0.2
NLU	North Lily Min	62.34	60	eP	P	09 00 28.9	-0.4
FRB	Frobisher Bay	62.42	21	P	P	09 00 27.1	-2.4
	comp=Z,18nm,1.0s,mb5.1,baz=348,slow=9.0,SNR=12						
KAF	Kangasniemi	62.43	336	ep	P	09 00 26.1	-3.5
	comp=Z,9.2nm,0.9s,mb4.9						
KAF	Kangasniemi	62.43	336	eP	P	09 00 26.1	-3.5
KAF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
DAU	Daniels Canyon	62.50	59	P	P	09 00 32.1	+1.7
MPU	Maple Canyon	62.55	60	eP	P	09 00 30.3	-0.5
MWC	Mount Wilson	62.59	69	P	P	09 00 30.2	-0.9
MWC	Mount Wilson	62.59	69	eP	P	09 00 30.1	-0.9
ARUT	Antelope Range	62.99	63	P	P	09 00 33.2	-0.4
ARUT	Antelope Range	62.99	63	eP	P	09 00 33.0	-0.7
FINES	FINESS Array B	63.04	336	P	P	09 00 31.2	-2.5
	comp=Z,4.8nm,0.5s,mb4.9,baz=46,slow=7.6,SNR=39						
FINES				LR	LR	09 31 09.9	
	comp=Z,5µm,19.0s,MS5.7,baz=30,slow=39						
FINES	FINESS Array B	63.04	336	P	P	09 00 31.2	-2.5
FINES				LR	LR	09 31 09.9	
MVU	Marysvale	63.23	61	eP	P	09 00 35.1	-0.1
	comp=Z,1.9nm,0.7s						
MSU	Marysvale	63.24	61	P	P	09 00 35.2	-0.1
MSU	Marysvale	63.24	61	eP	P	09 00 35.1	-0.2
TMUT	Trail Mountain	63.27	60	eP	P	09 00 35.4	-0.1
NEN	Nelson	63.59	65	eP	P	09 00 35.2	-2.4
ULM	Lac du Bonnet	63.62	43	P	P	09 00 37.2	-0.3
	comp=Z,7.9nm,0.8s,mb4.8,baz=322,slow=6.8,SNR=12						
ULM	Lac du Bonnet	63.62	43	P	P	09 00 37.2	-0.3
SRU	San Rafael	63.79	60	P	P	09 00 38.6	-0.3
SRU	San Rafael	63.79	60	eP	P	09 00 38.5	-0.3
LDFC	Landfair	63.81	66	P	P	09 00 36.9	-2.2
MOS	Moscow	63.89	326	eP	P	09 00 36.1	-3.1
MOS				e		09 01 19.8	
MOS				pmax	pmax		
	comp=Z,74nm,1.2s,mb5.6						
MOS				MLR	MLR		
	comp=Z,5µm,17.6s,MS5.7						
MOS				MLR	MLR		
	comp=N,3µm,15.7s						
OBN	Obninsk	64.76	326c	iP	P	09 00 41.4	-3.5
OBN				e		09 01 16.5	
OBN				e		09 03 03.6	
OBN				eS	S	09 09 15.8	-7.1
OBN				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.3						
OBN				MLR	MLR		
	comp=Z,4µm,14.0s,MS5.8						
OBN	Obninsk	64.76	326	⇑iP	P	09 00 41.4	-3.5
OBN				LR	LR		
	comp=Z,4µm,14.0s,MS5.8						
PHWY	Pilot Hill	65.12	55	eP	P	09 00 45.7	-1.7
PV10	Paradox Valley	65.14	60	eP	P	09 00 47.6	0.0
AJM	Ajmer	65.16	282	⇑iP	P	09 00 47.0	-1.0
PV01	Paradox Valley	65.57	60	eP	P	09 00 50.1	-0.4
BHPL	Bhopal	65.60	278	eP	P	09 00 50.6	-0.2
BHPL				e		09 00 53.0	
	comp=Z,235nm,1.5s						
VIS	Vishakhapatnam	65.61	269	eP	P	09 00 47.5	-3.5
	comp=Z,96nm,1.5s,mb5.6						
ISCO	Idaho Springs	66.08	57	P	P	09 00 54.0	+0.4
ISCO				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
ISCO	Idaho Springs	66.08	57	eP	P	09 00 53.8	+0.2
	comp=Z,41nm,1.4s,mb5.3						
VRSR	Storozhevoye	66.76	322	eP	P	09 00 56.0	-1.8
VRSR				e		09 01 26.2	
VRSR				eS	S	09 09 39.5	-7.9
VRSR				e		09 10 08.0	
VRSR				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
VRSR				pmax	pmax		
	comp=N,20nm,1.1s						
VRSR				pmax	pmax		
	comp=E,20nm,1.6s						

VRSR				smax			
	comp=N,7.0nm,0.7s						
VRSR				smax			
	comp=Z,4.0nm,0.5s						
VRSR				smax			
	comp=E,10.0nm,1.0s						
VRSR				MLR	MLR		
	comp=Z,4µm,17.0s,MS5.7						
VRSR				MLR	MLR		
	comp=N,3µm,16.0s,MS5.6						
VRSR				MLR	MLR		
	comp=E,2µm,18.0s,MS5.6						
BORG	**Borgarnes**	**66.78**	**359**	P	**P**	**09 00 57.8**	**+0.1**
	comp=E,98nm,1.1s,mb5.7,baz=36,slow=4.7,SNR=5.3						
BORG				LR	LR	09 28 59.4	
	comp=E,1µm,19.2s,MS5.2,baz=206,slow=35						
NB2	**NORSAR Subarra**	**66.93**	**342**	P	**P**	**09 00 57.3**	**-1.4**
	comp=E,62nm,1.4s,mb5.5,baz=24,slow=6.2						
NB2	**NORSAR Subarra**	**66.93**	**342**	P	**P**	**09 00 57.3**	**-1.4**
	baz=24,slow=6.5						
NB2	**NORSAR Subarra**	**66.93**	**342**	P	**P**	**09 00 57.3**	**-1.4**
NB2				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.5						
NOA	**NORSAR Array B**	**66.93**	**342**	P	**P**	**09 00 57.7**	**-1.0**
	comp=Z,9.3nm,0.9s,mb4.8,baz=25,slow=6.3,SNR=8.7						
NOA				LR	LR	09 34 45.6	
	comp=Z,5µm,18.9s,MS5.8,baz=10.0,slow=40						
NOA	**NORSAR Array B**	**66.93**	**342**	P	**P**	**09 00 57.7**	**-1.0**
NOA				LR	LR	09 34 45.6	
NAO01	**NORSAR Array S**	**67.17**	**342**	P	**P**	**09 00 58.5**	**-1.7**
SDCO	**Great Sand Dun**	**67.58**	**58**	*e*P	**P**	**09 01 01.8**	**-1.4**
	comp=Z,34nm,1.8s,mb5.1						
AKL	**Akola**	**67.66**	**276**	⇑*i*P	**P**	**09 01 05.2**	**+1.2**
	comp=Z,326nm,1.2s,mb6.2						
AKL				*i*		09 01 17.6	
MNK	**Minsk**	**68.27**	**330**	*e*P	**P**	**09 01 09.0**	**+1.8**
HYB	**Hyderabad**	**68.99**	**273**	⇑*e*P	**P**	**09 01 11.5**	**-0.8**
HYB				*e*S	S	09 10 20.0	+5.4
HYB				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.6						
HYB	**Hyderabad**	**68.99**	**273**	⇑*e*P	**P**	**09 01 11.5**	**-0.8**
	comp=Z,80nm,1.0s,mb5.6						
HYB				*e*S	S	09 10 20.0	+5.4
HYB	**Hyderabad**	**68.99**	**273**	⇑*i*P	**P**	**09 01 11.5**	**-0.8**
	comp=Z,80nm,1.0s,mb5.6						
HYB				*e*		09 01 22.0	
HYB				*e*PcP	PcP	09 01 34.0	-2.6
HYB				*e*		09 01 51.0	
HYB				*e*S	S	09 10 24.0	+9.4
LENM	**Lemitar**	**69.27**	**62**	P	**P**	**09 01 18.0**	**+4.2**
LPM	**Los Pinos Moun**	**69.37**	**61**	*e*P	**P**	**09 01 14.4**	**0.0**
BNM	**Barren Site**	**69.49**	**61**	*e*P	**P**	**09 01 15.0**	**0.0**
LATR	**Latur**	**69.59**	**275**	*e*P	**P**	**09 01 16.1**	**+0.2**
GOF	**Gofitskoye**	**69.81**	**316**	⇓*i*P	**P**	**09 01 16.0**	**-0.8**
GOF				pmax	pmax		
	comp=Z,280nm,1.4s,mb6.0						
GOF				pmax	pmax		
	comp=Z,2µm,4.0s						
SUW	**Suwalki**	**70.15**	**333**	*e*P	**P**	**09 01 17.3**	**-1.4**
SUW				*e*		09 01 29.0	
SUW				MLR	MLR	09 34 37.2	
	comp=Z,5µm,19.3s,MS5.8						
SCHQ	**Schefferville**	**70.60**	**25**	P	**P**	**09 01 19.6**	**-1.9**
	comp=Z,17nm,1.0s,mb4.9,baz=333,slow=7.3,SNR=7.5						
SCHQ				LR	LR	09 38 15.6	
	comp=Z,1µm,18.5s,MS5.2,baz=247,slow=41						
SCHQ	**Schefferville**	**70.60**	**25**	*e*P	**P**	**09 01 20.9**	**-0.6**
	comp=Z,48nm,1.4s,mb5.2						
KIV	**Kislovodsk**	**70.81**	**315**	P	**P**	**09 01 23.3**	**+0.3**
	comp=Z,421nm,0.9s,mb6.4,SNR=16						
KIV	**Kislovodsk**	**70.81**	**315**	*e*P	**P**	**09 01 21.1**	**-1.9**
KIV				*e*		09 03 55.6	
KIV				S	S	09 10 29.2	-6.5
KIV				pmax	pmax		
	comp=Z,115nm,1.6s,mb5.6						
KIV				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
KIV	**Kislovodsk**	**70.81**	**315**	*e*P	**P**	**09 01 23.1**	**+0.1**
	comp=Z,81nm,1.0s,mb5.6						
AKASG	**Malin Array Be**	**70.96**	**327**	P	**P**	**09 01 21.1**	**-2.7**
	comp=Z,3.7nm,0.4s,mb4.6,baz=32,slow=6.0,SNR=17						
AKASG	**Malin Array Be**	**70.96**	**327**	P	**P**	**09 01 21.1**	**-2.6**
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.4s						
WRAB	**Tennant Creek**	**71.14**	**202**	P	**P**	**09 01 24.4**	**-1.0**
WRAB				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
WRAB	**Tennant Creek**	**71.14**	**202**	*e*P	**P**	**09 01 24.1**	**-1.2**
	comp=Z,55nm,1.0s,mb5.4						
ZEI	**Tsey**	**71.15**	**314**	*i* P	**P**	**09 01 24.2**	**-0.8**
ZEI				pmax	pmax		
	comp=Z,53nm,1.3s,mb5.3						
WRA	**Warramunga Arr**	**71.15**	**202**	P	**P**	**09 01 24.3**	**-1.1**
	comp=Z,22nm,0.8s,mb5.1,baz=18,slow=6.5,SNR=84						
POO	**Poona**	**71.29**	**277**	⇑*i*P	**P**	**09 01 24.0**	**-2.2**
KSU1	**Kansas State U**	**71.40**	**52**	*e*P	**P**	**09 01 37.9**	**+11**
BSD	**Bornholm Skovb**	**71.47**	**338**	⇑*i*P	**P**	**09 01 25.5**	**-1.2**
BSD				pmax	pmax		
	comp=Z,112nm,1.1s,mb5.7						
BSD	**Bornholm Skovb**	**71.47**	**338**	⇑*i*P	**P**	**09 01 25.5**	**-1.2**
	comp=Z,112nm,1.1s,mb5.7						
BSD				*i*		09 10 58.1	
	comp=Z,5µm,18.0s						
COP	**Copenhagen**	**71.55**	**339**	*e*P	**P**	**09 01 28.2**	**+1.0**
COP				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.6						
COP				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.5						
COP	**Copenhagen**	**71.55**	**339**	*e*P	**P**	**09 01 28.2**	**+1.0**
	comp=Z,90nm,1.1s,mb5.6						
COP				LR	LR		
	comp=Z,2µm,17.0s,MS5.5						
COP	**Copenhagen**	**71.55**	**339**	*i* P	**P**	**09 01 28.2**	**+1.0**
	comp=Z,90nm,1.1s,mb5.6						
	comp=Z,2µm,17.0s						
MUD	**Monsted U'grnd**	**71.57**	**341**	*i* P	**P**	**09 01 27.1**	**-0.2**
MUD				pmax	pmax		
	comp=Z,74nm,1.1s,mb5.5						
MUD	**Monsted U'grnd**	**71.57**	**341**	*i* P	**P**	**09 01 27.1**	**-0.2**
	comp=Z,74nm,1.1s,mb5.5						
MUD				*i*		09 10 25.5	
	comp=Z,2µm,17.0s						
AMTX	**Amarillo**	**71.78**	**58**	*e*P	**P**	**09 01 29.2**	**+0.2**
CPRX	**Cap Rock**	**71.89**	**61**	*e*P	**P**	**09 01 29.0**	**-0.7**
FITZ	**Fitzroy Crossi**	**71.94**	**211**	⇑*i*P	**P**	**09 01 29.8**	**-0.4**
	comp=Z,24nm,0.9s,mb5.1						
KAD	**Karad**	**71.95**	**276**	⇑*i*P	**P**	**09 01 29.6**	**-0.6**
	comp=Z,154nm,1.3s,mb5.8						
MNTX	**Cornudas Mount**	**71.97**	**62**	*e*P	**P**	**09 01 29.9**	**-0.3**
	comp=Z,42nm,1.7s,mb5.1						
GDL2	**Guadalupe Moun**	**72.20**	**61**	*e*P	**P**	**09 01 31.0**	**-0.6**
WAR	**Warsaw**	**72.34**	**333**	*e*P	**P**	**09 01 31.9**	**0.0**
WAR				*e*pP	pP	09 01 40.3	+2.7
WAR				MLR	MLR	09 36 06.9	
	comp=Z,6µm,19.7s,MS5.9						
CLNB	**Carlsbad**	**72.44**	**61**	P	**P**	**09 01 33.4**	**+0.5**
SOC	**Sochi**	**72.46**	**317**	*e*P	**P**	**09 01 28.8**	**-4.0**
SOC				*i* PPP	PPP	09 05 58.6	+0.2
SOC				*e*S	S	09 10 49.5	-5.1
SOC				pmax	pmax		
	comp=Z,93nm,1.5s,mb5.5						
SOC				pmax	pmax		
	comp=N,47nm,1.4s						
SOC				pmax	pmax		
	comp=E,60nm,1.7s						
SOC				pmax	pmax		
	comp=Z,970nm,4.3s						
GKP	**Gorka Klasztor**	**72.52**	**336**	*e*P	**P**	**09 01 32.2**	**-0.7**
GKP				MLR	MLR		
	comp=Z,7µm,18.8s,MS6.0						
GKP	**Gorka Klasztor**	**72.52**	**336**	*e*P	**P**	**09 01 32.2**	**-0.7**
GKP				*e*pP	pP	09 01 43.1	+4.6
GKP				MLR	MLR	09 36 54.0	
	comp=Z,7µm,18.8s,MS6.0						
GNI	**Garni**	**72.74**	**312**	P	**P**	**09 01 35.7**	**+1.2**
GNI	**Garni**	**72.74**	**312**	P	**P**	**09 01 35.6**	**+1.1**
	baz=316,slow=2.8						
GNI				LR	LR	09 38 32.0	
	comp=Z,3µm,18.3s,MS5.6,baz=32,slow=40						
GNI	**Garni**	**72.74**	**312**	⇑*e*P	**P**	**09 01 35.2**	**+0.7**
GNI				pmax	pmax		
	comp=Z,177nm,1.6s						
GNI				MLR	MLR		
	comp=Z,3µm,16.0s						
BCA	**Borcka**	**73.25**	**314**	P	**P**	**09 01 37.6**	**+0.2**
LVV	**L'vov**	**73.49**	**330**	*i* P	**P**	**09 01 38.0**	**-0.6**
WMOK	**Wichita Mounta**	**73.49**	**56**	P	**P**	**09 01 38.6**	**-0.4**
WMOK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
WMOK	**Wichita Mounta**	**73.49**	**56**	*e*P	**P**	**09 01 38.5**	**-0.5**
	comp=Z,26nm,1.1s,mb5.1						
GOA	**Goa**	**73.50**	**275**	⇓*e*	**P**	**09 01 44.4**	**+5.0**
GOA				*e*		09 01 44.9	
GOA				*e*		09 01 45.1	
BSEG	**Bad Segeberg**	**73.65**	**340**	*e*P	**P**	**09 01 39.7**	**+0.2**
BSEG				pmax	pmax		
	comp=Z,114nm,1.2s,mb5.7						
SIM	**Simferopol'**	**73.80**	**321**	*e*P	**P**	**09 01 39.0**	**-1.5**
SIM				S	S	09 11 19.0	+9.5
SIM				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.3						
KWP	**Kalwaria**	**74.08**	**331**	*e*P	**P**	**09 01 42.2**	**+0.1**
KWP				*e*PcP	PcP	09 01 50.4	-7.1
KWP				*e*pP	pP	09 01 55.6	+7.9
KWP				MLR	MLR	09 38 28.8	
	comp=Z,4µm,18.5s,MS5.7						
RUE	**Ruedersdorf**	**74.14**	**337**	*e*P	**P**	**09 01 42.0**	**-0.3**
	comp=Z,253nm,1.4s,mb6.0						
KIS	**Kishinev**	**74.19**	**326**	*e*P	**P**	**09 01 40.0**	**-2.8**
KIS				*e*		09 01 53.0	
KIS				*e*		09 11 20.0	
KIS				*e*		09 11 52.0	
KIS				MLR	MLR		
	comp=N,2µm,16.0s,MS5.7						
KIS				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.7						
KIS				MLR	MLR		
	comp=E,2µm,15.0s,MS5.7						
OJC	**Ojcow**	**74.48**	**333**	⇑*i*P	**P**	**09 01 44.3**	**-0.1**
OJC	**Ojcow**	**74.48**	**333**	*i* P	**P**	**09 01 44.3**	**-0.1**
IAS	**Iasi**	**74.49**	**326**	P	**P**	**09 01 45.1**	**+0.6**
ERZM	**Erzurum**	**74.57**	**314**	*i* P	**P**	**09 01 45.4**	**+0.3**
EZM	**Erzurum**	**74.57**	**314**	P	**P**	**09 01 46.5**	**+1.4**
VANB	**Van**	**74.61**	**311**	*e*P	**P**	**09 01 46.3**	**+1.0**
LTX	**Lajitas**	**74.71**	**63**	P	**P**	**09 01 46.3**	**+0.2**
LTX				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
LTX	**Lajitas**	**74.71**	**63**	*e*P	**P**	**09 01 45.9**	**-0.3**
	comp=Z,19nm,1.3s,mb4.9						
TXAR	**Lajitas Array**	**74.71**	**63**	P	**P**	**09 01 45.5**	**-0.6**
	comp=Z,5.1nm,0.9s,mb4.5,baz=302,slow=5.1,SNR=54						
VANT	**Van**	**74.72**	**311**	P	**P**	**09 01 46.3**	**+0.3**
KOLS	**Kolonicke sedl**	**74.83**	**331**	*i* P	**P**	**09 01 46.5**	**+0.1**
ASAR	**Alice Springs**	**74.84**	**201**	P	**P**	**09 01 46.9**	**-0.1**
	comp=Z,12nm,0.8s,mb4.9,baz=11,slow=5.1,SNR=74						
ASPA	**Alice Springs**	**74.84**	**201**	*e*P	**P**	**09 01 47.3**	**+0.3**
KSP	**Ksiaz**	**74.95**	**335**	*e*P	**P**	**09 01 46.5**	**-0.6**
KSP				*e*		09 01 59.7	
KSP				*e*S	S	09 11 22.5	+0.2
KSP				MLR	MLR		
	comp=Z,12µm,19.3s,MS6.2						
KSP	**Ksiaz**	**74.95**	**335**	*e*P	**P**	**09 01 47.3**	**+0.2**
KSP				*e*PcP	PcP	09 01 55.6	-5.6
KSP				MLR	MLR	09 38 19.7	
	comp=Z,10µm,19.5s,MS6.1						
SADO	**Sadowa**	**75.02**	**37**	LR	LR	09 33 22.8	
	comp=Z,690nm,20.7s,MS4.9,baz=349,slow=35						
GUMT	**Gumushane**	**75.03**	**315**	*e*P	**P**	**09 01 48.4**	**+0.6**
NIE	**Niedzica**	**75.03**	**332**	*e*P	**P**	**09 01 47.9**	**+0.3**
RAC	**Raciborz**	**75.08**	**333**	*e*P	**P**	**09 01 48.5**	**+0.6**
RAC				LMN		09 37 47.4	
	comp=Z,6µm,21.1s						
RAC				LME		09 38 02.8	
	comp=Z,5µm,16.6s						
RAC				MLR	MLR	09 38 03.0	
	comp=Z,7µm,19.5s,MS6.0						
UZH	**Uzhgorod**	**75.09**	**330**	*e*P	**P**	**09 01 49.0**	**+1.1**
VRT	**Varto**	**75.10**	**313**	*e*P	**P**	**09 01 49.4**	**+1.2**
CRVS	**Cervenica-Dubn**	**75.12**	**331**	*i* P	**P**	**09 01 47.9**	**-0.2**
HKR	**Hakkari**	**75.22**	**311**	*e*P	**P**	**09 01 49.6**	**+0.7**
OKC	**Ostrava-Krasne**	**75.32**	**333**	P	**P**	**09 01 49.5**	**+0.3**
OKC	**Ostrava-Krasne**	**75.32**	**333**	⇑*i*P	**P**	**09 01 49.3**	**+0.1**
OKC				AMS	AMS	09 37 50.0	
	comp=Z,4µm,19.1s						
UPC	**Upice**	**75.33**	**335**	⇑*i*P	**P**	**09 01 49.3**	**0.0**
DPC	**Dobruska-Polom**	**75.39**	**335**	P	**P**	**09 01 50.1**	**+0.5**
DPC	**Dobruska-Polom**	**75.39**	**335**	⇑*i*P	**P**	**09 01 49.9**	**+0.3**
DPC				AMS	AMS	09 38 20.0	
	comp=Z,7µm,18.7s						
FVM	**French Village**	**75.39**	**49**	P	**P**	**09 01 49.3**	**-0.6**
FVM				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
FVM	**French Village**	**75.39**	**49**	*e*P	**P**	**09 01 49.2**	**-0.7**
	comp=Z,23nm,1.3s,mb5.0						
CLL	**Collm**	**75.41**	**337**	⇑*i*P	**P**	**09 01 49.3**	**-0.4**
CLL				pmax	pmax		
	comp=Z,191nm,1.2s,mb5.9						
CLL	**Collm**	**75.41**	**337**	⇑*i*P	**P**	**09 01 49.3**	**-0.4**
	comp=Z,191nm,1.2s,mb5.9						
CLL	**Collm**	**75.41**	**337**	⇑P	**P**	**09 01 49.3**	**-0.4**
	comp=Z,logA/T=2.2,mb5.9						
CLL				*e**PP	pP	09 02 01.0	+5.6
EZC	**Erzincan**	**75.43**	**314**	*e*P	**P**	**09 01 52.3**	**+2.2**
MORC	**Moravsky Berou**	**75.55**	**334**	*e*P	**P**	**09 01 50.7**	**+0.2**
MORC				pmax	pmax		
	comp=Z,163nm,1.1s,mb5.9						
MORC	**Moravsky Berou**	**75.55**	**334**	*e*P	**P**	**09 01 50.6**	**+0.1**
	comp=Z,163nm,1.1s,mb5.9						
BRG	**Berggiesshubel**	**75.56**	**336**	⇑*i*P	**P**	**09 01 50.4**	**-0.2**
BRG				*e*		09 02 04.6	
BRG				*e*S	S	09 11 29.0	-0.1
BRG				pmax	pmax		
	comp=Z,107nm,1.8s,mb5.5						
BRG				MLR	MLR		
	comp=Z,6µm,20.7s,MS5.9						
BRG	**Berggiesshubel**	**75.56**	**336**	⇑*i*P	**P**	**09 01 50.4**	**-0.2**
	comp=Z,107nm,1.8s,mb5.5						
BRG				*e*		09 02 04.6	
BRG				*e*S	S	09 11 29.0	-0.1
BRG				LR	LR		
	comp=Z,6µm,20.7s,MS5.9						
PVCC	**Panska Ves**	**75.71**	**336**	⇑*i*P	**P**	**09 01 51.6**	**+0.2**
PVCC				AMS	AMS	09 38 40.0	
	comp=Z,6µm,19.7s						
LIKS	**Likavka**	**75.73**	**332**	*i* P	**P**	**09 01 52.4**	**+0.8**
KECS	**Kecovo**	**75.80**	**331**	*i* P	**P**	**09 01 52.3**	**+0.3**
BINT	**Bingol**	**75.80**	**313**	*e*P	**P**	**09 01 53.7**	**+1.5**
BTMT	**Batman**	**75.85**	**312**	*e*P	**P**	**09 01 53.2**	**+0.7**
VRI	**Vrincioaia**	**75.92**	**326**	P	**P**	**09 01 53.5**	**+0.8**
JCT	**Junction City**	**76.10**	**60**	P	**P**	**09 01 54.3**	**+0.2**
JCT	**Junction City**	**76.10**	**60**	*e*P	**P**	**09 01 53.5**	**-0.5**
	comp=Z,16nm,1.1s,mb4.8						
KVT	**Kavak**	**76.10**	**318**	*e*P	**P**	**09 01 54.8**	**+1.0**
PRU	**Pruhonice**	**76.21**	**336**	⇑*i*P	**P**	**09 01 54.4**	**+0.2**
PRU				*i*		09 02 06.9	
PRU				pmax	pmax		
	comp=Z,156nm,1.4s,mb5.8						
PRU				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.0						
PRU	**Pruhonice**	**76.21**	**336**	⇑*i*P	**P**	**09 01 54.4**	**+0.2**
	comp=Z,156nm,1.4s,mb5.8						
PRU				*i* PCP	PcP	09 02 06.9	+0.2
PRU				AMS	AMS	09 38 50.0	
VRAC	**Vranov**	**76.25**	**334**	P	**P**	**09 01 55.2**	**+0.7**
WTSB	**Winterswijk**	**76.27**	**341**	*e*P	**P**	**09 01 54.6**	**+0.1**
WTSB				*e*x	x	09 02 07.0	
VYHS	**Vyhne**	**76.30**	**332**	*i* P	**P**	**09 01 55.0**	**+0.2**
PTK	**Pertek**	**76.31**	**314**	*e*P	**P**	**09 01 56.0**	**+0.9**
BOYT	**Boyabat**	**76.33**	**319**	*i* P	**P**	**09 01 54.0**	**-1.1**
JAVC	**Velka Javorina**	**76.33**	**333**	P	**P**	**09 01 56.2**	**+1.2**
BYBT	**Boyabat**	**76.35**	**319**	*e*P	**P**	**09 01 55.1**	**-0.1**
KOLL	**Kolacno**	**76.36**	**333**	*i* P	**P**	**09 01 55.7**	**+0.6**
MOX	**Moxa**	**76.37**	**338**	*e*P	**P**	**09 01 55.1**	**-0.1**
MOX				pmax	pmax		
	comp=Z,135nm,1.4s,mb5.7						
MOX				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.7						
MOX	**Moxa**	**76.37**	**338**	*i* P	**P**	**09 01 55.1**	**-0.1**
	comp=Z,logA/T=2.0,mb5.7						
MOX				L		09 41 38.0	
MOX	**Moxa**	**76.37**	**338**	*e*P	**P**	**09 01 55.1**	**-0.1**
	comp=Z,135nm,1.4s,mb5.7						
MOX				LR	LR		
	comp=Z,4µm,18.0s,MS5.7						
PSZ	**Piszkesteto**	**76.48**	**331**	P	**P**	**09 01 56.2**	**+0.4**
PSZ				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.7						
PSZ	**Piszkesteto**	**76.48**	**331**	⇑*e*P	**P**	**09 01 56.3**	**+0.5**
KRUC	**Moravsky**	**76.52**	**334**	P	**P**	**09 01 56.4**	**+0.4**
MLR	**Muntele Rosu**	**76.53**	**326**	P	**P**	**09 01 55.5**	**-0.6**
	comp=Z,53nm,1.0s,mb5.4,baz=360,slow=6.8,SNR=31						
NKC	**Novy Kostel**	**76.54**	**337**	P	**P**	**09 01 56.4**	**+0.3**
NKC	**Novy Kostel**	**76.54**	**337**	⇑*i*P	**P**	**09 01 56.3**	**+0.2**
NKC				AMS	AMS	09 40 00.0	
	comp=Z,4µm,16.9s						
SMOL	**Smolenice**	**76.71**	**333**	*i* P	**P**	**09 01 58.3**	**+1.2**
USIN	**University of**	**76.75**	**47**	*e*P	**P**	**09 01 58.6**	**+1.1**
	comp=Z,30nm,0.9s,mb5.2						
BALT	**Daday**	**76.89**	**320**	*i* P	**P**	**09 01 56.9**	**-1.3**
TOS	**Tosya**	**77.02**	**319**	*e*P	**P**	**09 02 00.2**	**+1.2**
CTKT	**Corum**	**77.03**	**318**	*i* P	**P**	**09 01 57.9**	**-1.1**
SRO	**Srobarova**	**77.07**	**332**	*i* P	**P**	**09 02 00.3**	**+1.2**
ZST	**Bratislava**	**77.09**	**333**	*i* P	**P**	**09 02 00.5**	**+1.3**
BUD	**Budapest**	**77.14**	**332**	⇑*e*P	**P**	**09 02 00.0**	**+0.5**
ALLY	**Alegheny Colle**	**77.18**	**40**	*e*P	**P**	**09 02 00.1**	**+0.2**
WCI	**Wyandotte Cave**	**77.20**	**46**	*e*P	**P**	**09 02 00.5**	**+0.5**
WCI				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
WCI	**Wyandotte Cave**	**77.20**	**46**	*e*P	**P**	**09 02 00.5**	**+0.5**
	comp=Z,26nm,0.9s,mb5.2						
MYA	**Malataya**	**77.22**	**314**	P	**P**	**09 02 01.4**	**+1.3**
PSN	**Preselentsi**	**77.23**	**324**	*e*P	**P**	**09 02 01.0**	**+0.9**
MALT	**Malatya**	**77.23**	**314**	P	**P**	**09 02 01.6**	**+1.4**
MALT	**Malatya**	**77.23**	**314**	P	**P**	**09 02 01.5**	**+1.3**
MALT				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.7						
KHC	**Kasperske Hory**	**77.25**	**336**	⇑*i*P	**P**	**09 02 00.6**	**+0.5**
KHC				*e*		09 02 12.5	
KHC				MLR	MLR		
	comp=Z,7µm,18.5s,MS6.0						
KHC	**Kasperske Hory**	**77.25**	**336**	P	**P**	**09 02 00.5**	**+0.4**
KHC	**Kasperske Hory**	**77.25**	**336**	⇑*i*P	**P**	**09 02 00.6**	**+0.5**
KHC				PCP	PcP	09 02 12.5	+1.3
KHC				AMS	AMS	09 39 40.0	
	comp=Z,7µm,18.5s						
DSB	**Dublin**	**77.26**	**349**	P	**P**	**09 02 02.4**	**+2.3**
	comp=Z,34nm,0.8s,mb5.3						
VKA	**Vienna**	**77.26**	**334**	⇑*i*P	**P**	**09 01 59.3**	**-0.9**
	comp=Z,985nm,4.0s						
VKA	**Vienna**	**77.26**	**334**	⇑*i*P	**P**	**09 01 59.3**	**-0.9**
VKA				pmax	pmax		
	comp=Z,985nm,4.0s						
GRF	**Grafenberg Arr**	**77.35**	**338**	*e*P	**P**	**09 02 01.1**	**+0.5**
GRF				*e**PP	pP	09 02 14.0	+7.7
GRF				pmax	pmax		
	comp=Z,250nm,1.2s,mb6.0						
GRF	**Grafenberg Arr**	**77.35**	**338**	*e*P	**P**	**09 02 01.1**	**+0.5**
GRF				*e**PP	pP	09 02 14.0	+7.7
GRF				pmax	pmax		
	comp=Z,250nm,1.2s,mb6.0						
GRF	**Grafenberg Arr**	**77.35**	**338**	*e*P	**P**	**09 02 01.1**	**+0.5**
	comp=Z,250nm,1.2s,mb6.0						
GRF				*e*pP	pP	09 02 14.0	+7.7
PKSG		**77.42**	**332**	⇑*e*P	**P**	**09 02 01.6**	**+0.5**
WET	**Wettzell**	**77.42**	**336**	P	**P**	**09 02 01.6**	**+0.6**
SAFT	**Safranbolu**	**77.43**	**320**	*e*P	**P**	**09 02 02.0**	**+0.7**
CORM	**Corum**	**77.46**	**318**	*e*P	**P**	**09 02 02.6**	**+1.2**
GEC2	**GERESS Array S**	**77.48**	**336**	*e*P	**P**	**09 02 01.6**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,68nm,1.2s,mb5.5						
GERES	**GERESS Array B**	**77.48**	**336**	P	**P**	**09 02 01.1**	**-0.2**
	comp=Z,20nm,0.9s,mb5.0,baz=45,slow=3.8,SNR=81						
CANT	**Cankiri**	**77.55**	**319**	*e*P	**P**	**09 02 02.5**	**+0.6**
HGN	**Heimansgroeve**	**77.58**	**341**	*e*P	**P**	**09 02 01.4**	**-0.4**
	comp=Z,128nm,1.4s,mb5.7						
HGN				*e*x	x	09 02 15.1	
SOP	**Sopron**	**77.72**	**333**	⇑*e*P	**P**	**09 02 03.7**	**+1.0**
ELDT	**Eldivan**	**77.73**	**319**	*i* P	**P**	**09 02 03.6**	**+0.7**
URFA	**Urfa**	**77.74**	**314**	P	**P**	**09 02 04.4**	**+1.4**
PRD	**Provadia**	**77.94**	**324**	*e*P	**P**	**09 02 04.0**	**0.0**
BNN	**Bunyan**	**77.99**	**316**	*e*P	**P**	**09 02 05.3**	**+0.9**
NATX	**Nacogdoches**	**77.99**	**55**	*e*P	**P**	**09 02 05.2**	**+0.7**
	comp=Z,52nm,1.4s,mb5.3						
TOD	**Tromm**	**78.02**	**339**	⇑*e*P	**P**	**09 02 04.7**	**+0.4**
TOD	**Tromm**	**78.02**	**339**	*e*P	**P**	**09 02 04.8**	**+0.5**
ABH	**Alteburg**	**78.06**	**340**	⇑*e*P	**P**	**09 02 04.7**	**+0.2**
ABH	**Alteburg**	**78.06**	**340**	*e*P	**P**	**09 02 04.8**	**+0.3**
SIND	**Sindeldorf**	**78.07**	**338**	⇑*e*P	**P**	**09 02 04.8**	**+0.2**
SIND	**Sindeldorf**	**78.07**	**338**	P	**P**	**09 02 05.2**	**+0.6**
SWS	**Schriesheim**	**78.16**	**339**	⇑*e*P	**P**	**09 02 05.3**	**+0.2**
SWS	**Schriesheim**	**78.16**	**339**	P	**P**	**09 02 06.1**	**+1.0**
MOA	**Molln**	**78.23**	**335**	⇑*i*P	**P**	**09 02 06.2**	**+0.7**
	comp=Z,44nm,1.1s,mb5.3						
BRTR	**Keskin Array B**	**78.27**	**318**	P	**P**	**09 02 06.2**	**+0.3**
	comp=Z,51nm,1.0s,mb5.4,baz=63,slow=2.8,SNR=102						
RUP	**Ruppelstein**	**78.34**	**340**	⇑*e*P	**P**	**09 02 06.3**	**+0.3**
RUP	**Ruppelstein**	**78.34**	**340**	*e*P	**P**	**09 02 06.5**	**+0.5**
PKSM	**Moragy**	**78.39**	**331**	P	**P**	**09 02 06.0**	**-0.4**
ARSA	**Arzberg**	**78.41**	**334**	⇑*i*P	**P**	**09 02 07.2**	**+0.7**
	comp=Z,82nm,1.2s,mb5.5						
GIVF	**Givet**	**78.44**	**342**	⇑*i*P	**P**	**09 02 06.5**	**-0.1**
	comp=Z,137nm,1.3s,mb5.4						
GIVF	**Givet**	**78.44**	**342**	⇑*i*P	**P**	**09 02 06.5**	**-0.1**
GIVF				pmax	pmax		
	comp=Z,69nm,1.3s,mb5.4						
KTD	**Kalmit**	**78.46**	**339**	*e*P	**P**	**09 02 06.7**	**0.0**
KTD	**Kalmit**	**78.46**	**339**	*e*P	**P**	**09 02 07.6**	**+0.9**
KAHT	**Ahir Dag**	**78.50**	**315**	*i* P	**P**	**09 02 06.5**	**-0.7**
ANTO	**Ankara**	**78.52**	**319**	*e*P	**P**	**09 02 07.6**	**+0.3**
KAMT	**Kaman**	**78.53**	**318**	*e*P	**P**	**09 02 07.6**	**+0.3**
WLF	**Walferdange**	**78.57**	**341**	*e*P	**P**	**09 02 07.4**	**+0.1**
BAIF	**Baives**	**78.61**	**342**	⇑*i*P	**P**	**09 02 07.7**	**+0.2**
	comp=Z,159nm,1.2s,mb5.5						
BAIF	**Baives**	**78.61**	**342**	⇑*i*P	**P**	**09 02 07.7**	**+0.2**
BAIF				pmax	pmax		
	comp=Z,79nm,1.2s,mb5.5						
OXF	**Oxford**	**78.62**	**50**	P	**P**	**09 02 08.7**	**+0.8**
OXF				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.5						
OXF	**Oxford**	**78.62**	**50**	P	**P**	**09 02 08.7**	**+0.7**
	comp=Z,66nm,1.1s,mb5.5						
HDH	**Heidenheim**	**78.63**	**338**	⇑*e*P	**P**	**09 02 07.8**	**+0.1**
HDH	**Heidenheim**	**78.63**	**338**	P	**P**	**09 02 08.4**	**+0.7**
RHK1	**Bakonya**	**78.68**	**332**	⇑*e*P	**P**	**09 02 07.6**	**-0.4**
MDU	**Mudurnu**	**78.70**	**320**	*e*P	**P**	**09 02 08.6**	**+0.4**
STU	**Stuttgart**	**78.71**	**338**	*e*P	**P**	**09 02 08.3**	**+0.2**
STU				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.5						
STU	**Stuttgart**	**78.71**	**338**	*e*P	**P**	**09 02 08.3**	**+0.3**
	comp=Z,66nm,1.0s,mb5.5						
GAZ	**Gaziantep**	**78.72**	**315**	*e*P	**P**	**09 02 09.4**	**+1.0**
FUR	**Furstenfeldbru**	**78.74**	**337**	*e*P	**P**	**09 02 09.0**	**+0.7**
FUR				pmax	pmax		
	comp=Z,191nm,1.4s,mb5.8						
LANF	**Langenberg**	**78.84**	**339**	*e*P	**P**	**09 02 09.2**	**+0.4**
LBG	**Lerchenberg**	**78.90**	**339**	⇑*e*P	**P**	**09 02 09.4**	**+0.2**
LBG	**Lerchenberg**	**78.90**	**339**	P	**P**	**09 02 09.8**	**+0.6**
ARMA	**Armidale**	**78.97**	**184**	*e*P	**P**	**09 02 11.1**	**+1.2**
BUCH	**Bad Urach**	**78.97**	**338**	⇑*e*P	**P**	**09 02 10.0**	**+0.5**
BUCH	**Bad Urach**	**78.97**	**338**	P	**P**	**09 02 10.7**	**+1.2**
BEO	**Belgrade**	**79.04**	**330**	⇑*i*P	**P**	**09 02 09.9**	**-0.1**
HRT	**Hereke**	**79.04**	**322**	*e*P	**P**	**09 02 10.2**	**+0.1**
PERS	**Pernice**	**79.08**	**334**	*e*P	**P**	**09 02 10.6**	**+0.4**
GROS	**Grobnik**	**79.13**	**334**	P	**P**	**09 02 11.2**	**+0.8**
NIG	**Nigde**	**79.16**	**317**	P	**P**	**09 02 11.8**	**+1.1**
KBA	**Koelnbreinsper**	**79.19**	**335**	⇑*i*P	**P**	**09 02 12.3**	**+1.6**
	comp=Z,212nm,1.3s,mb5.9						
KBA	**Koelnbreinsper**	**79.19**	**335**	⇑*i*P	**P**	**09 02 12.3**	**+1.6**
KBA				pmax	pmax		
	comp=Z,212nm,1.3s,mb5.9						
BFO	**Black Forest**	**79.33**	**339**	*e*P	**P**	**09 02 11.8**	**+0.3**
BFO				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.5						
EDRB	**Edirne**	**79.34**	**324**	*e*P	**P**	**09 02 12.2**	**+0.4**
OBKA	**Obir**	**79.36**	**334**	⇑*i*P	**P**	**09 02 12.4**	**+0.7**
	comp=Z,50nm,1.2s,mb5.3						
GUT	**Gutenstein**	**79.38**	**338**	⇑*e*P	**P**	**09 02 12.1**	**+0.3**
GUT	**Gutenstein**	**79.38**	**338**	P	**P**	**09 02 12.7**	**+0.9**
BOLS	**Boljevac**	**79.39**	**328**	⇑*i*P	**P**	**09 02 11.2**	**-0.8**
DOBS	**Dobrina**	**79.42**	**333**	P	**P**	**09 02 12.0**	**0.0**
SPAK	**Spaichingen**	**79.43**	**338**	*e*P	**P**	**09 02 12.5**	**+0.5**
SPAK	**Spaichingen**	**79.43**	**338**	P	**P**	**09 02 13.6**	**+1.6**
WATA	**Walderalm**	**79.43**	**336**	⇑*i*P	**P**	**09 02 13.0**	**+0.9**
	comp=Z,157nm,1.3s,mb5.8						
WATA	**Walderalm**	**79.43**	**336**	⇑*i*P	**P**	**09 02 13.0**	**+0.9**
WATA				pmax	pmax		
	comp=Z,157nm,1.3s,mb5.8						
WLS	**Welschbruch**	**79.48**	**339**	*e*P	**P**	**09 02 12.8**	**+0.5**
WTTA	**Wattenberg**	**79.48**	**336**	⇑*i*P	**P**	**09 02 13.4**	**+1.1**
	comp=Z,184nm,1.2s,mb5.9						
WTTA	**Wattenberg**	**79.48**	**336**	⇑*i*P	**P**	**09 02 13.4**	**+1.1**
WTTA				pmax	pmax		
	comp=Z,184nm,1.2s,mb5.9						

UBR	Uberruh	79.49	337	⇑*e*P	P	09 02 12.6	+0.2
UBR	Uberruh	79.49	337	P	P	09 02 13.4	+1.0
CDF	Champ du Feu	79.50	340	⇑*i*P	P	09 02 12.6	+0.2
	comp=Z,354nm,1.7s,mb5.7						
CDF	Champ du Feu	79.50	340	⇑*i*P	P	09 02 12.6	+0.2
CDF				pmax	pmax		
	comp=Z,177nm,1.7s,mb5.7						
GOLS	Golise	79.50	333	P	P	09 02 13.2	+0.7
CEYT	Ceyhan	79.53	315	*e*P	P	09 02 13.1	+0.3
MOTA	Moosalm	79.55	337	⇑*i*P	P	09 02 13.4	+0.7
	comp=Z,87nm,1.2s,mb5.6						
MOTA	Moosalm	79.55	337	⇑*i*P	P	09 02 13.4	+0.7
MOTA				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.6						
SQTA	Sankt Quirin	79.63	337	⇑*i*P	P	09 02 14.3	+1.1
	comp=Z,172nm,1.4s,mb5.8						
SQTA	Sankt Quirin	79.63	337	⇑*i*P	P	09 02 14.3	+1.1
SQTA				pmax	pmax		
	comp=Z,172nm,1.4s,mb5.8						
ESKT	Eskisehir	79.64	320	P	P	09 02 13.0	-0.4
LIBD	Limburg	79.67	339	⇑*e*P	P	09 02 13.4	+0.1
LIBD	Limburg	79.67	339	*e*P	P	09 02 13.7	+0.4
ECH	Echery	79.71	340	*e*P	P	09 02 13.7	+0.2
CRES	Cresnjev	79.72	333	P	P	09 02 14.2	+0.6
KIZT	Kizilcal	79.73	319	P	P	09 02 13.9	+0.1
GRUS	Gruza	79.77	329	⇓*i*P	P	09 02 13.1	-0.9
SISB	Singen-Sch Ber	79.77	338	P	P	09 02 15.3	+1.4
KIZ	Kirchzarten	79.77	339	⇑*e*P	P	09 02 13.9	0.0
FVI	Forni Avoltri	79.78	335	P	P	09 02 14.6	+0.6
SWET	Sewanee	79.78	47	*e*P	P	09 02 14.3	+0.1
SLE	Schleitheim	79.81	338	⇓P	P	09 02 14.6	+0.5
FELD	Feldberg	79.83	339	⇑*e*P	P	09 02 14.4	+0.2
DIVS	Divcibare	79.83	330	⇓*i*P	P	09 02 13.7	-0.6
MEZF	Maizieres J’vi	79.91	341	⇑*i*P	P	09 02 15.0	+0.4
	comp=Z,603nm,1.8s,mb5.9						
DAVA	Damuels	79.92	337	⇑*i*P	P	09 02 15.5	+0.8
	comp=Z,50nm,1.2s,mb5.3						
THEF	They Montfort	79.97	340	*e*P	P	09 02 14.9	0.0
BRES	Bressanone	79.98	336	P	P	09 02 15.7	+0.7
VOY	Vojsko	79.99	334	*e*P	P	09 02 14.2	-0.9
KDZ	Kurdzhali	80.02	325	*e*P	P	09 02 16.0	+0.6
VTS	Vitosha	80.03	327	P	P	09 02 15.0	-0.4
VTS	Vitosha	80.03	327	P	P	09 02 16.2	+0.8
MOF	Molkenrain	80.06	339	*e*P	P	09 02 15.4	0.0
BOJS	Bojanci	80.07	333	*e*P	P	09 02 15.2	-0.3
BOJS				*e*PcP	PcP	09 02 24.9	+1.5
HTY	Hatay	80.07	315	*e*P	P	09 02 16.6	+0.8
HAU	Haudompre	80.09	340	⇑*i*P	P	09 02 15.6	0.0
	comp=Z,297nm,1.7s,mb5.7						
HAU				*e*R			
	comp=Z,1µm,18.8s						
HAU	Haudompre	80.09	340	⇑*i*P	P	09 02 15.6	0.0
HAU				pmax	pmax		
	comp=Z,148nm,1.7s,mb5.6						
HAU				MLR	MLR		
	comp=Z,2µm,18.8s,MS5.4						
BNT	Bandirma	80.15	322	*e*P	P	09 02 16.5	+0.4
HINF	Hinteralfeld	80.15	340	⇑*i*P	P	09 02 15.8	-0.1
	comp=Z,272nm,1.9s,mb5.6						
HINF	Hinteralfeld	80.15	340	⇑*i*P	P	09 02 15.8	-0.1
HINF				pmax	pmax		
	comp=Z,136nm,1.9s,mb5.5						
ZUR	Zurich	80.16	338	⇓P	P	09 02 17.2	+1.2
RZN	Rozhen	80.26	325	*e*P	P	09 02 11.0	-5.6
KONT	Konya--Tatoy	80.30	318	*e*P	P	09 02 17.3	+0.4
APPI	Appiano	80.31	336	P	P	09 02 16.7	-0.1
BBS	Basel-Blauen	80.33	339	P	P	09 02 18.3	+1.4
ALT	Altintas	80.34	320	*e*P	P	09 02 17.3	+0.1
PWV	Princeton	80.35	43	*e*P	P	09 02 18.0	+0.8
MUO	Muotathal	80.52	338	⇑P	P	09 02 18.9	+1.0
BRMO	Bormio	80.54	337	P	P	09 02 19.3	+1.3
LLS	Linth-Limmern	80.54	338	⇑P	P	09 02 18.9	+0.9
ELN	Prospectdale	80.57	43	*e*P	P	09 02 18.3	0.0
CTI	Castel Tesino	80.60	336	P	P	09 02 18.3	0.0
LOMF	Lomont	80.60	339	*e*P	P	09 02 18.7	+0.4
KKB	Krupnik	80.71	326	*e*P	P	09 02 19.5	+0.5
MMB	Musomiste	80.71	326	*e*P	P	09 02 19.0	0.0
FLN	La Foliniere	80.75	345	⇑*i*P	P	09 02 19.0	0.0
	comp=Z,348nm,1.4s,mb5.8						
FLN				*e*R			
	comp=Z,3µm,19.2s						
FLN	La Foliniere	80.75	345	⇑*i*P	P	09 02 19.0	0.0
FLN				pmax	pmax		
	comp=Z,174nm,1.4s,mb5.8						
FLN				MLR	MLR		
	comp=Z,3µm,19.3s,MS5.7						
VDL	Val di Lei	80.76	337	⇑P	P	09 02 20.4	+1.2
TUE	Stuetta	80.81	337	P	P	09 02 20.4	+1.0
LDF	La Druitiere	80.84	344	⇑*i*P	P	09 02 19.4	-0.2
	comp=Z,358nm,1.6s,mb5.8						
LDF	La Druitiere	80.84	344	⇑*i*P	P	09 02 19.4	-0.2
LDF				pmax	pmax		
	comp=Z,179nm,1.6s,mb5.8						
HDMB	Hadim	81.06	318	*e*P	P	09 02 20.5	-0.4
GRR	Gorron	81.17	345	⇑*i*P	P	09 02 21.4	+0.1
	comp=Z,521nm,1.4s,mb6.0						
GRR	Gorron	81.17	345	⇑*i*P	P	09 02 21.4	+0.1
GRR				pmax	pmax		
	comp=Z,260nm,1.4s,mb6.0						
SKO	Skopje	81.21	328	⇑*i*P	P	09 02 21.9	+0.3
SKO				*i*		09 02 34.4	
LKBD	Leukerbad	81.31	339	⇓P	P	09 02 23.4	+1.3
STKA	Stephens Creek	81.36	193	*e*P	P	09 02 20.2	-2.5
	comp=Z,7.1nm,1.7s						
STKA	Stephens Creek	81.36	193	P	P	09 02 22.0	-0.7
	comp=Z,5.0nm,0.9s,mb4.4,baz=9.7,slow=3.1,SNR=4.9						
AKS	Akhisar	81.45	322	*e*P	P	09 02 22.8	-0.1
CABF	La Chapelle	81.47	340	*e*P	P	09 02 23.2	+0.3
	comp=Z,289nm,1.8s,mb5.6						
CABF	La Chapelle	81.47	340	*e*P	P	09 02 23.2	+0.3
CABF				pmax	pmax		
	comp=Z,145nm,1.8s,mb5.6						
VAI	Varese	81.52	338	P	P	09 02 24.0	+0.8
MMK	Mattmark	81.55	338	⇑P	P	09 02 24.6	+1.3
SGMF	Saint Gilles	81.59	346	⇑*i*P	P	09 02 23.9	+0.4
	comp=Z,402nm,1.5s,mb5.8						
SGMF	Saint Gilles	81.59	346	⇑*i*P	P	09 02 23.9	+0.4
SGMF				pmax	pmax		
	comp=Z,201nm,1.5s,mb5.8						
HYF	Humbligny	81.59	342	*e*P	P	09 02 23.9	+0.4
SSF	Saint Saulge	81.61	341	⇑*i*P	P	09 02 23.7	+0.1
	comp=Z,104nm,1.4s,mb5.3						
SSF	Saint Saulge	81.61	341	⇑*i*P	P	09 02 23.7	+0.1
SSF				pmax	pmax		
	comp=Z,52nm,1.4s,mb5.3						
ROSF	Rostrenen	81.62	346	⇑*i*P	P	09 02 24.1	+0.5
	comp=Z,232nm,1.2s,mb5.7						
ROSF	Rostrenen	81.62	346	⇑*i*P	P	09 02 24.1	+0.5
ROSF				pmax	pmax		
	comp=Z,116nm,1.3s,mb5.7						
MCGN	Macugnaga	81.63	338	P	P	09 02 24.9	+1.2
DIX	Grande Dixence	81.65	339	⇑P	P	09 02 25.2	+1.4
PPT	Papeete	81.76	129	*e*LR	LR	09 27 10.8	
	comp=Z,870nm,21.5s						
EMV	Vieux Emosson	81.79	339	⇑P	P	09 02 25.7	+1.1
AVF	Avril sur Loir	81.90	342	⇑*i*P	P	09 02 25.4	+0.3
	comp=Z,382nm,1.6s,mb5.8						
AVF	Avril sur Loir	81.90	342	⇑*i*P	P	09 02 25.4	+0.3
AVF				pmax	pmax		
	comp=Z,191nm,1.6s,mb5.8						
SMF	Signal de Mont	81.93	341	⇑*i*P	P	09 02 25.7	+0.4
	comp=Z,541nm,1.7s,mb5.9						
SMF	Signal de Mont	81.93	341	⇑*i*P	P	09 02 25.7	+0.4
SMF				pmax	pmax		
	comp=Z,270nm,1.7s,mb5.9						
QUIF	Quistinic	82.01	346	*e*P	P	09 02 26.0	+0.3
BGF	Bois d’Agland	82.22	342	⇑*i*P	P	09 02 27.3	+0.5
	comp=Z,400nm,1.8s,mb5.7						
BGF	Bois d’Agland	82.22	342	⇑*i*P	P	09 02 27.3	+0.5
BGF				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
RSM	Repubblica di	82.32	334	P	P	09 02 28.7	+1.3
CSS	Prodhromos	82.33	316	*e*P	P	09 02 29.2	+1.6
	comp=Z,308nm,1.6s,mb6.0						
LPL	La Plagne	82.35	339	⇑*i*P	P	09 02 28.7	+1.2
	comp=Z,190nm,1.4s,mb5.5						
LPL	La Plagne	82.35	339	⇑*i*P	P	09 02 28.7	+1.2
LPL				pmax	pmax		
	comp=Z,95nm,1.4s,mb5.5						
LPG	La Plagne	82.36	339	⇑*i*P	P	09 02 28.9	+1.4
	comp=Z,216nm,1.2s,mb5.6						
LPG	La Plagne	82.36	339	⇑*i*P	P	09 02 28.9	+1.4
LPG				pmax	pmax		
	comp=Z,108nm,1.3s,mb5.6						
BOB	Bobbio (Coli)	82.37	337	P	P	09 02 29.2	+1.6
FSSB	Fossombrone	82.45	334	P	P	09 02 29.0	+1.0
SEI	Scarperia	82.52	335	P	P	09 02 30.8	+2.4
SFI	Santa Sofia	82.52	335	P	P	09 02 29.9	+1.5
VMG	Vicchio	82.55	335	P	P	09 02 30.8	+2.3
SALA	Sala	82.56	312	⇑P	P	09 02 26.8	-2.0
PGD	Poggio Sodo	82.58	335	P	P	09 02 30.6	+1.9
TCF	Toulx Ste Croi	82.61	342	⇑*i*P	P	09 02 29.4	+0.6
	comp=Z,379nm,1.9s,mb5.8						
TCF	Toulx Ste Croi	82.61	342	⇑*i*P	P	09 02 29.4	+0.6
TCF				pmax	pmax		
	comp=Z,190nm,1.9s,mb5.8						
PLDF	La Plantade	82.62	341	*e*P	P	09 02 30.8	+1.9
AGO	Saint Agoulin	82.65	341	*e*P	P	09 02 31.1	+2.1
MFF	Saint Martin d	82.77	344	*e*P	P	09 02 30.0	+0.4
	comp=Z,478nm,1.8s,mb5.9						
MFF	Saint Martin d	82.77	344	*e*P	P	09 02 30.0	+0.4
MFF				pmax	pmax		
	comp=Z,239nm,1.8s,mb5.9						
BNI	Bardonecchia	82.80	339	*e*P	P	09 02 31.0	+1.2
BNI				pmax	pmax		
	comp=Z,55nm,1.1s,mb5.5						
BNI	Bardonecchia	82.80	339	*e*P	P	09 02 31.0	+1.2
	comp=Z,55nm,1.1s,mb5.5						
ASF	Jabal al Asfar	82.91	312	P	P	09 02 31.0	+0.3
	comp=Z,21nm,1.0s,mb5.1,baz=334,slow=1.2,SNR=14						
MURB	Monte Urbino	82.92	334	P	P	09 02 32.9	+2.4
PYM	Petit Puy Mans	82.96	341	*e*P	P	09 02 32.5	+1.9
MBDF	Montbardon	83.08	339	⇑*i*P	P	09 02 32.0	+0.7
	comp=Z,272nm,1.6s,mb5.7						
MBDF	Montbardon	83.08	339	⇑*i*P	P	09 02 32.0	+0.7
MBDF				pmax	pmax		
	comp=Z,136nm,1.6s,mb5.7						
ORIF	Oris-en-Rattie	83.11	339	⇑*i*P	P	09 02 32.5	+1.1
ORIF				*e*R			
	comp=Z,2µm,17.8s						
FORT	Forrest	83.11	204	*e*P	P	09 02 32.4	+0.7
	comp=Z,99nm,0.9s,mb5.8						
NRCA	Norcia	83.14	334	P	P	09 02 33.1	+1.5
LBL	Lubilhac	83.40	341	*e*P	P	09 02 34.8	+1.9
MMLI	Mount Malkishu	83.42	313	P	P	09 02 33.9	+0.6
VIVF	Saint-Julien-l	83.45	340	⇑*i*P	P	09 02 34.0	+0.8
OFRI	‘Ofer	83.48	313	P	P	09 02 33.9	+0.3
AQU	L’Aquila	83.49	333	*e*P	P	09 02 35.1	+1.7
AQU				pmax	pmax		
	comp=Z,68nm,1.1s,mb5.6						
AQU	L’Aquila	83.49	333	*e*P	P	09 02 35.1	+1.7
	comp=Z,68nm,1.1s,mb5.6						
RJF	Les Rejaudoux	83.69	342	⇑*i*P	P	09 02 34.7	+0.4
	comp=Z,174nm,1.5s,mb5.7						
RJF				*e*R			
	comp=Z,3µm,18.8s						
RJF	Les Rejaudoux	83.69	342	⇑*i*P	P	09 02 34.7	+0.4
RJF				pmax	pmax		
	comp=Z,87nm,1.5s,mb5.7						
RJF				MLR	MLR		
	comp=Z,3µm,18.8s,MS5.8						
SBF	Sospel	83.73	338	⇑*i*P	P	09 02 34.6	+0.1
CAF	Calviac	83.94	342	⇑*i*P	P	09 02 36.5	+0.9
	comp=Z,233nm,1.6s,mb5.8						
CAF	Calviac	83.94	342	⇑*i*P	P	09 02 36.5	+0.9
CAF				pmax	pmax		
	comp=Z,116nm,1.6s,mb5.8						
MKRJ	Makawir	84.03	312	P	P	09 02 36.9	+0.5
SMRF	Simiane la Rot	84.07	339	⇑*i*P	P	09 02 37.2	+0.9
	comp=Z,172nm,1.4s,mb5.7						
DRGI	Dragot	84.12	313	P	P	09 02 37.1	+0.3
LFF	La Frestale	84.20	343	⇑*i*P	P	09 02 37.5	+0.6
	comp=Z,576nm,1.7s,mb6.1						
LFF	La Frestale	84.20	343	⇑*i*P	P	09 02 37.5	+0.6
LFF				pmax	pmax		
	comp=Z,288nm,1.7s,mb6.1						
FRF	La Foret Royal	84.21	338	⇑*i*P	P	09 02 37.2	+0.2
	comp=Z,261nm,1.6s,mb5.8						
FRF	La Foret Royal	84.21	338	⇑*i*P	P	09 02 37.2	+0.2
FRF				pmax	pmax		
	comp=Z,130nm,1.6s,mb5.8						
HILS	Ha’il	84.23	306	P	P	09 02 38.5	+1.0
LASF	Ste Croix	84.37	340	⇑*i*P	P	09 02 38.8	+1.0
	comp=Z,194nm,1.6s,mb5.7						
LMR	La Mourre	84.45	338	⇑*i*P	P	09 02 38.4	+0.2
	comp=Z,160nm,1.2s,mb5.7						
LMR	La Mourre	84.45	338	⇑*i*P	P	09 02 38.4	+0.2
LMR				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.7						
PGF	Pioggiola	84.55	336	⇑*i*P	P	09 02 39.1	+0.4
	comp=Z,631nm,1.8s,mb6.2						
PGF	Pioggiola	84.55	336	⇑*i*P	P	09 02 39.1	+0.4
PGF				pmax	pmax		
	comp=Z,315nm,1.8s,mb6.1						
ARSS	Ar Rass	84.63	304	P	P	09 02 39.8	+0.3
MZLS	Mizel	84.98	301	P	P	09 02 41.8	+0.5
ZFRI	Zfri	85.08	312	P	P	09 02 42.0	+0.4
KZIT	Kziot	85.17	313	P	P	09 02 42.2	+0.1
TIP	Timpagrande	85.31	330	*e*P	P	09 02 42.8	+0.3
PRNI	Paran	85.33	312	P	P	09 02 43.3	+0.4
MTLF	Montolieu	85.43	341	⇑*i*P	P	09 02 44.3	+1.2
	comp=Z,136nm,1.5s,mb5.6						
MTLF	Montolieu	85.43	341	⇑*i*P	P	09 02 44.3	+1.2
MTLF				pmax	pmax		
	comp=Z,68nm,1.5s,mb5.6						
KMTI	Karmit	85.67	312	P	P	09 02 44.6	0.0
MBH	Mount Berech	85.83	312	P	P	09 02 45.7	+0.3
EIL	Elat	85.92	312	P	P	09 02 46.2	+0.4
EIL	Elat	85.92	312	*e*P	P	09 02 46.2	+0.3
	comp=Z,76nm,1.2s,mb5.8						
JMQS	Jabal Moqyreh	86.10	311	P	P	09 02 48.0	+1.3
EPF	Esparros	86.11	342	*e*P	P	09 02 46.4	-0.1
ALWS	Ilw as Safayha	86.15	311	P	P	09 02 48.1	+1.1
JMOS	Jabal al Moall	86.25	311	P	P	09 02 48.7	+1.2
TBKS	Tabuk	86.30	310	P	P	09 02 49.1	+1.4
AFFS	‘Afif	86.30	303	P	P	09 02 48.2	+0.3
SJPF	Ste Jean	86.33	344	⇑*i*P	P	09 02 48.6	+1.0
ETSF	Etsaut	86.42	343	⇑*i*P	P	09 02 49.9	+1.9
	comp=Z,66nm,1.3s,mb5.4						
ETSF	Etsaut	86.42	343	⇑*i*P	P	09 02 49.9	+1.9
ETSF				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.4						
HAQS	Haql	86.43	311	P	P	09 02 49.3	+0.9
TOO	Toolangi	86.52	188	*e*P	P	09 02 49.7	+1.1
	comp=Z,6.2nm,0.9s,mb4.8						
TOO				*e*		09 03 02.1	
TOO				*i*		09 03 14.9	
TOO	Toolangi	86.52	188	*e*P	P	09 02 49.7	+1.1
TOO				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.8						
TBI	Tubuai	86.66	132	*e*LR	LR	09 29 27.0	
	comp=Z,2µm,22.2s,baz=326						
KBRS	Khaybar	86.85	306	P	P	09 02 51.4	+0.9
BDAS	Al Bad‘	86.86	311	P	P	09 02 53.2	+2.7
AYUS	‘Aynunah	86.97	311	P	P	09 02 51.9	+0.9
UMJS	Umm Lajj	88.33	307	P	P	09 02 58.6	+1.0
TATS	Tathlith	89.49	300	P	P	09 03 03.8	+0.5
ESDC	Sonseca Array	90.16	345	P	P	09 03 05.5	-0.4
	comp=Z,5.4nm,0.8s,mb4.9,baz=12,slow=4.4,SNR=16						
BLJS	Baljurashi	90.29	301	P	P	09 03 07.5	+0.6
RKT	Rikitea	94.21	121	*e*LR	LR	09 32 56.5	
	comp=Z,1µm,33.5s,baz=331						
DBIC	Dimbokro	122.31	338	PKP	PKPdf	09 09 00.3	-3.8
	comp=Z,1.7nm,0.8s,baz=43,slow=3.7,SNR=3.2						
VNDA	Vanda	126.10	178	PKP	PKPdf	09 09 05.7	-4.1
	comp=Z,1.8nm,0.9s,baz=316,slow=5.8,SNR=6.5						
LPAZ	La Paz	131.57	64	PKP	PKPdf	09 09 19.4	-2.4
	comp=Z,2.7nm,0.9s,baz=144,slow=1.9,SNR=7.5						
MAW	Mawson	135.03	213	PKP	PKPdf	09 09 24.9	-2.1
	comp=Z,2.8nm,1.0s,baz=262,slow=11,SNR=3.7						
QSPA	South Pole Qui	138.54	180	P	PKPdf	09 09 23.0	-10
BDFB	Brasilia	141.46	39	PKP	PKPdf	09 09 36.7	-3.2
	comp=Z,2.7nm,0.8s,baz=132,slow=16,SNR=4.0						
SYO	Syowa Base	143.75	213	⇓PKPdf	PKPdf	09 09 36.4	-5.9
SYO	Syowa Base	143.75	213	⇓PKiKP		09 09 46.7	
TRQA	Tornquist	150.58	83	*e*PKPbc	PKPdf	09 09 56.9	+2.4
PMSA	Palmer Station	153.41	142	*e*PKPdf	PKPdf	09 09 57.2	-0.6
PMSA				*e*PKPbc	PKPdf	09 10 01.9	+4.1
SNAA	Sanae	155.09	196	*e*	PKPdf	09 10 22.2	+22
SNAA	Sanae	155.09	196	PKP	PKPdf	09 09 55.2	-4.7
	comp=Z,1.1nm,1.0s,baz=321,slow=9.6,SNR=3.4						
SNAA				PKPab	PKPab	09 10 22.5	-0.5
	comp=Z,5.4nm,0.9s,baz=142,slow=4.6,SNR=10						
SNAA	Sanae	155.09	196	*e*PKIKP	PKPdf	09 09 55.7	-4.2
SNAA				*e*		09 10 22.3	
SNAA	Sanae	155.09	196	⇑*i*PKPdf	PKPdf	09 09 55.5	-4.4
SNAA				*e*		09 10 22.2	
VNA2	Neumayer--Watz	156.49	193	*e*	PKPdf	09 10 29.9	+28
VNA2	Neumayer--Watz	156.49	193	⇑*i*PKPdf	PKPdf	09 10 02.9	+1.2
VNA2				*e*		09 10 29.9	
VNA3	Neumayer Olymp	156.53	191	*e*	PKPdf	09 10 29.0	+27
VNA3	Neumayer Olymp	156.53	191	⇑*i*PKPdf	PKPdf	09 10 00.3	-1.5
VNA3				*e*		09 10 29.0	

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*STR **18** 09:12:44.0±2.4,40.60N×10.30E,h10^{km}±1^{km},Ml4.8,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*BJI **18** 09:12:44.8,40.95N×9.44E,h21^{km},mB5.7,mb4.8,Ms5.4, Msz5.2*

*IDC **18** 09:12:46.8±0.6,40.95N×10.04E,mb4.6/19,mb1 4.7/28, mb1mx4.6/32,ML4.2/10,MS4.1/1,Ms1 4.1/1,ms1mx2.8/23, Error ellipse: s-maj=13.3km s-min=10.4km az=143.0*

*MOS **18** 09:12:46.5±1.0,40.96N×10.03E,h10^{km},mb5.1/20, MS4.4/4,Error ellipse: s-maj=4.6km s-min=2.3km az=92.3*

*CSEM **18** 09:12:47.0,40.91N×10.26E,h10^{km},ML4.5*

*ROM **18** 09:12:47.8±0.1,40.90N×10.17E,h10^{km},ML4.3,Error ellipse: s-maj=1.5km s-min=1.5km az=90.0*

*NEIC **18** 09:12:48.2±0.2,40.89N×10.15E,h10^{km},mb5.1/25,Error ellipse: s-maj=2.6km s-min=2.0km az=179.0*

*MED_RC **18** 09:12:48.2±0.5,40.95N×10.08E,h15^{km},MW4.6/12, Moment Tensor Solution. Body waves: s12,c13; Duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.79±.08; $M_{\theta\theta}$0.31±.07; $M_{\phi\phi}$-1.10±.06; $M_{r\theta}$0.31±.21; $M_{\theta\phi}$0.26±.07; $M_{\phi r}$0.14±.28; Best double couple: $M_0$1.06×10^{16} NP1: ϕ_s144°,δ49°,λ51°. NP2:ϕ_s15°,δ54°,λ126°. Principal axes: T .97, Plg62°, Azm346°; N .18, Plg28°, Azm172°; P -1.15, Plg2°, Azm80°; nsta1 refers to waves, cutoff=35s.*

*LDG **18** 09:12:48.3±0.1,40.64N×10.04E,h19^{km},Ml4.8/31, ms3.6/4 Error ellipse: s-maj=3.2km s-min=1.9km az=17.0*

*SYO **18** 09:12:48.4,40.89N×10.16E,h10^{km},MB5.1,MS4.6*

*ZUR_RM **18** 09:12:48,40.89N×10.15E,h6^{km},Mw4.6/24,Moment Tensor Solution. s24 Moment tensor: Scale 10^{15}Nm; M_{rr}8.27; $M_{\theta\theta}$0.04; $M_{\phi\phi}$-8.31; $M_{r\theta}$1.78; $M_{\theta\phi}$0.20; $M_{\phi r}$4.11; Best double couple: $M_0$9.42×10^{15} NP1:ϕ_s10°,δ59°,λ102°. NP2:ϕ_s168°,δ33°,λ71°. Principal axes: T 9.566, Plg73°, Azm310°; N -.286, Plg10°, Azm184°; P -9.28, Plg13°, Azm91°;*

ISC 18 09:12:46.6±0.5,**40.96N**±0.01×**10.05E**±0.01,**h15**^{km}±3^{km}, **h18**^{km}±5.2^{km}**:pP-P,n530,**σ**1^{s}27**/600,**mb4.8**/61,**MS4.8**/10, **66C-24D,Tyrrhenian Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VSL	Villasalto	1.55	200	*e*PN	Pn	09 13 14.5	+0.7
VSL				SN	Sn	09 13 34.5	+0.8
VSL	Villasalto	1.55	200	*e*Pn	Pn	09 13 14.4	+0.6
VSL				Sn	Sn	09 13 34.5	+0.8
MAON	Monte Argentar	1.68	29	*e*PN	Pn	09 13 16.8	+1.1
MAON				SN	Sn	09 13 37.9	+0.9
MAON	Monte Argentar	1.68	29	P	Pn	09 13 16.4	+0.7
MAON				Sn	Sn	09 13 37.9	+0.9
PGF	Pioggiola	1.77	334	*e*Pn	Pn	09 13 19.7	+2.7
PGF				*e*Sn	Sn	09 13 43.4	+4.0
	6µm,0.6s						
PGF	Pioggiola	1.77	334	*e*Sn	Sn	09 13 43.4	+4.0
	3µm,0.6s						
TOLF	Tolfa	1.83	52	*e*PN	Pn	09 13 17.5	-0.4
TOLF	Tolfa	1.83	52	P	Pn	09 13 17.7	-0.2
ROM9	Roma	2.05	64	*e*PN	Pn	09 13 21.7	+0.7
MA9	Marino	2.12	67	*e*PN	Pn	09 13 21.4	-0.7
MA9				SN	Sn	09 13 47.1	-1.3
MA9	Marino	2.12	67	P	Pn	09 13 21.5	-0.6
MTCE	Montecelio	2.29	61	*e*PN	Pn	09 13 23.7	-0.7
MTCE				SN	Sn	09 13 50.6	-1.8
MTCE	Montecelio	2.29	61	P	Pn	09 13 23.8	-0.6
GRFL	Gerfalco	2.29	17	*e*PN	Pn	09 13 25.1	+0.6
GRFL	Gerfalco	2.29	17	P	Pn	09 13 25.0	+0.5
CERT	Cerreto	2.42	65	*e*PN	Pn	09 13 25.7	-0.5
CERT				SN	Sn	09 13 53.5	-2.2
CERT	Cerreto	2.42	65	P	Pn	09 13 25.6	-0.6
MNS	Montasola	2.43	53	⇑*i*PN	Pn	09 13 26.5	0.0
VENT	Ventotene	2.56	93	P	Pn	09 13 26.4	-1.9
GUAR	Guarcino	2.59	70	*e*PN	Pn	09 13 28.3	-0.5
FIAM	Fiamignano	2.65	59	P	Pn	09 13 29.2	-0.3
CSNT	Castellina Chi	2.68	20	*e*PN	Pn	09 13 31.1	+1.1
	758nm,0.6s						
CSNT	Castellina Chi	2.68	20	P	Pn	09 13 31.2	+1.2
PTQR	Pietraquaria	2.73	66	*e*PN	Pn	09 13 30.1	-0.7
PTQR	Pietraquaria	2.73	66	P	Pn	09 13 30.2	-0.6
PII	Pisa	2.78	7	*e*PN	Pn	09 13 32.6	+1.1
	216nm,0.5s						
AQU	L’Aquila	2.87	60	*e*PN	Pn	09 13 33.5	+0.7
AQU	L’Aquila	2.87	60	*e*Pn	Pn	09 13 32.8	0.0
AQU	L’Aquila	2.87	60	*e*Pn	Pn	09 13 32.8	0.0
SDI	San Donato	2.93	74	*e*PN	Pn	09 13 32.5	-1.1
	393nm,0.4s						
SDI	San Donato	2.93	74	P	Pn	09 13 32.4	-1.2
SDI	San Donato	2.93	74	*e*Pn	Pn	09 13 32.5	-1.1
	393nm,0.4s						
NRCA	Norcia	2.96	50	*e*PN	Pn	09 13 35.0	+1.0
	94nm,0.4s						
NRCA	Norcia	2.96	50	P	Pn	09 13 35.1	+1.1
MAIM		2.97	6	P	Pn	09 13 35.2	+1.0
MSC	Monte Massico	2.97	84	*e*PN	Pn	09 13 32.5	-1.7
RFI	Roccamonfina	2.99	82	*e*PN	Pn	09 13 33.1	-1.4
RFI	Roccamonfina	2.99	82	P	Pn	09 13 33.2	-1.3
CRE	Caprese Michel	3.01	27	P	Pn	09 13 36.3	+1.6
INTR	Introdacqua	3.08	69	P	Pn	09 13 35.8	+0.1
BDI	Bagni Di Lucca	3.13	7	*e*PN	Pn	09 13 37.5	+1.1
	74nm,0.4s						
BDI	Bagni Di Lucca	3.13	7	P	Pn	09 13 37.6	+1.2
TERO	Teramo	3.13	57	*e*PN	Pn	09 13 37.8	+1.3
SNTG	Esanatoglia	3.15	42	*e*PN	Pn	09 13 37.9	+1.3
SNTG	Esanatoglia	3.15	42	P	Pn	09 13 37.5	+0.9
PGD	Poggio Sodo	3.17	22	*e*PN	Pn	09 13 38.5	+1.6
RNI2	Rionero Sannit	3.18	75	P	Pn	09 13 36.8	-0.3
VINC	Vinca	3.18	1	⇑P	Pn	09 13 38.1	+1.0
VINC				S	Sn	09 14 14.2	-0.9
VINC	Vinca	3.18	1	⇑P	Pn	09 13 38.1	+0.9
VMG	Vicchio	3.20	20	*e*PN	Pn	09 13 39.2	+1.8
VMG	Vicchio	3.20	20	P	Pn	09 13 39.3	+1.9
VLC	Villacollemand	3.21	4	*e*Pn	Pn	09 13 38.4	+0.8
VLC	Villacollemand	3.21	4	*e*Pn	Pn	09 13 38.4	+0.9
SFI	Santa Sofia	3.23	24	*e*PN	Pn	09 13 39.8	+1.9
	241nm,0.8s						
SFI	Santa Sofia	3.23	24	P	Pn	09 13 40.0	+2.1
SARO	Sassorosso	3.23	4	⇑P	Pn	09 13 39.1	+1.2
SARO				S	Sn	09 14 15.3	-1.2
SARO	Sassorosso	3.23	4	⇑P	Pn	09 13 39.1	+1.2
MIDA	Miranda	3.24	76	P	Pn	09 13 36.4	-1.6
CII	Carovilli	3.29	75	*e*PN	Pn	09 13 38.4	-0.3
	343nm,0.8s						
CII	Carovilli	3.29	75	*e*Pn	Pn	09 13 38.2	-0.6
CII	Carovilli	3.29	75	*e*Pn	Pn	09 13 38.2	-0.5
SGG	Gregorio Mates	3.30	81	*e*PN	Pn	09 13 37.7	-1.1
BACM		3.32	0	⇑P	Pn	09 13 40.5	+1.4
BACM				S	Sn	09 14 16.9	-1.7
BACM		3.32	0	⇑P	Pn	09 13 40.5	+1.4
ARV	Arcevia	3.32	39	P	Pn	09 13 39.4	+0.2
IMI	Imperia	3.36	332	⇑*i*PN	Pn	09 13 40.3	+0.7
	229nm,0.4s						
IMI	Imperia	3.36	332	⇑P	Pn	09 13 40.4	+0.8
IMI				S	Sn	09 14 17.4	-2.2
IMI	Imperia	3.36	332	⇑*i*Pn	Pn	09 13 40.3	+0.7
	229nm,0.4s						
NEGI	Negi	3.37	330	⇑P	Pn	09 13 40.5	+0.6
NEGI				S	Sn	09 14 17.8	-2.1
NEGI	Negi	3.37	330	⇑P	Pn	09 13 40.5	+0.7
VALM		3.39	2	P	Pn	09 13 40.1	0.0
FSSB	Fossombrone	3.40	36	*e*PN	Pn	09 13 41.7	+1.5
	165nm,0.5s						
FSSB	Fossombrone	3.40	36	P	Pn	09 13 41.9	+1.7
GSCL	Gusciola	3.41	6	P	Pn	09 13 42.6	+2.2
REVF	Revere	3.42	325	Pg	Pn	09 13 41.4	+0.9
CODM		3.43	358	⇑P	Pn	09 13 41.4	+0.7
CODM				S	Sn	09 14 20.9	-0.6
ZCCA	Zocca	3.46	11	P	Pn	09 13 44.1	+3.0
ERBM	Eremo	3.47	4	*e*PN	Pn	09 13 43.0	+1.8
ERBM	Eremo	3.47	4	P	Pn	09 13 43.3	+2.1
SBF	Sospel	3.49	327	*e*Pn	Pn	09 13 42.4	+0.9
SBF				*e*Sn	Sn	09 14 22.2	-0.7
	4µm,0.7s						
SBF	Sospel	3.49	327	*e*Sn	Sn	09 14 22.2	-0.7
	2µm,0.7s						
ERC	Erice	3.52	145	*e*PN	Pn	09 13 40.9	-1.0
FIN	Finale Ligure	3.52	338	⇑*i*PN	Pn	09 13 42.9	+0.9

	510nm,0.5s						
FIN	Finale Ligure	3.52	338	⇑iPn	Pn	09 13 42.9	+0.9
	510nm,0.5s						
GRAM		3.53	0	⇑P	Pn	09 13 43.8	+1.7
GRAM		3.53	0	⇑P	Pn	09 13 43.8	+1.7
GENL	Genova Univers	3.54	347	P	Pn	09 13 43.1	+0.9
GENL	Genova Univers	3.54	347	P	Pn	09 13 43.1	+0.9
SAOF	Saorge	3.54	329	Pg	Pn	09 13 43.3	+1.0
LMR	La Mourre	3.54	313	ePn	Pn	09 13 42.6	+0.3
LMR				eSn	Sn	09 14 22.8	-1.5
	2µm,0.9s						
LMR	La Mourre	3.54	313	eSn	Sn	09 14 22.8	-1.5
	906nm,0.9s						
MONE	Monesi	3.55	332	⇑P	Pn	09 13 43.3	+0.9
MONE	Monesi	3.55	332	⇑P	Pn	09 13 43.3	+0.9
AUTN	L’Aution	3.60	328	Pg	Pn	09 13 44.3	+1.2
PSB1	Pescosannita	3.61	84	P	Pn	09 13 40.6	-2.6
FRF	La Foret Royal	3.62	317	ePn	Pn	09 13 44.0	+0.6
FRF				eSn	Sn	09 14 26.1	-0.3
	4µm,1.0s						
IPES	Pescosannita	3.62	84	ePN	Pn	09 13 41.9	-1.5
MVIF	Mont Vial	3.64	325	Pg	Pn	09 13 44.9	+1.3
TOUF	Mont Tournerai	3.69	327	Pg	Pn	09 13 45.7	+1.3
ROB	Roburent	3.70	335	⇑P	Pn	09 13 45.8	+1.3
ROB				S	Sn	09 14 27.1	-1.2
ROB	Roburent	3.70	335	⇑P	Pn	09 13 45.8	+1.3
CIGN	Sant’Elia a Pi	3.72	78	P	Pn	09 13 45.0	+0.2
MRB1	Monte Rocchett	3.73	86	P	Pn	09 13 44.7	-0.2
PCP	Pian Castagno	3.75	343	⇑P	Pn	09 13 46.1	+0.9
PCP				S	Sn	09 14 29.1	-0.4
PCP	Pian Castagno	3.75	343	⇑P	Pn	09 13 46.1	+0.9
ENR	Entracque	3.80	330	⇑P	Pn	09 13 47.3	+1.4
ENR	Entracque	3.80	330	⇑P	Pn	09 13 47.3	+1.4
STV	Sta Anna Valdi	3.85	329	⇑P	Pn	09 13 48.1	+1.5
STV				S	Sn	09 14 31.6	-0.5
STV	Sta Anna Valdi	3.85	329	⇑P	Pn	09 13 48.1	+1.4
STV2	Anna di Valdie	3.85	329	⇑P	Pn	09 13 48.0	+1.4
STV2				S	Sn	09 14 31.5	-0.6
STV2	Anna di Valdie	3.85	329	⇑P	Pn	09 13 48.0	+1.3
FG5	Orsara di Pugl	3.96	84	P	Pn	09 13 47.4	-0.7
SGO	Sicignano	4.01	94	ePN	Pn	09 13 46.0	-3.0
	46nm,0.4s						
SGO	Sicignano	4.01	94	ePn	Pn	09 13 46.0	-3.0
	46nm,0.4s						
MRLC	Muro Lucano	4.13	91	P	Pn	09 13 48.5	-2.1
PZZ	Prazzo	4.16	329	⇑P	Pn	09 13 52.4	+1.3
PZZ	Prazzo	4.16	329	⇑P	Pn	09 13 52.4	+1.4
RGNG	Rignano Grg	4.23	78	P	Pn	09 13 50.9	-1.2
SURF	Saint Ours	4.25	327	Pg	Pn	09 13 55.1	+2.7
MGR	Morigerati	4.27	99	P	Pn	09 13 49.5	-3.2
GIB	Gibilmanna	4.27	133	P	Pn	09 13 52.4	-0.3
SLCN	Sala Consilina	4.28	96	P	Pn	09 13 51.1	-1.7
CSLB	Castelbuono	4.33	133	P	Pn	09 13 53.1	-0.3
BHB	Bricherasio	4.39	333	⇑P	Pn	09 13 54.5	+0.3
MBDF	Montbardon	4.47	328	ePn	Pn	09 13 57.4	+1.9
MBDF				ePg	Pn	09 14 17.2	+22
MBDF				eSn	Sn	09 14 48.4	+0.6
	2µm,0.7s						
MBDF	Montbardon	4.47	328	ePn	Pn	09 13 57.4	+1.9
MBDF				eSn	Sn	09 14 48.4	+0.6
	802nm,0.7s						
SMRF	Simiane la Rot	4.48	314	ePn	Pn	09 13 56.8	+1.2
SMRF				eSn	Sn	09 14 46.9	-1.1
	621nm,0.8s						
OG22	Abries	4.49	330	Pg	Pn	09 13 57.1	+1.4
OG25	Le Caire	4.50	321	Pg	Pn	09 13 57.8	+2.0
CUC	Castrocucco	4.50	100	P	Pn	09 13 54.2	-1.7
FENE	Fenestrelle	4.62	333	P	Pn	09 13 58.1	+0.5
FENE	Fenestrelle	4.62	333	P	Pn	09 13 58.2	+0.6
RRL	Cesana Torines	4.63	330	⇑P	Pn	09 13 59.5	+1.8
RRL	Cesana Torines	4.63	330	⇑P	Pn	09 13 59.5	+1.8
SAL	Salo	4.66	4	P	Pn	09 14 00.9	+2.7
RSP	Reno Superiore	4.66	335	⇑P	Pn	09 13 58.6	+0.4
BNI	Bardonecchia	4.78	330	ePn	Pn	09 14 01.9	+2.0
VAE	Valguarnera	4.85	134	Pn	Pn	09 14 04.2	+3.3
	1.2nm,0.3s,baz=254,slow=7.4,SNR=1.9						
VAE				Sn	Sn	09 15 01.0	+3.6
	1.9nm,0.3s,baz=232,slow=17,SNR=2.6						
TRAV		4.85	340	⇑P	Pn	09 14 01.4	+0.5
ORO	Oropa	4.91	343	P	Pn	09 14 03.0	+1.4
ORX	Oropa	4.91	343	P	Pn	09 14 02.9	+1.2
ORI	Oriolo Calabro	4.96	98	P	Pn	09 14 01.8	-0.6
LSD	Ceresole Reale	4.97	336	⇑P	Pn	09 14 03.4	+0.9
VAI	Varese	5.00	350	P	Pn	09 14 05.3	+2.4
ORIF	Oris-en-Rattie	5.00	324	ePn	Pn	09 14 04.7	+1.7
ORIF				ePg	Pn	09 14 24.9	+22
ORIF				eSn	Sn	09 14 59.6	-1.6
	1µm,1.1s						
ORIF				eR			
	1µm,19.6s						
ORIF	Oris-en-Rattie	5.00	324	eP	Pn	09 14 04.7	+1.7
ORIF				e		09 14 59.6	
ORIF	Oris-en-Rattie	5.00	324	eSn	Sn	09 14 59.6	-1.6
	632nm,1.1s						
OCF	Saint Nazaire	5.03	318	Pg	Pn	09 14 04.5	+1.1
OG26	St.-Nazaire-De	5.03	318	Pg	Pn	09 14 04.5	+1.1
MABI	Malga Bissina	5.11	4	P	Pn	09 14 06.7	+2.3
GDM	Grand’Maison	5.13	327	Pg	Pn	09 14 07.7	+2.9
LPG	La Plagne	5.14	333	ePn	Pn	09 14 06.7	+1.8
LPG				ePg	Pn	09 14 28.4	+24
LPG				eSn	Sn	09 15 05.3	+0.7
	1µm,1.0s						
LPG	La Plagne	5.14	333	ePn	Pn	09 14 06.7	+1.8
LPG				eSn	Sn	09 15 05.3	+0.7
	655nm,1.0s						
LPL	La Plagne	5.16	333	ePn	Pn	09 14 07.3	+2.1
LPL				ePg	Pn	09 14 27.0	+22
LPL				eSn	Sn	09 15 05.6	+0.5
	605nm,1.1s						
LPL	La Plagne	5.16	333	eP	Pn	09 14 07.3	+2.1
LPL				e		09 15 05.6	
LPL	La Plagne	5.16	333	eSn	Sn	09 15 05.6	+0.5
	302nm,1.1s						
MCGN	Macugnaga	5.22	344	P	Pn	09 14 07.4	+1.4
CTI	Castel Tesino	5.22	12	P	Pn	09 14 07.4	+1.4
CKFL	Kef-Lekhel	5.24	211	P	Pn	09 14 09.0	+2.6
CEL	Celeste	5.26	119	P	Pn	09 14 05.6	-1.0
MTTG	Motta San Giov	5.27	122	P	Pn	09 14 06.3	-0.5
MMK	Mattmark	5.31	344	⇓P	Pn	09 14 08.8	+1.4
GRN	Grenoble	5.32	325	Pg	Pn	09 14 10.0	+2.6
GRI	Girifalco	5.34	111	P	Pn	09 14 05.9	-1.9
TIP	Timpagrande	5.45	107	ePn	Pn	09 14 06.6	-2.6
TIP	Timpagrande	5.45	107	ePn	Pn	09 14 06.6	-2.6
SOI	Samo	5.46	120	P	Pn	09 14 08.6	-0.9
TRI	Trieste	5.47	28	P	Pn	09 14 09.9	+0.4
DIX	Grande Dixence	5.47	340	⇓P	Pn	09 14 10.8	+1.3
BRMO	Bormio	5.52	2	P	Pn	09 14 12.6	+2.3
LASF	Ste Croix	5.54	306	ePn	Pn	09 14 09.3	-1.2
LASF				eSn	Sn	09 15 11.0	-3.6
	350nm,0.7s						
TUE	Stuetta	5.54	355	P	Pn	09 14 13.3	+2.8
VDL	Val di Lei	5.54	356	⇑P	Pn	09 14 12.8	+2.2
VIVF	Saint-Julien-l	5.55	316	ePg	Pn	09 14 32.2	+22
VIVF				eSn	Sn	09 15 13.3	-1.5
	394nm,0.9s						
VIVF	Saint-Julien-l	5.55	316	Pn	Pn	09 14 10.9	+0.2
EJON	La Jonquera	5.56	288	P	Pn	09 14 09.6	-1.3
EJON				S	Sn	09 15 13.4	-1.9
SJAF	Saint Jean de	5.58	288	Pn	Pn	09 14 09.4	-1.7
APPI	Appiano	5.58	8	P	Pn	09 14 13.1	+1.9
EMV	Vieux Emosson	5.59	337	⇓P	Pn	09 14 14.2	+2.9
LKBD	Leukerbad	5.70	343	⇓P	Pn	09 14 15.7	+2.8
JAVS	Javornik	5.73	29	ePn	Pn	09 14 13.8	+0.5
JAVS				e		09 14 14.6	
CEY	Cerknica	5.75	32	ePn	Pn	09 14 13.6	+0.1
VOY	Vojsko	5.79	28	ePn	Pn	09 14 14.3	+0.2
DAVOX	Davos	5.82	359	Pn	Pn	09 14 17.5	+3.0
	7.5nm,0.3s,baz=176,slow=10,SNR=85						
DAVOX				Sn	Sn	09 15 22.1	+0.4
	baz=329,slow=19,SNR=1.7						
FILF	Fillols	5.83	288	Pn	Pn	09 14 15.1	+0.5
ROBS	Robic	5.85	24	ePn	Pn	09 14 15.1	+0.1
BRES	Bressanone	5.87	11	P	Pn	09 14 17.3	+2.1
OG01	Vacheresse	5.90	337	Pg	Pn	09 14 17.9	+2.3
BOJS	Bojanci	5.92	38	ePn	Pn	09 14 16.7	+0.7
LLS	Linth-Limmern	5.94	353	⇑P	Pn	09 14 19.5	+3.3
LRDF	Laroque-de-Fa	5.94	292	Pn	Pn	09 14 15.0	-1.2
PTCC	Patocco-Chiusa	5.95	23	P	Pn	09 14 16.6	+0.3
FVI	Forni Avoltri	5.97	18	P	Pn	09 14 17.8	+1.1
SEST	Monte Rota	6.00	14	P	Pn	09 14 19.7	+2.7
OG05	Jujurieux	6.08	328	Pg	Pn	09 14 23.0	+4.8
MUO	Muotathal	6.09	351	⇑P	Pn	09 14 21.7	+3.3
VALF	Valcebollere	6.18	286	Pn	Pn	09 14 19.3	-0.4
CARF	Carcanieres	6.19	289	Pn	Pn	09 14 18.8	-0.9
CMER	Merouana	6.25	213	P	Pn	09 14 23.0	+2.4
MTLF	Montolieu	6.29	295	ePn	Pn	09 14 18.8	-2.3
MTLF				eSn	Sn	09 15 28.2	-5.2
	510nm,0.6s						
MTLF	Montolieu	6.29	295	eSn	Sn	09 15 28.2	-5.2
	255nm,0.6s						
SQTA	Sankt Quirin	6.32	7	⇑iP	Pn	09 14 24.1	+2.6
	58nm,1.2s						
DAVA	Damuels	6.33	359	⇑iP	Pn	09 14 24.8	+3.1
	60nm,0.6s						
CABF	La Chapelle	6.34	334	ePn	Pn	09 14 22.0	+0.2
CABF				eSn	Sn	09 15 33.5	-1.1
	610nm,1.3s						
LPEF	Le Peyrat	6.39	291	Pn	Pn	09 14 21.7	-0.8
WTTA	Wattenberg	6.41	10	⇑iP	Pn	09 14 25.0	+2.2
	50nm,0.8s						
WTTA	Wattenberg	6.41	10	⇑iP	Pn	09 14 25.0	+2.2
WTTA				pmax	pmax		
	comp=Z,50nm,0.8s						
MOTA	Moosalm	6.43	6	⇑iP	Pn	09 14 25.8	+2.7
	comp=Z,43nm,1.0s						
MOTA	Moosalm	6.43	6	⇑iP	Pn	09 14 25.8	+2.7
MOTA				pmax	pmax		
	comp=Z,43nm,1.0s						
OBKA	Obir	6.43	29	⇑iP	Pn	09 14 25.4	+2.2
	comp=Z,34nm,1.1s						
TREB	Trebinje	6.44	71	P	Pn	09 14 21.7	-1.6
WATA	Walderalm	6.47	9	⇑iP	Pn	09 14 25.9	+2.2
	comp=Z,19nm,0.7s						
WATA	Walderalm	6.47	9	⇑iP	Pn	09 14 25.9	+2.2
WATA				pmax	pmax		
	comp=Z,19nm,0.7s						
GOLS	Golise	6.47	37	P	Pn	09 14 24.3	+0.5
EMIR	Miracle	6.48	281	P	Pn	09 14 24.2	+0.4
EMIR				S	Sn	09 15 36.4	-1.7
EMIR	Miracle	6.48	281	P	Pn	09 14 24.2	+0.4
	comp=Z,46nm,0.3s,SNR=15						
ZUR	Zurich	6.50	351	⇓P	Pn	09 14 26.5	+2.4
COLF	Collangettes	6.50	317	Pg	Pn	09 14 25.0	+0.8
WILA	Wila	6.51	353	⇑P	Pn	09 14 25.9	+1.7
DOBS	Dobrina	6.51	35	P	Pn	09 14 24.7	+0.4
LBL	Lubilhac	6.56	313	Pn	Pn	09 14 25.7	+0.7
KBA	Koelnbreinsper	6.56	20	⇑iP	Pn	09 14 27.1	+2.1
	comp=Z,52nm,1.0s						
KBA	Koelnbreinsper	6.56	20	⇑iP	Pn	09 14 27.1	+2.1
KBA				pmax	pmax		
	comp=Z,52nm,1.0s						
SULZ	Sulz-Cheisache	6.71	349	⇑P	Pn	09 14 28.5	+1.4
UBR	Uberruh	6.72	0	eP	Pn	09 14 28.6	+1.4
UBR	Uberruh	6.72	0	P	Pn	09 14 29.3	+2.1
PERS	Pernice	6.75	31	ePn	Pn	09 14 29.5	+1.8
BBS	Basel-Blauen	6.76	345	⇓eP	Pn	09 14 29.4	+1.7
BBS	Basel-Blauen	6.76	345	Pn	Pn	09 14 28.3	+0.6
GROS	Grobnik	6.77	34	P	Pn	09 14 29.5	+1.6
EPOB	Poblet	6.78	276	P	Pn	09 14 28.9	+0.8
EPOB				S	Sn	09 15 42.8	-3.0
EPOB	Poblet	6.78	276	P	Pn	09 14 28.9	+0.8
LOMF	Lomont	6.80	341	Pn	Pn	09 14 29.4	+1.1
PLDF	La Plantade	6.85	319	Pn	Pn	09 14 31.3	+2.2
ABA	Alger-Bouzarea	6.87	235	P	Pn	09 14 28.6	-0.7
SLE	Schleitheim	6.90	351	⇓P	Pn	09 14 30.2	+0.5
EIBI	Ibiza	6.96	257	P	Pn	09 14 32.2	+1.7
EIBI				S	Sn	09 15 46.6	-3.6
EIBI	Ibiza	6.96	257	P	Pn	09 14 32.2	+1.6
	comp=Z,162nm,0.5s,SNR=23						
MLS	Moulis	6.97	290	Pn	Pn	09 14 29.9	-0.8
PYM	Petit Puy Mans	7.02	315	Pn	Pn	09 14 31.5	+0.1
FRNF	Fournols	7.04	311	Pg	Pn	09 14 31.7	0.0
FELD	Feldberg	7.07	349	⇓eP	Pn	09 14 33.2	+1.1
FELD	Feldberg	7.07	349	Pn	Pn	09 14 32.7	+0.6
CAF	Calviac	7.07	307	ePn	Pn	09 14 31.2	-1.0
CAF				eSn	Sn	09 15 48.8	-4.3
	comp=Z,197nm,0.7s						
GUT	Gutenstein	7.14	355	⇓eP	Pn	09 14 33.9	+0.8
GUT	Gutenstein	7.14	355	P	Pn	09 14 34.0	+0.8
AGO	Saint Agoulin	7.16	318	Pn	Pn	09 14 35.0	+1.7
KIZ	Kirchzarten	7.16	348	⇓eP	Pn	09 14 34.1	+0.7
MELF	Melles	7.19	288	Pn	Pn	09 14 35.6	+1.8
SPAK	Spaichingen	7.20	353	eP	Pn	09 14 34.9	+1.0
MOF	Molkenrain	7.20	344	Pn	Pn	09 14 34.4	+0.4
HINF	Hinteralfeld	7.23	343	ePn	Pn	09 14 34.4	0.0
HINF				eSn	Sn	09 15 54.2	-2.7
	comp=Z,85nm,0.9s						
EBR	Ebro Roquetas	7.24	272	i PN	Pn	09 14 34.5	-0.1
EBR				eRs		09 15 50.5	
SMF	Signal de Mont	7.24	324	ePn	Pn	09 14 33.9	-0.7
SMF				eSn	Sn	09 15 52.7	-4.6
	comp=Z,120nm,0.7s						
VERF	Verneugheol	7.30	313	Pn	Pn	09 14 35.6	+0.2
EMHD	Djebel Mahouad	7.31	232	P	Pn	09 14 37.0	+1.5
ERTA	Horta de San J	7.36	273	P	Pn	09 14 36.4	+0.2
ERTA				S	Sn	09 15 56.3	-3.8
ERTA	Horta de San J	7.36	273	P	Pn	09 14 36.3	+0.2
LIBD	Limburg	7.40	347	eP	Pn	09 14 37.7	+0.9
EGRA	Graus	7.40	283	P	Pn	09 14 37.2	+0.4
EGRA				S	Sn	09 15 57.1	-4.2
EGRA	Graus	7.40	283	P	Pn	09 14 37.2	+0.4
	comp=Z,33nm,0.6s,SNR=9.8						
ARSA	Arzberg	7.42	30	⇑iP	Pn	09 14 38.5	+1.5
	comp=Z,154nm,1.2s						
BFO	Black Forest	7.47	351	eP	Pn	09 14 38.2	+0.4
BFO	Black Forest	7.47	351	P	Pn	09 14 38.5	+0.7
RESF	Ens	7.48	287	Pn	Pn	09 14 38.2	+0.3
BUCH	Bad Urach	7.51	356	eP	Pn	09 14 39.9	+1.6
BUCH	Bad Urach	7.51	356	P	Pn	09 14 41.3	+3.0
MOA	Molln	7.52	22	⇑iP	Pn	09 14 39.3	+0.9
	comp=Z,30nm,0.7s						
EPF	Esparros	7.52	289	ePn	Pn	09 14 36.3	-2.2
EPF				eSn	Sn	09 15 57.3	-7.0
	comp=Z,112nm,0.6s						
HAU	Haudompre	7.53	341	ePn	Pn	09 14 38.6	+0.1
HAU				eSn	Sn	09 16 00.7	-3.7
	comp=Z,95nm,0.6s						
HAU				eR			
	comp=Z,1µm,20.9s						
ECH	Echery	7.54	345	Pn	Pn	09 14 39.3	+0.5
AVF	Avril sur Loir	7.57	323	ePn	Pn	09 14 38.5	-0.7
AVF				eSn	Sn	09 16 00.9	-4.7
	comp=Z,66nm,0.8s						
EBIE	Bielsa	7.60	286	P	Pn	09 14 40.0	+0.4
EBIE				S	Sn	09 16 01.0	-5.2
EBIE	Bielsa	7.60	286	P	Pn	09 14 40.0	+0.5
RJF	Les Rejaudoux	7.60	308	ePn	Pn	09 14 38.6	-1.0
RJF				eSn	Sn	09 16 00.8	-5.5
	comp=Z,168nm,0.7s						
RJF				eR			
	comp=Z,1µm,23.6s						
HDH	Heidenheim	7.63	1	⇓eP	Pn	09 14 39.8	-0.1
BGF	Bois d’Agland	7.65	319	ePn	Pn	09 14 40.1	-0.1
WLS	Welschbruch	7.70	346	Pn	Pn	09 14 40.7	-0.2
CDF	Champ du Feu	7.71	346	ePn	Pn	09 14 41.1	0.0
SSF	Saint Saulge	7.71	324	ePn	Pn	09 14 40.4	-0.7
SSF				eSn	Sn	09 16 04.8	-4.1
	comp=Z,60nm,0.6s						
VIEF	Viey	7.72	288	Pn	Pn	09 14 41.9	+0.7
LBG	Lerchenberg	7.76	354	⇓eP	Pn	09 14 42.1	+0.3
LBG	Lerchenberg	7.76	354	P	Pn	09 14 43.1	+1.3
RHK1	Bakonya	7.77	46	⇓eP	Pn	09 14 41.0	-0.9
TCF	Toulx Ste Croi	7.79	316	ePn	Pn	09 14 41.2	-1.0
THEF	They Montfort	7.82	340	Pn	Pn	09 14 42.9	+0.2
STU	Stuttgart	7.84	356	eP	Pn	09 14 43.6	+0.7
LFF	La Frestale	7.90	303	ePn	Pn	09 14 42.0	-1.8
LFF				eSn	Sn	09 16 08.6	-5.2
	comp=Z,202nm,0.7s						
ESAC	San Caprasio	7.95	279	P	Pn	09 14 44.7	+0.2
ESAC				S	Sn	09 16 15.7	+0.7
ESAC	San Caprasio	7.95	279	P	Pn	09 14 44.7	+0.2
	comp=Z,9.0nm,0.2s,SNR=5.3						
ESAC				S	Sn	09 16 15.7	+0.7
DIVS	Divcibare	7.98	64	⇑iPn	Pn	09 14 43.3	-1.7
EMOS	Mosqueruela	8.02	269	P	P	09 14 45.0	-0.5
EMOS				S	Sn	09 16 14.3	-2.5
EMOS	Mosqueruela	8.02	269	P	P	09 14 45.0	-0.4
	comp=Z,9.6nm,0.3s,SNR=36						
SFTF	Sexfontaines	8.08	335	ePn	P	09 14 46.2	0.0
SFTF				eSn	Sn	09 16 15.3	-2.9
	comp=Z,116nm,0.9s						
EBNR	Beni Rached	8.13	238	P	P	09 14 48.0	+1.0
ETSF	Etsaut	8.14	287	ePn	P	09 14 46.6	-0.5
ETSF				eSn	Sn	09 16 13.3	-6.5
	comp=Z,219nm,0.8s						
PKSM	Moragy	8.15	47	P	P	09 14 48.0	+0.8
LANF	Langenberg	8.18	350	Pn	P	09 14 47.6	0.0
SOP	Sopron	8.18	33	⇓i	P	09 14 48.5	+0.8
EBEN	Beniarda	8.22	257	P	P	09 14 49.4	+1.2
EBEN				S	Sn	09 16 19.0	-2.7
EBEN	Beniarda	8.22	257	P	P	09 14 49.4	+1.2
	comp=Z,188nm,0.7s,SNR=36						
HYF	Humbligny	8.26	322	ePn	P	09 14 49.1	+0.4
GEC2	GERESS Array S	8.30	17	eP	P	09 14 48.8	-0.5
GERES	GERESS Array B	8.30	17	Pn	P	09 14 48.7	-0.6
	comp=Z,1.7nm,0.3s,baz=193,slow=13,SNR=50						
ECHA	Ech Chlef	8.32	238	P	P	09 14 50.0	+0.4
RFYF	Reffroy	8.33	339	ePn	P	09 14 49.6	-0.1
RFYF				eSn	Sn	09 16 21.3	-3.1
	comp=Z,51nm,0.7s						
MEZF	Maizieres J’vi	8.34	336	ePn	P	09 14 50.2	+0.4
WET	Wettzell	8.43	13	P	P	09 14 53.4	+2.3
WET	Wettzell	8.43	13	eP	P	09 14 51.1	0.0
KTD	Kalmit	8.48	351	Pn	P	09 14 51.9	+0.1
KHC	Kasperske Hory	8.54	16	eP	P	09 14 52.0	-0.7
KHC				ex	x	09 14 56.0	
KHC				x	x	09 15 12.5	
KHC	Kasperske Hory	8.54	16	P	P	09 14 53.0	+0.3
VKA	Vienna	8.56	29	⇓iP	P	09 14 52.8	-0.1
SJPF	Ste Jean	8.66	288	ePn	P	09 14 53.8	-0.6
SJPF				eSn	Sn	09 16 24.3	-8.4
	comp=Z,201nm,1.0s						
GRA1	Grafenberg Arr	8.77	5	eP	P	09 14 55.8	-0.1
GRF	Grafenberg Arr	8.77	5	eP	P	09 14 55.8	-0.1
ZST	Bratislava	8.81	32	i PN	P	09 14 57.1	+0.7
EALK	Alkurruntz	8.89	289	P	P	09 14 56.8	-0.6
EALK				S	Sn	09 16 36.5	-1.8
RUP	Ruppelstein	8.99	347	eP	P	09 14 59.7	+0.8
ABH	Alteburg	9.10	350	⇓eP	P	09 15 00.7	+0.4
ABH	Alteburg	9.10	350	Pn	P	09 14 59.9	-0.4
WLF	Walferdange	9.13	344	ePn	P	09 15 00.0	-0.8
WLF	Walferdange	9.13	344	P	P	09 15 01.1	+0.3
SMOL	Smolenice	9.20	32	ePN	P	09 15 02.0	+0.3
CART	Cartagena	9.21	252	ePn	P	09 15 01.8	-0.1
CART	Cartagena	9.21	252	ePn	P	09 15 01.8	-0.1
KRUC	Moravsky	9.26	27	P	P	09 15 02.5	-0.1
EMUR	La Murta	9.28	254	P	P	09 15 04.2	+1.3
EMUR				S	Sn	09 16 44.7	-3.2
EMUR	La Murta	9.28	254	P	P	09 15 04.2	+1.4
MFF	Saint Martin d	9.28	311	ePn	P	09 15 01.3	-1.6
MFF				eSn	Sn	09 16 40.6	-7.4
	comp=Z,98nm,0.9s						
NKC	Novy Kostel	9.43	9	eP	P	09 15 05.3	+0.4
NKC				AMS	AMS	09 19 50.0	
	comp=Z,3µm,10.2s						
VRAC	Vranov	9.54	27	Pn	P	09 15 05.6	-0.8
	comp=Z,1.0nm,0.3s,baz=212,slow=12,SNR=26						
GUNZ	Gunzen	9.54	9	eP	P	09 15 06.2	-0.2
PRU	Pruhonice	9.56	18	eP	P	09 15 05.5	-1.2
PRU				ex	x	09 15 13.7	
JAVC	Velka Javorina	9.57	32	P	P	09 15 08.0	+1.2
WERD	Werda	9.62	9	eP	P	09 15 08.1	+0.6
MOX	Moxa	9.75	6	i P	P	09 15 09.1	-0.2
MOX				L		09 20 03.0	
MOX	Moxa	9.75	6	eP	P	09 15 09.1	-0.2
VYHS	Vyhne	9.79	37	i PN	P	09 15 10.1	+0.3
GIVF	Givet	9.85	340	ePn	P	09 15 10.5	-0.2
PSZ	Piszkesteto	9.89	42	⇓e	P	09 15 13.2	+1.9
PSZ	Piszkesteto	9.89	42	ePn	P	09 15 10.2	-1.1
PSZ				⇓eP		09 15 13.2	
PSZ	Piszkesteto	9.89	42	ePn	P	09 15 10.2	-1.1
PSZ	Piszkesteto	9.89	42	⇓eP	P	09 15 13.2	+1.9
EVIA	Vianos	9.94	261	P	P	09 15 13.1	+1.2
EVIA				S	Sn	09 17 00.3	-3.8
EVIA				pmax	pmax		
	comp=Z,196nm,0.7s						
EVIA	Vianos	9.94	261	P	P	09 15 13.1	+1.3
	comp=Z,196nm,0.7s						
EVIA				S	Sn	09 17 00.3	-3.8
EVIA	Vianos	9.94	261	P	P	09 15 13.1	+1.2
	comp=Z,196nm,0.7s						
BAIF	Baives	9.98	338	ePn	P	09 15 12.2	-0.2
MEM	Membach	10.05	345	P	P	09 15 13.9	+0.4
MORC	Moravsky Berou	10.27	28	eP	P	09 15 16.0	-0.4
ELAN	Lanestosa	10.28	287	P	P	09 15 15.8	-0.7
ELAN				S	S	09 17 12.8	+0.3
ELAN	Lanestosa	10.28	287	S	S	09 17 12.8	+0.3
BRG	Berggiesshubel	10.28	14	eP	P	09 15 16.4	-0.2
ENIJ	Nijar	10.34	251	P	P	09 15 18.5	+1.1
	comp=Z,25nm,0.5s,SNR=7.9						
DPC	Dobruska-Polom	10.36	23	eP	P	09 15 17.6	-0.1
DPC				AMS	AMS	09 20 40.0	
	comp=Z,2µm,11.7s						
DPC	Dobruska-Polom	10.36	23	P	P	09 15 18.2	+0.5
UPC	Upice	10.41	22	eP	P	09 15 19.9	+1.5
LDF	La Druitiere	10.51	320	ePn	P	09 15 18.8	-0.9
OKC	Ostrava-Krasne	10.54	30	eP	P	09 15 20.7	+0.6
OKC	Ostrava-Krasne	10.54	30	P	P	09 15 21.0	+0.9
CLL	Collm	10.55	10	eP	P	09 15 19.0	-1.3
CLL				pmax	pmax		
	comp=Z,14nm,1.0s						
CLL	Collm	10.55	10	eP	P	09 15 19.0	-1.3
	comp=Z,14nm,1.0s						
CLL				e		09 15 28.0	
CLL	Collm	10.55	10	P	P	09 15 19.0	-1.3
	comp=Z,logA/T=1.1						
CLL				e		09 15 28.0	
CLL				eL		09 18 30.0	
CLL	Collm	10.55	10	eP	P	09 15 19.3	-1.0
EQES	Quesada	10.63	257	P	P	09 15 24.8	+3.3
EQES				S	S	09 17 18.3	-2.9
EQES	Quesada	10.63	257	P	P	09 15 24.5	+3.0
	comp=Z,90nm,0.9s,SNR=7.9						
GRR	Gorron	10.74	317	ePn	P	09 15 22.8	-0.1
ESDC	Sonseca Array	10.78	268	Pn	P	09 15 21.7	-1.8
	comp=Z,3.5nm,0.3s,baz=75,slow=14,SNR=44						
ESDC	Sonseca Array	10.78	268	P	P	09 15 24.0	+0.5
	comp=Z,91nm,1.1s						
ESDC	Sonseca Array	10.78	268	P	P	09 15 24.0	+0.6
	comp=Z,91nm,1.1s						
ESLA	Sonseca Array	10.78	268	eP	P	09 15 21.3	-2.2
KSP	Ksiaz	10.80	22	eP	P	09 15 24.6	+1.0
FLN	La Foliniere	10.80	320	ePn	P	09 15 22.5	-1.2
FLN				eR			
	comp=Z,2µm,17.0s						
EBER	Berja	10.86	252	P	P	09 15 26.5	+1.9
	comp=Z,21nm,0.7s						
EBER				S	S	09 17 23.2	-3.6
EBER	Berja	10.86	252	P	P	09 15 26.5	+1.9
	comp=Z,5.9nm,0.4s,SNR=6.5						
NIE	Niedzica	11.13	37	eP	P	09 15 30.0	+1.8
CRVS	Cervenica-Dubn	11.33	42	i PN	P	09 15 32.3	+1.4
CRVS				e		09 16 31.1	
ERON	Agron	11.48	254	P	P	09 15 37.7	+4.7
	comp=Z,25nm,0.6s						
OJC	Ojcow	11.50	33	eP	P	09 15 33.1	-0.1
SGMF	Saint Gilles	11.56	313	ePn	P	09 15 31.4	-2.7
SGMF				eSn	S	09 17 37.9	-6.0
	comp=Z,109nm,1.2s						
EARI	Arriondas	11.57	287	P	P	09 15 32.7	-1.5
EARI				S	S	09 17 38.5	-5.6
ELUQ	Luque	11.61	258	P	P	09 15 37.2	+2.5
	comp=Z,30nm,0.6s,SNR=7.9						
EADA	Adamuz	11.63	261	P	P	09 15 34.9	-0.1
	comp=Z,8.1nm,0.5s						
EADA	Adamuz	11.63	261	P	P	09 15 34.9	-0.1
	comp=Z,7.4nm,0.4s,SNR=15						
ELOJ	Sierra Loja	11.68	256	P	P	09 15 38.8	+3.1
ELOJ				pmax	pmax		
	comp=Z,41nm,0.7s						
ELOJ	Sierra Loja	11.68	256	P	P	09 15 38.8	+3.1
	comp=Z,41nm,0.7s						
ELOJ	Sierra Loja	11.68	256	P	P	09 15 38.8	+3.1
	comp=Z,35nm,0.6s,SNR=35						
QUIF	Quistinic	11.72	311	ePn	P	09 15 33.8	-2.5
KOLS	Kolonicke sedl	11.76	43	eP	P	09 15 45.0	+8.2
ROSF	Rostrenen	12.01	312	ePn	P	09 15 38.1	-2.0
ROSF				eSn	S	09 17 47.1	-7.6
	comp=Z,267nm,1.6s						
EMIJ	Mijas	12.37	254	P	P	09 15 50.7	+5.6
	comp=Z,44nm,1.0s						
KWP	Kalwaria	12.42	41	P	P	09 15 46.6	+1.0
MLR	Muntele Rosu	12.45	63	Pn	P	09 15 46.7	+0.7
	comp=Z,0.3nm,0.3s,baz=114,slow=17,SNR=7.5						
PBRG	Braganca	12.64	279	eP	P	09 15 49.0	+0.3
LIJA	Lijar	12.69	256	i P	P	09 15 52.8	+3.5
EPON	Pontenova	12.98	286	P	P	09 15 51.5	-1.6
EPON				S	S	09 18 14.5	-3.8

ESPR	**Espera**	**13.04**	**257**	P	**P**	**09 15 57.6**	**+3.6**
	comp=Z,6.6nm,0.4s						
EINC	**Incio**	**13.10**	**283**	P	**P**	**09 15 53.4**	**-1.3**
	comp=Z,9.6nm,0.7s						
EBAD	**Badajoz**	**13.30**	**266**	P	**P**	**09 15 56.9**	**-0.4**
	comp=Z,4.9nm,0.5s						
EBAD	**Badajoz**	**13.30**	**266**	P	**P**	**09 15 56.9**	**-0.4**
	comp=Z,4.9nm,0.5s						
EMIN	**Mina Concepcio**	**13.33**	**262**	P	**P**	**09 15 59.3**	**+1.6**
	comp=Z,14nm,0.9s						
EMIN	**Mina Concepcio**	**13.33**	**262**	P	**P**	**09 15 59.3**	**+1.6**
	comp=Z,14nm,0.9s						
PCBR	**Castelo Branco**	**13.41**	**271**	*e*P	**P**	**09 15 59.1**	**+0.3**
EVO	**Evora**	**14.11**	**266**	*e*Pn	**P**	**09 16 05.2**	**-2.8**
PTOM	**Tomar**	**14.16**	**271**	*e*P	**P**	**09 16 09.7**	**+1.1**
KIS	**Kishinev**	**14.79**	**60**	*e*P	**P**	**09 16 23.0**	**+6.2**
SUW	**Suwalki**	**15.75**	**30**	P	**P**	**09 16 29.5**	**+0.2**
AKASG	**Malin Array Be**	**16.49**	**47**	Pn	**P**	**09 16 39.2**	**+0.4**
	comp=Z,1.6nm,0.3s,baz=242,slow=11,SNR=20						
AKASG	**Malin Array Be**	**16.49**	**47**	P	**P**	**09 16 39.2**	**+0.4**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
EKA	**Eskdalemuir Ar**	**16.82**	**333**	Pn	**P**	**09 16 44.8**	**+1.8**
	comp=Z,0.4nm,0.3s,baz=142,slow=13,SNR=13						
BRTR	**Keskin Array B**	**18.02**	**86**	P	**P**	**09 16 59.1**	**+1.1**
	comp=Z,0.2nm,0.3s,baz=309,slow=7.9,SNR=4.4						
HFS	**Hagfors**	**19.33**	**6**	P	**P**	**09 17 13.4**	**-0.4**
	comp=Z,0.2nm,0.3s,baz=194,slow=12,SNR=24						
NAO01	**NORSAR Array S**	**19.92**	**1**	*e*P	**P**	**09 17 20.9**	**+0.6**
	comp=Z,30nm,0.9s						
NAO01	**NORSAR Array S**	**19.92**	**1**	*e*P	**P**	**09 17 20.9**	**+0.5**
	comp=Z,30nm,0.9s						
NB2	**NORSAR Subarra**	**20.12**	**2**	P	**P**	**09 17 23.0**	**+0.5**
	comp=Z,23nm,0.7s,baz=177,slow=10						
NB2	**NORSAR Subarra**	**20.12**	**2**	P	**P**	**09 17 23.0**	**+0.5**
NB2				pmax	pmax		
	comp=Z,23nm,0.7s						
NOA	**NORSAR Array B**	**20.12**	**2**	P	**P**	**09 17 22.9**	**+0.4**
	comp=Z,13nm,0.7s,baz=189,slow=7.6,SNR=27						
VSU	**Vasula**	**20.47**	**26**	⇓*e*P	**P**	**09 17 27.2**	**+1.0**
MALT	**Malatya**	**21.98**	**88**	*e*P	**P**	**09 17 42.1**	**+0.5**
MALT				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.2						
MALT	**Malatya**	**21.98**	**88**	*e*P	**P**	**09 17 42.1**	**+0.6**
	comp=Z,9.3nm,1.0s,mb4.2						
OBN	**Obninsk**	**22.51**	**42**	*e*P	**P**	**09 17 46.8**	**+0.1**
OBN				*e*		09 18 11.8	
OBN				*e*		09 21 40.6	
OBN				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.7						
OBN	**Obninsk**	**22.51**	**42**	*e*P	**P**	**09 17 46.9**	**+0.2**
	comp=Z,30nm,0.8s,mb4.8						
OBN	**Obninsk**	**22.51**	**42**	*e*P	**P**	**09 17 46.9**	**+0.2**
	comp=Z,30nm,0.8s,mb4.8						
VRSR	**Storozhevoye**	**22.52**	**53**	*e*P	**P**	**09 17 46.6**	**-0.3**
VRSR				*e**PP		09 17 52.3	
VRSR				*e*PPP	PPP	09 18 12.6	-12
VRSR				*e*S	**S**	**09 21 44.4**	**-4.0**
VRSR				*e*SSS	SSS	09 22 39.3	-5.8
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.2						
VRSR				pmax	pmax		
	comp=N,8.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.0s						
VRSR				smax			
	comp=N,2.0nm,0.4s						
VRSR				smax			
	comp=Z,2.0nm,0.5s						
VRSR				smax			
	comp=E,6.0nm,0.6s						
FINES	**FINESS Array B**	**22.71**	**20**	P	**P**	**09 17 49.3**	**+0.7**
	comp=E,12nm,0.8s,mb4.4,baz=214,slow=6.9,SNR=22						
EIL	**Elat**	**23.15**	**111**	P	**P**	**09 17 54.5**	**+1.3**
	comp=E,11nm,1.1s,mb4.2,baz=329,slow=15,SNR=4.5						
EIL	**Elat**	**23.15**	**111**	*e*P	**P**	**09 17 55.7**	**+2.5**
	comp=E,22nm,1.2s,mb4.5						
MOS	**Moscow**	**23.34**	**41**	*e*P	**P**	**09 17 54.8**	**+0.1**
MOS				*e*		09 21 55.5	
MOS				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.0						
KAF	**Kangasniemi**	**23.34**	**19**	*e*p	**P**	**09 17 55.7**	**+1.0**
	comp=Z,9.9nm,0.7s,mb4.3						
KAF	**Kangasniemi**	**23.34**	**19**	*e*P	**P**	**09 17 55.7**	**+1.0**
KAF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.3						
KIV	**Kislovodsk**	**24.18**	**72**	⇓*e*P	**P**	**09 18 06.0**	**+2.9**
KIV				*i*		09 18 14.9	
KIV				*e*		09 18 34.2	
KIV				S	**S**	**09 22 21.2**	**+3.7**
KIV				pmax	pmax		
	comp=Z,58nm,2.5s,mb4.6						
KIV				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.1						
GOF	**Gofitskoye**	**24.37**	**69**	⇑*i*P	**P**	**09 18 06.5**	**+1.6**
GOF				pmax	pmax		
	comp=Z,80nm,1.6s,mb4.9						
ZEI	**Tsey**	**25.18**	**75**	*e*P	**P**	**09 18 13.7**	**+1.0**
ZEI				*i*		09 18 48.5	
ZEI				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.5						
GNI	**Garni**	**26.27**	**80**	P	**P**	**09 18 25.0**	**+2.1**
	comp=Z,16nm,0.8s,mb4.6,baz=116,slow=1.7,SNR=13						
GNI	**Garni**	**26.27**	**80**	*e*P	**P**	**09 18 25.0**	**+2.1**
GNI				pmax	pmax		
	comp=Z,119nm,1.4s						
GNI				MLR	MLR		
	comp=Z,1μm,20.0s						
GNI	**Garni**	**26.27**	**80**	*e*P	**P**	**09 18 25.0**	**+2.0**
	comp=Z,119nm,1.4s,mb5.2						
GNI				LR	LR		
	comp=Z,1μm,20.0s,MS4.5						
ARCES	**ARCESS Array B**	**29.77**	**11**	P	**P**	**09 18 53.0**	**-1.3**
	comp=Z,4.8nm,0.8s,mb4.3,baz=180,slow=1.2,SNR=8.6						
ARCES				PcP	PcP	09 21 56.5	-1.6
	comp=Z,2.2nm,0.7s,baz=180,slow=3.6,SNR=4.2						
ARU	**Arti**	**34.75**	**47**	⇓*i*P	**P**	**09 19 37.6**	**-0.3**
ARU				*e*		09 20 52.0	
ARU				*e*		09 22 10.4	
ARU				*e*S	**S**	**09 25 05.2**	**-1.4**
ARU				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
ARU	**Arti**	**34.75**	**47**	*e*P	**P**	**09 19 37.9**	**-0.1**
	comp=Z,47nm,1.1s,mb5.3						
ARU				LR	LR		
	comp=Z,1μm,19.0s,MS4.6						
ARU	**Arti**	**34.75**	**47**	*e*P	**P**	**09 19 37.9**	**0.0**
	comp=Z,47nm,1.1s,mb5.3						
DBIC	**Dimbokro**	**36.65**	**205**	P	**P**	**09 19 54.5**	**+0.1**
	comp=Z,5.3nm,0.5s,mb4.6,baz=0.6,slow=9.2,SNR=18						
DBIC				LR	LR	09 35 56.4	
	comp=Z,283nm,18.2s,MS4.1,baz=160,slow=38						
DBIC	**Dimbokro**	**36.65**	**205**	P	**P**	**09 19 54.5**	**+0.1**
BRVK	**Borovoye**	**41.62**	**52**	*e*P	**P**	**09 20 36.0**	**+0.7**
BRVK				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.0						
BRVK	**Borovoye**	**41.62**	**52**	*e*P	**P**	**09 20 36.0**	**+0.7**
	comp=Z,33nm,0.9s,mb5.0						
BVA0	**Borovoye Array**	**41.69**	**52**	*i* P	**P**	**09 20 37.2**	**+1.4**
BVA0				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb3.9						
BVAR	**Borovoye Array**	**41.69**	**52**	P	**P**	**09 20 37.3**	**+1.4**
	comp=Z,7.4nm,0.7s,mb4.4,baz=281,slow=7.6,SNR=52						
AAK	**Ala-Archa**	**47.02**	**66**	*e*P	**P**	**09 21 18.9**	**0.0**
AAK				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.7						
AAK	**Ala-Archa**	**47.02**	**66**	*e*P	**P**	**09 21 18.9**	**0.0**
	comp=Z,13nm,1.4s,mb4.7						
KMBO	**Kilima Mbogo**	**48.65**	**142**	P	**P**	**09 21 32.9**	**+0.9**
	comp=Z,0.6nm,0.6s,mb3.8,baz=48,slow=22,SNR=3.1						
NVS	**Novosibirsk**	**48.75**	**47**	*i* P	**P**	**09 21 32.2**	**0.0**
NVS				pmax	pmax		
	comp=N,11nm,1.0s						
NVS				pmax	pmax		
	comp=E,14nm,1.0s						
NVS				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
ZAL	**Zalesovo**	**49.88**	**48**	P	**P**	**09 21 41.5**	**+0.6**
	comp=Z,2.4nm,0.6s,mb4.4,baz=183,slow=8.0,SNR=14						
MKAR	**Makanchi Array**	**50.72**	**58**	*i* P	**P**	**09 21 47.6**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,17nm,1.1s						
SCHQ	**Schefferville**	**50.80**	**313**	P	**P**	**09 21 48.6**	**+0.7**
	comp=Z,20nm,0.8s,mb5.1,baz=70,slow=6.6,SNR=21						
WMQ	**Urumqi**	**55.40**	**59**	⇑P	**P**	**09 22 24.3**	**+2.0**
WMQ				AP	pP	09 22 28.6	+1.7
WMQ				XP	sP	09 22 31.3	+2.6
WMQ				PCP	PcP	09 23 24.3	+1.8
WMQ				PP	PP	09 24 29.3	+1.6
WMQ				S	**S**	**09 30 06.3**	**+1.9**
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.5						
WMQ				AMB	AMB		
	comp=Z,803nm,6.3s						
WMQ				LR	LR		
	comp=N,444nm,17.3s,MS4.9						
WMQ				LR	LR		
	comp=E,815nm,16.7s,MS4.9						
WMQ				LR	LR		
	comp=Z,901nm,16.7s,MS4.9						
ACCN	**Adirondack Com**	**59.51**	**303**	*e*P	**P**	**09 22 52.9**	**+1.6**
TIXI	**Tiksi**	**59.75**	**19**	*e*P	**P**	**09 22 53.3**	**+0.7**
TIXI				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.8						
TLY	**Talaya**	**61.22**	**45**	*i* P	**P**	**09 23 04.1**	**+1.2**
TLY				pmax	pmax		
	comp=Z,17nm,1.5s,mb5.0						
ZAK	**Zakamensk**	**61.69**	**47**	*e*P	**P**	**09 23 05.1**	**-0.9**
SADO	**Sadowa**	**62.23**	**306**	P	**P**	**09 23 10.0**	**+0.2**
	comp=Z,11nm,0.8s,mb5.0,baz=94,slow=2.7,SNR=4.9						
FCC	**Fort Churchill**	**62.55**	**325**	*e*P	**P**	**09 23 12.1**	**+0.4**
FCC				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
FCC	**Fort Churchill**	**62.55**	**325**	*e*P	**P**	**09 23 12.1**	**+0.4**
	comp=Z,20nm,0.9s,mb5.2						
BOD	**Bodaibo**	**63.01**	**36**	*e*P	**P**	**09 23 11.0**	**-3.7**
SONM	**Songino Array**	**64.78**	**48**	P	**P**	**09 23 26.9**	**+0.5**
	comp=Z,5.2nm,0.8s,mb4.6,baz=293,slow=7.2,SNR=37						
ULN	**Ulaanbaatar**	**65.13**	**47**	⇑*e*P	**P**	**09 23 29.3**	**+0.6**
MCWV	**Mont Chateau**	**65.41**	**302**	*e*P	**P**	**09 23 32.0**	**+1.4**
	comp=Z,32nm,1.1s,mb5.3						
GTA	**Gaotai**	**65.46**	**58**	*e*P	**P**	**09 23 31.8**	**+0.8**
GTA				AP	pP	09 23 36.1	+0.5
GTA				XP	sP	09 23 38.8	+1.5
GTA				PP	PP	09 25 56.3	-1.0
GTA				SCP		09 28 07.4	
GTA				S	S	09 32 09.6	-3.8
GTA				SCS	ScS	09 33 22.8	+0.5
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.8						
GTA				LR	LR		
	comp=N,726nm,14.8s,MS5.2						
GTA				LR	LR		
	comp=E,860nm,14.4s,MS5.2						
GTA				LR	LR		
	comp=Z,816nm,15.6s,MS5.0						
YAK	**Yakutsk**	**66.47**	**27**	⇓*e*P	**P**	**09 23 37.6**	**+0.6**
YAK				pmax	pmax		
	comp=Z,43nm,1.8s,mb5.2						
ACSO	**Alum Creek Sta**	**67.08**	**304**	*e*P	**P**	**09 23 41.4**	**+0.1**
	comp=Z,18nm,1.0s,mb5.1						
YKW3	**Yellowknife Ar**	**67.72**	**336**	*e*P	**P**	**09 23 45.9**	**+1.0**
YKA	**Yellowknife Ar**	**67.77**	**336**	P	**P**	**09 23 45.9**	**+0.7**
	comp=Z,4.0nm,0.7s,mb4.6,baz=45,slow=6.2,SNR=76						
ULM	**Lac du Bonnet**	**68.45**	**318**	P	**P**	**09 23 51.1**	**+1.4**
	comp=Z,21nm,0.8s,mb5.2,baz=55,slow=5.5,SNR=26						
ULM	**Lac du Bonnet**	**68.45**	**318**	*e*P	**P**	**09 23 50.8**	**+1.1**
	comp=Z,36nm,1.0s,mb5.4						
BILL	**Bilibino**	**69.86**	**9**	⇑*e*P	**P**	**09 23 59.3**	**+1.3**
BILL				*e*		09 24 19.9	
BILL				S	S	09 33 03.7	-1.9
BILL				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
BILL				MLR	MLR		
	comp=Z,400nm,16.0s,MS4.8						
LZH	**Lanzhou**	**69.98**	**59**	⇑P	**P**	**09 23 58.1**	**-1.2**
LZH				PP	PP	09 26 34.3	-1.7
LZH				*e*S	S	09 33 05.3	-2.3
LZH				AMB	AMB		
	comp=Z,36nm,1.3s,mb5.1						
LZH				AMB	AMB		
	comp=Z,165nm,6.5s						
LZH				LR	LR		
	comp=N,1μm,15.0s						
LZH				LR	LR		
	comp=Z,1μm,17.9s,MS5.2						
WCI	**Wyandotte Cave**	**70.34**	**304**	*e*P	**P**	**09 24 01.2**	**-0.2**
WCI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
WCI	**Wyandotte Cave**	**70.34**	**304**	*e*P	**P**	**09 24 01.1**	**-0.3**
	comp=Z,12nm,0.9s,mb4.8						
HHC	**Hu-ho-hao-te**	**71.89**	**51**	*e*P	**P**	**09 24 11.9**	**+1.1**
HHC				AMB	AMB		
	comp=Z,20nm,0.4s,mb5.4						
DAWY	**Dawson**	**72.56**	**346**	*e*P	**P**	**09 24 16.5**	**+2.3**
IMA	**Indian Mountai**	**72.57**	**353**	*e*P	**P**	**09 24 17.3**	**+3.1**
IMA				pmax	pmax		
	comp=Z,117nm,1.1s,mb5.7						
IMA	**Indian Mountai**	**72.57**	**353**	*e*P	**P**	**09 24 17.3**	**+3.0**
	comp=Z,117nm,1.1s,mb5.7						
COLA	**College**	**73.09**	**350**	*d* *i*P	**P**	**09 24 20.0**	**+2.7**
COLA	**College**	**73.09**	**350**	*e*P	**P**	**09 24 20.4**	**+3.1**
	comp=Z,14nm,1.2s,mb4.8						
XAN	**Xi'an**	**74.52**	**58**	P	**P**	**09 24 27.6**	**+1.3**
XAN				AMB	AMB		
	comp=Z,15nm,1.3s,mb4.8						
MA2	**Magadan**	**74.71**	**20**	⇑*e*P	**P**	**09 24 28.0**	**+1.2**
MA2				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.9						
BJI	**Beijing**	**75.11**	**50**	*e*P	**P**	**09 24 30.8**	**+1.3**
BJI				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.9						
KMI	**Kunming**	**75.91**	**69**	*e*P	**P**	**09 24 35.0**	**+0.6**
KMI				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.8						
LAO	**LASA Array**	**75.95**	**320**	*e*P	**P**	**09 24 36.0**	**+1.9**
	comp=Z,27nm,1.0s,mb5.1						
KSU1	**Kansas State U**	**76.04**	**310**	*e*P	**P**	**09 24 36.0**	**+1.2**
SDV	**Santo Domingo**	**77.21**	**271**	*e*P	**P**	**09 24 43.6**	**+1.7**
	comp=Z,28nm,0.8s,mb5.2						
CMAR	**Chiang Mai Arr**	**77.33**	**77**	P	**P**	**09 24 43.0**	**+0.6**
	comp=Z,1.3nm,0.4s,mb4.2,baz=309,slow=9.2,SNR=11						
CN2	**Changchun**	**77.57**	**42**	*e*P	**P**	**09 24 44.3**	**+1.0**
CN2				*e*XP	sP	09 24 50.6	+1.0
CN2				*e*S	S	09 34 32.4	-0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.6						
CN2				AMB	AMB		
	comp=Z,600nm,4.0s						
CN2				LR	LR		
	comp=N,1μm,15.0s,MS5.3						
CN2				LR	LR		
	comp=E,600nm,15.0s,MS5.3						
CN2				LR	LR		
	comp=Z,900nm,16.0s,MS5.2						
BDFB	**Brasilia**	**77.82**	**237**	P	**P**	**09 24 47.0**	**+1.9**
	comp=Z,7.9nm,0.7s,mb4.8,baz=47,slow=3.5,SNR=15						
HRY	**Holter Researc**	**78.55**	**323**	*e*P	**P**	**09 24 50.6**	**+2.1**
MDJ	**Mudanjiang**	**79.03**	**39**	P	**P**	**09 24 50.5**	**-0.7**
MDJ				AMB	AMB		
	comp=Z,672nm,11.4s						
BOZ	**Bozeman (W)**	**79.26**	**323**	*e*P	**P**	**09 24 55.3**	**+2.8**
BOZ				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
BOZ	**Bozeman (W)**	**79.26**	**323**	*e*P	**P**	**09 24 55.3**	**+2.8**
	comp=Z,12nm,1.1s,mb4.7						
PHWY	**Pilot Hill**	**79.42**	**316**	*e*P	**P**	**09 24 56.1**	**+2.7**
NEW	**Newport**	**79.63**	**327**	P	**P**	**09 24 56.4**	**+2.0**
	comp=Z,5.9nm,0.8s,mb4.6,baz=48,slow=4.4,SNR=14						
QLMT	**Earthquake Lak**	**79.78**	**322**	*e*P	**P**	**09 24 58.8**	**+3.5**
IMW	**Indian Meadow**	**80.25**	**321**	*e*P	**P**	**09 25 01.2**	**+3.3**
PDAR	**Pinedale Array**	**80.43**	**320**	P	**P**	**09 25 00.3**	**+1.5**
	comp=Z,3.0nm,0.8s,mb4.3,baz=54,slow=5.0,SNR=24						
MCMT	**McKenzie Canyo**	**80.44**	**323**	*e*P	**P**	**09 25 01.7**	**+2.9**
TPAW	**Teton Pass**	**80.57**	**321**	*e*P	**P**	**09 25 02.7**	**+3.2**
ISCO	**Idaho Springs**	**80.58**	**315**	*e*P	**P**	**09 25 02.6**	**+2.9**
ISCO				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
ISCO	**Idaho Springs**	**80.58**	**315**	*e*P	**P**	**09 25 02.6**	**+2.9**
	comp=Z,12nm,0.9s,mb4.8						
NJ2	**Nanjing**	**82.09**	**54**	*e*P	**P**	**09 25 08.4**	**+0.7**
NJ2				AP	pP	09 25 18.9	+6.4
NJ2				XP	sP	09 25 22.6	+8.5
NJ2				PP	PP	09 28 17.0	-1.0
NJ2				PPP	PPP	09 30 08.3	-1.8
NJ2				S	S	09 35 17.0	-3.4
NJ2				SKS	SKS	09 35 22.0	-7.2
NJ2				XS		09 35 35.0	
NJ2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,1μm,6.8s						
NJ2				LR	LR		
	comp=N,680nm,21.8s,MS5.3						
NJ2				LR	LR		
	comp=E,1μm,21.3s,MS5.3						
NJ2				LR	LR		
	comp=Z,5μm,25.7s,MS5.8						
HWUT	**Hardware Ranch**	**82.29**	**320**	*e*P	**P**	**09 25 10.9**	**+2.3**
	comp=Z,8.7nm,0.9s,mb4.7						
BMO	**Blue Mountains**	**82.41**	**325**	*e*P	**P**	**09 25 10.6**	**+1.5**
	comp=Z,30nm,1.1s,mb5.1						
YSS	**Yuzh-Sakhalins**	**82.89**	**30**	⇑*i*P	**P**	**09 25 12.8**	**+1.3**
JLU	**Jordanelle**	**82.99**	**319**	*e*P	**P**	**09 25 14.5**	**+2.3**
PV01	**Paradox Valley**	**83.37**	**316**	*e*P	**P**	**09 25 16.7**	**+2.5**
PV10	**Paradox Valley**	**83.44**	**316**	*e*P	**P**	**09 25 17.9**	**+3.4**
SRU	**San Rafael**	**83.65**	**318**	*e*P	**P**	**09 25 17.8**	**+2.2**
JCT	**Junction City**	**83.83**	**305**	*e*P	**P**	**09 25 18.7**	**+2.0**
JCT				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.9						
JCT	**Junction City**	**83.83**	**305**	*e*P	**P**	**09 25 18.7**	**+2.0**
	comp=Z,11nm,1.0s,mb4.9						
TMUT	**Trail Mountain**	**83.86**	**318**	*e*P	**P**	**09 25 18.7**	**+2.1**
SSE	**Sheshan**	**84.19**	**54**	*e*P	**P**	**09 25 17.6**	**-0.9**
SSE				AMB	AMB		
	comp=Z,34nm,0.7s,mb5.6						
SSE				AMB	AMB		
	comp=Z,813nm,12.0s						
CPRX	**Cap Rock**	**84.47**	**310**	*e*P	**P**	**09 25 22.3**	**+2.4**
ANMO	**Albuquerque**	**84.57**	**312**	⇑*e*P	**P**	**09 25 23.4**	**+3.1**
MSU	**Marysvale**	**84.95**	**318**	*e*P	**P**	**09 25 24.9**	**+2.8**
MVU	**Marysvale**	**84.97**	**318**	*e*P	**P**	**09 25 25.2**	**+3.0**
	comp=Z,13nm,1.1s,mb5.0						
BNM	**Barren Site**	**85.25**	**312**	*e*P	**P**	**09 25 26.9**	**+3.2**
GDL2	**Guadalupe Moun**	**85.36**	**309**	*e*P	**P**	**09 25 27.0**	**+2.7**
ARUT	**Antelope Range**	**86.14**	**319**	*e*P	**P**	**09 25 30.8**	**+2.7**
TXAR	**Lajitas Array**	**87.00**	**307**	P	**P**	**09 25 34.8**	**+2.3**
	comp=Z,0.5nm,0.7s,mb3.9,baz=51,slow=5.1,SNR=8.6						
NVAR	**Mina Array Bea**	**87.99**	**322**	P	**P**	**09 25 39.3**	**+2.3**
	comp=Z,1.4nm,0.8s,mb4.2,baz=57,slow=5.1,SNR=12						
OHCM	**Honcut**	**88.69**	**325**	*e*P	**P**	**09 25 42.1**	**+1.7**
SYO	**Syowa Base**	**111.82**	**169**	⇑Pdiff	Pdif	09 27 30.0	+6.2
ASAR	**Alice Springs**	**130.35**	**88**	PKP	PKPdf	09 31 57.6	-2.8
	comp=Z,1.8nm,1.0s,baz=307,slow=1.6,SNR=14						
TOO	**Toolangi**	**145.62**	**99**	⇑*i*P	PKPbc	09 32 26.6	+1.8
	comp=Z,7.8nm,0.6s						

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*NEIC **18** 10:18:40.3, 46.20N×122.19W, MD2.9(SEA), After SEA.*
*PNSN **18** 10:18:40.3, 46.20N×122.19W, h0^{km}, MD2.9, Fault plane solution: NP1:ϕ_s55°, δ45°, NP2:ϕ_s262°, δ48°, Principal axes: T Plg76°, Azm242°; P Plg2°, Azm339°; Fault plane solution: NP1:ϕ_s25°, δ60°, NP2:ϕ_s264°, δ48°, Principal axes: T Plg55°, Azm242°; P Plg7°, Azm142°;*
*IDC **18** 10:18:42.4±1.4, 46.08N×122.37W, mb2.9/1, mb1 3.3/4, mb1mx3.2/20, ML2.8/3 Error ellipse: s-maj=51.9km s-min=15.5km az=82.0*

ISC 18 10:18:40.3±0.3**, 46.21N**±0.03×**122.19W**±0.05**, h2**^{km}±3^{km}**, n39,** σ**0^{s}68**/39**, mb2.9**/1**, 11C-4D, Washington**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YEL	**Yellow Rock**	**0.00**	**320**	⇓P	**Pg**	**10 18 40.6**	**-0.1**
ESD	**East Dome**	**0.03**	**113**	P	**Pg**	**10 18 41.1**	**+0.1**
HSR	**South Ridge**	**0.04**	**177**	⇓P	**Pg**	**10 18 41.0**	**-0.1**
SHW	**Mount Saint He**	**0.04**	**247**	⇑P	**Pg**	**10 18 41.5**	**+0.3**
STD	**Studebaker Rid**	**0.04**	**319**	⇑P	**Pg**	**10 18 41.4**	**+0.2**
SOSW	**Source of Smit**	**0.05**	**43**	P	**Pg**	**10 18 41.6**	**+0.3**
JLK	**June Lake**	**0.07**	**160**	⇓P	**Pg**	**10 18 41.7**	**0.0**
CDFW	**Cedar Flats**	**0.13**	**133**	⇑P	**Pg**	**10 18 43.2**	**+0.3**
ERK	**Elk Rock**	**0.15**	**312**	⇓P	**Pg**	**10 18 43.4**	**+0.2**
MTMW	**Mount Mitchell**	**0.18**	**186**	⇑P	**Pg**	**10 18 44.4**	**+0.4**
LVP	**Lakeview Peak**	**0.21**	**228**	P	**Pg**	**10 18 44.5**	**0.0**
KOSW	**Kosmos**	**0.25**	**359**	P	**Pg**	**10 18 45.8**	**+0.4**
RVW	**Rose Valley**	**0.39**	**262**	P	**Pg**	**10 18 48.2**	**+0.1**
ASR	**Mount Adams--S**	**0.42**	**98**	P	**Pg**	**10 18 48.5**	**-0.1**
LMW	**Ladd Mountain**	**0.47**	**351**	⇑P	**Pg**	**10 18 50.3**	**+0.7**
LON	**Longmire**	**0.60**	**25**	P	**Pg**	**10 18 52.3**	**0.0**
RCM	**Mount Rainier-**	**0.70**	**26**	P	**Pg**	**10 18 54.3**	**-0.1**
RCS	**Mount Rainier-**	**0.73**	**25**	⇑P	**Pg**	**10 18 54.7**	**-0.2**
BMW	**Boistfort Moun**	**0.77**	**291**	⇑P	**Pg**	**10 18 55.1**	**-0.6**
FMW	**Mount Fremont**	**0.81**	**26**	⇑P	**Pg**	**10 18 56.1**	**-0.3**
VLL	**Laurance Lake**	**0.82**	**154**	⇑P	**Pg**	**10 18 56.3**	**-0.5**
NLO	**Nicolai Mounta**	**0.89**	**263**	⇑P	**Pg**	**10 18 57.4**	**-0.6**
TDH	**Tom, Dick, Har**	**0.96**	**163**	P	**Pb**	**10 18 58.0**	**-1.3**
CPW	**Capitol Peak**	**1.01**	**320**	P	**Pb**	**10 18 59.3**	**-0.9**
VFP	**Flag Point**	**1.02**	**150**	P	**Pb**	**10 18 59.9**	**-0.5**
GSM	**Grass Mountain**	**1.03**	**15**	P	**Pb**	**10 18 59.8**	**-0.7**
EBG	**Ellensburg**	**1.32**	**57**	⇑P	**Pb**	**10 19 06.3**	**+0.8**
MXC	**Moxie City**	**1.36**	**74**	P	**Pb**	**10 19 06.4**	**+0.2**
CROR	**Criterion Ridg**	**1.49**	**145**	P	**Pn**	**10 19 08.0**	**-0.1**
COR	**Corvallis**	**1.80**	**206**	*e*P	**Pn**	**10 19 11.5**	**-1.2**
HAWA	**Hanford**	**1.85**	**83**	*e*P	**Pn**	**10 19 13.2**	**-0.1**
FRIS	**Frissel Point**	**2.00**	**178**	P	**Pn**	**10 19 16.1**	**+0.6**
PGC	**Sidney**	**2.59**	**341**	*e*P	**Pn**	**10 19 24.1**	**+0.2**
BMO	**Blue Mountains**	**3.69**	**110**	P	**Pn**	**10 19 38.4**	**-1.1**
YBH	**Yreka Blue Hor**	**4.49**	**185**	Pn	**Pn**	**10 19 53.0**	**+2.0**
	0.1nm,0.3s,baz=19,slow=5.4,SNR=5.2						
NVAR	**Mina Array Bea**	**8.29**	**158**	Pn	**P**	**10 20 45.8**	**+1.4**
	0.1nm,0.3s,baz=337,slow=11,SNR=4.4						
YKA	**Yellowknife Ar**	**16.89**	**12**	Pn	**P**	**10 22 38.2**	**-0.8**
	0.0nm,0.3s,baz=197,slow=12,SNR=4.7						
YKA	**Yellowknife Ar**	**16.89**	**12**	Pn	**P**	**10 22 38.2**	**-0.8**
ILAR	**Eielson Array**	**23.00**	**333**	P	**P**	**10 23 48.6**	**+1.7**
	0.5nm,1.0s,mb2.9,baz=127,slow=9.0,SNR=3.4						

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*NEIC **18** 10:19:58.5, 15.64N×96.69W, h52^{km}, MD4.2(MEX), After MEX.*
*MEX **18** 10:19:58.3±0.6, 15.70N×96.72W, h5^{km}±8^{km}, MD4.2*
*IDC **18** 10:20:05.4±6.6, 15.93N×98.03W, mb3.6/3, mb1 3.8/4, mb1mx3.5/20, ML3.7/1, Error ellipse: s-maj=182.0km s-min=114.8km az=53.0*

ISC 18 10:19:57.8±1.0**, 15.73N**±0.09×**96.72W**±0.05**, h32**^{km}±13^{km}**, n17,** σ**0^{s}92**/27**, mb3.5**/3**, 1C, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUIG	**Huatulco**	**0.59**	**86**	*e*P	**Pb**	**10 20 09.1**	**-0.6**
HUIG				*i* S	**Sb**	**10 20 18.2**	**+0.4**
VHO	**Vista Hermosa**	**1.33**	**359**	*i* P	**Pn**	**10 20 20.4**	**-0.1**
VHO				*i* S	**Sn**	**10 20 37.8**	**+0.6**
OXX	**Oaxaca**	**1.34**	**360**	*i* P	**Pn**	**10 20 20.7**	**+0.1**
OXX				*i* S	**Sn**	**10 20 37.3**	**-0.2**
PNIG	**Pinotepa**	**1.51**	**296**	*e*P	**Pn**	**10 20 22.8**	**-0.3**
PNIG				*e*S	**Sn**	**10 20 41.5**	**-0.2**
CMIG	**Matias Romero**	**2.22**	**52**	*e*P	**Pn**	**10 20 32.2**	**-1.0**
CMIG				*i* S	**Sn**	**10 20 59.3**	**-0.4**
ACX	**Acapulco**	**3.27**	**291**	*i* P	**Pn**	**10 20 53.0**	**+4.8**
IISM	**Ciudad Serdan**	**3.30**	**349**	*i* P	**Pn**	**10 20 56.7**	**+8.1**
CAIG	**El Cayaco**	**3.65**	**291**	*i* P	**Pn**	**10 20 57.6**	**+4.0**
CAIG				*e*S	**Sn**	**10 21 36.0**	**0.0**
PLIG	**Platanillo**	**3.75**	**315**	⇑*e*P	**Pn**	**10 20 54.5**	**-0.5**
PLIG				*e*S	**Sn**	**10 21 38.0**	**-0.7**
PPM	**Popocatepetl**	**3.78**	**331**	*e*P	**Pn**	**10 20 58.0**	**+2.5**
PPM				*i* P		10 21 02.5	
PPM				*i* S	**Sn**	**10 21 39.5**	**+0.1**
LVIG	**Laguna Verde**	**3.98**	**4**	*i* P	**Pn**	**10 21 03.4**	**+5.2**
LVIG				*i* S	**Sn**	**10 21 42.9**	**-1.5**
LVIG	**Laguna Verde**	**3.98**	**4**	*i* P	**Pn**	**10 21 02.2**	**+3.9**
LVIG				*i* S	**Sn**	**10 21 45.0**	**+0.7**
ZIIG	**Zihuatanejo**	**4.92**	**293**	*i* S	**Sn**	**10 22 07.2**	**-0.9**
TXAR	**Lajitas Array**	**14.97**	**336**	Pn	**P**	**10 23 32.5**	**+3.5**
	0.1nm,0.3s,baz=159,slow=13,SNR=6.4						
NVAR	**Mina Array Bea**	**29.53**	**324**	P	**P**	**10 26 03.0**	**+1.3**
	0.6nm,1.0s,mb3.3,baz=150,slow=7.3,SNR=3.7						
INK	**Inuvik**	**57.53**	**345**	P	**P**	**10 29 52.2**	**+5.9**
	0.7nm,0.7s,mb3.8,baz=146,slow=8.2,SNR=4.0						
ILAR	**Eielson Array**	**59.48**	**338**	P	**P**	**10 30 06.2**	**+6.3**
	0.3nm,0.6s,mb3.5,baz=136,slow=5.2,SNR=7.1						

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*CSEM **18** 10:21:58.7±0.1, 51.55N×16.22E, h2^{km}, ML3.3/4, Error ellipse: s-maj=1.8km s-min=1.0km az=92.0*
*NEIC **18** 10:21:59.5±0.5, 51.53N×16.16E, h5^{km}, ML2.9(VIE), Error ellipse: s-maj=9.3km s-min=5.6km az=78.0*
*IPEC **18** 10:21:59.0±0.3, 51.55N×16.21E, ML2.2/3, Error ellipse: s-maj=1.8km s-min=1.3km az=22.0*
*IDC **18** 10:22:00.2±0.8, 51.47N×16.16E, mb1 3.5/6, mb1mx3.4/21, ML2.9/5, Error ellipse: s-maj=19.7km s-min=7.3km az=99.0*

WAR **18** *10:22:01.3, 51.45N×16.12E, h1km, ML3.1, Mining Induced*
PRU **18** *10:22:01.2, 51.43N×16.11E*
UPP **18** *10:22:05.8, 51.83N×15.54E, h0km, ML3.0, Mining explosion.*

ISC 18 10:21:57.8±0.3**, 51.48N**±0.02×**16.12E**±0.03**, n47, σ1ˢ27**/82**, 1C-2D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	0.65	170	*i* PG	Pg	10 22 12.5	+1.7
KSP				*e*SG	Sg	10 22 20.5	+1.1
KSP	**Ksiaz**	0.65	170	⇓*i*Pg	Pg	10 22 12.5	+1.7
KSP				*e*		10 22 13.5	
KSP				*e*Sg	Sg	10 22 19.7	+0.3
KSP	**Ksiaz**	0.65	170	⇓*i*Pg	Pg	10 22 12.5	+1.7
KSP				*e*Sg	Sg	10 22 19.7	+0.3
KSP	**Ksiaz**	0.65	170	*e*Pg	Pg	10 22 12.5	+1.7
KSP				*e*Sg	Sg	10 22 21.3	+1.9
UPC	**Upice**	0.98	184	*e*PG	Pg	10 22 18.5	+1.1
DPC	**Dobruska-Polom**	1.14	174	*e*PG	Pg	10 22 21.3	+0.7
DPC				*e*SG	Sg	10 22 35.1	-0.7
DPC	**Dobruska-Polom**	1.14	174	Pg	Pg	10 22 21.3	+0.7
DPC				*e*Sg	Sg	10 22 36.2	+0.4
PVCC	**Panska Ves**	1.37	226	*e*Pg	Pg	10 22 25.9	+0.7
PVCC				*e*Sg	Sg	10 22 44.9	+1.5
BRG	**Berggiesshubel**	1.50	247	*e*Pn	Pn	10 22 27.1	+1.0
BRG				*i* Pg	Pg	10 22 28.2	+0.4
BRG				*i* Sg	Sg	10 22 48.7	+0.9
BRG	**Berggiesshubel**	1.50	247	*i* Pg	Pg	10 22 28.2	+0.4
PRU	**Pruhonice**	1.80	215	PN	Pn	10 22 31.1	+0.7
PRU				PG	Pg	10 22 33.0	-0.8
PRU				*i* x	x	10 22 37.0	
PRU				*i* x	x	10 22 50.3	
PRU				SG	Sg	10 22 56.9	-0.9
	42nm,0.2s						
PRU	**Pruhonice**	1.80	215	Pg	Pg	10 22 33.0	-0.8
PRU				Sg	Sg	10 22 56.9	-0.9
	42nm,0.2s						
MORC	**Moravsky Berou**	1.93	152	*e*P	Pn	10 22 32.7	+0.4
MORC	**Moravsky Berou**	1.93	152	*e*P	Pn	10 22 32.7	+0.4
MORC	**Moravsky Berou**	1.93	152	*e*Pn	Pn	10 22 33.4	+1.1
MORC				*e*Sg	Sg	10 23 00.6	-1.5
	21nm,0.3s						
CLL	**Collm**	1.96	266	*e*PN	Pn	10 22 34.0	+1.3
CLL				*e*PG	Pg	10 22 37.0	0.0
CLL				*e*SG	Sg	10 23 03.0	-0.2
CLL	**Collm**	1.96	266	*e*Pg	Pg	10 22 37.0	0.0
OKC	**Ostrava-Krasne**	2.09	141	*e*PG	Pg	10 22 38.8	-0.8
OKC				*e*SG	Sg	10 23 05.0	-2.4
OKC	**Ostrava-Krasne**	2.09	141	*e*Pn	Pn	10 22 35.8	+1.3
OKC	**Ostrava-Krasne**	2.09	141	*e*Pg	Pg	10 22 38.8	-0.8
OKC				*e*Sg	Sg	10 23 05.2	-2.2
VRAC	**Vranov**	2.20	172	Pn	Pn	10 22 37.3	+1.3
	2.1nm,0.3s,baz=338,slow=17,SNR=20						
VRAC				Lg		10 23 09.9	
	3.9nm,0.3s,baz=254,slow=23,SNR=7.8						
VRAC	**Vranov**	2.20	172	Pn	Pn	10 22 37.3	+1.2
VRAC				*e*Sg	Sg	10 23 09.6	-1.4
	18nm,0.3s						
KRUC	**Moravsky**	2.43	176	*e*Pn	Pn	10 22 41.2	+1.8
KRUC				*e*Sg	Sg	10 23 17.1	-1.6
	5.4nm,0.2s						
NKC	**Novy Kostel**	2.64	243	*e*PN	Pn	10 22 43.8	+1.4
NKC				*e*PG	Pg	10 22 49.5	-1.1
NKC				*e*SG	Sg	10 23 25.6	-0.2
NKC	**Novy Kostel**	2.64	243	Pg	Pg	10 22 49.5	-1.1
NKC				Sg	Sg	10 23 25.6	-0.2
OJC	**Ojcow**	2.65	117	*e*Pg	Pg	10 22 51.3	+0.6
OJC				*e*Sg	Sg	10 23 25.6	-0.5
OJC	**Ojcow**	2.65	117	*e*Pn	Pn	10 22 43.4	+0.9
OJC				*e*Pg	Pg	10 22 51.3	+0.6
OJC				*e*Sg	Sg	10 23 25.6	-0.5
KHC	**Kasperske Hory**	2.86	216	*e*PN	Pn	10 22 46.5	+0.9
KHC				*e*PG	Pg	10 22 52.2	-2.8
KHC				*e*SN	Sn	10 23 21.0	-0.3
KHC				*e*SG	Sg	10 23 30.3	-2.9
KHC	**Kasperske Hory**	2.86	216	*e*Pg	Pg	10 22 52.2	-2.8
KHC				*e*Sn	Sn	10 23 21.0	-0.3
KHC				*e*Sg	Sg	10 23 30.3	-2.9
GERES	**GERESS Array B**	3.06	211	Pn	Pn	10 22 49.8	+1.4
	0.8nm,0.3s,baz=26,slow=12,SNR=15						
GERES				Pg	Pg	10 22 56.0	-3.0
	3.6nm,0.3s,baz=30,slow=17,SNR=41						
GERES				Sn	Sn	10 23 23.0	-3.3
	1.6nm,0.3s,baz=52,slow=24,SNR=6.2						
GERES				Lg		10 23 39.3	
	3.8nm,0.3s,baz=30,slow=26,SNR=7.9						
GERES	**GERESS Array B**	3.06	211	Pg	Pg	10 22 56.0	-3.0
NIE	**Niedzica**	3.38	126	*e*P	Pg	10 23 08.4	+3.1
NIE				*e*S	Sg	10 23 53.1	+2.7
VYHS	**Vyhne**	3.46	149	*i* PG	Pg	10 23 08.2	+1.2
BSD	**Bornholm Skovb**	3.71	349	*i* P	Pn	10 22 57.6	0.0
BSD				*i* S	Sn	10 23 37.9	-4.8
MOA	**Molln**	3.83	199	⇑*i*PN	Pn	10 23 00.2	+0.9
MOA				*i* SG	Sg	10 24 03.2	-2.2
	6.3nm,0.5s						
CRVS	**Cervenica-Dubn**	4.29	125	*e*PG	Pg	10 23 21.8	-1.7
BLEU	**Blekinge**	4.84	358	P	Pn	10 23 13.4	-0.2
VXJU	**Vaexsjoe**	5.50	353	P	Pn	10 23 22.6	-0.3
EKSU	**Eksjoe**	6.12	356	P	Pn	10 23 31.3	-0.5
VSTU	**Vaestervik**	6.20	2	P	Pn	10 23 32.6	-0.2
LNKU	**Linkoeping**	6.77	357	P	Pn	10 23 39.7	-1.2
VIKU	**Vikbolandet**	7.04	2	P	Pn	10 23 43.9	-0.9
ASKU	**Askersund**	7.47	355	P	Pn	10 23 50.6	-0.1
HFS	**Hagfors**	8.78	352	Pn	P	10 24 06.7	-2.2
	baz=168,slow=14,SNR=5.1						
NOA	**NORSAR Array B**	9.96	346	Pn	P	10 24 21.6	-3.6
	0.1nm,0.3s,baz=185,slow=18,SNR=2.5						
FINES	**FINESS Array B**	11.39	25	Pn	P	10 24 40.2	-4.4
	0.1nm,0.3s,baz=212,slow=26,SNR=3.7						
ARCES	**ARCESS Array B**	18.65	10	Pn	P	10 26 14.0	-4.8
	0.1nm,0.3s,baz=202,slow=15,SNR=2.8						

IGQ 18 10:34:37.0, 1.37S×81.06W, h5km±22km, mb4.2, 1C-1D, Error ellipse: s-maj=22.3km s-min=6.2km az=166.2, Off coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGUA	**Igualata**	2.42	93	⇓P	Pn	10 35 19.5	+1.6
IGUA				S	Sn	10 35 50.9	+2.6
ARRY	**Arrayan**	2.61	93	⇑P	Pn	10 35 22.3	+1.8
PATA	**Patacocha**	2.63	93	P	Pn	10 35 23.0	+2.2
ULBA	**Ulba**	2.65	92	P	Pn	10 35 23.8	+2.6
NAS1	**Nasa**	2.68	74	P	Pn	10 35 22.3	+0.7
PISA	**Pisayambo**	2.69	84	P	Pn	10 35 23.4	+1.7
CGGP	**Crater GGP**	2.72	64	P	Pn	10 35 24.6	+2.4
PINO	**Pino**	2.73	64	P	Pn	10 35 23.2	+0.9
VC1	**Cotopaxi 1**	2.75	75	P	Pn	10 35 25.2	+2.6
TAMB	**Tambo**	2.77	76	P	Pn	10 35 25.1	+2.2
YANA	**Yana**	2.78	64	P	Pn	10 35 25.8	+2.8
ANTI	**Antisana**	3.04	73	P	Pn	10 35 28.6	+1.9
COTA	**Cotacachi**	3.20	58	P	Pn	10 35 31.3	+2.3
COTA				S	Sn	10 36 10.6	+2.6
CAYR	**Refugio Cayamb**	3.34	66	P	Pn	10 35 35.4	+4.3
CAYR				S	Sn	10 36 18.4	+6.7
CAYA	**Cayambe**	3.38	65	P	Pn	10 35 35.2	+3.6

STR **18** *10:35:46.8±0.6, 46.98N×8.52E, h10km±1km, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
LDG **18** *10:36:04.8±0.4, 47.73N×7.42E, h2km, Md2.1/3, Ml2.1/5, Error ellipse: s-maj=6.5km s-min=4.4km az=130.0*

BGR 18 10:36:06.4±0.3**, 47.85N×7.37E, h5km, ML1.7**/1**, Error ellipse: s-maj=2.2km s-min=2.2km az=157.0, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MOF	**Molkenrain**	0.16	273	*e*Pg	Pg	10 36 09.8	+0.2
	SNR=2.3						
MOF				*e*Sg	Sg	10 36 11.8	-0.1
	SNR=5.7						
MOF	**Molkenrain**	0.16	273	Pg	Pg	10 36 10.7	+1.0
HINF	**Hinteralfeld**	0.35	266	*e*Pg	Pg	10 36 12.8	-0.6
HINF				*e*Sg	Sg	10 36 18.0	-0.1
	3.0nm,0.2s						
ECH	**Echery**	0.40	339	*e*Pg	Pg	10 36 14.7	+0.4
	SNR=1.8						
ECH				*e*Sg	Sg	10 36 19.2	-0.5
	SNR=4.5						
ECH	**Echery**	0.40	339	Pg	Pg	10 36 15.4	+1.1
BOURR	**Bourrignon**	0.46	192	*e*Sg	Sg	10 36 21.6	-0.2
	SNR=8.6						
WLS	**Welschbruch**	0.57	359	*e*Pg	Pg	10 36 17.7	-0.1
	SNR=3.9						
WLS				*e*Sg	Sg	10 36 24.6	-0.8
	SNR=0.7						
CDF	**Champ du Feu**	0.57	354	*e*Pg	Pg	10 36 17.3	-0.5
CDF				*e*Sg	Sg	10 36 26.3	+0.9
	3.2nm,0.4s						
LOMF	**Lomont**	0.61	217	*e*Pg	Pg	10 36 18.1	-0.6
	SNR=1.3						
LOMF				*e*Sg	Sg	10 36 26.1	-0.8
	SNR=2.5						
LOMF	**Lomont**	0.61	217	Pg	Pg	10 36 10.0	-8.7
LOMF				Sg	Sg	10 36 26.7	-0.2
HAU	**Haudompre**	0.70	284	*e*Pg	Pg	10 36 19.3	-1.2
HAU				*e*Sg	Sg	10 36 29.0	-0.9
	6.9nm,0.2s						
SLE	**Schleitheim**	0.76	96	*e*Pg	Pg	10 36 20.2	-1.4
	SNR=3.0						
SLE				*e*Sg	Sg	10 36 30.2	-1.6
	SNR=6.5						
BFO	**Black Forest**	0.81	53	*e*Pg	Pg	10 36 21.4	-1.1
	SNR=1.6						
BFO				*e*Sg	Sg	10 36 32.3	-1.0
	SNR=2.2						
THEF	**They Montfort**	1.00	293	*e*Sg	Sg	10 36 37.6	-2.2
	SNR=3.0						
THEF	**They Montfort**	1.00	293	Pg	Pg	10 36 26.2	-0.2
WILA	**Wila**	1.13	112	*e*Sg	Sg	10 36 42.4	-1.5
	SNR=2.1						
CABF	**La Chapelle**	1.51	216	*e*Pg	Pg	10 36 31.1	-5.5
CABF				*e*Sg	Sg	10 36 50.7	-6.0
	1.8nm,0.3s						
SFTF	**Sexfontaines**	1.60	284	*e*Pg	Pg	10 36 35.0	-3.4
SFTF				*e*Sg	Sg	10 36 57.5	-2.3
	1.9nm,0.2s,baz=125						
MEZF	**Maizieres J'vi**	1.68	294	*e*Sg	Sg	10 36 59.9	-2.5
	1.9nm,0.2s						
SSF	**Saint Saulge**	2.73	255	*e*Pg	Pg	10 36 56.4	-4.6
SSF				*e*Sg	Sg	10 37 29.9	-7.5
	1.4nm,0.3s						

IDC **18** *10:41:50.2±1.3, 4.53S×150.70E, h340km±11km, mb3.7/10, mb1 3.9/12, mb1mx3.8/15, Error ellipse: s-maj=21.5km s-min=8.3km az=113.0*
NEIC **18** *10:41:50.3±1.5, 4.45S×150.64E, h341km±15km, mb4.8/10, Error ellipse: s-maj=17.4km s-min=10.2km az=109.0*

ISC 18 10:41:49.3±1.2**, 4.49S**±0.08×**150.7E**±0.1**, h347km**±11km**, n31, σ0ˢ77**/33**, mb4.2**/20**, 5D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	6.03	216	P	P	10 43 20.7	-0.3
	4.1nm,0.3s,baz=356,slow=7.2,SNR=16						
PMG				S	S	10 44 33.8	+0.7
	2.1nm,0.3s,baz=293,slow=13,SNR=7.7						
CTA	**Charters Tower**	16.11	195	⇓*i*P	P	10 45 18.7	+0.3
	27nm,0.6s						
CTA	**Charters Tower**	16.11	195	P	P	10 45 18.6	+0.2
	3.0nm,0.3s,baz=14,slow=13,SNR=45						
CTAO	**Charters Tower**	16.11	195	*e*P	P	10 45 18.5	+0.1
	54nm,0.9s						
KAKA	**Kakadu**	19.85	245	⇓*i*P	P	10 45 55.9	-0.3
	68nm,0.5s						
WRAB	**Tennant Creek**	22.14	225	*e*P	P	10 46 18.8	+0.6
	76nm,0.5s,mb5.2						
WRA	**Warramunga Arr**	22.15	225	P	P	10 46 18.7	+0.4
	37nm,0.3s,mb5.1,baz=49,slow=10,SNR=443						
WRA				S	S	10 49 55.8	+0.9
	2.3nm,0.6s,baz=45,slow=16,SNR=6.0						
WRA				ScP		10 53 08.7	
	1.1nm,0.4s,baz=49,slow=2.9,SNR=18						
ASAR	**Alice Springs**	25.04	219	P	P	10 46 44.7	-0.1
	12nm,0.6s,mb4.3,baz=57,slow=8.6,SNR=206						
ASAR				S	S	10 50 43.4	+1.1
	0.6nm,0.7s,baz=42,slow=13,SNR=3.5						
ASAR				ScP		10 53 16.9	
	2.6nm,0.6s,baz=36,slow=2.7,SNR=25						
ASPA	**Alice Springs**	25.04	219	⇓*i*P	P	10 46 44.6	-0.3
FITZ	**Fitzroy Crossi**	28.01	239	⇓*i*P	P	10 47 10.5	-1.2
	29nm,0.4s,mb4.9						
FITZ	**Fitzroy Crossi**	28.01	239	P	P	10 47 10.6	-1.1
	32nm,0.4s,mb4.9,baz=46,slow=6.3,SNR=98						
STKA	**Stephens Creek**	28.56	196	*e*P	P	10 47 14.9	-1.5
	3.1nm,0.6s,mb3.7						
STKA	**Stephens Creek**	28.56	196	P	P	10 47 15.1	-1.3
	3.9nm,0.6s,mb3.8,baz=3.2,slow=7.5,SNR=13						
TOO	**Toolangi**	33.27	188	*e*P	P	10 47 57.8	+0.9
	3.1nm,1.2s,mb3.4						
FORT	**Forrest**	33.76	217	⇓*i*P	P	10 48 00.4	-0.7
	61nm,0.6s,mb5.0						
MBWA	**Marble Bar**	34.35	238	*e*P	P	10 48 05.1	-1.1
	12nm,0.6s,mb4.3						
JHJ	**Hachijo jima 2**	38.81	345	P	P	10 48 43.4	+0.2
	108nm,0.8s,mb5.1,baz=87,slow=17,SNR=3.1						
NWAO	**Narrogin (SRO)**	42.15	224	*e*P	P	10 49 09.8	-0.7
ASAJ	**Asahikawa**	48.93	352	P	P	10 50 03.6	+0.4
	11nm,1.0s,mb4.0,baz=190,slow=8.8,SNR=6.3						
HIA	**Hailar**	59.92	337	*e*P	P	10 51 22.2	+0.7
	9.0nm,0.9s,mb4.2						
FX1	**Attu Island--F**	60.22	15	*e*P	P	10 51 22.6	-0.9
SONM	**Songino Array**	64.97	329	P	P	10 51 56.4	+1.9
	1.3nm,0.4s,mb3.9,baz=145,slow=5.5,SNR=17						
VNDA	**Vanda**	73.22	177	P	P	10 52 45.0	+0.8
	0.2nm,0.5s,mb3.1,baz=355,slow=11,SNR=2.7						
ZAL	**Zalesovo**	79.75	327	P	P	10 53 21.0	+0.4
	1.1nm,0.5s,mb3.9,baz=349,slow=6.5,SNR=7.8						
COLA	**College**	82.34	22	*e*P	P	10 53 33.4	-0.4
	2.7nm,0.7s,mb4.2						
ILAR	**Eielson Array**	82.66	23	P	P	10 53 34.8	-0.6
	3.3nm,0.7s,mb4.3,baz=248,slow=5.2,SNR=56						
BVAR	**Borovoye Array**	87.75	323	P	P	10 53 59.6	-0.9
	1.9nm,1.0s,mb3.9,baz=117,slow=3.2,SNR=4.4						
INK	**Inuvik**	88.91	21	P	P	10 54 05.2	-0.3
	0.7nm,0.5s,mb3.8,baz=309,slow=5.5,SNR=10						
NVAR	**Mina Array Bea**	93.52	52	P	P	10 54 28.6	+1.0
	0.7nm,0.9s,mb3.7,baz=261,slow=6.7,SNR=4.6						
YKA	**Yellowknife Ar**	96.11	28	P	P	10 54 39.1	+0.2
	0.4nm,0.4s,mb3.9,baz=271,slow=4.9,SNR=12						
LPAZ	**La Paz**	136.39	119	PKP	PKPdf	11 00 34.1	+3.1
	0.8nm,0.6s,baz=12,slow=6.2,SNR=3.8						

IDC **18** *10:49:35.5±0.8, 23.94N×36.54E, mb4.3/18, mb1 4.4/23, mb1mx4.4/27, ML3.7/4, MS4.0/5, Ms1 4.0/5, ms1mx3.6/25, Error ellipse: s-maj=18.1km s-min=16.7km az=62.0*
MOS **18** *10:49:35.4±1.5, 23.89N×36.54E, h10km, mb4.8/19, Error ellipse: s-maj=14.6km s-min=6.0km az=92.1*
HLW **18** *10:49:35.8, 23.91N×36.38E, h20km, Mb4.1*
SNSN **18** *10:49:36.4, 24.17N×36.69E, Ml4.1*
NEIC **18** *10:49:38.6±3.8, 24.00N×36.51E, h17km±24km, mb4.8/23, Error ellipse: s-maj=7.4km s-min=6.6km az=74.0*
CSEM **18** *10:49:41.8, 24.25N×36.50E, h33km, mb5.2*
BJI **18** *10:49:42.3, 24.21N×37.25E, h17km, mB5.1, mb4.9, Ms4.6, Msz4.2*

ISC 18 10:49:35.7±0.3**, 24.07N**±0.03×**36.31E**±0.03**, h10km, (h23km**±5.3km**:pP-P), n186, σ1ˢ28**/189**, mb4.6**/52**, MS4.0**/7**, 2C-9D, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HAGS	**Hagol**	1.25	285	⇓P	Pb	10 49 58.4	-0.5
HSHL	**Bi'r Shalatayn**	1.27	221	⇓P	Pb	10 49 56.2	-3.0
HSHL				S	Sb	10 50 10.9	-4.6
UMJS	**Umm Lajj**	1.48	38	P	Pn	10 49 59.6	-2.9
YNBS	**Yanbu' al Bahr**	1.56	80	P	Pn	10 49 59.2	-4.5
YNBS				S	Sb	10 50 15.5	-8.4
EMRS	**Mersa Alam**	1.64	305	⇓*e*P	Pn	10 50 03.9	-1.0
EMRS	**Mersa Alam**	1.64	305	P	Pn	10 50 03.8	-1.0
HADB		2.00	310	⇓P	Pn	10 50 09.4	-0.5
HQSR		2.43	314	⇓P	Pn	10 50 15.0	-1.1
HEDF	**Idfu**	3.03	290	P	Pn	10 50 24.5	-0.1
KBRS	**Khaybar**	3.18	57	P	Pn	10 50 24.2	-2.6
AAHD	**Abu Hadid**	3.27	265	P	Pn	10 50 26.2	-1.9
HSFG		3.29	320	P	Pn	10 50 27.4	-1.0
HHRG	**Al Ghardaqah**	4.00	322	⇓P	Pn	10 50 37.1	-1.3
TBKS	**Tabuk**	4.15	3	P	Pn	10 50 39.8	-0.8
TBKS				S	Sn	10 51 29.4	-0.3
TBKS	**Tabuk**	4.15	3	S	Sn	10 51 29.4	-0.3
AYUS	**'Aynunah**	4.21	347	P	Pn	10 50 41.1	-0.4
HMSM	**Jabal Masmas**	4.23	255	P	Pn	10 50 40.6	-1.1
SHRM		4.29	333	P	Pn	10 50 41.4	-1.2
ASHG	**Umm Shaghir**	4.34	260	P	Pn	10 50 42.4	-0.9
TR1		4.46	332	P	Pn	10 50 44.0	-1.1
BDAS	**Al Bad'**	4.48	346	P	Pn	10 50 44.8	-0.5
ZEIT		4.54	327	P	Pn	10 50 44.4	-1.7
AADN	**Adndan**	4.81	247	P	Pn	10 50 46.7	-3.2
JMQS	**Jabal Moqyreh**	4.82	355	P	Pn	10 50 49.5	-0.6
HKFR	**Khafra**	4.83	253	P	Pn	10 50 48.9	-1.4
HDHB	**Dhahab**	4.88	342	P	Pn	10 50 50.0	-0.9
TR2		4.89	332	P	Pn	10 50 50.1	-1.0
HKAT	**Jabal Katrina**	4.90	335	P	Pn	10 50 50.4	-0.9
APRS		5.12	275	P	Pn	10 50 53.1	-1.2
HAQS	**Haql**	5.12	346	P	Pn	10 50 53.9	-0.4
NUB		5.16	344	P	Pn	10 50 54.3	-0.6
JMOS	**Jabal al Moall**	5.20	348	P	Pn	10 50 55.1	-0.3
GRB	**Gharib**	5.25	324	⇓P	Pn	10 50 55.1	-1.1
ALWS	**Ilw as Safayha**	5.34	348	P	Pn	10 50 57.3	-0.2
ASUT		5.42	309	P	Pn	10 50 57.9	-0.6
GTR	**Jabal at Tayr**	5.42	287	P	Pn	10 50 58.2	-0.4
AKRG	**Al Kharijah**	5.47	286	P	Pn	10 50 58.7	-0.7
EIL	**Elat**	5.71	348	Pn	Pn	10 51 02.0	-0.7
	4.4nm,0.3s,baz=184,slow=14,SNR=39						
EIL				LR	LR	10 52 58.5	
	comp=Z,1µm,20.2s,baz=152,slow=34						
EIL	**Elat**	5.71	348	P	Pn	10 51 02.1	-0.6
EIL	**Elat**	5.71	348	*e*P	Pn	10 51 01.3	-1.4
	16nm,0.6s						
EIL	**Elat**	5.71	348	*e*P	Pn	10 51 01.3	-1.4
	16nm,0.6s						
AQBJ	**Aqaba**	5.75	349	P	Pn	10 51 03.0	-0.2
MBH	**Mount Berech**	5.84	348	P	Pn	10 51 04.2	-0.3
AFFS	**'Afif**	6.12	90	P	Pn	10 51 03.9	-4.5
KMTI	**Karmit**	6.18	347	P	Pn	10 51 08.7	-0.6
ZAF		6.19	328	P	Pn	10 51 07.9	-1.5
PRNI	**Paran**	6.37	350	P	Pn	10 51 11.6	-0.4
ARSS	**Ar Rass**	6.54	73	P	Pn	10 51 09.5	-4.8
ZFRI	**Zfri**	6.54	351	P	Pn	10 51 14.1	-0.3
HBNS	**Bani Suwayf**	6.67	318	P	Pn	10 51 14.4	-1.8
HDK2	**Wahat Dakhilah**	6.72	274	P	Pn	10 51 14.7	-2.2
HDK2	**Wahat Dakhilah**	6.72	274	P	Pn	10 51 13.6	-3.4
GLL	**Jalalah**	6.86	324	P	Pn	10 51 17.0	-1.9
HHAG	**Hagoal**	6.96	328	P	Pn	10 51 18.1	-2.2
HHAG	**Hagoal**	6.96	328	P	Pn	10 51 18.1	-2.2
HSAF	**As Saff**	6.97	324	P	Pn	10 51 19.7	-0.8
KZIT	**Kziot**	7.02	346	P	Pn	10 51 21.1	-0.1
AMAG	**Maghara**	7.11	338	P	Pn	10 51 20.3	-2.0
ASF	**Jabal al Asfar**	8.09	4	Pn	P	10 51 34.6	-1.6
	1.3nm,0.3s,baz=33,slow=6.2,SNR=5.4						
SLTI	**Sal'it**	8.22	352	P	P	10 51 37.6	-0.3
OFRI	**'Ofer**	8.60	352	P	P	10 51 43.0	-0.2
KSDI	**Kefar Szold**	9.11	357	P	P	10 51 50.3	0.0
MALT	**Malatya**	14.32	7	*e*P	P	10 53 06.0	+5.4
	15nm,0.9s						
IDI	**Anoyia**	14.94	321	Pn	P	10 53 12.4	+3.6
	0.3nm,0.3s,baz=38,slow=20,SNR=2.0						
BRTR	**Keskin Array B**	15.78	352	Pn	P	10 53 22.1	+2.5
	0.1nm,0.3s,baz=150,slow=12,SNR=5.9						
GNI	**Garni**	17.54	22	P	P	10 53 43.6	+1.7
	0.4nm,0.3s,baz=315,slow=1.4,SNR=3.8						
GNI				LR	LR	11 01 07.7	
	comp=Z,223nm,18.6s,baz=337,slow=39						
GNI	**Garni**	17.54	22	*e*P	P	10 53 44.4	+2.5
	54nm,1.4s						
GNI	**Garni**	17.54	22	*e*P	P	10 53 44.4	+2.5
	54nm,1.4s						
TI2	**Plekhanov**	18.97	20	*e*P	P	10 54 02.4	+2.9
SOC	**Sochi**	19.67	7	*e*P	P	10 54 05.8	-1.8
SOC				*e*		10 57 50.9	
SOC				pmax	pmax		
	comp=Z,62nm,1.7s						
SOC				pmax	pmax		
	comp=N,62nm,1.5s						
SOC				pmax	pmax		
	comp=E,68nm,1.6s						
ZEI	**Tsey**	19.68	17	*e*P	P	10 54 10.6	+2.8
ZEI				pmax	pmax		
	comp=Z,31nm,1.6s						
KIV	**Kislovodsk**	20.52	13	P	P	10 54 20.1	+3.4
	comp=Z,194nm,1.3s,SNR=9.7						
KIV	**Kislovodsk**	20.52	13	*c i*P	P	10 54 17.2	+0.5
KIV				*e*SS	SS	10 58 32.1	+0.8
KIV				pmax	pmax		
	comp=Z,50nm,1.3s						
KIV				MLR	MLR		
	comp=Z,100nm,15.0s,MS3.3						
KIV	**Kislovodsk**	20.52	13	*e*P	P	10 54 16.6	-0.1
	comp=Z,64nm,1.1s						
ANN	**Anapa**	20.71	2	*e*P	P	10 54 11.2	-7.4
ANN				*e**PP		10 54 18.0	
ANN				*e*		10 54 40.7	
ANN				*e*PPP	PPP	10 54 50.2	+0.8
ANN				*e*SS	SS	10 58 24.5	-11
ANN				*e*SSS	SSS	10 58 34.7	-15
ANN				pmax	pmax		
	comp=Z,141nm,1.5s						
GOF	**Gofitskoye**	21.65	13	⇓*i*P	P	10 54 29.0	+0.8
GOF				pmax	pmax		
	comp=Z,40nm,1.4s,mb4.7						
MLR	**Muntele Rosu**	22.97	341	P	P	10 54 45.1	+3.8
	comp=Z,5.9nm,1.0s,mb4.0,baz=195,slow=3.0,SNR=5.2						
MLR	**Muntele Rosu**	22.97	341	P	P	10 54 45.1	+3.8
MLR				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KMBO	**Kilima Mbogo**	25.06	178	P	P	10 55 02.0	+0.2
	comp=Z,9.9nm,1.1s,mb4.2,baz=9.9,slow=9.1,SNR=7.5						
KMBO	**Kilima Mbogo**	25.06	178	P	P	10 55 02.1	+0.2
KMBO				pmax	pmax		
	comp=Z,10.0nm,1.2s						
KMBO	**Kilima Mbogo**	25.06	178	*e*P	P	10 55 02.5	+0.6
	comp=Z,9.9nm,1.2s,mb4.2						
MBAR	**Mbarara**	25.11	193	P	P	10 55 03.4	+1.0
PSZ	**Piszkesteto**	27.14	335	*e*P	P	10 55 22.1	+1.2
	comp=Z,23nm,1.1s,mb4.6						
PSZ	**Piszkesteto**	27.14	335	*e*P	P	10 55 22.1	+1.2
	comp=Z,23nm,1.1s,mb4.6						
AKASG	**Malin Array Be**	27.15	350	P	P	10 55 22.0	+1.0
	comp=Z,9.7nm,1.0s,mb4.3,baz=169,slow=8.6,SNR=19						
AKASG	**Malin Array Be**	27.15	350	P	P	10 55 22.0	+1.1
AKASG				pmax	pmax		
	comp=Z,10.0nm,1.0s						
KOLS	**Kolonicke sedl**	27.17	339	*e*P	P	10 55 25.7	+4.6
VRSR	**Storozhevoye**	27.20	4	*e*P	P	10 55 22.9	+1.6
VRSR				*e**PP	pP	10 55 31.9	+7.7
VRSR				*e*		10 56 03.4	
VRSR				*e*		10 58 42.0	
VRSR				*e*S	S	10 59 58.3	0.0
VRSR				*e*SS	SS	11 01 14.7	+1.2
VRSR				*e*SSS	SSS	11 01 33.9	+2.3
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.3						
VRSR				pmax	pmax		
	comp=N,2.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.7s						
VRSR				smax			
	comp=N,3.0nm,1.0s						
VRSR				smax			
	comp=Z,10.0nm,1.3s						
VRSR				smax			
	comp=E,10.0nm,1.0s						
CRVS	**Cervenica-Dubn**	27.41	338	*i* P	P	10 55 27.6	+4.3
VYHS	**Vyhne**	28.02	335	*i* P	P	10 55 34.0	+5.1
ZST	**Bratislava**	28.49	333	*e*P	P	10 55 38.8	+5.7
OKC	**Ostrava-Krasne**	29.38	336	*e*P	P	10 55 45.6	+4.5
MORC	**Moravsky Berou**	29.56	335	P	P	10 55 44.1	+1.4
	comp=E,17nm,1.4s,mb4.6						
MORC	**Moravsky Berou**	29.56	335	P	P	10 55 44.2	+1.5
	comp=E,17nm,1.4s,mb4.6						
VRAC	**Vranov**	29.57	333	P	P	10 55 44.2	+1.4
	comp=E,4.7nm,0.8s,mb4.3,baz=300,slow=10,SNR=5.9						
VRAC	**Vranov**	29.57	333	P	P	10 55 44.2	+1.4
VRAC				pmax	pmax		
	comp=Z,5.0nm,0.8s						
GERES	**GERESS Array B**	30.47	330	P	P	10 55 52.4	+1.6
	comp=Z,2.9nm,0.8s,mb4.1,baz=149,slow=7.8,SNR=8.8						
GERES	**GERESS Array B**	30.47	330	P	P	10 55 52.4	+1.6
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
DPC	**Dobruska-Polom**	30.49	334	*e*P	P	10 55 52.4	+1.4
KHC	**Kasperske Hory**	30.74	330	*e*P	P	10 55 54.5	+1.4
DAVOX	**Davos**	31.01	324	P	P	10 55 57.8	+2.3
	comp=Z,6.9nm,0.8s,mb4.5,baz=164,slow=4.0,SNR=7.5						
OBN	**Obninsk**	31.01	0	*e*P	P	10 55 53.7	-1.8

OBN				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.8						
OBN				MLR	MLR		
	comp=Z,100nm,21.0s,MS3.5						
FRF	La Foret Royal	31.14	316	eP	P	10 55 58.4	+1.6
MBDF	Montbardon	31.65	318	eP	P	10 56 03.2	+2.0
	comp=Z,56nm,1.2s,mb5.0						
MOS	Moscow	31.65	1	eP	P	10 55 57.7	-3.4
MOS				pmax	pmax		
	comp=Z,70nm,0.6s						
BRG	Berggiesshubel	31.86	333	eP	P	10 56 04.3	+1.3
BRG				e	pP	10 56 07.9	+1.9
BRG				pmax	pmax		
	comp=Z,28nm,1.5s,mb4.9						
BRG	Berggiesshubel	31.86	333	eP	P	10 56 04.3	+1.3
	comp=Z,28nm,1.5s,mb4.9						
BRG				e	pP	10 56 07.9	+1.9
LPG	La Plagne	32.06	319	eP	P	10 56 06.7	+1.9
LPL	La Plagne	32.08	319	eP	P	10 56 07.4	+2.4
GRF	Grafenberg Arr	32.22	329	eP	P	10 56 00.1	-6.1
CLL	Collm	32.58	333	iP	P	10 56 10.3	+1.0
CLL				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
CLL	Collm	32.58	333	P	P	10 56 10.3	+1.0
	comp=Z,logA/T=0.9,mb4.6						
CLL				i*PP	pP	10 56 13.7	+1.5
CLL	Collm	32.58	333	iP	P	10 56 10.3	+1.0
	comp=Z,26nm,1.3s,mb5.0						
MOX	Moxa	32.71	331	eP	P	10 56 11.6	+1.2
MOX				pmax	pmax		
	comp=Z,66nm,1.9s,mb5.2						
MOX	Moxa	32.71	331	iP	P	10 56 11.6	+1.2
	comp=Z,logA/T=1.5,mb5.2						
MOX	Moxa	32.71	331	eP	P	10 56 11.6	+1.2
	comp=Z,66nm,1.9s,mb5.2						
CABF	La Chapelle	33.05	320	eP	P	10 56 14.6	+1.2
	comp=Z,37nm,0.9s,mb5.0						
LASF	Ste Croix	33.17	315	eP	P	10 56 15.9	+1.4
HINF	Hinteralfeld	33.28	323	eP	P	10 56 16.8	+1.4
	comp=Z,18nm,0.6s,mb4.9						
CDF	Champ du Feu	33.40	324	eP	P	10 56 17.9	+1.5
HAU	Haudompre	33.67	323	eP	P	10 56 20.0	+1.2
SMF	Signal de Mont	34.39	319	eP	P	10 56 25.9	+0.9
MEZF	Maizieres J’vi	34.66	323	eP	P	10 56 29.0	+1.7
AVF	Avril sur Loir	34.75	319	eP	P	10 56 29.0	+0.9
	comp=Z,12nm,0.9s,mb4.5						
SSF	Saint Saulge	34.80	320	eP	P	10 56 29.6	+1.1
	comp=Z,4.9nm,0.8s,mb4.5						
BGF	Bois d’Agland	34.95	318	eP	P	10 56 31.5	+1.7
	comp=Z,30nm,0.9s,mb5.0						
RJF	Les Rejaudoux	35.21	316	eP	P	10 56 33.3	+1.2
TCF	Toulx Ste Croi	35.21	318	eP	P	10 56 33.7	+1.7
MEM	Membach	35.38	326	P	P	10 56 36.0	+2.6
ETSF	Etsaut	35.67	311	eP	P	10 56 38.1	+2.1
GIVF	Givet	35.69	325	eP	P	10 56 36.7	+0.6
BAIF	Baives	35.99	324	eP	P	10 56 39.8	+1.2
	comp=Z,31nm,1.0s,mb4.9						
ARU	Arti	36.18	21	⇓iP	P	10 56 40.3	+0.2
ARU				e		10 58 09.2	
ARU				eS	S	11 02 20.2	+0.8
ARU				eSS	SS	11 04 51.8	+9.1
ARU				e		11 06 51.0	
ARU				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
ARU	Arti	36.18	21	eP	P	10 56 40.0	-0.2
	comp=Z,24nm,0.9s,mb5.1						
SJPF	Ste Jean	36.20	311	eP	P	10 56 42.5	+2.0
	comp=Z,40nm,1.0s,mb5.0						
MFF	Saint Martin d	36.81	317	eP	P	10 56 46.8	+1.2
ESDC	Sonseca Array	37.24	304	P	P	10 56 51.0	+1.8
	comp=Z,0.5nm,0.4s,mb3.7,baz=96,slow=7.7,SNR=7.4						
LDF	La Druitiere	37.67	320	eP	P	10 56 53.6	+0.8
	comp=Z,61nm,1.2s,mb4.9						
FLN	La Foliniere	37.97	320	eP	P	10 56 56.1	+0.9
	comp=Z,66nm,1.1s,mb5.0						
FINES	FINESS Array B	38.02	352	P	P	10 56 55.9	+0.4
	comp=Z,2.9nm,0.8s,mb4.1,baz=180,slow=6.9,SNR=4.1						
FINES	FINESS Array B	38.02	352	P	P	10 56 55.9	+0.4
FINES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
BRVK	Borovoye	38.66	33	eP	P	10 57 01.6	+0.6
	comp=Z,11nm,1.1s,mb4.5						
BVAR	Borovoye Array	38.69	33	P	P	10 57 00.6	-0.7
	comp=Z,3.6nm,0.8s,mb4.2,baz=230,slow=12,SNR=10.0						
LSZ	Lusaka	39.90	192	P	P	10 57 12.9	+1.2
EVO	Evora	40.14	302	eP	P	10 57 13.8	+0.3
	comp=Z,12nm,0.8s,mb4.4						
NB2	NORSAR Subarra	40.79	342	P	P	10 57 18.5	-0.1
	comp=Z,10.0nm,1.1s,mb4.4,baz=140,slow=8.6						
NOA	NORSAR Array B	40.79	342	P	P	10 57 19.1	+0.6
	comp=Z,3.4nm,0.9s,mb4.0,baz=140,slow=8.5,SNR=4.7						
NOA	NORSAR Array B	40.79	342	P	P	10 57 19.2	+0.6
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	NORSAR Array B	40.79	342	P	P	10 57 19.1	+0.5
KOLN	Koldanda	42.49	75	eP	P	10 57 32.5	-0.5
	comp=Z,18nm,0.8s,mb4.7						
EKA	Eskdalemuir Ar	42.61	328	P	P	10 57 34.9	+1.3
	comp=Z,5.6nm,0.7s,mb4.4,baz=117,slow=9.7,SNR=10						
EKA	Eskdalemuir Ar	42.61	328	P	P	10 57 34.9	+1.4
EKA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
EKA	Eskdalemuir Ar	42.61	328	P	P	10 57 34.8	+1.3
DBIC	Dimbokro	43.09	253	P	P	10 57 37.8	-0.2
	comp=Z,18nm,0.8s,mb4.8,baz=41,slow=10,SNR=27						
DBIC	Dimbokro	43.09	253	P	P	10 57 37.8	-0.2
DBIC				pmax	pmax		
	comp=Z,18nm,0.9s						
GKN	Gorkha	43.38	74	eP	P	10 57 41.0	+0.8
	comp=Z,27nm,1.0s,mb4.9						
DMN	Daman	43.84	75	eP	P	10 57 44.0	+0.1
	comp=Z,30nm,0.8s,mb5.1						
KKN	Kakani	43.97	74	eP	P	10 57 44.0	-0.9
	comp=Z,31nm,1.0s,mb5.0						
PKI	Pulchoki	44.11	75	eP	P	10 57 45.4	-0.7
	comp=Z,24nm,0.8s,mb5.0						
GUN	Gumba	44.48	74	eP	P	10 57 46.3	-2.8
	comp=Z,21nm,0.9s,mb4.9						
ARCES	ARCESS Array B	45.94	355	P	P	10 58 00.9	+0.7
	comp=Z,3.1nm,0.8s,mb4.3,baz=180,slow=8.5,SNR=5.1						
ARCES				LR	LR	11 21 00.9	
	comp=Z,184nm,19.3s,MS4.0,baz=84,slow=41						
ARCES	ARCESS Array B	45.94	355	P	P	10 58 00.9	+0.7
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,184nm,19.3s						
WMQ	Urumqi	46.16	52	eP	P	10 58 02.0	-0.2
NVS	Novosibirsk	46.22	36	iP	P	10 58 01.4	-1.1
NVS				e		10 59 58.3	
NVS				pmax	pmax		
	comp=N,68nm,1.5s						
NVS				pmax	pmax		
	comp=E,24nm,1.5s						
NVS				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.3						
ZAL	Zalesovo	46.75	37	P	P	10 58 05.5	-1.1
	comp=Z,1.5nm,0.8s,mb4.0,baz=232,slow=9.0,SNR=7.9						
ZAL	Zalesovo	46.75	37	iP	P	10 58 06.5	-0.2
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LBTB	Lobatse	49.88	193	eP	P	10 58 29.8	-1.7
	comp=Z,7.5nm,1.0s,mb4.7						
BOSA	Boshof	53.44	192	eP	P	10 58 56.9	-1.4
GTA	Gaotai	55.09	58	eP	P	10 59 09.4	-0.8
GTA				AP	pP	10 59 17.5	+4.2
GTA				XP	sP	10 59 21.3	+6.8
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.8						
GTA				AMB	AMB		
	comp=Z,121nm,5.7s						
GTA				LR	LR		
	comp=N,149nm,16.0s,MS4.3						
GTA				LR	LR		
	comp=E,159nm,14.8s,MS4.3						
GTA				LR	LR		
	comp=Z,170nm,14.8s,MS4.2						
ZAK	Zakamensk	57.29	44	eP	P	10 59 25.1	-0.7
CMAR	Chiang Mai Arr	58.23	83	P	P	10 59 30.6	-2.3
	comp=Z,0.9nm,0.5s,mb4.1,baz=290,slow=8.6,SNR=9.8						
CMAR	Chiang Mai Arr	58.23	83	P	P	10 59 30.6	-2.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	59.37	47	P	P	10 59 39.2	-1.2
	comp=Z,8.0nm,1.0s,mb4.7,baz=266,slow=8.0,SNR=37						
ULN	Ulaanbaatar	59.81	47	⇑eP	P	10 59 44.6	+1.1
ULN	Ulaanbaatar	59.81	47	eP	P	10 59 44.6	+1.1
	comp=Z,7.0nm,1.3s,mb4.5						
BOD	Bodaibo	63.46	36	eP	P	11 00 06.4	-1.4
ENH	Enshi	64.39	67	P	P	11 00 13.1	-1.3
TIXI	Tiksi	68.18	20	eP	P	11 00 38.4	+0.5
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
YAK	Yakutsk	70.59	30	eP	P	11 00 52.7	-0.1
YAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
NJ2	Nanjing	71.65	63	eP	P	11 00 59.3	-0.4
NJ2				AP	pP	11 01 10.0	+7.2
NJ2				S	S	11 10 14.0	-3.9
NJ2				XS		11 10 30.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
NJ2				LR	LR		
	comp=N,260nm,19.4s,MS4.6						
NJ2				LR	LR		
	comp=E,110nm,17.1s,MS4.6						
SSE	Sheshan	73.83	63	eP	P	11 01 18.8	+6.2
SSE				AMB	AMB		
	comp=Z,23nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,121nm,10.0s						
SCHQ	Schefferville	77.85	325	LR	LR	11 37 03.4	
	comp=Z,84nm,20.4s,MS4.0,baz=11,slow=36						
ASAJ	Asahikawa	84.45	44	LR	LR	11 42 07.2	
	comp=Z,287nm,20.4s,MS4.7,baz=280,slow=37						
YKA	Yellowknife Ar	90.67	347	P	P	11 02 38.9	-0.5
	comp=Z,0.1nm,0.4s,baz=21,slow=5.1,SNR=4.1						
ILAR	Eielson Array	91.42	1	P	P	11 02 43.1	+0.3
	comp=Z,1.0nm,0.9s,mb4.2,baz=315,slow=4.0,SNR=5.8						
ILAR	Eielson Array	91.42	1	P	P	11 02 43.1	+0.3
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						

IGQ 18 11:05:24.5, 1.33S×80.95W, h5^{km}±27^{km}, mb4.2, 2C-1D, Error ellipse: s-maj=27.7km s-min=8.5km az=166.5, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGUA	Igualata	2.32	94	P	Pn	11 06 05.7	+1.7
ARRY	Arrayan	2.50	94	⇑P	Pn	11 06 08.3	+1.7
ARRY				S	Sn	11 06 39.4	+1.5
ULBA	Ulba	2.55	93	P	Pn	11 06 09.2	+2.0
NAS1	Nasa	2.57	74	P	Pn	11 06 09.1	+1.6
PISA	Pisayambo	2.58	84	P	Pn	11 06 10.3	+2.6
CGGP	Crater GGP	2.61	64	P	Pn	11 06 11.7	+3.5
PINO	Pino	2.62	64	⇓P	Pn	11 06 08.8	+0.6
VC1	Cotopaxi 1	2.64	75	⇑P	Pn	11 06 11.2	+2.6
TAMB	Tambo	2.66	76	P	Pn	11 06 10.6	+1.7
YANA	Yana	2.67	63	P	Pn	11 06 10.1	+1.1
ANTI	Antisana	2.93	73	P	Pn	11 06 15.3	+2.7
COTA	Cotacachi	3.10	58	P	Pn	11 06 17.3	+2.2
COTA				S	Sn	11 06 59.0	+6.1
CAYR	Refugio Cayamb	3.24	66	P	Pn	11 06 21.1	+4.1
CAYA	Cayambe	3.27	65	P	Pn	11 06 21.6	+4.1
CAYA				S	Sn	11 07 06.6	+9.2

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*BJI **18** 11:35:34.4, 48.97N×156.98E, h10^{km}, mB5.0, mb4.6, Ms4.4, Msz4.0*

*NEIC **18** 11:35:42.2±0.4, 48.80N×156.15E, h10^{km}, mb4.5/7, Error ellipse: s-maj=9.6km s-min=6.6km az=151.0*

*MOS **18** 11:35:44.4±1.1, 48.98N×156.05E, h33^{km}, mb4.6/12, Error ellipse: s-maj=15.1km s-min=7.3km az=94.9*

*IDC **18** 11:35:46.8±0.6, 48.91N×156.05E, h45^{km}±4^{km}, mb3.8/20, mb1 4.0/22, mb1mx4.0/29, Error ellipse: s-maj=17.4km s-min=12.6km az=142.0*

ISC 18 11:35:43.7±1.8, **48.96N**±0.06×**156.02E**±0.09, **h30**^{km}±12^{km}, **h38**^{km}±1.6^{km}**:pP-P, n82,** σ1^{s}**14**/87, **mb4.3**/37, **MS3.9**/4, **2C-3D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril’s	1.73	2	ePN	Pn	11 36 10.5	-1.8
SKR				eS	Sn	11 36 34.1	+0.6
SKR				smax			
	comp=N,1.0nm,0.5s						
SKR				smax			
	comp=E,1.0nm,0.5s						
PET	Petropavlovsk	4.40	21	ePN	Pn	11 36 50.7	+0.4
PET				eS	Sn	11 37 40.2	-1.0
PET				pmax	pmax		
	comp=Z,81nm,0.9s						
PET				smax			
	comp=E,130nm,0.6s						
PET				smax			
	comp=N,156nm,0.5s						
PET	Petropavlovsk	4.40	21	eP	Pn	11 36 50.4	+0.1
YSS	Yuzh-Sakhalins	9.12	262	PN	P	11 37 58.2	+1.7
YSS	Yuzh-Sakhalins	9.12	262	P	P	11 37 57.9	+1.5
ASAJ	Asahikawa	10.43	247	P	P	11 38 15.2	+0.8
	comp=N,1.0nm,0.3s,baz=88,slow=12,SNR=14						
ASAJ	Asahikawa	10.43	247	PN	P	11 38 15.2	+0.8
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MA2	Magadan	11.07	346	iPN	P	11 38 24.7	+1.7
MA2				pmax	pmax		
	comp=Z,21nm,2.1s						
MA2				MLR	MLR		
	comp=Z,400nm,12.0s						
FX1	Attu Island--F	11.51	64	P	P	11 38 24.1	-4.9
	comp=Z,2.7nm,0.3s,baz=107,slow=22,SNR=20						
FX1				S	S	11 40 20.7	-17
	comp=Z,13nm,0.3s,baz=94,slow=19,SNR=16						
FX1	Attu Island--F	11.51	64	eP	P	11 38 23.8	-5.2
SMY	Shemya	12.03	65	PN	P	11 38 29.1	-7.0
YAK	Yakutsk	19.66	322	eP	P	11 40 11.8	-1.0
YAK				pmax	pmax		
	comp=Z,23nm,0.8s						
YAK	Yakutsk	19.66	322	eP	P	11 40 11.8	-1.0
	comp=Z,23nm,0.8s						
BILL	Bilibino	19.82	11	eP	P	11 40 12.4	-2.1
CLNS	Chul’man	20.22	305	eP	P	11 40 15.7	-3.0
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.9s						
CLNS				pmax	pmax		
	comp=N,5.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,6.0nm,0.8s						
CLNS				MLR	MLR		
	comp=N,100nm,15.0s,MS3.5						
CLNS				MLR	MLR		
	comp=Z,400nm,15.0s,MS3.9						
CLNS				MLR	MLR		
	comp=E,100nm,14.0s,MS3.5						
CLNS				MLR	MLR		
	comp=Z,2µm,17.0s						
CN2	Changchun	21.62	268	eP	P	11 40 30.8	-2.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.3						
TIXI	Tiksi	25.96	341	⇑eP	P	11 41 13.6	-1.2
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.3						
TIXI				MLR	MLR		
	comp=Z,100nm,13.0s,MS3.5						
IMA	Indian Mountai	30.87	38	eP	P	11 41 59.6	+0.5
SSE	Sheshan	31.72	249	eP	P	11 42 04.1	-2.8
SSE				AMB	AMB		
	comp=Z,32nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,119nm,5.1s						
ULN	Ulaanbaatar	32.07	287	iP	P	11 42 09.8	0.0
HHC	Hu-ho-hao-te	32.12	272	eP	P	11 42 09.1	-1.2
HHC				AP	pP	11 42 16.1	-3.2
HHC				PP	PP	11 43 15.5	-1.9
HHC				PCP	PcP	11 44 57.8	-1.4
HHC				S	S	11 47 19.4	-0.2
HHC				AMB	AMB		
	comp=Z,9.0nm,0.3s,mb5.1						
HHC				AMB	AMB		
	comp=Z,286nm,5.3s						
HHC				LR	LR		
	comp=N,198nm,16.6s,MS4.2						
HHC				LR	LR		
	comp=E,279nm,11.9s,MS4.2						
HHC				LR	LR		
	comp=Z,145nm,13.1s,MS3.9						
SONM	Songino Array	32.50	287	P	P	11 42 12.7	-0.8
	comp=Z,0.3nm,0.6s,mb3.3,baz=53,slow=7.2,SNR=2.7						
NJ2	Nanjing	32.52	253	eP	P	11 42 13.5	-0.4
NJ2				PP	PP	11 43 22.0	-0.7
NJ2				S	S	11 47 24.0	-1.9
NJ2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
NJ2				LR	LR		
	comp=N,480nm,16.6s,MS4.4						
NJ2				LR	LR		
	comp=E,480nm,15.4s,MS4.4						
ILAR	Eielson Array	33.60	41	P	P	11 42 22.3	-0.7
	comp=E,0.5nm,0.6s,mb3.6,baz=260,slow=7.6,SNR=7.2						
INK	Inuvik	38.74	34	P	P	11 43 07.2	+0.8
	comp=E,1.3nm,0.7s,mb3.8,baz=292,slow=8.2,SNR=12						
INK				pP	pP	11 43 18.7	+3.1
	comp=E,1.6nm,0.7s,baz=304,slow=3.5,SNR=4.5						
INK	Inuvik	38.74	34	P	P	11 43 07.2	+0.8
INK				*PP	pP	11 43 18.7	+3.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
INK	Inuvik	38.74	34	eP	P	11 43 06.9	+0.4
	comp=Z,1.4nm,0.7s,mb3.8						
ENH	Enshi	39.69	259	eP	P	11 43 14.0	-0.7
	comp=Z,4.9nm,0.8s,mb4.3						
GTA	Gaotai	40.57	278	eP	P	11 43 22.3	+0.4
GTA				AP	pP	11 43 29.5	-1.6
GTA				XP	sP	11 43 32.5	-2.4
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.3						
ZAL	Zalesovo	42.95	305	P	P	11 43 40.4	-0.7
	comp=Z,0.5nm,0.3s,mb3.6,baz=120,slow=6.4,SNR=3.9						
ZAL	Zalesovo	42.95	305	iP	P	11 43 41.9	+0.8
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
GYA	Guiyang	44.10	258	P	P	11 43 51.4	+0.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
YKA	Yellowknife Ar	47.98	39	P	P	11 44 21.1	0.0
	comp=Z,0.4nm,0.4s,mb3.8,baz=293,slow=7.4,SNR=6.4						
YKA				pP	pP	11 44 32.8	+2.4
	comp=Z,0.9nm,0.7s,baz=297,slow=7.4,SNR=6.6						
YKA	Yellowknife Ar	47.98	39	P	P	11 44 21.2	+0.1
YKA				*PP	pP	11 44 32.8	+2.4
BVAR	Borovoye Array	50.98	309	P	P	11 44 43.5	-0.7
	comp=Z,0.5nm,0.5s,mb3.7,baz=63,slow=6.6,SNR=6.1						
BVAR				pP	pP	11 44 55.5	+2.0
	comp=Z,1.8nm,0.8s,baz=68,slow=8.0,SNR=8.0						
BRVK	Borovoye	51.01	309	P	P	11 44 43.5	-0.9
BRVK				e*PP	pP	11 44 55.0	+1.2
ARU	Arti	54.70	318	⇑iP	P	11 45 10.4	-1.5
ARU				e		11 46 14.8	
ARU				e		11 47 10.8	
ARU				eS	S	11 52 47.2	-1.2
ARU				eSS	SS	11 56 29.2	-1.9
ARU				eSSS	SSS	11 58 30.5	-0.4
ARU				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
CMAR	Chiang Mai Arr	54.78	257	P	P	11 45 12.7	-0.2
	comp=Z,2.3nm,0.7s,mb4.3,baz=34,slow=7.2,SNR=14						
CMAR				pP	pP	11 45 25.6	+3.3
	comp=Z,2.1nm,0.5s,baz=34,slow=7.6,SNR=5.9						
ARCES	ARCESS Array B	56.40	341	P	P	11 45 21.8	-2.2
	comp=Z,2.5nm,0.9s,mb4.2,baz=60,slow=7.3,SNR=3.3						
GUN	Gumba	56.74	276	eP	P	11 45 27.5	+0.5
KKN	Kakani	57.22	276	eP	P	11 45 31.0	+0.6
PKI	Pulchoki	57.28	276	eP	P	11 45 31.4	+0.6
	comp=Z,18nm,1.0s,mb5.1						
DMN	Daman	57.45	276	eP	P	11 45 32.6	+0.5
	comp=Z,34nm,0.8s,mb5.4						
GKN	Gorkha	57.50	277	eP	P	11 45 32.7	+0.3
KOLN	Koldanda	58.33	277	eP	P	11 45 38.6	+0.4
	comp=Z,14nm,1.0s,mb5.0						
PDAR	Pinedale Array	61.88	56	P	P	11 46 01.1	-1.2
	comp=Z,1.0nm,1.0s,mb3.9,baz=315,slow=2.1,SNR=4.8						
FINES	FINESS Array B	62.86	336	P	P	11 46 07.0	-1.5
	comp=Z,2.7nm,1.0s,mb4.3,baz=45,slow=8.1,SNR=11						
FINES	FINESS Array B	62.86	336	iP	P	11 46 08.1	-0.4
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
PV10	Paradox Valley	65.15	60	P	P	11 46 24.4	+0.7
HFS	Hagfors	67.05	341	P	P	11 46 34.5	-1.0
	comp=Z,2.7nm,0.8s,mb4.3,slow=3.0,SNR=4.2						
AKASG	Malin Array Be	70.77	327	P	P	11 46 57.7	-1.0
	comp=Z,0.3nm,0.3s,mb3.7,baz=33,slow=5.3,SNR=5.0						
ZEI	Tsey	70.97	314	eP	P	11 47 00.9	+0.9
ZEI				i*PP	pP	11 47 13.1	+3.6
ZEI				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.2						
WRA	Warramunga Arr	71.26	202	P	P	11 47 00.1	-2.0
	comp=Z,1.1nm,0.8s,mb3.8,baz=19,slow=6.6,SNR=6.2						
WRA				pP	pP	11 47 13.5	+1.9
	comp=Z,1.0nm,0.8s,baz=19,slow=6.4,SNR=5.2						
OJC	Ojcow	74.30	333	eP	P	11 47 20.2	+0.9
EKA	Eskdalemuir Ar	74.63	348	P	P	11 47 21.6	+0.5
	comp=Z,5.9nm,1.1s,mb4.4,baz=20,slow=5.2,SNR=6.3						
EKA				pP	pP	11 47 34.2	+3.5
	comp=Z,3.0nm,0.6s,baz=18,slow=5.0,SNR=4.0						
KOLS	Kolonicke sedl	74.65	330	iP	P	11 47 22.6	+1.2
TXAR	Lajitas Array	74.73	63	P	P	11 47 21.6	-0.6
	comp=Z,0.3nm,0.4s,mb3.6,baz=298,slow=4.8,SNR=15						
KSP	Ksiaz	74.77	335	eP	P	11 47 22.6	+0.6
NIE	Niedzica	74.85	332	eP	P	11 47 24.5	+2.0
ASAR	Alice Springs	74.94	201	P	P	11 47 23.1	-0.6
	comp=Z,0.7nm,0.8s,mb3.6,baz=22,slow=4.9,SNR=4.8						
DPC	Dobruska-Polom	75.20	335	eP	P	11 47 25.7	+1.1
CLL	Collm	75.23	337	⇓iP	P	11 47 25.4	+0.7
CLL				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
CLL	Collm	75.23	337	⇓iP	P	11 47 25.4	+0.7
	comp=Z,10.0nm,1.0s,mb4.7						
CLL	Collm	75.23	337	⇓P	P	11 47 25.4	+0.7
	comp=Z,logA/T=1.0,mb4.7						
MORC	Moravsky Berou	75.37	334	eP	P	11 47 26.3	+0.8
MORC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
MORC	Moravsky Berou	75.37	334	eP	P	11 47 26.3	+0.8
	comp=Z,7.7nm,0.8s,mb4.7						
BRG	Berggiesshubel	75.38	336	eP	P	11 47 22.2	-3.4
BRG				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.1						
BRG	Berggiesshubel	75.38	336	eP	P	11 47 22.2	-3.4
	comp=Z,2.6nm,1.1s,mb4.1						
PRU	Pruhonice	76.03	336	eP	P	11 47 29.9	+0.7
VRAC	Vranov	76.06	334	P	P	11 47 30.0	+0.5
	comp=Z,5.4nm,0.7s,mb4.6,baz=19,slow=8.7,SNR=7.3						
VRAC				pP	pP	11 47 42.2	+3.1
	comp=Z,4.2nm,0.8s,baz=45,slow=7.4,SNR=3.5						
VYHS	Vyhne	76.12	332	iP	P	11 47 31.1	+1.3
MLR	Muntele Rosu	76.35	326	P	P	11 47 32.0	+0.9
	comp=Z,4.5nm,0.8s,mb4.5,baz=57,slow=20,SNR=5.1						
MALT	Malatya	77.05	314	eP	P	11 47 37.1	+1.9
MALT				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
MALT	Malatya	77.05	314	eP	P	11 47 37.1	+1.9
	comp=Z,4.5nm,0.9s,mb4.4						
KHC	Kasperske Hory	77.07	336	eP	P	11 47 36.2	+1.1
KHC				e		11 47 48.0	
KHC	Kasperske Hory	77.07	336	eP	P	11 47 36.2	+1.1
KHC				x	x	11 47 48.0	
GRF	Grafenberg Arr	77.17	337	eP	P	11 47 37.8	+2.2
GERES	GERESS Array B	77.29	336	P	P	11 47 37.2	+0.9
	comp=Z,1.5nm,0.7s,mb4.0,baz=37,slow=6.7,SNR=8.7						
GERES				pP	pP	11 47 49.7	+3.7
	comp=Z,1.3nm,0.8s,baz=34,slow=4.8,SNR=4.6						
GERES	GERESS Array B	77.29	336	P	P	11 47 37.2	+0.9
GERES				*PP	pP	11 47 49.7	+3.7
GERES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	78.08	318	P	P	11 47 42.3	+1.4
	comp=Z,2.8nm,0.9s,mb4.2,baz=72,slow=3.9,SNR=9.2						
BRTR				pP	pP	11 47 55.2	+4.7
	comp=Z,1.9nm,0.8s,baz=52,slow=3.6,SNR=4.3						
BRTR	Keskin Array B	78.08	318	P	P	11 47 42.3	+1.4
BRTR				*PP	pP	11 47 55.3	+4.8
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
DAVOX	Davos	80.20	337	pP	pP	11 48 06.7	+4.7
	comp=Z,4.1nm,0.7s,baz=31,slow=7.0,SNR=3.6						

*NEIC **18** 11:41:55.8,35.04N×3.94W,MG3.6(MDD),After MDD.*
*SFS **18** 11:41:55.0,35.02N×3.96W,ML3.6*
*MDD **18** 11:41:56.3±1.9,35.07N×3.94W,mb3.6/5,Error ellipse: s-maj=22.8km s-min=8.0km az=22.0,PRXIMO*
*CSEM **18** 11:41:57.8±0.2,35.14N×3.95W,h8^{km},ML3.1/3,Error ellipse: s-maj=4.1km s-min=3.8km az=73.0*
*CNRM **18** 11:41:59.3,35.15N×3.95W,MD3.2*
ISC 18 11:41:57.7±1.0**,35.23N**±0.03×**3.95W**±0.03**,h12**^{km}±7^{km}**,n25,**σ1^{s}**13**/45**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAL	**Palemas**	0.01	159	*i* P	Pb	11 41 59.8	+0.2
TOU	**Touzarine**	0.31	150	*i* P	Pg	11 42 03.0	-1.3
EMEL	**Melilla**	0.81	85	Pn	Pn	11 42 13.4	-1.4
	98nm,0.2s,SNR=6.3						
EMEL				Sn	Sn	11 42 25.9	-0.9
	391nm,0.3s						
EMLI	**Melilla**	0.82	85	Pn	Pn	11 42 13.4	-1.5
	98nm,0.2s,SNR=6.3						
EMLI				Sn	Sn	11 42 25.9	-1.1
	391nm,0.3s						
MELI	**Melilla**	0.83	85	Pn	Pn	11 42 14.5	-0.6
MELI				Sn	Sn	11 42 27.1	-0.1
MELI	**Melilla**	0.83	85	*e*P	Pb	11 42 14.5	+0.9
MELI				*e*S	Sb	11 42 27.1	+2.6
ZAI	**Zaio**	1.02	105	*i* P	Pb	11 42 19.0	+2.2
ZAI				*i* S	Sb	11 42 31.0	+1.0
TZK	**Tazeka**	1.16	190	*i* P	Pb	11 42 19.5	+0.3
TZK				*i* S	Sb	11 42 34.0	0.0
DKH	**Dar Kharkhour**	1.19	283	*i* P	Pb	11 42 22.0	+2.3
DKH				*i* S	Sb	11 42 36.5	+1.6
EMIJ	**Mijas**	1.49	333	Pn	Pn	11 42 23.9	-0.7
EMIJ				Sn	Sn	11 42 42.6	-1.4
EMIJ	**Mijas**	1.49	333	Pn	Pn	11 42 25.2	+0.6
	12nm,0.6s,SNR=4.0						
EMIJ				Sn	Sn	11 42 42.6	-1.4
	7.2nm,0.3s						
EMIJ	**Mijas**	1.49	333	Sn	Sn	11 42 42.6	-1.5
	7.2nm,0.3s						
EBER	**Berja**	1.87	27	Pn	Pn	11 42 30.2	+0.2
	6.6nm,0.4s,SNR=7.3						
EBER				Sn	Sn	11 42 53.1	-0.6
	13nm,0.3s						
EBER	**Berja**	1.87	27	Sn	Sn	11 42 53.1	-0.6
	13nm,0.3s						
EBER	**Berja**	1.87	27	Pn	Pn	11 42 30.2	+0.2
	6.6nm,0.4s,SNR=7.3						
MIF	**Mishlifen**	2.11	211	*i* P	Pn	11 42 33.0	-0.4
MIF				*i* S	Sn	11 43 00.0	+0.3
CZD	**Col de Zad**	2.37	203	*i* P	Pn	11 42 37.0	-0.2
CZD				*i* S	Sn	11 43 06.0	-0.5
EQES	**Quesada**	2.66	15	Pn	Pn	11 42 42.4	+1.1
	1.4nm,0.2s,SNR=6.1						
EQES				Sn	Sn	11 43 15.3	+1.5
	4.2nm,0.3s						
EQES	**Quesada**	2.66	15	Pn	Pn	11 42 42.4	+1.1
	1.4nm,0.2s,SNR=6.1						
EQES				Sn	Sn	11 43 15.3	+1.5
	4.2nm,0.3s						
EADA	**Adamuz**	2.97	350	Pn	Pn	11 42 46.4	+0.6
	0.5nm,0.1s,SNR=5.8						
EADA				Sn	Sn	11 43 21.9	+0.2
	1.7nm,0.2s						
EADA	**Adamuz**	2.97	350	Pn	Pn	11 42 46.4	+0.6
	0.5nm,0.1s,SNR=5.8						
EADA				Sn	Sn	11 43 21.9	+0.2
	1.7nm,0.2s						
EMIN	**Mina Concepcio**	3.35	320	Pn	Pn	11 42 49.7	-1.4
	0.9nm,0.2s,SNR=13						
EMIN				Sn	Sn	11 43 26.8	-4.5
	0.9nm,0.2s						
EMIN	**Mina Concepcio**	3.35	320	Pn	Pn	11 42 49.7	-1.4
	0.9nm,0.2s,SNR=13						
EMIN				Sn	Sn	11 43 26.8	-4.5
EBAD	**Badajoz**	4.29	326	Pn	Pn	11 43 03.1	-1.4
	2.7nm,0.2s,SNR=8.9						
EBAD				Sn	Sn	11 43 51.2	-3.9
	0.9nm,0.2s						
EBAD	**Badajoz**	4.29	326	Pn	Pn	11 43 03.1	-1.4
EBAD				Sn	Sn	11 43 51.2	-3.8

*CSEM **18** 12:36:07.5±0.2,35.28N×4.30W,h2^{km},ML2.5/3,Error ellipse: s-maj=8.2km s-min=4.6km az=80.0*
*NEIC **18** 12:36:08.9,35.36N×4.32W,h1^{km},MG3.1(MDD),After MDD.*
*MDD **18** 12:36:08.9±2.8,35.37N×4.32W,mb3.0/3,Error ellipse: s-maj=26.8km s-min=13.5km az=2.0,PRXIMO SOLUCIN POBRE*
*CNRM **18** 12:36:09.0,35.34N×3.88W,h9^{km},MD2.5*
ISC 18 12:36:06.9±1.5**,35.37N**±0.04×**4.33W**±0.07**,h4**^{km}±11^{km}**,n13,**σ1^{s}**00**/24**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAL	**Palemas**	0.34	114	*i* P	Pg	12 36 12.0	-1.8
EMIJ	**Mijas**	1.25	343	Pn	Pn	12 36 31.2	+0.1
	1.2nm,0.1s,SNR=7.9						
EMIJ				Sn	Sn	12 36 48.6	+0.1
	3.9nm,0.2s,SNR=7.9						
TZK	**Tazeka**	1.28	175	*i* P	Pb	12 36 31.5	+0.3
TZK				*i* S	Sb	12 36 48.0	+0.1
EBER	**Berja**	1.92	37	Pn	Pn	12 36 41.3	+0.6
	1.3nm,0.2s,SNR=7.9						
EBER				Sn	Sn	12 37 04.5	-1.1
	0.9nm,0.2s,SNR=7.9						
EBER	**Berja**	1.92	37	Pn	Pn	12 36 41.3	+0.6
	1.3nm,0.2s,SNR=7.9						
EBER				Sn	Sn	12 37 04.5	-1.1
	0.9nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.63	22	Pn	Pn	12 36 52.4	+1.5
	3.1nm,0.4s,SNR=5.7						
EQES				Sn	Sn	12 37 24.2	+0.5
	2.9nm,0.2s,SNR=7.9						
EQES	**Quesada**	2.63	22	Pn	Pn	12 36 52.4	+1.5
	3.1nm,0.4s,SNR=5.7						
EQES				Sn	Sn	12 37 24.2	+0.5
	2.9nm,0.2s,SNR=7.9						
EADA	**Adamuz**	2.80	356	Pn	Pn	12 36 55.2	+1.8
	0.4nm,0.1s,SNR=4.6						
EADA				Sn	Sn	12 37 32.7	+4.6
	SNR=4.0						
EADA	**Adamuz**	2.80	356	Pn	Pn	12 36 55.2	+1.9
	0.4nm,0.1s,SNR=4.6						
EMIN	**Mina Concepcio**	3.05	322	Pn	Pn	12 36 56.8	-0.1
	0.5nm,0.1s,SNR=7.9						
EMIN				Sn	Sn	12 37 34.1	-0.3
	SNR=7.9						
EMIN	**Mina Concepcio**	3.05	322	Pn	Pn	12 36 56.8	-0.1
	0.5nm,0.1s,SNR=7.9						
EMIN				Sn	Sn	12 37 34.0	-0.3
EBAD	**Badajoz**	4.01	328	Pn	Pn	12 37 10.5	0.0
EBAD				Sn	Sn	12 37 56.5	-2.0
EBAD	**Badajoz**	4.01	328	Pn	Pn	12 37 10.5	+0.1
	SNR=4.0						
EBAD				Sn	Sn	12 37 56.5	-2.0

*NEIC **18** 12:41:30.6,46.20N×122.19W,h1^{km},MD3.1(SEA),After SEA.*
*IDC **18** 12:41:32.6±1.2,46.04N×122.52W,mb3.6/1,mb1 3.7/4, mb1mx3.4/20,ML2.7/3,Error ellipse: s-maj=26.7km s-min=12.8km az=100.0*
ISC 18 12:41:30.7±0.3**,46.21N**±0.02×**122.19W**±0.04**,h1**^{km}**,n42,** σ**0**^{s}**76**/43**,mb3.6**/1**,4C-17D,Washington**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YEL	**Yellow Rock**	0.00	103	⇓P	Pg	12 41 31.0	+0.2
ESD	**East Dome**	0.03	114	P	Pg	12 41 31.3	0.0
STD	**Studebaker Rid**	0.04	322	⇑P	Pg	12 41 31.8	+0.4
SHW	**Mount Saint He**	0.04	241	⇓P	Pg	12 41 31.6	+0.2
HSR	**South Ridge**	0.04	171	⇓P	Pg	12 41 31.5	0.0
SOSW	**Source of Smit**	0.05	48	⇓P	Pg	12 41 32.1	+0.4
JLK	**June Lake**	0.07	157	⇓P	Pg	12 41 32.0	0.0
CDFW	**Cedar Flats**	0.14	133	⇑P	Pg	12 41 33.7	+0.3
ERK	**Elk Rock**	0.14	313	⇓P	Pg	12 41 33.8	+0.4
MTMW	**Mount Mitchell**	0.18	184	⇓P	Pg	12 41 34.5	+0.1
LVP	**Lakeview Peak**	0.21	227	⇓P	Pg	12 41 34.9	+0.1
KOSW	**Kosmos**	0.25	0	⇑P	Pg	12 41 36.0	+0.3
RVW	**Rose Valley**	0.39	261	⇓P	Pg	12 41 38.4	0.0
ASR	**Mount Adams--S**	0.42	98	P	Pg	12 41 38.8	-0.2
LMW	**Ladd Mountain**	0.46	351	⇓P	Pg	12 41 40.5	+0.7
GULW	**Guler Mountain**	0.50	124	P	Pg	12 41 40.3	-0.4
LCW	**Lucas Creek**	0.58	323	P	Pg	12 41 42.1	-0.1
LON	**Longmire**	0.60	26	⇓P	Pg	12 41 42.5	-0.2
RCM	**Mount Rainier-**	0.70	27	⇓P	Pg	12 41 44.3	-0.3
RCS	**Mount Rainier-**	0.73	26	⇓P	Pg	12 41 44.9	-0.4
BMW	**Boistfort Moun**	0.77	291	⇓P	Pg	12 41 45.2	-0.7
FMW	**Mount Fremont**	0.81	26	⇓P	Pg	12 41 46.2	-0.5
CPW	**Capitol Peak**	1.00	320	⇓P	Pb	12 41 49.4	-1.1
GSM	**Grass Mountain**	1.03	15	⇑P	Pb	12 41 49.9	-1.1
KMOR	**Kings Mountain**	1.07	238	P	Pb	12 41 50.3	-1.4
EBG	**Ellensburg**	1.32	57	P	Pb	12 41 56.4	+0.4
CROR	**Criterion Ridg**	1.49	145	⇓P	Pn	12 41 58.3	-0.4
COR	**Corvallis**	1.80	206	*e*P	Pn	12 42 02.2	-1.0
HAWA	**Hanford**	1.85	83	*e*P	Pn	12 42 03.4	-0.4
WAH2	**Wahluke Slope**	1.90	72	P	Pn	12 42 05.3	+0.9
JCW	**Jim Creek**	1.99	5	P	Pn	12 42 06.2	+0.4
FRIS	**Frissel Point**	2.00	178	P	Pn	12 42 06.4	+0.5
OCWA	**Octopus Mounta**	2.05	319	*e*P	Pn	12 42 08.2	+1.4
RPW	**Rockport**	2.29	11	P	Pn	12 42 10.9	+0.9
PGC	**Sidney**	2.59	341	*e*P	Pn	12 42 14.3	0.0
HUMO	**Hull Mountain**	3.64	189	*e*P	Pn	12 42 29.3	-0.1
BMO	**Blue Mountains**	3.69	110	Pn	Pn	12 42 29.1	-1.0
NEW	**Newport**	4.02	57	Pn	Pn	12 42 41.3	+6.6
NEW				Sn	Sn	12 43 40.8	+18
YBH	**Yreka Blue Hor**	4.49	185	Pn	Pn	12 42 42.3	+0.8
	0.3nm,0.3s,baz=38,slow=12,SNR=7.2						
NVAR	**Mina Array Bea**	8.29	158	Pn	P	12 43 36.0	+1.1
	0.0nm,0.3s,baz=343,slow=10,SNR=3.6						
YKA	**Yellowknife Ar**	16.88	12	Pn	P	12 45 27.0	-2.5
	0.0nm,0.3s,baz=199,slow=11,SNR=12						
ILAR	**Eielson Array**	23.00	333	P	P	12 46 40.1	+2.7
	2.1nm,1.0s,mb3.6,baz=149,slow=9.1,SNR=12						

IDC 18 12:55:11.5±3.2**,33.70S**×**179.31W,mb3.7**/2**,mb1 4.0**/3**, mb1mx3.7**/13**,ML3.8**/1**,Error ellipse: s-maj=70.1km s-min=36.4km az=111.0,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	5.40	212	Pn	Pn	12 56 33.1	-2.1
	2.9nm,0.3s,baz=271,slow=3.1,SNR=18						
URZ				Sn	Sn	12 57 36.5	-2.5
	3.4nm,0.3s,baz=146,slow=21,SNR=8.0						
ASAR	**Alice Springs**	41.94	271	P	P	13 03 04.2	-1.5
	1.2nm,0.9s,baz=111,slow=7.6,SNR=12						
WRA	**Warramunga Arr**	43.23	276	P	P	13 03 14.7	-1.7
	0.6nm,0.6s,baz=117,slow=7.9,SNR=12						
FINES	**FINESS Array B**	147.80	337	PKPbc	PKPdf	13 14 56.8	+0.4
	6.0nm,1.1s,baz=315,slow=2.0,SNR=3.6						

*NEIC **18** 13:03:59.2±0.9,51.52N×16.09E,h5^{km},ML3.2(VIE),Error ellipse: s-maj=11.8km s-min=9.7km az=220.0*
*WAR **18** 13:04:00.9,51.44N×16.12E,h1^{km},ML3.0,Mining Induced*
*PRU **18** 13:04:00.8,51.43N×16.09E*
*IDC **18** 13:04:01.6±1.1,51.39N×15.98E,mb1 3.3/5, mb1mx3.2/20,ML2.9/5,Error ellipse: s-maj=15.2km s-min=9.4km az=126.0*
ISC 18 13:03:57.8±0.6**,51.46N**±0.03×**16.11E**±0.03**,n22,**σ**1**^{s}**21**/43**, 1C-1D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	0.62	169	⇓*i*Pg	Pg	13 04 12.1	+1.8
KSP				*e*		13 04 13.0	
KSP				*e*Sg	Sg	13 04 19.3	+0.7
KSP	**Ksiaz**	0.62	169	*e*Pg	Pg	13 04 12.1	+1.8
KSP				*e*Sg	Sg	13 04 20.8	+2.2
UPC	**Upice**	0.95	184	*e*PG	Pg	13 04 18.0	+1.2
DPC	**Dobruska-Polom**	1.12	173	*e*PG	Pg	13 04 20.8	+0.7
DPC				*e*SG	Sg	13 04 35.8	+0.8
	28nm,0.4s						
PVCC	**Panska Ves**	1.34	227	*e*PG	Pg	13 04 25.5	+0.9
BRG	**Berggiesshubel**	1.48	248	*i* Pg	Pg	13 04 25.5	-1.9
BRG				*i* Sg	Sg	13 04 48.3	+1.2
PRU	**Pruhonice**	1.77	215	PN	Pn	13 04 30.6	+0.6
PRU				PG	Pg	13 04 32.6	-0.6
PRU				*i* x	x	13 04 36.1	
PRU				*i* x	x	13 04 49.8	
PRU				SG	Sg	13 04 55.2	-1.7
	24nm,0.4s						
MORC	**Moravsky Berou**	1.91	151	*e*P	Pn	13 04 33.0	+1.0
CLL	**Collm**	1.95	267	*e*PN	Pn	13 04 33.0	+0.5
CLL				*e*PG	Pg	13 04 36.0	-0.7
CLL				*e*SG	Sg	13 05 03.0	+0.3
OKC	**Ostrava-Krasne**	2.08	140	*e*PG	Pg	13 04 38.4	-0.9
VRAC	**Vranov**	2.17	172	Pn	Pn	13 04 37.1	+1.4
	2.4nm,0.3s,baz=344,slow=15,SNR=11						
VRAC				Sn	Sn	13 05 03.5	-0.2
	2.4nm,0.3s,baz=116,slow=22,SNR=3.8						
VRAC				Lg		13 05 09.9	
	3.3nm,0.3s,baz=81,slow=19,SNR=6.6						
NKC	**Novy Kostel**	2.62	244	*e*PN	Pn	13 04 43.5	+1.4
NKC				*e*PG	Pg	13 04 49.7	-0.4
NKC				*e*SG	Sg	13 05 24.7	-0.4
OJC	**Ojcow**	2.65	116	*e*Pn	Pn	13 04 42.2	-0.3
OJC				*e*Pg	Pg	13 04 50.7	0.0
OJC				*e*Sg	Sg	13 05 25.2	-0.8
KHC	**Kasperske Hory**	2.84	216	*e*PN	Pn	13 04 46.7	+1.5
KHC				*e*PG	Pg	13 04 52.4	-2.0
KHC				*e*SN	Sn	13 05 20.5	-0.1
KHC				*e*SG	Sg	13 05 29.8	-2.4
GERES	**GERESS Array B**	3.04	212	Pn	Pn	13 04 49.9	+1.9
	0.7nm,0.3s,baz=34,slow=13,SNR=14						
GERES				Pg	Pg	13 04 55.6	-2.8
	3.1nm,0.3s,baz=30,slow=17,SNR=44						
GERES				Lg		13 05 34.4	
	3.3nm,0.3s,baz=25,slow=28,SNR=7.5						
VYHS	**Vyhne**	3.45	148	*e*PB	Pb	13 05 02.9	+3.3
VYHS				*e*SG	Sg	13 05 50.9	-1.7
BSD	**Bornholm Skovb**	3.73	349	*i* P	Pn	13 04 56.9	-1.0
BSD				*i* S	Sn	13 05 37.7	-5.6
BSD				*i*		13 05 40.3	
MOA	**Molln**	3.80	199	⇑*i*PN	Pn	13 04 59.8	+0.9
MOA				*i* SG	Sg	13 06 02.8	-1.6
	4.4nm,0.3s						
CRVS	**Cervenica-Dubn**	4.29	125	*e*PG	Pg	13 05 22.5	-0.9
CRVS				*e*SG	Sg	13 06 20.6	+0.1
DAVOX	**Davos**	6.21	224	Pn	Pn	13 05 33.7	+0.7
	0.3nm,0.3s,baz=18,slow=6.4,SNR=3.0						
AKASG	**Malin Array Be**	8.30	90	Pn	P	13 06 01.6	-0.7
	0.5nm,0.3s,baz=282,slow=12,SNR=3.5						
FINES	**FINESS Array B**	11.41	25	Pn	P	13 06 40.8	-4.2
	0.1nm,0.3s,baz=231,slow=12,SNR=3.5						

*CSEM **18** 13:12:46.6±0.2,35.25N×4.18W,h8^{km},ML4.3/1,Error ellipse: s-maj=5.7km s-min=4.2km az=82.0*
*SFS **18** 13:12:46.0,35.32N×4.20W,ML3.3*
*NEIC **18** 13:12:47.7,35.26N×4.19W,h13^{km},MG3.9(MDD),After MDD.*
*MDD **18** 13:12:47.5±1.2,35.33N×4.10W,mb3.5/7,Error ellipse: s-maj=13.0km s-min=7.6km az=26.0,PRXIMO*
*CNRM **18** 13:12:47.1,35.33N×4.12W,MD3.3*
ISC 18 13:12:46.4±0.8**,35.34N**±0.02×**4.15W**±0.03**,h8**^{km}±5^{km}**,n33,** σ**1**^{s}**15**/60**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAL	**Palemas**	0.20	124	*i* P	Pg	13 12 50.5	-0.3
TOU	**Touzarine**	0.50	139	*i* P	Pg	13 12 55.0	-1.5
EMEL	**Melilla**	0.98	92	Pn	Pn	13 13 06.7	+0.5
	81nm,0.1s,SNR=6.5						
EMEL				Sn	Sn	13 13 20.2	-0.1
	227nm,0.2s,SNR=7.9						
EMLI	**Melilla**	0.98	92	Pn	Pn	13 13 06.7	+0.4
	81nm,0.1s,SNR=6.5						
EMLI				Sn	Sn	13 13 20.2	-0.2
	227nm,0.2s,SNR=7.9						
DKH	**Dar Kharkhour**	1.00	279	*i* P	Pb	13 13 06.0	+0.5
DKH				*i* S	Sb	13 13 19.0	+0.4
ZAI	**Zaio**	1.21	107	*i* P	Pb	13 13 10.0	+0.9
ZAI				*i* S	Sb	13 13 25.0	+0.4
TZK	**Tazeka**	1.25	181	*i* P	Pb	13 13 10.0	+0.2
TZK				*i* S	Sb	13 13 27.5	+1.7
EMIJ	**Mijas**	1.32	338	Pn	Pn	13 13 09.9	-1.3
EMIJ				Sn	Sn	13 13 26.8	-2.2
EMIJ	**Mijas**	1.32	338	Pn	Pn	13 13 09.9	-1.3
	3.1nm,0.1s,SNR=7.9						
EMIJ				Sn	Sn	13 13 27.6	-1.5
	16nm,0.1s,SNR=7.9						
EMIJ	**Mijas**	1.32	338	Pn	Pn	13 13 09.9	-1.3
	3.1nm,0.1s,SNR=7.9						
EMIJ				Sn	Sn	13 13 26.8	-2.3
	16nm,0.1s,SNR=7.9						
ERON	**Agron**	1.70	9	Pn	Pn	13 13 17.2	+0.7
ERON				Sn	Sn	13 13 38.1	-0.5
ERON	**Agron**	1.70	9	Pn	Pn	13 13 17.2	+0.7
	1.0nm,0.1s,SNR=4.0						
ERON				Sn	Sn	13 13 38.1	-0.5
	SNR=7.9						
ELOJ	**Sierra Loja**	1.80	360	Pn	Pn	13 13 20.2	+2.2
	3.5nm,0.4s,SNR=5.5						
ELOJ				Sn	Sn	13 13 42.7	+1.5
	SNR=7.9						
ELOJ	**Sierra Loja**	1.80	360	Pn	Pn	13 13 20.2	+2.1
	3.5nm,0.4s,SNR=5.5						
ELOJ				Sn	Sn	13 13 42.7	+1.4
	SNR=7.9						
EBER	**Berja**	1.86	33	Pn	Pn	13 13 17.3	-1.5
	0.2nm,0.3s,SNR=7.4						
EBER				Sn	Sn	13 13 42.5	-0.2
	SNR=7.9						
EBER	**Berja**	1.86	33	Pn	Pn	13 13 17.3	-1.5
	0.2nm,0.3s,SNR=7.4						
EBER				Sn	Sn	13 13 42.5	-0.2
	SNR=7.9						
LIJA	**Lijar**	1.86	327	*i* P	Pn	13 13 20.5	+1.6
LIJA				*e*S	Sn	13 13 47.0	+4.2
ESPR	**Espera**	2.06	318	Pn	Pn	13 13 22.4	+0.7
	1.8nm,0.2s,SNR=4.0						
ESPR				Sn	Sn	13 13 49.3	+1.5
	SNR=7.9						
ESPR	**Espera**	2.06	318	Sn	Sn	13 13 49.3	+1.5
	SNR=7.9						
ESPR	**Espera**	2.06	318	Pn	Pn	13 13 22.4	+0.7
	1.8nm,0.2s,SNR=4.0						
MIF	**Mishlifen**	2.12	205	*e*P	Pn	13 13 23.0	+0.4
MIF				*i* S	Sn	13 13 48.0	-1.4
ELUQ	**Luque**	2.22	358	Pn	Pn	13 13 28.7	+4.7
	6.2nm,0.4s,SNR=7.9						
ELUQ				Sn	Sn	13 13 52.3	+0.5
	SNR=7.9						
ELUQ	**Luque**	2.22	358	Sn	Sn	13 13 52.3	+0.5
	SNR=7.9						
ENIJ	**Nijar**	2.26	43	Sn	Sn	13 13 51.4	-1.6
	SNR=4.0						
CZD	**Col de Zad**	2.42	198	*e*P	Pn	13 13 25.0	-1.8
CZD				*i* S	Sn	13 13 57.0	+0.1
EQES	**Quesada**	2.61	19	Pn	Pn	13 13 30.9	+1.4
	7.5nm,0.2s,SNR=24						
EQES				Sn	Sn	13 14 02.6	+0.9
	SNR=7.9						
EQES	**Quesada**	2.61	19	Pn	Pn	13 13 30.9	+1.4
	7.5nm,0.2s,SNR=24						
EQES				Sn	Sn	13 14 02.6	+0.9
	SNR=7.9						
EADA	**Adamuz**	2.84	353	Pn	Pn	13 13 33.6	+0.7
	2.3nm,0.4s,SNR=8.2						
EADA				Sn	Sn	13 14 06.2	-1.5
	SNR=7.9						
EADA	**Adamuz**	2.84	353	Pn	Pn	13 13 33.6	+0.7
	2.3nm,0.4s,SNR=8.2						
EADA				Sn	Sn	13 14 06.2	-1.5
	SNR=7.9						
EMIN	**Mina Concepcio**	3.16	321	Pn	Pn	13 13 36.1	-1.3
	1.3nm,0.4s,SNR=12						
EMIN				Sn	Sn	13 14 12.5	-3.2
	SNR=7.9						
EMIN	**Mina Concepcio**	3.16	321	Pn	Pn	13 13 36.1	-1.3
	1.3nm,0.4s,SNR=12						
EMIN				Sn	Sn	13 14 12.5	-3.2
EBAD	**Badajoz**	4.11	327	Pn	Pn	13 13 49.7	-1.1
	1.5nm,0.3s,SNR=6.8						
EBAD				Sn	Sn	13 14 35.5	-4.2
	SNR=7.9						
EBAD	**Badajoz**	4.11	327	Pn	Pn	13 13 49.7	-1.2
EBAD				Sn	Sn	13 14 35.5	-4.2

*BJI **18** 13:13:00.7,48.63N×156.60E,h22^{km},mB4.8,mb4.3*
*IDC **18** 13:13:02.6±0.7,48.83N×156.20E,mb3.9/15,mb1 4.2/17, mb1mx4.1/27,ML3.7/2,MS3.4/1,Ms1 3.4/1,ms1mx2.4/22, Error ellipse: s-maj=21.1km s-min=15.5km az=150.0*
*NEIC **18** 13:13:04.6±0.5,48.78N×156.28E,h10^{km},mb4.2/3,Error ellipse: s-maj=14.7km s-min=9.1km az=132.0*
*MOS **18** 13:13:05.3±1.1,48.83N×156.57E,h33^{km},mb4.6/2,Error ellipse: s-maj=19.9km s-min=11.8km az=80.8*
ISC 18 13:13:02.4±3.1**,48.87N**±0.06×**156.3E**±0.1**,h9**^{km}±20^{km}**, n36,**σ**0**^{s}**89**/39**,mb4.2**/25**,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	1.82	356	*e*PN	Pn	13 13 33.5	-0.7
SKR				*e*S	Sn	13 13 56.5	-1.0
SKR				smax			
	comp=E,1.0nm,0.2s						
PET	**Petropavlovsk**	4.41	19	*i* PN	Pn	13 14 12.4	+1.4
PET				*e*S	Sn	13 15 03.3	+0.2
PET				pmax	pmax		
	comp=Z,54nm,0.6s						
PET				smax			
	comp=E,80nm,0.6s						
PET				smax			
	comp=N,155nm,0.6s						
PET	**Petropavlovsk**	4.41	19	*e*P	Pn	13 14 12.1	+1.0
YSS	**Yuzh-Sakhalins**	9.32	263	*e*PN	P	13 15 24.8	+4.8
ASAJ	**Asahikawa**	10.60	248	Pn	P	13 15 38.0	+0.6
	comp=N,1.3nm,0.3s,baz=68,slow=17,SNR=11						
ASAJ				LR	LR	13 19 48.3	
	comp=N,200nm,18.6s,baz=353,slow=39						
ASAJ	**Asahikawa**	10.60	248	PN	P	13 15 38.0	+0.6
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,201nm,18.6s						
FX1	**Attu Island--F**	11.36	63	Pn	P	13 15 46.6	-1.2
	comp=Z,1.0nm,0.3s,baz=288,slow=19,SNR=3.0						
FX1				Sn	S	13 17 40.9	-15
	comp=Z,2.3nm,0.3s,baz=18,slow=9.8,SNR=8.3						
CN2	**Changchun**	21.83	268	*e*P	P	13 17 54.1	-2.6
ILAR	**Eielson Array**	33.53	40	P	P	13 19 43.6	-0.3
	comp=Z,0.5nm,1.1s,mb3.4,baz=267,slow=7.9,SNR=4.0						
INK	**Inuvik**	38.69	34	P	P	13 20 30.4	+2.7
	comp=Z,0.9nm,0.9s,mb3.5						
ENH	**Enshi**	39.88	260	P	P	13 20 37.5	-0.5
	comp=Z,4.8nm,0.6s,mb4.4						
GTA	**Gaotai**	40.80	278	*e*P	P	13 20 45.9	+0.5
GTA				AP	pP	13 20 52.6	+4.4
GTA				XP	sP	13 20 56.3	+6.9
GTA				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.2						
BVAR	**Borovoye Array**	51.19	309	P	P	13 22 06.4	-1.2
	comp=Z,0.6nm,0.5s,mb3.8,baz=54,slow=7.2,SNR=6.3						
CMAR	**Chiang Mai Arr**	54.97	258	P	P	13 22 36.4	+0.2
	comp=Z,0.8nm,0.5s,mb4.0,baz=36,slow=7.4,SNR=10.0						
GUN	**Gumba**	56.97	276	*e*P	P	13 22 50.5	+0.1
	comp=Z,11nm,0.7s,mb5.0						
KKN	**Kakani**	57.44	276	*e*P	P	13 22 54.0	+0.3
	comp=Z,10.0nm,0.7s,mb5.0						
PKI	**Pulchoki**	57.50	276	*e*P	P	13 22 54.3	+0.1
	comp=Z,11nm,0.8s,mb4.9						
DMN	**Daman**	57.67	276	*e*P	P	13 22 55.9	+0.5
	comp=Z,24nm,0.9s,mb5.2						
GKN	**Gorkha**	57.72	277	*e*P	P	13 22 56.0	+0.3
	comp=Z,11nm,0.7s,mb5.0						
KOLN	**Koldanda**	58.55	277	*e*P	P	13 23 02.0	+0.5
	comp=Z,14nm,1.1s,mb4.9						
PDAR	**Pinedale Array**	61.75	56	P	P	13 23 23.1	-0.1
	comp=Z,0.4nm,0.6s,mb3.7,slow=3.0,SNR=3.9						
FINES	**FINESS Array B**	63.02	336	P	P	13 23 30.4	-1.0
	comp=Z,1.1nm,0.6s,mb4.2,baz=27,slow=8.5,SNR=9.2						
NOA	**NORSAR Array B**	66.89	342	P	P	13 23 56.5	+0.2
	comp=Z,1.0nm,0.7s,mb3.9,baz=29,slow=7.1,SNR=2.9						
AKASG	**Malin Array Be**	70.96	328	P	P	13 24 20.2	-1.4
	comp=Z,1.7nm,0.6s,mb4.2,baz=34,slow=6.2,SNR=5.7						
AKASG	**Malin Array Be**	70.96	328	P	P	13 24 20.2	-1.4
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WRA	**Warramunga Arr**	71.26	202	P	P	13 24 22.1	-1.8
	comp=Z,1.8nm,0.7s,mb4.1,baz=19,slow=6.5,SNR=12						
TXAR	**Lajitas Array**	74.57	63	P	P	13 24 43.4	+0.1
	comp=Z,0.3nm,0.8s,mb3.3,baz=304,slow=4.5,SNR=4.1						
EKA	**Eskdalemuir Ar**	74.75	348	P	P	13 24 44.0	+0.2
	comp=Z,0.6nm,0.7s,mb3.7,baz=16,slow=5.2,SNR=4.2						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	74.94	201	P	P	13 24 45.5	0.0
	comp=Z,1.1nm,1.0s,mb3.8,baz=12,slow=4.7,SNR=8.4						
CLL	Collm	75.39	337	P	P	13 24 48.0	+0.5
MORC	Moravsky Berou	75.53	334	eP	P	13 24 49.0	+0.7
MORC				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
MORC	Moravsky Berou	75.53	334	eP	P	13 24 49.0	+0.6
	comp=Z,3.9nm,0.7s,mb4.5						
VRAC	Vranov	76.23	334	P	P	13 24 52.2	-0.1
	comp=Z,6.3nm,1.1s,mb4.5,baz=5.3,slow=4.8,SNR=4.1						
MLR	Muntele Rosu	76.53	327	P	P	13 24 55.1	+1.0
	comp=Z,2.9nm,0.7s,mb4.3,baz=130,slow=8.2,SNR=5.8						
GERES	GERESS Array B	77.46	336	P	P	13 25 00.2	+1.1
	comp=Z,0.5nm,0.8s,mb3.5,baz=27,slow=9.0,SNR=4.3						
BRTR	Keskin Array B	78.29	318	P	P	13 25 04.7	+0.8
	comp=Z,1.7nm,0.8s,mb4.0,baz=56,slow=4.5,SNR=5.2						

DJA 18 13:20:33.0±0.9**,9.67S**×**115.64E,h17**^{km}±29^{km}**,MD5.0**/4**, ML4.5**/4**,7C-1D,Error ellipse: s-maj=58.0km s-min=9.6km az=164.0,South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	Rata	0.95	354	⇓ePn	Pn	13 20 48.8	-2.7
	2μm,0.2s						
RATI				⇑eSn	Sn	13 21 00.0	-4.7
KEDI	Kedomdong	1.27	22	⇑ePn	Pn	13 20 53.5	-2.6
	672nm,0.2s						
KEDI				⇑eSn	Sn	13 21 09.0	-3.8
KELI	Kelakatan	1.84	322	⇑ePn	Pn	13 21 02.2	-2.0
	219nm,0.2s						
KELI				⇑eSn	Sn	13 21 23.3	-3.9
SRDI	Scrawed	1.89	309	⇑ePn	Pn	13 21 02.2	-2.8
	136nm,0.2s						
SRDI				⇑eSn	Sn	13 21 23.5	-5.2

*IDC **18** 13:33:16.6±0.8,48.94N×155.94E,mb3.9/10,mb1 4.2/12, mb1mx3.9/25,ML4.0/2,MS3.2/1,Ms1 3.2/1,ms1mx2.6/27, Error ellipse: s-maj=24.7km s-min=15.7km az=151.0*
*MOS **18** 13:33:16.0±1.4,48.89N×156.12E,h10^{km},mb4.4/3,Error ellipse: s-maj=21.0km s-min=11.0km az=81.1*
*NEIC **18** 13:33:18.5±0.5,48.81N×156.06E,h10^{km},mb4.2/4,Error ellipse: s-maj=13.0km s-min=8.8km az=148.0*
ISC 18 13:33:15.1±3.1**,48.87N**±0.07×**156.1E**±0.1**,h3**^{km}±20^{km}**, n32,σ0**^{s}**92**/35**,mb4.1**/17**,East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.82	0	ePN	Pn	13 33 47.2	-0.4
SKR				eS	Sn	13 34 11.7	+0.3
SKR				smax			
	comp=E,1.0nm,0.4s						
SKR				smax			
	comp=N,1.0nm,0.6s						
PET	Petropavlovsk	4.47	20	ePN	Pn	13 34 26.7	+1.4
PET				eS	Sn	13 35 18.6	+0.1
PET				pmax	pmax		
	comp=Z,34nm,0.8s						
PET				smax			
	comp=N,149nm,0.6s						
PET				smax			
	comp=E,124nm,0.7s						
PET	Petropavlovsk	4.47	20	eP	Pn	13 34 26.2	+0.9
ASAJ	Asahikawa	10.45	248	Pn	P	13 35 50.4	+1.6
	comp=E,3.3nm,0.3s,baz=79,slow=13,SNR=18						
ASAJ				LR	LR	13 39 42.1	
	comp=E,118nm,18.9s,baz=12,slow=37						
ASAJ	Asahikawa	10.45	248	PN	P	13 35 50.4	+1.6
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,118nm,18.9s						
FX1	Attu Island--F	11.50	63	Pn	P	13 36 01.2	-2.0
	comp=Z,1.3nm,0.3s,baz=50,slow=20,SNR=9.2						
FX1				Sn	S	13 37 57.4	-16
	comp=Z,5.4nm,0.3s,baz=66,slow=23,SNR=13						
FX1	Attu Island--F	11.50	63	eP	P	13 36 02.4	-0.8
YAK	Yakutsk	19.77	322	eP	P	13 37 47.5	-1.3
YAK				pmax	pmax		
	comp=Z,11nm,0.5s						
YAK	Yakutsk	19.77	322	eP	P	13 37 47.5	-1.3
	comp=Z,11nm,0.5s						
ILAR	Eielson Array	33.64	40	P	P	13 39 58.1	-0.4
	comp=Z,0.5nm,0.9s,mb3.4,baz=276,slow=7.3,SNR=4.1						
INK	Inuvik	38.78	34	eP	P	13 40 43.5	+1.4
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	38.78	34	eP	P	13 40 43.5	+1.4
	comp=Z,1.1nm,0.6s,mb3.8						
ZAL	Zalesovo	43.05	305	P	P	13 41 16.1	-1.1
	comp=Z,1.0nm,0.4s,mb3.9,baz=108,slow=6.4,SNR=4.0						
YKA	Yellowknife Ar	48.02	39	P	P	13 41 57.5	+0.7
	comp=Z,0.3nm,0.3s,mb3.8,baz=298,slow=7.5,SNR=9.3						
BVAR	Borovoye Array	51.07	309	P	P	13 42 19.3	-1.0
	comp=Z,0.8nm,0.4s,mb4.0,baz=68,slow=8.0,SNR=10						
BVAR				PcP	PcP	13 43 36.3	-0.1
	comp=Z,0.6nm,0.3s,baz=61,slow=3.7,SNR=3.4						
BRVK	Borovoye	51.11	309	eP	P	13 42 19.9	-0.7
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
BRVK	Borovoye	51.11	309	eP	P	13 42 19.9	-0.7
	comp=Z,1.9nm,0.7s,mb4.1						
CMAR	Chiang Mai Arr	54.81	257	P	P	13 42 49.3	+0.7
	comp=Z,1.3nm,0.6s,mb4.2,baz=33,slow=7.2,SNR=11						
GUN	Gumba	56.81	276	eP	P	13 43 02.5	-0.4
	comp=Z,3.4nm,0.4s,mb4.7						
KKN	Kakani	57.28	276	eP	P	13 43 06.5	+0.2
	comp=Z,10.0nm,0.8s,mb4.9						
PKI	Pulchoki	57.34	276	eP	P	13 43 07.1	+0.4
DMN	Daman	57.52	276	eP	P	13 43 08.0	+0.1
GKN	Gorkha	57.56	277	eP	P	13 43 08.2	-0.1
	comp=Z,6.4nm,0.5s,mb4.9						
KOLN	Koldanda	58.40	277	eP	P	13 43 14.2	+0.1
	comp=Z,4.0nm,0.5s,mb4.7						
FINES	FINESS Array B	62.97	336	P	P	13 43 41.8	-2.9
	comp=Z,6.7nm,1.2s,mb4.6,baz=56,slow=6.9,SNR=5.9						
WRA	Warramunga Arr	71.19	202	P	P	13 44 35.9	-1.4
	comp=Z,0.5nm,0.7s,mb3.6,baz=334,slow=8.5,SNR=5.1						
EKA	Eskdalemuir Ar	74.73	348	P	P	13 44 58.0	+0.7
	comp=Z,1.7nm,0.8s,mb4.0,baz=20,slow=4.9,SNR=4.9						
ASAR	Alice Springs	74.88	201	P	P	13 44 59.2	+0.4
	comp=Z,0.3nm,0.6s,mb3.4,baz=10,slow=5.0,SNR=6.0						
CLL	Collm	75.34	337	P	P	13 45 01.0	+0.1
MORC	Moravsky Berou	75.47	334	P	P	13 45 03.0	+1.3
MORC				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
MORC	Moravsky Berou	75.47	334	P	P	13 45 03.0	+1.4
	comp=Z,2.5nm,0.8s,mb4.2						
GERES	GERESS Array B	77.40	336	P	P	13 45 12.6	+0.1
	comp=Z,1.1nm,0.7s,mb3.9,baz=31,slow=7.8,SNR=4.2						

*NEIC **18** 14:08:54.7,19.16N×64.30W,h30^{km},MD3.7(RSPR), After RSPR.*
RSPR 18 14:08:54.7,19.16N×**64.30W,h30**^{km}±36^{km}**,MD3.7**/13**, MD3.7**/13**,12C-1D,Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTP	Monte Pirata	1.59	228	eS	Sn	14 09 37.4	-3.6
MTP	Monte Pirata	1.59	228	⇑eP	Pn	14 09 19.2	-2.2
MTP				eS	Sn	14 09 37.4	-3.6
CBYP	Canovanas	1.72	239	eS	Sn	14 09 42.0	-2.3
CBYP	Canovanas	1.72	239	⇑eP	Pn	14 09 20.8	-2.3
CBYP				eS	Sn	14 09 42.0	-2.3
SABT	Saba	1.83	146	eP	Pn	14 09 29.9	+5.1
CPD	Cerro la Pandu	1.89	234	eS	Sn	14 09 46.0	-2.7
CPD	Cerro la Pandu	1.89	234	⇑eP	Pn	14 09 23.8	-1.9
CPD				eS	Sn	14 09 46.0	-2.7
CSB	Colonia Sabana	1.96	244	⇑eP	Pn	14 09 24.0	-2.5
CSB				eS	Sn	14 09 46.9	-3.5
SJG	San Juan	2.04	240	eS	Sn	14 09 50.4	-2.1
SJG	San Juan	2.04	240	⇑eP	Pn	14 09 25.5	-2.2
SJG				eS	Sn	14 09 49.6	-2.8
SJG	San Juan	2.04	240	⇑eP	Pn	14 09 25.0	-2.7
SJG				eS	Sn	14 09 50.4	-2.1
CELP	Cerrillos	2.41	244	⇑eP	Pn	14 09 30.9	-2.2
CELP				eS	Sn	14 09 59.6	-2.3
OBIP	Obispado Ponce	2.45	243	eS	Sn	14 10 00.0	-2.9
OBIP	Obispado Ponce	2.45	243	⇑eP	Pn	14 09 31.5	-2.1
OBIP				eS	Sn	14 10 00.0	-2.9
AOPR	Arecibo Observ	2.46	251	eS	Sn	14 09 59.7	-3.3
AOPR	Arecibo Observ	2.46	251	⇓eP	Pn	14 09 31.2	-2.5
AOPR				eS	Sn	14 09 59.7	-3.3
PORP	Portuguez	2.47	244	⇑eP	Pn	14 09 31.7	-2.2
PORP				eS	Sn	14 10 01.2	-2.2
LSP	Las Mesas	2.81	250	eS	Sn	14 10 09.5	-2.6
LSP	Las Mesas	2.81	250	⇑eP	Pn	14 09 37.1	-1.7
LSP				eS	Sn	14 10 09.5	-2.6
MGP	Maguayo	2.88	247	eS	Sn	14 10 10.0	-3.8
MGP	Maguayo	2.88	247	⇑eP	Pn	14 09 37.6	-2.1
MGP	Maguayo	2.88	247	⇑eP	Pn	14 09 37.4	-2.3
MGP				eS	Sn	14 10 10.0	-3.8
SDV	Santo Domingo	11.91	212	eP	P	14 11 42.7	-3.0

*IDC **18** 14:09:56.5±6.5,18.53N×101.30W,mb3.7/4,mb1 4.0/5, mb1mx3.7/19,ML3.6/1,Error ellipse: s-maj=128.0km s-min=99.7km az=107.0*
*NEIC **18** 14:10:08.8,18.49N×102.02W,h74^{km},MD4.2(MEX),After MEX.*
*MEX **18** 14:10:08.8±0.7,18.49N×102.02W,h74^{km}±23^{km},MD4.2*
ISC 18 14:10:06.7±0.5**,18.42N**±0.06×**102.04W**±0.04**,h90**^{km}±8^{km}**, n15,σ0**^{s}**93**/23**,mb3.5**/4**,Michoacan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	Zihuatanejo	0.97	146	iP	P	14 10 26.4	0.0
ZIIG				iS	S	14 10 40.0	-1.1
COLM	Colima	1.74	296	eP	P	14 10 36.1	+0.2
COLM				iS	S	14 10 56.7	-0.8
CGX	Ciudad Guzman	1.88	313	iP	P	14 10 37.8	0.0
CAIG	El Cayaco	2.17	129	eP	P	14 10 41.8	-0.1
CAIG				iS	S	14 11 08.3	+0.5
SFJM	Santa Fe	2.26	336	iP	P	14 10 41.8	-1.3
SFJM				iS	S	14 11 11.7	+1.6
ACX	Acapulco	2.55	127	iP	P	14 10 48.1	+1.0
ACX				iS	S	14 11 18.0	+0.9
YAIG	Yautepec	2.86	81	eP	P	14 10 50.1	-1.3
YAIG				eS	S	14 11 24.4	-0.4
CJM	Chamela	3.04	291	eP	P	14 10 52.9	-1.0
CJM				iS	S	14 11 30.6	+1.3
PPM	Popocatepetl	3.30	78	iP	P	14 10 58.6	+1.1
PPM				iS	S	14 11 35.9	+0.1
TXAR	Lajitas Array	10.97	353	Pn	P	14 12 36.4	-5.8
	0.1nm,0.3s,baz=159,slow=39,SNR=2.6						
NVAR	Mina Array Bea	24.46	328	P	P	14 15 20.0	+1.5
	1.5nm,0.6s,mb3.5,baz=138,slow=9.6,SNR=18						
PDAR	Pinedale Array	25.10	347	P	P	14 15 24.1	-0.3
	0.5nm,0.8s,mb3.0,baz=148,slow=8.8,SNR=4.0						
YKA	Yellowknife Ar	44.90	352	P	P	14 18 12.4	-1.4
	0.7nm,1.0s,mb3.3,baz=163,slow=8.1,SNR=4.5						
YKA	Yellowknife Ar	44.90	352	P	P	14 18 12.4	-1.4
ILAR	Eielson Array	55.10	338	P	P	14 19 31.1	-0.3
	3.6nm,1.3s,mb4.2,baz=159,slow=4.0,SNR=15						

*NIED **18** 14:22:00,36.90N×141.70E,h32^{km},Mw4.0 Best double couple: M$_0$1.21×10^{15} NP1:φ$_s$21°,δ88°,λ89°. NP2:φ$_s$235°, δ2°,λ124°.*
*MOS **18** 14:22:00.3±1.0,36.71N×142.01E,h10^{km},mb4.7/2,Error ellipse: s-maj=16.0km s-min=13.3km az=111.9*
*IDC **18** 14:22:01.4±0.7,36.72N×141.75E,mb3.9/11,mb1 4.1/13, mb1mx4.0/24,ML3.7/2,MS3.1/2,Ms1 3.3/2,ms1mx2.5/23, Error ellipse: s-maj=21.4km s-min=18.6km az=116.0*
*JMA **18** 14:22:06.3±0.2,36.91N×141.67E,h48^{km},M4.3*
JMA Felt II J1.
*NEIC **18** 14:22:07.5±1.9,36.70N×141.77E,h42^{km}±17^{km},mb4.3/3, Error ellipse: s-maj=14.8km s-min=13.2km az=120.0*
NEIC Recorded [2 JMA] in Fukushima and [1 JMA] in Miyagi Prefectures.
*BJI **18** 14:22:07.5,36.70N×141.80E,h42^{km},mB4.8,mb4.6, Ms4.1*
ISC 18 14:22:04.4±1.2**,36.85N**±0.04×**141.79E**±0.06**,h29**^{km}±8^{km}**, n46,σ1**^{s}**01**/54**,mb4.1**/18**,MS3.6**/2**,1C-4D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.83	288	⇓P	Pb	14 22 20.2	0.0
ONAJ				S	Sb	14 22 30.3	-0.8
JFK	Kawauchi	0.90	306	⇓P	Pn	14 22 20.9	-0.3
JHO	Hitachi	1.01	257	⇓P	Pn	14 22 22.9	+0.2
JHO				S	Sb	14 22 35.6	-0.4
JMM	Marumori	1.29	322	P	Pn	14 22 26.7	-0.1
JMM				S	Sn	14 22 41.4	-1.9
JFT	Otama	1.34	301	⇓P	Pn	14 22 28.5	+1.0
JFT				S	Sn	14 22 43.9	-0.6
JIO	Ouri	1.64	348	P	Pn	14 22 31.7	-0.2
JFY	Yanaizu	1.76	289	P	Pn	14 22 34.5	+1.0
JOU	Okura	1.76	330	P	Pn	14 22 34.1	+0.6
JOU				S	Sn	14 22 55.5	+0.3
JAG	Ashikaga	1.92	258	P	Pn	14 22 36.6	+0.7
JYS	Shirataka	1.94	316	P	Pn	14 22 37.1	+1.0
MAJO	Matsushiro	2.89	265	eP	Pn	14 22 51.0	+1.3
MAT	Matsushiro	2.89	265	P	Pn	14 22 51.3	+1.6
MAT				eS	Sn	14 23 24.1	+0.2
MAT	Matsushiro	2.89	265	eP	Pn	14 22 51.0	+1.3
MAT				S	Sn	14 23 24.0	+0.1
JHJ	Hachijo jima 2	4.07	204	Pn	Pn	14 23 06.5	+0.2
	18nm,0.3s,baz=250,slow=22,SNR=16						
JHJ				Sn	Sn	14 23 51.6	-2.0
	37nm,0.3s,baz=232,slow=21,SNR=4.0						
ASAJ	Asahikawa	7.29	5	Pn	Pn	14 23 50.4	-1.5
	1.0nm,0.3s,baz=1.3,slow=31,SNR=8.9						
ASAJ				Sn	Sn	14 25 11.1	-3.4
	1.5nm,0.3s,baz=283,slow=33,SNR=4.0						
ASAJ				LR	LR	14 27 08.1	
	comp=Z,84nm,19.8s,baz=24,slow=41						
ASAJ	Asahikawa	7.29	5	P	Pn	14 23 50.4	-1.4
ASAJ						14 25 11.1	
ASAJ				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,84nm,19.8s						
YSS	Yuzh-Sakhalins	10.13	4	⇑eP	P	14 24 38.0	+6.9
MDJ	Mudanjiang	12.07	314	P	P	14 25 01.3	+3.8
MDJ				AMB	AMB		
	comp=Z,11nm,1.5s						
MDJ				AMB	AMB		
	comp=Z,62nm,4.3s						
BJT	Baijiatuau	20.30	287	P	P	14 26 40.9	+0.2
HHC	Hu-ho-hao-te	23.82	289	eP	P	14 27 20.0	+4.3
HHC				AMB	AMB		
	comp=Z,14nm,0.5s,mb4.7						
HHC				AMB	AMB		
	comp=Z,164nm,3.4s						
HHC				LR	LR		
	comp=N,186nm,18.8s,MS3.9						
HHC				LR	LR		
	comp=E,368nm,17.8s,MS3.9						
YAK	Yakutsk	26.32	347	eP	P	14 27 39.6	+0.4
YAK				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.5						
YAK	Yakutsk	26.32	347	eP	P	14 27 39.6	+0.4
	comp=Z,12nm,0.7s,mb4.5						
ENH	Enshi	27.62	266	eP	P	14 27 50.3	-1.1
	comp=Z,5.2nm,0.7s,mb4.3						
ULN	Ulaanbaatar	27.71	304	eP	P	14 27 51.7	-0.4
ULN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
ULN	Ulaanbaatar	27.71	304	eP	P	14 27 51.7	-0.4
	comp=Z,3.1nm,0.7s,mb4.0						
BOD	Bodaibo	27.85	328	eP	P	14 27 51.8	-1.4
SONM	Songino Array	28.14	304	P	P	14 27 55.2	-0.8
	comp=Z,1.6nm,0.5s,mb3.9,baz=108,slow=9.1,SNR=11						
CMAR	Chiang Mai Arr	41.74	256	P	P	14 29 52.7	-0.1
	comp=Z,0.6nm,0.5s,mb3.5,baz=56,slow=6.5,SNR=3.0						
CMAR				LR	LR	14 49 21.8	
	comp=Z,45nm,18.7s,MS3.4,baz=340,slow=39						
ZAL	Zalesovo	42.27	313	P	P	14 29 56.4	-0.3
	comp=Z,1.0nm,0.7s,mb3.6,baz=5.8,slow=10,SNR=7.3						
GUN	Gumba	47.47	276	eP	P	14 30 39.7	+1.0
	comp=Z,11nm,0.5s,mb5.0						
PKI	Pulchoki	47.99	276	eP	P	14 30 42.3	-0.5
KKN	Kakani	48.00	276	eP	P	14 30 43.3	+0.4
	comp=Z,13nm,0.7s,mb5.0						
DMN	Daman	48.22	276	eP	P	14 30 45.2	+0.6
GKN	Gorkha	48.42	277	eP	P	14 30 46.1	0.0
KOLN	Koldanda	49.35	277	eP	P	14 30 53.8	+0.5
	comp=Z,6.2nm,0.7s,mb4.7						
ILAR	Eielson Array	49.49	32	P	P	14 30 52.4	-1.5
	comp=Z,2.1nm,1.0s,mb4.1,baz=279,slow=6.4,SNR=14						
BVAR	Borovoye Array	50.92	312	P	P	14 31 04.8	-0.1
	comp=Z,0.7nm,0.6s,mb3.8,baz=100,slow=8.8,SNR=3.9						
BRVK	Borovoye	50.98	313	P	P	14 31 07.2	+1.9
INK	Inuvik	54.42	27	P	P	14 31 31.5	+0.7
WRA	Warramunga Arr	56.91	188	P	P	14 31 46.1	-3.4
	comp=Z,1.0nm,0.8s,mb3.9,baz=5.4,slow=7.2,SNR=6.3						
ASAR	Alice Springs	60.64	188	P	P	14 32 13.1	-2.2
	comp=Z,0.6nm,0.7s,mb3.8,baz=12,slow=7.4,SNR=6.8						
YKA	Yellowknife Ar	63.82	30	P	P	14 32 35.5	-0.3
	comp=Z,0.3nm,0.7s,mb3.4,baz=304,slow=6.9,SNR=4.4						
FINES	FINESS Array B	69.12	332	P	P	14 33 09.8	+0.2
	comp=Z,3.8nm,1.1s,mb4.3,baz=45,slow=5.9,SNR=3.6						
NVAR	Mina Array Bea	74.86	53	P	P	14 33 45.5	+1.4
	comp=Z,1.1nm,0.7s,mb3.9,baz=283,slow=7.5,SNR=10						
TXAR	Lajitas Array	90.00	53	P	P	14 35 04.4	+1.7
	comp=Z,0.3nm,0.5s,mb3.9,baz=290,slow=2.9,SNR=5.1						
LPAZ	La Paz	146.53	60	PKPbc	PKPbc	14 41 46.7	+3.4
	comp=Z,1.0nm,0.8s,baz=344,slow=7.4,SNR=2.7						

IDC 18 14:24:21.9±1.2**,49.78N**×**156.88E,mb3.5**/3**,mb1 3.9**/4**, mb1mx3.6**/22**,ML3.4**/1**,Error ellipse: s-maj=64.0km s-min=18.9km az=151.0,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FX1	Attu Island--F	10.65	67	Pn	P	14 26 53.8	-4.9
	1.0nm,0.3s,baz=256,slow=4.2,SNR=3.5						
YKA	Yellowknife Ar	46.99	39	P	P	14 32 54.2	-1.6
	0.1nm,0.6s,baz=295,slow=5.7,SNR=2.5						
CMAR	Chiang Mai Arr	55.51	257	P	P	14 33 58.4	-2.6
	0.6nm,0.4s,baz=27,slow=6.8,SNR=5.2						
ASAR	Alice Springs	75.92	202	P	P	14 36 10.4	-1.6
	0.5nm,1.1s,baz=15,slow=5.7,SNR=4.0						

*NAO **18** 14:37:21.9±1.6,76.88N×7.90E,ML2.7*
*BER **18** 14:37:26.7±4.9,76.77N×8.50E,h7^{km}±87^{km},MD3.0,ML2.9, ML2.7(NAO)*
ISC 18 14:37:17.4±1.9**,76.9N**±0.1×**7.6E**±0.3**,h2**^{km}±13^{km}**,n7, σ1**^{s}**21**/13**,1C,Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HSP	Hornsund	1.82	82	ePg	Pg	14 37 53.2	-0.5
HSP				eSg	Sg	14 38 09.9	-8.0
SPA0	Spitsbergen Ar	2.31	52	Pn	Pn	14 38 01.2	+4.1
	baz=217,slow=12						
SPA0				Sn	Sn	14 38 27.0	+0.7
	baz=218,slow=18						
SPA0	Spitsbergen Ar	2.31	52	Pn	Pn	14 38 01.2	+4.2
	baz=217,slow=12,SNR=105						
SPA0				Sn	Sn	14 38 27.0	+0.6
	baz=218,slow=17,SNR=8.3						
HOPEN	Hopen	4.04	87	eP	Pn	14 38 24.8	+3.2
HOPEN				eS	Sn	14 39 08.7	-1.5
HOPEN				AML	AML	14 39 14.1	
	comp=Z,58nm,0.3s						
DAG	Danmarks Havn	5.97	282	⇑iP	Pn	14 38 48.3	-0.6
	comp=Z,3.4nm,0.4s						
DAG				i		14 39 51.4	
ARA0	ARCESS Array S	8.96	136	Pn	P	14 39 31.6	+0.7
	baz=325,slow=11						
ARA0				Sn	Sn	14 41 04.7	-8.9
	baz=334,slow=22						
ARA0	ARCESS Array S	8.96	136	Pn	P	14 39 31.6	+0.7
	baz=325,slow=11,SNR=2.7						
ARA0				Sn	Sn	14 41 04.7	-8.9
	baz=334,slow=19,SNR=0.4						

*IDC **18** 14:51:14.5±0.7,57.58N×32.94W,mb3.9/16,mb1 4.1/20, mb1mx4.0/28,ML3.2/3,MS3.7/12,Ms1 3.7/12, ms1mx3.4/23,Error ellipse: s-maj=20.6km s-min=13.3km az=11.0*
*NEIC **18** 14:51:16.4±0.5,57.51N×33.08W,h10^{km},mb4.5/7,Error ellipse: s-maj=14.1km s-min=8.5km az=194.0*
*ZUR_RM **18** 14:51:16,57.51N×33.08W,h9^{km},Mw4.5/7,Moment Tensor Solution. s7 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-6.63; M$_{\theta\theta}$2.54; M$_{\phi\phi}$4.09; M$_{r\theta}$-0.34; M$_{\theta\phi}$0.84; M$_{\phi r}$-2.32; Best double couple: M$_0$6.01×10^{15} NP1:φ$_s$18°,δ56°,λ-94°. NP2:φ$_s$205°,δ34°,λ-84°. Principal axes: T 4.905, Plg11°, Azm111°; N 2.209, Plg3°, Azm20°; P -7.115, Plg78°, Azm275°;*
ISC 18 14:51:14.9±4.9**,57.55N**±0.09×**33.1W**±0.1**,h9**^{km}±31^{km}**,n43, σ1**^{s}**21**/39**,mb4.1**/26**,MS3.6**/9**,1C,Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BORG	Borgarnes	9.18	33	Pn	P	14 53 31.3	+0.9
	0.8nm,0.3s,baz=180,slow=7.1,SNR=4.7						
BORG				LR	LR	14 55 34.4	
	comp=Z,250nm,18.4s,baz=288,slow=28						
EKA	Eskdalemuir Ar	16.63	85	Pn	P	14 55 06.5	-2.9
	0.1nm,0.3s,baz=339,slow=25,SNR=3.3						
FRB	Frobisher Bay	18.26	305	P	P	14 55 30.2	+0.5
	baz=95,slow=13,SNR=4.2						
FRB				LR	LR	15 01 27.7	
	comp=Z,264nm,18.5s,baz=127,slow=34						
SCHQ	Schefferville	18.86	276	P	P	14 55 37.4	+0.3
	0.3nm,0.3s,baz=73,slow=11,SNR=5.7						
SCHQ				LR	LR	15 01 37.8	
	comp=Z,243nm,18.6s,baz=34,slow=33						
SCHQ	Schefferville	18.86	276	P	P	14 55 37.4	+0.3
SCHQ				LR	LR	15 01 37.8	
FLN	La Foliniere	21.25	100	eP	P	14 56 02.7	-0.5
	42nm,1.0s,mb4.4						
NOA	NORSAR Array B	22.56	62	LR	LR	15 03 16.3	
	comp=Z,134nm,18.3s,MS3.4,baz=185,slow=32						
TCF	Toulx Ste Croi	24.22	102	eP	P	14 56 37.4	+5.0
SSF	Saint Saulge	24.41	100	eP	P	14 56 34.2	-0.1
	11nm,0.8s,mb4.0						
AVF	Avril sur Loir	24.50	100	eP	P	14 56 37.9	+2.8
	36nm,1.3s,mb4.4						
SMF	Signal de Mont	24.86	100	eP	P	14 56 40.7	+2.2
	34nm,1.1s,mb4.5						
HAU	Haudompre	25.36	95	eP	P	14 56 44.5	+1.3
	38nm,1.3s,mb4.5						
CDF	Champ du Feu	25.61	93	eP	P	14 56 46.7	+1.1
	19nm,1.2s,mb4.2						
ESDC	Sonseca Array	25.97	121	P	P	14 56 48.9	-0.1
	1.3nm,0.7s,mb3.6,baz=308,slow=8.3,SNR=7.0						
ARCES	ARCESS Array B	27.48	41	P	P	14 57 00.7	-1.9
	2.2nm,0.8s,mb3.7,baz=288,slow=7.7,SNR=5.7						
ARCES				LR	LR	15 05 33.1	
	comp=Z,129nm,18.7s,MS3.5,baz=21,slow=31						
GERES	GERESS Array B	28.82	87	P	P	14 57 19.7	+4.7
	0.5nm,0.8s,mb3.3,baz=276,slow=9.9,SNR=2.7						
FINES	FINESS Array B	29.38	57	P	P	14 57 17.7	-2.2
	9.4nm,1.2s,mb4.4,baz=225,slow=2.7,SNR=3.4						
FINES				LR	LR	15 09 27.0	
	comp=Z,48nm,18.2s,MS3.2,baz=185,slow=37						
FINES	FINESS Array B	29.38	57	P	P	14 57 17.7	-2.2
FINES				LR	LR	15 09 27.0	
AKASG	Malin Array Be	35.98	73	P	P	14 58 16.5	-0.9
	1.3nm,0.6s,mb4.0,baz=304,slow=8.4,SNR=5.2						
YKA	Yellowknife Ar	38.48	312	P	P	14 58 36.9	-1.4
	1.0nm,0.5s,mb3.8,baz=59,slow=9.3,SNR=11						
YKA				PcP	PcP	15 00 48.6	-3.3
	0.5nm,0.8s,baz=49,slow=3.7,SNR=4.0						
YKA				LR	LR	15 13 55.2	
	comp=Z,319nm,18.1s,MS4.2,baz=60,slow=35						
YKA	Yellowknife Ar	38.48	312	P	P	14 58 36.9	-1.4
YKA				PcP	PcP	15 00 48.6	-3.3
YKA				LR	LR	15 13 55.2	
INK	Inuvik	41.80	327	P	P	14 59 05.8	+0.4
	0.6nm,0.6s,mb3.4,baz=22,slow=7.9,SNR=3.4						
INK	Inuvik	41.80	327	eP	P	14 59 06.2	+0.7
BRTR	Keskin Array B	45.54	83	P	P	14 59 33.6	-2.6
	0.6nm,0.7s,mb3.6,baz=311,slow=13,SNR=3.7						
ARU	Arti	46.24	50	P	P	14 59 41.4	0.0
	2.8nm,0.6s,mb4.4						
ILAR	Eielson Array	48.11	328	P	P	14 59 56.2	+0.1
	1.6nm,0.8s,mb4.1,baz=39,slow=6.6,SNR=19						
ILAR				PcP	PcP	15 01 22.9	-1.3
	1.2nm,0.7s,baz=3.8,slow=2.6,SNR=17						
ILAR				LR	LR	15 18 41.2	
	comp=Z,61nm,20.4s,MS3.6,baz=168,slow=34						
PDAR	Pinedale Array	48.49	287	P	P	14 59 59.4	0.0
	0.9nm,0.6s,mb4.0,baz=64,slow=7.3,SNR=10.0						
PDAR				LR	LR	15 19 25.2	
	comp=Z,102nm,21.0s,MS3.8,baz=5.8,slow=35						
IMA	Indian Mountai	48.93	332	eP	P	15 00 03.9	+1.5
GNI	Garni	51.10	74	LR	LR	15 20 38.3	
	comp=Z,35nm,18.7s,MS3.4,baz=159,slow=35						
BVAR	Borovoye Array	53.47	47	P	P	15 00 36.5	-0.4

	4.5nm,1.1s,mb4.3,baz=297,slow=3.3,SNR=7.7						
DBIC	**Dimbokro**	**55.32**	**145**	P	**P**	**15 00 48.8**	**-2.2**
	2.8nm,0.8s,mb4.3,baz=313,slow=8.9,SNR=4.3						
DBIC				LR	LR	15 22 23.2	
	comp=Z,60nm,18.0s,MS3.7,baz=260,slow=34						
TXAR	**Lajitas Array**	**55.46**	**271**	P	**P**	**15 00 49.9**	**-2.0**
	0.2nm,0.4s,mb3.5,baz=168,slow=31,SNR=2.3						
NVAR	**Mina Array Bea**	**56.18**	**290**	P	**P**	**15 00 56.7**	**-0.2**
	0.6nm,0.6s,mb3.8,baz=44,slow=4.3,SNR=7.7						
NVAR				LR	LR	15 24 33.6	
	comp=Z,82nm,21.1s,MS3.8,baz=315,slow=36						
SONM	**Songino Array**	**69.75**	**28**	P	**P**	**15 02 25.8**	**-0.7**
	2.9nm,1.1s,mb4.1,baz=323,slow=6.2,SNR=11						
BDFB	**Brasilia**	**73.96**	**195**	P	**P**	**15 02 53.1**	**+1.0**
	2.3nm,0.6s,mb4.3,baz=358,slow=4.3,SNR=5.4						
KOLN	**Koldanda**	**79.88**	**54**	*e*P	**P**	**15 03 25.6**	**+0.6**
GKN	**Gorkha**	**80.12**	**53**	*e*P	**P**	**15 03 26.9**	**+0.6**
	3.0nm,0.2s,mb4.8						
KKN	**Kakani**	**80.58**	**52**	*e*P	**P**	**15 03 29.5**	**+0.7**
	7.1nm,0.6s,mb4.8						
DMN	**Daman**	**80.67**	**52**	*e*P	**P**	**15 03 30.4**	**+1.2**
	8.2nm,0.7s,mb4.7						
GUN	**Gumba**	**80.73**	**52**	*e*P	**P**	**15 03 30.5**	**+0.9**
PKI	**Pulchoki**	**80.83**	**52**	*e*P	**P**	**15 03 30.1**	**0.0**
ASAR	**Alice Springs**	**144.87**	**21**	PKP	PKPdf	15 10 52.1	-2.7
	2.2nm,0.6s,baz=346,slow=2.6,SNR=32						
QSPA	**South Pole Qui**	**147.44**	**180**	⇑*i*P	PKPdf	15 10 56.7	-0.8

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*PRU **18** 16:06:46.3,51.41N×16.13E*

WAR 18 16:06:46,51.45N×16.13E,h1^{km},ML2.7,Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.62**	**170**	*e*PG	Pg	16 06 57.0	-1.3
KSP				*e*SG	Sg	16 07 05.0	-1.5
UPC	**Upice**	**0.95**	**185**	*e*PG	Pg	16 07 04.0	-0.9
DPC	**Dobruska-Polom**	**1.11**	**174**	*e*PG	Pg	16 07 05.7	-2.4
DPC				*e*SG	Sg	16 07 20.6	-2.3
PVCC	**Panska Ves**	**1.35**	**228**	*e*PG	Pg	16 07 11.1	-1.9
PRU	**Pruhonice**	**1.78**	**215**	*e*SG	Sg	16 07 41.8	-3.4
	6.5nm,0.3s						
CLL	**Collm**	**1.96**	**267**	*e*PG	Pg	16 07 23.0	-2.2
CLL				*e*SG	Sg	16 07 48.0	-3.4
NKC	**Novy Kostel**	**2.63**	**244**	*e*SG	Sg	16 08 10.5	-3.2
KHC	**Kasperske Hory**	**2.84**	**216**	*e*PG	Pg	16 07 37.5	-5.2
KHC				*e*SN	Sn	16 08 06.0	-2.7
KHC				*e*SG	Sg	16 08 15.1	-5.5

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*IDC **18** 16:08:49.3±4.3,52.19N×172.96W,h65^{km}±40^{km},mb3.6/7, mb1 4.0/9,mb1mx3.6/25,ML4.1/2,Error ellipse: s-maj=41.0km s-min=19.9km az=159.0*

*NEIC **18** 16:08:49.2±0.4,52.19N×172.98W,h67^{km}±5^{km},mb4.2/2, ML3.5(AEIC),Error ellipse: s-maj=14.2km s-min=4.1km az=162.0*

ISC 18 16:08:47.9±0.7**,52.2N**±0.2×**172.88W**±0.08**,h66^{km}**±8^{km}**, n36,σ0^{s}.80**/45**,mb3.8**/8**,Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	**Atka Island**	**0.81**	**273**	P	**P**	**16 09 03.6**	**-0.4**
ATKA				S	**S**	**16 09 15.4**	**-0.5**
GSIG	**Igitkin Island**	**1.89**	**266**	P	**P**	**16 09 17.6**	**-0.9**
GSIG				S	**S**	**16 09 39.7**	**-1.4**
GSTR	**Great Sitkin T**	**1.96**	**269**	P	**P**	**16 09 19.7**	**+0.1**
GSTR				S	**S**	**16 09 44.8**	**+1.9**
GSMY	**Great Sitkin M**	**1.96**	**268**	P	**P**	**16 09 19.0**	**-0.5**
GSMY				S	**S**	**16 09 42.8**	**-0.2**
GSTD	**Great Sitkin T**	**2.02**	**268**	P	**P**	**16 09 20.1**	**-0.2**
GSTD				S	**S**	**16 09 44.4**	**+0.2**
GSCK	**Great Sitkin C**	**2.03**	**267**	P	**P**	**16 09 20.6**	**+0.1**
GSSP	**Great Sitkin S**	**2.03**	**269**	P	**P**	**16 09 20.6**	**+0.1**
GSSP				S	**S**	**16 09 45.7**	**+1.0**
ADAG	**Mount Adagdak**	**2.30**	**267**	P	**P**	**16 09 24.4**	**0.0**
ADAG				S	**S**	**16 09 53.4**	**+1.8**
NIKO	**Nikolski**	**2.59**	**70**	P	**P**	**16 09 28.6**	**+0.2**
KIRH	**Kanaga Island**	**2.62**	**266**	P	**P**	**16 09 28.7**	**-0.1**
KIRH				S	**S**	**16 09 60.0**	**+0.6**
KINC	**Kanaga Island**	**2.63**	**267**	P	**P**	**16 09 29.1**	**0.0**
KIWB	**Kanaga Island**	**2.66**	**265**	P	**P**	**16 09 29.2**	**-0.2**
KIWB				S	**S**	**16 10 00.8**	**+0.4**
KIKV	**Kanaga Island**	**2.67**	**266**	P	**P**	**16 09 29.2**	**-0.3**
KIMD	**Kanaga Island**	**2.72**	**263**	P	**P**	**16 09 29.4**	**-0.9**
UNV	**Unalaska Valle**	**4.21**	**64**	*e*P	**P**	**16 09 51.8**	**+0.8**
FX1	**Attu Island--F**	**8.54**	**280**	P	**P**	**16 10 50.3**	**-0.9**
	3.0nm,0.3s,baz=287,slow=21,SNR=11						
FX1	**Attu Island--F**	**8.54**	**280**	*e*P	**P**	**16 10 49.1**	**-2.0**
SLKM	**Skilak Lake**	**15.02**	**47**	P	**P**	**16 12 18.7**	**+1.5**
ILAR	**Eielson Array**	**18.37**	**37**	P	**P**	**16 12 57.2**	**-1.9**
	1.1nm,0.3s,baz=237,slow=10.0,SNR=70						
INK	**Inuvik**	**24.72**	**34**	P	**P**	**16 14 04.0**	**+0.2**
	1.1nm,0.3s,mb3.8,baz=252,slow=8.6,SNR=28						
INK				PcP	PcP	16 17 39.4	-0.9
	1.0nm,0.5s,baz=292,slow=2.1,SNR=5.9						
INK	**Inuvik**	**24.72**	**34**	P	**P**	**16 14 04.0**	**+0.2**
INK				PcP	PcP	16 17 39.4	-0.9
YKA	**Yellowknife Ar**	**32.00**	**48**	P	**P**	**16 15 08.6**	**-0.8**
	0.2nm,0.3s,mb3.3,baz=274,slow=9.2,SNR=5.0						
YKA				pP	pP	16 15 25.6	0.0
	0.3nm,0.9s,baz=275,slow=8.3,SNR=1.8						
YKA				PcP	PcP	16 17 57.7	-0.4
	0.3nm,0.3s,baz=284,slow=3.2,SNR=8.1						
YKA	**Yellowknife Ar**	**32.00**	**48**	P	**P**	**16 15 08.6**	**-0.8**
YKA				pP	pP	16 15 25.6	0.0
YKA				PcP	PcP	16 17 57.7	-0.4
NEW	**Newport**	**35.15**	**74**	P	**P**	**16 15 37.0**	**+0.3**
	2.8nm,0.4s,mb4.4,baz=303,slow=8.3,SNR=6.8						
NEW	**Newport**	**35.15**	**74**	*e*P	**P**	**16 15 36.5**	**-0.3**
	2.6nm,0.4s,mb4.4						
MCMT	**McKenzie Canyo**	**39.43**	**76**	*e*P	**P**	**16 16 12.8**	**+0.2**
NVAR	**Mina Array Bea**	**39.82**	**88**	P	**P**	**16 16 17.2**	**+1.2**
	0.1nm,0.3s,mb3.1,baz=297,slow=7.7,SNR=5.3						
NVAR	**Mina Array Bea**	**39.82**	**88**	P	**P**	**16 16 17.2**	**+1.2**
TPNV	**Topopah Spring**	**42.02**	**88**	P	**P**	**16 16 34.9**	**+0.9**
BW06	**Boulder Array**	**42.56**	**77**	*e*P	**P**	**16 16 38.6**	**+0.3**
	1.2nm,0.5s,mb3.9						
PDAR	**Pinedale Array**	**42.56**	**77**	P	**P**	**16 16 38.9**	**+0.6**
	1.3nm,0.5s,mb3.9,baz=306,slow=4.3,SNR=16						
PDAR				pP	pP	16 16 53.1	-1.8
	0.7nm,0.6s,baz=286,slow=1.6,SNR=4.8						
SDCO	**Great Sand Dun**	**48.09**	**80**	P	**P**	**16 17 22.7**	**+0.3**
MNTX	**Cornudas Mount**	**52.20**	**85**	P	**P**	**16 17 53.3**	**-0.6**
WMOK	**Wichita Mounta**	**54.14**	**78**	P	**P**	**16 18 07.8**	**-0.4**
TXAR	**Lajitas Array**	**54.91**	**86**	P	**P**	**16 18 13.2**	**-0.8**
	2.0nm,0.8s,mb4.2,baz=297,slow=5.1,SNR=9.2						
ASAR	**Alice Springs**	**88.64**	**227**	P	**P**	**16 21 34.0**	**-0.7**
	1.3nm,0.8s,mb4.0,baz=26,slow=5.0,SNR=12						

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*NEIC **18** 16:55:16.9,33.14S×70.28W,h3^{km},ML2.5(GUC),After GUC.*

GUC 18 16:55:16.9±0.9**,33.14S×70.28W,h3^{km}**±2^{km}**,MD3.5, ML2.5,5C-7D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FCH	**Farellones**	**0.18**	**184**	⇑*i*P	Pg	16 55 21.5	+0.9
FCH				*i* S	Sg	16 55 24.2	+1.1
FCH				AMP		16 55 25.4	
	comp=N,1µm,0.2s						
FCH				AMP		16 55 26.5	
	comp=E,2µm,0.3s						
PEL	**Peldehue**	**0.34**	**270**	*i* P	Pg	16 55 24.5	+0.7
PEL				*i* S	Sg	16 55 29.4	+1.0
PEL				AMP		16 55 35.5	
	comp=N,613nm,0.5s						
DSCH	**Colegio Aleman**	**0.35**	**224**	⇓*i*P	Pg	16 55 25.1	+1.2
DSCH				*i* S	Sg	16 55 30.9	+2.2
DSCH				AMP		16 55 32.4	
	comp=N,1µm,0.5s						
DSCH				AMP		16 55 33.2	
	comp=E,926nm,0.4s						
PCH	**Pirque**	**0.52**	**203**	⇓*i*P	Pg	16 55 27.9	+0.7
PCH				*i* S	Sg	16 55 36.0	+1.8
JACH	**Jahuel**	**0.53**	**330**	⇓*i*P	Pg	16 55 28.0	+0.5
JACH				*i* S	Sg	16 55 35.7	+1.0
RCDM	**Rinconada Maip**	**0.56**	**232**	⇑*i*P	Pg	16 55 28.6	+0.5
LMEL	**Las Melosas**	**0.70**	**175**	⇑*i*P	Pg	16 55 30.9	0.0
LMEL				*i* S	Sg	16 55 41.4	+1.0
TACH	**Talagante**	**0.75**	**227**	⇑*i*P	Pg	16 55 31.9	0.0
TACH				*i* S	Sg	16 55 43.4	+1.5
CHCH	**Chadas Angostu**	**0.85**	**202**	⇓*i*P	Pg	16 55 33.4	-0.4
CACH	**El Canelo**	**1.01**	**195**	*e*P	Pb	16 55 36.6	-0.1
CACH				*i* S	Sb	16 55 51.9	+1.7
LCCH	**Las Cruces**	**1.13**	**253**	⇓*i*P	Pb	16 55 38.5	-0.3
LCCH				*i* S	Sb	16 55 54.1	+0.3
PACH	**Papudo**	**1.15**	**301**	⇓*i*P	Pb	16 55 38.7	-0.4
PACH				*i* S	Sb	16 55 54.5	+0.2
CICH	**Cipreses**	**1.18**	**186**	⇑*i*P	Pb	16 55 39.7	0.0
CICH				*i* S	Sb	16 55 55.9	+0.7
LNV	**Longovilo**	**1.25**	**229**	⇓*i*P	Pb	16 55 40.1	-0.7
LNV				*i* S	Sb	16 55 56.7	-0.4
SFDO	**San Fernando**	**1.59**	**202**	*e*P	Pn	16 55 46.2	0.0
SFDO				*i* S	Sb	16 56 07.3	+0.2

GUC 18 17:00:01.5±0.7**,33.15S×70.28W,h3^{km}**±3^{km}**,MD3.5, ML2.3,1C-2D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FCH	**Farellones**	**0.18**	**182**	⇑*i*P	Pg	17 00 05.9	+0.9
FCH				*i* S	Sg	17 00 08.6	+1.2
FCH				AMP		17 00 10.2	
	comp=E,605nm,0.4s						
CLCH	**Cerro Calan**	**0.32**	**221**	AMP		17 00 16.1	
	comp=E,2µm,0.5s						
PEL	**Peldehue**	**0.34**	**271**	*e*P	Pg	17 00 08.8	+0.6
PEL				*i* S	Sg	17 00 13.7	+0.9
PEL				AMP		17 00 14.5	
	comp=N,354nm,0.5s						
DSCH	**Colegio Aleman**	**0.34**	**224**	*e*P	Pg	17 00 09.5	+1.2
DSCH				*i* S	Sg	17 00 14.9	+2.0
DSCH				AMP		17 00 15.9	
	comp=N,1µm,0.4s						
PCH	**Pirque**	**0.51**	**202**	*i* P	Pg	17 00 12.2	+0.6
PCH				*i* S	Sg	17 00 19.8	+1.5
JACH	**Jahuel**	**0.54**	**331**	⇓*i*P	Pg	17 00 12.2	0.0
TACH	**Talagante**	**0.74**	**227**	*i* P	Pg	17 00 16.2	-0.1
LCCH	**Las Cruces**	**1.12**	**253**	*e*P	Pb	17 00 22.9	-0.4
LCCH				*i* S	Sb	17 00 38.4	+0.2
SFDO	**San Fernando**	**1.58**	**202**	⇓*i*P	Pn	17 00 31.0	+0.4
SFDO				*i* S	Sb	17 00 52.5	+1.1

OTT 18 17:07:42.6±0.3**,52.78N×67.31W,MN2.6**/6**,Blast, Mount Wright, Qc Mining explosion.,Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCHQ	**Schefferville**	**2.07**	**8**	PN	Pn	17 08 18.2	-0.8
SCHQ				SN	Sn	17 08 44.9	-1.1
SCHQ				Trac		17 08 47.6	
	comp=Z,12nm,0.1s						
MNQ	**Manicouagan**	**2.43**	**203**	PN	Pn	17 08 24.2	-0.1
MNQ				SN	Sn	17 08 55.5	+0.4
MNQ				Trac		17 08 59.8	
	comp=Z,9.4nm,0.2s						
SMQ	**Clarke City**	**2.59**	**171**	PN	Pn	17 08 24.3	-2.2
SMQ				SG	Sg	17 08 56.3	-13
SMQ				Trac		17 09 01.7	
	comp=Z,6.5nm,0.1s						
ICQ	**Pointe Anglais**	**3.27**	**180**	PN	Pn	17 08 34.0	-2.1
ICQ				SN	Sn	17 09 11.2	-5.1
CNQ	**Baie Comeau**	**3.52**	**188**	PN	Pn	17 08 38.1	-1.6
CNQ				SN	Sn	17 09 18.7	-4.0
CNQ				Trac		17 09 33.9	
	comp=Z,4.0nm,0.2s						
GSQ	**Grosses Roches**	**3.88**	**178**	PN	Pn	17 08 43.3	-1.6
GSQ				SN	Sn	17 09 30.5	-1.3
GSQ				Trac		17 09 52.4	
	comp=Z,0.7nm,0.0s						
LG4Q	**La Grande 4**	**4.17**	**284**	PN	Pn	17 08 46.2	-2.7
LG4Q				SN	Sn	17 09 36.0	-3.1
LG4Q				Trac		17 09 54.7	
	comp=Z,2.6nm,0.2s						
LMQ	**La Malbaie**	**5.59**	**202**	PN	Pn	17 09 05.4	-3.6
LMQ				SN	Sn	17 10 07.8	-7.1
DRLN	**Deer Lake**	**7.12**	**116**	SN	Sn	17 10 38.0	-15
LMN	**Caledonia Moun**	**7.13**	**166**	PN	Pn	17 09 24.9	-5.8
LMN				SN	Sn	17 10 45.0	-8.4
VLDQ	**Val d'Or**	**7.99**	**238**	PN	Pn	17 09 38.6	-4.1
VLDQ				SN	Sn	17 11 09.7	-5.2
MALO	**McAlpine Lake**	**8.27**	**255**	PN	P	17 09 41.3	-5.3
MALO				SN	Sn	17 11 11.0	-11
SILO	**Sutton Inlier**	**10.59**	**286**	PN	P	17 10 12.0	-6.6
SILO				SN	S	17 12 04.3	-15

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*IDC **18** 17:15:24.8±0.5,16.06S×174.86W,mb4.7/18,mb1 4.9/20, mb1mx4.8/22,ML4.3/1,MS5.4/18,Ms1 5.4/18, ms1mx5.2/23,Error ellipse: s-maj=25.1km s-min=13.1km az=139.0*

*MOS **18** 17:15:25.7±1.4,16.19S×174.53W,h10^{km},mb5.3/26, MS5.6/15,Error ellipse: s-maj=13.6km s-min=10.3km az=66.6*

*NEIC **18** 17:15:26.4±0.2,16.05S×174.79W,h10^{km},mb5.1/50, MS5.5/20,MW5.8,Error ellipse: s-maj=9.7km s-min=4.8km az=143.0,Moment Tensor Solution. s11 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.10; $M_{\theta\theta}$-4.00; $M_{\phi\phi}$4.10; $M_{r\theta}$0.19; $M_{\theta\phi}$-2.60; $M_{\phi r}$0.15; Best double couple: $M_0$4.8×10^{17} NP1: ϕ_s299°,δ87°,λ-179°. NP2:ϕ_s209°,δ89°,λ-3°. Principal axes: T 4.87, Plg1°, Azm254°; N -.1, Plg87°, Azm4°; P -4.77, Plg3°, Azm164°;*

*HRVD **18** 17:15:26.4±0.1,15.94S×174.68W,h12^{km},MW5.8/76, Centroid moment Tensor Solution. LP body waves: s61,c146;Mantle waves: s76,c170; Half duration: 1^{s}.9 Moment tensor: Scale 10^{17}Nm; M_{rr}0.62±.06; $M_{\theta\theta}$-4.29±.07; $M_{\phi\phi}$3.67±.07; $M_{r\theta}$-0.46±.17; $M_{\theta\phi}$-4.06±.06; $M_{\phi r}$0.38±.17; Best double couple: $M_0$5.72×10^{17} NP1:ϕ_s22°, δ84°,λ3°. NP2:ϕ_s292°,δ87°,λ174°. Principal axes: T 5.43, Plg6°, Azm247°; N .57, Plg83°, Azm88°; P -6.01, Plg2°, Azm337°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **18** 17:15:26.6,16.01S×174.73W,h10^{km},MB5.1,MS5.5*

*BJI **18** 17:15:31.8,15.43S×175.57W,h10^{km},mB5.6,mb4.9, Ms5.7,Msz5.4*

ISC 18 17:15:25.0±0.2**,16.08S**±0.07×**174.77W**±0.05**,h10^{km}, (h16^{km}**±3.5^{km}**:pP-P),n258,σ1^{s}.09**/171**,mb4.9**/73**,MS5.5**/54**, 10C-5D,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**3.61**	**54**	*e*P	**Pn**	**17 16 17.2**	**-5.1**
RAR	**Rarotonga**	**15.10**	**112**	Pn	**P**	**17 18 56.5**	**-3.9**
	1.4nm,0.3s,baz=291,slow=2.0,SNR=5.5						
RAR	**Rarotonga**	**15.10**	**112**	*e*P	**P**	**17 18 56.1**	**-4.2**
RAR				pmax	pmax		
	comp=Z,63nm,1.2s						
RAR	**Rarotonga**	**15.10**	**112**	*e*P	**P**	**17 18 56.1**	**-4.3**
	comp=Z,63nm,1.3s						
DZM	**Mont Dzumac**	**18.72**	**249**	⇑*e*P	**P**	**17 19 46.6**	**+0.6**
NOUC	**Port Laguerre**	**18.85**	**249**	*e*P	**P**	**17 19 47.7**	**0.0**
URZ	**Urewera**	**23.22**	**196**	P	**P**	**17 20 32.4**	**-0.9**
	comp=Z,37nm,0.9s,mb4.8,baz=10,slow=5.0,SNR=7.2						
PPT	**Papeete**	**24.16**	**97**	*e*LQ		17 25 18.9	
PPT				*e*LR	LR	17 26 19.2	
	comp=Z,15µm,25.8s						
TBI	**Tubuai**	**24.88**	**111**	*e*LQ		17 25 40.1	
TBI				*e*LR	LR	17 26 44.1	
	comp=Z,6µm,26.0s						
ARMA	**Armidale**	**33.86**	**239**	*e*P	**P**	**17 22 13.5**	**+3.5**
CTA	**Charters Tower**	**37.20**	**258**	*e*P	**P**	**17 22 36.7**	**-1.8**
	comp=Z,7.6nm,1.0s,mb4.5						
CTA	**Charters Tower**	**37.20**	**258**	P	**P**	**17 22 36.2**	**-2.4**
	comp=Z,8.0nm,0.9s,mb4.6,baz=109,slow=11,SNR=3.6						
CTA				LR	LR	17 35 40.7	
	comp=Z,10µm,20.1s,MS5.6,baz=87,slow=33						
CTAO	**Charters Tower**	**37.20**	**258**	*e*P	**P**	**17 22 35.2**	**-3.3**
CTAO				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.0						
CTAO				MLR	MLR		
	comp=Z,10µm,20.0s,MS5.6						
CTAO	**Charters Tower**	**37.20**	**258**	*e*P	**P**	**17 22 35.1**	**-3.4**
	comp=Z,30nm,1.3s,mb5.0						
CTAO				LR	LR		
	comp=Z,9µm,20.0s,MS5.6						
PMG	**Port Moresby**	**37.67**	**275**	P	**P**	**17 22 41.7**	**-0.9**
	comp=Z,16nm,1.0s,mb4.7,baz=64,slow=3.9,SNR=11						
PMG				LR	LR	17 35 12.0	
	comp=Z,5µm,19.4s,MS5.3,baz=97,slow=32						
PMG	**Port Moresby**	**37.67**	**275**	*d i*P	**P**	**17 22 42.9**	**+0.4**
PMG	**Port Moresby**	**37.67**	**275**	*e*P	**P**	**17 22 42.5**	**0.0**
	comp=Z,118nm,1.6s,mb5.4						
PMG				LR	LR		
	comp=Z,4µm,22.0s,MS5.2						
TOO	**Toolangi**	**41.01**	**231**	*e*P	**P**	**17 23 09.7**	**-0.4**
	comp=Z,21nm,1.3s,mb4.6						
TOO				*e*S	**S**	**17 29 21.4**	**-0.7**
STKA	**Stephens Creek**	**42.55**	**240**	⇑*i*P	**P**	**17 23 22.4**	**-0.4**
	comp=Z,19nm,1.2s,mb4.7						
STKA				*e*S	**S**	**17 29 34.4**	**-11**
STKA	**Stephens Creek**	**42.55**	**240**	P	**P**	**17 23 21.1**	**-1.7**
	comp=Z,19nm,1.1s,mb4.8,baz=81,slow=7.5,SNR=15						
STKA				LR	LR	17 39 22.3	
	comp=Z,6µm,18.2s,MS5.5,baz=71,slow=34						
WRAB	**Tennant Creek**	**48.39**	**257**	*e*P	**P**	**17 24 07.6**	**-1.9**
WRAB				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.4						
WRAB				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.1						
WRAB	**Tennant Creek**	**48.39**	**257**	*e*P	**P**	**17 24 07.6**	**-1.9**
	comp=Z,56nm,1.5s,mb5.4						
WRAB				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
WRA	**Warramunga Arr**	**48.40**	**257**	P	**P**	**17 24 07.9**	**-1.7**
	comp=Z,5.6nm,1.1s,mb4.5,baz=94,slow=7.9,SNR=19						
ASAR	**Alice Springs**	**48.65**	**252**	P	**P**	**17 24 09.6**	**-1.8**
	comp=Z,13nm,0.8s,mb5.0,baz=87,slow=7.0,SNR=74						
ASAR				LR	LR	17 42 49.7	
	comp=Z,12µm,21.3s,MS5.8,baz=85,slow=34						
ASAR	**Alice Springs**	**48.65**	**252**	P	**P**	**17 24 09.6**	**-1.8**
ASAR				LR	LR	17 42 49.7	
ASPA	**Alice Springs**	**48.65**	**252**	⇓*i*P	**P**	**17 24 09.0**	**-2.4**
ASPA				*e*		17 26 07.2	
KAKA	**Kakadu**	**51.13**	**266**	*e*P	**P**	**17 24 31.2**	**+0.7**
	comp=Z,30nm,1.4s,mb5.0						
FORT	**Forrest**	**53.93**	**243**	*e*P	**P**	**17 24 48.9**	**-2.3**
	comp=Z,54nm,0.7s,mb5.6						
FITZ	**Fitzroy Crossi**	**56.78**	**259**	*e*P	**P**	**17 25 10.2**	**-1.9**
	comp=Z,15nm,1.5s,mb4.8						
FITZ				*e*S	**S**	**17 33 04.8**	**+1.6**
FITZ	**Fitzroy Crossi**	**56.78**	**259**	LR	LR	17 47 24.6	
	comp=Z,7µm,21.0s,MS5.8,baz=90,slow=34						
DRV	**Dumont d'Urvil**	**58.52**	**199**	P	**P**	**17 25 28.0**	**+4.3**
DRV				S	**S**	**17 33 21.0**	**-4.5**
DRV				R		17 43 00.0	
CBIJ	**Chichi jima**	**59.89**	**315**	LR	LR	17 47 27.4	
	comp=Z,6µm,20.0s,MS5.7,baz=128,slow=32						
MBWA	**Marble Bar**	**61.90**	**254**	*e*P	**P**	**17 25 46.6**	**-0.9**
SBA	**Scott Base**	**62.47**	**184**	*e*P	**P**	**17 25 50.5**	**-0.1**
SBA				pmax	pmax		
	comp=Z,100nm,1.7s,mb5.7						
SBA				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
SBA	**Scott Base**	**62.47**	**184**	*e*P	**P**	**17 25 50.5**	**-0.1**
	comp=Z,100nm,1.7s,mb5.7						
SBA				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
VNDA	**Vanda**	**62.57**	**186**	P	**P**	**17 25 51.8**	**+0.5**
	comp=Z,6.5nm,0.9s,mb4.8,baz=6.9,slow=7.4,SNR=10						
VNDA				LR	LR	17 49 36.3	
	comp=Z,1µm,19.7s,MS5.1,baz=28,slow=33						
VNDA	**Vanda**	**62.57**	**186**	*e*P	**P**	**17 25 51.8**	**+0.6**
VNDA				pmax	pmax		
	comp=Z,20nm,1.2s						
VNDA				MLR	MLR		
	comp=Z,1µm,20.0s						
VNDA	**Vanda**	**62.57**	**186**	*e*P	**P**	**17 25 51.8**	**+0.6**
	comp=Z,20nm,1.2s,mb5.1						
VNDA				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
NWAO	**Narrogin (SRO)**	**63.13**	**241**	LR	LR	17 54 59.1	
	comp=Z,21nm,18.1s,baz=13,slow=38						
NWAO	**Narrogin (SRO)**	**63.13**	**241**	*e*P	**P**	**17 25 56.6**	**+1.1**
JHJ	**Hachijo jima 2**	**65.39**	**319**	LR	LR	17 54 20.1	
	comp=Z,2µm,18.2s,MS5.3,baz=152,slow=36						
MAJO	**Matsushiro**	**68.61**	**321**	P	**P**	**17 26 30.6**	**0.0**
MAJO				pmax	pmax		
	comp=Z,57nm,1.6s,mb5.2						
MAJO				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.7						
MAJO	**Matsushiro**	**68.61**	**321**	P	**P**	**17 26 30.6**	**0.0**
	comp=Z,57nm,1.6s,mb5.2						
MAJO				LR	LR		
	comp=Z,5µm,22.0s,MS5.7						
MAT	**Matsushiro**	**68.61**	**321**	P	**P**	**17 26 27.9**	**-2.7**
MAT				S	S	17 35 34.0	+2.3
MAT	**Matsushiro**	**68.61**	**321**	P	**P**	**17 26 26.0**	**-4.6**
MAT				*e*S	S	17 35 55.0	+23
MAT				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.5						
CASY	**Casey**	**69.24**	**205**	*e*P	**P**	**17 26 36.8**	**+2.8**
JOW	**Kunigami**	**69.83**	**307**	LR	LR	17 51 11.5	
	comp=Z,4µm,21.6s,MS5.7,baz=131,slow=31						
TGY	**Tagaytay City**	**70.24**	**292**	LR	LR	17 52 47.9	
	comp=Z,1µm,20.6s,MS5.2,baz=285,slow=32						
PET	**Petropavlovsk**	**72.54**	**344**	*e*P	**P**	**17 26 58.7**	**+4.6**
PET				*e*S	S	17 36 25.5	+8.3
PET				*e*PS	PS	17 36 53.9	+4.1
PET				*e*PPS	PPS	17 37 11.2	+7.8
PET				pmax	pmax		
	comp=Z,600nm,31.2s						
PET				smax			
	comp=N,800nm,22.7s						
PET				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.5						
SAO	**San Andreas Ge**	**72.72**	**42**	P	**P**	**17 26 55.9**	**+0.4**
SAO				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
LRV	**Little Rabbit**	**72.80**	**43**	*e*P	**P**	**17 26 52.6**	**-3.4**
LRV				*e*		17 27 04.5	
NSHM	**Saint Helena R**	**73.03**	**40**	*e*P	**P**	**17 26 56.3**	**-1.0**
HOPS	**Hopland**	**73.03**	**40**	*e*P	**P**	**17 26 57.1**	**-0.2**
	comp=Z,38nm,1.2s,mb5.2						
YSS	**Yuzh-Sakhalins**	**73.43**	**331**	P	**P**	**17 27 04.0**	**+4.6**
YSS				*e*S	S	17 36 35.0	+7.7
YSS				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
YSS				MLR	MLR		
	comp=N,1µm,18.0s						
YSS				MLR	MLR		
	comp=N,1µm,20.0s						
YSS	**Yuzh-Sakhalins**	**73.43**	**331**	P	**P**	**17 27 00.5**	**+1.1**
	comp=N,66nm,1.4s,mb5.4						
YSS				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
QSPA	**South Pole Qui**	**73.97**	**180**	P	**P**	**17 27 03.0**	**+1.1**
	comp=Z,30nm,1.2s,mb5.1						
CMB	**Columbia Colle**	**74.15**	**42**	*e*P	**P**	**17 27 02.4**	**-1.3**
CMB				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
CMB	**Columbia Colle**	**74.15**	**42**	*e*P	**P**	**17 27 02.4**	**-1.3**
	comp=Z,29nm,1.2s,mb5.1						
OHCM	**Honcut**	**74.22**	**40**	*e*P	**P**	**17 27 02.8**	**-1.4**
YBH	**Yreka Blue Hor**	**74.94**	**38**	P	**P**	**17 27 08.2**	**0.0**
	comp=Z,7.9nm,0.8s,mb4.7,baz=233,slow=3.4,SNR=17						
YBH	**Yreka Blue Hor**	**74.94**	**38**	*e*P	**P**	**17 27 07.7**	**-0.6**
YBH				pmax	pmax		
	comp=Z,13nm,1.0s						
YBH	**Yreka Blue Hor**	**74.94**	**38**	*e*P	**P**	**17 27 07.7**	**-0.5**
	comp=Z,13nm,1.0s,mb4.8						
MTUM	**Tungsten Hills**	**74.94**	**43**	*e*P	**P**	**17 27 06.7**	**-1.7**
BEKR	**Beckwourth**	**75.24**	**40**	*e*P	**P**	**17 27 09.7**	**-0.3**
	comp=Z,22nm,1.1s,mb5.0						
WCN	**Washoe City**	**75.28**	**41**	P	**P**	**17 27 10.9**	**+0.6**
WCN				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
WCN	**Washoe City**	**75.28**	**41**	*e*P	**P**	**17 27 10.4**	**+0.1**
	comp=Z,26nm,1.1s,mb5.1						
HUMO	**Hull Mountain**	**75.34**	**37**	*e*P	**P**	**17 27 09.7**	**-0.8**
	comp=Z,24nm,1.3s,mb5.0						
NVAR	**Mina Array Bea**	**75.72**	**42**	P	**P**	**17 27 12.8**	**0.0**
	comp=Z,13nm,0.9s,mb4.8,baz=219,slow=7.4,SNR=60						
NVAR				LR	LR	17 52 10.5	
	comp=Z,2µm,21.6s,MS5.4,baz=275,slow=29						
NVAR	**Mina Array Bea**	**75.72**	**42**	P	**P**	**17 27 12.8**	**0.0**
NVAR				LR	LR	17 52 10.5	
MNV	**Mina**	**75.82**	**43**	P	**P**	**17 27 13.7**	**+0.4**
MNV				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
MNV	**Mina**	**75.82**	**43**	*e*P	**P**	**17 27 13.2**	**-0.2**
	comp=Z,33nm,1.2s,mb5.1						
TPH	**Tonopah**	**76.23**	**43**	P	**P**	**17 27 15.8**	**+0.1**
TPH				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
TPH	**Tonopah**	**76.23**	**43**	*e*P	**P**	**17 27 15.1**	**-0.6**

	comp=Z,34nm,1.3s,mb5.1						
MOD	**Modoc**	**76.47**	**39**	*e*P	**P**	**17 27 16.7**	**-0.3**
	comp=Z,25nm,1.3s,mb5.0						
SSE	**Sheshan**	**77.32**	**308**	*e*P	**P**	**17 27 21.3**	**-0.6**
SSE				AP	pP	17 27 30.5	+5.4
SSE				AMB	AMB		
	comp=Z,26nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,57nm,3.9s						
SSE				LR	LR		
	comp=N,815nm,27.8s,MS5.2						
SSE				LR	LR		
	comp=E,2µm,27.9s,MS5.2						
SSE				LR	LR		
	comp=Z,2µm,36.2s						
BMN	**Battle Mountai**	**77.53**	**41**	P	**P**	**17 27 23.8**	**+0.9**
BMN				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
BMN	**Battle Mountai**	**77.53**	**41**	*e*P	**P**	**17 27 22.2**	**-0.6**
	comp=Z,11nm,0.9s,mb4.8						
TUC	**Tucson**	**77.84**	**51**	P	**P**	**17 27 25.4**	**+0.7**
TUC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
TUC	**Tucson**	**77.84**	**51**	*e*P	**P**	**17 27 24.9**	**+0.1**
	comp=Z,8.1nm,1.2s,mb4.5						
ARUT	**Antelope Range**	**78.61**	**45**	*e*P	**P**	**17 27 27.0**	**-1.9**
MDJ	**Mudanjiang**	**78.76**	**323**	P	**P**	**17 27 29.8**	**+0.3**
MDJ				AP	pP	17 27 32.9	+0.2
MDJ				AMB	AMB		
	comp=Z,16nm,2.0s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,183nm,7.0s						
MDJ				LR	LR		
	comp=N,2µm,23.2s,MS5.7						
MDJ				LR	LR		
	comp=E,3µm,23.2s,MS5.7						
MDJ				LR	LR		
	comp=Z,5µm,24.3s,MS5.7						
MDJ	**Mudanjiang**	**78.76**	**323**	P	**P**	**17 27 29.9**	**+0.4**
	comp=Z,20nm,1.2s,mb4.9						
MDJ				LR	LR		
	comp=Z,5µm,22.0s,MS5.8						
ELK	**Elko**	**78.97**	**42**	P	**P**	**17 27 30.2**	**-0.5**
ELK				pmax	pmax		
	comp=Z,8.0nm,1.0s						
ELK	**Elko**	**78.97**	**42**	*e*P	**P**	**17 27 29.9**	**-0.8**
	comp=Z,15nm,1.2s,mb4.8						
NJ2	**Nanjing**	**79.52**	**308**	*e*P	**P**	**17 27 36.1**	**+2.1**
NJ2				XP	sP	17 27 46.4	+8.2
NJ2				SKS	SKS	17 37 46.0	-4.4
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,2µm,8.4s						
NJ2				LR	LR		
	comp=N,2µm,18.2s,MS5.8						
NJ2				LR	LR		
	comp=E,4µm,18.9s,MS5.8						
NJ2				LR	LR		
	comp=Z,9µm,19.1s,MS6.1						
MSU	**Marysvale**	**79.84**	**45**	*e*P	**P**	**17 27 35.6**	**+0.1**
BMO	**Blue Mountains**	**79.96**	**38**	*e*P	**P**	**17 27 34.6**	**-1.4**
	comp=Z,10nm,1.2s,mb4.6						
GZH	**Guangzhou**	**80.33**	**297**	P	**P**	**17 27 36.1**	**-2.3**
GZH				S	S	17 37 35.8	-6.9
GZH				LR	LR		
	comp=N,430nm,21.1s,MS5.2						
GZH				LR	LR		
	comp=E,980nm,21.1s,MS5.2						
GZH				LR	LR		
	comp=Z,2µm,23.9s,MS5.3						
MA2	**Magadan**	**80.42**	**343**	*e*P	**P**	**17 27 39.1**	**+1.0**
MA2				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
MA2	**Magadan**	**80.42**	**343**	*e*P	**P**	**17 27 39.1**	**+0.9**
	comp=Z,12nm,1.0s,mb4.8						
CN2	**Changchun**	**80.76**	**321**	*e*P	**P**	**17 27 43.3**	**+3.0**
CN2				AMB	AMB		
	comp=Z,20nm,1.5s,mb4.8						
CN2				AMB	AMB		
	comp=Z,300nm,4.0s						
CN2				LR	LR		
	comp=N,2µm,20.0s,MS5.5						
CN2				LR	LR		
	comp=E,2µm,20.0s,MS5.5						
CN2				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
SNY	**Shenyang**	**80.89**	**318**	⇑*i*P	**P**	**17 27 44.8**	**+3.8**
SNY				AMB	AMB		
	comp=Z,20nm,2.1s,mb4.7						
SNY				AMB	AMB		
	comp=Z,340nm,6.5s						
SNY				LR	LR		
	comp=E,990nm,17.3s						
SNY				LR	LR		
	comp=Z,1µm,18.6s,MS5.3						
HLID	**Hailey**	**80.99**	**40**	*e*P	**P**	**17 27 40.9**	**-0.6**
	comp=Z,25nm,1.3s,mb5.0						
HLID				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SRU	**San Rafael**	**81.26**	**45**	P	**P**	**17 27 43.6**	**+0.6**
SRU	**San Rafael**	**81.26**	**45**	*e*P	**P**	**17 27 42.9**	**-0.1**
DAU	**Daniels Canyon**	**81.40**	**44**	P	**P**	**17 27 45.0**	**+1.3**
DAU	**Daniels Canyon**	**81.40**	**44**	*e*P	**P**	**17 27 43.9**	**+0.2**
TCUT	**Toone Canyon**	**81.64**	**43**	*e*P	**P**	**17 27 45.9**	**+0.9**
MNTX	**Cornudas Mount**	**81.69**	**54**	*e*P	**P**	**17 27 45.2**	**-0.2**
	comp=Z,8.2nm,1.0s,mb4.6						
HWUT	**Hardware Ranch**	**81.78**	**43**	*e*P	**P**	**17 27 46.1**	**+0.5**
	comp=Z,14nm,1.3s,mb4.7						
LPM	**Los Pinos Moun**	**81.85**	**51**	*e*P	**P**	**17 27 45.8**	**-0.4**
LPM				*e*		17 27 55.9	
PV10	**Paradox Valley**	**81.93**	**46**	*e*P	**P**	**17 27 46.5**	**0.0**
QIZ	**Qiongzhong**	**81.94**	**292**	*e*P	**P**	**17 27 50.8**	**+3.9**
QIZ				AMB	AMB		
	comp=Z,175nm,5.7s						
QIZ				LR	LR		
	comp=N,1µm,27.9s						
QIZ				LR	LR		
	comp=Z,2µm,21.3s						
NEW	**Newport**	**82.02**	**35**	*e*P	**P**	**17 27 45.9**	**-0.8**
	comp=Z,26nm,1.7s,mb4.9						
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
MCK	**McKinley**	**82.04**	**11**	P	**P**	**17 27 46.2**	**-0.3**
MCK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
MCK	**McKinley**	**82.04**	**11**	*e*P	**P**	**17 27 45.3**	**-1.2**
	comp=Z,13nm,1.0s,mb4.8						
LTX	**Lajitas**	**82.09**	**57**	*e*P	**P**	**17 27 48.6**	**+1.1**
LTX				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
LTX	**Lajitas**	**82.09**	**57**	*e*P	**P**	**17 27 48.6**	**+1.1**
	comp=Z,14nm,1.1s,mb4.8						
TXAR	**Lajitas Array**	**82.09**	**57**	P	**P**	**17 27 48.5**	**+0.9**
	comp=Z,7.1nm,1.0s,mb4.5,baz=225,slow=5.3,SNR=20						
TXAR				LR	LR	17 55 53.9	
	comp=Z,3µm,21.5s,MS5.6,baz=225,slow=30						
PV01	**Paradox Valley**	**82.15**	**47**	*e*P	**P**	**17 27 47.5**	**-0.2**
ANMO	**Albuquerque**	**82.25**	**50**	P	**P**	**17 27 48.5**	**+0.2**
	comp=Z,12nm,1.3s,mb4.7,baz=238,slow=5.8,SNR=11						
ANMO	**Albuquerque**	**82.25**	**50**	P	**P**	**17 27 49.1**	**+0.9**
ANMO				pmax	pmax		
	comp=Z,13nm,1.3s						
ANMO	**Albuquerque**	**82.25**	**50**	*e*P	**P**	**17 27 48.6**	**+0.3**
	comp=Z,23nm,1.5s,mb4.9						
THY	**Trims Highway**	**82.39**	**13**	*e*P	**P**	**17 27 48.5**	**+0.1**
MCMT	**McKenzie Canyo**	**82.61**	**39**	*e*P	**P**	**17 27 50.2**	**+0.3**
AHID	**Auburn Hatcher**	**82.66**	**42**	*e*P	**P**	**17 27 50.5**	**+0.3**
	comp=Z,22nm,1.2s,mb5.1						
GDL2	**Guadalupe Moun**	**82.69**	**54**	*e*P	**P**	**17 27 51.0**	**+0.5**
DLBC	**Dease Lake**	**82.82**	**22**	P	**P**	**17 27 46.5**	**-4.2**
	comp=Z,1.7nm,0.8s,mb4.1,baz=296,slow=24,SNR=1.7						
DLBC	**Dease Lake**	**82.82**	**22**	*e*P	**P**	**17 27 50.4**	**-0.3**
SEY	**Seymchan**	**82.83**	**346**	*e*P	**P**	**17 27 50.3**	**-0.4**
SEY				*e*S	S	17 38 06.5	-1.2
SEY				*e*		17 39 09.1	
SEY				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.4						
SEY				pmax	pmax		
	comp=N,10.0nm,0.9s						
SEY				smax			
	comp=N,2µm,21.8s						
SEY				smax			
	comp=E,300nm,15.9s						
MSO	**Missoula**	**83.02**	**37**	*e*P	**P**	**17 27 51.2**	**-0.8**
	comp=E,23nm,1.9s,mb4.9						
REDW	**Red Top Meadow**	**83.11**	**41**	*e*P	**P**	**17 27 52.5**	**0.0**
TPAW	**Teton Pass**	**83.11**	**41**	*e*P	**P**	**17 27 52.4**	**-0.2**
SNOW	**Snow King Moun**	**83.22**	**41**	*e*P	**P**	**17 27 53.5**	**+0.4**
COLA	**College**	**83.28**	**11**	P	**P**	**17 27 52.5**	**-0.4**
COLA				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
COLA	**College**	**83.28**	**11**	*e*P	**P**	**17 27 52.1**	**-0.9**
	comp=Z,38nm,1.2s,mb5.3						
IMW	**Indian Meadow**	**83.32**	**41**	*e*P	**P**	**17 27 53.9**	**+0.3**
ILAR	**Eielson Array**	**83.37**	**12**	P	**P**	**17 27 52.6**	**-0.7**
	comp=Z,6.6nm,1.0s,mb4.6,baz=221,slow=5.9,SNR=21						
ILAR				LR	LR	17 57 42.3	
	comp=Z,1µm,20.2s,MS5.2,baz=226,slow=30						
MOOW	**Moose Ponds**	**83.37**	**41**	*e*P	**P**	**17 27 54.3**	**+0.4**
LOHW	**Long Hollow**	**83.39**	**41**	*e*P	**P**	**17 27 53.8**	**-0.1**
CPRX	**Cap Rock**	**83.41**	**53**	*e*P	**P**	**17 27 54.1**	**-0.1**
IMA	**Indian Mountai**	**83.42**	**8**	P	**P**	**17 27 55.0**	**+1.4**
IMA				pmax	pmax		
	comp=Z,150nm,1.7s,mb5.8						
IMA	**Indian Mountai**	**83.42**	**8**	*e*P	**P**	**17 27 54.8**	**+1.2**
	comp=Z,3.3nm,0.8s,mb4.4						
QLMT	**Earthquake Lak**	**83.48**	**40**	*e*P	**P**	**17 27 55.0**	**+0.6**
PDAR	**Pinedale Array**	**83.65**	**42**	P	**P**	**17 27 54.9**	**-0.5**
	comp=Z,6.2nm,0.9s,mb4.7,baz=217,slow=3.0,SNR=42						
PDAR				LR	LR	17 59 18.1	
	comp=Z,1µm,19.6s,MS5.4,baz=49,slow=32						
YMR	**Madison River**	**83.69**	**40**	*e*P	**P**	**17 27 56.1**	**+0.6**
BOZ	**Bozeman (W)**	**83.77**	**39**	P	**P**	**17 27 55.9**	**0.0**
BOZ				pmax	pmax		
	comp=Z,69nm,1.9s,mb5.5						
BOZ	**Bozeman (W)**	**83.77**	**39**	*e*P	**P**	**17 27 55.6**	**-0.3**
	comp=Z,30nm,1.5s,mb5.2						
PMSA	**Palmer Station**	**84.09**	**156**	P	**P**	**17 27 59.5**	**+2.5**
	comp=Z,23nm,1.3s,mb5.1						
PMSA				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
SDCO	**Great Sand Dun**	**84.15**	**48**	*e*P	**P**	**17 27 58.1**	**+0.1**
	comp=Z,16nm,1.4s,mb4.9						
HRY	**Holter Researc**	**84.19**	**38**	*e*P	**P**	**17 27 58.5**	**+0.6**
RWWY	**Rawlins**	**84.70**	**44**	*e*P	**P**	**17 28 00.3**	**-0.3**
BJT	**Baijiatuau**	**84.98**	**314**	*e*P	**P**	**17 28 02.3**	**+0.3**
BJT				pmax	pmax		
	comp=Z,57nm,1.4s						
BJT	**Baijiatuau**	**84.98**	**314**	*e*P	**P**	**17 28 02.3**	**+0.2**
	comp=Z,57nm,1.4s,mb5.5						
BJI	**Beijing**	**84.98**	**314**	*e*P	**P**	**17 28 06.6**	**+4.5**
BJI				AMB	AMB		
	comp=Z,18nm,1.5s,mb5.0						
BJI				LR	LR		
	comp=N,1µm,20.2s,MS5.4						
BJI				LR	LR		
	comp=E,1µm,20.7s,MS5.4						
BJI				LR	LR		
	comp=Z,2µm,25.6s,MS5.5						
JCT	**Junction City**	**85.62**	**57**	P	**P**	**17 28 06.5**	**+1.0**
JCT				pmax	pmax		
	comp=Z,1.0nm,1.1s,mb4.0						
JCT	**Junction City**	**85.62**	**57**	*e*P	**P**	**17 28 05.6**	**+0.1**
	comp=Z,12nm,1.1s,mb5.0						
ENH	**Enshi**	**86.17**	**303**	*e*P	**P**	**17 28 08.4**	**+0.1**
	comp=Z,36nm,1.4s,mb5.4						
MAW	**Mawson**	**86.73**	**199**	P	**P**	**17 28 09.6**	**-0.5**
	comp=Z,10nm,0.9s,mb5.0,baz=141,slow=8.4,SNR=9.2						
MAW				LR	LR	18 06 25.8	
	comp=Z,3µm,18.5s,MS5.7,baz=223,slow=35						
MAW	**Mawson**	**86.73**	**199**	*e*P	**P**	**17 28 10.5**	**+0.4**
MAW				pmax	pmax		
	comp=Z,26nm,1.1s						
MAW	**Mawson**	**86.73**	**199**	*e*P	**P**	**17 28 10.5**	**+0.4**
	comp=Z,26nm,1.2s,mb5.3						
EDM	**Edmonton**	**86.76**	**32**	*e*P	**P**	**17 28 10.1**	**-0.4**
HIA	**Hailar**	**86.94**	**323**	*e*P	**P**	**17 28 12.1**	**+0.6**
HIA				pmax	pmax		
	comp=Z,25nm,1.5s						
HIA	**Hailar**	**86.94**	**323**	*e*P	**P**	**17 28 12.1**	**+0.6**
	comp=Z,25nm,1.5s,mb5.2						
XAN	**Xi’an**	**87.96**	**306**	P	**P**	**17 28 21.5**	**+4.7**
XAN				LR	LR		
	comp=N,803nm,21.9s,MS5.2						
XAN				LR	LR		
	comp=E,518nm,18.3s,MS5.2						
XAN				LR	LR		
	comp=Z,1µm,21.6s,MS5.3						
WMOK	**Wichita Mounta**	**87.97**	**53**	PFAKE		17 28 30.0	+13
WMOK				LR	LR		
	comp=Z,3µm,21.0s,MS5.6						
HHC	**Hu-ho-hao-te**	**88.52**	**313**	*e*P	**P**	**17 28 24.4**	**+5.1**
HHC				AP	pP	17 28 29.1	+6.5
HHC				XP	sP	17 28 31.4	+7.8
HHC				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.5						
HHC				AMB	AMB		
	comp=Z,270nm,4.5s						
HHC				LR	LR		
	comp=N,1µm,20.6s,MS5.3						
HHC				LR	LR		
	comp=E,958nm,21.4s,MS5.3						
HHC				LR	LR		
	comp=Z,1µm,25.0s,MS5.2						
YAK	**Yakutsk**	**89.22**	**337**	P	**P**	**17 28 24.3**	**+2.2**
INK	**Inuvik**	**89.24**	**14**	P	**P**	**17 28 21.2**	**-0.9**
	comp=Z,2.7nm,0.9s,mb4.6,baz=197,slow=5.0,SNR=7.3						
INK	**Inuvik**	**89.24**	**14**	*e*P	**P**	**17 28 21.5**	**-0.6**
INK				pmax	pmax		
	comp=Z,17nm,1.3s						
INK	**Inuvik**	**89.24**	**14**	*e*P	**P**	**17 28 21.5**	**-0.6**
	comp=Z,17nm,1.4s,mb5.2						
BTO	**Baotou**	**89.52**	**313**	*e*P	**P**	**17 28 29.1**	**+5.0**
BTO				AMB	AMB		
	comp=Z,20nm,1.8s,mb5.2						
KMI	**Kunming**	**90.13**	**296**	*e*P	**P**	**17 28 29.5**	**+2.2**
KMI				AP	pP	17 28 38.8	+8.3
KMI				AMB	AMB		
	comp=Z,5.0nm,2.0s,mb4.5						
KMI				AMB	AMB		
	comp=Z,66nm,5.9s						
KMI				LR	LR		
	comp=N,659nm,19.3s,MS5.4						
KMI				LR	LR		
	comp=E,1µm,19.3s,MS5.4						
KMI				LR	LR		
	comp=Z,2µm,24.1s,MS5.4						
YKA	**Yellowknife Ar**	**91.25**	**24**	P	**P**	**17 28 30.7**	**-0.8**
	comp=Z,5.2nm,1.0s,mb4.8,baz=237,slow=4.3,SNR=33						
YKA				LR	LR	18 09 01.5	
	comp=Z,1µm,18.2s,MS5.3,baz=250,slow=35						
YKW3	**Yellowknife Ar**	**91.28**	**24**	*e*P	**P**	**17 28 30.7**	**-1.0**
CMAR	**Chiang Mai Arr**	**91.57**	**289**	P	**P**	**17 28 34.9**	**+0.8**
	comp=Z,2.4nm,0.9s,mb4.5,baz=72,slow=3.3,SNR=5.9						
CMAR				LR	LR	18 07 38.5	
	comp=Z,580nm,20.5s,MS5.0,baz=75,slow=34						
SYO	**Syowa Base**	**91.67**	**192**	⇓P	**P**	**17 28 34.2**	**+0.8**
SYO	**Syowa Base**	**91.67**	**192**	⇓pP	pP	17 28 37.3	+0.7
MIAR	**Mount Ida**	**91.95**	**55**	PFAKE		17 28 50.0	+15
MIAR				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
SNAA	**Sanae**	**92.30**	**177**	*e*P	**P**	**17 28 37.0**	**+0.8**
SNAA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
SNAA	**Sanae**	**92.30**	**177**	*e*P	**P**	**17 28 37.0**	**+0.9**
	comp=Z,9.4nm,1.2s,mb5.0						
VNA3	**Neumayer Olymp**	**92.30**	**175**	⇑*i*P	**P**	**17 28 43.4**	**+7.2**
LZH	**Lanzhou**	**92.56**	**307**	*e*P	**P**	**17 28 43.5**	**+5.2**
LZH				AP	pP	17 28 46.8	+5.3
LZH				XP	sP	17 28 48.3	+5.8
LZH				AMB	AMB		
	comp=Z,35nm,1.5s,mb5.6						
LZH				AMB	AMB		
	comp=Z,218nm,6.2s						
LZH				LR	LR		
	comp=N,956nm,15.2s						
LZH				LR	LR		
	comp=Z,2µm,17.9s,MS5.5						
JTS	**JuntasAbangare**	**92.63**	**80**	PFAKE		17 28 50.0	+11
JTS				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
VNA2	**Neumayer--Watz**	**92.78**	**176**	⇑*i*P	**P**	**17 28 43.2**	**+4.8**
ULN	**Ulaanbaatar**	**94.06**	**319**	⇑*e*P	**P**	**17 28 48.3**	**+3.5**
SONM	**Songino Array**	**94.47**	**318**	P	**P**	**17 28 48.1**	**+1.4**
	comp=Z,0.7nm,0.8s,mb4.1,baz=117,slow=5.5,SNR=5.1						
SONM				PP	PP	17 32 40.2	+3.3
	comp=Z,1.0nm,1.1s,baz=104,slow=5.1,SNR=3.6						
ULM	**Lac du Bonnet**	**95.29**	**39**	LR	LR	18 06 08.1	
	comp=Z,2µm,20.4s,MS5.5,baz=8.3,slow=32						
TIXI	**Tiksi**	**95.30**	**345**	*e*P	**P**	**17 28 51.8**	**+1.8**
TIXI				*e*SS	SS	17 46 41.6	+8.2
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.4s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.4						
GTA	**Gaotai**	**96.57**	**309**	*e*P	**P**	**17 28 59.3**	**+2.7**
GTA				AP	pP	17 29 03.3	+3.5
GTA				XP	sP	17 29 05.9	+5.1
GTA				SKS	SKS	17 39 34.5	-2.5
GTA				S	S	17 40 18.3	+4.3
GTA				AMB	AMB		
	comp=Z,3.0nm,1.6s,mb4.5						
GTA				AMB	AMB		
	comp=Z,161nm,5.3s						
GTA				LR	LR		
	comp=N,989nm,23.2s,MS5.5						
GTA				LR	LR		
	comp=E,2µm,24.3s,MS5.5						
GTA				LR	LR		
	comp=Z,3µm,24.3s,MS5.7						
LVC	**Limon Verde**	**97.91**	**116**	PFAKE		17 29 10.0	+7.1
LVC				LR	LR		
	comp=Z,22µm,19.0s						
ACSO	**Alum Creek Sta**	**101.54**	**51**	PFAKE		17 29 30.0	+11
ACSO				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
WMQ	**Urumqi**	**106.33**	**312**	⇓PDIF	Pdif	17 29 40.8	+0.7
WMQ				S		17 41 33.8	
WMQ				LR	LR		
	comp=N,1µm,32.2s						
WMQ				LR	LR		
	comp=E,204nm,20.2s						
WMQ				LR	LR		
	comp=Z,1µm,31.8s,MS5.2						
FFD	**Franklin Falls**	**110.34**	**49**	P	Pdif	17 29 57.9	+0.2
SJG	**San Juan**	**112.15**	**77**	PFAKE		17 34 10.0	+5.6
SJG				LR	LR		
	comp=Z,5µm,20.0s,MS6.1						
SCHQ	**Schefferville**	**113.32**	**37**	PFAKE		17 34 20.0	+14
SCHQ				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
AAK	**Ala-Archa**	**115.91**	**310**	PFAKE		17 34 20.0	+8.6
AAK				LR	LR		
	comp=Z,443nm,22.0s,MS5.0						
BVAR	**Borovoye Array**	**117.60**	**322**	PKP	PKPdf	17 34 11.1	-3.2
	comp=Z,2.4nm,0.8s,baz=90,slow=1.5,SNR=9.1						
BRVK	**Borovoye**	**117.66**	**322**	*e*PKIKP	PKPdf	17 34 10.8	-3.6
BRVK				MLR	MLR		
	comp=Z,590nm,20.0s,MS5.2						
ARU	**Arti**	**123.22**	**328**	*i* PKIKP	PKPdf	17 34 26.6	+1.5
ARU				*e*		17 41 35.1	
ARU				*e*SS	SS	17 53 16.6	+28
ARU				MLR	MLR		
	comp=N,1µm,21.0s,MS5.9						
ARU				MLR	MLR		
	comp=E,3µm,21.0s,MS5.9						
ARU				MLR	MLR		
	comp=Z,4µm,21.0s,MS6.0						
ARCES	**ARCESS Array B**	**125.09**	**351**	PKP	PKPdf	17 34 27.4	-1.0
	comp=Z,4.3nm,1.0s,baz=349,slow=4.6,SNR=3.3						
ARCES	**ARCESS Array B**	**125.09**	**351**	PKP	PKPdf	17 34 27.4	-1.0
SUR	**Sutherland**	**129.56**	**197**	PFAKE		17 34 50.0	+12
SUR				LR	LR		
	comp=Z,613nm,20.0s,MS5.3						
VRSR	**Storozhevoye**	**135.68**	**330**	*e*PKIKP	PKPdf	17 34 45.4	-3.6
VRSR				pmax	pmax		
	comp=Z,610nm,6.9s						
VRSR				pmax	pmax		
	comp=N,480nm,4.8s						
VRSR				pmax	pmax		
	comp=E,200nm,4.6s						
AKASG	**Malin Array Be**	**140.44**	**336**	PKP	PKPdf	17 34 56.4	-1.3
	comp=E,1.2nm,0.8s,baz=22,slow=2.2,SNR=5.8						
OJC	**Ojcow**	**143.97**	**344**	*e*PKP	PKPdf	17 35 06.8	+3.1
KMBO	**Kilima Mbogo**	**144.05**	**245**	PKP	PKPdf	17 35 05.1	+0.1
	comp=E,3.8nm,0.8s,baz=58,slow=5.7,SNR=7.8						
KMBO	**Kilima Mbogo**	**144.05**	**245**	*e*PKPdf	PKPdf	17 35 00.9	-4.1
KMBO				PKP	PKPdf	17 35 05.1	+0.1
KSP	**Ksiaz**	**144.20**	**348**	*e*PKIKP	PKPdf	17 35 03.4	-0.7
KSP				*e*		17 35 10.7	
KSP				MLR	MLR		
	comp=Z,5µm,24.7s,MS6.2						
CLL	**Collm**	**144.31**	**352**	*e*PKIKP	PKPdf	17 35 07.0	+2.7
CLL				*e**PPKP		17 35 10.0	
CLL				*e*		17 35 15.0	
HILS	**Ha’il**	**144.34**	**295**	P	PKPbc	17 35 01.4	-0.2
KOLS	**Kolonicke sedl**	**144.40**	**341**	*e*PKP	PKPdf	17 35 06.4	+1.9
UPC	**Upice**	**144.57**	**348**	*e*PKP	PKPdf	17 35 02.8	-2.0
BRG	**Berggiesshubel**	**144.59**	**350**	*e*PKIKP	PKPdf	17 35 05.3	+0.5
BRG				pmax	pmax		
	comp=Z,14nm,1.4s						
DPC	**Dobruska-Polom**	**144.66**	**348**	*e*PKP	PKPdf	17 35 03.5	-1.5
DPC				AMS	AMS	18 36 40.0	
	comp=Z,2µm,23.1s						
CRVS	**Cervenica-Dubn**	**144.68**	**341**	*e*PKP	PKPdf	17 35 07.8	+2.8
OKC	**Ostrava-Krasne**	**144.74**	**345**	*e*PKIKP	PKPdf	17 35 06.9	+1.8
OKC				MLR	MLR		
	comp=Z,3µm,20.8s,MS6.0						
OKC				MLR	MLR		
	comp=E,2µm,19.7s						
PVCC	**Panska Ves**	**144.82**	**350**	*e*PKP	PKPdf	17 35 07.5	+2.3
MORC	**Moravsky Berou**	**144.93**	**346**	PKIKP	PKPdf	17 35 04.9	-0.6
MORC	**Moravsky Berou**	**144.93**	**346**	*e*PKPdf	PKPdf	17 35 03.8	-1.7
MOX	**Moxa**	**145.14**	**353**	*e*PKIKP	PKPdf	17 35 05.6	-0.2
MOX				pmax	pmax		
	comp=Z,47nm,1.7s						
MOX	**Moxa**	**145.14**	**353**	*i* P	PKPbc	17 35 05.6	+2.5
	comp=Z,logA/T=1.4						
BLJS	**Baljurashi**	**145.24**	**282**	P	PKPbc	17 35 06.1	+1.8
KECS	**Kecovo**	**145.34**	**342**	*e*PKP	PKPdf	17 35 09.4	+3.2
PRU	**Pruhonice**	**145.35**	**349**	*e*PKP	PKPdf	17 35 04.5	-1.7
PRU				AMS	AMS	18 40 30.0	
	comp=Z,3µm,20.6s						
NKC	**Novy Kostel**	**145.44**	**352**	*e*PKP	PKPdf	17 35 04.6	-1.7
NKC				AMS	AMS	18 37 50.0	
	comp=Z,2µm,20.1s						
VYHS	**Vyhne**	**145.80**	**344**	*i* PKP	PKPdf	17 35 10.0	+3.0
BRTR	**Keskin Array B**	**145.83**	**319**	PKPbc	PKPbc	17 35 06.4	+1.2
	comp=Z,7.2nm,0.9s,baz=117,slow=2.8,SNR=16						
MLR	**Muntele Rosu**	**145.91**	**334**	PKPbc	PKPbc	17 35 07.3	+2.1
	comp=Z,14nm,0.8s,baz=100,slow=6.2,SNR=10						
PSZ	**Piszkesteto**	**146.03**	**342**	*e*PKP2	PKPab	17 35 07.6	-0.2
GIVF	**Givet**	**146.06**	**0**	*e*PKP1	PKPbc	17 35 06.2	+0.8
BAIF	**Baives**	**146.10**	**1**	*e*PKP1	PKPbc	17 35 06.4	+0.9
	comp=Z,213nm,1.8s						
GRF	**Grafenberg Arr**	**146.12**	**353**	*e*PKP2	PKPab	17 35 08.9	+0.8
KHC	**Kasperske Hory**	**146.34**	**350**	*e*PKP2	PKPab	17 35 09.0	0.0
KHC				MLR	MLR		
	comp=Z,3µm,23.5s,MS6.0						
KHC	**Kasperske Hory**	**146.34**	**350**	*e*PKP	PKPdf	17 35 09.0	+1.1
KHC				*e*pPKP		17 35 12.5	
KHC				AMS	AMS	18 36 20.0	
	comp=Z,3µm,23.5s						
GERES	**GERESS Array B**	**146.59**	**350**	PKPbc	PKPbc	17 35 07.6	+1.0
	comp=Z,0.9nm,0.8s,baz=56,slow=3.5,SNR=4.6						
GERES	**GERESS Array B**	**146.59**	**350**	PKPbc	PKPbc	17 35 07.6	+1.0
FLN	**La Foliniere**	**147.07**	**7**	*e*PKP1	PKPdf	17 35 09.8	+0.7
	comp=Z,59nm,1.1s						
ASF	**Jabal al Asfar**	**147.11**	**305**	PKPbc	PKPdf	17 35 10.7	+1.0
	comp=Z,2.8nm,0.7s,baz=49,slow=11,SNR=2.1						
STU	**Stuttgart**	**147.24**	**355**	*e*PKIKP	PKPdf	17 35 08.6	-0.8
LDF	**La Druitiere**	**147.28**	**7**	*e*PKP1	PKPdf	17 35 10.5	+1.0
	comp=Z,194nm,1.8s						
GRR	**Gorron**	**147.40**	**8**	*e*PKP1	PKPdf	17 35 11.3	+1.6
MEZF	**Maizieres J’vi**	**147.67**	**0**	*e*PKP1	PKPdf	17 35 11.3	+1.2
CDF	**Champ du Feu**	**147.71**	**357**	*e*PKP1	PKPdf	17 35 11.1	+0.9
	comp=Z,139nm,1.7s						
HAU	**Haudompre**	**148.15**	**359**	*e*PKP1	PKPdf	17 35 12.4	+1.5
	comp=Z,108nm,1.5s						
HINF	**Hinteralfeld**	**148.32**	**358**	*e*PKP1	PKPdf	17 35 13.0	+1.8
	comp=Z,93nm,1.7s						
WATA	**Walderalm**	**148.39**	**352**	⇑*i*P	PKPdf	17 35 17.3	+6.0
PERS	**Pernice**	**148.44**	**347**	*e*PKPdf	PKPdf	17 35 17.0	+5.6
MOTA	**Moosalm**	**148.45**	**352**	⇑*i*P	PKPdf	17 35 13.7	+2.3
WTTA	**Wattenberg**	**148.46**	**352**	⇑*i*P	PKPdf	17 35 16.3	+4.9
SQTA	**Sankt Quirin**	**148.56**	**352**	⇑*i*P	PKPdf	17 35 15.5	+3.9
DAVA	**Damuels**	**148.65**	**354**	⇑*i*P	PKPdf	17 35 13.8	+2.1
JMQS	**Jabal Moqyreh**	**149.04**	**300**	P	PKPdf	17 35 15.7	+2.7
SSF	**Saint Saulge**	**149.08**	**2**	*e*PKP1	PKPdf	17 35 14.9	+2.5
	comp=Z,111nm,1.5s						
LJU	**Ljubljana**	**149.13**	**347**	*e*PKPdf	PKPdf	17 35 16.2	+3.7
DAVOX	**Davos**	**149.15**	**354**	PKPbc	PKPdf	17 35 16.3	+3.8
	comp=Z,10nm,0.9s,baz=66,slow=5.5,SNR=3.7						
CEY	**Cerknica**	**149.44**	**347**	*e*PKPbc	PKPdf	17 35 22.2	+9.1
BOJS	**Bojanci**	**149.48**	**346**	*e*PKPbc	PKPdf	17 35 23.2	+10
SMF	**Signal de Mont**	**149.50**	**2**	*e*PKP1	PKPdf	17 35 16.5	+3.4

	comp=Z,52nm,1.3s						
BGF	**Bois d’Agland**	**149.55**	**3**	*e*PKP1	PKPdf	17 35 16.7	+3.5
	comp=Z,129nm,1.6s						
CABF	**La Chapelle**	**149.55**	**359**	*e*PKP1	PKPdf	17 35 16.6	+3.4
	comp=Z,56nm,1.3s						
EIL	**Elat**	**149.56**	**302**	PKPbc	PKPdf	17 35 16.2	+2.5
	comp=Z,5.8nm,1.1s,baz=118,slow=15,SNR=3.0						
EIL	**Elat**	**149.56**	**302**	PKPbc	PKPdf	17 35 16.2	+2.5
EIL				*e*PKP	PKPdf	17 35 21.3	+7.5
LPL	**La Plagne**	**150.63**	**358**	*e*PKP1	PKPdf	17 35 19.6	+4.7
	comp=Z,88nm,1.5s						
LPG	**La Plagne**	**150.65**	**358**	*e*PKP1	PKPdf	17 35 19.7	+4.8
	comp=Z,54nm,1.3s						
SKO	**Skopje**	**150.67**	**335**	*e*PKP	PKPdf	17 35 21.5	+6.4
BNI	**Bardonecchia**	**151.09**	**358**	*e*PKIKP	PKPdf	17 35 14.3	-1.3
ESDC	**Sonseca Array**	**155.16**	**17**	PKPab	PKPab	17 35 43.3	-2.4
	comp=Z,2.2nm,0.9s,baz=292,slow=2.1,SNR=4.1						

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*JMA **18** 17:41:11.4±0.3,23.34N×121.99E,h65^{km},M3.1*

TAP 18 17:41:10.2,23.34N×121.93E,h25^{km},ML3.7,Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**1.49**	**41**	P	Pn	17 41 36.0	+0.2
YOJ				*e*S	Sn	17 41 54.3	-0.3
HATJ	**Hateruma jima**	**1.86**	**67**	S	Sn	17 42 02.5	-1.5
IRIF	**Iriomote-Funau**	**1.92**	**59**	P	Pn	17 41 41.8	-0.2
IRIF				S	Sn	17 42 05.4	-0.2
JKRS	**Kuro-shima**	**2.10**	**64**	P	Pn	17 41 44.6	0.0
JKRS				*e*S	Sn	17 42 09.3	-0.9
JIJ	**Ishigaki jima**	**2.27**	**63**	P	Pn	17 41 46.3	-0.6
JIJ				S	Sn	17 42 12.0	-2.4
JTJ	**Tarama**	**2.85**	**62**	P	Pn	17 41 54.7	-0.5
JTJ				*e*S	Sn	17 42 27.6	-1.4

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*MAN **18** 17:44:32.4,6.22N×125.81E,h213^{km},mb4.3,ML3.2, MS2.9*

ISC 18 17:44:31.2±1.3,**5.7N**±0.6×**125.7E**±0.3,**h192**^{km}±61^{km},**n5, σ0^{s}22**/6,**1D,Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MATI	**Mati**	**1.31**	**24**	*e*P	**P**	**17 45 02.9**	**-0.1**
MATI				*e*S	**S**	**17 45 27.3**	**-0.1**
KCP	**Kidapawan**	**1.41**	**334**	⇓*e*P	**P**	**17 45 03.9**	**+0.2**
BUKP	**Musuan**	**2.22**	**343**	*e*P	**P**	**17 45 12.1**	**+0.2**
PAGZ	**Pagadian**	**3.13**	**312**	*e*P	**P**	**17 45 22.3**	**-0.2**
KAKA	**Kakadu**	**19.48**	**160**	*e*P	**P**	**17 48 45.5**	**0.0**
	6.0nm,0.6s						

IDC 18 17:48:11.7±3.6,**5.38S×101.89E,mb3.9**/6,**mb1 4.2**/6, **mb1mx3.9**/16,**Error ellipse: s-maj=132.0km s-min=18.9km az=57.0,Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**23.86**	**353**	P	P	17 53 26.9	-0.9
	1.6nm,0.9s,baz=187,slow=9.0,SNR=11						
FITZ	**Fitzroy Crossi**	**26.42**	**121**	P	P	17 53 50.4	-1.8
	4.3nm,1.1s,baz=310,slow=4.7,SNR=3.3						
WRA	**Warramunga Arr**	**34.72**	**118**	P	P	17 55 03.7	-2.1
	1.0nm,0.5s,baz=289,slow=12,SNR=14						
ASAR	**Alice Springs**	**35.79**	**124**	P	P	17 55 13.0	-1.8
	1.2nm,0.4s,baz=299,slow=7.8,SNR=28						
SONM	**Songino Array**	**53.13**	**4**	P	P	17 57 31.6	-1.9
	0.7nm,0.5s,baz=187,slow=9.6,SNR=7.9						
ZAL	**Zalesovo**	**60.81**	**349**	P	P	17 58 25.1	-2.8
	0.7nm,0.4s,baz=290,slow=9.5,SNR=3.5						

IDC 18 17:53:56.4±4.7,**18.35S×174.55W,h472**^{km}±56^{km}, **mb2.9**/4,**mb1 3.2**/5,**mb1mx3.0**/16,**Error ellipse: s-maj=32.2km s-min=24.5km az=175.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAR	**Rarotonga**	**14.20**	**104**	P	P	17 56 59.6	0.0
	1.1nm,0.3s,baz=134,slow=8.8,SNR=3.7						
WRA	**Warramunga Arr**	**48.16**	**259**	P	P	18 01 52.0	-2.4
	0.5nm,0.5s,baz=94,slow=7.0,SNR=20						
ASAR	**Alice Springs**	**48.21**	**254**	P	P	18 01 53.9	-0.8
	2.2nm,0.8s,baz=88,slow=7.8,SNR=49						
VNDA	**Vanda**	**60.35**	**186**	P	P	18 03 17.7	-2.2
	0.2nm,0.3s,baz=187,slow=3.8,SNR=4.8						
ILAR	**Eielson Array**	**85.54**	**12**	P	P	18 05 41.9	-2.1
	0.4nm,0.8s,baz=217,slow=4.5,SNR=4.1						
BRTR	**Keskin Array B**	**147.65**	**317**	PKPbc	PKPdf	18 12 48.4	+5.1
	0.3nm,0.4s,baz=135,slow=3.5,SNR=3.8						

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*LDG **18** 17:57:21.1±0.5,15.65S×73.51W,h10^{km},Mb5.6/26, Ms5.5/7,Error ellipse: s-maj=29.3km s-min=8.8km az=53.0*
*BJI **18** 17:57:21.1,16.20S×73.90W,h27^{km},mB5.6,Ms5.7, Msz5.6*
*MOS **18** 17:57:22.8±1.1,16.07S×73.95W,h33^{km},mb5.7/58, MS5.5/20,Error ellipse: s-maj=8.4km s-min=6.0km az=100.0*
*SYO **18** 17:57:22.9,16.21S×73.85W,h28^{km},MB5.5,MS5.3*
*NEIC **18** 17:57:23.1±0.2,16.20S×73.93W,mb5.5/106,MS5.3/83, Error ellipse: s-maj=6.2km s-min=3.8km az=52.0*
NEIC Felt [IV] at Atico and [II] at Arequipa.
*HRVD **18** 17:57:23.1±0.2,16.40S×74.10W,h24^{km},MW5.7/63, Centroid moment Tensor Solution. LP body waves: s52,c95;Mantle waves: s63,c127; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M_{rr}2.74±.08; $M_{\theta\theta}$-0.75±.06; $M_{\phi\phi}$-1.99±.07; $M_{r\theta}$1.12±.10; $M_{\theta\phi}$1.70±.05; $M_{\phi r}$-3.69±.11; Best double couple: $M_0$4.87×10^{17} NP1: ϕ_s308°,δ21°,λ60°. NP2:ϕ_s160°,δ72°,λ101°. Principal axes: T 4.76, Plg62°, Azm86°; N .22, Plg10°, Azm336°; P -4.98, Plg26°, Azm241°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **18** 17:57:24.6±1.9,16.24S×73.94W,h39^{km}±14^{km},mb4.8/15, mb1 4.9/16,mb1mx4.9/17,ML5.5/2,MS5.3/15,Ms1 5.3/15, ms1mx4.9/18 Error ellipse: s-maj=16.8km s-min=12.7km az=51.0*

ISC 18 17:57:21.4±0.2,**16.19S**±0.04×**74.03W**±0.04,**h28**^{km}, **h28**^{km}±.3^{km}**:pP-P,n412,σ1^{s}02**/270,**mb5.4**/123,**MS5.4**/106, **28C-8D,Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARE	**Arequipa**	**2.46**	**97**	⇑*i*P	**Pn**	**17 58 01.7**	**+1.1**
ARE				*e*S	**Sn**	**17 58 31.0**	**+1.0**
NNA	**Nana**	**4.99**	**326**	*e*Pn	**Pn**	**17 58 39.0**	**+2.5**
NNA				*e*Sn	**Sn**	**17 59 41.0**	**+7.0**
LPAZ	**La Paz**	**5.67**	**92**	Pn	**Pn**	**17 58 46.2**	**+0.1**
	30nm,0.3s,baz=264,slow=12,SNR=412						
LPAZ				Sn	**Sn**	**17 59 57.1**	**+5.9**
	baz=301,slow=17,SNR=1.1						
LPAZ				LR	LR	18 01 02.4	
	comp=Z,31µm,19.3s,baz=272,slow=39						
LVC	**Limon Verde**	**8.01**	**144**	Pn	**P**	**17 59 16.3**	**-2.7**
	24nm,0.3s,baz=309,slow=11,SNR=164						
LVC				Sn	**Sn**	**18 00 37.4**	**-12**
	34nm,0.3s,baz=150,slow=14,SNR=8.0						
LVC				Lg		18 01 31.9	
	5.9nm,0.3s,baz=190,slow=18,SNR=3.1						
LVC				LR	LR	18 02 27.6	
	comp=Z,21µm,19.4s,baz=317,slow=38						
LVC	**Limon Verde**	**8.01**	**144**	*e*Pn	**P**	**17 59 16.0**	**-3.1**
LVC				*e*Sn	**Sn**	**18 00 37.3**	**-12**
LVC	**Limon Verde**	**8.01**	**144**	⇑*i*P	**P**	**17 59 16.3**	**-2.7**
ANCH	**Antofagasta**	**8.20**	**156**	*e*P	**P**	**17 59 15.8**	**-5.8**
TLL	**Tololo Astrono**	**14.23**	**169**	⇓*i*P	**P**	**18 00 43.6**	**+0.2**
CMCH	**Combarbala**	**15.18**	**170**	⇓*i*P	**P**	**18 00 55.4**	**-0.3**
MDZ	**Mendoza**	**17.27**	**165**	*e*P	**P**	**18 01 21.8**	**-0.7**
ROSC	**El Rosal**	**20.91**	**359**	P	**P**	**18 02 06.7**	**+2.3**
	27nm,0.6s,baz=106,slow=8.1,SNR=16						
ROSC				S	**S**	**18 06 03.5**	**+12**
	6.5nm,0.4s,baz=264,slow=22,SNR=2.1						
LPA	**La Plata**	**23.57**	**145**	α*e*P	**P**	**18 02 30.0**	**-0.8**
	269nm,0.9s,mb5.7						
LPA				*e*pP		18 02 37.0	
LPA				*e*sP		18 02 45.0	
LPA				*e*PP	PP	18 02 54.0	-9.3
LPA				*e*S	**S**	**18 06 42.0**	**+2.4**
LPA				*e*SP		18 06 46.0	
LPA				*e*S	S	18 07 02.0	+22
	comp=Z,4µm,22.0s						
BDFB	**Brasilia**	**25.02**	**92**	P	**P**	**18 02 44.2**	**-0.8**
	comp=Z,147nm,0.9s,mb5.5,baz=268,slow=12,SNR=139						
BDFB				S	**S**	**18 07 07.5**	**+3.1**
	comp=Z,17nm,0.9s,baz=353,slow=20,SNR=1.4						
BDFB				LR	LR	18 13 07.3	
	comp=Z,6µm,20.9s,MS5.1,baz=268,slow=38						
BAO	**Brasilia Array**	**25.05**	**92**	*e*P	**P**	**18 02 44.3**	**-0.8**
BAO				*e*		18 09 05.7	
SDV	**Santo Domingo**	**25.14**	**8**	*e*P	**P**	**18 02 46.3**	**+0.2**
	comp=Z,90nm,1.0s,mb5.2						
TRN	**Trinidad (W)**	**29.45**	**26**	*e*P	**P**	**18 03 25.0**	**-0.4**
RPN	**Rapa Nui**	**34.46**	**246**	PFAKE		18 04 20.0	+11
RPN				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
SJG	**San Juan**	**34.95**	**13**	P	**P**	**18 04 11.9**	**-1.6**
	comp=Z,78nm,1.2s,mb5.5,baz=217,slow=2.7,SNR=5.9						
SJG	**San Juan**	**34.95**	**13**	*e*P	**P**	**18 04 11.3**	**-2.2**
SJG				*e*		18 04 24.9	
SJG				pmax	pmax		
	comp=Z,216nm,1.2s						
SJG				MLR	MLR		
	comp=Z,5µm,20.0s						
SJG	**San Juan**	**34.95**	**13**	*e*P	**P**	**18 04 11.2**	**-2.2**
	comp=Z,216nm,1.2s,mb6.0						
SJG				*e*		18 04 24.9	
SJG				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
EFI	**East Falkland**	**37.63**	**164**	*e*P	**P**	**18 04 33.5**	**-2.2**
EFI				pmax	pmax		
	comp=Z,116nm,1.4s,mb5.4						
EFI				MLR	MLR		
	comp=Z,974nm,20.0s,MS4.6						
EFI	**East Falkland**	**37.63**	**164**	*e*P	**P**	**18 04 33.5**	**-2.2**
	comp=Z,116nm,1.4s,mb5.4						
EFI				LR	LR		
	comp=Z,974nm,20.0s,MS4.6						
RCBR	**Riachuelo**	**38.75**	**79**	*e*P	**P**	**18 04 44.8**	**-0.7**
	comp=Z,254nm,1.4s,mb5.8						
RCBR				*e*pP	pP	18 04 52.9	-0.9
RCBR				LR	LR		
	comp=Z,19µm,19.0s,MS5.9						
TEIG	**Tepich**	**38.80**	**338**	*e*P	**P**	**18 04 46.4**	**+0.5**
	comp=Z,57nm,1.2s,mb5.2						
TEIG				*e*pP	pP	18 04 53.8	-0.3
USHA	**Ushuaia**	**38.81**	**175**	P	**P**	**18 04 44.9**	**-0.7**
	comp=Z,34nm,0.9s,mb5.1,baz=344,slow=6.5,SNR=7.8						
DWPF	**Disney**	**44.61**	**351**	PFAKE		18 05 50.0	+17
DWPF				LR	LR		
	comp=Z,3µm,19.0s,MS5.2						
PMSA	**Palmer Station**	**49.02**	**174**	*e*P	**P**	**18 06 07.5**	**-0.1**
	comp=Z,122nm,1.5s,mb5.7						
PMSA				*e*pP	pP	18 06 15.8	-0.2
BBSR	**BB Station**	**49.10**	**10**	PFAKE		18 06 20.0	+11
BBSR				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
CSU	**Charleston Sou**	**49.23**	**353**	*e*P	**P**	**18 06 10.4**	**+0.8**
CSU				*e*pP	pP	18 06 18.4	+0.3
NHSC	**New Hope**	**49.36**	**353**	*e*P	**P**	**18 06 10.7**	**0.0**
	comp=Z,587nm,1.3s,mb6.5						
NHSC				LR	LR		
	comp=Z,3µm,22.0s,MS5.2						
TWB	**Tillmans-White**	**49.36**	**353**	*e*P	**P**	**18 06 11.1**	**+0.4**
GOGA	**Godfrey**	**50.13**	**350**	*e*P	**P**	**18 06 15.9**	**-0.7**
GOGA				*e**PP	pP	18 06 24.5	-0.6
GOGA				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.6						
GOGA				MLR	MLR		
	comp=Z,4µm,22.0s,MS5.3						
GOGA	**Godfrey**	**50.13**	**350**	*e*P	**P**	**18 06 15.9**	**-0.7**
	comp=Z,80nm,1.3s,mb5.6						
GOGA				*e*pP	pP	18 06 24.5	-0.6
GOGA				LR	LR		
	comp=Z,4µm,22.0s,MS5.3						
HKT	**Hockley**	**50.45**	**335**	*e*P	**P**	**18 06 19.8**	**+0.7**
HKT				*e**PP	pP	18 06 27.8	+0.2
HKT				pmax	pmax		
	comp=Z,136nm,1.8s,mb5.7						
HKT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
HKT	**Hockley**	**50.45**	**335**	*e*P	**P**	**18 06 19.8**	**+0.7**
	comp=Z,136nm,1.8s,mb5.7						
HKT				*e*pP	pP	18 06 27.8	+0.3
HKT				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
LRAL	**Lakeview Retre**	**50.49**	**346**	*e*P	**P**	**18 06 18.2**	**-1.1**
	comp=Z,104nm,1.5s,mb5.6						
LRAL				*e*pP	pP	18 06 26.5	-1.3
LRAL				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
NATX	**Nacogdoches**	**51.62**	**337**	*e*P	**P**	**18 06 28.6**	**+0.7**
	comp=Z,149nm,1.6s,mb5.7						
NATX				*e*pP	pP	18 06 36.5	+0.2
NATX				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
MYNC	**Murphy**	**51.87**	**349**	*e*P	**P**	**18 06 29.0**	**-0.8**
MYNC				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.2						
MYNC	**Murphy**	**51.87**	**349**	*e*P	**P**	**18 06 29.0**	**-0.7**
	comp=Z,39nm,1.1s,mb5.2						
OXF	**Oxford**	**52.49**	**344**	P	**P**	**18 06 34.3**	**-0.2**
OXF				*e**PP	pP	18 06 41.5	-1.4
OXF				pmax	pmax		
	comp=Z,84nm,1.2s,mb5.5						
OXF				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
OXF	**Oxford**	**52.49**	**344**	P	**P**	**18 06 34.3**	**-0.2**
	comp=Z,84nm,1.2s,mb5.5						
OXF				*e*pP	pP	18 06 41.5	-1.4
OXF				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
JCT	**Junction City**	**52.61**	**332**	*e*P	**P**	**18 06 35.6**	**+0.2**
JCT				*e**PP	pP	18 06 43.8	-0.1
JCT				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
JCT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
JCT	**Junction City**	**52.61**	**332**	*e*P	**P**	**18 06 35.5**	**+0.1**
	comp=Z,34nm,1.1s,mb5.2						
JCT				*e*pP	pP	18 06 43.8	-0.1
JCT				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
BLA	**Blacksburg**	**53.45**	**354**	PFAKE		18 06 50.0	+8.5
BLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
ELN	**Prospectdale**	**53.50**	**353**	*e*P	**P**	**18 06 41.4**	**-0.5**
ELN				*e*pP	pP	18 06 50.1	-0.3
LTX	**Lajitas**	**53.54**	**328**	*e*P	**P**	**18 06 42.1**	**-0.2**
LTX				*e**PP	pP	18 06 50.9	+0.2
LTX				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
LTX				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.4						
LTX	**Lajitas**	**53.54**	**328**	*e*P	**P**	**18 06 42.1**	**-0.2**
	comp=Z,21nm,1.0s,mb5.0						
LTX				*e*pP	pP	18 06 50.9	+0.2
LTX				LR	LR		
	comp=Z,4µm,19.0s,MS5.4						
TXAR	**Lajitas Array**	**53.54**	**328**	P	**P**	**18 06 42.5**	**+0.3**
	comp=Z,5.4nm,0.8s,mb4.5,baz=149,slow=8.6,SNR=36						
TXAR				LR	LR	18 28 25.4	
	comp=Z,3µm,19.3s,MS5.4,baz=140,slow=35						
UALR	**University of**	**53.58**	**341**	*e*P	**P**	**18 06 41.5**	**-1.0**
	comp=Z,91nm,1.3s,mb5.5						
UALR				*e*pP	pP	18 06 50.2	-0.7
WVT	**Waverly**	**53.64**	**346**	*e*P	**P**	**18 06 40.9**	**-2.0**
WVT				*e**PP	pP	18 06 49.3	-2.1
WVT				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.2						
WVT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
WVT	**Waverly**	**53.64**	**346**	*e*P	**P**	**18 06 40.9**	**-2.0**
	comp=Z,44nm,1.4s,mb5.2						
WVT				*e*pP	pP	18 06 49.3	-2.1
WVT				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
MIAR	**Mount Ida**	**53.77**	**340**	*e*P	**P**	**18 06 42.5**	**-1.3**
MIAR				*e**PP	pP	18 06 51.2	-1.1
MIAR				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.2						
MIAR				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.0						
MIAR	**Mount Ida**	**53.77**	**340**	*e*P	**P**	**18 06 42.5**	**-1.3**
	comp=Z,23nm,0.8s,mb5.2						
MIAR				*e*pP	pP	18 06 51.2	-1.1
MIAR				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
FWV	**Forest Hill**	**53.86**	**353**	*e*P	**P**	**18 06 43.1**	**-1.4**
FWV				*e*pP	pP	18 06 52.6	-0.3
CBN	**Corbin**	**54.19**	**357**	*e*P	**P**	**18 06 46.7**	**-0.2**
	comp=Z,70nm,1.1s,mb5.5						
CBN				*e*pP	pP	18 06 55.3	-0.1
CBN				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
WCI	**Wyandotte Cave**	**55.34**	**348**	*e*P	**P**	**18 06 53.8**	**-1.5**
WCI				*e**PP	pP	18 07 03.0	-0.8
WCI				pmax	pmax		
	comp=Z,120nm,1.3s,mb5.8						
WCI				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
WCI	**Wyandotte Cave**	**55.34**	**348**	*e*P	**P**	**18 06 53.8**	**-1.6**
	comp=Z,120nm,1.3s,mb5.8						
WCI				*e*pP	pP	18 07 03.0	-0.8
WCI				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
USIN	**University of**	**55.36**	**347**	*e*P	**P**	**18 06 53.9**	**-1.6**
	comp=Z,203nm,1.3s,mb6.0						
USIN				*e*pP	pP	18 07 02.5	-1.5
MCWV	**Mont Chateau**	**55.81**	**355**	*e*P	**P**	**18 06 56.8**	**-1.9**
	comp=Z,53nm,1.2s,mb5.4						
MCWV				*e*pP	pP	18 07 06.9	-0.3
MCWV				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
WMOK	**Wichita Mounta**	**55.84**	**335**	*e*P	**P**	**18 06 58.6**	**-0.4**
WMOK				*e**PP	pP	18 07 06.1	-1.4
WMOK				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.1						
WMOK				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.0						
WMOK	**Wichita Mounta**	**55.84**	**335**	*e*P	**P**	**18 06 58.6**	**-0.4**
	comp=Z,22nm,1.1s,mb5.1						
WMOK				*e*pP	pP	18 07 06.1	-1.4
WMOK				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
FVM	**French Village**	**56.04**	**344**	*e*P	**P**	**18 06 59.7**	**-0.7**
FVM				*e**PP	pP	18 07 07.2	-1.7
FVM				pmax	pmax		
	comp=Z,185nm,1.8s,mb5.8						
FVM	**French Village**	**56.04**	**344**	*e*P	**P**	**18 06 59.7**	**-0.6**
	comp=Z,185nm,1.8s,mb5.8						
FVM				*e*pP	pP	18 07 07.2	-1.7
BLO	**Bloomington**	**56.29**	**348**	*e*P	**P**	**18 07 00.4**	**-1.7**
BLO				*e**PP	pP	18 07 09.0	-1.7
BLO				pmax	pmax		
	comp=Z,105nm,1.4s,mb5.7						
BLO	**Bloomington**	**56.29**	**348**	*e*P	**P**	**18 07 00.3**	**-1.8**
	comp=Z,104nm,1.4s,mb5.7						
BLO				*e*pP	pP	18 07 09.0	-1.6
MNTX	**Cornudas Mount**	**56.31**	**328**	PFAKE		18 07 10.0	+7.6
MNTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
SLM	**Saint Louis**	**56.61**	**345**	*e*P	**P**	**18 07 03.6**	**-0.8**
SLM				*e**PP	pP	18 07 11.9	-1.1
SSPA	**Standing Stone**	**56.64**	**356**	*e*P	**P**	**18 07 04.4**	**-0.3**
	comp=Z,118nm,1.5s,mb5.7						
SSPA				*e*pP	pP	18 07 13.1	-0.1
SSPA				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
ACSO	**Alum Creek Sta**	**56.74**	**352**	*e*P	**P**	**18 07 03.6**	**-1.8**
	comp=Z,67nm,1.1s,mb5.6						
ACSO				*e*pP	pP	18 07 12.4	-1.4
ACSO				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
AMTX	**Amarillo**	**57.18**	**333**	*e*P	**P**	**18 07 06.8**	**-1.7**
	comp=Z,106nm,1.8s,mb5.6						
AMTX				*e*pP	pP	18 07 15.9	-1.2
AMTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
RKT	**Rikitea**	**57.47**	**253**	*e*S	**S**	**18 15 07.6**	**+3.3**
RKT				*e*SS	SS	18 18 41.3	-14
RKT				*e*LR	LR	18 23 51.7	
	comp=Z,8µm,27.0s,baz=100						
BRYW	**Bryant College**	**57.85**	**2**	*e*P	**P**	**18 07 12.6**	**-0.6**
	comp=Z,63nm,0.9s,mb5.7						
BRYW				*e*pP	pP	18 07 19.9	-1.8
BINY	**Binghamton**	**58.12**	**358**	*e*P	**P**	**18 07 15.2**	**+0.2**
	comp=Z,84nm,1.2s,mb5.7						
BINY				*e*pP	pP	18 07 23.0	-0.6
BINY				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
ERPA	**Erie**	**58.27**	**355**	PFAKE		18 07 30.0	+14
ERPA				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
WES	**Weston**	**58.33**	**2**	PFAKE		18 07 30.0	+14
WES				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
HRV	**Harvard--Oak R**	**58.44**	**2**	PFAKE		18 07 30.0	+13
HRV				LR	LR		
	comp=Z,3µm,20.0s,MS5.4						
AAM	**Ann Arbor**	**58.87**	**352**	PFAKE		18 07 30.0	+10
AAM				LR	LR		
	comp=Z,4µm,21.0s,MS5.5						
ANMO	**Albuquerque**	**59.45**	**329**	*e*P	**P**	**18 07 24.4**	**0.0**
ANMO				*e**PP	pP	18 07 32.7	-0.3
ANMO				pmax	pmax		
	comp=Z,28nm,1.1s						
ANMO				MLR	MLR		
	comp=Z,3µm,21.0s						
ANMO	**Albuquerque**	**59.45**	**329**	*e*P	**P**	**18 07 24.4**	**0.0**
	comp=Z,28nm,1.1s,mb5.2						
ANMO				*e*pP	pP	18 07 32.7	-0.4
ANMO				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
TUC	**Tucson**	**59.70**	**324**	*e*P	**P**	**18 07 26.2**	**+0.1**
TUC				*e**PP	pP	18 07 34.2	-0.6
TUC				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
TUC	**Tucson**	**59.70**	**324**	*e*P	**P**	**18 07 26.2**	**0.0**
	comp=Z,21nm,1.1s,mb5.1						
TUC				*e*pP	pP	18 07 34.2	-0.6
NCB	**Newcomb**	**59.86**	**360**	PFAKE		18 07 40.0	+13
NCB				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
JFWS	**Jewell Farm**	**60.67**	**346**	PFAKE		18 07 40.0	+7.4
JFWS				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
EMMW	**East Machias**	**60.90**	**5**	PFAKE		18 07 50.0	+16
EMMW				LR	LR		
	comp=Z,7µm,22.0s,MS5.8						
SDCO	**Great Sand Dun**	**61.26**	**332**	*e*P	**P**	**18 07 36.8**	**+0.1**
	comp=Z,43nm,1.0s,mb5.5						
SDCO				*e*pP	pP	18 07 45.1	-0.2
ISCO	**Idaho Springs**	**63.00**	**333**	*e*P	**P**	**18 07 48.3**	**0.0**
ISCO				*e**PP	pP	18 07 55.9	-1.0
ISCO				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.2						
ISCO				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
ISCO	**Idaho Springs**	**63.00**	**333**	*e*P	**P**	**18 07 48.3**	**0.0**
	comp=Z,25nm,1.4s,mb5.2						
ISCO				*e*pP	pP	18 07 55.9	-1.0
ISCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
PV01	**Paradox Valley**	**63.01**	**330**	*e*P	**P**	**18 07 49.0**	**+0.6**
PV01				*e*pP	pP	18 07 57.3	+0.3
PV10	**Paradox Valley**	**63.43**	**330**	*e*P	**P**	**18 07 50.2**	**-0.9**
PV10				*e*pP	pP	18 07 59.7	-0.1
BAR	**Barrett**	**63.43**	**320**	*e*P	**P**	**18 07 52.2**	**+1.0**
BAR				*e*pP	pP	18 07 60.0	+0.1
PFO	**Pinyon Flat Ob**	**63.94**	**321**	*e*P	**P**	**18 07 55.8**	**+1.2**
PFO				*e**PP	pP	18 08 04.4	+1.1
PFO				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.5						
PFO	**Pinyon Flat Ob**	**63.94**	**321**	*e*P	**P**	**18 07 55.8**	**+1.2**
	comp=Z,50nm,1.1s,mb5.5						
PFO				*e*pP	pP	18 08 04.4	+1.1
PHWY	**Pilot Hill**	**64.17**	**334**	*e*P	**P**	**18 07 55.9**	**-0.1**
PHWY				*e*pP	pP	18 08 04.7	0.0
SRU	**San Rafael**	**64.73**	**329**	*e*P	**P**	**18 07 57.8**	**-1.8**
SRU				*e**PP	pP	18 08 08.4	+0.1
MSU	**Marysvale**	**65.10**	**328**	*e*P	**P**	**18 08 02.9**	**+0.8**
MSU				*e**PP	pP	18 08 11.6	+0.9
MVU	**Marysvale**	**65.11**	**328**	PFAKE		18 08 10.0	+7.9
MVU				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
TMUT	**Trail Mountain**	**65.21**	**329**	*e*P	**P**	**18 08 00.3**	**-2.4**
ARUT	**Antelope Range**	**65.22**	**326**	*e*P	**P**	**18 08 01.6**	**-1.2**
ARUT				*e**PP	pP	18 08 11.9	+0.4
RWWY	**Rawlins**	**65.24**	**333**	*e*P	**P**	**18 08 02.6**	**-0.4**
RWWY				*e*pP	pP	18 08 11.9	+0.3
MWC	**Mount Wilson**	**65.33**	**321**	*e*P	**P**	**18 08 03.2**	**-0.4**
MWC				*e**PP	pP	18 08 13.5	+1.2

EYMN	**Ely**	**65.72**	**347**	PFAKE		18 08 20.0	+14
EYMN				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
MPU	**Maple Canyon**	**65.97**	**329**	eP	**P**	**18 08 08.4**	**+0.8**
MPU				epP	pP	18 08 17.0	+0.8
DAU	**Daniels Canyon**	**66.09**	**330**	eP	**P**	**18 08 09.2**	**+0.8**
DAU				e*PP	pP	18 08 18.0	+1.0
NLU	**North Lily Min**	**66.14**	**329**	eP	**P**	**18 08 09.3**	**+0.6**
NLU				epP	pP	18 08 17.9	+0.6
TPNV	**Topopah Spring**	**66.15**	**324**	eP	**P**	**18 08 08.5**	**-0.3**
TPNV				e*PP	pP	18 08 18.8	+1.3
TPNV				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.3						
TPNV	**Topopah Spring**	**66.15**	**324**	eP	**P**	**18 08 08.5**	**-0.3**
	comp=Z,37nm,1.1s,mb5.3						
TPNV				epP	pP	18 08 18.8	+1.3
JLU	**Jordanelle**	**66.33**	**330**	eP	**P**	**18 08 10.6**	**+0.7**
JLU				epP	pP	18 08 19.6	+1.1
DAC	**Darwin (Calif)**	**66.46**	**323**	PFAKE		18 08 20.0	+9.2
DAC				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
VNA3	**Neumayer Olymp**	**66.63**	**161**	⇑iP	**P**	**18 08 13.1**	**+1.8**
VNA3	**Neumayer Olymp**	**66.63**	**161**	⇑i	**P**	**18 08 22.2**	**+11**
TCUT	**Toone Canyon**	**66.71**	**330**	eP	**P**	**18 08 13.1**	**+0.8**
TCUT				epP	pP	18 08 21.5	+0.6
TRCR	**Troy Canyon**	**66.78**	**325**	eP	**P**	**18 08 12.3**	**-0.5**
TRCR				epP	pP	18 08 23.0	+1.5
VNA1	**Neumayer--Stat**	**66.88**	**161**	⇑iP	**P**	**18 08 13.8**	**+0.9**
VNA1	**Neumayer--Stat**	**66.88**	**161**	⇑i	**P**	**18 08 25.9**	**+13**
PDAR	**Pinedale Array**	**67.14**	**332**	P	**P**	**18 08 14.7**	**-0.3**
	comp=Z,1.0nm,0.7s,baz=143,slow=7.4,SNR=10.0						
PDAR				LR	LR	18 37 56.3	
	comp=Z,1µm,20.6s,MS5.1,baz=143,slow=36						
BW06	**Boulder Array**	**67.14**	**332**	eP	**P**	**18 08 14.6**	**-0.5**
	comp=Z,17nm,1.2s,mb5.0						
BW06				epP	pP	18 08 22.6	-1.1
BW06				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
HWUT	**Hardware Ranch**	**67.16**	**330**	eP	**P**	**18 08 14.8**	**-0.3**
	comp=Z,42nm,1.1s,mb5.4						
HWUT				epP	pP	18 08 23.8	-0.1
HWUT				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
VNA2	**Neumayer--Watz**	**67.24**	**161**	⇑iP	**P**	**18 08 16.9**	**+1.7**
VNA2	**Neumayer--Watz**	**67.24**	**161**	⇑i	**P**	**18 08 27.1**	**+12**
BGU	**Big Grassy Mou**	**67.35**	**329**	eP	**P**	**18 08 16.6**	**+0.2**
BGU				epP	pP	18 08 25.3	+0.3
SPUT	**South Promonto**	**67.36**	**330**	eP	**P**	**18 08 16.8**	**+0.4**
SPUT				epP	pP	18 08 24.3	-0.7
AHID	**Auburn Hatcher**	**67.84**	**331**	eP	**P**	**18 08 19.2**	**-0.2**
	comp=Z,41nm,1.2s,mb5.3						
AHID				epP	pP	18 08 28.0	-0.1
AHID				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
OMM	**Old Mammoth Mi**	**68.19**	**323**	eP	**P**	**18 08 23.1**	**+1.4**
OMM				epP	pP	18 08 31.5	+1.1
REDW	**Red Top Meadow**	**68.19**	**332**	eP	**P**	**18 08 21.9**	**+0.3**
REDW				epP	pP	18 08 29.7	-0.6
SNOW	**Snow King Moun**	**68.23**	**332**	eP	**P**	**18 08 22.5**	**+0.6**
SNOW				epP	pP	18 08 30.6	+0.1
MNV	**Mina**	**68.27**	**324**	eP	**P**	**18 08 23.1**	**+0.9**
MNV				e*PP	pP	18 08 32.0	+1.2
MNV				pmax	pmax		
	comp=Z,84nm,1.7s,mb5.5						
MNV				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
MNV	**Mina**	**68.27**	**324**	eP	**P**	**18 08 23.1**	**+0.9**
	comp=Z,84nm,1.7s,mb5.5						
MNV				epP	pP	18 08 32.0	+1.1
MNV				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
LOHW	**Long Hollow**	**68.28**	**332**	eP	**P**	**18 08 22.1**	**0.0**
LOHW				epP	pP	18 08 30.9	+0.2
ELK	**Elko**	**68.34**	**327**	eP	**P**	**18 08 23.0**	**+0.4**
ELK				e*PP	pP	18 08 31.9	+0.7
ELK				pmax	pmax		
	comp=Z,47nm,1.6s						
ELK				MLR	MLR		
	comp=Z,4µm,20.0s						
ELK	**Elko**	**68.34**	**327**	eP	**P**	**18 08 23.0**	**+0.5**
	comp=Z,47nm,1.6s,mb5.3						
ELK				epP	pP	18 08 31.9	+0.7
ELK				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
TPAW	**Teton Pass**	**68.34**	**332**	eP	**P**	**18 08 22.8**	**+0.3**
TPAW				epP	pP	18 08 31.4	+0.3
NVAR	**Mina Array Bea**	**68.35**	**324**	P	**P**	**18 08 24.1**	**+1.4**
	comp=Z,3.2nm,0.9s,baz=136,slow=7.4,SNR=21						
NVAR				LR	LR	18 38 27.4	
	comp=Z,1µm,19.4s,MS5.2,baz=245,slow=36						
MOOW	**Moose Ponds**	**68.45**	**332**	eP	**P**	**18 08 23.4**	**+0.2**
MOOW				epP	pP	18 08 31.7	-0.1
IMW	**Indian Meadow**	**68.65**	**332**	eP	**P**	**18 08 24.8**	**+0.3**
IMW				epP	pP	18 08 33.1	0.0
SNAA	**Sanae**	**68.85**	**161**	⇑iP	**P**	**18 08 24.4**	**-0.8**
SNAA	**Sanae**	**68.85**	**161**	⇑iP	**P**	**18 08 24.4**	**-0.8**
SNAA	**Sanae**	**68.85**	**161**	⇑i	**P**	**18 08 35.6**	**+10**
SNAA	**Sanae**	**68.85**	**161**	c iP	**P**	**18 08 24.6**	**-0.6**
ULM	**Lac du Bonnet**	**68.89**	**345**	P	**P**	**18 08 25.3**	**-0.5**
	comp=Z,7.0nm,0.7s,mb4.7,baz=154,slow=5.9,SNR=10						
ULM				LR	LR	18 40 23.4	
	comp=Z,2µm,20.2s,MS5.3,baz=337,slow=37						
ULM	**Lac du Bonnet**	**68.89**	**345**	eP	**P**	**18 08 25.2**	**-0.6**
	comp=Z,126nm,1.6s,mb5.6						
ULM				epP	pP	18 08 33.7	-0.8
LKWY	**Lake**	**68.94**	**333**	PFAKE		18 08 40.0	+14
LKWY				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
LAO	**LASA Array**	**68.97**	**337**	eP	**P**	**18 08 25.9**	**-0.5**
	comp=Z,42nm,1.3s,mb5.2						
LAO				epP	pP	18 08 34.6	-0.4
LAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
SAO	**San Andreas Ge**	**69.08**	**321**	PFAKE		18 08 40.0	+13
SAO				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
YMR	**Madison River**	**69.27**	**333**	eP	**P**	**18 08 29.4**	**+1.2**
YMR				epP	pP	18 08 38.2	+1.3
CMB	**Columbia Colle**	**69.28**	**322**	eP	**P**	**18 08 29.1**	**+0.6**
CMB				e*PP	pP	18 08 37.8	+0.7
CMB				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
CMB				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
CMB	**Columbia Colle**	**69.28**	**322**	eP	**P**	**18 08 29.1**	**+0.6**
	comp=Z,21nm,1.2s,mb4.9						
CMB				epP	pP	18 08 37.8	+0.7
CMB				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
DGMT	**Dagmar**	**69.75**	**339**	eP	**P**	**18 08 31.6**	**+0.5**
	comp=Z,63nm,1.3s,mb5.4						
DGMT				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
ADH	**Angra Heroismo**	**69.96**	**37**	e		18 23 32.5	
HLID	**Hailey**	**70.01**	**330**	eP	**P**	**18 08 33.6**	**+0.9**
	comp=Z,58nm,1.6s,mb5.3						
HLID				epP	pP	18 08 42.6	+1.2
HLID				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
PDA	**Ponta Delgada**	**70.30**	**39**	eLR	LR	18 30 36.0	
BOZ	**Bozeman (W)**	**70.33**	**333**	eP	**P**	**18 08 33.8**	**-0.9**
BOZ				e*PP	pP	18 08 41.9	-1.4
BOZ				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.1						
BOZ				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.3						
BOZ	**Bozeman (W)**	**70.33**	**333**	eP	**P**	**18 08 33.8**	**-0.9**
	comp=Z,38nm,1.5s,mb5.1						
BOZ				epP	pP	18 08 41.9	-1.5
BOZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
BEKR	**Beckwourth**	**70.50**	**324**	eP	**P**	**18 08 37.1**	**+1.3**
	comp=Z,29nm,1.1s,mb5.1						
BEKR				epP	pP	18 08 45.6	+1.1
TBI	**Tubuai**	**70.65**	**251**	eS	S	18 17 50.7	+2.8
TBI				eLR	LR	18 29 56.8	
	comp=Z,3µm,29.0s,baz=100						
SCHQ	**Schefferville**	**71.00**	**4**	P	**P**	**18 08 38.1**	**-0.5**
	comp=Z,9.0nm,0.8s,mb4.7,baz=176,slow=5.7,SNR=6.1						
SCHQ				LR	LR	18 37 22.0	
	comp=Z,1µm,21.2s,MS5.2,baz=85,slow=34						
HOPS	**Hopland**	**71.50**	**322**	eP	**P**	**18 08 42.4**	**+0.5**
	comp=Z,38nm,1.4s,mb5.1						
HOPS				epP	pP	18 08 51.8	+1.2
HOPS				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
PPT	**Papeete**	**71.82**	**256**	eS	S	18 18 04.2	+2.7
PPT				eLR	LR	18 30 19.7	
	comp=Z,5µm,23.5s,baz=105						
MOD	**Modoc**	**71.85**	**325**	eP	**P**	**18 08 44.1**	**+0.2**
	comp=Z,58nm,1.3s,mb5.3						
MOD				epP	pP	18 08 52.7	+0.1
MOD				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
DBIC	**Dimbokro**	**72.10**	**77**	P	**P**	**18 08 44.4**	**-1.5**
	comp=Z,65nm,0.8s,mb5.6,baz=232,slow=6.1,SNR=88						
DBIC				LR	LR	18 39 54.7	
	comp=Z,6µm,18.9s,MS5.9,baz=222,slow=35						
WDC	**Whiskeytown Da**	**72.22**	**323**	PFAKE		18 09 00.0	+14
WDC				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
MSO	**Missoula**	**72.26**	**332**	eP	**P**	**18 08 47.1**	**+0.9**
	comp=Z,28nm,1.4s,mb5.0						
MSO				epP	pP	18 08 54.5	-0.5
MSO				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
BMO	**Blue Mountains**	**72.37**	**329**	eP	**P**	**18 08 47.0**	**0.0**
	comp=Z,21nm,1.3s,mb4.9						
BMO				epP	pP	18 08 55.8	+0.2
BMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
YBH	**Yreka Blue Hor**	**73.07**	**324**	eP	**P**	**18 08 50.7**	**-0.5**
YBH				e*PP	pP	18 08 58.4	-1.5
YBH				pmax	pmax		
	comp=Z,17nm,1.1s						
YBH				MLR	MLR		
	comp=Z,1µm,20.0s						
YBH	**Yreka Blue Hor**	**73.07**	**324**	eP	**P**	**18 08 50.7**	**-0.4**
	comp=Z,17nm,1.1s,mb4.9						
YBH				epP	pP	18 08 58.4	-1.4
YBH				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
NVL	**N'lazarevskaya**	**73.48**	**160**	⇑eP	**P**	**18 08 52.0**	**-1.0**
NVL				pmax	pmax		
	comp=Z,582nm,2.2s,mb6.1						
HUMO	**Hull Mountain**	**73.78**	**325**	PFAKE		18 09 10.0	+15
HUMO				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
QSPA	**South Pole Qui**	**73.97**	**180**	⇑iP	**P**	**18 08 56.4**	**+0.7**
	comp=Z,85nm,1.2s,mb5.5						
HAWA	**Hanford**	**74.56**	**329**	eP	**P**	**18 08 59.4**	**-0.3**
	comp=Z,97nm,1.6s,mb5.5						
HAWA				epP	pP	18 09 08.7	+0.3
HAWA				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
NEW	**Newport**	**74.76**	**332**	PFAKE		18 09 10.0	+9.2
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
COR	**Corvallis**	**75.27**	**326**	eP	**P**	**18 09 05.1**	**+1.3**
COR				e*PP	pP	18 09 13.4	+0.8
COR				pmax	pmax		
	comp=Z,124nm,1.5s,mb5.6						
COR				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
COR	**Corvallis**	**75.27**	**326**	eP	**P**	**18 09 05.1**	**+1.3**
	comp=Z,124nm,1.5s,mb5.6						
COR				epP	pP	18 09 13.4	+0.8
COR				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
FCC	**Fort Churchill**	**76.47**	**349**	eP	**P**	**18 09 09.8**	**-0.5**
FCC				e*PP	pP	18 09 19.3	+0.3
FCC				pmax	pmax		
	comp=Z,49nm,1.4s,mb5.2						
FCC	**Fort Churchill**	**76.47**	**349**	eP	**P**	**18 09 09.8**	**-0.5**
	comp=Z,49nm,1.4s,mb5.2						
FCC				epP	pP	18 09 19.3	+0.3
EDM	**Edmonton**	**76.96**	**337**	eP	**P**	**18 09 12.9**	**-0.2**
EDM				e*PP	pP	18 09 21.3	-0.6
OCWA	**Octopus Mounta**	**77.81**	**328**	PFAKE		18 09 30.0	+12
OCWA				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
VNDA	**Vanda**	**81.19**	**191**	P	**P**	**18 09 36.8**	**+1.1**
	comp=Z,7.1nm,0.9s,mb4.6,baz=125,slow=4.9,SNR=27						
VNDA				LR	LR	18 40 05.0	
	comp=Z,2µm,18.3s,MS5.6,baz=125,slow=32						
VNDA	**Vanda**	**81.19**	**191**	eP	**P**	**18 09 36.9**	**+1.3**
VNDA				e*PP	pP	18 09 46.4	+1.9
VNDA				pmax	pmax		
	comp=Z,78nm,1.6s						
VNDA	**Vanda**	**81.19**	**191**	eP	**P**	**18 09 36.9**	**+1.3**
	comp=Z,78nm,1.6s,mb5.4						
VNDA				epP	pP	18 09 46.4	+2.0
PTEO	**Sao Teotonio**	**81.32**	**47**	eP	**P**	**18 09 38.7**	**+1.6**
PBEJ	**Beja**	**82.14**	**47**	eP	**P**	**18 09 42.3**	**+1.0**
	comp=Z,65nm,1.8s,mb5.3						
EVO	**Evora**	**82.27**	**46**	⇑iP	**P**	**18 09 42.8**	**+0.8**
	comp=Z,53nm,0.9s,mb5.2						
EVO				eR			
	comp=Z,5µm,20.5s						
PTOM	**Tomar**	**82.51**	**45**	eP	**P**	**18 09 43.8**	**+0.6**
	comp=Z,72nm,2.3s,mb5.3						
EMIN	**Mina Concepcio**	**82.87**	**47**	P	**P**	**18 09 46.4**	**+1.3**
	comp=Z,17nm,1.1s,mb5.0						
ESPR	**Espera**	**83.05**	**49**	P	**P**	**18 09 47.7**	**+1.7**
	comp=Z,78nm,1.4s,mb5.5						
EBAD	**Badajoz**	**83.07**	**46**	P	**P**	**18 09 47.4**	**+1.3**
	comp=Z,19nm,1.1s,mb5.0						
SYO	**Syowa Base**	**83.13**	**161**	⇓P	**P**	**18 09 45.6**	**-0.2**
SYO	**Syowa Base**	**83.13**	**161**	⇓pP	pP	18 09 54.6	-0.1
EJIF	**Jimena Fronter**	**83.15**	**49**	P	**P**	**18 09 48.3**	**+1.7**
EJIF				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.7						
EJIF	**Jimena Fronter**	**83.15**	**49**	P	**P**	**18 09 48.3**	**+1.7**
	comp=Z,2.8nm,0.4s,mb4.7						
PCBR	**Castelo Branco**	**83.25**	**45**	eP	**P**	**18 09 47.5**	**+0.5**
	comp=Z,53nm,1.9s,mb5.2						
PVIS	**Viseu**	**83.37**	**44**	eP	**P**	**18 09 48.5**	**+0.9**
	comp=Z,119nm,1.6s,mb5.7						
MTE	**Manteigas**	**83.46**	**45**	eP	**P**	**18 09 49.1**	**+1.0**
	comp=Z,92nm,1.3s,mb5.7						
MTE				eLQ		18 32 57.4	
MTE				eLR	LR	18 36 27.8	
	comp=Z,5µm,17.5s						
MTE	**Manteigas**	**83.46**	**45**	eP	**P**	**18 09 48.6**	**+0.6**
	comp=Z,76nm,1.2s,mb5.6						
MTE				epP	pP	18 09 57.0	+0.1
EZAM	**Zamans**	**83.51**	**43**	P	**P**	**18 09 49.5**	**+1.2**
EZAM				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.3						
EZAM	**Zamans**	**83.51**	**43**	P	**P**	**18 09 49.5**	**+1.2**
	comp=Z,21nm,0.9s,mb5.3						
EMIJ	**Mijas**	**83.70**	**49**	P	**P**	**18 09 50.5**	**+1.0**
	comp=Z,42nm,1.2s,mb5.4						
EMAZ	**Mazaricos**	**83.72**	**42**	P	**P**	**18 09 50.4**	**+1.1**
	comp=Z,25nm,1.0s,mb5.3						
PVRL	**Vila Real**	**83.75**	**44**	eP	**P**	**18 09 50.2**	**+0.6**
	comp=Z,98nm,1.9s,mb5.6						
ELOB	**Lobios**	**83.80**	**43**	P	**P**	**18 09 51.1**	**+1.3**
	comp=Z,18nm,0.8s,mb5.3						
STS	**Santiago**	**83.96**	**42**	P	**P**	**18 09 52.0**	**+1.4**
STS				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.4						
STS	**Santiago**	**83.96**	**42**	P	**P**	**18 09 52.0**	**+1.4**
	comp=Z,35nm,1.1s,mb5.4						
ELOJ	**Sierra Loja**	**84.40**	**49**	P	**P**	**18 09 54.8**	**+1.8**
ELOJ				pmax	pmax		
	comp=Z,167nm,1.4s,mb6.0						
ELOJ	**Sierra Loja**	**84.40**	**49**	P	**P**	**18 09 54.8**	**+1.8**
	comp=Z,166nm,1.4s,mb6.0						
ELUQ	**Luque**	**84.50**	**49**	P	**P**	**18 09 55.1**	**+1.7**
ELUQ				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.5						
ELUQ	**Luque**	**84.50**	**49**	P	**P**	**18 09 55.1**	**+1.7**
	comp=Z,30nm,0.8s,mb5.5						
EADA	**Adamuz**	**84.53**	**48**	P	**P**	**18 09 54.5**	**+0.9**
	comp=Z,18nm,0.9s,mb5.2						
ERON	**Agron**	**84.60**	**49**	P	**P**	**18 09 55.4**	**+1.5**
	comp=Z,11nm,0.9s,mb5.0						
YKA	**Yellowknife Ar**	**84.63**	**342**	P	**P**	**18 09 53.9**	**+0.4**
	comp=Z,17nm,0.8s,mb5.2,baz=135,slow=4.9,SNR=211						
YKA				LR	LR	18 49 51.5	
	comp=Z,2µm,19.8s,MS5.4,baz=95,slow=37						
EINC	**Incio**	**84.63**	**43**	P	**P**	**18 09 55.7**	**+1.8**
	comp=Z,15nm,1.0s,mb5.1						
PBRG	**Braganca**	**84.64**	**44**	eP	**P**	**18 09 54.6**	**+0.6**
	comp=Z,118nm,1.5s,mb5.8						
ERUA	**La Rua**	**84.65**	**43**	P	**P**	**18 09 55.5**	**+1.5**
ERUA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
ERUA	**La Rua**	**84.65**	**43**	P	**P**	**18 09 55.5**	**+1.5**
	comp=Z,10nm,0.8s,mb5.0						
YKW3	**Yellowknife Ar**	**84.69**	**342**	eP	**P**	**18 09 54.0**	**+0.3**
YKW3				epP	pP	18 10 02.8	+0.1
ECAL	**Calabor**	**84.71**	**44**	P	**P**	**18 09 55.5**	**+1.2**
	comp=Z,20nm,0.9s,mb5.2						
EBER	**Berja**	**85.22**	**50**	P	**P**	**18 09 58.0**	**+0.9**
	comp=Z,25nm,1.0s,mb5.3						
EQES	**Quesada**	**85.46**	**49**	P	**P**	**18 09 59.4**	**+1.2**
	comp=Z,21nm,1.1s,mb5.2						
SUR	**Sutherland**	**85.47**	**122**	PFAKE		18 10 10.0	+12
SUR				LR	LR		
	comp=Z,613nm,20.0s,MS5.0						
ESDC	**Sonseca Array**	**85.60**	**47**	P	**P**	**18 09 59.6**	**+0.8**
	comp=Z,12nm,0.9s,mb5.1,baz=252,slow=5.3,SNR=48						
ESDC	**Sonseca Array**	**85.60**	**47**	P	**P**	**18 10 00.0**	**+1.2**
	comp=Z,10nm,0.8s,mb5.1						
ESLA	**Sonseca Array**	**85.60**	**47**	eP	**P**	**18 09 60.0**	**+1.1**
	comp=Z,48nm,1.5s,mb5.5						
ESLA				epP	pP	18 10 08.7	+1.0
ESLA				LR	LR		
	comp=Z,13µm,19.0s,MS6.3						
EVIA	**Vianos**	**86.21**	**48**	P	**P**	**18 10 04.1**	**+2.2**
EVIA				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.2						
EVIA	**Vianos**	**86.21**	**48**	P	**P**	**18 10 04.1**	**+2.1**
	comp=Z,13nm,0.9s,mb5.2						
DLBC	**Dease Lake**	**87.30**	**334**	eP	**P**	**18 10 07.9**	**+1.2**
DLBC				epP	pP	18 10 17.1	+1.5
SJPF	**Ste Jean**	**88.89**	**44**	eP	**P**	**18 10 14.3**	**-0.4**
	comp=Z,177nm,1.5s,mb5.9						
SJPF	**Ste Jean**	**88.89**	**44**	eP	**P**	**18 10 14.3**	**-0.4**
SJPF				pmax	pmax		
	comp=Z,88nm,1.5s,mb5.9						
ETSF	**Etsaut**	**89.26**	**45**	eP	**P**	**18 10 16.0**	**-0.5**
	comp=Z,60nm,1.4s,mb5.4						
ETSF	**Etsaut**	**89.26**	**45**	eP	**P**	**18 10 16.0**	**-0.5**
ETSF				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.4						
QUIF	**Quistinic**	**89.61**	**39**	eP	**P**	**18 10 15.7**	**-2.3**
	comp=Z,72nm,1.1s,mb5.6						
QUIF	**Quistinic**	**89.61**	**39**	eP	**P**	**18 10 15.7**	**-2.3**
QUIF				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.6						
ROSF	**Rostrenen**	**89.72**	**39**	eP	**P**	**18 10 17.4**	**-1.1**
	comp=Z,74nm,1.2s,mb5.6						
ROSF	**Rostrenen**	**89.72**	**39**	eP	**P**	**18 10 17.4**	**-1.1**
ROSF				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.6						
EPF	**Esparros**	**89.92**	**45**	eP	**P**	**18 10 19.2**	**-0.4**
BORG	**Borgarnes**	**90.03**	**20**	LR	LR	18 49 51.9	
	comp=Z,2µm,18.1s,MS5.5,baz=61,slow=35						
HON	**Honolulu**	**90.34**	**292**	P	**P**	**18 10 24.9**	**+2.9**
MAW	**Mawson**	**90.75**	**165**	P	**P**	**18 10 23.2**	**+0.4**
	comp=Z,9.9nm,0.9s,mb5.2,baz=218,slow=6.9,SNR=10						
MAW				LR	LR	18 48 55.4	
	comp=Z,2µm,20.2s,MS5.6,baz=224,slow=34						
LFF	**La Frestale**	**90.90**	**43**	eP	**P**	**18 10 23.0**	**-1.1**
	comp=Z,93nm,1.1s,mb5.7						
LFF	**La Frestale**	**90.90**	**43**	eP	**P**	**18 10 23.0**	**-1.1**
LFF				pmax	pmax		
	comp=Z,47nm,1.1s,mb5.7						
MFF	**Saint Martin d**	**90.96**	**41**	eP	**P**	**18 10 23.2**	**-1.1**
	comp=Z,77nm,1.3s,mb5.6						
MFF	**Saint Martin d**	**90.96**	**41**	eP	**P**	**18 10 23.2**	**-1.1**
MFF				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.6						
GRR	**Gorron**	**91.21**	**40**	eP	**P**	**18 10 24.1**	**-1.3**
	comp=Z,24nm,0.9s,mb5.2						
GRR	**Gorron**	**91.21**	**40**	eP	**P**	**18 10 24.1**	**-1.3**
GRR				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.2						
MTLF	**Montolieu**	**91.31**	**45**	eP	**P**	**18 10 24.9**	**-1.1**
RJF	**Les Rejaudoux**	**91.55**	**43**	eP	**P**	**18 10 25.9**	**-1.1**
	comp=Z,52nm,1.2s,mb5.4						
RJF				eR			
	comp=Z,3µm,23.0s						
RJF	**Les Rejaudoux**	**91.55**	**43**	eP	**P**	**18 10 25.9**	**-1.1**
RJF				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.4						
RJF				MLR	MLR		
	comp=Z,3µm,23.0s,MS5.7						
FLN	**La Foliniere**	**91.58**	**39**	eP	**P**	**18 10 26.0**	**-1.1**
	comp=Z,162nm,1.6s,mb5.8						
FLN				eR			
	comp=Z,3µm,19.2s						
FLN	**La Foliniere**	**91.58**	**39**	eP	**P**	**18 10 26.0**	**-1.1**
FLN				pmax	pmax		
	comp=Z,81nm,1.6s,mb5.8						
FLN				MLR	MLR		
	comp=Z,3µm,19.3s,MS5.8						
LDF	**La Druitiere**	**91.74**	**40**	eP	**P**	**18 10 26.7**	**-1.1**
	comp=Z,134nm,1.7s,mb5.7						
LDF	**La Druitiere**	**91.74**	**40**	eP	**P**	**18 10 26.7**	**-1.1**
LDF				pmax	pmax		
	comp=Z,67nm,1.7s,mb5.7						
CAF	**Calviac**	**91.77**	**44**	eP	**P**	**18 10 27.1**	**-1.0**
	comp=Z,45nm,1.3s,mb5.3						
CAF	**Calviac**	**91.77**	**44**	eP	**P**	**18 10 27.1**	**-1.0**
CAF				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.3						
TCF	**Toulx Ste Croi**	**92.36**	**42**	eP	**P**	**18 10 29.4**	**-1.3**
LASF	**Ste Croix**	**92.68**	**45**	eP	**P**	**18 10 31.5**	**-0.7**
BGF	**Bois d'Agland**	**92.86**	**42**	eP	**P**	**18 10 31.9**	**-1.1**
	comp=Z,136nm,1.6s,mb5.8						
BGF	**Bois d'Agland**	**92.86**	**42**	eP	**P**	**18 10 31.9**	**-1.1**
BGF				pmax	pmax		
	comp=Z,68nm,1.6s,mb5.8						
AVF	**Avril sur Loir**	**93.27**	**42**	eP	**P**	**18 10 33.4**	**-1.5**
	comp=Z,134nm,1.9s,mb5.7						
AVF	**Avril sur Loir**	**93.27**	**42**	eP	**P**	**18 10 33.4**	**-1.5**
AVF				pmax	pmax		
	comp=Z,67nm,1.9s,mb5.8						
AFI	**Afiamalu**	**93.42**	**255**	PFAKE		18 10 50.0	+14
AFI				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
SSF	**Saint Saulge**	**93.46**	**42**	eP	**P**	**18 10 34.3**	**-1.5**
VIVF	**Saint-Julien-l**	**93.49**	**44**	eP	**P**	**18 10 35.5**	**-0.5**
SMF	**Signal de Mont**	**93.54**	**42**	eP	**P**	**18 10 35.0**	**-1.1**
	comp=Z,67nm,1.3s,mb5.6						
SMF	**Signal de Mont**	**93.54**	**42**	eP	**P**	**18 10 35.0**	**-1.1**
SMF				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.6						
SMRF	**Simiane la Rot**	**93.81**	**45**	eP	**P**	**18 10 37.3**	**-0.2**
LMR	**La Mourre**	**94.26**	**46**	eP	**P**	**18 10 38.9**	**-0.6**
	comp=Z,81nm,1.2s,mb5.8						
LMR	**La Mourre**	**94.26**	**46**	eP	**P**	**18 10 38.9**	**-0.6**
LMR				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.7						
ORIF	**Oris-en-Rattie**	**94.32**	**45**	eP	**P**	**18 10 39.6**	**-0.2**
	comp=Z,98nm,1.4s,mb5.7						
ORIF				eR			
	comp=Z,4µm,21.2s						
INK	**Inuvik**	**94.35**	**341**	eP	**P**	**18 10 39.0**	**-0.3**
INK				e*PP	pP	18 10 47.5	-0.7
INK				pmax	pmax		
	comp=Z,37nm,1.4s						
INK	**Inuvik**	**94.35**	**341**	eP	**P**	**18 10 39.0**	**-0.4**
	comp=Z,37nm,1.4s,mb5.6						
INK				epP	pP	18 10 47.5	-0.8
MBDF	**Montbardon**	**94.87**	**45**	eP	**P**	**18 10 40.8**	**-1.5**
	comp=Z,30nm,1.2s,mb5.3						
MBDF	**Montbardon**	**94.87**	**45**	eP	**P**	**18 10 40.8**	**-1.5**
MBDF				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.3						
BAIF	**Baives**	**94.91**	**39**	eP	**P**	**18 10 41.2**	**-1.1**
	comp=Z,93nm,1.7s,mb5.6						
BAIF	**Baives**	**94.91**	**39**	eP	**P**	**18 10 41.2**	**-1.1**
BAIF				pmax	pmax		
	comp=Z,47nm,1.7s,mb5.6						
MEZF	**Maizieres J'vi**	**94.92**	**41**	eP	**P**	**18 10 41.5**	**-1.0**
SBF	**Sospel**	**95.06**	**46**	eP	**P**	**18 10 42.6**	**-0.6**
LPL	**La Plagne**	**95.08**	**44**	eP	**P**	**18 10 43.3**	**0.0**
	comp=Z,47nm,1.3s,mb5.5						
LPL	**La Plagne**	**95.08**	**44**	eP	**P**	**18 10 43.3**	**0.0**
LPL				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.5						
LPG	**La Plagne**	**95.09**	**44**	eP	**P**	**18 10 43.4**	**+0.1**
	comp=Z,39nm,1.2s,mb5.4						
LPG	**La Plagne**	**95.09**	**44**	eP	**P**	**18 10 43.4**	**+0.1**
LPG				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.4						
GIVF	**Givet**	**95.30**	**39**	eP	**P**	**18 10 43.3**	**-0.8**
	comp=Z,342nm,1.9s,mb6.2						
GIVF	**Givet**	**95.30**	**39**	eP	**P**	**18 10 43.3**	**-0.8**
GIVF				pmax	pmax		
	comp=Z,171nm,1.9s,mb6.2						

HAU	Haudompre	95.59	42	*e*P	P	18 10 44.4	-1.1
HAU				*e*R			
	comp=Z,4µm,21.2s						
PGF	Pioggiola	95.77	47	*e*P	P	18 10 45.9	-0.6
	comp=Z,253nm,1.3s,mb6.2						
PGF	Pioggiola	95.77	47	*e*P	P	18 10 45.9	-0.6
PGF				pmax	pmax		
	comp=Z,126nm,1.3s,mb6.2						
HINF	Hinteralfeld	95.86	42	*e*P	P	18 10 45.5	-1.3
CDF	Champ du Feu	96.31	42	*e*P	P	18 10 47.7	-1.1
	comp=Z,51nm,1.4s,mb5.5						
CDF	Champ du Feu	96.31	42	*e*P	P	18 10 47.7	-1.1
CDF				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.5						
ILAR	Eielson Array	97.41	336	P	P	18 10 53.7	+0.4
	comp=Z,1.3nm,0.9s,mb4.4,slow=13,SNR=9.9						
ILAR				PP	PP	18 15 00.5	+7.4
	comp=Z,2.2nm,1.1s,baz=117,slow=9.6,SNR=4.8						
ILAR				LR	LR	18 58 23.1	
	comp=Z,1µm,19.9s,MS5.4,baz=122,slow=38						
DAVOX	Davos	97.54	44	P	P	18 10 55.2	+0.9
	comp=Z,7.2nm,0.9s,mb5.2,baz=214,slow=7.2,SNR=6.5						
JMIC	Jan Mayen	97.54	18	LR	LR	18 51 25.6	
	comp=Z,1µm,18.0s,MS5.4,baz=272,slow=33						
CASY	Casey	97.71	182	PFAKE		18 11 10.0	+15
CASY				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
COLA	College	97.83	336	*i* P	P	18 10 55.9	+0.7
COLA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.4						
GRF	Grafenberg Arr	99.15	41	*e*P	P	18 11 02.0	+0.4
GRF				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.5						
GRF	Grafenberg Arr	99.15	41	*e*P	P	18 11 02.0	+0.4
GRF				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.5						
GRF	Grafenberg Arr	99.15	41	*e*P	P	18 11 02.0	+0.4
	comp=Z,22nm,1.3s,mb5.5						
GERES	GERESS Array B	100.54	42	P	P	18 11 08.0	+0.1
	comp=Z,1.5nm,0.8s,baz=207,slow=3.0,SNR=6.2						
CLL	Collm	100.63	40	⇑*i*P	P	18 11 08.9	+0.6
CLL				pmax	pmax		
	comp=Z,56nm,1.9s						
CLL				MLR	MLR		
	comp=Z,3µm,19.1s,MS5.8						
CLL	Collm	100.63	40	⇑*i*P	P	18 11 08.9	+0.6
	comp=Z,56nm,1.9s						
CLL				LR	LR		
	comp=Z,3µm,19.1s,MS5.8						
CLL	Collm	100.63	40	⇑P	P	18 11 08.9	+0.6
	comp=Z,logA/T=1.5						
KONO	Kongsberg	100.63	31	PFAKE		18 11 20.0	+12
KONO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
NAO01	NORSAR Array S	101.53	30	PFAKE		18 11 20.0	+7.9
NAO01				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
ZST	Bratislava	102.63	43	*e*	Px	18 15 07.8	
KMBO	Kilima Mbogo	110.08	97	PFAKE		18 16 00.0	+4.0
KMBO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
AKASG	Malin Array Be	110.73	41	PKiKP		18 15 51.9	
	comp=Z,1.4nm,0.9s,baz=260,slow=3.3,SNR=4.4						
AKASG				PP	PP	18 16 26.2	-7.1
	comp=Z,2.6nm,1.1s,baz=262,slow=7.0,SNR=12						
AKASG	Malin Array Be	110.73	41	*i* PKIKP	PKPdf	18 15 51.9	-4.5
AKASG						18 16 26.2	
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.9s						
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.1s						
BR131	Keskin Array S	113.66	53	PFAKE		18 16 10.0	+7.5
BR131				LR	LR		
	comp=Z,834nm,20.0s,MS5.3						
BRTR	Keskin Array B	113.66	53	PKiKP		18 15 59.5	
	comp=Z,1.9nm,1.0s,baz=214,slow=4.5,SNR=5.5						
BRTR				PP	PP	18 16 58.0	+2.9
	comp=Z,2.7nm,1.1s,baz=252,slow=3.9,SNR=4.6						
OBN	Obninsk	114.90	36	⇑*i*PKIKP	PKPdf	18 16 00.9	-3.5
OBN				*e*		18 17 06.2	
OBN				*e*		18 23 08.6	
OBN				*e*PS	PS	18 26 36.9	-1.2
OBN				pmax	pmax		
	comp=Z,8.0nm,1.1s						
OBN				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.8						
OBN	Obninsk	114.90	36	⇑*e*PKP	PKPdf	18 16 00.9	-3.5
OBN				LR	LR		
	comp=Z,2µm,16.0s,MS5.8						
BILL	Bilibino	115.83	339	PFAKE		18 16 10.0	+4.0
BILL				LR	LR		
	comp=Z,5.0nm,22.0s						
ASF	Jabal al Asfar	115.97	62	PKP	PKPdf	18 16 00.6	-6.6
	comp=Z,4.6nm,0.8s,baz=66,slow=13,SNR=3.1						
ANN	Anapa	116.42	48	*i* PKIKP	PKPdf	18 15 59.8	-7.9
ANN				pmax	pmax		
	comp=Z,114nm,1.5s						
VRSR	Storozhevoye	116.98	40	*e*PKIKP	PKPdf	18 16 03.9	-4.7
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.3s						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,20nm,2.5s						
HILS	Ha’il	119.93	67	P	PKPdf	18 16 12.6	-2.3
GOF	Gofitskoye	120.35	47	*e*PKIKP	PKPdf	18 16 12.0	-3.3
GOF				pmax	pmax		
	comp=Z,40nm,1.6s						
GOF				MLR	MLR		
	comp=Z,3µm,18.0s,MS6.0						
AFFS	‘Afif	120.75	72	P	PKPdf	18 16 13.7	-2.9
ARSS	Ar Rass	121.12	69	P	PKPdf	18 16 14.4	-2.9
STKA	Stephens Creek	121.26	215	PKP	PKPdf	18 16 12.5	-5.0
	comp=Z,1.9nm,0.7s,baz=35,slow=9.9,SNR=4.9						
STKA	Stephens Creek	121.26	215	*e*PKPdf	PKPdf	18 16 12.8	-4.6
GNI	Garni	122.17	53	PKP	PKPdf	18 16 14.1	-4.8
	comp=Z,1.4nm,0.4s,baz=346,slow=21,SNR=3.7						
GNI	Garni	122.17	53	*i* PKIKP	PKPdf	18 16 16.1	-2.9
GNI				MLR	MLR		
	comp=Z,1µm,22.0s						
WAKE	Wake Island	122.36	283	PFAKE		18 16 30.0	+10
WAKE				LR	LR		
	comp=Z,94µm,19.0s						
TIXI	Tiksi	122.90	352	⇓*e*PKIKP	PKPdf	18 16 16.0	-3.6
TIXI				MLR	MLR		
	comp=Z,631nm,20.0s,MS5.3						
ARU	Arti	126.27	30	*i* PKIKP	PKPdf	18 16 22.6	-3.8
ARU				*e*		18 18 17.0	
ARU				*e*		18 23 27.8	
ARU				*e*SS	SS	18 35 12.3	-6.8
ARU				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.6						
ARU				MLR	MLR		
	comp=N,900nm,20.0s,MS5.6						
ARU				MLR	MLR		
	comp=E,1µm,24.0s,MS5.6						
ARU	Arti	126.27	30	*e*PKPdf	PKPdf	18 16 23.3	-3.1
CTA	Charters Tower	126.47	229	PKP	PKPdf	18 16 21.8	-6.0
	comp=E,4.8nm,0.8s,baz=252,slow=16,SNR=3.3						
CTAO	Charters Tower	126.47	229	PFAKE		18 16 40.0	+12
CTAO				LR	LR		
	comp=Z,982nm,19.0s,MS5.5						
YAK	Yakutsk	131.23	345	*e*PKIKP	PKPdf	18 16 32.2	-3.6
YAK				*e*		18 16 40.3	
ASAR	Alice Springs	131.90	215	PKP	PKPdf	18 16 34.2	-3.9
	comp=Z,3.7nm,0.8s,baz=124,slow=2.5,SNR=4.3						
ASAR				SKPbc		18 19 55.8	
	comp=Z,6.4nm,1.2s,baz=159,slow=4.2,SNR=7.3						
PMG	Port Moresby	131.95	241	⇓*i*PKIKP	PKPdf	18 16 36.2	-2.3
BRVK	Borovoye	133.78	29	*e*PKIKP	PKPdf	18 16 38.0	-2.8
BRVK				*e*		18 16 46.9	
BRVK				MLR	MLR		
	comp=Z,349nm,20.0s,MS5.1						
BVA0	Borovoye Array	133.85	29	*i* PKIKP	PKPdf	18 16 38.4	-2.5
BVA0				pmax	pmax		
	comp=Z,6.0nm,1.7s						
WRA	Warramunga Arr	134.54	219	PKhKP		18 16 24.3	
	comp=Z,0.4nm,0.7s,baz=133,slow=2.8,SNR=5.9						
WRA				PKP	PKPdf	18 16 39.6	-3.5
	comp=Z,5.4nm,0.7s,baz=137,slow=1.8,SNR=50						
WRA				SKPbc		18 20 06.4	
	comp=Z,3.4nm,1.2s,baz=140,slow=3.3,SNR=5.0						
WRAB	Tennant Creek	134.54	219	*e*PKIKP	PKPdf	18 16 39.5	-3.6
WRAB				MLR	MLR		
	comp=Z,453nm,20.0s,MS5.2						
YSS	Yuzh-Sakhalins	136.80	323	PFAKE		18 16 50.0	+3.5
YSS				LR	LR		
	comp=Z,989nm,20.0s,MS5.5						
NVS	Novosibirsk	137.61	19	*i* PKIKP	PKPdf	18 16 44.0	-3.8
NVS				pmax	pmax		
	comp=Z,211nm,2.8s						
NVS				pmax	pmax		
	comp=N,1.0nm,0.5s						
NVS				pmax	pmax		
	comp=E,11nm,1.5s						
BOD	Bodaibo	138.00	354	*e*PKHKP		18 16 34.7	
ZAL	Zalesovo	138.87	19	PKP	PKPdf	18 16 47.2	-2.9
	comp=E,12nm,1.0s,baz=183,slow=2.3,SNR=55						
MBWA	Marble Bar	140.51	200	*e*PKPdf	PKPdf	18 16 50.0	-4.1
MBWA				LR	LR		
	comp=Z,825nm,20.0s,MS5.5						
FITZ	Fitzroy Crossi	140.81	210	PKhKP		18 16 44.1	
	comp=Z,17nm,1.1s,baz=292,slow=2.7,SNR=6.8						
FITZ				PKP	PKPdf	18 16 50.9	-3.8
	comp=Z,11nm,1.0s,baz=148,slow=1.2,SNR=6.6						
KLR	Kul’dur	140.93	333	*e*PKIKP	PKPdf	18 16 47.8	-6.2
AAK	Ala-Archa	142.35	39	*i* PKIKP	PKPdf	18 16 54.1	-2.5
AAK	Ala-Archa	142.35	39	*e*PKPpre		18 16 47.8	
AAK				*i* PKP	PKPdf	18 16 54.2	-2.4
AAK				LR	LR		
	comp=Z,287nm,20.0s,MS5.0						
MKAR	Makanchi Array	143.70	28	*i* PKIKP	PKPdf	18 16 52.8	-6.0
MKAR				pmax	pmax		
	comp=Z,26nm,1.0s						
IRK	Irkutsk	144.00	2	*e*PKIKP	PKPdf	18 16 54.0	-5.1
MOY	Mondy	144.38	5	*e*PKIKP	PKPdf	18 16 56.1	-3.7
TLY	Talaya	144.54	2	*e*PKIKP	PKPdf	18 16 56.7	-3.4
TLY				*e*		18 17 05.6	
TLY				MLR	MLR		
	comp=Z,227nm,21.0s,MS4.9						
MAJO	Matsushiro	144.96	312	*e*PKIKP	PKPdf	18 16 57.1	-4.3
MAJO				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.9						
MAT	Matsushiro	144.96	312	PKP	PKPdf	18 17 01.7	+0.3
MAT	Matsushiro	144.96	312	*e*PKIKP	PKPdf	18 16 57.0	-4.4
MAT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.9						
HIA	Hailar	145.15	344	*e*PKIKP	PKPdf	18 16 57.2	-4.1
HIA				*e*		18 17 05.2	
MDJ	Mudanjiang	145.35	330	PKP	PKPdf	18 16 58.3	-3.5
MDJ				XPKP		18 17 06.9	
MDJ				SKS	SKS	18 23 59.9	-10
MDJ				SS	SS	18 39 03.4	-3.5
MDJ				PP	PP		
	comp=Z,575nm,17.7s						
MDJ				LR	LR		
	comp=N,546nm,32.0s,MS5.2						
MDJ				LR	LR		
	comp=E,388nm,30.7s,MS5.2						
MDJ				LR	LR		
	comp=Z,570nm,33.4s,MS5.1						
MDJ	Mudanjiang	145.35	330	*e*PKPdf	PKPdf	18 16 57.0	-4.8
MDJ				*e*pPKPdf		18 17 06.9	
ZAK	Zakamensk	145.82	3	⇓*i*PKP2	PKPab	18 16 59.3	-1.2
ZAK				*e*		18 20 18.6	
CN2	Changchun	147.88	333	*e*PKP	PKPdf	18 17 02.0	-4.0
CN2				*e*APKP		18 17 11.9	
CN2				PP	PP	18 20 36.8	+1.0
CN2				*e*SS	SS	18 39 36.0	+0.2
CN2				PP	PP		
	comp=Z,400nm,11.0s						
CN2				LR	LR		
	comp=N,1µm,20.0s,MS5.8						
CN2				LR	LR		
	comp=E,800nm,20.0s,MS5.8						
CN2				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
THN	Thein Dam	148.19	54	*e*PKP	PKPdf	18 17 04.1	-2.8
BOM	Bombay	148.30	80	*e*PKP	PKPdf	18 17 04.7	-2.7
DLH	Dalhousie	148.34	54	*e*	PKPdf	18 17 08.0	+0.9
WMQ	Urumqi	148.38	26	*e*PKP	PKPdf	18 17 04.5	-2.3
ULN	Ulaanbaatar	148.40	359	*e*PKIKP	PKPdf	18 17 04.1	-2.6
ULN				*e*		18 17 08.0	
SONM	Songino Array	148.44	359	PKPbc	PKPdf	18 17 07.6	+0.8
	comp=Z,26nm,0.7s,baz=331,slow=2.3,SNR=112						
GOA	Goa	149.09	87	*e*	PKPdf	18 17 15.2	+6.4
BHK	Bhakra	149.13	55	*e*	PKPdf	18 17 14.3	+5.9
AJM	Ajmer	149.15	65	⇑*i*PKP	PKPdf	18 17 05.0	-3.6
AJM				*e*P		18 17 05.4	
POO	Poona	149.28	81	⇑*i*PKP	PKPdf	18 17 04.0	-5.0
	comp=Z,140nm,1.0s						
POO				*e*P		18 17 09.5	
SDNR	Sundarnagar	149.53	55	*e*PKP	PKPdf	18 17 07.2	-1.9
	comp=Z,87nm,0.6s						
KAD	Karad	149.56	83	*e*PKP	PKPdf	18 17 06.0	-3.5
KAD				*e*P		18 17 10.1	
MNGI	Mangalore	149.70	92	*e*PKP	PKPdf	18 17 07.1	-2.6
SMLA	Simla	149.83	55	*e*	PKPdf	18 17 25.0	+15
COCO	West Island	150.40	162	PFAKE		18 17 20.0	+9.2
COCO				LR	LR		
	comp=Z,267nm,19.0s,MS5.1						
TRD	Trivandrum	150.68	102	*e*PKP	PKPdf	18 17 10.1	-1.2
NDI	New Delhi	150.74	60	*e*PKP	PKPdf	18 17 08.0	-3.0
DDI	Dehra Dun	150.85	56	*e*PKP	PKPdf	18 17 07.5	-3.6
DDI				*e*		18 20 49.8	
KS15	Wonju Array Si	151.31	322	*e*PKPdf	PKPdf	18 17 08.8	-2.8
KS15				*e*PKPbc	PKPdf	18 17 15.4	+3.9
KS15				*e*PKPab	PKPab	18 17 23.9	+0.8
KOD	Kodaikanal	151.65	98	*e*PKP	PKPdf	18 17 10.6	-2.2
LATR	Latur	151.85	81	*e*PKPb		18 17 16.0	
INCN	Inchon	152.01	323	*e*PKPdf	PKPdf	18 17 09.1	-3.5
INCN				*e*PKPab	PKPab	18 17 25.6	-0.4
AKL	Akola	152.19	76	⇑*i*PKP	PKPdf	18 17 08.0	-5.4
	comp=Z,39nm,1.7s						
AKL				*i*		18 17 17.9	
BHPL	Bhopal	152.26	71	*e*PKP	PKPdf	18 17 10.0	-3.4
PTH	Pithoragarh	152.88	56	*e*PKP	PKPdf	18 17 09.4	-4.7
LGTI	Lohaghat	152.94	56	*e*	PKPdf	18 17 19.0	+4.8
HYB	Hyderabad	153.73	83	*e*PKIKP	PKPdf	18 17 12.5	-3.1
HYB	Hyderabad	153.73	83	*i* PKP	PKPdf	18 17 12.5	-3.1
HYB				⇑*e*PKPB		18 17 20.0	
HYB				*e*		18 17 28.0	
HYB				*e*PKPAB	PKPab	18 17 34.0	+0.1
HYB				*e*		18 20 34.0	
HYB				*e*		18 21 03.0	
HYB				*e*PP	PP	18 21 20.0	+10
NGP	Nagpur	154.04	75	*e*PKP	PKPdf	18 17 12.5	-3.4
BJI	Beijing	154.62	341	PKP	PKPdf	18 17 13.0	-3.1
BJI				LR	LR		
	comp=N,633nm,22.2s,MS5.5						
BJI				LR	LR		
	comp=E,544nm,25.3s,MS5.5						
BJI				LR	LR		
	comp=Z,970nm,24.8s,MS5.5						
BJT	Baijiatuau	154.65	341	*e*PKIKP	PKPdf	18 17 13.7	-2.5
BJT				*e*		18 17 22.0	
HHC	Hu-ho-hao-te	154.95	350	*e*PKP	PKPdf	18 17 14.6	-1.9
HHC				APKP		18 17 23.4	
HHC				PKS	PKS	18 20 47.4	+2.5
HHC				SKS	SKS	18 24 14.8	-7.1
HHC				PP	PP		
	comp=Z,566nm,14.9s						
HHC				LR	LR		
	comp=N,703nm,19.6s						
HHC				LR	LR		
	comp=E,574nm,27.0s						
HHC				LR	LR		
	comp=Z,1µm,22.2s,MS5.6						
BTO	Baotou	155.41	353	*e*PKP	PKPdf	18 17 15.4	-1.7
GTA	Gaotai	156.24	12	*e*PKP	PKPdf	18 17 16.5	-1.8
GTA				APKP		18 17 25.0	
GTA				XPKP		18 17 28.6	
GTA				PKP2	PKPab	18 17 47.3	+3.4
GTA				PKS	PKS	18 20 49.0	+2.5
GTA				PP	PP	18 21 27.1	+4.3
GTA				SKS	SKS	18 24 16.6	-6.7
GTA				PPP	PPP	18 25 02.8	+3.5
GTA				SKKS		18 28 10.1	
GTA				SS	SS	18 41 10.8	+3.1
GTA				PP	PP		
	comp=Z,583nm,8.0s						
GTA				LR	LR		
	comp=N,748nm,22.4s,MS5.6						
GTA				LR	LR		
	comp=E,534nm,20.5s,MS5.6						
GTA				LR	LR		
	comp=Z,1µm,21.7s,MS5.7						
KOLN	Koldanda	156.31	57	*e*P	PKPdf	18 17 15.3	-3.4
	comp=Z,68nm,1.8s						
BLSP	Bilaspur	156.74	72	*e*	PKPab	18 17 45.4	-1.2
GKN	Gorkha	157.04	56	*e*P	PKPdf	18 17 16.6	-3.2
	comp=Z,72nm,1.5s						
DMN	Daman	157.59	56	*e*P	PKPdf	18 17 17.3	-3.2
KKN	Kakani	157.65	55	*e*P	PKPdf	18 17 17.3	-3.3
	comp=Z,112nm,1.9s						
PKI	Pulchoki	157.85	56	*e*P	PKPdf	18 17 17.3	-3.5
	comp=Z,91nm,1.7s						
GUN	Gumba	158.06	54	*e*P	PKPdf	18 17 17.8	-3.3
	comp=Z,186nm,2.0s						
VIS	Vishakhapatnam	158.29	83	*e*PKP	PKPdf	18 17 16.5	-5.1
VIS				*e*		18 17 16.5	
SSE	Sheshan	159.67	320	*e*PKP	PKPdf	18 17 19.0	-3.9
SSE				PP	PP	18 21 43.1	+1.9
SSE				SS	SS	18 41 49.5	+5.2
SSE				PP	PP		
	comp=Z,140nm,5.2s						
SSE				LR	LR		
	comp=N,457nm,23.3s,MS5.3						
SSE				LR	LR		
	comp=E,232nm,23.3s,MS5.3						
SSE				LR	LR		
	comp=Z,576nm,20.1s,MS5.4						
LZH	Lanzhou	160.09	5	⇑PKP	PKPdf	18 17 20.5	-2.6
LZH				APKP		18 17 30.4	
LZH				XPKP		18 17 34.5	
LZH				*e*PP	PP	18 21 45.0	+1.7
LZH				SKKS		18 28 28.3	
LZH				SS	SS	18 41 48.5	+0.2
LZH				PP	PP		
	comp=Z,236nm,8.2s						
LZH				LR	LR		
	comp=N,715nm,18.0s						
LZH				LR	LR		
	comp=Z,797nm,20.0s						
NJ2	Nanjing	160.34	326	*e*PKP	PKPdf	18 17 19.4	-4.1
NJ2				APKP		18 17 30.4	
NJ2				XPKP		18 17 33.6	
NJ2				PKP2	PKPab	18 18 02.4	+0.7
NJ2				PKS	PKS	18 20 53.0	+2.0
NJ2				PP	PP	18 21 45.0	+0.1
NJ2				SKS	SKS	18 24 20.0	-7.6
NJ2				PP	PP		
	comp=Z,490nm,6.6s						
NJ2				LR	LR		
	comp=N,390nm,17.9s						
NJ2				LR	LR		
	comp=E,280nm,18.0s						
LSA	Lhasa	160.87	43	PKP	PKPdf	18 17 23.0	-1.1
XAN	Xi’an	162.02	352	PKP	PKPdf	18 17 23.0	-2.1
TATO	Taipei	163.05	304	PFAKE		18 17 30.0	+3.6
TATO				LR	LR		
	comp=Z,1µm,22.0s						
WHN	Wuhan	163.78	333	*e*PKP	PKPdf	18 17 24.6	-2.4
SHL	Shillong	163.88	52	*e*PKP	PKPdf	18 17 25.0	-2.2
SHL				*e*		18 18 17.0	
SHL				*e*		18 22 03.5	
CD2	Chengdu	165.20	7	PKP	PKPdf	18 17 26.6	-1.8
CD2				PKP2	PKPab	18 18 23.6	+0.7
CD2				SKS	SKS	18 24 24.9	-6.4
CD2				PP	PP		
	comp=Z,760nm,13.2s						
CD2				LR	LR		
	comp=E,800nm,19.2s						
CD2				LR	LR		
	comp=Z,2µm,21.6s						
ENH	Enshi	165.61	348	*e*PKPdf	PKPdf	18 17 25.8	-3.0
ENH				*e*pPKPdf		18 17 34.3	
ENH				*e*PKPab	PKPab	18 18 23.8	-0.9
ENH				*e*pPKPab		18 18 32.3	
GYA	Guiyang	169.76	356	PKP	PKPdf	18 17 29.4	-2.2
GYA				APKP		18 17 38.6	
GYA				PKP2	PKPab	18 18 38.9	-4.1
GYA				PP	PP	18 22 32.4	-1.4
GYA				PP	PP		
	comp=Z,530nm,8.1s						
GYA				LR	LR		
	comp=N,600nm,23.1s						
GYA				LR	LR		
	comp=E,410nm,20.7s						
GYA				LR	LR		
	comp=Z,960nm,21.3s						
KMI	Kunming	170.61	18	*e*PKP	PKPdf	18 17 24.0	-8.1
CHG	Chiang Mai	172.81	68	⇓P	PKPdf	18 17 28.7	-4.8
	comp=Z,16nm,1.5s						
CM31	Chiang Mai Arr	172.92	70	PFAKE		18 17 40.0	+6.4
CM31				LR	LR		
	comp=Z,1µm,20.0s						
CMAR	Chiang Mai Arr	172.92	70	PKP	PKPdf	18 17 30.4	-3.1
	comp=Z,2.2nm,0.9s,baz=283,slow=1.6,SNR=20						
CMAR				PKPab	PKPab	18 18 57.2	+0.1
	comp=Z,6.0nm,0.8s,baz=281,slow=5.8,SNR=23						
CMAR				PP	PP	18 22 48.0	-1.8
	comp=Z,1.9nm,1.0s,baz=280,slow=6.2,SNR=4.7						
CHRT	Chiangrai	173.07	57	⇑P	PKPdf	18 17 31.0	-2.6
NANT	Nan	174.34	62	P	PKPdf	18 17 29.0	-5.0

IDC ***18*** *18:14:20.6±3.4, 40.16N×141.45E, h61^{km}±30^{km}, mb3.6/9, mb1 3.8/10, mb1mx3.6/24, ML3.6/1, Error ellipse: s-maj=26.2km s-min=17.2km az=117.0*

MOS ***18*** *18:14:22.7±1.3, 40.51N×141.13E, h86^{km}, mb4.1/5, Error ellipse: s-maj=22.4km s-min=9.6km az=74.0*

JMA ***18*** *18:14:22.4, 40.24N×141.65E, h77^{km}±1^{km}, M3.8*

JMA Felt III J1.

NEIC ***18*** *18:14:26.2±1.1, 40.20N×141.38E, h112^{km}±11^{km}, mb4.0/10, Error ellipse: s-maj=11.2km s-min=10.0km az=99.0*

NEIC Recorded [2 JMA] in Aomori and Iwate Prefectures.

ISC 18 18:14:21.9±0.3**, 40.24N**±0.03×**141.60E**±0.06**, h81**^{km}±3^{km}**, n44,** σ**0**^{s}**97**/57**, mb3.9**/18**, 6C-3D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JANG	Nango	0.15	333	⇑P	P	18 14 33.6	0.0
JANG				S	S	18 14 41.9	-0.5
JKZ	Kuzumaki	0.33	220	⇑P	P	18 14 35.0	+0.4
JKZ				*e*S	S	18 14 43.9	-0.2
JTH	Tanohata	0.36	146	⇓P	P	18 14 34.7	0.0
JTH				*e*S	S	18 14 43.9	-0.5
JTM	Tenmabayashi	0.68	323	⇑P	P	18 14 37.5	-0.2
JTM				*e*S	S	18 14 49.1	-0.3
JAH	Hinai	0.74	266	⇑P	P	18 14 38.4	+0.1
JAH				*e*S	S	18 14 50.5	0.0
JOM	Ohasama	0.80	198	⇑P	P	18 14 39.1	+0.1
JOM				*e*S	S	18 14 51.6	-0.1
JOT	Ohata	1.22	340	P	P	18 14 44.1	+0.2
JOT				*e*S	S	18 15 00.6	+0.1
JIW	Iwasaki	1.27	287	⇑P	P	18 14 45.3	+0.7
JIW				*e*S	S	18 15 02.9	+1.2
JMK	Ichinoseki	1.32	193	⇓P	P	18 14 45.4	0.0
JMK				*e*S	S	18 15 02.6	-0.3
JYK	Kaneyama	1.63	216	⇓P	P	18 14 49.9	+0.4
ASAJ	Asahikawa	3.94	10	P	P	18 15 21.2	-0.2
	3.3nm,0.3s,baz=18,slow=19,SNR=13						
ASAJ				S	S	18 16 05.9	-0.8
	3.0nm,0.3s,baz=354,slow=30,SNR=5.1						
ASAJ	Asahikawa	3.94	10	P	P	18 15 21.3	-0.1
ASAJ				S	S	18 16 05.9	-0.8
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
MAJO	Matsushiro	4.55	217	*e*P	P	18 15 30.9	+1.0
MAT	Matsushiro	4.55	217	P	P	18 15 30.5	+0.6
MAT				*e*S	S	18 16 21.3	-0.7
MAT	Matsushiro	4.55	217	*e*P	P	18 15 31.0	+1.1
MAT				S	S	18 16 21.0	-1.0
YSS	Yuzh-Sakhalins	6.76	7	P	P	18 15 56.2	-4.2
MDJ	Mudanjiang	9.90	300	*e*Pn	P	18 16 44.1	+1.0
BJT	Baijiatuau	19.44	278	P	P	18 18 41.1	-3.1
BJT				pmax	pmax		
	comp=Z,12nm,1.0s						
BJT	Baijiatuau	19.44	278	P	P	18 18 41.1	-3.1
	comp=Z,12nm,1.0s						
TATO	Taipei	22.70	234	P	P	18 19 18.8	+1.5
	comp=Z,99nm,1.3s,mb5.0						
ULN	Ulaanbaatar	25.81	299	P	P	18 19 40.2	-6.6
ULN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.0						
ULN	Ulaanbaatar	25.81	299	P	P	18 19 40.2	-6.7
	comp=Z,5.9nm,0.9s,mb4.0						
ZAL	Zalesovo	39.94	310	P	P	18 21 48.1	-1.2

	comp=Z,1.6nm,0.5s,mb4.1,baz=40,slow=7.3,SNR=5.5						
ILAR	Eielson Array	46.73	34	P	P	18 22 43.8	-0.3
	comp=Z,0.6nm,0.6s,mb3.5,baz=270,slow=6.2,SNR=10						
BVAR	Borovoye Array	48.57	310	P	P	18 22 57.3	-1.3
	comp=Z,0.8nm,0.3s,mb4.1,baz=64,slow=10,SNR=13						
AAK	Ala-Archa	49.16	296	P	P	18 23 00.8	-2.4
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
AAK	Ala-Archa	49.16	296	P	P	18 23 00.8	-2.4
	comp=Z,1.7nm,0.8s,mb4.0						
INK	Inuvik	51.48	28	P	P	18 23 20.2	-0.3
	comp=Z,1.6nm,0.7s,mb4.2,baz=272,slow=4.8,SNR=5.8						
WRA	Warramunga Arr	60.25	188	P	P	18 24 21.4	-2.6
	comp=Z,0.7nm,0.5s,mb3.9,baz=5.3,slow=7.1,SNR=14						
YKA	Yellowknife Ar	60.98	31	P	P	18 24 27.3	-1.1
	comp=Z,0.3nm,0.5s,mb3.6,baz=302,slow=6.8,SNR=4.9						
ASAR	Alice Springs	63.98	188	P	P	18 24 47.0	-1.9
	comp=Z,0.7nm,0.8s,mb3.5,baz=3.1,slow=5.0,SNR=6.0						
HLID	Hailey	72.10	48	P	P	18 25 39.6	+0.7
	comp=Z,2.1nm,1.2s,mb3.8						
NVAR	Mina Array Bea	72.97	54	P	P	18 25 45.6	+1.4
	comp=Z,0.5nm,0.6s,mb3.5,baz=291,slow=7.7,SNR=3.2						
BORG	Borgarnes	74.50	352	P	P	18 25 47.6	-4.9
	comp=Z,155nm,1.5s						
TPNV	Topopah Spring	75.16	54	eP	P	18 25 58.2	+1.3
TPNV				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
TPNV	Topopah Spring	75.16	54	eP	P	18 25 58.2	+1.3
	comp=Z,1.8nm,0.6s,mb4.0						
BW06	Boulder Array	75.33	46	eP	P	18 25 57.9	+0.2
	comp=Z,2.0nm,0.9s,mb3.9						
PDAR	Pinedale Array	75.33	46	P	P	18 25 58.1	+0.4
	comp=Z,0.9nm,0.6s,mb3.7,baz=267,slow=2.0,SNR=11						
PV10	Paradox Valley	78.56	49	eP	P	18 26 17.0	+1.2
ISCO	Idaho Springs	79.52	46	P	P	18 26 22.4	+1.3
ISCO				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
ISCO	Idaho Springs	79.52	46	P	P	18 26 22.4	+1.3
	comp=Z,1.0nm,0.6s,mb3.8						
SDCO	Great Sand Dun	81.02	48	P	P	18 26 28.4	-0.7
	comp=Z,1.2nm,0.8s,mb3.8						
SDCO				LR	LR		
	comp=Z,2µm,22.0s						
ANMO	Albuquerque	82.41	50	P	P	18 26 37.8	+1.5
ANMO				pmax	pmax		
	comp=Z,3.0nm,1.2s						
ANMO	Albuquerque	82.41	50	P	P	18 26 37.8	+1.4
	comp=Z,3.4nm,1.2s,mb4.0						

WEL 18 18:32:05.5±0.3,36.09S×179.80E,h290^{km}±7^{km},ML3.7/1, Error ellipse: s-maj=63.0km s-min=33.0km az=90.0,Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MWZ	Matawai	2.88	218	PN	P	18 32 59.6	-0.1
MWZ				eSN	S	18 33 39.3	-2.7
MWZ				eSN	S	18 33 39.7	-2.3
BKZ	Black Stump Fm	4.04	220	PN	P	18 33 12.2	+0.1
MRZ	Mangatainoka R	5.64	215	PN	P	18 33 30.7	0.0
MRZ				SN	S	18 34 37.5	0.0
MRZ				SN	S	18 34 37.7	+0.1
KIW	Kapiti Island	6.11	217	PN	P	18 33 36.1	-0.3
KIW				SN	S	18 34 47.4	-0.4
TUWZ	Tuamarina	7.02	219	PN	P	18 33 46.4	-1.2
TUWZ				SN	S	18 35 06.6	-1.2
NNZ	Nelson	7.17	223	eSN	S	18 35 13.3	+2.3
THZ	Tophouse	7.80	221	PN	P	18 33 56.1	-1.2
THZ				eSN	S	18 35 23.6	-1.5
MQZ	McQueen's Vall	9.38	214	SN	S	18 35 59.8	-0.3

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*NEIC **18** 18:46:33.5,28.65S×71.25W,h45^{km},MD4.0(GUC),After GUC.*

GUC 18 18:46:33.5±0.8,28.65S×71.25W,h45^{km}±9^{km},MD4.0, ML4.0,3C,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VACH	Vallenar	0.43	80	⇑iP	P	18 46 47.9	+4.2
VACH				i S	S	18 46 55.0	+4.2
VACH				AMP		18 46 55.2	
	comp=N,86µm,0.1s						
LSCH	La Serena	1.25	180	⇑iP	P	18 46 55.2	+0.3
LSCH				i S	S	18 47 11.3	+0.5
LSCH				AMP		18 47 13.8	
	comp=N,748nm,0.5s						
CPCH	Copiapo	1.51	32	i P	P	18 46 58.6	-0.1
CPCH				i S	S	18 47 18.2	+0.9
CPCH				AMP		18 47 22.6	
	comp=E,11µm,0.1s						
TLL	Tololo Astrono	1.56	166	eP	P	18 47 00.3	+1.1
TLL				i S	S	18 47 20.3	+1.9
TLL				AMP		18 47 25.3	
	comp=E,624nm,0.7s						
CMCH	Combarbala	2.52	175	⇑iP	P	18 47 12.8	-0.1
CMCH				i S	S	18 47 42.4	-0.2
CMCH				AMP		18 47 59.1	
	comp=N,1µm,0.5s						
LVC	Limon Verde	6.37	20	ePn	P	18 48 01.1	-6.1
LVC				eSn	S	18 49 22.9	+3.3

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*NEIC **18** 18:55:39.3,45.21S×166.95E,h12^{km},ML3.7(WEL),After WEL.*

WEL 18 18:55:36.4±0.3,45.07S×166.82E,h5^{km},ML3.8/4,1D, Error ellipse: s-maj=3.4km s-min=1.0km az=90.0,Off west coast of South Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	0.48	150	PG	Pg	18 55 45.8	-0.2
DCZ				SG	Sg	18 55 52.0	-0.3
MSZ	Milford Sound	0.88	64	P*	Pb	18 55 53.1	-0.7
MSZ				S*	Sb	18 56 05.5	-0.2
MLZ	Mavora Lakes	1.00	107	P	Pb	18 55 54.9	-0.9
MLZ				S	Sb	18 56 07.7	-1.4
MLZ	Mavora Lakes	1.00	107	⇓P*	Pb	18 55 54.9	-0.9
MLZ				S*	Sb	18 56 07.8	-1.2
WKZ	Wanaka	1.58	82	eP	Pn	18 56 05.8	+0.6
WKZ	Wanaka	1.58	82	ePN	Pn	18 56 05.0	-0.2
WKZ				SN	Sn	18 56 28.2	+1.9
JCZ	Jackson Bay	1.71	55	PN	Pn	18 56 08.7	+1.7
JCZ				SN	Sn	18 56 31.8	+2.4
EAZ	Earnscleugh	1.77	96	P	Pn	18 56 08.2	+0.2
EAZ	Earnscleugh	1.77	96	PN	Pn	18 56 08.0	+0.1
EAZ				SN	Sn	18 56 32.6	+1.5
TUZ	Tuapeka	2.17	115	eP	Pn	18 56 13.1	-0.6
TUZ	Tuapeka	2.17	115	ePN	Pn	18 56 12.6	-1.0
TUZ				SN	Sn	18 56 41.3	0.0
LBZ	Lake Benmore	2.49	75	eP	Pn	18 56 18.1	-0.2
LBZ	Lake Benmore	2.49	75	ePN	Pn	18 56 17.4	-0.9
FOZ	Fox Glacier	2.55	55	ePN	Pn	18 56 17.6	-1.5
ODZ	Otahua Downs	2.71	91	eP	Pn	18 56 20.3	-1.1
ODZ	Otahua Downs	2.71	91	PN	Pn	18 56 20.1	-1.3
WVZ	Waitaha Valley	3.45	56	ePN	Pn	18 56 28.5	-3.4

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*JMA **18** 18:55:49.0±0.2,24.91N×121.98E,h37^{km},M2.5*

TAP 18 18:55:47.9,24.75N×121.99E,h10^{km}±1^{km},ML3.1, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.97	107	P	Pb	18 56 07.4	+1.0
YOJ				eS	Sb	18 56 20.7	+1.7
IRIF	Iriomote-Funau	1.64	104	P	Pn	18 56 16.8	-0.2
IRIF				eS	Sn	18 56 38.0	-0.2
HATJ	Hateruma jima	1.79	112	S	Sn	18 56 42.4	+0.2
JKRS	Kuro-shima	1.91	105	P	Pn	18 56 21.1	+0.2
JKRS				eS	Sn	18 56 44.3	-0.8
JIJ	Ishigaki jima	2.00	101	P	Pn	18 56 21.9	-0.2
JIJ				eS	Sn	18 56 45.8	-1.6

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*NEIC **18** 19:07:26.9,46.20N×122.20W,h1^{km},MD3.1(SEA),After SEA.*

*IDC **18** 19:07:29.8±1.4,46.10N×122.58W,mb3.1/1,mb1 3.5/4, mb1mx3.3/20,ML3.0/3,Error ellipse: s-maj=52.2km s-min=15.5km az=82.0*

ISC 18 19:07:26.8±0.4,46.20N±0.03×122.19W±0.05,h4^{km}±4^{km}, n36,σ0^{s}76/36,mb3.1/1,1C-1D,Washington

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HSR	South Ridge	0.02	171	P	Pg	19 07 27.7	0.0
SHW	Mount Saint He	0.03	263	P	Pg	19 07 27.9	+0.1
STD	Studebaker Rid	0.05	330	P	Pg	19 07 28.0	0.0
SOSW	Source of Smit	0.06	37	P	Pg	19 07 28.4	+0.2
CDFW	Cedar Flats	0.13	129	⇑P	Pg	19 07 30.0	+0.5
ERK	Elk Rock	0.15	316	P	Pg	19 07 30.2	+0.3
MTMW	Mount Mitchell	0.17	185	P	Pg	19 07 30.8	+0.4
LVP	Lakeview Peak	0.20	230	P	Pg	19 07 31.2	+0.3
KOSW	Kosmos	0.27	360	P	Pg	19 07 32.4	+0.2
RVW	Rose Valley	0.39	263	P	Pg	19 07 34.7	0.0
ASR	Mount Adams--S	0.42	96	P	Pg	19 07 35.1	-0.1
LMW	Ladd Mountain	0.48	351	⇓P	Pg	19 07 36.8	+0.4
LCW	Lucas Creek	0.59	323	P	Pg	19 07 38.6	-0.1
LON	Longmire	0.61	25	P	Pg	19 07 38.8	-0.3
RCM	Mount Rainier-	0.71	26	P	Pg	19 07 40.9	-0.2
RCS	Mount Rainier-	0.74	25	P	Pg	19 07 41.4	-0.4
BMW	Boistfort Moun	0.77	292	P	Pg	19 07 41.7	-0.6
VLL	Laurance Lake	0.81	154	P	Pg	19 07 42.8	-0.3
FMW	Mount Fremont	0.82	26	P	Pg	19 07 42.7	-0.5
GL2	New Goldendale	0.98	104	P	Pb	19 07 45.7	-0.4
VFP	Flag Point	1.01	150	P	Pb	19 07 45.9	-0.7
CPW	Capitol Peak	1.02	320	P	Pb	19 07 45.9	-0.8
GSM	Grass Mountain	1.04	15	P	Pb	19 07 46.3	-0.8
EBG	Ellensburg	1.33	57	P	Pb	19 07 52.6	+0.7
SSOR	Sweet Springs	1.35	188	P	Pb	19 07 51.7	-0.7
MXC	Moxie City	1.37	73	P	Pb	19 07 53.0	+0.4
COR	Corvallis	1.79	206	eP	Pn	19 07 58.7	-0.1
HAWA	Hanford	1.85	83	eP	Pn	19 07 59.9	+0.2
OCWA	Octopus Mounta	2.07	319	eP	Pn	19 08 03.6	+0.9
PGC	Sidney	2.60	341	eP	Pn	19 08 10.5	+0.1
HUMO	Hull Mountain	3.63	189	ePn	Pn	19 08 22.6	-2.4
BMO	Blue Mountains	3.69	110	Pn	Pn	19 08 26.3	+0.4
YBH	Yreka Blue Hor	4.48	185	Pn	Pn	19 08 39.8	+2.6
	0.3nm,0.3s,baz=33,slow=10.0,SNR=5.2						
NVAR	Mina Array Bea	8.28	158	Pn	P	19 09 35.1	+4.6
	0.1nm,0.3s,baz=342,slow=12,SNR=5.3						
YKA	Yellowknife Ar	16.90	12	Pn	P	19 11 24.5	-0.9
	0.0nm,0.3s,baz=197,slow=11,SNR=6.0						
ILAR	Eielson Array	23.01	333	P	P	19 12 36.0	+2.6
	0.7nm,0.9s,mb3.1,baz=154,slow=7.5,SNR=5.3						

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*SYO **18** 19:18:42.3,17.76S×178.64E,h515^{km},MB4.7*

*IDC **18** 19:18:45.8±0.7,17.89S×178.76E,h551^{km}±8^{km},mb4.1/21, mb1 4.2/22,mb1mx4.2/22,Error ellipse: s-maj=10.8km s-min=8.3km az=145.0*

*NEIC **18** 19:18:45.5±0.1,17.80S×178.65E,mb4.7/49,Error ellipse: s-maj=7.3km s-min=4.1km az=143.0*

*BJI **18** 19:18:45.5,17.80S×178.70E,h549^{km},mb4.4*

ISC 18 19:18:40.4±1.1,17.83S±0.06×178.66E±0.05, h501^{km}±13^{km},h546^{km}±2.2^{km}:pP-P,n169,σ0^{s}88/133, mb4.5/61,6C-3D,Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	9.99	68	eP	P	19 20 58.9	-0.1
	720nm,1.2s						
AFI				eS	S	19 22 46.8	-2.6
DZM	Mont Dzumac	12.24	248	eP	P	19 21 27.1	+4.7
NOUC	Port Laguerre	12.37	248	⇑eP	P	19 21 29.0	+5.2
URZ	Urewera	20.40	183	P	P	19 22 44.4	+1.1
	68nm,0.8s,baz=356,slow=6.7,SNR=20						
URZ				S	S	19 25 56.0	-3.0
	10nm,0.7s,baz=118,slow=22,SNR=7.6						
RAR	Rarotonga	20.61	103	P	P	19 22 46.0	+0.7
	121nm,0.9s,baz=246,slow=6.8,SNR=34						
RAR	Rarotonga	20.61	103	eP	P	19 22 45.6	+0.3
	200nm,1.1s						
BKZ	Black Stump Fm	21.35	185	P	P	19 22 50.8	-1.3
QRZ	Quartz Range	23.52	192	P	P	19 23 12.4	+0.5
NNZ	Nelson	23.75	190	P	P	19 23 13.4	-0.6
NNZ				S	S	19 26 47.4	-6.2
THZ	Tophouse	24.36	190	P	P	19 23 18.5	-1.0
THZ				S	S	19 26 55.1	-8.3
RPZ	Rata Peaks	26.60	192	P	P	19 23 39.4	+0.1
	57nm,1.0s,mb4.9,baz=339,slow=2.0,SNR=12						
FOZ	Fox Glacier	26.76	195	P	P	19 23 39.6	-1.1
LBZ	Lake Benmore	27.42	193	P	P	19 23 44.9	-1.7
MSZ	Milford Sound	28.24	196	P	P	19 23 53.7	0.0
PPT	Papeete	30.25	94	P	P	19 24 10.9	-0.5
	77nm,0.8s,mb5.2,baz=273,slow=1.9,SNR=7.5						
CTA	Charters Tower	30.70	261	eP	P	19 24 16.9	+1.7
	19nm,0.8s,mb4.6						
CTA				epP		19 24 39.3	
CTA	Charters Tower	30.70	261	P	P	19 24 16.9	+1.7
	28nm,0.8s,mb4.8,baz=85,slow=11,SNR=19						
CTAO	Charters Tower	30.70	261	eP	P	19 24 16.7	+1.5
	35nm,0.9s,mb4.8						
PMG	Port Moresby	31.70	281	P	P	19 24 26.8	+3.1
	13nm,0.7s,mb4.5,baz=64,slow=3.3,SNR=6.0						
PMG	Port Moresby	31.70	281	eP	P	19 24 23.9	+0.2
	37nm,1.1s,mb4.7						
TOO	Toolangi	35.08	229	⇑iP	P	19 24 53.9	+2.0
	5.7nm,0.5s,mb4.3						
STKA	Stephens Creek	36.23	240	⇑iP	P	19 25 03.8	+2.2
	11nm,1.0s,mb4.2						
STKA				eS	S	19 30 04.0	-3.0
STKA	Stephens Creek	36.23	240	P	P	19 25 03.9	+2.3
	9.4nm,0.6s,mb4.4,baz=56,slow=7.4,SNR=15						
STKA				pP	pP	19 26 37.1	+5.4
	3.9nm,0.9s,baz=31,slow=12,SNR=2.1						
WRAB	Tennant Creek	41.89	260	eP	P	19 25 47.0	-0.7
	12nm,0.8s,mb4.4						
WRAB				epP	pP	19 27 25.5	+5.1
WRAB				ePP	PP	19 27 42.8	+8.1
WRA	Warramunga Arr	41.90	260	P	P	19 25 47.7	-0.1
	4.9nm,0.6s,mb4.1,baz=96,slow=7.7,SNR=184						
WRA				pP	pP	19 27 26.7	+6.2
	14nm,1.2s,baz=94,slow=8.6,SNR=11						
WRA				S	S	19 31 25.0	-5.0
	1.3nm,0.7s,baz=90,slow=14,SNR=11						
ASAR	Alice Springs	42.12	254	P	P	19 25 50.2	+0.8
	41nm,0.7s,mb5.0,baz=86,slow=8.6,SNR=852						
ASAR				pP	pP	19 27 28.9	+6.7
	14nm,1.0s,baz=84,slow=8.9,SNR=5.2						
ASAR				S	S	19 31 28.7	-4.5
	9.4nm,0.8s,baz=85,slow=15,SNR=42						
ASPA	Alice Springs	42.13	254	⇓iP	P	19 25 50.0	+0.5
ASPA				i PP	PP	19 27 28.9	-8.1
ASPA				eS	S	19 31 28.2	-5.0
KAKA	Kakadu	44.79	270	eP	P	19 26 10.9	+0.3
	20nm,0.4s,mb4.9						
FORT	Forrest	47.52	244	eP	P	19 26 31.0	-0.3
	65nm,0.7s,mb5.1						
FITZ	Fitzroy Crossi	50.28	261	eP	P	19 26 52.1	-0.1
	9.2nm,0.6s,mb4.3						
FITZ				ePP	PP	19 28 34.7	-19
FITZ	Fitzroy Crossi	50.28	261	P	P	19 26 52.9	+0.7
	4.4nm,0.3s,mb4.3,baz=140,slow=3.4,SNR=125						
FITZ				pP	pP	19 28 37.0	+8.1
	24nm,1.1s,baz=108,slow=6.2,SNR=7.1						
MBWA	Marble Bar	55.38	256	eP	P	19 27 27.7	-1.0
	13nm,0.8s,mb4.3						
NWAO	Narrogin (SRO)	56.78	242	eP	P	19 27 36.0	-2.2
	7.0nm,0.7s,mb4.1						
MUN	Mundaring	57.67	243	eP	P	19 27 44.1	-0.2
	6.4nm,1.2s,mb3.8						
VNDA	Vanda	60.31	184	P	P	19 28 01.6	+0.3
	7.4nm,0.8s,mb4.2,baz=352,slow=7.2,SNR=37						
VNDA				S	S	19 35 31.9	-4.5
	0.8nm,0.4s,baz=233,slow=1.4,SNR=15						
VNDA	Vanda	60.31	184	eP	P	19 28 01.5	+0.2
	12nm,1.0s,mb4.3						
SBA	Scott Base	60.34	183	eP	P	19 28 02.7	+1.1
	40nm,0.9s,mb4.8						
CASY	Casey	65.05	204	eP	P	19 28 31.5	-0.5
	36nm,1.0s,mb5.0						
MAJO	Matsushiro	66.21	325	eP	P	19 28 38.7	-1.0
	12nm,1.0s,mb4.5						
FX1	Attu Island--F	70.57	356	eP	P	19 29 04.3	-1.4
QSPA	South Pole Qui	72.23	180	eP	P	19 29 15.3	+0.3
	39nm,0.9s,mb4.9						
SAO	San Andreas Ge	78.33	45	eP	P	19 29 49.5	0.0
	26nm,0.9s,mb4.7						
OHCM	Honcut	79.70	43	eP	P	19 29 55.8	-0.9
WDC	Whiskeytown Da	79.71	41	eP	P	19 29 56.5	-0.1
	18nm,1.1s,mb4.5						
CMB	Columbia Colle	79.72	45	eP	P	19 29 56.6	-0.2
	33nm,0.8s,mb4.9						
YBH	Yreka Blue Hor	80.25	40	P	P	19 30 00.3	+0.9
	17nm,0.8s,mb4.6,baz=198,slow=0.8,SNR=41						
YBH	Yreka Blue Hor	80.25	40	eP	P	19 29 59.7	+0.3
	17nm,0.9s,mb4.6						
MA2	Magadan	80.41	346	eP	P	19 29 55.1	-4.8
	46nm,1.7s,mb4.7						
OMM	Old Mammoth Mi	80.44	46	eP	P	19 30 00.8	+0.3
HUMO	Hull Mountain	80.59	40	eP	P	19 30 01.6	+0.4
	26nm,1.1s,mb4.7						
BEKR	Beckwourth	80.71	43	eP	P	19 30 01.8	-0.2
	28nm,0.9s,mb4.8						
WCN	Washoe City	80.81	44	eP	P	19 30 02.9	+0.5
	32nm,0.9s,mb4.8						
LASM	Arnica Sink	80.88	41	P	P	19 30 03.4	+0.6
NVAR	Mina Array Bea	81.32	45	P	P	19 30 05.5	+0.4
	15nm,0.7s,mb4.6,baz=232,slow=10,SNR=90						
MNV	Mina	81.42	45	eP	P	19 30 05.6	0.0
	19nm,0.8s,mb4.7						
HBO	Huckleberry Mo	81.68	39	P	P	19 30 07.2	+0.4
MOD	Modoc	81.84	41	eP	P	19 30 07.5	-0.1
	28nm,0.9s,mb4.8						
TPH	Tonopah	81.88	46	eP	P	19 30 07.2	-0.7
	28nm,1.0s,mb4.8						
ENH	Enshi	81.93	305	eP	P	19 30 09.2	+0.9
	11nm,1.0s,mb4.3						
TPNV	Topopah Spring	81.99	47	eP	P	19 30 08.6	+0.1
	28nm,1.0s,mb4.7						
SLKM	Skilak Lake	82.00	15	eP	P	19 30 03.9	-4.2
NEN	Nelson	82.37	49	eP	P	19 30 10.8	+0.4
MAW	Mawson	82.98	200	P	P	19 30 13.4	+0.6
	11nm,0.7s,mb4.5,baz=106,slow=7.2,SNR=16						
MAW	Mawson	82.98	200	eP	P	19 30 13.3	+0.5
	47nm,1.3s,mb4.9						
BMN	Battle Mountai	83.06	44	eP	P	19 30 13.9	+0.1
	33nm,1.0s,mb4.8						
CROR	Criterion Ridg	83.11	38	P	P	19 30 14.2	+0.3
TUC	Tucson	83.88	53	eP	P	19 30 18.8	+0.7
	14nm,1.0s,mb4.5						
ELK	Elko	84.53	44	eP	P	19 30 20.9	-0.2
	15nm,1.0s,mb4.6						
PRW	Prosser	84.54	38	P	P	19 30 21.5	+0.5
HAWA	Hanford	84.73	38	eP	P	19 30 21.9	0.0
	28nm,0.9s,mb4.9						
PMSA	Palmer Station	84.97	158	eP	P	19 30 22.4	-0.3
	10nm,1.0s,mb4.4						
MCK	McKinley	85.10	14	eP	P	19 30 21.6	-1.7
	2.6nm,0.8s,mb3.9						
MSU	Marysvale	85.58	47	eP	P	19 30 27.1	+0.8
OD2	Odessa Site #2	85.74	37	P	P	19 30 26.9	+0.1
IMA	Indian Mountai	86.19	11	eP	P	19 30 27.9	-0.6
	79nm,1.8s,mb5.0						
CMAR	Chiang Mai Arr	86.23	291	P	P	19 30 31.1	+1.3
	1.2nm,0.8s,mb3.6,baz=112,slow=3.2,SNR=8.5						
COLA	College	86.33	14	eP	P	19 30 27.4	-1.8
	14nm,0.9s,mb4.6						
HLID	Hailey	86.42	42	eP	P	19 30 30.4	+0.2
	10nm,0.7s,mb4.6						
ILAR	Eielson Array	86.46	14	P	P	19 30 28.5	-1.3
	8.0nm,0.8s,mb4.4,baz=239,slow=5.5,SNR=74						
ILAR				pP	pP	19 32 29.8	+8.4
	1.1nm,1.0s,baz=228,slow=6.5,SNR=3.9						
HVU	Hansel Valley	86.65	44	eP	P	19 30 31.7	+0.4
SPUT	South Promonto	86.66	45	eP	P	19 30 31.4	+0.1
SRU	San Rafael	87.00	47	eP	P	19 30 32.9	0.0
SRU				ePP	PP	19 34 02.6	-3.8
DAU	Daniels Canyon	87.06	46	eP	P	19 30 33.6	+0.4
NEW	Newport	87.11	37	eP	P	19 30 31.8	-1.5
	9.6nm,0.9s,mb4.5						
TCUT	Toone Canyon	87.27	45	eP	P	19 30 34.7	+0.5
HWUT	Hardware Ranch	87.38	45	eP	P	19 30 34.7	0.0
	11nm,0.8s,mb4.7						
LAZ	Ladron	87.52	53	eP	P	19 30 36.1	+0.6
BNM	Barren Site	87.81	53	eP	P	19 30 37.3	+0.4
LPM	Los Pinos Moun	87.87	53	eP	P	19 30 37.1	0.0
PV01	Paradox Valley	87.97	49	eP	P	19 30 37.1	-0.4
MCMT	McKenzie Canyo	88.01	41	eP	P	19 30 38.1	+0.5
AHID	Auburn Hatcher	88.21	44	eP	P	19 30 38.7	+0.2
	9.2nm,0.8s,mb4.6						
ANMO	Albuquerque	88.25	53	P	P	19 30 39.4	+0.5
	8.2nm,0.8s,mb4.5,baz=227,slow=4.9,SNR=24						
ANMO	Albuquerque	88.25	53	eP	P	19 30 38.8	-0.2
	12nm,0.9s,mb4.6						
LTX	Lajitas	88.32	59	eP	P	19 30 39.9	+0.5
	26nm,1.1s,mb4.9						
TXAR	Lajitas Array	88.32	59	P	P	19 30 40.5	+1.1
	10nm,0.8s,mb4.6,baz=225,slow=5.3,SNR=48						
YAK	Yakutsk	88.48	339	eP	P	19 30 39.0	-0.4
	6.5nm,0.8s,mb4.4						
SYO	Syowa Base	88.59	194	⇓P	P	19 30 39.3	-0.5
TPAW	Teton Pass	88.62	43	eP	P	19 30 41.0	+0.5
TPAW				e		19 30 50.4	
REDW	Red Top Meadow	88.63	43	eP	P	19 30 41.0	+0.4
CHMT	Chamberlain Mo	88.73	40	eP	P	19 30 40.6	-0.3
SNOW	Snow King Moun	88.74	43	eP	P	19 30 41.7	+0.6
IMW	Indian Meadow	88.81	43	eP	P	19 30 41.9	+0.6
GDL2	Guadalupe Moun	88.82	56	eP	P	19 30 42.2	+0.5
MOOW	Moose Ponds	88.87	43	eP	P	19 30 41.7	0.0
LOHW	Long Hollow	88.91	43	eP	P	19 30 41.6	-0.2
QLMT	Earthquake Lak	88.91	42	eP	P	19 30 42.5	+0.7
YMR	Madison River	89.14	42	eP	P	19 30 43.8	+0.9
CLNB	Carlsbad	89.22	56	eP	P	19 30 43.3	-0.3
PDAR	Pinedale Array	89.23	44	P	P	19 30 43.2	-0.1
	5.0nm,0.8s,mb4.4,baz=215,slow=3.0,SNR=34						
PDAR				PP	PP	19 34 22.2	-1.7
	1.1nm,0.9s,baz=252,slow=4.7,SNR=5.7						
HRY	Holter Researc	89.50	40	eP	P	19 30 44.0	-0.5
CPRX	Cap Rock	89.52	55	eP	P	19 30 44.3	-0.6
SDCO	Great Sand Dun	90.04	50	eP	P	19 30 47.0	-0.3
	17nm,1.2s,mb4.8						
SNAA	Sanae	90.72	180	⇑i	P	19 30 48.6	-0.9
SNAA	Sanae	90.72	180	P	P	19 30 48.7	-0.9
	2.9nm,0.7s,mb4.3,baz=220,slow=7.2,SNR=35						
VNA3	Neumayer Olymp	90.97	177	⇑i	P	19 30 52.2	+1.5
ULN	Ulaanbaatar	91.29	320	eP	P	19 30 49.9	-2.8
	1.0nm,0.7s,mb3.9						
VNA2	Neumayer--Watz	91.38	178	⇑i	P	19 30 54.5	+1.9
VNA1	Neumayer--Stat	91.62	178	⇑i	P	19 30 55.3	+1.6
SONM	Songino Array	91.68	320	P	P	19 30 54.5	+0.1
	0.2nm,0.5s,mb3.3,baz=134,slow=3.6,SNR=3.8						
INK	Inuvik	92.56	16	P	P	19 30 56.6	-1.4
	2.4nm,0.8s,mb4.3,baz=232,slow=7.7,SNR=8.0						
WMOK	Wichita Mounta	94.07	55	eP	P	19 31 04.7	-1.1
	1.9nm,0.8s,mb4.2						
YKA	Yellowknife Ar	95.44	25	P	P	19 31 10.5	-0.8
	2.5nm,1.0s,mb4.2,baz=246,slow=4.5,SNR=17						
YKA				PP	PP	19 35 06.6	-4.7
	0.4nm,0.8s,baz=242,slow=7.8,SNR=4.9						
YKA	Yellowknife Ar	95.44	25	P	P	19 31 10.5	-0.8
YKA				PP	PP	19 35 06.6	-4.7
BVAR	Borovoye Array	115.02	321	PKiKP		19 36 23.4	
	0.3nm,0.4s,baz=71,slow=0.9,SNR=4.3						
ARCES	ARCESS Array B	125.71	349	PKP	PKPdf	19 36 44.1	+0.3
	2.6nm,0.8s,baz=39,slow=1.5,SNR=9.7						
FINES	FINESS Array B	132.31	343	PKP	PKPdf	19 36 57.8	+1.2
	3.7nm,1.0s,baz=99,slow=1.5,SNR=7.0						
FINES				SKPab		19 39 32.5	
	1.4nm,0.7s,baz=90,slow=3.8,SNR=5.8						
MBAR	Mbarara	143.50	243	ePKPdf	PKPdf	19 37 17.4	-0.8
OJC	Ojcow	143.51	337	ePKP	PKPdf	19 37 16.8	-0.2
CRVS	Cervenica-Dubn	143.91	334	i PKP	PKPdf	19 37 19.3	+1.6
NIE	Niedzica	143.96	336	ePKP	PKPdf	19 37 19.6	+1.8
KSP	Ksiaz	144.18	341	eP	PKPbc	19 37 19.2	+1.1
UPC	Upice	144.56	341	ePKP	PKPdf	19 37 20.3	+1.4
DPC	Dobruska-Polom	144.60	340	ePKP	PKPdf	19 37 21.0	+2.0
CLL	Collm	144.70	344	⇓iPKIKP	PKPdf	19 37 20.0	+0.9
	logA/T=1.3						
CLL				e		19 37 24.0	
BRG	Berggiesshubel	144.85	343	eP	PKPdf	19 37 21.2	+1.8
VYHS	Vyhne	145.28	336	i PKP	PKPdf	19 37 22.9	+2.7
PRU	Pruhonice	145.47	342	ePKP	PKPdf	19 37 22.6	+2.1
NKC	Novy Kostel	145.83	344	ePKP	PKPdf	19 37 24.2	+3.1
KHC	Kasperske Hory	146.52	342	ePKP	PKPdf	19 37 25.9	+3.7
GRF	Grafenberg Arr	146.64	345	ePKP	PKPdf	19 37 26.1	+3.7
GERES	GERESS Array B	146.74	342	PKPbc	PKPbc	19 37 26.2	+1.5
	2.1nm,0.6s,baz=45,slow=1.9,SNR=9.4						
GIVF	Givet	147.42	353	ePKP1	PKPdf	19 37 28.1	+4.5
	62nm,1.1s						
BAIF	Baives	147.54	353	ePKP1	PKPdf	19 37 28.5	+4.7
	57nm,1.2s						
WLF	Walferdange	147.67	351	ePKPbc	PKPdf	19 37 28.7	+4.6
CDF	Champ du Feu	148.69	349	ePKP1	PKPdf	19 37 31.2	+5.5
	24nm,1.0s						
MEZF	Maizieres J'vi	148.96	352	ePKP1	PKPdf	19 37 32.3	+6.1
	48nm,1.2s						
FLN	La Foliniere	149.13	359	ePKP1	PKPdf	19 37 32.0	+5.6
	39nm,0.9s						
HAU	Haudompre	149.25	350	ePKP1	PKPdf	19 37 32.4	+5.7
	29nm,1.2s						

LDF	La Druitiere	149.30	358	*e*PKP1	PKPdf	19 37 32.3	+5.6
HINF	Hinteralfeld 16nm,1.1s	149.34	349	*e*PKP1	PKPdf	19 37 32.6	+5.8
GRR	Gorron	149.51	359	*e*PKP1	PKPdf	19 37 33.1	+6.0
SGMF	Saint Gilles 22nm,0.8s	149.64	2	*e*PKP1	PKPdf	19 37 32.3	+5.0
QUIF	Quistinic	149.95	2	*e*PKP1	PKPdf	19 37 33.8	+6.0
SSF	Saint Saulge 36nm,0.9s	150.57	353	*e*PKP1	PKPdf	19 37 35.8	+7.1
CABF	La Chapelle 30nm,1.1s	150.65	350	*e*PKP1	PKPdf	19 37 36.3	+7.4
AVF	Avril sur Loir	150.86	353	*e*PKP1	PKPdf	19 37 35.9	+6.7
SMF	Signal de Mont	150.94	353	*e*PKP1	PKPdf	19 37 36.2	+6.9
BGF	Bois d'Agland 17nm,0.9s	151.14	354	*e*PKP1	PKPdf	19 37 36.2	+6.6
MFF	Saint Martin d 43nm,1.0s	151.29	358	*e*PKP1	PKPdf	19 37 37.1	+7.3
TCF	Toulx Ste Croi 58nm,1.3s	151.47	355	*e*PKP1	PKPdf	19 37 37.5	+7.4
LPL	La Plagne	151.58	348	*e*PKP1	PKPdf	19 37 38.6	+8.3
LPG	La Plagne	151.59	348	*e*PKP1	PKPdf	19 37 38.5	+8.2
ORIF	Oris-en-Rattie 6.6nm,0.8s	152.32	349	*e*PKP1	PKPdf	19 37 39.7	+8.4
MBDF	Montbardon	152.33	347	*e*PKP1	PKPdf	19 37 40.3	+9.0
RJF	Les Rejaudoux 18nm,1.0s	152.50	356	*e*PKP1	PKPdf	19 37 39.8	+8.3
VIVF	Saint-Julien-l 5.9nm,0.8s	152.58	351	*e*PKP1	PKPdf	19 37 40.4	+8.7
LFF	La Frestale 16nm,0.9s	152.91	357	*e*PKP1	PKPdf	19 37 40.2	+8.1
ESDC	Sonseca Array 1.4nm,0.7s,baz=352,slow=3.9,SNR=9.4	158.11	5	PKPab	PKPab	19 38 17.1	-1.1

SOF ***18*** *19:32:48.6, 40.69N×27.38E, h10^{km}, MD3.0*
ISK ***18*** *19:32:49.7, 40.67N×27.50E, h14^{km}, MD3.1*
CSEM ***18*** *19:32:49.2±0.1, 40.68N×27.48E, h15^{km}, MD3.1, Error ellipse: s-maj=3.0km s-min=1.7km az=32.0*
ATH ***18*** *19:32:56.5, 40.44N×26.59E, h10^{km}, MD3.4/3*
ISC 18 19:32:48.6±0.5**, 40.70N**±0.03×**27.44E**±0.03**, h8**^{km}±4^{km}**, n32,** σ**0^{s}64**/41**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SART	Tekirdag	0.20	268	*i* P	Pg	19 32 53.6	+0.7
SART				*i* S	Sg	19 32 56.2	+0.6
EDC	Edincik	0.47	137	*i* PG	Pg	19 32 58.6	+0.4
BNT	Bandirma	0.50	133	*i* PG	Pg	19 32 58.8	+0.1
BNT				*i* SG	Sg	19 33 05.5	+0.1
KCT	Karacabey	0.82	121	*i* PG	Pg	19 33 04.7	-0.4
BTOK	Tokmak	1.04	154	*i* P	Pb	19 33 09.0	+0.6
BTOK				*i* S	Sb	19 33 21.8	-0.2
BALB	Balikesir	1.11	162	PG	Pg	19 33 11.0	+0.2
BALB				SG	Sg	19 33 25.7	+0.2
EDRB	Edirne	1.27	336	*e*PN	Pn	19 33 13.9	+1.3
ISK	Istanbul-Kandi	1.28	73	*i* PN	Pn	19 33 13.3	+0.4
ISK				*i* SN	Sn	19 33 30.6	+0.2
ISK	Istanbul-Kandi	1.28	73	*i* Sn	Sn	19 33 30.6	+0.2
BADT	Buyukada	1.28	82	*i* PN	Pn	19 33 12.8	-0.1
ORLT	Orhaneli	1.29	120	*i* PN	Pn	19 33 13.4	+0.5
BOZC	Bozcaada	1.36	232	*i* P	Pb	19 33 13.6	-0.4
BOZC				*i* S	Sb	19 33 31.3	-0.1
ULDT	Uludag	1.41	113	*i* P	Pn	19 33 09.3	-5.4
ULDT				*i* S	Sb	19 33 31.0	-1.8
DST	Dursunbey	1.42	140	PN	Pn	19 33 15.0	+0.2
RDO	Rodhopi	1.51	288	*e*PG	Pg	19 33 16.5	-2.3
HRT	Hereke	1.70	85	*e*PN	Pn	19 33 18.5	-0.3
PRK	Paraskevi	1.70	212	*e*PB	Pb	19 33 19.5	-0.3
KDZ	Kurdzhali	1.80	303	P	Pn	19 33 21.0	+0.7
KDZ				Pg	Pg	19 33 24.0	-0.6
KDZ	Kurdzhali	1.80	303	Pg	Pg	19 33 24.0	-0.6
AKS	Akhisar	1.84	171	*e*PN	Pn	19 33 20.8	0.0
JMB	Yambol	1.88	340	*e*P	Pn	19 33 26.0	+4.5
RZN	Rozhen	2.28	297	P	Pn	19 33 27.0	-0.2
RZN				Pg	Pg	19 33 33.5	-0.7
RZN	Rozhen	2.28	297	Pg	Pg	19 33 33.5	-0.7
BLCB	Balcova	2.33	188	*e*PN	Pn	19 33 28.8	+1.0
PLD	Plovdiv	2.50	305	*e*P	Pn	19 33 30.2	0.0
PRD	Provadia	2.50	359	*e*P	Pn	19 33 31.0	+0.7
ALT	Altintas	2.63	128	*e*PN	Pn	19 33 32.3	+0.2
ESKT	Eskisehir	2.87	113	*e*PN	Pn	19 33 35.0	-0.5
MMB	Musomiste	2.94	289	P	Pn	19 33 36.5	-0.1
PLG	Polygyros	3.06	265	*e*PN	Pn	19 33 38.0	-0.3
KKB	Krupnik	3.48	291	P	Pn	19 33 44.0	-0.3
VTS	Vitosha	3.69	302	P	Pn	19 33 47.2	-0.1

IDC 18 19:37:25.5±1.3**, 11.28N**×**143.01E, mb3.8**/5**, mb1 4.0**/5**, mb1mx3.8**/19**, Error ellipse: s-maj=43.4km s-min=25.4km az=86.0, South of Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr 0.6nm,0.7s,baz=19,slow=9.7,SNR=10.0	32.17	195	P	P	19 43 55.2	-2.3
ASAR	Alice Springs 0.2nm,0.5s,baz=19,slow=10,SNR=6.7	35.85	194	P	P	19 44 27.1	-2.1
CMAR	Chiang Mai Arr 0.8nm,1.0s,baz=84,slow=6.8,SNR=4.9	43.10	285	P	P	19 45 28.6	-0.9
BVAR	Borovoye Array 1.2nm,0.4s,baz=109,slow=8.5,SNR=13	70.62	322	P	P	19 48 42.2	-2.6
NVAR	Mina Array Bea 0.8nm,0.8s,baz=252,slow=5.7,SNR=4.9	89.78	51	P	P	19 50 27.2	-0.3

FUNV 18 20:00:07.7, 6.77N×73.09W, h172^{km}, MD3.6, 1C, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.33	35	⇑*i*P	P	20 00 36.7	-1.1
VIGV	El Vigia	2.67	40	*e*P	P	20 00 51.1	-1.5
VIGV				*e*S	S	20 01 23.1	-4.0
SOCV	Socops	2.68	56	*e*P	P	20 00 51.5	-1.1
VIRV	Villa del Rosa	3.77	10	*e*P	P	20 01 03.8	-2.6
VIRV				*e*S	S	20 01 46.3	-5.3
CURV	Curarigua	4.47	44	*e*P	P	20 01 13.5	-1.8
TEPV	Terepaima	4.99	50	*e*P	P	20 01 20.3	-1.9
SIQV	Siquisique	5.04	40	*e*P	P	20 01 20.6	-2.1
BAUV	El Baul	5.45	66	*e*P	P	20 01 24.8	-3.3
BAUV				*e*S	S	20 02 22.9	-7.5

IDC ***18*** *20:33:36.0±9.0, 19.30S×169.11E, mb3.9/4, mb1 4.2/4, mb1mx4.0/12, Error ellipse: s-maj=253.0km s-min=49.9km az=134.0*
ISC 18 20:33:33.3±3.8**, 20.1S**±0.6×**170.1E**±0.6**, h33**^{km}**, n6,** σ**0^{s}89**/8**, mb3.9**/4**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.92	239	*e*P	P	20 34 32.6	-0.1
DZM				*e*S	S	20 35 19.0	+0.7
NOUC	Port Laguerre	4.05	239	*e*P	P	20 34 34.8	+0.2
NOUC				*e*S	S	20 35 21.3	-0.2
WRA	Warramunga Arr 0.4nm,0.5s,mb3.6,baz=92,slow=8.4,SNR=10	33.53	264	P	P	20 40 10.2	-2.0
ASAR	Alice Springs 3.7nm,0.6s,mb4.5,baz=85,slow=9.1,SNR=66	33.69	257	P	P	20 40 12.8	-0.8
CMAR	Chiang Mai Arr 0.5nm,0.5s,mb3.7,baz=116,slow=3.9,SNR=5.8	79.54	294	P	P	20 45 40.0	+1.0
SONM	Songino Array 0.7nm,0.9s,mb3.9,baz=124,slow=5.2,SNR=5.0	88.34	323	P	P	20 46 23.6	+0.8

JMA ***18*** *20:48:56.4±0.2, 24.92N×121.96E, h75^{km}*
TAP 18 20:48:55.5, 24.71N×121.80E, h80^{km}, ML3.1, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	1.13	102	P	P	20 49 16.0	-0.3
YOJ				*e*S	S	20 49 30.5	-1.5
IRIF	Iriomote-Funau	1.80	102	P	P	20 49 24.5	-0.7
IRIF				*e*S	S	20 49 45.6	-1.5
JKRS	Kuro-shima	2.07	103	P	P	20 49 28.6	-0.2
JKRS				*e*S	S	20 49 52.7	-0.8
JIJ	Ishigaki jima	2.16	99	P	P	20 49 29.6	-0.6
JIJ				*e*S	S	20 49 54.4	-1.5

NEIC ***18*** *20:50:12.0, 38.88S×175.46E, h121^{km}, After WEL.*
WEL 18 20:50:11.9±0.3**, 38.89S**×**175.50E, h122**^{km}±2^{km}**, ML3.7**/6**, 2C-3D, Error ellipse: s-maj=1.6km s-min=1.6km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGZ	Maungaku	0.11	162	P	P	20 50 28.6	-0.1
MGZ	Maungaku	0.11	162	PN	P	20 50 28.4	-0.2
RATZ	Rangitukua	0.22	84	P	P	20 50 28.6	-0.2
RATZ	Rangitukua	0.22	84	PN	P	20 50 28.5	-0.3
WATZ	Wairara	0.26	45	P	P	20 50 29.0	+0.1
WATZ	Wairara	0.26	45	PN	P	20 50 28.9	0.0
NGZ	Ngauruhoe	0.29	164	PN	P	20 50 29.0	0.0
CNZ	Chateau	0.31	172	PN	P	20 50 29.1	0.0
FWVZ	Far West T-bar	0.36	173	P	P	20 50 29.5	+0.1
FWVZ	Far West T-bar	0.36	173	⇑PN	P	20 50 29.5	+0.1
DRZ	Dome Shelter	0.39	172	PN	P	20 50 29.6	+0.1
TUVZ	Tukino	0.40	162	P	P	20 50 29.7	+0.2
TUVZ	Tukino	0.40	162	PN	P	20 50 29.7	+0.1
WNVZ	Wahianoa	0.44	170	P	P	20 50 29.9	+0.1
VRZ	Vera Road	0.62	248	P	P	20 50 30.5	-0.4
VRZ	Vera Road	0.62	248	⇓PN	P	20 50 30.5	-0.4
VRZ				SN	S	20 50 44.7	-0.7
HIZ	Hauiti	0.63	307	*e*P	P	20 50 30.4	-0.5
HIZ	Hauiti	0.63	307	⇑PN	P	20 50 30.4	-0.5
HIZ				SN	S	20 50 44.5	-1.0
BKZ	Black Stump Fm	0.82	110	P	P	20 50 32.4	-0.2
BKZ	Black Stump Fm	0.82	110	⇓PN	P	20 50 32.4	-0.2
BKZ				SN	S	20 50 47.5	-0.7
WAZ	Wanganui	0.95	204	*e*P	P	20 50 33.7	-0.1
WAZ	Wanganui	0.95	204	PN	P	20 50 33.7	-0.1
WAZ				SN	S	20 50 50.3	+0.1
TSZ	Takapari Road	1.22	163	P	P	20 50 36.7	0.0
TSZ	Takapari Road	1.22	163	PN	P	20 50 36.6	0.0
TSZ				SN	S	20 50 54.1	-1.1
MWZ	Matawai	1.69	71	*e*P	P	20 50 42.6	+0.6
MWZ	Matawai	1.69	71	PN	P	20 50 42.3	+0.3
MWZ				SN	S	20 51 04.4	-0.4
KNZ	Kokohu	1.70	95	PN	P	20 50 42.1	-0.1
KNZ				SN	S	20 51 03.5	-1.7
MRZ	Mangatainoka R	1.77	178	P	P	20 50 42.0	-1.0
MRZ				S	S	20 51 03.0	-3.6
MRZ	Mangatainoka R	1.77	178	⇓PN	P	20 50 42.0	-1.0
MRZ				SN	S	20 51 03.2	-3.4
BFZ	Birch Farm	1.88	162	PN	P	20 50 43.6	-0.7
BFZ				*e*SN	S	20 51 05.2	-3.7
KIW	Kapiti Island	2.02	193	P	P	20 50 44.7	-1.4
KIW	Kapiti Island	2.02	193	PN	P	20 50 44.6	-1.4
KIW				SN	S	20 51 08.9	-3.1
CAW	Cannon Point	2.24	188	P	P	20 50 47.2	-1.8
CAW	Cannon Point	2.24	188	PN	P	20 50 47.2	-1.8
CAW				SN	S	20 51 15.2	-1.8
MTW	Mount Morrison	2.26	180	P	P	20 50 47.4	-1.9
MTW	Mount Morrison	2.26	180	PN	P	20 50 47.4	-1.9
MRW	Makara Radio	2.41	194	P	P	20 50 49.1	-2.2
MRW	Makara Radio	2.41	194	PN	P	20 50 48.9	-2.4
MRW				SN	S	20 51 17.3	-3.8
TUWZ	Tuamarina	2.80	205	PN	P	20 50 53.5	-2.9
NNZ	Nelson	2.83	214	*e*P	P	20 50 54.4	-2.5
NNZ	Nelson	2.83	214	PN	P	20 50 54.4	-2.5
NNZ				SN	S	20 51 27.4	-3.6
QRZ	Quartz Range	2.99	229	*e*P	P	20 50 56.2	-2.8
QRZ	Quartz Range	2.99	229	PN	P	20 50 56.2	-2.7
QRZ				SN	S	20 51 30.1	-4.6
THZ	Tophouse	3.48	214	*e*P	P	20 51 02.9	-2.7
THZ	Tophouse	3.48	214	PN	P	20 51 02.6	-3.0
THZ				SN	S	20 51 42.0	-4.5
KHZ	Kahutara	3.82	202	P	P	20 51 06.5	-3.6
KHZ	Kahutara	3.82	202	PN	P	20 51 06.4	-3.8
LTZ	Lake Taylor	4.59	211	PN	P	20 51 17.4	-3.1
LTZ				SN	S	20 52 05.9	-7.3
MQZ	McQueen's Vall	5.26	203	SN	S	20 52 18.8	-11

NDI ***18*** *20:50:58.1±3.2, 32.53N×84.48E, h10^{km}, MD3.7*
IDC ***18*** *20:51:06.5±1.9, 30.61N×83.62E, mb3.6/4, mb1 3.7/5, mb1mx3.5/19, ML3.3/1, Error ellipse: s-maj=57.9km s-min=25.7km az=62.0*
ISC 18 20:51:07.2±0.7**, 30.6N**±0.1×**83.85E**±0.08**, h10**^{km}**, n10,** σ**1^{s}46**/11**, mb3.5**/4**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTH	Pithoragarh	3.33	252	*e*P	Pb	20 52 07.0	+1.0
PTH				*e*		20 52 51.8	
LGTI	Lohaghat	3.34	250	*e*P	Pg	20 52 10.3	-3.6
LGTI				*e*S	Sg	20 53 05.7	+7.3
DDI	Dehra Dun	5.01	268	*e*P	Pn	20 52 27.2	+2.9
SDNR	Sundarnagar	5.97	280	*e*	Pg	20 53 04.6	-1.7
SHL	Shillong	8.70	123	*e*P	P	20 53 14.5	-1.6
CMAR	Chiang Mai Arr 0.0nm,0.3s,baz=309,slow=11,SNR=5.5	18.29	128	P	P	20 55 23.9	+1.0
ZAL	Zalesovo 0.8nm,0.4s,mb3.5,baz=288,slow=10,SNR=6.4	23.30	1	P	P	20 56 16.4	+0.5
SONM	Songino Array 0.4nm,0.6s,mb3.0,baz=230,slow=9.6,SNR=5.1	24.36	39	P	P	20 56 27.5	+1.3
FINES	FINESS Array B 1.7nm,0.8s,mb4.1,baz=127,slow=6.9,SNR=3.4	48.28	327	P	P	20 59 48.3	-1.8
WRA	Warramunga Arr 0.3nm,0.5s,mb3.5,baz=326,slow=6.6,SNR=5.3	69.88	129	P	P	21 02 20.2	-0.3

NEIC ***18*** *21:17:07.6±2.4, 23.52S×179.09E, h554^{km}±26^{km}, mb4.3/12, Error ellipse: s-maj=15.6km s-min=11.0km az=70.0*
IDC ***18*** *21:17:09.4±2.2, 23.58S×178.99E, h570^{km}±24^{km}, mb3.5/10, mb1 3.7/11, mb1mx3.6/16, Error ellipse: s-maj=17.8km s-min=13.4km az=9.0*
ISC 18 21:17:00.8±1.7**, 23.51S**±0.07×**179.23E**±0.09**, h485**^{km}±21^{km}**, n49,** σ**1^{s}05**/37**, mb4.2**/19**, 3C-5D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	12.79	43	*e*P	P	21 19 48.1	-0.8
URZ	Urewera 11nm,0.3s,baz=347,slow=2.0,SNR=43	14.81	187	P	P	21 20 09.9	+0.2
URZ	 1.1nm,0.3s,baz=216,slow=23,SNR=7.8			S	S	21 22 41.3	-1.1
RPZ	Rata Peaks 27nm,1.0s,mb4.7,baz=180,slow=22,SNR=3.2	21.25	197	P	P	21 21 13.8	+1.5
ARMA	Armidale	25.50	248	*e*P	P	21 21 53.4	+2.4
CTA	Charters Tower 9.7nm,0.3s,mb4.7	30.77	270	⇓*i*P	P	21 22 38.4	+1.3
CTAO	Charters Tower 18nm,0.4s,mb4.8	30.77	270	*e*P	P	21 22 38.3	+1.2
PMG	Port Moresby 17nm,0.6s,mb4.6,baz=106,slow=4.8,SNR=8.5	33.70	289	P	P	21 23 01.6	-0.2
PMG	Port Moresby	33.70	289	P	P	21 23 01.6	-0.3
STKA	Stephens Creek 4.7nm,0.5s,mb4.2	34.21	248	*e*P	P	21 23 07.0	+1.0
STKA	Stephens Creek 6.3nm,0.5s,mb4.3,baz=95,slow=9.8,SNR=21	34.21	248	P	P	21 23 07.1	+1.0
STKA	 1.5nm,0.4s,baz=281,slow=18,SNR=4.5			PcP	PcP	21 25 28.5	-1.4
STKA	Stephens Creek	34.21	248	*e*P	P	21 23 06.8	+0.8
ASAR	Alice Springs 9.7nm,0.8s,mb4.3,baz=90,slow=6.9,SNR=66	41.40	260	P	P	21 24 05.4	+0.3
ASAR	 1.1nm,0.7s,baz=92,slow=3.9,SNR=5.8			PcP	PcP	21 25 50.1	-2.4
ASAR	 0.7nm,0.8s,baz=94,slow=16,SNR=5.1			S	S	21 29 38.0	-6.9
ASPA	Alice Springs	41.40	260	⇓*i*P	P	21 24 05.3	+0.2
WRAB	Tennant Creek 16nm,0.6s,mb4.6	41.72	266	*e*P	P	21 24 07.0	-0.8
WRA	Warramunga Arr 6.5nm,0.3s,mb4.5,baz=96,slow=8.4,SNR=370	41.73	266	P	P	21 24 07.5	-0.2
WRA	 0.5nm,0.6s,baz=103,slow=4.0,SNR=4.9			PcP	PcP	21 25 52.1	-1.6
WRA	 0.3nm,0.6s,baz=328,slow=38,SNR=4.3			S	S	21 29 42.2	-7.6
KAKA	Kakadu 3.8nm,0.2s,mb4.5	45.57	275	⇓*i*P	P	21 24 37.2	-0.8
FORT	Forrest 85nm,0.5s	45.78	249	*e*P	P	21 24 38.6	-0.9
GUMO	Guam 378nm,1.3s	49.89	314	P	P	21 25 11.8	+1.0
FITZ	Fitzroy Crossi 7.5nm,0.8s,mb4.1	50.15	266	⇓*i*P	P	21 25 12.0	-0.7
MIDW	Midway 122nm,1.0s,mb5.2	51.53	4	P	P	21 25 22.2	-0.5
VNDA	Vanda 0.5nm,0.6s,baz=307,slow=8.7,SNR=5.5	54.71	185	P	P	21 25 44.2	-0.6
VNDA	 0.5nm,0.6s,baz=19,slow=2.4,SNR=4.3			PcP	PcP	21 26 38.3	-1.9
MBWA	Marble Bar 12nm,0.9s,mb4.2	54.74	260	*e*P	P	21 25 43.1	-2.7
NWAO	Narrogin (SRO) 1.4nm,0.5s,mb3.5	54.75	245	*e*P	P	21 25 44.1	-1.6
QSPA	South Pole Qui 5.1nm,0.6s,mb4.3	66.57	180	⇓*i*P	P	21 27 03.1	+0.3
KS15	Wonju Array Si	77.51	320	P	P	21 28 03.0	-3.8
MAW	Mawson 5.2nm,0.6s,mb4.2,baz=138,slow=7.4,SNR=21	77.86	201	P	P	21 28 07.9	-0.2
PMSA	Palmer Station 5.8nm,0.7s,mb4.2	79.54	157	P	P	21 28 16.4	-0.6
CMB	Columbia Colle 2.2nm,1.0s,mb3.6	83.41	44	*e*P	P	21 28 38.3	+1.0
NVAR	Mina Array Bea 0.4nm,0.7s,mb3.2,baz=254,slow=6.6,SNR=3.4	84.97	44	P	P	21 28 45.0	0.0
SNAA	Sanae	85.06	179	⇑*i*	P	21 28 43.4	-1.3
SNAA	Sanae 0.7nm,0.5s,mb3.6,baz=10,slow=21,SNR=31	85.06	179	P	P	21 28 43.6	-1.1
VNA3	Neumayer Olymp	85.30	177	⇑*i*	P	21 28 47.3	+1.5
VNA2	Neumayer--Watz	85.71	178	⇑*i*	P	21 28 49.4	+1.6
CMAR	Chiang Mai Arr 0.8nm,0.7s,mb3.7,baz=143,slow=3.8,SNR=7.8	88.73	291	P	P	21 29 03.9	+0.6
BVAR	Borovoye Array 0.9nm,0.3s,baz=143,slow=2.4,SNR=8.6	119.68	319	PKP	PKPdf	21 34 54.0	-0.5
ARCES	ARCESS Array B 2.0nm,0.8s,baz=58,slow=2.0,SNR=14	131.36	348	PKP	PKPdf	21 35 16.1	-0.4
FINES	FINESS Array B 2.8nm,0.9s,slow=1.9,SNR=6.5	137.85	341	PKhKP		21 35 20.5	
FINES	 6.8nm,1.1s,baz=190,slow=23,SNR=7.2			PKP	PKPdf	21 35 28.4	-0.2
FINES	FINESS Array B	137.85	341	PKP	PKPdf	21 35 20.5	-8.1
FINES				PKP	PKPdf	21 35 28.4	-0.2
NOA	NORSAR Array B 0.3nm,0.4s,baz=36,slow=4.8,SNR=2.8	141.59	351	PKhKP		21 35 29.8	
HFS	Hagfors	142.03	348	PKhKP		21 35 32.1	
MALT	Malatya	143.56	303	*e*PKPdf	PKPdf	21 35 39.4	0.0
AKASG	Malin Array Be 1.7nm,0.4s,baz=44,slow=4.3,SNR=16	144.26	327	PKP	PKPdf	21 35 39.7	-0.5
ASF	Jabal al Asfar 1.1nm,0.3s,baz=0.6,slow=19,SNR=3.6	145.73	293	PKPbc	PKPbc	21 35 45.8	+1.1
EIL	Elat	147.56	289	*e*PKPbc	PKPdf	21 35 50.6	+4.2
EKA	Eskdalemuir Ar 1.6nm,0.6s,baz=344,slow=2.7,SNR=8.5	148.17	3	PKPbc	PKPdf	21 35 50.9	+4.3
CSS	Prodhromos	148.27	299	*e*PKPbc	PKPdf	21 35 51.6	+4.3
KSP	Ksiaz	149.67	338	*e*P	PKPdf	21 35 55.1	+6.0
CLL	Collm	150.28	342	*i* PKP1	PKPdf	21 35 56.3	+6.3
BRG	Berggiesshubel	150.39	341	*i* P	PKPdf	21 35 57.0	+6.8

DJA 18 21:21:52.1±0.9**, 9.75S**×**113.30E, h28**^{km}±5^{km}**, ML4.0**/4**, 9D, Error ellipse: s-maj=18.4km s-min=16.9km az=34.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed 113nm,0.2s	1.51	33	⇓*e*Pn	Pn	21 22 15.4	-2.3
SRDI				⇓*e*Sn	Sn	21 22 32.9	-3.7
KELI	Kelakatan 79nm,0.2s	1.92	38	⇓*e*Pn	Pn	21 22 22.0	-1.6
KELI				⇓*e*Sn	Sn	21 22 44.1	-3.0
RATI	Rata 172nm,0.2s	2.42	65	⇓*e*Pn	Pn	21 22 28.5	-2.3
RATI				⇓*e*Sn	Sn	21 22 54.8	-5.1
KEDI	Kedomdong 25nm,0.2s	3.04	66	⇓*e*Pn	Pn	21 22 37.7	-1.9
KEDI	Kedomdong	3.04	66	⇓*e*P	Pn	21 22 39.3	-0.3
KEDI				⇓*e*Sn	Sn	21 23 10.7	-4.9

IDC 18 21:27:39.1±24.0**, 23.97S**×**179.98W, h506**^{km}±216^{km}**, mb3.4**/6**, mb1 3.5**/6**, mb1mx3.3**/14**, Error ellipse: s-maj=173.0km s-min=53.1km az=95.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower 6.5nm,0.4s	31.49	270	*e*P	P	21 33 19.8	-0.5
CTA	Charters Tower 9.0nm,0.4s,baz=93,slow=12,SNR=26	31.49	270	P	P	21 33 19.6	-0.7
PMG	Port Moresby 6.2nm,0.8s,baz=140,slow=16,SNR=2.8	34.53	289	P	P	21 33 45.1	-0.9
STKA	Stephens Creek 1.9nm,0.9s,baz=80,slow=11,SNR=4.3	34.71	248	P	P	21 33 46.2	-1.0
ASAR	Alice Springs 1.4nm,0.4s,baz=98,slow=7.1,SNR=31	42.04	261	P	P	21 34 45.8	-1.4
WRA	Warramunga Arr 4.0nm,0.4s,baz=100,slow=8.3,SNR=85	42.42	266	P	P	21 34 48.3	-1.9
FORT	Forrest 29nm,0.6s	46.30	250	*e*P	P	21 35 17.7	-2.6
KAKA	Kakadu 3.6nm,0.3s	46.33	275	*e*P	P	21 35 18.3	-2.4
FITZ	Fitzroy Crossi 5.1nm,1.1s	50.84	266	*e*P	P	21 35 53.3	-1.2
CMAR	Chiang Mai Arr 0.2nm,0.4s,baz=117,slow=4.0,SNR=4.5	89.57	290	P	P	21 39 43.8	+0.2
AKASG	Malin Array Be 0.4nm,0.4s,baz=45,slow=4.0,SNR=4.1	145.04	327	PKPbc	PKPbc	21 46 17.6	-1.0

NIED ***18*** *21:32:00, 42.20N×143.00E, h53^{km}, Mw4.7 Best double couple: $M_0$1.16×10^{16} NP1:ϕ_s37°, δ66°, λ96°. NP2:ϕ_s203°, δ24°, λ78°.*
MOS ***18*** *21:32:21.0±0.9, 42.14N×142.85E, h54^{km}, mb4.9/28, Error ellipse: s-maj=9.7km s-min=5.9km az=102.3*
BJI ***18*** *21:32:22.1, 42.14N×142.93E, h69^{km}, mB5.0, mb4.8, Ms4.3, Msz4.0*
NEIC ***18*** *21:32:23.9±0.8, 42.16N×142.89E, h64^{km}±6^{km}, mb4.6/32, MW4.7(NIED), Error ellipse: s-maj=7.0km s-min=5.4km az=135.0*
NEIC Recorded [2 JMA] in south-central Hokkaido and [1 JMA] in the Chitose-Muroran-Otaru area. Also recorded [1 JMA] in Aomori and Iwate Prefectures, Honshu.
JMA ***18*** *21:32:23.9±0.1, 42.20N×142.97E, h50^{km}±1^{km}, M4.5 Broadband fault plane solution: P waves. NP1:ϕ_s224°, δ27°, λ107°. NP2:ϕ_s25°, δ65°, λ82°. Principal axes: T Plg69°, Azm278°; N Plg8°, Azm28°; P Plg19°, Azm121°;*
JMA Felt II J1.
IDC ***18*** *21:32:25.2±1.9, 42.18N×142.87E, h74^{km}±15^{km}, mb4.0/22, mb1 4.2/23, mb1mx4.2/27, MS3.8/9, Ms1 3.8/9, ms1mx3.5/24 Error ellipse: s-maj=15.3km s-min=12.3km az=129.0*
ISC 18 21:32:21.8±0.4**, 42.12N**±0.03×**142.96E**±0.04**, h63**^{km}±2^{km}**, h76**^{km}±6.0^{km}**:pP-P, n167,** σ**1^{s}06**/189**, mb4.7**/70**, 16C-4D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JEM	Erimo	0.18	125	P	P	21 32 32.4	+0.9
JNBK	Urakawa-nobuka	0.22	316	⇓P	P	21 32 32.1	+0.3
JNBK				*e*S	S	21 32 38.4	-0.8
JCH	Churui	0.58	31	⇑P	P	21 32 35.2	+0.2
JCH				*e*S	S	21 32 44.0	-0.7
JBT2	Biratori 2	0.79	326	⇓P	P	21 32 38.2	+0.7
JBT2				*e*S	S	21 32 49.0	-0.2
JOB	Onbets	1.02	39	⇑P	P	21 32 41.7	+1.2
JOB				*e*S	S	21 32 55.0	+0.7
JFR	Furan	1.08	346	⇓P	P	21 32 41.0	-0.3
JAR	Ashorobuto	1.32	27	⇑P	P	21 32 44.8	+0.1
JAR				*e*S	S	21 33 00.9	-0.8
JEW	Eniwo	1.33	303	⇓P	P	21 32 46.0	+1.1
JEW				*e*S	S	21 33 03.1	+1.2
ASAJ	Asahikawa 154nm,0.3s,baz=230,slow=8.5,SNR=314	2.01	353	P	P	21 32 55.8	+1.6
ASAJ	 149nm,0.3s,baz=83,slow=23,SNR=18			S	S	21 33 20.4	+2.2
ASAJ	 comp=Z,922nm,21.8s,baz=66,slow=49			LR	LR	21 34 01.4	
ASAJ	Asahikawa	2.01	353	PN	P	21 32 55.8	+1.6
ASAJ				S	S	21 33 20.4	+2.3
ASAJ	 comp=Z,154nm,0.3s			pmax	pmax		
ASAJ	 comp=Z,922nm,21.8s			MLR	MLR		
YUK	Yuzh-Kuril'sk	2.86	47	PN	P	21 33 06.5	+0.3
YUK				*e*S	S	21 33 39.5	-0.1
YUK	 comp=Z,460nm,0.4s			pmax	pmax		
YUK	 comp=Z,800nm,0.7s			pmax	pmax		
YUK				smax			

	comp=N,2µm,0.5s						
YUK				smax			
	comp=E,770nm,0.5s						
YUK				smax			
	comp=N,4µm,1.5s						
YUK				smax			
	comp=E,4µm,2.0s						
KUR	**Kuril'sk**	**4.73**	**47**	*e*PN	**P**	**21 33 31.2**	**-1.2**
KUR				*e*S	**S**	**21 34 25.0**	**-1.4**
KUR				pmax	pmax		
	comp=Z,380nm,1.0s						
KUR				smax			
	comp=N,550nm,1.0s						
KUR				smax			
	comp=E,380nm,1.0s						
YSS	**Yuzh-Sakhalins**	**4.84**	**358**	⇑*i*PN	**P**	**21 33 34.0**	**+0.1**
YSS				*i* S	**S**	**21 34 28.2**	**-0.9**
YSS				pmax	pmax		
	comp=N,50nm,0.8s						
YSS				pmax	pmax		
	comp=Z,50nm,0.8s						
YSS				smax			
	comp=N,160nm,1.0s						
YSS				smax			
	comp=E,90nm,1.0s						
YSS	**Yuzh-Sakhalins**	**4.84**	**358**	*e*Pn	**P**	**21 33 34.6**	**+0.8**
MAJO	**Matsushiro**	**6.68**	**215**	*e*PN	**P**	**21 33 57.6**	**-1.9**
MAT	**Matsushiro**	**6.68**	**215**	P	**P**	**21 33 58.9**	**-0.6**
MAT				*e*S	**S**	**21 35 14.1**	**-0.8**
MAT	**Matsushiro**	**6.68**	**215**	*e*PN	**P**	**21 33 59.0**	**-0.5**
MAT				S	**S**	**21 35 14.0**	**-0.9**
MAT				pmax	pmax		
	comp=Z,8.0nm,0.5s						
MAT	**Matsushiro**	**6.68**	**215**	*e*P	**P**	**21 33 59.0**	**-0.5**
	comp=Z,8.4nm,0.5s						
MAT				S	**S**	**21 35 14.0**	**-0.9**
JHJ	**Hachijo jima 2**	**9.33**	**197**	P	**P**	**21 34 33.4**	**-2.6**
	comp=Z,15nm,0.3s,baz=246,slow=20,SNR=7.2						
JHJ				S	**S**	**21 36 11.8**	**-8.6**
	comp=Z,15nm,0.3s,baz=207,slow=23,SNR=3.5						
JHJ				LR	LR	21 38 32.6	
	comp=Z,306nm,21.2s,baz=351,slow=39						
MDJ	**Mudanjiang**	**10.05**	**289**	P	**P**	**21 34 48.3**	**+2.6**
MDJ				XP		21 35 02.9	
MDJ				PCP	PcP	21 40 53.6	+2.0
MDJ				PCS		21 44 26.1	
MDJ				SCS	ScS	21 47 52.3	+1.9
MDJ				AMB	AMB		
	comp=Z,30nm,0.9s						
MDJ				AMB	AMB		
	comp=Z,126nm,8.0s						
MDJ				LR	LR		
	comp=N,4µm,23.6s						
MDJ				LR	LR		
	comp=E,4µm,23.2s						
MDJ				LR	LR		
	comp=Z,556nm,25.1s						
MDJ	**Mudanjiang**	**10.05**	**289**	*e*Pn	**P**	**21 34 46.5**	**+0.7**
KLR	**Kul'dur**	**10.58**	**316**	*e*PN	**P**	**21 34 51.8**	**-1.1**
KS15	**Wonju Array Si**	**12.50**	**253**	*e*P	**P**	**21 35 20.0**	**+1.2**
CN2	**Changchun**	**12.94**	**283**	*e*P	**P**	**21 35 24.5**	**-0.1**
CN2				*e*XP		21 35 46.5	
CN2				*e*S	**S**	**21 37 48.3**	**+0.8**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
CN2				AMB	AMB		
	comp=Z,230nm,5.0s						
CN2				LR	LR		
	comp=N,500nm,14.0s						
CN2				LR	LR		
	comp=E,500nm,14.0s						
CN2				LR	LR		
	comp=Z,600nm,15.0s						
SNY	**Shenyang**	**14.42**	**275**	⇑P	**P**	**21 35 44.1**	**+0.2**
SNY				S	**S**	**21 38 18.3**	**-4.4**
SNY				AMB	AMB		
	comp=Z,10.0nm,0.9s						
SNY				LR	LR		
	comp=E,290nm,21.2s						
SNY				LR	LR		
	comp=Z,380nm,23.7s						
HIA	**Hailar**	**17.68**	**302**	*e*P	**P**	**21 36 23.0**	**-2.1**
HIA				pmax	pmax		
	comp=Z,29nm,1.0s						
HIA	**Hailar**	**17.68**	**302**	*e*P	**P**	**21 36 23.0**	**-2.1**
	comp=Z,30nm,1.0s						
MA2	**Magadan**	**18.14**	**13**	*e*P	**P**	**21 36 33.9**	**+3.3**
MA2				pmax	pmax		
	comp=Z,6.0nm,1.1s						
MA2	**Magadan**	**18.14**	**13**	*e*P	**P**	**21 36 28.7**	**-1.9**
	comp=Z,8.7nm,0.7s						
MA2				*e*		21 36 43.2	
CLNS	**Chul'man**	**18.74**	**328**	*e*P	**P**	**21 36 35.1**	**-2.7**
CLNS				pmax	pmax		
	comp=N,7.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,15nm,0.8s						
CLNS				pmax	pmax		
	comp=E,11nm,0.9s						
JOW	**Kunigami**	**19.43**	**223**	LR	LR	21 44 35.8	
	comp=E,147nm,22.0s,baz=31,slow=38						
BJI	**Beijing**	**20.27**	**273**	*e*P	**P**	**21 36 52.1**	**-2.4**
BJI				AMB	AMB		
	comp=Z,21nm,1.0s						
BJI				LR	LR		
	comp=N,266nm,16.6s						
BJI				LR	LR		
	comp=E,262nm,23.0s						
BJI				LR	LR		
	comp=Z,298nm,26.4s						
BJT	**Baijiatuau**	**20.28**	**273**	*e*P	**P**	**21 36 52.1**	**-2.5**
BJT				pmax	pmax		
	comp=Z,28nm,1.0s						
BJT	**Baijiatuau**	**20.28**	**273**	*e*P	**P**	**21 36 52.0**	**-2.5**
	comp=Z,28nm,1.0s						
SSE	**Sheshan**	**20.59**	**245**	*e*P	**P**	**21 37 01.0**	**+3.1**
SSE				S	**S**	**21 40 46.8**	**+7.2**
SSE				AMB	AMB		
	comp=Z,38nm,0.7s						
SSE				AMB	AMB		
	comp=Z,99nm,4.5s						
SSE				LR	LR		
	comp=N,46nm,21.7s						
SSE				LR	LR		
	comp=E,117nm,21.8s						
SSE				LR	LR		
	comp=Z,105nm,27.9s						
YAK	**Yakutsk**	**21.46**	**343**	*e*P	**P**	**21 37 02.9**	**-3.5**
YAK				*e**PP		21 37 22.5	
YAK				*e*S	**S**	**21 40 53.9**	**-1.7**
YAK				*e*		21 41 01.7	
YAK				*e*		21 48 20.9	
YAK				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.4						
YAK				smax			
	comp=N,8.0nm,1.0s						
YAK				smax			
	comp=E,6.0nm,1.1s						
YAK	**Yakutsk**	**21.46**	**343**	*e*P	**P**	**21 37 02.4**	**-4.0**
	comp=E,42nm,0.8s,mb4.8						
SEY	**Seymchan**	**21.58**	**12**	*e*P	**P**	**21 37 04.5**	**-3.0**
BOD	**Bodaibo**	**24.10**	**321**	*e*P	**P**	**21 37 30.0**	**-2.1**
WHN	**Wuhan**	**25.66**	**253**	*e*P	**P**	**21 37 48.0**	**+0.7**
ULN	**Ulaanbaatar**	**25.87**	**295**	*c i*P	**P**	**21 37 49.2**	**+0.1**
ULN	**Ulaanbaatar**	**25.87**	**295**	*e*P	**P**	**21 37 49.0**	**-0.1**
	comp=E,13nm,1.0s,mb4.4						
SONM	**Songino Array**	**26.31**	**295**	P	**P**	**21 37 53.3**	**+0.1**
	comp=E,11nm,0.8s,mb4.4,baz=76,slow=8.3,SNR=79						
XAN	**Xi'an**	**27.84**	**264**	P	**P**	**21 38 07.5**	**+0.2**
XAN				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.2						
TLY	**Talaya**	**28.21**	**303**	*e*P	**P**	**21 38 10.3**	**-0.1**
TLY				pmax	pmax		
	comp=Z,27nm,0.8s,mb4.9						
TLY	**Talaya**	**28.21**	**303**	*e*P	**P**	**21 38 10.3**	**0.0**
	comp=Z,27nm,0.8s,mb4.9						
ZAK	**Zakamensk**	**28.37**	**301**	*e*P	**P**	**21 38 11.4**	**-0.5**
ZAK				*e*		21 38 34.3	
BILL	**Bilibino**	**28.82**	**18**	*e*P	**P**	**21 38 13.0**	**-2.7**
BILL				*e**PP	pP	21 38 35.0	+3.9
BILL				*e*		21 41 20.6	
BILL				*e*S	**S**	**21 42 53.9**	**-5.7**
ENH	**Enshi**	**29.30**	**257**	*e*P	**P**	**21 38 18.8**	**-1.6**
	comp=Z,8.6nm,0.7s,mb4.6						
MOY	**Mondy**	**29.85**	**303**	*e*P	**P**	**21 38 25.0**	**0.0**
LZH	**Lanzhou**	**30.75**	**272**	*e*P	**P**	**21 38 33.4**	**+0.3**
LZH				AP	pP	21 38 49.8	+1.1
LZH				XP	sP	21 38 58.1	+1.7
LZH				*e*PP	PP	21 39 35.8	-0.1
LZH				*e*S	**S**	**21 43 29.0**	**-1.3**
LZH				XS		21 43 59.8	
LZH				AMB	AMB		
	comp=Z,27nm,1.5s,mb4.9						
LZH				AMB	AMB		
	comp=Z,106nm,5.6s						
LZH				LR	LR		
	comp=N,375nm,13.0s						
LZH				LR	LR		
	comp=Z,543nm,17.2s						
GTA	**Gaotai**	**32.54**	**280**	⇑P	**P**	**21 38 49.3**	**+0.6**
GTA				AP	pP	21 39 03.8	-0.7
GTA				XP	sP	21 39 11.8	-0.5
GTA				PP	PP	21 39 58.5	-0.3
GTA				PCP	PcP	21 41 35.8	+1.6
GTA				S	**S**	**21 44 01.5**	**+3.2**
GTA				SCP		21 45 12.8	
GTA				SS	SS	21 45 59.4	+1.2
GTA				SCS	ScS	21 49 13.5	+4.1
GTA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
GTA				AMB	AMB		
	comp=Z,108nm,4.9s						
GTA				LR	LR		
	comp=N,143nm,17.9s						
GTA				LR	LR		
	comp=E,159nm,19.8s						
GTA				LR	LR		
	comp=Z,220nm,21.7s						
GYA	**Guiyang**	**33.52**	**254**	⇑*i*P	**P**	**21 38 58.1**	**+0.7**
GYA				AP	pP	21 39 18.3	+5.1
GYA				XP	sP	21 39 20.6	-0.5
GYA				PP	PP	21 40 11.4	+0.2
GYA				S	**S**	**21 44 13.9**	**+0.1**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
GYA				LR	LR		
	comp=N,180nm,16.8s						
GYA				LR	LR		
	comp=E,210nm,17.0s						
GYA				LR	LR		
	comp=Z,280nm,17.5s						
KMI	**Kunming**	**37.15**	**256**	*e*P	**P**	**21 39 29.1**	**+0.9**
KMI				AP	pP	21 39 45.5	+1.3
KMI				S	**S**	**21 45 07.9**	**-1.6**
KMI				XS		21 45 37.5	
KMI				LR	LR		
	comp=N,164nm,6.6s						
KMI				LR	LR		
	comp=E,139nm,7.3s						
KMI				LR	LR		
	comp=Z,110nm,6.7s						
ZAL	**Zalesovo**	**39.56**	**308**	P	**P**	**21 39 48.0**	**+0.1**
	comp=Z,14nm,0.8s,mb4.8,baz=26,slow=9.2,SNR=97						
ZAL				PcP	PcP	21 41 55.2	+0.3
	comp=Z,2.5nm,0.7s,baz=338,slow=3.1,SNR=4.5						
ZAL				LR	LR	21 58 10.5	
	comp=Z,199nm,18.2s,baz=37,slow=39						
WMQ	**Urumqi**	**39.84**	**292**	⇑P	**P**	**21 39 51.0**	**+0.6**
WMQ				AP	pP	21 40 09.0	+2.6
WMQ				XP	sP	21 40 18.3	+4.3
WMQ				PP	PP	21 41 27.8	+1.3
WMQ				PPP	PPP	21 41 54.3	+1.7
WMQ				*e*S	**S**	**21 45 49.5**	**-0.5**
WMQ				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,15nm,6.3s						
WMQ				LR	LR		
	comp=N,41nm,16.4s						
WMQ				LR	LR		
	comp=E,181nm,21.0s						
WMQ				LR	LR		
	comp=Z,192nm,20.4s						
NVS	**Novosibirsk**	**40.36**	**310**	⇑*i*P	**P**	**21 39 53.8**	**-0.7**
NVS				pmax	pmax		
	comp=N,11nm,1.7s						
NVS				pmax	pmax		
	comp=Z,23nm,1.7s,mb4.6						
NVS				pmax	pmax		
	comp=E,9.0nm,1.2s						
IMA	**Indian Mountai**	**41.74**	**33**	*e*P	**P**	**21 40 05.4**	**-0.3**
IMA				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.6						
IMA	**Indian Mountai**	**41.74**	**33**	*e*P	**P**	**21 40 05.4**	**-0.3**
	comp=Z,14nm,0.9s,mb4.6						
MKAR	**Makanchi Array**	**42.62**	**298**	*i* P	**P**	**21 40 13.2**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,11nm,0.6s						
LSA	**Lhasa**	**43.15**	**271**	*e*P	**P**	**21 40 19.0**	**+1.3**
CM31	**Chiang Mai Arr**	**44.10**	**251**	*e*P	**P**	**21 40 26.3**	**+0.8**
	comp=Z,9.4nm,0.7s,mb4.6						
CMAR	**Chiang Mai Arr**	**44.10**	**251**	P	**P**	**21 40 26.6**	**+1.1**
	comp=Z,4.2nm,0.6s,mb4.3,baz=43,slow=7.7,SNR=40						
CMAR				LR	LR	21 59 46.1	
	comp=Z,90nm,18.1s,baz=50,slow=37						
ILAR	**Eielson Array**	**44.61**	**35**	P	**P**	**21 40 29.1**	**+0.2**
	comp=Z,1.7nm,0.8s,mb3.9,baz=270,slow=4.3,SNR=10						
GUN	**Gumba**	**48.01**	**272**	*e*P	**P**	**21 40 57.2**	**+0.8**
	comp=Z,42nm,0.4s,mb5.8						
BVAR	**Borovoye Array**	**48.16**	**309**	P	**P**	**21 40 57.3**	**+0.2**
	comp=Z,6.5nm,0.3s,mb5.1,baz=82,slow=10,SNR=53						
BVAR				PcP	PcP	21 42 24.6	+0.5
	comp=Z,10nm,1.1s,baz=90,slow=3.0,SNR=6.5						
BRVK	**Borovoye**	**48.21**	**309**	*e*P	**P**	**21 40 57.5**	**0.0**
BRVK				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.1						
BRVK	**Borovoye**	**48.21**	**309**	*e*P	**P**	**21 40 57.5**	**-0.1**
	comp=Z,28nm,1.3s,mb5.1						
KKN	**Kakani**	**48.52**	**272**	*e*P	**P**	**21 41 00.8**	**+0.5**
	comp=Z,30nm,0.8s,mb5.4						
PKI	**Pulchoki**	**48.55**	**272**	*e*P	**P**	**21 41 01.0**	**+0.5**
	comp=Z,23nm,0.6s,mb5.4						
DMN	**Daman**	**48.75**	**272**	*e*P	**P**	**21 41 02.8**	**+0.7**
	comp=Z,30nm,0.8s,mb5.4						
GKN	**Gorkha**	**48.89**	**273**	*e*P	**P**	**21 41 03.3**	**+0.2**
	comp=Z,29nm,0.7s,mb5.4						
AAK	**Ala-Archa**	**49.27**	**295**	*e*P	**P**	**21 41 05.0**	**-0.9**
AAK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
AAK	**Ala-Archa**	**49.27**	**295**	*e*P	**P**	**21 41 05.0**	**-0.9**
	comp=Z,6.9nm,0.8s,mb4.7						
INK	**Inuvik**	**49.34**	**29**	P	**P**	**21 41 06.3**	**+0.2**
	comp=Z,1.1nm,0.4s,mb4.3,baz=294,slow=4.9,SNR=15						
INK				LR	LR	22 04 19.0	
	comp=Z,75nm,18.5s,baz=88,slow=39						
INK	**Inuvik**	**49.34**	**29**	P	**P**	**21 41 06.3**	**+0.2**
INK				pmax	pmax		
	comp=Z,1.0nm,0.4s						
INK				MLR	MLR		
	comp=Z,75nm,18.5s						
INK	**Inuvik**	**49.34**	**29**	*e*P	**P**	**21 41 04.8**	**-1.3**
	comp=Z,4.9nm,0.9s,mb4.5						
KOLN	**Koldanda**	**49.78**	**273**	*e*P	**P**	**21 41 10.7**	**+0.6**
	comp=Z,41nm,1.0s,mb5.4						
SOKR	**Solikamsk**	**53.10**	**321**	⇑*i*P	**P**	**21 41 33.4**	**-1.2**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ARU	**Arti**	**53.42**	**316**	*e*P	**P**	**21 41 35.9**	**-1.1**
ARU				*e*		21 42 42.9	
ARU				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
ARU	**Arti**	**53.42**	**316**	*e*P	**P**	**21 41 35.9**	**-1.1**
	comp=Z,18nm,0.8s,mb5.1						
ARU				*e*PcP	PcP	21 42 42.9	-0.5
RES	**Resolute Bay**	**57.39**	**15**	*e*P	**P**	**21 42 03.4**	**-2.0**
RES				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
RES	**Resolute Bay**	**57.39**	**15**	*e*P	**P**	**21 42 03.4**	**-2.0**
	comp=Z,4.7nm,0.7s,mb4.6						
YKW3	**Yellowknife Ar**	**58.80**	**32**	P	**P**	**21 42 14.8**	**-0.6**
YKA	**Yellowknife Ar**	**58.84**	**32**	P	**P**	**21 42 15.2**	**-0.5**
	comp=Z,0.5nm,0.5s,mb3.8,baz=304,slow=6.6,SNR=11						
YKA				LR	LR	22 08 56.8	
	comp=Z,41nm,18.5s,baz=235,slow=37						
YKA	**Yellowknife Ar**	**58.84**	**32**	P	**P**	**21 42 15.2**	**-0.5**
YKA				LR	LR	22 08 56.8	
HYB	**Hyderabad**	**59.63**	**266**	*e*P	**P**	**21 42 21.0**	**-0.7**
HYB	**Hyderabad**	**59.63**	**266**	*i* P	**P**	**21 42 21.0**	**-0.7**
ARCES	**ARCESS Array B**	**59.68**	**339**	P	**P**	**21 42 20.4**	**-1.0**
	comp=Z,2.1nm,0.8s,mb4.2,baz=44,slow=7.9,SNR=8.1						
ARCES				LR	LR	22 12 35.4	
	comp=Z,112nm,18.4s,baz=193,slow=40						
CTAO	**Charters Tower**	**61.97**	**176**	P	**P**	**21 42 34.0**	**-3.5**
CTAO				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.3						
CTAO	**Charters Tower**	**61.97**	**176**	P	**P**	**21 42 34.0**	**-3.5**
	comp=Z,37nm,1.5s,mb5.3						
FITZ	**Fitzroy Crossi**	**62.02**	**199**	P	**P**	**21 42 38.1**	**+0.2**
	comp=Z,7.2nm,1.1s,mb4.7,baz=224,slow=3.4,SNR=2.8						
JOF	**Joensuu**	**62.06**	**331**	*e*p	**P**	**21 42 36.0**	**-1.6**
	comp=Z,1.4nm,0.4s,mb4.4						
WRA	**Warramunga Arr**	**62.26**	**189**	P	**P**	**21 42 38.8**	**-0.7**
	comp=Z,2.0nm,0.8s,mb4.3,baz=7.0,slow=6.8,SNR=13						
KAD	**Karad**	**62.94**	**269**	*e*P	**P**	**21 42 43.0**	**-1.1**
KAF	**Kangasniemi**	**64.36**	**332**	*e*p	**P**	**21 42 50.7**	**-1.9**
	comp=Z,0.7nm,0.4s,mb4.0,baz=47,slow=6.3						
KAF	**Kangasniemi**	**64.36**	**332**	*e*P	**P**	**21 42 50.7**	**-1.9**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
OBN	**Obninsk**	**64.77**	**322**	⇑*e*P	**P**	**21 42 54.5**	**-0.9**
OBN				*e**PP	pP	21 43 19.3	+6.8
OBN				*e*		21 45 16.1	
OBN				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.7						
OBN				MLR	MLR		
	comp=Z,100nm,14.0s						
FINES	**FINESS Array B**	**64.89**	**332**	P	**P**	**21 42 55.2**	**-0.9**
	comp=Z,6.1nm,0.6s,mb4.8,baz=57,slow=7.8,SNR=68						
FINES				LR	LR	22 12 12.0	
	comp=Z,128nm,21.0s,baz=14,slow=37						
FINES	**FINESS Array B**	**64.89**	**332**	P	**P**	**21 42 55.2**	**-0.9**
FINES				LR	LR	22 12 12.0	
SUMG	**Summit**	**65.60**	**0**	*e*P	**P**	**21 43 00.6**	**+0.1**
	comp=Z,13nm,0.8s,mb5.0						
SUMG				*e*PcP	PcP	21 43 23.1	-8.3
NEW	**Newport**	**65.70**	**46**	*e*P	**P**	**21 43 02.4**	**+0.9**
NEW				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NEW	**Newport**	**65.70**	**46**	*e*P	**P**	**21 43 02.4**	**+0.9**
	comp=Z,2.1nm,0.7s,mb4.3						
VRSR	**Storozhevoye**	**65.92**	**318**	*e*P	**P**	**21 43 02.3**	**-0.5**
VRSR				pmax	pmax		
	comp=N,3.0nm,0.5s						
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb5.0						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.4s						
ASAR	**Alice Springs**	**65.99**	**189**	P	**P**	**21 43 03.0**	**-0.8**
	comp=E,0.7nm,0.8s,mb3.7,baz=359,slow=4.5,SNR=7.1						
ASAR	**Alice Springs**	**65.99**	**189**	P	**P**	**21 43 03.0**	**-0.8**
YBH	**Yreka Blue Hor**	**66.36**	**55**	P	**P**	**21 43 07.2**	**+1.4**
	comp=E,1.4nm,0.7s,mb4.1,baz=3.0,slow=3.0,SNR=4.0						
GOF	**Gofitskoye**	**67.64**	**311**	*e*P	**P**	**21 43 14.0**	**+0.2**
GOF				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.2						
KIV	**Kislovodsk**	**68.51**	**310**	*e*P	**P**	**21 43 19.6**	**+0.4**
KIV				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
KIV	**Kislovodsk**	**68.51**	**310**	*e*P	**P**	**21 43 19.6**	**+0.4**
	comp=Z,15nm,0.8s,mb5.0						
ZEI	**Tsey**	**68.54**	**309**	*e*P	**P**	**21 43 18.5**	**-0.9**
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
FCC	**Fort Churchill**	**68.94**	**28**	P	**P**	**21 43 21.0**	**-0.6**
FCC				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
FCC	**Fort Churchill**	**68.94**	**28**	P	**P**	**21 43 20.9**	**-0.6**
	comp=Z,4.9nm,1.1s,mb4.3						
GNI	**Garni**	**69.66**	**306**	*i* P	**P**	**21 43 26.2**	**-0.1**
NB2	**NORSAR Subarra**	**69.96**	**337**	P	**P**	**21 43 27.2**	**-0.6**
	comp=Z,3.3nm,0.7s,mb4.4,baz=36,slow=6.2						
NB2	**NORSAR Subarra**	**69.96**	**337**	P	**P**	**21 43 27.2**	**-0.6**
NB2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
NOA	**NORSAR Array B**	**69.96**	**337**	P	**P**	**21 43 27.4**	**-0.4**
	comp=Z,4.8nm,0.8s,mb4.5,baz=36,slow=6.1,SNR=14						
NOA				LR	LR	22 18 03.8	
	comp=Z,97nm,18.2s,baz=55,slow=39						
NOA	**NORSAR Array B**	**69.96**	**337**	P	**P**	**21 43 27.4**	**-0.4**
NOA				LR	LR	22 18 03.8	
CMB	**Columbia Colle**	**70.01**	**57**	P	**P**	**21 43 29.3**	**+0.8**
CMB				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
CMB	**Columbia Colle**	**70.01**	**57**	P	**P**	**21 43 29.3**	**+0.8**
	comp=Z,4.6nm,1.0s,mb4.4						
CMB				*e*		21 43 37.5	
AKASG	**Malin Array Be**	**71.02**	**322**	P	**P**	**21 43 33.6**	**-0.7**
	comp=Z,16nm,1.1s,mb4.9,baz=43,slow=6.0,SNR=26						
AKASG	**Malin Array Be**	**71.02**	**322**	P	**P**	**21 43 33.6**	**-0.8**
AKASG				pmax	pmax		
	comp=Z,16nm,1.1s						
NVAR	**Mina Array Bea**	**71.05**	**55**	P	**P**	**21 43 36.4**	**+1.6**
	comp=Z,1.3nm,0.6s,mb4.0,baz=306,slow=5.6,SNR=15						
FRB	**Frobisher Bay**	**71.56**	**14**	P	**P**	**21 43 36.7**	**-0.6**
	comp=Z,4.9nm,0.8s,mb4.5,baz=337,slow=8.6,SNR=6.3						
TPNV	**Topopah Spring**	**73.24**	**55**	*e*P	**P**	**21 43 49.0**	**+1.3**
TPNV				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
TPNV	**Topopah Spring**	**73.24**	**55**	*e*P	**P**	**21 43 49.0**	**+1.2**
	comp=Z,4.4nm,0.9s,mb4.4						
PDAR	**Pinedale Array**	**73.29**	**47**	P	**P**	**21 43 49.1**	**+1.2**
	comp=Z,1.7nm,0.8s,mb4.0,baz=3.4,slow=1.3,SNR=5.3						
UMR	**Umm Al-Rimmam**	**74.42**	**296**	*e*P	**P**	**21 43 54.6**	**-0.2**
UMR				AMb	AMB	21 43 55.4	
	comp=Z,30nm,0.5s,mb5.5						
MIB	**Mutribah**	**74.51**	**296**	*e*P	**P**	**21 43 55.7**	**+0.5**
MIB				AMb	AMB	21 43 56.8	
	comp=Z,44nm,0.8s,mb5.5						
MALT	**Malatya**	**74.59**	**308**	*e*P	**P**	**21 43 56.8**	**+1.2**
MALT				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
MALT	**Malatya**	**74.59**	**308**	*e*P	**P**	**21 43 56.8**	**+1.2**
	comp=Z,7.8nm,1.2s,mb4.5						
RDF	**Al-Radifah**	**74.93**	**295**	*e*P	**P**	**21 43 58.4**	**+0.7**
RDF				AMb	AMB	21 44 07.0	
	comp=Z,83nm,1.6s,mb5.4						
RST	**Umm Al-Ruwaisa**	**74.93**	**296**	*e*P	**P**	**21 43 57.1**	**-0.6**
RST				AMb	AMB	21 43 58.2	
	comp=Z,31nm,0.8s,mb5.3						
OJC	**Ojcow**	**75.48**	**326**	*e*P	**P**	**21 44 01.1**	**+0.7**
BRTR	**Keskin Array B**	**76.38**	**312**	P	**P**	**21 44 06.5**	**+0.8**
	comp=Z,2.0nm,0.7s,mb4.2,baz=83,slow=3.7,SNR=13						
KSP	**Ksiaz**	**76.41**	**328**	*e*P	**P**	**21 44 06.2**	**+0.6**
PV10	**Paradox Valley**	**76.56**	**50**	*e*P	**P**	**21 44 08.8**	**+2.0**
PV10				*e*		21 44 32.5	
MORC	**Moravsky Berou**	**76.75**	**327**	*e*P	**P**	**21 44 07.6**	**0.0**
MORC				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
MORC	**Moravsky Berou**	**76.75**	**327**	*e*P	**P**	**21 44 07.6**	**0.0**
	comp=Z,5.9nm,0.9s,mb4.5						
CLL	**Collm**	**77.28**	**330**	⇑*i*P	**P**	**21 44 10.6**	**+0.1**
CLL				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
CLL	**Collm**	**77.28**	**330**	⇑*i*P	**P**	**21 44 10.6**	**+0.1**
	comp=Z,8.0nm,1.0s,mb4.6						
CLL	**Collm**	**77.28**	**330**	⇑P	**P**	**21 44 10.6**	**+0.1**
	comp=Z,logA/T=0.9,mb4.6						
BRG	**Berggiesshubel**	**77.28**	**330**	P	**P**	**21 44 10.7**	**+0.2**
BRG				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
BRG	**Berggiesshubel**	**77.28**	**330**	P	**P**	**21 44 10.7**	**+0.2**
	comp=Z,1.0nm,0.6s,mb3.9						
PRU	**Pruhonice**	**77.77**	**329**	*e*P	**P**	**21 44 14.3**	**+1.1**
KHC	**Kasperske Hory**	**78.83**	**329**	*c i*P	**P**	**21 44 19.7**	**+0.6**
KHC	**Kasperske Hory**	**78.83**	**329**	*e*P	**P**	**21 44 20.0**	**+0.9**
SDCO	**Great Sand Dun**	**79.00**	**49**	*e*P	**P**	**21 44 20.6**	**+0.3**
	comp=Z,1.6nm,0.9s,mb4.0						
GERES	**GERESS Array B**	**79.01**	**329**	P	**P**	**21 44 19.9**	**-0.2**
	comp=Z,0.9nm,0.8s,mb3.8,baz=315,slow=9.4,SNR=5.2						
SCHQ	**Schefferville**	**80.13**	**17**	P	**P**	**21 44 25.9**	**-0.1**
	comp=Z,3.8nm,1.1s,mb4.2,baz=59,slow=13,SNR=4.6						
SCHQ	**Schefferville**	**80.13**	**17**	*e*P	**P**	**21 44 25.8**	**-0.2**
	comp=Z,5.7nm,0.9s,mb4.5						
ANMO	**Albuquerque**	**80.43**	**51**	*i* P	**P**	**21 44 25.9**	**-2.1**
CDF	**Champ du Feu**	**81.74**	**332**	*e*P	**P**	**21 44 35.4**	**+0.8**
MEZF	**Maizieres J'vi**	**82.43**	**333**	*e*P	**P**	**21 44 39.0**	**+0.9**
SSF	**Saint Saulge**	**84.20**	**333**	*e*P	**P**	**21 44 47.7**	**+0.7**
	comp=Z,15nm,1.0s,mb4.8						
SSF	**Saint Saulge**	**84.20**	**333**	*e*P	**P**	**21 44 47.7**	**+0.7**
SSF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
LPL	**La Plagne**	**84.41**	**331**	*e*P	**P**	**21 44 49.4**	**+1.3**
LPG	**La Plagne**	**84.42**	**331**	*e*P	**P**	**21 44 50.0**	**+1.8**
SMF	**Signal de Mont**	**84.45**	**333**	*e*P	**P**	**21 44 49.1**	**+0.8**
AVF	**Avril sur Loir**	**84.48**	**333**	*e*P	**P**	**21 44 49.3**	**+0.8**
	comp=Z,22nm,1.1s,mb4.9						
AVF	**Avril sur Loir**	**84.48**	**333**	*e*P	**P**	**21 44 49.3**	**+0.8**
AVF				pmax	pmax		

	comp=Z,11nm,1.1s,mb4.9						
WMOK	Wichita Mounta	84.90	47	P	P	21 44 51.9	+1.0
WMOK				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.5						
WMOK	Wichita Mounta	84.90	47	P	P	21 44 51.9	+1.1
	comp=Z,4.1nm,1.1s,mb4.5						
MBDF	Montbardon	85.07	330	eP	P	21 44 52.2	+0.7
TXAR	Lajitas Array	86.11	53	P	P	21 44 59.1	+2.2
	comp=Z,1.6nm,0.6s,mb4.5,baz=293,slow=3.8,SNR=12						
SNAA	Sanae	145.95	199	PKPbc	PKPbc	21 51 55.5	+2.4
	comp=Z,0.7nm,0.5s,baz=337,slow=4.3,SNR=11						
BDFB	Brasilia	151.97	23	PKPbc	PKPdf	21 52 12.4	+9.1
	comp=Z,2.0nm,0.5s,baz=325,slow=2.9,SNR=6.2						

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*SOF **18** 21:34:05.6, 40.85N×27.48E, h10^{km}, MD3.2*
*CSEM **18** 21:34:05.8±0.1, 40.69N×27.48E, h8^{km}, MD3.1, Error ellipse: s-maj=2.4km s-min=1.4km az=34.0*
*ISK **18** 21:34:06.8, 40.66N×27.51E, h14^{km}, MD3.1*
*ATH **18** 21:34:13.3, 40.44N×26.65E, h10^{km}, MD3.5/3*
ISC 18 21:34:05.9±0.3**, 40.72N**±0.03×**27.45E**±0.03**, h10^{km}, n35, σ1.^{s}02**/45**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SART	Tekirdag	0.21	262	iP	Pg	21 34 10.8	+0.3
SART				iS	Sg	21 34 14.2	+0.7
EDC	Edincik	0.49	140	iPG	Pg	21 34 15.7	-0.1
BNT	Bandirma	0.51	135	iPG	Pg	21 34 16.0	-0.2
BNT				iSG	Sg	21 34 21.7	-1.4
KCT	Karacabey	0.82	123	iPG	Pg	21 34 21.8	-0.7
BTOK	Tokmak	1.05	155	iP	Pb	21 34 26.2	+0.4
BTOK				iS	Sb	21 34 39.6	+0.2
BALB	Balikesir	1.13	163	iPG	Pg	21 34 27.2	-1.3
BALB				iSG	Sg	21 34 42.7	-0.8
EDRB	Edirne	1.25	335	PN	Pn	21 34 31.1	+1.7
ISK	Istanbul-Kandi	1.27	74	PN	Pn	21 34 30.5	+0.8
ISK				SN	Sn	21 34 48.0	+1.2
ISK	Istanbul-Kandi	1.27	74	eSn	Sn	21 34 48.0	+1.2
BADT	Buyukada	1.27	83	iPN	Pn	21 34 29.9	+0.2
ORLT	Orhaneli	1.29	121	PN	Pn	21 34 30.5	+0.5
BOZC	Bozcaada	1.38	231	iP	Pn	21 34 31.6	+0.2
BOZC				iS	Sb	21 34 48.3	-0.7
ULDT	Uludag	1.41	114	iP	Pn	21 34 32.4	+0.7
ULDT				iS	Sb	21 34 53.4	+3.7
DST	Dursunbey	1.43	141	ePN	Pn	21 34 32.4	+0.4
RDO	Rodhopi	1.51	287	ePb	Pb	21 34 33.9	+0.3
RDO				eSb	Sb	21 34 55.0	+2.2
PRK	Paraskevi	1.73	212	ePn	Pn	21 34 36.5	+0.2
PRK				eSn	Sn	21 35 00.0	+1.4
KDZ	Kurdzhali	1.80	302	P	Pn	21 34 38.0	+0.7
AKS	Akhisar	1.86	171	ePN	Pn	21 34 38.2	0.0
JMB	Yambol	1.86	340	P	Pn	21 34 39.0	+0.8
GPA	Golpazari	2.22	100	ePN	Pn	21 34 44.0	+0.7
RZN	Rozhen	2.28	296	P	Pn	21 34 45.0	+0.8
RZN				Pg	Pg	21 34 49.0	-2.5
RZN	Rozhen	2.28	296	Pg	Pg	21 34 49.0	-2.5
IZM	Izmir	2.32	184	ePN	Pn	21 34 44.8	0.0
BLCB	Balcova	2.35	188	ePN	Pn	21 34 45.5	+0.3
PRD	Provadia	2.48	359	eP	Pn	21 34 45.0	-2.0
PLD	Plovdiv	2.49	305	P	Pn	21 34 47.5	+0.3
ALT	Altintas	2.63	128	ePN	Pn	21 34 49.2	-0.1
SZH	Strazhica	2.79	337	ePg	Pg	21 34 59.0	-2.6
ESKT	Eskisehir	2.87	114	ePN	Pn	21 34 52.3	-0.3
MMB	Musomiste	2.94	288	P	Pn	21 34 53.0	-0.7
PVL	Pavlikeni	2.95	328	eP	Pg	21 35 02.5	-2.4
PLG	Polygyros	3.07	265	ePN	Pn	21 34 55.5	0.0
KKB	Krupnik	3.49	291	P	Pn	21 35 01.0	-0.4
VTS	Vitosha	3.69	302	P	Pn	21 35 04.5	+0.2
SKO	Skopje	4.70	287	eP	Pg	21 35 37.5	-2.2

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*IDC **18** 21:40:13.4±2.9, 6.21S×149.31E, h29^{km}±17^{km}, mb4.0/6, mb1 4.4/9, mb1mx4.2/14, ML4.2/3, MS3.5/6, Ms1 3.5/6, ms1mx3.3/18, Error ellipse: s-maj=29.5km s-min=16.9km az=106.0*
*NEIC **18** 21:40:15.8±2.0, 6.30S×149.22E, h52^{km}±17^{km}, mb4.6/10, Error ellipse: s-maj=18.3km s-min=12.5km az=86.0*
ISC 18 21:40:14.1±2.6**, 6.24S**±0.08×**149.2E**±0.1**, h53^{km}**±22^{km}**, n28, σ0.^{s}99**/27**, mb4.4**/13**, MS3.4**/4**, 2C-1D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.72	212	Pn	P	21 41 11.5	+0.9
	104nm,0.3s,baz=22,slow=5.7,SNR=223						
PMG				Sn	S	21 41 54.0	+0.4
	49nm,0.3s,baz=121,slow=18,SNR=7.8						
PMG				LR	LR	21 42 52.3	
	comp=Z,690nm,21.4s,baz=352,slow=42						
PMG	Port Moresby	3.72	212	ePn	P	21 41 11.1	+0.6
PMG				Sn	S	21 41 54.0	+0.4
PMG				LR	LR	21 42 52.3	
CTA	Charters Tower	14.05	191	Pn	P	21 43 31.8	-0.3
	0.1nm,0.3s,baz=3.5,slow=7.9,SNR=3.1						
CTA				LR	LR	21 48 29.1	
	comp=Z,187nm,20.1s,baz=42,slow=35						
CTAO	Charters Tower	14.05	191	eP	P	21 43 31.3	-0.8
	18nm,1.3s						
KAKA	Kakadu	17.73	248	eP	P	21 44 17.4	-1.7
	6.8nm,0.4s						
WRAB	Tennant Creek	19.81	225	eP	P	21 44 42.3	-0.8
	88nm,0.8s						
WRAB				e		21 44 56.6	
WRAB				ePcP	PcP	21 49 09.9	+11
WRA	Warramunga Arr	19.83	225	P	P	21 44 42.8	-0.5
	2.3nm,0.3s,baz=49,slow=11,SNR=111						
WRA				PcP	PcP	21 49 00.1	+1.0
	0.0nm,0.3s,baz=37,slow=1.7,SNR=2.9						
WRA				pPcP		21 49 10.3	
	0.1nm,0.3s,baz=42,slow=2.1,SNR=5.5						
WRA				ScP		21 52 33.1	
	0.1nm,0.3s,baz=49,slow=2.8,SNR=11						
ASAR	Alice Springs	22.71	219	P	P	21 45 13.6	+1.1
	6.0nm,0.5s,mb4.3,baz=58,slow=9.3,SNR=120						
ASAR				PcP	PcP	21 49 05.3	+0.5
	0.7nm,0.7s,baz=40,slow=3.2,SNR=3.5						
ASAR				pPcP		21 49 15.6	
	1.3nm,0.9s,baz=63,slow=2.0,SNR=4.7						
ASAR				ScP		21 52 40.5	
	0.7nm,0.8s,baz=45,slow=2.6,SNR=4.6						
ASAR				LR	LR	21 54 09.5	
	comp=Z,85nm,18.9s,MS3.2,baz=340,slow=37						
ASPA	Alice Springs	22.71	219	⇑iP	P	21 45 13.6	+1.0
ASPA				e		21 45 30.4	
ARMA	Armidale	24.16	175	eP	P	21 45 25.5	-1.1
FITZ	Fitzroy Crossi	25.80	241	⇓iP	P	21 45 42.9	+0.6
	52nm,0.9s,mb5.1						
FITZ	Fitzroy Crossi	25.80	241	P	P	21 45 42.9	+0.6
	53nm,0.8s,mb5.1,baz=70,slow=4.4,SNR=44						
FITZ				ScP		21 52 49.4	
	7.2nm,0.8s,baz=163,slow=8.3,SNR=5.0						
FITZ				LR	LR	21 56 34.3	
	comp=Z,102nm,19.5s,MS3.4,baz=84,slow=38						
STKA	Stephens Creek	26.47	195	⇑iP	P	21 45 49.1	+0.7
	6.9nm,0.7s,mb4.3						
STKA	Stephens Creek	26.47	195	P	P	21 45 48.8	+0.4
	8.3nm,0.7s,mb4.4,baz=11,slow=9.4,SNR=16						
STKA				LR	LR	21 57 11.4	
	comp=Z,162nm,19.5s,MS3.6,baz=23,slow=38						
STKA	Stephens Creek	26.47	195	eP	P	21 45 48.6	+0.2
MBWA	Marble Bar	32.13	240	eP	P	21 46 38.7	-0.2
	7.1nm,0.6s,mb4.7						
JOW	Kunigami	38.61	329	LR	LR	22 02 17.1	
	comp=Z,88nm,18.3s,MS3.6,baz=168,slow=34						
MAJO	Matsushiro	43.78	347	eP	P	21 48 16.8	+0.3
	16nm,1.3s,mb4.6						
YSS	Yuzh-Sakhalins	53.27	355	P	P	21 49 29.1	-0.7
	36nm,1.3s,mb5.1						
CM31	Chiang Mai Arr	55.27	297	P	P	21 49 43.2	-1.6
	1.3nm,0.6s,mb4.1						
HIA	Hailar	60.95	338	eP	P	21 50 27.0	+2.8
	4.4nm,0.8s,mb4.6						
SONM	Songino Array	65.68	330	P	P	21 50 57.2	+1.9
	0.4nm,0.4s,mb3.8,baz=140,slow=4.9,SNR=7.9						
VNDA	Vanda	71.56	177	P	P	21 51 31.1	-0.1
	1.0nm,0.6s,mb3.9,baz=336,slow=7.9,SNR=9.8						
ZAL	Zalesovo	80.38	327	P	P	21 52 21.4	0.0
	0.7nm,0.4s,mb3.9,baz=321,slow=14,SNR=2.7						
QSPA	South Pole Qui	83.73	180	eP	P	21 52 38.7	+0.5
	4.0nm,0.7s,mb4.7						
ILAR	Eielson Array	84.86	23	P	P	21 52 43.1	-1.0
	0.9nm,0.7s,mb4.0,baz=247,slow=5.2,SNR=10						
LPAZ	La Paz	136.84	122	PKP	PKPdf	21 59 34.6	+2.7
	0.6nm,0.4s,baz=286,slow=10,SNR=4.6						
BDFB	Brasilia	152.39	142	PKPbc	PKPdf	22 00 07.0	+8.7
	3.1nm,0.7s,baz=227,slow=3.0,SNR=5.5						
BDFB				PKPab	PKPab	22 00 18.6	+0.8
	3.7nm,0.7s,baz=248,slow=4.0,SNR=6.7						

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*MOS **18** 21:50:43.5±1.8, 48.44N×152.78E, h143^{km}, mb4.0/4, Error ellipse: s-maj=45.3km s-min=17.2km az=59.0*
*IDC **18** 21:50:47.3±3.0, 48.32N×152.68E, h167^{km}±30^{km}, mb3.4/8, mb1 3.7/10, mb1mx3.4/24, Error ellipse: s-maj=28.5km s-min=13.1km az=123.0*
ISC 18 21:50:43.0±1.2**, 48.5N**±0.1×**152.8E**±0.2**, h138^{km}**±11^{km}**, n17, σ1.^{s}37**/20**, mb3.6**/8**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	3.12	43	ePN	P	21 51 30.5	-1.7
SKR				eS	S	21 52 09.2	-0.5
SKR				pmax	pmax		
	comp=Z,110nm,0.5s						
SKR				pmax	pmax		
	comp=N,120nm,0.2s						
SKR				pmax	pmax		
	comp=E,120nm,0.2s						
SKR				smax			
	comp=N,310nm,0.2s						
SKR				smax			
	comp=E,140nm,0.2s						
ASAJ	Asahikawa	8.27	242	P	P	21 52 43.2	+2.0
	comp=E,4.6nm,0.3s,baz=77,slow=13,SNR=39						
ASAJ	Asahikawa	8.27	242	PN	P	21 52 43.2	+2.0
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
FX1	Attu Island--F	13.66	63	P	P	21 53 53.6	+2.0
	comp=Z,1.9nm,0.3s,baz=257,slow=14,SNR=12						
FX1				S	S	21 56 12.6	-7.7
	comp=Z,1.2nm,0.3s,baz=51,slow=13,SNR=4.2						
FX1	Attu Island--F	13.66	63	P	P	21 53 53.6	+2.0
FX1				S	S	21 56 12.6	-7.7
FX1				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ILAR	Eielson Array	35.38	40	P	P	21 57 27.1	+0.6
	comp=Z,0.4nm,0.7s,mb3.1,baz=261,slow=6.0,SNR=8.4						
INK	Inuvik	40.35	33	P	P	21 58 09.9	+1.9
	comp=Z,0.7nm,0.3s,mb3.8,baz=289,slow=6.2,SNR=15						
INK	Inuvik	40.35	33	P	P	21 58 09.9	+1.9
INK				pmax	pmax		
	comp=Z,1.0nm,0.3s						
YKA	Yellowknife Ar	49.70	37	P	P	21 59 22.4	+0.3
	comp=Z,0.3nm,0.4s,mb3.3,baz=298,slow=7.2,SNR=5.1						
ARCES	ARCESS Array B	56.17	340	P	P	22 00 09.4	-0.5
	comp=Z,1.8nm,0.8s,mb4.0,baz=45,slow=6.4,SNR=2.7						
ARCES	ARCESS Array B	56.17	340	P	P	22 00 09.4	-0.5
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES	FINESS Array B	62.40	334	P	P	22 00 51.8	-1.0
	comp=Z,5.0nm,1.1s,mb4.3,baz=34,slow=5.0,SNR=5.8						
FINES	FINESS Array B	62.40	334	P	P	22 00 51.8	-1.0
FINES				pmax	pmax		
	comp=Z,5.0nm,1.1s						
PDAR	Pinedale Array	63.93	54	P	P	22 01 03.8	+0.7
	comp=Z,0.3nm,0.6s,mb3.3,baz=304,slow=3.3,SNR=3.1						
WRA	Warramunga Arr	70.05	198	P	P	22 01 39.4	-2.4
	comp=Z,1.9nm,0.9s,mb3.8,baz=14,slow=6.6,SNR=11						
WRA	Warramunga Arr	70.05	198	P	P	22 01 39.4	-2.4
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ASAR	Alice Springs	73.75	198	P	P	22 02 02.5	-1.1
	comp=Z,0.8nm,0.6s,mb3.6,baz=11,slow=6.0,SNR=23						

IDC 18 22:08:55.5±3.7**, 10.10S×78.38W, mb3.6**/2**, mb1 4.0**/2**, mb1mx3.4**/14**, Error ellipse: s-maj=319.0km s-min=60.4km az=82.0, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDAR	Pinedale Array	59.84	334	P	P	22 19 02.5	-2.6
	0.7nm,1.1s,baz=135,slow=8.4,SNR=3.7						
YKA	Yellowknife Ar	77.62	344	P	P	22 20 53.7	-1.2
	0.4nm,0.5s,baz=136,slow=6.0,SNR=9.2						
YKA				pP	pP	22 21 05.8	+11
	0.3nm,0.6s,baz=139,slow=5.5,SNR=3.8						
ILAR	Eielson Array	90.16	336	pP	pP	22 22 09.8	+11
	0.5nm,0.8s,baz=135,slow=3.8,SNR=3.4						
ASAR	Alice Springs	133.93	223	PKP	PKPdf	22 28 15.2	-2.2
	0.3nm,0.8s,baz=130,slow=1.5,SNR=4.7						
WRA	Warramunga Arr	136.08	227	PKP	PKPdf	22 28 19.0	-2.4
	0.3nm,0.5s,baz=121,slow=2.1,SNR=6.5						

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*IDC **18** 22:10:52.9±1.6, 5.56S×147.24E, h154^{km}±16^{km}, mb3.5/6, mb1 3.8/9, mb1mx3.7/14, Error ellipse: s-maj=26.7km s-min=10.9km az=108.0*
*NEIC **18** 22:10:53.1±1.6, 5.44S×147.21E, h155^{km}±16^{km}, mb4.3/11, Error ellipse: s-maj=16.4km s-min=11.1km az=107.0*
ISC 18 22:10:49.6±1.4**, 5.40S**±0.07×**147.3E**±0.1**, h137^{km}**±14^{km}**, n27, σ1.^{s}08**/31**, mb4.0**/13**, 1D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.98	182	P	P	22 11 51.8	+1.6
	29nm,0.3s,baz=34,slow=5.7,SNR=98						
PMG				S	S	22 12 35.3	-1.3
	25nm,0.3s,baz=82,slow=20,SNR=9.2						
PMG	Port Moresby	3.98	182	P	P	22 11 51.8	+1.6
PMG				S	S	22 12 35.3	-1.3
CTA	Charters Tower	14.63	184	P	P	22 14 14.5	+3.4
	0.2nm,0.3s,baz=17,slow=14,SNR=2.9						
CTA	Charters Tower	14.63	184	P	P	22 14 14.5	+3.4
CTAO	Charters Tower	14.63	184	eP	P	22 14 15.7	+4.6
	8.0nm,0.9s						
KAKA	Kakadu	16.35	243	eP	P	22 14 32.6	0.0
	16nm,0.7s						
WRAB	Tennant Creek	19.15	220	eP	P	22 15 04.0	-0.8
	26nm,0.8s						
WRA	Warramunga Arr	19.17	220	P	P	22 15 04.4	-0.6
	3.0nm,0.3s,baz=55,slow=10,SNR=115						
WRA				S	S	22 18 30.2	+0.4
	baz=40,slow=20,SNR=5.0						
ASAR	Alice Springs	22.27	214	P	P	22 15 37.5	+1.5
	7.7nm,0.9s,mb4.1,baz=38,slow=10,SNR=68						
ASAR				S	S	22 19 29.8	+2.8
	3.5nm,0.9s,baz=28,slow=17,SNR=10						
ASPA	Alice Springs	22.27	214	⇓iP	P	22 15 37.4	+1.3
FITZ	Fitzroy Crossi	24.62	237	eP	P	22 15 58.6	-0.2
	42nm,0.4s						
FITZ	Fitzroy Crossi	24.62	237	P	P	22 15 58.8	-0.1
	42nm,0.4s,baz=36,slow=6.6,SNR=134						
MBWA	Marble Bar	30.96	237	eP	P	22 16 54.3	-1.9
	4.8nm,0.7s,mb4.3						
MAJO	Matsushiro	42.58	349	eP	P	22 18 34.3	+0.6
	3.6nm,0.7s,mb4.1						
ENH	Enshi	50.67	317	eP	P	22 19 37.5	+0.2
	5.8nm,0.8s,mb4.3						
MDJ	Mudanjiang	52.27	344	P	P	22 19 52.3	+3.3
CMAR	Chiang Mai Arr	53.22	298	P	P	22 19 55.3	-1.1
	0.1nm,0.5s,baz=104,slow=5.9,SNR=4.4						
ULN	Ulaanbaatar	63.72	331	eP	P	22 21 09.6	+0.7
	2.7nm,0.9s,mb4.1						
SONM	Songino Array	64.02	331	P	P	22 21 11.5	+0.6
	4.7nm,1.3s,mb4.2,baz=149,slow=5.1,SNR=9.5						
MA2	Magadan	64.83	2	P	P	22 21 15.1	-0.9
	5.9nm,0.8s,mb4.5						
VNDA	Vanda	72.49	177	P	P	22 22 01.9	-0.8
	0.9nm,0.6s,mb3.7,baz=333,slow=4.6,SNR=9.2						
VNDA	Vanda	72.49	177	P	P	22 22 01.9	-0.8
ZAL	Zalesovo	78.67	328	P	P	22 22 36.6	-1.3
	0.7nm,0.5s,mb3.5,baz=326,slow=8.2,SNR=3.4						
MAW	Mawson	82.90	203	P	P	22 22 55.9	-4.1
	11nm,1.4s,mb4.4						
MCK	McKinley	83.57	24	eP	P	22 23 03.4	0.0
	2.7nm,1.0s,mb3.9						
QSPA	South Pole Qui	84.56	180	eP	P	22 23 07.8	-0.2
	1.0nm,0.5s,mb3.8						
ILAR	Eielson Array	84.83	23	P	P	22 23 09.8	+0.1
	0.5nm,0.6s,mb3.4,baz=259,slow=5.3,SNR=6.7						

IDC 18 22:14:59.3±8.3**, 7.26N×71.57W, h118^{km}**±58^{km}**, mb2.9**/1**, mb1 3.4**/2**, mb1mx2.9**/19**, Error ellipse: s-maj=109.0km s-min=35.3km az=103.0, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	3.64	229	P	P	22 15 53.8	-1.3
	21nm,0.3s,baz=92,slow=10.0,SNR=18						
ROSC				S	S	22 16 37.8	+0.2
	4.9nm,0.3s,baz=104,slow=23,SNR=4.8						
YKA	Yellowknife Ar	63.39	339	P	P	22 25 16.1	-2.2
	0.2nm,0.6s,baz=130,slow=7.3,SNR=3.9						
ASAR	Alice Springs	150.61	233	PKPbc	PKPdf	22 34 38.2	+5.7
	0.2nm,0.7s,baz=120,slow=4.0,SNR=4.7						
WRA	Warramunga Arr	151.90	241	PKPbc	PKPdf	22 34 41.1	+6.5
	0.2nm,0.6s,baz=98,slow=4.0,SNR=4.7						

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*IDC **18** 22:17:06.3±1.2, 23.70S×171.27E, mb3.8/7, mb1 4.1/7, mb1mx4.0/12, MS3.6/2, Ms1 3.6/2, ms1mx3.0/18, Error ellipse: s-maj=37.6km s-min=30.5km az=169.0*
ISC 18 22:17:14.3±3.3**, 22.8S**±0.4×**170.7E**±0.1**, h40^{km}**±24^{km}**, n12, σ0.^{s}63**/11**, mb3.8**/7**, MS4.0**/1**, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	4.01	279	eP	P	22 18 15.2	+0.3
DZM				eS	S	22 19 00.9	-0.4
NOUC	Port Laguerre	4.13	279	⇑eP	P	22 18 16.7	0.0
NOUC				eS	S	22 19 04.5	+0.1
URZ	Urewera	16.37	162	LR	LR	22 24 37.1	
	comp=Z,104nm,19.7s,baz=55,slow=29						
ASAR	Alice Springs	33.78	261	P	P	22 23 55.0	+0.4
	0.7nm,0.8s,mb3.6,baz=92,slow=8.3,SNR=4.8						
WRA	Warramunga Arr	33.94	268	P	P	22 23 54.4	-1.6
	0.2nm,0.5s,mb3.4,baz=98,slow=8.4,SNR=5.9						
FITZ	Fitzroy Crossi	42.37	268	P	P	22 25 07.4	+0.8
	2.7nm,0.8s,mb4.0,baz=128,slow=4.5,SNR=5.4						
VNDA	Vanda	54.95	182	P	P	22 26 31.6	-12
	1.0nm,0.7s,mb4.0,baz=6.9,slow=5.6,SNR=5.5						
CMAR	Chiang Mai Arr	81.21	294	P	P	22 29 28.4	+0.4
	0.6nm,0.8s,mb3.6,baz=120,slow=3.8,SNR=5.2						
NVAR	Mina Array Bea	90.13	48	P	P	22 30 11.1	-0.5
	0.5nm,0.5s,mb4.1,baz=220,slow=7.3,SNR=4.5						
SONM	Songino Array	90.86	323	P	P	22 30 15.2	+0.4
	0.6nm,0.8s,mb4.0,baz=142,slow=4.4,SNR=6.9						
NEW	Newport	95.61	40	LR	LR	23 06 56.0	
	comp=Z,50nm,18.4s,MS4.0,baz=55,slow=31						
GERES	GERESS Array B	148.25	331	PKPbc	PKPdf	22 36 56.4	+3.9
	1.1nm,0.6s,slow=1.3,SNR=9.7						

IDC 18 22:41:11.2±1.3**, 21.43S×67.96W, h131^{km}**±18^{km}**, mb3.2**/1**, mb1 3.3**/3**, mb1mx3.1**/13**, Error ellipse: s-maj=39.0km s-min=14.2km az=102.0, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.47	217	P	P	22 41 39.7	+0.2
	48nm,0.3s,baz=24,slow=10,SNR=496						
LVC				S	S	22 42 00.8	-0.3
	16nm,0.3s,baz=232,slow=21,SNR=14						
LPAZ	La Paz	5.12	358	P	P	22 42 26.3	-0.6
	1.0nm,0.3s,baz=182,slow=9.1,SNR=18						
LPAZ				S	S	22 43 25.6	+0.3
	0.1nm,0.3s,baz=280,slow=18,SNR=1.9						
BDFB	Brasilia	19.76	76	P	P	22 45 31.0	-2.1
	0.2nm,0.3s,baz=260,slow=12,SNR=3.2						
YKA	Yellowknife Ar	91.41	340	P	P	22 54 01.8	-1.3
	0.1nm,0.4s,baz=139,slow=4.7,SNR=4.0						

IDC 18 23:05:58.3±25.0**, 20.00S×177.49W, h538^{km}**±244^{km}**, mb3.4**/5**, mb1 3.5**/5**, mb1mx3.2**/16**, Error ellipse: s-maj=163.0km s-min=112.9km az=83.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	34.02	263	P	P	23 11 58.0	-0.9
	3.4nm,0.4s,baz=90,slow=10,SNR=8.2						
STKA	Stephens Creek	38.44	244	P	P	23 12 33.6	-1.5
	7.4nm,1.4s,baz=93,slow=11,SNR=2.9						
ASAR	Alice Springs	45.10	256	P	P	23 13 26.6	-1.6
	2.5nm,0.5s,baz=88,slow=7.5,SNR=46						
WRA	Warramunga Arr	45.14	261	P	P	23 13 26.7	-1.9
	2.1nm,0.6s,baz=97,slow=7.8,SNR=40						
FITZ	Fitzroy Crossi	53.57	262	P	P	23 14 29.9	-1.2
	2.6nm,0.4s,baz=137,slow=1.5,SNR=12						
AKASG	Malin Array Be	142.80	332	PKP	PKPdf	23 24 29.6	-0.4
	0.6nm,0.5s,baz=35,slow=4.0,SNR=5.8						

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*JMA **18** 23:25:57.5±0.3, 23.97N×122.54E, h14^{km}, M2.0*
TAP 18 23:25:56.4, 23.97N×122.45E, h13^{km}±1^{km}**, ML2.9, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.71	46	P	Pb	23 26 09.9	-0.2
YOJ				S	Sb	23 26 18.5	-1.0
IRIF	Iriomote-Funau	1.22	72	P	Pb	23 26 18.4	-0.5
IRIF				S	Sb	23 26 34.8	+0.3
HATJ	Hateruma jima	1.24	86	P	Pb	23 26 18.5	-0.7
HATJ				S	Sb	23 26 34.4	-0.6
JKRS	Kuro-shima	1.45	79	P	Pn	23 26 22.0	-0.5
JKRS				S	Sb	23 26 39.6	-1.4
JIJ	Ishigaki jima	1.59	75	P	Pn	23 26 24.2	-0.4
JIJ				S	Sn	23 26 42.3	-2.9

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*NEIC **18** 23:54:06.9±0.3, 51.63N×16.13E, h5^{km}, ML3.5(VIE), Error ellipse: s-maj=3.9km s-min=3.6km az=84.0*
*IPEC **18** 23:54:06.4±0.3, 51.61N×16.20E, ML2.9/3, Error ellipse: s-maj=1.9km s-min=1.4km az=20.0*
*BGR **18** 23:54:07.6±0.6, 51.48N×16.19E, h1^{km}, ML3.5/9, Error ellipse: s-maj=6.7km s-min=5.6km az=142.0*
*IDC **18** 23:54:08.3±0.6, 51.54N×15.96E, mb3.5/1, mb1 3.8/10, mb1mx3.6/23, ML3.4/9, Error ellipse: s-maj=10.4km s-min=5.9km az=104.0*
*CSEM **18** 23:54:08.6±0.1, 51.51N×16.13E, h1^{km}, ML3.8/5, Error ellipse: s-maj=1.7km s-min=1.2km az=24.0*
*WAR **18** 23:54:09.3, 51.49N×16.10E, h1^{km}, ML3.6, Mining Induced*
*PRU **18** 23:54:09.0, 51.48N×16.12E, Felt In Harrachov*
*UPP **18** 23:54:11.8, 51.74N×15.42E, h0^{km}, ML2.0, Suspected Mining explosion.*
*LDG **18** 23:54:12.9±0.2, 51.39N×15.78E, h1^{km}, Ml3.2/9, Error ellipse: s-maj=5.7km s-min=2.9km az=161.0, Suspected Mining induced.*
ISC 18 23:54:06.5±0.3**, 51.45N**±0.02×**16.06E**±0.02**, n118, σ1.^{s}42**/202**, mb3.6**/1**, 8C-6D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.63	166	iPG	Pg	23 54 21.4	+2.4
KSP				eSG	Sg	23 54 30.4	+3.1
KSP	Ksiaz	0.63	166	⇓iPg	Pg	23 54 21.4	+2.4
KSP				eSg	Sg	23 54 30.2	+2.9
KSP	Ksiaz	0.63	166	ePg	Pg	23 54 21.5	+2.5
KSP				ePn	Pn	23 54 23.1	+0.9
KSP				eSg	Sg	23 54 30.3	+3.0
KSP				eSn	Sn	23 54 35.3	+2.2
UPC	Upice	0.95	182	ePG	Pg	23 54 27.4	+2.0
DPC	Dobruska-Polom	1.11	171	ePG	Pg	23 54 30.2	+1.5
DPC				eSG	Sg	23 54 44.8	+1.2
	180nm,0.6s						
PVCC	Panska Ves	1.32	226	ePG	Pg	23 54 34.2	+1.4
PVCC	Panska Ves	1.32	226	Pg	Pg	23 54 34.2	+1.4
PVCC				eSg	Sg	23 54 53.6	+3.2
BRG	Berggiesshubel	1.45	247	ePn	Pn	23 54 35.2	+1.2
BRG				eSg	Sg	23 54 57.0	+2.2
BRG	Berggiesshubel	1.45	247	iPn	Pn	23 54 35.1	+1.0
BRG				iPg	Pg	23 54 36.9	+1.4
BRG				iSg	Sg	23 54 56.9	+2.0
BRG	Berggiesshubel	1.45	247	iPg	Pg	23 54 36.9	+1.4
BRG				Sg	Sg	23 54 57.0	+2.1
RUE	Ruedersdorf	1.75	307	ePn	Pn	23 54 38.6	+0.3
RUE				eSg	Sg	23 55 05.1	+0.5
RUE	Ruedersdorf	1.75	307	ePn	Pn	23 54 38.4	+0.2
RUE				eSn	Sn	23 55 00.5	-1.0
RUE	Ruedersdorf	1.75	307	Pn	Pn	23 54 38.6	+0.3
RUE				eSn	Sn	23 55 00.5	-1.1
RUE				Sg	Sg	23 55 05.1	+0.5
PRU	Pruhonice	1.75	214	iPN	Pn	23 54 39.7	+1.3
PRU				PG	Pg	23 54 41.3	-0.2

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PRU                                  i x    x      23 54 45.7
PRU                                  i x    x      23 54 58.8
PRU                                    SG   Sg     23 55 04.7 -0.2
       110nm,0.4s
PRU    Pruhonice           1.75 214    Pg   Pg     23 54 41.3 -0.2
PRU                                    Sg   Sg     23 55 04.7 -0.2
       110nm,0.4s
CLL    Collm               1.92 267  ePn    Pn     23 54 41.6 +0.9
CLL    Collm               1.92 267  ePn    Pn     23 54 42.0 +1.2
CLL                                  i Pg   Pg     23 54 44.9 +0.1
CLL                                  i Sg   Sg     23 55 10.7 +0.2
CLL    Collm               1.92 267  ePN    Pn     23 54 42.0 +1.2
CLL                                  i PG   Pg     23 54 44.9 +0.1
CLL                                  i             23 54 48.8
CLL                                  i SG   Sg     23 55 10.7 +0.2
CLL    Collm               1.92 267  i Pg   Pg     23 54 44.9 +0.1
MORC   Moravsky Berou      1.92 150  ePn    Pn     23 54 41.9 +1.1
MORC                                 eSn    Sn     23 55 02.0 -4.0
MORC   Moravsky Berou      1.92 150  ePn    Pn     23 54 41.9 +1.1
MORC                                 eSg    Sg     23 55 10.1 -0.4
       85nm,0.3s
RAC    Raciborz            1.93 134  ePg    Pg     23 54 44.8 -0.1
RAC                                  eSg    Sg     23 55 10.8 +0.2
GKP    Gorka Klasztor      1.96  21  ePn    Pn     23 54 46.1 +4.8
GKP                                  ePg    Pg     23 54 50.1 +4.5
GKP                                  eSn    Sn     23 55 11.5 +4.6
GKP                                  eSg    Sg     23 55 14.6 +2.9
OKC    Ostrava-Krasne      2.09 140  ePN    Pn     23 54 43.4 +0.2
OKC                                  ePG    Pg     23 54 47.8 -0.4
OKC                                  eSG    Sg     23 55 14.6 -1.5
OKC    Ostrava-Krasne      2.09 140  ePg    Pg     23 54 47.8 -0.4
OKC                                    Sg   Sg     23 55 14.6 -1.5
VRAC   Vranov              2.17 171    Pn   Pn     23 54 46.3 +1.9
       5.2nm,0.3s,baz=342,slow=17,SNR=30
VRAC                                   Lg          23 55 19.2
       13nm,0.3s,baz=266,slow=22,SNR=8.9
VRAC   Vranov              2.17 171  ePn    Pn     23 54 45.9 +1.5
VRAC                                 eSg    Sg     23 55 18.4 -0.4
       36nm,0.3s
KRUC   Moravsky            2.40 175  ePn    Pn     23 54 49.4 +1.8
KRUC                                 eSg    Sg     23 55 26.4  0.0
       52nm,0.4s
WERD   Werda               2.58 249  ePn    Pn     23 54 51.4 +1.3
WERD                                 eSg    Sg     23 55 30.9 -1.4
NKC    Novy Kostel         2.59 243  ePN    Pn     23 54 52.0 +1.6
NKC                                  ePG    Pg     23 54 57.4 -0.9
NKC                                  eSG    Sg     23 55 34.8 +1.9
NKC    Novy Kostel         2.59 243  eSg    Sg     23 55 34.8 +1.9
NKC    Novy Kostel         2.59 243  ePg    Pg     23 54 57.4 -0.9
GUNZ   Gunzen              2.60 247  ePn    Pn     23 54 52.1 +1.6
GUNZ                                 eSg    Sg     23 55 33.5 +0.5
GUNZ   Gunzen              2.60 247    Sg   Sg     23 55 33.5 +0.5
OJC    Ojcow               2.67 116  ePg    Pg     23 54 58.9 -0.9
OJC    Ojcow               2.67 116  eSg    Sg     23 55 34.2 -1.2
OJC    Ojcow               2.67 116  ePn    Pn     23 54 50.5 -1.0
OJC                                  ePg    Pg     23 54 58.9 -0.9
OJC                                  eSg    Sg     23 55 34.2 -1.2
KHC    Kasperske Hory      2.82 215  ePN    Pn     23 54 54.5 +0.9
KHC                                  ePG    Pg     23 55 01.1 -1.6
KHC                                  eSG    Sg     23 55 39.7 -0.5
KHC    Kasperske Hory      2.82 215  ePg    Pg     23 55 01.1 -1.6
KHC                                  eSg    Sg     23 55 39.7 -0.5
MOX    Moxa                2.92 256  ePn    Pn     23 54 55.8 +0.7
MOX                                  eSg    Sg     23 55 44.2 +0.6
MOX    Moxa                2.92 256  i P    Pn     23 54 56.1 +1.1
MOX                                    Pg   Pg     23 55 04.0 -0.8
MOX                                    Sg   Sg     23 55 44.0 +0.3
MOX    Moxa                2.92 256  ePn    Pn     23 54 56.1 +1.1
MOX                                  ePg    Pg     23 55 04.1 -0.7
MOX                                  eSg    Sg     23 55 44.1 +0.4
MOX    Moxa                2.92 256  ePg    Pg     23 55 04.1 -0.7
MOX                                    Sg   Sg     23 55 44.2 +0.5
GEC2   GERESS Array S      3.02 211  ePn    Pn     23 54 58.0 +1.5
GERES  GERESS Array B      3.02 211    Pn   Pn     23 54 57.7 +1.3
       4.2nm,0.3s,baz=30,slow=12,SNR=114
GERES                                  Pg   Pg     23 55 04.7 -2.0
       8.7nm,0.3s,baz=28,slow=16,SNR=39
GERES                                  Lg          23 55 44.9
       11nm,0.3s,baz=39,slow=31,SNR=8.5
GERES  GERESS Array B      3.02 211    Pg   Pg     23 55 04.7 -2.0
WET    Wettzell            3.08 223  ePn    Pn     23 54 58.6 +1.2
VKA    Vienna              3.19 177 ⇑iPN    Pn     23 55 01.1 +2.2
VKA                                  i PG   Pg     23 55 09.0 -1.2
VKA                                  i SG   Sg     23 55 52.7 -0.1
VKA    Vienna              3.19 177  i Pg   Pg     23 55 09.0 -1.2
VKA                                  i Sg   Sg     23 55 52.7 -0.1
ZST    Bratislava          3.33 168  ePN    Pn     23 55 02.4 +1.6
ZST                                  ePB    Pg     23 55 10.6 -2.3
ZST                                  eSB    Sg     23 55 54.7 -2.6
ZST    Bratislava          3.33 168  ePg    Pg     23 55 10.6 -2.3
ZST                                  eSg    Sg     23 55 54.7 -2.6
NIE    Niedzica            3.40 125  ePn    Pn     23 55 02.3 +0.5
NIE                                  i Pg   Pg     23 55 12.3 -2.0
NIE                                  eSg    Sg     23 55 57.8 -1.7
VYHS   Vyhne               3.46 148  ePN    Pn     23 55 03.1 +0.4
GRA1   Grafenberg Arr      3.55 242    Pn   Pn     23 55 05.0 +1.0
GRF    Grafenberg Arr      3.55 242  ePn    Pn     23 55 05.0 +1.0
CLZ    Clausthal           3.56 279  ePn    Pn     23 55 05.2 +1.0
BSD    Bornholm Skovb      3.73 350  i P    Pn     23 55 04.8 -1.8
BSD                                  i S    Sn     23 55 46.1 -5.8
BSD                                  i             23 55 47.8
SOP    Sopron              3.79 175  ePB    Pb     23 55 22.3 +8.3
MOA    Molln               3.79 199 ⇑iPN    Pn     23 55 08.7 +1.3
MOA                                  i SG   Sg     23 56 12.7 +0.1
       28nm,0.5s
KECS   Kecovo              4.12 134  ePG    Pg     23 55 27.2 -1.5
ARSA   Arzberg             4.22 185 ⇑iPN    Pn     23 55 15.3 +1.8
ARSA                                 i SG   Sg     23 56 22.4 -4.6
       55nm,0.8s
ARSA   Arzberg             4.22 185  i Sg   Sg     23 56 22.4 -4.6
       55nm,0.8s
CRVS   Cervenica-Dubn      4.31 124  ePN    Pn     23 55 16.5 +1.7
CRVS                                 ePG    Pg     23 55 30.7 -1.8
CRVS   Cervenica-Dubn      4.31 124  ePg    Pg     23 55 30.7 -1.8
PSZ    Piszkesteto         4.32 143 ⇓ePn    Pn     23 55 16.1 +1.1
FUR    Furstenfeldbru      4.52 225  ePn    Pn     23 55 19.0 +1.2
KWP    Kalwaria            4.61 111  ePn    Pn     23 55 21.3 +2.2
KWP                                  ePb    Pb     23 55 30.0 +1.9
KWP    Kalwaria            4.61 111  ePn    Pg     23 55 32.8 -5.8
KOLS   Kolonicke sedl      4.72 120  i PN   Pn     23 55 20.4 -0.2
KOLS                                 e             23 55 35.8
KOLS   Kolonicke sedl      4.72 120  ePg    Pg     23 55 35.8 -4.9
KBA    Koelnbreinsper      4.72 203 ⇑iPN    Pn     23 55 21.6 +0.9
KBA                                  i SG   Sg     23 56 40.6 -3.2
       17nm,0.6s
COP    Copenhagen          4.76 334  i P    Sn     23 56 07.9  -10
PERS   Pernice             4.86 188  ePn    Pn     23 55 24.5 +1.9
BLEU   Blekinge            4.87 358    P    Pn     23 55 21.2 -1.5
       baz=183
WATA   Walderalm           5.05 217 ⇑iPN    Pn     23 55 26.8 +1.5
WATA                                 i SG   Sg     23 56 51.4 -3.3
       11nm,0.5s
WATA   Walderalm           5.05 217 ⇑iPn    Pn     23 55 26.8 +1.5
       11nm,0.5s
WATA                                 i Sg   Sg     23 56 51.4 -3.3
WTTA   Wattenberg          5.09 216 ⇓iPN    Pn     23 55 27.1 +1.2
WTTA                                 i SG   Sg     23 56 53.4 -2.6
       12nm,0.6s
WTTA   Wattenberg          5.09 216 ⇓iPn    Pn     23 55 27.1 +1.2
       12nm,0.6s
WTTA                                 i Sg   Sg     23 56 53.4 -2.6
MOTA   Moosalm             5.23 220 ⇓iPN    Pn     23 55 28.4 +0.6
MOTA                                 i SG   Sg     23 56 58.6 -2.0
       9.1nm,0.5s
MOTA   Moosalm             5.23 220 ⇓iPn    Pn     23 55 28.4 +0.6
       9.1nm,0.5s
MOTA                                 i Sg   Sg     23 56 58.6 -2.0
MOTA   Moosalm             5.23 220  i Sg   Sg     23 56 58.6 -2.0
SQTA   Sankt Quirin        5.29 219 ⇑iPN    Pn     23 55 29.7 +1.0
SQTA                                 i SG   Sg     23 57 00.7 -1.9
       7.5nm,0.4s
SQTA   Sankt Quirin        5.29 219 ⇑iPn    Pn     23 55 29.7 +1.0
       7.5nm,0.4s
SQTA                                 i Sg   Sg     23 57 00.7 -1.9
VISS   Visnje              5.71 189  i Pn   Pn     23 55 35.4 +0.8
CEY    Cerknica            5.82 191  ePn    Pn     23 55 36.1  0.0
BOJS   Bojanci             5.98 185  i Pn   Pn     23 55 39.8 +1.4
DAVOX  Davos               6.19 223    Pn   Pn     23 55 41.2 -0.1
       0.9nm,0.3s,baz=41,slow=14,SNR=11
DAVOX                                  Lg          23 57 24.2
       0.4nm,0.3s,baz=49,slow=19,SNR=2.9
DAVOX  Davos               6.19 223    Pn   Pn     23 55 41.2 -0.1
CDF    Champ du Feu        6.43 245  ePn    Pn     23 55 43.8 -1.0
CDF                                  eSn    Sn     23 56 51.6 -8.4
CDF                                  eSg    Sg     23 57 29.1  -12
       6.8nm,0.5s
HINF   Hinteralfeld        7.00 242  ePn    Pn     23 55 52.1 -0.7
HINF                                 eSg    Sg     23 57 46.6  -13
       18nm,0.8s
HAU    Haudompre           7.18 245  ePn    Pn     23 55 54.3 -1.0
HAU                                  ePg    Pg     23 56 22.3 -7.5
HAU                                  eSg    Sg     23 57 51.5  -14
       2.9nm,0.4s
HAU    Haudompre           7.18 245  ePg    Pg     23 56 22.3 -7.5
RFYF   Reffroy             7.38 252  eSg    Sg     23 57 57.1  -15
       2.2nm,0.4s
MEZF   Maizieres J'vi      7.69 252  ePn    Pn     23 56 00.1 -2.3
SFTF   Sexfontaines        7.83 250  ePn    Pn     23 56 02.9 -1.6
SFTF                                 eSg    Sg     23 58 12.4  -15
       1.5nm,0.2s
CABF   La Chapelle         8.15 237  ePn    P      23 56 08.0 -0.8
CABF                                 ePg    P      23 56 40.1  +31
CABF                                 eSg    Sg     23 58 21.9  -16
       1.7nm,0.5s
AKASG  Malin Array Be      8.33  90    Pn   P      23 56 07.3 -4.0
       2.5nm,0.3s,baz=279,slow=12,SNR=21
AKASG                                  Sn   Sn     23 57 38.3 -9.0
       1.4nm,0.3s,baz=270,slow=22,SNR=4.0
AKASG                                  Lg          23 58 38.6
       0.5nm,0.3s,baz=270,slow=28,SNR=4.4
LPL    La Plagne           8.58 230  ePn    P      23 56 14.5 -0.3
LPG    La Plagne           8.58 230  ePn    P      23 56 14.3 -0.6
HFS    Hagfors             8.80 352    Pn   P      23 56 11.8 -6.2
       0.1nm,0.3s,baz=170,slow=18,SNR=5.2
HFS                                    Sn   Sn     23 57 47.0  -12
       0.0nm,0.3s,baz=176,slow=23,SNR=2.0
HFS    Hagfors             8.80 352    Sn   Sn     23 57 47.0  -12
MBDF   Montbardon          9.15 226  ePn    P      23 56 21.4 -1.4
SSF    Saint Saulge        9.31 247  ePn    P      23 56 22.6 -2.4
ORIF   Oris-en-Rattie      9.43 230  ePn    P      23 56 25.2 -1.4
AVF    Avril sur Loir      9.55 246  ePn    P      23 56 25.5 -2.6
SBF    Sospel              9.56 221  ePn    P      23 56 26.1 -2.2
SBF                                  eSg    Sg     23 59 07.0  -18
       25nm,0.7s
HYF    Humbligny           9.70 250  ePn    P      23 56 28.4 -1.9
NOA    NORSAR Array B      9.98 346    Pn   P      23 56 29.0 -5.0
       0.2nm,0.3s,baz=152,slow=13,SNR=2.2
NOA                                    Sn   Sn     23 58 15.6  -12
       0.1nm,0.3s,baz=137,slow=22,SNR=2.5
NOA    NORSAR Array B      9.98 346    Pn   P      23 56 29.0 -5.0
NOA                                    Sn   Sn     23 58 15.6  -12
NOA    NORSAR Array B      9.98 346    Sn   Sn     23 58 15.6  -12
FRF    La Foret Royal     10.14 223  ePn    P      23 56 34.3 -2.0
SMRF   Simiane la Rot     10.28 227  ePn    P      23 56 36.1 -2.1
LMR    La Mourre          10.38 222  ePn    P      23 56 37.5 -2.1
FINES  FINESS Array B     11.43  25    Pn   P      23 56 48.8 -5.1
       0.3nm,0.3s,baz=206,slow=12,SNR=14
FINES                                  Sn   S      23 58 49.4  -14
       0.5nm,0.3s,baz=204,slow=20,SNR=6.7
KAF    Kangasniemi        12.05  24  ep     P      23 56 55.3 -7.0
EKA    Eskdalemuir Ar     12.10 296    Pn   P      23 56 57.5 -5.6
       0.1nm,0.3s,baz=106,slow=13,SNR=2.8
ARCES  ARCESS Array B     18.69  10    Pn   P      23 58 22.4 -5.5
       0.2nm,0.3s,baz=192,slow=11,SNR=9.3
YKA    Yellowknife Ar     59.90 336    P    P      00 04 15.0 -0.8
       0.4nm,0.7s,mb3.6,baz=28,slow=6.4,SNR=6.9
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*IDC **18** 23:55:50.9±2.2, 40.33S×176.65E, mb4.5/4, mb1 4.5/6, mb1mx4.2/13, ML3.7/2, Error ellipse: s-maj=55.7km s-min=26.6km az=138.0*

*BJI **18** 23:55:53.4, 40.24S×176.69E, h16^{km}, mB5.1, mb4.9, Ms4.6, Msz4.2*

*NEIC **18** 23:55:55.7, 40.26S×176.60E, h25^{km}, mb4.7/1, ML4.4(WEL), After WEL.*

NEIC Felt in Hawke's Bay County.

*WEL **18** 23:55:55.4±0.2, 40.24S×176.63E, h28^{km}, ML4.4/20, Error ellipse: s-maj=2.0km s-min=1.0km az=90.0, intensity MM 5.*

WEL Felt between King Country, Wairarapa and Hawke's Bay, maximum reported.

ISC 18 23:55:53.7±0.8**, 40.33S**±0.03×**176.77E**±0.05**, h28**^{km}±5^{km}**, n72, σ1**^{s}**17**/84**, mb4.5**/5**, MS4.3**/1**, 14C-8D, North Island**

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Code   Station Name          Δ°  AZ°   Phase ID          Time     Res
                                     Op     ISC        h  m  s    ISC
BFZ    Birch Farm          0.53 229    P    Pb     23 56 06.9 +2.4
BFZ    Birch Farm          0.53 229  ⇑P*    Pb     23 56 06.9 +2.5
BFZ                                    S*   Sb     23 56 14.3 +2.5
TSZ    Takapari Road       0.68 293  ⇓P     Pb     23 56 05.8 -1.1
TSZ    Takapari Road       0.68 293  ⇑P*    Pb     23 56 05.8 -1.1
TSZ                                  ⇑P*    Pb     23 56 05.8 -1.1
TSZ                                    S*   Sb     23 56 13.3 -2.6
MRZ    Mangatainoka R      0.97 250  ⇓P     Pn     23 56 12.0 +0.5
MRZ    Mangatainoka R      0.97 250    P*   Pb     23 56 12.0 +0.2
MRZ                                    S*   Sb     23 56 24.8 +0.7
BKZ    Black Stump Fm      1.18 349  ⇑P     Pn     23 56 14.9 +0.3
BKZ    Black Stump Fm      1.18 349  ⇓PN    Pn     23 56 14.9 +0.2
BKZ                                    SN   Sn     23 56 28.0 -1.9
MTW    Mount Morrison      1.27 229  ⇑P     Pn     23 56 16.5 +0.6
MTW    Mount Morrison      1.27 229  ⇑P*    Pb     23 56 16.5 -0.4
WNVZ   Wahianoa            1.35 318    P    Pn     23 56 17.5 +0.5
WNVZ   Wahianoa            1.35 318  ⇓PN    Pn     23 56 17.5 +0.5
WNVZ                                   SN   Sn     23 56 33.2 -1.0
TUVZ   Tukino              1.37 321  ⇑P     Pn     23 56 17.9 +0.6
TUVZ   Tukino              1.37 321  ⇑PN    Pn     23 56 17.9 +0.6
TUVZ                                   SN   Sn     23 56 34.4 -0.2
DRZ    Dome Shelter        1.41 318    PN   Pn     23 56 18.1 +0.3
DRZ                                    SN   Sn     23 56 36.2 +0.6
FWVZ   Far West T-bar      1.43 318  ⇑P     Pn     23 56 18.5 +0.4
FWVZ   Far West T-bar      1.43 318  ⇑PN    Pn     23 56 18.5 +0.4
PAWZ   Paruwai Farm        1.46 224    PN   Pn     23 56 19.0 +0.4
NGZ    Ngauruhoe           1.47 322  ⇑P     Pn     23 56 19.1 +0.4
NGZ    Ngauruhoe           1.47 322    PN   Pn     23 56 19.2 +0.6
NGZ                                    SN   Sn     23 56 36.8 -0.2
WPVZ   Whakapapa           1.47 320    PN   Pn     23 56 19.2 +0.5
WPVZ                                   SN   Sn     23 56 37.2  0.0
CNZ    Chateau             1.47 320    PN   Pn     23 56 19.3 +0.5
WAZ    Wanganui            1.49 292    PN   Pn     23 56 19.7 +0.7
WAZ                                    SN   Sn     23 56 38.7 +1.1
CAW    Cannon Point        1.51 239  ⇓P     Pn     23 56 19.4 +0.1
CAW    Cannon Point        1.51 239  ⇓PN    Pn     23 56 19.4 +0.1
KIW    Kapiti Island       1.51 249    P    Pn     23 56 19.8 +0.5
KIW    Kapiti Island       1.51 249    PN   Pn     23 56 19.8 +0.5
WTVZ   West Tongariro      1.52 323    PN   Pn     23 56 20.0 +0.5
WTVZ                                   SN   Sn     23 56 39.0 +0.6
RITZ   Rihia Road          1.52 332    P    Pn     23 56 20.8 +1.3
RITZ   Rihia Road          1.52 332    PN   Pn     23 56 20.8 +1.2
HATZ   Hinemaiaia          1.53 340    P    Pn     23 56 19.9 +0.3
HATZ   Hinemaiaia          1.53 340    PN   Pn     23 56 19.9 +0.3
MSWZ   Moikau Station      1.58 226    PN   Pn     23 56 20.2 -0.2
KATZ   Kakaramea           1.59 328    P    Pn     23 56 21.7 +1.3
KATZ   Kakaramea           1.59 328    PN   Pn     23 56 21.2 +0.7
TWVZ   Taurewa             1.63 320    PN   Pn     23 56 21.1 +0.2
TWVZ                                   SN   Sn     23 56 42.9 +1.7
MGZ    Maungaku            1.64 324    PN   Pn     23 56 21.9 +0.8
RATZ   Rangitukua          1.65 332    P    Pn     23 56 22.8 +1.4
RATZ   Rangitukua          1.65 332    PN   Pn     23 56 22.2 +0.8
WEL    Wellington          1.79 237    PN   Pn     23 56 22.9 -0.5
WATZ   Wairara             1.81 333    P    Pn     23 56 23.8 +0.2
WATZ   Wairara             1.81 333    PN   Pn     23 56 23.4 -0.2
MRW    Makara Radio        1.81 240    PN   Pn     23 56 23.1 -0.5
PATZ   Paeroa              1.99 348    PN   Pn     23 56 26.3 +0.1
MWZ    Matawai             2.08  17  ⇓P     Pn     23 56 27.1 -0.4
MWZ    Matawai             2.08  17  ⇓PN    Pn     23 56 27.0 -0.4
URZ    Urewera             2.09   7    Pn   Pn     23 56 27.0 -0.6
       65nm,0.3s,baz=231,slow=6.2,SNR=245
TAZ    Tarawera            2.11 354  ePN    Pn     23 56 27.3 -0.6
TUWZ   Tuamarina           2.41 242  ePN    Pn     23 56 30.7 -1.4
TUWZ                                   S*   Sb     23 56 59.0 -6.7
PUZ    Puketiti            2.54  28    P    Pn     23 56 32.9 -1.1
PUZ    Puketiti            2.54  28    PN   Pn     23 56 31.7 -2.3
BSWZ   Blackbirch Sta      2.59 237    PN   Pn     23 56 33.3 -1.4
NNZ    Nelson              2.72 250  ePN    Pn     23 56 35.0 -1.6
MXZ    Matakaoa Point      3.01  24    PN   Pn     23 56 39.5 -1.2
THZ    Tophouse            3.25 243    PN   Pn     23 56 42.0 -2.2
QRZ    Quartz Range        3.27 260  eP     Pn     23 56 42.7 -1.7
QRZ    Quartz Range        3.27 260    PN   Pn     23 56 42.7 -1.7
RPZ    Rata Peaks          5.44 230    Pn   Pn     23 57 11.8 -3.3
       1.0nm,0.3s,baz=13,slow=3.4,SNR=6.3
RPZ                                    Sn   Sn     23 58 10.1 -7.4
       7.3nm,0.3s,baz=344,slow=20,SNR=13
STKA   Stephens Creek     29.49 275    P    P      00 01 57.0 -0.7
       2.7nm,0.8s,mb4.0,baz=105,slow=12,SNR=3.2
ASAR   Alice Springs      39.55 282    P    P      00 03 22.8 -1.4
       2.0nm,0.4s,mb4.2,baz=134,slow=8.6,SNR=45
ASPA   Alice Springs      39.55 282  eP     P      00 03 22.6 -1.5
WRA    Warramunga Arr     41.46 287    P    P      00 03 38.3 -1.5
       4.7nm,0.3s,mb4.5,baz=125,slow=8.2,SNR=175
FITZ   Fitzroy Crossi     49.05 281  eP     P      00 04 38.8 -1.6
       3.0nm,0.4s,mb4.7
FITZ   Fitzroy Crossi     49.05 281    P    P      00 04 39.0 -1.4
       4.3nm,0.6s,mb4.7,baz=129,slow=4.1,SNR=20
VNA3   Neumayer Olymp     68.64 178 ⇑i      P      00 07 00.1 +4.3
VNA2   Neumayer--Watz     69.01 179 ⇑i      P      00 07 01.2 +3.1
VNA1   Neumayer--Stat     69.27 178 ⇑i      P      00 07 02.3 +2.6
MDJ    Mudanjiang         94.60 328    P    P      00 09 15.0 +2.2
MDJ                                    AMB  AMB
       comp=Z,7.0nm,1.5s,mb4.9
MDJ                                    AMB  AMB
       comp=Z,157nm,5.2s
CN2    Changchun          95.67 325  eP     P      00 09 20.3 +2.6
WMQ    Urumqi            115.84 306    PKP  PKPdf  00 14 35.0 -3.4
WMQ                                    PP   PP     00 15 42.8 +0.8
WMQ                                    PPP  PPP    00 18 10.0 +1.1
WMQ                                    PP   PP
       comp=Z,14nm,8.7s
WMQ                                    LR   LR
       comp=N,43nm,17.4s,MS4.3
WMQ                                    LR   LR
       comp=E,53nm,15.0s,MS4.3
WMQ                                    LR   LR
       comp=Z,43nm,14.6s,MS4.2
ARCES  ARCESS Array B    147.06 342    PKPbc PKPdf 00 15 34.4 -1.1
       comp=Z,5.1nm,0.6s,baz=47,slow=2.8,SNR=20
FINES  FINESS Array B    152.34 330    PKPbc PKPdf 00 15 46.9 +2.9
       comp=Z,2.8nm,0.8s,baz=45,slow=5.9,SNR=7.6
```

WEL 19 00:09:15.0±0.8**, 41.77S**×**178.14E, h33**^{km}**, ML3.5**/4**, 1C, Error ellipse: s-maj=6.7km s-min=5.2km az=90.0, Off east coast of North Island**

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Code   Station Name          Δ°  AZ°   Phase ID          Time     Res
                                     Op     ISC        h  m  s    ISC
MRZ    Mangatainoka R      2.22 299    PN   Pn     00 09 48.7 -1.6
MRZ                                  eSN    Sn     00 10 13.7 -3.2
MRZ                                  eSN    Sn     00 10 14.3 -2.6
BKZ    Black Stump Fm      2.88 334  ⇑PN    Pn     00 09 58.6 -1.2
BKZ                                  eSN    Sn     00 10 30.1 -3.6
BKZ                                    SN   Sn     00 10 30.3 -3.4
WNVZ   Wahianoa            3.11 321  ePN    Pn     00 10 03.1 +0.1
WAZ    Wanganui            3.12 309    PN   Pn     00 10 03.6 +0.4
WAZ                                    SN   Sn     00 10 40.2 +0.5
MWZ    Matawai             3.46 352    PN   Pn     00 10 05.2 -2.7
THZ    Tophouse            3.92 268  ePN    Pn     00 10 09.7 -4.7
QRZ    Quartz Range        4.33 281  ePN    Pn     00 10 17.7 -2.6
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*MOS **19** 00:14:41.1±1.5, 49.06N×156.51E, h36^{km}, mb4.0/1, Error ellipse: s-maj=31.8km s-min=10.0km az=72.4*

*KRSC **19** 00:14:42.7±1.0, 49.04N×156.91E, h39^{km}±9^{km}, ML4.2*

*IDC **19** 00:14:43.5±1.8, 49.03N×156.50E, h40^{km}±8^{km}, mb3.3/5, mb1 3.8/7, mb1mx3.5/23, ML3.5/2, Error ellipse: s-maj=54.8km s-min=16.6km az=165.0*

*NEIC **19** 00:14:43.7±2.0, 49.22N×156.16E, mb3.7/1, Error ellipse: s-maj=44.0km s-min=35.4km az=123.0*

ISC 19 00:14:45.3±1.1**, 49.20N**±0.06×**156.9E**±0.1**, h59**^{km}±11^{km}**, h41**^{km}±1.4^{km}**:pP-P, n40, σ1**^{s}**09**/64**, mb3.7**/6**, Kuril Islands**

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Code   Station Name          Δ°  AZ°   Phase ID          Time     Res
                                     Op     ISC        h  m  s    ISC
SKR    Severo-Kuril's      1.58 341  eP     P      00 15 10.5 -1.1
SKR                                  eS     S      00 15 31.8 +0.7
SKR    Severo-Kuril's      1.58 341  ePN    P      00 15 06.2 -5.4
SKR                                  eS     S      00 15 27.5 -3.6
ALID   Alaid               1.90 332  eP     P      00 15 14.3 -1.7
ALID                                 eS     S      00 15 39.1 +0.3
PAU    Pauzhetka           2.28 358  eP     P      00 15 21.4 +0.1
PAU                                  eS     S      00 15 49.4 +1.2
PAU                                   Smax
       500nm,0.6s
RUS    Russkaya            3.39  16    P    P      00 15 37.0 -0.1
RUS                                    S    S      00 16 16.4  0.0
RUS    Russkaya            3.39  16  eP     P      00 15 37.0 -0.1
RUS                                  eS     S      00 16 16.6 +0.2
GRL    Gorelyy             3.44  12  eP     P      00 15 38.2 +0.5
GRL                                  eS     S      00 16 18.8 +1.3
APC    Apacha              3.74   2  eP     P      00 15 40.9 -1.0
APC                                  eS     S      00 16 24.5 -0.6
APC                                   Smax
       30nm,1.2s
PET    Petropavlovsk       3.98  15    P    P      00 15 45.9 +0.5
PET                                    S    S      00 16 32.3 +1.1
PET    Petropavlovsk       3.98  15  eP     P      00 15 45.9 +0.5
PET                                  eS     S      00 16 32.5 +1.3
PET    Petropavlovsk       3.98  15  ePN    P      00 15 46.2 +0.8
PET                                  eS     S      00 16 34.3 +3.1
PET                                   smax
       comp=N,92nm,0.6s
PET    Petropavlovsk       3.98  15  ePn    P      00 15 43.8 -1.6
PET                                  eSn    S      00 16 34.7 +3.5
UGLR   Uglovaya            4.19  16  eP     P      00 15 48.8 +0.5
UGLR                                 eS     S      00 16 36.1 -0.3
AVH    Avacha              4.23  15  eP     P      00 15 49.7 +0.9
AVH                                  eS     S      00 16 38.3 +0.9
KOK    Koryaka             4.24  14  eP     P      00 15 50.3 +1.3
KOK                                  eS     S      00 16 38.9 +1.2
NLC    Nalytchevo          4.26  20  eP     P      00 15 48.4 -0.9
NLC                                  eS     S      00 16 36.5 -1.7
SDLR   Sedlovina           4.27  16  eP     P      00 15 49.1 -0.3
SDLR                                 eS     S      00 16 37.3 -1.1
SPN    Mys Shipunski       4.36  25    P    P      00 15 50.4 -0.3
SPN                                    S    S      00 16 39.5 -1.3
SPN    Mys Shipunski       4.36  25  eP     P      00 15 50.4 -0.3
SPN                                  eS     S      00 16 40.2 -0.6
GNL    Ganaly              4.55   8  eP     P      00 15 54.1 +0.8
GNL                                  eS     S      00 16 45.9 +0.4
KMNR   Kamenistaya         6.87  16  eP     P      00 16 27.0 +1.3
ZLN    Zelenaya            7.22  17  eP     P      00 16 30.6  0.0
ZLN                                  eS     S      00 17 48.8 -3.2
LGNR   Loginova            7.26  17  eP     P      00 16 31.8 +0.6
LGNR                                 eS     S      00 17 51.4 -1.6
SVLR   Shiveluch           7.83  18  eP     P      00 16 38.9 -0.1
SVLR                                 eS     S      00 18 02.8 -4.3
KBTR   Krutoberegovo       7.88  25    P    P      00 16 38.2 -1.4
KBTR   Krutoberegovo       7.88  25  eP     P      00 16 39.2 -0.4
KBTR                                 eS     S      00 18 03.4 -4.8
BKI    Bering              8.18  39  eS     S      00 18 03.5  -12
BKI                                   Smax
       comp=N,10.0nm,0.2s
FX1    Attu Island--F     10.86  64    Pn   P      00 17 19.5 -0.7
       comp=N,0.8nm,0.3s,baz=45,slow=21,SNR=4.1
FX1                                    Sn   S      00 19 16.5 -4.6
       comp=N,2.3nm,0.3s,baz=240,slow=22,SNR=4.8
ASAJ   Asahikawa          11.09 248    Pn   P      00 17 16.1 -7.3
       comp=N,0.7nm,0.3s,baz=79,slow=14,SNR=5.1
ASAJ   Asahikawa          11.09 248    PN   P      00 17 16.1 -7.3
ASAJ                                   pmax pmax
       comp=Z,1.0nm,0.3s
ILAR   Eielson Array      33.02  41    P    P      00 21 17.3 +0.8
       comp=Z,0.5nm,0.7s,mb3.5,baz=244,slow=7.5,SNR=8.1
INK    Inuvik             38.19  34    P    P      00 22 01.9 +1.6
       comp=Z,1.2nm,1.0s,mb3.6,baz=270,slow=8.1,SNR=6.3
INK    Inuvik             38.19  34  eP     P      00 22 02.4 +2.1
INK                                    pmax pmax
       comp=Z,1.0nm,0.6s
INK    Inuvik             38.19  34  eP     P      00 22 02.4 +2.1
       comp=Z,0.8nm,0.6s,mb3.6
YKA    Yellowknife Ar     47.41  39    P    P      00 23 16.5 +1.5
       comp=Z,0.3nm,0.5s,mb3.5,baz=292,slow=7.2,SNR=6.0
YKA                                    pP   pP     00 23 28.7 -1.7
       comp=Z,0.2nm,0.5s,baz=293,slow=7.2,SNR=3.5
YKA    Yellowknife Ar     47.41  39    P    P      00 23 16.6 +1.5
YKA                                    *PP  pP     00 23 28.7 -1.7
RES    Resolute Bay       47.68  20  eP     P      00 23 15.0 -2.1
       comp=Z,4.3nm,0.6s,mb4.7
CMAR   Chiang Mai Arr     55.42 258    pP   pP     00 24 21.1  -11
       comp=Z,0.8nm,0.3s,baz=39,slow=5.8,SNR=2.1
TXAR   Lajitas Array      74.07  64    P    P      00 26 17.3 +0.7
       comp=Z,0.3nm,0.6s,mb3.4,baz=300,slow=4.9,SNR=8.8
TXAR                                   pP   pP     00 26 29.2 -3.7
       comp=Z,0.2nm,0.5s,baz=306,slow=4.8,SNR=3.3
GERES  GERESS Array B     77.33 336    P    P      00 26 32.9 -1.8
       comp=Z,0.2nm,0.4s,mb3.4,baz=41,slow=9.0,SNR=2.7
GERES                                  pP   pP     00 26 44.9 -6.2
```

comp=Z,0.4nm,0.5s,baz=14,slow=5.5,SNR=3.4

*NEIC **19** 00:22:21.6, 19.39N×65.18W, h41^{km}, MD3.5(RSPR), After RSPR.*

RSPR 19 00:22:21.6, 19.39N×65.18W, h41^{km}±30^{km}, MD3.5/12, **MD3.5**/12, **9C-5D, Puerto Rico region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBYP	Canovanas	1.28	210	⇑eP	P	00 22 41.2	-2.1
MTP	Monte Pirata	1.33	196	eS	S	00 22 59.0	-1.9
MTP	Monte Pirata	1.33	196	⇓eP	P	00 22 42.6	-1.5
MTP				eS	S	00 22 59.0	-1.9
CSB	Colonia Sabana	1.43	221	⇓eP	P	00 22 43.6	-2.0
CSB				eS	S	00 23 01.3	-2.1
CPD	Cerro la Pandu	1.51	208	eS	S	00 23 04.4	-0.9
CPD	Cerro la Pandu	1.51	208	⇓eP	P	00 22 44.9	-1.8
CPD				eS	S	00 23 04.4	-0.9
SJG	San Juan	1.57	216	eS	S	00 23 04.8	-2.0
SJG	San Juan	1.57	216	⇑eP	P	00 22 45.8	-1.7
SJG				eS	S	00 23 04.5	-2.2
SJG	San Juan	1.57	216	⇓eP	P	00 22 45.5	-2.0
SJG				eS	S	00 23 04.8	-2.0
AOPR	Arecibo Observ	1.81	236	eS	S	00 23 10.6	-2.3
AOPR	Arecibo Observ	1.81	236	⇑eP	P	00 22 49.3	-1.6
AOPR				eS	S	00 23 10.6	-2.3
CELP	Cerrillos	1.86	226	⇑eP	P	00 22 50.7	-0.9
CELP				eS	S	00 23 11.7	-2.4
OBIP	Obispado Ponce	1.90	226	eS	S	00 23 13.9	-1.2
OBIP	Obispado Ponce	1.90	226	⇓eP	P	00 22 50.8	-1.4
OBIP				eS	S	00 23 13.9	-1.2
PORP	Portuguez	1.92	226	⇑eP	P	00 22 51.0	-1.3
PORP				eS	S	00 23 13.8	-1.7
LSP	Las Mesas	2.17	237	⇑eP	P	00 22 54.5	-1.5
MGP	Maguayo	2.27	233	⇑eP	P	00 22 55.9	-1.6
MGP				eS	S	00 23 21.6	-2.8
MGP	Maguayo	2.27	233	⇑eP	P	00 22 56.1	-1.3
MGP	Maguayo	2.27	233	eS	S	00 23 23.4	-1.1
MGP	Maguayo	2.27	233	⇑eP	P	00 22 56.1	-1.3
MGP				eS	S	00 23 23.4	-1.1

*NEIC **19** 00:22:27.0±0.9, 52.78N×152.93E, h532^{km}±13^{km}, Error ellipse: s-maj=21.6km s-min=13.5km az=132.0*
*IDC **19** 00:22:33.1±4.8, 52.92N×152.85E, h615^{km}±68^{km}, mb2.7/7, mb1 2.9/7, mb1mx2.7/22, Error ellipse: s-maj=25.8km s-min=16.3km az=160.0*

ISC 19 00:22:26.1±1.1, **52.8N**±0.1×**152.9E**±0.3, **h534**^{km}±16^{km}, **n11, σ0^{s}.82**/11, **mb3.2**/8, **Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PET	Petropavlovsk	3.48	85	P	P	00 23 43.2	-0.5
MAJO	Matsushiro	19.29	218	eP	P	00 26 17.4	+0.5
	6.4nm,0.6s						
SONM	Songino Array	29.69	279	P	P	00 27 51.0	+1.3
	0.2nm,0.8s,mb2.7,baz=88,slow=11,SNR=2.3						
ILAR	Eielson Array	32.07	44	P	P	00 28 10.5	+0.7
	0.4nm,0.7s,mb3.1,baz=260,slow=6.4,SNR=12						
INK	Inuvik	36.71	37	P	P	00 28 49.1	+0.7
	0.5nm,0.3s,mb3.5,baz=295,slow=9.0,SNR=10						
YKA	Yellowknife Ar	46.23	40	P	P	00 30 03.9	0.0
	0.2nm,0.4s,mb3.0,baz=305,slow=7.0,SNR=4.2						
YKA	Yellowknife Ar	46.23	40	P	P	00 30 03.9	0.0
BVAR	Borovoye Array	47.06	305	P	P	00 30 09.8	-0.6
	0.8nm,0.4s,mb3.6,baz=56,slow=6.2,SNR=7.6						
FINES	FINESS Array B	58.51	333	P	P	00 31 30.8	-1.4
	8.1nm,1.3s,mb3.8,slow=2.8,SNR=2.8						
WRA	Warramunga Arr	74.24	198	P	P	00 33 08.5	-1.1
	0.5nm,0.5s,mb3.2,baz=14,slow=5.8,SNR=5.1						
ASAR	Alice Springs	77.95	198	P	P	00 33 30.1	+0.2
	0.4nm,0.5s,mb3.0,baz=5.8,slow=5.2,SNR=7.8						

*BJI **19** 00:24:02.7, 48.63N×156.44E, h20^{km}, mB4.8, mb4.4*
*NEIC **19** 00:24:05.7±0.5, 48.82N×156.21E, h10^{km}, mb4.0/6, Error ellipse: s-maj=13.1km s-min=8.2km az=151.0*
*MOS **19** 00:24:06.3±1.1, 48.89N×156.11E, h26^{km}, mb4.3/4, Error ellipse: s-maj=15.3km s-min=8.7km az=84.3*
*IDC **19** 00:24:10.4±0.7, 48.88N×156.04E, h41^{km}±5^{km}, mb3.7/20, mb1 3.9/22, mb1mx3.9/28, ML4.0/2, MS3.7/3, Ms1 3.8/3, ms1mx3.0/31, Error ellipse: s-maj=18.0km s-min=12.7km az=150.0*

ISC 19 00:24:05.6±2.4, **48.93N**±0.06×**156.0E**±0.1, **h18**^{km}±17^{km}, **h40**^{km}±1.0^{km}**:pP-P, n53, σ0^{s}.96**/55, **mb4.1**/28, **MS3.9**/2, **2D, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.75	2	⇓iPN	Pn	00 24 33.7	-1.8
SKR				eS	Sn	00 24 56.3	-1.2
SKR				smax			
	comp=N,1.0nm,0.4s						
SKR				smax			
	comp=N,1.0nm,0.6s						
PET	Petropavlovsk	4.42	21	ePN	Pn	00 25 14.4	+0.9
PET				eS	Sn	00 26 05.8	+0.7
PET				pmax	pmax		
	comp=Z,43nm,0.6s						
PET				smax			
	comp=N,227nm,0.6s						
PET				smax			
	comp=E,94nm,0.6s						
PET				MLR	MLR		
	comp=N,300nm,11.0s						
PET				MLR	MLR		
	comp=Z,300nm,9.0s						
PET				MLR	MLR		
	comp=E,400nm,9.0s						
PET	Petropavlovsk	4.42	21	ePn	Pn	00 25 14.1	+0.6
KUR	Kuril'sk	6.69	239	ePN	Pn	00 25 44.1	-1.5
KUR				pmax	pmax		
	comp=Z,150nm,0.7s						
YSS	Yuzh-Sakhalins	9.13	262	PN	P	00 26 21.6	+2.0
ASAJ	Asahikawa	10.44	248	P	P	00 26 38.5	+1.0
	comp=Z,1.7nm,0.3s,baz=85,slow=15,SNR=8.1						
ASAJ				LR	LR	00 30 40.3	
	comp=Z,181nm,20.4s,baz=8.3,slow=37						
ASAJ	Asahikawa	10.44	248	PN	P	00 26 38.5	+1.1
ASAJ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,181nm,20.4s						
MA2	Magadan	11.10	346	ePN	P	00 26 48.8	+2.4
FX1	Attu Island--F	11.51	63	P	P	00 26 47.6	-4.4
	comp=Z,2.9nm,0.3s,baz=135,slow=10.0,SNR=12						
FX1				S	S	00 28 44.6	-17
	comp=Z,3.0nm,0.3s,baz=51,slow=22,SNR=5.1						
FX1	Attu Island--F	11.51	63	eP	P	00 26 47.5	-4.5
MAJO	Matsushiro	17.97	233	eP	P	00 28 16.2	+0.2
MAJO				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MAJO	Matsushiro	17.97	233	eP	P	00 28 16.2	+0.2
	comp=Z,3.4nm,0.5s						
MDJ	Mudanjiang	18.58	267	eP	P	00 28 23.1	-0.5
	comp=Z,3.1nm,0.5s						
YAK	Yakutsk	19.69	322	eP	P	00 28 35.5	-0.9
YAK				pmax	pmax		
	comp=Z,12nm,0.5s						
YAK	Yakutsk	19.69	322	eP	P	00 28 35.5	-0.9
	comp=Z,12nm,0.5s						
CN2	Changchun	21.64	268	eP	P	00 28 55.0	-1.7
SONM	Songino Array	32.52	287	P	P	00 30 36.8	-0.4
	comp=Z,0.3nm,0.5s,mb3.5,baz=76,slow=7.7,SNR=5.2						
ILAR	Eielson Array	33.61	41	P	P	00 30 45.8	-0.8
	comp=Z,0.4nm,0.6s,mb3.5,baz=252,slow=6.7,SNR=9.1						
INK	Inuvik	38.75	34	P	P	00 31 30.7	+0.6
	comp=Z,1.2nm,0.5s,mb3.9,baz=290,slow=5.7,SNR=13						
INK	Inuvik	38.75	34	eP	P	00 31 30.2	+0.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	Inuvik	38.75	34	eP	P	00 31 30.2	+0.1
	comp=Z,1.0nm,0.5s,mb3.8						
ZAL	Zalesovo	42.97	305	P	P	00 32 04.1	-0.8
	comp=Z,0.6nm,0.5s,mb3.6,baz=160,slow=4.6,SNR=3.2						
GYA	Guiyang	44.10	258	⇓P	P	00 32 15.4	+0.9
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
YKA	Yellowknife Ar	47.99	39	P	P	00 32 44.7	-0.1
	comp=Z,0.5nm,0.7s,mb3.6,baz=294,slow=7.1,SNR=6.2						
YKA				pP	pP	00 32 56.4	+6.2
	comp=Z,0.7nm,0.7s,baz=298,slow=7.7,SNR=6.6						
BVAR	Borovoye Array	51.00	309	P	P	00 33 07.0	-0.9
	comp=Z,1.0nm,0.6s,mb3.9,baz=68,slow=8.0,SNR=8.4						
BVAR				pP	pP	00 33 19.1	+5.7
	comp=Z,1.3nm,0.5s,baz=68,slow=8.0,SNR=7.5						
BVAR				PcP	PcP	00 34 24.0	-0.3
	comp=Z,0.4nm,0.4s,baz=74,slow=2.4,SNR=4.9						
BRVK	Borovoye	51.03	309	eP	P	00 33 07.8	-0.5
BRVK				e		00 33 18.4	
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
BRVK	Borovoye	51.03	309	eP	P	00 33 07.8	-0.4
	comp=Z,2.2nm,0.7s,mb4.2						
BRVK				e		00 33 18.4	
ARU	Arti	54.73	318	eP	P	00 33 34.5	-1.2
ARU				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.1						
ARU	Arti	54.73	318	eP	P	00 33 34.5	-1.2
	comp=Z,3.1nm,1.4s,mb4.2						
CMAR	Chiang Mai Arr	54.79	257	P	P	00 33 36.9	+0.2
	comp=Z,3.1nm,1.0s,mb4.3,baz=36,slow=6.6,SNR=7.9						
CMAR				pP	pP	00 33 49.1	+7.1
	comp=Z,3.7nm,0.9s,baz=32,slow=7.4,SNR=3.4						
CMAR				LR	LR	00 58 22.5	
	comp=Z,93nm,18.6s,MS3.9,baz=13,slow=38						
ARCES	ARCESS Array B	56.43	341	LR	LR	01 03 15.9	
	comp=Z,96nm,19.8s,MS3.9,baz=6.1,slow=42						
GUN	Gumba	56.76	276	eP	P	00 33 50.7	-0.1
	comp=Z,5.4nm,0.4s,mb5.0						
KKN	Kakani	57.23	276	eP	P	00 33 54.4	+0.2
	comp=Z,4.7nm,0.4s,mb4.9						
PKI	Pulchoki	57.30	276	eP	P	00 33 54.9	+0.3
	comp=Z,12nm,0.9s,mb4.9						
DMN	Daman	57.47	276	eP	P	00 33 56.8	+1.0
GKN	Gorkha	57.51	277	eP	P	00 33 56.5	+0.4
	comp=Z,6.5nm,0.4s,mb5.0						
KOLN	Koldanda	58.35	277	eP	P	00 34 02.3	+0.4
	comp=Z,3.7nm,0.6s,mb4.6						
NVAR	Mina Array Bea	59.70	65	P	P	00 34 11.4	+0.2
	comp=Z,0.1nm,0.4s,mb3.2,baz=301,slow=5.3,SNR=2.3						
PDAR	Pinedale Array	61.88	56	P	P	00 34 25.8	-0.2
	comp=Z,0.4nm,0.9s,mb3.6,baz=315,slow=5.1,SNR=3.1						
FINES	FINESS Array B	62.89	336	P	P	00 34 31.2	-1.1
	comp=Z,0.9nm,0.4s,mb4.3,baz=36,slow=7.3,SNR=15						
NOA	NORSAR Array B	66.77	342	P	P	00 34 58.0	+0.6
	comp=Z,1.0nm,0.9s,mb3.9,baz=20,slow=4.7,SNR=2.7						
HFS	Hagfors	67.08	341	P	P	00 34 59.5	+0.1
	comp=Z,1.5nm,0.5s,mb4.3,baz=56,slow=5.3,SNR=5.8						
AKASG	Malin Array Be	70.80	327	P	P	00 35 21.6	-0.9
	comp=Z,0.9nm,0.4s,mb4.0,baz=32,slow=6.4,SNR=5.2						
AKASG	Malin Array Be	70.80	327	P	P	00 35 21.6	-0.9
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	71.24	202	P	P	00 35 23.8	-1.9
	comp=Z,0.9nm,0.8s,mb3.7,baz=20,slow=6.7,SNR=6.8						
WRA				pP	pP	00 35 36.6	+5.4
	comp=Z,1.1nm,0.9s,baz=20,slow=6.5,SNR=3.8						
EKA	Eskdalemuir Ar	74.65	348	P	P	00 35 45.9	+0.9
	comp=Z,2.0nm,0.5s,mb4.3,baz=20,slow=5.0,SNR=10						
EKA				pP	pP	00 35 57.6	+7.1
	comp=Z,1.2nm,0.5s,baz=20,slow=5.4,SNR=2.1						
TXAR	Lajitas Array	74.72	63	P	P	00 35 46.0	0.0
	comp=Z,0.3nm,0.6s,mb3.4,baz=305,slow=5.5,SNR=8.6						
TXAR				pP	pP	00 35 58.9	+7.4
	comp=Z,0.7nm,0.6s,baz=302,slow=4.9,SNR=7.5						
ASAR	Alice Springs	74.93	201	P	P	00 35 46.8	-0.5
	comp=Z,0.2nm,0.4s,mb3.4,baz=7.3,slow=4.5,SNR=4.7						
CLL	Collm	75.26	337	P	P	00 35 49.0	+0.4
VRAC	Vranov	76.09	334	P	P	00 35 54.6	+1.3
	comp=Z,3.6nm,0.7s,mb4.4,baz=25,slow=9.2,SNR=5.4						
KHC	Kasperske Hory	77.09	336	eP	P	00 36 00.0	+1.1
GERES	GERESS Array B	77.32	336	P	P	00 36 01.0	+0.8
	comp=Z,0.9nm,0.5s,mb4.0,baz=27,slow=6.0,SNR=9.6						
BRTR	Keskin Array B	78.11	318	P	P	00 36 06.0	+1.2
	comp=Z,7.7nm,1.3s,mb4.5,baz=62,slow=3.0,SNR=6.6						

*NAO **19** 00:31:16.6±4.0, 67.82N×20.50E, ML2.4*
*HEL **19** 00:31:16.4±0.1, 67.84N×20.19E, ML2.1, ML1.9(UPP), ML1.9(BER), Explosion*
*BER **19** 00:31:17.4±3.8, 67.89N×20.17E, ML1.9, ML2.4(NAO), Suspected explosion*

ISC 19 00:31:14.9±0.5, **67.84N**±0.03×**20.20E**±0.07, **n21, σ0^{s}.98**/32, **Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	Kurravaara	0.13	23	i P	Pg	00 31 18.5	+1.1
KUA				i S	Sg	00 31 20.5	+1.4
NIKU	Nikkaluokta	0.44	274	i P	Pg	00 31 24.1	+0.4
NIKU				i S	Sg	00 31 30.4	+0.8
LANU	Lannavaara	0.71	72	i P	Pg	00 31 29.1	+0.1
DUNU	Dundret	0.73	169	i P	Pg	00 31 29.2	-0.3
DUNU				i S	Sg	00 31 39.6	+0.3
PAJU	Pajala	1.39	125	eP	Pb	00 31 41.1	-0.3
PAJU				eS	Sb	00 31 59.8	+0.2
KTK1	Kautokeino	1.63	42	eP	Pn	00 31 46.4	+1.5
KTK1				eSg	Sg	00 32 07.3	-1.8
KTK1				AML	AML	00 32 12.9	
	comp=Z,11nm,0.3s						
TRO	Tromso	1.86	346	eP	Pn	00 31 48.1	-0.2
TRO				eSg	Sg	00 32 13.8	-3.1
TRO				AML	AML	00 32 15.8	
	comp=Z,18nm,0.4s						
SGF	Sodankyl	2.45	96	eP	Pn	00 31 57.6	+0.8
SGF				eS	Sn	00 32 28.3	+0.5
LOF	Lofoten	2.53	280	eSg	Sg	00 32 37.4	-1.7
LOF				AML	AML	00 32 42.2	
	comp=Z,11nm,0.6s						
ARA0	ARCESS Array S	2.58	46	Pn	Pn	00 31 59.0	+0.5
	baz=230,slow=14						
ARA0				Lg		00 32 33.9	
	baz=222,slow=28						
ARA0	ARCESS Array S	2.58	46	eP	Pn	00 31 59.0	+0.5
ARA0				eSB	Sb	00 32 33.9	-0.3
MOR8	Moi Rana	2.81	236	eSg	Sg	00 32 37.9	-11
MOR8				AML	AML	00 32 41.7	
	comp=Z,23nm,0.4s						
KEV	Kevo	3.13	49	eP	Pn	00 32 07.5	+1.0
KEV				eS	Sn	00 32 44.0	-1.2
KEV				MSG		00 32 51.9	
	comp=Z,4.7nm,0.3s						
OUL	Oulu	3.59	138	ePG	Pg	00 32 19.6	-6.9
OUL				eSB	Sb	00 33 03.1	-0.2
OUL				eSG	Sg	00 33 07.1	-7.2
OUL				MSG		00 33 13.7	
	comp=Z,5.3nm,0.4s						
KU4	Oulanka	3.95	108	eSG	Sg	00 33 19.5	-6.9
MSF	Maaselka	3.99	115	eP	Pn	00 32 18.4	-0.1
MSF				eS	Sn	00 33 05.1	-1.6
MSF				eSG	Sg	00 33 19.2	-8.4
MSF				MSG		00 33 24.2	
	comp=Z,2.9nm,0.4s						
NSS	Namsos	4.71	229	eSg	Sg	00 33 42.7	-8.9
FIA0	FINESS Array S	6.89	156	Sn	Sn	00 34 14.6	-5.2
	baz=348,slow=22						
FIA0				Lg		00 34 51.4	
	baz=348,slow=28						
FIA0	FINESS Array S	6.89	156	eS	Sn	00 34 14.6	-5.2
FIA0				eSG		00 34 51.4	
HFS	Hagfors	8.24	203	Lg		00 35 34.2	
	baz=11,slow=28						
HFS	Hagfors	8.24	203	Lg		00 35 34.2	
	baz=11,slow=28						

*NEIC **19** 00:41:05.6±0.9, 51.61N×16.10E, h4^{km}±8^{km}, ML3.2(VIE), ML2.7(BRG), ML2.6(CLL), Error ellipse: s-maj=4.8km s-min=3.6km az=117.0*
*IPEC **19** 00:41:05.2±0.3, 51.62N×16.14E, ML2.4/3, Error ellipse: s-maj=2.0km s-min=1.6km az=36.0*
*BGR **19** 00:41:06.3±0.7, 51.60N×16.06E, h1^{km}, ML3.2/7, Error ellipse: s-maj=14.5km s-min=5.6km az=163.0*
*IDC **19** 00:41:07.6±0.7, 51.54N×15.84E, mb1 3.6/7, mb1mx3.4/21, ML3.1/7, Error ellipse: s-maj=13.2km s-min=6.3km az=101.0*
*WAR **19** 00:41:07.7, 51.51N×16.03E, h1^{km}, ML3.3, Mining Induced*
*CSEM **19** 00:41:07.5±0.1, 51.50N×16.05E, ML3.4/4, Error ellipse: s-maj=2.5km s-min=1.3km az=16.0*
*PRU **19** 00:41:07.7, 51.49N×16.05E, Felt In Harrachov*
*UPP **19** 00:41:10.0, 51.74N×15.35E, ML2.6, Suspected Mining explosion.*
*LDG **19** 00:41:11.3±0.3, 51.46N×15.70E, h1^{km}, Ml2.8/3, Error ellipse: s-maj=10.1km s-min=4.6km az=168.0, Suspected Mining induced.*

ISC 19 00:41:03.7±0.3, **51.55N**±0.02×**16.05E**±0.02, **n79, σ1^{s}.38**/133, **2C-2D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.73	168	⇓iPg	Pg	00 41 20.3	+2.0
KSP				e		00 41 21.6	
KSP				eSg	Sg	00 41 29.3	+1.3
KSP				e		00 41 33.5	
KSP	Ksiaz	0.73	168	⇓iPg	Pg	00 41 20.3	+2.0
KSP				eSg	Sg	00 41 29.3	+1.3
KSP	Ksiaz	0.73	168	ePg	Pg	00 41 20.3	+2.0
KSP				ePn	Pn	00 41 22.2	+1.3
KSP				eSn	Sn	00 41 29.5	-3.4
UPC	Upice	1.05	181	ePG	Pg	00 41 26.2	+1.5
DPC	Dobruska-Polom	1.22	172	ePG	Pg	00 41 29.1	+1.1
DPC				eSG	Sg	00 41 44.4	+0.1
	105nm,0.5s						
DPC	Dobruska-Polom	1.22	172	Pg	Pg	00 41 29.1	+1.1
DPC				eSg	Sg	00 41 45.2	+0.9
PVCC	Panska Ves	1.39	223	ePG	Pg	00 41 32.8	+1.3
PVCC	Panska Ves	1.39	223	Pg	Pg	00 41 32.8	+1.3
PVCC				eSg	Sg	00 41 51.3	+1.3
BRG	Berggiesshubel	1.49	244	ePn	Pn	00 41 34.6	+2.8
BRG				eSg	Sg	00 41 54.4	+1.0
BRG	Berggiesshubel	1.49	244	i Pn	Pn	00 41 33.4	+1.5
BRG				i Pg	Pg	00 41 34.6	+1.1
BRG				i Sg	Sg	00 41 54.6	+1.2
RUE	Ruedersdorf	1.68	304	ePn	Pn	00 41 36.3	+1.7
RUE				eSn	Sn	00 42 00.8	+3.7
PRU	Pruhonice	1.84	212	PN	Pn	00 41 38.3	+1.5
PRU				PG	Pg	00 41 40.0	-0.4
PRU				i x	x	00 41 57.3	
PRU				SG	Sg	00 42 04.3	-0.6
	66nm,0.5s						
PRU	Pruhonice	1.84	212	Pg	Pg	00 41 40.0	-0.4
PRU				Sg	Sg	00 42 04.3	-0.6
	66nm,0.5s						
GKP	Gorka Klasztor	1.86	22	ePn	Pg	00 41 47.1	+6.1
GKP				eP*	rx	00 41 48.9	
CLL	Collm	1.93	264	ePn	Pn	00 41 40.0	+1.9
CLL				ePg	Pg	00 41 43.0	+0.8
CLL				i Sg	Sg	00 42 07.4	-0.4
CLL	Collm	1.93	264	ePN	Pn	00 41 40.0	+1.9
CLL				ePG	Pg	00 41 43.0	+0.8
CLL				e		00 41 47.0	
CLL				i SG	Sg	00 42 07.4	-0.4
CLL	Collm	1.93	264	ePg	Pg	00 41 43.0	+0.8
CLL				Sg	Sg	00 42 07.4	-0.4
RAC	Raciborz	2.00	136	eSg	Sg	00 42 10.8	+0.4
RAC	Raciborz	2.00	136	ePg	Pg	00 41 43.8	+0.1
RAC				eSg	Sg	00 42 10.8	+0.4
MORC	Moravsky Berou	2.02	151	ePn	Pn	00 41 40.5	+1.2
MORC				eSn	Sn	00 42 09.2	+3.5
MORC	Moravsky Berou	2.02	151	ePn	Pn	00 41 40.5	+1.1
MORC	Moravsky Berou	2.02	151	eSg	Sg	00 42 09.3	-1.5
	22nm,0.3s						
OKC	Ostrava-Krasne	2.17	141	ePN	Pn	00 41 43.2	+1.6
OKC				ePG	Pg	00 41 46.9	-0.2
OKC				eSG	Sg	00 42 13.7	-2.4
OKC	Ostrava-Krasne	2.17	141	ePg	Pg	00 41 46.9	-0.2
OKC				eSg	Sg	00 42 13.7	-2.4
VRAC	Vranov	2.27	171	Pn	Pn	00 41 45.1	+2.1
	1.5nm,0.3s,baz=343,slow=16,SNR=16						
VRAC				Lg		00 42 18.7	
	5.8nm,0.3s,baz=47,slow=20,SNR=7.4						
VRAC	Vranov	2.27	171	ePn	Pn	00 41 45.0	+1.9
VRAC				eSg	Sg	00 42 18.2	-1.3
	21nm,0.3s						
KRUC	Moravsky	2.50	175	ePn	Pn	00 41 47.9	+1.5
KRUC				eSg	Sg	00 42 25.7	-1.4
	13nm,0.3s						
TANN	Tannenbergstha	2.54	245	ePn	Pn	00 41 49.0	+2.1
TANN				eSg	Sg	00 42 27.1	-1.2
WERD	Werda	2.61	246	ePn	Pn	00 41 49.5	+1.6
WERD				eSg	Sg	00 42 29.2	-1.6
GUNZ	Gunzen	2.64	245	ePn	Pn	00 41 50.2	+2.0
GUNZ				eSg	Sg	00 42 30.0	-1.5
NKC	Novy Kostel	2.64	241	ePN	Pn	00 41 50.4	+2.1
NKC				ePG	Pg	00 41 57.3	+0.9
NKC				eSG	Sg	00 42 30.6	-1.0
NKC	Novy Kostel	2.64	241	ePg	Pg	00 41 57.3	+0.9
NKC				eSg	Sg	00 42 30.6	-1.0
OJC	Ojcow	2.72	118	ePg	Pg	00 41 58.4	+0.3
OJC				eSg	Sg	00 42 34.3	-0.1
OJC	Ojcow	2.72	118	ePn	Pn	00 41 49.6	+0.1
OJC				ePg	Pg	00 41 58.4	+0.3
OJC				eSg	Sg	00 42 34.3	-0.1
KHC	Kasperske Hory	2.90	214	ePN	Pn	00 41 53.0	+1.0
KHC				ePG	Pg	00 41 59.6	-2.0
KHC				eSN	Sn	00 42 28.7	+0.7
KHC				eSG	Sg	00 42 37.5	-2.7
KHC	Kasperske Hory	2.90	214	eSn	Sn	00 42 28.7	+0.7
KHC	Kasperske Hory	2.90	214	ePg	Pg	00 41 59.6	-2.0
KHC				eSg	Sg	00 42 37.5	-2.7
MOX	Moxa	2.94	254	ePn	Pn	00 41 55.0	+2.4
MOX				eSg	Sg	00 42 41.3	-0.4
MOX	Moxa	2.94	254	i P	Pn	00 41 54.4	+1.8
MOX				Pg	rx	00 42 20.0	
MOX				Sg	Sg	00 42 41.0	-0.7
MOX	Moxa	2.94	254	ePn	Pn	00 41 54.4	+1.8
MOX				ePg	Pg	00 42 02.0	-0.5
MOX				eSg	Sg	00 42 41.0	-0.7
MOX	Moxa	2.94	254	ePg	Pg	00 42 02.0	-0.5
MOX				Sg	Sg	00 42 41.3	-0.4
GEC2	GERESS Array S	3.10	210	ePn	Pn	00 41 57.1	+2.2
GERES	GERESS Array B	3.10	210	Pn	Pn	00 41 57.0	+2.1
	1.6nm,0.3s,baz=26,slow=13,SNR=47						
GERES				Pg	Pg	00 42 03.5	-2.2
	3.3nm,0.3s,baz=28,slow=17,SNR=33						
GERES				Lg		00 42 43.2	
	6.5nm,0.3s,baz=29,slow=30,SNR=14						
WET	Wettzell	3.15	221	ePn	Pn	00 41 57.1	+1.5
ZST	Bratislava	3.43	168	eSB	Sb	00 42 53.6	+5.9
NIE	Niedzica	3.46	126	eP	Pg	00 42 11.6	-1.2
NIE				eS	Sg	00 42 57.4	-1.5
VYHS	Vyhne	3.55	149	ePN	Pn	00 42 02.7	+1.5
VYHS				ePG	Pg	00 42 13.5	-1.1
VYHS	Vyhne	3.55	149	ePg	Pg	00 42 13.5	-1.1
GRA1	Grafenberg Arr	3.60	241	Sg	Sg	00 43 02.3	-1.2
GRF	Grafenberg Arr	3.60	241	eSg	Sg	00 43 02.3	-1.2
BSD	Bornholm Skovb	3.63	350	i P	Pn	00 42 03.1	+0.7
BSD				i S	Sn	00 42 45.1	-1.5
MOA	Molln	3.88	198	⇑iPN	Pn	00 42 07.4	+1.4
MOA				i SG	Sg	00 43 11.1	-2.0
	13nm,0.5s						
ARSA	Arzberg	4.32	185	⇑iPN	Pn	00 42 13.8	+1.6
ARSA				i SG	Sg	00 43 22.1	-5.5
	14nm,0.7s						
CRVS	Cervenica-Dubn	4.37	125	ePG	Pg	00 42 29.9	-1.1
BLEU	Blekinge	4.76	358	P	Pn	00 42 19.3	+0.8
VXJU	Vaexsjoe	5.42	354	P	Pn	00 42 28.3	+0.6
OSKU	Oskarshamn	5.65	0	P	Pn	00 42 31.5	+0.5
EKSU	Eksjoe	6.05	356	P	Pn	00 42 36.6	0.0
VSTU	Vaestervik	6.13	2	P	Pn	00 42 38.4	+0.7
DAVOX	Davos	6.26	223	Lg		00 44 26.7	
	0.4nm,0.3s,baz=13,slow=20,SNR=4.5						
CDF	Champ du Feu	6.47	244	ePn	Pn	00 42 42.5	-0.1
CDF				eSn	Sn	00 43 50.4	-7.8
CDF				eSg	Sg	00 44 27.5	-12
	0.5nm,0.3s						
LNKU	Linkoeping	6.69	358	P	Pn	00 42 45.3	-0.4
HINF	Hinteralfeld	7.04	242	ePn	Pn	00 42 50.5	-0.1
HAU	Haudompre	7.22	244	ePn	Pn	00 42 52.2	-0.9
HAU				eSg	Sg	00 44 49.4	-15
	0.8nm,0.2s						
SFTF	Sexfontaines	7.87	249	ePn	Pn	00 43 01.0	-1.1
CABF	La Chapelle	8.20	237	ePn	P	00 43 06.1	-0.7
AKASG	Malin Array Be	8.33	91	Pn	P	00 43 08.6	-0.1
	1.4nm,0.3s,baz=280,slow=12,SNR=4.6						
LPL	La Plagne	8.64	229	ePn	P	00 43 12.7	-0.2
LPG	La Plagne	8.65	229	ePn	P	00 43 11.9	-1.1
HFS	Hagfors	8.70	352	Pn	P	00 43 11.7	-2.1
	0.0nm,0.3s,baz=173,slow=12,SNR=8.5						
MBDF	Montbardon	9.22	226	ePn	P	00 43 19.5	-1.5
SBF	Sospel	9.63	220	ePn	P	00 43 24.2	-2.4
HYF	Humbligny	9.73	249	ePn	P	00 43 26.5	-1.5
NOA	NORSAR Array B	9.88	346	Pn	P	00 43 27.8	-2.1
	0.1nm,0.3s,baz=54,slow=15,SNR=2.9						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NOA				Sn	Sn	00 45 14.4	-8.4
	0.1nm,0.3s,baz=169,slow=23,SNR=2.8						
BGF	Bois d'Agland	10.00	245	*e*Pn	P	00 43 30.5	-1.2
FRF	La Foret Royal	10.21	222	*e*Pn	P	00 43 33.4	-1.1
FINES	FINESS Array B	11.34	25	Pn	P	00 43 47.6	-2.3
	0.3nm,0.3s,baz=215,slow=11,SNR=16						
FINES				Sn	S	00 45 48.6	-10
	0.2nm,0.3s,baz=218,slow=23,SNR=4.3						
KAF	Kangasniemi	11.96	24	*e*p	P	00 43 55.4	-2.9
ARCES	ARCESS Array B	18.59	10	Pn	P	00 45 21.4	-2.5
	0.1nm,0.3s,baz=196,slow=13,SNR=5.0						

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*IDC **19** 01:11:01.1±1.0, 5.81S×154.32E, mb4.0/8, mb1 4.2/9, mb1mx4.1/13, ML3.8/1, MS3.5/2, Ms1 3.6/2, ms1mx2.8/17, Error ellipse: s-maj=33.8km s-min=21.5km az=103.0*

*NEIC **19** 01:11:03.6±0.8, 5.93S×154.31E, h15^{km}, mb4.1/4, Error ellipse: s-maj=23.5km s-min=14.5km az=112.0*

ISC 19 01:11:04.8±6.5, **5.9S**±0.1×**154.1E**±0.1, **h31**^{km}±45^{km}, **n17**, σ**1^{s}06**/19, **mb3.9**/11, **MS3.9**/1, **Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	7.75	243	Pn	Pn	01 12 58.6	+0.2
	7.3nm,0.3s,baz=62,slow=6.5,SNR=12						
PMG				Sn	Sn	01 14 23.9	-2.1
	2.0nm,0.3s,baz=108,slow=19,SNR=2.7						
PMG				LR	LR	01 15 39.3	
	comp=Z,157nm,18.5s,baz=328,slow=35						
PMG	Port Moresby	7.75	243	*e*Pn	Pn	01 12 57.9	-0.5
PMG				*e*Sn	Sn	01 14 26.3	+0.3
PMG				LR	LR	01 15 39.3	
WRAB	Tennant Creek	23.77	232	*e*P	P	01 16 17.0	+1.2
	1.7nm,0.4s,mb3.8						
WRA	Warramunga Arr	23.79	232	P	P	01 16 16.6	+0.7
	0.9nm,0.5s,mb3.5,baz=53,slow=9.5,SNR=21						
WRA				PcP	PcP	01 20 00.1	-0.4
	2.3nm,0.7s,baz=56,slow=2.5,SNR=26						
ASAR	Alice Springs	26.31	226	P	P	01 16 39.4	-0.3
	1.5nm,0.9s,mb3.5						
ASAR				PcP	PcP	01 20 05.8	-0.1
	1.7nm,0.6s,baz=61,slow=2.5,SNR=18						
STKA	Stephens Creek	28.42	203	P	P	01 16 58.8	0.0
	2.1nm,0.9s,mb3.8,baz=27,slow=11,SNR=2.6						
STKA	Stephens Creek	28.42	203	*e*P	P	01 16 56.7	-2.1
CM31	Chiang Mai Arr	59.52	295	P	P	01 21 07.5	-0.4
	4.6nm,0.4s,mb4.9						
CMAR	Chiang Mai Arr	59.52	295	P	P	01 21 08.4	+0.5
	1.6nm,0.6s,mb4.3,baz=110,slow=5.0,SNR=13						
SONM	Songino Array	67.92	327	P	P	01 22 02.2	-0.4
	0.9nm,0.6s,mb4.0,baz=141,slow=5.0,SNR=9.2						
VNDA	Vanda	71.74	178	P	P	01 22 25.5	-0.1
	1.0nm,0.9s,mb3.8,baz=315,slow=7.8,SNR=6.4						
VNDA	Vanda	71.74	178	*e*P	P	01 22 25.5	-0.1
	0.6nm,0.6s,mb3.7						
ILAR	Eielson Array	82.64	22	P	P	01 23 24.6	-1.6
	0.3nm,0.6s,mb3.5,baz=253,slow=4.7,SNR=5.6						
ILAR				LR	LR	01 59 25.6	
	comp=Z,55nm,19.9s,MS3.9,baz=359,slow=35						
ZAL	Zalesovo	82.77	326	P	P	01 23 29.9	+2.9
	1.0nm,0.5s,mb4.1,baz=43,slow=16,SNR=5.6						
ZAL	Zalesovo	82.77	326	P	P	01 23 29.9	+2.9
MAW	Mawson	85.11	203	P	P	01 23 39.4	+0.8
	1.4nm,0.6s,mb4.3,baz=108,slow=8.2,SNR=5.0						
MAW	Mawson	85.11	203	*e*P	P	01 23 39.3	+0.7
	1.0nm,0.5s,mb4.2						

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*NEIC **19** 01:16:05.1±5.1, 24.20S×178.82W, h272^{km}±58^{km}, mb4.3/9, Error ellipse: s-maj=38.4km s-min=14.9km az=167.0*

*IDC **19** 01:16:17.9±8.7, 24.58S×179.03W, h399^{km}±98^{km}, mb3.6/7, mb1 3.8/8, mb1mx3.6/15, Error ellipse: s-maj=39.3km s-min=26.8km az=15.0*

ISC 19 01:16:13.2±5.4, **24.6S**±0.1×**179.1W**±0.2, **h364**^{km}±58^{km}, **n19**, σ**0^{s}73**/20, **mb3.9**/12, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	14.03	193	P	P	01 19 19.0	-0.3
	0.6nm,0.3s,baz=328,slow=19,SNR=3.1						
URZ				S	S	01 21 48.2	+0.2
	1.1nm,0.3s,baz=100,slow=16,SNR=7.0						
RAR	Rarotonga	18.08	83	*e*P	P	01 19 52.7	-8.7
	15nm,0.4s						
CTA	Charters Tower	32.34	271	*e*P	P	01 22 12.7	+1.1
	9.6nm,0.4s,mb4.4						
CTA	Charters Tower	32.34	271	P	P	01 22 13.0	+1.4
	12nm,0.4s,mb4.5,baz=97,slow=10,SNR=33						
CTAO	Charters Tower	32.34	271	*e*P	P	01 22 12.8	+1.2
STKA	Stephens Creek	35.28	249	*e*P	P	01 22 38.3	+1.9
	2.7nm,0.4s,mb3.8						
STKA	Stephens Creek	35.28	249	P	P	01 22 37.7	+1.3
	2.6nm,0.4s,mb3.8,baz=97,slow=11,SNR=14						
PMG	Port Moresby	35.52	289	P	P	01 22 39.0	+0.4
	11nm,0.6s,mb4.2,slow=5.1,SNR=5.9						
PMG	Port Moresby	35.52	289	*e*P	P	01 22 39.1	+0.5
	10nm,0.7s,mb4.2						
ASAR	Alice Springs	42.78	261	P	P	01 23 38.3	+0.3
	1.8nm,0.5s,mb3.5,baz=97,slow=7.2,SNR=32						
ASPA	Alice Springs	42.78	261	*e*P	P	01 23 38.1	+0.1
WRAB	Tennant Creek	43.22	267	*e*P	P	01 23 41.1	-0.4
	5.7nm,0.4s,mb4.0						
WRA	Warramunga Arr	43.22	267	P	P	01 23 41.3	-0.3
	4.9nm,0.6s,mb3.8,baz=102,slow=8.2,SNR=69						
FORT	Forrest	46.89	250	*e*P	P	01 24 09.4	-0.8
	15nm,0.5s,mb4.5						
KAKA	Kakadu	47.27	275	*e*P	P	01 24 12.3	-1.0
	3.2nm,0.4s,mb3.9						
FITZ	Fitzroy Crossi	51.64	266	*e*P	P	01 24 45.9	-0.2
	6.7nm,0.7s,mb4.1						
MBWA	Marble Bar	56.11	260	*e*P	P	01 25 16.9	-1.3
	1.6nm,0.4s,mb3.7						
NVAR	Mina Array Bea	84.64	43	P	P	01 28 08.3	+0.4
	0.7nm,0.9s,mb3.5,baz=231,slow=5.8,SNR=3.3						
TXAR	Lajitas Array	90.06	58	P	P	01 28 33.7	-0.1
	0.4nm,0.8s,mb3.4,baz=219,slow=5.8,SNR=4.4						

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*DJA **19** 01:37:40.9±1.0, 0.54S×123.39E, h33^{km}, mb5.3/1, MD4.9/3, ML5.0/1, Error ellipse: s-maj=64.9km s-min=20.8km az=137.0*

*IDC **19** 01:37:41.2±1.4, 1.57S×122.46E, mb4.0/3, mb1 4.2/4, mb1mx3.8/16, ML3.6/1, Error ellipse: s-maj=95.2km s-min=24.1km az=54.0*

*NEIC **19** 01:37:49.7±4.2, 1.03S×123.09E, h88^{km}±44^{km}, mb4.1/2, Error ellipse: s-maj=48.9km s-min=16.6km az=46.0*

ISC 19 01:37:41.7±2.9, **0.7S**±0.1×**123.41E**±0.10, **h47**^{km}±28^{km}, **n16**, σ**0^{s}96**/20, **mb4.3**/7, **8D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUNI	Buntu Taipa	4.27	226	⇓*e*Pn	P	01 38 44.7	-1.2
BUNI				*e*Sn	S	01 39 33.3	-1.7
BUNI	Buntu Taipa	4.27	226	⇓*e*Pn	P	01 38 44.7	-1.2
	278nm,0.2s						
BUNI				⇓*e*Sn	S	01 39 32.2	-2.8
TANI	Tanete Lipujan	4.86	236	⇓*e*P	P	01 38 54.4	+0.1
	64nm,0.3s						
TANI				⇓*e*S	S	01 39 50.8	+0.8
NINI	Niniconang	5.20	224	⇓*e*Pn	P	01 39 00.1	+1.1
NINI				*e*Sn	S	01 39 58.7	+0.2
NINI	Niniconang	5.20	224	⇓*e*P	P	01 39 00.1	+1.1
	200nm,0.3s						
NINI				⇓*e*S	S	01 40 00.2	+1.7
FITZ	Fitzroy Crossi	17.44	173	Pn	P	01 41 43.6	+0.2
	0.2nm,0.3s,baz=350,slow=11,SNR=3.8						
WRAB	Tennant Creek	21.92	151	*e*P	P	01 42 32.5	-0.3
	6.2nm,0.9s,mb4.0						
WRA	Warramunga Arr	21.93	151	P	P	01 42 32.1	-0.7
	12nm,1.3s,mb4.1,baz=327,slow=11,SNR=31						
ASAR	Alice Springs	25.01	157	P	P	01 43 03.9	+0.9
	0.9nm,0.5s,mb3.6,baz=344,slow=15,SNR=30						
PMG	Port Moresby	25.17	111	*e*P	P	01 43 08.8	+4.2
	8.7nm,0.8s,mb4.3						
CMAR	Chiang Mai Arr	30.66	310	P	P	01 43 55.8	+1.5
	1.0nm,0.4s,mb4.0,baz=141,slow=8.0,SNR=7.8						
GUN	Gumba	45.87	311	*e*P	P	01 46 01.3	-0.3
	10nm,0.5s,mb5.0						
PKI	Pulchoki	46.05	311	*e*P	P	01 46 02.6	-0.4
DMN	Daman	46.30	310	*e*P	P	01 46 04.3	-0.6
KOLN	Koldanda	47.53	310	*e*P	P	01 46 14.3	-0.4
	6.4nm,0.6s,mb4.8						
TXAR	Lajitas Array	126.90	53	PKP	PKPdf	01 56 51.1	+10
	0.4nm,0.6s,baz=211,slow=1.3,SNR=7.8						

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*NEIC **19** 02:08:27.8±1.4, 20.79S×178.19W, h374^{km}±14^{km}, mb4.0/14, Error ellipse: s-maj=18.0km s-min=8.1km az=148.0*

*IDC **19** 02:08:34.0±4.8, 20.82S×178.34W, h435^{km}±53^{km}, mb3.6/16, mb1 3.8/16, mb1mx3.7/19, Error ellipse: s-maj=18.9km s-min=18.2km az=47.0*

ISC 19 02:08:25.3±1.3, **20.8S**±0.1×**178.22W**±0.10, **h359**^{km}±13^{km}, **n43**, σ**1^{s}02**/38, **mb4.0**/25, **1C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	9.20	43	*e*Pn	P	02 10 35.7	+1.1
AFI				*e*Sn	S	02 12 15.5	-1.4
DZM	Mont Dzumac	14.34	262	*e*P	P	02 11 38.5	+3.4
RPZ	Rata Peaks	24.54	199	P	P	02 13 15.7	+0.5
	26nm,1.1s,mb4.3,baz=69,slow=13,SNR=3.8						
CNB	Canberra Magne	31.89	236	⇑*i*P	P	02 14 20.1	-0.1
	63nm,1.7s,mb4.6						
CTA	Charters Tower	33.26	265	*e*P	P	02 14 33.5	+1.6
	3.3nm,0.4s,mb3.9						
CTA	Charters Tower	33.26	265	P	P	02 14 33.4	+1.5
	7.6nm,0.6s,mb4.1,baz=106,slow=12,SNR=11						
CTAO	Charters Tower	33.26	265	*e*P	P	02 14 33.0	+1.1
	5.9nm,0.6s,mb4.0						
PMG	Port Moresby	35.21	284	P	P	02 14 50.5	+2.0
	18nm,0.9s,mb4.3,baz=69,slow=8.2,SNR=4.9						
PMG	Port Moresby	35.21	284	*e*P	P	02 14 50.6	+2.2
	11nm,0.7s,mb4.2						
STKA	Stephens Creek	37.48	244	*e*P	P	02 15 07.1	-0.1
	5.0nm,0.4s,mb4.1						
STKA	Stephens Creek	37.48	244	P	P	02 15 07.2	+0.1
	6.7nm,0.5s,mb4.2,baz=87,slow=9.6,SNR=13						
ASAR	Alice Springs	44.25	257	P	P	02 16 01.9	-0.4
	3.1nm,0.6s,mb3.6,baz=97,slow=8.0,SNR=40						
ASPA	Alice Springs	44.26	257	*e*P	P	02 16 01.6	-0.7
WRAB	Tennant Creek	44.35	262	*e*P	P	02 16 02.3	-0.7
	6.1nm,0.7s,mb3.8						
WRA	Warramunga Arr	44.36	262	P	P	02 16 02.6	-0.6
	3.6nm,0.5s,mb3.8,baz=94,slow=7.8,SNR=77						
KAKA	Kakadu	47.82	272	*e*P	P	02 16 29.9	-0.1
	7.1nm,0.4s,mb4.2						
FORT	Forrest	48.99	247	*e*P	P	02 16 37.0	-1.8
	81nm,0.6s,mb5.1						
FITZ	Fitzroy Crossi	52.79	263	*e*P	P	02 17 06.4	-0.7
	4.0nm,0.7s,mb3.9						
FITZ	Fitzroy Crossi	52.79	263	P	P	02 17 06.6	-0.4
	4.2nm,0.6s,mb3.9,baz=134,slow=6.9,SNR=12						
VNDA	Vanda	57.59	185	P	P	02 17 41.4	+1.2
	0.7nm,0.5s,mb3.3,baz=360,slow=7.3,SNR=10						
VNDA	Vanda	57.59	185	*e*P	P	02 17 41.4	+1.1
	0.7nm,0.5s,mb3.2						
KLBR	Kellerberrin	57.74	245	*e*P	P	02 17 40.3	-1.6
	13nm,0.9s,mb4.3						
YBH	Yreka Blue Hor	80.65	39	P	P	02 20 01.4	+1.2
	2.5nm,0.6s,mb4.1,baz=17,slow=1.7,SNR=8.8						
MAW	Mawson	81.22	200	P	P	02 20 02.1	-0.5
	3.0nm,1.2s,mb3.9,baz=126,slow=7.4,SNR=6.8						
MAW	Mawson	81.22	200	*e*P	P	02 20 01.7	-0.9
	1.5nm,0.5s,mb4.0						
NVAR	Mina Array Bea	81.38	43	P	P	02 20 04.9	+0.8
	1.4nm,0.7s,mb3.8,baz=210,slow=7.1,SNR=14						
TPNV	Topopah Spring	81.90	46	*e*P	P	02 20 06.4	-0.4
	1.6nm,0.8s,mb3.9						
ENH	Enshi	86.04	304	*e*P	P	02 20 26.6	-0.9
	12nm,0.4s,mb5.1						
HLID	Hailey	86.69	41	*e*P	P	02 20 30.5	+0.2
	0.7nm,0.7s,mb3.6						
TXAR	Lajitas Array	87.39	57	P	P	02 20 34.2	+0.2
	0.8nm,0.7s,mb3.7,baz=225,slow=6.8,SNR=12						
TXAR	Lajitas Array	87.39	57	P	P	02 20 34.2	+0.2
SNAA	Sanae	87.72	179	P	P	02 20 29.9	-4.6
	0.4nm,0.8s,mb3.3,baz=81,slow=9.8,SNR=4.9						
MCMT	McKenzie Canyo	88.31	40	*e*P	P	02 20 38.4	+0.4
ILAR	Eielson Array	88.65	13	P	P	02 20 38.8	-0.3
	0.5nm,0.6s,mb3.6,baz=213,slow=5.2,SNR=8.5						
BW06	Boulder Array	89.32	43	*e*P	P	02 20 41.6	-1.1
	1.2nm,0.8s,mb3.8						
PDAR	Pinedale Array	89.32	43	P	P	02 20 42.5	-0.1
	1.1nm,0.7s,mb3.8,baz=219,slow=2.1,SNR=11						
CMAR	Chiang Mai Arr	90.02	290	P	P	02 20 48.8	+2.2
	1.4nm,0.4s,mb4.3,baz=119,slow=3.8,SNR=7.8						
ARCES	ARCESS Array B	129.18	349	PKP	PKPdf	02 26 49.9	-0.9
	4.1nm,0.9s,SNR=7.9						
FINES	FINESS Array B	136.00	343	PKP	PKPdf	02 27 04.6	+1.0
	1.8nm,0.9s,slow=3.8,SNR=4.1						
FINES	FINESS Array B	136.00	343	PKP	PKPdf	02 27 04.6	+1.0
AKASG	Malin Array Be	143.18	331	PKP	PKPdf	02 27 14.9	-1.8
	2.8nm,0.4s,baz=44,slow=4.3,SNR=33						
BRTR	Keskin Array B	146.89	312	PKPbc	PKPbc	02 27 26.9	+1.6
	1.3nm,0.5s,baz=137,slow=4.9,SNR=10						
GERES	GERESS Array B	150.43	344	PKPbc	PKPdf	02 27 35.0	+6.3
	1.5nm,1.0s,baz=38,slow=2.8,SNR=4.8						

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*IGQ **19** 02:30:03.9, 4.31S×76.42W, h45^{km}±15^{km}, mb5.1, Error ellipse: s-maj=13.9km s-min=11.1km az=93.2*

*BJI **19** 02:30:05.9, 4.14S×75.96W, h48^{km}, mB5.2, Ms5.5, Msz5.1*

*IDC **19** 02:30:06.7±0.5, 4.12S×76.21W, h42^{km}±4^{km}, mb4.4/22, mb1 4.5/26, mb1mx4.5/30, ML4.5/1, MS3.7/7, Ms1 3.8/7, ms1mx3.3/23, Error ellipse: s-maj=21.9km s-min=11.0km az=64.0*

*NEIC **19** 02:30:07.3±0.2, 4.18S×76.29W, mb4.9/80, Error ellipse: s-maj=5.1km s-min=3.3km az=53.0*

ISC 19 02:30:05.3±0.6, **4.17S**±0.04×**76.35W**±0.05, **h46**^{km}±5^{km}, **h50**^{km}±.9^{km}**:pP-P**, **n236**, σ**0^{s}82**/208, **mb4.8**/98, **MS4.4**/11, **15C-5D, Northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PATA	Patacocha	3.37	322	P	P	02 30 56.5	-0.2
ARRY	Arrayan	3.38	321	⇓P	P	02 30 56.2	-0.7
RETU	Refugio	3.41	322	⇑P	P	02 30 57.3	-0.1
RETU				S	S	02 31 35.8	-1.3
CUSU	Cusua	3.44	322	⇑P	P	02 30 57.7	-0.1
JUIV	Juive	3.45	322	P	P	02 30 57.3	-0.6
IGUA	Igualata	3.51	319	⇓P	P	02 30 59.5	+0.8
PISA	Pisayambo	3.70	327	⇑P	P	02 31 01.4	-0.1
TAMB	Tambo	4.00	330	⇑P	P	02 31 05.8	+0.2
VC1	Cotopaxi 1	4.06	330	⇑P	P	02 31 07.0	+0.5
NAS1	Nasa	4.10	329	⇑P	P	02 31 08.0	+0.9
ANTI	Antisana	4.11	334	⇑P	P	02 31 06.8	-0.5
AZU1	Azuela	4.24	343	P	P	02 31 09.2	+0.1
CONE	Cono NE Rev Vo	4.27	342	P	P	02 31 08.5	-1.1
CAYR	Refugio Cayamb	4.47	338	P	P	02 31 12.9	+0.5
CAYA	Cayambe	4.52	339	P	P	02 31 13.5	+0.4
JUA2	San Juan 2	4.53	330	P	P	02 31 13.8	+0.6
CGGP	Crater GGP	4.56	330	P	P	02 31 15.3	+1.7
PINO	Pino	4.58	330	P	P	02 31 14.8	+1.0
YANA	Yana	4.59	331	P	P	02 31 14.8	+0.7
COTA	Cotacachi	4.89	336	⇓P	P	02 31 20.7	+2.4
NNA	Nana	7.78	184	*e*Pn	P	02 31 56.7	-1.9
	28nm,0.6s						
NNA				*e*Sn	S	02 33 13.8	-13
ROSC	El Rosal	9.19	13	P	P	02 32 18.6	+0.6
	3.1nm,0.3s,baz=92,slow=12,SNR=15						
SDV	Santo Domingo	14.17	24	*e*P	P	02 33 23.1	-2.1
	14nm,0.4s						
LPAZ	La Paz	14.50	147	P	P	02 33 27.5	-2.0
	0.9nm,0.3s,baz=333,slow=14,SNR=24						
LPAZ				S	S	02 36 02.3	-7.4
	0.5nm,0.3s,baz=176,slow=24,SNR=2.3						
LPAZ	La Paz	14.50	147	P	P	02 33 27.5	-2.0
LPAZ				S	S	02 36 02.3	-7.4
JTS	JuntasAbangare	16.72	329	*e*P	P	02 33 59.4	+1.4
	44nm,1.4s						
LVC	Limon Verde	19.70	159	P	P	02 34 33.6	-0.1
	0.7nm,0.3s,baz=355,slow=11,SNR=15						
LVC				LR	LR	02 43 16.2	
	comp=Z,146nm,18.9s,baz=327,slow=40						
LVC	Limon Verde	19.70	159	*e*P	P	02 34 33.7	0.0
	6.8nm,0.6s						
SJG	San Juan	24.32	24	P	P	02 35 18.2	-1.8
	27nm,0.7s,mb4.8,baz=218,slow=4.7,SNR=8.1						
SJG				LR	LR	02 46 03.1	
	comp=Z,367nm,19.7s,MS3.9,baz=14,slow=40						
TEIG	Tepich	26.92	335	*e*P	P	02 35 43.9	-0.6
	4.7nm,0.5s,mb4.3						
CPUP	Villa Florida	28.59	142	P	P	02 35 57.1	-2.3
	0.0nm,0.3s,baz=226,slow=15,SNR=1.6						
BDFB	Brasilia	30.11	114	P	P	02 36 11.9	-1.1
	1.3nm,0.5s,mb3.9,baz=316,slow=9.0,SNR=4.8						
BDFB				LR	LR	02 49 27.9	
	comp=Z,289nm,20.9s,MS3.9,baz=295,slow=39						
BAO	Brasilia Array	30.12	114	*e*P	P	02 36 16.1	+2.9
BAO				*e*		02 41 42.8	
GOGA	Godfrey	37.98	350	*e*P	P	02 37 20.6	0.0
	53nm,1.3s,mb5.1						
LRAL	Lakeview Retre	38.35	346	*e*P	P	02 37 23.4	-0.3
	41nm,0.9s,mb5.2						
LRAL				*e*pP	pP	02 37 36.6	+0.5
LRAL				*e*PcP	PcP	02 39 36.3	-1.0
MYNC	Murphy	39.71	350	*e*P	P	02 37 34.8	-0.2
	52nm,1.4s,mb5.1						
CPCT	Cooper Cave	40.15	350	*e*P	P	02 37 38.7	+0.1
SWET	Sewanee	40.20	348	*e*P	P	02 37 38.5	-0.5
OXF	Oxford	40.39	343	*e*P	P	02 37 39.4	-1.2
JCT	Junction City	41.11	328	*e*P	P	02 37 47.2	+0.7
	5.5nm,0.7s,mb4.3						
BLA	Blacksburg	41.34	355	*e*P	P	02 37 48.9	+0.5
	15nm,0.6s,mb4.8						
ELN	Prospectdale	41.39	355	*e*P	P	02 37 49.7	+0.9
WVT	Waverly	41.50	346	*e*P	P	02 37 47.6	-2.2
	12nm,0.7s,mb4.6						
WVT				*e*pP	pP	02 38 00.9	-1.4
PWV	Princeton	41.52	354	*e*P	P	02 37 50.3	+0.4
UALR	University of	41.56	340	*e*P	P	02 37 48.6	-1.7
	30nm,0.8s,mb5.0						
FWV	Forest Hill	41.74	355	*e*P	P	02 37 52.2	+0.4
TXAR	Lajitas Array	42.39	324	P	P	02 37 58.0	+0.9
	1.8nm,0.7s,mb3.8,baz=148,slow=8.6,SNR=24						
TXAR				PcP	PcP	02 39 50.8	+0.3
	2.7nm,0.8s,baz=140,slow=6.0,SNR=10.0						
TXAR				LR	LR	02 55 29.2	
	comp=Z,50nm,19.0s,MS3.4,baz=50,slow=36						
WCI	Wyandotte Cave	43.18	349	*e*P	P	02 38 01.7	-1.8
	18nm,0.7s,mb4.9						
USIN	University of	43.22	347	*e*P	P	02 38 02.1	-1.7
	16nm,0.7s,mb4.8						
FVM	French Village	43.93	344	*e*P	P	02 38 07.9	-1.7
	27nm,0.7s,mb5.1						
FVM				*e*pP	pP	02 38 22.1	0.0
MVL	Millersville	43.95	0	*e*P	P	02 38 10.6	+0.9
WMOK	Wichita Mounta	44.08	333	*e*P	P	02 38 10.6	-0.3
	23nm,0.8s,mb5.0						
BLO	Bloomington	44.13	349	*e*P	P	02 38 09.8	-1.4
	23nm,0.6s,mb5.1						
BLO				*e*pP	pP	02 38 23.4	-0.4
BLO				*e*PcP	PcP	02 39 55.4	-0.8
SSPA	Standing Stone	44.61	358	*e*P	P	02 38 15.6	+0.6
	31nm,1.1s,mb5.1						
CLNB	Carlsbad	44.68	326	*e*P	P	02 38 16.2	+0.4
CLNB				*e*pP	pP	02 38 30.5	+2.2
GDL2	Guadalupe Moun	44.91	326	*e*P	P	02 38 18.6	+1.1
GDL2				*e*pP	pP	02 38 32.1	+2.0
PAL	Palisades	45.01	3	*e*P	P	02 38 18.1	-0.1
PAL				*e*pP	pP	02 38 32.0	+1.2
MNTX	Cornudas Mount	45.12	324	*e*P	P	02 38 18.9	-0.4
	5.3nm,0.9s,mb4.4						
MNTX				*e*pP	pP	02 38 33.1	+1.3
CPRX	Cap Rock	45.26	327	*e*P	P	02 38 21.3	+1.0
CPRX				*e*pP	pP	02 38 34.3	+1.4
AMTX	Amarillo	45.57	330	*e*P	P	02 38 22.7	0.0
	21nm,0.6s,mb5.2						
AMTX				*e*pP	pP	02 38 34.2	-1.2
BINY	Binghamton	46.15	0	*e*P	P	02 38 28.1	+0.8
	80nm,0.9s,mb5.7						
BINY				*e*pP	pP	02 38 40.8	+1.0
WES	Weston	46.56	5	*e*P	P	02 38 30.7	+0.3
	16nm,0.5s,mb5.2						
KSU1	Kansas State U	46.94	338	*e*P	P	02 38 32.4	-1.2
KSU1				*e*pP	pP	02 38 46.1	0.0
ACCN	Adirondack Com	47.39	3	*e*P	P	02 38 37.3	+0.3
BNM	Barren Site	47.62	326	*e*P	P	02 38 39.8	+0.9
LPM	Los Pinos Moun	47.74	326	*e*P	P	02 38 40.7	+0.8
HNH	Hanover	47.79	4	*e*P	P	02 38 40.5	+0.3
NCB	Newcomb	47.96	2	*e*P	P	02 38 41.7	+0.3
	24nm,0.7s,mb5.3						
MDV	Middlebury	48.03	3	*e*P	P	02 38 42.0	0.0
MIV	Mineville/With	48.09	3	*e*P	P	02 38 42.6	+0.2
ANMO	Albuquerque	48.12	326	P	P	02 38 43.8	+0.9
	16nm,0.8s,mb5.1,baz=141,slow=9.2,SNR=61						
ANMO	Albuquerque	48.12	326	*e*P	P	02 38 42.9	0.0
	18nm,0.8s,mb5.2						
LOZ	Lake Ozonia	48.59	2	*e*P	P	02 38 45.7	-0.6
SADO	Sadowa	48.78	357	P	P	02 38 46.6	-1.2
	5.1nm,0.4s,mb4.9,baz=198,slow=7.8,SNR=4.4						
TUC	Tucson	48.84	321	*e*P	P	02 38 48.5	+0.1
	5.9nm,0.8s,mb4.7						
FRNY	Flat Rock	48.84	3	*e*P	P	02 38 48.5	+0.2
FRNY				*e*pP	pP	02 39 02.3	+1.4
SDCO	Great Sand Dun	49.72	330	*e*P	P	02 38 55.8	+0.7
	25nm,1.0s,mb5.2						
SDCO				*e*pP	pP	02 39 09.7	+1.9
USHA	Ushuaia	50.92	174	P	P	02 39 04.0	0.0
	6.4nm,0.8s,mb4.6,baz=214,slow=7.3,SNR=3.4						
ISCO	Idaho Springs	51.37	331	*e*P	P	02 39 07.9	+0.3
	12nm,1.1s,mb4.8						
ISCO				*e*pP	pP	02 39 21.7	+1.4
PV01	Paradox Valley	51.61	328	*e*P	P	02 39 10.0	+0.6
PV10	Paradox Valley	52.04	327	*e*P	P	02 39 12.3	-0.3
PHWY	Pilot Hill	52.47	332	*e*P	P	02 39 16.1	+0.2
SRU	San Rafael	53.37	327	*e*P	P	02 39 22.2	-0.4
SRU				*e*pP	pP	02 39 36.4	+1.0
MSU	Marysvale	53.87	325	*e*P	P	02 39 26.1	-0.1
MSU				*e*pP	pP	02 39 40.4	+1.3
TMUT	Trail Mountain	53.88	327	*e*P	P	02 39 26.5	+0.2
MVU	Marysvale	53.88	325	*e*P	P	02 39 26.7	+0.3
	23nm,1.5s,mb4.9						
MVU				*e*pP	pP	02 39 40.9	+1.7
ARUT	Antelope Range	54.10	324	*e*P	P	02 39 28.2	+0.2
ARUT				*e*pP	pP	02 39 42.5	+1.6
DAU	Daniels Canyon	54.69	328	*e*P	P	02 39 32.8	+0.6
DAU				*e*pP	pP	02 39 46.3	+1.1
MWC	Mount Wilson	54.79	318	*e*P	P	02 39 32.3	-0.8
JLU	Jordanelle	54.93	328	*e*P	P	02 39 33.8	-0.2
TPNV	Topopah Spring	55.26	321	*e*P	P	02 39 37.1	+0.6
	11nm,0.9s,mb4.9						
TCUT	Toone Canyon	55.28	328	*e*P	P	02 39 36.6	+0.1
PDAR	Pinedale Array	55.55	331	P	P	02 39 37.9	-0.6
	7.8nm,0.9s,mb4.8,baz=132,slow=8.4,SNR=66						
PDAR				PcP	PcP	02 40 37.0	-0.7
	1.6nm,0.5s,baz=124,slow=4.9,SNR=7.4						
HWUT	Hardware Ranch	55.71	328	*e*P	P	02 39 39.0	-0.7
	21nm,1.0s,mb5.1						
HWUT				*e*PcP	PcP	02 40 37.8	-0.6
AHID	Auburn Hatcher	56.31	330	*e*P	P	02 39 43.3	-0.6
	18nm,1.0s,mb5.1						
REDW	Red Top Meadow	56.63	330	*e*P	P	02 39 45.9	-0.3
SNOW	Snow King Moun	56.65	330	*e*P	P	02 39 46.0	-0.4
LOHW	Long Hollow	56.69	331	*e*P	P	02 39 46.0	-0.6
WUWY	Wally Ulrich	56.70	331	P	P	02 39 46.3	-0.4
ULM	Lac du Bonnet	56.76	345	P	P	02 39 45.6	-1.4
	11nm,0.8s,mb5.0,baz=162,slow=7.7,SNR=16						
ULM				PcP	PcP	02 40 41.8	-0.5
	1.5nm,0.5s,baz=177,slow=4.0,SNR=4.0						
ULM	Lac du Bonnet	56.76	345	*e*P	P	02 39 45.5	-1.6
	25nm,1.0s,mb5.2						
TPAW	Teton Pass	56.77	330	*e*P	P	02 39 46.9	-0.3
MTUM	Tungsten Hills	56.97	320	*e*P	P	02 39 49.0	+0.2
IMW	Indian Meadow	57.06	331	*e*P	P	02 39 48.3	-0.9
ELK	Elko	57.12	325	*e*P	P	02 39 49.4	-0.3
	5.9nm,0.9s,mb4.6						
MNV	Mina	57.37	322	*e*P	P	02 39 51.3	-0.2
	5.5nm,0.8s,mb4.6						
OMM	Old Mammoth Mi	57.40	320	*e*P	P	02 39 51.6	-0.2
OMM				pP	pP	02 40 06.1	+1.3
NVAR	Mina Array Bea	57.46	321	P	P	02 39 52.5	+0.3
	5.3nm,0.7s,mb4.7,baz=127,slow=7.5,SNR=41						
NVAR				pP	pP	02 40 04.0	-1.1
	4.6nm,0.9s,baz=133,slow=7.6,SNR=9.3						
NVAR				PcP	PcP	02 40 45.1	-0.2
	3.1nm,0.7s,baz=131,slow=5.7,SNR=6.1						
NVAR				LR	LR	03 04 10.8	
	comp=Z,67nm,18.2s,MS3.8,baz=150,slow=36						
YMR	Madison River	57.65	331	*e*P	P	02 39 53.8	+0.4
QLMT	Earthquake Lak	57.99	331	*e*P	P	02 39 56.1	+0.4
QLMT				*e*pP	pP	02 40 10.7	+1.9
BMN	Battle Mountai	58.06	324	*e*P	P	02 39 56.0	-0.3
	5.5nm,0.6s,mb4.8						
HLID	Hailey	58.58	328	*e*P	P	02 39 59.6	-0.3
	11nm,1.0s,mb4.8						
MCMT	McKenzie Canyo	58.68	330	*e*P	P	02 40 00.7	+0.1
SCHQ	Schefferville	59.32	6	P	P	02 40 04.3	-0.5
	15nm,0.9s,mb5.0,baz=198,slow=7.4,SNR=14						

SCHQ	Schefferville	59.32	6	P	P	02 40 04.3	-0.5
HRY	Holter Researc	59.57	332	eP	P	02 40 06.5	-0.1
BEKR	Beckwourth	59.60	322	eP	P	02 40 06.8	-0.2
	3.0nm,0.6s,mb4.5						
BEKR				epP	pP	02 40 19.7	-0.3
OHCM	Honcut	59.99	321	eP	P	02 40 09.4	-0.3
MSO	Missoula	60.65	331	eP	P	02 40 13.8	-0.3
	21nm,1.1s,mb5.2						
BMO	Blue Mountains	60.98	328	eP	P	02 40 15.5	-0.9
	4.2nm,0.9s,mb4.6						
PMSA	Palmer Station	61.13	174	eP	P	02 40 16.3	-0.8
YBH	Yreka Blue Hor	62.14	322	P	P	02 40 22.4	-1.8
	4.1nm,0.9s,mb4.5,baz=103,slow=7.4,SNR=11						
WALA	Waterton Lakes	62.24	333	eP	P	02 40 23.8	-0.9
	13nm,0.8s,mb5.1						
NEW	Newport	63.19	331	eP	P	02 40 30.5	-0.6
	21nm,1.0s,mb5.2						
IRO	Indian Ridge	63.20	325	P	P	02 40 31.3	0.0
MXC	Moxie City	63.70	328	P	P	02 40 35.4	+1.0
EPH	Ephrata	63.83	329	P	P	02 40 35.7	+0.4
MPOR	Mary's Peak	64.25	324	P	P	02 40 38.9	+0.8
FCC	Fort Churchill	64.31	350	eP	P	02 40 36.4	-1.8
	3.1nm,0.4s,mb4.7						
LON	Longmire	64.62	327	P	P	02 40 40.5	+0.1
PGC	Sidney	66.66	328	eP	P	02 40 53.6	+0.1
BBB	Bella Bella	71.14	329	P	P	02 41 21.9	+0.9
	13nm,0.8s,mb4.9,baz=118,slow=6.7,SNR=4.3						
BBB	Bella Bella	71.14	329	P	P	02 41 21.9	+0.9
YKA	Yellowknife Ar	72.56	342	P	P	02 41 28.5	-0.7
	5.8nm,0.8s,mb4.5,baz=141,slow=6.0,SNR=5.9						
YKA				pP	pP	02 41 41.8	-0.7
	1.7nm,0.7s,baz=136,slow=6.1,SNR=4.1						
YKW3	Yellowknife Ar	72.61	343	eP	P	02 41 28.4	-1.1
DLBC	Dease Lake	75.56	334	P	P	02 41 47.5	+0.8
	7.4nm,1.0s,mb4.6,baz=145,slow=4.5,SNR=5.9						
DLBC	Dease Lake	75.56	334	P	P	02 41 47.5	+0.8
EVO	Evora	75.88	49	⇑iP	P	02 41 48.7	-0.3
	12nm,0.8s,mb4.6						
EMIN	Mina Concepcio	76.68	50	P	P	02 41 54.1	+0.6
	26nm,1.5s,mb4.9						
EBAD	Badajoz	76.69	49	P	P	02 41 53.1	-0.5
	3.3nm,0.9s,mb4.3						
ELOB	Lobios	76.85	45	P	P	02 41 54.1	-0.2
	8.8nm,1.1s,mb4.6						
ESPR	Espera	77.06	51	P	P	02 41 56.2	+0.5
	5.1nm,0.6s,mb4.6						
EJIF	Jimena Fronter	77.25	51	P	P	02 41 56.0	-0.7
	1.3nm,0.6s,mb4.0						
EINC	Incio	77.59	45	P	P	02 41 58.4	-0.1
	9.2nm,0.8s,mb4.8						
EMIJ	Mijas	77.82	51	P	P	02 42 00.6	+0.7
	5.6nm,0.7s,mb4.6						
EPON	Pontenova	77.93	44	P	P	02 42 00.3	-0.1
	18nm,0.7s,mb5.1						
EADA	Adamuz	78.38	50	P	P	02 42 02.7	-0.2
	3.8nm,0.9s,mb4.3						
ELOJ	Sierra Loja	78.45	51	P	P	02 42 05.0	+1.7
	4.4nm,0.5s,mb4.6						
ERON	Agron	78.69	51	P	P	02 42 05.8	+1.2
	6.9nm,0.4s,mb4.9						
VNA3	Neumayer Olymp	78.69	162	⇑i	P	02 42 06.3	+2.3
VNA1	Neumayer--Stat	78.92	162	⇑i	P	02 42 07.9	+2.6
ESDC	Sonseca Array	79.22	48	P	P	02 42 07.7	+0.2
	1.1nm,0.6s,mb4.0,baz=265,slow=5.6,SNR=8.5						
EARI	Arriondas	79.28	45	P	P	02 42 07.9	+0.1
	9.8nm,0.7s,mb4.8						
VNA2	Neumayer--Watz	79.29	162	⇑i	P	02 42 09.5	+2.3
EBER	Berja	79.37	51	P	P	02 42 08.6	+0.2
	9.2nm,0.7s,mb4.8						
EQES	Quesada	79.44	51	P	P	02 42 09.1	+0.3
	7.4nm,0.7s,mb4.7						
RES	Resolute Bay	79.53	355	eP	P	02 42 06.8	-1.7
	8.5nm,1.0s,mb4.6						
BORG	Borgarnes	79.63	21	P	P	02 42 10.3	+1.2
	17nm,0.9s,mb5.0,baz=245,slow=5.0,SNR=4.2						
ENIJ	Nijar	79.92	51	P	P	02 42 11.5	+0.1
	12nm,0.9s,mb4.8						
EVIA	Vianos	80.08	50	P	P	02 42 13.0	+0.9
	4.5nm,0.5s,mb4.7						
SUMG	Summit	80.31	11	eP	P	02 42 13.3	+0.6
	18nm,0.9s,mb5.0						
EMUR	La Murta	80.86	51	P	P	02 42 15.7	-0.6
	4.5nm,0.6s,mb4.6						
SNAA	Sanae	80.91	162	⇑i	P	02 42 16.0	+0.1
SNAA	Sanae	80.91	162	P	P	02 42 16.2	+0.4
	2.2nm,0.7s,mb4.2,baz=284,slow=4.7,SNR=29						
SNAA				LR	LR	03 21 51.6	
	comp=Z,23nm,18.3s,MS3.6,baz=6.6,slow=38						
SNAA	Sanae	80.91	162	eP	P	02 42 15.7	-0.2
	8.5nm,1.0s,mb4.6						
EBEN	Beniarda	81.83	50	P	P	02 42 20.8	-0.6
	10nm,0.9s,mb4.8						
ROSF	Rostrenen	81.96	40	eP	P	02 42 21.9	+0.1
	226nm,1.6s,mb5.5						
EMOS	Mosqueruela	81.99	48	P	P	02 42 21.4	-0.7
	9.2nm,0.9s,mb4.7						
SJPF	Ste Jean	82.05	46	eP	P	02 42 22.9	+0.5
INK	Inuvik	82.30	342	P	P	02 42 23.7	+0.6
	22nm,0.8s,mb5.1,baz=102,slow=5.5,SNR=32						
INK	Inuvik	82.30	342	eP	P	02 42 23.7	+0.5
	30nm,0.9s,mb5.2						
DAWY	Dawson	82.30	337	eP	P	02 42 22.9	-0.3
SGMF	Saint Gilles	82.40	40	eP	P	02 42 24.1	+0.1
ETSF	Etsaut	82.48	46	eP	P	02 42 25.3	+0.7
ERTA	Horta de San J	82.71	48	P	P	02 42 26.4	+0.6
	10nm,0.8s,mb4.9						
EBIE	Bielsa	82.94	46	P	P	02 42 27.6	+0.7
	3.9nm,0.5s,mb4.7						
EPF	Esparros	83.15	46	eP	P	02 42 28.0	0.0
GRR	Gorron	83.53	41	eP	P	02 42 29.8	0.0
	16nm,0.6s,mb5.0						
MFF	Saint Martin d	83.59	42	eP	P	02 42 30.4	+0.2
	13nm,0.6s,mb5.0						
LFF	La Frestale	83.83	44	eP	P	02 42 31.7	+0.2
	28nm,0.8s,mb5.2						
FLN	La Foliniere	83.86	40	eP	P	02 42 31.7	+0.2
	72nm,1.0s,mb5.5						
EKA	Eskdalemuir Ar	83.94	33	P	P	02 42 31.6	-0.1
	3.7nm,0.7s,mb4.6,baz=246,slow=4.5,SNR=8.5						
LDF	La Druitiere	84.05	40	eP	P	02 42 32.6	+0.1
	19nm,0.7s,mb5.0						
RJF	Les Rejaudoux	84.45	44	eP	P	02 42 34.6	+0.1
	23nm,0.9s,mb5.0						
MTLF	Montolieu	84.56	46	eP	P	02 42 35.2	+0.1
	18nm,0.9s,mb4.9						
CAF	Calviac	84.75	44	eP	P	02 42 36.1	0.0
	5.3nm,0.6s,mb4.5						
ILAR	Eielson Array	85.57	336	P	P	02 42 39.8	+0.2
	6.8nm,1.0s,mb4.8,baz=126,slow=3.6,SNR=8.3						
ILAR				pP	pP	02 42 52.3	-1.0
	2.0nm,0.8s,baz=138,slow=3.3,SNR=4.1						
LASF	Ste Croix	85.86	45	eP	P	02 42 42.3	+0.8
QSPA	South Pole Qui	85.91	180	⇑iP	P	02 42 42.3	+1.3
	17nm,1.0s,mb5.2						
AVF	Avril sur Loir	85.98	43	eP	P	02 42 42.0	-0.1
SSF	Saint Saulge	86.14	42	eP	P	02 42 42.7	-0.1
	32nm,1.3s,mb5.1						
SMF	Signal de Mont	86.29	43	eP	P	02 42 43.5	-0.1
	40nm,1.3s,mb5.2						
DAG	Danmarks Havn	86.99	11	⇓eP	P	02 42 46.8	+0.4
	6.2nm,0.7s,mb5.0						
DAG	Danmarks Havn	86.99	11	⇓iP	P	02 42 46.8	+0.4
	6.2nm,0.7s,mb5.0						
ORIF	Oris-en-Rattie	87.42	45	eP	P	02 42 50.6	+1.5
GIVF	Givet	87.52	40	eP	P	02 42 49.7	+0.2
FRF	La Foret Royal	87.78	46	eP	P	02 42 50.7	-0.2
	16nm,0.8s,mb5.0						
CABF	La Chapelle	87.81	43	eP	P	02 42 50.9	-0.1
CDF	Champ du Feu	88.86	41	eP	P	02 42 55.6	-0.3
	4.7nm,0.5s,mb4.7						
DAVOX	Davos	90.42	43	P	P	02 43 03.5	+0.1
	4.0nm,0.8s,mb4.8,baz=6.3,slow=9.4,SNR=5.3						
NOA	NORSAR Array B	92.43	29	LR	LR	03 22 04.6	
	comp=Z,69nm,19.2s,MS4.1,baz=310,slow=34						
VNDA	Vanda	92.51	191	P	P	02 43 13.5	+1.2
	1.3nm,0.7s,mb4.5,baz=101,slow=6.0,SNR=10						
VNDA	Vanda	92.51	191	P	P	02 43 13.5	+1.2
ARCES	ARCESS Array B	98.03	20	P	P	02 43 36.9	-0.6
	3.3nm,0.9s,mb4.8,baz=270,slow=4.5,SNR=6.1						
ARCES	ARCESS Array B	98.03	20	P	P	02 43 36.9	-0.6
BRVK	Borovoye	124.08	24	ePKPdf	PKPdf	02 49 00.3	+1.4
ZAL	Zalesovo	128.05	14	PKP	PKPdf	02 49 08.3	+1.7
	5.3nm,0.8s,baz=185,slow=2.6,SNR=33						
ZAL				pPKP		02 49 20.9	
	3.6nm,0.7s,baz=171,slow=2.6,SNR=11						
ZAL	Zalesovo	128.05	14	PKP	PKPdf	02 49 08.3	+1.7
ZAL				pPKP		02 49 20.9	
STKA	Stephens Creek	129.14	222	PKP	PKPdf	02 49 10.6	+1.4
	2.6nm,0.6s,baz=117,slow=4.5,SNR=4.9						
STKA				pPKP		02 49 24.3	
	32nm,1.6s,baz=230,slow=1.8,SNR=3.5						
STKA	Stephens Creek	129.14	222	PKP	PKPdf	02 49 10.6	+1.4
STKA				pPKP		02 49 24.3	
MDJ	Mudanjiang	133.72	334	PKP	PKPdf	02 49 17.5	-0.1
CN2	Changchun	136.08	337	ePKP	PKPdf	02 49 25.1	+3.2
CN2				PP	PP	02 52 08.0	+2.5
CN2				LR	LR		
	comp=N,500nm,14.0s,MS5.5						
CN2				LR	LR		
	comp=E,400nm,14.0s,MS5.5						
CN2				LR	LR		
	comp=Z,300nm,15.0s,MS5.1						
ULN	Ulaanbaatar	136.37	357	eP	PKPdf	02 49 23.9	+1.6
SONM	Songino Array	136.43	357	PKP	PKPdf	02 49 24.4	+2.0
	comp=Z,1.9nm,0.7s,baz=339,slow=1.5,SNR=13						
SONM				pPKP		02 49 38.7	
	comp=Z,1.1nm,1.0s,baz=307,slow=1.0,SNR=4.3						
ASAR	Alice Springs	139.56	225	PKhKP		02 49 21.7	
	comp=Z,0.7nm,0.6s,baz=130,slow=3.4,SNR=12						
ASAR				PKP	PKPdf	02 49 30.1	+1.3
	comp=Z,2.9nm,0.6s,baz=110,slow=2.0,SNR=24						
ASAR				pPKP		02 49 42.4	
	comp=Z,2.0nm,1.0s,baz=128,slow=2.9,SNR=4.6						
WRA	Warramunga Arr	141.48	230	PKhKP		02 49 27.3	
	comp=Z,2.6nm,0.7s,baz=132,slow=2.7,SNR=39						
WRA				PKP	PKPdf	02 49 33.2	+0.8
	comp=Z,4.0nm,0.7s,baz=125,slow=2.1,SNR=36						
WRA				pPKP		02 49 47.7	
	comp=Z,1.6nm,0.8s,baz=117,slow=2.4,SNR=5.4						
HHC	Hu-ho-hao-te	142.79	350	ePKP	PKPdf	02 49 34.1	+0.1
HHC				PKS	PKS	02 53 08.9	+0.1
HHC				SKS	SKS	02 56 38.3	+1.1
HHC				PP	PP		
	comp=Z,116nm,6.1s						
HHC				LR	LR		
	comp=N,205nm,16.7s,MS5.2						
HHC				LR	LR		
	comp=E,324nm,16.7s,MS5.2						
HHC				LR	LR		
	comp=Z,267nm,18.2s,MS5.0						
DDI	Dehra Dun	144.50	40	e	PKPbc	02 49 35.0	-2.1
GTA	Gaotai	144.75	5	PKP	PKPdf	02 49 38.5	+1.0
GTA				APKP		02 49 50.5	
NDI	New Delhi	145.01	43	eP	PKPdf	02 49 38.5	+0.2
KAKA	Kakadu	146.84	239	eP	PKPdf	02 49 44.4	+2.6
	comp=Z,14nm,0.6s						
POO	Poona	147.57	62	⇑iP	PKPdf	02 49 45.0	+2.2
LZH	Lanzhou	148.24	360	⇑PKP	PKPdf	02 49 48.8	+5.4
LZH				PP	PP	02 53 24.0	+4.5
LZH				SS	SS	03 12 23.8	+3.7
LZH				PP	PP		
	comp=Z,156nm,8.2s						
LZH				LR	LR		
	comp=N,289nm,18.5s						
LZH				LR	LR		
	comp=Z,498nm,20.1s,MS5.3						
FITZ	Fitzroy Crossi	149.02	224	eP	PKPdf	02 49 50.4	+5.2
	comp=Z,12nm,0.5s						
KOLN	Koldanda	149.74	37	eP	PKPdf	02 49 47.7	+1.6
	comp=Z,12nm,0.5s						
GKN	Gorkha	150.17	35	eP	PKPdf	02 49 48.8	+2.0
	comp=Z,114nm,1.1s						
MBWA	Marble Bar	150.30	211	ePKPbc	PKPdf	02 49 52.9	+5.7
KKN	Kakani	150.71	35	eP	PKPdf	02 49 50.0	+2.4
	comp=Z,51nm,0.7s						
DMN	Daman	150.74	35	eP	PKPdf	02 49 49.0	+1.4
	comp=Z,28nm,0.8s						
PKI	Pulchoki	150.94	35	eP	PKPdf	02 49 50.2	+2.3
	comp=Z,39nm,0.9s						
GUN	Gumba	150.95	34	eP	PKPdf	02 49 50.1	+2.2
	comp=Z,42nm,0.9s						
ENH	Enshi	153.46	349	ePKPdf	PKPdf	02 49 53.0	+1.5
ENH				ePKPbc	PKPdf	02 50 00.6	+9.2
SHL	Shillong	155.91	27	e	PKPab	02 50 24.0	-0.5
GYA	Guiyang	157.65	353	PKP	PKPdf	02 49 59.5	+2.3
GYA				PP	PP	02 54 14.3	+1.9
GYA				PP	PP		
	comp=Z,180nm,8.7s						
GYA				LR	LR		
	comp=N,610nm,25.2s,MS5.4						
GYA				LR	LR		
	comp=E,460nm,26.4s,MS5.4						
GYA				LR	LR		
	comp=Z,580nm,26.8s,MS5.3						
KMI	Kunming	159.15	2	ePKP	PKPdf	02 49 59.0	0.0
KMI				SSS	SSS	03 20 24.5	-2.3
KMI				LR	LR		
	comp=Z,163nm,31.3s,MS4.7						
CMAR	Chiang Mai Arr	165.07	18	PKP	PKPdf	02 50 07.6	+2.4
	comp=Z,2.3nm,0.6s,baz=295,slow=2.1,SNR=14						
CMAR				pPKP		02 50 21.2	
	comp=Z,2.0nm,0.7s,baz=296,slow=1.9,SNR=7.2						
CMAR				PKPab	PKPab	02 51 03.1	-1.1
	comp=Z,3.2nm,0.8s,baz=325,slow=5.2,SNR=11						

*BER **19** 02:32:14.3±1.6, 78.39N×8.39E, h15^{km}, ML2.0(NAO)*

NAO 19 02:32:14.2±5.1**, 78.42N**×**9.53E, ML2.0, Svalbard region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPA0	Spitsbergen Ar	1.42	97	Pn	Pn	02 32 41.0	-0.3
	baz=276,slow=14						
SPA0				Sn	Sn	02 33 00.7	-0.2
	baz=287,slow=37						
HSP	Hornsund	1.92	135	eP	Pn	02 32 43.1	-5.3
HSP				e(S)	Sn	02 33 05.6	-8.0

*IDC **19** 02:35:49.7±1.5, 63.55N×166.05W, mb3.5/5, mb1 3.8/7, mb1mx3.6/22, ML3.6/2, Error ellipse: s-maj=39.1km s-min=16.9km az=178.0*

*NEIC **19** 02:35:49.9, 63.53N×165.75W, h7^{km}, ML4.2(AEIC), After AEIC.*

ISC 19 02:35:48.4±0.5**, 63.54N**±0.05×**165.58W**±0.08**, h7^{km}, n46, σ1^{s}13**/50**, mb3.5**/5**, Bering Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANM	Nome	1.03	5	P	Pb	02 36 09.8	+1.6
GAMB	Gambell	2.74	278	P	Pn	02 36 31.9	-1.8
GAMB				S	Sn	02 37 09.2	+1.8
GCSA	Galena City Sc	4.00	69	P	Pn	02 36 52.4	+0.9
GCSA				S	Sn	02 37 41.5	+2.4
IM3	Indian Mountai	5.62	59	P	Pn	02 37 13.4	-1.0
IM3				S	Sn	02 38 22.6	+2.5
IMA	Indian Mountai	5.68	58	eP	Pn	02 37 14.7	-0.6
BGL	Barrier Glacie	6.54	105	P	Pn	02 37 28.6	+1.2
KTH	Kantishna Hill	6.55	83	P	Pn	02 37 27.0	-0.6
CKL	Chakachamna La	6.59	105	P	Pn	02 37 29.2	+1.0
MLY	Manley	6.63	70	P	Pn	02 37 28.5	-0.2
CKN	Chakachatna No	6.65	104	P	Pn	02 37 29.1	+0.1
NCT	North Crescent	6.65	111	P	Pn	02 37 29.5	+0.5
STLK	Strandline Lak	6.68	102	P	Pn	02 37 30.5	+1.0
SPU	Mount Spurr	6.72	105	eP	Pn	02 37 30.7	+0.7
RDN	Redoubt North	6.75	111	P	Pn	02 37 30.9	+0.6
RSO	Redoubt South	6.78	111	eP	Pn	02 37 30.7	-0.2
TRF	Thorofare Moun	6.84	84	P	Pn	02 37 31.1	-0.6
ILW	Iliamna West	6.85	115	P	Pn	02 37 32.2	+0.4
INE	Iliamna NE	6.88	115	P	Pn	02 37 32.4	+0.2
ILIM	Iliamna	6.91	114	P	Pn	02 37 33.1	+0.5
MCNL	McNeil River	6.94	124	P	Pn	02 37 33.2	0.0
OPT	Oil Point	7.06	118	P	Pn	02 37 35.4	+0.6
KAHC	Katmai Hardscr	7.09	129	P	Pn	02 37 35.3	+0.1
BWN	Browne	7.14	78	P	Pn	02 37 36.5	+0.5
KAIC	Katmai Ikaglui	7.20	130	P	Pn	02 37 37.1	+0.3
KJL	Kejulik	7.36	134	P	Pn	02 37 39.0	0.0
KAWH	Katmai	7.36	130	P	Pn	02 37 38.9	-0.1
MCK	McKinley	7.41	81	P	Pn	02 37 38.7	-1.0
CAHL	Cahill	7.45	133	P	Pn	02 37 40.3	0.0
COLA	College	7.84	72	P	Pn	02 37 44.1	-1.6
CCB	Clear Creek Bu	7.86	74	P	Pn	02 37 44.2	-1.7
BRLK	Bradley Lake	7.95	112	P	Pn	02 37 47.1	0.0
SML	Sawmill	8.12	95	P	P	02 37 47.3	-2.3
HDA	Harding Lake	8.23	76	P	P	02 37 50.3	-0.8
IL1	Eielson Array	8.25	73	P	P	02 37 49.5	-1.9
ILAR	Eielson Array	8.25	73	Pn	P	02 37 49.5	-1.9
	0.7nm,0.3s,baz=269,slow=14,SNR=47						
ILAR				Sn	Sn	02 39 19.6	-6.4
	1.1nm,0.3s,baz=272,slow=24,SNR=7.9						
KDAK	Kodiak Island	8.59	126	P	P	02 37 54.9	-1.3
THY	Trims Highway	8.87	82	P	P	02 37 59.3	-0.6
PAX	Paxson	9.08	85	P	P	02 38 03.7	+0.8
DAWY	Dawson	11.55	76	eP	P	02 38 35.7	-0.9
INK	Inuvik	13.80	56	Pn	P	02 39 07.2	+0.7
	0.1nm,0.3s,baz=255,slow=12,SNR=5.3						
YKA	Yellowknife Ar	22.66	69	P	P	02 40 52.6	+1.7
	0.2nm,0.6s,mb2.7,baz=294,slow=9.4,SNR=7.1						
NEW	Newport	30.27	97	eP	P	02 41 59.3	-2.5
NVAR	Mina Array Bea	37.62	109	P	P	02 43 07.7	+2.4
	0.9nm,0.8s,mb3.5,baz=321,slow=6.8,SNR=5.4						
SONM	Songino Array	47.85	295	P	P	02 44 28.3	+0.1
	0.2nm,0.6s,mb3.3,baz=31,slow=8.4,SNR=2.2						
TXAR	Lajitas Array	51.69	101	P	P	02 44 58.8	+1.0
	0.3nm,0.7s,mb3.4,baz=326,slow=5.3,SNR=5.0						
FINES	FINESS Array B	55.02	353	P	P	02 45 20.9	-1.2
	7.1nm,1.2s,mb4.6,baz=22,slow=7.5,SNR=4.1						

IDC 19 02:35:59.5±1.9**, 63.82N**×**165.96W, mb3.7**/6**, mb1 4.0**/8**, mb1mx3.8**/22**, ML4.1**/2**, Error ellipse: s-maj=47.8km s-min=18.4km az=11.0, Bering Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILAR	Eielson Array	8.34	75	Pn	P	02 37 56.6	-8.0
	1.2nm,0.3s,baz=272,slow=13,SNR=30						
INK	Inuvik	13.79	57	Pn	P	02 39 16.1	-2.2
	0.5nm,0.3s,baz=262,slow=11,SNR=25						
YKA	Yellowknife Ar	22.72	70	P	P	02 41 02.0	-1.6
	1.9nm,0.7s,baz=291,slow=8.7,SNR=15						
NVAR	Mina Array Bea	37.87	109	P	P	02 43 17.7	-1.8
	0.4nm,0.8s,baz=316,slow=7.0,SNR=4.1						
SONM	Songino Array	47.58	294	P	P	02 44 37.4	-0.9
	0.4nm,0.6s,baz=36,slow=8.2,SNR=3.8						
FINES	FINESS Array B	54.73	353	P	P	02 45 29.9	-2.2
	2.4nm,0.8s,baz=22,slow=7.5,SNR=8.2						
AKASG	Malin Array Be	65.20	349	P	P	02 46 41.4	-2.7
	2.2nm,0.8s,baz=8.4,slow=5.8,SNR=6.6						
ESDC	Sonseca Array	75.86	14	P	P	02 47 47.1	-1.6
	0.2nm,0.5s,baz=350,slow=6.1,SNR=4.3						

*IDC **19** 02:52:10.5±20.0, 19.10S×169.02E, h229^{km}±185^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.5/14, Error ellipse: s-maj=88.7km s-min=58.3km az=121.0*

ISC 19 02:52:03.4±2.8**, 19.4S**±0.5×**169.3E**±0.4**, h183^{km}**±32^{km}**, n9, σ0^{s}97**/11**, mb4.0**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.75	224	eP	P	02 53 02.3	+0.1
DZM				eS	S	02 53 46.9	-0.6
NOUC	Port Laguerre	3.87	225	eP	P	02 53 04.1	+0.5
NOUC				eS	S	02 53 49.9	-0.1
CTA	Charters Tower	21.68	264	P	P	02 56 41.9	+1.6
	4.3nm,0.7s,mb4.0,baz=87,slow=11,SNR=8.1						
STKA	Stephens Creek	27.79	238	P	P	02 57 38.6	+1.1
	2.1nm,0.5s,mb4.1,baz=83,slow=7.1,SNR=5.0						
WRA	Warramunga Arr	32.87	263	P	P	02 58 20.0	-2.2
	0.9nm,0.5s,mb3.7,baz=96,slow=8.2,SNR=13						
ASAR	Alice Springs	33.12	256	P	P	02 58 23.5	-0.8
	12nm,0.4s,mb5.0,baz=82,slow=8.6,SNR=400						
ASAR				pP	pP	02 59 01.1	-1.7
	1.0nm,0.7s,baz=84,slow=9.1,SNR=2.4						
FITZ	Fitzroy Crossi	41.26	264	eP	P	02 59 32.6	+0.3
	3.1nm,0.5s,mb4.2						
FITZ	Fitzroy Crossi	41.26	264	P	P	02 59 32.7	+0.4
	2.9nm,0.6s,mb4.1,baz=113,slow=4.6,SNR=15						
ILAR	Eielson Array	90.38	17	P	P	03 04 44.1	-0.4
	0.2nm,0.8s,mb3.1,baz=240,slow=4.9,SNR=4.1						

*IDC **19** 02:57:50.1±3.8, 8.97S×119.36E, mb3.3/2, mb1 3.6/4, mb1mx3.5/16, ML3.3/2, Error ellipse: s-maj=202.0km s-min=25.3km az=60.0*

*DJA **19** 02:57:58.4±0.8, 9.29S×119.11E, h160^{km}, ML4.9/2, Error ellipse: s-maj=24.6km s-min=7.6km az=145.0*

ISC 19 02:57:57.1±0.9**, 9.40S**±0.07×**119.22E**±0.07**, h102^{km}**±20^{km}**, n9, σ1^{s}19**/15**, mb3.4**/1**, 2C-7D, Sumba region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	3.21	286	⇓ePn	P	02 58 47.1	+0.4
	269nm,0.2s						
KEDI				⇓eSn	S	02 59 25.1	+1.0
RATI	Rata	3.71	280	⇓ePn	P	02 58 54.0	+0.5
	390nm,0.2s						
RATI				⇑eSn	S	02 59 35.7	-0.7
KELI	Kelakatan	4.82	284	⇓eP	P	02 59 08.8	+0.1
NINI	Niniconang	4.97	6	⇑eP	P	02 59 11.7	+0.9
NINI				⇓eS	S	03 00 06.3	-1.2
SRDI	Scrawed	5.10	280	⇓eP	P	02 59 12.7	+0.2
SRDI				⇓eS	S	03 00 08.8	-1.9
FITZ	Fitzroy Crossi	10.66	145	Pn	P	03 00 27.8	-0.2
	0.4nm,0.3s,baz=346,slow=12,SNR=8.7						
FITZ				Sn	S	03 02 20.0	-5.9
	0.6nm,0.3s,baz=180,slow=20,SNR=10.0						
WRA	Warramunga Arr	17.97	127	P	P	03 02 03.6	+1.7
	0.1nm,0.3s,baz=309,slow=12,SNR=4.6						
WRA				S	S	03 05 13.1	-2.6
	0.1nm,0.3s,baz=306,slow=23,SNR=4.8						
ASAR	Alice Springs	19.95	137	P	P	03 02 26.4	+3.0
	0.4nm,0.4s,baz=312,slow=10,SNR=5.1						
SONM	Songino Array	58.11	350	P	P	03 07 42.6	+0.4
	0.2nm,0.5s,mb3.4,baz=170,slow=7.7,SNR=3.6						

*MOS **19** 03:07:46.9±1.3, 19.08S×167.61E, h22^{km}, mb5.8/44, MS4.5/4, Error ellipse: s-maj=9.2km s-min=7.7km az=50.5*

*LDG **19** 03:07:47.2±0.1, 19.00S×166.90E, h10^{km}, Mb5.5/4, Ms4.6/3, Error ellipse: s-maj=15.7km s-min=3.4km az=91.0*

*BJI **19** 03:07:47.8, 18.68S×168.14E, h35^{km}, mb5.2, mB5.4, Ms5.0, Msz4.6*

*IDC **19** 03:07:50.0±0.3, 19.15S×167.69E, h38^{km}±2^{km}, mb5.1/25, mb1 5.1/26, mb1mx5.1/27, MS4.4/18, Ms1 4.4/18, ms1mx4.2/24, Error ellipse: s-maj=11.4km s-min=9.2km az=151.0*

*SYO **19** 03:07:49.9, 19.08S×167.68E, h37^{km}, MB5.6, MS4.6*

*NEIC **19** 03:07:49.9±0.1, 19.11S×167.69E, mb5.6/64, MS4.6/6, Error ellipse: s-maj=6.2km s-min=3.9km az=150.0*

*HRVD **19** 03:07:49.9±0.2, 18.94S×167.51E, h12^{km}, MW5.3/66, Centroid moment Tensor Solution. LP body waves: s57,c98;Mantle waves: s66,c136; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.93±.02; M$_{\theta\theta}$-0.12±.02; M$_{\phi\phi}$1.05±.02; M$_{r\theta}$-0.08±.06; M$_{\theta\phi}$-0.21±.02; M$_{\phi r}$0.29±.05; Best double couple: M$_0$1.05×10^{17} NP1: ϕ_s353°, δ37°, λ-86°. NP2: ϕ_s168°, δ53°, λ-93°. Principal axes: T 1.13, Plg8°, Azm260°; N -.15, Plg2°, Azm170°; P -.97, Plg81°, Azm65°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 19 03:07:48.3±0.2**, 19.20S**±0.04×**167.62E**±0.04**, h37^{km}, h37^{km}**±.5^{km}**:pP-P, n502, σ0^{s}90**/251**, mb5.5**/102**, MS4.5**/33**, 20C-79D, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.06	201	⇑iP	P	03 08 34.4	-1.1
DZM				eS	S	03 09 08.5	-2.8
NOUC	Port Laguerre	3.14	203	⇑eP	P	03 08 36.0	-0.6
NOUC				eS	S	03 09 12.2	-1.1
CTA	Charters Tower	20.14	264	⇑iP	P	03 12 23.0	+0.9
	161nm,0.9s						
CTA				epP		03 12 33.1	
CTA				eS	S	03 16 12.2	+11
CTA	Charters Tower	20.14	264	P	P	03 12 23.3	+1.2
	193nm,0.9s,baz=85,slow=12,SNR=120						
CTA				pP		03 12 32.8	
	250nm,1.0s,baz=78,slow=13,SNR=21						
CTA				LR	LR	03 18 49.8	
	comp=Z,3μm,21.6s,MS4.7,baz=80,slow=33						
CTA	Charters Tower	20.14	264	⇑iP	P	03 12 23.0	+0.9
CTA				e*PP		03 12 33.1	
CTA				eS	S	03 16 12.2	+11
CTA				pmax	pmax		
	comp=Z,161nm,0.9s						
CTAO	Charters Tower	20.14	264	eP	P	03 12 22.9	+0.8
CTAO				e*PP		03 12 32.7	
CTAO				pmax	pmax		
	comp=Z,435nm,1.1s						
CTAO				MLR	MLR		
	comp=Z,3μm,21.0s,MS4.7						
CTAO	Charters Tower	20.14	264	eP	P	03 12 22.9	+0.8

	comp=Z,435nm,1.1s						
CTAO				*e*pP		03 12 32.7	
CTAO				LR	LR		
	comp=Z,3µm,21.0s,MS4.7						
AFI	**Afiamalu**	**20.43**	**78**	PFAKE		03 12 40.0	+15
AFI				LR	LR		
	comp=Z,3µm,21.0s,MS4.7						
RIV	**Riverview**	**20.68**	**222**	*e*P	**P**	**03 12 30.3**	**+2.7**
RIV				*e*pP		03 12 40.0	
URZ	**Urewera**	**20.71**	**158**	P	**P**	**03 12 27.4**	**-0.5**
	comp=Z,100nm,1.1s,baz=31,slow=7.4,SNR=8.2						
URZ				LR	LR	03 18 45.1	
	comp=Z,1µm,18.9s,MS4.3,baz=3.9,slow=32						
PMG	**Port Moresby**	**22.06**	**293**	P	**P**	**03 12 42.7**	**+1.1**
	comp=Z,47nm,1.0s,mb4.9,baz=104,slow=11,SNR=10						
PMG				pP		03 12 53.4	
	comp=Z,119nm,1.0s,baz=102,slow=8.6,SNR=14						
PMG				LR	LR	03 19 14.8	
	comp=Z,1µm,19.5s,MS4.3,baz=127,slow=31						
PMG	**Port Moresby**	**22.06**	**293**	P	**P**	**03 12 42.7**	**+1.1**
PMG				*PP		03 12 53.4	
PMG				pmax	pmax		
	comp=Z,47nm,1.0s						
PMG				pmax	pmax		
	comp=Z,119nm,1.0s						
PMG	**Port Moresby**	**22.06**	**293**	*e*P	**P**	**03 12 42.1**	**+0.4**
	comp=Z,272nm,1.1s,mb5.6						
PMG				*e*pP		03 12 52.5	
PMG				LR	LR		
	comp=Z,1µm,19.0s,MS4.4						
CNB	**Canberra Magne**	**22.76**	**221**	*e*P	**P**	**03 12 52.5**	**+4.0**
	comp=Z,177nm,1.1s,mb5.4						
CNB				*e*		03 13 02.8	
RPZ	**Rata Peaks**	**24.62**	**174**	P	**P**	**03 13 06.8**	**+0.3**
	comp=Z,76nm,1.0s,mb5.2,baz=49,slow=6.8,SNR=14						
RPZ				pP		03 13 19.1	
	comp=Z,62nm,0.7s,baz=32,slow=5.1,SNR=7.1						
RPZ				LR	LR	03 22 05.2	
	comp=Z,759nm,18.2s,MS4.2,baz=338,slow=35						
STKA	**Stephens Creek**	**26.58**	**237**	⇑*i*P	**P**	**03 13 26.0**	**+1.0**
	comp=Z,48nm,0.9s,mb5.0						
STKA				*e*pP	pP	03 13 36.2	+1.0
STKA	**Stephens Creek**	**26.58**	**237**	P	**P**	**03 13 26.1**	**+1.1**
	comp=Z,44nm,0.7s,mb5.1,baz=66,slow=8.2,SNR=65						
STKA				LR	LR	03 23 39.2	
	comp=Z,838nm,18.3s,MS4.3,baz=53,slow=36						
TOO	**Toolangi**	**26.61**	**222**	*e*P	**P**	**03 13 26.9**	**+1.7**
	comp=Z,16nm,1.3s,mb4.4						
TOO				*e*pP	pP	03 13 36.4	+1.0
TOO	**Toolangi**	**26.61**	**222**	*e*P	**P**	**03 13 26.9**	**+1.7**
TOO				*e**PP	pP	03 13 36.4	+1.0
TOO				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.4						
RAR	**Rarotonga**	**30.64**	**99**	P	**P**	**03 13 59.5**	**-2.1**
	comp=Z,5.5nm,0.4s,mb4.7,baz=83,slow=3.3,SNR=3.6						
RAR				LR	LR	03 23 43.0	
	comp=Z,693nm,19.7s,MS4.3,baz=262,slow=31						
WRAB	**Tennant Creek**	**31.33**	**263**	*e*P	**P**	**03 14 05.5**	**-2.1**
WRAB				*e**PP	pP	03 14 15.5	-2.6
WRAB				pmax	pmax		
	comp=Z,73nm,1.3s,mb5.3						
WRAB				MLR	MLR		
	comp=Z,702nm,22.0s,MS4.3						
WRAB	**Tennant Creek**	**31.33**	**263**	*e*P	**P**	**03 14 05.5**	**-2.2**
	comp=Z,73nm,1.3s,mb5.3						
WRAB				*e*pP	pP	03 14 15.4	-2.6
WRAB				LR	LR		
	comp=Z,702nm,22.0s,MS4.3						
WRA	**Warramunga Arr**	**31.34**	**263**	P	**P**	**03 14 05.9**	**-1.8**
	comp=Z,8.0nm,0.9s,mb4.5,baz=92,slow=8.8,SNR=49						
WRA				pP	pP	03 14 16.6	-1.5
	comp=Z,16nm,1.0s,baz=101,slow=8.2,SNR=20						
WRA				sP	sP	03 14 22.0	-1.0
	comp=Z,11nm,0.8s,baz=88,slow=8.2,SNR=8.9						
WRA				PcP	PcP	03 17 00.6	-0.6
	comp=Z,5.8nm,0.8s,baz=92,slow=2.6,SNR=6.2						
WRA				pPcP		03 17 12.2	
	comp=Z,6.8nm,0.9s,baz=95,slow=2.3,SNR=6.1						
WRA				PKiKP		03 24 29.3	
	comp=Z,0.8nm,0.9s,baz=90,slow=0.6,SNR=5.1						
WRA	**Warramunga Arr**	**31.34**	**263**	P	**P**	**03 14 05.9**	**-1.8**
WRA				*PP	pP	03 14 16.6	-1.6
WRA						03 17 00.6	
ASAR	**Alice Springs**	**31.65**	**256**	P	**P**	**03 14 09.6**	**-0.9**
	comp=Z,35nm,0.8s,mb5.2,baz=82,slow=8.9,SNR=191						
ASAR				pP	pP	03 14 21.6	+0.6
	comp=Z,102nm,0.9s,baz=84,slow=9.0,SNR=26						
ASAR				PcP	PcP	03 17 01.6	-0.3
	comp=Z,4.7nm,1.0s,baz=72,slow=2.9,SNR=5.5						
ASAR				pPcP		03 17 12.8	
	comp=Z,6.8nm,0.9s,baz=99,slow=4.0,SNR=4.5						
ASAR				S	**S**	**03 19 17.6**	**+1.7**
	comp=Z,7.8nm,1.1s,baz=83,slow=18,SNR=4.4						
ASAR				PKiKP		03 24 29.1	
	comp=Z,0.8nm,0.9s,baz=98,slow=2.4,SNR=5.0						
ASAR				LR	LR	03 26 28.0	
	comp=Z,1µm,20.2s,MS4.6,baz=88,slow=35						
ASPA	**Alice Springs**	**31.65**	**256**	⇑*i*P	**P**	**03 14 09.6**	**-0.9**
ASPA				*e*pP	pP	03 14 20.2	-0.7
ASPA				*e*S	**S**	**03 19 17.1**	**+1.1**
KAKA	**Kakadu**	**34.38**	**275**	*e*P	**P**	**03 14 34.3**	**+0.1**
	comp=Z,13nm,0.8s,mb4.9						
KAKA				*e*pP	pP	03 14 43.6	-1.1
FORT	**Forrest**	**37.48**	**244**	⇓*i*P	**P**	**03 15 00.8**	**+0.5**
	comp=Z,115nm,0.6s,mb5.9						
FORT				*e*pP	pP	03 15 11.3	+0.4
FITZ	**Fitzroy Crossi**	**39.72**	**265**	⇑*i*P	**P**	**03 15 19.2**	**+0.2**
	comp=Z,18nm,0.4s,mb5.2						
FITZ				*e*pP	pP	03 15 29.9	+0.2
TBI	**Tubuai**	**40.11**	**104**	*e*S	**S**	**03 21 28.2**	**+2.4**
TBI				*e*LQ		03 24 40.4	
TBI				*e*LR	LR	03 26 20.7	
	comp=Z,2µm,30.8s						
PPT	**Papeete**	**40.58**	**95**	*e*S	**S**	**03 21 29.1**	**-3.8**
PPT				*e*LQ		03 24 57.3	
PPT				*e*LR	LR	03 26 35.8	
	comp=Z,3µm,29.8s,baz=249						
MBWA	**Marble Bar**	**44.86**	**259**	*e*P	**P**	**03 16 01.2**	**+0.1**
	comp=Z,176nm,1.2s,mb5.8						
MBWA				*e*pP	pP	03 16 11.5	-0.3
KLBR	**Kellerberrin**	**46.35**	**244**	*e*P	**P**	**03 16 12.6**	**-0.2**
	comp=Z,30nm,0.8s,mb5.3						
KLBR				*e*pP	pP	03 16 23.0	-0.5
NWAO	**Narrogin (SRO)**	**46.87**	**243**	P	**P**	**03 16 15.7**	**-1.2**
	comp=Z,38nm,0.9s,mb5.3,baz=101,slow=5.9,SNR=9.3						
NWAO				pP	pP	03 16 28.4	+0.8
	comp=Z,117nm,0.8s,baz=89,slow=8.0,SNR=17						
NWAO	**Narrogin (SRO)**	**46.87**	**243**	*e*P	**P**	**03 16 16.7**	**-0.2**
NWAO				*e**PP	pP	03 16 27.5	-0.1
NWAO				pmax	pmax		
	comp=Z,83nm,1.1s						
NWAO	**Narrogin (SRO)**	**46.87**	**243**	*e*P	**P**	**03 16 16.7**	**-0.2**
	comp=Z,83nm,1.1s,mb5.6						
NWAO				*e*pP	pP	03 16 27.5	-0.1
MUN	**Mundaring**	**47.68**	**244**	*e*P	**P**	**03 16 23.3**	**0.0**
	comp=Z,22nm,0.8s,mb5.2						
MUN				*e*pP	pP	03 16 33.9	-0.1
MUN	**Mundaring**	**47.68**	**244**	*e*P	**P**	**03 16 23.3**	**0.0**
MUN				*e**PP	pP	03 16 33.9	-0.1
MUN				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.2						
CBIJ	**Chichi jima**	**52.21**	**331**	P	**P**	**03 16 55.8**	**-2.1**
	comp=Z,140nm,0.7s,mb6.0,baz=239,slow=4.9,SNR=5.1						
RKT	**Rikitea**	**53.40**	**105**	*e*S	**S**	**03 24 45.9**	**+11**
RKT				*e*LR	LR	03 32 27.4	
	comp=Z,1µm,32.2s						
TGY	**Tagaytay City**	**56.63**	**302**	P	**P**	**03 17 29.8**	**-0.6**
	comp=Z,95nm,0.3s,mb6.3,baz=131,slow=9.9,SNR=4.3						
TGY				LR	LR	03 41 35.5	
	comp=Z,240nm,18.1s,MS4.3,baz=156,slow=36						
VNDA	**Vanda**	**58.43**	**181**	P	**P**	**03 17 41.8**	**-0.5**
	comp=Z,5.5nm,1.0s,mb4.5,baz=345,slow=8.1,SNR=13						
VNDA				LR	LR	03 41 45.7	
	comp=Z,155nm,18.0s,MS4.2,baz=11,slow=35						
SBA	**Scott Base**	**58.70**	**180**	*e*P	**P**	**03 17 44.3**	**+0.1**
SBA				*e**PP	pP	03 17 55.9	+0.7
SBA				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
SBA	**Scott Base**	**58.70**	**180**	*e*P	**P**	**03 17 44.3**	**+0.1**
	comp=Z,38nm,1.0s,mb5.4						
SBA				*e*pP	pP	03 17 55.9	+0.7
JOW	**Kunigami**	**59.58**	**319**	LR	LR	03 38 27.7	
	comp=Z,223nm,20.4s,MS4.3,baz=162,slow=31						
MAT	**Matsushiro**	**62.01**	**333**	P	**P**	**03 18 05.1**	**-2.2**
MAT	**Matsushiro**	**62.01**	**333**	*e*P	**P**	**03 18 05.0**	**-2.3**
MAT				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.1						
MAT	**Matsushiro**	**62.01**	**333**	*e*P	**P**	**03 18 05.0**	**-2.3**
	comp=Z,19nm,1.1s,mb5.1						
QZH	**Quanzhou**	**64.82**	**311**	P	**P**	**03 18 26.4**	**+0.4**
QZH				S	**S**	**03 27 05.8**	**+3.2**
SSE	**Sheshan**	**66.99**	**318**	P	**P**	**03 18 40.6**	**+0.9**
SSE				AP	pP	03 18 52.4	+1.4
SSE				S	S	03 27 34.3	+5.3
SSE				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.4						
SSE				AMB	AMB		
	comp=Z,44nm,2.8s,mb5.0						
SSE				LR	LR		
	comp=N,149nm,25.8s,MS4.3						
SSE				LR	LR		
	comp=E,187nm,25.8s,MS4.3						
SSE				LR	LR		
	comp=Z,106nm,24.3s,MS4.0						
ASAJ	**Asahikawa**	**67.04**	**341**	P	**P**	**03 18 40.0**	**+0.3**
	comp=Z,67nm,1.0s,mb5.6,baz=247,slow=14,SNR=12						
ASAJ	**Asahikawa**	**67.04**	**341**	P	**P**	**03 18 40.1**	**+0.3**
ASAJ				pmax	pmax		
	comp=Z,67nm,1.0s						
QIZ	**Qiongzhong**	**68.23**	**300**	*e*P	**P**	**03 18 49.8**	**+2.1**
QIZ				*e*S	S	03 27 44.9	+0.9
QIZ				XS		03 28 02.1	
QIZ				AMB	AMB		
	comp=Z,208nm,4.9s						
INCN	**Inchon**	**68.31**	**326**	*e*P	**P**	**03 18 47.4**	**-0.5**
	comp=Z,43nm,0.8s,mb5.5						
INCN				*e*pP	pP	03 18 59.0	-0.2
NJ2	**Nanjing**	**69.12**	**317**	*e*P	**P**	**03 18 52.9**	**-0.1**
NJ2				AP	pP	03 19 05.5	+1.3
NJ2				XP	sP	03 19 10.4	+2.1
NJ2				PCP	PcP	03 19 17.5	+0.6
NJ2				S	S	03 27 56.0	+1.6
NJ2				XS		03 28 10.0	
NJ2				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.7						
NJ2				AMB	AMB		
	comp=Z,300nm,5.7s						
NJ2				LR	LR		
	comp=N,580nm,17.5s,MS5.0						
NJ2				LR	LR		
	comp=E,450nm,18.0s,MS5.0						
NJ2				LR	LR		
	comp=Z,480nm,17.6s,MS4.8						
YSS	**Yuzh-Sakhalins**	**69.56**	**342**	⇓*i*P	**P**	**03 18 55.0**	**-0.4**
YSS				*e*	pP	03 19 06.0	-0.6
YSS				*e*		03 19 15.0	
YSS				pmax	pmax		
	comp=E,70nm,1.2s						
YSS				pmax	pmax		
	comp=Z,180nm,1.2s,mb5.9						
YSS				pmax	pmax		
	comp=N,40nm,1.0s						
YSS	**Yuzh-Sakhalins**	**69.56**	**342**	*e*P	**P**	**03 18 55.9**	**+0.6**
	comp=N,146nm,1.1s,mb5.8						
YSS				*e*pP	pP	03 19 07.4	+0.8
QSPA	**South Pole Qui**	**70.86**	**180**	⇓*i*P	**P**	**03 19 03.5**	**+0.7**
	comp=N,44nm,1.1s,mb5.3						
WHN	**Wuhan**	**71.19**	**313**	P	**P**	**03 19 05.0**	**-0.6**
WHN				AMB	AMB		
	comp=Z,49nm,1.2s,mb5.3						
SMY	**Shemya**	**71.84**	**4**	P	**P**	**03 19 08.9**	**-0.1**
SMY	**Shemya**	**71.84**	**4**	P	**P**	**03 19 08.4**	**-0.6**
	comp=Z,203nm,1.0s,mb6.0						
FX1	**Attu Island--F**	**71.94**	**4**	P	**P**	**03 19 08.3**	**-1.3**
	comp=Z,85nm,0.8s,mb5.7,baz=190,slow=4.6,SNR=11						
FX1	**Attu Island--F**	**71.94**	**4**	P	**P**	**03 19 08.3**	**-1.3**
FX1				pmax	pmax		
	comp=Z,85nm,0.8s						
FX1	**Attu Island--F**	**71.94**	**4**	*e*P	**P**	**03 19 08.0**	**-1.6**
FX1				*e*pP	pP	03 19 20.1	-0.7
KIWB	**Kanaga Island**	**71.99**	**10**	*e*P	**P**	**03 19 08.7**	**-1.2**
MDJ	**Mudanjiang**	**72.37**	**333**	P	**P**	**03 19 11.4**	**-0.9**
MDJ				AP	pP	03 19 20.8	-2.8
MDJ				XP	sP	03 19 24.8	-2.9
MDJ				PCP	PcP	03 19 28.1	-2.3
MDJ				XS		03 28 52.0	
MDJ				SCS	ScS	03 29 15.5	+3.1
MDJ				AMB	AMB		
	comp=Z,22nm,1.6s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,220nm,4.9s						
MDJ				LR	LR		
	comp=N,83nm,37.9s						
MDJ				LR	LR		
	comp=E,115nm,30.3s						
MDJ				LR	LR		
	comp=Z,100nm,29.2s						
MDJ	**Mudanjiang**	**72.37**	**333**	*e*P	**P**	**03 19 12.0**	**-0.3**
	comp=Z,79nm,1.8s,mb5.3						
CN2	**Changchun**	**73.64**	**330**	*e*P	**P**	**03 19 19.5**	**-0.3**
CN2				*e*XP	sP	03 19 34.5	-0.7
CN2				*e*S	S	03 28 47.8	+1.5
CN2				AMB	AMB		
	comp=Z,70nm,0.7s,mb5.7						
CN2				AMB	AMB		
	comp=Z,400nm,5.0s						
CN2				LR	LR		
	comp=N,500nm,14.0s,MS5.0						
CN2				LR	LR		
	comp=E,300nm,14.0s,MS5.0						
CN2				LR	LR		
	comp=Z,700nm,16.0s,MS5.0						
ENH	**Enshi**	**74.47**	**310**	*e*P	**P**	**03 19 24.4**	**-0.6**
	comp=Z,38nm,0.9s,mb5.3						
ENH				LR	LR		
	comp=Z,220nm,19.0s,MS4.5						
GYA	**Guiyang**	**74.54**	**306**	⇓*i*P	**P**	**03 19 25.8**	**+0.4**
GYA				AP	pP	03 19 37.8	+1.1
GYA				XP	sP	03 19 41.4	+0.6
GYA				PP	PP	03 22 13.5	-0.7
GYA				S	S	03 28 55.8	-1.0
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
GYA				AMB	AMB		
	comp=Z,170nm,6.3s						
GYA				LR	LR		
	comp=N,740nm,23.0s,MS5.1						
GYA				LR	LR		
	comp=E,860nm,24.2s,MS5.1						
GYA				LR	LR		
	comp=Z,940nm,25.4s,MS5.0						
NIKO	**Nikolski**	**74.71**	**14**	*e*P	**P**	**03 19 24.0**	**-1.8**
KLR	**Kul’dur**	**75.21**	**337**	*e*P	**P**	**03 19 25.0**	**-3.8**
KLR				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.1						
RPN	**Rapa Nui**	**75.51**	**114**	*e*P	**P**	**03 19 31.5**	**+0.5**
	comp=Z,185nm,1.3s,mb5.8						
RPN				*e*pP	pP	03 19 43.4	+1.1
NANT	**Nan**	**75.74**	**296**	P	**P**	**03 19 31.0**	**-1.4**
BJT	**Baijiatuau**	**75.94**	**322**	*e*P	**P**	**03 19 32.9**	**-0.2**
BJT				pmax	pmax		
	comp=Z,17nm,0.8s						
BJT	**Baijiatuau**	**75.94**	**322**	*e*P	**P**	**03 19 32.9**	**-0.2**
	comp=Z,17nm,0.8s,mb5.0						
BJI	**Beijing**	**75.95**	**322**	*e*P	**P**	**03 19 33.3**	**+0.1**
BJI				AMB	AMB		
	comp=Z,44nm,1.3s,mb5.2						
BJI				AMB	AMB		
	comp=Z,537nm,4.8s						
BJI				LR	LR		
	comp=Z,214nm,21.2s,MS4.4						
KMI	**Kunming**	**76.95**	**303**	*e*P	**P**	**03 19 40.8**	**+1.6**
KMI				XP	sP	03 19 59.0	+4.3
KMI				PP	PP	03 22 36.6	+2.6
KMI				S	S	03 29 29.1	+5.8
KMI				SS	SS	03 34 21.6	-1.7
KMI				AMB	AMB		
	comp=Z,44nm,1.4s,mb5.2						
KMI				AMB	AMB		
	comp=Z,260nm,3.7s						
KMI				LR	LR		
	comp=N,160nm,20.0s,MS4.6						
KMI				LR	LR		
	comp=E,214nm,19.3s,MS4.6						
KMI				LR	LR		
	comp=Z,212nm,35.6s						
XAN	**Xi’an**	**76.96**	**313**	P	**P**	**03 19 39.3**	**+0.2**
XAN				AP	pP	03 19 50.0	-0.4
XAN				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.9						
CHRT	**Chiangrai**	**76.99**	**297**	⇑P	**P**	**03 19 40.3**	**+0.8**
	comp=Z,176nm,1.0s,mb6.0						
CM31	**Chiang Mai Arr**	**77.09**	**295**	*e*P	**P**	**03 19 41.1**	**+1.0**
	comp=Z,60nm,1.1s,mb5.4						
CMAR	**Chiang Mai Arr**	**77.09**	**295**	P	**P**	**03 19 41.2**	**+1.1**
	comp=Z,19nm,0.9s,mb5.0,baz=129,slow=4.3,SNR=67						
CMAR				PKPPKP		03 46 50.8	
	comp=Z,1.2nm,0.3s,baz=288,slow=4.5,SNR=4.8						
CMAR				LR	LR	03 55 25.1	
	comp=Z,105nm,18.3s,MS4.2,baz=175,slow=37						
CMAR	**Chiang Mai Arr**	**77.09**	**295**	P	**P**	**03 19 41.2**	**+1.1**
CMAR				P’P’		03 46 50.8	
CMAR				LR	LR	03 55 25.1	
MAW	**Mawson**	**77.89**	**202**	*e*P	**P**	**03 19 44.3**	**+0.7**
	comp=Z,19nm,1.1s,mb4.9						
MAW	**Mawson**	**77.89**	**202**	P	**P**	**03 19 44.6**	**+1.0**
	comp=Z,17nm,0.9s,mb5.0,baz=109,slow=6.2,SNR=20						
MAW				pP	pP	03 19 55.9	+1.1
	comp=Z,31nm,1.2s,baz=98,slow=6.3,SNR=6.8						
MAW				LR	LR	03 47 19.6	
	comp=Z,323nm,20.5s,MS4.6,baz=87,slow=30						
MAW	**Mawson**	**77.89**	**202**	P	**P**	**03 19 44.6**	**+1.0**
MAW				*PP	pP	03 19 55.9	+1.0
MAW				pmax	pmax		
	comp=Z,17nm,0.9s						
MAW				pmax	pmax		
	comp=Z,31nm,1.2s						
CD2	**Chengdu**	**79.00**	**308**	⇓*i*P	**P**	**03 19 50.9**	**+0.5**
CD2				AP	pP	03 20 01.1	-0.6
CD2				PP	PP	03 22 46.8	-4.4
CD2				S	S	03 29 41.3	-3.8
CD2				SS	SS	03 34 53.3	-0.6
CD2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
CD2				AMB	AMB		
	comp=Z,190nm,5.9s						
CD2				LR	LR		
	comp=N,230nm,5.9s						
CD2				LR	LR		
	comp=Z,210nm,5.4s						
HHC	**Hu-ho-hao-te**	**79.20**	**320**	*e*P	**P**	**03 19 52.0**	**+0.7**
HHC				PCP	PcP	03 20 00.9	+1.1
HHC				AP	pP	03 20 02.4	-0.2
HHC				XP	sP	03 20 06.4	-0.3
HHC				PP	PP	03 22 52.3	-0.3
HHC				S	S	03 29 43.4	-3.6
HHC				SKS	SKS	03 30 00.1	+1.0
HHC				XS		03 30 04.0	
HHC				SCS	ScS	03 30 08.5	+0.9
HHC				PS	PS	03 30 34.6	-1.0
HHC				SS	SS	03 34 55.3	-1.4
HHC				AMB	AMB		
	comp=Z,68nm,1.1s,mb5.5						
HHC				LR	LR		
	comp=N,181nm,17.8s						
HHC				LR	LR		
	comp=E,442nm,23.3s						
HHC				LR	LR		
	comp=Z,192nm,17.8s,MS4.5						
MA2	**Magadan**	**79.69**	**351**	⇓*e*P	**P**	**03 19 43.0**	**-11**
BTO	**Baotou**	**80.00**	**319**	*e*P	**P**	**03 19 54.9**	**-0.7**
HIA	**Hailar**	**80.31**	**330**	*e*P	**P**	**03 19 56.8**	**-0.3**
HIA				pmax	pmax		
	comp=Z,62nm,1.2s						
HIA	**Hailar**	**80.31**	**330**	*e*P	**P**	**03 19 56.8**	**-0.3**
	comp=Z,62nm,1.2s,mb5.4						
LZH	**Lanzhou**	**81.57**	**313**	⇓P	**P**	**03 20 05.0**	**+1.1**
LZH				AP	pP	03 20 16.5	+1.1
LZH				XP	sP	03 20 21.4	+2.0
LZH				PP	PP	03 23 14.8	+2.1
LZH				*e*S	S	03 30 14.5	+2.7
LZH				SKS	SKS	03 30 17.3	+1.3
LZH				XS		03 30 33.5	
LZH				SS	SS	03 35 34.8	+2.5
LZH				AMB	AMB		
	comp=Z,97nm,1.4s,mb5.5						
LZH				AMB	AMB		
	comp=Z,432nm,6.2s						
LZH				LR	LR		
	comp=N,877nm,15.3s						
LZH				LR	LR		
	comp=Z,1µm,17.7s,MS5.3						
CLNS	**Chul’man**	**83.77**	**338**	*e*P	**P**	**03 20 13.7**	**-1.0**
CLNS				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.7						
CLNS				pmax	pmax		
	comp=N,26nm,0.8s						
CLNS				pmax	pmax		
	comp=E,7.0nm,1.0s						
IMP	**Imphal**	**83.97**	**299**	⇑*e*P	**P**	**03 20 15.9**	**-0.6**
SYO	**Syowa Base**	**84.54**	**197**	⇑P	**P**	**03 20 18.1**	**-0.3**
SYO	**Syowa Base**	**84.54**	**197**	⇓pP	pP	03 20 30.1	+0.3
SYO	**Syowa Base**	**84.54**	**197**	⇑sP	sP	03 20 36.1	+2.3
RSO	**Redoubt South**	**85.60**	**18**	*e*P	**P**	**03 20 23.0**	**-0.7**
ULN	**Ulaanbaatar**	**85.92**	**324**	*e*P	**P**	**03 20 26.4**	**+0.8**
ULN				*e**PP	pP	03 20 38.0	+0.8
ULN				pmax	pmax		
	comp=Z,113nm,1.0s,mb6.0						
ULN	**Ulaanbaatar**	**85.92**	**324**	*e*P	**P**	**03 20 26.4**	**+0.8**
	comp=Z,113nm,1.0s,mb6.0						
ULN				*e*pP	pP	03 20 38.0	+0.8
SHL	**Shillong**	**85.98**	**299**	⇓*e*P	**P**	**03 20 27.0**	**+0.5**
GTA	**Gaotai**	**85.99**	**314**	P	**P**	**03 20 27.1**	**+0.9**
GTA				AP	pP	03 20 40.4	+2.7
GTA				XP	sP	03 20 45.4	+3.8
GTA				PP	PP	03 23 50.4	+2.4
GTA				PPP	PPP	03 25 47.5	+2.5
GTA				SKS	SKS	03 30 46.4	+0.4
GTA				S	S	03 30 57.4	+1.6
GTA				XS		03 31 20.3	
GTA				PS	PS	03 32 03.6	+3.5
GTA				SS	SS	03 36 40.4	+2.8
GTA				AMB	AMB		
	comp=Z,19nm,1.2s,mb5.2						
GTA				AMB	AMB		
	comp=Z,166nm,5.3s						
GTA				LR	LR		
	comp=N,124nm,16.0s,MS4.6						
GTA				LR	LR		
	comp=E,194nm,17.9s,MS4.6						
GTA				LR	LR		
	comp=Z,255nm,20.5s,MS4.6						
ANM	**Nome**	**86.05**	**11**	*e*P	**P**	**03 20 27.3**	**+1.4**
SONM	**Songino Array**	**86.27**	**324**	P	**P**	**03 20 28.2**	**+0.8**
	comp=Z,45nm,0.9s,mb5.7,baz=144,slow=5.4,SNR=248						
SONM				pP	pP	03 20 40.0	+1.1
	comp=Z,22nm,0.9s,baz=147,slow=4.0,SNR=8.7						
YAK	**Yakutsk**	**86.38**	**343**	*d* *i*P	**P**	**03 20 27.5**	**0.0**
YAK				*i*		03 20 29.7	
YAK				*i* *PP	pP	03 20 39.7	+0.7
YAK				*i*		03 23 48.8	
YAK				pmax	pmax		
	comp=Z,159nm,1.8s,mb6.0						
YAK				MLR	MLR		
	comp=Z,500nm,23.0s,MS4.8						
YAK	**Yakutsk**	**86.38**	**343**	*e*P	**P**	**03 20 27.4**	**-0.1**
	comp=Z,77nm,1.0s,mb5.9						
YAK				*e*pP	pP	03 20 39.2	+0.2
SLKM	**Skilak Lake**	**86.41**	**19**	*e*P	**P**	**03 20 27.4**	**-0.3**
SLKM	**Skilak Lake**	**86.41**	**19**	*e*P	**P**	**03 20 26.8**	**-0.9**
HOPS	**Hopland**	**86.83**	**47**	*e*P	**P**	**03 20 30.4**	**+0.1**
	comp=Z,146nm,1.1s,mb6.1						
HOPS				*e*pP	pP	03 20 42.0	+0.2
NSHM	**Saint Helena R**	**86.93**	**47**	*e*P	**P**	**03 20 31.1**	**+0.2**
SAO	**San Andreas Ge**	**86.96**	**49**	P	**P**	**03 20 31.7**	**+0.7**
SAO				pmax	pmax		
	comp=Z,73nm,1.1s,mb5.8						
SAO	**San Andreas Ge**	**86.96**	**49**	*e*P	**P**	**03 20 31.0**	**0.0**
	comp=Z,73nm,1.1s,mb5.8						
LRV	**Little Rabbit**	**87.11**	**50**	*e*P	**P**	**03 20 32.1**	**+0.4**
LRV				*e*pP	pP	03 20 43.3	0.0
KHMM	**Horse Mountain**	**87.26**	**45**	*e*P	**P**	**03 20 33.4**	**+1.1**
PWA	**Palmer West**	**87.40**	**19**	*e*P	**P**	**03 20 32.9**	**+0.4**
PWA				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.2						
PWA	**Palmer West**	**87.40**	**19**	*e*P	**P**	**03 20 32.9**	**+0.4**
	comp=Z,12nm,0.8s,mb5.2						
PMSA	**Palmer Station**	**87.47**	**160**	*e*P	**P**	**03 20 33.4**	**+0.6**
WDC	**Whiskeytown Da**	**87.92**	**46**	*e*P	**P**	**03 20 35.9**	**+0.4**
WDC				*e**PP	pP	03 20 47.4	+0.3
WDC				pmax	pmax		
	comp=Z,173nm,1.3s,mb6.1						
WDC	**Whiskeytown Da**	**87.92**	**46**	*e*P	**P**	**03 20 35.9**	**+0.3**
	comp=Z,173nm,1.3s,mb6.1						
WDC				*e*pP	pP	03 20 47.4	+0.3

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OHCM  Honcut            88.08  47  eP       P       03 20 36.1 -0.2
LSA   Lhasa             88.20 302   P       P       03 20 38.0 +0.8
CMB   Columbia Colle    88.28  49   P       P       03 20 37.4 +0.1
CMB   Columbia Colle    88.28  49  eP       P       03 20 37.2 -0.1
CMB                                 pmax    pmax
      comp=Z,101nm,1.1s,mb6.0
CMB   Columbia Colle    88.28  49  eP       P       03 20 37.2 -0.1
      comp=Z,102nm,1.1s,mb6.0
YBH   Yreka Blue Hor    88.34  45  eP       P       03 20 38.2 +0.7
YBH                                e*PP     pP      03 20 49.8 +0.7
YBH                                 pmax    pmax
      comp=Z,76nm,1.0s
YBH   Yreka Blue Hor    88.34  45  eP       P       03 20 38.2 +0.7
      comp=Z,76nm,1.0s,mb5.9
YBH                                epP      pP      03 20 49.8 +0.7
MWC   Mount Wilson      88.36  53   P       P       03 20 37.2 -0.6
MWC   Mount Wilson      88.36  53  eP       P       03 20 37.1 -0.7
HUMO  Hull Mountain     88.58  44  eP       P       03 20 39.3 +0.6
      comp=Z,81nm,1.0s,mb6.0
HUMO                               epP      pP      03 20 50.3 +0.1
BOD   Bodaibo           88.63 334  eP       P       03 20 36.0 -2.5
BAR   Barrett           88.79  55  eP       P       03 20 40.0 +0.1
BAR                                epP      pP      03 20 51.3 -0.2
OMM   Old Mammoth Mi    89.09  50  eP       P       03 20 41.5 +0.3
BEKR  Beckwourth        89.09  47  eP       P       03 20 41.3 +0.1
      comp=Z,73nm,1.0s,mb6.0
SNAA  Sanae             89.13 183⇓iP        P       03 20 41.1 +0.5
SNAA  Sanae             89.13 183  e        P       03 20 52.4  +12
SNAA  Sanae             89.13 183   P       P       03 20 41.1 +0.5
      comp=Z,8.1nm,0.8s,mb5.1,baz=191,slow=4.6,SNR=40
SNAA                                pP      pP      03 20 52.7 +0.5
      comp=Z,6.5nm,0.8s,baz=197,slow=5.8,SNR=8.8
SNAA                                LR      LR      03 59 55.5
      comp=Z,93nm,18.6s,MS4.2,baz=9.4,slow=35
SNAA  Sanae             89.13 183   P       P       03 20 41.1 +0.5
SNAA                                *PP     pP      03 20 52.7 +0.5
SNAA                                pmax    pmax
      comp=Z,8.0nm,0.8s
SNAA                                pmax    pmax
      comp=Z,7.0nm,0.8s
SNAA                                MLR     MLR
      comp=Z,93nm,18.6s
SNAA  Sanae             89.13 183  eP       P       03 20 40.7 +0.1
      comp=Z,38nm,1.0s,mb5.7
SNAA                               epP      pP      03 20 52.1 -0.1
WCN   Washoe City       89.27  48  eP       P       03 20 42.6 +0.6
WCN                                 pmax    pmax
      comp=Z,69nm,1.2s,mb5.9
WCN   Washoe City       89.27  48  eP       P       03 20 42.6 +0.6
      comp=Z,69nm,1.2s,mb5.9
MCK   McKinley          89.28  18   P       P       03 20 41.8 +0.4
MCK                                 pmax    pmax
      comp=Z,20nm,1.0s,mb5.4
MCK   McKinley          89.28  18  eP       P       03 20 39.9 -1.5
      comp=Z,20nm,1.1s,mb5.4
COR   Corvallis         89.29  42   P       P       03 20 43.0 +1.1
COR                                 pmax    pmax
      comp=Z,120nm,1.3s,mb6.1
COR   Corvallis         89.29  42  eP       P       03 20 42.2 +0.2
      comp=Z,116nm,1.3s,mb6.0
MTUM  Tungsten Hills    89.29  50  eP       P       03 20 42.7 +0.5
PFO   Pinyon Flat Ob    89.33  54   P       P       03 20 42.5 +0.1
PFO                                 pmax    pmax
      comp=Z,50nm,1.3s,mb5.7
PFO   Pinyon Flat Ob    89.33  54  eP       P       03 20 42.1 -0.4
      comp=Z,50nm,1.4s,mb5.7
ZAK   Zakamensk         89.37 325  eP       P       03 20 42.2  0.0
DAC   Darwin (Calif)    89.55  51   P       P       03 20 44.5 +1.1
DAC                                 pmax    pmax
      comp=Z,72nm,1.4s,mb5.8
DAC   Darwin (Calif)    89.55  51  eP       P       03 20 43.7 +0.3
      comp=Z,72nm,1.4s,mb5.8
HBO   Huckleberry Mo    89.57  43   P       P       03 20 43.7 +0.4
VNA3  Neumayer Olymp    89.78 181⇓iP        P       03 20 46.2 +2.5
VNA3  Neumayer Olymp    89.78 181  e        P       03 20 57.5  +14
IMA   Indian Mountai    89.86  15  eP       P       03 20 45.4 +1.3
IMA                                 pmax    pmax
      comp=Z,10.0nm,0.9s,mb5.2
IMA   Indian Mountai    89.86  15  eP       P       03 20 45.4 +1.3
      comp=Z,9.5nm,0.9s,mb5.1
TLY   Talaya            89.86 326  eP       P       03 20 45.2 +0.7
TLY                                e                03 24 19.4
TLY                                e                03 31 08.3
TLY                                 pmax    pmax
      comp=Z,32nm,1.0s,mb5.6
TLY   Talaya            89.86 326  eP       P       03 20 44.8 +0.3
      comp=Z,91nm,1.6s,mb5.8
NVAR  Mina Array Bea    89.93  49   P       P       03 20 45.5 +0.3
      comp=Z,35nm,0.9s,mb5.7,baz=216,slow=5.5,SNR=185
NVAR                                pP      pP      03 20 57.2 +0.5
      comp=Z,23nm,0.9s,baz=219,slow=5.8,SNR=10
NVAR                                LR      LR      03 52 07.1
      comp=Z,155nm,21.0s,MS4.4,baz=40,slow=30
NVAR  Mina Array Bea    89.93  49   P       P       03 20 45.5 +0.3
NVAR                                pP      pP      03 20 57.2 +0.4
NVAR                                LR      LR      03 52 07.0
MOD   Modoc             90.02  45  eP       P       03 20 45.8 +0.4
      comp=Z,127nm,1.1s,mb6.2
MNV   Mina              90.03  49   P       P       03 20 45.8 +0.2
MNV                                 pmax    pmax
      comp=Z,90nm,1.2s,mb6.0
MNV   Mina              90.03  49  eP       P       03 20 45.6  0.0
      comp=Z,90nm,1.2s,mb6.0
VNA2  Neumayer--Watz    90.05 182⇓iP        P       03 20 47.6 +2.7
VNA2  Neumayer--Watz    90.05 182  e        P       03 20 58.8  +14
ON2   Olympics--Nort    90.08  40   P       P       03 20 46.8 +1.2
OCWA  Octopus Mounta    90.25  39  eP       P       03 20 47.1 +0.7
      comp=Z,218nm,1.1s,mb6.4
OCWA                               epP      pP      03 20 58.9 +0.9
BBB   Bella Bella       90.28  34   P       P       03 20 45.7 -0.7
      comp=Z,39nm,0.9s,mb5.7,baz=226,slow=9.8,SNR=4.5
VNA1  Neumayer--Stat    90.35 181⇓iP        P       03 20 49.2 +2.9
VNA1  Neumayer--Stat    90.35 181  e        P       03 21 00.3  +14
COLA  College           90.45  17c iP       P       03 20 45.9 -1.0
COLA  College           90.45  17  eP       P       03 20 45.4 -1.5
      comp=Z,55nm,1.1s,mb5.8
TPH   Tonopah           90.56  50  eP       P       03 20 48.4 +0.3
TPH                                e*PP     pP      03 20 59.2 -0.5
TPH                                 pmax    pmax
      comp=Z,77nm,1.3s,mb5.9
TPH   Tonopah           90.56  50  eP       P       03 20 48.4 +0.4
      comp=Z,77nm,1.3s,mb5.9
TPH                                epP      pP      03 20 59.2 -0.5
ILAR  Eielson Array     90.65  18   P       P       03 20 46.2 -1.7
      comp=Z,14nm,0.8s,mb5.3,baz=236,slow=5.6,SNR=93
ILAR                                pP      pP      03 20 57.9 -1.6
      comp=Z,9.5nm,0.9s,baz=235,slow=5.4,SNR=6.4
ILAR                                LR      LR      03 53 38.4
      comp=Z,159nm,21.8s,MS4.4,baz=72,slow=30
TPNV  Topopah Spring    90.81  51  eP       P       03 20 49.5 +0.2
TPNV                               e*PP     pP      03 21 01.2 +0.3
TPNV                                pmax    pmax
      comp=Z,104nm,1.3s,mb6.0
TPNV                                MLR     MLR
      comp=Z,753nm,19.0s,MS5.2
TPNV  Topopah Spring    90.81  51  eP       P       03 20 49.5 +0.2
      comp=Z,104nm,1.3s,mb6.0
TPNV                               epP      pP      03 21 01.2 +0.2
TPNV                                LR      LR
      comp=Z,753nm,19.0s,MS5.2
LDFC  Landfair          90.93  53  eP       P       03 20 50.6 +0.7
PGC   Sidney            91.11  38  eP       P       03 20 50.7 +0.3
      comp=Z,244nm,1.1s,mb6.5
PGC                                epP      pP      03 21 01.7 -0.3
LON   Longmire          91.21  40   P       P       03 20 50.7 -0.2
MOY   Mondy             91.27 325  eP       P       03 20 52.0 +0.9
NEN   Nelson            91.35  53  eP       P       03 20 51.9  0.0
BMN   Battle Mountai    91.51  48  eP       P       03 20 53.0 +0.5
BMN                                e*PP     pP      03 21 04.3 +0.2
BMN                                 pmax    pmax
      comp=Z,87nm,1.1s,mb6.0
BMN   Battle Mountai    91.51  48  eP       P       03 20 53.0 +0.5
      comp=Z,87nm,1.1s,mb6.0
BMN                                epP      pP      03 21 04.3 +0.2
NAC   Naches            91.81  41   P       P       03 20 54.5 +0.8
GUN   Gumba             91.83 299  eP       P       03 20 53.5 -0.7
      comp=Z,22nm,1.0s,mb5.4
TRCR  Troy Canyon       91.85  50  eP       P       03 20 54.1 +0.1
PKI   Pulchoki          92.10 298  eP       P       03 20 54.6 -0.9
      comp=Z,51nm,1.2s,mb5.7
USHA  Ushuaia           92.22 151   LR      LR      03 55 23.7
      comp=Z,125nm,18.1s,MS4.4,baz=336,slow=31
KKN   Kakani            92.29 299  eP       P       03 20 56.3  0.0
      comp=Z,36nm,1.1s,mb5.6
DMN   Daman             92.37 298  eP       P       03 20 56.4 -0.3

HAWA  Hanford           92.47  41  eP       P       03 20 57.2 +0.6
      comp=Z,2.9nm,0.3s,mb5.1
HAWA                               epP      pP      03 21 08.2 -0.1
DAWY  Dawson            92.49  21  eP       P       03 20 55.2 -1.2
DLBC  Dease Lake        92.71  28   P       P       03 20 57.6  0.0
      comp=Z,28nm,1.1s,mb5.6,baz=226,slow=6.4,SNR=21
DLBC                                pP      pP      03 21 09.2  0.0
      comp=Z,18nm,1.1s,baz=225,slow=16,SNR=6.6
DLBC  Dease Lake        92.71  28  eP       P       03 20 57.8 +0.3
DLBC                               epP      pP      03 21 08.7 -0.4
GKN   Gorkha            92.89 299  eP       P       03 20 58.6 -0.5
      comp=Z,29nm,1.0s,mb5.7
ELK   Elko              93.02  48   P       P       03 20 59.6 +0.2
ELK                                 pmax    pmax
      comp=Z,33nm,1.2s
ELK   Elko              93.02  48  eP       P       03 20 59.2 -0.2
      comp=Z,32nm,1.2s,mb5.6
ARUT  Antelope Range    93.20  51   P       P       03 21 01.2 +0.9
ARUT  Antelope Range    93.20  51  eP       P       03 21 01.0 +0.7
BMO   Blue Mountains    93.25  44  eP       P       03 20 59.8 -0.5
BMO                                 pmax    pmax
      comp=Z,20nm,1.3s,mb5.4
BMO   Blue Mountains    93.25  44  eP       P       03 20 59.8 -0.6
      comp=Z,20nm,1.3s,mb5.4
TUC   Tucson            93.27  57  eP       P       03 21 01.2 +0.5
TUC                                e*PP     pP      03 21 12.6 +0.3
TUC                                 pmax    pmax
      comp=Z,42nm,1.3s,mb5.7
TUC   Tucson            93.27  57  eP       P       03 21 01.2 +0.5
      comp=Z,42nm,1.3s,mb5.7
TUC                                epP      pP      03 21 12.6 +0.3
KOLN  Koldanda          93.68 298  eP       P       03 21 01.0 -1.7
      comp=Z,8.0nm,0.7s,mb5.2
MVU   Marysvale         94.36  51  eP       P       03 21 06.0 +0.4
      comp=Z,11nm,1.1s,mb5.2
MVU                                epP      pP      03 21 17.6 +0.4
TIXI  Tiksi             94.39 349⇑iP        P       03 21 04.2 -0.7
TIXI                                pmax    pmax
      comp=Z,6.0nm,1.1s,mb4.9
TIXI  Tiksi             94.39 349⇓eP        P       03 21 03.8 -1.1
MSU   Marysvale         94.39  51   P       P       03 21 07.0 +1.4
MSU   Marysvale         94.39  51  eP       P       03 21 06.5 +0.9
BGU   Big Grassy Mou    94.64  48  eP       P       03 21 06.2 -0.5
HLID  Hailey            94.66  46  eP       P       03 21 07.1 +0.4
      comp=Z,16nm,1.0s,mb5.4
HLID                               epP      pP      03 21 18.7 +0.3
NEW   Newport           94.73  40   P       P       03 21 06.9 -0.1
      comp=Z,8.1nm,0.8s,mb5.2,baz=254,slow=2.5,SNR=12
NEW                                 pP      pP      03 21 19.1 +0.6
      comp=Z,10nm,1.2s,baz=199,slow=1.1,SNR=3.6
NEW   Newport           94.73  40   P       P       03 21 06.9 -0.1
NEW                                 *PP     pP      03 21 19.2 +0.6
NEW                                 pmax    pmax
      comp=Z,8.0nm,0.8s
NEW                                 pmax    pmax
      comp=Z,10.0nm,1.2s
NEW   Newport           94.73  40  eP       P       03 21 06.8 -0.2
      comp=Z,18nm,1.2s,mb5.4
HVU   Hansel Valley     95.13  48   P       P       03 21 09.6 +0.6
HVU   Hansel Valley     95.13  48  eP       P       03 21 09.1 +0.2
SPUT  South Promonto    95.19  48  eP       P       03 21 08.5 -0.8
MPU   Maple Canyon      95.32  50  eP       P       03 21 08.5 -1.3
JLU   Jordanelle        95.65  49  eP       P       03 21 11.5 +0.1
DAU   Daniels Canyon    95.73  49   P       P       03 21 12.9 +1.2
DAU   Daniels Canyon    95.73  49  eP       P       03 21 12.2 +0.5
SRU   San Rafael        95.81  51   P       P       03 21 12.4 +0.3
SRU   San Rafael        95.81  51  eP       P       03 21 10.0 -2.1
TCUT  Toone Canyon      95.86  49  eP       P       03 21 12.5 +0.2
HWUT  Hardware Ranch    95.92  48  eP       P       03 21 12.2 -0.3
      comp=Z,9.8nm,1.0s,mb5.2
WMQ   Urumqi            96.07 314 ⇓P        P       03 21 13.8 +0.6
WMQ                                 AP      pP      03 21 24.3 -0.5
WMQ                                 XP      sP      03 21 28.3 -0.3
WMQ                                 PP      PP      03 25 08.9 +0.4
WMQ                                 SKS     SKS     03 31 46.3 +1.0
WMQ                                 S       S       03 32 26.8 +0.9
WMQ                                 AMB     AMB
      comp=Z,9.0nm,0.6s,mb5.4
WMQ                                 AMB     AMB
      comp=Z,15nm,6.6s
WMQ                                 LR      LR
      comp=N,215nm,21.2s,MS4.6
WMQ                                 LR      LR
      comp=E,85nm,23.4s,MS4.6
WMQ                                 LR      LR
      comp=Z,152nm,24.0s,MS4.4
MCMT  McKenzie Canyo    96.17  45  eP       P       03 21 13.6  0.0
MSO   Missoula          96.18  43  eP       P       03 21 12.2 -1.3
      comp=Z,2.0nm,0.8s,mb4.6
PV10  Paradox Valley    96.66  52  eP       P       03 21 15.7 -0.3
PV01  Paradox Valley    96.93  52  eP       P       03 21 17.2 -0.1
INK   Inuvik            96.99  19   P       P       03 21 16.1 -0.7
INK                                 pmax    pmax
      comp=Z,56nm,1.5s
INK   Inuvik            96.99  19  eP       P       03 21 15.7 -1.1
      comp=Z,56nm,1.5s,mb5.8
REDW  Red Top Meadow    97.01  47  eP       P       03 21 15.9 -1.6
QLMT  Earthquake Lak    97.12  45  eP       P       03 21 18.5 +0.6
IMW   Indian Meadow     97.13  46  eP       P       03 21 17.9 -0.1
BNM   Barren Site       97.16  56  eP       P       03 21 18.1 -0.3
LPM   Los Pinos Moun    97.21  56  eP       P       03 21 18.6  0.0
MNTX  Cornudas Mount    97.40  59  eP       P       03 21 18.2 -1.3
      comp=Z,27nm,1.8s,mb5.4
HRY   Holter Researc    97.49  43  eP       P       03 21 19.6  0.0
ANMO  Albuquerque       97.54  56   P       P       03 21 19.8 -0.3
      comp=Z,3.6nm,0.9s,mb4.9,baz=238,slow=5.4,SNR=10
ANMO  Albuquerque       97.54  56  eP       P       03 21 19.7 -0.4
ANMO                               e*PP     pP      03 21 31.8 +0.1
ANMO                                pmax    pmax
      comp=Z,16nm,1.4s
ANMO  Albuquerque       97.54  56  eP       P       03 21 19.7 -0.4
      comp=Z,16nm,1.4s,mb5.4
ANMO                               epP      pP      03 21 31.8 +0.1
PDAR  Pinedale Array    97.71  48   P       P       03 21 19.6 -1.0
      comp=Z,3.4nm,1.1s,mb4.8,baz=243,slow=3.3,SNR=15
PDAR                                pP      pP      03 21 33.0 +0.8
      comp=Z,2.5nm,1.1s,baz=225,slow=4.2,SNR=3.9
PDAR                                LR      LR      03 58 41.5
      comp=Z,91nm,19.9s,MS4.3,baz=266,slow=31
PDAR  Pinedale Array    97.71  48   P       P       03 21 19.6 -1.0
PDAR                                pP      pP      03 21 33.0 +0.8
PDAR                                LR      LR      03 58 41.5
TXAR  Lajitas Array     98.10  62   P       P       03 21 23.3 +0.6
      comp=Z,3.5nm,0.9s,mb4.9,baz=221,slow=5.2,SNR=36
TXAR                                pP      pP      03 21 34.9 +0.5
      comp=Z,1.9nm,0.8s,baz=194,slow=5.2,SNR=5.6
TXAR                                LR      LR      03 55 59.4
      comp=Z,150nm,20.4s,MS4.5,baz=305,slow=30
TXAR  Lajitas Array     98.10  62   P       P       03 21 23.3 +0.6
TXAR                                pP      pP      03 21 34.9 +0.5
TXAR                                LR      LR      03 55 59.4
GDL2  Guadalupe Moun    98.38  59  eP       P       03 21 24.0 +0.1
CPRX  Cap Rock          99.02  58  eP       P       03 21 26.3 -0.5
ZAL   Zalesovo         101.17 323   P       P       03 21 35.5 -0.5
      comp=Z,1.2nm,0.8s,baz=20,slow=5.2,SNR=8.3
ZAL                                 pP              03 21 47.7
      comp=Z,0.8nm,0.6s,baz=341,slow=6.5,SNR=2.4
YKA   Yellowknife Ar   101.34  28   P       P       03 21 36.6 +0.1
      comp=Z,6.5nm,0.8s,baz=254,slow=4.7,SNR=105
YKA                                 pP              03 21 48.7
      comp=Z,4.7nm,0.9s,baz=252,slow=4.7,SNR=9.6
YKA                                 PKiKP           03 26 00.3
      comp=Z,0.3nm,0.8s,baz=288,slow=1.8,SNR=4.4
YKA   Yellowknife Ar   101.34  28   P       P       03 21 36.6 +0.1
YKA                                 pP              03 21 48.7
YKW3  Yellowknife Ar   101.36  28  eP       P       03 21 36.2 -0.5
ULM   Lac du Bonnet    108.62  42   PKiKP           03 26 13.7
      comp=Z,2.0nm,0.6s,baz=331,slow=2.6,SNR=3.5
BVAR  Borovoye Array   109.41 321   Pdiff   Pdif    03 22 13.8 +1.4
      comp=Z,0.6nm,0.6s,baz=104,slow=5.9,SNR=3.3
BVAR                                PKiKP           03 26 15.8
      comp=Z,5.6nm,1.1s,baz=117,slow=3.3,SNR=7.1
FCC   Fort Churchill   110.49  33   P       Pdif    03 22 25.2 +8.2
LPAZ  La Paz           114.82 119   PKP     PKPdf   03 26 28.2 +2.4
      comp=Z,0.9nm,0.7s,baz=294,slow=5.4,SNR=4.3
ARU   Arti             116.31 324  i PKIKP  PKPdf   03 26 28.0 +0.2
ARU                                e                03 27 35.3
ARU                                e                03 33 36.7
CPUP  Villa Florida    117.14 135   PKP     PKPdf   03 26 31.3 +1.2
      comp=Z,0.0nm,0.4s,baz=221,slow=12,SNR=2.0
ROSC  El Rosal         118.06  95   PKP     PKPdf   03 26 33.5 +1.3
      comp=Z,1.6nm,0.4s,baz=112,slow=21,SNR=5.0
SADO  Sadowa           119.67  49   PKP     PKPdf   03 26 34.5 -0.1
      comp=Z,17nm,1.0s,baz=257,slow=3.8,SNR=3.1
FRB   Frobisher Bay    121.79  26   PKP     PKPdf   03 26 38.0 -0.1

      comp=Z,13nm,0.9s,baz=351,slow=3.6,SNR=12
FRB                                 pPKP            03 26 49.9
      comp=Z,38nm,1.4s,baz=4.6,slow=4.4,SNR=5.4
SDV   Santo Domingo    122.79  92  ePKPdf   PKPdf   03 26 41.8 +0.5
SDV                                epPKPdf          03 26 53.7
ARCES ARCESS Array B   124.63 345   PKP     PKPdf   03 26 44.1 +0.6
      comp=Z,7.8nm,0.8s,slow=1.2,SNR=11
SCHQ  Schefferville    125.77  35   PKP     PKPdf   03 26 46.0  0.0
      comp=Z,7.6nm,0.8s,baz=324,slow=4.0,SNR=6.5
SCHQ                                pPKP            03 26 58.3
      comp=Z,4.2nm,0.9s,baz=326,slow=3.6,SNR=2.7
GNI   Garni            127.09 306   PKP     PKPdf   03 26 51.5 +2.5
      comp=Z,3.3nm,0.7s,baz=57,slow=18,SNR=4.8
GNI                                 pPKP            03 27 02.9
      comp=Z,3.9nm,0.8s,baz=169,slow=15,SNR=2.5
GNI   Garni            127.09 306   PKIKP   PKPdf   03 26 51.6 +2.5
GNI                                                 03 27 02.9
KMBO  Kilima Mbogo     127.27 253   PKP     PKPdf   03 26 52.8 +2.7
      comp=Z,3.1nm,0.9s,baz=41,slow=7.4,SNR=9.0
KMBO                                pPKP            03 27 04.2
      comp=Z,2.6nm,0.7s,baz=7.8,slow=4.1,SNR=6.8
KMBO  Kilima Mbogo     127.27 253  ePKIKP   PKPdf   03 26 52.8 +2.7
KMBO                               e                03 27 04.3
ZEI   Tsey             127.41 310  ePKIKP   PKPdf   03 26 50.9 +1.3
ZEI                                i                03 28 51.4
ZEI                                 pmax    pmax
      comp=Z,6.0nm,0.9s
GOF   Gofitskoye       127.64 313⇓iPKIKP    PKPdf   03 26 51.0 +1.0
GOF                                 pmax    pmax
      comp=Z,30nm,1.3s
KIV   Kislovodsk       128.09 311  i PKIKP  PKPdf   03 26 52.0 +1.1
KIV                                e                03 28 55.5
KIV                                eSS      SS      03 46 09.3 +2.6
KIV                                eSSS     SSS     03 50 54.9 +1.9
KIV                                 pmax    pmax
      comp=N,6.0nm,1.2s
KIV                                 pmax    pmax
      comp=E,7.0nm,1.2s
KIV                                 pmax    pmax
      comp=Z,13nm,1.2s
VOR   Voronezh         128.40 322   PKIKP   PKPdf   03 26 52.0 +0.8
VOR                                 pmax    pmax
      comp=Z,70nm,1.6s
VRSR  Storozhevoye     128.57 321  ePKIKP   PKPdf   03 26 51.6  0.0
VRSR                                pmax    pmax
      comp=Z,10.0nm,0.8s
VRSR                                pmax    pmax
      comp=N,4.0nm,0.5s
VRSR                                pmax    pmax
      comp=E,10.0nm,1.3s
OBN   Obninsk          128.62 326⇑iPKIKP    PKPdf   03 26 52.7 +1.2
OBN                                e                03 28 55.6
OBN                                eSS      SS      03 46 42.0  +29
OBN                                 pmax    pmax
      comp=Z,42nm,1.6s
OBN   Obninsk          128.62 326⇑ePKP      PKPdf   03 26 52.7 +1.2
SJG   San Juan         129.22  82   PKP     PKPdf   03 26 54.3 +0.6
      comp=Z,86nm,0.8s,baz=23,slow=1.8,SNR=26
SJG                                 pPKP            03 27 05.9
      comp=Z,26nm,0.8s,baz=142,slow=4.1,SNR=7.6
SJG   San Juan         129.22  82   PKIKP   PKPdf   03 26 54.3 +0.6
SJG                                                 03 27 05.9
SJG                                 pmax    pmax
      comp=Z,86nm,0.9s
SJG                                 pmax    pmax
      comp=Z,26nm,0.8s
SJG   San Juan         129.22  82  ePKPdf   PKPdf   03 26 54.0 +0.3
SJG                                epPKPdf          03 27 05.7
KAF   Kangasniemi      129.44 338  epkp     PKPdf   03 26 54.1 +1.2
FINES FINESS Array B   129.96 337   PKP     PKPdf   03 26 54.5 +0.6
      comp=Z,8.9nm,0.9s,SNR=12
FINES                               pPKP            03 27 07.6
      comp=Z,6.2nm,0.9s,baz=315,slow=2.7,SNR=3.6
SOC   Sochi            130.27 311  i PKIKP  PKPdf   03 26 58.5 +3.5
SOC                                e                03 29 10.0
SOC                                ePPP     PPP     03 32 00.1 -1.1
SOC                                e                03 34 04.1
SOC                                 pmax    pmax
      comp=N,15nm,0.9s
SOC                                 pmax    pmax
      comp=E,38nm,0.9s
SOC                                 pmax    pmax
      comp=Z,46nm,0.9s
BDFB  Brasilia         130.73 132   PKP     PKPdf   03 26 58.2 +1.7
      comp=Z,11nm,1.1s,baz=254,slow=2.3,SNR=9.2
BDFB                                pPKP            03 27 09.5
      comp=Z,5.7nm,1.0s,baz=347,slow=3.7,SNR=4.7
BAO   Brasilia Array   130.75 132   P       PKPdf   03 26 58.2 +1.5
BAO                                e                03 27 09.7
AKASG Malin Array Be   134.56 324   PKP     PKPdf   03 27 02.9  0.0
      comp=Z,4.4nm,0.7s,baz=57,slow=2.3,SNR=16
AKASG                               pPKP            03 27 15.2
      comp=Z,4.9nm,0.8s,baz=48,slow=2.5,SNR=7.0
AKASG Malin Array Be   134.56 324   PKIKP   PKPdf   03 27 02.9  0.0
AKASG                                               03 27 15.2
AKASG                               pmax    pmax
      comp=Z,4.0nm,0.7s
AKASG                               pmax    pmax
      comp=Z,5.0nm,0.8s
NOA   NORSAR Array B   134.99 344   PKP     PKPdf   03 27 04.1 +0.7
      comp=Z,3.9nm,0.9s,baz=34,slow=2.0,SNR=5.7
NOA                                 pPKP            03 27 17.6
      comp=Z,1.4nm,0.9s,baz=57,slow=2.3,SNR=2.3
HFS   Hagfors          135.06 342   PKP     PKPdf   03 27 05.2 +1.6
      comp=Z,6.6nm,0.8s,baz=67,slow=1.5,SNR=4.7
BRTR  Keskin Array B   135.57 308   PKP     PKPdf   03 27 06.2 +1.1
      comp=Z,1.6nm,0.8s,baz=112,slow=3.7,SNR=6.5
BRTR                                pPKP            03 27 19.0
      comp=Z,1.9nm,0.9s,baz=90,slow=1.2,SNR=4.4
BRTR                                PP      PP      03 29 44.1 -2.4
      comp=Z,2.7nm,1.1s,baz=79,slow=6.3,SNR=5.2
SUW   Suwalki          135.85 330  ePKP     PKPdf   03 27 06.6 +1.5
EIL   Elat             135.92 293   PKP     PKPdf   03 27 07.9 +1.9
      comp=Z,5.2nm,0.8s,baz=44,slow=2.9,SNR=3.8
EIL                                 pPKP            03 27 19.6
      comp=Z,4.2nm,0.7s,baz=63,slow=2.3,SNR=3.4
KIS   Kishinev         136.47 319  ePKIKP   PKPdf   03 27 02.0 -4.5
MLR   Muntele Rosu     138.92 318   PKP     PKPdf   03 27 12.9 +1.9
      comp=Z,5.6nm,0.9s,baz=146,slow=3.6,SNR=4.6
KOLS  Kolonicke sedl   139.32 325  eP       PKPdf   03 27 08.3 -3.3
KOLS                               ePKP     PKPdf   03 27 14.2 +2.6
KOLS                               e                03 27 25.7
KOLS  Kolonicke sedl   139.32 325  e        PKPdf   03 27 08.3 -3.3
KOLS  Kolonicke sedl   139.32 325  ePKP     PKPdf   03 27 14.2 +2.6
KOLS                               e                03 27 25.7
CRVS  Cervenica-Dubn   139.78 325  ePKP     PKPdf   03 27 15.8 +3.3
OJC   Ojcow            139.85 328  ePKP     PKPdf   03 27 14.4 +1.9
NIE   Niedzica         140.08 327  ePKP     PKPdf   03 27 15.6 +2.6
OKC   Ostrava-Krasne   140.91 329  ePKP     PKPdf   03 27 16.3 +1.8
KSP   Ksiaz            141.12 331  ePKIKP   PKPdf   03 27 12.1 -2.7
KSP                                e                03 27 19.4
KSP   Ksiaz            141.12 331  ePKP     PKPdf   03 27 19.0 +4.2
PSZ   Piszkesteto      141.20 325   PKIKP   PKPdf   03 27 16.1 +1.1
PSZ   Piszkesteto      141.20 325  ePKPpre          03 27 11.9
MORC  Moravsky Berou   141.25 329  ePKIKP   PKPdf   03 27 16.9 +1.9
VYHS  Vyhne            141.41 326  i PKP    PKPdf   03 27 14.1 -1.3
DPC   Dobruska-Polom   141.44 330  ePKP     PKPdf   03 27 08.6 -6.8
UPC   Upice            141.48 331  ePKP     PKPdf   03 27 12.8 -2.6
VRAC  Vranov           142.02 329   PKP     PKPdf   03 27 17.0 +0.6
      comp=Z,4.2nm,0.8s,baz=31,slow=6.5,SNR=3.6
SRO   Srobarova        142.11 326  ePKP     PKPdf   03 27 14.5 -2.1
PVCC  Panska Ves       142.12 332  ePKP     PKPdf   03 27 17.9 +1.4
SMOL  Smolenice        142.13 327  ePKP     PKPdf   03 27 15.0 -1.6
BRG   Berggiesshubel   142.14 333  ePKHKP           03 27 12.9
BRG                                e                03 27 18.7
CLL   Collm            142.22 334  i PKP    PKPdf   03 27 17.8 +1.1
CLL                                i pPKP           03 27 29.4
CLL   Collm            142.22 334  e        PKPdf   03 27 14.0 -2.7
CLL                                i PKIKP  PKPdf   03 27 17.8 +1.1
CLL                                i *PPKP          03 27 29.4
CLL                                ePP      PP      03 30 27.0  0.0
PRU   Pruhonice        142.52 331  ePKP     PKPdf   03 27 15.1 -2.1
PKSM  Moragy           142.90 324⇓ePKIKP    PKPdf   03 27 16.7 -1.3
GRUS  Gruza            142.96 319  eP       PKPdf   03 27 19.9 +1.8
EKA   Eskdalemuir Ar   143.25 351   PKP     PKPdf   03 27 18.2  0.0
      comp=Z,4.7nm,0.9s,slow=3.3,SNR=6.3
EKA                                 pPKP            03 27 30.4
      comp=Z,6.6nm,1.1s,baz=315,slow=2.4,SNR=4.5
NKC   Novy Kostel      143.26 333  ePKP     PKPdf   03 27 17.5 -0.9
RHK1  Bakonya          143.29 324⇑eP        PKPbc   03 27 17.2 +0.3
DIVS  Divcibare        143.30 320⇑iP        PKPbc   03 27 18.3 +1.3
MOX   Moxa             143.30 334  ePKIKP   PKPdf   03 27 16.8 -1.7
SKO   Skopje           143.44 316  ePKP     PKPdf   03 27 18.0 -1.0
KHC   Kasperske Hory   143.57 331  ePKP     PKPdf   03 27 15.5 -3.5
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GEC2	GERESS Array S	143.72	331	ePKIKP	PKPdf	03 27 20.0	+0.7
GERES	GERESS Array B	143.72	331	PKP	PKPdf	03 27 18.5	-0.8
	comp=Z,7.2nm,0.9s,baz=63,slow=3.0,SNR=31						
WET	Wettzell	143.88	332	ePKIKP	PKPdf	03 27 20.6	+1.1
ARSA	Arzberg	143.92	327	⇑iP	PKPbc	03 27 19.8	+1.0
MOA	Molln	144.15	329	⇑iP	PKPbc	03 27 20.8	+1.4
GRF	Grafenberg Arr	144.19	334	ePKIKP	PKPdf	03 27 20.3	+0.2
GRF	Grafenberg Arr	144.19	334	ePKIKP	PKPdf	03 27 20.3	+0.2
GROS	Grobnik	144.45	326	i PKP	PKPdf	03 27 20.8	+0.1
SIND	Sindeldorf	145.12	335	⇓eP	PKPdf	03 27 23.3	+1.6
BOJS	Bojanci	145.20	325	ePKPbc	PKPbc	03 27 23.8	+1.4
TOD	Tromm	145.24	336	⇓eP	PKPdf	03 27 23.9	+2.0
TOD	Tromm	145.24	336	PKIKP	PKPdf	03 27 24.0	+2.1
LJU	Ljubljana	145.24	326	ePKPbc	PKPbc	03 27 23.6	+1.1
LJU				e		03 27 28.5	
LJU				e		03 27 35.0	
LJU				e		03 27 42.3	
HGN	Heimansgroeve	145.31	339	ePKP	PKPdf	03 27 21.7	-0.3
	comp=Z,154nm,1.2s						
FUR	Furstenfeldbru	145.32	332	ePKIKP	PKPdf	03 27 24.3	+2.2
SWS	Schriesheim	145.37	336	⇓eP	PKPdf	03 27 24.1	+1.9
HDH	Heidenheim	145.47	333	⇓eP	PKPdf	03 27 24.4	+2.0
ABH	Alteburg	145.49	337	⇓eP	PKPdf	03 27 24.8	+2.4
ABH	Alteburg	145.49	337	PKP	PKPdf	03 27 24.5	+2.1
VOY	Vojsko	145.57	327	ePKPbc	PKPbc	03 27 24.3	+1.0
VOY				e		03 27 35.3	
VOY				e		03 27 44.1	
JAVS	Javornik	145.58	327	ePKPbc	PKPbc	03 27 24.5	+1.2
STU	Stuttgart	145.74	334	ePKPdf	PKPdf	03 27 24.3	+1.5
STU				epPKPdf		03 27 36.8	
KTD	Kalmit	145.74	336	eP	PKPdf	03 27 25.6	+2.8
KTD	Kalmit	145.74	336	PKP2	PKPab	03 27 25.4	-0.3
WATA	Walderalm	145.79	331	⇑iP	PKPdf	03 27 24.5	+1.5
RUP	Ruppelstein	145.81	337	⇓eP	PKPdf	03 27 25.9	+3.0
RUP	Ruppelstein	145.81	337	PKP2	PKPab	03 27 25.4	-0.6
WTTA	Wattenberg	145.82	330	⇑iP	PKPdf	03 27 25.0	+2.0
BUCH	Bad Urach	145.93	334	⇓eP	PKPdf	03 27 25.9	+2.7
LBG	Lerchenberg	145.99	335	⇓eP	PKPdf	03 27 26.3	+3.1
MOTA	Moosalm	146.00	331	⇓iP	PKPdf	03 27 24.9	+1.6
RCBR	Riachuelo	146.02	135	ePKPdf	PKPdf	03 27 25.9	+1.5
RCBR				epPKPdf		03 27 37.3	
SQTA	Sankt Quirin	146.05	331	⇑iP	PKPdf	03 27 25.2	+1.8
LANF	Langenberg	146.13	336	PKP	PKPdf	03 27 26.4	+2.9
WLF	Walferdange	146.17	338	ePKPbc	PKPbc	03 27 26.9	+2.2
WLF				e		03 27 38.1	
UBR	Uberruh	146.20	332	⇓eP	PKPdf	03 27 26.6	+3.0
GIVF	Givet	146.24	340	ePKP1	PKPbc	03 27 26.5	+1.7
	comp=Z,374nm,1.3s						
GUT	Gutenstein	146.32	334	⇓eP	PKPdf	03 27 26.9	+3.0
SPAK	Spaichingen	146.44	334	⇓eP	PKPdf	03 27 27.3	+3.3
BFO	Black Forest	146.44	335	ePKP2	PKPab	03 27 27.3	-1.1
STR	Strasbourg	146.46	336	PKP	PKPdf	03 27 28.2	+4.1
BAIF	Baives	146.48	341	ePKP1	PKPbc	03 27 27.2	+1.9
	comp=Z,592nm,1.7s						
LIENZ	Alp Oberkamor	146.76	332	⇓iP	PKPdf	03 27 28.5	+3.9
WLS	Welschbruch	146.76	336	PKP	PKPdf	03 27 28.3	+3.7
CDF	Champ du Feu	146.79	336	ePKP1	PKPbc	03 27 28.1	+2.0
	comp=Z,276nm,1.0s						
SLE	Schleitheim	146.82	334	⇓iPKP2	PKPab	03 27 28.1	-1.8
SLE	Schleitheim	146.82	334	⇓iPKPbc	PKPbc	03 27 28.4	+2.2
LIBD	Limburg	146.88	335	eP	PKPdf	03 27 28.9	+4.1
KIZ	Kirchzarten	146.91	335	⇓eP	PKPdf	03 27 28.3	+3.5
WILA	Wila	146.92	333	⇓iP	PKPdf	03 27 28.6	+3.7
WILA	Wila	146.92	333	⇓iPKPbc	PKPbc	03 27 28.5	+2.1
FUORN	Ofenpass	146.93	331	⇓iP	PKPdf	03 27 29.4	+4.5
FUORN	Ofenpass	146.93	331	⇓iPKPbc	PKPbc	03 27 28.6	+2.1
FELD	Feldberg	146.94	335	⇓eP	PKPdf	03 27 28.7	+3.8
FELD	Feldberg	146.94	335	PKP	PKPdf	03 27 28.8	+3.9
FLACH	Flaach	146.94	334	⇓iP	PKPdf	03 27 28.4	+3.5
DAVOX	Davos	146.98	331	PKP	PKPdf	03 27 26.8	+1.7
	comp=Z,49nm,0.7s,baz=31,slow=1.8,SNR=74						
DAVOX				PKPbc	PKPbc	03 27 29.4	+2.8
	comp=Z,48nm,0.7s,baz=42,slow=1.5,SNR=72						
DAVOX				pPKPbc		03 27 41.3	
	comp=Z,47nm,1.0s,baz=216,slow=2.6,SNR=6.0						
DAVOX	Davos	146.98	331	⇓iPKPbc	PKPbc	03 27 29.5	+2.9
ECH	Echery	147.00	336	PKP	PKPdf	03 27 28.6	+3.6
PLONS	Plons	147.00	332	⇓iPKPbc		03 27 28.9	
ZUR	Zurich	147.10	333	⇓iPKP2	PKPab	03 27 29.0	-2.0
ZUR	Zurich	147.10	333	⇓iPKPbc	PKPdf	03 27 29.4	+4.2
SULZ	Sulz-Cheisache	147.17	334	⇓iP	PKPdf	03 27 29.0	+3.7
SULZ	Sulz-Cheisache	147.17	334	⇓iPKPbc	PKPdf	03 27 29.4	+4.1
BERNI	Berninapass	147.19	331	⇓iPKPbc	PKPdf	03 27 29.9	+4.5
MOF	Molkenrain	147.31	335	PKP	PKPdf	03 27 29.5	+4.0
LLS	Linth-Limmern	147.32	332	⇓iPKPdf	PKPdf	03 27 29.9	+4.4
MUO	Muotathal	147.39	333	⇓iPKPdf	PKPdf	03 27 30.1	+4.5
VDL	Val di Lei	147.39	331	⇓iPKP2	PKPab	03 27 30.3	-1.9
VDL	Val di Lei	147.39	331	⇓iPKPdf	PKPdf	03 27 30.1	+4.4
THEF	They Montfort	147.43	337	PKP	PKPdf	03 27 30.2	+4.5
HINF	Hinteralfeld	147.44	336	ePKP1	PKPdf	03 27 29.7	+4.0
	comp=Z,126nm,1.3s						
BBS	Basel-Blauen	147.47	335	eP	PKPdf	03 27 30.2	+4.4
BBS	Basel-Blauen	147.47	335	PKP2	PKPab	03 27 29.9	-2.6
HAU	Haudompre	147.48	336	ePKP1	PKPdf	03 27 30.0	+4.2
	comp=Z,257nm,1.2s						
BALST	Balsthal	147.49	334	⇓iP	PKPdf	03 27 30.1	+4.3
BALST	Balsthal	147.49	334	⇓iPKPdf	PKPdf	03 27 30.3	+4.5
MEZF	Maizieres J'vi	147.54	338	ePKP1	PKPdf	03 27 30.6	+4.8
	comp=Z,667nm,1.3s						
BNALP	Bannalp	147.56	333	⇓iPKPdf	PKPdf	03 27 30.5	+4.6
BOURR	Bourrignon	147.64	335	⇓iPKPdf	PKPdf	03 27 30.7	+4.7
HASLI	Hasliberg	147.76	333	⇓iP	PKPdf	03 27 31.0	+4.8
HASLI	Hasliberg	147.76	333	⇓iPKPdf	PKPdf	03 27 30.9	+4.7
FUSIO	Fusio	147.77	332	⇓iP	PKPdf	03 27 31.3	+5.0
FUSIO	Fusio	147.77	332	⇓iPKPdf	PKPdf	03 27 31.0	+4.7
LOMF	Lomont	147.83	335	PKP	PKPdf	03 27 30.9	+4.6
TIP	Timpagrande	147.91	315	ePKPbc	PKPdf	03 27 31.4	+4.6
MUGIO	Muggio	148.01	331	⇓iP	PKPdf	03 27 30.9	+4.2
MUGIO	Muggio	148.01	331	⇓iPKPdf	PKPdf	03 27 31.7	+5.0
WIMIS	Wimmis	148.06	334	⇓iP	PKPdf	03 27 31.7	+5.0
WIMIS	Wimmis	148.06	334	⇓iPKPdf	PKPdf	03 27 31.3	+4.6
AQU	L'Aquila	148.23	322	ePKP2	PKPab	03 27 31.6	-4.1
TORNY	Torny	148.25	334	⇓iP	PKPdf	03 27 32.6	+5.6
TORNY	Torny	148.25	334	⇓iPKPdf	PKPdf	03 27 32.4	+5.4
LKBD	Leukerbad	148.28	333	⇓iP	PKPdf	03 27 32.4	+5.3
LKBD	Leukerbad	148.28	333	⇓iPKPdf	PKPdf	03 27 32.6	+5.5
MMK	Mattmark	148.39	332	⇓iPKP2	PKPab	03 27 33.3	-2.9
MMK	Mattmark	148.39	332	⇓iPKPdf	PKPdf	03 27 33.1	+5.8
SENIN	Lac Senin	148.43	334	⇓iP	PKPdf	03 27 33.1	+5.8
SENIN	Lac Senin	148.43	334	⇓iPKPdf	PKPdf	03 27 33.3	+6.0
GRAM		148.59	328	P	PKPdf	03 27 33.0	+5.3
AIGLE	Aigle	148.59	334	⇓iPKPdf	PKPdf	03 27 33.3	+5.7
VALM		148.60	328	P	PKPdf	03 27 32.1	+4.5
GRYON	Gryon	148.60	334	⇓iPKPdf	PKPdf	03 27 33.3	+5.7
DIX	Grande Dixence	148.61	333	⇓iPKPdf	PKPdf	03 27 33.9	+6.3
SARO	Sassorosso	148.64	328	P	PKPdf	03 27 32.4	+4.7
ORX	Oropa	148.71	332	PKP2	PKPab	03 27 32.8	-4.7
GIMEL	Gimel	148.72	335	⇓iP	PKPdf	03 27 34.0	+6.2
GIMEL	Gimel	148.72	335	⇓iPKPdf	PKPdf	03 27 33.9	+6.1
CABF	La Chapelle	148.73	335	ePKP1	PKPdf	03 27 33.8	+6.0
	comp=Z,260nm,1.0s						
BACM		148.74	328	P	PKPdf	03 27 32.5	+4.6
SALAN	Lac Salanfe	148.74	334	⇓iP	PKPdf	03 27 33.9	+6.1
SALAN	Lac Salanfe	148.74	334	⇓iPKPdf	PKPdf	03 27 34.0	+6.2
CODM		148.76	328	P	PKPdf	03 27 32.6	+4.7
VINC	Vinca	148.79	328	P	PKPdf	03 27 32.1	+4.1
EMV	Vieux Emosson	148.84	334	⇓iPKPdf	PKPdf	03 27 34.2	+6.2
TRAV		148.91	332	P	PKPdf	03 27 32.7	+4.6
FLN	La Foliniere	148.98	345	ePKP1	PKPdf	03 27 33.5	+5.4
	comp=Z,446nm,1.4s						
LDF	La Druitiere	149.04	344	ePKP1	PKPdf	03 27 33.7	+5.5
	comp=Z,212nm,1.3s						
GENL	Genova Univers	149.18	329	P	PKPdf	03 27 32.8	+4.2
LSD	Ceresole Reale	149.21	333	PKP2	PKPab	03 27 35.4	-4.2
PCP	Pian Castagno	149.28	330	PKP2	PKPab	03 27 34.1	-5.8
SSF	Saint Saulge	149.31	338	ePKP1	PKPdf	03 27 34.9	+6.2
	comp=Z,321nm,1.1s						
LPL	La Plagne	149.35	333	ePKP1	PKPdf	03 27 35.5	+6.7
	comp=Z,183nm,1.3s						
LPG	La Plagne	149.35	333	ePKP1	PKPdf	03 27 35.6	+6.8
	comp=Z,224nm,1.3s						
RSP	Reno Superiore	149.41	332	PKP2	PKPab	03 27 34.0	-6.4
GRR	Gorron	149.42	345	ePKP1	PKPdf	03 27 34.9	+6.0
	comp=Z,359nm,1.3s						
HYF	Humbligny	149.43	340	ePKP1	PKPdf	03 27 35.5	+6.6
SMF	Signal de Mont	149.55	338	ePKP1	PKPdf	03 27 35.3	+6.2
	comp=Z,218nm,1.3s						
FENE	Fenestrelle	149.59	332	P	PKPdf	03 27 35.1	+5.9
AVF	Avril sur Loir	149.60	338	ePKP1	PKPdf	03 27 35.2	+6.0
	comp=Z,94nm,1.2s						
BHB	Bricherasio	149.64	332	P	PKPdf	03 27 34.1	+4.8
FIN	Finale Ligure	149.69	330	PKP2	PKPab	03 27 35.0	-6.6
BNI	Bardonecchia	149.74	333	ePKPdf	PKPdf	03 27 31.4	+1.9
BNI				ePKPbc	PKPdf	03 27 36.0	+6.5
ROB	Roburent	149.79	330	PKP2	PKPab	03 27 35.5	-6.5
RRL	Cesana Torines	149.79	332	PKP2	PKPab	03 27 36.6	-5.4
GDM	Grand'Maison	149.86	333	PKP	PKPdf	03 27 36.4	+6.7
SGMF	Saint Gilles	149.94	347	ePKP1	PKPdf	03 27 35.9	+6.2
	comp=Z,407nm,1.4s						
MBDF	Montbardon	149.95	332	ePKP1	PKPdf	03 27 36.3	+6.5
	comp=Z,61nm,1.1s						
BGF	Bois d'Agland	149.98	339	ePKP1	PKPdf	03 27 36.4	+6.6
	comp=Z,224nm,1.1s						
PZZ	Prazzo	149.98	332	PKHKP		03 27 35.5	
GRN	Grenoble	149.98	334	PKP	PKPdf	03 27 36.1	+6.2
MONE	Monesi	150.00	330	P	PKPdf	03 27 35.9	+5.9
ROSF	Rostrenen	150.01	348	ePKP1	PKPdf	03 27 36.0	+6.2
	comp=Z,148nm,1.3s						
ENR	Entracque	150.05	331	PKHKP		03 27 35.4	
IMI	Imperia	150.07	330	P	PKPdf	03 27 36.3	+6.3
STV2	Anna di Valdie	150.08	331	P	PKPdf	03 27 35.2	+5.2
STV	Sta Anna Valdi	150.08	331	PKHKP		03 27 35.8	
SURF	Saint Ours	150.13	332	PKP	PKPdf	03 27 38.0	+7.9
SAOF	Saorge	150.17	330	PKP	PKPdf	03 27 36.3	+6.1
ORIF	Oris-en-Rattie	150.19	333	ePKP1	PKPdf	03 27 37.1	+6.9
	comp=Z,115nm,0.9s						
NEGI	Negi	150.21	330	P	PKPdf	03 27 35.4	+5.1
PLDF	La Plantade	150.21	337	PKP	PKPdf	03 27 37.6	+7.4
AUTN	L'Aution	150.22	330	PKP	PKPdf	03 27 36.2	+5.9
TOUF	Mont Tournerai	150.29	331	PKP	PKPdf	03 27 36.9	+6.5
AGO	Saint Agoulin	150.31	338	PKP	PKPdf	03 27 38.1	+7.8
SBF	Sospel	150.32	330	ePKP1	PKPdf	03 27 36.9	+6.5
	comp=Z,231nm,1.1s						
QUIF	Quistinic	150.39	347	ePKP1	PKPdf	03 27 36.9	+6.5
	comp=Z,40nm,0.9s						
MVIF	Mont Vial	150.43	331	PKP	PKPdf	03 27 37.1	+6.5
TCF	Toulx Ste Croi	150.43	339	ePKP1	PKPdf	03 27 37.5	+7.0
	comp=Z,285nm,1.2s						
PGF	Pioggiola	150.52	327	ePKP1	PKPdf	03 27 37.7	+6.9
	comp=Z,374nm,1.0s						
PYM	Petit Puy Mans	150.62	338	PKP	PKPdf	03 27 38.6	+7.8
VIVF	Saint-Julien-l	150.74	335	ePKP1	PKPdf	03 27 38.4	+7.4
	comp=Z,136nm,1.1s						
MFF	Saint Martin d	150.87	343	ePKP1	PKPdf	03 27 38.4	+7.2
	comp=Z,264nm,1.2s						
FRF	La Foret Royal	150.92	331	ePKP1	PKPdf	03 27 38.4	+7.1
	comp=Z,529nm,1.6s						
LBL	Lubilhac	150.97	337	PKP	PKPdf	03 27 40.5	+9.2
SMRF	Simiane la Rot	151.07	333	ePKP1	PKPdf	03 27 39.5	+8.0
	comp=Z,227nm,1.1s						
LMR	La Mourre	151.16	331	ePKP1	PKPdf	03 27 39.0	+7.3
	comp=Z,172nm,1.1s						
RJF	Les Rejaudoux	151.52	339	ePKP1	PKPdf	03 27 40.1	+7.9
	comp=Z,165nm,1.3s						
CAF	Calviac	151.66	338	ePKP1	PKPdf	03 27 40.7	+8.3
	comp=Z,80nm,1.2s						
LASF	Ste Croix	151.71	335	ePKP1	PKPdf	03 27 40.7	+8.2
	comp=Z,175nm,1.0s						
LFF	La Frestale	152.10	340	ePKP1	PKPdf	03 27 41.4	+8.4
	comp=Z,156nm,1.1s						
VSL	Villasalto	152.40	322	ePKPbc	PKPdf	03 27 42.3	+8.7
VSL				e		03 27 53.2	
MTLF	Montolieu	152.97	336	ePKP1	PKPdf	03 27 43.3	+9.0
	comp=Z,48nm,1.1s						
EPF	Esparros	153.93	338	ePKP1	PKPdf	03 27 45.7	+10
	comp=Z,36nm,1.1s						
ETSF	Etsaut	154.35	340	ePKP1	PKPdf	03 27 45.8	+10
	comp=Z,143nm,1.4s						
ESDC	Sonseca Array	158.34	342	PKPab	PKPab	03 28 17.4	-1.0
	comp=Z,2.9nm,0.7s,baz=17,slow=3.7,SNR=12						
ESDC				pPKPab		03 28 28.3	
	comp=Z,1.5nm,0.7s,baz=13,slow=2.9,SNR=5.0						
EVO	Evora	160.36	350	ePKIKP	PKPdf	03 27 44.4	+0.5
	comp=Z,28nm,1.2s						
EVO				eR			
	comp=Z,265nm,19.2s						

IDC 19 03:46:39.7±14.0, 3.82N×127.81E, mb3.8/3, mb1 4.0/3, mb1mx3.6/17, Error ellipse: s-maj=244.0km s-min=161.0km az=160.0, Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.47	165	P	P	03 52 00.5	-1.2
	1.8nm,0.8s,baz=345,slow=10,SNR=22						
ASAR	Alice Springs	27.95	168	P	P	03 52 32.3	-1.8
	0.4nm,0.8s,baz=358,slow=8.7,SNR=4.6						
STKA	Stephens Creek	37.84	161	P	P	03 53 58.1	-1.9
	2.0nm,0.6s,baz=322,slow=8.0,SNR=4.0						

IDC 19 04:17:08.1±7.5, 6.52N×75.89W, h50^{km}±77^{km}, mb3.2/1, mb1 3.4/2, mb1mx2.9/18, ML1.7/1, Error ellipse: s-maj=113.0km s-min=34.4km az=67.0, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	2.27	137	P	P	04 17 43.8	-0.1
	4.7nm,0.3s,baz=264,slow=15,SNR=26						
ROSC				S	S	04 18 11.5	+0.8
	11nm,0.3s,baz=116,slow=19,SNR=19						
YKA	Yellowknife Ar	62.62	341	P	P	04 27 26.9	-2.5
	0.4nm,0.8s,baz=135,slow=6.7,SNR=10						
WRA	Warramunga Arr	147.77	243	PKPbc	PKPdf	04 36 47.7	+2.3
	0.3nm,0.6s,baz=110,slow=3.2,SNR=7.7						

IDC 19 04:39:50.0±1.0, 9.59S×125.12E, mb4.0/6, mb1 4.3/9, mb1mx4.2/15, ML4.3/3, MS3.2/2, Ms1 3.2/2, ms1mx3.0/17, Error ellipse: s-maj=69.1km s-min=18.4km az=65.0

NEIC 19 04:39:53.1±0.6, 9.77S×124.91E, h25^{km}, mb4.5/3, Error ellipse: s-maj=20.8km s-min=8.6km az=64.0

ISC 19 04:39:57.4±1.7, 10.16S±0.06×124.68E±0.07, h91^{km}±18^{km}, n18, σ1^{s}17/25, mb4.0/8, 1C, Timor region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	7.95	173	eP	P	04 41 53.4	+1.3
	22nm,0.5s						
FITZ				eS	S	04 43 19.7	-1.4
FITZ	Fitzroy Crossi	7.95	173	Pn	P	04 41 53.6	+1.5
	4.6nm,0.3s,baz=4.6,slow=10,SNR=114						
FITZ				Sn	S	04 43 19.6	-1.5
	15nm,0.3s,baz=196,slow=11,SNR=5.1						
KAKA	Kakadu	7.98	109	eP	P	04 41 53.2	+0.8
	12nm,0.3s						
KAKA				eS	S	04 43 21.6	-0.1
MBWA	Marble Bar	11.93	203	ePn	P	04 42 46.3	+0.6
MBWA				Sn	S	04 44 57.1	-0.2
WRA	Warramunga Arr	13.47	137	Pn	P	04 43 03.9	-2.0
	2.7nm,0.3s,baz=311,slow=15,SNR=91						
WRA				Sn	S	04 45 28.2	-5.6
	1.2nm,0.3s,baz=319,slow=24,SNR=6.7						
WRAB	Tennant Creek	13.47	137	ePn	P	04 43 04.5	-1.5
	18nm,0.5s						
WRAB				Sn	S	04 45 20.9	-13
ASPA	Alice Springs	16.06	148	eP	P	04 43 40.3	+1.1
ASPA				eS	S	04 46 34.8	+0.7
ASAR	Alice Springs	16.06	148	Pn	P	04 43 39.5	+0.4
	0.8nm,0.3s,baz=322,slow=12,SNR=35						
ASAR				Sn	S	04 46 33.5	-0.6
	0.5nm,0.3s,baz=310,slow=21,SNR=8.4						
ASAR				LR	LR	04 50 04.1	
	comp=Z,76nm,19.1s,baz=125,slow=38						
CTA	Charters Tower	23.02	118	LR	LR	04 54 32.4	
	comp=Z,77nm,20.4s,baz=45,slow=38						
STKA	Stephens Creek	26.69	147	P	P	04 45 32.9	+2.8
	3.2nm,1.0s,mb3.8,baz=299,slow=16,SNR=3.3						
CMAR	Chiang Mai Arr	38.12	318	P	P	04 47 08.9	-0.5
	1.0nm,0.3s,mb4.1,baz=146,slow=6.6,SNR=6.1						
ULN	Ulaanbaatar	59.85	346	P	P	04 49 52.7	-3.1
	2.4nm,0.5s,mb4.5						
SONM	Songino Array	59.97	346	P	P	04 49 55.9	-0.7
	0.9nm,0.6s,mb4.0,baz=164,slow=8.1,SNR=7.4						
ZAL	Zalesovo	72.22	337	P	P	04 51 14.3	-0.1
	0.9nm,0.6s,mb3.8,baz=19,slow=2.2,SNR=4.7						
BVAR	Borovoye Array	78.03	330	P	P	04 51 48.8	+1.3
	0.3nm,0.5s,mb3.3,baz=112,slow=7.8,SNR=3.2						
QSPA	South Pole Qui	79.84	180	⇑iP	P	04 52 09.3	+12
	6.4nm,1.1s,mb4.4						
SNAA	Sanae	91.35	195	P	P	04 53 01.7	+7.9
	0.7nm,1.0s,mb3.8,baz=153,slow=11,SNR=5.6						
SNAA	Sanae	91.35	195	P	P	04 53 00.2	+6.4
	0.4nm,0.5s,mb3.8						

WEL 19 04:46:35.7±0.6, 38.48S×176.96E, h195^{km}±4^{km}, ML3.5/3, 1C, Error ellipse: s-maj=23.2km s-min=13.3km az=90.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MWZ	Matawai	0.47	73	PN	P	04 47 02.6	+0.2
MWZ				SN	S	04 47 21.5	-1.6
MWZ				SN	S	04 47 21.7	-1.4
BKZ	Black Stump Fm	0.78	208	⇑PN	P	04 47 03.5	-0.3
BKZ				SN	S	04 47 24.3	-1.3
MXZ	Matakaoa Point	1.40	50	PN	P	04 47 07.9	-0.5
MRZ	Mangatainoka R	2.43	206	PN	P	04 47 18.6	-0.4
MRZ				SN	S	04 47 51.9	-0.5
CAW	Cannon Point	3.01	208	PN	P	04 47 24.5	-1.2
CAW				eSN	S	04 48 02.8	-1.5

IDC 19 04:46:41.4±1.6, 5.94S×146.71E, mb3.5/3, mb1 3.8/5, mb1mx3.6/14, ML3.0/2, Error ellipse: s-maj=39.1km s-min=19.5km az=91.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.48	173	Pn	Pn	04 47 37.4	-0.5
	2.8nm,0.3s,baz=16,slow=5.7,SNR=7.9						
PMG				Pg	Pg	04 47 46.6	-4.3
	25nm,0.3s,baz=37,slow=6.4,SNR=21						
PMG				Sn	Sn	04 48 16.7	-3.7
	8.7nm,0.3s,baz=282,slow=23,SNR=2.9						
PMG				Lg		04 48 29.7	
	14nm,0.3s,baz=158,slow=20,SNR=3.5						
WRA	Warramunga Arr	18.39	220	P	P	04 50 59.4	-0.4
	0.1nm,0.3s,baz=42,slow=12,SNR=3.8						
ASAR	Alice Springs	21.51	214	P	P	04 51 31.8	-2.4
	0.3nm,0.6s,baz=38,slow=11,SNR=3.0						
FITZ	Fitzroy Crossi	23.85	238	P	P	04 51 56.0	-1.5
	2.6nm,0.8s,baz=78,slow=9.3,SNR=4.3						
ILAR	Eielson Array	85.54	23	P	P	04 59 21.1	-1.3
	0.3nm,0.5s,baz=252,slow=5.1,SNR=6.6						

IDC 19 04:56:07.2±6.3, 5.37S×146.18E, h22^{km}±41^{km}, mb3.3/3, mb1 3.6/5, mb1mx3.5/14, ML3.0/2, Error ellipse: s-maj=40.3km s-min=27.7km az=114.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.12	166	Pn	Pn	04 57 08.5	-2.0
	2.4nm,0.3s,baz=36,slow=10,SNR=5.8						
PMG				Pg	Pn	04 57 22.8	+12
	4.6nm,0.3s,baz=0.9,slow=7.7,SNR=7.9						
PMG				Sn	Sn	04 57 55.7	-2.9
	4.7nm,0.3s,baz=312,slow=21,SNR=3.8						
PMG				Lg		04 58 17.6	
	2.4nm,0.3s,baz=5.5,slow=16,SNR=3.3						
WRA	Warramunga Arr	18.50	217	P	P	05 00 23.0	-1.2
	0.1nm,0.3s,baz=41,slow=11,SNR=8.1						
ASAR	Alice Springs	21.69	212	P	P	05 00 58.6	-0.1
	0.1nm,0.3s,baz=43,slow=6.7,SNR=3.6						
FITZ	Fitzroy Crossi	23.72	236	P	P	05 01 15.9	-2.9
	2.4nm,0.6s,baz=24,slow=10.0,SNR=4.6						
ILAR	Eielson Array	85.23	23	P	P	05 08 41.8	-1.2
	0.3nm,0.6s,baz=256,slow=4.9,SNR=8.4						

IDC 19 04:59:47.5±1.0, 46.19N×122.26W, mb3.2/1, mb1 3.6/6, mb1mx3.4/22, ML2.6/4, Error ellipse: s-maj=16.4km s-min=10.5km az=106.0

NEIC 19 04:59:47.7, 46.20N×122.19W, h1^{km}, MD3.1(SEA), After SEA.

ISC 19 04:59:47.7±0.4, 46.22N±0.03×122.19W±0.06, h3^{km}±4^{km}, n30, σ0^{s}67/30, mb3.2/1, 2D, Washington

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YEL	Yellow Rock	0.01	190	P	Pg	04 59 48.0	-0.4
STD	Studebaker Rid	0.03	301	P	Pg	04 59 49.0	+0.4
ESD	East Dome	0.04	135	P	Pg	04 59 48.7	0.0
SOSW	Source of Smit	0.04	56	P	Pg	04 59 49.2	+0.5
SHW	Mount Saint He	0.05	231	P	Pg	04 59 48.6	-0.2
HSR	South Ridge	0.05	178	P	Pg	04 59 48.6	-0.3
JLK	June Lake	0.08	164	P	Pg	04 59 49.3	-0.1
ERK	Elk Rock	0.14	308	P	Pg	04 59 51.0	+0.5
CDFW	Cedar Flats	0.14	138	P	Pg	04 59 50.7	+0.1
MTMW	Mount Mitchell	0.20	185	P	Pg	04 59 51.7	0.0
LVP	Lakeview Peak	0.22	225	P	Pg	04 59 52.1	0.0
RVW	Rose Valley	0.40	260	⇓P	Pg	04 59 55.5	-0.1
ASR	Mount Adams--S	0.42	100	P	Pg	04 59 56.1	+0.1
LON	Longmire	0.59	26	P	Pg	04 59 59.7	+0.2
RCM	Mount Rainier-	0.69	27	P	Pg	05 00 01.6	+0.1
RCS	Mount Rainier-	0.72	26	P	Pg	05 00 02.0	-0.1
BMW	Boistfort Moun	0.77	290	P	Pg	05 00 02.4	-0.6
FMW	Mount Fremont	0.79	26	⇓P	Pg	05 00 03.4	-0.1
COR	Corvallis	1.82	206	eP	Pn	05 00 19.2	-0.9
HAWA	Hanford	1.85	84	eP	Pn	05 00 20.2	-0.3
PGC	Sidney	2.58	341	ePn	Pn	05 00 31.2	+0.3
NEW	Newport	4.01	58	Pn	Pn	05 00 50.9	-0.4
	0.1nm,0.3s,baz=296,slow=18,SNR=2.0						
NEW				Lg		05 01 57.9	
	0.2nm,0.3s,baz=86,slow=19,SNR=2.4						
NEW	Newport	4.01	58	Pn	Pn	05 00 50.9	-0.4
NEW				Lg		05 01 57.9	
YBH	Yreka Blue Hor	4.50	185	Pn	Pn	05 00 59.9	+1.5
	0.2nm,0.3s,baz=11,slow=7.3,SNR=6.9						
NVAR	Mina Array Bea	8.30	158	Pn	P	05 01 51.9	+0.1
	0.0nm,0.3s,baz=341,slow=11,SNR=5.3						
DLBC	Dease Lake	13.13	342	Pn	P	05 02 53.9	-3.6
	0.5nm,0.3s,baz=235,slow=19,SNR=8.3						
DLBC	Dease Lake	13.13	342	Pn	P	05 02 53.9	-3.6
YKA	Yellowknife Ar	16.87	12	Pn	P	05 03 42.7	-3.3
	0.0nm,0.3s,baz=200,slow=11,SNR=4.1						
YKA	Yellowknife Ar	16.87	12	Pn	P	05 03 42.7	-3.3
ILAR	Eielson Array	22.99	333	P	P	05 04 55.3	+1.2
	0.9nm,1.0s,mb3.2,baz=132,slow=10,SNR=6.9						

IDC 19 05:12:18.9±1.0, 15.72N×61.75W, mb3.8/4, mb1 4.2/5, mb1mx3.6/21, ML5.8/1, Error ellipse: s-maj=13.0km s-min=11.7km az=123.0

NEIC 19 05:12:19.3±1.6, 15.63N×61.45W, h10^{km}, mb4.0/3, Error ellipse: s-maj=31.2km s-min=16.9km az=121.0

TRN 19 05:12:20.7, 15.78N×61.48W, h21^{km}, MD3.8, Md3.1(FDF)

ISC 19 05:12:22.3±0.4, 15.80N±0.03×61.52W±0.08, h26^{km}±5^{km}, n31, σ1^{s}00/41, mb3.8/6, 6C-4D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	Marie-Galante	0.23	58	⇑iP	Pb	05 12 28.5	0.0
MGG				eS	Sb	05 12 31.8	-0.8
BBL	Barber's Block	0.27	170	⇓eP	Pb	05 12 28.6	-0.5
BBL	Barber's Block	0.27	170	⇓eP	Pb	05 12 29.6	+0.5
BBL				eS	Sb	05 12 32.6	-1.0
DWS	Wesley	0.30	139	⇓iP	Pb	05 12 29.4	-0.1
DWS				eS	Sb	05 12 32.4	-2.0
MDN	Morne-Daniel	0.49	166	eP	Pb	05 12 33.4	+1.0
DBCT	Belle View Cho	0.55	162	eP	Pb	05 12 34.5	+1.1
DSTT	Stowe	0.58	159	eP	Pb	05 12 35.1	+1.2
DSTT				eS	Sb	05 12 42.0	+0.2
DSHT	Scott's Head	0.60	166	eS	Sb	05 12 43.2	+1.0
SEG	Port Louis	0.60	1	⇑eP	Pb	05 12 34.1	-0.1
DEG	La Desirade	0.68	41	⇑iP	Pb	05 12 35.2	-0.3
FDF	Fort de France	1.12	161	⇑iP	Pn	05 12 42.5	0.0
FDF				eS	Sb	05 12 57.4	+0.4
MLYT		1.12	325	eP	Pn	05 12 43.2	+0.6
MGH	Saint George's	1.14	324	eP	Pn	05 12 43.0	+0.3
MBWH		1.14	326	eP	Pn	05 12 43.0	+0.2
MBGB		1.15	324	eP	Pn	05 12 42.9	-0.1
CRM	Caravelle	1.19	151	⇓eP	Pn	05 12 43.7	+0.2
BPA	Boggy Peak	1.28	345	eP	Pn	05 12 45.8	+1.0
BPA				eS	Sn	05 13 02.7	+1.4
BIM	Bigot	1.34	161	⇑iP	Pn	05 12 46.2	+0.5
MVM	Montagne Vaucl	1.37	154	⇑iP	Pn	05 12 46.7	+0.6
CPB	Codrington	1.86	351	eP	Pn	05 12 53.9	+0.9
CPB				eS	Sn	05 13 18.1	+2.2
GRW	Mount Saint Ca	3.62	182	eP	Pn	05 13 24.0	+5.9
SJG	San Juan	4.99	298	Pn	Pn	05 13 36.0	-1.7
	7.5nm,0.3s,baz=158,slow=9.9,SNR=17						
SJG				Sn	Sn	05 14 29.9	-5.4
	3.7nm,0.3s,baz=66,slow=20,SNR=3.7						
SJG	San Juan	4.99	298	ePn	Pn	05 13 36.3	-1.4

SJG				Sn	Sn	05 14 29.9	-5.4
SJG				eSn	Sn	05 14 30.5	-4.8
SDV	Santo Domingo	11.24	233	ePn	P	05 14 59.7	-5.0
MNTX	Cornudas Mount	42.85	300	eP	P	05 20 20.3	+0.1
	0.6nm,0.5s,mb3.6						
BW06	Boulder Array	48.92	313	eP	P	05 21 07.3	-0.9
	0.9nm,0.6s,mb4.0						
PDAR	Pinedale Array	48.92	313	P	P	05 21 06.2	-2.1
	0.7nm,0.6s,mb3.9,baz=121,slow=8.6,SNR=7.4						
YKA	Yellowknife Ar	59.46	334	P	P	05 22 23.0	-2.2
	1.0nm,0.5s,mb4.1,baz=106,slow=7.4,SNR=24						
INK	Inuvik	68.79	338	P	P	05 23 24.8	-1.3
	0.9nm,0.6s,mb3.9,baz=82,slow=3.4,SNR=8.5						
INK	Inuvik	68.79	338	eP	P	05 23 24.8	-1.3
	1.3nm,0.7s,mb4.0						
ILAR	Eielson Array	73.87	334	P	P	05 23 55.4	-1.0
	0.3nm,0.5s,mb3.5,baz=71,slow=5.7,SNR=7.7						

IDC **19** *05:22:43.7±0.5, 36.31N×141.49E, mb4.6/21, mb1 4.7/26, mb1mx4.7/28, ML4.2/4, MS4.4/13, Ms1 4.5/13, ms1mx4.1/25, Error ellipse: s-maj=16.3km s-min=12.8km az=110.0*

JMA **19** *05:22:45.8±0.1, 36.29N×141.64E, h62^{km}±3^{km}, M5.1*

JMA Felt II J1.

CSEM **19** *05:22:46.7, 36.81N×141.30E, h2^{km}, mb5.5*

BJI **19** *05:22:47.6, 36.35N×141.29E, h27^{km}, mB5.0, mb5.0, Ms4.9, Msz4.8*

NEIC **19** *05:22:49.9±0.3, 36.38N×141.40E, mb4.9/43, MS5.1/2, MW5.1(NIED), Error ellipse: s-maj=7.7km s-min=5.0km az=170.0*

NEIC Recorded [2 JMA] in Chiba, Fukushima, Ibaraki and Tochigi; [1 JMA] in Gumma, Miyagi, Saitama, Shizuoka and Tokyo Prefectures.

HRVD **19** *05:22:49.9±0.3, 36.29N×141.74E, h32^{km}, MW5.1/57, Centroid moment Tensor Solution. LP body waves: s37,c55;Mantle waves: s57,c104; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.32±.21; $M_{\theta\theta}$-0.06±.16; $M_{\phi\phi}$-4.26±.14; $M_{r\theta}$1.65±.22; $M_{\theta\phi}$-1.73±.11; $M_{\phi r}$3.87±.17; Best double couple: $M_0$6.23×10^{16} NP1: ϕ_s197°,δ24°,λ85°. NP2:ϕ_s22°,δ66°,λ92°. Principal axes: T 5.96, Plg69°, Azm296°; N .56, Plg2°, Azm201°; P -6.51, Plg21°, Azm111°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

MOS **19** *05:22:50.0±1.1, 36.54N×141.36E, h43^{km}, mb5.1/40, MS4.9/15 Error ellipse: s-maj=9.1km s-min=5.3km az=108.9*

NIED **19** *05:23:00, 36.40N×141.60E, h23^{km}, Mw5.1 Best double couple: $M_0$4.64×10^{16} NP1:ϕ_s32°,δ69°,λ101°. NP2:ϕ_s184°,δ23°,λ64°.*

ISC 19 05:22:48.4±0.5**, 36.28N**±0.03×**141.45E**±0.03**, h39**^{km}±3^{km}**, h36**^{km}±.9^{km}**:pP-P, n274,** σ1s**20**/287**, mb4.9**/91**, MS4.8**/41**, 14C-20D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	Hitachi	0.78	295	⇓P	P	05 23 02.7	-0.3
JHO				S	S	05 23 16.9	+3.2
ONAJ	Iwakimizuishiy	0.97	328	⇓P	P	05 23 04.5	-1.2
ONAJ				S	S	05 23 18.6	+0.1
JYT	Yasato	1.02	267	⇓P	P	05 23 06.2	-0.2
JYT				S	S	05 23 22.7	+3.0
JFK	Kawauchi	1.18	337	⇓P	P	05 23 07.2	-1.4
JFK				S	S	05 23 23.3	-0.4
JSB	Shiboa	1.41	300	⇓P	P	05 23 12.5	+0.5
JFT	Otama	1.52	324	⇓P	P	05 23 13.6	-0.1
JFT				S	S	05 23 34.3	+1.8
JAG	Ashikaga	1.62	276	⇓P	P	05 23 14.8	-0.2
JMM	Marumori	1.67	342	P	P	05 23 14.3	-1.4
JFY	Yanaizu	1.79	309	⇓P	P	05 23 17.8	+0.3
JFY				S	S	05 23 42.9	+3.7
JKT	Katashina	1.84	286	⇓P	P	05 23 18.6	+0.5
JKT				S	S	05 23 44.1	+3.8
JRY	Ryogami san	2.08	263	⇓P	P	05 23 21.4	-0.2
JOD2	Odawara 2	2.17	243	P	P	05 23 24.2	+1.3
JHK	Hiroka	2.18	297	⇓P	P	05 23 23.7	+0.7
JYN	Shimob	2.49	253	P	P	05 23 28.7	+1.3
MAJO	Matsushiro	2.63	277	eP	P	05 23 30.1	+0.7
MAT	Matsushiro	2.63	277	P	P	05 23 30.0	+0.6
MAT				S	S	05 24 03.8	+3.4
MAT	Matsushiro	2.63	277	P	P	05 23 30.3	+0.9
MAT	Matsushiro	2.63	277	eP	P	05 23 30.0	+0.6
MAT				eS	S	05 24 08.0	+7.6
JNG	Nsakai	2.71	274	⇓P	P	05 23 31.3	+0.8
JNT	Takato	2.71	262	⇓P	P	05 23 31.6	+1.0
JNY	Yasuok	3.06	254	P	P	05 23 38.1	+2.6
JGN	Niukaw	3.34	270	P	P	05 23 40.7	+1.1
JHJ	Hachijo jima 2	3.44	204	Pn	P	05 23 40.4	-0.6
	276nm,0.3s,baz=256,slow=20,SNR=53						
JHJ				Sn	S	05 24 18.7	-2.3
	377nm,0.3s,baz=250,slow=23,SNR=10.0						
JHJ				LR	LR	05 24 41.6	
	comp=Z,946nm,19.1s,baz=49,slow=34						
ASAJ	Asahikawa	7.88	6	Pn	P	05 24 38.5	-4.8
	3.8nm,0.3s,baz=213,slow=10,SNR=12						
ASAJ				Sn	S	05 26 06.3	-5.7
	5.7nm,0.3s,baz=316,slow=28,SNR=3.6						
ASAJ				LR	LR	05 28 15.9	
	comp=Z,3µm,21.6s,baz=189,slow=42						
ASAJ	Asahikawa	7.88	6	P	P	05 24 38.5	-4.7
ASAJ						05 26 06.4	
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,3µm,21.6s						
YUK	Yuzh-Kuril'sk	8.45	22	eP	P	05 24 51.3	+0.1
YUK				pmax	pmax		
	comp=Z,340nm,0.5s						
CBIJ	Chichi jima	9.18	176	Pn	P	05 24 55.6	-5.7
	comp=Z,20nm,0.3s,baz=89,slow=14,SNR=20						
CBIJ				Sn	S	05 26 31.7	-13
	comp=Z,56nm,0.3s,baz=119,slow=23,SNR=4.3						
KUR	Kuril'sk	10.18	27	eP	P	05 25 15.2	+0.2
KUR				pmax	pmax		
	comp=Z,220nm,0.8s						
YSS	Yuzh-Sakhalins	10.71	5	eP	P	05 25 17.0	-5.2
YSS				eS	S	05 27 13.0	-8.9
YSS				MLR	MLR		
	comp=Z,2µm,18.0s						
YSS				MLR	MLR		
	comp=N,2µm,16.0s						
YSS	Yuzh-Sakhalins	10.71	5	eP	P	05 25 17.5	-4.7
	comp=N,23nm,0.6s						
KS15	Wonju Array Si	10.93	280	eP	P	05 25 24.9	-0.5
MDJ	Mudanjiang	12.27	316	P	P	05 25 42.6	-0.8
MDJ				S	S	05 27 58.8	-1.0
MDJ				PCP	PcP	05 31 23.9	+0.2
MDJ				SCP		05 34 53.6	
MDJ				PCS		05 34 58.0	
MDJ				SCS	ScS	05 38 28.3	+1.4
MDJ				AMB	AMB		
	comp=Z,15nm,1.2s						
MDJ				AMB	AMB		
	comp=Z,458nm,6.5s						
MDJ				LR	LR		
	comp=N,2µm,18.0s						
MDJ				LR	LR		
	comp=E,2µm,18.7s						
MDJ				LR	LR		
	comp=Z,5µm,16.9s						
MDJ	Mudanjiang	12.27	316	P	P	05 25 40.2	-3.2
	comp=Z,38nm,0.9s						
CN2	Changchun	14.36	306	eP	P	05 26 10.9	0.0
CN2				eAP		05 26 16.1	
CN2				eS	S	05 28 48.3	-1.4
CN2				AMB	AMB		
	comp=Z,40nm,0.9s						
CN2				AMB	AMB		
	comp=Z,280nm,5.0s						
CN2				LR	LR		
	comp=N,3µm,14.0s						
CN2				LR	LR		
	comp=E,3µm,14.0s						
CN2				LR	LR		
	comp=Z,4µm,16.0s						
JOW	Kunigami	14.65	234	Pn	P	05 26 13.2	-1.5
	comp=Z,0.5nm,0.3s,baz=22,slow=5.4,SNR=5.9						
KLR	Kul'dur	14.75	334	eP	P	05 26 14.5	-1.5
KLR				MLR	MLR		
	comp=N,2µm,13.0s						
KLR				MLR	MLR		
	comp=Z,4µm,13.0s						
SNY	Shenyang	14.94	297	⇑P	P	05 26 17.6	-0.9
SNY				LR	LR		
	comp=E,3µm,14.0s						
SSE	Sheshan	17.63	259	P	P	05 26 49.3	-3.4
SSE				AP		05 26 58.3	
SSE				XP		05 27 02.4	
SSE				S	S	05 30 02.8	-2.7
SSE				AMB	AMB		
	comp=Z,11nm,0.6s						
SSE				AMB	AMB		
	comp=Z,69nm,4.2s						
SSE				LR	LR		
	comp=N,1µm,14.5s						
SSE				LR	LR		
	comp=E,1µm,14.5s						
SSE				LR	LR		
	comp=Z,2µm,14.1s						
NJ2	Nanjing	19.16	264	eP	P	05 27 10.1	-1.1
NJ2				AP		05 27 19.6	
NJ2				XP		05 27 23.3	
NJ2				PP	PP	05 27 26.5	-1.9
NJ2				PPP	PPP	05 27 33.1	-4.5
NJ2				S	S	05 30 43.0	+3.1
NJ2				XS		05 30 53.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s						
NJ2				AMB	AMB		
	comp=Z,320nm,10.0s						
NJ2				LR	LR		
	comp=N,3µm,22.0s						
NJ2				LR	LR		
	comp=E,4µm,24.8s						
BJI	Beijing	20.20	288	eP	P	05 27 19.8	-2.7
BJI				AMB	AMB		
	comp=Z,18nm,1.1s						
BJI				AMB	AMB		
	comp=Z,278nm,3.5s						
BJI				LR	LR		
	comp=N,1µm,12.5s,MS4.6						
BJI				LR	LR		
	comp=E,1µm,12.5s,MS4.6						
BJI				LR	LR		
	comp=Z,1µm,18.9s						
BJT	Baijiatuau	20.21	288	P	P	05 27 20.5	-2.1
BJT				pmax	pmax		
	comp=Z,11nm,0.4s						
BJT	Baijiatuau	20.21	288	P	P	05 27 20.5	-2.1
	comp=Z,12nm,0.4s						
HIA	Hailar	20.46	316	eP	P	05 27 20.6	-4.5
HIA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
HIA	Hailar	20.46	316	eP	P	05 27 20.6	-4.5
	comp=Z,4.3nm,0.5s						
PET	Petropavlovsk	20.64	30	eP	P	05 27 29.5	+2.5
PET				eS	S	05 31 16.0	+5.4
PET				MLR	MLR		
	comp=E,700nm,13.0s,MS4.3						
PET				MLR	MLR		
	comp=Z,800nm,14.0s,MS4.2						
PET				MLR	MLR		
	comp=N,400nm,14.0s,MS4.3						
WHN	Wuhan	23.30	264	P	P	05 27 54.3	+0.8
WHN				S	S	05 32 01.0	+1.5
WHN				LR	LR		
	comp=Z,4µm,15.5s,MS5.0						
CLNS	Chul'man	23.38	337	eP	P	05 27 43.3	-11
CLNS				e*PP		05 27 51.9	
CLNS				ePPP	PPP	05 28 21.5	-15
CLNS				eS	S	05 32 04.9	+4.2
CLNS				eSS	SS	05 32 59.9	+11
CLNS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb3.9						
CLNS				pmax	pmax		
	comp=N,16nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,20nm,0.7s,mb4.7						
CLNS				pmax	pmax		
	comp=E,21nm,1.0s						
CLNS				smax			
	comp=N,13nm,0.9s						
CLNS				smax			
	comp=Z,3.0nm,0.8s						
CLNS				smax			
	comp=E,10.0nm,1.0s						
CLNS				MLR	MLR		
	comp=N,2µm,14.0s,MS4.8						
CLNS				MLR	MLR		
	comp=E,100nm,14.0s,MS4.8						
CLNS				MLR	MLR		
	comp=Z,2µm,14.0s,MS4.8						
HHC	Hu-ho-hao-te	23.75	290	eP	P	05 27 59.3	+1.5
HHC				AP		05 28 05.0	
HHC				XP		05 28 08.0	
HHC				PP	PP	05 28 31.8	+0.2
HHC				PCP	PcP	05 31 45.3	+2.7
HHC				S	S	05 32 10.0	+2.7
HHC				XS		05 32 19.9	
HHC				SS	SS	05 32 57.6	-0.4
HHC				PCS		05 35 23.3	
HHC				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,302nm,5.1s						
HHC				LR	LR		
	comp=N,838nm,13.9s,MS4.6						
HHC				LR	LR		
	comp=E,1µm,15.9s,MS4.6						
HHC				LR	LR		
	comp=Z,2µm,16.3s,MS4.6						
MA2	Magadan	24.08	12	eP	P	05 28 01.2	+0.3
MA2				eS	S	05 32 18.8	+6.0
MA2				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.5						
MA2				MLR	MLR		
	comp=Z,6µm,19.0s,MS5.1						
MA2	Magadan	24.08	12	eP	P	05 28 00.0	-0.9
	comp=Z,22nm,0.8s,mb4.7						
YAK	Yakutsk	26.81	348	d iP	P	05 28 25.9	-0.7
YAK				i *PP	pP	05 28 35.0	-2.2
YAK				e		05 29 04.4	
YAK				eS	S	05 32 55.2	-3.0
YAK				pmax	pmax		
	comp=N,26nm,1.0s						
YAK				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.2						
YAK				pmax	pmax		
	comp=E,13nm,1.1s						
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.6						
YAK				pmax	pmax		
	comp=N,12nm,1.0s						
YAK				pmax	pmax		
	comp=E,8.0nm,0.9s						
YAK				smax			
	comp=N,85nm,17.8s						
YAK				smax			
	comp=Z,48nm,12.6s						
YAK				smax			
	comp=E,143nm,17.1s						
YAK				MLR	MLR		
	comp=Z,841nm,16.0s,MS4.4						
YAK				MLR	MLR		
	comp=N,887nm,18.0s,MS4.5						
YAK				MLR	MLR		
	comp=E,856nm,22.0s,MS4.5						
YAK	Yakutsk	26.81	348	eP	P	05 28 23.4	-3.2
	comp=E,131nm,0.8s,mb5.5						
ENH	Enshi	27.31	267	eP	P	05 28 29.5	-2.0
	comp=E,80nm,0.7s,mb5.4						
SEY	Seymchan	27.52	11	eP	P	05 28 34.8	+1.7
SEY				e		05 29 24.2	
SEY						05 31 52.9	
SEY				eS	S	05 33 13.2	+3.5
SEY				eSS	SS	05 34 37.6	+8.4
SEY				pmax	pmax		
	comp=E,20nm,1.2s						
SEY				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.2						
SEY				smax			
	comp=N,880nm,27.7s						
SEY				smax			
	comp=E,1µm,29.2s						
SEY				MLR	MLR		
	comp=E,1µm,18.0s,MS4.7						
SEY				MLR	MLR		
	comp=Z,2µm,18.0s,MS4.7						
SEY				MLR	MLR		
	comp=N,2µm,23.0s,MS4.7						
GZH	Guangzhou	27.62	249	P	P	05 28 37.9	+3.5
GZH				LR	LR		
	comp=N,1µm,15.2s,MS4.6						
GZH				LR	LR		
	comp=E,470nm,14.6s,MS4.6						
GZH				LR	LR		
	comp=Z,1µm,13.1s,MS4.7						
FX1	Attu Island--F	27.72	43	LR	LR	05 37 27.6	
	comp=Z,20nm,21.7s,baz=257,slow=32						
ULN	Ulaanbaatar	27.81	305	eP	P	05 28 34.3	-1.6
ULN				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.7						
ULN	Ulaanbaatar	27.81	305	eP	P	05 28 34.2	-1.6
	comp=Z,16nm,0.8s,mb4.7						
BOD	Bodaibo	28.18	329	eP	P	05 28 37.1	-2.0
SONM	Songino Array	28.23	305	P	P	05 28 38.6	-1.1
	comp=Z,17nm,0.6s,mb4.8,baz=107,slow=8.2,SNR=139						
LZH	Lanzhou	30.23	281	⇓P	P	05 28 56.5	-1.1
LZH				AP	pP	05 29 07.1	-1.3
LZH				XP	sP	05 29 11.3	-2.1
LZH				PP	PP	05 29 55.3	-1.8
LZH				eS	S	05 33 51.5	-1.7
LZH				AMB	AMB		
	comp=Z,56nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,195nm,6.5s						
LZH				LR	LR		
	comp=N,2µm,13.2s						
LZH				LR	LR		
	comp=Z,2µm,16.9s,MS4.8						
ZAK	Zakamensk	30.76	309	⇑iP	P	05 29 01.2	-1.0
ZAK				e		05 30 00.4	
TLY	Talaya	30.85	312	eP	P	05 29 03.3	+0.4
TLY				e	pP	05 29 13.8	+0.1
TLY				e		05 30 15.5	
TLY				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.2						
TLY				MLR	MLR		
	comp=Z,2µm,15.0s,MS4.9						
TLY	Talaya	30.85	312	eP	P	05 29 02.1	-0.9
	comp=Z,36nm,1.0s,mb5.2						
TLY				e	pP	05 29 13.5	-0.2
GYA	Guiyang	31.13	262	⇑iP	P	05 29 04.0	-1.7
GYA				PP	PP	05 30 05.6	-3.3
GYA				PPP	PPP	05 30 20.8	-3.1
GYA				S	S	05 34 06.0	-1.4
GYA				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.3						
GYA				AMB	AMB		
	comp=Z,180nm,3.4s						
GYA				LR	LR		
	comp=N,920nm,14.7s,MS4.8						
GYA				LR	LR		
	comp=E,1µm,16.4s,MS4.8						
GYA				LR	LR		
	comp=Z,2µm,16.5s,MS4.8						
CD2	Chengdu	31.71	271	P	P	05 29 09.6	-1.1
CD2				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.1						
MOY	Mondy	32.45	311	eP	P	05 29 17.1	+0.1
QIZ	Qiongzhong	32.65	247	eP	P	05 29 19.9	+0.8
QIZ				PPP	PPP	05 30 41.8	-2.6
QIZ				S	S	05 34 31.8	+0.5
QIZ				LR	LR		
	comp=N,446nm,24.8s,MS4.3						
QIZ				LR	LR		
	comp=E,482nm,21.3s,MS4.3						
QIZ				LR	LR		
	comp=Z,777nm,17.8s,MS4.5						
GTA	Gaotai	32.82	288	eP	P	05 29 19.5	-0.8
GTA				AP	pP	05 29 29.6	-1.6
GTA				XP	sP	05 29 33.8	-2.4
GTA				PP	PP	05 30 29.5	-1.2
GTA				PPP	PPP	05 30 46.3	-0.2
GTA				PCP	PcP	05 32 05.6	+0.9
GTA				S	S	05 34 33.3	-0.4
GTA				XS		05 34 50.8	
GTA				PCS		05 35 50.4	
GTA				SS	SS	05 36 36.0	+2.3
GTA				AMB	AMB		
	comp=Z,21nm,0.8s,mb5.1						
GTA				AMB	AMB		
	comp=Z,183nm,4.9s						
GTA				LR	LR		
	comp=N,625nm,19.0s,MS4.7						
GTA				LR	LR		
	comp=E,1µm,17.9s,MS4.7						
GTA				LR	LR		
	comp=Z,2µm,17.1s,MS4.8						
KMI	Kunming	34.88	262	eP	P	05 29 37.6	-0.6
KMI				PP	PP	05 30 58.1	+1.5
KMI				S	S	05 35 01.8	-4.0
KMI				AMB	AMB		
	comp=Z,36nm,1.0s,mb5.3						
KMI				AMB	AMB		
	comp=Z,143nm,3.1s						
KMI				LR	LR		
	comp=N,1µm,16.1s,MS4.9						
KMI				LR	LR		
	comp=E,1µm,16.1s,MS4.9						
KMI				LR	LR		
	comp=Z,1µm,15.6s,MS4.8						
TIXI	Tiksi	36.04	353	⇑iP	P	05 29 45.4	-2.2
TIXI				e		05 31 08.5	
TIXI				eS	S	05 35 24.3	+1.1
TIXI				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,1µm,14.0s,MS4.8						
NANT	Nan	39.77	255	⇑P	P	05 30 17.0	-2.3
	comp=Z,56nm,0.5s,mb5.5						
CHRT	Chiangrai	39.90	257	⇑P	P	05 30 20.0	-0.3
	comp=Z,132nm,1.1s,mb5.6						
WMQ	Urumqi	41.21	298	⇓P	P	05 30 32.5	+1.6
WMQ				AP	pP	05 30 39.9	-2.1
WMQ				XP	sP	05 30 43.3	-3.5
WMQ				PP	PP	05 32 10.9	+1.7
WMQ				PCP	PcP	05 32 33.0	+2.9
WMQ				S	S	05 36 43.4	+1.8
WMQ				XS		05 36 55.5	
WMQ				AMB	AMB		
	comp=Z,63nm,1.1s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,106nm,9.2s						
WMQ				LR	LR		
	comp=N,502nm,23.4s,MS4.6						
WMQ				LR	LR		
	comp=E,634nm,19.4s,MS4.6						
WMQ				LR	LR		
	comp=Z,847nm,19.4s,MS4.6						
CMAR	Chiang Mai Arr	41.34	256	P	P	05 30 32.0	-0.2
	comp=Z,6.9nm,0.8s,mb4.3,baz=48,slow=6.1,SNR=33						
CMAR				LR	LR	05 48 27.1	
	comp=Z,445nm,18.8s,MS4.4,baz=60,slow=37						
LSA	Lhasa	42.31	276	P	P	05 30 41.0	+0.9
LSA				AP	pP	05 30 51.0	-0.2
LSA				S	S	05 36 56.0	-2.0
LSA				LR	LR		
	comp=N,858nm,12.0s,MS5.1						
LSA				LR	LR		
	comp=E,2µm,15.0s,MS5.1						
ZAL	Zalesovo	42.46	313	P	P	05 30 40.7	-0.2
	comp=E,18nm,0.7s,mb4.8,baz=21,slow=7.8,SNR=96						
NVS	Novosibirsk	43.38	314	i P	P	05 30 47.4	-1.1
NVS				i	pP	05 30 58.5	-1.1
NVS				pmax	pmax		
	comp=N,8.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,35nm,1.3s						
NVS				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.0						
SHL	Shillong	43.43	270	eP	P	05 30 45.0	-4.3
MKAR	Makanchi Array	44.55	303	i P	P	05 30 57.6	-0.4
MKAR				pmax	pmax		
	comp=Z,15nm,0.7s						
PMG	Port Moresby	45.76	172	LR	LR	05 48 45.1	
	comp=Z,216nm,18.9s,MS4.1,baz=214,slow=34						
GUN	Gumba	47.26	276	eP	P	05 31 20.3	+0.5
	comp=Z,148nm,1.0s,mb5.9						
IMA	Indian Mountai	47.32	30	eP	P	05 31 18.5	-1.2
IMA				pmax	pmax		

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       comp=Z,15nm,0.8s,mb5.0
IMA    Indian Mountai     47.32  30   eP      P        05 31 18.5 -1.2
       comp=Z,15nm,0.8s,mb5.0
PKI    Pulchoki           47.78 276   eP      P        05 31 23.9  0.0
KKN    Kakani             47.80 277   eP      P        05 31 24.5 +0.5
       comp=Z,28nm,0.5s,mb5.5
DMN    Daman              48.01 276   eP      P        05 31 25.8 +0.1
       comp=Z,33nm,0.7s,mb5.5
GKN    Gorkha             48.22 277   eP      P        05 31 27.1 -0.2
       comp=Z,197nm,1.0s
KOLN   Koldanda           49.15 277   eP      P        05 31 34.7 +0.2
       comp=Z,23nm,0.5s,mb5.5
COLA   College            49.70  32   eP      P        05 31 38.6 +0.4
COLA                                   pmax   pmax
       comp=Z,10.0nm,1.3s,mb4.7
COLA   College            49.70  32   eP      P        05 31 38.6 +0.4
       comp=Z,10nm,1.3s,mb4.7
TKM2   Tokmak 2           50.02 299    P      P        05 31 42.7 +1.8
       SNR=9.2
ILAR   Eielson Array      50.11  32    P      P        05 31 39.1 -2.2
       comp=Z,6.5nm,0.8s,mb4.7,baz=268,slow=6.1,SNR=64
KZA    Kyzart             50.50 298    P      P        05 31 46.9 +2.3
       SNR=6.9
KBK    Karagaybulak       50.55 299    P      P        05 31 46.2 +1.2
       SNR=18
CHMS   Chumysh            50.59 299    P      P        05 31 46.2 +0.9
       SNR=6.2
USP    Ospenovka          50.69 300    P      P        05 31 47.4 +1.3
       SNR=7.5
AAK    Ala-Archa          50.88 299   eP      P        05 31 46.7 -0.7
AAK                                    pmax   pmax
       comp=Z,9.0nm,0.6s,mb4.9
AAK    Ala-Archa          50.88 299   eP      P        05 31 46.7 -0.8
       comp=Z,8.9nm,0.6s,mb4.9
BVA0   Borovoye Array     51.10 313   i P     P        05 31 47.9 -1.1
BVA0                                   pmax   pmax
       comp=Z,3.0nm,1.0s,mb4.2
BRVK   Borovoye           51.16 313   eP      P        05 31 48.9 -0.5
BRVK                                  e       pP       05 32 00.1 -0.5
BRVK                                   pmax   pmax
       comp=Z,23nm,0.8s,mb5.2
BRVK   Borovoye           51.16 313   eP      P        05 31 48.9 -0.5
       comp=Z,24nm,0.8s,mb5.2
BRVK                                  e       pP       05 32 00.1 -0.5
AML    Almayashu          51.59 299    P      P        05 31 53.6 +0.8
       SNR=13
SDNR   Sundarnagar        52.87 285   eP      P        05 32 02.2 -0.3
THN    Thein Dam          53.47 286   eP      P        05 32 06.3 -0.7
NDI    New Delhi          53.85 281   eP      P        05 32 08.5 -1.3
VIS    Vishakhapatnam     54.20 266   e       P        05 32 10.7 -1.8
INK    Inuvik             55.04  27    LR     LR       05 58 35.3
       comp=Z,371nm,18.3s,MS4.5,baz=130,slow=39
INK    Inuvik             55.04  27   eP      P        05 32 16.5 -1.5
INK                                    pmax   pmax
       comp=Z,9.0nm,0.8s
INK    Inuvik             55.04  27   eP      P        05 32 16.5 -1.6
       comp=Z,9.2nm,0.8s,mb4.9
SVE    Sverdlovsk         55.73 319⇑  eP      P        05 32 22.5 -0.6
SVE                                   e                05 34 25.0
SVE                                    pmax   pmax
       comp=Z,130nm,1.5s,mb5.7
SVE                                    MLR    MLR
       comp=Z,2µm,16.0s,MS5.3
WRAB   Tennant Creek      56.31 188⇑  eP      P        05 32 26.5 -1.3
WRAB   Tennant Creek      56.31 188   eP      P        05 32 27.9 +0.2
       comp=Z,42nm,1.4s,mb5.3
WRA    Warramunga Arr     56.32 188    P      P        05 32 25.4 -2.5
       comp=Z,2.8nm,0.6s,mb4.5,baz=6.6,slow=6.9,SNR=24
ARU    Arti               56.94 319⇑  iP      P        05 32 30.6 -1.2
ARU                                   e                05 33 21.7
ARU                                   e                05 34 36.4
ARU                                   ePPP    PPP      05 35 51.3 -8.6
ARU                                   eS      S        05 40 23.7 +2.4
ARU                                    pmax   pmax
       comp=Z,39nm,0.8s,mb5.5
ARU                                    MLR    MLR
       comp=Z,1µm,17.0s,MS5.1
ARU                                    MLR    MLR
       comp=N,100nm,15.0s,MS5.0
ARU                                    MLR    MLR
       comp=E,1µm,17.0s,MS5.0
ARU    Arti               56.94 319   eP      P        05 32 30.0 -1.9
       comp=E,45nm,0.9s,mb5.5
ARU                                   e       pP       05 32 41.4 -1.8
SOKR   Solikamsk          56.95 323⇓  eP      P        05 32 30.9 -0.9
SOKR                                   pmax   pmax
       comp=Z,10.0nm,1.0s,mb4.8
SOKR                                   MLR    MLR
       comp=Z,770nm,19.0s,MS4.8
HYB    Hyderabad          58.22 269   eP      P        05 32 41.0 -0.3
HYB    Hyderabad          58.22 269   i P     P        05 32 41.0 -0.3
ASAR   Alice Springs      60.05 188    P      P        05 32 52.8 -1.2
       comp=Z,1.2nm,0.8s,mb4.0,baz=4.7,slow=6.0,SNR=10.0
ASAR                                   LR     LR       05 55 35.2
       comp=Z,168nm,19.1s,MS4.2,baz=359,slow=33
POO    Poona              61.43 273⇓  i       P        05 33 01.0 -2.3
       comp=Z,40nm,1.0s,mb5.5
RES    Resolute Bay       63.32  14   eP      P        05 33 13.0 -2.3
RES                                   e       pP       05 33 25.2 -1.6
RES                                    pmax   pmax
       comp=Z,12nm,0.9s,mb5.0
RES    Resolute Bay       63.32  14   eP      P        05 33 13.0 -2.3
       comp=Z,12nm,0.9s,mb5.0
RES                                   e       pP       05 33 25.2 -1.6
KEV    Kevo               64.16 339   ep      P        05 33 19.0 -1.6
YKW3   Yellowknife Ar     64.41  30   eP      P        05 33 20.7 -1.6
YKA    Yellowknife Ar     64.44  30    P      P        05 33 20.8 -1.7
       comp=Z,2.0nm,0.7s,mb4.2,baz=302,slow=6.8,SNR=38
ARCES  ARCESS Array B     64.71 340    P      P        05 33 23.4 -0.8
       comp=Z,12nm,0.8s,mb5.0,baz=52,slow=5.3,SNR=20
ARCES                                  LR     LR       06 03 34.3
       comp=Z,680nm,21.4s,MS4.8,baz=21,slow=38
DAG    Danmarks Havn      66.53 355   eP      P        05 33 34.0 -1.7
DAG                                    pmax   pmax
       comp=Z,7.0nm,0.8s,mb4.7
DAG    Danmarks Havn      66.53 355   eP      P        05 33 34.0 -1.7
       comp=Z,7.5nm,0.8s,mb4.8
DAG    Danmarks Havn      66.53 355   i P     P        05 33 34.0 -1.7
       comp=Z,7.5nm,0.8s,mb4.8
STKA   Stephens Creek     67.80 180    P      P        05 33 44.6 +0.1
       comp=Z,1.3nm,0.5s,mb4.2,baz=50,slow=22,SNR=2.9
MOS    Moscow             67.87 324   eP      P        05 33 43.6 -0.9
MOS                                   e       pP       05 33 53.8 -2.3
MOS                                    pmax   pmax
       comp=Z,88nm,1.6s,mb5.5
OBN    Obninsk            68.72 323⇓  eP      P        05 33 49.3 -0.4
OBN                                   e                05 36 19.1
OBN                                   eSS     SS       05 47 07.8 -7.7
OBN                                    pmax   pmax
       comp=Z,32nm,0.9s,mb5.2
OBN                                    MLR    MLR
       comp=Z,1µm,19.0s,MS5.2
OBN    Obninsk            68.72 323   eP      P        05 33 48.9 -0.9
       comp=Z,8.1nm,0.6s,mb4.8
KAF    Kangasniemi        68.99 333   ep      P        05 33 50.1 -1.2
       comp=Z,2.8nm,0.5s,mb4.5,baz=50,slow=5.9
KAF    Kangasniemi        68.99 333   eP      P        05 33 50.1 -1.2
KAF                                    pmax   pmax
       comp=Z,3.0nm,0.5s,mb4.5
FINES  FINESS Array B     69.49 332    P      P        05 33 53.3 -1.1
       comp=Z,16nm,0.8s,mb5.0,baz=56,slow=6.9,SNR=30
FINES                                  LR     LR       06 06 44.5
       comp=Z,572nm,18.8s,MS4.8,baz=27,slow=38
VRSR   Storozhevoye       69.51 319   eP      P        05 33 53.6 -1.0
VRSR                                  i *SP   sP       05 34 04.9 -5.7
VRSR                                  i                05 34 18.4
VRSR                                  i                05 36 23.6
VRSR                                   pmax   pmax
       comp=Z,40nm,0.8s,mb5.4
VRSR                                   pmax   pmax
       comp=N,20nm,0.7s
VRSR                                   pmax   pmax
       comp=E,10.0nm,0.8s
VRSR                                   MLR    MLR
       comp=N,700nm,17.0s,MS5.0
VRSR                                   MLR    MLR
       comp=Z,1µm,17.0s,MS5.2
VRSR                                   MLR    MLR
       comp=E,150nm,12.0s,MS5.0
NEW    Newport            70.65  44   eP      P        05 34 02.0 +0.3
YBH    Yreka Blue Hor     70.78  52    P      P        05 34 02.7 +0.1
       comp=E,2.9nm,0.8s,mb4.2,baz=301,slow=3.1,SNR=8.7
ZEI    Tsey               71.31 310   eP      P        05 34 05.6 -0.2
ZEI                                   i *PP   pP       05 34 15.9 -1.6
ZEI                                   i                05 36 43.7
ZEI                                    pmax   pmax
       comp=Z,8.0nm,0.7s,mb4.8
TI2    Plekhanov          71.33 308   eP      P        05 34 08.2 +2.3
KIV    Kislovodsk         71.42 311    P      P        05 34 07.2 +0.8
       comp=Z,252nm,0.8s,SNR=9.4
KIV    Kislovodsk         71.42 311   eP      P        05 34 06.6 +0.2
KIV                                    pmax   pmax
       comp=N,17nm,0.8s
KIV                                    pmax   pmax
       comp=E,12nm,0.8s
KIV                                    pmax   pmax
       comp=Z,33nm,0.8s,mb5.3
KIV                                    MLR    MLR
       comp=N,254nm,19.0s,MS4.6
KIV                                    MLR    MLR
       comp=E,191nm,19.0s,MS4.6
KIV                                    MLR    MLR
       comp=Z,436nm,19.0s,MS4.7
KIV    Kislovodsk         71.42 311   eP      P        05 34 07.0 +0.6
       comp=Z,23nm,0.8s,mb5.2
GNI    Garni              72.18 307   eP      P        05 34 11.4 +0.5
GNI                                    pmax   pmax
       comp=Z,17nm,1.0s
GNI    Garni              72.18 307   eP      P        05 34 11.4 +0.5
       comp=Z,17nm,1.0s,mb4.9
OHCM   Honcut             72.85  54   eP      P        05 34 13.9 -1.0
MNK    Minsk              73.16 326   eP      P        05 34 15.0 -1.4
BEKR   Beckwourth         73.29  53   eP      P        05 34 18.2 +0.7
       comp=Z,5.6nm,0.9s,mb4.5
SOC    Sochi              73.42 312   eP      P        05 34 16.8 -1.4
SOC                                   e                05 37 00.4
SOC                                   ePPP    PPP      05 38 47.9  0.0
SOC                                   eS      S        05 43 41.9 -1.4
SOC                                   e                05 44 26.9
SOC                                    pmax   pmax
       comp=Z,31nm,0.7s,mb5.3
SOC                                    pmax   pmax
       comp=N,18nm,1.0s
SOC                                    pmax   pmax
       comp=E,34nm,0.9s
SOC                                    MLR    MLR
       comp=Z,878nm,19.0s,MS5.1
SOC                                    MLR    MLR
       comp=N,470nm,18.0s,MS5.0
SOC                                    MLR    MLR
       comp=E,562nm,17.0s,MS5.0
CMB    Columbia Colle     74.28  54   eP      P        05 34 23.1 -0.2
CMB                                    pmax   pmax
       comp=Z,4.0nm,0.9s,mb4.3
CMB    Columbia Colle     74.28  54   eP      P        05 34 23.1 -0.2
       comp=Z,4.1nm,0.9s,mb4.4
HRY    Holter Researc     74.48  43   eP      P        05 34 25.1 +0.8
HLID   Hailey             74.86  47   eP      P        05 34 27.2 +0.7
NB2    NORSAR Subarra     74.89 337    P      P        05 34 25.5 -0.8
       comp=Z,28nm,1.1s,mb5.1,baz=41,slow=5.8
NB2    NORSAR Subarra     74.89 337    P      P        05 34 25.5 -0.8
       baz=41,slow=5.9
NB2    NORSAR Subarra     74.89 337    P      P        05 34 25.5 -0.8
NB2                                    pmax   pmax
       comp=Z,28nm,1.1s,mb5.1
NOA    NORSAR Array B     74.89 337    P      P        05 34 25.4 -1.0
       comp=Z,12nm,0.9s,mb4.8,baz=39,slow=5.7,SNR=20
NOA                                    LR     LR       06 10 49.6
       comp=Z,773nm,18.3s,MS5.0,baz=20,slow=38
AKASG  Malin Array Be     74.91 322    P      P        05 34 25.8 -0.9
       comp=Z,16nm,0.6s,mb5.1,baz=47,slow=6.1,SNR=80
AKASG  Malin Array Be     74.91 322    P      P        05 34 25.8 -0.9
AKASG                                  pmax   pmax
       comp=Z,16nm,0.6s
NVAR   Mina Array Bea     75.42  53    P      P        05 34 30.3 +0.5
       comp=Z,4.1nm,0.8s,mb4.4,baz=285,slow=5.7,SNR=24
NVAR                                   LR     LR       06 04 54.6
       comp=Z,173nm,18.3s,MS4.4,baz=90,slow=34
SUW    Suwalki            75.54 328   eP      P        05 34 31.3 +1.1
SIM    Simferopol’        75.89 316   eP      P        05 34 33.5 +1.1
SIM                                   e       pP       05 34 44.0 -0.1
SIM                                    pmax   pmax
       comp=Z,30nm,0.7s,mb5.3
SIM                                    MLR    MLR
       comp=Z,540nm,16.3s,MS4.9
ELK    Elko               76.01  50   eP      P        05 34 33.9 +0.7
ELK                                    pmax   pmax
       comp=Z,2.0nm,0.7s
ELK    Elko               76.01  50   eP      P        05 34 33.9 +0.7
       comp=Z,1.7nm,0.7s,mb4.1
MIB    Mutribah           76.06 297   eP      P        05 34 45.1  +11
MIB                                    AMb    AMB      05 34 47.0
       comp=Z,49nm,0.8s,mb5.5
QRN    Al-Qurain          76.22 296   eP      P        05 34 46.6  +12
QRN                                    AMb    AMB      05 34 51.2
       comp=Z,96nm,1.1s,mb5.6
RDF    Al-Radifah         76.39 296   eP      P        05 34 47.6  +12
RDF                                    AMb    AMB      05 34 49.4
       comp=Z,130nm,0.8s,mb5.9
RST    Umm Al-Ruwaisa     76.47 297   eP      P        05 34 46.7  +11
RST                                    AMb    AMB      05 34 48.5
       comp=Z,44nm,0.9s,mb5.4
IMW    Indian Meadow      76.68  45   eP      P        05 34 37.9 +1.0
REDW   Red Top Meadow     77.06  45   eP      P        05 34 39.2 +0.1
MALT   Malatya            77.26 308   eP      P        05 34 41.8 +1.5
MALT                                   pmax   pmax
       comp=Z,8.0nm,1.1s,mb4.6
MALT   Malatya            77.26 308   eP      P        05 34 41.8 +1.5
       comp=Z,8.4nm,1.1s,mb4.6
KIS    Kishinev           77.48 320   eP      P        05 34 38.0 -3.3
KIS                                    MLR    MLR
       comp=N,2µm,16.0s,MS5.5
KIS                                    MLR    MLR
       comp=Z,2µm,16.0s,MS5.5
KIS                                    MLR    MLR
       comp=E,1µm,17.0s,MS5.5
FRB    Frobisher Bay      77.50  13    P      P        05 34 40.6 -0.4
       comp=E,9.6nm,0.7s,mb4.8,baz=339,slow=6.4,SNR=20
TPNV   Topopah Spring     77.60  53   eP      P        05 34 41.3 -0.9
TPNV                                   pmax   pmax
       comp=Z,8.0nm,0.8s,mb4.7
TPNV   Topopah Spring     77.60  53   eP      P        05 34 41.3 -0.9
       comp=Z,8.1nm,0.8s,mb4.7
HWUT   Hardware Ranch     77.72  47   eP      P        05 34 43.2 +0.4
       comp=Z,3.7nm,1.0s,mb4.3
PDAR   Pinedale Array     78.17  45    P      P        05 34 44.5 -0.6
       comp=Z,1.5nm,0.6s,mb4.1,baz=297,slow=2.3,SNR=16
NLU    North Lily Min     78.42  49   eP      P        05 34 47.3 +0.6
DAU    Daniels Canyon     78.64  48   eP      P        05 34 49.2 +1.4
MPU    Maple Canyon       78.65  49   eP      P        05 34 48.5 +0.6
KWP    Kalwaria           78.76 324   eP      P        05 34 50.0 +1.7
MVU    Marysvale          79.23  50   eP      P        05 34 52.1 +1.0
       comp=Z,6.0nm,1.1s,mb4.4
MSU    Marysvale          79.24  50   eP      P        05 34 52.8 +1.6
NEN    Nelson             79.29  54   eP      P        05 34 51.9 +0.5
BRTR   Keskin Array B     79.37 312    P      P        05 34 52.3 +0.5
       comp=Z,6.2nm,0.9s,mb4.5,baz=110,slow=3.2,SNR=20
KOLS   Kolonicke sedl     79.45 324   eP      P        05 34 53.4 +1.4
KOLS                                  e       pP       05 35 03.5 -0.4
KOLS                                  e                05 37 48.1
KOLS   Kolonicke sedl     79.45 324   eP      P        05 34 53.4 +1.4
KOLS                                  e                05 34 57.3
KOLS                                  e       pP       05 35 03.5 -0.4
KOLS                                  ePP     PP       05 37 48.1 -5.9
OJC    Ojcow              79.68 326   eP      P        05 34 52.8 -0.5
RAR    Rarotonga          79.69 126    LR     LR       06 07 59.4
       comp=Z,552nm,18.8s,MS4.9,baz=270,slow=34
SRU    San Rafael         79.89  49   eP      P        05 34 54.8 +0.2
NIE    Niedzica           80.02 325   eP      P        05 34 57.0 +1.9
ULM    Lac du Bonnet      80.11  33    P      P        05 34 55.0 -0.5
       comp=Z,1.0nm,0.5s,mb4.0,baz=358,slow=6.9,SNR=3.5
OKC    Ostrava-Krasne     80.69 327   eP      pP       05 35 11.1 +0.6
OKC                                   ex      x        05 35 23.4
OKC                                    AMS    AMS      06 13 40.0
       comp=Z,800nm,17.4s
KSP    Ksiaz              80.76 328   eP      P        05 34 59.2 +0.2
KSP                                   epP     pP       05 35 10.1 -0.7
KSP                                    LR     LR
       comp=Z,2µm,17.5s,MS5.5
KSP    Ksiaz              80.76 328   eP      P        05 34 59.6 +0.6
MORC   Moravsky Berou     81.00 327   eP      P        05 35 00.0 -0.3
MORC                                  e       pP       05 35 11.4 -0.8
MORC                                   pmax   pmax
       comp=Z,2.0nm,0.6s,mb4.2
MORC   Moravsky Berou     81.00 327   eP      P        05 35 00.0 -0.3
       comp=Z,1.6nm,0.6s,mb4.1
MORC                                  e       pP       05 35 11.4 -0.7
DPC    Dobruska-Polom     81.11 328   eP      P        05 35 01.4 +0.5
DPC                                   epP     pP       05 35 12.7  0.0
DPC                                    AMS    AMS      06 14 10.0
       comp=Z,900nm,17.5s
UPC    Upice              81.13 328   eP      P        05 35 02.5 +1.6
UPC                                   epP     pP       05 35 13.6 +0.8
PV10   Paradox Valley     81.25  49   eP      P        05 35 02.6 +0.8
PSZ    Piszkesteto        81.29 325   eP      P        05 35 02.3 +0.5
PSZ                                    pmax   pmax
       comp=Z,3.0nm,0.7s,mb4.3
PSZ    Piszkesteto        81.29 325   eP      P        05 35 02.3 +0.5
       comp=Z,3.0nm,0.7s,mb4.3
VYHS   Vyhne              81.36 325   eP      P        05 35 03.5 +1.3
VYHS                                  epP     pP       05 35 13.5 -0.6
PV01   Paradox Valley     81.69  49   eP      P        05 35 04.7 +0.6
BRG    Berggiesshubel     81.72 329   eP      P        05 35 04.4 +0.4
BRG                                   i       pP       05 35 16.2 +0.3
BRG                                    pmax   pmax
       comp=Z,15nm,0.9s,mb4.9
BRG                                    MLR    MLR
       comp=Z,1µm,19.0s,MS5.3
BRG    Berggiesshubel     81.72 329   eP      P        05 35 04.4 +0.4
       comp=Z,15nm,0.9s,mb4.9
BRG                                   i       pP       05 35 16.2 +0.3
BRG                                    LR     LR
       comp=Z,1µm,19.0s,MS5.3
PVCC   Panska Ves         81.72 329   eP      P        05 35 05.2 +1.2
PVCC                                  epP     pP       05 35 16.9 +1.0
PVCC                                   AMS    AMS      06 14 10.0
       comp=Z,800nm,17.0s
CLL    Collm              81.76 330   i P     P        05 35 04.4 +0.2
CLL                                   i       pP       05 35 16.2 +0.1
CLL                                    pmax   pmax
       comp=Z,17nm,0.9s,mb5.0
CLL    Collm              81.76 330   i P     P        05 35 04.4 +0.2
       comp=Z,17nm,0.9s,mb5.0
CLL                                   i       pP       05 35 16.2 +0.1
CLL    Collm              81.76 330    P      P        05 35 04.4 +0.2
       comp=Z,logA/T=1.3,mb5.0
CLL                                   i *SP   sP       05 35 16.2 -4.2
SMOL   Smolenice          81.98 326   eP      pP       05 35 18.1 +0.8
SMOL   Smolenice          81.98 326   epP     pP       05 35 18.1 +0.8
SRO    Srobarova          82.10 325   eP      pP       05 35 18.9 +1.0
SRO    Srobarova          82.10 325   epP     pP       05 35 18.9 +1.0
PRU    Pruhonice          82.14 329   eP      P        05 35 07.4 +1.2
PRU                                   epP     pP       05 35 17.9 -0.2
PRU                                    AMS    AMS      06 14 30.0
NKC    Novy Kostel        82.82 330   eP      P        05 35 10.3 +0.6
NKC                                   epP     pP       05 35 22.1 +0.6
NKC                                    AMS    AMS      06 15 30.0
       comp=Z,1µm,16.5s
MOX    Moxa               82.83 330   eP      P        05 35 09.0 -0.7
MOX                                    pP     pP       05 35 22.0 +0.4
MOX                                    L               06 16 41.0
KHC    Kasperske Hory     83.20 329   eP      P        05 35 12.2 +0.6
KHC                                   epP     pP       05 35 23.3 -0.2
KHC                                    AMS    AMS      06 16 40.0
       comp=Z,1µm,16.6s
GERES  GERESS Array B     83.37 328    P      P        05 35 11.7 -0.8
       comp=Z,5.7nm,0.9s,mb4.6,baz=39,slow=5.5,SNR=25
GRF    Grafenberg Arr     83.74 330   eP      P        05 35 15.6 +1.3
GRF                                   e*PP    pP       05 35 27.5 +1.3
GRF                                    pmax   pmax
       comp=Z,26nm,0.9s,mb5.4
GRF                                    MLR    MLR
       comp=Z,500nm,19.3s,MS4.9
GRF    Grafenberg Arr     83.74 330   eP      P        05 35 15.6 +1.3
GRF                                   e*PP    pP       05 35 27.5 +1.3
GRF                                    pmax   pmax
       comp=Z,26nm,0.9s,mb5.4
GRF                                    MLR    MLR
       comp=Z,500nm,19.3s,MS4.9
GRF    Grafenberg Arr     83.74 330   eP      P        05 35 15.6 +1.3
       comp=Z,26nm,0.9s,mb5.4
GRF                                   epP     pP       05 35 27.5 +1.3
GRF                                    LR     LR
       comp=Z,500nm,19.3s,MS4.9
SDCO   Great Sand Dun     83.78  47   eP      P        05 35 16.4 +1.5
       comp=Z,2.3nm,1.0s,mb4.3
JMQS   Jabal Moqyreh      84.67 302    P      P        05 35 20.5 +1.0
SKO    Skopje             84.77 320   eP      P        05 35 21.5 +1.8
SKO                                   i       pP       05 35 32.5 +0.9
TATS   Tathlith           84.83 290    P      P        05 35 22.2 +1.8
KBA    Koelnbreinsper     84.88 327⇑  iP      P        05 35 21.6 +1.5
       comp=Z,12nm,1.4s,mb4.8
KBA    Koelnbreinsper     84.88 327⇑  iP      P        05 35 21.6 +1.5
KBA                                    pmax   pmax
       comp=Z,13nm,1.4s,mb4.9
ALWS   Ilw as Safayha     84.96 303    P      P        05 35 22.4 +1.5
JMOS   Jabal al Moall     85.02 303    P      P        05 35 22.6 +1.4
ANMO   Albuquerque        85.05  50    P      P        05 35 22.7 +1.5
       comp=Z,0.9nm,0.6s,mb4.1,baz=299,slow=5.4,SNR=4.3
ANMO   Albuquerque        85.05  50    P      P        05 35 22.7 +1.5
ANMO                                   pmax   pmax
       comp=Z,1.0nm,0.6s
ANMO   Albuquerque        85.05  50   eP      P        05 35 23.5 +2.3
       comp=Z,55nm,2.5s,mb5.2
HAQS   Haql               85.21 303    P      P        05 35 24.0 +1.8
STU    Stuttgart          85.28 331    P      P        05 35 22.7 +0.7
STU                                   e       pP       05 35 34.8 +0.8
LPM    Los Pinos Moun     85.36  50   eP      P        05 35 26.0 +3.2
BDAS   Al Bad‘            85.48 302    P      P        05 35 24.3 +0.7
GIVF   Givet              85.84 334   eP      P        05 35 24.1 -0.6
UMJS   Umm Lajj           85.93 298    P      P        05 35 27.8 +2.0
BLJS   Baljurashi         86.04 292    P      P        05 35 28.4 +2.0
SCHQ   Schefferville      86.05  16    P      P        05 35 26.5 +0.9
       comp=Z,2.5nm,0.6s,mb4.6,baz=57,slow=6.0,SNR=5.8
SCHQ                                   LR     LR       06 13 53.9
       comp=Z,151nm,21.6s,MS4.4,baz=339,slow=36
SCHQ   Schefferville      86.05  16    P      P        05 35 26.5 +0.9
SCHQ                                   LR     LR       06 13 53.9
BAIF   Baives             86.10 334   eP      P        05 35 25.4 -0.6
CDF    Champ du Feu       86.32 331   eP      P        05 35 26.7 -0.4
       comp=Z,28nm,0.9s,mb5.2
CDF    Champ du Feu       86.32 331   eP      P        05 35 26.7 -0.4
CDF                                    pmax   pmax
       comp=Z,14nm,0.9s,mb5.2
HINF   Hinteralfeld       86.97 331   eP      P        05 35 29.4 -0.9
       comp=Z,7.0nm,0.7s,mb4.7
HINF   Hinteralfeld       86.97 331   eP      P        05 35 29.4 -0.9
HINF                                   pmax   pmax
       comp=Z,4.0nm,0.7s,mb4.8
HAU    Haudompre          87.01 332   eP      P        05 35 29.7 -0.8
HAU                                   eR
       comp=Z,524nm,17.8s
LPL    La Plagne          88.90 330   eP      P        05 35 39.1 -0.5
       comp=Z,6.4nm,0.7s,mb4.8
LPL    La Plagne          88.90 330   eP      P        05 35 39.1 -0.5
LPL                                    pmax   pmax
       comp=Z,3.0nm,0.7s,mb4.7
LPG    La Plagne          88.91 330   eP      P        05 35 39.3 -0.4
       comp=Z,9.1nm,0.8s,mb4.9
LPG    La Plagne          88.91 330   eP      P        05 35 39.3 -0.4
LPG                                    pmax   pmax
       comp=Z,5.0nm,0.8s,mb4.9
SMF    Signal de Mont     89.09 332   eP      P        05 35 41.0 +0.5
AVF    Avril sur Loir     89.15 333   eP      P        05 35 41.1 +0.3
       comp=Z,25nm,1.1s,mb5.1
AVF    Avril sur Loir     89.15 333   eP      P        05 35 41.1 +0.3
AVF                                    pmax   pmax
       comp=Z,13nm,1.1s,mb5.2
MBDF   Montbardon         89.53 330   eP      P        05 35 42.1 -0.5
ORIF   Oris-en-Rattie     89.73 330   eP      P        05 35 42.9 -0.7
       comp=Z,6.9nm,0.8s,mb4.7
ORIF                                  eR
       comp=Z,669nm,21.2s
VIVF   Saint-Julien-l     90.27 331   eP      P        05 35 45.6 -0.5
       comp=Z,13nm,0.9s,mb4.9
VIVF   Saint-Julien-l     90.27 331   eP      P        05 35 45.6 -0.5
VIVF                                   pmax   pmax
       comp=Z,6.0nm,0.9s,mb4.9
TXAR   Lajitas Array      90.56  52    P      P        05 35 47.2 -0.6
       comp=Z,1.3nm,0.8s,mb4.3,baz=301,slow=3.1,SNR=13
TXAR                                   LR     LR       06 19 18.0
       comp=Z,209nm,18.3s,MS4.6,baz=335,slow=38
SNAA   Sanae             140.04 197⇓  iP      PKPdf    05 42 10.5 -1.3
VNA2   Neumayer--Watz    141.60 196⇑  iP      PKPdf    05 42 14.5  0.0
VNA2   Neumayer--Watz    141.60 196   e       PKPdf    05 42 16.9 +2.4
VNA2   Neumayer--Watz    141.60 196   e       PKPdf    05 42 25.8  +11
VNA2   Neumayer--Watz    141.60 196   e       PKPdf    05 42 32.6  +18
VNA3   Neumayer Olymp    141.85 195⇑  iP      PKPdf    05 42 15.2 +0.3
VNA3   Neumayer Olymp    141.85 195   e       PKPdf    05 42 17.6 +2.7
VNA3   Neumayer Olymp    141.85 195   e       PKPdf    05 42 27.0  +12
VNA3   Neumayer Olymp    141.85 195   e       PKPdf    05 42 34.0  +19
VNA1   Neumayer--Stat    142.00 196⇑  iP      PKPdf    05 42 15.3 +0.1
LPAZ   La Paz            147.04  61    PKPbc  PKPdf    05 42 28.6 +3.2
       comp=Z,2.7nm,0.7s,baz=319,slow=4.6,SNR=7.2
```

IDC 19 06:24:09.1±7.4, 20.55S×177.36W, mb3.6/3, mb1 3.9/3, mb1mx3.6/13, Error ellipse: s-maj=323.0km s-min=39.2km az=145.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	45.09	257	P	P	06 32 27.6	-1.5
	0.6nm,0.5s,baz=99,slow=7.1,SNR=10						
WRA	Warramunga Arr	45.19	262	P	P	06 32 27.6	-2.2
	0.3nm,0.3s,baz=97,slow=7.0,SNR=8.6						
ILAR	Eielson Array	88.23	13	P	P	06 37 01.8	-1.2
	0.2nm,0.5s,baz=214,slow=4.6,SNR=5.4						
AKASG	Malin Array Be	143.35	332	PKhKP		06 43 35.7	
	0.8nm,0.4s,baz=42,slow=4.3,SNR=10						

IDC 19 06:35:01.9±4.6, 36.97N×96.74E, mb3.8/4, mb1 3.9/6, mb1mx3.6/21, ML3.4/2, Error ellipse: s-maj=93.3km s-min=47.0km az=174.0
BJI 19 06:35:11.2, 37.38N×96.44E, h14^{km}, ML3.6, Ms3.2, Msz3.2
ISC 19 06:35:02.7±1.3, 37.1N±0.1×96.72E±0.08, h10^{km}, n8, σ0^{s}49/12, mb3.7/4, Qinghai

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTA	Gaotai	3.33	46	P	Pn	06 36 04.8	+8.9
GTA				PG	Pg	06 36 09.0	-0.2
GTA				S	Sn	06 36 40.8	+4.8
GTA				SG	Sg	06 36 47.1	-6.5
GTA				Smax			
	comp=N,32nm,0.7s						
GTA				Smax			
	comp=E,26nm,1.0s						
LZH	Lanzhou	5.83	98	PG	Pg	06 36 58.0	-1.0
LZH				SG	Sg	06 38 17.5	+0.8
LZH				Smax			
	comp=N,45nm,1.2s						
LZH				Smax			
	comp=E,39nm,1.2s						
LZH				LR	LR		
	comp=E,136nm,6.5s						
LZH				LR	LR		
	comp=Z,162nm,8.2s						
SONM	Songino Array	12.84	31	Pn	P	06 38 07.8	-0.2
	comp=Z,0.3nm,0.3s,baz=218,slow=15,SNR=11						
ZAL	Zalesovo	18.72	338	P	P	06 39 23.6	+0.3
	comp=Z,0.2nm,0.3s,baz=322,slow=13,SNR=3.7						
BVAR	Borovoye Array	24.26	319	P	P	06 40 21.1	+0.5
	comp=Z,1.0nm,0.6s,mb3.4,baz=117,slow=9.9,SNR=5.2						
FINES	FINESS Array B	49.12	323	P	P	06 43 52.0	0.0
	comp=Z,0.5nm,0.4s,mb3.9,baz=98,slow=9.8,SNR=5.3						
HFS	Hagfors	55.32	323	P	P	06 44 38.3	-0.2
	comp=Z,2.3nm,0.8s,mb4.2,baz=100,slow=8.8,SNR=3.0						
YKA	Yellowknife Ar	77.56	14	P	P	06 46 59.8	0.0
	comp=Z,0.1nm,0.3s,mb3.2,baz=336,slow=5.5,SNR=4.8						

NEIC 19 06:48:28.1±3.2, 2.90S×137.22E, h39^{km}±28^{km}, mb4.3/6, Error ellipse: s-maj=31.1km s-min=13.0km az=76.0
IDC 19 06:48:34.2±5.7, 2.98S×137.10E, h97^{km}±51^{km}, mb3.7/8, mb1 3.9/10, mb1mx3.9/13, MS3.3/1, Ms1 3.3/1, ms1mx2.8/14, Error ellipse: s-maj=38.5km s-min=12.5km az=85.0
ISC 19 06:48:31.6±3.0, 3.05S±0.08×136.9E±0.1, h83^{km}±27^{km}, n19, σ1^{s}20/25, mb3.9/10, Irian Jaya

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	10.56	205	*e*P	P	06 51 00.3	-1.5
	13nm,0.5s						
KAKA				*e*S	S	06 52 53.7	-5.3
WRAB	Tennant Creek	16.96	188	*e*P	P	06 52 26.9	+1.9
	11nm,0.5s						
WRA	Warramunga Arr	16.97	188	P	P	06 52 22.9	-2.2
	1.7nm,0.3s,baz=13,slow=12,SNR=41						
WRA				S	S	06 55 23.9	-5.7
	0.4nm,0.3s,baz=7.1,slow=23,SNR=5.0						
FITZ	Fitzroy Crossi	18.57	216	*e*P	P	06 52 45.8	+1.3
	4.1nm,0.3s						
FITZ				*e*S	S	06 56 03.5	-2.0
FITZ	Fitzroy Crossi	18.57	216	P	P	06 52 44.9	+0.3
	0.8nm,0.3s,baz=16,slow=13,SNR=15						
FITZ				S	S	06 56 03.7	-1.7
	0.7nm,0.3s,baz=183,slow=9.6,SNR=5.0						
ASAR	Alice Springs	20.69	188	P	P	06 53 08.3	+1.2
	6.1nm,0.3s,baz=17,slow=9.3,SNR=71						
ASAR				S	S	06 56 55.6	+7.1
	2.5nm,1.0s,baz=7.8,slow=20,SNR=4.8						
ASAR				LR	LR	07 01 32.8	
	comp=Z,75nm,19.1s,baz=25,slow=37						
ASPA	Alice Springs	20.69	188	*e*P	P	06 53 08.5	+1.4
ASPA				*i*		06 53 22.1	
ASPA				*e*S	S	06 56 55.0	+6.5
MBWA	Marble Bar	24.54	221	*e*P	P	06 53 47.3	+2.3
STKA	Stephens Creek	29.01	172	P	P	06 54 25.7	-0.2
	0.9nm,0.4s,mb3.8,baz=353,slow=9.0,SNR=6.1						
CMAR	Chiang Mai Arr	43.03	301	P	P	06 56 25.7	+0.7
	2.1nm,0.6s,mb4.0,baz=130,slow=7.0,SNR=9.3						
ULN	Ulaanbaatar	57.03	336	*e*P	P	06 58 11.3	+0.2
	1.5nm,0.5s,mb4.3						
SONM	Songino Array	57.27	336	P	P	06 58 12.2	-0.7
	0.5nm,0.5s,mb3.8,baz=157,slow=7.6,SNR=4.7						
CASY	Casey	65.77	191	P	P	06 59 09.2	-0.4
	6.9nm,0.6s,mb4.7						
ZAL	Zalesovo	71.32	331	P	P	06 59 43.6	-0.5
	0.5nm,0.3s,mb3.8,baz=306,slow=7.5,SNR=3.3						
VNDA	Vanda	75.61	175	P	P	07 00 08.3	-0.4
	0.5nm,0.7s,mb3.4,baz=317,slow=8.2,SNR=3.8						
VNDA	Vanda	75.61	175	*e*P	P	07 00 08.6	-0.1
	0.2nm,0.5s,mb3.1						
BVAR	Borovoye Array	78.55	326	P	P	07 00 25.6	+0.1
	2.4nm,0.6s,mb4.2,baz=127,slow=7.4,SNR=12						
BRVK	Borovoye	78.62	326	*e*P	P	07 00 26.4	+0.5
	3.4nm,0.7s,mb4.3						
ILAR	Eielson Array	86.90	25	P	P	07 01 06.5	-1.5
	0.3nm,0.9s,mb3.2,baz=261,slow=4.2,SNR=4.9						

MDD 19 07:05:24.5±1.3, 36.65N×7.90W, mbLg2.4/18, Error ellipse: s-maj=13.4km s-min=5.8km az=32.0, PRXIMO
INMG 19 07:05:25.0±0.9, 36.42N×8.05W, h31^{km}, ML2.3, Error ellipse: s-maj=5.4km s-min=3.2km az=44.0
ISC 19 07:05:26.1±1.8, 36.71N±0.08×7.87W±0.07, h29^{km}±25^{km}, n28, σ1^{s}00/52, Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	Sao Teotonio	1.08	321	*e*P	Pn	07 05 44.8	-0.6
PTEO				*e*S	Sn	07 05 59.8	+0.4
	15nm,0.1s						
PTEO	Sao Teotonio	1.08	321	P	Pn	07 05 44.8	-0.6
PTEO				S	Sn	07 05 59.8	+0.4
	7.4nm,0.1s						
PBEJ	Beja	1.31	0	*e*P	Pn	07 05 49.7	+1.0
PBEJ				*e*S	Sn	07 06 08.4	+3.0
	15nm,0.1s						
PBEJ	Beja	1.31	0	P	Pn	07 05 49.7	+1.0
PBEJ				S	Sn	07 06 08.4	+3.0
	7.4nm,0.1s						
EMIN	Mina Concepcio	1.42	42	P	Pn	07 05 51.3	+1.1
	1.3nm,0.1s,SNR=19						
EMIN				S	Sn	07 06 10.7	+2.6
	7.0nm,0.2s						
ESPR	Espera	1.62	84	P	Pn	07 05 52.5	-0.6
	0.9nm,0.1s,SNR=8.2						
ESPR				S	Sn	07 06 13.5	+0.3
	17nm,0.4s,SNR=5.3						
MOE	Montemor	1.85	348	*e*Pn	Pn	07 05 57.7	+1.3
MOE				*e*Sn	Sn	07 06 20.7	+1.7
EBAD	Badajoz	2.15	18	P	Pn	07 06 01.3	+0.6
	1.0nm,0.1s,SNR=9.9						
EBAD				S	Sn	07 06 28.6	+2.0
	8.8nm,0.1s,SNR=13						
PLOU	Loures	2.40	335	*e*Pn	Pn	07 06 04.0	-0.2
PLOU				*e*Sn	Sn	07 06 33.3	+0.4
	15nm,0.1s						
PLOU	Loures	2.40	335	P	Pn	07 06 04.0	-0.2
PLOU				S	Sn	07 06 33.3	+0.4
	7.6nm,0.1s						
EMIJ	Mijas	2.49	92	P	Pn	07 06 06.1	+0.5
	0.2nm,0.1s,SNR=4.0						
EMIJ				S	Sn	07 06 35.7	+0.3
	1.2nm,0.2s,SNR=4.0						
PTOM	Tomar	2.93	352	*e*Pn	Pn	07 06 11.6	-0.3
PTOM				*e*Sn	Sn	07 06 46.3	-0.2
	11nm,0.3s						
PTOM	Tomar	2.93	352	P	Pn	07 06 11.6	-0.3
PTOM				S	Sn	07 06 46.3	-0.2
	5.7nm,0.3s						
EADA	Adamuz	2.99	60	P	Pn	07 06 12.5	-0.2
	2.3nm,0.2s,SNR=17						
EADA				S	Sn	07 06 47.9	-0.1
	6.4nm,0.2s						
PCBR	Castelo Branco	3.14	5	*e*Pn	Pn	07 06 14.9	+0.1
PCBR				*e*Sn	Sn	07 06 52.1	+0.4
	9.9nm,0.3s						
PCBR	Castelo Branco	3.14	5	P	Pn	07 06 14.9	+0.1
PCBR				S	Sn	07 06 52.1	+0.4
	4.9nm,0.3s						
MTE	Manteigas	3.69	4	*e*Sn	Sn	07 07 05.8	+0.1
	4.7nm,0.3s						
MTE	Manteigas	3.69	4	S	Sn	07 07 05.8	+0.1
	2.3nm,0.3s						
EQES	Quesada	3.98	73	P	Pn	07 06 26.5	-0.1
	0.5nm,0.1s,SNR=7.9						
EQES				S	Sn	07 07 12.3	-0.6
	2.3nm,0.3s,SNR=7.9						
PVIS	Viseu	4.00	360	*e*Sn	Sn	07 07 13.1	-0.3
	3.5nm,0.1s						
PVIS	Viseu	4.00	360	S	Sn	07 07 13.1	-0.3
	1.8nm,0.1s						
ESDC	Sonseca Array	4.27	45	P	Pn	07 06 30.2	-0.6
	1.4nm,0.1s,baz=232,slow=12,SNR=4.8						
ESDC				S	Sn	07 07 19.4	-0.8
	2.7nm,0.2s,baz=228,slow=22,SNR=11						
PVRL	Vila Real	4.56	1	*e*Pn	Pn	07 06 34.0	-1.0
PVRL				*e*Sn	Sn	07 07 26.4	-1.2
	4.8nm,0.1s						
PVRL	Vila Real	4.56	1	P	Pn	07 06 34.0	-1.0
PVRL				S	Sn	07 07 26.4	-1.2
	2.4nm,0.1s						
ELOB	Lobios	5.15	358	P	Pn	07 06 42.7	-0.6
	SNR=7.9						
ELOB				S	Sn	07 07 39.6	-2.9
	2.7nm,0.1s,SNR=7.9						
PBRG	Braganca	5.16	9	*e*Pn	Pn	07 06 42.9	-0.5
PBRG				*e*Sn	Sn	07 07 40.5	-2.2
	3.1nm,0.3s						
PBRG	Braganca	5.16	9	P	Pn	07 06 42.9	-0.5
PBRG				S	Sn	07 07 40.5	-2.2
	1.6nm,0.3s						
ECAL	Calabor	5.30	9	P	Pn	07 06 44.7	-0.6
	0.9nm,0.2s,SNR=4.0						
ECAL				S	Sn	07 07 45.2	-1.0
	4.2nm,0.2s,SNR=7.9						

MAN 19 07:31:57.1, 9.81N×124.73E, h10^{km}, mb4.2, ML3.0, MS2.8, 1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSLP	Maasin	0.35	21	*e*P	Pg	07 32 05.2	+1.0
MSLP				*e*S	Sg	07 32 14.0	+4.9
SCPH	Surigao	0.75	92	*e*P	Pb	07 32 11.0	-0.7
SCPH				*e*S	Sb	07 32 19.7	-2.1
TBP	Tagbilaran	0.86	262	⇓*e*P	Pb	07 32 12.9	-0.8
TBP				*e*S	Sb	07 32 24.9	-0.1
OCLP	Ormoc	1.24	355	*e*P	Pb	07 32 20.0	-0.1
SNPH	Sibulan	1.54	253	*e*P	Pn	07 32 24.0	-0.8
BUKP	Musuan	1.94	170	*e*P	Pn	07 32 28.8	-1.7
BUKP				*e*S	Sn	07 32 56.0	+0.8

CSEM 19 07:34:46.7±0.1, 26.11N×35.62E, h30^{km}, ML2.9, Error ellipse: s-maj=2.2km s-min=1.3km az=96.0
SNSN 19 07:34:47.4, 26.13N×35.60E, h27^{km}, Ml2.9
HLW 19 07:34:48.7, 26.07N×35.59E, h28^{km}, Mb3.5
ISC 19 07:34:45.0±0.5, 26.11N±0.03×35.61E±0.05, h10^{km}, n35, σ0^{s}65/39, 4C, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HQSR		1.16	252	⇑*i*P	Pb	07 35 07.1	+0.5
HADB		1.17	230	⇑*i*P	Pb	07 35 07.2	+0.4
HADB				S	Sb	07 35 20.9	-0.9
EMRS	Mersa Alam	1.30	213	⇑P	Pb	07 35 08.9	-0.1
EMRS				S	Sb	07 35 23.9	-1.6
EMRS	Mersa Alam	1.30	213	P	Pb	07 35 08.9	-0.1
EMRS				S	Sb	07 35 24.0	-1.6
HSFG		1.57	287	P	Pn	07 35 13.0	-0.2
UMJS	Umm Lajj	1.77	119	P	Pn	07 35 15.5	-0.5
HAGS	Hagol	1.81	198	P	Pn	07 35 16.3	-0.4
AYUS	‘Aynunah	2.09	352	P	Pn	07 35 20.3	-0.3
HHRG	Al Ghardaqah	2.13	302	⇑*e*P	Pn	07 35 21.3	+0.1
SHRM		2.21	324	P	Pn	07 35 22.3	0.0
TBKS	Tabuk	2.27	21	P	Pn	07 35 24.1	+1.0
TBKS				S	Sn	07 35 50.8	-0.5
BDAS	Al Bad‘	2.35	349	P	Pn	07 35 24.0	-0.3
TR1		2.40	322	P	Pn	07 35 24.9	-0.1
HEDF	Idfu	2.41	246	P	Pn	07 35 26.1	+0.9
TAYS	Tayyib Ism	2.52	345	P	Pn	07 35 26.0	-0.6
ZEIT		2.54	314	P	Pn	07 35 27.1	0.0
JMQS	Jabal Moqyreh	2.77	5	P	Pn	07 35 30.0	-0.4
YNBS	Yanbu‘ al Bahr	2.79	129	P	Pn	07 35 31.2	+0.6
HKAT	Jabal Katrina	2.80	329	P	Pn	07 35 31.2	+0.5
TR2		2.82	324	P	Pn	07 35 31.3	+0.3
HAQS	Haql	2.99	349	P	Pn	07 35 33.2	-0.3
HSHL	Bi’r Shalatayn	3.00	184	P	Pn	07 35 33.6	+0.1
JMOS	Jabal al Moall	3.08	352	P	Pn	07 35 34.4	-0.3
ALWS	Ilw as Safayha	3.22	352	P	Pn	07 35 36.4	-0.4
AAHD	Abu Hadid	3.50	228	P	Pn	07 35 41.8	+1.1
ANMR	North Marawa	3.64	230	P	Pn	07 35 44.3	+1.6
ASUT		3.84	290	P	Pn	07 35 46.1	+0.7
ASHG	Umm Shaghir	4.58	233	P	Pn	07 35 57.0	+1.1
GTR	Jabal at Tayr	4.59	264	P	Pn	07 35 55.9	-0.3
AKRG	Al Kharijah	4.65	264	P	Pn	07 35 56.1	-0.8
HMSM	Jabal Masmas	4.67	227	P	Pn	07 35 56.3	-1.0
APRS		4.76	250	P	Pn	07 35 59.2	+0.6
HDK1	Dakhla	5.62	266	P	Pn	07 36 10.8	+0.1
HDK2	Wahat Dakhilah	6.29	255	P	Pn	07 36 19.6	-0.5
HDK2	Wahat Dakhilah	6.29	255	P	Pn	07 36 19.5	-0.6

NEIC 19 07:43:36.9, 32.07S×71.12W, h64^{km}, MD3.6(GUC), After GUC.
GUC 19 07:43:36.9±0.8, 32.07S×71.12W, h64^{km}±3^{km}, MD3.6, ML3.7, 11C-5D, Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTCH	Petorca	0.25	140	⇑*i*P	P	07 43 47.6	+0.5
PTCH				*i* S	S	07 43 55.3	+0.7
ILCH	Illapel	0.43	355	⇑*i*P	P	07 43 49.0	+0.4
ILCH				*i* S	S	07 43 57.9	+0.7
ILCH				AMP		07 43 58.1	
	comp=E,9µm,0.2s						
PACH	Papudo	0.54	210	⇓*i*P	P	07 43 49.9	+0.2
JACH	Jahuel	0.76	144	⇑*i*P	P	07 43 52.6	+0.4
JACH				*i* S	S	07 44 04.0	+0.4
CMCH	Combarbala	0.90	7	⇓*i*P	P	07 43 54.4	+0.4
CMCH				*i* S	S	07 44 07.2	+0.6
CMCH				AMP		07 44 13.7	
	comp=N,4µm,0.3s						
ROCH	El Roble	0.90	174	⇑*i*P	P	07 43 54.0	0.0
ROCH				*i* S	S	07 44 06.7	-0.1
PEL	Peldehue	1.13	161	⇑*i*P	P	07 43 57.3	+0.2
PEL				*i* S	S	07 44 12.2	+0.1
DSCH	Colegio Aleman	1.40	161	⇓*i*P	P	07 44 01.1	+0.2
DSCH				*i* S	S	07 44 19.1	+0.3
DSCH				AMP		07 44 20.6	
	comp=E,3µm,0.2s						
CLCH	Cerro Calan	1.41	160	AMP		07 44 28.4	
	comp=E,2µm,0.3s						
STL	Santa Lucia	1.42	164	*e*P	P	07 44 01.3	+0.1
STL				*e*S	S	07 44 19.4	+0.3
STL				AMP		07 44 23.2	
	comp=N,693nm,0.3s						
SAN	Santiago	1.43	164	⇑*i*P	P	07 44 01.4	0.0
SAN				*i* S	S	07 44 19.5	+0.1
SAN				AMP		07 44 25.1	
	comp=E,1µm,0.4s						
FCH	Farellones	1.44	151	⇓*i*P	P	07 44 01.0	-0.3
FCH				*i* S	S	07 44 20.0	+0.5
FCH				AMP		07 44 22.5	
	comp=E,2µm,0.2s						
RCDM	Rinconada Maip	1.44	169	*e*P	P	07 44 01.1	-0.4
RCDM				*i* S	S	07 44 19.7	+0.2
RCDM				AMP		07 44 20.1	
	comp=E,4µm,0.1s						
LCCH	Las Cruces	1.45	195	⇑*i*P	P	07 44 01.2	-0.4
FSR	Penalolen	1.49	161	*i* P	P	07 44 02.4	+0.3
FSR				*i* S	S	07 44 21.7	+0.9
FSR				AMP		07 44 28.2	
	comp=N,2µm,0.2s						
TACH	Talagante	1.59	174	⇓*i*P	P	07 44 03.3	-0.1
TACH				*i* S	S	07 44 23.0	+0.1
PCH	Pirque	1.63	162	*e*P	P	07 44 04.4	+0.4
PCH				*i* S	S	07 44 24.9	+1.0
SJCH	San Jose de Ma	1.69	158	*i* P	P	07 44 04.9	0.0
SJCH				*i* S	S	07 44 26.2	+0.7
SJCH				AMP		07 44 30.6	
	comp=N,1µm,0.2s						
LNV	Longovilo	1.90	187	⇑*i*P	P	07 44 07.4	-0.2
CHCH	Chadas Angostu	1.90	168	*e*P	P	07 44 07.9	+0.2
CHCH				*i* S	S	07 44 31.2	+0.8
TLL	Tololo Astrono	1.92	8	⇑*i*P	P	07 44 09.3	+1.4
TLL				*i* S	S	07 44 33.0	+2.1
TLL				AMP		07 44 36.5	
	comp=E,1µm,0.4s						
MDZ	Mendoza	2.08	113	*e*P	P	07 44 14.6	+4.3
MDZ				*i* S	S	07 44 30.0	-5.0
CACH	El Canelo	2.09	168	*e*P	P	07 44 11.4	+1.1
LSCH	La Serena	2.16	357	*i* P	P	07 44 11.0	-0.3
LSCH				*i* S	S	07 44 36.7	-0.1
SFDO	San Fernando	2.54	178	⇑*i*P	P	07 44 16.6	-0.1
VACH	Vallenar	3.50	5	⇑*i*P	P	07 44 34.1	+4.0
VACH				*i* S	S	07 45 13.5	+2.9

SNSN 19 07:50:43.9, 26.03N×35.61E, h17^{km}, Ml2.2
CSEM 19 07:50:44.3±0.1, 26.07N×35.62E, h25^{km}, ML3.4, Error ellipse: s-maj=3.3km s-min=1.9km az=106.0
HLW 19 07:50:46.5, 26.10N×35.56E, h30^{km}, Mb3.4
ISC 19 07:50:42.9±2.9, 26.07N±0.05×35.60E±0.09, h10^{km}±24^{km}, n13, σ0^{s}53/15, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HADB		1.14	231	P	Pb	07 51 05.0	+0.8
HQSR		1.14	254	P	Pb	07 51 04.8	+0.5
EMRS	Mersa Alam	1.26	213	P	Pb	07 51 06.8	+0.5
EMRS				S	Sb	07 51 21.6	-0.8
HSFG		1.58	289	P	Pn	07 51 10.6	-0.6
UMJS	Umm Lajj	1.75	118	P	Pn	07 51 13.2	-0.5
HAGS	Hagol	1.77	198	P	Pn	07 51 14.3	+0.4
AYUS	‘Aynunah	2.13	352	P	Pn	07 51 18.8	-0.3
TBKS	Tabuk	2.31	21	S	Sn	07 51 51.0	+0.8
TBKS				P		07 51 21.6	
TBKS	Tabuk	2.31	21	P	Pn	07 51 21.6	0.0
TBKS				S	Sn	07 51 51.0	+0.7
TAYS	Tayyib Ism	2.56	345	P	Pn	07 51 24.3	-0.9
JMQS	Jabal Moqyreh	2.82	5	P	Pn	07 51 28.7	-0.2
HAQS	Haql	3.03	349	P	Pn	07 51 32.1	+0.1
JMOS	Jabal al Moall	3.12	352	P	Pn	07 51 33.4	+0.2

CSEM 19 07:57:53.7±0.1, 26.10N×35.58E, h25^{km}, ML3.2, Error ellipse: s-maj=2.3km s-min=1.4km az=94.0
SNSN 19 07:57:54.1, 26.04N×35.47E, h30^{km}, Ml2.7
HLW 19 07:57:55.8, 26.07N×35.56E, h26^{km}, Mb3.2
ISC 19 07:57:52.2±2.7, 26.09N±0.03×35.59E±0.05, h9^{km}±22^{km}, n25, σ0^{s}60/27, 3C-1D, Red Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HQSR		1.13	253	⇑*i*P	Pb	07 58 14.2	+0.6
HADB		1.14	230	⇑*i*P	Pb	07 58 14.3	+0.6
EMRS	Mersa Alam	1.27	212	⇑*e*P	Pb	07 58 16.0	+0.1
EMRS				S	Sb	07 58 30.9	-1.3
HSFG		1.56	288	P	Pn	07 58 20.1	-0.3
HSFG		1.56	288	P	Pn	07 58 20.0	-0.3
UMJS	Umm Lajj	1.77	118	P	Pn	07 58 22.5	-0.9
HAGS	Hagol	1.79	198	P	Pn	07 58 23.3	-0.3
AYUS	‘Aynunah	2.11	352	P	Pn	07 58 27.2	-0.9
HHRG	Al Ghardaqah	2.13	302	P	Pn	07 58 28.4	0.0
TBKS	Tabuk	2.29	22	P	Pn	07 58 31.0	+0.2
TBKS				S	Sn	07 59 00.2	+0.8
BDAS	Al Bad‘	2.37	350	P	Pn	07 58 31.5	-0.4
HEDF	Idfu	2.39	246	P	Pn	07 58 32.0	-0.2
TR1		2.40	323	P	Pn	07 58 32.1	-0.3
ZEIT		2.54	315	P	Pn	07 58 34.1	-0.3
YNBS	Yanbu‘ al Bahr	2.79	128	P	Pn	07 58 38.0	+0.1
JMQS	Jabal Moqyreh	2.79	5	P	Pn	07 58 38.0	0.0
HKAT	Jabal Katrina	2.81	330	⇓*e*P	Pn	07 58 38.2	0.0
TR2		2.82	324	P	Pn	07 58 38.6	+0.2
HSHL	Bi’r Shalatayn	2.98	183	P	Pn	07 58 40.9	+0.3
HAQS	Haql	3.01	349	P	Pn	07 58 40.6	-0.4
JMOS	Jabal al Moall	3.09	352	P	Pn	07 58 41.8	-0.4
ALWS	Ilw as Safayha	3.24	352	P	Pn	07 58 43.9	-0.4
KBRS	Khaybar	3.32	94	P	Pn	07 58 46.2	+0.7
ANMR	North Marawa	3.62	230	P	Pn	07 58 51.0	+1.4
ASUT		3.83	291	P	Pn	07 58 53.6	+1.0

NEIC 19 08:01:03.2, 32.49S×70.80W, h81^{km}, MD3.6(GUC), After GUC.
GUC 19 08:01:03.2±0.7, 32.49S×70.80W, h81^{km}±2^{km}, MD3.6, ML3.8, 16C-10D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTCH	Petorca	0.25	334	⇑*i*P	P	08 01 15.8	+0.3
PTCH				*i* S	S	08 01 25.1	+0.5
PTCH				AMP		08 01 26.3	
	comp=N,9µm,0.1s						
JACH	Jahuel	0.26	138	⇓*i*P	P	08 01 15.8	+0.3
JACH				*i* S	S	08 01 25.1	+0.4
ROCH	El Roble	0.51	200	⇑*i*P	P	08 01 17.7	+0.4
ROCH				*i* S	S	08 01 28.5	+0.6
PACH	Papudo	0.54	265	⇓*i*P	P	08 01 18.0	+0.4
PACH				*i* S	S	08 01 28.8	+0.5
PEL	Peldehue	0.66	172	⇑*i*P	P	08 01 19.0	+0.3
PEL				*i* S	S	08 01 30.5	+0.2
IHA	Instituto Hidr	0.89	233	⇓*i*P	P	08 01 21.4	+0.1
IHA				*i* S	S	08 01 35.3	+0.6
ILCH	Illapel	0.91	340	⇓*i*P	P	08 01 21.8	+0.4
ILCH				*i* S	S	08 01 35.8	+0.6
ILCH				AMP		08 01 36.2	
	comp=E,6µm,0.3s						
DSCH	Colegio Aleman	0.93	168	⇑*i*P	P	08 01 21.9	+0.3
DSCH				*i* S	S	08 01 36.1	+0.5
DSCH				AMP		08 01 37.2	
	comp=E,10µm,0.4s						
FCH	Farellones	0.94	153	⇑*i*P	P	08 01 22.6	+0.8
FCH				*i* S	S	08 01 37.2	+1.4
FCH				AMP		08 01 38.3	
	comp=E,8µm,0.2s						
PUEX	Pudahuel	0.95	178	⇓*i*P	P	08 01 23.1	+1.2
PUEX				*i* S	S	08 01 37.6	+1.6
PUEX				AMP		08 01 38.7	
	comp=N,3µm,0.2s						
STL	Santa Lucia	0.95	172	⇑*i*P	P	08 01 22.2	+0.2
STL				*i* S	S	08 01 36.5	+0.4
STL				AMP		08 01 36.9	
	comp=E,1µm,0.2s						
SAN	Santiago	0.97	173	⇑*i*P	P	08 01 22.6	+0.5
SAN				*i* S	S	08 01 36.8	+0.4
SAN				AMP		08 01 39.4	
	comp=E,4µm,0.2s						
RCDM	Rinconada Maip	1.00	180	*i* P	P	08 01 22.4	-0.1
RCDM				*i* S	S	08 01 37.2	+0.2
RCDM				AMP		08 01 37.9	
	comp=E,6µm,0.2s						
FSR	Penalolen	1.01	167	⇑*i*P	P	08 01 23.1	+0.4
FSR				*i* S	S	08 01 38.2	+0.8
FSR				AMP		08 01 38.9	
	comp=E,4µm,0.3s						
PCH	Pirque	1.15	168	⇓*i*P	P	08 01 24.6	+0.2
PCH				*i* S	S	08 01 41.0	+0.6
TACH	Talagante	1.17	186	⇑*i*P	P	08 01 24.6	-0.1
TACH				*i* S	S	08 01 40.4	-0.3
LCCH	Las Cruces	1.18	213	⇑*i*P	P	08 01 24.9	+0.2
LCCH				*i* S	S	08 01 40.7	-0.3
SJCH	San Jose de Ma	1.21	162	⇑*i*P	P	08 01 25.3	+0.1
SJCH				*i* S	S	08 01 42.2	+0.6
SJCH				AMP		08 01 42.9	

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
	comp=N,2µm,0.3s						
CMCH	Combarbala	1.32	352	⇓iP	P	08 01 26.7	-0.1
CMCH				iS	S	08 01 44.7	+0.4
LMEL	Las Melosas	1.44	160	⇑iP	P	08 01 28.8	+0.5
LMEL				iS	S	08 01 48.4	+1.5
LMEL				AMP		08 01 50.0	
	comp=N,3µm,0.3s						
CHCH	Chadas Angostu	1.45	175	⇑iP	P	08 01 28.2	-0.2
CHCH				iS	S	08 01 47.2	+0.3
LNV	Longovilo	1.55	199	⇓iP	P	08 01 29.2	-0.6
LNV				iS	S	08 01 49.3	0.0
CACH	El Canelo	1.63	174	⇑iP	P	08 01 31.4	+0.7
CACH				iS	S	08 01 52.8	+1.7
MDZ	Mendoza	1.69	104	eP	P	08 01 31.7	+0.2
MDZ				iS	S	08 01 55.6	+3.2
SFDO	San Fernando	2.13	185	⇓iP	P	08 01 37.3	-0.1
SFDO				iS	S	08 02 03.1	+0.3
TLL	Tololo Astrono	2.32	360	⇑iP	P	08 01 40.2	0.0
TLL				iS	S	08 02 08.2	+0.6
TLL				AMP		08 02 17.4	
	comp=E,328nm,0.3s						
NICH	Los Niches	2.53	188	i P	P	08 01 42.6	-0.5
NICH				iS	S	08 02 12.5	-0.4
LSCH	La Serena	2.60	351	⇑iP	P	08 01 43.4	-0.7
LSCH				iS	S	08 02 12.9	-1.8
LSCH				AMP		08 02 30.1	
	comp=E,240nm,0.5s						
TALC	Talca	2.98	193	⇓iP	P	08 01 48.2	-1.3
TALC				iS	S	08 02 22.3	-1.9

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*NEIC **19** 08:06:22.6±0.8, 18.85S×169.29E, h300^{km}, mb3.6/3, Error ellipse: s-maj=42.8km s-min=10.2km az=154.0*

*IDC **19** 08:06:24.9±14.0, 18.77S×169.15E, h319^{km}±138^{km}, mb3.3/7, mb1 3.6/7, mb1mx3.5/13, Error ellipse: s-maj=67.9km s-min=50.4km az=151.0*

ISC 19 08:06:18.0±2.1, **18.9S**±0.4×**169.3E**±0.2, **h267**^{km}±27^{km}, **n19**, σ**0^s.66**/15, **mb3.6**/9, **1D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	4.15	220	eP	P	08 07 25.2	+0.3
NOUC	Port Laguerre	4.26	221	eP	P	08 07 25.6	-0.5
CTA	Charters Tower	21.79	263	P	P	08 10 50.8	+1.5
	1.7nm,0.5s,mb3.6,baz=81,slow=14,SNR=5.0						
CTAO	Charters Tower	21.79	263	eP	P	08 10 50.9	+1.6
	1.4nm,0.6s,mb3.5						
STKA	Stephens Creek	28.10	237	P	P	08 11 47.9	+0.4
	2.1nm,0.7s,mb3.7,baz=64,slow=8.9,SNR=6.5						
STKA	Stephens Creek	28.10	237	eP	P	08 11 47.8	+0.4
WRA	Warramunga Arr	32.98	262	P	P	08 12 29.1	-1.0
	0.5nm,0.3s,mb3.5,baz=97,slow=8.4,SNR=13						
ASAR	Alice Springs	33.29	256	P	P	08 12 32.5	-0.3
	7.9nm,0.4s,mb4.6,baz=82,slow=8.8,SNR=214						
ASPA	Alice Springs	33.30	256	⇓iP	P	08 12 32.4	-0.4
SONM	Songino Array	87.01	323	P	P	08 18 34.4	+0.1
	0.3nm,0.5s,mb3.4,baz=180,slow=8.6,SNR=3.7						
NVAR	Mina Array Bea	88.52	48	P	P	08 18 42.2	+0.6
	0.3nm,0.7s,mb3.3,baz=229,slow=8.3,SNR=3.6						
NVAR	Mina Array Bea	88.52	48	P	P	08 18 42.2	+0.6
TPNV	Topopah Spring	89.37	51	P	P	08 18 46.1	+0.4
	0.8nm,0.7s,mb3.7						
ILAR	Eielson Array	89.89	17	P	P	08 18 46.9	-0.6
	0.3nm,0.6s,mb3.3,baz=229,slow=6.6,SNR=8.4						
ELK	Elko	91.63	47	P	P	08 18 55.6	-0.5
	0.6nm,0.7s,mb3.6						
YKA	Yellowknife Ar	100.33	27	P	P	08 19 35.4	+0.2
	0.1nm,0.5s,baz=259,slow=4.7,SNR=4.6						
YKA	Yellowknife Ar	100.33	27	P	P	08 19 35.4	+0.2
ARCES	ARCESS Array B	124.77	345	PKP	PKPdf	08 24 45.5	0.0
	7.4nm,1.2s,baz=51,slow=1.6,SNR=9.2						
ARCES	ARCESS Array B	124.77	345	PKP	PKPdf	08 24 45.5	0.0

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*SNSN **19** 08:23:39.0, 26.07N×35.54E, h20^{km}, Ml2.4*

*CSEM **19** 08:23:39.6±0.1, 26.11N×35.58E, h30^{km}, ML3.2, Error ellipse: s-maj=1.6km s-min=1.1km az=98.0*

*HLW **19** 08:23:41.7, 26.06N×35.46E, h21^{km}, Mb3.2*

ISC 19 08:23:38.8±3.4, **26.09N**±0.04×**35.58E**±0.07, **h23**^{km}±37^{km}, **n17**, σ**0^s.70**/19, **Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HQSR		1.12	253	P	Pn	08 23 59.5	+0.2
EMRS	Mersa Alam	1.26	212	P	Pn	08 24 01.6	+0.3
EMRS				S	Sn	08 24 16.5	-1.3
HSFG		1.56	288	P	Pn	08 24 05.5	-0.1
UMJS	Umm Lajj	1.78	118	P	Pn	08 24 07.9	-0.9
HAGS	Hagol	1.78	198	P	Pn	08 24 09.1	+0.3
AYUS	‘Aynunah	2.11	353	P	Pn	08 24 12.6	-0.9
HHRG	Al Ghardaqah	2.12	302	P	Pn	08 24 13.8	+0.1
TBKS	Tabuk	2.30	22	P	Pn	08 24 16.3	+0.1
TBKS				S	Sn	08 24 45.3	+1.3
BDAS	Al Bad‘	2.37	350	P	Pn	08 24 17.0	-0.2
HEDF	Idfu	2.38	246	P	Pn	08 24 19.0	+1.6
TAYS	Tayyib Ism	2.53	346	P	Pn	08 24 18.4	-1.1
YNBS	Yanbu‘ al Bahr	2.79	128	P	Pn	08 24 23.4	+0.2
JMQS	Jabal Moqyreh	2.80	5	P	Pn	08 24 23.2	-0.1
HSHL	Bi’r Shalatayn	2.97	183	P	Pn	08 24 26.5	+0.7
HAQS	Haql	3.01	349	P	Pn	08 24 26.0	-0.3
JMOS	Jabal al Moall	3.10	352	P	Pn	08 24 27.3	-0.2
ALWS	Ilw as Safayha	3.24	352	P	Pn	08 24 30.0	+0.4

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*CSEM **19** 08:23:42.7, 9.71N×78.62W, h10^{km}, mb5.8*

*IDC **19** 08:23:47.2±0.4, 9.25N×78.90W, h58^{km}±2^{km}, mb4.9/20, mb1 5.1/23, mb1mx5.1/24, MS4.4/17, Ms1 4.4/17, ms1mx4.1/22, Error ellipse: s-maj=16.4km s-min=8.8km az=62.0*

*MOS **19** 08:23:47.3±0.8, 9.43N×78.87W, h62^{km}, mb5.9/78, MS4.6/9, Error ellipse: s-maj=5.7km s-min=4.3km az=77.8*

*NEIC **19** 08:23:48.2±0.1, 9.38N×78.82W, mb5.5/153, MW5.5, Error ellipse: s-maj=4.1km s-min=2.4km az=17.0, Moment Tensor Solution. s6 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.51; $M_{\theta\theta}$-0.62; $M_{\phi\phi}$2.14; $M_{r\theta}$0.10; $M_{\theta\phi}$-0.35; $M_{\phi r}$0.53; Best double couple: $M_0$1.9×10^{17} NP1:ϕ_s342°, δ38°, λ-106°. NP2:ϕ_s182°, δ54°, λ-78°. Principal axes: T 2.26, Plg8°, Azm263°; N -.65, Plg10°, Azm355°; P -1.61, Plg78°, Azm135°;*

NEIC Felt strongly in Colon, Darien, Panama and San Blas. Also felt in Cocle. A 0.01g maximum acceleration was recorded at Panama City.

*SYO **19** 08:23:48.1, 9.37N×78.80W, h58^{km}, MB5.5*

*HRVD **19** 08:23:48.2±0.2, 9.58N×78.79W, h57^{km}±1^{km}, MW5.3/63, Centroid moment Tensor Solution. LP body waves: s56,c98;Mantle waves: s63,c120; Half duration: 1^s.1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.97±.03; $M_{\theta\theta}$-0.18±.02; $M_{\phi\phi}$1.15±.02; $M_{r\theta}$-0.24±.02; $M_{\theta\phi}$0.11±.02; $M_{\phi r}$0.46±.02; Best double couple: $M_0$1.19×10^{17} NP1:ϕ_s21°, δ36°, λ-63°. NP2:ϕ_s169°, δ58°, λ-108°. Principal axes: T 1.25, Plg11°, Azm272°; N -.11, Plg15°, Azm179°; P -1.14, Plg71°, Azm37°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **19** 08:23:48.2, 9.40N×78.80W, h58^{km}, mB5.5, Ms5.5, Msz5.0*

*CASC **19** 08:23:49.3, 9.45N×78.83W, h51^{km}, MD4.9, ML4.8, mb5.5(NEIC)*

ISC 19 08:23:47.4±0.1, **9.50N**±0.03×**78.78W**±0.01, **h58**^{km}, **h58**^{km}±.5^{km}**:pP-P**, **n647**, σ**0^s.90**/591, **mb5.5**/185, **MS4.6**/28, **45C-109D, Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JEF	Cerro Jefe	0.65	245	⇓iP	P	08 24 02.3	+1.3
JEF	Cerro Jefe	0.65	245	⇓iP	P	08 24 02.3	+1.3
UPA	Univ. de Panam	0.91	235	⇑iP	P	08 24 05.1	+0.8
UPA				eS	S	08 24 16.4	-0.6
UPA	Univ. de Panam	0.91	235	⇑iP	P	08 24 04.9	+0.5
UPA				eS	S	08 24 16.4	-0.7
UPA				AMb	AMB	08 24 18.2	
	comp=N,526nm,0.2s						
CNI	Changuinola	3.69	269	eP	P	08 24 43.4	-0.1
CNI	Changuinola	3.69	269	⇑eP	P	08 24 43.5	0.0
DVD	David	3.78	254	⇑iP	P	08 24 44.8	+0.1
DVD	David	3.78	254	⇑iP	P	08 24 45.2	+0.4
BRU	Baru	3.80	260	⇑iP	P	08 24 44.7	-0.3
PTP1	Petroterminal	3.83	251	⇑iP	P	08 24 44.7	-0.7
LIO	Limon	4.23	277	eP	P	08 24 52.0	+1.0
ACR	Cerro Adams	4.42	259	⇑iP	P	08 24 53.8	+0.1
BUS	Buena Vista	4.92	271	⇑eP	P	08 25 01.2	+0.6
BUS				eS	S	08 25 56.8	-0.1
URSC	Urasca	4.94	274	⇑iP	P	08 25 01.4	+0.4
TRTC	Tortuguero	4.98	283	⇓iP	P	08 25 00.7	-0.8
ICR	Volcan Irazu	5.01	276	⇑iP	P	08 25 02.5	+0.6
LCR2	La Lucha 2	5.16	273	⇑iP	P	08 25 04.5	+0.5
SJS	Escuela Geolog	5.22	275	⇓iP	P	08 25 05.0	+0.1
SJS				eS	S	08 26 01.6	-2.9
SJS				AMS	AMS	08 27 35.7	
	comp=Z,5µm,20.4s						
LAJ	Bijagual	5.28	274	⇑eP	P	08 25 13.5	+7.8
VPS2	Volcan Poas 2	5.42	278	⇑eP	P	08 25 08.8	+1.2
PRS1	Puriscal	5.48	275	eP	P	08 25 10.5	+2.1
CGA2	Cerro Gallo 2	5.63	276	⇑eP	P	08 25 11.7	+1.2
FORC	Fortuna	5.88	280	⇑iP	P	08 25 14.8	+0.8
JTS	JuntasAbangare	6.14	278	P	P	08 25 18.5	+0.9
	comp=Z,0.1nm,0.3s,baz=209,slow=21,SNR=6.9						
JTS				S	S	08 26 30.1	+2.9
	comp=Z,0.1nm,0.3s,baz=208,slow=19,SNR=2.7						
JTS	JuntasAbangare	6.14	278	ePn	P	08 25 17.4	-0.2
	comp=Z,3µm,0.8s						
JCR	Jicaral	6.26	274	⇓eP	P	08 25 20.5	+1.3
ROSC	El Rosal	6.38	136	P	P	08 25 21.8	+0.7
	comp=Z,52nm,0.3s,baz=338,slow=2.8,SNR=234						
ROSC				LR	LR	08 28 18.4	
	comp=Z,3µm,18.7s,baz=349,slow=43						
LIM1	Limonal	6.49	281	i P	P	08 25 22.4	-0.1
VCR	Vista de Mar	6.79	276	eP	P	08 25 28.9	+2.2
APON	Apoyo	7.56	289	⇑eP	P	08 25 37.7	+0.4
MASN	Masaya	7.66	289	⇓eP	P	08 25 38.8	0.0
MASN				⇑eP		08 25 39.0	
TICN	Ticuantepe	7.75	290	⇑eP	P	08 25 40.6	+0.6
WILN	Americas 2	7.75	291	⇓eP	P	08 25 39.7	-0.3
PYTN	Playitas	7.76	294	⇓eP	P	08 25 39.8	-0.4
CRUN	El Crucero	7.79	289	⇑eP	P	08 25 40.7	0.0
MGAN	Managua	7.80	290	⇓eP	P	08 25 40.6	-0.1
MGAN				i		08 27 20.3	
	comp=N,864nm,0.6s						
XAVN	Gruta Xavier	7.87	290	⇑eP	P	08 25 41.9	+0.2
APYN	Apoyeque	7.92	291	eP	P	08 25 42.8	+0.4
SDV	Santo Domingo	8.06	94	ePn	P	08 25 42.0	-2.4
	comp=N,489nm,0.6s						
SDV				eS	S	08 27 06.2	-8.7
COPN	Copaltepe	8.13	290	⇑eP	P	08 25 45.0	-0.2
MOMJ	Momotombo	8.15	291	⇑eP	P	08 25 45.5	-0.1
MIRN	Miramar	8.32	291	⇓eP	P	08 25 48.1	+0.2
CNGN	Cerro Negro	8.33	292	⇑eP	P	08 25 47.6	-0.4
MCJ	Malvern	8.44	7	eP	P	08 25 51.1	+1.5
MCJ				eS	S	08 27 22.8	-1.5
LEON	Leon	8.48	291	⇓eP	P	08 25 49.8	-0.3
TEL3	Telica 3	8.49	292	⇑eP	P	08 25 50.2	0.0
HOJ	Hope	8.68	13	⇑eP	P	08 25 54.3	+1.5
CRIN	San Cristobal	8.72	292	⇑eP	P	08 25 53.9	+0.5
STH	Stony Hill	8.73	12	⇑eP	P	08 25 54.4	+0.8
STH				eS	S	08 27 25.0	-6.6
GWJ	Greenwich	8.75	13	⇑eP	P	08 25 54.9	+1.1
CNCH	Conchagua	9.64	294	⇑eP	P	08 26 06.1	0.0
BLLM	Bellamira	10.07	294	eP	P	08 26 12.3	+0.3
CAHU	Cacacuatique	10.17	296	eP	P	08 26 13.2	-0.2
SNVI	San Vicente	10.67	293	eP	P	08 26 21.4	+1.2
LCBS	La Ceiba	10.81	293	eP	P	08 26 22.8	+0.7
LFRS	El Faro	10.88	293	eP	P	08 26 24.5	+1.5
BOQS	Boqueron	11.12	293	eP	P	08 26 28.9	+2.7
SBLS	San Blas	11.46	293	eP	P	08 26 32.5	+1.7
RTR	El Retiro	11.51	293	eP	P	08 26 33.2	+1.8
TEIG	Tepich	14.06	320	eP	P	08 27 06.0	+0.7
	comp=N,31nm,0.9s						
TEIG				eS	S	08 29 35.5	-4.9
SJG	San Juan	14.94	54	P	P	08 27 13.1	-3.7
	comp=N,12nm,0.3s,baz=235,slow=11,SNR=20						
SJG				S	S	08 29 51.5	-10
	comp=N,26nm,0.3s,baz=66,slow=21,SNR=10						
SJG				LR	LR	08 32 17.0	
	comp=N,1µm,21.5s,baz=244,slow=34						
SJG	San Juan	14.94	54	eP	P	08 27 11.5	-5.3
	comp=N,247nm,1.0s						
SJG				eS	S	08 29 45.0	-16
SIPA	Siparia	17.03	86	eP	P	08 27 35.6	-7.6
TPP	Pointe-a-Pierr	17.09	86	eP	P	08 27 43.4	-0.5
TRN	Trinidad (W)	17.14	85	eP	P	08 27 44.3	-0.4
BBL	Barber’s Block	17.92	69	eP	P	08 28 04.2	+10
BPA	Boggy Peak	18.08	64	eP	P	08 27 56.3	-0.1
MGG	Marie-Galante	18.18	68	eP	P	08 27 59.4	+1.8
NNA	Nana	21.43	175	eP	P	08 28 31.7	-1.0
	comp=N,121nm,1.1s,mb5.1						
NNA				epP		08 28 44.3	
HBF	Harts Bluff	23.36	357	eP	P	08 28 54.2	+2.6
NHSC	New Hope	23.53	357	eP	P	08 28 55.6	+2.5
	comp=N,248nm,1.2s,mb5.5						
NHSC				epP		08 29 08.0	
COW	Cow Castle Cre	23.83	356	eP	P	08 28 58.4	+2.3
GOGA	Godfrey	24.18	350	eP	P	08 29 01.6	+2.0
GOGA				e*PP		08 29 16.5	
GOGA				pmax	pmax		
	comp=Z,78nm,0.5s,mb5.4						
GOGA	Godfrey	24.18	350	eP	P	08 29 01.6	+2.0
	comp=Z,78nm,0.5s,mb5.4						
GOGA				epP		08 29 16.5	
LRAL	Lakeview Retre	24.62	343	eP	P	08 29 05.3	+1.4
	comp=Z,291nm,1.5s,mb5.6						
LRAL				epP		08 29 20.3	
JSC	Jenkinsville	24.77	355	eP	P	08 29 06.9	+1.6
JSC				e*PP		08 29 21.2	
HKT	Hockley	25.85	324	eP	P	08 29 15.1	-0.3
HKT				e*PP	pP	08 29 26.8	-2.7
HKT				pmax	pmax		
	comp=Z,183nm,1.5s,mb5.4						
HKT	Hockley	25.85	324	eP	P	08 29 15.1	-0.3
	comp=Z,183nm,1.5s,mb5.4						
HKT				epP	pP	08 29 26.8	-2.8
MYNC	Murphy	25.92	350	eP	P	08 29 17.6	+1.5
MYNC				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.1						
MYNC	Murphy	25.92	350	eP	P	08 29 17.6	+1.5
	comp=Z,56nm,0.9s,mb5.1						
CPCT	Cooper Cave	26.36	349	eP	P	08 29 21.1	+1.0
CPCT				epP	pP	08 29 32.9	-1.3
CPCT				ePcP	PcP	08 32 43.0	-2.2
SWET	Sewanee	26.42	347	eP	P	08 29 21.6	+1.0
SWET				epP	pP	08 29 34.3	-0.5
SWET				ePcP	PcP	08 32 41.7	-3.6
NATX	Nacogdoches	26.60	329	eP	P	08 29 22.2	-0.2
	comp=Z,54nm,0.8s,mb5.1						
NATX				epP	pP	08 29 36.0	-0.6
OXF	Oxford	26.73	340	eP	P	08 29 23.2	-0.4
OXF				e		08 32 43.2	
OXF				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.0						
OXF	Oxford	26.73	340	eP	P	08 29 23.2	-0.4
	comp=Z,46nm,1.0s,mb5.0						
OXF				ePcP	PcP	08 32 43.2	-2.8
ARE	Arequipa	26.78	164	eP	P	08 29 25.0	+0.8
BLA	Blacksburg	27.63	357	eP	P	08 29 32.7	+1.0
BLA				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.0						
BLA	Blacksburg	27.63	357	eP	P	08 29 32.7	+1.0
	comp=Z,44nm,1.0s,mb5.0						
ELN	Prospectdale	27.66	357	eP	P	08 29 33.1	+1.0
LPAZ	La Paz	27.70	158	P	P	08 29 30.9	-1.7
	comp=Z,9.8nm,0.8s,mb4.5,baz=344,slow=10,SNR=18						
LPAZ				LR	LR	08 41 13.5	
	comp=Z,451nm,19.4s,MS4.1,baz=114,slow=38						
WVT	Waverly	27.76	344	eP	P	08 29 32.7	-0.2
WVT				e		08 32 45.5	
WVT				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.2						
WVT	Waverly	27.76	344	eP	P	08 29 32.7	-0.3
	comp=Z,58nm,0.9s,mb5.2						
WVT				ePcP	PcP	08 32 45.5	-3.0
WVT				epPcP		08 33 01.6	
PWV	Princeton	27.79	356	eP	P	08 29 33.9	+0.7
PWV				epP	pP	08 29 46.7	-0.7
HALT	Halls	27.99	342	eP	P	08 29 34.9	-0.1
FWV	Forest Hill	28.02	357	eP	P	08 29 36.5	+1.2
FWV				epP	pP	08 29 49.3	-0.2
FWV				ePP	PP	08 30 39.0	+12
UALR	University of	28.05	336	eP	P	08 29 35.2	-0.4
	comp=Z,77nm,1.1s,mb5.2						
HBAR	Harrisburg	28.11	339	eP	P	08 29 36.4	+0.3
MIAR	Mount Ida	28.38	334	eP	P	08 29 37.5	-1.0
MIAR				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.6						
MIAR	Mount Ida	28.38	334	eP	P	08 29 37.5	-1.0
	comp=Z,14nm,0.8s,mb4.7						
PVMO	Portageville	28.57	341	eP	P	08 29 40.2	0.0
JCT	Junction City	28.64	320	eP	P	08 29 39.5	-1.3
JCT				e*PP	pP	08 29 51.6	-3.6
JCT				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
JCT	Junction City	28.64	320	eP	P	08 29 39.5	-1.3
	comp=Z,7.3nm,0.7s,mb4.5						
JCT				epP	pP	08 29 51.6	-3.6
WCI	Wyandotte Cave	29.39	348	eP	P	08 29 47.1	-0.4
WCI				e*PP	pP	08 30 02.3	+0.4
WCI				e*SP	sP	08 30 08.5	-0.4
WCI				e		08 32 50.0	
WCI				pmax	pmax		
	comp=Z,68nm,0.8s,mb5.4						
WCI	Wyandotte Cave	29.39	348	eP	P	08 29 47.1	-0.4
	comp=Z,68nm,0.8s,mb5.4						
WCI				epP	pP	08 30 02.3	+0.5
WCI				esP	sP	08 30 08.5	-0.4
WCI				ePcP	PcP	08 32 50.0	-2.5
WCI				epPcP		08 33 04.4	
USIN	University of	29.45	346	eP	P	08 29 47.9	-0.1
	comp=Z,635nm,0.8s,mb6.4						
USIN				epP	pP	08 30 02.9	+0.5
USIN				esP	sP	08 30 09.5	+0.1
SDMD	Soldier’s Deli	29.83	3	eP	P	08 29 52.0	+0.6
FVM	French Village	30.24	342	eP	P	08 29 54.9	-0.1
FVM				pmax	pmax		
	comp=Z,125nm,0.8s,mb5.7						
FVM	French Village	30.24	342	eP	P	08 29 54.9	-0.1
	comp=Z,125nm,0.8s,mb5.7						
BLO	Bloomington	30.35	348	eP	P	08 29 55.8	-0.2
BLO				e*PP	pP	08 30 11.2	+0.8
BLO				e		08 32 53.1	
BLO				pmax	pmax		
	comp=Z,221nm,1.0s,mb5.8						
BLO	Bloomington	30.35	348	eP	P	08 29 55.8	-0.2
	comp=Z,221nm,1.0s,mb5.8						
BLO				epP	pP	08 30 11.2	+0.8
BLO				ePcP	PcP	08 32 53.1	-1.9
BLO				epPcP		08 33 08.1	
MVL	Millersville	30.45	4	eP	P	08 29 57.9	+1.1
MVL				epP	pP	08 30 11.0	-0.3
LTX	Lajitas	30.54	314	eP	P	08 29 57.3	-0.5
LTX				e*PP	pP	08 30 11.7	-0.5
LTX				e		08 32 54.3	
LTX				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.5						
LTX	Lajitas	30.54	314	eP	P	08 29 57.3	-0.5
	comp=Z,77nm,1.1s,mb5.5						
LTX				epP	pP	08 30 11.7	-0.6
LTX				ePcP	PcP	08 32 54.3	-1.3
LTX				epPcP		08 33 09.3	
TXAR	Lajitas Array	30.54	314	P	P	08 29 56.9	-0.9
	comp=Z,6.1nm,0.6s,mb4.6,baz=136,slow=10,SNR=43						
TXAR				pP	pP	08 30 11.8	-0.4
	comp=Z,28nm,0.9s,baz=140,slow=9.8,SNR=19						
TXAR				PcP	PcP	08 32 53.9	-1.7
	comp=Z,4.8nm,0.8s,baz=154,slow=5.2,SNR=6.3						
TXAR				pPcP		08 33 10.7	
	comp=Z,3.3nm,0.8s,baz=135,slow=5.3,SNR=4.1						
TXAR				ScP		08 36 31.1	
	comp=Z,1.2nm,0.9s,baz=143,slow=6.3,SNR=5.0						
TXAR				LR	LR	08 43 18.0	
	comp=Z,363nm,18.7s,MS4.0,baz=200,slow=38						
SLM	Saint Louis	30.78	342	eP	P	08 29 59.2	-0.6
SLM				pmax	pmax		
	comp=Z,78nm,0.6s,mb5.7						
SLM	Saint Louis	30.78	342	eP	P	08 29 59.2	-0.6
	comp=Z,78nm,0.6s,mb5.7						
SSPA	Standing Stone	31.02	1	eP	P	08 30 02.7	+0.8
	comp=Z,99nm,1.8s,mb5.3						
WMOK	Wichita Mounta	31.08	327	eP	P	08 30 00.8	-1.7
WMOK				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.0						
WMOK	Wichita Mounta	31.08	327	eP	P	08 30 00.8	-1.7
	comp=Z,15nm,0.6s,mb5.0						
CLNB	Carlsbad	32.44	318	eP	P	08 30 13.2	-1.2
GDL2	Guadalupe Moun	32.73	317	eP	P	08 30 16.1	-0.8
GDL2				epP	pP	08 30 30.7	-0.8
AMTX	Amarillo	32.82	324	eP	P	08 30 15.1	-2.5
	comp=Z,26nm,1.0s,mb5.1						
CPRX	Cap Rock	32.92	319	eP	P	08 30 16.5	-2.1
LVC	Limon Verde	33.35	163	P	P	08 30 22.2	-0.2
	comp=Z,82nm,1.2s,mb5.5,baz=348,slow=6.3,SNR=35						
LVC				pP	pP	08 30 37.1	+0.1
	comp=Z,48nm,1.2s,baz=333,slow=5.9,SNR=8.4						
LVC	Limon Verde	33.35	163	eP	P	08 30 21.4	-0.9
	comp=Z,212nm,1.4s,mb5.9						
KSU1	Kansas State U	33.52	334	eP	P	08 30 22.2	-1.5
NCB	Newcomb	34.57	6	eP	P	08 30 33.4	+0.8
	comp=Z,120nm,1.6s,mb5.6						
MIV	Mineville/With	34.74	7	eP	P	08 30 34.7	+0.6
JFWS	Jewell Farm	34.77	345	eP	P	08 30 33.1	-1.2
JFWS				pmax	pmax		
	comp=Z,98nm,0.6s,mb5.9						
JFWS	Jewell Farm	34.77	345	eP	P	08 30 33.1	-1.2
	comp=Z,98nm,0.6s,mb5.9						
SADO	Sadowa	35.14	360	P	P	08 30 37.8	+0.3
	comp=Z,24nm,0.5s,mb5.4,baz=209,slow=8.8,SNR=33						
SADO				pP	pP	08 30 53.1	+0.9
	comp=Z,32nm,0.9s,baz=194,slow=9.2,SNR=4.9						
SADO				sP	sP	08 30 60.0	+0.5
	comp=Z,23nm,0.8s,baz=197,slow=10,SNR=3.5						
SADO				LR	LR	08 45 22.4	
	comp=Z,624nm,21.9s,MS4.3,baz=175,slow=37						
BNM	Barren Site	35.42	318	eP	P	08 30 40.1	+0.1
BNM				epP	pP	08 30 54.8	0.0
FRNY	Flat Rock	35.49	6	eP	P	08 30 41.5	+1.0
LPM	Los Pinos Moun	35.52	318	eP	P	08 30 40.1	-0.7
LPM				epP	pP	08 30 55.4	-0.2
LENM	Lemitar	35.66	318	eP	P	08 30 41.7	-0.3
ANMO	Albuquerque	35.80	319	P	P	08 30 43.5	+0.3
	comp=Z,29nm,0.8s,mb5.2,baz=134,slow=9.2,SNR=114						
ANMO	Albuquerque	35.80	319	P	P	08 30 43.5	+0.3
ANMO				pmax	pmax		
	comp=Z,29nm,0.8s						
ANMO	Albuquerque	35.80	319	eP	P	08 30 43.1	0.0
	comp=Z,26nm,0.7s,mb5.3						
LAZ	Ladron	35.91	318	eP	P	08 30 43.8	-0.4
SDCO	Great Sand Dun	37.02	324	eP	P	08 30 54.1	+0.6
	comp=Z,56nm,1.1s,mb5.3						
SDCO				epP	pP	08 31 08.3	+0.1
TUC	Tucson	37.29	312	eP	P	08 30 55.7	-0.1
TUC				e*PP	pP	08 31 10.8	+0.2
TUC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
TUC	Tucson	37.29	312	eP	P	08 30 55.7	-0.1
	comp=Z,7.6nm,0.8s,mb4.6						
TUC				epP	pP	08 31 10.8	+0.2
ISCO	Idaho Springs	38.49	326	eP	P	08 31 06.4	+0.7
ISCO				e*PP	pP	08 31 21.0	+0.4
ISCO				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.1						
ISCO	Idaho Springs	38.49	326	eP	P	08 31 06.4	+0.7
	comp=Z,49nm,1.2s,mb5.1						
ISCO				epP	pP	08 31 21.0	+0.5
PV01	Paradox Valley	39.11	322	eP	P	08 31 11.7	+0.9
PV01				epP	pP	08 31 27.0	+1.3
BDFB	Brasilia	39.40	129	P	P	08 31 12.3	-1.2
	comp=Z,17nm,0.7s,mb4.9,baz=297,slow=9.7,SNR=38						
BDFB				sP	sP	08 31 32.5	-2.8
	comp=Z,13nm,0.8s,baz=302,slow=6.6,SNR=5.0						
BDFB				LR	LR	08 48 51.1	
	comp=Z,1µm,18.2s,MS4.7,baz=152,slow=38						
BAO	Brasilia Array	39.41	129	P	P	08 31 12.4	-1.1
BAO				e	pP	08 31 27.9	-0.5
BAO				e		08 31 33.2	
BAO				e		08 31 37.5	
BAO				e		08 31 44.8	
BAO				e		08 32 05.7	
PHWY	Pilot Hill	39.47	328	eP	P	08 31 14.3	+0.5
PHWY				epP	pP	08 31 29.2	+0.5
PV10	Paradox Valley	39.55	322	eP	P	08 31 14.6	+0.1
PV10				epP	pP	08 31 29.3	-0.1
RWWY	Rawlins	40.68	327	eP	P	08 31 24.5	+0.7
RWWY				epP	pP	08 31 39.1	+0.4
SRU	San Rafael	40.92	321	eP	P	08 31 26.1	+0.3
SRU				e*PP	pP	08 31 41.5	+0.8
CPUP	Villa Florida	41.27	150	P	P	08 31 24.4	-4.4
	comp=Z,0.0nm,0.5s,baz=220,slow=14,SNR=2.4						
CPUP				pP	pP	08 31 42.5	-1.3
	comp=Z,0.1nm,0.8s,baz=225,slow=12,SNR=1.5						
CPUP	Villa Florida	41.27	150	P	P	08 31 23.9	-4.9

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TMUT Trail Mountain    41.45 321 eP     P      08 31 30.7 +0.5
TMUT                             epP    pP     08 31 45.9 +0.8
MSU  Marysvale         41.60 319 eP     P      08 31 32.0 +0.5
MSU                              e*PP   pP     08 31 47.0 +0.6
MVU  Marysvale         41.62 319 eP     P      08 31 32.3 +0.7
     comp=Z,60nm,1.7s,mb5.0
MVU                              epP    pP     08 31 44.8 -1.7
LDFC Landfair          41.79 313 eP     P      08 31 34.2 +1.2
LDFC                             epP    pP     08 31 49.4 +1.4
BAR  Barrett           41.87 309 eP     P      08 31 33.6 -0.1
BAR                              epP    pP     08 31 48.6 -0.1
NEN  Nelson            41.88 314 eP     P      08 31 33.8  0.0
NEN                              epP    pP     08 31 48.6  0.0
ARUT Antelope Range    42.02 318 eP     P      08 31 35.3 +0.4
ARUT                             e*PP   pP     08 31 49.8 -0.1
PFO  Pinyon Flat Ob    42.11 310 eP     P      08 31 35.9 +0.2
PFO                               *PP   pP     08 31 49.1 -1.5
PFO                               pmax  pmax
     comp=Z,13nm,1.0s,mb4.5
PFO  Pinyon Flat Ob    42.11 310 eP     P      08 31 35.9 +0.2
     comp=Z,13nm,1.0s,mb4.5
PFO                               pP    pP     08 31 49.1 -1.5
MPU  Maple Canyon      42.15 322 eP     P      08 31 35.6 -0.3
MPU                              epP    pP     08 31 50.9 +0.1
DAU  Daniels Canyon    42.16 322 eP     P      08 31 36.5 +0.5
DAU                              e*PP   pP     08 31 51.2 +0.2
NLU  North Lily Min    42.38 321 eP     P      08 31 38.2 +0.3
NLU                              epP    pP     08 31 53.1 +0.3
JLU  Jordanelle        42.39 322 eP     P      08 31 37.9  0.0
JLU                              epP    pP     08 31 53.0 +0.2
TCUT Toone Canyon      42.69 323 eP     P      08 31 40.7 +0.4
TCUT                             epP    pP     08 31 55.1 -0.2
PDAR Pinedale Array    42.69 326  P     P      08 31 39.7 -0.6
     comp=Z,18nm,0.8s,mb4.9,baz=130,slow=8.2,SNR=140
PDAR                              pP    pP     08 31 55.2 -0.1
     comp=Z,27nm,0.7s,baz=141,slow=9.5,SNR=19
PDAR                              PcP   PcP    08 33 29.8 -2.1
     comp=Z,5.4nm,0.6s,baz=126,slow=5.6,SNR=7.6
PDAR                              pPcP         08 33 46.1
     comp=Z,4.1nm,0.6s,baz=142,slow=4.0,SNR=4.2
NOQ  North Oquirrh     42.83 322 eP     P      08 31 41.6 +0.1
NOQ                              epP    pP     08 31 57.0 +0.5
ULM  Lac du Bonnet     43.03 344  P     P      08 31 42.1 -0.8
     comp=Z,62nm,0.5s,mb5.6,baz=151,slow=8.1,SNR=131
ULM                               pP    pP     08 31 58.3 +0.4
     comp=Z,30nm,0.8s,baz=146,slow=8.9,SNR=5.9
ULM                               LR    LR     08 51 00.6
     comp=Z,347nm,19.2s,MS4.3,baz=345,slow=38
ULM  Lac du Bonnet     43.03 344 eP     P      08 31 42.0 -1.0
     comp=Z,94nm,0.6s,mb5.7
ULM                              epP    pP     08 31 57.4 -0.6
HWUT Hardware Ranch    43.08 324 eP     P      08 31 42.6 -1.0
     comp=Z,52nm,1.2s,mb5.1
SPUT South Promonto    43.42 323 eP     P      08 31 46.1 -0.2
SPUT                             epP    pP     08 31 59.9 -1.4
TPNV Topopah Spring    43.50 315 eP     P      08 31 47.0 -0.1
TPNV                             e*PP   pP     08 32 02.1 +0.1
TPNV                              pmax  pmax
     comp=Z,8.0nm,0.9s,mb4.5
TPNV Topopah Spring    43.50 315 eP     P      08 31 47.0 -0.1
     comp=Z,8.1nm,0.9s,mb4.5
TPNV                             epP    pP     08 32 02.1 +0.1
BGU  Big Grassy Mou    43.54 322 eP     P      08 31 47.3 -0.1
BGU                              epP    pP     08 32 02.5 +0.2
AHID Auburn Hatcher    43.55 325 eP     P      08 31 47.0 -0.3
     comp=Z,20nm,0.8s,mb4.9
AHID                             epP    pP     08 32 02.3  0.0
MWC  Mount Wilson      43.57 310 eP     P      08 31 47.7  0.0
MWC                              e*PP   pP     08 32 02.4 -0.2
TRCR Troy Canyon       43.75 317 eP     P      08 31 49.4 +0.4
REDW Red Top Meadow    43.80 326 eP     P      08 31 49.3  0.0
REDW                             epP    pP     08 32 04.9 +0.6
SNOW Snow King Moun    43.81 326 eP     P      08 31 49.3 -0.1
SNOW                             epP    pP     08 32 04.2 -0.2
LAO  LASA Array        43.81 333  P     P      08 31 48.6 -0.8
     comp=Z,31nm,0.3s,mb5.5
LAO                              epP    pP     08 32 04.5 +0.1
LOHW Long Hollow       43.82 326 eP     P      08 31 49.3 -0.3
LOHW                             epP    pP     08 32 04.7 +0.1
WUWY Wally Ulrich      43.85 326 eP     P      08 31 49.5 -0.3
HVU  Hansel Valley     43.90 323 eP     P      08 31 49.0 -1.2
TPAW Teton Pass        43.93 326 eP     P      08 31 50.2 -0.2
TPAW                             epP    pP     08 32 06.1 +0.7
MOOW Moose Ponds       43.99 326 eP     P      08 31 50.3 -0.6
MOOW                             epP    pP     08 32 05.9  0.0
IMW  Indian Meadow     44.19 326 eP     P      08 31 52.3 -0.2
IMW                              epP    pP     08 32 07.6 +0.1
DGMT Dagmar            44.33 336 eP     P      08 31 52.5 -1.1
     comp=Z,79nm,0.8s,mb5.5
DGMT                             epP    pP     08 32 08.2 -0.4
YFT  Old Faithful      44.50 327 eP     P      08 31 56.3 +1.3
YMR  Madison River     44.72 327 eP     P      08 31 56.8 +0.1
TPH  Tonopah           44.73 316 eP     P      08 31 56.7 -0.2
TPH                              e*PP   pP     08 32 11.4 -0.5
TPH                               pmax  pmax
     comp=Z,31nm,1.3s,mb5.0
TPH  Tonopah           44.73 316 eP     P      08 31 56.7 -0.2
     comp=Z,31nm,1.3s,mb5.0
TPH                              epP    pP     08 32 11.4 -0.5
ELK  Elko              44.81 320 eP     P      08 31 56.4 -1.1
ELK                              e*PP   pP     08 32 12.3 -0.2
ELK                               pmax  pmax
     comp=Z,32nm,1.6s
ELK  Elko              44.81 320 eP     P      08 31 56.4 -1.2
     comp=Z,32nm,1.6s,mb4.9
ELK                              epP    pP     08 32 12.3 -0.2
QLMT Earthquake Lak    45.07 327 eP     P      08 32 01.1 +1.5
MTUM Tungsten Hills    45.32 314 eP     P      08 32 02.1 +0.5
MTUM                             epP    pP     08 32 17.4 +0.7
MNV  Mina              45.54 316 eP     P      08 32 02.9 -0.5
MNV                              e*PP   pP     08 32 18.4  0.0
MNV                               pmax  pmax
     comp=Z,58nm,1.8s,mb5.2
MNV  Mina              45.54 316 eP     P      08 32 02.9 -0.4
     comp=Z,58nm,1.8s,mb5.2
MNV                              epP    pP     08 32 18.4  0.0
NVAR Mina Array Bea    45.65 316  P     P      08 32 04.2  0.0
     comp=Z,8.8nm,0.8s,mb4.7,baz=120,slow=6.9,SNR=68
NVAR                              pP    pP     08 32 19.0 -0.2
     comp=Z,35nm,0.8s,baz=135,slow=6.4,SNR=46
NVAR                              PcP   PcP    08 33 40.8 -1.2
     comp=Z,6.5nm,0.5s,baz=120,slow=4.8,SNR=12
NVAR                              pPcP         08 33 57.4
     comp=Z,7.2nm,0.8s,baz=126,slow=5.0,SNR=4.8
NVAR                              ScP          08 37 27.0
     comp=Z,2.0nm,0.9s,baz=130,slow=5.3,SNR=5.9
NVAR                              LR    LR     08 54 59.5
     comp=Z,374nm,19.3s,MS4.3,baz=90,slow=41
NVAR Mina Array Bea    45.65 316  P     P      08 32 04.2  0.0
NVAR                              pP    pP     08 32 19.0 -0.2
NVAR                              PcP   PcP    08 33 40.8 -1.2
NVAR                              pPcP         08 33 57.4
NVAR                              ScP          08 37 27.0
NVAR                              LR    LR     08 54 59.5
BOZ  Bozeman (W)       45.72 328 eP     P      08 32 03.9 -0.8
BOZ                              e*PP   pP     08 32 19.7  0.0
BOZ                               pmax  pmax
     comp=Z,20nm,0.8s,mb5.1
BOZ  Bozeman (W)       45.72 328 eP     P      08 32 03.9 -0.8
     comp=Z,20nm,0.8s,mb5.1
BOZ                              epP    pP     08 32 19.7  0.0
OMM  Old Mammoth Mi    45.75 314 eP     P      08 32 04.8 -0.2
OMM                              epP    pP     08 32 19.9 -0.1
MCMT McKenzie Canyo    45.84 326 eP     P      08 32 06.2 +0.5
MCMT                             epP    pP     08 32 21.1 +0.5
BMN  Battle Mountai    45.92 319 eP     P      08 32 05.9 -0.4
BMN                              e*PP   pP     08 32 21.1 -0.3
BMN                               pmax  pmax
     comp=Z,67nm,1.6s,mb5.3
BMN  Battle Mountai    45.92 319 eP     P      08 32 05.8 -0.5
     comp=Z,67nm,1.6s,mb5.3
BMN                              epP    pP     08 32 21.1 -0.2
HLID Hailey            45.94 324 eP     P      08 32 06.3 -0.2
     comp=Z,22nm,0.9s,mb5.1
HLID                             epP    pP     08 32 21.2 -0.3
SCHQ Schefferville     46.20  10  P     P      08 32 08.6 +0.3
     comp=Z,27nm,0.7s,mb5.3,baz=188,slow=5.9,SNR=63
SCHQ                              pP    pP     08 32 24.9 +1.5
     comp=Z,46nm,1.1s,baz=170,slow=5.9,SNR=7.7
SCHQ                              LR    LR     08 53 08.7
     comp=Z,335nm,19.0s,MS4.3,baz=104,slow=38
SCHQ Schefferville     46.20  10 eP     P      08 32 08.5 +0.2
     comp=Z,34nm,0.7s,mb5.4
HRY  Holter Researc    46.53 329 eP     P      08 32 10.6 -0.5
HRY                              epP    pP     08 32 26.1  0.0
LRV  Little Rabbit     46.69 312 eP     P      08 32 11.9 -0.6
LRV                              epP    pP     08 32 27.1 -0.4
CMB  Columbia Colle    46.92 314 eP     P      08 32 12.4 -1.8
CMB                               pmax  pmax
     comp=Z,2.0nm,0.7s
CMB  Columbia Colle    46.92 314 eP     P      08 32 12.4 -1.9
     comp=Z,1.6nm,0.7s
WCN  Washoe City       47.06 316 eP     P      08 32 15.0 -0.3
WCN                              e*PP   pP     08 32 29.7 -0.7
WCN                               pmax  pmax
     comp=Z,13nm,1.2s,mb4.7
WCN  Washoe City       47.06 316 eP     P      08 32 15.0 -0.3
     comp=Z,13nm,1.2s,mb4.7
WCN                              epP    pP     08 32 29.6 -0.7
SAO  San Andreas Ge    47.14 312  P     P      08 32 14.9 -1.1
SAO                              e*PP   pP     08 32 28.6 -2.5
SAO                               pmax  pmax
     comp=Z,20nm,1.0s,mb5.0
SAO  San Andreas Ge    47.14 312  P     P      08 32 14.9 -1.1
     comp=Z,20nm,1.0s,mb5.0
SAO                              epP    pP     08 32 28.6 -2.5
MSO  Missoula          47.71 328 eP     P      08 32 19.0 -1.2
     comp=Z,20nm,1.3s,mb5.0
MSO                              epP    pP     08 32 33.6 -1.7
BEKR Beckwourth        47.73 316 eP     P      08 32 19.4 -1.2
     comp=Z,25nm,1.7s,mb5.0
BEKR                             epP    pP     08 32 34.1 -1.6
OHCM Honcut            48.27 315  P     P      08 32 23.3 -1.4
OHCM                             epP    pP     08 32 39.3 -0.6
BMO  Blue Mountains    48.38 324 eP     P      08 32 22.8 -2.8
     comp=Z,26nm,1.4s,mb5.1
BMO                              epP    pP     08 32 38.3 -2.4
MOD  Modoc             48.67 319 eP     P      08 32 25.8 -2.0
     comp=Z,4.8nm,0.8s,mb4.6
MOD                              epP    pP     08 32 40.0 -2.9
NSHM Saint Helena R    48.71 314 eP     P      08 32 27.7 -0.4
NSHM                             epP    pP     08 32 43.1 -0.2
WDC  Whiskeytown Da    49.54 316 eP     P      08 32 31.1 -3.5
WDC                              e*PP   pP     08 32 46.2 -3.5
WDC                               pmax  pmax
     comp=Z,7.0nm,0.8s,mb4.7
WDC  Whiskeytown Da    49.54 316 eP     P      08 32 31.1 -3.5
     comp=Z,6.8nm,0.8s,mb4.7
WDC                              epP    pP     08 32 46.1 -3.6
BUOR Burton Butte      50.12 318  P     P      08 32 38.0 -1.0
YBH  Yreka Blue Hor    50.17 317  P     P      08 32 36.6 -2.8
     comp=Z,4.0nm,0.7s,mb4.5,baz=81,slow=4.8,SNR=16
YBH                               pP    pP     08 32 52.5 -2.1
     comp=Z,22nm,0.8s,baz=104,slow=4.6,SNR=23
YBH  Yreka Blue Hor    50.17 317  P     P      08 32 36.6 -2.8
YBH                               *PP   pP     08 32 52.5 -2.1
YBH                               pmax  pmax
     comp=Z,4.0nm,0.7s
YBH                               pmax  pmax
     comp=Z,22nm,0.8s
YBH  Yreka Blue Hor    50.17 317 eP     P      08 32 36.2 -3.2
     comp=Z,2.4nm,0.7s
YBH                              epP    pP     08 32 51.9 -2.7
NEW  Newport           50.28 327  P     P      08 32 38.4 -1.8
     comp=Z,11nm,0.9s,mb4.9,baz=141,slow=7.1,SNR=20
NEW                               pP    pP     08 32 54.0 -1.3
     comp=Z,20nm,1.0s,baz=133,slow=7.1,SNR=12
NEW  Newport           50.28 327  P     P      08 32 38.4 -1.7
NEW                               *PP   pP     08 32 54.0 -1.3
NEW                               pmax  pmax
     comp=Z,11nm,0.9s
NEW                               pmax  pmax
     comp=Z,20nm,1.0s
NEW  Newport           50.28 327 eP     P      08 32 38.1 -2.0
     comp=Z,45nm,1.5s,mb5.3
NEW                              epP    pP     08 32 53.7 -1.6
KHMM Horse Mountain    50.49 316 eP     P      08 32 41.1 -0.6
KHMM                             epP    pP     08 32 55.9 -1.1
FCC  Fort Churchill    50.52 350 eP     P      08 32 39.7 -2.1
FCC                              e*PP   pP     08 32 55.4 -1.6
FCC                               pmax  pmax
     comp=Z,92nm,1.1s,mb5.6
FCC  Fort Churchill    50.52 350 eP     P      08 32 39.7 -2.1
     comp=Z,92nm,1.1s,mb5.6
FCC                              epP    pP     08 32 55.4 -1.6
HAWA Hanford           50.54 324 eP     P      08 32 39.3 -2.9
     comp=Z,18nm,1.4s,mb4.8
HAWA                             epP    pP     08 32 56.2 -1.1
CROR Criterion Ridg    50.65 322  P     P      08 32 42.9  0.0
HUMO Hull Mountain     50.74 318 eP     P      08 32 42.0 -1.7
     comp=Z,9.6nm,0.9s,mb4.7
KRMB Red Mountain      50.89 317 eP     P      08 32 43.8 -1.0
KRMB                             epP    pP     08 32 59.0 -1.0
EPH  Ephrata           51.11 325  P     P      08 32 45.7 -0.8
WTV  Waterville        51.50 325  P     P      08 32 48.5 -0.9
TBM  Table Mountain    51.58 324  P     P      08 32 49.4 -0.5
EDM  Edmonton          51.73 334 eP     P      08 32 49.1 -1.8
EDM                              e*PP   pP     08 33 04.3 -1.9
COR  Corvallis         51.88 320 epP    pP     08 33 06.7 -0.8
     comp=Z,36nm,0.9s
WRW  Wenatchee Ridg    52.11 325  P     P      08 32 53.4 -0.5
PGC  Sidney            53.99 325  P     P      08 33 05.8 -2.0
PGC                              epP    pP     08 33 20.8 -2.5
YKA  Yellowknife Ar    58.90 341  P     P      08 33 40.3 -2.3
     comp=Z,76nm,0.7s,mb5.9,baz=132,slow=7.3,SNR=1242
YKA                               pP    pP     08 33 55.9 -2.3
     comp=Z,24nm,0.6s,baz=132,slow=7.6,SNR=8.7
YKA                               LR    LR     09 01 41.8
     comp=Z,273nm,19.4s,MS4.4,baz=95,slow=38
YKA  Yellowknife Ar    58.90 341  P     P      08 33 40.4 -2.3
YKA                               pP    pP     08 33 55.9 -2.3
YKA                               LR    LR     09 01 41.8
YKW3 Yellowknife Ar    58.95 342 eP     P      08 33 40.8 -2.2
YKW3                             epP    pP     08 33 56.2 -2.4
CHIE El Hierro         59.85  64  P     P      08 33 47.8 -1.9
     comp=Z,32nm,0.7s,mb5.5
EGOM La Gomera         60.55  63  P     P      08 33 51.4 -3.1
     comp=Z,541nm,2.1s,mb6.3
DLBC Dease Lake        62.34 332  P     P      08 34 04.9 -1.2
     comp=Z,23nm,1.0s,mb5.2,baz=121,slow=4.8,SNR=22
DLBC                              pP    pP     08 34 20.3 -1.5
     comp=Z,11nm,0.8s,baz=122,slow=6.3,SNR=6.7
DLBC Dease Lake        62.34 332 eP     P      08 34 04.2 -1.9
DLBC                             epP    pP     08 34 19.6 -2.2
RKT  Rikitea           63.82 238 eS     S      08 42 43.5 -2.0
RKT                              eLR    LR     08 54 16.3
     comp=Z,2µm,30.8s,baz=50
USHA Ushuaia           64.68 173  P     P      08 34 15.6 -5.8
     comp=Z,20nm,1.1s,mb5.1,baz=108,slow=6.4,SNR=2.6
USHA                              pP    pP     08 34 33.4 -3.9
     comp=Z,19nm,1.0s,baz=44,slow=0.6,SNR=4.1
RES  Resolute Bay      65.80 355 eP     P      08 34 25.1 -3.3
RES                               pmax  pmax
     comp=Z,27nm,1.0s,mb5.2
RES  Resolute Bay      65.80 355 eP     P      08 34 25.1 -3.3
     comp=Z,28nm,1.0s,mb5.2
SUMG Summit            67.48  12 eP     P      08 34 38.2 -0.8
     comp=Z,84nm,1.0s,mb5.7
BORG Borgarnes         67.92  23  LR    LR     09 00 27.6
     comp=Z,350nm,19.5s,MS4.6,baz=246,slow=32
PTEO Sao Teotonio      68.47  53 eP     P      08 34 46.3 +0.6
     comp=Z,135nm,1.4s,mb5.8
INK  Inuvik            68.66 341 eP     P      08 34 44.7 -1.7
INK                              e*PP   pP     08 35 00.3 -2.1
INK                               pmax  pmax
     comp=Z,72nm,1.0s
INK  Inuvik            68.66 341 eP     P      08 34 44.7 -1.7
     comp=Z,72nm,1.0s,mb5.6
INK                              epP    pP     08 35 00.3 -2.1
PTOM Tomar             68.89  51 eP     P      08 34 48.0 -0.3
     comp=Z,116nm,1.4s,mb5.6
DAWY Dawson            68.89 336 eP     P      08 34 46.3 -1.6
DAWY                             epP    pP     08 35 01.0 -2.9
EZAM Zamans            68.93  49  P     P      08 34 48.7 +0.2
EZAM                              pmax  pmax
     comp=Z,80nm,0.5s,mb5.9
EZAM Zamans            68.93  49  P     P      08 34 48.7 +0.2
     comp=Z,80nm,0.5s,mb5.9
EVO  Evora             69.11  52 eP     P      08 34 48.3 -1.4
     comp=Z,168nm,1.1s,mb5.6
EVO                              eR
     comp=Z,291nm,22.2s
STS  Santiago          69.11  48  P     P      08 34 48.7 -0.9
STS                               pmax  pmax
     comp=Z,56nm,1.1s,mb5.4
STS  Santiago          69.11  48  P     P      08 34 48.7 -0.9
     comp=Z,56nm,1.1s,mb5.4
PBEJ Beja              69.18  53 eP     P      08 34 49.9 -0.2
     comp=Z,55nm,1.7s,mb5.2
PVIS Viseu             69.38  50 eP     P      08 34 51.4 +0.1
     comp=Z,101nm,1.7s,mb5.5
PVRL Vila Real         69.57  50 eP     P      08 34 52.4  0.0
     comp=Z,106nm,1.0s,mb5.7
MTE  Manteigas         69.62  50 eP     P      08 34 52.6 -0.2
     comp=Z,72nm,1.3s,mb5.4
PCBR Castelo Branco    69.62  51 eP     P      08 34 52.9 +0.1
     comp=Z,108nm,1.3s,mb5.6
EBAD Badajoz           69.90  52  P     P      08 34 53.5 -1.0
     comp=Z,82nm,1.4s,mb5.5
EINC Incio             69.97  48  P     P      08 34 53.8 -1.1
     comp=Z,330nm,1.9s,mb5.9
EMIN Mina Concepcio    70.11  53  P     P      08 34 54.4 -1.4
     comp=Z,109nm,1.6s,mb5.5
EPON Pontenova         70.18  47  P     P      08 34 56.6 +0.4
     comp=Z,142nm,1.6s,mb5.7
PBRG Braganca          70.34  49 eP     P      08 34 56.5 -0.6
     comp=Z,70nm,1.5s,mb5.4
ECAL Calabor           70.36  49  P     P      08 34 57.5 +0.3
     comp=Z,358nm,2.2s,mb5.9
SCO  Scoresbysund      70.37  17 i P    P      08 34 57.1 +0.3
ESPR Espera            70.71  54  P     P      08 34 59.2 -0.3
     comp=Z,113nm,1.0s,mb5.8
THY  Trims Highway     71.33 334 eP     P      08 35 01.3 -1.5
EMIJ Mijas             71.57  55  P     P      08 35 03.5 -1.1
     comp=Z,55nm,1.3s,mb5.3
EADA Adamuz            71.78  53  P     P      08 35 05.2 -0.7
     comp=Z,154nm,1.7s,mb5.7
ELUQ Luque             72.00  54  P     P      08 35 06.9 -0.3
ELUQ                              pmax  pmax
     comp=Z,58nm,1.2s,mb5.4
ELUQ Luque             72.00  54  P     P      08 35 06.9 -0.3
     comp=Z,58nm,1.2s,mb5.4
ELOJ Sierra Loja       72.08  54  P     P      08 35 07.9 +0.3
ELOJ                              pmax  pmax
     comp=Z,81nm,0.9s,mb5.7
ELOJ Sierra Loja       72.08  54  P     P      08 35 07.9 +0.3
     comp=Z,81nm,0.9s,mb5.7
ILAR Eielson Array     72.19 335  P     P      08 35 06.2 -1.6
     comp=Z,20nm,0.9s,mb5.1,baz=90,slow=4.3,SNR=108
ILAR                              pP    pP     08 35 22.4 -1.5
     comp=Z,19nm,0.9s,baz=118,slow=3.6,SNR=14
ILAR                              LR    LR     09 11 14.4
     comp=Z,242nm,18.4s,MS4.5,baz=337,slow=39
ESDC Sonseca Array     72.32  51  P     P      08 35 08.6 -0.4
     comp=Z,56nm,0.8s,mb5.5,baz=275,slow=5.8,SNR=176
ESDC Sonseca Array     72.32  51 ⇓P     P      08 35 08.9 -0.1
     comp=Z,76nm,0.9s,mb5.6
ESLA Sonseca Array     72.32  51 eP     P      08 35 08.6 -0.3
     comp=Z,31nm,1.0s,mb5.2
ERON Agron             72.36  54  P     P      08 35 10.0 +0.7
     comp=Z,107nm,1.3s,mb5.6
COLA College           72.62 335 eP     P      08 35 08.6 -1.7
COLA                             e*PP   pP     08 35 24.3 -2.1
COLA                              pmax  pmax
     comp=Z,23nm,1.0s,mb5.1
COLA College           72.62 335 eP     P      08 35 08.6 -1.7
     comp=Z,23nm,1.0s,mb5.1
COLA                             epP    pP     08 35 24.3 -2.1
MCK  McKinley          72.79 334 eP     P      08 35 10.2 -1.1
MCK                               pmax  pmax
     comp=Z,47nm,1.4s,mb5.2
MCK  McKinley          72.79 334 eP     P      08 35 10.2 -1.1
     comp=Z,46nm,1.4s,mb5.2
EQES Quesada           72.96  53  P     P      08 35 12.4 -0.4
     comp=Z,158nm,1.0s,mb5.9
EBER Berja             73.09  54  P     P      08 35 13.6  0.0
     comp=Z,167nm,1.0s,mb5.9
ROSF Rostrenen         73.33  42⇓iP     P      08 35 14.4 -0.4
     comp=Z,81nm,0.8s,mb5.4
ROSF Rostrenen         73.33  42⇓iP     P      08 35 14.4 -0.4
ROSF                              pmax  pmax
     comp=Z,40nm,0.8s,mb5.4
QUIF Quistinic         73.36  43⇓iP     P      08 35 14.7 -0.3
     comp=Z,65nm,0.7s,mb5.4
QUIF Quistinic         73.36  43⇓iP     P      08 35 14.7 -0.3
QUIF                              pmax  pmax
     comp=Z,32nm,0.7s,mb5.4
EVIA Vianos            73.42  53  P     P      08 35 15.5  0.0
EVIA                              pmax  pmax
     comp=Z,41nm,0.7s,mb5.5
EVIA Vianos            73.42  53  P     P      08 35 15.5 -0.1
     comp=Z,41nm,0.7s,mb5.5
ENIJ Nijar             73.64  54  P     P      08 35 16.1 -0.7
ENIJ                              pmax  pmax
     comp=Z,77nm,1.0s,mb5.6
ENIJ Nijar             73.64  54  P     P      08 35 16.1 -0.7
     comp=Z,77nm,1.0s,mb5.6
SGMF Saint Gilles      73.80  43⇓iP     P      08 35 17.1 -0.4
     comp=Z,254nm,1.1s,mb5.8
SGMF Saint Gilles      73.80  43⇓iP     P      08 35 17.1 -0.4
SGMF                              pmax  pmax
     comp=Z,127nm,1.1s,mb5.8
RSO  Redoubt South     73.90 330 eP     P      08 35 16.3 -1.5
DAG  Danmarks Havn     74.17  12⇑iP     P      08 35 17.8 -1.4
DAG                               pmax  pmax
     comp=Z,23nm,0.8s,mb5.2
DAG  Danmarks Havn     74.17  12⇑iP     P      08 35 17.8 -1.4
     comp=Z,23nm,0.8s,mb5.2
EALK Alkurruntz        74.29  48  P     P      08 35 19.4 -1.1
     comp=Z,364nm,1.5s,mb6.1
EMUR La Murta          74.41  53  P     P      08 35 19.3 -2.0
     comp=Z,217nm,2.2s,mb5.7
SJPF Ste Jean          74.49  48⇓iP     P      08 35 21.8 +0.1
     comp=Z,214nm,0.7s,mb5.9
SJPF Ste Jean          74.49  48⇓iP     P      08 35 21.8 +0.1
SJPF                              pmax  pmax
     comp=Z,107nm,0.7s,mb5.9
LARF Larrau            74.66  48 eP     P      08 35 23.4 +0.8
JMIC Jan Mayen         74.68  19  LR    LR     09 09 15.2
     comp=Z,108nm,18.8s,MS4.2,baz=104,slow=36
PPT  Papeete           74.92 249 eS     S      08 44 50.8 -5.2
GRR  Gorron            74.94  42⇓iP     P      08 35 23.8 -0.3
     comp=Z,168nm,0.7s,mb5.8
GRR  Gorron            74.94  42⇓iP     P      08 35 23.8 -0.3
GRR                               pmax  pmax
     comp=Z,84nm,0.7s,mb5.8
ETSF Etsaut            74.97  48⇓iP     P      08 35 24.6 +0.2
     comp=Z,71nm,0.9s,mb5.3
ETSF Etsaut            74.97  48⇓iP     P      08 35 24.6 +0.2
ETSF                              pmax  pmax
     comp=Z,36nm,0.9s,mb5.3
EMOS Mosqueruela       75.01  51  P     P      08 35 25.3 +0.6
     comp=Z,92nm,0.9s,mb5.7
ESAC San Caprasio      75.02  49  P     P      08 35 24.6 -0.1
     comp=Z,224nm,0.7s,mb6.2
REYF Montagne du Re    75.10  48 eP     P      08 35 26.1 +1.0
FLN  La Foliniere      75.20  42⇓iP     P      08 35 25.4 -0.2
     comp=Z,158nm,0.8s,mb5.7
FLN                              eR
     comp=Z,466nm,23.0s
FLN  La Foliniere      75.20  42⇓iP     P      08 35 25.4 -0.2
FLN                               pmax  pmax
     comp=Z,79nm,0.8s,mb5.7
FLN                               MLR   MLR
     comp=Z,470nm,23.0s,MS4.7
EBEN Beniarda          75.21  52  P     P      08 35 26.6 +0.7
     comp=Z,74nm,0.9s,mb5.6
IMA  Indian Mountai    75.25 336 eP     P      08 35 24.3 -1.3
IMA                               pmax  pmax
     comp=Z,276nm,1.5s,mb6.0
IMA  Indian Mountai    75.25 336 eP     P      08 35 24.3 -1.3
     comp=Z,276nm,1.5s,mb6.0
MFF  Saint Martin d    75.35  44⇓iP     P      08 35 26.3 -0.2
     comp=Z,132nm,0.7s,mb5.7
MFF  Saint Martin d    75.35  44⇓iP     P      08 35 26.3 -0.2
MFF                               pmax  pmax
     comp=Z,66nm,0.7s,mb5.7
VIEF Viey              75.40  48 eP     P      08 35 27.1 +0.2
LDF  La Druitiere      75.43  42⇓iP     P      08 35 26.7 -0.2
     comp=Z,186nm,0.7s,mb5.9
LDF  La Druitiere      75.43  42⇓iP     P      08 35 26.7 -0.2
LDF                               pmax  pmax
     comp=Z,93nm,0.6s,mb5.9
LABF Labassere         75.44  48 eP     P      08 35 28.2 +1.1
EBIE Bielsa            75.49  48  P     P      08 35 27.5 +0.1
     comp=Z,108nm,1.0s,mb5.7
EGRA Graus             75.61  49  P     P      08 35 28.3 +0.2
     comp=Z,85nm,0.7s,mb5.8
ERTA Horta de San J    75.63  50  P     P      08 35 28.3 +0.1
     comp=Z,70nm,0.8s,mb5.6
RESF Ens               75.63  48 eP     P      08 35 28.7 +0.5
EPF  Esparros          75.64  48⇓iP     P      08 35 28.4 +0.2
     comp=Z,243nm,1.0s,mb5.8
EPF  Esparros          75.64  48⇓iP     P      08 35 28.4 +0.2
EPF                               pmax  pmax
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	comp=Z,122nm,1.0s,mb5.8						
EBR	Ebro Roquetas	75.75	50	eP	P	08 35 29.5	+0.6
LFF	La Frestale	75.94	46	⇓iP	P	08 35 29.6	-0.3
	comp=Z,161nm,0.7s,mb5.8						
LFF	La Frestale	75.94	46	⇓iP	P	08 35 29.6	-0.3
LFF				pmax	pmax		
	comp=Z,81nm,0.7s,mb5.8						
MELF	Melles	75.94	48	eP	P	08 35 30.9	+0.9
EPOB	Poblet	76.19	50	P	P	08 35 30.6	-0.8
	comp=Z,38nm,0.6s,mb5.5						
MLS	Moulis	76.19	48	eP	P	08 35 31.2	-0.2
SALF	Salau	76.26	48	eP	P	08 35 31.9	+0.1
TBI	Tubuai	76.39	243	eS	S	08 45 10.1	-2.1
TBI				eLR	LR	08 59 48.9	
	comp=Z,375nm,30.5s						
EIBI	Ibiza	76.43	52	P	P	08 35 32.6	-0.1
	comp=Z,94nm,0.8s,mb5.8						
RJF	Les Rejaudoux	76.49	46	⇓iP	P	08 35 32.6	-0.4
	comp=Z,91nm,0.8s,mb5.5						
RJF				eR			
	comp=Z,216nm,20.8s						
RJF	Les Rejaudoux	76.49	46	⇓iP	P	08 35 32.6	-0.4
RJF				pmax	pmax		
	comp=Z,45nm,0.8s,mb5.5						
RJF				MLR	MLR		
	comp=Z,220nm,20.8s,MS4.5						
EMIR	Miracle	76.52	49	P	P	08 35 33.2	0.0
	comp=Z,78nm,0.6s,mb5.8						
CAF	Calviac	76.88	46	⇓iP	P	08 35 34.9	-0.3
	comp=Z,381nm,1.3s,mb5.9						
CAF	Calviac	76.88	46	⇓iP	P	08 35 34.9	-0.3
CAF				pmax	pmax		
	comp=Z,191nm,1.3s,mb5.9						
TCF	Toulx Ste Croi	76.98	45	⇓iP	P	08 35 35.1	-0.6
	comp=Z,124nm,0.7s,mb5.6						
TCF	Toulx Ste Croi	76.98	45	⇓iP	P	08 35 35.1	-0.6
TCF				pmax	pmax		
	comp=Z,62nm,0.7s,mb5.7						
MTLF	Montolieu	77.01	48	⇓iP	P	08 35 35.5	-0.5
	comp=Z,273nm,1.2s,mb5.8						
MTLF	Montolieu	77.01	48	⇓iP	P	08 35 35.5	-0.5
MTLF				pmax	pmax		
	comp=Z,136nm,1.2s,mb5.8						
FRNF	Fournols	77.23	46	eP	P	08 35 37.7	+0.5
HYF	Humbligny	77.27	44	⇓iP	P	08 35 37.1	-0.2
FILF	Fillols	77.27	48	eP	P	08 35 36.6	-0.9
BGF	Bois d'Agland	77.42	44	⇓iP	P	08 35 37.6	-0.6
	comp=Z,292nm,1.1s,mb5.8						
BGF	Bois d'Agland	77.42	44	⇓iP	P	08 35 37.6	-0.6
BGF				pmax	pmax		
	comp=Z,146nm,1.1s,mb5.8						
SJAF	Saint Jean de	77.51	49	eP	P	08 35 39.0	+0.2
EJON	La Jonquera	77.52	49	P	P	08 35 38.7	-0.1
	comp=Z,235nm,1.3s,mb6.0						
PYM	Petit Puy Mans	77.54	45	eP	P	08 35 40.3	+1.4
AGO	Saint Agoulin	77.62	45	eP	P	08 35 38.2	-1.1
LBL	Lubilhac	77.71	46	eP	P	08 35 40.3	+0.5
AVF	Avril sur Loir	77.76	44	⇓iP	P	08 35 39.2	-0.9
	comp=Z,184nm,1.1s,mb5.6						
AVF	Avril sur Loir	77.76	44	⇓iP	P	08 35 39.2	-0.9
AVF				pmax	pmax		
	comp=Z,92nm,1.1s,mb5.6						
SSF	Saint Saulge	77.86	44	⇓iP	P	08 35 39.8	-0.8
	comp=Z,169nm,1.0s,mb5.6						
SSF	Saint Saulge	77.86	44	⇓iP	P	08 35 39.8	-0.8
SSF				pmax	pmax		
	comp=Z,84nm,1.0s,mb5.6						
PLDF	La Plantade	77.96	45	eP	P	08 35 42.6	+1.4
COLF	Collangettes	78.02	45	eP	P	08 35 42.1	+0.6
SMF	Signal de Mont	78.10	44	⇓iP	P	08 35 41.1	-0.8
	comp=Z,310nm,1.2s,mb5.8						
SMF	Signal de Mont	78.10	44	⇓iP	P	08 35 41.1	-0.8
SMF				pmax	pmax		
	comp=Z,155nm,1.2s,mb5.8						
LASF	Ste Croix	78.18	47	⇓iP	P	08 35 42.6	+0.2
	comp=Z,192nm,1.1s,mb5.7						
BAIF	Baives	78.28	41	⇓iP	P	08 35 42.2	-0.6
	comp=Z,308nm,1.8s,mb5.6						
BAIF	Baives	78.28	41	⇓iP	P	08 35 42.2	-0.6
BAIF				pmax	pmax		
	comp=Z,154nm,1.8s,mb5.6						
GIVF	Givet	78.68	41	⇓iP	P	08 35 44.7	-0.3
	comp=Z,372nm,1.3s,mb5.9						
GIVF	Givet	78.68	41	⇓iP	P	08 35 44.7	-0.3
GIVF				pmax	pmax		
	comp=Z,186nm,1.3s,mb5.9						
VIVF	Saint-Julien-l	78.73	46	⇓iP	P	08 35 45.8	+0.3
	comp=Z,305nm,1.1s,mb5.8						
VIVF	Saint-Julien-l	78.73	46	⇓iP	P	08 35 45.8	+0.3
VIVF				pmax	pmax		
	comp=Z,153nm,1.1s,mb5.8						
MEZF	Maizieres J'vi	78.87	42	⇓iP	P	08 35 45.8	-0.3
	comp=Z,191nm,0.8s,mb5.8						
OG05	Jujurieux	79.24	45	eP	P	08 35 48.4	+0.2
HGN	Heimansgroeve	79.37	40	eP	P	08 35 48.5	-0.3
	comp=Z,65nm,1.3s,mb5.4						
HGN	Heimansgroeve	79.37	40	eS	S	08 45 51.0	+7.5
SMRF	Simiane la Rot	79.42	47	⇓iP	P	08 35 49.6	+0.4
	comp=Z,134nm,1.1s,mb5.5						
GRN	Grenoble	79.48	46	eP	P	08 35 50.1	+0.6
THEF	They Montfort	79.50	43	eP	P	08 35 49.9	+0.3
WLF	Walferdange	79.55	41	eP	P	08 35 49.9	+0.1
WLF				pmax	pmax		
	comp=Z,136nm,0.9s,mb5.9						
WLF	Walferdange	79.55	41	eP	P	08 35 49.9	0.0
	comp=Z,136nm,0.9s,mb5.9						
ORIF	Oris-en-Rattie	79.59	46	⇓iP	P	08 35 50.7	+0.6
	comp=Z,196nm,0.6s,mb5.9						
ORIF				eR			
	comp=Z,156nm,21.5s						
CABF	La Chapelle	79.65	44	⇓iP	P	08 35 50.1	-0.3
	comp=Z,221nm,1.0s,mb5.8						
CABF	La Chapelle	79.65	44	⇓iP	P	08 35 50.1	-0.3
CABF				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
GDM	Grand'Maison	79.74	46	eP	P	08 35 51.0	+0.1
HAU	Haudompre	79.76	43	⇓iP	P	08 35 50.3	-0.6
	comp=Z,65nm,0.9s,mb5.2						
HAU				eR			
	comp=Z,155nm,20.5s						
HAU	Haudompre	79.76	43	⇓iP	P	08 35 50.3	-0.6
HAU				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
HAU				MLR	MLR		
	comp=Z,160nm,20.5s,MS4.3						
OG25	Le Caire	79.76	47	eP	P	08 35 51.7	+0.7
WTSB	Winterswijk	79.87	39	eP	P	08 35 51.1	-0.4
	comp=Z,139nm,0.9s,mb5.9						
HINF	Hinteralfeld	80.11	43	⇓iP	P	08 35 52.0	-0.8
	comp=Z,74nm,0.7s,mb5.4						
HINF	Hinteralfeld	80.11	43	⇓iP	P	08 35 52.0	-0.8
HINF				pmax	pmax		
	comp=Z,37nm,0.7s,mb5.4						
LOMF	Lomont	80.11	43	eP	P	08 35 52.3	-0.6
LMR	La Mourre	80.14	48	⇓iP	P	08 35 52.7	-0.4
	comp=Z,151nm,1.1s,mb5.5						
LMR	La Mourre	80.14	48	⇓iP	P	08 35 52.7	-0.4
LMR				pmax	pmax		
	comp=Z,75nm,1.1s,mb5.5						
RUP	Ruppelstein	80.14	41	⇓eP	P	08 35 53.2	+0.2
RUP	Ruppelstein	80.14	41	eP	P	08 35 53.6	+0.6
BNI	Bardonecchia	80.15	46	eP	P	08 35 53.7	+0.6
BNI				pmax	pmax		
	comp=Z,112nm,1.4s,mb5.6						
BNI	Bardonecchia	80.15	46	eP	P	08 35 53.7	+0.6
	comp=Z,112nm,1.4s,mb5.6						
LPL	La Plagne	80.16	45	⇓iP	P	08 35 53.6	+0.5
	comp=Z,40nm,0.6s,mb5.2						
LPL	La Plagne	80.16	45	⇓iP	P	08 35 53.6	+0.5
LPL				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
LPG	La Plagne	80.17	45	⇓iP	P	08 35 53.9	+0.7
	comp=Z,75nm,0.9s,mb5.3						
LPG	La Plagne	80.17	45	⇓iP	P	08 35 53.9	+0.7
LPG				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.3						
FRF	La Foret Royal	80.22	47	⇓iP	P	08 35 53.1	-0.4
	comp=Z,136nm,0.9s,mb5.6						
FRF	La Foret Royal	80.22	47	⇓iP	P	08 35 53.1	-0.4
FRF				pmax	pmax		
	comp=Z,68nm,0.9s,mb5.6						
RRL	Cesana Torines	80.23	46	P	P	08 35 54.5	+1.0
MBDF	Montbardon	80.23	46	⇓iP	P	08 35 54.0	+0.4
	comp=Z,154nm,1.1s,mb5.5						
MBDF	Montbardon	80.23	46	⇓iP	P	08 35 54.0	+0.4
MBDF				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.5						
SURF	Saint Ours	80.28	46	eP	P	08 35 55.1	+1.3
ECH	Echery	80.29	43	eP	P	08 35 53.9	+0.1
MOF	Molkenrain	80.29	43	eP	P	08 35 52.7	-1.1
OG22	Abries	80.35	46	eP	P	08 35 54.5	+0.3
CDF	Champ du Feu	80.35	42	⇓iP	P	08 35 53.6	-0.5
	comp=Z,228nm,1.4s,mb5.6						
CDF	Champ du Feu	80.35	42	⇓iP	P	08 35 53.6	-0.5
CDF				pmax	pmax		
	comp=Z,114nm,1.4s,mb5.6						
WLS	Welschbruch	80.41	42	eP	P	08 35 54.6	+0.2
FENE	Fenestrelle	80.42	46	P	P	08 35 54.9	+0.4
ABH	Alteburg	80.44	41	⇓eP	P	08 35 54.9	+0.3
ABH	Alteburg	80.44	41	eP	P	08 35 55.2	+0.6
LSD	Ceresole Reale	80.46	45	P	P	08 35 55.8	+1.1
PZZ	Prazzo	80.48	46	P	P	08 35 55.6	+0.7
RSP	Reno Superiore	80.55	46	P	P	08 35 56.1	+0.9
MVIF	Mont Vial	80.56	47	eP	P	08 35 55.6	+0.3
BBS	Basel-Blauen	80.57	43	⇓eP	P	08 35 55.0	-0.3
BBS	Basel-Blauen	80.57	43	eP	P	08 35 54.5	-0.8
BHB	Bricherasio	80.58	46	P	P	08 35 55.8	+0.4
LIBD	Limburg	80.59	43	eP	P	08 35 55.5	+0.1
LIBD	Limburg	80.59	43	eP	P	08 35 55.3	-0.1
TOUF	Mont Tournerai	80.62	47	eP	P	08 35 54.9	-0.8
STV	Sta Anna Valdi	80.66	47	P	P	08 35 56.5	+0.7
STV2	Anna di Valdie	80.66	47	P	P	08 35 56.6	+0.8
LANF	Langenberg	80.67	42	eP	P	08 35 55.3	-0.5
REVF	Revere	80.73	47	eP	P	08 35 56.6	+0.4
ENR	Entracque	80.73	47	P	P	08 35 57.5	+1.3
AUTN	L'Aution	80.75	47	eP	P	08 35 57.1	+0.8
SBF	Sospel	80.77	47	⇓iP	P	08 35 56.1	-0.3
	comp=Z,89nm,0.7s,mb5.5						
SBF	Sospel	80.77	47	⇓iP	P	08 35 56.1	-0.3
SBF				pmax	pmax		
	comp=Z,45nm,0.7s,mb5.5						
KIZ	Kirchzarten	80.81	43	eP	P	08 35 56.3	-0.3
KTD	Kalmit	80.83	41	eP	P	08 35 56.5	-0.1
KTD	Kalmit	80.83	41	eP	P	08 35 56.2	-0.4
SAOF	Saorge	80.85	47	eP	P	08 35 57.2	+0.4
FELD	Feldberg	80.88	43	eP	P	08 35 56.8	-0.1
FELD	Feldberg	80.88	43	eP	P	08 35 57.2	+0.3
NEGI	Negi	80.97	47	P	P	08 35 57.1	-0.3
MONE	Monesi	80.98	47	P	P	08 35 57.2	-0.4
MUD	Monsted U'grnd	81.03	34	i P	P	08 35 58.6	+1.1
MUD				pmax	pmax		
	comp=Z,50nm,0.7s,mb5.5						
MUD	Monsted U'grnd	81.03	34	i P	P	08 35 58.6	+1.1
	comp=Z,50nm,0.7s,mb5.6						
ORX	Oropa	81.03	45	P	P	08 35 57.6	-0.1
ROB	Roburent	81.05	47	P	P	08 35 57.7	-0.2
BFO	Black Forest	81.06	42	eP	P	08 35 57.0	-0.9
BFO				pmax	pmax		
	comp=Z,71nm,1.4s,mb5.4						
IMI	Imperia	81.09	47	P	P	08 35 57.8	-0.3
TOD	Tromm	81.28	41	eP	P	08 35 58.5	-0.5
TOD	Tromm	81.28	41	eP	P	08 35 59.0	0.0
FIN	Finale Ligure	81.30	47	P	P	08 35 58.4	-0.8
LBG	Lerchenberg	81.34	42	eP	P	08 35 59.1	-0.2
SPAK	Spaichingen	81.38	43	eP	P	08 35 59.4	-0.1
PCP	Pian Castagno	81.51	46	P	P	08 36 00.2	-0.1
STU	Stuttgart	81.60	42	eP	P	08 36 00.8	+0.1
STU				pmax	pmax		
	comp=Z,106nm,1.2s,mb5.7						
STU	Stuttgart	81.60	42	eP	P	08 36 00.8	+0.1
	comp=Z,106nm,1.2s,mb5.7						
GUT	Gutenstein	81.61	43	eP	P	08 36 00.4	-0.3
NAO01	NORSAR Array S	81.61	30	eP	P	08 36 00.5	0.0
BUCH	Bad Urach	81.73	42	eP	P	08 36 01.5	+0.2
NB2	NORSAR Subarra	81.76	29	P	P	08 36 01.6	+0.4
	comp=Z,44nm,0.9s,mb5.4,baz=273,slow=5.0						
NB2	NORSAR Subarra	81.76	29	P	P	08 36 01.6	+0.4
	baz=273,slow=5.3						
NB2	NORSAR Subarra	81.76	29	P	P	08 36 01.6	+0.4
NB2				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.4						
NOA	NORSAR Array B	81.76	29	P	P	08 36 01.4	+0.1
	comp=Z,16nm,0.7s,mb5.0,baz=275,slow=5.2,SNR=31						
NOA				LR	LR	09 07 04.6	
	comp=Z,106nm,18.3s,MS4.2,baz=290,slow=32						
SIND	Sindeldorf	81.82	41	eP	P	08 36 01.7	-0.1
BSEG	Bad Segeberg	81.86	37	eP	P	08 36 01.7	-0.2
BSEG				pmax	pmax		
	comp=Z,222nm,2.4s,mb5.7						
PGF	Pioggiola	82.02	48	⇓iP	P	08 36 02.7	-0.3
	comp=Z,193nm,1.0s,mb5.7						
PGF	Pioggiola	82.02	48	⇓iP	P	08 36 02.7	-0.3
PGF				pmax	pmax		
	comp=Z,96nm,1.0s,mb5.7						
DAVA	Damuels	82.19	43	⇑iP	P	08 36 04.2	+0.5
	comp=Z,97nm,1.1s,mb5.7						
HDH	Heidenheim	82.28	42	eP	P	08 36 04.2	0.0
UBR	Uberruh	82.31	43	eP	P	08 36 04.5	+0.2
CODM		82.45	46	P	P	08 36 04.4	-0.8
GRAM		82.60	46	P	P	08 36 05.7	-0.2
VSL	Villasalto	82.62	51	eP	P	08 36 06.5	+0.5
	comp=Z,185nm,0.9s,mb6.1						
BACM		82.63	46	P	P	08 36 05.2	-0.8
VINC	Vinca	82.70	47	P	P	08 36 05.7	-0.7
VALM		82.74	46	P	P	08 36 07.3	+0.7
GRF	Grafenberg Arr	82.83	41	eP	P	08 36 07.0	0.0
GRF				pmax	pmax		
	comp=Z,1µm,3.3s						
GRF				MLR	MLR		
	comp=Z,300nm,20.9s,MS4.6						
GRF	Grafenberg Arr	82.83	41	eP	P	08 36 07.0	0.0
	comp=Z,1µm,3.3s						
GRF				LR	LR		
	comp=Z,300nm,20.9s,MS4.6						
SARO	Sassorosso	82.87	46	P	P	08 36 06.3	-1.0
MOX	Moxa	82.98	40	eP	P	08 36 07.8	+0.1
MOX				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.4						
MOX	Moxa	82.98	40	i P	P	08 36 07.8	+0.1
	comp=Z,logA/T=1.6,mb5.4						
MOX	Moxa	82.98	40	eP	P	08 36 07.8	+0.1
	comp=Z,62nm,1.5s,mb5.4						
MOTA	Moosalm	83.01	43	⇑iP	P	08 36 08.2	+0.3
	comp=Z,12nm,0.9s,mb4.9						
MOTA	Moosalm	83.01	43	⇑iP	P	08 36 08.2	+0.3
MOTA				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
FUR	Furstenfeldbru	83.04	42	eP	P	08 36 08.0	0.0
FUR				pmax	pmax		
	comp=Z,66nm,1.2s,mb5.5						
SQTA	Sankt Quirin	83.10	43	⇓iP	P	08 36 08.8	+0.4
	comp=Z,42nm,1.3s,mb5.3						
SQTA	Sankt Quirin	83.10	43	⇓iP	P	08 36 08.8	+0.4
SQTA				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.3						
WATA	Walderalm	83.33	43	⇑iP	P	08 36 09.8	+0.3
	comp=Z,19nm,1.3s,mb5.0						
WATA	Walderalm	83.33	43	⇑iP	P	08 36 09.8	+0.3
WATA				pmax	pmax		
	comp=Z,19nm,1.3s,mb5.0						
WTTA	Wattenberg	83.38	43	⇓iP	P	08 36 10.3	+0.5
	comp=Z,136nm,2.0s,mb5.6						
WTTA	Wattenberg	83.38	43	⇓iP	P	08 36 10.3	+0.5
WTTA				pmax	pmax		
	comp=Z,136nm,2.0s,mb5.6						
NKC	Novy Kostel	83.56	40	eP	P	08 36 11.4	+0.8
NKC				AMS	AMS	09 05 30.0	
	comp=Z,500nm,19.3s						
CLL	Collm	83.77	39	⇓iP	P	08 36 11.9	+0.2
CLL				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.7						
CLL	Collm	83.77	39	⇓iP	P	08 36 11.9	+0.2
	comp=Z,70nm,1.2s,mb5.7						
CLL	Collm	83.77	39	⇓P	P	08 36 11.9	+0.2
	comp=Z,logA/T=1.8,mb5.7						
WET	Wettzell	83.97	41	eP	P	08 36 13.0	+0.3
WET				pmax	pmax		
	comp=Z,199nm,1.7s,mb6.0						
RUE	Ruedersdorf	84.10	38	eP	P	08 36 13.4	+0.1
BRG	Berggiesshubel	84.42	39	i P	P	08 36 15.4	+0.5
BRG				e	pP	08 36 32.0	+0.6
BRG				pmax	pmax		
	comp=Z,116nm,1.6s,mb5.8						
BRG	Berggiesshubel	84.42	39	i P	P	08 36 15.4	+0.5
	comp=Z,116nm,1.6s,mb5.8						
BRG				e	pP	08 36 32.0	+0.6
KHC	Kasperske Hory	84.43	41	eP	P	08 36 15.6	+0.6
KHC				AMS	AMS	09 05 50.0	
	comp=Z,500nm,19.9s						
GEC2	GERESS Array S	84.55	42	eP	P	08 36 15.7	+0.1
GEC2				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.8						
GERES	GERESS Array B	84.55	42	P	P	08 36 15.9	+0.2
	comp=Z,34nm,0.9s,mb5.5,baz=270,slow=4.0,SNR=177						
KBA	Koelnbreinsper	84.56	43	⇑iP	P	08 36 16.2	+0.5
	comp=Z,183nm,1.4s,mb6.0						
KBA	Koelnbreinsper	84.56	43	⇑iP	P	08 36 16.2	+0.5
KBA				pmax	pmax		
	comp=Z,183nm,1.4s,mb6.0						
ROBS	Robic	84.79	44	eP	P	08 36 16.0	-0.9
PVCC	Panska Ves	84.86	40	eP	P	08 36 18.4	+1.2
PVCC				AMS	AMS	09 06 30.0	
PRU	Pruhonice	84.93	40	eP	P	08 36 18.1	+0.6
PRU				pmax	pmax		
	comp=Z,77nm,1.3s,mb5.7						
PRU	Pruhonice	84.93	40	eP	P	08 36 18.1	+0.6
	comp=Z,77nm,1.3s,mb5.7						
PRU				AMS	AMS	09 05 20.0	
MOA	Molln	85.07	42	⇓iP	P	08 36 18.6	+0.3
	comp=Z,156nm,2.1s,mb5.8						
VOY	Vojsko	85.09	44	eP	P	08 36 18.8	+0.4
JAVS	Javornik	85.22	44	i P	P	08 36 19.8	+0.7
AQU	L'Aquila	85.28	48	eP	P	08 36 19.8	+0.4
AQU				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.6						
AQU	L'Aquila	85.28	48	eP	P	08 36 19.8	+0.4
	comp=Z,40nm,0.8s,mb5.6						
OBKA	Obir	85.46	44	⇑iP	P	08 36 20.5	+0.3
	comp=Z,131nm,1.7s,mb5.8						
KNDS	Knezji Dol	85.50	45	eP	P	08 36 21.0	+0.5
LJU	Ljubljana	85.52	44	eP	P	08 36 21.4	+0.8
UPC	Upice	85.78	40	eP	P	08 36 22.4	+0.7
KSP	Ksiaz	85.90	39	eP	P	08 36 22.8	+0.6
KSP	Ksiaz	85.90	39	eP	P	08 36 22.9	+0.7
KSP				ePcP	PcP	08 36 24.6	-0.8
KSP				epP	tx	08 36 25.7	
KSP				MLR	MLR	09 06 09.4	
	comp=Z,500nm,32.6s,MS4.7						
DPC	Dobruska-Polom	86.00	40	eP	P	08 36 23.8	+1.1
DPC				AMS	AMS	09 06 10.0	
	comp=Z,400nm,21.3s						
ARSA	Arzberg	86.00	43	⇑iP	P	08 36 22.9	+0.1
	comp=Z,125nm,1.5s,mb5.9						
CII	Carovilli	86.04	49	eP	P	08 36 24.1	+1.0
	comp=Z,55nm,1.1s,mb5.7						
GKP	Gorka Klasztor	86.04	37	eP	P	08 36 24.2	+1.3
GKP				ePcP	PcP	08 36 25.3	-0.7
GKP				epP	tx	08 36 26.5	
ARCES	ARCESS Array B	86.11	20	P	P	08 36 22.7	-0.2
	comp=Z,30nm,0.6s,mb5.7,baz=282,slow=4.4,SNR=210						
ARCES				LR	LR	09 15 07.7	
	comp=Z,121nm,18.2s,MS4.3,baz=18,slow=36						
ARCES	ARCESS Array B	86.11	20	P	P	08 36 22.7	-0.2
ARCES				LR	LR	09 15 07.7	
GROS	Grobnik	86.12	44	eP	P	08 36 23.6	+0.2
KEV	Kevo	86.54	20	ep	P	08 36 24.2	-0.8
VAE	Valguarnera	86.81	53	LR	LR	09 08 19.7	
	comp=Z,308nm,18.6s,MS4.7,baz=140,slow=31						
MORC	Moravsky Berou	86.88	40	eP	P	08 36 27.7	+0.6
MORC				pmax	pmax		
	comp=Z,109nm,1.5s,mb5.9						
MORC	Moravsky Berou	86.88	40	eP	P	08 36 27.7	+0.6
	comp=Z,109nm,1.5s,mb5.9						
ZST	Bratislava	86.89	42	eP	P	08 36 27.9	+0.7
SMOL	Smolenice	87.04	41	eP	P	08 36 29.2	+1.3
RAC	Raciborz	87.23	40	eP	P	08 36 30.2	+1.4
OKC	Ostrava-Krasne	87.25	40	eP	P	08 36 29.7	+0.8
OKC				AMS	AMS	09 08 10.0	
	comp=Z,400nm,18.3s						
KOLL	Kolacno	87.66	41	i P	P	08 36 32.4	+1.5
SRO1	Iza	87.72	42	eP	P	08 36 32.2	+1.0
SRO	Srobarova	87.76	42	eP	P	08 36 32.1	+0.7
RHK1	Bakonya	87.94	44	⇑eP	P	08 36 33.5	+1.2
VYHS	Vyhne	87.96	41	eP	P	08 36 33.1	+0.8
OJC	Ojcow	88.21	39	eP	P	08 36 34.5	+1.0
WAR	Warsaw	88.50	37	eP	P	08 36 36.2	+1.4
KAF	Kangasniemi	88.62	27	ep	P	08 36 35.1	0.0
NIE	Niedzica	88.71	40	eP	P	08 36 37.4	+1.5
FINES	FINESS Array B	88.72	28	P	P	08 36 35.0	-0.6
	comp=Z,7.0nm,0.7s,mb5.1,baz=264,slow=1.5,SNR=28						
FINES				LR	LR	09 10 27.6	
	comp=Z,273nm,19.3s,MS4.7,baz=96,slow=32						
FINES	FINESS Array B	88.72	28	P	P	08 36 35.0	-0.7
FINES				LR	LR	09 10 27.6	
PSZ	Piszkesteto	88.78	42	⇑eP	P	08 36 37.5	+1.3
PSZ	Piszkesteto	88.78	42	⇑eP	P	08 36 37.6	+1.4
SUW	Suwalki	89.33	35	eP	P	08 36 38.2	-0.5
CRVS	Cervenica-Dubn	89.57	40	eP	P	08 36 42.5	+2.6
CRVS				e		08 36 47.6	
DIVS	Divcibare	89.69	45	eP	P	08 36 36.3	-4.3
BEO	Belgrade	89.85	45	⇓iP	P	08 36 42.4	+1.0
VSU	Vasula	89.95	30	i P	P	08 36 38.8	-2.7
KOLS	Kolonicke sedl	90.08	40	eP	P	08 36 44.1	+1.8
KOLS				e		08 37 10.9	
KWP	Kalwaria	90.18	40	eP	P	08 36 44.1	+1.3
KWP				ePcP	PcP	08 36 44.9	+0.7
KWP				epP	tx	08 36 46.6	
GRUS	Gruza	90.25	45	⇑iP	P	08 36 44.0	+0.8
BILL	Bilibino	90.26	340	i P	P	08 36 42.0	-0.7
SVIS	Svilajnac	90.51	45	⇓iP	P	08 36 45.4	+0.9
BOLS	Boljevac	91.13	45	⇓iP	P	08 36 47.7	+0.3
SKO	Skopje	91.21	47	⇓iP	P	08 36 48.7	+0.9
	comp=Z,0.1nm,0.9s						
VNA3	Neumayer Olymp	92.37	162	⇓i	P	08 36 53.5	+1.0
VNA3	Neumayer Olymp	92.37	162	e	pP	08 37 09.6	+0.4
VNA1	Neumayer--Stat	92.58	162	⇓i	P	08 36 55.1	+1.7
VNA1	Neumayer--Stat	92.58	162	e	pP	08 37 11.3	+1.2
VNA2	Neumayer--Watz	92.94	162	⇓i	P	08 36 56.2	+1.1
VNA2	Neumayer--Watz	92.94	162	e	pP	08 37 12.5	+0.7
SNAA	Sanae	94.57	162	⇓i	P	08 37 01.4	-1.1
SNAA	Sanae	94.57	162	e	pP	08 37 17.8	-1.4
SNAA	Sanae	94.57	162	eP	P	08 37 00.8	-1.7
SNAA				e*PP	pP	08 37 17.6	-1.6
SNAA				pmax	pmax		
	comp=Z,70nm,1.5s						
SNAA	Sanae	94.57	162	eP	P	08 37 00.8	-1.7
	comp=Z,70nm,1.5s,mb5.9						
SNAA				epP	pP	08 37 17.6	-1.6
KIS	Kishinev	94.85	41	eP	P	08 37 05.0	+0.7
OBN	Obninsk	96.22	31	eP	P	08 37 08.0	-2.3
OBN				e		08 41 02.0	
OBN				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.8						
OBN				MLR	MLR		
	comp=Z,100nm,21.0s,MS4.3						
OBN	Obninsk	96.22	31	i P	P	08 37 08.0	-2.3
OBN				LR	LR		
	comp=Z,100nm,21.0s,MS4.3						
MOS	Moscow	96.48	31	eP	P	08 37 10.8	-0.7
TIXI	Tiksi	96.96	351	i P	P	08 37 11.9	-1.5
QSPA	South Pole Qui	99.49	180	P	pP	08 37 40.0	-1.4
BRTR	Keskin Array B	100.70	47	P	P	08 37 30.6	-0.5
	comp=Z,3.4nm,0.9s,baz=236,slow=3.8,SNR=11						
SYO	Syowa Base	108.78	160	⇓Pdiff	Pdif	08 38 05.2	-0.8
BVAR	Borovoye Array	112.39	20	PKiKP		08 42 17.0	
	comp=Z,1.0nm,0.6s,baz=270,slow=1.5,SNR=7.7						
ZAL	Zalesovo	115.29	11	PKP	PKPdf	08 42 22.0	-0.5
	comp=Z,2.0nm,0.8s,baz=190,slow=2.2,SNR=15						
MDJ	Mudanjiang	120.34	337	PKP	PKPdf	08 42 29.3	-3.2
MDJ				PP	PP	08 44 09.4	+6.1
MDJ				LR	LR		
	comp=N,93nm,25.0s,MS4.4						
MDJ				LR	LR		
	comp=E,79nm,26.1s,MS4.4						
MDJ				LR	LR		
	comp=Z,136nm,19.5s						
CN2	Changchun	122.57	339	ePKP	PKPdf	08 42 40.0	+3.2
CN2				PP	PP	08 44 19.8	+0.9
CN2				LR	LR		
	comp=N,500nm,16.0s,MS5.4						
CN2				LR	LR		
	comp=E,400nm,16.0s,MS5.4						
CN2				LR	LR		
	comp=Z,300nm,16.0s,MS5.0						
AAK	Ala-Archa	122.65	23	i PKIKP	PKPdf	08 42 36.7	-0.3
ULN	Ulaanbaatar	122.65	355	ePKIKP	PKPdf	08 42 36.6	-0.3
SONM	Songino Array	122.73	356	PKP	PKPdf	08 42 36.1	-0.9
	comp=Z,3.0nm,0.7s,baz=319,slow=1.3,SNR=24						
SONM				pPKP		08 42 53.2	
	comp=Z,0.9nm,0.5s,baz=304,slow=1.0,SNR=5.3						
SONM				PP	PP	08 44 12.8	-7.2
	comp=Z,1.3nm,1.0s,baz=18,slow=3.9,SNR=4.5						
WMQ	Urumqi	125.53	12	⇓PKP	PKPdf	08 42 42.5	-0.1
WMQ				PP	PP	08 44 39.0	+0.3

WMQ				PPP	PPP	08 47 20.8	+0.8
WMQ				LR	LR		
	comp=N,175nm,30.8s						
WMQ				LR	LR		
	comp=E,145nm,25.2s						
WMQ				LR	LR		
	comp=Z,163nm,24.8s						
BJI	**Beijing**	**128.80**	**345**	*e*PKP	PKPdf	08 42 48.8	-0.2
BJI				LR	LR		
	comp=Z,255nm,26.2s,MS4.8						
HHC	**Hu-ho-hao-te**	**129.00**	**350**	*e*PKP	PKPdf	08 42 49.4	0.0
HHC				PKS	PKS	08 46 24.4	-0.5
HHC				SKS	SKS	08 49 55.0	+4.7
HHC				PP	PP		
	comp=Z,139nm,5.4s						
HHC				LR	LR		
	comp=N,280nm,20.6s,MS5.1						
HHC				LR	LR		
	comp=E,242nm,19.6s,MS5.1						
HHC				LR	LR		
	comp=Z,357nm,22.2s,MS5.0						
GTA	**Gaotai**	**131.32**	**1**	*e*PKP	PKPdf	08 42 54.1	+0.3
GTA				PP	PP	08 45 15.4	-1.6
GTA				PKS	PKS	08 46 29.3	+0.1
GTA				PPP	PPP	08 48 05.3	-1.6
GTA				SKS	SKS	08 50 00.4	+4.1
GTA				PP	PP		
	comp=Z,157nm,6.5s						
GTA				LR	LR		
	comp=N,272nm,19.4s,MS5.0						
GTA				LR	LR		
	comp=E,123nm,19.4s,MS5.0						
GTA				LR	LR		
	comp=Z,271nm,24.3s,MS4.9						
DDI	**Dehra Dun**	**134.57**	**29**	*e*PKP	PKPdf	08 42 59.6	-0.6
LZH	**Lanzhou**	**134.59**	**357**	*e*PKP	PKPdf	08 42 58.5	-1.5
LZH				*e*PP	PP	08 45 35.3	-2.3
LZH				PP	PP		
	comp=Z,276nm,8.2s						
LZH				LR	LR		
	comp=N,507nm,18.0s						
LZH				LR	LR		
	comp=Z,767nm,20.0s,MS5.4						
CTA	**Charters Tower**	**135.34**	**251**	PKP	PKPdf	08 43 02.2	+0.5
	comp=Z,6.0nm,1.0s,baz=164,slow=10.0,SNR=4.8						
NJ2	**Nanjing**	**135.38**	**339**	*e*PKP	PKPdf	08 43 00.0	-1.6
NJ2				PP	PP	08 45 39.0	-3.4
NJ2				PKS	PKS	08 46 35.0	-1.9
NJ2				PP	PP		
	comp=Z,290nm,5.2s						
NJ2				LR	LR		
	comp=N,270nm,13.6s						
NJ2				LR	LR		
	comp=E,270nm,21.8s						
NJ2				LR	LR		
	comp=Z,290nm,21.0s						
NDI	**New Delhi**	**135.52**	**31**	*e*PKP	PKPdf	08 43 01.5	-0.4
XAN	**Xi’an**	**136.09**	**351**	PKP	PKPdf	08 43 02.1	-0.7
STKA	**Stephens Creek**	**136.52**	**233**	*e*PKP	PKPdf	08 43 03.6	-0.1
	comp=Z,4.0nm,0.6s						
STKA	**Stephens Creek**	**136.52**	**233**	PKP	PKPdf	08 43 03.0	-0.6
	comp=Z,5.0nm,0.6s,baz=90,slow=3.6,SNR=9.6						
KOLN	**Koldanda**	**139.21**	**24**	*e*P	PKPdf	08 43 01.4	-7.3
GKN	**Gorkha**	**139.41**	**23**	*e*P	PKPdf	08 43 02.9	-6.1
ENH	**Enshi**	**139.67**	**349**	*e*PKPpre		08 43 01.4	
CD2	**Chengdu**	**139.75**	**357**	PKP	PKPdf	08 43 12.4	+2.8
CD2				PP	PP	08 46 09.3	-0.1
CD2				LR	LR		
	comp=N,240nm,15.6s						
CD2				LR	LR		
	comp=Z,350nm,26.4s						
LSA	**Lhasa**	**139.84**	**14**	*e*PKP	PKPdf	08 43 10.3	+0.5
KKN	**Kakani**	**139.84**	**22**	*e*P	PKPdf	08 43 02.6	-7.2
DMN	**Daman**	**139.94**	**23**	*e*P	PKPdf	08 43 02.0	-8.0
GUN	**Gumba**	**139.95**	**21**	*e*P	PKPdf	08 43 02.9	-7.1
BHPL	**Bhopal**	**139.98**	**35**	*e*PKP	PKPdf	08 43 07.2	-3.0
BHPL				*e*		08 54 13.0	
PKI	**Pulchoki**	**140.09**	**22**	*e*P	PKPdf	08 43 03.6	-6.7
POO	**Poona**	**141.20**	**44**	*e*PKP	PKPdf	08 43 11.0	-1.6
KAD	**Karad**	**142.26**	**45**	*e*PKP	PKPdf	08 43 13.5	-0.9
KAD				*e*		08 43 16.2	
	comp=Z,37nm,1.1s						
GYA	**Guiyang**	**143.87**	**352**	⇓*i*PKP	PKPdf	08 43 14.3	-2.6
GYA				PKS	PKS	08 46 50.3	-1.3
GYA				SKS	SKS	08 50 20.8	+2.1
GYA				PP	PP		
	comp=Z,180nm,8.6s						
GYA				LR	LR		
	comp=N,680nm,22.8s,MS5.5						
GYA				LR	LR		
	comp=E,790nm,22.5s,MS5.5						
GYA				LR	LR		
	comp=Z,680nm,23.0s,MS5.3						
SHL	**Shillong**	**143.98**	**14**	⇓*e*PKP	PKPdf	08 43 14.5	-2.6
SHL				*e*		08 46 55.5	
HYB	**Hyderabad**	**145.11**	**40**	⇓*e*P	PKPdf	08 43 18.5	-0.8
HYB				*e*		08 43 35.0	
HYB	**Hyderabad**	**145.11**	**40**	⇓*i*PKP	PKPdf	08 43 18.5	-0.8
	comp=Z,215nm,1.0s						
HYB				*e*pPKP		08 43 35.0	
HYB				*e*sPKP		08 43 41.5	
IMP	**Imphal**	**145.19**	**12**	*e*PKP	PKPdf	08 43 18.7	-0.6
AGT	**Agartala**	**145.42**	**16**	⇓*i*PKP	PKPdf	08 43 21.0	+1.3
AGT				*i*		08 43 38.0	
KMI	**Kunming**	**145.55**	**358**	*e*PKP	PKPdf	08 43 18.0	-1.9
ASAR	**Alice Springs**	**145.77**	**242**	PKPbc	PKPbc	08 43 19.7	-1.5
	comp=Z,27nm,0.6s,baz=118,slow=3.0,SNR=128						
ASAR				pPKPbc		08 43 35.9	
	comp=Z,16nm,0.8s,baz=120,slow=3.6,SNR=7.3						
ASPA	**Alice Springs**	**145.77**	**242**	*i* PKP	PKPdf	08 43 19.6	-0.7
ASPA				*e*		08 43 36.0	
WRAB	**Tennant Creek**	**146.39**	**248**	*e*PKIKP	PKPdf	08 43 21.2	-0.3
WRAB				*e*		08 43 38.2	
WRA	**Warramunga Arr**	**146.40**	**248**	PKPbc	PKPbc	08 43 21.0	-1.8
	comp=Z,30nm,1.1s,baz=95,slow=2.5,SNR=78						
WRA				pPKPbc		08 43 38.0	
	comp=Z,72nm,1.3s,baz=96,slow=2.7,SNR=11						
FORT	**Forrest**	**147.25**	**226**	*e*PKP	PKPdf	08 43 21.1	-1.5
	comp=Z,47nm,0.6s						
VIS	**Vishakhapatnam**	**147.69**	**33**	*e*PKP	PKPdf	08 43 23.0	-0.6
	comp=Z,71nm,1.3s						
VIS				*e*PKP	PKPdf	08 43 23.7	+0.1
KAKA	**Kakadu**	**149.22**	**261**	*e*PKP	PKPdf	08 43 29.5	+3.3
	comp=Z,32nm,0.6s						
KAKA				*i*		08 43 46.4	
KAKA				*i*		08 44 03.6	
TGY	**Tagaytay City**	**149.47**	**320**	PKPbc	PKPdf	08 43 31.1	+4.5
	comp=Z,66nm,0.3s,baz=204,slow=18,SNR=4.3						
TRD	**Trivandrum**	**149.93**	**54**	*e*PKP	PKPdf	08 43 28.4	+1.0
TRD				*e*		08 43 35.5	
	comp=Z,140nm,1.3s						
CM31	**Chiang Mai Arr**	**152.13**	**5**	*e*PKPdf	PKPdf	08 43 31.3	+0.8
CM31				*e*PKPbc	PKPdf	08 43 37.0	+6.5
CM31				*e*pPKPbc		08 43 53.2	
CMAR	**Chiang Mai Arr**	**152.13**	**5**	PKP	PKPdf	08 43 30.6	0.0
	comp=Z,7.5nm,0.8s,baz=308,slow=2.2,SNR=44						
CMAR				PKPbc	PKPdf	08 43 36.7	+6.2
	comp=Z,17nm,0.6s,baz=322,slow=2.9,SNR=40						
CMAR				pPKP		08 43 46.2	
	comp=Z,10nm,0.9s,baz=333,slow=4.6,SNR=5.9						
CMAR				pPKPbc		08 43 53.6	
	comp=Z,13nm,0.7s,baz=324,slow=3.0,SNR=7.7						
CMAR	**Chiang Mai Arr**	**152.13**	**5**	PKIKP	PKPdf	08 43 30.6	+0.1
CMAR						08 43 46.2	
CMAR						08 43 53.6	
NWAO	**Narrogin (SRO)**	**152.40**	**210**	PKPbc	PKPdf	08 43 37.4	+6.8
	comp=Z,15nm,0.8s,baz=133,slow=5.4,SNR=5.3						
PALK	**Pallekele**	**153.62**	**52**	*e*PKPbc	PKPdf	08 43 41.4	+8.6
PALK				*e*PKPab	PKPab	08 43 54.9	-0.9
FITZ	**Fitzroy Crossi**	**154.82**	**248**	*e*PKP	PKPdf	08 43 42.4	+8.2
	comp=Z,6.8nm,0.6s						

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*WEL **19** 08:34:11.9±1.3, 46.38S×165.07E, h33^{km}, ML5.6/5, Error ellipse: s-maj=13.9km s-min=11.5km az=90.0*

WEL Felt from Fiordland to Southland, maximum reported intensity MM 4.

*IDC **19** 09:34:14.2±0.7, 46.10S×165.74E, mb4.2/8, mb1 4.4/10, mb1mx4.3/12, ML4.3/2, MS4.2/4, Ms1 4.3/4, ms1mx3.5/13, Error ellipse: s-maj=22.9km s-min=19.2km az=169.0*

*NEIC **19** 08:34:14.5±4.1, 46.16S×165.64E, h4^{km}±25^{km}, mb4.2/3, Error ellipse: s-maj=13.1km s-min=9.7km az=193.0*

ISC 19 08:34:16.7±0.5**, 46.18S**±0.06×**165.66E**±0.06**, h33^{km}, n57,** σ1^{s}41/55**, mb4.2**/9**, MS4.2**/4**, 3C-1D, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	**1.26**	**57**	PN	**Pn**	**08 34 37.0**	**-1.3**
DCZ				*e*SN	**Sn**	**08 34 57.8**	**+3.6**
DCZ				SN	**Sn**	**08 34 58.0**	**+3.8**
WHZ	**Wether Hill Ro**	**1.62**	**81**	PN	**Pn**	**08 34 43.0**	**-0.4**
WHZ				SN	**Sn**	**08 35 07.7**	**+4.4**
MLZ	**Mavora Lakes**	**1.95**	**66**	PN	**Pn**	**08 34 48.1**	**0.0**
MLZ				SN	**Sn**	**08 35 17.1**	**+5.5**
MSZ	**Milford Sound**	**2.20**	**47**	*e*PN	**Pn**	**08 34 52.3**	**+0.6**
MSZ				SN	**Sn**	**08 35 20.9**	**+2.9**
MSZ				SN	**Sn**	**08 35 21.9**	**+3.9**
WKZ	**Wanaka**	**2.72**	**61**	P	**P**	**08 35 00.4**	**+1.4**
WKZ	**Wanaka**	**2.72**	**61**	PN	**Pn**	**08 35 00.1**	**+0.9**
WKZ				SN	**Sn**	**08 35 37.2**	**+5.9**
EAZ	**Earnscleugh**	**2.73**	**71**	P	**P**	**08 34 59.8**	**+0.7**
EAZ	**Earnscleugh**	**2.73**	**71**	PN	**Pn**	**08 34 59.8**	**+0.5**
EAZ				SN	**Sn**	**08 35 35.0**	**+3.5**
TUZ	**Tuapeka**	**2.78**	**87**	P	**P**	**08 34 59.4**	**-0.4**
TUZ	**Tuapeka**	**2.78**	**87**	PN	**Pn**	**08 34 59.0**	**-1.0**
TUZ				SN	**Sn**	**08 35 33.3**	**+0.6**
TUZ				SN	**Sn**	**08 35 33.8**	**+1.1**
JCZ	**Jackson Bay**	**3.04**	**47**	*e*P	**P**	**08 35 04.4**	**+0.8**
JCZ	**Jackson Bay**	**3.04**	**47**	*e*PN	**Pn**	**08 35 04.0**	**+0.3**
LBZ	**Lake Benmore**	**3.66**	**62**	*e*P	**P**	**08 35 11.7**	**-0.7**
LBZ	**Lake Benmore**	**3.66**	**62**	PN	**Pn**	**08 35 11.4**	**-1.1**
ODZ	**Otahua Downs**	**3.68**	**74**	PN	**Pn**	**08 35 10.7**	**-2.0**
FOZ	**Fox Glacier**	**3.88**	**49**	PN	**Pn**	**08 35 16.1**	**+0.5**
RPZ	**Rata Peaks**	**4.55**	**59**	Pn	**Pn**	**08 35 23.1**	**-2.1**
	11nm,0.3s,baz=188,slow=1.6,SNR=48						
RPZ				Sn	**Sn**	**08 36 16.7**	**-1.0**
	44nm,0.3s,baz=67,slow=18,SNR=3.6						
RPZ	**Rata Peaks**	**4.55**	**59**	*e*PN	**Pn**	**08 35 23.1**	**-2.2**
THZ	**Tophouse**	**6.84**	**52**	*e*P	**P**	**08 35 54.8**	**-2.5**
THZ	**Tophouse**	**6.84**	**52**	*e*PN	**Pn**	**08 35 54.1**	**-3.4**
QRZ	**Quartz Range**	**7.32**	**45**	*e*PN	**Pn**	**08 36 01.8**	**-2.3**
CAW	**Cannon Point**	**8.50**	**57**	*e*PN	**P**	**08 36 18.3**	**-2.1**
URZ	**Urewera**	**11.60**	**51**	Pn	**P**	**08 37 00.0**	**-2.8**
	3.0nm,0.3s,baz=302,slow=4.4,SNR=15						
URZ				Sn	**S**	**08 39 08.1**	**-4.1**
	0.5nm,0.3s,baz=311,slow=11,SNR=2.3						
STKA	**Stephens Creek**	**23.41**	**299**	*e*P	**P**	**08 39 23.8**	**+0.5**
	19nm,1.9s,mb4.2						
STKA	**Stephens Creek**	**23.41**	**299**	P	**P**	**08 39 26.4**	**+3.0**
	3.1nm,0.7s,mb3.9,baz=138,slow=14,SNR=6.9						
STKA				LR	LR	08 46 00.3	
	comp=Z,972nm,20.7s,MS4.2,baz=143,slow=30						
CTA	**Charters Tower**	**30.51**	**322**	P	**P**	**08 40 33.5**	**+4.6**
	3.5nm,0.8s,mb4.3,baz=360,slow=18,SNR=3.0						
VNDA	**Vanda**	**31.48**	**182**	P	**P**	**08 40 38.9**	**+1.9**
	1.3nm,1.1s,mb3.7,baz=21,slow=8.6,SNR=3.1						
VNDA				LR	LR	08 50 39.5	
	comp=Z,453nm,21.0s,MS4.1,baz=25,slow=31						
VNDA	**Vanda**	**31.48**	**182**	P	**P**	**08 40 37.1**	**0.0**
	0.4nm,0.7s,mb3.4						
VNDA				LR	LR	08 50 39.5	
ASAR	**Alice Springs**	**34.03**	**300**	P	**P**	**08 40 58.9**	**-0.8**
	2.8nm,0.5s,mb4.4,baz=132,slow=8.3,SNR=62						
ASAR				LR	LR	08 53 56.8	
	comp=Z,433nm,18.0s,MS4.2,baz=149,slow=35						
WRA	**Warramunga Arr**	**36.65**	**305**	P	**P**	**08 41 21.3**	**-0.7**
	2.0nm,0.7s,mb4.1,baz=136,slow=8.0,SNR=21						
WRAB	**Tennant Creek**	**36.66**	**305**	*e*P	**P**	**08 41 21.4**	**-0.7**
	4.3nm,0.6s,mb4.5						
PMG	**Port Moresby**	**39.92**	**331**	P	**P**	**08 41 51.2**	**+1.9**
	4.3nm,0.7s,mb4.3,baz=153,slow=16,SNR=3.7						
TBI	**Tubuai**	**42.62**	**73**	*e*S	**S**	**08 48 38.5**	**+6.7**
TBI				*e*LR	LR	08 53 58.6	
	933nm,31.2s						
PPT	**Papeete**	**46.66**	**67**	*e*S	**S**	**08 49 39.8**	**+10**
PPT				*e*LR	LR	08 55 45.7	
	714nm,22.2s						
RKT	**Rikitea**	**52.65**	**85**	*e*LR	LR	08 58 31.5	
	1µm,28.8s						
MAW	**Mawson**	**52.74**	**208**	P	**P**	**08 43 30.3**	**+0.5**
	5.5nm,1.0s,mb4.4,baz=115,slow=11,SNR=4.3						
MAW	**Mawson**	**52.74**	**208**	*e*P	**P**	**08 43 30.4**	**+0.5**
SYO	**Syowa Base**	**58.43**	**200**	⇓P	**P**	**08 44 10.1**	**-0.8**
SNAA	**Sanae**	**62.17**	**184**	⇑*i*	**P**	**08 44 35.9**	**-0.5**
VNA3	**Neumayer Olymp**	**62.84**	**182**	⇑*i*	**P**	**08 44 42.0**	**+1.1**
VNA3	**Neumayer Olymp**	**62.84**	**182**	*e*	**P**	**08 44 56.8**	**+16**
VNA2	**Neumayer--Watz**	**63.10**	**183**	⇑*i*	**P**	**08 44 44.1**	**+1.5**
VNA2	**Neumayer--Watz**	**63.10**	**183**	*e*	**P**	**08 44 59.2**	**+17**
CMAR	**Chiang Mai Arr**	**88.03**	**299**	P	**P**	**08 47 06.5**	**+1.7**
	2.1nm,0.5s,mb4.6,baz=159,slow=4.3,SNR=6.0						
CMAR				LR	LR	09 26 37.3	
	comp=Z,80nm,21.8s,MS4.1,baz=205,slow=36						
ILAR	**Eielson Array**	**116.64**	**21**	PKP	PKPdf	08 52 57.4	+0.9
	1.1nm,0.7s,baz=243,slow=2.0,SNR=17						
YKA	**Yellowknife Ar**	**125.42**	**34**	PKP	PKPdf	08 53 14.9	+1.5
	0.9nm,0.7s,baz=261,slow=1.9,SNR=27						
BVAR	**Borovoye Array**	**127.71**	**311**	PKP	PKPdf	08 53 20.4	+2.3
	1.4nm,0.9s,baz=90,slow=1.5,SNR=5.8						
BRTR	**Keskin Array B**	**144.74**	**277**	PKP	PKPdf	08 53 50.6	+1.1
	3.5nm,0.7s,baz=139,slow=5.0,SNR=14						
SCHQ	**Schefferville**	**146.24**	**56**	PKPbc	PKPbc	08 53 55.1	+2.4
	2.8nm,0.7s,baz=251,slow=14,SNR=8.3						
DAG	**Danmarks Havn**	**149.25**	**2**	*e*P	PKPdf	08 54 02.0	+6.0
DAG	**Danmarks Havn**	**149.25**	**2**	*i* P	PKPdf	08 54 02.0	+6.0
ARCES	**ARCESS Array B**	**149.41**	**334**	PKPbc	PKPdf	08 54 03.8	+7.4
	4.2nm,0.7s,baz=90,slow=1.8,SNR=12						
MLR	**Muntele Rosu**	**152.13**	**283**	PKPbc	PKPdf	08 54 11.0	+10
	2.9nm,0.8s,baz=359,slow=1.7,SNR=3.9						
FINES	**FINESS Array B**	**152.24**	**318**	PKPbc	PKPdf	08 54 10.6	+10
	2.6nm,0.7s,baz=96,slow=4.5,SNR=12						
FINES	**FINESS Array B**	**152.24**	**318**	PKPbc	PKPdf	08 54 10.6	+10
NOA	**NORSAR Array B**	**158.96**	**324**	PKPab	PKPab	08 54 45.8	-2.7
	1.7nm,0.8s,baz=63,slow=6.0,SNR=3.3						
GERES	**GERESS Array B**	**160.91**	**288**	PKPab	PKPab	08 54 58.2	+1.0
	0.9nm,0.8s,baz=72,slow=4.2,SNR=6.5						

WEL 19 08:36:44.8±1.5**, 46.28S**×**165.83E, h33^{km}, ML4.1**/6**, Error ellipse: s-maj=15.9km s-min=11.5km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	**1.22**	**50**	PN	Pn	08 37 04.0	-2.0
DCZ				SN	Sn	08 37 21.1	-0.4
DCZ				SN	Sn	08 37 21.5	0.0
WHZ	**Wether Hill Ro**	**1.52**	**76**	PN	Pn	08 37 09.0	-1.2
WHZ				SN	Sn	08 37 26.5	-2.6
MLZ	**Mavora Lakes**	**1.89**	**61**	PN	Pn	08 37 14.1	-1.2
MLZ				SN	Sn	08 37 37.8	-0.4
MSZ	**Milford Sound**	**2.18**	**43**	*e*PN	Pn	08 37 17.6	-2.0
EAZ	**Earnscleugh**	**2.65**	**68**	PN	Pn	08 37 24.8	-1.5
TUZ	**Tuapeka**	**2.67**	**84**	*e*PN	Pn	08 37 26.1	-0.5
WKZ	**Wanaka**	**2.67**	**58**	*e*PN	Pn	08 37 27.3	+0.8
JCZ	**Jackson Bay**	**3.02**	**44**	*e*PN	Pn	08 37 33.0	+1.4
ODZ	**Otahua Downs**	**3.60**	**72**	PN	Pn	08 37 36.5	-3.3
LBZ	**Lake Benmore**	**3.61**	**60**	*e*PN	Pn	08 37 38.0	-1.9
FOZ	**Fox Glacier**	**3.86**	**47**	*e*PN	Pn	08 37 42.4	-1.0
RPZ	**Rata Peaks**	**4.50**	**57**	*e*PN	Pn	08 37 49.4	-3.2

KRSC 19 08:44:59.6±1.3**, 48.79N**×**157.21E, h46^{km}**±38^{km}**, ML4.2, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	**Alaid**	**2.34**	**333**	*e*P	P	08 45 36.0	-0.5
ALID				*e*S	S	08 46 04.5	+0.3
PAU	**Pauzhetka**	**2.69**	**355**	*e*P	P	08 45 42.3	+0.8
PAU				*e*S	S	08 46 12.6	-0.5
PAU				Smax			
	500nm,0.5s						
RUS	**Russkaya**	**3.74**	**12**	*e*P	P	08 45 57.0	+0.7
RUS				*e*S	S	08 46 39.8	+0.2
GRL	**Gorelyy**	**3.81**	**8**	*e*P	P	08 45 57.9	+0.6
GRL				*e*S	S	08 46 41.1	-0.2
PET	**Petropavlovsk**	**4.34**	**12**	*e*P	P	08 46 04.9	+0.1
PET				*e*S	S	08 46 52.6	-2.1
AVH	**Avacha**	**4.58**	**12**	*e*P	P	08 46 08.5	+0.2
AVH				*e*S	S	08 46 57.4	-3.5
KOK	**Koryaka**	**4.60**	**11**	*e*P	P	08 46 09.5	+1.1
KOK				*e*S	S	08 47 00.1	-1.1
SDLR	**Sedlovina**	**4.62**	**13**	*e*P	P	08 46 08.1	-0.6
SDLR				*e*S	S	08 46 57.5	-4.2
GNL	**Ganaly**	**4.93**	**5**	*e*P	P	08 46 14.0	+0.8
GNL				*e*S	S	08 47 08.1	-1.6
BKI	**Bering**	**8.39**	**37**	*e*S	S	08 48 22.9	-13

WEL 19 08:59:28.7±1.1**, 47.58S**×**164.91E, h33^{km}, ML3.9**/1**, Error ellipse: s-maj=17.3km s-min=10.4km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	**Milford Sound**	**3.59**	**37**	*e*PN	Pn	09 00 20.9	-2.6
MSZ				SN	Sn	09 01 01.8	-3.5
EAZ	**Earnscleugh**	**3.85**	**54**	PN	Pn	09 00 24.9	-2.2
EAZ				SN	Sn	09 01 06.3	-5.5
WKZ	**Wanaka**	**3.97**	**48**	PN	Pn	09 00 26.5	-2.4
JCZ	**Jackson Bay**	**4.42**	**39**	PN	Pn	09 00 31.6	-3.8

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*IDC **19** 09:18:36.0±0.9, 4.39S×153.68E, h92^{km}±7^{km}, mb4.3/14, mb1 4.5/16, mb1mx4.4/18, Error ellipse: s-maj=18.0km s-min=10.4km az=118.0*

*NEIC **19** 09:18:36.4±0.3, 4.41S×153.61E, mb4.7/15, Error ellipse: s-maj=12.3km s-min=6.4km az=115.0*

ISC 19 09:18:34.6±2.2**, 4.44S**±0.07×**153.63E**±0.09**, h93^{km}**±19^{km}**, n49,** σ0^{s}84/52**, mb4.6**/28**, 7C, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**8.10**	**232**	P	**P**	**09 20 32.5**	**+1.3**
	49nm,0.3s,baz=54,slow=6.7,SNR=115						
PMG				S	**S**	**09 22 00.8**	**-1.1**
	9.4nm,0.3s,baz=142,slow=20,SNR=20						
PMG	**Port Moresby**	**8.10**	**232**	*e*Pn	**P**	**09 20 32.0**	**+0.8**
PMG				S	**S**	**09 22 00.8**	**-1.1**
PMG				*e*Sn	**S**	**09 22 02.1**	**+0.2**
CTA	**Charters Tower**	**17.14**	**204**	*e*P	**P**	**09 22 31.9**	**+2.2**
	7.4nm,0.9s						
CTA				*i*		09 22 40.1	
CTA	**Charters Tower**	**17.14**	**204**	P	**P**	**09 22 31.8**	**+2.1**
	0.3nm,0.3s,baz=36,slow=13,SNR=7.4						
CTAO	**Charters Tower**	**17.14**	**204**	*e*P	**P**	**09 22 31.4**	**+1.8**
	15nm,1.0s						
CTAO				*e*		09 22 40.0	
KAKA	**Kakadu**	**22.49**	**247**	⇑*i*P	**P**	**09 23 27.2**	**+0.1**
	52nm,0.6s,mb5.0						
KAKA				*e*S	**S**	**09 27 24.5**	**+1.7**
WRAB	**Tennant Creek**	**24.29**	**229**	*e*P	**P**	**09 23 44.8**	**+0.2**
	79nm,0.7s,mb5.2						
WRAB				*e*S	**S**	**09 28 02.9**	**+9.0**
WRA	**Warramunga Arr**	**24.30**	**229**	P	**P**	**09 23 45.2**	**+0.4**
	37nm,0.5s,mb5.0,baz=54,slow=9.9,SNR=196						
WRA				pP		09 24 05.8	
	7.8nm,0.6s,baz=58,slow=11,SNR=3.1						
WRA				S	**S**	**09 28 01.9**	**+7.7**
	3.6nm,0.8s,baz=48,slow=16,SNR=7.5						
WRA				ScP		09 30 52.1	
	1.6nm,1.2s,baz=65,slow=3.6,SNR=2.6						
ASAR	**Alice Springs**	**26.98**	**223**	P	**P**	**09 24 09.0**	**-0.7**
	8.4nm,1.0s,mb4.2,baz=55,slow=8.8,SNR=59						
ASAR				pP	pP	09 24 31.6	+1.1
	2.1nm,0.6s,baz=44,slow=12,SNR=4.6						
ASAR				PcP	PcP	09 27 28.2	-1.2
	6.1nm,1.1s,baz=59,slow=2.4,SNR=6.6						
ASPA	**Alice Springs**	**26.98**	**223**	⇑*i*P	**P**	**09 24 09.0**	**-0.7**
ASPA				*e*S	**S**	**09 28 46.0**	**+7.7**
STKA	**Stephens Creek**	**29.54**	**201**	⇑*i*P	**P**	**09 24 31.9**	**-0.8**
	15nm,0.6s,mb4.8						
STKA	**Stephens Creek**	**29.54**	**201**	P	**P**	**09 24 32.0**	**-0.7**
	18nm,0.6s,mb4.9,baz=29,slow=13,SNR=47						
FITZ	**Fitzroy Crossi**	**30.56**	**241**	⇑*i*P	**P**	**09 24 40.4**	**-1.4**
	24nm,0.6s,mb5.1						
FITZ	**Fitzroy Crossi**	**30.56**	**241**	P	**P**	**09 24 40.4**	**-1.4**
	28nm,0.7s,mb5.1,baz=73,slow=4.0,SNR=33						
FORT	**Forrest**	**35.59**	**220**	⇑*i*P	**P**	**09 25 24.5**	**-0.6**
	166nm,0.6s						
MBWA	**Marble Bar**	**36.87**	**240**	*e*P	**P**	**09 25 34.8**	**-1.2**
	9.0nm,0.7s,mb4.8						
RPZ	**Rata Peaks**	**42.04**	**161**	P	**P**	**09 26 19.7**	**+1.2**
	12nm,0.6s,mb4.8,baz=202,slow=12,SNR=5.6						
KLBR	**Kellerberrin**	**43.16**	**227**	⇑*i*P	**P**	**09 26 26.4**	**-1.4**
	15nm,0.6s,mb4.9						
MAJO	**Matsushiro**	**43.24**	**342**	*e*P	**P**	**09 26 27.7**	**-0.8**
MUN	**Mundaring**	**44.48**	**227**	*e*P	**P**	**09 26 37.6**	**-1.0**
	9.2nm,0.7s,mb4.6						
ASAJ	**Asahikawa**	**49.34**	**350**	P	**P**	**09 27 15.7**	**-0.7**
	5.4nm,0.8s,mb4.5,baz=272,slow=31,SNR=2.8						
CM31	**Chiang Mai Arr**	**58.47**	**295**	*e*P	**P**	**09 28 24.3**	**+0.7**
	9.7nm,0.9s,mb4.8						
CMAR	**Chiang Mai Arr**	**58.47**	**295**	P	**P**	**09 28 23.8**	**+0.1**
	4.9nm,0.8s,mb4.6,baz=112,slow=5.3,SNR=27						
ULN	**Ulaanbaatar**	**66.13**	**328**	*e*P	**P**	**09 29 14.5**	**+0.3**
	1.9nm,0.9s,mb3.9						
SONM	**Songino Array**	**66.46**	**327**	P	**P**	**09 29 16.6**	**+0.3**
	2.7nm,1.1s,mb4.0,baz=145,slow=5.9,SNR=10.0						
SHL	**Shillong**	**66.84**	**300**	⇑*e*P	**P**	**09 29 19.0**	**-0.1**
GUN	**Gumba**	**72.64**	**301**	*e*P	**P**	**09 29 55.6**	**+1.2**
	54nm,0.8s,mb5.4						
PKI	**Pulchoki**	**72.96**	**300**	*e*P	**P**	**09 29 57.0**	**+0.8**
KKN	**Kakani**	**73.12**	**301**	*e*P	**P**	**09 29 58.3**	**+1.1**
VNDA	**Vanda**	**73.16**	**178**	P	**P**	**09 29 57.2**	**+0.7**
	5.7nm,0.8s,mb4.5,baz=327,slow=6.4,SNR=33						
VNDA	**Vanda**	**73.16**	**178**	*e*P	**P**	**09 29 56.7**	**+0.2**
	4.3nm,0.6s,mb4.5						
DMN	**Daman**	**73.23**	**300**	*e*P	**P**	**09 29 58.9**	**+1.1**
	60nm,0.9s,mb5.4						
GKN	**Gorkha**	**73.73**	**301**	*e*P	**P**	**09 30 01.6**	**+0.9**
	60nm,1.0s,mb5.3						
KOLN	**Koldanda**	**74.56**	**300**	*e*P	**P**	**09 30 05.4**	**-0.2**
	37nm,1.0s,mb5.0						
RSO	**Redoubt South**	**76.92**	**24**	*e*P	**P**	**09 30 17.9**	**-0.3**
MCK	**McKinley**	**80.21**	**22**	*e*P	**P**	**09 30 36.2**	**0.0**
	0.5nm,0.6s						
COLA	**College**	**81.21**	**22**	*e*P	**P**	**09 30 40.3**	**-1.1**
	3.2nm,0.8s,mb4.2						
ZAL	**Zalesovo**	**81.32**	**326**	P	**P**	**09 30 41.7**	**-0.5**
	1.1nm,0.4s,mb4.0,baz=5.1,slow=5.4,SNR=8.3						
ZAL	**Zalesovo**	**81.32**	**326**	P	**P**	**09 30 41.7**	**-0.5**
ILAR	**Eielson Array**	**81.51**	**22**	P	**P**	**09 30 42.0**	**-1.0**
	2.2nm,0.8s,mb4.0,baz=256,slow=5.5,SNR=19						
ILAR				pP	pP	09 31 06.8	-0.7
	1.2nm,0.7s,baz=247,slow=5.5,SNR=3.1						
AAK	**Ala-Archa**	**85.02**	**313**	*e*P	**P**	**09 31 01.2**	**0.0**
	11nm,0.9s,mb4.8						
MAW	**Mawson**	**86.22**	**203**	P	**P**	**09 31 06.8**	**+0.3**
	7.5nm,0.8s,mb4.7,baz=73,slow=6.4,SNR=10						
BRVK	**Borovoye**	**89.51**	**323**	*e*P	**P**	**09 31 21.9**	**-0.7**
	6.8nm,1.0s,mb4.7						
NVAR	**Mina Array Bea**	**91.21**	**52**	P	**P**	**09 31 31.4**	**+0.5**
	0.3nm,0.6s,mb3.6,baz=251,slow=4.7,SNR=3.6						
YKA	**Yellowknife Ar**	**94.72**	**28**	P	**P**	**09 31 47.1**	**+0.7**
	0.5nm,0.7s,mb4.0,baz=272,slow=4.7,SNR=13						
GERES	**GERESS Array B**	**124.17**	**329**	PKP	PKPdf	09 37 23.8	+1.2
	1.0nm,0.7s,baz=90,slow=1.3,SNR=3.8						
BDFB	**Brasilia**	**150.73**	**133**	PKPbc	PKPdf	09 38 17.4	+6.1
	2.2nm,0.5s,baz=144,slow=0.1,SNR=6.0						
DBIC	**Dimbokro**	**158.47**	**277**	PKPab	PKPab	09 38 59.0	-0.5
	2.8nm,0.9s,baz=129,slow=4.5,SNR=3.6						
DBIC	**Dimbokro**	**158.47**	**277**	PKPab	PKPab	09 38 59.0	-0.5

BJI 19 09:27:09.4, 37.58N×**115.18E, h17^{km}, ML3.8, Ms3.7, Msz3.4, Northeastern China**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIA	**Tai’an**	**2.07**	**131**	P	Pn	09 27 44.5	+0.5
TIA				PG	Pn	09 27 47.4	+3.4
TIA				SG	Sn	09 28 13.3	+3.7
BJI	**Beijing**	**2.58**	**17**	PG	Pn	09 27 54.8	+3.6
BJI				SG	Sn	09 28 27.4	+5.0
BJI				Smax			
	comp=N,749nm,0.8s						
BJI				Smax			
	comp=E,389nm,0.8s						
HHC	**Hu-ho-hao-te**	**4.31**	**320**	*e*P	Pn	09 28 15.4	-0.4
HHC				PG	Pn	09 28 27.3	+12
HHC				S	Sn	09 29 04.9	-1.3
HHC				SG	Sn	09 29 24.1	+18
HHC				Smax			
	comp=N,281nm,0.7s						
HHC				Smax			
	comp=E,370nm,0.8s						
BTO	**Baotou**	**5.02**	**309**	*e*PG	Pn	09 28 36.0	+10
BTO				SG	Sn	09 29 39.5	+15
BTO				Smax			
	comp=N,167nm,0.7s						
BTO				Smax			
	comp=E,88nm,0.7s						
DL2	**Dalian**	**5.25**	**73**	*e*PG	Pn	09 28 37.6	+8.5

DL2				Smax			
	comp=N,80nm,0.9s						
DL2				Smax			
	comp=E,60nm,1.4s						
XAN	**Xi’an**	**6.19**	**237**	PG	Pn	09 28 58.8	+16
XAN				SG	Sn	09 30 20.8	+27
XAN				Smax			
	comp=N,54nm,0.7s						
XAN				Smax			
	comp=E,27nm,0.8s						

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*IDC **19** 09:32:35.3±3.6, 7.46S×128.50E, h118^{km}±33^{km}, mb3.8/9, mb1 4.0/13, mb1mx4.0/17, Error ellipse: s-maj=27.3km s-min=14.3km az=64.0*

*NEIC **19** 09:32:36.4±1.7, 7.47S×128.52E, h132^{km}±15^{km}, mb4.3/12, Error ellipse: s-maj=13.2km s-min=11.5km az=61.0*

ISC 19 09:32:35.9±1.5**, 7.54S**±0.06×**128.65E**±0.09**, h146**^{km}±15^{km}**, n35, σ1**$\overset{s}{.}$**25**/38**, mb4.2**/17**, 2C-1D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.32**	**145**	⇑*i*P	**P**	**09 34 09.6**	**+1.8**
	23nm,0.2s						
KAKA				*e*S	**S**	**09 35 16.8**	**-2.4**
FITZ	**Fitzroy Crossi**	**10.90**	**195**	⇓*i*P	**P**	**09 35 07.2**	**-1.6**
	26nm,0.5s						
FITZ				*e*S	**S**	**09 37 01.0**	**-7.5**
FITZ	**Fitzroy Crossi**	**10.90**	**195**	P	**P**	**09 35 07.3**	**-1.5**
	8.3nm,0.3s,baz=17,slow=10.0,SNR=87						
FITZ				S	**S**	**09 37 00.5**	**-8.0**
	16nm,0.3s,baz=60,slow=11,SNR=9.9						
WRAB	**Tennant Creek**	**13.51**	**156**	*e*Pn	**P**	**09 35 42.1**	**-0.6**
	4.6nm,0.6s						
WRAB				*e*P		09 35 49.2	
WRAB				Sn	**S**	**09 38 01.9**	**-7.7**
WRA	**Warramunga Arr**	**13.51**	**156**	P	**P**	**09 35 40.8**	**-2.0**
	0.8nm,0.3s,baz=331,slow=14,SNR=36						
WRA				S	**S**	**09 38 04.1**	**-5.7**
	3.6nm,0.3s,baz=340,slow=20,SNR=9.3						
MBWA	**Marble Bar**	**16.05**	**212**	*e*P	**P**	**09 36 15.9**	**+1.1**
	4.7nm,0.4s						
ASAR	**Alice Springs**	**16.81**	**163**	P	**P**	**09 36 25.6**	**+1.6**
	2.7nm,0.3s,baz=337,slow=9.6,SNR=305						
ASAR				S	**S**	**09 39 23.7**	**-1.1**
	1.3nm,0.3s,baz=322,slow=16,SNR=6.9						
ASPA	**Alice Springs**	**16.81**	**163**	*e*P	**P**	**09 36 25.9**	**+1.8**
ASPA				*e*S	**S**	**09 39 22.8**	**-2.0**
PMG	**Port Moresby**	**18.40**	**97**	P	**P**	**09 36 43.3**	**+0.8**
	0.4nm,0.3s,baz=294,slow=10.0,SNR=1.8						
PMG	**Port Moresby**	**18.40**	**97**	*e*P	**P**	**09 36 43.9**	**+1.3**
	11nm,0.8s						
CTA	**Charters Tower**	**21.14**	**128**	P	**P**	**09 37 13.1**	**+2.6**
	2.8nm,0.8s,mb3.6,baz=283,slow=0.4,SNR=3.5						
CTAO	**Charters Tower**	**21.14**	**128**	P	**P**	**09 37 12.9**	**+2.4**
	0.7nm,0.5s,mb3.2						
FORT	**Forrest**	**23.13**	**181**	*e*P	**P**	**09 37 32.0**	**+2.0**
	29nm,0.5s,mb5.0						
STKA	**Stephens Creek**	**27.06**	**155**	⇑*i*P	**P**	**09 38 07.6**	**+0.9**
	7.8nm,0.8s,mb4.4						
STKA	**Stephens Creek**	**27.06**	**155**	P	**P**	**09 38 07.4**	**+0.6**
	10nm,0.8s,mb4.5,baz=323,slow=8.8,SNR=18						
NWAO	**Narrogin (SRO)**	**27.39**	**201**	P	**P**	**09 38 10.6**	**+0.8**
	10nm,0.7s,mb4.6,baz=90,slow=12,SNR=4.9						
NWAO	**Narrogin (SRO)**	**27.39**	**201**	*e*P	**P**	**09 38 10.4**	**+0.6**
	4.7nm,0.6s,mb4.3						
CMAR	**Chiang Mai Arr**	**39.06**	**312**	P	**P**	**09 39 50.7**	**+0.3**
	0.7nm,0.5s,mb3.5,baz=142,slow=7.4,SNR=4.4						
GUN	**Gumba**	**54.31**	**312**	*e*P	**P**	**09 41 49.4**	**-0.2**
	13nm,0.6s,mb4.8						
PKI	**Pulchoki**	**54.47**	**312**	*e*P	**P**	**09 41 50.0**	**-0.7**
	5.3nm,0.4s,mb4.6						
GKN	**Gorkha**	**55.27**	**312**	*e*P	**P**	**09 41 55.9**	**-0.7**
	11nm,0.4s,mb4.9						
KOLN	**Koldanda**	**55.92**	**311**	*e*P	**P**	**09 42 00.7**	**-0.6**
	7.4nm,0.7s,mb4.7						
SONM	**Songino Array**	**58.54**	**343**	P	**P**	**09 42 18.7**	**-0.6**
	0.9nm,0.6s,mb3.8,baz=160,slow=6.2,SNR=10						
ZAL	**Zalesovo**	**71.48**	**334**	P	**P**	**09 43 41.2**	**-1.2**
	1.2nm,0.9s,mb3.6,baz=1.2,slow=5.6,SNR=4.3						
VNDA	**Vanda**	**72.08**	**173**	P	**P**	**09 43 46.2**	**+0.6**
	1.0nm,0.6s,mb3.7,baz=322,slow=8.4,SNR=10						
VNDA	**Vanda**	**72.08**	**173**	*e*P	**P**	**09 43 45.8**	**+0.2**
	1.0nm,0.6s,mb3.7						
MAW	**Mawson**	**73.96**	**201**	*e*P	**P**	**09 43 57.9**	**+1.2**
	4.9nm,0.3s,mb4.7						
BVAR	**Borovoye Array**	**77.81**	**328**	P	**P**	**09 44 18.4**	**-0.1**
	0.9nm,0.5s,mb3.6,baz=117,slow=6.6,SNR=8.1						
BRVK	**Borovoye**	**77.88**	**328**	*e*P	**P**	**09 44 18.7**	**-0.2**
	2.4nm,0.8s,mb3.9						
ILAR	**Eielson Array**	**94.40**	**25**	P	**P**	**09 45 38.6**	**-1.3**
	1.1nm,1.2s,mb3.9,baz=243,slow=4.0,SNR=4.2						
SNAA	**Sanae**	**94.83**	**194**	*e*P	**P**	**09 45 42.3**	**+0.5**
	2.8nm,1.1s,mb4.4						
CPUP	**Villa Florida**	**145.84**	**170**	PKPbc	PKPbc	09 52 01.2	+2.3
	0.0nm,0.3s,baz=220,slow=14,SNR=1.9						
CPUP	**Villa Florida**	**145.84**	**170**	PKPbc	PKPbc	09 52 01.2	+2.3
LPAZ	**La Paz**	**151.08**	**145**	PKPbc	PKPdf	09 52 16.3	+10
	1.5nm,0.4s,baz=119,slow=2.4,SNR=12						
LPAZ				PKPab	PKPab	09 52 25.2	+2.2
	2.2nm,0.5s,baz=229,slow=3.4,SNR=12						
LPAZ	**La Paz**	**151.08**	**145**	PKPdf	PKPdf	09 52 09.5	+3.0
LPAZ				*e*PKPbc	PKPdf	09 52 15.9	+9.4
LPAZ				PKPbc	PKPdf	09 52 16.3	+10
LPAZ				*e*PKPab	PKPab	09 52 24.8	+1.8
LPAZ				PKPab	PKPab	09 52 25.2	+2.2

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*NEIC **19** 09:41:28.6, 18.63N×68.13W, h169^{km}, MD3.7(RSPR), After RSPR.*

RSPR 19 09:41:28.6, 18.63N×68.13W, h169^{km}±3^{km}**, MD3.7**/4**, MD3.7**/4**, 5C, Mona Passage**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSP	**Las Mesas**	**1.09**	**114**	⇑*e*P	P	09 41 55.8	-0.4
LSP				*e*S	S	09 42 16.7	-0.7
AOPR	**Arecibo Observ**	**1.34**	**102**	*e*S	S	09 42 21.5	0.0
AOPR	**Arecibo Observ**	**1.34**	**102**	⇑*e*P	P	09 41 58.5	+0.1
AOPR				*e*S	S	09 42 21.5	0.0
PORP	**Portuguez**	**1.53**	**112**	⇑*e*P	P	09 41 59.7	-0.6
PORP				*e*S	S	09 42 24.3	-0.5
CPD	**Cerro la Pandu**	**2.19**	**105**	⇑*e*P	P	09 42 07.5	+0.1
CPD				*e*S	S	09 42 37.9	+0.6
CBYP	**Canovanas**	**2.19**	**99**	*e*S	S	09 42 36.8	-0.6
CBYP	**Canovanas**	**2.19**	**99**	⇑*e*P	P	09 42 06.7	-0.8
CBYP				*e*S	S	09 42 36.8	-0.6

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*IDC **19** 09:55:41.2±6.4, 17.39N×96.47W, mb3.6/4, mb1 4.0/6, mb1mx3.7/19, ML4.1/1, Error ellipse: s-maj=135.0km s-min=91.6km az=33.0*

*NEIC **19** 09:55:57.9, 18.00N×97.70W, h68^{km}, mb3.6/6, MD4.1(MEX), After MEX.*

*MEX **19** 09:55:57.8±0.8, 18.01N×97.70W, h68^{km}±7^{km}, MD4.2*

ISC 19 09:55:55.9±0.3**, 17.97N**±0.03×**97.71W**±0.03**, h60**^{km}±5^{km}**, n35, σ1**$\overset{s}{.}$**16**/49**, mb3.6**/8**, Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IISM	**Ciudad Serdan**	**1.06**	**17**	*i* P	**P**	**09 56 15.8**	**+0.7**
IISM				*i* S	**S**	**09 56 29.5**	**+0.3**
IIB	**San Bernardino**	**1.16**	**329**	*i* P	**P**	**09 56 16.3**	**0.0**
OXX	**Oaxaca**	**1.29**	**133**	*i* P	**P**	**09 56 19.7**	**+1.4**
OXX				*i* S	**S**	**09 56 35.1**	**+0.3**
VHO	**Vista Hermosa**	**1.29**	**134**	*e*P	**P**	**09 56 19.3**	**+1.1**
VHO				*i* S	**S**	**09 56 35.2**	**+0.4**
PPM	**Popocatepetl**	**1.39**	**322**	*i* P	**P**	**09 56 21.8**	**+2.0**
PPM				*e*S	**S**	**09 56 37.4**	**0.0**
PPM	**Popocatepetl**	**1.39**	**322**	*e*P	**P**	**09 56 21.4**	**+1.7**
PPM				*i* P		09 56 21.8	
PPM				*e*S	**S**	**09 56 37.4**	**0.0**
YAIG	**Yautepec**	**1.56**	**305**	*e*P	**P**	**09 56 23.6**	**+1.5**
YAIG				*e*S	**S**	**09 56 40.7**	**-0.6**
PNIG	**Pinotepa**	**1.62**	**194**	*e*P	**P**	**09 56 22.7**	**-0.1**
PNIG				*i* S	**S**	**09 56 43.9**	**+1.3**
UNM	**Universidad Na**	**1.94**	**314**	*e*P	**P**	**09 56 30.2**	**+3.0**
UNM				*e*S	**S**	**09 56 49.9**	**-0.4**
LVIG	**Laguna Verde**	**2.13**	**35**	*e*P	**P**	**09 56 28.6**	**-1.4**
LVIG				*i* S	**S**	**09 56 53.6**	**-1.6**
ACX	**Acapulco**	**2.37**	**243**	*i* P	**P**	**09 56 30.7**	**-2.7**
ACX				*i* S	**S**	**09 57 00.5**	**-0.8**
CAIG	**El Cayaco**	**2.60**	**250**	*e*P	**P**	**09 56 35.7**	**-1.0**
CAIG				*i* S	**S**	**09 57 07.4**	**+0.2**
HUIG	**Huatulco**	**2.67**	**145**	*e*P	**P**	**09 56 38.2**	**+0.5**
HUIG				*e*S	**S**	**09 57 08.1**	**-0.8**
CMIG	**Matias Romero**	**2.84**	**108**	*e*P	**P**	**09 56 40.0**	**+0.1**
CMIG				*i* S	**S**	**09 57 11.2**	**-1.8**
ZIIG	**Zihuatanejo**	**3.59**	**265**	*e*P	**P**	**09 56 50.0**	**-0.6**
ZIIG				*i* S	**S**	**09 57 30.0**	**-2.1**
TEIG	**Tepich**	**9.20**	**74**	*e*Pn	**P**	**09 58 05.1**	**-3.2**
	12nm,0.6s						
TXAR	**Lajitas Array**	**12.56**	**335**	Pn	**P**	**09 59 00.2**	**+6.4**
	0.2nm,0.3s,baz=157,slow=6.9,SNR=17						
TXAR	**Lajitas Array**	**12.56**	**335**	Pn	**P**	**09 59 00.2**	**+6.4**
MIAR	**Mount Ida**	**16.92**	**12**	P	**P**	**09 59 50.0**	**-0.1**
	3.7nm,0.5s						
ANMO	**Albuquerque**	**18.62**	**337**	P	**P**	**10 00 11.0**	**0.0**
	baz=160,slow=14,SNR=6.9						
ANMO	**Albuquerque**	**18.62**	**337**	P	**P**	**10 00 11.0**	**0.0**
SDCO	**Great Sand Dun**	**20.85**	**342**	*e*P	**P**	**10 00 34.4**	**-0.6**
	1.9nm,0.6s						
PV10	**Paradox Valley**	**22.61**	**336**	*e*P	**P**	**10 00 53.0**	**+0.5**
ISCO	**Idaho Springs**	**22.81**	**344**	*e*P	**P**	**10 00 56.4**	**+2.0**
	1.6nm,0.6s,mb3.6						
ARUT	**Antelope Range**	**24.08**	**328**	*e*P	**P**	**10 01 08.5**	**+1.8**
TPNV	**Topopah Spring**	**24.98**	**323**	*e*P	**P**	**10 01 17.4**	**+2.0**
	2.3nm,0.6s,mb3.9						
TCUT	**Toone Canyon**	**25.90**	**336**	*e*P	**P**	**10 01 24.4**	**+0.4**
PDAR	**Pinedale Array**	**26.69**	**340**	P	**P**	**10 01 30.2**	**-1.1**
	0.4nm,0.5s,mb3.2,baz=135,slow=10,SNR=4.7						
NVAR	**Mina Array Bea**	**27.18**	**323**	P	**P**	**10 01 36.4**	**+0.5**
	1.4nm,0.9s,mb3.5,baz=143,slow=9.0,SNR=6.7						
ELK	**Elko**	**27.25**	**330**	*e*P	**P**	**10 01 36.9**	**+0.4**
	1.1nm,0.7s,mb3.5						
SNOW	**Snow King Moun**	**27.70**	**339**	*e*P	**P**	**10 01 40.3**	**-0.3**
MOD	**Modoc**	**30.68**	**326**	*e*P	**P**	**10 02 07.3**	**+0.2**
	1.6nm,0.6s,mb4.0						
YKA	**Yellowknife Ar**	**46.02**	**349**	P	**P**	**10 04 12.2**	**-2.8**
	0.6nm,0.6s,mb3.7,baz=155,slow=7.3,SNR=15						
YKA	**Yellowknife Ar**	**46.02**	**349**	P	**P**	**10 04 12.2**	**-2.8**
ILAR	**Eielson Array**	**57.06**	**337**	P	**P**	**10 05 37.0**	**-0.9**
	0.3nm,0.8s,mb3.4,baz=137,slow=5.6,SNR=4.4						

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*NEIC **19** 10:02:12.6, 17.18N×101.01W, h13^{km}, MD4.1(MEX), After MEX.*

MEX 19 10:02:12.6±1.1**, 17.18N×101.01W, h13**^{km}±15^{km}**, MD4.1, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	**Zihuatanejo**	**0.60**	**314**	*i* P	Pb	10 02 22.5	-2.0
ZIIG				*i* S	Sb	10 02 31.1	-1.5
CAIG	**El Cayaco**	**0.72**	**100**	*e*P	Pb	10 02 23.9	-2.6
CAIG				*i* S	Sb	10 02 33.3	-2.7
ACX	**Acapulco**	**1.09**	**106**	*i* P	Pb	10 02 30.3	-2.5
ACX				*i* S	Sb	10 02 43.8	-3.0
PLIG	**Platanillo**	**1.88**	**50**	*e*P	Pn	10 02 41.3	-3.5
PLIG				*e*S	Sn	10 03 03.3	-5.1
YAIG	**Yautepec**	**2.49**	**48**	*e*P	Pn	10 02 51.3	-2.3
YAIG				*e*S	Sn	10 03 19.3	-4.7
UNM	**Universidad Na**	**2.76**	**39**	*i* P	Pn	10 02 58.1	+0.8
PPM	**Popocatepetl**	**2.94**	**50**	*i* P	Pn	10 02 56.3	-3.7
COLM	**Colima**	**3.23**	**308**	*i* P	Pn	10 03 03.0	-1.0
COLM				*i* S	Sn	10 03 38.7	-4.1
VHO	**Vista Hermosa**	**4.09**	**91**	*i* P	Pn	10 03 30.4	+14
VHO				*i* S	Sn	10 04 16.0	+11

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*IDC **19** 10:03:10.4±5.6, 5.09S×153.42E, h91^{km}±44^{km}, mb3.7/8, mb1 3.8/10, mb1mx3.7/17, MS3.3/1, Ms1 3.3/1, ms1mx2.7/22, Error ellipse: s-maj=36.5km s-min=20.9km az=63.0*

*NEIC **19** 10:03:11.4±3.1, 5.10S×153.39E, h99^{km}±23^{km}, mb4.3/3, Error ellipse: s-maj=27.4km s-min=15.9km az=61.0*

ISC 19 10:03:08.7±4.3**, 5.0S**±0.2×**153.4E**±0.2**, h90**^{km}±33^{km}**, n14, σ0**$\overset{s}{.}$**86**/17**, mb4.0**/10**, 1C, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**7.55**	**234**	P	**P**	**10 04 57.4**	**-0.6**
	2.1nm,0.3s,baz=58,slow=9.5,SNR=9.2						
PMG				S	**S**	**10 06 22.7**	**0.0**
	1.2nm,0.3s,baz=107,slow=19,SNR=4.2						
PMG	**Port Moresby**	**7.55**	**234**	*e*P	**P**	**10 04 57.7**	**-0.3**
PMG				*e*S	**S**	**10 06 19.5**	**-3.2**
PMG				S	**S**	**10 06 22.7**	**0.0**
CTA	**Charters Tower**	**16.51**	**204**	P	**P**	**10 06 57.5**	**+1.4**
	0.1nm,0.3s,baz=1.3,slow=16,SNR=3.4						
WRAB	**Tennant Creek**	**23.73**	**230**	*e*P	**P**	**10 08 14.3**	**+0.9**
	7.5nm,1.0s,mb4.0						
WRA	**Warramunga Arr**	**23.74**	**230**	P	**P**	**10 08 14.3**	**+0.7**
	0.8nm,0.5s,mb3.3,baz=55,slow=10,SNR=14						
ASAR	**Alice Springs**	**26.38**	**223**	P	**P**	**10 08 38.4**	**-0.3**
	0.6nm,0.7s,mb3.2,baz=57,slow=9.0,SNR=12						
ASAR				PcP	PcP	10 12 01.6	-1.0
	1.0nm,0.7s,baz=56,slow=2.8,SNR=9.3						
ASAR				LR	LR	10 18 13.9	
	comp=Z,70nm,20.0s,baz=332,slow=34						
FITZ	**Fitzroy Crossi**	**30.07**	**242**	P	**P**	**10 09 10.2**	**-1.7**
	5.4nm,1.1s,mb4.1,baz=70,slow=3.6,SNR=3.7						
RPZ	**Rata Peaks**	**41.58**	**161**	P	**P**	**10 10 48.5**	**-0.7**
	9.9nm,0.7s,mb4.7,baz=330,slow=15,SNR=4.3						
CMAR	**Chiang Mai Arr**	**58.49**	**295**	P	**P**	**10 12 59.2**	**+1.0**
	1.1nm,0.8s,mb3.9,baz=101,slow=4.6,SNR=4.8						
SONM	**Songino Array**	**66.81**	**328**	P	**P**	**10 13 52.6**	**-0.4**
	0.3nm,0.4s,mb3.4,baz=124,slow=5.2,SNR=3.5						
VNDA	**Vanda**	**72.60**	**178**	P	**P**	**10 14 26.8**	**-0.8**
	1.8nm,0.7s,mb4.0,baz=336,slow=6.0,SNR=9.8						
QSPA	**South Pole Qui**	**84.95**	**180**	⇑*i*P	**P**	**10 15 34.9**	**+0.4**
	7.3nm,0.6s,mb4.8						
MAW	**Mawson**	**85.59**	**203**	P	**P**	**10 15 38.3**	**+0.4**
	1.9nm,0.6s,mb4.2,baz=94,slow=9.1,SNR=2.4						
MAW	**Mawson**	**85.59**	**203**	P	**P**	**10 15 37.7**	**-0.2**
	1.9nm,0.6s,mb4.2						

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*DJA **19** 10:07:44.4±0.9, 4.17S×117.36E, h33^{km}, MD4.6/3, ML4.3/4, Error ellipse: s-maj=28.6km s-min=19.6km az=114.0*

*IDC **19** 10:07:53.9±4.5, 8.08S×119.78E, h171^{km}±56^{km}, mb3.1/3, mb1 3.3/5, mb1mx3.2/15, Error ellipse: s-maj=104.0km s-min=15.8km az=54.0*

ISC 19 10:07:53.0±2.8**, 8.1S**±0.3×**119.8E**±0.2**, h186**^{km}±36^{km}**, n10, σ0**$\overset{s}{.}$**80**/15**, mb3.6**/2**, 5C-3D, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	**3.63**	**263**	⇑*i*Pn	**P**	**10 08 50.5**	**+0.2**
	52nm,0.2s						
KEDI	**Kedomdong**	**3.63**	**263**	⇑*i*P	**P**	**10 08 51.4**	**+1.1**
KEDI				⇑*i*Sn	**S**	**10 09 38.4**	**+3.8**
RATI	**Rata**	**4.23**	**261**	⇑*i*Pn	**P**	**10 08 56.5**	**-1.4**
	137nm,0.3s						
RATI				⇓*i*Sn	**S**	**10 09 48.3**	**+0.2**
KELI	**Kelakatan**	**5.22**	**268**	⇓*i*Pn	**P**	**10 08 56.7**	**-14**
	22nm,0.4s						
SRDI	**Scrawed**	**5.57**	**265**	⇓*i*Pn	**P**	**10 09 02.6**	**-13**
	20nm,0.2s						
SRDI				⇑*i*Sn	**S**	**10 10 00.7**	**-18**
FITZ	**Fitzroy Crossi**	**11.49**	**151**	P	**P**	**10 10 33.5**	**+0.8**
	0.3nm,0.3s,baz=341,slow=12,SNR=5.2						
FITZ				S	**S**	**10 12 31.3**	**-6.7**
	0.6nm,0.3s,baz=177,slow=22,SNR=6.8						
WRA	**Warramunga Arr**	**18.40**	**131**	P	**P**	**10 11 55.6**	**-1.0**
	0.3nm,0.3s,baz=303,slow=12,SNR=14						
WRA				S	**S**	**10 15 17.9**	**+5.7**
	0.1nm,0.3s,baz=308,slow=25,SNR=5.5						
ASAR	**Alice Springs**	**20.60**	**140**	P	**P**	**10 12 19.1**	**+0.2**
	0.8nm,0.4s,baz=318,slow=8.9,SNR=19						
STKA	**Stephens Creek**	**31.20**	**142**	P	**P**	**10 13 57.1**	**+0.1**
	1.1nm,0.7s,mb3.7,baz=321,slow=13,SNR=2.8						
SONM	**Songino Array**	**56.91**	**349**	P	**P**	**10 17 21.1**	**+0.4**
	0.3nm,0.5s,mb3.4,baz=172,slow=8.5,SNR=5.0						

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*NIED **19** 10:16:00, 38.00N×142.80E, h29^{km}, Mw4.6 Best double couple: M$_0$9.18×10^{15} NP1:φ$_s$19°, δ67°, λ86°. NP2:φ$_s$211°, δ23°, λ101°.*

*JMA **19** 10:16:36.0±0.1, 38.05N×142.76E, h29^{km}±2^{km}, M4.7*

JMA Felt II J1.

*BJI **19** 10:16:37.0, 38.02N×142.52E, h33^{km}, mB4.7, mb4.8, Ms4.5, Msz4.4*

*MOS **19** 10:16:38.2±1.2, 38.15N×142.52E, h33^{km}, mb5.0/31, MS4.4/6, Error ellipse: s-maj=10.5km s-min=5.9km az=106.7*

*IDC **19** 10:16:39.2±0.5, 38.01N×142.61E, h36^{km}±3^{km}, mb4.1/25, mb1 4.3/28, mb1mx4.2/33, ML4.1/3, MS4.0/12, Ms1 4.0/12, ms1mx3.6/36, Error ellipse: s-maj=15.0km s-min=11.6km az=116.0*

*NEIC **19** 10:16:39.8±0.3, 38.08N×142.61E, mb4.8/26, MS4.4/1, MW4.6(NIED), Error ellipse: s-maj=7.3km s-min=5.4km az=140.0*

NEIC Recorded [2 JMA] in Miyagi and [1 JMA] in Fukushima and Iwate Prefectures.

ISC 19 10:16:37.7±0.3**, 38.04N**±0.03×**142.69E**±0.03**, h36**^{km}**, h36**^{km}±2.0^{km}**:pP-P, n180, σ1**$\overset{s}{.}$**11**/186**, mb4.6**/64**, MS4.1**/25**, 6C-3D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JIO	**Ouri**	**1.14**	**292**	P	**P**	**10 16 56.8**	**-0.5**
JIO				*e*S	**S**	**10 17 12.0**	**+0.1**
OFUJ	**Ofunato**	**1.31**	**323**	P	**P**	**10 16 59.2**	**-0.7**
OFUJ				*e*S	**S**	**10 17 16.3**	**-0.2**
JMK	**Ichinoseki**	**1.47**	**309**	P	**P**	**10 17 01.8**	**-0.3**
JMM	**Marumori**	**1.51**	**264**	P	**P**	**10 17 02.2**	**-0.5**
JMM				S	**S**	**10 17 22.1**	**+0.7**
JFK	**Kawauchi**	**1.59**	**246**	P	**P**	**10 17 03.2**	**-0.6**
JFK				*e*S	**S**	**10 17 22.9**	**-0.5**
JOU	**Okura**	**1.63**	**282**	P	**P**	**10 17 04.5**	**+0.1**
JOU				*e*S	**S**	**10 17 25.9**	**+1.5**
JOM	**Ohasama**	**1.80**	**323**	P	**P**	**10 17 06.8**	**-0.1**
JOM				*e*S	**S**	**10 17 29.6**	**+0.9**
JFT	**Otama**	**1.94**	**255**	P	**P**	**10 17 09.3**	**+0.5**
JFT				*e*S	**S**	**10 17 34.2**	**+2.1**
JYK	**Kaneyama**	**2.03**	**296**	P	**P**	**10 17 10.0**	**-0.1**
JYS	**Shirataka**	**2.08**	**276**	P	**P**	**10 17 11.1**	**+0.3**
JYS				*e*S	**S**	**10 17 38.0**	**+2.3**
JYA	**Atsumi**	**2.41**	**284**	P	**P**	**10 17 15.8**	**+0.3**
JFY	**Yanaizu**	**2.45**	**256**	P	**P**	**10 17 16.4**	**+0.3**
MAJO	**Matsushiro**	**3.88**	**249**	*e*P	**P**	**10 17 37.1**	**+0.7**
MAT	**Matsushiro**	**3.88**	**249**	P	**P**	**10 17 37.0**	**+0.6**
MAT				S	**S**	**10 18 26.2**	**+4.9**
MAT	**Matsushiro**	**3.88**	**249**	*e*P	**P**	**10 17 37.0**	**+0.6**
MAT				*e*S	**S**	**10 18 32.0**	**+11**
JHJ	**Hachijo jima 2**	**5.45**	**207**	Pn	**P**	**10 17 56.1**	**-2.5**
	33nm,0.3s,baz=92,slow=18,SNR=11						
JHJ				Sn	**S**	**10 18 54.2**	**-6.7**
	52nm,0.3s,baz=344,slow=18,SNR=3.9						
ASAJ	**Asahikawa**	**6.07**	**359**	Pn	**P**	**10 18 05.9**	**-1.5**
	3.5nm,0.3s,baz=156,slow=28,SNR=18						
ASAJ				Sn	**S**	**10 19 12.8**	**-3.8**
	6.0nm,0.3s,baz=27,slow=28,SNR=4.9						
ASAJ				LR	LR	10 21 09.2	
	comp=Z,2μm,20.3s,baz=197,slow=44						
ASAJ	**Asahikawa**	**6.07**	**359**	P	**P**	**10 18 05.9**	**-1.5**
ASAJ						10 19 12.9	
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,2μm,20.3s						
YUK	**Yuzh-Kuril’sk**	**6.45**	**21**	P	**P**	**10 18 20.5**	**+7.8**
YUK				*e*S	**S**	**10 19 16.5**	**-10**
YUK				smax			
	comp=N,2μm,0.5s						
YUK				smax			
	comp=E,380nm,0.5s						
YUK				smax			
	comp=N,2μm,0.7s						
YUK				smax			
	comp=E,4μm,1.8s						
YSS	**Yuzh-Sakhalins**	**8.91**	**0**	⇑*e*P	**P**	**10 18 45.0**	**-1.9**
YSS				*e*		10 20 21.6	
YSS				pmax	pmax		
	comp=Z,40nm,1.0s						
YSS				pmax	pmax		
	comp=N,40nm,0.9s						
YSS				pmax	pmax		
	comp=E,20nm,0.8s						
YSS				MLR	MLR		
	comp=N,500nm,13.0s						
YSS				MLR	MLR		
	comp=Z,500nm,13.0s						
YSS	**Yuzh-Sakhalins**	**8.91**	**0**	*e*Pn	**P**	**10 18 44.6**	**-2.3**
	comp=Z,18nm,0.6s						
CBIJ	**Chichi jima**	**10.92**	**182**	Pn	**P**	**10 19 09.8**	**-4.7**
	comp=Z,5.5nm,0.3s,baz=283,slow=24,SNR=8.7						
CBIJ				Sn	**S**	**10 21 02.2**	**-14**
	comp=Z,2.9nm,0.3s,baz=248,slow=19,SNR=2.4						
KS15	**Wonju Array Si**	**11.74**	**272**	*e*P	**P**	**10 19 24.0**	**-1.6**
CN2	**Changchun**	**14.24**	**299**	*e*P	**P**	**10 19 55.5**	**-3.3**
CN2				AMB	AMB		
	comp=Z,40nm,1.0s						
SSE	**Sheshan**	**19.00**	**255**	P	**P**	**10 21 00.3**	**+1.4**
SSE				S	**S**	**10 24 25.8**	**0.0**
SSE				AMB	AMB		
	comp=Z,47nm,0.8s						
SSE				AMB	AMB		
	comp=Z,72nm,6.3s						
SSE				LR	LR		
	comp=N,222nm,21.7s						
SSE				LR	LR		
	comp=E,136nm,21.6s						
SSE				LR	LR		
	comp=Z,236nm,25.4s						
HIA	**Hailar**	**19.96**	**312**	*e*P	**P**	**10 21 06.6**	**-2.8**
HIA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HIA	**Hailar**	**19.96**	**312**	*e*P	**P**	**10 21 06.6**	**-2.8**
	comp=Z,4.3nm,0.6s						
HIA				*e*		10 21 12.5	
NJ2	**Nanjing**	**20.39**	**260**	*e*P	**P**	**10 21 14.4**	**+0.4**
NJ2				AMB	AMB		
	comp=Z,50nm,1.0s						
NJ2				AMB	AMB		
	comp=Z,320nm,12.0s						
NJ2				LR	LR		
	comp=N,640nm,16.7s,MS4.4						
NJ2				LR	LR		
	comp=E,1μm,15.9s,MS4.4						
NJ2				LR	LR		
	comp=Z,1μm,18.1s,MS4.3						
BJI	**Beijing**	**20.67**	**284**	*e*P	**P**	**10 21 13.6**	**-3.3**
BJI				AMB	AMB		
	comp=Z,18nm,0.7s						
BJI				LR	LR		
	comp=Z,291nm,15.6s,MS3.8						
BJT	**Baijiatuau**	**20.68**	**284**	*e*P	**P**	**10 21 13.4**	**-3.6**
BJT				pmax	pmax		
	comp=Z,29nm,0.8s						
BJT	**Baijiatuau**	**20.68**	**284**	*e*P	**P**	**10 21 13.3**	**-3.6**
	comp=Z,29nm,0.8s						
MA2	**Magadan**	**22.17**	**11**	*e*P	**P**	**10 21 31.6**	**-0.2**
MA2				pmax	pmax		
	comp=Z,20nm,0.8s,mb4.6						
MA2	**Magadan**	**22.17**	**11**	*e*P	**P**	**10 21 31.6**	**-0.2**
	comp=Z,20nm,0.8s,mb4.6						
CLNS	**Chul’man**	**22.21**	**334**	*e*P	**P**	**10 21 29.9**	**-2.3**
CLNS				*e*S	**S**	**10 25 26.8**	**-2.8**
CLNS				*e**SS		10 26 03.2	
CLNS				*e*SS	SS	10 26 15.5	+5.2
CLNS				pmax	pmax		
	comp=Z,45nm,0.7s,mb5.0						
CLNS				pmax	pmax		
	comp=N,23nm,0.9s						
CLNS				pmax	pmax		
	comp=E,12nm,0.8s						
CLNS				smax			
	comp=N,77nm,12.1s						
CLNS				smax			
	comp=Z,22nm,11.2s						
CLNS				smax			
	comp=E,41nm,12.7s						
CLNS				MLR	MLR		
	comp=Z,700nm,16.0s,MS4.2						
CLNS				MLR	MLR		
	comp=N,500nm,17.0s,MS4.0						
CLNS				MLR	MLR		
	comp=E,100nm,16.0s,MS4.0						
HHC	**Hu-ho-hao-te**	**24.14**	**286**	*e*P	**P**	**10 21 48.8**	**-2.4**
HHC				AMB	AMB		
	comp=Z,13nm,0.5s,mb4.6						
HHC				AMB	AMB		
	comp=Z,142nm,4.3s						
HHC				LR	LR		
	comp=N,216nm,12.0s,MS4.4						
HHC				LR	LR		
	comp=E,702nm,13.3s,MS4.4						

HHC				LR	LR		
	comp=Z,948nm,14.6s,MS4.4						
YAK	**Yakutsk**	**25.33**	**346**	*e*P	**P**	**10 22 02.5**	**+0.1**
YAK				i *PP	pP	10 22 09.0	-3.3
YAK				*e*S	**S**	**10 26 27.5**	**+3.8**
YAK				pmax	pmax		
	comp=Z,23nm,0.9s,mb4.7						
YAK				pmax	pmax		
	comp=N,10.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.2s						
YAK				smax			
	comp=N,45nm,18.1s						
YAK				smax			
	comp=Z,38nm,15.9s						
YAK				smax			
	comp=E,62nm,16.6s						
YAK				MLR	MLR		
	comp=Z,168nm,18.0s,MS3.6						
YAK				MLR	MLR		
	comp=N,103nm,20.0s,MS3.6						
YAK				MLR	MLR		
	comp=E,153nm,17.0s,MS3.6						
YAK	**Yakutsk**	**25.33**	**346**	*e*P	**P**	**10 22 02.0**	**-0.4**
	comp=E,32nm,0.8s,mb4.9						
SEY	**Seymchan**	**25.62**	**10**	*e*P	**P**	**10 22 06.6**	**+1.5**
SEY				*e*		10 22 52.2	
SEY				*e*		10 25 34.2	
SEY				e*SP	**S**	**10 26 33.3**	**+4.9**
SEY				*e*SSS	SSS	10 27 35.4	-15
SEY				pmax	pmax		
	comp=N,20nm,1.0s						
SEY				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.1						
SEY				pmax	pmax		
	comp=E,20nm,1.1s						
SEY				MLR	MLR		
	comp=Z,250nm,19.0s,MS3.8						
SEY				MLR	MLR		
	comp=N,290nm,15.0s,MS4.1						
SEY				MLR	MLR		
	comp=E,310nm,15.0s,MS4.1						
BOD	**Bodaibo**	**27.25**	**326**	*e*P	**P**	**10 22 18.4**	**-1.8**
ULN	**Ulaanbaatar**	**27.66**	**302**	*e*P	**P**	**10 22 23.5**	**-0.5**
ULN				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.7						
ULN	**Ulaanbaatar**	**27.66**	**302**	*e*P	**P**	**10 22 23.5**	**-0.6**
	comp=Z,16nm,0.8s,mb4.7						
SONM	**Songino Array**	**28.09**	**302**	P	**P**	**10 22 27.3**	**-0.6**
	comp=Z,7.9nm,0.6s,mb4.5,baz=121,slow=8.3,SNR=65						
ENH	**Enshi**	**28.44**	**264**	*e*P	**P**	**10 22 29.5**	**-1.8**
	comp=Z,44nm,0.7s,mb5.2						
GZH	**Guangzhou**	**29.18**	**248**	P	**P**	**10 22 32.3**	**-5.6**
GZH				LR	LR		
	comp=N,410nm,11.8s,MS4.4						
GZH				LR	LR		
	comp=E,480nm,15.2s,MS4.4						
GZH				LR	LR		
	comp=Z,850nm,14.9s,MS4.5						
TLY	**Talaya**	**30.46**	**309**	*e*P	**P**	**10 22 49.9**	**+0.9**
TLY				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.7						
TLY				MLR	MLR		
	comp=Z,538nm,15.0s,MS4.3						
LZH	**Lanzhou**	**30.91**	**279**	*e*P	**P**	**10 22 51.8**	**-1.4**
LZH				AP	pP	10 23 01.5	-1.8
LZH				XP	sP	10 23 05.3	-2.7
LZH				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.9						
MOY	**Mondy**	**32.09**	**309**	*e*P	**P**	**10 23 03.0**	**-0.3**
GYA	**Guiyang**	**32.40**	**260**	⇑*i*P	**P**	**10 23 04.9**	**-1.4**
GYA				AP	pP	10 23 12.0	-4.5
GYA				PP	PP	10 24 17.3	+2.6
GYA				S	**S**	**10 28 22.0**	**+5.0**
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.9						
GYA				AMB	AMB		
	comp=Z,80nm,4.8s						
GYA				LR	LR		
	comp=N,160nm,14.6s,MS4.2						
GYA				LR	LR		
	comp=E,370nm,15.5s,MS4.2						
GYA				LR	LR		
	comp=Z,250nm,15.8s,MS4.0						
CD2	**Chengdu**	**32.70**	**269**	P	**P**	**10 23 07.8**	**-1.1**
BILL	**Bilibino**	**32.78**	**16**	*i* P	**P**	**10 23 08.4**	**-0.8**
GTA	**Gaotai**	**33.25**	**286**	*e*P	**P**	**10 23 13.3**	**-0.3**
GTA				AP	pP	10 23 17.9	-5.9
GTA				AMB	AMB		
	comp=Z,27nm,1.1s,mb5.1						
GTA				AMB	AMB		
	comp=Z,100nm,6.1s						
GTA				LR	LR		
	comp=N,243nm,15.2s,MS4.4						
GTA				LR	LR		
	comp=E,522nm,16.3s,MS4.4						
GTA				LR	LR		
	comp=Z,662nm,16.0s,MS4.4						
TIXI	**Tiksi**	**34.42**	**352**	⇓*i*P	**P**	**10 23 21.9**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
CHRT	**Chiangrai**	**41.27**	**256**	⇑P	**P**	**10 24 20.0**	**-1.2**
WMQ	**Urumqi**	**41.30**	**296**	*e*P	**P**	**10 24 21.8**	**+0.5**
WMQ				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.0						
ZAL	**Zalesovo**	**42.01**	**312**	P	**P**	**10 24 26.6**	**-0.3**
	comp=Z,11nm,0.5s,mb4.8,baz=23,slow=7.9,SNR=52						
ZAL				LR	LR	10 42 19.9	
	comp=Z,131nm,20.9s,MS3.8,baz=27,slow=37						
CMAR	**Chiang Mai Arr**	**42.73**	**255**	P	**P**	**10 24 32.4**	**-0.9**
	comp=Z,1.0nm,0.4s,mb3.9,baz=46,slow=5.6,SNR=8.9						
CMAR				ScP		10 30 14.5	
	comp=Z,0.5nm,0.4s,baz=56,slow=5.2,SNR=5.5						
CMAR				LR	LR	10 41 29.0	
	comp=Z,77nm,20.2s,MS3.6,baz=50,slow=35						
NVS	**Novosibirsk**	**42.89**	**313**	*e*P	**P**	**10 24 33.3**	**-0.8**
NVS				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.3						
NVS				pmax	pmax		
	comp=N,8.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,7.0nm,0.8s						
SHL	**Shillong**	**44.44**	**269**	*e*P	**P**	**10 24 46.0**	**-1.0**
MKAR	**Makanchi Array**	**44.46**	**301**	*i* P	**P**	**10 24 46.5**	**-0.3**
MKAR				pmax	pmax		
	comp=Z,34nm,1.0s						
COLA	**College**	**47.69**	**33**	*i* P	**P**	**10 25 14.1**	**+1.9**
GUN	**Gumba**	**48.07**	**275**	*e*P	**P**	**10 25 16.2**	**+0.5**
	comp=Z,57nm,0.6s						
ILAR	**Eielson Array**	**48.10**	**33**	P	**P**	**10 25 14.3**	**-1.1**
	comp=Z,2.1nm,0.4s,mb4.5,baz=268,slow=5.1,SNR=34						
KKN	**Kakani**	**48.60**	**276**	*e*P	**P**	**10 25 20.1**	**+0.4**
	comp=Z,46nm,0.7s,mb5.6						
PKI	**Pulchoki**	**48.60**	**275**	*e*P	**P**	**10 25 20.0**	**+0.3**
	comp=Z,18nm,0.6s,mb5.3						
GKN	**Gorkha**	**49.00**	**276**	*e*P	**P**	**10 25 23.2**	**+0.3**
	comp=Z,83nm,1.0s,mb5.7						
KOLN	**Koldanda**	**49.92**	**277**	*e*P	**P**	**10 25 30.3**	**+0.3**
BVA0	**Borovoye Array**	**50.66**	**312**	*i* P	**P**	**10 25 34.6**	**-0.6**
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.4s,mb4.0						
BVAR	**Borovoye Array**	**50.66**	**312**	P	**P**	**10 25 33.9**	**-1.2**
	comp=Z,7.3nm,0.6s,mb4.8,baz=76,slow=8.2,SNR=39						
BVAR				PcP	PcP	10 26 51.7	-0.7
	comp=Z,2.5nm,0.6s,baz=90,slow=1.5,SNR=4.5						
BRVK	**Borovoye**	**50.71**	**312**	*e*P	**P**	**10 25 34.4**	**-1.2**
BRVK				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
BRVK	**Borovoye**	**50.71**	**312**	*e*P	**P**	**10 25 34.4**	**-1.1**
	comp=Z,10nm,0.8s,mb4.8						
AAK	**Ala-Archa**	**50.91**	**298**	*i* P	**P**	**10 25 35.8**	**-1.5**
AAK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
AAK	**Ala-Archa**	**50.91**	**298**	*e*P	**P**	**10 25 35.2**	**-2.1**
INK	**Inuvik**	**53.03**	**28**	P	**P**	**10 25 52.4**	**-0.4**
	comp=Z,1.4nm,1.0s,mb3.9,baz=290,slow=12,SNR=4.9						
INK	**Inuvik**	**53.03**	**28**	P	**P**	**10 25 52.4**	**-0.4**
INK				pmax	pmax		
	comp=Z,1.0nm,1.0s						
INK	**Inuvik**	**53.03**	**28**	*e*P	**P**	**10 25 50.6**	**-2.2**
	comp=Z,1.9nm,0.8s,mb4.1						
ARU	**Arti**	**56.28**	**318**	⇓*i*P	**P**	**10 26 14.8**	**-1.9**
ARU				*e*		10 27 11.5	
ARU				*e*		10 28 16.8	
ARU				*e*S	**S**	**10 33 55.6**	**-6.9**
ARU				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
ARU				MLR	MLR		
	comp=N,100nm,17.0s,MS4.6						
ARU				MLR	MLR		
	comp=E,400nm,17.0s,MS4.6						
ARU				MLR	MLR		
	comp=Z,500nm,17.0s,MS4.7						
ARU	**Arti**	**56.28**	**318**	*e*P	**P**	**10 26 15.0**	**-1.6**
	comp=Z,28nm,1.3s,mb5.1						
DLBC	**Dease Lake**	**57.21**	**39**	P	**P**	**10 26 24.1**	**+0.8**
	comp=Z,1.8nm,0.8s,mb4.2,baz=242,slow=6.5,SNR=2.8						
FITZ	**Fitzroy Crossi**	**58.09**	**199**	P	**P**	**10 26 29.2**	**-0.8**
	comp=Z,3.4nm,0.7s,mb4.5,baz=31,slow=7.6,SNR=13						
WRAB	**Tennant Creek**	**58.19**	**189**	*e*P	**P**	**10 26 30.1**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
WRAB	**Tennant Creek**	**58.19**	**189**	*e*P	**P**	**10 26 30.1**	**-0.5**
	comp=Z,10nm,0.9s,mb4.8						
WRA	**Warramunga Arr**	**58.20**	**189**	P	**P**	**10 26 29.7**	**-1.0**
	comp=Z,2.8nm,1.1s,mb4.2,baz=7.9,slow=7.0,SNR=7.0						
HYB	**Hyderabad**	**59.24**	**269**	*e*P	**P**	**10 26 36.5**	**-1.5**
HYB	**Hyderabad**	**59.24**	**269**	*i* P	**P**	**10 26 36.5**	**-1.5**
BBB	**Bella Bella**	**60.64**	**45**	LR	LR	10 50 50.6	
	comp=Z,96nm,20.1s,MS3.9,baz=114,slow=34						
RES	**Resolute Bay**	**61.38**	**15**	*e*P	**P**	**10 26 50.9**	**-0.9**
RES				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
RES	**Resolute Bay**	**61.38**	**15**	*e*P	**P**	**10 26 50.9**	**-1.0**
	comp=Z,5.5nm,0.8s,mb4.7						
ASAR	**Alice Springs**	**61.93**	**189**	P	**P**	**10 26 55.0**	**-1.1**
	comp=Z,0.5nm,0.7s,mb3.8,baz=11,slow=4.9,SNR=6.2						
ASAR				pP	pP	10 27 04.3	-2.7
	comp=Z,2.2nm,0.8s,baz=10,slow=6.4,SNR=14						
ASAR				LR	LR	10 53 01.1	
	comp=Z,86nm,20.0s,MS3.9,baz=6.9,slow=35						
POO	**Poona**	**62.34**	**273**	*e*P	**P**	**10 26 55.5**	**-3.5**
YKA	**Yellowknife Ar**	**62.43**	**31**	P	**P**	**10 26 58.4**	**-0.6**
	comp=Z,1.1nm,0.8s,mb4.1,baz=303,slow=6.8,SNR=23						
YKA				pP	pP	10 27 09.3	-0.5
	comp=Z,1.5nm,0.8s,baz=304,slow=6.6,SNR=17						
MBWA	**Marble Bar**	**62.71**	**204**	P	**P**	**10 27 00.6**	**-0.9**
	comp=Z,1.1nm,0.6s,mb4.2						
ARCES	**ARCESS Array B**	**63.42**	**340**	P	**P**	**10 27 04.4**	**-1.1**
	comp=Z,7.5nm,1.1s,mb4.7,baz=39,slow=7.8,SNR=7.6						
ARCES				LR	LR	11 00 13.4	
	comp=Z,130nm,19.0s,MS4.1,baz=24,slow=41						
KAF	**Kangasniemi**	**67.88**	**333**	*e*p	**P**	**10 27 32.8**	**-1.2**
	comp=Z,7.6nm,0.9s,mb4.7,baz=47,slow=6.0						
KAF	**Kangasniemi**	**67.88**	**333**	*e*P	**P**	**10 27 32.8**	**-1.2**
KAF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
OBN	**Obninsk**	**67.90**	**323**	*e*P	**P**	**10 27 34.0**	**-0.2**
OBN				*e*		10 30 03.5	
OBN				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.0						
OBN				MLR	MLR		
	comp=Z,200nm,16.0s,MS4.4						
FINES	**FINESS Array B**	**68.40**	**332**	P	**P**	**10 27 36.5**	**-0.7**
	comp=Z,10nm,0.8s,mb4.9,baz=56,slow=6.9,SNR=19						
FINES				LR	LR	10 59 36.5	
	comp=Z,155nm,19.1s,MS4.3,baz=230,slow=38						
VRSR	**Storozhevoye**	**68.83**	**319**	*e*P	**P**	**10 27 39.6**	**-0.5**
VRSR				*e*		10 28 05.7	
VRSR				*e*		10 30 07.3	
VRSR				*e*S	S	10 36 29.5	-11
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.6s						
VRSR				pmax	pmax		
	comp=E,8.0nm,1.8s						
VRSR				smax			
	comp=N,10.0nm,0.9s						
VRSR				smax			
	comp=Z,1.0nm,0.7s						
VRSR				smax			
	comp=E,10.0nm,1.0s						
VRSR				MLR	MLR		
	comp=Z,390nm,6.0s						
VRSR				MLR	MLR		
	comp=N,370nm,7.0s						
VRSR				MLR	MLR		
	comp=E,530nm,19.0s						
STKA	**Stephens Creek**	**69.56**	**181**	LR	LR	10 54 19.0	
	comp=E,82nm,21.6s,MS3.9,baz=25,slow=32						
ZEI	**Tsey**	**70.96**	**310**	*e*P	**P**	**10 27 51.0**	**-2.2**
ZEI				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
KIV	**Kislovodsk**	**71.02**	**311**	*e*P	**P**	**10 27 53.7**	**+0.2**
KIV				*e*PPP	PPP	10 32 14.3	0.0
KIV				*e*S	S	10 36 58.5	-7.2
KIV				*e*SSS	SSS	10 44 52.8	+5.5
KIV				pmax	pmax		
	comp=N,11nm,1.0s						
KIV				pmax	pmax		
	comp=E,12nm,1.0s						
KIV				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
KIV	**Kislovodsk**	**71.02**	**311**	*e*P	**P**	**10 27 54.2**	**+0.6**
	comp=Z,25nm,0.9s,mb5.1						
GNI	**Garni**	**71.92**	**307**	LR	LR	11 01 51.4	
	comp=Z,63nm,21.1s,MS3.9,baz=228,slow=38						
SOC	**Sochi**	**72.98**	**312**	*e*P	**P**	**10 28 04.3**	**-0.9**
SOC				*e*S	S	10 37 26.1	-2.2
SOC				*e*SS	SS	10 42 04.2	-7.5
SOC				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
SOC				pmax	pmax		
	comp=N,28nm,1.0s						
SOC				pmax	pmax		
	comp=E,24nm,1.0s						
SOC				MLR	MLR		
	comp=Z,202nm,15.0s,MS4.5						
SOC				MLR	MLR		
	comp=N,171nm,17.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,152nm,18.0s,MS4.5						
NVAR	**Mina Array Bea**	**73.58**	**54**	P	**P**	**10 28 09.9**	**+1.1**
	comp=E,0.4nm,0.7s,baz=284,slow=3.7,SNR=3.2						
NVAR				pP	pP	10 28 20.8	+1.1
	comp=E,2.3nm,0.9s,baz=298,slow=4.9,SNR=7.9						
NB2	**NORSAR Subarra**	**73.65**	**338**	P	**P**	**10 28 08.7**	**0.0**
	comp=E,3.3nm,0.8s,mb4.3,baz=40,slow=5.8						
NB2	**NORSAR Subarra**	**73.65**	**338**	P	**P**	**10 28 08.7**	**0.0**
NB2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
NOA	**NORSAR Array B**	**73.65**	**338**	P	**P**	**10 28 08.2**	**-0.5**
	comp=Z,6.5nm,0.9s,mb4.6,baz=39,slow=5.9,SNR=13						
NOA				pP	pP	10 28 21.0	+1.3
	comp=Z,5.1nm,0.8s,baz=39,slow=5.9,SNR=7.2						
NOA				LR	LR	11 03 00.8	
	comp=Z,190nm,18.6s,MS4.4,baz=15,slow=38						
TPNV	**Topopah Spring**	**75.77**	**54**	*e*P	**P**	**10 28 32.0**	**+11**
TPNV				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
TPNV	**Topopah Spring**	**75.77**	**54**	*e*P	**P**	**10 28 32.0**	**+11**
	comp=Z,3.3nm,0.9s,mb4.3						
PDAR	**Pinedale Array**	**76.24**	**46**	P	**P**	**10 28 22.9**	**-1.1**
	comp=Z,0.6nm,1.0s,slow=3.0,SNR=3.8						
PDAR				pP	pP	10 28 35.8	+0.8
	comp=Z,1.8nm,0.9s,baz=270,slow=1.5,SNR=9.4						
MALT	**Malatya**	**76.95**	**308**	*e*P	**P**	**10 28 29.5**	**+1.3**
MALT				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
MALT	**Malatya**	**76.95**	**308**	*e*P	**P**	**10 28 29.5**	**+1.3**
	comp=Z,10nm,1.1s,mb4.7						
KWP	**Kalwaria**	**77.90**	**325**	*e*P	**P**	**10 28 34.1**	**+0.9**
SRU	**San Rafael**	**77.99**	**50**	P	**P**	**10 28 34.3**	**+0.4**
SRU				*e*	pP	10 28 45.5	+0.6
KOLS	**Kolonicke sedl**	**78.60**	**325**	*e*P	**P**	**10 28 38.1**	**+1.1**
KOLS				*e*sP	sP	10 28 54.5	+2.5
OJC	**Ojcow**	**78.77**	**327**	*e*P	**P**	**10 28 38.7**	**+0.8**
BRTR	**Keskin Array B**	**78.94**	**312**	P	**P**	**10 28 38.3**	**-0.8**
	comp=Z,1.0nm,0.6s,mb4.0,baz=104,slow=5.1,SNR=5.2						
BRTR				pP	pP	10 28 50.7	+0.6
	comp=Z,1.2nm,0.6s,baz=138,slow=4.0,SNR=3.7						
NIE	**Niedzica**	**79.13**	**326**	*e*P	**P**	**10 28 41.3**	**+1.4**
MLR	**Muntele Rosu**	**79.27**	**320**	P	**P**	**10 28 40.7**	**0.0**
	comp=Z,1.4nm,0.7s,mb4.0,baz=158,slow=18,SNR=4.4						
PV10	**Paradox Valley**	**79.35**	**49**	*e*P	**P**	**10 28 42.7**	**+1.4**
PV10				*e*	pP	10 28 53.5	+1.1
KSP	**Ksiaz**	**79.78**	**329**	*e*P	**P**	**10 28 43.2**	**-0.2**
KSP	**Ksiaz**	**79.78**	**329**	*e*P	**P**	**10 28 44.0**	**+0.6**
DPC	**Dobruska-Polom**	**80.14**	**328**	*e*P	**P**	**10 28 45.6**	**+0.3**
DPC				AMS	AMS	11 06 40.0	
VYHS	**Vyhne**	**80.47**	**326**	*e*P	**P**	**10 28 48.2**	**+1.1**
BRG	**Berggiesshubel**	**80.70**	**330**	*i* P	**P**	**10 28 48.9**	**+0.6**
BRG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BRG	**Berggiesshubel**	**80.70**	**330**	*i* P	**P**	**10 28 48.9**	**+0.6**
	comp=Z,4.7nm,0.8s,mb4.5						
PVCC	**Panska Ves**	**80.72**	**329**	AMS	AMS	11 06 50.0	
CLL	**Collm**	**80.73**	**331**	*i* P	**P**	**10 28 48.4**	**0.0**
CLL				*i*	pP	10 29 00.9	+1.4
CLL				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
CLL	**Collm**	**80.73**	**331**	*i* P	**P**	**10 28 48.4**	**0.0**
	comp=Z,11nm,1.0s,mb4.7						
CLL				*i*	pP	10 29 00.9	+1.4
CLL	**Collm**	**80.73**	**331**	P	**P**	**10 28 48.4**	**0.0**
	comp=Z,logA/T=1.0,mb4.7						
CLL				i *SP	sP	10 29 00.9	-2.5
SMOL	**Smolenice**	**81.07**	**327**	*e*P	**P**	**10 28 51.8**	**+1.5**
MZLS	**Mizel**	**81.12**	**293**	P	**P**	**10 28 51.6**	**+0.5**
PRU	**Pruhonice**	**81.15**	**329**	*e*P	**P**	**10 28 50.6**	**-0.1**
PRU				AMS	AMS	11 07 20.0	
ASF	**Jabal al Asfar**	**81.79**	**304**	P	**P**	**10 28 55.0**	**+0.7**
	comp=Z,4.4nm,0.8s,mb4.4,baz=32,slow=2.4,SNR=4.8						
ASF				LR	LR	11 08 30.5	
	comp=Z,87nm,19.4s,MS4.1,baz=270,slow=38						
NKC	**Novy Kostel**	**81.80**	**330**	AMS	AMS	11 08 00.0	
KHC	**Kasperske Hory**	**82.22**	**329**	*e*P	**P**	**10 28 56.8**	**+0.6**
KHC				*e*pP	pP	10 29 08.6	+1.3
KHC				AMS	AMS	11 08 10.0	
GERES	**GERESS Array B**	**82.39**	**329**	P	**P**	**10 28 57.2**	**+0.1**
	comp=Z,1.3nm,0.7s,mb4.0,baz=32,slow=5.3,SNR=12						
GRF	**Grafenberg Arr**	**82.70**	**331**	*e*P	**P**	**10 28 59.7**	**+1.0**
GRF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**82.70**	**331**	*e*P	**P**	**10 28 59.7**	**+1.0**
GRF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**82.70**	**331**	*e*P	**P**	**10 28 59.7**	**+1.0**
	comp=Z,9.0nm,1.0s,mb4.8						
AFFS	**‘Afif**	**82.77**	**295**	P	**P**	**10 29 00.2**	**+0.7**
ANMO	**Albuquerque**	**83.16**	**51**	P	**P**	**10 29 03.2**	**+1.9**
	comp=Z,0.6nm,1.0s,mb3.6,baz=318,slow=12,SNR=2.2						
ANMO				pP	pP	10 29 13.7	+1.2
	comp=Z,2.1nm,1.0s,baz=319,slow=4.4,SNR=5.1						
KBRS	**Khaybar**	**84.25**	**298**	D		10 29 08.6	
JMQS	**Jabal Moqyreh**	**84.57**	**303**	P	**P**	**10 29 09.5**	**+0.9**
EIL	**Elat**	**84.68**	**304**	P	**P**	**10 29 09.9**	**+0.8**
	comp=Z,6.1nm,0.8s,mb4.8,baz=56,slow=11,SNR=5.5						
EIL				LR	LR	11 11 04.9	
	comp=Z,98nm,19.1s,MS4.2,baz=191,slow=39						
ALWS	**Ilw as Safayha**	**84.84**	**303**	P	**P**	**10 29 10.9**	**+1.0**
BAIF	**Baives**	**84.95**	**335**	*e*P	**P**	**10 29 10.7**	**+0.8**
	comp=Z,9.5nm,0.8s,mb4.7						
BAIF	**Baives**	**84.95**	**335**	*e*P	**P**	**10 29 10.7**	**+0.8**
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
HAQS	**Haql**	**85.09**	**303**	P	**P**	**10 29 11.8**	**+0.6**
TATS	**Tathlith**	**85.14**	**291**	P	**P**	**10 29 12.9**	**+1.3**
CDF	**Champ du Feu**	**85.25**	**332**	*e*P	**P**	**10 29 12.4**	**+0.9**
	comp=Z,25nm,1.1s,mb5.0						
CDF	**Champ du Feu**	**85.25**	**332**	*e*P	**P**	**10 29 12.4**	**+0.9**
CDF				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.0						
TAYS	**Tayyib Ism**	**85.46**	**303**	P	**P**	**10 29 13.5**	**+0.5**
DAVOX	**Davos**	**85.59**	**330**	P	**P**	**10 29 14.6**	**+1.4**
	comp=Z,3.4nm,0.7s,mb4.7,baz=27,slow=3.0,SNR=3.4						
HAU	**Haudompre**	**85.93**	**332**	*e*P	**P**	**10 29 15.4**	**+0.6**
	comp=Z,7.9nm,0.7s,mb4.8						
HAU				*e*R			
	comp=Z,166nm,21.2s						
HAU	**Haudompre**	**85.93**	**332**	*e*P	**P**	**10 29 15.4**	**+0.6**
HAU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.8						
HAU				MLR	MLR		
	comp=Z,170nm,21.3s,MS4.4						
UMJS	**Umm Lajj**	**85.96**	**299**	P	**P**	**10 29 17.3**	**+1.8**
MEZF	**Maizieres J’vi**	**85.98**	**333**	*e*P	**P**	**10 29 16.2**	**+1.2**
IDI	**Anoyia**	**87.04**	**314**	P	**P**	**10 29 21.0**	**+0.4**
	comp=Z,9.9nm,0.8s,mb5.1,baz=45,slow=17,SNR=4.0						
IDI	**Anoyia**	**87.04**	**314**	P	**P**	**10 29 21.0**	**+0.4**
SSF	**Saint Saulge**	**87.75**	**333**	*e*P	**P**	**10 29 25.6**	**+1.9**
	comp=Z,5.3nm,0.7s,mb4.6						
SSF	**Saint Saulge**	**87.75**	**333**	*e*P	**P**	**10 29 25.6**	**+1.9**
SSF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.7						
LPL	**La Plagne**	**87.87**	**331**	*e*P	**P**	**10 29 25.7**	**+1.4**
LPG	**La Plagne**	**87.88**	**331**	*e*P	**P**	**10 29 26.5**	**+2.2**
	comp=Z,11nm,0.8s,mb4.8						
LPG	**La Plagne**	**87.88**	**331**	*e*P	**P**	**10 29 26.5**	**+2.2**
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
SMF	**Signal de Mont**	**87.99**	**333**	*e*P	**P**	**10 29 26.1**	**+1.3**
AVF	**Avril sur Loir**	**88.04**	**333**	*e*P	**P**	**10 29 26.0**	**+0.9**
	comp=Z,18nm,0.9s,mb5.0						
AVF	**Avril sur Loir**	**88.04**	**333**	*e*P	**P**	**10 29 26.0**	**+0.9**
AVF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.0						
GRR	**Gorron**	**88.05**	**337**	*e*P	**P**	**10 29 26.2**	**+1.1**
	comp=Z,158nm,1.4s						
GRR	**Gorron**	**88.05**	**337**	*e*P	**P**	**10 29 26.2**	**+1.1**
GRR				pmax	pmax		
	comp=Z,79nm,1.4s						
ORIF	**Oris-en-Rattie**	**88.70**	**331**	*e*P	**P**	**10 29 30.1**	**+1.8**
ORIF				*e*R			
	comp=Z,117nm,22.2s						
TXAR	**Lajitas Array**	**88.71**	**53**	P	**P**	**10 29 29.4**	**+0.7**
	comp=Z,0.2nm,0.7s,mb3.6,baz=315,slow=3.5,SNR=3.7						
TXAR				pP	pP	10 29 41.4	+1.5
	comp=Z,0.6nm,0.7s,baz=313,slow=3.0,SNR=7.6						
SNAA	**Sanae**	**142.00**	**197**	⇓*i*	PKPdf	10 36 02.1	-2.6
VNA2	**Neumayer--Watz**	**143.56**	**196**	⇑*i*	PKPbc	10 36 08.8	+2.7
VNA2	**Neumayer--Watz**	**143.56**	**196**	*e*	PKPbc	10 36 16.4	+10
VNA3	**Neumayer Olymp**	**143.79**	**195**	⇑*i*	PKPbc	10 36 09.1	+2.4
VNA3	**Neumayer Olymp**	**143.79**	**195**	*e*	PKPbc	10 36 17.0	+10
VNA1	**Neumayer--Stat**	**143.96**	**196**	⇑*i*	PKPbc	10 36 10.9	+3.6
VNA1	**Neumayer--Stat**	**143.96**	**196**	*e*	PKPbc	10 36 19.0	+12
LPAZ	**La Paz**	**145.31**	**60**	*e*PKIKP	PKPdf	10 36 14.9	+2.8

ISK 19 10:21:17.2,35.20N×29.46E,h83^{km},MD3.5,Eastern Mediterranean Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELL	**Elmali**	**1.58**	**13**	*i* PN	P	10 21 44.6	+0.4
YER	**Yerkesik**	**2.15**	**334**	*e*PN	P	10 21 53.3	+1.5
BCK	**Bucak**	**2.43**	**22**	PN	P	10 21 57.0	+1.2
DENT	**Denizli**	**2.57**	**352**	PN	P	10 21 57.6	-0.1
LEF	**Lefka**	**2.81**	**91**	*e*PN	P	10 22 02.1	+1.0
LEF				*e*SN	S	10 22 33.5	-0.5
HDMB	**Hadim**	**3.02**	**53**	*e*PN	P	10 22 04.9	+1.0
KONT	**Konya--Tatoy**	**3.60**	**40**	*e*PN	P	10 22 12.6	+0.6
IZM	**Izmir**	**3.64**	**332**	PN	P	10 22 13.3	+0.7
AKS	**Akhisar**	**3.90**	**341**	PN	P	10 22 15.4	-0.7
KIZT	**Kizilcal**	**4.15**	**27**	*e*PN	P	10 22 19.4	-0.2

IDC ***19*** *10:29:03.0±0.9, 18.66N×81.37W, mb3.6/9, mb1 3.9/9, mb1mx3.7/16, MS3.6/6, Ms1 3.6/6, ms1mx3.0/24, Error ellipse: s-maj=29.8km s-min=22.8km az=55.0*

NEIC ***19*** *10:29:06.7±0.6, 18.61N×81.42W, h30^{km}, mb4.3/2, Error ellipse: s-maj=15.5km s-min=10.5km az=60.0*

JSN ***19*** *10:29:06.0±0.6, 19.35N×81.36W, h50^{km}±999^{km}, MD4.8*

ISC 19 10:29:05.6±0.7,18.68N±0.09×81.33W±0.06,h33^{km},n34,σ1^{s}12/29,mb3.7/11,MS3.6/6,3D,North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCJ	**Malvern**	**3.54**	**102**	*e*P	**P**	**10 30 00.3**	**+0.8**
MCJ				*e*S	**S**	**10 30 41.7**	**+1.0**
BBJ	**Bamboo Saint A**	**3.86**	**94**	⇓*e*P	**P**	**10 30 03.7**	**-0.4**
STH	**Stony Hill**	**4.33**	**97**	⇓*e*P	**P**	**10 30 10.6**	**-0.1**
STH				*e*S	**S**	**10 30 58.6**	**-2.1**
HOJ	**Hope**	**4.40**	**98**	⇓*e*P	**P**	**10 30 12.1**	**+0.4**
GWJ	**Greenwich**	**4.41**	**97**	*e*P	**P**	**10 30 11.6**	**-0.3**
TEIG	**Tepich**	**6.74**	**284**	*e*P	**P**	**10 30 40.4**	**-4.3**
	20nm,0.4s						
DWPF	**Disney**	**9.39**	**359**	P	**P**	**10 31 19.9**	**-1.6**
SDV	**Santo Domingo**	**14.23**	**132**	*e*P	**P**	**10 32 23.8**	**-3.1**
	7.2nm,0.7s						
NHSC	**New Hope**	**14.40**	**4**	P	**P**	**10 32 29.7**	**+0.6**
GOGA	**Godfrey**	**14.80**	**353**	*e*P	**P**	**10 32 34.7**	**+0.5**
	12nm,0.8s						
LRAL	**Lakeview Retre**	**15.17**	**342**	*e*P	**P**	**10 32 37.1**	**-2.0**
MIAR	**Mount Ida**	**19.20**	**328**	*e*P	**P**	**10 33 28.1**	**-1.2**

	4.7nm,0.5s						
TXAR	**Lajitas Array**	22.96	302	P	P	10 34 08.1	-0.1
	0.3nm,0.6s,mb2.9,baz=114,slow=9.4,SNR=7.8						
TXAR				LR	LR	10 45 08.0	
	comp=Z,48nm,20.7s,MS2.9,baz=70,slow=42						
TXAR	**Lajitas Array**	22.96	302	P	P	10 34 08.1	-0.1
TXAR				LR	LR	10 45 08.0	
SADO	**Sadowa**	26.08	4	LR	LR	10 46 14.1	
	comp=Z,83nm,19.6s,MS3.3,baz=237,slow=40						
PDAR	**Pinedale Array**	33.86	321	P	P	10 35 46.8	-0.3
	0.8nm,1.1s,mb3.6,baz=104,slow=3.7,SNR=3.1						
LPAZ	**La Paz**	37.09	159	P	P	10 36 14.7	-0.2
	0.5nm,0.5s,mb3.6,baz=356,slow=8.5,SNR=4.4						
LPAZ	**La Paz**	37.09	159	P	P	10 36 14.7	-0.2
HLID	**Hailey**	37.25	319	P	P	10 36 16.4	+0.5
	3.7nm,1.1s,mb4.1						
NVAR	**Mina Array Bea**	37.64	309	P	P	10 36 19.7	+0.4
	0.4nm,0.8s,mb3.2,baz=112,slow=4.9,SNR=2.1						
NVAR				LR	LR	10 53 40.0	
	comp=Z,66nm,21.3s,MS3.4,baz=180,slow=39						
SCHQ	**Schefferville**	37.75	14	P	P	10 36 20.1	+0.1
	1.5nm,0.8s,mb3.8,baz=223,slow=12,SNR=2.2						
SCHQ				LR	LR	10 51 31.4	
	comp=Z,127nm,19.0s,MS3.7,baz=97,slow=36						
SCHQ	**Schefferville**	37.75	14	*e*P	P	10 36 20.5	+0.5
	7.1nm,1.0s,mb4.3						
SCHQ				LR	LR	10 51 31.4	
FRB	**Frobisher Bay**	45.87	8	LR	LR	10 56 03.5	
	comp=Z,212nm,19.9s,MS4.1,baz=194,slow=35						
YKA	**Yellowknife Ar**	49.47	340	P	P	10 37 56.0	+1.6
	1.5nm,1.2s,mb3.9,baz=135,slow=7.7,SNR=6.4						
YKA	**Yellowknife Ar**	49.47	340	P	P	10 37 56.0	+1.6
DLBC	**Dease Lake**	53.14	330	LR	LR	11 00 29.9	
	comp=Z,105nm,18.7s,MS3.9,baz=34,slow=36						
ILAR	**Eielson Array**	62.89	334	P	P	10 39 29.4	-1.0
	0.3nm,0.7s,mb3.5,baz=99,slow=3.6,SNR=4.4						
ESDC	**Sonseca Array**	68.75	54	P	P	10 40 09.7	+1.4
	0.2nm,0.4s,mb3.4,baz=283,slow=6.4,SNR=2.6						
ARCES	**ARCESS Array B**	78.38	20	P	P	10 41 05.5	+1.6
	3.7nm,0.9s,mb4.3,baz=281,slow=6.2,SNR=4.0						
GERES	**GERESS Array B**	79.39	42	tx	tx	10 41 28.1	
	1.2nm,1.0s,baz=288,slow=8.4,SNR=4.7						
FINES	**FINESS Array B**	81.78	28	P	P	10 41 23.6	+1.3
	9.4nm,1.2s,mb4.6,baz=288,slow=12,SNR=4.3						
WRAB	**Tennant Creek**	146.34	262	*e*PKPbc	PKPbc	10 48 46.3	+2.5
WRA	**Warramunga Arr**	146.36	262	PKPbc	PKPbc	10 48 46.8	+3.0
	0.9nm,0.7s,baz=82,slow=3.8,SNR=6.0						
ASAR	**Alice Springs**	146.83	255	PKPbc	PKPbc	10 48 48.2	+3.5
	0.7nm,0.9s,baz=96,slow=4.2,SNR=7.8						

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*IDC **19** 10:43:48.7±0.7, 5.06N×82.77W, mb4.3/19, mb1 4.5/21, mb1mx4.5/25, ML2.9/1, MS4.3/13, Ms1 4.3/13, ms1mx3.8/20, Error ellipse: s-maj=25.2km s-min=12.0km az=49.0*
*NEIC **19** 10:43:50.7±0.4, 5.11N×82.70W, h10^{km}, mb4.7/16, Error ellipse: s-maj=12.3km s-min=6.2km az=46.0*
*BJI **19** 10:43:50.6, 5.10N×82.70W, h10^{km}, mB4.9, Ms4.9, Msz4.6*
*IGQ **19** 10:45:02.1, 0.94N×79.24W, h12^{km}±8^{km}, mb4.3, Error ellipse: s-maj=14.5km s-min=2.7km az=47.2*
ISC 19 10:43:47.7±1.2**, 5.15N**±0.03×**82.65W**±0.04**, h3^{km}**±8^{km}**, n117, σ1^{s}20**/107**, mb4.4**/31**, MS4.4**/15**, 11C-7D, South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTP1	**Petroterminal**	3.04	4	⇓*i*P	Pn	10 44 39.8	+2.1
DVD	**David**	3.27	3	⇓*i*P	Pn	10 44 40.0	-0.9
DVD				*e*S	Sn	10 45 23.0	+2.2
ACR	**Cerro Adams**	3.52	352	*e*P	Pn	10 44 43.6	-0.8
CNI	**Changuinola**	4.24	2	*e*P	Pn	10 44 55.5	+0.8
CNI				*e*S	Sn	10 45 46.2	+0.8
BUS	**Buena Vista**	4.51	346	⇓*i*P	Pn	10 44 59.4	+0.8
BUS				*e*S	Sn	10 45 52.1	-0.2
LCR2	**La Lucha 2**	4.75	344	*e*P	Pn	10 45 02.1	+0.1
URSC	**Urasca**	4.79	347	*e*P	Pn	10 45 03.0	+0.6
URSC				*e*S	Sn	10 45 58.1	-1.2
UPA	**Univ. de Panam**	4.90	39	⇓*e*P	Pn	10 45 04.2	+0.2
LAJ	**Bijagual**	4.90	343	⇑*e*P	Pn	10 45 03.5	-0.6
LAJ				*e*S	Sn	10 46 00.1	-2.1
ICR	**Volcan Irazu**	4.94	346	*e*P	Pn	10 45 05.8	+1.2
SJS	**Escuela Geolog**	4.96	344	⇓*e*P	Pn	10 45 04.0	-0.9
SJS				*e*S	Sn	10 46 02.3	-1.2
PRS1	**Puriscal**	5.08	341	⇑*e*P	Pn	10 45 05.1	-1.5
PRS1				*e*S	Sn	10 46 02.5	-4.1
CGA2	**Cerro Gallo 2**	5.16	340	*e*P	Pn	10 45 07.5	-0.2
CGA2				*e*S	Sn	10 46 06.1	-2.5
JEF	**Cerro Jefe**	5.18	39	*i* P	Pn	10 45 08.8	+0.7
VPS2	**Volcan Poas 2**	5.25	343	*e*P	Pn	10 45 09.0	0.0
VPS2				*e*S	Sn	10 46 10.7	-0.2
JCR	**Jicaral**	5.27	333	⇑*e*P	Pn	10 45 08.7	-0.5
TRTC	**Tortuguero**	5.49	349	*e*P	Pn	10 45 13.1	+0.7
TRTC				*e*S	Sn	10 46 14.0	-2.9
JTS	**JuntasAbangare**	5.59	336	Sn	Sn	10 46 17.6	-1.9
	0.1nm,0.3s,baz=212,slow=22,SNR=7.6						
JTS	**JuntasAbangare**	5.59	336	*e*P	Pn	10 45 11.7	-2.2
	113nm,0.4s						
JTS				*e*S	Sn	10 46 16.9	-2.6
FORC	**Fortuna**	5.65	339	*e*P	Pn	10 45 15.4	+0.8
FORC				*e*S	Sn	10 46 20.2	-0.8
VCR	**Vista de Mar**	5.76	329	*e*P	Pn	10 45 15.5	-0.7
COTA	**Cotacachi**	6.43	138	⇑P	Pn	10 45 23.3	-2.4
JOR1	**San Jorge 1**	6.50	142	P	Pn	10 45 26.7	+0.1
YANA	**Yana**	6.63	142	⇑P	Pn	10 45 26.7	-1.8
PINO	**Pino**	6.64	142	⇑P	Pn	10 45 26.8	-1.8
CGGP	**Crater GGP**	6.66	143	⇑P	Pn	10 45 27.0	-1.9
JUA2	**San Juan 2**	6.69	143	⇓P	Pn	10 45 27.8	-1.5
CAYA	**Cayambe**	6.86	137	⇑P	Pn	10 45 30.7	-1.0
CAYR	**Refugio Cayamb**	6.89	138	⇑P	Pn	10 45 31.4	-0.8
NAS1	**Nasa**	7.10	144	⇓P	Pn	10 45 34.7	-0.3
ANTI	**Antisana**	7.14	141	⇑P	Pn	10 45 35.2	-0.5
VC1	**Cotopaxi 1**	7.15	144	⇑P	Pn	10 45 35.4	-0.4
CONE	**Cono NE Rev Vo**	7.20	136	P	Pn	10 45 37.6	+1.1
TAMB	**Tambo**	7.21	144	P	Pn	10 45 36.4	-0.2
PISA	**Pisayambo**	7.50	145	P	Pn	10 45 41.0	+0.3
ROSC	**El Rosal**	8.29	92	Pn	P	10 45 54.0	+2.3
	2.7nm,0.3s,baz=275,slow=10,SNR=8.7						
ROSC				Sn	Sn	10 47 27.1	+0.1
	1.4nm,0.3s,baz=84,slow=18,SNR=2.6						
SDV	**Santo Domingo**	12.49	72	*e*P	P	10 46 49.7	+0.3
	66nm,1.0s						
SDV				*e*S	S	10 49 02.8	-7.4
NNA	**Nana**	17.98	161	*e*P	P	10 48 00.3	-0.2
	73nm,1.0s						
SJG	**San Juan**	20.63	50	P	P	10 48 31.9	+0.7
	41nm,1.0s,baz=247,slow=6.4,SNR=9.2						
SJG				LR	LR	10 56 10.3	
	comp=Z,589nm,21.8s,MS3.9,baz=249,slow=36						
SJG	**San Juan**	20.63	50	*e*P	P	10 48 31.0	-0.2
	91nm,1.3s						
ARE	**Arequipa**	24.14	153	*e*P	P	10 49 08.0	+1.8
LPAZ	**La Paz**	25.69	146	P	P	10 49 21.1	+0.1
	12nm,0.9s,mb4.4,baz=337,slow=14,SNR=26						
LPAZ				LR	LR	11 00 35.0	
	comp=Z,1μm,19.6s,MS4.5,baz=317,slow=39						
LRAL	**Lakeview Retre**	28.04	352	*e*P	P	10 49 42.1	-0.3
	16nm,1.0s,mb4.6						
LVC	**Limon Verde**	30.69	155	P	P	10 50 06.9	+0.7
	4.3nm,0.8s,mb4.3,baz=330,slow=6.4,SNR=5.5						
LVC	**Limon Verde**	30.69	155	*e*P	P	10 50 07.9	+1.7
TXAR	**Lajitas Array**	31.21	323	P	P	10 50 09.1	-1.6
	5.3nm,1.4s,mb4.2,baz=135,slow=7.1,SNR=6.9						
MNTX	**Cornudas Mount**	33.93	324	*e*P	P	10 50 34.6	+0.2
	13nm,1.4s,mb4.7						
BNM	**Barren Site**	36.43	325	*e*P	P	10 50 56.1	+0.3
ANMO	**Albuquerque**	36.93	326	P	P	10 51 00.7	+0.8
	5.1nm,1.1s,mb4.3,baz=144,slow=9.8,SNR=13						
ANMO	**Albuquerque**	36.93	326	*e*P	P	10 51 00.8	+0.9
	15nm,1.4s,mb4.6						
TUC	**Tucson**	37.70	319	*e*P	P	10 51 07.5	+1.0
	11nm,1.3s,mb4.4						
SDCO	**Great Sand Dun**	38.56	330	*e*P	P	10 51 14.6	+1.1
	20nm,1.4s,mb4.7						
CPUP	**Villa Florida**	39.77	143	P	P	10 51 21.9	-1.9
	0.0nm,0.5s,baz=231,slow=12,SNR=1.7						
BDFB	**Brasilia**	40.03	122	P	P	10 51 24.7	-1.3
	2.8nm,0.7s,mb4.1,baz=252,slow=12,SNR=5.0						
BDFB				LR	LR	11 10 23.9	
	comp=Z,628nm,18.2s,MS4.5,baz=302,slow=40						
PV01	**Paradox Valley**	40.42	328	P	P	10 51 30.2	+1.2
PV10	**Paradox Valley**	40.85	328	*e*P	P	10 51 33.5	+1.0
SRU	**San Rafael**	42.18	327	*e*P	P	10 51 44.5	+1.0
NEN	**Nelson**	42.42	320	*e*P	P	10 51 47.0	+1.5
MVU	**Marysvale**	42.69	325	*e*P	P	10 51 49.3	+1.6
	7.4nm,1.2s,mb4.3						
ARUT	**Antelope Range**	42.92	323	*e*P	P	10 51 51.6	+2.0
DAU	**Daniels Canyon**	43.51	328	*e*P	P	10 51 55.5	+1.2
TPNV	**Topopah Spring**	44.11	320	P	P	10 52 01.1	+1.8
	96nm,2.3s,mb5.1						
PDAR	**Pinedale Array**	44.41	332	P	P	10 52 00.2	-1.3
	0.7nm,0.7s,mb3.5,baz=153,slow=9.9,SNR=7.4						
PDAR				LR	LR	11 12 46.4	
	comp=Z,286nm,19.0s,MS4.2,baz=11,slow=39						
HWUT	**Hardware Ranch**	44.53	329	*e*P	P	10 52 03.1	+0.5
	9.7nm,1.2s,mb4.5						
TPAW	**Teton Pass**	45.62	331	*e*P	P	10 52 10.2	-1.0
MTUM	**Tungsten Hills**	45.84	319	*e*P	P	10 52 14.9	+1.9
ELK	**Elko**	45.92	325	P	P	10 52 13.5	-0.2
	6.4nm,1.2s,mb4.4						
MNV	**Mina**	46.21	321	*e*P	P	10 52 17.1	+1.1
OMM	**Old Mammoth Mi**	46.27	319	*e*P	P	10 52 17.4	+0.9
ULM	**Lac du Bonnet**	46.30	348	P	P	10 52 16.2	-0.3
	2.3nm,0.9s,mb4.1,baz=196,slow=11,SNR=3.0						
NVAR	**Mina Array Bea**	46.30	321	P	P	10 52 17.8	+1.1
	5.2nm,0.9s,mb4.4,baz=126,slow=7.5,SNR=32						
NVAR				LR	LR	11 12 08.4	
	comp=Z,375nm,20.5s,MS4.3,baz=235,slow=37						
NVAR	**Mina Array Bea**	46.30	321	P	P	10 52 17.8	+1.1
NVAR				LR	LR	11 12 08.3	
QLMT	**Earthquake Lak**	46.85	332	*e*P	P	10 52 23.0	+2.1
BMN	**Battle Mountai**	46.87	324	*e*P	P	10 52 20.8	-0.4
	9.7nm,1.0s,mb4.7						
HLID	**Hailey**	47.40	329	*e*P	P	10 52 24.9	-0.5
	22nm,2.1s,mb4.7						
MCMT	**McKenzie Canyo**	47.53	331	*e*P	P	10 52 26.7	+0.4
OHCM	**Honcut**	48.85	320	*e*P	P	10 52 37.2	+0.5
MOD	**Modoc**	49.61	323	*e*P	P	10 52 42.1	-0.4
	4.7nm,1.2s,mb4.4						
YBH	**Yreka Blue Hor**	50.97	322	P	P	10 52 52.0	-0.8
	3.8nm,1.0s,mb4.3,baz=244,slow=1.1,SNR=7.6						
SCHQ	**Schefferville**	51.15	12	P	P	10 52 53.2	-0.9
	6.2nm,1.0s,mb4.5,baz=225,slow=14,SNR=3.5						
SCHQ	**Schefferville**	51.15	12	P	P	10 52 53.2	-0.9
RKT	**Rikitea**	58.29	239	*e*LR	LR	11 11 23.0	
	590nm,27.8s						
FRB	**Frobisher Bay**	59.37	7	P	P	10 53 51.3	-2.2
	4.7nm,0.9s,mb4.5,baz=185,slow=6.4,SNR=4.5						
YKA	**Yellowknife Ar**	61.88	344	P	P	10 54 09.5	-1.1
	7.0nm,1.2s,mb4.7,baz=137,slow=6.6,SNR=28						
YKA				LR	LR	11 20 47.6	
	comp=Z,182nm,21.1s,MS4.2,baz=160,slow=36						
YKA	**Yellowknife Ar**	61.88	344	P	P	10 54 09.5	-1.1
YKA				LR	LR	11 20 47.6	
DLBC	**Dease Lake**	64.49	335	P	P	10 54 28.9	+1.0
	7.2nm,1.1s,mb4.6,baz=54,slow=1.3,SNR=5.3						
PPT	**Papeete**	69.78	249	*e*LR	LR	11 16 42.3	
	286nm,28.0s						
RES	**Resolute Bay**	69.84	357	*e*P	P	10 54 59.6	-1.8
	6.8nm,1.2s,mb4.5						
TBI	**Tubuai**	71.02	243	*e*LR	LR	11 17 16.6	
	760nm,28.5s						
INK	**Inuvik**	71.55	342	P	P	10 55 11.5	-0.4
	5.9nm,1.0s,mb4.5,baz=138,slow=7.1,SNR=8.8						
INK	**Inuvik**	71.55	342	*e*P	P	10 55 11.8	-0.1
	16nm,1.3s,mb4.8						
ILAR	**Eielson Array**	74.57	336	P	P	10 55 28.9	-0.7
	2.2nm,0.9s,mb4.1,baz=95,slow=2.6,SNR=10						
ILAR				LR	LR	11 29 45.3	
	comp=Z,151nm,19.2s,MS4.3,baz=352,slow=37						
DBIC	**Dimbokro**	77.32	84	P	P	10 55 48.2	+2.1
	4.9nm,1.0s,mb4.4,baz=207,slow=7.3,SNR=3.8						
DBIC				LR	LR	11 24 16.0	
	comp=Z,100nm,21.7s,MS4.1,baz=5.7,slow=31						
ESDC	**Sonseca Array**	78.02	51	P	P	10 55 51.5	+2.0
	2.3nm,0.9s,mb4.1,baz=256,slow=6.5,SNR=7.9						
EKA	**Eskdalemuir Ar**	79.80	35	P	P	10 56 00.6	+1.7
	3.1nm,0.9s,mb4.2,baz=270,slow=3.3,SNR=3.5						
RAR	**Rarotonga**	79.92	247	LR	LR	11 22 39.4	
	comp=Z,266nm,21.1s,MS4.6,baz=282,slow=29						
NOA	**NORSAR Array B**	87.40	29	LR	LR	11 33 12.0	
	comp=Z,85nm,18.2s,MS4.2,baz=320,slow=34						
GERES	**GERESS Array B**	90.33	41	P	P	10 56 52.6	+1.0
	0.4nm,0.8s,mb3.8,baz=288,slow=13,SNR=4.8						
ARCES	**ARCESS Array B**	91.47	20	LR	LR	11 36 56.8	
	comp=Z,100nm,18.7s,MS4.3,baz=301,slow=35						
VAE	**Valguarnera**	92.48	52	LR	LR	11 32 32.1	
	comp=Z,131nm,19.1s,MS4.4,baz=146,slow=32						
FINES	**FINESS Array B**	94.32	27	LR	LR	11 32 09.6	
	comp=Z,251nm,20.8s,MS4.7,baz=106,slow=31						
MDJ	**Mudanjiang**	122.63	333	PKP	PKPdf	11 02 45.9	-1.4
CN2	**Changchun**	125.08	335	*e*PKP	PKPdf	11 02 53.0	+0.8
SONM	**Songino Array**	126.64	352	PKP	PKPdf	11 02 55.0	0.0
	0.2nm,0.5s,baz=14,slow=5.9,SNR=3.1						
WMQ	**Urumqi**	130.48	9	*e*PKP	PKPdf	11 03 02.1	-0.5
WMQ				XPKP		11 03 10.1	
WMQ				PKS	PKS	11 06 37.1	+1.6
WMQ				SKKS		11 12 08.1	
WMQ				PP	PP		
	comp=Z,17nm,8.8s						
WMQ				LR	LR		
	comp=N,66nm,27.0s,MS4.5						
WMQ				LR	LR		
	comp=E,105nm,30.0s,MS4.5						
WMQ				LR	LR		
	comp=Z,103nm,25.0s,MS4.4						
LZH	**Lanzhou**	138.53	352	*e*PKP	PKPdf	11 03 16.9	-0.9
LZH				XPKP		11 03 21.8	
LZH				LR	LR		
	comp=N,217nm,18.0s						
LZH				LR	LR		
	comp=Z,298nm,20.2s,MS5.0						
ASAR	**Alice Springs**	140.29	239	PKP	PKPdf	11 03 19.5	-1.8
	comp=Z,0.7nm,0.8s,baz=121,slow=3.0,SNR=7.3						
WRA	**Warramunga Arr**	141.14	244	PKP	PKPdf	11 03 20.5	-2.5
	comp=Z,0.7nm,0.8s,baz=106,slow=2.8,SNR=4.4						
KOLN	**Koldanda**	144.68	21	*e*P	PKPbc	11 03 28.3	+1.8
GKN	**Gorkha**	144.83	20	*e*P	PKPbc	11 03 27.5	+0.6
KKN	**Kakani**	145.24	19	*e*P	PKPbc	11 03 29.8	+1.8
GUN	**Gumba**	145.31	18	*e*P	PKPbc	11 03 29.9	+1.7
	comp=Z,85nm,1.2s						
DMN	**Daman**	145.35	19	*e*P	PKPbc	11 03 31.6	+3.3
PKI	**Pulchoki**	145.48	19	*e*P	PKPbc	11 03 31.9	+3.3
GYA	**Guiyang**	147.31	344	PKP	PKPdf	11 03 34.8	+1.4
GYA				PP	PP	11 07 06.9	+3.9
GYA				PP	PP		
	comp=Z,120nm,7.2s						
SHL	**Shillong**	149.01	10	*e*P	PKPdf	11 03 41.0	+4.9
CMAR	**Chiang Mai Arr**	156.49	356	PKPab	PKPab	11 04 15.3	-0.6
	comp=Z,1.3nm,1.0s,baz=351,slow=6.3,SNR=4.1						

IDC 19 10:53:39.5±19.0**, 10.26S**×**160.28E, h304^{km}**±144^{km}**, mb3.2**/3**, mb1 3.3**/5**, mb1mx3.1**/15**, Error ellipse: s-maj=182.0km s-min=41.1km az=103.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	12.95	273	P	P	10 56 34.0	-0.8
	0.2nm,0.3s,baz=78,slow=2.3,SNR=3.5						
CTA	**Charters Tower**	16.68	233	P	P	10 57 14.3	-2.9
	0.1nm,0.3s,baz=52,slow=15,SNR=2.9						
WRA	**Warramunga Arr**	26.79	246	P	P	10 58 52.9	-1.5
	1.5nm,0.7s,baz=76,slow=9.2,SNR=11						
KAKA	**Kakadu**	27.38	262	*e*P	P	10 58 59.5	-0.3
	6.3nm,0.5s						
ASAR	**Alice Springs**	28.46	239	P	P	10 59 07.2	-2.2
	0.4nm,0.7s,baz=62,slow=10.0,SNR=4.5						
SONM	**Songino Array**	74.92	326	P	P	11 04 47.7	-1.4
	1.2nm,0.7s,baz=135,slow=6.4,SNR=5.9						

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*STR **19** 10:58:09.6±0.6, 42.59N×1.62E, h5^{km}±1^{km}, Ml2.3, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
LDG 19 10:58:10.7±0.1**, 42.79N**×**1.65E, h6^{km}, Md2.0**/3**, Ml2.0**/9**, Error ellipse: s-maj=1.2km s-min=1.1km az=126.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SALF	**Salau**	0.34	265	Pg	Pg	10 58 16.8	-0.7
SALF				Sg	Sg	10 58 22.4	+0.3
CARF	**Carcanieres**	0.35	102	Pg	Pg	10 58 17.6	-0.1
CARF				Sg	Sg	10 58 22.2	-0.1
MELF	**Melles**	0.66	278	Pn	Pn	10 58 24.7	-1.5
MELF				Sg	Sg	10 58 32.5	-0.2
MTLF	**Montolieu**	0.69	37	*e*Pg	Pg	10 58 24.0	-0.6
MTLF				*e*Pn	Pn	10 58 25.8	-0.9
MTLF				*e*Sg	Sg	10 58 33.3	-0.5
	13nm,0.3s						
EPF	**Esparros**	0.99	285	*e*Pg	Pg	10 58 28.9	-1.6
EPF				*e*Sg	Sg	10 58 41.8	-1.9
	2.5nm,0.2s						
ETSF	**Etsaut**	1.63	275	*e*Pn	Pn	10 58 38.2	-1.9
ETSF				*e*Pg	Pg	10 58 39.9	-3.3
ETSF				*e*Sg	Sg	10 59 01.9	-3.0
	4.9nm,0.4s						
LASF	**Ste Croix**	2.06	51	*e*Pn	Pn	10 58 44.4	-1.9
LASF				*e*Pg	Pg	10 58 48.5	-3.4
LASF				*e*Sg	Sg	10 59 14.5	-4.9
	1.0nm,0.2s						
SJPF	**Ste Jean**	2.13	280	*e*Pn	Pn	10 58 45.1	-2.2
SJPF				*e*Pg	Pg	10 58 49.7	-3.6
SJPF				*e*Sg	Sg	10 59 16.8	-4.9
	0.9nm,0.2s						
CAF	**Calviac**	2.16	8	*e*Pn	Pn	10 58 45.8	-1.9
CAF				*e*Pg	Pg	10 58 51.3	-2.5
CAF				*e*Sg	Sg	10 59 19.2	-3.4
	1.4nm,0.2s						
LFF	**La Frestale**	2.25	343	*e*Pn	Pn	10 58 46.6	-2.4
LFF				*e*Sg	Sg	10 59 21.7	-3.9
	3.7nm,0.3s						
RJF	**Les Rejaudoux**	2.52	358	*e*Pn	Pn	10 58 50.5	-2.3
RJF				*e*Pg	Pg	10 58 57.4	-3.6
RJF				*e*Sg	Sg	10 59 30.3	-4.2
	1.4nm,0.2s						
VIVF	**Saint-Julien-l**	3.01	46	*e*Pg	Pg	10 59 06.5	-4.3
VIVF				*e*Sg	Sg	10 59 45.0	-6.0
	0.8nm,0.2s						
MFF	**Saint Martin d**	4.02	342	*e*Pn	Pn	10 59 10.9	-3.3
MFF				*e*Sg	Sg	11 00 16.9	-7.7
	1.9nm,0.3s						

IDC 19 10:58:18.0±27.0**, 22.95S**×**172.30W, mb3.9**/4**, mb1 4.1**/4**, mb1mx3.8**/16**, Error ellipse: s-maj=497.0km s-min=147.8km az=78.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	38.57	266	P	P	11 05 43.6	-0.9
	4.6nm,0.5s,baz=90,slow=11,SNR=8.8						
STKA	**Stephens Creek**	41.63	247	P	P	11 06 07.1	-2.5
	1.7nm,0.8s,baz=85,slow=9.2,SNR=2.5						
ASAR	**Alice Springs**	49.16	258	P	P	11 07 07.8	-2.1
	0.2nm,0.3s,baz=90,slow=7.2,SNR=9.1						
WRA	**Warramunga Arr**	49.54	263	P	P	11 07 11.0	-1.8
	0.4nm,0.4s,baz=100,slow=8.2,SNR=9.3						

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*IDC **19** 11:03:19.6±0.9, 67.06N×21.13E, mb1 3.0/4, mb1mx2.9/20, ML2.4/3, Error ellipse: s-maj=17.2km s-min=7.6km az=119.0*
*HEL **19** 11:03:19.5±0.1, 67.07N×20.94E, ML1.7, ML2.4(UPP), Explosion*
ISC 19 11:03:17.8±0.4**, 67.02N**±0.03×**20.90E**±0.07**, n24, σ1^{s}19**/35**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DUNU	**Dundret**	0.16	308	*i* P	Pg	11 03 22.0	+0.9
DUNU				*i* S	Sg	11 03 24.6	+1.3
MASU	**Masugnsbyn**	0.61	44	*i* P	Pg	11 03 29.7	-0.3
ERTU	**Ertsjaerv**	0.69	132	*i* P	Pg	11 03 32.2	+0.5
PAJU	**Pajala**	0.87	89	*i* P	Pg	11 03 34.6	-0.5
LANU	**Lannavaara**	1.11	22	*e*P	Pb	11 03 38.1	-1.5
NIKU	**Nikkaluokta**	1.11	321	*e*P	Pb	11 03 38.8	-0.9
SJUU	**Sjulsmark**	1.55	169	*e*P	Pn	11 03 47.9	+1.1
LILU	**Lilltraesk**	1.80	194	*e*P	Pn	11 03 52.0	+1.7
KTK1	**Kautokeino**	2.18	23	*e*P	Pn	11 03 57.3	+1.4
SGF	**Sodankyl**	2.23	76	*e*P	Pn	11 03 57.6	+1.1
SGF				*e*S	Sn	11 04 26.9	+1.7
SGF				MSG		11 04 31.3	
	comp=Z,4.4nm,0.1s						
MOR8	**Moi Rana**	2.72	255	*e*	Sg	11 04 39.5	-8.7
MOR8	**Moi Rana**	2.72	255	*e*SG	Sg	11 04 39.5	-8.7
TRO	**Tromso**	2.72	345	*e*P	Pn	11 04 02.9	-0.7
OUL	**Oulu**	2.82	131	*e*P	Pn	11 04 06.0	+1.1
OUL				*e*SB	Sb	11 04 45.2	+1.2
LOF	**Lofoten**	3.03	295	*e*	Sb	11 04 51.0	+0.8
LOF	**Lofoten**	3.03	295	*e*SB	Sb	11 04 51.0	+0.8
ARCES	**ARCESS Array B**	3.05	32	Pn	Pn	11 04 07.8	-0.5
	comp=Z,0.6nm,0.3s,baz=211,slow=14,SNR=53						
ARCES				Sn	Sn	11 04 45.5	-0.5
	comp=Z,0.5nm,0.3s,baz=211,slow=24,SNR=4.8						
MSF	**Maaselka**	3.45	105	*e*P	Pn	11 04 14.4	+0.5
MSF				*e*SB	Sb	11 05 02.7	+0.3
MSF				MSG		11 05 12.3	
	comp=Z,1.7nm,0.2s						
KU4	**Oulanka**	3.51	97	*e*P	Pn	11 04 16.0	+1.2
KU4				*e*SG	Sg	11 05 07.2	-7.6
KEV	**Kevo**	3.56	37	*e*P	Pn	11 04 14.6	-0.8
KEV				*e*S	Sn	11 04 56.6	-2.1
KJN	**Kajaani**	4.09	133	*e*P	Pn	11 04 23.3	+0.4
KJN				*e*S	Sn	11 05 10.1	-2.2
KJN				MSG		11 05 28.7	
	comp=Z,1.1nm,0.2s						
FINES	**FINESS Array B**	6.04	156	Pn	Pn	11 04 50.5	-0.1
	comp=Z,0.1nm,0.3s,baz=347,slow=12,SNR=7.7						
FINES				Sn	Sn	11 05 59.3	-2.0
	comp=Z,0.2nm,0.3s,baz=337,slow=24,SNR=6.3						
NOA	**NORSAR Array B**	7.35	220	Pn	Pn	11 05 07.3	-1.7
	comp=Z,0.1nm,0.3s,baz=61,slow=13,SNR=2.4						
NOA				Sn	Sn	11 06 29.4	-4.8
	comp=Z,0.1nm,0.3s,baz=40,slow=28,SNR=3.0						
NOA				Lg		11 07 13.4	
	comp=Z,0.1nm,0.3s,baz=50,slow=26,SNR=2.7						
HFS	**Hagfors**	7.62	208	Pn	Pn	11 05 11.5	-1.3
	baz=30,slow=13,SNR=5.4						
HFS				Sn	Sn	11 06 37.0	-3.9
	comp=Z,0.0nm,0.3s,baz=29,slow=30,SNR=2.7						
HFS				Lg		11 07 18.3	
	comp=Z,0.0nm,0.3s,baz=36,slow=34,SNR=3.1						

IDC 19 11:16:57.7±7.2**, 6.30S**×**148.22E, h222^{km}**±32^{km}**, mb3.1**/2**, mb1 3.0**/4**, mb1mx2.9**/13**, Error ellipse: s-maj=74.2km s-min=64.8km az=24.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	3.26	199	P	P	11 17 51.3	-0.8
	0.7nm,0.3s,baz=218,slow=18,SNR=3.8						
PMG				S	S	11 18 34.8	+0.6
	1.6nm,0.3s,baz=185,slow=20,SNR=6.0						
WRA	**Warramunga Arr**	19.12	224	P	P	11 21 03.6	-2.4
	0.2nm,0.3s,baz=48,slow=12,SNR=6.0						
ASAR	**Alice Springs**	22.09	217	P	P	11 21 36.0	+0.7
	0.3nm,0.4s,baz=51,slow=8.5,SNR=12						
STKA	**Stephens Creek**	26.19	193	P	P	11 22 11.2	-2.7
	0.8nm,0.3s,slow=8.1,SNR=4.0						

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*SNSN **19** 11:18:44.4, 26.36N×36.16E, Ml2.1*
*CSEM **19** 11:18:44.5±0.1, 26.05N×35.65E, h40^{km}, ML2.1, Error ellipse: s-maj=3.4km s-min=2.2km az=104.0*
*HLW **19** 11:18:46.2, 26.07N×35.48E, h16^{km}, Mb3.1*
ISC 19 11:18:42.6±0.7**, 26.07N**±0.05×**35.64E**±0.08**, h10^{km}, n12, σ0^{s}48**/14**, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HADB		1.16	232	P	Pb	11 19 05.0	+0.7
HQSR		1.17	255	P	Pb	11 19 04.9	+0.4
EMRS	**Mersa Alam**	1.28	215	P	Pb	11 19 06.9	+0.6
EMRS				S	Sb	11 19 21.9	-0.6
HSFG		1.61	288	P	Pn	11 19 10.6	-0.8
UMJS	**Umm Lajj**	1.72	118	P	Pn	11 19 12.5	-0.4
AYUS	**‘Aynunah**	2.14	351	P	Pn	11 19 19.1	+0.2
TBKS	**Tabuk**	2.30	20	P	Pn	11 19 21.8	+0.7
TBKS				S	Sn	11 19 42.4	-7.3
TAYS	**Tayyib Ism**	2.57	345	P	Pn	11 19 24.9	-0.2
JMQS	**Jabal Moqyreh**	2.82	4	P	Pn	11 19 28.7	+0.2
HAQS	**Haql**	3.04	348	P	Pn	11 19 31.6	-0.2
JMOS	**Jabal al Moall**	3.12	351	P	Pn	11 19 32.7	-0.3
ALWS	**Ilw as Safayha**	3.27	351	P	Pn	11 19 34.7	-0.3

IDC 19 11:36:35.9±19.0**, 46.74N**×**150.26E, h476^{km}**±230^{km}**, mb2.6**/4**, mb1 2.9**/4**, mb1mx2.6**/20**, Error ellipse: s-maj=37.7km s-min=30.8km az=109.0, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YKA	**Yellowknife Ar**	**52.09**	**36**	P	P	11 45 00.1	-1.8
	0.1nm,0.7s,baz=299,slow=7.2,SNR=3.2						
FINES	**FINESS Array B**	**63.19**	**334**	P	P	11 46 15.9	-1.6
	1.3nm,0.7s,baz=31,slow=8.1,SNR=8.8						
ASAR	**Alice Springs**	**71.62**	**196**	P	P	11 47 08.3	-1.2
	0.2nm,0.5s,baz=10,slow=5.6,SNR=5.2						
TXAR	**Lajitas Array**	**79.19**	**59**	P	P	11 47 50.9	-0.5
	0.2nm,0.8s,baz=317,slow=5.2,SNR=3.0						

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*NEIC **19** 11:38:16.5, 19.09N×64.37W, h38^{km}, MD3.5(RSPR), After RSPR.*

RSPR 19 11:38:16.5, 19.09N×64.37W, h38^{km}±28^{km}, MD3.5/9, **MD3.5**/9, **8C-3D, Virgin Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MTP	**Monte Pirata**	**1.50**	**229**	eS	S	11 38 58.0	-2.0
MTP	**Monte Pirata**	**1.50**	**229**	⇑eP	P	11 38 39.5	-1.9
MTP				eS	S	11 38 58.0	-2.0
CBYP	**Canovanas**	**1.63**	**240**	eS	S	11 39 00.9	-2.3
CBYP	**Canovanas**	**1.63**	**240**	⇑eP	P	11 38 41.0	-2.3
CBYP				eS	S	11 39 00.9	-2.3
CPD	**Cerro la Pandu**	**1.80**	**235**	eS	S	11 39 06.1	-1.4
CPD	**Cerro la Pandu**	**1.80**	**235**	⇑eP	P	11 38 44.3	-1.4
CPD				eS	S	11 39 06.1	-1.4
CSB	**Colonia Sabana**	**1.87**	**245**	⇑eP	P	11 38 44.2	-2.5
CSB				eS	S	11 39 06.5	-2.8
SJG	**San Juan**	**1.95**	**240**	eS	S	11 39 09.8	-1.5
SJG	**San Juan**	**1.95**	**240**	⇓iP	P	11 38 46.5	-1.4
SJG				eS	S	11 39 09.4	-1.8
SJG	**San Juan**	**1.95**	**240**	⇑eP	P	11 38 45.8	-2.1
SJG				eS	S	11 39 09.8	-1.5
CELP	**Cerrillos**	**2.33**	**245**	⇓eP	P	11 38 51.3	-2.0
CELP				eS	S	11 39 18.4	-2.5
AOPR	**Arecibo Observ**	**2.38**	**252**	⇑eP	P	11 38 52.6	-1.3
PORP	**Portuguez**	**2.39**	**245**	⇓eP	P	11 38 52.0	-2.1
PORP				eS	S	11 39 20.4	-1.9
LSP	**Las Mesas**	**2.73**	**251**	eS	S	11 39 28.8	-2.4
LSP	**Las Mesas**	**2.73**	**251**	⇑eP	P	11 38 57.6	-1.4
LSP				eS	S	11 39 28.8	-2.4
MGP	**Maguayo**	**2.80**	**248**	⇑eP	P	11 38 58.5	-1.5

IDC 19 11:42:34.5±7.5**, 30.43S×177.93W, mb3.3**/2**, mb1 3.5**/2**, mb1mx3.4**/12**, Error ellipse: s-maj=313.0km s-min=59.7km az=156.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**43.17**	**267**	P	P	11 50 37.5	-1.3
	0.1nm,0.6s,baz=107,slow=7.6,SNR=4.4						
WRA	**Warramunga Arr**	**44.16**	**272**	P	P	11 50 44.8	-2.1
	0.5nm,0.7s,baz=111,slow=8.1,SNR=8.9						
FINES	**FINESS Array B**	**145.19**	**340**	PKPbc	PKPbc	12 02 12.2	-1.5
	1.3nm,0.8s,baz=45,slow=2.7,SNR=5.1						

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*LDG **19** 11:56:46.3±0.1, 42.42N×1.28E, h4^{km}, Md2.1/3, Ml2.0/7, Error ellipse: s-maj=1.1km s-min=0.9km az=167.0*

*STR **19** 11:56:46.4±0.5, 43.07N×1.33E, h5^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

MDD 19 11:56:46.7±0.3**, 42.43N×1.27E, h6^{km}**±5^{km}**, mbLg1.4**/17**, Error ellipse: s-maj=2.0km s-min=1.6km az=129.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CSOR	**Sort**	**0.12**	**240**	Pg	Pg	11 56 48.8	-0.4
CSOR				Lg		11 56 50.8	
	40nm,0.1s						
CORG	**Organya**	**0.20**	**170**	Pg	Pg	11 56 50.2	-0.7
CORG				Lg		11 56 53.4	
	8.5nm,0.0s						
PAND	**Andorre**	**0.23**	**66**	Pg	Pg	11 56 51.1	-0.2
PAND				Lg		11 56 54.4	
SALF	**Salau**	**0.33**	**350**	Pg	Pg	11 56 53.1	-0.3
SALF				Sg	Sg	11 56 57.7	-0.2
SALF	**Salau**	**0.33**	**350**	Pg	Pg	11 56 53.2	-0.2
SALF				Lg		11 56 57.7	
GRBF	**Gourbit**	**0.45**	**26**	Pg	Pg	11 56 55.4	-0.4
GRBF				Lg		11 57 00.9	
CLLI	**Llivia**	**0.52**	**85**	Pg	Pg	11 56 56.1	-1.1
CLLI				Lg		11 57 03.0	
	2.3nm,0.1s						
EMIR	**Miracle**	**0.55**	**160**	Pg	Pg	11 56 56.9	-0.8
	4.1nm,0.2s,SNR=6.3						
EMIR				Lg		11 57 05.1	
	9.2nm,0.4s						
CAVN	**Les Avellanes**	**0.67**	**215**	Pg	Pg	11 56 59.1	-1.0
CAVN				Lg		11 57 08.7	
	4.4nm,0.1s						
CARF	**Carcanieres**	**0.68**	**65**	Pg	Pg	11 56 58.9	-1.4
CARF				Sg	Sg	11 57 08.5	-0.9
CARF	**Carcanieres**	**0.68**	**65**	Pg	Pg	11 56 59.4	-0.9
CARF				Lg		11 57 08.6	
CBRU	**Bruguera**	**0.69**	**102**	Pg	Pg	11 56 59.6	-0.9
EGRA	**Graus**	**0.74**	**252**	Pg	Pg	11 57 02.8	+1.2
	0.4nm,0.1s,SNR=7.9						
EGRA				Lg		11 57 14.9	
	1.4nm,0.2s,SNR=4.0						
EBIE	**Bielsa**	**0.87**	**287**	Pg	Pg	11 57 02.7	-1.3
	0.2nm,0.2s,SNR=8.2						
EBIE				Lg		11 57 14.6	
	0.8nm,0.2s						
EPF	**Esparros**	**0.91**	**311**	ePg	Pg	11 57 03.4	-1.5
EPF				eSg	Sg	11 57 15.2	-1.8
	3.6nm,0.2s						
EPOB	**Poblet**	**1.09**	**188**	Pg	Pg	11 57 06.8	-1.7
	0.8nm,0.1s,SNR=6.7						
EPOB				Lg		11 57 21.4	
	4.6nm,0.2s,SNR=7.9						
CFON	**Fontmartina**	**1.10**	**127**	Pg	Pg	11 57 06.7	-1.9
CFON				Lg		11 57 21.9	
	4.6nm,0.1s						
MTLF	**Montolieu**	**1.15**	**37**	ePg	Pg	11 57 07.9	-1.7
MTLF				eSg	Sg	11 57 22.9	-2.0
	4.7nm,0.2s						
EJON	**La Jonquera**	**1.20**	**89**	Lg		11 57 25.8	
	1.1nm,0.2s,SNR=7.9						
ETSF	**Etsaut**	**1.43**	**290**	ePn	Pn	11 57 11.2	-1.9
ETSF				ePg	Pg	11 57 13.4	-1.8
ETSF				eSg	Sg	11 57 31.9	-2.3
	2.3nm,0.3s						
ESAC	**San Caprasio**	**1.48**	**242**	Pg	Pg	11 57 14.4	-1.8
	2.5nm,0.2s,SNR=7.9						
ESAC				Lg		11 57 33.5	
	6.2nm,0.2s,SNR=7.9						
ERTA	**Horta de San J**	**1.63**	**206**	Pg	Pg	11 57 16.4	-2.9
	0.8nm,0.2s,SNR=7.9						
ERTA				Lg		11 57 37.9	
	0.8nm,0.1s,SNR=7.9						
SJPF	**Ste Jean**	**1.96**	**291**	ePn	Pn	11 57 18.7	-2.0
SJPF				ePg	Pg	11 57 22.6	-3.2
SJPF				eSg	Sg	11 57 48.4	-3.5
	1.5nm,0.3s						
LASF	**Ste Croix**	**2.50**	**48**	ePg	Pg	11 57 31.9	-4.8
LASF				eSg	Sg	11 58 05.4	-4.7
	1.6nm,0.3s						
LFF	**La Frestale**	**2.54**	**351**	ePn	Pn	11 57 26.7	-2.3
LFF				eSg	Sg	11 58 06.2	-4.9
	2.1nm,0.3s						
RJF	**Les Rejaudoux**	**2.88**	**3**	ePn	Pn	11 57 31.3	-2.6
RJF				ePg	Pg	11 57 40.0	-4.1
RJF				eSg	Sg	11 58 16.8	-5.7
	0.8nm,0.2s						

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*NEIC **19** 12:47:05.1, 46.19N×122.19W, h1^{km}, MD3.1(SEA), After SEA.*

*IDC **19** 12:47:07.3±1.3, 46.10N×122.33W, mb3.2/2, mb1 3.6/6, mb1mx3.4/19, ML3.1/3, Error ellipse: s-maj=25.3km s-min=14.7km az=83.0*

ISC 19 12:47:05.2±0.4**, 46.22N**±0.03×**122.19W**±0.05**, h1^{km}**±4^{km}**, n35, σ0^{s}82**/35**, mb3.2**/2**, 5C-14D, Washington**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YEL	**Yellow Rock**	**0.01**	**152**	⇓P	**Pg**	**12 47 05.5**	**+0.1**
STD	**Studebaker Rid**	**0.03**	**316**	⇑P	**Pg**	**12 47 06.3**	**+0.5**
ESD	**East Dome**	**0.04**	**122**	⇓P	**Pg**	**12 47 05.9**	**0.0**
SHW	**Mount Saint He**	**0.04**	**233**	⇓P	**Pg**	**12 47 06.0**	**+0.1**
HSR	**South Ridge**	**0.04**	**171**	⇓P	**Pg**	**12 47 05.9**	**-0.1**
SOSW	**Source of Smit**	**0.05**	**54**	⇓P	**Pg**	**12 47 06.5**	**+0.4**
JLK	**June Lake**	**0.07**	**158**	⇓P	**Pg**	**12 47 06.5**	**-0.2**
ERK	**Elk Rock**	**0.14**	**311**	⇓P	**Pg**	**12 47 08.3**	**+0.4**
CDFW	**Cedar Flats**	**0.14**	**134**	⇑P	**Pg**	**12 47 08.1**	**+0.1**
MTMW	**Mount Mitchell**	**0.19**	**184**	⇓P	**Pg**	**12 47 09.0**	**+0.1**
LVP	**Lakeview Peak**	**0.21**	**226**	⇓P	**Pg**	**12 47 09.3**	**-0.1**
KOSW	**Kosmos**	**0.25**	**0**	⇑P	**Pg**	**12 47 10.5**	**+0.4**
RVW	**Rose Valley**	**0.39**	**260**	⇓P	**Pg**	**12 47 12.8**	**-0.1**
ASR	**Mount Adams--S**	**0.42**	**99**	⇓P	**Pg**	**12 47 13.2**	**-0.3**
LMW	**Ladd Mountain**	**0.46**	**351**	⇓P	**Pg**	**12 47 15.0**	**+0.7**
GULW	**Guler Mountain**	**0.51**	**125**	P	**Pg**	**12 47 14.8**	**-0.4**
LCW	**Lucas Creek**	**0.57**	**323**	P	**Pg**	**12 47 16.6**	**0.0**
LON	**Longmire**	**0.60**	**26**	P	**Pg**	**12 47 17.0**	**-0.1**
REMR	**Mount Rainier-**	**0.65**	**22**	⇓P	**Pg**	**12 47 17.9**	**-0.2**
RCM	**Mount Rainier-**	**0.70**	**27**	P	**Pg**	**12 47 18.9**	**-0.2**
RCS	**Mount Rainier-**	**0.73**	**26**	⇓P	**Pg**	**12 47 19.3**	**-0.4**
FMW	**Mount Fremont**	**0.80**	**26**	P	**Pg**	**12 47 20.7**	**-0.4**
TDH	**Tom, Dick, Har**	**0.97**	**163**	⇑P	**Pb**	**12 47 23.0**	**-1.4**
CROR	**Criterion Ridg**	**1.50**	**145**	⇑P	**Pn**	**12 47 33.0**	**-0.2**
COR	**Corvallis**	**1.81**	**206**	eP	**Pn**	**12 47 37.0**	**-0.8**
HAWA	**Hanford**	**1.85**	**84**	eP	**Pn**	**12 47 37.9**	**-0.5**
OCWA	**Octopus Mounta**	**2.05**	**319**	Pn	**Pn**	**12 47 40.4**	**-0.8**
PGC	**Sidney**	**2.58**	**341**	ePn	**Pn**	**12 47 47.9**	**-0.9**
HUMO	**Hull Mountain**	**3.65**	**189**	Pn	**Pn**	**12 48 01.9**	**-2.1**
YBH	**Yreka Blue Hor**	**4.50**	**185**	Pn	**Pn**	**12 48 17.7**	**+1.7**
	0.1nm,0.3s,baz=42,slow=10,SNR=6.5						
NVAR	**Mina Array Bea**	**8.30**	**158**	Pn	**P**	**12 49 11.6**	**+2.1**
	baz=343,slow=11,SNR=5.1						
PDAR	**Pinedale Array**	**9.66**	**106**	Pn	**P**	**12 49 31.6**	**+3.2**
	0.1nm,0.3s,baz=328,slow=12,SNR=3.5						
YKA	**Yellowknife Ar**	**16.88**	**12**	Pn	**P**	**12 51 03.3**	**-0.7**
	0.0nm,0.3s,baz=198,slow=11,SNR=13						
TXAR	**Lajitas Array**	**22.24**	**133**	P	**P**	**12 52 06.5**	**+1.7**
	0.3nm,0.8s,mb2.8,baz=280,slow=5.5,SNR=4.5						
ILAR	**Eielson Array**	**22.99**	**333**	P	**P**	**12 52 12.9**	**+1.0**
	1.9nm,1.0s,mb3.6,baz=139,slow=8.3,SNR=7.1						

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*IDC **19** 12:47:40.5±0.8, 3.52S×135.62E, mb4.0/8, mb1 4.2/12, mb1mx4.1/16, ML3.9/4, MS3.2/2, Ms1 3.2/2, ms1mx2.8/16, Error ellipse: s-maj=41.9km s-min=18.1km az=73.0*

*NEIC **19** 12:47:43.8±0.5, 3.58S×135.36E, h10^{km}, mb3.9/6, Error ellipse: s-maj=13.9km s-min=8.8km az=79.0*

ISC 19 12:47:44.2±1.7**, 3.78S**±0.05×**135.4E**±0.1**, h44^{km}**±16^{km}**, n27, σ1^{s}27**/28**, mb3.8**/9**, 2D, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.34**	**198**	⇓iP	**P**	**12 49 59.0**	**-0.1**
	20nm,0.3s						
PMG	**Port Moresby**	**12.96**	**116**	Pn	**P**	**12 50 50.8**	**+2.5**
	0.7nm,0.3s,baz=152,slow=2.3,SNR=4.0						
PMG	**Port Moresby**	**12.96**	**116**	eP	**P**	**12 50 47.8**	**-0.5**
WRAB	**Tennant Creek**	**16.09**	**184**	eP	**P**	**12 51 26.4**	**-2.5**
	3.9nm,0.6s						
WRA	**Warramunga Arr**	**16.09**	**184**	Pn	**P**	**12 51 26.7**	**-2.4**
	0.5nm,0.3s,baz=2.6,slow=13,SNR=26						
WRA				Sn	**S**	**12 54 18.7**	**-7.1**
	1.1nm,0.3s,baz=5.6,slow=22,SNR=7.7						
FITZ	**Fitzroy Crossi**	**17.13**	**213**	eP	**P**	**12 51 42.6**	**+0.4**
	5.4nm,0.5s						
FITZ				eS	**S**	**12 54 42.7**	**-7.0**
FITZ	**Fitzroy Crossi**	**17.13**	**213**	P	**P**	**12 51 42.3**	**+0.1**
	0.9nm,0.3s,baz=179,slow=9.9,SNR=7.1						
FITZ				S	**S**	**12 54 44.0**	**-5.8**
	2.2nm,0.3s,baz=187,slow=14,SNR=5.7						
CTA	**Charters Tower**	**19.36**	**148**	eP	**P**	**12 52 11.5**	**+2.4**
	3.9nm,0.7s						
CTA	**Charters Tower**	**19.36**	**148**	P	**P**	**12 52 09.3**	**+0.2**
	0.4nm,0.3s,baz=318,slow=14,SNR=4.4						
CTA				LR	LR	13 00 38.4	
	comp=Z,90nm,19.7s,baz=48,slow=40						
CTAO	**Charters Tower**	**19.36**	**148**	eP	**P**	**12 52 10.6**	**+1.5**
	5.6nm,0.8s						
ASAR	**Alice Springs**	**19.82**	**184**	P	**P**	**12 52 16.4**	**+2.3**
	15nm,0.6s,baz=7.0,slow=11,SNR=294						
ASAR				S	**S**	**12 55 50.1**	**+0.4**
	0.9nm,0.6s,baz=7.9,slow=26,SNR=4.2						
ASAR				LR	LR	12 59 05.9	
	comp=Z,51nm,19.7s,baz=2.9,slow=34						
ASPA	**Alice Springs**	**19.82**	**184**	⇓iP	**P**	**12 52 15.9**	**+1.8**
ASPA				eS	**S**	**12 55 48.6**	**-1.1**
MBWA	**Marble Bar**	**23.02**	**220**	eP	**P**	**12 52 50.5**	**+4.0**
	2.0nm,0.5s,mb3.8						
STKA	**Stephens Creek**	**28.55**	**169**	P	**P**	**12 53 38.3**	**+0.1**
	0.9nm,0.6s,mb3.7,baz=324,slow=13,SNR=3.3						
STKA	**Stephens Creek**	**28.55**	**169**	P	**P**	**12 53 38.0**	**-0.1**
CMAR	**Chiang Mai Arr**	**42.15**	**303**	P	**P**	**12 55 35.8**	**+1.3**
	0.6nm,0.7s,mb3.3,baz=128,slow=6.6,SNR=5.1						
ASAJ	**Asahikawa**	**48.12**	**7**	P	**P**	**12 56 20.6**	**-1.2**
	8.2nm,0.8s,mb4.8,baz=168,slow=10,SNR=2.9						
SONM	**Songino Array**	**57.34**	**337**	P	**P**	**12 57 30.2**	**-0.1**
	0.3nm,0.6s,mb3.5,baz=162,slow=9.1,SNR=2.6						
ZAL	**Zalesovo**	**71.23**	**331**	P	**P**	**12 59 00.2**	**-0.4**
	0.4nm,0.3s,mb3.8,baz=85,slow=5.2,SNR=2.8						
ZAL	**Zalesovo**	**71.23**	**331**	P	**P**	**12 59 00.2**	**-0.4**
BVAR	**Borovoye Array**	**78.31**	**326**	P	**P**	**12 59 41.7**	**+0.3**
	0.5nm,0.6s,mb3.7,baz=90,slow=3.0,SNR=3.7						
BRVK	**Borovoye**	**78.38**	**326**	eP	**P**	**12 59 42.0**	**+0.2**
	1.8nm,0.8s,mb4.0						
ILAR	**Eielson Array**	**88.18**	**25**	P	**P**	**13 00 30.2**	**-1.2**
	0.3nm,0.4s,mb3.9,baz=259,slow=4.3,SNR=16						
ARCES	**ARCESS Array B**	**100.41**	**340**	P	P	13 01 26.8	-0.7
	3.9nm,0.9s,baz=22,slow=4.9,SNR=3.7						
CPUP	**Villa Florida**	**147.63**	**158**	PKPbc	PKPdf	13 07 28.2	+6.3
	0.0nm,0.4s,baz=231,slow=11,SNR=1.6						
CPUP	**Villa Florida**	**147.63**	**158**	PKPbc	PKPdf	13 07 28.2	+6.3
LPAZ	**La Paz**	**149.37**	**131**	PKPbc	PKPdf	13 07 34.2	+9.3

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*SKHL **19** 12:48:13.8±0.8, 48.94N×141.59E, h10^{km}, mb4.2/5*

SKHL Felt II-III at Uglegorsk, Shakhtersk, Krasnopolie, Porechie.

*MOS **19** 12:48:18.1±1.6, 48.86N×142.08E, h33^{km}, mb3.9/1, Error ellipse: s-maj=68.4km s-min=14.9km az=91.5*

MOS Felt (II-III) at Uglegorski raion.

*NEIC **19** 12:48:22.0±1.8, 48.69N×142.59E, h40^{km}±19^{km}, mb3.6/2, Error ellipse: s-maj=19.2km s-min=14.2km az=130.0*

NEIC Felt [III] at Uglegorsk.

*IDC **19** 12:48:22.6±3.0, 48.72N×142.46E, h46^{km}±32^{km}, mb3.4/7, mb1 3.6/7, mb1mx3.4/20, Error ellipse: s-maj=23.7km s-min=18.8km az=110.0*

ISC 19 12:48:14.6±0.3**, 48.93N**±0.02×**141.67E**±0.04**, h10^{km}, n27, σ1^{s}12**/48**, mb3.6**/9**, 2C-2D, Sakhalin Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UGL	**Uglegorsk**	**0.30**	**60**	⇓iPN	**Pg**	**12 48 21.2**	**+0.3**
UGL				eS	**Sg**	**12 48 26.3**	**+1.3**
UGL				pmax	pmax		
	comp=Z,940nm,0.2s						
UGL				pmax	pmax		
	comp=N,230nm,0.3s						
UGL				pmax	pmax		
	comp=E,260nm,0.3s						
UGL				smax			
	comp=N,9µm,0.3s						
UGL				smax			
	comp=E,12µm,0.3s						
UGL	**Uglegorsk**	**0.30**	**60**	ePg	**Pg**	**12 48 21.2**	**+0.3**
UGL				⇓iPg	**Pg**	**12 48 21.2**	**+0.3**
UGL				AMB	AMB	12 48 22.0	
	comp=E,230nm,0.3s						
UGL				AMB	AMB	12 48 22.0	
	comp=E,260nm,0.3s						
UGL				AMB	AMB	12 48 22.0	
	comp=E,940nm,0.3s						
UGL				pP		12 48 23.2	
UGL				eSg	**Sg**	**12 48 26.3**	**+1.3**
UGL				A		12 48 27.5	
	comp=E,9µm,0.3s						
UGL				A		12 48 27.5	
	comp=E,12µm,0.3s						
TYV	**Tymovskoe**	**2.04**	**18**	ePn	**Pn**	**12 48 50.0**	**+0.6**
TYV				ePb	**Pb**	**12 48 51.3**	**0.0**
TYV				ePg	**Pg**	**12 48 54.6**	**-0.7**
TYV				AMB	AMB	12 48 56.8	
	comp=E,40nm,0.6s						
TYV				eSb	**Sb**	**12 49 16.8**	**+0.1**
TYV				eSg	**Sg**	**12 49 23.0**	**+0.5**
TYV				A		12 49 28.8	
	comp=E,250nm,0.7s						
TYV				A		12 49 28.8	
	comp=E,40nm,0.7s						
YSS	**Yuzh-Sakhalins**	**2.11**	**159**	⇑iPN	**Pn**	**12 48 49.0**	**-1.4**
YSS				i		12 49 16.0	
YSS				pmax	pmax		
	comp=Z,50nm,0.3s						
YSS				pmax	pmax		
	comp=Z,100nm,0.4s						
YSS				smax			
	comp=N,120nm,0.5s						
YSS				smax			
	comp=E,120nm,0.5s						
YSS				smax			
	comp=N,370nm,0.6s						
YSS				smax			
	comp=E,210nm,0.6s						
YSS				smax			
	comp=E,310nm,0.9s						
YSS				smax			
	comp=N,280nm,0.7s						
YSS	**Yuzh-Sakhalins**	**2.11**	**159**	ePn	**Pn**	**12 48 49.6**	**-0.8**
YSS				Sn	**Sn**	**12 49 09.4**	**-7.5**
YSS	**Yuzh-Sakhalins**	**2.11**	**159**	⇑iPn	**Pn**	**12 48 49.0**	**-1.4**
YSS				AMB	AMB	12 48 49.4	
	comp=N,50nm,0.3s						
YSS				ePb	**Pb**	**12 48 52.4**	**-0.1**
YSS				ePg	**Pg**	**12 48 56.5**	**-0.2**
YSS				AMB	AMB	12 48 58.0	
	comp=N,100nm,0.4s						
YSS				i Sn	**Sn**	**12 49 16.0**	**-0.9**
YSS				A		12 49 16.9	
	comp=N,120nm,0.5s						
YSS				eSb	**Sb**	**12 49 18.0**	**-0.7**
YSS				i Sg	**Sg**	**12 49 26.4**	**+1.6**
YSS				A		12 49 28.0	
	comp=N,310nm,0.9s						
YSS				A		12 49 28.0	
	comp=N,280nm,0.7s						
GRNR	**Gornyy**	**3.87**	**300**	ePg	**Pg**	**12 49 29.0**	**-2.8**
GRNR				AMB	AMB	12 49 29.8	
	comp=N,16nm,0.8s						
GRNR				eSg	**Sg**	**12 50 23.5**	**+0.2**
GRNR				A		12 50 31.8	
	comp=N,100nm,0.8s						
NKL	**Nikolayevsk**	**4.27**	**352**	ePn	**Pn**	**12 49 21.0**	**-0.3**
NKL				ePg	**Pg**	**12 49 38.5**	**-1.4**
NKL				eSb	**Sb**	**12 50 22.6**	**+1.0**
NKL				eSg	**Sg**	**12 50 36.8**	**-0.1**
NKL				A		12 50 39.0	
	comp=N,46nm,0.6s						
ASAJ	**Asahikawa**	**4.86**	**172**	P	**Pn**	**12 49 28.9**	**-0.7**
ASAJ				S	**Sn**	**12 50 22.8**	**-3.8**
	comp=N,0.6nm,0.3s,baz=68,slow=34,SNR=2.4						
TEY	**Ternei**	**5.21**	**224**	eSg	**Sg**	**12 51 10.8**	**+2.5**
KLR	**Kul'dur**	**6.53**	**276**	eSg	**Sg**	**12 51 53.2**	**+1.3**
EKMR	**Ekimchan**	**6.89**	**310**	ePn	**Pn**	**12 49 57.2**	**-1.0**
EKMR				ePb	**Pb**	**12 50 11.5**	**-2.8**
EKMR				ePg	**Pg**	**12 50 29.4**	**-2.8**
EKMR				AMB	AMB	12 50 37.5	
	comp=N,3.0nm,0.5s						
EKMR				eSb	**Sb**	**12 51 32.0**	**-5.6**
EKMR				eSg	**Sg**	**12 52 04.6**	**+0.6**
EKMR				A		12 52 17.5	
	comp=N,48nm,0.8s						
EKMR				A		12 52 17.5	
	comp=N,17nm,0.8s						
EKMR				A		12 52 17.5	
	comp=N,9.0nm,0.8s						
YASR	**Yasnyy**	**9.65**	**302**	eS	**Sn**	**12 52 30.2**	**+4.1**
BMKR	**Bomnak**	**9.82**	**311**	eS	**Sn**	**12 52 41.5**	**+11**
KROS	**Kirovskiy**	**10.65**	**307**	eS	**S**	**12 52 59.5**	**+8.8**
SONM	**Songino Array**	**23.33**	**281**	P	**P**	**12 53 32.6**	**+9.1**
	comp=N,0.5nm,0.9s,mb3.0,baz=82,slow=10,SNR=2.9						
ILAR	**Eielson Array**	**39.72**	**39**	P	**P**	**12 55 48.2**	**-0.3**
	comp=N,90nm,0.3s,baz=278,slow=9.7,SNR=168						
INK	**Inuvik**	**43.95**	**32**	P	**P**	**12 56 23.8**	**+1.0**
	comp=N,0.4nm,0.8s,mb3.2,baz=47,slow=16,SNR=2.9						
RES	**Resolute Bay**	**51.09**	**17**	eP	**P**	**12 57 19.2**	**+0.6**
	comp=N,0.4nm,0.6s,mb3.5						
FINES	**FINESS Array B**	**58.51**	**329**	P	**P**	**12 58 15.6**	**+2.7**
	comp=N,1.1nm,0.6s,mb4.1,baz=45,slow=7.9,SNR=12						
NOA	**NORSAR Array B**	**63.36**	**336**	P	**P**	**12 58 50.0**	**+4.3**
	comp=N,4.4nm,1.2s,mb4.5,baz=58,slow=5.3,SNR=2.5						
NVAR	**Mina Array Bea**	**67.97**	**57**	P	**P**	**12 59 16.0**	**+0.4**
	comp=N,0.3nm,0.6s,mb3.5,baz=309,slow=5.8,SNR=4.1						
NVAR	**Mina Array Bea**	**67.97**	**57**	P	**P**	**12 59 16.0**	**+0.4**
BW06	**Boulder Array**	**69.37**	**48**	P	**P**	**12 59 23.4**	**-0.8**
	comp=N,0.4nm,0.6s,mb3.5						
PDAR	**Pinedale Array**	**69.37**	**48**	P	**P**	**12 59 23.8**	**-0.4**
	comp=N,0.4nm,0.7s,mb3.5,baz=315,slow=2.6,SNR=4.8						
ASAR	**Alice Springs**	**72.60**	**187**	P	**P**	**12 59 44.1**	**+0.1**
	comp=N,0.7nm,0.6s,mb3.8,baz=3.6,slow=4.3,SNR=3.9						
SNAA	**Sanae**	**152.00**	**203**	PKPbc	PKPdf	13 08 10.8	+6.0
	comp=N,0.2nm,0.5s,baz=246,slow=16,SNR=2.9						

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*NEIC **19** 12:54:50.3±4.7, 27.19N×140.09E, h344^{km}±48^{km}, mb3.8/7, Error ellipse: s-maj=18.3km s-min=11.4km az=85.0*

*IDC **19** 12:54:51.9±0.7, 27.17N×140.08E, h361^{km}±6^{km}, mb3.3/12, mb1 3.6/14, mb1mx3.4/24, Error ellipse: s-maj=16.5km s-min=10.9km az=83.0*

*JMA **19** 12:54:53.4±0.1, 27.48N×141.00E, h394^{km}, M3.9*

ISC 19 12:54:51.5±0.6**, 27.26N**±0.05×**140.1E**±0.1**, h368^{km}**±5^{km}**, n39, σ1^{s}02**/50**, mb3.6**/18**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**1.90**	**94**	P	**P**	**12 55 44.4**	**+0.2**
	48nm,0.3s,baz=107,slow=23,SNR=78						
CBIJ				S	**S**	**12 56 24.6**	**-0.9**
	115nm,0.3s,baz=278,slow=22,SNR=7.8						
CBIJ	**Chichi jima**	**1.90**	**94**	P	**P**	**12 55 44.4**	**+0.2**
CBIJ				eS	**S**	**12 56 24.5**	**-1.0**
JHHJ	**Haha-jima-NKT**	**1.99**	**108**	P	**P**	**12 55 45.4**	**+0.6**
JHHJ				S	**S**	**12 56 26.4**	**-0.1**
JHJ	**Hachijo jima 2**	**5.84**	**358**	P	**P**	**12 56 24.1**	**+2.4**
	32nm,0.3s,baz=224,slow=21,SNR=3.4						
JHJ				S	**S**	**12 57 36.8**	**+4.1**
	15nm,0.3s,baz=66,slow=23,SNR=2.5						
BSO1	**Boso 1**	**7.41**	**6**	P	**P**	**12 56 40.1**	**+0.2**
BSO1				S	**S**	**12 58 03.2**	**-2.0**
JIM2	**Oshima 3**	**7.45**	**356**	P	**P**	**12 56 42.2**	**+1.8**
BSO3	**Boso 3**	**7.53**	**3**	P	**P**	**12 56 41.5**	**+0.3**
BSO3				S	**S**	**12 58 06.1**	**-1.5**
BSO4	**Boso 4**	**7.71**	**2**	P	**P**	**12 56 45.2**	**+1.8**
BSO4				eS	**S**	**12 58 11.1**	**-0.3**
JOD2	**Odawara 2**	**8.02**	**354**	P	**P**	**12 56 48.0**	**+1.0**
JOD2				eS	**S**	**12 58 18.0**	**0.0**
JHU	**Hanno**	**8.59**	**356**	P	**P**	**12 56 53.4**	**-0.3**
JHU				eS	**S**	**12 58 26.1**	**-4.0**
JRY	**Ryogami san**	**8.79**	**354**	P	**P**	**12 56 56.5**	**+0.5**
JRY				eS	**S**	**12 58 35.1**	**+0.8**
JYT	**Yasato**	**8.94**	**1**	P	**P**	**12 56 57.9**	**+0.1**
JAG	**Ashikaga**	**9.15**	**357**	P	**P**	**12 56 59.9**	**-0.4**
JAG				eS	**S**	**12 58 37.8**	**-4.3**
JHO	**Hitachi**	**9.33**	**3**	P	**P**	**12 57 02.3**	**-0.2**
JHO				S	**S**	**12 58 44.8**	**-1.2**
HIA	**Hailar**	**26.99**	**330**	P	**P**	**13 00 02.3**	**-0.4**
	1.8nm,0.4s,mb3.6						
ULN	**Ulaanbaatar**	**32.91**	**318**	eP	**P**	**13 00 53.6**	**-0.5**
	1.4nm,0.6s,mb3.4						
SONM	**Songino Array**	**33.30**	**317**	P	**P**	**13 00 58.0**	**+0.7**
	0.2nm,0.4s,mb2.7,baz=138,slow=11,SNR=6.8						
WRA	**Warramunga Arr**	**47.25**	**187**	P	**P**	**13 02 49.3**	**-1.6**
	1.4nm,0.4s,mb3.6,baz=5.9,slow=8.1,SNR=56						
ASAR	**Alice Springs**	**50.98**	**187**	P	**P**	**13 03 17.6**	**-1.4**
	0.2nm,0.5s,mb2.6,baz=0.6,slow=4.4,SNR=10.0						
BVAR	**Borovoye Array**	**56.64**	**317**	P	**P**	**13 03 58.8**	**-0.5**
	3.3nm,0.4s,mb4.0,baz=92,slow=6.8,SNR=18						
BRVK	**Borovoye**	**56.70**	**317**	eP	**P**	**13 03 59.3**	**-0.4**
	2.8nm,0.6s,mb3.8						
MCK	**McKinley**	**57.53**	**30**	eP	**P**	**13 04 03.9**	**-1.3**
	1.3nm,0.8s,mb3.3						
ILAR	**Eielson Array**	**58.48**	**29**	P	**P**	**13 04 10.5**	**-1.2**
	0.7nm,0.5s,mb3.2,baz=253,slow=6.2,SNR=14						
INK	**Inuvik**	**63.67**	**24**	P	**P**	**13 04 45.1**	**-0.7**
	0.6nm,0.3s,mb3.6,baz=298,slow=4.0,SNR=7.4						
INK	**Inuvik**	**63.67**	**24**	eP	**P**	**13 04 45.4**	**-0.4**
	0.7nm,0.3s,mb3.8						
ARCES	**ARCESS Array B**	**72.76**	**340**	P	**P**	**13 05 41.8**	**+0.4**
	1.7nm,0.7s,mb3.9,baz=63,slow=8.1,SNR=6.0						
YKA	**Yellowknife Ar**	**72.89**	**28**	P	**P**	**13 05 42.0**	**-0.3**
	1.7nm,0.4s,mb4.1,baz=297,slow=6.1,SNR=46						
YKA	**Yellowknife Ar**	**72.89**	**28**	P	**P**	**13 05 42.0**	**-0.3**
FINES	**FINESS Array B**	**76.96**	**333**	P	**P**	**13 06 04.7**	**-0.5**

	0.9nm,0.3s,mb4.0,baz=73,slow=5.7,SNR=23						
FINES	FINESS Array B	76.96	333	P	P	13 06 04.7	-0.5
YBH	Yreka Blue Hor	77.39	50	P	P	13 06 09.6	+1.5
	0.9nm,0.6s,mb3.7,baz=320,slow=3.5,SNR=4.0						
NVAR	Mina Array Bea	81.90	51	P	P	13 06 33.2	+1.4
	2.2nm,0.9s,mb4.0,baz=292,slow=6.4,SNR=14						
NVAR	Mina Array Bea	81.90	51	P	P	13 06 33.2	+1.4
TPNV	Topopah Spring	84.04	51	eP	P	13 06 42.6	-0.1
	1.8nm,0.8s,mb4.0						
ANMO	Albuquerque	91.81	49	P	P	13 07 21.7	+2.1
	0.3nm,0.4s,mb3.6,baz=288,slow=8.8,SNR=4.0						
ANMO	Albuquerque	91.81	49	P	P	13 07 20.7	+1.1
	1.1nm,0.7s,mb3.9						
TXAR	Lajitas Array	97.01	52	P	P	13 07 44.7	+1.3
	0.2nm,0.5s,mb3.5,baz=240,slow=1.2,SNR=3.4						
TXAR	Lajitas Array	97.01	52	P	P	13 07 44.7	+1.3
LPAZ	La Paz	151.70	73	PKPbc	PKPdf	13 14 05.5	+9.1

WEL 19 12:56:37.9±1.2**, 46.30S**×**165.42E, h33^{km}, ML3.8**/6**, Error ellipse: s-maj=12.0km s-min=10.8km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	Deep Cove	1.46	57	ePN	Pn	12 57 00.3	-2.1
DCZ				SN	Sn	12 57 18.3	-2.2
WHZ	Wether Hill Ro	1.80	78	PN	Pn	12 57 05.8	-1.5
WHZ				SN	Sn	12 57 27.4	-1.8
MLZ	Mavora Lakes	2.14	65	PN	Pn	12 57 10.5	-1.6
MSZ	Milford Sound	2.40	48	PN	Pn	12 57 14.6	-1.2
EAZ	Earnscleugh	2.92	70	PN	Pn	12 57 21.8	-1.4
WKZ	Wanaka	2.92	61	PN	Pn	12 57 23.3	0.0
TUZ	Tuapeka	2.95	85	PN	Pn	12 57 21.5	-2.1
TUZ				SN	Sn	12 57 55.0	-3.2
JCZ	Jackson Bay	3.24	48	ePN	Pn	12 57 28.1	+0.4
ODZ	Otahua Downs	3.87	73	PN	Pn	12 57 32.7	-4.0

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*NEIC **19** 13:09:05.7±3.0, 2.67S×140.90E, h85^{km}±26^{km}, mb3.9/2, Error ellipse: s-maj=30.7km s-min=15.2km az=142.0*

*IDC **19** 13:09:11.2±6.2, 2.92S×141.09E, h124^{km}±56^{km}, mb3.6/3, mb1 3.8/5, mb1mx3.5/13, Error ellipse: s-maj=54.5km s-min=25.9km az=142.0*

ISC 19 13:09:05.0±4.7**, 2.7S**±0.2×**140.9E**±0.2**, h91^{km}**±44^{km}**, n12,** σ**1^{s}08**/12**, mb3.8**/3**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	9.12	137	P	P	13 11 16.7	+1.2
	0.4nm,0.3s,baz=326,slow=15,SNR=2.1						
PMG	Port Moresby	9.12	137	P	P	13 11 14.8	-0.7
KAKA	Kakadu	12.99	220	eP	P	13 12 07.8	+0.4
	13nm,0.5s						
KAKA				eS	S	13 14 12.7	-17
WRAB	Tennant Creek	18.26	200	eP	P	13 13 13.1	-0.8
	2.7nm,0.4s						
WRA	Warramunga Arr	18.27	200	P	P	13 13 13.0	-1.1
	0.5nm,0.3s,baz=24,slow=12,SNR=21						
FITZ	Fitzroy Crossi	21.38	223	eP	P	13 13 50.6	+3.7
	7.6nm,1.0s,mb4.0						
FITZ	Fitzroy Crossi	21.38	223	P	P	13 13 50.7	+3.8
	12nm,1.1s,mb4.1,baz=20,slow=11,SNR=12						
ASAR	Alice Springs	21.89	197	P	P	13 13 51.8	-0.1
	1.1nm,0.5s,mb3.4,baz=27,slow=11,SNR=14						
ASPA	Alice Springs	21.89	197	eP	P	13 13 53.4	+1.5
ILAR	Eielson Array	84.95	24	P	P	13 21 32.1	+1.1
	1.1nm,0.6s,mb4.0,baz=262,slow=4.7,SNR=14						
DAWY	Dawson	87.94	26	eP	P	13 21 44.2	-1.4
LPAZ	La Paz	145.68	124	PKPbc	PKPbc	13 28 36.8	+2.1

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*NEIC **19** 13:35:52.4±0.9, 43.20N×15.14E, h10^{km}, ML2.7(LDG), Error ellipse: s-maj=11.1km s-min=5.7km az=117.0*

*ROM **19** 13:35:53.2±0.3, 43.23N×15.20E, h10^{km}, MD3.1/9, ML2.2/4, Error ellipse: s-maj=3.2km s-min=2.3km az=90.0*

*LDG **19** 13:35:55.6±0.2, 43.28N×15.08E, h10^{km}, Ml2.7/4, Error ellipse: s-maj=4.8km s-min=3.5km az=80.0*

*CSEM **19** 13:35:55.4±0.2, 43.25N×15.17E, h35^{km}, ML2.2/4, Error ellipse: s-maj=6.6km s-min=3.2km az=97.0*

ISC 19 13:35:52.0±0.5**, 43.22N**±0.02×**15.17E**±0.07**, h10^{km}, n46,** σ**1^{s}32**/50**, 2C-2D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVLJ	Novalja	1.36	351	i Pn	Pn	13 36 16.0	-1.1
NVLJ				i Sg	Sg	13 36 37.5	0.0
NRCA	Norcia	1.56	256	ePN	Pn	13 36 20.3	+0.3
NRCA				SN	Sn	13 36 41.4	+1.0
AQU	L'Aquila	1.56	237	ePn	Pn	13 36 20.6	+0.5
AQU	L'Aquila	1.56	237	ePn	Pn	13 36 20.6	+0.5
RGNG	Rignano Grg	1.57	169	ePN	Pn	13 36 21.5	+1.3
RGNG				SN	Sn	13 36 41.1	+0.3
CII	Carovilli	1.63	204	ePN	Pn	13 36 22.8	+1.8
	35nm,0.6s						
CII	Carovilli	1.63	204	ePn	Pn	13 36 19.7	-1.3
CII	Carovilli	1.63	204	ePn	Pn	13 36 22.8	+1.8
	35nm,0.6s						
SNTG	Esanatoglia	1.63	272	ePN	Pn	13 36 21.6	+0.5
	25nm,0.5s						
SNTG	Esanatoglia	1.63	272	ePn	Pn	13 36 21.6	+0.5
	25nm,0.5s						
ARV	Arcevia	1.65	280	ePN	Pn	13 36 22.2	+0.9
FSSB	Fossombrone	1.81	286	ePN	Pn	13 36 24.4	+0.8
	24nm,0.5s						
FSSB	Fossombrone	1.81	286	ePn	Pn	13 36 24.4	+0.8
	24nm,0.5s						
SDI	San Donato	1.81	214	ePN	Pn	13 36 23.6	-0.1
SDI				SN	Sn	13 36 48.0	+1.1
	20nm,0.3s						
SDI	San Donato	1.81	214	ePn	Pn	13 36 23.6	-0.1
	20nm,0.3s						
SDI				Sn	Sn	13 36 48.0	+1.1
SGG	Gregorio Mates	1.92	198	ePN	Pn	13 36 24.5	-0.7
MURB	Monte Urbino	1.94	272	ePN	Pn	13 36 26.8	+1.4
MNS	Montasola	2.02	246	ePN	Pn	13 36 26.9	+0.4
	8.0nm,0.3s						
MNS	Montasola	2.02	246	ePn	Pn	13 36 26.9	+0.4
	8.0nm,0.3s						
VBY	Vinica-Bojanci	2.29	1	ePn	Pn	13 36 30.9	+0.5
VBY				eSn	Sn	13 37 02.9	+4.0
TRI	Trieste	2.69	338	ePN	Pn	13 36 36.1	0.0
	25nm,0.4s						
TRI	Trieste	2.69	338	ePn	Pn	13 36 36.1	0.0
	25nm,0.4s						
VOY	Vojsko	2.96	342	ePn	Pn	13 36 40.0	0.0
VOY				eSn	Sn	13 37 18.6	+2.7
VOY				e		13 37 21.7	
OBKA	Obir	3.32	353	⇓iPN	Pn	13 36 45.7	+0.6
OBKA				i SN	Sn	13 37 27.5	+2.4
ARSA	Arzberg	4.04	3	⇑iPN	Pn	13 36 54.1	-1.3
ARSA				i SN	Sn	13 37 46.3	+3.0
KBA	Koelnbreinsper	4.07	342	⇓iPN	Pn	13 36 55.7	-0.1
KBA				i SN	Sn	13 37 46.6	+2.5
PGF	Pioggiola	4.59	264	ePn	Pn	13 37 02.7	-0.4
MOA	Molln	4.67	352	⇑iPN	Pn	13 37 03.5	-0.9
MOA				i SN	Sn	13 38 00.4	+1.0
SBF	Sospel	5.66	279	ePn	Pn	13 37 17.2	-1.1
GEC2	GERESS Array S	5.72	350	ePn	Pn	13 37 17.6	-1.5
KHC	Kasperske Hory	6.02	350	ePN	Pn	13 37 20.7	-2.6
KHC				ex	x	13 37 29.9	
KHC				eSN	Sn	13 38 28.9	-4.2
WET	Wettzell	6.14	346	ePn	Pn	13 37 22.9	-2.1
FRF	La Foret Royal	6.22	276	ePn	Pn	13 37 24.2	-2.1
MBDF	Montbardon	6.25	287	ePn	Pn	13 37 24.1	-2.5
MBDF				eSn	Sn	13 38 30.6	-8.3
	1.1nm,0.3s						
LMR	La Mourre	6.33	274	ePn	Pn	13 37 26.4	-1.3
LPG	La Plagne	6.45	294	ePn	Pn	13 37 27.3	-2.2
LPG				eSn	Sn	13 38 35.7	-8.3
	1.0nm,0.3s						
LPL	La Plagne	6.47	294	ePn	Px	13 37 27.5	
LPL				eSn	Sx	13 38 35.5	
	5.8nm,0.5s						
ORIF	Oris-en-Rattie	6.91	287	ePn	Px	13 37 33.2	
ORIF				eSn	Sx	13 38 45.5	
	0.4nm,0.3s						
HINF	Hinteralfeld	7.43	311	ePn	Px	13 37 40.6	
CDF	Champ du Feu	7.58	316	ePn	Px	13 37 42.4	
VIVF	Saint-Julien-l	7.74	286	ePn	Px	13 37 44.8	
HAU	Haudompre	7.82	311	ePn	Px	13 37 45.6	
LASF	Ste Croix	8.25	280	ePn	Px	13 37 51.8	
SSF	Saint Saulge	9.10	299	ePn	Px	13 38 02.9	
TCF	Toulx Ste Croi	9.72	293	ePn	Px	13 38 11.7	
SGMF	Saint Gilles	13.36	298	ePn	Px	13 39 01.0	

KRSC 19 13:54:25.1±1.8**, 49.92N**×**156.09E, ML3.9, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.76	1	i P	Pg	13 54 40.0	-0.4
SKR				i S	Sg	13 54 53.0	+2.5
ALID	Alaid	1.01	340	i P	Pb	13 54 48.0	+2.8
ALID				i S	Sg	13 55 04.6	+5.8
PAU	Pauzhetka	1.61	16	eP	Pn	13 54 56.2	+1.2
PAU				eS	Sb	13 55 18.8	+2.4
PAU				Smax			
	300nm,0.2s						
GRL	Gorelyy	2.92	25	eP	Pn	13 55 15.6	+2.0
GRL				eS	Sn	13 55 51.3	+1.4
RUS	Russkaya	2.94	30	eP	Pn	13 55 16.3	+2.3
RUS				eS	Sn	13 55 51.3	+0.8
APC	Apacha	3.08	12	eP	Pn	13 55 18.2	+2.2
APC				eS	Sn	13 55 57.3	+3.2
PET	Petropavlovsk	3.50	26	eP	Pn	13 55 23.6	+1.7
PET				eS	Sn	13 56 05.1	+0.5
KOK	Koryaka	3.73	24	eP	Pn	13 55 27.7	+2.5
KOK				eS	Sn	13 56 12.4	+1.9
AVH	Avacha	3.73	25	eP	Pn	13 55 27.6	+2.4
AVH				eS	Sn	13 56 12.7	+2.1
SDLR	Sedlovina	3.79	26	eP	Pn	13 55 27.8	+1.8
SDLR				eS	Sn	13 56 11.9	0.0
GNL	Ganaly	3.95	16	eP	Pn	13 55 30.3	+2.0
GNL				eS	Sn	13 56 17.2	+1.1
SPN	Mys Shipunski	4.02	36	eP	Pn	13 55 31.6	+2.3
SPN				eS	Sn	13 56 19.7	+1.9
KMNR	Kamenistaya	6.36	22	eP	Pn	13 56 04.1	+1.7
KBTR	Krutoberegovo	7.49	30	eP	Pn	13 56 18.7	+0.5
KBTR				eS	Sn	13 57 41.9	-3.0

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*IDC **19** 14:04:59.2±6.3, 2.57S×139.47E, mb3.8/3, mb1 4.0/6, mb1mx3.8/14, ML3.6/3, Error ellipse: s-maj=91.3km s-min=42.1km az=179.0*

*NEIC **19** 14:05:01.7±4.0, 2.32S×139.43E, h45^{km}, mb3.8/1, Error ellipse: s-maj=61.3km s-min=19.0km az=175.0*

ISC 19 14:05:01.7±2.3**, 2.7S**±0.2×**139.4E**±0.1**, h33^{km}, n12,** σ**1^{s}47**/13**, mb3.7**/2**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	10.21	131	Pn	P	14 07 27.7	-1.4
	0.4nm,0.3s,baz=295,slow=14,SNR=2.4						
KAKA	Kakadu	12.15	214	eP	P	14 07 54.1	-1.3
	4.2nm,0.4s						
KAKA				eS	S	14 10 09.4	-1.3
WRAB	Tennant Creek	17.87	196	eP	P	14 09 11.2	+1.6
WRA	Warramunga Arr	17.88	196	P	P	14 09 11.9	+2.2
	0.4nm,0.3s,baz=17,slow=12,SNR=8.9						
CTA	Charters Tower	18.57	159	P	P	14 09 17.7	-0.6
	0.2nm,0.3s,baz=322,slow=12,SNR=2.0						
CTA	Charters Tower	18.57	159	P	P	14 09 17.7	-0.6
FITZ	Fitzroy Crossi	20.45	220	eP	P	14 09 37.9	-1.3
	4.9nm,1.0s						
FITZ	Fitzroy Crossi	20.45	220	P	P	14 09 38.0	-1.2
	2.7nm,0.8s,baz=38,slow=10,SNR=4.3						
ASAR	Alice Springs	21.56	194	P	P	14 09 52.0	+1.6
	1.2nm,0.5s,mb3.6,baz=26,slow=11,SNR=25						
ASPA	Alice Springs	21.56	194	eP	P	14 09 52.4	+2.0
STKA	Stephens Creek	29.14	176	P	P	14 11 02.8	+0.8
	1.5nm,0.7s,mb3.8,baz=11,slow=10,SNR=2.5						
VNDA	Vanda	75.77	175	eP	P	14 16 43.9	-1.7

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*IDC **19** 14:07:07.5±0.6, 17.90S×174.33W, mb4.2/16, mb1 4.4/16, mb1mx4.4/20, MS3.6/4, Ms1 3.5/4, ms1mx3.0/25, Error ellipse: s-maj=30.3km s-min=14.6km az=135.0*

*NEIC **19** 14:07:11.1±3.5, 17.95S×174.31W, h23^{km}±24^{km}, mb4.6/7, Error ellipse: s-maj=16.4km s-min=7.9km az=134.0*

ISC 19 14:07:08.8±4.4**, 18.0S**±0.1×**174.3W**±0.1**, h19^{km}**±31^{km}**, n43,** σ**0^{s}76**/32**, mb4.3**/20**, MS3.5**/3**, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	4.73	32	ePn	Pn	14 08 21.0	0.0
AFI				eSn	Sn	14 09 08.6	-7.4
RAR	Rarotonga	14.11	106	LR	LR	14 13 48.8	
	comp=Z,355nm,20.8s,baz=29,slow=28						
URZ	Urewera	21.55	199	P	P	14 11 58.4	-0.8
	22nm,0.5s,mb4.9,baz=32,slow=8.0,SNR=24						
RPZ	Rata Peaks	28.48	203	P	P	14 13 06.6	+1.8
	15nm,0.7s,mb4.8,baz=168,slow=3.7,SNR=8.6						
RPZ	Rata Peaks	28.48	203	P	P	14 13 06.6	+1.8
CTA	Charters Tower	37.25	260	eP	P	14 14 22.2	+0.9
	5.3nm,0.6s,mb4.5						
CTA	Charters Tower	37.25	260	P	P	14 14 22.4	+1.0
	11nm,1.0s,mb4.6,baz=96,slow=11,SNR=7.6						
CTA				LR	LR	14 25 55.4	
	comp=Z,56nm,19.6s,MS3.4,baz=47,slow=30						
CTAO	Charters Tower	37.25	260	eP	P	14 14 22.1	+0.7
	6.4nm,0.7s,mb4.6						
STKA	Stephens Creek	42.01	242	P	P	14 14 60.0	-0.8
	3.6nm,0.9s,mb4.0,baz=61,slow=7.2,SNR=3.8						
STKA				LR	LR	14 32 04.5	
	comp=Z,62nm,18.2s,MS3.5,baz=197,slow=36						
STKA	Stephens Creek	42.01	242	P	P	14 14 60.0	-0.8
STKA				LR	LR	14 32 04.5	
WRAB	Tennant Creek	48.41	259	eP	P	14 15 51.5	-0.6
	7.8nm,0.7s,mb4.8						
WRA	Warramunga Arr	48.42	259	P	P	14 15 51.8	-0.3
	4.2nm,0.6s,mb4.6,baz=96,slow=8.4,SNR=23						
ASAR	Alice Springs	48.50	254	P	P	14 15 52.6	0.0
	14nm,0.7s,mb5.1,baz=89,slow=8.5,SNR=126						
ASAR				PcP	PcP	14 17 18.6	-0.4
	2.1nm,0.7s,baz=99,slow=4.9,SNR=5.6						
ASPA	Alice Springs	48.50	254	eP	P	14 15 52.9	+0.2
KAKA	Kakadu	51.49	268	eP	P	14 16 15.5	-0.1
	5.5nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	56.83	260	eP	P	14 16 55.3	+0.5
	5.1nm,1.0s,mb4.5						
FITZ	Fitzroy Crossi	56.83	260	P	P	14 16 55.0	+0.2
	3.7nm,0.7s,mb4.5,baz=56,slow=5.3,SNR=6.2						
VNDA	Vanda	60.74	186	P	P	14 17 20.5	-0.8
	2.0nm,1.1s,mb4.2,baz=40,slow=1.7,SNR=3.6						
QSPA	South Pole Qui	72.09	180	P	P	14 18 33.3	-0.1
YBH	Yreka Blue Hor	76.18	37	P	P	14 18 58.3	+0.7
	1.3nm,0.9s,mb3.9,baz=126,slow=20,SNR=2.3						
NVAR	Mina Array Bea	76.83	42	P	P	14 19 01.8	+0.5
	0.6nm,0.8s,mb3.6,baz=214,slow=9.8,SNR=3.5						
TXAR	Lajitas Array	82.79	56	P	P	14 19 33.8	+0.4
	1.1nm,1.1s,mb3.8,baz=229,slow=8.3,SNR=4.1						
TXAR				LR	LR	14 46 15.7	
	comp=Z,30nm,21.5s,MS3.6,baz=190,slow=28						
TXAR	Lajitas Array	82.79	56	P	P	14 19 33.8	+0.4
TXAR				LR	LR	14 46 15.7	
MCK	McKinley	83.80	11	eP	P	14 19 36.5	-1.4
	2.6nm,1.0s,mb4.3						
PDAR	Pinedale Array	84.77	42	P	P	14 19 43.5	+0.3
	0.3nm,0.7s,mb3.5,baz=243,slow=2.0,SNR=2.4						
PDAR	Pinedale Array	84.77	42	P	P	14 19 43.5	+0.3
COLA	College	85.04	11	eP	P	14 19 43.9	-0.1
	22nm,1.5s,mb5.1						
ILAR	Eielson Array	85.12	11	P	P	14 19 44.3	-0.2
	1.0nm,0.8s,mb4.0,baz=227,slow=5.9,SNR=13						
INK	Inuvik	90.97	14	P	P	14 20 12.9	+0.5
	0.6nm,0.7s,mb4.0,baz=229,slow=6.4,SNR=2.5						
CMAR	Chiang Mai Arr	92.56	288	P	P	14 20 24.2	+3.3
	1.0nm,0.9s,mb4.3,baz=112,slow=2.8,SNR=7.3						
YKA	Yellowknife Ar	92.80	24	P	P	14 20 19.9	-1.0
	0.3nm,1.0s,mb3.7,baz=240,slow=8.6,SNR=3.0						
YKA	Yellowknife Ar	92.80	24	P	P	14 20 19.9	-1.0
BVAR	Borovoye Array	119.33	321	PKP	PKPdf	14 25 57.8	-3.1
	0.8nm,0.8s,baz=90,slow=1.4,SNR=4.8						
FINES	FINESS Array B	134.23	346	PKP	PKPdf	14 26 25.4	-3.8
	5.4nm,1.2s,baz=315,slow=2.7,SNR=3.5						
KMBO	Kilima Mbogo	143.57	242	PKP	PKPdf	14 26 42.8	-4.6
	2.9nm,0.9s,baz=43,slow=22,SNR=6.7						
MALT	Malatya	144.97	312	ePKPdf	PKPdf	14 26 47.7	-1.4
CLL	Collm	146.23	352	i PKP1	PKPbc	14 26 49.6	+1.6
CLL				i *PPKP		14 26 52.5	
CLL				e		14 27 09.0	
BRG	Berggiesshubel	146.51	350	eP	PKPbc	14 26 49.9	+1.2
PRU	Pruhonice	147.27	349	ePKP	PKPdf	14 26 53.0	+0.4
BRTR	Keskin Array B	147.50	318	PKPbc	PKPdf	14 26 52.4	-1.0
	1.1nm,0.8s,baz=45,slow=3.5,SNR=4.7						
KHC	Kasperske Hory	148.26	350	ePKP	PKPdf	14 26 55.5	+1.3
GERES	GERESS Array B	148.51	350	PKPbc	PKPdf	14 26 56.5	+1.8
	1.5nm,0.8s,baz=21,slow=2.4,SNR=10.0						
DAVOX	Davos	151.06	354	PKPbc	PKPdf	14 27 03.0	+4.3
	1.9nm,0.5s,baz=65,slow=5.4,SNR=3.1						

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*NEIC **19** 14:31:30.5±2.5, 1.86N×127.23E, h95^{km}±24^{km}, mb4.7/8, Error ellipse: s-maj=18.2km s-min=8.4km az=69.0*

*IDC **19** 14:31:34.8±7.4, 1.82N×127.16E, h135^{km}±72^{km}, mb4.0/8, mb1 4.1/9, mb1mx3.9/17, MS2.8/1, Ms1 2.8/1, ms1mx2.6/22, Error ellipse: s-maj=39.8km s-min=14.2km az=63.0*

ISC 19 14:31:30.3±4.2**, 1.9N**±0.1×**127.3E**±0.2**, h109^{km}**±41^{km}**, n28,** σ**0^{s}56**/27**, mb4.4**/18**, 1C-2D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TGY	Tagaytay City	13.67	333	LR	LR	14 41 59.6	
	comp=Z,39nm,18.2s,baz=150,slow=46						
KAKA	Kakadu	15.34	161	eP	P	14 35 01.8	-0.4
	30nm,0.5s						
FITZ	Fitzroy Crossi	19.90	185	⇓iP	P	14 35 54.7	-0.9
	8.8nm,0.4s						
FITZ	Fitzroy Crossi	19.90	185	P	P	14 35 55.1	-0.5
	2.7nm,0.3s,baz=13,slow=8.5,SNR=56						
WRAB	Tennant Creek	22.75	163	⇑iP	P	14 36 24.7	+0.7
	77nm,1.0s,mb5.0						
WRA	Warramunga Arr	22.76	163	P	P	14 36 24.9	+0.8
	27nm,0.7s,mb4.7,baz=341,slow=10,SNR=70						
MBWA	Marble Bar	24.03	197	eP	P	14 36 37.2	+0.8
	5.1nm,0.3s,mb4.3						
ASPA	Alice Springs	26.18	166	⇓iP	P	14 36 56.5	-0.2
ASAR	Alice Springs	26.19	166	P	P	14 36 56.2	-0.5
	3.1nm,0.6s,mb3.9,baz=346,slow=7.7,SNR=91						
CTA	Charters Tower	28.69	140	P	P	14 37 20.2	+0.8
	2.0nm,0.8s,mb3.8,baz=294,slow=15,SNR=2.1						
CMAR	Chiang Mai Arr	32.29	303	P	P	14 37 50.5	-0.7
	1.4nm,1.1s,mb3.6,baz=108,slow=6.3,SNR=8.0						
FORT	Forrest	32.47	179	eP	P	14 37 51.8	-0.8
	37nm,0.6s,mb5.3						
KLBR	Kellerberrin	34.47	194	eP	P	14 38 09.5	-0.3
	6.8nm,0.3s,mb5.0						
MUN	Mundaring	35.25	196	eP	P	14 38 16.5	+0.1
	5.9nm,0.4s,mb4.8						
NWAO	Narrogin (SRO)	35.87	194	P	P	14 38 21.8	+0.1
	8.9nm,0.6s,mb4.9,baz=35,slow=5.5,SNR=10						
NWAO	Narrogin (SRO)	35.87	194	eP	P	14 38 21.6	-0.1
	5.0nm,0.5s,mb4.7						
STKA	Stephens Creek	36.21	159	eP	P	14 38 24.2	-0.3
	18nm,0.8s,mb5.1						
STKA	Stephens Creek	36.21	159	P	P	14 38 24.6	+0.2
	21nm,0.8s,mb5.2,baz=334,slow=8.0,SNR=33						
GUN	Gumba	47.25	307	eP	P	14 39 55.2	+0.6
	13nm,0.6s,mb4.9						
KKN	Kakani	47.68	307	eP	P	14 39 58.2	+0.3
DMN	Daman	47.74	306	eP	P	14 39 59.3	+0.9
GKN	Gorkha	48.28	307	eP	P	14 40 02.5	-0.1
	8.6nm,0.9s,mb4.6						
KOLN	Koldanda	49.02	306	eP	P	14 40 08.7	+0.4
	11nm,0.6s,mb5.0						
SONM	Songino Array	49.22	342	P	P	14 40 09.6	0.0
	0.2nm,0.6s,mb3.2,baz=149,slow=8.4,SNR=3.2						
BVAR	Borovoye Array	69.16	327	P	P	14 42 26.2	-0.7
	0.7nm,0.8s,mb3.5,baz=135,slow=4.1,SNR=4.2						
BRVK	Borovoye	69.23	327	eP	P	14 42 26.6	-0.8
	1.3nm,0.6s,mb3.9						
VNDA	Vanda	81.52	173	P	P	14 43 36.3	-0.4
	1.6nm,0.6s,mb4.0,baz=338,slow=5.8,SNR=13						
VNDA	Vanda	81.52	173	eP	P	14 43 36.4	-0.3

IDC 19 14:37:03.7±1.8**, 1.58S**×**127.88E, mb3.4**/2**, mb1 3.5**/3**, mb1mx3.5**/14**, ML3.4**/1**, Error ellipse: s-maj=197.0km s-min=27.6km az=73.0, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.31	161	P	P	14 41 31.0	-2.1
	0.1nm,0.3s,baz=344,slow=12,SNR=5.7						
ASAR	Alice Springs	22.72	166	P	P	14 42 07.3	-1.4
	0.6nm,0.6s,baz=345,slow=12,SNR=5.9						
SONM	Songino Array	52.66	342	P	P	14 46 19.7	-2.3
	0.3nm,0.5s,baz=145,slow=5.8,SNR=3.7						

IDC 19 14:56:49.1±27.0**, 16.38S**×**174.26W, mb4.2**/4**, mb1 4.3**/4**, mb1mx3.8**/15**, Error ellipse: s-maj=502.0km s-min=162.6km az=73.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	37.63	258	P	P	15 04 06.5	-1.2
	3.9nm,0.8s,baz=225,slow=5.7,SNR=2.9						
STKA	Stephens Creek	42.84	241	P	P	15 04 49.7	-1.1
	1.4nm,0.5s,baz=86,slow=8.0,SNR=4.4						
WRA	Warramunga Arr	48.83	258	P	P	15 05 36.3	-2.2
	0.6nm,0.3s,baz=96,slow=7.1,SNR=24						
ASAR	Alice Springs	49.03	253	P	P	15 05 37.8	-2.3
	5.2nm,0.7s,baz=88,slow=8.8,SNR=120						
ASPA	Alice Springs	49.03	253	eP	P	15 05 37.9	-2.2

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*IDC **19** 15:05:04.0±1.0, 57.04S×24.90W, mb4.1/2, mb1 4.1/3, mb1mx3.8/11, ML3.3/1, Error ellipse: s-maj=61.2km s-min=22.8km az=60.0*

*NEIC **19** 15:05:05.4±0.6, 57.15S×25.26W, h10^{km}, mb4.5/6, Error ellipse: s-maj=20.1km s-min=12.1km az=59.0*

ISC 19 15:05:09.6±3.9**, 57.3S**±0.2×**25.9W**±0.3**, h38^{km}**±35^{km}**, n23,** σ**1^{s}06**/17**, mb4.3**/4**, 6C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	15.34	158	⇑i	P	15 08 46.2	+1.6
VNA3	Neumayer Olymp	15.54	160	⇑i	P	15 08 47.2	0.0
VNA2	Neumayer--Watz	15.73	157	⇑i	P	15 08 49.8	+0.1
VNA2	Neumayer--Watz	15.73	157	⇑i	P	15 09 03.2	+14
SNAA	Sanae	17.28	155	⇑i	P	15 09 07.8	-1.4
SNAA	Sanae	17.28	155	P	P	15 09 07.1	-2.1
	0.1nm,0.3s,baz=330,slow=15,SNR=21						
SNAA	Sanae	17.28	155	eP	P	15 09 07.0	-2.2
	3.7nm,0.6s						
EFI	East Falkland	19.37	273	P	P	15 09 34.0	-0.7
	116nm,1.2s						
PMSA	Palmer Station	19.62	232	eP	P	15 09 38.1	+0.9
	14nm,0.6s						
QSPA	South Pole Qui	32.91	180	⇑iP	P	15 11 40.8	-1.0
	5.7nm,0.6s,mb4.7						
CPUP	Villa Florida	38.18	311	P	P	15 12 28.3	+1.2
	0.0nm,0.5s,baz=243,slow=14,SNR=1.5						
CPUP	Villa Florida	38.18	311	P	P	15 12 28.3	+1.2
VNDA	Vanda	45.32	182	P	P	15 13 24.5	-0.3
	1.4nm,0.7s,mb3.9,baz=193,slow=3.7,SNR=9.8						
VNDA	Vanda	45.32	182	eP	P	15 13 24.1	-0.7
	1.8nm,0.7s,mb4.0						
LPAZ	La Paz	51.69	305	P	P	15 14 14.6	-0.3
SDV	Santo Domingo	75.41	314	eP	P	15 16 50.1	-1.0
	3.3nm,0.7s,mb4.4						
ASAR	Alice Springs	97.55	161	P	P	15 18 42.2	+1.4
	0.4nm,0.7s,mb4.1,baz=182,slow=4.3,SNR=11						
FINES	FINESS Array B	125.20	28	PKP	PKPdf	15 24 03.3	-1.7
	1.0nm,0.6s,baz=162,slow=4.4,SNR=7.9						
ARCES	ARCESS Array B	131.88	22	PKP	PKPdf	15 24 15.2	-2.4
	7.2nm,1.1s,baz=225,slow=3.8,SNR=4.0						
YKA	Yellowknife Ar	137.59	317	PKP	PKPdf	15 24 27.8	-0.6
	0.5nm,0.6s,baz=127,slow=2.1,SNR=8.2						
INK	Inuvik	147.24	319	PKPbc	PKPdf	15 24 47.0	+2.2
	1.9nm,0.7s,baz=103,slow=3.6,SNR=12						
INK	Inuvik	147.24	319	ePKPbc	PKPdf	15 24 47.3	+2.4
ILAR	Eielson Array	151.48	310	PKPbc	PKPdf	15 24 58.5	+6.9
	1.2nm,0.6s,baz=141,slow=3.3,SNR=28						

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*CSEM **19** 15:13:51.6, 7.52N×124.41E, h33^{km}, mb5.8*

*DHMR **19** 15:13:52.6±3.2, 7.38N×123.78E, h0^{km}±999^{km}, mb5.7*

*BJI **19** 15:14:45.4, 6.77N×124.20E, h575^{km}, mB5.3, mb5.5*

*MOS **19** 15:14:51.5±1.1, 7.43N×123.79E, h587^{km}, mb5.4/47, Error ellipse: s-maj=13.5km s-min=5.9km az=115.1*

*MAN **19** 15:14:51.8, 7.39N×123.84E, h593^{km}, mb5.7, ML4.7, MS5.2*

*SYO **19** 15:14:51.4, 7.38N×123.75E, h576^{km}, MB5.4*

*HRVD **19** 15:14:51.4±0.2, 7.44N×123.79E, h589^{km}±1^{km}, MW5.7/67, Centroid moment Tensor Solution. LP body waves: s67,c134; Half duration: 1^{s}7 Moment tensor: Scale 10^{17} Nm; M_{rr}-3.48±.07; $M_{\theta\theta}$0.01±.11; $M_{\phi\phi}$3.47±.11; $M_{r\theta}$-0.54±.13; $M_{\theta\phi}$0.03±.11; $M_{\phi r}$-2.30±.13; Best double* *couple: $M_0$4.2×10^{17} NP1:ϕ_s174°,δ29°,λ-102°. NP2:ϕ_s8°, δ62°,λ-83°. Principal axes: T 4.17, Plg17°, Azm93°; N .06, Plg6°, Azm184°; P -4.23, Plg72°, Azm293°; nsta1 refers to body waves, cutoff=40s.*

*NEIC **19** 15:14:51.4±0.1,7.38N×123.78E,mb5.4/77 Error ellipse: s-maj=5.4km s-min=3.8km az=73.0*

*IDC **19** 15:14:53.1±0.6,7.37N×123.85E,h593^{km}±6^{km},mb4.7/31, mb1 4.8/32,mb1mx4.8/33,Error ellipse: s-maj=9.7km s-min=5.0km az=74.0*

ISC 19 15:14:51.8±0.2,**7.36N**±0.02×**123.85E**±0.03,**h596**^{km}±1^{km}, **h590**^{km}±4.3^{km}**:pP-P,n574,**σ**1**^{s}**02**/513,**mb5.4**/141,**48C-44D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PAGZ	**Pagadian**	**0.67**	**317**	*e*P	**P**	**15 16 02.4**	**0.0**
KCP	**Kidapawan**	**1.28**	**106**	⇓*e*P	**P**	**15 16 03.9**	**+0.3**
DCPH	**Dipolog City**	**1.31**	**338**	⇑*i*P	**P**	**15 16 02.8**	**-0.8**
DCPH				*i* S	**S**	**15 17 01.0**	**+0.2**
BUKP	**Musuan**	**1.31**	**67**	*e*P	**P**	**15 16 04.2**	**+0.5**
IPIL	**Ipil**	**1.33**	**289**	*e*P	**P**	**15 16 03.2**	**-0.5**
CGP	**Cagayan de Oro**	**1.37**	**38**	⇓*e*P	**P**	**15 16 04.6**	**+0.8**
DAV	**Davao City (W)**	**1.74**	**99**	⇓*e*P	**P**	**15 16 05.3**	**+0.3**
SNPH	**Sibulan**	**2.06**	**343**	⇑*e*P	**P**	**15 16 05.0**	**-1.2**
SNPH				*i* S	**S**	**15 17 07.0**	**+1.5**
TBP	**Tagbilaran**	**2.31**	**0**	⇑*i*P	**P**	**15 16 07.2**	**-0.2**
TBP				*e*S	**S**	**15 17 06.9**	**-0.6**
BUTP	**Butuan**	**2.38**	**48**	*e*P	**P**	**15 16 08.3**	**+0.6**
MATI	**Mati**	**2.43**	**100**	*e*P	**P**	**15 16 07.3**	**-0.6**
BIPH	**Bislig**	**2.62**	**72**	⇑*i*P	**P**	**15 16 10.0**	**+1.0**
BIPH				*i* S	**S**	**15 17 09.2**	**-1.0**
SCPH	**Surigao**	**2.90**	**34**	*e*P	**P**	**15 16 10.2**	**-0.3**
SCPH				*e*S	**S**	**15 16 56.2**	**-17**
MSLP	**Maasin**	**2.93**	**20**	*e*P	**P**	**15 16 10.5**	**-0.2**
LLP	**Lapu-Lapu**	**2.94**	**2**	⇓*i*P	**P**	**15 16 10.5**	**-0.2**
LLP				*i* S	**S**	**15 17 14.4**	**+1.0**
GUIM	**Jordan**	**3.47**	**339**	*e*P	**P**	**15 16 12.0**	**-2.0**
AAP	**Anini-y**	**3.57**	**328**	*e*P	**P**	**15 16 09.5**	**-5.1**
OCLP	**Ormoc**	**3.74**	**12**	*e*P	**P**	**15 16 15.8**	**0.0**
PLP	**Palo**	**3.94**	**16**	*e*P	**P**	**15 16 16.8**	**-0.3**
RCP	**Roxas**	**4.31**	**345**	⇓*e*P	**P**	**15 16 18.4**	**-1.3**
RCP				*e*S	**S**	**15 17 28.5**	**-1.0**
CUYO	**Cuyo Island**	**4.45**	**321**	*e*P	**P**	**15 16 20.6**	**-0.1**
BESP	**Borongan**	**4.50**	**20**	*e*P	**P**	**15 16 20.0**	**-1.0**
MMPH	**Masbate**	**4.97**	**357**	*e*P	**P**	**15 16 27.0**	**+2.3**
CNP	**Catarman**	**5.18**	**9**	*e*P	**P**	**15 16 26.0**	**-0.3**
OTRP	**Odiongan**	**5.29**	**340**	*e*P	**P**	**15 16 27.3**	**0.0**
PPR	**Puerto Princes**	**5.60**	**296**	⇑*e*P	**P**	**15 16 30.4**	**+0.5**
SJMP	**San Jose**	**5.74**	**332**	*e*P	**P**	**15 16 31.6**	**+0.6**
ENPP	**El Nido**	**5.80**	**312**	*e*P	**P**	**15 16 31.7**	**+0.1**
AUQP	**San Andres**	**6.04**	**349**	*e*P	**P**	**15 16 35.2**	**+1.7**
BATP	**Bataraza**	**6.15**	**284**	*e*P	**P**	**15 16 34.4**	**-0.2**
PVCP	**Virac**	**6.20**	**3**	*e*P	**P**	**15 16 34.3**	**-0.8**
BOAC	**Boac**	**6.37**	**342**	*e*P	**P**	**15 16 36.9**	**+0.4**
GQP	**Guinayangan**	**6.65**	**348**	*e*P	**P**	**15 16 39.0**	**0.0**
LQP	**Lukban**	**7.08**	**342**	⇑*e*P	**P**	**15 16 43.4**	**+0.5**
LQP	**Lukban**	**7.08**	**342**	*e*P	**S**	**15 18 08.6**	**-2.8**
LUBP	**Lubang**	**7.25**	**331**	*e*P	**P**	**15 16 44.4**	**-0.1**
TGY	**Tagaytay City**	**7.28**	**337**	⇑*e*P	**P**	**15 16 44.9**	**+0.1**
	487μm,16.7s						
TGY				*e*S	**S**	**15 18 16.2**	**+1.4**
TGY	**Tagaytay City**	**7.28**	**337**	P	**P**	**15 16 44.7**	**-0.1**
	404nm,0.3s,baz=207,slow=1.5,SNR=129						
TGY				S	**S**	**15 18 16.7**	**+1.9**
	131nm,0.3s,baz=12,slow=23,SNR=9.0						
TGY	**Tagaytay City**	**7.28**	**337**	P	**P**	**15 16 44.7**	**-0.1**
TGY				S	**S**	**15 18 16.7**	**+1.9**
TGY				pmax	pmax		
	comp=Z,404nm,0.3s						
TGY				smax			
	comp=N,131nm,0.3s						
POLP	**Polillio Island**	**7.56**	**346**	*e*P	**P**	**15 16 47.0**	**-0.3**
QVPH	**Quezon City--P**	**7.75**	**340**	⇑*i*P	**P**	**15 16 48.1**	**-0.9**
PCPH	**Palayan**	**8.58**	**342**	⇓*e*P	**P**	**15 16 56.0**	**-1.0**
PCPH	**Palayan**	**8.58**	**342**	⇑*e*P	**S**	**15 18 37.2**	**0.0**
BALP	**Baler**	**8.62**	**345**	*e*P	**P**	**15 16 56.7**	**-0.7**
SCZP	**Santa Cruz**	**9.21**	**336**	*e*P	**P**	**15 17 01.1**	**-1.9**
BCPH	**Baguio City Da**	**9.52**	**341**	⇑*i*P	**P**	**15 17 07.1**	**+1.0**
CAUP	**Cauayan**	**9.73**	**348**	*e*P	**P**	**15 17 09.2**	**+1.0**
PALP	**Palanan**	**9.74**	**352**	*e*P	**P**	**15 17 10.1**	**+1.8**
BOLP	**Bolinao**	**9.76**	**337**	*e*P	**P**	**15 17 07.4**	**-1.0**
ABRA	**Dolores**	**10.67**	**344**	*e*P	**P**	**15 17 16.2**	**-1.2**
APYP	**Conner**	**10.74**	**347**	*e*P	**P**	**15 17 17.3**	**-0.8**
SGCP	**Mt. Cagua**	**10.96**	**351**	*e*P	**P**	**15 17 21.0**	**+0.8**
BUNI	**Buntu Taipa**	**11.50**	**198**	⇑*i*P	**P**	**15 17 28.1**	**+2.5**
	comp=N,72nm,0.4s						
TANI	**Tanete Lipujan**	**11.61**	**203**	⇑*i*P	**P**	**15 17 28.2**	**+1.5**
	comp=N,66nm,0.5s						
NINI	**Niniconang**	**12.40**	**199**	⇓*i*P	**P**	**15 17 39.3**	**+4.7**
	comp=N,229nm,0.6s						
BBP	**Basco**	**13.13**	**352**	*e*P	**P**	**15 17 41.1**	**-0.7**
KEDI	**Kedomdong**	**17.53**	**206**	⇑*e*P	**P**	**15 18 25.1**	**+0.9**
	comp=N,71nm,0.4s						
TATO	**Taipei**	**17.66**	**353**	*e*P	**P**	**15 18 24.0**	**-1.4**
	comp=N,406nm,1.0s						
QIZ	**Qiongzhong**	**17.88**	**312**	P	**P**	**15 18 27.6**	**+0.1**
QIZ				S	**S**	**15 21 21.5**	**+0.7**
QIZ				AMB	AMB		
	comp=Z,80nm,0.9s						
QIZ				AMB	AMB		
	comp=Z,257nm,5.3s						
QIZ	**Qiongzhong**	**17.88**	**312**	*e*P	**P**	**15 18 27.4**	**-0.1**
	comp=Z,67nm,0.8s						
RATI	**Rata**	**18.00**	**208**	⇓*i*P	**P**	**15 18 32.3**	**+3.7**
	comp=Z,283nm,0.2s						
KELI	**Kelakatan**	**18.07**	**211**	⇑*i*P	**P**	**15 18 28.5**	**-0.8**
	comp=Z,237nm,0.5s						
QZH	**Quanzhou**	**18.19**	**345**	*i* PR		15 18 31.6	
QZH				XP		15 20 50.5	
QZH				S	**S**	**15 21 27.5**	**+1.5**
QZH				AMB	AMB		
	comp=Z,300nm,1.0s						
QZH				AMB	AMB		
	comp=Z,1μm,3.4s						
SRDI	**Scrawed**	**18.47**	**212**	⇓*i*P	**P**	**15 18 34.1**	**+1.1**
	comp=Z,149nm,1.0s						
GZH	**Guangzhou**	**18.61**	**328**	P	**P**	**15 18 38.0**	**+3.7**
GZH				AMB	AMB		
	comp=Z,190nm,2.1s						
JOW	**Kunigami**	**19.82**	**12**	P	**P**	**15 18 46.4**	**+1.0**
	comp=Z,28nm,0.3s,baz=202,slow=8.5,SNR=47						
UBT	**Ubonrachathani**	**20.04**	**295**	⇑P	**P**	**15 18 47.3**	**-0.3**
KAKA	**Kakadu**	**21.69**	**157**	*e*P	**P**	**15 19 01.1**	**-1.5**
	comp=Z,98nm,0.6s,mb5.6						
SNG	**Songkhla**	**23.04**	**271**	P	**P**	**15 19 15.0**	**+0.2**
SSE	**Sheshan**	**23.74**	**354**	P	**P**	**15 19 20.0**	**-0.9**
SSE				XP		15 21 59.3	
SSE				S	**S**	**15 22 55.4**	**-0.9**
SSE				AMB	AMB		
	comp=Z,61nm,1.6s,mb5.0						
NNT	**Nongplab**	**24.30**	**284**	P	**P**	**15 19 26.0**	**0.0**
NST	**Nakhon Sawan**	**24.64**	**292**	P	**P**	**15 19 29.0**	**0.0**
	comp=Z,125nm,1.0s,mb5.5						
WHN	**Wuhan**	**24.72**	**340**	⇓P	**P**	**15 19 30.3**	**+0.7**
WHN				S	**S**	**15 23 13.5**	**+1.8**
WHN				AMB	AMB		
	comp=Z,325nm,1.5s,mb5.7						
NJ2	**Nanjing**	**25.00**	**350**	*e*P	**P**	**15 19 32.8**	**+0.8**
NJ2				S	**S**	**15 23 18.0**	**+1.9**
NJ2				SCP		15 25 32.0	
NJ2				PCS		15 26 25.0	
NJ2				SCS	ScS	15 29 14.0	-3.8
NJ2				AMB	AMB		
	comp=Z,280nm,1.0s,mb5.8						
NJ2				AMB	AMB		
	comp=Z,640nm,8.3s						
GYA	**Guiyang**	**25.06**	**321**	⇑*i*P	**P**	**15 19 33.3**	**+0.7**
GYA				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.2						
GYA				AMB	AMB		
	comp=Z,180nm,3.6s						
NANT	**Nan**	**25.21**	**299**	⇑P	**P**	**15 19 31.0**	**-3.0**
	comp=Z,269nm,0.5s,mb6.1						
FITZ	**Fitzroy Crossi**	**25.36**	**176**	*e*P	**P**	**15 19 34.4**	**-0.9**
	comp=Z,21nm,0.3s,mb5.2						
FITZ				*e*PCP	PcP	15 22 48.1	+0.9
FITZ				*e*S	**S**	**15 23 19.0**	**-2.8**
FITZ	**Fitzroy Crossi**	**25.36**	**176**	P	**P**	**15 19 34.4**	**-0.9**
	comp=Z,22nm,0.3s,mb5.2,baz=4.8,slow=7.7,SNR=137						
FITZ				PcP	PcP	15 22 47.8	+0.5
	comp=Z,34nm,0.5s,baz=336,slow=1.7,SNR=5.3						
FITZ				ScP		15 25 30.7	
	comp=Z,14nm,0.5s,baz=352,slow=6.4,SNR=5.7						
CBIJ	**Chichi jima**	**26.23**	**39**	P	**P**	**15 19 41.8**	**-1.2**
	comp=Z,267nm,0.7s,mb6.0,baz=277,slow=10,SNR=24						
CBIJ				S	**S**	**15 23 30.9**	**-4.5**
	comp=Z,248nm,0.8s,baz=262,slow=22,SNR=20						
CHRT	**Chiangrai**	**26.44**	**300**	⇑P	**P**	**15 19 45.0**	**+0.2**
	comp=Z,603nm,1.0s,mb6.2						
ENH	**Enshi**	**26.48**	**331**	*e*P	**P**	**15 19 44.9**	**-0.1**
	comp=Z,143nm,0.7s,mb5.7						
CM31	**Chiang Mai Arr**	**26.62**	**297**	*e*P	**P**	**15 19 46.3**	**-0.1**
	comp=Z,50nm,0.6s,mb5.3						
CMAR	**Chiang Mai Arr**	**26.62**	**297**	P	**P**	**15 19 46.4**	**0.0**
	comp=Z,58nm,0.7s,mb5.3,baz=110,slow=7.5,SNR=184						
CMAR				PcP	PcP	15 22 51.0	+0.8
	comp=Z,13nm,0.8s,baz=118,slow=1.7,SNR=8.1						
CMAR				ScP		15 25 35.1	
	comp=Z,6.2nm,0.8s,baz=74,slow=1.8,SNR=6.4						
CMAR				PKiKP		15 30 26.2	
	comp=Z,1.6nm,0.6s,baz=254,slow=1.3,SNR=9.6						
CMAR	**Chiang Mai Arr**	**26.62**	**297**	P	**P**	**15 19 46.4**	**0.0**
CMAR						15 22 51.0	
CMAR				pmax	pmax		
	comp=Z,58nm,0.7s						
CMAR				pmax	pmax		
	comp=Z,13nm,0.9s						
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
KMI	**Kunming**	**26.81**	**314**	*e*P	**P**	**15 19 48.9**	**+1.0**
KMI				XP	sP	15 22 30.3	+0.7
KMI				PCP	PcP	15 22 52.6	+2.0
KMI				S	**S**	**15 23 44.4**	**+0.1**
KMI				SCP		15 25 37.0	
KMI				SCS	ScS	15 29 27.5	+1.8
KMI				AMB	AMB		
	comp=Z,165nm,0.9s,mb5.7						
KMI				AMB	AMB		
	comp=Z,243nm,3.1s						
PMG	**Port Moresby**	**28.58**	**125**	P	**P**	**15 20 03.4**	**+0.1**
	comp=Z,235nm,1.0s,mb5.8,baz=336,slow=5.3,SNR=58						
PMG				ScP		15 25 42.0	
	comp=Z,17nm,0.9s,baz=124,slow=3.6,SNR=2.7						
PMG	**Port Moresby**	**28.58**	**125**	P	**P**	**15 20 03.4**	**+0.1**
PMG				pmax	pmax		
	comp=Z,235nm,1.0s						
PMG				pmax	pmax		
	comp=Z,17nm,0.9s						
PMG	**Port Moresby**	**28.58**	**125**	*e*P	**P**	**15 20 03.1**	**-0.2**
	comp=Z,170nm,0.8s,mb5.7						
MBWA	**Marble Bar**	**28.63**	**188**	*e*P	**P**	**15 20 02.3**	**-1.4**
	comp=Z,15nm,0.4s,mb5.0						
MBWA				*e*		15 20 12.5	
MBWA				*e*PcP	PcP	15 22 54.8	-0.4
MBWA				*e*ScP		15 25 39.9	
WRAB	**Tennant Creek**	**29.02**	**159**	*c* *i*P	**P**	**15 20 06.2**	**-0.9**
WRAB	**Tennant Creek**	**29.02**	**159**	*e*P	**P**	**15 20 06.2**	**-0.8**
	comp=Z,351nm,0.6s,mb6.2						
WRAB				*e*S	**S**	**15 24 13.8**	**-5.0**
WRA	**Warramunga Arr**	**29.03**	**159**	P	**P**	**15 20 06.6**	**-0.5**
	comp=Z,158nm,0.4s,mb6.0,baz=331,slow=11,SNR=578						
WRA				PcP	PcP	15 22 55.2	-1.0
	comp=Z,17nm,0.5s,baz=332,slow=3.5,SNR=6.2						
WRA				S	**S**	**15 24 14.3**	**-4.5**
	comp=Z,64nm,1.0s,baz=328,slow=15,SNR=18						
WRA				ScP		15 25 41.1	
	comp=Z,18nm,0.8s,baz=342,slow=3.7,SNR=7.2						
WRA				PKiKP		15 30 28.6	
	comp=Z,1.4nm,0.7s,baz=316,slow=1.5,SNR=4.9						
WRA	**Warramunga Arr**	**29.03**	**159**	P	**P**	**15 20 06.6**	**-0.5**
WRA						15 22 55.2	
WRA				S	**S**	**15 24 14.3**	**-4.5**
WRA				pmax	pmax		
	comp=Z,158nm,0.4s						
WRA				pmax	pmax		
	comp=Z,17nm,0.5s						
WRA				smax			
	comp=N,64nm,1.0s						
WRA				pmax	pmax		
	comp=Z,18nm,0.8s						
TIA	**Tai'an**	**29.37**	**349**	P	**P**	**15 20 11.0**	**+1.2**
TIA				AMB	AMB		
	comp=Z,56nm,1.8s,mb4.9						
JHJ	**Hachijo jima 2**	**29.59**	**28**	P	**P**	**15 20 12.5**	**+0.8**
	comp=Z,230nm,0.8s,mb5.8,baz=87,slow=22,SNR=2.0						
CD2	**Chengdu**	**30.04**	**324**	⇓*i*P	**P**	**15 20 15.9**	**+0.3**
CD2				XP	sP	15 22 55.4	-4.6
CD2				AMB	AMB		
	comp=Z,220nm,0.5s,mb6.0						
CD2				AMB	AMB		
	comp=Z,380nm,4.7s						
KS15	**Wonju Array Si**	**30.17**	**6**	*e*P	**P**	**15 20 17.1**	**+0.5**
KS15				*e*		15 20 27.3	
KS15				*e*PcP	PcP	15 22 59.0	0.0
DL2	**Dalian**	**31.47**	**357**	P	**P**	**15 20 28.3**	**+0.7**
DL2				AMB	AMB		
	comp=Z,90nm,0.7s,mb5.5						
MAJO	**Matsushiro**	**31.87**	**22**	*e*P	**P**	**15 20 29.9**	**-1.1**
	comp=Z,122nm,0.9s,mb5.5						
MAJO				*e*PcP	PcP	15 23 03.1	-0.5
MAJO				*e*S	**S**	**15 24 59.4**	**-2.9**
MAJO				*e*ScP		15 25 49.3	
MAT	**Matsushiro**	**31.87**	**22**	P	**P**	**15 20 29.8**	**-1.2**
MAT				S	**S**	**15 24 57.6**	**-4.7**
MAT	**Matsushiro**	**31.87**	**22**	*e*P	**P**	**15 20 30.0**	**-1.0**
	comp=Z,302nm,1.4s,mb5.7						
MAT				*e*S	**S**	**15 24 58.0**	**-4.3**
ASPA	**Alice Springs**	**32.36**	**163**	⇑*i*P	**P**	**15 20 35.4**	**+0.1**
ASPA				*e*PCP	PcP	15 23 06.4	+1.3
ASPA				*e*S	**S**	**15 25 07.5**	**-2.5**
ASPA				*e*		15 29 50.6	
ASAR	**Alice Springs**	**32.37**	**163**	P	**P**	**15 20 35.5**	**+0.2**
	comp=Z,75nm,0.3s,mb5.7,baz=338,slow=7.3,SNR=663						
ASAR				PcP	PcP	15 23 05.2	0.0
	comp=Z,34nm,0.5s,baz=344,slow=2.7,SNR=15						
ASAR				S	**S**	**15 25 07.3**	**-2.7**
	comp=Z,125nm,1.0s,baz=352,slow=24,SNR=24						
ASAR				ScP		15 25 52.5	
	comp=Z,6.7nm,0.5s,baz=339,slow=3.2,SNR=4.3						
ASAR				PKiKP		15 30 30.3	
	comp=Z,0.5nm,0.5s,baz=13,slow=1.3,SNR=5.2						
COCO	**West Island**	**33.14**	**234**	*e*P	**P**	**15 20 40.3**	**-1.6**
BJT	**Baijiatuau**	**33.24**	**349**	*e*P	**P**	**15 20 42.3**	**-0.2**
	comp=Z,424nm,1.3s,mb5.9						
BJT				*e*PcP	PcP	15 23 06.6	-0.8
BJI	**Beijing**	**33.26**	**349**	*e*P	**P**	**15 20 42.8**	**+0.2**
BJI				AMB	AMB		
	comp=Z,745nm,2.0s,mb6.0						
LZH	**Lanzhou**	**33.94**	**330**	⇓*i*P	**P**	**15 20 49.8**	**+1.4**
LZH				XP	sP	15 23 34.0	-0.4
LZH				S	**S**	**15 25 33.5**	**-0.3**
LZH				AMB	AMB		
	comp=Z,425nm,1.3s,mb5.9						
LZH				AMB	AMB		
	comp=Z,1μm,5.3s						
SNY	**Shenyang**	**34.33**	**360**	⇓P	**P**	**15 20 50.4**	**-1.1**
SNY				S	**S**	**15 25 36.8**	**-2.7**
SNY				AMB	AMB		
	comp=Z,120nm,1.3s,mb5.4						
SNY				AMB	AMB		
	comp=Z,500nm,6.0s						
CTA	**Charters Tower**	**35.07**	**141**	*e*P	**P**	**15 20 58.9**	**+1.0**
	comp=Z,89nm,0.9s,mb5.4						
CTA				*e*S	**S**	**15 25 51.3**	**+0.4**
CTA	**Charters Tower**	**35.07**	**141**	P	**P**	**15 20 59.2**	**+1.3**
	comp=Z,89nm,0.7s,mb5.5,baz=321,slow=10,SNR=76						
CTA				ScP		15 26 03.8	
	comp=Z,46nm,0.9s,baz=304,slow=2.4,SNR=11						
CTA	**Charters Tower**	**35.07**	**141**	P	**P**	**15 20 59.2**	**+1.3**
CTA				pmax	pmax		
	comp=Z,89nm,0.7s						
CTA				pmax	pmax		
	comp=Z,46nm,0.9s						
CTAO	**Charters Tower**	**35.07**	**141**	*e*P	**P**	**15 20 58.8**	**+0.9**
	comp=Z,131nm,0.9s,mb5.6						
CTAO				*e*ScP		15 26 03.4	
HHC	**Hu-ho-hao-te**	**35.10**	**344**	*e*P	**P**	**15 20 59.0**	**+1.1**
HHC				PP	PP	15 22 40.3	+6.7
HHC				PCP	PcP	15 23 11.9	-1.0
HHC				PCS		15 27 00.9	
HHC				XS		15 28 50.4	
HHC				SS	SS	15 28 55.3	+0.4
HHC				SCS	ScS	15 30 06.5	-0.8
HHC				AMB	AMB		
	comp=Z,116nm,1.3s,mb5.3						
HHC				AMB	AMB		
	comp=Z,409nm,7.4s						
AGT	**Agartala**	**35.30**	**301**	⇑*i*P	**P**	**15 21 00.0**	**+0.3**
AGT				*i*		15 21 46.0	
BTO	**Baotou**	**35.33**	**342**	*e*P	**P**	**15 20 59.8**	**0.0**
SHL	**Shillong**	**35.45**	**304**	*e*P	**P**	**15 21 02.0**	**+1.1**
SHL				*e*		15 23 15.0	
SHL				*e*S	**S**	**15 25 53.0**	**-3.4**
SHL				*e*		15 30 08.2	
CN2	**Changchun**	**36.32**	**2**	*e*P	**P**	**15 21 07.3**	**-0.6**
CN2				PCP	PcP	15 23 16.8	+0.3
CN2				*e*S	**S**	**15 26 07.6**	**-1.7**
CN2				SCS	ScS	15 30 15.0	+0.9
CN2				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.5						
CN2				AMB	AMB		
	comp=Z,340nm,3.0s						
CAL	**Calcutta**	**37.35**	**298**	*e*	PP	15 23 00.9	+3.3
CAL				*e*		15 26 28.8	
MDJ	**Mudanjiang**	**37.45**	**7**	P	**P**	**15 21 17.9**	**+0.8**
MDJ				PCP	PcP	15 23 19.8	-0.2
MDJ				XP	sP	15 23 57.5	-7.0
MDJ				S	**S**	**15 26 27.0**	**+1.2**
MDJ				SCS	ScS	15 30 21.6	+1.1
MDJ				AMB	AMB		
	comp=Z,55nm,0.9s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,383nm,5.8s						
MDJ	**Mudanjiang**	**37.45**	**7**	*e*P	**P**	**15 21 17.5**	**+0.4**
	comp=Z,48nm,0.8s,mb5.1						
MDJ				*e*		15 21 27.7	
FORT	**Forrest**	**38.14**	**174**	*e*P	**P**	**15 21 23.0**	**+0.1**
	comp=Z,282nm,0.5s,mb6.0						
FORT				*e*PCP	PcP	15 23 21.8	-0.6
FORT				*e*S	**S**	**15 26 33.7**	**-2.3**
GTA	**Gaotai**	**38.53**	**330**	⇓P	**P**	**15 21 26.8**	**+0.8**
GTA				AMB	AMB		
	comp=Z,85nm,1.4s,mb5.1						
GTA				AMB	AMB		
	comp=Z,558nm,5.7s						
KLBR	**Kellerberrin**	**39.17**	**188**	*e*P	**P**	**15 21 30.7**	**-0.5**
	comp=Z,51nm,0.6s,mb5.2						
KLBR				*e*PCP	PcP	15 23 26.3	+0.6
KLBR				*e*S	**S**	**15 26 47.7**	**-3.3**
MUN	**Mundaring**	**39.79**	**190**	*e*P	**P**	**15 21 35.9**	**-0.3**
	comp=Z,37nm,0.9s,mb4.9						
MUN				*e*PCP	PcP	15 23 28.6	+0.9
MUN				*e*S	**S**	**15 26 56.6**	**-3.4**
ASAJ	**Asahikawa**	**40.11**	**21**	P	**P**	**15 21 39.3**	**+0.6**
	comp=Z,43nm,0.4s,mb5.3,baz=232,slow=12,SNR=51						
ASAJ				S	**S**	**15 27 04.0**	**-0.5**
	comp=Z,25nm,1.0s,baz=34,slow=23,SNR=4.0						
ASAJ	**Asahikawa**	**40.11**	**21**	P	**P**	**15 21 39.3**	**+0.6**
ASAJ				S	**S**	**15 27 04.0**	**-0.5**
ASAJ				pmax	pmax		
	comp=Z,43nm,0.4s						
ASAJ				smax			
	comp=N,25nm,1.0s						
NWAO	**Narrogin (SRO)**	**40.55**	**189**	P	**P**	**15 21 42.4**	**+0.1**
	comp=N,125nm,0.8s,mb5.5,baz=22,slow=7.8,SNR=39						
NWAO				PcP	PcP	15 23 29.3	-0.9
	comp=N,22nm,0.6s,baz=33,slow=6.1,SNR=3.8						
NWAO	**Narrogin (SRO)**	**40.55**	**189**	P	**P**	**15 21 42.4**	**+0.1**
NWAO					pP	15 23 29.3	+3.6
NWAO				pmax	pmax		
	comp=Z,125nm,0.9s						
NWAO				pmax	pmax		
	comp=Z,22nm,0.6s						
NWAO	**Narrogin (SRO)**	**40.55**	**189**	*e*P	**P**	**15 21 42.3**	**-0.1**
	comp=Z,94nm,0.9s,mb5.3						
NWAO				*e*PcP	PcP	15 23 30.3	+0.1
VIS	**Vishakhapatnam**	**40.78**	**289**	⇑*e*P	**P**	**15 21 43.6**	**-0.7**
VIS				*e*	pP	15 23 28.0	+0.2
	comp=Z,141nm,1.1s						
GUN	**Gumba**	**41.30**	**304**	*e*P	**P**	**15 21 49.6**	**+1.3**
	comp=Z,814nm,0.8s,mb6.3						
PKI	**Pulchoki**	**41.56**	**304**	*e*P	**P**	**15 21 51.4**	**+0.9**
KKN	**Kakani**	**41.74**	**304**	*e*P	**P**	**15 21 52.4**	**+0.5**
	comp=Z,186nm,0.5s,mb5.8						
DMN	**Daman**	**41.82**	**304**	*e*P	**P**	**15 21 53.7**	**+1.1**
	comp=Z,369nm,0.8s,mb5.9						
HIA	**Hailar**	**41.91**	**356**	*e*P	**P**	**15 21 52.9**	**-0.1**
	comp=Z,274nm,1.3s,mb5.6						
HIA				*e*pP	pP	15 23 34.3	-2.7
HIA				*e*PP	PP	15 23 44.0	+1.9
HIA				*e*S	**S**	**15 27 30.0**	**0.0**
KLR	**Kul'dur**	**42.26**	**8**	*e*P	**P**	**15 21 51.3**	**-4.3**
KLR				*e*PPP	PP	15 23 41.7	-3.7
KLR				*e*S	**S**	**15 27 29.8**	**-5.1**
KLR				pmax	pmax		
	comp=N,34nm,1.6s						
KLR				pmax	pmax		
	comp=Z,65nm,1.6s,mb4.9						
KLR				smax			
	comp=N,72nm,2.0s						
KLR				smax			
	comp=E,50nm,2.0s						
GKN	**Gorkha**	**42.35**	**304**	*e*P	**P**	**15 21 57.2**	**+0.5**
	comp=E,220nm,0.5s,mb6.0						
STKA	**Stephens Creek**	**42.54**	**157**	*e*P	**P**	**15 21 58.3**	**+0.2**
	comp=E,36nm,0.4s,mb5.2						
STKA				*e*S	**S**	**15 27 36.7**	**-2.5**
STKA	**Stephens Creek**	**42.54**	**157**	P	**P**	**15 21 58.2**	**+0.1**
	comp=E,44nm,0.4s,mb5.3,baz=335,slow=7.3,SNR=190						
STKA				PcP	PcP	15 23 36.2	-0.8
	comp=E,14nm,0.6s,baz=360,slow=7.8,SNR=3.1						
STKA				ScP		15 26 31.7	
	comp=E,20nm,0.7s,baz=341,slow=7.5,SNR=4.5						
STKA				S	**S**	**15 27 38.3**	**-0.9**
	comp=E,7.2nm,0.7s,baz=54,slow=23,SNR=7.3						
YSS	**Yuzh-Sakhalins**	**42.65**	**19**	⇑*i*P	**P**	**15 21 58.2**	**-0.6**
YSS				*e*S	**S**	**15 27 41.0**	**+0.5**
YSS				*e**SS		15 30 53.0	
YSS				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.0						
YSS	**Yuzh-Sakhalins**	**42.65**	**19**	*e*P	**P**	**15 21 58.1**	**-0.7**
	comp=Z,91nm,1.2s,mb5.2						
BLSP	**Bilaspur**	**42.76**	**295**	*e*P	**P**	**15 22 00.2**	**+0.2**
PALK	**Pallekele**	**42.78**	**273**	*e*P	**P**	**15 21 59.6**	**-0.6**
	comp=Z,23nm,0.9s,mb4.7						
PALK				*e*PcP	PcP	15 23 38.1	+0.1
ULN	**Ulaanbaatar**	**42.82**	**343**	*d* *i*P	**P**	**15 22 00.5**	**+0.4**
ULN	**Ulaanbaatar**	**42.82**	**343**	*e*P	**P**	**15 22 00.4**	**+0.3**
	comp=Z,214nm,1.3s,mb5.5						
ULN				*e*		15 22 10.6	
SONM	**Songino Array**	**42.98**	**343**	P	**P**	**15 22 01.6**	**+0.2**
	comp=Z,104nm,1.2s,mb5.2,baz=158,slow=9.9,SNR=203						
SONM				PcP	PcP	15 23 38.1	-0.1
	comp=Z,10.0nm,0.6s,baz=160,slow=2.3,SNR=5.1						
KOLN	**Koldanda**	**43.13**	**303**	*e*P	**P**	**15 22 03.8**	**+1.0**
	comp=Z,472nm,0.3s						
MDRS	**Chennai**	**43.24**	**281**	*e*	**P**	**15 22 04.0**	**+0.2**
ALBI	**Allahabad**	**43.87**	**299**	*e*P	**P**	**15 22 07.0**	**-1.6**
HYB	**Hyderabad**	**45.25**	**287**	*e*P	**P**	**15 22 18.0**	**-1.3**
	comp=Z,180nm,1.0s,mb5.6						
HYB				*e*		15 22 29.0	
HYB	**Hyderabad**	**45.25**	**287**	*i* P	**P**	**15 22 18.0**	**-1.3**
	comp=Z,180nm,1.0s,mb5.6						
HYB				*e*		15 22 29.0	
HYB				*e*		15 22 48.0	
HYB				*e*		15 23 01.0	
HYB				*e*PcP	PcP	15 23 44.0	-2.6
HYB				*e*pP	pP	15 23 56.0	-9.5
HYB				*e*PP	PP	15 24 10.0	-4.0
HYB				*e*S	**S**	**15 28 16.0**	**-1.3**
HYB				*e*SS	SS	15 31 54.0	+4.0
ZAK	**Zakamensk**	**46.19**	**342**	⇓*i*P	**P**	**15 22 25.9**	**-0.1**
TRD	**Trivandrum**	**46.43**	**275**	⇑*e*	sP	15 25 20.6	+0.7
	comp=Z,59nm,1.4s						
LGTI	**Lohaghat**	**46.47**	**304**	⇓*i*P	**P**	**15 22 28.5**	**+0.1**
PTH	**Pithoragarh**	**46.53**	**304**	*e*P	**P**	**15 22 29.0**	**+0.1**
PTH				*e*		15 23 53.8	
TLY	**Talaya**	**47.22**	**343**	*d* *i*P	**P**	**15 22 34.1**	**+0.3**
TLY				*e*S	**S**	**15 28 42.8**	**-1.4**
TLY				*e*SS	Sx	15 31 48.9	
TLY				pmax	pmax		
	comp=Z,92nm,0.8s,mb5.4						
TLY	**Talaya**	**47.22**	**343**	*e*P	**P**	**15 22 34.0**	**+0.2**
	comp=Z,85nm,0.9s,mb5.3						
TLY				*e*		15 22 44.4	
BHPL	**Bhopal**	**47.25**	**295**	*e*P	**P**	**15 22 33.7**	**-0.7**
BHPL				*e*		15 22 37.8	
	comp=Z,190nm,1.0s						
LATR	**Latur**	**47.25**	**288**	*e*P	**P**	**15 22 34.0**	**-0.5**
IRK	**Irkutsk**	**47.55**	**344**	*e*P	**P**	**15 22 36.3**	**+0.1**
MOY	**Mondy**	**48.02**	**341**	*e*P	**P**	**15 22 40.2**	**+0.4**

DDI	Dehra Dun	48.55	304	*e*P	P	15 22 42.4	-1.7
DDI				*e*		15 29 08.7	
NDI	New Delhi	48.76	302	*e*P	P	15 22 43.5	-2.2
	comp=Z,200nm,0.6s,mb5.7						
NDI				*e*S	S	15 29 02.0	-3.5
CNB	Canberra Magne	48.79	152	*e*P	P	15 22 46.8	+0.9
	comp=Z,15nm,0.4s,mb4.8						
TOO	Toolangi	49.06	157	*e*P	P	15 22 48.4	+0.6
	comp=Z,7.5nm,0.8s						
CLNS	Chul’man	49.35	1	*e*P	P	15 22 48.9	-0.8
CLNS				*e*		15 24 00.2	
CLNS				*e*		15 24 49.6	
CLNS				pmax	pmax		
	comp=N,42nm,0.6s						
CLNS				pmax	pmax		
	comp=Z,76nm,0.6s,mb5.3						
CLNS				pmax	pmax		
	comp=E,2.0nm,0.3s						
CLNS				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.4						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,12nm,1.0s						
KAD	Karad	49.39	286⇓	*i*P	P	15 22 49.0	-1.4
	comp=E,98nm,0.8s,mb5.3						
SMLA	Simla	49.53	305⇑	*i*	P	15 23 04.5	+13
	comp=E,1µm,0.7s,mb6.4						
SMLA				*i*		15 29 28.1	
	comp=E,950nm,0.3s						
SDNR	Sundarnagar	49.81	305	*e*P	P	15 22 53.8	+0.4
	comp=E,242nm,0.4s,mb6.0						
SDNR				*e*S	S	15 29 19.6	-0.1
POO	Poona	49.82	288⇓	*i*P	P	15 22 50.5	-3.1
	comp=E,82nm,0.6s,mb5.3						
BHK	Bhakra	50.23	305	*e*	S	15 29 26.0	+0.6
NOUC	Port Laguerre	50.87	126	*e*P	P	15 23 02.5	+1.3
BOD	Bodaibo	50.91	353	*e*P	P	15 22 59.8	-1.2
BOD				*e*		15 29 33.7	
DLH	Dalhousie	50.95	306	*e*P	P	15 23 01.0	-0.7
DZM	Mont Dzumac	50.97	126	*e*P	P	15 23 03.0	+1.0
THN	Thein Dam	51.11	306	*e*P	P	15 23 01.4	-1.5
	comp=E,4.6nm,0.6s						
THN				*e*S	S	15 29 34.2	-3.0
MK02	Makanchi Array	52.93	325	P	P	15 23 15.3	-0.3
MK02				pmax	pmax		
	comp=Z,60nm,0.4s,mb5.3						
DGAR	Diego Garcia	53.31	255	*e*P	P	15 23 15.8	-2.9
	comp=Z,224nm,1.1s,mb5.4						
KSH	Kashi	53.47	314	*i* PR		15 23 21.5	
KSH				PCP	PcP	15 24 18.4	+1.7
KSH				*e*AP	pP	15 25 10.8	-0.4
KSH				PP	PP	15 25 33.0	+4.1
KSH				S	S	15 30 13.0	+4.8
KSH				SCS	ScS	15 32 05.8	+1.1
KSH				XS		15 33 32.6	
KSH				*e*SS	SS	15 34 06.6	+4.1
KSH				AMB	AMB		
	comp=Z,440nm,2.1s,mb5.4						
PET	Petropavlovsk	53.60	25	*e*P	P	15 23 20.7	+0.5
PET				*i* S	S	15 30 11.5	+1.7
PET				*e*PS	tx	15 30 26.0	
PET				*e**SS		15 33 29.0	
PET				pmax	pmax		
	comp=Z,140nm,1.1s,mb5.2						
PET				pmax	pmax		
	comp=Z,300nm,17.2s						
PET				smax			
	comp=N,500nm,12.9s						
PET	Petropavlovsk	53.60	25	*e*P	P	15 23 20.4	+0.2
	comp=N,113nm,0.9s,mb5.2						
ULHL	Ulahol	54.42	318	P	P	15 23 27.4	+1.4
	SNR=7.9						
YAK	Yakutsk	54.73	3*d*	*i*P	P	15 23 27.2	-0.8
YAK				pmax	pmax		
	comp=Z,328nm,0.9s,mb5.7						
YAK	Yakutsk	54.73	3	*e*P	P	15 23 27.1	-0.8
	comp=Z,291nm,0.8s,mb5.7						
YAK				*e*		15 23 37.3	
YAK				*e*PcP	PcP	15 24 20.3	-0.9
YAK				*e*pP	pP	15 25 16.2	-4.5
KZA	Kyzart	55.02	317	P	P	15 23 32.1	+1.8
	SNR=11						
TKM2	Tokmak 2	55.14	318	P	P	15 23 31.4	+0.3
	SNR=35						
KBK	Karagaybulak	55.46	318	P	P	15 23 34.2	+0.8
	SNR=47						
UCH	Uchtor	55.58	317	P	P	15 23 36.1	+1.9
	SNR=13						
CHMS	Chumysh	55.74	318	P	P	15 23 35.3	0.0
	SNR=41						
AAK	Ala-Archa	55.76	317	*i* P	P	15 23 34.9	-0.5
AAK				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.0						
AAK	Ala-Archa	55.76	317	*e*P	P	15 23 34.6	-0.8
	comp=Z,62nm,0.8s,mb4.9						
AAK				*e*PcP	PcP	15 24 24.4	-1.1
MA2	Magadan	55.97	16*d*	*e*P	P	15 23 36.9	+0.3
MA2				*e**PP	pP	15 25 30.9	+0.8
MA2				*e**SP	sP	15 26 29.7	-3.1
MA2				*e*S	S	15 30 39.1	-1.3
MA2				pmax	pmax		
	comp=Z,80nm,0.8s,mb5.0						
MA2	Magadan	55.97	16	*e*P	P	15 23 36.8	+0.2
	comp=Z,129nm,0.8s,mb5.2						
MA2				*e*		15 23 46.5	
USP	Ospenovka	56.02	318	P	P	15 23 36.8	-0.4
	SNR=106						
ZAL	Zalesovo	56.08	333	P	P	15 23 36.1	-1.2
	comp=Z,55nm,0.3s,mb5.2,baz=348,slow=6.0,SNR=157						
ZAL				S	S	15 30 39.7	-2.1
	comp=Z,3.0nm,0.8s,baz=241,slow=21,SNR=8.7						
ZAL				PKP2bc		15 53 35.8	
	comp=Z,1.2nm,0.9s,baz=129,slow=1.0,SNR=5.4						
ZAL	Zalesovo	56.08	333	P	P	15 23 36.2	-1.2
ZAL				S	S	15 30 39.7	-2.1
ZAL				pmax	pmax		
	comp=Z,55nm,0.4s						
ZAL				smax			
	comp=N,3.0nm,0.8s						
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ZAL	Zalesovo	56.08	333	P	P	15 23 36.1	-1.2
ZAL				S	S	15 30 39.7	-2.1
ZAL			⇑	*e*		15 53 35.8	
AML	Almayashu	56.09	317	P	P	15 23 40.5	+2.8
	SNR=6.9						
EKS2	Erkin-Say	56.25	317	P	P	15 23 39.6	+0.9
	SNR=19						
NVS	Novosibirsk	57.36	333	*i* P	P	15 23 44.0	-2.1
NVS				*e*		15 24 30.6	
NVS				*i*		15 30 54.8	
NVS				*e*		15 32 26.2	
NVS				pmax	pmax		
	comp=Z,218nm,1.5s,mb5.2						
NVS				pmax	pmax		
	comp=N,139nm,1.4s						
NVS				pmax	pmax		
	comp=E,146nm,1.4s						
NVS				smax			
	comp=E,180nm,1.9s						
NVS				smax			
	comp=N,106nm,1.8s						
SEY	Seymchan	59.22	15	*e*P	P	15 23 59.2	+0.7
SEY						15 24 40.3	
SEY				*e*		15 26 20.4	
SEY				*e*S	S	15 31 19.7	-1.9
SEY				SS	SS	15 35 35.3	+3.2
SEY				pmax	pmax		
	comp=Z,310nm,1.3s,mb5.3						
SEY				pmax	pmax		
	comp=N,80nm,1.1s						
SEY				pmax	pmax		
	comp=E,70nm,1.1s						
SEY				smax			
	comp=N,3µm,24.7s						
SEY				smax			
	comp=E,550nm,20.2s						
FX1	Attu Island--F	60.46	32	*e*P	P	15 24 07.2	+0.4
BVA0	Borovoye Array	62.73	327	*i* P	P	15 24 20.9	-0.6
BVA0				pmax	pmax		
	comp=Z,69nm,1.5s,mb4.8						
BVAR	Borovoye Array	62.73	327	P	P	15 24 20.9	-0.6
	comp=Z,85nm,0.4s,mb5.4,baz=127,slow=7.4,SNR=469						
BVAR				S	S	15 32 04.4	-0.6
	comp=Z,3.7nm,1.1s,baz=45,slow=6.3,SNR=3.9						
BVAR				PKP2bc		15 53 23.4	
	comp=Z,3.2nm,1.1s,baz=225,slow=2.1,SNR=7.0						
BVAR	Borovoye Array	62.73	327	P	P	15 24 20.9	-0.6
BVAR				S	S	15 32 04.4	-0.6
BVAR			⇑	*e*		15 53 23.4	
BRVK	Borovoye	62.80	327	*e*P	P	15 24 21.4	-0.6
	comp=Z,182nm,0.6s,mb5.6						
TIXI	Tiksi	64.30	2⇓	*i*P	P	15 24 29.3	-1.8
TIXI				*e**PP	pP	15 26 27.1	-2.8
TIXI				*e*		15 26 58.4	
TIXI				pmax	pmax		
	comp=Z,154nm,1.1s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,264nm,16.0s						
RPZ	Rata Peaks	66.36	144	P	P	15 24 44.9	+0.5
	comp=Z,34nm,0.6s,mb5.0,baz=248,slow=5.5,SNR=24						
BILL	Bilibino	66.84	16	*i* P	P	15 24 46.3	-0.6
URZ	Urewera	67.14	137	P	P	15 24 49.0	-0.2
	comp=Z,11nm,0.7s,mb4.4,baz=125,slow=0.6,SNR=9.0						
SVE	Sverdlovsk	69.39	328⇓	*i*P	P	15 25 01.5	-0.9
SVE				*e*		15 25 25.5	
SVE				*e*		15 33 20.5	
SVE				pmax	pmax		
	comp=Z,520nm,1.5s,mb5.7						
ARU	Arti	70.35	328⇓	*i*P	P	15 25 07.0	-1.1
ARU				*e*		15 25 22.2	
ARU				*e*	pP	15 27 09.1	-0.8
ARU				*e*		15 27 51.5	
ARU				*e*PPP	PPP	15 29 39.4	-1.2
ARU				*i* S	S	15 33 30.8	-3.2
ARU				*e*		15 34 09.6	
ARU				*e*SS	SS	15 38 16.8	-6.4
ARU				pmax	pmax		
	comp=Z,127nm,0.6s,mb5.5						
ARU	Arti	70.35	328	*e*P	P	15 25 06.9	-1.1
	comp=Z,179nm,0.6s,mb5.7						
ARU				*e*		15 25 17.1	
NIKO	Nikolski	70.56	36	*e*P	P	15 25 08.8	-0.5
UNV	Unalaska Valle	72.13	36	*e*P	P	15 25 18.1	-0.2
	comp=Z,321nm,1.0s,mb5.8						
SOKR	Solikamsk	72.16	330⇓	*e*P	P	15 25 15.9	-2.6
SOKR				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.3						
SOKR				MLR	MLR		
	comp=Z,150nm,20.0s						
HASS	Wahat al Ahsa’	72.59	294	P	P	15 25 21.3	-0.3
MUKL	Al Mukalla	73.57	283⇑	*e*P	P	15 25 27.1	-0.2
MUKL				AMb	AMB	15 25 27.4	
	comp=Z,56nm,0.7s,mb5.2						
UMR	Umm Al-Rimmam	74.36	299	*e*P	P	15 25 30.8	-0.7
UMR				AMb	AMB	15 25 34.2	
	comp=Z,409nm,0.7s,mb6.1						
RDF	Al-Radifah	74.50	298	*e*P	P	15 25 32.3	0.0
RDF				AMb	AMB	15 25 35.5	
	comp=Z,441nm,1.1s,mb5.9						
MIB	Mutribah	74.69	299	*e*P	P	15 25 33.0	-0.3
MIB				AMb	AMB	15 25 36.2	
	comp=Z,707nm,0.8s,mb6.3						
RST	Umm Al-Ruwaisa	74.98	298	*e*P	P	15 25 33.7	-1.3
RST				AMb	AMB	15 25 38.0	
	comp=Z,710nm,0.7s,mb6.3						
RYDS	Riyadh	75.38	293	P	P	15 25 36.8	-0.4
MZLS	Mizel	76.69	293	P	P	15 25 44.3	-0.1
GNI	Garni	76.97	309	*e*P	P	15 25 48.1	+2.5
GNI	Garni	76.97	309	P	P	15 25 46.7	+1.1
	comp=Z,45nm,0.6s,mb5.0,baz=12,slow=3.5,SNR=25						
GNI	Garni	76.97	309	*i* P	P	15 25 47.0	+1.4
GNI				pmax	pmax		
	comp=Z,174nm,1.6s						
TI2	Plekhanov	77.01	311	*i* P	P	15 25 46.6	+0.8
TI2				*i*		15 25 55.8	
TI2				*e*S	S	15 34 49.2	+2.5
MIR	Mirnyy	77.04	192⇑	*e*P	P	15 25 47.4	+2.0
MIR				pmax	pmax		
	comp=Z,170nm,1.0s,mb5.4						
LBOS		77.25	283⇑	*e*P	P	15 25 48.9	+1.4
KAMS	Al Khamasin	77.45	289	P	P	15 25 48.1	-0.4
ZEI	Tsey	77.67	312	*i* P	P	15 25 50.1	+0.8
ZEI				*i*		15 28 56.4	
ZEI				*e*S	S	15 34 53.6	+0.1
ZEI				pmax	pmax		
	comp=Z,161nm,0.9s,mb5.5						
HKR	Hakkari	77.72	307	*e*P	P	15 25 51.5	+1.9
TVAN	Van	77.99	308	*i* P	P	15 25 49.8	-1.2
VANB	Van	78.00	308	*e*P	P	15 25 52.1	+1.0
DHBB	Dhamar BB	78.02	283⇓	*e*P	P	15 25 53.7	+2.1
GOF	Gofitskoye	78.34	314⇓	*i*P	P	15 25 54.5	+1.7
GOF				pmax	pmax		
	comp=Z,186nm,1.4s,mb5.3						
TRBA	At Turbah	78.39	282⇑	*e*P	P	15 25 55.0	+1.4
TRBA				AMb	AMB	15 25 55.5	
	comp=Z,35nm,0.6s,mb5.0						
ARSS	Ar Rass	78.40	295	P	P	15 25 53.4	-0.1
TATS	Tathlith	78.53	288	P	P	15 25 54.8	+0.5
KIV	Kislovodsk	78.57	313	P	P	15 25 54.1	+0.1
	comp=Z,992nm,0.7s,mb6.2,SNR=34						
KIV	Kislovodsk	78.57	313	*e*P	P	15 25 54.2	+0.2
KIV				*e*		15 26 00.4	
KIV				*e**PP	pP	15 27 59.2	-0.3
KIV				*e**SP	sP	15 28 59.8	+1.1
KIV				*e*PPP	PPP	15 30 55.3	-2.6
KIV				*i* S	S	15 35 03.3	+0.4
KIV				*e*SS	SS	15 40 22.5	-5.2
KIV				pmax	pmax		
	comp=Z,161nm,1.2s,mb5.2						
KIV				pmax	pmax		
	comp=N,32nm,0.8s						
KIV				pmax	pmax		
	comp=E,74nm,1.2s						
KIV				smax			
	comp=N,160nm,2.0s						
KIV	Kislovodsk	78.57	313	*e*P	P	15 25 52.8	-1.2
	comp=N,99nm,0.7s,mb5.2						
HAJJ	Hajjah	78.69	285⇓	*e*P	P	15 25 56.6	+1.4
AFFS	‘Afif	78.71	293	P	P	15 25 55.3	+0.1
BCA	Borcka	79.35	311	*e*P	P	15 25 58.0	-0.1
VRT	Varto	79.45	308	*i* P	P	15 26 00.9	+2.2
BTMT	Batman	79.50	307	*i* P	P	15 25 59.8	+0.7
ERZM	Erzurum	79.56	309	*i* P	P	15 25 59.4	+0.1
EZM	Erzurum	79.56	309	*i* P	P	15 26 00.9	+1.6
HILS	Ha’il	79.62	296	P	P	15 26 00.4	+0.5
BEST	Besiri	79.67	307	*i* P	P	15 25 59.4	-0.5
FRSS	Farasan al Kab	80.03	286	P	P	15 26 03.7	+1.5
IMA	Indian Mountai	80.26	24	*e*P	P	15 26 04.6	+2.2
	comp=N,46nm,0.5s,mb5.1						
BINT	Bingol	80.26	308	P	P	15 26 05.0	+2.1
BLJS	Baljurashi	80.27	289	P	P	15 26 04.6	+1.3
RSO	Redoubt South	80.39	30	*e*P	P	15 26 03.8	+0.7
KDAK	Kodiak Island	80.39	33	*e*P	P	15 26 04.0	+0.9
	comp=N,87nm,0.8s,mb5.1						
DIY	Diyarbakir	80.50	307	*i* P	P	15 26 05.3	+1.1
SOC	Sochi	80.73	313	*e*P	P	15 26 03.7	-1.5
SOC				pmax	pmax		
	comp=Z,71nm,0.7s,mb5.2						
SOC				pmax	pmax		
	comp=N,8.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,46nm,1.2s						
EZC	Erzincan	80.76	309	*i* P	P	15 26 08.8	+3.3
VOR	Voronezh	80.95	321	*e*P	P	15 26 05.0	-1.2
VOR				*e*S	S	15 35 24.5	-2.2
VOR				pmax	pmax		
	comp=E,110nm,1.4s						
VOR				pmax	pmax		
	comp=Z,330nm,1.4s,mb5.6						
VOR				smax			
	comp=N,70nm,1.4s						
VOR				smax			
	comp=E,150nm,1.4s						
VRSR	Storozhevoye	80.97	321	*e*P	P	15 26 05.5	-0.7
VRSR				*e**PP	pP	15 28 09.5	-3.2
VRSR				*e*		15 29 20.1	
VRSR				*e*		15 35 23.5	
VRSR				*e*SSS	SSS	15 44 30.9	-1.7
VRSR				pmax	pmax		
	comp=Z,180nm,0.6s,mb5.7						
VRSR				pmax	pmax		
	comp=N,90nm,0.5s						
VRSR				pmax	pmax		
	comp=E,70nm,0.5s						
GUMT	Gumushane	80.99	310	*i* P	P	15 26 07.8	+1.2
PTK	Pertek	81.12	308	P	P	15 26 09.1	+1.8
ELZG	Elazig	81.45	308	*i* P	P	15 26 08.1	-1.0
URFA	Urfa	81.63	307	*e*P	P	15 26 10.0	0.0
SLKM	Skilak Lake	81.64	30	*e*P	P	15 26 09.9	+0.4
FIB	Fire Island	81.66	29	*e*P	P	15 26 09.9	+0.3
MOS	Moscow	81.84	325	*e*P	P	15 26 10.9	+0.3
MOS				*e*		15 29 26.6	
MOS				*e*S	S	15 35 32.6	-2.8
MOS				pmax	pmax		
	comp=Z,369nm,1.4s,mb5.7						
MALT	Malatya	81.90	308	*e*P	P	15 26 12.2	+0.8
MYA	Malataya	81.90	308	P	P	15 26 13.5	+2.2
KBRS	Khaybar	81.98	295	P	P	15 26 13.1	+1.1
PMR	Palmer	82.16	29	*e*P	P	15 26 12.3	+0.2
	comp=Z,40nm,0.5s,mb5.2						
MCK	McKinley	82.22	27	*e*P	P	15 26 12.5	+0.2
	comp=Z,179nm,0.8s,mb5.7						
MCK				*e*		15 26 22.2	
ANN	Anapa	82.33	314*d*	*i*P	P	15 26 12.3	-1.0
ANN				*i* *PP	pP	15 28 14.1	-6.1
ANN				*e*S	S	15 35 35.6	-4.7
ANN				pmax	pmax		
	comp=Z,449nm,1.0s,mb6.0						
OBN	Obninsk	82.46	325	*e*P	P	15 26 13.7	0.0
OBN				*e*S	S	15 35 37.7	-3.7
OBN				*e*SS	SS	15 41 20.5	-4.2
OBN				pmax	pmax		
	comp=Z,609nm,1.6s,mb5.9						
OBN	Obninsk	82.46	325	*e*P	P	15 26 12.2	-1.6
	comp=Z,889nm,1.5s,mb6.1						
OBN				*e*		15 26 23.0	
SML	Sawmill	82.54	29	*e*P	P	15 26 14.6	+0.6
GZT	Gaziantep	82.64	307	*i* P	P	15 26 14.8	-0.3
COLA	College	82.67	25	*e*P	P	15 26 15.0	+0.4
COLA				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.0						
COLA	College	82.67	25	*e*P	P	15 26 15.0	+0.4
	comp=Z,32nm,0.6s,mb5.0						
GAZ	Gaziantep	82.93	307	*i* P	P	15 26 17.4	+0.9
SVST	Sivas	82.96	309	*i* P	P	15 26 15.7	-0.9
ILAR	Eielson Array	83.08	26	P	P	15 26 16.6	-0.1
	comp=Z,14nm,0.5s,mb4.8,baz=254,slow=3.8,SNR=87						
ILAR				PKKP		15 44 21.9	
	comp=Z,0.3nm,0.8s,baz=220,slow=11,SNR=4.2						
ILAR				PKKPbc		15 44 34.1	
	comp=Z,7.7nm,1.2s,baz=70,slow=0.4,SNR=15						
ILAR				PKP2bc		15 52 26.8	
	comp=Z,0.4nm,0.7s,baz=132,slow=6.5,SNR=4.8						
ILAR				PKPPKP		15 52 39.4	
	comp=Z,1.3nm,1.1s,baz=118,slow=0.9,SNR=5.8						
ILAR	Eielson Array	83.08	26	P	P	15 26 16.6	-0.1
ILAR				PKKP		15 44 21.9	
ILAR				PKKPbc		15 44 34.1	
ILAR			⇑	*e*		15 52 26.8	
ILAR				P’P’		15 52 39.4	
KAHT	Ahir Dag	83.17	307	*i* P	P	15 26 17.6	0.0
YNBS	Yanbu‘ al Bahr	83.25	294	P	P	15 26 19.1	+0.8
QURS	Qurayyt al Mil	83.26	301	D		15 26 19.9	
APA	Apatity	83.42	337⇑	*i*P	P	15 26 17.2	-1.1
APA				pmax	pmax		
	comp=Z,110nm,1.4s,mb5.2						
ASF	Jabal al Asfar	83.56	302	P	P	15 26 20.9	+1.1
	comp=Z,106nm,0.7s,mb5.5,baz=330,slow=3.7,SNR=59						
THY	Trims Highway	83.65	27	*e*P	P	15 26 20.8	+1.4
UMJS	Umm Lajj	83.78	295	P	P	15 26 21.9	+0.9
DIV	Divide	83.80	29	*e*P	P	15 26 21.0	+0.8
	comp=Z,167nm,1.1s,mb5.5						
HTY	Hatay	83.87	306	P	P	15 26 21.8	+0.6
BNN	Bunyan	83.88	308	P	P	15 26 22.0	+0.8
CEYT	Ceyhan	84.11	306	*i* P	P	15 26 23.3	+0.9
TBKS	Tabuk	84.19	298	P	P	15 26 23.8	+0.9
BOYT	Boyabat	84.40	311	*i* P	P	15 26 21.5	-2.2
KSHT	Keshet	84.40	302	P	P	15 26 24.1	+0.2
HRI	Mount Hermon	84.44	303	P	P	15 26 25.2	+1.1
KSDI	Kefar Szold	84.51	303	P	P	15 26 24.2	-0.2
CTKT	Corum	84.55	310	*i* P	P	15 26 22.4	-2.0
MENT	Mentasta	84.61	27	*e*P	P	15 26 25.0	+0.8
AVNT	Avonos	84.66	308	*i* P	P	15 26 21.5	-3.5
SIM	Simferopol’	84.67	315	*e*P	P	15 26 24.9	0.0
SIM				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.1						
MKRJ	Makawir	84.68	301	P	P	15 26 25.2	-0.1
HMDT	Nahal Hemdat	84.71	302	P	P	15 26 25.4	0.0
CORM	Corum	84.71	310	*e*P	P	15 26 28.1	+2.9
JMQS	Jabal Moqyreh	84.72	298	P	P	15 26 26.6	+1.1
MMLI	Mount Malkishu	84.78	302	P	P	15 26 26.0	+0.3
DRGI	Dragot	84.88	301	P	P	15 26 25.9	-0.4
NIG	Nigde	84.91	308	*i* P	P	15 26 26.8	+0.5
HNTI	Hanita	84.93	303	P	P	15 26 26.2	-0.2
MZDA	Masada	84.94	301	P	P	15 26 26.3	-0.2
HAF	Haifa	85.08	302	P	P	15 26 26.8	-0.4
SLTI	Sal’it	85.12	302	P	P	15 26 27.3	-0.1
OFRI	‘Ofer	85.13	302	P	P	15 26 27.1	-0.3
ZFRI	Zfri	85.17	300	P	P	15 26 27.4	-0.3
AYUS	‘Aynunah	85.32	298	P	P	15 26 28.7	+0.3
PRNI	Paran	85.33	300	P	P	15 26 28.4	-0.1
JMOS	Jabal al Moall	85.36	299	P	P	15 26 29.1	+0.4
ALWS	Ilw as Safayha	85.39	299	P	P	15 26 29.5	+0.7
BDAS	Al Bad‘	85.44	298	P	P	15 26 29.5	+0.4
EIL	Elat	85.45	299	P	P	15 26 28.8	-0.3
EIL	Elat	85.45	299	*e*P	P	15 26 29.0	0.0
	comp=Z,82nm,1.0s,mb5.3						
EIL				*e*		15 26 39.6	
MBH	Mount Berech	85.47	299	P	P	15 26 29.0	-0.1
KAMT	Kaman	85.49	309	*i* P	P	15 26 28.5	-0.5
BRTR	Keskin Array B	85.51	309	P	P	15 26 28.5	-0.6
	comp=Z,68nm,1.0s,mb5.2,baz=121,slow=4.4,SNR=100						
BRTR				PP	PP	15 30 03.5	+4.3
	comp=Z,4.3nm,1.0s,baz=128,slow=8.0,SNR=3.7						
BRTR	Keskin Array B	85.51	309	P	P	15 26 28.5	-0.6
BRTR						15 30 03.6	
BRTR				pmax	pmax		
	comp=Z,68nm,1.0s						
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KEV	Kevo	85.52	340	*e*p	P	15 26 27.6	-0.8
HAQS	Haql	85.53	299	P	P	15 26 29.9	+0.4
ELDT	Eldivan	85.60	310	*i* P	P	15 26 29.1	-0.4
KMTI	Karmit	85.60	300	P	P	15 26 29.4	-0.4
TAYS	Tayyib Ism	85.63	298	P	P	15 26 30.3	+0.3
IKL	Isikli	85.83	306	*e*P	P	15 26 29.8	-0.9
ARCES	ARCESS Array B	86.07	340	P	P	15 26 30.4	-0.7
	comp=Z,54nm,0.9s,mb5.2,baz=84,slow=5.3,SNR=58						
ARCES				PKiKP		15 31 34.2	
	comp=Z,1.9nm,0.5s,baz=87,slow=1.3,SNR=5.0						
ARCES				PKKPbc		15 44 27.9	
	comp=Z,1.8nm,0.6s,baz=225,slow=1.7,SNR=6.2						
ARCES	ARCESS Array B	86.07	340	P	P	15 26 30.4	-0.7
ARCES				pmax	pmax		
	comp=Z,54nm,0.9s						
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARE0	ARCESS Array S	86.07	340	*e*P	P	15 26 30.2	-0.8
SAFT	Safranbolu	86.08	311	*e*P	P	15 26 31.4	-0.3
MAW	Mawson	86.17	200	*e*P	P	15 26 31.4	-0.2
	comp=Z,16nm,1.0s,mb4.6						
MAW	Mawson	86.17	200	P	P	15 26 31.3	-0.2
	comp=Z,23nm,1.0s,mb4.8,baz=54,slow=6.3,SNR=19						
MAW				pP	pP	15 28 43.8	+4.0
	comp=Z,15nm,1.1s,baz=46,slow=5.1,SNR=4.7						
MAW	Mawson	86.17	200	P	P	15 26 31.3	-0.3
MAW				pmax	pmax		
	comp=Z,23nm,1.0s						
MAW				pmax	pmax		
	comp=Z,15nm,1.1s						
CSS	Prodhromos	86.26	305	*e*P	P	15 26 32.5	-0.3
	comp=Z,68nm,0.7s,mb5.4						
DAWY	Dawson	86.39	26	*e*P	P	15 26 33.4	+0.7
DAWY				*e*pP	pP	15 28 39.9	-1.1
SGKT	Sivrigoynuk	86.63	310	*i* P	P	15 26 32.0	-2.4
HDMB	Hadim	86.71	307	*e*P	P	15 26 35.4	+0.5
KMBO	Kilima Mbogo	86.77	268	P	P	15 26 36.1	+0.5
	comp=Z,75nm,1.2s,mb5.3,baz=49,slow=6.8,SNR=37						
KMBO				pP	pP	15 28 50.2	+6.2
	comp=Z,6.4nm,1.0s,baz=37,slow=3.9,SNR=4.8						
KMBO	Kilima Mbogo	86.77	268	P	P	15 26 36.2	+0.5
KMBO				pmax	pmax		
	comp=Z,75nm,1.2s						
KMBO				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KMBO	Kilima Mbogo	86.77	268	*e*P	P	15 26 35.9	+0.2
	comp=Z,70nm,1.2s,mb5.3						
KTK1	Kautokeino	86.97	339	*e*P	P	15 26 35.3	0.0

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KTK1                                 AMb      AMB      15 26 38.6
      comp=Z,86nm,1.3s,mb5.3
KTK1  Kautokeino        86.97 339  eP       P        15 26 35.3  0.0
      comp=Z,86nm,1.3s,mb5.3
KAF   Kangasniemi       87.07 332  ep       P        15 26 35.1 -0.8
      comp=Z,95nm,0.6s,mb5.7,baz=76,slow=4.3
KAF   Kangasniemi       87.07 332  eP       P        15 26 35.1 -0.8
KAF                                 pmax     pmax
      comp=Z,95nm,0.6s,mb5.7
MDU   Mudurnu           87.28 310  eP       P        15 26 36.3 -1.2
FINES FINESS Array B    87.30 332   P       P        15 26 36.1 -0.8
      comp=Z,51nm,0.5s,mb5.5,baz=73,slow=5.3,SNR=208
FINES                               PKKPbc           15 44 24.0
      comp=Z,2.4nm,0.9s,SNR=7.3
FINES FINESS Array B    87.30 332   P       P        15 26 36.2 -0.8
FINES                               pmax     pmax
      comp=Z,51nm,0.5s
FINES                               pmax     pmax
      comp=Z,2.0nm,1.0s
VNDA  Vanda             87.38 172   P       P        15 26 37.3 +0.2
      comp=Z,31nm,0.6s,mb5.2,baz=318,slow=5.9,SNR=79
VNDA                                PKKPbc           15 44 25.1
      comp=Z,1.9nm,0.6s,baz=272,slow=2.9,SNR=5.3
VNDA  Vanda             87.38 172   P       P        15 26 37.3 +0.2
VNDA                                pmax     pmax
      comp=Z,31nm,0.6s
VNDA                                pmax     pmax
      comp=Z,2.0nm,0.6s
VNDA  Vanda             87.38 172  eP       P        15 26 37.0  0.0
      comp=Z,42nm,0.9s,mb5.2
HENT  Hendek            87.47 311  i P      P        15 26 33.9 -4.4
VSU   Vasula            87.49 329  i P      P        15 26 37.3 -0.7
ESKT  Eskisehir         87.67 309   P       P        15 26 38.2 -1.1
ESKT  Eskisehir         87.67 309  i P      P        15 26 36.8 -2.5
INK   Inuvik            87.85  21   P       P        15 26 39.3 -0.2
      comp=Z,19nm,0.9s,mb4.8,baz=281,slow=5.4,SNR=24
INK                                 pP       pP      15 28 47.7 -0.5
      comp=Z,6.7nm,1.1s,baz=251,slow=7.3,SNR=3.1
INK                                 PKiKP            15 31 39.5
      comp=Z,1.4nm,0.6s,baz=302,slow=2.5,SNR=4.3
INK                                 PKKPbc           15 44 22.1
      comp=Z,3.2nm,0.6s,baz=54,slow=3.4,SNR=21
INK   Inuvik            87.85  21   P       P        15 26 39.3 -0.2
INK                                 *PP      pP      15 28 47.7 -0.5
INK                                 pmax     pmax
      comp=Z,19nm,0.9s
INK                                 pmax     pmax
      comp=Z,7.0nm,1.1s
INK                                 pmax     pmax
      comp=Z,1.0nm,0.6s
INK                                 pmax     pmax
      comp=Z,3.0nm,0.6s
INK   Inuvik            87.85  21  eP       P        15 26 39.5  0.0
      comp=Z,47nm,1.1s,mb5.1
INK                                epP      pP       15 28 40.3 -7.9
KIS   Kishinev          88.09 317  eP       P        15 26 40.0 -1.1
ISP   Isparta           88.16 308  eP       P        15 26 39.8 -1.8
      comp=Z,78nm,1.1s,mb5.3
TRO   Tromso            88.29 340  eP       P        15 26 39.6 -1.9
ALT   Altintas          88.31 309   P       P        15 26 41.7 -0.6
SBA   Scott Base        88.31 172  eP       P        15 26 42.1 +0.6
      comp=Z,14nm,1.0s,mb4.7
CFR   Carcaliu          88.84 315⇑iP        P        15 26 44.7  0.0
CFR   Carcaliu          88.84 315⇑iP        P        15 26 44.7  0.0
PPT   Papeete           88.95 108  eS       S        15 36 49.9 +7.2
PPT                                eSS      SS       15 42 42.5  -16
VRI   Vrincioaia        89.70 316⇓iP        P        15 26 49.1 +0.5
VRI   Vrincioaia        89.70 316⇓iP        P        15 26 49.1 +0.5
TBI   Tubuai            89.86 113  eS       S        15 36 58.8 +8.1
TBI                                eSS      SS       15 42 53.5  -18
ISR   Istrita           89.97 315⇓iP        P        15 26 48.2 -1.7
ISR   Istrita           89.97 315⇓iP        P        15 26 48.2 -1.7
AKS   Akhisar           90.10 309  eP       P        15 26 49.8 -0.9
MLR   Muntele Rosu      90.31 316   P       P        15 26 51.2 -0.2
      comp=Z,31nm,0.8s,mb5.2,baz=335,slow=2.3,SNR=45
MLR   Muntele Rosu      90.31 316   P       P        15 26 51.2 -0.2
MLR                                 pmax     pmax
      comp=Z,31nm,0.8s
SUW   Suwalki           90.32 325  eP       P        15 26 50.8 -0.5
SUW                                e                 15 27 00.5
KDAG  Bornova           90.61 309  i P      P        15 26 50.2 -2.8
MOR8  Moi Rana          91.01 337  eP       P        15 26 52.4 -1.7
MOR8                                AMb      AMB     15 27 04.2
      comp=Z,70nm,1.9s,mb5.3
MOR8  Moi Rana          91.01 337  eP       P        15 26 53.4 -0.7
      comp=Z,70nm,1.9s,mb5.3
KWP   Kalwaria          91.60 320  eP       P        15 26 57.3 +0.1
KWP                                e                 15 27 06.8
RZN   Rozhen            91.92 312  eP       P        15 26 58.0 -0.9
KOLS  Kolonicke sedl    92.04 320  eP       P        15 27 00.8 +1.6
KOLS                               e                 15 27 12.9
DLBC  Dease Lake        92.10  30   P       P        15 27 00.9 +1.7
      comp=Z,9.5nm,0.7s,mb4.9,baz=322,slow=6.2,SNR=9.5
DLBC  Dease Lake        92.10  30  eP       P        15 27 00.0 +0.8
CRVS  Cervenica-Dubn    92.56 320  eP       P        15 27 02.7 +1.1
NSS   Namsos            92.58 336  eP       P        15 26 58.9 -2.4
MMB   Musomiste         92.67 312  eP       P        15 27 01.0 -1.3
VTS   Vitosha           92.83 313  eP       P        15 27 02.0 -1.0
KKB   Krupnik           93.08 313  eP       P        15 27 02.0 -2.2
MBAR  Mbarara           93.16 270  eP       P        15 27 04.3 -0.9
NIE   Niedzica          93.16 321  eP       P        15 27 04.6 +0.3
OJC   Ojcow             93.28 321  eP       P        15 27 04.3 -0.5
DAG   Danmarks Havn     93.29 352⇑eP        P        15 27 03.5 -0.9
DAG                                 pmax     pmax
      comp=Z,31nm,0.7s,mb5.5
DAG   Danmarks Havn     93.29 352⇑eP        P        15 27 03.5 -0.9
      comp=Z,31nm,0.7s,mb5.4
DAG   Danmarks Havn     93.29 352⇑iP        P        15 27 03.5 -0.9
      comp=Z,31nm,0.7s,mb5.4
KECS  Kecovo            93.30 320  eP       P        15 27 04.5 -0.5
KECS                               e                 15 27 13.3
HFS   Hagfors           93.49 332   PKKP             15 44 08.5
      comp=Z,3.0nm,0.8s,baz=217,slow=7.4,SNR=5.7
PSZ   Piszkesteto       93.82 319⇑e         P        15 27 08.6 +1.2
GKP   Gorka Klasztor    93.93 325  eP       P        15 27 07.8 +0.1
GKP                                e                 15 27 08.8
NB2   NORSAR Subarra    94.28 333   P       P        15 27 07.4 -1.7
      comp=Z,27nm,0.8s,mb5.4,baz=66,slow=4.5
NB2   NORSAR Subarra    94.28 333   P       P        15 27 07.4 -1.7
      baz=66,slow=4.6
NOA   NORSAR Array B    94.28 333   P       P        15 27 08.3 -0.7
      comp=Z,18nm,0.7s,mb5.3,baz=67,slow=4.5,SNR=40
NOA   NORSAR Array B    94.28 333   P       P        15 27 08.3 -0.8
NOA                                 pmax     pmax
      comp=Z,18nm,0.7s
NOA   NORSAR Array B    94.28 333   P       P        15 27 08.3 -0.7
VYHS  Vyhne             94.35 320  eP       P        15 27 11.1 +1.4
VYHS                               e                 15 27 19.1
VYHS                               ePP      PP       15 30 56.7  -12
OKC   Ostrava-Krasne    94.40 321⇓eP        P        15 27 10.5 +0.6
NAO01 NORSAR Array S    94.50 333  eP       P        15 27 08.8 -1.3
      comp=Z,21nm,0.7s,mb5.4
NAO01                              e                 15 27 18.7
DIVS  Divcibare         94.75 315⇑iP        P        15 27 10.6 -1.0
RES   Resolute Bay      94.75  10  eP       P        15 27 09.5 -1.5
      comp=Z,11nm,0.9s,mb5.0
SYO   Syowa Base        94.76 201  ⇑P       P        15 27 10.3 -0.8
SYO   Syowa Base        94.76 201  ⇓pP      pP       15 29 17.2 -3.8
MORC  Moravsky Berou    94.80 321  eP       P        15 27 11.7 +0.1
      comp=Z,11nm,1.0s,mb4.9
SRO   Srobarova         94.88 319  eP       P        15 27 12.3 +0.2
PKSM  Moragy            95.11 318⇑eP        P        15 27 12.9 -0.3
KSP   Ksiaz             95.23 323  eP       P        15 27 13.7 +0.1
KSP                                e                 15 31 18.3
KSP   Ksiaz             95.23 323  eP       P        15 27 13.7 +0.1
KSP                                e                 15 27 15.6
KSP                                e                 15 27 23.0
KSP                                ePP      PP       15 31 18.3 +3.1
KSP   Ksiaz             95.23 323  eP       P        15 27 13.6  0.0
KSP                                e                 15 27 15.7
KSP                                e                 15 27 23.1
DPC   Dobruska-Polom    95.37 322  eP       P        15 27 14.9 +0.7
UPC   Upice             95.51 322⇓eP        P        15 27 16.9 +2.0
RHK1  Bakonya           95.52 318⇑eP        P        15 27 14.8 -0.2
ZST   Bratislava        95.54 320  eP       P        15 27 14.7 -0.4
RUE   Ruedersdorf       96.17 325  eP       P        15 27 17.6 -0.2
      comp=Z,38nm,0.7s,mb5.7
RUE                                e                 15 27 28.3
PVCC  Panska Ves        96.37 323⇓eP        P        15 27 20.9 +2.1
PRU   Pruhonice         96.57 322  eP       P        15 27 20.4 +0.7
PRU                                 pmax     pmax
      comp=Z,35nm,1.3s,mb5.4
PRU   Pruhonice         96.57 322⇓eP        P        15 27 20.4 +0.7
      comp=Z,35nm,1.3s,mb5.4
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BRG   Berggiesshubel    96.63 323  i P      P        15 27 20.2 +0.3
BRG                                 pmax     pmax
      comp=Z,26nm,0.9s,mb5.5
BRG   Berggiesshubel    96.63 323  i P      P        15 27 20.2 +0.3
      comp=Z,26nm,0.9s,mb5.5
BRG                                i                 15 27 30.0
BRG                                e                 15 31 35.3
CLL   Collm             97.03 324⇑iP        P        15 27 23.2 +1.5
CLL                                 pmax     pmax
      comp=Z,36nm,1.5s,mb5.4
CLL   Collm             97.03 324⇑iP        P        15 27 23.2 +1.5
      comp=Z,36nm,1.5s,mb5.4
CLL                                e                 15 27 30.0
CLL   Collm             97.03 324  ⇑P       P        15 27 23.2 +1.5
      comp=Z,logA/T=1.4,mb5.4
CLL                                e                 15 27 30.0
CLL                                ePP      PP       15 31 24.0 -5.2
QSPA  South Pole Qui    97.24 180  eP       P        15 27 24.0 +1.9
      comp=Z,3.2nm,0.5s,mb4.8
YKW3  Yellowknife Ar    97.33  23  eP       P        15 27 23.1 +0.3
LSZ   Lusaka            97.34 256  eP       P        15 27 22.5 -1.4
      comp=Z,11nm,0.8s,mb5.1
LSZ                                e                 15 27 32.4
CRES  Cresnjev          97.34 318  i P      P        15 27 22.8 -0.4
YKA   Yellowknife Ar    97.37  24   P       P        15 27 23.3 +0.4
      comp=Z,6.5nm,0.9s,mb4.9,baz=301,slow=4.5,SNR=62
YKA                                 pP       pP      15 29 32.5 -0.5
      comp=Z,1.5nm,0.8s,baz=299,slow=4.6,SNR=4.4
YKA                                 PKiKP            15 31 54.3
      comp=Z,2.7nm,0.7s,baz=306,slow=1.7,SNR=18
YKA                                 PKKP             15 43 56.6
      comp=Z,2.5nm,0.5s,baz=124,slow=2.9,SNR=33
YKA   Yellowknife Ar    97.37  24   P       P        15 27 23.3 +0.3
YKA                                 *PP      pP      15 29 32.5 -0.5
YKA                                 pmax     pmax
      comp=Z,7.0nm,0.9s
YKA                                 pmax     pmax
      comp=Z,2.0nm,0.8s
YKA                                 pmax     pmax
      comp=Z,3.0nm,0.7s
YKA                                 pmax     pmax
      comp=Z,3.0nm,0.5s
YKA   Yellowknife Ar    97.37  24   P       P        15 27 23.3 +0.4
YKA                                 pP       pP      15 29 32.5 -0.5
KHC   Kasperske Hory    97.45 322⇓iP        P        15 27 24.0 +0.3
KHC                                ex       x        15 30 36.0
KHC                                 x       x        15 30 55.0
MOA   Molln             97.46 320⇑iP        P        15 27 23.9 +0.2
      comp=Z,19nm,0.8s,mb5.4
GEC2  GERESS Array S    97.48 321  eP       P        15 27 24.4 +0.6
GERES GERESS Array B    97.48 321   P       P        15 27 23.8  0.0
      comp=Z,5.0nm,0.6s,mb4.9,baz=72,slow=3.9,SNR=38
GERES                               PKiKP            15 31 57.3
      comp=Z,0.6nm,0.5s,baz=56,slow=1.3,SNR=5.0
GERES                               PKKP             15 43 59.1
      comp=Z,0.8nm,0.6s,baz=243,slow=3.0,SNR=6.6
GERES GERESS Array B    97.48 321   P       P        15 27 23.8  0.0
GERES                               pmax     pmax
      comp=Z,5.0nm,0.6s
GERES                               pmax     pmax
      comp=Z,1.0nm,0.5s
GERES                               pmax     pmax
      comp=Z,1.0nm,0.6s
BSEG  Bad Segeberg      97.56 327  eP       P        15 27 24.5 +0.5
PDKS  Podkum            97.57 318  i P      P        15 27 24.1 -0.2
NKC   Novy Kostel       97.75 323⇓eP        P        15 27 26.8 +1.8
VISS  Visnje            97.76 318  i P      P        15 27 24.9 -0.3
VISS                               i pP     Px       15 27 34.5
WET   Wettzell          97.88 322  eP       P        15 27 27.2 +1.6
MOX   Moxa              98.09 323  eP       P        15 27 28.1 +1.6
MOX                                 pmax     pmax
      comp=Z,59nm,2.0s,mb5.6
MOX   Moxa              98.09 323  i P      P        15 27 28.1 +1.6
      comp=Z,logA/T=1.5,mb5.6
MOX   Moxa              98.09 323  eP       P        15 27 28.1 +1.6
      comp=Z,59nm,2.0s,mb5.6
JAVS  Javornik          98.24 318  eP       P        15 27 26.6 -0.6
GRF   Grafenberg Arr    98.69 323  eP       P        15 27 29.7 +0.5
SCO   Scoresbysund      98.97 349  eP       P        15 27 33.0 +3.0
SCO   Scoresbysund      98.97 349  i P      P        15 27 33.0 +3.0
WTTA  Wattenberg        99.33 320⇓iP        P        15 27 31.6 -0.6
      comp=Z,17nm,0.7s,mb5.5
WATA  Walderalm         99.34 320⇓iP        P        15 27 31.2 -1.0
      comp=Z,11nm,1.0s,mb5.2
SQTA  Sankt Quirin      99.62 320⇑iP        P        15 27 33.0 -0.5
      comp=Z,6.0nm,0.8s,mb5.0
MOTA  Moosalm           99.64 320⇓iP        P        15 27 33.0 -0.6
      comp=Z,5.9nm,0.9s,mb4.9
DAVOX Davos            100.63 320   P       P        15 27 38.1 +0.1
      comp=Z,7.3nm,0.7s,baz=86,slow=8.1,SNR=11
YBH   Yreka Blue Hor   102.18  45   P       Pdif     15 27 47.1 +2.1
      comp=Z,1.9nm,1.1s,baz=100,slow=5.4,SNR=2.3
YBH                                 PKiKP            15 32 05.8
      comp=Z,2.4nm,0.9s,baz=246,slow=6.9,SNR=2.9
YBH   Yreka Blue Hor   102.18  45   P       Pdif     15 27 47.1 +2.1
YBH                                i                 15 32 05.8
YBH                                 pmax     pmax
      comp=Z,2.0nm,1.1s
YBH                                 pmax     pmax
      comp=Z,2.0nm,0.9s
NEW   Newport          103.12  37   Pdiff   Pdif     15 27 50.2 +1.2
      comp=Z,0.8nm,0.3s,baz=308,slow=4.8,SNR=5.7
NEW                                 PKiKP            15 32 07.0
NEW   Newport          103.12  37   P       Pdif     15 27 50.2 +1.2
NEW                                 pmax     pmax
      comp=Z,1.0nm,0.3s
NEW   Newport          103.12  37   Pdif    Pdif     15 27 50.2 +1.2
LPG   La Plagne        103.14 320  eP       Pdif     15 27 49.3 +0.2
LPL   La Plagne        103.14 320  eP       Pdif     15 27 50.0 +0.9
MBDF  Montbardon       103.45 319  eP       Pdif     15 27 51.5 +1.0
      comp=Z,19nm,1.0s
EKA   Eskdalemuir Ar   103.69 332   PKKPbc           15 43 40.9
      comp=Z,3.1nm,0.6s,baz=245,slow=3.4,SNR=17
EKA                                 PKKP             15 43 50.7
      comp=Z,2.6nm,0.9s,baz=248,slow=3.2,SNR=4.8
ORIF  Oris-en-Rattie   103.94 320  eP       Pdif     15 27 53.5 +0.8
      comp=Z,7.9nm,0.7s
MSO   Missoula         105.69  37  ePKiKP            15 32 09.8
NVAR  Mina Array Bea   106.57  46   Pdiff   Pdif     15 28 05.6 +1.2
      comp=Z,1.4nm,0.8s,baz=279,slow=3.5,SNR=12
NVAR                                pPdiff           15 30 15.8
      comp=Z,0.6nm,0.7s,baz=260,slow=5.5,SNR=2.9
NVAR                                PKiKP            15 32 11.2
      comp=Z,1.0nm,0.5s,baz=284,slow=1.2,SNR=7.3
NVAR                                PKKPbc           15 43 33.2
      comp=Z,2.0nm,0.8s,baz=119,slow=4.7,SNR=10
NVAR                                PKKP             15 43 42.9
      comp=Z,2.9nm,1.0s,baz=129,slow=5.0,SNR=7.0
NVAR                                PKKPab           15 43 51.5
      comp=Z,2.0nm,0.7s,baz=123,slow=5.9,SNR=8.4
NVAR  Mina Array Bea   106.57  46   Pdif    Pdif     15 28 05.6 +1.2
NVAR                                PKPdf            15 32 11.2
NVAR                                PKKPbc           15 43 33.2
NVAR                                PKKP             15 43 42.9
NVAR                                PKKPab           15 43 51.5
HLID  Hailey           106.97  40  ePKiKP            15 32 13.4
MCMT  McKenzie Canyo   107.35  39  ePKiKP            15 32 13.5
ELK   Elko             107.72  43  ePKiKP            15 32 14.4
ELK                                e                 15 32 24.6
SNAA  Sanae            107.95 195   Pdiff   Pdif     15 28 12.6 +2.9
      comp=Z,0.6nm,0.7s,baz=108,slow=2.3,SNR=4.3
SNAA                                PKiKP            15 32 12.9
      comp=Z,0.5nm,0.5s,baz=280,slow=5.6,SNR=10.0
SNAA                                PKKPbc           15 43 27.7
      comp=Z,1.4nm,0.7s,baz=273,slow=2.8,SNR=15
SNAA                                PKKP             15 43 43.7
      comp=Z,2.2nm,0.9s,baz=288,slow=3.3,SNR=9.1
SNAA  Sanae            107.95 195   P       Pdif     15 28 12.6 +2.9
SNAA                                pmax     pmax
      comp=Z,1.0nm,0.7s
SNAA                                pmax     pmax
      comp=Z,1.0nm,0.5s
SNAA                                pmax     pmax
      comp=Z,1.0nm,0.7s
SNAA                                pmax     pmax
      comp=Z,2.0nm,0.9s
FRB   Frobisher Bay    108.47   6   PKiKP            15 32 13.8
      comp=Z,3.2nm,0.5s,baz=51,slow=3.6,SNR=8.3
FRB                                 PKKPbc           15 43 26.6
      comp=Z,2.0nm,0.6s,baz=159,slow=7.6,SNR=5.7
YMR   Madison River    108.58  38  ePKiKP            15 32 16.4
HVU   Hansel Valley    108.89  41  ePKiKP            15 32 16.4
IMW   Indian Meadow    109.00  39  ePKiKP            15 32 17.0
TPAW  Teton Pass       109.20  39  ePKiKP            15 32 17.7
REDW  Red Top Meadow   109.33  39  ePKiKP            15 32 16.7
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SNOW  Snow King Moun   109.34  39  ePKiKP            15 32 17.9
SNOW                               e                 15 32 27.2
LOHW  Long Hollow      109.35  39  ePKiKP            15 32 17.8
HWUT  Hardware Ranch   109.76  41  ePKiKP            15 32 18.1
TCUT  Toone Canyon     110.11  41  ePKiKP            15 32 19.8
NLU   North Lily Min   110.23  43  ePKiKP            15 32 20.0
LAO   LASA Array       110.24  34   PKiKP            15 32 19.4
NEN   Nelson           110.24  48  ePKiKP            15 32 19.9
NEN                                eSKP              15 34 59.4
PDAR  Pinedale Array   110.45  39   PKiKP            15 32 19.2
      comp=Z,1.9nm,0.6s,baz=6.9,slow=1.0,SNR=13
PDAR                                PKKPbc           15 43 18.9
      comp=Z,1.2nm,0.7s,baz=119,slow=6.1,SNR=9.4
PDAR                                PKKP             15 43 31.9
      comp=Z,2.7nm,0.7s,baz=117,slow=6.6,SNR=15
MPU   Maple Canyon     110.50  42  ePKiKP            15 32 19.8
DAU   Daniels Canyon   110.56  42  ePKiKP            15 32 20.2
MVU   Marysvale        110.83  44  ePKiKP            15 32 20.9
MSU   Marysvale        110.85  44  ePKiKP            15 32 21.5
TMUT  Trail Mountain   111.14  43  ePKiKP            15 32 21.6
SRU   San Rafael       111.69  43  ePKiKP            15 32 21.7
ESDC  Sonseca Array    112.85 319   PKiKP            15 32 25.0
      comp=Z,0.6nm,0.6s,baz=54,slow=3.0,SNR=4.4
PV10  Paradox Valley   113.06  43  ePKiKP            15 32 25.1
PV10                               eSKPdf            15 35 05.2
ULM   Lac du Bonnet    113.09  26   PKiKP            15 32 23.4
      comp=Z,10nm,0.5s,baz=307,slow=2.0,SNR=24
ULM                                 PKKPab           15 43 20.7
      comp=Z,3.0nm,1.0s,baz=190,slow=6.6,SNR=3.5
ULM   Lac du Bonnet    113.09  26  ePKiKP            15 32 23.6
ULM                                e                 15 32 33.5
PV01  Paradox Valley   113.50  43  ePKiKP            15 32 25.7
ISCO  Idaho Springs    114.55  40  ePKiKP            15 32 27.7
SDCO  Great Sand Dun   115.76  42  ePKPdf   PKPdf    15 32 29.6 +2.0
ANMO  Albuquerque      116.60  45   PKP     PKPdf    15 32 32.3 +3.0
      comp=Z,9.2nm,0.7s,baz=228,slow=2.2,SNR=30
ANMO                                SKP              15 35 12.4
      comp=Z,4.6nm,1.1s,baz=215,slow=2.8,SNR=3.0
ANMO                                PKKPab           15 43 07.2
      comp=Z,1.9nm,0.6s,baz=127,slow=5.1,SNR=7.4
ANMO  Albuquerque      116.60  45   PKIKP   PKPdf    15 32 32.3 +3.0
ANMO                                pmax     pmax
      comp=Z,9.0nm,0.7s
ANMO                                pmax     pmax
      comp=Z,5.0nm,1.1s
ANMO                                pmax     pmax
      comp=Z,2.0nm,0.6s
ANMO  Albuquerque      116.60  45  ePKPdf   PKPdf    15 32 31.9 +2.6
LENM  Lemitar          116.64  46  ePKPdf   PKPdf    15 32 31.2 +1.8
LPM   Los Pinos Moun   116.81  46  ePKPdf   PKPdf    15 32 32.3 +2.6
BNM   Barren Site      116.90  46  ePKPdf   PKPdf    15 32 32.5 +2.6
SCHQ  Schefferville    117.39   7   PKP     PKPdf    15 32 32.0 +1.6
      comp=Z,14nm,0.4s,baz=343,slow=2.6,SNR=59
SCHQ  Schefferville    117.39   7  ePKPdf   PKPdf    15 32 31.8 +1.4
MNTX  Cornudas Mount   119.05  48  ePKPdf   PKPdf    15 32 35.9 +1.8
MNTX                               e                 15 32 46.0
CPRX  Cap Rock         119.44  46  ePKPdf   PKPdf    15 32 35.6 +0.7
GDL2  Guadalupe Moun   119.53  47  ePKPdf   PKPdf    15 32 37.1 +2.0
CLNB  Carlsbad         119.85  46  ePKPdf   PKPdf    15 32 37.5 +1.8
AMTX  Amarillo         119.92  43  ePKPdf   PKPdf    15 32 37.4 +1.6
KSU1  Kansas State U   120.49  36  ePKPdf   PKPdf    15 32 37.8 +1.0
KSU1                               e                 15 32 48.1
JFWS  Jewell Farm      121.14  29  ePKPdf   PKPdf    15 32 38.7 +0.8
LTX   Lajitas          121.53  49  ePKPdf   PKPdf    15 32 40.7 +1.8
LTX                                e                 15 32 50.2
TXAR  Lajitas Array    121.53  49   PKP     PKPdf    15 32 41.2 +2.3
      comp=Z,7.0nm,0.8s,baz=264,slow=0.9,SNR=32
TXAR                                pPKP             15 34 59.3
      comp=Z,1.6nm,0.9s,baz=270,slow=1.3,SNR=3.2
TXAR                                SKP              15 35 20.5
      comp=Z,1.1nm,0.9s,baz=335,slow=27,SNR=4.0
TXAR                                PKKPbc           15 42 44.3
      comp=Z,2.6nm,1.0s,baz=112,slow=6.7,SNR=11
TXAR  Lajitas Array    121.53  49   PKP     PKPdf    15 32 41.2 +2.3
TXAR                                pPKP             15 34 59.3
TXAR                                SKP              15 35 20.5
TXAR                                PKKPbc           15 42 44.3
WMOK  Wichita Mounta   121.93  41  ePKPdf   PKPdf    15 32 41.0 +1.3
JCT   Junction City    123.74  46  ePKPdf   PKPdf    15 32 44.7 +1.4
JCT                                e                 15 32 54.8
SADO  Sadowa           124.13  20   PKP     PKPdf    15 32 44.7 +1.0
      comp=Z,30nm,0.5s,baz=325,slow=3.2,SNR=25
SADO  Sadowa           124.13  20   PKP     PKPdf    15 32 44.7 +1.0
FVM   French Village   124.73  33  ePKPdf   PKPdf    15 32 45.7 +0.7
FVM                                e                 15 32 55.6
MIAR  Mount Ida        125.34  38  ePKPdf   PKPdf    15 32 48.7 +2.4
MIAR                               e                 15 32 58.7
BLO   Bloomington      125.81  29  ePKPdf   PKPdf    15 32 48.3 +1.3
BLO                                e                 15 32 58.1
NCB   Newcomb          126.36  16  ePKPdf   PKPdf    15 32 49.6 +1.6
MIV   Mineville/With   126.44  16  ePKPdf   PKPdf    15 32 50.0 +1.9
NATX  Nacogdoches      126.48  41  ePKPdf   PKPdf    15 32 50.5 +1.9
MDV   Middlebury       126.61  15  ePKPdf   PKPdf    15 32 50.2 +1.8
MDV                                e                 15 32 59.6
WCI   Wyandotte Cave   126.66  30  ePKPdf   PKPdf    15 32 50.6 +1.8
WCI                                e                 15 33 00.3
HKT   Hockley          126.82  44  ePKPdf   PKPdf    15 32 52.2 +2.9
DBIC  Dimbokro         126.97 284   PKP     PKPdf    15 32 51.9 +1.9
      comp=Z,18nm,0.6s,baz=56,slow=2.4,SNR=25
DBIC                                PP       PP      15 34 58.8 -1.2
      comp=Z,7.3nm,0.8s,baz=43,slow=6.1,SNR=4.1
DBIC  Dimbokro         126.97 284   PKIKP   PKPdf    15 32 51.9 +1.9
DBIC                                                 15 34 58.8
DBIC                                pmax     pmax
      comp=Z,18nm,0.6s
DBIC                                pmax     pmax
      comp=Z,7.0nm,0.8s
HNH   Hanover          127.11  15  ePKPdf   PKPdf    15 32 51.6 +2.1
BINY  Binghamton       127.45  19  ePKPdf   PKPdf    15 32 51.7 +1.5
BINY                               e                 15 33 01.3
WVT   Waverly          127.49  32  ePKPdf   PKPdf    15 32 52.2 +1.8
WVT                                e                 15 33 01.5
SSPA  Standing Stone   128.22  21  ePKPdf   PKPdf    15 32 52.8 +1.1
SWET  Sewanee          129.19  32  ePKPdf   PKPdf    15 32 54.9 +1.2
MVL   Millersville     129.32  20  ePKPdf   PKPdf    15 32 55.1 +1.4
FWV   Forest Hill      129.71  26  ePKPdf   PKPdf    15 32 57.4 +2.8
PWV   Princeton        129.81  26  ePKPdf   PKPdf    15 32 56.8 +2.0
ELN   Prospectdale     130.03  26  ePKPdf   PKPdf    15 32 56.6 +1.3
BLA   Blacksburg       130.19  25  ePKPdf   PKPdf    15 32 56.9 +1.3
BLA                                e                 15 33 06.7
LRAL  Lakeview Retre   130.26  34  ePKPdf   PKPdf    15 32 56.9 +1.1
CBN   Corbin           130.55  22  ePKPdf   PKPdf    15 32 58.5 +2.3
USHA  Ushuaia          131.65 171   SKPbc            15 35 31.3
      comp=Z,46nm,1.1s,baz=180,slow=5.6,SNR=11
GOGA  Godfrey          131.87  31   PKPdf   PKPdf    15 33 00.1 +1.3
JSC   Jenkinsville     132.25  28  ePKPdf   PKPdf    15 33 01.9 +2.4
JSC                                e                 15 33 11.0
COW   Cow Castle Cre   133.25  29   PKPdf   PKPdf    15 33 01.1 -0.2
JTS   JuntasAbangare   146.39  59  ePKPdf   PKPdf    15 33 28.7 +3.4
SJG   San Juan         152.84  21   PKP     PKPdf    15 33 37.4 +2.5
      comp=Z,5.5nm,0.4s,baz=62,slow=14,SNR=3.3
SJG                                 PKPbc   PKPdf    15 33 46.2  +11
      comp=Z,18nm,0.6s,baz=252,slow=3.9,SNR=6.7
SJG                                 PKPab   PKPab    15 33 59.7 +0.3
      comp=Z,21nm,0.5s,baz=33,slow=6.8,SNR=7.0
SJG   San Juan         152.84  21   PKIKP   PKPdf    15 33 37.4 +2.5
SJG                                 pmax     pmax
      comp=Z,6.0nm,0.4s
SJG                                 pmax     pmax
      comp=Z,18nm,0.6s
SJG                                 pmax     pmax
      comp=Z,21nm,0.5s
SJG   San Juan         152.84  21  ePKPdf   PKPdf    15 33 37.1 +2.1
SJG                                ePKPbc   PKPdf    15 33 45.7  +11
ROSC  El Rosal         158.18  57   PKP     PKPdf    15 33 45.0 +2.8
      comp=Z,15nm,0.8s,baz=106,slow=16,SNR=7.7
SDV   Santo Domingo    158.35  42  ePKPdf   PKPdf    15 33 43.9 +1.6
SDV                                e                 15 33 54.3
LVC   Limon Verde      160.49 142   PKP     PKPdf    15 33 47.4 +3.1
      comp=Z,8.1nm,1.1s,baz=276,slow=6.1,SNR=5.8
LVC                                 PKPab   PKPab    15 34 32.2 +0.3
      comp=Z,5.9nm,0.8s,baz=272,slow=4.9,SNR=4.9
CPUP  Villa Florida    161.10 177   PKP     PKPdf    15 33 47.1 +2.2
      comp=Z,0.0nm,0.4s,baz=244,slow=13,SNR=1.9
CPUP                                PKPab   PKPab    15 34 34.7 +0.2
      comp=Z,0.0nm,0.3s,baz=224,slow=15,SNR=1.4
LPAZ  La Paz           165.31 128   PKP     PKPdf    15 33 52.2 +3.1
LPAZ                                PKPab   PKPab    15 34 55.7 +2.6
LPAZ  La Paz           165.31 128   PKP     PKPdf    15 33 52.2 +3.1
LPAZ                                PKPab   PKPab    15 34 55.7 +2.6
BAO   Brasilia Array   168.53 223   P       PKPdf    15 33 53.0 +1.6
BAO                                e                 15 35 06.6
BAO                                e                 15 35 16.1
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BDFB	**Brasilia**	**168.54**	**223**	PKP	PKPdf	15 33 52.8	+1.4
	comp=Z,7.0nm,0.9s,baz=185,slow=0.8,SNR=8.2						
BDFB				PKPab	PKPab	15 35 06.8	-0.5
	comp=Z,15nm,0.9s,baz=126,slow=3.9,SNR=9.9						
BDFB	**Brasilia**	**168.54**	**223**	PKIKP	PKPdf	15 33 52.8	+1.5
BDFB						15 35 06.8	
BDFB				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BDFB				pmax	pmax		
	comp=Z,15nm,0.9s						

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*NEIC **19** 15:43:21.5±1.3, 7.41S×129.02E, h83^{km}±13^{km}, mb4.1/4, Error ellipse: s-maj=13.3km s-min=9.1km az=66.0*

*IDC **19** 15:43:22.2±3.1, 7.39S×129.03E, h89^{km}±28^{km}, mb3.8/9, mb1 4.0/13, mb1mx4.0/17, Error ellipse: s-maj=26.8km s-min=12.7km az=66.0*

ISC 19 15:43:21.8±1.5, **7.56S**±0.06×**129.17E**±0.10, **h108**^{km}±16^{km}, **n40**, σ**1^{s}17**/40, **mb4.4**/16, **Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.02**	**148**	*e*P	**P**	**15 44 50.7**	**+1.0**
	32nm,0.2s						
KAKA				*e*S	**S**	**15 45 55.3**	**-2.6**
FITZ	**Fitzroy Crossi**	**11.03**	**198**	*e*P	**P**	**15 45 57.1**	**-0.5**
	16nm,0.2s						
FITZ				*e*S	**S**	**15 47 54.1**	**-5.2**
FITZ	**Fitzroy Crossi**	**11.03**	**198**	P	**P**	**15 45 57.0**	**-0.5**
	4.6nm,0.3s,baz=20,slow=9.6,SNR=146						
FITZ				S	**S**	**15 47 54.4**	**-4.9**
	12nm,0.3s,baz=194,slow=7.3,SNR=9.3						
WRAB	**Tennant Creek**	**13.29**	**158**	*e*Pn	**P**	**15 46 26.5**	**-0.8**
	5.2nm,0.6s						
WRAB				*e*Sn	**S**	**15 48 45.5**	**-7.3**
WRA	**Warramunga Arr**	**13.29**	**158**	P	**P**	**15 46 25.6**	**-1.7**
	1.4nm,0.3s,baz=328,slow=14,SNR=62						
WRA				S	**S**	**15 48 45.5**	**-7.3**
	5.3nm,0.3s,baz=336,slow=22,SNR=13						
MBWA	**Marble Bar**	**16.32**	**213**	*e*Pn	**P**	**15 47 06.5**	**+0.6**
ASAR	**Alice Springs**	**16.65**	**165**	P	**P**	**15 47 11.4**	**+1.4**
	0.7nm,0.3s,baz=342,slow=9.5,SNR=47						
ASAR				S	**S**	**15 50 09.3**	**-1.1**
	1.2nm,0.3s,baz=312,slow=15,SNR=6.7						
ASPA	**Alice Springs**	**16.65**	**165**	*e*P	**P**	**15 47 10.6**	**+0.6**
ASPA				*e*S	**S**	**15 50 09.3**	**-1.1**
PMG	**Port Moresby**	**17.88**	**97**	P	**P**	**15 47 26.7**	**+1.5**
	0.6nm,0.3s,baz=304,slow=10,SNR=5.3						
CTA	**Charters Tower**	**20.71**	**129**	*e*P	**P**	**15 48 08.0**	**+13**
	3.7nm,1.0s						
CTA	**Charters Tower**	**20.71**	**129**	P	**P**	**15 47 59.2**	**+3.8**
	2.1nm,0.8s,baz=317,slow=18,SNR=2.3						
CTA	**Charters Tower**	**20.71**	**129**	P	**P**	**15 47 59.2**	**+3.8**
TGY	**Tagaytay City**	**23.02**	**339**	P	**P**	**15 48 18.8**	**+0.6**
	51nm,0.4s,mb5.2,baz=114,slow=2.7,SNR=3.9						
FORT	**Forrest**	**23.13**	**182**	*e*P	**P**	**15 48 23.0**	**+3.9**
	31nm,0.5s,mb4.9						
STKA	**Stephens Creek**	**26.82**	**156**	*e*P	**P**	**15 48 56.0**	**+2.0**
	1.0nm,0.4s,mb3.7						
STKA	**Stephens Creek**	**26.82**	**156**	P	**P**	**15 48 55.5**	**+1.5**
	1.8nm,0.6s,mb3.8,baz=335,slow=17,SNR=6.2						
NWAO	**Narrogin (SRO)**	**27.57**	**202**	P	**P**	**15 49 02.7**	**+1.9**
	5.2nm,0.8s,mb4.1,baz=107,slow=17,SNR=3.0						
NWAO	**Narrogin (SRO)**	**27.57**	**202**	P	**P**	**15 49 02.7**	**+1.9**
CMAR	**Chiang Mai Arr**	**39.47**	**311**	P	**P**	**15 50 43.5**	**+0.2**
	11nm,1.3s,mb4.5,baz=132,slow=6.4,SNR=13						
CMAR				PcP	PcP	15 52 49.9	+0.1
	0.8nm,0.7s,baz=137,slow=1.2,SNR=6.0						
GUN	**Gumba**	**54.70**	**312**	*e*P	**P**	**15 52 42.4**	**0.0**
	16nm,0.4s,mb5.4						
PKI	**Pulchoki**	**54.87**	**311**	*e*P	**P**	**15 52 43.4**	**-0.2**
KKN	**Kakani**	**55.08**	**311**	*e*P	**P**	**15 52 44.8**	**-0.3**
	11nm,0.6s,mb5.1						
GKN	**Gorkha**	**55.68**	**311**	*e*P	**P**	**15 52 49.0**	**-0.4**
	16nm,0.4s,mb5.5						
KOLN	**Koldanda**	**56.33**	**311**	*e*P	**P**	**15 52 53.9**	**-0.2**
	23nm,0.8s,mb5.3						
SONM	**Songino Array**	**58.71**	**342**	P	**P**	**15 53 09.5**	**-1.0**
	1.1nm,0.6s,mb4.1,baz=155,slow=5.2,SNR=11						
AAK	**Ala-Archa**	**70.44**	**320**	*e*P	**P**	**15 54 26.4**	**0.0**
	1.6nm,0.6s,mb4.0						
ZAL	**Zalesovo**	**71.72**	**334**	P	**P**	**15 54 32.2**	**-1.7**
	1.3nm,0.5s,mb4.0,baz=322,slow=8.4,SNR=6.6						
ZAL	**Zalesovo**	**71.72**	**334**	P	**P**	**15 54 32.2**	**-1.7**
VNDA	**Vanda**	**72.00**	**173**	P	**P**	**15 54 36.4**	**+1.1**
	1.2nm,0.5s,mb4.0,baz=324,slow=7.7,SNR=12						
MAW	**Mawson**	**74.14**	**201**	P	**P**	**15 54 49.7**	**+1.9**
	1.1nm,0.5s,mb3.9,baz=77,slow=11,SNR=4.3						
MAW	**Mawson**	**74.14**	**201**	*e*P	**P**	**15 54 50.2**	**+2.4**
BVAR	**Borovoye Array**	**78.10**	**328**	P	**P**	**15 55 09.5**	**-0.8**
	0.5nm,0.4s,mb3.6,baz=72,slow=7.8,SNR=6.8						
BRVK	**Borovoye**	**78.17**	**328**	P	**P**	**15 55 09.2**	**-1.5**
	1.6nm,0.7s,mb3.9						
ARCES	**ARCESS Array B**	**101.81**	**340**	P	P	15 57 02.1	-1.5
	3.8nm,0.9s,baz=74,slow=6.6,SNR=4.5						
GERES	**GERESS Array B**	**112.32**	**320**	PKiKP		16 01 46.2	
	0.2nm,0.6s,baz=90,slow=1.3,SNR=4.4						
DAVOX	**Davos**	**115.36**	**318**	PKP	PKPdf	16 01 52.3	+1.4
	1.4nm,0.7s,baz=122,slow=13,SNR=2.5						
LVC	**Limon Verde**	**145.18**	**150**	PKPbc	PKPbc	16 02 51.6	+3.7
	2.1nm,0.4s,baz=195,slow=2.0,SNR=8.3						
CPUP	**Villa Florida**	**145.73**	**170**	PKPbc	PKPbc	16 02 52.1	+2.9
	0.0nm,0.3s,baz=215,slow=14,SNR=2.2						
LPAZ	**La Paz**	**150.77**	**144**	PKPbc	PKPdf	16 03 06.6	+10
LPAZ				PKPab	PKPab	16 03 14.0	+2.0
LPAZ	**La Paz**	**150.77**	**144**	PKPbc	PKPdf	16 03 06.6	+10
LPAZ				PKPab	PKPab	16 03 14.0	+2.0

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*IDC **19** 16:25:18.2±1.1, 4.02S×135.10E, mb3.9/4, mb1 4.2/8, mb1mx4.1/14, ML3.8/4, Error ellipse: s-maj=49.9km s-min=20.9km az=79.0*

*NEIC **19** 16:25:19.6±0.7, 4.03S×135.21E, h10^{km}, mb4.0/4, Error ellipse: s-maj=15.8km s-min=10.4km az=84.0*

ISC 19 16:25:20.7±0.6, **4.04S**±0.06×**135.3E**±0.1, **h33**^{km}, **n16**, σ**1^{s}27**/21, **mb3.9**/6, **Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.07**	**198**	*e*P	**P**	**16 27 32.4**	**+0.2**
	13nm,0.4s						
KAKA				*e*S	**S**	**16 29 15.6**	**+1.3**
PMG	**Port Moresby**	**12.92**	**115**	Pn	**P**	**16 28 24.3**	**-0.5**
WRAB	**Tennant Creek**	**15.82**	**183**	*e*P	**P**	**16 29 00.9**	**-1.9**
	13nm,0.6s						
WRA	**Warramunga Arr**	**15.83**	**183**	Pn	**P**	**16 29 00.7**	**-2.2**
	0.2nm,0.3s,baz=2.1,slow=13,SNR=17						
WRA				Sn	**S**	**16 31 53.2**	**-4.1**
	0.5nm,0.3s,baz=6.2,slow=23,SNR=6.1						
FITZ	**Fitzroy Crossi**	**16.88**	**213**	*e*P	**P**	**16 29 14.8**	**-1.3**
	5.2nm,0.7s						
FITZ				*e*S	**S**	**16 32 16.2**	**-5.2**
FITZ	**Fitzroy Crossi**	**16.88**	**213**	Pn	**P**	**16 29 13.8**	**-2.3**
	0.7nm,0.3s,baz=25,slow=10,SNR=24						
FITZ				Sn	**S**	**16 32 16.6**	**-4.8**
	1.3nm,0.3s,baz=181,slow=12,SNR=6.4						
CTA	**Charters Tower**	**19.19**	**147**	P	**P**	**16 29 44.6**	**0.0**
	0.2nm,0.3s,baz=331,slow=16,SNR=4.5						
CTAO	**Charters Tower**	**19.19**	**147**	*e*P	**P**	**16 29 44.4**	**-0.1**
ASAR	**Alice Springs**	**19.56**	**184**	P	**P**	**16 29 49.4**	**+0.7**
	0.9nm,0.3s,baz=9.0,slow=11,SNR=133						
ASAR				S	**S**	**16 33 24.7**	**+2.6**
	0.2nm,0.3s,baz=5.1,slow=28,SNR=4.9						
ASPA	**Alice Springs**	**19.56**	**184**	*e*P	**P**	**16 29 50.0**	**+1.4**
MBWA	**Marble Bar**	**22.77**	**220**	P	**P**	**16 30 21.5**	**-0.2**
	1.5nm,0.5s,mb3.7						
SONM	**Songino Array**	**57.55**	**337**	P	**P**	**16 35 08.8**	**-0.7**
	0.3nm,0.6s,mb3.5,baz=149,slow=8.4,SNR=3.3						
ZAL	**Zalesovo**	**71.42**	**331**	P	**P**	**16 36 39.3**	**-0.2**
	0.8nm,0.3s,mb4.1,baz=4.7,slow=2.0,SNR=3.9						
BVAR	**Borovoye Array**	**78.48**	**326**	P	**P**	**16 37 20.6**	**+0.5**
	1.9nm,0.9s,mb4.0,baz=108,slow=4.6,SNR=6.1						
BRVK	**Borovoye**	**78.56**	**326**	*e*P	**P**	**16 37 20.6**	**+0.1**
	1.3nm,0.5s,mb4.1						
ILAR	**Eielson Array**	**88.45**	**25**	P	**P**	**16 38 12.7**	**+2.2**
	0.6nm,0.9s,mb3.8,baz=263,slow=3.9,SNR=3.7						

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*SNSN **19** 16:28:35.7, 25.98N×35.46E, h10^{km}, Ml2.4*

*HLW **19** 16:28:38.0, 26.08N×35.58E, h13^{km}, Mb3.2*

*CSEM **19** 16:28:38.6±0.1, 26.10N×35.61E, h40^{km}, ML3.2, Error ellipse: s-maj=1.9km s-min=1.6km az=97.0*

ISC 19 16:28:36.6±0.6, **26.09N**±0.04×**35.61E**±0.07, **h10**^{km}, **n16**, σ**0^{s}51**/18, **3C**, **Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HQSR		**1.15**	**253**	⇑*e*P	**Pb**	**16 28 58.8**	**+0.7**
HADB		**1.15**	**231**	⇑*e*P	**Pb**	**16 28 58.9**	**+0.8**
EMRS	**Mersa Alam**	**1.28**	**213**	P	**Pb**	**16 29 00.5**	**+0.2**
EMRS				S	**Sb**	**16 29 15.7**	**-1.0**
EMRS	**Mersa Alam**	**1.28**	**213**	P	**Pb**	**16 29 00.5**	**+0.2**
EMRS				S	**Sb**	**16 29 15.6**	**-1.0**
HSFG		**1.58**	**288**	⇑*e*P	**Pn**	**16 29 04.5**	**-0.3**
UMJS	**Umm Lajj**	**1.76**	**119**	P	**Pn**	**16 29 07.2**	**-0.2**
HAGS	**Hagol**	**1.79**	**198**	P	**Pn**	**16 29 08.2**	**+0.3**
AYUS	**‘Aynunah**	**2.11**	**352**	P	**Pn**	**16 29 12.9**	**+0.4**
TBKS	**Tabuk**	**2.29**	**21**	P	**Pn**	**16 29 15.6**	**+0.7**
BDAS	**Al Bad‘**	**2.38**	**349**	P	**Pn**	**16 29 16.0**	**-0.2**
TAYS	**Tayyib Ism**	**2.54**	**345**	P	**Pn**	**16 29 17.6**	**-0.9**
JMQS	**Jabal Moqyreh**	**2.80**	**5**	P	**Pn**	**16 29 22.6**	**+0.3**
HAQS	**Haql**	**3.02**	**349**	P	**Pn**	**16 29 25.2**	**-0.2**
JMOS	**Jabal al Moall**	**3.10**	**352**	P	**Pn**	**16 29 26.5**	**-0.1**
ALWS	**Ilw as Safayha**	**3.25**	**352**	P	**Pn**	**16 29 28.2**	**-0.4**
KBRS	**Khaybar**	**3.30**	**94**	P	**Pn**	**16 29 29.3**	**-0.1**

IDC 19 16:44:45.8±3.0, **6.59N**×**122.90E**, **h634**^{km}±42^{km}, **mb2.5**/4, **mb1 2.7**/4, **mb1mx2.5**/17, **Error ellipse: s-maj=85.0km s-min=16.6km az=55.0**, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**26.15**	**299**	P	P	16 49 32.8	-1.8
	0.3nm,0.6s,baz=98,slow=6.4,SNR=4.7						
WRA	**Warramunga Arr**	**28.67**	**157**	P	P	16 49 53.7	-2.5
	0.3nm,0.3s,baz=331,slow=10,SNR=15						
WRA				S	S	16 54 01.6	-2.5
	0.2nm,0.7s,baz=335,slow=15,SNR=2.8						
ASAR	**Alice Springs**	**31.94**	**161**	P	P	16 50 23.1	-0.8
	0.7nm,0.3s,baz=340,slow=7.2,SNR=18						
ASAR				PcP	PcP	16 52 52.0	-2.4
	0.2nm,0.5s,baz=344,slow=3.3,SNR=5.0						
ASAR				S	S	16 54 52.2	-2.0
	0.3nm,0.6s,baz=349,slow=19,SNR=3.3						
STKA	**Stephens Creek**	**42.21**	**156**	P	P	16 51 46.0	-1.4
	1.0nm,0.8s,baz=333,slow=9.0,SNR=3.0						

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*SNSN **19** 16:50:10.8, 26.10N×35.60E, Ml2.2*

*CSEM **19** 16:50:13.7±0.1, 26.10N×35.57E, h35^{km}, ML3.0, Error ellipse: s-maj=2.2km s-min=1.3km az=99.0*

*HLW **19** 16:50:15.3, 26.08N×35.53E, h26^{km}, Mb3.0*

ISC 19 16:50:11.3±0.6, **26.11N**±0.04×**35.59E**±0.06, **h10**^{km}, **n14**, σ**0^{s}49**/15, **2C-1D**, **Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HQSR		**1.14**	**252**	⇑*e*P	**Pb**	**16 50 33.4**	**+0.7**
HQSR				S	**Sb**	**16 50 46.6**	**-0.8**
HADB		**1.15**	**229**	⇓*e*P	**Pb**	**16 50 33.5**	**+0.6**
EMRS	**Mersa Alam**	**1.28**	**212**	*e*P	**Pb**	**16 50 35.2**	**+0.1**
HSFG		**1.56**	**288**	⇑*e*P	**Pn**	**16 50 39.2**	**-0.1**
UMJS	**Umm Lajj**	**1.78**	**119**	P	**Pn**	**16 50 41.5**	**-1.0**
HAGS	**Hagol**	**1.80**	**198**	P	**Pn**	**16 50 42.6**	**-0.2**
TBKS	**Tabuk**	**2.28**	**22**	P	**Pn**	**16 50 50.1**	**+0.5**
TAYS	**Tayyib Ism**	**2.52**	**345**	P	**Pn**	**16 50 52.3**	**-0.8**
JMQS	**Jabal Moqyreh**	**2.78**	**5**	P	**Pn**	**16 50 57.0**	**+0.2**
YNBS	**Yanbu‘ al Bahr**	**2.80**	**128**	P	**Pn**	**16 50 57.3**	**+0.3**
HSHL	**Bi’r Shalatayn**	**2.99**	**183**	P	**Pn**	**16 51 00.0**	**+0.2**
HAQS	**Haql**	**3.00**	**349**	P	**Pn**	**16 50 59.8**	**-0.1**
JMOS	**Jabal al Moall**	**3.08**	**352**	P	**Pn**	**16 51 01.2**	**+0.1**
ALWS	**Ilw as Safayha**	**3.23**	**352**	P	**Pn**	**16 51 03.4**	**+0.3**

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*IDC **19** 16:55:27.0±9.3, 8.50S×127.54E, h121^{km}±74^{km}, mb3.6/1, mb1 3.8/4, mb1mx3.4/13, Error ellipse: s-maj=70.3km s-min=55.4km az=8.0*

ISC 19 16:55:21.0±2.3, **8.2S**±0.1×**127.6E**±0.1, **h87**^{km}±24^{km}, **n7**, σ**1^{s}34**/13, **mb3.6**/1, **Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.50**	**134**	*e*P	**P**	**16 56 57.4**	**+1.6**
	24nm,0.4s						
KAKA				*e*S	**S**	**16 58 08.4**	**-0.7**
FITZ	**Fitzroy Crossi**	**10.03**	**191**	*e*P	**P**	**16 57 44.3**	**+0.3**
	4.8nm,0.3s						
FITZ				*e*S	**S**	**16 59 35.6**	**+0.2**
FITZ	**Fitzroy Crossi**	**10.03**	**191**	P	**P**	**16 57 43.9**	**0.0**
	2.3nm,0.3s,baz=14,slow=9.9,SNR=49						
FITZ				S	**S**	**16 59 33.8**	**-1.7**
	1.8nm,0.3s,baz=37,slow=6.6,SNR=4.2						
WRA	**Warramunga Arr**	**13.37**	**152**	P	**P**	**16 58 27.3**	**-1.1**
	0.5nm,0.3s,baz=322,slow=14,SNR=30						
WRA				S	**S**	**17 00 52.9**	**-2.4**
	0.9nm,0.3s,baz=325,slow=24,SNR=8.3						
ASPA	**Alice Springs**	**16.52**	**159**	*e*P	**P**	**16 59 09.8**	**+1.1**
ASPA				*e*S	**S**	**17 02 10.4**	**+1.8**
ASAR	**Alice Springs**	**16.52**	**159**	P	**P**	**16 59 08.6**	**-0.2**
	0.6nm,0.3s,baz=338,slow=11,SNR=63						
ASAR				S	**S**	**17 02 10.3**	**+1.8**
	0.3nm,0.3s,baz=321,slow=18,SNR=6.0						
STKA	**Stephens Creek**	**26.92**	**153**	P	**P**	**17 00 54.9**	**-1.2**
	0.6nm,0.3s,mb3.6,baz=329,slow=14,SNR=4.1						

OTT 19 16:58:05.5±0.3, **52.72N**×**66.98W**, **MN2.8**/6, **Blast, Mount Wright, Qc Mining explosion.**, **Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	**Schefferville**	**2.12**	**2**	PN	Pn	16 58 41.3	-1.4
SCHQ				SN	Sn	16 59 09.7	-0.5
SCHQ				Trac		16 59 16.7	
	comp=Z,19nm,0.1s						
MNQ	**Manicouagan**	**2.45**	**208**	PN	Pn	16 58 47.2	-0.2
MNQ				SN	Sn	16 59 16.9	-1.6
MNQ				Trac		16 59 28.7	
	comp=Z,11nm,0.1s						
SMQ	**Clarke City**	**2.50**	**176**	PN	Pn	16 58 46.7	-1.5
SMQ				SN	Sn	16 59 18.4	-1.4
SMQ				Trac		16 59 31.2	
	comp=Z,8.3nm,0.1s						
ICQ	**Pointe Anglais**	**3.20**	**183**	PN	Pn	16 58 55.2	-2.9
ICQ				SG	Sg	16 59 43.7	-8.5
CNQ	**Baie Comeau**	**3.49**	**192**	PN	Pn	16 59 00.7	-1.4
CNQ				SN	Sn	16 59 42.9	-1.8
CNQ				Trac		16 59 59.7	
	comp=Z,3.0nm,0.1s						
GSQ	**Grosses Roches**	**3.81**	**181**	PN	Pn	16 59 05.2	-1.5
GSQ				SN	Sn	16 59 51.3	-1.7
GSQ				Trac		17 00 12.6	
	comp=Z,5.4nm,0.2s						
LG4Q	**La Grande 4**	**4.38**	**285**	PN	Pn	16 59 08.9	-6.0
LG4Q				SN	Sn	17 00 02.1	-5.3
LG4Q				Trac		17 00 24.6	
	comp=Z,5.3nm,0.2s						
LMQ	**La Malbaie**	**5.60**	**204**	PN	Pn	16 59 27.0	-5.1
DRLN	**Deer Lake**	**6.91**	**116**	PN	Pn	16 59 47.0	-3.5
LMN	**Caledonia Moun**	**7.01**	**167**	PN	Pn	16 59 44.0	-8.1
MALO	**McAlpine Lake**	**8.44**	**256**	PN	P	17 00 03.6	-8.3
VIMO	**Victor Mine**	**10.16**	**277**	PN	P	17 00 26.8	-8.9
SILO	**Sutton Inlier**	**10.80**	**287**	PN	P	17 00 33.6	-11

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*CASC **19** 17:09:23.3±1.5, 13.23N×90.57W, h21^{km}±10^{km}, MD4.0, ML3.8, mb3.5(NEIC)*

*NEIC **19** 17:09:31.5±2.1, 13.32N×89.86W, h93^{km}±21^{km}, mb3.5/2, Error ellipse: s-maj=36.5km s-min=15.2km az=57.0*

*IDC **19** 17:09:50.6±20.0, 14.39N×89.96W, h208^{km}±151^{km}, mb3.2/3, mb1 3.5/4, mb1mx3.0/16, Error ellipse: s-maj=135.0km s-min=41.8km az=162.0*

ISC 19 17:09:23.9±0.9, **13.05N**±0.08×**90.52W**±0.05, **h33**^{km}, **n27**, σ**1^{s}04**/32, **mb3.7**/5, **5C-7D**, **Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	**San Blas**	**1.17**	**48**	⇓*e*P	**P**	**17 09 43.2**	**-0.8**
SBLS				*e*S	**S**	**17 09 58.9**	**-0.2**
RTR	**El Retiro**	**1.20**	**45**	⇓*e*P	**P**	**17 09 43.6**	**-0.8**
RTR				*e*S	**S**	**17 09 58.6**	**-1.1**
SNJE	**San Jose**	**1.20**	**47**	⇓*e*P	**P**	**17 09 43.7**	**-0.7**
RBDL	**Robledal**	**1.33**	**37**	⇑*e*P	**P**	**17 09 45.9**	**-0.4**
BOQS	**Boqueron**	**1.38**	**60**	*e*P	**P**	**17 09 46.5**	**-0.6**
BOQS				*e*S	**S**	**17 10 05.6**	**+1.2**
SNET	**Serv Nac Est T**	**1.40**	**63**	⇓*e*P	**P**	**17 09 46.8**	**-0.6**
SNET				*i*		17 10 07.1	
	comp=Z,2μm,0.3s						
LFRS	**El Faro**	**1.53**	**68**	⇓*e*P	**P**	**17 09 48.4**	**-0.7**
LFRS				*e*S	**S**	**17 10 08.6**	**+0.6**
LFU	**La Fuente**	**1.53**	**63**	⇑*e*P	**P**	**17 09 48.9**	**-0.3**
LBRS	**Las Brisas**	**1.59**	**64**	⇑*e*P	**P**	**17 09 49.9**	**-0.1**
LBRS				*e*S	**S**	**17 10 10.3**	**+0.8**
LCBS	**La Ceiba**	**1.61**	**68**	⇑*e*P	**P**	**17 09 49.9**	**-0.4**
LCBS				*e*S	**S**	**17 10 11.5**	**+1.3**
SNVI	**San Vicente**	**1.73**	**71**	*e*P	**P**	**17 09 52.3**	**+0.3**
MTO2	**Montecristo 2**	**1.75**	**40**	⇓*e*P	**P**	**17 09 52.3**	**-0.1**
VSM	**San Miguel**	**2.22**	**80**	⇓*e*P	**P**	**17 09 59.6**	**+0.6**
BLLM	**Bellamira**	**2.25**	**80**	⇑*e*P	**P**	**17 09 59.6**	**+0.1**
BLLM				*e*S	**S**	**17 10 30.0**	**+3.6**
CNCH	**Conchagua**	**2.62**	**85**	*e*P	**P**	**17 10 05.2**	**+0.4**
JTS	**JuntasAbangare**	**6.10**	**116**	*e*P	**P**	**17 10 53.1**	**-0.9**
TEIG	**Tepich**	**7.45**	**16**	*e*P	**P**	**17 11 12.2**	**-0.8**
TXAR	**Lajitas Array**	**20.29**	**325**	P	**P**	**17 14 02.2**	**+2.6**
	comp=Z,0.4nm,0.3s,baz=146,slow=12,SNR=22						
TXAR	**Lajitas Array**	**20.29**	**325**	P	**P**	**17 14 02.2**	**+2.6**
WMOK	**Wichita Mounta**	**22.86**	**342**	*e*P	**P**	**17 14 26.8**	**+1.3**
	comp=Z,0.8nm,0.5s,mb3.4						
MNTX	**Cornudas Mount**	**23.05**	**326**	*e*P	**P**	**17 14 28.6**	**+1.2**
	comp=Z,1.8nm,0.7s,mb3.6						
NVAR	**Mina Array Bea**	**35.31**	**321**	P	**P**	**17 16 21.1**	**+3.0**
	comp=Z,1.4nm,0.7s,mb4.0,baz=150,slow=6.7,SNR=15						
SCHQ	**Schefferville**	**45.63**	**19**	P	**P**	**17 17 39.0**	**-3.8**
	comp=Z,3.7nm,1.1s,mb4.2,baz=193,slow=15,SNR=5.5						
YKA	**Yellowknife Ar**	**52.28**	**346**	P	**P**	**17 18 31.3**	**-2.7**
	comp=Z,0.2nm,0.6s,mb3.2,baz=140,slow=7.9,SNR=4.9						
YKA	**Yellowknife Ar**	**52.28**	**346**	P	**P**	**17 18 31.3**	**-2.7**
WRA	**Warramunga Arr**	**136.55**	**255**	PKP	PKPdf	17 28 51.3	+7.7
	comp=Z,0.4nm,0.9s,baz=85,slow=2.4,SNR=4.5						
CMAR	**Chiang Mai Arr**	**147.33**	**343**	PKPbc	PKPdf	17 29 06.0	+3.3
	comp=Z,0.7nm,0.6s,baz=341,slow=3.0,SNR=7.0						

IDC 19 17:21:33.7±71.0, **17.70S**×**166.27E**, **mb4.0**/3, **mb1 4.2**/3, **mb1mx3.8**/13, **Error ellipse: s-maj=1184.0km s-min=110.7km az=71.0**, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**26.40**	**233**	P	P	17 27 12.1	-1.7
	2.3nm,0.8s,baz=70,slow=7.9,SNR=3.7						
WRA	**Warramunga Arr**	**30.29**	**261**	P	P	17 27 46.8	-2.3
	0.2nm,0.3s,baz=90,slow=9.2,SNR=12						
ASAR	**Alice Springs**	**30.82**	**253**	P	P	17 27 51.7	-2.0
	4.2nm,0.5s,baz=79,slow=9.0,SNR=202						
ASPA	**Alice Springs**	**30.82**	**253**	*e*P	P	17 27 51.9	-1.8
FITZ	**Fitzroy Crossi**	**38.62**	**263**	*e*P	P	17 28 58.3	-2.3
	6.2nm,0.6s						

WEL 19 17:28:36.1±0.2, **40.34S**×**174.07E**, **h100**^{km}±2^{km}, **ML3.8**/8, **3C-1D**, **Error ellipse: s-maj=1.2km s-min=0.6km az=90.0**, **Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIW	**Kapiti Island**	**0.83**	**129**	PN	P	17 28 54.6	-0.4
KIW				SN	S	17 29 07.5	-1.6
KIW				SN	S	17 29 07.7	-1.5
WAZ	**Wanganui**	**0.91**	**51**	PN	P	17 28 55.9	0.0
WAZ				SN	S	17 29 11.1	+0.4
NRZ	**Ngariki Road**	**1.00**	**354**	PN	P	17 28 56.4	-0.5
DFE	**Dawson Falls**	**1.01**	**2**	PN	P	17 28 56.7	-0.2
MRW	**Makara Radio**	**1.01**	**152**	PN	P	17 28 57.0	0.0
MRW				SN	S	17 29 12.3	-0.3
NNZ	**Nelson**	**1.02**	**210**	⇑PN	P	17 28 56.8	-0.3
NNZ				SN	S	17 29 11.9	-0.9
NEZ	**North Egmont**	**1.06**	**1**	PN	P	17 28 57.0	-0.6
RAEZ	**Rainy Point**	**1.08**	**14**	PN	P	17 28 57.8	+0.1
CAW	**Cannon Point**	**1.08**	**136**	PN	P	17 28 57.6	-0.2
CAW				SN	S	17 29 13.7	-0.3
WEL	**Wellington**	**1.09**	**151**	PN	P	17 28 57.8	-0.1
WEL				*e*SN	S	17 29 13.4	-0.8
TUWZ	**Tuamarina**	**1.10**	**185**	PN	P	17 28 57.6	-0.3
TUWZ				SN	S	17 29 13.6	-0.7
PKE	**Pukeiti**	**1.14**	**357**	PN	P	17 28 57.9	-0.6
PKE				SN	S	17 29 14.1	-1.2
MRZ	**Mangatainoka R**	**1.20**	**106**	⇑PN	P	17 28 58.5	-0.8
MRZ				SN	S	17 29 14.2	-2.3
BHW	**Baring Head**	**1.23**	**151**	*e*PN	P	17 28 59.2	-0.4
BHW				SN	S	17 29 16.1	-1.1
QRZ	**Quartz Range**	**1.27**	**247**	⇓PN	P	17 28 58.8	-1.3
QRZ				SN	S	17 29 16.1	-1.9
VRZ	**Vera Road**	**1.32**	**24**	⇑PN	P	17 29 00.2	-0.5
VRZ				SN	S	17 29 18.5	-0.5
MTW	**Mount Morrison**	**1.37**	**127**	PN	P	17 29 00.5	-0.7
MTW				*e*SN	S	17 29 17.5	-2.4
BSWZ	**Blackbirch Sta**	**1.38**	**186**	PN	P	17 29 01.6	+0.2
BSWZ				*e*SN	S	17 29 20.2	-0.1
MSWZ	**Moikau Station**	**1.40**	**141**	PN	P	17 29 01.1	-0.5
PAWZ	**Paruwai Farm**	**1.47**	**136**	PN	P	17 29 01.9	-0.5
PAWZ				SN	S	17 29 19.8	-2.2
TSZ	**Takapari Road**	**1.48**	**80**	PN	P	17 29 01.5	-1.1
TSZ				SN	S	17 29 20.8	-1.4
FWVZ	**Far West T-bar**	**1.57**	**47**	*e*PN	P	17 29 03.1	-0.6
WPVZ	**Whakapapa**	**1.61**	**46**	PN	P	17 29 03.6	-0.6
CNZ	**Chateau**	**1.61**	**46**	PN	P	17 29 03.4	-0.8
TUVZ	**Tukino**	**1.62**	**49**	PN	P	17 29 03.7	-0.7
TWVZ	**Taurewa**	**1.65**	**40**	*e*PN	P	17 29 03.9	-0.8
NGZ	**Ngauruhoe**	**1.66**	**46**	*e*PN	P	17 29 04.4	-0.4
THZ	**Tophouse**	**1.67**	**211**	PN	P	17 29 04.9	-0.1
WTVZ	**West Tongariro**	**1.69**	**44**	*e*PN	P	17 29 03.3	-2.0
BFZ	**Birch Farm**	**1.70**	**102**	PN	P	17 29 04.2	-1.1
BFZ				SN	S	17 29 26.0	-0.9
MGZ	**Maungaku**	**1.75**	**41**	PN	P	17 29 05.4	-0.6
HIZ	**Hauiti**	**1.92**	**19**	PN	P	17 29 07.2	-0.9
HIZ				SN	S	17 29 30.3	-1.6
KHZ	**Kahutara**	**2.12**	**191**	PN	P	17 29 10.1	-0.7
BKZ	**Black Stump Fm**	**2.21**	**59**	PN	P	17 29 10.0	-2.0
BKZ				SN	S	17 29 36.9	-1.8
LTZ	**Lake Taylor**	**2.79**	**208**	*e*PN	P	17 29 17.8	-2.2
MWZ	**Matawai**	**3.35**	**54**	*e*PN	P	17 29 23.4	-4.3
MQZ	**McQueen’s Vall**	**3.53**	**197**	*e*PN	P	17 29 26.2	-3.9
WVZ	**Waitaha Valley**	**3.70**	**221**	*e*PN	P	17 29 30.3	-2.2
WVZ				*e*SN	S	17 30 10.7	-4.6
KUZ	**Kuaotunu**	**3.81**	**20**	*e*PN	P	17 29 31.9	-2.1
FOZ	**Fox Glacier**	**4.59**	**224**	*e*PN	P	17 29 41.0	-3.6
LBZ	**Lake Benmore**	**4.96**	**214**	*e*PN	P	17 29 47.6	-2.2

WEL 19 17:32:23.3±0.3, **45.53S**×**166.96E**, **h86**^{km}±2^{km}, **ML3.5**/5, **1C-1D**, **Error ellipse: s-maj=3.0km s-min=2.3km az=90.0**, **Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	**0.14**	**71**	⇑PN	P	17 32 35.4	-0.3
DCZ				SN	S	17 32 44.5	-0.4
MLZ	**Mavora Lakes**	**0.87**	**79**	⇓PN	P	17 32 40.8	-0.7
MLZ				SN	S	17 32 54.0	-1.1
MSZ	**Milford Sound**	**1.09**	**39**	PN	P	17 32 43.7	-0.4
MSZ				SN	S	17 32 58.7	-1.1
WKZ	**Wanaka**	**1.61**	**65**	PN	P	17 32 50.4	-0.4
WKZ				SN	S	17 33 10.0	-1.1
EAZ	**Earnscleugh**	**1.68**	**81**	PN	P	17 32 50.8	-0.9
EAZ				SN	S	17 33 10.9	-1.7
TUZ	**Tuapeka**	**1.92**	**104**	PN	P	17 32 53.7	-1.2
TUZ				SN	S	17 33 15.3	-2.8
JCZ	**Jackson Bay**	**1.93**	**42**	*e*PN	P	17 32 53.9	-1.2
JCZ				SN	S	17 33 16.5	-1.9
LBZ	**Lake Benmore**	**2.56**	**65**	PN	P	17 33 00.9	-2.8
LBZ				SN	S	17 33 29.8	-4.0
ODZ	**Otahua Downs**	**2.64**	**81**	PN	P	17 33 02.1	-2.9
LTZ	**Lake Taylor**	**4.70**	**56**	PN	P	17 33 31.0	-2.3

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*IDC **19** 17:48:23.2±2.9, 13.96N×91.33W, mb3.8/6, mb1 4.1/8, mb1mx3.8/18, ML3.8/1, MS3.5/1, Ms1 3.5/1, ms1mx1.9/16, Error ellipse: s-maj=74.8km s-min=46.2km az=31.0*

*CASC **19** 17:48:25.0±2.9, 13.56N×92.26W, h48^{km}±169^{km}, MD4.2, ML3.9, mb3.8(NEIC)*

*NEIC **19** 17:48:41.5±5.8, 14.54N×91.57W, h122^{km}±32^{km}, mb3.8/3, Error ellipse: s-maj=63.7km s-min=20.9km az=190.0*

ISC 19 17:48:22.1±2.3, **13.48N**±0.09×**92.23W**±0.05, **h7**^{km}±16^{km}, **n25**, σ**1^{s}09**/26, **mb3.8**/9, **MS3.4**/1, **2C-2D**, **Off coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

JAT	**Jato**	1.01	35	⇑eP	Pb	17 48 41.8	+0.3
JAT				eS	Sb	17 48 55.8	+0.9
TP2	**Tecpan 2**	1.75	42	⇓eP	Pn	17 48 51.7	-1.4
TP2				AML	AML	17 49 24.8	
	comp=E,1µm,0.5s						
IXG	**Ixpaco**	1.86	68	⇓eP	Pn	17 48 53.6	-1.1
IXG				eS	Sn	17 49 18.1	-0.5
IXG				AML	AML	17 49 20.9	
	comp=N,5µm,0.4s						
NBG	**Las Nubes**	2.13	59	⇑eP	Pn	17 48 58.8	+0.1
NBG				eS	Sn	17 49 26.3	+0.6
NBG				AML	AML	17 49 33.7	
RTR	**El Retiro**	2.55	80	eP	Pn	17 49 05.0	+0.5
RBDL	**Robledal**	2.55	75	eP	Pn	17 49 04.3	-0.3
SBLS	**San Blas**	2.56	82	eP	Pn	17 49 05.9	+1.2
SNJE	**San Jose**	2.58	81	eP	Pn	17 49 05.9	+0.9
TEIG	**Tepich**	7.70	29	eP	Pn	17 50 14.6	-2.9
	comp=N,13nm,0.5s						
TXAR	**Lajitas Array**	19.01	328	P	P	17 52 47.9	+0.9
	comp=N,0.1nm,0.3s,baz=157,slow=9.5,SNR=12						
CLNB	**Carlsbad**	21.53	332	eP	P	17 53 14.0	-0.1
WMOK	**Wichita Mounta**	21.98	345	eP	P	17 53 15.4	-3.1
ANMO	**Albuquerque**	24.95	331	P	P	17 53 49.1	+1.5
	comp=N,1.7nm,0.7s,mb3.7,baz=152,slow=12,SNR=6.4						
ANMO	**Albuquerque**	24.95	331	eP	P	17 53 48.1	+0.5
SDCO	**Great Sand Dun**	26.90	336	eP	P	17 54 05.9	+0.2
	comp=N,1.2nm,1.0s,mb3.4						
PDAR	**Pinedale Array**	32.80	336	P	P	17 54 58.7	+0.5
	comp=N,0.2nm,0.5s,mb3.3,baz=144,slow=12,SNR=3.6						
SADO	**Sadowa**	33.12	17	LR	LR	18 09 32.0	
	comp=N,75nm,18.2s,MS3.4,baz=354,slow=39						
ELK	**Elko**	33.81	328	eP	P	17 55 07.9	+0.9
	comp=N,1.1nm,0.8s,mb3.8						
NVAR	**Mina Array Bea**	33.94	322	P	P	17 55 09.7	+1.5
	comp=N,1.0nm,0.7s,mb3.8,baz=132,slow=9.0,SNR=7.7						
MCMT	**McKenzie Canyo**	35.84	335	P	P	17 55 23.9	-0.5
SCHQ	**Schefferville**	45.78	20	P	P	17 56 41.0	-5.1
	comp=N,3.9nm,0.9s,mb4.4,baz=256,slow=8.3,SNR=2.9						
YKA	**Yellowknife Ar**	51.48	347	P	P	17 57 26.7	-3.4
	comp=N,0.6nm,0.5s,mb3.8,baz=150,slow=7.4,SNR=11						
YKA				PcP	PcP	17 58 43.6	-1.0
	comp=N,0.4nm,0.7s,baz=150,slow=3.6,SNR=8.5						
INK	**Inuvik**	60.87	344	P	P	17 58 35.8	-1.7
	comp=N,2.7nm,0.9s,mb4.4,baz=133,slow=6.4,SNR=9.6						
ILAR	**Eielson Array**	63.23	337	P	P	17 58 52.8	-0.5
	comp=N,0.4nm,0.5s,mb3.8,baz=118,slow=5.6,SNR=11						
CMAR	**Chiang Mai Arr**	146.41	341	PKPbc	PKPbc	18 08 05.7	+0.9
	comp=N,2.1nm,0.7s,baz=338,slow=3.5,SNR=18						

*JMA **19** 18:07:46.7±0.1, 24.72N×122.48E, h23^{km}±2^{km}, M2.9*

TAP 19 18:07:48.2, 24.62N×122.38E, h2^{km}, ML2.9, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	0.60	105	P	Pg	18 07 57.3	-2.8
YOJ				eS	Sg	18 08 04.8	-3.2
IRIF	**Iriomote-Funau**	1.26	103	P	Pb	18 08 08.1	-4.2
IRIF				eS	Sb	18 08 23.8	-5.0
HATJ	**Hateruma jima**	1.42	113	eS	Sb	18 08 27.9	-5.4
JKRS	**Kuro-shima**	1.53	104	P	Pn	18 08 12.4	-4.2
JKRS				eS	Sb	18 08 30.9	-5.8
JIJ	**Ishigaki jima**	1.63	99	P	Pn	18 08 13.2	-4.7
JIJ				eS	Sb	18 08 33.4	-6.0

*IDC **19** 18:59:02.7±1.8, 6.36S×103.95E, h48^{km}±6^{km}, mb3.8/7, mb1 4.0/7, mb1mx3.8/16, Error ellipse: s-maj=81.9km s-min=14.2km az=54.0*

*NEIC **19** 18:59:02.4±1.3, 6.37S×103.94E, mb4.4/3, Error ellipse: s-maj=58.8km s-min=10.6km az=50.0*

ISC 19 18:59:01.9±1.3**, 6.2S**±0.3×**104.2E**±0.3**, h50^{km}, h50^{km}±.5^{km}:pP-P, n16, σ0^{s}97**/15**, mb4.2**/13**, Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	**Fitzroy Crossi**	24.01	121	P	P	19 04 14.4	+1.2
	2.3nm,0.8s,mb3.6,baz=339,slow=10,SNR=2.3						
WRA	**Warramunga Arr**	32.27	118	P	P	19 05 27.7	-0.6
	1.5nm,0.5s,mb4.1,baz=287,slow=12,SNR=32						
WRA				PcP	PcP	19 08 15.4	-0.3
	0.3nm,0.4s,baz=302,slow=2.1,SNR=7.3						
WRA				pPcP		19 08 29.5	
	0.2nm,0.5s,baz=305,slow=2.3,SNR=4.7						
WRAB	**Tennant Creek**	32.28	118	eP	P	19 05 28.0	-0.3
	5.1nm,0.6s,mb4.5						
ASAR	**Alice Springs**	33.40	124	P	P	19 05 38.0	-0.1
	0.7nm,0.5s,mb3.8,baz=309,slow=8.5,SNR=22						
GUN	**Gumba**	38.24	333	eP	P	19 06 20.0	+1.0
	6.5nm,0.5s,mb4.6						
KKN	**Kakani**	38.41	332	eP	P	19 06 21.1	+0.7
	3.7nm,0.5s,mb4.4						
GKN	**Gorkha**	38.89	332	eP	P	19 06 25.3	+0.9
KOLN	**Koldanda**	39.19	330	eP	P	19 06 27.6	+0.7
	4.6nm,0.6s,mb4.4						
PMG	**Port Moresby**	42.62	97	eP	P	19 06 55.6	+0.2
	6.5nm,0.7s,mb4.5						
STKA	**Stephens Creek**	43.24	131	P	P	19 07 00.3	+0.1
	2.1nm,0.6s,mb4.1,baz=322,slow=5.8,SNR=9.1						
STKA				pP	pP	19 07 13.7	+0.1
	3.0nm,0.6s,baz=299,slow=8.9,SNR=4.3						
STKA	**Stephens Creek**	43.24	131	eP	P	19 07 00.1	-0.1
STKA				epP	pP	19 07 13.5	-0.2
STKA				pP	pP	19 07 13.7	+0.1
SONM	**Songino Array**	53.80	2	P	P	19 08 22.3	+0.5
	1.4nm,0.7s,mb4.0,baz=175,slow=8.7,SNR=14						
SONM				pP	pP	19 08 35.8	+0.3
	0.3nm,0.6s,baz=178,slow=9.1,SNR=3.8						
ZAL	**Zalesovo**	62.08	347	P	P	19 09 18.3	-1.4
	1.6nm,0.4s,mb4.5,baz=304,slow=4.7,SNR=6.1						
BVAR	**Borovoye Array**	65.56	338	P	P	19 09 41.2	-1.3
	0.9nm,0.5s,mb4.1,baz=147,slow=9.4,SNR=12						
BVAR				pP	pP	19 09 55.5	-1.2
	0.6nm,0.6s,baz=146,slow=11,SNR=4.3						
BRVK	**Borovoye**	65.63	338	eP	P	19 09 40.6	-2.3
	1.0nm,0.5s,mb4.1						
TXAR	**Lajitas Array**	145.01	45	PKPbc	PKPbc	19 18 36.6	+2.0
	1.0nm,0.7s,baz=257,slow=1.4,SNR=12						
TXAR				pPKPbc		19 18 49.1	
	1.2nm,0.9s,baz=272,slow=2.0,SNR=5.6						

WEL 19 19:21:20.2±0.9**, 46.83S×165.47E, h33^{km}, ML3.5**/3**, Error ellipse: s-maj=12.0km s-min=7.2km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	**Mavora Lakes**	2.39	53	PN	Pn	19 21 56.3	-1.7
MLZ				eSN	Sn	19 22 22.7	-3.9
MSZ	**Milford Sound**	2.76	39	PN	Pn	19 22 00.8	-2.4
EAZ	**Earnscleugh**	3.11	60	ePN	Pn	19 22 07.1	-1.2
WKZ	**Wanaka**	3.19	52	ePN	Pn	19 22 07.6	-1.7
JCZ	**Jackson Bay**	3.60	41	PN	Pn	19 22 12.8	-2.3
ODZ	**Otahua Downs**	4.03	66	PN	Pn	19 22 18.6	-2.6
LBZ	**Lake Benmore**	4.11	55	ePN	Pn	19 22 20.0	-2.4

*IDC **19** 19:33:20.9±1.4, 33.66N×137.28E, h336^{km}±15^{km}, mb3.1/8, mb1 3.3/10, mb1mx3.2/23, Error ellipse: s-maj=20.8km s-min=12.5km az=75.0*

*NEIC **19** 19:33:21.4±0.9, 33.75N×137.19E, h341^{km}±9^{km}, mb3.8/4, Error ellipse: s-maj=15.5km s-min=13.7km az=206.0*

*JMA **19** 19:33:21.1±0.3, 33.80N×137.38E, h353^{km}±4^{km}, M3.7*

ISC 19 19:33:20.4±0.4**, 33.70N**±0.06×**137.34E**±0.07**, h351^{km}**±4^{km}**, n32, σ1^{s}04**/39**, mb3.4**/11**, 7C, Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	**Tokai 1**	0.22	74	P	P	19 34 05.8	+1.3
JIE	**Ise**	0.86	323	⇑P	P	19 34 07.1	+1.2
JAA	**Atsumi**	0.94	350	⇑P	P	19 34 07.4	+1.2
HMMJ	**Hamamatsu 2**	1.19	15	P	P	19 34 08.2	+0.9
HMMJ				S	S	19 34 44.0	-0.1
JGM	**Miyama**	2.06	346	⇑P	P	19 34 12.9	+0.4
JHJ	**Hachijo jima 2**	2.13	105	P	P	19 34 14.2	+1.2
	20nm,0.3s,baz=47,slow=18,SNR=2.4						
JRY	**Ryogami san**	2.64	29	P	P	19 34 17.8	+0.7
JRY				S	S	19 35 01.7	+0.2
JKY	**Yasaka**	2.66	317	⇑P	P	19 34 17.1	-0.1
BSO3	**Boso 3**	2.85	66	P	P	19 34 18.5	-0.3
BSO3				S	S	19 35 04.1	-0.5
JMN	**Monobe**	2.88	271	⇑P	P	19 34 19.8	+0.7
JKSM	**Kasumi**	2.90	311	⇑P	P	19 34 19.1	-0.2
MAJO	**Matsushiro**	2.92	14	ePn	P	19 34 19.4	-0.1
MAT	**Matsushiro**	2.92	14	P	P	19 34 19.4	-0.1
MAT				S	S	19 35 04.4	-1.4
MAT	**Matsushiro**	2.92	14	eP	P	19 34 19.0	-0.5
MAT				eS	S	19 35 04.0	-1.8
BSO1	**Boso 1**	3.16	72	P	P	19 34 20.5	-1.2
BSO1				S	S	19 35 09.2	-0.5
JHS	**Saijyo**	3.72	291	⇑P	P	19 34 27.3	+0.2
CBIJ	**Chichi jima**	7.80	146	P	P	19 35 11.8	-1.2
	6.0nm,0.3s,baz=273,slow=22,SNR=11						
CBIJ				S	S	19 36 38.4	-3.2
	7.5nm,0.3s,baz=106,slow=23,SNR=9.5						
KS15	**Wonju Array Si**	8.56	299	ePn	P	19 35 21.7	-0.2
INCN	**Inchon**	9.50	296	eP	P	19 35 30.6	-2.6
HIA	**Hailar**	20.31	325	eP	P	19 37 29.2	-1.9
	3.2nm,0.6s						
ENH	**Enshi**	23.84	269	eP	P	19 38 03.7	-0.9
	4.4nm,0.6s,mb3.9						
ULN	**Ulaanbaatar**	26.74	311	eP	P	19 38 30.8	+0.1
	2.4nm,0.6s,mb3.6						
SONM	**Songino Array**	27.14	311	P	P	19 38 34.6	+0.3
	2.0nm,0.7s,mb3.5,baz=112,slow=8.4,SNR=18						
BVAR	**Borovoye Array**	50.41	314	P	P	19 41 43.9	-0.9
	0.4nm,0.4s,mb3.0,baz=53,slow=7.2,SNR=4.1						
WRAB	**Tennant Creek**	53.41	184	eP	P	19 42 07.8	+0.6
	0.8nm,0.3s,mb3.5						
WRA	**Warramunga Arr**	53.42	184	P	P	19 42 06.1	-1.2
	0.6nm,0.3s,mb3.3,baz=360,slow=7.6,SNR=13						
ILAR	**Eielson Array**	54.07	31	P	P	19 42 11.4	+0.1
	0.2nm,0.5s,mb2.7,baz=261,slow=5.3,SNR=8.7						
ASAR	**Alice Springs**	57.14	184	P	P	19 42 34.7	+1.2
	0.2nm,0.3s,mb2.9,baz=353,slow=4.5,SNR=9.6						
FINES	**FINESS Array B**	70.18	332	P	P	19 43 56.7	-0.2
	2.1nm,0.8s,mb3.9,baz=72,slow=6.0,SNR=13						
FINES	**FINESS Array B**	70.18	332	P	P	19 43 56.7	-0.2
PDAR	**Pinedale Array**	82.37	43	P	P	19 45 06.7	+1.9
	0.3nm,0.5s,mb3.4,baz=307,slow=4.5,SNR=3.7						
TXAR	**Lajitas Array**	94.80	50	P	P	19 46 06.2	+2.2
	0.3nm,0.8s,mb3.4,baz=297,slow=2.8,SNR=3.8						

*NEIC **19** 19:43:19.5, 32.22S×70.96W, h78^{km}, MD3.3(GUC), After GUC.*

GUC 19 19:43:19.5±0.7**, 32.22S×70.96W, h78^{km}**±2^{km}**, MD3.3, ML3.5, 13C-10D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTCH	**Petorca**	0.05	152	⇑iP	P	19 43 30.8	+0.2
PTCH				i S	S	19 43 39.4	+0.5
PTCH				AMP		19 43 39.9	
	comp=E,14µm,0.3s						
PACH	**Papudo**	0.51	232	⇓iP	P	19 43 33.6	+0.4
PACH				i S	S	19 43 44.1	+0.6
JACH	**Jahuel**	0.55	146	⇓iP	P	19 43 33.6	-0.1
JACH				i S	S	19 43 44.5	+0.4
ILCH	**Illapel**	0.61	343	⇑iP	P	19 43 34.6	+0.4
ILCH				i S	S	19 43 45.6	+0.5
ILCH				AMP		19 43 46.7	
	comp=N,5µm,0.1s						
ROCH	**El Roble**	0.75	183	⇑iP	P	19 43 35.7	-0.1
PEL	**Peldehue**	0.95	166	⇑iP	P	19 43 38.0	0.0
PEL				i S	S	19 43 52.1	+0.2
IHA	**Instituto Hidr**	0.99	216	⇑iP	P	19 43 38.3	-0.2
IHA				i S	S	19 43 52.8	+0.1
CMCH	**Combarbala**	1.04	358	⇓iP	P	19 43 39.5	+0.3
CMCH				i S	S	19 43 54.6	+0.6
CMCH				AMP		19 43 55.3	
	comp=E,4µm,0.2s						
DSCH	**Colegio Aleman**	1.22	165	⇑iP	P	19 43 41.6	+0.2
DSCH				i S	S	19 43 58.4	+0.5
DSCH				AMP		19 43 59.6	
	comp=N,2µm,0.6s						
CLCH	**Cerro Calan**	1.22	163	⇓iP	P	19 43 42.0	+0.5
CLCH				i S	S	19 43 59.2	+1.2
CLCH				AMP		19 44 01.1	
	comp=E,849nm,0.7s						
FCH	**Farellones**	1.24	153	⇓iP	P	19 43 42.1	+0.4
FCH				i S	S	19 43 59.8	+1.5
FCH				AMP		19 44 01.0	
	comp=E,774nm,0.2s						
RCDM	**Rinconada Maip**	1.27	174	⇑iP	P	19 43 41.9	-0.2
RCDM				i S	S	19 43 59.1	+0.1
RCDM				AMP		19 44 01.3	
	comp=E,2µm,0.1s						
LCCH	**Las Cruces**	1.35	202	⇓iP	P	19 43 43.1	-0.2
TACH	**Talagante**	1.43	179	⇑iP	P	19 43 43.9	-0.4
TACH				i S	S	19 44 02.6	0.0
PCH	**Pirque**	1.45	165	⇑iP	P	19 43 44.4	-0.1
PCH				i S	S	19 44 03.9	+0.9
SJCH	**San Jose de Ma**	1.50	160	⇓iP	P	19 43 45.5	+0.2
SJCH				i S	S	19 44 05.1	+0.8
SJCH				AMP		19 44 06.4	
	comp=N,324nm,0.2s						
CHCH	**Chadas Angostu**	1.73	172	⇑iP	P	19 43 47.9	-0.3
CHCH				i S	S	19 44 09.9	+0.5
LMEL	**Las Melosas**	1.74	159	⇑iP	P	19 43 49.0	+0.6
LMEL				i S	S	19 44 11.3	+1.6
LMEL				AMP		19 44 13.5	
	comp=E,768nm,0.1s						
LNV	**Longovilo**	1.77	192	⇑iP	P	19 43 48.0	-0.8
LNV				i S	S	19 44 09.8	-0.6
CACH	**El Canelo**	1.91	171	⇑iP	P	19 43 51.0	+0.3
TLL	**Tololo Astrono**	2.05	4	⇓iP	P	19 43 52.9	+0.3
TLL				i S	S	19 44 18.2	+1.1
TLL				AMP		19 44 20.5	
	comp=N,384nm,0.5s						
CICH	**Cipreses**	2.14	168	⇓iP	P	19 43 54.1	+0.2
SFDO	**San Fernando**	2.39	181	⇓iP	P	19 43 57.1	-0.3
SFDO				i S	S	19 44 25.8	+0.2

WEL 19 20:07:32.0±0.9**, 46.66S×165.39E, h33^{km}, ML3.7**/4**, Error ellipse: s-maj=8.4km s-min=5.9km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	**Mavora Lakes**	2.34	57	PN	Pn	20 08 06.2	-2.9
MSZ	**Milford Sound**	2.67	43	PN	Pn	20 08 12.2	-1.5
TUZ	**Tuapeka**	3.02	78	PN	Pn	20 08 16.8	-2.0
TUZ				SN	Sn	20 08 50.7	-3.6
EAZ	**Earnscleugh**	3.08	64	PN	Pn	20 08 17.8	-1.8
JCZ	**Jackson Bay**	3.51	44	PN	Pn	20 08 23.2	-2.4
ODZ	**Otahua Downs**	4.01	68	PN	Pn	20 08 28.8	-4.0
LBZ	**Lake Benmore**	4.06	58	ePN	Pn	20 08 30.1	-3.5
FOZ	**Fox Glacier**	4.34	46	PN	Pn	20 08 35.6	-1.8

CASC 19 20:09:52.0±1.7**, 13.23N×89.78W, h33^{km}**±4^{km}**, MD4.1, ML4.5, 11C-7D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	**San Blas**	0.63	14	⇓eP	Pb	20 10 04.8	+0.2
SNJE	**San Jose**	0.66	15	⇓eP	Pn	20 10 05.2	+0.2
RTR	**El Retiro**	0.68	11	⇓iP	Pn	20 10 05.5	+0.2
BOQS	**Boqueron**	0.70	44	⇑eP	Pn	20 10 05.6	0.0
SNET	**Serv Nac Est T**	0.70	49	i	Pn	20 10 18.5	+13
	comp=Z,12µm,0.4s						
LFRS	**El Faro**	0.80	60	⇑eP	Pn	20 10 06.6	-0.4
LFU	**La Fuente**	0.83	51	⇑eP	Pn	20 10 07.3	-0.1
LFU				eS	Sn	20 10 21.1	+2.6
LBRS	**Las Brisas**	0.88	54	⇑eP	Pn	20 10 08.0	-0.1
LBRS				eS	Sn	20 10 20.1	+0.3
RBDL	**Robledal**	0.88	6	⇑eP	Pn	20 10 08.7	+0.4
RBDL				eS	Sn	20 10 21.6	+1.6
LCBS	**La Ceiba**	0.89	61	⇑eP	Pn	20 10 07.8	-0.5
LCBS				eS	Sn	20 10 22.6	+2.6
SNVI	**San Vicente**	0.99	67	⇑eP	Pn	20 10 09.5	-0.2
SNVI				eS	Sn	20 10 22.9	+0.2
MTO2	**Montecristo 2**	1.23	19	⇑eP	Pn	20 10 12.9	-0.4
MTO2				eS	Sn	20 10 30.0	+1.2
PCG	**Pacaya**	1.41	325	eS	Sn	20 10 33.8	+0.3
NBG	**Las Nubes**	1.46	338	⇑eP	Pn	20 10 17.2	+0.7
NBG				eS	Sn	20 10 36.8	+2.1
NBG				AML	AML	20 10 40.2	
	comp=N,18µm,0.4s						
VSM	**San Miguel**	1.48	82	⇑eP	Pn	20 10 16.5	-0.2
VSM				eS	Sn	20 10 35.8	+0.8
BLLM	**Bellamira**	1.51	82	⇓eP	Pn	20 10 16.8	-0.5
BLLM				eP		20 10 17.0	
BLLM				eS	Sn	20 10 35.7	-0.3
FUG	**Fuego 3**	1.59	320	⇓eP	Pn	20 10 18.0	-0.4
FUG				eS	Sn	20 10 38.8	+0.7
CAHU	**Cacacuatique**	1.61	70	⇓eP	Pn	20 10 18.2	-0.5
CAHU				eS	Sn	20 10 39.5	+0.9
CNCH	**Conchagua**	1.89	88	eP	Pn	20 10 21.8	-0.9
CNCH				eS	Sn	20 10 45.4	-0.2
JAT	**Jato**	2.11	301	⇑eP	Pn	20 10 25.7	-0.1
JAT				eS	Sn	20 10 51.6	+0.5
JAT				AML	AML	20 10 54.2	
	comp=N,3µm,0.3s						
JCR	**Jicaral**	5.67	126	eP	Pn	20 11 14.9	-1.4
LAJ	**Bijagual**	6.47	121	eP	Pn	20 11 22.2	-5.4
LCR2	**La Lucha 2**	6.63	121	eP	Pn	20 11 28.5	-1.4
LCR2				eS	Sn	20 12 44.6	-0.5
URSC	**Urasca**	6.78	119	⇓eP	Pn	20 11 30.1	-1.8
URSC				eS	Sn	20 12 48.1	-0.5

*MOS **19** 20:13:36.6±1.4, 17.97S×178.88W, h570^{km}, mb5.5/20, Error ellipse: s-maj=12.9km s-min=11.2km az=121.5*

*NEIC **19** 20:13:36.6±0.1, 18.11S×178.85W, mb5.2/68, Error ellipse: s-maj=5.9km s-min=3.1km az=114.0*

*BGS **19** 20:13:36.8±4.9, 18.10S×178.85W, h560^{km}*

*HRVD **19** 20:13:36.6±0.2, 17.95S×178.72W, h587^{km}±1^{km}, MW5.8/61, Centroid moment Tensor Solution. LP body waves: s61,c123; Half duration: 1^{s}9 Moment tensor: Scale 10^{17}Nm; M_{rr}1.87±.08; $M_{\theta\theta}$1.07±.12; $M_{\phi\phi}$-2.95±.11; $M_{r\theta}$-3.78±.11; $M_{\theta\phi}$-4.33±.10; $M_{\phi r}$-1.31±.11; Best double couple: $M_0$6.37×10^{17} NP1:ϕ_s351°,δ47°,λ15°. NP2:ϕ_s250°, δ79°,λ136°. Principal axes: T 5.82, Plg38°, Azm200°; N 1.08, Plg45°, Azm60°; P -6.91, Plg21°, Azm308°; nsta1 refers to body waves, cutoff=40s.*

*SYO **19** 20:13:36.4, 18.09S×178.87W, h563^{km}, MB5.2*

*IDC **19** 20:13:37.2±0.3, 18.12S×178.86W, h569^{km}±3^{km}, mb4.9/25, mb1 4.9/26, mb1mx4.9/26, Error ellipse: s-maj=7.7km s-min=5.4km az=155.0*

*BJI **19** 20:13:39.8, 17.30S×179.36W, h563^{km}, mB5.2, mb5.2*

ISC 19 20:13:35.4±0.1**, 18.14S**±0.02×**178.90W**±0.03**, h564^{km}, h564^{km}**±1.0^{km}**:pP-P, n678, σ1^{s}13**/363**, mb5.2**/105**, 41C-37D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	**Afiamalu**	8.04	59	⇑eP	P	20 15 31.7	-2.9
	3µm,0.8s						
AFI				eS	S	20 17 04.2	-5.5
DZM	**Mont Dzumac**	14.31	252	⇑eP	P	20 16 39.8	+2.3
DZM				eS	S	20 18 59.4	-4.6
NOUC	**Port Laguerre**	14.45	252	⇑eP	P	20 16 40.9	+2.1
NOUC				eS	S	20 19 03.8	-2.7
RAR	**Rarotonga**	18.27	103	P	P	20 17 15.9	+0.2
	7.8nm,0.3s,baz=249,slow=7.6,SNR=56						
RAR				S	S	20 20 13.1	+0.1
	1.3nm,0.3s,baz=87,slow=19,SNR=1.7						
RAR	**Rarotonga**	18.27	103	P	P	20 17 15.9	+0.2
RAR				S	S	20 20 13.1	+0.1
RAR				pmax	pmax		
	comp=Z,8.0nm,0.3s						
RAR				smax			
	comp=N,1.0nm,0.3s						
RAR	**Rarotonga**	18.27	103	eP	P	20 17 16.0	+0.3
	comp=N,471nm,0.9s						
OUZ	**Omahuta**	18.27	200	eP	P	20 17 19.7	+4.0
OUZ	**Omahuta**	18.27	200	P	P	20 17 19.7	+4.0
WCZ	**Waipu Caves**	18.71	197	eP	P	20 17 23.6	+3.8
WCZ	**Waipu Caves**	18.71	197	P	P	20 17 23.6	+3.8
KUZ	**Kuaotunu**	19.14	193	eP	P	20 17 26.3	+2.5
KUZ	**Kuaotunu**	19.14	193	P	P	20 17 26.3	+2.5
MTAZ	**Motutapu**	19.36	195	P	P	20 17 29.0	+3.1
MXZ	**Matakaoa Point**	19.51	187	P	P	20 17 26.5	-0.7
OTAZ	**Otara**	19.51	195	P	P	20 17 30.5	+3.2
WTAZ	**Waiatarua**	19.59	196	P	P	20 17 30.9	+2.9
MKAZ	**Moumakai**	19.61	194	P	P	20 17 31.0	+2.8
WIZ	**White Island**	19.62	189	P	P	20 17 29.1	+0.8
TGRZ	**Tauranga**	19.98	191	P	P	20 17 33.8	+2.2
MARZ	**Manawahe**	20.15	190	P	P	20 17 34.0	+0.8
LIRZ	**Lichensteins R**	20.22	191	P	P	20 17 35.3	+1.5
LIRZ	**Lichensteins R**	20.22	191	P	P	20 17 35.1	+1.3
URZ	**Urewera**	20.35	189	P	P	20 17 33.7	-1.3
	comp=N,316nm,0.3s,baz=24,slow=1.8,SNR=217						
URZ				S	S	20 20 42.8	-4.8
	comp=N,28nm,0.5s,baz=227,slow=22,SNR=2.9						
URZ				ScS	ScS	20 27 45.7	-2.8
	comp=N,26nm,0.8s,baz=158,slow=21,SNR=9.4						
MWZ	**Matawai**	20.36	188	P	P	20 17 33.6	-1.5
MWZ				S	S	20 20 45.1	-2.7
TAZ	**Tarawera**	20.42	190	P	P	20 17 36.5	+0.8
UTU	**Utuhina**	20.42	191	P	P	20 17 38.5	+2.8
UTU	**Utuhina**	20.42	191	P	P	20 17 37.2	+1.5
PATZ	**Paeroa**	20.61	191	P	P	20 17 37.8	+0.4
PATZ	**Paeroa**	20.61	191	P	P	20 17 37.3	-0.1
HIZ	**Hauiti**	21.02	194	eP	P	20 17 44.1	+2.9
HIZ	**Hauiti**	21.02	194	P	P	20 17 43.9	+2.7
BKZ	**Black Stump Fm**	21.33	190	P	P	20 17 41.5	-2.5
BKZ	**Black Stump Fm**	21.33	190	P	P	20 17 42.2	-1.8
MGZ	**Maungaku**	21.34	192	P	P	20 17 43.5	-0.7
WTVZ	**West Tongariro**	21.45	192	P	P	20 17 44.2	-0.9
NGZ	**Ngauruhoe**	21.50	192	P	P	20 17 44.9	-0.7
CNZ	**Chateau**	21.53	192	P	P	20 17 44.7	-1.2
TUVZ	**Tukino**	21.58	192	P	P	20 17 44.7	-1.6
FWVZ	**Far West T-bar**	21.59	192	eP	P	20 17 45.4	-1.0
FWVZ	**Far West T-bar**	21.59	192	P	P	20 17 45.4	-1.0
WNVZ	**Wahianoa**	21.65	192	P	P	20 17 45.5	-1.4
MOVZ	**Moawhango**	21.70	191	P	P	20 17 45.2	-2.2
RAEZ	**Rainy Point**	21.86	194	P	P	20 17 51.3	+2.4
NEZ	**North Egmont**	21.92	195	P	P	20 17 52.1	+2.7
DFE	**Dawson Falls**	21.97	195	P	P	20 17 51.9	+2.0
NWEZ	**Newall Road**	21.98	195	eP	P	20 17 53.4	+3.5
NWEZ	**Newall Road**	21.98	195	P	P	20 17 53.4	+3.5
NRZ	**Ngariki Road**	22.02	195	P	P	20 17 53.1	+2.8
TSZ	**Takapari Road**	22.29	190	P	P	20 17 51.1	-1.7
BFZ	**Birch Farm**	22.85	190	eP	P	20 17 55.9	-1.9
BFZ	**Birch Farm**	22.85	190	P	P	20 17 55.9	-1.9
MRZ	**Mangatainoka R**	22.95	191	eP	P	20 17 56.2	-2.4
MRZ	**Mangatainoka R**	22.95	191	P	P	20 17 56.2	-2.4
KIW	**Kapiti Island**	23.27	192	P	P	20 17 59.9	-1.6
MTW	**Mount Morrison**	23.44	191	P	P	20 18 01.3	-1.8
CAW	**Cannon Point**	23.47	192	P	P	20 18 02.0	-1.4
MRW	**Makara Radio**	23.66	192	P	P	20 18 03.8	-1.2
MSWZ	**Moikau Station**	23.74	191	P	P	20 18 04.2	-1.5
QRZ	**Quartz Range**	23.78	196	eP	P	20 18 06.5	+0.3
QRZ	**Quartz Range**	23.78	196	P	P	20 18 06.5	+0.3
NNZ	**Nelson**	23.94	194	eP	P	20 18 06.5	-1.0
NNZ	**Nelson**	23.94	194	P	P	20 18 06.5	-1.0
BSWZ	**Blackbirch Sta**	24.30	193	P	P	20 18 09.7	-1.0
THZ	**Tophouse**	24.57	195	eP	P	20 18 12.1	-1.0
THZ	**Tophouse**	24.57	195	P	P	20 18 12.1	-1.0
KHZ	**Kahutara**	25.04	193	P	P	20 18 16.0	-1.3
LTZ	**Lake Taylor**	25.69	195	P	P	20 18 21.5	-1.5
WVZ	**Waitaha Valley**	26.37	197	eP	P	20 18 27.9	-1.0
WVZ	**Waitaha Valley**	26.37	197	P	P	20 18 27.9	-1.0
MQZ	**McQueen's Vall**	26.47	194	eP	P	20 18 28.5	-1.3
MQZ	**McQueen's Vall**	26.47	194	P	P	20 18 28.5	-1.3
RPZ	**Rata Peaks**	26.87	196	P	P	20 18 31.9	-1.5
	comp=N,208nm,0.4s,mb6.1,baz=306,slow=0.9,SNR=93						
RPZ				PcP	PcP	20 21 35.2	-1.9
	comp=N,26nm,0.6s,baz=326,slow=4.2,SNR=2.5						
FOZ	**Fox Glacier**	27.12	198	P	P	20 18 34.2	-1.3
LBZ	**Lake Benmore**	27.73	197	P	P	20 18 39.1	-1.7
JCZ	**Jackson Bay**	27.87	199	eP	P	20 18 41.8	-0.2
JCZ	**Jackson Bay**	27.87	199	P	P	20 18 41.8	-0.2
PAE	**Paea**	27.89	94	⇓iP	P	20 18 41.6	-0.9
	comp=N,567nm,1.2s,mb6.1						
PPT	**Papeete**	27.91	93	P	P	20 18 42.0	-0.6
	comp=N,209nm,0.7s,mb5.8,baz=242,slow=4.6,SNR=11						
PPT	**Papeete**	27.91	93	⇓iP	P	20 18 42.0	-0.6
	comp=N,243nm,1.2s,mb5.7						
PPT	**Papeete**	27.91	93	P	P	20 18 42.0	-0.6
PPT				pmax	pmax		
	comp=Z,209nm,0.7s						
TBI	**Tubuai**	27.98	106	eP	P	20 18 42.8	-0.5
	comp=Z,386nm,0.8s,mb6.1						
TBI				epP		20 20 02.3	
	comp=Z,350nm,1.2s						
TIAR	**Tiarei**	28.12	93	⇓iP	P	20 18 43.8	-0.7
	comp=Z,468nm,0.9s,mb6.1						
TVO	**Taravao**	28.19	94	⇓iP	P	20 18 44.5	-0.6
	comp=Z,282nm,0.7s,mb6.0						

ODZ	Otahua Downs	28.22	196	P	P	20 18 44.1	-0.9
WKZ	Wanaka	28.47	198	P	P	20 18 46.5	-0.7
MSZ	Milford Sound	28.67	200	P	P	20 18 49.4	+0.5
EAZ	Earnscleugh	28.75	197	P	P	20 18 49.1	-0.6
EAZ	Earnscleugh	28.75	197	P	P	20 18 48.9	-0.8
MLZ	Mavora Lakes	29.19	199	eP	P	20 18 54.3	+0.9
MLZ	Mavora Lakes	29.19	199	P	P	20 18 54.3	+0.9
MEH	Mehetia	29.31	94	eP	P	20 18 53.9	-0.8
	comp=Z,83nm,0.9s,mb5.3						
TUZ	Tuapeka	29.33	196	P	P	20 18 54.7	+0.1
RIV	Riverview	30.98	234	⇑iP	P	20 19 10.6	+1.8
CNB	Canberra Magne	32.92	232	⇑iP	P	20 19 27.3	+2.2
	comp=Z,871nm,0.6s						
CNB				eS	S	20 24 05.0	0.0
CNB				eSCP		20 24 47.2	
CTA	Charters Tower	32.95	261	⇓iP	P	20 19 26.3	+0.8
	comp=Z,95nm,0.6s,mb5.5						
CTA				eS	S	20 24 03.5	-2.1
CTA				eSCS	ScS	20 28 47.6	+2.7
CTA	Charters Tower	32.95	261	P	P	20 19 26.5	+0.9
	comp=Z,122nm,0.7s,mb5.6,baz=91,slow=10,SNR=163						
CTA				PcP	PcP	20 21 53.0	-0.4
	comp=Z,16nm,0.5s,baz=72,slow=4.0,SNR=2.3						
CTA				S	S	20 24 03.1	-2.5
	comp=Z,9.3nm,0.7s,baz=209,slow=23,SNR=9.0						
CTA				ScS	ScS	20 28 47.2	+2.3
	comp=Z,5.0nm,1.1s,baz=23,slow=16,SNR=5.2						
CTA	Charters Tower	32.95	261	P	P	20 19 26.5	+1.0
CTA						20 21 53.0	
CTA				S	S	20 24 03.1	-2.5
CTA						20 28 47.2	
CTA				pmax	pmax		
	comp=Z,122nm,0.7s						
CTA				pmax	pmax		
	comp=Z,16nm,0.5s						
CTA				smax			
	comp=N,9.0nm,0.7s						
CTA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
CTAO	Charters Tower	32.95	261	⇓eP	P	20 19 26.3	+0.8
	comp=Z,132nm,0.8s,mb5.5						
PMG	Port Moresby	34.04	280	P	P	20 19 36.2	+1.5
	comp=Z,714nm,0.8s,mb6.2,baz=86,slow=5.9,SNR=244						
PMG				PcP	PcP	20 21 56.9	+0.3
	comp=Z,33nm,0.9s,baz=346,slow=6.3,SNR=2.3						
PMG				S	S	20 24 23.3	+1.1
	comp=Z,22nm,1.0s,baz=212,slow=21,SNR=11						
PMG				ScP		20 24 48.8	
	comp=Z,12nm,0.5s,baz=220,slow=19,SNR=4.5						
PMG				ScS	ScS	20 28 54.3	+3.5
	comp=Z,5.4nm,0.7s,baz=237,slow=23,SNR=4.0						
PMG	Port Moresby	34.04	280	P	P	20 19 36.2	+1.5
PMG						20 21 56.9	
PMG				S	S	20 24 23.3	+1.1
PMG						20 28 54.3	
PMG				pmax	pmax		
	comp=Z,714nm,0.8s						
PMG				pmax	pmax		
	comp=Z,33nm,0.9s						
PMG				smax			
	comp=N,22nm,1.0s						
PMG				pmax	pmax		
	comp=Z,12nm,0.5s						
PMG				pmax	pmax		
	comp=N,5.0nm,0.7s						
PMG	Port Moresby	34.04	280	⇓iP	P	20 19 36.0	+1.4
	comp=N,862nm,0.9s						
PMG				epP		20 21 05.6	
TOO	Toolangi	36.66	231	⇑iP	P	20 19 58.3	+2.1
	comp=N,578nm,0.5s						
TOO				eS	S	20 25 01.2	0.0
TOO				eSS	SS	20 28 25.0	+18
STKA	Stephens Creek	38.11	241	⇑iP	P	20 20 10.1	+2.1
	comp=N,775nm,1.3s,mb6.1						
STKA				i S	S	20 25 21.9	-0.6
STKA				eSS	SS	20 28 21.0	-12
STKA				eSCS	ScS	20 29 16.9	+3.4
STKA	Stephens Creek	38.11	241	P	P	20 20 10.2	+2.1
	comp=N,286nm,0.5s,mb6.1,baz=90,slow=9.4,SNR=1131						
STKA				S	S	20 25 21.7	-0.9
	comp=N,13nm,0.7s,baz=239,slow=17,SNR=3.9						
STKA				ScS	ScS	20 29 15.7	+2.2
	comp=N,2.8nm,0.6s,baz=200,slow=21,SNR=1.7						
MCQ	Macquarie Isla	40.08	200	⇑iP	P	20 20 25.2	+1.5
RKT	Rikitea	41.29	105	eP	P	20 20 33.4	-0.3
	comp=N,278nm,1.0s,mb5.7						
WRAB	Tennant Creek	44.12	260	i P	P	20 20 56.0	-0.1
WRAB	Tennant Creek	44.12	260	eP	P	20 20 55.9	-0.2
	comp=N,174nm,0.8s,mb5.6						
WRAB				eS	S	20 26 41.4	-7.4
WRA	Warramunga Arr	44.13	260	P	P	20 20 56.2	0.0
	comp=N,108nm,0.7s,mb5.5,baz=98,slow=7.2,SNR=1141						
WRA				PcP	PcP	20 22 28.7	-0.3
	comp=N,20nm,0.5s,baz=86,slow=3.6,SNR=4.9						
WRA				PP	PP	20 22 51.7	+3.2
	comp=N,13nm,1.0s,baz=93,slow=8.1,SNR=2.2						
WRA				S	S	20 26 44.3	-4.6
	comp=N,31nm,0.8s,baz=97,slow=13,SNR=5.4						
WRA				PKiKP		20 29 25.7	
	comp=N,2.4nm,0.8s,baz=79,slow=0.5,SNR=4.8						
WRA				ScS	ScS	20 29 52.6	+2.1
	comp=N,4.3nm,0.9s,baz=89,slow=7.5,SNR=5.1						
WRA	Warramunga Arr	44.13	260	P	P	20 20 56.2	+0.1
WRA						20 22 28.7	
WRA						20 22 51.7	
WRA				S	S	20 26 44.3	-4.6
WRA						20 29 52.6	
WRA				pmax	pmax		
	comp=Z,108nm,0.7s						
WRA				pmax	pmax		
	comp=Z,20nm,0.5s						
WRA				pmax	pmax		
	comp=Z,13nm,1.0s						
WRA				smax			
	comp=N,31nm,0.8s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
WRA				pmax	pmax		
	comp=N,4.0nm,0.9s						
ASAR	Alice Springs	44.28	254	P	P	20 20 58.0	+0.7
	comp=N,961nm,0.6s,baz=88,slow=8.2						
ASAR				PcP	PcP	20 22 29.2	-0.3
	comp=N,34nm,0.6s,baz=102,slow=4.2,SNR=4.6						
ASAR				ScP		20 25 28.5	
	comp=N,26nm,1.0s,baz=124,slow=6.0,SNR=4.9						
ASAR				S	S	20 26 49.3	-1.6
	comp=N,146nm,0.9s,baz=88,slow=16,SNR=43						
ASAR				ScS	ScS	20 29 53.7	+2.3
	comp=N,6.0nm,1.0s,baz=90,slow=6.3,SNR=4.5						
ASAR				PKP2bc		20 52 53.4	
	comp=N,1.7nm,0.9s,baz=280,slow=4.8,SNR=11						
ASAR	Alice Springs	44.28	254	P	P	20 20 58.0	+0.7
ASAR				PcP	PcP	20 22 29.2	-0.3
ASAR				ScP		20 25 28.5	
ASAR				S	S	20 26 49.3	-1.6
ASAR				ScS	ScS	20 29 53.7	+2.3
ASAR				⇑e		20 52 53.4	
ASPA	Alice Springs	44.28	254	⇓iP	P	20 20 57.8	+0.5
ASPA				i S	S	20 26 49.3	-1.7
ASPA				eSCS	ScS	20 29 53.4	+2.0
KAKA	Kakadu	47.11	269	⇓iP	P	20 21 18.6	-0.5
	comp=N,242nm,0.6s,mb5.9						
KAKA				eS	S	20 27 29.2	-1.2
GUMO	Guam	47.65	309	eP	P	20 21 22.5	-0.6
	comp=N,3µm,1.3s						
FORT	Forrest	49.49	245	⇑iP	P	20 21 36.6	-0.1
	comp=N,2µm,0.5s						
FORT				i S	S	20 28 00.4	-2.2
FITZ	Fitzroy Crossi	52.53	261	⇑iP	P	20 21 59.2	+0.3
	comp=N,96nm,0.8s,mb5.2						
FITZ				eS	S	20 28 44.3	+0.8
FITZ	Fitzroy Crossi	52.53	261	P	P	20 21 59.4	+0.5
	comp=N,108nm,0.8s,mb5.2,baz=145,slow=2.8,SNR=150						
FITZ				S	S	20 28 44.3	+0.8
	comp=N,31nm,0.9s,baz=341,slow=22,SNR=15						
MBWA	Marble Bar	57.57	256	⇑eP	P	20 22 33.6	-0.2
	comp=N,127nm,0.7s,mb5.3						
KLBR	Kellerberrin	58.31	244	⇑iP	P	20 22 38.5	-0.3
	comp=N,386nm,0.6s,mb5.8						
KLBR				eS	S	20 29 48.0	-10
NWAO	Narrogin (SRO)	58.69	242	P	P	20 22 41.3	0.0
	comp=N,141nm,0.7s,mb5.3,baz=102,slow=6.1,SNR=161						
NWAO				S	S	20 30 03.0	-0.1
	comp=N,3.6nm,0.7s,baz=221,slow=22,SNR=2.2						
NWAO	Narrogin (SRO)	58.69	242	P	P	20 22 41.3	0.0
NWAO				S	S	20 30 03.0	0.0
NWAO				pmax	pmax		
	comp=Z,141nm,0.7s						
NWAO				smax			
	comp=N,4.0nm,0.7s						
NWAO	Narrogin (SRO)	58.69	242	⇑eP	P	20 22 40.9	-0.4
	comp=N,134nm,0.8s,mb5.2						
MATI	Mati	59.58	290	eP	P	20 22 44.8	-2.7
MUN	Mundaring	59.60	243	eP	P	20 22 46.9	-0.5
	comp=N,121nm,0.8s,mb5.3						
MUN				eS	S	20 30 08.7	-5.8
SBA	Scott Base	60.16	183	⇑iP	P	20 22 52.5	+2.0
	comp=N,294nm,1.0s,mb5.6						
VNDA	Vanda	60.18	185	P	P	20 22 51.9	+1.3
	comp=N,84nm,0.8s,mb5.1,baz=353,slow=7.2,SNR=358						
VNDA				ScP		20 26 37.5	
	comp=N,9.8nm,0.9s,baz=228,slow=2.6,SNR=2.6						
VNDA				S	S	20 30 22.4	+1.3
	comp=N,1.1nm,0.7s,baz=58,slow=20,SNR=2.2						
VNDA	Vanda	60.18	185	P	P	20 22 51.9	+1.3
VNDA				S	S	20 30 22.4	+1.3
VNDA				pmax	pmax		
	comp=Z,84nm,0.8s						
VNDA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
VNDA				smax			
	comp=N,1.0nm,0.7s						
VNDA	Vanda	60.18	185	⇑iP	P	20 22 51.7	+1.1
	comp=N,2.9nm,0.7s						
BUTP	Butuan	61.02	291	eP	P	20 22 56.2	-0.7
BUKP	Musuan	61.05	290	eP	P	20 22 57.4	+0.3
BUNI	Buntu Taipa	61.12	276	⇑iP	P	20 22 58.7	+1.1
	comp=N,48nm,0.3s,mb5.3						
NINI	Niniconang	61.42	275	⇓iP	P	20 23 00.5	+1.0
	comp=N,646nm,0.9s,mb6.0						
SCPH	Surigao	61.50	292	eP	P	20 22 59.5	-0.5
TANI	Tanete Lipujan	62.08	276	⇑iP	P	20 23 04.0	+0.2
	comp=N,30nm,0.7s,mb4.8						
MSLP	Maasin	62.21	292	eP	P	20 23 04.4	-0.2
BESP	Borongan	62.37	294	eP	P	20 23 05.9	+0.2
PAGZ	Pagadian	62.54	289	eP	P	20 23 07.1	+0.4
OCLP	Ormoc	62.84	293	eP	P	20 23 07.8	-0.9
TBP	Tagbilaran	62.90	291	eP	P	20 23 08.0	-1.0
IPIL	Ipil	63.24	289	eP	P	20 23 10.4	-0.8
CNP	Catarman	63.46	295	eP	P	20 23 12.9	+0.3
KEDI	Kedomdong	63.70	269	⇓iP	P	20 23 14.1	-0.1
	comp=N,145nm,0.6s,mb5.6						
RATI	Rata	64.19	269	⇑iP	P	20 23 17.2	-0.1
	comp=N,958nm,0.7s						
PVCP	Virac	64.40	295	eP	P	20 23 18.9	+0.2
GUIM	Jordan	64.43	292	eP	P	20 23 17.4	-1.4
KELI	Kelakatan	65.32	269	⇓eP	P	20 23 24.3	-0.1
	comp=N,257nm,0.7s,mb5.8						
AUQP	San Andres	65.56	294	eP	P	20 23 27.8	+1.9
SRDI	Scrawed	65.58	269	⇑iP	P	20 23 25.0	-1.0
	comp=N,189nm,0.9s,mb5.6						
OTRP	Odiongan	65.69	293	eP	P	20 23 26.1	-0.6
CUYO	Cuyo Island	65.92	291	eP	P	20 23 27.9	-0.3
GQP	Guinayangan	66.02	295	⇓iP	P	20 23 28.3	-0.4
BOAC	Boac	66.34	294	eP	P	20 23 30.9	+0.2
SJMP	San Jose	66.53	293	eP	P	20 23 31.9	0.0
POLP	Polilio Island	66.83	295	eP	P	20 23 32.7	-1.1
LQP	Lukban	66.89	295	⇑eP	P	20 23 34.1	0.0
TGY	Tagaytay City	67.41	294	P	P	20 23 37.5	+0.2
	comp=N,199nm,0.7s,mb5.8,baz=139,slow=11,SNR=10.0						
TGY				PP	PP	20 26 17.8	+2.3
	comp=N,99nm,0.3s,baz=215,slow=16,SNR=2.4						
TGY				S	S	20 31 49.9	+0.9
	comp=N,75nm,0.3s,baz=124,slow=6.1,SNR=2.0						
TGY	Tagaytay City	67.41	294	P	P	20 23 37.5	+0.2
TGY						20 26 17.8	
TGY				S	S	20 31 49.9	+0.9
TGY				pmax	pmax		
	comp=Z,199nm,0.7s						
TGY				pmax	pmax		
	comp=Z,99nm,0.3s						
TGY				smax			
	comp=N,75nm,0.4s						
ENPP	El Nido	67.48	291	eP	P	20 23 37.9	+0.1
PALP	Palanan	67.50	298	eP	P	20 23 37.6	-0.2
BALP	Baler	67.61	296	eP	P	20 23 37.9	-0.5
MAJO	Matsushiro	67.81	324	⇓eP	P	20 23 38.5	-0.9
	comp=N,173nm,0.8s,mb5.6						
MAT	Matsushiro	67.81	324	P	P	20 23 38.4	-1.0
MAT				S	S	20 31 52.0	-1.4
MAT	Matsushiro	67.81	324	eP	P	20 23 38.0	-1.4
	comp=N,135nm,0.8s,mb5.5						
MAT				eS	S	20 31 53.0	-0.4
LUBP	Lubang	67.85	294	eP	P	20 23 38.6	-1.3
CAUP	Cauayan	67.95	297	eP	P	20 23 41.2	+0.7
BATP	Bataraza	67.96	288	eP	P	20 23 40.9	+0.3
SGCP	Mt. Cagua	68.38	299	eP	P	20 23 42.1	-0.9
SCZP	Santa Cruz	69.05	295	eP	P	20 23 48.3	+1.2
ABRA	Dolores	69.22	298	eP	P	20 23 46.9	-1.2
KIWB	Kanaga Island	69.71	1	eP	P	20 23 48.4	-2.1
FX1	Attu Island--F	71.06	355	P	P	20 23 56.4	-1.9
	comp=N,117nm,0.7s,mb5.5,baz=189,slow=4.3,SNR=16						
FX1				S	S	20 32 26.3	-3.7
	comp=N,11nm,0.7s,baz=246,slow=23,SNR=3.3						
FX1	Attu Island--F	71.06	355	P	P	20 23 56.4	-1.9
FX1				S	S	20 32 26.3	-3.7
FX1				pmax	pmax		
	comp=Z,117nm,0.7s						
FX1				smax			
	comp=N,11nm,0.7s						
FX1	Attu Island--F	71.06	355	eP	P	20 23 56.2	-2.1
ASAJ	Asahikawa	71.26	332	P	P	20 24 00.4	+0.8
	comp=N,83nm,0.7s,mb5.4,baz=215,slow=6.6,SNR=41						
ASAJ				S	S	20 32 33.5	+1.2
	comp=N,2.5nm,0.4s,baz=286,slow=31,SNR=2.1						
ASAJ	Asahikawa	71.26	332	P	P	20 24 00.4	+0.8
ASAJ				S	S	20 32 33.6	+1.2
ASAJ				pmax	pmax		
	comp=Z,83nm,0.7s						
ASAJ				smax			
	comp=N,3.0nm,0.4s						
QSPA	South Pole Qui	71.92	180	⇑iP	P	20 24 04.5	+1.6
	comp=N,519nm,0.6s,mb6.1						
SKR	Severo-Kuril’s	71.97	344	eP	P	20 23 58.6	-5.0
UNV	Unalaska Valle	72.48	8	⇓eP	P	20 24 04.1	-2.3
	comp=N,286nm,1.1s,mb5.6						
MIR	Mirnyy	72.77	205	⇓eP	P	20 24 09.0	+1.1
MIR				pmax	pmax		
	comp=Z,350nm,1.6s,mb5.5						
YSS	Yuzh-Sakhalins	73.41	334	⇓iP	P	20 24 11.2	-0.7
YSS				e		20 24 22.0	
YSS				eS	S	20 32 53.0	-3.1
YSS				e		20 33 27.0	
YSS				pmax	pmax		
	comp=Z,180nm,1.1s,mb5.4						
YSS				pmax	pmax		
	comp=N,110nm,1.2s						
YSS				smax			
	comp=N,1µm,12.0s						
YSS	Yuzh-Sakhalins	73.41	334	eP	P	20 24 12.0	+0.1
	comp=N,210nm,1.1s,mb5.5						
PET	Petropavlovsk	73.48	346	eP	P	20 24 11.3	-0.9
PET				e		20 27 11.2	
PET				eS	S	20 32 55.3	-1.4
PET				eSP	SP	20 33 56.0	+20
PET				pmax	pmax		
	comp=N,31nm,0.9s						
PET				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.0						
PET				pmax	pmax		
	comp=Z,300nm,9.2s						
PET				pmax	pmax		
	comp=Z,300nm,12.7s						
PET				smax			
	comp=N,700nm,17.7s						
PET	Petropavlovsk	73.48	346	eP	P	20 24 09.6	-2.6
	comp=N,65nm,1.0s,mb5.0						
KS15	Wonju Array Si	74.58	319	eP	P	20 24 19.1	+0.4
INCN	Inchon	75.40	318	eP	P	20 24 23.9	+0.7
	comp=N,33nm,0.8s,mb4.8						
SSE	Sheshan	75.53	310	P	P	20 24 22.3	-1.8
SSE				S	S	20 33 16.0	-3.3
SSE				AMB	AMB		
	comp=Z,55nm,1.2s,mb4.9						
SSE				AMB	AMB		
	comp=Z,208nm,5.2s						
SAO	San Andreas Ge	76.91	44	eP	P	20 24 32.1	+0.6
	comp=Z,19nm,0.8s,mb4.6						
SAO				epP	pP	20 26 28.2	-2.9
LRV	Little Rabbit	77.01	45	eP	P	20 24 32.9	+0.9
LRV				pP	pP	20 26 31.2	-0.5
NJ2	Nanjing	77.72	310	eP	P	20 24 36.6	+0.7
NJ2				AP	pP	20 26 39.0	+3.1
NJ2				PP	PP	20 27 44.0	+1.9
NJ2				S	S	20 33 45.0	+2.6
NJ2				AMB	AMB		
	comp=Z,240nm,1.0s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,710nm,6.6s						
MWC	Mount Wilson	77.84	48	eP	P	20 24 36.0	-0.5
MWC				epP	pP	20 26 35.1	-1.4
KHMM	Horse Mountain	77.87	40	epP	pP	20 26 33.4	-3.1
BAR	Barrett	78.03	50	eP	P	20 24 37.7	+0.2
BAR				pP	pP	20 26 35.8	-1.8
MDJ	Mudanjiang	78.11	325	P	P	20 24 38.0	+0.3
MDJ				S	S	20 33 49.9	+3.8
MDJ				AMB	AMB		
	comp=Z,217nm,1.0s,mb5.4						
MDJ				AMB	AMB		
	comp=Z,477nm,4.8s						
MDJ	Mudanjiang	78.11	325	eP	P	20 24 38.8	+1.1
	comp=Z,199nm,0.9s,mb5.5						
KRMB	Red Mountain	78.15	39	epP	pP	20 26 37.6	-0.4
CMB	Columbia Colle	78.33	43	eP	P	20 24 38.9	-0.1
	comp=Z,19nm,0.9s,mb4.4						
CMB				epP	pP	20 26 37.4	-1.8
OHCM	Honcut	78.36	42	eP	P	20 24 39.2	+0.1
OHCM				epP	pP	20 26 38.5	-0.8
WDC	Whiskeytown Da	78.42	40	epP	pP	20 26 38.1	-1.5
	comp=Z,365nm,2.6s						
KDAK	Kodiak Island	78.73	14	eP	P	20 24 40.8	+0.1
	comp=Z,482nm,1.2s,mb5.7						
YBH	Yreka Blue Hor	79.00	39	P	P	20 24 43.2	+0.8
	comp=Z,14nm,0.5s,mb4.6,baz=280,slow=1.3,SNR=42						
YBH				pP	pP	20 26 43.1	+0.2
	comp=Z,10nm,0.9s,baz=166,slow=6.2,SNR=5.4						
YBH				PKKPbc		20 43 30.2	
	comp=Z,0.8nm,0.5s,baz=16,slow=7.4,SNR=4.4						
YBH	Yreka Blue Hor	79.00	39	P	P	20 24 43.2	+0.7
YBH				*PP	pP	20 26 43.1	+0.2
YBH				pmax	pmax		
	comp=Z,14nm,0.5s						
YBH				pmax	pmax		
	comp=Z,10.0nm,0.9s						
YBH				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YBH	Yreka Blue Hor	79.00	39	eP	P	20 24 43.1	+0.6
	comp=Z,19nm,0.8s,mb4.5						
YBH				epP	pP	20 26 43.4	+0.5
OMM	Old Mammoth Mi	79.02	44	eP	P	20 24 43.0	+0.4
OMM				epP	pP	20 26 42.9	-0.2
QIZ	Qiongzhong	79.12	294	P	P	20 24 41.8	-1.7
QIZ				AP	pP	20 26 42.3	-1.7
QIZ				AMB	AMB		
	comp=Z,27nm,1.4s,mb4.4						
QIZ				AMB	AMB		
	comp=Z,221nm,9.4s						
QIZ	Qiongzhong	79.12	294	eP	P	20 24 44.5	+0.9
MTUM	Tungsten Hills	79.16	45	epP	pP	20 26 44.1	+0.2
LBCM	Butte Creek Ri	79.30	41	P	P	20 24 44.6	+0.5
HUMO	Hull Mountain	79.37	38	eP	P	20 24 44.9	+0.5
	comp=Z,19nm,1.0s,mb4.4						
HUMO				epP	pP	20 26 45.0	0.0
BEKR	Beckwourth	79.37	42	eP	P	20 24 44.8	+0.3
	comp=Z,12nm,0.5s,mb4.5						
BEKR				epP	pP	20 26 45.5	+0.5
WCN	Washoe City	79.44	43	eP	P	20 24 45.3	+0.4
	comp=Z,25nm,0.9s,mb4.5						
WCN				epP	pP	20 26 44.9	-0.5
BUOR	Burton Butte	79.60	39	P	P	20 24 46.3	+0.7
SNY	Shenyang	79.86	320	⇓iP	P	20 24 47.3	+0.3
SNY				AP	pP	20 26 52.3	+4.6
SNY				S	S	20 34 09.3	+5.1
SNY				AMB	AMB		
	comp=Z,40nm,1.5s,mb4.5						
SNY				AMB	AMB		
	comp=Z,80nm,18.8s						
CN2	Changchun	79.92	323	⇓P	P	20 24 47.8	+0.6
CN2				eAP	pP	20 26 49.3	+1.3
CN2				eXP	sP	20 27 40.8	-3.5
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.3						
CN2				AMB	AMB		
	comp=Z,900nm,5.0s						
MNV	Mina	80.01	44	eP	P	20 24 47.9	+0.1
	comp=Z,14nm,0.9s,mb4.3						
MNV				epP	pP	20 26 48.5	-0.1
KLR	Kul’dur	80.07	330	eP	P	20 24 45.1	-2.8
KLR				e		20 27 48.0	
KLR				eS	S	20 34 08.0	+1.9
KLR				pmax	pmax		
	comp=Z,55nm,1.4s,mb4.7						
KLR				smax			
	comp=N,120nm,2.4s						
KLR				smax			
	comp=E,90nm,2.4s						
LDFC	Landfair	80.36	48	eP	P	20 24 50.6	+0.9
LDFC				epP	pP	20 26 51.4	+0.8
WHN	Wuhan	80.36	306	⇓P	P	20 24 50.5	+0.7
WHN				S	S	20 34 12.3	+2.8
WHN				AMB	AMB		
	comp=Z,122nm,1.5s,mb5.0						
TPH	Tonopah	80.44	45	eP	P	20 24 50.9	+0.9
	comp=Z,9.5nm,0.9s						
TPH				epP	pP	20 26 51.7	+0.7
TPNV	Topopah Spring	80.52	46	eP	P	20 24 50.8	+0.4
	comp=Z,12nm,1.0s,mb4.3						
TPNV				epP	pP	20 26 52.3	+0.9
MOD	Modoc	80.56	40	eP	P	20 24 51.0	+0.4
	comp=Z,26nm,0.9s,mb4.7						
MOD				epP	pP	20 26 50.2	-1.3
FRIS	Frissel Point	80.83	38	P	P	20 24 52.3	+0.5
NEN	Nelson	80.83	48	eP	P	20 24 52.7	+0.6
NEN				epP	pP	20 26 53.4	+0.2
TIA	Tai’an	81.06	313	eP	P	20 24 53.8	+0.6
TIA				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.7						
RSO	Redoubt South	81.13	13	eP	P	20 24 51.5	-1.6
RSO				epP	pP	20 26 53.2	-1.1
MA2	Magadan	81.29	345	d iP	P	20 24 52.8	-1.1
MA2				pmax	pmax		
	comp=Z,85nm,1.2s,mb5.0						
MA2	Magadan	81.29	345	eP	P	20 24 52.7	-1.3
	comp=Z,82nm,1.0s,mb5.1						
TRCR	Troy Canyon	81.69	45	eP	P	20 24 57.0	+0.7
TRCR				epP	pP	20 26 58.6	+0.8
BMN	Battle Mountai	81.69	43	eP	P	20 24 55.9	-0.4
	comp=Z,22nm,0.9s,mb4.6						
BMN				epP	pP	20 26 56.9	-0.8
SLKM	Skilak Lake	81.72	14	eP	P	20 24 55.2	-0.8
SLKM				epP	pP	20 26 57.1	-0.4
VFP	Flag Point	81.84	37	P	P	20 24 57.6	+0.6
TUC	Tucson	82.21	52	eP	P	20 25 00.7	+1.6
	comp=Z,14nm,1.0s,mb4.3						
TUC				epP	pP	20 27 02.2	+1.5
BBB	Bella Bella	82.74	29	P	P	20 25 01.0	-0.4
	comp=Z,28nm,1.0s,mb4.8,baz=250,slow=11,SNR=4.1						
ARUT	Antelope Range	82.87	47	epP	pP	20 27 04.1	0.0
PMR	Palmer	82.94	14	eP	P	20 25 01.2	-1.0
	comp=Z,32nm,0.4s,mb5.2						
ANM	Nome	83.10	6	eP	P	20 25 03.2	+0.3
ELK	Elko	83.14	43	eP	P	20 25 03.8	+0.2
	comp=Z,11nm,0.9s,mb4.4						
ELK				epP	pP	20 27 04.5	-1.0
SNG	Songkhla	83.25	280	P	P	20 25 07.0	+2.3
SML	Sawmill	83.31	14	eP	P	20 25 02.8	-1.3
SML				epP	pP	20 27 06.2	+0.2
DIV	Divide	83.34	15	eP	P	20 25 03.2	-1.0
	comp=Z,174nm,0.8s,mb5.6						
DIV				epP	pP	20 27 05.6	-0.6
MAW	Mawson	83.49	200	⇑iP	P	20 25 06.1	+1.3
	comp=Z,134nm,0.5s,mb5.7						
MAW				eS	S	20 34 31.8	-7.7
MAW	Mawson	83.49	200	P	P	20 25 06.2	+1.4
	comp=Z,163nm,0.6s,mb5.8,baz=129,slow=6.2,SNR=186						
MAW				S	S	20 34 35.0	-4.4
	comp=Z,3.1nm,1.1s,baz=87,slow=23,SNR=2.5						
MAW	Mawson	83.49	200	P	P	20 25 06.2	+1.4
MAW				S	S	20 34 35.0	-4.5
MAW				pmax	pmax		
	comp=Z,163nm,0.6s						
MAW				smax			
	comp=N,3.0nm,1.1s						
HAWA	Hanford	83.57	37	eP	P	20 25 05.8	+0.1
	comp=N,34nm,0.9s,mb4.9						

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HAWA                               epP     pP      20 27 07.3 -0.3
BJT   Baijiatuau       83.61 316⇓iP      P       20 25 06.5 +0.5
      comp=N,196nm,1.3s,mb5.5
BJI   Beijing          83.62 316 eP      P       20 25 06.8 +0.7
BJI                               AP      pP      20 27 06.9 -1.2
BJI                               XP      sP      20 28 01.9 -2.2
BJI                               AMB     AMB
      comp=Z,104nm,1.4s,mb5.2
BJI                               AMB     AMB
      comp=Z,550nm,2.7s,mb5.6
PMSA  Palmer Station   83.78 157 eP      P       20 25 07.6 +1.3
      comp=Z,27nm,0.8s,mb4.8
SEY   Seymchan         83.89 347 eP      P       20 25 06.3 -0.5
SEY                               *PP     pP      20 27 10.3 +1.4
SEY                               *SP     sP      20 28 07.2 +2.3
SEY                              e                20 28 38.8
SEY                                               20 30 34.5
SEY                                               20 34 30.2
SEY                               pmax    pmax
      comp=N,140nm,1.1s
SEY                               pmax    pmax
      comp=Z,560nm,1.1s,mb6.0
SEY                               pmax    pmax
      comp=E,60nm,0.8s
BMO   Blue Mountains   84.01  39 eP      P       20 25 07.7 -0.2
      comp=E,6.5nm,0.9s,mb4.2
BMO                              epP     pP      20 27 09.0 -1.0
ENH   Enshi            84.01 304 eP      P       20 25 09.1 +0.9
      comp=E,334nm,1.3s,mb5.7
MVU   Marysvale        84.06  46 eP      P       20 25 09.5 +1.3
      comp=E,6.6nm,1.0s
MVU                              epP     pP      20 27 12.1 +1.6
EPH   Ephrata          84.08  36  P      P       20 25 08.2 +0.1
MSU   Marysvale        84.09  46 eP      P       20 25 09.6 +1.2
MSU                              epP     pP      20 27 13.0 +2.4
GYA   Guiyang          84.75 300⇑iP      P       20 25 12.9 +1.0
GYA                               AMB     AMB
      comp=Z,40nm,0.7s,mb5.1
GYA                               AMB     AMB
      comp=Z,340nm,4.5s
NLU   North Lily Min   84.85  45 epP     pP      20 27 14.3 -0.2
MCK   McKinley         84.87  13 eP      P       20 25 10.0 -1.6
      comp=Z,56nm,1.1s,mb5.0
MCK                              epP     pP      20 27 11.6 -2.4
HLID  Hailey           85.11  41 eP      P       20 25 13.8 +0.6
      comp=Z,11nm,0.8s,mb4.5
HLID                             epP     pP      20 27 16.1 +0.4
TMUT  Trail Mountain   85.13  46 eP      P       20 25 14.3 +0.8
TMUT                             epP     pP      20 27 16.3 +0.3
SPUT  South Promonto   85.25  44 epP     pP      20 27 16.3 -0.2
HVU   Hansel Valley    85.27  43 eP      P       20 25 14.7 +0.6
HVU                              epP     pP      20 27 17.9 +1.2
THY   Trims Highway    85.30  14 eP      P       20 25 13.2 -0.5
THY                              epP     pP      20 27 15.4 -0.9
SRU   San Rafael       85.51  47 eP      P       20 25 15.1 -0.2
SRU                              epP     pP      20 27 18.9 +1.0
JLU   Jordanelle       85.58  45 eP      P       20 25 16.5 +0.9
JLU                              epP     pP      20 27 19.5 +1.3
TCUT  Toone Canyon     85.85  44 epP     pP      20 27 19.6  0.0
NNT   Nongplab         85.85 285  P      P       20 25 20.5 +3.0
LENM  Lemitar          85.89  52 epP     pP      20 27 19.2 -0.8
NEW   Newport          85.97  36  P      P       20 25 17.0 -0.3
      comp=Z,6.3nm,0.5s,mb4.5
NEW                               PKKPbc          20 43 13.8
      comp=Z,2.7nm,0.9s,baz=30,slow=8.1,SNR=3.4
NEW   Newport          85.97  36  P      P       20 25 17.0 -0.3
NEW                               pmax    pmax
      comp=Z,6.0nm,0.5s
NEW                               pmax    pmax
      comp=Z,3.0nm,0.9s
NEW   Newport          85.97  36 eP      P       20 25 16.0 -1.2
      comp=Z,10nm,0.8s,mb4.5
HWUT  Hardware Ranch   85.98  44 eP      P       20 25 17.4 -0.1
      comp=Z,3.5nm,0.7s
HWUT                             epP     pP      20 27 20.0 -0.2
IMA   Indian Mountai   86.08  10 eP      P       20 25 17.4 +0.1
      comp=Z,14nm,0.9s,mb4.6
MNTX  Cornudas Mount   86.09  55 eP      P       20 25 18.6 +0.3
      comp=Z,12nm,0.9s,mb4.5
MNTX                             epP     pP      20 27 22.2 +1.1
COLA  College          86.10  13 eP      P       20 25 16.3 -1.2
COLA                              pmax    pmax
      comp=Z,135nm,1.5s,mb5.3
COLA  College          86.10  13 eP      P       20 25 16.3 -1.2
      comp=Z,135nm,1.5s,mb5.4
BNM   Barren Site      86.14  52  P      P       20 25 18.4 -0.1
BNM                               pP      pP      20 27 21.6 +0.3
LPM   Los Pinos Moun   86.21  52  P      P       20 25 19.0 +0.2
LPM                              epP     pP      20 27 22.1 +0.5
PV10  Paradox Valley   86.21  48 epP     pP      20 27 20.3 -1.3
ILAR  Eielson Array    86.22  13  P      P       20 25 16.6 -1.4
      comp=Z,15nm,0.4s,mb5.0,baz=219,slow=5.2,SNR=592
ILAR                              pP      pP      20 27 21.0 +0.1
      comp=Z,56nm,1.1s,baz=229,slow=5.5,SNR=24
ILAR                              PKiKP           20 30 20.6
      comp=Z,0.8nm,0.5s,baz=252,slow=3.6,SNR=8.5
ILAR                              S       S       20 34 48.0  -17
      comp=Z,1.2nm,0.9s,baz=230,slow=7.0,SNR=6.3
ILAR                              ScS     ScS     20 35 03.7 -6.3
      comp=Z,2.9nm,1.1s,baz=233,slow=9.4,SNR=7.6
ILAR                              PKKPbc          20 43 12.1
      comp=Z,3.0nm,0.7s,baz=351,slow=3.0,SNR=19
ILAR                              PKPPKP          20 51 05.5
      comp=Z,1.0nm,1.2s,baz=27,slow=2.0,SNR=3.3
ILAR  Eielson Array    86.22  13  P      P       20 25 16.6 -1.4
ILAR                              *PP     pP      20 27 21.0 +0.1
ILAR                              S       S       20 34 48.0  -17
ILAR                                              20 35 03.7
ILAR                              pmax    pmax
      comp=Z,15nm,0.4s
ILAR                              pmax    pmax
      comp=Z,56nm,1.1s
ILAR                              pmax    pmax
      comp=Z,1.0nm,0.5s
ILAR                              smax
      comp=N,1.0nm,0.9s
ILAR                              pmax    pmax
      comp=N,3.0nm,1.1s
ILAR                              pmax    pmax
      comp=Z,3.0nm,0.7s
ILAR                              pmax    pmax
      comp=Z,1.0nm,1.2s
DLBC  Dease Lake       86.23  23  P      P       20 25 18.4 +0.2
      comp=Z,9.2nm,0.9s,mb4.4,baz=204,slow=10.0,SNR=10.0
DLBC                              pP      pP      20 27 21.4 +0.3
      comp=Z,12nm,1.1s,baz=193,slow=24,SNR=3.1
DLBC                              PKKPbc          20 43 13.9
      comp=Z,5.1nm,1.2s,baz=179,slow=26,SNR=3.1
DLBC  Dease Lake       86.23  23  P      P       20 25 18.4 +0.2
DLBC                              pP      pP      20 27 21.4 +0.3
DLBC                              PKKPbc          20 43 13.9
HIA   Hailar           86.29 325 eP      P       20 25 18.9 +0.1
PV01  Paradox Valley   86.44  48 epP     pP      20 27 23.4 +0.8
LTX   Lajitas          86.51  58 eP      P       20 25 21.2 +0.9
      comp=Z,29nm,0.9s,mb4.9
LTX                              epP     pP      20 27 23.6 +0.3
TXAR  Lajitas Array    86.51  58  P      P       20 25 21.8 +1.4
      comp=Z,22nm,0.8s,mb4.9,baz=220,slow=6.0,SNR=116
TXAR                              pP      pP      20 27 23.9 +0.7
      comp=Z,0.7nm,0.7s,baz=316,slow=38,SNR=4.0
TXAR                              sP      sP      20 28 20.5 +1.4
      comp=Z,0.1nm,0.4s,baz=316,slow=42,SNR=0.8
TXAR                              S               20 34 55.0
      comp=Z,0.1nm,0.3s,baz=214,slow=18,SNR=2.2
TXAR                              PKKP    PKKP    20 43 07.3  +60
      comp=Z,0.5nm,0.6s,baz=132,slow=4.4,SNR=4.1
TXAR                              PKKPbc          20 43 13.7
      comp=Z,0.8nm,0.6s,baz=140,slow=2.0,SNR=7.2
ANMO  Albuquerque      86.60  52  P      P       20 25 21.0 +0.4
      comp=Z,4.1nm,0.7s,mb4.2,baz=235,slow=5.0,SNR=14
ANMO                              pP      pP      20 27 24.7 +1.1
      comp=Z,13nm,1.0s,baz=218,slow=5.3,SNR=12
ANMO  Albuquerque      86.60  52  P      P       20 25 21.0 +0.4
ANMO                              *PP     pP      20 27 24.7 +1.1
ANMO                              pmax    pmax
      comp=Z,4.0nm,0.7s
ANMO                              pmax    pmax
      comp=Z,13nm,1.0s
ANMO  Albuquerque      86.60  52 eP      P       20 25 20.3 -0.3
      comp=Z,7.3nm,1.0s,mb4.3
ANMO                             epP     pP      20 27 23.4 -0.1
MSO   Missoula         87.05  39 eP      P       20 25 22.0 -0.4
      comp=Z,4.3nm,0.5s,mb4.3
GDL2  Guadalupe Moun   87.08  55 eP      P       20 25 23.5 +0.6
GDL2                             epP     pP      20 27 25.2 -0.8
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HHC   Hu-ho-hao-te     87.10 315 eP      P       20 25 23.8 +1.0
HHC                               AP      pP      20 27 23.1 -2.8
HHC                               XP      sP      20 28 16.8 -4.9
HHC                               PP      PP      20 28 58.3 +0.1
HHC                               SKS     SKS     20 34 58.6 +3.0
HHC                               S       S       20 35 14.1 +0.1
HHC                               XS              20 38 44.6
HHC                               AMB     AMB
      comp=Z,82nm,1.1s,mb5.3
HHC                               AMB     AMB
      comp=Z,205nm,4.9s
TPAW  Teton Pass       87.27  42 epP     pP      20 27 26.7 +0.1
REDW  Red Top Meadow   87.27  43 eP      P       20 25 24.0 +0.4
REDW                             epP     pP      20 27 25.1 -1.5
SNOW  Snow King Moun   87.38  43 eP      P       20 25 24.4 +0.4
SNOW                             epP     pP      20 27 27.8 +0.5
WUWY  Wally Ulrich     87.43  43 epP     pP      20 27 27.0 -0.4
IMW   Indian Meadow    87.47  42 eP      P       20 25 25.4 +1.0
IMW                              epP     pP      20 27 27.5 -0.1
CLNB  Carlsbad         87.49  55  P      P       20 25 22.0 -2.8
CLNB                             epP     pP      20 27 28.5 +0.5
CHMT  Chamberlain Mo   87.50  39 eP      P       20 25 24.2 -0.4
KMI   Kunming          87.52 297 eP      P       20 25 26.9 +1.8
KMI                               AP      pP      20 27 32.5 +4.2
KMI                               XP      sP      20 28 28.8 +4.6
KMI                               PP      PP      20 29 04.6 +2.7
KMI                               PPP     PPP     20 31 03.9 +0.1
KMI                               SKS     SKS     20 34 59.9 +1.3
KMI                               S       S       20 35 22.8 +4.6
KMI                               AMB     AMB
      comp=Z,38nm,1.3s,mb5.0
KMI                               AMB     AMB
      comp=Z,218nm,7.7s
MOOW  Moose Ponds      87.52  42 eP      P       20 25 24.6 -0.1
MOOW                             epP     pP      20 27 27.0 -0.9
LOHW  Long Hollow      87.55  42 epP     pP      20 27 28.4 +0.4
QLMT  Earthquake Lak   87.60  41 eP      P       20 25 26.4 +1.4
QLMT                             epP     pP      20 27 28.5 +0.3
CPRX  Cap Rock         87.80  54 eP      P       20 25 26.3  0.0
CPRX                              pP      pP      20 27 29.6 +0.1
YMR   Madison River    87.81  41  P      P       20 25 25.0 -1.0
YMR                              epP     pP      20 27 29.0 -0.3
PDAR  Pinedale Array   87.84  44  P      P       20 25 26.4 +0.3
      comp=Z,6.3nm,0.6s,mb4.5,baz=206,slow=2.6,SNR=64
PDAR                              pP      pP      20 27 30.0 +0.5
      comp=Z,8.9nm,1.0s,baz=223,slow=3.2,SNR=6.0
PDAR                              S       S       20 35 02.3  -18
      comp=Z,0.1nm,0.3s,baz=132,slow=18,SNR=2.3
PDAR                              PKKP    PKKP    20 43 07.0  +62
      comp=Z,1.6nm,0.7s,baz=78,slow=4.5,SNR=11
PDAR                              SKKPbc          20 45 56.0
      comp=Z,0.7nm,0.7s,baz=79,slow=4.6,SNR=4.2
PDAR                              PKPPKP          20 51 13.1
      comp=Z,0.6nm,0.7s,baz=90,slow=2.7,SNR=5.5
CLNS  Chul'man         88.16 333 eP      P       20 25 27.4 +0.1
CLNS                              pmax    pmax
      comp=Z,49nm,0.8s,mb5.3
CLNS                              pmax    pmax
      comp=N,24nm,1.0s
CLNS                              pmax    pmax
      comp=E,24nm,1.2s
CLNS                              pmax    pmax
      comp=N,437nm,11.1s
CLNS                              pmax    pmax
      comp=Z,189nm,11.8s
CLNS                              pmax    pmax
      comp=E,83nm,11.2s
WALA  Waterton Lakes   88.20  37 eP      P       20 25 27.4 -0.3
      comp=E,14nm,1.1s,mb4.6
CHRT  Chiangrai        88.25 291 ⇓P      P       20 25 30.3 +1.7
      comp=E,116nm,1.3s,mb5.5
HRY   Holter Researc   88.26  39 eP      P       20 25 28.4 +0.4
HRY                              epP     pP      20 27 31.7 +0.2
SDCO  Great Sand Dun   88.47  49 epP     pP      20 27 33.1 +0.4
      comp=E,17nm,1.2s
CM31  Chiang Mai Arr   88.52 290 eP      P       20 25 29.1 -0.9
      comp=E,31nm,0.9s,mb5.1
CMAR  Chiang Mai Arr   88.52 290  P      P       20 25 31.5 +1.5
      comp=E,16nm,0.7s,mb5.0,baz=112,slow=2.9,SNR=68
CMAR                              pP      pP      20 27 35.0 +1.6
      comp=E,0.6nm,0.9s,baz=109,slow=4.9,SNR=1.7
CMAR                              PP      PP      20 29 05.2 -4.7
      comp=E,2.4nm,0.7s,baz=123,slow=5.1,SNR=4.2
CMAR                              PKiKP           20 30 26.6
      comp=E,1.0nm,0.7s,baz=137,slow=1.4,SNR=4.1
CMAR                              S               20 35 07.5
      comp=E,1.3nm,1.3s,baz=57,slow=29,SNR=2.6
CMAR                              PKKPbc          20 43 08.7
      comp=E,4.1nm,0.7s,baz=274,slow=4.2,SNR=27
CMAR                              PKPPKP          20 51 11.1
      comp=E,0.3nm,0.6s,baz=270,slow=2.7,SNR=4.3
CMAR  Chiang Mai Arr   88.52 290  P      P       20 25 31.5 +1.5
CMAR                              *PP     pP      20 27 35.0 +1.6
CMAR                                              20 29 05.3
CMAR                              S               20 35 07.5
CMAR                              pmax    pmax
      comp=Z,16nm,0.7s
CMAR                              pmax    pmax
      comp=Z,1.0nm,0.9s
CMAR                              pmax    pmax
      comp=Z,2.0nm,0.7s
CMAR                              pmax    pmax
      comp=Z,1.0nm,0.7s
CMAR                              smax
      comp=N,1.0nm,1.3s
CMAR                              pmax    pmax
      comp=Z,4.0nm,0.7s
CD2   Chengdu          88.80 303⇓iP      P       20 25 32.8 +1.8
CD2                               AP      pP      20 27 32.1 -2.5
CD2                               PP      PP      20 29 13.1 +1.2
CD2                               PPP     PPP     20 31 17.8 +2.7
CD2                               SKS     SKS     20 35 05.8 -0.4
CD2                               S       S       20 35 35.4 +5.8
CD2                               XS              20 39 04.3
CD2                               SS      SS      20 41 38.6 -4.1
CD2                               AMB     AMB
      comp=Z,220nm,5.4s
SYO   Syowa Base       88.83 193 ⇓P      P       20 25 30.4 +0.2
SYO   Syowa Base       88.83 193 ⇓PcP    PcP     20 25 31.8 +0.4
SYO   Syowa Base       88.83 193 ⇓PP     PP      20 29 09.0 -2.2
YAK   Yakutsk          89.62 338d iP     P       20 25 32.8 -1.2
YAK                               pmax    pmax
      comp=Z,25nm,0.5s,mb5.3
YAK   Yakutsk          89.62 338 eP      P       20 25 32.7 -1.3
      comp=Z,46nm,0.8s,mb5.4
JCT   Junction City    90.05  58 eP      P       20 25 36.8  0.0
      comp=Z,15nm,0.8s,mb4.9
SNAA  Sanae            90.38 179⇑i       P       20 25 37.4 +0.1
SNAA  Sanae            90.38 179  P      P       20 25 37.5 +0.2
      comp=Z,35nm,0.6s,mb5.4,baz=209,slow=6.2,SNR=837
SNAA                              S               20 35 15.0
      comp=Z,0.8nm,0.9s,baz=191,slow=22,SNR=6.6
SNAA                              PKKP    PKKP    20 43 01.8  +62
      comp=Z,0.3nm,0.4s,baz=263,slow=9.7,SNR=15
SNAA  Sanae            90.38 179  P      P       20 25 37.5 +0.2
SNAA                              S               20 35 15.0
SNAA                              pmax    pmax
      comp=Z,35nm,0.6s
SNAA                              smax
      comp=N,1.0nm,0.9s
SNAA  Sanae            90.38 179 eP      P       20 25 37.5 +0.2
      comp=N,96nm,0.6s,mb5.8
VNA3  Neumayer Olymp   90.54 177⇑i       P       20 25 40.8 +2.7
EDM   Edmonton         90.61  33 epP     pP      20 27 42.5 -0.2
LZH   Lanzhou          90.66 308⇓iP      P       20 25 40.8 +1.3
LZH                               AP      pP      20 27 45.1 +1.6
LZH                               XP      sP      20 28 44.3 +5.1
LZH                               PP      PP      20 29 28.8 +2.4
LZH                               SKS     SKS     20 35 15.5 -1.5
LZH                               S       S       20 35 47.3 +1.4
LZH                               XS              20 39 26.8
LZH                               AMB     AMB
      comp=Z,93nm,1.4s,mb5.5
LZH                               AMB     AMB
      comp=Z,332nm,6.3s
VNA2  Neumayer--Watz   90.97 177⇑i       P       20 25 43.2 +3.1
NVL   N'lazarevskaya   91.01 184⇑iP      P       20 25 40.2 -0.1
NVL                               pmax    pmax
      comp=Z,113nm,0.7s,mb5.9
VNA1  Neumayer--Stat   91.20 177⇑i       P       20 25 44.3 +3.2
INK   Inuvik           92.23  15  P      P       20 25 44.7 -1.2
      comp=Z,32nm,1.0s,mb5.3,baz=220,slow=4.3,SNR=69
INK                               pP      pP      20 27 50.0  0.0
      comp=Z,7.0nm,1.1s,baz=196,slow=7.1,SNR=5.2
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INK                               PKiKP           20 30 30.4
      comp=Z,2.4nm,0.9s,baz=206,slow=11,SNR=2.3
INK                               S               20 35 25.5
      comp=Z,2.8nm,1.2s,baz=319,slow=26,SNR=4.9
INK                               PKKP    PKKP    20 42 58.0  +61
      comp=Z,1.6nm,0.4s,baz=65,slow=1.1,SNR=8.7
INK   Inuvik           92.23  15  P      P       20 25 44.7 -1.1
INK                               *PP     pP      20 27 50.0 -0.1
INK                               S               20 35 25.5
INK                               pmax    pmax
      comp=Z,32nm,1.0s
INK                               pmax    pmax
      comp=Z,7.0nm,1.1s
INK                               pmax    pmax
      comp=Z,2.0nm,0.9s
INK                               smax
      comp=N,3.0nm,1.2s
INK                               pmax    pmax
      comp=Z,2.0nm,0.4s
INK   Inuvik           92.23  15 eP      P       20 25 44.5 -1.3
      comp=Z,49nm,1.1s,mb5.5
INK                              epP     pP      20 27 49.2 -0.8
ULN   Ulaanbaatar      93.03 320d iP     P       20 25 49.9 -0.1
ULN   Ulaanbaatar      93.03 320 eP      P       20 25 50.0  0.0
      comp=Z,15nm,0.8s,mb5.1
SONM  Songino Array    93.42 319  P      P       20 25 51.6 -0.1
      comp=Z,3.7nm,0.6s,mb4.6,baz=127,slow=4.0,SNR=22
SONM                              pP      pP      20 27 57.5 +1.4
      comp=Z,2.6nm,1.1s,baz=124,slow=4.5,SNR=3.2
SONM                              PP      PP      20 29 40.0 -7.7
      comp=Z,5.9nm,1.1s,baz=127,slow=6.2,SNR=4.7
SONM                              PKiKP           20 30 32.7
      comp=Z,1.9nm,1.0s,baz=111,slow=1.4,SNR=6.2
SONM                              S               20 35 31.9
      comp=Z,1.8nm,1.0s,baz=191,slow=6.3,SNR=5.7
SONM                              PKKP    PKKP    20 42 53.1  +58
      comp=Z,3.3nm,1.2s,baz=224,slow=0.4,SNR=6.8
BOD   Bodaibo          93.63 330 eP      P       20 25 50.4 -2.1
DGMT  Dagmar           93.67  40 epP     pP      20 27 56.9 -0.4
      comp=Z,54nm,1.0s
YKA   Yellowknife Ar   94.73  25  P      P       20 25 56.6 -0.7
      comp=Z,2.7nm,0.5s,mb4.6,baz=242,slow=4.4,SNR=50
YKA                               pP      pP      20 28 02.9 +1.2
      comp=Z,1.8nm,0.8s,baz=242,slow=4.4,SNR=5.8
YKA                               PKiKP           20 30 35.3
      comp=Z,0.5nm,0.4s,baz=260,slow=1.5,SNR=11
YKA                               PKKP    PKKP    20 42 50.3  +57
      comp=Z,1.3nm,0.4s,baz=36,slow=2.1,SNR=15
YKA                               PKPPKP          20 50 59.9
      comp=Z,0.3nm,0.6s,baz=45,slow=2.7,SNR=4.1
YKA   Yellowknife Ar   94.73  25  P      P       20 25 56.6 -0.8
YKA                               *PP     pP      20 28 02.9 +1.2
YKA                               pmax    pmax
      comp=Z,3.0nm,0.5s
YKA                               pmax    pmax
      comp=Z,2.0nm,0.9s
YKA                               pmax    pmax
      comp=Z,1.0nm,0.4s
YKA                               pmax    pmax
      comp=Z,1.0nm,0.4s
YKA   Yellowknife Ar   94.73  25  P      P       20 25 56.6 -0.7
YKA                               pP      pP      20 28 02.9 +1.2
YKW3  Yellowknife Ar   94.77  25 eP      P       20 25 56.5 -1.0
YKW3                              pP      pP      20 28 00.7 -1.1
GTA   Gaotai           94.82 310 eP      P       20 25 59.0 +0.7
GTA                               AP      pP      20 28 06.1 +3.4
GTA                               XP      sP      20 28 55.3 -2.7
GTA                               SKS     SKS     20 35 37.4 -2.2
GTA                               AMB     AMB
      comp=Z,16nm,1.0s,mb5.1
GTA                               AMB     AMB
      comp=Z,126nm,6.5s
KSU1  Kansas State U   95.46  51 eP      P       20 26 01.8 +0.6
TIXI  Tiksi            96.26 345⇓iP      P       20 26 02.6 -1.4
TIXI                              pmax    pmax
      comp=Z,12nm,0.9s,mb5.1
TIXI  Tiksi            96.26 345 i P     P       20 26 03.2 -0.8
ZAK   Zakamensk        96.27 321⇓iP      P       20 26 03.8 -0.8
ZAK                              e        pP      20 28 11.1 +2.1
TLY   Talaya           96.52 322 i P     P       20 26 05.0 -0.7
TLY                               pmax    pmax
      comp=Z,8.0nm,1.1s,mb4.9
TLY   Talaya           96.52 322 i P     P       20 26 05.1 -0.6
SHL   Shillong         96.95 295 eP      P       20 26 09.0 +0.7
SHL                              e                20 35 50.0
ULM   Lac du Bonnet    99.39  40  pP      pP      20 28 23.7 +0.5
      comp=Z,1.1nm,0.5s,baz=254,slow=4.3,SNR=2.2
ULM                               PKiKP           20 30 43.1
      comp=Z,0.9nm,0.4s,baz=310,slow=3.2,SNR=3.1
ULM                               PKKPbc          20 42 40.2
      comp=Z,2.1nm,0.5s,baz=46,slow=5.3,SNR=4.6
LVC   Limon Verde     100.49 118  PKKPbc          20 42 37.7
      comp=Z,2.5nm,0.4s,baz=308,slow=3.7,SNR=10
HYB   Hyderabad       106.81 283 eP               20 30 58.5
HYB   Hyderabad       106.81 283 i PKP            20 30 58.5
HYB                              ePP     PP      20 31 16.5  -12
ZAL   Zalesovo        108.14 322  Pdiff   Pdif    20 26 56.8 -0.4
      comp=Z,0.8nm,0.8s,baz=15,slow=3.6,SNR=7.0
ZAL                               PKiKP           20 30 59.5
      comp=Z,3.5nm,0.4s,baz=358,slow=2.3,SNR=4.6
ZAL                               PP      PP      20 31 24.1  -13
      comp=Z,1.7nm,0.8s,baz=17,slow=8.8,SNR=5.0
ZAL                               PKKPbc          20 42 13.6
      comp=Z,1.9nm,0.5s,baz=213,slow=3.7,SNR=7.7
ZAL   Zalesovo        108.14 322  P      Pdif    20 26 56.8 -0.4
ZAL                               pmax    pmax
      comp=Z,1.0nm,0.8s
ZAL                               pmax    pmax
      comp=Z,4.0nm,0.4s
ZAL                               pmax    pmax
      comp=Z,2.0nm,0.8s
ZAL                               pmax    pmax
      comp=Z,2.0nm,0.5s
ZAL   Zalesovo        108.14 322  Pdif    Pdif    20 26 56.8 -0.4
ZAL                               PKPdf           20 30 59.5
ZAL                               PP      PP      20 31 24.1  -13
ZAL                               PKKPbc          20 42 13.6
DDI   Dehra Dun       109.94 296 e        Px      20 31 13.5
KSH   Kashi           112.83 306 ePKP     PKPdf   20 31 12.0 +3.6
TKM2  Tokmak 2        113.37 310  P      PKPdf   20 31 10.4 +1.0
      SNR=6.6
KBK   Karagaybulak    113.83 309  P      PKPdf   20 31 11.3 +1.0
      SNR=5.2
CHMS  Chumysh         114.00 310  P      PKPdf   20 31 11.6 +1.0
      SNR=8.1
UCH   Uchtor          114.13 309  P      PKPdf   20 31 13.0 +2.1
      SNR=7.1
AAK   Ala-Archa       114.17 309 ePKiKP           20 31 10.5
USP   Ospenovka       114.19 310  P      PKPdf   20 31 11.8 +0.9
      SNR=8.7
AML   Almayashu       114.73 309  P      PKPdf   20 31 13.6 +1.5
      SNR=8.5
FRB   Frobisher Bay   115.10  27  PKP     PKPdf   20 31 12.2  0.0
      comp=Z,3.8nm,0.4s,baz=347,slow=2.5,SNR=20
FRB                               SKP             20 33 55.5
      comp=Z,2.7nm,0.6s,baz=233,slow=1.8,SNR=4.7
FRB                               PKKPbc          20 41 50.7
      comp=Z,1.3nm,0.5s,baz=65,slow=4.7,SNR=4.2
FRB                               PKKPab          20 41 57.5
      comp=Z,3.4nm,0.5s,baz=80,slow=5.2,SNR=3.9
FRB   Frobisher Bay   115.10  27  PKIKP   PKPdf   20 31 12.3 +0.1
FRB                               pmax    pmax
      comp=Z,4.0nm,0.4s
FRB                               pmax    pmax
      comp=Z,3.0nm,0.6s
FRB                               pmax    pmax
      comp=Z,1.0nm,0.5s
FRB                               pmax    pmax
      comp=Z,3.0nm,0.5s
FRB   Frobisher Bay   115.10  27  PKP     PKPdf   20 31 12.2  0.0
FRB                               SKP             20 33 55.5
FRB                               PKKPbc          20 41 50.7
FRB                               PKKPab          20 41 57.5
SJG   San Juan        116.44  78  PKP     PKPdf   20 31 16.1 +0.2
      comp=Z,19nm,0.6s,baz=88,slow=3.1,SNR=10.0
SJG   San Juan        116.44  78  PKIKP   PKPdf   20 31 16.1 +0.2
SJG                               pmax    pmax
      comp=Z,19nm,0.6s
SJG   San Juan        116.44  78  PKP     PKPdf   20 31 16.1 +0.2
BVAR  Borovoye Array  116.73 321  PKP     PKPdf   20 31 16.3 +0.7
      comp=Z,19nm,0.4s,baz=115,slow=1.9,SNR=263
BVAR                              PP      PP      20 32 23.3  -14
      comp=Z,1.7nm,0.5s,baz=117,slow=6.4,SNR=2.4
BVAR                              SKP             20 33 59.4
      comp=Z,4.2nm,0.6s,baz=114,slow=2.1,SNR=4.5
BVAR                              PKKPbc          20 41 45.4
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         comp=Z,3.2nm,0.8s,baz=270,slow=3.0,SNR=9.0
BVAR                                    PKKPab              20 41 51.7
         comp=Z,2.5nm,0.6s,baz=270,slow=3.0,SNR=13
BRVK  Borovoye          116.79 321  ePKPdf    PKPdf     20 31 15.8 +0.1
BRVK                                eSKPdf              20 33 58.8
SCHQ  Schefferville     117.33  37   PKP      PKPdf     20 31 15.8  -1.0
         comp=Z,3.5nm,0.6s,baz=135,slow=1.4,SNR=14
SCHQ                                 PKKPbc             20 41 44.2
         comp=Z,3.3nm,0.5s,baz=63,slow=4.5,SNR=5.8
SCHQ                                 PKKPab             20 41 48.2
         comp=Z,4.4nm,0.9s,baz=94,slow=4.6,SNR=5.2
SCHQ  Schefferville     117.33  37   PKP      PKPdf     20 31 15.8  -1.0
SCHQ                                 PKKPbc             20 41 44.2
SCHQ                                 PKKPab             20 41 48.2
SUMG  Summit            121.06  13  ePKPdf    PKPdf     20 31 24.5 +0.9
BDFB  Brasilia          121.11 122   PKP      PKPdf     20 31 25.3 +0.3
         comp=Z,10nm,0.6s,baz=282,slow=3.0,SNR=20
BDFB                                 PKKPbc             20 41 31.4
         comp=Z,4.6nm,0.9s,baz=81,slow=3.3,SNR=4.9
BDFB                                 PKKPab             20 41 34.3
         comp=Z,1.6nm,0.4s,baz=102,slow=3.1,SNR=4.8
BDFB                                 SKKPbc             20 44 23.3
         comp=Z,1.1nm,0.4s,baz=126,slow=5.1,SNR=3.3
BAO   Brasilia Array    121.14 122   P        PKPdf     20 31 25.7 +0.7
BAO                                 e                   20 31 29.6
SOKR  Solikamsk         122.63 330⇓iPKIKP     PKPdf     20 31 26.4  -0.5
SOKR                                 pmax     pmax
         comp=Z,20nm,0.9s
ARU   Arti              122.78 326⇑iPKIKP     PKPdf     20 31 27.7 +0.4
ARU                                 e                   20 33 16.6
ARU                                  pmax     pmax
         comp=Z,17nm,0.7s
ARU   Arti              122.78 326  ePKPdf    PKPdf     20 31 27.6 +0.3
KEV   Kevo              126.00 349  epkp      PKPdf     20 31 33.7 +0.6
SUR   Sutherland        126.34 201   PKP      PKPdf     20 31 37.1 +2.3
         comp=Z,40nm,0.6s,baz=83,slow=1.8,SNR=33
ARCES ARCESS Array B 126.46 350     PKP      PKPdf     20 31 34.8 +0.8
         comp=Z,13nm,0.4s,baz=36,slow=1.2,SNR=98
ARCES                                PP       PP        20 33 43.4 +2.1
         comp=Z,3.1nm,0.8s,baz=24,slow=24,SNR=3.4
ARCES                                SKP                20 34 17.9
         comp=Z,3.9nm,0.6s,baz=27,slow=2.0,SNR=5.9
ARCES                                PKKPab             20 41 08.6
         comp=Z,2.4nm,0.4s,baz=202,slow=2.8,SNR=22
ARCES                                PKKP     PKKP      20 41 50.8  +56
         comp=Z,2.3nm,0.8s,baz=225,slow=1.3,SNR=5.4
ARCES ARCESS Array B 126.46 350     PKIKP    PKPdf     20 31 34.8 +0.8
ARCES                                                   20 33 43.4
ARCES                                pmax     pmax
         comp=Z,13nm,0.4s
ARCES                                pmax     pmax
         comp=Z,3.0nm,0.8s
ARCES                                pmax     pmax
         comp=Z,4.0nm,0.6s
ARCES                                pmax     pmax
         comp=Z,2.0nm,0.4s
ARCES                                pmax     pmax
         comp=Z,2.0nm,0.8s
ARE0  ARCESS Array S 126.46 350    ePKPdf    PKPdf     20 31 34.9 +0.8
BOSA  Boshof            127.98 207  ePKPdf    PKPdf     20 31 39.4 +1.4
KAF   Kangasniemi       132.66 344  epkp      PKPdf     20 31 46.2 +0.2
KAF   Kangasniemi       132.66 344  epkp                20 34 20.7
FINES FINESS Array B    133.28 344   PKhKP              20 31 32.0
         comp=Z,4.1nm,0.9s,baz=46,slow=4.1,SNR=15
FINES                                PKP      PKPdf     20 31 47.8 +0.7
         comp=Z,8.5nm,0.7s,baz=66,slow=3.2,SNR=19
FINES                                SKPbc              20 34 23.3
         comp=Z,24nm,0.8s,baz=63,slow=4.3,SNR=14
FINES                                PKKPbc             20 40 47.7
         comp=Z,1.4nm,0.6s,baz=207,slow=3.1,SNR=5.2
FINES                                SKKPbc             20 43 43.2
         comp=Z,1.7nm,0.6s,baz=225,slow=2.7,SNR=4.0
FINES FINESS Array B    133.28 344   PKHKP              20 31 32.0
FINES                                                   20 31 47.8
FINES                                                   20 34 23.3
FINES                                pmax     pmax
         comp=Z,4.0nm,0.9s
FINES                                pmax     pmax
         comp=Z,9.0nm,0.7s
FINES                                pmax     pmax
         comp=Z,25nm,0.8s
FINES                                pmax     pmax
         comp=Z,1.0nm,0.6s
OBN   Obninsk           134.28 332  i PKIKP   PKPdf     20 31 49.9 +0.7
OBN                                 i                   20 34 25.5
OBN                                 ePPP      PPP       20 37 29.0  -4.6
OBN                                                     20 37 58.3
OBN                                 ePS       SP        20 43 47.2  -7.7
OBN                                  pmax     pmax
         comp=Z,16nm,0.6s
HASS  Wahat al Ahsa'    134.49 288   P        PKPdf     20 31 52.9 +2.5
VRSR  Storozhevoye      135.34 326  ePKIKP    PKPdf     20 31 51.0  -0.2
ZEI   Tsey              136.31 314  i PKIKP   PKPdf     20 31 56.7 +3.5
ZEI                                  pmax     pmax
         comp=Z,30nm,0.9s
NB2   NORSAR Subarra136.55 353       PKP      PKPdf     20 31 43.1   -10
         comp=Z,2.5nm,0.6s,baz=17,slow=2.6
NOA   NORSAR Array B 136.55 353      PKhKP              20 31 42.6
         comp=Z,2.0nm,0.9s,slow=2.2,SNR=3.7
NOA                                  PKP      PKPdf     20 31 53.9 +0.8
         comp=Z,3.1nm,0.5s,baz=14,slow=4.0,SNR=9.2
NOA                                  SKP                20 34 34.8
         comp=Z,9.3nm,0.9s,baz=11,slow=3.2,SNR=11
NOA                                  SKPab              20 34 39.3
         comp=Z,4.0nm,0.9s,baz=36,slow=2.3,SNR=6.8
NOA   NORSAR Array B 136.55 353      PKHKP              20 31 42.6
NOA                                                     20 31 53.9
NOA                                  pmax     pmax
         comp=Z,2.0nm,0.9s
NOA                                  pmax     pmax
         comp=Z,3.0nm,0.5s
NOA                                  pmax     pmax
         comp=Z,9.0nm,0.9s
NOA                                  pmax     pmax
         comp=Z,4.0nm,0.9s
GNI   Garni             136.57 310  eP                  20 34 32.5
GNI   Garni             136.57 310   PKP      PKPdf     20 31 55.5 +1.7
         comp=Z,6.9nm,0.6s,baz=6.6,slow=8.3,SNR=7.1
GNI                                  SKP                20 34 36.0
         comp=Z,131nm,1.4s,baz=139,slow=7.0,SNR=7.6
GNI   Garni             136.57 310   PKIKP    PKPdf     20 31 55.5 +1.7
GNI                                  pmax     pmax
         comp=Z,7.0nm,0.6s
GNI                                  pmax     pmax
         comp=Z,131nm,1.4s
GNI   Garni             136.57 310   PKP      PKPdf     20 31 55.5 +1.7
GNI                                 eSKPbc              20 34 35.5
GNI                                  SKP                20 34 36.0
KIV   Kislovodsk        136.69 316ceePKIKP    PKPdf     20 31 54.3 +0.4
KIV                                 e                   20 34 43.1
KIV                                 eSS       SS        20 52 02.2  -4.0
KIV                                  pmax     pmax
         comp=Z,10.0nm,1.2s
KIV                                  pmax     pmax
         comp=N,23nm,1.0s
KIV                                  pmax     pmax
         comp=Z,62nm,1.0s
KIV   Kislovodsk        136.69 316   PKPdf    PKPdf     20 31 53.8  -0.1
KIV                                 eSKP                20 34 34.0
NAO01 NORSAR Array S 136.78 353    eSKPbc              20 34 35.4
NAO01                               eSKPab              20 34 43.1
LSZ   Lusaka            137.40 220  ePKPpre             20 31 46.1
LSZ                                 eSKPbc              20 34 39.6
VANB  Van               138.03 308  eP                  20 34 38.8
BCA   Borcka            138.37 313  i P                 20 34 38.3
ERZM  Erzurum           139.10 311  i P       PKPdf     20 31 52.5  -6.0
EZM   Erzurum           139.10 311  i P                 20 34 39.2
VRT   Varto             139.24 309  eP                  20 34 43.2
BTMT  Batman            139.57 308  i P                 20 34 45.0
KMBO  Kilima Mbogo      139.61 246   PKhKP              20 31 55.5
         comp=Z,5.9nm,0.6s,baz=65,slow=4.5,SNR=16
KMBO                                 PKP      PKPdf     20 32 02.3 +2.3
         comp=Z,11nm,0.7s,baz=57,slow=4.1,SNR=14
KMBO                                 SKP                20 34 39.8
         comp=Z,2.9nm,0.9s,baz=55,slow=23,SNR=2.2
KMBO                                 SKPbc              20 34 45.8
         comp=Z,18nm,1.2s,baz=350,slow=3.4,SNR=5.8
KMBO  Kilima Mbogo      139.61 246   PKHKP              20 31 55.5
KMBO                                                    20 32 02.3
KMBO                                 pmax     pmax
         comp=Z,6.0nm,0.6s
KMBO                                 pmax     pmax
         comp=Z,11nm,0.7s
KMBO                                 pmax     pmax
         comp=Z,3.0nm,1.0s
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KMBO                                 pmax     pmax
         comp=Z,18nm,1.2s
KMBO  Kilima Mbogo      139.61 246  ePKPpre             20 31 55.5
KMBO                                ePKPdf    PKPdf     20 32 02.1 +2.1
KMBO                                 PKP      PKPdf     20 32 02.3 +2.3
KMBO                                 SKP                20 34 39.8
KMBO                                 SKPbc              20 34 45.8
TATS  Tathlith          139.94 279   P                  20 34 47.1
BINT  Bingol            140.09 309   P                  20 34 43.2
GUMT  Gumushane         140.25 312  eP                  20 34 44.1
EZC   Erzincan          140.27 311  eP                  20 34 47.2
SUW   Suwalki           140.34 340  eSKPbc              20 34 45.0
ELZG  Elazig            141.33 310  i P       PKPdf     20 31 59.5  -2.8
BSD   Bornholm Skovb    141.61 347  i P       PKPdf     20 31 58.6  -3.7
BSD                                 eS        Px        20 32 39.1
SIM   Simferopol'       141.64 321  i PKHKP             20 32 00.3
SIM                                  pmax     pmax
         comp=Z,120nm,14.7s
BLJS  Baljurashi        141.73 279   P        PKPdf     20 32 03.9 +0.3
BLJS  Baljurashi        141.73 279   P                  20 34 52.2
MALT  Malatya           141.80 310   PKIKP    PKPdf     20 32 03.6 +0.4
MALT  Malatya           141.80 310  ePKPpre             20 32 01.1
MALT                                eSKPbc              20 34 50.1
GMK   Mull of Kintyr    142.51   6  eP        PKPdf     20 32 01.7  -2.2
WAR   Warsaw            142.54 340  ePKP      PKPdf     20 32 03.8  -0.2
EKA   Eskdalemuir Ar    142.73   4   PKhKP              20 32 02.0
         comp=Z,5.8nm,0.6s,baz=344,slow=2.9,SNR=7.1
EKA                                  PKP      PKPdf     20 32 04.6 +0.4
         comp=Z,6.2nm,0.6s,baz=348,slow=2.0,SNR=8.0
EKA                                  SKPbc              20 34 50.6
         comp=Z,3.9nm,0.8s,slow=1.7,SNR=5.7
EKA   Eskdalemuir Ar    142.73   4   PKHKP              20 32 02.0
EKA                                                     20 32 04.6
EKA                                  pmax     pmax
         comp=Z,6.0nm,0.6s
EKA                                  pmax     pmax
         comp=Z,6.0nm,0.6s
EKA                                  pmax     pmax
         comp=Z,4.0nm,0.8s
GKP   Gorka Klasztor    142.75 344  ePKP      PKPdf     20 32 03.2  -1.2
GZT   Gaziantep         142.78 308  i P       PKPdf     20 32 03.7  -1.2
BWH   Wardlaw           142.85   5  eP        PKPdf     20 32 02.5  -2.0
BOYT  Boyabat           142.96 316  i P       PKPdf     20 32 05.2 +0.1
BHH   Howats Hill       142.97   4  eP        PKPdf     20 32 03.0  -1.6
GAL1  Galloway          143.07   6  eP        PKPbc     20 32 03.3  -0.1
GAZ   Gaziantep         143.11 308  i P                 20 34 52.6
BTA   Talkin            143.19   4  eP        PKPbc     20 32 03.9 +0.1
KAHT  Ahir Dag          143.19 309  i P       PKPbc     20 32 06.0 +1.6
BDL   Dobcross Hall     143.27   4  eP        PKPbc     20 32 04.3 +0.2
KIS   Kishinev          143.30 328c iPKHKP              20 32 04.0
KIS                                  pmax     pmax
         comp=Z,300nm,1.0s
BBO1  Bothel            143.32   4  eP        PKPbc     20 32 04.1  -0.1
CTKT  Corum             143.41 315  i P       PKPbc     20 32 07.0 +2.0
LCP   Cassop            143.42   3  eP        PKPbc     20 32 04.8 +0.3
GMM   Mts of Mourne     143.56   7  eP        PKPbc     20 32 05.0   0.0
BSEG  Bad Segeberg      143.57 351  ePKIKP    PKPdf     20 32 05.8 +0.1
WIM   Isle of Man       143.78   6  eP        PKPbc     20 32 05.7 +0.1
IAS   Iasi              143.79 329   PKIKP    PKPdf     20 32 07.1 +0.8
LWH   Whinny Nab        143.85   2  eP        PKPbc     20 32 06.2 +0.4
BALT  Daday             143.90 317  i P       PKPbc     20 32 07.4 +1.1
KBRS  Khaybar           143.90 289   P                  20 34 56.2
COBT  Iskenderun        144.06 308  i P       PKPbc     20 32 03.6  -3.4
KWP   Kalwaria          144.09 336  ePKP      PKPdf     20 32 08.3 +1.5
HPK   Haverah Park      144.19   3  eP        PKPdf     20 32 07.4 +0.6
AVNT  Avonos            144.19 312  i P       PKPdf     20 32 08.2 +0.9
RUE   Ruedersdorf       144.31 347  ePKPdf    PKPdf     20 32 08.0 +0.9
ELDT  Eldivan           144.39 316  i P       PKPdf     20 32 09.6 +2.0
WCB1  Church Bay        144.56   6  eP        PKPdf     20 32 07.8 +0.3
WCB1                                 AMb      AMB       20 32 10.3
         comp=Z,99nm,1.3s
WME   Myndd Eilian      144.56   6  eP        PKPdf     20 32 08.2 +0.7
LHO   Holmfirth         144.59   3  eP        PKPdf     20 32 08.5 +1.0
BRTR  Keskin Array B    144.61 314   PKP      PKPdf     20 32 09.8 +1.8
         comp=Z,20nm,0.5s,baz=125,slow=3.8,SNR=74
BRTR                                 pPKP               20 34 23.6
         comp=Z,6.3nm,1.0s,baz=135,slow=3.5,SNR=4.3
BRTR                                 SKPbc              20 34 56.0
         comp=Z,16nm,0.8s,baz=133,slow=3.8,SNR=9.9
BRTR                                 SKKPbc             20 42 59.5
         comp=Z,1.2nm,0.8s,baz=230,slow=3.0,SNR=4.1
BRTR  Keskin Array B    144.61 314   PKIKP    PKPdf     20 32 09.8 +1.8
BRTR                                                    20 34 23.6
BRTR                                 pmax     pmax
         comp=Z,20nm,0.5s
BRTR                                 pmax     pmax
         comp=Z,6.0nm,1.0s
BRTR                                 pmax     pmax
         comp=Z,16nm,0.8s
WLF1  Llynfaes          144.66   6  eP        PKPdf     20 32 08.4 +0.8
OJC   Ojcow             144.66 339⇓iPKP       PKPdf     20 32 09.6 +1.9
OJC                                 e                   20 34 56.3
OJC   Ojcow             144.66 339  i PKP     PKPdf     20 32 09.6 +1.9
OJC                                 e                   20 34 56.3
YRC   Rhoscolyn         144.68   6  eP        PKPdf     20 32 08.6 +0.9
YRC                                  AMb      AMB       20 32 10.7
         comp=Z,146nm,1.0s
WPM1  Penmaenmawr       144.74   5  eP        PKPdf     20 32 09.0 +1.2
WPM1                                 AMb      AMB       20 32 11.1
         comp=Z,129nm,1.0s
KOLS  Kolonicke sedl    144.82 336  i PKP     PKPdf     20 32 10.8 +2.7
KOLS                                eSKP                20 34 57.5
YLL   Llanberis         144.83   6  eP        PKPdf     20 32 09.0 +1.1
YLL                                  AMb      AMB       20 32 11.3
         comp=Z,185nm,1.3s
ASF   Jabal al Asfar    144.89 300   PKP      PKPdf     20 32 11.3 +2.6
         comp=Z,44nm,0.8s,baz=15,slow=2.0,SNR=33
ASF                                  SKPbc              20 34 57.7
         comp=Z,15nm,0.8s,baz=4.6,slow=4.0,SNR=7.9
YRE   Yr Eifl           144.96   6  eP        PKPdf     20 32 09.4 +1.2
YRE                                  AMb      AMB       20 32 11.2
         comp=Z,41nm,1.0s
ANTO  Ankara            145.11 315   PKIKP    PKPdf     20 32 10.6 +1.7
YNBS  Yanbu' al Bahr    145.14 287   P        PKPdf     20 32 12.7 +3.3
YNBS  Yanbu' al Bahr    145.14 287   P                  20 34 59.1
NIE   Niedzica          145.16 338  ePKP      PKPdf     20 32 11.5 +2.9
CRVS  Cervenica-Dubn    145.16 336  ePKP      PKPdf     20 32 11.6 +3.0
CRVS                                e                   20 34 29.9
CRVS                                eSKP                20 34 58.2
TIRR  Tirgusor          145.19 325   PKP2     PKPab     20 32 13.1  -0.7
KSP   Ksiaz             145.20 343  i PKP2    PKPab     20 32 11.7  -1.9
KSP   Ksiaz             145.20 343  ePKP      PKPdf     20 32 10.0 +1.4
KSP                                 i PKPdf   PKPdf     20 32 11.7 +3.1
KSP                                 epPKP               20 34 20.8
KSP                                 e                   20 34 29.0
KSP   Ksiaz             145.20 343  ePKP      PKPdf     20 32 11.6 +3.0
SGKT  Sivrigoynuk       145.25 317  i P       PKPdf     20 32 09.8 +0.7
RAC   Raciborz          145.31 341  ePKPdf    PKPdf     20 32 12.3 +3.5
MBAR  Mbarara           145.41 241  ePKPdf    PKPdf     20 32 10.8 +0.7
OKC   Ostrava-Krasne    145.53 340  ePKP      PKPdf     20 32 12.3 +3.1
OKC                                 ex        x         20 32 13.6
OKC                                 epPKP               20 34 24.0
HLM1  Long Mynd         145.55   4  eP        PKPdf     20 32 11.5 +2.3
HLM1                                 AMb      AMB       20 32 12.8
         comp=Z,52nm,1.1s
KSHT  Keshet            145.56 302   P        PKPdf     20 32 13.4 +3.6
UPC   Upice             145.58 343  ePKP      PKPdf     20 32 12.7 +3.4
UPC                                 ex        x         20 32 14.1
UPC                                 epPKP               20 34 25.1
CLL   Collm             145.58 347  i PKIKP   PKPdf     20 32 10.7 +1.4
CLL                                 i                   20 32 12.3
CLL                                  pmax     pmax
         comp=Z,66nm,0.5s
CLL   Collm             145.58 347  i PKP     PKPdf     20 32 10.7 +1.4
CLL                                 i PKP     PKPdf     20 32 12.3 +3.0
CLL                                 epPKP               20 34 26.0
CLL   Collm             145.58 347  i PKIKP   PKPdf     20 32 10.7 +1.4
CLL                                 i PKP1    PKPbc     20 32 12.3 +1.7
CLL                                 i PKP2    PKPab     20 32 13.9  -1.2
CLL                                 e*PPKP              20 34 26.0
CLL                                 i                   20 34 58.2
CLL                                 ePP       PP        20 35 41.0 +1.6
MEST  Erdemli           145.61 309  i P       PKPdf     20 32 08.5  -1.4
KSDI  Kefar Szold       145.62 303   P        PKPdf     20 32 13.4 +3.5
DPC   Dobruska-Polom 145.63 343    ePKP      PKPdf     20 32 11.3 +1.9
DPC                                 ex        x         20 32 14.3
DPC                                 epPKP               20 34 24.6
SSP1  Stoney Pound      145.63   5  eP        PKPdf     20 32 11.9 +2.6
UMJS  Umm Lajj          145.70 288   P        PKPdf     20 32 12.4 +2.1
UMJS  Umm Lajj          145.70 288   P                  20 35 00.7
BRG   Berggiesshubel    145.77 346  ePKIKP    PKPdf     20 32 11.3 +1.7
BRG                                 i                   20 32 14.2
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BRG                                 i                   20 34 24.3
BRG                                  pmax     pmax
         comp=Z,158nm,1.1s
BRG   Berggiesshubel    145.77 346  ePKP      PKPdf     20 32 11.3 +1.7
BRG                                 i                   20 32 14.2
BRG                                 i pPKP              20 34 07.7
BRG                                 i                   20 34 24.3
MORC  Moravsky Berou    145.78 341  ePKPdf    PKPdf     20 32 11.1 +1.4
MLR   Muntele Rosu      145.78 328   PKPbc    PKPbc     20 32 13.3 +2.0
         comp=Z,24nm,0.4s,baz=344,slow=8.2,SNR=85
MLR                                  pPKPbc             20 34 23.7
         comp=Z,8.0nm,0.9s,baz=108,slow=6.0,SNR=3.4
MLR                                  SKPbc              20 34 58.3
         comp=Z,9.2nm,0.6s,baz=16,slow=1.6,SNR=4.4
MLR                                  SKKPbc             20 42 53.6
         comp=Z,7.5nm,0.9s,baz=237,slow=3.1,SNR=7.3
MLR   Muntele Rosu      145.78 328   P        PKPdf     20 32 13.6 +3.8
PSN   Preselentsi       145.81 324  eP        PKPdf     20 32 13.0 +3.1
HENT  Hendek            145.87 318  i P       PKPdf     20 32 07.1  -3.0
KECS  Kecovo            145.88 337  ePKP      PKPdf     20 32 13.5 +3.6
LIKS  Likavka           145.90 339  ePKP      PKPdf     20 32 14.6 +4.7
PVCC  Panska Ves        145.94 345  ePKP      PKPdf     20 32 13.9 +4.0
PVCC                                ex        x         20 32 15.2
PVCC                                epPKP               20 34 27.1
WTSB  Winterswijk       145.95 354  ePKP      PKPdf     20 32 13.0 +3.2
         comp=Z,101nm,0.9s
HTR   Trewern Hill      145.96   5  eP        PKPdf     20 32 12.8 +2.9
HTR                                  AMb      AMB       20 32 15.2
         comp=Z,6.6nm,0.3s
HMDT  Nahal Hemdat      145.99 301   P        PKPdf     20 32 14.6 +4.0
TBKS  Tabuk             146.01 294   P        PKPdf     20 32 14.8 +4.0
TBKS  Tabuk             146.01 294   P                  20 35 00.8
MMLI  Mount Malkishu    146.03 301   P        PKPdf     20 32 14.8 +4.2
HNTI  Hanita            146.04 303   P        PKPdf     20 32 14.2 +3.6
HAE   Alders End        146.05   4  eP        PKPdf     20 32 13.3 +3.3
HAE                                  AMb      AMB       20 32 16.3
         comp=Z,205nm,1.3s
MCH1  Michaelchurch     146.06   5  eP        PKPdf     20 32 12.8 +2.7
MKRJ  Makawir           146.08 300   P        PKPdf     20 32 14.8 +4.0
DRGI  Dragot            146.28 300   P        PKPdf     20 32 15.1 +4.0
OFRI  'Ofer             146.33 302   P        PKPdf     20 32 14.8 +3.7
MZDA  Masada            146.38 300   P        PKPdf     20 32 15.4 +4.1
SLTI  Sal'it            146.39 301   P        PKPdf     20 32 15.4 +4.1
HGH   Gray Hill         146.43   4  eP        PKPdf     20 32 13.6 +2.9
HGH                                  AMb      AMB       20 32 15.9
         comp=Z,123nm,1.1s
PRU   Pruhonice         146.44 344  ePKPDF    PKPdf     20 32 14.9 +4.1
PRU                                 ePKPAB    PKPab     20 32 16.2  -2.3
PRU                                 epPKP               20 34 26.9
VYHS  Vyhne             146.46 338  ePKP      PKPdf     20 32 16.2 +5.3
VYHS                                e                   20 34 27.1
JMQS  Jabal Moqyreh     146.48 295   P        PKPdf     20 32 16.3 +4.8
VRAC  Vranov            146.48 342   PKP2     PKPab     20 32 15.2  -3.4
MOX   Moxa              146.50 348  ePKP2     PKPab     20 32 14.2  -4.5
MOX                                  pmax     pmax
         comp=Z,50nm,1.3s
MOX   Moxa              146.50 348  i P       PKPdf     20 32 14.2 +3.4
         comp=Z,logA/T=1.6
KOLL  Kolacno           146.54 339  ePKP      PKPdf     20 32 15.8 +4.8
PRD   Provadia          146.56 324  eP        PKPdf     20 32 15.0 +3.8
PSZ   Piszkesteto       146.57 337   PKP2     PKPab     20 32 15.9  -3.1
PSZ   Piszkesteto       146.57 337  ePKP/F              20 32 15.3
PSZ   Piszkesteto       146.57 337  eP        PKPdf     20 32 15.3 +4.3
ESKT  Eskisehir         146.59 316  i P       PKPdf     20 32 07.3  -4.1
NKC   Novy Kostel       146.71 347  ePKPDF    PKPdf     20 32 15.6 +4.4
NKC                                 ePKPAB    PKPab     20 32 16.9  -2.6
NKC                                 epPKP               20 34 27.3
ZFRI  Zfri              146.72 298   P        PKPdf     20 32 16.5 +4.6
CSS   Prodhromos        146.84 307  ePKPbc    PKPbc     20 32 16.0 +1.9
PRNI  Paran             146.91 298   P        PKPdf     20 32 17.0 +4.8
SMOL  Smolenice         146.92 340  ePKP      PKPdf     20 32 17.8 +6.2
SMOL                                e                   20 34 28.7
MASH  Mash'abbe Sade    146.94 299   P        PKPdf     20 32 16.8 +4.6
RTMM  Retamin           147.00 299   P        PKPdf     20 32 17.0 +4.7
JMOS  Jabal al Moall    147.08 296   P        PKPdf     20 32 17.8 +5.3
JMOS  Jabal al Moall    147.08 296   P                  20 35 02.9
ALWS  Ilw as Safayha    147.09 296   P        PKPdf     20 32 17.6 +5.1
EIL   Elat              147.11 297   PKP      PKPdf     20 32 13.6 +1.0
         comp=Z,46nm,1.0s,baz=122,slow=18,SNR=6.0
EIL                                  PKPbc    PKPdf     20 32 17.5 +4.9
         comp=Z,32nm,0.7s,baz=351,slow=6.2,SNR=22
EIL                                  SKPbc              20 35 02.3
         comp=Z,23nm,0.9s,baz=31,slow=3.0,SNR=5.3
EIL   Elat              147.11 297   P        PKPdf     20 32 17.4 +4.9
EIL   Elat              147.11 297  ePKPdf    PKPdf     20 32 13.7 +1.1
EIL                                 ePKPbc    PKPdf     20 32 17.6 +5.1
MBH   Mount Berech      147.11 297   P        PKPdf     20 32 17.6 +5.1
AYUS  'Aynunah          147.13 294   P        PKPdf     20 32 17.5 +4.9
KMTI  Karmit            147.20 298   P        PKPdf     20 32 17.4 +4.7
HGN   Heimansgroeve     147.22 354  ePKP      PKPdf     20 32 17.1 +5.1
SRO   Srobarova         147.23 338  ePKP      PKPdf     20 32 17.1 +5.0
SRO                                 e                   20 34 29.8
BDAS  Al Bad'           147.23 295   P        PKPdf     20 32 17.6 +4.9
BDAS  Al Bad'           147.23 295   P                  20 35 03.2
SRO2  Moca              147.24 338  ePKP      PKPdf     20 32 17.5 +5.3
SRO2                                e                   20 34 29.0
HAQS  Haql              147.26 296   P        PKPdf     20 32 18.0 +5.2
KZIT  Kziot             147.28 299   P        PKPdf     20 32 17.9 +5.1
ZST   Bratislava        147.31 340  ePKP      PKPdf     20 32 17.7 +5.5
ZST                                 e                   20 34 29.6
SBD   Saint Breward     147.32   7  eP        PKPdf     20 32 10.5  -1.7
SZH   Strazhica         147.32 325  eP        PKPdf     20 32 17.0 +4.6
ULDT  Uludag            147.37 318  i P       PKPdf     20 31 58.5   -14
TAYS  Tayyib Ism        147.41 295   P        PKPdf     20 32 18.5 +5.4
KHC   Kasperske Hory    147.48 345  ePKIKP    PKPdf     20 32 14.0 +1.5
KHC                                 e                   20 32 19.3
KHC   Kasperske Hory    147.48 345  ePKPDF    PKPdf     20 32 14.0 +1.5
KHC                                ⇑ePKPB               20 32 16.5
KHC                                 ePKPAB    PKPab     20 32 19.3  -3.2
KHC                                 ex        x         20 32 22.1
KHC                                 epPKP               20 34 30.3
GRF   Grafenberg Arr    147.49 348  ePKP2     PKPab     20 32 21.7  -0.8
GRF   Grafenberg Arr    147.49 348  ePKP      PKPdf     20 32 18.7 +6.2
GRF                                 ePKP      PKPdf     20 32 21.7 +9.2
GRF                                  pPKPbc             20 34 30.1
JMB   Yambol            147.49 324  eP        PKPdf     20 32 17.0 +4.3
PKS7  Kunszentmiklos    147.57 337⇑eP         PKPdf     20 32 18.0 +5.3
WET   Wettzell          147.64 345  ePKP2     PKPab     20 32 22.4  -0.7
ISP   Isparta           147.66 313  ePKPbc    PKPdf     20 32 17.8 +4.7
PVL   Pavlikeni         147.68 326  eP        PKPdf     20 32 20.0 +7.0
GEC2  GERESS Array S 147.71 344    ePKP2     PKPab     20 32 19.3  -4.1
GERES GERESS Array B 147.71 344     PKP      PKPdf     20 32 14.2 +1.3
         comp=Z,17nm,0.3s,baz=45,slow=1.9,SNR=28
GERES                                PKPbc    PKPdf     20 32 18.1 +5.3
         comp=Z,18nm,0.4s,baz=40,slow=2.3,SNR=95
GERES                                pPKPbc             20 34 29.6
         comp=Z,7.9nm,1.0s,baz=45,slow=1.9,SNR=4.9
GERES                                SKPbc              20 35 02.6
         comp=Z,2.0nm,0.7s,slow=2.0,SNR=2.3
GERES GERESS Array B 147.71 344     PKIKP    PKPdf     20 32 14.2 +1.3
GERES                                pmax     pmax
         comp=Z,17nm,0.4s
GERES                                pmax     pmax
         comp=Z,18nm,0.4s
GERES                                pmax     pmax
         comp=Z,8.0nm,1.0s
GERES                                pmax     pmax
         comp=Z,2.0nm,0.7s
PKS6  Bocsa             147.78 336⇑eP         PKPdf     20 32 18.4 +5.3
PKS8  Sarbogard         147.89 337⇑eP         PKPdf     20 32 18.3 +5.1
SOP   Sopron            147.93 340  ePKP/F              20 32 19.6
SOP                                 e                   20 34 31.7
BTOK  Tokmak            148.28 318  i P       PKPdf     20 32 14.0   0.0
PKS9  Tamasi            148.28 337  eP        PKPdf     20 32 19.5 +5.7
WLF   Walferdange       148.29 354  ePKPbc    PKPdf     20 32 19.9 +6.1
PKSM  Moragy            148.46 336  eP        PKPdf     20 32 15.2 +1.1
PKSM                                i                   20 34 32.1
MOA   Molln             148.47 343⇑iP         PKPdf     20 32 17.2 +3.1
MANT  Manisa            148.65 316  i P       PKPdf     20 32 10.4  -4.3
DNZL  Cakiroluk         148.74 314  i P       PKPdf     20 32 19.7 +4.9
STU   Stuttgart         148.75 350  ePKPdf    PKPdf     20 32 16.1 +1.6
PGB   Panagyurishte     148.76 326  eP        PKPdf     20 32 21.0 +6.3
RHK1  Bakonya           148.78 337⇓eP         PKPdf     20 32 20.8 +6.2
JLP   Les Platons       148.87   4  eP        PKPdf     20 32 20.4 +5.8
JVM   Valle D.L. Mar    148.88   4  eP        PKPdf     20 32 20.6 +5.9
JQE   Queens East       148.91   4  eP        PKPdf     20 32 20.7 +6.0
JSA   Saint Aubin       148.91   4  eP        PKPdf     20 32 20.6 +5.9
JRS   Jersey            148.92   4  eP        PKPdf     20 32 20.5 +5.8
FUR   Furstenfeldbru    148.92 347  ePKP2     PKPab     20 32 27.6  -0.8
SVIS  Svilajnac         148.93 331  eP        PKPdf     20 32 21.0 +6.1
RZN   Rozhen            149.05 324  eP        PKPdf     20 32 20.0 +4.8
VTS   Vitosha           149.23 327  eP        PKPdf     20 32 21.0 +5.5
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BFO	**Black Forest**	**149.32**	**351**	*e*PKP2	PKPab	20 32 23.5	-6.5
AYVA	**Ayvalik**	**149.39**	**319**	*i* P	PKPdf	20 32 13.6	-2.2
CDF	**Champ du Feu**	**149.39**	**352**	*e*PKIKP	PKPdf	20 32 17.7	+2.2
FLN	**La Foliniere**	**149.43**	**2**	*e*PKIKP	PKPdf	20 32 17.0	+1.4
	comp=Z,27nm,0.8s						
GRUS	**Gruza**	**149.47**	**331**	⇑*i*P	PKPdf	20 32 22.8	+7.0
KDAG	**Bornova**	**149.54**	**317**	*i* P	PKPdf	20 32 21.2	+5.1
MEZF	**Maizieres J'vi**	**149.54**	**355**	*e*PKIKP	PKPdf	20 32 17.7	+1.9
LDF	**La Druitiere**	**149.61**	**2**	*e*PKIKP	PKPdf	20 32 17.2	+1.3
	comp=Z,26nm,0.9s						
DIVS	**Divcibare**	**149.63**	**333**	⇓*i*P	PKPdf	20 32 22.9	+6.9
WATA	**Walderalm**	**149.64**	**346**	⇑*i*P	PKPdf	20 32 22.5	+6.5
MMB	**Musomiste**	**149.66**	**325**	*e*P	PKPdf	20 32 22.0	+5.8
ROSF	**Rostrenen**	**149.67**	**6**	*e*PKIKP	PKPdf	20 32 17.9	+1.9
WTTA	**Wattenberg**	**149.69**	**346**	⇑*i*P	PKPdf	20 32 23.0	+7.0
MOTA	**Moosalm**	**149.74**	**346**	⇓*i*P	PKPdf	20 32 22.6	+6.5
GRR	**Gorron**	**149.79**	**3**	*e*PKIKP	PKPdf	20 32 17.6	+1.4
KKB	**Krupnik**	**149.81**	**326**	*e*P	PKPdf	20 32 23.0	+6.6
SGMF	**Saint Gilles**	**149.81**	**5**	*e*PKIKP	PKPdf	20 32 18.3	+2.1
SQTA	**Sankt Quirin**	**149.83**	**346**	⇑*i*P	PKPdf	20 32 22.8	+6.5
HAU	**Haudompre**	**149.90**	**353**	*e*PKIKP	PKPdf	20 32 17.8	+1.4
HINF	**Hinteralfeld**	**150.03**	**352**	*e*PKIKP	PKPdf	20 32 17.9	+1.3
LJU	**Ljubljana**	**150.03**	**341**	*e*PKPbc	PKPdf	20 32 23.8	+7.1
LJU				*e*		20 34 35.4	
DAVA	**Damuels**	**150.05**	**348**	⇑*i*P	PKPdf	20 32 20.2	+3.6
BDRM	**Kayabasi**	**150.15**	**315**	*i* P	PKPdf	20 32 22.9	+5.8
BOJS	**Bojanci**	**150.28**	**340**	*i* PKPdf	PKPdf	20 32 19.3	+2.2
BOJS				*e*PKPbc	PKPdf	20 32 24.7	+7.7
CEY	**Cerknica**	**150.33**	**341**	*e*PKPdf	PKPdf	20 32 18.8	+1.7
CEY				*e*PKPbc	PKPdf	20 32 24.5	+7.4
CEY				*e*PKPab	PKPab	20 32 32.8	-1.5
CEY				*e*		20 34 36.9	
DAVOX	**Davos**	**150.53**	**348**	PKP	PKPdf	20 32 19.1	+1.7
	comp=Z,6.8nm,0.6s,baz=339,slow=1.3,SNR=18						
DAVOX				PKPbc	PKPdf	20 32 25.7	+8.3
	comp=Z,118nm,0.8s,baz=234,slow=1.1,SNR=102						
DAVOX				pPKPbc		20 34 37.8	
	comp=Z,9.6nm,0.9s,baz=332,slow=21,SNR=2.0						
SKO	**Skopje**	**150.58**	**328**	*i* PKHKP		20 32 25.5	
	comp=Z,0.0nm,0.7s						
SKO				*i* PKP2	PKPab	20 32 35.2	-0.2
SKO				*i* pPKP		20 34 38.0	
SSF	**Saint Saulge**	**151.09**	**357**	*e*PKIKP	PKPdf	20 32 20.1	+1.9
	comp=Z,11nm,0.7s						
CABF	**La Chapelle**	**151.31**	**353**	*e*PKIKP	PKPdf	20 32 20.9	+2.4
AVF	**Avril sur Loir**	**151.37**	**357**	*e*PKIKP	PKPdf	20 32 20.8	+2.2
SMF	**Signal de Mont**	**151.48**	**356**	*e*PKIKP	PKPdf	20 32 20.5	+1.8
OHR	**Ohrid**	**151.54**	**328**	*i* PKHKP		20 32 27.0	
OHR				*i* PKP2	PKPab	20 32 37.9	-1.6
OHR				⇑*i*pPKP		20 34 40.4	
MFF	**Saint Martin d**	**151.60**	**2**	*e*PKIKP	PKPdf	20 32 20.5	+1.6
BGF	**Bois d'Agland**	**151.62**	**357**	*e*PKIKP	PKPdf	20 32 21.5	+2.6
TRAV		**152.15**	**350**	P	PKPdf	20 32 27.1	+7.4
LSD	**Ceresole Reale**	**152.30**	**351**	P	PKPdf	20 32 29.7	+10
LPL	**La Plagne**	**152.30**	**351**	*e*PKIKP	PKPdf	20 32 23.3	+3.4
LPG	**La Plagne**	**152.32**	**351**	*e*PKIKP	PKPdf	20 32 23.4	+3.5
	comp=Z,9.6nm,0.9s						
RSP	**Reno Superiore**	**152.58**	**351**	P	PKPdf	20 32 28.9	+8.6
GRAM		**152.67**	**346**	P	PKPdf	20 32 29.6	+9.1
FENE	**Fenestrelle**	**152.73**	**351**	P	PKPdf	20 32 30.2	+10
VALM		**152.76**	**346**	P	PKPdf	20 32 29.9	+9.3
VALM				P		20 32 30.2	
BNI	**Bardonecchia**	**152.76**	**351**	*e*PKPbc	PKPdf	20 32 30.7	+10
BNI				*e*PKPab	PKPab	20 32 43.8	-0.7
CODM		**152.81**	**346**	P	PKPdf	20 32 29.8	+9.1
IDI	**Anoyia**	**152.85**	**314**	PKP	PKPdf	20 32 24.0	+2.9
	comp=Z,9.9nm,0.7s,baz=37,slow=9.0,SNR=6.6						
IDI				PKPbc	PKPdf	20 32 31.4	+10
	comp=Z,20nm,0.5s,baz=102,slow=7.5,SNR=21						
BACM		**152.87**	**346**	P	PKPdf	20 32 29.3	+8.6
RRL	**Cesana Torines**	**152.88**	**351**	P	PKPdf	20 32 31.1	+10
BHB	**Bricherasio**	**152.88**	**350**	P	PKPdf	20 32 29.1	+8.3
RJF	**Les Rejaudoux**	**152.91**	**359**	*e*PKIKP	PKPdf	20 32 22.5	+1.7
	comp=Z,12nm,0.8s						
VINC	**Vinca**	**152.98**	**346**	P	PKPdf	20 32 29.2	+8.3
ORIF	**Oris-en-Rattie**	**153.00**	**353**	*e*PKIKP	PKPdf	20 32 23.1	+2.2
MBDF	**Montbardon**	**153.07**	**351**	*e*PKIKP	PKPdf	20 32 24.7	+3.7
VIVF	**Saint-Julien-l**	**153.19**	**354**	*e*PKIKP	PKPdf	20 32 24.9	+3.7
PZZ	**Prazzo**	**153.24**	**350**	P	PKPdf	20 32 30.2	+9.0
LFF	**La Frestale**	**153.28**	**1**	*e*PKIKP	PKPdf	20 32 23.6	+2.3
ROB	**Roburent**	**153.31**	**349**	P	PKPdf	20 32 30.3	+8.9
STV2	**Anna di Valdie**	**153.45**	**350**	P	PKPdf	20 32 30.1	+8.6
STV	**Sta Anna Valdi**	**153.45**	**350**	P	PKPdf	20 32 30.2	+8.7
ENR	**Entracque**	**153.45**	**350**	P	PKPdf	20 32 30.4	+8.9
IMI	**Imperia**	**153.68**	**349**	P	PKPdf	20 32 31.4	+10
EPON	**Pontenova**	**153.94**	**14**	P	PKPdf	20 32 32.9	+11
LASF	**Ste Croix**	**154.04**	**355**	*e*PKIKP	PKPdf	20 32 24.4	+2.1
EARI	**Arriondas**	**154.35**	**11**	P	PKPdf	20 32 30.7	+7.9
EINC	**Incio**	**154.52**	**15**	P	PKPdf	20 32 32.9	+10
ELOB	**Lobios**	**155.09**	**16**	P	PKPdf	20 32 34.0	+10
EPF	**Esparros**	**155.18**	**1**	*e*PKIKP	PKPdf	20 32 25.5	+1.6
PBRG	**Braganca**	**155.48**	**14**	*e*PKPab	PKPab	20 32 54.7	-1.4
EBIE	**Bielsa**	**155.52**	**2**	P	PKPdf	20 32 36.3	+12
PVRL	**Vila Real**	**155.73**	**16**	*e*PKPab	PKPab	20 32 56.3	-0.9
PVIS	**Viseu**	**156.20**	**17**	*e*PKPab	PKPab	20 32 58.1	-1.1
PTOM	**Tomar**	**157.06**	**19**	*e*PKPab	PKPab	20 33 01.6	-1.3
PCBR	**Castelo Branco**	**157.13**	**17**	*e*PKPab	PKPab	20 33 02.7	-0.5
ESDC	**Sonseca Array**	**158.10**	**11**	PKP	PKPdf	20 32 29.2	+1.4
	comp=Z,1.8nm,0.7s,baz=327,slow=2.4,SNR=9.3						
ESDC				PKPab	PKPab	20 33 05.8	-1.6
	comp=Z,2.4nm,0.5s,baz=341,slow=4.6,SNR=15						
ESDC				pPKPab		20 35 11.0	
	comp=Z,1.6nm,0.8s,baz=333,slow=3.3,SNR=4.1						
ESDC	**Sonseca Array**	**158.10**	**11**	P	PKPdf	20 32 29.7	+1.9
EVO	**Evora**	**158.18**	**20**	*e*PKIKP	PKPdf	20 32 28.9	+1.0
	comp=Z,25nm,0.9s						
PBEJ	**Beja**	**158.69**	**20**	*e*PKPab	PKPab	20 33 09.9	-0.1
EMIN	**Mina Concepcio**	**159.29**	**18**	P	PKPdf	20 32 31.8	+2.6
EQES	**Quesada**	**160.07**	**10**	P	PKPdf	20 32 31.8	+1.7
ESPR	**Espera**	**160.36**	**17**	P	PKPdf	20 32 21.7	-8.7
DBIC	**Dimbokro**	**167.21**	**152**	PKP	PKPdf	20 32 38.0	+0.8
	comp=Z,19nm,0.9s,baz=172,slow=0.8,SNR=46						
DBIC				PKPab	PKPab	20 33 48.1	+0.5
	comp=Z,24nm,1.0s,baz=198,slow=5.4,SNR=9.8						
DBIC				PP	PP	20 37 37.1	-0.7
	comp=Z,4.0nm,1.0s,baz=157,slow=9.9,SNR=2.2						
DBIC	**Dimbokro**	**167.21**	**152**	PKIKP	PKPdf	20 32 38.0	+0.8
DBIC						20 33 48.1	
DBIC						20 37 37.2	
DBIC				pmax	pmax		
	comp=Z,19nm,0.9s						
DBIC				pmax	pmax		
	comp=Z,24nm,1.0s						
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						

IDC 19 20:14:22.9±2.1, 19.15S×179.76E, mb4.8/5, mb1 5.2/5, mb1mx4.8/12, Error ellipse: s-maj=133.0km s-min=25.4km az=155.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**42.71**	**261**	P	P	20 22 21.8	-1.8
	15nm,0.5s,baz=96,slow=7.0,SNR=3.8						
ASAR	**Alice Springs**	**42.79**	**256**	P	P	20 22 21.9	-2.3
	58nm,0.6s,baz=86,slow=8.4,SNR=4.7						
ILAR	**Eielson Array**	**87.49**	**14**	P	P	20 27 11.1	-2.3
	3.1nm,0.9s,baz=229,slow=5.0,SNR=2.6						
TXAR	**Lajitas Array**	**88.13**	**58**	P	P	20 27 16.4	-0.9
	2.3nm,0.8s,baz=231,slow=5.8,SNR=4.1						
PDAR	**Pinedale Array**	**89.45**	**44**	P	P	20 27 20.9	-2.4
	1.7nm,0.7s,baz=236,slow=3.3,SNR=4.2						
GERES	**GERESS Array B**	**148.31**	**342**	PKPbc	PKPdf	20 34 12.4	+3.0
	2.5nm,0.5s,baz=34,slow=3.4,SNR=4.2						
DAVOX	**Davos**	**151.22**	**345**	PKPbc	PKPdf	20 34 19.6	+5.6
	4.1nm,0.5s,baz=265,slow=3.9,SNR=3.4						

IDC ***19*** *20:32:00.4±1.7, 37.62N×141.19E, h48^{km}±19^{km}, mb3.3/4, mb1 3.7/7, mb1mx3.5/22, ML3.5/3, MS2.6/1, Ms1 2.6/1, ms1mx2.6/14, Error ellipse: s-maj=38.3km s-min=11.2km az=100.0*

JMA ***19*** *20:32:02.1, 37.66N×141.28E, h66^{km}±1^{km}, M3.8 Broadband fault plane solution: P waves. NP1:ϕ_s111°, δ27°, λ-175°. NP2:ϕ_s17°, δ88°, λ-63°. Principal axes: T Plg37°, Azm83°; N Plg27°, Azm196°; P Plg41°, Azm312°;*

JMA Felt I J1.

NEIC ***19*** *20:32:04.8±1.7, 37.60N×141.11E, h89^{km}±14^{km}, mb3.6/2 Error ellipse: s-maj=18.4km s-min=13.9km az=86.0*

NEIC Recorded [1 JMA] in Fukushima and Miyagi Prefectures.

ISC 19 20:32:00.5±0.6, 37.63N±0.04×141.36E±0.09, h72^{km}±4^{km}, n25, σ0^{s}99/39, mb3.5/6, 7C-3D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JFK	**Kawauchi**	**0.46**	**236**	⇑P	**P**	**20 32 13.8**	**+0.6**
JFK				S	**S**	**20 32 22.4**	**-0.2**
JMM	**Marumori**	**0.51**	**298**	P	**P**	**20 32 14.0**	**+0.4**
JMM				S	**S**	**20 32 22.3**	**-1.0**
ONAJ	**Iwakimizuishiy**	**0.69**	**221**	⇑P	**P**	**20 32 16.3**	**+0.8**
ONAJ				S	**S**	**20 32 26.7**	**0.0**
JFT	**Otama**	**0.82**	**263**	⇑P	**P**	**20 32 17.6**	**+0.6**
JFT				S	**S**	**20 32 28.9**	**-0.4**
JIO	**Ouri**	**0.83**	**360**	⇑P	**P**	**20 32 18.0**	**+0.9**
JIO				S	**S**	**20 32 29.3**	**-0.2**
JOU	**Okura**	**0.92**	**324**	⇑P	**P**	**20 32 18.5**	**+0.2**
JOU				S	**S**	**20 32 30.9**	**-0.6**
JYS	**Shirataka**	**1.18**	**301**	⇑P	**P**	**20 32 22.2**	**+0.6**
JYS				S	**S**	**20 32 37.3**	**-0.2**
JMK	**Ichinoseki**	**1.33**	**355**	⇓P	**P**	**20 32 24.3**	**+0.5**
JMK				S	**S**	**20 32 40.7**	**-0.3**
JFY	**Yanaizu**	**1.33**	**261**	⇑P	**P**	**20 32 24.2**	**+0.4**
JYK	**Kaneyama**	**1.51**	**329**	⇓P	**P**	**20 32 26.8**	**+0.6**
MAJO	**Matsushiro**	**2.74**	**248**	⇓*e*Pn	**P**	**20 32 44.5**	**+1.3**
MAJO				*e*Sn	**S**	**20 33 03.7**	**-12**
MAT	**Matsushiro**	**2.74**	**248**	P	**P**	**20 32 44.3**	**+1.1**
MAT				S	**S**	**20 33 17.1**	**+1.9**
MAT	**Matsushiro**	**2.74**	**248**	*e*P	**P**	**20 32 44.0**	**+0.8**
MAT				*e*S	**S**	**20 33 04.0**	**-11**
MAT				*e*S	**S**	**20 33 22.0**	**+6.8**
JHJ	**Hachijo jima 2**	**4.68**	**196**	P	**P**	**20 33 08.7**	**-1.6**
	11nm,0.3s,baz=60,slow=23,SNR=3.2						
JHJ				S	**S**	**20 34 00.6**	**-3.1**
	20nm,0.3s,baz=73,slow=23,SNR=3.9						
ASAJ	**Asahikawa**	**6.55**	**8**	P	**P**	**20 33 35.5**	**-0.7**
	0.8nm,0.3s,baz=226,slow=28,SNR=3.3						
ASAJ				S	**S**	**20 34 47.7**	**-2.5**
	0.6nm,0.3s,baz=14,slow=18,SNR=2.4						
CBIJ	**Chichi jima**	**10.52**	**176**	P	**P**	**20 34 25.6**	**-4.9**
	1.6nm,0.3s,baz=177,slow=23,SNR=1.9						
CBIJ				S	**S**	**20 36 15.7**	**-12**
	1.7nm,0.3s,baz=286,slow=15,SNR=2.8						
FX1	**Attu Island--F**	**26.81**	**45**	LR	LR	20 47 27.8	
	comp=Z,12nm,19.3s,baz=297,slow=34						
ULN	**Ulaanbaatar**	**26.99**	**303**	P	**P**	**20 37 37.4**	**+0.2**
	0.4nm,0.5s,mb3.2						
ENH	**Enshi**	**27.34**	**264**	*e*P	**P**	**20 37 38.6**	**-2.0**
SONM	**Songino Array**	**27.42**	**303**	P	**P**	**20 37 40.7**	**-0.5**
	0.4nm,0.6s,mb3.1,baz=103,slow=7.9,SNR=3.3						
ILAR	**Eielson Array**	**49.02**	**33**	P	**P**	**20 40 42.6**	**+1.1**
	0.6nm,0.5s,mb3.8,baz=264,slow=5.6,SNR=9.5						
WRAB	**Tennant Creek**	**57.63**	**188**	*e*P	**P**	**20 41 45.2**	**-0.4**
	0.6nm,0.5s,mb3.9						
WRA	**Warramunga Arr**	**57.64**	**188**	P	**P**	**20 41 45.1**	**-0.5**
	0.5nm,0.5s,mb3.8,baz=5.5,slow=7.1,SNR=17						
ASAR	**Alice Springs**	**61.37**	**188**	P	**P**	**20 42 11.5**	**+0.3**
	0.4nm,0.8s,mb3.5,baz=24,slow=8.9,SNR=3.5						
PV10	**Paradox Valley**	**80.42**	**49**	*e*P	**P**	**20 44 07.9**	**+2.3**

NEIC ***19*** *20:34:56.9±0.9, 17.98S×178.72W, h554^{km}±11^{km}, mb4.6/22, Error ellipse: s-maj=14.0km s-min=7.5km az=150.0*

BJI ***19*** *20:34:57.1, 17.11S×178.40W, h548^{km}, mB4.7, mb4.3*

IDC ***19*** *20:34:58.1±1.5, 18.10S×178.72W, h567^{km}±17^{km}, mb3.8/18, mb1 3.9/19, mb1mx3.9/22, Error ellipse: s-maj=16.0km s-min=9.6km az=152.0*

ISC 19 20:34:56.0±0.8, 17.97S±0.10×178.77W±0.08, h554^{km}±12^{km}, n128, σ1^{s}02/55, mb4.3/33, 8C-6D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**7.85**	**60**	*e*P	**P**	**20 36 53.0**	**0.0**
	70nm,0.6s						
AFI				*e*S	**S**	**20 38 25.6**	**-0.8**
RAR	**Rarotonga**	**18.19**	**103**	P	**P**	**20 38 36.8**	**+0.9**
	1.2nm,0.3s,baz=261,slow=8.2,SNR=6.3						
RAR	**Rarotonga**	**18.19**	**103**	*e*P	**P**	**20 38 36.7**	**+0.8**
	71nm,1.1s						
URZ	**Urewera**	**20.54**	**189**	P	**P**	**20 38 55.1**	**-2.6**
	5.1nm,0.4s,baz=203,slow=3.2,SNR=5.3						
CTA	**Charters Tower**	**33.09**	**261**	*e*P	**P**	**20 40 48.3**	**+0.4**
	14nm,0.8s,mb4.5						
CTA	**Charters Tower**	**33.09**	**261**	P	**P**	**20 40 48.3**	**+0.4**
	16nm,0.7s,mb4.7,baz=85,slow=11,SNR=22						
CTA				PcP	PcP	20 43 14.6	-0.7
	0.8nm,0.3s,baz=51,slow=22,SNR=2.7						
CTAO	**Charters Tower**	**33.09**	**261**	*e*P	**P**	**20 40 48.2**	**+0.3**
	34nm,1.1s,mb4.8						
CNB	**Canberra Magne**	**33.12**	**232**	⇑*i*P	**P**	**20 40 49.7**	**+1.8**
	22nm,0.7s,mb4.8						
PMG	**Port Moresby**	**34.13**	**280**	P	**P**	**20 40 58.4**	**+1.8**
	36nm,0.9s,mb4.9,baz=99,slow=6.8,SNR=12						
PMG	**Port Moresby**	**34.13**	**280**	*e*P	**P**	**20 40 58.3**	**+1.7**
TOO	**Toolangi**	**36.86**	**231**	*e*P	**P**	**20 41 20.1**	**+1.1**
	9.2nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**38.30**	**241**	*e*P	**P**	**20 41 31.6**	**+0.9**
	16nm,0.9s,mb4.6						
STKA	**Stephens Creek**	**38.30**	**241**	P	**P**	**20 41 32.0**	**+1.4**
	20nm,0.7s,mb4.8,baz=82,slow=8.7,SNR=34						
WRAB	**Tennant Creek**	**44.27**	**260**	*e*P	**P**	**20 42 17.7**	**-0.7**
	20nm,0.6s,mb4.8						
WRA	**Warramunga Arr**	**44.28**	**260**	P	**P**	**20 42 17.8**	**-0.7**
	13nm,0.5s,mb4.7,baz=93,slow=6.8,SNR=288						
WRA				PcP	PcP	20 43 50.4	-0.7
	2.3nm,0.4s,baz=89,slow=3.6,SNR=5.8						
WRA				ScP		20 46 49.9	
	0.5nm,0.9s,baz=89,slow=4.3,SNR=6.2						
WRA				S	**S**	**20 48 07.7**	**-5.0**
	0.9nm,0.8s,baz=95,slow=13,SNR=5.0						
ASAR	**Alice Springs**	**44.44**	**254**	P	**P**	**20 42 19.9**	**+0.2**
	112nm,0.5s,baz=89,slow=8.3,SNR=1092						
ASAR				PcP	PcP	20 43 50.7	-0.9
	3.4nm,0.4s,baz=94,slow=3.9,SNR=4.9						
ASAR				ScP		20 46 50.8	
	2.2nm,1.0s,baz=94,slow=3.8,SNR=6.3						
ASAR				S	**S**	**20 48 12.2**	**-2.8**
	4.1nm,1.0s,baz=86,slow=16,SNR=10						
ASAR	**Alice Springs**	**44.44**	**254**	P	**P**	**20 42 19.9**	**+0.2**
ASAR				PcP	PcP	20 43 50.7	-0.9
ASAR				ScP		20 46 50.8	
ASAR				S	**S**	**20 48 12.2**	**-2.8**
ASPA	**Alice Springs**	**44.44**	**254**	⇓*i*P	**P**	**20 42 19.8**	**+0.1**
ASPA				*e*S	**S**	**20 48 12.1**	**-2.9**
KAKA	**Kakadu**	**47.24**	**269**	⇓*i*P	**P**	**20 42 40.8**	**-0.4**
	15nm,0.4s,mb4.9						
FORT	**Forrest**	**49.67**	**245**	*e*P	**P**	**20 42 58.4**	**-0.9**
	77nm,0.6s,mb5.3						
FITZ	**Fitzroy Crossi**	**52.68**	**261**	*e*P	**P**	**20 43 21.2**	**0.0**
	7.7nm,0.6s,mb4.2						
FITZ	**Fitzroy Crossi**	**52.68**	**261**	P	**P**	**20 43 21.0**	**-0.2**
	11nm,0.8s,mb4.2,baz=153,slow=2.8,SNR=36						
MBWA	**Marble Bar**	**57.72**	**256**	*e*P	**P**	**20 43 55.5**	**-0.8**
	11nm,0.7s,mb4.2						
KLBR	**Kellerberrin**	**58.49**	**244**	*e*P	**P**	**20 44 00.5**	**-0.8**
	23nm,0.8s,mb4.5						
NWAO	**Narrogin (SRO)**	**58.88**	**242**	P	**P**	**20 44 03.2**	**-0.6**
	3.0nm,0.6s,mb3.7,baz=106,slow=6.7,SNR=5.1						
NWAO	**Narrogin (SRO)**	**58.88**	**242**	*e*P	**P**	**20 44 03.1**	**-0.7**
	1.9nm,0.5s,mb3.6						
MUN	**Mundaring**	**59.79**	**243**	*e*P	**P**	**20 44 09.4**	**-0.5**
	6.3nm,0.8s,mb4.0						
MAJO	**Matsushiro**	**67.75**	**324**	*e*P	**P**	**20 44 59.9**	**-0.5**
	15nm,0.8s,mb4.6						
MAT	**Matsushiro**	**67.75**	**324**	P	**P**	**20 44 59.8**	**-0.6**
MAT	**Matsushiro**	**67.75**	**324**	*e*P	**P**	**20 45 00.0**	**-0.4**
	10nm,0.7s,mb4.5						
FX1	**Attu Island--F**	**70.90**	**355**	P	**P**	**20 45 17.6**	**-1.2**
	15nm,0.6s,mb4.7,baz=76,slow=22,SNR=4.8						
ASAJ	**Asahikawa**	**71.16**	**332**	P	**P**	**20 45 21.6**	**+1.1**
	4.5nm,0.5s,mb4.2,baz=172,slow=9.2,SNR=7.3						
YBH	**Yreka Blue Hor**	**78.79**	**39**	P	**P**	**20 46 03.9**	**+1.1**
	1.6nm,0.5s,mb3.6,baz=125,slow=2.3,SNR=5.9						
MAW	**Mawson**	**83.69**	**200**	P	**P**	**20 46 26.9**	**-0.2**
	2.7nm,0.5s,mb4.1,baz=148,slow=7.0,SNR=4.0						
ENH	**Enshi**	**84.02**	**304**	*e*P	**P**	**20 46 30.6**	**+0.9**
	38nm,1.2s,mb4.8						
MCK	**McKinley**	**84.67**	**13**	*e*P	**P**	**20 46 31.1**	**-1.0**
	2.2nm,0.7s,mb3.8						
COLA	**College**	**85.91**	**13**	P	**P**	**20 46 36.7**	**-1.3**
	3.9nm,0.4s,mb4.4						
ILAR	**Eielson Array**	**86.02**	**13**	P	**P**	**20 46 37.9**	**-0.7**
	2.1nm,0.5s,mb4.0,baz=222,slow=5.1,SNR=50						
TXAR	**Lajitas Array**	**86.32**	**58**	P	**P**	**20 46 42.3**	**+1.5**
	2.3nm,0.8s,mb3.9,baz=223,slow=5.8,SNR=23						
KMI	**Kunming**	**87.55**	**297**	*e*P	**P**	**20 46 48.3**	**+1.6**
KMI				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.3						
PDAR	**Pinedale Array**	**87.63**	**44**	P	**P**	**20 46 47.4**	**+0.7**
	comp=Z,1.2nm,0.7s,mb3.8,baz=226,slow=3.6,SNR=10						
CMAR	**Chiang Mai Arr**	**88.58**	**290**	P	**P**	**20 46 53.2**	**+1.6**
	comp=Z,4.9nm,0.9s,mb4.3,baz=113,slow=3.1,SNR=32						
CM31	**Chiang Mai Arr**	**88.58**	**290**	*e*P	**P**	**20 46 53.2**	**+1.5**
	comp=Z,5.2nm,0.8s,mb4.4						
SNAA	**Sanae**	**90.55**	**179**	P	**P**	**20 46 59.7**	**+0.1**
	comp=Z,0.1nm,0.5s,baz=128,slow=20,SNR=3.5						
INK	**Inuvik**	**92.03**	**15**	P	**P**	**20 47 05.8**	**-0.6**
	comp=Z,2.7nm,0.7s,mb4.4,baz=224,slow=4.4,SNR=7.7						
INK	**Inuvik**	**92.03**	**15**	*e*P	**P**	**20 47 05.7**	**-0.7**
ULN	**Ulaanbaatar**	**92.97**	**320**	*e*P	**P**	**20 47 10.2**	**-1.0**
	comp=Z,2.5nm,0.9s,mb4.2						
SONM	**Songino Array**	**93.37**	**319**	P	**P**	**20 47 13.1**	**+0.1**
	comp=Z,0.6nm,0.6s,mb3.8,baz=130,slow=3.8,SNR=6.4						
YKA	**Yellowknife Ar**	**94.53**	**25**	P	**P**	**20 47 17.6**	**-0.3**
	comp=Z,0.4nm,0.5s,mb3.8,baz=238,slow=4.7,SNR=4.9						
YKA	**Yellowknife Ar**	**94.53**	**25**	P	**P**	**20 47 17.6**	**-0.3**
ZAL	**Zalesovo**	**108.08**	**322**	PKiKP		20 52 20.2	
	comp=Z,0.7nm,0.8s,baz=106,slow=2.8,SNR=3.5						
BVAR	**Borovoye Array**	**116.67**	**321**	PKP	PKPdf	20 52 37.5	+0.4
	comp=Z,2.0nm,0.4s,baz=122,slow=2.1,SNR=27						
ARCES	**ARCESS Array B**	**126.31**	**350**	PKP	PKPdf	20 52 55.9	+0.6
	comp=Z,5.0nm,0.8s,baz=102,slow=1.0,SNR=15						
KAF	**Kangasniemi**	**132.53**	**344**	*e*pkp	PKPdf	20 53 06.7	-0.6
FINES	**FINESS Array B**	**133.15**	**344**	PKP	PKPdf	20 53 08.8	+0.3
	comp=Z,2.4nm,0.7s,baz=180,slow=1.9,SNR=9.1						
FINES	**FINESS Array B**	**133.15**	**344**	PKP	PKPdf	20 53 08.8	+0.3
NOA	**NORSAR Array B**	**136.39**	**353**	PKP	PKPdf	20 53 16.4	+2.0
	comp=Z,2.0nm,1.0s,baz=332,slow=2.6,SNR=3.4						
ARSS	**Ar Rass**	**140.38**	**289**	P	PKPdf	20 53 18.8	-3.8
AFFS	**'Afif**	**140.65**	**286**	P	PKPdf	20 53 20.2	-3.0
HILS	**Ha'il**	**141.56**	**292**	P	PKPdf	20 53 21.7	-3.0
OJC	**Ojcow**	**144.55**	**339**	*e*PKP	PKPdf	20 53 30.8	+1.7
BRTR	**Keskin Array B**	**144.58**	**315**	PKP	PKPdf	20 53 30.8	+1.3
	comp=Z,15nm,1.1s,baz=137,slow=4.1,SNR=28						
KOLS	**Kolonicke sedl**	**144.72**	**336**	*i* PKP	PKPdf	20 53 31.8	+2.4
ASF	**Jabal al Asfar**	**144.91**	**301**	PKPbc	PKPbc	20 53 32.4	+1.3
	comp=Z,8.5nm,0.8s,baz=50,slow=1.8,SNR=8.2						
NIE	**Niedzica**	**145.05**	**338**	*e*PKP	PKPdf	20 53 32.9	+2.9
CRVS	**Cervenica-Dubn**	**145.06**	**337**	*e*PKP	PKPdf	20 53 32.8	+2.8
KSP	**Ksiaz**	**145.07**	**343**	⇓*e*PKP	PKPdf	20 53 32.6	+2.6
OKC	**Ostrava-Krasne**	**145.42**	**341**	*e*PKP	PKPdf	20 53 33.7	+3.1
CLL	**Collm**	**145.44**	**347**	⇓*i*P	PKPdf	20 53 33.3	+2.7
CLL				*i*		20 53 46.6	
CLL	**Collm**	**145.44**	**347**	⇓P	PKPdf	20 53 33.3	+2.7
	comp=Z,logA/T=1.7						
CLL				*i*		20 53 46.6	
CLL				*e*		20 53 57.0	
UPC	**Upice**	**145.45**	**343**	*e*PKP	PKPdf	20 53 33.7	+3.0
DPC	**Dobruska-Polom**	**145.50**	**343**	*e*PKP	PKPdf	20 53 34.0	+3.2
BRG	**Berggiesshubel**	**145.64**	**346**	*i* PKP	PKPdf	20 53 34.0	+3.0
MLR	**Muntele Rosu**	**145.70**	**329**	PKPbc	PKPbc	20 53 33.9	+1.3
	comp=Z,9.5nm,0.6s,baz=355,slow=5.4,SNR=27						
MLR	**Muntele Rosu**	**145.70**	**329**	PKPbc	PKPbc	20 53 33.9	+1.3
KECS	**Kecovo**	**145.77**	**337**	*e*PKP	PKPdf	20 53 34.6	+3.3
PVCC	**Panska Ves**	**145.81**	**345**	*e*PKP	PKPdf	20 53 35.1	+3.8
TBKS	**Tabuk**	**146.05**	**294**	P	PKPdf	20 53 36.2	+3.8
PRU	**Pruhonice**	**146.31**	**344**	*e*PKP	PKPdf	20 53 36.2	+4.1
	comp=Z,14nm,0.7s						
PRU				*e*x	x	20 53 38.5	
VYHS	**Vyhne**	**146.35**	**339**	*i* PKP	PKPdf	20 53 36.6	+4.4
PSZ	**Piszkesteto**	**146.46**	**337**	⇑*i*	PKPdf	20 53 36.6	+4.2
JMQS	**Jabal Moqyreh**	**146.51**	**295**	P	PKPdf	20 53 37.8	+4.7
NKC	**Novy Kostel**	**146.58**	**347**	*e*PKP	PKPdf	20 53 37.1	+4.6
SRO	**Srobarova**	**147.11**	**339**	*e*PKP	PKPdf	20 53 38.3	+4.8
JMOS	**Jabal al Moall**	**147.12**	**296**	P	PKPdf	20 53 39.0	+4.9
ALWS	**Ilw as Safayha**	**147.12**	**296**	P	PKPdf	20 53 39.1	+5.0
SRO2	**Moca**	**147.13**	**338**	*e*PKP	PKPdf	20 53 38.3	+4.8
HAQS	**Haql**	**147.29**	**296**	P	PKPdf	20 53 39.5	+5.1
GRF	**Grafenberg Arr**	**147.34**	**348**	*e*PKP	PKPdf	20 53 39.2	+5.4
KHC	**Kasperske Hory**	**147.35**	**345**	*e*PKPbc	PKPdf	20 53 39.1	+5.3
KHC				*e*x	x	20 53 43.4	
KHC				*e*x	x	20 53 52.0	
TAYS	**Tayyib Ism**	**147.45**	**295**	P	PKPdf	20 53 40.0	+5.3
GERES	**GERESS Array B**	**147.58**	**345**	PKPbc	PKPdf	20 53 39.5	+5.3
	comp=Z,8.6nm,0.5s,baz=30,slow=3.1,SNR=64						
GIVF	**Givet**	**147.81**	**356**	*e*PKP1	PKPdf	20 53 39.6	+5.1
	comp=Z,33nm,0.7s						
BAIF	**Baives**	**147.90**	**356**	*e*PKP1	PKPdf	20 53 40.0	+5.3
	comp=Z,14nm,0.5s						
MOA	**Molln**	**148.34**	**343**	⇑*i*P	PKPdf	20 53 41.4	+6.0
PERS	**Pernice**	**149.19**	**341**	*i* PKPbc	PKPdf	20 53 42.8	+6.0
CDF	**Champ du Feu**	**149.24**	**352**	*e*PKP1	PKPdf	20 53 43.1	+6.3
	comp=Z,29nm,0.9s						
FLN	**La Foliniere**	**149.25**	**2**	*e*PKP1	PKPdf	20 53 42.8	+5.9
	comp=Z,22nm,0.6s						
MEZF	**Maizieres J'vi**	**149.39**	**355**	*e*PKP1	PKPdf	20 53 43.8	+6.7
	comp=Z,15nm,0.6s						
LDF	**La Druitiere**	**149.43**	**2**	*e*PKP1	PKPdf	20 53 43.1	+5.9
	comp=Z,15nm,0.5s						
OBKA	**Obir**	**149.48**	**342**	⇑*i*P	PKPdf	20 53 43.6	+6.3
WATA	**Walderalm**	**149.50**	**346**	⇑*i*P	PKPdf	20 53 43.8	+6.5
WTTA	**Wattenberg**	**149.56**	**346**	⇑*i*P	PKPdf	20 53 44.5	+7.1
MOTA	**Moosalm**	**149.60**	**347**	⇓*i*P	PKPdf	20 53 44.2	+6.7
GRR	**Gorron**	**149.61**	**3**	*e*PKP1	PKPdf	20 53 43.8	+6.3
	comp=Z,11nm,0.4s						
SQTA	**Sankt Quirin**	**149.69**	**346**	⇑*i*P	PKPdf	20 53 44.6	+7.0
PDKS	**Podkum**	**149.75**	**341**	*i* PKPbc	PKPdf	20 53 44.3	+6.6
HAU	**Haudompre**	**149.75**	**353**	*e*PKP1	PKPdf	20 53 44.2	+6.5
	comp=Z,23nm,0.8s						
HINF	**Hinteralfeld**	**149.88**	**352**	*e*PKP1	PKPdf	20 53 44.4	+6.5
	comp=Z,26nm,1.0s						
LJU	**Ljubljana**	**149.91**	**341**	*i* PKPbc	PKPdf	20 53 44.8	+6.8
DAVA	**Damuels**	**149.91**	**348**	⇑*i*P	PKPdf	20 53 45.3	+7.3
QUIF	**Quistinic**	**149.91**	**6**	*e*PKP1	PKPdf	20 53 42.0	+4.1
VISS	**Visnje**	**150.03**	**341**	*e*PKPbc	PKPdf	20 53 45.0	+6.8
JAVS	**Javornik**	**150.18**	**342**	*i* PKPbc	PKPdf	20 53 45.3	+6.8
DAVOX	**Davos**	**150.39**	**348**	PKPbc	PKPdf	20 53 46.3	+7.6
	comp=Z,23nm,0.8s,baz=283,slow=0.5,SNR=39						
SSF	**Saint Saulge**	**150.93**	**357**	*e*PKP1	PKPdf	20 53 47.1	+7.6
	comp=Z,12nm,0.5s						
CABF	**La Chapelle**	**151.16**	**353**	*e*PKP1	PKPdf	20 53 48.1	+8.2
	comp=Z,38nm,1.1s						
AVF	**Avril sur Loir**	**151.20**	**357**	*e*PKP1	PKPdf	20 53 47.3	+7.4
SMF	**Signal de Mont**	**151.32**	**356**	*e*PKP1	PKPdf	20 53 47.9	+7.8
MFF	**Saint Martin d**	**151.42**	**2**	*e*PKP1	PKPdf	20 53 47.9	+7.7
	comp=Z,27nm,0.8s						
BGF	**Bois d'Agland**	**151.46**	**358**	*e*PKP1	PKPdf	20 53 48.2	+7.9
	comp=Z,15nm,0.7s						
TCF	**Toulx Ste Croi**	**151.75**	**359**	*e*PKP1	PKPdf	20 53 49.5	+8.8
LPL	**La Plagne**	**152.15**	**352**	*e*PKP1	PKPdf	20 53 50.7	+9.4
LPG	**La Plagne**	**152.17**	**352**	*e*PKP1	PKPdf	20 53 50.7	+9.4
	comp=Z,9.6nm,0.9s						
RJF	**Les Rejaudoux**	**152.74**	**360**	*e*PKP1	PKPdf	20 53 51.6	+9.5
	comp=Z,13nm,0.8s						
ORIF	**Oris-en-Rattie**	**152.85**	**353**	*e*PKP1	PKPdf	20 53 52.3	+10
	comp=Z,10nm,0.9s						
MBDF	**Montbardon**	**152.92**	**351**	*e*PKP1	PKPdf	20 53 51.7	+9.3
ESDC	**Sonseca Array**	**157.91**	**11**	PKPab	PKPab	20 54 25.6	-2.4
	comp=Z,0.9nm,0.7s,baz=336,slow=4.6,SNR=4.3						

IDC ***19*** *20:50:08.8±1.6, 5.76N×74.52W, h114^{km}±13^{km}, mb3.5/2, mb1 3.6/2, mb1mx3.0/16, Error ellipse: s-maj=174.0km s-min=27.3km az=77.0*

NEIC ***19*** *20:50:08.5±1.3, 5.87N×74.27W, h116^{km}±13^{km}, mb4.0/1, Error ellipse: s-maj=42.1km s-min=17.2km az=113.0*

ISC 19 20:50:07.7±1.3, 5.9N±0.2×74.2W±0.2, h119^{km}±12^{km}, n7, σ0^{s}75/7, mb3.7/2, Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	**1.02**	**190**	P	**P**	**20 50 30.8**	**+0.6**
	63nm,0.3s,baz=111,slow=16,SNR=223						
ROSC				S	**S**	**20 50 46.5**	**-0.5**
	41nm,0.3s,baz=83,slow=19,SNR=7.9						
SDV	**Santo Domingo**	**4.60**	**49**	*e*Pn	**P**	**20 51 17.2**	**+0.8**
SDV				*e*Sn	**S**	**20 52 08.7**	**-0.5**
LVC	**Limon Verde**	**28.77**	**170**	P	**P**	**20 55 56.5**	**0.0**
	1.0nm,0.3s,mb3.9,baz=345,slow=12,SNR=5.0						
LVC	**Limon Verde**	**28.77**	**170**	P	**P**	**20 55 56.6**	**+0.1**
	1.0nm,0.3s,mb3.9						
YKA	**Yellowknife Ar**	**63.80**	**340**	P	**P**	**21 00 28.7**	**-0.4**
	0.2nm,0.3s,mb3.4,baz=133,slow=6.0,SNR=5.4						
WRAB	**Tennant Creek**	**148.97**	**241**	*e*PKPbc	PKPdf	21 09 43.9	+5.7
WRA	**Warramunga Arr**	**148.98**	**241**	PKPbc	PKPdf	21 09 41.8	+3.6
	0.4nm,0.4s,baz=124,slow=1.4,SNR=6.5						

*NEIC **19** 21:02:09.1±0.5, 43.80N×105.20W, ML3.4, Error ellipse: s-maj=6.8km s-min=4.5km az=108.0, Suspected Mining explosion.*
NEIC 60 km [35 miles] SSE of Gillette.
*IDC **19** 21:02:10.3±0.9, 44.02N×105.70W, mb4.1/3, mb1 3.8/7, mb1mx3.6/19, ML3.6/3, Error ellipse: s-maj=21.6km s-min=8.2km az=146.0*
ISC 19 21:02:07.3±0.6**, 43.83N**±0.04×**105.21W**±0.07**, n43, σ1^{s}18**/48**, mb4.3**/3**, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PHWY	Pilot Hill	2.54	184	*e*Pn	Pn	21 02 51.4	+1.1
PHWY				*e*Sn	Sn	21 03 23.7	+1.3
RWWY	Rawlins	2.60	215	*e*Pn	Pn	21 02 53.0	+1.8
LAO	LASA Array	2.94	346	*e*Pg	Pg	21 03 04.5	-1.6
BW06	Boulder Array	3.35	253	*e*Pn	Pn	21 03 02.9	+0.9
BW06				*e*		21 03 08.0	
BW06				*e*Sn	Sn	21 03 41.0	-2.0
PDAR	Pinedale Array	3.35	253	Pn	Pn	21 03 03.1	+1.1
	2.3nm,0.3s,baz=71,slow=16,SNR=39						
PDAR				Pg	Pg	21 03 08.2	-5.9
	3.9nm,0.3s,baz=71,slow=19,SNR=55						
PDAR				Lg		21 03 48.0	
	7.8nm,0.3s,baz=72,slow=28,SNR=7.6						
PDAR	Pinedale Array	3.35	253	Pn	Pn	21 03 03.1	+1.1
PDAR				Pg	Pg	21 03 08.2	-5.9
PDAR				Lg		21 03 48.0	
GCMT	Greycliff	3.73	303	*e*Pn	Pn	21 03 09.6	+2.3
LOHW	Long Hollow	3.92	269	*e*Pn	Pn	21 03 11.3	+1.3
MOOW	Moose Ponds	4.01	271	*e*Pn	Pn	21 03 13.0	+1.6
WUWY	Wally Ulrich	4.03	268	*e*Pg	Pg	21 03 21.7	-5.9
YNR	Norris Junctio	4.03	285	*e*Pg	Pg	21 03 22.8	-4.9
ISCO	Idaho Springs	4.04	184	*e*Pn	Pn	21 03 10.6	-1.2
ISCO				*e*S	Sn	21 04 10.0	+9.5
SNOW	Snow King Moun	4.04	267	*e*Pn	Pn	21 03 13.0	+1.2
YFT	Old Faithful	4.10	281	*e*Pg	Pg	21 03 24.1	-5.0
REDW	Red Top Meadow	4.13	265	*e*Pn	Pn	21 03 13.2	+0.3
IMW	Indian Meadow	4.15	273	*e*Pn	Pn	21 03 14.0	+0.7
TPAW	Teton Pass	4.18	267	*e*Pn	Pn	21 03 14.4	+0.6
YMR	Madison River	4.22	283	Pn	Pn	21 03 14.9	+0.6
AHID	Auburn Hatcher	4.43	258	*e*Pg	Pg	21 03 29.1	-6.7
QLMT	Earthquake Lak	4.58	285	*e*Pg	Pg	21 03 31.2	-7.4
DGMT	Dagmar	4.69	8	*e*Pg	Pg	21 03 36.7	-4.2
HWUT	Hardware Ranch	5.18	247	*e*Pn	Pn	21 03 26.6	-1.4
	2.7nm,0.4s						
HRY	Holter Researc	5.49	304	Pn	Pn	21 03 33.5	+1.2
DAU	Daniels Canyon	5.65	235	*e*P	Pn	21 03 35.7	+1.2
JLU	Jordanelle	5.65	237	*e*Pn	Pn	21 03 34.0	-0.5
SPUT	South Promonto	5.91	247	*e*Pn	Pn	21 03 38.5	+0.3
SPUT				*e*		21 03 55.0	
HVU	Hansel Valley	5.93	252	*e*Pn	Pn	21 03 37.6	-0.9
MPU	Maple Canyon	6.12	234	Pn	Pn	21 03 39.9	-1.3
PV10	Paradox Valley	6.17	209	*e*Pn	Pn	21 03 41.8	-0.1
SRU	San Rafael	6.18	222	*e*Pn	Pn	21 03 40.5	-1.5
SRU				*e*		21 03 56.8	
PV01	Paradox Valley	6.24	205	*e*Pn	Pn	21 03 42.6	-0.2
TMUT	Trail Mountain	6.39	227	*e*Pn	Pn	21 03 44.4	-0.5
CHMT	Chamberlain Mo	6.45	301	*e*Pn	Pn	21 03 44.6	-1.2
BGU	Big Grassy Mou	6.48	246	Pn	Pn	21 03 44.1	-2.2
MSU	Marysvale	7.47	227	*e*Pn	Pn	21 03 59.1	-1.1
MVU	Marysvale	7.50	227	*e*Pn	Pn	21 03 59.5	-1.1
	1.3nm,0.6s						
ULM	Lac du Bonnet	9.04	41	Pn	P	21 04 20.8	-1.2
	0.2nm,0.3s,baz=226,slow=14,SNR=2.2						
ULM				Lg		21 06 53.4	
	0.3nm,0.3s,baz=128,slow=21,SNR=2.2						
TXAR	Lajitas Array	14.52	175	Pn	P	21 05 42.4	+6.4
	0.0nm,0.3s,slow=9.9,SNR=3.4						
TXAR				Pg	Px	21 06 37.5	
	0.1nm,0.3s,baz=4.1,slow=13,SNR=3.3						
TXAR				Lg		21 09 48.5	
	0.0nm,0.3s,baz=341,slow=33,SNR=4.1						
YKA	Yellowknife Ar	19.48	347	P	P	21 06 37.5	-0.7
	0.0nm,0.3s,baz=158,slow=12,SNR=3.4						
YKA	Yellowknife Ar	19.48	347	P	P	21 06 37.5	-0.8
ARCES	ARCESS Array B	61.31	18	P	P	21 12 26.5	+0.1
	3.1nm,0.9s,mb4.5,baz=319,slow=8.3,SNR=1.6						
FINES	FINESS Array B	67.93	23	P	P	21 13 10.6	+1.3
	1.7nm,0.9s,mb4.3,baz=315,slow=5.9,SNR=1.2						
ZAL	Zalesovo	82.23	354	P	P	21 14 31.7	+0.6
	0.8nm,0.4s,mb4.2,baz=130,slow=6.8,SNR=3.3						

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*IDC **19** 21:03:22.6±8.3, 6.97S×149.92E, h62^{km}±57^{km}, mb3.7/3, mb1 4.0/5, mb1mx3.6/13, ML3.7/2, MS3.4/1, Ms1 3.3/1, ms1mx2.5/21, Error ellipse: s-maj=57.2km s-min=50.7km az=21.0*
*NEIC **19** 21:03:23.5±6.5, 6.99S×149.79E, h61^{km}±31^{km}, mb3.9/2, Error ellipse: s-maj=71.4km s-min=29.2km az=202.0*
ISC 19 21:03:20.4±5.0**, 6.8S**±0.3×**149.8E**±0.2**, h63**^{km}±32^{km}**, n10, σ0^{s}59**/12**, mb3.8**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.69	226	P	P	21 04 16.9	+0.4
	5.1nm,0.3s,baz=47,slow=13,SNR=13						
PMG				S	S	21 04 59.2	+0.2
	3.9nm,0.3s,baz=64,slow=22,SNR=6.5						
PMG	Port Moresby	3.69	226	*e*Pn	P	21 04 16.1	-0.4
PMG				S	S	21 04 59.2	+0.2
WRAB	Tennant Creek	19.89	228	*e*P	P	21 07 48.2	-1.3
	7.3nm,0.6s						
WRA	Warramunga Arr	19.91	228	P	P	21 07 49.1	-0.6
	0.8nm,0.3s,baz=52,slow=11,SNR=94						
ASAR	Alice Springs	22.69	221	P	P	21 08 18.5	+0.8
	1.3nm,0.7s,mb3.5,baz=53,slow=9.9,SNR=14						
STKA	Stephens Creek	26.09	196	P	P	21 08 49.8	-0.4
	2.2nm,0.9s,mb3.7,baz=43,slow=11,SNR=3.4						
STKA				LR	LR	21 19 55.3	
	comp=Z,79nm,18.9s,baz=23,slow=38						
STKA	Stephens Creek	26.09	196	*e*P	P	21 08 50.1	-0.1
STKA				LR	LR	21 19 55.3	
FITZ	Fitzroy Crossi	26.11	242	P	P	21 08 51.0	+0.5
	5.5nm,0.7s,mb4.2,baz=43,slow=7.6,SNR=14						
MBWA	Marble Bar	32.41	241	P	P	21 09 46.9	+0.1
	0.7nm,0.6s,mb3.7						
VNDA	Vanda	70.95	177	*e*P	P	21 14 33.0	+0.3

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*IDC **19** 21:07:49.3±4.0, 35.93N×76.85E, mb3.6/5, mb1 3.9/7, mb1mx3.6/19, ML3.8/2, MS4.0/1, Ms1 4.0/1, ms1mx3.1/22, Error ellipse: s-maj=82.3km s-min=36.1km az=4.0*
*NEIC **19** 21:08:04.7±7.8, 36.59N×76.86E, h91^{km}±42^{km}, mb3.8/2, Error ellipse: s-maj=81.3km s-min=24.3km az=185.0*
*BJI **19** 21:08:09.8, 37.15N×77.52E, h91^{km}*
*NNC **19** 21:08:14.5±334.0, 37.18N×80.22E, Error ellipse: s-maj=3258.9km s-min=3032.1km az=8.0*
ISC 19 21:08:02.9±0.6**, 36.64N**±0.04×**77.5E**±0.1**, h101**^{km}±10^{km}**, n22, σ1^{s}24**/28**, mb3.5**/7**, 1C-2D, Kashmir-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	3.11	338	⇑*i*P	P	21 08 51.5	+0.4
KSH				S	S	21 09 25.9	-1.6
KSH				Smax			
	comp=N,110nm,0.9s						
KSH				Smax			
	comp=E,100nm,0.8s						
DLH	Dalhousie	4.28	197	*e*P	P	21 09 09.0	+1.9
DLH				*e*		21 09 55.0	
THN	Thein Dam	4.44	200	*e*P	P	21 09 10.2	+0.8
	comp=E,2.3nm,0.2s						
THN				*e*S	S	21 09 56.0	-4.3
SDNR	Sundarnagar	5.15	185	*e*P	P	21 09 21.4	+2.5
	comp=E,222nm,0.2s						
SDNR				*e*S	S	21 10 15.4	-2.2
SMLA	Simla	5.50	183	⇓*i*P	P	21 09 38.7	+15
SMLA				*i* S	S	21 10 36.0	+10
AAK	Ala-Archa	6.41	340	*e*P	P	21 09 35.1	-1.3
	comp=E,2.8nm,0.6s						
KOLN	Koldanda	10.25	148	*e*P	P	21 10 28.7	+0.4
GKN	Gorkha	10.52	143	*e*P	P	21 10 32.3	+0.3
	comp=E,7.4nm,0.5s						
GKN				*e*S	S	21 12 25.0	-3.4
MK31	Makanchi Array	10.76	18	P	P	21 10 35.7	+0.6
	comp=E,0.3nm,0.3s,baz=205,slow=12,SNR=9.6						
MK31				⇓S	S	21 12 27.0	-7.1
	comp=E,2.0nm,0.6s,baz=186,slow=24,SNR=8.8						
KKN	Kakani	11.02	141	*e*P	P	21 10 38.2	-0.4
	comp=E,1.9nm,0.2s						
PKI	Pulchoki	11.26	141	*e*P	P	21 10 41.8	0.0
	comp=E,1.3nm,0.2s						
PKI				*e*S	S	21 12 43.6	-2.5
BVAR	Borovoye Array	17.12	345	P	P	21 11 58.1	+1.1
	comp=E,0.3nm,0.3s,baz=151,slow=15,SNR=5.4						
ZAL	Zalesovo	18.03	14	P	P	21 12 09.3	+1.3
	comp=E,0.9nm,0.3s,baz=144,slow=2.4,SNR=4.4						
ARU	Arti	23.54	333	*e*P	P	21 13 03.6	-0.8
	comp=E,2.4nm,0.6s,mb3.7						
SONM	Songino Array	24.01	53	P	P	21 13 14.7	+5.7
	comp=E,0.4nm,0.7s,mb2.9,baz=250,slow=10,SNR=4.4						
FINES	FINESS Array B	40.34	325	P	P	21 15 31.1	-0.6
	comp=E,1.2nm,0.6s,mb3.9,baz=118,slow=10,SNR=7.1						
ARCES	ARCESS Array B	43.07	336	P	P	21 15 54.0	+0.2
	comp=E,1.5nm,0.6s,mb3.9,baz=101,slow=9.2,SNR=5.2						
TGY	Tagaytay City	44.73	109	LR	LR	21 36 14.4	
	comp=E,179nm,19.2s,baz=185,slow=38						
NOA	NORSAR Array B	47.42	323	P	P	21 16 27.4	-1.2
	comp=E,1.7nm,1.0s,mb3.7,baz=80,slow=20,SNR=2.7						
INK	Inuvik	72.83	12	*e*P	P	21 19 25.8	+4.2
	comp=E,0.8nm,0.5s,mb3.8						
YKA	Yellowknife Ar	80.73	6	P	P	21 20 06.7	+0.9
	comp=E,0.1nm,0.6s,mb2.8,baz=344,slow=4.5,SNR=3.8						
YKA	Yellowknife Ar	80.73	6	P	P	21 20 06.7	+0.9

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*IDC **19** 21:28:15.3±3.8, 12.58N×87.62W, mb3.7/6, mb1 4.0/6, mb1mx3.7/16, Error ellipse: s-maj=88.6km s-min=53.4km az=18.0*
*CASC **19** 21:28:22.7±2.0, 12.43N×88.21W, h38^{km}±478^{km}, MD4.0, ML3.5, mb5.4(GCG)*
*NEIC **19** 21:28:26.3±1.7, 12.83N×87.74W, h72^{km}±24^{km}, mb3.6/1, Error ellipse: s-maj=49.0km s-min=16.8km az=219.0*
ISC 19 21:28:22.2±0.6**, 12.43N**±0.06×**88.19W**±0.04**, h61**^{km}±7^{km}**, n40, σ0^{s}91**/53**, mb3.7**/7**, 3C-7D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNCH	Conchagua	0.92	22	*e*P	P	21 28 38.8	-0.6
CNCH				*e*S	S	21 28 54.5	+2.3
VSM	San Miguel	1.00	356	⇓*e*P	P	21 28 40.5	-0.1
VSM				*e*S	S	21 28 53.7	-0.4
BLLM	Bellamira	1.01	358	⇓*e*P	P	21 28 40.2	-0.5
BLLM				*e*S	S	21 28 53.2	-1.2
CRIN	San Cristobal	1.15	76	*e*P	P	21 28 42.8	+0.3
CRIN				*e*S	S	21 28 58.8	+1.1
LEON	Leon	1.27	90	*e*P	P	21 28 44.0	-0.2
TEL3	Telica 3	1.33	84	*e*P	P	21 28 44.5	-0.6
CAHU	Cacacuatique	1.34	359	⇓*e*P	P	21 28 45.3	+0.1
CAHU				*e*S	S	21 29 03.0	+0.6
SNVI	San Vicente	1.34	332	⇓*e*P	P	21 28 44.8	-0.5
SNVI				*e*S	S	21 29 02.5	+0.2
LCBS	La Ceiba	1.44	328	⇓*e*P	P	21 28 46.3	-0.4
LCBS				*e*S	S	21 29 03.5	-1.2
MIRN	Miramar	1.45	89	*e*P	P	21 28 46.5	-0.3
LFRS	El Faro	1.46	325	⇓*e*P	P	21 28 46.3	-0.7
LFRS				*e*S	S	21 29 03.5	-1.7
CNGN	Cerro Negro	1.46	87	*e*P	P	21 28 47.1	+0.1
LBRS	Las Brisas	1.55	328	⇑*e*P	P	21 28 48.2	+0.1
LBRS				*e*S	S	21 29 06.7	-0.5
COPN	Copaltepe	1.58	99	*e*P	P	21 28 47.9	-0.7
LFU	La Fuente	1.59	326	⇓*e*P	P	21 28 48.7	0.0
LFU				*e*S	S	21 29 07.5	-0.8
MOMJ	Momotombo	1.62	90	*e*P	P	21 28 48.5	-0.5
BOQS	Boqueron	1.68	321	*e*P	P	21 28 50.0	+0.2
BOQS				*e*S	S	21 29 11.1	+0.8
APYN	Apoyeque	1.81	96	⇑*e*P	P	21 28 51.2	-0.5
XAVN	Gruta Xavier	1.85	98	*e*P	P	21 28 52.5	+0.3
MGAN	Managua	1.92	98	*e*S	S	21 29 16.1	-0.1
MGAN				*i*		21 29 17.9	
	comp=E,437nm,0.7s						
TICN	Ticuantepe	1.96	101	*e*P	P	21 28 55.5	+1.7
WILN	Americas 2	1.98	97	*e*S	S	21 29 17.6	0.0
SBLS	San Blas	1.98	315	*e*P	P	21 28 54.2	+0.2
SBLS				*e*S	S	21 29 18.1	+0.6
SNJE	San Jose	1.99	316	⇑*e*P	P	21 28 54.1	0.0
SNJE				*e*S	S	21 29 19.4	+1.6
RTR	El Retiro	2.04	316	*e*P	P	21 28 55.0	+0.2
RTR				*e*S	S	21 29 19.7	+0.7
RBDL	Robledal	2.22	319	*e*P	P	21 28 57.9	+0.4
MTO2	Montecristo 2	2.27	330	*e*P	P	21 28 58.5	+0.3
JTS	JuntasAbangare	3.82	123	*e*P	P	21 29 21.4	+1.4
URSC	Urasca	5.04	120	*e*P	P	21 29 35.2	-1.8
LTX	Lajitas	22.14	322	*e*P	P	21 33 14.9	+0.8
	comp=E,1.6nm,0.6s,mb3.6						
TXAR	Lajitas Array	22.14	322	P	P	21 33 15.9	+1.9
	comp=E,1.2nm,0.6s,mb3.5,baz=137,slow=10,SNR=20						
PDAR	Pinedale Array	35.45	332	P	P	21 35 15.3	+0.7
	comp=E,0.5nm,0.9s,mb3.5,baz=129,slow=13,SNR=3.4						
REDW	Red Top Meadow	36.51	332	*e*P	P	21 35 24.8	+1.3
SCHQ	Schefferville	45.51	17	P	P	21 36 34.2	-3.0
	comp=E,2.4nm,0.8s,mb4.2,baz=237,slow=8.8,SNR=5.2						
SCHQ	Schefferville	45.51	17	P	P	21 36 34.2	-3.0
YKA	Yellowknife Ar	53.45	345	P	P	21 37 36.5	-1.6
	comp=E,0.5nm,0.6s,mb3.6,baz=132,slow=8.7,SNR=8.4						
YKA	Yellowknife Ar	53.45	345	P	P	21 37 36.5	-1.6
DLBC	Dease Lake	55.62	335	P	P	21 37 53.6	-0.3
	comp=E,2.0nm,0.7s,mb4.2,baz=147,slow=7.2,SNR=3.0						
ILAR	Eielson Array	65.75	336	P	P	21 39 00.9	-1.6
	comp=E,0.2nm,0.6s,mb3.3,baz=169,slow=5.6,SNR=5.0						
CMAR	Chiang Mai Arr	148.52	347	PKPbc	PKPdf	21 48 05.1	+5.9
	comp=E,0.4nm,0.9s,baz=344,slow=2.9,SNR=4.4						

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*NEIC **19** 21:33:41.0±2.8, 18.11S×178.92W, h580^{km}±32^{km}, mb3.8/8, Error ellipse: s-maj=20.8km s-min=13.0km az=175.0*
*IDC **19** 21:33:42.3±2.6, 18.23S×178.91W, h596^{km}±30^{km}, mb3.2/10, mb1 3.4/10, mb1mx3.4/15, Error ellipse: s-maj=22.6km s-min=12.6km az=157.0*
ISC 19 21:33:38.0±1.3**, 18.1S**±0.1×**178.93W**±0.10**, h555**^{km}±17^{km}**, n57, σ0^{s}92**/24**, mb3.6**/16**, 2C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	8.04	60	*e*P	P	21 35 36.5	-0.5
URZ	Urewera	20.38	189	P	P	21 37 37.0	-1.3
	6.0nm,0.7s,baz=304,slow=8.7,SNR=9.3						
STKA	Stephens Creek	38.10	241	P	P	21 40 12.4	+1.3
	1.5nm,0.6s,mb3.7,baz=72,slow=11,SNR=5.4						
STKA	Stephens Creek	38.10	241	*e*P	P	21 40 12.7	+1.7
WRAB	Tennant Creek	44.10	260	*e*P	P	21 40 59.0	0.0
	1.8nm,0.6s,mb3.8						
WRA	Warramunga Arr	44.11	260	P	P	21 40 58.9	-0.2
	1.0nm,0.4s,mb3.7,baz=95,slow=6.9,SNR=44						
WRA				PcP	PcP	21 42 31.5	-0.8
	0.6nm,0.4s,baz=98,slow=3.5,SNR=5.2						
WRA				S	S	21 46 48.0	-4.2
	0.3nm,0.7s,baz=98,slow=13,SNR=3.5						
ASAR	Alice Springs	44.26	254	P	P	21 41 00.8	+0.6
	7.7nm,0.6s,mb4.4,baz=88,slow=8.1,SNR=137						
ASAR				PcP	PcP	21 42 31.9	-1.0
	1.1nm,0.5s,baz=100,slow=4.2,SNR=6.4						
ASAR				S	S	21 46 52.6	-1.7
	1.0nm,0.9s,baz=77,slow=17,SNR=6.2						
ASPA	Alice Springs	44.27	254	*e*P	P	21 41 00.6	+0.3
PTCN	Pitcairn Islan	45.74	108	*e*P	P	21 41 13.6	+2.0
	197nm,0.3s						
KAKA	Kakadu	47.09	269	*e*P	P	21 41 22.1	+0.1
	5.1nm,0.6s,mb4.2						
FITZ	Fitzroy Crossi	52.51	261	*e*P	P	21 42 01.8	-0.1
	4.9nm,0.9s,mb3.8						
VNDA	Vanda	60.21	185	P	P	21 42 53.6	-0.4
	1.0nm,1.1s,mb3.1,baz=232,slow=22,SNR=3.7						
TPNV	Topopah Spring	80.51	46	*e*P	P	21 44 53.8	0.0
	8.5nm,1.5s,mb4.0						
MCK	McKinley	84.84	13	*e*P	P	21 45 13.8	-0.9
	0.3nm,0.4s,mb3.2						
HLID	Hailey	85.10	41	*e*P	P	21 45 16.9	+0.4
	0.8nm,0.8s,mb3.3						
ILAR	Eielson Array	86.19	13	P	P	21 45 19.7	-1.6
	0.6nm,0.5s,mb3.5,baz=231,slow=4.8,SNR=16						
TXAR	Lajitas Array	86.52	58	P	P	21 45 24.7	+1.1
	1.5nm,0.8s,mb3.7,baz=218,slow=5.4,SNR=9.4						
BW06	Boulder Array	87.83	44	*e*P	P	21 45 29.1	-0.4
	0.3nm,0.4s,mb3.4						
PDAR	Pinedale Array	87.83	44	P	P	21 45 29.2	-0.2
	0.7nm,0.7s,mb3.5,baz=265,slow=2.0,SNR=6.2						
CMAR	Chiang Mai Arr	88.48	290	P	P	21 45 34.7	+1.6
	0.9nm,0.8s,mb3.5,baz=102,slow=3.3,SNR=6.0						
SNAA	Sanae	90.42	179	P	P	21 45 40.1	-0.7
	0.4nm,0.5s,mb3.5,baz=296,slow=22,SNR=16						
SNAA	Sanae	90.42	179	*e*P	P	21 45 40.0	-0.8
	1.1nm,0.5s,mb3.9						
BVAR	Borovoye Array	116.68	321	PKP	PKPdf	21 51 18.4	-0.6
	1.4nm,0.4s,baz=118,slow=1.9,SNR=12						
ARCES	ARCESS Array B	126.42	350	PKP	PKPdf	21 51 36.8	-0.6
	2.3nm,0.7s,baz=94,slow=1.3,SNR=12						
FINES	FINESS Array B	133.24	344	PKP	PKPdf	21 51 50.4	-0.1
	2.1nm,0.8s,baz=90,slow=1.9,SNR=6.4						
HFS	Hagfors	137.05	351	PKhKP		21 51 50.4	
	2.5nm,0.9s,baz=63,slow=3.2,SNR=5.2						
BRTR	Keskin Array B	144.57	314	PKP	PKPdf	21 52 12.4	+1.0
	2.0nm,0.6s,baz=133,slow=3.3,SNR=11						
KOLS	Kolonicke sedl	144.78	336	*i* PKP	PKPdf	21 52 13.6	+2.2
KSP	Ksiaz	145.16	343	⇑*e*P	PKPdf	21 52 14.3	+2.3
UPC	Upice	145.53	343	*e*PKP	PKPdf	21 52 15.4	+2.7
CLL	Collm	145.54	347	⇑*i*PKP1	PKPbc	21 52 14.8	+0.9
DPC	Dobruska-Polom	145.59	343	*e*PKP	PKPdf	21 52 15.7	+2.9
BRG	Berggiesshubel	145.73	345	*i* P	PKPdf	21 52 15.9	+2.9
MLR	Muntele Rosu	145.74	328	PKPbc	PKPbc	21 52 15.6	+1.0
	2.8nm,0.5s,baz=337,slow=10,SNR=13						
PVCC	Panska Ves	145.90	345	*e*PKP	PKPdf	21 52 16.6	+3.3
PRU	Pruhonice	146.40	344	*e*PKP	PKPdf	21 52 17.7	+3.6
VYHS	Vyhne	146.42	338	*i* PKP	PKPdf	21 52 18.1	+3.9
NKC	Novy Kostel	146.67	347	*e*PKP	PKPdf	21 52 18.5	+3.9
KHC	Kasperske Hory	147.44	345	*e*PKP	PKPdf	21 52 20.6	+4.8
GERES	GERESS Array B	147.67	344	PKPbc	PKPdf	21 52 20.9	+4.7
	2.5nm,0.4s,baz=30,slow=3.2,SNR=29						
GIVF	Givet	147.94	355	*e*PKP1	PKPdf	21 52 21.5	+4.9
	15nm,0.7s						
BAIF	Baives	148.02	356	*e*PKP1	PKPdf	21 52 21.8	+5.1
	10nm,0.6s						
CDF	Champ du Feu	149.35	352	*e*PKP1	PKPdf	21 52 25.0	+6.1
	7.0nm,0.6s						
FLN	La Foliniere	149.39	2	*e*PKP1	PKPdf	21 52 24.6	+5.6
	7.6nm,0.4s						
MEZF	Maizieres J'vi	149.51	355	*e*PKP1	PKPdf	21 52 25.1	+6.0
LDF	La Druitiere	149.57	2	*e*PKP1	PKPdf	21 52 25.0	+5.8
	6.9nm,0.4s						
GRR	Gorron	149.75	3	*e*PKP1	PKPdf	21 52 25.7	+6.2
	19nm,0.6s						
HAU	Haudompre	149.87	353	*e*PKP1	PKPdf	21 52 26.1	+6.4
	6.9nm,0.6s						
HINF	Hinteralfeld	149.99	352	*e*PKP1	PKPdf	21 52 26.5	+6.6
DAVOX	Davos	150.49	348	PKPbc	PKPdf	21 52 28.2	+7.4
	7.9nm,0.7s,baz=177,slow=1.3,SNR=15						
SSF	Saint Saulge	151.05	357	*e*PKP1	PKPdf	21 52 29.0	+7.5
	5.3nm,0.5s						
MFF	Saint Martin d	151.56	2	*e*PKP1	PKPdf	21 52 29.9	+7.6
LPL	La Plagne	152.26	351	*e*PKP1	PKPdf	21 52 32.4	+9.1
LPG	La Plagne	152.28	351	*e*PKP1	PKPdf	21 52 33.1	+10
IDI	Anoyia	152.80	314	PKPbc	PKPdf	21 52 34.1	+10
	4.8nm,0.6s,baz=168,slow=22,SNR=2.9						
ORIF	Oris-en-Rattie	152.96	352	*e*PKP1	PKPdf	21 52 34.2	+10
MBDF	Montbardon	153.03	351	*e*PKP1	PKPdf	21 52 33.6	+9.2
	16nm,1.1s						

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*NEIC **19** 21:38:41.7, 14.57N×93.42W, h18^{km}, MD4.1(MEX), After MEX.*
MEX 19 21:38:41.7±0.4**, 14.57N**×**93.42W, h18**^{km}±44^{km}**, MD4.1, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CCIG	Comitan	2.10	36	*e*P	Pn	21 39 13.5	-3.2
CCIG				*i* S	Sn	21 39 37.6	-4.9
SCX	San Cristobal	2.28	19	*e*P	Pn	21 39 15.7	-3.5
SCX				*e*S	Sn	21 39 42.5	-4.5
CMIG	Matias Romero	2.87	331	*e*P	Pn	21 39 23.9	-3.8
CMIG				*i* S	Sn	21 39 57.3	-4.8
OXX	Oaxaca	4.04	309	*i* P	Pn	21 39 43.5	-0.8
VHO	Vista Hermosa	4.04	308	*e*P	Pn	21 39 38.1	-6.2
VHO				*e*S	Sn	21 40 26.4	-5.4

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*NNC **19** 21:52:09.8±39.0, 36.05N×81.27E, Error ellipse: s-maj=1726.8km s-min=400.4km az=92.0*
*IDC **19** 21:52:54.1±1.1, 40.15N×77.77E, mb3.7/10, mb1 4.0/12, mb1mx3.9/21, ML3.5/2, Error ellipse: s-maj=26.0km s-min=20.4km az=25.0*
*BJI **19** 21:52:55.7, 40.18N×77.65E, h23^{km}, mb3.8, ML4.0*
*MOS **19** 21:52:57.0±1.8, 40.11N×77.84E, h33^{km}, mb3.9/1, Error ellipse: s-maj=25.4km s-min=11.0km az=108.0*
*NEIC **19** 21:53:00.4±2.5, 40.36N×77.80E, h37^{km}±18^{km}, mb3.7/2, Error ellipse: s-maj=26.2km s-min=13.3km az=182.0*
ISC 19 21:52:56.5±0.6**, 39.96N**±0.03×**77.88E**±0.06**, h40**^{km}±8^{km}**, n41, σ1^{s}22**/47**, mb3.6**/11**, 2C-1D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	1.54	254	⇓*i*PG	P	21 53 23.0	+1.1
KSH				SG	S	21 53 45.3	+4.4
KSH				Smax			
	comp=N,2µm,0.6s						
KSH				Smax			
	comp=E,2µm,0.8s						
ULHL	Ulahol	2.60	332	P	P	21 53 37.3	+0.2
	SNR=53						
KZA	Kyzart	2.91	318	P	P	21 53 42.5	+1.1
	SNR=180						
UCH	Uchtor	3.41	313	P	P	21 53 48.3	-0.3
	SNR=81						
TKM2	Tokmak 2	3.42	331	P	P	21 53 48.6	-0.2
	SNR=74						
KBK	Karagaybulak	3.49	322	P	P	21 53 49.7	0.0
	SNR=31						
AAK	Ala-Archa	3.70	317	*e*PN	P	21 53 51.2	-1.5
AAK				*e*S	S	21 54 41.0	+5.4
AAK	Ala-Archa	3.70	317	*e*Pn	P	21 53 51.2	-1.5
AAK				*e*		21 53 55.5	
AAK				*e*S	S	21 54 41.0	+5.5
FRU	Bishkek	3.78	321	*e*PN	P	21 53 55.0	+1.2
FRU				*i*		21 54 46.0	
FRU				pmax	pmax		
	comp=Z,160nm,1.4s						
FRU				smax			
	comp=N,2µm,1.4s						
AML	Almayashu	3.84	306	P	P	21 53 55.0	+0.3
	SNR=46						
CHMS	Chumysh	3.84	323	P	P	21 53 54.3	-0.5
	SNR=37						
EKS2	Erkin-Say	4.11	312	P	P	21 53 58.5	0.0
	SNR=15						
USP	Ospenovka	4.17	324	P	P	21 53 58.8	-0.5
	SNR=8.5						
MK31	Makanchi Array	7.55	24	⇑P	P	21 54 45.2	-1.6
	comp=N,5.0nm,0.5s,baz=194,slow=13,SNR=43						
MK31				⇑S	S	21 56 47.6	+36
	comp=N,23nm,0.9s,baz=209,slow=29						
DLH	Dalhousie	7.56	192	*e*P	P	21 54 49.0	+2.1
DLH				*e*S	S	21 56 07.0	-5.3
WMQ	Urumqi	8.27	59	*e*P	P	21 55 00.0	+3.2
WMQ				S	S	21 56 30.5	+0.5
WMQ				Smax			
	comp=N,46nm,1.1s						
WMQ				Smax			
	comp=E,45nm,0.9s						
DDI	Dehra Dun	9.61	179	*e*P	P	21 55 14.5	-0.8
DDI				*e*S	S	21 57 04.7	+1.5
KOLN	Koldanda	13.04	157	*e*P	P	21 56 00.7	-1.1
	comp=E,6.2nm,0.4s						
GKN	Gorkha	13.17	153	*e*P	P	21 56 02.0	-1.4
	comp=E,8.4nm,0.3s						
KKN	Kakani	13.59	151	*e*P	P	21 56 07.7	-1.3
DMN	Daman	13.69	152	*e*P	P	21 56 09.5	-0.8
	comp=E,5.3nm,0.3s						
GUN	Gumba	13.72	149	*e*P	P	21 56 10.5	-0.1
	comp=E,15nm,0.4s						
PKI	Pulchoki	13.84	151	*e*P	P	21 56 11.2	-1.0
	comp=E,9.4nm,0.5s						
BVAR	Borovoye Array	14.04	341	Pn	P	21 56 10.1	-4.5
	comp=E,0.2nm,0.3s,baz=157,slow=19,SNR=10.0						
BVAR				Lg		22 00 02.4	
	comp=E,0.3nm,0.3s,baz=139,slow=27,SNR=5.9						
ZAL	Zalesovo	14.75	16	Pn	P	21 56 20.8	-3.1
	comp=E,0.6nm,0.3s,baz=258,slow=14,SNR=13						
NVS	Novosibirsk	15.32	12	*i* P	P	21 56 33.5	+2.2
NVS				pmax	pmax		
	comp=Z,8.0nm,1.0s						
NVS				pmax	pmax		
	comp=N,5.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.7s						
GTA	Gaotai	16.89	85	*e*P	P	21 56 58.3	+7.0
GTA				AP		21 57 06.0	

GTA				XP		21 57 09.8	
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s						
ARU	**Arti**	**20.80**	**329**	*e*P	**P**	**21 57 35.5**	**-1.1**
ARU				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ARU	**Arti**	**20.80**	**329**	*e*P	**P**	**21 57 35.5**	**-1.0**
	comp=Z,3.2nm,0.7s						
SONM	**Songino Array**	**21.91**	**60**	P	**P**	**21 57 49.9**	**+2.1**
	comp=Z,0.6nm,0.7s,mb3.1,baz=256,slow=10,SNR=7.7						
KMI	**Kunming**	**25.54**	**118**	*e*P	**P**	**21 58 27.1**	**+3.9**
KMI				AMB	AMB		
	comp=Z,5.0nm,1.3s,mb3.9						
BRTR	**Keskin Array B**	**33.71**	**284**	P	**P**	**21 59 37.8**	**+1.8**
	comp=Z,0.7nm,0.7s,mb3.7,baz=98,slow=9.4,SNR=4.8						
FINES	**FINESS Array B**	**37.88**	**322**	P	**P**	**22 00 10.1**	**-0.9**
	comp=Z,2.4nm,0.9s,mb4.0,baz=124,slow=10.0,SNR=7.2						
ARCES	**ARCESS Array B**	**40.20**	**334**	P	**P**	**22 00 29.4**	**-0.8**
	comp=Z,2.2nm,0.7s,mb4.0,baz=106,slow=8.8,SNR=10						
NOA	**NORSAR Array B**	**45.01**	**321**	P	**P**	**22 01 08.1**	**-1.3**
	comp=Z,0.9nm,0.8s,mb3.7,baz=91,slow=7.3,SNR=2.7						
GERES	**GERESS Array B**	**45.46**	**303**	P	**P**	**22 01 13.1**	**-0.1**
	comp=Z,0.6nm,0.8s,mb3.5,baz=76,slow=4.0,SNR=2.0						
INK	**Inuvik**	**69.52**	**12**	P	**P**	**22 04 02.0**	**-0.3**
	comp=Z,1.3nm,0.9s,mb3.9,baz=292,slow=3.7,SNR=3.3						
INK	**Inuvik**	**69.52**	**12**	P	**P**	**22 04 01.6**	**-0.8**
	comp=Z,0.3nm,0.5s,mb3.5						
ILAR	**Eielson Array**	**69.88**	**19**	P	**P**	**22 04 06.3**	**+1.7**
	comp=Z,0.4nm,0.9s,mb3.4,baz=302,slow=6.6,SNR=4.8						
YKA	**Yellowknife Ar**	**77.40**	**6**	P	**P**	**22 04 48.2**	**-0.2**
	comp=Z,0.7nm,0.4s,mb3.9,baz=346,slow=5.6,SNR=16						
WRA	**Warramunga Arr**	**79.47**	**127**	P	**P**	**22 05 03.8**	**+3.1**
	comp=Z,0.5nm,1.1s,mb3.4,baz=327,slow=6.2,SNR=4.1						

GUC 19 21:55:45.1±0.4**,28.57S**×**71.06W,h42**^{km}±5^{km}**,ML3.6,**
1C-1D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VACH	**Vallenar**	**0.26**	**92**	⇓*i*P	P	21 55 57.8	+4.6
VACH				*i* S	S	21 56 04.1	+5.2
VACH				AMP		21 56 05.0	
	comp=E,14μm,0.1s						
CPCH	**Copiapo**	**1.35**	**28**	⇑*i*P	P	21 56 08.4	+0.4
CPCH				*i* S	S	21 56 26.2	+1.2
CPCH				AMP		21 56 30.6	
	comp=N,5μm,0.1s						
TLL	**Tololo Astrono**	**1.61**	**172**	*e*P	P	21 56 12.4	+0.8
TLL				*i* S	S	21 56 33.5	+2.2
TLL				AMP		21 56 40.0	
	comp=N,240nm,0.7s						
CMCH	**Combarbala**	**2.60**	**179**	*e*P	P	21 56 26.0	+0.3
CMCH				AMP		21 57 11.1	
	comp=E,435nm,0.7s						

IDC ***19*** *22:14:58.9±1.7,6.93S×129.52E,mb4.1/2,mb1 4.7/5,*
mb1mx4.3/12,ML4.6/3,MS3.8/1,Ms1 3.8/1,ms1mx2.9/19,
Error ellipse: s-maj=63.7km s-min=24.0km az=75.0
NEIC ***19*** *22:15:08.0±2.3,7.04S×129.47E,h76*^{km}*±24*^{km}*,mb3.9/2,*
Error ellipse: s-maj=26.4km s-min=16.6km az=63.0
ISC 19 22:15:10.3±1.7**,7.44S**±0.06×**129.3E**±0.1**,h131**^{km}±19^{km}**,**
n20,σ**1**^{s}**21**/27**,mb4.2**/10**,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**6.06**	**150**	*e*P	**P**	**22 16 39.7**	**+1.1**
	78nm,0.2s						
KAKA				*e*S	**S**	**22 17 45.6**	**-1.7**
FITZ	**Fitzroy Crossi**	**11.18**	**198**	*e*P	**P**	**22 17 49.9**	**+2.7**
	7.2nm,0.2s						
FITZ				*e*S	**S**	**22 19 48.2**	**-1.9**
FITZ	**Fitzroy Crossi**	**11.18**	**198**	Pn	**P**	**22 17 49.4**	**+2.1**
	3.8nm,0.3s,baz=26,slow=9.0,SNR=42						
FITZ				Sn	**S**	**22 19 48.5**	**-1.6**
	10nm,0.3s,baz=170,slow=15,SNR=11						
WRAB	**Tennant Creek**	**13.36**	**159**	*e*Pn	**P**	**22 18 14.0**	**-1.6**
	36nm,0.4s						
WRAB				*e*Sn	**S**	**22 20 35.5**	**-5.8**
WRA	**Warramunga Arr**	**13.36**	**159**	Pn	**P**	**22 18 14.4**	**-1.3**
	5.9nm,0.3s,baz=342,slow=14,SNR=143						
WRA				Sn	**S**	**22 20 36.0**	**-5.4**
	2.9nm,0.3s,baz=329,slow=22,SNR=7.1						
MBWA	**Marble Bar**	**16.47**	**213**	*e*Pn	**P**	**22 19 01.1**	**+6.0**
MBWA				*e*Sn	**S**	**22 21 52.0**	**-0.9**
ASAR	**Alice Springs**	**16.73**	**165**	P	**P**	**22 18 59.5**	**+1.2**
	1.8nm,0.3s,baz=336,slow=10.0,SNR=66						
ASAR				S	**S**	**22 21 59.7**	**+1.0**
	0.6nm,0.3s,baz=348,slow=25,SNR=4.7						
ASPA	**Alice Springs**	**16.73**	**165**	*e*P	**P**	**22 18 59.9**	**+1.6**
ASPA				*e*S	**S**	**22 21 59.1**	**+0.4**
STKA	**Stephens Creek**	**26.89**	**156**	P	**P**	**22 20 45.1**	**+4.1**
JOW	**Kunigami**	**34.08**	**358**	LR	LR	22 33 05.4	
	comp=Z,169nm,21.9s,baz=213,slow=32						
CMAR	**Chiang Mai Arr**	**39.47**	**311**	P	**P**	**22 22 30.1**	**+0.6**
	1.7nm,0.6s,mb3.8,baz=136,slow=7.2,SNR=17						
GUN	**Gumba**	**54.71**	**312**	*e*P	**P**	**22 24 28.9**	**+0.4**
	8.0nm,0.4s,mb4.8						
PKI	**Pulchoki**	**54.87**	**311**	*e*P	**P**	**22 24 29.5**	**-0.2**
	4.2nm,0.6s,mb4.4						
KKN	**Kakani**	**55.09**	**311**	*e*P	**P**	**22 24 31.8**	**+0.6**
	3.7nm,0.4s,mb4.5						
GKN	**Gorkha**	**55.68**	**311**	*e*P	**P**	**22 24 35.1**	**-0.4**
	5.5nm,0.3s,mb4.9						
KOLN	**Koldanda**	**56.34**	**310**	*e*P	**P**	**22 24 40.3**	**+0.1**
	4.5nm,0.3s,mb4.8						
ULN	**Ulaanbaatar**	**58.46**	**343**	*e*P	**P**	**22 24 52.9**	**-1.9**
	0.6nm,0.6s,mb3.6						
SONM	**Songino Array**	**58.63**	**342**	P	**P**	**22 24 55.0**	**-1.0**
	0.4nm,0.7s,mb3.4,baz=151,slow=7.8,SNR=3.8						
ZAL	**Zalesovo**	**71.66**	**334**	P	**P**	**22 26 20.2**	**+0.7**
	0.7nm,0.3s,mb3.9,baz=51,slow=2.0,SNR=4.7						
SBA	**Scott Base**	**73.00**	**172**	*e*P	**P**	**22 26 31.2**	**+4.3**
	0.6nm,0.4s,mb3.7						

IDC ***19*** *22:19:23.1±1.5,24.04S×66.84W,h189*^{km}*±12*^{km}*,mb3.5/6,*
mb1 3.8/8,mb1mx3.6/14,Error ellipse: s-maj=26.3km
s-min=18.4km az=48.0
NEIC ***19*** *22:19:23.3±1.1,23.97S×66.89W,h191*^{km}*±10*^{km}*,mb4.1/2,*
Error ellipse: s-maj=18.3km s-min=12.3km az=197.0
ISC 19 22:19:23.3±1.2**,23.9S**±0.1×**66.9W**±0.1**,h201**^{km}±11^{km}**,n16,**
σ**0**^{s}**79**/15**,mb3.7**/7**,Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**2.28**	**303**	P	**P**	**22 20 05.3**	**+0.1**
	112nm,0.3s,baz=133,slow=8.4,SNR=1686						
LVC				S	**S**	**22 20 38.4**	**+0.8**
	50nm,0.3s,baz=246,slow=22,SNR=29						
ARE	**Arequipa**	**8.57**	**329**	*e*P	**P**	**22 21 24.0**	**-0.9**
ARE				*e*S	**S**	**22 22 59.0**	**-0.9**
BDFB	**Brasilia**	**19.51**	**69**	P	**P**	**22 23 37.0**	**-0.2**
	1.2nm,0.3s,baz=249,slow=11,SNR=23						
BAO	**Brasilia Array**	**19.54**	**69**	P	**P**	**22 23 37.5**	**+0.1**
SNAA	**Sanae**	**59.41**	**161**	P	**P**	**22 29 04.2**	**-2.3**
	0.4nm,0.7s,mb3.2,baz=328,slow=7.8,SNR=6.7						
SNAA	**Sanae**	**59.41**	**161**	*e*P	**P**	**22 29 04.4**	**-2.1**
TXAR	**Lajitas Array**	**63.66**	**324**	P	**P**	**22 29 35.2**	**-0.2**
	0.8nm,0.9s,mb3.4,baz=149,slow=7.3,SNR=6.6						
PDAR	**Pinedale Array**	**77.12**	**329**	P	**P**	**22 30 56.8**	**+0.7**
	0.3nm,0.5s,mb3.2,baz=153,slow=6.6,SNR=4.8						
ULM	**Lac du Bonnet**	**78.16**	**341**	P	**P**	**22 31 02.5**	**+0.9**
	0.6nm,0.3s,mb3.6,baz=136,slow=7.7,SNR=4.5						
ULM	**Lac du Bonnet**	**78.16**	**341**	P	**P**	**22 31 01.9**	**+0.3**
	1.7nm,0.5s,mb3.9						
SCHQ	**Schefferville**	**78.39**	**0**	P	**P**	**22 31 03.2**	**+0.4**
	2.2nm,0.8s,mb3.8,baz=194,slow=17,SNR=2.3						
LSZ	**Lusaka**	**88.40**	**106**	*e*P	**P**	**22 31 55.2**	**+1.0**
	4.3nm,1.2s,mb4.2						
YKA	**Yellowknife Ar**	**94.06**	**340**	P	**P**	**22 32 19.5**	**+0.2**
	4.0nm,1.2s,mb4.3,baz=130,slow=4.5,SNR=15						
ASAR	**Alice Springs**	**128.62**	**205**	PKP	PKPdf	22 38 08.2	+1.0
	2.8nm,1.3s,baz=150,slow=3.2,SNR=4.9						
WRA	**Warramunga Arr**	**131.79**	**207**	PKP	PKPdf	22 38 14.4	+1.1
	0.4nm,0.3s,baz=155,slow=1.9,SNR=25						
ZAL	**Zalesovo**	**143.22**	**28**	PKP	PKPdf	22 38 33.1	+0.1
	1.0nm,0.7s,baz=158,slow=6.7,SNR=5.8						

CSEM ***19*** *22:39:09.5,55.44N×158.06W,h10*^{km}*,mb5.5*
MOS ***19*** *22:39:09.8±0.9,55.48N×158.21W,h10*^{km}*,mb5.7/44,*
MS4.7/33,Error ellipse: s-maj=13.8km s-min=5.2km
az=91.5
BJI ***19*** *22:39:10.0,55.48N×158.50W,h12*^{km}*,mB5.5,mb5.5,*
Ms5.1,Msz4.9
SYO ***19*** *22:39:13.5,55.49N×158.12W,h24*^{km}*,MB5.2*
NEIC ***19*** *22:39:14.1±0.1,55.35N×158.00W,mb5.4/172,MS4.8/5,*
ML5.4(AEIC),Error ellipse: s-maj=2.5km s-min=1.9km
az=178.0
NEIC Felt [III] at Perryville.
HRVD ***19*** *22:39:14.1±0.2,55.14N×157.81W,h32*^{km}*,MW5.2/60,*
Centroid moment Tensor Solution. LP body waves:
s57,c95;Mantle waves: s60,c109; Half duration: 1^{s}*0*
Moment tensor: Scale 10^{16}*Nm;* M_{rr}*4.75±.21;*
$M_{\theta\theta}$*-3.83±.19;* $M_{\phi\phi}$*-0.93±.17;* $M_{r\theta}$*6.11±.23;* $M_{\theta\phi}$*-3.51±.12;*
$M_{\phi r}$*2.66±.22; Best double couple:* M_0*8.63×10*^{16} *NP1:*
ϕ_s*223°,δ21°,λ69°. NP2:*ϕ_s*65°,δ71°,λ98°. Principal axes:*
T 8, Plg64°, Azm348°; N 1.27, Plg7°, Azm243°; P -9.27,
Plg25°, Azm149°; nsta1 refers to body waves,
cutoff=40s. nsta2 refers to surface waves, cutoff=50s.
BGS ***19*** *22:39:15.0±3.0,55.35N×158.00W,h33*^{km}
IDC ***19*** *22:39:16.8±2.4,55.38N×157.99W,h55*^{km}*±21*^{km}*,mb4.8/27,*
mb1 4.9/32,mb1mx4.9/34,ML5.0/4,MS4.7/27,Ms1 4.7/27,
ms1mx4.6/35,Error ellipse: s-maj=14.7km s-min=9.3km
az=171.0
ISC 19 22:39:12.6±0.1**,55.41N**±0.02×**157.96W**±0.02**,h30**^{km}**,**
h30^{km}±.6^{km}**:pP-P,n660,**σ**1**^{s}**15**/651**,mb5.3**/262**,MS4.8**/60**,**
94C-11D,Alaska Peninsula

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ANPK	**Aniakchak Peak**	**1.44**	**356**	P	**Pn**	**22 39 40.7**	**+3.6**
PVV	**Pavlof Volcano**	**2.19**	**271**	P	**Pn**	**22 39 48.4**	**+0.7**
DOL	**Dolgoi Island**	**2.25**	**265**	P	**Pn**	**22 39 49.0**	**+0.4**
DOL				S	**Sn**	**22 40 18.4**	**+2.8**
HAG	**Hague Volcano**	**2.25**	**269**	P	**Pn**	**22 39 49.6**	**+0.9**
DTNA	**Dutton South F**	**2.47**	**266**	P	**Pn**	**22 39 52.2**	**+0.5**
DTNA				S	**Sn**	**22 40 22.8**	**+1.6**
DT1	**Dutton Round H**	**2.49**	**265**	P	**Pn**	**22 39 52.3**	**+0.3**
DRIA	**Deer Island**	**2.51**	**262**	P	**Pn**	**22 39 52.9**	**+0.6**
BALA	**Baldy Mountain**	**2.77**	**268**	P	**Pn**	**22 39 57.5**	**+1.5**
KJL	**Kejulik**	**2.96**	**25**	P	**Pn**	**22 40 01.3**	**+2.6**
CAHL	**Cahill**	**3.03**	**28**	P	**Pn**	**22 40 01.8**	**+2.1**
ACHA	**Angle Creek He**	**3.16**	**26**	P	**Pn**	**22 40 04.4**	**+2.8**
ACHA				S	**Sn**	**22 40 44.1**	**+5.3**
FALS	**False Pass**	**3.18**	**262**	P	**Pn**	**22 40 02.1**	**+0.3**
FALS				S	**Sn**	**22 40 42.0**	**+2.8**
KAWH	**Katmai**	**3.45**	**29**	P	**Pn**	**22 40 07.4**	**+1.7**
KAIC	**Katmai Ikaglui**	**3.48**	**26**	P	**Pn**	**22 40 08.1**	**+2.1**
SSLN	**Shishaldin Nor**	**3.52**	**263**	P	**Pn**	**22 40 07.4**	**+0.7**
SSLS	**Shishaldin Sou**	**3.54**	**261**	P	**Pn**	**22 40 07.9**	**+0.9**
SSLS				S	**Sn**	**22 40 49.8**	**+1.4**
KAHC	**Katmai Hardscr**	**3.63**	**25**	P	**Pn**	**22 40 10.0**	**+1.8**
WTUG	**Tugumak**	**3.73**	**264**	P	**Pn**	**22 40 09.4**	**-0.3**
KDAK	**Kodiak Island**	**3.81**	**49**	P	**Pn**	**22 40 10.4**	**-0.4**
KDAK				S	**Sn**	**22 40 57.6**	**+2.5**
WESN	**West Dahl Nort**	**3.91**	**260**	P	**Pn**	**22 40 12.3**	**+0.2**
WFAR	**Faris Peak**	**4.02**	**260**	P	**Pn**	**22 40 14.0**	**+0.2**
SYI	**Shuyak Island**	**4.42**	**41**	P	**Pn**	**22 40 20.3**	**+0.8**
LVA	**Lava Point**	**4.84**	**258**	P	**Pn**	**22 40 24.8**	**-0.6**
UNV	**Unalaska Valle**	**5.20**	**256**	P	**Pn**	**22 40 28.8**	**-1.7**
MTBL	**Makushin Table**	**5.26**	**258**	P	**Pn**	**22 40 30.2**	**-1.1**
XLV	**Seldovia**	**5.28**	**37**	P	**Pn**	**22 40 32.8**	**+1.2**
ILW	**Iliamna West**	**5.33**	**27**	P	**Pn**	**22 40 33.6**	**+1.3**
MSW	**Makushin Switc**	**5.34**	**257**	P	**Pn**	**22 40 30.9**	**-1.5**
INE	**Iliamna NE**	**5.35**	**27**	P	**Pn**	**22 40 34.0**	**+1.3**
MCIR	**Makushin Cirqu**	**5.38**	**258**	P	**Pn**	**22 40 32.1**	**-0.9**
ILIM	**Iliamna**	**5.40**	**28**	P	**Pn**	**22 40 34.6**	**+1.4**
CNPM	**China Poot**	**5.50**	**39**	P	**Pn**	**22 40 34.9**	**+0.3**
RSO	**Redoubt South**	**5.78**	**27**	P	**Pn**	**22 40 39.9**	**+1.3**
NCT	**North Crescent**	**5.82**	**25**	P	**Pn**	**22 40 40.5**	**+1.2**
RDN	**Redoubt North**	**5.82**	**26**	P	**Pn**	**22 40 40.6**	**+1.4**
DFR	**Drift River**	**5.91**	**26**	P	**Pn**	**22 40 41.5**	**+1.1**
SEW	**Seward**	**6.55**	**41**	P	**Pn**	**22 40 47.6**	**-1.9**
SLKM	**Skilak Lake**	**6.56**	**36**	P	**Pn**	**22 40 48.7**	**-1.0**
SLKM	**Skilak Lake**	**6.56**	**36**	P	**Pn**	**22 40 48.8**	**-1.0**
SPU	**Mount Spurr**	**6.57**	**26**	*e*P	**Pn**	**22 40 48.5**	**-1.3**
NIKO	**Nikolski**	**6.84**	**254**	*e*Pn	**Pn**	**22 40 51.4**	**-2.2**
MPA	**Moose Pass**	**6.85**	**38**	P	**Pn**	**22 40 52.4**	**-1.3**
STLK	**Strandline Lak**	**6.90**	**25**	P	**Pn**	**22 40 54.8**	**+0.3**
SPIA	**Saint Paul Isl**	**7.07**	**290**	P	**Pn**	**22 40 56.8**	**0.0**
FIB	**Fire Island**	**7.08**	**32**	*e*Pn	**Pn**	**22 40 54.3**	**-2.6**
LTI	**Latouche**	**7.13**	**45**	P	**Pn**	**22 40 56.2**	**-1.4**
RC01	**Rabbit Creek A**	**7.16**	**34**	P	**Pn**	**22 40 57.2**	**-0.8**
PWA	**Palmer West**	**7.55**	**31**	P	**Pn**	**22 41 03.0**	**-0.6**
TT01	**Tatalina**	**7.59**	**7**	P	**Pn**	**22 41 04.4**	**+0.3**
PMR	**Palmer**	**7.73**	**33**	P	**Pn**	**22 41 04.7**	**-1.4**
GHO	**Glory Hole Cre**	**7.93**	**33**	P	**Pn**	**22 41 07.7**	**-1.1**
GLI	**Glacier Island**	**7.94**	**42**	P	**Pn**	**22 41 06.0**	**-3.0**
FID	**Port Fidalgo**	**8.10**	**44**	P	**P**	**22 41 08.5**	**-2.7**
SML	**Sawmill**	**8.15**	**34**	P	**P**	**22 41 10.1**	**-1.8**
EYAK	**Cordova Ski Ar**	**8.28**	**47**	P	**P**	**22 41 11.4**	**-2.4**
VLZ	**Valdez**	**8.39**	**42**	P	**P**	**22 41 13.1**	**-2.1**
SCM	**Sheep Creek Mo**	**8.49**	**36**	P	**P**	**22 41 14.8**	**-1.9**
DIV	**Divide**	**8.60**	**43**	P	**P**	**22 41 15.3**	**-2.9**
KTH	**Kantishna Hill**	**8.92**	**21**	P	**P**	**22 41 21.0**	**-1.5**
TRF	**Thorofare Moun**	**8.96**	**23**	P	**P**	**22 41 21.8**	**-1.3**
RND	**Reindeer**	**9.26**	**26**	P	**P**	**22 41 25.6**	**-1.7**
GCSA	**Galena City Sc**	**9.39**	**3**	P	**P**	**22 41 29.3**	**+0.3**
MCK	**McKinley**	**9.51**	**25**	P	**P**	**22 41 28.9**	**-1.7**
GLB	**Gilahina Butte**	**9.56**	**45**	P	**P**	**22 41 29.9**	**-1.4**
BWN	**Browne**	**9.77**	**22**	P	**P**	**22 41 32.3**	**-1.8**
ANM	**Nome**	**9.90**	**341**	*e*P	**P**	**22 41 37.1**	**+1.2**
PAX	**Paxson**	**9.91**	**35**	P	**P**	**22 41 34.0**	**-2.0**
ATKA	**Atka Island**	**10.12**	**258**	P	**P**	**22 41 34.3**	**-4.7**
THY	**Trims Highway**	**10.14**	**33**	P	**P**	**22 41 38.6**	**-0.6**
MLY	**Manley**	**10.29**	**17**	P	**P**	**22 41 39.8**	**-1.4**
MENT	**Mentasta**	**10.49**	**38**	*e*P	**P**	**22 41 43.1**	**-0.8**
HDA	**Harding Lake**	**10.56**	**27**	P	**P**	**22 41 42.5**	**-2.5**
MDM	**Murphy Dome**	**10.72**	**23**	P	**P**	**22 41 44.1**	**-3.0**
COLA	**College**	**10.73**	**24**	*i* P	**P**	**22 41 44.5**	**-2.8**
COLA	**College**	**10.73**	**24**	*e*P	**P**	**22 41 44.1**	**-3.2**
	78nm,1.1s						
IM3	**Indian Mountai**	**10.81**	**9**	P	**P**	**22 41 47.9**	**-0.4**
PNL	**Peninsula**	**10.84**	**59**	P	**P**	**22 41 46.5**	**-2.3**
ILAR	**Eielson Array**	**10.88**	**26**	P	**P**	**22 41 45.5**	**-3.8**
	3.3nm,0.3s,baz=218,slow=13,SNR=175						
ILAR				S	**S**	**22 43 41.5**	**-9.4**
	0.2nm,0.3s,baz=222,slow=13,SNR=2.6						
ILAR				LR	LR	22 46 12.6	
	comp=Z,4μm,21.9s,baz=240,slow=38						
ILAR	**Eielson Array**	**10.88**	**26**	P	**P**	**22 41 45.5**	**-3.8**
ILAR				S	**S**	**22 43 41.6**	**-9.4**
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ILAR				MLR	MLR		
	comp=Z,4μm,21.9s						
GAMB	**Gambell**	**10.88**	**326**	P	**P**	**22 41 48.6**	**-0.6**
IMA	**Indian Mountai**	**10.90**	**9**	*e*P	**P**	**22 41 49.8**	**+0.3**
	comp=Z,58nm,1.1s						
BCA3	**Beaver Creek A**	**11.26**	**40**	P	**P**	**22 41 52.2**	**-2.3**
COLD	**Coldfoot**	**12.42**	**14**	P	**P**	**22 42 07.0**	**-3.0**
SIT	**Sitka**	**12.69**	**73**	*e*P	**P**	**22 42 11.2**	**-2.5**
	comp=Z,16nm,0.3s						
DAWY	**Dawson**	**12.72**	**39**	P	**P**	**22 42 13.5**	**-0.6**
BESE	**Bessie Mountai**	**12.97**	**66**	P	**P**	**22 42 12.9**	**-4.5**
WHY	**Whitehorse**	**13.27**	**57**	P	**P**	**22 42 16.3**	**-5.1**
BM3	**Burnt Mountain**	**13.59**	**22**	P	**P**	**22 42 22.5**	**-2.9**
DLBC	**Dease Lake**	**15.50**	**67**	P	**P**	**22 42 51.8**	**+1.4**
	comp=Z,1.5nm,0.3s,baz=255,slow=16,SNR=24						
DLBC				S	**S**	**22 45 36.8**	**-4.6**
	comp=Z,0.3nm,0.3s,baz=122,slow=20,SNR=2.5						
DLBC				LR	LR	22 48 54.4	
	comp=Z,2μm,18.5s,baz=100,slow=37						
DLBC	**Dease Lake**	**15.50**	**67**	*e*P	**P**	**22 42 52.1**	**+1.7**
FX1	**Attu Island--F**	**17.05**	**273**	P	**P**	**22 43 07.5**	**-2.6**
	comp=Z,12nm,0.3s,baz=124,slow=15,SNR=18						
FX1				LR	LR	22 49 40.3	
	comp=Z,113nm,19.7s,baz=98,slow=37						
FX1	**Attu Island--F**	**17.05**	**273**	P	**P**	**22 43 07.5**	**-2.6**
FX1				pmax	pmax		
	comp=Z,12nm,0.3s						
FX1				MLR	MLR		
	comp=Z,113nm,19.7s						
FX1	**Attu Island--F**	**17.05**	**273**	*e*P	**P**	**22 43 07.3**	**-2.8**
INK	**Inuvik**	**17.14**	**31**	P	**P**	**22 43 09.6**	**-1.6**
	comp=Z,32nm,0.3s,baz=232,slow=16,SNR=97						
INK				S	**S**	**22 46 25.9**	**+6.5**
	comp=Z,0.6nm,0.3s,baz=53,slow=31,SNR=12						
INK				LR	LR	22 50 24.5	
	comp=Z,5μm,19.1s,baz=227,slow=39						
INK	**Inuvik**	**17.14**	**31**	P	**P**	**22 43 09.6**	**-1.6**
INK				S	**S**	**22 46 25.9**	**+6.6**
INK				pmax	pmax		
	comp=Z,32nm,0.3s						
INK				smax			
	comp=E,1.0nm,0.3s						
INK				MLR	MLR		
	comp=Z,5μm,19.1s						
INK	**Inuvik**	**17.14**	**31**	*e*P	**P**	**22 43 09.2**	**-2.0**
	comp=Z,238nm,0.7s						
BBB	**Bella Bella**	**17.86**	**88**	LR	LR	22 48 47.6	
	comp=Z,2μm,19.6s,baz=303,slow=32						
BILL	**Bilibino**	**20.75**	**322**	*i* P	**P**	**22 43 52.9**	**-0.1**
PGC	**Sidney**	**22.11**	**93**	*e*P	**P**	**22 44 06.3**	**-0.6**
OCWA	**Octopus Mounta**	**22.17**	**96**	*e*P	**P**	**22 44 07.5**	**0.0**
	comp=Z,279nm,1.3s,mb5.5						
YKW3	**Yellowknife Ar**	**23.06**	**54**	*e*P	**P**	**22 44 16.0**	**0.0**
YKA	**Yellowknife Ar**	**23.07**	**54**	P	**P**	**22 44 15.7**	**-0.3**
	comp=Z,23nm,0.6s,mb4.8,baz=266,slow=8.4,SNR=210						
YKA				S	**S**	**22 48 23.1**	**+2.4**
	comp=Z,1.7nm,0.8s,baz=270,slow=12,SNR=2.9						
YKA				LR	LR	22 54 07.2	
	comp=Z,2μm,18.5s,MS4.5,baz=285,slow=39						
YKA	**Yellowknife Ar**	**23.07**	**54**	P	**P**	**22 44 15.7**	**-0.3**
YKA				S	**S**	**22 48 23.1**	**+2.4**
YKA				pmax	pmax		
	comp=Z,23nm,0.6s						
YKA				smax			
	comp=E,2.0nm,0.8s						
YKA				MLR	MLR		
	comp=Z,2μm,18.5s						
YKA	**Yellowknife Ar**	**23.07**	**54**	P	**P**	**22 44 15.7**	**-0.3**
YKA				S	**S**	**22 48 23.1**	**+2.4**
YKA				LR	LR	22 54 07.2	
TTW	**Tolt Reservoir**	**23.61**	**94**	P		22 44 33.0	
LON	**Longmire**	**24.07**	**96**	P		22 44 37.2	
COR	**Corvallis**	**24.51**	**102**	*e*P	**P**	**22 44 30.2**	**0.0**
EBG	**Ellensburg**	**24.68**	**94**	P	**P**	**22 44 34.9**	**+3.1**
PET	**Petropavlovsk**	**25.18**	**283**	*e*P	**P**	**22 44 35.5**	**-1.0**
PET				*e*S	**S**	**22 48 52.9**	**-4.1**
PET				*e*SSS	SSS	22 50 08.6	-6.0
PET				pmax	pmax		
	comp=Z,159nm,1.0s,mb5.5						
PET				pmax	pmax		
	comp=Z,300nm,13.4s						
PET				smax			
	comp=E,200nm,11.7s						
PET				MLR	MLR		
	comp=Z,2μm,21.0s,MS4.6						
PET	**Petropavlovsk**	**25.18**	**283**	*i* P	**P**	**22 44 35.0**	**-1.5**
HAWA	**Hanford**	**25.56**	**94**	*e*P	**P**	**22 44 40.7**	**+0.5**
	comp=Z,56nm,1.0s,mb5.0						
NEW	**Newport**	**25.92**	**89**	LR	LR	22 53 16.1	
	comp=Z,2μm,21.7s,MS4.6,baz=201,slow=32						
NEW	**Newport**	**25.92**	**89**	*e*P	**P**	**22 44 44.4**	**+0.9**
	comp=Z,36nm,1.0s,mb4.9						
SEY	**Seymchan**	**25.93**	**307**	*e*P	**P**	**22 44 42.6**	**-0.9**
SEY				*e*		22 45 27.4	
SEY				*e*S	**S**	**22 49 07.7**	**-1.7**
SEY				*e*SS	SS	22 50 09.1	-6.9
SEY				pmax	pmax		
	comp=E,50nm,0.9s						
SEY				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.2						
SEY				pmax	pmax		
	comp=N,9.0nm,0.8s						
SEY				smax			
	comp=N,920nm,24.1s						
SEY				smax			
	comp=E,910nm,15.4s						
SEY				MLR	MLR		
	comp=N,3μm,18.0s,MS5.1						
SEY				MLR	MLR		
	comp=Z,11μm,18.0s,MS5.4						
SEY				MLR	MLR		
	comp=E,4μm,16.0s,MS5.1						
HUMO	**Hull Mountain**	**25.98**	**105**	*e*P	**P**	**22 44 44.2**	**+0.1**
	comp=E,27nm,1.0s,mb4.7						
KRMB	**Red Mountain**	**26.19**	**108**	*e*P	**P**	**22 44 46.7**	**+0.7**
YBH	**Yreka Blue Hor**	**26.70**	**106**	P	**P**	**22 44 52.0**	**+1.2**
	comp=E,11nm,1.1s,mb4.3,baz=325,slow=6.7,SNR=8.1						
YBH	**Yreka Blue Hor**	**26.70**	**106**	P	**P**	**22 44 52.0**	**+1.2**
YBH				pmax	pmax		
	comp=Z,11nm,1.1s						
YBH	**Yreka Blue Hor**	**26.70**	**106**	*e*P	**P**	**22 44 51.5**	**+0.7**
	comp=Z,84nm,1.6s,mb5.0						
KHMM	**Horse Mountain**	**26.74**	**109**	*e*P	**P**	**22 44 52.6**	**+1.5**
MA2	**Magadan**	**27.30**	**300**	*i* P	**P**	**22 44 57.9**	**+1.9**
MA2				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.7						
WALA	**Waterton Lakes**	**27.34**	**85**	*e*P	**P**	**22 44 56.3**	**-0.2**
	comp=Z,119nm,1.3s,mb5.3						
WDC	**Whiskeytown Da**	**27.59**	**108**	*e*P	**P**	**22 44 57.3**	**-1.5**
	comp=Z,48nm,1.4s,mb4.9						
BMO	**Blue Mountains**	**27.73**	**95**	*e*P	**P**	**22 45 00.1**	**0.0**
	comp=Z,50nm,1.5s,mb4.9						
LTIM	**Timbered Crate**	**27.75**	**106**	P	**P**	**22 45 01.6**	**+1.2**
MOD	**Modoc**	**27.92**	**103**	*e*P	**P**	**22 45 02.3**	**+0.5**
	comp=Z,11nm,1.1s,mb4.4						
HOPS	**Hopland**	**28.44**	**111**	*e*P	**P**	**22 45 06.6**	**+0.1**
	comp=Z,341nm,2.1s,mb5.6						
MSO	**Missoula**	**28.50**	**89**	*e*P	**P**	**22 45 06.5**	**-0.5**
	comp=Z,7.6nm,1.4s						
CHMT	**Chamberlain Mo**	**28.85**	**88**	*e*P	**P**	**22 45 09.9**	**-0.3**
NSHM	**Saint Helena R**	**29.03**	**111**	*e*P	**P**	**22 45 12.1**	**+0.2**
OHCM	**Honcut**	**29.05**	**108**	*e*P	**P**	**22 45 11.2**	**-0.8**
HRY	**Holter Researc**	**29.77**	**87**	*e*P	**P**	**22 45 18.5**	**+0.1**
WCN	**Washoe City**	**30.01**	**106**	*e*P	**P**	**22 45 20.6**	**0.0**
	comp=Z,11nm,1.1s,mb4.5						
HLID	**Hailey**	**30.16**	**95**	*e*P	**P**	**22 45 22.3**	**+0.4**
	comp=Z,26nm,1.1s,mb4.9						
MCMT	**McKenzie Canyo**	**30.28**	**91**	*e*P	**P**	**22 45 23.8**	**+0.8**
CMB	**Columbia Colle**	**30.58**	**109**	*e*P	**P**	**22 45 25.6**	**0.0**
	comp=Z,49nm,1.3s,mb5.2						
RES	**Resolute Bay**	**30.62**	**28**	*e*P	**P**	**22 45 24.8**	**-0.9**
	comp=Z,29nm,0.8s,mb5.2						
BMN	**Battle Mountai**	**30.63**	**102**	*e*P	**P**	**22 45 25.6**	**-0.5**
	comp=Z,30nm,1.3s,mb5.0						
QLMT	**Earthquake Lak**	**31.09**	**90**	*e*P	**P**	**22 45 29.9**	**-0.2**
LRV	**Little Rabbit**	**31.43**	**112**	*e*P	**P**	**22 45 33.1**	**-0.1**
YMR	**Madison River**	**31.45**	**90**	*e*P	**P**	**22 45 34.2**	**+0.9**
MNV	**Mina**	**31.51**	**106**	*e*P	**P**	**22 45 34.0**	**+0.2**
	comp=Z,60nm,1.3s,mb5.3						
ELK	**Elko**	**31.52**	**100**	*e*P	**P**	**22 45 34.3**	**+0.3**
	comp=Z,7.5nm,0.9s,mb4.5						
YNR	**Norris Junctio**	**31.59**	**90**	*e*P	**P**	**22 45 35.4**	**+0.9**
OMM	**Old Mammoth Mi**	**31.64**	**108**	*e*P	**P**	**22 45 35.5**	**+0.5**
YFT	**Old Faithful**	**31.66**	**90**	*e*P	**P**	**22 45 35.8**	**+0.7**
IMW	**Indian Meadow**	**31.94**	**91**	*e*P	**P**	**22 45 38.3**	**+0.8**
MTUM	**Tungsten Hills**	**32.06**	**108**	*e*P	**P**	**22 45 39.4**	**+0.7**
MOOW	**Moose Ponds**	**32.14**	**91**	*e*P	**P**	**22 45 40.6**	**+1.3**
TPAW	**Teton Pass**	**32.18**	**92**	*e*P	**P**	**22 45 39.8**	**+0.1**
HVU	**Hansel Valley**	**32.23**	**96**	*e*P	**P**	**22 45 40.2**	**+0.1**
WUWY	**Wally Ulrich**	**32.27**	**92**	*e*P	**P**	**22 45 40.5**	**+0.1**
TPH	**Tonopah**	**32.27**	**105**	*e*P	**P**	**22 45 40.6**	**+0.1**
	comp=Z,53nm,1.1s,mb5.3						
LOHW	**Long Hollow**	**32.30**	**91**	*e*P	**P**	**22 45 40.9**	**+0.2**
SNOW	**Snow King Moun**	**32.31**	**92**	*e*P	**P**	**22 45 43.1**	**+2.3**
REDW	**Red Top Meadow**	**32.32**	**92**	P	**P**	**22 45 41.4**	**+0.6**
AHID	**Auburn Hatcher**	**32.55**	**93**	*e*P	**P**	**22 45 44.6**	**+1.7**
	comp=Z,23nm,1.0s,mb5.0						
BGU	**Big Grassy Mou**	**32.65**	**97**	P	**P**	**22 45 44.6**	**+0.8**
SPUT	**South Promonto**	**32.73**	**96**	*e*P	**P**	**22 45 43.3**	**-1.1**
LAO	**LASA Array**	**32.97**	**83**	*e*P	**P**	**22 45 47.2**	**+0.7**
	comp=Z,115nm,1.4s,mb5.6						
TRCR	**Troy Canyon**	**32.98**	**103**	*e*P	**P**	**22 45 46.6**	**-0.1**
HWUT	**Hardware Ranch**	**33.03**	**95**	*e*P	**P**	**22 45 47.8**	**+0.7**
	comp=Z,138nm,1.8s,mb5.6						
NOQ	**North Oquirrh**	**33.35**	**97**	P	**P**	**22 45 49.8**	**-0.1**
DAC	**Darwin (Calif)**	**33.38**	**108**	*e*P	**P**	**22 45 51.3**	**+1.1**
	comp=Z,41nm,1.1s,mb5.3						
PDAR	**Pinedale Array**	**33.43**	**92**	P	**P**	**22 45 51.1**	**+0.6**
	comp=Z,4.2nm,0.7s,mb4.5,baz=323,slow=4.4,SNR=30						
TCUT	**Toone Canyon**	**33.44**	**96**	*e*P	**P**	**22 45 52.0**	**+1.4**
TPNV	**Topopah Spring**	**33.62**	**106**	*e*P	**P**	**22 45 52.1**	**-0.2**
	comp=Z,18nm,1.1s,mb4.9						
FCC	**Fort Churchill**	**33.70**	**57**	*e*P	**P**	**22 45 52.4**	**-0.3**
	comp=Z,93nm,1.1s,mb5.6						
TIXI	**Tiksi**	**33.76**	**327**	⇑*i*P	**P**	**22 45 51.4**	**-1.7**
TIXI				*e*		22 47 00.9	
TIXI				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.6						
TIXI				MLR	MLR		
	comp=Z,3μm,15.0s,MS5.2						
TIXI	**Tiksi**	**33.76**	**327**	*i* P	**P**	**22 45 52.3**	**-0.8**
JLU	**Jordanelle**	**33.76**	**96**	*e*P	**P**	**22 45 53.6**	**+0.2**

NLU	North Lily Min	33.84	98	*e*P	P	22 45 53.9	-0.2
DAU	Daniels Canyon	34.00	96	*e*P	P	22 45 56.4	+1.0
MPU	Maple Canyon	34.05	97	*e*P	P	22 45 56.5	+0.6
ARUT	Antelope Range	34.58	102	*e*P	P	22 46 00.6	+0.1
MWC	Mount Wilson	34.67	111	*e*P	P	22 46 00.5	-0.9
MVU	Marysvale	34.76	100	*e*P	P	22 46 02.8	+0.7
	comp=Z,19nm,1.1s,mb4.9						
MSU	Marysvale	34.77	100	*e*P	P	22 46 02.8	+0.6
TMUT	Trail Mountain	34.78	98	*e*P	P	22 46 02.7	+0.5
SRU	San Rafael	35.29	97	*e*P	P	22 46 07.2	+0.5
NEN	Nelson	35.34	106	*e*P	P	22 46 07.4	+0.3
RWWY	Rawlins	35.46	91	*e*P	P	22 46 08.2	+0.2
LDFC	Landfair	35.62	107	*e*P	P	22 46 08.9	-0.5
PFO	Pinyon Flat Ob	36.00	110	*e*P	P	22 46 11.7	-0.9
	comp=Z,62nm,1.3s,mb5.4						
YAK	Yakutsk	36.31	311*c*	*i*P	P	22 46 13.2	-1.7
YAK				*i* *PP	pP	22 46 21.2	-2.7
YAK				*i*		22 48 37.1	
YAK				*i*		22 56 35.2	
YAK				pmax	pmax		
	comp=Z,125nm,0.9s,mb5.8						
YAK				pmax	pmax		
	comp=N,23nm,1.2s						
YAK				pmax	pmax		
	comp=E,45nm,1.2s						
YAK				MLR	MLR		
	comp=Z,593nm,16.0s,MS4.5						
YAK				MLR	MLR		
	comp=N,300nm,17.0s,MS4.4						
YAK				MLR	MLR		
	comp=E,413nm,16.0s,MS4.4						
YAK	Yakutsk	36.31	311⇑	*i*P	P	22 46 13.2	-1.7
BAR	Barrett	36.60	111	*e*P	P	22 46 16.8	-0.9
PV10	Paradox Valley	36.64	97	*e*P	P	22 46 19.0	+1.0
PHWY	Pilot Hill	36.71	90	P	P	22 46 18.6	0.0
ULM	Lac du Bonnet	36.76	71	P	P	22 46 18.7	-0.1
	comp=E,11nm,0.8s,mb4.8,baz=296,slow=9.4,SNR=18						
ULM				LR	LR	23 01 31.2	
	comp=E,2µm,18.2s,MS4.8,baz=290,slow=36						
ULM	Lac du Bonnet	36.76	71	*e*P	P	22 46 18.6	-0.2
	comp=E,22nm,1.0s,mb4.9						
YSS	Yuzh-Sakhalins	37.06	282⇑	*e*P	P	22 46 20.0	-1.5
YSS				*e*S	S	22 52 09.0	+4.1
YSS				pmax	pmax		
	comp=Z,90nm,1.3s,mb5.4						
YSS				pmax	pmax		
	comp=E,80nm,1.2s						
YSS				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.6						
YSS				MLR	MLR		
	comp=E,700nm,21.0s						
YSS	Yuzh-Sakhalins	37.06	282	*i* P	P	22 46 21.2	-0.3
PV01	Paradox Valley	37.07	97	*e*P	P	22 46 22.1	+0.5
ISCO	Idaho Springs	37.62	92	*e*P	P	22 46 27.2	+1.1
	comp=E,4.0nm,0.7s,mb4.3						
ASAJ	Asahikawa	38.86	279	P	P	22 46 35.1	-1.4
	comp=E,125nm,0.9s,mb5.6,baz=46,slow=3.5,SNR=30						
ASAJ				LR	LR	23 01 06.2	
	comp=E,519nm,21.4s,MS4.3,baz=176,slow=34						
ASAJ	Asahikawa	38.86	279	P	P	22 46 35.2	-1.4
ASAJ				pmax	pmax		
	comp=Z,125nm,1.0s						
ASAJ				MLR	MLR		
	comp=Z,519nm,21.4s						
SDCO	Great Sand Dun	39.09	94	*e*P	P	22 46 39.5	+1.0
	comp=Z,103nm,1.3s,mb5.4						
SDCO				*e*pP	pP	22 46 47.8	+0.3
TUC	Tucson	40.07	105	*e*P	P	22 46 46.8	+0.1
	comp=Z,44nm,1.5s,mb5.0						
EYMN	Ely	40.43	72	*e*P	P	22 46 48.8	-0.7
	comp=Z,58nm,1.1s,mb5.2						
ANMO	Albuquerque	40.53	98	P	P	22 46 51.4	+0.9
	comp=Z,5.4nm,1.1s,baz=325,slow=10,SNR=8.6						
ANMO				PcP	PcP	22 48 51.7	-1.4
	comp=Z,6.8nm,0.8s,baz=287,slow=3.1,SNR=5.3						
ANMO				LR	LR	23 02 26.8	
	comp=Z,1µm,18.8s,MS4.8,slow=34						
ANMO	Albuquerque	40.53	98	P	P	22 46 51.4	+1.0
ANMO						22 48 51.7	
ANMO				pmax	pmax		
	comp=Z,5.0nm,1.1s						
ANMO				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ANMO				MLR	MLR		
	comp=Z,1µm,18.8s						
ANMO	Albuquerque	40.53	98	*e*P	P	22 46 52.3	+1.9
	comp=Z,65nm,1.5s,mb5.0						
ANMO				*e*pP	pP	22 46 59.0	-0.5
LAZ	Ladron	40.55	100	*e*P	P	22 46 51.9	+1.3
LENM	Lemitar	40.81	100	*e*P	P	22 46 54.2	+1.4
CLNS	Chul'man	40.89	305	*e*P	P	22 46 49.9	-3.3
CLNS				*e**PP	pP	22 46 54.8	-7.4
CLNS				*e*PPP	PP	22 48 26.1	-4.4
CLNS				*e*		22 52 54.4	
CLNS				pmax	pmax		
	comp=Z,105nm,1.0s,mb5.4						
CLNS				pmax	pmax		
	comp=N,37nm,0.8s						
CLNS				pmax	pmax		
	comp=E,72nm,1.0s						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.6s						
CLNS				MLR	MLR		
	comp=N,900nm,20.9s,MS4.7						
CLNS				MLR	MLR		
	comp=Z,2µm,27.6s						
CLNS				MLR	MLR		
	comp=E,100nm,17.2s,MS4.7						
CLNS				MLR	MLR		
	comp=Z,1µm,16.0s,MS4.8						
CLNS				MLR	MLR		
	comp=N,300nm,20.0s						
CLNS				MLR	MLR		
	comp=E,200nm,15.0s						
LPM	Los Pinos Moun	40.90	99	*e*P	P	22 46 55.0	+1.5
LPM				*e*pP	pP	22 47 02.7	+0.2
BNM	Barren Site	41.02	99	*e*P	P	22 46 55.6	+1.1
BNM				*e*pP	pP	22 47 03.5	0.0
KLR	Kul'dur	41.72	292	*e*P	P	22 46 55.7	-4.3
KLR				*e*SS	Sx	22 56 52.5	
KLR				pmax	pmax		
	comp=N,20nm,1.2s						
KLR				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.0						
KLR				MLR	MLR		
	comp=N,1µm,14.0s,MS5.1						
KLR				MLR	MLR		
	comp=E,1µm,14.0s,MS5.1						
KLR				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.0						
KSU1	Kansas State U	43.22	86	*e*P	P	22 47 11.9	-0.5
KSU1				*e*pP	pP	22 47 20.3	-1.1
AMTX	Amarillo	43.28	94	*e*P	P	22 47 12.8	-0.2
	comp=Z,17nm,1.0s,mb4.7						
CPRX	Cap Rock	43.40	98	*e*P	P	22 47 15.2	+1.3
MNTX	Cornudas Mount	43.54	101	*e*P	P	22 47 15.9	+0.9
	comp=Z,71nm,1.1s,mb5.3						
MNTX				*e*pP	pP	22 47 23.6	-0.5
GDL2	Guadalupe Moun	43.73	99	*e*P	P	22 47 17.3	+0.7
GDL2				*e*pP	pP	22 47 25.4	-0.2
CLNB	Carlsbad	43.96	99	*e*P	P	22 47 19.0	+0.6
CLNB				*e*pP	pP	22 47 27.2	-0.2
WMOK	Wichita Mounta	45.04	92	*e*P	P	22 47 26.8	-0.3
	comp=Z,21nm,1.0s,mb4.9						
WMOK				*e*pP	pP	22 47 34.8	-1.3
BOD	Bodaibo	45.23	311⇓	*i*P	P	22 47 26.4	-1.8
DAG	Danmarks Havn	45.59	12⇓	*i*P	P	22 47 31.1	+0.1
DAG				pmax	pmax		
	comp=Z,240nm,1.0s,mb6.1						
DAG	Danmarks Havn	45.59	12⇓	*i*P	P	22 47 31.1	+0.1
	comp=Z,242nm,1.0s,mb6.1						
DAG				*i*		22 47 42.9	
SUMG	Summit	45.69	21	*e*P	P	22 47 32.4	+0.7
	comp=Z,95nm,1.2s,mb5.6						
SUMG				*e*pP	pP	22 47 44.0	+3.3
MDJ	Mudanjiang	45.75	288	P	P	22 47 30.4	-2.2
MDJ				AP	pP	22 47 36.5	-5.1
MDJ				XP	sP	22 47 39.0	-6.3
MDJ				PP	PP	22 49 19.3	-0.8
MDJ				SCP		22 53 00.8	
MDJ				PCS		22 53 03.5	
MDJ				S	S	22 54 11.9	-1.4
MDJ				AMB	AMB		
	comp=Z,39nm,1.1s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,488nm,4.0s						
MDJ				LR	LR		
	comp=N,529nm,19.3s						
MDJ				LR	LR		
	comp=E,652nm,24.5s						
MDJ				LR	LR		
	comp=Z,1µm,23.0s,MS4.7						
MDJ	Mudanjiang	45.75	288	*e*P	P	22 47 30.6	-2.0
LTX	Lajitas	46.29	101	*e*P	P	22 47 37.2	+0.2
	comp=Z,17nm,1.2s,mb4.8						
LTX				*e*pP	pP	22 47 45.3	-0.8
TXAR	Lajitas Array	46.29	101	P	P	22 47 37.4	+0.3
	comp=Z,3.8nm,0.6s,mb4.5,baz=300,slow=5.7,SNR=61						
TXAR				PcP	PcP	22 49 10.3	-2.2
	comp=Z,1.6nm,0.6s,baz=297,slow=4.0,SNR=3.1						
TXAR				ScP		22 53 01.0	
	comp=Z,1.5nm,0.9s,baz=270,slow=2.5,SNR=4.4						
TXAR				LR	LR	23 06 02.1	
	comp=Z,2µm,18.5s,MS5.1,baz=290,slow=35						
MAJO	Matsushiro	46.41	274	*e*P	P	22 47 36.4	-1.5
	comp=Z,83nm,1.0s,mb5.6						
MAT	Matsushiro	46.41	274	P	P	22 47 36.8	-1.1
MAT				S	S	22 54 14.0	-8.9
MAT	Matsushiro	46.41	274	*e*P	P	22 47 37.0	-0.9
	comp=Z,88nm,1.0s,mb5.6						
MAT				*e*S	S	22 54 15.0	-7.9
MAT				LR	LR		
	comp=Z,740nm,22.0s,MS4.6						
SLM	Saint Louis	47.15	81	*e*P	P	22 47 42.3	-1.5
	comp=Z,10nm,0.4s,mb5.1						
SLM				*e*pP	pP	22 47 51.4	-1.5
FVM	French Village	47.50	82	*e*P	P	22 47 44.6	-1.9
	comp=Z,16nm,1.0s,mb4.9						
FVM				*e*pP	pP	22 47 53.1	-2.5
JCT	Junction City	47.60	97	*e*P	P	22 47 46.7	-0.7
	comp=Z,24nm,0.7s,mb5.3						
JCT				*e*pP	pP	22 47 54.8	-1.8
HIA	Hailar	47.88	299	*e*P	P	22 47 47.2	-2.1
	comp=Z,44nm,1.4s,mb5.3						
MIAR	Mount Ida	48.15	88	*e*P	P	22 47 50.0	-1.7
	comp=Z,18nm,1.0s,mb5.1						
MIAR				*e*pP	pP	22 47 59.1	-1.6
SCHQ	Schefferville	48.44	51	P	P	22 47 52.7	-0.8
	comp=Z,24nm,0.7s,mb5.3,baz=316,slow=7.7,SNR=72						
SCHQ				LR	LR	23 09 42.6	
	comp=Z,1µm,19.2s,MS4.9,baz=156,slow=38						
SCHQ	Schefferville	48.44	51	*e*P	P	22 47 52.1	-1.4
	comp=Z,18nm,0.5s,mb5.3						
CN2	Changchun	48.52	290	⇑P	P	22 47 53.1	-1.3
CN2				*e*XP	sP	22 48 03.6	-3.5
CN2				*e*S	S	22 54 49.6	-3.1
CN2				AMB	AMB		
	comp=Z,190nm,0.9s,mb6.1						
CN2				AMB	AMB		
	comp=Z,400nm,5.0s						
CN2				LR	LR		
	comp=N,800nm,18.0s,MS4.9						
CN2				LR	LR		
	comp=E,800nm,18.0s,MS4.9						
CN2				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
UALR	University of	48.69	87	*e*P	P	22 47 54.3	-1.5
	comp=Z,15nm,0.8s,mb5.1						
BLO	Bloomington	48.86	78	*e*P	P	22 47 55.5	-1.5
	comp=Z,28nm,0.6s,mb5.5						
BLO				*e*pP	pP	22 48 04.2	-2.0
SADO	Sadowa	49.06	68	P	P	22 47 56.5	-1.9
	comp=Z,7.2nm,0.5s,mb4.9,baz=304,slow=11,SNR=8.5						
SADO				LR	LR	23 08 43.6	
	comp=Z,619nm,19.1s,MS4.6,baz=112,slow=36						
USIN	University of	49.06	80	*e*P	P	22 47 57.1	-1.5
	comp=Z,89nm,0.7s,mb5.9						
USIN				*e*pP	pP	22 48 05.6	-2.2
HBAR	Harrisburg	49.08	85	*e*P	P	22 47 56.8	-2.0
UTMT	University of	49.54	82	*e*P	P	22 48 00.9	-1.4
	comp=Z,128nm,0.8s,mb6.0						
NATX	Nacogdoches	49.57	91	*e*P	P	22 48 02.0	-0.6
	comp=Z,20nm,0.8s,mb5.2						
NATX				*e*pP	pP	22 48 10.2	-1.6
HALT	Halls	49.58	83	*e*P	P	22 48 02.2	-0.4
WCI	Wyandotte Cave	49.65	79	*e*P	P	22 48 01.0	-2.2
	comp=Z,17nm,1.3s,mb4.9						
ACSO	Alum Creek Sta	50.09	75	*e*P	P	22 48 04.5	-1.9
HKT	Hockley	50.25	94	*e*P	P	22 48 07.2	-0.6
HKT				*e*pP	pP	22 48 15.8	-1.3
WVT	Waverly	50.27	82	*e*P	P	22 48 06.5	-1.4
	comp=Z,57nm,1.0s,mb5.5						
WVT				*e*pP	pP	22 48 15.1	-2.1
SCO	Scoresbysund	50.53	18	*i* P	P	22 48 09.6	+0.2
SCO				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
SCO	Scoresbysund	50.53	18	*i* P	P	22 48 09.6	+0.2
	comp=Z,15nm,0.9s,mb4.9						
OXF	Oxford	50.54	85	*e*P	P	22 48 08.4	-1.6
	comp=Z,61nm,0.9s,mb5.5						
OXF				*e*pP	pP	22 48 16.9	-2.3
ALLY	Alegheny Colle	50.65	71	*e*P	P	22 48 09.4	-1.3
ALLY				*e*pP	pP	22 48 17.3	-2.6
SNY	Shenyang	50.88	289	⇑P	P	22 48 11.3	-1.1
SNY				AP	pP	22 48 22.9	+1.3
SNY				AMB	AMB		
	comp=Z,180nm,1.0s,mb6.0						
SNY				LR	LR		
	comp=N,840nm,19.2s						
SNY				LR	LR		
	comp=Z,930nm,18.5s,MS4.8						
GENY	Geneseo	51.12	69	*e*P	P	22 48 12.8	-1.5
MSNY	Massena	51.14	65	*e*P	P	22 48 12.2	-2.1
MSNY				*e*pP	pP	22 48 21.4	-2.2
CBIJ	Chichi jima	51.14	262	LR	LR	23 06 51.3	
	comp=Z,483nm,19.9s,MS4.5,baz=7.8,slow=32						
KS15	Wonju Array Si	51.60	282	*e*P	P	22 48 17.0	-1.0
SWET	Sewanee	52.00	81	*e*P	P	22 48 18.9	-2.2
NCB	Newcomb	52.18	65	*e*P	P	22 48 20.8	-1.5
	comp=Z,78nm,1.1s,mb5.5						
MCWV	Mont Chateau	52.21	73	*e*P	P	22 48 20.7	-1.8
	comp=Z,30nm,0.8s,mb5.3						
MIV	Mineville/With	52.46	65	*e*P	P	22 48 22.9	-1.5
MIV				*e*pP	pP	22 48 31.4	-2.2
BINY	Binghamton	52.49	68	*e*P	P	22 48 23.2	-1.4
	comp=Z,23nm,1.0s,mb5.1						
BINY				*e*pP	pP	22 48 32.0	-1.9
SSPA	Standing Stone	52.58	71	*e*P	P	22 48 23.3	-2.0
	comp=Z,35nm,1.0s,mb5.2						
SSPA				*e*pP	pP	22 48 32.0	-2.5
CPCT	Cooper Cave	52.63	80	*e*P	P	22 48 23.4	-2.4
CPCT				*e*pP	pP	22 48 31.9	-3.0
ACCN	Adirondack Com	52.88	65	*e*P	P	22 48 25.9	-1.5
LRAL	Lakeview Retre	52.99	84	*e*P	P	22 48 25.2	-3.3
	comp=Z,27nm,1.5s,mb5.0						
LRAL				*e*pP	pP	22 48 34.1	-3.6
IRK	Irkutsk	53.10	310	*e*P	P	22 48 27.2	-1.9
MYNC	Murphy	53.12	80	*e*P	P	22 48 27.3	-2.1
	comp=Z,39nm,1.3s,mb5.2						
MYNC				*e*pP	pP	22 48 35.7	-2.9
HNH	Hanover	53.36	64	*e*P	P	22 48 29.4	-1.7
	comp=Z,2.8nm,1.1s						
BLA	Blacksburg	53.64	75	*e*P	P	22 48 31.2	-2.0
	comp=Z,19nm,1.0s,mb5.0						
TLY	Talaya	53.78	310	*e*P	P	22 48 33.2	-0.8
TLY				*e*S	S	22 56 03.4	-1.4
TLY				pmax	pmax		
	comp=Z,101nm,1.1s,mb5.7						
TLY				MLR	MLR		
	comp=Z,729nm,16.0s,MS4.8						
TLY	Talaya	53.78	310⇑	*i*P	P	22 48 33.3	-0.7
SDMD	Soldier's Deli	54.01	71	*e*P	P	22 48 33.8	-2.0
SDMD				*e*pP	pP	22 48 42.3	-2.8
CBN	Corbin	54.59	72	*e*P	P	22 48 38.0	-2.1
	comp=Z,73nm,1.1s,mb5.6						
CBN				*e*pP	pP	22 48 46.6	-2.7
WES	Weston	54.80	65	*e*P	P	22 48 40.1	-1.5
	comp=Z,64nm,1.0s,mb5.6						
ZAK	Zakamensk	54.87	309⇓	*i*P	P	22 48 40.5	-1.6
ZAK				*e*		22 49 43.5	
MOY	Mondy	54.93	312	*e*P	P	22 48 42.2	-0.3
ULN	Ulaanbaatar	54.98	305*c*	*i*P	P	22 48 41.9	-1.0
ULN	Ulaanbaatar	54.98	305⇑	*i*P	P	22 48 41.9	-1.0
KEV	Kevo	55.09	358	*e*p	P	22 48 42.2	-1.2
	comp=Z,32nm,0.6s,mb5.5						
KEV	Kevo	55.09	358	*e*P	P	22 48 42.2	-1.2
KEV				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.5						
TRO	Tromso	55.25	1	*e*P	P	22 48 43.2	-1.4
TRO				AMb	AMB	22 48 44.5	
	comp=Z,108nm,1.4s,mb5.7						
TRO				*e*sP	sP	22 48 55.0	-2.3
TRO	Tromso	55.25	1	*e*P	P	22 48 43.2	-1.4
	comp=Z,108nm,1.4s,mb5.7						
JSC	Jenkinsville	55.31	79	*e*P	P	22 48 43.1	-2.3
JSC				*e*pP	pP	22 48 51.4	-3.2
SONM	Songino Array	55.31	305	P	P	22 48 44.3	-1.0
	comp=Z,25nm,0.8s,mb5.3,baz=46,slow=6.1,SNR=148						
SONM				PcP	PcP	22 49 45.0	-0.5
	comp=Z,19nm,0.8s,baz=32,slow=2.1,SNR=8.3						
ARCES	ARCESS Array B	55.34	359	P	P	22 48 43.9	-1.4
	comp=Z,15nm,0.6s,mb5.2,baz=21,slow=7.6,SNR=78						
ARCES				PcP	PcP	22 49 44.9	-0.5
	comp=Z,16nm,0.9s,baz=14,slow=7.4,SNR=3.5						
ARCES				LR	LR	23 15 09.1	
	comp=Z,509nm,18.2s,MS4.6,baz=7.7,slow=39						
ARCES	ARCESS Array B	55.34	359	P	P	22 48 43.9	-1.3
ARCES						22 49 44.9	
ARCES				pmax	pmax		
	comp=Z,15nm,0.6s						
ARCES				pmax	pmax		
	comp=Z,16nm,0.9s						
ARCES				MLR	MLR		
	comp=Z,509nm,18.2s						
ARE0	ARCESS Array S	55.34	359	*e*P	P	22 48 43.7	-1.5
ARE0				*e*pP	pP	22 48 55.0	+0.5
KTK1	Kautokeino	55.89	359	*e*P	P	22 48 49.1	0.0
KTK1				AMb	AMB	22 48 50.3	
	comp=Z,91nm,1.5s,mb5.6						
KTK1				*e*sP	sP	22 49 01.6	-0.3
KTK1	Kautokeino	55.89	359	*e*P	P	22 48 49.1	0.0
	comp=Z,91nm,1.5s,mb5.6						
BJI	Beijing	56.09	293	P	P	22 48 49.5	-1.5
BJI				S	S	22 56 33.3	-2.7
BJI				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.4						
BJI				AMB	AMB		
	comp=Z,405nm,5.2s						
BJI				LR	LR		
	comp=N,879nm,22.1s,MS4.9						
BJI				LR	LR		
	comp=E,597nm,17.7s,MS4.9						
BJI				LR	LR		
	comp=Z,720nm,23.7s						
BJT	Baijiatuau	56.11	293	*e*P	P	22 48 49.2	-1.9
	comp=Z,32nm,1.0s,mb5.3						
COW	Cow Castle Cre	56.28	79	*e*P	P	22 48 51.0	-1.4
NHSC	New Hope	56.78	79	P	P	22 48 54.0	-2.1
APA	Apatity	57.05	355	*e*P	P	22 48 54.4	-3.1
APA				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.3						
APA				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
HHC	Hu-ho-hao-te	57.89	296	*e*P	P	22 49 02.9	-0.8
HHC				AP	pP	22 49 10.6	-2.4
HHC				XP	sP	22 49 13.8	-2.7
HHC				PCP	PcP	22 49 55.4	-0.3
HHC				PP	PP	22 51 11.8	-1.9
HHC				S	S	22 56 56.8	-2.9
HHC				XS		22 57 09.8	
HHC				SCS	ScS	22 58 46.6	-0.7
HHC				SS	SS	23 00 48.8	-3.3
HHC				AMB	AMB		
	comp=Z,68nm,1.0s,mb5.6						
HHC				AMB	AMB		
	comp=Z,327nm,3.6s						
HHC				LR	LR		
	comp=N,595nm,19.0s,MS4.9						
HHC				LR	LR		
	comp=E,505nm,16.7s,MS4.9						
HHC				LR	LR		
	comp=Z,889nm,17.8s,MS4.9						
MOR8	Moi Rana	58.61	4	*e*P	P	22 49 06.7	-1.7
MOR8				*e*pP	pP	22 49 15.7	-2.0
MOR8				*e*sP	sP	22 49 19.4	-1.8
MOR8				AMb	AMB	22 49 20.1	
	comp=Z,106nm,2.2s,mb5.5						
MOR8	Moi Rana	58.61	4	*e*P	P	22 49 06.7	-1.7
	comp=Z,106nm,2.2s,mb5.5						
BTO	Baotou	58.85	297	*e*P	P	22 49 08.8	-1.7
BTO				AMB	AMB		
	comp=Z,73nm,1.1s,mb5.6						
JOW	Kunigami	59.25	273	P	P	22 49 12.5	-0.9
	comp=Z,18nm,0.9s,mb5.1,baz=149,slow=12,SNR=2.2						
JOW				LR	LR	23 13 14.0	
	comp=Z,241nm,20.8s,MS4.3,baz=119,slow=34						
NVS	Novosibirsk	59.27	324⇑	*i*P	P	22 49 11.0	-2.1
NVS				*e*		22 49 59.3	
NVS				pmax	pmax		
	comp=N,42nm,1.8s						
NVS				pmax	pmax		
	comp=Z,69nm,1.8s,mb5.4						
NVS				pmax	pmax		
	comp=E,35nm,1.4s						
ZAL	Zalesovo	59.47	322	P	P	22 49 13.4	-1.1
	comp=E,14nm,0.9s,mb5.0,baz=68,slow=7.3,SNR=69						
ZAL				LR	LR	23 18 21.0	
	comp=E,2µm,18.2s,MS5.4,baz=73,slow=39						
ZAL	Zalesovo	59.47	322	*i* P	P	22 49 13.9	-0.6
ZAL				pmax	pmax		
	comp=Z,14nm,0.9s						
NSS	Namsos	60.15	5	*e*P	P	22 49 17.5	-1.6
NSS				AMb	AMB	22 49 18.6	
	comp=Z,162nm,1.1s,mb6.0						
NSS	Namsos	60.15	5	*e*P	P	22 49 17.5	-1.6
	comp=Z,162nm,1.1s,mb6.0						
NJ2	Nanjing	60.58	285	*e*P	P	22 49 21.1	-1.3
NJ2				AP	pP	22 49 30.5	-1.3
NJ2				XP	sP	22 49 34.4	-0.8
NJ2				PCP	PcP	22 50 10.3	+3.9
NJ2				S	S	22 57 29.0	-5.6
NJ2				XS		22 57 50.0	
NJ2				AMB	AMB		
	comp=Z,70nm,0.7s,mb5.9						
NJ2				AMB	AMB		
	comp=Z,470nm,4.5s						
NJ2				LR	LR		
	comp=N,820nm,21.1s						
NJ2				LR	LR		
	comp=E,550nm,14.5s						
NJ2				LR	LR		
	comp=Z,400nm,14.3s						
SOKR	Solikamsk	62.07	341⇓	*i*P	P	22 49 28.6	-3.5
SOKR				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.9						
SOKR				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
DOMB	Dombas	62.45	7	*e*P	P	22 49 34.1	-0.5
DOMB				AMb	AMB	22 49 34.8	
	comp=Z,91nm,0.9s,mb5.9						
DOMB				*e*pP	pP	22 49 43.8	-0.2
DOMB				*e*sP	sP	22 49 46.7	-0.7
DOMB	Dombas	62.45	7	*e*P	P	22 49 34.1	-0.5
	comp=Z,91nm,0.9s,mb5.9						
KAF	Kangasniemi	62.77	358	*e*p	P	22 49 35.9	-0.9
	comp=Z,85nm,0.8s,mb5.9						
KAF	Kangasniemi	62.77	358	*e*P	P	22 49 35.9	-0.9
KAF				pmax	pmax		
	comp=Z,85nm,0.8s,mb5.9						
FINES	FINESS Array B	63.45	358	P	P	22 49 40.3	-0.9
	comp=Z,43nm,0.7s,mb5.7,baz=24,slow=7.6,SNR=156						
FINES				LR	LR	23 21 25.9	
	comp=Z,369nm,18.0s,MS4.6,baz=219,slow=40						
FINES	FINESS Array B	63.45	358	P	P	22 49 40.3	-0.9
FINES				pmax	pmax		
	comp=Z,43nm,0.7s						
FINES				MLR	MLR		
	comp=Z,369nm,18.0s						
NB2	NORSAR Subarra	63.58	6	P	P	22 49 41.7	-0.3
	comp=Z,77nm,0.9s,mb5.7,baz=354,slow=6.5						
NB2	NORSAR Subarra	63.58	6	P	P	22 49 41.7	-0.3
	baz=354,slow=6.9						
NOA	NORSAR Array B	63.58	6	P	P	22 49 41.6	-0.3
	comp=Z,42nm,0.8s,mb5.5,baz=353,slow=6.6,SNR=80						
NOA				LR	LR	23 19 26.7	
	comp=Z,346nm,18.1s,MS4.6,baz=335,slow=38						
NOA	NORSAR Array B	63.58	6	P	P	22 49 41.6	-0.4
NOA				pmax	pmax		
	comp=Z,42nm,0.8s						
NOA				MLR	MLR		
	comp=Z,347nm,18.1s						
NAO01	NORSAR Array S	63.76	6	*e*P	P	22 49 42.1	-1.0

	comp=Z,43nm,0.9s,mb5.5						
NAO01				*e*pP	pP	22 49 52.8	+0.3
SVE	**Sverdlovsk**	**63.83**	**338**	⇑*i*P	**P**	**22 49 42.5**	**-1.1**
SVE				*e*		22 52 01.0	
SVE				pmax	pmax		
	comp=Z,200nm,2.0s,mb5.8						
XAN	**Xi’an**	**64.41**	**293**	P	**P**	**22 49 46.8**	**-1.1**
XAN				AP	pP	22 49 58.8	+1.5
XAN				AMB	AMB		
	comp=Z,42nm,1.2s,mb5.3						
HFS	**Hagfors**	**64.62**	**5**	P	**P**	**22 49 47.6**	**-1.1**
	comp=Z,62nm,0.8s,mb5.7,baz=34,slow=5.3,SNR=50						
HFS	**Hagfors**	**64.62**	**5**	P	**P**	**22 49 47.6**	**-1.1**
HFS				pmax	pmax		
	comp=Z,62nm,0.8s						
ARU	**Arti**	**64.64**	**339**	⇑*i*P	**P**	**22 49 47.9**	**-1.0**
ARU				*e*		22 50 17.7	
ARU				*e*		22 52 11.6	
ARU				*e*PPP	PPP	22 53 45.7	-0.6
ARU				*e*S	**S**	**22 58 26.1**	**+1.0**
ARU				*e*SSS	SSS	23 05 34.9	+6.6
ARU				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.6						
ARU				MLR	MLR		
	comp=Z,900nm,21.0s,MS4.9						
ARU				MLR	MLR		
	comp=N,600nm,20.5s,MS4.9						
ARU				MLR	MLR		
	comp=E,500nm,21.0s,MS4.9						
ARU	**Arti**	**64.64**	**339**	*e*P	**P**	**22 49 47.6**	**-1.4**
	comp=E,43nm,0.8s,mb5.5						
ARU				*e*pP	pP	22 49 58.9	+0.6
GTA	**Gaotai**	**64.80**	**303**	⇑*i*P	**P**	**22 49 49.3**	**-1.0**
GTA				AP	pP	22 49 58.0	-1.7
GTA				XP	sP	22 50 01.3	-1.7
GTA				PCP	PcP	22 50 24.9	+1.5
GTA				PP	PP	22 52 13.1	-1.7
GTA				SCP		22 54 23.9	
GTA				S	**S**	**22 58 24.3**	**-3.1**
GTA				XS		22 58 36.3	
GTA				PS	PS	22 58 46.6	-4.8
GTA				SS	SS	23 02 35.1	-5.5
GTA				AMB	AMB		
	comp=Z,53nm,1.1s,mb5.5						
GTA				AMB	AMB		
	comp=Z,307nm,4.6s						
GTA				LR	LR		
	comp=N,635nm,21.7s,MS5.0						
GTA				LR	LR		
	comp=E,769nm,22.1s,MS5.0						
GTA				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
BVAR	**Borovoye Array**	**64.81**	**330**	PKPPKP		23 18 28.1	
	comp=Z,0.9nm,0.9s,baz=333,slow=3.2,SNR=4.2						
BRVK	**Borovoye**	**64.81**	**330**	*i* P	**P**	**22 49 49.5**	**-0.6**
BLS5	**Blasjo**	**64.84**	**9**	*e*P	**P**	**22 49 50.6**	**+0.4**
BLS5				AMb	AMB	22 49 51.6	
	comp=Z,52nm,1.2s,mb5.4						
BLS5				*e*sP	sP	22 50 02.6	-0.3
BLS5	**Blasjo**	**64.84**	**9**	*e*P	**P**	**22 49 50.6**	**+0.4**
	comp=Z,52nm,1.2s,mb5.4						
LZH	**Lanzhou**	**65.43**	**298**	⇑P	**P**	**22 49 53.5**	**-0.9**
LZH				AP	pP	22 50 01.5	-2.3
LZH				XP	sP	22 50 04.6	-2.5
LZH				PP	PP	22 52 18.5	-2.0
LZH				*e*S	S	22 58 32.8	-2.4
LZH				XS		22 58 45.6	
LZH				SS	SS	23 02 46.8	-3.6
LZH				AMB	AMB		
	comp=Z,69nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,248nm,6.5s						
LZH				LR	LR		
	comp=N,638nm,13.2s						
LZH				LR	LR		
	comp=Z,1µm,17.1s,MS5.2						
MDO	**Dochfour**	**65.50**	**15**	⇑*e*P	**P**	**22 49 54.4**	**0.0**
MCD	**Coleburn Disti**	**65.53**	**15**	⇑*e*P	**P**	**22 49 54.9**	**+0.3**
VSU	**Vasula**	**66.42**	**357**	*c i*P	**P**	**22 49 59.9**	**-0.4**
VSU	**Vasula**	**66.42**	**357**	⇑*i*P	**P**	**22 49 59.9**	**-0.4**
WMQ	**Urumqi**	**66.64**	**314**	P	**P**	**22 50 02.8**	**+0.8**
WMQ				AP	pP	22 50 10.8	-0.6
WMQ				XP	sP	22 50 13.8	-0.9
WMQ				PCP	PcP	22 50 32.3	+1.4
WMQ				PP	PP	22 52 31.3	+0.7
WMQ				S	S	22 58 50.6	+0.8
WMQ				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,97nm,9.1s						
WMQ				LR	LR		
	comp=N,699nm,20.4s,MS4.9						
WMQ				LR	LR		
	comp=E,530nm,22.4s,MS4.9						
WMQ				LR	LR		
	comp=Z,783nm,23.5s,MS4.8						
ENH	**Enshi**	**67.05**	**290**	*e*P	**P**	**22 50 03.2**	**-1.7**
	comp=Z,46nm,1.1s,mb5.4						
PCA1	**Carrot**	**67.19**	**16**	⇑*e*P	**P**	**22 50 05.1**	**-0.1**
ESK	**Eskdalemuir**	**67.72**	**15**	*e*P	**P**	**22 50 08.4**	**-0.2**
	comp=Z,48nm,1.0s,mb5.5						
MUD	**Monsted U’grnd**	**68.01**	**8**	⇑*i*P	**P**	**22 50 10.9**	**+0.5**
MUD				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.5						
MUD	**Monsted U’grnd**	**68.01**	**8**	⇑*i*P	**P**	**22 50 10.9**	**+0.5**
	comp=Z,48nm,0.9s,mb5.5						
MOS	**Moscow**	**68.49**	**351**	*e*P	**P**	**22 50 11.5**	**-1.9**
MOS				*e*		22 50 38.2	
MOS				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.8						
COP	**Copenhagen**	**68.99**	**6**	*e*P	**P**	**22 50 15.9**	**-0.6**
COP				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.5						
COP	**Copenhagen**	**68.99**	**6**	*e*P	**P**	**22 50 15.9**	**-0.6**
	comp=Z,61nm,0.9s,mb5.5						
COP	**Copenhagen**	**68.99**	**6**	*i* P	**P**	**22 50 15.9**	**-0.6**
	comp=Z,61nm,0.9s,mb5.5						
OBN	**Obninsk**	**69.20**	**351**	*c i*P	**P**	**22 50 16.8**	**-1.0**
OBN				*e*		22 52 59.2	
OBN				pmax	pmax		
	comp=Z,108nm,1.0s,mb5.7						
OBN				MLR	MLR		
	comp=Z,700nm,23.0s,MS4.8						
OBN	**Obninsk**	**69.20**	**351**	⇑*i*P	**P**	**22 50 16.8**	**-1.0**
OBN				LR	LR		
	comp=Z,700nm,23.0s,MS4.8						
CD2	**Chengdu**	**69.56**	**295**	⇑*i*P	**P**	**22 50 20.1**	**-0.3**
CD2				AP	pP	22 50 31.8	+2.0
CD2				S	S	22 59 27.8	+2.9
CD2				SKS	SKS	23 00 14.5	-8.2
CD2				AMB	AMB		
	comp=Z,120nm,0.9s,mb5.8						
CD2				AMB	AMB		
	comp=Z,360nm,4.7s						
CD2				LR	LR		
	comp=E,570nm,18.4s						
CD2				LR	LR		
	comp=Z,540nm,23.2s,MS4.7						
BSD	**Bornholm Skovb**	**69.69**	**4**	*e*P	**P**	**22 50 16.8**	**-4.0**
BSD				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.4						
BSD	**Bornholm Skovb**	**69.69**	**4**	*e*P	**P**	**22 50 16.8**	**-4.0**
	comp=Z,46nm,0.9s,mb5.4						
BSD	**Bornholm Skovb**	**69.69**	**4**	*i* P	**P**	**22 50 16.8**	**-4.0**
	comp=Z,46nm,0.9s,mb5.4						
MNK	**Minsk**	**70.36**	**356**	*e*P	**P**	**22 50 22.0**	**-2.8**
MNK				pmax	pmax		
	comp=Z,470nm,1.0s,mb6.4						
BSEG	**Bad Segeberg**	**70.60**	**7**	*e*P	**P**	**22 50 26.8**	**+0.5**
BSEG				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.4						
SUW	**Suwalki**	**70.94**	**359**	*e*P	**P**	**22 50 27.5**	**-0.9**
SUW				MLR	MLR		
	comp=Z,500nm,20.8s,MS4.8						
SUW	**Suwalki**	**70.94**	**359**	*e*P	**P**	**22 50 27.5**	**-0.9**
SUW				*e*PcP	PcP	22 50 39.8	-9.0
SUW				MLR	MLR	23 25 25.5	
	comp=Z,500nm,20.8s,MS4.8						
GYA	**Guiyang**	**71.57**	**290**	⇑*i*P	**P**	**22 50 31.8**	**-0.9**
GYA				AP	pP	22 50 39.6	-2.5
GYA				XP	sP	22 50 42.8	-2.7
GYA				PP	PP	22 53 14.1	+0.7
GYA				S	S	22 59 51.3	+2.9
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
GYA				AMB	AMB		
	comp=Z,280nm,4.5s						
GYA				LR	LR		
	comp=N,380nm,21.5s,MS4.9						
GYA				LR	LR		
	comp=E,560nm,19.2s,MS4.9						
GYA				LR	LR		
	comp=Z,750nm,19.8s,MS5.0						
GKP	**Gorka Klasztor**	**71.62**	**3**	*e*P	**P**	**22 50 32.6**	**+0.1**
GKP				MLR	MLR		
	comp=Z,600nm,19.1s,MS4.9						
GKP	**Gorka Klasztor**	**71.62**	**3**	*e*P	**P**	**22 50 32.6**	**+0.1**
GKP				*e*PcP	PcP	22 50 44.7	-7.0
GKP				MLR	MLR	23 23 03.5	
	comp=Z,600nm,19.1s,MS4.9						
TKM2	**Tokmak 2**	**72.03**	**322**	P	**P**	**22 50 35.7**	**+0.5**
	SNR=14						
USP	**Ospenovka**	**72.12**	**323**	P	**P**	**22 50 36.0**	**+0.4**
	SNR=23						
WTSB	**Winterswijk**	**72.25**	**10**	*e*P	**P**	**22 50 36.4**	**+0.1**
	comp=Z,70nm,1.2s,mb5.5						
WTSB				*e*x	x	22 50 48.3	
CHMS	**Chumysh**	**72.26**	**322**	P	**P**	**22 50 37.0**	**+0.5**
	SNR=25						
RUE	**Ruedersdorf**	**72.27**	**5**	*e*P	**P**	**22 50 36.1**	**-0.2**
	comp=Z,69nm,1.0s,mb5.5						
RUE				*e*pP	pP	22 50 47.0	+1.2
VOR	**Voronezh**	**72.28**	**349**	*e*P	**P**	**22 50 35.0**	**-1.5**
VOR				*e*		22 50 48.0	
VOR				pmax	pmax		
	comp=N,70nm,1.2s						
VOR				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.5						
ULHL	**Ulahol**	**72.39**	**321**	P	pP	22 50 52.7	+6.0
	SNR=30						
FRU	**Bishkek**	**72.46**	**322**	*i* P	**P**	**22 50 38.0**	**+0.3**
FRU				*i*		22 50 54.0	
FRU				pmax	pmax		
	comp=Z,140nm,2.0s,mb5.5						
FRU				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.5						
KBK	**Karagaybulak**	**72.50**	**322**	P	**P**	**22 50 38.6**	**+0.7**
	SNR=41						
AAK	**Ala-Archa**	**72.67**	**322**	*i* P	**P**	**22 50 38.3**	**-0.6**
AAK				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.3						
AAK	**Ala-Archa**	**72.67**	**322**	*i* P	**P**	**22 50 38.4**	**-0.5**
WAR	**Warsaw**	**72.72**	**1**	*e*P	**P**	**22 50 36.9**	**-2.0**
WAR				*e*PcP	PcP	22 50 51.6	-4.7
WAR				MLR	MLR	23 26 12.6	
	comp=Z,600nm,21.2s,MS4.8						
VRSR	**Storozhevoye**	**72.80**	**349**	*d i*P	**P**	**22 50 38.4**	**-1.0**
VRSR				*e**PP	pP	22 50 46.2	-2.6
VRSR				*i*		22 50 56.7	
VRSR				*i*		22 53 16.2	
VRSR				pmax	pmax		
	comp=Z,200nm,1.3s,mb5.9						
VRSR				pmax	pmax		
	comp=N,140nm,1.0s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.6s						
VRSR				MLR	MLR		
	comp=Z,630nm,24.0s,MS4.8						
VRSR				MLR	MLR		
	comp=N,860nm,21.0s,MS5.0						
VRSR				MLR	MLR		
	comp=E,120nm,24.0s,MS5.0						
KZA	**Kyzart**	**72.90**	**321**	P	**P**	**22 50 41.4**	**+1.2**
	SNR=6.2						
EKS2	**Erkin-Say**	**72.90**	**323**	P	**P**	**22 50 40.9**	**+0.7**
	SNR=30						
UCH	**Uchtor**	**73.03**	**322**	P	**P**	**22 50 41.8**	**+0.9**
	SNR=9.7						
PPT	**Papeete**	**73.03**	**172**	*e*S	S	22 59 58.0	-7.1
PPT				*e*LR	LR	23 12 25.7	
	comp=E,626nm,22.5s,baz=350						
HGN	**Heimansgroeve**	**73.35**	**11**	*e*P	**P**	**22 50 42.8**	**+0.2**
	comp=E,43nm,1.0s,mb5.3						
HGN				*e*x	x	22 50 54.2	
CLL	**Collm**	**73.39**	**6**	⇑*i*P	**P**	**22 50 42.9**	**+0.1**
CLL				*i*		22 50 54.8	
CLL				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.2						
CLL	**Collm**	**73.39**	**6**	⇑*i*P	**P**	**22 50 42.9**	**+0.1**
	comp=Z,38nm,1.1s,mb5.2						
CLL				*i*		22 50 54.8	
CLL	**Collm**	**73.39**	**6**	⇑P	**P**	**22 50 42.9**	**+0.1**
	comp=Z,logA/T=1.5,mb5.2						
CLL				*i* *PP	pP	22 50 54.8	+2.5
CLL				*e**SP	sP	22 51 03.0	+7.4
AML	**Almayashu**	**73.40**	**322**	P	**P**	**22 50 44.5**	**+1.4**
	SNR=24						
TGY	**Tagaytay City**	**73.47**	**271**	P	**P**	**22 50 44.7**	**+0.7**
	comp=Z,2µm,1.3s,baz=171,slow=8.2,SNR=15						
BAIF	**Baives**	**73.86**	**12**	⇑*i*P	**P**	**22 50 46.2**	**+0.6**
	comp=Z,105nm,1.1s,mb5.4						
BRG	**Berggiesshubel**	**73.88**	**5**	*i* P	**P**	**22 50 45.9**	**+0.2**
BRG				*i*		22 50 58.3	
BRG				pmax	pmax		
	comp=Z,66nm,1.2s,mb5.4						
BRG	**Berggiesshubel**	**73.88**	**5**	*i* P	**P**	**22 50 45.9**	**+0.2**
	comp=Z,66nm,1.2s,mb5.4						
BRG				*i*		22 50 58.3	
GIVF	**Givet**	**73.88**	**11**	⇑*i*P	**P**	**22 50 46.2**	**+0.5**
	comp=Z,129nm,1.2s,mb5.4						
MOX	**Moxa**	**73.96**	**7**	*e*P	**P**	**22 50 46.5**	**+0.3**
MOX				*e*	pP	22 50 57.5	+1.9
MOX				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.5						
MOX	**Moxa**	**73.96**	**7**	*i* P	**P**	**22 50 46.5**	**+0.3**
	comp=Z,logA/T=1.8,mb5.5						
MOX				pP	pP	22 50 58.0	+2.4
MOX	**Moxa**	**73.96**	**7**	*e*P	**P**	**22 50 46.5**	**+0.3**
	comp=Z,73nm,1.2s,mb5.5						
MOX				*e*	pP	22 50 57.5	+1.9
KSP	**Ksiaz**	**74.01**	**4**	⇑*e*P	**P**	**22 50 46.8**	**+0.4**
KSP				*e*pP	pP	22 50 58.7	+2.8
KSP	**Ksiaz**	**74.01**	**4**	*e*P	**P**	**22 50 46.7**	**+0.3**
KSP				*e*pP	pP	22 50 48.5	-7.4
KSP				*e*PcP	PcP	22 50 57.5	-4.3
KSP				*e*PP	PP	22 53 29.0	-4.4
KSP				MLR	MLR	23 28 47.3	
	comp=Z,500nm,20.2s,MS4.8						
PVCC	**Panska Ves**	**74.25**	**5**	⇑*i*P	**P**	**22 50 48.5**	**+0.7**
PVCC				*e*pP	pP	22 51 00.1	+2.8
PVCC				AMS	AMS	23 29 00.0	
UPC	**Upice**	**74.34**	**4**	⇑*i*P	**P**	**22 50 48.7**	**+0.4**
UPC				*e*pP	pP	22 51 00.3	+2.5
ABH	**Alteburg**	**74.39**	**10**	*e*P	**P**	**22 50 49.1**	**+0.5**
NKC	**Novy Kostel**	**74.43**	**6**	⇑*i*P	**P**	**22 50 49.5**	**+0.6**
NKC				*e*pP	pP	22 51 01.4	+3.1
NKC				AMS	AMS	23 25 30.0	
WLF	**Walferdange**	**74.46**	**11**	*e*P	**P**	**22 50 49.6**	**+0.5**
WLF				*e*pP	pP	22 51 00.0	+1.5
ROSF	**Rostrenen**	**74.47**	**17**	*e*P	**P**	**22 50 48.9**	**-0.2**
	comp=Z,98nm,1.4s,mb5.2						
FLN	**La Foliniere**	**74.50**	**15**	⇑*i*P	**P**	**22 50 49.4**	**+0.1**
	comp=Z,119nm,1.2s,mb5.4						
FLN				*e*R			
	comp=Z,574nm,20.8s						
DPC	**Dobruska-Polom**	**74.51**	**4**	⇑*i*P	**P**	**22 50 50.1**	**+0.8**
DPC				*e*pP	pP	22 51 01.9	+3.1
DPC				AMS	AMS	23 29 10.0	
	comp=Z,500nm,21.5s						
SGMF	**Saint Gilles**	**74.67**	**17**	⇑*i*P	**P**	**22 50 50.9**	**+0.6**
	comp=Z,103nm,1.2s,mb5.3						
LDF	**La Druitiere**	**74.72**	**15**	⇑*i*P	**P**	**22 50 50.7**	**+0.1**
	comp=Z,84nm,1.1s,mb5.3						
OJC	**Ojcow**	**74.73**	**1**	⇑*e*P	**P**	**22 50 50.8**	**+0.2**
OJC	**Ojcow**	**74.73**	**1**	*e*P	**P**	**22 50 50.8**	**+0.2**
KMI	**Kunming**	**74.74**	**292**	*e*P	**P**	**22 50 50.3**	**-0.9**
KMI				AP	pP	22 51 00.5	-0.2
KMI				XP	sP	22 51 05.3	+1.4
KMI				PP	PP	22 53 41.1	+0.7
KMI				S	S	23 00 28.4	+4.3
KMI				AMB	AMB		
	comp=Z,13nm,2.0s,mb4.5						
KMI				AMB	AMB		
	comp=Z,188nm,6.5s						
KMI				LR	LR		
	comp=N,513nm,18.4s,MS4.9						
KMI				LR	LR		
	comp=E,425nm,21.6s,MS4.9						
KMI				LR	LR		
	comp=Z,484nm,19.4s,MS4.8						
TOD	**Tromm**	**74.78**	**9**	*e*P	**P**	**22 50 51.5**	**+0.6**
PRU	**Pruhonice**	**74.79**	**5**	⇑*i*P	**P**	**22 50 51.3**	**+0.3**
PRU				*e**PP	pP	22 51 03.7	+3.3
PRU				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.2						
PRU	**Pruhonice**	**74.79**	**5**	⇑*i*P	**P**	**22 50 51.3**	**+0.3**
	comp=Z,36nm,1.2s,mb5.2						
PRU				*e*pP	pP	22 51 03.7	+3.3
PRU				AMS	AMS	23 29 30.0	
GRR	**Gorron**	**74.81**	**16**	*e*P	**P**	**22 50 51.4**	**+0.3**
	comp=Z,151nm,1.3s,mb5.5						
RAC	**Raciborz**	**74.83**	**3**	*e*P	**P**	**22 50 52.0**	**+0.8**
RAC				MLR	MLR	23 29 17.1	
	comp=Z,500nm,21.0s,MS4.8						
KSH	**Kashi**	**74.88**	**320**	⇑*i*P	**P**	**22 50 51.4**	**-0.3**
KSH				*e*AP	pP	22 50 58.5	-2.7
KSH				*e*XP	sP	22 51 02.3	-2.2
KSH				PCP	PcP	22 51 07.4	+1.6
KSH				PP	PP	22 53 39.4	-2.0
KSH				*e*PPP	PPP	22 55 25.3	-1.1
KSH				*e*S	S	23 00 23.8	-1.7
KSH				*e*XS		23 00 35.4	
KSH				*e*SKS	SKS	23 00 53.0	-8.7
KSH				*e*SCS	ScS	23 00 58.6	+0.7
KSH				*e*SS	SS	23 05 13.1	-2.9
KSH				AMB	AMB		
	comp=Z,370nm,3.5s						
KSH				LR	LR		
	comp=N,980nm,14.7s,MS5.3						
KSH				LR	LR		
	comp=E,520nm,11.0s,MS5.3						
GRF	**Grafenberg Arr**	**74.88**	**7**	*e*P	**P**	**22 50 52.3**	**+0.8**
GRF				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
GRF				MLR	MLR		
	comp=Z,400nm,26.8s,MS4.6						
GRF				MLR	MLR		
	comp=Z,300nm,21.0s						
GRF	**Grafenberg Arr**	**74.88**	**7**	*e*P	**P**	**22 50 52.3**	**+0.8**
	comp=Z,37nm,0.9s,mb5.3						
GRF				LR	LR		
	comp=Z,400nm,26.8s,MS4.6						
KTD	**Kalmit**	**74.99**	**9**	*e*P	**P**	**22 50 52.2**	**0.0**
OKC	**Ostrava-Krasne**	**75.08**	**3**	⇑*i*P	**P**	**22 50 53.0**	**+0.4**
OKC				*e*pP	pP	22 51 05.4	+3.3
OKC				AMS	AMS	23 25 50.0	
MORC	**Moravsky Berou**	**75.12**	**3**	*e*P	**P**	**22 50 52.7**	**-0.1**
	comp=Z,9.6nm,0.8s,mb4.8						
MORC				*e*pP	pP	22 51 02.2	-0.2
LANF	**Langenberg**	**75.30**	**10**	*e*P	**P**	**22 50 54.2**	**+0.3**
KWP	**Kalwaria**	**75.33**	**360**	*e*P	**P**	**22 50 54.6**	**+0.5**
KWP				*e*pP	pP	22 51 01.6	-2.0
KWP				*e*PcP	PcP	22 51 06.3	-1.2
KWP				MLR	MLR	23 26 47.3	
	comp=Z,500nm,22.4s,MS4.8						
MEZF	**Maizieres J’vi**	**75.49**	**12**	⇑*i*P	**P**	**22 50 55.7**	**+0.7**
	comp=Z,119nm,1.3s,mb5.3						
NIE	**Niedzica**	**75.54**	**1**	*e*P	**P**	**22 50 56.2**	**+0.9**
WET	**Wettzell**	**75.54**	**6**	*e*P	**P**	**22 50 55.9**	**+0.6**
WET				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.1						
VRAC	**Vranov**	**75.56**	**4**	P	**P**	**22 50 55.3**	**-0.1**
	comp=Z,17nm,1.0s,mb5.0,baz=3.7,slow=6.5,SNR=16						
VRAC	**Vranov**	**75.56**	**4**	P	**P**	**22 50 55.3**	**-0.1**
VRAC				pmax	pmax		
	comp=Z,17nm,1.0s						
KHC	**Kasperske Hory**	**75.59**	**6**	⇑*i*P	**P**	**22 50 56.4**	**+0.8**
KHC				*e*pP	pP	22 51 08.8	+3.7
KHC				AMS	AMS	23 28 40.0	
	comp=Z,400nm,19.3s						
STU	**Stuttgart**	**75.64**	**9**	*e*P	**P**	**22 50 55.9**	**0.0**
	comp=Z,46nm,1.3s,mb5.2						
STU				*e*pP	pP	22 51 06.0	+0.7
CDF	**Champ du Feu**	**75.81**	**10**	⇑*i*P	**P**	**22 50 57.5**	**+0.6**
	comp=Z,56nm,1.1s,mb5.1						
WLS	**Welschbruch**	**75.82**	**10**	*e*P	**P**	**22 50 57.5**	**+0.6**
THEF	**They Montfort**	**75.86**	**11**	*e*P	**P**	**22 50 56.3**	**-0.8**
GEC2	**GERESS Array S**	**75.89**	**6**	*e*P	**P**	**22 50 57.8**	**+0.5**
GEC2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
GERES	**GERESS Array B**	**75.89**	**6**	P	**P**	**22 50 57.4**	**+0.2**
	comp=Z,8.3nm,0.7s,mb4.8,slow=4.0,SNR=49						
GERES	**GERESS Array B**	**75.89**	**6**	P	**P**	**22 50 57.4**	**+0.1**
GERES				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ECH	**Echery**	**76.00**	**10**	*e*P	**P**	**22 50 58.2**	**+0.3**
BFO	**Black Forest**	**76.00**	**9**	*e*P	**P**	**22 50 58.2**	**+0.3**
BFO				pmax	pmax		
	comp=Z,49nm,1.5s,mb5.2						
KOLS	**Kolonicke sedl**	**76.03**	**360**	*i* P	**P**	**22 50 59.0**	**+0.9**
CRVS	**Cervenica-Dubn**	**76.06**	**0**	*e*P	**P**	**22 51 00.8**	**+2.5**
CRVS				*e*		22 51 13.7	
LIBD	**Limburg**	**76.11**	**10**	*e*P	**P**	**22 50 58.9**	**+0.4**
HAU	**Haudompre**	**76.12**	**11**	⇑*i*P	**P**	**22 50 59.1**	**+0.5**
	comp=Z,85nm,1.1s,mb5.3						
HAU				*e*R			
	comp=Z,642nm,22.8s						
SJG	**San Juan**	**76.31**	**78**	LR	LR	23 25 48.5	
	comp=Z,565nm,20.1s,MS4.9,baz=333,slow=37						
SJG	**San Juan**	**76.31**	**78**	*e*P	**P**	**22 50 58.6**	**-1.7**
	comp=Z,20nm,1.0s,mb5.0						
KOLL	**Kolacno**	**76.34**	**2**	*i* P	**P**	**22 51 00.7**	**+0.9**
KOLL				*e*	pP	22 51 12.1	+2.8
MOF	**Molkenrain**	**76.36**	**10**	*e*P	**P**	**22 51 00.3**	**+0.4**
HINF	**Hinteralfeld**	**76.36**	**10**	⇑*i*P	**P**	**22 51 00.3**	**+0.3**
	comp=Z,54nm,1.1s,mb5.1						
SMOL	**Smolenice**	**76.38**	**3**	*i* P	**P**	**22 51 01.5**	**+1.5**
SMOL				*e*sP	sP	22 51 13.0	+0.2
HYF	**Humbligny**	**76.40**	**13**	*e*P	**P**	**22 51 01.0**	**+0.8**
FUR	**Furstenfeldbru**	**76.41**	**7**	*e*P	**P**	**22 51 00.8**	**+0.6**
FUR				pmax	pmax		
	comp=Z,102nm,1.6s,mb5.5						
FELD	**Feldberg**	**76.42**	**10**	*e*P	**P**	**22 51 00.5**	**+0.2**
VYHS	**Vyhne**	**76.44**	**2**	*i* P	**P**	**22 51 01.1**	**+0.7**
VYHS				*e*		22 51 13.5	
KECS	**Kecovo**	**76.48**	**1**	*i* P	**P**	**22 51 01.5**	**+0.9**
KECS				*e*	pP	22 51 12.1	+2.0
MFF	**Saint Martin d**	**76.66**	**16**	⇑*i*P	**P**	**22 51 02.3**	**+0.7**
	comp=Z,213nm,1.1s,mb5.7						
ZST	**Bratislava**	**76.69**	**3**	*e*P	**P**	**22 51 03.0**	**+1.2**
ZST				*e*		22 51 14.6	
SSF	**Saint Saulge**	**76.72**	**13**	⇑*i*P	**P**	**22 51 02.5**	**+0.5**
	comp=Z,133nm,1.1s,mb5.5						
LOMF	**Lomont**	**76.82**	**11**	*e*P	**P**	**22 51 03.1**	**+0.6**
LSA	**Lhasa**	**76.82**	**303**	P	**P**	**22 51 03.8**	**+0.9**
MOA	**Molln**	**76.91**	**5**	⇑*i*P	**P**	**22 51 03.3**	**+0.3**
	comp=Z,15nm,1.3s,mb4.8						
AVF	**Avril sur Loir**	**76.97**	**13**	⇑*i*P	**P**	**22 51 03.7**	**+0.4**
	comp=Z,115nm,1.0s,mb5.5						
PSZ	**Piszkesteto**	**77.03**	**1**	⇑*e*sP	**P**	**22 51 04.9**	**+1.2**
SRO	**Srobarova**	**77.11**	**3**	*i* P	**P**	**22 51 05.5**	**+1.4**
SRO				*e*	pP	22 51 16.8	+3.2
BGF	**Bois d’Agland**	**77.13**	**13**	⇑*i*P	**P**	**22 51 04.7**	**+0.5**
	comp=Z,102nm,0.9s,mb5.4						
SRO2	**Moca**	**77.16**	**3**	*i* P	**P**	**22 51 05.8**	**+1.4**
SRO2				*e*		22 51 12.0	
DAVA	**Damuels**	**77.17**	**8**	⇑*i*P	**P**	**22 51 06.0**	**+1.5**
	comp=Z,24nm,1.9s,mb4.8						
SMF	**Signal de Mont**	**77.17**	**13**	⇑*i*P	**P**	**22 51 04.8**	**+0.3**
	comp=Z,136nm,1.1s,mb5.5						
MOTA	**Moosalm**	**77.21**	**8**	⇑*i*P	**P**	**22 51 05.3**	**+0.6**
	comp=Z,29nm,1.1s,mb5.1						
WATA	**Walderalm**	**77.25**	**7**	⇑*i*P	**P**	**22 51 05.8**	**+0.9**
	comp=Z,43nm,1.1s,mb5.3						
TCF	**Toulx Ste Croi**	**77.31**	**14**	⇑*i*P	**P**	**22 51 05.6**	**+0.4**
	comp=Z,56nm,0.9s,mb5.2						
WTTA	**Wattenberg**	**77.33**	**7**	⇑*i*P	**P**	**22 51 06.4**	**+1.1**
	comp=Z,63nm,1.3s,mb5.4						
SQTA	**Sankt Quirin**	**77.34**	**8**	⇑*i*P	**P**	**22 51 06.4**	**+1.0**
	comp=Z,46nm,1.1s,mb5.3						
CABF	**La Chapelle**	**77.47**	**11**	*e*P	**P**	**22 51 07.0**	**+0.9**
	comp=Z,77nm,1.1s,mb5.2						
ARSA	**Arzberg**	**77.57**	**5**	⇑*i*P	**P**	**22 51 07.7**	**+1.0**
	comp=Z,26nm,1.2s,mb5.0						
KBA	**Koelnbreinsper**	**77.63**	**6**	⇑*i*P	**P**	**22 51 08.5**	**+1.5**
	comp=Z,77nm,1.2s,mb5.5						
AGO	**Saint Agoulin**	**77.66**	**13**	*e*P	**P**	**22 51 09.2**	**+2.0**
PLDF	**La Plantade**	**77.81**	**13**	*e*P	**P**	**22 51 09.9**	**+1.9**
KIS	**Kishinev**	**77.81**	**355**	*c i*P	**P**	**22 51 07.0**	**-1.0**
KIS				*i*		22 51 19.0	
KIS				*e*S	S	23 00 52.0	-5.2
KIS				*e*		23 01 12.0	
KIS				pmax	pmax		
	comp=Z,400nm,1.5s,mb6.1						

KIS				MLR	MLR		
	comp=Z,400nm,15.0s,MS4.9						
PYM	Petit Puy Mans	77.94	14	eP	P	22 51 09.9	+1.2
PERS	Pernice	78.17	5	eP	P	22 51 10.7	+0.7
PERS				epP	pP	22 51 23.4	+3.9
RJF	Les Rejaudoux	78.17	15	eP	P	22 51 10.4	+0.4
	comp=Z,144nm,1.1s,mb5.5						
RJF				eR			
	comp=Z,861nm,22.2s						
OBKA	Obir	78.26	5⇑	iP	P	22 51 11.2	+0.7
	comp=Z,70nm,0.9s,mb5.6						
GOF	Gofitskoye	78.34	345⇓	iP	P	22 51 11.5	+0.5
GOF				pmax	pmax		
	comp=Z,180nm,1.2s,mb5.9						
LFF	La Frestale	78.42	15⇑	iP	P	22 51 12.2	+0.8
	comp=Z,241nm,0.9s,mb5.8						
LBL	Lubilhac	78.48	13	eP	P	22 51 12.5	+0.8
CADS	Cadrg	78.50	6	i P	P	22 51 11.6	-0.2
EMAZ	Mazaricos	78.54	23	P	P	22 51 12.8	+0.7
	comp=Z,30nm,0.7s,mb5.3						
EPON	Pontenova	78.57	21	P	P	22 51 12.4	+0.2
	comp=Z,656nm,2.7s,mb6.1						
CAF	Calviac	78.62	14⇑	iP	P	22 51 13.1	+0.6
	comp=Z,81nm,1.0s,mb5.3						
LPL	La Plagne	78.62	11⇑	iP	P	22 51 14.1	+1.6
	comp=Z,34nm,1.1s,mb4.9						
LPG	La Plagne	78.64	11⇑	iP	P	22 51 14.4	+1.8
	comp=Z,73nm,1.3s,mb5.1						
STS	Santiago	78.69	22	P	P	22 51 13.1	+0.2
	comp=Z,106nm,1.4s,mb5.6						
LJU	Ljubljana	78.73	5	eP	P	22 51 13.1	0.0
TBI	Tubuai	78.77	172	eS	S	23 01 00.0	-8.0
TBI				eLR	LR	23 15 04.2	
	comp=Z,683nm,28.8s,baz=355						
GOLS	Golise	78.81	5	eP	P	22 51 13.8	+0.3
RHK1	Bakonya	78.82	3⇑	eP	P	22 51 14.2	+0.7
EARI	Arriondas	78.98	20	P	P	22 51 15.1	+0.6
	comp=Z,560nm,2.4s,mb6.1						
PMG	Port Moresby	79.02	235	P	P	22 51 13.8	-1.5
	comp=Z,14nm,1.0s,mb4.8,baz=19,slow=6.3,SNR=5.7						
PMG				LR	LR	23 22 57.9	
	comp=Z,189nm,18.5s,MS4.5,baz=29,slow=33						
PMG	Port Moresby	79.02	235	i P	P	22 51 16.1	+0.8
PMG	Port Moresby	79.02	235	eP	P	22 51 13.5	-1.8
PMG				epP	pP	22 51 21.9	-2.9
VIVF	Saint-Julien-l	79.03	12⇑	iP	P	22 51 15.6	+0.8
	comp=Z,85nm,1.2s,mb5.2						
BNI	Bardonecchia	79.08	11	eP	P	22 51 16.0	+1.1
	comp=Z,28nm,1.1s,mb5.1						
ORIF	Oris-en-Rattie	79.12	12⇑	iP	P	22 51 16.2	+1.0
	comp=Z,29nm,1.0s,mb4.9						
ORIF				eR			
	comp=Z,428nm,22.2s						
EINC	Incio	79.16	22	P	P	22 51 16.2	+0.7
	comp=Z,260nm,1.7s,mb5.9						
EZAM	Zamans	79.36	23	P	P	22 51 17.7	+1.1
	comp=Z,26nm,0.7s,mb5.3						
MBDF	Montbardon	79.41	11⇑	iP	P	22 51 18.4	+1.6
	comp=Z,70nm,1.1s,mb5.2						
MLR	Muntele Rosu	79.42	357	P	P	22 51 17.4	+0.6
	comp=Z,3.5nm,0.5s,mb4.5,baz=352,slow=3.6,SNR=9.5						
MLR				LR	LR	23 30 04.6	
	comp=Z,712nm,20.6s,MS5.0,baz=201,slow=38						
MLR	Muntele Rosu	79.42	357	P	P	22 51 17.4	+0.5
MLR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
MLR				MLR	MLR		
	comp=Z,712nm,20.6s						
MLR	Muntele Rosu	79.42	357	P	P	22 51 17.4	+0.6
MLR				LR	LR	23 30 04.6	
KIV	Kislovodsk	79.47	345	P	P	22 51 17.6	+0.4
	comp=Z,377nm,0.8s,mb6.4,SNR=18						
KIV	Kislovodsk	79.47	345c	iP	P	22 51 17.7	+0.5
KIV				e		22 51 24.8	
KIV				e		22 54 16.9	
KIV				eSS	SS	23 06 23.1	-2.7
KIV				pmax	pmax		
	comp=E,15nm,0.9s						
KIV				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.5						
KIV				MLR	MLR		
	comp=N,468nm,21.0s,MS4.8						
KIV				MLR	MLR		
	comp=E,165nm,21.0s,MS4.8						
KIV				MLR	MLR		
	comp=Z,522nm,21.0s,MS4.8						
KIV	Kislovodsk	79.47	345	eP	P	22 51 17.2	+0.1
	comp=Z,48nm,0.9s,mb5.4						
SIM	Simferopol’	79.50	351c	iP	P	22 51 17.4	+0.1
SIM				e		22 51 29.0	
SIM				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
SIM				MLR	MLR		
	comp=Z,660nm,19.6s,MS5.0						
IMP	Imphal	79.56	299	eP	P	22 51 16.7	-1.3
LASF	Ste Croix	79.70	13⇑	iP	P	22 51 19.4	+1.0
	comp=Z,41nm,1.1s,mb5.0						
EALK	Alkurruntz	79.73	17	P	P	22 51 19.9	+1.4
	comp=Z,136nm,1.3s,mb5.7						
ELOB	Lobios	79.77	22	P	P	22 51 19.2	+0.4
	comp=Z,129nm,1.4s,mb5.7						
SJPF	Ste Jean	79.88	17	eP	P	22 51 20.5	+1.1
	comp=Z,187nm,1.4s,mb5.5						
SHL	Shillong	79.92	301⇑	eP	P	22 51 19.5	-0.4
ECAL	Calabor	79.98	21	P	P	22 51 22.1	+2.1
	comp=Z,94nm,1.4s,mb5.5						
SMRF	Simiane la Rot	80.01	12⇑	iP	P	22 51 21.4	+1.4
	comp=Z,57nm,1.0s,mb5.2						
TOUF	Mont Tournerai	80.16	11	eP	P	22 51 17.3	-3.5
MTLF	Montolieu	80.20	15⇑	iP	P	22 51 21.8	+0.8
	comp=Z,102nm,1.0s,mb5.4						
AUTN	L’Aution	80.20	11	eP	P	22 51 17.5	-3.5
ETSF	Etsaut	80.20	17⇑	iP	P	22 51 22.4	+1.3
	comp=Z,96nm,0.8s,mb5.5						
EPF	Esparros	80.22	16	eP	P	22 51 21.4	+0.2
	comp=Z,53nm,1.0s,mb5.1						
SOC	Sochi	80.25	347	i P	P	22 51 21.3	0.0
SOC				eS	S	23 01 28.5	+5.4
SOC				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.4						
SOC				pmax	pmax		
	comp=N,42nm,1.2s						
SOC				pmax	pmax		
	comp=E,14nm,1.1s						
SBF	Sospel	80.33	11⇑	iP	P	22 51 22.3	+0.6
	comp=E,132nm,1.0s,mb5.5						
MLS	Moulis	80.41	15	eP	P	22 51 20.9	-1.3
PVRL	Vila Real	80.41	22	eP	P	22 51 23.3	+1.1
	comp=E,46nm,1.2s,mb5.3						
RESF	Ens	80.44	16	eP	P	22 51 23.7	+1.4
ZEI	Tsey	80.45	344	i P	P	22 51 22.8	+0.4
ZEI				i		22 54 23.6	
ZEI				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
EBIE	Bielsa	80.52	16	P	P	22 51 24.3	+1.5
	comp=Z,27nm,0.9s,mb5.2						
FRF	La Foret Royal	80.55	11⇑	iP	P	22 51 23.5	+0.6
	comp=Z,58nm,1.0s,mb5.2						
RKT	Rikitea	80.64	159	eS	S	23 01 23.0	-4.5
RKT				eLR	LR	23 15 57.7	
	comp=Z,707nm,30.2s,baz=341						
LMR	La Mourre	80.75	11	eP	P	22 51 24.9	+0.9
	comp=Z,86nm,1.2s,mb5.3						
GUN	Gumba	80.80	306	eP	P	22 51 25.0	+0.5
	comp=Z,226nm,1.1s,mb6.0						
DIVS	Divcibare	80.86	1⇓	iP	P	22 51 25.0	+0.4
PVIS	Viseu	80.91	23	eP	P	22 51 25.9	+1.0
	comp=Z,67nm,1.0s,mb5.5						
EJON	La Jonquera	81.17	14	P	P	22 51 27.1	+0.9
	comp=Z,110nm,2.1s,mb5.4						
KKN	Kakani	81.17	307	eP	P	22 51 26.8	+0.3
	comp=Z,139nm,1.3s,mb5.7						
THN	Thein Dam	81.22	316	eP	P	22 51 25.9	-0.8
SDV	Santo Domingo	81.24	87	eP	P	22 51 25.6	-1.5
	comp=Z,5.3nm,0.8s,mb4.5						
SDV				epP	pP	22 51 33.7	-3.0
GKN	Gorkha	81.29	307	eP	P	22 51 27.1	0.0
	comp=Z,192nm,1.3s,mb5.9						
MTE	Manteigas	81.29	22	eP	P	22 51 28.1	+1.2
	comp=Z,82nm,1.3s,mb5.5						
MTE	Manteigas	81.29	22	eP	P	22 51 27.5	+0.7
	comp=Z,44nm,0.9s,mb5.4						
PKI	Pulchoki	81.30	307	eP	P	22 51 27.2	0.0
	comp=Z,146nm,1.2s,mb5.8						
TI2	Plekhanov	81.32	343⇑	iP	P	22 51 28.0	+1.0
TI2				pmax	pmax		
	comp=Z,100nm,0.8s,mb5.8						
TI2				MLR	MLR		
	comp=N,500nm,19.0s						
ESAC	San Caprasio	81.36	17	P	P	22 51 29.0	+1.7
	comp=N,68nm,1.0s,mb5.5						
DMN	Daman	81.41	307	eP	P	22 51 28.0	+0.2
	comp=N,151nm,1.2s,mb5.8						
EMIR	Miracle	81.49	15	P	P	22 51 27.6	-0.3
	comp=N,72nm,1.2s,mb5.5						
SDNR	Sundarnagar	81.54	315	eP	P	22 51 28.8	+0.4
PRD	Provadia	81.66	356	eP	pP	22 51 39.0	+0.7
PGF	Pioggiola	81.79	10	eP	P	22 51 30.3	+0.9
	comp=N,250nm,1.4s,mb5.7						
PCBR	Castelo Branco	81.84	23	eP	P	22 51 30.8	+1.1
	comp=N,46nm,1.2s,mb5.3						
PTOM	Tomar	81.84	23	eP	P	22 51 30.7	+0.9
	comp=N,73nm,1.4s,mb5.4						
PTH	Pithoragarh	81.90	312	eP	P	22 51 31.0	+0.8
PTH				e		22 54 36.0	
KOLN	Koldanda	81.95	308	eP	P	22 51 30.7	+0.1
	comp=N,141nm,1.2s,mb5.8						
EPOB	Poblet	81.97	16	P	P	22 51 30.7	+0.3
	comp=N,37nm,0.9s,mb5.3						
DDI	Dehra Dun	82.13	314	eP	P	22 51 29.8	-1.6
CM31	Chiang Mai Arr	82.20	291	eP	P	22 51 31.6	-0.4
	comp=N,49nm,0.9s,mb5.4						
CMAR	Chiang Mai Arr	82.20	291	P	P	22 51 31.4	-0.6
	comp=N,45nm,0.9s,mb5.4,baz=13,slow=5.0,SNR=213						
CMAR				LR	LR	23 32 07.1	
	comp=N,295nm,18.7s,MS4.7,baz=40,slow=39						
CMAR	Chiang Mai Arr	82.20	291	P	P	22 51 31.4	-0.6
CMAR				pmax	pmax		
	comp=Z,45nm,0.9s						
CMAR				MLR	MLR		
	comp=Z,295nm,18.7s						
ERTA	Horta de San J	82.24	16	P	P	22 51 33.0	+1.2
	comp=Z,240nm,2.1s,mb5.8						
VTS	Vitosha	82.37	359	eP	P	22 51 32.0	-0.4
PLOU	Loures	82.37	24	eP	P	22 51 33.1	+0.6
ROSC	El Rosal	82.41	92	LR	LR	23 28 31.9	
	comp=Z,144nm,21.7s,MS4.3,baz=5.7,slow=36						
KALG	Kalgarh	82.55	313	AMb	AMB	22 51 23.2	
	comp=Z,99nm,0.9s,mb5.8						
EMOS	Mosqueruela	82.69	17	P	P	22 51 35.8	+1.7
	comp=Z,35nm,0.8s,mb5.4						
ESDC	Sonseca Array	82.72	20	P	P	22 51 35.0	+0.7
	comp=Z,35nm,0.8s,mb5.5,baz=341,slow=4.7,SNR=132						
ESDC				PP	PP	22 54 43.5	-2.8
	comp=Z,1.9nm,0.7s,baz=352,slow=8.4,SNR=6.3						
ESDC	Sonseca Array	82.72	20	P	P	22 51 35.5	+1.2
	comp=Z,25nm,0.6s,mb5.4						
ESLA	Sonseca Array	82.72	20	eP	P	22 51 34.8	+0.5
	comp=Z,12nm,1.0s,mb4.9						
ESLA				epP	pP	22 51 44.8	+0.8
GNI	Garni	82.86	343	eP	pP	22 51 45.2	+0.5
GNI	Garni	82.86	343	P	P	22 51 36.4	+1.3
	comp=Z,14nm,0.8s,mb5.0,baz=8.3,slow=9.1,SNR=11						
GNI				LR	LR	23 34 54.2	
	comp=Z,804nm,19.4s,MS5.1,baz=101,slow=40						
GNI	Garni	82.86	343	i P	P	22 51 36.8	+1.7
GNI				pmax	pmax		
	comp=Z,23nm,1.0s						
BOYT	Boyabat	82.93	350	i P	P	22 51 35.5	+0.1
BALT	Daday	82.95	351	i P	P	22 51 35.2	-0.2
KKR	Kurukshetra	82.95	314	eP	P	22 51 35.7	0.0
EVO	Evora	82.97	23⇑	iP	P	22 51 35.9	+0.3
	comp=Z,145nm,1.4s,mb5.5						
EVO				eR			
	comp=Z,619nm,19.8s						
EBAD	Badajoz	82.98	22	P	P	22 51 36.6	+1.0
	comp=Z,45nm,0.7s,mb5.6						
SKO	Skopje	82.99	0⇑	iP	P	22 51 37.0	+1.3
	comp=Z,0.0nm,0.9s						
SKO				i		22 51 49.0	
	comp=Z,0.1nm,1.0s						
CII	Carovilli	83.02	6	eP	P	22 51 36.2	+0.4
KKB	Krupnik	83.10	359	eP	P	22 51 37.0	+0.8
GUMT	Gumushane	83.35	347	P	P	22 51 39.8	+2.3
MMB	Musomiste	83.37	359	eP	P	22 51 39.0	+1.4
PBEJ	Beja	83.49	23	eP	P	22 51 38.5	+0.2
	comp=Z,37nm,1.7s,mb5.1						
ERZM	Erzurum	83.64	345	i P	P	22 51 40.0	+1.1
EZM	Erzurum	83.64	345	i P	P	22 51 40.1	+1.2
CTKT	Corum	83.73	350	i P	P	22 51 40.3	+1.0
HENT	Hendek	83.85	353	i P	P	22 51 40.3	+0.4
NDI	New Delhi	83.92	314	eP	P	22 51 39.5	-1.1
ELDT	Eldivan	83.98	351	i P	P	22 51 41.1	+0.5
EMIN	Mina Concepcio	84.00	23	P	P	22 51 42.1	+1.3
	comp=Z,43nm,1.0s,mb5.5						
EVIA	Vianos	84.00	19	P	P	22 51 42.4	+1.6
	comp=Z,24nm,0.8s,mb5.4						
EZC	Erzincan	84.01	346	eP	P	22 51 40.4	-0.4
SGKT	Sivrigoynuk	84.01	352	i P	P	22 51 42.2	+1.4
BHGR	Bahadurgarh	84.03	314	eP	P	22 51 40.9	-0.3
EADA	Adamuz	84.06	21	P	P	22 51 42.9	+1.8
	comp=Z,16nm,0.7s,mb5.2						
AYAN	Aya Nagar	84.13	313	eP	P	22 51 40.9	-0.8
AYAN				AMb	AMB	22 51 42.5	
	comp=Z,30nm,2.1s,mb5.0						
EBEN	Beniarda	84.35	17	P	P	22 51 44.3	+1.8
	comp=Z,244nm,1.7s,mb6.1						
VRT	Varto	84.37	345	eP	P	22 51 43.9	+1.2
ULDT	Uludag	84.63	355	i P	P	22 51 45.4	+1.4
TVAN	Van	84.67	343	i P	P	22 51 46.6	+2.5
KUDL	Kundal	84.69	314	eP	P	22 51 43.8	-0.7
KUDL				AMb	AMB	22 51 45.7	
	comp=Z,65nm,1.3s,mb5.6						
EQES	Quesada	84.71	20	P	P	22 51 46.2	+1.9
	comp=Z,90nm,1.8s,mb5.6						
BRTR	Keskin Array B	84.72	351	P	P	22 51 45.6	+1.2
	comp=Z,20nm,0.9s,mb5.2,baz=37,slow=3.0,SNR=86						
BRTR				PKKPbc		23 09 49.5	
	comp=Z,0.3nm,0.6s,baz=191,slow=6.3,SNR=2.9						
VSL	Villasalto	84.85	10	eP	P	22 51 45.5	+0.5
	comp=Z,41nm,0.9s,mb5.6						
AGRA	Agra	84.89	312	eP	P	22 51 44.5	-1.0
AGRA				AMb	AMB	22 51 46.0	
	comp=Z,36nm,0.9s,mb5.5						
PTK	Pertek	84.91	346	eP	P	22 51 50.4	+5.0
KHET	Khetri	85.03	314	eP	P	22 51 45.5	-0.7
KHET				AMb	AMB	22 51 46.8	
	comp=Z,32nm,1.3s,mb5.3						
ESPR	Espera	85.04	22	P	P	22 51 48.2	+2.2
	comp=Z,177nm,2.2s,mb5.8						
BTOK	Tokmak	85.07	355	i P	P	22 51 46.5	+0.4
ESKT	Eskisehir	85.15	353	i P	P	22 51 47.4	+0.9
BTMT	Batman	85.30	345	i P	P	22 51 49.8	+2.5
ERON	Agron	85.32	20	P	P	22 51 48.6	+1.2
	comp=Z,6.8nm,1.2s,mb4.7						
ELZG	Elazig	85.35	347	i P	P	22 51 49.0	+1.4
EMIJ	Mijas	85.56	21	P	P	22 51 49.2	+0.6
	comp=Z,58nm,1.3s,mb5.7						
AYVA	Ayvalik	85.57	356	i P	P	22 51 49.0	+0.3
MYA	Malataya	85.59	347	eP	P	22 51 50.7	+1.9
MALT	Malatya	85.60	347	eP	P	22 51 50.0	+1.2
	comp=Z,26nm,0.9s,mb5.5						
EBER	Berja	85.62	20	P	P	22 51 49.6	+0.6
	comp=Z,183nm,1.9s,mb6.0						
BEST	Besiri	85.63	345	i P	P	22 51 50.8	+1.8
TIP	Timpagrande	85.68	4	eP	P	22 51 49.5	+0.4
TIP				epP	pP	22 52 01.0	+2.1
DIY	Diyarbakir	85.77	346	eP	P	22 51 50.7	+1.0
KDAG	Bornova	86.45	356	i P	P	22 51 52.8	-0.3
GZT	Gaziantep	86.66	348	i P	P	22 51 55.3	+1.2
ISP	Isparta	86.84	353	eP	P	22 51 55.0	+0.1
	comp=Z,65nm,1.0s,mb5.8						
GAZ	Gaziantep	86.88	348	eP	P	22 51 55.5	+0.4
JASL	Jaisalmer	88.00	318	e	P	22 51 55.2	-5.5
BHPL	Bhopal	88.61	311	eP	P	22 52 02.5	-1.2
BHPL				e		22 52 04.6	
	comp=Z,58nm,1.0s						
CTA	Charters Tower	88.80	231	eP	P	22 52 04.1	-0.6
	comp=Z,11nm,0.9s,mb5.2						
CTA				e	pP	22 52 13.0	-1.4
CTA	Charters Tower	88.80	231	P	P	22 52 03.4	-1.3
	comp=Z,12nm,0.9s,mb5.2,baz=30,slow=7.0,SNR=12						
CTA				LR	LR	23 27 50.1	
	comp=Z,223nm,19.2s,MS4.6,baz=39,slow=33						
CTA	Charters Tower	88.80	231	P	P	22 52 03.4	-1.3
CTA				pmax	pmax		
	comp=Z,12nm,0.9s						
CTA				MLR	MLR		
	comp=Z,223nm,19.3s						
CTAO	Charters Tower	88.80	231	eP	P	22 52 03.4	-1.3
	comp=Z,14nm,0.8s,mb5.3						
CTAO				epP	pP	22 52 11.9	-2.4
KAKA	Kakadu	89.17	246	eP	P	22 52 05.2	-1.4
	comp=Z,12nm,0.9s,mb5.2						
KAKA				e	pP	22 52 14.3	-2.0
VIS	Vishakhapatnam	90.73	303	eP	P	22 52 13.1	-0.6
VIS				e		22 52 15.4	
	comp=Z,25nm,1.2s						
ASF	Jabal al Asfar	91.85	347	LR	LR	23 42 37.0	
	comp=Z,236nm,18.9s,MS4.7,baz=60,slow=41						
MIB	Mutribah	92.41	338	eP	P	22 52 22.1	+0.9
MIB				AMb	AMB	22 52 23.4	
	comp=Z,54nm,1.0s,mb5.8						
UMR	Umm Al-Rimmam	92.57	338	eP	P	22 52 22.4	+0.4
UMR				AMb	AMB	22 52 23.5	
	comp=Z,33nm,1.0s,mb5.7						
RST	Umm Al-Ruwaisa	92.77	338	eP	P	22 52 22.6	-0.3
RST				AMb	AMB	22 52 24.2	
	comp=Z,19nm,0.9s,mb5.5						
HYB	Hyderabad	93.22	307	eP	P	22 52 24.5	-0.7
HYB	Hyderabad	93.22	307⇑	iP	P	22 52 24.5	-0.7
WRAB	Tennant Creek	94.28	241	i P	P	22 52 28.7	-1.4
WRAB	Tennant Creek	94.28	241	eP	P	22 52 28.0	-2.1
	comp=Z,38nm,1.3s,mb5.7						
WRAB				epP	pP	22 52 36.6	-3.1
WRA	Warramunga Arr	94.30	241	P	P	22 52 28.0	-2.2
	comp=Z,4.1nm,0.9s,mb4.8,baz=39,slow=5.0,SNR=28						
WRA	Warramunga Arr	94.30	241	P	P	22 52 28.0	-2.1
WRA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
POO	Poona	94.31	312	eP	P	22 52 28.0	-2.2
POO				eP		22 52 28.9	
POO				AMb	AMB	22 52 31.1	
	comp=Z,22nm,1.1s,mb5.5						
FITZ	Fitzroy Crossi	97.25	249	eP	P	22 52 42.4	-1.2
	comp=Z,16nm,2.0s,mb5.1						
FITZ				e	pP	22 52 51.9	-1.4
FITZ	Fitzroy Crossi	97.25	249	P	P	22 52 41.8	-1.8
	comp=Z,6.5nm,1.0s,mb5.0,baz=168,slow=6.1,SNR=5.9						
ASAR	Alice Springs	97.65	239	P	P	22 52 42.8	-2.6
	comp=Z,1.0nm,0.9s,mb4.3,baz=45,slow=3.0,SNR=5.9						
ASAR				LR	LR	23 33 09.8	
	comp=Z,144nm,19.6s,MS4.5,baz=31,slow=33						
TRD	Trivandrum	101.74	304	e	P	22 53 17.6	+14
TRD				AMb	AMB	22 53 19.1	
	comp=Z,27nm,1.3s						
KMBO	Kilima Mbogo	124.49	341	PKP	PKPdf	22 58 10.9	-3.3
	comp=Z,5.4nm,0.9s,baz=13,slow=3.5,SNR=15						
KMBO	Kilima Mbogo	124.49	341	ePKP	PKPdf	22 58 10.5	-3.7
LSZ	Lusaka	139.67	351	ePKP	PKPdf	22 58 29.4	-13
QSPA	South Pole Qui	145.19	180	eP	PKPbc	22 58 45.1	-0.5
LBTB	Lobatse	149.53	354	ePKPbc	PKPdf	22 58 59.7	+0.6
BOSA	Boshof	153.13	354	ePKPdf	PKPdf	22 59 00.3	-4.0
VNA3	Neumayer Olymp	159.10	152⇑	i	PKPdf	22 59 07.9	-2.9
VNA3	Neumayer Olymp	159.10	152⇑	i	PKPdf	22 59 15.3	+4.5
VNA3	Neumayer Olymp	159.10	152⇑	i	PKPdf	22 59 19.7	+8.9
VNA3	Neumayer Olymp	159.10	152⇑	i		22 59 52.9	
VNA3	Neumayer Olymp	159.10	152⇑	i		22 59 56.9	
VNA1	Neumayer--Stat	159.81	151⇑	i	PKPdf	22 59 21.4	+10
VNA1	Neumayer--Stat	159.81	151⇓	i		22 59 56.2	
VNA1	Neumayer--Stat	159.81	151⇑	i		22 59 59.8	
VNA2	Neumayer--Watz	159.89	152⇑	i	PKPdf	22 59 10.2	-1.5
VNA2	Neumayer--Watz	159.89	152⇓	i	PKPdf	22 59 18.3	+6.6
VNA2	Neumayer--Watz	159.89	152⇓	i	PKPdf	22 59 21.9	+10
VNA2	Neumayer--Watz	159.89	152⇑	i		22 59 56.6	
SNAA	Sanae	160.55	156⇑	i	PKPab	22 59 56.9	+5.8

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*IDC **19** 22:42:18.8±5.8, 17.60S×179.04W, h550^{km}±63^{km}, mb3.0/6, mb1 3.3/6, mb1mx3.2/13, Error ellipse: s-maj=70.0km s-min=26.0km az=150.0*

*NEIC **19** 22:42:21.1±5.1, 17.42S×179.20W, h575^{km}±63^{km}, mb3.5/3, Error ellipse: s-maj=70.1km s-min=21.4km az=160.0*

ISC 19 22:42:22.1±1.2**, 17.4S**±0.5×**179.3W**±0.3**, h600^{km}, n16, σ0^{s}53**/10**, mb3.5**/9**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	38.12	240	P	P	22 48 53.0	+0.3
	0.9nm,0.6s,mb3.5,baz=134,slow=23,SNR=2.6						
WRAB	Tennant Creek	43.86	259	eP	P	22 49 38.0	-0.5
	1.0nm,0.6s,mb3.5						
WRA	Warramunga Arr	43.87	259	P	P	22 49 39.0	+0.4
	0.8nm,0.7s,mb3.4,baz=96,slow=7.0,SNR=23						
WRA				PcP	PcP	22 51 11.5	0.0
	0.4nm,0.4s,baz=93,slow=3.3,SNR=5.9						
ASAR	Alice Springs	44.09	254	P	P	22 49 39.2	-1.1
	6.6nm,0.7s,mb4.3,baz=89,slow=8.2,SNR=73						
ASAR				PcP	PcP	22 51 12.1	-0.1
	0.8nm,0.5s,baz=102,slow=3.2,SNR=5.5						
ASPA	Alice Springs	44.10	254	eP	P	22 49 41.1	+0.8
MBWA	Marble Bar	57.35	256	eP	P	22 51 16.4	0.0
	0.6nm,0.3s,mb3.3						
ILAR	Eielson Array	85.59	13	P	P	22 53 58.8	+0.1
	0.5nm,0.4s,mb3.5,baz=221,slow=5.0,SNR=19						
TXAR	Lajitas Array	86.46	58	P	P	22 54 03.4	-0.3
	0.6nm,0.8s,mb3.2,baz=259,slow=4.6,SNR=2.8						
BW06	Boulder Array	87.58	44	eP	P	22 54 09.2	+0.6
	0.4nm,0.4s,mb3.5						
PDAR	Pinedale Array	87.59	44	P	P	22 54 08.2	-0.4
	0.4nm,0.7s,mb3.3,baz=231,slow=1.4,SNR=4.6						
ARCES	ARCESS Array B	125.66	350	PKP	PKPdf	23 00 16.7	+1.1
	2.0nm,0.8s,baz=27,slow=2.7,SNR=6.0						
BRTR	Keskin Array B	143.81	315	PKP	PKPdf	23 00 50.5	+0.7
	0.9nm,0.7s,baz=146,slow=3.0,SNR=5.8						
CLL	Collm	144.78	347	i PKIKP	PKPdf	23 00 54.6	+3.5
	logA/T=0.9						
MLR	Muntele Rosu	144.95	328	PKPbc	PKPbc	23 00 55.2	+2.8
	2.0nm,0.7s,baz=346,slow=1.4,SNR=6.4						
MLR	Muntele Rosu	144.95	328	PKPbc	PKPbc	23 00 55.2	+2.8
GERES	GERESS Array B	146.90	344	PKPbc	PKPbc	23 01 00.5	+3.5
	2.2nm,0.6s,baz=24,slow=3.4,SNR=20						

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*IDC **19** 22:53:18.6±1.6, 18.70N×81.40W, mb3.6/5, mb1 3.9/5, mb1mx3.6/16, MS3.7/1, Ms1 3.6/1, ms1mx2.0/17, Error ellipse: s-maj=44.5km s-min=36.0km az=5.0*

*NEIC **19** 22:53:21.0±4.3, 18.59N×81.44W, h17^{km}±27^{km}, mb4.3/2, Error ellipse: s-maj=18.3km s-min=11.6km az=225.0*

ISC 19 22:53:19.8±3.9**, 18.5N**±0.1×**81.55W**±0.08**, h25^{km}**±31^{km}**, n16, σ0^{s}69**/13**, mb3.5**/5**, MS3.7**/1**, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TEIG	Tepich	6.58	286	ePn	Pn	22 54 58.2	+0.6
TEIG				eSn	Sn	22 56 11.9	-0.7
DWPF	Disney	9.56	1	P	P	22 55 30.5	-8.7
SDV	Santo Domingo	14.27	131	eP	P	22 56 42.2	-0.4
	6.3nm,1.5s						
LRAL	Lakeview Retre	15.28	342	eP	P	22 56 55.0	-0.7
	3.9nm,0.2s						
MYNC	Murphy	16.66	353	eP	P	22 57 13.5	+0.1
	12nm,0.6s						
TXAR	Lajitas Array	22.88	302	P	P	22 58 23.0	+0.3
	0.5nm,0.7s,mb3.1,baz=117,slow=11,SNR=7.3						
PDAR	Pinedale Array	33.87	322	P	P	23 00 04.0	+1.4
	0.4nm,0.5s,mb3.6,baz=67,slow=19,SNR=3.8						
BDFB	Brasilia	47.34	134	LR	LR	23 20 44.8	
	comp=Z,77nm,18.3s,MS3.7,baz=138,slow=35						
YKA	Yellowknife Ar	49.56	341	P	P	23 02 10.0	-0.5
	0.2nm,0.7s,mb3.2,baz=129,slow=7.9,SNR=3.6						
YKA	Yellowknife Ar	49.56	341	P	P	23 02 10.0	-0.5
ARCES	ARCESS Array B	78.61	20	P	P	23 05 19.9	-0.7
	3.2nm,1.0s,mb4.2,baz=315,slow=6.9,SNR=4.3						
ARCES	ARCESS Array B	78.61	20	P	P	23 05 19.9	-0.7
GERES	GERESS Array B	79.66	42	P	P	23 05 27.4	+0.6
	0.5nm,0.8s,mb3.5,baz=284,slow=8.1,SNR=4.0						
WRAB	Tennant Creek	146.11	262	ePKPab	PKPab	23 13 02.6	+1.3
WRA	Warramunga Arr	146.12	262	PKPbc	PKPbc	23 13 03.0	+4.3
	0.7nm,0.8s,baz=83,slow=3.3,SNR=7.5						
ASAR	Alice Springs	146.59	255	PKPbc	PKPbc	23 13 01.1	+1.5
	0.5nm,1.0s,baz=96,slow=3.4,SNR=2.4						

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*NEIC **19** 23:09:24.2, 15.67N×99.01W, h16^{km}, MD4.1(MEX), After MEX.*

MEX 19 23:09:24.1±0.9**, 15.71N×99.06W, h16^{km}**±30^{km}**, MD4.2, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	1.13	53	i P	Pb	23 09 41.3	-3.4
PNIG				i S	Sb	23 09 54.8	-4.2
ACX	Acapulco	1.42	325	i P	Pn	23 09 43.5	-5.9
ACX				i S	Sb	23 10 01.5	-5.8

CAIG	El Cayaco	1.77	319	eP	Pn	23 09 50.8	-3.6
CAIG				i S	Sn	23 10 11.0	-5.6
VHO	Vista Hermosa	2.62	58	i P	Pn	23 10 03.7	-2.8
VHO				i S	Sn	23 10 32.8	-5.5
OXX	Oaxaca	2.63	58	i P	Pn	23 10 04.3	-2.4
PLIG	Platanillo	2.70	351	eP	Pn	23 10 07.1	-0.7
PLIG				eS	Sn	23 10 37.6	-2.8
PLIG	Platanillo	2.70	351	eP	Pn	23 10 07.1	-0.7
PLIG				i S	Sn	23 10 36.6	-3.9
HUIG	Huatulco	2.85	88	i P	Pn	23 10 12.4	+2.6
YAIG	Yautepec	3.14	360	eP	Pn	23 10 12.8	-1.1
YAIG				eS	Sn	23 10 47.3	-4.2
YAIG	Yautepec	3.14	360	eP	Pn	23 10 12.2	-1.7
YAIG				eS	Sn	23 10 47.3	-4.2
PPM	Popocatepetl	3.37	7	i P	Pn	23 10 17.8	+0.6
IISM	Ciudad Serdan	3.64	26	i P	Pn	23 10 15.8	-5.3
IISM				i S	Sn	23 11 02.2	-1.9

IDC ***19*** *23:17:43.2±1.1, 8.60S×124.59E, mb3.9/5, mb1 4.2/8, mb1mx4.0/14, ML3.8/3, Error ellipse: s-maj=41.0km s-min=17.3km az=58.0*

NEIC ***19*** *23:17:49.4±3.9, 8.75S×124.39E, h44^{km}±44^{km}, mb4.3/1, Error ellipse: s-maj=37.4km s-min=19.9km az=218.0*

ISC 19 23:17:47.1±2.9**, 8.7S**±0.1×**124.7E**±0.2**, h48**^{km}±30^{km}**, n11,** σ**1^{s}29**/14**, mb3.8**/5**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FITZ	Fitzroy Crossi	9.36	174	Pn	P	23 20 02.1	-0.1
	0.6nm,0.3s,baz=340,slow=15,SNR=4.9						
FITZ				Sn	S	23 21 47.4	+0.3
	7.6nm,0.3s,baz=139,slow=3.3,SNR=13						
WRA	Warramunga Arr	14.55	141	Pn	P	23 21 10.7	-1.2
	0.8nm,0.3s,baz=317,slow=13,SNR=27						
WRA				Sn	S	23 23 47.7	-4.8
	1.2nm,0.3s,baz=319,slow=26,SNR=9.6						
WRAB	Tennant Creek	14.55	141	eP	P	23 21 10.9	-1.0
	15nm,0.7s						
ASAR	Alice Springs	17.28	150	P	P	23 21 49.0	+2.3
	0.3nm,0.3s,baz=319,slow=11,SNR=22						
ASAR				S	S	23 24 54.5	-1.1
	0.4nm,0.3s,baz=317,slow=20,SNR=20						
PMG	Port Moresby	22.23	93	P	P	23 22 42.5	+1.3
	3.0nm,0.3s,mb4.1,baz=234,slow=19,SNR=2.4						
PMG	Port Moresby	22.23	93	eP	P	23 22 45.3	+4.1
	7.1nm,0.6s,mb4.3						
STKA	Stephens Creek	27.89	148	P	P	23 23 36.9	+2.1
	1.1nm,0.8s,mb3.6,baz=331,slow=19,SNR=1.5						
STKA	Stephens Creek	27.89	148	eP	P	23 23 37.0	+2.2
CMAR	Chiang Mai Arr	37.07	317	P	P	23 24 54.6	-0.1
	1.7nm,0.7s,mb4.0,baz=131,slow=6.0,SNR=10						
SONM	Songino Array	58.60	346	P	P	23 27 42.4	+0.8
	0.5nm,0.9s,mb3.6,baz=162,slow=9.1,SNR=3.1						
ZAL	Zalesovo	70.92	336	P	P	23 28 59.3	-2.0
	0.6nm,0.4s,mb3.9,baz=313,slow=6.2,SNR=4.4						

PDG ***19*** *23:32:32.6±0.1, 36.74N×20.04E, h1^{km}±11^{km}*

IDC ***19*** *23:32:33.6±3.4, 36.78N×21.34E, h20^{km}±21^{km}, mb4.2/18, mb1 4.2/28, mb1mx4.2/31, ML3.8/9, MS3.7/4, Ms1 3.7/4, ms1mx3.1/25, Error ellipse: s-maj=15.2km s-min=11.4km az=28.0*

MOS ***19*** *23:32:33.9±1.2, 36.78N×21.27E, h33^{km}, mb4.9/11, Error ellipse: s-maj=6.8km s-min=3.3km az=96.1*

BJI ***19*** *23:32:33.3, 36.70N×21.30E, h32^{km}, mb4.8*

ATH ***19*** *23:32:33.2, 36.69N×21.28E, h27^{km}±2^{km}, MD4.2/18, ML4.2*

NEIC ***19*** *23:32:35.4±1.1, 36.75N×21.29E, h33^{km}±8^{km}, mb4.4/20, ML4.2(ATH), Error ellipse: s-maj=6.5km s-min=3.2km az=202.0*

ZUR_RM ***19*** *23:32:35, 36.75N×21.29E, h18^{km}, Mw4.5/20, Moment Tensor Solution. s20 Moment tensor: Scale 10^{15}Nm; M_{rr}7.42; $M_{\theta\theta}$-6.59; $M_{\phi\phi}$-0.83; $M_{r\theta}$-1.16; $M_{\theta\phi}$1.10; $M_{\phi r}$0.91; Best double couple: $M_0$7.26×10^{15} NP1:ϕ_s285°, δ50°, λ96°. NP2:ϕ_s96°, δ40°, λ83°. Principal axes: T 7.597, Plg83°, Azm233°; N -.682, Plg5°, Azm101°; P -6.915, Plg5°, Azm11°;*

CSEM ***19*** *23:32:35.0±0.1, 36.70N×21.27E, h60^{km}, mb4.4/18 Error ellipse: s-maj=3.3km s-min=1.6km az=16.0*

ISC 19 23:32:35.3±0.5**, 36.87N**±0.03×**21.23E**±0.03**, h53**^{km}±4^{km}**, n225,** σ**1^{s}32**/260**, mb4.5**/35**, MS3.6**/4**, 11C-15D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	0.64	60	ePN	P	23 32 46.9	-1.6
ITM				eSN	S	23 32 58.1	-0.1
VLI	Veliai	1.38	96	⇓iPN	P	23 32 58.5	-0.3
VLS	Valsamata	1.41	339	ePN	P	23 33 01.6	+2.5
KYTH	Kithira	1.57	111	ePN	P	23 33 00.5	-0.9
MGER	Gerania Oros	1.97	55	ePN	P	23 33 08.0	+1.1
NAIG	Nisos Aigina	2.01	63	ePN	P	23 33 08.2	+0.7
NSAL	Nisos Salamina	2.06	59	ePN	P	23 33 09.0	+0.7
EVR	Evrytania	2.10	12	⇓iPB	P	23 33 13.0	+4.2
EVR	Evrytania	2.10	12	⇓iPb	P	23 33 13.6	+4.8
ATH	Athens Observa	2.27	60	⇑iPN	P	23 33 11.6	+0.4
LKR	Lokris	2.27	38	ePN	P	23 33 13.2	+2.0
MPAR	Parnis Oros	2.37	56	ePN	P	23 33 13.0	+0.3
MPAR	Parnis Oros	2.37	56	ePn	P	23 33 12.5	-0.2
PTL	Penteli	2.41	60	ePN	P	23 33 13.8	+0.6
JAN	Janina	2.80	354	ePN	P	23 33 21.8	+3.0
VAM	Vamos	2.81	120	ePN	P	23 33 17.0	-1.9
NEO	Neokhori	2.90	32	ePN	P	23 33 22.2	+2.0
LSK	Leskovik	3.32	352	i Pg	P	23 33 28.1	+2.0
LSK				i Sg	Px	23 33 34.6	
IDI	Anoyia	3.36	117	Pn	P	23 33 23.3	-3.4
	2.9nm,0.3s,baz=324,slow=22,SNR=23						
IDI				Pg	P	23 33 33.4	+6.7
	7.4nm,0.3s,baz=295,slow=14,SNR=14						
IDI				Sn	S	23 34 01.9	-3.7
	18nm,0.3s,baz=350,slow=16,SNR=7.5						
IDI	Anoyia	3.36	117	Pn	P	23 33 23.3	-3.4
IDI				Pg	P	23 33 33.4	+6.7
IDI				Sn	S	23 34 01.9	-3.7
SANT	Santorini	3.44	97	ePn	P	23 33 24.9	-2.9
SANT	Santorini	3.44	97	ePn	P	23 33 24.9	-2.9
KZN	Kozani	3.46	7	ePN	P	23 33 30.1	+2.0
PLG	Polygyros	3.91	26	ePN	P	23 33 35.4	+1.0
BIA	Bitola	4.15	1	i Pn	P	23 33 41.7	+3.9
BIA				i		23 33 48.9	
BIA				i		23 33 57.5	
BIA				i Sn	S	23 34 20.5	-5.0
BIA				i		23 34 31.4	
TIP	Timpagrande	4.22	305	ePn	P	23 33 38.4	-0.4
TIP	Timpagrande	4.22	305	ePn	P	23 33 38.4	-0.4
OHR	Ohrid	4.25	356	i Pn	P	23 33 41.3	+2.0
OHR				i		23 33 42.4	
OHR				e		23 34 35.3	
TIR	Tirane	4.60	347	i Pn	P	23 33 46.0	+1.8
PRK	Paraskevi	4.64	58	ePN	P	23 33 44.0	-0.6
QSH	Qafa e Shtames	4.76	348	i Pn	P	23 33 47.0	+0.6
QSH				i Sn	S	23 34 30.0	-11
NVR	Nevrokopi	4.92	24	ePN	P	23 33 49.6	+0.9
MMB	Musomiste	5.10	22	i P	P	23 33 51.0	-0.1
SKO	Skopje	5.10	2	i Pn	P	23 33 52.5	+1.3
SKO				i		23 34 05.4	
SKO	Skopje	5.10	2	i Pn	S	23 34 54.0	+4.5
KKB	Krupnik	5.20	15	i P	P	23 33 53.0	+0.5
ULC	Ulcinj	5.32	344	⇓iPn	P	23 33 53.8	-0.3
ULC				eSn	S	23 34 55.1	+0.2
RDO	Rodhopi	5.43	37	ePN	P	23 33 56.2	+0.5
RDO	Rodhopi	5.43	37	ePn	P	23 33 55.9	+0.2
VAE	Valguarnera	5.48	278	Pn	P	23 33 55.6	-0.7
	6.8nm,0.3s,baz=275,slow=4.7,SNR=18						
VAE				Sn	S	23 34 58.6	-0.3
	15nm,0.3s,baz=302,slow=9.6,SNR=4.0						
VAE	Valguarnera	5.48	278	Pn	P	23 33 55.7	-0.7
VAE				Sn	S	23 34 58.6	-0.3
RZN	Rozhen	5.52	28	i P	P	23 33 58.0	+1.0
BUM	Brajici-Budva	5.72	342	⇓iPn	P	23 33 59.1	-0.6
BUM				eSn	S	23 35 04.2	-0.7
TTG	Podgorica	5.76	345	⇓iPn	P	23 33 60.0	-0.3
TTG				eSn	S	23 35 06.3	+0.4
PVY	Plav	5.80	351	⇓iPn	P	23 34 02.0	+1.1
PVY				eSn	S	23 35 09.6	+2.6
VTS	Vitosha	5.92	14	i P	P	23 34 04.0	+1.5
HCY	Herceg Novi	5.96	340	⇓iPn	P	23 34 01.7	-1.3
HCY				eSn	S	23 35 08.7	-2.2
IVA	Berane	6.09	351	⇓iPn	P	23 34 05.9	+1.1
IVA				eSn	S	23 35 16.2	+2.2
PGB	Panagyurishte	6.11	21	i P	P	23 34 10.0	+4.8
NKY	Niksic	6.18	345	⇓iPn	P	23 34 05.6	-0.6
NKY				eSn	S	23 35 16.2	-0.2
BRY	Bratogost	6.37	342	⇓iPn	P	23 34 07.7	-1.2
BRY				eSn	S	23 35 19.5	-1.6
UPM	Unac-Piva	6.58	345	⇓iPn	P	23 34 11.4	-0.4
UPM				eSn	S	23 35 25.6	-0.6
PLE	Pljevlja	6.61	348	⇓iPn	P	23 34 12.5	+0.2
PLE				eSn	S	23 35 27.8	+0.8
PVL	Pavlikeni	7.08	25	i P	P	23 34 20.0	+1.2
CII	Carovilli	7.23	314	eP	P	23 34 20.8	-0.1
	73nm,1.0s						
CII	Carovilli	7.23	314	eP	P	23 34 20.8	-0.1
	73nm,1.0s						
DIVS	Divcibare	7.29	353	⇑iPn	P	23 34 20.3	-1.4
ISP	Isparta	7.46	80	P	P	23 34 18.1	-5.9
AQU	L'Aquila	8.15	315	eP	P	23 34 33.9	+0.3
AQU				pmax	pmax		
	comp=Z,61nm,1.1s						
AQU	L'Aquila	8.15	315	eP	P	23 34 33.9	+0.3
	comp=Z,61nm,1.1s						
AQU	L'Aquila	8.15	315	eP	P	23 34 33.9	+0.3
	comp=Z,61nm,1.1s						
BLY	Banja Luka	8.45	340	P	P	23 34 41.6	+3.9
MLR	Muntele Rosu	9.32	21	Pn	P	23 34 50.4	+0.7
	comp=Z,0.2nm,0.3s,baz=280,slow=6.1,SNR=7.0						
MLR				LR	LR	23 38 53.8	
	comp=Z,240nm,18.2s,baz=307,slow=41						
MLR	Muntele Rosu	9.32	21	Pn	P	23 34 50.4	+0.7
MLR				LR	LR	23 38 53.8	
RHK1	Bakonya	9.52	347	eP	P	23 34 51.2	-1.2
PKSM	Moragy	9.54	349	⇑eP	P	23 34 50.7	-1.9
PKSM				i		23 36 32.6	
BOJS	Bojanci	9.73	334	ePn	P	23 34 54.4	-0.9
PKS9	Tamasi	9.96	348	eP	P	23 34 57.2	-1.2
PKSN	Nyarlorinc	10.08	355	eP	P	23 34 58.5	-1.5
VISS	Visnje	10.14	334	ePn	P	23 34 60.0	-0.8
BRTR	Keskin Array B	10.16	70	Pn	P	23 34 59.2	-1.9
	comp=Z,0.1nm,0.3s,baz=253,slow=14,SNR=6.9						
PKS8	Sarbogard	10.18	350	eP	P	23 34 59.1	-2.3
CEY	Cerknica	10.23	332	ePn	P	23 35 01.0	-1.1
CEY				eSn	S	23 36 53.7	-2.7
PDKS	Podkum	10.30	335	ePn	P	23 35 02.3	-0.8
PDKS				eSn	S	23 36 55.0	-3.1
LJU	Ljubljana	10.45	333	i Pn	P	23 35 04.9	-0.2
VOY	Vojsko	10.68	331	ePn	P	23 35 07.9	-0.3
VOY				eSn	S	23 37 05.0	-2.2
PERS	Pernice	10.77	337	ePn	P	23 35 07.4	-2.1
OBKA	Obir	10.85	335	⇑iPN	P	23 35 09.7	-0.8
OBKA				i SN	S	23 37 08.0	-3.3
PSZ	Piszkesteto	11.09	355	eP	P	23 35 12.7	-1.0
PSZ				pmax	pmax		
	comp=Z,16nm,1.0s						
PSZ	Piszkesteto	11.09	355	eP	P	23 35 12.7	-1.1
	comp=Z,16nm,1.0s						
ARSA	Arzberg	11.21	340	i SN	S	23 37 15.1	-4.9
ARSA	Arzberg	11.21	340	⇑iPn	P	23 35 13.5	-1.8
ARSA				i Sn	S	23 37 15.1	-4.9
VYHS	Vyhne	11.75	352	ePN	P	23 35 21.7	-1.0
VYHS				e		23 37 29.0	
KBA	Koelnbreinsper	11.76	333	i SN	S	23 37 30.6	-2.9
KBA	Koelnbreinsper	11.76	333	⇑iPn	P	23 35 22.7	-0.1
KBA				i Sn	S	23 37 30.6	-2.9
KOLS	Kolonicke sedl	12.09	3	ePN	P	23 35 34.3	+7.2
MOA	Molln	12.12	337	i SN	S	23 37 37.7	-4.3
MOA	Molln	12.12	337	⇓iPn	P	23 35 27.1	-0.5
MOA				i Sn	S	23 37 37.7	-4.3
WTTA	Wattenberg	12.59	329	i SN	S	23 37 51.1	-2.2
WTTA	Wattenberg	12.59	329	⇑iPn	P	23 35 33.1	-0.8
WTTA				i Sn	S	23 37 51.1	-2.2
WATA	Walderalm	12.67	329	i SN	S	23 37 52.3	-3.0
WATA	Walderalm	12.67	329	⇑iPn	P	23 35 34.9	-0.1
WATA				i Sn	S	23 37 52.3	-3.0
SQTA	Sankt Quirin	12.74	327	i SN	S	23 37 54.7	-2.1
SQTA	Sankt Quirin	12.74	327	⇑iPn	P	23 35 36.0	+0.2
SQTA				i Sn	S	23 37 54.7	-2.1
MOTA	Moosalm	12.88	328	i SN	S	23 37 57.9	-2.3
MOTA	Moosalm	12.88	328	⇓iPn	P	23 35 37.7	0.0
MOTA				i Sn	S	23 37 57.9	-2.3
VRAC	Vranov	12.89	346	Pn	P	23 35 37.3	-0.6
	comp=Z,0.2nm,0.3s,baz=149,slow=13,SNR=3.2						
DAVOX	Davos	13.02	323	Pn	P	23 35 40.9	+1.3
	comp=Z,0.3nm,0.3s,baz=141,slow=13,SNR=6.7						
DAVOX				Sn	S	23 38 04.0	+0.5
	comp=Z,0.5nm,0.3s,baz=294,slow=20,SNR=3.8						
DAVOX	Davos	13.02	323	Pn	P	23 35 40.8	+1.3
OKC	Ostrava-Krasne	13.16	351	eP	P	23 35 52.7	+11
OKC				AMS	AMS	23 42 00.0	
	comp=Z,900nm,6.4s						
GERES	GERESS Array B	13.18	338	Pn	P	23 35 40.5	-1.1
	comp=Z,0.6nm,0.3s,baz=157,slow=14,SNR=18						
GERES				Sn	S	23 38 01.7	-5.6
	comp=Z,0.2nm,0.3s,baz=152,slow=23,SNR=3.9						
DAVA	Damuels	13.38	325	i SN	S	23 38 10.9	-1.3
DAVA	Damuels	13.38	325	⇑iPn	P	23 35 45.2	+0.9
DAVA				i Sn	S	23 38 10.9	-1.3
KHC	Kasperske Hory	13.47	338	eP	P	23 35 46.2	+0.8
KHC				MLR	MLR		
	comp=Z,400nm,17.3s						
KHC	Kasperske Hory	13.47	338	eP	P	23 35 46.2	+0.8
KHC				x	x	23 35 51.5	
KHC				AMS	AMS	23 41 50.0	
	comp=Z,400nm,17.3s						
EIL	Elat	13.53	118	Pn	P	23 35 41.2	-5.1
	comp=Z,0.7nm,0.3s,baz=302,slow=22,SNR=5.2						
EIL				Sn	S	23 38 01.1	-15
	comp=Z,0.5nm,0.3s,baz=337,slow=17,SNR=3.4						
EIL	Elat	13.53	118	eP	P	23 35 41.2	-5.1
EIL				Sn	S	23 38 01.1	-15
BNI	Bardonecchia	13.69	311	P	P	23 35 51.3	+3.0
MALT	Malatya	13.72	79	eP	P	23 35 49.1	+0.4
MALT				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MALT	Malatya	13.72	79	eP	P	23 35 49.1	+0.4
	comp=Z,2.9nm,0.6s						
MALT	Malatya	13.72	79	eP	P	23 35 49.1	+0.4
	comp=Z,2.9nm,0.6s						
ASF	Jabal al Asfar	13.74	105	Pn	P	23 35 46.3	-2.7
	comp=Z,0.3nm,0.3s,baz=333,slow=9.0,SNR=2.8						
LPL	La Plagne	13.91	313	eP	P	23 35 54.8	+3.7
DPC	Dobruska-Polom	13.94	347	eP	P	23 36 00.2	+8.7
DPC				AMS	AMS	23 42 20.0	
	comp=Z,800nm,12.4s						
PRU	Pruhonice	13.98	342	eP	P	23 35 51.2	-0.8
PRU				AMS	AMS	23 42 10.0	
UPC	Upice	14.14	346	eP	P	23 36 02.4	+8.2
KSP	Ksiaz	14.41	347	eP	P	23 36 06.5	+8.8
PVCC	Panska Ves	14.47	343	eP	P	23 35 59.9	+1.4
PVCC				AMS	AMS	23 42 30.0	
	comp=Z,1μm,8.2s						
GRA1	Grafenberg Arr	14.73	334	eP	P	23 36 09.7	+7.9
	comp=Z,63nm,1.4s						
GRF	Grafenberg Arr	14.73	334	eP	P	23 36 09.7	+7.9
GRF				pmax	pmax		
	comp=Z,63nm,1.4s						
GRF	Grafenberg Arr	14.73	334	eP	P	23 36 09.7	+7.9
GRF				pmax	pmax		
	comp=Z,63nm,1.4s						
GRF	Grafenberg Arr	14.73	334	eP	P	23 36 09.7	+7.9
	comp=Z,63nm,1.4s						
NKC	Novy Kostel	14.79	337	eP	P	23 36 11.0	+8.4
NKC				AMS	AMS	23 42 30.0	
	comp=Z,500nm,13.3s						
GUNZ	Gunzen	14.94	337	eP	P	23 36 14.0	+9.5
HINF	Hinteralfeld	15.23	320	eP	P	23 36 09.4	+1.1
	comp=Z,11nm,0.7s						
HINF	Hinteralfeld	15.23	320	eP	P	23 36 09.4	+1.1
HINF				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MOX	Moxa	15.41	336	eP	P	23 36 11.6	+1.0
MOX				pmax	pmax		
	comp=Z,34nm,2.0s						
MOX	Moxa	15.41	336	i P	P	23 36 11.6	+1.0
	comp=Z,logA/T=1.2						
MOX	Moxa	15.41	336	eP	P	23 36 11.6	+1.0
	comp=Z,34nm,2.0s						
CDF	Champ du Feu	15.42	323	eP	P	23 36 12.7	+2.0
	comp=Z,14nm,0.7s						
CDF	Champ du Feu	15.42	323	eP	P	23 36 12.7	+2.0
CDF				pmax	pmax		
	comp=Z,7.0nm,0.7s						
CLL	Collm	15.59	340	i P	P	23 36 19.2	+6.4
CLL				pmax	pmax		
	comp=Z,21nm,1.3s						
CLL	Collm	15.59	340	i P	P	23 36 19.2	+6.4
	comp=Z,21nm,1.3s						
CLL	Collm	15.59	340	i	P	23 36 19.2	+6.4
CLL				e		23 36 37.0	
HAU	Haudompre	15.61	320	eP	P	23 36 13.8	+0.6
	comp=Z,26nm,0.8s						
HAU	Haudompre	15.61	320	eP	P	23 36 13.8	+0.6
HAU				pmax	pmax		
	comp=Z,13nm,0.8s						
SSF	Saint Saulge	16.62	313	eP	P	23 36 28.8	+2.8
SSF				pmax	pmax		
	comp=Z,9.0nm,1.0s						
SSF	Saint Saulge	16.62	313	eP	P	23 36 28.8	+2.8
	comp=Z,9.2nm,1.0s						
SUW	Suwalki	17.20	4	eP	P	23 36 33.9	+0.7
SUW				pmax	pmax		
	comp=Z,177nm,1.0s						
SUW	Suwalki	17.20	4	eP	P	23 36 33.9	+0.7
	comp=Z,177nm,1.0s						
SUW	Suwalki	17.20	4	eP	P	23 36 33.9	+0.7
	comp=Z,177nm,1.0s						
GIVF	Givet	17.75	323	eP	P	23 36 42.6	+2.6
KIV	Kislovodsk	17.78	60c	iP	P	23 36 42.9	+2.4
KIV				pmax	pmax		
	comp=N,10.0nm,1.1s						
KIV				pmax	pmax		
	comp=E,10.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,21nm,1.1s						
KIV	Kislovodsk	17.78	60	eP	P	23 36 40.3	-0.3
	comp=Z,20nm,1.0s						
KIV	Kislovodsk	17.78	60	eP	P	23 36 40.3	-0.2
	comp=Z,20nm,1.0s						
BAIF	Baives	18.01	322	eP	P	23 36 43.6	+0.3
MNK	Minsk	18.21	12	eP	P	23 36 42.0	-3.8
GOF	Gofitskoye	18.35	57	eP	P	23 36 47.0	-0.5
ZEI	Tsey	18.36	64	eP	P	23 36 49.6	+1.9
ZEI				pmax	pmax		
	comp=Z,20nm,1.1s						
GNI	Garni	18.68	73	P	P	23 36 50.5	-1.0
	comp=Z,0.3nm,0.3s,baz=252,slow=19,SNR=2.8						
GNI	Garni	18.68	73	eP	P	23 36 50.2	-1.3
GNI	Garni	18.68	73	eP	P	23 36 50.2	-1.3
VRSR	Storozhevoye	19.23	36	eP	P	23 36 56.9	-0.7
VRSR				eS	S	23 40 24.1	-2.4
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,20nm,2.2s						
VRSR				smax			
	comp=N,10.0nm,0.9s						
VRSR				smax			
	comp=Z,1.0nm,0.9s						
VRSR				smax			
	comp=E,3.0nm,0.6s						
LDF	La Druitiere	19.51	314	eP	P	23 37 01.0	+0.3
	comp=E,16nm,0.7s						
LDF	La Druitiere	19.51	314	eP	P	23 37 01.0	+0.3
LDF				pmax	pmax		
	comp=Z,8.0nm,0.7s						
FLN	La Foliniere	19.80	314	eP	P	23 37 04.3	+0.5
	comp=Z,27nm,0.8s						
FLN	La Foliniere	19.80	314	eP	P	23 37 04.3	+0.5
FLN				pmax	pmax		
	comp=Z,14nm,0.8s						
ESDC	Sonseca Array	19.96	286	P	P	23 37 04.6	-1.0
	comp=Z,1.2nm,0.6s,baz=81,slow=9.8,SNR=9.7						
SGMF	Saint Gilles	20.80	311	eP	P	23 37 14.4	+0.1
OBN	Obninsk	21.05	25	i P	P	23 37 16.7	-0.1
OBN				eS	S	23 41 05.9	+2.8
OBN				pmax	pmax		
	comp=Z,59nm,1.3s,mb4.8						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s,MS3.3						
OBN	Obninsk	21.05	25	eP	P	23 37 16.6	-0.2
	comp=Z,54nm,0.9s,mb4.9						
OBN	Obninsk	21.05	25	eP	P	23 37 16.5	-0.3
	comp=Z,54nm,0.9s,mb4.9						
VSU	Vasula	21.91	8	i P	P	23 37 26.3	+1.0
MOS	Moscow	21.91	25	eP	P	23 37 26.2	+0.8
MOS				e		23 37 50.1	
MOS				pmax	pmax		
	comp=Z,90nm,0.9s,mb5.2						
HFS	Hagfors	23.78	351	P	P	23 37 44.6	+1.1
	comp=Z,8.5nm,0.7s,mb4.3,baz=153,slow=9.9,SNR=24						
FINES	FINESS Array B	24.79	6	P	P	23 37 54.4	+1.1
	comp=Z,7.1nm,0.7s,mb4.3,baz=167,slow=11,SNR=40						
FINES				LR	LR	23 47 27.4	
	comp=Z,122nm,18.6s,MS3.4,baz=359,slow=36						
FINES	FINESS Array B	24.79	6	eP	P	23 37 54.6	+1.3
FINES	FINESS Array B	24.79	6	P	P	23 37 54.4	+1.1
FINES				LR	LR	23 47 27.4	
EKA	Eskdalemuir Ar	24.83	326	P	P	23 37 55.0	+1.2
	comp=Z,4.6nm,1.0s,mb4.0,baz=123,slow=9.4,SNR=9.0						
NB2	NORSAR Subarra	25.01	348	P	P	23 37 56.5	+1.0
	comp=Z,2.4nm,0.7s,mb3.8,baz=156,slow=8.6						
NB2	NORSAR Subarra	25.01	348	P	P	23 37 56.5	+1.0
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
NOA	NORSAR Array B	25.01	348	P	P	23 37 56.6	+1.1
	comp=Z,4.0nm,0.7s,mb4.0,baz=157,slow=9.0,SNR=8.1						
KAF	Kangasniemi	25.47	6	ep	P	23 38 00.3	+0.6
ARCES	ARCESS Array B	32.81	3	P	P	23 39 06.0	+0.5
	comp=Z,3.6nm,0.7s,mb4.4,baz=190,slow=9.6,SNR=12						
ARCES				LR	LR	23 53 48.9	
	comp=Z,165nm,20.5s,MS3.7,baz=13,slow=39						
ARCES	ARCESS Array B	32.81	3	P	P	23 39 05.9	+0.5
BRVK	Borovoye	37.49	49	eP	P	23 39 45.3	0.0
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
BRVK	Borovoye	37.49	49	eP	P	23 39 45.3	0.0
	comp=Z,5.0nm,0.6s,mb4.5						
BRVK	Borovoye	37.49	49	eP	P	23 39 45.3	0.0
	comp=Z,5.0nm,0.6s,mb4.5						
BVAR	Borovoye Array	37.55	49	P	P	23 39 45.7	-0.1
	comp=Z,4.0nm,0.6s,mb4.3,baz=270,slow=5.9,SNR=36						
DBIC	Dimbokro	38.33	225	P	P	23 39 53.0	+0.2
	comp=Z,4.8nm,0.8s,mb4.3,baz=20,slow=8.9,SNR=6.1						
AAK	Ala-Archa	40.79	65	eP	P	23 40 12.5	-0.4
AAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.2						
AAK	Ala-Archa	40.79	65	eP	P	23 40 12.5	-0.4
	comp=Z,7.3nm,1.0s,mb4.3						
AAK	Ala-Archa	40.79	65	eP	P	23 40 12.5	-0.4
	comp=Z,7.3nm,1.0s,mb4.3						
NVS	Novosibirsk	45.17	46	i P	P	23 40 48.5	+0.2
NVS				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.7						
NVS				pmax	pmax		
	comp=E,5.0nm,0.9s						
ZAL	Zalesovo	46.15	47	P	P	23 40 56.0	-0.1
	comp=E,4.7nm,0.7s,mb4.5,baz=208,slow=8.8,SNR=24						
NDI	New Delhi	47.20	83	e	P	23 41 03.0	-1.7
LSZ	Lusaka	52.27	171	eP	P	23 41 42.7	-1.0
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
LSZ	Lusaka	52.27	171	eP	P	23 41 42.7	-1.0
	comp=Z,2.6nm,0.9s,mb4.2						
KOLN	Koldanda	52.67	81	eP	P	23 41 45.5	-1.0
	comp=Z,9.2nm,0.7s,mb4.8						
GKN	Gorkha	53.39	80	eP	P	23 41 50.4	-1.4
	comp=Z,12nm,0.6s,mb5.0						
DMN	Daman	53.93	80	eP	P	23 41 54.7	-1.2
	comp=Z,18nm,0.7s,mb5.1						
KKN	Kakani	53.99	80	eP	P	23 41 55.3	-1.0
	comp=Z,11nm,0.6s,mb5.0						
PKI	Pulchoki	54.19	80	eP	P	23 41 56.5	-1.3
	comp=Z,31nm,1.3s,mb5.1						
GUN	Gumba	54.41	80	eP	P	23 41 58.2	-1.1
	comp=Z,26nm,1.0s,mb5.1						
SCHQ	Schefferville	59.81	318	P	P	23 42 37.6	+0.4
	comp=Z,3.9nm,0.9s,mb4.4,baz=235,slow=13,SNR=7.3						
SONM	Songino Array	60.86	50	P	P	23 42 44.0	-0.5
	comp=Z,1.7nm,0.8s,mb4.2,baz=277,slow=8.2,SNR=11						
BOD	Bodaibo	61.06	38	eP	P	23 42 44.2	-1.5
CD2	Chengdu	66.74	68	P	P	23 43 23.0	-0.1
HIA	Hailar	68.06	44	eP	P	23 43 31.8	+0.7
HIA				pmax	pmax		
	comp=Z,16nm,1.1s						
HIA	Hailar	68.06	44	eP	P	23 43 31.8	+0.7
	comp=Z,16nm,1.1s,mb5.0						

HIA	Hailar	68.06	44	eP	P	23 43 31.8	+0.7
	comp=Z,16nm,1.1s,mb5.0						
CMAR	Chiang Mai Arr	69.52	82	P	P	23 43 39.6	-1.0
	comp=Z,0.9nm,0.4s,mb4.1,baz=306,slow=7.9,SNR=9.6						
ENH	Enshi	71.30	66	eP	P	23 43 51.2	0.0
	comp=Z,9.9nm,1.0s,mb4.7						
ENH	Enshi	71.30	66	eP	P	23 43 51.2	0.0
	comp=Z,9.9nm,1.0s,mb4.7						
CN2	Changchun	74.37	47	eP	P	23 44 10.0	+1.0
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
WHN	Wuhan	74.67	63	eP	P	23 44 09.8	-1.2
YKA	Yellowknife Ar	74.81	340	P	P	23 44 13.3	+2.2
	comp=Z,1.4nm,0.5s,mb4.1,baz=34,slow=5.3,SNR=33						
YKA	Yellowknife Ar	74.81	340	i P	P	23 44 13.7	+2.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ULM	Lac du Bonnet	77.09	324	P	P	23 44 26.9	+2.6
	comp=Z,4.1nm,0.7s,mb4.5,baz=50,slow=5.6,SNR=7.8						
IMA	Indian Mountai	77.32	358	eP	P	23 44 28.0	+2.7
IMA				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
IMA	Indian Mountai	77.32	358	eP	P	23 44 28.0	+2.7
	comp=Z,34nm,1.0s,mb5.2						
IMA	Indian Mountai	77.32	358	eP	P	23 44 28.0	+2.7
	comp=Z,34nm,1.0s,mb5.2						
ILAR	Eielson Array	78.27	355	P	P	23 44 33.2	+2.8
	comp=Z,1.5nm,0.5s,mb4.2,baz=343,slow=3.2,SNR=36						
ILAR	Eielson Array	78.27	355	P	P	23 44 33.2	+2.7
BLO	Bloomington	79.30	311	eP	P	23 44 38.9	+2.2
BLO				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
BLO	Bloomington	79.30	311	eP	P	23 44 38.9	+2.2
	comp=Z,17nm,0.9s,mb5.0						
BLO	Bloomington	79.30	311	eP	P	23 44 38.9	+2.2
	comp=Z,17nm,0.9s,mb5.0						
FVM	French Village	82.40	312	eP	P	23 44 56.2	+3.1
FVM				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
FVM	French Village	82.40	312	eP	P	23 44 56.2	+3.1
	comp=Z,4.2nm,0.6s,mb4.5						
BDFB	Brasilia	83.47	245	P	P	23 45 01.5	+2.7
	comp=Z,2.1nm,0.7s,mb4.3,baz=129,slow=7.1,SNR=5.0						
BDFB				LR	LR	00 22 30.1	
	comp=Z,88nm,18.2s,MS4.2,baz=264,slow=36						
KSU1	Kansas State U	85.19	316	eP	P	23 45 10.5	+3.5
PDAR	Pinedale Array	88.95	326	P	P	23 45 27.9	+2.8
	comp=Z,1.0nm,0.9s,mb4.2,baz=45,slow=6.3,SNR=7.0						
TXAR	Lajitas Array	96.29	314	P	P	23 46 02.6	+3.4
	comp=Z,0.6nm,0.8s,mb4.1,baz=52,slow=3.2,SNR=8.0						
WRA	Warramunga Arr	119.91	93	PKP	PKPdf	23 51 22.6	+2.4
	comp=Z,0.3nm,0.8s,baz=346,slow=6.8,SNR=4.4						
ASAR	Alice Springs	121.46	97	PKP	PKPdf	23 51 25.1	+1.9
	comp=Z,0.7nm,0.8s,baz=310,slow=2.2,SNR=6.6						

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*NEIC **19** 23:48:11.6, 15.82N×98.91W, h10^{km}, MD4.0(MEX), After MEX.*

MEX 19 23:48:11.8±0.8**, 15.94N×98.93W, h5**^{km}±16^{km}**, MD4.0, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.89	60	eP	Pb	23 48 26.9	-2.5
PNIG				i S	Sb	23 48 39.2	-2.1
ACX	Acapulco	1.32	314	i P	Pb	23 48 28.5	-8.3
ACX				i S	Sb	23 48 44.7	-9.2
CAIG	El Cayaco	1.69	311	eP	Pn	23 48 39.0	-3.3
CAIG				i S	Sn	23 49 01.2	-3.4
CAIG	El Cayaco	1.69	311	eP	Pn	23 48 39.0	-3.3
CAIG				i S	Sn	23 48 59.1	-5.4
VHO	Vista Hermosa	2.39	62	eP	Pn	23 48 46.7	-5.5
VHO				i S	Sn	23 49 19.2	-3.0
VHO	Vista Hermosa	2.39	62	eP	Pn	23 48 46.7	-5.5
VHO				i S	Sn	23 49 17.6	-4.7
PLIG	Platanillo	2.50	347	i P	Pn	23 48 51.3	-2.5
PLIG				i S	Sn	23 49 20.8	-4.3
PLIG	Platanillo	2.50	347	i P	Pn	23 48 51.3	-2.5
PLIG				i S	Sn	23 49 19.3	-5.8
YAIG	Yautepec	2.91	357	eP	Pn	23 48 56.1	-3.5
YAIG				eS	Sn	23 49 32.0	-3.4
PPM	Popocatepetl	3.12	5	eP	Pn	23 49 03.1	+0.4

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*NEIC **19** 23:54:09.3, 33.06S×71.11W, h54^{km}, MD4.0(GUC), After GUC.*

GUC 19 23:54:09.3±0.6**, 33.06S×71.11W, h54**^{km}±2^{km}**, MD4.0, ML3.1, 2C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROCH	El Roble	0.12	44	⇓iP	P	23 54 18.6	+1.0
ROCH				i S	S	23 54 25.3	+1.5
PEL	Peldehue	0.37	103	eP	P	23 54 19.9	+0.4
PEL				i S	S	23 54 28.5	+1.5
IHA	Instituto Hidr	0.45	274	⇓iP	P	23 54 20.2	-0.1
IHA				i S	S	23 54 28.7	+0.4
RCDM	Rinconada Maip	0.50	149	eP	P	23 54 21.2	+0.3
RCDM				i S	S	23 54 30.1	+0.8
RCDM				AMP		23 54 31.6	
	comp=N,2μm,0.1s						
STL	Santa Lucia	0.55	134	eP	P	23 54 22.0	+0.6
STL				i S	S	23 54 31.5	+1.3
LCCH	Las Cruces	0.56	223	⇑iP	P	23 54 21.8	+0.2
DSCH	Colegio Aleman	0.57	127	eP	P	23 54 22.4	+0.7
DSCH				i S	S	23 54 31.9	+1.2
DSCH				AMP		23 54 33.1	
	comp=N,1μm,0.2s						
JACH	Jahuel	0.58	49	⇓iP	P	23 54 22.3	+0.5
JACH				i S	S	23 54 31.8	+0.9
PACH	Papudo	0.59	332	⇑iP	P	23 54 21.6	-0.3
PACH				i S	S	23 54 30.6	-0.6
TACH	Talagante	0.61	166	⇓iP	P	23 54 22.6	+0.4
TACH				i S	S	23 54 32.0	+0.4
FCH	Farellones	0.74	111	⇓iP	P	23 54 24.9	+1.1
FCH				i S	S	23 54 36.4	+1.8
FCH				AMP		23 54 36.9	
	comp=E,868nm,0.2s						
PCH	Pirque	0.75	138	i P	P	23 54 24.6	+0.6
PCH				i S	S	23 54 35.6	+0.7
PTCH	Petorca	0.81	11	eP	P	23 54 25.0	+0.3
PTCH				i S	S	23 54 37.0	+0.8
PTCH				AMP		23 54 39.8	
	comp=E,1μm,0.3s						
SJCH	San Jose de Ma	0.86	133	i P	P	23 54 25.7	+0.3
SJCH				i S	S	23 54 38.3	+0.9
LNV	Longovilo	0.93	196	eP	P	23 54 26.2	-0.1
CHCH	Chadas Angostu	0.95	156	eP	P	23 54 26.8	+0.1
CHCH				i S	S	23 54 39.8	+0.2
LMEL	Las Melosas	1.09	136	eP	P	23 54 29.2	+0.5
LMEL				i S	S	23 54 44.3	+1.3
LMEL				AMP		23 54 46.4	
	comp=N,1μm,0.1s						
ILCH	Illapel	1.42	358	eP	P	23 54 33.3	-0.1
ILCH				i S	S	23 54 52.1	+1.0
ILCH				AMP		23 54 57.9	
	comp=N,486nm,0.1s						
SFDO	San Fernando	1.55	177	eP	P	23 54 35.1	0.0
SFDO				i S	S	23 54 55.2	+0.9
CMCH	Combarbala	1.88	3	eP	P	23 54 39.9	+0.2
CMCH				i S	S	23 55 04.5	+2.3
CMCH				AMP		23 55 10.7	
	comp=E,442nm,0.7s						
TLL	Tololo Astrono	2.90	5	eP	P	23 54 55.0	+0.9

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*CSEM **20** 00:03:50.2±1.0, 38.91N×29.08W, h4^{km}±7^{km}, ML1.9, Error ellipse: s-maj=14.1km s-min=6.9km az=60.0, After PDA*

*PDA **20** 00:03:50.2±1.0, 38.91N×29.08W, h4^{km}±7^{km}, MD3.1, ML1.9, Error ellipse: s-maj=14.1km s-min=6.9km az=60.0*

SVSA 20 00:03:50.2±1.0**, 38.91N×29.08W, h4**^{km}±7^{km}**, MD3.1, ML1.9, Error ellipse: s-maj=14.1km s-min=6.9km az=60.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	Cedros	0.41	133	i P	Pg	00 03 57.6	-0.7
PCED				eS	Sg	00 04 03.0	-0.8
	38nm,0.2s						
PCED	Cedros	0.41	133	eS	Sg	00 04 03.0	-0.8
	38nm,0.2s						
	38nm,0.2s						
CALA	Caldeira	0.44	138	eP	Pg	00 03 57.6	-1.4
CALA				eS	Sg	00 04 03.9	-1.0
HOR	Horta	0.52	137	eP	Pg	00 03 59.4	-1.2
HOR				eS	Sg	00 04 05.7	-1.8
PICO	Pico	0.65	128	eP	Pg	00 04 01.6	-1.7
PICO				eS	Sg	00 04 10.2	-1.8
ROSA	Rosais	0.68	106	eS	Sg	00 04 10.0	-2.9
PMAN	Manadas	0.82	109	eS	Sg	00 04 13.7	-3.8
	11nm,0.1s						

CASC 20 00:31:12.1±2.8**, 9.51N×84.25W, h12**^{km}±8^{km}**, MD3.9, ML4.4, 5C-9D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LCR2	La Lucha 2	0.33	47	⇓iP	Pg	00 31 18.9	-0.2
LCR2				eS	Sg	00 31 27.7	+3.9
LAJ	Bijagual	0.37	20	⇓iP	Pg	00 31 19.4	-0.4
LAJ				eS	Sg	00 31 28.0	+3.0
SJS	Escuela Geolog	0.47	24	⇑iP	Pg	00 31 21.2	-0.5
SJS				⇓iP		00 31 21.3	
SJS				eS	Sg	00 31 28.2	+0.1
PRS1	Puriscal	0.47	353	⇓iP	Pg	00 31 19.6	-2.2
BUS	Buena Vista	0.49	85	⇑eP	Pb	00 31 22.1	+0.1
BUS				eS	Sg	00 31 28.9	+0.2
CGA2	Cerro Gallo 2	0.54	337	⇓eP	Pb	00 31 22.1	-0.9
CGA2				eS	Sb	00 31 31.4	+0.9
URSC	Urasca	0.56	55	⇑iP	Pb	00 31 23.4	0.0
ICR	Volcan Irazu	0.62	42	⇓eP	Pb	00 31 24.2	-0.2
VPS2	Volcan Poas 2	0.67	1	⇑iP	Pb	00 31 24.9	-0.4
JCR	Jicaral	0.91	292	⇓eP	Pb	00 31 28.3	-1.1
JCR				eS	Sb	00 31 41.7	+0.5
FORC	Fortuna	1.04	337	⇓eP	Pb	00 31 30.8	-0.7
FORC				eS	Sb	00 31 45.1	+0.3
TRTC	Tortuguero	1.18	27	⇑iP	Pb	00 31 33.4	-0.5
ACR	Cerro Adams	1.37	129	⇓eP	Pn	00 31 34.8	-2.2
ACR				eS	Sb	00 31 55.0	+0.7
BRU2	Volcan	1.70	115	eP	Pn	00 31 42.9	+1.1
BRU2				eS	Sn	00 32 04.7	+1.2

IDC 20 00:55:51.6±6.0**, 20.27S×168.71E, mb3.8**/4**, mb1 4.1**/4**, mb1mx3.9**/12**, Error ellipse: s-maj=254.0km s-min=38.5km az=150.0, Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	2.77	229	eP	Pn	00 56 33.2	-4.8
NOUC	Port Laguerre	2.89	231	eP	Pn	00 56 34.5	-5.2
WRA	Warramunga Arr	32.24	265	P	P	01 02 22.4	-1.7
	1.4nm,1.2s,baz=96,slow=8.3,SNR=4.2						
ASAR	Alice Springs	32.40	258	P	P	01 02 22.6	-2.8
	1.0nm,0.9s,baz=78,slow=8.9,SNR=6.8						
FITZ	Fitzroy Crossi	40.65	266	P	P	01 03 34.2	-1.2
	3.2nm,0.8s,baz=138,slow=7.6,SNR=3.4						
ILAR	Eielson Array	91.36	17	P	P	01 08 58.9	-1.3
	0.2nm,0.7s,baz=230,slow=4.5,SNR=4.2						

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*CSEM **20** 01:24:06.0±0.1, 35.33N×27.46E, h20^{km}, MD3.6, Error ellipse: s-maj=2.4km s-min=1.4km az=33.0*

*NEIC **20** 01:24:07.6, 35.53N×27.26E, h27^{km}, MD3.6(ATH), After ATH.*

*THE **20** 01:24:09.9, 35.31N×27.22E, h20^{km}*

ATH 20 01:24:07.6, 35.53N×27.26E, h27^{km}±1^{km}**, MD3.6**/10**, 2C-1D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAP	Karpathos	0.07	287	⇑iPB	Pb	01 24 12.3	0.0
KAP				eSB	Sb	01 24 15.6	0.0
KARP	Karpathos	0.08	282	⇑iPb	Pb	01 24 12.3	-0.1
KARP				eSb	Sb	01 24 15.6	0.0
ARG	Arkhangelos	0.98	46	ePN	Pn	01 24 26.9	+1.2
ARG				eSN	Sn	01 24 40.6	+1.8
NISR	Nisiros	1.08	354	ePN	Pn	01 24 29.0	+1.8
NPS	Neapolis	1.37	259	ePN	Pn	01 24 33.2	+1.9
XRY	Khrisi	1.44	243	ePN	Pn	01 24 34.0	+1.7
BDRM	Kayabasi	1.54	5	i P	Pn	01 24 35.5	+1.8
BDRM				i S	Sn	01 24 51.9	-1.1
DALT	Dalyan (Mudla)	1.67	42	ePN	Pn	01 24 37.5	+2.1
SANT	Santorini	1.69	300	ePn	Pn	01 24 37.5	+1.7
SANT	Santorini	1.69	300	ePn	Pn	01 24 37.5	+1.7
THR1	Thera Island	1.69	300	ePb	Pb	01 24 37.6	-0.2
THR1				eSb	Sb	01 24 59.4	+0.7
THR1	Thera Island	1.69	300	eSb	Sb	01 24 59.3	+0.6
THR6	Thira Island,	1.72	299	ePb	Pb	01 24 38.1	-0.3
THR6				eSb	Sb	01 25 00.2	+0.5
THR3	Thira Island,	1.75	301	ePb	Pb	01 24 38.3	-0.5
THR3				eSb	Sb	01 25 00.4	0.0
THR3	Thira Island,	1.75	301	eSb	Sb	01 25 00.4	0.0
THR5	Thira Island,	1.79	300	ePb	Pb	01 24 39.1	-0.4
THR5				eSb	Sb	01 25 01.7	+0.1
YER	Yerkesik	1.80	27	ePN	Pn	01 24 40.2	+2.8
MLSB	Milas	1.81	13	ePN	Pn	01 24 40.2	+2.7
FETY	Fethiye	1.84	53	ePN	Pn	01 24 39.8	+1.7
APE	Apeiranthos	2.08	318	ePN	Pn	01 24 42.6	+1.2
APE				eSN	Sn	01 25 08.7	+2.1
AYDN	Tasoluk	2.18	13	i P	Pn	01 24 45.0	+2.0
AYDN				i S	Sn	01 25 08.7	-0.7
SMG	Samos	2.20	351	ePN	Pn	01 24 44.5	+1.3
ELL	Elmali	2.46	60	ePN	Pn	01 24 46.5	-0.4
VAM	Vamos	2.50	268	ePN	Pn	01 24 48.0	+0.5
DNZL	Cakiroluk	2.59	33	i P	Pn	01 24 51.0	+2.2
DNZL				i S	Sn	01 25 29.3	+10
DENT	Denizli	2.64	32	ePN	Pn	01 24 50.5	+1.1
BLCB	Balcova	2.85	357	ePN	Pn	01 24 53.2	+0.7
IZM	Izmir	2.86	0	ePN	Pn	01 24 53.2	+0.6
KDAG	Bornova	2.87	0	i P	Pn	01 24 53.1	+0.4
KDAG				i S	Sn	01 25 29.3	+2.6
MANT	Manisa	3.13	19	i P	Pn	01 24 57.9	+1.5
MANT				i S	Sn	01 25 30.8	-2.6
BCK	Bucak	3.30	53	ePN	Pn	01 24 59.5	+0.6
AKS	Akhisar	3.37	7	ePN	Pn	01 25 00.4	+0.5
ISP	Isparta	3.49	48	ePn	Pn	01 25 01.1	-0.3
ISP	Isparta	3.49	48	ePn	Pn	01 25 01.1	-0.4
KYTH	Kithira	3.51	284	ePN	Pn	01 25 02.8	+1.0
VLI	Veliai	3.69	290	⇓iPN	Pn	01 25 05.6	+1.2
ALT	Altintas	4.19	32	ePN	Pn	01 25 11.6	+0.1
DST	Dursunbey	4.21	15	PN	Pn	01 25 12.0	+0.2
LOS	Limnos	4.72	339	ePn	Pn	01 25 21.4	+2.3
KONT	Konya--Tatoy	4.75	58	ePN	Pn	01 25 17.4	-2.1
BNT	Bandirma	4.85	6	ePN	Pn	01 25 20.5	-0.3
ESKT	Eskisehir	4.90	35	eP	Pn	01 25 21.9	+0.3
KIZT	Kizilcal	4.98	46	PN	Pn	01 25 21.4	-1.2
XOR	Xorichti	5.01	321	ePn	Pn	01 25 25.2	+2.1
XOR	Xorichti	5.01	321	ePn	Pn	01 25 25.2	+2.1
AGG	Agios Georgios	5.25	313	ePn	Pn	01 25 28.5	+2.0
AGG				eSn	Sn	01 26 29.0	+2.1
ALN	Alexandroupoli	5.44	350	ePn	Pn	01 25 30.9	+1.7
LIT	Litokhoron	5.92	322	ePn	Pn	01 25 36.8	+0.9
ALWS	Ilw as Safayha	9.05	131	P	P	01 26 15.3	-4.4
ALWS				S	Sn	01 27 50.8	-11
HAQS	Haql	9.15	133	P	P	01 26 16.8	-4.2
JMOS	Jabal al Moall	9.18	132	P	P	01 26 16.8	-4.6
BDAS	Al Bad‘	9.71	135	P	P	01 26 24.3	-4.5
JMQS	Jabal Moqyreh	9.85	130	P	P	01 26 26.4	-4.4
AYUS	‘Aynunah	9.99	135	P	P	01 26 28.4	-4.3

IGQ 20 01:24:38.9, 3.72S×77.05W, h25^{km}±19^{km}**, mb4.0, 2C-4D, Error ellipse: s-maj=16.7km s-min=10.0km az=72.6, Peru-Ecuador border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PATA	Patacocha	2.60	328	P	Pn	01 25 22.1	+1.8
PATA				S	Sn	01 25 53.1	+1.7
ARRY	Arrayan	2.61	327	⇓P	Pn	01 25 21.6	+1.2
ARRY				S	Sn	01 25 51.6	-0.2
ULBA	Ulba	2.63	329	⇓P	Pn	01 25 22.4	+1.6
ULBA				S	Sn	01 25 53.2	+0.9
RETU	Refugio	2.65	328	P	Pn	01 25 22.6	+1.6
RUN2	Runtun	2.66	329	⇓P	Pn	01 25 22.6	+1.4
RUN2				S	Sn	01 25 54.2	+1.2
CUSU	Cusua	2.68	328	⇑P	Pn	01 25 23.0	+1.6
CUSU				S	Sn	01 25 54.6	+1.2
JUIV	Juive	2.69	328	P	Pn	01 25 23.1	+1.6
JUIV				S	Sn	01 25 54.2	+0.6
IGUA	Igualata	2.73	324	⇓P	Pn	01 25 24.7	+2.6
IGUA				S	Sn	01 25 57.7	+3.0
PISA	Pisayambo	2.96	333	⇑P	Pn	01 25 27.4	+1.9
PISA				S	Sn	01 26 02.1	+1.5
TAMB	Tambo	3.28	336	P	Pn	01 25 32.0	+1.9
VC1	Cotopaxi 1	3.34	336	P	Pn	01 25 33.2	+2.3
NAS1	Nasa	3.38	335	P	Pn	01 25 34.7	+3.2
ANTI	Antisana	3.44	341	P	Pn	01 25 33.0	+0.8
CONE	Cono NE Rev Vo	3.68	351	P	Pn	01 25 36.7	+1.1
JUA2	San Juan 2	3.82	336	P	Pn	01 25 43.9	+6.3
CGGP	Crater GGP	3.85	336	P	Pn	01 25 43.6	+5.6
PINO	Pino	3.87	336	P	Pn	01 25 42.8	+4.5

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*IDC **20** 01:57:08.8±1.2, 3.46S×135.81E, mb4.1/5, mb1 4.4/7, mb1mx4.2/13, ML4.1/2, MS3.4/1, Ms1 3.4/1, ms1mx2.6/17, Error ellipse: s-maj=52.2km s-min=25.0km az=78.0*

*NEIC **20** 01:57:13.2±0.7, 3.68S×135.28E, h10^{km}, mb4.1/5, Error ellipse: s-maj=15.5km s-min=10.8km az=82.0*

ISC 20 01:57:17.8±2.6**, 4.11S**±0.09×**135.4E**±0.1**, h96**^{km}±28^{km}**, n20, σ1^{s}22**/23**, mb3.9**/6**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.05	199	eP	P	01 59 27.2	0.0
	35nm,0.5s						
PMG	Port Moresby	12.78	115	eP	P	02 00 18.4	+1.3
WRAB	Tennant Creek	15.77	184	eP	P	02 00 54.6	-1.0
	6.1nm,0.6s						
WRAB				eS	S	02 03 43.1	-4.3
WB2	Warramunga Arr	15.78	184	eP	P	02 00 54.7	-1.0
WB2				e		02 01 02.4	
WB2				eS	S	02 03 44.9	-2.7
WRA	Warramunga Arr	15.78	184	Pn	P	02 00 54.5	-1.2
	0.6nm,0.3s,baz=3.3,slow=13,SNR=23						
WRA				Sn	S	02 03 46.3	-1.3
	0.8nm,0.3s,baz=8.7,slow=22,SNR=7.6						
FITZ	Fitzroy Crossi	16.89	214	eP	P	02 01 09.7	+0.1
	10nm,0.6s						
FITZ				eS	S	02 04 14.1	+1.1
FITZ	Fitzroy Crossi	16.89	214	P	P	02 01 10.3	+0.7
	0.9nm,0.3s,baz=15,slow=13,SNR=14						
CTA	Charters Tower	19.07	147	eP	P	02 01 45.5	+10
	4.7nm,0.6s						
CTAO	Charters Tower	19.07	147	P	P	02 01 36.7	+1.4
ASAR	Alice Springs	19.50	184	P	P	02 01 44.2	+4.3
	34nm,0.6s,baz=8.7,slow=11,SNR=334						
ASAR				S	S	02 05 16.7	+6.9
	1.7nm,0.6s,baz=6.8,slow=29,SNR=3.8						
ASAR				LR	LR	02 09 56.5	
	comp=Z,107nm,18.8s,baz=6.2,slow=38						
ASPA	Alice Springs	19.50	184	eP	P	02 01 44.6	+4.7
MBWA	Marble Bar	22.81	221	eP	P	02 02 18.6	+5.4
	16nm,1.0s,mb4.3						
STKA	Stephens Creek	28.23	169	P	P	02 03 09.3	+5.4
	1.8nm,0.9s,mb3.6,baz=298,slow=9.3,SNR=3.0						
STKA	Stephens Creek	28.23	169	P	P	02 03 09.3	+5.4
CMAR	Chiang Mai Arr	42.37	303	P	P	02 05 04.7	+0.2
	0.6nm,0.3s,mb3.8,baz=121,slow=5.3,SNR=4.2						
BVAR	Borovoye Array	78.61	326	P	P	02 09 10.8	+0.3
	0.8nm,0.6s,mb3.7,baz=112,slow=8.0,SNR=6.0						
BRVK	Borovoye	78.68	326	P	P	02 09 10.7	-0.2
	2.7nm,0.9s,mb4.1						
ILAR	Eielson Array	88.46	25	P	P	02 09 58.9	-1.3
	0.5nm,0.5s,mb3.8,baz=262,slow=4.3,SNR=18						
ARCES	ARCESS Array B	100.73	340	P	P	02 10 56.9	+0.6
	2.9nm,1.0s,baz=74,slow=6.6,SNR=4.5						
ARCES	ARCESS Array B	100.73	340	P	P	02 10 56.9	+0.6

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*IDC **20** 02:05:44.9±0.9, 2.46N×96.94E, mb4.2/12, mb1 4.3/13, mb1mx4.2/19, ML4.2/1, MS3.6/2, Ms1 3.6/2, ms1mx3.2/18, Error ellipse: s-maj=47.9km s-min=15.1km az=52.0*

*NEIC **20** 02:05:53.9±3.4, 2.59N×97.19E, h66^{km}±30^{km}, mb4.4/1, Error ellipse: s-maj=28.7km s-min=7.7km az=51.0*

ISC 20 02:05:51.9±5.7**, 2.7N**±0.2×**97.2E**±0.2**, h63**^{km}±50^{km}**, n25, σ0^{s}89**/24**, mb4.3**/18**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.80	6	Pn	P	02 09 33.0	+1.0
	0.3nm,0.3s,baz=196,slow=12,SNR=17						
CMAR				LR	LR	02 16 04.9	
	comp=Z,132nm,18.6s,baz=195,slow=39						
SHL	Shillong	23.36	348	eP	P	02 10 54.0	-1.6
HYB	Hyderabad	23.48	310	eP	P	02 10 59.0	+2.1
HYB	Hyderabad	23.48	310	i P	P	02 10 59.0	+2.1
PKI	Pulchoki	27.24	337	eP	P	02 11 31.9	-0.4
	11nm,1.0s,mb4.3						
GUN	Gumba	27.36	338	eP	P	02 11 33.3	-0.1
	23nm,0.7s,mb4.8						
DMN	Daman	27.39	336	eP	P	02 11 33.2	-0.5
	13nm,0.9s,mb4.5						
KKN	Kakani	27.49	337	eP	P	02 11 34.0	-0.5
	23nm,1.0s,mb4.6						
KOLN	Koldanda	28.17	334	eP	P	02 11 40.0	-0.7
	20nm,0.9s,mb4.8						
FITZ	Fitzroy Crossi	34.77	127	P	P	02 12 37.5	-1.0
	2.4nm,0.6s,mb4.3,baz=326,slow=5.1,SNR=3.5						
WRA	Warramunga Arr	42.79	123	P	P	02 13 45.4	0.0
	2.2nm,0.5s,mb4.2,baz=300,slow=9.3,SNR=16						
WRAB	Tennant Creek	42.79	123	eP	P	02 13 45.4	0.0
	4.5nm,0.6s,mb4.4						
WB2	Warramunga Arr	42.80	123	eP	P	02 13 45.6	+0.1
ASAR	Alice Springs	44.25	128	P	P	02 13 57.5	+0.3
	0.9nm,0.8s,mb3.6,baz=302,slow=8.0,SNR=5.5						
SONM	Songino Array	45.71	9	P	P	02 14 09.9	+1.5
	2.2nm,0.9s,mb4.1,baz=187,slow=10.0,SNR=6.9						
ZAL	Zalesovo	52.13	351	P	P	02 14 57.5	-0.5
	3.5nm,0.5s,mb4.6,baz=307,slow=5.9,SNR=14						
ZAL	Zalesovo	52.13	351	P	P	02 14 57.5	-0.5
STKA	Stephens Creek	54.31	133	P	P	02 15 14.4	0.0
	3.3nm,0.7s,mb4.4,baz=301,slow=7.9,SNR=11						
STKA				LR	LR	02 38 08.0	
	comp=Z,66nm,18.4s,baz=25,slow=36						
BVAR	Borovoye Array	54.90	341	P	P	02 15 17.1	-1.3
	0.7nm,0.5s,mb4.0,baz=143,slow=10,SNR=5.9						
BRTR	Keskin Array B	68.17	312	P	P	02 16 46.9	-0.9
	1.0nm,0.9s,mb3.9,baz=128,slow=6.8,SNR=6.0						
FINES	FINESS Array B	78.74	332	P	P	02 17 49.3	+0.3
	7.9nm,1.2s,mb4.5,baz=162,slow=6.0,SNR=7.4						
ARCES	ARCESS Array B	81.19	340	P	P	02 18 02.9	+0.9
	3.1nm,0.9s,mb4.2,baz=76,slow=5.0,SNR=8.0						
GERES	GERESS Array B	83.75	319	P	P	02 18 15.6	+0.1
	0.4nm,0.9s,mb3.6,baz=124,slow=7.1,SNR=3.2						
DAVOX	Davos	86.27	317	P	P	02 18 29.7	+1.6
	1.1nm,0.5s,mb4.4,baz=63,slow=6.8,SNR=5.2						
TXAR	Lajitas Array	142.43	31	PKP	PKPdf	02 25 19.7	+1.5
	0.2nm,0.8s,baz=304,slow=3.3,SNR=2.7						

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*NEIC **20** 02:38:39.9, 38.00N×20.59E, h33^{km}, mb4.0/2, MD3.9(PDG), ML4.0(ATH), After ATH.*

*ATH **20** 02:38:40.1, 38.00N×20.67E, h29^{km}±2^{km}, MD3.9/16, ML3.9*

*IDC **20** 02:38:41.7±2.2, 38.09N×20.54E, h40^{km}±19^{km}, mb3.6/7, mb1 3.7/14, mb1mx3.5/26, ML3.6/7, Error ellipse: s-maj=23.5km s-min=17.6km az=21.0*

*CSEM **20** 02:38:41.3±0.1, 38.03N×20.57E, h40^{km}, ML4.0, Error ellipse: s-maj=2.7km s-min=1.6km az=43.0*

*PDG **20** 02:38:45.4±0.2, 38.57N×19.82E*

ISC 20 02:38:39.1±0.4**, 37.96N**±0.03×**20.49E**±0.03**, h33**^{km}**, n108, σ1^{s}19**/90**, mb3.7**/7**, 13C-4D, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	Valsamata	0.23	20	ePB	Pb	02 38 46.0	0.0
VLS				eSB	Sb	02 38 51.5	+0.8
ITM	Ithomi	1.38	124	ePN	Pn	02 39 04.5	+2.1
EVR	Evrytania	1.41	47	ePN	Pn	02 39 04.8	+2.0
JAN	Janina	1.72	9	ePB	Pb	02 39 08.9	-1.0
AGG	Agios Georgios	1.79	53	eP	P	02 39 10.2	+2.1
LKR	Lokris	2.09	70	ePN	Pn	02 39 12.9	+0.3
LSK	Leskovik	2.19	2	i Pn	Pn	02 39 16.2	+2.2
MGER	Gerania Oros	2.19	88	ePN	Pn	02 39 14.0	0.0
VLI	Veliai	2.31	122	ePB	Pb	02 39 18.0	-2.0
NSAL	Nisos Salamina	2.35	90	ePN	Pn	02 39 16.0	-0.3
NSAL	Nisos Salamina	2.35	90	ePn	Pn	02 39 15.8	-0.5
NAIG	Nisos Aigina	2.38	94	ePB	Pb	02 39 18.5	-2.7
NAIG	Nisos Aigina	2.38	94	ePb	Pb	02 39 19.5	-1.7
NEO	Neokhori	2.53	57	ePN	Pn	02 39 19.1	+0.3
XOR	Xorichti	2.54	56	eP	P	02 39 19.5	+0.7
KZN	Kozani	2.55	23	ePB	Pb	02 39 21.7	-2.3
ATH	Athens Observa	2.55	89	ePN	Pn	02 39 20.0	+0.8
ATH	Athens Observa	2.55	89	ePb	Pb	02 39 21.3	-2.8

MPAR	Parnis Oros	2.57	85	ePN	Pn	02 39 20.0	+0.6
KYTH	Kithira	2.64	129	ePN	Pn	02 39 21.5	+1.1
LIT	Litokhoron	2.65	35	eP	P	02 39 21.1	+0.7
PTL	Penteli	2.67	87	ePN	Pn	02 39 20.5	-0.3
AOS	Alonnisos	2.92	64	eP	P	02 39 23.9	-0.4
BIA	Bitola	3.12	12	i Pn	Pn	02 39 29.9	+2.6
BIA				i		02 39 35.5	
BIA				i		02 39 44.6	
BIA				i Sn	Sn	02 40 05.8	+1.9
BIA				i		02 40 14.4	
OHR	Ohrid	3.16	4	ePn	Pn	02 39 29.3	+1.5
OHR				eSn	Sn	02 40 05.1	+0.4
OHR				i		02 40 21.0	
TIP	Timpagrande	3.17	294	⇓ePn	Pn	02 39 29.0	+1.1
TIP				eSn	Sn	02 40 03.2	-1.8
TIP	Timpagrande	3.17	294	⇓ePn	Pn	02 39 29.0	+1.1
TIP	Timpagrande	3.17	294	eSn	Sn	02 40 03.2	-1.8
PAIG	Paliouri	3.17	51	eP	P	02 39 27.6	-0.2
THE	Thessaloniki	3.29	35	eP	P	02 39 30.1	+0.6
PLG	Polygyros	3.33	43	ePN	Pn	02 39 29.9	-0.3
GRG	Griva	3.34	26	eP	P	02 39 30.6	+0.4
TIR	Tirane	3.42	352	i Pn	Pn	02 39 32.7	+1.2
TIR				i Sn	Sn	02 40 10.5	-0.8
QSH	Qafa e Shtames	3.59	353	i Pn	Pn	02 39 36.0	+2.1
QSH				i Sn	Sn	02 40 14.0	-1.6
OUR	Ouranopolis	3.60	48	eP	P	02 39 34.0	+0.1
OUR	Ouranopolis	3.60	48	eP	P	02 39 34.0	0.0
SOH	Sokhos	3.62	37	eP	P	02 39 35.0	+0.8
KNT	Kendrikon	3.70	29	eP	P	02 39 35.8	+0.5
SRS	Serrai	3.96	36	eP	P	02 39 38.9	-0.2
SKO	Skopje	4.07	10	i Pn	Pn	02 39 40.4	-0.4
LOS	Limnos	4.09	60	eP	P	02 39 40.0	-0.9
PUK	Puka	4.10	354	i Pn	Pn	02 39 42.1	+0.9
PUK				i Sn	Sn	02 40 28.3	-0.4
ULC	Ulcinj	4.11	347	⇑iPn	Pn	02 39 40.8	-0.6
ULC				eSn	Sn	02 40 23.6	-5.4
ULC	Ulcinj	4.11	347	⇑iPn	Pn	02 39 40.8	-0.5
ULC				eSn	Sn	02 40 23.5	-5.4
NVR	Nevrokopi	4.27	36	ePN	Pn	02 39 43.8	+0.2
KKB	Krupnik	4.38	26	eP	P	02 39 45.0	-0.1
MMB	Musomiste	4.40	34	eP	P	02 39 45.0	-0.3
BCI	Bajram Curri	4.41	356	i Pn	Pn	02 39 47.2	+1.6
BCI				i Sn	Sn	02 40 35.5	-1.1
IDI	Anoyia	4.43	126	Pn	Pn	02 39 45.0	-0.8
	0.7nm,0.3s,baz=311,slow=16,SNR=5.0						
IDI				Sn	Sn	02 40 33.7	-3.3
	4.4nm,0.3s,baz=145,slow=22,SNR=8.8						
BUM	Brajici-Budva	4.50	345	⇑iPn	Pn	02 39 46.2	-0.7
BUM				eSn	Sn	02 40 33.1	-5.8
TTG	Podgorica	4.56	348	⇑iPn	Pn	02 39 46.8	-1.0
TTG				eSn	Sn	02 40 34.6	-5.7
PVY	Plav	4.65	355	⇑iPn	Pn	02 39 49.5	+0.5
PVY				eSn	Sn	02 40 38.5	-3.9
HCY	Herceg Novi	4.74	342	⇑iPn	Pn	02 39 49.0	-1.2
HCY				eSn	Sn	02 40 38.4	-6.3
VAE	Valguarnera	4.84	266	Pn	Pn	02 39 52.7	+1.0
	1.0nm,0.3s,baz=139,slow=22,SNR=7.2						
VAE				Sn	Sn	02 40 47.1	-0.3
	6.7nm,0.3s,baz=31,slow=4.4,SNR=6.2						
IVA	Berane	4.93	355	⇑iPn	Pn	02 39 53.5	+0.6
IVA				eSn	Sn	02 40 45.1	-4.4
RZN	Rozhen	4.95	40	eP	P	02 39 53.0	0.0
NKY	Niksic	4.98	347	⇑iPn	Pn	02 39 53.4	-0.3
NKY				eSn	Sn	02 40 45.0	-5.8
VTS	Vitosha	5.07	23	eP	Px	02 39 55.0	
BRY	Bratogost	5.15	344	⇑iPn	Px	02 39 55.7	
BRY				eSn	Sx	02 40 48.4	
ALN	Alexandroupoli	5.21	54	eP	Px	02 39 55.4	
KDZ	Kurdzhali	5.29	44	eP	Px	02 39 56.0	
UPM	Unac-Piva	5.37	348	⇑iPn	Px	02 39 58.8	
UPM				eSn	Sx	02 40 54.5	
PLE	Pljevlja	5.43	352	ePn	Px	02 40 00.4	
PLE				eSn	Sx	02 40 56.0	
PLE	Pljevlja	5.43	352	ePn	Px	02 40 00.4	
PLE				eSn	Sx	02 40 56.0	
DIM	Dimitrovgrad	5.63	42	eP	Px	02 40 08.0	
CII	Carovilli	6.06	310	ePn	Px	02 40 09.7	
	25nm,0.8s						
CII	Carovilli	6.06	310	ePn	Px	02 40 09.7	
	25nm,0.8s						
AQU	L'Aquila	6.98	311	P	Px	02 40 16.9	
NVLJ	Novalja	7.84	329	i Pn	Px	02 40 31.3	
NVLJ				i Sn	Sx	02 41 56.1	
ISP	Isparta	7.92	88	eP	Px	02 40 27.7	
BOJS	Bojanci	8.49	334	ePn	Px	02 40 41.1	
BOJS				eSn	Sx	02 42 13.3	
MLR	Muntele Rosu	8.56	27	Pn	Px	02 40 44.4	
	0.4nm,0.3s,baz=229,slow=3.9,SNR=12						
VISS	Visnje	8.90	334	ePn	Px	02 40 46.6	
VOY	Vojsko	9.44	331	ePn	Px	02 40 54.6	
VOY				eSn	rx	02 42 03.5	
PERS	Pernice	9.54	337	ePn	Px	02 40 54.3	
OBKA	Obir	9.61	335	⇑iPN	Px	02 40 56.8	
OBKA				i SN	Sx	02 42 38.3	
ARSA	Arzberg	9.98	340	⇓iPN	Px	02 41 00.2	
ARSA				i SN	Sx	02 42 46.1	
BRTR	Keskin Array B	10.41	76	Pn	Px	02 41 09.0	
	0.1nm,0.3s,baz=252,slow=14,SNR=3.1						
CSS	Prodhromos	10.77	102	eP	Px	02 41 10.2	
MOA	Molln	10.88	337	⇑iPN	Px	02 41 14.3	
MOA				i SN	Sx	02 43 09.7	
SQTA	Sankt Quirin	11.50	327	i SN	Sx	02 43 26.9	
SQTA	Sankt Quirin	11.50	327	⇓iPn	Px	02 41 22.9	
SQTA				i Sn	Sx	02 43 26.9	
MOTA	Moosalm	11.64	327	i SN	Sx	02 43 30.4	
MOTA	Moosalm	11.64	327	⇑iPn	Px	02 41 25.2	
MOTA				i Sn	Sx	02 43 30.4	
DAVOX	Davos	11.79	322	Pn	Px	02 41 25.9	
	0.2nm,0.3s,baz=203,slow=9.3,SNR=3.7						
DAVOX				Sn	Sx	02 43 36.5	
	0.5nm,0.3s,baz=277,slow=20,SNR=4.2						
GERES	GERESS Array B	11.94	338	Pn	Px	02 41 27.5	
	0.2nm,0.3s,baz=153,slow=15,SNR=5.5						
GERES				Sn	Sx	02 43 34.8	
	0.4nm,0.3s,baz=150,slow=23,SNR=5.7						
KHC	Kasperske Hory	12.23	338	eP	Px	02 41 36.5	
HINF	Hinteralfeld	14.02	319	eP	Px	02 41 49.4	
	4.3nm,0.7s						
MALT	Malatya	14.13	83	eP	Px	02 42 00.2	
	1.4nm,0.6s						
MALT	Malatya	14.13	83	eP	Px	02 42 00.2	
	1.4nm,0.6s						
CDF	Champ du Feu	14.19	322	eP	Px	02 41 53.8	
HAU	Haudompre	14.40	319	eP	Px	02 41 57.8	
	3.4nm,0.3s						
ESDC	Sonseca Array	19.12	283	P	P	02 43 03.2	+1.3
	0.2nm,0.3s,baz=79,slow=11,SNR=4.8						
OBN	Obninsk	20.33	27	eP	P	02 43 12.3	-2.6
	8.1nm,0.5s						
OBN	Obninsk	20.33	27	eP	P	02 43 12.3	-2.6
	8.1nm,0.5s						
HFS	Hagfors	22.61	351	P	P	02 43 36.6	-1.2
	1.6nm,0.5s,mb3.7,baz=166,slow=12,SNR=12						
EKA	Eskdalemuir Ar	23.59	325	P	P	02 43 49.0	+1.7
	3.0nm,0.8s,mb3.8,baz=128,slow=9.5,SNR=5.3						
EKA	Eskdalemuir Ar	23.59	325	P	P	02 43 49.0	+1.6
FINES	FINESS Array B	23.77	7	P	P	02 43 49.0	-0.1
	5.7nm,1.1s,mb3.9,baz=183,slow=10.0,SNR=9.3						
NB2	NORSAR Subarra	23.83	349	P	P	02 43 48.2	-1.4
	1.9nm,0.7s,mb3.6,baz=159,slow=9.3						
NOA	NORSAR Array B	23.83	349	P	P	02 43 49.4	-0.2
	0.7nm,0.8s,mb3.2,baz=160,slow=11,SNR=3.0						
KAF	Kangasniemi	24.45	7	ep	P	02 43 54.1	-1.6
JOF	Joensuu	25.85	11	ep	Px	02 44 00.5	
	0.3nm,0.3s						
ARCES	ARCESS Array B	31.75	3	P	P	02 44 60.0	-2.0
	0.5nm,0.3s,mb3.8,baz=189,slow=11,SNR=12						
ZAL	Zalesovo	45.85	48	P	P	02 46 57.2	-2.3
	1.2nm,0.5s,mb4.1,baz=189,slow=8.1,SNR=7.0						
ZAL	Zalesovo	45.85	48	P	P	02 46 57.2	-2.3
YKA	Yellowknife Ar	73.59	340	P	P	02 50 10.2	+0.1
	0.2nm,0.6s,mb3.2,baz=34,slow=5.4,SNR=7.3						
YKA	Yellowknife Ar	73.59	340	P	P	02 50 10.2	+0.1

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*CSEM **20** 02:49:02.8±0.8, 38.61N×28.38W, h14^{km}±7^{km}, ML1.8, Error ellipse: s-maj=3.2km s-min=2.0km az=157.0*

*PDA **20** 02:49:02.8±0.8, 38.61N×28.38W, h14^{km}±7^{km}, MD2.9, ML1.8, Error ellipse: s-maj=3.2km s-min=2.0km az=157.0*

SVSA 20 02:49:02.8±0.8**, 38.61N×28.38W, h14**^{km}±7^{km}**, MD2.9, ML1.8, Error ellipse: s-maj=3.2km s-min=2.0km az=157.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PICO	Pico	0.11	197	i P	Pg	02 49 05.9	-0.3
PICO				eS	Sg	02 49 07.9	-0.5
PICO	Pico	0.11	197	eS	Sg	02 49 07.9	-0.5
ROSA	Rosais	0.16	45	i P	Pg	02 49 05.9	-0.9
ROSA				eS	Sg	02 49 08.9	-0.6
ROSA	Rosais	0.16	45	eS	Sg	02 49 08.9	-0.6
HOR	Horta	0.21	247	i P	Pg	02 49 06.9	-0.8
HOR				eS	Sg	02 49 10.1	-0.8
HOR	Horta	0.21	247	eS	Sg	02 49 10.1	-0.8
PMAN	Manadas	0.23	84	eP	Pg	02 49 07.2	-0.9
PMAN				eS	Sg	02 49 10.9	-0.7
	34nm,0.1s						
PMAN	Manadas	0.23	84	eP	Pg	02 49 07.2	-0.9
PMAN				eS	Sg	02 49 10.9	-0.7
	34nm,0.1s						
PCED	Cedros	0.25	275	eP	Pg	02 49 07.4	-1.0
PCED				eS	Sg	02 49 11.1	-1.0
	73nm,0.3s						
PCED	Cedros	0.25	275	eP	Pg	02 49 07.4	-1.0
PCED				eS	Sg	02 49 11.1	-1.0
	73nm,0.3s						
CALA	Caldeira	0.25	264	eP	Pg	02 49 07.7	-0.7
CALA				eS	Sg	02 49 11.7	-0.4

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*LDG **20** 02:49:27.0±0.1, 46.69N×7.24E, h3^{km}, Md2.3/3, Ml2.4/21, Error ellipse: s-maj=1.6km s-min=0.9km az=84.0*

*STR **20** 02:49:29.4±1.3, 46.80N×7.49E, h2^{km}±1^{km}, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ZUR 20 02:49:27.1, 46.69N×7.25E, h11^{km}**, ML1.5**/12**, 5C, Switzerland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TORNY	Torny	0.22	293	⇑iPg	Pg	02 49 31.6	-0.3
TORNY				i Sg	Sg	02 49 35.4	+0.2
WIMIS	Wimmis	0.26	95	⇑iPg	Pg	02 49 32.0	-0.6
WIMIS				eSg	Sg	02 49 36.2	-0.1
SENIN	Lac Senin	0.33	174	ePg	Pg	02 49 33.6	-0.3
LKBD	Leukerbad	0.40	139	eSg	Sg	02 49 34.8	-5.9
LKBD	Leukerbad	0.40	139	ePg	Pg	02 49 40.9	+5.6
AIGLE	Aigle	0.40	211	eSg	Sg	02 49 35.5	-5.4
AIGLE	Aigle	0.40	211	ePg	Pg	02 49 41.1	+5.7
GRYON	Gryon	0.45	193	eSg	Sg	02 49 36.2	-6.2
GRYON				ePg	Pg	02 49 42.6	+6.3
SALAN	Lac Salanfe	0.58	200	ePg	Pg	02 49 38.2	-0.6
BRANT	Les Verrieres	0.59	295	⇑iPg	Pg	02 49 38.6	-0.5
BRANT				i Sg	Sg	02 49 47.6	+0.5
HASLI	Hasliberg	0.62	83	ePg	Pg	02 49 39.5	-0.2
HASLI				i Sg	Sg	02 49 48.0	-0.1
EMV	Vieux Emosson	0.67	202	ePg	Pg	02 49 39.8	-0.8
BALST	Balsthal	0.72	25	⇑iPg	Pg	02 49 40.8	-0.7
CABF	La Chapelle	0.81	265	ePg	Pg	02 49 42.8	-0.5
CABF				eSg	Sg	02 49 52.8	-1.4
	13nm,0.2s						
SULZ	Sulz-Cheisache	1.03	35	ePg	Pg	02 49 46.5	-1.2
HINF	Hinteralfeld	1.16	347	ePg	Pg	02 49 48.9	-1.5
HINF				eSg	Sg	02 50 03.8	-2.2
	12nm,0.2s						
MOF	Molkenrain	1.17	356	Pg	Pg	02 49 49.2	-1.3
MOF				Sg	Sg	02 50 04.8	-1.3
LPL	La Plagne	1.23	197	ePg	Pg	02 49 50.3	-1.4
LPL				eSg	Sg	02 50 06.6	-1.4
	2.5nm,0.2s						
LPG	La Plagne	1.24	197	ePg	Pg	02 49 50.5	-1.4
LPG				eSg	Sg	02 50 07.4	-1.1
	5.5nm,0.2s						
HAU	Haudompre	1.46	335	ePg	Pg	02 49 53.8	-2.4
HAU				eSg	Sg	02 50 12.4	-3.3
	13nm,0.2s						
ECH	Echery	1.53	358	Pg	Pg	02 49 56.7	-1.0
ECH				Sg	Sg	02 50 15.9	-2.3
CDF	Champ du Feu	1.73	1	ePn	Pn	02 49 56.2	-1.1
CDF				ePg	Pg	02 49 59.3	-2.3
CDF				eSg	Sg	02 50 20.6	-4.1
	3.5nm,0.2s						
DAVA	Damuels	1.90	71	⇑iPG	Pg	02 50 02.6	-2.4
DAVA				i SG	Sg	02 50 28.9	-1.4
	2.8nm,0.2s						
MBDF	Montbardon	1.99	190	ePn	Pn	02 49 59.9	-1.2
MBDF				ePg	Pg	02 50 04.0	-2.9
MBDF				eSg	Sg	02 50 29.4	-4.0
	1.4nm,0.4s						
ORIF	Oris-en-Rattie	2.01	209	ePg	Pg	02 50 04.3	-3.0
ORIF				eSn	Sn	02 50 24.2	-2.6
ORIF				eSg	Sg	02 50 30.9	-3.3
	5.9nm,0.3s						
SFTF	Sexfontaines	2.14	316	ePn	Pn	02 50 01.3	-1.9
	baz=143						
SFTF				eSg	Sg	02 50 32.9	-5.4
	4.4nm,0.3s,baz=140						
RFYF	Reffroy	2.29	329	ePn	Pn	02 50 03.8	-1.5
RFYF				eSg	Sg	02 50 38.6	-4.6
	6.4nm,0.3s,baz=153						
MEZF	Maizieres J'vi	2.35	321	ePn	Pn	02 50 04.5	-1.7
	baz=145						
MEZF				ePg	Pg	02 50 10.1	-3.9
MEZF				eSg	Sg	02 50 40.2	-5.2
	2.6nm,0.3s						
SMF	Signal de Mont	2.35	270	ePg	Pg	02 50 10.6	-3.5
SMF				eSg	Sg	02 50 40.0	-5.4
	4.5nm,0.2s						
VIVF	Saint-Julien-l	2.57	226	ePn	Pn	02 50 07.8	-1.6
VIVF				ePg	Pg	02 50 14.7	-3.8
VIVF				eSn	Sn	02 50 37.7	-3.3
VIVF				eSg	Sg	02 50 48.2	-4.6
	5.1nm,0.3s						
SSF	Saint Saulge	2.60	280	ePg	Pg	02 50 15.6	-3.4
SSF				eSn	Sn	02 50 38.0	-3.6
SSF				eSg	Sg	02 50 47.2	-6.4
	3.2nm,0.3s						
AVF	Avril sur Loir	2.68	274	ePn	Pn	02 50 09.4	-1.6
AVF				ePg	Pg	02 50 16.4	-4.3
AVF				eSg	Sg	02 50 50.4	-6.1
	1.8nm,0.2s						
SBF	Sospel	2.83	177	ePn	Pn	02 50 10.8	-2.3
SBF				ePg	Pg	02 50 19.6	-4.0
SBF				eSn	Sn	02 50 44.2	-3.2
SMRF	Simiane la Rot	2.96	204	ePn	Pn	02 50 13.1	-1.8
BGF	Bois d'Agland	3.04	269	ePn	Pn	02 50 13.9	-2.2
BGF				ePg	Pg	02 50 23.5	-4.3
BGF				eSn	Sn	02 50 48.7	-4.1
BGF				eSg	Sg	02 51 01.3	-7.0
	6.1nm,0.3s						
FRF	La Foret Royal	3.16	188	ePn	Pn	02 50 16.4	-1.3
FRF				ePg	Pg	02 50 25.2	-4.9
FRF				eSg	Sg	02 51 05.2	-7.0
	2.5nm,0.5s						
LMR	La Mourre	3.39	189	ePn	Pn	02 50 18.7	-2.4
LMR				eSn	Sn	02 50 57.5	-4.3
TCF	Toulx Ste Croi	3.51	265	ePn	Pn	02 50 20.3	-2.4
TCF				ePg	Pg	02 50 31.6	-5.5
TCF				eSn	Sn	02 51 00.4	-4.2
TCF				eSg	Sg	02 51 17.5	-6.4
	1.2nm,0.2s						
LASF	Ste Croix	3.54	224	ePg	Pg	02 50 30.8	-7.0
LASF				eSn	Sn	02 50 59.8	-5.7
LASF				eSg	Sg	02 51 19.2	-5.8
	0.8nm,0.2s						
GIVF	Givet	3.78	336	ePn	Pn	02 50 24.4	-2.2
GIVF				ePg	Pg	02 50 35.9	-6.7
GIVF				eSg	Sg	02 51 25.2	-7.8
	2.3nm,0.3s						
BAIF	Baives	3.94	330	ePn	Pn	02 50 26.3	-2.5
PGF	Pioggiola	4.32	163	ePn	Pn	02 50 31.8	-2.5
GRR	Gorron	5.75	290	ePn	Pn	02 50 50.9	-3.6

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*IDC **20** 03:20:03.5±2.0, 3.63S×135.27E, mb3.8/2, mb1 4.3/7, mb1mx4.1/14, ML3.9/5, MS3.4/1, Ms1 3.4/1, ms1mx2.9/14, Error ellipse: s-maj=50.0km s-min=31.6km az=99.0*

*NEIC **20** 03:20:08.5±1.3, 3.76S×135.31E, h10^{km}, mb3.9/4, Error ellipse: s-maj=20.6km s-min=13.6km az=138.0*

ISC 20 03:20:10.0±2.5**, 4.1S**±0.1×**135.3E**±0.1**, h63**^{km}±25^{km}**, n15,** σ1^{s}**11**/20**, mb3.6**/2**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.03	198	eP	P	03 22 21.0	+1.0
	18nm,0.5s						
KAKA				eS	S	03 24 01.2	0.0
PMG	Port Moresby	12.92	115	Pn	P	03 23 11.3	-1.4
	1.1nm,0.3s,baz=312,slow=7.4,SNR=6.4						
WRAB	Tennant Creek	15.78	183	eP	P	03 23 49.3	-0.6
	5.8nm,0.5s						
WRAB				e		03 23 57.3	
WRAB				eS	S	03 26 39.0	-3.8
WB2	Warramunga Arr	15.79	183	eP	P	03 23 49.6	-0.4
WB2				e		03 23 57.7	
WRA	Warramunga Arr	15.79	183	Pn	P	03 23 49.4	-0.7
	0.2nm,0.3s,baz=5.1,slow=13,SNR=7.1						
WRA				Sn	S	03 26 43.3	+0.2
	0.5nm,0.3s,baz=2.4,slow=23,SNR=6.2						
WRA				Lg		03 28 35.8	
	slow=28,SNR=3.4						
FITZ	Fitzroy Crossi	16.83	213	eP	P	03 24 04.0	+0.9
	5.3nm,0.3s						
FITZ				eS	S	03 27 05.9	-1.1
FITZ	Fitzroy Crossi	16.83	213	Pn	P	03 24 03.9	+0.8
	0.5nm,0.3s,baz=20,slow=11,SNR=22						
FITZ				Sn	S	03 27 05.5	-1.4
	1.7nm,0.3s,baz=191,slow=13,SNR=7.8						
CTA	Charters Tower	19.17	147	eP	P	03 24 33.6	+2.3
	2.1nm,0.5s						
CTA	Charters Tower	19.17	147	P	P	03 24 33.0	+1.7
	0.4nm,0.3s,baz=347,slow=11,SNR=5.3						
CTAO	Charters Tower	19.17	147	eP	P	03 24 33.5	+2.3
	5.7nm,0.9s						
ASAR	Alice Springs	19.52	184	P	P	03 24 39.2	+4.2
	2.1nm,0.3s,baz=8.5,slow=11,SNR=102						
ASAR				LR	LR	03 32 41.8	
	comp=Z,100nm,19.3s,baz=282,slow=38						
ASPA	Alice Springs	19.52	184	eP	P	03 24 39.0	+3.9
STKA	Stephens Creek	28.28	169	P	P	03 26 01.7	+1.9
	1.1nm,0.7s,mb3.6,baz=323,slow=6.3,SNR=3.2						
STKA	Stephens Creek	28.28	169	eP	P	03 26 00.4	+0.7
ILAR	Eielson Array	88.49	25	P	P	03 32 55.9	-0.7
	0.3nm,0.7s,mb3.6,baz=252,slow=4.6,SNR=4.1						

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*IDC **20** 03:32:23.4±2.3, 18.22S×167.36E, h29^{km}±5^{km}, mb4.0/6, mb1 4.2/6, mb1mx4.0/13, MS3.5/4, Ms1 3.5/4, ms1mx3.2/22, Error ellipse: s-maj=70.6km s-min=30.4km az=144.0*

*NEIC **20** 03:32:23.5±1.6, 18.20S×167.40E, mb4.5/3, Error ellipse: s-maj=77.2km s-min=17.4km az=149.0*

ISC 20 03:32:25.1±3.2**, 18.8S**±0.2×**167.5E**±0.2**, h70**^{km}±32^{km}**, h29**^{km}±1.3^{km}**:pP-P, n20,** σ1^{s}**04**/16**, mb4.1**/6**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.45	197	eP	P	03 33 17.6	-0.1
DZM				eS	S	03 33 57.0	-0.7
NOUC	Port Laguerre	3.52	199	eP	P	03 33 19.4	+0.7
NOUC				eS	S	03 33 59.4	0.0
CTA	Charters Tower	20.09	263	P	P	03 36 55.6	0.0
	4.8nm,0.4s,baz=61,slow=13,SNR=6.6						
CTA				sP		03 37 04.8	
	10nm,0.8s,baz=74,slow=11,SNR=2.1						
CTA				LR	LR	03 42 23.5	
	comp=Z,103nm,18.1s,baz=222,slow=30						
CTAO	Charters Tower	20.09	263	P	P	03 36 55.6	+0.1
	17nm,1.0s						
PMG	Port Moresby	21.79	292	LR	LR	03 43 55.7	
	comp=Z,73nm,20.4s,baz=123,slow=32						
STKA	Stephens Creek	26.74	236	P	P	03 38 02.6	+2.4
	2.0nm,0.8s,mb3.7,baz=55,slow=12,SNR=3.6						
STKA				pP	pP	03 38 11.6	-5.0
	4.5nm,0.9s,baz=66,slow=8.7,SNR=4.7						
STKA	Stephens Creek	26.74	236	eP	P	03 38 02.8	+2.6
STKA				pP	pP	03 38 11.6	-5.0
WRA	Warramunga Arr	31.29	262	P	P	03 38 39.5	-1.4
	0.4nm,0.5s,mb3.4,baz=93,slow=8.5,SNR=5.1						
WRA				pP	pP	03 38 48.6	-9.1
	1.4nm,0.8s,baz=93,slow=9.2,SNR=8.2						
ASAR	Alice Springs	31.66	255	P	P	03 38 43.8	-0.3
	2.1nm,0.6s,mb4.1,baz=80,slow=8.6,SNR=25						
ASAR				pP	pP	03 38 52.6	-8.4
	7.0nm,0.7s,baz=82,slow=8.3,SNR=24						
ASAR				LR	LR	03 50 43.0	
	comp=Z,72nm,18.1s,baz=107,slow=35						
ASPA	Alice Springs	31.66	255	eP	P	03 38 44.0	-0.1
FITZ	Fitzroy Crossi	39.66	264	eP	P	03 39 52.2	+0.2
	8.0nm,0.8s,mb4.6						
FITZ				e		03 40 01.6	
FITZ	Fitzroy Crossi	39.66	264	P	P	03 39 52.8	+0.8
	8.6nm,0.7s,mb4.7,baz=158,slow=5.0,SNR=16						
FITZ				pP	pP	03 40 01.6	-7.8
	25nm,0.7s,baz=148,slow=5.8,SNR=17						
CBIJ	Chichi jima	51.77	331	LR	LR	03 58 46.4	
	comp=Z,162nm,20.0s,baz=104,slow=31						
ILAR	Eielson Array	90.26	18	P	P	03 45 18.9	-0.1
	0.6nm,0.7s,mb3.8,baz=238,slow=4.8,SNR=7.3						
DAWY	Dawson	92.11	21	eP	P	03 45 28.7	+1.2
INK	Inuvik	96.60	19	eP	P	03 45 45.0	-2.8
	1.5nm,0.4s,mb4.8						
CDF	Champ du Feu	146.35	336	ePKP1	PKPbc	03 52 00.7	+2.9
	4.3nm,0.6s						
CABF	La Chapelle	148.28	335	ePKP1	PKPdf	03 52 06.6	+6.8
SSF	Saint Saulge	148.86	339	ePKP1	PKPdf	03 52 08.6	+7.9
	21nm,1.1s						
LPG	La Plagne	148.91	333	ePKP1	PKPdf	03 52 09.2	+8.4
	8.8nm,0.9s						

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*CSEM **20** 03:36:51.8±1.1, 38.99N×28.69W, h30^{km}, ML2.3, Error ellipse: s-maj=28.1km s-min=10.6km az=139.0*

*PDA **20** 03:36:52.6±0.7, 39.13N×28.82W, h5^{km}, MD3.4, ML2.3, Error ellipse: s-maj=6.1km s-min=2.9km az=121.0*

SVSA 20 03:36:52.6±0.7**, 39.13N×28.82W, h5**^{km}**, MD3.4, ML2.3, Error ellipse: s-maj=6.1km s-min=2.9km az=121.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	Cedros	0.51	169	eP	Pg	03 37 01.1	-1.7
PCED				eS	Sg	03 37 08.1	-1.5
	182nm,0.4s						
PCED	Cedros	0.51	169	eP	Pg	03 37 01.1	-1.7
PCED				eS	Sg	03 37 08.1	-1.5
	182nm,0.4s						
CALA	Caldeira	0.56	170	eP	Pg	03 37 02.2	-1.5
CALA				eS	Sg	03 37 09.6	-1.5
ROSA	Rosais	0.61	132	eP	Pg	03 37 03.0	-1.8
HOR	Horta	0.62	166	eP	Pg	03 37 03.1	-1.9
STGR	Santa Cruz	0.64	94	eS	Sg	03 37 11.4	-2.5
PICO	Pico	0.70	154	eP	Pg	03 37 04.5	-2.1
PICO				eS	Sg	03 37 12.8	-3.1
PMAN	Manadas	0.76	131	eP	Pg	03 37 05.0	-2.7
PMAN				eS	Sg	03 37 14.3	-3.5
	54nm,0.3s						

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*CSEM **20** 03:41:12.5, 39.03N×33.81E, h4^{km}, MD3.6, After ISK*

ISK 20 03:41:12.5, 39.03N×33.81E, h4^{km}**, MD3.6, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAMT	Kaman	0.35	347	i PG	Pg	03 41 19.6	+0.1
AVNT	Avonos	0.85	107	i P	Pb	03 41 28.5	-1.0
AVNT				i S	Sg	03 41 41.1	+0.2
NIG	Nigde	1.11	146	i PN	Pn	03 41 34.5	-0.3
ANTO	Ankara	1.15	317	PN	Pn	03 41 35.0	-0.3
ANTO				SN	Sn	03 41 51.8	+0.1
LOD	Lodumlu	1.18	317	i PN	Pn	03 41 35.4	-0.4
CORM	Corum	1.31	29	i PN	Pn	03 41 38.3	+0.8
YOZ	Yozgat	1.32	62	i PN	Pn	03 41 38.1	+0.4
ELDT	Eldivan	1.49	349	i P	Pn	03 41 39.6	-0.6
ELDT				i S	Sb	03 42 01.4	+1.9
KIZT	Kizilcal	1.52	265	PN	Pn	03 41 41.4	+0.9
KONT	Konya--Tatoy	1.57	227	PN	Pn	03 41 42.3	+0.9
CANT	Cankiri	1.58	355	PN	Pn	03 41 42.1	+0.6
BNN	Bunyan	1.59	96	PN	Pn	03 41 41.7	0.0
CTKT	Corum	1.76	25	i P	Pn	03 41 46.0	+2.0
CTKT				i S	Sn	03 42 10.1	+3.0
TOS	Tosya	2.01	5	PN	Pn	03 41 48.6	+1.0
SGKT	Sivrigoynuk	2.05	319	i P	Pn	03 41 49.7	+1.5
SGKT				i S	Sn	03 42 11.9	-2.6
ESKT	Eskisehir	2.35	283	PN	Pn	03 41 52.4	-0.1
ESKT	Eskisehir	2.35	283	i P	Pn	03 41 55.4	+2.9
ESKT				i S	Sn	03 42 30.9	+8.7
SAFT	Safranbolu	2.37	339	PN	Pn	03 41 53.5	+0.7
MDU	Mudurnu	2.46	306	ePN	Pn	03 41 54.6	+0.5

BALT	**Daday**	**2.52**	**353**	*i* P	Pn	03 41 54.8	-0.1
BALT				*i* S	Sn	03 42 29.9	+3.4
BOYT	**Boyabat**	**2.53**	**19**	*i* P	Pn	03 41 56.3	+1.3
BOYT				*i* S	Sn	03 42 30.8	+4.2
BYBT	**Boyabat**	**2.54**	**16**	*e*PN	Pn	03 41 55.7	+0.5
SVST	**Sivas**	**2.54**	**72**	*i* P	Pn	03 41 56.2	+1.0
SVST				*i* S	Sn	03 42 36.1	+9.1
ALT	**Altintas**	**2.88**	**272**	*e*PN	Pn	03 42 00.2	+0.1
GAZ	**Gaziantep**	**3.26**	**124**	*e*PN	Pn	03 42 05.3	-0.2

IDC ***20*** *03:48:12.0±4.5, 14.56S×75.30W, h49^{km}±43^{km}, mb3.9/6, mb1 4.1/7, mb1mx3.7/15, ML5.3/1, MS3.5/1, Ms1 3.5/1, ms1mx2.0/22, Error ellipse: s-maj=34.4km s-min=24.1km az=47.0*

NEIC ***20*** *03:48:12.5±0.8, 14.62S×75.37W, h55^{km}±7^{km}, mb4.2/3, Error ellipse: s-maj=15.2km s-min=6.7km az=57.0*

NEIC Felt [III] at Nazca.

ISC 20 03:48:10.9±1.4**, 14.7S**±0.1×**75.4W**±0.1**, h56**^{km}±13^{km}**, n20, σ0^{s}68**/18**, mb4.0**/9**, 1C-1D, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**3.01**	**332**	*e*Pn	**P**	**03 48 57.2**	**-0.2**
ARE	**Arequipa**	**4.17**	**116**	⇑*i*P	**P**	**03 49 14.4**	**+0.8**
ARE				*i* S	**S**	**03 50 01.6**	**+0.1**
LVC	**Limon Verde**	**10.01**	**143**	P	**P**	**03 50 33.6**	**-1.1**
	2.5nm,0.3s,baz=309,slow=10,SNR=30						
LVC				S	**S**	**03 52 21.9**	**-4.7**
	4.9nm,0.3s,baz=67,slow=22,SNR=9.8						
LVC				LR	LR	03 54 08.2	
	comp=Z,292nm,20.7s,baz=328,slow=36						
LVC	**Limon Verde**	**10.01**	**143**	*e*P	**P**	**03 50 33.5**	**-1.2**
LVC				S	**S**	**03 52 21.9**	**-4.7**
LVC				LR	LR	03 54 08.2	
SDV	**Santo Domingo**	**23.86**	**12**	*e*P	**P**	**03 53 21.4**	**+1.2**
	12nm,1.3s,mb4.2						
BDFB	**Brasilia**	**26.44**	**96**	P	**P**	**03 53 44.2**	**-0.5**
	3.4nm,0.5s,mb4.1,baz=274,slow=10.0,SNR=14						
USHA	**Ushuaia**	**40.45**	**174**	P	**P**	**03 55 46.4**	**+1.0**
	4.5nm,0.7s,mb4.3,baz=316,slow=8.6,SNR=4.5						
TXAR	**Lajitas Array**	**51.56**	**328**	P	**P**	**03 57 13.2**	**-0.4**
	0.9nm,0.6s,mb3.9,baz=149,slow=8.9,SNR=15						
ANMO	**Albuquerque**	**57.48**	**330**	*e*P	**P**	**03 57 56.6**	**-0.2**
	0.9nm,0.7s,mb3.9						
SNAA	**Sanae**	**70.71**	**161**	*e*	pP	03 59 41.9	+3.7
SNAA	**Sanae**	**70.71**	**161**	⇓*i*P	**P**	**03 59 23.0**	**+0.5**
	0.2nm,0.6s,mb3.2						
SNAA					pP	03 59 35.7	-2.6
SNAA				*e*	pP	03 59 41.1	+2.9
SNAA				*e*	pP	03 59 41.9	+3.7
DBIC	**Dimbokro**	**73.06**	**78**	P	**P**	**03 59 36.7**	**-0.8**
	3.3nm,0.8s,mb4.3,baz=248,slow=6.6,SNR=7.1						
DBIC	**Dimbokro**	**73.06**	**78**	P	**P**	**03 59 36.7**	**-0.8**
YKA	**Yellowknife Ar**	**82.79**	**343**	P	**P**	**04 00 29.9**	**-0.2**
	0.8nm,0.7s,mb3.9,baz=143,slow=5.9,SNR=19						
YKA	**Yellowknife Ar**	**82.79**	**343**	P	**P**	**04 00 29.9**	**-0.2**
ILAR	**Eielson Array**	**95.48**	**336**	P	**P**	**04 01 30.4**	**0.0**
	0.2nm,0.6s,mb3.7,baz=175,slow=5.0,SNR=6.5						
ASAR	**Alice Springs**	**132.34**	**217**	PKP	PKPdf	04 07 21.1	+1.3
	0.6nm,0.5s,baz=132,slow=1.9,SNR=12						
WRA	**Warramunga Arr**	**134.86**	**221**	PKP	PKPdf	04 07 26.1	+1.5
	1.3nm,0.6s,baz=142,slow=1.7,SNR=20						
WRA				pPKP		04 07 41.6	
	0.9nm,0.8s,baz=137,slow=1.6,SNR=5.0						
WRAB	**Tennant Creek**	**134.86**	**221**	*e*P	PKPdf	04 07 26.5	+1.9
SONM	**Songino Array**	**146.89**	**358**	PKPbc	PKPbc	04 07 48.9	+2.2
	3.1nm,0.6s,baz=341,slow=2.5,SNR=25						
SONM				pPKPbc		04 08 03.5	
	2.5nm,0.6s,baz=329,slow=2.3,SNR=11						

IDC 20 03:52:40.3±10.0**, 0.95S**×**135.95E, mb3.8**/2**, mb1 3.9**/4**, mb1mx3.7**/13**, ML3.6**/2**, Error ellipse: s-maj=146.0km s-min=80.5km az=176.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**18.94**	**185**	P	P	03 57 02.3	-3.0
	0.1nm,0.3s,baz=5.6,slow=12,SNR=7.8						
FITZ	**Fitzroy Crossi**	**19.83**	**210**	P	P	03 57 11.8	-3.8
	0.2nm,0.3s,baz=18,slow=8.7,SNR=6.2						
ASAR	**Alice Springs**	**22.67**	**185**	P	P	03 57 44.2	-0.5
	1.2nm,0.5s,baz=9.6,slow=11,SNR=18						
STKA	**Stephens Creek**	**31.22**	**171**	P	P	03 59 01.8	-2.0
	0.8nm,0.3s,baz=347,slow=9.7,SNR=3.9						

SYO ***20*** *03:58:42.0, 15.20S×75.08W, h18^{km}, MB5.0, MS5.0*

NEIC ***20*** *03:58:43.1±0.2, 15.27S×75.17W, mb5.1/43, MS5.0/107, ML4.9(LIM), Error ellipse: s-maj=8.1km s-min=4.3km az=55.0*

NEIC Felt [IV] at Marcona, [III] at Nazca and [II] at Ica.

HRVD ***20*** *03:58:43.1±0.2, 15.36S×75.45W, h19^{km}±1^{km}, MW5.5/57, Centroid moment Tensor Solution. LP body waves: s52,c89; Mantle waves: s57,c109; Half duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}1.05±.04; $M_{\theta\theta}$0.08±.02; $M_{\phi\phi}$-1.13±.03; $M_{r\theta}$0.13±.05; $M_{\theta\phi}$0.48±.02; $M_{\phi r}$-1.66±.12; Best double couple: $M_0$2.04×10^{17} NP1:ϕ_s324°, δ19°, λ62°. NP2:ϕ_s174°, δ73°, λ99°. Principal axes: T 1.95, Plg61°, Azm97°; N .18, Plg9°, Azm351°; P -2.13, Plg27°, Azm256°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***20*** *03:58:43.0, 15.30S×75.20W, h25^{km}, mB5.4, Ms5.3, Msz5.2*

IDC ***20*** *03:58:44.2±5.2, 15.35S×75.24W, h35^{km}±40^{km}, mb4.5/16, mb1 4.6/17, mb1mx4.6/18, ML6.3/1, MS5.0/15, Ms1 5.0/15, ms1mx4.6/21, Error ellipse: s-maj=22.3km s-min=12.5km az=69.0*

ISC 20 03:58:42.2±0.3**, 15.28S**±0.05×**75.20W**±0.06**, h33**^{km}**, (h26**^{km}±1.4^{km}**:pP-P), n255, σ0^{s}91**/139**, mb4.9**/59**, MS5.0**/122**, 9C-2D, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**3.64**	**334**	*e*Pn	**Pn**	**03 59 37.7**	**0.0**
NNA				*e*Sn	**Sn**	**04 00 21.2**	**+1.3**
ARE	**Arequipa**	**3.76**	**109**	⇑*i*P	**P**	**03 59 40.7**	**+1.5**
ARE				*i*		03 59 42.9	
ARE				S	**S**	**04 00 15.0**	**-7.9**
LVC	**Limon Verde**	**9.41**	**142**	Pn	**P**	**04 00 57.1**	**-1.4**
	29nm,0.3s,baz=315,slow=9.7,SNR=362						
LVC				Sn	**Sn**	**04 02 39.8**	**-4.6**
	5.8nm,0.3s,baz=249,slow=21,SNR=2.6						
LVC				Lg		04 03 39.8	
	6.8nm,0.3s,baz=359,slow=24,SNR=5.2						
LVC				LR	LR	04 04 52.7	
	comp=Z,9µm,20.0s,baz=304,slow=39						
LVC	**Limon Verde**	**9.41**	**142**	*e*Pn	**P**	**04 00 56.3**	**-2.2**
	296nm,0.8s						
MDZ	**Mendoza**	**18.45**	**163**	*e*P	**P**	**04 03 01.2**	**+3.9**
FCH	**Farellones**	**18.52**	**167**	*e*P	**P**	**04 02 56.6**	**-1.4**
ROSC	**El Rosal**	**20.02**	**3**	P	**P**	**04 03 16.8**	**+1.6**
	1.1nm,0.3s,baz=73,slow=19,SNR=2.4						
ROSC				S	**S**	**04 07 12.0**	**+19**
	8.2nm,0.8s,baz=77,slow=20,SNR=2.3						
PAYG	**Puerto Ayora**	**20.80**	**313**	PFAKE		04 03 40.0	+17
PAYG				LR	LR		
	comp=Z,3µm,19.0s,MS4.6						
SDV	**Santo Domingo**	**24.43**	**11**	*e*P	**P**	**04 03 59.2**	**0.0**
	comp=Z,90nm,1.0s,mb5.2						
SDV				LR	LR		
	comp=Z,3µm,21.0s,MS4.7						
LPA	**La Plata**	**24.96**	**145**	*ce*P	**P**	**04 04 03.0**	**-1.2**
LPA				*e*sP		04 04 14.0	
LPA				*e*PP	PP	04 04 40.0	-1.8
LPA				*e*SP		04 08 35.0	
LPA				*e*sS		04 08 43.0	
	comp=Z,3µm,18.0s						
BDFB	**Brasilia**	**26.20**	**94**	P	**P**	**04 04 16.2**	**+0.3**
	comp=Z,17nm,0.8s,mb4.6,baz=269,slow=10,SNR=26						
BDFB				LR	LR	04 16 20.0	
	comp=Z,5µm,19.0s,MS5.0,baz=47,slow=40						
BAO	**Brasilia Array**	**26.22**	**94**	*e*P	**P**	**04 04 16.5**	**+0.3**
BAO				*e*		04 04 21.8	
BAO				*e*		04 04 38.6	
BAO				*e*		04 04 52.1	
BAO				*e*		04 05 10.4	
JTS	**JuntasAbangare**	**27.18**	**339**	PFAKE		04 04 40.0	+15
JTS				LR	LR		
	comp=Z,1µm,19.0s,MS4.4						
RPN	**Rapa Nui**	**33.83**	**244**	PFAKE		04 05 40.0	+16
RPN				LR	LR		
	comp=Z,1µm,20.0s,MS4.5						
SJG	**San Juan**	**34.35**	**15**	P	**P**	**04 05 27.9**	**-0.3**
	comp=Z,5.5nm,0.5s,mb4.7,baz=317,slow=18,SNR=3.2						
SJG	**San Juan**	**34.35**	**15**	P	**P**	**04 05 27.7**	**-0.5**
	comp=Z,17nm,1.1s,mb4.9						
SJG				LR	LR		
	comp=Z,3µm,19.0s,MS5.0						
TEIG	**Tepich**	**37.55**	**340**	*e*P	**P**	**04 05 56.0**	**+0.6**
	comp=Z,39nm,1.4s,mb5.0						
TEIG				LR	LR		
	comp=Z,1µm,21.0s,MS4.7						
EFI	**East Falkland**	**38.82**	**163**	PFAKE		04 06 20.0	+14
EFI				LR	LR		
	comp=Z,436nm,19.0s,MS4.3						
RCBR	**Riachuelo**	**39.69**	**81**	*e*P	**P**	**04 06 13.3**	**+0.1**
RCBR				LR	LR		
	comp=Z,3µm,19.0s,MS5.1						
USHA	**Ushuaia**	**39.82**	**174**	P	**P**	**04 06 13.4**	**-0.4**
	comp=Z,12nm,0.9s,mb4.6,baz=339,slow=5.7,SNR=5.6						
DWPF	**Disney**	**43.55**	**352**	PFAKE		04 07 00.0	+15
DWPF				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
NHSC	**New Hope**	**48.34**	**354**	PFAKE		04 07 30.0	+7.2
NHSC				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
BBSR	**BB Station**	**48.43**	**12**	PFAKE		04 07 40.0	+17
BBSR				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
HKT	**Hockley**	**49.17**	**336**	*e*P	**P**	**04 07 29.3**	**+0.2**
	comp=Z,52nm,1.5s,mb5.3						
HKT				LR	LR		
	comp=Z,779nm,19.0s,MS4.7						
LRAL	**Lakeview Retre**	**49.34**	**347**	*e*P	**P**	**04 07 29.4**	**-1.0**
	comp=Z,19nm,0.8s,mb5.2						
LRAL				LR	LR		
	comp=Z,917nm,19.0s,MS4.8						
PMSA	**Palmer Station**	**50.03**	**174**	PFAKE		04 07 50.0	+15
PMSA				LR	LR		
	comp=Z,606nm,19.0s,MS4.6						
NATX	**Nacogdoches**	**50.35**	**338**	*e*P	**P**	**04 07 37.7**	**-0.6**
	comp=Z,34nm,0.9s,mb5.4						
NATX				LR	LR		
	comp=Z,735nm,19.0s,MS4.7						
MYNC	**Murphy**	**50.78**	**351**	PFAKE		04 07 50.0	+8.5
MYNC				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
SWET	**Sewanee**	**51.23**	**349**	*e*P	**P**	**04 07 43.3**	**-1.6**
OXF	**Oxford**	**51.32**	**345**	*e*P	**P**	**04 07 44.1**	**-1.5**
OXF				LR	LR		
	comp=Z,757nm,20.0s,MS4.7						
LTX	**Lajitas**	**52.18**	**328**	*e*P	**P**	**04 07 52.0**	**-0.1**
	comp=Z,5.5nm,0.6s,mb4.7						
LTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
TXAR	**Lajitas Array**	**52.18**	**328**	P	**P**	**04 07 52.1**	**+0.1**
	comp=Z,3.8nm,0.6s,mb4.5,baz=149,slow=8.3,SNR=67						
TXAR				LR	LR	04 28 17.2	
	comp=Z,1µm,19.1s,MS5.0,baz=200,slow=34						
UALR	**University of**	**52.37**	**342**	*e*P	**P**	**04 07 52.8**	**-0.6**
	comp=Z,32nm,1.0s,mb5.2						
BLA	**Blacksburg**	**52.43**	**355**	PFAKE		04 08 10.0	+16
BLA				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
WVT	**Waverly**	**52.50**	**347**	*e*P	**P**	**04 07 51.3**	**-3.1**
	comp=Z,18nm,1.2s,mb4.9						
WVT				LR	LR		
	comp=Z,798nm,20.0s,MS4.8						
MIAR	**Mount Ida**	**52.54**	**341**	P	**P**	**04 07 53.4**	**-1.2**
	comp=Z,10nm,0.9s,mb4.8						
CBN	**Corbin**	**53.23**	**358**	PFAKE		04 08 10.0	+10
CBN				LR	LR		
	comp=Z,2µm,22.0s,MS5.0						
WCI	**Wyandotte Cave**	**54.23**	**349**	*e*P	**P**	**04 08 05.6**	**-1.6**
	comp=Z,87nm,1.5s,mb5.5						
WCI				LR	LR		
	comp=Z,829nm,20.0s,MS4.8						
USIN	**University of**	**54.23**	**348**	*e*P	**P**	**04 08 05.4**	**-1.8**
	comp=Z,20nm,0.6s,mb5.2						
SDMD	**Soldier's Deli**	**54.42**	**358**	*e*P	**P**	**04 08 08.0**	**-0.5**
WMOK	**Wichita Mounta**	**54.55**	**336**	*e*P	**P**	**04 08 08.0**	**-1.6**
	comp=Z,19nm,1.5s,mb4.9						
WMOK				LR	LR		
	comp=Z,696nm,21.0s,MS4.7						
CLNB	**Carlsbad**	**54.67**	**330**	*e*P	**P**	**04 08 11.2**	**+0.7**
MCWV	**Mont Chateau**	**54.82**	**356**	PFAKE		04 08 20.0	+8.6
MCWV				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
GDL2	**Guadalupe Moun**	**54.85**	**330**	*e*P	**P**	**04 08 11.9**	**+0.1**
FVM	**French Village**	**54.87**	**345**	*e*P	**P**	**04 08 10.2**	**-1.6**
	comp=Z,32nm,1.3s,mb5.2						
MNTX	**Cornudas Mount**	**54.95**	**328**	*e*P	**P**	**04 08 11.2**	**-1.4**
	comp=Z,13nm,1.4s,mb4.8						
MNTX				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
CPRX	**Cap Rock**	**55.30**	**331**	*e*P	**P**	**04 08 15.3**	**+0.3**
SSPA	**Standing Stone**	**55.68**	**358**	*e*P	**P**	**04 08 17.4**	**-0.2**
	comp=Z,24nm,0.9s,mb5.2						
SSPA				LR	LR		
	comp=Z,987nm,21.0s,MS4.9						
ACSO	**Alum Creek Sta**	**55.69**	**353**	*e*P	**P**	**04 08 16.2**	**-1.6**
	comp=Z,18nm,0.7s,mb5.2						
ACSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
AMTX	**Amarillo**	**55.87**	**334**	PFAKE		04 08 30.0	+11
AMTX				LR	LR		
	comp=Z,425nm,20.0s,MS4.5						
RKT	**Rikitea**	**56.67**	**252**	*e*S	**S**	**04 16 18.0**	**+4.7**
RKT				*e*SS	SS	04 20 01.7	-0.2
RKT				*e*LR	LR	04 24 56.7	
	comp=Z,2µm,27.2s,baz=103						
BINY	**Binghamton**	**57.19**	**359**	*e*P	**P**	**04 08 28.6**	**+0.2**
	comp=Z,46nm,0.8s,mb5.6						
BINY				LR	LR		
	comp=Z,849nm,20.0s,MS4.8						
ERPA	**Erie**	**57.27**	**356**	PFAKE		04 08 40.0	+11
ERPA				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
WES	**Weston**	**57.48**	**3**	PFAKE		04 08 40.0	+9.5
WES				LR	LR		
	comp=Z,652nm,19.0s,MS4.8						
BNM	**Barren Site**	**57.54**	**329**	*e*P	**P**	**04 08 32.2**	**+1.2**
HRV	**Harvard--Oak R**	**57.59**	**3**	PFAKE		04 08 40.0	+8.7
HRV				LR	LR		
	comp=Z,974nm,20.0s,MS4.9						
LPM	**Los Pinos Moun**	**57.67**	**329**	*e*P	**P**	**04 08 32.3**	**+0.3**
KSU1	**Kansas State U**	**57.68**	**340**	P	**P**	**04 08 30.4**	**-1.5**
GENY	**Geneseo**	**57.80**	**358**	*e*P	**P**	**04 08 32.3**	**-0.4**
AAM	**Ann Arbor**	**57.81**	**353**	PFAKE		04 08 40.0	+7.2
AAM				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
ANMO	**Albuquerque**	**58.10**	**330**	P	**P**	**04 08 35.0**	**+0.1**
	comp=Z,3.0nm,0.7s,mb4.4,baz=154,slow=8.9,SNR=9.9						
ANMO				LR	LR	04 32 13.4	
	comp=Z,987nm,18.6s,MS5.0,slow=35						
ANMO	**Albuquerque**	**58.10**	**330**	*e*P	**P**	**04 08 34.5**	**-0.4**
	comp=Z,8.4nm,1.0s,mb4.7						
ANMO				LR	LR		
	comp=Z,998nm,19.0s,MS5.0						
TUC	**Tucson**	**58.31**	**325**	PFAKE		04 08 50.0	+14
TUC				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
ACCN	**Adirondack Com**	**58.38**	**1**	*e*P	**P**	**04 08 36.9**	**+0.1**
NCB	**Newcomb**	**58.96**	**1**	*e*P	**P**	**04 08 39.2**	**-1.6**
NCB				LR	LR		
	comp=Z,1µm,21.0s,MS5.0						
MDV	**Middlebury**	**59.01**	**2**	*e*P	**P**	**04 08 40.8**	**-0.4**
JFWS	**Jewell Farm**	**59.53**	**347**	PFAKE		04 09 00.0	+15
JFWS				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
WVL	**Waterville**	**59.76**	**5**	PFAKE		04 09 00.0	+14
WVL				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
FRNY	**Flat Rock**	**59.84**	**1**	*e*P	**P**	**04 08 46.8**	**-0.1**
SDCO	**Great Sand Dun**	**59.94**	**332**	*e*P	**P**	**04 08 47.6**	**-0.1**
	comp=Z,19nm,1.0s,mb5.1						
SDCO				LR	LR		
	comp=Z,892nm,20.0s,MS4.9						
MSNY	**Massena**	**59.98**	**0**	*e*P	**P**	**04 08 47.5**	**-0.4**
EMMW	**East Machias**	**60.11**	**6**	PFAKE		04 09 00.0	+11
EMMW				LR	LR		
	comp=Z,5µm,20.0s,MS5.7						
PV01	**Paradox Valley**	**61.67**	**330**	*e*P	**P**	**04 08 59.2**	**-0.2**
ISCO	**Idaho Springs**	**61.69**	**334**	P	**P**	**04 08 59.2**	**-0.3**
	comp=Z,9.8nm,1.2s,mb4.8						
ISCO				LR	LR		
	comp=Z,630nm,19.0s,MS4.8						
PV10	**Paradox Valley**	**62.08**	**330**	*e*P	**P**	**04 09 00.2**	**-1.9**
PFO	**Pinyon Flat Ob**	**62.53**	**322**	*e*P	**P**	**04 09 05.8**	**+0.5**
	comp=Z,14nm,1.0s,mb5.1						
PFO				LR	LR		
	comp=Z,232nm,22.0s,MS4.3						
NEN	**Nelson**	**63.04**	**324**	*e*P	**P**	**04 09 08.7**	**+0.1**
SRU	**San Rafael**	**63.38**	**330**	*e*P	**P**	**04 09 10.6**	**-0.1**
MSU	**Marysvale**	**63.74**	**328**	*e*P	**P**	**04 09 13.6**	**+0.4**
MVU	**Marysvale**	**63.75**	**328**	*e*P	**P**	**04 09 13.5**	**+0.3**
	comp=Z,25nm,1.5s,mb5.0						
MVU				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
ARUT	**Antelope Range**	**63.84**	**327**	*e*P	**P**	**04 09 14.8**	**+1.0**
MWC	**Mount Wilson**	**63.92**	**321**	*e*P	**P**	**04 09 15.3**	**+0.9**
EYMN	**Ely**	**64.60**	**348**	PFAKE		04 09 30.0	+11
EYMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
DAU	**Daniels Canyon**	**64.74**	**330**	*e*P	**P**	**04 09 20.7**	**+1.1**
TPNV	**Topopah Spring**	**64.76**	**324**	*e*P	**P**	**04 09 20.6**	**+0.8**
	comp=Z,7.9nm,0.9s,mb4.7						
TPNV				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
NLU	**North Lily Min**	**64.79**	**329**	*e*P	**P**	**04 09 19.9**	**0.0**
JLU	**Jordanelle**	**64.98**	**330**	*e*P	**P**	**04 09 20.4**	**-0.8**
DAC	**Darwin (Calif)**	**65.06**	**323**	PFAKE		04 09 30.0	+8.3
DAC				LR	LR		
	comp=Z,964nm,19.0s,MS5.0						
TCUT	**Toone Canyon**	**65.36**	**331**	*e*P	**P**	**04 09 24.2**	**+0.6**
TRCR	**Troy Canyon**	**65.40**	**326**	*e*P	**P**	**04 09 25.2**	**+1.3**
HWUT	**Hardware Ranch**	**65.82**	**331**	*e*P	**P**	**04 09 25.4**	**-1.1**
	comp=Z,7.5nm,0.9s,mb4.7						
HWUT				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
BW06	**Boulder Array**	**65.82**	**333**	PFAKE		04 09 40.0	+13
BW06				LR	LR		
	comp=Z,792nm,22.0s,MS4.9						
PDAR	**Pinedale Array**	**65.82**	**333**	P	**P**	**04 09 26.4**	**-0.1**
	comp=Z,1.4nm,0.9s,mb4.0,baz=143,slow=7.4,SNR=6.8						
PDAR				LR	LR	04 38 39.0	
	comp=Z,476nm,19.5s,MS4.7,baz=146,slow=36						
TPH	**Tonopah**	**66.11**	**325**	*e*P	**P**	**04 09 28.8**	**+0.4**
	comp=Z,7.7nm,0.8s,mb4.8						
TPH				LR	LR		
	comp=Z,714nm,20.0s,MS4.9						
MTUM	**Tungsten Hills**	**66.36**	**323**	*e*P	**P**	**04 09 30.8**	**+0.7**
AHID	**Auburn Hatcher**	**66.51**	**332**	PFAKE		04 09 40.0	+9.1
AHID				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
OMM	**Old Mammoth Mi**	**66.79**	**323**	*e*P	**P**	**04 09 33.6**	**+0.8**
MNV	**Mina**	**66.88**	**324**	PFAKE		04 09 50.0	+17
MNV				LR	LR		
	comp=Z,851nm,20.0s,MS5.0						
LOHW	**Long Hollow**	**66.96**	**333**	*e*P	**P**	**04 09 33.8**	**+0.2**
ELK	**Elko**	**66.97**	**328**	*e*P	**P**	**04 09 34.1**	**+0.3**
	comp=Z,8.4nm,1.3s,mb4.6						
ELK				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
IMW	**Indian Meadow**	**67.33**	**333**	*e*P	**P**	**04 09 36.0**	**0.0**
LKWY	**Lake**	**67.63**	**334**	PFAKE		04 09 50.0	+12
LKWY				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
SAO	**San Andreas Ge**	**67.67**	**321**	PFAKE		04 09 50.0	+12
SAO				LR	LR		
	comp=Z,613nm,20.0s,MS4.8						
LAO	**LASA Array**	**67.70**	**337**	PFAKE		04 09 50.0	+12
LAO				LR	LR		
	comp=Z,893nm,20.0s,MS5.0						
ULM	**Lac du Bonnet**	**67.73**	**346**	P	**P**	**04 09 38.5**	**+0.1**
	comp=Z,13nm,0.8s,mb5.0,baz=157,slow=6.0,SNR=31						
ULM				LR	LR	04 43 31.9	
	comp=Z,747nm,18.1s,MS5.0,baz=114,slow=40						
ULM	**Lac du Bonnet**	**67.73**	**346**	*e*P	**P**	**04 09 37.9**	**-0.5**
	comp=Z,20nm,0.8s,mb5.2						
ULM				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
BMN	**Battle Mountai**	**67.78**	**326**	PFAKE		04 09 50.0	+11
BMN				LR	LR		
	comp=Z,968nm,20.0s,MS5.0						
VNA3	**Neumayer Olymp**	**67.85**	**161**	*e*	**P**	**04 09 49.1**	**+10**
VNA3	**Neumayer Olymp**	**67.85**	**161**	*e*	**P**	**04 09 53.1**	**+14**
VNA3	**Neumayer Olymp**	**67.85**	**161**	⇑*i*P	**P**	**04 09 40.5**	**+1.7**
VNA3				*e*	pP	04 09 49.1	0.0
VNA3				*e*		04 09 53.1	
CMB	**Columbia Colle**	**67.88**	**323**	*e*P	**P**	**04 09 39.6**	**0.0**
	comp=Z,2.8nm,0.8s,mb4.3						
CMB				LR	LR		
	comp=Z,889nm,20.0s,MS5.0						
VNA1	**Neumayer--Stat**	**68.11**	**161**	*e*	**P**	**04 09 51.2**	**+11**
VNA1	**Neumayer--Stat**	**68.11**	**161**	*e*	**P**	**04 09 55.4**	**+15**
VNA1	**Neumayer--Stat**	**68.11**	**161**	⇑*i*P	**P**	**04 09 42.4**	**+1.9**
VNA1				*e*	pP	04 09 51.2	+0.4
VNA1				*e*		04 09 55.4	
QLMT	**Earthquake Lak**	**68.28**	**333**	P	**P**	**04 09 42.0**	**+0.1**
VNA2	**Neumayer--Watz**	**68.46**	**161**	*e*	**P**	**04 09 52.9**	**+10**
VNA2	**Neumayer--Watz**	**68.46**	**161**	*e*	**P**	**04 09 57.7**	**+15**
VNA2	**Neumayer--Watz**	**68.46**	**161**	⇑*i*P	**P**	**04 09 44.2**	**+1.5**
VNA2				*e*	pP	04 09 52.9	-0.1
VNA2				*e*		04 09 57.7	
DGMT	**Dagmar**	**68.51**	**340**	PFAKE		04 10 00.0	+17
DGMT				LR	LR		
	comp=Z,839nm,19.0s,MS5.0						
HLID	**Hailey**	**68.67**	**330**	*e*P	**P**	**04 09 45.0**	**+0.7**
	comp=Z,25nm,1.6s,mb4.9						
HLID				LR	LR		
	comp=Z,877nm,19.0s,MS5.0						
MCMT	**McKenzie Canyo**	**68.91**	**332**	*e*P	**P**	**04 09 46.3**	**+0.5**
BOZ	**Bozeman (W)**	**69.02**	**334**	PFAKE		04 10 00.0	+14
BOZ				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
OHCM	**Honcut**	**69.39**	**323**	*e*P	**P**	**04 09 49.7**	**+0.8**
TBI	**Tubuai**	**69.89**	**250**	*e*S	S	04 19 02.8	+4.4
TBI				*e*LR	LR	04 31 02.4	
	comp=Z,2µm,26.5s,baz=97						
SNAA	**Sanae**	**70.07**	**161**	*e*	**P**	**04 10 00.6**	**+8.1**
SNAA	**Sanae**	**70.07**	**161**	*e*	**P**	**04 10 04.8**	**+12**
SNAA	**Sanae**	**70.07**	**161**	P	**P**	**04 09 52.1**	**-0.4**
	comp=Z,6.8nm,0.6s,mb4.7,baz=281,slow=5.8,SNR=64						
SNAA	**Sanae**	**70.07**	**161**	⇑*i*P	**P**	**04 09 52.1**	**-0.4**
SNAA				*e*	pP	04 10 00.6	-2.2
SNAA				*e*		04 10 04.8	
HOPS	**Hopland**	**70.10**	**322**	PFAKE		04 10 10.0	+17
HOPS				LR	LR		
	comp=Z,936nm,21.0s,MS5.0						
SCHQ	**Schefferville**	**70.19**	**5**	P	**P**	**04 09 53.4**	**0.0**
	comp=Z,8.7nm,0.8s,mb4.7,baz=181,slow=2.8,SNR=7.7						
SCHQ				LR	LR	04 42 51.4	
	comp=Z,393nm,18.3s,MS4.7,baz=204,slow=38						
SCHQ	**Schefferville**	**70.19**	**5**	P	**P**	**04 09 53.4**	**0.0**
SCHQ				LR	LR	04 42 51.4	
MOD	**Modoc**	**70.47**	**326**	*e*P	**P**	**04 09 56.4**	**+1.0**
	comp=Z,12nm,1.2s,mb4.7						
MOD				LR	LR		
	comp=Z,779nm,22.0s,MS4.9						
MSO	**Missoula**	**70.94**	**333**	*e*P	**P**	**04 09 59.4**	**+1.1**
	comp=Z,18nm,1.5s,mb4.8						
MSO				LR	LR		
	comp=Z,737nm,22.0s,MS4.9						
PPT	**Papeete**	**70.95**	**256**	*e*S	S	04 19 15.1	+4.4
PPT				*e*LR	LR	04 31 22.8	
	comp=Z,1µm,23.8s,baz=100						
BMO	**Blue Mountains**	**71.02**	**330**	*e*P	**P**	**04 09 58.5**	**-0.2**
	comp=Z,4.6nm,0.9s,mb4.4						
BMO				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
YBH	**Yreka Blue Hor**	**71.68**	**324**	P	**P**	**04 10 02.0**	**-0.7**
	comp=Z,4.1nm,0.8s,mb4.4,baz=79,slow=7.0,SNR=8.0						
YBH	**Yreka Blue Hor**	**71.68**	**324**	P	**P**	**04 10 02.0**	**-0.7**
YBH				LR	LR		
	comp=Z,943nm,19.0s,MS5.1						
HUMO	**Hull Mountain**	**72.40**	**325**	PFAKE		04 10 20.0	+13
HUMO				LR	LR		
	comp=Z,823nm,21.0s,MS5.0						
WALA	**Waterton Lakes**	**72.65**	**334**	*e*P	**P**	**04 10 09.1**	**+0.7**
	comp=Z,4.1nm,0.7s,mb4.5						
DBIC	**Dimbokro**	**73.00**	**78**	P	**P**	**04 10 11.0**	**-0.2**
	comp=Z,18nm,0.7s,mb5.1,baz=226,slow=6.1,SNR=38						
DBIC				LR	LR	04 40 46.9	
	comp=Z,4µm,19.0s,MS5.7,baz=217,slow=34						
HAWA	**Hanford**	**73.21**	**330**	*e*P	**P**	**04 10 12.2**	**+0.5**
	comp=Z,5.2nm,0.8s,mb4.5						
HAWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
NEW	**Newport**	**73.44**	**332**	PFAKE		04 10 20.0	+7.0

NEW				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
COR	Corvallis	73.90	326	PFAKE		04 10 30.0	+14
COR				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
QSPA	South Pole Qui	74.88	180	⇑*i*P	P	04 10 21.3	+0.5
	comp=Z,18nm,0.7s,mb5.1						
FCC	Fort Churchill	75.38	350	*e*P	P	04 10 23.5	-0.5
	comp=Z,34nm,1.4s,mb5.1						
EDM	Edmonton	75.69	337	*e*P	P	04 10 23.9	-2.0
SBA	Scott Base	80.81	191	PFAKE		04 11 10.0	+16
SBA				LR	LR		
	comp=Z,1µm,19.0s,MS5.2						
VNDA	Vanda	81.88	191	P	P	04 11 00.1	+0.9
	comp=Z,4.2nm,0.9s,mb4.4,baz=137,slow=3.8,SNR=7.2						
VNDA				LR	LR	04 41 20.6	
	comp=Z,866nm,18.6s,MS5.1,baz=123,slow=31						
VNDA	Vanda	81.88	191	*e*P	P	04 10 59.3	+0.1
EVO	Evora	82.47	47	*e*P	P	04 11 02.8	-0.2
	comp=Z,60nm,1.3s,mb5.1						
EVO				*e*R			
	comp=Z,1µm,19.2s						
YKA	Yellowknife Ar	83.43	343	P	P	04 11 07.6	+0.3
	comp=Z,8.4nm,0.7s,mb4.9,baz=138,slow=5.1,SNR=164						
YKA				LR	LR	04 52 41.0	
	comp=Z,863nm,18.2s,MS5.2,baz=145,slow=39						
YKA	Yellowknife Ar	83.43	343	P	P	04 11 07.6	+0.3
YKA				LR	LR	04 52 41.0	
YKW3	Yellowknife Ar	83.49	343	*e*P	P	04 11 07.4	-0.2
SYO	Syowa Base	84.35	161	⇓P	P	04 11 11.9	0.0
SYO	Syowa Base	84.35	161	⇓PcP	PcP	04 11 14.9	-1.0
ESDC	Sonseca Array	85.81	47	P	P	04 11 21.7	+2.0
	comp=Z,2.3nm,0.7s,mb4.5,baz=256,slow=5.0,SNR=13						
ESLA	Sonseca Array	85.81	47	PFAKE		04 11 30.0	+10
ESLA				LR	LR		
	comp=Z,8µm,20.0s,MS6.1						
DLBC	Dease Lake	86.00	334	LR	LR	04 50 05.9	
	comp=Z,362nm,18.9s,MS4.8,baz=104,slow=36						
DLBC	Dease Lake	86.00	334	*e*P	P	04 11 21.4	+1.2
SUR	Sutherland	86.90	123	PFAKE		04 11 40.0	+15
SUR				LR	LR		
	comp=Z,278nm,20.0s,MS4.7						
ETSF	Etsaut	89.41	45	*e*P	P	04 11 36.6	-0.4
QUIF	Quistinic	89.62	40	*e*P	P	04 11 38.0	+0.1
ROSF	Rostrenen	89.72	39	*e*P	P	04 11 37.9	-0.5
SUMG	Summit	90.95	10	*e*P	P	04 11 45.1	+1.5
	comp=Z,11nm,1.0s,mb5.1						
LFF	La Frestale	91.02	44	*e*P	P	04 11 45.6	+1.1
GRR	Gorron	91.23	40	*e*P	P	04 11 47.0	+1.6
	comp=Z,64nm,1.2s,mb5.5						
FLN	La Foliniere	91.60	40	*e*P	P	04 11 46.5	-0.6
	comp=Z,35nm,1.1s,mb5.3						
FLN				*e*R			
	comp=Z,763nm,22.0s						
RJF	Les Rejaudoux	91.66	43	*e*P	P	04 11 46.7	-0.8
RJF				*e*R			
	comp=Z,1µm,18.5s						
BOSA	Boshof	91.67	120	PFAKE		04 12 00.0	+12
BOSA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
LDF	La Druitiere	91.76	40	*e*P	P	04 11 48.1	+0.2
	comp=Z,47nm,1.1s,mb5.4						
CAF	Calviac	91.90	44	*e*P	P	04 11 48.0	-0.6
	comp=Z,13nm,0.8s,mb5.0						
MAW	Mawson	91.91	165	P	P	04 11 48.5	+0.4
	comp=Z,2.8nm,0.9s,mb4.6,baz=238,slow=8.4,SNR=3.7						
MAW				LR	LR	04 50 18.8	
	comp=Z,834nm,20.9s,MS5.2,baz=235,slow=34						
URZ	Urewera	93.98	229	LR	LR	04 47 17.7	
	comp=Z,772nm,18.5s,MS5.2,baz=32,slow=31						
DIV	Divide	94.19	333	PFAKE		04 12 10.0	+11
DIV				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
ORIF	Oris-en-Rattie	94.47	45	*e*P	P	04 12 01.0	+0.7
ORIF				*e*R			
	comp=Z,1µm,18.8s						
LPL	La Plagne	95.22	44	*e*P	P	04 12 04.5	+0.8
	comp=Z,14nm,1.1s,mb5.0						
SBF	Sospel	95.24	46	*e*P	P	04 12 03.2	-0.6
RPZ	Rata Peaks	95.83	222	LR	LR	04 47 52.4	
	comp=Z,431nm,18.1s,MS5.0,baz=56,slow=31						
ILAR	Eielson Array	96.12	336	P	P	04 12 07.2	-0.1
	comp=Z,1.0nm,0.8s,mb4.3,baz=158,slow=3.1,SNR=12						
ILAR				PP	PP	04 15 57.7	-5.1
	comp=Z,0.6nm,1.0s,baz=120,slow=7.3,SNR=4.4						
ILAR				LR	LR	04 56 59.6	
	comp=Z,516nm,19.9s,MS5.0,baz=328,slow=36						
FIB	Fire Island	96.18	332	PFAKE		04 12 20.0	+12
FIB				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
CDF	Champ du Feu	96.37	42	*e*P	P	04 12 08.6	-0.3
COLA	College	96.54	336	PFAKE		04 12 20.0	+11
COLA				LR	LR		
	comp=Z,590nm,21.0s,MS5.0						
MCK	McKinley	96.56	335	PFAKE		04 12 20.0	+11
MCK				LR	LR		
	comp=Z,337nm,19.0s,MS4.8						
DAVOX	Davos	97.66	44	P	P	04 12 16.4	+1.6
	comp=Z,3.2nm,0.8s,mb4.9,baz=342,slow=16,SNR=5.6						
LSZ	Lusaka	98.46	108	PFAKE		04 12 30.0	+11
LSZ				LR	LR		
	comp=Z,978nm,20.0s,MS5.3						
GRF	Grafenberg Arr	99.20	41	*e*P	P	04 12 23.5	+1.9
	comp=Z,4.0nm,0.9s,mb5.0						
GRF				LR	LR		
	comp=Z,500nm,19.1s,MS5.0						
GERES	GERESS Array B	100.62	42	P	P	04 12 28.5	+0.3
	comp=Z,0.5nm,0.5s,baz=270,slow=4.0,SNR=6.6						
MBAR	Mbarara	105.20	95	PFAKE		04 17 20.0	
MBAR				LR	LR		
	comp=Z,628nm,20.0s,MS5.2						
MIDW	Midway	107.62	295	PFAKE		04 17 20.0	
MIDW				LR	LR		
	comp=Z,7µm,19.0s						
KMBO	Kilima Mbogo	111.31	97	PFAKE		04 17 30.0	+16
KMBO				LR	LR		
	comp=Z,650nm,20.0s,MS5.2						
SMY	Shemya	114.54	321	PFAKE		04 17 30.0	+11
SMY				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
OBN	Obninsk	114.83	36	PFAKE		04 17 30.0	+11
OBN				LR	LR		
	comp=Z,169nm,19.0s,MS4.7						
KIV	Kislovodsk	120.47	48	PFAKE		04 17 40.0	+9.3
KIV				LR	LR		
	comp=Z,63nm,21.0s,MS4.2						
WAKE	Wake Island	121.07	284	PFAKE		04 17 50.0	+18
WAKE				LR	LR		
	comp=Z,61µm,22.0s						
STKA	Stephens Creek	121.33	217	PKP	PKPdf	04 17 33.0	+0.5
	comp=Z,2.0nm,0.6s,baz=222,slow=3.6,SNR=9.0						
TIXI	Tiksi	121.83	351	PFAKE		04 17 50.0	+17
TIXI				LR	LR		
	comp=Z,425nm,21.0s,MS5.1						
GNI	Garni	122.50	52	PFAKE		04 17 50.0	+15
GNI				LR	LR		
	comp=Z,247nm,19.0s,MS4.9						
MA2	Magadan	124.53	334	PFAKE		04 17 50.0	+12
MA2				LR	LR		
	comp=Z,378nm,19.0s,MS5.1						
CTAO	Charters Tower	126.19	230	PFAKE		04 18 00.0	+18
CTAO				LR	LR		
	comp=Z,474nm,19.0s,MS5.2						
YAK	Yakutsk	130.07	345	PFAKE		04 18 00.0	+11
YAK				LR	LR		
	comp=Z,495nm,22.0s,MS5.2						
PMG	Port Moresby	131.39	242	PFAKE		04 18 10.0	+18
PMG				LR	LR		
	comp=Z,478nm,20.0s,MS5.2						
ASAR	Alice Springs	131.97	217	PKP	PKPdf	04 17 54.1	+0.9
	comp=Z,4.9nm,1.0s,baz=128,slow=2.0,SNR=29						
CHKZ	Chkalovo	133.27	27	*e*P	PKPdf	04 17 55.8	+0.8
BRVK	Borovoye	133.53	28	PFAKE		04 18 10.0	+15
BRVK				LR	LR		
	comp=Z,133nm,21.0s,MS4.6						
BVAR	Borovoye Array	133.60	28	PKP	PKPdf	04 17 58.0	+2.4
	comp=Z,2.0nm,1.1s,baz=270,slow=1.4,SNR=3.3						
WB2	Warramunga Arr	134.51	221	*e*P	PKPdf	04 17 59.3	+1.2
WRA	Warramunga Arr	134.52	221	PKP	PKPdf	04 17 59.4	+1.2
	comp=Z,5.6nm,0.6s,baz=142,slow=1.7,SNR=52						
WRAB	Tennant Creek	134.52	221	*e*P	PKPdf	04 17 59.0	+0.9
WRAB				LR	LR		
	comp=Z,195nm,21.0s,MS4.8						
YSS	Yuzh-Sakhalins	135.40	323	PFAKE		04 18 10.0	+11
YSS				LR	LR		
	comp=Z,746nm,20.0s,MS5.4						
ZAL	Zalesovo	138.36	18	PKhKP		04 18 02.8	
	comp=Z,2.6nm,0.8s,baz=21,slow=1.3,SNR=13						
DGAR	Diego Garcia	140.81	123	PFAKE		04 18 20.0	+10
DGAR				LR	LR		
	comp=Z,154nm,19.0s,MS4.8						
MBWA	Marble Bar	140.94	202	PFAKE		04 18 20.0	+10
MBWA				LR	LR		
	comp=Z,343nm,19.0s,MS5.1						
FITZ	Fitzroy Crossi	140.99	213	*e*P	PKPdf	04 18 11.3	+1.3
	comp=Z,6.6nm,0.8s						
FITZ	Fitzroy Crossi	140.99	213	PKP	PKPdf	04 18 11.1	+1.1
	comp=Z,7.9nm,0.8s,baz=170,slow=4.0,SNR=12						
GUMO	Guam	141.20	273	PFAKE		04 18 20.0	+10
GUMO				LR	LR		
	comp=Z,949nm,19.0s,MS5.6						
AAK	Ala-Archa	142.33	38	PFAKE		04 18 30.0	+18
AAK				LR	LR		
	comp=Z,102nm,21.0s,MS4.6						
MAJO	Matsushiro	143.52	312	PFAKE		04 18 30.0	+18
MAJO				LR	LR		
	comp=Z,982nm,20.0s,MS5.6						
TLY	Talaya	143.67	1	PFAKE		04 18 30.0	+18
TLY				LR	LR		
	comp=Z,65nm,20.0s,MS4.4						
HIA	Hailar	143.97	343	PFAKE		04 18 30.0	+17
HIA				LR	LR		
	comp=Z,483nm,20.0s,MS5.3						
MDJ	Mudanjiang	144.00	329	PKP	PKPdf	04 18 15.5	+1.1
MDJ				PP	PP	04 21 29.3	-3.1
MDJ				PKS	PKS	04 21 50.8	+1.7
MDJ				SKS	SKS	04 25 23.8	+5.2
MDJ				SS	SS	04 40 12.9	+1.5
MDJ				PP	PP		
	comp=Z,174nm,4.1s						
MDJ				LR	LR		
	comp=N,80nm,24.1s,MS4.9						
MDJ				LR	LR		
	comp=E,239nm,21.9s,MS4.9						
MDJ				LR	LR		
	comp=Z,305nm,21.9s,MS5.0						
MDJ	Mudanjiang	144.00	329	PFAKE		04 18 30.0	+16
MDJ				LR	LR		
	comp=Z,413nm,19.0s,MS5.2						
JASL	Jaisalmer	146.42	64	*e*PKP	PKPdf	04 18 15.9	-3.3
JASL				*e*		04 18 19.2	
	comp=Z,89nm,0.1s						
CN2	Changchun	146.56	332	*e*PKP	PKPdf	04 18 18.3	-0.6
ULN	Ulaanbaatar	147.45	357	*e*PKPbc	PKPdf	04 18 25.2	+5.0
ULN				*e*PKPab	PKPab	04 18 27.8	+1.0
ULN				LR	LR		
	comp=Z,494nm,19.0s,MS5.3						
SONM	Songino Array	147.51	358	PKPbc	PKPdf	04 18 25.3	+5.0
	comp=Z,10nm,0.8s,baz=328,slow=2.1,SNR=33						
WMQ	Urumqi	148.03	24	PKP	PKPdf	04 18 23.5	+2.2
WMQ				APKP		04 18 28.0	
WMQ				XPKP		04 18 30.5	
WMQ				PP	PP	04 21 58.3	+1.7
WMQ				PP	PP		
	comp=Z,60nm,9.4s						
WMQ				LR	LR		
	comp=N,372nm,28.0s,MS5.1						
WMQ				LR	LR		
	comp=E,250nm,26.2s,MS5.1						
WMQ				LR	LR		
	comp=Z,318nm,26.0s,MS5.0						
THN	Thein Dam	148.54	52	*e*PKP	PKPdf	04 18 28.3	+5.8
AJM	Ajmer	149.77	63	*e*	PKPdf	04 18 15.6	-9.0
	comp=Z,8.1nm,0.7s						
AJM				*e*PKP	PKPdf	04 18 26.9	+2.3
POO	Poona	150.23	79	⇑*i*PKP	PKPdf	04 18 30.0	+4.5
	comp=Z,3µm,1.2s						
KHET	Khetri	150.28	60	*e*PKP	PKPdf	04 18 28.4	+3.1
KHET				*e*		04 18 34.0	
	comp=Z,20nm,1.0s						
KAD	Karad	150.56	82	⇑*i*PKP	PKPdf	04 18 30.0	+4.0
	comp=Z,28nm,1.0s						
INCN	Inchon	150.62	323	PFAKE		04 18 40.0	+14
INCN				LR	LR		
	comp=Z,517nm,19.0s,MS5.3						
KUDL	Kundal	150.83	59	*e*PKP	PKPdf	04 18 28.7	+2.5
KUDL				*e*		04 18 35.7	
	comp=Z,30nm,1.0s						
MNGI	Mangalore	150.84	91	*e*PKP	PKPdf	04 18 29.2	+2.7
BHGR	Bahadurgarh	151.01	58	*e*	PKPdf	04 18 13.6	-13
AYAN	Aya Nagar	151.24	58	*e*PKP	PKPdf	04 18 30.8	+4.0
AYAN				*e*		04 18 35.8	
	comp=Z,14nm,0.7s						
DDI	Dehra Dun	151.25	54	*e*	PKPdf	04 18 33.0	+6.3
KALG	Kalgarh	152.15	55	*e*PKP	PKPdf	04 18 25.0	-3.1
AGRA	Agra	152.35	60	*e*PKP	PKPdf	04 18 30.3	+1.8
BJT	Baijiatuau	153.42	340	PFAKE		04 18 40.0	+10
BJT				LR	LR		
	comp=Z,642nm,21.0s,MS5.4						
HHC	Hu-ho-hao-te	153.85	348	*e*PKP	PKPdf	04 18 33.5	+3.4
HHC				PKP2	PKPab	04 18 53.8	+0.2
HHC				PKS	PKS	04 22 07.6	+4.2
HHC				SKKS		04 29 11.6	
HHC				PP	PP		
	comp=Z,194nm,7.1s						
HHC				LR	LR		
	comp=N,230nm,16.6s,MS5.3						
HHC				LR	LR		
	comp=E,315nm,15.5s,MS5.3						
HHC				LR	LR		
	comp=Z,370nm,22.6s						
PALK	Pallekele	155.08	106	PFAKE		04 18 50.0	+17
PALK				LR	LR		
	comp=Z,148nm,21.0s,MS4.8						
KOLN	Koldanda	156.73	54	*e*P	PKPab	04 19 06.6	+0.3
	comp=Z,6.1nm,0.8s						
GKN	Gorkha	157.42	53	*e*P	PKPab	04 19 09.0	-0.2
	comp=Z,32nm,1.1s						
DMN	Daman	157.98	53	*e*P	PKPab	04 19 11.5	-0.1
	comp=Z,52nm,1.3s						
KKN	Kakani	158.02	52	*e*P	PKPab	04 19 11.9	+0.1
	comp=Z,34nm,1.1s						
PKI	Pulchoki	158.23	53	*e*P	PKPab	04 19 12.5	-0.2
GUN	Gumba	158.41	51	*e*P	PKPab	04 19 13.3	-0.2
	comp=Z,58nm,1.3s						
NJ2	Nanjing	158.95	325	*e*PKP	PKPdf	04 18 38.1	+1.0
NJ2				APKP		04 18 48.9	
NJ2				XPKP		04 18 52.5	
NJ2				PKP2	PKPab	04 19 16.9	+1.2
NJ2				PP	PP	04 22 59.0	+1.4
NJ2				LR	LR		
	comp=N,1µm,24.2s,MS5.7						
NJ2				LR	LR		
	comp=E,920nm,23.8s,MS5.7						
NJ2				LR	LR		
	comp=Z,790nm,16.5s						
LZH	Lanzhou	159.26	2	*e*PKP	PKPdf	04 18 38.5	+1.2
LZH				APKP		04 18 46.5	
LZH				XPKP		04 18 49.0	
LZH				*e*PP	PP	04 22 59.3	+0.3
LZH				*e*SS	SS	04 43 00.5	+1.3
LZH				PP	PP		
	comp=Z,158nm,8.2s						
LZH				LR	LR		
	comp=N,279nm,18.0s						
LZH				LR	LR		
	comp=Z,348nm,20.0s,MS5.2						
LSA	Lhasa	160.92	39	PFAKE		04 18 50.0	+11
LSA				LR	LR		
	comp=Z,302nm,19.0s						
ENH	Enshi	164.47	345	PFAKE		04 19 00.0	+17
ENH				LR	LR		
	comp=Z,419nm,21.0s						
CMAR	Chiang Mai Arr	173.56	60	PKP	PKPdf	04 18 50.5	+1.7
	comp=Z,1.0nm,0.6s,baz=180,slow=1.4,SNR=7.0						
CMAR				PKPab	PKPab	04 20 19.4	-0.5
	comp=Z,0.6nm,0.3s,baz=307,slow=4.5,SNR=3.0						
QIZ	Qiongzhong	173.91	308	PKP	PKPdf	04 18 48.6	-0.3
QIZ				PKP2	PKPab	04 20 20.6	-0.9
QIZ				PP	PP	04 24 14.5	-0.2
QIZ				SS	SS	04 45 26.5	+0.2
QIZ				LR	LR		
	comp=E,346nm,18.3s						
QIZ				LR	LR		
	comp=Z,380nm,18.0s						
QIZ	Qiongzhong	173.91	308	PFAKE		04 19 00.0	+11
QIZ				LR	LR		
	comp=Z,352nm,20.0s						

IDC ***20*** *04:22:50.0±35.0, 14.67S×166.58E, mb4.1/4, mb1 4.2/4, mb1mx3.9/14, Error ellipse: s-maj=595.0km s-min=88.3km az=69.0*

ISC 20 04:22:58.3±4.3, 15.0S±0.3×166.0E±0.5, h33^{km}, n6, σ0^{s}40/7, mb3.9/4, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	7.07	177	*e*P	P	04 24 41.6	-0.5
DZM				*e*S	S	04 26 02.3	+0.1
NOUC	Port Laguerre	7.09	178	*e*P	P	04 24 42.8	+0.4
STKA	Stephens Creek	27.89	229	P	P	04 28 47.4	-0.1
	2.8nm,0.5s,mb4.1,baz=47,slow=7.8,SNR=12						
WRA	Warramunga Arr	30.56	256	P	P	04 29 11.5	+0.2
	0.4nm,0.5s,mb3.5,baz=85,slow=9.0,SNR=11						
ASAR	Alice Springs	31.42	249	P	P	04 29 18.2	-0.7
	1.1nm,0.4s,mb4.0,baz=79,slow=9.0,SNR=23						
FITZ	Fitzroy Crossi	38.75	260	P	P	04 30 21.9	+0.5
	2.2nm,0.7s,mb4.0,baz=100,slow=6.2,SNR=11						

IDC ***20*** *04:56:27.0±4.0, 38.96N×76.42E, mb3.4/2, mb1 3.8/4, mb1mx3.5/20, ML3.5/2, Error ellipse: s-maj=69.5km s-min=41.5km az=35.0*

BJI ***20*** *04:56:36.2, 40.05N×77.13E, h17^{km}, ML3.8*

ISC 20 04:56:37.3±0.7, 39.72N±0.04×77.32E±0.08, h46^{km}±19^{km}, n22, σ0^{s}57/25, mb3.3/2, 1C, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	1.06	260	⇑*i*PG	P	04 56 54.9	-1.0
KSH				SG	S	04 57 10.0	+0.2
KSH				Smax			
	comp=N,1µm,0.7s						
KSH				Smax			
	comp=E,1µm,0.7s						
ULHL	Ulahol	2.66	342	P	P	04 57 19.4	+0.7
	SNR=23						
KZA	Kyzart	2.83	327	P	P	04 57 21.2	0.0
	SNR=106						
UCH	Uchtor	3.29	321	P	P	04 57 27.4	-0.2
	SNR=50						
KBK	Karagaybulak	3.44	329	P	P	04 57 30.0	+0.2
	SNR=61						
TKM2	Tokmak 2	3.46	339	P	P	04 57 30.3	+0.3
	SNR=62						
AML	Almayashu	3.66	312	P	P	04 57 32.6	-0.3
	SNR=119						
CHMS	Chumysh	3.81	330	P	P	04 57 34.9	-0.1
	SNR=40						
EKS2	Erkin-Say	3.98	319	P	P	04 57 37.4	+0.1
	SNR=47						
USP	Ospenovka	4.13	330	P	P	04 57 39.4	-0.1
	SNR=10.0						
DLH	Dalhousie	7.24	189	*e*P	S	04 59 46.0	+1.1
SDNR	Sundarnagar	8.20	182	*e*P	P	04 58 41.2	+4.8
	comp=E,50nm,0.4s						
SDNR				*e*S	S	05 00 20.2	+11
WMQ	Urumqi	8.77	59	P	P	04 58 45.3	+1.0
WMQ				S	S	05 00 22.5	-0.4
WMQ				Smax			
	comp=N,15nm,1.0s						
WMQ				Smax			
	comp=E,17nm,1.0s						
KOLN	Koldanda	13.00	154	*e*P	P	04 59 42.1	+0.4
	comp=E,2.9nm,0.3s						
GKN	Gorkha	13.16	150	*e*P	P	04 59 43.5	-0.3
KKN	Kakani	13.60	149	*e*P	P	04 59 49.2	-0.4
	comp=E,7.1nm,0.4s						
GUN	Gumba	13.75	146	*e*P	P	04 59 51.0	-0.5
	comp=E,6.9nm,0.4s						
PKI	Pulchoki	13.85	149	*e*P	P	04 59 52.2	-0.6
	comp=E,6.1nm,0.5s						
BVAR	Borovoye Array	14.14	343	Pn	P	04 59 51.9	-4.5
	comp=E,0.1nm,0.3s,baz=159,slow=13,SNR=9.0						
BVAR				Lg		05 03 52.7	
	comp=E,0.2nm,0.3s,baz=148,slow=23,SNR=7.4						
ZAL	Zalesovo	15.11	17	Pn	P	05 00 14.7	+5.7
	comp=E,0.5nm,0.3s,baz=266,slow=11,SNR=6.3						
SONM	Songino Array	22.41	59	P	P	05 01 36.8	+3.9
	comp=E,1.0nm,0.8s,mb3.3,baz=270,slow=11,SNR=7.4						
YKA	Yellowknife Ar	77.69	6	P	P	05 08 29.9	-0.2
	comp=E,0.3nm,0.6s,mb3.4,baz=345,slow=5.5,SNR=9.1						

IDC 20 05:01:14.0±1.0, 22.16S×68.63W, h107^{km}±32^{km}, mb3.4/3, mb1 3.7/4, mb1mx3.4/13, Error ellipse: s-maj=91.7km s-min=26.0km az=8.0, Northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	0.52	210	P	P	05 01 32.1	+1.3
	372nm,0.3s,baz=27,slow=6.3,SNR=5854						
LVC				S	S	05 01 45.5	+1.9
	1µm,0.3s,baz=212,slow=19,SNR=158						
BDFB	Brasilia	20.54	75	P	P	05 05 44.2	-1.8
	3.0nm,0.4s,baz=249,slow=11,SNR=14						
TXAR	Lajitas Array	61.31	325	P	P	05 11 18.2	-2.5
	0.3nm,0.8s,baz=151,slow=9.3,SNR=2.9						
ANMO	Albuquerque	67.19	327	P	P	05 11 57.3	-1.6
	1.1nm,0.7s,baz=153,slow=6.8,SNR=5.5						
YKA	Yellowknife Ar	91.89	340	P	P	05 14 09.2	-1.7
	0.4nm,0.6s,baz=135,slow=4.4,SNR=11						

IDC ***20*** *05:13:06.8±1.9, 46.88N×27.38W, mb3.6/3, mb1 4.0/4, mb1mx3.5/20, ML4.4/1, MS3.8/2, Ms1 3.7/2, ms1mx2.6/26, Error ellipse: s-maj=93.8km s-min=32.9km az=20.0*

NEIC ***20*** *05:13:07.7±0.8, 46.55N×27.43W, h10^{km}, mb4.4/7, Error ellipse: s-maj=35.3km s-min=9.5km az=185.0*

CSEM ***20*** *05:13:09.3±0.4, 46.87N×27.27W, h33^{km}, mb4.4/7, Error ellipse: s-maj=32.0km s-min=6.0km az=4.0*

ISC 20 05:13:05.9±0.8, 46.6N±0.2×27.4W±0.1, h10^{km}, n20, σ1^{s}05/19, mb4.1/7, MS3.8/2, Northern Mid-Atlantic Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GRR	Gorron	17.98	75	*e*P	P	05 17 20.5	+3.1
	129nm,1.5s						
FLN	La Foliniere	18.20	73	*e*P	P	05 17 21.6	+1.4
	151nm,1.6s						
ESDC	Sonseca Array	18.42	104	P	P	05 17 24.1	+1.2
	0.3nm,0.3s,baz=300,slow=13,SNR=7.0						
LDF	La Druitiere	18.45	74	*e*P	P	05 17 22.3	-1.0
	72nm,1.4s						
TCF	Toulx Ste Croi	20.34	80	*e*P	P	05 17 43.7	-1.2
	41nm,1.3s						
AVF	Avril sur Loir	21.02	78	*e*P	P	05 17 51.3	-0.6
	30nm,1.2s,mb4.2						
SSF	Saint Saulge	21.07	78	*e*P	P	05 17 52.1	-0.3
ULM	Lac du Bonnet	44.12	301	LR	LR	05 37 07.9	
	comp=Z,65nm,18.5s,MS3.6,baz=68,slow=33						
YKA	Yellowknife Ar	48.89	322	P	P	05 21 52.9	-0.3
	0.6nm,1.0s,mb3.6,baz=62,slow=6.9,SNR=5.2						
BW06	Boulder Array	55.98	298	*e*P	P	05 22 45.7	-0.7
	1.1nm,0.7s,mb4.0						
BW06	Boulder Array	55.98	298	*e*P	P	05 22 45.7	-0.8
	1.1nm,0.7s,mb4.0						
PDAR	Pinedale Array	55.98	298	P	P	05 22 45.5	-1.0
	1.4nm,0.9s,mb4.0,baz=60,slow=7.3,SNR=8.2						
PV10	Paradox Valley	58.21	294	*e*P	P	05 23 03.4	+1.0
PV10	Paradox Valley	58.21	294	*e*P	P	05 23 03.4	+1.0
MVU	Marysvale	60.12	296	*e*P	P	05 23 16.8	+1.2
	13nm,1.7s,mb4.7						
MVU	Marysvale	60.12	296	*e*P	P	05 23 16.8	+1.2
	13nm,1.7s,mb4.7						
TXAR	Lajitas Array	60.27	282	P	P	05 23 17.2	+0.5
	0.6nm,0.8s,mb3.7,baz=74,slow=6.6,SNR=7.3						
TXAR				LR	LR	05 46 58.7	
	comp=Z,105nm,19.3s,MS4.0,slow=34						
TXAR	Lajitas Array	60.27	282	P	P	05 23 17.2	+0.5
TXAR				LR	LR	05 46 58.7	
LSZ	Lusaka	79.28	126	*e*P	P	05 25 12.0	-1.1
	7.7nm,1.5s,mb4.4						
LSZ	Lusaka	79.28	126	*e*P	P	05 25 12.0	-1.1
	7.7nm,1.5s,mb4.4						

IDC ***20*** *05:35:17.7±6.2, 18.18N×93.70W, h76^{km}±85^{km}, mb3.6/7, mb1 3.8/9, mb1mx3.6/19, ML4.1/1, Error ellipse: s-maj=160.0km s-min=22.7km az=44.0*

NEIC ***20*** *05:35:18.1, 17.12N×94.95W, h132^{km}, mb4.3/13, MD4.3(MEX), After MEX.*

MEX ***20*** *05:35:18.0±1.0, 17.13N×94.94W, h132^{km}±8^{km}, MD4.4*

ISC 20 05:35:15.6±0.3, 17.15N±0.06×94.90W±0.03, h136^{km}±5^{km},

n50,σ1^{s}34/68,mb3.6/8,1C,Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.06	162	eP	P	05 35 34.4	+0.2
CMIG				eS	S	05 35 47.1	-1.3
CMIG	Matias Romero	0.06	162	i P	P	05 35 34.6	+0.4
CMIG				eS	S	05 35 47.2	-1.2
EVV	El Vigia	1.37	342	i P	P	05 35 32.5	-11
EVV				i S	S	05 35 52.6	-12
OXX	Oaxaca	1.74	268	i P	P	05 35 48.2	+1.0
OXX				i S	S	05 36 11.5	+0.1
VHO	Vista Hermosa	1.75	268	eP	P	05 35 48.3	+1.0
VHO				eS	S	05 36 12.2	+0.5
HUIG	Huatulco	1.79	220	eP	P	05 35 47.0	-0.8
HUIG				eS	S	05 36 11.6	-1.0
SCX	San Cristobal	2.21	100	i P	P	05 35 54.3	+1.3
SCX				i S	S	05 36 21.7	+0.2
CCIG	Comitan	2.79	108	eP	P	05 36 01.2	+0.8
CCIG				eS	S	05 36 35.9	+1.3
IISM	Ciudad Serdan	2.98	308	i P	P	05 36 02.8	-0.2
IISM				i S	S	05 36 35.3	-3.7
PNIG	Pinotepa	3.18	257	eP	P	05 36 03.9	-1.7
PNIG				eS	S	05 36 40.6	-3.1
IIB	San Bernardino	3.74	299	i P	P	05 36 19.2	+6.2
PPM	Popocatepetl	4.02	299	eP	P	05 36 18.7	+2.0
PPM				eS	S	05 37 04.4	+0.8
PPM	Popocatepetl	4.02	299	eP	P	05 36 18.7	+2.0
PPM				i P		05 36 18.8	
PPM				eS	S	05 37 04.4	+0.8
PLIG	Platanillo	4.55	286	eP	P	05 36 24.6	+0.7
PLIG				eS	S	05 37 15.4	-0.8
UNM	Universidad Na	4.60	299	i P	P	05 36 27.3	+2.8
UNM				i S	S	05 37 09.7	-7.8
UNM	Universidad Na	4.60	299	i P	P	05 36 27.3	+2.8
UNM				i S	S	05 37 19.1	+1.6
ACX	Acapulco	4.80	267	i P	P	05 36 34.7	+7.5
ACX				i S	S	05 37 12.8	-10
CAIG	El Cayaco	5.13	270	eP	P	05 36 30.4	-1.0
CAIG				eS	S	05 37 26.3	-3.9
CAIG	El Cayaco	5.13	270	eP	P	05 36 30.4	-1.0
CAIG				i S	S	05 37 28.9	-1.2
TEIG	Tepich	6.99	63	⇑ePn	P	05 36 53.9	-2.7
	22nm,0.6s						
JTS	JuntasAbangare	11.83	124	eP	P	05 38 02.2	+1.4
	15nm,0.6s						
JCT	Junction City	14.00	342	eP	P	05 38 27.5	-1.5
	11nm,0.6s						
NATX	Nacogdoches	14.55	1	P	P	05 38 34.5	-1.5
	33nm,0.6s						
LTX	Lajitas	14.55	328	ePn	P	05 38 37.4	+1.4
	8.7nm,1.0s						
TXAR	Lajitas Array	14.55	328	P	P	05 38 37.9	+1.9
	0.2nm,0.3s,baz=147,slow=13,SNR=26						
CLNB	Carlsbad	17.10	333	eP	P	05 39 08.6	+0.9
GDL2	Guadalupe Moun	17.26	332	eP	P	05 39 10.3	+0.6
MNTX	Cornudas Mount	17.33	329	eP	P	05 39 10.2	-0.3
	3.1nm,0.7s						
LRAL	Lakeview Retre	17.35	23	eP	P	05 39 08.7	-2.1
	7.0nm,0.5s						
MIAR	Mount Ida	17.37	4	eP	P	05 39 09.8	-1.2
	19nm,0.8s						
UALR	University of	17.70	7	eP	P	05 39 13.6	-1.4
	20nm,0.6s						
CPRX	Cap Rock	17.76	335	eP	P	05 39 16.0	+0.3
WMOK	Wichita Mounta	17.86	350	eP	P	05 39 14.1	-2.7
	7.6nm,0.7s						
AMTX	Amarillo	18.67	342	eP	P	05 39 24.3	-1.4
	45nm,0.9s						
BNM	Barren Site	19.93	330	eP	P	05 39 40.2	+1.4
LENM	Lemitar	20.11	330	P	P	05 39 41.5	+0.9
ANMO	Albuquerque	20.51	332	P	P	05 39 45.9	+1.2
	7.2nm,0.8s,baz=145,slow=12,SNR=18						
ANMO	Albuquerque	20.51	332	eP	P	05 39 45.1	+0.4
ANMO				P		05 39 45.9	
TUC	Tucson	20.84	319	eP	P	05 39 48.3	+0.3
	5.2nm,0.8s						
SDCO	Great Sand Dun	22.54	338	eP	P	05 40 06.0	+1.4
	3.7nm,1.1s,mb3.7						
PV01	Paradox Valley	24.10	333	eP	P	05 40 23.4	+3.7
SDV	Santo Domingo	25.01	106	P	P	05 40 27.7	-0.8
	4.4nm,0.8s,mb4.1,baz=310,slow=10,SNR=11						
MSU	Marysvale	26.11	328	P	P	05 40 41.4	+2.9
PDAR	Pinedale Array	28.43	337	P	P	05 41 03.1	+3.6
	0.5nm,0.9s,mb3.2,baz=131,slow=9.6,SNR=3.5						
ULM	Lac du Bonnet	33.03	359	P	P	05 41 37.6	-2.2
	1.8nm,0.7s,mb3.9,baz=178,slow=10,SNR=3.6						
YKA	Yellowknife Ar	47.35	348	P	P	05 43 36.6	-0.6
	0.5nm,0.6s,mb3.3,baz=152,slow=7.3,SNR=10						
EKA	Eskdalemuir Ar	77.06	36	P	P	05 46 53.0	-2.1
	0.9nm,0.6s,mb3.6,baz=277,slow=6.7,SNR=3.6						
ESDC	Sonseca Array	79.97	52	P	P	05 47 11.6	+0.4
	2.7nm,1.0s,mb3.8,baz=293,slow=6.2,SNR=5.0						
NOA	NORSAR Array B	82.72	28	P	P	05 47 25.8	+0.8
	0.6nm,0.7s,mb3.4,baz=240,slow=3.7,SNR=2.7						
CLL	Collm	87.50	37	P	P	05 47 44.0	-4.9

**GUC 20 05:41:31.5±0.6,26.05S×68.62W,h131^{km}±19^{km},MD3.5,
ML3.6,1C,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CPCH	Copiapo	2.02	230	eP	P	05 42 06.0	-0.2
CPCH				i S	S	05 42 32.7	0.0
CPCH				AMP		05 42 36.8	
	comp=E,2μm,0.1s						
CPN1	Cerro Paranal	2.15	311	eP	P	05 42 08.8	+1.0
CPN1				i S	S	05 42 36.4	+0.8
CPN1				AMP		05 42 44.9	
	comp=E,286nm,0.7s						
ANCH	Antofagasta	2.87	325	eP	P	05 42 16.7	-0.5
ANCH				i S	S	05 42 51.5	-0.5
LVC	Limon Verde	3.44	356	⇑iP	P	05 42 25.1	+0.3
LVC				i S	S	05 43 05.7	+0.3
LVC				AMP		05 43 12.3	
	comp=N,29nm,0.1s						

**KRSC 20 05:44:10.3±1.3,48.70N×155.68E,h19^{km}±21^{km},ML4.4,
Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.00	8	eP	Pn	05 44 44.5	+0.7
SKR				eS	Sn	05 45 07.0	-1.5
ALID	Alaid	2.17	358	eP	Pn	05 44 46.4	+0.2
ALID				eS	Sn	05 45 12.3	-0.5
PAU	Pauzhetka	2.86	14	eP	Pn	05 44 54.7	-1.3
PAU				eS	Sn	05 45 29.1	-1.2
PAU				Smax			
	500nm,0.2s						
GRL	Gorelyy	4.15	21	eP	Pn	05 45 14.3	+0.1
GRL				eS	Sn	05 46 00.8	-2.0
RUS	Russkaya	4.15	25	eP	Pn	05 45 14.0	-0.3
RUS				i S	Sn	05 46 00.5	-2.4
PET	Petropavlovsk	4.72	22	eP	Pn	05 45 22.6	+0.2
PET				eS	Sn	05 46 15.9	-1.4
UGLR	Uglovaya	4.93	23	eP	Pn	05 45 26.0	+0.6
UGLR				eS	Sn	05 46 21.2	-1.4
AVH	Avacha	4.96	22	eP	Pn	05 45 24.5	-1.3
AVH				eS	Sn	05 46 19.7	-3.7
KOK	Koryaka	4.96	21	eP	Pn	05 45 27.0	+1.2
KOK				eS	Sn	05 46 23.2	-0.2
SDLR	Sedlovina	5.01	23	eP	Pn	05 45 26.2	-0.3
SDLR				eS	Sn	05 46 21.6	-3.0
NLC	Nalytchevo	5.04	26	i S	Sn	05 46 21.1	-4.2
SPN	Mys Shipunski	5.19	30	eP	Pn	05 45 29.3	+0.3
SPN				eS	Sn	05 46 26.4	-2.7
GNL	Ganaly	5.20	15	eP	Pn	05 45 29.4	+0.3
GNL				eS	Sn	05 46 27.2	-2.1

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*IDC **20** 05:55:01.7±1.4,3.51S×135.64E,mb3.7/3,mb1 3.9/5,
mb1mx3.8/12,ML3.4/2,Error ellipse: s-maj=65.6km
s-min=25.6km az=96.0*

*NEIC **20** 05:55:06.6±1.1,3.42S×135.22E,h10^{km},mb3.8/1,Error
ellipse: s-maj=45.6km s-min=14.2km az=94.0*

**ISC 20 05:55:10.1±2.7,3.78S±0.09×135.2E±0.2,h81^{km}±27^{km},n9,
σ1^{s}36/13,mb3.6/2,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	9.27	197	eP	P	05 57 22.6	-0.3
	4.2nm,0.4s						
KAKA				eS	S	05 59 04.8	-1.5
WRAB	Tennant Creek	16.07	183	eP	P	05 58 54.6	+2.0
	6.1nm,0.8s						
WB2	Warramunga Arr	16.08	183	eP	P	05 58 51.4	-1.3
WB2				eS	S	06 01 43.5	-4.7
WRA	Warramunga Arr	16.08	183	Pn	P	05 58 51.7	-1.0
	0.1nm,0.3s,baz=5.3,slow=13,SNR=5.2						
WRA				Sn	S	06 01 47.9	-0.3
	0.3nm,0.3s,baz=6.0,slow=23,SNR=4.7						
FITZ	Fitzroy Crossi	17.01	212	P	P	05 59 05.6	+1.3
	0.1nm,0.3s,baz=8.2,slow=11,SNR=2.9						
FITZ				S	S	06 02 09.1	-0.1
	0.3nm,0.3s,baz=184,slow=15,SNR=5.0						
ASAR	Alice Springs	19.80	183	P	P	05 59 38.9	+2.1
	5.2nm,0.7s,baz=9.4,slow=11,SNR=54						
ASPA	Alice Springs	19.81	183	eP	P	05 59 39.0	+2.3
SONM	Songino Array	57.25	337	P	P	06 04 51.5	-0.1
	0.5nm,0.9s,mb3.6,baz=159,slow=6.4,SNR=3.7						
ILAR	Eielson Array	88.28	25	P	P	06 07 51.8	-1.7
	0.3nm,0.5s,mb3.6,baz=264,slow=4.4,SNR=7.9						

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*IDC **20** 06:12:44.9±10.0,36.34N×70.98E,h167^{km}±92^{km},mb3.4/6,
mb1 3.6/7,mb1mx3.3/19,Error ellipse: s-maj=64.5km
s-min=24.4km az=46.0*

*NEIC **20** 06:12:44.5±3.6,36.33N×70.96E,h165^{km}±28^{km},mb3.8/3,
Error ellipse: s-maj=37.7km s-min=14.8km az=51.0*

**ISC 20 06:12:47.0±2.2,36.5N±0.1×71.0E±0.3,h195^{km}±18^{km},n24,
σ0^{s}64/25,mb3.5/5,1D,Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AML	Almayashu	5.98	20	P	P	06 14 14.9	+0.3
	SNR=45						
EKS2	Erkin-Say	6.49	19	P	P	06 14 21.5	+0.2
	SNR=8.2						
AAK	Ala-Archa	6.67	23	P	P	06 14 24.3	+0.6
	SNR=9.7						
AAK	Ala-Archa	6.67	23	⇓ePn	P	06 14 22.9	-0.8
	8.6nm,0.3s						
SDNR	Sundarnagar	7.08	133	eP	P	06 14 28.2	-0.8
	50nm,0.4s						
SDNR				eS	S	06 15 44.6	-4.0
CHMS	Chumysh	7.08	23	P	P	06 14 29.1	0.0
	SNR=7.0						
USP	Ospenovka	7.25	21	P	P	06 14 31.0	-0.3
	SNR=16						
TKM2	Tokmak 2	7.31	28	P	P	06 14 31.9	-0.1
	SNR=23						
KOLN	Koldanda	13.81	126	eP	P	06 15 56.9	+1.2
	8.3nm,0.6s						
GKN	Gorkha	14.35	122	eP	P	06 16 02.5	+0.1
	12nm,0.3s						
DMN	Daman	14.92	123	eP	P	06 16 09.5	0.0
	8.3nm,0.4s						
KKN	Kakani	14.93	122	eP	P	06 16 09.4	-0.1
	10nm,0.4s						
PKI	Pulchoki	15.15	122	eP	P	06 16 13.3	+0.9
	9.6nm,0.5s						
GUN	Gumba	15.27	120	eP	P	06 16 13.8	+0.1
	10nm,0.6s						
BVAR	Borovoye Array	16.49	359	P	P	06 16 28.9	+0.4
	0.3nm,0.3s,baz=163,slow=10.0,SNR=9.5						
BRVK	Borovoye	16.53	359	eP	P	06 16 28.6	-0.4
	2.0nm,0.5s						
CHKZ	Chkalovo	17.14	359	eP	P	06 16 35.1	-0.9
	1.4nm,0.5s						
ZAL	Zalesovo	19.88	25	P	P	06 17 04.5	-0.2
	2.0nm,0.8s,baz=260,slow=9.7,SNR=8.0						
ARCES	ARCESS Array B	41.10	338	P	P	06 20 13.5	+0.8
	4.4nm,0.9s,mb3.9,baz=114,slow=8.9,SNR=3.6						
ARCES	ARCESS Array B	41.10	338	P	P	06 20 13.5	+0.8
NOA	NORSAR Array B	44.33	323	P	P	06 20 38.8	0.0
	1.5nm,0.8s,mb3.4,baz=95,slow=8.1,SNR=3.7						
YKA	Yellowknife Ar	81.21	3	P	P	06 24 42.6	+0.9
	0.5nm,0.5s,mb3.4,baz=351,slow=5.4,SNR=16						
WRA	Warramunga Arr	82.04	122	P	P	06 24 45.8	-1.0
	0.4nm,0.6s,mb3.2,baz=324,slow=5.0,SNR=8.2						
ASAR	Alice Springs	84.30	125	P	P	06 24 57.7	-0.6
	0.8nm,0.5s,mb3.7,baz=309,slow=4.9,SNR=19						

**GUC 20 06:25:39.2±0.7,35.06S×70.52W,h1^{km}±5^{km},MD3.7,
ML2.3,1C-2D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SFDO	San Fernando	0.60	318	⇓iP	Pg	06 25 51.9	+0.6
SFDO				i S	Sg	06 26 00.6	+1.3
CACH	El Canelo	0.95	356	⇑iP	Pb	06 25 57.2	-0.9
CHCH	Chadas Angostu	1.13	355	⇓iP	Pb	06 26 00.4	-0.8
LNV	Longovilo	1.33	326	eP	Pb	06 26 03.5	-1.0
LNV				i S	Sb	06 26 22.1	+0.1
PCH	Pirque	1.44	0	i P	Pn	06 26 05.5	-0.9
TACH	Talagante	1.45	346	i P	Pn	06 26 05.6	-1.0
RCDM	Rinconada Maip	1.59	351	eP	Pn	06 26 07.7	-0.9
RCDM				i S	Sb	06 26 30.0	+0.4
FCH	Farellones	1.74	6	eP	Pn	06 26 11.2	+0.4
FCH				i S	Sn	06 26 34.9	+1.0
FCH				AMP		06 26 49.5	
	comp=E,47nm,0.2s						
LCCH	Las Cruces	1.81	331	i P	Pn	06 26 12.1	+0.4
LCCH				i S	Sn	06 26 36.2	+0.6

**IDC 20 06:57:35.0±3.1,15.68S×174.51W,mb3.8/4,mb1 4.1/4,
mb1mx3.8/13,Error ellipse: s-maj=170.0km
s-min=28.8km az=146.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	48.74	257	P	P	07 06 21.7	-1.9
	0.5nm,0.5s,baz=96,slow=7.8,SNR=6.9						
ASAR	Alice Springs	49.01	252	P	P	07 06 23.9	-1.8
	2.6nm,0.6s,baz=87,slow=7.7,SNR=32						
ILAR	Eielson Array	82.92	12	P	P	07 10 00.7	-2.0
	0.1nm,0.4s,baz=209,slow=5.1,SNR=6.4						
PDAR	Pinedale Array	83.19	42	P	P	07 10 04.0	-0.4
	0.4nm,0.5s,baz=210,slow=2.6,SNR=4.0						

**CASC 20 07:05:01.7±2.5,12.79N×88.95W,h38^{km}±259^{km},MD3.6,
ML3.1,2C-7D,Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNVI	San Vicente	0.82	8	⇓eP	P	07 05 16.5	-0.4
SNVI				eS	S	07 05 30.3	+2.3
LFRS	El Faro	0.83	353	⇓eP	P	07 05 16.6	-0.4
LFRS				eS	S	07 05 27.1	-1.2
LCBS	La Ceiba	0.86	358	⇓eP	P	07 05 16.9	-0.4
VSM	San Miguel	0.91	46	eP	P	07 05 19.0	+0.9
SNET	Serv Nac Est T	0.93	343	eP	P	07 05 17.9	-0.5
SNET				i		07 05 26.2	
	comp=Z,480nm,0.2s						
LBRS	Las Brisas	0.94	355	⇑eP	P	07 05 18.8	+0.1
BLLM	Bellamira	0.95	47	eP	P	07 05 18.9	+0.2
BLLM				eS	S	07 05 31.9	+0.7
LFU	La Fuente	0.96	351	⇑eP	P	07 05 18.7	-0.2
LFU				eS	S	07 05 31.6	0.0
BOQS	Boqueron	0.99	341	⇓eP	P	07 05 19.2	-0.1
BOQS				eS	S	07 05 32.4	+0.1
CNCH	Conchagua	1.19	66	eP	P	07 05 22.8	+0.7
CAHU	Cacacuatique	1.21	36	eP	P	07 05 23.5	+1.1
CAHU				eS	S	07 05 39.9	+2.0
SBLS	San Blas	1.23	328	eP	P	07 05 22.5	-0.1
SBLS				eS	S	07 05 38.7	+0.4
RTR	El Retiro	1.29	328	⇓eP	P	07 05 23.5	0.0
RTR				eS	S	07 05 41.8	+1.9
RBDL	Robledal	1.50	331	⇓eP	P	07 05 26.8	+0.2
MTO2	Montecristo 2	1.65	346	⇓eP	P	07 05 28.7	0.0
LEON	Leon	2.04	100	eP	P	07 05 33.3	-1.0
LEON				eS	S	07 05 56.4	-2.4
TEL3	Telica 3	2.07	96	eP	P	07 05 35.3	+0.6
TEL3				eS	S	07 05 59.4	0.0
MIRN	Miramar	2.21	99	eP	P	07 05 37.2	+0.5
COPN	Copaltepe	2.38	105	eP	P	07 05 39.6	+0.4
COPN				eS	S	07 06 05.4	-2.0
APYN	Apoyeque	2.60	102	eP	P	07 05 42.8	+0.5
APYN				eS	S	07 06 11.6	-1.4
MGAN	Managua	2.72	103	eS	S	07 06 14.0	-1.9

**IDC 20 07:16:26.8±8.3,1.02N×122.60E,mb3.7/3,mb1 3.9/4,
mb1mx3.7/16,ML4.2/1,Error ellipse: s-maj=144.0km
s-min=115.2km az=106.0,Minahassa Peninsula,
Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.23	171	eP	P	07 20 53.1	-2.3
	2.1nm,0.4s						
FITZ	Fitzroy Crossi	19.23	171	P	P	07 20 53.1	-2.2
	0.6nm,0.3s,baz=358,slow=9.1,SNR=14						
WRA	Warramunga Arr	23.80	152	P	P	07 21 41.7	-0.6
	1.0nm,0.5s,baz=329,slow=11,SNR=9.9						
WB2	Warramunga Arr	23.81	152	eP	P	07 21 41.7	-0.7
ASAR	Alice Springs	26.89	157	P	P	07 22 09.9	-1.6
	0.3nm,0.5s,baz=342,slow=15,SNR=6.6						
STKA	Stephens Creek	37.34	153	P	P	07 23 40.5	-2.5
	1.1nm,0.5s,baz=334,slow=11,SNR=3.9						

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*IDC **20** 07:18:51.3±2.8,34.00S×179.39W,mb4.0/3,mb1 4.2/4,
mb1mx3.9/12,ML4.1/1,Error ellipse: s-maj=62.1km
s-min=34.9km az=117.0*

*NEIC **20** 07:18:54.0±2.3,34.24S×178.84W,h50^{km},mb4.2/2,Error
ellipse: s-maj=36.1km s-min=10.7km az=86.0*

**ISC 20 07:19:00.8±1.3,35.0S±0.1×179.0W±0.3,h133^{km}±15^{km},
n35,σ1^{s}26/42,mb3.9/5,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	3.38	219	eP	P	07 19 54.1	+0.7
MXZ				S	S	07 20 39.4	+5.8
MXZ	Matakaoa Point	3.38	219	P	P	07 19 53.8	+0.4
MXZ				S	S	07 20 39.2	+5.6
PUZ	Puketiti	3.81	214	eP	P	07 20 00.5	+1.5
PUZ	Puketiti	3.81	214	eP	P	07 19 59.9	+0.9
PUZ				S	S	07 20 52.0	+8.4
MWZ	Matawai	4.37	218	eP	P	07 20 07.1	+0.6
MWZ	Matawai	4.37	218	P	P	07 20 06.8	+0.3
MWZ				S	S	07 21 03.0	+6.0
URZ	Urewera	4.54	222	Pn	P	07 20 09.4	+0.6
	7.5nm,0.3s,baz=39,slow=1.9,SNR=27						
URZ				Sn	S	07 21 08.0	+7.0
	18nm,0.3s,baz=265,slow=24,SNR=6.6						
KUZ	Kuaotunu	4.63	246	eP	P	07 20 08.6	-1.5
KUZ	Kuaotunu	4.63	246	P	P	07 20 08.3	-1.8
KNZ	Kokohu	4.85	212	eP	P	07 20 13.3	+0.4
BKZ	Black Stump Fm	5.53	219	eP	P	07 20 22.9	+0.9
BKZ	Black Stump Fm	5.53	219	eP	P	07 20 22.5	+0.5
OUZ	Omahuta	6.06	265	P	P	07 20 23.6	-5.6
OUZ	Omahuta	6.06	265	P	P	07 20 23.9	-5.3
WNVZ	Wahianoa	6.13	223	P	P	07 20 30.8	+0.7
BFZ	Birch Farm	6.84	212	eP	P	07 20 39.3	-0.4
BFZ	Birch Farm	6.84	212	eP	P	07 20 38.7	-1.0
BFZ				S	S	07 21 59.2	+2.7
MRZ	Mangatainoka R	7.12	215	P	P	07 20 43.5	-0.1
MRZ	Mangatainoka R	7.12	215	eP	P	07 20 42.1	-1.5
MRZ				S	S	07 22 05.6	+2.1
MTW	Mount Morrison	7.55	213	eP	P	07 20 48.0	-1.4
KIW	Kapiti Island	7.60	217	eP	P	07 20 48.5	-1.6
KIW				S	S	07 22 16.7	+1.6
CAW	Cannon Point	7.71	215	eP	P	07 20 50.8	-0.8
NNZ	Nelson	8.66	222	S	S	07 22 40.9	+0.4
THZ	Tophouse	9.29	221	eP	P	07 21 09.9	-2.7
THZ				S	S	07 22 55.2	-0.5
KHZ	Kahutara	9.45	216	eP	P	07 21 15.0	+0.3
KHZ				S	S	07 22 58.4	-1.0
DSZ	Denniston Nort	9.89	224	S	S	07 23 09.0	-0.9
MQZ	McQueen's Vall	10.86	214	S	S	07 23 30.3	-2.5
CTAO	Charters Tower	33.98	287	P	P	07 25 31.5	-2.1
	3.7nm,0.9s,mb4.1						
ASAR	Alice Springs	42.23	272	P	P	07 26 43.4	+1.1
	1.3nm,0.6s,mb3.8,baz=114,slow=7.5,SNR=20						
WRAB	Tennant Creek	43.62	278	eP	P	07 26 54.6	+1.0
	2.5nm,0.6s,mb4.0						
WRA	Warramunga Arr	43.62	277	P	P	07 26 54.2	+0.6
	1.8nm,0.7s,mb3.8,baz=116,slow=7.7,SNR=15						
FITZ	Fitzroy Crossi	51.66	274	P	P	07 27 57.3	+1.2
	1.6nm,0.8s,mb3.7,baz=148,slow=5.5,SNR=6.1						
JOF	Joensuu	146.26	335	ep	PKPdf	07 38 28.9	+5.6
	1.5nm,0.3s						
KAF	Kangasniemi	148.48	337	ep	PKPdf	07 38 29.4	+2.4
FINES	FINESS Array B	149.05	337	PKPbc	PKPdf	07 38 37.2	+9.3
	1.9nm,0.7s,baz=49,slow=4.8,SNR=12						

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*ORF **20** 07:39:06.1,15.77S×172.71W,h30^{km},mb5.9*

*BJI **20** 07:39:27.5,15.36S×174.34W,h223^{km},mB5.3,mb4.9*

*MOS **20** 07:39:28.4±1.6,15.86S×174.65W,h231^{km},mb5.2/11,
MS4.5/4,Error ellipse: s-maj=16.0km s-min=13.6km
az=113.1*

*NEIC **20** 07:39:28.6±0.8,15.87S×174.63W,h228^{km}±8^{km},mb5.0/56,
Error ellipse: s-maj=7.4km s-min=3.3km az=130.0*

*HRVD **20** 07:39:28.6±0.1,15.80S×174.22W,h256^{km},MW5.8/73,
Centroid moment Tensor Solution. LP body waves:
s68,c138;Mantle waves: s73,c168; Half duration: 1^{s}9
Moment tensor: Scale 10^{17}Nm; M_{rr}0.83±.06;
$M_{\theta\theta}$-1.12±.07; $M_{\phi\phi}$0.28±.06; $M_{r\theta}$-0.09±.06; $M_{\theta\phi}$-1.48±.06;
$M_{\phi r}$5.19±.06; Best double couple: $M_0$5.42×10^{17} NP1:
ϕ_s266°,δ17°,λ171°. NP2:ϕ_s4°,δ87°,λ73°. Principal axes:
T 5.92, Plg45°, Azm257°; N -1.01, Plg17°, Azm5°; P -4.92,
Plg40°, Azm110°; nsta1 refers to body waves,
cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **20** 07:39:28.6,15.86S×174.65W,h228^{km},MB4.9*

*IDC **20** 07:39:29.7±2.7,15.94S×174.54W,h236^{km}±25^{km},
mb4.8/14,mb1 4.9/15,mb1mx4.9/16,Error ellipse:
s-maj=16.8km s-min=10.6km az=141.0*

*BGS **20** 07:39:30.8±2.6,15.87S×174.64W,h230^{km}*

**ISC 20 07:39:25.9±0.8,15.91S±0.04×174.60W±0.04,
h215^{km}±7^{km},h235^{km}±4.1^{km}:pP-P,n392,σ0^{s}96/226,
mb5.0/85,28C-15D,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	Afiamalu	3.38	54	⇑iP	P	07 40 24.3	+3.0
AFI				eS	S	07 41 02.9	-1.3
RAR	Rarotonga	15.02	113	P	P	07 42 50.5	+1.6
	2.4nm,0.3s,baz=251,slow=8.5,SNR=13						
RAR	Rarotonga	15.02	113	P	P	07 42 50.5	+1.6
RAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
RAR	Rarotonga	15.02	113	eP	P	07 42 50.8	+1.9
	comp=Z,670nm,1.8s						
DZM	Mont Dzumac	18.93	248	eP	P	07 43 31.6	-1.1
NOUC	Port Laguerre	19.07	248	eP	P	07 43 34.1	0.0
OUZ	Omahuta	21.95	207	eP	P	07 44 05.6	+3.0
OUZ	Omahuta	21.95	207	P	P	07 44 04.2	+1.6
KUZ	Kuaotunu	22.47	201	eP	P	07 44 10.0	+2.3
KUZ	Kuaotunu	22.47	201	P	P	07 44 09.9	+2.2
MTAZ	Motutapu	22.79	202	P	P	07 44 12.9	+2.0
MTAZ	Motutapu	22.79	202	P	P	07 44 13.4	+2.5
OTAZ	Otara	22.93	202	P	P	07 44 15.0	+2.8
OTAZ	Otara	22.93	202	P	P	07 44 14.8	+2.6
PUZ	Puketiti	22.96	195	eP	P	07 44 14.6	+2.1
PUZ	Puketiti	22.96	195	P	P	07 44 14.1	+1.6
MKAZ	Moumakai	22.98	201	P	P	07 44 15.1	+2.4
MKAZ	Moumakai	22.98	201	P	P	07 44 14.8	+2.1
WTAZ	Waiatarua	23.04	203	P	P	07 44 15.8	+2.5
WTAZ	Waiatarua	23.04	203	P	P	07 44 15.5	+2.2
MWZ	Matawai	23.39	196	eP	P	07 44 17.6	+1.0
MWZ	Matawai	23.39	196	P	P	07 44 16.6	0.0
URZ	Urewera	23.43	197	P	P	07 44 16.5	-0.4
	comp=Z,159nm,0.4s,mb5.9,baz=331,slow=5.7,SNR=44						
PAE	Paea	24.02	98	eP	P	07 44 22.0	-0.7
	comp=Z,78nm,0.8s,mb5.4						
PPT	Papeete	24.02	98	eP	P	07 44 22.3	-0.4
	comp=Z,112nm,1.4s,mb5.3						
PPT	Papeete	24.02	98	eLR	LR	07 50 23.7	
	comp=Z,5μm,66.2s						
TIAR	Tiarei	24.24	97	eP	P	07 44 24.6	-0.1
	comp=Z,155nm,1.0s,mb5.6						
TVO	Taravao	24.33	98	eP	P	07 44 25.3	-0.3
	comp=Z,80nm,0.7s,mb5.4						
TVO				epP		07 45 09.4	
	comp=Z,45nm,0.7s						
MGZ	Maungaku	24.58	199	P	P	07 44 28.2	+0.5
NGZ	Ngauruhoe	24.72	198	P	P	07 44 28.8	-0.2
NGZ	Ngauruhoe	24.72	198	eP	P	07 44 28.5	-0.5
CNZ	Chateau	24.76	199	P	P	07 44 28.7	-0.7
CNZ	Chateau	24.76	199	eP	P	07 44 29.6	+0.2
TBI	Tubuai	24.79	111	eLR	LR	07 50 46.4	
	comp=Z,6.8nm,69.7s						

TUVZ	Tukino	24.79	198	P	P	07 44 28.9	-0.7
TUVZ	Tukino	24.79	198	*e*P	P	07 44 28.7	-0.9
QRZ	Quartz Range	27.22	202	P	P	07 44 51.7	-0.2
QRZ	Quartz Range	27.22	202	P	P	07 44 51.3	-0.6
NNZ	Nelson	27.28	200	*e*P	P	07 44 50.2	-2.2
NNZ	Nelson	27.28	200	P	P	07 44 51.4	-1.0
THZ	Tophouse	27.93	200	*e*P	P	07 44 57.2	-1.0
THZ	Tophouse	27.93	200	P	P	07 44 56.9	-1.3
DSZ	Denniston Nort	28.29	202	P	P	07 45 00.2	-1.3
DSZ	Denniston Nort	28.29	202	P	P	07 45 00.1	-1.4
KHZ	Kahutara	28.31	199	*e*P	P	07 45 00.3	-1.4
KHZ	Kahutara	28.31	199	P	P	07 45 00.7	-1.0
LTZ	Lake Taylor	29.05	200	*e*P	P	07 45 05.6	-2.6
LTZ	Lake Taylor	29.05	200	P	P	07 45 05.7	-2.5
WVZ	Waitaha Valley	29.84	202	*e*P	P	07 45 13.4	-1.8
WVZ	Waitaha Valley	29.84	202	P	P	07 45 12.7	-2.5
RPZ	Rata Peaks	30.29	201	P	P	07 45 17.4	-1.7
	comp=Z,64nm,0.4s,mb5.6,baz=7.9,slow=4.4,SNR=24						
FOZ	Fox Glacier	30.64	203	P	P	07 45 18.9	-3.3
LBZ	Lake Benmore	31.18	201	*e*P	P	07 45 24.8	-2.0
LBZ	Lake Benmore	31.18	201	P	P	07 45 24.2	-2.6
JCZ	Jackson Bay	31.43	203	P	P	07 45 27.5	-1.5
JCZ	Jackson Bay	31.43	203	P	P	07 45 27.0	-2.0
ODZ	Otahua Downs	31.60	200	*e*P	P	07 45 28.9	-1.6
ODZ	Otahua Downs	31.60	200	P	P	07 45 30.5	0.0
MSZ	Milford Sound	32.25	204	*e*P	P	07 45 36.6	+0.4
MLZ	Mavora Lakes	32.73	203	*e*P	P	07 45 40.1	-0.2
MLZ	Mavora Lakes	32.73	203	P	P	07 45 39.5	-0.8
TUZ	Tuapeka	32.74	201	*e*P	P	07 45 40.5	+0.2
TUZ	Tuapeka	32.74	201	P	P	07 45 39.2	-1.1
CTA	Charters Tower	37.40	258	⇑*i*P	P	07 46 19.7	-0.3
	comp=Z,22nm,1.0s,mb4.6						
CTA				*e*		07 47 13.5	
CTAO	Charters Tower	37.40	258	*e*P	P	07 46 19.5	-0.4
	comp=Z,21nm,0.6s,mb4.8						
CNB	Canberra Magne	37.52	232	⇑*i*P	P	07 46 21.4	+0.6
	comp=Z,205nm,0.9s,mb5.7						
PMG	Port Moresby	37.82	275	P	P	07 46 25.3	+1.8
	comp=Z,81nm,0.6s,mb5.4,baz=76,slow=7.8,SNR=36						
PMG	Port Moresby	37.82	275	P	P	07 46 25.3	+1.8
PMG				pmax	pmax		
	comp=Z,81nm,0.6s						
PMG	Port Moresby	37.82	275	⇑*e*P	P	07 46 25.1	+1.6
	comp=Z,106nm,0.8s,mb5.4						
RKT	Rikitea	37.95	107	*e*P	P	07 46 24.4	-0.1
	comp=Z,192nm,1.3s,mb5.5						
RKT	Rikitea	37.95	107	*e*LR	LR	07 57 09.1	
KIP	Kipapa	40.51	24	*e*P	P	07 46 46.6	+1.0
MAUI	Maui	40.66	27	*e*P	P	07 46 47.1	+0.2
TOO	Toolangi	41.25	231	⇑*i*P	P	07 46 51.9	+0.4
	comp=Z,79nm,0.7s,mb5.2						
STKA	Stephens Creek	42.78	240	⇑*i*P	P	07 47 04.3	+0.3
	comp=Z,74nm,0.6s,mb5.3						
STKA	Stephens Creek	42.78	240	P	P	07 47 04.5	+0.5
	comp=Z,80nm,0.6s,mb5.3,baz=88,slow=8.6,SNR=165						
WB2	Warramunga Arr	48.59	257	⇑*i*P	P	07 47 49.3	-0.5
WB2				*e*S	S	07 54 31.5	-2.3
WB2				*e*SS	ScS	07 57 18.3	+1.7
WRAB	Tennant Creek	48.59	257	⇓*i*P	P	07 47 47.9	-1.9
WRAB	Tennant Creek	48.59	257	*e*P	P	07 47 49.0	-0.8
	comp=Z,567nm,1.4s,mb5.7						
WRA	Warramunga Arr	48.60	257	P	P	07 47 49.6	-0.3
	comp=Z,48nm,0.5s,mb5.1,baz=92,slow=7.0,SNR=329						
WRA	Warramunga Arr	48.60	257	P	P	07 47 49.6	-0.2
WRA				pmax	pmax		
	comp=Z,48nm,0.5s						
ASAR	Alice Springs	48.85	252	P	P	07 47 52.0	+0.3
	comp=Z,585nm,0.5s,mb6.1,baz=87,slow=8.2,SNR=5459						
ASAR				S	S	07 54 37.2	-0.1
	comp=Z,3.1nm,0.9s,baz=85,slow=14,SNR=5.8						
ASPA	Alice Springs	48.85	252	⇑*i*P	P	07 47 51.7	0.0
ASPA				*e*S	S	07 54 37.8	+0.4
ASPA				*e*SS	ScS	07 57 19.9	+1.6
KAKA	Kakadu	51.30	266	⇑*i*P	P	07 48 09.9	-0.4
	comp=Z,93nm,0.6s,mb5.4						
FITZ	Fitzroy Crossi	56.97	259	⇑*i*P	P	07 48 51.1	-0.3
	comp=Z,44nm,0.7s,mb5.2						
MBWA	Marble Bar	62.11	254	*e*P	P	07 49 25.7	-0.7
	comp=Z,45nm,0.6s,mb5.3						
VNDA	Vanda	62.76	186	P	P	07 49 30.8	+0.9
	comp=Z,26nm,0.9s,mb4.9,baz=8.6,slow=6.1,SNR=60						
VNDA	Vanda	62.76	186	P	P	07 49 30.8	+0.8
VNDA				pmax	pmax		
	comp=Z,27nm,0.9s						
VNDA	Vanda	62.76	186	*e*P	P	07 49 30.3	+0.3
	comp=Z,32nm,0.9s,mb4.9						
KLBR	Kellerberrin	62.98	242	⇑*i*P	P	07 49 31.1	-0.9
	comp=Z,178nm,0.8s,mb5.8						
NWAO	Narrogin (SRO)	63.36	241	*e*P	P	07 49 34.3	-0.1
	comp=Z,151nm,1.3s,mb5.5						
MUN	Mundaring	64.27	242	*e*P	P	07 49 39.8	-0.6
	comp=Z,60nm,0.8s,mb5.3						
MAT	Matsushiro	68.58	321	P	P	07 50 07.9	+0.4
MAT				S	S	07 58 50.0	-1.1
MAT	Matsushiro	68.58	321	P	P	07 50 08.0	+0.5
	comp=Z,25nm,1.2s,mb4.7						
MAT				*e*S	S	07 58 50.0	-1.1
PET	Petropavlovsk	72.42	343	*e*P	P	07 50 33.0	+2.7
PET				*e*S	S	07 59 32.3	-2.7
PET				*e*		08 00 06.3	
PET				*e*SS	SS	08 04 16.0	-4.6
PET				pmax	pmax		
	comp=Z,200nm,13.0s						
PET				smax			
	comp=E,600nm,14.3s						
PET				smax			
	comp=N,500nm,13.8s						
SAO	San Andreas Ge	72.48	42	*e*P	P	07 50 30.3	-0.7
	comp=N,16nm,0.9s,mb4.7						
LRV	Little Rabbit	72.56	43	*e*P	P	07 50 32.7	+1.2
MWC	Mount Wilson	73.32	46	*e*P	P	07 50 35.3	-0.6
YSS	Yuzh-Sakhalins	73.36	331	⇑*e*P	P	07 50 34.9	-1.0
BAR	Barrett	73.47	48	*e*P	P	07 50 36.2	-0.7
CMB	Columbia Colle	73.91	42	*e*P	P	07 50 38.6	-0.8
	comp=N,24nm,0.9s,mb4.8						
OHCM	Honcut	73.99	40	*e*P	P	07 50 38.7	-1.0
PFO	Pinyon Flat Ob	74.12	47	*e*P	P	07 50 39.4	-1.2
	comp=N,38nm,1.4s,mb4.8						
QSPA	South Pole Qui	74.14	180	*e*P	P	07 50 40.9	+1.1
	comp=N,58nm,0.8s,mb5.3						
OMM	Old Mammoth Mi	74.58	43	*e*P	P	07 50 42.9	-0.3
YBH	Yreka Blue Hor	74.70	38	*e*P	P	07 50 43.8	+0.1
	comp=N,19nm,0.8s,mb4.8						
MTUM	Tungsten Hills	74.71	43	*e*P	P	07 50 43.9	0.0
WCN	Washoe City	75.05	41	*e*P	P	07 50 45.6	-0.2
	comp=N,31nm,1.0s,mb4.9						
HUMO	Hull Mountain	75.11	37	*e*P	P	07 50 46.4	+0.3
	comp=N,39nm,1.4s,mb4.8						
BBOR	Butler Butte	75.44	37	P	P	07 50 49.3	+1.4
MNV	Mina	75.58	43	*e*P	P	07 50 48.5	-0.3
	comp=N,26nm,0.9s,mb4.8						
LDFC	Landfair	75.83	47	*e*P	P	07 50 50.1	-0.2
TPH	Tonopah	75.99	43	*e*P	P	07 50 50.8	-0.3
	comp=N,22nm,0.8s,mb4.8						
TPNV	Topopah Spring	76.03	45	*e*P	P	07 50 50.3	-1.1
	comp=N,22nm,0.8s,mb4.8						
MOD	Modoc	76.24	39	*e*P	P	07 50 51.9	-0.5
	comp=N,10nm,0.8s,mb4.5						
HBO	Huckleberry Mo	76.24	36	P	P	07 50 53.6	+1.3
NEN	Nelson	76.31	46	*e*P	P	07 50 52.5	-0.4
BMN	Battle Mountai	77.30	41	*e*P	P	07 50 58.0	-0.3
	comp=N,17nm,0.8s,mb4.7						
TUC	Tucson	77.61	51	*e*P	P	07 51 00.1	0.0
	comp=N,19nm,0.8s,mb4.8						
VFP	Flag Point	77.63	35	P	P	07 51 00.4	+0.4
RSO	Redoubt South	78.12	11	*e*P	P	07 51 00.1	-2.2
ARUT	Antelope Range	78.38	45	*e*P	P	07 51 04.5	+0.3
SLKM	Skilak Lake	78.64	12	*e*P	P	07 51 04.3	-0.9
MDJ	Mudanjiang	78.72	323	P	P	07 51 05.9	0.0
MDJ				AMB	AMB		
	comp=Z,25nm,1.2s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,437nm,4.9s						
ELK	Elko	78.73	42	*e*P	P	07 51 05.7	-0.4
	comp=Z,15nm,0.9s,mb4.6						
HAWA	Hanford	79.36	35	*e*P	P	07 51 08.3	-0.9
	comp=Z,8.5nm,0.6s,mb4.5						
NJ2	Nanjing	79.55	308	*e*P	P	07 51 11.5	+0.9
NJ2				AP	pP	07 52 05.3	+2.7
NJ2				PP	PP	07 54 16.8	+1.4
NJ2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.2						
NJ2				LR	LR		
	comp=N,1µm,23.2s						
NJ2				LR	LR		
	comp=E,660nm,22.7s						
NJ2				LR	LR		
	comp=Z,450nm,21.6s						
MVU	Marysvale	79.57	45	*e*P	P	07 51 10.4	-0.2
	comp=Z,22nm,1.3s,mb4.6						
MSU	Marysvale	79.60	45	*e*P	P	07 51 11.9	+1.1
BMO	Blue Mountains	79.73	37	*e*P	P	07 51 10.5	-0.7
	comp=Z,6.5nm,0.8s,mb4.3						
PMR	Palmer	79.85	12	*e*P	P	07 51 12.2	+0.6
	comp=Z,21nm,0.6s,mb4.9						
DIV	Divide	80.16	14	*e*P	P	07 51 12.6	-0.6
	comp=Z,210nm,0.9s,mb5.8						
MA2	Magadan	80.30	343	*e*P	P	07 51 05.1	-8.9
MA2				*e*S	S	08 00 56.3	-3.5
MA2				pmax	pmax		
	comp=Z,40nm,2.0s,mb4.7						
MA2				MLR	MLR		
	comp=Z,300nm,25.0s						
OD2	Odessa Site #2	80.40	35	P	P	07 51 15.5	+0.7
TMUT	Trail Mountain	80.65	45	*e*P	P	07 51 16.4	+0.2
CN2	Changchun	80.73	321	*e*P	P	07 51 16.1	-0.5
CN2				*e*S	S	08 01 01.3	-3.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
HLID	Hailey	80.75	40	*e*P	P	07 51 16.6	-0.2
	comp=Z,12nm,0.9s,mb4.5						
SPUT	South Promonto	80.83	42	*e*P	P	07 51 17.5	+0.3
HVU	Hansel Valley	80.85	42	*e*P	P	07 51 17.6	+0.3
SRU	San Rafael	81.02	45	*e*P	P	07 51 18.2	0.0
JLU	Jordanelle	81.13	43	*e*P	P	07 51 18.6	-0.2
LAZ	Ladron	81.27	51	*e*P	P	07 51 20.7	+1.0
LENM	Lemitar	81.29	51	*e*P	P	07 51 20.4	+0.6
TCUT	Toone Canyon	81.41	43	*e*P	P	07 51 20.7	+0.5
MNTX	Cornudas Mount	81.46	54	*e*P	P	07 51 20.6	-0.1
	comp=Z,21nm,0.9s,mb4.8						
BNM	Barren Site	81.55	51	*e*P	P	07 51 21.5	+0.5
HWUT	Hardware Ranch	81.55	43	*e*P	P	07 51 20.8	-0.1
	comp=Z,6.7nm,0.9s,mb4.3						
LPM	Los Pinos Moun	81.61	51	*e*P	P	07 51 21.8	+0.4
PV10	Paradox Valley	81.70	46	*e*P	P	07 51 21.5	-0.2
NEW	Newport	81.78	35	*e*P	P	07 51 20.7	-1.2
	comp=Z,4.6nm,0.6s,mb4.3						
MCK	McKinley	81.84	11	*e*P	P	07 51 20.6	-1.3
	comp=Z,30nm,0.9s,mb4.9						
LTX	Lajitas	81.86	56	*e*P	P	07 51 22.9	+0.2
	comp=Z,48nm,1.3s,mb5.0						
TXAR	Lajitas Array	81.86	56	P	P	07 51 23.0	+0.3
	comp=Z,10.0nm,0.8s,mb4.5,baz=219,slow=8.3,SNR=81						
PV01	Paradox Valley	81.91	47	*e*P	P	07 51 22.7	-0.1
ANMO	Albuquerque	82.02	50	*d* *i*P	P	07 51 23.3	-0.1
ANMO	Albuquerque	82.02	50	*e*P	P	07 51 23.6	+0.2
	comp=Z,50nm,1.3s,mb5.0						
QIZ	Qiongzhong	82.02	292	P	P	07 51 23.5	-0.2
QIZ				AP	pP	07 52 22.8	+6.8
QIZ				PP	PP	07 54 35.6	-0.7
QIZ				S	S	08 01 14.0	-4.2
QIZ				AMB	AMB		
	comp=Z,405nm,6.4s						
THY	Trims Highway	82.19	13	*e*P	P	07 51 23.7	0.0
MENT	Mentasta	82.22	14	*e*P	P	07 51 23.9	+0.1
MCMT	McKenzie Canyo	82.38	39	*e*P	P	07 51 25.3	+0.3
WHN	Wuhan	82.42	305	⇓P	P	07 51 27.3	+1.7
GDL2	Guadalupe Moun	82.45	54	*e*P	P	07 51 25.8	+0.1
MSO	Missoula	82.78	37	*e*P	P	07 51 26.4	-0.8
	comp=Z,26nm,1.4s,mb4.8						
CLNB	Carlsbad	82.86	54	*e*P	P	07 51 27.8	0.0
REDW	Red Top Meadow	82.88	41	*e*P	P	07 51 27.7	0.0
TPAW	Teton Pass	82.88	41	*e*P	P	07 51 27.8	+0.1
SNOW	Snow King Moun	82.99	41	*e*P	P	07 51 28.4	+0.2
SNOW				*e*pP	pP	07 52 25.6	+4.9
WUWY	Wally Ulrich	83.03	41	*e*P	P	07 51 28.6	+0.1
COLA	College	83.08	11	*e*P	P	07 51 27.4	-0.9
COLA				pmax	pmax		
	comp=Z,81nm,1.1s,mb5.4						
COLA	College	83.08	11	*e*P	P	07 51 27.4	-0.9
	comp=Z,81nm,1.1s,mb5.4						
IMW	Indian Meadow	83.09	41	*e*P	P	07 51 28.8	0.0
MOOW	Moose Ponds	83.14	41	*e*P	P	07 51 28.5	-0.5
LOHW	Long Hollow	83.16	41	*e*P	P	07 51 29.7	+0.6
ILAR	Eielson Array	83.17	12	P	P	07 51 27.8	-1.0
	comp=Z,48nm,1.2s,mb5.1,baz=215,slow=5.9,SNR=83						
ILAR	Eielson Array	83.17	12	P	P	07 51 27.8	-0.9
ILAR				pmax	pmax		
	comp=Z,48nm,1.2s						
CPRX	Cap Rock	83.17	53	*e*P	P	07 51 29.6	+0.2
IMA	Indian Mountai	83.23	8	*e*P	P	07 51 29.9	+0.9
	comp=Z,25nm,1.2s,mb4.8						
QLMT	Earthquake Lak	83.25	40	*e*P	P	07 51 29.8	+0.2
PDAR	Pinedale Array	83.42	42	P	P	07 51 29.9	-0.5
	comp=Z,18nm,0.6s,mb5.0,baz=205,slow=3.3,SNR=116						
YMR	Madison River	83.45	40	*e*P	P	07 51 30.8	+0.2
BOZ	Bozeman (W)	83.54	39	*e*P	P	07 51 31.0	0.0
	comp=Z,42nm,1.4s,mb5.0						
YNR	Norris Junctio	83.65	40	*e*P	P	07 51 33.0	+1.4
SDCO	Great Sand Dun	83.91	48	*e*P	P	07 51 32.8	-0.3
	comp=Z,13nm,1.0s,mb4.6						
HRY	Holter Researc	83.96	38	P	P	07 51 33.4	+0.3
DAWY	Dawson	84.20	15	*e*P	P	07 51 33.8	-0.1
BJT	Baijiatuau	84.97	314	P	P	07 51 37.4	-0.9
	comp=Z,128nm,1.7s,mb5.4						
JCT	Junction City	85.39	57	*e*P	P	07 51 39.9	-0.7
	comp=Z,2.4nm,0.3s,mb4.4						
ENH	Enshi	86.21	303	*e*P	P	07 51 45.2	+0.6
	comp=Z,31nm,0.8s,mb5.1						
HIA	Hailar	86.90	323	*e*P	P	07 51 47.7	+0.2
	comp=Z,9.1nm,0.9s,mb4.5						
MAW	Mawson	86.94	199	P	P	07 51 47.7	+0.5
	comp=Z,19nm,0.6s,mb5.0,baz=119,slow=4.9,SNR=33						
MAW	Mawson	86.94	199	P	P	07 51 47.7	+0.5
MAW				pmax	pmax		
	comp=Z,19nm,0.6s						
GYA	Guiyang	87.26	298	⇑*i*P	P	07 51 51.1	+1.4
GYA				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
GYA				AMB	AMB		
	comp=Z,210nm,4.2s						
XAN	Xi’an	87.99	306	P	P	07 51 54.1	+1.1
XAN				AMB	AMB		
	comp=Z,22nm,2.1s,mb4.6						
CLNS	Chul’man	88.12	331	*e*P	P	07 51 48.4	-4.6
CLNS				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,1.0nm,0.9s						
HKT	Hockley	88.44	58	*e*P	P	07 51 55.4	+0.2
	comp=E,152nm,2.4s,mb5.4						
HHC	Hu-ho-hao-te	88.52	313	*e*P	P	07 51 56.5	+1.2
HHC				AP	pP	07 52 51.1	+2.9
HHC				XP	sP	07 53 14.8	+4.1
HHC				PP	PP	07 55 29.1	+0.8
HHC				SKS	SKS	08 02 01.5	0.0
HHC				S	S	08 02 21.3	+0.8
HHC				XS		08 03 57.1	
HHC				AMB	AMB		
	comp=Z,31nm,1.6s,mb4.9						
HHC				AMB	AMB		
	comp=Z,260nm,5.1s						
INK	Inuvik	89.04	14	*e*P	P	07 51 57.0	-0.1
	comp=Z,6.7nm,0.8s,mb4.5						
YAK	Yakutsk	89.12	337	⇓*i*P	P	07 51 55.5	-2.1
YAK				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.0						
DGMT	Dagmar	89.35	39	*e*P	P	07 51 59.1	+0.2
	comp=Z,55nm,1.3s,mb5.2						
NANT	Nan	90.17	289	P	P	07 52 04.5	+1.0
KMI	Kunming	90.20	296	*e*P	P	07 52 03.4	-0.1
KMI				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.1						
KSU1	Kansas State U	90.88	50	*e*P	P	07 52 07.0	+0.7
YKA	Yellowknife Ar	91.02	24	P	P	07 52 06.1	-0.3
	comp=Z,7.6nm,0.9s,mb4.6,baz=235,slow=4.2,SNR=70						
YKA				PP	PP	07 55 45.8	-1.8
	comp=Z,1.0nm,0.9s,baz=240,slow=7.9,SNR=7.7						
YKA	Yellowknife Ar	91.02	24	P	P	07 52 06.1	-0.3
YKA						07 55 45.8	
YKA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA	Yellowknife Ar	91.02	24	P	P	07 52 06.1	-0.3
YKA				PP	PP	07 55 45.9	-1.8
YKW3	Yellowknife Ar	91.06	24	*e*P	P	07 52 06.7	+0.1
BDT	Bhumibol Dam	91.28	287	P	P	07 52 10.0	+1.3
CMAR	Chiang Mai Arr	91.67	289	P	P	07 52 12.2	+1.7
	comp=Z,6.7nm,0.8s,mb4.6,baz=102,slow=2.5,SNR=24						
CMAR	Chiang Mai Arr	91.67	289	P	P	07 52 12.2	+1.7
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
CHG	Chiang Mai	91.77	289	⇑P	P	07 52 12.4	+1.5
	comp=Z,13nm,0.8s,mb4.9						
SYO	Syowa Base	91.87	192	⇑P	P	07 52 09.9	-0.4
SYO	Syowa Base	91.87	192	⇑PcP	PcP	07 52 10.9	-0.2
SYO	Syowa Base	91.87	192	⇓sP	sP	07 53 31.5	+5.6
VNA3	Neumayer Olymp	92.45	175	⇓*i*P	P	07 52 15.7	+2.8
SNAA	Sanae	92.46	177	⇓*i*P	P	07 52 13.3	+0.4
SNAA	Sanae	92.46	177	*e*P	P	07 52 11.0	-1.9
LZH	Lanzhou	92.59	307	*e*P	P	07 52 14.5	+0.1
LZH				AP	pP	07 53 12.0	+4.4
LZH				XP	sP	07 53 37.9	+7.9
LZH				PP	PP	07 56 02.5	+1.6
LZH				SKS	SKS	08 02 27.5	+2.1
LZH				*e*S	S	08 02 56.1	-0.7
LZH				AMB	AMB		
	comp=Z,32nm,1.3s,mb5.2						
LZH				AMB	AMB		
	comp=Z,169nm,6.2s						
UALR	University of	92.75	55	*e*P	P	07 52 16.0	+0.9
	comp=Z,23nm,0.9s,mb5.2						
VNA2	Neumayer--Watz	92.94	176	⇓*i*P	P	07 52 18.2	+3.0
VNA1	Neumayer--Stat	93.14	175	⇓*i*P	P	07 52 19.2	+3.1
BOD	Bodaibo	93.77	329	*e*P	P	07 52 17.9	-1.3
ULN	Ulaanbaatar	94.04	319	*c* *i*P	P	07 52 17.6	-3.0
ULN	Ulaanbaatar	94.04	319	*e*P	P	07 52 20.7	+0.1
	comp=Z,6.5nm,0.9s,mb4.7						
SONM	Songino Array	94.45	318	P	P	07 52 22.3	-0.2
	comp=Z,1.6nm,0.8s,mb4.1,baz=116,slow=4.9,SNR=8.8						
SONM				PP	PP	07 56 13.9	-1.0
	comp=Z,0.9nm,0.8s,baz=117,slow=8.3,SNR=3.6						
ULM	Lac du Bonnet	95.06	39	P	P	07 52 25.4	+0.1
	comp=Z,4.0nm,0.9s,mb4.5,baz=224,slow=9.6,SNR=4.9						
TIXI	Tiksi	95.18	345	*e*P	P	07 52 24.1	-1.2
TIXI				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,111nm,18.0s						
GTA	Gaotai	96.59	309	*e*P	P	07 52 33.3	+0.8
GTA				AP	pP	07 53 33.3	+7.6
GTA				SKS	SKS	08 02 46.1	-1.0
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.7						
GTA				AMB	AMB		
	comp=Z,129nm,6.5s						
GTA				LR	LR		
	comp=N,228nm,18.2s						
GTA				LR	LR		
	comp=E,256nm,19.4s						
GTA				LR	LR		
	comp=Z,318nm,23.6s						
WMQ	Urumqi	106.34	312	*e*PDIF	Pdif	07 53 16.0	+0.1
WMQ				PP	PP	07 57 45.5	+0.5
WMQ				S	tx	08 04 51.0	
WMQ				PP	PP		
	comp=Z,46nm,10.4s						
WMQ				LR	LR		
	comp=N,137nm,24.5s						
WMQ				LR	LR		
	comp=E,133nm,21.0s						
WMQ				LR	LR		
	comp=Z,129nm,23.8s						
CHKZ	Chkalovo	117.31	323	*e*PKPdf	PKPdf	07 57 45.0	-0.5
BVAR	Borovoye Array	117.57	322	PKP	PKPdf	07 57 46.5	+0.5
	comp=Z,3.9nm,0.6s,baz=90,slow=1.5,SNR=25						
BRVK	Borovoye	117.62	322	*e*PKPdf	PKPdf	07 57 45.8	-0.2
ARU	Arti	123.16	328	*i* PKIKP	PKPdf	07 57 56.9	+0.2
ARU				*e*PS	PS	08 09 37.8	-1.6
ARCES	ARCESS Array B	124.94	352	PKP	PKPdf	07 58 00.2	+0.4
	comp=Z,10nm,0.8s,slow=3.6,SNR=11						
ARCES	ARCESS Array B	124.94	352	PKIKP	PKPdf	07 58 00.3	+0.5
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.8s						
JOF	Joensuu	129.66	345	*e*p	PKPdf	07 58 09.0	-0.1
	comp=Z,10.0nm,0.9s						
JOF	Joensuu	129.66	345	*e*PKIKP	PKPdf	07 58 09.0	-0.1
JOF				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KAF	Kangasniemi	131.53	347	*e*p	PKPdf	07 58 15.6	+3.0
	comp=Z,0.6nm,0.4s						
KAF	Kangasniemi	131.53	347	*e*PKIKP	PKPdf	07 58 15.6	+3.0
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	132.18	347	PKP	PKPdf	07 58 13.9	0.0
	comp=Z,4.0nm,0.8s,baz=63,slow=4.3,SNR=6.1						
FINES	FINESS Array B	132.18	347	*i* PKIKP	PKPdf	07 58 16.9	+3.0
FINES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
OBN	Obninsk	134.10	336	⇑*i*PKIKP	PKPdf	07 58 19.4	+1.8
OBN				*e*SS	SS	08 18 25.5	+2.4
OBN				pmax	pmax		
	comp=Z,18nm,0.8s						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s						
NB2	NORSAR Subarra	134.74	356	PKPbc	PKPdf	07 58 19.0	+0.4
	comp=Z,2.3nm,0.8s,baz=3.0,slow=2.1						
NOA	NORSAR Array B	134.74	356	PKP	PKPdf	07 58 19.7	+1.2
	comp=Z,2.4nm,0.8s,baz=14,slow=3.7,SNR=5.1						
NOA	NORSAR Array B	134.74	356	PKIKP	PKPdf	07 58 19.7	+1.1
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KIV	Kislovodsk	137.84	319	*i* PKIKP	PKPdf	07 58 27.3	+2.6
KIV				*e*		08 01 13.9	
KIV				pmax	pmax		
	comp=N,10.0nm,1.3s						
KIV				pmax	pmax		
	comp=E,8.0nm,1.3s						
KIV				pmax	pmax		
	comp=Z,10.0nm,1.3s						
KIV				MLR	MLR		
	comp=E,63nm,20.0s						
KIV				MLR	MLR		
	comp=Z,108nm,20.0s						
SUW	Suwalki	139.52	344	*e*PKP	PKPdf	07 58 31.9	+4.3
ANN	Anapa	140.53	324	*i* PKHKP		07 58 21.2	
ANN				pmax	pmax		
	comp=Z,86nm,1.3s						
LSZ	Lusaka	141.70	217	*e*PKPpre		07 58 28.0	
LSZ				*e*PKPdf	PKPdf	07 58 31.5	-1.0
MALT	Malatya	143.39	314	*e*PKPdf	PKPdf	07 58 35.0	+0.2
KWP	Kalwaria	143.54	341	*e*PKP	PKPdf	07 58 34.3	-0.4
OJC	Ojcow	143.85	344	*e*PKP	PKPdf	07 58 34.4	-0.8
BOYT	Boyabat	144.03	321	*i* P	PKPbc	07 58 36.2	+1.0
KSP	Ksiaz	144.06	348	*e*PKP	PKPdf	07 58 35.2	-0.3
KSP	Ksiaz	144.06	348	*e*PKP	PKPdf	07 58 35.7	+0.2
CLL	Collm	144.16	352	*i* PKIKP	PKPdf	07 58 35.0	-0.7
CLL				pmax	pmax		
	comp=Z,22nm,0.9s						
CLL	Collm	144.16	352	*i* PKP	PKPdf	07 58 35.0	-0.7
CLL				*i* pPKP		07 59 43.8	
CLL	Collm	144.16	352	⇑*i*PKIKP	PKPdf	07 58 35.0	-0.7
	comp=Z,logA/T=1.4						
CLL				*i*		07 58 42.8	
CLL				*i* *PPKP		07 59 43.8	
KMBO	Kilima Mbogo	144.27	245	PKP	PKPdf	07 58 38.4	+1.3
	comp=Z,34nm,0.8s,baz=62,slow=5.8,SNR=34						
KMBO	Kilima Mbogo	144.27	245	PKIKP	PKPdf	07 58 38.4	+1.4
KMBO				pmax	pmax		
	comp=Z,34nm,0.8s						
KMBO	Kilima Mbogo	144.27	245	*e*PKPdf	PKPdf	07 58 38.1	+1.1
KOLS	Kolonicke sedl	144.29	341	*e*PKP	PKPdf	07 58 36.2	+0.2
KOLS				*e*		07 58 42.4	
NIE	Niedzica	144.44	343	*e*PKP	PKPdf	07 58 36.5	+0.3
UPC	Upice	144.44	348	*e*PKP	PKPdf	07 58 36.4	+0.2
UPC				*e*x	x	07 59 43.2	
GZT	Gaziantep	144.45	313	*i* P	PKPbc	07 58 37.8	+1.2
BRG	Berggiesshubel	144.45	351	*e*PKIKP	PKPdf	07 58 36.1	-0.1
BRG				pmax	pmax		
	comp=Z,23nm,1.0s						
DPC	Dobruska-Polom	144.53	348	*e*PKP	PKPdf	07 58 37.0	+0.7
DPC				*e*x	x	07 59 43.9	
CTKT	Corum	144.56	320	*i* P	PKPdf	07 58 38.0	+1.2
OKC	Ostrava-Krasne	144.61	346	*e*PKP	PKPdf	07 58 36.8	+0.3
OKC				*e*x	x	07 59 43.6	
PVCC	Panska Ves	144.68	350	*e*PKP	PKPdf	07 58 36.9	+0.3
KAHT	Ahir Dag	144.80	314	*i* P	PKPdf	07 58 39.0	+1.7
MORC	Moravsky Berou	144.81	346	*e*PKPbc	PKPbc	07 58 37.4	+0.3
BALT	Daday	144.87	322	*i* P	PKPdf	07 58 38.2	+1.0
MOX	Moxa	144.99	353	*e*PKIKP	PKPdf	07 58 38.2	+1.1

MOX				pmax	pmax		
	comp=Z,61nm,1.2s						
MOX	**Moxa**	**144.99**	**353**	*i* P	PKPdf	07 58 38.2	+1.1
	comp=Z,logA/T=1.7						
PRU	**Pruhonice**	**145.21**	**350**	*e*PKP	PKPdf	07 58 38.5	+1.0
PRU				*e*x	x	07 59 46.1	
KECS	**Kecovo**	**145.23**	**342**	*e*PKP	PKPdf	07 58 39.8	+2.2
NKC	**Novy Kostel**	**145.29**	**352**	*e*PKP	PKPdf	07 58 39.1	+1.5
NKC				*e*x	x	07 59 46.7	
BLJS	**Baljurashi**	**145.36**	**282**	P	PKPdf	07 58 42.2	+3.5
ELDT	**Eldivan**	**145.48**	**321**	*i* P	PKPdf	07 58 40.5	+2.2
AVNT	**Avonos**	**145.56**	**317**	*i* P	PKPdf	07 58 40.5	+2.0
VYHS	**Vyhne**	**145.68**	**344**	*i* PKP	PKPdf	07 58 40.7	+2.3
KOLL	**Kolacno**	**145.72**	**345**	*i* PKP	PKPdf	07 58 40.9	+2.5
BRTR	**Keskin Array B**	**145.80**	**320**	PKPbc	PKPbc	07 58 41.2	+1.2
	comp=Z,40nm,0.8s,baz=107,slow=1.7,SNR=105						
BRTR	**Keskin Array B**	**145.80**	**320**	PKP2	PKPab	07 58 41.2	-1.7
BRTR				pmax	pmax		
	comp=Z,41nm,0.9s						
GIVF	**Givet**	**145.89**	**1**	*e*PKP1	PKPbc	07 58 39.8	-0.1
	comp=Z,20nm,0.7s						
PSZ	**Piszkesteto**	**145.91**	**343**	*e*PKP/B		07 58 41.4	
BAIF	**Baives**	**145.92**	**1**	*e*PKP1	PKPbc	07 58 40.8	+0.8
	comp=Z,95nm,1.1s						
GRF	**Grafenberg Arr**	**145.97**	**353**	*e*PKP	PKPdf	07 58 41.7	+2.9
GRF				pPKPbc		07 59 47.9	
SMOL	**Smolenice**	**146.01**	**346**	*e*PKP	PKPdf	07 58 42.7	+3.8
ABH	**Alteburg**	**146.07**	**358**	PKP	PKPdf	07 58 42.1	+3.1
JLP	**Les Platons**	**146.19**	**9**⇑	*e*P	PKPdf	07 58 42.0	+2.8
KHC	**Kasperske Hory**	**146.20**	**350**	*e*PKP	PKPdf	07 58 41.9	+2.7
KHC				*e*		07 58 50.0	
KHC				*e*		07 59 48.4	
KHC	**Kasperske Hory**	**146.20**	**350**	*e*PKP	PKPdf	07 58 41.9	+2.7
KHC				x	x	07 58 50.0	
KHC				*e*x	x	07 59 48.4	
JVM	**Valle D.L. Mar**	**146.21**	**9**⇑	*e*P	PKPdf	07 58 41.9	+2.7
JSA	**Saint Aubin**	**146.24**	**9**⇑	*e*P	PKPdf	07 58 42.0	+2.7
JRS	**Jersey**	**146.25**	**9**	*e*P	PKPdf	07 58 41.6	+2.3
JQE	**Queens East**	**146.25**	**9**⇑	*e*P	PKPdf	07 58 42.0	+2.7
SGKT	**Sivrigoynuk**	**146.25**	**322**	*i* P	PKPdf	07 58 42.4	+2.8
RUP	**Ruppelstein**	**146.27**	**358**	PKP	PKPdf	07 58 42.1	+2.8
TOD	**Tromm**	**146.28**	**356**	PKP	PKPdf	07 58 42.3	+3.0
WET	**Wettzell**	**146.29**	**351**	*e*PKP2	PKPab	07 58 42.0	-2.5
WLF	**Walferdange**	**146.33**	**359**	*e*PKPbc	PKPbc	07 58 43.0	+2.1
ZST	**Bratislava**	**146.39**	**346**	*e*PKP	PKPdf	07 58 42.4	+2.8
GEC2	**GERESS Array S**	**146.46**	**350**	*e*PKP2	PKPab	07 58 42.3	-2.8
GERES	**GERESS Array B**	**146.46**	**350**	PKPbc	PKPbc	07 58 42.8	+1.6
	comp=Z,10nm,0.8s,baz=27,slow=3.0,SNR=50						
GERES	**GERESS Array B**	**146.46**	**350**	PKP2	PKPab	07 58 42.8	-2.3
GERES				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HENT	**Hendek**	**146.77**	**323**	*i* P	PKPdf	07 58 43.7	+3.3
PKSG		**146.81**	**344**	*e*P	PKPdf	07 58 43.7	+3.4
FLN	**La Foliniere**	**146.88**	**7**	*e*PKP1	PKPbc	07 58 43.1	+0.9
	comp=Z,91nm,1.0s						
ROSF	**Rostrenen**	**146.88**	**11**	*e*PKP1	PKPbc	07 58 43.1	+0.9
	comp=Z,116nm,1.2s						
KBRS	**Khaybar**	**146.94**	**293**	P	PKPdf	07 58 46.1	+4.9
LANF	**Langenberg**	**146.96**	**357**	PKP	PKPdf	07 58 44.3	+3.8
SGMF	**Saint Gilles**	**147.09**	**10**	*e*PKP1	PKPdf	07 58 43.7	+3.0
	comp=Z,136nm,0.9s						
LDF	**La Druitiere**	**147.09**	**7**	*e*PKP1	PKPdf	07 58 43.8	+3.1
	comp=Z,43nm,0.8s						
ASF	**Jabal al Asfar**	**147.15**	**305**	PKPbc	PKPdf	07 58 45.6	+4.2
	comp=Z,11nm,0.8s,baz=280,slow=4.2,SNR=10						
PKS8	**Sarbogard**	**147.20**	**343**⇑	*e*P	PKPdf	07 58 44.3	+3.3
GRR	**Gorron**	**147.20**	**8**	*e*PKP1	PKPdf	07 58 44.2	+3.3
	comp=Z,64nm,0.8s						
QUIF	**Quistinic**	**147.31**	**11**	*e*PKP1	PKPdf	07 58 44.4	+3.3
	comp=Z,74nm,1.1s						
MOA	**Molln**	**147.32**	**349**⇓	*i*P	PKPdf	07 58 43.7	+2.6
MEZF	**Maizieres J'vi**	**147.50**	**0**	*e*PKP1	PKPdf	07 58 45.6	+4.2
WLS	**Welschbruch**	**147.54**	**358**	PKP	PKPdf	07 58 45.4	+3.9
CDF	**Champ du Feu**	**147.55**	**358**	*e*PKP1	PKPdf	07 58 45.5	+4.0
	comp=Z,71nm,1.1s						
BFO	**Black Forest**	**147.58**	**356**	*e*PKP2	PKPab	07 58 45.7	-3.8
ESKT	**Eskisehir**	**147.63**	**322**	*i* P	PKPdf	07 58 46.2	+4.3
ARSA	**Arzberg**	**147.64**	**347**⇓	*i*P	PKPdf	07 58 46.2	+4.5
ECH	**Echery**	**147.75**	**358**	PKP	PKPdf	07 58 44.7	+2.9
THEF	**They Montfort**	**147.77**	**359**	PKP	PKPdf	07 58 46.4	+4.6
PKSM	**Moragy**	**147.82**	**343**⇓	*e*P	PKPdf	07 58 46.4	+4.4
HAU	**Haudompre**	**147.98**	**359**	*e*PKP1	PKPdf	07 58 46.7	+4.5
	comp=Z,49nm,1.0s						
FELD	**Feldberg**	**148.05**	**357**	PKP	PKPdf	07 58 47.1	+4.8
RHK1	**Bakonya**	**148.09**	**343**	*e*P	PKPdf	07 58 46.8	+4.4
MOF	**Molkenrain**	**148.12**	**358**	PKP	PKPdf	07 58 48.7	+6.3
HINF	**Hinteralfeld**	**148.16**	**358**	*e*PKP1	PKPdf	07 58 46.8	+4.3
ULDT	**Uludag**	**148.22**	**324**	*i* P	PKPdf	07 58 47.8	+4.9
KBA	**Koelnbreinsper**	**148.23**	**350**⇓	*i*P	PKPdf	07 58 48.4	+5.8
WATA	**Walderalm**	**148.25**	**352**⇑	*i*P	PKPdf	07 58 48.8	+6.2
MOTA	**Moosalm**	**148.30**	**353**⇑	*i*P	PKPdf	07 58 48.9	+6.2
WTTA	**Wattenberg**	**148.31**	**352**⇑	*i*P	PKPdf	07 58 47.9	+5.2
YNBS	**Yanbu' al Bahr**	**148.33**	**291**	P	PKPdf	07 58 48.7	+5.2
DAVA	**Damuels**	**148.49**	**354**⇓	*i*P	PKPdf	07 58 44.9	+1.9
LOMF	**Lomont**	**148.63**	**358**	PKP	PKPdf	07 58 48.5	+5.2
HYF	**Humbligny**	**148.65**	**4**	*e*PKP1	PKPdf	07 58 48.7	+5.4
TBKS	**Tabuk**	**148.73**	**298**	P	PKPdf	07 58 50.2	+6.1
UMJS	**Umm Lajj**	**148.78**	**293**	P	PKPdf	07 58 49.8	+5.6
SSF	**Saint Saulge**	**148.90**	**3**	*e*PKP1	PKPdf	07 58 49.3	+5.6
	comp=Z,74nm,1.0s						
MFF	**Saint Martin d**	**149.05**	**7**	*e*PKP1	PKPdf	07 58 49.2	+5.2
	comp=Z,78nm,1.1s						
BTOK	**Tokmak**	**149.10**	**325**	*i* P	PKPdf	07 58 49.7	+5.4
JMQS	**Jabal Moqyreh**	**149.10**	**300**	P	PKPdf	07 58 51.1	+6.5
AVF	**Avril sur Loir**	**149.16**	**3**	*e*PKP1	PKPdf	07 58 49.6	+5.5
	comp=Z,46nm,1.0s						
DIVS	**Divcibare**	**149.29**	**339**⇓	*i*P	PKPdf	07 58 50.1	+5.6
SMF	**Signal de Mont**	**149.33**	**2**	*e*PKP1	PKPdf	07 58 50.0	+5.6
	comp=Z,75nm,1.0s						
VTS	**Vitosha**	**149.33**	**334**	*e*P	PKPdf	07 58 47.0	+2.4
BGF	**Bois d'Agland**	**149.37**	**3**	*e*PKP1	PKPdf	07 58 50.3	+5.8
	comp=Z,41nm,0.9s						
RZN	**Rozhen**	**149.38**	**331**	*e*P	PKPdf	07 58 50.0	+5.3
CABF	**La Chapelle**	**149.38**	**359**	*e*PKP1	PKPdf	07 58 51.0	+6.5
	comp=Z,116nm,1.0s						
TCF	**Toulx Ste Croi**	**149.59**	**4**	*e*PKP1	PKPdf	07 58 50.7	+5.9
	comp=Z,56nm,1.1s						
EIL	**Elat**	**149.61**	**302**	PKPbc	PKPdf	07 58 52.2	+6.8
	comp=Z,27nm,0.8s,baz=318,slow=7.5,SNR=16						
EIL	**Elat**	**149.61**	**302**	*e*PKPbc	PKPdf	07 58 51.7	+6.3
ALWS	**Ilw as Safayha**	**149.64**	**301**	P	PKPdf	07 58 52.2	+6.7
JMOS	**Jabal al Moall**	**149.65**	**301**	P	PKPdf	07 58 52.0	+6.5
AYUS	**'Aynunah**	**149.82**	**299**	P	PKPdf	07 58 52.3	+6.5
HAQS	**Haql**	**149.83**	**301**	P	PKPdf	07 58 52.6	+6.8
AGO	**Saint Agoulin**	**149.89**	**3**	PKP	PKPdf	07 58 50.9	+5.6
BDAS	**Al Bad'**	**149.89**	**300**	P	PKPdf	07 58 52.6	+6.7
MMB	**Musomiste**	**149.91**	**332**	*i* P	PKPdf	07 58 51.0	+5.5
KKB	**Krupnik**	**149.98**	**333**	*i* P	PKPdf	07 58 51.5	+5.9
PLDF	**La Plantade**	**149.99**	**2**	PKP	PKPdf	07 58 51.4	+5.9
TAYS	**Tayyib Ism**	**150.04**	**300**	P	PKPdf	07 58 52.8	+6.7
MBAR	**Mbarara**	**150.08**	**239**	*e*PKPbc	PKPdf	07 58 53.1	+6.5
BOZC	**Bozcaada**	**150.11**	**327**	*i* P	PKPdf	07 58 51.9	+6.0
AYVA	**Ayvalik**	**150.16**	**326**	*i* P	PKPdf	07 58 51.8	+5.8
PYM	**Petit Puy Mans**	**150.18**	**3**	PKP	PKPdf	07 58 44.5	-1.3
LPL	**La Plagne**	**150.46**	**358**	*e*PKP1	PKPdf	07 58 53.9	+7.7
	comp=Z,55nm,1.1s						
KDAG	**Bornova**	**150.47**	**324**	*i* P	PKPdf	07 58 51.2	+4.8
LPG	**La Plagne**	**150.48**	**358**	*e*PKP1	PKPdf	07 58 54.1	+7.9
	comp=Z,58nm,1.1s						
RJF	**Les Rejaudoux**	**150.51**	**6**	*e*PKP1	PKPdf	07 58 53.8	+7.5
	comp=Z,100nm,1.3s						
AYDN	**Tasoluk**	**150.61**	**322**	*i* P	PKPdf	07 58 54.0	+7.3
LBL	**Lubilhac**	**150.71**	**3**	PKP	PKPdf	07 58 53.2	+6.6
LFF	**La Frestale**	**150.79**	**7**	*e*PKP1	PKPdf	07 58 54.4	+7.7
CAF	**Calviac**	**150.94**	**5**	*e*PKP1	PKPdf	07 58 54.2	+7.3
	comp=Z,41nm,1.1s						
ORIF	**Oris-en-Rattie**	**151.08**	**359**	*e*PKP1	PKPdf	07 58 55.6	+8.5
	comp=Z,32nm,0.9s						
VIVF	**Saint-Julien-l**	**151.14**	**1**	*e*PKP1	PKPdf	07 58 54.9	+7.7
	comp=Z,44nm,1.0s						
MBDF	**Montbardon**	**151.25**	**358**	*e*PKP1	PKPdf	07 58 55.2	+7.8
	comp=Z,24nm,0.9s						
LASF	**Ste Croix**	**151.89**	**2**	*e*PKP1	PKPdf	07 58 56.7	+8.3
	comp=Z,54nm,0.9s						
SMRF	**Simiane la Rot**	**152.02**	**360**	*e*PKP1	PKPdf	07 58 58.0	+9.4
	comp=Z,56nm,1.2s						
SJPF	**Ste Jean**	**152.30**	**10**	*e*PKP1	PKPdf	07 58 57.3	+8.3
	comp=Z,65nm,1.2s						
FRF	**La Foret Royal**	**152.42**	**358**	*e*PKP1	PKPdf	07 58 58.1	+8.9
MTLF	**Montolieu**	**152.52**	**5**	*e*PKP1	PKPdf	07 58 57.7	+8.4
ETSF	**Etsaut**	**152.62**	**10**	*e*PKP1	PKPdf	07 58 58.3	+8.8
	comp=Z,41nm,0.8s						
EPF	**Esparros**	**152.62**	**8**	*e*PKP1	PKPdf	07 58 58.3	+8.8
EVO	**Evora**	**154.56**	**25**⇑	*i*PKP2	PKPab	07 59 18.6	-0.3
	comp=Z,43nm,1.0s						
ESDC	**Sonseca Array**	**154.95**	**17**	PKPbc	PKPdf	07 59 04.1	+11
	comp=Z,0.3nm,0.3s,baz=318,slow=2.2,SNR=4.5						
ESDC				PKPab	PKPab	07 59 19.6	-0.9
	comp=Z,2.0nm,0.5s,baz=327,slow=3.9,SNR=9.8						

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*JMA **20** 08:04:27.9±0.2, 44.25N×141.33E, h233^{km}±2^{km}, M3.2*
*IDC **20** 08:04:30.8±5.5, 44.20N×144.89E, h139^{km}±88^{km}, mb3.1/4, mb1 3.4/4, mb1mx3.1/20, Error ellipse: s-maj=114.0km s-min=105.7km az=56.0*
ISC 20 08:04:27.8±0.7**, 44.22N**±0.05×**141.3E**±0.1**, h230**^{km}±4^{km}**, n20, σ0^{s}90**/28**, mb3.1**/4**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSS	**Shosan**	**0.43**	**65**	P	**P**	**08 04 58.8**	**+0.3**
JSS				*e*S	**S**	**08 05 22.5**	**+0.2**
JHR	**Hokuryu**	**0.56**	**148**	*e*S	**S**	**08 05 23.4**	**+0.3**
ASAJ	**Asahikawa**	**0.93**	**96**	P	**P**	**08 05 00.3**	**-0.2**
	6.2nm,0.3s,baz=272,slow=10.0,SNR=21						
ASAJ				S	**S**	**08 05 24.8**	**-1.1**
	2.4nm,0.3s,baz=305,slow=26,SNR=5.7						
JAB	**Ashibetsu**	**0.97**	**137**	*e*S	**S**	**08 05 27.3**	**+1.0**
JSK	**Shakotan**	**1.06**	**215**	P	**P**	**08 05 01.5**	**+0.2**
JKK2	**Kamakawa 2**	**1.09**	**108**	P	**P**	**08 05 01.6**	**+0.1**
JKK2				*e*S	**S**	**08 05 27.4**	**-0.3**
JSE	**Soyaes**	**1.17**	**50**	P	**P**	**08 05 01.8**	**-0.3**
JWK2	**Keihoku**	**1.17**	**21**	P	**P**	**08 05 02.1**	**0.0**
JWK2				*e*S	**S**	**08 05 28.2**	**-0.5**
JFR	**Furan**	**1.41**	**138**	P	**P**	**08 05 03.9**	**0.0**
JTKR	**Abashiri--Toko**	**1.88**	**97**	P	**P**	**08 05 08.1**	**+0.2**
JTKR				*e*S	**S**	**08 05 39.4**	**+0.5**
JAR	**Ashorobuto**	**2.00**	**117**	P	**P**	**08 05 10.0**	**+1.0**
JAR				*e*S	**S**	**08 05 42.2**	**+1.4**
JCH	**Churui**	**2.19**	**136**	*e*S	**S**	**08 05 41.7**	**-2.5**
JNBK	**Urakawa-nobuka**	**2.21**	**151**	P	**P**	**08 05 11.7**	**+0.6**
JNBK				*e*S	**S**	**08 05 46.0**	**+1.5**
JKB	**Kayabe**	**2.34**	**185**	*e*S	**S**	**08 05 47.6**	**+0.6**
JAK	**Akkeshi**	**2.74**	**115**	*e*S	**S**	**08 05 52.2**	**-2.4**
JOT	**Ohata**	**2.84**	**184**	P	**P**	**08 05 17.2**	**-0.6**
JOT				*e*S	**S**	**08 05 54.7**	**-1.9**
ILAR	**Eielson Array**	**43.60**	**36**	P	**P**	**08 12 09.8**	**-0.6**
	0.3nm,0.4s,mb3.0,baz=265,slow=7.2,SNR=5.9						
INK	**Inuvik**	**48.11**	**30**	P	**P**	**08 12 45.5**	**-0.1**
	0.5nm,0.4s,mb3.2,baz=294,slow=2.4,SNR=3.4						
YKA	**Yellowknife Ar**	**57.70**	**32**	P	**P**	**08 13 55.7**	**-0.2**
	0.1nm,0.4s,mb2.8,baz=304,slow=6.9,SNR=4.2						
PDAR	**Pinedale Array**	**72.74**	**47**	P	**P**	**08 15 33.2**	**+1.0**
	0.5nm,0.5s,mb3.5,slow=3.6,SNR=4.7						

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*IDC **20** 08:17:58.3±9.2, 24.62N×94.71E, h75^{km}±50^{km}, mb3.4/4, mb1 3.7/5, mb1mx3.4/18, ML3.9/1, Error ellipse: s-maj=198.0km s-min=23.2km az=80.0*
*NEIC **20** 08:17:59.0±1.2, 24.58N×94.78E, h79^{km}±18^{km}, Error ellipse: s-maj=58.0km s-min=11.6km az=64.0*
ISC 20 08:17:57.1±1.2**, 24.5N**±0.2×**94.7E**±0.4**, h82**^{km}±23^{km}**, n7, σ0^{s}46**/9**, mb3.7**/4**, 1D, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	**Imphal**	**0.71**	**294**⇓	*e*PG	**P**	**08 18 13.8**	**+0.5**
IMP				*e*SG	**S**	**08 18 24.7**	**-0.6**
LSA	**Lhasa**	**6.05**	**330**	*e*Pn	**P**	**08 19 26.3**	**+0.6**
	7.9nm,0.4s						
LSA				*e*Sn	**S**	**08 20 14.9**	**-19**
CMAR	**Chiang Mai Arr**	**7.21**	**145**	P	**P**	**08 19 41.7**	**-0.1**
	0.6nm,0.3s,baz=323,slow=14,SNR=6.7						
SONM	**Songino Array**	**25.10**	**19**	P	**P**	**08 23 15.4**	**-0.1**
	1.0nm,0.9s,mb3.3,baz=196,slow=9.0,SNR=5.6						
WRA	**Warramunga Arr**	**58.68**	**135**	P	**P**	**08 27 48.5**	**0.0**
	0.8nm,0.6s,mb3.9,baz=323,slow=7.5,SNR=4.7						
ASAR	**Alice Springs**	**61.16**	**139**	P	**P**	**08 28 05.9**	**+0.4**
	1.3nm,0.8s,mb4.0,baz=321,slow=6.7,SNR=18						
ILAR	**Eielson Array**	**79.26**	**23**	P	**P**	**08 29 53.8**	**-0.7**
	0.6nm,0.9s,mb3.4,baz=285,slow=5.4,SNR=6.4						

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*LDG **20** 08:24:13.1±0.1, 48.18N×6.04E, h4^{km}, Md2.3/4, Ml2.4/9, Error ellipse: s-maj=1.4km s-min=1.0km az=165.0*
STR 20 08:24:13.0±0.3**, 48.19N×6.01E, h5**^{km}±1^{km}**, Ml2.1, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THEF	**They Montfort**	**0.04**	**337**	Pg	Pg	08 24 14.6	+0.4
THEF				Sg	Sg	08 24 15.8	+0.8
HAU	**Haudompre**	**0.29**	**129**	*e*Pg	Pg	08 24 18.2	-0.7
HAU				*e*Sg	Sg	08 24 21.7	-1.1
	34nm,0.3s						
RFYF	**Reffroy**	**0.57**	**321**	*e*Pg	Pg	08 24 24.5	+0.2
	baz=136						
RFYF				*e*Sg	Sg	08 24 32.5	+0.6
	10nm,0.2s,baz=149						
SFTF	**Sexfontaines**	**0.65**	**272**	*e*Pg	Pg	08 24 25.8	-0.2
SFTF				*e*Pn	Pn	08 24 27.1	-1.4
SFTF				*e*Sg	Sg	08 24 35.1	+0.4
	18nm,0.3s						
HINF	**Hinteralfeld**	**0.68**	**123**	*e*Pg	Pg	08 24 25.5	-1.1
HINF				*e*P		08 24 26.4	
HINF				*e*Pn	Pn	08 24 27.2	-1.7
HINF				*e*Sg	Sg	08 24 34.2	-1.4
HINF				*e*Sn	Sn	08 24 37.2	-2.8
	27nm,0.2s						
MEZF	**Maizieres J'vi**	**0.71**	**296**	*e*Pg	Pg	08 24 27.0	-0.2
	baz=117						
MEZF				*e*Pn	Pn	08 24 29.1	-0.3
MEZF				*e*Sg	Sg	08 24 37.0	+0.3
	14nm,0.3s,baz=131						
ECH	**Echery**	**0.77**	**88**	Pg	Pg	08 24 27.1	-1.3
ECH				Sg	Sg	08 24 37.7	-0.9
MOF	**Molkenrain**	**0.83**	**114**	Pg	Pg	08 24 29.0	-0.5
MOF				Sg	Sg	08 24 40.0	-0.6
CDF	**Champ du Feu**	**0.87**	**75**	*e*Pg	Pg	08 24 28.8	-1.7
CDF				*e*Pn	Pn	08 24 30.5	-1.2
CDF				*e*Sg	Sg	08 24 40.2	-1.9
	28nm,0.3s						
WLS	**Welschbruch**	**0.92**	**76**	Pg	Pg	08 24 29.9	-1.6
WLS				Sg	Sg	08 24 43.8	0.0
LOMF	**Lomont**	**1.00**	**146**	Pg	Pg	08 24 32.3	-0.8
CABF	**La Chapelle**	**1.58**	**178**	*e*Pn	Pn	08 24 40.3	-1.5
CABF				*e*Pg	Pg	08 24 42.3	-2.3
CABF				*e*Sg	Sg	08 25 01.9	-3.7
	9.6nm,0.3s						
SSF	**Saint Saulge**	**2.04**	**237**	*e*Pn	Pn	08 24 46.5	-1.9
SSF				*e*Pg	Pg	08 24 51.0	-2.6
SSF				*e*Sg	Sg	08 25 16.6	-4.2
	2.3nm,0.2s						
GIVF	**Givet**	**2.07**	**338**	*e*Pn	Pn	08 24 47.1	-1.7
GIVF				*e*Sg	Sg	08 25 18.4	-3.4
	6.0nm,0.3s						
SMF	**Signal de Mont**	**2.13**	**224**	*e*Pn	Pn	08 24 48.0	-1.8
SMF				*e*Pg	Pg	08 24 52.6	-3.0
SMF				*e*Sn	Sn	08 25 13.7	-3.3
SMF				*e*Sg	Sg	08 25 21.0	-3.1
	4.4nm,0.2s						
BAIF	**Baives**	**2.21**	**328**	*e*Pn	Pn	08 24 49.2	-1.7
AVF	**Avril sur Loir**	**2.28**	**233**	*e*Pn	Pn	08 24 49.2	-2.7
AVF				*e*Pg	Pg	08 24 55.7	-2.9
AVF				*e*Sg	Sg	08 25 25.4	-3.6
	1.6nm,0.3s						
HYF	**Humbligny**	**2.46**	**249**	*e*Sg	Sg	08 25 30.8	-3.9
BGF	**Bois d'Agland**	**2.70**	**234**	*e*Pn	Pn	08 24 55.8	-2.1
BGF				*e*Pg	Pg	08 25 03.4	-3.5
BGF				*e*Sn	Sn	08 25 26.9	-4.4
BGF				*e*Sg	Sg	08 25 38.7	-4.2
	8.4nm,0.4s						
TCF	**Toulx Ste Croi**	**3.21**	**235**	*e*Pn	Pn	08 25 02.7	-2.5
TCF				*e*Pg	Pg	08 25 12.7	-4.4
TCF				*e*Sg	Sg	08 25 53.8	-6.2
	1.6nm,0.3s						

MAN 20 08:47:45.9, 12.82N×120.97E, h17^{km}, mb4.5, ML3.3, MS3.2, 3C, Mindoro

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJMP	**San Jose**	**0.39**	**158**	*e*P	Pb	08 47 54.7	+0.8
SJMP				*e*S	Sb	08 48 02.1	+2.8
BOAC	**Boac**	**1.06**	**53**	*e*P	Pb	08 48 03.4	-2.0
BOAC				*e*S	Sb	08 48 16.8	-2.0
OTRP	**Odiongan**	**1.12**	**114**	*e*P	Pb	08 48 05.1	-1.3
OTRP				*e*S	Sb	08 48 21.3	+0.7
LUBP	**Lubang**	**1.15**	**322**	*e*P	Pb	08 48 05.9	-1.0
LUBP				*e*S	Sb	08 48 20.6	-0.8
TGY	**Tagaytay City**	**1.27**	**359**⇑	*e*P	Pb	08 48 08.2	-0.8
TGY				*e*S	Sb	08 48 25.7	+0.8
LQP	**Lukban**	**1.40**	**23**⇑	*e*P	Pn	08 48 09.7	-1.1
ARP	**Angono**	**1.71**	**6**	*e*P	Pn	08 48 14.2	-1.1
AUQP	**San Andres**	**1.73**	**73**	*e*P	Pn	08 48 16.1	+0.5
GQP	**Guinayangan**	**1.79**	**53**	*e*P	Pn	08 48 10.5	-6.0
QVPH	**Quezon City--P**	**1.82**	**3**	*e*P	Sn	08 48 35.4	-4.3
NBP	**Mount Natib**	**1.98**	**344**	*e*P	Pn	08 48 19.0	-0.1
POLP	**Polilio Island**	**2.12**	**26**	*e*P	Pn	08 48 21.5	+0.4
ENPP	**El Nido**	**2.21**	**223**	*e*P	Pn	08 48 22.1	-0.2
BALP	**Baler**	**2.96**	**11**	*e*P	Pn	08 48 35.8	+2.7
PPR	**Puerto Princes**	**3.74**	**216**⇑	*e*P	Sn	08 49 25.4	-3.0

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*IDC **20** 08:48:55.7±0.9, 15.34S×75.31W, mb4.1/9, mb1 4.3/9, mb1mx3.9/17, ML6.2/1, MS3.9/4, Ms1 3.8/4, ms1mx3.4/20, Error ellipse: s-maj=37.0km s-min=16.3km az=54.0*
*NEIC **20** 08:48:59.8±2.3, 15.30S×75.20W, h25^{km}±16^{km}, mb4.1/4, Error ellipse: s-maj=17.4km s-min=6.4km az=49.0*
ISC 20 08:48:57.4±3.6**, 15.4S**±0.1×**75.3W**±0.2**, h25**^{km}±26^{km}**, n21, σ0^{s}54**/22**, mb4.0**/12**, MS4.0**/3**, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	**3.71**	**336**	*e*Pn	**Pn**	**08 49 55.0**	**+0.4**
ARE	**Arequipa**	**3.83**	**106**	*e*P	**Pn**	**08 49 56.0**	**-0.3**
ARE				*i*		08 49 58.5	
ARE				*i*		08 50 31.8	
ARE				*i* S	**Sn**	**08 50 45.4**	**+4.3**
LVC	**Limon Verde**	**9.38**	**141**	Pn	**P**	**08 51 14.1**	**-0.1**
	25nm,0.3s,baz=316,slow=9.7,SNR=317						
LVC				Sn	**Sn**	**08 52 51.2**	**-8.8**
	2.7nm,0.3s,baz=90,slow=15,SNR=2.2						
LVC				Lg		08 53 57.0	
	2.8nm,0.3s,baz=119,slow=18,SNR=5.9						
LVC				LR	LR	08 55 09.6	
	comp=Z,390nm,18.3s,baz=312,slow=40						
LVC	**Limon Verde**	**9.38**	**141**	*e*Pn	**P**	**08 51 13.9**	**-0.3**
LVC				*e*S	**Sn**	**08 52 52.4**	**-7.5**
LVC				Lg		08 53 57.0	
LVC				LR	LR	08 55 09.6	
SDV	**Santo Domingo**	**24.59**	**11**	P	**P**	**08 54 17.8**	**+0.8**
	6.9nm,1.0s,mb4.1,baz=256,slow=5.7,SNR=8.1						
SDV	**Santo Domingo**	**24.59**	**11**	*e*P	**P**	**08 54 16.4**	**-0.6**
	15nm,1.0s,mb4.5						
BDFB	**Brasilia**	**26.31**	**94**	P	**P**	**08 54 33.4**	**+0.2**
	3.9nm,0.7s,mb4.1,baz=270,slow=11,SNR=6.9						
BDFB				LR	LR	09 06 37.3	
	comp=Z,183nm,19.2s,MS3.6,baz=92,slow=40						
LTX	**Lajitas**	**52.23**	**328**	*e*P	**P**	**08 58 08.9**	**0.0**
	1.7nm,0.5s,mb4.2						
TXAR	**Lajitas Array**	**52.23**	**328**	P	**P**	**08 58 08.6**	**-0.3**
	1.0nm,0.5s,mb4.0,baz=149,slow=8.3,SNR=26						
ANMO	**Albuquerque**	**58.16**	**330**	*e*P	**P**	**08 58 51.5**	**-0.3**
	1.3nm,0.8s,mb4.0						
ARUT	**Antelope Range**	**63.89**	**327**	*e*P	**P**	**08 59 30.1**	**-0.4**
PDAR	**Pinedale Array**	**65.89**	**333**	P	**P**	**08 59 44.2**	**+0.9**
	0.2nm,0.8s,mb3.2,baz=142,slow=10,SNR=2.8						
ULM	**Lac du Bonnet**	**67.83**	**346**	P	**P**	**08 59 54.8**	**-0.8**
	2.3nm,0.8s,mb4.3,baz=170,slow=6.3,SNR=6.6						
ULM	**Lac du Bonnet**	**67.83**	**346**	*e*P	**P**	**08 59 54.8**	**-0.8**
SNAA	**Sanae**	**69.98**	**161**	P	**P**	**09 00 09.0**	**+0.6**
	1.9nm,0.5s,mb4.2,baz=267,slow=7.3,SNR=36						
BMO	**Blue Mountains**	**71.08**	**330**	*e*P	**P**	**09 00 16.0**	**+0.4**
	0.8nm,0.7s,mb3.8						
YBH	**Yreka Blue Hor**	**71.72**	**325**	P	**P**	**09 00 19.2**	**-0.3**
	1.3nm,0.7s,mb4.0,baz=144,slow=9.7,SNR=3.2						
DBIC	**Dimbokro**	**73.15**	**78**	P	**P**	**09 00 28.1**	**-0.4**
	3.7nm,0.8s,mb4.3,baz=254,slow=9.9,SNR=5.4						
DBIC				LR	LR	09 31 03.8	
	comp=Z,173nm,19.7s,MS4.3,baz=157,slow=35						
YKA	**Yellowknife Ar**	**83.53**	**343**	P	**P**	**09 01 24.4**	**+0.2**
	1.5nm,0.7s,mb4.2,baz=137,slow=5.0,SNR=42						
MAW	**Mawson**	**91.81**	**165**	LR	LR	09 40 13.0	
	comp=Z,50nm,19.6s,MS4.0,baz=66,slow=34						
SONM	**Songino Array**	**147.64**	**358**	PKPbc	PKPdf	09 08 41.9	+0.3
	2.5nm,0.8s,baz=264,slow=1.1,SNR=10						

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*IDC **20** 08:59:04.8±1.7, 3.24S×135.33E, mb4.4/3, mb1 4.6/7, mb1mx4.3/15, ML4.0/4, MS3.5/2, Ms1 3.4/2, ms1mx3.0/21, Error ellipse: s-maj=66.8km s-min=27.2km az=98.0*
*NEIC **20** 08:59:09.9±1.5, 3.39S×135.19E, h10^{km}, mb4.0/4, Error ellipse: s-maj=24.1km s-min=16.1km az=137.0*
ISC 20 08:59:10.1±1.9**, 3.61S**±0.05×**135.27E**±0.09**, h39**^{km}±18^{km}**, n22, σ1^{s}32**/30**, mb4.7**/8**, MS3.5**/1**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**9.47**	**197**	*e*P	**P**	**09 01 27.2**	**+0.2**
	38nm,0.5s						
KAKA				*e*S	**S**	**09 03 14.7**	**+1.5**
PMG	**Port Moresby**	**13.13**	**117**	Pn	**P**	**09 02 18.5**	**+1.8**
	0.9nm,0.3s,baz=279,slow=14,SNR=3.9						
PMG				Sn	**S**	**09 04 33.2**	**-9.2**
	0.4nm,0.3s,baz=334,slow=6.4,SNR=3.1						
PMG	**Port Moresby**	**13.13**	**117**	*e*P	**P**	**09 02 18.5**	**+1.8**
	17nm,1.0s						
PMG				Sn	**S**	**09 04 33.2**	**-9.1**
WRAB	**Tennant Creek**	**16.25**	**183**	*e*P	**P**	**09 02 55.1**	**-2.2**
	5.9nm,0.6s						
WRAB				*e*		09 03 02.5	
WB2	**Warramunga Arr**	**16.26**	**183**	*e*P	**P**	**09 02 55.6**	**-1.7**
WB2				*e*		09 03 02.8	
WB2				*e*S	**S**	**09 05 52.6**	**-3.4**
WRA	**Warramunga Arr**	**16.26**	**183**	Pn	**P**	**09 02 55.1**	**-2.3**
	0.7nm,0.3s,baz=6.0,slow=13,SNR=16						
WRA				Sn	**S**	**09 05 49.5**	**-6.5**
	0.9nm,0.3s,baz=6.0,slow=22,SNR=6.1						
FITZ	**Fitzroy Crossi**	**17.22**	**213**	*e*P	**P**	**09 03 10.7**	**+1.3**
	12nm,0.8s						
FITZ	**Fitzroy Crossi**	**17.22**	**213**	P	**P**	**09 03 10.7**	**+1.3**
	1.1nm,0.3s,baz=20,slow=11,SNR=18						
FITZ				S	**S**	**09 06 16.8**	**-1.2**
	1.5nm,0.3s,baz=178,slow=15,SNR=5.9						
CTA	**Charters Tower**	**19.57**	**148**	*e*P	**P**	**09 03 38.3**	**+0.6**
	4.1nm,0.6s						
CTA	**Charters Tower**	**19.57**	**148**	P	**P**	**09 03 37.8**	**+0.1**
	0.2nm,0.3s,baz=336,slow=12,SNR=4.2						
CTAO	**Charters Tower**	**19.57**	**148**	*e*P	**P**	**09 03 38.1**	**+0.5**
	8.7nm,1.0s						
ASAR	**Alice Springs**	**19.98**	**184**	P	**P**	**09 03 43.9**	**+1.8**
	18nm,0.6s,baz=8.1,slow=12,SNR=180						
ASAR				S	**S**	**09 07 24.9**	**+5.2**
	1.6nm,0.7s,baz=9.5,slow=27,SNR=4.0						
ASAR				LR	LR	09 11 14.2	
	comp=Z,68nm,18.1s,baz=7.4,slow=36						
ASPA	**Alice Springs**	**19.98**	**184**	*e*P	**P**	**09 03 43.6**	**+1.5**
ASPA				*e*S	**S**	**09 07 20.6**	**+0.9**
STKA	**Stephens Creek**	**28.74**	**169**	P	**P**	**09 05 06.3**	**+0.1**
	1.7nm,0.4s,mb4.2,baz=332,slow=10,SNR=4.9						
STKA				LR	LR	09 17 36.0	
	comp=Z,133nm,19.6s,MS3.5,baz=197,slow=38						
STKA	**Stephens Creek**	**28.74**	**169**	*e*P	**P**	**09 05 05.2**	**-1.0**
STKA				LR	LR	09 17 36.0	
GUN	**Gumba**	**56.92**	**307**	*e*P	**P**	**09 08 54.6**	**+0.5**
	8.3nm,0.6s,mb4.9						
PKI	**Pulchoki**	**57.16**	**306**	*e*P	**P**	**09 08 55.3**	**-0.5**
	5.3nm,0.6s,mb4.7						
KKN	**Kakani**	**57.35**	**306**	*e*P	**P**	**09 08 57.5**	**+0.3**
	6.3nm,0.6s,mb4.8						
DMN	**Daman**	**57.42**	**306**	*e*P	**P**	**09 08 58.0**	**+0.4**
	5.8nm,0.6s,mb4.8						
GKN	**Gorkha**	**57.96**	**306**	*e*P	**P**	**09 09 01.7**	**+0.3**
	14nm,0.8s,mb5.0						
KOLN	**Koldanda**	**58.70**	**306**	*e*P	**P**	**09 09 06.8**	**+0.2**
	14nm,0.9s,mb5.0						
ILAR	**Eielson Array**	**88.08**	**25**	P	**P**	**09 11 55.3**	**-2.1**
	1.2nm,0.7s,mb4.2,baz=261,slow=4.5,SNR=22						

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*IDC **20** 09:00:36.1±2.4, 51.34N×176.88E, mb3.6/4, mb1 3.9/5, mb1mx3.7/22, ML3.0/1, Error ellipse: s-maj=59.0km s-min=13.8km az=16.0*
*NEIC **20** 09:00:41.0±7.4, 51.64N×176.71E, h27^{km}±50^{km}, mb4.3/2, Error ellipse: s-maj=47.6km s-min=13.6km az=179.0*
ISC 20 09:00:38.7±1.5**, 51.3N**±0.3×**176.7E**±0.2**, h33**^{km}**, n10, σ0^{s}99**/11**, mb3.8**/6**, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMY	Shemya	2.14	312	*e*P	P	09 01 12.9	+0.2
FX1	Attu Island--F	2.69	307	Pn	Pn	09 01 19.3	-1.3
	8.5nm,0.3s,baz=207,slow=9.0,SNR=12						
FX1				Sn	Sn	09 01 54.7	+2.3
	19nm,0.3s,baz=242,slow=18,SNR=6.0						
FX1	Attu Island--F	2.69	307	*e*P	P	09 01 19.4	-1.1
ILAR	Eielson Array	23.09	40	P	P	09 05 41.3	-0.6
	0.4nm,0.5s,mb3.1,baz=250,slow=8.6,SNR=8.1						
YKA	Yellowknife Ar	37.30	46	P	P	09 07 48.3	-0.7
	0.2nm,0.5s,mb3.2,baz=288,slow=8.5,SNR=5.8						
ULN	Ulaanbaatar	43.73	294	*e*P	P	09 08 42.0	-0.2
	3.4nm,0.6s,mb4.2						
TPNV	Topopah Spring	48.55	80	*e*P	P	09 09 22.0	+1.6
	2.5nm,0.8s,mb4.3						
BW06	Boulder Array	48.99	70	P	P	09 09 23.7	0.0
BVAR	Borovoye Array	59.07	317	P	P	09 10 37.4	-0.1
	1.4nm,0.4s,mb4.4,baz=45,slow=6.3,SNR=11						
TXAR	Lajitas Array	61.44	78	P	P	09 10 54.6	+0.6
	0.3nm,0.5s,mb3.7,baz=302,slow=4.8,SNR=10						

IDC 20 09:22:23.6±10.0**, 4.43S**×**153.59E, h122**^{km}±63^{km}**, mb3.6**/4**, mb1 3.8**/5**, mb1mx3.5**/15**, Error ellipse: s-maj=83.9km s-min=67.1km az=22.0, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	8.07	232	P	P	09 24 18.3	-1.0
	6.5nm,0.3s,baz=39,slow=3.9,SNR=21						
PMG				S	S	09 25 48.1	-1.3
	1.4nm,0.3s,baz=140,slow=20,SNR=10						
WRA	Warramunga Arr	24.27	229	P	P	09 27 30.4	-0.5
	3.2nm,0.7s,baz=53,slow=9.9,SNR=19						
ASAR	Alice Springs	26.95	223	P	P	09 27 53.8	-2.0
	1.6nm,1.1s,baz=57,slow=8.9,SNR=6.1						
STKA	Stephens Creek	29.53	201	P	P	09 28 16.2	-2.6
	0.7nm,0.4s,baz=33,slow=12,SNR=3.8						
FITZ	Fitzroy Crossi	30.52	241	P	P	09 28 25.2	-2.6
	2.5nm,0.8s,baz=20,slow=8.5,SNR=4.2						

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*IDC **20** 09:26:59.3±0.5, 30.85N×142.09E, mb4.5/20, mb1 4.6/23, mb1mx4.6/28, ML4.3/3, MS4.0/8, Ms1 4.1/8, ms1mx3.9/21, Error ellipse: s-maj=18.4km s-min=11.5km az=90.0*

*NIED **20** 09:27:00, 30.90N×142.30E, h5^{km}, Mw4.6 Best double couple: M$_0$9.88×10^{15} NP1:φ$_s$350°, δ65°, λ33°. NP2:φ$_s$245°, δ61°, λ151°.*

*JMA **20** 09:27:00.2±0.1, 30.87N×142.26E, h39^{km}, M4.7*

*MOS **20** 09:27:02.6±0.9, 30.86N×141.97E, h33^{km}, mb4.9/23, Error ellipse: s-maj=14.4km s-min=6.9km az=107.6*

*BJI **20** 09:27:02.1, 30.90N×141.87E, h21^{km}, mB5.2, mb4.5, Ms4.6, Msz4.3*

*NEIC **20** 09:27:05.2±0.2, 30.84N×141.95E, mb4.6/28, MW4.6(NIED), Error ellipse: s-maj=6.4km s-min=4.8km az=80.0*

ISC 20 09:27:00.3±1.2**, 30.86N**±0.03×**141.93E**±0.04**, h17**^{km}±8^{km}**, n138, σ1§08**/154**, mb4.6**/59**, MS4.1**/10**, 3C-2D, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	2.88	322	P	Pn	09 27 47.3	+1.0
JHJ2				*e*S	Sn	09 28 22.2	+1.3
JHJ	Hachijo jima 2	2.90	322	Pn	Pn	09 27 46.7	0.0
	28nm,0.3s,baz=81,slow=21,SNR=21						
JHJ				Sn	Sn	09 28 21.6	+0.1
	62nm,0.3s,baz=42,slow=22,SNR=5.0						
CBIJ	Chichi jima	3.75	176	Pn	Pn	09 27 57.6	-1.1
	47nm,0.3s,baz=330,slow=15,SNR=50						
CBIJ				Sn	Sn	09 28 39.9	-3.1
	52nm,0.3s,baz=300,slow=22,SNR=6.3						
CBIJ				LR	LR	09 29 32.1	
	comp=Z,3µm,18.1s,baz=350,slow=41						
CBIJ	Chichi jima	3.75	176	P	Pn	09 27 57.8	-1.0
BSO1	Boso 1	3.87	348	P	Pn	09 27 59.7	-0.7
JKO	Kozu shima	4.07	325	P	Pn	09 28 04.8	+1.5
BSO3	Boso 3	4.11	344	P	Pn	09 28 03.5	-0.4
BSO4	Boso 4	4.33	342	P	Pn	09 28 07.3	+0.3
JOD2	Odawara 2	5.00	332	P	Pn	09 28 17.2	+0.7
JOD2				S	Sn	09 29 14.7	+0.2
JHU	Hanno	5.45	337	P	Pn	09 28 23.3	+0.5
JHU				S	Sn	09 29 24.6	-1.3
JYT	Yasato	5.55	345	P	Pn	09 28 24.3	+0.1
JYT				S	Sn	09 29 27.8	-0.5
JNY	Yasuok	5.64	324	P	Pn	09 28 28.3	+2.8
JIE	Ise	5.64	310	P	Pn	09 28 27.4	+1.9
JRY	Ryogami san	5.74	335	P	Pn	09 28 27.5	+0.7
JRY				*e*S	Sn	09 29 32.4	-0.6
JHO	Hitachi	5.85	349	P	Pn	09 28 26.8	-1.6
JHO				S	Sn	09 29 30.3	-5.6
JAG	Ashikaga	5.92	340	P	Pn	09 28 29.0	-0.5
JAG				S	Sn	09 29 34.9	-2.8
MAJO	Matsushiro	6.46	332	⇑*e*Pn	Pn	09 28 37.7	+0.6
	87nm,0.5s						
MAT	Matsushiro	6.46	332	P	Pn	09 28 37.4	+0.3
MAT				S	Sn	09 29 50.3	-0.9
MAT	Matsushiro	6.46	332	*e*P	Pn	09 28 37.0	-0.1
	81nm,0.6s						
MAT				*e*S	Sn	09 29 50.0	-1.2
JFK	Kawauchi	6.55	353	P	Pn	09 28 36.6	-1.8
JFK				S	Sn	09 29 45.6	-7.8
JMK	Ichinoseki	8.10	356	P	P	09 28 57.6	-2.4
JMK				*e*S	Sn	09 30 21.9	-10
JOW	Kunigami	12.62	255	LR	LR	09 34 12.1	
	comp=Z,504nm,20.2s,baz=128,slow=34						
ASAJ	Asahikawa	13.25	2	Pn	P	09 30 06.6	-3.6
	2.6nm,0.3s,baz=185,slow=14,SNR=9.8						
ASAJ				LR	LR	09 36 15.3	
	comp=Z,692nm,19.3s,baz=338,slow=42						
ASAJ	Asahikawa	13.25	2	P	P	09 30 06.6	-3.6
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,692nm,19.3s						
MDJ	Mudanjiang	16.82	328	P	P	09 30 58.8	+2.3
MDJ				AP		09 31 08.3	
MDJ				S	S	09 34 06.0	+4.0
MDJ				AMB	AMB		
	comp=Z,11nm,0.8s						
MDJ				AMB	AMB		
	comp=Z,456nm,3.9s						
MDJ				LR	LR		
	comp=N,225nm,16.9s						
MDJ				LR	LR		
	comp=E,355nm,20.2s						
MDJ				LR	LR		
	comp=Z,396nm,18.0s						
MDJ	Mudanjiang	16.82	328	*e*P	P	09 30 59.3	+2.8
	comp=Z,4.8nm,0.4s						
CN2	Changchun	18.36	319	*e*P	P	09 31 15.5	-0.3
CN2				*e*XP		09 31 30.4	
CN2				*e*S	S	09 34 35.9	-1.2
CN2				AMB	AMB		
	comp=Z,20nm,1.1s						
CN2				AMB	AMB		
	comp=Z,600nm,5.0s						
CN2				LR	LR		
	comp=N,900nm,13.0s						
CN2				LR	LR		
	comp=E,500nm,13.0s						
CN2				LR	LR		
	comp=Z,1µm,16.0s						
NJ2	Nanjing	19.72	279	*e*P	P	09 31 31.3	-0.6
NJ2				AP		09 31 35.8	
NJ2				XP		09 31 41.8	
NJ2				PP	PP	09 31 47.8	-2.5
NJ2				S	S	09 35 05.0	-2.6
NJ2				XS		09 35 22.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s						
NJ2				AMB	AMB		
	comp=Z,1µm,6.4s						
NJ2				LR	LR		
	comp=N,950nm,14.8s						
NJ2				LR	LR		
	comp=E,1µm,23.2s						
NJ2				LR	LR		
	comp=Z,980nm,21.0s						
KLR	Kul'dur	19.90	340	*e*P	P	09 31 31.0	-2.8
BJT	Baijiatuau	22.83	301	*e*P	P	09 32 03.3	-0.2
BJT				pmax	pmax		
	comp=Z,49nm,1.2s						
BJT	Baijiatuau	22.83	301	*e*P	P	09 32 03.3	-0.2
	comp=Z,49nm,1.2s,mb4.8						
BJI	Beijing	22.83	301	P	P	09 32 03.8	+0.3
BJI				S	S	09 36 08.3	+0.9
BJI				AMB	AMB		
	comp=Z,29nm,1.4s,mb4.5						
BJI				LR	LR		
	comp=N,438nm,13.4s						
BJI				LR	LR		
	comp=E,541nm,18.5s						
BJI				LR	LR		
	comp=Z,489nm,20.4s						
HIA	Hailar	24.88	324	*e*P	P	09 32 25.0	+1.7
HIA				pmax	pmax		
	comp=Z,27nm,0.9s						
HIA	Hailar	24.88	324	*e*P	P	09 32 25.0	+1.7
	comp=Z,27nm,0.9s,mb4.8						
TGY	Tagaytay City	25.50	234	LR	LR	09 42 52.0	
	comp=Z,195nm,18.8s,MS3.6,baz=203,slow=37						
HHC	Hu-ho-hao-te	26.44	301	*e*P	P	09 32 38.1	+0.1
HHC				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.5						
HHC				AMB	AMB		
	comp=Z,141nm,4.4s						
HHC				LR	LR		
	comp=N,412nm,11.6s,MS4.3						
HHC				LR	LR		
	comp=E,499nm,15.5s,MS4.3						
HHC				LR	LR		
	comp=Z,492nm,19.8s,MS4.1						
ENH	Enshi	27.89	277	*e*P	P	09 32 50.4	-0.9
	comp=Z,5.1nm,0.6s,mb4.3						
CLNS	Chul'man	28.57	340	*e*P	P	09 32 55.9	-1.2
CLNS				pmax	pmax		
	comp=N,8.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
MA2	Magadan	29.34	9	*e*P	P	09 33 03.9	-0.1
ULN	Ulaanbaatar	31.53	313	*e*P	P	09 33 25.0	+1.4
ULN				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.0						
ULN	Ulaanbaatar	31.53	313	*e*P	P	09 33 25.0	+1.4
	comp=Z,27nm,1.1s,mb5.0						
SONM	Songino Array	31.94	312	P	P	09 33 28.7	+1.5
	comp=Z,8.2nm,0.9s,mb4.5,baz=112,slow=8.7,SNR=39						
LZH	Lanzhou	32.05	290	*e*P	P	09 33 26.5	-1.8
LZH				AP	pP	09 33 37.5	+4.2
LZH				XP	sP	09 33 43.0	+7.5
LZH				PP	PP	09 34 34.6	-0.3
LZH				AMB	AMB		
	comp=Z,19nm,1.3s,mb4.8						
LZH				AMB	AMB		
	comp=Z,102nm,5.5s						
LZH				LR	LR		
	comp=N,256nm,13.2s						
LZH				LR	LR		
	comp=Z,347nm,17.3s,MS4.1						
YAK	Yakutsk	32.19	349	*i* P	P	09 33 38.8	+10
CD2	Chengdu	32.65	280	*e*P	P	09 33 35.6	+2.0
CD2				*e*S	S	09 38 47.9	+0.2
CD2				LR	LR		
	comp=E,610nm,12.0s						
CD2				LR	LR		
	comp=Z,690nm,16.8s,MS4.4						
BOD	Bodaibo	33.10	333	*e*P	P	09 33 35.8	-1.4
BOD				*e*		09 33 45.3	
ZAK	Zakamensk	34.71	315	*e*P	P	09 33 51.4	+0.2
ZAK				*e*		09 34 03.9	
KMI	Kunming	34.95	270	*e*P	P	09 33 55.8	+2.3
TLY	Talaya	34.95	318	⇓*i*P	P	09 33 55.3	+2.1
TLY				*e*		09 34 06.3	
TLY				*e*S	S	09 39 30.5	+7.4
TLY				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
TLY				MLR	MLR		
	comp=Z,368nm,16.0s,MS4.2						
TLY	Talaya	34.95	318	*e*P	P	09 33 55.2	+2.0
	comp=Z,38nm,1.4s,mb5.1						
TLY				*e*		09 34 05.7	
PMG	Port Moresby	40.34	172	P	P	09 34 39.7	+0.9
	comp=Z,6.6nm,0.9s,mb4.3,baz=336,slow=12,SNR=3.1						
CMAR	Chiang Mai Arr	40.73	263	LR	LR	09 53 29.0	
	comp=Z,166nm,18.2s,MS3.9,baz=65,slow=39						
KAKA	Kakadu	44.26	193	*e*P	P	09 35 10.8	-0.1
	comp=Z,7.5nm,0.6s,mb4.6						
WMQ	Urumqi	44.28	303	⇓P	P	09 35 12.0	+1.3
WMQ				XP	sP	09 35 24.3	+6.4
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.3						
ZAL	Zalesovo	46.56	317	P	P	09 35 29.7	+1.0
	comp=Z,3.4nm,1.0s,mb4.2,baz=16,slow=8.9,SNR=16						
ZAL				LR	LR	09 56 13.3	
	comp=Z,249nm,19.0s,MS4.2,baz=19,slow=38						
ZAL	Zalesovo	46.56	317	P	P	09 35 29.7	+1.0
ZAL				LR	LR	09 56 13.3	
NVS	Novosibirsk	47.56	318	⇑*i*P	P	09 35 36.3	-0.3
NVS				*i*		09 35 48.2	
NVS				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
NVS				pmax	pmax		
	comp=N,9.0nm,1.3s						
NVS				pmax	pmax		
	comp=E,17nm,1.3s						
GUN	Gumba	48.50	281	*e*P	P	09 35 44.9	+0.7
	comp=E,44nm,1.2s,mb5.4						
PKI	Pulchoki	49.00	281	*e*P	P	09 35 47.9	-0.2
KKN	Kakani	49.04	281	*e*P	P	09 35 48.5	+0.1
	comp=E,22nm,0.8s,mb5.2						
DMN	Daman	49.24	281	*e*P	P	09 35 50.1	+0.1
	comp=E,9.2nm,0.8s,mb4.9						
GKN	Gorkha	49.51	282	*e*P	P	09 35 51.3	-0.8
KOLN	Koldanda	50.46	282	*e*P	P	09 35 57.8	-1.5
	comp=E,8.6nm,0.6s,mb4.9						
CTA	Charters Tower	50.82	175	*e*P	P	09 36 02.1	0.0
	comp=E,8.4nm,1.5s,mb4.5						
CTA	Charters Tower	50.82	175	P	P	09 36 01.3	-0.8
	comp=E,8.5nm,1.0s,mb4.6,baz=358,slow=7.6,SNR=7.7						
CTA				LR	LR	09 56 20.5	
	comp=E,124nm,18.5s,MS4.0,baz=35,slow=35						
CTAO	Charters Tower	50.82	175	*e*P	P	09 36 02.1	0.0
CTAO				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
CTAO	Charters Tower	50.82	175	*e*P	P	09 36 02.1	0.0
	comp=Z,16nm,1.2s,mb4.8						
WRAB	Tennant Creek	51.02	189	⇑*i*P	P	09 35 59.4	-4.2
WRAB	Tennant Creek	51.02	189	*e*P	P	09 36 02.7	-0.9
	comp=Z,14nm,0.6s,mb5.1						
WB2	Warramunga Arr	51.03	189	*e*P	P	09 36 03.0	-0.7
WRA	Warramunga Arr	51.03	189	P	P	09 36 03.0	-0.7
	comp=Z,7.2nm,0.5s,mb4.9,baz=5.4,slow=7.6,SNR=97						
FITZ	Fitzroy Crossi	51.13	200	*e*P	P	09 36 04.2	-0.3
	comp=Z,8.7nm,1.0s,mb4.6						
FITZ	Fitzroy Crossi	51.13	200	P	P	09 36 03.8	-0.7
	comp=Z,8.4nm,0.8s,mb4.7,baz=1.6,slow=5.0,SNR=6.4						
IMA	Indian Mountai	51.86	28	*e*P	P	09 36 10.2	+0.8
IMA				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
IMA	Indian Mountai	51.86	28	*e*P	P	09 36 10.2	+0.8
	comp=Z,1.7nm,0.6s,mb4.2						
MCK	McKinley	53.61	31	*e*P	P	09 36 17.2	-5.2
MCK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
MCK	McKinley	53.61	31	*e*P	P	09 36 17.2	-5.2
	comp=Z,8.8nm,1.1s,mb4.6						
SML	Sawmill	53.80	34	*e*P	P	09 36 23.3	-0.6
AAK	Ala-Archa	53.99	303	*e*P	P	09 36 24.8	-0.7
AAK				*e*		09 36 36.9	
COLA	College	54.15	30	*e*P	P	09 36 26.7	+0.4
COLA				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
COLA	College	54.15	30	*e*P	P	09 36 26.7	+0.4
	comp=Z,3.0nm,0.5s,mb4.5						
ILAR	Eielson Array	54.55	30	P	P	09 36 28.1	-1.3
	comp=Z,6.9nm,0.9s,mb4.7,baz=261,slow=6.3,SNR=75						
ASAR	Alice Springs	54.75	189	P	P	09 36 30.1	-1.2
	comp=Z,4.7nm,0.9s,mb4.5,baz=357,slow=5.4,SNR=48						
ASPA	Alice Springs	54.76	189	*e*P	P	09 36 31.2	-0.2
CHKZ	Chkalovo	54.96	317	*e*P	P	09 36 31.3	-1.2
CHKZ				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
CHKZ	Chkalovo	54.96	317	*e*P	P	09 36 31.3	-1.2
	comp=Z,6.0nm,0.8s,mb4.7						
BVAR	Borovoye Array	55.17	316	P	P	09 36 34.3	+0.3
	comp=Z,4.3nm,0.6s,mb4.6,baz=103,slow=8.6,SNR=29						
BRVK	Borovoye	55.23	316	*e*P	P	09 36 34.7	+0.3
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BRVK	Borovoye	55.23	316	*e*P	P	09 36 34.7	+0.3
	comp=Z,5.5nm,0.8s,mb4.6						
MBWA	Marble Bar	55.94	205	P	P	09 36 39.5	-0.5
	comp=Z,2.2nm,0.5s,mb4.4						
DAWY	Dawson	57.82	31	*e*P	P	09 36 51.8	-1.0
INK	Inuvik	59.73	25	P	P	09 37 05.0	-1.0
	comp=Z,3.3nm,0.7s,mb4.5,baz=272,slow=5.3,SNR=7.7						
ARU	Arti	61.34	321	*e*P	P	09 37 17.3	+0.1
ARU	Arti	61.34	321	*e*P	P	09 37 16.8	-0.4
	comp=Z,18nm,0.8s,mb5.2						
STKA	Stephens Creek	62.39	180	P	P	09 37 24.2	-0.4
	comp=Z,3.9nm,0.8s,mb4.6,baz=17,slow=11,SNR=7.9						
RES	Resolute Bay	68.47	14	*e*P	P	09 38 02.5	-0.5
RES				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
RES	Resolute Bay	68.47	14	*e*P	P	09 38 02.5	-0.6
	comp=Z,5.1nm,0.9s,mb4.5						
YKA	Yellowknife Ar	68.96	29	P	P	09 38 05.4	-0.7
	comp=Z,5.8nm,1.1s,mb4.4,baz=294,slow=6.0,SNR=24						
YKA	Yellowknife Ar	68.96	29	P	P	09 38 05.5	-0.7
ARCES	ARCESS Array B	69.93	340	P	P	09 38 11.8	-0.3
	comp=Z,2.9nm,0.9s,mb4.2,baz=76,slow=10.0,SNR=6.3						
JOF	Joensuu	71.63	333	*e*p	P	09 38 22.2	-0.2
	comp=Z,1.2nm,0.4s,mb4.2						
OBN	Obninsk	73.33	325	*e*P	P	09 38 32.8	+0.3
OBN				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.4						
YBH	Yreka Blue Hor	73.84	51	P	P	09 38 35.9	+0.1
	comp=Z,3.7nm,1.0s,mb4.3,baz=284,slow=3.1,SNR=3.6						
VRSR	Storozhevoye	73.89	320	*e*P	P	09 38 36.7	+0.9
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,2.0nm,0.8s						
KAF	Kangasniemi	74.01	334	*e*p	P	09 38 33.5	-2.8
	comp=E,1.1nm,0.4s,mb4.1						
KAF	Kangasniemi	74.01	334	*e*P	P	09 38 33.5	-2.8
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
NEW	Newport	74.31	43	P	P	09 38 37.2	-1.1
	comp=Z,4.3nm,1.0s,mb4.3						
NEW	Newport	74.31	43	P	P	09 38 37.2	-1.1
NEW				pmax	pmax		
	comp=Z,4.0nm,1.0s						
NEW	Newport	74.31	43	*e*P	P	09 38 38.5	+0.2
FINES	FINESS Array B	74.49	333	P	P	09 38 39.8	+0.7
	comp=Z,10nm,1.1s,mb4.7,baz=56,slow=5.9,SNR=14						
ZEI	Tsey	75.12	311	*e*P	P	09 38 42.8	-0.3
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
KIV	Kislovodsk	75.33	313	*i* P	P	09 38 41.6	-2.7
KIV				pmax	pmax		
	comp=N,7.0nm,1.2s						
KIV				pmax	pmax		
	comp=E,8.0nm,1.2s						
KIV				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
BMO	Blue Mountains	75.85	46	*e*P	P	09 38 47.5	+0.3
HLID	Hailey	78.30	46	*e*P	P	09 39 00.7	-0.2
	comp=Z,1.9nm,0.9s,mb4.0						
NVAR	Mina Array Bea	78.39	52	P	P	09 39 02.1	+0.7
	comp=Z,2.5nm,0.6s,mb4.3,baz=287,slow=6.5,SNR=26						
NVAR				LR	LR	10 12 00.7	
	comp=Z,133nm,18.3s,MS4.3,baz=305,slow=34						
BOZ	Bozeman (W)	78.88	43	*e*P	P	09 39 03.9	-0.1
BOZ				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
BOZ	Bozeman (W)	78.88	43	*e*P	P	09 39 03.9	-0.1
	comp=Z,7.7nm,1.1s,mb4.5						
QLMT	Earthquake Lak	79.44	44	P	P	09 39 08.1	+1.1
NB2	NORSAR Subarra	80.05	338	P	P	09 39 09.9	-0.1
	comp=Z,1.9nm,0.6s,mb4.2,baz=40,slow=5.3						
NB2	NORSAR Subarra	80.05	338	P	P	09 39 09.9	-0.1
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	NORSAR Array B	80.05	338	P	P	09 39 10.6	+0.6
	comp=Z,1.6nm,0.6s,mb4.2,baz=41,slow=5.4,SNR=7.9						
TPNV	Topopah Spring	80.55	53	*e*P	P	09 39 13.1	0.0
TPNV				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
TPNV	Topopah Spring	80.55	53	*e*P	P	09 39 13.1	-0.1
	comp=Z,5.3nm,1.0s,mb4.4						
HWUT	Hardware Ranch	81.12	47	*e*P	P	09 39 17.4	+1.3
	comp=Z,8.9nm,1.0s,mb4.7						
PDAR	Pinedale Array	81.71	45	P	P	09 39 19.6	+0.5
	comp=Z,2.0nm,0.6s,mb4.2,baz=280,slow=1.8,SNR=16						
ARUT	Antelope Range	82.00	51	*e*P	P	09 39 22.3	+1.6
NEN	Nelson	82.19	53	*e*P	P	09 39 22.0	+0.2
SRU	San Rafael	83.17	48	*e*P	P	09 39 27.6	+0.8
BRTR	Keskin Array B	83.30	312	P	P	09 39 29.1	+1.6
	comp=Z,2.8nm,0.9s,mb4.3,baz=117,slow=5.5,SNR=12						
KWP	Kalwaria	83.41	325	*e*P	P	09 39 28.4	+0.6
KWP				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.2						
KWP	Kalwaria	83.41	325	*e*P	P	09 39 28.4	+0.6
	comp=Z,29nm,1.1s,mb5.2						
PV10	Paradox Valley	84.54	48	*e*P	P	09 39 34.9	+1.2
CLL	Collm	86.67	331	*i* P	P	09 39 45.7	+1.7
CLL				pmax	pmax		
	comp=Z,13nm,1.2s,mb5.0						
CLL	Collm	86.67	331	*i* P	P	09 39 45.7	+1.7
	comp=Z,13nm,1.2s,mb5.0						
CLL	Collm	86.67	331	P	P	09 39 45.7	+1.7
	comp=Z,logA/T=1.0,mb5.0						
SDCO	Great Sand Dun	87.17	47	*e*P	P	09 39 47.6	+0.8
MNTX	Cornudas Mount	90.91	52	*e*P	P	09 40 04.6	+0.1
	comp=Z,4.8nm,1.5s,mb4.6						
TXAR	Lajitas Array	93.53	53	P	P	09 40 18.0	+1.4
	comp=Z,2.5nm,0.7s,mb4.8,baz=307,slow=2.6,SNR=33						

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*IDC **20** 09:36:35.1±0.8, 30.87N×142.09E, mb3.8/8, mb1 4.0/10, mb1mx3.9/22, ML3.5/2, Error ellipse: s-maj=29.2km s-min=17.4km az=81.0*

*NEIC **20** 09:36:36.9±0.5, 30.82N×142.09E, h10^{km}, mb4.3/2, Error ellipse: s-maj=16.3km s-min=9.3km az=71.0*

*JMA **20** 09:36:37.8±0.2, 30.86N×142.19E, h71^{km}, M3.7*

ISC 20 09:36:36.3±2.0**, 30.84N**±0.04×**142.0E**±0.1**, h20**^{km}±15^{km}**, n25, σ1§11**/37**, mb3.9**/10**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	2.93	321	P	Pn	09 37 24.2	+1.3
JHJ2				S	Sn	09 37 58.7	+0.8
JHJ	Hachijo jima 2	2.96	321	Pn	Pn	09 37 21.6	-1.6
	5.3nm,0.3s,baz=291,slow=18,SNR=3.1						
JHJ				Sn	Sn	09 37 57.5	-1.1
	23nm,0.3s,baz=231,slow=21,SNR=3.5						
CBIJ	Chichi jima	3.73	178	Pn	Pn	09 37 34.1	-0.1
	9.9nm,0.3s,baz=292,slow=18,SNR=5.1						
CBIJ				Sn	Sn	09 38 16.9	-1.2
	23nm,0.3s,baz=291,slow=22,SNR=4.6						
CBIJ	Chichi jima	3.73	178	P	Pn	09 37 35.3	+1.1
CBIJ				S	Sn	09 38 16.7	-1.4
JMY	Miyakejima3	3.85	328	P	Pn	09 37 35.9	-0.1
JMY				S	Sn	09 38 17.5	-3.7
BSO1	Boso 1	3.90	347	P	Pn	09 37 36.7	0.0
BSO1				S	Sn	09 38 22.3	-0.2
BSO3	Boso 3	4.15	343	P	Pn	09 37 41.7	+1.5
BSO3				S	Sn	09 38 27.2	-1.5
JOD2	Odawara 2	5.05	332	P	Pn	09 37 53.5	+0.6
JOD2				S	Sn	09 38 51.6	+0.2
JRY	Ryogami san	5.78	334	P	Pn	09 38 03.8	+0.6
JRY				S	Sn	09 39 08.8	-1.0
MAJO	Matsushiro	6.51	332	*e*Pn	Pn	09 38 13.2	-0.3
	16nm,0.4s						
MAT	Matsushiro	6.51	332	P	Pn	09 38 13.6	0.0
MAT				*e*S	Sn	09 39 30.8	+2.8
MAT	Matsushiro	6.51	332	*e*P	Pn	09 38 14.0	+0.4
	16nm,0.8s						
MAT				S	Sn	09 39 31.0	+3.0
JMK	Ichinoseki	8.12	356	P	P	09 38 33.7	-2.4
JMK				S	Sn	09 39 59.2	-9.1
ULN	Ulaanbaatar	31.59	313	*e*P	P	09 43 00.5	+0.7
	6.0nm,1.1s,mb4.3						
SONM	Songino Array	32.00	312	P	P	09 43 04.4	+1.0
	1.9nm,1.0s,mb3.9,baz=129,slow=7.9,SNR=8.3						

ZAL	Zalesovo	46.62	317	P	P	09 45 05.1	+0.3
	0.7nm,0.4s,mb3.9,baz=7.2,slow=8.4,SNR=6.8						
WRAB	Tennant Creek	51.01	189	*e*P	P	09 45 39.0	-0.2
	1.9nm,0.6s,mb4.2						
WRA	Warramunga Arr	51.02	189	P	P	09 45 39.0	-0.3
	0.8nm,0.4s,mb4.0,baz=5.5,slow=7.5,SNR=14						
ILAR	Eielson Array	54.54	30	P	P	09 46 04.0	-0.8
	1.2nm,1.0s,mb3.9,baz=270,slow=4.7,SNR=6.7						
ASAR	Alice Springs	54.74	189	P	P	09 46 06.7	-0.2
	0.3nm,0.4s,mb3.7,baz=356,slow=4.1,SNR=10						
BVAR	Borovoye Array	55.23	316	P	P	09 46 09.8	-0.3
	0.8nm,0.6s,mb3.9,baz=100,slow=8.8,SNR=2.4						
BVAR	Borovoye Array	55.23	316	P	P	09 46 09.8	-0.3
YKA	Yellowknife Ar	68.95	29	P	P	09 47 40.4	-1.3
	0.7nm,1.1s,mb3.5,baz=296,slow=5.9,SNR=5.2						
PV10	Paradox Valley	84.51	48	*e*P	P	09 49 11.3	+2.1
TXAR	Lajitas Array	93.49	53	P	P	09 49 54.1	+2.1
	0.4nm,0.7s,mb3.9,baz=270,slow=1.3,SNR=3.9						

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*IDC **20** 09:37:31.1±4.2, 37.45N×72.44E, mb3.8/3, mb1 4.0/4, mb1mx3.6/18, ML4.2/1, Error ellipse: s-maj=89.6km s-min=70.2km az=89.0*

ISC 20 09:37:44.2±2.8**, 39.1N**±0.3×**72.8E**±0.3**, h33^{km}, n13, σ0^{s}31**/13**, mb3.6**/3**, Kyrgyzstan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AML	Almayashu	3.10	12	P	P	09 38 32.3	+0.2
	SNR=21						
UCH	Uchtor	3.38	22	P	P	09 38 35.9	-0.1
	SNR=18						
KZA	Kyzart	3.50	31	P	P	09 38 37.6	-0.1
	SNR=12						
EKS2	Erkin-Say	3.64	11	P	P	09 38 39.8	+0.2
	SNR=7.7						
AAK	Ala-Archa	3.75	19	P	P	09 38 41.5	+0.2
	SNR=40						
KBK	Karagaybulak	3.90	23	P	P	09 38 43.8	+0.4
	SNR=6.2						
ULHL	Ulahol	4.08	38	P	P	09 38 45.9	+0.1
	SNR=15						
CHMS	Chumysh	4.16	20	P	P	09 38 46.8	-0.3
	SNR=25						
USP	Ospenovka	4.36	16	P	P	09 38 49.2	-0.6
	SNR=6.8						
BVAR	Borovoye Array	14.04	354	Pn	P	09 41 09.6	+6.9
	0.9nm,0.3s,baz=158,slow=10,SNR=15						
FINES	FINESS Array B	36.21	324	P	P	09 44 45.9	+0.4
	0.5nm,0.4s,mb3.8,baz=112,slow=11,SNR=5.1						
ARCES	ARCESS Array B	39.34	336	P	P	09 45 11.1	-0.5
	3.7nm,0.9s,mb4.1,baz=129,slow=12,SNR=4.5						
YKA	Yellowknife Ar	78.58	4	P	P	09 49 43.5	0.0
	0.1nm,0.5s,mb3.0,baz=344,slow=5.5,SNR=4.4						

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*IDC **20** 09:52:41.1±0.7, 0.63N×25.46W, mb4.3/15, mb1 4.5/15, mb1mx4.3/20, MS4.3/16, Ms1 4.3/16, ms1mx4.1/20, Error ellipse: s-maj=21.4km s-min=18.5km az=147.0*

*NEIC **20** 09:52:43.6±0.3, 0.72N×25.60W, h10^{km}, mb4.9/20, Error ellipse: s-maj=9.3km s-min=8.8km az=68.0*

*HRVD **20** 09:52:43.6±0.3, 0.76N×25.29W, h12^{km}, MW5.0/61, Centroid moment Tensor Solution. LP body waves: s34,c48;Mantle waves: s61,c97; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.35±.16; $M_{\theta\theta}$2.29±.16; $M_{\phi\phi}$-0.94±.17; $M_{r\theta}$0.84±.40; $M_{\theta\phi}$-3.95±.11; $M_{\phi r}$0.76±.42; Best double couple: $M_0$4.5×10^{16} NP1:ϕ_s167°,δ73°,λ-14°. NP2:ϕ_s261°,δ76°,λ-162°. Principal axes: T 4.95, Plg3°, Azm34°; N -.91, Plg68°, Azm297°; P -4.04, Plg22°, Azm125°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **20** 09:52:43.9, 0.72N×25.66W, h10^{km}, MB4.9*

*BJI **20** 09:52:43.5, 0.70N×25.60W, h10^{km}, mB5.4, Ms5.0, Msz4.7*

ISC 20 09:52:42.1±0.4**, 0.80N**±0.09×**25.48W**±0.08**, h10^{km}, n77, σ0^{s}98**/64**, mb4.7**/35**, MS4.4**/17**, 3C-3D, Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RCBR	Riachuelo	12.31	238	*e*P	P	09 55 35.5	-5.1
	60nm,0.8s						
DBIC	Dimbokro	21.39	74	P	P	09 57 29.0	-3.3
	20nm,0.9s,mb4.4,baz=238,slow=12,SNR=16						
DBIC				LR	LR	10 03 42.0	
	comp=Z,740nm,21.4s,MS4.0,baz=237,slow=31						
DBIC	Dimbokro	21.39	74	P	P	09 57 29.0	-3.3
DBIC				LR	LR	10 03 42.0	
BDFB	Brasilia	27.61	233	P	P	09 58 28.9	-3.1
	7.4nm,0.7s,mb4.4,baz=60,slow=14,SNR=3.0						
BDFB				LR	LR	10 08 05.2	
	comp=Z,2µm,20.4s,MS4.7,baz=71,slow=34						
ESDC	Sonseca Array	43.39	24	P	P	10 00 47.0	+0.3
	3.1nm,0.9s,mb4.0,baz=217,slow=8.7,SNR=8.5						
SJG	San Juan	43.48	296	P	P	10 00 46.2	-1.5
	9.9nm,0.6s,mb4.7,baz=344,slow=23,SNR=4.9						
SJG	San Juan	43.48	296	P	P	10 00 46.6	-1.1
	35nm,1.3s,mb4.9						
SDV	Santo Domingo	45.66	282	*e*P	P	10 01 05.5	+0.2
	15nm,1.2s,mb4.8						
EPF	Esparros	47.98	25	*e*P	P	10 01 33.9	+11
	46nm,1.1s,mb5.1						
ROSC	El Rosal	48.94	276	P	P	10 01 31.3	+0.3
	7.1nm,0.8s,mb4.8,baz=291,slow=23,SNR=9.7						
ROSC				LR	LR	10 20 55.8	
	comp=Z,321nm,18.5s,MS4.3,baz=190,slow=35						
MFF	Saint Martin d	50.72	22	*e*P	P	10 01 53.8	+10
MBDF	Montbardon	52.23	29	*e*P	P	10 02 06.1	+10
	96nm,1.5s,mb5.2						
BOSA	Boshof	56.65	125	*e*P	P	10 02 26.3	-1.8
	6.6nm,0.9s,mb4.7						
GERES	GERESS Array B	58.51	29	P	P	10 02 39.8	-1.2
	1.1nm,0.7s,mb4.0,baz=207,slow=9.0,SNR=5.4						
KHC	Kasperske Hory	58.64	29	*e*P	P	10 02 40.5	-1.4
KMBO	Kilima Mbogo	62.76	92	LR	LR	10 27 29.8	
	comp=Z,148nm,18.8s,MS4.2,baz=288,slow=33						
KMBO	Kilima Mbogo	62.76	92	*e*P	P	10 03 11.3	+0.9
	32nm,1.9s,mb5.1						
SCHQ	Schefferville	63.54	335	P	P	10 03 14.2	-0.8
	5.1nm,0.7s,mb4.7,baz=144,slow=6.8,SNR=8.0						
SCHQ				LR	LR	10 24 33.5	
	comp=Z,160nm,20.5s,MS4.2,baz=194,slow=30						
NB2	NORSAR Subarra	66.28	19	P	P	10 03 34.2	+1.6
	5.5nm,1.1s,mb4.5,baz=217,slow=6.2						
NOA	NORSAR Array B	66.28	19	P	P	10 03 32.6	0.0
	1.2nm,0.8s,mb4.0,baz=200,slow=10.0,SNR=3.8						
NOA				LR	LR	10 31 20.2	
	comp=Z,117nm,19.1s,MS4.1,baz=240,slow=35						
HBAR	Harrisburg	69.49	308	*e*P	P	10 03 51.7	-1.5
UALR	University of	70.65	307	*e*P	P	10 03 58.3	-2.0
	22nm,1.1s,mb5.0						
FINES	FINESS Array B	71.89	23	P	P	10 04 07.8	+0.5
	1.4nm,0.6s,mb4.0,baz=297,slow=4.3,SNR=6.3						
FINES				LR	LR	10 37 04.9	
	comp=Z,119nm,18.1s,MS4.2,baz=336,slow=37						
NATX	Nacogdoches	71.94	303	*e*P	P	10 04 07.5	-0.5
	49nm,1.3s,mb5.3						
VNA1	Neumayer--Stat	72.22	174	*e*	P	10 04 17.2	+8.1
VNA1	Neumayer--Stat	72.22	174	⇓*i*P	P	10 04 10.8	+1.7
VNA1				*e*		10 04 17.2	
VNA2	Neumayer--Watz	72.57	174	⇓*i*	P	10 04 11.8	+0.7
VNA3	Neumayer Olymp	72.65	175	⇓*i*	P	10 04 11.5	-0.1
SNAA	Sanae	73.81	173	*e*	P	10 04 24.0	+5.7
SNAA	Sanae	73.81	173	P	P	10 04 16.6	-1.7
	2.2nm,0.8s,mb4.1,baz=341,slow=7.9,SNR=9.4						
SNAA	Sanae	73.81	173	⇑*i*P	P	10 04 17.0	-1.3
SNAA				*e*		10 04 24.0	
WMOK	Wichita Mounta	75.85	306	*e*P	P	10 04 29.6	-1.2
	13nm,1.2s,mb4.7						
JCT	Junction City	76.10	301	*e*P	P	10 04 31.8	-0.5
	18nm,0.9s,mb5.0						
ARCES	ARCESS Array B	76.45	16	LR	LR	10 34 03.0	
	comp=Z,146nm,19.3s,MS4.3,baz=200,slow=32						
ULM	Lac du Bonnet	76.94	322	P	P	10 04 36.5	0.0
	4.1nm,1.0s,mb4.3,baz=177,slow=1.9,SNR=3.9						
ULM				LR	LR	10 32 04.0	
	comp=Z,179nm,18.9s,MS4.4,baz=65,slow=31						
ULM	Lac du Bonnet	76.94	322	P	P	10 04 36.5	0.0
ULM				LR	LR	10 32 04.0	
FCC	Fort Churchill	78.35	330	*e*P	P	10 04 43.6	-0.5
	21nm,1.2s,mb5.0						
LTX	Lajitas	79.31	300	*e*P	P	10 04 49.9	-0.1
	5.8nm,1.0s,mb4.5						
TXAR	Lajitas Array	79.31	300	P	P	10 04 50.1	+0.1
	4.5nm,0.9s,mb4.4,baz=121,slow=6.8,SNR=42						
TXAR				LR	LR	10 35 31.9	
	comp=Z,84nm,20.5s,MS4.1,baz=265,slow=32						
CLNB	Carlsbad	79.76	303	*e*P	P	10 04 52.6	+0.2
GDL2	Guadalupe Moun	80.17	302	*e*P	P	10 04 54.5	0.0
MNTX	Cornudas Mount	80.98	302	*e*P	P	10 04 57.6	-1.3
	2.6nm,1.0s,mb4.1						
SDCO	Great Sand Dun	81.62	308	*e*P	P	10 05 03.0	+0.9
	17nm,1.1s,mb4.9						
DGMT	Dagmar	81.92	319	*e*P	P	10 05 04.2	+0.8
	25nm,1.1s,mb5.1						
SYO	Syowa Base	82.01	161	⇑PcP	PcP	10 05 07.3	-2.3
ANMO	Albuquerque	82.14	305	*e*P	P	10 05 05.3	+0.5
	11nm,1.3s,mb4.6						
PV01	Paradox Valley	84.07	308	*e*P	P	10 05 15.8	+1.1
PV10	Paradox Valley	84.45	308	*e*P	P	10 05 17.8	+1.1
PDAR	Pinedale Array	85.11	313	P	P	10 05 19.9	+0.1
	3.0nm,0.9s,mb4.4,baz=90,slow=7.4,SNR=15						
PDAR				LR	LR	10 36 19.2	
	comp=Z,184nm,21.9s,MS4.4,baz=90,slow=31						
LOHW	Long Hollow	85.91	313	*e*P	P	10 05 24.5	+0.6
MOOW	Moose Ponds	86.02	314	*e*P	P	10 05 23.9	-0.4
YMR	Madison River	86.22	315	*e*P	P	10 05 25.8	+0.4
TCUT	Toone Canyon	86.41	311	*e*P	P	10 05 26.7	+0.4
JLU	Jordanelle	86.42	310	*e*P	P	10 05 27.2	+0.8
HWUT	Hardware Ranch	86.54	311	*e*P	P	10 05 26.5	-0.5
	20nm,1.2s,mb5.2						
QLMT	Earthquake Lak	86.56	315	*e*P	P	10 05 28.7	+1.7
NLU	North Lily Min	86.88	310	*e*P	P	10 05 29.5	+0.8
MSU	Marysvale	86.92	308	*e*P	P	10 05 30.0	+1.1
MVU	Marysvale	86.94	308	*e*P	P	10 05 29.9	+0.9
	10nm,1.1s,mb5.0						
MCMT	McKenzie Canyo	87.57	315	*e*P	P	10 05 32.9	+1.0
HLID	Hailey	88.68	313	*e*P	P	10 05 37.6	+0.4
	7.9nm,1.5s,mb4.8						
YKA	Yellowknife Ar	88.89	332	P	P	10 05 37.3	-0.5
	1.1nm,0.8s,mb4.2,baz=92,slow=5.2,SNR=20						
YKA				LR	LR	10 40 56.5	
	comp=Z,151nm,18.8s,MS4.4,baz=85,slow=32						
YKA	Yellowknife Ar	88.89	332	P	P	10 05 37.3	-0.5
YKA				LR	LR	10 40 56.5	
BMO	Blue Mountains	90.74	315	*e*P	P	10 05 47.3	+0.4
	7.4nm,1.1s,mb4.9						
QSPA	South Pole Qui	90.86	180	⇑*i*P	P	10 05 48.2	+1.6
	4.9nm,0.8s,mb4.9						
NVAR	Mina Array Bea	91.73	308	P	P	10 05 50.7	-0.8
	0.5nm,0.7s,mb3.9,baz=90,slow=7.7,SNR=6.3						
NVAR				LR	LR	10 46 55.3	
	comp=Z,71nm,18.7s,MS4.1,baz=55,slow=35						
NVAR	Mina Array Bea	91.73	308	P	P	10 05 50.7	-0.8
NVAR				LR	LR	10 46 55.3	
INK	Inuvik	95.87	339	LR	LR	10 45 17.0	
	comp=Z,134nm,19.1s,MS4.4,baz=61,slow=33						
DLBC	Dease Lake	96.91	329	LR	LR	10 46 46.5	
	comp=Z,201nm,18.4s,MS4.6,baz=100,slow=33						
BBB	Bella Bella	97.11	323	LR	LR	10 47 31.4	
	comp=Z,266nm,18.2s,MS4.8,baz=301,slow=34						
LZH	Lanzhou	120.34	47	*e*PKP	PKPdf	10 11 34.8	-2.5
LZH				XPKP		10 11 39.6	
LZH				*e*PP	PP	10 13 05.5	+1.0
LZH				*e*SS	SS	10 29 32.5	+2.8
LZH				PP	PP		
	comp=Z,106nm,9.2s						
LZH				LR	LR		
	comp=N,218nm,18.0s						
LZH				LR	LR		
	comp=Z,298nm,20.0s,MS4.9						
GYA	Guiyang	126.54	56	PKP	PKPdf	10 11 46.8	-2.7
GYA				PP	PP	10 13 43.4	-3.3
GYA				PP	PP		
	comp=Z,130nm,6.5s						
CN2	Changchun	128.56	27	*e*PKP	PKPdf	10 11 47.1	-5.9
NJ2	Nanjing	133.04	43	*e*PKP	PKPdf	10 11 54.8	-7.1
NJ2				PP	PP	10 14 27.0	-1.6
NJ2				PKS	PKS	10 15 31.0	-3.0
STKA	Stephens Creek	146.76	160	PKPbc	PKPbc	10 12 25.3	+0.4
	comp=Z,3.9nm,0.8s,baz=225,slow=1.4,SNR=5.8						
STKA	Stephens Creek	146.76	160	PKPbc	PKPbc	10 12 25.3	+0.4
ASAR	Alice Springs	149.72	140	PKPbc	PKPdf	10 12 32.7	+1.3
	comp=Z,2.0nm,0.9s,baz=211,slow=1.8,SNR=11						

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*NEIC **20** 10:00:40.2, 30.97S×71.70W, h34^{km}, ML2.8(GUC), After GUC.*

GUC 20 10:00:40.2±0.9**, 30.97S**×**71.70W, h34^{km}**±44^{km}**, MD3.8, ML2.8, 1C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	0.63	109	⇑*i*P	P	10 00 53.3	+0.7
CMCH				*i* S	S	10 01 02.3	+0.7
CMCH				AMP		10 01 02.8	
	comp=N,2µm,0.2s						
ILCH	Illapel	0.81	146	*e*P	P	10 00 55.1	0.0
ILCH				*i* S	S	10 01 06.3	+0.3
ILCH				AMP		10 01 06.6	
	comp=N,406nm,0.3s						
TLL	Tololo Astrono	1.11	44	⇓*i*P	P	10 01 00.5	+1.1
TLL				*i* S	S	10 01 15.4	+1.7
TLL				AMP		10 01 20.1	
	comp=E,256nm,0.4s						
PTCH	Petorca	1.45	153	*e*P	P	10 01 05.0	+0.7
PTCH				*i* S	S	10 01 24.0	+1.7
PTCH				AMP		10 01 26.7	
	comp=E,402nm,0.4s						

DJA 20 10:02:22.3±0.9**, 8.80S**×**116.53E, h140^{km}**±6^{km}**, MD5.0**/4**, ML3.7**/2**, 6C-2D, Error ellipse: s-maj=51.1km s-min=16.5km az=2.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	0.51	307	⇑*i*Pn	P	10 02 42.3	-0.8
	29nm,0.2s						
KEDI				⇑*i*Sn	S	10 02 57.3	-1.7
RATI	Rata	0.99	274	⇓*i*Pn	P	10 02 46.2	+0.1
	189nm,0.2s						
RATI				⇑*i*Sn	S	10 03 03.2	-1.2
KELI	Kelakatan	2.10	286	⇑*i*Pn	P	10 02 58.7	+0.3
KELI				⇑*i*Sn	S	10 03 24.1	-1.8
SRDI	Scrawed	2.38	278	⇑*i*Pn	P	10 03 01.1	-0.9
	26nm,0.2s						
SRDI				⇓*i*Sn	S	10 03 30.5	-1.8

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*CSEM **20** 10:15:06.0±0.9, 39.08N×28.10W, h30^{km}, ML2.2, Error ellipse: s-maj=20.9km s-min=9.1km az=163.0*

*PDA **20** 10:15:08.4±1.2, 39.20N×28.19W, h10^{km}, MD2.7, ML2.2, Error ellipse: s-maj=8.8km s-min=3.4km az=161.0*

SVSA 20 10:15:08.4±1.2**, 39.20N**×**28.19W, h10^{km}, MD2.7, ML2.2, Error ellipse: s-maj=8.8km s-min=3.4km az=161.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STGR	Santa Cruz	0.19	130	*i* P	Pg	10 15 12.5	-0.1
STGR				*e*S	Sg	10 15 15.4	0.0
	128nm,0.1s						
STGR	Santa Cruz	0.19	130	*e*S	Sg	10 15 15.4	0.0
	128nm,0.1s						
ROSA	Rosais	0.48	185	*e*P	Pg	10 15 16.3	-1.9
ROSA				*e*S	Sg	10 15 22.6	-2.1
PMAN	Manadas	0.57	172	*e*P	Pg	10 15 17.4	-2.6
PMAN				*e*S	Sg	10 15 24.8	-2.9
	80nm,0.2s						
PMAN	Manadas	0.57	172	*e*P	Pg	10 15 17.4	-2.6
PMAN				*e*S	Sg	10 15 24.8	-2.9
	80nm,0.2s						
PCED	Cedros	0.70	215	*e*S	Sb	10 15 28.0	-3.6
	73nm,0.3s						
PCED	Cedros	0.70	215	*e*S	Sb	10 15 28.0	-3.6
	73nm,0.3s						
PICO	Pico	0.72	195	*e*S	Sb	10 15 28.9	-3.4
CALA	Caldeira	0.74	213	*e*P	Pb	10 15 20.3	-2.5
CALA				*e*S	Sb	10 15 29.2	-3.5
ASBA	Santa Barbara	0.83	125	*i* S	Sb	10 15 30.9	-4.5
	26nm,0.1s						
ASBA	Santa Barbara	0.83	125	*i* S	Sb	10 15 30.9	-4.5
	26nm,0.1s						
PBIS	Biscoitos	0.85	121	*i* S	Sb	10 15 31.6	-4.5
	25nm,0.2s						
PPAD	Pico dos Padre	0.86	125	*i* S	Sb	10 15 31.8	-4.6
	19nm,0.2s						
PVNV	Vila Nova	0.92	118	*i* S	Sb	10 15 33.4	-4.6
	16nm,0.2s						
PFAV	Pico das Favas	0.99	119	*i* S	Sb	10 15 35.0	-5.1
	9.2nm,0.1s						

IDC 20 10:28:08.0±2.1**, 3.97S**×**136.12E, mb3.7**/1**, mb1 3.7**/3**, mb1mx3.5**/11**, ML2.8**/2**, Error ellipse: s-maj=135.0km s-min=34.1km az=102.0, Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	15.97	186	Pn	P	10 31 54.6	-1.2
	0.1nm,0.3s,baz=7.7,slow=12,SNR=5.6						
ASAR	Alice Springs	19.70	186	P	P	10 32 38.9	-2.9
	0.0nm,0.3s,baz=13,slow=12,SNR=5.2						
ILAR	Eielson Array	88.05	25	P	P	10 41 00.1	-1.2
	0.3nm,0.7s,baz=267,slow=4.7,SNR=7.4						

KRSC 20 10:36:05.8±1.3**, 52.95N**×**159.87E, h45^{km}**±3^{km}**, ML4.1, Off east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SPN	Mys Shipunski	0.17	32	*i* P	P	10 36 13.9	+0.6
SPN				*i* S	S	10 36 19.6	+0.9
NLC	Nalytchevo	0.39	305	*i* P	P	10 36 15.8	+0.4
NLC				*e*S	S	10 36 22.9	+0.8
SDLR	Sedlovina	0.68	299	*i* P	P	10 36 19.7	+0.6
SDLR				*e*S	S	10 36 30.2	+1.3
UGLR	Uglovaya	0.68	293	*i* P	P	10 36 19.7	+0.6
UGLR				*i* S	S	10 36 30.9	+2.0
PET	Petropavlovsk	0.74	276	*i* P	P	10 36 20.2	+0.3
PET				*i* S	S	10 36 31.1	+0.8
AVH	Avacha	0.75	295	*i* P	P	10 36 20.9	+0.8
AVH				*i* S	S	10 36 32.4	+1.8
KOK	Koryaka	0.82	295	*i* P	P	10 36 21.7	+0.7
KOK				*i* S	S	10 36 33.4	+1.2
RUS	Russkaya	0.97	238	*e*P	P	10 36 23.1	-0.1
RUS				*i* S	S	10 36 36.1	0.0
KRMR	Karymshinskiy	1.06	264	*i* P	P	10 36 24.5	+0.1
KRMR				*i* S	S	10 36 38.7	+0.4
GRL	Gorelyy	1.16	251	*i* P	P	10 36 26.7	+0.8
GRL				*i* S	S	10 36 42.0	+1.2
GNL	Ganaly	1.38	304	*i* P	P	10 36 29.5	+0.5
GNL				*e*S	S	10 36 47.1	+0.8
APC	Apacha	1.64	270	*i* P	P	10 36 33.6	+0.8
APC				*i* S	S	10 36 54.6	+1.8
APC				Smax			
	390nm,0.8s						
TUMR	Tumrok	2.34	4	*e*P	P	10 36 43.1	+0.4
TUMR				*e*S	S	10 37 10.8	+0.4
PAU	Pauzhetka	2.40	233	*e*P	P	10 36 43.6	+0.1
PAU				*e*S	S	10 37 11.8	0.0
PAU				Smax			
	200nm,0.5s						
KMNR	Kamenistaya	2.82	4	*e*P	P	10 36 50.7	+1.2
KMNR				*e*S	S	10 37 24.3	+1.8
KPT	Kopyto	3.03	4	*e*P	P	10 36 53.1	+0.6
KPT				*e*S	S	10 37 27.8	0.0
ESO	Esso	3.06	348	*i* P	P	10 36 52.8	-0.1
ESO				*e*S	S	10 37 26.4	-2.2
KOZ	Kozyrevsk	3.12	0	*e*P	P	10 36 54.4	+0.7
KOZ				*e*S	S	10 37 29.1	-0.9
ZLN	Zelenaya	3.12	10	*e*P	P	10 36 55.1	+1.3
ZLN				*e*S	S	10 37 30.1	-0.1
LGNR	Loginova	3.18	8	*e*P	P	10 36 55.7	+1.1
LGNR				*e*S	S	10 37 32.2	+0.6
CIRR	Tsirk	3.21	9	*e*P	P	10 36 55.8	+0.7
CIRR				*e*S	S	10 37 32.0	-0.5
KRSR	Krestovskiy	3.30	7	*e*P	P	10 36 56.3	0.0
KRSR				*e*S	S	10 37 33.1	-1.6
SRDR	Sredinnyy	3.38	359	*e*P	P	10 36 56.7	-0.7
SRDR				*e*S	S	10 37 33.3	-3.3
ALID	Alaid	3.39	234	*e*P	P	10 36 58.0	+0.4
ALID				*e*S	S	10 37 35.6	-1.4
KLY	Klyuchi	3.40	7	*e*P	P	10 36 59.1	+1.4
KLY				*e*S	S	10 37 38.2	+0.9
KBTR	Krutoberegovo	3.69	27	*e*P	P	10 37 01.1	-0.7
KBTR				*e*S	S	10 37 42.3	-2.2
KBG	Krutoberegovo	3.70	25	*e*P	P	10 37 03.8	+1.8
KBG				*e*S	S	10 37 45.8	+1.0
KBG				Smax			
	250nm,1.8s						
SVLR	Shiveluch	3.72	12	*e*P	P	10 37 03.5	+1.3
SVLR				*e*S	S	10 37 45.5	+0.2
BKI	Bering	4.24	55	*e*P	P	10 37 08.1	-1.6
BKI				*i* S	S	10 37 50.8	-7.8
BKI				Smax			
	40nm,0.3s						

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*IDC **20** 11:04:38.1±0.8, 9.29N×78.77W, h56^{km}±5^{km}, mb3.9/13, mb1 4.2/17, mb1mx4.0/23, MS3.4/1, Ms1 3.4/1, ms1mx1.9/15, Error ellipse: s-maj=23.6km s-min=13.8km az=17.0*

*NEIC **20** 11:04:38.2±1.1, 9.23N×78.85W, h56^{km}±10^{km}, mb4.6/7, Error ellipse: s-maj=21.2km s-min=8.1km az=189.0*

*CASC **20** 11:04:41.0±1.9, 9.43N×78.91W, h55^{km}±27^{km}, MD4.5, MW4.4, mb4.6(NEIC)*

ISC 20 11:04:38.7±0.7**, 9.5N**±0.1×**78.79W**±0.04**, h61^{km}**±10^{km}**, h57^{km}**±2.0^{km}**:pP-P, n68, σ1^{s}03**/71**, mb4.3**/21**, 4C-4D, Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JEF	Cerro Jefe	0.63	246	⇓*e*P	P	11 04 53.1	+0.8
UPA	Univ. de Panam	0.89	236	⇑*i*P	P	11 04 55.8	+0.3
UPA				*e*S	S	11 05 07.0	-1.1
CNI	Changuinola	3.68	269	⇓*e*P	P	11 05 34.4	-0.1
DVD	David	3.76	254	*e*P	P	11 05 36.3	+0.6
BRU2	Volcan	3.91	260	⇑*e*P	P	11 05 38.5	+0.7
ACR	Cerro Adams	4.40	260	*e*P	P	11 05 44.0	-0.7
BUS	Buena Vista	4.90	271	*e*P	P	11 05 52.0	+0.3
BUS				*e*S	S	11 06 45.5	-2.2
URSC	Urasca	4.93	275	⇓*e*P	P	11 05 51.2	-0.9
TRTC	Tortuguero	4.97	283	⇓*e*P	P	11 05 50.6	-2.0
ICR	Volcan Irazu	5.00	276	*e*P	P	11 05 52.8	-0.2
LCR2	La Lucha 2	5.15	273	⇑*e*P	P	11 05 55.0	-0.1
LCR2				*e*S	S	11 06 52.1	-1.8
SJS	Escuela Geolog	5.21	275	⇑*e*P	P	11 05 56.1	+0.2
SJS				*e*S	S	11 06 52.2	-3.2
SJS	Escuela Geolog	5.21	275	*e*S	S	11 06 54.2	-1.2
LAJ	Bijagual	5.27	275	*e*P	P	11 06 03.6	+6.8
VPS2	Volcan Poas 2	5.42	278	*e*P	P	11 05 58.8	+0.1
PRS1	Puriscal	5.47	276	*e*P	P	11 06 00.3	+0.8
CGA2	Cerro Gallo 2	5.62	276	*e*P	P	11 06 02.1	+0.6
FORC	Fortuna	5.88	280	*e*P	P	11 06 05.3	+0.2
JTS	JuntasAbangare	6.13	278	*e*Pn	P	11 06 08.0	-0.7
	143nm,0.4s						
JTS				Sn	S	11 07 17.5	-0.7
JCR	Jicaral	6.25	274	*e*P	P	11 06 11.0	+0.7
ROSC	El Rosal	6.37	136	P	P	11 06 13.7	+1.6
	2.8nm,0.3s,baz=82,slow=21,SNR=2.2						
MASN	Masaya	7.65	290	*e*P	P	11 06 30.8	+0.9
TICN	Ticuantepe	7.74	290	*e*P	P	11 06 32.2	+1.1
WILN	Americas 2	7.74	291	*e*P	P	11 06 32.4	+1.3
PYTN	Playitas	7.76	294	*e*P	P	11 06 32.4	+1.1
MGAN	Managua	7.79	291	*e*P	P	11 06 30.5	-1.3
APYN	Apoyeque	7.92	291	*e*P	P	11 06 34.5	+1.0
SDV	Santo Domingo	8.07	94	P	P	11 06 33.4	-2.2
	9.4nm,0.3s,baz=292,slow=6.3,SNR=203						
SDV				S	S	11 08 01.2	-5.1
	60nm,0.3s,baz=34,slow=17,SNR=18						
COPN	Copaltepe	8.12	290	*e*P	P	11 06 37.0	+0.6
MIRN	Miramar	8.32	291	*e*P	P	11 06 40.4	+1.3
CNGN	Cerro Negro	8.33	292	*e*P	P	11 06 40.5	+1.4
TEL3	Telica 3	8.49	292	*e*P	P	11 06 42.7	+1.4
PCRV	Puerto La Cruz	13.96	86	P	P	11 07 52.4	-2.7
	5.7nm,0.3s,baz=213,slow=5.7,SNR=27						
PCRV				S	S	11 10 26.8	-2.3
	1.1nm,0.3s,baz=90,slow=20,SNR=4.5						
TXAR	Lajitas Array	30.55	314	P	P	11 10 48.5	-0.2
	0.4nm,0.7s,mb3.3,baz=138,slow=9.7,SNR=4.7						
TXAR				pP	pP	11 11 02.9	-1.0
	1.3nm,0.8s,baz=133,slow=9.1,SNR=10						
SADO	Sadowa	35.16	360	P	P	11 11 27.7	-0.9
	7.4nm,0.9s,mb4.6,baz=241,slow=6.2,SNR=3.4						
ANMO	Albuquerque	35.81	319	P	P	11 11 33.7	-0.5
	1.4nm,0.8s,mb4.0,baz=150,slow=8.3,SNR=7.0						
PDAR	Pinedale Array	42.70	326	P	P	11 12 30.8	-0.5
	1.2nm,1.0s,mb3.6,baz=126,slow=11,SNR=6.9						
PDAR				pP	pP	11 12 46.8	-0.3

	1.5nm,0.7s,baz=123,slow=10,SNR=10.0						
ULM	Lac du Bonnet	43.05	344	P	P	11 12 33.5	-0.5
	3.7nm,0.5s,mb4.3,baz=164,slow=8.0,SNR=9.9						
ULM				LR	LR	11 30 22.0	
	comp=Z,54nm,21.1s,baz=30,slow=36						
NVAR	Mina Array Bea	45.65	316	pP	pP	11 13 10.7	-0.2
	2.5nm,0.8s,baz=127,slow=7.9,SNR=15						
YKA	Yellowknife Ar	58.91	342	P	P	11 14 31.4	-2.2
	3.2nm,0.6s,mb4.5,baz=132,slow=7.3,SNR=98						
YKA				pP	pP	11 14 47.1	-2.9
	1.1nm,0.5s,baz=133,slow=7.6,SNR=13						
DLBC	Dease Lake	62.35	332	P	P	11 14 55.6	-1.4
	2.5nm,1.1s,mb4.3,baz=154,slow=20,SNR=3.2						
INK	Inuvik	68.68	341	P	P	11 15 35.8	-1.6
	1.1nm,0.5s,mb4.0,baz=108,slow=6.6,SNR=4.4						
ILAR	Eielson Array	72.21	335	P	P	11 15 57.9	-0.9
	0.9nm,0.7s,mb3.8,baz=104,slow=4.7,SNR=10						
ILAR				pP	pP	11 16 12.7	-3.1
	0.8nm,0.8s,baz=116,slow=4.4,SNR=7.3						
ESDC	Sonseca Array	72.34	51	P	P	11 15 59.9	-0.1
	1.4nm,0.6s,mb4.1,baz=275,slow=6.0,SNR=7.2						
EKA	Eskdalemuir Ar	74.09	35	P	P	11 16 09.5	-0.4
	2.1nm,1.0s,mb4.0,baz=255,slow=5.6,SNR=5.2						
SJPF	Ste Jean	74.51	48	eP	P	11 16 13.5	+0.9
	19nm,0.9s,mb4.7						
GRR	Gorron	74.96	42	eP	P	11 16 15.4	+0.3
	15nm,0.7s,mb4.8						
ETSF	Etsaut	75.00	48	eP	P	11 16 16.3	+0.9
FLN	La Foliniere	75.23	42	eP	P	11 16 17.1	+0.5
MFF	Saint Martin d	75.38	44	eP	P	11 16 17.9	+0.4
LDF	La Druitiere	75.46	42	eP	P	11 16 18.4	+0.5
LFF	La Frestale	75.97	46	eP	P	11 16 21.2	+0.3
TCF	Toulx Ste Croi	77.00	45	eP	P	11 16 26.7	0.0
	6.3nm,0.6s,mb4.4						
BGF	Bois d'Agland	77.44	44	eP	P	11 16 29.5	+0.4
AVF	Avril sur Loir	77.79	44	eP	P	11 16 30.8	-0.2
SSF	Saint Saulge	77.89	44	eP	P	11 16 31.5	-0.1
	13nm,0.9s,mb4.5						
SMF	Signal de Mont	78.12	44	eP	P	11 16 32.9	0.0
	5.4nm,0.6s,mb4.4						
VIVF	Saint-Julien-l	78.76	46	eP	P	11 16 37.5	+1.1
ORIF	Oris-en-Rattie	79.61	46	eP	P	11 16 42.4	+1.3
	14nm,0.7s,mb4.7						
LPL	La Plagne	80.18	45	eP	P	11 16 45.4	+1.3
LPG	La Plagne	80.20	45	eP	P	11 16 45.7	+1.5
MBDF	Montbardon	80.26	46	eP	P	11 16 43.6	-0.9
	9.5nm,0.9s,mb4.4						
NOA	NORSAR Array B	81.78	29	P	P	11 16 52.9	+0.7
	1.7nm,0.9s,mb4.0,baz=276,slow=5.1,SNR=3.6						
GERES	GERESS Array B	84.58	42	P	P	11 17 07.3	+0.7
	4.4nm,1.1s,mb4.5,baz=270,slow=4.0,SNR=9.5						
ARCES	ARCESS Array B	86.13	20	P	P	11 17 13.8	0.0
	2.2nm,0.5s,mb4.6,baz=284,slow=5.0,SNR=15						
ASAR	Alice Springs	145.75	242	PKPbc	PKPbc	11 24 10.8	-1.1
	2.3nm,0.6s,baz=118,slow=2.9,SNR=46						
ASAR				pPKPbc		11 24 27.2	
	1.1nm,0.5s,baz=119,slow=3.5,SNR=11						
WRA	Warramunga Arr	146.38	248	PKPbc	PKPbc	11 24 12.2	-1.3
	0.9nm,0.6s,baz=96,slow=3.0,SNR=14						
CMAR	Chiang Mai Arr	152.15	5	PKPbc	PKPdf	11 24 27.2	+5.9
	0.9nm,0.4s,baz=340,slow=3.0,SNR=5.4						

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*DJA **20** 11:09:08.6±1.0, 9.28S×120.38E, h297^{km}±24^{km}, MD4.7/4, ML4.7/4, Error ellipse: s-maj=190.3km s-min=36.6km az=3.0*

*NEIC **20** 11:09:12.1±5.8, 8.23S×120.71E, h150^{km}, mb4.4/3, Error ellipse: s-maj=78.7km s-min=31.9km az=138.0*

*IDC **20** 11:09:18.8±3.8, 8.95S×120.52E, h180^{km}±39^{km}, mb4.1/1, mb1 3.7/4, mb1mx3.4/14, Error ellipse: s-maj=113.0km s-min=32.2km az=55.0*

ISC 20 11:09:10.0±1.2, **8.5S**±0.1×**120.75E**±0.07, **h116**^{km}±18^{km}, **n12, σ1^{s}27**/22, **mb4.3**/1, **4C-4D, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	Kedomdong	4.59	269	⇑iPn	P	11 10 19.5	+0.9
	222nm,0.2s						
KEDI				⇓iSn	S	11 11 12.3	+1.1
RATI	Rata	5.17	267	⇓iPn	P	11 10 26.8	+0.4
	155nm,0.2s						
RATI				⇓iSn	S	11 11 24.1	-1.2
KELI	Kelakatan	6.20	272	⇑ePn	P	11 10 40.9	+0.5
	21nm,0.2s						
KELI				⇑iSn	S	11 11 37.2	-13
SRDI	Scrawed	6.54	269	⇑iPn	P	11 10 42.5	-2.6
	49nm,0.2s						
SRDI				⇓iSn	S	11 11 52.0	-6.7
FITZ	Fitzroy Crossi	10.70	154	eP	P	11 11 44.2	+3.0
	6.3nm,0.4s						
FITZ				eS	S	11 13 37.4	-1.9
FITZ	Fitzroy Crossi	10.70	154	P	P	11 11 43.8	+2.6
	0.9nm,0.3s,baz=356,slow=9.8,SNR=16						
FITZ				S	S	11 13 38.6	-0.7
	1.8nm,0.3s,baz=165,slow=11,SNR=8.4						
KAKA	Kakadu	12.20	111	eP	P	11 12 02.8	+1.8
	9.5nm,0.6s						
KAKA				eS	S	11 14 12.7	-2.2
WRA	Warramunga Arr	17.42	132	P	P	11 13 06.9	-0.5
	0.6nm,0.3s,baz=309,slow=12,SNR=20						
WRA				S	S	11 16 15.5	+0.3
	0.8nm,0.3s,baz=297,slow=23,SNR=7.6						
WRAB	Tennant Creek	17.42	132	eP	P	11 13 06.7	-0.6
	9.0nm,1.3s						
ASPA	Alice Springs	19.68	142	eP	P	11 13 32.6	+0.1
ASPA				eS	S	11 17 03.9	+0.9
ASAR	Alice Springs	19.69	142	P	P	11 13 32.0	-0.4
	0.6nm,0.3s,baz=328,slow=12,SNR=48						
ASAR				S	S	11 17 03.9	+0.9
	0.1nm,0.3s,baz=315,slow=19,SNR=7.9						
STKA	Stephens Creek	30.31	143	P	P	11 15 11.1	-1.7
	4.2nm,0.5s,mb4.3,baz=314,slow=8.6,SNR=20						

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*JMA **20** 11:33:28.7±0.3, 24.13N×122.33E, h25^{km}, M2.4*

TAP 20 11:33:28.3, 23.99N×122.21E, h11^{km}**, ML2.7, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.87	57	P	Pb	11 33 42.0	-2.9
YOJ				S	Sb	11 33 51.5	-4.8
IRIF	Iriomote-Funau	1.43	76	P	Pn	11 33 51.0	-3.3
IRIF				S	Sb	11 34 07.4	-5.2
HATJ	Hateruma jima	1.46	87	eS	Sb	11 34 09.4	-4.1
JKRS	Kuro-shima	1.66	81	P	Pn	11 33 55.7	-1.9
JKRS				eS	Sn	11 34 14.7	-4.4
JIJ	Ishigaki jima	1.80	78	P	Pn	11 33 57.1	-2.6
JIJ				S	Sn	11 34 16.9	-5.8

IDC 20 12:23:53.9±2.0, **4.15S**×**152.15E, mb4.0**/4, **mb1 4.2**/4, **mb1mx3.9**/14, **MS3.4**/1, **Ms1 3.3**/1, **ms1mx2.5**/18, **Error ellipse: s-maj=113.0km s-min=27.7km az=129.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	23.41	226	P	P	12 29 04.9	-0.7
	2.3nm,0.3s,baz=50,slow=9.8,SNR=20						
ASAR	Alice Springs	26.21	221	P	P	12 29 29.9	-2.4
	0.7nm,0.5s,baz=55,slow=9.1,SNR=7.9						
STKA	Stephens Creek	29.31	199	LR	LR	12 41 03.0	
	comp=Z,78nm,20.6s,baz=25,slow=35						
FITZ	Fitzroy Crossi	29.41	240	P	P	12 30 00.2	-1.4
	2.4nm,0.4s,baz=19,slow=1.5,SNR=9.1						
ILAR	Eielson Array	81.80	22	P	P	12 36 14.4	-1.5
	0.3nm,0.6s,baz=249,slow=4.9,SNR=4.9						

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*NAO **20** 12:31:58.4±4.4, 59.29N×26.99E, ML2.2*

*BER **20** 12:31:58.0±1.8, 59.27N×27.27E, ML2.2(NAO), Suspected explosion*

HEL 20 12:31:57.6±0.3, **59.25N**×**27.11E, ML1.6, ML2.2**(NAO), **Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJF	Virojoki	1.31	10	eP	Pb	12 32 20.9	-1.9
VJF				eS	Sb	12 32 37.7	-2.4
PVF	Pernaja	1.45	335	eP	Pn	12 32 23.4	-1.6
PVF				eS	Sb	12 32 41.7	-2.2
FIA0	FINESS Array S	2.26	347	Pn	Pn	12 32 36.1	-0.6
	baz=166,slow=16						
FIA0				Lg		12 33 07.7	
	baz=163,slow=28						
FIA0	FINESS Array S	2.26	347	eP	Pn	12 32 36.3	-0.4
FIA0				eS	Sn	12 33 04.9	-0.9
FIA0				MSG		12 33 09.8	
	comp=Z,2.6nm,0.1s						
KAF	Kangasniemi	2.90	353	eP	Pn	12 32 44.6	-1.3
KAF				eS	Sn	12 33 20.1	-1.9
KAF				MSG		12 33 28.8	
	comp=Z,1.3nm,0.2s						
JOF	Joensuu	4.21	27	eP	Pn	12 33 03.0	-1.4
JOF				eS	Sn	12 33 51.8	-3.3
JOF				MSG		12 34 10.3	
	comp=Z,1.0nm,0.2s						
HFS	Hagfors	6.85	283	Lg		12 35 31.5	
	baz=95,slow=37						
HFS	Hagfors	6.85	283	Lg		12 35 31.5	
	baz=95,slow=37						
HFS	Hagfors	6.85	283	eSG		12 35 31.5	
ARA0	ARCESS Array S	10.35	357	Pn	P	12 34 24.6	-5.6
	baz=178,slow=12						
ARA0	ARCESS Array S	10.35	357	eP	P	12 34 24.6	-5.6

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*IDC **20** 12:38:21.5±2.1, 24.13S×179.83E, h500^{km}±21^{km}, mb3.8/11, mb1 4.0/12, mb1mx3.9/16, Error ellipse: s-maj=33.1km s-min=15.2km az=161.0*

*NEIC **20** 12:38:21.6±2.1, 24.07S×179.79E, h500^{km}±25^{km}, mb4.2/15, Error ellipse: s-maj=15.2km s-min=11.3km az=182.0*

ISC 20 12:38:23.6±1.6, **24.22S**±0.08×**179.68E**±0.08, **h535**^{km}±19^{km}, **n42, σ1^{s}03**/41, **mb4.2**/23, **3C-4D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	12.37	277	eP	P	12 41 08.1	+1.7
URZ	Urewera	14.16	188	P	P	12 41 23.5	-1.2
	3.9nm,0.3s,baz=29,slow=3.1,SNR=28						
URZ				S	S	12 43 51.2	+0.7
	1.2nm,0.3s,baz=340,slow=21,SNR=11						
THZ	Tophouse	18.38	196	eP	P	12 42 04.9	-1.0
LTZ	Lake Taylor	19.50	197	eP	P	12 42 14.1	-2.4
CNB	Canberra Magne	28.44	240	eP	P	12 43 38.4	+1.6
	30nm,1.3s,mb4.8						
CTA	Charters Tower	31.19	271	⇓iP	P	12 44 01.2	+0.7
	33nm,0.3s,mb5.3						
CTA	Charters Tower	31.19	271	P	P	12 44 01.2	+0.7
	45nm,0.7s,mb5.1,baz=106,slow=14,SNR=104						
CTAO	Charters Tower	31.19	271	eP	P	12 44 01.0	+0.5
	42nm,0.4s,mb5.3						
TOO	Toolangi	32.03	237	eP	P	12 44 08.4	+0.9
	3.5nm,0.6s,mb4.1						
PMG	Port Moresby	34.33	290	P	P	12 44 26.9	-0.1
	24nm,0.7s,mb4.8,baz=98,slow=4.1,SNR=19						
STKA	Stephens Creek	34.33	249	eP	P	12 44 27.5	+0.6
	3.2nm,0.6s,mb4.0						
STKA	Stephens Creek	34.33	249	P	P	12 44 27.6	+0.8
	4.1nm,0.7s,mb4.1,baz=101,slow=8.7,SNR=13						
ASAR	Alice Springs	41.70	261	P	P	12 45 27.1	+0.1
	6.1nm,0.6s,mb4.3,baz=95,slow=7.3,SNR=122						
ASAR				ScP		12 50 13.3	
	1.8nm,0.8s,baz=114,slow=3.8,SNR=10						
ASAR				S	S	12 51 05.5	-0.6
	0.8nm,0.7s,baz=98,slow=14,SNR=8.2						
ASPA	Alice Springs	41.70	261	⇓iP	P	12 45 26.9	-0.1
WRAB	Tennant Creek	42.09	267	eP	P	12 45 29.1	-1.0
	27nm,0.8s,mb4.8						
WRA	Warramunga Arr	42.10	267	P	P	12 45 29.6	-0.6
	13nm,0.5s,mb4.7,baz=101,slow=8.4,SNR=215						
WRA				ScP		12 50 16.7	
	2.3nm,0.7s,baz=98,slow=4.1,SNR=14						
WRA				S	S	12 51 10.8	-0.9
	2.1nm,1.2s,baz=102,slow=14,SNR=5.0						
KAKA	Kakadu	46.09	276	⇓iP	P	12 45 59.9	-1.5
	21nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	50.52	266	⇓iP	P	12 46 34.0	-0.5
	14nm,0.6s,mb4.5						
FITZ	Fitzroy Crossi	50.52	266	P	P	12 46 34.1	-0.4
	24nm,0.8s,mb4.6,baz=150,slow=5.2,SNR=36						
MBWA	Marble Bar	55.03	260	P	P	12 47 05.7	-1.1
	6.7nm,0.7s,mb4.0						
QSPA	South Pole Qui	65.86	180	eP	P	12 48 17.6	+0.4
	9.0nm,0.6s,mb4.5						
SNAA	Sanae	84.35	179	⇑i	P	12 49 58.5	-1.0
SNAA	Sanae	84.35	179	eP	P	12 49 59.0	-0.5
	1.2nm,0.4s,mb3.8						
VNA3	Neumayer Olymp	84.57	177	⇑i	P	12 50 03.4	+2.8
VNA2	Neumayer--Watz	84.98	178	⇑i	P	12 50 05.7	+3.1
NVAR	Mina Array Bea	85.18	44	P	P	12 50 04.4	0.0
	1.3nm,0.8s,mb3.5,baz=222,slow=6.6,SNR=11						
LDFC	Landfair	85.38	48	eP	P	12 50 05.6	+0.2
TPNV	Topopah Spring	85.66	46	eP	P	12 50 06.3	-0.4
	2.7nm,0.7s,mb4.0						
TUC	Tucson	86.94	53	eP	P	12 50 13.3	+0.4
	3.8nm,0.9s,mb4.0						
ELK	Elko	88.45	44	eP	P	12 50 19.5	-0.3
	0.9nm,0.7s,mb3.6						
CMAR	Chiang Mai Arr	89.37	290	P	P	12 50 26.6	+2.1
	1.0nm,1.0s,mb3.6,baz=141,slow=3.8,SNR=4.2						
TMUT	Trail Mountain	90.27	46	eP	P	12 50 28.9	+0.7
SRU	San Rafael	90.63	47	eP	P	12 50 29.7	-0.2
LTX	Lajitas	90.85	58	eP	P	12 50 30.9	-0.1
	2.7nm,0.7s,mb4.3						
TXAR	Lajitas Array	90.85	58	P	P	12 50 31.4	+0.4
	2.2nm,0.7s,mb4.2,baz=214,slow=6.6,SNR=34						
ANMO	Albuquerque	91.38	52	eP	P	12 50 32.9	-0.6
	1.6nm,0.9s,mb4.0						
ILAR	Eielson Array	92.41	14	P	P	12 50 36.0	-1.4
	0.5nm,0.8s,mb3.6,baz=228,slow=5.1,SNR=6.3						
PDAR	Pinedale Array	93.12	44	P	P	12 50 41.4	+0.1
	0.9nm,0.8s,mb3.8,baz=207,slow=3.3,SNR=7.0						
BVAR	Borovoye Array	120.49	319	PKP	PKPdf	12 56 14.1	+0.2
	0.5nm,0.4s,slow=1.5,SNR=5.3						
ARCES	ARCESS Array B	132.14	348	PKP	PKPdf	12 56 35.8	0.0
	2.5nm,0.7s,baz=333,slow=5.4,SNR=4.9						
CLL	Collm	151.08	343	i PKP1	PKPdf	12 57 16.7	+7.7
BRG	Berggiesshubel	151.20	341	eP	PKPdf	12 57 08.1	-1.1
BRG				e		12 57 17.2	

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*IDC **20** 12:54:09.6±1.0, 1.54S×120.84E, mb3.8/6, mb1 4.1/6, mb1mx3.9/14, Error ellipse: s-maj=100.0km s-min=17.4km az=59.0*

*DJA **20** 12:54:09.1±1.0, 1.38S×121.05E, h2^{km}, MD4.5/3, ML4.8/3, Error ellipse: s-maj=34.7km s-min=22.3km az=114.0*

*NEIC **20** 12:54:18.1±0.6, 1.68S×120.74E, h70^{km}, mb4.3/1, Error ellipse: s-maj=65.2km s-min=10.2km az=58.0*

ISC 20 12:54:10.6±4.2, **1.53S**±0.07×**120.84E**±0.10, **h19**^{km}±32^{km}, **n10, σ0^{s}94**/13, **mb3.9**/7, **5C-1D, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BUNI	Buntu Taipa	2.17	194	⇑ePn	Pn	12 54 45.2	-1.2
	376nm,0.2s						
BUNI				⇑eSn	Sn	12 55 11.3	-1.7
TANI	Tanete Lipujan	2.39	218	⇑ePn	Pn	12 54 49.6	+0.2
	522nm,0.5s						
TANI				⇑eSn	Sn	12 55 18.3	-0.1
NINI	Niniconang	3.07	201	⇓ePn	Pn	12 55 00.0	+0.9
	227nm,0.3s						
NINI				⇑eSn	Sn	12 55 38.3	+2.6
WRAB	Tennant Creek	22.56	145	eP	P	12 59 11.3	+0.1
	16nm,1.3s,mb4.3						
WRA	Warramunga Arr	22.56	145	P	P	12 59 12.0	+0.7
	4.8nm,0.9s,mb3.9,baz=320,slow=11,SNR=33						
ASAR	Alice Springs	25.39	151	P	P	12 59 38.9	+0.3
	0.5nm,0.6s,mb3.2,baz=326,slow=7.8,SNR=16						
CMAR	Chiang Mai Arr	29.30	314	P	P	13 00 14.4	0.0
	2.9nm,1.0s,mb4.0,baz=141,slow=7.6,SNR=12						
STKA	Stephens Creek	35.98	149	P	P	13 01 11.8	-0.6
	2.1nm,0.7s,mb4.2,baz=313,slow=8.7,SNR=5.3						
SONM	Songino Array	50.76	347	P	P	13 03 12.0	+0.5
	0.4nm,0.5s,mb3.6,baz=172,slow=8.7,SNR=4.6						
ZAL	Zalesovo	62.84	337	P	P	13 04 36.5	-0.9
	0.8nm,0.6s,mb4.0,baz=84,slow=13,SNR=3.6						

ISC 20 13:01:17.4±0.7, **45.99N**±0.04×**15.46E**±0.04, **n7, σ0^{s}69**/12, **1C, Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CESS	Cesta pri Krsk	0.02	162	⇑iPg	Pg	13 01 17.0	-0.7
LEGS	Legarje	0.10	247	i Pg	Pg	13 01 19.2	-0.2
LEGS				i Sg	Sg	13 01 22.0	+1.2
	comp=Z,34nm,0.2s						
GOLS	Golise	0.12	80	i Pg	Pg	13 01 19.4	-0.3
GOLS				i Sg	Sg	13 01 21.6	+0.3
	comp=Z,72nm,0.3s						
DOBS	Dobrina	0.16	3	i Pg	Pg	13 01 20.9	+0.3
CRES	Cresnjev	0.16	180	i Pg	Pg	13 01 19.7	-0.9
CRES				i Sg	Sg	13 01 22.8	0.0
	comp=Z,9.0nm,0.1s						
GCIS	Gornji Cirnik	0.17	136	ePg	Pg	13 01 20.1	-0.7
GCIS				i Sg	Sg	13 01 24.6	+1.5
	comp=Z,4.0nm,0.1s						
VISS	Visnje	0.47	247	i Pg	Pg	13 01 26.4	-0.4
VISS				eSg	Sg	13 01 33.0	0.0

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*IDC **20** 13:03:31.6±2.7, 15.80N×61.54W, h11^{km}±22^{km}, mb3.7/4, mb1 4.1/5, mb1mx3.7/19, ML3.6/1, MS3.1/3, Ms1 3.1/3, ms1mx2.3/19, Error ellipse: s-maj=28.0km s-min=10.3km az=97.0*

*TRN **20** 13:03:31.3, 15.82N×61.51W, h24^{km}, MD3.8*

ISC 20 13:03:31.6±0.4, **15.77N**±0.03×**61.68W**±0.06, **h10**^{km}**, n22, σ1^{s}07**/26, **mb3.7**/4, **MS3.8**/1, **4C-4D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	Barber's Block	0.32	141	⇓iP	Pg	13 03 39.4	+1.2
MGG	Marie-Galante	0.38	67	⇑eP	Pg	13 03 38.7	-0.7
DWS	Wesley	0.41	120	⇑iP	Pg	13 03 40.5	+0.6
DWS				eS	Sg	13 03 45.6	+0.1
SEG	Port Louis	0.65	15	⇑eP	Pb	13 03 44.1	-0.4
MBRY		1.03	334	eP	Pb	13 03 52.3	+1.2
MLYT		1.06	333	eP	Pb	13 03 53.0	+1.4
MGH	Saint George's	1.07	331	eP	Pb	13 03 53.0	+1.2
MBWH		1.08	333	eP	Pb	13 03 53.0	+1.0
MBGB		1.09	331	eP	Pb	13 03 53.2	+1.1
FDF	Fort de France	1.15	154	⇓eP	Pb	13 03 52.9	-0.3
FDF				eS	Sb	13 04 08.0	+0.1
CRM	Caravelle	1.25	144	⇓eP	Pb	13 03 54.0	-0.9
CRM				eS	Sb	13 04 10.8	-0.1
BPA	Boggy Peak	1.28	352	⇓iP	Pb	13 03 56.1	+0.8
BPA				eS	Sb	13 04 12.3	+0.7
BIM	Bigot	1.38	155	⇑eP	Pn	13 03 56.4	-0.6
BIM				eS	Sb	13 04 16.6	+2.0
CPB	Codrington	1.86	356	eP	Pn	13 04 03.1	-0.8
CPB				eS	Sn	13 04 26.3	-1.4
SJG	San Juan	4.87	299	Sn	Sn	13 05 39.4	-4.4
	5.3nm,0.3s,baz=300,slow=19,SNR=4.9						
PCRV	Puerto La Cruz	6.26	208	Pn	Pn	13 05 05.9	-0.5
	1.4nm,0.3s,baz=21,slow=8.6,SNR=4.2						
PCRV				LR	LR	13 07 49.9	
	comp=Z,78nm,18.1s,baz=287,slow=41						
SDV	Santo Domingo	11.10	233	LR	LR	13 09 50.2	
	comp=Z,40nm,19.3s,baz=204,slow=34						
LVC	Limon Verde	38.80	191	LR	LR	13 27 33.0	
	comp=Z,156nm,20.1s,MS3.8,baz=120,slow=37						
TXAR	Lajitas Array	40.84	297	P	P	13 11 13.7	-1.6
	0.8nm,1.1s,mb3.2,baz=97,slow=7.3,SNR=3.4						
PDAR	Pinedale Array	48.83	313	P	P	13 12 18.6	-0.5
	0.9nm,0.5s,mb4.0,baz=117,slow=9.9,SNR=5.7						
PDAR				pP	pP	13 12 22.2	+0.1
	1.2nm,0.7s,baz=123,slow=10,SNR=6.2						
YKA	Yellowknife Ar	59.42	335	P	P	13 13 33.8	-2.7
	0.5nm,0.6s,mb3.7,baz=109,slow=7.3,SNR=11						
YKA				pP	pP	13 13 38.1	-1.5
	0.5nm,0.5s,baz=104,slow=7.4,SNR=8.6						
ILAR	Eielson Array	73.83	334	P	P	13 15 06.2	-1.7
	1.8nm,1.3s,mb3.8,baz=80,slow=5.2,SNR=4.9						

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*IDC **20** 13:12:10.5±0.6, 5.43N×101.33W, mb4.8/16, mb1 4.9/17, mb1mx4.7/22, MS4.7/16, Ms1 4.7/16, ms1mx4.4/19, Error ellipse: s-maj=21.7km s-min=13.2km az=53.0*

*MOS **20** 13:12:10.8±1.4, 5.46N×101.31W, h10^{km}, mb5.2/11, MS4.9/6, Error ellipse: s-maj=19.4km s-min=14.6km az=81.2*

*NEIC **20** 13:12:12.3±0.3, 5.38N×101.29W, h10^{km}, mb4.9/47, MS4.8/23, MW5.4, Error ellipse: s-maj=8.7km s-min=4.7km az=59.0, Moment Tensor Solution. s19 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.09; $M_{\theta\theta}$1.06; $M_{\phi\phi}$0.03; $M_{r\theta}$-0.24; $M_{\theta\phi}$-0.45; $M_{\phi r}$0.00; Best double couple: $M_0$1.2×10^{17} NP1: ϕ_s296°, δ40°, λ-82°. NP2: ϕ_s106°, δ51°, λ-96°. Principal axes: T 1.25, Plg6°, Azm200°; N -.13, Plg5°, Azm110°; P -1.12, Plg83°, Azm338°;*

*HRVD **20** 13:12:12.4±0.2, 5.50N×101.27W, h12^{km}, MW5.4/64, Centroid moment Tensor Solution. LP body waves: s61,c114; Mantle waves: s64,c128; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.47±.03; $M_{\theta\theta}$1.48±.02; $M_{\phi\phi}$-0.01±.03; $M_{r\theta}$0.52±.06; $M_{\theta\phi}$-0.29±.03; $M_{\phi r}$0.39±.08; Best double couple: $M_0$1.64×10^{17} NP1: ϕ_s116°, δ39°, λ-64°. NP2: ϕ_s264°, δ55°, λ-109°. Principal axes: T 1.6, Plg9°, Azm8°; N .08, Plg16°, Azm276°; P -1.67, Plg72°, Azm125°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **20** 13:12:12.3, 5.40N×101.30W, h10^{km}, mB5.5, Ms5.3, Msz5.0*

ISC 20 13:12:10.9±0.3, **5.42N**±0.04×**101.27W**±0.05, **h10**^{km}**, n198, σ1^{s}02**/131, **mb4.9**/62, **MS4.8**/45, **8C-7D, Galapagos Triple Junction region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTS	JuntasAbangare	16.86	72	d iP	P	13 16 10.0	+1.1
JTS	JuntasAbangare	16.86	72	eP	P	13 16 10.6	+1.7
	136nm,1.3s						
TEIG	Tepich	19.39	39	eP	P	13 16 40.4	+0.4
	41nm,1.1s						
LTX	Lajitas	23.90	355	eP	P	13 17 27.2	+1.4
	62nm,1.6s,mb4.8						
LTX				ePcP	PcP	13 21 09.1	-1.2
TXAR	Lajitas Array	23.90	355	P	P	13 17 27.6	+1.7
	9.3nm,0.9s,mb4.2,baz=175,slow=12,SNR=41						
TXAR				PcP	PcP	13 21 09.0	-1.3
	2.5nm,0.7s,baz=179,slow=5.2,SNR=17						
TXAR				LR	LR	13 26 05.6	
	comp=Z,5µm,19.2s,MS5.0,baz=110,slow=35						
HKT	Hockley	24.93	11	eP	P	13 17 35.8	-0.1
	82nm,1.5s,mb5.0						
JCT	Junction City	24.97	3	eP	P	13 17 36.1	-0.1
	192nm,1.1s,mb5.5						
MNTX	Cornudas Mount	26.43	352	eP	P	13 17 49.0	-0.8
	30nm,1.1s,mb4.7						
GDL2	Guadalupe Moun	26.80	354	eP	P	13 17 53.8	+0.5
CLNB	Carlsbad	26.82	355	eP	P	13 17 53.5	+0.1
ROSC	El Rosal	26.83	90	P	P	13 17 55.0	+1.3
	10.0nm,0.5s,mb4.6,baz=98,slow=19,SNR=12						
ROSC				LR	LR	13 26 03.3	
	comp=Z,664nm,21.4s,MS4.2,baz=12,slow=31						
NATX	Nacogdoches	26.93	12	eP	P	13 17 54.0	-0.4
	178nm,1.4s,mb5.4						
CPRX	Cap Rock	27.58	355	eP	P	13 17 60.0	-0.4
TUC	Tucson	28.20	343	eP	P	13 18 04.7	-1.2
	21nm,1.5s,mb4.5						
TUC				LR	LR		
	comp=Z,2µm,20.0s,MS4.7						
BNM	Barren Site	29.02	351	eP	P	13 18 14.1	+0.8
LPM	Los Pinos Moun	29.18	351	eP	P	13 18 14.7	-0.1
ANMO	Albuquerque	29.78	351	P	P	13 18 20.4	+0.3
	comp=Z,5.8nm,0.9s,mb4.3,baz=162,slow=8.5,SNR=12						
ANMO				LR	LR	13 29 37.0	
	comp=Z,4µm,20.1s,MS5.1,slow=35						
ANMO	Albuquerque	29.78	351	⇑iP	P	13 18 20.0	-0.1
ANMO	Albuquerque	29.78	351	eP	P	13 18 20.7	+0.6
	comp=Z,9.6nm,1.1s,mb4.4						
ANMO				LR	LR		
	comp=Z,4µm,20.0s,MS5.1						
NNA	Nana	29.81	126	eP	P	13 18 20.6	-0.1
	comp=Z,35nm,1.1s,mb5.0						
MIAR	Mount Ida	29.85	13	eP	P	13 18 20.1	-0.7
	comp=Z,19nm,0.9s,mb4.8						
SDV	Santo Domingo	30.58	82	P	P	13 18 27.8	+0.4
	comp=Z,11nm,0.9s,mb4.7,baz=290,slow=8.4,SNR=13						
SDV				PcP	PcP	13 21 25.4	-0.7
	comp=Z,18nm,1.0s,baz=282,slow=2.5,SNR=10						
SDV	Santo Domingo	30.58	82	eP	P	13 18 27.2	-0.2
	comp=Z,17nm,1.0s,mb4.8						
SDV				LR	LR		
	comp=Z,735nm,21.0s,MS4.3						
BAR	Barrett	30.70	334	eP	P	13 18 28.4	+0.1
PFO	Pinyon Flat Ob	31.41	335	eP	P	13 18 34.7	+0.2
	comp=Z,12nm,1.1s,mb4.6						

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LDFC  Landfair           32.17 338  eP      P         13 18 42.6 +1.4
SDCO  Great Sand Dun     32.41 354  eP      P         13 18 43.4 +0.2
      comp=Z,54nm,1.8s,mb5.1
SDCO                                ePP     PP        13 20 04.0  +13
SDCO                                 PcP    PcP       13 21 29.1  -1.7
SDCO                                 LR     LR
      comp=Z,5µm,19.0s,MS5.2
NEN   Nelson             32.58 339  eP      P         13 18 45.0 +0.2
MWC   Mount Wilson       32.62 334  eP      P         13 18 45.2 +0.1
WVT   Waverly            32.97  20  eP      P         13 18 46.2  -1.9
      comp=Z,7.9nm,0.9s,mb4.6
WVT                                  LR     LR
      comp=Z,1µm,22.0s,MS4.6
KSU1  Kansas State U     33.80   7  eP      P         13 18 55.3  0.0
ARUT  Antelope Range     34.08 343  eP      P         13 18 58.6 +0.8
TPNV  Topopah Spring     34.25 338  eP      P         13 19 00.5 +1.3
      comp=Z,16nm,1.1s,mb4.9
TPNV                                 LR     LR
      comp=Z,1µm,21.0s,MS4.7
MSU   Marysvale          34.40 345  eP      P         13 19 01.0 +0.5
MVU   Marysvale          34.40 345  eP      P         13 19 00.5  -0.1
      comp=Z,8.4nm,1.1s,mb4.6
MVU                                  LR     LR
      comp=Z,1µm,20.0s,MS4.7
ISCO  Idaho Springs      34.45 354  eP      P         13 19 01.3 +0.4
      comp=Z,28nm,1.2s,mb5.1
ISCO                                 LR     LR
      comp=Z,4µm,21.0s,MS5.2
SRU   San Rafael         34.57 347  eP      P         13 19 01.3  -0.7
TMUT  Trail Mountain     34.91 346  eP      P         13 19 05.7 +0.8
MTUM  Tungsten Hills     35.50 336  eP      P         13 19 10.9 +1.0
TPH   Tonopah            35.60 338  eP      P         13 19 11.4 +0.6
      comp=Z,23nm,1.3s,mb5.0
TPH                                  LR     LR
      comp=Z,2µm,21.0s,MS4.8
MPU   Maple Canyon       35.69 346  eP      P         13 19 12.8 +1.2
NLU   North Lily Min     35.74 346  eP      P         13 19 12.5 +0.6
OMM   Old Mammoth Mi     35.90 336  eP      P         13 19 14.1 +0.7
DAU   Daniels Canyon     35.98 347  eP      P         13 19 14.6 +0.6
JLU   Jordanelle         36.20 347  eP      P         13 19 16.7 +0.8
MNV   Mina               36.27 337  eP      P         13 19 17.4 +1.0
      comp=Z,17nm,1.3s,mb4.8
MNV                                 ePcP    PcP       13 21 41.4  -0.4
MNV                                  LR     LR
      comp=Z,2µm,21.0s,MS4.9
NVAR  Mina Array Bea     36.32 337   P      P         13 19 17.8 +0.9
      comp=Z,6.2nm,0.9s,mb4.5,baz=158,slow=9.2,SNR=38
NVAR                                 PcP    PcP       13 21 41.1  -0.9
      comp=Z,2.2nm,0.8s,baz=139,slow=5.1,SNR=6.9
NVAR                                 LR     LR        13 31 55.7
      comp=Z,1µm,21.2s,MS4.7,baz=170,slow=33
SJG   San Juan           36.53  67   P      P         13 19 17.6  -1.2
      comp=Z,7.1nm,0.3s,mb5.0,baz=17,slow=19,SNR=3.7
SJG                                  PcP    PcP       13 21 41.9  -0.8
      comp=Z,9.0nm,0.3s,baz=346,slow=18,SNR=4.5
SJG   San Juan           36.53  67   P      P         13 19 17.6  -1.2
SJG                                                   13 21 41.9
SJG                                  pmax   pmax
      comp=Z,7.0nm,0.3s
SJG                                  pmax   pmax
      comp=Z,9.0nm,0.3s
PCRV  Puerto La Cruz     36.58  80   P      P         13 19 18.9  -0.3
      comp=Z,12nm,0.8s,mb4.8,baz=329,slow=6.5,SNR=4.9
TCUT  Toone Canyon       36.69 347  eP      P         13 19 20.7 +0.8
CMB   Columbia Colle     36.84 334  eP      P         13 19 21.4 +0.1
      comp=Z,5.9nm,1.0s,mb4.4
CMB                                  LR     LR
      comp=Z,686nm,20.0s,MS4.4
BGU   Big Grassy Mou     36.89 345  eP      P         13 19 22.7 +1.0
SPUT  South Promonto     37.11 346  eP      P         13 19 23.8 +0.3
HWUT  Hardware Ranch     37.19 347  eP      P         13 19 24.5 +0.4
      comp=Z,25nm,1.2s,mb4.9
HWUT                                ePcP    PcP       13 21 43.7  -0.8
HWUT                                 LR     LR
      comp=Z,2µm,20.0s,MS4.9
ELK   Elko               37.34 342  eP      P         13 19 26.2 +0.8
      comp=Z,20nm,1.5s,mb4.7
ELK                                  LR     LR
      comp=Z,2µm,19.0s,MS4.8
HVU   Hansel Valley      37.63 346  eP      P         13 19 28.3 +0.4
HVU                                 ePcP    PcP       13 21 45.0  -0.9
WCN   Washoe City        37.65 336  eP      P         13 19 29.4 +1.4
      comp=Z,32nm,1.2s,mb4.9
BMN   Battle Mountai     37.70 340  eP      P         13 19 29.4 +1.0
      comp=Z,41nm,1.2s,mb5.0
BMN                                  LR     LR
      comp=Z,630nm,19.0s,MS4.4
PDAR  Pinedale Array     37.91 350   P      P         13 19 29.9  -0.2
      comp=Z,11nm,1.1s,mb4.5,baz=153,slow=6.6,SNR=46
PDAR                                 PcP    PcP       13 21 45.6  -1.2
      comp=Z,1.6nm,0.7s,baz=169,slow=4.6,SNR=5.5
PDAR                                 LR     LR        13 34 11.7
      comp=Z,1µm,20.0s,MS4.7,baz=190,slow=35
AHID  Auburn Hatcher     38.20 348  eP      P         13 19 33.2 +0.6
      comp=Z,38nm,1.4s,mb4.9
OHCM  Honcut             38.40 334  eP      P         13 19 34.8 +0.6
SNOW  Snow King Moun     38.80 349  eP      P         13 19 38.1 +0.4
TPAW  Teton Pass         38.87 349  eP      P         13 19 38.5 +0.3
LOHW  Long Hollow        38.92 349  eP      P         13 19 38.9 +0.3
MOOW  Moose Ponds        39.08 349  eP      P         13 19 40.1 +0.2
HLID  Hailey             39.72 345  eP      P         13 19 46.0 +0.7
      comp=Z,14nm,1.2s,mb4.6
HLID                                 LR     LR
      comp=Z,1µm,21.0s,MS4.8
MOD   Modoc              40.09 338  eP      P         13 19 49.1 +0.7
      comp=Z,37nm,1.3s,mb5.0
MOD                                  LR     LR
      comp=Z,750nm,20.0s,MS4.5
MCMT  McKenzie Canyo     40.54 347  eP      P         13 19 53.4 +1.4
YBH   Yreka Blue Hor     40.91 335  eP      P         13 19 54.4  -0.6
      comp=Z,18nm,1.0s,mb4.7
BMO   Blue Mountains     41.71 343  eP      P         13 20 01.1  -0.6
      comp=Z,15nm,1.6s,mb4.4
BMO                                  LR     LR
      comp=Z,1µm,21.0s,MS4.8
HUMO  Hull Mountain      41.73 336  eP      P         13 20 02.0 +0.1
      comp=Z,4.0nm,0.6s,mb4.2
LVC   Limon Verde        42.16 133   P      P         13 20 07.5 +1.9
      comp=Z,17nm,0.9s,mb4.7,baz=311,slow=8.5,SNR=22
LVC   Limon Verde        42.16 133  eP      P         13 20 07.6 +2.0
      comp=Z,20nm,0.9s,mb4.7
LVC                                  LR     LR
      comp=Z,744nm,20.0s,MS4.6
DGMT  Dagmar             42.97 357  eP      P         13 20 12.2 +0.2
      comp=Z,66nm,1.0s,mb5.3
EYMN  Ely                43.19  10  eP      P         13 20 13.2  -0.5
      comp=Z,59nm,1.0s,mb5.3
EYMN                                 LR     LR
      comp=Z,2µm,20.0s,MS4.9
BBSR  BB Station         43.40  47  eP      P         13 20 15.6  0.0
      comp=Z,164nm,1.4s,mb5.6
RKT   Rikitea            43.46 228  eS      S         13 26 43.2  -1.0
RKT                                 eLQ               13 30 27.8
RKT                                 eLR     LR        13 32 23.3
      comp=Z,3µm,27.2s,baz=50
MPOR  Mary's Peak        43.56 337   P      P         13 20 17.9 +1.2
PRW   Prosser            43.66 341   P      P         13 20 18.6 +1.0
HAWA  Hanford            43.77 342  eP      P         13 20 18.7 +0.2
      comp=Z,32nm,1.2s,mb4.9
OD2   Odessa Site #2     44.43 343   P      P         13 20 23.5  -0.3
EBG   Ellensburg         44.56 341   P      P         13 20 25.8 +0.9
NEW   Newport            44.79 345  eP      P         13 20 26.3  -0.4
      comp=Z,19nm,1.1s,mb4.8
NEW                                  LR     LR
      comp=Z,2µm,19.0s,MS5.0
TBM   Table Mountain     44.80 341   P      P         13 20 27.4 +0.6
ULM   Lac du Bonnet      44.91   5   P      P         13 20 27.4  -0.2
      comp=Z,30nm,1.0s,mb5.1,baz=187,slow=8.4,SNR=18
ULM                                  LR     LR        13 39 17.8
      comp=Z,864nm,18.2s,MS4.7,baz=16,slow=36
ULM   Lac du Bonnet      44.91   5  eP      P         13 20 27.3  -0.3
      comp=Z,40nm,1.0s,mb5.2
ULM                                  LR     LR
      comp=Z,1µm,19.0s,MS4.9
WTV   Waterville         45.07 342   P      P         13 20 29.1 +0.2
TIAR  Tiarei             52.67 243  eP      P         13 21 27.7  -0.4
      comp=Z,264nm,1.2s,mb6.0
PPT   Papeete            52.88 243  eP      P         13 21 29.3  -0.3
      comp=Z,62nm,1.2s,mb5.4
PPT   Papeete            52.88 243  eS      S         13 28 56.4  -0.4
PPT                                 eSS     SS        13 32 31.0  -3.9
PPT                                 eLQ               13 34 12.5
PPT                                 eLR     LR        13 36 19.3
      comp=Z,2µm,27.0s,baz=60
FCC   Fort Churchill     53.50   5  eP      P         13 21 32.1  -1.6
      comp=Z,33nm,1.0s,mb5.2
TBI   Tubuai             55.04 237  eS      S         13 29 25.0  -1.0
TBI                                 eSS     SS        13 33 09.6  0.0
TBI                                 eLR     LR        13 37 32.5
      comp=Z,2µm,27.8s,baz=72
SCHQ  Schefferville      56.52  23   P      P         13 21 53.4  -2.3
      comp=Z,10nm,1.0s,mb4.8,baz=233,slow=4.8,SNR=5.9
SCHQ                                 LR     LR        13 47 38.0
      comp=Z,1µm,18.4s,MS5.0,baz=42,slow=38
SCHQ  Schefferville      56.52  23   P      P         13 21 53.4  -2.3
SCHQ                                 LR     LR        13 47 38.0
BDFB  Brasilia           56.72 113   P      P         13 21 56.3  -1.3
      comp=Z,24nm,0.9s,mb5.2,baz=290,slow=8.5,SNR=21
BDFB                                 LR     LR        13 44 36.5
      comp=Z,223nm,21.3s,MS4.2,baz=293,slow=34
BAO   Brasilia Array     56.74 113   P      P         13 21 56.5  -1.2
BAO                                 e                 13 22 02.4
DLBC  Dease Lake         57.40 343  eP      P         13 22 00.7  -1.2
YKA   Yellowknife Ar     57.80 353   P      P         13 22 02.5  -2.2
      comp=Z,2.6nm,0.8s,mb4.3,baz=160,slow=7.3,SNR=35
YKA                                  PcP    PcP       13 22 55.7  -1.4
      comp=Z,2.3nm,0.9s,baz=159,slow=3.7,SNR=8.2
YKA                                  LR     LR        13 47 18.2
      comp=Z,2µm,18.2s,MS5.3,baz=150,slow=36
YKA   Yellowknife Ar     57.80 353   P      P         13 22 02.5  -2.2
YKA                                                   13 22 55.7
YKA                                  pmax   pmax
      comp=Z,3.0nm,0.8s
YKA                                  pmax   pmax
      comp=Z,2.0nm,0.9s
YKA                                  MLR    MLR
      comp=Z,2µm,18.2s
YKA   Yellowknife Ar     57.80 353   P      P         13 22 02.5  -2.2
YKA                                  PcP    PcP       13 22 55.7  -1.4
YKA                                  LR     LR        13 47 18.2
YKW3  Yellowknife Ar     57.87 353  eP      P         13 22 02.5  -2.6
DAWY  Dawson             64.62 343  eP      P         13 22 49.5  -1.2
MENT  Mentasta           65.20 340  eP      P         13 22 53.4  -1.1
USHA  Ushuaia            65.95 160   P      P         13 22 59.9 +0.5
      comp=Z,16nm,0.9s,mb5.1,baz=329,slow=4.9,SNR=5.9
SLKM  Skilak Lake        66.11 336  eP      P         13 22 58.0  -2.3
SML   Sawmill            66.14 338  eP      P         13 22 58.6  -1.8
THY   Trims Highway      66.21 340  eP      P         13 22 59.7  -1.2
PMR   Palmer             66.31 337  eP      P         13 23 00.0  -1.6
      comp=Z,37nm,1.1s,mb5.3
INK   Inuvik             66.42 347  eP      P         13 23 00.7  -1.4
      comp=Z,35nm,1.2s,mb5.3
RSO   Redoubt South      67.13 335  eP      P         13 23 04.5  -2.4
ILAR  Eielson Array      67.47 341   P      P         13 23 07.0  -1.9
      comp=Z,16nm,0.8s,mb5.1,baz=156,slow=3.9,SNR=119
ILAR                                 LR     LR        13 53 52.3
      comp=Z,438nm,18.2s,MS4.7,baz=158,slow=37
ILAR  Eielson Array      67.47 341   P      P         13 23 07.0  -1.9
ILAR                                 pmax   pmax
      comp=Z,16nm,0.8s
ILAR                                 MLR    MLR
      comp=Z,438nm,18.2s
MCK   McKinley           67.52 339  eP      P         13 23 07.8  -1.5
      comp=Z,19nm,1.4s,mb4.9
MCK                                  LR     LR
      comp=Z,465nm,20.0s,MS4.7
COLA  College            67.86 340⇓iP      P         13 23 09.0  -2.3
RES   Resolute Bay       69.31   2  eP      P         13 23 18.1  -2.1
      comp=Z,14nm,1.0s,mb4.8
IMA   Indian Mountai     70.53 340  eP      P         13 23 26.3  -1.4
      comp=Z,8.3nm,1.0s,mb4.6
ANM   Nome               74.20 336  eP      P         13 23 49.2  -0.2
PMSA  Palmer Station     75.22 164   P      P         13 23 55.6 +0.3
      comp=Z,66nm,1.4s,mb5.4
SUMG  Summit             76.91  16  eP      P         13 24 04.1  -0.6
      comp=Z,22nm,0.9s,mb5.1
DAG   Danmarks Havn      83.06  13⇓iP      P         13 24 37.6  0.0
DAG                                  pmax   pmax
      comp=Z,20nm,1.0s,mb5.1
DAG   Danmarks Havn      83.06  13⇓iP      P         13 24 37.6  0.0
      comp=Z,20nm,1.0s,mb5.1
JMIC  Jan Mayen          85.82  19   LR     LR        14 03 44.6
      comp=Z,408nm,19.3s,MS4.8,baz=89,slow=36
RPZ   Rata Peaks         92.03 226   LR     LR        13 55 55.2
      comp=Z,484nm,21.8s,MS4.9,baz=200,slow=28
ESDC  Sonseca Array      92.18  50   P      P         13 25 22.0  -0.3
      comp=Z,2.2nm,0.9s,mb4.5,baz=279,slow=4.4,SNR=6.6
QSPA  South Pole Qui     95.41 180  eP      P         13 25 37.0 +0.7
      comp=Z,4.8nm,0.7s,mb5.0
QSPA                                 LR     LR
      comp=Z,508nm,20.0s,MS5.0
VNA3  Neumayer Olymp     95.61 161⇑iP      P         13 25 40.9 +3.5
DBIC  Dimbokro           95.71  83   LR     LR        14 03 57.7
      comp=Z,139nm,19.9s,MS4.4,baz=270,slow=32
NOA   NORSAR Array B     95.93  27   P      P         13 25 38.3  -0.8
      comp=Z,2.9nm,0.9s,mb4.7,baz=297,slow=4.6,SNR=5.7
NOA                                  LR     LR        14 07 05.0
      comp=Z,224nm,20.3s,MS4.6,baz=285,slow=34
NOA   NORSAR Array B     95.93  27   P      P         13 25 38.3  -0.8
NOA                                  pmax   pmax
      comp=Z,3.0nm,0.9s
NOA                                  MLR    MLR
      comp=Z,224nm,20.3s
VNA1  Neumayer--Stat     96.07 160⇑iP      P         13 25 41.4 +1.9
VNA2  Neumayer--Watz     96.35 161⇑iP      P         13 25 43.4 +2.6
TIXI  Tiksi              96.50 346⇑iP      P         13 25 40.8  -0.7
TIXI                                 pmax   pmax
      comp=Z,13nm,1.5s,mb5.1
VNDA  Vanda              96.75 193   LR     LR        14 01 10.7
      comp=Z,291nm,20.4s,MS4.8,baz=173,slow=30
ARCES ARCESS Array B     97.00  16   LR     LR        14 07 22.9
      comp=Z,443nm,21.2s,MS4.9,baz=186,slow=34
SNAA  Sanae              97.77 162⇑iP      P         13 25 48.7 +1.6
CN2   Changchun         115.44 324  ePKP    PKPdf     13 30 50.3  -6.1
BRTR  Keskin Array B    118.84  39   PKP    PKPdf     13 31 00.8  -2.3
      comp=Z,3.5nm,1.0s,baz=180,slow=1.2,SNR=7.7
BRTR  Keskin Array B    118.84  39   PKIKP  PKPdf     13 31 00.9  -2.2
BRTR                                 pmax   pmax
      comp=Z,4.0nm,1.0s
SOC   Sochi             119.85  32  i PKIKP PKPdf     13 30 55.7  -9.1
SOC                                 e                 13 32 23.3
SOC                                 ePPP    PPP       13 35 00.6  -1.9
SOC                                 e                 13 38 14.5
SOC                                  MLR    MLR
      comp=Z,373nm,22.0s,MS5.0
SOC                                  MLR    MLR
      comp=E,101nm,17.0s
ZAL   Zalesovo          120.65 356   PKP    PKPdf     13 31 02.9  -3.4
      comp=E,1.0nm,0.6s,baz=234,slow=1.3,SNR=8.1
ZAL   Zalesovo          120.65 356   PKIKP  PKPdf     13 31 02.9  -3.3
ZAL                                  pmax   pmax
      comp=Z,1.0nm,0.6s
CHKZ  Chkalovo          120.73   6  ePKPdf  PKPdf     13 31 03.7  -2.7
KIV   Kislovodsk        121.10  30  i PKIKP PKPdf     13 30 59.1  -8.3
KIV                                 e                 13 37 54.4
KIV                                 eSS     SS        13 49 00.0  -8.0
KIV                                  pmax   pmax
      comp=N,7.0nm,1.1s
KIV                                  pmax   pmax
      comp=Z,7.0nm,1.1s
KIV                                  pmax   pmax
      comp=E,2.0nm,0.5s
KIV                                  MLR    MLR
      comp=N,193nm,22.0s,MS4.8
KIV                                  MLR    MLR
      comp=E,128nm,22.0s,MS4.8
KIV                                  MLR    MLR
      comp=Z,222nm,22.0s,MS4.8
BRVK  Borovoye          121.31   6  ePKPdf  PKPdf     13 31 05.1  -2.5
ULN   Ulaanbaatar       121.39 338  ePKPdf  PKPdf     13 31 05.6  -2.2
SONM  Songino Array     121.66 338   PKP    PKPdf     13 31 05.8  -2.5
      comp=Z,0.9nm,0.6s,baz=354,slow=2.3,SNR=7.6
MALT  Malatya           122.64  37  ePKPdf  PKPdf     13 31 09.3  -1.1
ASAR  Alice Springs     123.97 245   PKP    PKPdf     13 31 10.5  -2.9
      comp=Z,3.2nm,0.8s,baz=110,slow=1.9,SNR=32
WRAB  Tennant Creek     124.11 250  i PKIKP PKPdf     13 31 10.8  -3.0
WRAB  Tennant Creek     124.11 250  ePKPdf  PKPdf     13 31 10.9  -2.9
WRA   Warramunga Arr    124.12 250   PKP    PKPdf     13 31 10.7  -3.1
      comp=Z,5.1nm,0.7s,baz=93,slow=2.2,SNR=63
WRA   Warramunga Arr    124.12 250   PKIKP  PKPdf     13 31 10.7  -3.1
WRA                                  pmax   pmax
      comp=Z,5.0nm,0.7s
HHC   Hu-ho-hao-te      125.00 330  ePKP    PKPdf     13 31 10.4  -4.6
HHC                                  LR     LR
      comp=N,401nm,20.2s,MS5.2
HHC                                  LR     LR
      comp=E,311nm,17.8s,MS5.2
HHC                                  LR     LR
      comp=Z,456nm,22.6s,MS5.1
LSZ   Lusaka            129.43 105  ePKPdf  PKPdf     13 31 22.5  -1.7
WMQ   Urumqi            130.33 351   PKP    PKPdf     13 31 23.0  -2.2
WMQ                                  XPKP             13 31 30.5
WMQ                                  PP     PP        13 33 41.0 +1.0
WMQ                                  PKS    PKS       13 34 58.3 +1.0
WMQ                                  SKKS             13 40 29.0
WMQ                                  PP     PP
      comp=Z,23nm,7.6s
WMQ                                  LR     LR
      comp=N,484nm,31.6s,MS5.1
WMQ                                  LR     LR
      comp=E,290nm,29.8s,MS5.1
WMQ                                  LR     LR
      comp=Z,460nm,30.5s,MS5.0
WHN   Wuhan             130.60 319   PKP    PKPdf     13 31 24.3  -1.8
GTA   Gaotai            131.33 338  ePKP    PKPdf     13 31 25.5  -1.7
GTA                                  PP     PP        13 33 46.3  -0.5
GTA                                  PKS    PKS       13 35 00.6 +1.3
GTA                                  PPP    PPP       13 36 35.9  -0.6
GTA                                  SKS    SKS       13 38 36.0  -0.7
GTA                                  SKKS             13 40 38.0
GTA                                  SS     SS        13 51 15.3  -0.9
GTA                                  PP     PP
      comp=Z,193nm,5.3s
GTA                                  LR     LR
      comp=N,292nm,20.2s,MS5.2
GTA                                  LR     LR
      comp=E,254nm,15.2s,MS5.2
GTA                                  LR     LR
      comp=Z,310nm,19.8s,MS5.0
AAK   Ala-Archa         132.02   4c iPKIKP  PKPdf     13 31 25.9  -2.5
AAK                                  MLR    MLR
      comp=Z,400nm,21.0s,MS5.1
AAK   Ala-Archa         132.02   4⇑iPKP    PKPdf     13 31 25.0  -3.4
FITZ  Fitzroy Crossi    132.53 250   PKP    PKPdf     13 31 27.6  -2.5
      comp=Z,7.5nm,0.9s,baz=238,slow=0.5,SNR=5.0
KMBO  Kilima Mbogo      138.38  86   PKP    PKPdf     13 31 41.1 +0.1
      comp=Z,2.5nm,1.1s,baz=46,slow=23,SNR=3.0
KMBO  Kilima Mbogo      138.38  86   PKIKP  PKPdf     13 31 41.1 +0.1
KMBO                                 pmax   pmax
      comp=Z,3.0nm,1.1s
QIZ   Qiongzhong        140.90 309  ePKP    PKPdf     13 31 40.8  -4.6
QIZ                                  PP     PP        13 34 48.0 +1.1
QIZ                                  LR     LR
      comp=Z,249nm,19.9s,MS5.0
KMI   Kunming           141.71 323  ePKP    PKPdf     13 31 43.0  -3.7
KMI                                  PP     PP        13 34 51.9 +0.3
KMI                                  SKKS             13 41 37.4
KMI                                  SS     SS        13 53 17.3  -3.3
KMI                                  SSS    SSS       13 58 35.8  -3.2
KMI                                  LR     LR
      comp=Z,175nm,22.2s,MS4.8
KLP   Kalpa             143.25   1  ePKP    PKPdf     13 31 45.3  -3.8
SMLA  Simla             143.63   2  e       PKPbc     13 31 59.2  +14
DDI   Dehra Dun         144.46   1  e       PKPbc     13 31 48.1 +0.2
KKR   Kurukshetra       144.78   3  ePKP    PKPdf     13 31 48.6  -3.2
KALG  Kalgarh           145.28 360  e       PKPbc     13 31 37.9   -12
BHGR  Bahadurgarh       146.05   3  ePKP    PKPdf     13 31 51.7  -2.3
NDI   New Delhi         146.07   2  ePKP    PKPdf     13 31 52.7  -1.4
GUN   Gumba             146.16 349  eP      PKPbc     13 31 52.9 +0.6
      comp=Z,176nm,0.9s
AYAN  Aya Nagar         146.26   3  ePKP    PKPdf     13 31 52.7  -1.8
GKN   Gorkha            146.29 351  eP      PKPbc     13 31 52.8 +0.2
      comp=Z,64nm,1.0s
KKN   Kakani            146.39 349  eP      PKPbc     13 31 52.8  -0.1
      comp=Z,184nm,0.9s
IMP   Imphal            146.53 334⇓iPKP    PKPdf     13 31 53.9  -1.1
KUDL  Kundal            146.56   4  ePKP    PKPdf     13 31 52.5  -2.5
PKI   Pulchoki          146.58 349  eP      PKPbc     13 31 52.3  -1.0
      comp=Z,218nm,1.4s
KHET  Khetri            146.59   5  ePKP    PKPdf     13 31 52.3  -2.7
DMN   Daman             146.60 350  eP      PKPbc     13 31 53.2  -0.1
      comp=Z,131nm,1.0s
SHL   Shillong          146.66 338  ePKP    PKPdf     13 31 54.0  -1.2
KOLN  Koldanda          146.68 352  eP      PKPbc     13 31 52.8  -0.7
      comp=Z,112nm,1.6s
JASL  Jaisalmer         146.97  13  ePKP    PKPdf     13 31 49.6  -6.1
CHRT  Chiangrai         147.44 321  ⇓P      PKPdf     13 31 56.0  -0.6
      comp=Z,237nm,0.8s
AGRA  Agra              147.54   1  ePKP    PKPdf     13 31 57.0 +0.4
NANT  Nan               147.63 319   P      PKPdf     13 31 55.0  -1.9
CHG   Chiang Mai        148.75 321  ⇓P      PKPdf     13 32 00.2 +1.5
CM31  Chiang Mai Arr    149.02 320  ePKPbc  PKPdf     13 32 01.9 +2.7
CMAR  Chiang Mai Arr    149.02 320   PKP    PKPdf     13 31 57.8  -1.4
      comp=Z,8.3nm,1.0s,baz=302,slow=1.1,SNR=16
CMAR                                 PKPbc  PKPdf     13 32 01.5 +2.3
      comp=Z,17nm,1.0s,baz=346,slow=1.4,SNR=27
CMAR  Chiang Mai Arr    149.02 320   PKIKP  PKPdf     13 31 57.8  -1.4
CMAR                                                  13 32 01.5
CMAR                                 pmax   pmax
      comp=Z,8.0nm,1.0s
CMAR                                 pmax   pmax
      comp=Z,17nm,1.0s
BDT   Bhumibol Dam      149.87 319   P      PKPdf     13 32 04.0 +3.5
      comp=Z,18nm,1.0s
NST   Nakhon Sawan      150.20 315   P      PKPdf     13 32 05.0 +3.9
CAL   Calcutta          150.67 342  ePKP    PKPdf     13 32 00.8  -0.8
BHPL  Bhopal            151.49   3  ePKP    PKPdf     13 32 00.9  -1.9
NNT   Nongplab          152.51 311   P      PKPdf     13 32 11.0 +6.4
POO   Poona             155.72  11  ePKP    PKPdf     13 32 05.0  -3.8
MNGI  Mangalore         161.35  12  ePKP    PKPdf     13 32 13.2  -2.4
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SOF **20** *13:31:36.1, 39.85N×28.75E, h2^{km}, MD3.3*
NEIC **20** *13:31:56.3, 40.66N×27.48E, h17^{km}, MD3.6(ATH), ML3.8(ISK), After ISK.*
THE **20** *13:31:56.8, 40.79N×27.61E, h20^{km}, ML4.0*
ISK **20** *13:31:56.3, 40.66N×27.49E, h17^{km}, MD3.6*
CSEM **20** *13:31:56.4±0.1, 40.66N×27.49E, h15^{km}, MD3.6, Error ellipse: s-maj=1.3km s-min=1.0km az=20.0*
ATH **20** *13:31:57.3, 40.63N×27.37E, h33^{km}, MD3.7/5*
ISC 20 13:31:56.5±0.3**, 40.67N**±0.02×**27.42E**±0.02**, h17**^{km}±4^{km}**, n91, σ0^{s}89**/118**, 2D, Turkey**

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Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                    Op      ISC        h  m  s     ISC
SART  Tekirdag           0.19 276  i P      Pb        13 32 00.6  -0.7
SART                               i S      Sb        13 32 03.5  -0.9
TKR   Tekirdag           0.33  15  i PG     Pb        13 32 03.6   0.0
TKR                                i SG     Sb        13 32 08.9  +0.5
TKR   Tekirdag           0.33  15    Pg     Pb        13 32 03.7  +0.1
TKR                                  Sg     Sb        13 32 08.7  +0.3
EDC   Edincik            0.47 134  i PG     Pb        13 32 05.5  -0.4
EDC   Edincik            0.47 134    Pg     Pb        13 32 05.5  -0.4
BNT   Bandirma           0.49 129  i PG     Pb        13 32 05.7  -0.6
BNT                                i SG     Sb        13 32 12.3  -0.7
BNT   Bandirma           0.49 129    Pg     Pb        13 32 05.8  -0.5
BNT                                  Sg     Sb        13 32 12.8  -0.2
CRLT  Corlu              0.52  27  ePG      Pb        13 32 07.2  +0.4
CRLT  Corlu              0.52  27    Pg     Pb        13 32 07.2  +0.5
SLVT  Silivri            0.82  47  i PG     Pb        13 32 12.3  +0.4
KCT   Karacabey          0.82 119  i PG     Pb        13 32 11.4  -0.5
KCT                                i SG     Sb        13 32 22.4   0.0
KCT   Karacabey          0.82 119    Pg     Pb        13 32 11.5  -0.4
KCT                                  Sg     Sb        13 32 22.5   0.0
KCT   Karacabey          0.82 119    Pg     Pb        13 32 11.5  -0.4
KCT                                  Sg     Sb        13 32 22.5  +0.1
BTOK  Tokmak             1.02 153  i P      Pb        13 32 15.5  +0.2
BTOK                               i S      Sb        13 32 30.5  +2.2
ALN   Alexandroupoli     1.07 283  ePb      Pb        13 32 16.7  +0.5
ALN                                eSb      Sb        13 32 32.4  +2.6
BALB  Balikesir          1.09 161  i PG     Pb        13 32 17.3  +0.8
BALB  Balikesir          1.09 161    Pg     Pb        13 32 17.4  +0.9
ARMT  Armutlu            1.10  95  i PG     Pb        13 32 17.2  +0.5
BGKT  Bogazkoy           1.14  63  i PN     Pn        13 32 18.0  +0.2
BGKT                               i SN     Sn        13 32 32.4  -0.7
BGKT  Bogazkoy           1.14  63  i Pn     Pn        13 32 18.0  +0.2
BGKT                                 Sg     Sb        13 32 32.0  +0.1
BGKT                               i Sn     Sn        13 32 32.4  -0.7
EZN   Ezine              1.19 225  i PN     Pn        13 32 18.4  -0.1
EDRB  Edirne             1.28 337  ePN      Pn        13 32 20.4  +0.6
EDRB                               eSN      Sn        13 32 37.6  +1.0
EDRB  Edirne             1.28 337    Pn     Pn        13 32 20.5  +0.7
EDRB                                 Sg     Sb        13 32 37.5  +1.6
EDRB  Edirne             1.28 337    Pn     Pn        13 32 20.5  +0.7
EDRB                               eSn      Sn        13 32 37.6  +1.0
ORLT  Orhaneli           1.29 118  ePN      Pn        13 32 20.1  +0.3
ORLT  Orhaneli           1.29 118    Pn     Pn        13 32 20.4  +0.6
BADT  Buyukada           1.30  81  ePN      Pn        13 32 19.4  -0.6
BADT  Buyukada           1.30  81    Pn     Pn        13 32 20.1   0.0
BADT  Buyukada           1.30  81    Pn     Pn        13 32 20.1  +0.1
ISK   Istanbul-Kandi     1.30  72  ePN      Pn        13 32 20.2  +0.1
ISK   Istanbul-Kandi     1.30  72    Pn     Pn        13 32 20.3  +0.2
BOZC  Bozcaada           1.34 232  i P      Pn        13 32 21.3  +0.8
BOZC                               i S      Sb        13 32 35.7  -1.8
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KLYT	**Kilyos**	**1.36**	**64**	PN	Pn	13 32 20.0	-0.9
DST	**Dursunbey**	**1.41**	**139**	*e*PN	Pn	13 32 21.2	-0.4
ULDT	**Uludag**	**1.41**	**111**	*i* P	Pn	13 32 22.1	+0.5
ULDT				*i* S	Sb	13 32 36.5	-3.1
AYVA	**Ayvalik**	**1.47**	**203**	*i* P	Pn	13 32 23.3	+0.8
AYVA				*i* S	Sn	13 32 43.8	+2.3
RDO	**Rodhopi**	**1.51**	**289**	⇓*i*PN	Pn	13 32 23.5	+0.5
PRK	**Paraskevi**	**1.68**	**212**	*e*PN	Pn	13 32 25.8	+0.4
PRK	**Paraskevi**	**1.68**	**212**	*e*Pg	Pn	13 32 25.5	+0.1
HRT	**Hereke**	**1.71**	**84**	*e*PN	Pn	13 32 25.6	-0.3
HRT	**Hereke**	**1.71**	**84**	Pn	Pn	13 32 25.6	-0.3
SILT	**Sile**	**1.75**	**73**	*e*PN	Pn	13 32 26.4	-0.1
SILT	**Sile**	**1.75**	**73**	Pn	Pn	13 32 27.1	+0.6
AKS	**Akhisar**	**1.81**	**170**	*e*PN	Pn	13 32 27.3	-0.1
AKS	**Akhisar**	**1.81**	**170**	Pn	Pn	13 32 27.4	0.0
AKS	**Akhisar**	**1.81**	**170**	Pn	Pn	13 32 27.4	0.0
JMB	**Yambol**	**1.90**	**341**	*i* P	Pn	13 32 29.0	+0.3
LOS	**Limnos**	**1.94**	**248**	*e*Pn	Pn	13 32 28.9	-0.2
LOS				*e*Sn	Sn	13 32 54.5	+1.3
LOS	**Limnos**	**1.94**	**248**	*e*Sn	Sn	13 32 54.5	+1.3
DIM	**Dimitrovgrad**	**1.98**	**315**	*i* P	Pn	13 32 29.5	-0.3
GPA	**Golpazari**	**2.23**	**99**	*e*PN	Pn	13 32 33.4	0.0
GPA	**Golpazari**	**2.23**	**99**	Pn	Pn	13 32 33.5	+0.1
KDAG	**Bornova**	**2.27**	**183**	*i* P	Pn	13 32 38.8	+4.9
IZM	**Izmir**	**2.27**	**183**	*e*PN	Pn	13 32 34.0	0.0
RZN	**Rozhen**	**2.28**	**297**	*i* P	Pn	13 32 34.0	-0.1
BLCB	**Balcova**	**2.30**	**187**	*e*PN	Pn	13 32 35.2	+0.8
BLCB	**Balcova**	**2.30**	**187**	Pn	Pn	13 32 35.2	+0.9
MANT	**Manisa**	**2.35**	**158**	*i* P	Pn	13 32 35.5	+0.5
MANT				*i* S	Sn	13 33 01.9	-1.8
ALT	**Altintas**	**2.62**	**127**	*e*PN	Pn	13 32 39.2	+0.2
HENT	**Hendek**	**2.65**	**86**	*i* P	Pn	13 32 43.9	+4.7
OUR	**Ouranopolis**	**2.65**	**264**	*e*Pn	Pn	13 32 38.4	-0.9
OUR				*e*Sn	Sn	13 33 13.1	+1.8
ESKT	**Eskisehir**	**2.87**	**112**	*e*PN	Pn	13 32 42.5	0.0
ESKT	**Eskisehir**	**2.87**	**112**	Pn	Pn	13 32 43.0	+0.6
ESKT	**Eskisehir**	**2.87**	**112**	*i* P	Pn	13 32 44.1	+1.6
MMB	**Musomiste**	**2.94**	**289**	*i* P	Pn	13 32 43.0	-0.5
SRS	**Serrai**	**2.94**	**280**	*e*Pn	Pn	13 32 43.0	-0.5
SRS				*e*Sn	Sn	13 33 18.3	-0.4
SRS	**Serrai**	**2.94**	**280**	*e*Sn	Sn	13 33 18.3	-0.4
PAIG	**Paliouri**	**2.96**	**257**	*e*Pn	Pn	13 32 43.1	-0.7
PAIG				*e*Sn	Sn	13 33 21.3	+2.1
SMG	**Samos**	**2.99**	**189**	*e*PN	Pn	13 32 44.0	-0.2
SMG	**Samos**	**2.99**	**189**	*e*Pg	Pn	13 32 53.5	+9.3
PLG	**Polygyros**	**3.05**	**266**	*e*PN	Pn	13 32 44.5	-0.5
PLG	**Polygyros**	**3.05**	**266**	*e*Pg	Pn	13 32 45.5	+0.5
PGB	**Panagyurishte**	**3.08**	**309**	*i* P	Pn	13 32 44.0	-1.5
SOH	**Sokhos**	**3.10**	**274**	*e*Pn	Pn	13 32 45.1	-0.5
SOH				*e*Sn	Sn	13 33 22.4	-0.2
SOH	**Sokhos**	**3.10**	**274**	*e*Sn	Sn	13 33 22.5	-0.1
AOS	**Alonnisos**	**3.11**	**242**	*e*Pn	Pn	13 32 46.3	+0.4
DNZL	**Cakiroluk**	**3.23**	**157**	*i* P	Pn	13 32 54.5	+6.9
KNT	**Kendrikon**	**3.46**	**280**	*e*Pn	Pn	13 32 50.9	0.0
KNT				*e*Sn	Sn	13 33 30.8	-1.2
KKB	**Krupnik**	**3.48**	**291**	*i* P	Pn	13 32 50.5	-0.7
SGKT	**Sivrigoynuk**	**3.53**	**90**	*i* P	Pn	13 32 52.4	+0.6
BDRM	**Kayabasi**	**3.60**	**180**	*i* P	Pn	13 33 06.1	+13
VTS	**Vitosha**	**3.70**	**303**	*i* P	Pn	13 32 54.0	-0.2
LIT	**Litokhoron**	**3.81**	**263**	*e*Pn	Pn	13 32 54.6	-1.2
GRG	**Griva**	**3.82**	**276**	*e*Pn	Pn	13 32 56.1	+0.1
GRG				*e*Sn	Sn	13 33 40.1	-0.9
KIZT	**Kizilcal**	**3.87**	**116**	*e*PN	Pn	13 32 56.3	-0.4
APE	**Apeiranthos**	**3.89**	**203**	*e*PN	Pn	13 32 55.8	-1.1
APE	**Apeiranthos**	**3.89**	**203**	*e*Pn	Pn	13 32 55.5	-1.4
AGG	**Agios Georgios**	**4.25**	**249**	*e*Pn	Pn	13 33 01.6	-0.6
AGG	**Agios Georgios**	**4.25**	**249**	*e*Pn	Pn	13 33 01.5	-0.6
FNA	**Florina**	**4.60**	**273**	*e*Pn	Pn	13 33 06.7	-0.4
RHK1	**Bakonya**	**8.70**	**312**	⇓*e*P	P	13 34 02.3	-2.3

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*NAO **20** 13:38:48.6±8.5,60.14N×23.79E,h16^{km}±44^{km},ML2.2*
*BER **20** 13:38:48.0±1.7,60.05N×23.87E,ML2.2(NAO), Suspected explosion*
HEL 20 13:38:48.0±0.5**,60.06N×24.00E,ML1.3,Explosion, Finland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PVF	**Pernaja**	**1.05**	**62**	*e*P	Pb	13 39 06.6	-2.1
PVF				*e*S	Sb	13 39 20.0	-2.8
FIA0	**FINESS Array S**	**1.72**	**36**	Pn	Pn	13 39 18.0	-1.4
	baz=211,slow=16						
FIA0				Sn	Sn	13 39 39.8	-2.6
	baz=224,slow=28						
FIA0				Lg		13 39 42.8	
	baz=222,slow=28						
FIA0	**FINESS Array S**	**1.72**	**36**	*e*P	Pn	13 39 18.0	-1.4
FIA0				*e*S	Sb	13 39 40.6	-1.7
VJF	**Virojoki**	**1.83**	**73**	*e*P	Pn	13 39 20.3	-0.8
VJF				*e*S	Sn	13 39 44.6	-0.7
KEF	**Keuruu**	**2.15**	**11**	*e*P	Pn	13 39 24.9	-0.7
KEF				*e*S	Sn	13 39 52.8	-0.6
KEF				MSG		13 39 56.1	
	comp=Z,1.1nm,0.1s						
KAF	**Kangasniemi**	**2.34**	**28**	*e*P	Pn	13 39 28.3	0.0
KAF				*e*S	Sn	13 39 56.0	-2.2
KAF				MSG		13 39 59.8	
	comp=Z,0.8nm,0.1s						
SUF	**Sumiainen**	**2.86**	**20**	MSG		13 40 13.0	
	comp=Z,0.7nm,0.2s						

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*CSEM **20** 13:54:46.6±0.6,36.11N×3.89W,h2^{km},ML2.9/1,Error ellipse: s-maj=11.7km s-min=4.6km az=169.0*
*SFS **20** 13:54:46.0,36.07N×3.99W,ML2.5*
MDD 20 13:54:46.4±1.2**,36.10N×3.93W,mbLg2.4**/7**,Error ellipse: s-maj=10.3km s-min=5.2km az=170.0,PRXIMO, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMIJ	**Mijas**	**0.82**	**305**	Pg	Pg	13 55 01.4	-1.5
	4.4nm,0.1s,SNR=18						
EMIJ				Lg		13 55 11.0	
	91nm,0.2s,SNR=7.9						
ERON	**Agron**	**0.93**	**6**	Pg	Pg	13 55 03.5	-1.5
	6.5nm,0.2s,SNR=18						
ERON				Lg		13 55 16.1	
	30nm,0.2s,SNR=7.9						
ELOJ	**Sierra Loja**	**1.06**	**351**	Pg	Pg	13 55 06.4	-1.3
	5.1nm,0.2s,SNR=18						
ELOJ				Lg		13 55 21.8	
	16nm,0.2s,SNR=7.9						
REAL	**Reales**	**1.10**	**291**	Pg	Pg	13 55 10.0	+1.6
REAL				Lg		13 55 18.0	
REAL	**Reales**	**1.10**	**291**	*e*P	Pb	13 55 10.0	+2.0
EBER	**Berja**	**1.16**	**46**	Pg	Pg	13 55 08.1	-1.5
	2.0nm,0.1s,SNR=7.9						
EBER				Lg		13 55 22.5	
	27nm,0.2s,SNR=7.9						
EBER	**Berja**	**1.16**	**46**	Pg	Pg	13 55 08.1	-1.5
	2.0nm,0.1s,SNR=7.9						
LIJA	**Lijar**	**1.43**	**305**	*e*P	Pn	13 55 16.0	+2.3
LIJA				*e*S	Sb	13 55 35.0	+2.5
ELUQ	**Luque**	**1.48**	**350**	Pg	Pg	13 55 14.2	-1.9
	6.3nm,0.2s,SNR=7.9						
ELUQ				Lg		13 55 35.1	
	14nm,0.2s,SNR=4.0						
ENIJ	**Nijar**	**1.64**	**57**	Pg	Pg	13 55 15.2	-4.1
	5.2nm,0.2s,SNR=4.0						
ESPR	**Espera**	**1.73**	**297**	Pg	Pg	13 55 19.6	-1.4
	0.6nm,0.2s,SNR=7.9						
ESPR				Lg		13 55 44.3	
	21nm,0.3s,SNR=4.0						
ESPR	**Espera**	**1.73**	**297**	Pg	Pg	13 55 19.6	-1.4
	0.6nm,0.2s,SNR=7.9						
EQES	**Quesada**	**1.84**	**22**	Pn	Pn	13 55 16.3	-3.2
	SNR=4.0						
EQES				Pg	Pg	13 55 20.3	-2.8
	2.3nm,0.1s,SNR=7.9						
EQES				Lg		13 55 44.0	
	17nm,0.2s,SNR=7.9						
EQES	**Quesada**	**1.84**	**22**	Pn	Pn	13 55 16.3	-3.2
	SNR=4.0						
EQES	**Quesada**	**1.84**	**22**	Pg	Pg	13 55 20.3	-2.8
	2.3nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**2.13**	**346**	Pn	Pn	13 55 21.8	-1.9
	0.7nm,0.1s,SNR=7.9						
EADA				Pg	Pg	13 55 25.0	-4.0
	3.4nm,0.2s,SNR=4.0						
EADA				Lg		13 55 52.1	
	19nm,0.3s,SNR=7.9						
EADA	**Adamuz**	**2.13**	**346**	Pn	Pn	13 55 21.8	-1.9
	0.7nm,0.1s,SNR=7.9						
EADA	**Adamuz**	**2.13**	**346**	Pg	Pg	13 55 25.0	-4.0
	3.4nm,0.2s,SNR=4.0						
EMIN	**Mina Concepcio**	**2.76**	**308**	Pn	Pn	13 55 30.6	-2.1
	0.9nm,0.1s,SNR=7.9						
EMIN				Sn	Sn	13 56 02.3	-4.8
	4.3nm,0.2s,SNR=7.9						
EMIN				Lg		13 56 13.1	
	1.3nm,0.2s,SNR=4.0						
EMIN	**Mina Concepcio**	**2.76**	**308**	Pn	Pn	13 55 30.6	-2.1
	0.9nm,0.1s,SNR=7.9						
EMIN				Sn	Sn	13 56 02.3	-4.9
	4.3nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	**3.57**	**360**	Pn	Pn	13 55 43.6	-0.7
	0.9nm,0.3s,baz=180,slow=11,SNR=4.0						
ESDC				Lg		13 56 37.5	
	1.2nm,0.2s,baz=186,slow=27,SNR=7.2						
ESDC	**Sonseca Array**	**3.57**	**360**	Pn	Pn	13 55 43.6	-0.7
	0.9nm,0.3s,baz=180,SNR=4.0						
EBAD	**Badajoz**	**3.61**	**318**	Pn	Pn	13 55 42.4	-2.4
	SNR=7.9						
EBAD				Sn	Sn	13 56 23.2	-5.7
	5.7nm,0.2s,SNR=7.9						

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*LDG **20** 13:59:17.1±0.3,38.16N×0.59E,h10^{km},Ml3.5/7,Error ellipse: s-maj=7.4km s-min=3.2km az=145.0*
*NEIC **20** 13:59:29.4,39.09N×0.14E,h10^{km},ML3.5(LDG), MN2.8(MDD),After MDD.*
*CSEM **20** 13:59:29.2±0.1,39.10N×0.13E,h10^{km},ML3.3/13,Error ellipse: s-maj=2.7km s-min=1.8km az=133.0*
MDD 20 13:59:29.4±0.3**,39.09N×0.14E,h10**^{km}**,mbLg2.8**/16**,1C, Error ellipse: s-maj=4.7km s-min=2.5km az=119.0, PRXIMO,Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EBEN	**Beniarda**	**0.48**	**217**	⇑Pg	Pg	13 59 38.4	-0.7
	173nm,0.2s,SNR=18						
EBEN				Lg		13 59 44.7	
	994nm,0.3s,SNR=7.9						
EBEN	**Beniarda**	**0.48**	**217**	Pg	Pg	13 59 38.4	-0.7
	173nm,0.2s,SNR=18						
EIBI	**Ibiza**	**0.94**	**93**	Pg	Pg	13 59 46.6	-1.6
	12nm,0.1s,SNR=12						
EIBI				Lg		13 59 58.7	
	143nm,0.2s						
EIBI	**Ibiza**	**0.94**	**93**	Pg	Pg	13 59 46.6	-1.6
	12nm,0.1s,SNR=12						
EMOS	**Mosqueruela**	**1.36**	**340**	Pg	Pg	13 59 52.9	-3.6
	1.8nm,0.1s,SNR=48						
EMOS				Lg		14 00 12.4	
	29nm,0.2s						
EMOS	**Mosqueruela**	**1.36**	**340**	Pg	Pg	13 59 52.9	-3.6
	1.8nm,0.1s,SNR=48						
EMUR	**La Murta**	**1.65**	**221**	Pn	Pn	13 59 56.7	-2.0
	8.3nm,0.2s,SNR=16						
EMUR				Sn	Sn	14 00 16.4	-3.7
	46nm,0.3s,SNR=4.0						
EMUR	**La Murta**	**1.65**	**221**	Pn	Pn	13 59 56.7	-2.0
	8.3nm,0.2s,SNR=16						
EMUR				Sn	Sn	14 00 16.4	-3.7
	46nm,0.3s,SNR=4.0						
EBR	**Ebro Roquetas**	**1.75**	**9**	*e*P*P*		14 00 02.0	
EBR				*e*PNPN		14 00 05.0	
EBR				*e*S*S*		14 00 31.0	
CART	**Cartagena**	**1.75**	**211**	*e*Pn	Pn	13 59 58.0	-2.1
CART	**Cartagena**	**1.75**	**211**	*e*Pn	Pn	13 59 58.0	-2.0
ERTA	**Horta de San J**	**1.87**	**4**	Pn	Pn	14 00 00.1	-1.7
ERTA				Lg		14 00 27.4	
ERTA	**Horta de San J**	**1.87**	**4**	Pn	Pn	14 00 00.1	-1.7
	2.3nm,0.1s,SNR=9.1						
ERTA				Lg		14 00 28.2	
	12nm,0.2s						
ERTA	**Horta de San J**	**1.87**	**4**	Pn	Pn	14 00 00.1	-1.7
	2.3nm,0.1s,SNR=9.1						
EVIA	**Vianos**	**2.11**	**259**	Pn	Pn	14 00 03.3	-2.0
EVIA				Pg	Pg	14 00 08.7	-2.9
EVIA				Sn	Sn	14 00 28.9	-2.9
EVIA				Lg		14 00 35.0	
EVIA	**Vianos**	**2.11**	**259**	Pn	Pn	14 00 03.3	-2.0
	24nm,0.5s,SNR=7.9						
EVIA				Pg	Pg	14 00 08.7	-2.9
	36nm,0.2s,SNR=7.9						
EVIA				Sn	Sn	14 00 28.9	-2.9
	70nm,0.4s,SNR=4.0						
EVIA				Lg		14 00 36.4	
	101nm,0.4s,SNR=4.0						
EVIA	**Vianos**	**2.11**	**259**	Pg	Pg	14 00 08.7	-2.9
	36nm,0.2s,SNR=7.9						
EVIA				Sn	Sn	14 00 28.9	-2.9
	70nm,0.4s,SNR=4.0						
EPOB	**Poblet**	**2.37**	**17**	Pn	Pn	14 00 07.5	-1.5
EPOB				Pg	Pg	14 00 13.8	-2.9
EPOB				Lg		14 00 43.1	
EPOB	**Poblet**	**2.37**	**17**	Pn	Pn	14 00 07.4	-1.5
	1.2nm,0.1s,SNR=8.3						
EPOB				Pg	Pg	14 00 13.8	-2.9
	7.2nm,0.3s,SNR=7.9						
EPOB				Lg		14 00 43.9	
	7.9nm,0.2s,SNR=4.0						
EPOB	**Poblet**	**2.37**	**17**	Pn	Pn	14 00 07.4	-1.5
	1.2nm,0.1s,SNR=8.3						
EPOB	**Poblet**	**2.37**	**17**	Pg	Pg	14 00 13.8	-2.9
	7.2nm,0.3s,SNR=7.9						
ESAC	**San Caprasio**	**2.67**	**350**	Pn	Pn	14 00 09.4	-3.8
	7.0nm,0.3s,SNR=7.9						
ESAC				Pg	Pg	14 00 19.7	-3.0
	SNR=7.9						
ESAC				Lg		14 00 53.3	
	151nm,0.3s,SNR=7.9						
ESAC	**San Caprasio**	**2.67**	**350**	Pn	Pn	14 00 09.4	-3.8
	7.0nm,0.3s,SNR=7.9						
ESAC	**San Caprasio**	**2.67**	**350**	Pg	Pg	14 00 19.7	-3.0
	SNR=7.9						
EQES	**Quesada**	**2.83**	**244**	Pn	Pn	14 00 13.8	-1.7
EQES				Pg	Pg	14 00 22.0	-3.9
EQES				Sn	Sn	14 00 47.0	-3.0
EQES				Lg		14 00 56.1	
EQES	**Quesada**	**2.83**	**244**	Pn	Pn	14 00 13.8	-1.7
	2.4nm,0.1s,SNR=7.9						
EQES				Pg	Pg	14 00 22.0	-3.9
	SNR=7.9						
EQES				Sn	Sn	14 00 47.0	-3.0
	21nm,0.2s,SNR=7.9						
EQES				Lg		14 00 56.8	
	31nm,0.3s,SNR=7.9						
EQES	**Quesada**	**2.83**	**244**	Pn	Pn	14 00 13.8	-1.7
	2.4nm,0.1s,SNR=7.9						
EQES	**Quesada**	**2.83**	**244**	Pg	Pg	14 00 22.0	-3.9
	SNR=7.9						
EQES				Sn	Sn	14 00 47.0	-3.0
	21nm,0.2s,SNR=7.9						
EMIR	**Miracle**	**3.01**	**20**	Pn	Pn	14 00 18.0	-0.1
	SNR=7.9						
EMIR				Pg	Pg	14 00 26.1	-3.4
	6.0nm,0.2s,SNR=4.0						
EMIR	**Miracle**	**3.01**	**20**	Pg	Pg	14 00 26.1	-3.4
	6.0nm,0.2s,SNR=4.0						
ESDC	**Sonseca Array**	**3.23**	**282**	Pn	Pn	14 00 18.6	-2.6
	13nm,0.2s,baz=96,slow=14,SNR=22						
ESDC				Pg	Pg	14 00 28.6	-5.3
	7.1nm,0.3s,baz=99,slow=18,SNR=13						
ESDC				Sn	Sn	14 00 56.7	-3.5
	9.0nm,0.3s,baz=102,slow=25,SNR=7.9						
ESDC				Lg		14 01 07.2	
	11nm,0.3s,baz=97,slow=30,SNR=7.9						
ESDC	**Sonseca Array**	**3.23**	**282**	Pn	Pn	14 00 18.6	-2.6
	13nm,0.2s,slow=14,SNR=22						
ESDC	**Sonseca Array**	**3.23**	**282**	Pg	Pg	14 00 28.6	-5.4
	7.1nm,0.3s,baz=99,slow=18,SNR=13						
ESDC				Sn	Sn	14 00 56.7	-3.5
	9.0nm,0.3s,slow=25,SNR=7.9						
ESLA	**Sonseca Array**	**3.23**	**282**	*e*Pn	Pn	14 00 18.6	-2.6
ESLA	**Sonseca Array**	**3.23**	**282**	*e*Pn	Pn	14 00 18.6	-2.6
EBER	**Berja**	**3.24**	**229**	Pn	Pn	14 00 21.4	0.0
	2.3nm,0.2s,SNR=7.9						
EBER				Pg	Pg	14 00 33.0	-1.1
	5.8nm,0.3s,SNR=4.0						
EBER				Lg		14 01 12.2	
	16nm,0.4s,SNR=4.0						
EBER	**Berja**	**3.24**	**229**	Pn	Pn	14 00 21.4	0.0
	2.3nm,0.2s,SNR=7.9						
EBIE	**Bielsa**	**3.59**	**0**	Pn	Pn	14 00 24.4	-1.9
	0.8nm,0.2s,SNR=7.9						
EBIE				Pg	Pg	14 00 36.5	-4.6
	2.5nm,0.4s,SNR=7.9						
EBIE				Lg		14 01 24.9	
	8.8nm,0.5s,SNR=4.0						
EBIE	**Bielsa**	**3.59**	**0**	Pn	Pn	14 00 24.4	-1.9
	0.8nm,0.2s,SNR=7.9						
EBIE	**Bielsa**	**3.59**	**0**	Pg	Pg	14 00 36.5	-4.6
	2.5nm,0.4s,SNR=7.9						
ELUQ	**Luque**	**3.79**	**248**	Pn	Pn	14 00 26.0	-3.1
	3.9nm,0.2s,SNR=4.0						
ELUQ				Pg	Pg	14 00 39.4	-5.6
	7.9nm,0.3s,SNR=4.0						
ELUQ				Sn	Sn	14 01 10.6	-3.6
	10nm,0.2s,SNR=4.0						
ELUQ				Lg		14 01 29.5	
	9.5nm,0.2s,SNR=4.0						
ELUQ	**Luque**	**3.79**	**248**	Pg	Pg	14 00 39.4	-5.6
	7.9nm,0.3s,SNR=4.0						
ELUQ				Sn	Sn	14 01 10.6	-3.6
	10nm,0.2s,SNR=4.0						
EADA	**Adamuz**	**3.81**	**257**	Pn	Pn	14 00 25.6	-3.8
	2.3nm,0.2s,SNR=9.9						
EADA				Pg	Pg	14 00 38.9	-6.5
	14nm,0.3s,SNR=7.9						
EADA				Sn	Sn	14 01 09.4	-5.3
	3.5nm,0.2s,SNR=7.9						
EADA				Lg		14 01 27.1	
	14nm,0.2s,SNR=5.0						
EADA	**Adamuz**	**3.81**	**257**	Pn	Pn	14 00 25.6	-3.8
	2.3nm,0.2s,SNR=9.9						
EADA	**Adamuz**	**3.81**	**257**	Pg	Pg	14 00 38.9	-6.5
	14nm,0.3s,SNR=7.9						
EADA				Sn	Sn	14 01 09.4	-5.4
	3.5nm,0.2s,SNR=7.9						
ETSF	**Etsaut**	**3.84**	**352**	*e*Pn	Pn	14 00 28.2	-1.7
ETSF				*e*Pg	Pg	14 00 46.2	+0.1
ETSF				*e*Sn	Sn	14 01 21.0	+5.4
	35nm,0.6s						
EPF	**Esparros**	**3.94**	**2**	*e*Pn	Pn	14 00 29.0	-2.3
EPF				*e*Pg	Pg	14 00 46.3	-1.7
EPF				*e*Sn	Sn	14 01 22.0	+3.9
	39nm,0.6s						
EPF	**Esparros**	**3.94**	**2**	*e*Pg	Pg	14 00 46.3	-1.7
SJPF	**Ste Jean**	**4.15**	**346**	*e*Pn	Pn	14 00 32.5	-1.7
SJPF				*e*Sn	Sn	14 01 27.8	+4.4
	32nm,0.7s						
EALK	**Alkurruntz**	**4.31**	**344**	Pn	Pn	14 00 35.6	-0.9
	7.7nm,0.5s,SNR=6.6						
EALK				Sn	Sn	14 01 22.9	-4.6
	5.6nm,1.2s,SNR=4.0						
EALK				Lg		14 01 46.3	
	14nm,0.4s,SNR=4.0						
MTLF	**Montolieu**	**4.53**	**20**	*e*Pn	Pn	14 00 33.4	-6.2
MTLF				*e*Pg	Pg	14 00 55.1	-4.6
MTLF				*e*Sn	Sn	14 01 32.7	-0.2
	18nm,0.7s						
MTLF	**Montolieu**	**4.53**	**20**	*e*Pg	Pg	14 00 55.1	-4.6
ESPR	**Espera**	**5.23**	**247**	Pn	Pn	14 00 47.5	-2.1
	0.4nm,0.5s,SNR=4.0						
ESPR				Sn	Sn	14 01 42.7	-8.0
	2.1nm,0.2s,SNR=4.0						
ESPR				Lg		14 02 17.1	
	2.4nm,0.6s,SNR=7.9						
ESPR	**Espera**	**5.23**	**247**	Pn	Pn	14 00 47.5	-2.1
	0.4nm,0.5s,SNR=4.0						
ESPR				Sn	Sn	14 01 42.7	-8.0
	2.1nm,0.2s,SNR=4.0						
EMIN	**Mina Concepcio**	**5.51**	**258**	Pn	Pn	14 00 48.5	-5.0
	0.7nm,0.5s,SNR=7.9						
EMIN				Pg	Pg	14 01 09.9	-10
	1.7nm,0.4s,SNR=7.9						
EMIN				Sn	Sn	14 01 49.6	-8.1
	1.4nm,0.2s,SNR=7.9						
EMIN				Lg		14 02 18.3	
	4.3nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	**5.51**	**258**	Pn	Pn	14 00 48.5	-5.0
	0.7nm,0.5s,SNR=7.9						
EMIN	**Mina Concepcio**	**5.51**	**258**	Pg	Pg	14 01 09.9	-9.5
	1.7nm,0.4s,SNR=7.9						
EMIN				Sn	Sn	14 01 49.6	-8.1
	1.4nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**5.59**	**269**	Pn	Pn	14 00 50.1	-4.5
	1.0nm,0.3s,SNR=7.9						
EBAD				Pg	Pg	14 01 11.6	-9.4
	2.4nm,0.4s,SNR=7.9						
EBAD				Sn	Sn	14 01 52.7	-7.0
	11nm,0.2s,SNR=7.9						
EBAD				Lg		14 02 26.7	
	2.1nm,0.2s,SNR=4.0						
EBAD	**Badajoz**	**5.59**	**269**	Pg	Pg	14 01 11.6	-9.4
	2.4nm,0.4s,SNR=7.9						
EBAD				Sn	Sn	14 01 52.7	-7.0
	11nm,0.2s,SNR=7.9						
LASF	**Ste Croix**	**5.71**	**28**	*e*Pn	Pn	14 00 49.0	-7.3
EARI	**Arriondas**	**5.83**	**318**	Pn	Pn	14 00 55.4	-2.6
	1.2nm,0.2s,SNR=7.9						
EARI				Sn	Sn	14 01 59.2	-6.5
	0.9nm,0.2s,SNR=7.9						
EARI	**Arriondas**	**5.83**	**318**	Pn	Pn	14 00 55.4	-2.6
	1.2nm,0.2s,SNR=7.9						
EARI				Sn	Sn	14 01 59.2	-6.5
	0.9nm,0.2s,SNR=7.9						
LFF	**La Frestale**	**5.86**	**4**	*e*Pn	Pn	14 00 54.3	-4.2
LFF				*e*Sn	Sn	14 02 07.5	+1.0
LFF				*e*Sg	Sg	14 02 48.0	+3.5
	9.0nm,0.3s						
ECAL	**Calabor**	**5.96**	**301**	Pn	Pn	14 00 56.2	-3.7
	15nm,0.3s,SNR=18						
ECAL				Sn	Sn	14 02 01.7	-7.4
	4.1nm,0.3s,SNR=5.0						
ECAL				Lg		14 02 38.2	
	5.2nm,0.4s,SNR=7.9						
ECAL	**Calabor**	**5.96**	**301**	Pn	Pn	14 00 56.2	-3.7
	15nm,0.3s,SNR=18						
ECAL				Sn	Sn	14 02 01.7	-7.4
	4.1nm,0.3s,SNR=5.0						
CAF	**Calviac**	**6.00**	**13**	*e*Pn	Pn	14 00 55.3	-5.2
EVO	**Evora**	**6.39**	**268**	*e*Pn	Pn	14 00 55.6	-10
EVO				*e*Pg	Pg	14 01 23.4	-14
EVO				*e*Sn	Sn	14 02 10.1	-10
EVO				*e*Sg	Sg	14 02 50.7	-12
	25nm,0.5s						
EINC	**Incio**	**6.70**	**305**	Pn	Pn	14 01 06.6	-3.7
	3.7nm,0.4s,SNR=7.9						
EINC				Sn	Sn	14 02 18.7	-8.8
	2.4nm,0.2s,SNR=7.9						
EINC	**Incio**	**6.70**	**305**	Pn	Pn	14 01 06.6	-3.7
	3.7nm,0.4s,SNR=7.9						
EINC				Sn	Sn	14 02 18.7	-8.9
ELOB	**Lobios**	**6.84**	**297**	Pn	Pn	14 01 08.3	-4.0
	0.7nm,0.2s,SNR=7.9						
ELOB				Sn	Sn	14 02 22.3	-8.6
	1.4nm,0.3s,SNR=7.9						
ELOB	**Lobios**	**6.84**	**297**	Pn	Pn	14 01 08.3	-4.0
ELOB				Sn	Sn	14 02 22.4	-8.6
EPON	**Pontenova**	**6.94**	**310**	Pn	Pn	14 01 10.4	-3.3
	0.7nm,0.2s,SNR=7.9						
EPON				Sn	Sn	14 02 24.0	-9.3
	1.9nm,0.3s,SNR=7.9						
EPON	**Pontenova**	**6.94**	**310**	Pn	Pn	14 01 10.4	-3.2
EPON				Sn	Sn	14 02 24.0	-9.4
ORIF	**Oris-en-Rattie**	**7.22**	**34**	*e*Pn	Pn	14 01 08.6	-9.0
ORIF				*e*Sn	Sn	14 02 32.3	-8.2
	1.6nm,0.4s						
ORIF	**Oris-en-Rattie**	**7.22**	**34**	*e*Sn	Sn	14 02 32.3	-8.2
	0.8nm,0.4s						

IDC 20 14:00:13.7±71.0**,22.05S×179.40E,mb3.5**/3**,mb1 3.7**/3**, mb1mx3.6**/13**,Error ellipse: s-maj=1272.0km s-min=149.9km az=84.0,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**34.94**	**246**	P	P	14 07 08.0	-1.3
	0.9nm,0.3s,baz=121,slow=9.2,SNR=10.0						
ASAR	**Alice Springs**	**41.82**	**259**	P	P	14 08 04.7	-2.3
	0.2nm,0.7s,baz=95,slow=7.2,SNR=6.4						
WRA	**Warramunga Arr**	**42.01**	**264**	P	P	14 08 06.9	-1.7
	0.1nm,0.3s,baz=104,slow=8.8,SNR=19						

IDC 20 14:01:30.0±2.8**,19.10S×172.55W,h28**^{km}±5^{km}**,mb3.5**/5**, mb1 3.8**/5**,mb1mx3.6**/16**,Error ellipse: s-maj=146.0km s-min=20.2km az=149.0,Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**38.75**	**261**	P	P	14 08 51.7	-2.3
	1.6nm,0.7s,baz=106,slow=8.2,SNR=4.0						
CTA				pP	pP	14 09 00.3	-1.9
	1.3nm,0.5s,baz=103,slow=11,SNR=2.3						
ASAR	**Alice Springs**	**49.83**	**255**	P	P	14 10 20.9	-2.0
	2.0nm,0.8s,baz=88,slow=8.4,SNR=18						
ASAR				pP	pP	14 10 29.9	-1.5
	2.6nm,0.8s,baz=97,slow=7.3,SNR=11						
WRA	**Warramunga Arr**	**49.88**	**260**	P	P	14 10 21.1	-2.3
	0.6nm,0.8s,baz=97,slow=8.5,SNR=10.0						
NVAR	**Mina Array Bea**	**76.55**	**41**	P	P	14 13 17.7	-2.0
	0.4nm,0.7s,baz=228,slow=11,SNR=3.0						
NVAR				pP	pP	14 13 27.0	-1.4
	1.0nm,1.0s,baz=234,slow=7.8,SNR=3.2						
ILAR	**Eielson Array**	**85.90**	**11**	P	P	14 14 08.0	-0.3
	0.2nm,0.8s,baz=232,slow=10,SNR=2.7						
ILAR				pP	pP	14 14 15.1	-2.0
	0.5nm,1.0s,baz=227,slow=5.9,SNR=2.0						

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*DJA **20** 14:11:22.0±0.9, 9.01S×118.46E, h160^{km}, MD4.6/5, ML5.6/4, Error ellipse: s-maj=33.5km s-min=8.4km az=154.0*

*NEIC **20** 14:11:25.3±0.6, 8.64S×118.37E, h128^{km}±6^{km}, mb4.5/16, Error ellipse: s-maj=9.8km s-min=6.1km az=221.0*

*IDC **20** 14:11:27.3±1.7, 8.52S×118.60E, h145^{km}±14^{km}, mb4.0/11, mb1 4.2/13, mb1mx4.1/18, Error ellipse: s-maj=19.5km s-min=9.0km az=49.0*

ISC 20 14:11:23.3±0.9, **8.45S**±0.08×**118.46E**±0.06, **h129**^{km}±9^{km}, **n49**, σ1^{s}**14**/52, **mb4.2**/22, **4C-2D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	**2.32**	**269**	*e*Pn	**P**	**14 12 02.6**	**+0.8**
	2µm,0.2s						
KEDI				⇑*e*Sn	**S**	**14 12 32.3**	**+1.3**
RATI	**Rata**	**2.91**	**264**	⇑*i*Pn	**P**	**14 12 10.0**	**+0.5**
	4µm,0.2s						
KELI	**Kelakatan**	**3.93**	**273**	*e*Pn	**P**	**14 12 23.5**	**+0.4**
	724nm,0.2s						
KELI				*e*Sn	**S**	**14 13 09.8**	**+0.8**
NINI	**Niniconang**	**4.21**	**18**	⇓*e*P	**P**	**14 12 33.2**	**+6.4**
	3µm,0.7s						
SRDI	**Scrawed**	**4.27**	**269**	⇓*e*Pn	**P**	**14 12 26.9**	**-0.7**
	2µm,0.2s						
SRDI				⇑*e*Sn	**S**	**14 13 14.8**	**-2.2**
FITZ	**Fitzroy Crossi**	**11.86**	**145**	*e*P	**P**	**14 14 08.2**	**-1.1**
	32nm,0.7s						
FITZ				*e*S	**S**	**14 16 10.0**	**-9.4**
FITZ	**Fitzroy Crossi**	**11.86**	**145**	P	**P**	**14 14 08.7**	**-0.6**
	2.2nm,0.3s,baz=345,slow=7.4,SNR=52						
FITZ				S	**S**	**14 16 10.7**	**-8.8**
	12nm,0.3s,baz=181,slow=18,SNR=14						
MBWA	**Marble Bar**	**12.69**	**175**	*e*Pn	**P**	**14 14 17.9**	**-2.3**
	51nm,0.6s						
MBWA				*e*Sn	**S**	**14 16 22.4**	**-17**
KAKA	**Kakadu**	**14.34**	**108**	⇑*i*P	**P**	**14 14 41.6**	**+0.1**
	110nm,0.6s						
KAKA				*e*S	**S**	**14 17 09.4**	**-8.0**
WRA	**Warramunga Arr**	**19.15**	**128**	P	**P**	**14 15 38.0**	**-1.1**
	4.5nm,0.3s,baz=301,slow=13,SNR=330						
WRA				S	**S**	**14 19 05.5**	**+1.4**
	1.0nm,0.3s,baz=305,slow=22,SNR=8.5						
WRA				ScP		14 23 19.5	
	baz=304,slow=1.5,SNR=8.1						
WRAB	**Tennant Creek**	**19.15**	**128**	*e*P	**P**	**14 15 37.5**	**-1.7**
	32nm,0.6s						
WRAB				*e*S	**S**	**14 18 55.4**	**-8.8**
ASPA	**Alice Springs**	**21.16**	**137**	*e*P	**P**	**14 16 00.1**	**+0.5**
ASPA				*e*S	**S**	**14 19 45.8**	**+3.7**
ASAR	**Alice Springs**	**21.16**	**137**	P	**P**	**14 16 00.2**	**+0.7**
	12nm,0.4s,mb4.6,baz=310,slow=9.1,SNR=645						
ASAR				S	**S**	**14 19 44.9**	**+2.7**
	4.2nm,0.8s,baz=318,slow=20,SNR=5.6						
ASAR				ScP		14 23 24.6	
	5.9nm,0.6s,baz=332,slow=2.0,SNR=13						
NWAO	**Narrogin (SRO)**	**24.38**	**182**	P	**P**	**14 16 30.8**	**-0.1**
	23nm,0.6s,mb4.9,baz=6.0,slow=7.6,SNR=24						
NWAO	**Narrogin (SRO)**	**24.38**	**182**	*e*P	**P**	**14 16 30.0**	**-0.8**
	20nm,0.6s,mb4.8						
PMG	**Port Moresby**	**28.36**	**94**	P	**P**	**14 17 06.5**	**-1.2**
	5.7nm,0.5s,mb4.6,baz=302,slow=1.4,SNR=5.9						
PMG	**Port Moresby**	**28.36**	**94**	P	**P**	**14 17 06.3**	**-1.4**
	5.1nm,0.5s,mb4.5						
CTA	**Charters Tower**	**29.26**	**116**	*e*P	**P**	**14 17 16.2**	**+0.6**
	5.5nm,0.6s,mb4.5						
CTA	**Charters Tower**	**29.26**	**116**	P	**P**	**14 17 16.1**	**+0.5**
	7.0nm,0.7s,mb4.5,baz=288,slow=11,SNR=16						
CTAO	**Charters Tower**	**29.26**	**116**	*e*P	**P**	**14 17 16.0**	**+0.4**
	5.9nm,0.8s,mb4.4						
STKA	**Stephens Creek**	**31.71**	**141**	*e*P	**P**	**14 17 36.8**	**-0.3**
	4.3nm,0.5s,mb4.4						
STKA	**Stephens Creek**	**31.71**	**141**	P	**P**	**14 17 37.2**	**+0.1**
	6.8nm,0.7s,mb4.5,baz=310,slow=8.6,SNR=23						
CMAR	**Chiang Mai Arr**	**32.95**	**324**	P	**P**	**14 17 49.5**	**+1.6**
	0.7nm,0.6s,mb3.6,baz=157,slow=7.5,SNR=6.7						
CMAR				ScP		14 23 59.7	
	1.3nm,0.6s,baz=170,slow=2.6,SNR=8.0						
CNB	**Canberra Magne**	**38.90**	**138**	*e*P	**P**	**14 18 39.7**	**+1.7**
	30nm,1.3s,mb4.8						
ENH	**Enshi**	**39.45**	**348**	*e*P	**P**	**14 18 44.8**	**+2.2**
	3.4nm,0.6s,mb4.2						
GUN	**Gumba**	**47.95**	**320**	*e*P	**P**	**14 19 49.9**	**-1.0**
	18nm,0.7s,mb4.8						
PKI	**Pulchoki**	**48.02**	**319**	*e*P	**P**	**14 19 50.2**	**-1.3**
	6.9nm,0.7s,mb4.4						
DMN	**Daman**	**48.24**	**319**	*e*P	**P**	**14 19 51.8**	**-1.4**
	5.8nm,0.6s,mb4.4						
KKN	**Kakani**	**48.25**	**319**	*e*P	**P**	**14 19 51.9**	**-1.4**
	7.5nm,0.8s,mb4.4						
KOLN	**Koldanda**	**49.33**	**318**	*e*P	**P**	**14 20 00.2**	**-1.4**
	6.3nm,0.7s,mb4.4						
ULN	**Ulaanbaatar**	**56.97**	**351**	P	**P**	**14 20 57.4**	**-0.2**
	0.7nm,0.6s,mb3.7						
SONM	**Songino Array**	**57.05**	**350**	P	**P**	**14 20 58.1**	**-0.1**
	1.0nm,0.5s,mb3.9,baz=168,slow=9.0,SNR=12						
SONM				ScP		14 25 38.1	
	0.4nm,0.6s,baz=162,slow=4.6,SNR=3.9						
MAW	**Mawson**	**69.57**	**200**	P	**P**	**14 22 20.5**	**+0.5**
	6.7nm,0.7s,mb4.5,baz=61,slow=5.3,SNR=11						
VNDA	**Vanda**	**72.61**	**171**	P	**P**	**14 22 38.7**	**+0.8**
	1.3nm,0.4s,mb4.0,baz=315,slow=8.3,SNR=18						
VNDA	**Vanda**	**72.61**	**171**	*e*P	**P**	**14 22 38.6**	**+0.7**
	1.9nm,0.4s,mb4.2						
BVAR	**Borovoye Array**	**73.56**	**332**	P	**P**	**14 22 44.8**	**+0.9**
	0.7nm,0.6s,mb3.6,baz=158,slow=7.8,SNR=3.8						
CHKZ	**Chkalovo**	**73.88**	**333**	*e*P	**P**	**14 22 46.4**	**+0.7**
	0.9nm,0.5s,mb3.8						
KMBO	**Kilima Mbogo**	**81.14**	**270**	P	**P**	**14 23 26.8**	**+0.2**
	0.6nm,0.3s,mb3.6,baz=55,slow=23,SNR=3.1						
KMBO	**Kilima Mbogo**	**81.14**	**270**	*e*P	**P**	**14 23 26.8**	**+0.2**
MBAR	**Mbarara**	**87.66**	**270**	*e*P	**P**	**14 23 58.7**	**-0.5**
	3.5nm,0.8s,mb4.2						
SNAA	**Sanae**	**91.38**	**196**	*e*P	**P**	**14 24 16.7**	**+1.3**
	1.8nm,0.6s,mb4.3						
YKA	**Yellowknife Ar**	**113.91**	**24**	PKiKP		14 29 47.8	
	0.3nm,0.4s,baz=304,slow=1.9,SNR=9.8						
YKA	**Yellowknife Ar**	**113.91**	**24**	PKPdf	PKPdf	14 29 47.8	+1.2
NVAR	**Mina Array Bea**	**121.08**	**50**	PKP	PKPdf	14 30 04.2	+3.1
	1.0nm,0.8s,baz=334,slow=1.0,SNR=6.2						
HLID	**Hailey**	**122.30**	**43**	*e*PKPdf	PKPdf	14 30 06.2	+3.0
DBIC	**Dimbokro**	**123.82**	**272**	PKP	PKPdf	14 30 08.7	+1.7
	3.5nm,1.1s,baz=135,slow=1.4,SNR=3.8						
ANMO	**Albuquerque**	**131.20**	**50**	SKPbc		14 33 35.1	
	2.1nm,0.8s,baz=312,slow=5.4,SNR=5.2						
TXAR	**Lajitas Array**	**135.38**	**57**	SKPbc		14 33 48.6	
	1.4nm,0.7s,baz=270,slow=2.5,SNR=5.4						
CPUP	**Villa Florida**	**145.19**	**187**	*e*PKPdf	PKPdf	14 30 48.2	+1.9

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*IDC **20** 14:17:12.9±3.0, 1.74N×93.43W, mb4.2/6, mb1 4.4/7, mb1mx4.0/18, MS3.8/7, Ms1 3.8/7, ms1mx3.2/21, Error ellipse: s-maj=111.0km s-min=61.9km az=67.0*

NEIC 20 14:17:14.9±1.6, **1.80N**×**93.44W, h10**^{km}, **mb4.2**/8, **Error ellipse: s-maj=53.1km s-min=30.6km az=64.0, Galapagos Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	**19.32**	**80**	LR	LR	14 28 05.9	
	comp=Z,228nm,20.1s,baz=195,slow=34						
SDV	**Santo Domingo**	**23.76**	**72**	LR	LR	14 30 57.8	
	comp=Z,111nm,18.7s,baz=204,slow=35						
TXAR	**Lajitas Array**	**29.06**	**341**	LR	LR	14 33 46.7	
	comp=Z,250nm,18.8s,baz=80,slow=34						
TUC	**Tucson**	**34.46**	**334**	*e*P	P	14 24 03.0	-2.1
	1.3nm,0.5s						
ANMO	**Albuquerque**	**35.14**	**341**	P	P	14 24 09.8	-1.1
	0.3nm,0.3s,baz=161,slow=14,SNR=3.1						
ANMO	**Albuquerque**	**35.14**	**341**	*e*P	P	14 24 08.5	-2.4
	3.0nm,1.1s						
ISCO	**Idaho Springs**	**39.41**	**345**	*e*P	P	14 24 46.2	-0.6
	3.8nm,0.8s						
TPNV	**Topopah Spring**	**40.82**	**332**	*e*P	P	14 24 57.8	-0.6
	3.5nm,1.0s						
HWUT	**Hardware Ranch**	**42.86**	**340**	*e*P	P	14 25 14.0	-1.1
	5.4nm,1.0s						
NVAR	**Mina Array Bea**	**42.98**	**331**	P	P	14 25 15.5	-0.7
	15nm,1.4s,baz=145,slow=8.2,SNR=12						
BW06	**Boulder Array**	**43.26**	**343**	*e*P	P	14 25 16.8	-1.6
	6.9nm,1.2s						
PDAR	**Pinedale Array**	**43.26**	**343**	P	P	14 25 17.1	-1.2
	2.2nm,0.9s,baz=158,slow=8.0,SNR=13						
PDAR				LR	LR	14 42 53.4	
	comp=Z,145nm,18.9s,baz=308,slow=36						
ELK	**Elko**	**43.50**	**336**	*e*P	P	14 25 19.1	-1.2
	6.1nm,1.0s						
SNOW	**Snow King Moun**	**44.26**	**342**	P	P	14 25 24.7	-1.8
LOHW	**Long Hollow**	**44.35**	**342**	*e*P	P	14 25 25.5	-1.7
MOOW	**Moose Ponds**	**44.52**	**342**	*e*P	P	14 25 26.7	-1.8
QLMT	**Earthquake Lak**	**45.70**	**342**	*e*P	P	14 25 37.4	-0.5
BOZ	**Bozeman (W)**	**46.50**	**342**	*e*P	P	14 25 42.2	-2.1
	3.1nm,1.0s						
YBH	**Yreka Blue Hor**	**47.68**	**330**	P	P	14 25 50.6	-3.0
	4.7nm,1.2s,baz=106,slow=7.4,SNR=2.6						
BDFB	**Brasilia**	**48.13**	**113**	LR	LR	14 45 51.2	
	comp=Z,118nm,19.2s,baz=192,slow=36						
ULM	**Lac du Bonnet**	**48.32**	**358**	P	P	14 25 56.8	-1.7
	5.7nm,1.2s,baz=152,slow=8.2,SNR=4.9						
USHA	**Ushuaia**	**60.09**	**164**	LR	LR	14 46 28.1	
	comp=Z,82nm,21.0s,baz=225,slow=29						
YKA	**Yellowknife Ar**	**62.59**	**349**	P	P	14 27 38.3	-3.1
	0.9nm,0.9s,baz=153,slow=6.4,SNR=12						
YKA				LR	LR	14 53 56.1	
	comp=Z,66nm,18.4s,baz=260,slow=35						
YKA	**Yellowknife Ar**	**62.59**	**349**	P	P	14 27 38.3	-3.1
YKA				LR	LR	14 53 56.1	
ILAR	**Eielson Array**	**73.54**	**339**	P	P	14 28 47.0	-2.7
	1.2nm,0.7s,baz=139,slow=4.3,SNR=15						
SONM	**Songino Array**	**127.62**	**343**	PKP	PKPdf	14 36 21.2	-2.7
	0.8nm,0.8s,baz=21,slow=1.4,SNR=5.9						
GKN	**Gorkha**	**150.31**	**3**	*e*P	PKPdf	14 37 06.9	+1.9
GUN	**Gumba**	**150.46**	**1**	*e*P	PKPdf	14 37 07.3	+2.1
	50nm,1.1s						
KOLN	**Koldanda**	**150.47**	**5**	*e*P	PKPdf	14 37 07.1	+1.9
	38nm,1.5s						
KKN	**Kakani**	**150.56**	**2**	*e*P	PKPdf	14 37 07.4	+2.0
	16nm,1.0s						
DMN	**Daman**	**150.73**	**3**	*e*P	PKPdf	14 37 07.8	+2.2
	21nm,1.2s						
PKI	**Pulchoki**	**150.78**	**2**	*e*P	PKPdf	14 37 07.7	+2.0
	16nm,1.1s						

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*NEIC **20** 14:22:04.9±0.4, 0.77N×122.99E, mb4.5/9, Error ellipse: s-maj=25.4km s-min=6.6km az=61.0*

*BJI **20** 14:22:04.9, 0.80N×123.00E, h49^{km}, mb4.5*

*IDC **20** 14:22:07.5±6.7, 0.74N×122.99E, h77^{km}±65^{km}, mb3.8/8, mb1 4.1/9, mb1mx3.9/18, ML4.9/1, Error ellipse: s-maj=42.1km s-min=15.2km az=59.0*

ISC 20 14:22:03.0±1.9, **0.79N**±0.08×**123.0E**±0.1, **h49**^{km}±20^{km}, **h49**^{km}±.9^{km}**:pP-P, n32,** σ**0**^{s}**58**/33, **mb4.4**/21, **2D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTBH	**Cotabato--PC H**	**6.51**	**11**	⇓*i*P	**P**	**14 23 38.3**	**-0.3**
CTBH				*i* S	**S**	**14 24 41.5**	**-11**
KCP	**Kidapawan**	**6.52**	**19**	⇓*e*P	**P**	**14 23 38.9**	**+0.2**
IPIL	**Ipil**	**6.96**	**357**	*e*P	**P**	**14 23 45.0**	**0.0**
PAGZ	**Pagadian**	**7.02**	**3**	*e*P	**P**	**14 23 44.9**	**-0.9**
BUKP	**Musuan**	**7.34**	**16**	*e*P	**P**	**14 23 50.6**	**+0.5**
KAKA	**Kakadu**	**16.34**	**145**	*e*P	**P**	**14 25 51.4**	**+0.7**
	27nm,0.6s						
FITZ	**Fitzroy Crossi**	**18.96**	**172**	*e*P	**P**	**14 26 22.3**	**-0.7**
	16nm,0.5s						
FITZ	**Fitzroy Crossi**	**18.96**	**172**	P	**P**	**14 26 22.3**	**-0.7**
	2.7nm,0.3s,baz=1.3,slow=7.9,SNR=29						
WRAB	**Tennant Creek**	**23.42**	**152**	*e*P	**P**	**14 27 08.5**	**-0.1**
	21nm,0.6s,mb4.8						
WRA	**Warramunga Arr**	**23.42**	**152**	P	**P**	**14 27 08.8**	**+0.1**
	12nm,0.5s,mb4.6,baz=332,slow=10,SNR=114						
PMG	**Port Moresby**	**26.12**	**113**	P	**P**	**14 27 34.6**	**+0.1**
	5.7nm,0.9s,mb4.1,baz=286,slow=14,SNR=3.1						
PMG	**Port Moresby**	**26.12**	**113**	*e*P	**P**	**14 27 34.7**	**+0.2**
PMG				*e*pP	pP	14 27 47.5	+0.5
ASPA	**Alice Springs**	**26.53**	**157**	*e*P	**P**	**14 27 39.7**	**+1.5**
ASAR	**Alice Springs**	**26.53**	**157**	P	**P**	**14 27 37.4**	**-0.9**
	1.4nm,0.5s,mb3.8,baz=336,slow=7.2,SNR=24						
ASAR				PcP	PcP	14 31 01.1	-1.3
	0.7nm,0.4s,baz=342,slow=2.1,SNR=9.2						
CMAR	**Chiang Mai Arr**	**29.41**	**308**	P	**P**	**14 28 04.8**	**+0.5**
	0.7nm,0.7s,mb3.5,baz=143,slow=7.2,SNR=7.5						
ENH	**Enshi**	**32.00**	**338**	*e*P	**P**	**14 28 27.6**	**+0.5**
	4.6nm,0.6s,mb4.5						
CD2	**Chengdu**	**35.06**	**330**	P	**P**	**14 28 53.9**	**+0.4**
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
STKA	**Stephens Creek**	**36.97**	**153**	*e*P	**P**	**14 29 09.3**	**-0.3**
	comp=Z,5.3nm,0.9s,mb4.4						
STKA	**Stephens Creek**	**36.97**	**153**	P	**P**	**14 29 09.2**	**-0.4**
	comp=Z,3.3nm,0.4s,mb4.5,baz=336,slow=8.5,SNR=9.5						
LSA	**Lhasa**	**41.77**	**316**	*e*P	**P**	**14 29 50.6**	**+1.1**
	comp=Z,3.3nm,0.6s,mb4.1						
GUN	**Gumba**	**44.59**	**310**	*e*P	**P**	**14 30 12.4**	**-0.1**
	comp=Z,18nm,0.8s,mb5.0						
PKI	**Pulchoki**	**44.78**	**310**	*e*P	**P**	**14 30 13.4**	**-0.6**
	comp=Z,20nm,1.1s,mb4.8						
KKN	**Kakani**	**44.99**	**310**	*e*P	**P**	**14 30 15.4**	**-0.2**
	comp=Z,9.6nm,0.8s,mb4.7						
DMN	**Daman**	**45.03**	**310**	*e*P	**P**	**14 30 16.3**	**+0.3**
	comp=Z,14nm,0.9s,mb4.8						
GKN	**Gorkha**	**45.59**	**310**	*e*P	**P**	**14 30 20.5**	**+0.1**
	comp=Z,17nm,0.8s,mb5.0						
KOLN	**Koldanda**	**46.28**	**309**	*e*P	**P**	**14 30 26.2**	**+0.3**
	comp=Z,21nm,0.7s,mb5.2						
ULN	**Ulaanbaatar**	**48.88**	**346**	*e*P	**P**	**14 30 45.9**	**0.0**
	comp=Z,1.1nm,0.6s,mb4.1						
SONM	**Songino Array**	**49.02**	**345**	P	**P**	**14 30 47.1**	**+0.2**
	comp=Z,1.0nm,0.8s,mb3.9,baz=160,slow=8.5,SNR=8.2						
BVAR	**Borovoye Array**	**67.80**	**329**	P	**P**	**14 32 56.7**	**-1.2**
	comp=Z,0.2nm,0.3s,mb3.6,baz=127,slow=7.2,SNR=3.2						
BRVK	**Borovoye**	**67.87**	**329**	P	**P**	**14 32 58.5**	**+0.1**
	comp=Z,4.6nm,1.0s,mb4.5						
BRVK				*e*pP	pP	14 33 12.0	-0.3
CHKZ	**Chkalovo**	**68.02**	**329**	P	**P**	**14 32 58.5**	**-0.8**
	comp=Z,3.5nm,0.9s,mb4.4						
CHKZ				*e*pP	pP	14 33 12.4	-0.9
VNDA	**Vanda**	**81.03**	**172**	P	**P**	**14 34 13.4**	**-0.4**
	comp=Z,1.3nm,0.6s,mb4.0,baz=326,slow=3.9,SNR=3.9						

IDC 20 14:41:32.5±2.1, **4.51S**×**152.28E, mb3.6**/4, **mb1 3.9**/4, **mb1mx3.7**/14, **Error ellipse: s-maj=116.0km s-min=28.3km az=129.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**23.25**	**227**	P	P	14 46 41.8	-0.9
	0.6nm,0.6s,baz=52,slow=10.0,SNR=7.8						
ASAR	**Alice Springs**	**26.02**	**221**	P	P	14 47 07.7	-1.5
	0.6nm,0.9s,baz=54,slow=9.1,SNR=8.3						
FITZ	**Fitzroy Crossi**	**29.35**	**240**	P	P	14 47 37.4	-2.1
	1.4nm,0.6s,baz=31,slow=5.9,SNR=3.1						
ILAR	**Eielson Array**	**82.09**	**22**	P	P	14 53 54.5	-1.5
	0.7nm,1.0s,baz=254,slow=5.2,SNR=4.7						

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*GUC **20** 14:44:30.9±1.1, 31.36S×67.79W, h5^{km}±8^{km}, ML4.9*

*IDC **20** 14:44:32.4±0.9, 31.21S×67.80W, h113^{km}±8^{km}, mb4.2/5, mb1 4.1/6, mb1mx3.9/13, Error ellipse: s-maj=36.7km s-min=20.7km az=108.0*

*NEIC **20** 14:44:32.2±0.8, 31.23S×67.64W, h110^{km}±9^{km}, Error ellipse: s-maj=14.1km s-min=6.9km az=99.0*

ISC 20 14:44:31.3±1.0, **31.29S**±0.04×**67.58W**±0.10, **h109**^{km}±14^{km}, **n33,** σ**0**^{s}**71**/40, **mb4.3**/5, **5C-2D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	**Mendoza**	**1.92**	**214**	⇑*i*P	**P**	**14 45 04.6**	**+0.9**
MDZ				*i*		14 45 23.8	
MDZ				S	**S**	**14 45 28.6**	**+0.7**
MDZ				S	**S**	**14 45 36.5**	**+8.6**
JACH	**Jahuel**	**2.91**	**241**	*i* P	**P**	**14 45 17.1**	**0.0**
CMCH	**Combarbala**	**2.93**	**271**	⇑*i*P	**P**	**14 45 17.2**	**-0.1**
CMCH				*i* S	**S**	**14 45 51.9**	**-0.2**
CMCH				AMP		14 45 53.8	
	comp=N,18µm,0.5s						
CMCH				AMP		14 45 54.0	
	comp=E,16µm,0.7s						
TLL	**Tololo Astrono**	**3.00**	**291**	⇓*i*P	**P**	**14 45 18.4**	**+0.2**
TLL				*i* S	**S**	**14 45 55.3**	**+1.7**
TLL				AMP		14 46 00.9	
	comp=N,2µm,0.5s						
PTCH	**Petorca**	**3.01**	**250**	*i* P	**P**	**14 45 18.1**	**-0.4**
PTCH				*i* S	**S**	**14 45 53.0**	**-1.1**
PTCH				AMP		14 45 54.3	
	comp=N,12µm,0.4s						
FCH	**Farellones**	**3.06**	**228**	*i* P	**P**	**14 45 19.2**	**+0.1**
FCH				AMP		14 45 59.8	
	comp=N,1µm,0.4s						
ILCH	**Illapel**	**3.09**	**263**	*i* P	**P**	**14 45 18.8**	**-0.6**
ILCH				*i* S	**S**	**14 45 54.7**	**-1.1**
ILCH				AMP		14 45 58.2	
	comp=N,2µm,0.4s						
PEL	**Peldehue**	**3.22**	**234**	AMP		14 46 00.4	
	comp=N,4µm,0.5s						
CLCH	**Cerro Calan**	**3.27**	**229**	AMP		14 46 07.1	
	comp=E,2µm,0.5s						
DSCH	**Colegio Aleman**	**3.29**	**230**	⇑*i*P	**P**	**14 45 22.4**	**+0.2**
DSCH				*i* S	**S**	**14 46 00.8**	**+0.1**
DSCH				AMP		14 46 06.2	
	comp=N,3µm,0.7s						
ROCH	**El Roble**	**3.36**	**239**	*i* P	**P**	**14 45 22.8**	**-0.3**
ROCH				*i* S	**S**	**14 46 02.9**	**+0.5**
LMEL	**Las Melosas**	**3.38**	**220**	⇑*i*P	**P**	**14 45 23.6**	**+0.3**
LMEL				*i* S	**S**	**14 46 03.3**	**+0.5**
LMEL				AMP		14 46 32.4	
	comp=E,531nm,0.5s						
LSCH	**La Serena**	**3.45**	**293**	AMP		14 46 22.1	
	comp=N,1µm,0.8s						
RCDM	**Rinconada Maip**	**3.50**	**230**	*i* P	**P**	**14 45 24.8**	**-0.2**
RCDM				*i* S	**S**	**14 46 06.1**	**+0.3**
RCDM				AMP		14 46 07.3	
	comp=E,2µm,0.2s						
TACH	**Talagante**	**3.69**	**229**	⇑*i*P	**P**	**14 45 26.6**	**-0.9**
TACH				*i* S	**S**	**14 46 09.5**	**-0.9**
CHCH	**Chadas Angostu**	**3.70**	**224**	⇓*i*P	**P**	**14 45 27.1**	**-0.5**
CHCH				*i* S	**S**	**14 46 10.0**	**-0.6**
CACH	**El Canelo**	**3.80**	**221**	*e*P	**P**	**14 45 29.1**	**0.0**
CACH				*i* S	**S**	**14 46 13.6**	**+0.5**
CICH	**Cipreses**	**3.85**	**218**	*e*P	**P**	**14 45 29.7**	**-0.1**
CICH				*i* S	**S**	**14 46 14.4**	**+0.1**
VACH	**Vallenar**	**3.87**	**314**	*i* S	**S**	**14 46 16.6**	**+1.9**
SFDO	**San Fernando**	**4.39**	**220**	*i* S	**S**	**14 46 28.0**	**+0.4**
LVC	**Limon Verde**	**8.73**	**352**	P	**P**	**14 46 34.3**	**-1.7**
	comp=E,16nm,0.3s,baz=173,slow=9.3,SNR=99						
LVC				S	**S**	**14 48 07.2**	**-6.1**
	comp=E,3.2nm,0.3s,baz=180,slow=20,SNR=4.6						
LVC	**Limon Verde**	**8.73**	**352**	*e*Pn	**P**	**14 46 34.1**	**-1.9**
	comp=E,16nm,0.6s						
LVC				S	**S**	**14 48 07.2**	**-6.1**
USHA	**Ushuaia**	**23.54**	**181**	P	**P**	**14 49 32.6**	**+0.6**
	comp=E,12nm,0.7s,mb4.3,baz=358,slow=7.3,SNR=6.8						
BDFB	**Brasilia**	**23.70**	**53**	P	**P**	**14 49 33.9**	**-0.1**
	comp=E,2.1nm,0.4s,mb3.8,baz=217,slow=7.4,SNR=5.0						
DBIC	**Dimbokro**	**70.73**	**69**	P	**P**	**14 55 37.5**	**-0.3**
	comp=E,8.2nm,0.8s,mb4.6,baz=206,slow=6.6,SNR=14						
SUR	**Sutherland**	**72.79**	**118**	P	**P**	**14 55 50.7**	**+0.9**
	comp=E,4.0nm,0.4s,mb4.6,baz=234,slow=8.7,SNR=10						
MAW	**Mawson**	**74.66**	**162**	P	**P**	**14 55 59.9**	**+0.1**
	comp=E,1.4nm,0.5s,mb4.0,baz=214,slow=7.3,SNR=4.2						
PDAR	**Pinedale Array**	**83.17**	**330**	pP	pP	14 57 14.9	+0.2
	comp=E,0.5nm,0.7s,baz=124,slow=5.3,SNR=3.9						
NVAR	**Mina Array Bea**	**83.93**	**322**	pP	pP	14 57 18.3	-0.4
	comp=E,0.6nm,0.8s,baz=162,slow=5.7,SNR=3.5						
ASAR	**Alice Springs**	**121.61**	**203**	PKP	PKPdf	15 03 12.3	-0.2
	comp=E,0.2nm,0.6s,baz=133,slow=1.5,SNR=3.8						
ASAR				pPKP		15 03 42.4	
	comp=E,0.4nm,0.8s,baz=163,slow=2.4,SNR=3.0						
WRA	**Warramunga Arr**	**124.89**	**205**	PKP	PKPdf	15 03 19.4	+0.4
	comp=E,0.5nm,0.5s,baz=164,slow=1.7,SNR=21						
WRA				pPKP		15 03 49.3	
	comp=E,0.6nm,0.5s,baz=164,slow=1.6,SNR=4.9						
ZAL	**Zalesovo**	**149.92**	**33**	PKPbc	PKPdf	15 04 09.8	+6.8
	comp=E,1.5nm,0.6s,baz=129,slow=7.0,SNR=5.5						
ZAL				pPKPbc		15 04 40.4	
	comp=E,0.9nm,0.7s,baz=188,slow=2.5,SNR=2.9						
ZAL	**Zalesovo**	**149.92**	**33**	PKPbc	PKPdf	15 04 09.8	+6.8
ZAL				pPKPbc		15 04 40.4	

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*IDC **20** 14:54:44.3±3.7, 37.86N×70.42E, mb3.8/2, mb1 3.9/4, mb1mx3.5/20, ML3.5/2, Error ellipse: s-maj=70.8km s-min=56.0km az=131.0*

*NEIC **20** 14:54:59.6±2.6, 38.99N×70.33E, h60^{km}, Error ellipse: s-maj=37.0km s-min=25.1km az=166.0*

ISC 20 14:54:53.5±2.8, **38.7N**±0.3×**70.1E**±0.2, **h33**^{km}**, n17,** σ**1**^{s}**17**/17, **mb3.8**/2, **Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AML	**Almayashu**	**4.37**	**38**	P	**P**	**14 55 59.6**	**+0.4**
	SNR=15						
EKS2	**Erkin-Say**	**4.83**	**34**	P	**P**	**14 56 08.5**	**+2.8**
	SNR=10.0						
UCH	**Uchtor**	**4.86**	**42**	P	**P**	**14 56 04.9**	**-1.2**
	SNR=5.7						
AAK	**Ala-Archa**	**5.14**	**39**	*e*Pn	**Pn**	**14 56 09.0**	**-1.2**
AAK				*e*Sg	rx	14 57 41.1	
KZA	**Kyzart**	**5.16**	**48**	P	**P**	**14 56 14.2**	**+3.8**
	SNR=7.5						
KBK	**Karagaybulak**	**5.38**	**42**	P	**P**	**14 56 13.1**	**-0.4**
	SNR=33						
CHMS	**Chumysh**	**5.54**	**38**	P	**P**	**14 56 14.2**	**-1.4**
	SNR=15						
USP	**Ospenovka**	**5.63**	**35**	P	**P**	**14 56 17.8**	**+0.8**
	SNR=7.8						
TKM2	**Tokmak 2**	**5.91**	**43**	P	**P**	**14 56 24.2**	**+3.3**
	SNR=15						
BVAR	**Borovoye Array**	**14.31**	**1**	Pn	**P**	**14 58 15.2**	**-0.2**
	0.2nm,0.3s,baz=166,slow=12,SNR=4.8						
BRVK	**Borovoye**	**14.34**	**0**	*e*Pn	**P**	**14 58 15.8**	**-0.1**
CHKZ	**Chkalovo**	**14.96**	**1**	Pn	**P**	**14 58 23.4**	**-0.6**
ZAL	**Zalesovo**	**18.23**	**29**	P	**P**	**14 59 06.1**	**+0.6**
	0.4nm,0.3s,baz=255,slow=9.8,SNR=4.3						
ZAL	**Zalesovo**	**18.23**	**29**	P	**P**	**14 59 06.1**	**+0.6**
FINES	**FINESS Array B**	**35.26**	**325**	P	**P**	**15 01 47.4**	**+0.8**
	1.1nm,0.7s,mb3.9,baz=112,slow=10,SNR=4.9						
FINES	**FINESS Array B**	**35.26**	**325**	P	**P**	**15 01 47.4**	**+0.8**
YKA	**Yellowknife Ar**	**79.06**	**2**	P	**P**	**15 06 54.6**	**-0.7**
	0.9nm,1.0s,mb3.7,baz=352,slow=5.5,SNR=11						

TRN 20 15:15:20.5, 15.79N×**61.00W, h35**^{km}**, MD3.8, 7C-2D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGG	**Marie-Galante**	**0.33**	**292**	⇓*i*P	P	15 15 30.4	+1.7
DWS	**Wesley**	**0.37**	**233**	⇑*i*P	P	15 15 31.2	+1.9
DWS				*e*S	S	15 15 38.0	+2.5
DEG	**La Desirade**	**0.52**	**354**	⇑*i*P	P	15 15 31.6	+0.3
DEG				*e*S	S	15 15 41.2	+2.1
BBL	**Barber's Block**	**0.52**	**240**	⇓*e*P	P	15 15 32.7	+1.4
BBL				*e*S	S	15 15 40.9	+1.7
SEG	**Port Louis**	**0.78**	**321**	*e*P	P	15 15 36.6	+1.6
SEG				*e*S	S	15 15 48.0	+2.4
FDF	**Fort de France**	**1.06**	**188**	⇑*e*P	P	15 15 39.8	+0.7
FDF				*e*S	S	15 15 52.8	0.0
MVM	**Montagne Vaucl**	**1.23**	**175**	⇑*e*P	P	15 15 42.3	+0.8
MVM	**Montagne Vaucl**	**1.23**	**175**	⇑*e*P	P	15 15 42.5	+1.0
MVM				*e*S	S	15 15 57.9	+0.6
BIM	**Bigot**	**1.27**	**183**	⇑*e*P	P	15 15 43.0	+1.1
BIM				*e*S	S	15 15 59.4	+1.2
BPA	**Boggy Peak**	**1.49**	**327**	*e*P	P	15 15 46.5	+1.2
BPA				*e*S	S	15 16 06.9	+3.1
SVV	**Soufriere Volc**	**2.47**	**185**	⇑*i*P	P	15 16 01.6	+2.4
SVV				*e*S	S	15 16 30.2	+1.8
SVB	**Belmont**	**2.52**	**186**	*e*P	P	15 16 02.4	+2.5
GRW	**Mount Saint Ca**	**3.67**	**190**	*e*P	P	15 16 17.1	+0.9

*WAR **20** 15:25:52.5,50.07N×18.46E,h1^{km},Location given by Central Institute of Mining, origin time based upon RAC*
*PRU **20** 15:25:53.2,50.07N×18.43E*
ISC 20 15:25:51.5±0.8,**50.13N**±0.05×**18.40E**±0.04,**n8,**σ**1^{s}24**/13,**Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	**Raciborz**	**0.14**	**250**	*e*Pg	**Pg**	**15 25 56.8**	**+2.5**
RAC				*e*Sg	**Sg**	**15 26 00.3**	**+4.0**
OKC	**Ostrava-Krasne**	**0.34**	**209**	*e*PG	**Pg**	**15 25 59.0**	**+0.8**
OKC				*e*SG	**Sg**	**15 26 03.9**	**+1.2**
OJC	**Ojcow**	**0.90**	**84**	*e*Pg	**Pg**	**15 26 09.5**	**0.0**
OJC				*e*Sg	**Sg**	**15 26 21.4**	**-0.1**
DPC	**Dobruska-Polom**	**1.35**	**280**	*e*PG	**Pg**	**15 26 18.7**	**+0.2**
DPC				*e*SG	**Sg**	**15 26 37.1**	**+0.5**
	11nm,0.3s						
UPC	**Upice**	**1.58**	**285**	*e*SG	**Sg**	**15 26 44.4**	**+0.4**
VYHS	**Vyhne**	**1.66**	**170**	*e*PN	**Pn**	**15 26 21.1**	**-1.0**
VYHS				*e*SN	**Sn**	**15 26 43.6**	**-0.9**
PRU	**Pruhonice**	**2.49**	**268**	*e*SG	**Sg**	**15 27 12.1**	**-2.4**
KHC	**Kasperske Hory**	**3.29**	**254**	*e*SG	**Sg**	**15 27 38.8**	**-2.3**

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*BJI **20** 15:30:21.5,55.38N×158.12W,h38^{km},mB5.3,mb4.9*
*IDC **20** 15:30:22.7±0.6,55.35N×158.16W,h25^{km}±3^{km},mb4.2/18,mb1 4.4/22,mb1mx4.4/25,ML4.4/4,MS3.7/12,Ms1 3.7/12,ms1mx3.5/26,Error ellipse: s-maj=17.5km s-min=12.1km az=5.0*
*NEIC **20** 15:30:24.7±0.3,55.33N×158.01W,h43^{km}±2^{km},mb4.7/27,ML4.5(AEIC),Error ellipse: s-maj=4.5km s-min=2.1km az=156.0*
ISC 20 15:30:23.2±0.4,**55.39N**±0.04×**157.97W**±0.04,**h43**^{km}±3^{km},**h25**^{km}±2.3^{km}**:pP-P,n160,**σ**0^{s}99**/162,**mb4.6**/54,**MS3.7**/8,**2C-1D,Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ANPB	**Aniakchak Plen**	**1.43**	**353**	P	**P**	**15 30 49.7**	**+2.5**
ANPK	**Aniakchak Peak**	**1.46**	**357**	P	**P**	**15 30 50.1**	**+2.5**
ANPK				S	**S**	**15 31 12.7**	**+6.9**
PS1A	**Pavlof South-1**	**2.15**	**272**	P	**P**	**15 30 58.0**	**+0.6**
PVV	**Pavlof Volcano**	**2.18**	**271**	P	**P**	**15 30 57.8**	**0.0**
DOL	**Dolgoi Island**	**2.24**	**265**	P	**P**	**15 30 58.3**	**-0.4**
DOL				S	**S**	**15 31 27.7**	**+2.4**
HAG	**Hague Volcano**	**2.25**	**270**	P	**P**	**15 30 59.1**	**+0.4**
PN6	**Pavlof North-6**	**2.25**	**273**	P	**P**	**15 30 59.8**	**+0.9**
PN6				S	**S**	**15 31 32.5**	**+6.9**
PN7A	**Pavlof North-7**	**2.30**	**273**	P	**P**	**15 31 00.1**	**+0.6**
BLHA	**Black Hill**	**2.35**	**279**	P	**P**	**15 31 00.8**	**+0.6**
DTNA	**Dutton South F**	**2.46**	**266**	P	**P**	**15 31 01.5**	**-0.3**
DT1	**Dutton Round H**	**2.48**	**265**	P	**P**	**15 31 01.7**	**-0.5**
BALA	**Baldy Mountain**	**2.76**	**268**	P	**P**	**15 31 06.8**	**+0.7**
KJL	**Kejulik**	**2.98**	**25**	P	**P**	**15 31 10.7**	**+1.4**
CAHL	**Cahill**	**3.05**	**28**	P	**P**	**15 31 11.2**	**+1.0**
CAHL				S	**S**	**15 31 52.9**	**+7.1**
CNTC	**Contact Creek**	**3.10**	**21**	P	**P**	**15 31 12.1**	**+1.1**
ANCK	**Angle Creek**	**3.13**	**25**	P	**P**	**15 31 12.6**	**+1.2**
FALS	**False Pass**	**3.17**	**263**	P	**P**	**15 31 11.2**	**-0.7**
MGLS	**Mageik LS**	**3.18**	**26**	P	**P**	**15 31 12.6**	**+0.5**
KAWH	**Katmai**	**3.47**	**29**	P	**P**	**15 31 17.6**	**+1.4**
KAIC	**Katmai Ikaglui**	**3.50**	**26**	P	**P**	**15 31 17.7**	**+1.1**
SSLN	**Shishaldin Nor**	**3.51**	**263**	P	**P**	**15 31 16.7**	**0.0**
KAHC	**Katmai Hardscr**	**3.65**	**25**	P	**P**	**15 31 19.5**	**+0.8**
WTUG	**Tugumak**	**3.72**	**264**	P	**P**	**15 31 19.0**	**-0.8**
KDAK	**Kodiak Island**	**3.83**	**49**	P	**P**	**15 31 20.1**	**-1.2**
WESN	**West Dahl Nort**	**3.90**	**261**	P	**P**	**15 31 21.7**	**-0.5**
WFAR	**Faris Peak**	**4.01**	**261**	P	**P**	**15 31 23.2**	**-0.7**
MCNL	**McNeil River**	**4.29**	**26**	P	**P**	**15 31 28.0**	**+0.2**
UNV	**Unalaska Valle**	**5.19**	**256**	P	**P**	**15 31 38.3**	**-2.1**
MTBL	**Makushin Table**	**5.25**	**258**	P	**P**	**15 31 39.6**	**-1.6**
ILW	**Iliamna West**	**5.35**	**27**	P	**P**	**15 31 43.0**	**+0.3**
INE	**Iliamna NE**	**5.37**	**27**	P	**P**	**15 31 43.3**	**+0.3**
CNPM	**China Poot**	**5.52**	**38**	P	**P**	**15 31 44.4**	**-0.6**
RSO	**Redoubt South**	**5.80**	**27**	*e*P	**P**	**15 31 49.1**	**+0.2**
REF	**Redoubt East F**	**5.83**	**27**	P	**P**	**15 31 49.8**	**+0.4**
NCT	**North Crescent**	**5.84**	**25**	P	**P**	**15 31 49.6**	**+0.2**
RDN	**Redoubt North**	**5.84**	**26**	P	**P**	**15 31 50.2**	**+0.8**
SLKM	**Skilak Lake**	**6.58**	**36**	*e*P	**P**	**15 32 00.6**	**+0.6**
MPA	**Moose Pass**	**6.87**	**38**	P	**P**	**15 32 04.2**	**+0.3**
SPIA	**Saint Paul Isl**	**7.07**	**290**	P	**P**	**15 32 06.8**	**+0.1**
FIB	**Fire Island**	**7.10**	**32**	*e*P	**P**	**15 32 07.5**	**+0.3**
RC01	**Rabbit Creek A**	**7.18**	**34**	P	**P**	**15 32 09.1**	**+0.8**
PWA	**Palmer West**	**7.57**	**31**	*e*P	**P**	**15 32 15.8**	**+2.1**
TT01	**Tatalina**	**7.61**	**7**	P	**P**	**15 32 13.7**	**-0.6**
PMR	**Palmer**	**7.75**	**33**	*e*P	**P**	**15 32 15.9**	**-0.3**
HIN	**Hinchinbrook I**	**7.90**	**46**	P	**P**	**15 32 16.8**	**-1.6**
GHO	**Glory Hole Cre**	**7.95**	**33**	P	**P**	**15 32 18.6**	**-0.4**
FID	**Port Fidalgo**	**8.12**	**44**	P	**P**	**15 32 18.6**	**-2.7**
SML	**Sawmill**	**8.16**	**34**	P	**P**	**15 32 21.6**	**-0.3**
EYAK	**Cordova Ski Ar**	**8.30**	**46**	P	**P**	**15 32 22.1**	**-1.7**
VLZ	**Valdez**	**8.41**	**42**	P	**P**	**15 32 22.8**	**-2.6**
SCM	**Sheep Creek Mo**	**8.51**	**36**	P	**P**	**15 32 26.2**	**-0.6**
DIV	**Divide**	**8.62**	**43**	P	**P**	**15 32 27.9**	**-0.4**
KTH	**Kantishna Hill**	**8.94**	**21**	P	**P**	**15 32 32.3**	**-0.3**
GCSA	**Galena City Sc**	**9.41**	**3**	P	**P**	**15 32 38.4**	**-0.7**
MCK	**McKinley**	**9.53**	**25**	*e*P	**P**	**15 32 38.1**	**-2.5**
ANM	**Nome**	**9.92**	**341**	P	**P**	**15 32 46.5**	**+0.6**
PAX	**Paxson**	**9.93**	**35**	P	**P**	**15 32 45.4**	**-0.7**
YAH	**Yahtse**	**9.97**	**53**	P	**P**	**15 32 44.9**	**-1.7**
BALM	**Baldy**	**9.99**	**49**	P	**P**	**15 32 45.0**	**-1.9**
THY	**Trims Highway**	**10.16**	**33**	P	**P**	**15 32 49.4**	**+0.1**
MENT	**Mentasta**	**10.51**	**38**	*e*P	**P**	**15 32 54.2**	**+0.2**
COLA	**College**	**10.75**	**24**	*e*P	**P**	**15 32 53.8**	**-3.6**
IM3	**Indian Mountai**	**10.83**	**9**	P	**P**	**15 32 57.4**	**-1.0**
ILAR	**Eielson Array**	**10.90**	**26**	Pn	**P**	**15 32 54.9**	**-4.4**
	0.6nm,0.3s,baz=218,slow=13,SNR=31						
ILAR				Sn	**S**	**15 34 57.9**	**-3.0**
	0.3nm,0.3s,baz=214,slow=23,SNR=3.1						
ILAR				LR	LR	15 37 22.8	
	comp=Z,223nm,21.9s,baz=105,slow=38						
IL1	**Eielson Array**	**10.90**	**26**	P	**P**	**15 32 55.1**	**-4.3**
IMA	**Indian Mountai**	**10.92**	**9**	*e*P	**P**	**15 33 00.4**	**+0.8**
	2.3nm,0.7s						
BCA3	**Beaver Creek A**	**11.28**	**40**	P	**P**	**15 33 03.1**	**-1.5**
DAWY	**Dawson**	**12.74**	**39**	*e*P	**P**	**15 33 22.5**	**-1.6**
DLBC	**Dease Lake**	**15.51**	**67**	Pn	**P**	**15 34 04.3**	**+4.1**
	0.4nm,0.3s,baz=258,slow=20,SNR=4.5						
DLBC				LR	LR	15 39 03.8	
	comp=Z,127nm,18.6s,baz=283,slow=33						
DLBC	**Dease Lake**	**15.51**	**67**	Pn	**P**	**15 34 04.3**	**+4.1**
DLBC				LR	LR	15 39 03.8	
FX1	**Attu Island--F**	**17.04**	**274**	Pn	**P**	**15 34 17.8**	**-1.7**
	6.0nm,0.3s,baz=72,slow=19,SNR=4.2						
FX1				LR	LR	15 39 51.0	
	comp=Z,11nm,21.0s,baz=268,slow=34						
INK	**Inuvik**	**17.16**	**31**	P	**P**	**15 34 20.7**	**-0.3**
	4.6nm,0.3s,baz=216,slow=12,SNR=64						
INK				LR	LR	15 41 42.6	
	comp=Z,274nm,18.4s,baz=212,slow=39						
INK	**Inuvik**	**17.16**	**31**	*e*P	**P**	**15 34 20.2**	**-0.8**
	30nm,0.6s						
BBB	**Bella Bella**	**17.86**	**88**	LR	LR	15 39 55.8	
	comp=Z,202nm,18.4s,baz=296,slow=32						
YKW3	**Yellowknife Ar**	**23.08**	**54**	*e*P	**P**	**15 35 26.1**	**+0.8**
YKA	**Yellowknife Ar**	**23.08**	**54**	P	**P**	**15 35 26.4**	**+1.0**
	1.8nm,0.6s,mb3.7,baz=266,slow=8.1,SNR=39						
YKA				LR	LR	15 45 08.0	
	comp=Z,118nm,21.9s,MS3.3,baz=300,slow=38						
EDM	**Edmonton**	**25.79**	**76**	*e*P	**P**	**15 35 51.8**	**+0.3**
BMO	**Blue Mountains**	**27.74**	**95**	P	**P**	**15 36 09.7**	**+0.2**
	1.3nm,0.7s,mb3.7						
MOD	**Modoc**	**27.92**	**103**	P	**P**	**15 36 11.6**	**+0.5**
HRY	**Holter Researc**	**29.78**	**87**	*e*P	**P**	**15 36 28.3**	**+0.6**
RES	**Resolute Bay**	**30.64**	**28**	*e*P	**P**	**15 36 34.3**	**-0.7**
	2.4nm,0.8s,mb4.1						
NVAR	**Mina Array Bea**	**31.43**	**106**	P	**P**	**15 36 42.7**	**+0.3**
	0.7nm,0.5s,mb3.8,baz=306,slow=8.0,SNR=6.9						
NVAR				pP	pP	15 36 50.3	-3.7
	2.4nm,0.8s,baz=303,slow=7.1,SNR=10						
NVAR				PcP	PcP	15 39 34.8	-0.3
	0.6nm,0.8s,slow=2.7,SNR=3.0						
NVAR				pPcP		15 39 43.5	
	0.6nm,0.5s,baz=324,slow=1.2,SNR=4.9						
NVAR				LR	LR	15 47 04.3	
	comp=Z,208nm,18.1s,MS3.9,baz=10.0,slow=32						
NVAR	**Mina Array Bea**	**31.43**	**106**	P	**P**	**15 36 42.7**	**+0.3**
NVAR				pP	pP	15 36 50.3	-3.7
NVAR				PcP	PcP	15 39 34.8	-0.3
NVAR				pPcP		15 39 43.5	
NVAR				LR	LR	15 47 04.3	
AHID	**Auburn Hatcher**	**32.56**	**93**	P	**P**	**15 36 55.9**	**+3.8**
BW06	**Boulder Array**	**33.44**	**92**	P	**P**	**15 36 59.8**	**+0.1**
	2.2nm,0.6s,mb4.3						
PDAR	**Pinedale Array**	**33.44**	**92**	P	**P**	**15 37 00.9**	**+1.2**
	0.7nm,0.6s,mb3.8,baz=326,slow=5.3,SNR=6.0						
PDAR				pP	pP	15 37 08.7	-2.9
	2.7nm,0.6s,baz=311,slow=4.9,SNR=16						
TPNV	**Topopah Spring**	**33.62**	**106**	*e*P	**P**	**15 36 59.7**	**-1.7**
	14nm,1.4s,mb4.7						
FCC	**Fort Churchill**	**33.72**	**57**	*e*P	**P**	**15 37 01.5**	**-0.5**
	7.5nm,0.9s,mb4.6						
NEN	**Nelson**	**35.35**	**106**	*e*P	**P**	**15 37 16.8**	**+0.6**
LDFC	**Landfair**	**35.62**	**107**	P	**P**	**15 37 17.6**	**-1.0**
YAK	**Yakutsk**	**36.31**	**311**	*e*P	**P**	**15 37 22.2**	**-1.9**
	48nm,0.7s,mb5.5						
ULM	**Lac du Bonnet**	**36.77**	**71**	LR	LR	15 52 40.2	
	comp=Z,91nm,19.2s,MS3.6,baz=354,slow=36						
ASAJ	**Asahikawa**	**38.86**	**279**	P	**P**	**15 37 43.6**	**-1.9**
	18nm,0.8s,mb4.8,baz=38,slow=12,SNR=4.0						
SDCO	**Great Sand Dun**	**39.09**	**94**	P	**P**	**15 37 48.6**	**+1.0**
	4.6nm,0.9s,mb4.2						
ANMO	**Albuquerque**	**40.53**	**98**	P	**P**	**15 37 59.9**	**+0.3**
BNM	**Barren Site**	**41.02**	**99**	P	**P**	**15 38 04.9**	**+1.3**
MNTX	**Cornudas Mount**	**43.54**	**101**	P	**P**	**15 38 23.4**	**-0.8**
	6.3nm,1.0s,mb4.3						
GDL2	**Guadalupe Moun**	**43.74**	**99**	*e*P	**P**	**15 38 27.6**	**+1.8**
CLNB	**Carlsbad**	**43.96**	**99**	P	**P**	**15 38 31.7**	**+4.1**
WMOK	**Wichita Mounta**	**45.05**	**92**	*e*P	**P**	**15 38 36.9**	**+0.7**
	13nm,0.7s,mb4.9						
WMOK				*e*		15 38 44.3	
DAG	**Danmarks Havn**	**45.62**	**12**	⇓*i*P	**P**	**15 38 40.5**	**+0.2**
	18nm,0.6s,mb5.2						
DAG				*i*	pP	15 38 52.4	+0.1
SUMG	**Summit**	**45.70**	**21**	*e*P	**P**	**15 38 40.5**	**-0.5**
	7.0nm,0.9s,mb4.6						
LTX	**Lajitas**	**46.29**	**101**	*e*P	**P**	**15 38 44.7**	**-1.5**
	8.8nm,0.6s,mb4.9						
TXAR	**Lajitas Array**	**46.29**	**101**	P	**P**	**15 38 46.7**	**+0.5**
	1.1nm,0.6s,mb4.0,baz=306,slow=7.8,SNR=3.7						
TXAR				pP	pP	15 38 53.7	-4.6
	3.7nm,0.6s,baz=128,slow=51,SNR=9.6						
TXAR				LR	LR	15 57 01.0	
	comp=Z,135nm,18.1s,MS3.9,baz=345,slow=34						
MAT	**Matsushiro**	**46.40**	**274**	P	**P**	**15 38 47.7**	**+0.7**
MAT	**Matsushiro**	**46.40**	**274**	P	**P**	**15 38 48.0**	**+1.0**
	30nm,1.2s,mb5.1						
JCT	**Junction City**	**47.60**	**97**	*e*P	**P**	**15 38 57.2**	**+0.7**
	7.4nm,0.8s,mb4.8						
SCHQ	**Schefferville**	**48.45**	**51**	P	**P**	**15 39 02.1**	**-0.6**
	2.9nm,0.5s,mb4.5,baz=291,slow=9.5,SNR=7.8						
SCHQ				pP	pP	15 39 10.8	-4.0
	3.4nm,0.7s,baz=265,slow=5.5,SNR=2.1						
SCHQ	**Schefferville**	**48.45**	**51**	P	**P**	**15 39 02.1**	**-0.6**
SCHQ				pP	pP	15 39 10.8	-4.0
WVT	**Waverly**	**50.28**	**82**	*e*P	**P**	**15 39 16.3**	**-0.8**
	10nm,0.7s,mb5.0						
SNY	**Shenyang**	**50.88**	**289**	⇑P	**P**	**15 39 21.1**	**-0.4**
SNY				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
MYNC	**Murphy**	**53.13**	**80**	P	**P**	**15 39 39.6**	**+1.1**
KEV	**Kevo**	**55.11**	**358**	*e*p	**P**	**15 39 50.8**	**-1.8**
	comp=Z,16nm,0.8s,mb5.1						
SONM	**Songino Array**	**55.31**	**305**	P	**P**	**15 39 54.1**	**-0.2**
	comp=Z,2.9nm,0.6s,mb4.5,baz=45,slow=6.5,SNR=28						
SONM				PcP	PcP	15 40 54.9	+0.5
	comp=Z,3.5nm,0.7s,baz=56,slow=2.4,SNR=8.5						
ARCES	**ARCESS Array B**	**55.36**	**359**	P	**P**	**15 39 53.5**	**-0.8**
	comp=Z,2.9nm,0.5s,mb4.6,baz=20,slow=7.5,SNR=21						
ARCES				LR	LR	16 03 09.9	
	comp=Z,56nm,18.1s,MS3.7,baz=304,slow=36						
HHC	**Hu-ho-hao-te**	**57.89**	**296**	*e*P	**P**	**15 40 12.4**	**-0.4**
HHC				XP	sP	15 40 24.5	-5.7
HHC				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
HHC				AMB	AMB		
	comp=Z,174nm,5.6s						
ZAL	**Zalesovo**	**59.48**	**322**	P	**P**	**15 40 22.7**	**-0.9**
	comp=Z,1.5nm,0.6s,mb4.2,baz=90,slow=6.4,SNR=9.0						
ZAL				LR	LR	16 09 21.2	
	comp=Z,170nm,18.4s,MS4.2,baz=11,slow=39						
JOF	**Joensuu**	**61.81**	**355**	*e*p	**P**	**15 40 38.5**	**-0.8**
	comp=Z,5.8nm,0.8s,mb4.8						
KAF	**Kangasniemi**	**62.79**	**358**	*e*p	**P**	**15 40 44.5**	**-1.4**
	comp=Z,9.5nm,0.5s,mb5.2						
FINES	**FINESS Array B**	**63.47**	**358**	P	**P**	**15 40 49.9**	**-0.5**
	comp=Z,5.3nm,0.6s,mb4.8,baz=22,slow=8.1,SNR=24						
FINES				LR	LR	16 10 35.3	
	comp=Z,45nm,18.8s,MS3.7,baz=348,slow=38						
NB2	**NORSAR Subarra**	**63.60**	**6**	P	**P**	**15 40 51.0**	**-0.1**
	comp=Z,3.1nm,0.7s,mb4.5,baz=353,slow=6.5						
NOA	**NORSAR Array B**	**63.60**	**6**	P	**P**	**15 40 50.9**	**-0.3**
	comp=Z,12nm,1.1s,mb4.8,baz=353,slow=6.6,SNR=16						
NOA				pP	pP	15 40 59.9	-3.8
	comp=Z,6.7nm,1.0s,baz=353,slow=6.6,SNR=6.3						
NOA				LR	LR	16 06 39.3	
	comp=Z,28nm,19.1s,MS3.5,baz=120,slow=34						
CHKZ	**Chkalovo**	**64.18**	**330**	*e*P	**P**	**15 40 53.3**	**-1.7**
	comp=Z,4.7nm,0.7s,mb4.6						
GTA	**Gaotai**	**64.80**	**303**	*e*P	**P**	**15 40 58.8**	**-0.5**
GTA				AP	pP	15 41 07.3	-4.6
GTA				XP	sP	15 41 10.9	-5.8
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.6						
BRVK	**Borovoye**	**64.82**	**330**	*e*P	**P**	**15 40 58.8**	**-0.3**
	comp=Z,6.9nm,0.7s,mb4.8						
CD2	**Chengdu**	**69.56**	**295**	P	**P**	**15 41 29.6**	**+0.3**
AAK	**Ala-Archa**	**72.68**	**322**	*e*P	**P**	**15 41 47.6**	**-0.1**
	comp=Z,3.8nm,0.8s,mb4.4						
CLL	**Collm**	**73.41**	**6**	*e*P	**P**	**15 41 53.0**	**+1.2**
CLL	**Collm**	**73.41**	**6**	P	**P**	**15 41 53.0**	**+1.2**
BRG	**Berggiesshubel**	**73.89**	**5**	*e*P	**P**	**15 41 55.7**	**+1.0**
	comp=Z,7.2nm,1.1s,mb4.5						
KHC	**Kasperske Hory**	**75.61**	**6**	*e*P	**P**	**15 42 05.5**	**+0.9**
GERES	**GERESS Array B**	**75.91**	**6**	P	**P**	**15 42 07.4**	**+1.1**
	comp=Z,1.3nm,0.7s,mb4.0,slow=5.3,SNR=8.5						
GERES				pP	pP	15 42 15.1	-3.9
	comp=Z,0.9nm,0.6s,baz=346,slow=5.5,SNR=4.7						
MFF	**Saint Martin d**	**76.68**	**16**	*e*P	**P**	**15 42 11.1**	**+0.4**
	comp=Z,29nm,1.0s,mb4.9						
SSF	**Saint Saulge**	**76.74**	**13**	*e*P	**P**	**15 42 11.3**	**+0.3**
	comp=Z,7.0nm,0.6s,mb4.5						
LSA	**Lhasa**	**76.83**	**303**	*e*P	**P**	**15 42 12.7**	**+0.7**
	comp=Z,7.7nm,0.8s,mb4.7						
AVF	**Avril sur Loir**	**76.98**	**13**	*e*P	**P**	**15 42 12.4**	**-0.1**
BGF	**Bois d'Agland**	**77.15**	**13**	*e*P	**P**	**15 42 13.3**	**-0.1**
SMF	**Signal de Mont**	**77.19**	**13**	*e*P	**P**	**15 42 13.5**	**-0.1**
TCF	**Toulx Ste Croi**	**77.33**	**14**	*e*P	**P**	**15 42 14.4**	**0.0**
RJF	**Les Rejaudoux**	**78.19**	**15**	*e*P	**P**	**15 42 19.2**	**+0.1**
LFF	**La Frestale**	**78.43**	**15**	*e*P	**P**	**15 42 20.9**	**+0.4**
CAF	**Calviac**	**78.64**	**14**	*e*P	**P**	**15 42 22.5**	**+0.9**
KIV	**Kislovodsk**	**79.49**	**345**	P	**P**	**15 42 27.0**	**+0.7**
MTLF	**Montolieu**	**80.22**	**15**	*e*P	**P**	**15 42 30.7**	**+0.5**
ETSF	**Etsaut**	**80.22**	**17**	*e*P	**P**	**15 42 31.2**	**+1.0**
	comp=Z,17nm,0.8s,mb4.7						
GUN	**Gumba**	**80.80**	**306**	*e*P	**P**	**15 42 34.2**	**+0.6**
	comp=Z,27nm,1.1s,mb5.1						
KKN	**Kakani**	**81.18**	**307**	*e*P	**P**	**15 42 36.1**	**+0.5**
	comp=Z,9.0nm,0.8s,mb4.8						
GKN	**Gorkha**	**81.29**	**307**	*e*P	**P**	**15 42 36.4**	**+0.2**
	comp=Z,12nm,0.7s,mb4.9						
PKI	**Pulchoki**	**81.31**	**307**	*e*P	**P**	**15 42 36.0**	**-0.3**
	comp=Z,8.3nm,0.7s,mb4.8						
DMN	**Daman**	**81.41**	**307**	*e*P	**P**	**15 42 37.2**	**+0.4**
	comp=Z,11nm,0.8s,mb4.8						
KOLN	**Koldanda**	**81.96**	**308**	*e*P	**P**	**15 42 40.1**	**+0.5**
	comp=Z,9.6nm,0.8s,mb4.8						
CM31	**Chiang Mai Arr**	**82.19**	**291**	*e*P	**P**	**15 42 40.7**	**-0.3**
	comp=Z,4.5nm,0.6s,mb4.6						
CMAR	**Chiang Mai Arr**	**82.19**	**291**	P	**P**	**15 42 41.0**	**+0.1**
	comp=Z,5.8nm,0.7s,mb4.6,baz=13,slow=5.6,SNR=50						
ESDC	**Sonseca Array**	**82.74**	**20**	P	**P**	**15 42 44.7**	**+1.3**
	comp=Z,2.6nm,0.6s,mb4.5,baz=338,slow=4.7,SNR=14						
ESDC				sP	sP	15 42 55.0	-6.0
	comp=Z,1.3nm,0.5s,baz=345,slow=4.4,SNR=3.5						
BRTR	**Keskin Array B**	**84.74**	**351**	P	**P**	**15 42 55.0**	**+1.7**
	comp=Z,2.4nm,0.9s,mb4.3,baz=34,slow=3.2,SNR=11						
CTA	**Charters Tower**	**88.78**	**231**	P	**P**	**15 43 13.0**	**-0.4**
	comp=Z,2.9nm,0.9s,mb4.6,baz=348,slow=7.9,SNR=3.5						
CTA				pP	pP	15 43 22.3	-4.2
	comp=Z,3.8nm,0.8s,baz=28,slow=9.9,SNR=4.4						
CTA	**Charters Tower**	**88.78**	**231**	P	**P**	**15 43 13.0**	**-0.4**
CTA				pP	pP	15 43 22.3	-4.2
WRA	**Warramunga Arr**	**94.28**	**241**	P	**P**	**15 43 39.2**	**+0.3**
	comp=Z,0.4nm,0.8s,mb3.9,baz=35,slow=5.9,SNR=4.8						
WRA				pP	pP	15 43 46.2	-5.8
	comp=Z,1.4nm,0.9s,baz=35,slow=5.7,SNR=7.4						
ASAR	**Alice Springs**	**97.63**	**239**	P	**P**	**15 43 59.4**	**+5.2**
	comp=Z,0.3nm,0.7s,mb3.9,baz=35,slow=4.1,SNR=5.3						
QSPA	**South Pole Qui**	**145.17**	**180**	*e*PKP	PKPdf	15 49 54.0	-0.1
QSPA				⇑*i*P		15 50 03.4	

IDC 20 15:36:31.2±40.0,**7.85S**×**107.84E,mb3.7**/3,**mb1 3.9**/3,**mb1mx3.6**/14,**Error ellipse: s-maj=671.0km s-min=145.6km az=128.0,Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**28.34**	**118**	P	P	15 42 26.8	-2.3
	0.4nm,0.6s,baz=291,slow=10,SNR=4.1						
ASAR	**Alice Springs**	**29.52**	**125**	P	P	15 42 38.4	-1.4
	0.4nm,0.6s,baz=298,slow=9.5,SNR=7.8						
STKA	**Stephens Creek**	**39.45**	**132**	P	P	15 44 02.9	-2.2
	2.8nm,0.8s,baz=322,slow=8.6,SNR=7.0						

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*IDC **20** 16:15:15.7±3.0,4.35S×152.98E,h89^{km}±22^{km},mb3.5/4,mb1 3.7/5,mb1mx3.5/15,Error ellipse: s-maj=105.0km s-min=17.3km az=132.0*
*NEIC **20** 16:15:16.9±3.2,4.18S×152.69E,h95^{km}±23^{km},mb4.0/1,Error ellipse: s-maj=117.3km s-min=22.6km az=128.0*
ISC 20 16:15:10.8±3.2,**4.2S**±0.6×**153.0E**±0.7,**h59**^{km}±23^{km}**,n7,**σ**0^{s}88**/10,**mb3.7**/5,**New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**7.78**	**228**	P	**P**	**16 17 04.1**	**+0.4**
	0.6nm,0.3s,baz=48,slow=14,SNR=3.6						
PMG				S	**S**	**16 18 32.1**	**+1.0**
	0.7nm,0.3s,baz=54,slow=19,SNR=3.1						
PMG	**Port Moresby**	**7.78**	**228**	*e*Pn	**P**	**16 17 04.5**	**+0.8**
PMG				*e*Sn	**S**	**16 18 30.9**	**-0.3**
WRAB	**Tennant Creek**	**23.98**	**228**	*e*P	**P**	**16 20 20.7**	**-0.3**
	4.4nm,0.6s,mb4.1						
WRA	**Warramunga Arr**	**24.00**	**228**	P	**P**	**16 20 21.1**	**0.0**
	1.5nm,0.4s,mb3.8,baz=53,slow=9.9,SNR=42						
WRA				S	**S**	**16 24 32.1**	**+1.2**
	0.4nm,0.9s,baz=52,slow=19,SNR=3.8						
ASAR	**Alice Springs**	**26.73**	**222**	P	**P**	**16 20 46.2**	**-0.7**
	0.3nm,0.4s,mb3.2,baz=56,slow=9.3,SNR=9.6						
FITZ	**Fitzroy Crossi**	**30.14**	**241**	P	**P**	**16 21 15.8**	**-1.7**
	1.4nm,0.8s,mb3.7,baz=24,slow=9.4,SNR=6.7						
ILAR	**Eielson Array**	**81.54**	**22**	P	**P**	**16 27 24.2**	**+1.0**
	1.1nm,1.0s,mb3.7,baz=248,slow=5.5,SNR=6.8						

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*NEIC **20** 16:16:51.9,18.62N×104.84W,h16^{km},MD4.1(MEX),After MEX.*
MEX 20 16:16:51.9±0.9,**18.62N**×**104.84W,h16**^{km}±47^{km}**,MD4.2,Near coast of Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CJM	**Chamela**	**0.89**	**347**	*i* P	Pb	16 17 06.0	-2.6
CJM				*i* S	Sb	16 17 17.1	-2.9
COLM	**Colima**	**1.22**	**63**	*e*P	Pb	16 17 10.3	-3.8
COLM				*i* S	Sb	16 17 25.4	-4.0
CGX	**Ciudad Guzman**	**1.65**	**50**	*i* P	Pn	16 17 19.3	-1.2
SFJM	**Santa Fe**	**2.51**	**42**	*i* P	Pn	16 17 29.7	-3.2
SFJM				*i* S	Sn	16 17 57.3	-6.1
PLIG	**Platanillo**	**5.07**	**92**	*i* S	Sn	16 19 02.5	-5.5

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*ROM **20** 16:32:21.6±0.3,43.15N×15.48E,h10^{km},MD3.3/2,ML2.9/14,Error ellipse: s-maj=3.3km s-min=2.1km az=90.0*
*NEIC **20** 16:32:22.1±0.8,43.11N×15.21E,h10^{km},ML3.6(VIE),ML3.4(LDG),Error ellipse: s-maj=9.7km s-min=5.0km az=134.0*
*LDG **20** 16:32:24.8±0.2,43.20N×15.25E,h10^{km},Ml3.4/10,Error ellipse: s-maj=6.4km s-min=3.3km az=70.0*
*CSEM **20** 16:32:24.0±0.1,43.12N×15.36E,h40^{km},ML3.6/4,Error ellipse: s-maj=3.0km s-min=1.6km az=109.0*
ISC 20 16:32:19.9±0.7,**43.13N**±0.02×**15.22E**±0.04,**h2**^{km}±5^{km}**,n93,**σ**1^{s}40**/128,**10C,Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TERO	**Teramo**	**1.29**	**248**	*e*PN	**Pn**	**16 32 47.6**	**+2.6**
TERO				SN	**Sn**	**16 33 07.1**	**+4.1**
NVLJ	**Novalja**	**1.46**	**350**	*i* Pn	**Pn**	**16 32 47.3**	**0.0**
NVLJ				*i* Pg	**Pg**	**16 32 48.3**	**-0.8**
NVLJ				*i* Sn	**Sn**	**16 33 08.7**	**+1.4**
NVLJ				*i* Sg	**Sg**	**16 33 08.9**	**+0.4**
NVLJ	**Novalja**	**1.46**	**350**	*i* Pn	**Pn**	**16 32 47.2**	**-0.1**
NVLJ	**Novalja**	**1.46**	**350**	*i* Pg	**Pg**	**16 32 48.2**	**-0.8**
NVLJ				*i* Sn	**Sn**	**16 33 08.6**	**+1.4**
NVLJ				*i* Sg	**Sg**	**16 33 08.9**	**+0.4**
RGNG	**Rignano Grg**	**1.48**	**169**	*e*PN	**Pn**	**16 32 46.9**	**-0.7**
RGNG				SN	**Sn**	**16 33 07.0**	**-0.7**
INTR	**Introdacqua**	**1.48**	**222**	*e*PN	**Pn**	**16 32 49.3**	**+1.7**
CING	**Cingoli**	**1.50**	**280**	*e*PN	**Pn**	**16 32 48.8**	**+0.8**
FGMS	**Monte Sant'Ang**	**1.52**	**159**	*e*PN	**Pn**	**16 32 47.5**	**-0.7**
AQU	**L'Aquila**	**1.55**	**241**	*e*PN	**Pn**	**16 32 51.7**	**+3.1**
	85nm,0.6s						
AQU	**L'Aquila**	**1.55**	**241**	*e*Pn	**Pn**	**16 32 50.6**	**+1.9**
AQU	**L'Aquila**	**1.55**	**241**	*e*Pn	**Pn**	**16 32 50.6**	**+2.0**
CII	**Carovilli**	**1.56**	**206**	*e*Pn	**Pn**	**16 32 50.3**	**+1.5**
CII				Sn	**Sn**	**16 33 15.3**	**+5.5**
NRCA	**Norcia**	**1.58**	**260**	*e*PN	**Pn**	**16 32 51.3**	**+2.3**
	37nm,0.4s						
NRCA	**Norcia**	**1.58**	**260**	*e*Pn	**Pn**	**16 32 51.3**	**+2.3**
	37nm,0.4s						
SNTG	**Esanatoglia**	**1.68**	**275**	*e*PN	**Pn**	**16 32 52.3**	**+1.9**
	73nm,0.3s						
SNTG	**Esanatoglia**	**1.68**	**275**	*e*Pn	**Pn**	**16 32 52.3**	**+1.9**
	73nm,0.3s						
ARV	**Arcevia**	**1.71**	**283**	*e*PN	**Pn**	**16 32 52.9**	**+2.0**
	32nm,0.3s						
ARV	**Arcevia**	**1.71**	**283**	*e*Pn	**Pn**	**16 32 52.9**	**+2.0**
	32nm,0.3s						
PTQR	**Pietraquaria**	**1.74**	**231**	*e*PN	**Pn**	**16 32 54.9**	**+3.5**
	35nm,0.3s						
PTQR	**Pietraquaria**	**1.74**	**231**	*e*Pn	**Pn**	**16 32 54.9**	**+3.5**
	35nm,0.3s						
SDI	**San Donato**	**1.76**	**217**	*e*PN	**Pn**	**16 32 53.7**	**+2.0**
SGG	**Gregorio Mates**	**1.85**	**200**	*e*PN	**Pn**	**16 32 55.9**	**+3.0**
FSSB	**Fossombrone**	**1.87**	**288**	*e*PN	**Pn**	**16 32 55.2**	**+2.0**
	90nm,0.7s						
FSSB	**Fossombrone**	**1.87**	**288**	*e*Pn	**Pn**	**16 32 55.2**	**+2.0**
	90nm,0.7s						
MNS	**Montasola**	**2.02**	**249**	*e*PN	**Pn**	**16 32 58.3**	**+3.0**
	32nm,0.3s						
MNS	**Montasola**	**2.02**	**249**	*e*Pn	**Pn**	**16 32 58.3**	**+3.0**
	32nm,0.3s						
BLY	**Banja Luka**	**2.15**	**40**	*e*Pn	**Pn**	**16 32 59.1**	**+1.8**
TREB	**Trebinje**	**2.33**	**99**	Pn	**Pn**	**16 32 59.0**	**-0.8**
BOJS	**Bojanci**	**2.38**	**0**	*i* Pn	**Pn**	**16 33 01.8**	**+1.3**
BOJS				*i* Sn	**Sn**	**16 33 33.0**	**+2.4**
CRE	**Caprese Michel**	**2.44**	**283**	*e*PN	**Pn**	**16 33 04.7**	**+3.4**
	24nm,0.3s						
CRE	**Caprese Michel**	**2.44**	**283**	*e*Pn	**Pn**	**16 33 04.7**	**+3.4**
	24nm,0.3s						
SISC	**Sisak**	**2.48**	**19**	*i* Pn	**Pn**	**16 33 00.3**	**-1.7**
SISC				*i* Sg	**Sg**	**16 33 37.6**	**-5.0**
SISC	**Sisak**	**2.48**	**19**	*i* Pn	**Pn**	**16 33 00.3**	**-1.7**
SGO	**Sicignano**	**2.56**	**179**	*e*PN	**Pn**	**16 33 03.8**	**+0.6**
	10.0nm,0.3s						
SGO	**Sicignano**	**2.56**	**179**	*e*Pn	**Pn**	**16 33 03.8**	**+0.6**
	10.0nm,0.3s						
CEY	**Cerknica**	**2.67**	**348**	*e*Pn	**Pn**	**16 33 06.0**	**+1.3**
VMG	**Vicchio**	**2.80**	**289**	*e*PN	**Pn**	**16 33 09.3**	**+2.7**
	49nm,0.6s						
VMG	**Vicchio**	**2.80**	**289**	*e*Pn	**Pn**	**16 33 09.3**	**+2.7**
	49nm,0.6s						
LJU	**Ljubljana**	**2.96**	**351**	*e*Pn	**Pn**	**16 33 10.2**	**+1.4**
VOY	**Vojsko**	**3.06**	**342**	*e*Pn	**Pn**	**16 33 10.9**	**+0.7**
VOY				*e*Sn	**Sn**	**16 33 48.6**	**+0.8**
OBKA	**Obir**	**3.42**	**352**	⇑*i*PN	**Pn**	**16 33 16.5**	**+1.2**
OBKA				*i* SN	**Sn**	**16 33 57.7**	**+0.8**
OBKA				*i* SG	**Sg**	**16 34 15.1**	**+1.5**
	63nm,0.7s						
PERS	**Pernice**	**3.51**	**359**	*i* Pn	**Pn**	**16 33 17.4**	**+0.8**
PTCC	**Patocco-Chiusa**	**3.54**	**339**	*e*PN	**Pn**	**16 33 17.4**	**+0.4**
	23nm,0.4s						
PTCC	**Patocco-Chiusa**	**3.54**	**339**	*e*Pn	**Pn**	**16 33 17.4**	**+0.4**
	23nm,0.4s						
RHK1	**Bakonya**	**3.60**	**33**	⇑*e*P	**Pn**	**16 33 18.2**	**+0.4**

RHK1				eS	Sn	16 33 58.0	-3.5
	2.3nm,0.5s						
CTI	Castel Tesino	3.88	320	ePN	Pn	16 33 22.2	+0.3
	13nm,0.4s						
CTI	Castel Tesino	3.88	320	ePn	Pn	16 33 22.2	+0.3
	13nm,0.4s						
FVI	Forni Avoltri	3.88	334	ePN	Pn	16 33 22.0	+0.1
	36nm,0.8s						
FVI	Forni Avoltri	3.88	334	ePn	Pn	16 33 22.0	+0.1
	36nm,0.8s						
PKSM	Moragy	3.93	37	eP	Pn	16 33 20.6	-2.0
ARSA	Arzberg	4.13	3⇑	iPN	Pn	16 33 25.5	+0.1
ARSA				iSN	Sn	16 34 14.6	-0.4
KBA	Koelnbreinsper	4.17	342⇑	iPN	Pn	16 33 26.8	+0.8
KBA				iSN	Sn	16 34 17.0	+1.0
PGF	Pioggiola	4.61	265	ePn	Pn	16 33 30.8	-1.5
MOA	Molln	4.77	352⇑	iPN	Pn	16 33 34.8	+0.3
MOA				iSN	Sn	16 34 30.1	-1.1
MOA	Molln	4.77	352	ePn	Pn	16 33 35.5	+1.0
WTTA	Wattenberg	4.85	330⇑	iPN	Pn	16 33 36.4	+0.7
WTTA				iSN	Sn	16 34 33.8	+0.6
SCLL	Scilla	4.88	175	ePN	Pn	16 33 35.3	-0.8
	42nm,0.3s						
SCLL	Scilla	4.88	175	ePn	Pn	16 33 35.3	-0.8
	42nm,0.3s						
WATA	Walderalm	4.93	330⇑	iPN	Pn	16 33 37.4	+0.6
WATA				iSN	Sn	16 34 35.9	+0.6
SQTA	Sankt Quirin	4.98	327⇑	iPN	Pn	16 33 38.6	+1.1
SQTA				iSN	Sn	16 34 36.8	+0.3
MOTA	Moosalm	5.12	327⇑	iPN	Pn	16 33 40.1	+0.6
MOTA				iSN	Sn	16 34 40.1	0.0
DAVA	Damuels	5.62	320⇑	iPN	Pn	16 33 47.1	+0.6
DAVA				iSN	Sn	16 34 50.8	-1.7
DAVA	Damuels	5.62	320	ePn	Pn	16 33 48.0	+1.5
SBF	Sospel	5.71	280	ePn	Pn	16 33 48.0	+0.2
GEC2	GERESS Array S	5.82	350	ePn	Pn	16 33 48.8	-0.5
KHC	Kasperske Hory	6.11	350	ePN	Pn	16 33 52.2	-1.3
KHC				ex	x	16 34 02.1	
KHC				eSN	Sn	16 35 00.6	-4.3
WET	Wettzell	6.24	346	ePn	Pn	16 33 54.2	-1.0
FRF	La Foret Royal	6.27	277	ePn	Pn	16 33 55.6	-0.1
FRF				eSn	Sn	16 35 02.7	-6.1
	4.7nm,0.5s						
MBDF	Montbardon	6.31	288	ePn	Pn	16 33 54.8	-1.5
MBDF				eSn	Sn	16 35 03.7	-6.1
	3.6nm,0.5s						
MBDF	Montbardon	6.31	288	eSn	Sn	16 35 03.7	-6.1
	1.8nm,0.5s						
LMR	La Mourre	6.37	275	ePn	Pn	16 33 56.2	-0.9
LPG	La Plagne	6.52	294	ePn	Pn	16 33 57.0	-2.3
LPG				eSn	Sn	16 35 09.0	-6.2
	15nm,0.6s						
LPL	La Plagne	6.54	294	ePn	Pn	16 33 58.0	-1.5
LPL				eSn	Sn	16 35 09.5	-6.1
	8.9nm,0.4s						
LPL	La Plagne	6.54	294	eSn	Sn	16 35 09.5	-6.1
	4.4nm,0.4s						
ORIF	Oris-en-Rattie	6.97	288	ePn	Pn	16 34 04.5	-1.0
ORIF				eSn	Sn	16 35 19.9	-6.4
	14nm,0.7s						
ORIF	Oris-en-Rattie	6.97	288	eSn	Sn	16 35 19.9	-6.4
	7.1nm,0.7s						
SMRF	Simiane la Rot	7.06	280	ePn	Pn	16 34 05.7	-1.1
CABF	La Chapelle	7.37	301	ePn	Pn	16 34 09.2	-1.9
CABF				eSn	Sn	16 35 29.2	-7.0
	3.9nm,0.5s						
GUNZ	Gunzen	7.51	346	ePn	Pn	16 34 12.0	-1.1
HINF	Hinteralfeld	7.52	311	ePn	Pn	16 34 11.2	-2.1
HINF				eSn	Sn	16 35 33.0	-7.1
	6.1nm,0.5s						
TANN	Tannenbergstha	7.53	346	ePn	Pn	16 34 12.0	-1.4
WERD	Werda	7.59	346	ePn	Pn	16 34 13.2	-1.1
CDF	Champ du Feu	7.67	316	ePn	Pn	16 34 14.0	-1.3
VIVF	Saint-Julien-l	7.80	286	ePn	Pn	16 34 15.7	-1.5
HAU	Haudompre	7.91	311	ePn	Pn	16 34 15.2	-3.5
HAU				eSn	Sn	16 35 41.7	-8.1
	11nm,0.4s						
MOX	Moxa	7.92	343	iP	Pn	16 34 16.7	-2.1
MOX				S	Sn	16 35 43.0	-7.0
MOX	Moxa	7.92	343	ePn	Pn	16 34 16.7	-2.1
MOX				eSn	Sn	16 35 43.1	-6.9
CLL	Collm	8.32	350	eSG	Sg	16 36 57.0	0.0
SMF	Signal de Mont	8.81	297	ePn	P	16 34 28.3	-3.0
SMF				eSn	Sn	16 36 03.0	-9.3
	2.5nm,0.3s						
SSF	Saint Saulge	9.17	299	ePn	P	16 34 33.8	-2.5
AVF	Avril sur Loir	9.18	298	ePn	P	16 34 34.0	-2.3
BGF	Bois d'Agland	9.44	296	ePn	P	16 34 37.5	-2.4
TCF	Toulx Ste Croi	9.79	293	ePn	P	16 34 42.0	-2.7
TCF				eSn	Sn	16 36 27.0	-9.4
	3.5nm,0.4s						

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*NEIC **20** 16:50:13.4, 18.63N×104.84W, h16^{km}, MD4.0(MEX), After MEX.*

MEX 20 16:50:13.4±1.0**, 18.63N×104.84W, h16^{km}**±67^{km}**, MD4.0, Near coast of Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CJM	Chamela	0.89	347	iP	Pb	16 50 27.2	-2.7
CJM				iS	Sb	16 50 38.0	-3.3
COLM	Colima	1.21	63	iP	Pb	16 50 31.6	-3.9
COLM				iS	Sb	16 50 46.6	-4.2
CGX	Ciudad Guzman	1.64	50	iP	Pn	16 50 41.5	-0.4
SFJM	Santa Fe	2.50	42	iP	Pn	16 50 51.8	-2.5
SFJM				iS	Sn	16 51 18.5	-6.2

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*IDC **20** 17:18:29.5±7.9, 6.17S×153.03E, h56^{km}±61^{km}, mb3.6/7, mb1 3.9/8, mb1mx3.8/15, ML4.0/1, Error ellipse: s-maj=56.0km s-min=27.1km az=90.0*

*NEIC **20** 17:18:31.0±4.2, 6.14S×152.82E, h59^{km}±28^{km}, mb4.3/3, Error ellipse: s-maj=42.5km s-min=17.6km az=93.0*

ISC 20 17:18:20.9±5.3**, 6.1S**±0.2×**153.1E**±0.2**, h5^{km}**±36^{km}**, n12, σ0^{s}75**/14**, mb3.9**/9**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	6.75	240	P	Pn	17 20 03.7	+0.6
	20nm,0.3s,baz=60,slow=6.3,SNR=41						
PMG				S	Sn	17 21 21.5	+0.2
	3.2nm,0.3s,baz=131,slow=19,SNR=7.0						
PMG	Port Moresby	6.75	240	P	Pn	17 20 03.7	+0.6
PMG				S	Sn	17 21 21.5	+0.2
KAKA	Kakadu	21.44	251	eP	P	17 23 11.2	-1.1
	10nm,0.6s,mb4.3						
WRAB	Tennant Creek	22.85	231	eP	P	17 23 27.5	+1.1
	3.9nm,0.6s,mb4.0						
WRA	Warramunga Arr	22.86	231	P	P	17 23 26.6	+0.1
	0.7nm,0.5s,mb3.3,baz=56,slow=11,SNR=13						
ASAR	Alice Springs	25.44	225	P	P	17 23 51.5	+0.1
	0.8nm,0.7s,mb3.4,baz=56,slow=9.4,SNR=13						
STKA	Stephens Creek	27.85	201	P	P	17 24 13.4	-0.1
	1.4nm,0.7s,mb3.7,baz=39,slow=14,SNR=3.0						
FITZ	Fitzroy Crossi	29.34	243	eP	P	17 24 25.5	-1.5
	3.2nm,0.4s,mb4.4						
FITZ	Fitzroy Crossi	29.34	243	P	P	17 24 25.2	-1.9
	3.2nm,0.4s,mb4.4,baz=67,slow=3.4,SNR=17						
CMAR	Chiang Mai Arr	58.67	296	P	P	17 28 21.9	-0.2
	0.3nm,0.4s,mb3.7,baz=117,slow=6.0,SNR=4.3						
SONM	Songino Array	67.53	328	P	P	17 29 21.2	+0.8
	1.8nm,1.0s,mb4.0,baz=143,slow=6.2,SNR=7.9						
ZAL	Zalesovo	82.35	326	P	P	17 30 45.1	0.0
	0.5nm,0.3s,mb4.0,baz=3.7,slow=3.0,SNR=4.3						

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*IDC **20** 17:23:12.0±4.3, 23.10N×69.73E, mb3.6/4, mb1 3.9/4, mb1mx3.6/18, Error ellipse: s-maj=104.0km s-min=46.1km az=96.0*

*NDI **20** 17:23:15.7±5.0, 23.38N×70.27E, h5^{km}±35^{km}, MD4.2, ML4.0*

ISC 20 17:23:14.0±0.9**, 23.51N**±0.04×**70.36E**±0.06**, h25^{km}**±12^{km}**, n31, σ1^{s}49**/39**, mb3.4**/4**, 2C, Southern India**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BHJ	Bhuj	0.69	249⇑	eP	Pb	17 23 27.3	-0.1
	8µm,0.1s						
BHJ				eS	Sb	17 23 35.1	-1.5
BHV	Bhavnagar	2.40	136	eP	Pn	17 23 54.8	+2.1
BHV				eSB	Sb	17 24 28.5	+2.7
AJM	Ajmer	4.89	52	i	Pn	17 24 37.0	+9.1
BOM	Bombay	5.12	153	eP	Pn	17 24 31.4	+0.1
BOM				eS	Sn	17 25 27.7	-2.7
	85nm,0.4s						
POO	Poona	5.93	146	eP	Pn	17 24 41.7	-0.9
POO				e		17 25 41.1	
POO				e		17 26 26.7	
	comp=N,125nm,0.6s						
POO				e		17 26 26.7	
	comp=E,315nm,0.6s						
BHPL	Bhopal	6.50	91	eP	Pn	17 24 52.9	+2.2
BHPL				iS	Sn	17 26 03.8	-1.0
BHPL				AML	AML	17 26 50.4	
	comp=N,139nm,0.7s						
BHPL				AML	AML	17 26 51.0	
	comp=E,108nm,0.5s						
AKL	Akola	6.77	113	eP	Pn	17 24 58.3	+3.8
AKL				eS	Sn	17 26 11.4	-0.2
KAD	Karad	7.13	149	e	Pn	17 25 05.5	+5.9
KAD				iS	Sn	17 26 15.5	-5.2
	comp=E,102nm,0.4s						
LATR	Latur	7.69	130	eP	Pn	17 25 08.5	+1.1
NDI	New Delhi	8.04	49	e	P	17 25 18.0	+5.8
NDI				eS	Sn	17 26 41.0	-2.2
NDI				e		17 27 28.0	
DRP	Derazinda	8.21	359	P	P	17 25 15.0	+0.4
GOA	Goa	8.61	157⇑	e	P	17 25 32.0	+12
GOA				e		17 26 58.6	
THW	Thamme Wali	9.34	7	P	P	17 25 31.2	+1.0
DDI	Dehra Dun	9.65	44	eS	Sn	17 27 18.5	-4.9
DDI				e		17 28 25.3	
HYB	Hyderabad	9.78	127	eP	P	17 25 35.5	-0.9
HYB				eS	Sn	17 27 20.0	-6.5
SDNR	Sundarnagar	9.89	35	e	P	17 25 45.2	+7.3
	comp=E,167nm,0.4s						
SDNR				e		17 28 29.2	
THN	Thein Dam	10.07	27	e	P	17 25 46.8	+6.4
THN				e		17 27 53.7	
DLH	Dalhousie	10.27	28	e	P	17 25 50.0	+6.9
DLH				e		17 27 54.0	
CHCP	Chirah Chowk	10.43	13	P	P	17 25 46.6	+1.3
LGTI	Lohaghat	10.65	54	eP	P	17 25 47.5	-0.8
LGTI				e		17 28 51.0	
PTH	Pithoragarh	10.68	54	eP	P	17 25 51.8	+3.1
PTH				e		17 28 01.2	
KOLN	Koldanda	12.68	68	eP	P	17 26 14.9	-0.8
	comp=E,14nm,0.3s						
GKN	Gorkha	13.62	68	eP	P	17 26 26.8	-1.4
	comp=E,9.3nm,0.3s						
DMN	Daman	13.92	70	eP	P	17 26 31.6	-0.6
	comp=E,12nm,0.3s						
KKN	Kakani	14.12	69	eP	P	17 26 33.6	-1.1
	comp=E,24nm,0.4s						
PKI	Pulchoki	14.17	70	eP	P	17 26 34.2	-1.3
	comp=E,10nm,0.3s						
GUN	Gumba	14.66	69	eP	P	17 26 40.5	-1.4
	comp=E,55nm,0.7s						
CMAR	Chiang Mai Arr	27.13	95	P	P	17 29 02.2	+4.9
	comp=E,0.5nm,0.7s,mb3.1,baz=275,slow=11,SNR=5.6						
SONM	Songino Array	37.51	41	P	P	17 30 33.4	+5.7
	comp=E,0.4nm,0.9s,mb3.1,baz=240,slow=8.6,SNR=3.6						
WRA	Warramunga Arr	75.85	119	P	P	17 35 02.4	+1.8
	comp=E,0.6nm,0.8s,mb3.5,baz=312,slow=5.3,SNR=11						
ASAR	Alice Springs	77.48	123	P	P	17 35 11.4	+1.9
	comp=E,0.7nm,0.6s,mb3.8,baz=304,slow=5.6,SNR=17						

IDC 20 17:48:25.1±46.0**, 19.25S×174.52W, mb3.9**/3**, mb1 4.1**/3**, mb1mx3.8**/14**, Error ellipse: s-maj=871.0km s-min=174.5km az=82.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	41.27	243	P	P	17 56 11.7	-2.1
	3.9nm,1.1s,baz=98,slow=14,SNR=3.1						
ASAR	Alice Springs	47.99	255	P	P	17 57 06.2	-1.8
	0.8nm,0.4s,baz=91,slow=8.2,SNR=39						
WRA	Warramunga Arr	48.03	260	P	P	17 57 06.5	-1.8
	0.3nm,0.3s,baz=97,slow=7.2,SNR=35						

KRSC 20 17:53:52.8±0.8**, 48.90N×156.29E, h57^{km}**±21^{km}**, ML3.9, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	1.79	356	eP	P	17 54 21.6	-0.3
SKR				eS	S	17 54 42.7	-0.8
ALID	Alaid	2.03	347	eP	P	17 54 25.9	+0.6
ALID				eS	S	17 54 49.9	+0.5
PAU	Pauzhetka	2.59	7	P	P	17 54 33.5	+0.2
PAU				eS	S	17 55 03.0	-0.7
PAU				Smax			
	200nm,0.7s						
RUS	Russkaya	3.81	21	eP	P	17 54 50.6	+0.1
RUS				eS	S	17 55 33.8	-0.6
GRL	Gorelyy	3.83	17	eP	P	17 54 51.6	+0.9
GRL				eS	S	17 55 34.4	-0.5
PET	Petropavlovsk	4.39	19	eP	P	17 54 59.1	+0.5
PET				eS	S	17 55 47.2	-1.8
UGLR	Uglovaya	4.60	19	eP	P	17 55 02.5	+0.9
UGLR				eS	S	17 55 52.8	-1.5
AVH	Avacha	4.63	19	eP	P	17 55 03.0	+0.9
AVH				eS	S	17 55 53.9	-1.3
KOK	Koryaka	4.64	18	eP	P	17 55 03.8	+1.7
KOK				eS	S	17 55 54.8	-0.5
SDLR	Sedlovina	4.68	19	eP	P	17 55 02.6	-0.1
SDLR				eS	S	17 55 53.3	-3.0
SPN	Mys Shipunski	4.82	28	eP	P	17 55 04.5	-0.1
SPN				eS	S	17 55 58.0	-1.8
GNL	Ganaly	4.91	12	eP	P	17 55 06.3	+0.4
GNL				eS	S	17 56 00.0	-2.1
KMNR	Kamenistaya	7.28	18	eP	P	17 55 39.3	+0.4
KMNR				eS	S	17 56 56.6	-4.3
KBTR	Krutoberegovo	8.33	26	eP	P	17 55 52.6	-0.8
KBTR				eS	S	17 57 19.9	-7.0
BKI	Bering	8.68	40	eP	P	17 55 54.0	-4.2
BKI				eS	S	17 57 22.6	-13

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*IDC **20** 17:56:03.0±2.8, 23.25S×170.02E, h28^{km}±6^{km}, mb3.7/7, mb1 4.0/7, mb1mx3.9/13, Error ellipse: s-maj=110.0km s-min=24.8km az=157.0*

*NEIC **20** 17:56:03.3±0.9, 23.12S×169.99E, mb4.4/1, Error ellipse: s-maj=32.4km s-min=20.3km az=166.0*

ISC 20 17:56:02.9±0.8**, 23.1S**±0.2×**169.82E**±0.09**, h33^{km}, (h26^{km}**±1.9^{km}**:pP-P), n13, σ1^{s}07**/13**, mb3.9**/8**, 1D, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.27	287	eP	P	17 56 53.4	+0.3
DZM				eS	S	17 57 30.5	-0.9
NOUC	Port Laguerre	3.39	286	eP	P	17 56 55.0	+0.2
NOUC				eS	S	17 57 34.3	0.0
CTA	Charters Tower	22.11	273	P	P	18 00 59.2	+2.1
	1.3nm,0.7s,mb3.5,baz=87,slow=14,SNR=3.0						
ASAR	Alice Springs	32.92	262	P	P	18 02 36.2	-0.3
	2.1nm,0.9s,mb4.1,baz=90,slow=9.7,SNR=21						
ASAR				pP	pP	18 02 45.0	-1.3
	2.0nm,1.1s,baz=89,slow=9.1,SNR=5.1						
WRA	Warramunga Arr	33.11	269	P	P	18 02 36.8	-1.3
	0.3nm,0.5s,mb3.5,baz=98,slow=8.3,SNR=5.4						
QSPA	South Pole Qui	67.00	180⇓	iP	P	18 06 53.4	-0.6
	2.6nm,0.8s,mb4.3						
CMAR	Chiang Mai Arr	80.57	295	P	P	18 08 16.1	+1.9
	1.1nm,0.9s,mb3.8,baz=145,slow=4.9,SNR=6.9						
CMAR				pP	pP	18 08 24.2	-0.3
	1.5nm,0.8s,baz=139,slow=4.6,SNR=4.1						
SONM	Songino Array	90.59	323	P	P	18 09 03.6	+0.5
	0.7nm,0.9s,mb4.0,baz=162,slow=3.9,SNR=5.1						
SONM				pP	pP	18 09 12.5	-1.2
	0.9nm,0.9s,baz=180,slow=1.2,SNR=4.9						
NVAR	Mina Array Bea	90.93	48	P	P	18 09 05.1	+0.2
	0.6nm,0.8s,mb4.0,baz=234,slow=10,SNR=3.7						
NVAR	Mina Array Bea	90.93	48	P	P	18 09 05.1	+0.2
ILAR	Eielson Array	93.72	17	P	P	18 09 15.2	-1.7
	0.9nm,1.1s,mb4.1,baz=225,slow=6.4,SNR=2.9						
KHC	Kasperske Hory	147.94	330	ePKP	PKPdf	18 15 46.0	+4.5
GERES	GERESS Array B	148.09	330	PKPbc	PKPdf	18 15 46.7	+5.0
	1.4nm,0.8s,baz=27,slow=3.0,SNR=9.4						

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*IDC **20** 18:08:42.4±0.8, 19.11S×167.70E, mb4.5/13, mb1 4.7/13, mb1mx4.6/16, MS3.7/4, Ms1 3.6/4, ms1mx3.1/25, Error ellipse: s-maj=30.1km s-min=16.7km az=153.0*

*LDG **20** 18:08:45.6±0.3, 18.95S×166.66E, h10^{km}, Mb4.7/2, Error ellipse: s-maj=47.2km s-min=5.0km az=87.0*

*NEIC **20** 18:08:45.1±9.8, 19.12S×167.71E, h18^{km}±59^{km}, mb4.6/14, Error ellipse: s-maj=16.1km s-min=14.1km az=189.0*

ISC 20 18:08:45.7±0.4**, 19.22S**±0.05×**167.61E**±0.08**, h33^{km}, n58, σ0^{s}76**/40**, mb4.5**/22**, MS3.5**/4**, 1C, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.05	201	eP	P	18 09 32.5	-0.2
DZM				eS	S	18 10 07.8	-0.6
NOUC	Port Laguerre	3.12	203	eP	P	18 09 33.8	0.0
NOUC				eS	S	18 10 10.3	-0.1
CTA	Charters Tower	20.13	264⇑	iP	P	18 13 21.2	+1.3
	31nm,1.4s						
CTA	Charters Tower	20.13	264	P	P	18 13 21.0	+1.1
	12nm,0.8s,baz=85,slow=12,SNR=18						
CTA				LR	LR	18 20 05.9	
	comp=Z,219nm,18.9s,MS3.5,baz=78,slow=34						
CTAO	Charters Tower	20.13	264	eP	P	18 13 21.2	+1.3
	28nm,1.0s						
PMG	Port Moresby	22.06	293	LR	LR	18 21 07.7	
	comp=Z,147nm,18.5s,MS3.4,baz=22,slow=34						
PMG	Port Moresby	22.06	293	P	P	18 13 40.2	+0.7
	17nm,1.2s,mb4.4						
RPZ	Rata Peaks	24.60	174	P	P	18 14 05.2	+1.1
	21nm,1.1s,mb4.6,baz=18,slow=20,SNR=6.3						
STKA	Stephens Creek	26.57	237	eP	P	18 14 23.5	+0.7
	5.5nm,0.9s,mb4.1						
STKA				e	pP	18 14 34.3	+2.1
STKA	Stephens Creek	26.57	237	P	P	18 14 23.4	+0.6
	7.0nm,0.8s,mb4.2,baz=62,slow=8.1,SNR=11						
STKA				LR	LR	18 23 11.5	
	comp=Z,138nm,20.6s,MS3.5,baz=25,slow=33						
STKA	Stephens Creek	26.57	237	eP	P	18 14 23.8	+1.1
STKA				e	pP	18 14 34.3	+2.1
WRAB	Tennant Creek	31.32	263	eP	P	18 15 05.0	-0.4
	7.8nm,1.2s,mb4.4						
WRA	Warramunga Arr	31.33	263	P	P	18 15 04.6	-0.9
	0.6nm,0.5s,mb3.6,baz=83,slow=5.9,SNR=10						
ASAR	Alice Springs	31.64	256	P	P	18 15 07.6	-0.7
	3.7nm,0.5s,mb4.5,baz=84,slow=8.3,SNR=87						
ASAR				LR	LR	18 27 34.5	
	comp=Z,123nm,19.3s,MS3.6,baz=80,slow=36						
ASAR	Alice Springs	31.64	256	P	P	18 15 07.6	-0.7
ASAR				LR	LR	18 27 34.5	
ASPA	Alice Springs	31.64	256	eP	P	18 15 07.5	-0.8
FITZ	Fitzroy Crossi	39.71	265	eP	P	18 16 17.3	+0.4
	9.0nm,0.6s,mb4.7						
FITZ				e	pP	18 16 27.5	+0.8
FITZ	Fitzroy Crossi	39.71	265	P	P	18 16 17.4	+0.5
	13nm,0.8s,mb4.7,baz=153,slow=6.5,SNR=17						
MBWA	Marble Bar	44.85	259	eP	P	18 16 59.1	+0.2
	7.5nm,0.6s,mb4.7						
KLBR	Kellerberrin	46.34	244	eP	P	18 17 10.1	-0.5
	560nm,3.5s						
QSPA	South Pole Qui	70.84	180	eP	P	18 20 01.1	+0.5
	1.1nm,0.5s,mb4.0						
ENH	Enshi	74.48	310	eP	P	18 20 22.2	-0.7
	6.9nm,0.8s,mb4.6						
CMAR	Chiang Mai Arr	77.09	295	P	P	18 20 39.1	+1.1
	2.6nm,1.0s,mb4.1,baz=130,slow=4.3,SNR=16						
HIA	Hailar	80.32	330	P	P	18 20 54.4	-0.6
	2.3nm,0.6s,mb4.3						
ULN	Ulaanbaatar	85.93	324	eP	P	18 21 24.2	+0.6
	18nm,1.1s,mb5.2						
SONM	Songino Array	86.28	324	P	P	18 21 26.2	+0.9
	5.8nm,0.9s,mb4.8,baz=148,slow=4.7,SNR=38						
YBH	Yreka Blue Hor	88.36	45	P	P	18 21 36.0	+0.5
	8.9nm,1.0s,mb5.0,baz=202,slow=0.5,SNR=9.2						
MTUM	Tungsten Hills	89.30	50	P	P	18 21 40.4	+0.2
NVAR	Mina Array Bea	89.94	49	P	P	18 21 43.4	+0.3
	4.4nm,0.9s,mb4.8,baz=203,slow=4.8,SNR=17						
NVAR	Mina Array Bea	89.94	49	P	P	18 21 43.4	+0.3
MNV	Mina	90.05	49	eP	P	18 21 43.5	-0.1
	10nm,1.2s,mb5.0						
COLA	College	90.47	17	eP	P	18 21 43.1	-1.8
	3.7nm,0.7s,mb4.8						
ILAR	Eielson Array	90.67	18	P	P	18 21 44.0	-1.9
	2.6nm,0.8s,mb4.6,baz=238,slow=5.7,SNR=19						
TPNV	Topopah Spring	90.83	51	eP	P	18 21 47.2	-0.1
NEN	Nelson	91.36	53	eP	P	18 21 49.7	-0.2
ELK	Elko	93.04	48	eP	P	18 21 57.3	-0.2
BW06	Boulder Array	97.73	48	eP	P	18 22 17.8	-0.8
	2.2nm,0.4s,mb5.0						
PDAR	Pinedale Array	97.73	48	P	P	18 22 19.8	+1.1
	0.5nm,0.8s,mb4.1,baz=217,slow=7.4,SNR=3.9						
TXAR	Lajitas Array	98.11	62	P	P	18 22 21.4	+0.7
	0.2nm,0.4s,mb4.0,baz=225,slow=5.3,SNR=3.5						
YKA	Yellowknife Ar	101.36	28	P	P	18 22 34.5	-0.1
	1.1nm,0.6s,baz=254,slow=4.7,SNR=22						
YKA	Yellowknife Ar	101.36	28	P	P	18 22 34.5	-0.1
GERES	GERESS Array B	143.73	331	PKP	PKPdf	18 28 18.9	+1.6
	0.7nm,0.8s,SNR=5.3						
WLF	Walferdange	146.18	338	ePKPbc	PKPbc	18 28 24.9	+2.3
CDF	Champ du Feu	146.81	336	ePKP1	PKPbc	18 28 25.8	+1.7
	34nm,1.0s						
DAVOX	Davos	147.00	331	PKPbc	PKPbc	18 28 25.8	+1.2
	8.1nm,0.8s,baz=19,slow=3.0,SNR=8.0						
HAU	Haudompre	147.50	336	ePKP1	PKPdf	18 28 27.7	+3.9
	16nm,1.0s						
MEZF	Maizieres J'vi	147.55	338	ePKP1	PKPdf	18 28 28.3	+4.5
	22nm,0.8s						
CABF	La Chapelle	148.74	335	ePKP1	PKPdf	18 28 31.6	+5.8
SSF	Saint Saulge	149.33	338	ePKP1	PKPdf	18 28 32.7	+6.0
	35nm,1.1s						
LPL	La Plagne	149.36	333	ePKP1	PKPdf	18 28 33.2	+6.4
LPG	La Plagne	149.37	333	ePKP1	PKPdf	18 28 33.3	+6.5
SMF	Signal de Mont	149.57	338	ePKP1	PKPdf	18 28 33.1	+6.0
AVF	Avril sur Loir	149.61	338	ePKP1	PKPdf	18 28 33.0	+5.8
BNI	Bardonecchia	149.75	333	ePKPbc	PKPdf	18 28 33.4	+5.9
BGF	Bois d'Agland	149.99	339	ePKP1	PKPdf	18 28 34.2	+6.4
ORIF	Oris-en-Rattie	150.20	333	ePKP1	PKPdf	18 28 34.8	+6.6
	40nm,1.1s						
TCF	Toulx Ste Croi	150.44	339	ePKP1	PKPdf	18 28 35.4	+6.9
	82nm,1.4s						
VIVF	Saint-Julien-l	150.75	335	ePKP1	PKPdf	18 28 36.1	+7.1

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*NEIC **20** 18:12:00.7, 39.87N×25.52E, h3^{km}, MD3.3(ATH), After ATH.*

*ATH **20** 18:12:00.1, 39.84N×25.47E, h5^{km}, MD3.3/5*

*THE **20** 18:12:00.7, 39.76N×25.55E, h11^{km}, ML3.5*

*CSEM **20** 18:12:00.2±0.1, 39.83N×25.57E, h10^{km}, ML3.5, Error ellipse: s-maj=2.0km s-min=1.6km az=38.0*

*ISK **20** 18:12:01.2, 39.84N×25.62E, h16^{km}, MD3.2, ML3.3*

ISC 20 18:12:01.1±0.3**, 39.82N**±0.03×**25.53E**±0.02**, h16^{km}, n54, σ1^{s}04**/76**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOS	Limnos	0.36	288	ePg	Pb	18 12 08.9	+0.3
LOS				eSg	Sb	18 12 14.2	+0.4
BOZC	Bozcaada	0.41	87	iP	Pb	18 12 08.5	-0.9
BOZC				iS	Sb	18 12 14.6	-0.4
EZN	Ezine	0.61	89	iPG	Pb	18 12 11.8	-1.2
EZN				SG	Sb	18 12 20.8	-0.3
PRK	Paraskevi	0.81	135	ePG	Pb	18 12 16.0	-0.4
PRK				eSB	Sb	18 12 29.0	+2.1
PRK	Paraskevi	0.81	135	ePg	Pb	18 12 15.5	-0.9
PRK				eSg	Sb	18 12 27.5	+0.6
AYVA	Ayvalik	1.03	119	iP	Pb	18 12 19.3	-0.8
AYVA				iS	Sb	18 12 34.6	+1.3
ALN	Alexandroupoli	1.15	20	ePb	Pb	18 12 21.9	-0.1
ALN				eSb	Sb	18 12 38.6	+2.1
OUR	Ouranopolis	1.29	294	ePb	Pb	18 12 23.9	-0.6
OUR				eSb	Sb	18 12 42.3	+1.6
RDO	Rodhopi	1.32	0	ePB	Pb	18 12 25.0	0.0
PAIG	Paliouri	1.43	275	ePb	Pb	18 12 25.4	-1.4
PAIG				eSb	Sb	18 12 45.4	+0.8
PAIG	Paliouri	1.43	275	eSb	Sb	18 12 45.4	+0.8
AOS	Alonnisos	1.43	243	ePb	Pb	18 12 26.2	-0.7
AOS				eSb	Sb	18 12 44.8	0.0
SART	Tekirdag	1.53	55	iP	Pn	18 12 29.0	+1.0
SART				iS	Sn	18 13 00.1	+12
PLG	Polygyros	1.69	290	ePG	Pn	18 12 30.6	+0.3
BALB	Balikesir	1.82	95	PN	Pn	18 12 31.6	-0.5
KDZ	Kurdzhali	1.83	357	iP	Pn	18 12 32.0	-0.2
BLCB	Balcova	1.86	140	PN	Pn	18 12 33.7	+1.0
XOR	Xorichti	1.86	257	ePb	Pb	18 12 31.2	-3.0
XOR				eSb	Sb	18 12 55.9	-1.3
EDC	Edincik	1.87	73	ePN	Pn	18 12 32.6	-0.2

BNT	**Bandirma**	1.91	73	*e*PN	Pn	18 12 33.2	-0.3
BTOK	**Tokmak**	1.93	91	*i* P	Pn	18 12 35.9	+2.2
BTOK				*i* S	Sn	18 13 03.1	+5.3
SOH	**Sokhos**	1.94	302	*e*Pn	Pn	18 12 33.5	-0.3
SOH				*e*Sn	Sn	18 12 59.7	+1.7
KDAG	**Bornova**	1.96	136	*i* P	Pn	18 12 37.6	+3.5
KDAG				*i* S	Sn	18 13 03.0	+4.5
IZM	**Izmir**	1.96	136	*e*PN	Pn	18 12 34.8	+0.6
RZN	**Rozhen**	1.96	342	*i* P	Pn	18 12 34.0	-0.2
SRS	**Serrai**	1.96	312	*e*Pn	Pn	18 12 33.5	-0.7
SRS				*e*Sn	Sn	18 13 00.5	+1.9
AKS	**Akhisar**	2.01	117	PN	Pn	18 12 34.4	-0.4
KCT	**Karacabey**	2.22	78	*e*PN	Pn	18 12 37.3	-0.5
EDRB	**Edirne**	2.22	24	*e*PN	Pn	18 12 38.2	+0.3
DIM	**Dimitrovgrad**	2.23	0	*i* P	Pn	18 12 37.0	-0.9
MMB	**Musomiste**	2.23	323	*i* P	Pn	18 12 37.0	-1.0
SMG	**Samos**	2.35	154	*e*PN	Pn	18 12 42.5	+2.8
SMG	**Samos**	2.35	154	*e*Pg	Pn	18 12 45.1	+5.4
LIT	**Litokhoron**	2.35	278	*e*Pn	Pn	18 12 40.0	+0.3
LIT				*e*Sn	Sn	18 13 07.7	-0.7
DST	**Dursunbey**	2.40	94	*e*PN	Pn	18 12 39.6	-0.8
KNT	**Kendrikon**	2.41	305	*e*Pn	Pn	18 12 40.3	-0.3
KNT				*e*Sn	Sn	18 13 10.8	+0.9
NSAL	**Nisos Salamina**	2.50	221	*e*Pg	Pn	18 12 48.1	+6.2
MGER	**Gerania Oros**	2.55	225	*e*Pg	Pn	18 12 47.8	+5.3
ORLT	**Orhaneli**	2.60	84	*e*PN	Pn	18 12 43.5	+0.2
AGG	**Agios Georgios**	2.60	253	*e*Pn	Pn	18 12 41.2	-2.1
NAIG	**Nisos Aigina**	2.60	218	*e*PN	Pn	18 12 46.0	+2.6
GRG	**Griva**	2.64	296	*e*Pn	Pn	18 12 43.8	-0.1
GRG				*e*Sn	Sn	18 13 15.6	-0.3
MANT	**Manisa**	2.71	118	*i* P	Pn	18 12 45.6	+0.8
MANT				*i* S	Sn	18 13 25.6	+8.1
APE	**Apeiranthos**	2.75	180	*e*Pg	Pn	18 12 51.5	+6.1
KKB	**Krupnik**	2.76	319	*i* P	Pn	18 12 45.5	0.0
JMB	**Yambol**	2.76	16	*i* P	Pn	18 12 45.0	-0.6
ULDT	**Uludag**	2.79	82	*i* P	Pn	18 12 49.4	+3.3
ULDT				*i* S	Sn	18 13 27.4	+7.7
AYDN	**Tasoluk**	2.83	139	*i* P	Pn	18 12 45.4	-1.3
AYDN				*i* S	Sn	18 13 30.2	+9.4
PGB	**Panagyurishte**	2.91	340	*i* P	Pn	18 12 47.0	-0.7
BADT	**Buyukada**	2.93	68	*e*PN	Pn	18 12 47.2	-0.8
ISK	**Istanbul-Kandi**	2.97	64	*e*PN	Pn	18 12 48.2	-0.4
HRT	**Hereke**	3.32	71	*e*PN	Pn	18 12 53.7	+0.2
ESKT	**Eskisehir**	4.12	93	*e*PN	Pn	18 13 03.9	-0.9
ESKT	**Eskisehir**	4.12	93	*i* P	Pn	18 13 04.7	-0.2
ESKT				*i* S	Sn	18 14 14.3	+21

IDC ***20*** *18:17:21.5±2.5,19.41S×167.93E,h34^{km}±8^{km},mb3.7/8, mb1 3.9/8,mb1mx3.8/14,Error ellipse: s-maj=100.0km s-min=25.4km az=154.0*
NEIC ***20*** *18:17:21.3±2.0,19.43S×167.98E,mb4.3/1,Error ellipse: s-maj=86.8km s-min=17.2km az=156.0*
ISC 20 18:17:22.0±3.1**,19.3S**±0.2×**167.8E**±0.2**,h45**^{km}±31^{km}**,n12,** σ**0^{s}70**/14**,mb3.8**/7**,Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	3.01	204	*e*P	P	18 18 08.3	-0.1
DZM				*e*S	S	18 18 43.8	+0.3
NOUC	**Port Laguerre**	3.10	206	*e*P	P	18 18 09.5	0.0
NOUC				*e*S	S	18 18 45.5	-0.1
CTA	**Charters Tower**	20.27	264	P	P	18 21 57.2	+0.7
	3.0nm,0.8s,baz=98,slow=18,SNR=5.1						
CTA				pP		18 22 06.4	
	10nm,0.8s,baz=92,slow=12,SNR=13						
CTA	**Charters Tower**	20.27	264	P	P	18 21 57.2	+0.7
CTA				pP		18 22 06.4	
CTAO	**Charters Tower**	20.27	264	*e*P	P	18 21 57.8	+1.3
	12nm,0.8s						
CTAO				*e*pP		18 22 06.2	
WRA	**Warramunga Arr**	31.47	263	P	P	18 23 40.2	-1.6
	0.4nm,1.0s,mb3.2,baz=83,slow=6.1,SNR=5.3						
ASAR	**Alice Springs**	31.76	256	P	P	18 23 43.8	-0.6
	0.8nm,0.5s,mb3.8,baz=84,slow=8.3,SNR=29						
ASAR				pP	pP	18 23 53.2	-3.1
	1.6nm,0.5s,baz=83,slow=8.7,SNR=12						
FITZ	**Fitzroy Crossi**	39.85	265	P	P	18 24 53.6	+0.6
	5.3nm,0.9s,mb4.3,baz=66,slow=2.3,SNR=5.2						
FITZ				pP	pP	18 25 02.7	-2.6
	4.2nm,0.7s,baz=114,slow=5.6,SNR=3.1						
CMAR	**Chiang Mai Arr**	77.27	295	P	P	18 29 14.2	+0.4
	0.5nm,0.9s,mb3.5,baz=142,slow=5.5,SNR=4.8						
SONM	**Songino Array**	86.45	324	P	P	18 30 01.4	+0.4
	0.9nm,0.8s,mb4.0,baz=135,slow=3.5,SNR=7.9						
NVAR	**Mina Array Bea**	89.89	49	P	P	18 30 18.3	+0.7
	0.4nm,0.5s,mb4.0,baz=247,slow=9.2,SNR=3.7						
ILAR	**Eielson Array**	90.72	18	P	P	18 30 19.9	-1.0
	0.6nm,0.7s,mb4.0,baz=234,slow=5.0,SNR=5.1						

IDC ***20*** *18:17:42.2±1.0,18.84N×81.31W,mb4.1/12,mb1 4.4/13, mb1mx4.2/21,ML5.2/1,MS3.9/14,Ms1 3.9/14, ms1mx3.5/22,Error ellipse: s-maj=26.2km s-min=21.8km az=31.0*
JSN ***20*** *18:17:43.6±1.1,15.99N×80.63W,h0^{km}±999^{km},MD4.6*
NEIC ***20*** *18:17:46.1±0.5,18.94N×81.05W,h30^{km},mb4.4/21,Error ellipse: s-maj=11.6km s-min=6.9km az=54.0*
BJI ***20*** *18:17:46.1,18.90N×81.10W,h30^{km},mB4.4,Ms4.6, Msz4.3*
ISC 20 18:17:41.0±2.4**,18.92N**±0.07×**81.12W**±0.05**,h6**^{km}±15^{km}, **n71,** σ**1^{s}14**/59**,mb4.2**/25**,MS4.0**/15**,2C-1D,North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MCJ	**Malvern**	3.41	106	*e*P	Pn	18 18 37.5	+1.7
STH	**Stony Hill**	4.17	101	⇑*e*P	Pn	18 18 47.2	+0.6
STH				*e*S	Sn	18 19 35.4	-1.1
HOJ	**Hope**	4.25	102	⇓*e*P	Pn	18 18 48.8	+1.1
HOJ				*e*S	Sn	18 19 37.0	-1.3
GWJ	**Greenwich**	4.25	101	⇑*e*P	Pn	18 18 48.2	+0.5
TEIG	**Tepich**	6.87	282	*e*P	Pn	18 19 20.4	-4.4
	73nm,0.4s						
DWPF	**Disney**	9.15	358	*e*P	P	18 19 55.9	-0.7
	71nm,0.8s						
JTS	**JuntasAbangare**	9.34	204	P	P	18 19 50.5	-8.8
SJG	**San Juan**	14.22	91	LR	LR	18 26 24.6	
	comp=Z,170nm,18.8s,baz=95,slow=36						
SJG	**San Juan**	14.22	91	P	P	18 21 04.3	-1.0
	56nm,1.7s						
SDV	**Santo Domingo**	14.24	133	Pn	P	18 21 03.5	-2.1
	10nm,0.3s,baz=345,slow=4.3,SNR=39						
SDV	**Santo Domingo**	14.24	133	*e*P	P	18 21 03.2	-2.3
	28nm,0.4s						
GOGA	**Godfrey**	14.59	352	*e*P	P	18 21 08.5	-1.4
	16nm,0.8s						
LRAL	**Lakeview Retre**	15.01	341	*e*P	P	18 21 16.5	+1.0
	9.6nm,0.4s						
JSC	**Jenkinsville**	15.30	360	*e*P	P	18 21 17.5	-1.8
MYNC	**Murphy**	16.31	351	*e*P	P	18 21 32.2	-0.1
	32nm,0.8s						
CPCT	**Cooper Cave**	16.74	350	*e*P	P	18 21 37.1	-0.6
SWET	**Sewanee**	16.79	346	*e*P	P	18 21 38.4	+0.1
OXF	**Oxford**	17.19	336	P	P	18 21 43.4	0.0
	55nm,1.0s						
HKT	**Hockley**	17.30	312	*e*P	P	18 21 42.6	-2.3
	16nm,1.1s						
WVT	**Waverly**	18.14	342	*e*P	P	18 21 55.6	+0.4
	27nm,1.4s						
PCRV	**Puerto La Cruz**	18.16	116	LR	LR	18 29 45.5	
	comp=Z,412nm,18.2s,baz=153,slow=40						
BLA	**Blacksburg**	18.23	2	P	P	18 21 56.7	+0.3
	28nm,1.0s						
MIAR	**Mount Ida**	19.10	327	*e*P	P	18 22 08.0	+1.0
	33nm,1.5s						
WCI	**Wyandotte Cave**	19.76	348	P	P	18 22 14.5	-0.1
	23nm,1.0s						
JCT	**Junction City**	20.48	308	*e*P	P	18 22 22.4	+0.1
	21nm,1.0s						
FVM	**French Village**	20.66	339	P	P	18 22 24.3	+0.2
	20nm,0.9s						
WMOK	**Wichita Mounta**	22.23	319	*e*P	P	18 22 40.1	+0.1
	15nm,1.1s,mb4.3						
TXAR	**Lajitas Array**	23.00	301	P	P	18 22 47.7	-0.1
	2.4nm,0.7s,mb3.7,baz=111,slow=8.7,SNR=14						
TXAR	**Lajitas Array**	23.00	301	P	P	18 22 47.7	-0.1
GENY	**Geneseo**	23.94	6	P	P	18 22 53.6	-3.1
KSU1	**Kansas State U**	24.18	330	*e*P	P	18 22 56.5	-2.5
SADO	**Sadowa**	25.83	3	P	P	18 23 17.3	+2.6
	28nm,1.3s,mb4.6,baz=189,slow=6.2,SNR=3.9						
SADO				LR	LR	18 32 59.1	
	comp=Z,438nm,19.1s,MS4.0,baz=246,slow=35						
ANMO	**Albuquerque**	27.55	311	LR	LR	18 37 29.1	
	comp=Z,109nm,20.0s,MS3.4,slow=43						
SDCO	**Great Sand Dun**	28.36	316	*e*P	P	18 23 38.8	+0.8
	13nm,1.4s,mb4.4						
ISCO	**Idaho Springs**	29.64	320	*e*P	P	18 23 49.5	0.0
	2.5nm,0.8s,mb4.0						
ULM	**Lac du Bonnet**	33.41	343	LR	LR	18 38 07.8	
	comp=Z,212nm,19.8s,MS3.9,baz=148,slow=37						
PDAR	**Pinedale Array**	33.80	321	P	P	18 24 25.4	-0.4
	3.3nm,1.0s,mb4.2,baz=127,slow=7.4,SNR=14						
PDAR				LR	LR	18 38 02.4	
	comp=Z,132nm,21.3s,MS3.6,baz=289,slow=36						
REDW	**Red Top Meadow**	34.91	321	*e*P	P	18 24 35.9	+0.3
TPNV	**Topopah Spring**	35.60	308	P	P	18 24 42.6	+1.2
	5.4nm,1.0s,mb4.4						
ELK	**Elko**	36.39	314	P	P	18 24 45.3	-2.7
	3.7nm,0.9s,mb4.3						
BOZ	**Bozeman (W)**	36.70	323	*e*P	P	18 24 50.6	+0.1
	22nm,1.6s,mb4.7						
MCMT	**McKenzie Canyo**	36.93	321	*e*P	P	18 24 54.1	+1.5
HLID	**Hailey**	37.20	319	*e*P	P	18 24 55.9	+1.1
	9.3nm,1.1s,mb4.5						
SCHQ	**Schefferville**	37.47	14	P	P	18 24 58.6	+1.6
	5.4nm,0.7s,mb4.5,baz=186,slow=4.9,SNR=7.3						
SCHQ				LR	LR	18 40 40.9	
	comp=Z,244nm,20.5s,MS4.0,baz=185,slow=37						
SCHQ	**Schefferville**	37.47	14	P	P	18 24 58.6	+1.6
SCHQ				LR	LR	18 40 40.9	
MNV	**Mina**	37.53	309	P	P	18 24 56.1	-1.6
	2.1nm,0.8s,mb3.9						
NVAR	**Mina Array Bea**	37.64	309	P	P	18 24 59.1	+0.5
	0.8nm,0.7s,mb3.5,baz=109,slow=11,SNR=5.6						
NVAR				LR	LR	18 45 38.9	
	comp=Z,39nm,18.5s,MS3.2,baz=175,slow=45						
BMO	**Blue Mountains**	39.65	319	*e*P	P	18 25 14.1	-1.2
	9.7nm,1.4s,mb4.3						
FCC	**Fort Churchill**	40.90	350	*e*P	P	18 25 21.2	-4.3
	5.9nm,0.9s,mb4.2						
NEW	**Newport**	41.28	323	P	P	18 25 28.7	0.0
	3.8nm,0.6s,mb4.2						
LVC	**Limon Verde**	42.97	163	P	P	18 25 42.5	-0.4
	5.2nm,0.9s,mb4.3						
FRB	**Frobisher Bay**	45.61	8	P	P	18 26 04.2	+0.6
	5.2nm,1.2s,mb4.3,baz=204,slow=12,SNR=3.3						
FRB				LR	LR	18 45 34.9	
	comp=Z,432nm,18.0s,MS4.4,baz=99,slow=37						
BDFB	**Brasilia**	47.34	134	P	P	18 26 18.5	+0.6
	2.5nm,0.7s,mb4.2,baz=347,slow=8.9,SNR=3.5						
BDFB				LR	LR	18 47 47.1	
	comp=Z,132nm,18.9s,MS3.9,baz=311,slow=38						
YKA	**Yellowknife Ar**	49.31	340	P	P	18 26 31.7	-0.8
	0.7nm,0.8s,mb3.8,baz=135,slow=8.4,SNR=13						
YKA				LR	LR	18 48 40.6	
	comp=Z,170nm,19.2s,MS4.1,baz=160,slow=38						
YKA	**Yellowknife Ar**	49.31	340	P	P	18 26 31.7	-0.8
YKA				LR	LR	18 48 40.6	
YKW3	**Yellowknife Ar**	49.36	340	P	P	18 26 34.0	+1.0
RES	**Resolute Bay**	56.29	356	*e*P	P	18 27 24.0	-0.4
	5.4nm,1.0s,mb4.5						
ILAR	**Eielson Array**	62.76	334	P	P	18 28 08.6	-0.6
	0.6nm,0.7s,mb3.8,baz=117,slow=3.6,SNR=8.8						
EKA	**Eskdalemuir Ar**	67.83	37	P	P	18 28 43.0	+1.0
	3.6nm,0.9s,mb4.4,baz=263,slow=6.7,SNR=6.5						
NOA	**NORSAR Array B**	74.77	30	LR	LR	18 58 49.3	
	comp=Z,75nm,20.3s,MS4.0,baz=190,slow=33						
ARCES	**ARCESS Array B**	78.09	20	P	P	18 29 43.1	+1.2
	1.8nm,0.6s,mb4.2,baz=288,slow=3.8,SNR=8.4						
ARCES				LR	LR	19 04 48.6	
	comp=Z,48nm,19.4s,MS3.8,baz=9.7,slow=36						
GERES	**GERESS Array B**	79.08	42	P	P	18 29 50.2	+2.5
	1.1nm,0.8s,mb3.8,baz=270,slow=2.7,SNR=6.1						
FINES	**FINESS Array B**	81.48	28	LR	LR	19 04 15.2	
	comp=Z,94nm,18.0s,MS4.2,baz=349,slow=34						
QSPA	**South Pole Qui**	108.85	180	P		18 36 13.2	
WMQ	**Urumqi**	116.73	9	PKP	PKPdf	18 36 28.0	-1.0
WMQ				PP	PP	18 37 41.0	+1.7
WMQ				PP	PP		
	comp=Z,8.0nm,5.6s						
WMQ				LR	LR		
	comp=N,10.0nm,22.6s,MS4.3						
WMQ				LR	LR		
	comp=E,91nm,22.8s,MS4.3						
WMQ				LR	LR		
	comp=Z,76nm,22.0s,MS4.3						
LZH	**Lanzhou**	125.09	355	*e*PKP	PKPdf	18 36 44.9	-0.5
LZH				LR	LR		
	comp=N,279nm,18.0s						
LZH				LR	LR		
	comp=Z,315nm,20.2s,MS5.0						
NJ2	**Nanjing**	125.83	339	*e*PKP	PKPdf	18 36 42.3	-4.6
SSE	**Sheshan**	125.85	336	PKP	PKPdf	18 36 45.0	-2.0
SSE				PP	PP	18 38 41.6	0.0
SSE				SS	SS	18 55 38.3	-1.0
SSE				LR	LR		
	comp=N,34nm,28.4s,MS4.2						
SSE				LR	LR		
	comp=E,75nm,28.4s,MS4.2						
SSE				LR	LR		
	comp=Z,55nm,27.0s,MS4.1						
WRAB	**Tennant Creek**	146.57	262	*e*PKPbc	PKPbc	18 37 25.6	+1.6
WRA	**Warramunga Arr**	146.58	262	PKPbc	PKPbc	18 37 25.3	+1.3
	comp=Z,2.3nm,0.6s,baz=84,slow=3.4,SNR=51						
ASAR	**Alice Springs**	147.08	256	PKPbc	PKPdf	18 37 26.8	+0.8
	comp=Z,2.3nm,0.7s,baz=96,slow=3.4,SNR=19						

IGQ 20 18:21:53.5,2.75S×78.48W,h12^{km}±5^{km},mb4.0,4C-5D, Error ellipse: s-maj=23.2km s-min=5.4km az=15.2, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ARRY	**Arrayan**	1.24	1	⇓P	Pb	18 22 15.6	-0.7
ARRY				S	Sb	18 22 32.1	0.0
PATA	**Patacocha**	1.24	2	⇑P	Pb	18 22 16.2	-0.2
IGUA	**Igualata**	1.26	353	P	Pb	18 22 18.0	+1.2
RETU	**Refugio**	1.29	2	⇓P	Pb	18 22 16.9	-0.4
RETU				S	Sb	18 22 33.7	+0.1
ULBA	**Ulba**	1.29	3	⇓P	Pb	18 22 17.1	-0.2
ULBA				S	Sb	18 22 34.7	+0.9
CUSU	**Cusua**	1.30	0	⇓P	Pb	18 22 17.3	-0.1
CUSU				S	Sb	18 22 33.8	0.0
JUIV	**Juive**	1.32	1	⇑P	Pb	18 22 17.3	-0.4
JUIV				S	Sb	18 22 35.5	+1.1
RUN2	**Runtun**	1.32	3	⇓P	Pb	18 22 17.5	-0.3
PISA	**Pisayambo**	1.68	3	P	Pn	18 22 23.8	+0.7
PISA				S	Sn	18 22 46.1	+1.5
TAMB	**Tambo**	2.05	3	P	Pn	18 22 30.0	+1.7
VC1	**Cotopaxi 1**	2.10	2	P	Pn	18 22 31.1	+2.1
VC1				S	Sn	18 22 60.0	+4.8
NAS1	**Nasa**	2.10	0	⇑P	Pn	18 22 31.8	+2.8
NAS1				S	Sn	18 23 01.2	+5.9
ANTI	**Antisana**	2.31	8	⇑P	Pn	18 22 32.8	+0.8
CGGP	**Crater GGP**	2.56	357	P	Pn	18 22 41.1	+5.5
PINO	**Pino**	2.58	357	P	Pn	18 22 41.2	+5.3
YANA	**Yana**	2.62	358	P	Pn	18 22 41.4	+5.0
JOR1	**San Jorge 1**	2.74	357	P	Pn	18 22 39.6	+1.5
CAYR	**Refugio Cayamb**	2.79	10	P	Pn	18 22 41.3	+2.4
CAYR				S	Sn	18 23 16.1	+3.4
CONE	**Cono NE Rev Vo**	2.79	18	P	Pn	18 22 40.5	+1.6
CAYA	**Cayambe**	2.85	10	P	Pn	18 22 42.7	+3.0

NIED ***20*** *18:44:00,37.40N×138.90E,h5^{km},Mw3.7 Best double couple: $M_0$3.45×10^{14} NP1:ϕ_s14°,δ63°,λ62°. NP2:ϕ_s243°, δ39°,λ133°.*
JMA ***20*** *18:44:55.2,37.38N×138.87E,h10^{km}±1^{km},M3.5 Broadband fault plane solution: P waves. NP1:ϕ_s85°,δ33°, λ133°. NP2:ϕ_s217°,δ66°,λ66°. Principal axes: T Plg61°, Azm91°; N Plg22°, Azm227°; P Plg18°, Azm325°;*
JMA Felt III J1.
IDC ***20*** *18:44:57.5±6.5,37.80N×136.99E,h53^{km}±43^{km},mb3.4/4, mb1 3.8/5,mb1mx3.3/22,ML3.5/1 Error ellipse: s-maj=281.0km s-min=23.3km az=113.0*
ISC 20 18:44:54.9±0.6**,37.36N**±0.03×**138.85E**±0.05**,h15**^{km}±4^{km}**, n14,** σ**0^{s}97**/21**,mb3.7**/4**,1C-4D,Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHK	**Hiroka**	0.17	128	⇓P	Pg	18 44 58.8	-0.5
JHK				S	Sg	18 45 01.8	-0.4
JIZZ	**Izumozaki**	0.21	328	⇓P	Pg	18 44 59.7	-0.1
JIZZ				S	Sg	18 45 03.9	+0.9
JNS	**Sasagawa**	0.59	39	⇑P	Pb	18 45 06.0	-0.4
JNS				S	Sb	18 45 14.0	-0.3
JKT	**Katashina**	0.67	151	⇓P	Pb	18 45 07.9	+0.1
JKT				S	Sb	18 45 17.2	+0.6
JFY	**Yanaizu**	0.69	86	S	Sb	18 45 17.1	+0.1
JSD	**Sado**	0.82	326	⇓P	Pb	18 45 09.4	-0.9
JSD				S	Sb	18 45 20.1	-0.9
MAT	**Matsushiro**	0.96	212	P	Pb	18 45 12.9	+0.2
MAT				S	Sb	18 45 26.3	+1.3
MAT	**Matsushiro**	0.96	212	P	Pb	18 45 13.0	+0.3
JAW	**Awa shima**	1.14	16	P	Pb	18 45 15.4	-0.4
JAW				S	Sb	18 45 31.3	+1.0
ASAJ	**Asahikawa**	7.33	22	P	Pn	18 46 45.6	+1.6
	0.7nm,0.3s,baz=234,slow=19,SNR=3.8						
WRA	**Warramunga Arr**	57.15	185	P	P	18 54 41.1	-2.4
	0.4nm,0.7s,mb3.6,baz=1.0,slow=7.6,SNR=11						
ASAR	**Alice Springs**	60.87	185	P	P	18 55 07.0	-2.3
	0.2nm,0.6s,mb3.4,baz=353,slow=5.5,SNR=4.1						
NVAR	**Mina Array Bea**	76.42	52	P	P	18 56 46.4	+1.0
	1.1nm,0.6s,mb4.0,baz=286,slow=5.4,SNR=8.9						
PDAR	**Pinedale Array**	78.89	44	P	P	18 56 59.5	+0.6
	0.9nm,0.7s,mb3.8,baz=313,slow=2.3,SNR=6.7						

TIR ***20*** *19:33:39.9,42.09N×19.28E,h49^{km}*
PDG ***20*** *19:33:41.2±0.1,42.12N×19.28E,h18^{km}*
ISC 20 19:33:41.2±0.9**,42.04N**±0.05×**19.24E**±0.05**,h20**^{km}±5^{km}**, n13,** σ**1^{s}09**/26**,2C-7D,Northwestern Balkan Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ULC	**Ulcinj**	0.08	176	⇓*i*Pg	Pb	19 33 45.4	+0.4
ULC				*e*Sg	Sb	19 33 48.9	+1.3
SDA	**Shkodra**	0.19	87	*e*Pg	Pb	19 33 46.1	-0.2
SDA				*i* Sg	Sb	19 33 49.4	-0.3
BUM	**Brajici-Budva**	0.36	316	⇓*i*Pg	Pb	19 33 48.3	-0.7
BUM				*e*Sg	Sb	19 33 54.0	-0.2
TTG	**Podgorica**	0.39	2	⇑*i*Pg	Pb	19 33 47.8	-1.6
TTG				*e*Sg	Sb	19 33 53.2	-1.7
PUK	**Puka**	0.48	90	*i* Pg	Pb	19 33 50.8	-0.1
PUK				*i* Sg	Sb	19 33 59.6	+2.0
HCY	**Herceg Novi**	0.69	307	⇓*i*Pg	Pb	19 33 53.7	-0.7
HCY				*e*Sg	Sb	19 34 04.5	+1.2
PVY	**Plav**	0.78	44	*e*Pg	Pb	19 33 54.6	-1.3
PVY				*e*Sg	Sb	19 34 05.7	-0.2
NKY	**Niksic**	0.79	347	⇓*i*Pg	Pb	19 33 54.7	-1.4
NKY				*e*Sg	Sb	19 34 06.4	0.0
IVA	**Berane**	0.96	30	⇓*i*Pg	Pb	19 33 57.7	-1.3
IVA				*e*Sg	Sb	19 34 11.9	+0.6
BRY	**Bratogost**	1.00	329	⇓*i*Pg	Pb	19 33 58.9	-0.8
BRY				*e*Sg	Sb	19 34 14.2	+1.7
UPM	**Unac-Piva**	1.19	348	⇑*i*Pg	Pn	19 34 02.1	-0.7
UPM				*e*Sg	Sb	19 34 19.7	+1.8
PLE	**Pljevlja**	1.29	5	*e*Pg	Pn	19 34 03.9	-0.5
PLE				*e*Sg	Sn	19 34 22.8	+1.7
NVSS	**Nova Varos 2**	1.50	13	⇓*i*Pn	Pn	19 34 07.3	-0.1
NVSS				Sn	Sn	19 34 27.8	+1.2

NEIC ***20*** *19:40:19.7,38.41N×21.84E,h17^{km},MD3.4(ATH),After ATH.*
CSEM ***20*** *19:40:20.4±0.2,38.34N×21.83E,h2^{km},MD3.4,Error ellipse: s-maj=7.5km s-min=5.2km az=104.0*
THE ***20*** *19:40:21.8,38.41N×22.05E,h10^{km},ML3.4*
ATH 20 19:40:19.4,38.39N×21.80E,h11^{km}±5^{km}**,MD3.4**/6**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EVR	**Evrytania**	0.53	1	*e*PB	Pb	19 40 29.1	-1.1
EVR				*e*SB	Sb	19 40 37.5	0.0
AGG	**Agios Georgios**	0.76	33	*e*Pg	Pg	19 40 33.4	-1.2
AGG				*e*Sg	Sg	19 40 43.6	-1.2
VLS	**Valsamata**	0.98	258	*e*Pb	Pb	19 40 38.0	+0.1
VLS				*e*Sn	Sn	19 40 55.0	+2.2
ITM	**Ithomi**	1.21	175	*e*PB	Pb	19 40 43.0	+1.1
XOR	**Xorichti**	1.46	48	*e*Pb	Pb	19 40 46.6	+0.4
JAN	**Janina**	1.47	330	*e*PB	Pb	19 40 47.0	+0.8
NAIG	**Nisos Aigina**	1.47	115	*e*PG	Pg	19 40 47.0	-1.9
LIT	**Litokhoron**	1.79	17	*e*Pb	Pb	19 40 52.2	+0.5
LIT				*e*Sb	Sb	19 41 16.3	+2.1
LIT	**Litokhoron**	1.79	17	*e*Sb	Sb	19 41 16.3	+2.1
VLI	**Veliai**	1.90	151	*e*PN	Pn	19 40 54.0	+1.9
FNA	**Florina**	2.41	352	*e*Pn	Pn	19 41 01.8	+2.3
FNA				*e*Sn	Sn	19 41 33.8	+4.6
GRG	**Griva**	2.60	10	*e*Pn	Pn	19 41 04.2	+2.0
GRG				*e*Sn	Sn	19 41 37.3	+3.1
SOH	**Sokhos**	2.71	26	*e*Pn	Pn	19 41 05.2	+1.5
SOH				*e*Sn	Sn	19 41 38.2	+1.4
KNT	**Kendrikon**	2.90	17	*e*Pn	Pn	19 41 08.3	+2.0
KNT				*e*Sn	Sn	19 41 44.5	+3.0

JMA ***20*** *20:10:07.2±0.1,40.95N×143.17E,h19^{km},M3.7*
IDC ***20*** *20:10:09.7±5.0,40.93N×143.26E,h40^{km}±49^{km},mb3.4/3, mb1 3.5/4,mb1mx3.2/21,ML3.2/1,Error ellipse: s-maj=80.4km s-min=31.8km az=76.0*
ISC 20 20:10:08.3±0.8**,40.95N**±0.04×**143.27E**±0.07**,h47**^{km}±10^{km}**, n16,** σ**0^{s}75**/27**,mb3.6**/3**,Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JEM	**Erimo**	1.07	356	P	P	20 10 26.5	-0.6
JEM				S	S	20 10 41.4	+0.4
JNBK	**Urakawa-nobuka**	1.38	344	P	P	20 10 31.8	+0.1
JNBK				*e*S	S	20 10 49.4	+0.4
JANG	**Nango**	1.45	247	P	P	20 10 31.8	-0.8
JANG				*e*S	S	20 10 49.7	-1.0
JCH	**Churui**	1.66	2	P	P	20 10 35.8	+0.2
JCH				*e*S	S	20 10 56.5	+0.7
JTM	**Tenmabayashi**	1.68	265	P	P	20 10 35.5	-0.3
JTM				*e*S	S	20 10 55.8	-0.4
JOT	**Ohata**	1.73	285	P	P	20 10 35.9	-0.6
JOT				S	S	20 10 57.2	-0.3
JKB	**Kayabe**	1.92	300	P	P	20 10 38.8	-0.4
JKB				*e*S	S	20 11 01.1	-1.2
JOM	**Ohasama**	2.11	226	P	P	20 10 42.9	+1.0
JOM				*e*S	S	20 11 08.7	+1.6
JAK	**Akkeshi**	2.31	27	P	P	20 10 44.5	-0.2
JAK				*e*S	S	20 11 11.3	-0.6
JEW	**Eniwo**	2.33	325	P	P	20 10 45.8	+0.8
JEW				*e*S	S	20 11 14.9	+2.5
JAR	**Ashorobuto**	2.37	9	P	P	20 10 45.2	-0.5
JAR				*e*S	S	20 11 13.1	-0.6
JMK	**Ichinoseki**	2.54	219	P	P	20 10 48.6	+0.5
ASAJ	**Asahikawa**	3.20	351	P	P	20 10 57.6	+0.2
	1.7nm,0.3s,baz=179,slow=11,SNR=9.9						
SONM	**Songino Array**	27.04	297	P	P	20 15 48.1	+0.2
	0.4nm,0.6s,mb3.1,baz=73,slow=9.1,SNR=3.6						
WRA	**Warramunga Arr**	61.15	190	P	P	20 20 19.8	-0.6
	0.2nm,0.5s,mb3.5,baz=6.8,slow=6.9,SNR=5.5						
FINES	**FINESS Array B**	66.03	332	P	P	20 20 51.8	+0.1
	1.7nm,1.0s,mb4.0,baz=45,slow=3.9,SNR=2.7						

BJI ***20*** *20:24:18.3,0.77S×125.22E,h42^{km},mB5.5,mb5.2,Ms4.4, Msz4.2*
IDC ***20*** *20:24:21.8±2.1,0.20S×125.18E,h23^{km}±13^{km},mb4.9/24, mb1 4.9/25,mb1mx4.9/26,ML4.3/1,MS4.2/7,Ms1 4.2/7, ms1mx3.8/25,Error ellipse: s-maj=18.8km s-min=9.0km az=74.0*
CSEM ***20*** *20:24:22.5,0.23N×125.59E,h33^{km},mb6.1*
MOS ***20*** *20:24:22.4±1.2,0.21S×125.29E,h44^{km},mb5.5/23, MS4.3/9,Error ellipse: s-maj=11.3km s-min=7.0km az=115.9*
DJA ***20*** *20:24:22.6±1.4,0.00S×125.16E,h45^{km}±13^{km},mb5.3/10, Error ellipse: s-maj=57.6km s-min=7.2km az=171.0*
NEIC ***20*** *20:24:24.2±0.9,0.22S×125.21E,h43^{km}±9^{km},mb5.2/37, MS4.3/1,Error ellipse: s-maj=7.5km s-min=5.4km az=54.0*
HRVD ***20*** *20:24:24.2±0.3,0.33S×125.10E,h30^{km},MW5.1/53, Centroid moment Tensor Solution. LP body waves: s41,c67;Mantle waves: s53,c83; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.75±.23; $M_{\theta\theta}$-2.23±.16; $M_{\phi\phi}$-1.52±.19; $M_{r\theta}$-0.07±.24; $M_{\theta\phi}$-3.24±.12; $M_{\phi r}$3.36±.31; Best double couple: $M_0$5.7×10^{16} NP1:ϕ_s256°,δ39°,λ138°. NP2:ϕ_s21°,δ65°,λ59°. Principal axes: T 5.7, Plg58°, Azm247°; N 0, Plg28°, Azm35°; P -5.7, Plg14°, Azm133°;*

nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

ISC 20 20:24:24.1±0.6,**0.27S**±0.03×**125.18E**±0.04,**h56**km±5km, **h45**km±8.1km:**pP-P,n287,**σ1§**24**/265,**mb5.3**/92,**MS4.3**/25, **25C-18D,Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUNI	Buntu Taipa	5.90	235	⇑*e*P	P	20 25 50.5	-0.5
	716nm,0.4s						
TANI	Tanete Lipujan	6.59	241	⇑*e*P	P	20 26 01.1	+0.5
	6µm,0.4s						
TANI	Tanete Lipujan	6.59	241	⇑*e*P	P	20 26 01.5	+0.9
	6µm,0.4s						
NINI	Niniconang	6.81	233	⇓*e*P	P	20 26 04.4	+0.7
NINI	Niniconang	6.81	233	⇓*i*P	P	20 26 04.4	+0.7
	965nm,0.5s						
KCP	Kidapawan	7.23	359	⇓*e*P	P	20 26 11.9	+2.3
MATI	Mati	7.25	9	*e*P	P	20 26 11.8	+1.9
DAV	Davao City (W)	7.30	3	*e*P	P	20 26 14.5	+3.9
CTBH	Cotabato--PC H	7.50	353	*e*P	P	20 26 16.1	+2.8
CTBH				*i* S	rx	20 26 44.9	
BUKP	Musuan	8.10	359	*e*P	P	20 26 23.7	+2.2
PAGZ	Pagadian	8.26	348	*e*P	P	20 26 23.8	0.0
IPIL	Ipil	8.42	342	*e*P	P	20 26 25.2	-0.8
BUTP	Butuan	9.19	3	*e*P	P	20 26 37.3	+0.7
MSLP	Maasin	10.34	358	*e*P	P	20 26 56.1	+3.7
GUIM	Jordan	11.13	347	*e*P	P	20 27 03.9	+0.9
OCLP	Ormoc	11.26	357	*e*P	P	20 27 07.3	+2.4
BESP	Borongan	11.80	1	*e*P	P	20 27 23.0	+11
KEDI	Kedomdong	12.17	228	⇓*e*P	P	20 27 27.0	+10
	241nm,0.7s						
RATI	Rata	12.76	229	⇓*e*P	P	20 27 22.8	-2.1
	110nm,0.6s						
KELI	Kelakatan	13.26	233	⇓*e*P	P	20 27 32.8	+1.4
	32nm,0.7s						
SRDI	Scrawed	13.69	233	⇑*i*P	P	20 27 41.2	+4.0
	56nm,0.9s						
KAKA	Kakadu	14.30	150	⇓*i*P	P	20 27 42.6	-2.6
	65nm,0.6s						
LUBP	Lubang	14.75	341	*e*P	P	20 27 56.9	+5.8
TGY	Tagaytay City	14.89	344	LR	LR	20 33 33.9	
	comp=Z,599nm,21.1s,baz=99,slow=37						
YOMI	Yo Moklole	15.55	99	⇑*e*P	P	20 28 01.0	-0.4
	61nm,1.0s						
FITZ	Fitzroy Crossi	17.72	179	*e*P	P	20 28 27.6	-1.1
	42nm,0.7s						
FITZ				*e*S	S	20 31 46.7	+5.1
FITZ	Fitzroy Crossi	17.72	179	P	P	20 28 26.9	-1.8
	0.7nm,0.3s,baz=8.1,slow=8.3,SNR=22						
FITZ				S	S	20 31 45.8	+4.2
	0.2nm,0.3s,baz=160,slow=18,SNR=3.2						
PULI	Pulasari	20.09	252	⇑*e*P	P	20 28 55.8	0.0
	203nm,0.6s						
PENI	Pendagan	20.66	255	*e*P	P	20 29 00.9	-0.8
	89nm,0.8s						
MBWA	Marble Bar	21.43	194	*e*P	P	20 29 08.3	-1.2
	58nm,0.9s,mb4.9						
WRAB	Tennant Creek	21.50	156	⇑*i*P	P	20 29 07.2	-3.0
WRAB	Tennant Creek	21.50	156	*e*P	P	20 29 07.8	-2.4
	60nm,0.8s,mb5.1						
WRA	Warramunga Arr	21.51	156	P	P	20 29 08.4	-1.9
	21nm,0.8s,mb4.6,baz=338,slow=11,SNR=92						
WRA				S	S	20 33 00.1	-0.2
	2.2nm,0.9s,baz=322,slow=26,SNR=4.6						
WRA				ScP		20 36 46.5	
	2.9nm,0.8s,baz=337,slow=2.9,SNR=9.0						
WRA	Warramunga Arr	21.51	156	P	P	20 29 08.4	-1.8
WRA				S	S	20 33 00.1	-0.2
WRA				pmax	pmax		
	comp=Z,21nm,0.8s						
WRA				smax			
	comp=N,2.0nm,0.9s						
WRA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
WB2	Warramunga Arr	21.51	156	⇓*i*P	P	20 29 08.4	-1.9
WB2				*e*S	S	20 33 00.2	-0.2
WB2				*e*SCS	ScS	20 40 28.8	+3.3
PMG	Port Moresby	23.68	113	P	P	20 29 31.9	+0.2
	comp=Z,18nm,0.7s,mb4.6,baz=333,slow=6.7,SNR=8.8						
PMG	Port Moresby	23.68	113	⇑*i*P	P	20 29 30.2	-1.5
PMG	Port Moresby	23.68	113	P	P	20 29 31.9	+0.2
QIZ	Qiongzhong	24.38	323	P	P	20 29 37.0	-1.5
QIZ				S	S	20 33 49.1	-2.2
QIZ				LR	LR		
	comp=N,339nm,18.1s,MS4.0						
QIZ				LR	LR		
	comp=E,371nm,18.7s,MS4.0						
QIZ				LR	LR		
	comp=Z,598nm,19.2s,MS4.1						
ASPA	Alice Springs	24.75	161	*e*P	P	20 29 42.7	+0.7
ASPA				*e*PCP	PcP	20 33 19.2	+0.6
ASPA				*e*S	S	20 34 03.0	+5.6
ASPA				*e*SCS	ScS	20 40 40.3	+2.3
ASAR	Alice Springs	24.75	161	P	P	20 29 42.1	+0.1
	comp=Z,17nm,0.8s,mb4.6,baz=343,slow=9.9,SNR=94						
ASAR				PcP	PcP	20 33 19.3	+0.7
	comp=Z,6.8nm,0.5s,baz=350,slow=2.1,SNR=18						
ASAR				S	S	20 34 00.7	+3.3
	comp=Z,6.1nm,1.1s,baz=351,slow=23,SNR=2.1						
ASAR				ScP		20 36 55.0	
	comp=Z,2.4nm,0.9s,baz=354,slow=1.6,SNR=7.3						
SNG	Songkhla	25.59	287	P	P	20 29 49.0	-1.1
JOW	Kunigami	27.11	6	P	P	20 30 03.0	-1.0
	comp=Z,130nm,0.8s,mb5.5,baz=185,slow=6.6,SNR=16						
NNT	Nongplab	28.29	298	P	P	20 30 15.0	+0.2
CTA	Charters Tower	28.52	135	*e*P	P	20 30 17.5	+0.8
	comp=Z,6.6nm,0.8s,mb4.4						
CTA				*e*SCP		20 37 08.2	
CTA	Charters Tower	28.52	135	P	P	20 30 16.7	0.0
	comp=Z,7.2nm,0.8s,mb4.5,baz=328,slow=11,SNR=12						
CTA				ScP		20 37 07.5	
	comp=Z,8.5nm,1.0s,baz=268,slow=2.1,SNR=5.4						
CTA	Charters Tower	28.52	135	P	P	20 30 16.7	0.0
CTA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
CTA				pmax	pmax		
	comp=Z,9.0nm,1.0s						
CTAO	Charters Tower	28.52	135	*e*P	P	20 30 16.2	-0.5
	comp=Z,6.7nm,0.8s,mb4.4						
NST	Nakhon Sawan	29.37	304	P	P	20 30 24.0	-0.4
NANT	Nan	30.61	310	⇑P	P	20 30 34.7	-0.6
	comp=Z,100nm,0.7s,mb5.8						
BDT	Bhumibol Dam	31.11	305	P	P	20 30 39.0	-0.7
SSE	Sheshan	31.43	353	P	P	20 30 39.1	-3.3
SSE				S	S	20 35 46.6	+1.7
SSE				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,191nm,5.5s						
SSE				LR	LR		
	comp=N,296nm,23.4s,MS3.9						
SSE				LR	LR		
	comp=E,121nm,23.4s,MS3.9						
SSE				LR	LR		
	comp=Z,406nm,23.6s,MS4.0						
CBIJ	Chichi jima	31.75	30	P	P	20 30 43.1	-2.2
	comp=Z,62nm,0.6s,mb5.6,baz=281,slow=17,SNR=6.5						
CM31	Chiang Mai Arr	31.80	307	*e*P	P	20 30 44.2	-1.5
	comp=Z,43nm,1.1s,mb5.2						
CM31				*e*PcP	PcP	20 33 36.8	+0.9
CMAR	Chiang Mai Arr	31.80	307	P	P	20 30 44.9	-0.9
	comp=Z,36nm,1.2s,mb5.1,baz=141,slow=7.8,SNR=95						
CMAR				PcP	PcP	20 33 37.1	+1.3
	comp=Z,11nm,0.8s,baz=177,slow=2.5,SNR=25						
CMAR				ScP		20 37 17.9	
	comp=Z,1.3nm,0.8s,baz=159,slow=2.8,SNR=6.9						
CMAR				LR	LR	20 43 43.8	
	comp=Z,220nm,18.2s,MS3.9,baz=115,slow=37						
CMAR	Chiang Mai Arr	31.80	307	P	P	20 30 44.9	-0.8
CMAR						20 33 37.2	
CMAR				pmax	pmax		
	comp=Z,36nm,1.2s						
CMAR				pmax	pmax		
	comp=Z,11nm,0.8s						
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
CMAR				MLR	MLR		
	comp=Z,220nm,18.2s						
CMAR	Chiang Mai Arr	31.80	307	P	P	20 30 44.9	-0.9
CMAR				PcP	PcP	20 33 37.1	+1.3
CMAR				ScP		20 37 17.9	
CMAR				LR	LR	20 43 43.8	
KLBR	Kellerberrin	31.93	192	*e*P	P	20 30 45.8	-1.0
	comp=Z,34nm,1.4s,mb5.0						
CHRT	Chiangrai	31.94	310	⇑P	P	20 30 45.5	-1.4
	comp=Z,124nm,0.6s,mb5.9						
CHG	Chiang Mai	31.99	308	⇑P	P	20 30 46.8	-0.6
	comp=Z,58nm,1.0s,mb5.4						
GYA	Guiyang	32.01	328	⇑*i*P	P	20 30 47.3	-0.2
GYA				PCP	PcP	20 33 37.4	+1.0
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.2						
WHN	Wuhan	32.33	342	P	P	20 30 52.0	+1.7
WHN				PCP	PcP	20 33 37.5	+0.3
WHN				AMB	AMB		
	comp=Z,21nm,0.8s,mb5.0						
MUN	Mundaring	32.66	194	*e*P	P	20 30 52.4	-0.7
	comp=Z,5.3nm,0.6s,mb4.7						
NJ2	Nanjing	32.70	350	*e*P	P	20 30 53.6	+0.1
NJ2				AP	pP	20 31 03.3	-4.5
NJ2				PP	PP	20 32 03.6	-0.4
NJ2				S	S	20 36 10.0	+5.2
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,1µm,4.6s						
NJ2				LR	LR		
	comp=N,1µm,24.6s,MS4.7						
NJ2				LR	LR		
	comp=E,1µm,20.5s,MS4.7						
NJ2				LR	LR		
	comp=Z,2µm,25.1s,MS4.7						
KMI	Kunming	33.30	321	*e*P	P	20 30 58.4	-0.3
KMI				LR	LR		
	comp=N,307nm,15.6s,MS4.2						
KMI				LR	LR		
	comp=E,278nm,19.3s,MS4.2						
KMI				LR	LR		
	comp=Z,407nm,19.5s,MS4.2						
NWAO	Narrogin (SRO)	33.33	192	P	P	20 30 58.0	-0.9
	comp=Z,8.2nm,0.8s,mb4.7,baz=320,slow=13,SNR=4.9						
NWAO	Narrogin (SRO)	33.33	192	P	P	20 30 58.1	-0.9
NWAO				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ENH	Enshi	33.85	335	*e*P	P	20 31 01.8	-1.7
	comp=Z,15nm,0.6s,mb5.1						
STKA	Stephens Creek	35.06	155	*e*P	P	20 31 14.3	+0.5
	comp=Z,19nm,0.7s,mb5.1						
STKA				*e*S	S	20 36 42.7	+1.4
STKA	Stephens Creek	35.06	155	P	P	20 31 13.9	+0.2
	comp=Z,23nm,1.0s,mb5.1,baz=323,slow=8.2,SNR=8.7						
STKA				ScP		20 37 28.3	
	comp=Z,2.4nm,0.7s,baz=328,slow=8.1,SNR=3.8						
CD2	Chengdu	37.09	329	P	P	20 31 32.0	+1.1
XAN	Xi’an	37.39	337	P	P	20 31 32.1	-1.3
XAN				AMB	AMB		
	comp=Z,19nm,1.1s,mb4.8						
XAN				LR	LR		
	comp=N,267nm,20.1s						
XAN				LR	LR		
	comp=Z,585nm,17.7s,MS4.4						
KS15	Wonju Array Si	37.61	4	*e*P	P	20 31 35.9	+0.7
MAJO	Matsushiro	38.58	17	*e*P	P	20 31 42.6	-0.6
	comp=Z,29nm,0.6s,mb5.2						
MAT	Matsushiro	38.58	17	P	P	20 31 42.9	-0.3
MAT	Matsushiro	38.58	17	*e*P	P	20 31 43.0	-0.2
	comp=Z,34nm,0.8s,mb5.1						
IMP	Imphal	39.18	312	⇓*i*P	P	20 31 47.8	-0.6
BJT	Baijiatuau	40.94	349	*e*P	P	20 32 02.1	-0.6
	comp=Z,27nm,0.9s,mb4.9						
BJI	Beijing	40.95	349	P	P	20 32 03.1	+0.2
BJI				S	S	20 38 09.9	-0.6
BJI				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.6						
BJI				LR	LR		
	comp=N,425nm,15.2s,MS4.6						
BJI				LR	LR		
	comp=E,430nm,15.4s,MS4.6						
BJI				LR	LR		
	comp=Z,432nm,27.4s						
SHL	Shillong	41.16	311	*e*P	P	20 32 04.5	-0.2
LZH	Lanzhou	41.26	333	⇑P	P	20 32 07.0	+1.5
LZH				PP	PP	20 33 40.0	-4.3
LZH				*e*S	S	20 38 11.5	-3.6
LZH				AMB	AMB		
	comp=Z,96nm,1.3s,mb5.3						
LZH				AMB	AMB		
	comp=Z,237nm,6.5s						
LZH				LR	LR		
	comp=N,628nm,13.2s						
LZH				LR	LR		
	comp=Z,1µm,17.1s,MS4.8						
TOO	Toolangi	41.58	155	*e*P	P	20 32 10.6	+2.5
	comp=Z,9.7nm,0.8s,mb4.5						
SNY	Shenyang	41.93	358	⇑P	P	20 32 09.9	-1.1
SNY				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.9						
HHC	Hu-ho-hao-te	42.76	345	*e*P	P	20 32 18.9	+1.1
HHC				AMB	AMB		
	comp=Z,22nm,1.1s,mb4.8						
HHC				AMB	AMB		
	comp=Z,275nm,4.0s						
HHC				LR	LR		
	comp=N,368nm,16.7s,MS4.6						
HHC				LR	LR		
	comp=E,438nm,14.3s,MS4.6						
HHC				LR	LR		
	comp=Z,349nm,21.4s						
CN2	Changchun	43.88	0	*e*P	P	20 32 26.6	-0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
LSA	Lhasa	44.05	316	P	P	20 32 28.0	-0.4
LSA	Lhasa	44.05	316	*e*P	P	20 32 28.5	+0.1
	comp=Z,46nm,0.6s,mb5.4						
MDJ	Mudanjiang	44.87	4	P	P	20 32 35.1	+0.4
MDJ				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,588nm,4.4s						
MDJ				LR	LR		
	comp=N,196nm,23.5s,MS4.0						
MDJ				LR	LR		
	comp=E,50nm,21.7s,MS4.0						
MDJ				LR	LR		
	comp=Z,240nm,23.5s,MS4.0						
MDJ	Mudanjiang	44.87	4	*e*P	P	20 32 34.8	+0.1
	comp=Z,22nm,0.7s,mb5.1						
GTA	Gaotai	45.81	332	*e*P	P	20 32 41.9	-0.4
GTA				PP	PP	20 34 29.3	-1.2
GTA				PCS		20 38 12.5	
GTA				S	S	20 39 22.0	+0.7
GTA				SS	SS	20 42 37.8	-0.4
GTA				AMB	AMB		
	comp=Z,53nm,0.8s,mb5.5						
GTA				AMB	AMB		
	comp=Z,183nm,5.0s						
GTA				LR	LR		
	comp=N,300nm,20.5s,MS4.4						
GTA				LR	LR		
	comp=E,298nm,18.6s,MS4.4						
GTA				LR	LR		
	comp=Z,585nm,18.6s,MS4.5						
ASAJ	Asahikawa	46.85	17	P	P	20 32 50.9	+0.5
	comp=Z,15nm,0.5s,mb5.2,baz=235,slow=12,SNR=12						
ASAJ	Asahikawa	46.85	17	P	P	20 32 50.9	+0.5
ASAJ				pmax	pmax		
	comp=Z,15nm,0.5s						
GUN	Gumba	46.95	310	*e*P	P	20 32 50.5	-1.0
	comp=Z,125nm,0.5s,mb6.1						
PKI	Pulchoki	47.15	309	*e*P	P	20 32 51.5	-1.5
	comp=Z,39nm,0.7s,mb5.5						
KKN	Kakani	47.35	309	*e*P	P	20 32 53.4	-1.2
	comp=Z,79nm,0.8s,mb5.7						
DMN	Daman	47.40	309	*e*P	P	20 32 53.8	-1.2
	comp=Z,94nm,0.9s,mb5.7						
GKN	Gorkha	47.95	309	*e*P	P	20 32 57.8	-1.5
	comp=Z,51nm,0.4s,mb5.9						
KOLN	Koldanda	48.65	308	*e*P	P	20 33 03.5	-1.2
	comp=Z,149nm,0.6s,mb6.2						
HYB	Hyderabad	49.14	293	*e*P	P	20 33 06.0	-2.6
	comp=Z,100nm,1.0s,mb5.8						
HYB	Hyderabad	49.14	293	*i* P	P	20 33 06.0	-2.6
	comp=Z,100nm,1.0s,mb5.8						
HIA	Hailar	49.57	355	*e*P	P	20 33 10.8	-0.7
	comp=Z,54nm,1.0s,mb5.5						
HIA				*e*PcP	PcP	20 34 32.9	+0.1
SONM	Songino Array	50.63	344	P	P	20 33 18.1	-1.6
	comp=Z,12nm,0.6s,mb5.0,baz=157,slow=8.9,SNR=47						
SONM				PcP	PcP	20 34 36.3	-0.4
	comp=Z,4.6nm,0.7s,baz=159,slow=3.9,SNR=3.7						
LGTI	Lohaghat	52.04	309	*e*P	P	20 33 30.3	-0.2
KAD	Karad	53.14	292	*e*P	P	20 33 37.0	-1.9
POO	Poona	53.75	293	*e*P	P	20 33 39.0	-4.3
ZAK	Zakamensk	53.81	343	*e*P	P	20 33 42.0	-1.4
ZAK				*e*	pP	20 33 56.9	-1.5
ZAK				*e*		20 34 48.4	
NDI	New Delhi	54.12	306	*e*P	P	20 33 43.0	-2.9
	comp=Z,61nm,0.8s,mb5.6						
DDI	Dehra Dun	54.13	309	*e*	P	20 33 44.5	-1.5
TLY	Talaya	54.87	344	*e*P	P	20 33 50.0	-1.1
TLY				*e*S	S	20 41 45.1	+19
TLY				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
TLY	Talaya	54.87	344	⇑*i*P	P	20 33 49.7	-1.4
SMLA	Simla	55.16	309	⇑*i*	P	20 34 05.0	+11
	comp=Z,120nm,0.7s,mb6.0						
SMLA				*i*		20 41 42.2	
WMQ	Urumqi	55.17	328	⇑P	P	20 33 53.1	-0.3
WMQ				AMB	AMB		
	comp=Z,29nm,0.7s,mb5.4						
WMQ				LR	LR		
	comp=N,287nm,23.4s,MS4.4						
WMQ				LR	LR		
	comp=E,258nm,24.2s,MS4.4						
WMQ				LR	LR		
	comp=Z,293nm,32.6s						
SDNR	Sundarnagar	55.47	309	*e*P	P	20 33 55.2	-0.6
MOY	Mondy	55.64	342	*e*P	P	20 33 56.3	-0.3
CLNS	Chul’man	56.93	360	*e*P	P	20 34 05.1	-0.7
CLNS				pmax	pmax		
	comp=N,14nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.3						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.8s						
BOD	Bodaibo	58.60	353	⇓*i*P	P	20 34 16.5	-1.0
RPZ	Rata Peaks	59.46	143	P	P	20 34 24.3	+0.6
	comp=E,18nm,1.0s,mb5.0,baz=311,slow=18,SNR=3.8						
KSH	Kashi	59.84	317	*e*P	P	20 34 27.8	+1.5
KSH				AMB	AMB		
	comp=Z,110nm,1.4s,mb5.7						
MKAR	Makanchi Array	60.00	327	*i* P	P	20 34 25.5	-1.8
MKAR				pmax	pmax		
	comp=Z,20nm,0.5s						
MKAR	Makanchi Array	60.00	327	*i* P	P	20 34 25.6	-1.7
URZ	Urewera	60.77	135	P	P	20 34 30.9	-1.8
	comp=Z,6.3nm,0.7s,mb4.8,baz=219,slow=14,SNR=2.0						
KZA	Kyzart	61.57	320	P	P	20 34 37.9	-0.1
	SNR=16						
TKM2	Tokmak 2	61.77	321	P	P	20 34 38.6	-0.7
	SNR=51						
KBK	Karagaybulak	62.05	320	P	P	20 34 43.4	+2.1
	SNR=27						
UCH	Uchtor	62.12	319	P	P	20 34 41.4	-0.3
	SNR=38						
YAK	Yakutsk	62.24	2	*e*P	P	20 34 40.9	-1.3
YAK				*e*		20 35 19.1	
YAK				*e*		20 36 58.9	
YAK				*e*PPP	PPP	20 38 26.6	-4.8
YAK				*e*S	S	20 42 59.9	-2.2
YAK				*i*		20 44 26.4	
YAK				*e*SS	SS	20 47 04.9	-2.9
YAK				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.7						
YAK				pmax	pmax		
	comp=N,17nm,1.2s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.2						
YAK				pmax	pmax		
	comp=E,2.0nm,0.9s						
YAK				smax			
	comp=N,10.0nm,1.0s						
YAK				smax			
	comp=E,8.0nm,1.2s						
YAK	Yakutsk	62.24	2	⇓*i*P	P	20 34 39.8	-2.4
AAK	Ala-Archa	62.33	320	*d* *i*P	P	20 34 41.7	-1.4
AAK				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.5						
AAK				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.5						
AAK	Ala-Archa	62.33	320	*i* Pr		20 34 41.7	
CHMS	Chumysh	62.34	320	P	P	20 34 41.9	-1.3
	SNR=18						
AML	Almayashu	62.61	319	P	P	20 34 44.4	-0.6
	SNR=36						
USP	Ospenovka	62.64	320	P	P	20 34 44.1	-1.0
	SNR=44						
EKS2	Erkin-Say	62.81	320	P	P	20 34 45.6	-0.7
	SNR=40						
MA2	Magadan	62.94	14	*e*P	P	20 34 47.1	+0.2
MA2				*i*	pP	20 35 04.8	+2.5
MA2				*e*		20 43 19.6	
MA2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.4						
MA2	Magadan	62.94	14	*e*P	P	20 34 44.7	-2.3
	comp=Z,39nm,0.7s,mb5.6						
ZAL	Zalesovo	63.48	335	P	P	20 34 47.7	-2.8
	comp=Z,12nm,0.9s,mb5.0,baz=348,slow=7.6,SNR=49						
ZAL	Zalesovo	63.48	335	P	P	20 34 47.7	-2.9
ZAL				pmax	pmax		
	comp=Z,12nm,0.9s						
ZAL	Zalesovo	63.48	335	P	P	20 34 47.7	-2.8
NVS	Novosibirsk	64.76	335	⇑*i*P	P	20 34 55.9	-3.0
NVS				*e*S	S	20 43 30.7	-2.9
NVS				*e*		20 44 41.4	
NVS				pmax	pmax		
	comp=N,24nm,1.1s						
NVS				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
NVS				pmax	pmax		
	comp=E,21nm,1.0s						
NVS				smax			
	comp=E,17nm,1.5s						
NVS				smax			
	comp=N,16nm,1.7s						
BVAR	Borovoye Array	69.85	328	P	P	20 35 28.7	-2.1
	comp=N,32nm,0.9s,mb5.2,baz=135,slow=6.3,SNR=59						
BRVK	Borovoye	69.92	328	*i* Pr		20 35 30.4	
CHKZ	Chkalovo	70.05	329	*e*P	P	20 35 30.2	-1.9
	comp=N,47nm,1.0s,mb5.4						
TIXI	Tiksi	71.84	1	*e*P	P	20 35 41.8	-0.7
TIXI				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,202nm,17.0s,MS4.5						
TIXI	Tiksi	71.84	1	⇓*i*P	P	20 35 40.0	-2.5
SVE	Sverdlovsk	76.56	329	⇑*e*P	P	20 36 09.0	-1.1
SVE				pmax	pmax		
	comp=Z,100nm,1.5s,mb5.5						
HASS	Wahat al Ahsa’	76.99	296	P	P	20 36 11.9	-1.2
ARU	Arti	77.49	329	⇓*i*P	P	20 36 13.0	-2.3
ARU				*e*		20 36 23.3	
ARU				*e*		20 39 07.7	
ARU				*e*PPP	PPP	20 40 54.1	-6.7
ARU				*e*S	S	20 46 01.9	+1.4
ARU				*e*SS	SS	20 51 06.3	+3.1
ARU				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.3						
ARU				MLR	MLR		
	comp=Z,100nm,21.0s,MS4.1						
ARU				MLR	MLR		
	comp=N,90nm,20.0s,MS4.2						
ARU				MLR	MLR		
	comp=E,100nm,24.0s,MS4.2						
ARU	Arti	77.49	329	*e*P	P	20 36 13.2	-2.1
	comp=E,35nm,0.8s,mb5.3						
MAW	Mawson	79.49	200	P	P	20 36 27.4	+1.4
	comp=E,5.3nm,0.3s,mb5.0,baz=64,slow=5.2,SNR=28						
MAW	Mawson	79.49	200	P	P	20 36 27.4	+1.4
MAW				pmax	pmax		
	comp=Z,5.0nm,0.3s						
VNDA	Vanda	79.68	172	P	P	20 36 27.3	+0.4
	comp=Z,2.0nm,0.9s,baz=318,slow=7.1,SNR=5.2						
VNDA				LR	LR	21 13 44.1	
	comp=Z,145nm,19.0s,MS4.3,baz=333,slow=37						
VNDA	Vanda	79.68	172	P	P	20 36 27.3	+0.4
VNDA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
VNDA				MLR	MLR		
	comp=Z,145nm,19.0s						
MZLS	Mizel	80.95	294	P	P	20 36 34.5	-0.1
ANM	Nome	81.53	24	*e*P	P	20 36 40.1	+3.3

TATS	Tathlith	82.27	290	P	P	20 36 42.5	+0.9
GNI	Garni	82.86	310	eP	P	20 36 44.2	0.0
	comp=Z,20nm,0.8s,mb5.2						
AFFS	‘Afif	82.96	294	P	P	20 36 45.6	+0.6
TI2	Plekhanov	83.03	312⇓	iP	P	20 36 46.4	+1.4
FRSS	Farasan al Kab	83.43	287	P	P	20 36 49.7	+2.2
NAMS	An Nimas	83.45	289	P	P	20 36 49.5	+1.9
TVAN	Van	83.72	309	iP	P	20 36 46.6	-2.0
ZEI	Tsey	83.78	313	iP	P	20 36 50.0	+1.2
ZEI				i*PP	pP	20 37 00.5	-4.3
ZEI				i		20 40 00.1	
ZEI				pmax	pmax		
	comp=Z,44nm,0.6s,mb5.8						
BLJS	Baljurashi	84.05	290	P	P	20 36 52.5	+1.7
HILS	Ha’il	84.25	297	P	P	20 36 52.6	+1.0
GOF	Gofitskoye	84.63	315⇑	iP	P	20 36 53.5	+0.4
GOF				pmax	pmax		
	comp=Z,50nm,1.6s,mb5.4						
KIV	Kislovodsk	84.77	314	P	P	20 36 55.6	+1.8
	comp=Z,326nm,0.7s,SNR=16						
KIV	Kislovodsk	84.77	314c	iP	P	20 36 54.3	+0.5
KIV				e		20 47 15.2	
KIV				eSS	SS	20 52 52.8	+1.2
KIV				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.2						
KIV				MLR	MLR		
	comp=E,105nm,22.0s						
KIV				MLR	MLR		
	comp=Z,125nm,22.0s,MS4.3						
KIV	Kislovodsk	84.77	314⇓	iP	P	20 36 54.3	+0.5
BEST	Besiri	85.35	308	iP	P	20 36 58.2	+1.4
ERZM	Erzurum	85.42	310	iP	P	20 36 59.0	+1.9
KBRS	Khaybar	86.44	296	P	P	20 37 04.2	+1.8
IMA	Indian Mountai	86.65	24	eP	P	20 37 05.1	+2.6
	comp=Z,8.8nm,0.7s,mb5.1						
SOC	Sochi	86.89	313	iP	P	20 37 03.0	-1.2
SOC				ePPP	PPP	20 42 27.8	+0.6
SOC				eS	S	20 47 18.8	-17
SOC				pmax	pmax		
	comp=N,38nm,1.1s						
SOC				pmax	pmax		
	comp=E,18nm,1.1s						
SOC				pmax	pmax		
	comp=Z,87nm,1.1s,mb5.9						
ELZG	Elazig	87.18	308	iP	P	20 37 08.3	+2.6
YNBS	Yanbu‘ al Bahr	87.55	294	P	P	20 37 09.6	+1.8
MALT	Malatya	87.61	308	eP	P	20 37 08.5	+0.7
	comp=Z,57nm,1.0s,mb5.8						
VRSR	Storozhevoye	87.69	321c	iP	P	20 37 07.8	-0.1
VRSR				e*SP	sP	20 37 20.6	-9.3
VRSR				e		20 47 32.9	
VRSR				eS	S	20 47 45.9	+2.3
VRSR				eSS	SS	20 53 36.4	+2.3
VRSR				eSSS	SSS	20 57 07.4	+1.2
VRSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRSR				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.8						
VRSR				pmax	pmax		
	comp=E,90nm,1.3s						
VRSR				smax			
	comp=N,20nm,1.3s						
VRSR				smax			
	comp=Z,5.0nm,1.4s						
VRSR				smax			
	comp=E,9.0nm,0.8s						
VOR	Voronezh	87.71	322	eP	P	20 37 08.0	0.0
VOR				pmax	pmax		
	comp=Z,160nm,1.2s,mb6.1						
KMBO	Kilima Mbogo	87.92	269	P	P	20 37 11.9	+2.1
	comp=Z,23nm,0.8s,mb5.5,baz=62,slow=7.5,SNR=60						
KMBO				LR	LR	21 12 29.7	
	comp=Z,170nm,21.3s,MS4.4,baz=93,slow=33						
KMBO	Kilima Mbogo	87.92	269	iP	P	20 37 12.4	+2.5
KMBO				pmax	pmax		
	comp=Z,23nm,0.8s						
UMJS	Umm Lajj	88.18	295	P	P	20 37 12.8	+1.9
GZT	Gaziantep	88.26	307	iP	P	20 37 11.9	+1.0
MCK	McKinley	88.41	26	eP	P	20 37 10.5	-0.5
	comp=Z,6.3nm,0.9s,mb4.8						
ANN	Anapa	88.59	315	eP	P	20 37 11.6	-0.7
ANN				eS	S	20 47 37.8	-14
ANN				eSS	SS	20 53 51.1	+3.9
ANN				pmax	pmax		
	comp=Z,292nm,1.0s						
ASF	Jabal al Asfar	88.69	302	P	P	20 37 14.9	+1.8
	comp=Z,58nm,0.9s,mb5.9,baz=321,slow=3.2,SNR=44						
KAHT	Ahir Dag	88.82	307	iP	P	20 37 14.6	+1.0
MOS	Moscow	88.84	326	eP	P	20 37 12.0	-1.2
MOS				eS	S	20 47 38.3	-16
MOS				pmax	pmax		
	comp=Z,103nm,1.0s,mb6.1						
TBKS	Tabuk	88.92	298	P	P	20 37 15.7	+1.4
COLA	College	88.95	25⇑	eP	P	20 37 12.7	-0.8
COBT	Iskenderun	89.29	306	iP	P	20 37 07.2	-8.6
ILAR	Eielson Array	89.36	25	P	P	20 37 15.1	-0.4
	comp=Z,3.4nm,0.7s,mb4.8,baz=245,slow=5.1,SNR=42						
ILAR	Eielson Array	89.36	25	P	P	20 37 15.1	-0.4
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
DBAS	Duba	89.41	297	P	P	20 37 17.8	+1.2
OBN	Obninsk	89.42	325⇓	eP	P	20 37 15.4	-0.6
OBN				i		20 37 26.2	
OBN				pmax	pmax		
	comp=Z,141nm,1.0s,mb6.2						
OBN				MLR	MLR		
	comp=Z,100nm,19.0s,MS4.3						
OBN	Obninsk	89.42	325⇓	eP	P	20 37 15.4	-0.6
OBN				LR	LR		
	comp=Z,100nm,19.0s,MS4.3						
JMQS	Jabal Moqyreh	89.52	299	P	P	20 37 18.7	+1.7
KSHT	Keshet	89.61	303	P	P	20 37 19.3	+1.8
QSPA	South Pole Qui	89.66	180	eP	P	20 37 18.3	+1.7
	comp=Z,3.0nm,0.6s,mb4.8						
QSPA				eP		20 37 18.7	
MKRJ	Makawir	89.75	301	P	P	20 37 19.6	+1.5
HMDT	Nahal Hemdat	89.85	302	P	P	20 37 19.7	+1.1
MMLI	Mount Malkishu	89.94	302	P	P	20 37 20.6	+1.6
DRGI	Dragot	89.96	301	P	P	20 37 20.1	+1.0
AYUS	‘Aynunah	90.05	298	P	P	20 37 20.6	+1.0
JMOS	Jabal al Moall	90.19	299	P	P	20 37 21.5	+1.2
BDAS	Al Bad‘	90.20	298	P	P	20 37 21.2	+1.0
ALWS	Ilw as Safayha	90.23	299	P	P	20 37 21.9	+1.5
PRNI	Paran	90.29	300	P	P	20 37 21.8	+1.1
OFRI	‘Ofer	90.31	302	P	P	20 37 21.6	+0.9
EIL	Elat	90.33	300	LR	LR	21 26 18.4	
	comp=Z,115nm,18.4s,MS4.3,baz=300,slow=41						
EIL	Elat	90.33	300	P	P	20 37 21.8	+0.9
EIL	Elat	90.33	300	eP	P	20 37 20.8	-0.1
	comp=Z,10nm,0.6s,mb5.3						
HAQS	Haql	90.35	299	P	P	20 37 22.2	+1.2
MBH	Mount Berech	90.36	300	P	P	20 37 22.0	+1.0
BOYT	Boyabat	90.39	311	iP	P	20 37 21.5	+0.6
TAYS	Tayyib Ism	90.40	298	P	P	20 37 22.4	+1.2
AVNT	Avonos	90.42	309	iP	P	20 37 21.6	+0.5
KMTI	Karmit	90.53	300	P	P	20 37 22.6	+0.8
RTMM	Retamin	90.56	301	P	P	20 37 22.5	+0.6
APA	Apatity	90.93	337⇑	iP	P	20 37 25.6	+2.8
APA				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.7						
SIM	Simferopol’	90.94	315c	eP	P	20 37 23.4	0.0
SIM				pmax	pmax		
	comp=Z,20nm,11.9s						
SIM				MLR	MLR		
	comp=Z,110nm,17.3s,MS4.3						
MEST	Erdemli	90.99	306	iP	P	20 37 23.1	-0.7
BRTR	Keskin Array B	91.36	310	P	P	20 37 25.3	-0.2
	comp=Z,8.1nm,0.7s,mb5.2,baz=119,slow=4.2,SNR=41						
BRTR	Keskin Array B	91.36	310	P	P	20 37 25.3	-0.2
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ELDT	Eldivan	91.51	310	iP	P	20 37 26.5	+0.4
BALT	Daday	91.53	311	iP	P	20 37 26.7	+0.5
CSS	Prodhromos	91.67	305	eP	P	20 37 26.5	-0.5
	comp=Z,76nm,0.9s,mb6.0						
JOF	Joensuu	92.01	333	ep	P	20 37 27.2	-0.7
	comp=Z,10nm,0.8s,mb5.2						
JOF	Joensuu	92.01	333	eP	P	20 37 27.2	-0.7
JOF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.2						
SGKT	Sivrigoynuk	92.55	310	iP	P	20 37 30.8	-0.2
DAWY	Dawson	92.63	26	eP	P	20 37 32.0	+1.4
HENT	Hendek	93.42	311	iP	P	20 37 34.1	-0.8
ESKT	Eskisehir	93.52	309	iP	P	20 37 35.0	-0.3
ARCES	ARCESS Array B	93.64	340	P	P	20 37 34.5	-0.7
	comp=Z,5.1nm,0.8s,mb5.0,baz=80,slow=5.8,SNR=13						
ARCES				LR	LR	21 25 59.6	
	comp=Z,159nm,19.2s,MS4.5,baz=197,slow=40						
ARCES	ARCESS Array B	93.64	340	P	P	20 37 34.5	-0.7
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,159nm,19.2s						
KAF	Kangasniemi	94.40	332	ep	P	20 37 38.2	-0.5
	comp=Z,7.6nm,0.8s,mb5.2						
KAF	Kangasniemi	94.40	332	eP	P	20 37 38.2	-0.5
KAF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb5.2						
INK	Inuvik	94.43	21	eP	P	20 37 39.3	+0.6
	comp=Z,20nm,1.0s,mb5.5						
MBAR	Mbarara	94.44	269	eP	P	20 37 40.0	-0.1
	comp=Z,4.5nm,0.9s,mb4.9						
MBAR				LR	LR		
	comp=Z,40nm,20.0s,MS3.9						
KIS	Kishinev	94.55	317	eP	P	20 37 39.0	-0.8
KIS				MLR	MLR		
	comp=Z,300nm,17.0s,MS4.8						
FINES	FINESS Array B	94.60	332	P	P	20 37 39.1	-0.5
	comp=Z,4.0nm,0.8s,mb4.9,baz=90,slow=3.8,SNR=7.7						
FINES	FINESS Array B	94.60	332	P	P	20 37 39.2	-0.5
FINES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ULDT	Uludag	94.80	310	iP	P	20 37 41.5	+0.4
BTOK	Tokmak	95.68	310	iP	P	20 37 45.0	-0.2
KDAG	Bornova	96.38	308	iP	P	20 37 48.6	+0.2
LSZ	Lusaka	96.67	255	eP	P	20 37 50.7	+0.5
	comp=Z,14nm,0.8s,mb5.4						
MLR	Muntele Rosu	96.67	316	LR	LR	21 23 19.1	
	comp=Z,124nm,20.3s,MS4.4,baz=226,slow=37						
SUW	Suwalki	97.27	324	eP	P	20 37 52.0	0.0
KWP	Kalwaria	98.28	320	eP	P	20 37 57.4	+0.7
IDI	Anoyia	98.56	306	P	P	20 37 57.9	-0.4
	comp=Z,9.7nm,0.6s,mb5.5,baz=113,slow=5.4,SNR=7.5						
KOLS	Kolonicke sedl	98.67	319	iP	P	20 37 59.6	+1.1
CRVS	Cervenica-Dubn	99.21	320	iP	P	20 38 02.8	+1.9
NIE	Niedzica	99.85	320	eP	P	20 38 05.4	+1.5
KECS	Kecovo	99.92	319	eP	P	20 38 04.5	+0.3
OJC	Ojcow	100.02	321	eP	P	20 38 05.1	+0.5
SNAA	Sanae	100.97	195	iP	P	20 38 11.7	+3.3
OKC	Ostrava-Krasne	101.14	321	eP	P	20 38 10.5	+0.8
NOA	NORSAR Array B	101.64	333	P	P	20 38 09.9	-1.7
	comp=Z,2.2nm,1.0s,baz=68,slow=4.8,SNR=3.5						
NOA	NORSAR Array B	101.64	333	P	P	20 38 09.9	-1.7
NOA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
DPC	Dobruska-Polom	102.16	322	ePDIF	Pdif	20 38 15.5	+1.3
UPC	Upice	102.31	322	eP	Pdif	20 38 16.3	+1.4
PVCC	Panska Ves	103.20	322	ePDIF	Pdif	20 38 19.1	+0.3
PRU	Pruhonice	103.36	322	ePDIF	Pdif	20 38 20.6	+1.1
BRG	Berggiesshubel	103.48	323	eP	Pdif	20 38 21.6	+1.6
BRG				pmax	pmax		
	comp=Z,28nm,1.8s						
BRG	Berggiesshubel	103.48	323	eP	Pdif	20 38 21.6	+1.6
	comp=Z,28nm,1.8s						
YKA	Yellowknife Ar	103.76	24	Pdiff	Pdif	20 38 21.6	+0.7
	comp=Z,1.0nm,0.9s,baz=298,slow=4.9,SNR=11						
YKA				PP	PP	20 42 38.2	-2.5
	comp=Z,0.5nm,0.6s,baz=307,slow=1.8,SNR=8.7						
YKA				PKKPbc		20 54 12.2	
	comp=Z,0.7nm,0.8s,baz=113,slow=2.5,SNR=11						
YKA	Yellowknife Ar	103.76	24	P	Pdif	20 38 21.6	+0.7
YKA						20 42 38.2	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	103.76	24	Pdif	Pdif	20 38 21.6	+0.6
YKA				PP	PP	20 42 38.2	-2.5
YKA				PKKPbc		20 54 12.2	
CLL	Collm	103.92	323	iP	Pdif	20 38 22.7	+0.8
CLL				pmax	pmax		
	comp=Z,9.0nm,1.2s						
CLL	Collm	103.92	323	iP	Pdif	20 38 22.7	+0.8
	comp=Z,9.0nm,1.2s						
CLL	Collm	103.92	323	P	Pdif	20 38 22.7	+0.8
	comp=Z,logA/T=0.9						
KHC	Kasperske Hory	104.20	321	ePDIF	Pdif	20 38 23.9	+0.7
GERES	GERESS Array B	104.21	321	Pdiff	Pdif	20 38 23.7	+0.5
	comp=Z,1.9nm,0.9s,baz=90,slow=5.3,SNR=13						
GERES				PP	PP	20 42 41.0	-3.4
	comp=Z,0.7nm,0.7s,baz=63,slow=3.0,SNR=5.2						
GERES	GERESS Array B	104.21	321	P	Pdif	20 38 23.7	+0.5
GERES						20 42 41.0	
GERES				pmax	pmax		
	comp=Z,2.0nm,0.9s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GRF	Grafenberg Arr	105.50	322	eP	Pdif	20 38 30.7	+1.8
PDAR	Pinedale Array	115.36	42	PKP	PKPdf	20 43 02.6	+2.8
	comp=Z,1.0nm,1.0s,baz=135,slow=2.1,SNR=4.9						
PDAR				PKKPbc		20 53 35.1	
	comp=Z,0.3nm,0.6s,baz=315,slow=5.1,SNR=3.5						
ESDC	Sonseca Array	119.35	317	PP	PP	20 44 28.4	-5.6
	comp=Z,1.3nm,0.8s,baz=37,slow=6.4,SNR=3.4						
ANMO	Albuquerque	120.83	49	iPKIKP	PKPdf	20 43 11.8	+1.2
ANMO	Albuquerque	120.83	49	ePKP	PKPdf	20 43 14.2	+3.6
SCHQ	Schefferville	124.73	8	PKP	PKPdf	20 43 20.5	+2.9
	comp=Z,9.3nm,0.7s,baz=0.3,slow=2.0,SNR=18						
SCHQ	Schefferville	124.73	8	PKP	PKPdf	20 43 20.5	+2.9
TXAR	Lajitas Array	125.23	54	PKP	PKPdf	20 43 22.0	+2.7
	comp=Z,1.4nm,0.6s,baz=196,slow=0.6,SNR=8.2						
TXAR	Lajitas Array	125.23	54	PKP	PKPdf	20 43 22.0	+2.7
KSU1	Kansas State U	125.67	40	ePKP	PKPdf	20 43 21.9	+2.0
JCT	Junction City	127.81	51	ePKP	PKPdf	20 43 27.6	+3.4
DBIC	Dimbokro	129.75	278	PKP	PKPdf	20 43 30.4	+2.0
	comp=Z,6.0nm,0.6s,baz=92,slow=2.7,SNR=15						
DBIC	Dimbokro	129.75	278	PKIKP	PKPdf	20 43 30.5	+2.1
DBIC				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LVC	Limon Verde	153.44	150	ePKPbc	PKPdf	20 44 20.9	+12

OTT 20 20:24:45.9±0.4**,52.93N**×**66.79W,MN2.5**/7**,Blast, Labrador City, Nl Mining explosion.,Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCHQ	Schefferville	1.91	359	PN	Pn	20 25 19.1	-0.8
SCHQ				SG	Sg	20 25 44.3	-5.0
SCHQ				Trac		20 25 47.0	
	comp=Z,7.8nm,0.1s						
MNQ	Manicouagan	2.70	208	PN	Pn	20 25 31.1	-0.1
MNQ				SN	Sn	20 26 03.4	-1.7
MNQ				Trac		20 26 10.2	
	comp=Z,5.6nm,0.1s						
SMQ	Clarke City	2.71	179	PN	Pn	20 25 29.0	-2.5
SMQ				SG	Sg	20 26 08.2	-7.9
SMQ				Trac		20 26 10.4	
	comp=Z,4.3nm,0.1s						
ICQ	Pointe Anglais	3.43	185	PN	Pn	20 25 38.3	-3.3
ICQ				SN	Sn	20 26 20.0	-3.6
ICQ				Trac		20 26 36.2	
	comp=Z,6.3nm,0.3s						
CNQ	Baie Comeau	3.72	193	PN	Pn	20 25 43.5	-2.3
CNQ				SN	Sn	20 26 26.5	-4.5
CNQ				Trac		20 26 46.0	
	comp=Z,1.3nm,0.1s						
GSQ	Grosses Roches	4.03	183	PN	Pn	20 25 47.0	-3.3
GSQ				SN	Sn	20 26 34.7	-4.2
GSQ				SG	Sg	20 26 49.5	-11
GSQ				Trac		20 26 51.5	
	comp=Z,4.2nm,0.2s						
LG4Q	La Grande 4	4.44	282	PN	Pn	20 25 51.6	-4.5
LG4Q				SN	Sn	20 26 43.6	-5.7
LG4Q				SG	Sg	20 26 57.5	-16
LG4Q				Trac		20 27 03.6	
	comp=Z,1.9nm,0.3s						
LMQ	La Malbaie	5.85	204	PN	Pn	20 26 11.4	-4.5
DRLN	Deer Lake	6.91	118	PN	Pn	20 26 27.8	-3.1
MALO	McAlpine Lake	8.61	255	PN	P	20 26 47.7	-6.9
MALO				SN	Sn	20 28 18.5	-15
SILO	Sutton Inlier	10.86	285	PN	P	20 27 18.9	-6.6

CASC 20 20:30:52.0±2.9**,48.98N**×**82.94W,h10**^{km}**,MD4.1,3C-4D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ACR	Cerro Adams	0.44	329⇑	iP	Pg	20 31 00.1	-0.9
ACR				eS	Sg	20 31 07.0	0.0
BUS	Buena Vista	1.51	328⇓	eP	Pn	20 31 18.0	-1.2
BUS				eS	Sb	20 31 41.0	+2.3
URSC	Urasca	1.76	332⇓	iP	Pn	20 31 21.8	-1.0
URSC				eS	Sn	20 31 44.8	-0.7
LCR2	La Lucha 2	1.80	324⇓	eP	Pn	20 31 22.2	-1.2
LCR2				eS	Sn	20 31 47.8	+1.3
ICR	Volcan Irazu	1.91	333	eP	Pn	20 31 23.1	-1.9
ICR				eS	Sn	20 31 50.3	+1.0
LAJ	Bijagual	1.96	324⇑	eP	Pn	20 31 27.3	+1.5
SJS	Escuela Geolog	1.99	326⇓	eP	Pn	20 31 24.5	-1.6
SJS				eS	Sn	20 31 52.4	+1.1
PRS1	Puriscal	2.17	322	eP	Pn	20 31 27.1	-1.6
PRS1				eS	Sn	20 31 57.7	+1.7
VPS2	Volcan Poas 2	2.29	326	eP	Pn	20 31 30.9	+0.4
VPS2				eS	Sn	20 32 02.3	+3.2
CGA2	Cerro Gallo 2	2.30	319	eP	Pn	20 31 31.5	+1.0
CGA2				eS	Sn	20 32 01.9	+2.8
TRTC	Tortuguero	2.41	342⇑	eP	Pn	20 31 31.5	-0.7
TRTC				eS	Sn	20 32 02.7	+0.7
JCR	Jicaral	2.66	306	eP	Pn	20 31 35.1	-0.6
UPA	Univ. de Panam	3.44	78	iP	Pn	20 31 51.0	+4.2
	baz=261,slow=12						
UPA				eS	Sn	20 32 28.0	-0.1
JEF	Cerro Jefe	3.65	75	eP	Pn	20 31 52.0	+2.2
JEF				eS	Sn	20 32 34.0	+0.7

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*NEIC **20** 20:40:42.3,32.32S×71.61W,h37^{km},MD3.5(GUC),After GUC.*

GUC 20 20:40:42.3±1.0**,32.32S**×**71.61W,h37**^{km}±2^{km}**,MD3.5, ML3.3,8C-2D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PACH	Papudo	0.26	145⇑	iP	P	20 40 50.5	+0.6
PACH				iS	S	20 40 56.1	+0.9
PTCH	Petorca	0.58	84⇑	iP	P	20 40 54.7	+0.7
PTCH				iS	S	20 41 03.5	+1.0
PTCH				AMP		20 41 04.1	
	comp=E,12μm,0.2s						
ILCH	Illapel	0.78	29⇑	iP	P	20 40 57.2	+0.3
ILCH				iS	S	20 41 08.2	+0.6
ILCH				AMP		20 41 10.2	
	comp=E,1μm,0.2s						
ROCH	El Roble	0.82	142	iP	P	20 40 57.9	+0.4
ROCH				iS	S	20 41 09.8	+1.2
JACH	Jahuel	0.93	113	iP	P	20 40 59.6	+0.6
JACH				iS	S	20 41 12.6	+1.2
PEL	Peldehue	1.13	137⇑	iP	P	20 41 03.0	+1.1
PEL				iS	S	20 41 17.6	+1.2
PEL				AMP		20 41 19.4	
	comp=N,1μm,0.3s						
LCCH	Las Cruces	1.15	178⇑	iP	P	20 41 02.3	+0.2
LCCH				iS	S	20 41 17.8	+0.9
CMCH	Combarbala	1.26	25⇓	iP	P	20 41 04.5	+0.8
CMCH				iS	S	20 41 21.1	+1.4
CMCH				AMP		20 41 24.2	
	comp=E,3μm,0.8s						
RCDM	Rinconada Maip	1.35	150⇑	iP	P	20 41 05.7	+0.7
RCDM				iS	S	20 41 23.5	+1.6
RCDM				AMP		20 41 25.4	
	comp=E,966nm,0.1s						
CLCH	Cerro Calan	1.40	140	iP	P	20 41 06.9	+1.1
CLCH				iS	S	20 41 24.9	+1.6
CLCH				AMP		20 41 26.2	
	comp=N,583nm,0.6s						
TACH	Talagante	1.44	157⇓	iP	P	20 41 07.5	+1.1
TACH				iS	S	20 41 26.4	+2.0
FCH	Farellones	1.50	132	AMP		20 41 30.2	
	comp=E,281nm,0.2s						
PCH	Pirque	1.59	145	iP	P	20 41 09.3	+0.9
CHCH	Chadas Angostu	1.80	154⇑	iP	P	20 41 12.7	+1.3
LMEL	Las Melosas	1.93	143	iP	P	20 41 14.4	+1.2
LMEL				iS	S	20 41 38.5	+2.0
LMEL				AMP		20 41 44.2	
	comp=N,426nm,0.2s						
TLL	Tololo Astrono	2.26	18	AMP		20 41 53.6	
	comp=N,257nm,0.5s						
SFDO	San Fernando	2.34	168⇑	iP	P	20 41 19.7	+0.6

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*IDC **20** 21:10:37.7±1.1,8.01S×124.96E,mb3.9/6,mb1 4.1/9, mb1mx4.0/15,ML3.7/3,MS3.6/5,Ms1 3.6/5,ms1mx3.2/14, Error ellipse: s-maj=43.0km s-min=18.0km az=53.0*

*NEIC **20** 21:10:43.0±1.9,8.07S×125.00E,h36^{km}±19^{km},mb4.3/2, Error ellipse: s-maj=19.0km s-min=13.1km az=49.0*

ISC 20 21:10:41.6±2.5**,8.46S**±0.07×**125.24E**±0.08**,h8**^{km}±16^{km}**, n23,σ1**^{s}**02**/29**,mb4.3**/13**,MS3.6**/4**,Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	8.20	122	eP	P	21 12 45.5	+1.7
	16nm,0.5s						
KAKA				eS	Sn	21 14 18.3	+0.6
FITZ	Fitzroy Crossi	9.59	178	eP	P	21 13 04.9	+1.6
	25nm,0.8s						
FITZ				eS	Sn	21 14 52.4	0.0
FITZ	Fitzroy Crossi	9.59	178	Pn	P	21 13 04.3	+1.0
	1.1nm,0.3s,baz=358,slow=8.6,SNR=8.6						
FITZ				Sn	Sn	21 14 52.5	+0.1
	2.5nm,0.3s,baz=120,slow=4.4,SNR=8.3						
WRAB	Tennant Creek	14.41	143	eP	P	21 14 06.7	-1.6
	8.2nm,0.8s						
WRA	Warramunga Arr	14.42	143	Pn	P	21 14 06.3	-1.9
	0.4nm,0.3s,baz=314,slow=14,SNR=38						
WRA				Sn	S	21 16 43.1	-6.2
	0.4nm,0.3s,baz=321,slow=22,SNR=4.8						
WB2	Warramunga Arr	14.42	143	eP	P	21 14 06.3	-2.1
WB2				e		21 14 18.8	
WB2				eS	S	21 16 43.9	-5.6
ASPA	Alice Springs	17.25	152	eP	P	21 14 46.4	+1.7
ASPA				eS	S	21 17 49.6	-5.7
ASAR	Alice Springs	17.25	152	P	P	21 14 45.0	+0.3
	0.2nm,0.3s,baz=322,slow=10.0,SNR=24						
ASAR				S	S	21 17 55.1	-0.2
	0.2nm,0.3s,baz=315,slow=19,SNR=5.9						
ASAR				LR	LR	21 22 36.6	
	comp=Z,92nm,19.1s,baz=146,slow=40						
PMG	Port Moresby	21.67	94	P	P	21 15 34.2	-0.8
	15nm,0.7s,mb4.5,baz=269,slow=4.2,SNR=7.8						
CTA	Charters Tower	23.38	122	P	P	21 15 52.9	+0.9
	5.9nm,0.9s,mb4.0,baz=290,slow=9.6,SNR=7.7						
CTA				LR	LR	21 25 10.0	
	comp=Z,123nm,21.0s,MS3.3,baz=41,slow=37						
CTAO	Charters Tower	23.38	122	eP	P	21 15 53.0	+1.0
	6.4nm,1.1s,mb4.0						
STKA	Stephens Creek	27.82	149	P	P	21 16 33.8	+0.2
	1.5nm,0.8s,mb3.7,baz=304,slow=12,SNR=2.0						
STKA				LR	LR	21 30 08.7	
	comp=Z,132nm,18.4s,MS3.5,baz=360,slow=41						
CMAR	Chiang Mai Arr	37.27	316	P	P	21 17 48.5	-7.6
	0.4nm,0.8s,mb3.3,baz=141,slow=5.8,SNR=3.7						
CMAR				LR	LR	21 33 45.5	
	comp=Z,59nm,19.3s,MS3.4,baz=240,slow=38						
GUN	Gumba	52.50	315	eP	P	21 19 57.4	-0.3
	12nm,0.8s,mb4.9						
PKI	Pulchoki	52.62	314	eP	P	21 19 58.4	-0.3
	5.4nm,0.7s,mb4.6						
KKN	Kakani	52.84	314	eP	P	21 20 00.5	+0.1
	10nm,1.0s,mb4.7						
DMN	Daman	52.86	314	eP	P	21 20 00.8	+0.3
	12nm,1.1s,mb4.8						
GKN	Gorkha	53.43	314	eP	P	21 20 05.1	+0.5
	20nm,1.2s,mb4.9						
KOLN	Koldanda	54.03	313	eP	P	21 20 09.3	+0.3
	18nm,1.3s,mb4.8						
SONM	Songino Array	58.48	345	P	P	21 20 32.2	-8.5
	0.4nm,0.8s,mb3.5,baz=158,slow=7.8,SNR=3.1						
ZAL	Zalesovo	70.90	336	P	P	21 21 52.4	-8.9
	0.5nm,0.7s,mb3.6,baz=342,slow=13,SNR=2.9						
VNDA	Vanda	71.62	172	LR	LR	21 53 54.1	
	comp=Z,74nm,19.1s,MS4.0,baz=322,slow=36						
QSPA	South Pole Qui	81.53	180	P	P	21 22 59.5	-1.2
	4.5nm,0.8s,mb4.5						
QSPA				e		21 23 09.4	

IDC 20 21:46:35.6±26.0**,22.06S**×**172.97W,mb4.5**/4**,mb1 4.6**/4**, mb1mx4.1**/15**,Error ellipse: s-maj=490.0km**

s-min=153.7km az=76.0,Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	38.02	265	P	P	21 53 56.4	-1.1
	10nm,0.3s,baz=94,slow=11,SNR=32						
STKA	Stephens Creek	41.40	246	P	P	21 54 23.0	-2.4
	2.6nm,0.9s,baz=98,slow=11,SNR=4.9						
ASAR	Alice Springs	48.74	257	P	P	21 55 22.1	-2.2
	2.3nm,0.7s,baz=96,slow=6.9,SNR=8.5						
WRA	Warramunga Arr	49.04	262	P	P	21 55 24.9	-1.6
	3.4nm,0.5s,baz=97,slow=8.3,SNR=20						

IDC 20 21:55:18.1±28.0,22.82S×172.34W,mb4.0/4,mb1 4.1/4, mb1mx3.9/15,MS3.5/1,Ms1 3.5/1,ms1mx2.7/20,Error ellipse: s-maj=519.0km s-min=163.4km az=78.0,Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	38.55	266	P	P	22 02 42.7	-1.7
	2.3nm,0.4s,baz=94,slow=11,SNR=6.2						
CTA				LR	LR	22 15 41.8	
	comp=Z,78nm,21.0s,baz=48,slow=32						
STKA	Stephens Creek	41.64	247	P	P	22 03 07.8	-2.1
	0.7nm,0.4s,baz=90,slow=12,SNR=4.4						
ASAR	Alice Springs	49.15	258	P	P	22 04 08.0	-1.9
	0.3nm,0.4s,baz=89,slow=6.6,SNR=7.1						
WRA	Warramunga Arr	49.52	263	P	P	22 04 11.2	-1.6
	0.7nm,0.3s,baz=103,slow=8.3,SNR=36						

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*NEIC **20** 22:03:54.0,27.41S×70.52W,h67^{km},MD3.8(GUC),After GUC.*

GUC 20 22:03:54.0±1.0,27.41S×70.52W,h67^{km}±17^{km},MD3.8, ML4.3,2C,Near coast of northern Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CPCH	Copiapo	0.16	73	*i* P	P	22 04 04.2	+0.2
CPCH				*i* S	S	22 04 11.9	+0.5
CPCH				AMP		22 04 13.7	
	comp=E,103µm,0.1s						
VACH	Vallenar	1.19	190	*i* P	P	22 04 19.4	+4.4
VACH				*i* S	S	22 04 35.5	+4.8
VACH				AMP		22 04 35.8	
	comp=E,16µm,0.1s						
LSCH	La Serena	2.57	194	AMP		22 05 40.1	
	comp=E,625nm,0.5s						
TLL	Tololo Astrono	2.76	185	⇑*i*P	P	22 04 37.0	0.0
TLL				*i* S	S	22 05 10.5	+1.2
TLL				AMP		22 05 31.8	
	comp=E,636nm,0.5s						
CPN1	Cerro Paranal	2.77	2	⇑*i*P	P	22 04 37.4	+0.3
CPN1				*i* S	S	22 05 10.0	+0.6
CPN1				AMP		22 05 29.5	
	comp=E,1µm,0.3s						
CMCH	Combarbala	3.78	186	*i* P	P	22 04 50.3	-1.0
CMCH				*i* S	S	22 05 33.0	-1.7
LVC	Limon Verde	4.99	17	*e*P	P	22 05 05.5	-2.6

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*NEIC **20** 22:28:15.5,15.33N×96.39W,h15^{km},MD3.8(MEX),After MEX.*

MEX 20 22:28:15.4±0.5,15.32N×96.39W,h15^{km},MD3.8,Near coast of Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HUIG	Huatulco	0.52	31	*i* P	Pb	22 28 24.1	-1.6
HUIG				*i* S	Sb	22 28 31.2	-1.5
OXX	Oaxaca	1.78	350	*i* P	Pn	22 28 43.0	-3.0
OXX				*i* S	Sn	22 29 07.5	-0.9
OXX	Oaxaca	1.78	350	*i* S	Sn	22 29 07.5	-0.9
PNIG	Pinotepa	1.98	303	*i* P	Pn	22 28 46.0	-2.9
PNIG				*i* S	Sn	22 29 08.5	-5.0
CMIG	Matias Romero	2.28	39	*e*P	Pn	22 28 49.8	-3.3
CMIG				*i* S	Sn	22 29 16.4	-4.7
CMIG	Matias Romero	2.28	39	*e*P	Pn	22 28 49.8	-3.3
CMIG				*i* S	Sn	22 29 16.9	-4.1

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*BJI **20** 23:02:07.7,36.75N×27.82E,h5^{km},mB5.4,mb5.3,Ms5.0, Msz4.8*

*NEIC **20** 23:02:12.4,37.04N×28.21E,h5^{km},mb5.2/133,MS4.7/12, ML5.1(ISK),ML5.1(ATH),After ISK.*

NEIC Three people injured, some buildings damaged and rockslides blocked a highway at Marmaris. Felt at Bodrum, Datca and Izmir.

*MED_RC **20** 23:02:12.4±0.2,37.00N×28.45E,h15^{km},MW5.3/32, Moment Tensor Solution. Body waves: s32,c62; Duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-8.12±.14; M$_{\theta\theta}$7.54±.14; M$_{\phi\phi}$0.58±.10; M$_{r\theta}$6.16±.36; M$_{\theta\phi}$-0.64±.09; M$_{\phi r}$1.23±.42; Best double couple: M$_0$1×10^{17} NP1:ϕ_s103°,δ27°,λ-74°. NP2:ϕ_s265°,δ64°,λ-98°. Principal axes: T .97, Plg19°, Azm1°; N .08, Plg7°, Azm269°; P -1.04, Plg70°, Azm159°; nsta1 refers to waves, cutoff=35s.*

*HRVD **20** 23:02:12.4±0.2,36.88N×28.33E,h12^{km},MW5.3/62, Centroid moment Tensor Solution. LP body waves: s51,c79;Mantle waves: s62,c137; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.11±.02; M$_{\theta\theta}$1.12±.02; M$_{\phi\phi}$-0.01±.02; M$_{r\theta}$0.07±.05; M$_{\theta\phi}$-0.02±.02; M$_{\phi r}$0.30±.06; Best double couple: M$_0$1.16×10^{17} NP1: ϕ_s105°,δ45°,λ-69°. NP2:ϕ_s257°,δ48°,λ-109°. Principal axes: T 1.12, Plg2°, Azm0°; N .06, Plg14°, Azm270°; P -1.19, Plg76°, Azm97°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*ZUR_RM **20** 23:02:12,37.04N×28.21E,h9^{km},Mw5.4/29,Moment Tensor Solution. s29 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.32; M$_{\theta\theta}$1.31; M$_{\phi\phi}$0.01; M$_{r\theta}$0.60; M$_{\theta\phi}$-0.12; M$_{\phi r}$0.27; Best double couple: M$_0$1.47×10^{17} NP1:ϕ_s263°,δ58°, λ-103°. NP2:ϕ_s107°,δ34°,λ-70°. Principal axes: T 1.441, Plg12°, Azm2°; N .067, Plg11°, Azm270°; P -1.508, Plg74°, Azm138°;*

*MOS **20** 23:02:13.1±1.0,36.97N×28.38E,h10^{km},mb5.4/63, MS4.7/29 Error ellipse: s-maj=3.5km s-min=1.9km az=122.2*

*ATH **20** 23:02:13.7,37.01N×28.27E,h19^{km}±1^{km},MD4.7/25, ML5.1*

*NIC **20** 23:02:14.6±0.3,37.23N×28.13E,h36^{km},mb4.7,ML4.4, MW4.4,Earthquake Dodecanese Islands, Greece, 26 km W Koycegiz.*

*IDC **20** 23:02:14.6±3.5,36.97N×28.25E,h15^{km}±21^{km},mb4.8/18, mb1 5.0/27,mb1mx5.0/28,ML4.8/8,MS4.7/23,Ms1 4.7/23, ms1mx4.6/29,Error ellipse: s-maj=13.5km s-min=11.0km az=8.0*

*ISK **20** 23:02:14.1,37.05N×28.26E,h11^{km}*

*CSEM **20** 23:02:15.4,36.93N×28.41E,h30^{km},mb5.2*

*BGS **20** 23:02:15.1±3.1,37.04N×28.21E,h5^{km},mb5.7*

*GRAL **20** 23:02:15.2±1.9,36.90N×28.17E,h22^{km}±51^{km},MD4.8*

*PDG **20** 23:02:15.1±0.4,36.93N×28.42E,h16^{km}±2^{km}*

*SYO **20** 23:02:17.4,37.02N×28.29E,h30^{km},MB5.2,MS4.7*

ISC 20 23:02:15.0±0.3,36.94N±0.01×28.36E±0.01,h26^{km}±2^{km}, h29^{km}±1.5^{km}:pP-P,n1041,σ1^{s}18/1111,mb5.1/155, MS4.8/50,80C-124D,Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.28	127	*i* PG	Pb	23 02 22.8	+1.1
DALT	Dalyan (Mudla)	0.28	127	Pg	Pb	23 02 21.6	-0.1
MLSB	Milas	0.59	308	*i* PG	Pb	23 02 24.4	-2.2
FETY	Fethiye	0.65	117	*i* PG	Pb	23 02 28.2	+0.5
ARG	Arkhangelos	0.74	195	⇑*i*PN	Pn	23 02 29.0	-0.8
BDRM	Kayabasi	0.75	280	*i* P	Pb	23 02 27.7	-1.5
BDRM				*i* S	Sb	23 02 38.9	-0.2
AYDN	Tasoluk	0.82	332	*i* P	Pb	23 02 28.6	-1.8
AYDN				*i* S	Sb	23 02 38.3	-2.8
DNZL	Cakiroluk	0.93	36	*i* P	Pb	23 02 31.1	-1.2
DNZL				*i* S	Sb	23 02 42.8	-1.5
DENT	Denizli	0.97	33	*i* PG	Pb	23 02 31.6	-1.5
DENT	Denizli	0.97	33	Pg	Pb	23 02 31.6	-1.5
NISR	Nisiros	1.04	252	*e*PN	Pn	23 02 33.2	-0.9
ELL	Elmali	1.25	98	*i* PN	Pn	23 02 39.3	+2.1
ELL	Elmali	1.25	98	P	Pn	23 02 39.6	+2.5
KSL	Kastellorizon	1.26	128	*e*PN	Pn	23 02 39.5	+2.3
SMG	Samos	1.44	303	*e*PN	Pn	23 02 39.5	-0.3
MANT	Manisa	1.56	6	*i* P	Pn	23 02 41.2	-0.3
MANT				*i* S	Sn	23 03 02.4	+1.4
KHL	Karahalli	1.66	33	*i* PN	Pn	23 02 43.8	+0.9
KARP	Karpathos	1.69	215	*e*PN	Pn	23 02 44.5	+1.1
IZM	Izmir	1.70	329	*i* PN	Pn	23 02 42.9	-0.6
IZM	Izmir	1.70	329	Pn	Pn	23 02 43.0	-0.5
KDAG	Bornova	1.70	330	*i* P	Pn	23 02 42.9	-0.7
KDAG				*i* S	Sn	23 03 06.4	+1.7
BLCB	Balcova	1.79	324	*i* PN	Pn	23 02 44.2	-0.5
ANTB	Antalya	1.84	90	*i* PN	Pn	23 02 48.1	+2.7
BCK	Bucak	1.85	73	*i* PN	Pn	23 02 47.7	+2.0
BCK	Bucak	1.85	73	P	Pn	23 02 49.2	+3.5
ISP	Isparta	1.94	61	P	Pn	23 02 49.0	+2.1
ISP	Isparta	1.94	61	*i* P	Pn	23 02 48.8	+2.0
ISP				*i* S	Sn	23 03 19.8	+9.2
ISP	Isparta	1.94	61	*e*Pn	Pn	23 02 48.8	+1.9
AKS	Akhisar	1.99	348	*i* PN	Pn	23 02 46.8	-0.9
APE	Apeiranthos	2.27	274	PN	Pn	23 02 50.6	-1.0
APE	Apeiranthos	2.27	274	⇓*i*PN	Pn	23 02 51.5	-0.2
SANT	Santorini	2.40	257	*e*Pn	Pn	23 02 53.0	-0.5
SANT	Santorini	2.40	257	*i* P	Pn	23 02 56.4	+2.8
SANT				*i* S	Sn	23 03 32.5	+10
SANT	Santorini	2.40	257	*e*Pn	Pn	23 02 53.0	-0.6
ALT	Altintas	2.53	33	*i* PN	Pn	23 02 55.2	-0.1
ALT	Altintas	2.53	33	Pn	Pn	23 02 56.0	+0.7
DST	Dursunbey	2.67	4	*i* PN	Pn	23 02 56.8	-0.6
AYVA	Ayvalik	2.71	331	*i* P	Pn	23 02 58.7	+0.8
AYVA				*i* S	Sn	23 03 42.4	+12
BALB	Balikesir	2.73	352	*e*PN	Pn	23 02 57.5	-0.7
NPS	Neapolis	2.78	234	*e*PN	Pn	23 02 59.1	+0.1
BTOK	Tokmak	2.83	355	*i* P	Pn	23 02 58.6	-1.1
BTOK				*i* S	Sn	23 03 40.1	+6.7
PRK	Paraskevi	2.83	325	⇑*i*PN	Pn	23 02 59.0	-0.7
LAST	Lasithi	2.93	234	Pn	Pn	23 03 02.7	+1.6
XRY	Khrisi	2.99	227	*e*PN	Pn	23 03 03.3	+1.4
ORLT	Orhaneli	3.13	8	PN	Pn	23 03 03.6	-0.4
ORLT	Orhaneli	3.13	8	Pn	Pn	23 03 04.0	0.0
ESKT	Eskisehir	3.24	36	Pn	Pn	23 03 05.8	+0.3
ESKT	Eskisehir	3.24	36	*i* P	Pn	23 03 05.0	-0.4
ESKT				*i* S	Sn	23 03 59.2	+16
ESKT	Eskisehir	3.24	36	*i* Pn	Pn	23 03 05.7	+0.2
IDI	Anoyia	3.26	241	Pn	Pn	23 03 05.8	+0.1
	145nm,0.3s,baz=59,slow=13,SNR=453						
IDI				Sn	Sn	23 03 44.6	+0.5
	74nm,0.3s,baz=296,slow=19,SNR=4.8						
ULDT	Uludag	3.26	10	*i* P	Pn	23 03 05.3	-0.4
ULDT				*i* S	Sn	23 03 35.2	-8.9
EZN	Ezine	3.30	332	PN	Pn	23 03 05.2	-1.1
EZN	Ezine	3.30	332	P	Pn	23 03 05.1	-1.2
HDMB	Hadim	3.30	88	PN	Pn	23 03 09.0	+2.6
HDMB	Hadim	3.30	88	Pn	Pn	23 03 11.5	+5.2
KCT	Karacabey	3.32	360	PN	Pn	23 03 05.7	-1.0
KCT	Karacabey	3.32	360	Pn	Pn	23 03 05.6	-1.1
KONT	Konya--Tatoy	3.34	71	PN	Pn	23 03 09.1	+2.2
KONT	Konya--Tatoy	3.34	71	Pn	Pn	23 03 10.2	+3.3
KIZT	Kizilcal	3.39	54	*i* PN	Pn	23 03 09.4	+1.8
BOZC	Bozcaada	3.42	329	*i* P	Pn	23 03 07.3	-0.7
BOZC				*i* S	Sn	23 03 41.5	-6.8
EDC	Edincik	3.43	354	*i* PN	Pn	23 03 06.8	-1.3
EDC	Edincik	3.43	354	Pn	Pn	23 03 07.2	-0.9
BNT	Bandirma	3.43	354	*i* PN	Pn	23 03 06.9	-1.3
BNT	Bandirma	3.43	354	Pn	Pn	23 03 07.0	-1.2
GPA	Golpazari	3.68	24	PN	Pn	23 03 12.2	+0.5
VAM	Vamos	3.70	247	*e*PN	Pn	23 03 11.6	-0.4
AKMC	Akamas	3.74	119	⇓*i*P	Pn	23 03 14.1	+1.5
PTL	Penteli	3.75	289	*e*PN	Pn	23 03 12.2	-0.5
PPCY	Paphos	3.83	121	⇓*i*P	Pn	23 03 15.4	+1.6
ATH	Athens Observa	3.84	287	*e*PN	Pn	23 03 13.6	-0.4
ALFC	Alevga	3.87	116	⇓P	Pn	23 03 15.0	+0.7
	44nm,0.6s						
ALFC				S	Sn	23 04 03.2	+3.7
ALFC	Alevga	3.87	116	⇓*i*P	Pn	23 03 15.0	+0.7
ALFC				S	Sn	23 04 03.2	+3.7
ALFC	Alevga	3.87	116	⇓*i*P	Pn	23 03 15.0	+0.7
	44nm,0.6s						
ALFC	Alevga	3.87	116	S	Sn	23 04 03.2	+3.7
LIA	Limnos Island	3.87	321	Pn	Pn	23 03 13.9	-0.5
MPAR	Parnis Oros	3.87	290	⇑*i*PN	Pn	23 03 14.5	+0.1
LOS	Limnos	3.95	320	*e*P	Pn	23 03 15.1	-0.4
BADT	Buyukada	3.95	8	PN	Pn	23 03 14.4	-1.2
BADT	Buyukada	3.95	8	Pn	Pn	23 03 15.1	-0.5
BADT	Buyukada	3.95	8	Pn	Pn	23 03 15.1	-0.5
NAIG	Nisos Aigina	3.97	283	*e*PN	Pn	23 03 15.5	-0.3
HRT	Hereke	4.01	14	PN	Pn	23 03 15.3	-1.1
HRT	Hereke	4.01	14	Pn	Pn	23 03 15.9	-0.5
NSAL	Nisos Salamina	4.02	285	*e*PN	Pn	23 03 16.5	0.0
GVD	Gavdhos	4.05	240	*e*PN	Pn	23 03 19.0	+2.0
GVD	Gavdhos	4.05	240	*e*Pb	Pb	23 03 19.5	-6.0
LEF	Lefka	4.09	115	*e*PN	Pn	23 03 18.6	+1.0
LEF	Lefka	4.09	115	Pn	Pn	23 03 18.6	+1.0
ISK	Istanbul-Kandi	4.16	7	PN	Pn	23 03 17.4	-1.2
ISK	Istanbul-Kandi	4.16	7	P	Pn	23 03 17.1	-1.4
MDU	Mudurnu	4.17	31	PN	Pn	23 03 19.5	+0.8
MDU	Mudurnu	4.17	31	Pn	Pn	23 03 19.7	+1.0
AOS	Alonnisos	4.18	304	*e*P	Pn	23 03 18.5	-0.3
MGER	Gerania Oros	4.19	286	*e*PN	Pn	23 03 19.0	0.0
MAMC	Mammari	4.31	113	P	Pn	23 03 21.4	+0.7
KYTH	Kithira	4.33	263	*e*PN	Pn	23 03 21.0	0.0
IKL	Isikli	4.34	98	PN	Pn	23 03 23.5	+2.4
IKL	Isikli	4.34	98	Pn	Pn	23 03 22.5	+1.4
IKL	Isikli	4.34	98	Pn	Pn	23 03 22.5	+1.4
ALN	Alexandroupoli	4.35	336	*e*P	Pn	23 03 19.6	-1.6
ALN	Alexandroupoli	4.35	336	P	Pn	23 03 19.6	-1.6
ALN				S	Sn	23 04 13.2	+1.5
HENT	Hendek	4.36	26	*i* P	Pn	23 03 20.7	-0.6
HENT				*i* S	Sn	23 04 28.8	+17
VLI	Veliai	4.36	269	*e*PN	Pn	23 03 21.4	0.0
CSS	Prodhromos	4.49	115	P	Pn	23 03 24.4	+1.2
	34nm,0.8s						
CSS				S	Sn	23 04 19.3	+4.1
LOD	Lodumlu	4.54	48	PN	Pn	23 03 25.4	+1.4
LOD	Lodumlu	4.54	48	Pn	Pn	23 03 25.8	+1.8
ANTO	Ankara	4.55	49	PN	Pn	23 03 24.4	+0.4
ANTO	Ankara	4.55	49	Pn	Pn	23 03 24.1	0.0
LKR	Lokris	4.58	294	Pn	Pn	23 03 24.6	+0.1
SGKT	Sivrigoynuk	4.64	37	*i* P	Pn	23 03 25.6	+0.3
MEST	Erdemli	4.66	93	*i* P	Pn	23 03 28.8	+3.2
MEST				*i* S	Sn	23 04 25.8	+6.3
NEO	Neokhori	4.69	302	*e*PN	Pn	23 03 25.5	-0.6
PAIG	Paliouri	4.74	311	*e*P	Pn	23 03 26.0	-0.7
XOR	Xorichti	4.74	302	*e*P	Pn	23 03 26.1	-0.7
XOR	Xorichti	4.74	302	P	Pn	23 03 26.1	-0.7
XOR				S	Sn	23 04 25.2	+3.6
XOR	Xorichti	4.74	302	S	Sn	23 04 25.2	+3.5
RDO	Rodhopi	4.74	333	*e*PN	Pn	23 03 25.4	-1.4
OUR	Ouranopolis	4.82	316	*e*P	Pn	23 03 27.1	-0.9
KAMT	Kaman	4.87	58	PN	Pn	23 03 29.8	+1.2
KAMT	Kaman	4.87	58	Pn	Pn	23 03 30.0	+1.4
PHNC	Paralimni	4.99	111	P	Pn	23 03 32.7	+2.4
PHNC				S	Sn	23 04 31.0	+3.2
BRTR	Keskin Array B	5.00	55	Pn	Pn	23 03 31.2	+0.8
	63nm,0.3s,baz=237,slow=16,SNR=657						
BRTR				Sn	Sn	23 04 29.1	+1.1
	19nm,0.3s,baz=212,slow=23,SNR=7.2						
EDRB	Edirne	5.06	346	*e*PN	Pn	23 03 29.8	-1.6
EDRB	Edirne	5.06	346	Pn	Pn	23 03 29.2	-2.1
NIG	Nigde	5.10	75	PN	Pn	23 03 34.4	+2.5
NIG	Nigde	5.10	75	Pn	Pn	23 03 34.6	+2.7
ITM	Ithomi	5.15	275	*e*PN	Pn	23 03 33.5	+0.9
PLG	Polygyros	5.16	313	*e*PN	Pn	23 03 31.6	-1.0
AGG	Agios Georgios	5.20	295	*e*P	Pn	23 03 33.4	+0.2
ELDT	Eldivan	5.32	47	*i* P	Pn	23 03 35.6	+0.7
ELDT				*i* S	rx	23 05 13.2	
AVNT	Avonos	5.46	68	*i* P	Pn	23 03 38.6	+1.7
SAFT	Safranbolu	5.46	37	PN	Pn	23 03 36.9	0.0
SAFT	Safranbolu	5.46	37	Pn	Pn	23 03 36.7	-0.2
SAFT	Safranbolu	5.46	37	Pn	Pn	23 03 36.7	-0.2
CANT	Cankiri	5.50	47	PN	Pn	23 03 38.7	+1.2
CANT	Cankiri	5.50	47	Pn	Pn	23 03 39.0	+1.4
SOH	Sokhos	5.51	316	*e*P	Pn	23 03 36.9	-0.6
EVR	Evrytania	5.54	293	⇓*i*PN	Pn	23 03 38.5	+0.4
LIT	Litokhoron	5.58	306	*e*P	Pn	23 03 38.3	-0.4
SRS	Serrai	5.59	320	*e*P	Pn	23 03 37.4	-1.3
THE	Thessaloniki	5.60	313	*e*P	Pn	23 03 38.6	-0.4
NVR	Nevrokopi	5.63	323	Pn	Pn	23 03 38.3	-1.0
CORM	Corum	5.88	55	PN	Pn	23 03 44.2	+1.3
CEYT	Ceyhan	5.91	87	*e*PN	Pn	23 03 45.7	+2.4
CEYT	Ceyhan	5.91	87	Pn	Pn	23 03 46.5	+3.2
KNT	Kendrikon	5.99	316	*e*P	Pn	23 03 43.9	-0.5
KNT	Kendrikon	5.99	316	P	Pn	23 03 43.9	-0.5
KNT				S	Sn	23 04 55.9	+2.9
TOS	Tosya	6.02	45	PN	Pn	23 03 45.4	+0.6
TOS	Tosya	6.02	45	Pn	Pn	23 03 45.6	+0.8
BALT	Daday	6.02	39	*i* P	Pn	23 03 44.2	-0.7
BALT				*i* S	rx	23 05 35.8	
YOZ	Yozgat	6.10	62	PN	Pn	23 03 47.9	+1.9
YOZ	Yozgat	6.10	62	Pn	Pn	23 03 47.4	+1.5
YOZ	Yozgat	6.10	62	Pn	Pn	23 03 47.4	+1.4
GRG	Griva	6.14	313	*e*P	Pn	23 03 46.4	-0.1
GRG	Griva	6.14	313	P	Pn	23 03 46.4	-0.1
GRG				S	Sn	23 04 59.6	+2.9
KZN	Kozani	6.16	305	*e*PN	Pn	23 03 47.1	+0.3
BNN	Bunyan	6.22	70	PN	Pn	23 03 50.1	+2.5
BNN	Bunyan	6.22	70	Pn	Pn	23 03 50.4	+2.8
CTKT	Corum	6.22	52	*i* P	Pn	23 03 48.8	+1.0
CTKT				*i* S	rx	23 05 43.6	
ARNB	Al Arnab	6.23	98	⇑*i*P	Pn	23 03 48.3	+0.5
VAY	Valandovo	6.28	316	*i* Sn	Sb	23 05 20.5	+1.5
VLS	Valsamata	6.30	284	*e*PN	Pn	23 03 49.0	+0.2
VLS	Valsamata	6.30	284	*e*P	Pn	23 03 50.5	+1.7
HTY	Hatay	6.31	95	PN	Pn	23 03 50.5	+1.5
HTY	Hatay	6.31	95	Pn	Pn	23 03 49.6	+0.6
HTY	Hatay	6.31	95	Pn	Pn	23 03 49.6	+0.6
COBT	Iskenderun	6.35	91	*i* P	Pn	23 03 51.0	+1.5
COBT				*i* S	Sn	23 05 05.5	+3.5
SLNF	Slenfeh	6.49	100	⇑*i*P	Pn	23 03 52.3	+0.8
JAN	Janina	6.50	297	*e*PN	Pn	23 03 52.0	+0.4
JAN	Janina	6.50	297	*e*P	Pn	23 03 52.6	+1.0
BTCH	Batrach	6.58	95	⇑*i*P	Pn	23 03 53.0	+0.2
MATL	Matirih	6.66	119	*e*PN	Pn	23 03 52.3	-1.5
MATL				SN	Sn	23 05 06.1	-3.6
WRDH	Warideh	6.66	100	⇓*i*P	Pn	23 03 54.1	+0.2
FNA	Florina	6.67	307	*e*P	Pn	23 03 54.0	+0.1
DRWC	Darouich	6.67	90	⇓*i*P	Pn	23 03 55.3	+1.3
BHL	Bhannes	6.68	115	*e*PN	Pn	23 03 53.0	-1.0
BHL				SN	Sn	23 05 04.5	-5.6
BHL	Bhannes	6.68	115	*e*Pn	Pn	23 03 53.0	-1.1
BHL				Sn	Sn	23 05 04.5	-5.6
HWQ	Hawqa	6.72	111	*e*PN	Pn	23 03 54.3	-0.4
HWQ				SN	Sn	23 05 08.5	-2.8
BYBT	Boyabat	6.72	46	PN	Pn	23 03 54.9	+0.2
BYBT	Boyabat	6.72	46	Pn	Pn	23 03 55.2	+0.5
BOYT	Boyabat	6.77	47	*i* P	Pn	23 03 55.6	+0.2
BOYT				*i* S	Sn	23 05 02.0	-11
HNTI	Hanita	6.78	123	Pn	Pn	23 03 54.2	-1.4
HNTI				Sn	Sn	23 05 08.7	-4.1
HNTI	Hanita	6.78	123	P	Pn	23 03 54.1	-1.5
BIA	Bitola	6.83	309	⇑*i*Pn	Pn	23 03 59.1	+2.8
BIA				*e*Sn	Sn	23 05 21.1	+7.1
HAF	Haifa	6.87	125	Pn	Pn	23 03 54.8	-2.0
HAF	Haifa	6.87	125	P	Pn	23 03 55.2	-1.6
VTS	Vitosha	6.90	326	P	Pn	23 03 56.3	-1.0
OFRI	‘Ofer	6.94	126	Pn	Pn	23 03 56.7	-1.1
OFRI	‘Ofer	6.94	126	P	Pn	23 03 56.4	-1.4
HAWK	Haweek	6.97	108	⇑*i*P	Pn	23 03 57.7	-0.5
KFRA	Kufra	7.05	102	⇓*i*P	Pn	23 04 00.4	+1.1
KSDI	Kefar Szold	7.05	120	Pn	Pn	23 03 58.3	-1.1
KSDI	Kefar Szold	7.05	120	P	Pn	23 03 58.2	-1.2
GAZ	Gaziantep	7.08	85	*e*PN	Pn	23 04 00.6	+0.8
GAZ	Gaziantep	7.08	85	Pn	Pn	23 03 59.6	-0.1
FKH	Fakeheh	7.08	110	*e*PN	Pn	23 03 59.6	-0.2
FKH				SN	Sn	23 05 14.6	-5.7
BRBR	Barbar	7.14	117	⇑*i*P	Pn	23 03 59.9	-0.7
OHR	Ohrid	7.21	308	*i* Pn	Pn	23 04 02.5	+0.9
OHR				*i*		23 04 03.9	
OHR				*e*		23 06 21.2	
SLTI	Sal’it	7.23	128	Pn	Pn	23 03 59.8	-2.0
SLTI				Sn	Sn	23 05 19.2	-4.7
KVT	Kavak	7.27	53	*e*PN	Pn	23 04 03.2	+0.7
KVT	Kavak	7.27	53	Pn	Pn	23 04 04.4	+2.0
KSHT	Keshet	7.28	121	Pn	Pn	23 04 01.6	-0.9
KSHT	Keshet	7.28	121	P	Pn	23 04 01.8	-0.7
KEK	Kerkira	7.28	295	*e*Pn	Pn	23 04 04.1	+1.6
QASN	Qassioun	7.31	115	⇑*i*P	Pn	23 04 02.8	-0.2
SVST	Sivas	7.32	65	*i* P	Pn	23 04 05.2	+2.1
GLH	Golan-Tel Qazi	7.32	123	Pn	Pn	23 04 02.5	-0.7
MMLI	Mount Malkishu	7.34	126	Pn	Pn	23 04 02.4	-1.0
MMLI	Mount Malkishu	7.34	126	P	Pn	23 04 02.6	-0.8
SKO	Skopje	7.34	315	⇑*i*Pn	Pn	23 04 03.7	+0.2
SKO				*i*		23 04 04.7	
	comp=Z,0.2nm,0.6s						
SKO				*i*		23 04 09.2	
	comp=Z,0.3nm,0.6s						
SKO				*i* Sn	Sn	23 05 25.8	-1.0
SKO				*i* Sb	Sb	23 05 48.5	-1.3
SKO				*i* Sg	Sn	23 06 02.8	+36
GZT	Gaziantep	7.36	84	*i* P	Pn	23 04 03.9	+0.2
TOTH	TOTAH	7.51	116	⇓*i*P	Pn	23 04 05.3	-0.4
TIRR	Tirgusor	7.51	0	P	Pn	23 04 03.5	-2.3
HMDT	Nahal Hemdat	7.53	126	Pn	Pn	23 04 04.8	-1.2
HMDT	Nahal Hemdat	7.53	126	P	Pn	23 04 04.9	-1.1
TCHB	Talchebab	7.57	122	⇓*i*P	Pn	23 04 05.6	-0.9
KZIT	Kziot	7.83	138	Pn	Pn	23 04 08.7	-1.5
KZIT				Sn	Sn	23 05 33.3	-5.6
KZIT	Kziot	7.83	138	P	Pn	23 04 09.0	-1.2
RTMM	Retamin	7.87	136	Pn	Pn	23 04 09.4	-1.4
RTMM	Retamin	7.87	136	P	Pn	23 04 09.6	-1.2
DRGI	Dragot	7.89	130	Pn	Pn	23 04 10.0	-1.0
DRGI	Dragot	7.89	130	P	Pn	23 04 09.6	-1.4
TIR	Tirane	7.94	306	⇑*i*p	Pn	23 04 15.0	+3.3
MASH	Mash‘abbe Sade	7.97	136	Pn	Pn	23 04 10.3	-1.9
MASH	Mash‘abbe Sade	7.97	136	P	Pn	23 04 10.8	-1.4
QSH	Qafa e Shtames	8.00	307	*e*p	P	23 04 16.2	+3.6
MKRJ	Makawir	8.07	130	Pn	P	23 04 12.3	-1.3
MZDA	Masada	8.07	132	Pn	P	23 04 11.9	-1.7
MZDA				Sn	Sn	23 05 39.6	-5.4
MZDA	Masada	8.07	132	P	P	23 04 12.2	-1.4
MZDA				S	Sn	23 05 41.8	-3.2
MZDA	Masada	8.07	132	Sn	Sn	23 05 39.6	-5.4
MYA	Malataya	8.10	77	*e*PN	P	23 04 15.9	+1.8
MYA	Malataya	8.10	77	P	P	23 04 16.1	+2.1
MALT	Malatya	8.11	77	*e*PN	P	23 04 15.3	+1.2
MALT	Malatya	8.11	77	P	P	23 04 16.4	+2.4
MALT	Malatya	8.11	77	Pn	P	23 04 15.0	+0.9
MALT	Malatya	8.11	77	Pn	P	23 04 15.0	+0.9
CFR	Carcaliu	8.23	359	⇓*i*P	P	23 04 13.0	-2.9
CFR	Carcaliu	8.23	359	⇑*i*P	P	23 04 12.6	-3.3
ISR	Istrita	8.29	351	⇓*i*P	P	23 04 15.1	-1.5
ISR	Istrita	8.29	351	⇑*i*P	P	23 04 14.6	-2.0
PUK	Puka	8.30	311	*e*p	P	23 04 17.6	+0.9
URFA	Urfa	8.36	83	*e*PN	P	23 04 19.2	+1.6
BOLS	Boljevac	8.44	327	⇓*i*Pn	P	23 04 16.9	-1.8
BOLS				Sn	Sn	23 06 01.1	+6.9
ASF	Jabal al Asfar	8.49	122	Pn	P	23 04 18.8	-0.6
	comp=Z,12nm,0.3s,baz=167,slow=7.4,SNR=83						
ASF				Sn	Sn	23 05 55.1	-0.4
	comp=Z,6.7nm,0.3s,baz=8.7,slow=22,SNR=2.1						
ASF				LR	LR	23 08 13.6	
	comp=Z,3µm,20.4s,baz=172,slow=42						
ZFRI	Zfri	8.53	136	Pn	P	23 04 17.4	-2.5
ZFRI	Zfri	8.53	136	P	P	23 04 17.8	-2.1
ELZG	Elazig	8.56	76	*i* P	P	23 04 21.7	+1.3
PVY	Plav	8.58	314	⇓*i*Pn	P	23 04 21.9	+1.2
PVY				*e*Sn	Sn	23 05 55.2	-2.5
PRNI	Paran	8.59	138	Pn	P	23 04 18.5	-2.3
PRNI				Sn	Sn	23 05 52.1	-5.7
PRNI	Paran	8.59	138	P	P	23 04 18.8	-2.0
KMTI	Karmit	8.64	140	Pn	P	23 04 18.8	-2.6
KMTI				Sn	Sn	23 05 52.8	-6.3
ULC	Ulcinj	8.65	308	⇓*i*Pn	P	23 04 23.3	+1.6
ULC				*e*Sn	Sn	23 05 57.2	-2.2
BRD	Bordesti	8.67	354	⇓*i*P	P	23 04 21.2	-0.7
BRD	Bordesti	8.67	354	⇑*i*P	P	23 04 21.6	-0.3
BRD	Bordesti	8.67	354	⇓*i*P	P	23 04 21.1	-0.8
MLR	Muntele Rosu	8.74	349	Pn	P	23 04 21.5	-1.4
	baz=146,slow=3.6						
MLR				LR	LR	23 08 09.5	
	comp=Z,10µm,21.3s,baz=180,slow=41						
MLR	Muntele Rosu	8.74	349	⇓*i*P	P	23 04 21.6	-1.2
IVA	Berane	8.80	315	⇓*i*Pn	P	23 04 24.4	+0.7
IVA				*e*Sn	Sn	23 06 00.7	-2.4
TTG	Podgorica	8.90	311	⇓*i*Pn	P	23 04 26.0	+0.9
TTG				*e*Sn	Sn	23 06 03.3	-2.4
PTK	Pertek	8.93	74	*e*PN	P	23 04 26.8	+1.3
MBH	Mount Berech	8.98	141	Pn	P	23 04 24.7	-1.6
MBH	Mount Berech	8.98	141	P	P	23 04 24.9	-1.4
VRI	Vrincioaia	9.01	353	P	P	23 04 24.5	-2.1
VRI	Vrincioaia	9.01	353	⇓*i*P	P	23 04 24.4	-2.2
VRI	Vrincioaia	9.01	353	⇓*i*P	P	23 04 24.4	-2.2

BUM	Brajici-Budva	9.05	309	⇓*i*Pn	P	23 04 28.2	+1.0
BUM				*e*Sn	Sn	23 06 06.9	-2.5
GRUS	Gruza	9.06	322	⇑*i*Pn	P	23 04 25.8	-1.6
GRUS				Sn	Sn	23 06 02.6	-7.0
EIL	Elat	9.10	141	Pn	P	23 04 26.2	-1.6
	comp=Z,36nm,0.3s,baz=335,slow=18,SNR=232						
EIL				Sn	Sn	23 06 06.6	-4.0
	comp=Z,19nm,0.3s,baz=309,slow=28,SNR=3.4						
EIL				LR	LR	23 08 52.2	
	comp=Z,992nm,19.4s,baz=98,slow=43						
EIL	Elat	9.10	141	*e*Pn	P	23 04 25.4	-2.5
	comp=Z,449nm,0.9s						
EIL	Elat	9.10	141	Pn	P	23 04 25.8	-2.1
AQBJ	Aqaba	9.11	140	Pn	P	23 04 25.9	-2.0
SIM	Simferopol’	9.11	27	⇑*e*P	P	23 04 26.2	-1.8
SIM				*i* S	Sn	23 06 05.0	-5.7
SIM				pmax	pmax		
	comp=Z,490nm,0.7s						
SIM				MLR	MLR		
	comp=Z,7µm,18.2s						
SIM	Simferopol’	9.11	27	⇑*i*P	P	23 04 26.4	-1.6
SVIS	Svilajnac	9.13	326	*e*Pn	P	23 04 25.5	-2.8
SVIS				Sn	Sn	23 06 05.8	-5.6
NKY	Niksic	9.28	312	⇓*i*Pn	P	23 04 30.9	+0.5
NKY				*e*Sn	Sn	23 06 12.5	-2.6
NVSS	Nova Varos 2	9.32	317	⇑*i*Pn	P	23 04 29.2	-1.7
PLE	Pljevlja	9.37	316	⇓*i*Pn	P	23 04 32.5	+0.9
PLE				*e*Sn	Sn	23 06 15.0	-2.3
GUMT	Gumushane	9.38	65	*e*PN	P	23 04 32.0	+0.3
GUMT	Gumushane	9.38	65	Pn	P	23 04 35.2	+3.6
HCY	Herceg Novi	9.38	309	⇓*i*Pn	P	23 04 32.9	+1.1
HCY				*e*Sn	Sn	23 06 15.1	-2.4
TIP	Timpagrande	9.42	287	*e*Pn	P	23 04 29.7	-2.6
TIP	Timpagrande	9.42	287	*e*Pn	P	23 04 29.7	-2.6
EZC	Erzincan	9.43	69	*e*PN	P	23 04 28.8	-3.6
EZC	Erzincan	9.43	69	P	P	23 04 30.4	-1.9
ALWS	Ilw as Safayha	9.45	142	P	P	23 04 30.6	-2.1
UPM	Unac-Piva	9.57	314	⇓*i*Pn	P	23 04 35.4	+1.1
UPM				*e*Sn	Sn	23 06 19.3	-2.8
DIVS	Divcibare	9.58	321	⇑*i*Pn	P	23 04 32.5	-1.9
JMOS	Jabal al Moall	9.59	142	P	P	23 04 32.4	-2.2
HAQS	Haql	9.60	143	P	P	23 04 32.7	-2.0
BRY	Bratogost	9.61	311	⇓*i*Pn	P	23 04 35.7	+0.9
BRY				*e*Sn	Sn	23 06 20.1	-2.9
TREB	Trebinje	9.62	310	P	P	23 04 35.3	+0.3
GRI	Girifalco	9.63	285	P	P	23 04 35.5	+0.4
LTRZ	Laterza	9.73	296	P	P	23 04 37.4	+0.9
BINT	Bingol	9.78	75	*e*PN	P	23 04 38.0	+0.9
BINT	Bingol	9.78	75	Pn	P	23 04 38.3	+1.1
ORI	Oriolo Calabro	9.85	292	P	P	23 04 37.4	-0.7
CEL	Celeste	9.98	281	P	P	23 04 39.3	-0.7
TAYS	Tayyib Ism	9.99	145	P	P	23 04 37.8	-2.4
KIS	Kishinev	10.06	2	*e*P	P	23 04 37.0	-4.0
KIS				*e*S	S	23 06 34.0	-0.1
KIS				MLR	MLR		
	comp=Z,3µm,12.0s						
KIS				MLR	MLR		
	comp=N,4µm,11.0s						
KIS				MLR	MLR		
	comp=Z,3µm,12.0s						
KIS	Kishinev	10.06	2	*e*S	S	23 06 34.0	-0.1
SCLL	Scilla	10.12	281	P	P	23 04 41.9	0.0
BDAS	Al Bad‘	10.20	144	P	P	23 04 41.0	-2.0
JMQS	Jabal Moqyreh	10.21	140	P	P	23 04 41.2	-1.9
MSI	Messina ING	10.25	281	P	P	23 04 42.6	-1.0
IAS	Iasi	10.27	357	P	P	23 04 43.2	-0.6
CUC	Castrocucco	10.30	291	P	P	23 04 44.7	+0.4
ANN	Anapa	10.43	38	*c i*P	P	23 04 44.1	-2.0
ANN				*i* S	S	23 06 40.1	-3.0
ANN				pmax	pmax		
	comp=Z,73nm,1.1s						
AYUS	‘Aynunah	10.48	144	P	P	23 04 44.5	-2.4
BTMT	Batman	10.50	79	*e*PN	P	23 04 45.6	-1.4
MGR	Morigerati	10.53	292	P	P	23 04 46.7	-0.8
SLCN	Sala Consilina	10.53	293	P	P	23 04 47.3	-0.2
VRT	Varto	10.62	74	*e*PN	P	23 04 49.5	+0.9
VRT	Varto	10.62	74	Pn	P	23 04 53.4	+4.8
EZM	Erzurum	10.62	70	*e*PN	P	23 04 48.9	+0.1
ERZM	Erzurum	10.62	70	*i* P	P	23 04 51.1	+2.3
SSY	Sortino	10.63	275	P	P	23 04 48.1	-0.7
FGMS	Monte Sant’Ang	10.73	300	P	P	23 04 50.7	+0.5
PZI	Palazzolo	10.73	275	P	P	23 04 49.6	-0.6
SGO	Sicignano	10.82	294	P	P	23 04 50.4	-1.0
FG4	Candela	10.83	297	P	P	23 04 53.8	+2.2
SLNA	Salina	10.84	283	P	P	23 04 52.2	+0.5
SOC	Sochi	10.92	49	*i* P	P	23 04 52.8	0.0
SOC				*e*		23 06 55.9	
SOC				pmax	pmax		
	comp=Z,71nm,1.3s						
SOC				pmax	pmax		
	comp=N,69nm,1.2s						
SOC				pmax	pmax		
	comp=E,63nm,1.1s						
SOC				MLR	MLR		
	comp=Z,5µm,15.0s						
SOC				MLR	MLR		
	comp=N,3µm,12.0s						
SOC				MLR	MLR		
	comp=E,5µm,15.0s						
SOC	Sochi	10.92	49	*e*P	P	23 04 51.4	-1.4
RGNG	Rignano Grg	10.97	299	P	P	23 04 53.9	+0.4
FG5	Orsara di Pugl	11.06	297	P	P	23 04 57.0	+2.3
TBKS	Tabuk	11.09	139	P	P	23 04 53.2	-1.9
VAE	Valguarnera	11.14	277	Pn	P	23 04 53.9	-1.9
	comp=E,1.8nm,0.3s,baz=258,slow=0.8,SNR=7.0						
VAE				Sn	S	23 06 58.7	-1.9
	comp=E,1.1nm,0.3s,baz=128,slow=17,SNR=2.4						
VAE	Valguarnera	11.14	277	Pn	P	23 04 54.0	-1.8
GIB	Gibilmanna	11.44	280	P	P	23 05 01.2	+1.2
BLY	Banja Luka	11.51	316	P	P	23 05 01.7	+0.9
DBAS	Duba	11.64	144	P	P	23 05 00.9	-1.8
PKSM	Moragy	11.78	325	⇑*e*P	P	23 05 02.5	-1.9
PKSM				*e*S	rx	23 08 33.8	
PKSN	Nyarlorinc	11.79	330	⇑*e*P	P	23 05 03.8	-0.7
CII	Carovilli	11.89	298	*e*Pn	P	23 05 03.8	-2.1
CII	Carovilli	11.89	298	*e*Pn	P	23 05 03.8	-2.1
RHK1	Bakonya	11.96	323	*e*P	P	23 05 05.0	-1.8
RFI	Roccamonfina	11.98	296	P	P	23 05 08.8	+1.5
VANB	Van	12.01	78	*e*PN	P	23 05 08.2	+0.6
VANB	Van	12.01	78	Pn	P	23 05 12.6	+5.0
VANB	Van	12.01	78	Pn	P	23 05 12.6	+5.0
PKS8	Sarbogard	12.27	327	*e*P	P	23 05 09.1	-1.9
SISC	Sisak	12.41	317	*i* Pn	P	23 05 14.1	+1.2
SISC	Sisak	12.41	317	*i* Pn	P	23 05 14.0	+1.1
CLDR	Caldiran	12.46	75	*e*PN	P	23 05 14.1	+0.5
UZH	Uzhgorod	12.50	341	*e*P	P	23 05 17.0	+2.8
UZH				MLR	MLR		
	comp=Z,2µm,10.0s						
PSZ	Piszkesteto	12.62	333	⇓*e*P	P	23 05 15.0	-0.7
PSZ				*i*		23 09 18.2	
PTQR	Pietraquaria	12.62	298	P	P	23 05 18.2	+2.4
AQU	L’Aquila	12.73	300	*e*Pn	P	23 05 14.8	-2.4
KOLS	Kolonicke sedl	12.79	342	*e*PN	P	23 05 18.2	+0.3
KOLS				*e*		23 05 30.6	
FIAM	Fiamignano	12.90	299	P	P	23 05 19.7	+0.2
KECS	Kecovo	12.90	336	*e*PN	P	23 05 19.1	-0.4
KIV	Kislovodsk	12.96	53	Pn	P	23 05 25.0	+4.8
	comp=Z,269nm,1.3s,SNR=9.9						
KIV	Kislovodsk	12.96	53	*e*P	P	23 05 17.6	-2.6
KIV				*e*S	S	23 07 43.5	-1.1
KIV				pmax	pmax		
	comp=N,15nm,1.5s						
KIV				pmax	pmax		
	comp=E,57nm,1.5s						
KIV				pmax	pmax		
	comp=Z,72nm,1.5s						
KIV				MLR	MLR		
	comp=E,2µm,16.0s						
KIV				MLR	MLR		
	comp=Z,2µm,16.0s						
KIV	Kislovodsk	12.96	53	⇑*i*P	P	23 05 17.7	-2.5
KIV				*e*Pn	P	23 05 21.6	+1.3
CRVS	Cervenica-Dubn	12.98	339	*e*PN	P	23 05 22.0	+1.5
CRVS				*e*		23 05 31.8	
CRVS				*e*		23 09 27.3	
BOJS	Bojanci	13.05	315	*e*Pn	P	23 05 21.0	-0.4
SRO2	Moca	13.08	329	*e*PN	P	23 05 24.0	+2.2
NRCA	Norcia	13.10	301	P	P	23 05 23.9	+1.8
CRES	Cresnjev	13.13	317	P	P	23 05 23.0	+0.5
SRO1	Iza	13.14	329	*e*PN	P	23 05 22.5	-0.2
SRO	Srobarova	13.15	329	*e*PN	P	23 05 23.5	+0.7
SRO				*e*		23 05 35.9	
GNI	Garni	13.22	71	*e*PN	P	23 05 24.0	+0.3
GNI	Garni	13.22	71	Pn	P	23 05 26.0	+2.3
	comp=Z,0.3nm,0.3s,baz=273,slow=4.5,SNR=13						
GNI				LR	LR	23 10 30.6	
	comp=Z,2µm,21.7s,baz=271,slow=37						
GNI	Garni	13.22	71	P	P	23 05 27.5	+3.8
ZEI	Tsey	13.28	59	*i* P	P	23 05 27.2	+2.8
ZEI				*i* S	S	23 07 55.1	+2.9
ZEI				pmax	pmax		
	comp=Z,49nm,1.2s						
KWP	Kalwaria	13.34	344	*e*P	P	23 05 25.2	0.0
KWP				*e*		23 05 33.2	
KWP				*e*		23 05 36.6	
KWP				*e*S	Sx	23 08 31.1	
KWP				MLR	MLR	23 11 32.6	
	comp=Z,7µm,18.8s						
SNTG	Esanatoglia	13.38	303	P	P	23 05 28.3	+2.5
VYHS	Vyhne	13.49	332	*e*PN	P	23 05 26.9	-0.4
VYHS				*e*		23 05 37.4	
VYHS				*e*		23 09 31.4	
GROS	Grobnik	13.51	319	P	P	23 05 29.3	+1.9
TI2	Plekhanov	13.55	64	*e*P	P	23 05 30.0	+1.9
TI2				pmax	pmax		
	comp=Z,30nm,0.8s						
TI2				MLR	MLR		
	comp=N,7µm,12.0s						
TI2				MLR	MLR		
	comp=E,7µm,12.0s						
TI2				MLR	MLR		
	comp=Z,8µm,12.0s						
CEY	Cerknica	13.66	314	*e*Pn	P	23 05 29.0	-0.4
FSSB	Fossombrone	13.66	304	P	P	23 05 28.9	-0.6
GOF	Gofitskoye	13.72	49	⇑*i*P	P	23 05 31.0	+0.8
GOF				*e*		23 08 12.0	
GOF				pmax	pmax		
	comp=Z,50nm,1.4s						
GOF				pmax	pmax		
	comp=Z,180nm,1.5s						
GOF				pmax	pmax		
	comp=Z,2µm,3.0s						
GOF				MLR	MLR		
	comp=Z,5µm,14.0s						
KOLL	Kolacno	13.73	331	*e*PN	P	23 05 30.2	-0.1
NIE	Niedzica	13.78	337	*e*P	P	23 05 30.9	0.0
LJU	Ljubljana	13.78	316	*e*Pn	P	23 05 31.4	+0.4
PERS	Pernice	13.82	319	*e*Pn	P	23 05 33.0	+1.5
SOP	Sopron	13.82	325	⇓*e*P	P	23 05 30.9	-0.7
UMJS	Umm Lajj	13.95	144	P	P	23 05 33.5	+0.1
ZST	Bratislava	13.96	327	*e*PN	P	23 05 32.8	-0.6
ARSA	Arzberg	14.02	321	⇑*i*P	P	23 05 33.8	-0.3
	comp=Z,25nm,1.0s						
OBKA	Obir	14.05	317	⇑*i*P	P	23 05 34.9	+0.4
	comp=Z,42nm,0.9s						
SMOL	Smolenice	14.07	329	*e*PN	P	23 05 37.2	+2.4
SMOL				*e*		23 05 44.5	
JAVC	Velka Javorina	14.24	330	P	P	23 05 37.5	+0.4
DRE	Drenchia	14.35	315	⇓*e*P	P	23 05 38.0	-0.5
VKA	Vienna	14.36	326	⇓*i*P	P	23 05 38.1	-0.5
	comp=Z,97nm,1.0s						
VKA				MLRZ		23 12 10.0	
	comp=Z,7.1nm,9.5s						
ROBS	Robic	14.47	315	P	P	23 05 40.3	+0.2
KBRS	Khaybar	14.48	137	P	P	23 05 41.5	+1.1
OJC	Ojcow	14.64	338	*e*P	P	23 05 42.3	0.0
OJC				*e*S	S	23 08 34.0	+9.5
OJC	Ojcow	14.64	338	*e*P	P	23 05 42.3	0.0
OJC				*e*		23 05 49.8	
OJC				*e*S	S	23 08 34.0	+9.5
OJC				MLR	MLR	23 12 24.1	
	comp=Z,3µm,20.6s						
PTCC	Patocco-Chiusa	14.65	315	P	P	23 05 42.7	+0.3
BUA	Buia	14.68	314	⇑*e*P	P	23 05 44.0	+1.2
GRFL	Gerfalco	14.68	300	P	P	23 05 45.2	+2.4
BOO	Bordano	14.75	314	⇑*e*P	P	23 05 43.0	-0.7
HILS	Ha’il	14.82	126	P	P	23 05 45.6	+0.8
PLRO	Paularo	14.85	315	⇑*e*P	P	23 05 47.0	+2.0
OKC	Ostrava-Krasne	14.86	333	*e*P	P	23 05 46.4	+1.3
OKC				*e*pP		23 05 51.9	
OKC				AMS	AMS	23 11 50.0	
	comp=Z,4µm,14.0s						
FNVD	Fontana Vidola	14.95	304	P	P	23 05 47.7	+1.4
ZOU	Zoufplan	14.95	315	⇓*e*P	P	23 05 47.0	+0.6
YNBS	Yanbu‘ al Bahr	15.03	144	P	P	23 05 48.6	+1.1
MORC	Moravsky Berou	15.03	332	P	P	23 05 48.1	+0.7
MORC	Moravsky Berou	15.03	332	*e*Pn	P	23 05 46.0	-1.4
	comp=Z,176nm,1.5s						
MORC	Moravsky Berou	15.03	332	*e*P	P	23 05 46.8	-0.6
VRAC	Vranov	15.03	329	Pn	P	23 05 46.4	-1.0
	comp=Z,0.3nm,0.3s,baz=138,slow=12,SNR=19						
VRAC				LR	LR	23 11 55.7	
	comp=Z,4µm,18.5s,baz=122,slow=39						
VRAC	Vranov	15.03	329	P	P	23 05 47.0	-0.4
RAC	Raciborz	15.05	334	*e*P	P	23 05 54.4	+6.8
RAC				*e*S	S	23 08 50.1	+16
RAC				LME		23 10 43.1	
	comp=Z,10µm,22.0s						
RAC				LMN		23 10 54.5	
	comp=Z,7µm,19.6s						
RAC				MLR	MLR	23 11 18.8	
	comp=Z,4µm,21.8s						
KBA	Koelnbreinsper	15.05	317	⇑*i*P	P	23 05 48.3	+0.6
	comp=Z,128nm,1.1s						
KBA	Koelnbreinsper	15.05	317	⇑*i*P	P	23 05 48.3	+0.6
KBA				pmax	pmax		
	comp=Z,128nm,1.1s						
MOA	Molln	15.05	321	⇑*i*P	P	23 05 48.6	+0.9
	comp=Z,41nm,1.0s						
FVI	Forni Avoltri	15.09	315	P	P	23 05 48.3	+0.2
VSL	Villasalto	15.14	285	*e*P	P	23 05 48.4	-0.5
	comp=Z,140nm,0.9s						
VSL	Villasalto	15.14	285	*e*P	P	23 05 48.4	-0.5
	comp=Z,140nm,0.9s						
GSCL	Gusciola	15.37	304	P	P	23 05 54.0	+2.1
SEST	Monte Rota	15.49	314	P	P	23 05 54.2	+0.8
ERBM	Eremo	15.52	304	P	P	23 05 55.5	+1.8
VINC	Vinca	15.59	303	P	P	23 05 55.8	+1.1
VINC	Vinca	15.59	303	P	P	23 05 55.8	+1.2
VALM		15.60	304	P	P	23 05 55.9	+1.1
VALM		15.60	304	P	P	23 05 55.9	+1.1
BACM		15.69	304	P	P	23 05 57.7	+1.8
BACM		15.69	304	P	P	23 05 57.7	+1.7
BRES	Bressanone	15.74	313	P	P	23 05 58.2	+1.6
GRAM		15.77	304	P	P	23 05 58.8	+1.7
GRAM		15.77	304	P	P	23 05 58.8	+1.8
CODM		15.88	304	P	P	23 05 59.5	+1.1
CODM		15.88	304	P	P	23 05 59.5	+1.1
PGF	Pioggiola	15.90	297	⇓*i*P	P	23 05 58.4	-0.3
	comp=Z,606nm,1.3s						
PGF	Pioggiola	15.90	297	⇓*i*P	P	23 05 58.4	-0.3
PGF				pmax	pmax		
	comp=Z,303nm,1.3s						
APPI	Appiano	15.93	312	P	P	23 05 58.8	-0.2
SAL	Salo	15.94	308	P	P	23 06 00.1	+1.0
DPC	Dobruska-Polom	15.96	331	*e*P	P	23 05 58.5	-0.9
DPC				*e*x	x	23 06 12.2	
DPC				*e*S	S	23 09 13.7	+18
DPC				AMS	AMS	23 13 00.0	
	comp=Z,6µm,11.3s						
GERES	GERESS Array B	16.00	323	Pn	P	23 05 59.4	-0.5
	comp=Z,2.4nm,0.3s,baz=128,slow=12,SNR=43						
GERES				ScP		23 14 29.9	
	comp=Z,0.1nm,0.3s,baz=180,slow=2.7,SNR=4.2						
WTTA	Wattenberg	16.11	315	⇑*i*P	P	23 06 03.1	+1.8
	comp=Z,57nm,0.9s						
WTTA	Wattenberg	16.11	315	⇑*i*P	P	23 06 03.1	+1.8
WTTA				pmax	pmax		
	comp=Z,57nm,0.9s						
WAR	Warsaw	16.16	344	*e*P	P	23 06 03.4	+1.5
WAR				*e*		23 06 05.8	
WAR				MLR	MLR	23 11 38.5	
	comp=Z,4µm,31.0s						
WATA	Walderalm	16.18	315	⇓*i*P	P	23 06 04.0	+1.8
	comp=Z,56nm,0.8s						
WATA	Walderalm	16.18	315	⇓*i*P	P	23 06 04.0	+1.8
WATA				pmax	pmax		
	comp=Z,56nm,0.8s						
UPC	Upice	16.21	331	*e*P	P	23 06 02.1	-0.4
VRSR	Storozhevoye	16.23	25	*e*P	P	23 06 01.2	-1.6
VRSR				*e*S	S	23 08 58.4	-3.3
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=N,20nm,0.6s						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.5s						
VRSR				smax			
	comp=N,70nm,1.1s						
VRSR				smax			
	comp=Z,6.0nm,0.6s						
VRSR				smax			
	comp=E,60nm,1.0s						
VRSR				MLR	MLR		
	comp=N,450nm,16.0s						
VRSR				MLR	MLR		
	comp=Z,1µm,16.0s						
VRSR				MLR	MLR		
	comp=E,990nm,17.0s						
KHC	Kasperske Hory	16.25	323	*e*P	P	23 06 02.4	-0.7
KHC				*e*		23 06 07.3	
KHC				*e*		23 06 19.0	
KHC				*e*S	S	23 09 17.3	+15
KHC	Kasperske Hory	16.25	323	*e*P	P	23 06 02.4	-0.7
KHC				*e*pP		23 06 07.3	
KHC				x	x	23 06 19.0	
KHC				*e*S	S	23 09 17.3	+15
KHC				AMS	AMS	23 13 00.0	
	comp=E,10µm,12.1s						
SQTA	Sankt Quirin	16.33	314	⇑*i*P	P	23 06 05.7	+1.6
	comp=E,47nm,0.7s						
SQTA	Sankt Quirin	16.33	314	⇑*i*P	P	23 06 05.7	+1.6
SQTA				pmax	pmax		
	comp=Z,47nm,0.7s						
KSP	Ksiaz	16.37	332	*e*P	P	23 06 05.1	+0.6
KSP				*e*pP		23 06 08.7	
KSP				*e*S	S	23 09 16.0	+11
KSP	Ksiaz	16.37	332	*e*P	P	23 06 06.0	+1.5
KSP				*e*		23 06 08.7	
KSP				*e*S	S	23 09 20.6	+16
KSP				MLR	MLR	23 11 26.4	
	comp=Z,7µm,26.5s						
OAR	Oum El Arais	16.39	268	*i* P	P	23 06 07.5	+2.5
PRU	Pruhonice	16.42	327	*e*P	P	23 06 03.8	-1.4
	comp=Z,132nm,1.0s						
PRU				AMS	AMS	23 13 20.0	
	comp=Z,6µm,10.0s						
MOTA	Moosalm	16.46	315	⇑*i*P	P	23 06 07.9	+2.2
	comp=Z,52nm,0.9s						
MOTA	Moosalm	16.46	315	⇑*i*P	P	23 06 07.9	+2.2
MOTA				pmax	pmax		
	comp=Z,52nm,0.9s						
GENL	Genova Univers	16.47	303	P	P	23 06 06.0	+0.1
GENL	Genova Univers	16.47	303	P	P	23 06 06.0	+0.1
PRA	Prague	16.53	327	P	P	23 06 07.0	+0.4
PRA				*e*x	x	23 09 24.0	
PRA				AMS	AMS	23 13 20.0	
WET	Wettzell	16.60	322	*e*P	P	23 06 09.1	+1.6
WET				pmax	pmax		
	comp=Z,327nm,1.0s						
WET	Wettzell	16.60	322	P	P	23 06 09.4	+1.9
WET	Wettzell	16.60	322	*e*P	P	23 06 09.1	+1.6
	comp=Z,327nm,1.0s						
VOR	Voronezh	16.67	24	P	P	23 06 07.0	-1.4
VOR				pmax	pmax		
	comp=N,280nm,1.4s						
VOR				pmax	pmax		
	comp=E,150nm,1.4s						
VOR				pmax	pmax		
	comp=Z,150nm,1.4s						
PCP	Pian Castagno	16.81	303	P	P	23 06 10.1	0.0
PVCC	Panska Ves	16.81	328	*e*P	P	23 06 11.7	+1.5
PVCC				AMS	AMS	23 13 40.0	
	comp=Z,6µm,18.2s						
FUR	Furstenfeldbru	16.82	317	P	P	23 06 11.0	+0.7
FUR	Furstenfeldbru	16.82	317	*e*P	P	23 06 10.0	-0.3
DAVOX	Davos	16.88	311	Pn	P	23 06 11.8	+0.7
	comp=Z,0.7nm,0.3s,baz=121,slow=9.9,SNR=33						
FIN	Finale Ligure	16.92	302	P	P	23 06 11.7	+0.1
VDL	Val di Lei	16.99	310	⇑P	P	23 06 15.1	+2.6
IMI	Imperia	17.05	300	P	P	23 06 13.5	+0.2
IMI	Imperia	17.05	300	P	P	23 06 13.5	+0.3
DAVA	Damuels	17.14	313	⇑*i*P	P	23 06 15.6	+1.4
	comp=Z,51nm,0.7s						
NEGI	Negi	17.16	300	P	P	23 06 15.2	+0.6
NEGI	Negi	17.16	300	P	P	23 06 15.2	+0.6
VAI	Varese	17.16	307	P	P	23 06 15.8	+1.2
ROB	Roburent	17.18	302	P	P	23 06 15.0	+0.1
MONE	Monesi	17.20	301	P	P	23 06 15.2	+0.2
MONE	Monesi	17.20	301	P	P	23 06 15.2	+0.2
UBR	Uberruh	17.21	314	⇑*e*P	P	23 06 17.1	+2.0
UBR	Uberruh	17.21	314	P	P	23 06 16.9	+1.8
CAEH	’Ain El Ouahch	17.22	276	P	P	23 06 16.0	+0.6
SAOF	Saorge	17.30	300	*e*P	P	23 06 17.1	+0.7
BRG	Berggiesshubel	17.33	328	*i* P	P	23 06 18.9	+2.2
BRG				*e*S	S	23 09 34.0	+7.0
BRG				pmax	pmax		
	comp=Z,121nm,1.2s						
BRG	Berggiesshubel	17.33	328	*i* P	P	23 06 18.9	+2.2
	comp=Z,121nm,1.2s						
BRG				*i*		23 06 21.7	
BRG				*e*S	S	23 09 34.0	+7.0
BRG	Berggiesshubel	17.33	328	*e*P	P	23 06 17.5	+0.8
SBF	Sospel	17.35	300	⇓*i*P	P	23 06 17.2	+0.2
	comp=Z,328nm,1.0s						
SBF	Sospel	17.35	300	⇓*i*P	P	23 06 17.2	+0.2
SBF				pmax	pmax		
	comp=Z,164nm,1.0s						
REVF	Revere	17.37	300	*e*P	P	23 06 17.9	+0.7
CKFL	Kef-Lekhel	17.37	275	P	P	23 06 19.0	+1.7
AUTN	L’Aution	17.40	300	*e*P	P	23 06 19.2	+1.7
LLS	Linth-Limmern	17.44	311	⇑P	P	23 06 20.5	+2.4
SUW	Suwalki	17.45	350	*e*P	P	23 06 14.9	-3.2
SUW				*e*S	S	23 09 39.4	+10
SUW				MLR	MLR	23 13 21.1	
	comp=Z,3µm,19.1s						
ENR	Entracque	17.47	301	P	P	23 06 19.6	+1.2
BERN	Bernov	17.51	324	⇑P	P	23 06 09.8	-9.2
TOUF	Mont Tournerai	17.52	300	*e*P	P	23 06 20.1	+1.0
STV2	Anna di Valdie	17.54	301	P	P	23 06 19.6	+0.3
STV2	Anna di Valdie	17.54	301	P	P	23 06 19.6	+0.3
STV	Sta Anna Valdi	17.54	301	P	P	23 06 19.3	0.0
NKC	Novy Kostel	17.54	324	*e*P	P	23 06 19.1	-0.2
NKC				AMS	AMS	23 14 00.0	
	comp=Z,7µm,12.1s						
MVIF	Mont Vial	17.56	300	*e*P	P	23 06 20.6	+1.0
MNK	Minsk	17.57	359	⇑*e*P	P	23 06 12.0	-7.6
MNK				pmax	pmax		
	comp=Z,630nm,1.5s						
MNK				pmax	pmax		
	comp=N,970nm,1.8s						
MNK				MLR	MLR		
	comp=Z,4µm,14.0s						
ORO	Oropa	17.57	306	P	P	23 06 19.5	-0.2
ORX	Oropa	17.57	306	P	P	23 06 19.5	-0.2
HDH	Heidenheim	17.65	317	⇑*e*P	P	23 06 20.4	-0.2
HDH	Heidenheim	17.65	317	P	P	23 06 20.9	+0.3
CTEI	Djebel Teioual	17.67	274	P	P	23 06 24.0	+2.9
TRAV		17.68	305	P	P	23 06 20.3	-0.8
TRAV		17.68	305	P	P	23 06 20.3	-0.8
GUNZ	Gunzen	17.69	324	*e*P	P	23 06 21.4	+0.3
MCGN	Macugnaga	17.70	307	P	P	23 06 21.3	0.0
MUO	Muotathal	17.72	311	⇑P	P	23 06 23.3	+1.7
WERD	Werda	17.76	325	*e*P	P	23 06 22.8	+0.8
BHB	Bricherasio	17.77	303	P	P	23 06 21.7	-0.5
BHB	Bricherasio	17.77	303	P	P	23 06 21.7	-0.5
PZZ	Prazzo	17.77	302	P	P	23 06 22.0	-0.2
WILA	Wila	17.77	312	⇓P	P	23 06 23.1	+0.9
GRA1	Grafenberg Arr	17.78	321	*e*P	P	23 06 22.3	0.0
GRF	Grafenberg Arr	17.78	321	*e*P	P	23 06 22.3	0.0
GRF				MLR	MLR		
	comp=Z,4µm,20.1s						
FRF	La Foret Royal	17.82	299	⇓*i*P	P	23 06 22.3	-0.6
	comp=Z,405nm,1.4s						
FRF	La Foret Royal	17.82	299	⇓*i*P	P	23 06 22.3	-0.6
FRF				pmax	pmax		
	comp=Z,202nm,1.4s						
LMR	La Mourre	17.87	298	*e*P	P	23 06 22.7	-0.7
	comp=Z,323nm,1.3s						
LMR	La Mourre	17.87	298	*e*P	P	23 06 22.7	-0.7
LMR				pmax	pmax		
	comp=Z,161nm,1.3s						
SISB	Singen-Sch Ber	17.87	313	P	P	23 06 24.5	+1.1
RSP	Reno Superiore	17.88	304	P	P	23 06 24.0	+0.5
ZUR	Zurich	17.95	312	⇑P	P	23 06 25.4	+1.1
FENE	Fenestrelle	17.96	303	P	P	23 06 24.5	-0.1
FENE	Fenestrelle	17.96	303	P	P	23 06 24.5	-0.1
OG22	Abries	17.98	303	*e*P	P	23 06 27.7	+3.0
GUT	Gutenstein	17.98	314	⇑*e*P	P	23 06 24.8	0.0

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BUCH  Bad Urach          18.05 316⇑eP    P      23 06 25.7 +0.1
BUCH  Bad Urach          18.05 316  P    P      23 06 26.4 +0.8
LSD   Ceresole Reale     18.05 305  P    P      23 06 25.1 -0.6
CLL   Collm              18.05 328⇓iP    P      23 06 25.6 -0.1
CLL                               eS     S      23 09 49.0 +5.6
CLL                                pmax  pmax
      comp=Z,113nm,1.5s
CLL   Collm              18.05 328⇓iP    P      23 06 25.6 -0.1
      comp=Z,113nm,1.5s
CLL                               e             23 06 34.0
CLL                               eS     S      23 09 49.0 +5.6
CLL   Collm              18.05 328 ⇓P    P      23 06 25.6 -0.1
      comp=Z,logA/T=1.9
CLL                               e             23 06 34.0
CLL                               ePP    PP     23 06 41.0 +0.5
CLL                               i             23 06 47.5
CLL                               eS     S      23 09 49.0 +5.6
CLL                               eL            23 11 39.0
MBDF  Montbardon         18.06 302⇓iP    P      23 06 26.4 +0.5
      comp=Z,225nm,0.7s
MBDF  Montbardon         18.06 302⇓iP    P      23 06 26.4 +0.5
MBDF                               pmax  pmax
      comp=Z,113nm,0.7s
GKP   Gorka Klasztor     18.09 338 eP    P      23 06 26.4 +0.3
GKP                               e             23 06 32.3
GKP                                MLR   MLR    23 13 37.4
      comp=Z,5µm,22.7s
LKBD  Leukerbad          18.10 308 ⇓P    P      23 06 27.3 +1.0
DIX   Grande Dixence     18.11 307 ⇓P    P      23 06 28.1 +1.6
RRL   Cesana Torines     18.12 303  P    P      23 06 26.6 +0.1
CMER  Merouana           18.16 273  P    P      23 06 30.0 +2.9
SPAK  Spaichingen        18.19 314⇑eP    P      23 06 27.5 +0.1
SPAK  Spaichingen        18.19 314  P    P      23 06 28.2 +0.8
SLE   Schleitheim        18.19 313 ⇑P    P      23 06 27.5 +0.1
MOX   Moxa               18.21 324 eP    P      23 06 30.3 +2.6
MOX                                pmax  pmax
      comp=Z,367nm,1.4s
MOX   Moxa               18.21 324⇓iP    P      23 06 30.3 +2.6
      comp=Z,logA/T=2.4
MOX                                S     S      23 09 54.0 +7.0
MOX                                L            23 13 58.0
MOX   Moxa               18.21 324 eP    P      23 06 30.3 +2.6
      comp=Z,367nm,1.4s
MOX   Moxa               18.21 324 eP    P      23 06 29.3 +1.6
BNI   Bardonecchia       18.23 303  P    P      23 06 28.0 +0.1
BNI                                pmax  pmax
      comp=Z,338nm,1.2s
BNI   Bardonecchia       18.23 303  P    P      23 06 27.9  0.0
      comp=Z,338nm,1.2s
BNI   Bardonecchia       18.23 303  P    P      23 06 28.0 +0.1
      comp=Z,338nm,1.2s
SULZ  Sulz-Cheisache     18.30 312 ⇑P    P      23 06 29.3 +0.5
STU   Stuttgart          18.31 316 eP    P      23 06 28.0 -0.9
STU                                pmax  pmax
      comp=Z,89nm,0.7s
STU   Stuttgart          18.31 316 eP    P      23 06 28.0 -0.9
      comp=Z,89nm,0.7s
STU   Stuttgart          18.31 316 eP    P      23 06 29.1 +0.2
LPG   La Plagne          18.33 305⇓iP    P      23 06 29.7 +0.5
      comp=Z,533nm,1.0s
LPG   La Plagne          18.33 305⇓iP    P      23 06 29.7 +0.5
LPG                                pmax  pmax
      comp=Z,266nm,1.0s
LPL   La Plagne          18.35 305⇓iP    P      23 06 29.4  0.0
      comp=Z,192nm,0.6s
LPL   La Plagne          18.35 305⇓iP    P      23 06 29.4  0.0
LPL                                pmax  pmax
      comp=Z,96nm,0.6s
SIND  Sindeldorf         18.41 318⇑eP    P      23 06 30.1  0.0
EMV   Vieux Emosson      18.44 306 ⇓P    P      23 06 30.9 +0.4
SET   Setif              18.46 275  P    P      23 06 33.0 +2.2
LBG   Lerchenberg        18.48 316 eP    P      23 06 31.1 +0.2
LBG   Lerchenberg        18.48 316  P    P      23 06 32.6 +1.7
RSL   Roselend           18.48 305 eP    P      23 06 31.7 +0.7
FELD  Feldberg           18.53 313⇑eP    P      23 06 31.9 +0.3
FELD  Feldberg           18.53 313 eP    P      23 06 32.0 +0.4
BFO   Black Forest       18.57 314  P    P      23 06 32.9 +0.9
BFO   Black Forest       18.57 314 eP    P      23 06 31.7 -0.3
KIZ   Kirchzarten        18.62 313⇑eP    P      23 06 32.7  0.0
RUE   Ruedersdorf        18.62 331 eP    P      23 06 32.1 -0.6
      comp=Z,217nm,1.1s
RUE   Ruedersdorf        18.62 331 eP    P      23 06 32.1 -0.6
BBS   Basel-Blauen       18.64 311⇑eP    P      23 06 33.2 +0.3
BBS   Basel-Blauen       18.64 311 eP    P      23 06 34.4 +1.5
GDM   Grand'Maison       18.66 303 eP    P      23 06 33.4 +0.3
OG01  Vacheresse         18.68 307 eP    P      23 06 31.7 -1.7
SMRF  Simiane la Rot     18.68 299⇓iP    P      23 06 32.3 -1.1
      comp=Z,266nm,1.3s
ORIF  Oris-en-Rattie     18.73 302⇓iP    P      23 06 33.5 -0.5
      comp=Z,333nm,1.1s
ORIF                              eR
      comp=Z,3µm,20.0s
LIBD  Limburg            18.90 313 eP    P      23 06 36.9 +0.9
GRN   Grenoble           18.92 303 eP    P      23 06 35.9 -0.3
SWS   Schriesheim        18.97 318⇑eP    P      23 06 37.0 +0.1
SWS   Schriesheim        18.97 318  P    P      23 06 37.9 +1.0
TOD   Tromm              18.99 318⇑eP    P      23 06 37.3 +0.3
TOD   Tromm              18.99 318 eP    P      23 06 37.2 +0.2
LOMF  Lomont             19.00 310 eP    P      23 06 37.4 +0.2
STR   Strasbourg         19.02 314 eP    P      23 06 38.4 +1.0
OBN   Obninsk            19.03  15⇓iP    P      23 06 34.8 -2.7
OBN                               i S    S      23 10 10.3 +4.8
OBN                                pmax  pmax
      comp=Z,98nm,1.1s
OBN                                MLR   MLR
      comp=Z,2µm,14.0s
OBN   Obninsk            19.03  15 eP    P      23 06 34.8 -2.7
      comp=Z,117nm,1.0s
OBN   Obninsk            19.03  15 eP    P      23 06 34.8 -2.7
      comp=Z,117nm,1.0s
MOF   Molkenrain         19.04 312 eP    P      23 06 37.7  0.0
CABF  La Chapelle        19.16 307⇓iP    P      23 06 38.0 -1.2
      comp=Z,599nm,0.9s
CABF  La Chapelle        19.16 307⇓iP    P      23 06 38.0 -1.2
CABF                               pmax  pmax
      comp=Z,299nm,0.9s
WLS   Welschbruch        19.17 313 eP    P      23 06 39.5 +0.3
HINF  Hinteralfeld       19.19 311⇓iP    P      23 06 38.7 -0.8
      comp=Z,82nm,1.0s
HINF  Hinteralfeld       19.19 311⇓iP    P      23 06 38.7 -0.8
HINF                               pmax  pmax
      comp=Z,41nm,1.0s
ECH   Echery             19.19 313 eP    P      23 06 39.8 +0.3
LANF  Langenberg         19.20 315 eP    P      23 06 39.3 -0.2
CDF   Champ du Feu       19.22 313⇓iP    P      23 06 39.0 -0.8
      comp=Z,123nm,0.9s
CDF   Champ du Feu       19.22 313⇓iP    P      23 06 39.0 -0.8
CDF                                pmax  pmax
      comp=Z,62nm,0.9s
KTD   Kalmit             19.22 316 eP    P      23 06 39.6 -0.2
KTD   Kalmit             19.22 316 eP    P      23 06 40.2 +0.4
OG05  Jujurieux          19.37 305 eP    P      23 06 40.2 -1.3
VIVF  Saint-Julien-l     19.53 301⇓iP    P      23 06 41.9 -1.5
      comp=Z,653nm,1.1s
VIVF  Saint-Julien-l     19.53 301⇓iP    P      23 06 41.9 -1.5
VIVF                               pmax  pmax
      comp=Z,326nm,1.1s
HAU   Haudompre          19.58 311⇓iP    P      23 06 42.8 -1.1
      comp=Z,249nm,1.1s
HAU                               eR
      comp=Z,6µm,19.8s
CLZ   Clausthal          19.60 325 eP    P      23 06 42.7 -1.4
ABH   Alteburg           19.82 317⇑eP    P      23 06 45.7 -0.8
ABH   Alteburg           19.82 317 eP    P      23 06 45.6 -0.9
MOS   Moscow             19.83  16⇑iP    P      23 06 44.8 -1.8
MOS                               i S    S      23 10 31.7 +8.7
MOS                                pmax  pmax
      comp=Z,276nm,1.3s
MOS                                pmax  pmax
      comp=N,220nm,1.2s
MOS                                pmax  pmax
      comp=E,114nm,1.2s
MOS                                smax
      comp=N,2µm,4.9s
MOS                                MLR   MLR
      comp=Z,2µm,12.0s
MOS                                MLR   MLR
      comp=E,2µm,12.9s
THEF  They Montfort      19.89 312 eP    P      23 06 45.7 -1.7
LASF  Ste Croix          19.91 299⇓iP    P      23 06 46.4 -1.2
      comp=E,280nm,1.3s
RUP   Ruppelstein        19.99 316⇑eP    P      23 06 47.7 -0.7
RUP   Ruppelstein        19.99 316 eP    P      23 06 47.5 -0.9
ABA   Alger-Bouzarea     20.25 277  P    P      23 06 51.0 -0.2
EJON  La Jonquera        20.33 294  P    P      23 06 51.7 -0.2
      comp=E,64nm,1.0s
EJON  La Jonquera        20.33 294  P    P      23 06 51.7 -0.2
      comp=E,64nm,1.0s,SNR=9.0
BSD   Bornholm Skovb     20.37 337⇑iP    P      23 06 49.6 -2.7
      comp=E,146nm,0.6s
BSD                               i S    S      23 10 34.1 -0.1
      comp=Z,3µm,19.0s
BSD   Bornholm Skovb     20.37 337 i S   S      23 10 34.1 -0.1
COLF  Collangettes       20.38 303 eP    P      23 06 51.5 -0.9
EMHD  Djebel Mahouad     20.41 276  P    P      23 06 52.0 -0.8
RGN   Rugen              20.43 334 eP    P      23 06 50.2 -2.6
      comp=Z,303nm,0.9s
RGN   Rugen              20.43 334 eP    P      23 06 50.2 -2.7
      comp=Z,303nm,0.9s
WLF   Walferdange        20.48 315 eP    P      23 06 51.2 -2.2
WLF                                pmax  pmax
      comp=Z,191nm,1.0s
WLF   Walferdange        20.48 315 eP    P      23 06 51.2 -2.2
      comp=Z,191nm,1.0s
WLF   Walferdange        20.48 315 eP    P      23 06 52.4 -1.0
PLDF  La Plantade        20.56 304 eP    P      23 06 54.4 +0.1
MEZF  Maizieres J'vi     20.57 312⇓iP    P      23 06 53.0 -1.4
      comp=Z,221nm,1.0s
LBL   Lubilhac           20.61 302 eP    P      23 06 55.3 +0.5
SMF   Signal de Mont     20.62 306⇓iP    P      23 06 54.1 -0.9
      comp=Z,1µm,1.0s
SMF   Signal de Mont     20.62 306⇓iP    P      23 06 54.1 -0.9
SMF                                pmax  pmax
      comp=Z,503nm,1.0s
CFF   Clermont-Ferra     20.84 303  P    P      23 06 57.6 +0.4
BUG   Bochum--Univer     20.85 321  P    P      23 06 56.6 -0.6
PYM   Petit Puy Mans     20.91 303 eP    P      23 06 58.6 +0.7
AGO   Saint Agoulin      20.91 304 eP    P      23 06 58.6 +0.7
MTLF  Montolieu          20.94 296⇓iP    P      23 06 56.8 -1.4
      comp=Z,164nm,1.0s
MTLF  Montolieu          20.94 296⇓iP    P      23 06 56.8 -1.4
MTLF                               pmax  pmax
      comp=Z,82nm,1.0s
VALF  Valcebollere       20.96 293 eP    P      23 06 57.2 -1.3
SSF   Saint Saulge       20.98 307⇓iP    P      23 06 57.8 -0.8
SSF                                pmax  pmax
      comp=Z,164nm,0.7s
SSF   Saint Saulge       20.98 307⇓iP    P      23 06 57.8 -0.8
      comp=Z,164nm,0.7s
AVF   Avril sur Loir     20.99 306⇓iP    P      23 06 58.0 -0.7
      comp=Z,641nm,0.9s
AVF   Avril sur Loir     20.99 306⇓iP    P      23 06 58.0 -0.7
AVF                                pmax  pmax
      comp=Z,320nm,0.9s
BSEG  Bad Segeberg       21.09 329 eP    P      23 06 58.1 -1.6
FRNF  Fournols           21.11 302 eP    P      23 07 00.5 +0.5
IBBN  Ibbenburen         21.13 323 eP    P      23 06 59.4 -0.7
HGN   Heimansgroeve      21.17 318⇓iP    P      23 07 00.3 -0.2
      comp=Z,25nm,1.9s,mb4.2
BGF   Bois d'Agland      21.25 305⇓iP    P      23 07 00.8 -0.5
      comp=Z,608nm,0.9s,mb5.6
BGF   Bois d'Agland      21.25 305⇓iP    P      23 07 00.8 -0.5
BGF                                pmax  pmax
      comp=Z,304nm,0.9s,mb5.6
EMIR  Miracle            21.28 292  P    P      23 07 01.9 +0.2
      comp=Z,119nm,1.0s,mb5.2
EMIR  Miracle            21.28 292  P    P      23 07 01.9 +0.2
      comp=Z,119nm,1.0s,mb5.2,SNR=12
CAF   Calviac            21.35 300⇓iP    P      23 07 01.5 -0.8
      comp=Z,347nm,1.5s,mb5.2
CAF   Calviac            21.35 300⇓iP    P      23 07 01.5 -0.8
CAF                                pmax  pmax
      comp=Z,173nm,1.5s,mb5.2
EIBI  Ibiza              21.37 284  P    P      23 07 02.0 -0.6
      comp=Z,560nm,3.0s
EIBI  Ibiza              21.37 284  P    P      23 07 02.0 -0.7
      comp=Z,560nm,3.0s,mb5.4,SNR=7.9
WTSB  Winterswijk        21.39 321⇓iP    P      23 07 01.8 -1.0
      comp=Z,268nm,1.1s,mb5.5
WTSB  Winterswijk        21.39 321  P    P      23 07 02.4 -0.3
GIVF  Givet              21.44 315⇓iP    P      23 07 02.2 -1.0
      comp=Z,255nm,1.0s,mb5.2
GIVF  Givet              21.44 315⇓iP    P      23 07 02.2 -1.0
GIVF                               pmax  pmax
      comp=Z,127nm,1.0s,mb5.2
NAMS  An Nimas           21.46 142  P    P      23 07 07.6 +3.9
EBNR  Beni Rached        21.53 276  P    P      23 07 06.0 +1.8
VSU   Vasula             21.57 358⇑eP    P      23 07 03.1 -1.3
VSU   Vasula             21.57 358⇑eP    P      23 07 03.2 -1.2
DOU   Dourbes            21.57 315  P    P      23 07 03.5 -1.0
EPOB  Poblet             21.58 290  P    P      23 07 03.5 -1.1
      comp=Z,54nm,0.8s,mb5.0
EPOB  Poblet             21.58 290  P    P      23 07 03.5 -1.2
      comp=Z,54nm,0.8s,mb5.0,SNR=14
TCF   Toulx Ste Croi     21.59 304⇓iP    P      23 07 04.5 -0.3
      comp=Z,259nm,1.0s,mb5.3
TCF   Toulx Ste Croi     21.59 304⇓iP    P      23 07 04.5 -0.3
TCF                                pmax  pmax
      comp=Z,129nm,1.0s,mb5.3
HYF   Humbligny          21.61 307 eP    P      23 07 04.8 -0.1
COP   Copenhagen         21.65 335⇓iP    P      23 07 05.6 +0.3
COP                               i S    S      23 11 06.9 +8.3
COP                                pmax  pmax
      comp=Z,162nm,1.0s,mb5.4
COP                                MLR   MLR
      comp=Z,2µm,19.0s,MS4.5
COP   Copenhagen         21.65 335⇓iP    P      23 07 05.6 +0.3
      comp=Z,162nm,1.0s,mb5.4
COP                               i S    S      23 11 06.9 +8.3
      comp=Z,2µm,19.0s
HASS  Wahat al Ahsa'     21.65 117  P    P      23 07 07.7 +2.2
ECHA  Ech Chlef          21.68 276  P    P      23 07 08.0 +2.2
MLS   Moulis             21.70 295 eP    P      23 07 04.1 -1.8
BAIF  Baives             21.77 315⇓iP    P      23 07 05.7 -0.8
      comp=Z,251nm,1.0s,mb5.3
BAIF  Baives             21.77 315⇓iP    P      23 07 05.7 -0.8
BAIF                               pmax  pmax
      comp=Z,125nm,1.0s,mb5.3
TATS  Tathlith           21.80 139  P    P      23 07 12.1 +5.0
RJF   Les Rejaudoux      21.81 301⇓iP    P      23 07 06.7 -0.3
      comp=Z,209nm,0.9s,mb5.3
RJF                               eR
      comp=Z,3µm,20.8s
RJF   Les Rejaudoux      21.81 301⇓iP    P      23 07 06.7 -0.3
RJF                                pmax  pmax
      comp=Z,104nm,0.9s,mb5.3
RJF                                MLR   MLR
      comp=Z,3µm,20.8s,MS4.7
ETRT  Tiaret             21.88 274  P    P      23 07 10.0 +2.2
EANR  'Ain N'Sour        21.93 276  P    P      23 07 11.0 +2.7
WIT   Witteveen          21.97 323 eP    P      23 07 08.2 -0.2
WIT                               i S    S      23 11 21.9  +17
WIT   Witteveen          21.97 323  P    P      23 07 09.9 +1.4
EBR   Ebro Roquetas      22.00 289 eP    P      23 07 11.3 +2.4
UCC   Uccle              22.04 317  P    P      23 07 09.6 +0.3
ERTA  Horta de San J     22.12 289  P    P      23 07 11.3 +1.1
      comp=Z,40nm,0.7s,mb4.9,SNR=9.1
RESF  Ens                22.24 294 eP    P      23 07 12.5 +1.2
EPF   Esparros           22.26 295 eP    P      23 07 11.6 +0.1
      comp=Z,17nm,0.6s,mb4.3
EPF   Esparros           22.26 295 eP    P      23 07 11.6 +0.1
EPF                                pmax  pmax
      comp=Z,9.0nm,0.6s,mb4.4
LFF   La Frestale        22.27 300⇓iP    P      23 07 11.2 -0.4
      comp=Z,110nm,0.8s,mb5.1
LFF   La Frestale        22.27 300⇓iP    P      23 07 11.2 -0.4
LFF                                pmax  pmax
      comp=Z,55nm,0.8s,mb5.0
EBIE  Bielsa             22.37 294  P    P      23 07 13.2 +0.7
      comp=Z,23nm,0.7s,mb4.7
EBIE  Bielsa             22.37 294  P    P      23 07 13.2 +0.6
      comp=Z,23nm,0.7s,mb4.7,SNR=16
VIEF  Viey               22.47 294 eP    P      23 07 13.5 -0.1
EBEN  Beniarda           22.62 283  P    P      23 07 16.2 +1.2
      comp=Z,304nm,2.2s,mb5.3
EBEN  Beniarda           22.62 283  P    P      23 07 16.2 +1.2
      comp=Z,304nm,2.2s,mb5.3,SNR=7.9
EMOS  Mosqueruela        22.73 288  P    P      23 07 17.1 +0.9
      comp=Z,33nm,0.8s,mb4.8
EMOS  Mosqueruela        22.73 288  P    P      23 07 17.0 +0.8
      comp=Z,33nm,0.8s,mb4.8,SNR=9.6
ESAC  San Caprasio       22.75 291  P    P      23 07 17.5 +1.1
      comp=Z,153nm,1.0s,mb5.4,SNR=11
PUL   Pulkovo            22.88   3 eP    P      23 07 17.9 +0.5
PUL                               eS     S      23 11 23.9 +2.9
PUL                                pmax  pmax
      comp=N,161nm,0.8s
PUL                                pmax  pmax
      comp=Z,117nm,0.8s,mb5.4
PUL                                pmax  pmax
      comp=E,69nm,0.7s
PUL                                pmax  pmax
      comp=Z,330nm,1.4s,mb5.6
PUL                                pmax  pmax
      comp=N,1µm,2.0s
PUL                                pmax  pmax
      comp=E,102nm,0.8s
PUL                                smax
      comp=N,439nm,1.9s
PUL                                smax
      comp=Z,22nm,0.5s
PUL                                smax
      comp=E,344nm,1.1s
PUL                                MLR   MLR
      comp=Z,3µm,15.0s,MS4.9
PUL                                MLR   MLR
      comp=N,2µm,14.0s,MS4.8
PUL                                MLR   MLR
      comp=E,789nm,13.0s,MS4.8
PUL   Pulkovo            22.88   3⇑iP    P      23 07 17.5 +0.1
ETSF  Etsaut             22.90 294 eP    P      23 07 18.8 +1.0
      comp=E,65nm,0.8s,mb4.8
ETSF  Etsaut             22.90 294 eP    P      23 07 18.8 +1.0
ETSF                               pmax  pmax
      comp=Z,32nm,0.8s,mb4.8
MFF   Saint Martin d     23.24 303⇓iP    P      23 07 21.2 +0.1
      comp=Z,462nm,1.2s,mb5.5
MFF   Saint Martin d     23.24 303⇓iP    P      23 07 21.2 +0.1
MFF                                pmax  pmax
      comp=Z,231nm,1.2s,mb5.5
MUD   Monsted U'grnd     23.40 333⇑iP    P      23 07 23.8 +1.4
      comp=Z,208nm,1.0s,mb5.5
MUD                               i S    S      23 11 41.2  +11
      comp=Z,2µm,18.0s
SJPF  Ste Jean           23.41 294⇓iP    P      23 07 22.3 -0.4
      comp=Z,167nm,1.2s,mb5.0
SJPF  Ste Jean           23.41 294⇓iP    P      23 07 22.3 -0.4
SJPF                               pmax  pmax
      comp=Z,83nm,1.2s,mb5.0
EALK  Alkurruntz         23.62 295  P    P      23 07 26.2 +1.5
      comp=Z,22nm,0.9s,mb4.6
EALK  Alkurruntz         23.62 295  P    P      23 07 26.2 +1.4
      comp=Z,22nm,0.9s,mb4.6,SNR=5.0
LCHF  La Chataignera     23.66 303 eP    P      23 07 25.0 -0.1
LDF   La Druitiere       23.79 308⇓iP    P      23 07 26.2 -0.2
      comp=Z,466nm,1.3s,mb5.5
LDF   La Druitiere       23.79 308⇓iP    P      23 07 26.2 -0.2
LDF                                pmax  pmax
      comp=Z,233nm,1.3s,mb5.5
FLN   La Foliniere       24.07 309 eP    P      23 07 28.7 -0.4
      comp=Z,122nm,0.8s,mb5.1
FLN                               eR
      comp=Z,3µm,22.8s
FLN   La Foliniere       24.07 309 eP    P      23 07 28.7 -0.4
FLN                                pmax  pmax
      comp=Z,61nm,0.8s,mb5.1
FLN                                MLR   MLR
      comp=Z,3µm,22.8s,MS4.8
LRYF  La Roche-sur-Y     24.18 303 eP    P      23 07 30.2 +0.1
GRR   Gorron             24.20 307⇓iP    P      23 07 28.8 -1.5
      comp=Z,576nm,1.2s,mb5.6
GRR   Gorron             24.20 307⇓iP    P      23 07 28.8 -1.5
GRR                                pmax  pmax
      comp=Z,288nm,1.2s,mb5.6
ENIJ  Nijar              24.38 279  P    P      23 07 32.5 +0.3
ENIJ                               pmax  pmax
      comp=Z,33nm,0.8s,mb4.8
ENIJ  Nijar              24.38 279  P    P      23 07 32.5 +0.2
      comp=Z,33nm,0.8s,mb4.8
ENIJ  Nijar              24.38 279  P    P      23 07 32.5 +0.3
      comp=Z,33nm,0.8s,mb4.8,SNR=7.9
EVIA  Vianos             24.40 283  P    P      23 07 33.1 +0.7
EVIA                               pmax  pmax
      comp=Z,40nm,0.8s,mb4.9
EVIA  Vianos             24.40 283  P    P      23 07 33.1 +0.7
      comp=Z,40nm,0.8s,mb4.9
EVIA  Vianos             24.40 283  P    P      23 07 33.1 +0.7
      comp=Z,40nm,0.8s,mb4.9,SNR=15
FINES FINESS Array B     24.57 357  P    P      23 07 34.3 +0.5
      comp=Z,109nm,0.7s,mb5.5,baz=149,slow=11,SNR=107
FINES                              PcP   PcP    23 11 10.4 -2.3
      comp=Z,2.2nm,0.7s,baz=225,slow=3.9,SNR=3.3
FINES                              LR    LR     23 17 51.3
      comp=Z,2µm,19.3s,MS4.6,baz=356,slow=38
FINES FINESS Array B     24.57 357  PcP  PcP    23 11 10.4 -2.2
RENF  Rennes             24.62 306  P    P      23 07 35.5 +1.1
EBER  Berja              24.93 279  P    P      23 07 37.3 -0.3
      comp=Z,35nm,0.8s,mb4.9
EBER  Berja              24.93 279  P    P      23 07 37.3 -0.2
      comp=Z,35nm,0.8s,mb4.9,SNR=10
EQES  Quesada            24.94 282  P    P      23 07 39.8 +2.2
      comp=Z,57nm,0.9s,mb5.1
EQES  Quesada            24.94 282  P    P      23 07 39.8 +2.2
      comp=Z,57nm,0.9s,mb5.1,SNR=21
HFS   Hagfors            25.05 343  P    P      23 07 37.5 -0.9
      comp=Z,58nm,0.7s,mb5.2,baz=144,slow=13,SNR=52
KAF   Kangasniemi        25.23 358 ep    P      23 07 41.0 +0.9
      comp=Z,119nm,1.0s,mb5.4,baz=176,slow=9.5
KAF   Kangasniemi        25.23 358 eP    P      23 07 41.0 +0.9
KAF                                pmax  pmax
      comp=Z,119nm,1.0s,mb5.4
SGMF  Saint Gilles       25.25 306⇓iP    P      23 07 39.4 -1.0
      comp=Z,342nm,1.2s,mb5.4
SGMF  Saint Gilles       25.25 306⇓iP    P      23 07 39.4 -1.0
SGMF                               pmax  pmax
      comp=Z,171nm,1.2s,mb5.5
EMLI  Melilla            25.29 276  P    P      23 07 41.2 +0.2
      comp=Z,322nm,1.8s,mb5.6,SNR=7.9
ESDC  Sonseca Array      25.44 286  P    P      23 07 41.5 -0.8
      comp=Z,88nm,0.9s,mb5.3,baz=79,slow=9.4,SNR=52
ESDC  Sonseca Array      25.44 286  P    P      23 07 42.0 -0.3
      comp=Z,85nm,0.9s,mb5.3
ESDC  Sonseca Array      25.44 286  P    P      23 07 42.0 -0.3
      comp=Z,85nm,0.9s,mb5.2,baz=84,slow=8.7,SNR=57
ESLA  Sonseca Array      25.44 286 eP    P      23 07 41.9 -0.4
      comp=Z,18nm,0.9s,mb4.6
ESLA  Sonseca Array      25.44 286 eP    P      23 07 41.9 -0.4
      comp=Z,18nm,0.9s,mb4.6
QUIF  Quistinic          25.56 305⇓iP    P      23 07 42.8 -0.5
      comp=Z,205nm,1.0s,mb5.3
QUIF  Quistinic          25.56 305⇓iP    P      23 07 42.8 -0.5
QUIF                               pmax  pmax
      comp=Z,103nm,1.0s,mb5.3
ERON  Agron              25.64 280  P    P      23 07 45.7 +1.5
      comp=Z,7.4nm,0.5s,mb4.5
ERON  Agron              25.64 280  P    P      23 07 45.7 +1.5
      comp=Z,7.4nm,0.5s,mb4.5,SNR=7.5
ELOJ  Sierra Loja        25.89 280  P    P      23 07 47.1 +0.6
ELOJ                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.4
ELOJ  Sierra Loja        25.89 280  P    P      23 07 47.1 +0.6
      comp=Z,9.7nm,0.8s,mb4.4,SNR=7.7
ELUQ  Luque              25.91 281  P    P      23 07 47.6 +0.9
ELUQ                               pmax  pmax
      comp=Z,16nm,0.7s,mb4.7
ELUQ  Luque              25.91 281  P    P      23 07 47.6 +0.8
      comp=Z,16nm,0.7s,mb4.7
ELUQ  Luque              25.91 281  P    P      23 07 47.6 +0.9
      comp=Z,16nm,0.7s,mb4.7,SNR=9.8
EADA  Adamuz             26.07 283  P    P      23 07 47.2 -0.9
      comp=Z,14nm,0.7s,mb4.6
EADA  Adamuz             26.07 283  P    P      23 07 47.2 -1.0
      comp=Z,14nm,0.7s,mb4.6,SNR=10
JOF   Joensuu            26.07   3 ep    P      23 07 48.1 +0.2
      comp=Z,111nm,1.4s,mb5.2
EARI  Arriondas          26.33 294  P    P      23 07 48.9 -1.6
      comp=Z,32nm,0.8s,mb4.9
EARI  Arriondas          26.33 294  P    P      23 07 48.8 -1.7
      comp=Z,32nm,0.8s,mb4.9,SNR=6.0
NAO01 NORSAR Array S     26.37 341 eP    P      23 07 50.5 -0.2
      comp=Z,60nm,0.9s,mb5.1
NAO01 NORSAR Array S     26.37 341 eP    P      23 07 50.5 -0.2
      comp=Z,60nm,0.9s,mb5.1
NB2   NORSAR Subarra     26.45 341  P    P      23 07 49.7 -1.7
      comp=Z,28nm,0.9s,mb4.8,baz=144,slow=8.6
NB2   NORSAR Subarra     26.45 341  P    P      23 07 49.7 -1.7
      baz=144,slow=9.3
NB2   NORSAR Subarra     26.45 341  P    P      23 07 49.7 -1.7
NB2                                pmax  pmax
      comp=Z,28nm,0.9s,mb4.8
NOA   NORSAR Array B     26.45 341  P    P      23 07 49.8 -1.6
      comp=Z,21nm,0.8s,mb4.7,baz=145,slow=8.9,SNR=39
NOA                                LR    LR     23 18 55.0
      comp=Z,1µm,20.6s,MS4.5,baz=155,slow=38
LWH   Whinny Nab         26.46 320 eP    P      23 07 52.7 +1.2
HGH   Gray Hill          26.47 314 eP    P      23 07 53.2 +1.5
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HGH                                AMb      AMB      23 07 58.9
      comp=Z,202nm,1.3s,mb5.5
HAE   Alders End         26.47 315  eP      P        23 07 52.4 +0.7
EMIJ  Mijas              26.48 279   P      P        23 07 53.7 +1.8
      comp=Z,40nm,0.8s,mb5.0
EMIJ  Mijas              26.48 279   P      P        23 07 53.7 +1.7
      comp=Z,40nm,0.8s,mb5.0,SNR=8.2
TZK   Tazeka             26.58 274  i P     P        23 07 55.0 +2.1
LHO   Holmfirth          26.71 318⇑eP      P        23 07 53.6  -0.3
MCH1  Michaelchurch      26.71 314⇑eP      P        23 07 53.2  -0.7
HPK   Haverah Park       26.77 319⇑eP      P        23 07 54.9 +0.5
REAL  Reales             26.84 279  eP      P        23 07 54.5  -0.8
HLM1  Long Mynd          26.84 315  eP      P        23 07 54.9  -0.2
HLM1                                AMb      AMB      23 07 59.6
      comp=Z,121nm,1.3s,mb5.3
LIJA  Lijar              26.92 280  eP      P        23 07 55.0  -1.0
SSP1  Stoney Pound       26.93 315⇑eP      P        23 07 54.0  -1.9
LCP   Cassop             27.06 321  eP      P        23 07 57.4 +0.4
DKH   Dar Kharkhour      27.17 277  eP      P        23 08 00.5 +2.2
ESPR  Espera             27.28 280   P      P        23 08 00.3 +1.0
      comp=Z,30nm,0.9s,mb4.8
ESPR  Espera             27.28 280   P      P        23 08 00.3 +1.0
      comp=Z,30nm,0.9s,mb4.8,SNR=13
ZFT   Errachidia         27.33 269  i P     P        23 08 02.0 +2.3
ECAL  Calabor            27.44 291   P      P        23 08 00.3  -0.4
      comp=Z,51nm,0.7s,mb5.2
ECAL  Calabor            27.44 291   P      P        23 08 00.3  -0.4
      comp=Z,51nm,0.7s,mb5.1,SNR=13
PBRG  Braganca           27.45 291  eP      P        23 08 00.3  -0.4
      comp=Z,78nm,1.0s,mb5.2
PBRG  Braganca           27.45 291  eP      P        23 08 02.8 +2.1
MIF   Mishlifen          27.60 273  eP      P        23 08 03.5 +1.3
WPM1  Penmaenmawr        27.70 316  eP      P        23 08 03.0  0.0
ERUA  La Rua             27.73 292   P      P        23 08 04.1 +0.8
ERUA                                pmax     pmax
      comp=Z,30nm,0.9s,mb4.9
ERUA  La Rua             27.73 292   P      P        23 08 04.1 +0.8
      comp=Z,30nm,0.9s,mb4.9
ERUA  La Rua             27.73 292   P      P        23 08 04.1 +0.8
      comp=Z,30nm,0.9s,mb4.9,SNR=11
EPON  Pontenova          27.74 294   P      P        23 08 02.9  -0.5
      comp=Z,77nm,1.1s,mb5.2
EPON  Pontenova          27.74 294   P      P        23 08 02.9  -0.5
      comp=Z,77nm,1.1s,mb5.2,SNR=6.8
BTA   Talkin             27.76 320⇑eP      P        23 08 01.6  -1.8
EMIN  Mina Concepcio     27.77 282   P      P        23 08 02.4  -1.3
      comp=Z,46nm,0.7s,mb5.2
EMIN  Mina Concepcio     27.77 282   P      P        23 08 02.4  -1.3
      comp=Z,46nm,0.7s,mb5.2,SNR=31
BDL   Dobcross Hall      27.84 320⇑eP      P        23 08 04.3 +0.1
EINC  Incio              27.89 293   P      P        23 08 05.7 +1.0
      comp=Z,22nm,0.8s,mb4.8
EINC  Incio              27.89 293   P      P        23 08 05.7 +1.0
      comp=Z,22nm,0.8s,mb4.9,SNR=5.6
EBAD  Badajoz            27.89 285   P      P        23 08 02.9  -1.9
      comp=Z,24nm,0.8s,mb4.9
EBAD  Badajoz            27.89 285   P      P        23 08 02.9  -1.9
      comp=Z,24nm,0.8s,mb4.9,SNR=9.8
WME   Myndd Eilian       27.98 316  eP      P        23 08 06.4 +1.0
ARU   Arti               28.09  36⇑iP      P        23 08 06.3  -0.1
ARU                                 e                 23 08 52.7
ARU                                 ePPP    PPP      23 09 02.4  -6.5
ARU                                 e                 23 11 19.5
ARU                                 i S     S        23 12 52.3 +4.2
ARU                                 eSS     SS       23 14 10.9  -0.2
ARU                                 eSSS    SSS      23 14 23.5  -6.0
ARU                                 e                 23 18 49.0
ARU                                  pmax    pmax
      comp=Z,21nm,1.4s,mb4.6
ARU                                  MLR     MLR
      comp=Z,2µm,20.0s,MS4.7
ARU                                  MLR     MLR
      comp=N,400nm,17.0s,MS4.6
ARU                                  MLR     MLR
      comp=E,1µm,20.0s,MS4.6
BHH   Howats Hill        28.12 320  eP      P        23 08 05.0  -1.7
PCBR  Castelo Branco     28.13 287  eP      P        23 08 06.0  -0.9
      comp=E,54nm,1.3s,mb5.0
PCBR  Castelo Branco     28.13 287  eP      P        23 08 08.1 +1.2
MTE   Manteigas          28.13 288  eP      P        23 08 06.2  -0.7
      comp=E,40nm,1.0s,mb5.0
MTE                                 e-                23 13 13.3
MTE   Manteigas          28.13 288  eP      P        23 08 06.7  -0.2
      comp=E,46nm,1.0s,mb5.1
EKA   Eskdalemuir Ar     28.20 321   P      P        23 08 05.1  -2.3
      comp=E,28nm,0.9s,mb4.9,baz=116,slow=10.0,SNR=12
PVRL  Vila Real          28.20 290  eP      P        23 08 06.1  -1.4
      comp=E,31nm,1.6s,mb4.7
PVIS  Viseu              28.37 289  eP      P        23 08 08.7  -0.4
      comp=E,39nm,1.2s,mb4.9
BWH   Wardlaw            28.38 320⇑eP      P        23 08 07.1  -1.9
ELOB  Lobios             28.43 291   P      P        23 08 08.6  -1.0
      comp=E,16nm,0.7s,mb4.8
ELOB  Lobios             28.43 291   P      P        23 08 08.6  -1.0
      comp=E,16nm,0.7s,mb4.7,SNR=5.0
PALC  Alcoutim           28.45 282  eP      P        23 08 08.7  -1.1
      comp=E,80nm,0.9s,mb5.3
PALC  Alcoutim           28.45 282  eP      P        23 08 08.6  -1.2
WIM   Isle of Man        28.48 318  eP      P        23 08 08.2  -1.7
PBEJ  Beja               28.66 283  eP      P        23 08 10.8  -0.9
      comp=E,63nm,1.5s,mb5.1
PBEJ  Beja               28.66 283  eP      P        23 08 11.0  -0.7
STS   Santiago           28.77 293   P      P        23 08 12.6  0.0
STS                                  pmax    pmax
      comp=Z,17nm,1.0s,mb4.7
STS   Santiago           28.77 293   P      P        23 08 12.6  0.0
      comp=Z,16nm,1.0s,mb4.7
STS   Santiago           28.77 293   P      P        23 08 12.6  0.0
      comp=Z,16nm,1.0s,mb4.7,SNR=7.9
EZAM  Zamans             28.89 292   P      P        23 08 13.5  -0.3
EZAM                                 pmax    pmax
      comp=Z,51nm,1.2s,mb5.1
EZAM  Zamans             28.89 292   P      P        23 08 13.5  -0.3
      comp=Z,51nm,1.2s,mb5.1
EZAM  Zamans             28.89 292   P      P        23 08 13.5  -0.3
      comp=Z,51nm,1.2s,mb5.1,SNR=6.7
SVE   Sverdlovsk         29.28  37  eP      P        23 08 17.0  -0.1
SVE                                 e                 23 09 14.0
SVE                                 e                 23 09 27.0
SVE                                 eS      S        23 13 08.0 +0.8
SVE                                  pmax    pmax
      comp=Z,110nm,2.5s,mb5.1
SVE                                  smax
      comp=N,1µm,12.0s
SVE                                  smax
      comp=E,2µm,12.0s
SVE                                  MLR     MLR
      comp=Z,2µm,16.0s,MS4.8
PTEO  Sao Teotonio       29.41 283  eP      P        23 08 17.9  -0.6
LRW   Lerwick            29.90 330   P      P        23 08 23.2 +0.5
MOR8  Moi Rana           30.38 349  eP      P        23 08 24.3  -2.5
APA   Apatity            30.82   4⇑iP      P        23 08 30.0  -0.6
APA                                 i                 23 08 34.3
APA                                 i                 23 09 25.3
APA                                 eS      S        23 13 34.0 +2.6
APA                                  pmax    pmax
      comp=Z,100nm,0.8s,mb5.7
APA                                  MLR     MLR
      comp=Z,3µm,16.0s,MS5.0
LVZ   Lovozero           31.21   5  eP      P        23 08 34.8 +0.6
LVZ                                 eS      S        23 13 31.4  -6.3
LVZ                                  pmax    pmax
      comp=Z,75nm,0.8s,mb5.6
LVZ                                  pmax    pmax
      comp=N,56nm,1.3s
LVZ                                  pmax    pmax
      comp=E,16nm,0.9s
LVZ                                  pmax    pmax
      comp=Z,115nm,1.1s,mb5.6
LVZ                                  pmax    pmax
      comp=N,49nm,0.8s
LVZ                                  pmax    pmax
      comp=E,67nm,1.6s
LVZ                                  smax
      comp=N,481nm,3.3s
LVZ                                  smax
      comp=Z,810nm,3.7s
LVZ                                  smax
      comp=E,422nm,3.3s
LVZ                                  MLR     MLR
      comp=N,1µm,12.0s,MS4.7
LVZ                                  MLR     MLR
      comp=Z,2µm,12.0s,MS4.9
LVZ                                  MLR     MLR
      comp=E,234nm,15.0s,MS4.7
LVZ   Lovozero           31.21   5  eP      P        23 08 32.0  -2.2
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KTK1  Kautokeino         32.26 357  eP      P        23 08 43.2  -0.1
KTK1                                 AMb     AMB      23 08 47.5
      comp=Z,136nm,1.6s,mb5.5
ARCES ARCESS Array B     32.69 358   P      P        23 08 46.0  -1.0
      comp=Z,84nm,0.9s,mb5.7,baz=180,slow=2.4,SNR=70
ARCES                                LR      LR       23 22 42.0
      comp=Z,2µm,18.7s,MS4.8,baz=154,slow=38
ARE0  ARCESS Array S     32.69 358  eP      P        23 08 47.0  -0.1
ARE0  ARCESS Array S     32.69 358  eP      P        23 08 47.0  -0.1
KEV   Kevo               32.89 359  ep      P        23 08 47.9  -0.8
      comp=Z,110nm,1.4s,mb5.6
KEV   Kevo               32.89 359  eP      P        23 08 47.9  -0.8
KEV                                  pmax    pmax
      comp=Z,110nm,1.4s,mb5.6
TRO   Tromso             33.16 354  eP      P        23 08 50.9  -0.2
TRO   Tromso             33.16 354  eP      P        23 08 51.1  0.0
TRO   Tromso             33.16 354  eP      P        23 08 51.0  -0.1
BRVK  Borovoye           33.19  47  eP      P        23 08 51.4  -0.1
BRVK                                 pmax    pmax
      comp=Z,25nm,1.4s,mb5.0
BRVK  Borovoye           33.19  47  eP      P        23 08 51.4  -0.1
      comp=Z,25nm,1.4s,mb5.0
BRVK  Borovoye           33.19  47  eP      P        23 08 51.4  -0.1
      comp=Z,25nm,1.4s,mb5.0
BVAR  Borovoye Array     33.24  48   P      P        23 08 51.7  -0.3
      comp=Z,3.5nm,0.6s,mb4.4,baz=243,slow=6.6,SNR=29
CHKZ  Chkalovo           33.51  46  eP      P        23 08 53.9  -0.4
CHKZ                                 pmax    pmax
      comp=Z,43nm,1.3s,mb5.2
CHKZ  Chkalovo           33.51  46  eP      P        23 08 53.9  -0.5
      comp=Z,43nm,1.3s,mb5.2
CHKZ  Chkalovo           33.51  46  eP      P        23 08 53.8  -0.5
      comp=Z,43nm,1.3s,mb5.2
EKS2  Erkin-Say          35.03  66   P      P        23 09 08.2 +0.7
      SNR=15
USP   Ospenovka          35.49  65   P      P        23 09 10.8  -0.6
      SNR=6.1
AAK   Ala-Archa          35.56  66  eP      P        23 09 11.4  -0.6
AAK                                 e                 23 11 40.8
AAK                                  pmax    pmax
      comp=Z,24nm,0.8s,mb5.2
AAK   Ala-Archa          35.56  66  eP      P        23 09 11.4  -0.6
      comp=Z,24nm,0.8s,mb5.2
AAK                                 e                 23 11 40.8
UCH   Uchtor             35.62  67   P      P        23 09 13.0 +0.5
      SNR=5.5
FRU   Bishkek            35.62  66  eP      P        23 09 13.0 +0.4
FRU                                  pmax    pmax
      comp=Z,90nm,1.4s,mb5.5
CHMS  Chumysh            35.70  66   P      P        23 09 13.0  -0.2
      SNR=26
KBK   Karagaybulak       35.89  66   P      P        23 09 15.1 +0.3
      SNR=18
KZA   Kyzart             36.18  67   P      P        23 09 20.6 +3.4
      SNR=11
TKM2  Tokmak 2           36.33  66   P      P        23 09 21.3 +2.8
      SNR=11
KSH   Kashi              37.15  71  eP      P        23 09 29.0 +3.5
KSH                                 ePP     PP       23 10 56.3 +3.7
KSH                                 eS      S        23 15 14.1 +4.2
KSH                                 eXS               23 15 29.0
KSH                                 ePCS              23 15 36.0
KSH                                 eSS     SS       23 17 44.6 +3.8
KSH                                 eSCS    ScS      23 19 38.0 +1.9
KSH                                  AMB     AMB
      comp=Z,150nm,4.3s
KSH                                  LR      LR
      comp=N,390nm,10.3s
KSH                                  LR      LR
      comp=E,1µm,16.8s
MBAR  Mbarara            37.41 176  eP      P        23 09 29.2 +1.3
MBAR                                 pmax    pmax
      comp=Z,95nm,1.2s,mb5.5
MBAR  Mbarara            37.41 176  eP      P        23 09 29.2 +1.3
      comp=Z,95nm,1.2s,mb5.5
MBAR  Mbarara            37.41 176  eP      P        23 09 29.2 +1.3
      comp=Z,95nm,1.2s,mb5.5
KMBO  Kilima Mbogo       38.76 166   P      P        23 09 42.4 +3.2
      comp=Z,13nm,1.0s,mb4.6,baz=354,slow=9.0,SNR=19
KMBO                                 LR      LR       23 26 38.7
      comp=Z,1µm,19.2s,MS4.7,baz=303,slow=38
KMBO  Kilima Mbogo       38.76 166  eP      P        23 09 40.7 +1.5
KMBO                                 pmax    pmax
      comp=Z,25nm,1.2s
KMBO                                 MLR     MLR
      comp=Z,971nm,20.0s
KMBO  Kilima Mbogo       38.76 166  eP      P        23 09 40.7 +1.4
      comp=Z,25nm,1.2s,mb4.8
KMBO                                 LR      LR
      comp=Z,971nm,20.0s,MS4.6
KMBO  Kilima Mbogo       38.76 166  eP      P        23 09 40.7 +1.5
      comp=Z,25nm,1.2s,mb4.8
SDNR  Sundarnagar        40.21  83  eP      P        23 09 52.8 +1.7
BORG  Borgarnes          40.28 330   P      P        23 09 50.6  -0.7
      comp=Z,46nm,0.9s,mb5.2
BORG  Borgarnes          40.28 330   P      P        23 09 50.6  -0.7
      comp=Z,46nm,0.9s,mb5.2
AJM   Ajmer              40.39  91  eP      P        23 09 53.0 +0.4
AJM                                 e                 23 09 55.4
      comp=Z,25nm,1.0s
MKAR  Makanchi Array     40.63  59  i P     P        23 09 54.2  -0.2
NVS   Novosibirsk        40.99  46⇓iP      P        23 09 57.3  0.0
NVS                                 i                 23 11 32.5
NVS                                 i S     S        23 16 01.6  -6.1
NVS                                  pmax    pmax
      comp=N,28nm,1.3s
NVS                                  pmax    pmax
      comp=Z,53nm,1.3s,mb5.0
NVS                                  pmax    pmax
      comp=E,26nm,1.0s
NVS                                  pmax    pmax
      comp=N,15nm,1.4s
NVS                                  pmax    pmax
      comp=Z,37nm,1.4s,mb4.8
NVS                                  pmax    pmax
      comp=E,20nm,1.3s
NVS                                  smax
      comp=N,52nm,1.8s
NVS                                  smax
      comp=E,8.0nm,1.5s
NDI   New Delhi          41.50  87  eP      P        23 10 01.0  -0.7
NDI                                 e                 23 16 16.5
DDI   Dehra Dun          41.52  84  eP      P        23 10 01.4  -0.4
DDI                                 e                 23 11 16.6
ZAL   Zalesovo           41.89  48   P      P        23 10 04.1  -0.4
      comp=E,7.3nm,0.8s,mb4.4,baz=202,slow=8.2,SNR=36
ZAL                                  LR      LR       23 31 48.6
      comp=E,1µm,20.4s,MS4.8,baz=202,slow=42
ZAL   Zalesovo           41.89  48  i P     P        23 10 04.5  0.0
ZAL                                  pmax    pmax
      comp=Z,7.0nm,0.8s
DBIC  Dimbokro           42.70 233   P      P        23 10 10.2  -1.6
      comp=Z,32nm,0.9s,mb5.1,baz=17,slow=10.0,SNR=29
DBIC  Dimbokro           42.70 233   P      P        23 10 10.1  -1.7
BOM   Bombay             42.77 102  e       P        23 10 13.8 +1.6
      comp=Z,145nm,0.7s,mb5.8
POO   Poona              43.78 102  eP      P        23 10 21.9 +1.5
POO                                 e                 23 10 23.4
      comp=Z,56nm,1.2s
BHPL  Bhopal             44.14  94  eP      P        23 10 24.2 +0.9
BHPL                                e                 23 10 25.8
      comp=Z,58nm,1.4s
KAD   Karad              44.74 103⇑iP      P        23 10 30.0 +1.8
WMQ   Urumqi             44.87  62 ⇓P       P        23 10 29.8 +0.8
WMQ                                  AP      pP       23 10 39.3 +2.7
WMQ                                  PCP     PcP      23 12 11.3 +0.5
WMQ                                  PP      PP       23 12 15.6 +0.9
WMQ                                  S       S        23 17 04.8 +0.3
WMQ                                  AMB     AMB
      comp=Z,22nm,1.2s,mb4.9
WMQ                                  LR      LR
      comp=N,1µm,25.8s,MS4.9
WMQ                                  LR      LR
      comp=E,1µm,26.2s,MS4.9
WMQ                                  LR      LR
      comp=Z,1µm,28.2s,MS4.6
DAG   Danmarks Havn      44.92 346⇓eP      P        23 10 30.1 +1.2
DAG                                  pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.6
DAG   Danmarks Havn      44.92 346⇓eP      P        23 10 30.1 +1.2
      comp=Z,6.0nm,0.6s,mb4.6
DAG   Danmarks Havn      44.92 346⇓iP      P        23 10 30.1 +1.2
      comp=Z,6.0nm,0.6s,mb4.6
LATR  Latur              45.98 100  eP      P        23 10 38.8 +0.8
ALBI  Allahabad          46.66  89  eP      P        23 10 41.0  -2.3
KOLN  Koldanda           46.99  85  eP      P        23 10 45.9  0.0
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      comp=Z,131nm,0.7s,mb6.0
GKN   Gorkha             47.72  84  eP      P        23 10 51.4  -0.2
      comp=Z,181nm,0.8s,mb6.2
MNGI  Mangalore          47.84 108  i P     P        23 10 53.8 +1.1
MNGI                                i                 23 12 47.9
HYB   Hyderabad          48.11 100  eP      P        23 10 54.5  -0.3
HYB                                  pmax    pmax
      comp=Z,50nm,1.0s,mb5.5
HYB   Hyderabad          48.11 100⇓iP      P        23 10 54.5  -0.3
      comp=Z,50nm,1.0s,mb5.5
HYB   Hyderabad          48.11 100  eP      P        23 10 54.5  -0.3
      comp=Z,50nm,1.0s,mb5.5
DMN   Daman              48.26  84  eP      P        23 10 55.6  -0.3
      comp=Z,231nm,0.7s,mb6.3
SUMG  Summit             48.27 338  eP      P        23 10 54.5  -0.9
      comp=Z,12nm,0.8s,mb5.0
SUMG  Summit             48.27 338  eP      P        23 10 54.5  -0.9
      comp=Z,12nm,0.8s,mb5.0
KKN   Kakani             48.32  84  eP      P        23 10 56.1  -0.2
      comp=Z,69nm,0.6s,mb5.9
PKI   Pulchoki           48.52  84  eP      P        23 10 57.4  -0.5
      comp=Z,71nm,0.7s,mb5.8
GUN   Gumba              48.74  83  eP      P        23 10 59.0  -0.6
      comp=Z,84nm,0.7s,mb5.9
VIS   Vishakhapatnam     51.73  96  eP      P        23 11 22.0  -0.5
MOY   Mondy              51.90  49  eP      P        23 11 24.2 +0.9
LSZ   Lusaka             51.93 180  eP      P        23 11 25.3 +1.3
LSZ                                 e                 23 12 37.1
LSZ                                  pmax    pmax
      comp=Z,35nm,1.1s,mb5.2
LSZ                                  MLR     MLR
      comp=Z,822nm,20.0s,MS4.8
LSZ   Lusaka             51.93 180  eP      P        23 11 25.3 +1.3
      comp=Z,35nm,1.1s,mb5.2
LSZ                                 e                 23 12 37.1
LSZ                                  LR      LR
      comp=Z,822nm,20.0s,MS4.8
MDRS  Chennai            51.95 103  e       P        23 11 16.0  -8.2
LSA   Lhasa              52.14  79  eP      P        23 11 25.4  -0.1
LSA   Lhasa              52.14  79  eP      P        23 11 25.5  0.0
LSA                                  pmax    pmax
      comp=Z,14nm,0.8s,mb4.9
LSA                                  MLR     MLR
      comp=Z,468nm,21.0s,MS4.5
LSA   Lhasa              52.14  79  eP      P        23 11 25.5 +0.1
      comp=Z,14nm,0.8s,mb5.0
LSA                                  LR      LR
      comp=Z,468nm,21.0s,MS4.5
LSA   Lhasa              52.14  79  eP      P        23 11 25.5  0.0
      comp=Z,14nm,0.8s,mb5.0
TRD   Trivandrum         52.26 110  eP      P        23 11 22.6  -4.0
TRD                                 i P     pP       23 11 29.2  -5.2
TRD                                 e       pP       23 11 29.7  -4.7
      comp=Z,54nm,1.0s
TRD                               ⇑e                 23 19 43.6
TLY   Talaya             53.49  49  eP      P        23 11 36.3 +1.1
TLY                                 eS      S        23 19 17.4  +13
TLY                                 eSS     SS       23 22 51.3 +6.9
TLY                                  pmax    pmax
      comp=Z,27nm,1.4s,mb5.0
TLY                                  MLR     MLR
      comp=Z,731nm,18.0s,MS4.8
TLY   Talaya             53.49  49⇑iP      P        23 11 34.1  -1.1
ZAK   Zakamensk          53.62  50⇓iP      P        23 11 36.8 +0.6
SHL   Shillong           54.59  83  eP      P        23 11 43.0  -0.6
SHL                                 eS      S        23 19 42.0  +22
GTA   Gaotai             54.84  64  eP      P        23 11 45.1  -0.2
GTA                                  AP      pP       23 11 54.5 +1.4
GTA                                  XP      sP       23 11 58.0 +1.9
GTA                                  PCP     PcP      23 12 47.8 +0.6
GTA                                  PP      PP       23 13 51.6 +2.0
GTA                                  PPP     PPP      23 15 05.8 +3.9
GTA                                  SCP              23 16 38.6
GTA                                  PCS              23 16 46.1
GTA                                  S       S        23 19 27.0 +3.9
GTA                                  XS               23 19 43.3
GTA                                  SS      SS       23 23 12.5 +6.3
GTA                                  AMB     AMB
      comp=Z,13nm,1.3s,mb4.8
GTA                                  AMB     AMB
      comp=Z,162nm,4.6s
GTA                                  LR      LR
      comp=N,788nm,20.1s,MS4.9
GTA                                  LR      LR
      comp=E,550nm,19.8s,MS4.9
GTA                                  LR      LR
      comp=Z,966nm,19.4s,MS4.9
PALK  Pallekele          55.88 108  eP      P        23 11 52.5  -0.7
      comp=Z,20nm,0.9s,mb5.1
PALK  Pallekele          55.88 108  eP      P        23 11 52.5  -0.6
      comp=Z,20nm,0.9s,mb5.1
SONM  Songino Array      56.35  52   P      P        23 11 56.0  0.0
      comp=Z,7.5nm,0.7s,mb4.9,baz=285,slow=6.8,SNR=46
IMP   Imphal             56.59  82⇓iP      P        23 11 58.3 +0.2
ULN   Ulaanbaatar        56.76  52  eP      P        23 11 58.9  -0.1
ULN                                  pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.9
ULN                                  MLR     MLR
      comp=Z,800nm,21.0s,MS4.8
ULN   Ulaanbaatar        56.76  52  eP      P        23 11 58.9  -0.1
      comp=Z,10nm,0.8s,mb4.9
ULN                                  LR      LR
      comp=Z,800nm,21.0s,MS4.8
ULN   Ulaanbaatar        56.76  52  eP      P        23 11 58.8  -0.2
      comp=Z,10nm,0.8s,mb4.9
BOD   Bodaibo            57.45  39  eP      P        23 12 02.3  -1.4
TIXI  Tiksi              58.58  21  eP      P        23 12 11.6 +0.1
TIXI                                 pmax    pmax
      comp=Z,20nm,1.0s,mb5.1
TIXI                                 MLR     MLR
      comp=Z,855nm,15.0s,MS5.0
TIXI  Tiksi              58.58  21⇓iP      P        23 12 11.0  -0.5
LZH   Lanzhou            59.10  66 ⇑P       P        23 12 15.5  0.0
LZH                                  AP      pP       23 12 25.6 +2.1
LZH                                  PP      PP       23 14 27.5  -0.5
LZH                                 eS      S        23 20 18.1  -1.2
LZH                                  XS               23 20 34.5
LZH                                  AMB     AMB
      comp=Z,51nm,1.3s,mb5.4
LZH                                  AMB     AMB
      comp=Z,163nm,5.5s
LZH                                  LR      LR
      comp=N,705nm,15.2s
LZH                                  LR      LR
      comp=Z,987nm,17.8s,MS5.0
CD2   Chengdu            61.35  71  eP      P        23 12 30.8  -0.2
CD2                                  S       S        23 20 43.3  -4.9
CD2                                  LR      LR
      comp=Z,540nm,18.6s,MS4.7
HHC   Hu-ho-hao-te       62.50  58  eP      P        23 12 38.8 +0.2
HHC                                  AP      pP       23 12 46.6 +0.1
HHC                                  XP      sP       23 12 49.9 +0.5
HHC                                  PCP     PcP      23 13 19.6 +2.2
HHC                                  PP      PP       23 14 57.9  -0.1
HHC                                  SCP              23 17 18.1
HHC                                  PCS              23 17 19.8
HHC                                  S       S        23 20 59.8  -2.8
HHC                                  SCS     ScS      23 22 24.3  -1.0
HHC                                  AMB     AMB
      comp=Z,27nm,1.0s,mb5.3
HHC                                  AMB     AMB
      comp=Z,370nm,4.1s
HHC                                  LR      LR
      comp=N,903nm,19.0s,MS5.0
HHC                                  LR      LR
      comp=E,696nm,20.2s,MS5.0
HHC                                  LR      LR
      comp=Z,907nm,19.0s,MS5.0
RES   Resolute Bay       62.61 346  eP      P        23 12 38.1  -0.8
RES                                  pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.7
RES   Resolute Bay       62.61 346  eP      P        23 12 38.1  -0.8
      comp=Z,4.3nm,0.7s,mb4.7
RES   Resolute Bay       62.61 346  eP      P        23 12 38.1  -0.8
      comp=Z,4.3nm,0.7s,mb4.7
YAK   Yakutsk            63.03  31  eP      P        23 12 40.4  -1.4
YAK                                  pmax    pmax
      comp=Z,9.0nm,0.8s,mb5.0
YAK                                  pmax    pmax
      comp=N,3.0nm,1.0s
YAK                                  pmax    pmax
      comp=E,9.0nm,1.3s
YAK   Yakutsk            63.03  31   P      P        23 12 40.7  -1.1
      comp=E,29nm,0.9s,mb5.4
YAK   Yakutsk            63.03  31   P      P        23 12 40.7  -1.1
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           comp=E,29nm,0.9s,mb5.4
CLNS  Chul'man          63.27  38 eP       P        23 12 42.5  -0.9
CLNS                               pmax     pmax
           comp=Z,20nm,1.1s,mb5.2
CLNS                               pmax     pmax
           comp=N,8.0nm,1.0s
CLNS                               pmax     pmax
           comp=E,6.0nm,1.3s
KMI   Kunming           63.37  78 eP       P        23 12 44.3  -0.2
KMI                                AP       pP       23 12 52.8  +0.3
KMI                                XP       sP       23 12 55.8  +0.5
KMI                                PP       PP       23 15 05.0  -0.6
KMI                                PPP      PPP      23 16 35.8  -1.1
KMI                                S        S        23 21 11.1  -2.7
KMI                                SKS      SKS      23 22 31.4  -8.4
KMI                                LR       LR
           comp=N,285nm,19.3s,MS4.6
KMI                                LR       LR
           comp=E,254nm,17.5s,MS4.6
KMI                                LR       LR
           comp=Z,366nm,24.3s
SCHQ  Schefferville     63.51 320  P       P        23 12 42.8  -2.2
           comp=Z,4.5nm,0.6s,mb4.7,baz=55,slow=9.1,SNR=7.7
SCHQ                               LR       LR       23 39 23.6
           comp=Z,915nm,21.7s,MS4.9,baz=258,slow=35
SCHQ  Schefferville     63.51 320 eP       P        23 12 43.7  -1.3
           comp=Z,9.3nm,0.7s,mb4.9
SCHQ  Schefferville     63.51 320 eP       P        23 12 43.7  -1.3
           comp=Z,9.3nm,0.7s,mb4.9
CHG   Chiang Mai        63.63  86 ⇓P       P        23 12 45.4  -1.0
           comp=Z,32nm,1.2s,mb5.2
XAN   Xi'an             63.73  66  P       P        23 12 46.3  -0.5
XAN                                AP       pP       23 12 56.8  +2.0
XAN                                AMB      AMB
           comp=Z,24nm,1.1s,mb5.1
CHRT  Chiangrai         63.74  84 ⇓P       P        23 12 45.0  -2.1
           comp=Z,308nm,1.0s,mb6.3
CM31  Chiang Mai Arr    63.82  86 eP       P        23 12 46.6  -1.0
           comp=Z,37nm,0.9s,mb5.4
CM31  Chiang Mai Arr    63.82  86 eP       P        23 12 46.6  -1.0
           comp=Z,37nm,0.9s,mb5.4
CMAR  Chiang Mai Arr    63.82  86  P       P        23 12 46.7  -0.9
           comp=Z,20nm,0.8s,mb5.2,baz=297,slow=7.3,SNR=69
CMAR                               LR       LR       23 47 07.2
           comp=Z,224nm,20.6s,MS4.3,baz=290,slow=42
HIA   Hailar            63.93  47 eP       P        23 12 47.8   0.0
HIA                                pmax     pmax
           comp=Z,111nm,1.3s
HIA                                MLR      MLR
           comp=Z,457nm,20.0s
HIA   Hailar            63.93  47 eP       P        23 12 47.8   0.0
           comp=Z,111nm,1.3s,mb5.7
HIA                                LR       LR
           comp=Z,457nm,20.0s,MS4.7
HIA   Hailar            63.93  47 eP       P        23 12 47.8   0.0
           comp=Z,111nm,1.3s,mb5.7
NANT  Nan               65.04  85  P       P        23 12 55.0  -0.5
BOSA  Boshof            65.27 183 eP       P        23 12 57.8  +0.9
BOSA                               pmax     pmax
           comp=Z,142nm,1.2s,mb5.9
BOSA  Boshof            65.27 183 eP       P        23 12 57.8  +0.9
           comp=Z,142nm,1.2s,mb5.9
BOSA  Boshof            65.27 183 eP       P        23 12 57.8  +0.9
           comp=Z,142nm,1.2s,mb5.9
GYA   Guiyang           65.75  74⇓iP       P        23 12 59.5  -0.5
GYA                                AP       pP       23 13 09.8  +1.9
GYA                                PP       PP       23 15 26.3  -0.6
GYA                                S        S        23 21 41.1  -2.0
GYA                                AMB      AMB
           comp=Z,30nm,1.1s,mb5.2
GYA                                AMB      AMB
           comp=Z,230nm,4.8s
GYA                                LR       LR
           comp=N,960nm,19.2s,MS5.1
GYA                                LR       LR
           comp=E,680nm,18.4s,MS5.1
GYA                                LR       LR
           comp=Z,1µm,17.8s,MS5.1
ENH   Enshi             65.98  69 eP       P        23 13 00.5  -0.9
           comp=Z,45nm,0.9s,mb5.5
ENH                                LR       LR
           comp=Z,581nm,21.0s,MS4.8
ENH   Enshi             65.98  69 eP       P        23 13 00.5  -0.9
           comp=Z,45nm,0.9s,mb5.5
BJT   Baijiatuau        66.00  57 eP       P        23 13 01.0  -0.3
BJT                                pmax     pmax
           comp=Z,32nm,0.8s
BJT   Baijiatuau        66.00  57 eP       P        23 13 01.0  -0.3
           comp=Z,32nm,0.8s,mb5.4
BJT   Baijiatuau        66.00  57 eP       P        23 13 01.0  -0.3
           comp=Z,32nm,0.8s,mb5.4
NST   Nakhon Sawan      66.29  88  P       P        23 13 02.0  -1.6
NNT   Nongplab          67.70  91  P       P        23 13 12.5   0.0
SUR   Sutherland        69.32 187 eP       P        23 13 23.1  +0.8
           comp=Z,131nm,1.1s,mb5.8
WHN   Wuhan             69.46  67 eP       P        23 13 23.0  -0.2
WHN                                AMB      AMB
           comp=Z,26nm,1.1s,mb5.1
SNY   Shenyang          69.93  52 ⇓P       P        23 13 25.4  -0.5
SNY                                AMB      AMB
           comp=Z,40nm,1.1s,mb5.3
SNY                                LR       LR
           comp=E,880nm,15.6s
SNY                                LR       LR
           comp=Z,660nm,19.4s,MS4.9
BILL  Bilibino          70.69  15⇑iP       P        23 13 30.1  +0.1
BILL                               pmax     pmax
           comp=Z,96nm,1.5s,mb5.5
BILL                               MLR      MLR
           comp=Z,500nm,17.0s,MS4.8
BILL  Bilibino          70.69  15 eP       P        23 13 30.2  +0.2
           comp=Z,89nm,1.4s,mb5.5
BILL                               LR       LR
           comp=Z,494nm,20.0s,MS4.8
SEY   Seymchan          70.91  24 eP       P        23 13 33.1  +1.6
SEY                                                  23 13 54.7
SEY                               e                  23 16 14.9
SEY                               eS       S        23 22 48.6  +4.6
SEY                                                  23 23 34.9
SEY                               eSS      SS       23 27 27.7  +8.8
SEY                                pmax     pmax
           comp=Z,120nm,1.2s,mb5.7
SEY                                smax
           comp=N,700nm,21.9s
SEY                                smax
           comp=E,200nm,24.4s
NJ2   Nanjing           71.93  63 eP       P        23 13 38.3  +0.2
NJ2                                AP       pP       23 13 48.5  +2.4
NJ2                                PP       PP       23 16 19.6   0.0
NJ2                                S        S        23 22 55.0  -1.3
NJ2                                XS                23 23 12.0
NJ2                                AMB      AMB
           comp=Z,10.0nm,0.6s,mb4.9
NJ2                                AMB      AMB
           comp=Z,150nm,4.3s
NJ2                                LR       LR
           comp=N,950nm,20.8s,MS5.2
NJ2                                LR       LR
           comp=E,1µm,25.0s,MS5.2
NJ2                                LR       LR
           comp=Z,4µm,20.5s,MS5.7
MDJ   Mudanjiang        72.10  47  P       P        23 13 38.3  -0.6
MDJ                                AMB      AMB
           comp=Z,27nm,1.2s,mb5.0
MDJ                                AMB      AMB
           comp=Z,628nm,5.1s
MDJ                                LR       LR
           comp=N,322nm,19.5s,MS4.7
MDJ                                LR       LR
           comp=E,100nm,16.0s,MS4.7
MDJ                                LR       LR
           comp=Z,373nm,16.0s,MS4.8
QIZ   Qiongzhong        72.17  79  P       P        23 13 39.4  -0.3
QIZ                                S        S        23 22 58.9  -0.3
QIZ                                AMB      AMB
           comp=Z,25nm,1.4s,mb5.0
QIZ                                AMB      AMB
           comp=Z,131nm,6.1s
QIZ                                LR       LR
           comp=N,323nm,21.7s,MS4.7
QIZ                                LR       LR
           comp=E,291nm,24.7s,MS4.7
QIZ                                LR       LR
           comp=Z,270nm,24.9s,MS4.4
MA2   Magadan           72.75  27 eP       P        23 13 43.4  +1.0
MA2                               e                  23 13 59.7
MA2                               eS       S        23 23 07.7  +2.7
MA2                               eSS      SS       23 27 45.4  -1.9
MA2                                pmax     pmax
           comp=Z,60nm,1.4s,mb5.3
MA2                                MLR      MLR
           comp=Z,1µm,24.0s,MS5.1
MA2   Magadan           72.75  27 eP       P        23 13 43.1  +0.7
           comp=Z,132nm,1.4s,mb5.7
FCC   Fort Churchill    73.34 333 eP       P        23 13 44.4  -1.5
FCC                                pmax     pmax
           comp=Z,17nm,1.4s,mb4.8
FCC   Fort Churchill    73.34 333 eP       P        23 13 44.4  -1.5
           comp=Z,16nm,1.4s,mb4.8
SSE   Sheshan           74.12  63  P       P        23 13 47.8  -3.2
SSE                                AMB      AMB
           comp=Z,44nm,1.2s,mb5.3
SSE                                AMB      AMB
           comp=Z,150nm,4.7s
SSE                                LR       LR
           comp=N,221nm,28.1s,MS4.6
SSE                                LR       LR
           comp=E,364nm,28.1s,MS4.6
SSE                                LR       LR
           comp=Z,302nm,25.7s,MS4.5
INK   Inuvik            74.20 353  LR      LR       23 50 14.6
           comp=Z,585nm,18.6s,MS4.9,baz=131,slow=39
INK   Inuvik            74.20 353 eP       P        23 13 49.2  -1.4
INK                                pmax     pmax
           comp=Z,23nm,1.3s
INK   Inuvik            74.20 353 eP       P        23 13 49.2  -1.4
           comp=Z,24nm,1.3s,mb5.0
INCN  Inchon            74.28  55 eP       P        23 13 51.6  -0.1
           comp=Z,110nm,1.0s,mb5.7
YKW3  Yellowknife Ar    76.47 343 eP       P        23 14 02.5  -1.2
YKA   Yellowknife Ar    76.53 343  P       P        23 14 02.6  -1.5
           comp=Z,2.1nm,0.7s,mb4.2,baz=34,slow=5.6,SNR=33
YKA                                LR       LR       23 50 40.3
           comp=Z,480nm,18.2s,MS4.8,baz=30,slow=38
YKA   Yellowknife Ar    76.53 343 i P      P        23 14 02.7  -1.4
YKA                                pmax     pmax
           comp=Z,2.0nm,0.7s
IMA   Indian Mountai    77.31   1 eP       P        23 14 09.6  +1.3
IMA                                pmax     pmax
           comp=Z,17nm,0.8s,mb5.0
IMA   Indian Mountai    77.31   1 eP       P        23 14 09.6  +1.3
           comp=Z,17nm,0.8s,mb5.0
YSS   Yuzh-Sakhalins    77.92  40 eP       P        23 14 12.8  +0.7
ANM   Nome              78.25   6 eP       P        23 14 14.4  +0.9
COLA  College           78.48 358 eP       P        23 14 15.7  +0.9
COLA                               pmax     pmax
           comp=Z,98nm,1.8s,mb5.4
COLA  College           78.48 358 eP       P        23 14 15.7  +0.9
           comp=Z,98nm,1.8s,mb5.4
ILAR  Eielson Array     78.56 358  P       P        23 14 14.4  -0.8
           comp=Z,2.7nm,0.6s,mb4.3,baz=346,slow=5.5,SNR=24
ILAR                               PKKPbc            23 33 09.3
           comp=Z,0.8nm,0.7s,baz=218,slow=2.1,SNR=7.6
ILAR                               LR       LR       23 53 55.1
           comp=Z,209nm,18.9s,MS4.5,baz=246,slow=40
DAWY  Dawson            78.87 355 eP       P        23 14 17.1  +0.2
MCK   McKinley          79.65 359 eP       P        23 14 21.3  +0.2
MCK                                pmax     pmax
           comp=Z,28nm,1.3s,mb5.0
MCK                                MLR      MLR
           comp=Z,214nm,20.0s,MS4.5
MCK   McKinley          79.65 359 eP       P        23 14 21.3  +0.1
           comp=Z,28nm,1.3s,mb5.0
MCK                                LR       LR
           comp=Z,214nm,20.0s,MS4.5
ULM   Lac du Bonnet     80.25 327  P       P        23 14 23.9  -0.7
           comp=Z,3.9nm,0.8s,mb4.4,baz=45,slow=7.0,SNR=4.1
ULM                                LR       LR       23 50 54.3
           comp=Z,1µm,19.9s,MS5.2,baz=52,slow=36
ULM   Lac du Bonnet     80.25 327 eP       P        23 14 24.1  -0.5
           comp=Z,10nm,1.0s,mb4.7
MENT  Mentasta          80.27 356 eP       P        23 14 25.7  +1.2
SML   Sawmill           81.56 358 eP       P        23 14 29.4  -1.9
PMR   Palmer            81.80 359 eP       P        23 14 33.1  +0.6
PMR                                pmax     pmax
           comp=Z,61nm,1.1s,mb5.4
PMR   Palmer            81.80 359 eP       P        23 14 33.1  +0.6
           comp=Z,61nm,1.1s,mb5.4
MAJO  Matsushiro        82.20  50 eP       P        23 14 35.5  +0.3
MAJO                               pmax     pmax
           comp=Z,33nm,1.0s,mb5.2
MAJO  Matsushiro        82.20  50 eP       P        23 14 35.5  +0.4
           comp=Z,33nm,1.0s,mb5.2
MAT   Matsushiro        82.20  50  P       P        23 14 35.5  +0.3
MAT   Matsushiro        82.20  50 eP       P        23 14 36.0  +0.8
MAT                                pmax     pmax
           comp=Z,103nm,1.6s,mb5.5
MAT   Matsushiro        82.20  50 eP       P        23 14 36.0  +0.8
           comp=Z,103nm,1.6s,mb5.5
EYAK  Cordova Ski Ar    82.75 357 eP       P        23 14 38.1  +0.6
SLKM  Skilak Lake       82.90 359 eP       P        23 14 38.7  +0.4
DLBC  Dease Lake        83.28 349  LR      LR       23 52 01.8
           comp=Z,589nm,21.2s,MS4.9,baz=101,slow=36
FX1   Attu Island--F    85.46  21  LR      LR       23 55 12.8
           comp=Z,29nm,19.6s,MS3.7,baz=173,slow=37
KDAK  Kodiak Island     85.64   1 eP       P        23 14 52.6  +0.5
           comp=Z,15nm,0.7s,mb5.3
WVT   Waverly           86.28 313  P       P        23 14 55.8   0.0
WVT                                pmax     pmax
           comp=Z,4.0nm,0.8s,mb4.7
WVT   Waverly           86.28 313  P       P        23 14 55.8  +0.1
           comp=Z,4.3nm,0.8s,mb4.7
LRAL  Lakeview Retre    87.92 311  P       P        23 15 03.6  -0.1
           comp=Z,5.8nm,0.5s,mb5.1
BAO   Brasilia Array    88.75 249  P       P        23 15 09.5  +1.4
BAO                               e                  23 15 12.5
BAO                               e        pP       23 15 17.2  +0.9
BAO                               e                  23 15 23.4
BDFB  Brasilia          88.77 249  P       P        23 15 07.6  -0.6
           comp=Z,12nm,0.7s,mb5.3,baz=74,slow=5.0,SNR=15
BDFB                               LR       LR       23 57 21.7
           comp=Z,724nm,19.9s,MS5.1,baz=64,slow=37
BBB   Bella Bella       88.90 346  LR      LR       23 56 18.2
           comp=Z,504nm,20.7s,MS4.9,baz=326,slow=36
NEW   Newport           89.77 338 eP       P        23 15 12.2   0.0
NEW                                pmax     pmax
           comp=Z,3.0nm,0.5s
NEW   Newport           89.77 338 eP       P        23 15 12.2   0.0
           comp=Z,3.0nm,0.5s,mb4.9
BOZ   Bozeman (W)       90.23 333 eP       P        23 15 14.7  +0.3
BOZ                                pmax     pmax
           comp=Z,4.0nm,0.8s,mb4.8
BOZ   Bozeman (W)       90.23 333 eP       P        23 15 14.7  +0.3
           comp=Z,4.4nm,0.8s,mb4.8
SNOW  Snow King Moun    91.78 332 eP       P        23 15 21.8  +0.3
SDV   Santo Domingo     91.83 282  LR      LR       23 51 38.3
           comp=Z,72nm,20.2s,MS4.1,baz=104,slow=32
SDV   Santo Domingo     91.83 282 eP       P        23 15 21.4  -1.1
           comp=Z,7.3nm,0.8s,mb5.1
SDV                                LR       LR
           comp=Z,221nm,21.0s,MS4.6
PDAR  Pinedale Array    91.90 330  P       P        23 15 21.2  -0.9
           comp=Z,1.0nm,0.8s,mb4.2,baz=56,slow=5.3,SNR=7.1
PDAR                               LR       LR       23 58 48.3
           comp=Z,468nm,18.3s,MS5.0,baz=35,slow=37
BMO   Blue Mountains    92.87 336 eP       P        23 15 23.8  -2.7
           comp=Z,2.7nm,0.8s,mb4.7
WMOK  Wichita Mounta    93.39 319 eP       P        23 15 29.0  -0.2
WMOK                               pmax     pmax
           comp=Z,3.0nm,1.0s,mb4.7
WMOK  Wichita Mounta    93.39 319 eP       P        23 15 29.0  -0.2
           comp=Z,3.2nm,1.0s,mb4.7
HWUT  Hardware Ranch    93.67 331 eP       P        23 15 30.0  -0.3
           comp=Z,3.9nm,0.8s,mb4.9
HWUT                               LR       LR
           comp=Z,1µm,21.0s,MS5.3
ANMO  Albuquerque       97.05 324  LR      LR       23 59 57.5
           comp=Z,659nm,19.9s,MS5.1,slow=36
ROSC  El Rosal          97.19 282  LR      LR       23 57 43.9
           comp=Z,142nm,18.1s,MS4.5,baz=175,slow=34
NVAR  Mina Array Bea    98.94 334  PKKPbc            23 32 20.6
           comp=Z,0.8nm,0.8s,baz=212,slow=4.6,SNR=4.4
SYO   Syowa Base       105.96 176 ⇓PKiKP            23 20 41.6
SYO   Syowa Base       105.96 176 ⇓PP      PP       23 20 50.0  -1.0
VNA1  Neumayer--Stat   110.47 192⇑iP       PKPdf    23 21 14.3  +26
SNAA  Sanae            110.53 190⇑iP       PP       23 21 24.1  -0.9
VNA2  Neumayer--Watz   110.57 192⇑iP       PKPdf    23 21 10.4  +21
VNA3  Neumayer Olymp   111.22 192⇑iP       PKPdf    23 21 16.4  +26
WRA   Warramunga Arr   114.23  97  PKP     PKPdf    23 20 53.3  -4.0
           comp=Z,2.4nm,0.8s,baz=311,slow=1.8,SNR=19
WRA                                PP       PP       23 21 45.8  -7.2
           comp=Z,2.1nm,1.0s,baz=317,slow=5.5,SNR=3.2
WRAB  Tennant Creek    114.23  97 ePKIKP   PKPdf    23 20 54.0  -3.3
WB2   Warramunga Arr   114.24  97 i PKP    PKPdf    23 20 53.7  -3.6
ASPA  Alice Springs    115.83 101 ePKP     PKPdf    23 20 56.5  -3.8
ASAR  Alice Springs    115.83 101  PKP     PKPdf    23 20 56.6  -3.7
           comp=Z,3.8nm,0.7s,baz=320,slow=1.3,SNR=30
CTA   Charters Tower   123.82  91 eP       PKPdf    23 21 12.8  -3.1
           comp=Z,6.2nm,0.7s
CTA   Charters Tower   123.82  91  PKP     PKPdf    23 21 12.9  -3.0
           comp=Z,8.8nm,0.8s,baz=277,slow=3.2,SNR=12
CTA   Charters Tower   123.82  91  PKIKP   PKPdf    23 21 12.9  -3.0
CTA                                pmax     pmax
           comp=Z,9.0nm,0.8s
CTAO  Charters Tower   123.82  91 ePKIKP   PKPdf    23 21 11.9  -4.0
STKA  Stephens Creek   125.69 106 eP       PKPdf    23 21 15.4  -3.8
           comp=Z,6.3nm,0.9s
STKA  Stephens Creek   125.69 106  PKP     PKPdf    23 21 15.6  -3.6
           comp=Z,5.2nm,0.8s,baz=291,slow=3.6,SNR=11
QSPA  South Pole Qui   126.78 180⇑iP       PKPdf    23 21 16.8  -3.2
VNDA  Vanda            134.75 167 ePKIKP   PKPdf    23 21 30.8  -4.5
AFI   Afiamalu         150.86  43 ePKIKP   PKPdf    23 22 07.3  +2.7
RPZ   Rata Peaks       150.94 115  PKPbc   PKPdf    23 22 07.2  +3.3
           comp=Z,52nm,0.7s,baz=279,slow=0.5,SNR=16
```

IDC 20 23:07:25.3±4.5**, 31.38S**×**138.69E, mb1 2.9**/3**, mb1mx2.9**/10**, ML2.3**/3**, Error ellipse: s-maj=82.5km s-min=18.4km az=30.0, South Australia**

```
Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op       ISC       h  m  s    ISC
STKA  Stephens Creek     2.53 102   Pn       Pn        23 08 07.2  -1.0
           0.2nm,0.3s,baz=302,slow=13,SNR=2.0
STKA                                Pg       Pg        23 08 12.6  -3.1
           1.3nm,0.3s,baz=282,slow=15,SNR=14
STKA                                Lg                 23 08 44.8
           3.8nm,0.3s,baz=182,slow=22,SNR=11
ASAR  Alice Springs      8.78 330   Pn       P         23 09 35.0  -1.4
           0.0nm,0.3s,baz=150,slow=14,SNR=2.7
WRA   Warramunga Arr    12.04 340   Pn       P         23 10 16.2  -5.0
           0.1nm,0.3s,baz=154,slow=12,SNR=5.8
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MOS ***21*** *00:23:33.1±3.0, 36.60N×28.55E, h33km, mb4.1/6, Error ellipse: s-maj=14.9km s-min=9.0km az=107.0*

ISK ***21*** *00:23:33.0, 37.05N×28.19E, h5km, ML4.0*

NEIC ***21*** *00:23:34.4, 37.06N×28.21E, h18km, mb4.2/16, MD3.9(ATH), After ATH.*

ATH ***21*** *00:23:34.5, 37.05N×28.21E, h19km±3km, MD3.9/16*

ZUR_RM ***21*** *00:23:34, 37.06N×28.21E, h9km, Mw4.2/13, Moment Tensor Solution. s13 Moment tensor: Scale 10^{15}Nm; M_{rr}-1.83; $M_{\theta\theta}$1.91; $M_{\phi\phi}$-0.08; $M_{r\theta}$0.48; $M_{\theta\phi}$0.03; $M_{\phi r}$0.10; Best double couple: $M_0$1.93×10^{15} NP1:ϕ_s266°,δ52°,λ-93°. NP2:ϕ_s92°,δ38°,λ-86°. Principal axes: T 1.969, Plg7°, Azm359°; N -.076, Plg3°, Azm268°; P -1.893, Plg82°, Azm158°;*

CSEM ***21*** *00:23:36.5±0.1, 36.98N×28.29E, h41km, mb4.3/14, Ms2.9, Mw3.9 Error ellipse: s-maj=1.8km s-min=1.2km az=31.0*

IDC ***21*** *00:23:38.0±2.4, 37.02N×28.29E, h36km±24km, mb3.7/8, mb1 4.1/14, mb1mx3.9/25, ML4.2/6, MS3.1/1, Ms1 3.2/1, ms1mx2.6/26, Error ellipse: s-maj=19.5km s-min=15.5km az=20.0*

NIC ***21*** *00:23:39.5±0.4, 36.71N×28.17E, h25km, mb4.2, ML3.8*

ISC 21 00:23:36.4±0.2**, 36.96N**±0.02×**28.28E**±0.02**, h42km**±3km**, n182, σ1§13**/212**, mb4.1**/16**, MS3.0**/1**, 5C-2D, Dodecanese Islands**

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Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                    Op       ISC       h  m  s    ISC
DALT  Dalyan (Mudla)     0.34 124  i PG      P         00 23 43.3  -2.0
BDRM  Kayabasi           0.68 279  i P       P         00 23 47.4  -2.2
BDRM                               i S       S         00 23 58.5  -0.8
FETY  Fethiye            0.72 117  i PG      P         00 23 49.2  -1.0
FETY                                 SG      S         00 24 02.0  +1.7
ARG   Arkhangelos        0.76 190  ePN       P         00 23 49.5  -1.2
ARG                                eSN       S         00 24 02.6  +1.4
ARG   Arkhangelos        0.76 190  ePn       P         00 23 49.0  -1.7
ARG                                eSn       S         00 24 02.6  +1.4
AYDN  Tasoluk            0.77 335  i P       P         00 23 48.3  -2.5
AYDN                               i S       S         00 23 57.7  -3.7
DNZL  Cakiroluk          0.95  40  i P       P         00 23 51.6  -1.8
DNZL                               i S       S         00 24 06.8  +0.8
DENT  Denizli            0.99  37  i PG      P         00 23 52.2  -1.8
NISR  Nisiros            0.99 250  ePN       P         00 23 53.5  -0.5
ELL   Elmali             1.32  99    PN      P         00 24 00.7  +1.9
KSL   Kastellorizon      1.33 127  ePN       P         00 24 01.5  +2.6
SMG   Samos              1.37 303⇓iPN       P         00 23 59.1  -0.4
MANT  Manisa             1.54   8  i P       P         00 24 01.7  -0.2
MANT                               i S       S         00 24 20.5  -0.4
IZM   Izmir              1.64 331  i PN      P         00 24 02.9  -0.4
KDAG  Bornova            1.65 331  i P       P         00 24 03.1  -0.3
KDAG                               i S       S         00 24 24.3  +0.8
KHL   Karahalli          1.68  36    PN      P         00 24 04.7  +0.9
KARP  Karpathos          1.68 213  ePB       P         00 24 04.5  +0.7
BLCB  Balcova            1.73 326    PN      P         00 24 04.1  -0.4
ANTB  Antalya            1.90  91  ePN       P         00 24 09.1  +2.1
BCK   Bucak              1.91  74  ePN       P         00 24 08.7  +1.6
AKS   Akhisar            1.95 349    PN      P         00 24 06.8  -0.9
ISP   Isparta            1.98  63  ePN       P         00 24 09.7  +1.6
ISP   Isparta            1.98  63c iP        P         00 24 09.2  +1.1
ISP   Isparta            1.98  63  ePn       P         00 24 09.6  +1.5
APE   Apeiranthos        2.21 274    PN      P         00 24 10.7  -0.7
APE   Apeiranthos        2.21 274  ePB       P         00 24 10.6  -0.7
APE   Apeiranthos        2.21 274⇓iP        P         00 24 10.6  -0.7
SANT  Santorini          2.35 256  ePn       P         00 24 15.0  +1.7
SANT  Santorini          2.35 256  ePn       P         00 24 15.0  +1.7
THR1  Thera Island       2.35 256  eP        P         00 24 14.1  +0.8
THR3  Thira Island,      2.38 257  eP        P         00 24 15.8  +2.0
THR6  Thira Island,      2.40 256  eP        P         00 24 14.8  +0.7
THR5  Thira Island,      2.42 258  eP        P         00 24 15.1  +0.7
ALT   Altintas           2.54  34    PN      P         00 24 16.5  +0.4
DST   Dursunbey          2.65   6    PN      P         00 24 17.1  -0.6
AYVA  Ayvalik            2.66 332  i P       P         00 24 16.9  -0.8
AYVA                               i S       S         00 25 01.4   +12
BALB  Balikesir          2.69 353  ePN       P         00 24 17.1  -1.1
NPS   Neapolis           2.75 233  ePN       P         00 24 20.0  +0.9
PRK   Paraskevi          2.78 326  ePN       P         00 24 19.0  -0.5
XRY   Khrisi             2.96 226  ePB       P         00 24 24.2  +2.1
ORLT  Orhaneli           3.11   9  ePN       P         00 24 24.1  -0.2
IDI   Anoyia             3.21 240    Pn      P         00 24 27.1  +1.4
           16nm,0.3s,baz=58,slow=18,SNR=74
IDI                                  Sn      S         00 25 05.6  +2.4
           19nm,0.3s,baz=311,slow=8.8,SNR=23
ULDT  Uludag             3.24  12  i P       P         00 24 26.2  +0.1
ULDT                               i S       S         00 25 15.0   +11
EZN   Ezine              3.24 332    PN      P         00 24 25.2  -0.9
ESKT  Eskisehir          3.25  38  i P       P         00 24 27.4  +1.1
ESKT                               i S       S         00 25 18.1   +14
ESKT  Eskisehir          3.25  38  ePn       P         00 24 27.1  +0.8
KCT   Karacabey          3.30   1    PN      P         00 24 26.0  -0.9
BOZC  Bozcaada           3.37 329  i P       P         00 24 27.0  -0.8
HDMB  Hadim              3.37  89  ePN       P         00 24 30.4  +2.6
KONT  Konya--Tatoy       3.39  72    PN      P         00 24 29.9  +1.7
EDC   Edincik            3.39 355    PN      P         00 24 27.2  -1.0
BNT   Bandirma           3.40 355    PN      P         00 24 27.1  -1.2
KIZT  Kizilcal           3.43  55    PN      P         00 24 30.1  +1.4
VAM   Vamos              3.65 246  ePB       P         00 24 34.4  +2.5
PTL   Penteli            3.68 288  ePN       P         00 24 32.2   0.0
GPA   Golpazari          3.68  25  ePN       P         00 24 33.2  +0.9
AKMC  Akamas             3.81 119⇑iP        P         00 24 35.0  +0.9
AKMC                                 S       S         00 25 18.2   0.0
LOS   Limnos             3.89 321  eP        P         00 24 35.1  -0.1
PPCY  Paphos             3.90 121    P       P         00 24 36.2  +0.9
PPCY                                 S       S         00 25 21.1  +0.7
NAIG  Nisos Aigina       3.90 283  ePN       P         00 24 35.1  -0.3
ALFC  Alevga             3.94 116⇑iP        P         00 24 36.5  +0.6
           6.6nm,0.3s
ALFC                                 S       S         00 25 22.1  +0.7
NSAL  Nisos Salamina     3.95 285  ePN       P         00 24 36.0  -0.1
HRT   Hereke             4.00  15  ePN       P         00 24 37.6  +0.8
GVD   Gavdhos            4.01 239  ePn       P         00 24 39.5  +2.6
GVD   Gavdhos            4.01 239  ePn       P         00 24 39.5  +2.5
AOS   Alonnisos          4.11 304  eP        P         00 24 38.5  +0.1
ISK   Istanbul-Kandi     4.14   8  ePN       P         00 24 38.7  -0.1
LEF   Lefka              4.16 115  ePN       P         00 24 40.9  +1.8
MDU   Mudurnu            4.18  32  ePN       P         00 24 40.4  +1.1
KYTH  Kithira            4.28 262  ePN       P         00 24 41.6  +0.9
VLI   Veliai             4.29 268  ePN       P         00 24 41.5  +0.5
ALN   Alexandroupoli     4.30 337  eP        P         00 24 39.8  -1.2
HENT  Hendek             4.36  27  i P       P         00 24 42.2  +0.2
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HENT				iS	S	00 25 45.4	+13
MAMC	Mammari	4.38	113	P	P	00 24 44.0	+1.8
IKL	Isikli	4.41	98	ePN	P	00 24 44.6	+2.1
CSS	Prodhromos	4.56	115	ePn	P	00 24 45.4	+0.7
CSS	Prodhromos	4.56	115	ePn	P	00 24 45.4	+0.7
SGKT	Sivrigoynuk	4.66	38	iP	P	00 24 47.2	+1.1
SGKT				iS	S	00 26 03.9	+24
PAIG	Paliouri	4.67	311	eP	P	00 24 45.5	-0.8
XOR	Xorichti	4.67	302	eP	P	00 24 45.9	-0.5
RDO	Rodhopi	4.69	334	ePN	P	00 24 45.5	-1.1
MEST	Erdemli	4.72	93	iP	P	00 24 50.4	+3.4
MEST				iS	S	00 25 46.9	+5.6
OUR	Ouranopolis	4.76	316	eP	P	00 24 47.0	-0.6
KAMT	Kaman	4.91	59	ePN	P	00 24 50.5	+0.9
EDRB	Edirne	5.02	347	ePN	P	00 24 49.8	-1.4
BRTR	Keskin Array B	5.03	55	Pn	P	00 24 51.1	-0.3
	4.1nm,0.3s,baz=241,slow=15,SNR=67						
BRTR				Sn	S	00 25 49.4	+0.4
	2.1nm,0.3s,baz=219,slow=26,SNR=7.5						
BRTR	Keskin Array B	5.03	55	P	P	00 24 51.1	-0.3
BRTR						00 25 49.4	
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
AGG	Agios Georgios	5.13	295	eP	P	00 24 53.3	+0.6
NIG	Nigde	5.16	75	ePN	P	00 24 54.7	+1.6
ELDT	Eldivan	5.34	47	iP	P	00 24 56.4	+0.7
SOH	Sokhos	5.44	317	eP	P	00 24 56.7	-0.3
SAFT	Safranbolu	5.47	37	ePN	P	00 24 58.4	+0.9
LIT	Litokhoron	5.52	306	eP	P	00 24 58.1	0.0
SRS	Serrai	5.52	320	eP	P	00 24 57.1	-1.1
KNT	Kendrikon	5.93	317	eP	P	00 25 03.8	0.0
BALT	Daday	6.04	39	iP	P	00 25 04.8	-0.7
TOS	Tosya	6.04	46	ePN	P	00 25 06.8	+1.4
GRG	Griva	6.07	313	eP	P	00 25 06.2	+0.2
HTY	Hatay	6.38	95	ePN	P	00 25 12.0	+1.8
COBT	Iskenderun	6.42	92	iP	P	00 25 12.2	+1.4
COBT				iS	S	00 26 23.2	-0.5
FNA	Florina	6.60	307	eP	P	00 25 13.8	+0.4
HWQ	Hawqa	6.79	111	ePN	P	00 25 15.3	-0.8
BOYT	Boyabat	6.80	47	iP	P	00 25 16.3	+0.1
BOYT				iS	S	00 26 31.2	-2.0
HNTI	Hanita	6.85	122	Pn	P	00 25 16.8	-0.1
HNTI				Sn	S	00 26 29.7	-4.7
KSDI	Kefar Szold	7.12	120	Pn	P	00 25 19.3	-1.4
FKH	Fakeheh	7.15	110	ePN	P	00 25 22.3	+1.2
SLTI	Sal’it	7.30	128	Pn	P	00 25 22.3	-0.8
KSHT	Keshet	7.34	121	Pn	P	00 25 22.8	-1.0
MMLI	Mount Malkishu	7.41	125	Pn	P	00 25 24.0	-0.7
HMDT	Nahal Hemdat	7.60	126	Pn	P	00 25 26.1	-1.2
HMDT				Sn	S	00 26 49.3	-3.7
KZIT	Kziot	7.89	138	Pn	P	00 25 30.1	-1.2
KZIT				Sn	S	00 26 54.5	-5.8
RTMM	Retamin	7.94	136	Pn	P	00 25 30.2	-1.8
DRGI	Dragot	7.96	130	Pn	P	00 25 31.8	-0.4
MASH	Mash‘abbe Sade	8.04	136	Pn	P	00 25 31.6	-1.7
MKRJ	Makawir	8.14	129	Pn	P	00 25 34.1	-0.6
MZDA	Masada	8.14	132	Pn	P	00 25 33.4	-1.3
MZDA				Sn	S	00 27 01.2	-5.2
ASF	Jabal al Asfar	8.56	121	Pn	P	00 25 39.5	-1.1
	comp=Z,1.6nm,0.3s,baz=215,slow=11,SNR=15						
ASF				Sn	S	00 27 16.9	0.0
	comp=Z,1.9nm,0.3s,baz=335,slow=19,SNR=4.0						
ZFRI	Zfri	8.59	136	Pn	P	00 25 39.2	-1.8
PRNI	Paran	8.65	138	Pn	P	00 25 39.5	-2.4
PRNI				Sn	S	00 27 12.4	-6.8
MLR	Muntele Rosu	8.70	349	Pn	P	00 25 41.5	-1.0
	comp=Z,0.4nm,0.3s,baz=212,slow=9.5,SNR=22						
KMTI	Karmit	8.70	140	Pn	P	00 25 39.8	-2.7
KMTI				Sn	S	00 27 13.6	-6.8
MBH	Mount Berech	9.05	140	Pn	P	00 25 45.3	-2.0
EIL	Elat	9.16	141	Pn	P	00 25 46.8	-2.1
	comp=Z,7.2nm,0.3s,baz=339,slow=9.6,SNR=42						
EIL				Sn	S	00 27 26.3	-5.6
	comp=Z,2.8nm,0.3s,baz=50,slow=24,SNR=4.7						
EIL	Elat	9.16	141	Pn	P	00 25 47.6	-1.4
EIL				Sn	S	00 27 26.3	-5.6
AQBJ	Aqaba	9.17	140	Pn	P	00 25 47.0	-2.0
ALWS	Ilw as Safayha	9.52	141	P	P	00 25 53.1	-0.7
JMOS	Jabal al Moall	9.65	142	P	P	00 25 54.3	-1.4
HAQS	Haql	9.66	143	P	P	00 25 53.9	-1.8
HAQS				S	S	00 27 39.2	-4.8
TAYS	Tayyib Ism	10.05	145	P	P	00 26 00.5	-0.7
BDAS	Al Bad‘	10.26	144	P	P	00 26 02.6	-1.5
JMQS	Jabal Moqyreh	10.27	139	P	P	00 26 04.7	+0.5
AYUS	‘Aynunah	10.54	144	P	P	00 26 06.5	-1.4
DBAS	Duba	11.70	144	P	P	00 26 22.4	-1.2
KBA	Koelnbreinsper	14.99	317	⇑iP	P	00 27 14.9	+8.1
	comp=Z,2.6nm,0.6s						
GEC2	GERESS Array S	15.94	323	eP	P	00 27 24.6	+5.5
GERES	GERESS Array B	15.94	323	Pn	P	00 27 24.1	+5.0
	comp=Z,0.2nm,0.3s,baz=137,slow=12,SNR=19						
KHC	Kasperske Hory	16.19	323	eP	P	00 27 27.0	+4.7
WET	Wettzell	16.54	322	eP	P	00 27 31.3	+4.7
DAVA	Damuels	17.07	313	⇑iP	P	00 27 39.0	+5.7
	comp=Z,2.4nm,0.7s						
MBDF	Montbardon	18.00	302	eP	P	00 27 42.8	-2.1
	comp=Z,50nm,1.2s						
MOX	Moxa	18.15	324	eP	P	00 27 50.2	+3.4
MOX				pmax	pmax		
	comp=Z,14nm,1.2s						
MOX	Moxa	18.15	324	iP	P	00 27 50.2	+3.4
	comp=Z,logA/T=1.1						
MOX	Moxa	18.15	324	eP	P	00 27 50.2	+3.4
	comp=Z,14nm,1.2s						
LPG	La Plagne	18.26	305	eP	P	00 27 49.4	+1.2
	comp=Z,34nm,1.1s						
LPL	La Plagne	18.28	305	eP	P	00 27 49.2	+0.7
ORIF	Oris-en-Rattie	18.66	302	eP	P	00 27 51.6	-1.5
ORIF				eR			
	comp=Z,86nm,18.0s						
OBN	Obninsk	19.02	15	P	P	00 27 53.0	-4.2
CABF	La Chapelle	19.10	307	eP	P	00 27 59.0	+0.8
	comp=Z,35nm,0.9s						
CDF	Champ du Feu	19.15	313	eP	P	00 27 58.9	+0.2
VIVF	Saint-Julien-l	19.46	301	eP	P	00 28 02.5	+0.3
	comp=Z,17nm,0.8s						
HAU	Haudompre	19.51	311	eP	P	00 28 02.6	-0.1
	comp=Z,13nm,0.9s						
HAU				eR			
	comp=Z,96nm,17.2s						
LASF	Ste Croix	19.84	299	eP	P	00 28 06.1	-0.2
SMF	Signal de Mont	20.56	306	eP	P	00 28 13.8	0.0
	comp=Z,93nm,1.1s						
SSF	Saint Saulge	20.91	307	eP	P	00 28 17.5	0.0
	comp=Z,6.8nm,0.6s						
AVF	Avril sur Loir	20.92	306	eP	P	00 28 17.7	+0.1
	comp=Z,18nm,0.9s						
BGF	Bois d’Agland	21.18	305	eP	P	00 28 20.7	+0.5
	comp=Z,73nm,1.4s,mb4.5						
CAF	Calviac	21.28	300	eP	P	00 28 21.8	+0.6
	comp=Z,42nm,1.4s,mb4.3						
BAIF	Baives	21.70	315	eP	P	00 28 25.3	-0.1
	comp=Z,38nm,1.3s,mb4.4						
RJF	Les Rejaudoux	21.74	301	eP	P	00 28 26.3	+0.5
	comp=Z,19nm,0.9s,mb4.2						
LFF	La Frestale	22.20	300	eP	P	00 28 30.9	+0.5
	comp=Z,13nm,0.8s,mb4.1						
MFF	Saint Martin d	23.17	303	eP	P	00 28 40.7	+0.8
LDF	La Druitiere	23.73	308	eP	P	00 28 45.6	+0.4
	comp=Z,99nm,1.6s,mb4.7						
FINES	FINESS Array B	24.54	357	P	P	00 28 53.6	+0.6
	comp=Z,4.5nm,0.7s,mb4.1,baz=158,slow=10,SNR=10						
FINES	FINESS Array B	24.54	357	P	P	00 28 53.6	+0.6
FINES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
HFS	Hagfors	25.00	343	P	P	00 28 57.5	+0.1
	comp=Z,4.2nm,0.8s,mb4.0,baz=135,slow=10,SNR=4.9						
HFS	Hagfors	25.00	343	P	P	00 28 57.5	0.0
HFS				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ESDC	Sonseca Array	25.37	286	P	P	00 29 01.8	+0.6
	comp=Z,1.5nm,0.5s,mb3.8,baz=82,slow=9.2,SNR=16						
NOA	NORSAR Array B	26.40	341	P	P	00 29 09.2	-1.3
	comp=Z,0.9nm,0.8s,mb3.3,baz=143,slow=16,SNR=3.0						
NOA				LR	LR	00 39 25.8	
	comp=Z,40nm,18.6s,MS3.0,baz=200,slow=36						
NOA	NORSAR Array B	26.40	341	P	P	00 29 09.2	-1.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,40nm,18.6s						
EKA	Eskdalemuir Ar	28.14	321	P	P	00 29 26.8	+0.4
	comp=Z,2.4nm,0.9s,mb3.8,baz=110,slow=9.8,SNR=3.6						
EKA	Eskdalemuir Ar	28.14	321	P	P	00 29 26.8	+0.4
EKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AAK	Ala-Archa	35.60	66	iP	P	00 30 23.7	-8.1
KOLN	Koldanda	47.05	85	eP	P	00 32 06.7	+1.0
	comp=Z,8.2nm,0.9s,mb4.6						
GKN	Gorkha	47.78	84	eP	P	00 32 11.6	+0.1
KKN	Kakani	48.38	84	eP	P	00 32 16.3	+0.2
	comp=Z,5.7nm,0.7s,mb4.7						
PKI	Pulchoki	48.58	84	eP	P	00 32 18.3	+0.6
GUN	Gumba	48.80	83	eP	P	00 32 19.4	0.0
SONM	Songino Array	56.39	52	P	P	00 33 16.3	+0.7
	comp=Z,0.5nm,0.6s,mb3.7,baz=292,slow=7.4,SNR=5.1						
CMAR	Chiang Mai Arr	63.88	86	P	P	00 34 06.7	-0.6
	comp=Z,0.9nm,0.4s,mb4.2,baz=295,slow=8.5,SNR=5.8						
CMAR	Chiang Mai Arr	63.88	86	P	P	00 34 06.7	-0.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ILAR	Eielson Array	78.53	358	P	P	00 35 34.7	+0.4
	comp=Z,0.6nm,1.0s,mb3.5,baz=340,slow=3.4,SNR=5.0						
ILAR	Eielson Array	78.53	358	P	P	00 35 34.7	+0.4
ILAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						

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*CSEM **21** 00:45:17.9±0.1, 37.02N×28.37E, h17^{km}±1^{km}, MD3.4, Error ellipse: s-maj=2.6km s-min=2.0km az=14.0*
*ISK **21** 00:45:18.9, 36.98N×28.36E, h41^{km}, MD3.4*
*ATH **21** 00:45:19.9, 36.94N×28.17E, h23^{km}±5^{km}, MD3.2/7*
*NEIC **21** 00:45:22.1, 36.74N×28.13E, h28^{km}, MD3.2(ATH), After ATH.*

ISC 21 00:45:18.9±0.5**, 37.04N**±0.03×**28.29E**±0.04**, h19**^{km}±7^{km}**, n28, σ1^{s}.17**/35**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.39	134	iPG	Pb	00 45 27.0	0.0
DALT				iSG	Sb	00 45 34.6	+2.2
BDRM	Kayabasi	0.68	273	iP	Pb	00 45 31.4	-0.6
BDRM				iS	Sb	00 45 41.8	+0.9
AYDN	Tasoluk	0.70	332	iP	Pb	00 45 32.1	-0.3
AYDN				iS	Sb	00 45 41.6	0.0
FETY	Fethiye	0.75	122	PG	Pb	00 45 32.2	-1.0
ARG	Arkhangelos	0.83	189	ePN	Pn	00 45 33.8	-1.8
ARG	Arkhangelos	0.83	189	ePn	Pn	00 45 33.5	-2.1
DNZL	Cakiroluk	0.89	42	iP	Pb	00 45 34.7	-0.8
DNZL				iS	Sb	00 45 46.2	-0.6
DENT	Denizli	0.93	39	iPG	Pb	00 45 35.7	-0.5
NISR	Nisiros	1.03	246	ePN	Pn	00 45 38.0	-0.4
ELL	Elmali	1.33	102	PN	Pn	00 45 41.5	-1.2
SMG	Samos	1.34	300	ePB	Pb	00 45 43.5	+0.3
SMG	Samos	1.34	300	ePn	Pn	00 45 43.2	+0.4
KSL	Kastellorizon	1.36	130	ePN	Pn	00 45 46.0	+2.8
KSL	Kastellorizon	1.36	130	ePb	Pb	00 45 45.5	+1.9
MANT	Manisa	1.47	8	iP	Pn	00 45 45.6	+0.9
MANT				iS	Sn	00 46 06.4	+3.0
IZM	Izmir	1.58	329	iPN	Pn	00 45 46.9	+0.6
KDAG	Bornova	1.59	329	iP	Pn	00 45 46.7	+0.4
KDAG				iS	Sn	00 46 04.9	-1.6
BLCB	Balcova	1.67	324	PN	Pn	00 45 47.9	+0.3
KARP	Karpathos	1.75	212	ePN	Pn	00 45 48.8	+0.1
KARP	Karpathos	1.75	212	ePn	Pn	00 45 49.1	+0.4
AKS	Akhisar	1.88	348	PN	Pn	00 45 50.7	+0.2
BCK	Bucak	1.88	76	ePN	Pn	00 45 49.7	-0.9
APE	Apeiranthos	2.21	272	ePN	Pn	00 45 54.7	-0.6
ALT	Altintas	2.47	35	ePN	Pn	00 45 57.6	-1.4
PRK	Paraskevi	2.72	325	ePN	Pn	00 46 05.0	+2.4
NPS	Neapolis	2.80	232	ePN	Pn	00 46 04.0	+0.3
NPS	Neapolis	2.80	232	ePb	Pb	00 46 05.0	-3.1
ULDT	Uludag	3.17	12	iP	Pn	00 46 14.6	+5.6
ULDT				iS	Sn	00 46 56.1	+10

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*NEIC **21** 00:47:47.1, 15.27N×96.40W, h10^{km}, MD3.7(MEX), After MEX.*

MEX 21 00:47:48.0±1.0**, 15.27N**×**96.40W, h12**^{km}±43^{km}**, MD3.7, 1C, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	Huatulco	0.57	29	iP	Pb	00 47 57.6	-1.8
HUIG				iS	Sb	00 48 05.3	-1.9
HUIG	Huatulco	0.57	29	⇑iP	Pb	00 47 57.6	-1.8
HUIG				iS	Sb	00 48 05.3	-1.9
VHO	Vista Hermosa	1.82	350	eP	Pn	00 48 17.1	-2.4
VHO				iS	Sn	00 48 37.9	-4.8
VHO	Vista Hermosa	1.82	350	eP	Pn	00 48 18.2	-1.3
VHO				iS	Sn	00 48 37.9	-4.8
OXX	Oaxaca	1.83	350	iP	Pn	00 48 17.7	-1.9
PNIG	Pinotepa	2.01	304	iP	Pn	00 48 19.9	-2.2
PNIG				iS	Sn	00 48 42.1	-5.2
PNIG	Pinotepa	2.01	304	iP	Pn	00 48 19.7	-2.4
PNIG				iS	Sn	00 48 42.1	-5.2
CMIG	Matias Romero	2.32	39	eP	Pn	00 48 23.2	-3.4
CMIG				iS	Sn	00 48 51.5	-3.9

CASC 21 01:12:02.5±2.3**, 11.28N**×**87.37W, h9**^{km}±28^{km}**, MD4.0, 2C-3D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	Copaltepe	1.17	40	⇓eP	Pb	01 12 23.9	-0.7
COPN				eS	Sb	01 12 37.8	-1.9
LEON	Leon	1.22	22	⇑eP	Pb	01 12 24.0	-1.3
MIRN	Miramar	1.32	29	eP	Pb	01 12 26.4	-0.6
MIRN				eS	Sb	01 12 44.8	+1.0
APYN	Apoyeque	1.37	46	⇑eP	Pn	01 12 26.6	-1.4
CNGN	Cerro Negro	1.38	28	eP	Pn	01 12 26.9	-1.1
CNGN				eS	Sb	01 12 46.9	+1.3
TEL3	Telica 3	1.38	22	eP	Pn	01 12 27.0	-1.0
MOMJ	Momotombo	1.38	36	⇓eP	Pn	01 12 26.8	-1.3
APON	Apoyo	1.42	64	eP	Pn	01 12 26.6	-2.1
APON				eS	Sb	01 12 49.0	+2.0
LAJ	Bijagual	3.49	114	eP	Pn	01 12 52.9	-5.3
LCR2	La Lucha 2	3.65	115	⇓eP	Pn	01 13 00.2	-0.2
LCR2				eS	Sn	01 13 42.7	-1.4

KRSC 21 01:16:41.1±1.5**, 55.43N**×**162.36E, h30**^{km}±5^{km}**, ML3.8, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.82	18	iP	Pn	01 16 56.3	-0.4
KBTR				eS	Sb	01 17 08.5	+1.0
KBG	Krutoberegovo	0.85	13	iP	Pn	01 16 56.6	-0.5
KBG				iS	Sb	01 17 09.8	+1.5
KBG				Smax			
	3µm,0.7s						
ZLN	Zelenaya	1.06	304	iP	Pn	01 17 00.3	+0.2
ZLN				eS	Sn	01 17 14.0	+0.1
CIRR	Tsirk	1.14	308	eP	Pn	01 17 01.3	+0.1
CIRR				eS	Sn	01 17 15.3	-0.7
LGNR	Loginova	1.15	305	iP	Pn	01 17 02.0	+0.6
LGNR				iS	Sn	01 17 16.8	+0.6
KMNR	Kamenistaya	1.25	286	iP	Pn	01 17 03.5	+0.7
KMNR				eS	Sn	01 17 19.8	+1.1
TUMR	Tumrok	1.27	264	iP	Pn	01 17 03.6	+0.5
TUMR				eS	Sn	01 17 19.0	-0.3
KRSR	Krestovskiy	1.28	309	eP	Pn	01 17 02.9	-0.4
KRSR				eS	Sn	01 17 19.4	-0.2
KLY	Klyuchi	1.31	313	eP	Pn	01 17 02.7	-0.9
KLY				eS	Sn	01 17 18.8	-1.4
SVLR	Shiveluch	1.32	331	iP	Pn	01 17 04.6	+0.8
SVLR				eS	Sn	01 17 21.3	+0.9
KPT	Kopyto	1.32	295	iP	Pn	01 17 04.8	+0.9
KPT				eS	Sn	01 17 21.1	+0.5
SRDR	Sredinnyy	1.73	302	iP	Pn	01 17 10.5	+0.8
SRDR				eS	Sn	01 17 33.0	+2.0
BKI	Bering	2.08	95	iP	Pn	01 17 13.5	-1.2
BKI				iS	Sn	01 17 36.5	-3.3
BKI				Smax			
	90nm,0.6s						
ESO	Esso	2.13	285	eP	Pn	01 17 16.2	+0.8
ESO				eS	Sn	01 17 40.8	-0.3
ESO				Smax			
	70nm,0.8s						
SPN	Mys Shipunski	2.71	211	P	Pn	01 17 21.8	-1.9
SPN				eS	Sn	01 17 52.7	-3.1
NLC	Nalytchevo	2.87	219	eP	Pn	01 17 26.2	+0.2
NLC				eS	Sn	01 17 58.7	-1.2
AVH	Avacha	3.03	226	eP	Pn	01 17 30.2	+1.9
AVH				eS	Sn	01 18 04.4	+0.4
GNL	Ganaly	3.10	238	eP	Pn	01 17 29.2	-0.1
GNL				eS	Sn	01 18 04.1	-1.7
PET	Petropavlovsk	3.25	224	eS	Sn	01 18 09.6	+0.2
GRL	Gorelyy	3.84	223	eP	Pn	01 17 40.6	+0.9
GRL				eS	Sn	01 18 25.0	+0.7

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*IDC **21** 01:19:13.2±1.1, 2.99S×130.07E, mb3.9/6, mb1 4.2/8, mb1mx4.1/17, ML4.0/2, Error ellipse: s-maj=59.8km s-min=18.1km az=64.0*
*NEIC **21** 01:19:14.7±0.6, 3.04S×130.08E, h10^{km}, mb4.2/3, Error ellipse: s-maj=16.6km s-min=9.2km az=62.0*

ISC 21 01:19:15.8±2.8**, 3.23S**±0.08×**130.1E**±0.1**, h33**^{km}±29^{km}**, n15, σ1^{s}.49**/18**, mb3.8**/5**, Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	9.68	166	eP	P	01 21 36.2	+0.2
	4.8nm,0.3s						
KAKA				eS	S	01 23 23.6	-1.1
FITZ	Fitzroy Crossi	15.41	196	Pn	P	01 22 53.8	+1.2
	0.2nm,0.3s,baz=20,slow=9.1,SNR=16						
WRAB	Tennant Creek	17.11	166	eP	P	01 23 15.1	+0.9
	15nm,0.4s						
WRA	Warramunga Arr	17.12	166	P	P	01 23 11.9	-2.4
	0.8nm,0.3s,baz=349,slow=11,SNR=31						
WRA				S	S	01 26 20.7	-1.4
	0.2nm,0.3s,baz=350,slow=23,SNR=4.7						
WB2	Warramunga Arr	17.12	166	eP	P	01 23 12.4	-1.9
WB2				e		01 23 19.5	
PMG	Port Moresby	18.04	111	P	P	01 23 26.0	+0.2
	10.0nm,0.8s						
ASAR	Alice Springs	20.65	170	P	P	01 23 57.6	+2.3
	8.5nm,0.4s,baz=348,slow=9.9,SNR=104						
ASAR				S	S	01 27 46.0	+6.8
	0.9nm,0.8s,baz=349,slow=18,SNR=5.1						
ASPA	Alice Springs	20.65	170	eP	P	01 23 57.7	+2.4
CTA	Charters Tower	23.01	138	P	P	01 24 22.8	+3.7
	1.5nm,0.3s,mb3.8,baz=314,slow=7.9,SNR=3.9						
CTA	Charters Tower	23.01	138	P	P	01 24 22.8	+3.7
CTAO	Charters Tower	23.01	138	eP	P	01 24 21.1	+2.0
	5.7nm,0.7s,mb4.1						
STKA	Stephens Creek	30.48	160	P	P	01 25 29.6	+1.5
	1.5nm,1.0s,mb3.7,baz=336,slow=11,SNR=2.9						
CMAR	Chiang Mai Arr	37.49	306	P	P	01 26 28.6	+0.1
	0.5nm,0.3s,mb3.8,baz=143,slow=8.3,SNR=4.1						
SONM	Songino Array	54.93	341	P	P	01 28 43.8	-2.0
	0.4nm,0.8s,mb3.5,baz=143,slow=7.2,SNR=3.3						
BVAR	Borovoye Array	74.95	327	P	P	01 30 54.8	-0.5
	2.1nm,1.2s,mb4.0,baz=108,slow=4.6,SNR=3.4						

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*ATH **21** 01:41:09.4, 37.15N×28.90E, h36^{km}, MD3.1/4*
*ISK **21** 01:41:13.4, 36.93N×28.19E, h26^{km}, MD3.3*
*CSEM **21** 01:41:14.1±0.1, 37.06N×28.30E, h15^{km}, MD3.3, Error ellipse: s-maj=2.9km s-min=1.8km az=60.0*
*NEIC **21** 01:41:18.4, 36.80N×28.13E, h38^{km}, MD3.1(ATH), After ATH.*

ISC 21 01:41:14.0±0.5**, 37.03N**±0.03×**28.25E**±0.04**, h6**^{km}±6^{km}**, n19, σ0^{s}.93**/27**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.41	130	iPG	Pg	01 41 22.2	0.0
DALT				iSG	Sg	01 41 29.3	+1.6
MLSB	Milas	0.46	305	PG	Pg	01 41 23.5	+0.2
BDRM	Kayabasi	0.65	273	iP	Pg	01 41 27.1	+0.1
BDRM				iS	Sg	01 41 37.0	+1.3
AYDN	Tasoluk	0.69	335	iP	Pg	01 41 26.7	-1.2
AYDN				iS	Sg	01 41 36.7	-0.5
FETY	Fethiye	0.78	120	PG	Pg	01 41 29.1	-0.5
FETY				SG	Sg	01 41 40.0	+0.1
ARG	Arkhangelos	0.82	187	ePN	Pn	01 41 30.5	-1.4
DNZL	Cakiroluk	0.91	44	iP	Pb	01 41 31.4	-0.4
DNZL				iS	Sb	01 41 45.3	+1.4
DENT	Denizli	0.95	41	PG	Pg	01 41 32.4	-0.7
NISR	Nisiros	0.99	245	ePN	Pn	01 41 36.0	+1.7
SMG	Samos	1.31	301	ePN	Pn	01 41 39.0	+0.1
ELL	Elmali	1.36	102	ePN	Pn	01 41 38.1	-1.4
MANT	Manisa	1.48	9	iP	Pn	01 41 41.0	-0.2
MANT				iS	Sb	01 42 02.1	+1.7
IZM	Izmir	1.57	330	PN	Pn	01 41 42.2	-0.4
KDAG	Bornova	1.57	331	iP	Pn	01 41 41.6	-1.0
KDAG				iS	Sb	01 42 03.3	+0.1
BLCB	Balcova	1.66	325	ePN	Pn	01 41 43.3	-0.5
KARP	Karpathos	1.73	211	ePN	Pn	01 41 44.5	-0.3
AKS	Akhisar	1.88	349	PN	Pn	01 41 46.2	-0.7
PRK	Paraskevi	2.71	325	ePb	Pb	01 42 06.5	+4.0
ULDT	Uludag	3.18	12	iP	Pn	01 42 06.6	+1.0
ULDT				iS	Sn	01 42 54.5	+10

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*IDC **21** 01:44:26.4±13.0, 11.88N×86.06W, mb3.8/3, mb1 4.2/3, mb1mx3.6/16, MS2.8/3, Ms1 2.8/3, ms1mx2.4/20, Error ellipse: s-maj=288.0km s-min=106.5km az=10.0*
*CASC **21** 01:44:35.0±2.5, 11.60N×86.92W, h68^{km}±34^{km}, MD4.1*

ISC 21 01:44:34.3±1.0**, 11.55N**±0.08×**86.92W**±0.05**, h69**^{km}±10^{km}**, n27, σ0^{s}.98**/40**, mb3.8**/3**, 7C-8D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COPN	Copaltepe	0.71	27	⇑eP	P	01 44 49.2	-0.1
COPN				eS	S	01 45 00.1	-0.4
TICN	Ticuantepe	0.83	54	eP	P	01 44 51.7	+0.8
XAVN	Gruta Xavier	0.84	44	⇑eP	P	01 44 51.1	+0.3
LEON	Leon	0.87	2	⇓eP	P	01 44 51.2	-0.1
APYN	Apoyeque	0.89	39	⇓eP	P	01 44 51.7	+0.3
APYN				eS	S	01 45 03.9	-0.3
MGAN	Managua	0.89	48	eP	P	01 44 50.2	-1.3
MGAN				eS	S	01 45 02.4	-2.0
MIRN	Miramar	0.91	13	⇓eP	P	01 44 51.9	0.0
APON	Apoyo	0.92	66	⇓eP	P	01 44 53.0	+1.1
MOMJ	Momotombo	0.94	24	⇓eP	P	01 44 52.3	+0.1
MOMJ				eS	S	01 45 04.3	-1.0
WILN	Americas 2	0.94	50	⇑eP	P	01 44 52.2	-0.1
WILN				eS	S	01 45 07.0	+1.4
CNGN	Cerro Negro	0.97	13	⇑eP	P	01 44 52.7	0.0
CNGN				eS	S	01 45 08.6	+2.3
TEL3	Telica 3	1.02	4	⇑eP	P	01 44 53.6	+0.3
TEL3				eS	S	01 45 07.8	+0.4
CRIN	San Cristobal	1.16	354	⇓eP	P	01 44 55.6	+0.6
CRIN				eS	S	01 45 10.7	+0.3
PYTN	Playitas	1.30	41	⇑eP	P	01 44 55.1	-1.9
PYTN				eS	S	01 45 13.4	-0.4
CNCH	Conchagua	1.94	333	⇑eP	P	01 45 05.8	+0.1
CNCH				eS	S	01 45 30.4	+1.5
BLLM	Bellamira	2.28	326	⇓eP	P	01 45 10.8	+0.2
BLLM				eS	S	01 45 37.1	-0.3
CAHU	Cacacuatique	2.54	331	⇓eP	P	01 45 14.5	+0.2
CAHU				eS	S	01 45 45.0	+0.9
SNVI	San Vicente	2.78	318	eP	P	01 45 17.9	+0.4
SNVI				eS	S	01 45 49.1	-0.9
LCBS	La Ceiba	2.90	316	eP	P	01 45 18.3	-1.0
LCBS				eS	S	01 45 51.4	-1.7
LFRS	El Faro	2.94	315	eP	P	01 45 19.7	-0.1
LFRS				eS	S	01 45 52.7	-1.3
BOQS	Boqueron	3.17	314	eP	P	01 45 23.8	+0.8
BOQS				eS	S	01 46 00.0	+0.3
SDV	Santo Domingo	16.25	98	LR	LR	01 53 56.7	
	comp=Z,36nm,21.0s,baz=219,slow=37						
SJG	San Juan	21.10	70	LR	LR	01 55 46.1	
	comp=Z,28nm,22.0s,baz=256,slow=34						
TXAR	Lajitas Array	23.60	321	P	P	01 49 41.8	+2.1
	2.1nm,0.7s,mb3.6,baz=138,slow=11,SNR=15						
ANMO	Albuquerque	29.30	326	LR	LR	02 02 26.6	
	comp=Z,22nm,20.7s,slow=37						
PDAR	Pinedale Array	36.81	332	P	P	01 51 38.1	+0.7
	6.3nm,1.5s,mb4.3,baz=127,slow=9.0,SNR=3.2						
YKA	Yellowknife Ar	54.62	345	P	P	01 53 55.2	-2.7
	0.3nm,0.8s,mb3.4,baz=138,slow=8.0,SNR=6.0						

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*LDG **21** 01:45:50.0±0.1, 43.07N×1.54W, h2^{km}, Md2.8/3, Ml2.8/19, Error ellipse: s-maj=2.2km s-min=1.2km az=40.0*
*STR **21** 01:45:50.3±0.4, 43.08N×1.49W, h5^{km}±1^{km}, Ml2.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **21** 01:45:51.0, 43.07N×1.49W, h4^{km}, ML2.8(LDG), ML2.5(STR), MN2.3(MDD), After MDD.*
*CSEM **21** 01:45:50.3±0.1, 43.07N×1.53W, h5^{km}, ML2.7/19, Error*

ellipse: s-maj=1.1km s-min=0.9km az=2.0

MDD 21 01:45:50.9±0.3,**43.09N**×**1.48W,h10**^{km}±2^{km},**mbLg2.2**/11, **1C,Error ellipse: s-maj=3.4km s-min=1.7km az=26.0, PRXIMO,Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EALK	**Alkurruntz**	**0.14**	**352**	⇑Pg	Pg	01 45 53.9	-0.2
	365nm,0.3s,SNR=18						
EALK				Lg		01 45 56.3	
	599nm,0.2s,SNR=7.9						
SJPF	**Ste Jean**	**0.19**	**81**	*e*Pg	Pg	01 45 54.4	-0.7
SJPF				*e*Sg	Sg	01 45 57.4	-0.4
	567nm,0.2s						
OSSF	**Osses**	**0.23**	**43**	Pg	Pg	01 45 55.5	-0.4
OSSF				Sg	Sg	01 45 59.1	-0.1
OSSF	**Osses**	**0.23**	**43**	Pg	Pg	01 45 55.5	-0.3
OSSF				Lg		01 45 59.1	
LARF	**Larrau**	**0.36**	**97**	Pg	Pg	01 45 57.5	-0.9
LARF				Sg	Sg	01 46 02.5	-0.9
LARF	**Larrau**	**0.36**	**97**	Pg	Pg	01 45 57.6	-0.8
LARF				Lg		01 46 02.9	
ORDF	**Ordiarp**	**0.42**	**72**	Pg	Pg	01 45 58.8	-0.6
ORDF				Sg	Sg	01 46 05.1	-0.1
ORDF	**Ordiarp**	**0.42**	**72**	Pg	Pg	01 45 58.9	-0.6
ORDF				Lg		01 46 05.2	
ATE	**Arette**	**0.57**	**90**	Pg	Pg	01 46 01.4	-1.0
ATE				Lg		01 46 10.1	
ETSF	**Etsaut**	**0.70**	**105**	*e*Pg	Pg	01 46 03.3	-1.7
ETSF				*e*Sg	Sg	01 46 13.3	-1.1
	34nm,0.2s						
REYF	**Montagne du Re**	**0.80**	**91**	Pg	Pg	01 46 05.5	-1.4
REYF				Lg		01 46 16.4	
VIEF	**Viey**	**1.12**	**100**	Pg	Pg	01 46 11.4	-2.0
VIEF				Sg	Sg	01 46 27.2	-1.2
VIEF	**Viey**	**1.12**	**100**	Pg	Pg	01 46 11.2	-2.2
VIEF				Lg		01 46 25.8	
VIEF	**Viey**	**1.12**	**100**	Sg	Sg	01 46 27.2	-1.2
LABF	**Labassere**	**1.14**	**91**	Lg		01 46 27.0	
EBIE	**Bielsa**	**1.26**	**108**	Pg	Pg	01 46 14.0	-2.0
	2.4nm,0.1s,SNR=71						
EBIE				Lg		01 46 32.4	
	11nm,0.3s,SNR=18						
EBIE	**Bielsa**	**1.26**	**108**	Pg	Pg	01 46 14.1	-2.0
EBIE	**Bielsa**	**1.26**	**108**	Pg	Pg	01 46 14.0	-2.1
	2.4nm,0.1s,SNR=71						
EPF	**Esparros**	**1.34**	**92**	*e*Pn	Pn	01 46 15.3	-0.4
EPF				*e*Pg	Pg	01 46 16.2	-1.4
EPF				*e*Sg	Sg	01 46 34.5	-1.0
	21nm,0.2s						
EPF	**Esparros**	**1.34**	**92**	*e*Pg	Pg	01 46 16.2	-1.4
EPF				*e*Sg	Sg	01 46 34.5	-1.0
	10nm,0.2s						
RESF	**Ens**	**1.36**	**101**	Pg	Pg	01 46 16.5	-1.7
RESF				Sg	Sg	01 46 35.6	-0.8
RESF	**Ens**	**1.36**	**101**	Pg	Pg	01 46 15.6	-2.6
RESF				Lg		01 46 36.2	
ESAC	**San Caprasio**	**1.56**	**151**	Pg	Pg	01 46 19.6	-2.4
ESAC				Lg		01 46 40.3	
ESAC	**San Caprasio**	**1.56**	**151**	Pg	Pg	01 46 19.6	-2.4
	3.2nm,0.1s,SNR=6.6						
ESAC				Lg		01 46 40.3	
	61nm,0.2s,SNR=11						
ESAC	**San Caprasio**	**1.56**	**151**	Pg	Pg	01 46 19.6	-2.4
	3.2nm,0.1s,SNR=6.6						
MELF	**Melles**	**1.66**	**97**	Lg		01 46 44.8	
SALF	**Salau**	**1.99**	**99**	Lg		01 46 54.4	
LFF	**La Frestale**	**2.45**	**40**	*e*Pn	Pn	01 46 29.6	-2.1
LFF				*e*Pg	Pg	01 46 35.7	-4.1
LFF				*e*Sn	Sn	01 46 58.9	-3.1
	8.4nm,0.2s						
LFF	**La Frestale**	**2.45**	**40**	*e*Pg	Pg	01 46 35.7	-4.1
LFF				*e*Sn	Sn	01 46 58.9	-3.1
	4.2nm,0.2s						
EMIR	**Miracle**	**2.51**	**117**	Pn	Pn	01 46 32.3	-0.3
	0.6nm,0.2s,SNR=5.6						
EMIR				Pg	Pg	01 46 38.2	-2.9
	0.6nm,0.1s,SNR=11						
EMIR				Lg		01 47 10.5	
	1.4nm,0.2s,SNR=5.6						
EMIR	**Miracle**	**2.51**	**117**	Pn	Pn	01 46 32.3	-0.3
	0.6nm,0.2s,SNR=5.6						
EMIR	**Miracle**	**2.51**	**117**	Pg	Pg	01 46 38.2	-2.9
	0.6nm,0.1s,SNR=11						
ERTA	**Horta de San J**	**2.52**	**147**	Pn	Pn	01 46 31.3	-1.3
ERTA				Pg	Pg	01 46 40.0	-1.2
ERTA				Sn	Sn	01 47 03.1	-0.7
ERTA				Lg		01 47 10.7	
ERTA	**Horta de San J**	**2.52**	**147**	Pn	Pn	01 46 31.3	-1.3
	SNR=7.9						
ERTA				Pg	Pg	01 46 40.0	-1.2
	1.7nm,0.2s,SNR=6.9						
ERTA				Sn	Sn	01 47 03.1	-0.7
	6.9nm,0.9s,SNR=4.0						
ERTA				Lg		01 47 10.7	
	7.7nm,0.2s,SNR=7.9						
ERTA	**Horta de San J**	**2.52**	**147**	Pn	Pn	01 46 31.3	-1.4
	SNR=7.9						
ERTA				Sn	Sn	01 47 03.1	-0.7
	6.9nm,0.9s,SNR=4.0						
EPOB	**Poblet**	**2.57**	**131**	Pn	Pn	01 46 32.0	-1.4
	12nm,1.0s,SNR=8.7						
EPOB				Pg	Pg	01 46 37.5	-4.7
	0.2nm,0.2s,SNR=7.9						
EPOB				Lg		01 47 12.1	
	4.1nm,0.2s,SNR=4.0						
EPOB	**Poblet**	**2.57**	**131**	Pn	Pn	01 46 32.0	-1.4
	12nm,1.0s,SNR=8.7						
EPOB	**Poblet**	**2.57**	**131**	Pg	Pg	01 46 37.5	-4.8
	0.2nm,0.2s,SNR=7.9						
MTLF	**Montolieu**	**2.72**	**83**	*e*Pn	Pn	01 46 33.3	-2.2
MTLF				*e*Sn	Sn	01 47 04.8	-3.9
	6.3nm,0.3s						
EARI	**Arriondas**	**2.73**	**276**	Pn	Pn	01 46 34.9	-0.8
	84nm,1.6s,SNR=7.9						
EARI				Sn	Sn	01 47 05.5	-3.7
	SNR=7.9						
EARI				Lg		01 47 17.8	
	SNR=4.0						
EARI	**Arriondas**	**2.73**	**276**	Pn	Pn	01 46 34.9	-0.8
	84nm,1.6s,SNR=7.9						
EARI				Sn	Sn	01 47 05.5	-3.7
	SNR=7.9						
EMOS	**Mosqueruela**	**2.82**	**164**	Pn	Pn	01 46 35.9	-1.1
EMOS				Pg	Pg	01 46 45.4	-1.9
EMOS				Sn	Sn	01 47 08.1	-3.4
EMOS				Lg		01 47 21.2	
EMOS	**Mosqueruela**	**2.82**	**164**	Pn	Pn	01 46 35.9	-1.1
	9.1nm,0.9s,SNR=8.9						
EMOS				Pg	Pg	01 46 45.4	-1.9
	0.6nm,0.1s,SNR=7.9						
EMOS				Sn	Sn	01 47 08.1	-3.4
	SNR=7.9						
EMOS				Lg		01 47 21.2	
	1.7nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	**2.82**	**164**	Pn	Pn	01 46 35.9	-1.1
	9.1nm,0.9s,SNR=8.9						
EMOS				Sn	Sn	01 47 08.1	-3.3
	SNR=7.9						
RJF	**Les Rejaudoux**	**3.09**	**43**	*e*Pn	Pn	01 46 38.1	-2.7
RJF				*e*Pg	Pg	01 46 49.0	-3.7
RJF				*e*Sn	Sn	01 47 14.4	-3.9
	8.6nm,0.2s						
RJF				*e*Sg	Sg	01 47 27.7	-6.2
RJF	**Les Rejaudoux**	**3.09**	**43**	*e*Pg	Pg	01 46 49.0	-3.7
RJF				*e*Sn	Sn	01 47 14.4	-3.9
	4.3nm,0.2s						
CAF	**Calviac**	**3.15**	**53**	*e*Pn	Pn	01 46 38.8	-2.9
CAF				*e*Sn	Sn	01 47 15.5	-4.2
	9.7nm,0.2s						
MFF	**Saint Martin d**	**3.64**	**15**	*e*Pn	Pn	01 46 46.0	-2.6
MFF				*e*Pg	Pg	01 46 57.9	-5.7
MFF				*e*Sn	Sn	01 47 27.2	-5.0
MFF				*e*Sg	Sg	01 47 43.7	-8.5
	2.4nm,0.2s						
MFF	**Saint Martin d**	**3.64**	**15**	*e*Pg	Pg	01 46 57.9	-5.7
MFF				*e*Sn	Sn	01 47 27.2	-5.0
MFF				*e*Sg	Sg	01 47 43.7	-8.5
	1.2nm,0.2s						
ESDC	**Sonseca Array**	**3.89**	**210**	Pn	Pn	01 46 50.8	-1.3
	baz=33,slow=13,SNR=7.9						
ESDC				Sn	Sn	01 47 33.0	-5.4
	baz=34,slow=24,SNR=7.9						
ESDC				Lg		01 47 52.7	
	0.9nm,0.2s,baz=33,slow=30,SNR=3.8						
ESDC	**Sonseca Array**	**3.89**	**210**	Pn	Pn	01 46 50.8	-1.3
	baz=33,slow=13,SNR=7.9						
ESDC				Sn	Sn	01 47 33.0	-5.3
	baz=34,slow=24,SNR=7.9						
LASF	**Ste Croix**	**4.00**	**74**	*e*Pn	Pn	01 46 50.8	-3.0
LASF				*e*Sn	Sn	01 47 36.3	-5.0
	5.1nm,0.4s						
ECAL	**Calabor**	**4.05**	**255**	Pn	Pn	01 46 51.8	-2.6
	1.0nm,0.2s,SNR=7.9						
ECAL				Sn	Sn	01 47 36.6	-5.9
	SNR=7.9						
ECAL				Lg		01 47 56.4	
	1.0nm,0.2s,SNR=4.0						
ECAL	**Calabor**	**4.05**	**255**	Pn	Pn	01 46 51.8	-2.6
	1.0nm,0.2s,SNR=7.9						
ECAL				Sn	Sn	01 47 36.6	-5.9
	SNR=7.9						
TCF	**Toulx Ste Croi**	**4.14**	**38**	*e*Pn	Pn	01 46 51.3	-4.5
TCF				*e*Pg	Pg	01 47 07.6	-6.1
TCF				*e*Sn	Sn	01 47 39.3	-5.6
	2.4nm,0.2s						
TCF				*e*Sg	Sg	01 48 01.0	-7.9
TCF	**Toulx Ste Croi**	**4.14**	**38**	*e*Pg	Pg	01 47 07.6	-6.1
TCF				*e*Sn	Sn	01 47 39.3	-5.6
	1.2nm,0.2s						
TCF				*e*Sg	Sg	01 48 01.0	-7.9
EPON	**Pontenova**	**4.15**	**275**	Pn	Pn	01 46 52.5	-3.3
EPON				Sn	Sn	01 47 39.5	-5.6
EPON	**Pontenova**	**4.15**	**275**	Pn	Pn	01 46 52.5	-3.4
	SNR=4.0						
EPON				Sn	Sn	01 47 39.5	-5.6
	SNR=4.0						
EINC	**Incio**	**4.33**	**266**	Pn	Pn	01 46 57.4	-1.1
	0.1nm,0.1s,SNR=4.0						
EINC	**Incio**	**4.33**	**266**	Pn	Pn	01 46 57.4	-1.1
BGF	**Bois d'Agland**	**4.64**	**40**	*e*Pn	Pn	01 46 58.0	-4.8
BGF				*e*Sn	Sn	01 47 51.6	-5.8
	5.6nm,0.3s						
VIVF	**Saint-Julien-l**	**4.78**	**66**	*e*Pn	Pn	01 47 01.6	-3.2
VIVF				*e*Sn	Sn	01 47 54.5	-6.5
	1.5nm,0.2s						
QUIF	**Quistinic**	**4.97**	**347**	*e*Pn	Pn	01 47 03.6	-3.9
QUIF				*e*Sn	Sn	01 47 58.0	-7.9
	2.0nm,0.3s						
AVF	**Avril sur Loir**	**5.05**	**41**	*e*Pn	Pn	01 47 04.1	-4.5
AVF				*e*Sn	Sn	01 48 01.0	-6.8
	0.9nm,0.3s						
HYF	**Humbligny**	**5.10**	**33**	*e*Pn	Pn	01 47 05.7	-3.6
SMF	**Signal de Mont**	**5.19**	**45**	*e*Pn	Pn	01 47 06.3	-4.3
SMF				*e*Sn	Sn	01 48 04.7	-6.7
	2.2nm,0.4s						
SMRF	**Simiane la Rot**	**5.21**	**78**	*e*Pn	Pn	01 47 07.0	-3.8
SGMF	**Saint Gilles**	**5.22**	**352**	*e*Pn	Pn	01 47 07.2	-3.9
SGMF				*e*Sn	Sn	01 48 04.3	-7.8
	9.3nm,0.6s						
SSF	**Saint Saulge**	**5.32**	**40**	*e*Pn	Pn	01 47 08.6	-3.8
SSF				*e*Sn	Sn	01 48 07.4	-7.1
	1.2nm,0.4s						
GRR	**Gorron**	**5.32**	**4**	*e*Pn	Pn	01 47 08.5	-3.9
GRR				*e*Sn	Sn	01 48 07.1	-7.5
ROSF	**Rostrenen**	**5.40**	**347**	*e*Pn	Pn	01 47 09.4	-4.1
ROSF				*e*Sn	Sn	01 48 08.2	-8.3
	2.4nm,0.3s						
EADA	**Adamuz**	**5.45**	**207**	Pn	Pn	01 47 11.4	-2.8
EADA				Sn	Sn	01 48 09.9	-7.9
EADA	**Adamuz**	**5.45**	**207**	Pn	Pn	01 47 11.4	-2.8
EADA				Sn	Sn	01 48 09.9	-7.9
LDF	**La Druitiere**	**5.59**	**9**	*e*Sn	Sn	01 48 13.5	-7.8
	0.5nm,0.2s						
ORIF	**Oris-en-Rattie**	**5.62**	**68**	*e*Pn	Pn	01 47 13.0	-3.6
ORIF				*e*Sn	Sn	01 48 15.4	-6.6
	2.1nm,0.4s						
LPG	**La Plagne**	**6.38**	**65**	*e*Pn	Pn	01 47 23.5	-3.9
MEZF	**Maizieres J'vi**	**7.08**	**38**	*e*Pn	Pn	01 47 32.6	-4.7
HAU	**Haudompre**	**7.38**	**45**	*e*Pn	Pn	01 47 36.7	-4.6

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*ISK **21** 02:05:28.8,37.00N×28.28E,h14^{km},MD3.3*

*CSEM **21** 02:05:28.8±0.1,37.03N×28.31E,h10^{km},MD3.3,Error ellipse: s-maj=1.8km s-min=1.7km az=50.0*

*ATH **21** 02:05:29.7,36.99N×28.21E,h24^{km}±10^{km},MD3.1/5*

*NEIC **21** 02:05:31.3,36.90N×28.13E,h38^{km},MD3.1(ATH),After ATH.*

ISC 21 02:05:29.1±0.6,**37.02N**±0.03×**28.29E**±0.03,**h11**^{km}±5^{km}, **n26,σ0^{s}93**/34,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DALT	**Dalyan (Mudla)**	**0.38**	**131**	*i* PG	**Pg**	**02 05 36.0**	**-0.9**
DALT				*i* SG	**Sg**	**02 05 43.0**	**+1.0**
MLSB	**Milas**	**0.49**	**304**	PG	**Pg**	**02 05 39.3**	**+0.2**
MLSB				SG	**Sg**	**02 05 46.9**	**+1.1**
BDRM	**Kayabasi**	**0.67**	**274**	*i* P	**Pb**	**02 05 42.1**	**-0.3**
BDRM				*i* S	**Sb**	**02 05 53.3**	**+1.9**
AYDN	**Tasoluk**	**0.72**	**333**	*i* P	**Pb**	**02 05 43.4**	**+0.2**
AYDN				*i* S	**Sb**	**02 05 53.2**	**+0.4**
FETY	**Fethiye**	**0.75**	**121**	PG	**Pg**	**02 05 43.3**	**-0.8**
ARG	**Arkhangelos**	**0.81**	**189**	*e*PN	**Pn**	**02 05 44.3**	**-1.9**
DNZL	**Cakiroluk**	**0.91**	**42**	*i* P	**Pb**	**02 05 45.5**	**-0.8**
DNZL				*i* S	**Sb**	**02 06 00.7**	**+2.6**
DENT	**Denizli**	**0.95**	**39**	PG	**Pg**	**02 05 46.9**	**-1.2**
NISR	**Nisiros**	**1.01**	**247**	*e*PN	**Pn**	**02 05 48.5**	**-0.6**
ELL	**Elmali**	**1.33**	**101**	*e*PN	**Pn**	**02 05 53.9**	**+0.2**
SMG	**Samos**	**1.34**	**301**	*e*PN	**Pn**	**02 05 54.0**	**+0.1**
KSL	**Kastellorizon**	**1.36**	**129**	*e*PN	**Pn**	**02 05 56.0**	**+1.9**
MANT	**Manisa**	**1.49**	**8**	*i* P	**Pn**	**02 05 56.0**	**+0.1**
MANT				*i* S	**Sb**	**02 06 14.1**	**-0.9**
IZM	**Izmir**	**1.60**	**330**	PN	**Pn**	**02 05 57.8**	**+0.3**
KDAG	**Bornova**	**1.60**	**330**	*i* P	**Pn**	**02 05 57.7**	**+0.1**
KDAG				*i* S	**Sn**	**02 06 16.8**	**-1.5**
KHL	**Karahalli**	**1.63**	**37**	PN	**Pn**	**02 05 58.4**	**+0.4**
KARP	**Karpathos**	**1.73**	**212**	*e*PN	**Pn**	**02 05 59.4**	**+0.1**
BCK	**Bucak**	**1.89**	**76**	*e*PN	**Pn**	**02 06 02.4**	**+0.7**
AKS	**Akhisar**	**1.90**	**349**	*e*PN	**Pn**	**02 06 01.6**	**-0.1**
APE	**Apeiranthos**	**2.20**	**272**	*e*PN	**Pn**	**02 06 05.5**	**-0.7**
ALT	**Altintas**	**2.49**	**35**	*e*PN	**Pn**	**02 06 10.9**	**+0.6**
DST	**Dursunbey**	**2.60**	**6**	*e*PN	**Pn**	**02 06 11.3**	**-0.5**
BALB	**Balikesir**	**2.64**	**353**	*e*PN	**Pn**	**02 06 12.5**	**+0.1**
ULDT	**Uludag**	**3.19**	**12**	*i* P	**Pn**	**02 06 18.6**	**-1.7**
ULDT				*i* S	**Sn**	**02 07 08.6**	**+10**
ESKT	**Eskisehir**	**3.21**	**38**	*e*PN	**Pn**	**02 06 20.9**	**+0.4**
KIZT	**Kizilcal**	**3.40**	**56**	*e*PN	**Pn**	**02 06 23.5**	**+0.3**

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*IDC **21** 02:23:17.1±2.0,6.51S×105.57E,mb4.0/5,mb1 4.1/5, mb1mx3.8/13,Error ellipse: s-maj=110.0km s-min=25.4km az=51.0*

*NEIC **21** 02:23:27.5±1.3,6.24S×105.93E,h75^{km},mb4.5/3,Error ellipse: s-maj=52.0km s-min=16.0km az=51.0*

ISC 21 02:23:21.6±1.5,**6.2S**±0.3×**106.0E**±0.3,**h33**^{km}**,n12, σ0^{s}88**/10,**mb4.1**/8,**Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**30.76**	**119**	P	**P**	**02 29 36.2**	**-0.2**
	0.3nm,0.4s,mb3.5,baz=292,slow=9.7,SNR=8.4						
WRAB	**Tennant Creek**	**30.77**	**119**	*e*P	**P**	**02 29 36.0**	**-0.5**
	1.4nm,0.4s,mb4.1						
PMG	**Port Moresby**	**40.92**	**97**	P	**P**	**02 31 04.2**	**+1.4**
	5.6nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**41.95**	**132**	P	**P**	**02 31 10.8**	**-0.4**
	0.7nm,0.6s,mb3.5,baz=301,slow=5.9,SNR=4.5						
STKA	**Stephens Creek**	**41.95**	**132**	P	**P**	**02 31 10.8**	**-0.4**
BJT	**Baijiatuau**	**46.92**	**11**	P	**P**	**02 31 49.1**	**-1.8**
	4.9nm,0.6s,mb4.6						
SONM	**Songino Array**	**53.78**	**0**	P	**P**	**02 32 44.0**	**+0.9**
	0.3nm,0.4s,mb3.6,baz=179,slow=9.7,SNR=4.0						
FINES	**FINESS Array B**	**90.57**	**332**	P	**P**	**02 36 21.6**	**+0.1**
	3.2nm,1.0s,mb4.6,baz=108,slow=4.4,SNR=6.3						
ARCES	**ARCESS Array B**	**92.41**	**340**	P	**P**	**02 36 30.3**	**+0.4**
	1.5nm,0.8s,mb4.4,baz=108,slow=5.7,SNR=4.6						
ARCES	**ARCESS Array B**	**92.41**	**340**	P	**P**	**02 36 30.3**	**+0.4**
TXAR	**Lajitas Array**	**143.77**	**47**	PKP	PKPdf	02 42 54.0	0.0
	0.7nm,0.9s,baz=315,slow=0.4,SNR=9.0						
TXAR	**Lajitas Array**	**143.77**	**47**	PKP	PKPdf	02 42 54.0	0.0

IDC 21 03:25:12.1±45.0,**15.68S**×**173.87W,mb4.0**/3,**mb1 4.2**/3, **mb1mx3.8**/14,**Error ellipse: s-maj=856.0km s-min=174.2km az=78.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**43.50**	**240**	P	P	03 33 17.8	-1.4
	0.5nm,0.3s,baz=98,slow=11,SNR=4.3						
WRA	**Warramunga Arr**	**49.34**	**257**	P	P	03 34 03.2	-2.3
	0.4nm,0.6s,baz=92,slow=8.0,SNR=17						
ASAR	**Alice Springs**	**49.59**	**252**	P	P	03 34 05.5	-1.9
	4.2nm,0.5s,baz=89,slow=8.1,SNR=60						

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*IDC **21** 04:40:34.1±8.9,11.40N×85.23W,h163^{km}±80^{km},mb3.3/5, mb1 3.7/6,mb1mx3.3/17,Error ellipse: s-maj=71.1km s-min=26.7km az=7.0*

*CASC **21** 04:40:37.4±2.4,11.20N×85.99W,h192^{km}±8^{km},MD4.2*

*NEIC **21** 04:40:38.1±0.9,11.63N×85.13W,h192^{km}±13^{km},Error ellipse: s-maj=23.4km s-min=18.9km az=179.0*

ISC 21 04:40:37.5±0.5,**11.32N**±0.08×**85.86W**±0.08,**h198**^{km}±3^{km}, **n40,σ1^{s}02**/55,**mb3.4**/5,**9C-5D,Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APON	**Apoyo**	**0.63**	**341**	⇑*e*P	**P**	**04 41 04.9**	**-0.3**
APON				*e*S	**S**	**04 41 28.0**	**+1.3**
MASN	**Masaya**	**0.72**	**337**	*e*P	**P**	**04 41 05.3**	**-0.3**
CRUN	**El Crucero**	**0.79**	**327**	⇓*e*P	**P**	**04 41 06.3**	**+0.3**
TICN	**Ticuantepe**	**0.80**	**333**	⇑*e*P	**P**	**04 41 06.1**	**+0.1**
TICN				*e*S	**S**	**04 41 27.4**	**-0.8**
WILN	**Americas 2**	**0.90**	**339**	⇑*e*P	**P**	**04 41 06.5**	**-0.1**
MGAN	**Managua**	**0.91**	**335**	⇓*e*P	**P**	**04 41 06.0**	**-0.7**
MGAN				*e*S	**S**	**04 41 27.9**	**-1.3**
XAVN	**Gruta Xavier**	**0.94**	**331**	⇑*e*P	**P**	**04 41 06.8**	**0.0**
XAVN				*e*S	**S**	**04 41 29.2**	**-0.3**
APYN	**Apoyeque**	**1.03**	**332**	⇓*e*P	**P**	**04 41 07.3**	**-0.1**
APYN				*e*S	**S**	**04 41 32.2**	**+1.6**
COPN	**Copaltepe**	**1.12**	**320**	⇓*e*P	**P**	**04 41 07.6**	**-0.5**
VCR	**Vista de Mar**	**1.20**	**169**	*e*P	**P**	**04 41 07.5**	**-1.4**
VCR				*e*S	**S**	**04 41 32.9**	**-0.2**
PYTN	**Playitas**	**1.23**	**351**	⇑*e*P	**P**	**04 41 08.6**	**-0.4**
JTS	**JuntasAbangare**	**1.35**	**139**	⇑*i*Pn	**P**	**04 41 09.9**	**-0.2**
MIRN	**Miramar**	**1.39**	**323**	⇓*e*P	**P**	**04 41 10.2**	**-0.2**
MIRN				*e*S	**S**	**04 41 35.3**	**-0.6**
CNGN	**Cerro Negro**	**1.43**	**325**	⇑*e*P	**P**	**04 41 10.2**	**-0.7**
CNGN				*e*S	**S**	**04 41 38.3**	**+1.7**
TEL3	**Telica 3**	**1.58**	**322**	⇑*e*P	**P**	**04 41 12.1**	**0.0**
TEL3				*e*S	**S**	**04 41 38.4**	**-0.4**
JCR	**Jicaral**	**1.63**	**153**	*e*P	**P**	**04 41 13.0**	**+0.4**
JCR				*e*S	**S**	**04 41 37.6**	**-2.1**
CGA2	**Cerro Gallo 2**	**1.88**	**133**	*e*P	**P**	**04 41 15.7**	**+0.6**
CGA2				*e*S	**S**	**04 41 42.8**	**-1.2**
VPS2	**Volcan Poas 2**	**1.95**	**125**	*e*P	**P**	**04 41 16.9**	**+1.2**
VPS2				*e*S	**S**	**04 41 45.7**	**+0.6**
LAJ	**Bijagual**	**2.24**	**130**	*e*P	**P**	**04 41 17.5**	**-1.3**
SJS	**Escuela Geolog**	**2.24**	**127**	*e*S	**S**	**04 41 50.4**	**-0.3**
ICR	**Volcan Irazu**	**2.40**	**123**	*e*P	**P**	**04 41 22.8**	**+2.2**
ICR				*e*S	**S**	**04 41 57.9**	**+4.0**
LCR2	**La Lucha 2**	**2.41**	**130**	*e*P	**P**	**04 41 21.0**	**+0.3**
URSC	**Urasca**	**2.52**	**125**	⇑*e*P	**P**	**04 41 24.0**	**+2.0**
URSC				*e*S	**S**	**04 41 56.6**	**+0.3**
BUS	**Buena Vista**	**2.71**	**130**	*e*P	**P**	**04 41 25.3**	**+1.1**
CNCH	**Conchagua**	**2.74**	**316**	*e*P	**P**	**04 41 23.8**	**-0.7**
CNCH				*e*S	**S**	**04 42 00.5**	**-0.4**
SNVI	**San Vicente**	**3.70**	**308**	*e*P	**P**	**04 41 36.2**	**+0.2**
SNVI				*e*S	**S**	**04 42 20.9**	**-0.4**
ACR	**Cerro Adams**	**3.75**	**135**	*e*P	**P**	**04 41 36.9**	**+0.2**
LCBS	**La Ceiba**	**3.83**	**308**	*e*P	**P**	**04 41 38.0**	**+0.3**
LFU	**La Fuente**	**3.99**	**308**	*e*P	**P**	**04 41 40.9**	**+1.2**
SBLS	**San Blas**	**4.45**	**305**	*e*P	**P**	**04 41 46.1**	**+0.6**
SBLS				*e*S	**S**	**04 42 39.1**	**+0.9**
SJG	**San Juan**	**20.22**	**68**	P	**P**	**04 44 49.5**	**-9.2**
	3.5nm,0.3s,baz=325,slow=12,SNR=6.2						
SJG	**San Juan**	**20.22**	**68**	P	**P**	**04 44 49.5**	**-9.2**
TXAR	**Lajitas Array**	**24.44**	**320**	P	**P**	**04 45 40.9**	**+1.4**
	0.9nm,0.5s,mb3.7,baz=143,slow=10,SNR=17						
TXAR				pP		04 46 21.7	
	0.4nm,0.7s,baz=138,slow=8.5,SNR=3.9						
NVAR	**Mina Array Bea**	**39.58**	**319**	P	**P**	**04 47 53.5**	**+2.4**
	0.9nm,0.8s,mb3.2,baz=122,slow=6.6,SNR=4.9						
SCHQ	**Schefferville**	**45.94**	**15**	P	**P**	**04 48 39.2**	**-2.9**
	2.7nm,0.5s,mb3.9,baz=231,slow=6.9,SNR=13						
SCHQ	**Schefferville**	**45.94**	**15**	P	**P**	**04 48 39.2**	**-2.9**
YKA	**Yellowknife Ar**	**55.11**	**344**	P	**P**	**04 49 49.1**	**-1.9**
	0.2nm,0.4s,mb3.0,baz=142,slow=6.8,SNR=6.0						
YKA				pP	pP	04 50 34.8	-1.0
	0.4nm,1.1s,baz=140,slow=7.4,SNR=5.0						
ILAR	**Eielson Array**	**67.68**	**336**	P	**P**	**04 51 13.6**	**-1.4**
	0.3nm,0.6s,mb3.1,baz=130,slow=3.7,SNR=8.2						
ASAR	**Alice Springs**	**140.27**	**247**	PKP	PKPdf	04 59 46.4	+2.9
	0.8nm,0.6s,baz=100,slow=1.7,SNR=12						
WRA	**Warramunga Arr**	**140.43**	**252**	PKP	PKPdf	04 59 46.9	+3.0
	1.0nm,0.7s,baz=91,slow=2.2,SNR=24						

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*LDG **21** 04:43:07.5±0.1,42.30N×2.15E,h4^{km},Ml3.4/36,Error ellipse: s-maj=2.0km s-min=1.7km az=142.0*

*STR **21** 04:43:07.8±0.3,42.40N×2.15E,h10^{km}±1^{km},Ml3.4,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **21** 04:43:07.5,42.30N×2.15E,h4^{km},ML3.4(LDG), ML3.4(STR),ML2.8(MRB),MN3.0(MDD),After LDG.*

NEIC Felt [IV] at Queralbs and Ribas de Fresser; [III] at El Serrat; [II] at Ripoll, Spain.

*CSEM **21** 04:43:07.0±0.0,42.32N×2.19E,h10^{km},ML3.3/41,Error ellipse: s-maj=1.0km s-min=0.7km az=155.0*

*MDD **21** 04:43:07.3±0.1,42.33N×2.17E,mbLg2.9/26,Error ellipse: s-maj=1.4km s-min=1.2km az=173.0,PRXIMO III EL SERRAT II RIPOLL*

MDD EMS: IV RIBES DE FRESER QUERALBS.

ISC 21 04:43:05.5±0.2,**42.39N**±0.01×**2.15E**±0.01,**h11**^{km}±1^{km}, **n198,σ1^{s}40**/343,**6C,Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VALF	**Valcebollere**	**0.10**	**276**	Pg	**Pg**	**04 43 09.5**	**+1.2**
VALF	**Valcebollere**	**0.10**	**276**	Pg	**Pg**	**04 43 09.5**	**+1.2**
VALF				Lg		04 43 11.4	
CBRU	**Bruguera**	**0.11**	**170**	Pg	**Pg**	**04 43 08.2**	**-0.2**
CBRU				Sg	**Sg**	**04 43 09.2**	**-1.2**
CBRU	**Bruguera**	**0.11**	**170**	Pg	**Pg**	**04 43 08.1**	**-0.3**
CBRU				Lg		04 43 09.1	
	318nm,0.1s						
CBRU	**Bruguera**	**0.11**	**170**	Pg	**Pg**	**04 43 08.2**	**-0.2**
CBRU				Sg	**Sg**	**04 43 09.2**	**-1.2**
CLLI	**Llivia**	**0.16**	**303**	Pg	**Pg**	**04 43 10.9**	**+1.7**
CLLI				Sg	**Sg**	**04 43 13.8**	**+2.0**
CLLI	**Llivia**	**0.16**	**303**	Pg	**Pg**	**04 43 10.9**	**+1.7**
CLLI				Lg		04 43 13.7	
	145nm,0.1s						
CLLI	**Llivia**	**0.16**	**303**	Pg	**Pg**	**04 43 10.9**	**+1.7**
CLLI				Sg	**Sg**	**04 43 13.8**	**+2.0**
CARF	**Carcanieres**	**0.33**	**354**	Pg	**Pg**	**04 43 14.6**	**+2.3**
CARF				Sg	**Sg**	**04 43 19.1**	**+2.2**
CARF	**Carcanieres**	**0.33**	**354**	Pg	**Pg**	**04 43 14.6**	**+2.3**
CARF				Lg		04 43 19.6	
FILF	**Fillols**	**0.34**	**61**	Pg	**Pg**	**04 43 12.8**	**+0.2**
FILF	**Fillols**	**0.34**	**61**	Pg	**Pg**	**04 43 12.8**	**+0.2**
FILF				Lg		04 43 17.0	
ALBA	**Albanya**	**0.43**	**100**	Pg	**Pg**	**04 43 14.9**	**+0.7**
ALBA				Sg	**Sg**	**04 43 20.4**	**+0.2**
ALBA	**Albanya**	**0.43**	**100**	Pg	**Pg**	**04 43 14.9**	**+0.6**
ALBA				Sg	**Sg**	**04 43 20.4**	**+0.2**
PAND	**Andorre**	**0.47**	**286**	Pg	**Pg**	**04 43 16.0**	**+0.9**
PAND				Lg		04 43 22.4	
EJON	**La Jonquera**	**0.55**	**84**	⇑Pg	**Pg**	**04 43 17.5**	**+0.9**
	26nm,0.3s,SNR=18						
EJON				Lg		04 43 25.0	
	345nm,0.2s,SNR=89						
EJON	**La Jonquera**	**0.55**	**84**	Pg	**Pg**	**04 43 17.5**	**+0.9**
	26nm,0.3s,SNR=18						
SJAF	**Saint Jean de**	**0.55**	**80**	Pg	**Pg**	**04 43 17.4**	**+0.8**
SJAF				Sg	**Sg**	**04 43 25.2**	**+1.2**
SJAF	**Saint Jean de**	**0.55**	**80**	Pg	**Pg**	**04 43 17.3**	**+0.8**
SJAF				Lg		04 43 25.2	
LRDF	**Laroque-de-Fa**	**0.61**	**27**	Pg	**Pg**	**04 43 19.6**	**+1.6**
LRDF				Lg		04 43 28.9	
GRBF	**Gourbit**	**0.64**	**315**	Pg	**Pg**	**04 43 19.8**	**+1.4**
GRBF	**Gourbit**	**0.64**	**315**	Pg	**Pg**	**04 43 19.7**	**+1.3**
GRBF	**Gourbit**	**0.64**	**315**	Pg	**Pg**	**04 43 19.8**	**+1.4**
CORG	**Organya**	**0.64**	**256**	Pg	**Pg**	**04 43 18.6**	**+0.2**
CORG	**Organya**	**0.64**	**256**	Pg	**Pg**	**04 43 18.6**	**+0.2**
CFON	**Fontmartina**	**0.66**	**161**	Pg	**Pg**	**04 43 18.3**	**-0.6**
CFON				Sg	**Sg**	**04 43 26.3**	**-1.5**
CFON	**Fontmartina**	**0.66**	**161**	Pg	**Pg**	**04 43 18.2**	**-0.7**
CFON				Lg		04 43 26.3	

	278nm,0.2s						
CFON	Fontmartina	0.66	161	Pg	Pg	04 43 18.3	-0.6
CFON				Sg	Sg	04 43 26.3	-1.5
EMIR	Miracle	0.67	225	⇑Pg	Pg	04 43 18.8	-0.1
EMIR				Lg		04 43 28.1	
EMIR	Miracle	0.67	225	⇑Pg	Pg	04 43 18.8	-0.1
	100nm,0.3s,SNR=18						
EMIR				Lg		04 43 28.1	
	419nm,0.2s,SNR=20						
EMIR	Miracle	0.67	225	Pg	Pg	04 43 18.8	-0.1
	100nm,0.3s,SNR=18						
CSOR	Sort	0.76	269	Pg	Pg	04 43 21.1	+0.4
CSOR				Sg	Sg	04 43 31.9	+1.0
CSOR	Sort	0.76	269	Pg	Pg	04 43 21.1	+0.4
CSOR				Lg		04 43 31.8	
	90nm,0.2s						
CSOR	Sort	0.76	269	Pg	Pg	04 43 21.1	+0.4
CSOR				Sg	Sg	04 43 31.9	+1.0
SALF	Salau	0.80	298	Pg	Pg	04 43 22.6	+1.0
SALF				Sg	Sg	04 43 33.9	+1.5
SALF	Salau	0.80	298	Pg	Pg	04 43 22.5	+0.9
SALF				Lg		04 43 34.0	
MTLF	Montolieu	0.95	3	ePg	Pg	04 43 25.7	+1.1
MTLF				eSg	Sg	04 43 38.9	+1.6
	176nm,0.3s						
MLS	Moulis	0.96	306	Pg	Pg	04 43 26.1	+1.3
MLS				Sg	Sg	04 43 38.6	+0.8
MLS	Moulis	0.96	306	Pg	Pg	04 43 25.9	+1.1
MLS				Lg		04 43 39.0	
MELF	Melles	1.14	296	Pg	Pg	04 43 28.9	+0.7
MELF				Sg	Sg	04 43 44.7	+1.2
MELF	Melles	1.14	296	Pg	Pg	04 43 28.4	+0.2
MELF				Lg		04 43 44.6	
CAVN	Les Avellanes	1.16	244	Pg	Pg	04 43 28.1	-0.6
CAVN				Sg	Sg	04 43 43.8	-0.5
CAVN	Les Avellanes	1.16	244	Pg	Pg	04 43 28.1	-0.6
CAVN				Lg		04 43 43.7	
	308nm,0.2s						
CAVN	Les Avellanes	1.16	244	Pg	Pg	04 43 28.1	-0.6
CAVN				Sg	Sg	04 43 43.8	-0.5
EPOB	Poblet	1.31	218	⇑Pg	Pg	04 43 30.4	-1.4
EPOB				Lg		04 43 47.4	
EPOB	Poblet	1.31	218	⇑Pg	Pg	04 43 30.4	-1.4
	64nm,0.3s,SNR=18						
EPOB				Lg		04 43 47.4	
	95nm,0.2s,SNR=14						
EPOB	Poblet	1.31	218	Pg	Pg	04 43 30.4	-1.4
	64nm,0.3s,SNR=18						
CGAR	Garraf	1.33	215	Pn	Pn	04 43 26.6	-3.5
CGAR				Sn	Sn	04 43 40.8	-7.1
CGAR	Garraf	1.33	215	Pg	Pg	04 43 26.5	-5.7
CGAR				Lg		04 43 40.7	
	133nm,0.2s						
RESF	Ens	1.40	288	Pg	Pg	04 43 35.3	+1.7
RESF				Sg	Sg	04 43 54.1	+1.8
RESF	Ens	1.40	288	Pg	Pg	04 43 34.0	+0.5
RESF				Lg		04 43 55.8	
EPF	Esparros	1.48	296	ePn	Pn	04 43 34.3	+2.1
EPF				ePg	Pg	04 43 37.1	+2.0
EPF				eSg	Sg	04 43 53.2	-1.7
	106nm,0.3s						
EPF	Esparros	1.48	296	eSg	Sg	04 43 53.2	-1.7
	53nm,0.3s						
EPF	Esparros	1.48	296	ePg	Pg	04 43 37.1	+2.0
EBIE	Bielsa	1.52	282	Pn	Pn	04 43 35.2	+2.5
	38nm,0.4s,SNR=95						
EBIE				Pg	Pg	04 43 37.1	+1.3
	31nm,0.3s,SNR=16						
EBIE				Lg		04 43 58.4	
	28nm,0.2s,SNR=23						
EBIE	Bielsa	1.52	282	Pn	Pn	04 43 35.2	+2.5
	38nm,0.4s,SNR=95						
EBIE	Bielsa	1.52	282	Pg	Pg	04 43 37.1	+1.3
	31nm,0.3s,SNR=16						
VIEF	Viey	1.65	288	Pn	Pn	04 43 38.0	+3.5
VIEF				Sn	Sn	04 44 00.9	+5.0
LABF	Labassere	1.67	294	Pg	Pg	04 43 40.1	+1.3
LABF				Sg	Sg	04 44 01.8	+0.7
LABF	Labassere	1.67	294	Pn	Pn	04 43 38.9	+4.1
LABF				Sn	Sn	04 44 00.7	+4.4
ERTA	Horta de San J	1.98	224	Pn	Pn	04 43 40.6	+1.3
	45nm,0.6s,SNR=93						
ERTA				Pg	Pg	04 43 42.7	-2.3
	18nm,0.2s,SNR=7.9						
ERTA				Lg		04 44 07.7	
	43nm,0.3s,SNR=6.8						
ERTA	Horta de San J	1.98	224	Pn	Pn	04 43 40.6	+1.3
	45nm,0.6s,SNR=93						
ERTA	Horta de San J	1.98	224	Pg	Pg	04 43 42.7	-2.3
	18nm,0.2s,SNR=7.9						
REYF	Montagne du Re	2.00	291	Pg	Pg	04 43 45.7	+0.3
REYF	Montagne du Re	2.00	291	Pg	Pg	04 43 44.8	-0.5
REYF				Lg		04 44 11.3	
EBR	Ebro Roquetas	2.00	219	i P*	Pb	04 43 43.0	+1.5
EBR	Ebro Roquetas	2.00	219	eSN	Sn	04 44 08.0	+3.1
ESAC	San Caprasio	2.06	252	⇑Pn	Pn	04 43 42.5	+2.0
	64nm,0.3s,SNR=18						
ESAC				Pg	Pg	04 43 46.0	-0.8
	51nm,0.3s,SNR=6.0						
ESAC				Lg		04 44 11.6	
	146nm,0.2s,SNR=7.9						
ESAC	San Caprasio	2.06	252	Pn	Pn	04 43 42.5	+2.0
	64nm,0.3s,SNR=18						
ESAC	San Caprasio	2.06	252	Pg	Pg	04 43 46.0	-0.7
	51nm,0.3s,SNR=6.0						
ETSF	Etsaut	2.06	285	ePn	Pn	04 43 43.9	+3.4
ETSF				ePg	Pg	04 43 46.2	-0.6
ETSF				eSg	Sg	04 44 12.4	-1.9
	68nm,0.3s						
ETSF	Etsaut	2.06	285	ePg	Pg	04 43 46.2	-0.6
ETSF				eSg	Sg	04 44 12.4	-1.9
	34nm,0.3s						
LASF	Ste Croix	2.09	36	ePn	Pn	04 43 42.1	+1.1
LASF				ePg	Pg	04 43 47.0	-0.3
LASF				eSn	Sn	04 44 08.6	+1.4
LASF				eSg	Sg	04 44 15.4	+0.1
	55nm,0.3s						
LASF	Ste Croix	2.09	36	eSn	Sn	04 44 08.6	+1.4
LASF	Ste Croix	2.09	36	ePg	Pg	04 43 47.0	-0.3
LASF				eSg	Sg	04 44 15.4	+0.1
	28nm,0.3s						
ATE	Arette	2.21	289	Pg	Pg	04 43 49.4	-0.4
ATE				Lg		04 44 18.9	
LARF	Larrau	2.40	287	Pg	Pg	04 43 53.9	+0.4
LARF				Sg	Sg	04 44 25.6	0.0
CAF	Calviac	2.53	359	ePg	Pg	04 43 54.9	-1.2
CAF				eSg	Sg	04 44 28.2	-1.7
	62nm,0.2s						
CAF	Calviac	2.53	359	eSg	Sg	04 44 28.2	-1.7
	31nm,0.2s						
SJPF	Ste Jean	2.59	287	ePg	Pg	04 43 55.5	-1.7
SJPF				eSg	Sg	04 44 30.2	-1.6
	26nm,0.3s						
LFF	La Frestale	2.75	339	ePg	Pg	04 44 00.3	0.0
LFF				eSg	Sg	04 44 35.9	-1.1
	126nm,0.4s						
EALK	Alkurruntz	2.82	288	Pn	Pn	04 43 55.8	+4.5
	13nm,0.3s,SNR=17						
EALK				Pg	Pg	04 44 00.7	-1.1
	9.6nm,0.3s,SNR=12						
EALK				Sn	Sn	04 44 31.4	+5.8
	6.7nm,0.2s,SNR=4.0						
EALK				Lg		04 44 37.9	
	32nm,0.3s,SNR=7.9						
EALK	Alkurruntz	2.82	288	Pg	Pg	04 44 00.7	-1.1
	9.6nm,0.3s,SNR=12						
EMOS	Mosqueruela	2.83	225	Pn	Pn	04 43 53.3	+1.8
	9.3nm,0.6s,SNR=23						
EMOS				Pg	Pg	04 43 60.0	-2.0
	35nm,0.5s,SNR=24						
EMOS				Sn	Sn	04 44 25.5	-0.4
	15nm,0.4s,SNR=6.2						
EMOS				Lg		04 44 36.0	
	32nm,0.4s,SNR=7.9						
EMOS	Mosqueruela	2.83	225	Pn	Pn	04 43 53.3	+1.8
	9.3nm,0.6s,SNR=23						
EMOS	Mosqueruela	2.83	225	Pg	Pg	04 44 00.0	-2.0
	35nm,0.5s,SNR=24						
EMOS				Sn	Sn	04 44 25.5	-0.4
	15nm,0.4s,SNR=6.2						
LBL	Lubilhac	2.95	15	Pn	Pn	04 43 53.9	+0.7
LBL				Pg	Pg	04 44 04.0	-0.4
LBL				Sg	Sg	04 44 44.0	+0.3
LBL	Lubilhac	2.95	15	Pg	Pg	04 44 04.0	-0.4
LBL				Sg	Sg	04 44 44.0	+0.3
RJF	Les Rejaudoux	2.95	351	ePg	Pg	04 44 03.3	-1.1
RJF				eSn	Sn	04 44 29.4	+0.5
RJF				eSg	Sg	04 44 41.5	-2.2
	31nm,0.2s						
RJF	Les Rejaudoux	2.95	351	eSn	Sn	04 44 29.4	+0.5
RJF				eSg	Sg	04 44 41.5	-2.2
	16nm,0.2s						
SMRF	Simiane la Rot	2.96	57	ePn	Pn	04 43 54.5	+1.2
SMRF				ePg	Pg	04 44 04.1	-0.5
SMRF				eSg	Sg	04 44 42.5	-1.6
	33nm,0.6s						
SMRF	Simiane la Rot	2.96	57	ePg	Pg	04 44 04.1	-0.5
SMRF				eSg	Sg	04 44 42.5	-1.6
	16nm,0.6s						
VIVF	Saint-Julien-l	3.07	36	ePn	Pn	04 43 55.5	+0.6
VIVF				ePg	Pg	04 44 04.6	-2.2
VIVF				eSn	Sn	04 44 32.3	+0.4
VIVF				eSg	Sg	04 44 47.0	-0.7
	43nm,0.4s						
VIVF	Saint-Julien-l	3.07	36	eSn	Sn	04 44 32.3	+0.4
VIVF	Saint-Julien-l	3.07	36	ePg	Pg	04 44 04.6	-2.2
VIVF				eSg	Sg	04 44 47.0	-0.7
	22nm,0.4s						
LMR	La Mourre	3.34	72	ePn	Pn	04 43 58.9	+0.2
LMR				ePg	Pg	04 44 10.0	-2.1
LMR				eSn	Sn	04 44 37.3	-1.4
	17nm,0.2s						
LMR	La Mourre	3.34	72	ePg	Pg	04 44 10.0	-2.1
LMR				eSn	Sn	04 44 37.3	-1.4
	8.6nm,0.2s						
PYM	Petit Puy Mans	3.41	10	Pn	Pn	04 44 00.0	+0.2
PYM				Pg	Pg	04 44 12.5	-1.2
PYM				Sg	Sg	04 44 58.8	-0.4
PYM	Petit Puy Mans	3.41	10	Pg	Pg	04 44 12.5	-1.2
PYM				Sg	Sg	04 44 58.8	-0.4
EIBI	Ibiza	3.42	191	Pn	Pn	04 43 59.6	-0.3
	1.4nm,0.1s,SNR=7.9						
EIBI				Pg	Pg	04 44 09.0	-4.7
	5.5nm,0.2s,SNR=7.9						
EIBI				Sn	Sn	04 44 36.8	-3.9
	7.0nm,0.2s,SNR=4.0						
EIBI	Ibiza	3.42	191	Pn	Pn	04 43 59.5	-0.3
EIBI	Ibiza	3.42	191	Pg	Pg	04 44 09.0	-4.7
	5.5nm,0.2s,SNR=7.9						
EIBI				Sn	Sn	04 44 36.8	-3.9
	7.0nm,0.2s,SNR=4.0						
FRF	La Foret Royal	3.50	69	ePn	Pn	04 44 01.4	+0.4
FRF				eSn	Sn	04 44 40.8	-2.0
	17nm,0.3s						
ORIF	Oris-en-Rattie	3.70	46	ePn	Pn	04 44 04.8	+1.0
ORIF				ePg	Pg	04 44 18.4	-1.0
ORIF				eSn	Sn	04 44 47.2	-0.7
	3.6nm,0.3s						
ORIF				eSg	Sg	04 45 06.2	-2.5
ORIF	Oris-en-Rattie	3.70	46	ePg	Pg	04 44 18.4	-1.0
ORIF				eSn	Sn	04 44 47.2	-0.7
	1.8nm,0.3s						
ORIF				eSg	Sg	04 45 06.2	-2.5
AGO	Saint Agoulin	3.73	11	Pn	Pn	04 44 04.3	+0.1
AGO				Pg	Pg	04 44 18.4	-1.5
AGO				Sg	Sg	04 45 09.1	-0.5
AGO	Saint Agoulin	3.73	11	Pg	Pg	04 44 18.4	-1.5
AGO	Saint Agoulin	3.73	11	Sg	Sg	04 45 09.1	-0.5
PLDF	La Plantade	3.73	16	Pn	Pn	04 44 04.3	0.0
PLDF				Pg	Pg	04 44 18.4	-1.6
PLDF				Sg	Sg	04 45 09.3	-0.4
PLDF	La Plantade	3.73	16	Pg	Pg	04 44 18.4	-1.6
PLDF	La Plantade	3.73	16	Sg	Sg	04 45 09.3	-0.4
TCF	Toulx Ste Croi	3.90	1	ePn	Pn	04 44 07.6	+1.0
TCF				ePg	Pg	04 44 20.7	-2.6
TCF				eSg	Sg	04 45 11.6	-3.6
	22nm,0.3s						
TCF	Toulx Ste Croi	3.90	1	ePg	Pg	04 44 20.7	-2.6
TCF				eSg	Sg	04 45 11.6	-3.6
	11nm,0.3s						
MBDF	Montbardon	4.09	54	ePn	Pn	04 44 09.9	+0.6
MBDF				eSn	Sn	04 44 56.1	-1.6
	9.0nm,0.4s						
EBEN	Beniarda	4.11	207	Pn	Pn	04 44 09.4	-0.2
	0.7nm,0.2s,SNR=7.9						
EBEN				Sn	Sn	04 44 54.8	-3.4
	0.7nm,0.5s,SNR=7.9						
EBEN	Beniarda	4.11	207	Pn	Pn	04 44 09.4	-0.2
	0.7nm,0.2s,SNR=7.9						
EBEN				Sn	Sn	04 44 54.8	-3.4
	0.7nm,0.5s,SNR=7.9						
SBF	Sospel	4.14	67	ePn	Pn	04 44 10.5	+0.5
SBF				eSn	Sn	04 44 56.5	-2.4
	17nm,0.3s						
PZZ	Prazzo	4.18	58	P	Pn	04 44 12.5	+1.9
PZZ	Prazzo	4.18	58	P	Pn	04 44 12.5	+1.9
BGF	Bois d’Agland	4.20	7	ePn	Pn	04 44 11.8	+0.9
BGF				ePg	Pg	04 44 26.1	-3.1
BGF				eSg	Sg	04 45 20.3	-4.9
	98nm,0.4s						
BGF	Bois d’Agland	4.20	7	ePg	Pg	04 44 26.1	-3.1
BGF				eSg	Sg	04 45 20.3	-4.9
	49nm,0.4s						
STV	Sta Anna Valdi	4.20	62	P	Pn	04 44 12.6	+1.6
STV	Sta Anna Valdi	4.20	62	P	Pn	04 44 12.6	+1.6
STV2	Anna di Valdie	4.20	62	P	Pn	04 44 12.6	+1.6
STV2	Anna di Valdie	4.20	62	P	Pn	04 44 12.6	+1.6
ENR	Entracque	4.26	63	P	Pn	04 44 13.1	+1.3
ENR	Entracque	4.26	63	P	Pn	04 44 13.1	+1.3
NEGI	Negi	4.32	68	P	Pn	04 44 13.1	+0.5
NEGI	Negi	4.32	68	P	Pn	04 44 13.1	+0.5
SMF	Signal de Mont	4.42	15	ePn	Pn	04 44 14.5	+0.4
SMF				ePg	Pg	04 44 31.1	-2.7
SMF				eSg	Sg	04 45 27.4	-5.3
	12nm,0.3s						
SMF	Signal de Mont	4.42	15	ePg	Pg	04 44 31.1	-2.7
SMF				eSg	Sg	04 45 27.4	-5.3
	6.1nm,0.3s						
MONE	Monesi	4.43	66	P	Pn	04 44 15.1	+0.9
MONE	Monesi	4.43	66	P	Pn	04 44 15.1	+0.9
FENE	Fenestrelle	4.43	52	P	Pn	04 44 16.0	+1.8
BHB	Bricherasio	4.45	55	P	Pn	04 44 16.6	+2.2
BHB	Bricherasio	4.45	55	P	Pn	04 44 16.6	+2.2
IMI	Imperia	4.46	68	P	Pn	04 44 15.1	+0.5
IMI	Imperia	4.46	68	P	Pn	04 44 15.1	+0.4
AVF	Avril sur Loir	4.48	11	ePn	Pn	04 44 16.0	+1.1
AVF				ePg	Pg	04 44 31.3	-3.7
AVF				eSg	Sg	04 45 29.4	-5.3
	8.6nm,0.3s						
AVF	Avril sur Loir	4.48	11	ePg	Pg	04 44 31.3	-3.7
AVF				eSg	Sg	04 45 29.4	-5.3
	4.3nm,0.3s						
MFF	Saint Martin d	4.52	339	ePn	Pn	04 44 16.3	+0.8
MFF				ePg	Pg	04 44 32.4	-3.3
MFF				eSn	Sn	04 45 07.0	-1.7
MFF				eSg	Sg	04 45 30.0	-6.0
	10nm,0.3s						
MFF	Saint Martin d	4.52	339	ePg	Pg	04 44 32.4	-3.3
MFF				eSn	Sn	04 45 07.0	-1.7
MFF				eSg	Sg	04 45 30.0	-6.0
	5.1nm,0.3s						
LPG	La Plagne	4.54	45	ePn	Pn	04 44 18.2	+2.4
LPG				eSn	Sn	04 45 07.6	-1.7
	1.4nm,0.2s						
LPG				eSg	Sg	04 45 32.5	-4.3
LPG	La Plagne	4.54	45	eSn	Sn	04 45 07.6	-1.7
	0.7nm,0.2s						
LPG				eSg	Sg	04 45 32.5	-4.3
LPL	La Plagne	4.55	45	ePn	Pn	04 44 17.6	+1.7
LPL				eSn	Sn	04 45 07.6	-1.8
LPL				eSg	Sg	04 45 32.9	-4.0
	7.0nm,0.6s						
LPL	La Plagne	4.55	45	eSn	Sn	04 45 07.6	-1.8
LPL	La Plagne	4.55	45	eSg	Sg	04 45 32.9	-4.0
	3.5nm,0.6s						
ROB	Roburent	4.58	64	P	Pn	04 44 18.2	+1.8
ROB	Roburent	4.58	64	P	Pn	04 44 18.2	+1.8
RSP	Reno Superiore	4.61	52	P	Pn	04 44 18.7	+1.9
RSP	Reno Superiore	4.61	52	P	Pn	04 44 18.7	+1.9
LSD	Ceresole Reale	4.74	48	P	Pn	04 44 21.1	+2.6
LSD	Ceresole Reale	4.74	48	P	Pn	04 44 21.1	+2.5
SSF	Saint Saulge	4.77	11	ePn	Pn	04 44 19.7	+0.7
SSF				ePg	Pg	04 44 36.7	-4.0
SSF				eSg	Sg	04 45 38.2	-6.0
	14nm,0.4s						
SSF	Saint Saulge	4.77	11	ePg	Pg	04 44 36.7	-4.0
SSF				eSg	Sg	04 45 38.2	-6.0
	6.8nm,0.4s						
FIN	Finale Ligure	4.78	66	P	Pn	04 44 20.5	+1.4
FIN	Finale Ligure	4.78	66	P	Pn	04 44 20.5	+1.4
HYF	Humbligny	4.89	4	ePn	Pn	04 44 22.4	+1.7
HYF				ePg	Pg	04 44 40.5	-2.6
HYF				eSg	Sg	04 45 44.4	-3.9
HYF	Humbligny	4.89	4	ePg	Pg	04 44 40.5	-2.6
HYF				eSg	Sg	04 45 44.4	-3.9
PGF	Pioggiola	5.07	86	ePn	Pn	04 44 21.0	-2.2
PGF				eSn	Sn	04 45 16.4	-6.0
	8.9nm,0.2s						
CABF	La Chapelle	5.07	32	ePn	Pn	04 44 24.6	+1.3
CABF				ePg	Pg	04 44 42.1	-4.6
CABF				eSg	Sg	04 45 47.8	-6.5
	16nm,0.5s						
CABF	La Chapelle	5.07	32	ePg	Pg	04 44 42.1	-4.6
CABF				eSg	Sg	04 45 47.8	-6.5
	7.8nm,0.5s						
PCP	Pian Castagno	5.12	63	P	Pn	04 44 25.6	+1.6
PCP	Pian Castagno	5.12	63	P	Pn	04 44 25.6	+1.6
ORX	Oropa	5.31	50	P	Pn	04 44 27.8	+1.2
ORX	Oropa	5.31	50	P	Pn	04 44 27.8	+1.2
ESDC	Sonseca Array	5.36	242	Pn	Pn	04 44 26.4	-1.0
	1.9nm,0.3s,baz=62,slow=14,SNR=27						
ESDC				Sn	Sn	04 45 26.3	-3.6
	2.4nm,0.1s,baz=59,slow=24,SNR=6.0						
ESDC				Lg		04 45 58.0	
	2.0nm,0.4s,baz=60,slow=29,SNR=4.0						
ESDC	Sonseca Array	5.36	242	Pn	Pn	04 44 26.4	-1.0
	1.9nm,0.3s,SNR=27						
ESDC				Sn	Sn	04 45 26.3	-3.6
	2.4nm,0.1s,SNR=6.0						
EARI	Arriondas	5.49	282	Pn	Pn	04 44 30.5	+1.3
	3.1nm,0.5s,SNR=9.8						
EARI				Sn	Sn	04 45 31.3	-1.7
	2.2nm,0.5s,SNR=7.9						
EARI	Arriondas	5.49	282	Pn	Pn	04 44 30.5	+1.3
	3.1nm,0.5s,SNR=9.8						
EARI				Sn	Sn	04 45 31.3	-1.8
	2.2nm,0.5s,SNR=7.9						
EQES	Quesada	6.09	223	Pn	Pn	04 44 36.6	-1.0
	2.3nm,0.5s,SNR=4.8						
EQES				Sn	Sn	04 45 42.5	-5.5
	8.8nm,0.9s,SNR=7.9						
EQES				Lg		04 46 17.1	
	SNR=4.0						
EQES	Quesada	6.09	223	Pn	Pn	04 44 36.6	-1.0
	2.3nm,0.5s,SNR=4.8						
EQES				Sn	Sn	04 45 42.5	-5.5
	8.8nm,0.9s,SNR=7.9						
HAU	Haudompre	6.35	26	ePn	Pn	04 44 41.6	+0.3
HAU				ePg	Pg	04 45 05.7	-6.5
HAU				eSg	Sg	04 46 30.3	-6.5
	8.6nm,0.5s						
HAU	Haudompre	6.35	26	ePg	Pg	04 45 05.7	-6.5
GRR	Gorron	6.36	342	ePn	Pn	04 44 41.3	-0.2
GRR				eSn	Sn	04 45 50.9	-4.0
GRR				eSg	Sg	04 46 30.2	-7.1
	9.8nm,0.5s						
HINF	Hinteralfeld	6.36	30	ePn	Pn	04 44 40.0	-1.5
HINF				ePg	Pg	04 45 08.1	-4.4
HINF				eSg	Sg	04 46 30.1	-7.2
	5.2nm,0.5s						
HINF	Hinteralfeld	6.36	30	ePg	Pg	04 45 08.1	-4.4
HINF				eSg	Sg	04 46 30.1	-7.2
	2.6nm,0.5s						
LDF	La Druitiere	6.41	346	ePn	Pn	04 44 42.0	-0.1
LDF				eSn	Sn	04 45 52.1	-3.9
LDF				eSg	Sg	04 46 30.5	-8.2
	6.0nm,0.4s						
MEZF	Maizieres J’vi	6.44	17	eSg	Sg	04 46 33.4	-6.5
	11nm,0.4s						
ECAL	Calabor	6.62	269	Pn	Pn	04 44 44.0	-1.1
	1.3nm,0.2s,SNR=7.9						
ECAL				Sn	Sn	04 45 57.6	-3.8
	11nm,0.4s,SNR=7.9						
ECAL	Calabor	6.62	269	Pn	Pn	04 44 44.0	-1.2
	1.3nm,0.2s,SNR=7.9						
ECAL				Sn	Sn	04 45 57.6	-3.8
	11nm,0.4s,SNR=7.9						
FLN	La Foliniere	6.63	345	ePn	Pn	04 44 44.9	-0.4
FLN				eSg	Sg	04 46 37.6	-8.8
	6.2nm,0.5s						
EADA	Adamuz	6.65	233	Pn	Pn	04 44 43.9	-1.7
	2.3nm,0.7s,SNR=10						
EADA				Sn	Sn	04 45 56.4	-5.8
	1.8nm,0.5s,SNR=7.9						
EADA				Lg		04 46 38.8	
	1.1nm,0.4s,SNR=7.9						
EADA	Adamuz	6.65	233	Pn	Pn	04 44 43.9	-1.7
	2.3nm,0.7s,SNR=10						
EADA				Sn	Sn	04 45 56.4	-5.8
	1.8nm,0.5s,SNR=7.9						
QUIF	Quistinic	6.68	328	ePn	Pn	04 44 46.5	+0.5
QUIF				eSn	Sn	04 45 59.2	-3.7
QUIF				eSg	Sg	04 46 39.5	-8.5
	3.9nm,0.5s						
QUIF	Quistinic	6.68	328	eSg	Sg	04 46 39.5	-8.5
	2.0nm,0.5s						
SGMF	Saint Gilles	6.74	332	ePn	Pn	04 44 46.6	-0.2
SGMF				eSn	Sn	04 46 00.1	-4.2
SGMF				eSg	Sg	04 46 42.1	-7.7
	4.3nm,0.5s						
EPON	Pontenova	6.90	281	Pn	Pn	04 44 49.4	+0.3
	2.9nm,0.3s,SNR=7.9						
EPON				Sn	Sn	04 46 05.3	-3.0
	3.4nm,0.3s,SNR=7.9						
EPON	Pontenova	6.90	281	Pn	Pn	04 44 49.4	+0.3
	2.9nm,0.3s,SNR=7.9						
EPON				Sn	Sn	04 46 05.3	-3.1
	3.4nm,0.3s,SNR=7.9						
EINC	Incio	7.03	275	Pn	Pn	04 44 50.7	-0.1
	1.8nm,0.6s,SNR=7.9						
EINC				Sn	Sn	04 46 07.8	-3.8
	3.0nm,0.4s,SNR=7.9						
EINC	Incio	7.03	275	Pn	Pn	04 44 50.7	-0.2
	1.8nm,0.6s,SNR=7.9						
EINC				Sn	Sn	04 46 07.8	-3.7
	3.0nm,0.4s,SNR=7.9						
ROSF	Rostrenen	7.07	329	ePn	Pn	04 44 51.5	+0.1
ROSF				eSn	Sn	04 46 05.5	-7.0
	1.1nm,0.2s						
ELOB	Lobios	7.61	269	Pn	Pn	04 44 57.9	-1.2
	1.3nm,0.3s,SNR=7.9						
ELOB				Sn	Sn	04 46 20.4	-5.7
	1.6nm,0.4s,SNR=7.9						
ELOB	Lobios	7.61	269	Pn	Pn	04 44 57.9	-1.2
	1.3nm,0.3s,SNR=7.9						
ELOB				Sn	Sn	04 46 20.5	-5.7
EBAD	Badajoz	7.87	246	Pn	Pn	04 44 59.9	-2.7
	0.3nm,0.4s,SNR=7.9						
EBAD				Sn	Sn	04 46 24.9	-7.6
	0.7nm,0.2s,SNR=7.9						
EBAD	Badajoz	7.87	246	Pn	Pn	04 44 59.9	-2.7
EBAD				Sn	Sn	04 46 24.9	-7.6
EMIN	Mina Concepcio	8.19	239	Pn	P	04 45 05.2	-2.0
	0.3nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	8.19	239	Pn	P	04 45 05.2	-1.9

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*NEIC **21** 05:09:32.9±9.4, 6.63S×147.82E, h76km±36km, mb3.7/2,*
Error ellipse: s-maj=106.2km s-min=38.5km az=206.0

IDC 21 05:09:09.6±4.9**, 5.48S×148.96E, mb3.9**/4**, mb1 4.1**/5**,**
mb1mx3.9/14**, ML3.1**/1**, MS3.1**/2**, Ms1 3.1**/2**, ms1mx2.7**/16**,**
Error ellipse: s-maj=74.7km s-min=53.9km az=72.0,
New Britain region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.29	204	Pn	Pn	05 10 16.0	-1.6
	7.3nm,0.3s,baz=59,slow=7.9,SNR=13						
PMG				Sn	Sn	05 11 06.6	-2.4
	4.1nm,0.3s,baz=28,slow=19,SNR=4.2						
WRAB	Tennant Creek	20.20	223	eP	P	05 13 43.7	-5.3
	1.4nm,0.4s						
WB2	Warramunga Arr	20.21	223	eP	P	05 13 44.0	-5.0
WRA	Warramunga Arr	20.22	223	P	P	05 13 44.4	-4.7
	0.7nm,0.4s,baz=50,slow=10,SNR=14						
ASAR	Alice Springs	23.17	217	P	P	05 14 17.2	-1.8
	2.2nm,0.4s,baz=53,slow=8.7,SNR=35						
ASPA	Alice Springs	23.18	217	eP	P	05 14 17.1	-1.9
FITZ	Fitzroy Crossi	26.00	239	eP	P	05 14 45.0	-1.2
	6.8nm,1.5s						
FITZ	Fitzroy Crossi	26.00	239	P	P	05 14 45.0	-1.2
	2.4nm,0.4s,baz=32,slow=7.9,SNR=9.8						
STKA	Stephens Creek	27.15	194	P	P	05 14 56.6	0.0

	1.7nm,0.7s,baz=4.5,slow=11,SNR=3.8						
NWAO	**Narrogin (SRO)**	**40.23**	**223**	LR	LR	05 35 18.0	
	comp=Z,9.4nm,21.6s,baz=27,slow=39						
RPZ	**Rata Peaks**	**42.76**	**156**	LR	LR	05 30 45.9	
	comp=Z,78nm,19.2s,baz=67,slow=30						

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*IDC **21** 05:38:49.9±1.9, 8.54S×124.87E, mb3.9/2, mb1 4.2/5, mb1mx3.9/13, ML3.9/3, MS3.0/1, Ms1 3.0/1, ms1mx2.6/13, Error ellipse: s-maj=90.1km s-min=23.4km az=62.0*

*NEIC **21** 05:38:50.0±1.1, 8.31S×125.62E, h10^{km}, mb4.1/1, Error ellipse: s-maj=46.0km s-min=13.2km az=59.0*

ISC 21 05:38:47.9±2.4**, 8.46S**±0.08×**125.41E**±0.10**, h4^{km}**±16^{km}**, n11, σ1^{s}46**/18**, mb3.8**/3**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**8.06**	**122**	*e*P	**P**	**05 40 50.8**	**+2.3**
	7.8nm,0.3s						
KAKA				*e*S	**Sn**	**05 42 20.5**	**-0.6**
FITZ	**Fitzroy Crossi**	**9.59**	**179**	*e*P	**P**	**05 41 10.2**	**+0.3**
	5.7nm,0.5s						
FITZ				*e*S	**Sn**	**05 42 58.9**	**-0.3**
FITZ	**Fitzroy Crossi**	**9.59**	**179**	Pn	**P**	**05 41 08.9**	**-1.0**
	0.8nm,0.3s,baz=7.3,slow=12,SNR=17						
FITZ				Sn	**Sn**	**05 42 59.0**	**-0.2**
	1.8nm,0.3s,baz=358,slow=12,SNR=5.4						
WRAB	**Tennant Creek**	**14.32**	**144**	*e*P	**P**	**05 42 12.1**	**-1.6**
WRA	**Warramunga Arr**	**14.32**	**144**	Pn	**P**	**05 42 12.1**	**-1.6**
	1.3nm,0.3s,baz=319,slow=13,SNR=50						
WRA				Sn	**S**	**05 44 52.6**	**-1.4**
	0.5nm,0.3s,baz=316,slow=23,SNR=6.0						
WB2	**Warramunga Arr**	**14.32**	**144**	*e*P	**P**	**05 42 10.4**	**-3.4**
WB2				*e*S	**S**	**05 44 49.2**	**-4.9**
ASPA	**Alice Springs**	**17.17**	**153**	*e*P	**P**	**05 42 51.1**	**+0.7**
ASPA				*e*S	**S**	**05 46 00.6**	**0.0**
ASAR	**Alice Springs**	**17.17**	**153**	P	**P**	**05 42 52.2**	**+1.8**
	0.3nm,0.3s,baz=319,slow=10,SNR=24						
ASAR				S	**S**	**05 46 02.2**	**+1.7**
	0.2nm,0.3s,baz=311,slow=20,SNR=6.5						
ASAR				LR	LR	05 50 13.6	
	comp=Z,50nm,20.9s,baz=331,slow=39						
STKA	**Stephens Creek**	**27.74**	**149**	P	**P**	**05 44 42.2**	**+2.6**
	1.4nm,0.7s,mb3.7,baz=338,slow=15,SNR=5.1						
CMAR	**Chiang Mai Arr**	**37.38**	**316**	P	**P**	**05 46 02.1**	**-1.7**
	0.6nm,0.5s,mb3.7,baz=152,slow=8.8,SNR=5.2						
CHKZ	**Chkalovo**	**77.18**	**330**	*e*P	**P**	**05 50 45.5**	**+0.9**
	1.7nm,1.0s,mb3.9						

IDC 21 06:18:18.4±20.0**, 17.66S**×**172.67W, mb3.7**/3**, mb1 4.0**/3**, mb1mx3.6**/15**, Error ellipse: s-maj=509.0km s-min=48.1km az=37.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**50.05**	**259**	P	P	06 27 14.1	-3.1
	0.2nm,0.5s,baz=96,slow=8.4,SNR=8.2						
ASAR	**Alice Springs**	**50.11**	**254**	P	P	06 27 16.8	-0.9
	0.9nm,0.4s,baz=88,slow=7.9,SNR=14						
VNDA	**Vanda**	**61.22**	**186**	P	P	06 28 34.6	-2.5
	1.9nm,1.2s,baz=42,slow=7.5,SNR=5.4						

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*IDC **21** 06:39:41.8±56.0, 18.02S×176.61E, mb3.8/3, mb1 4.0/3, mb1mx3.7/13, Error ellipse: s-maj=989.0km s-min=143.2km az=77.0*

ISC 21 06:40:51.7±3.9**, 20.3S**±0.4×**168.6E**±0.6**, h33^{km}, n5, σ0^{s}97**/6**, mb3.7**/3**, Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**2.66**	**228**	*e*P	**P**	**06 41 32.4**	**-0.8**
DZM				*e*S	**S**	**06 42 04.9**	**+0.3**
NOUC	**Port Laguerre**	**2.78**	**229**	*e*P	**P**	**06 41 34.6**	**-0.3**
STKA	**Stephens Creek**	**26.76**	**239**	P	**P**	**06 46 31.7**	**+1.2**
	1.1nm,0.6s,mb3.6,baz=78,slow=7.9,SNR=4.8						
WRA	**Warramunga Arr**	**32.12**	**265**	P	**P**	**06 47 17.7**	**-0.7**
	0.3nm,0.5s,mb3.4,baz=95,slow=8.5,SNR=6.8						
ASAR	**Alice Springs**	**32.28**	**258**	P	**P**	**06 47 20.2**	**+0.4**
	1.3nm,0.6s,mb4.0,baz=84,slow=8.8,SNR=21						

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*NEIC **21** 07:25:11.8, 32.68S×71.65W, h26^{km}, ML3.0(GUC), After GUC.*

GUC 21 07:25:11.8±0.7**, 32.68S**×**71.65W, h26^{km}**±4^{km}**, MD3.9, ML3.0, 3C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IHA	**Instituto Hidr**	**0.35**	**179**	⇓*i*P	Pb	07 25 19.5	0.0
IHA				*i* S	Sb	07 25 25.0	+0.2
ROCH	**El Roble**	**0.61**	**119**	*e*P	Pb	07 25 23.8	0.0
ROCH				*i* S	Sb	07 25 32.9	+0.9
PTCH	**Petorca**	**0.73**	**56**	*i* P	Pb	07 25 25.8	-0.1
PTCH				*i* S	Sb	07 25 36.4	+0.9
PTCH				AMP		07 25 39.9	
	comp=E,897nm,0.1s						
LCCH	**Las Cruces**	**0.80**	**175**	*e*P	Pb	07 25 26.2	-0.7
JACH	**Jahuel**	**0.89**	**91**	⇑*i*P	Pb	07 25 27.9	-0.6
JACH				*i* S	Sb	07 25 40.2	+0.2
PEL	**Peldehue**	**0.93**	**120**	*e*P	Pb	07 25 28.8	-0.4
PEL				*i* S	Sb	07 25 41.4	+0.2
PEL				AMP		07 25 43.1	
	comp=N,868nm,0.3s						
PUEX	**Pudahuel**	**1.07**	**136**	*e*P	Pn	07 25 31.8	+0.5
PUEX				*i* S	Sb	07 25 46.0	+1.0
PUEX				AMP		07 25 48.1	
	comp=E,1μm,0.3s						
RCDM	**Rinconada Maip**	**1.07**	**139**	*e*P	Pn	07 25 30.9	-0.5
RCDM				*i* S	Sb	07 25 45.4	+0.1
RCDM				AMP		07 25 48.6	
	comp=N,332nm,0.1s						
ILCH	**Illapel**	**1.11**	**21**	*e*P	Pn	07 25 31.5	-0.5
ILCH				*i* S	Sb	07 25 46.7	+0.3
ILCH				AMP		07 25 47.5	
	comp=E,388nm,0.2s						
STL	**Santa Lucia**	**1.13**	**132**	⇑*i*P	Pn	07 25 32.0	-0.3
STL				*i* S	Sb	07 25 46.9	0.0
TACH	**Talagante**	**1.14**	**149**	*e*P	Pn	07 25 31.8	-0.6
DSCH	**Colegio Aleman**	**1.16**	**129**	⇑*i*P	Pn	07 25 32.2	-0.3
DSCH				*i* S	Sb	07 25 47.9	+0.3
DSCH				AMP		07 25 48.8	
	comp=N,1μm,0.4s						
CLCH	**Cerro Calan**	**1.18**	**128**	*e*P	Pn	07 25 32.3	-0.6
CLCH				*i* S	Sn	07 25 48.4	+0.2
CLCH				AMP		07 25 49.6	
	comp=N,807nm,0.5s						
LNV	**Longovilo**	**1.29**	**171**	*e*P	Pn	07 25 33.1	-1.4
FCH	**Farellones**	**1.31**	**120**	⇓*i*P	Pn	07 25 34.8	0.0
FCH				*i* S	Sn	07 25 52.5	+0.9
FCH				AMP		07 25 53.4	
	comp=E,357nm,0.1s						
PCH	**Pirque**	**1.34**	**135**	*e*P	Pn	07 25 34.9	-0.3
PCH				*i* S	Sn	07 25 52.8	+0.6
SJCH	**San Jose de Ma**	**1.45**	**132**	*e*P	Pn	07 25 36.6	-0.1
SJCH				*i* S	Sn	07 25 55.7	+0.7
CHCH	**Chadas Angostu**	**1.50**	**147**	*e*P	Pn	07 25 37.8	+0.3
CMCH	**Combarbala**	**1.60**	**20**	*e*P	Pn	07 25 38.9	+0.1
CMCH				*i* S	Sn	07 25 59.8	+1.0
CMCH				AMP		07 26 04.5	
	comp=N,1μm,0.6s						
LMEL	**Las Melosas**	**1.68**	**134**	*e*P	Pn	07 25 40.7	+0.7
LMEL				*i* S	Sn	07 26 02.6	+1.7
LMEL				AMP		07 26 07.2	
	comp=N,263nm,0.2s						
CACH	**El Canelo**	**1.68**	**149**	*e*P	Pn	07 25 39.8	-0.2
SFDO	**San Fernando**	**2.00**	**165**	*e*P	Pn	07 25 45.4	+0.8

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*IDC **21** 07:56:55.5±5.0, 41.80N×84.78E, mb4.0/4, mb1 3.9/6, mb1mx3.6/21, ML3.5/2, Error ellipse: s-maj=107.0km s-min=44.6km az=10.0*

*BJI **21** 07:57:00.8, 42.21N×85.24E, h12^{km}, ML3.4*

*NNC **21** 07:57:04.3±7.4, 42.49N×85.07E, h26^{km}±31^{km}, mpv3.5, Error ellipse: s-maj=52.3km s-min=23.9km az=156.0*

ISC 21 07:56:57.7±2.0**, 42.1N**±0.2×**84.85E**±0.10**, h10^{km}, n10, σ1^{s}16**/12**, mb4.0**/4**, 3C, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	**Urumqi**	**2.68**	**50**	P	**Pn**	**07 57 43.5**	**+1.8**
WMQ				SG	**Sn**	**07 58 12.8**	**-1.7**
WMQ					Smax		
	comp=N,155nm,0.3s						
WMQ					Smax		
	comp=E,228nm,0.2s						
MK31	**Makanchi Array**	**5.00**	**339**	⇑Pn	**Pn**	**07 58 16.8**	**+2.2**
	comp=E,5.6nm,0.6s,baz=152,slow=14,SNR=57						
MK31				⇑Pg	**Pg**	**07 58 30.9**	**-6.6**
	comp=E,1.5nm,0.2s,baz=150,slow=14,SNR=20						
MK31				⇑Lg		07 59 35.4	
	comp=E,26nm,0.6s,baz=155,slow=30,SNR=8.3						
BVA0	**Borovoye Array**	**14.59**	**323**	P	**P**	**08 00 26.6**	**+0.7**
	comp=E,0.2nm,0.8s,baz=134,slow=12,SNR=6.0						
BVAR	**Borovoye Array**	**14.59**	**323**	Pn	**P**	**08 00 24.3**	**-1.6**
	comp=E,0.1nm,0.3s,baz=131,slow=15,SNR=2.9						
CHKZ	**Chkalovo**	**14.94**	**325**	P	**P**	**08 00 30.8**	**+0.3**
	comp=E,7.2nm,2.4s						
SONM	**Songino Array**	**16.25**	**62**	Pn	**P**	**08 00 48.0**	**+0.5**
	comp=E,0.1nm,0.3s,baz=250,slow=14,SNR=3.2						
FINES	**FINESS Array B**	**39.51**	**320**	P	**P**	**08 04 29.3**	**-0.5**
	comp=E,1.4nm,0.9s,mb3.7,baz=104,slow=5.7,SNR=3.5						
ARCES	**ARCESS Array B**	**40.61**	**332**	P	**P**	**08 04 38.4**	**-0.4**
	comp=E,7.3nm,1.0s,mb4.2,baz=82,slow=8.6,SNR=3.8						
HFS	**Hagfors**	**45.66**	**319**	P	**P**	**08 05 18.8**	**-1.0**
	comp=E,2.5nm,0.8s,mb4.2,baz=108,slow=9.1,SNR=3.6						
NOA	**NORSAR Array B**	**46.69**	**320**	P	**P**	**08 05 27.8**	**-0.1**
	comp=E,0.7nm,0.8s,mb3.6,baz=81,slow=6.8,SNR=3.0						

WEL 21 07:58:34.6±0.1**, 40.54S**×**175.22E, h63^{km}**±2^{km}**, ML3.6**/9**, 9C-4D, Error ellipse: s-maj=1.4km s-min=0.6km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRZ	**Mangatainoka R**	**0.30**	**115**	⇑PN	P	07 58 44.8	-0.4
MRZ				SN	S	07 58 52.3	-0.6
KIW	**Kapiti Island**	**0.40**	**216**	⇓PN	P	07 58 45.5	-0.5
KIW				SN	S	07 58 53.3	-1.0
CAW	**Cannon Point**	**0.58**	**191**	⇑PN	P	07 58 47.5	-0.4
CAW				SN	S	07 58 56.9	-0.6
MTW	**Mount Morrison**	**0.66**	**161**	⇑PN	P	07 58 48.4	-0.3
MTW				SN	S	07 58 58.9	-0.2
TSZ	**Takapari Road**	**0.74**	**50**	⇓PN	P	07 58 49.0	-0.7
TSZ				SN	S	07 59 00.2	-0.6
BFZ	**Birch Farm**	**0.80**	**101**	PN	P	07 58 50.1	-0.2
MRW	**Makara Radio**	**0.80**	**209**	PN	P	07 58 49.6	-0.8
MRW				SN	S	07 59 01.0	-1.1
WAZ	**Wanganui**	**0.80**	**347**	⇑PN	P	07 58 50.3	-0.1
WEL	**Wellington**	**0.82**	**204**	PN	P	07 58 49.7	-1.0
WEL				SN	S	07 59 01.6	-1.1
PAWZ	**Paruwai Farm**	**0.86**	**170**	PN	P	07 58 50.7	-0.5
PAWZ				SN	S	07 59 02.4	-1.1
MSWZ	**Moikau Station**	**0.88**	**178**	⇑PN	P	07 58 50.9	-0.5
MSWZ				SN	S	07 59 02.5	-1.4
BHW	**Baring Head**	**0.91**	**197**	⇑PN	P	07 58 51.0	-0.8
MOVZ	**Moawhango**	**1.20**	**20**	PN	P	07 58 54.6	-1.1
WNVZ	**Wahianoa**	**1.24**	**14**	PN	P	07 58 55.7	-0.6
WNVZ				SN	S	07 59 11.9	-0.5
FWVZ	**Far West T-bar**	**1.30**	**11**	PN	P	07 58 56.5	-0.8
FWVZ				SN	S	07 59 12.9	-1.1
TUVZ	**Tukino**	**1.31**	**15**	PN	P	07 58 56.8	-0.6
TUVZ				SN	S	07 59 13.1	-1.1
TUWZ	**Tuamarina**	**1.32**	**227**	PN	P	07 58 55.7	-1.7
WPVZ	**Whakapapa**	**1.35**	**11**	PN	P	07 58 57.4	-0.6
CNZ	**Chateau**	**1.36**	**11**	⇑PN	P	07 58 57.4	-0.6
NGZ	**Ngauruhoe**	**1.39**	**12**	PN	P	07 58 57.8	-0.6
RAEZ	**Rainy Point**	**1.40**	**333**	PN	P	07 58 58.2	-0.3
OTVZ	**Oturere**	**1.41**	**14**	*e*PN	P	07 58 57.0	-1.7
OTVZ				SN	S	07 59 15.7	-0.9
WTVZ	**West Tongariro**	**1.45**	**12**	PN	P	07 58 58.5	-0.7
WTVZ				SN	S	07 59 15.3	-2.1
VRZ	**Vera Road**	**1.45**	**346**	*e*PN	P	07 58 57.7	-1.6
TWVZ	**Taurewa**	**1.47**	**7**	PN	P	07 58 58.5	-1.0
DFE	**Dawson Falls**	**1.48**	**324**	PN	P	07 58 59.3	-0.4
NEZ	**North Egmont**	**1.53**	**325**	PN	P	07 59 00.2	-0.1
MGZ	**Maungaku**	**1.55**	**9**	⇑PN	P	07 58 59.7	-1.0
NRZ	**Ngariki Road**	**1.55**	**320**	PN	P	07 59 00.0	-0.6
NNZ	**Nelson**	**1.55**	**243**	PN	P	07 58 58.5	-2.2
BSWZ	**Blackbirch Sta**	**1.56**	**220**	PN	P	07 58 59.0	-1.7
BSWZ				SN	S	07 59 18.4	-1.5
KATZ	**Kakaramea**	**1.60**	**13**	*e*PN	P	07 59 00.3	-1.0
NWEZ	**Newall Road**	**1.63**	**320**	PN	P	07 59 01.0	-0.8
PKE	**Pukeiti**	**1.64**	**324**	PN	P	07 59 01.2	-0.6
BKZ	**Black Stump Fm**	**1.68**	**36**	PN	P	07 59 00.7	-1.8
BKZ				SN	S	07 59 22.4	-0.5
HIZ	**Hauiti**	**2.04**	**352**	⇑PN	P	07 59 06.3	-1.0
QRZ	**Quartz Range**	**2.06**	**261**	⇓PN	P	07 59 05.3	-2.4
QRZ				SN	S	07 59 29.5	-2.7
THZ	**Tophouse**	**2.13**	**234**	PN	P	07 59 06.1	-2.6
THZ				SN	S	07 59 32.0	-2.0
KHZ	**Kahutara**	**2.27**	**213**	⇓PN	P	07 59 08.0	-2.6
KNZ	**Kokohu**	**2.42**	**52**	PN	P	07 59 09.2	-3.6

TRN 21 08:01:16.1, 15.81N×**60.46W, h35^{km}, MD3.7, Md2.9**(FDF)**, 2C-2D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DEG	**La Desirade**	**0.77**	**311**	*e*P	P	08 01 31.3	+0.8
MGG	**Marie-Galante**	**0.84**	**278**	⇓*i*P	P	08 01 32.9	+1.4
DWS	**Wesley**	**0.86**	**254**	*e*P	P	08 01 33.9	+2.1
DWS				*e*S	S	08 01 46.2	+3.0
DSTT	**Stowe**	**0.99**	**236**	*e*P	P	08 01 35.0	+1.3
DSTT				*e*S	S	08 01 48.8	+2.1
DBCT	**Belle View Cho**	**1.01**	**238**	*e*P	P	08 01 35.4	+1.5
BBL	**Barber's Block**	**1.02**	**254**	*e*P	P	08 01 35.3	+1.2
BBL	**Barber's Block**	**1.02**	**254**	⇑*i*P	P	08 01 35.3	+1.3
BBL				*e*S	S	08 01 48.7	+1.3
MDN	**Morne-Daniel**	**1.03**	**242**	*e*P	P	08 01 35.8	+1.6
MDN				*e*S	S	08 01 49.7	+2.1
CRM	**Caravelle**	**1.14**	**203**	*e*P	P	08 01 36.5	+0.8
SEG	**Port Louis**	**1.17**	**301**	⇑*i*P	P	08 01 38.1	+1.9
FDF	**Fort de France**	**1.26**	**212**	*e*P	P	08 01 39.0	+1.5
FDF				*e*S	S	08 01 55.5	+1.9
BIM	**Bigot**	**1.42**	**205**	⇓*e*P	P	08 01 41.2	+1.4

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*NEIC **21** 08:19:25.0, 38.68N×22.76E, h23^{km}, ML3.8(ATH), After ATH.*

*ATH **21** 08:19:25.0, 38.68N×22.76E, h22^{km}±2^{km}, MD3.6/17, ML3.8*

*CSEM **21** 08:19:25.0±0.1, 38.66N×22.75E, h5^{km}, ML3.8, Error ellipse: s-maj=1.9km s-min=1.3km az=77.0*

*THE **21** 08:19:26.8, 38.81N×22.72E, h6^{km}, ML3.8*

ISC 21 08:19:24.6±0.7**, 38.71N**±0.02×**22.75E**±0.04**, h11^{km}**±5^{km}**, n33, σ0^{s}97**/43**, 4C-2D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKR	**Lokris**	**0.20**	**105**	⇑*i*PB	**Pb**	**08 19 30.0**	**+0.1**
LKR				*e*SB	**Sb**	**08 19 34.5**	**+1.1**
AGG	**Agios Georgios**	**0.46**	**314**	*e*Pg	**Pg**	**08 19 33.4**	**-0.5**
NEO	**Neokhori**	**0.71**	**31**	*e*PN	**Pn**	**08 19 39.0**	**-1.3**
NEO				*e*SN	**Sn**	**08 19 50.3**	**-0.9**
XOR	**Xorichti**	**0.75**	**27**	*e*Pg	**Pg**	**08 19 39.6**	**0.0**
XOR				*e*Sg	**Sg**	**08 19 49.1**	**-0.5**
XOR	**Xorichti**	**0.75**	**27**	*e*Sg	**Sg**	**08 19 49.1**	**-0.6**
EVR	**Evrytania**	**0.76**	**286**	*e*PN	**Pn**	**08 19 39.8**	**-1.4**
MPAR	**Parnis Oros**	**0.95**	**125**	*e*PN	**Pn**	**08 19 43.0**	**-0.9**
NSAL	**Nisos Salamina**	**0.97**	**145**	⇑*i*PB	**Pb**	**08 19 42.5**	**-0.6**
AOS	**Alonnisos**	**1.00**	**62**	*e*Pg	**Pg**	**08 19 44.5**	**-0.2**
AOS				*e*Sg	**Sg**	**08 19 59.5**	**+1.5**
ATH	**Athens Observa**	**1.06**	**134**	⇓*i*PN	**Pn**	**08 19 45.1**	**-0.2**
PTL	**Penteli**	**1.09**	**126**	*e*PN	**Pn**	**08 19 46.0**	**+0.1**
NAIG	**Nisos Aigina**	**1.11**	**148**	*e*PN	**Pn**	**08 19 45.6**	**-0.5**
RLS	**Riolos of Patr**	**1.20**	**238**	*e*PN	**Pn**	**08 19 47.1**	**-0.3**
LIT	**Litokhoron**	**1.41**	**352**	*e*Pb	**Pb**	**08 19 50.5**	**-0.1**
PAIG	**Paliouri**	**1.42**	**30**	*e*Pb	**Pb**	**08 19 50.7**	**0.0**
PAIG				*e*Sb	**Sb**	**08 20 10.4**	**+1.7**
ITM	**Ithomi**	**1.66**	**203**	*e*PN	**Pn**	**08 19 55.8**	**+1.9**
PLG	**Polygyros**	**1.75**	**18**	*e*PB	**Pb**	**08 19 54.9**	**-1.5**
JAN	**Janina**	**1.75**	**303**	*e*PN	**Pn**	**08 19 57.5**	**+2.2**
KZN	**Kozani**	**1.77**	**335**	⇑*i*PB	**Pb**	**08 19 56.4**	**-0.3**
VLS	**Valsamata**	**1.77**	**253**	*e*PN	**Pn**	**08 19 57.8**	**+2.2**
OUR	**Ouranopolis**	**1.89**	**30**	*e*Pb	**Pb**	**08 19 57.3**	**-1.4**
VLI	**Veliai**	**1.99**	**176**	*e*PB	**Pb**	**08 19 58.6**	**-1.9**
SOH	**Sokhos**	**2.17**	**12**	*e*Pn	**Pn**	**08 20 02.0**	**+0.7**
SOH				*e*Sn	**Sn**	**08 20 28.3**	**0.0**
GRG	**Griva**	**2.27**	**353**	*e*Pn	**Pn**	**08 20 03.1**	**+0.4**
FNA	**Florina**	**2.33**	**333**	*e*Pn	**Pn**	**08 20 04.0**	**+0.4**
FNA				*e*Sn	**Sn**	**08 20 32.1**	**-0.4**
KYTH	**Kithira**	**2.43**	**174**	*e*PN	**Pn**	**08 20 05.1**	**+0.1**
KNT	**Kendrikon**	**2.46**	**3**	*e*Pn	**Pn**	**08 20 05.8**	**+0.4**
KNT				*e*Sn	**Sn**	**08 20 35.5**	**-0.2**
SRS	**Serrai**	**2.50**	**15**	*e*Pn	**Pn**	**08 20 06.1**	**+0.2**
SRS				*e*Sn	**Sn**	**08 20 36.0**	**-0.7**
BIA	**Bitola**	**2.56**	**335**	⇓*i*Pn	**Pn**	**08 20 09.4**	**+2.6**
BIA				*i*		08 20 16.8	
BIA				*i* Sn	**Sn**	**08 20 45.8**	**+7.5**
BIA				*i*		08 20 49.5	
APE	**Apeiranthos**	**2.74**	**126**	⇑*i*PN	**Pn**	**08 20 09.4**	**0.0**
PRK	**Paraskevi**	**2.80**	**78**	*e*PN	**Pn**	**08 20 10.9**	**+0.6**
TIP	**Timpagrande**	**4.69**	**278**	*e*Pn	**Pn**	**08 20 36.8**	**-0.4**
TIP	**Timpagrande**	**4.69**	**278**	*e*Pn	**Pn**	**08 20 36.8**	**-0.4**

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*NEIC **21** 08:39:04.8±3.4, 7.22S×128.55E, h84^{km}±35^{km}, mb4.1/1, Error ellipse: s-maj=30.4km s-min=18.5km az=215.0*

*IDC **21** 08:39:07.2±9.0, 7.32S×128.39E, h112^{km}±94^{km}, mb3.6/2, mb1 4.0/5, mb1mx3.8/12, ML4.3/3, Error ellipse: s-maj=119.0km s-min=29.6km az=62.0*

ISC 21 08:39:13.9±1.7**, 7.73S**±0.09×**128.6E**±0.1**, h212^{km}**±19^{km}**, n11, σ1^{s}23**/18**, mb3.6**/2**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	**Kakadu**	**6.19**	**143**	*e*P	**P**	**08 40 45.4**	**+1.0**
	40nm,0.6s						
KAKA				*e*S	**S**	**08 41 53.7**	**-1.3**
FITZ	**Fitzroy Crossi**	**10.70**	**195**	*e*P	**P**	**08 41 42.3**	**-0.6**
	17nm,0.3s						
FITZ				*e*S	**S**	**08 43 39.8**	**+0.1**
FITZ	**Fitzroy Crossi**	**10.70**	**195**	P	**P**	**08 41 42.4**	**-0.5**
	6.9nm,0.3s,baz=18,slow=11,SNR=94						
FITZ				S	**S**	**08 43 38.5**	**-1.2**
	1.6nm,0.3s,baz=160,slow=23,SNR=3.1						
WRAB	**Tennant Creek**	**13.34**	**156**	*e*P	**P**	**08 42 16.7**	**+0.5**
WRA	**Warramunga Arr**	**13.35**	**156**	P	**P**	**08 42 16.7**	**+0.4**
	1.3nm,0.3s,baz=326,slow=13,SNR=24						
WRA				S	**S**	**08 44 37.7**	**-2.5**
	2.4nm,0.3s,baz=332,slow=22,SNR=11						
WB2	**Warramunga Arr**	**13.35**	**156**	*e*P	**P**	**08 42 17.0**	**+0.7**
WB2				*e*S	**S**	**08 44 39.4**	**-0.9**
MBWA	**Marble Bar**	**15.86**	**212**	P	**P**	**08 42 47.7**	**+0.3**
	14nm,1.1s						
ASPA	**Alice Springs**	**16.64**	**163**	*e*P	**P**	**08 43 00.3**	**+3.7**
ASPA				*e*S	**S**	**08 46 01.6**	**+7.8**
ASAR	**Alice Springs**	**16.64**	**163**	P	**P**	**08 43 00.2**	**+3.6**
	0.7nm,0.3s,baz=339,slow=11,SNR=38						
ASAR				S	**S**	**08 45 55.0**	**+1.2**
	0.2nm,0.3s,baz=329,slow=13,SNR=4.2						
STKA	**Stephens Creek**	**26.90**	**155**	P	**P**	**08 44 41.9**	**+4.6**
	2.6nm,0.7s,mb4.0,baz=319,slow=9.5,SNR=12						
SONM	**Songino Array**	**58.71**	**343**	P	**P**	**08 48 50.0**	**-1.4**
	0.4nm,0.5s,mb3.3,baz=161,slow=5.8,SNR=3.7						

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*JMA **21** 08:57:57.5±0.1, 36.46N×140.59E, h56^{km}±1^{km}, M3.6 Broadband fault plane solution: P waves. NP1:ϕ_s193°, δ25°, λ88°. NP2:ϕ_s16°, δ65°, λ91°. Principal axes: T Plg70°, Azm288°; N Plg1°, Azm195°; P Plg20°, Azm105°;*

JMA Felt I J1.

*IDC **21** 08:57:59.9±3.6, 36.44N×140.41E, h79^{km}±38^{km}, mb3.5/7, mb1 3.7/8, mb1mx3.5/21 Error ellipse: s-maj=39.6km s-min=23.4km az=80.0*

*NEIC **21** 08:57:59.6±2.1, 36.44N×140.45E, h79^{km}±17^{km}, mb4.2/1, Error ellipse: s-maj=26.5km s-min=18.9km az=76.0*

NEIC Recorded [1 JMA] in Fukushima, Ibaraki and Tochigi Prefectures.

*NIED **21** 08:58:00, 36.50N×140.60E, h50^{km}, Mw3.6 Best double couple: $M_0 2.85\times10^{14}$ NP1:ϕ_s15°, δ70°, λ83°. NP2:ϕ_s214°, δ21°, λ108°.*

ISC 21 08:57:56.4±0.6**, 36.47N**±0.04×**140.65E**±0.06**, h65^{km}**±4^{km}**, n23, σ0^{s}83**/35**, mb3.8**/8**, 3C-4D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHO	**Hitachi**	**0.15**	**336**	⇑P	**P**	**08 58 06.3**	**+0.2**
JHO				*e*S	**S**	**08 58 12.2**	**-1.1**
JYT	**Yasato**	**0.44**	**236**	P	**P**	**08 58 08.3**	**+0.1**
JYT				S	**S**	**08 58 15.5**	**-1.5**
ONAJ	**Iwakimizuishiy**	**0.64**	**11**	⇑P	**P**	**08 58 10.7**	**+0.3**
ONAJ				*e*S	**S**	**08 58 20.2**	**-0.5**
JFK	**Kawauchi**	**0.91**	**11**	⇑P	**P**	**08 58 13.9**	**+0.2**
JAG	**Ashikaga**	**0.96**	**268**	⇓P	**P**	**08 58 14.7**	**+0.3**
JAG				S	**S**	**08 58 26.5**	**-1.3**
JFT	**Otama**	**1.07**	**347**	P	**P**	**08 58 16.5**	**+0.6**
JFT				*e*S	**S**	**08 58 30.4**	**+0.1**
JKT	**Katashina**	**1.16**	**285**	⇓P	**P**	**08 58 17.6**	**+0.6**
JKT				S	**S**	**08 58 32.7**	**+0.3**
JFY	**Yanaizu**	**1.20**	**321**	⇓P	**P**	**08 58 18.3**	**+0.8**
JFY				*e*S	**S**	**08 58 33.9**	**+0.6**
JRY	**Ryogami san**	**1.48**	**253**	⇓P	**P**	**08 58 21.6**	**+0.1**
JRY				S	**S**	**08 58 38.8**	**-1.3**
MAJO	**Matsushiro**	**1.97**	**273**	*e*Pn	**P**	**08 58 29.1**	**+0.9**
MAJO				*e*Sn	**S**	**08 58 43.9**	**-7.7**
MAT	**Matsushiro**	**1.97**	**273**	P	**P**	**08 58 29.1**	**+1.0**
MAT				S	**S**	**08 58 52.5**	**+0.9**
MAT	**Matsushiro**	**1.97**	**273**	*e*P	**P**	**08 58 29.0**	**+0.9**
MAT				*e*S	**S**	**08 58 53.0**	**+1.4**
JHJ	**Hachijo jima 2**	**3.42**	**192**	P	**P**	**08 58 50.2**	**+1.6**
	13nm,0.3s,baz=89,slow=22,SNR=5.0						
JHJ				S	**S**	**08 59 28.9**	**+0.8**
	10nm,0.3s,baz=82,slow=20,SNR=4.7						
INCN	**Inchon**	**11.26**	**279**	P	**P**	**09 00 30.6**	**-6.1**
SONM	**Songino Array**	**27.59**	**305**	P	**P**	**09 03 38.8**	**-0.7**
	0.6nm,0.8s,mb3.3,baz=100,slow=7.5,SNR=3.8						
ZAL	**Zalesovo**	**41.85**	**313**	P	**P**	**09 05 39.8**	**-1.5**
	1.2nm,0.5s,mb3.8,baz=346,slow=9.2,SNR=4.7						
CHKZ	**Chkalovo**	**50.25**	**313**	*e*P	**P**	**09 06 46.7**	**-1.1**
	1.3nm,0.5s,mb4.2						
ILAR	**Eielson Array**	**50.30**	**32**	P	**P**	**09 06 48.4**	**+0.4**
	0.2nm,0.6s,mb3.3,baz=248,slow=4.9,SNR=4.1						
WRA	**Warramunga Arr**	**56.42**	**187**	P	**P**	**09 07 32.8**	**-1.0**
	0.4nm,0.5s,mb3.7,baz=3.9,slow=7.6,SNR=5.2						
ARCES	**ARCESS Array B**	**64.31**	**339**	P	**P**	**09 08 27.1**	**+0.4**
	7.8nm,1.1s,mb4.6,baz=49,slow=9.6,SNR=2.4						
FINES	**FINESS Array B**	**69.02**	**332**	P	**P**	**09 08 55.7**	**-0.9**
	1.1nm,0.8s,mb3.8,baz=80,slow=8.5,SNR=4.4						
FINES	**FINESS Array B**	**69.02**	**332**	P	**P**	**09 08 55.7**	**-0.9**
NOA	**NORSAR Array B**	**74.47**	**337**	P	**P**	**09 09 29.2**	**+0.3**
	1.6nm,1.0s,mb3.9,baz=60,slow=7.5,SNR=2.6						

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*CSEM **21** 09:17:46.6±0.1, 36.82N×3.35E, h40^{km}, ML3.5/18, Error ellipse: s-maj=2.1km s-min=1.7km az=25.0*

*LDG **21** 09:17:48.4±0.3, 36.88N×3.26E, h10^{km}, Ml3.5/10, Error ellipse: s-maj=6.3km s-min=3.2km az=153.0*

*NEIC **21** 09:17:49.6, 36.95N×2.96E, ML3.5(LDG), After MDD.*

MDD 21 09:17:45.6±0.3**, 36.85N**×**3.35E, mb4.1**/14**, Error ellipse: s-maj=4.9km s-min=3.8km az=49.0, PRXIMO, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABMS	**Boumerdes**	**0.14**	**133**	P	Pg	09 17 47.8	-0.7
ABA	**Alger-Bouzarea**	**0.26**	**260**	P	Pg	09 17 57.6	+6.8
EMHD	**Djebel Mahouad**	**0.72**	**207**	P	Pg	09 17 58.0	-2.0
AKET	**Djebel Ketaf**	**0.91**	**152**	P	Pg	09 18 02.4	-1.3
AKF	**Akfadou**	**1.00**	**102**	P	Pb	09 18 04.4	-1.1
EBNR	**Beni Rached**	**1.57**	**250**	P	Pn	09 18 14.0	-0.9
ECHA	**Ech Chlef**	**1.74**	**247**	P	Pn	09 18 17.0	-0.4
ECHF	**Ech Chlef**	**1.76**	**248**	P	Pn	09 18 17.0	-0.6
CKHR	**Kef el Ahmar**	**1.93**	**115**	P	Pn	09 18 19.0	-1.0
EANR	**'Ain N'Sour**	**2.02**	**244**	P	Pn	09 18 20.0	-1.4
DFRA	**Djebel Bou Aff**	**2.05**	**98**	P	Pn	09 18 20.0	-1.8
ETRT	**Tiaret**	**2.21**	**229**	P	Pn	09 18 22.5	-1.5
OKGL	**Djebel Kef Gue**	**2.33**	**251**	P	Pn	09 18 29.0	+3.3
OJGS	**Djebel Guires**	**2.49**	**238**	P	Pn	09 18 26.0	-2.1
CASM	**Ain Smara**	**2.59**	**102**	P	Pn	09 18 29.5	-0.1
EIBI	**Ibiza**	**2.69**	**325**	P	Pn	09 18 28.8	-2.2
	12nm,0.2s,SNR=16						
EIBI				S	Sn	09 18 58.9	-5.9
	45nm,0.2s,SNR=11						
EIBI	**Ibiza**	**2.69**	**325**	P	Pn	09 18 28.8	-2.2
EIBI				S	Sn	09 18 58.9	-5.9
OJBR	**Djebel Berber**	**2.74**	**244**	P	Pn	09 18 31.0	-0.6
CKFL	**Kef-Lekhel**	**2.75**	**98**	P	Pn	09 18 29.5	-2.2
CAEH	**'Ain El Ouahch**	**2.81**	**90**	P	Pn	09 18 29.5	-3.1

ODJA	**Bouhanifia**	3.21	243	P	Pn	09 18 32.0	-6.4
EBEN	**Beniarda**	3.39	304	P	Pn	09 18 37.4	-3.4
EBEN				Pn	Pn	09 18 38.4	-2.4
EBEN				S	Sn	09 19 14.0	-8.3
EBEN	**Beniarda**	3.39	304	P	Pn	09 18 38.4	-2.4
	5.1nm,0.5s,SNR=11						
EBEN				S	Sn	09 19 14.0	-8.3
	4.7nm,0.2s						
EBEN	**Beniarda**	3.39	304	P	Pn	09 18 37.4	-3.4
EBEN				Sn	Sn	09 19 14.0	-8.3
	4.7nm,0.2s						
EMUR	**La Murta**	3.79	287	P	Pn	09 18 43.8	-2.8
EMUR				Pn	Pn	09 18 44.6	-2.0
EMUR				S	Sn	09 19 24.5	-8.1
EMUR	**La Murta**	3.79	287	P	Pn	09 18 44.6	-2.0
	17nm,0.5s,SNR=7.9						
EMUR				S	Sn	09 19 24.5	-8.1
	3.5nm,0.3s,SNR=7.9						
EMUR	**La Murta**	3.79	287	Pn	Pn	09 18 44.6	-2.0
	17nm,0.5s,SNR=7.9						
EMUR				Sn	Sn	09 19 24.5	-8.1
	3.5nm,0.3s,SNR=7.9						
EMOS	**Mosqueruela**	4.62	321	P	Pn	09 18 55.6	-2.7
	2.8nm,0.2s,SNR=18						
EMOS				S	Sn	09 19 45.6	-7.9
	6.7nm,0.2s						
EMOS	**Mosqueruela**	4.62	321	P	Pn	09 18 55.6	-2.7
EMOS				Sn	Sn	09 19 45.6	-7.9
	6.7nm,0.2s						
ERTA	**Horta de San J**	4.73	331	Pn	Pn	09 18 57.7	-2.2
ERTA				P		09 18 59.3	
ERTA				S	Sn	09 19 47.0	-9.4
ERTA				Sn	Sn	09 19 47.5	-8.8
ERTA	**Horta de San J**	4.73	331	P	Pn	09 18 57.7	-2.3
	0.6nm,0.1s,SNR=4.0						
ERTA				S	Sn	09 19 47.5	-8.8
	9.5nm,0.3s,SNR=7.9						
ERTA	**Horta de San J**	4.73	331	Pn	Pn	09 18 57.7	-2.2
	0.6nm,0.1s,SNR=4.0						
ERTA				Sn	Sn	09 19 47.5	-8.9
	9.5nm,0.3s,SNR=7.9						
EPOB	**Poblet**	4.83	339	Pn	Pn	09 18 58.7	-2.7
EPOB				P		09 19 00.6	
EPOB				S	Sn	09 19 50.0	-9.0
EPOB	**Poblet**	4.83	339	P	Pn	09 18 58.7	-2.7
	2.0nm,0.2s,SNR=7.9						
EPOB				S	Sn	09 19 50.0	-9.0
	2.9nm,0.2s,SNR=7.9						
EPOB	**Poblet**	4.83	339	Pn	Pn	09 18 58.7	-2.7
	2.0nm,0.2s,SNR=7.9						
EPOB				Sn	Sn	09 19 50.0	-9.0
	2.9nm,0.2s,SNR=7.9						
EBER	**Berja**	5.00	272	Pn	Pn	09 18 59.6	-4.2
EBER				S	Sn	09 19 53.1	-10
EBER				Sn	Sn	09 19 53.6	-10
EBER	**Berja**	5.00	272	P	Pn	09 18 59.6	-4.2
	1.1nm,0.1s,SNR=7.9						
EBER				S	Sn	09 19 53.6	-10
	2.4nm,0.3s,SNR=7.9						
EBER	**Berja**	5.00	272	Pn	Pn	09 18 59.6	-4.2
	1.1nm,0.1s,SNR=7.9						
EBER				Sn	Sn	09 19 53.6	-10
	2.4nm,0.3s,SNR=7.9						
EQES	**Quesada**	5.21	283	P	Pn	09 19 04.1	-2.6
	9.5nm,0.4s,SNR=11						
EQES				S	Sn	09 20 02.6	-5.8
	17nm,0.4s,SNR=6.2						
EQES	**Quesada**	5.21	283	Pn	Pn	09 19 04.1	-2.6
	9.5nm,0.4s,SNR=11						
EMIR	**Miracle**	5.26	345	Pn	Pn	09 19 05.4	-2.0
EMIR				P		09 19 06.0	
EMIR				Sn	Sn	09 20 01.2	-8.3
EMIR				S	Sn	09 20 01.8	-7.8
EMIR	**Miracle**	5.26	345	P	Pn	09 19 05.4	-2.0
	12nm,0.2s,SNR=20						
EMIR				S	Sn	09 20 01.3	-8.3
	42nm,0.4s,SNR=7.9						
EMIR	**Miracle**	5.26	345	Pn	Pn	09 19 05.4	-2.0
	12nm,0.2s,SNR=20						
EMIR				Sn	Sn	09 20 01.3	-8.3
	42nm,0.4s,SNR=7.9						
VSL	**Villasalto**	5.44	59	Pn	Pn	09 19 05.3	-4.6
VSL	**Villasalto**	5.44	59	Pn	Pn	09 19 05.3	-4.6
EJON	**La Jonquera**	5.61	356	P	Pn	09 19 08.7	-3.6
	3.2nm,0.1s,SNR=5.1						
EJON				S	Sn	09 20 08.9	-10
	7.0nm,0.4s,SNR=4.0						
EJON	**La Jonquera**	5.61	356	Pn	Pn	09 19 08.7	-3.6
	3.2nm,0.1s,SNR=5.1						
EJON				Sn	Sn	09 20 08.9	-10
	7.0nm,0.4s,SNR=4.0						
ESAC	**San Caprasio**	5.70	330	Pn	Pn	09 19 08.1	-5.5
ESAC				P		09 19 10.3	
ESAC				S	Sn	09 20 12.2	-8.5
ESAC	**San Caprasio**	5.70	330	P	Pn	09 19 08.1	-5.5
	5.9nm,0.4s,SNR=4.0						
ESAC				S	Sn	09 20 12.2	-8.5
	37nm,0.4s,SNR=5.8						
ESAC	**San Caprasio**	5.70	330	Pn	Pn	09 19 08.1	-5.5
	5.9nm,0.4s,SNR=4.0						
ESAC				Sn	Sn	09 20 12.2	-8.5
	37nm,0.4s,SNR=5.8						
EBIE	**Bielsa**	6.33	338	Pn	Pn	09 19 20.1	-2.4
EBIE				P		09 19 21.1	
EBIE				S	Sn	09 20 25.9	-11
EBIE	**Bielsa**	6.33	338	P	Pn	09 19 20.1	-2.4
	0.9nm,0.3s,SNR=7.9						
EBIE				S	Sn	09 20 25.9	-11
	SNR=7.9						
EBIE	**Bielsa**	6.33	338	Pn	Pn	09 19 20.1	-2.5
	0.9nm,0.3s,SNR=7.9						
EBIE				Sn	Sn	09 20 25.9	-11
	SNR=7.9						
ESDC	**Sonseca Array**	6.41	298	Pn	Pn	09 19 18.5	-5.2
ESDC				P		09 19 19.6	
ESDC				Sn	Sn	09 20 30.4	-8.2
ESDC				S	Sn	09 20 31.3	-7.2
ESDC	**Sonseca Array**	6.41	298	P	Pn	09 19 18.5	-5.2
	0.9nm,0.3s,baz=118,slow=13,SNR=5.4						
ESDC				S	Sn	09 20 30.3	-8.2
	0.9nm,0.4s,baz=116,slow=24,SNR=4.1						
ESDC	**Sonseca Array**	6.41	298	Sn	Sn	09 20 30.3	-8.2
	0.9nm,0.4s,SNR=4.1						
ESDC	**Sonseca Array**	6.41	298	Pn	Pn	09 19 18.5	-5.2
	0.9nm,0.3s,SNR=5.4						
EADA	**Adamuz**	6.44	284	Pn	Pn	09 19 19.1	-5.0
EADA				P		09 19 19.8	
EADA				S	Sn	09 20 25.8	-13
EADA				Sn	Sn	09 20 30.1	-9.2
EADA	**Adamuz**	6.44	284	P	Pn	09 19 19.1	-5.0
	0.3nm,0.2s,SNR=7.9						
EADA				S	Sn	09 20 30.0	-9.2
	0.6nm,0.3s,SNR=4.0						
EADA	**Adamuz**	6.44	284	Pn	Pn	09 19 19.1	-5.0
MTLF	**Montolieu**	6.55	353	*e*Pn	Pn	09 19 23.4	-2.2
MTLF				*e*Sn	Sn	09 20 29.7	-12
	3.4nm,0.5s						
MTLF	**Montolieu**	6.55	353	*e*Sn	Sn	09 20 29.7	-12
	1.7nm,0.5s						
EPF	**Esparros**	6.60	340	*e*Pn	Pn	09 19 22.2	-4.1
EPF				*e*Sn	Sn	09 20 32.9	-10
	7.2nm,0.3s						
ETSF	**Etsaut**	6.75	335	*e*Pn	Pn	09 19 24.4	-4.1
ETSF				*e*Sn	Sn	09 20 35.6	-11
	5.8nm,0.5s						
LMR	**La Mourre**	6.92	19	*e*Pn	Pn	09 19 26.3	-4.5
LMR				*e*Sn	Sn	09 20 39.8	-11
	6.4nm,0.3s						
FRF	**La Foret Royal**	7.17	20	*e*Pn	Pn	09 19 29.0	-5.3
FRF				*e*Sn	Sn	09 20 46.4	-11
	8.9nm,0.5s						
FRF	**La Foret Royal**	7.17	20	*e*Sn	Sn	09 20 46.4	-11
	4.4nm,0.5s						
PGF	**Pioggiola**	7.17	36	*e*Pn	Pn	09 19 30.2	-4.1
PGF				*e*Sn	Sn	09 20 46.4	-11
	5.6nm,0.4s						
SJPF	**Ste Jean**	7.18	332	*e*Pn	Pn	09 19 30.4	-4.0
SJPF				*e*Sn	Sn	09 20 47.2	-10
	8.1nm,0.4s						
LASF	**Ste Croix**	7.23	3	*e*Pn	Pn	09 19 31.1	-4.1
LASF				*e*Sn	Sn	09 20 45.7	-13
	4.7nm,0.5s						
SMRF	**Simiane la Rot**	7.32	13	*e*Pn	Pn	09 19 33.5	-3.0
EALK	**Alkurruntz**	7.38	331	S	Sn	09 20 52.6	-10
	3.6nm,0.2s,SNR=9.7						
SBF	**Sospel**	7.67	23	*e*Pn	Pn	09 19 37.9	-3.4
SBF				*e*Sn	Sn	09 20 59.0	-11
	20nm,0.7s						
EMIN	**Mina Concepcio**	8.04	280	P	P	09 19 42.5	-4.0
EMIN	**Mina Concepcio**	8.04	280	P	P	09 19 42.5	-4.0
VIVF	**Saint-Julien-I**	8.06	7	*e*Pn	P	09 19 43.1	-3.8
VIVF				*e*Sn	Sn	09 21 08.5	-11
	2.4nm,0.3s						
CAF	**Calviac**	8.13	354	*e*Pn	P	09 19 43.2	-4.6
ORIF	**Oris-en-Rattie**	8.29	13	*e*Pn	P	09 19 45.8	-4.2
MBDF	**Montbardon**	8.29	17	*e*Pn	P	09 19 46.8	-3.2
LPG	**La Plagne**	9.02	15	*e*Pn	P	09 19 56.3	-3.8
LPL	**La Plagne**	9.03	15	*e*Pn	P	09 19 57.2	-3.0
EARI	**Arriondas**	9.20	317	P	P	09 20 01.1	-1.5
	0.5nm,0.1s,SNR=7.9						
ECAL	**Calabor**	9.32	306	P	P	09 20 02.1	-2.2
	3.0nm,0.3s,SNR=4.0						
ECAL	**Calabor**	9.32	306	P	P	09 20 02.0	-2.2
BGF	**Bois d'Agland**	9.71	358	*e*Pn	P	09 20 05.3	-4.3
SMF	**Signal de Mont**	9.80	2	*e*Pn	P	09 20 06.1	-4.7
CABF	**La Chapelle**	9.97	11	*e*Pn	P	09 20 08.7	-4.5
HYF	**Humbligny**	10.43	357	*e*Pn	P	09 20 13.4	-6.1
HINF	**Hinteralfeld**	11.26	12	*e*Pn	P	09 20 26.2	-4.7
HAU	**Haudompre**	11.37	10	*e*Pn	P	09 20 28.2	-4.1

DJA 21 09:33:38.7±1.0**, 9.45S**×**115.50E, h72**^{km}±21^{km}**, MD4.6**/3**, ML3.5**/1**, Error ellipse: s-maj=54.2km s-min=11.7km az=177.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	**Rata**	0.72	2	*e*Pn	P	09 33 53.6	-0.5
	195nm,0.2s						
RATI				*e*Sn	S	09 34 04.2	-1.4
KEDI	**Kedomdong**	1.13	32	*e*Pn	P	09 33 58.4	-0.8
	63nm,0.2s						
KEDI				*e*Sn	S	09 34 12.8	-1.7
SRDI	**Scrawed**	1.65	306	*e*Pn	P	09 34 05.3	-1.0
SRDI				*e*Sn	S	09 34 25.1	-1.5

IDC 21 09:57:19.0±4.0**, 15.30S**×**173.30W, mb3.8**/5**, mb1 4.1**/5**, mb1mx3.9**/15**, MS3.7**/2**, Ms1 3.7**/2**, ms1mx3.3**/18**, Error ellipse: s-maj=204.0km s-min=26.8km az=139.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	44.17	240	P	P	10 05 29.4	-2.1
	1.9nm,0.7s,baz=83,slow=8.1,SNR=4.2						
WRA	**Warramunga Arr**	49.96	257	P	P	10 06 15.4	-1.8
	0.5nm,0.6s,baz=87,slow=7.1,SNR=7.4						
ASAR	**Alice Springs**	50.23	252	P	P	10 06 16.7	-2.5
	1.8nm,0.5s,baz=86,slow=8.2,SNR=39						
ASAR				LR	LR	10 25 21.9	
	comp=Z,89nm,21.2s,baz=80,slow=34						
PDAR	**Pinedale Array**	82.13	42	LR	LR	10 38 31.5	
	comp=Z,50nm,21.9s,baz=120,slow=30						
ILAR	**Eielson Array**	82.33	11	P	P	10 09 40.6	-3.1
	0.5nm,0.7s,baz=213,slow=6.4,SNR=4.5						
YKA	**Yellowknife Ar**	89.97	23	P	P	10 10 20.2	-1.1
	0.3nm,0.7s,baz=238,slow=4.3,SNR=6.0						
BRTR	**Keskin Array B**	146.15	321	PKPbc	PKPbc	10 17 03.1	+1.6
	2.3nm,0.9s,baz=51,slow=2.1,SNR=8.3						

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*NEIC **21** 10:22:24.6, 35.77N×27.45E, h21^{km}, MD3.5(ATH), After ATH.*
*ATH **21** 10:22:24.4, 35.78N×27.42E, h25^{km}±1^{km}, MD3.5/8*
*ISK **21** 10:22:25.7, 35.70N×27.32E, h32^{km}, MD3.4*
*CSEM **21** 10:22:25.7±0.1, 35.80N×27.40E, h15^{km}, MD3.5, Error ellipse: s-maj=3.3km s-min=1.4km az=145.0*
ISC 21 10:22:25.6±0.6**, 35.68N**±0.06×**27.40E**±0.04**, h29**^{km}±7^{km}**, n37,** σ0§**93**/52**, 3C-2D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KARP	**Karpathos**	0.24	236	⇑*i*PB	Pb	10 22 32.0	-0.1
KARP				*e*SB	Sb	10 22 36.7	+0.2
ARG	**Arkhangelos**	0.80	47	⇓*i*PN	Pn	10 22 39.3	-1.6
ARG				*e*SN	Sn	10 22 48.9	-2.9
BDRM	**Kayabasi**	1.38	1	*i* P	Pn	10 22 49.8	+0.5
BDRM				*i* S	Sn	10 23 07.0	+0.3
DALT	**Dalyan (Mudla)**	1.48	42	PN	Pn	10 22 51.2	+0.6
DALT				SN	Sn	10 23 09.4	+0.3
NPS	**Neapolis**	1.52	255	⇓*i*PN	Pn	10 22 52.3	+1.1
XRY	**Khrisi**	1.61	241	*e*PN	Pn	10 22 56.0	+3.4
XRY	**Khrisi**	1.61	241	*e*Pn	Pn	10 22 56.1	+3.5
FETY	**Fethiye**	1.66	54	PN	Pn	10 22 53.4	+0.1
FETY				SN	Sn	10 23 14.7	+0.9
SANT	**Santorini**	1.72	294	*e*Pn	Pn	10 22 53.6	-0.5
SANT	**Santorini**	1.72	294	*i* P	Pn	10 22 53.7	-0.4
SANT				*i* S	Sn	10 23 14.8	-0.5
SANT	**Santorini**	1.72	294	*e*Pn	Pn	10 22 53.6	-0.5
THR1	**Thera Island**	1.72	294	*e*P	Pn	10 22 54.3	+0.2
THR6	**Thira Island,**	1.76	293	*e*P	Pn	10 22 54.8	+0.1
THR6				*e*S	Sn	10 23 02.4	-14
THR3	**Thira Island,**	1.78	295	*e*P	Pn	10 22 55.0	+0.1
THR3				*e*S	Sn	10 23 03.2	-14
THR5	**Thira Island,**	1.82	294	*e*P	Pn	10 22 56.4	+0.8
THR5				*e*S	Sn	10 23 03.3	-15
THR5	**Thira Island,**	1.82	294	*e*P	Pn	10 22 56.3	+0.7
KSL	**Kastellorizon**	1.83	75	*e*PN	Pn	10 22 55.7	0.0
AYDN	**Tasoluk**	2.01	11	*i* P	Pn	10 22 58.0	-0.3
AYDN				*i* S	Sn	10 23 23.1	+0.3
APE	**Apeiranthos**	2.05	313	PN	Pn	10 22 58.3	-0.6
APE				SN	Sn	10 23 20.7	-3.0
APE	**Apeiranthos**	2.05	313	⇑*i*PB	Pb	10 22 58.5	-3.5
APE	**Apeiranthos**	2.05	313	⇑*i*Pb	Pb	10 22 58.2	-3.8
SMG	**Samos**	2.08	348	*e*Pn	Pn	10 23 00.2	+1.0
ELL	**Elmali**	2.29	62	*e*PN	Pn	10 23 02.2	-0.1
DNZL	**Cakiroluk**	2.40	33	*i* P	Pn	10 23 05.4	+1.5
DNZL				*i* S	Sn	10 23 38.5	+5.8
DENT	**Denizli**	2.45	32	*e*PN	Pn	10 23 05.8	+1.2
VAM	**Vamos**	2.63	265	*e*Pb	Pb	10 23 10.4	-1.4
IZM	**Izmir**	2.71	358	*e*PN	Pn	10 23 08.4	0.0
BLCB	**Balcova**	2.72	354	*e*PN	Pn	10 23 08.9	+0.5
KDAG	**Bornova**	2.72	358	*i* P	Pn	10 23 08.2	-0.3
KDAG				*i* S	Sn	10 23 53.3	+13
MANT	**Manisa**	2.95	18	*i* P	Pn	10 23 10.7	-1.0
MANT				*i* S	Sn	10 23 52.9	+6.3
BCK	**Bucak**	3.12	54	*e*PN	Pn	10 23 14.2	+0.1
AKS	**Akhisar**	3.21	6	*e*PN	Pn	10 23 15.5	+0.1
ISP	**Isparta**	3.30	48	*e*Pn	Pn	10 23 23.4	+6.8
KYTH	**Kithira**	3.59	281	*e*PN	Pn	10 23 21.0	+0.2
VLI	**Veliai**	3.76	287	*e*PN	Pn	10 23 23.4	+0.3
KIZT	**Kizilcal**	4.79	47	*e*PN	Pn	10 23 39.0	+1.2
MEST	**Erdemli**	5.53	79	*i* P	Pn	10 23 47.5	-0.8
MEST				*i* S	Sn	10 24 49.7	-2.0

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*NEIC **21** 10:31:28.6±2.1, 29.33N×142.30E, h40^{km}±18^{km}, mb4.5/4, Error ellipse: s-maj=24.0km s-min=11.7km az=79.0*
*IDC **21** 10:31:30.2±3.2, 29.33N×142.34E, h54^{km}±31^{km}, mb3.5/8, mb1 3.7/9, mb1mx3.6/20, ML3.5/1, MS3.2/3, Ms1 3.2/3, ms1mx2.9/19, Error ellipse: s-maj=35.6km s-min=19.7km az=79.0*
ISC 21 10:31:29.1±1.6**, 29.36N**±0.07×**142.2E**±0.2**, h61**^{km}±13^{km}**, n19,** σ1§**12**/20**, mb4.0**/12**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	2.25	181	P	P	10 32 06.0	+1.2
	12nm,0.3s,baz=275,slow=22,SNR=4.4						
CBIJ				S	S	10 32 31.4	-0.1
	16nm,0.3s,baz=285,slow=22,SNR=4.7						
CBIJ				LR	LR	10 32 38.3	
	comp=Z,308nm,20.2s,baz=98,slow=31						
MAJO	**Matsushiro**	7.92	336	P	P	10 33 18.4	-5.5
MAT	**Matsushiro**	7.92	336	P	P	10 33 21.6	-2.3
MAT				S	S	10 34 53.5	+0.6
MAT	**Matsushiro**	7.92	336	*e*P	P	10 33 22.0	-1.9
MAT				*e*S	S	10 34 54.0	+1.1
JOW	**Kunigami**	12.56	262	LR	LR	10 38 23.8	
	comp=Z,134nm,19.9s,baz=91,slow=33						
HIA	**Hailar**	26.24	326	*e*P	P	10 36 60.0	-0.1
	3.9nm,0.3s,mb4.4						
SONM	**Songino Array**	33.14	314	P	P	10 38 02.1	+0.6
	0.7nm,0.7s,mb3.7,baz=114,slow=8.0,SNR=5.1						
CMAR	**Chiang Mai Arr**	40.81	265	LR	LR	10 57 09.0	
	comp=Z,36nm,21.4s,baz=85,slow=38						
ZAL	**Zalesovo**	47.83	318	P	P	10 40 02.5	+0.2
	1.3nm,1.0s,mb3.9,baz=1.6,slow=5.5,SNR=8.1						
WRAB	**Tennant Creek**	49.59	190	*e*P	P	10 40 15.8	-0.6
	1.5nm,0.7s,mb4.1						
WRA	**Warramunga Arr**	49.60	190	P	P	10 40 15.7	-0.8
	0.9nm,0.6s,mb4.0,baz=11,slow=8.3,SNR=7.8						
ASAR	**Alice Springs**	53.32	190	P	P	10 40 43.7	-0.8
	0.5nm,0.9s,mb3.5,baz=358,slow=5.1,SNR=5.3						
CHKZ	**Chkalovo**	56.22	317	*e*P	P	10 41 04.4	-0.8
	3.7nm,0.8s,mb4.5						
BRVK	**Borovoye**	56.48	317	*e*P	P	10 41 06.2	-0.8
	3.9nm,0.8s,mb4.5						
YKA	**Yellowknife Ar**	70.15	29	P	P	10 42 35.3	-1.4
	0.1nm,0.3s,mb3.2,baz=303,slow=37,SNR=2.6						
YKA	**Yellowknife Ar**	70.15	29	P	P	10 42 35.3	-1.4
FINES	**FINESS Array B**	75.94	334	P	P	10 43 11.5	+0.9
	3.0nm,1.1s,mb4.2,baz=207,slow=30,SNR=3.8						
BRTR	**Keskin Array B**	84.49	313	P	P	10 43 58.8	+2.2
	1.2nm,0.8s,mb4.1,baz=62,slow=6.2,SNR=3.9						
TXAR	**Lajitas Array**	94.23	53	P	P	10 44 45.1	+2.2
	1.5nm,1.3s,mb4.3,baz=284,slow=3.7,SNR=3.2						

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*JMA **21** 10:57:00.0±0.2, 24.82N×122.66E, h115^{km}, M2.2*
TAP 21 10:56:59.7, 24.73N×**122.57E, h109**^{km}±1^{km}**, ML3.3, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	0.48	124	P	P	10 57 17.3	+0.8
IRIF	**Iriomote-Funau**	1.13	110	P	P	10 57 22.4	-0.2
HATJ	**Hateruma jima**	1.31	121	S	S	10 57 44.3	+0.8
JKRS	**Kuro-shima**	1.40	110	P	P	10 57 25.7	0.0
JKRS				S	S	10 57 45.3	0.0
JIJ	**Ishigaki jima**	1.48	104	P	P	10 57 26.3	-0.4
JIJ				S	S	10 57 45.5	-1.4
JTJ	**Tarama**	1.94	92	P	P	10 57 32.4	0.0
JTJ				*e*S	S	10 57 56.1	-0.7

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*NEIC **21** 11:14:16.5±0.9, 11.55S×118.55E, h35^{km}±10^{km}, mb4.5/6, Error ellipse: s-maj=15.8km s-min=7.5km az=51.0*
*DJA **21** 11:14:16.3±0.7, 11.48S×118.53E, h67^{km}±25^{km}, MD4.8/5, ML5.7/5, Error ellipse: s-maj=16.9km s-min=6.4km az=159.0*
*IDC **21** 11:14:18.2±4.4, 11.03S×119.13E, h42^{km}±44^{km}, mb4.0/9, mb1 4.1/12, mb1mx4.0/17, ML4.2/3, Error ellipse: s-maj=38.2km s-min=18.1km az=74.0*
ISC 21 11:14:14.0±0.8**, 11.59S**±0.07×**118.56E**±0.07**, h38**^{km}±9^{km}**, n42,** σ1§**26**/59**, mb4.5**/17**, 6C-3D, South of Sumbawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	3.91	322	⇑*e*Pn	P	11 15 14.2	+1.0
KEDI				*e*P		11 15 15.0	
KEDI				*e*Sn	S	11 15 55.1	-3.4
KEDI	**Kedomdong**	3.91	322	⇑*e*Pn	P	11 15 14.2	+1.0
	4μm,0.2s						
KEDI	**Kedomdong**	3.91	322	*e*P	P	11 15 15.0	+1.8
KEDI				*e*Sn	S	11 15 55.1	-3.4
RATI	**Rata**	4.12	313	⇑*e*Pn	P	11 15 16.3	+0.1
	4μm,0.2s						
RATI				*e*Sn	S	11 16 00.4	-3.4
KELI	**Kelakatan**	5.22	310	⇑*e*Pn	P	11 15 31.9	+0.2
KELI				*e*P		11 15 32.6	
KELI				*e*Sn	S	11 16 27.9	-3.6
KELI	**Kelakatan**	5.22	310	⇑*e*Pn	P	11 15 31.9	+0.2
	373nm,0.2s						
KELI	**Kelakatan**	5.22	310	*e*P	P	11 15 32.6	+0.9
KELI				*e*Sn	S	11 16 27.9	-3.6
SRDI	**Scrawed**	5.33	305	⇑*e*Pn	P	11 15 32.1	-1.2
	887nm,0.2s						
SRDI				*e*Sn	S	11 16 30.1	-4.2
NINI	**Niniconang**	7.22	10	⇓*i*Pn	P	11 16 00.9	+1.2
NINI				*e*Sn	S	11 17 16.1	-5.2
BUNI	**Buntu Taipa**	8.07	13	⇓*e*Pn	P	11 16 12.2	+0.6
	95nm,0.2s						
TANI	**Tanete Lipujan**	8.14	6	⇓*e*Pn	P	11 16 12.4	-0.1
TANI				*e*Sn	S	11 17 37.4	-6.9
FITZ	**Fitzroy Crossi**	9.42	134	*e*P	P	11 16 29.3	-1.0
	21nm,0.3s						
FITZ				*e*S	S	11 18 07.8	-8.3
FITZ	**Fitzroy Crossi**	9.42	134	P	P	11 16 29.9	-0.4
	6.4nm,0.3s,baz=344,slow=8.5,SNR=170						
FITZ				S	S	11 18 07.3	-8.8
	10nm,0.3s,baz=180,slow=20,SNR=13						
MBWA	**Marble Bar**	9.58	173	*e*P	P	11 16 33.2	+0.6
MBWA				*e*S	S	11 18 07.5	-13
KAKA	**Kakadu**	13.58	96	*e*P	P	11 17 26.4	-0.2
	4.0nm,0.3s						
WRA	**Warramunga Arr**	17.30	121	P	P	11 18 13.0	-1.4
	0.4nm,0.3s,baz=294,slow=14,SNR=10.0						
WRA				S	S	11 21 12.8	-11
	0.8nm,0.3s,baz=290,slow=21,SNR=4.7						
WRAB	**Tennant Creek**	17.31	121	*e*P	P	11 18 13.2	-1.3
	10nm,0.4s						
WRAB				*e*S	S	11 21 13.8	-10
ASPA	**Alice Springs**	18.90	132	*e*P	P	11 18 36.3	+2.1
ASPA				*e*S	S	11 21 56.7	-3.3
ASAR	**Alice Springs**	18.90	131	P	P	11 18 36.3	+2.1
	1.3nm,0.3s,baz=326,slow=15,SNR=117						
ASAR				S	S	11 21 54.9	-5.1
	0.6nm,0.3s,baz=310,slow=24,SNR=7.2						
KLBR	**Kellerberrin**	19.92	182	*e*P	P	11 18 51.3	+5.9
	12nm,0.4s						
KLBR				*e*S	S	11 22 13.8	-8.6
MUN	**Mundaring**	20.41	186	*e*P	P	11 18 57.2	+6.7
	13nm,0.3s						
MUN				*e*S	S	11 22 28.4	-3.6
NWAO	**Narrogin (SRO)**	21.27	183	P	P	11 19 08.5	+9.2
	32nm,0.7s,mb4.8,baz=5.3,slow=12,SNR=31						
NWAO				S	S	11 22 45.0	-3.5
	17nm,0.6s,baz=128,slow=15,SNR=6.5						
STKA	**Stephens Creek**	29.30	137	P	P	11 20 17.4	+2.1
	0.9nm,0.5s,mb3.7,baz=349,slow=17,SNR=3.8						
CMAR	**Chiang Mai Arr**	35.58	327	P	P	11 21 10.8	+0.8
	0.6nm,0.3s,mb4.0,baz=147,slow=5.9,SNR=5.2						
JOW	**Kunigami**	39.34	14	P	P	11 21 37.4	-4.1
	7.2nm,0.8s,mb4.4,baz=272,slow=1.0,SNR=4.2						
GUN	**Gumba**	50.43	322	*e*P	P	11 23 10.7	+0.5
	20nm,0.7s,mb5.2						
PKI	**Pulchoki**	50.48	321	*e*P	P	11 23 10.6	+0.1
	9.2nm,0.6s,mb5.0						
DMN	**Daman**	50.69	321	*e*P	P	11 23 11.9	-0.2
	30nm,1.1s,mb5.1						
KKN	**Kakani**	50.71	321	*e*P	P	11 23 12.2	-0.1
	11nm,0.8s,mb4.8						
GKN	**Gorkha**	51.26	321	*e*P	P	11 23 16.4	-0.1
	10nm,0.4s,mb5.1						
KOLN	**Koldanda**	51.75	320	*e*P	P	11 23 19.9	-0.2
	19nm,0.9s,mb5.0						
SONM	**Songino Array**	60.14	351	P	P	11 24 19.6	-0.5
	1.0nm,0.5s,mb4.1,baz=170,slow=7.7,SNR=11						
SONM				pP	pP	11 24 29.0	-2.4
	2.3nm,0.6s,baz=168,slow=7.7,SNR=11						
AAK	**Ala-Archa**	67.36	326	*e*P	P	11 25 07.2	-0.3
	5.2nm,0.6s,mb4.7						
ZAL	**Zalesovo**	71.29	340	P	P	11 25 30.4	-1.0
	2.6nm,0.8s,mb4.2,baz=341,slow=5.1,SNR=14						
ZAL	**Zalesovo**	71.29	340	P	P	11 25 30.4	-1.0
BVAR	**Borovoye Array**	76.37	332	P	P	11 26 01.5	+0.5
	1.4nm,0.7s,mb4.0,baz=135,slow=6.3,SNR=6.5						
CHKZ	**Chkalovo**	76.70	333	*e*P	P	11 26 02.3	-0.5
	2.7nm,0.6s,mb4.3						
SNAA	**Sanae**	88.41	196	P	P	11 27 07.6	+4.8
	0.4nm,0.7s,mb3.7,baz=142,slow=21,SNR=7.4						
SNAA	**Sanae**	88.41	196	*e*P	P	11 27 07.3	+4.5
	1.3nm,0.7s,mb4.3						
BRTR	**Keskin Array B**	93.44	310	P	P	11 27 29.2	+2.2
	0.5nm,0.4s,mb4.3,baz=135,slow=6.1,SNR=3.2						
BRTR	**Keskin Array B**	93.44	310	P	P	11 27 29.2	+2.2
YKA	**Yellowknife Ar**	116.71	25	PKP	PKPdf	11 32 56.4	+2.3
	0.2nm,0.5s,baz=292,slow=2.3,SNR=4.6						

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*MOS **21** 11:28:22.5±1.7, 51.68N×154.71E, h336^{km}, mb3.6/4, Error ellipse: s-maj=28.3km s-min=12.2km az=64.2*
*KRSC **21** 11:28:22.0±0.9, 51.42N×155.11E, h356^{km}±4^{km}, ML4.4*
*NEIC **21** 11:28:24.7±0.7, 51.88N×154.47E, h334^{km}±7^{km}, mb4.0/6, Error ellipse: s-maj=11.5km s-min=8.4km az=142.0*
*IDC **21** 11:28:26.2±3.6, 51.92N×154.43E, h348^{km}±37^{km}, mb3.1/13, mb1 3.4/14, mb1mx3.3/23, Error ellipse: s-maj=16.6km s-min=12.9km az=136.0*
ISC 21 11:28:23.4±0.4**, 51.84N**±0.06×**154.6E**±0.1**, h333**^{km}±4^{km}**,**

n65,σ1^{s}28/86,mb3.5/16,Northwest of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ALID	Alaid	1.15	147	*i* P	P	11 29 08.4	+0.3
PAU	Pauzhetka	1.44	104	*i* P	P	11 29 08.4	-1.3
SKR	Severo-Kuril's	1.51	139	*e*PN	P	11 29 05.2	-4.9
SKR				*e*S	S	11 29 42.4	-4.3
SKR				pmax	pmax		
	comp=E,30nm,0.4s						
SKR				pmax	pmax		
	comp=Z,160nm,0.4s						
SKR				pmax	pmax		
	comp=N,120nm,0.2s						
SKR				smax			
	comp=N,140nm,0.2s						
SKR				smax			
	comp=E,190nm,0.2s						
SKR				smax			
	comp=Z,50nm,0.2s						
APC	Apacha	1.92	54	*i* P	P	11 29 12.9	+0.1
APC				*e*S	S	11 29 50.4	-1.1
GRL	Gorelyy	2.27	70	*e*P	P	11 29 16.6	+1.1
GRL				*e*S	S	11 29 55.6	-0.7
RUS	Russkaya	2.50	75	P	P	11 29 17.6	+0.2
RUS				S	S	11 29 57.4	-2.3
RUS	Russkaya	2.50	75	*e*P	P	11 29 16.9	-0.5
RUS				*i* S	S	11 29 57.0	-2.7
PET	Petropavlovsk	2.77	63	P	P	11 29 20.0	+0.3
PET				S	S	11 30 02.3	-1.5
PET	Petropavlovsk	2.77	63	*i* P	P	11 29 19.8	+0.1
PET				*e*S	S	11 30 02.9	-0.9
PET	Petropavlovsk	2.77	63	*e*PN	P	11 29 20.2	+0.5
PET				*e*S	S	11 30 02.9	-0.9
PET				smax			
	comp=E,91nm,0.6s						
PET	Petropavlovsk	2.77	63	*e*Pn	P	11 29 19.8	+0.1
GNL	Ganaly	2.77	46	*e*P	P	11 29 19.9	+0.2
GNL				*e*S	S	11 30 02.6	-1.2
AVH	Avacha	2.92	59	*e*P	P	11 29 21.7	+0.6
AVH				*e*S	S	11 30 05.8	-0.4
SDLR	Sedlovina	3.00	60	*i* P	P	11 29 22.3	+0.5
SDLR				*e*S	S	11 30 06.7	-0.9
NLC	Nalytchevo	3.21	63	P	P	11 29 22.5	-1.3
NLC				S	S	11 30 06.9	-4.2
NLC	Nalytchevo	3.21	63	*e*P	P	11 29 22.7	-1.1
NLC				*e*S	S	11 30 06.9	-4.2
SPN	Mys Shipunski	3.56	67	P	P	11 29 26.1	-1.2
SPN				S	S	11 30 12.2	-5.2
SPN	Mys Shipunski	3.56	67	*i* P	P	11 29 26.2	-1.1
SPN				*i* S	S	11 30 11.9	-5.5
ESO	Esso	4.77	29	*i* P	P	11 29 41.8	+1.7
TUMR	Tumrok	4.79	42	*i* P	P	11 29 42.1	+1.7
TUMR				*e*S	S	11 30 40.1	-0.7
KMNR	Kamenistaya	5.17	38	*i* P	P	11 29 47.2	+2.6
KOZ	Kozyrevsk	5.26	34	P	P	11 29 48.2	+2.5
KOZ	Kozyrevsk	5.26	34	*i* P	P	11 29 47.6	+1.9
KOZR	Kozyr	5.28	34	PN	P	11 29 48.2	+2.4
KPT	Kopyto	5.32	37	*i* P	P	11 29 48.1	+1.8
SRDR	Sredinnyy	5.41	32	*i* P	P	11 29 50.4	+3.0
ZLN	Zelenaya	5.57	39	*i* P	P	11 29 51.3	+2.0
LGNR	Loginova	5.58	38	*i* P	P	11 29 51.0	+1.7
CIRR	Tsirk	5.62	38	*i* P	P	11 29 51.0	+1.1
CIRR				*e*S	S	11 30 55.8	-2.0
KRSR	Krestovskiy	5.63	36	*i* P	P	11 29 51.2	+1.3
KLY	Klyuchi	5.74	36	*e*P	P	11 29 53.6	+2.5
SVLR	Shiveluch	6.14	37	*i* P	P	11 29 57.3	+1.4
SVLR				*e*S	S	11 31 06.5	-2.1
KBG	Krutoberegovo	6.52	44	*i* P	P	11 30 00.2	-0.2
KBG				*e*S	S	11 31 12.1	-4.4
KBTR	Krutoberegovo	6.54	45	P	P	11 29 59.8	-0.8
KBTR				S	S	11 31 10.6	-6.3
KBTR	Krutoberegovo	6.54	45	*i* P	P	11 29 59.8	-0.8
KBTR				*e*S	S	11 31 10.8	-6.1
MA2	Magadan	8.05	346	*e*P	P	11 30 19.2	+0.6
YSS	Yuzh-Sakhalins	9.12	242	P	P	11 30 31.9	+0.3
ASAJ	Asahikawa	11.13	231	P	P	11 30 56.8	+1.0
	comp=E,4.7nm,0.3s,baz=67,slow=9.0,SNR=22						
ASAJ	Asahikawa	11.13	231	PN	P	11 30 56.8	+1.0
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.3s						
YAK	Yakutsk	16.87	317	*e*P	P	11 31 58.1	-2.7
	comp=Z,24nm,0.6s						
BILL	Bilibino	17.22	15	P	P	11 32 05.0	+0.6
	comp=Z,3.5nm,0.4s						
MAJO	Matsushiro	19.20	224	*e*P	P	11 32 25.3	+0.8
	comp=Z,7.5nm,0.6s						
HIA	Hailar	22.16	277	P	P	11 32 44.7	-8.3
SONM	Songino Array	30.88	282	P	P	11 34 11.5	+0.3
	comp=Z,0.3nm,0.4s,mb2.9,baz=63,slow=8.5,SNR=4.3						
ILAR	Eielson Array	32.08	44	P	P	11 34 21.0	-0.4
	comp=Z,0.5nm,0.6s,mb2.9,baz=267,slow=8.3,SNR=7.2						
ZAL	Zalesovo	40.60	302	P	P	11 35 32.4	-0.1
	comp=Z,0.9nm,0.4s,mb3.4,baz=124,slow=4.4,SNR=3.3						
ZAL	Zalesovo	40.60	302	P	P	11 35 32.4	-0.1
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZAL	Zalesovo	40.60	302	P	P	11 35 32.4	-0.1
YKA	Yellowknife Ar	46.34	40	P	P	11 36 18.1	+0.2
	comp=Z,0.8nm,0.6s,mb3.0,baz=302,slow=7.3,SNR=10						
YKA				PcP	PcP	11 37 46.8	-0.6
	comp=Z,0.4nm,0.5s,baz=307,slow=3.9,SNR=10.0						
YKA	Yellowknife Ar	46.34	40	P	P	11 36 18.1	+0.2
YKA				PcP	PcP	11 37 46.9	-0.6
CHKZ	Chkalovo	48.00	307	*e*P	P	11 36 29.2	-1.7
	comp=Z,3.9nm,0.4s,mb4.0						
BVAR	Borovoye Array	48.48	307	P	P	11 36 33.8	-0.8
	comp=Z,1.8nm,0.4s,mb3.6,baz=60,slow=7.3,SNR=16						
BRVK	Borovoye	48.51	307	*e*P	P	11 36 33.4	-1.4
	comp=Z,4.3nm,0.6s,mb3.9						
AAK	Ala-Archa	52.55	294	*e*P	P	11 37 03.7	-1.3
	comp=Z,2.2nm,0.4s,mb3.8						
ARCES	ARCESS Array B	53.38	340	P	P	11 37 08.7	-2.0
	comp=Z,5.8nm,1.0s,mb3.9,baz=45,slow=7.7,SNR=4.2						
ARCES	ARCESS Array B	53.38	340	P	P	11 37 08.7	-1.9
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
FINES	FINESS Array B	59.86	334	P	P	11 37 53.4	-2.6
	comp=Z,0.9nm,0.7s,mb3.3,baz=45,slow=8.1,SNR=5.4						
FINES	FINESS Array B	59.86	334	P	P	11 37 53.4	-2.6
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
PDAR	Pinedale Array	61.06	57	P	P	11 38 05.0	+0.8
	comp=Z,0.6nm,0.8s,mb3.1,slow=1.5,SNR=5.1						
SCHQ	Schefferville	68.26	24	P	P	11 38 49.0	-0.8
	comp=Z,3.2nm,0.9s,mb4.0,baz=310,slow=6.0,SNR=6.4						
WRA	Warramunga Arr	73.63	200	P	P	11 39 21.6	-0.8
	comp=Z,0.2nm,0.4s,mb3.2,baz=13,slow=6.2,SNR=4.8						
TXAR	Lajitas Array	74.23	63	P	P	11 39 26.5	+0.8
	comp=Z,0.3nm,0.4s,mb3.4,baz=300,slow=5.4,SNR=12						
GERES	GERESS Array B	74.29	334	P	P	11 39 25.7	+0.1
	comp=Z,0.6nm,0.7s,mb3.5,baz=51,slow=6.3,SNR=3.7						
GERES	GERESS Array B	74.29	334	P	P	11 39 25.7	+0.1
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ASAR	Alice Springs	77.33	199	P	P	11 39 43.5	+0.4
	comp=Z,0.4nm,0.4s,mb3.5,baz=15,slow=5.0,SNR=11						

GUC 21 11:50:41.6±1.0,29.32S×72.33W,h32^{km}±10^{km},MD3.6, ML3.8,1D,Off coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	Vallenar	1.56	62	*i* P	Pn	11 51 08.8	+1.2
VACH				*i* S	Sn	11 51 28.4	+1.4
VACH				AMP		11 51 29.0	
	comp=N,3µm,0.1s						
TLL	Tololo Astrono	1.57	123	⇓*i*P	Pn	11 51 08.7	+0.9
TLL				*i* S	Sn	11 51 30.3	+3.1
CMCH	Combarbala	2.17	148	*i* P	Pn	11 51 17.1	+0.7
CMCH				*i* S	Sn	11 51 44.2	+1.7
CMCH				AMP		11 51 47.2	
	comp=E,706nm,0.5s						

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*IDC **21** 11:59:35.5±0.8,8.01S×125.14E,mb4.1/7,mb1 4.4/10, mb1mx4.3/16,ML4.1/3,MS3.7/3,Ms1 3.7/3,ms1mx3.1/18, Error ellipse: s-maj=60.0km s-min=17.0km az=58.0*
*NEIC **21** 11:59:36.6±0.5,8.32S×124.78E,h10^{km},mb4.7/12,Error ellipse: s-maj=18.7km s-min=8.4km az=62.0*
*BJI **21** 11:59:36.5,8.30S×124.80E,h10^{km},mb4.6*
ISC 21 11:59:40.4±1.8,**8.56S**±0.06×**125.04E**±0.08,**h72**^{km}±18^{km},
n35,σ1^{s}02/38,mb4.3/18,Timor region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	8.33	120	*e*P	P	12 01 41.4	+0.8
	18nm,0.5s						
KAKA				*e*S	S	12 03 13.6	-0.3
FITZ	Fitzroy Crossi	9.51	177	*e*P	P	12 01 56.6	-0.2
	45nm,0.9s						
FITZ				*e*S	S	12 03 42.2	-0.7
FITZ	Fitzroy Crossi	9.51	177	Pn	P	12 01 56.6	-0.2
	2.7nm,0.3s,baz=5.1,slow=11,SNR=44						
FITZ				Sn	S	12 03 41.5	-1.4
	5.5nm,0.3s,baz=192,slow=1.8,SNR=9.8						
MBWA	Marble Bar	13.54	202	*e*P	P	12 02 50.7	0.0
WRA	Warramunga Arr	14.46	142	Pn	P	12 03 01.4	-1.4
	0.8nm,0.3s,baz=317,slow=13,SNR=61						
WRA				Sn	S	12 05 38.2	-3.5
	0.5nm,0.3s,baz=318,slow=24,SNR=7.3						
WRAB	Tennant Creek	14.46	142	*e*P	P	12 03 01.9	-0.9
	56nm,1.2s						
WRAB				*e*S	S	12 05 37.0	-4.8
ASPA	Alice Springs	17.26	152	*e*P	P	12 03 39.9	+1.7
ASPA				*e*S	S	12 06 46.2	+0.3
ASAR	Alice Springs	17.26	152	P	P	12 03 40.6	+2.4
	0.6nm,0.3s,baz=327,slow=11,SNR=21						
ASAR				S	S	12 06 46.0	+0.1
	0.2nm,0.3s,baz=319,slow=20,SNR=7.0						
PMG	Port Moresby	21.87	94	*e*P	P	12 04 39.2	+11
	56nm,1.1s,mb4.8						
CTA	Charters Tower	23.51	121	*e*P	P	12 04 52.1	+7.4
	4.2nm,0.9s,mb3.8						
CTA	Charters Tower	23.51	121	P	P	12 04 49.5	+4.9
	8.2nm,1.1s,mb4.0,baz=323,slow=15,SNR=2.2						
CTAO	Charters Tower	23.51	121	*e*P	P	12 04 50.4	+5.7
	16nm,1.2s,mb4.2						
STKA	Stephens Creek	27.85	149	P	P	12 05 29.9	+4.6
	2.5nm,1.0s,mb3.7,baz=319,slow=11,SNR=3.0						
STKA	Stephens Creek	27.85	149	P	P	12 05 29.9	+4.6
CMAR	Chiang Mai Arr	37.19	316	P	P	12 06 46.3	-0.3
	2.1nm,0.8s,mb4.1,baz=145,slow=7.1,SNR=19						
KMI	Kunming	39.90	328	*e*P	P	12 07 09.8	+0.8
KMI				AMB	AMB		
	comp=Z,12nm,1.4s,mb4.5						
KMI	Kunming	39.90	328	*e*P	P	12 07 09.8	+0.8
	comp=Z,12nm,1.4s,mb4.5						
LSA	Lhasa	50.09	321	P	P	12 08 31.8	+1.4
LSA	Lhasa	50.09	321	*e*P	P	12 08 29.9	-0.5
	comp=Z,7.9nm,0.8s,mb4.7						
GTA	Gaotai	53.15	336	*e*P	P	12 08 53.3	+0.1
GTA				AP	pP	12 08 59.4	-12
GTA				XP	sP	12 09 02.8	-17
GTA				AMB	AMB		
	comp=Z,6.0nm,1.5s,mb4.4						
ULN	Ulaanbaatar	58.39	346	*e*P	P	12 09 31.3	+0.6
	comp=Z,13nm,1.4s,mb4.8						
ULN				*e*		12 09 39.9	
SONM	Songino Array	58.52	345	P	P	12 09 30.3	-1.3
	comp=Z,1.4nm,0.9s,mb4.0,baz=169,slow=6.3,SNR=10						
AAK	Ala-Archa	68.65	322	*e*P	P	12 10 37.5	-0.6
	comp=Z,4.6nm,1.0s,mb4.3						
ZAL	Zalesovo	70.90	336	P	P	12 10 50.7	-0.9
	comp=Z,8.5nm,1.2s,mb4.4,baz=351,slow=5.2,SNR=11						
VNDA	Vanda	71.55	172	P	P	12 11 00.7	+5.5
	comp=Z,0.5nm,0.4s,mb3.7,baz=321,slow=4.9,SNR=5.2						
MAW	Mawson	71.73	201	LR	LR	12 37 36.3	
	comp=Z,63nm,20.0s,baz=63,slow=32						
RAR	Rarotonga	73.20	110	LR	LR	12 42 23.4	
	comp=Z,43nm,19.4s,baz=278,slow=35						
BVAR	Borovoye Array	76.83	330	P	P	12 11 27.0	+1.0
	comp=Z,0.8nm,0.8s,mb3.5,baz=127,slow=7.4,SNR=5.6						
BRVK	Borovoye	76.90	330	P	P	12 11 24.8	-1.6
	comp=Z,20nm,1.5s,mb4.6						
CHKZ	Chkalovo	77.08	330	*e*P	P	12 11 27.4	-0.1
	comp=Z,8.9nm,1.1s,mb4.4						
QSPA	South Pole Qui	81.43	180	*e*P	P	12 11 56.1	+5.6
	comp=Z,11nm,0.8s,mb4.8						
GNI	Garni	88.11	311	LR	LR	12 56 05.0	
	comp=Z,27nm,18.4s,baz=146,slow=39						
SNAA	Sanae	92.98	194	*e*P	P	12 12 52.4	+5.9
	comp=Z,2.1nm,0.9s,mb4.5						
BOSA	Boshof	94.43	240	P	P	12 12 55.3	+1.3
	comp=Z,15nm,1.3s,mb5.2						
LVC	Limon Verde	146.15	156	PKPbc	PKPbc	12 19 21.0	+7.8
	comp=Z,4.2nm,0.6s,baz=245,slow=3.6,SNR=9.4						

IDC 21 12:17:29.0±7.0,**18.73S**×**174.09W,mb4.0**/3,**mb1 4.3**/3, **mb1mx3.8**/14,**Error ellipse: s-maj=300.0km s-min=38.8km az=142.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	48.52	260	P	P	12 26 13.8	-2.3
	1.0nm,0.3s,baz=98,slow=6.7,SNR=36						
ASAR	Alice Springs	48.53	255	P	P	12 26 14.4	-1.6
	1.3nm,0.6s,baz=89,slow=8.2,SNR=29						
ILAR	Eielson Array	85.82	11	P	P	12 30 10.1	-1.2
	0.7nm,1.1s,baz=227,slow=6.2,SNR=4.7						

IDC 21 13:12:51.5±3.3,**9.54S**×**111.06E,mb3.7**/3,**mb1 3.9**/3, **mb1mx3.7**/14,**MS3.0**/1,**Ms1 3.2**/1,**ms1mx2.4**/14,**Error ellipse: s-maj=115.0km s-min=31.5km az=59.0,South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	24.74	117	P	P	13 18 14.0	-2.2
	1.1nm,0.7s,baz=287,slow=12,SNR=13						
CMAR	Chiang Mai Arr	30.28	337	LR	LR	13 32 41.5	
	comp=Z,28nm,19.2s,baz=200,slow=39						
STKA	Stephens Creek	35.97	133	P	P	13 19 55.7	-0.4
	1.2nm,0.8s,baz=325,slow=13,SNR=3.0						
SONM	Songino Array	57.27	356	P	P	13 22 40.8	-2.5
	0.8nm,0.8s,baz=170,slow=7.5,SNR=3.7						

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*CSEM **21** 13:13:36.5±0.1,37.07N×28.30E,h8^{km},MD3.4,Error ellipse: s-maj=3.9km s-min=2.2km az=52.0*
*ISK **21** 13:13:37.3,36.92N×28.28E,h30^{km},MD3.4*
*NEIC **21** 13:13:38.5,36.98N×28.29E,h17^{km},MD3.2(ATH),After ATH.*
*ATH **21** 13:13:38.7,36.98N×28.27E,h15^{km}±7^{km},MD3.2/5*
ISC 21 13:13:37.5±0.6,**37.03N**±0.03×**28.31E**±0.04,**h7**^{km}±6^{km}, **n23,σ1^{s}01/30,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.37	135	PG	Pg	13 13 45.1	+0.1
DALT				SG	Sg	13 13 51.9	+1.9
BDRM	Kayabasi	0.69	273	*i* P	Pg	13 13 50.9	-0.5
BDRM				*i* S	Sg	13 14 02.0	+1.4
AYDN	Tasoluk	0.72	332	*i* P	Pg	13 13 51.8	0.0
AYDN				*i* S	Sg	13 14 01.0	-0.5
FETY	Fethiye	0.74	122	PG	Pg	13 13 51.4	-0.8
FETY				SG	Sg	13 14 01.5	-0.6
ARG	Arkhangelos	0.83	190	*e*PN	Pn	13 13 53.7	-1.6
DNZL	Cakiroluk	0.88	42	*i* P	Pb	13 13 54.6	-0.1
DNZL				*i* S	Sb	13 14 07.4	+0.9
DENT	Denizli	0.93	38	PG	Pg	13 13 55.6	-0.4
KSL	Kastellorizon	1.35	130	*e*PN	Pn	13 14 04.0	+1.2
SMG	Samos	1.35	300	*e*PN	Pn	13 14 04.0	+1.1
MANT	Manisa	1.47	8	*i* P	Pn	13 14 04.7	+0.1
MANT				*i* S	Sb	13 14 25.2	+1.6
IZM	Izmir	1.60	329	*e*PN	Pn	13 14 05.2	-1.1
KDAG	Bornova	1.60	329	*i* P	Pn	13 14 06.2	-0.1
KDAG				*i* S	Sb	13 14 31.0	+3.7
KHL	Karahalli	1.61	36	*e*PN	Pn	13 14 06.5	0.0
BLCB	Balcova	1.69	324	*e*PN	Pn	13 14 06.2	-1.4
KARP	Karpathos	1.75	212	*e*PN	Pn	13 14 09.0	+0.5
BCK	Bucak	1.87	76	*e*PN	Pn	13 14 09.0	-1.2
AKS	Akhisar	1.89	348	*e*PN	Pn	13 14 09.6	-0.9
ISP	Isparta	1.93	64	*e*Pn	Pn	13 14 11.7	+0.6
ISP	Isparta	1.93	64	*e*Pn	Pn	13 14 11.7	+0.6
APE	Apeiranthos	2.22	272	*e*PN	Pn	13 14 13.5	-1.8
APE	Apeiranthos	2.22	272	*e*PN	Pn	13 14 17.5	+2.2
KIZT	Kizilcal	3.37	56	*e*PN	Pn	13 14 31.2	-0.5
MALT	Malatya	8.13	78	Pn	P	13 15 31.7	-7.1
	2.5nm,0.4s						

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*IDC **21** 13:43:41.8±1.0,59.85N×137.65W,mb3.7/4,mb1 4.1/9, mb1mx3.8/22,ML3.7/5,Error ellipse: s-maj=19.5km s-min=9.4km az=42.0*
*NEIC **21** 13:43:41.0,59.87N×137.34W,h1^{km},mb3.8/2, ML4.2(PMR),ML4.0(PGC),ML4.0(AEIC),After PGC.*
NEIC Felt at Whitehorse, Yukon Territory.
*PGC **21** 13:43:41.2,59.87N×137.34W,h1^{km},ML4.0/4*
PGC St. Elias Mountains, British Columbia Felt (I) in Whitehorse.
ISC 21 13:43:39.1±0.3,**59.90N**±0.03×**137.17W**±0.05,**h1**^{km},**n55, σ1^{s}20**/71,**mb3.8**/6,**3D,Southeastern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYT	Haines Junctio	0.95	350	⇓P	Pb	13 43 58.4	+0.5
HYT				S	Sg	13 44 10.6	+0.1
HYT				Trac		13 44 12.8	
	comp=Z,1µm,0.2s						
PNL	Peninsula	1.15	259	P	Pb	13 44 00.5	-1.0
PNL				S	Sb	13 44 14.9	-1.8
YKU2	Yakutat	1.32	254	P	Pb	13 44 05.0	+0.5
WHY	Whitehorse	1.37	55	⇓P	Pb	13 44 07.3	+2.1
WHY				S	Sb	13 44 27.2	+4.0
WHY				Trac		13 44 29.8	
	comp=Z,942nm,0.2s						
WHY	Whitehorse	1.37	55	P	Pb	13 44 07.6	+2.3
WHY				S	Sb	13 44 26.6	+3.4
PCA	Pinnacle	1.56	279	P	Pn	13 44 08.2	0.0
PCA				S	Sb	13 44 28.1	-0.7
BESE	Bessie Mountai	1.78	137	P	Pn	13 44 13.0	+1.8
CHX	Chaix Hills	1.99	277	P	Pn	13 44 15.5	+1.3
CTGM	Chitina Glacie	2.33	299	P	Pn	13 44 19.8	+0.8
CTGM				S	Sn	13 44 48.6	-0.1
YAH	Yahtse	2.34	284	P	Pn	13 44 20.4	+1.2
BALM	Baldy	2.81	296	P	Pn	13 44 27.3	+1.4
TGL	Tana Glacier	2.94	289	P	Pn	13 44 28.9	+1.0
SIT	Sitka	3.01	160	P	Pn	13 44 29.8	+1.0
RAGM	Ragged Mountai	3.79	281	P	Pn	13 44 40.8	+1.0
BCA3	Beaver Creek A	3.87	327	P	Pn	13 44 42.1	+1.0
DLBC	Dease Lake	3.96	109	Pn	Pn	13 44 43.5	+1.2
	1.7nm,0.3s,baz=282,slow=15,SNR=21						
DLBC				Pg	Pg	13 44 55.1	-3.0
	14nm,0.3s,baz=286,slow=14,SNR=29						
DLBC				Sn	Sn	13 45 30.3	+0.3
	16nm,0.3s,baz=252,slow=16,SNR=4.7						
DLBC				Lg		13 45 45.7	
	45nm,0.3s,baz=177,slow=16,SNR=6.2						
DLBC	Dease Lake	3.96	109	Pn	Pn	13 44 42.5	+0.3
DLBC				Pg	Pg	13 44 51.5	-6.5
DLBC				Sg	Sg	13 45 44.6	-6.2
DLBC				Trac		13 46 01.9	
	comp=Z,467nm,0.7s						
DLBC	Dease Lake	3.96	109	P	Pn	13 44 43.0	+0.8
DAWY	Dawson	4.31	347	Trac		13 46 20.4	
	comp=Z,83nm,0.3s						
DAWY	Dawson	4.31	347	⇓Pn	Pn	13 44 47.4	+0.1
DAWY				Pg	Pg	13 44 59.8	-5.4
DAWY				Sn	Sn	13 45 36.6	-2.4
DAWY				Sg	Sg	13 45 55.1	-7.6
DAWY	Dawson	4.31	347	*e*P	Pn	13 44 47.0	-0.3
CVA	Cordova	4.33	282	P	Pn	13 44 46.8	-0.7
EYAK	Cordova Ski Ar	4.33	282	P	Pn	13 44 47.6	+0.1
MENT	Mentasta	4.38	317	*e*P	Pn	13 44 50.5	+2.2
PMR	Palmer	6.11	291	*e*P	Pn	13 45 13.9	+1.2
IL1	Eielson Array	6.66	321	P	Pn	13 45 20.1	-0.4
ILAR	Eielson Array	6.66	321	Pn	Pn	13 45 19.4	-1.1
	0.1nm,0.3s,baz=147,slow=12,SNR=13						
ILAR				Lg		13 47 11.2	
	1.7nm,0.3s,baz=117,slow=26,SNR=7.4						
RUBB	Prince Rupert	6.73	143	Pn	Pn	13 45 20.7	-0.8
RUBB				Sn	Sn	13 46 36.1	-3.7
RUBB				Sg	Sg	13 47 11.8	-11
RUBB				Trac		13 47 19.6	
	comp=Z,151nm,0.9s						
COLA	College	7.04	320	*e*P	Pn	13 45 21.8	-4.0
CNPM	China Poot	7.13	273	P	Pn	13 45 25.1	-2.0
FNBB	Fort Nelson	7.30	92	Pn	Pn	13 45 29.8	+0.3
FNBB				Sg	Sg	13 47 29.2	-13
FNBB				Trac		13 47 49.9	
	comp=Z,51nm,0.8s						
MOBC	Moresby Island	7.32	154	Pn	Pn	13 45 29.5	-0.2
MOBC				Trac		13 47 56.2	
	comp=Z,18nm,0.9s						
BNB	Barry Inlet	7.93	155	Sg	Sg	13 47 50.8	-12
BNB				Trac		13 48 03.6	
	comp=Z,22nm,0.9s						
BM3	Burnt Mountain	8.24	340	P	P	13 45 41.4	-1.1
INK	Inuvik	8.59	9	Pn	P	13 45 49.1	+1.6
	3.9nm,0.3s,baz=175,slow=14,SNR=52						
INK				Lg		13 48 13.8	
	0.8nm,0.3s,baz=115,slow=22,SNR=5.0						
INK	Inuvik	8.59	9	Pn	P	13 45 45.1	-2.4
INK				Sg	Sg	13 48 09.7	-15
INK				Trac		13 48 20.1	
	comp=Z,34nm,1.0s						
INK	Inuvik	8.59	9	Pn	P	13 45 49.1	+1.6
INK				Lg		13 48 13.8	
FSB	Fort Saint Jam	8.83	122	Sg	Sg	13 48 18.2	-15
FSB				Trac		13 49 00.1	
	comp=Z,40nm,0.9s						
BMBC	Bull Mountain	8.87	109	Trac		13 48 36.4	
	comp=Z,36nm,0.8s						
BMBC	Bull Mountain	8.87	109	Sg	Sg	13 48 22.6	-12
BBB	Bella Bella	9.23	143	Pn	P	13 45 57.2	+0.8
	0.7nm,0.3s,baz=188,slow=9.4,SNR=4.0						
BBB	Bella Bella	9.23	143	Pn	P	13 45 57.2	+0.8
YKW3	Yellowknife Ar	11.17	67	Pn	P	13 46 22.3	-0.5
YKW3				Pn	P	13 46 22.6	-0.2
YKW3				Sg		13 49 31.2	
YKW3				Trac		13 49 51.6	
	comp=Z,20nm,0.8s						
YKW3	Yellowknife Ar	11.17	67	*e*P	P	13 46 20.2	-2.6
YKA	Yellowknife Ar	11.17	67	Pn	P	13 46 21.6	-1.2
	0.3nm,0.3s,baz=267,slow=13,SNR=21						
YKA				Lg		13 49 31.9	
	0.2nm,0.3s,baz=263,slow=30,SNR=7.1						
YKA	Yellowknife Ar	11.17	67	Pn	P	13 46 21.6	-1.2
YKA				Lg		13 49 31.9	
EDM	Edmonton	14.68	107	*e*P	P	13 47 09.7	+0.3
HRY	Holter Researc	19.92	120	P	P	13 48 13.1	-1.8
MCMT	McKenzie Canyo	20.99	125	*e*P	P	13 48 26.4	+0.4
RES	Resolute Bay	21.29	29	*e*P	P	13 48 28.9	0.0
	5.4nm,1.1s,mb3.8						
BW06	Boulder Array	24.04	123	*e*P	P	13 48 54.8	-1.4
	1.7nm,0.8s,mb3.6						
PDAR	Pinedale Array	24.04	123	P	P	13 49 00.6	+4.5
	2.5nm,1.1s,mb3.7,baz=327,slow=6.9,SNR=11						
NVAR	Mina Array Bea	24.60	142	P	P	13 49 04.8	+3.2
	0.6nm,0.6s,mb3.5,baz=339,slow=7.5,SNR=3.6						
AKASG	Malin Array Be	69.21	9	P	P	13 54 47.3	-1.4
	0.3nm,0.4s,mb3.9,baz=353,slow=6.0,SNR=4.1						
CMAR	Chiang Mai Arr	89.71	308	P	P	13 56 40.0	0.0
	1.0nm,0.9s,mb4.1,baz=357,slow=6.3,SNR=6.1						

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*IDC **21** 13:52:13.3±1.4,20.03N×145.25E,mb3.8/4,mb1 4.0/4, mb1mx3.7/20,Error ellipse: s-maj=61.8km s-min=28.2km az=95.0*
*NEIC **21** 13:52:30.1±4.2,19.72N×145.64E,h143^{km}±38^{km},mb4.1/4, Error ellipse: s-maj=42.6km s-min=12.8km az=90.0*
ISC 21 13:52:26.7±6.0,**19.8N**±0.1×**145.5E**±0.4,**h124**^{km}±54^{km},**n8, σ0^{s}72**/8,**mb3.8**/7,**Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MAJO	Matsushiro	17.91	340	P	P	13 56 29.3	+0.1
	8.9nm,0.4s						
WRAB	Tennant Creek	40.94	196	*e*P	P	13 59 58.2	-0.5
	3.9nm,0.7s,mb4.3						
WRA	Warramunga Arr	40.95	196	P	P	13 59 59.3	+0.5
	1.5nm,0.7s,mb4.0,baz=14,slow=8.6,SNR=18						
SONM	Songino Array	42.22	321	P	P	14 00 04.9	-4.0
	0.4nm,0.6s,mb3.3,baz=122,slow=11,SNR=2.5						
CHKZ	Chkalovo	65.42	321	P	P	14 02 57.8	-0.4
	0.7nm,0.5s,mb3.8						
BRVK	Borovoye	65.62	320	*e*P	P	14 02 59.7	+0.2
	1.6nm,0.7s,mb4.0						
YKA	Yellowknife Ar	77.13	28	P	P	14 04 07.5	-0.2
	0.3nm,0.6s,mb3.2,baz=287,slow=5.6,SNR=5.4						
FINES	FINESS Array B	85.86	335	P	P	14 04 53.6	+0.5
	1.5nm,0.9s,mb3.9,baz=72,slow=6.0,SNR=4.2						

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*IDC **21** 14:07:12.2±1.2,32.47S×71.73W,mb4.5/4,mb1 4.4/5, mb1mx4.1/14,ML4.7/1,MS3.5/3,Ms1 3.5/3,ms1mx3.3/13, Error ellipse: s-maj=44.0km s-min=28.0km az=102.0*

NEIC ***21*** *14:07:16.6, 32.51S×71.82W, h23^{km}, ML4.4(GUC), After GUC.*
NEIC Felt [II] at Zapallar.
GUC ***21*** *14:07:16.6±0.8, 32.51S×71.82W, h23^{km}±7^{km}, MD4.5, ML4.4*

ISC 21 14:07:15.6±0.8**, 32.50S**±0.02×**71.90W**±0.05**, h22**^{km}±5^{km}**, n38, σ0^{s}85**/51**, mb4.3**/4**, MS3.5**/2**, 8C-5D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACH	Papudo	0.40	95	⇓iP	Pb	14 07 24.4	+0.4
IHA	Instituto Hidr	0.57	157	eP	Pb	14 07 26.8	0.0
PTCH	Petorca	0.86	74	⇑iP	Pb	14 07 31.6	-0.1
PTCH				iS	Sb	14 07 42.2	-0.5
PTCH				AMP		14 07 47.2	
	comp=E,28µm,0.3s						
ROCH	El Roble	0.89	122	⇑iP	Pb	14 07 32.0	-0.2
LCCH	Las Cruces	1.01	164	⇑iP	Pb	14 07 34.3	0.0
LCCH				iS	Sb	14 07 47.4	+0.2
ILCH	Illapel	1.06	36	eP	Pb	14 07 35.0	-0.3
ILCH				iS	Sb	14 07 49.1	+0.4
ILCH				AMP		14 07 51.0	
	comp=E,11µm,0.7s						
JACH	Jahuel	1.12	100	⇑iP	Pn	14 07 35.5	-0.6
JACH				iS	Sb	14 07 49.6	-0.7
PEL	Peldehue	1.21	122	⇑iP	Pn	14 07 37.2	-0.2
PEL				iS	Sb	14 07 52.2	-0.7
PEL				AMP		14 07 54.7	
	comp=N,26µm,0.7s						
PUEX	Pudahuel	1.34	135	eP	Pn	14 07 40.0	+0.7
PUEX				iS	Sn	14 07 57.4	+0.7
PUEX				AMP		14 07 59.9	
	comp=E,17µm,0.7s						
TACH	Talagante	1.41	145	⇑iP	Pn	14 07 40.2	0.0
SAN	Santiago	1.41	133	eP	Pn	14 07 39.8	-0.5
SAN				iS	Sn	14 07 57.7	-0.6
STL	Santa Lucia	1.41	132	eP	Pn	14 07 40.0	-0.3
STL				iS	Sn	14 07 58.0	-0.4
STL				AMP		14 08 02.8	
	comp=E,5µm,0.5s						
DSCH	Colegio Aleman	1.43	129	eP	Pn	14 07 40.4	-0.2
DSCH				iS	Sn	14 07 58.6	-0.4
DSCH				AMP		14 08 04.2	
	comp=E,15µm,0.8s						
LNV	Longovilo	1.51	164	eP	Pn	14 07 41.1	-0.6
FSR	Penalolen	1.51	130	eP	Pn	14 07 42.0	+0.2
FSR				iS	Sn	14 08 00.6	-0.2
FSR				AMP		14 08 05.6	
	comp=E,5µm,0.8s						
CMCH	Combarbala	1.53	30	⇓iP	Pn	14 07 42.6	+0.5
CMCH				iS	Sn	14 08 02.1	+0.7
CMCH				AMP		14 08 06.1	
	comp=E,58µm,0.5s						
FCH	Farellones	1.59	122	⇓iP	Pn	14 07 42.9	+0.1
FCH				iS	Sn	14 08 03.5	+0.7
FCH				AMP		14 08 09.5	
	comp=N,4µm,0.4s						
PCH	Pirque	1.61	134	⇑iP	Pn	14 07 43.5	+0.2
SJCH	San Jose de Ma	1.73	132	eP	Pn	14 07 44.9	+0.1
SJCH				iS	Sn	14 08 06.8	+0.5
CHCH	Chadas Angostu	1.77	144	⇓iP	Pn	14 07 46.1	+0.7
CACH	El Canelo	1.94	146	eP	Pn	14 07 49.2	+1.2
LMEL	Las Melosas	1.96	134	eP	Pn	14 07 48.6	+0.5
LMEL				iS	Sn	14 08 13.5	+1.3
LMEL				AMP		14 08 18.2	
	comp=N,3µm,0.2s						
SFDO	San Fernando	2.23	161	⇓iP	Pn	14 07 52.3	+0.2
TLL	Tololo Astrono	2.51	22	⇑iP	Pn	14 07 56.3	+0.2
TLL				iS	Sn	14 08 27.4	+1.1
TLL				AMP		14 08 37.0	
	comp=E,6µm,0.5s						
NICH	Los Niches	2.56	168	eP	Pn	14 07 57.8	+1.1
MDZ	Mendoza	2.60	99	eP	Pn	14 08 01.0	+3.6
MDZ				e		14 08 03.7	
MDZ				S	Sn	14 08 40.7	+12
CCHI	Chillan	4.09	182	eP	Pn	14 08 22.1	+3.5
TRQA	Tornquist	9.82	127	eP	P	14 09 35.9	-2.8
LVC	Limon Verde	10.20	16	Pn	P	14 09 38.1	-5.9
	comp=E,0.7nm,0.3s,baz=215,slow=5.6,SNR=6.5						
LVC				Sn	S	14 11 44.9	+6.1
	comp=E,1.6nm,0.3s,baz=234,slow=4.9,SNR=3.1						
LVC				LR	LR	14 13 29.0	
	comp=E,235nm,21.0s,baz=210,slow=37						
LVC	Limon Verde	10.20	16	eP	P	14 09 36.8	-7.2
USHA	Ushuaia	22.46	175	LR	LR	14 22 17.3	
	comp=E,70nm,19.4s,MS3.1,baz=168,slow=40						
BDFB	Brasilia	27.42	58	P	P	14 12 58.2	-3.6
	comp=E,7.4nm,0.8s,mb4.3,baz=260,slow=7.0,SNR=8.8						
BDFB				LR	LR	14 24 50.5	
	comp=E,270nm,21.2s,MS3.8,baz=250,slow=39						
SNAA	Sanae	52.93	158	P	P	14 16 29.6	-2.4
	comp=E,3.7nm,1.3s,mb4.2,baz=302,slow=7.8,SNR=10.0						
DBIC	Dimbokro	74.59	72	P	P	14 18 52.6	-2.7
	comp=E,9.6nm,0.9s,mb4.7,baz=202,slow=7.2,SNR=14						
ULM	Lac du Bonnet	85.08	345	P	P	14 19 49.5	-1.2
	comp=E,1.8nm,0.9s,mb4.2,baz=127,slow=9.1,SNR=3.1						
WRA	Warramunga Arr	122.12	209	PKP	PKPdf	14 26 08.4	-5.2
	comp=E,0.3nm,0.7s,baz=159,slow=1.7,SNR=5.8						
BVAR	Borovoye Array	146.10	41	PKPbc	PKPbc	14 26 53.9	+0.3
	comp=E,2.1nm,0.5s,baz=271,slow=2.5,SNR=29						
ZAL	Zalesovo	152.89	31	PKPbc	PKPdf	14 27 10.6	+3.1
	comp=E,2.4nm,0.6s,baz=183,slow=3.5,SNR=18						

IDC 21 14:26:38.9±6.9**, 30.64S**×**179.34E, mb3.2**/2**, mb1 3.4**/2**, mb1mx3.4**/11**, Error ellipse: s-maj=335.0km s-min=57.8km az=161.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	40.80	268	P	P	14 34 21.7	-2.1
	0.3nm,0.9s,baz=96,slow=7.8,SNR=4.7						
ASAR				pP	pP	14 35 07.7	+44
	0.1nm,0.5s,baz=90,slow=7.5,SNR=1.7						
WRA	Warramunga Arr	41.82	274	P	P	14 34 31.0	-1.2
	0.4nm,1.0s,baz=112,slow=8.1,SNR=5.4						
NOA	NORSAR Array B	148.59	349	PKPbc	PKPdf	14 46 26.7	+1.5
	1.7nm,1.1s,baz=28,slow=0.3,SNR=3.4						

IDC 21 14:48:47.1±5.2**, 16.48S**×**175.22W, mb4.1**/3**, mb1 4.3**/3**, mb1mx3.8**/14**, Error ellipse: s-maj=168.0km s-min=102.6km az=155.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	41.98	241	P	P	14 56 40.5	-1.2
	3.8nm,1.2s,baz=79,slow=10,SNR=4.6						
WRA	Warramunga Arr	47.90	258	P	P	14 57 27.3	-1.9
	0.7nm,0.5s,baz=94,slow=7.3,SNR=37						
ASAR	Alice Springs	48.12	253	P	P	14 57 28.8	-2.2
	3.9nm,0.7s,baz=88,slow=8.5,SNR=86						
ASAR				PcP	PcP	14 58 56.5	-2.4
	0.2nm,0.6s,baz=108,slow=3.6,SNR=4.2						

IDC 21 14:55:10.2±2.1**, 27.68S**×**178.86W, mb4.0**/5**, mb1 4.2**/5**, mb1mx4.0**/12**, Error ellipse: s-maj=53.5km s-min=37.5km az=40.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	32.70	276	P	P	15 01 51.6	+5.0
	2.3nm,0.5s,baz=102,slow=11,SNR=3.2						
STKA	Stephens Creek	34.45	253	P	P	15 01 57.8	-4.0
	6.1nm,1.1s,baz=102,slow=11,SNR=6.0						
ASAR	Alice Springs	42.57	264	P	P	15 03 07.8	-1.9
	0.3nm,0.5s,baz=109,slow=7.3,SNR=8.5						
WRA	Warramunga Arr	43.30	270	P	P	15 03 15.6	-0.1
	0.4nm,0.2s,baz=110,slow=8.0,SNR=36						
VNDA	Vanda	50.72	185	P	P	15 04 11.5	-1.7
	1.5nm,0.5s,baz=100,slow=6.6,SNR=10						
FINES	FINESS Array B	142.34	341	PKP	PKPdf	15 14 41.6	-4.4
	3.2nm,0.9s,baz=52,slow=3.8,SNR=10						
AKASG	Malin Array Be	148.67	325	PKPbc	PKPdf	15 14 58.3	+1.3
	0.2nm,0.4s,baz=42,slow=2.6,SNR=4.9						

NIED ***21*** *15:34:00, 42.90N×145.60E, h41^{km}, Mw5.6 Best double couple: $M_0$3.28×10^{17} NP1:ϕ_s28°, δ64°, λ80°. NP2:ϕ_s230°, δ27°, λ109°.*
BGS ***21*** *15:34:18.9±1.5, 41.71N×147.69E, h33^{km}, mb5.7*
SKHL ***21*** *15:34:25.6±1.1, 42.84N×145.77E, h51^{km}±17^{km}, mb6.4/5, mbh6.4/5, Ms5.3/7, msh6.2/4*
SKHL Felt (II) at Yushno-Kurilsk.
BJI ***21*** *15:34:26.7, 43.00N×145.45E, h42^{km}, mB6.0, mb5.9, Ms5.2, Msz5.1*
MOS ***21*** *15:34:27.1±0.9, 42.92N×145.46E, h44^{km}, mb5.9/63, MS5.5/30, Error ellipse: s-maj=7.6km s-min=4.2km az=104.7*
MOS Felt (II) at Yuzhno-Kuril'sk.
NEIC ***21*** *15:34:28.1±0.1, 42.96N×145.41E, mb5.7/167, MS5.2/41, MW5.6, MW5.6(NIED), Error ellipse: s-maj=3.4km s-min=2.5km az=163.0, Moment Tensor Solution. s23 Moment tensor: Scale 10^{17}Nm; M_{rr}2.04; $M_{\theta\theta}$-0.68; $M_{\phi\phi}$-1.36; $M_{r\theta}$0.82; $M_{\theta\phi}$-0.07; $M_{\phi r}$1.67; Best double couple: $M_0$2.5×10^{17} NP1:ϕ_s187°, δ22°, λ77°. NP2:ϕ_s21°, δ69°, λ95°. Principal axes: T 2.88, Plg66°, Azm300°; N -.72, Plg5°, Azm199°; P -2.15, Plg24°, Azm107°;*
NEIC Felt [II] at Yuzhno-Kuril'sk, Kunashir. Recorded [3 JMA] in south-central and eastern Hokkaido; [2 JMA] throughout central Hokkaido; [1 JMA] in southwestern Hokkaido. Also recorded [1 JMA] in Aomori, Iwate and Miyagi Prefectures, Honshu.
JMA ***21*** *15:34:28.2±0.1, 42.93N×145.51E, h45^{km}±1^{km}, M5.7*
JMA Felt III J1.
HRVD ***21*** *15:34:28.1±0.2, 42.88N×145.58E, h43^{km}, MW5.6/73, Centroid moment Tensor Solution. LP body waves: s63,c123;Mantle waves: s73,c169; Half duration: 1^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}2.37±.06; $M_{\theta\theta}$-1.10±.05; $M_{\phi\phi}$-1.27±.04; $M_{r\theta}$0.73±.05; $M_{\theta\phi}$-1.69±.03; $M_{\phi r}$1.82±.04; Best double couple: $M_0$3.29×10^{17} NP1: ϕ_s240°, δ30°, λ118°. NP2:ϕ_s29°, δ64°, λ75°. Principal axes: T 3.12, Plg68°, Azm271°; N .33, Plg13°, Azm36°; P -3.46, Plg18°, Azm130°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
SYO ***21*** *15:34:28.0, 42.92N×145.42E, h39^{km}, MB5.5, MS5.0*
IDC ***21*** *15:34:29.5±0.6, 42.88N×145.59E, h54^{km}±4^{km}, mb5.2/38, mb1 5.3/41, mb1mx5.2/42, MS5.0/16, Ms1 5.0/16, ms1mx4.7/25, Error ellipse: s-maj=8.8km s-min=8.1km az=40.0*

ISC 21 15:34:26.4±0.3**, 42.85N**±0.02×**145.49E**±0.02**, h38**^{km}±2^{km}**, h38**^{km}±1.0^{km}**:pP-P, n917, σ0^{s}91**/935**, mb5.7**/255**, MS5.2**/83**, 294C-37D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	0.55	20	⇑P	P	15 34 38.7	+1.0
NEM2				eS	S	15 34 46.0	+0.2
JAK	Akkeshi	0.60	284	⇓P	P	15 34 40.5	+2.0
JAK				eS	S	15 34 49.4	+2.2
JNK	Nakash	0.93	323	⇓P	P	15 34 44.0	+0.9
JNK				eS	S	15 34 55.1	-0.2
JRA	Rausu	1.12	346	⇓P	P	15 34 46.6	+0.8
JRA				eS	S	15 35 00.5	+0.3
YUK	Yuzh-Kuril'sk	1.21	13	κ iPN	P	15 34 46.0	-1.1
YUK				i		15 34 58.0	
YUK				pmax	pmax		
	comp=E,23µm,1.0s						
YUK				pmax	pmax		
	comp=Z,56µm,1.0s						
YUK				pmax	pmax		
	comp=N,45µm,3.0s						
YUK				pmax	pmax		
	comp=Z,10µm,0.3s						
YUK				pmax	pmax		
	comp=N,3µm,0.5s						
YUK				pmax	pmax		
	comp=E,3µm,0.5s						
YUK				smax			
	comp=N,320µm,1.0s						
YUK				smax			
	comp=E,255µm,1.0s						
YUK	Yuzh-Kuril'sk	1.21	13	⇓iP	P	15 34 46.0	-1.1
YUK				⇓iP		15 34 46.0	
YUK				AMB	AMB	15 34 47.0	
	comp=E,23µm,1.0s						
YUK				AMB	AMB	15 34 47.0	
	comp=E,56µm,1.0s						
YUK				AMB	AMB	15 34 47.0	
	comp=E,45µm,3.0s						
YUK				AMB	AMB	15 34 48.0	
	comp=E,3µm,0.4s						
YUK				AMB	AMB	15 34 48.0	
	comp=E,3µm,0.4s						
YUK				AMB	AMB	15 34 48.0	
	comp=E,10µm,0.4s						
YUK				A		15 35 05.0	
	comp=E,320µm,1.0s						
YUK				A		15 35 05.0	
	comp=E,255µm,1.0s						
JOB	Onbets	1.22	273	⇓P	P	15 34 48.9	+1.7
JAR	Ashorobuto	1.34	290	⇓P	P	15 34 50.5	+1.5
JCH	Churui	1.59	262	⇓P	P	15 34 53.7	+1.2
JTKR	Abashiri--Toko	1.61	315	⇓P	P	15 34 54.4	+1.6
JTKR				eS	S	15 35 13.7	+1.2
JMP	Maruseppu	1.94	307	⇓P	P	15 34 59.4	+1.9
JFR	Furan	2.15	279	⇓P	P	15 35 02.0	+1.5
JKK2	Kamakawa 2	2.25	298	⇓P	P	15 35 04.0	+2.1
ASAJ	Asahikawa	2.46	302	P	P	15 35 07.2	+2.2
	comp=E,950nm,0.3s,baz=123,slow=11,SNR=1344						
ASAJ				S	S	15 35 39.4	+5.3
	comp=E,890nm,0.3s,baz=13,slow=28,SNR=14						
ASAJ				LR	LR	15 36 20.2	
	comp=E,87µm,18.4s,baz=98,slow=44						
ASAJ	Asahikawa	2.46	302	PN	P	15 35 07.2	+2.2
ASAJ				S	S	15 35 39.4	+5.4
ASAJ				pmax	pmax		
	comp=Z,950nm,0.3s						
ASAJ				MLR	MLR		
	comp=Z,87µm,18.4s						
JAB	Ashibetsu	2.48	286	⇓P	P	15 35 08.2	+2.9
KUR	Kuril'sk	2.93	35	⇓iPN	P	15 35 10.5	-1.2
KUR				eS	S	15 35 44.5	-1.6
KUR				pmax	pmax		
	comp=N,19µm,2.0s						
KUR				pmax	pmax		
	comp=E,6µm,2.0s						
KUR				pmax	pmax		
	comp=Z,12µm,2.0s						
KUR				pmax	pmax		
	comp=N,610nm,0.5s						
KUR				pmax	pmax		
	comp=E,2µm,0.5s						
KUR				pmax	pmax		
	comp=Z,3µm,0.5s						
KUR				smax			
	comp=N,7µm,0.7s						
KUR				smax			
	comp=E,9µm,0.7s						
KUR				smax			
	comp=N,75µm,2.0s						
KUR	Kuril'sk	2.93	35	⇓iP	P	15 35 10.2	-1.5
KUR				AMB	AMB	15 35 21.5	
	comp=N,610nm,0.5s						
KUR				AMB	AMB	15 35 21.5	
	comp=N,2µm,0.5s						
KUR				AMB	AMB	15 35 21.5	
	comp=N,3µm,0.5s						
KUR				AMB	AMB	15 35 26.2	
	comp=N,22µm,2.0s						
KUR				AMB	AMB	15 35 26.2	
	comp=N,15µm,2.0s						
KUR				AMB	AMB	15 35 26.2	
	comp=N,15µm,2.0s						
KUR				eS	S	15 35 44.5	-1.6
KUR				A		15 35 50.2	
	comp=N,72µm,2.0s						
KUR				A		15 35 50.2	
	comp=N,58µm,2.0s						
KUR				A		15 35 52.0	
	comp=N,50µm,2.0s						
KUR				A		15 35 52.0	
	comp=N,25µm,2.0s						
KUR				A		15 35 56.2	
	comp=N,4µm,0.7s						
KUR				A		15 35 56.2	
	comp=N,9µm,0.7s						
JNB	Noboribetsu	3.31	265	⇓P	P	15 35 18.3	+1.3
JANG	Nango	3.87	232	⇑P	P	15 35 25.4	+0.3
YSS	Yuzh-Sakhalins	4.54	336	⇓iPN	P	15 35 34.0	-0.5
YSS				e		15 36 33.5	
YSS				pmax	pmax		
	comp=N,380nm,1.2s						
YSS				pmax	pmax		
	comp=Z,400nm,1.2s						
YSS				pmax	pmax		
	comp=N,4µm,8.0s						
YSS				pmax	pmax		
	comp=Z,4µm,8.0s						
YSS				MLR	MLR		
	comp=E,19µm,17.0s						
YSS				MLR	MLR		
	comp=Z,36µm,17.0s						
YSS				MLR	MLR		
	comp=N,33µm,15.0s						
YSS	Yuzh-Sakhalins	4.54	336	ePn	P	15 35 34.4	-0.1
YSS	Yuzh-Sakhalins	4.54	336	⇓iP	P	15 35 34.0	-0.5
YSS				AMB	AMB	15 35 35.2	
	comp=N,380nm,1.2s						
YSS				AMB	AMB	15 35 35.2	
	comp=N,400nm,1.2s						
YSS				AMB	AMB	15 35 43.0	
	comp=N,4µm,8.0s						
YSS				AMB	AMB	15 35 43.0	
	comp=N,4µm,8.0s						
YSS				i sP		15 35 49.7	
YSS				eS	S	15 36 23.0	-3.8
YSS				A		15 36 29.0	
	comp=N,680nm,1.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,25µm,18.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,19µm,17.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,36µm,17.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,38µm,14.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,49µm,17.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,42µm,16.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,33µm,15.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,27µm,12.0s						
YSS				AMS	AMS	15 37 33.0	
	comp=N,37µm,19.0s						
JOM	Ohasama	4.63	225	P	P	15 35 35.8	0.0
OFUJ	Ofunato	4.75	219	P	P	15 35 37.1	-0.4
JYS	Shirataka	6.20	224	P	P	15 35 57.6	-0.2
JAW	Awa shima	6.46	229	P	P	15 36 02.2	+0.6
UGL	Uglegorsk	6.67	340	PN	P	15 35 59.5	-5.0
UGL				eS	S	15 37 23.8	+3.7
UGL				pmax	pmax		
	comp=N,520nm,1.0s						
UGL				pmax	pmax		
	comp=E,900nm,1.0s						
UGL				pmax	pmax		
	comp=Z,1µm,1.0s						
UGL				smax			
	comp=N,720nm,1.0s						
UGL				smax			
	comp=E,670nm,1.0s						
UGL				smax			
	comp=Z,430nm,1.0s						
UGL				smax			
	comp=N,16µm,4.5s						
UGL				smax			
	comp=E,7µm,4.5s						
UGL				MLR	MLR		
	comp=Z,21µm,15.0s						
UGL				MLR	MLR		
	comp=N,20µm,14.0s						
UGL				MLR	MLR		
	comp=E,16µm,16.0s						
UGL	Uglegorsk	6.67	340	eP	P	15 35 59.5	-5.0
UGL				AMB	AMB	15 36 06.5	
	comp=E,520nm,1.0s						
UGL				AMB	AMB	15 36 06.5	
	comp=E,900nm,1.0s						
UGL				AMB	AMB	15 36 06.5	
	comp=E,1µm,1.0s						
UGL				eS	S	15 37 23.8	+3.7
UGL				A		15 37 27.0	
	comp=E,720nm,1.0s						
UGL				A		15 37 27.0	
	comp=E,670nm,1.0s						
UGL				A		15 37 27.0	
	comp=E,430nm,1.0s						
UGL				A		15 37 28.0	
	comp=E,16µm,4.5s						
UGL				A		15 37 28.0	
	comp=E,7µm,4.5s						
UGL				eL		15 37 40.0	
UGL				AMS	AMS	15 39 04.0	
	comp=E,20µm,14.0s						
UGL				AMS	AMS	15 39 04.0	
	comp=E,16µm,16.0s						
TEY	Ternei	6.78	292	eP	P	15 36 06.0	0.0
JHO	Hitachi	7.29	213	P	P	15 36 10.5	-2.7
JSD	Sado	7.32	231	P	P	15 36 13.3	-0.1
JHK	Hiroka	7.48	224	P	P	15 36 15.2	-0.5
JKT	Katashina	7.74	220	P	P	15 36 19.2	-0.2
JAG	Ashikaga	7.93	218	P	P	15 36 20.5	-1.5
TYV	Tymovskoe	8.25	347	erx	rx	15 36 08.0	
TYV				AMS	AMS	15 39 35.0	
	comp=E,10µm,20.0s						
TYV				AMS	AMS	15 39 35.0	
	comp=E,10µm,20.0s						
TYV				AMS	AMS	15 39 35.0	
	comp=E,14µm,20.0s						
MAJO	Matsushiro	8.44	224	⇑iPN	P	15 36 27.7	-1.3
MAT	Matsushiro	8.44	224	P	P	15 36 27.7	-1.3
MAT				S	S	15 38 01.8	-2.2
MAT	Matsushiro	8.44	224	P	P	15 36 28.4	-0.6
MAT	Matsushiro	8.44	224	eP	P	15 36 28.0	-1.0
	comp=E,353nm,0.9s						
MAT				eS	S	15 38 02.0	-2.0
JNG	Nsakai	8.60	224	P	P	15 36 30.8	-0.4
JJH	Hakui	8.93	231	P	P	15 36 36.3	+0.4
JNT	Takato	8.99	222	P	P	15 36 35.7	-1.0
JGN	Niukaw	9.14	226	P	P	15 36 38.8	0.0
JNY	Yasuok	9.54	221	P	P	15 36 43.6	-0.7
VLA	Vladivostok	9.97	276	⇑iPN	P	15 36 48.0	-2.2
VLA				i		15 38 55.0	
VLA				pmax	pmax		
	comp=E,4µm,3.0s						
VLA				pmax	pmax		
	comp=Z,3µm,3.0s						
VLA				pmax	pmax		
	comp=N,2µm,4.4s						
VLA				MLR	MLR		
	comp=Z,15µm,15.0s						
VLA				MLR	MLR		
	comp=N,3µm,11.0s						
VLA	Vladivostok	9.97	276	i P	P	15 36 48.0	-2.2
VLA				AMB	AMB	15 36 53.0	
	comp=N,6µm,2.0s						
VLA				AMB	AMB	15 36 53.0	
	comp=N,4µm,2.0s						
VLA				AMB	AMB	15 36 53.0	
	comp=N,3µm,2.0s						
VLA				A		15 38 49.0	
	comp=N,4µm,5.0s						
VLA				A		15 38 49.0	
	comp=N,6µm,5.0s						
VLA				A		15 38 49.0	
	comp=N,6µm,7.0s						
VLA				A		15 38 49.0	
	comp=N,2µm,3.6s						
VLA				AMS	AMS	15 40 52.0	
	comp=N,3µm,11.0s						
VLA				AMS	AMS	15 40 52.0	
	comp=N,2µm,11.0s						
VLA				AMS	AMS	15 40 52.0	
	comp=N,2µm,15.0s						
VLA				AMS	AMS	15 40 52.0	
	comp=N,2µm,13.0s						
GRNR	Gornyy	10.06	325	eP	P	15 36 51.0	-0.4
GRNR				AMB	AMB	15 36 55.0	
	comp=N,560nm,1.0s						
GRNR				AMB	AMB	15 36 55.0	
	comp=N,320nm,1.0s						
GRNR				AMB	AMB	15 36 55.0	
	comp=N,590nm,1.0s						
JFM	Mihama	10.38	228	P	P	15 36 56.4	+0.6
SKR	Severo-Kuril's	10.69	39	ePN	P	15 36 54.5	-5.5
SKR				pmax	pmax		

	comp=N,220nm,1.0s						
SKR				pmax	pmax		
	comp=E,220nm,1.0s						
SKR				pmax	pmax		
	comp=Z,360nm,1.0s						
SKR				MLR	MLR		
	comp=N,10µm,18.0s						
SKR				MLR	MLR		
	comp=E,10µm,18.0s						
SKR				MLR	MLR		
	comp=Z,7µm,18.0s						
SKR	**Severo-Kuril’s**	**10.69**	**39**	*e*P	**P**	**15 36 54.5**	**-5.5**
SKR				AMB	AMB	15 37 02.1	
	comp=Z,220nm,1.0s						
SKR				AMB	AMB	15 37 02.1	
	comp=Z,360nm,1.0s						
SKR				*e*S	**S**	**15 38 48.4**	**-11**
SKR				A		15 38 53.4	
	comp=Z,220nm,1.3s						
SKR				A		15 38 53.4	
	comp=Z,710nm,1.3s						
SKR				AMS	AMS	15 41 08.0	
	comp=Z,10µm,18.0s						
SKR				AMS	AMS	15 41 08.0	
	comp=Z,10µm,18.0s						
SKR				AMS	AMS	15 41 08.0	
	comp=Z,7µm,18.0s						
JHJ	**Hachijo jima 2**	**10.70**	**207**	P	**P**	**15 36 59.2**	**-1.0**
	comp=Z,41nm,0.3s,baz=100,slow=19,SNR=7.4						
JHJ				S	**S**	**15 38 49.5**	**-10**
	comp=Z,128nm,0.3s,baz=275,slow=23,SNR=9.5						
NKL	**Nikolayevsk**	**10.79**	**344**	*e*P	**P**	**15 36 56.0**	**-5.4**
NKL				AMB	AMB	15 37 01.8	
	comp=Z,280nm,1.5s						
NKL				AMB	AMB	15 37 01.8	
	comp=Z,180nm,1.5s						
NKL				AMB	AMB	15 37 01.8	
	comp=Z,530nm,1.5s						
NKL				AMS	AMS	15 42 38.0	
	comp=Z,5µm,11.0s						
NKL				AMS	AMS	15 42 38.0	
	comp=Z,2µm,10.0s						
NKL				AMS	AMS	15 42 38.0	
	comp=Z,4µm,13.0s						
JKY	**Yasaka**	**10.81**	**232**	P	**P**	**15 37 01.4**	**-0.2**
OKH	**Okha**	**10.84**	**352**	AMS	AMS	15 41 18.0	
	comp=Z,23µm,17.0s						
OKH				AMS	AMS	15 41 18.0	
	comp=Z,12µm,17.0s						
JWT	**Wachi**	**10.88**	**229**	P	**P**	**15 37 02.6**	**-0.1**
JHE	**Heguri**	**11.20**	**226**	P	**P**	**15 37 05.7**	**-1.3**
JKS	**Kasai**	**11.42**	**230**	P	**P**	**15 37 09.1**	**-0.8**
KLR	**Kul’dur**	**11.48**	**308**	*e*P	**P**	**15 37 08.8**	**-1.8**
KLR				*e*P		15 37 09.0	
KLR				AMB	AMB	15 37 11.8	
	comp=Z,100nm,1.4s						
KLR				AMB	AMB	15 37 11.8	
	comp=Z,300nm,1.4s						
KLR				AMB	AMB	15 37 11.8	
	comp=Z,150nm,1.4s						
KLR				AMB	AMB	15 37 27.5	
	comp=Z,3µm,9.5s						
KLR				AMB	AMB	15 37 27.5	
	comp=Z,6µm,9.5s						
KLR				AMB	AMB	15 37 27.5	
	comp=Z,7µm,9.5s						
KLR				AMS	AMS	15 41 40.5	
	comp=Z,12µm,17.0s						
KLR				AMS	AMS	15 42 09.5	
	comp=Z,2µm,14.0s						
MDJ	**Mudanjiang**	**11.64**	**284**	P	**P**	**15 37 13.9**	**+1.0**
MDJ				XP		15 37 28.3	
MDJ				S	**S**	**15 39 25.0**	**+2.4**
MDJ				SS	SS	15 39 38.6	+1.5
MDJ				AMB	AMB		
	comp=Z,316nm,0.9s						
MDJ				AMB	AMB		
	comp=Z,824nm,5.4s						
MDJ				LR	LR		
	comp=N,5µm,18.8s						
MDJ				LR	LR		
	comp=E,8µm,23.6s						
MDJ				LR	LR		
	comp=Z,11µm,19.2s						
JAD	**Aida**	**11.83**	**232**	P	**P**	**15 37 14.7**	**-0.8**
JAI	**Aioi**	**12.52**	**227**	P	**P**	**15 37 22.3**	**-2.4**
EKMR	**Ekimchan**	**13.21**	**325**	*e*P	**P**	**15 37 31.0**	**-2.9**
EKMR				AMB	AMB	15 37 35.8	
	comp=Z,230nm,1.0s						
EKMR				AMB	AMB	15 37 35.8	
	comp=Z,70nm,1.0s						
EKMR				AMB	AMB	15 37 35.8	
	comp=Z,180nm,1.0s						
PET	**Petropavlovsk**	**13.45**	**36**	*e*PN	**P**	**15 37 43.9**	**+7.0**
PET				*e*S	**S**	**15 40 16.7**	**+11**
PET				pmax	pmax		
	comp=Z,600nm,6.9s						
PET				pmax	pmax		
	comp=Z,1µm,4.8s						
PET				smax			
	comp=E,5µm,32.2s						
KS15	**Wonju Array Si**	**14.50**	**254**	*e*P	**P**	**15 37 49.9**	**-0.9**
KS15				*e*S	**S**	**15 40 35.9**	**+4.8**
CN2	**Changchun**	**14.62**	**281**	*e*P	**P**	**15 37 51.1**	**-1.2**
CN2				*e*AP		15 37 59.1	
CN2				*e*S	**S**	**15 40 31.1**	**-2.8**
CN2				AMB	AMB		
	comp=Z,2µm,12.0s						
CN2				LR	LR		
	comp=N,6µm,13.0s						
CN2				LR	LR		
	comp=E,10µm,13.0s						
CN2				LR	LR		
	comp=Z,11µm,19.0s						
JNU	**Nakatsue**	**15.05**	**235**	P	**P**	**15 37 56.2**	**-1.7**
INCN	**Inchon**	**15.37**	**256**	*e*P	**P**	**15 38 01.1**	**-1.0**
	comp=Z,176nm,1.1s						
YASR	**Yasnyy**	**15.64**	**318**	*e*P	**P**	**15 38 00.3**	**-5.1**
YASR				AMB	AMB	15 38 17.8	
	comp=Z,80nm,1.0s						
YASR				AMB	AMB	15 38 17.8	
	comp=Z,150nm,1.0s						
YASR				AMB	AMB	15 38 17.8	
	comp=Z,300nm,1.0s						
CBIJ	**Chichi jima**	**15.95**	**191**	P	**P**	**15 38 10.8**	**+1.2**
	comp=Z,7.9nm,0.3s,baz=13,slow=19,SNR=4.0						
CBIJ				S	**S**	**15 40 52.6**	**-12**
	comp=Z,22nm,0.3s,baz=94,slow=24,SNR=6.8						
CBIJ				LR	LR	15 44 15.1	
	comp=Z,2µm,20.4s,baz=174,slow=37						
BMKR	**Bomnak**	**16.11**	**323**	*e*P	**P**	**15 38 06.4**	**-5.0**
BMKR				AMB	AMB	15 38 11.4	
	comp=Z,350nm,0.9s						
SNY	**Shenyang**	**16.23**	**274**	⇑P	**P**	**15 38 12.4**	**-0.6**
SNY				S	**S**	**15 41 03.4**	**-8.1**
SNY				AMB	AMB		
	comp=Z,130nm,0.9s						
SNY				LR	LR		
	comp=N,3µm,17.4s						
SNY				LR	LR		
	comp=E,4µm,19.8s						
SNY				LR	LR		
	comp=Z,3µm,13.5s						
ZEA	**Zeya**	**16.26**	**318**	*e*P	**P**	**15 38 09.5**	**-3.7**
ZEA				AMB	AMB	15 38 14.2	
	comp=Z,80nm,0.8s						
ZEA				AMB	AMB	15 38 14.2	
	comp=Z,90nm,0.8s						
ZEA				AMB	AMB	15 38 14.2	
	comp=Z,130nm,0.8s						
ZEA				AMB	AMB	15 38 20.0	
	comp=Z,2µm,4.0s						
ZEA				AMB	AMB	15 38 20.0	
	comp=Z,2µm,4.0s						
ZEA				AMB	AMB	15 38 20.0	
	comp=Z,2µm,4.0s						
ZEA				A		15 41 24.0	
	comp=Z,2µm,11.0s						
ZEA				A		15 41 24.0	
	comp=Z,1µm,11.0s						
ZEA				A		15 41 24.0	
	comp=Z,2µm,11.0s						
KROS	**Kirovskiy**	**16.79**	**320**	*e*P	**P**	**15 38 17.7**	**-2.3**
KROS				AMB	AMB	15 38 21.9	
	comp=Z,99nm,1.0s						
KROS				AMB	AMB	15 38 21.9	
	comp=Z,170nm,1.0s						
KROS				AMB	AMB	15 38 21.9	
	comp=Z,210nm,1.0s						
MA2	**Magadan**	**17.06**	**9**	*e*P	**P**	**15 38 22.5**	**-0.8**
MA2				*e*S	**S**	**15 41 29.0**	**-1.4**
MA2				pmax	pmax		
	comp=Z,60nm,1.2s						
MA2				MLR	MLR		
	comp=Z,4µm,19.5s						
MA2	**Magadan**	**17.06**	**9**	*e*P	**P**	**15 38 22.1**	**-1.2**
	comp=Z,66nm,0.9s						
DL2	**Dalian**	**18.45**	**266**	⇑P	**P**	**15 38 40.3**	**-0.6**
DL2				AP		15 38 49.1	
DL2				XP		15 38 54.6	
DL2				*e*S	**S**	**15 42 02.0**	**0.0**
DL2				AMB	AMB		
	comp=Z,210nm,0.8s						
DL2				AMB	AMB		
	comp=Z,810nm,5.9s						
DL2				LR	LR		
	comp=E,2µm,21.6s						
DL2				LR	LR		
	comp=Z,2µm,20.0s						
CLNS	**Chul’man**	**19.19**	**324**	*e*P	**P**	**15 38 47.8**	**-1.6**
CLNS				*e*S	**S**	**15 42 19.9**	**+1.5**
CLNS				pmax	pmax		
	comp=Z,259nm,0.8s						
CLNS				pmax	pmax		
	comp=N,143nm,0.9s						
CLNS				pmax	pmax		
	comp=E,172nm,1.0s						
CLNS				smax			
	comp=N,92nm,1.1s						
CLNS				smax			
	comp=Z,38nm,1.1s						
CLNS				smax			
	comp=E,121nm,1.0s						
CLNS				MLR	MLR		
	comp=Z,6µm,16.0s						
CLNS				MLR	MLR		
	comp=N,3µm,15.0s						
CLNS				MLR	MLR		
	comp=E,1µm,13.0s						
JTK	**Tokunoshima**	**20.15**	**227**	P	**P**	**15 39 01.0**	**+1.0**
SEY	**Seymchan**	**20.52**	**9**	*e*P	**P**	**15 38 59.7**	**-3.9**
SEY				*e*PPP	PPP	15 39 34.3	0.0
SEY				*e*S	**S**	**15 42 40.5**	**-5.7**
SEY						15 43 08.5	
SEY				SS	SS	15 43 25.9	+8.5
SEY				pmax	pmax		
	comp=Z,330nm,1.0s						
SEY				pmax	pmax		
	comp=E,150nm,1.2s						
SEY				MLR	MLR		
	comp=Z,26µm,21.0s,MS5.6						
SEY				MLR	MLR		
	comp=E,7µm,24.0s						
FX1	**Attu Island--F**	**20.98**	**52**	P	**P**	**15 39 08.3**	**-0.1**
	comp=E,126nm,0.8s,baz=321,slow=1.9,SNR=4.7						
FX1	**Attu Island--F**	**20.98**	**52**	P	**P**	**15 39 08.3**	**-0.1**
FX1				pmax	pmax		
	comp=Z,126nm,0.8s						
FX1	**Attu Island--F**	**20.98**	**52**	*e*P	**P**	**15 39 09.1**	**+0.6**
JOW	**Kunigami**	**21.27**	**227**	P	**P**	**15 39 12.0**	**+0.5**
	comp=Z,417nm,0.9s,mb5.8,baz=35,slow=11,SNR=52						
JOW	**Kunigami**	**21.27**	**227**	P	**P**	**15 39 12.6**	**+1.1**
YAK	**Yakutsk**	**21.38**	**339**	*e*P	**P**	**15 39 13.2**	**+0.8**
YAK				*e*		15 39 29.6	
YAK				*e*S	**S**	**15 43 07.1**	**+4.6**
YAK				*e*SS	SS	15 43 24.6	-14
YAK				pmax	pmax		
	comp=Z,126nm,0.8s,mb5.3						
YAK				pmax	pmax		
	comp=N,79nm,1.1s						
YAK				pmax	pmax		
	comp=E,61nm,1.2s						
YAK				pmax	pmax		
	comp=Z,146nm,0.7s,mb5.4						
YAK				pmax	pmax		
	comp=N,89nm,1.0s						
YAK				pmax	pmax		
	comp=E,54nm,1.0s						
YAK				smax			
	comp=N,102nm,1.1s						
YAK				smax			
	comp=Z,78nm,1.3s						
YAK				smax			
	comp=E,111nm,1.2s						
YAK				MLR	MLR		
	comp=Z,3µm,24.0s,MS4.6						
YAK				MLR	MLR		
	comp=N,2µm,15.0s						
YAK				MLR	MLR		
	comp=E,1µm,15.0s						
YAK	**Yakutsk**	**21.38**	**339**	*e*P	**P**	**15 39 08.3**	**-4.1**
	comp=E,377nm,1.0s,mb5.7						
YAK				*e*S	**S**	**15 43 01.3**	**-1.3**
YAK				LR	LR		
	comp=Z,4µm,21.0s,MS4.8						
JJT2	**Tamagusuku 2**	**22.10**	**227**	P	**P**	**15 39 22.1**	**+2.2**
BJI	**Beijing**	**22.11**	**273**	P	**P**	**15 39 19.4**	**-0.4**
BJI				S	**S**	**15 43 14.6**	**-1.5**
BJI				AMB	AMB		
	comp=Z,722nm,0.9s,mb6.1						
BJI				LR	LR		
	comp=N,3µm,19.5s,MS5.0						
BJI				LR	LR		
	comp=E,5µm,19.5s,MS5.0						
BJI				LR	LR		
	comp=Z,7µm,27.1s						
BJI	**Beijing**	**22.11**	**273**	P	**P**	**15 39 19.4**	**-0.4**
	comp=Z,722nm,0.9s,mb6.1						
BJI				S	**S**	**15 43 14.6**	**-1.5**
BJI				LR	LR		
	comp=Z,7µm,27.1s,MS4.9						
SSE	**Sheshan**	**22.60**	**247**	P	**P**	**15 39 25.4**	**+0.6**
SSE				XP		15 39 40.1	
SSE				S	**S**	**15 43 29.8**	**+4.6**
SSE				XS		15 43 46.8	
SSE				AMB	AMB		
	comp=Z,293nm,1.4s,mb5.5						
SSE				AMB	AMB		
	comp=Z,2µm,8.3s						
SSE				LR	LR		
	comp=N,4µm,19.8s,MS5.0						
SSE				LR	LR		
	comp=E,3µm,19.8s,MS5.0						
SSE				LR	LR		
	comp=Z,6µm,21.5s,MS5.0						
SSE	**Sheshan**	**22.60**	**247**	P	**P**	**15 39 25.4**	**+0.6**
	comp=Z,293nm,1.4s,mb5.5						
SSE				sP		15 39 40.1	
SSE				S	**S**	**15 43 29.8**	**+4.6**
SSE				sS		15 43 46.7	
SSE				LR	LR		
	comp=Z,6µm,21.5s,MS5.0						
TIA	**Tai’an**	**22.80**	**263**	⇑P	**P**	**15 39 25.0**	**-1.6**
TIA				AP		15 39 37.8	
TIA				XP		15 39 46.8	
TIA				S	**S**	**15 43 28.0**	**-0.6**
TIA				AMB	AMB		
	comp=Z,451nm,1.0s,mb5.8						
TIA				AMB	AMB		
	comp=Z,1µm,6.0s						
TIA				LR	LR		
	comp=E,2µm,12.0s						
NJ2	**Nanjing**	**23.64**	**252**	*e*P	**P**	**15 39 36.3**	**+1.4**
NJ2				AP		15 39 45.8	
NJ2				XP		15 39 50.3	
NJ2				S	**S**	**15 43 48.0**	**+4.4**
NJ2				LR	LR		
	comp=N,4µm,20.9s,MS4.9						
NJ2				LR	LR		
	comp=E,500nm,18.1s,MS4.9						
NJ2				LR	LR		
	comp=Z,2µm,22.6s,MS4.6						
BOD	**Bodaibo**	**24.77**	**318**	⇓*e*P	**P**	**15 39 42.5**	**-3.0**
HHC	**Hu-ho-hao-te**	**25.26**	**277**	*e*P	**P**	**15 39 51.3**	**+0.9**
HHC				AP	pP	15 40 00.6	-0.1
HHC				XP	sP	15 40 04.3	-0.9
HHC				PP	PP	15 40 29.5	+0.1
HHC				PCP	PcP	15 43 26.1	+2.3
HHC				S	**S**	**15 44 08.8**	**-2.1**
HHC				XS		15 44 24.4	
HHC				SS	SS	15 45 09.4	-3.7
HHC				SCP		15 47 01.8	
HHC				PCS		15 47 07.3	
HHC				AMB	AMB		
	comp=Z,265nm,1.0s,mb5.7						
HHC				AMB	AMB		
	comp=Z,3µm,3.9s						
HHC				LR	LR		
	comp=N,1µm,10.5s,MS5.0						
HHC				LR	LR		
	comp=E,2µm,15.2s,MS5.0						
HHC				LR	LR		
	comp=Z,3µm,27.7s						
BTO	**Baotou**	**26.45**	**277**	*e*P	**P**	**15 40 02.0**	**+0.5**
BTO				S	**S**	**15 44 23.8**	**-6.8**
BTO				AMB	AMB		
	comp=Z,447nm,1.0s,mb6.0						
BTO				LR	LR		
	comp=N,526nm,3.4s						
TATO	**Taipei**	**26.59**	**236**	*e*P	**P**	**15 40 05.2**	**+2.2**
	comp=N,208nm,0.8s,mb5.7						
ULN	**Ulaanbaatar**	**27.27**	**294**	⇑*i*P	**P**	**15 40 08.0**	**-1.0**
ULN	**Ulaanbaatar**	**27.27**	**294**	⇑*i*P	**P**	**15 40 08.6**	**-0.4**
	comp=N,241nm,0.9s,mb5.7						
ULN				LR	LR		
	comp=Z,11µm,19.0s,MS5.4						
BILL	**Bilibino**	**27.57**	**17**	*e*P	**P**	**15 40 09.1**	**-2.3**
BILL				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.9						
BILL	**Bilibino**	**27.57**	**17**	*e*P	**P**	**15 40 09.1**	**-2.3**
	comp=Z,28nm,0.9s,mb4.9						
WHN	**Wuhan**	**27.66**	**254**	⇑P	**P**	**15 40 13.0**	**+0.3**
WHN				AP	pP	15 40 24.0	+0.8
WHN				AMB	AMB		
	comp=Z,351nm,1.0s,mb6.0						
WHN				AMB	AMB		
	comp=Z,651nm,5.0s						
WHN				LR	LR		
	comp=N,3µm,16.0s,MS4.9						
WHN				LR	LR		
	comp=E,773nm,16.0s,MS4.9						
WHN				LR	LR		
	comp=Z,11µm,23.0s						
SONM	**Songino Array**	**27.71**	**294**	P	**P**	**15 40 12.6**	**-0.5**
	comp=Z,263nm,0.8s,mb5.9,baz=83,slow=8.1,SNR=788						
QZH	**Quanzhou**	**28.41**	**240**	⇑*i*P	**P**	**15 40 20.9**	**+1.4**
QZH				S	**S**	**15 45 09.0**	**+6.6**
QZH				XS		15 45 24.5	
QZH				AMB	AMB		
	comp=Z,190nm,0.8s,mb5.8						
QZH				LR	LR		
	comp=N,2µm,10.5s,MS5.2						
QZH				LR	LR		
	comp=E,3µm,13.2s,MS5.2						
QZH				LR	LR		
	comp=Z,6µm,24.3s						
IRK	**Irkutsk**	**29.01**	**303**	*e*P	**P**	**15 40 23.5**	**-1.0**
TLY	**Talaya**	**29.39**	**302**	*e*P	**P**	**15 40 26.7**	**-1.2**
TLY				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.3						
TLY	**Talaya**	**29.39**	**302**	*e*P	**P**	**15 40 26.7**	**-1.2**
	comp=Z,57nm,1.0s,mb5.3						
ZAK	**Zakamensk**	**29.63**	**300**	⇓*e*P	**P**	**15 40 29.1**	**-0.9**
ZAK				*e*		15 43 31.3	
XAN	**Xi’an**	**29.77**	**265**	P	**P**	**15 40 30.8**	**-0.7**
XAN				S	**S**	**15 45 17.6**	**-6.4**
XAN				AMB	AMB		
	comp=Z,165nm,1.1s,mb5.7						
XAN				LR	LR		
	comp=N,538nm,13.7s,MS4.7						
XAN				LR	LR		
	comp=E,1µm,17.6s,MS4.7						
XAN				LR	LR		
	comp=Z,2µm,25.6s						
TIXI	**Tiksi**	**30.01**	**350**	*e*P	**P**	**15 40 27.4**	**-5.8**
TIXI				*e*S	**S**	**15 45 34.7**	**+7.3**
TIXI				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.0						
MOY	**Mondy**	**31.04**	**302**	*e*P	**P**	**15 40 41.6**	**-0.9**
LZH	**Lanzhou**	**32.60**	**272**	⇑P	**P**	**15 40 57.1**	**+0.7**
LZH				AP	pP	15 41 07.8	+0.7
LZH				XP	sP	15 41 14.1	+2.1
LZH				PP	PP	15 42 04.1	-1.6
LZH				S	**S**	**15 46 07.0**	**-1.3**
LZH				XS		15 46 22.0	
LZH				SS	SS	15 48 06.0	-0.5
LZH				AMB	AMB		
	comp=Z,470nm,1.2s,mb6.3						
LZH				AMB	AMB		
	comp=Z,1µm,5.9s						
LZH				LR	LR		
	comp=E,3µm,14.8s						
LZH				LR	LR		
	comp=Z,6µm,21.1s						
LZH	**Lanzhou**	**32.60**	**272**	⇑P	**P**	**15 40 57.1**	**+0.7**
	comp=Z,470nm,1.2s,mb6.3						
LZH				pP	pP	15 41 07.7	+0.6
LZH				sP	sP	15 41 14.1	+2.1
LZH				PP	PP	15 42 04.1	-1.6
LZH				S	**S**	**15 46 07.0**	**-1.3**
LZH				sS		15 46 22.0	
LZH				SS	SS	15 48 06.0	-0.5
LZH				LR	LR		
	comp=Z,6µm,21.1s,MS5.3						
GTA	**Gaotai**	**34.26**	**280**	⇑*i*P	**P**	**15 41 10.8**	**+0.1**
GTA				AP	pP	15 41 20.5	-0.9
GTA				XP	sP	15 41 25.0	-1.3
GTA				PP	PP	15 42 26.5	+0.2
GTA				PPP	PPP	15 42 44.3	0.0
GTA				PCP	PcP	15 43 47.6	+0.8
GTA				S	**S**	**15 46 33.6**	**-0.4**
GTA				XS		15 46 51.5	
GTA				SCP		15 47 28.8	
GTA				PCS		15 47 33.1	
GTA				SS	SS	15 48 46.1	+1.5
GTA				SCS	ScS	15 51 29.4	+0.9
GTA				AMB	AMB		
	comp=Z,108nm,1.0s,mb5.7						
GTA				AMB	AMB		
	comp=Z,628nm,5.7s						
GTA				LR	LR		
	comp=N,2µm,15.2s,MS5.1						
GTA				LR	LR		
	comp=E,3µm,20.2s,MS5.1						
GTA				LR	LR		
	comp=Z,4µm,19.4s,MS5.2						
ANM	**Nome**	**35.02**	**35**	*e*P	**P**	**15 41 17.0**	**+0.1**
CD2	**Chengdu**	**35.11**	**264**	P	**P**	**15 41 18.4**	**+0.3**
CD2				AP	pP	15 41 29.9	+1.1
CD2				PPP	PPP	15 42 55.6	0.0
CD2				S	**S**	**15 46 46.4**	**-0.9**
CD2				XS		15 47 05.0	
CD2				SS	SS	15 49 02.1	-2.3
CD2				AMB	AMB		
	comp=Z,800nm,0.8s,mb6.7						
CD2				LR	LR		
	comp=N,2µm,15.6s						
CD2				LR	LR		
	comp=Z,2µm,25.8s						
GYA	**Guiyang**	**35.52**	**255**	⇑*i*P	**P**	**15 41 21.9**	**+0.3**
GYA				AP	pP	15 41 32.3	-0.1
GYA				XP	sP	15 41 37.8	+0.5
GYA				S	**S**	**15 47 00.0**	**+6.2**
GYA				SCP		15 47 29.5	
GYA				SCS	ScS	15 51 32.6	-2.8
GYA				AMB	AMB		
	comp=Z,260nm,0.9s,mb6.2						
GYA				AMB	AMB		
	comp=Z,850nm,9.0s						
GYA				LR	LR		
	comp=N,3µm,22.1s,MS5.1						
GYA				LR	LR		
	comp=E,2µm,23.3s,MS5.1						
GYA				LR	LR		
	comp=Z,3µm,20.6s,MS5.0						
TGY	**Tagaytay City**	**35.60**	**224**	P	**P**	**15 41 23.4**	**+1.0**
	comp=Z,693nm,1.1s,mb6.5,baz=163,slow=4.1,SNR=13						
TGY	**Tagaytay City**	**35.60**	**224**	P	**P**	**15 41 23.4**	**+1.0**
TGY				pmax	pmax		
	comp=Z,693nm,1.1s						
QIZ	**Qiongzhong**	**38.28**	**243**	P	**P**	**15 41 46.3**	**+1.4**
QIZ				PP	PP	15 43 18.4	+2.1
QIZ				PPP	PPP	15 43 39.0	+0.2
QIZ				S	**S**	**15 47 35.5**	**-0.5**
QIZ				AMB	AMB		
	comp=Z,76nm,1.1s,mb5.3						
QIZ				AMB	AMB		

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      comp=Z,550nm,7.2s
QIZ                               LR      LR
      comp=E,3µm,22.8s
QIZ                               LR      LR
      comp=Z,3µm,22.3s,MS5.1
KMI   Kunming           39.14 257 eP      P        15 41 53.4 +1.5
KMI                               AP      pP       15 42 03.8 +1.0
KMI                               XP      sP       15 42 08.0 +0.4
KMI                               PP      PP       15 43 25.5  -0.4
KMI                               PPP     PPP      15 43 50.4 +0.5
KMI                               S       S        15 47 48.8  -0.1
KMI                               XS               15 48 06.4
KMI                               SS      SS       15 50 32.6  -2.2
KMI                               SSS     SSS      15 51 06.6  -2.8
KMI                               SCS     ScS      15 51 58.1 +2.3
KMI                               AMB     AMB
      comp=Z,383nm,1.0s,mb6.1
KMI                               AMB     AMB
      comp=Z,1µm,4.1s
KMI                               LR      LR
      comp=N,1µm,16.4s
KMI                               LR      LR
      comp=E,2µm,23.1s
KMI                               LR      LR
      comp=Z,2µm,24.3s
KMI   Kunming           39.14 257 eP      P        15 41 53.4 +1.5
      comp=Z,383nm,1.0s,mb6.1
KMI                               pP      pP       15 42 03.8 +1.0
KMI                               sP      sP       15 42 08.0 +0.4
KMI                               PP      PP       15 43 25.5  -0.4
KMI                               PPP     PPP      15 43 50.4 +0.5
KMI                               S       S        15 47 48.8  -0.1
KMI                               sS               15 48 06.4
KMI                               SS      SS       15 50 32.6  -2.2
KMI                               SSS     SSS      15 51 06.6  -2.8
KMI                               ScS     ScS      15 51 58.1 +2.3
KMI                               LR      LR
      comp=Z,2µm,24.3s,MS5.0
IMA   Indian Mountai    40.10  34 eP      P        15 41 59.5   0.0
ZAL   Zalesovo          40.60 308 P       P        15 42 02.7  -1.0
      comp=Z,27nm,0.8s,mb4.9,baz=30,slow=9.6,SNR=160
ZAL                               PcP     PcP      15 44 04.8  -1.2
      comp=Z,38nm,0.8s,baz=34,slow=4.3,SNR=9.3
ZAL                               LR      LR       16 00 43.3
      comp=Z,10µm,18.5s,MS5.7,baz=29,slow=39
ZAL   Zalesovo          40.60 308 P       P        15 42 02.7  -1.0
ZAL                                                15 44 04.8
ZAL                               pmax    pmax
      comp=Z,27nm,0.8s
ZAL                               MLR     MLR
      comp=Z,10µm,18.5s
ZAL   Zalesovo          40.60 308 P       P        15 42 02.7  -1.0
ZAL                               PcP     PcP      15 44 04.8  -1.2
ZAL                               LR      LR       16 00 43.3
KDAK  Kodiak Island     40.75  46 PFAKE            15 42 20.0  +15
KDAK                              LR      LR
      comp=Z,1µm,22.0s,MS4.7
WMQ   Urumqi            41.30 292 ⇑P      P        15 42 11.0 +1.3
WMQ                               AP      pP       15 42 21.0 +0.4
WMQ                               XP      sP       15 42 25.0  -0.3
WMQ                               PP      PP       15 43 49.8 +1.6
WMQ                               PCP     PcP      15 44 10.3 +1.9
WMQ                               S       S        15 48 22.0 +0.9
WMQ                               AMB     AMB
      comp=Z,169nm,0.9s,mb5.7
WMQ                               LR      LR
      comp=N,870nm,16.0s,MS5.4
WMQ                               LR      LR
      comp=E,4µm,16.8s,MS5.4
WMQ                               LR      LR
      comp=Z,10µm,17.6s,MS5.7
NVS   Novosibirsk       41.34 309⇑iP      P        15 42 08.4  -1.5
NVS                              e                 15 44 06.5
NVS                              eS       S        15 48 17.9  -3.6
NVS                               pmax    pmax
      comp=E,75nm,1.3s
NVS                               pmax    pmax
      comp=Z,99nm,1.3s,mb5.3
NVS                               smax
      comp=N,135nm,2.1s
PMR   Palmer            42.13  40 eP      P        15 42 14.5  -1.6
PMR                               LR      LR
      comp=Z,2µm,20.0s,MS5.0
COLA  College           42.51  35⇑eP      P        15 42 19.4 +0.2
      comp=Z,121nm,1.0s,mb5.6
COLA                              LR      LR
      comp=Z,1µm,20.0s,MS4.7
ILAR  Eielson Array     42.93  36 P       P        15 42 22.1  -0.6
      comp=Z,52nm,1.0s,mb5.2,baz=258,slow=6.2,SNR=80
ILAR  Eielson Array     42.93  36 P       P        15 42 22.1  -0.5
ILAR                              pmax    pmax
      comp=Z,52nm,1.0s
MKAR  Makanchi Array    43.93 298 i P     P        15 42 30.7  -0.3
MKAR                              pmax    pmax
      comp=Z,349nm,0.8s
MKAR  Makanchi Array    43.93 298 i P     P        15 42 30.8  -0.2
MENT  Mentasta          44.50  38 eP      P        15 42 35.7 +0.3
CHRT  Chiangrai         44.58 254 ⇓P      P        15 42 36.5  -0.1
      comp=Z,2µm,0.8s
NANT  Nan               44.65 252 ⇑P      P        15 42 38.0 +0.9
      comp=Z,251nm,1.0s,mb6.0
IMP   Imphal            45.73 264 eP      P        15 42 44.5  -1.2
IMP                               e                15 49 37.3
CHG   Chiang Mai        45.87 253 ⇑P      P        15 42 48.0 +1.1
      comp=Z,150nm,1.0s,mb5.9
CHG                               S       S        15 49 40.5  +13
CM31  Chiang Mai Arr    46.11 253⇑iP      P        15 42 49.6 +0.8
      comp=Z,68nm,0.7s,mb5.7
CMAR  Chiang Mai Arr    46.11 253 P       P        15 42 49.5 +0.8
      comp=Z,40nm,0.8s,mb5.4,baz=37,slow=7.4,SNR=312
CMAR                              LR      LR       16 02 23.7
      comp=Z,3µm,21.6s,MS5.2,baz=55,slow=36
CMAR  Chiang Mai Arr    46.11 253 P       P        15 42 49.6 +0.8
CMAR                              pmax    pmax
      comp=Z,40nm,0.8s
CMAR                              MLR     MLR
      comp=Z,3µm,21.6s
DAWY  Dawson            46.24  36 eP      P        15 42 48.8  -0.4
SHL   Shillong          46.77 266⇑eP      P        15 42 54.0 +0.1
SHL                               e                15 49 52.0
BDT   Bhumibol Dam      46.88 252 P       P        15 42 56.0 +1.2
NST   Nakhon Sawan      47.18 249 P       P        15 43 00.0 +2.8
INK   Inuvik            47.79  30⇑eP      P        15 43 00.7  -0.6
INK                               e       pP       15 43 11.6  -0.7
INK                               pmax    pmax
      comp=Z,58nm,1.0s
INK   Inuvik            47.79  30⇑eP      P        15 43 00.7  -0.7
      comp=Z,58nm,1.0s,mb5.6
INK                               e       pP       15 43 11.6  -0.7
AGT   Agartala          48.23 265⇓iP      P        15 43 06.0 +0.7
AGT                               i                15 44 08.0
AAA   Alma-Ata          48.75 295 eP      P        15 43 08.0  -1.1
AAA                               eS      S        15 50 23.0  +15
AAA                               MLR     MLR
      comp=Z,2µm,16.0s,MS5.3
CHKZ  Chkalovo          48.79 310⇑iP      P        15 43 07.8  -1.5
CHKZ                              pmax    pmax
      comp=Z,170nm,1.0s,mb6.0
CHKZ  Chkalovo          48.79 310⇑iP      P        15 43 07.8  -1.5
      comp=Z,171nm,1.1s,mb6.0
BVAR  Borovoye Array    49.14 309 P       P        15 43 11.2  -0.8
      comp=Z,40nm,0.6s,mb5.7,baz=80,slow=9.1,SNR=250
BVAR                              pP      pP       15 43 25.6 +2.6
      comp=Z,65nm,0.9s,baz=87,slow=7.5,SNR=9.1
BRVK  Borovoye          49.19 310⇑iP      P        15 43 11.4  -0.9
      comp=Z,121nm,1.1s,mb5.8
BRVK                              LR      LR
      comp=Z,1µm,20.0s,MS4.9
NNT   Nongplab          49.63 247 P       P        15 43 18.0 +1.7
ULHL  Ulahol            49.66 294 P       P        15 43 16.4 +0.3
      SNR=40
TKM2  Tokmak 2          49.80 295 P       P        15 43 17.4 +0.2
      SNR=369
GUN   Gumba             49.85 273 eP      P        15 43 17.8   0.0
      comp=Z,563nm,0.8s,mb6.7
CHMS  Chumysh           50.33 296 P       P        15 43 20.9  -0.4
      SNR=30
KBK   Karagaybulak      50.34 295 P       P        15 43 21.5 +0.2
      SNR=306
KKN   Kakani            50.36 273 eP      P        15 43 21.7   0.0
      comp=Z,320nm,0.8s,mb6.4
USP   Ospenovka         50.38 296 P       P        15 43 21.4  -0.2
      SNR=133
PKI   Pulchoki          50.39 273 eP      P        15 43 21.7  -0.2
      comp=Z,327nm,1.1s,mb6.3
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KZA   Kyzart            50.40 295 P       P        15 43 22.9 +1.1
      SNR=130
FRU   Bishkek           50.49 296⇑iP      P        15 43 22.5 +0.1
FRU                               pmax    pmax
      comp=Z,400nm,2.2s,mb6.1
DMN   Daman             50.59 273 eP      P        15 43 23.6 +0.2
      comp=Z,470nm,0.9s,mb6.4
AAK   Ala-Archa         50.66 296 P       P        15 43 23.6  -0.2
      SNR=60
AAK   Ala-Archa         50.66 296c iP     P        15 43 22.5  -1.2
AAK                               pmax    pmax
      comp=Z,110nm,1.2s,mb5.7
AAK   Ala-Archa         50.66 296⇑iP      P        15 43 22.1  -1.6
      comp=Z,57nm,0.7s,mb5.6
AAK                               LR      LR
      comp=Z,783nm,20.0s,MS4.7
GKN   Gorkha            50.72 274 eP      P        15 43 24.1  -0.3
      comp=Z,238nm,0.7s,mb6.2
UCH   Uchtor            50.82 295 P       P        15 43 25.4 +0.4
      SNR=38
KSH   Kashi             51.06 291⇑iP      P        15 43 27.6 +0.7
KSH                               AP      pP       15 43 38.0 +0.1
KSH                               XP      sP       15 43 42.1  -0.4
KSH                               PCP     PcP      15 44 43.3 +0.8
KSH                               PP      PP       15 45 24.6 +0.3
KSH                               PPP     PPP      15 46 23.6  -1.1
KSH                              eSCP              15 48 34.3
KSH                              ePCS              15 48 38.1
KSH                               S       S        15 50 39.8  -0.4
KSH                               PS      PS       15 50 54.4 +0.3
KSH                              eXS               15 50 58.1
KSH                              eSCS     ScS      15 53 12.4 +1.4
KSH                              eSS      SS       15 54 14.1 +0.8
KSH                               AMB     AMB
      comp=Z,690nm,3.4s
KSH                               LR      LR
      comp=N,4µm,17.1s,MS5.6
KSH                               LR      LR
      comp=E,3µm,17.6s,MS5.6
EKS2  Erkin-Say         51.12 296 P       P        15 43 27.1  -0.1
      SNR=89
CAL   Calcutta          51.17 266 eP      P        15 43 25.7  -2.2
CAL                               e                15 45 28.9
AML   Almayashu         51.41 295 P       P        15 43 30.0 +0.6
      SNR=88
KOLN  Koldanda          51.60 274 eP      P        15 43 31.1   0.0
      comp=E,729nm,1.2s,mb6.5
PMG   Port Moresby      52.02 178 P       P        15 43 34.8 +0.4
      comp=E,3.4nm,0.6s,baz=325,slow=17,SNR=2.9
PMG                               LR      LR       16 02 25.0
      comp=E,760nm,20.6s,MS4.7,baz=233,slow=32
DLBC  Dease Lake        52.16  42 P       P        15 43 35.0 +0.2
      comp=E,7.5nm,0.9s,mb4.6,baz=294,slow=7.0,SNR=8.7
DLBC  Dease Lake        52.16  42 eP      P        15 43 35.4 +0.6
SVE   Sverdlovsk        52.97 317⇑iP      P        15 43 40.0  -0.9
SVE                               e                15 44 47.0
SVE                               pmax    pmax
      comp=Z,290nm,2.0s,mb5.9
SNG   Songkhla          53.04 241 P       P        15 43 43.0 +1.0
      comp=Z,590nm,1.0s,mb6.5
PTH   Pithoragarh       53.09 278 eP      P        15 43 41.8  -0.4
PTH                               eS      S        15 51 06.2  -2.0
LGTI  Lohaghat          53.13 278⇑iP      P        15 43 43.5 +1.0
KLP   Kalpa             53.45 281⇑iP      P        15 43 45.3 +0.5
KLP                               e                15 43 47.0
      comp=Z,457nm,1.4s
KLP                               eS      S        15 51 15.0 +2.1
ARU   Arti              54.17 317⇑iP      P        15 43 48.3  -1.5
ARU                               i                15 44 52.4
ARU                               e                15 45 53.3
ARU                               ePPP    PPP      15 46 57.6  -6.2
ARU                               eS      S        15 51 23.7 +1.3
ARU                               pmax    pmax
      comp=Z,130nm,0.9s,mb5.9
ARU                               MLR     MLR
      comp=Z,2µm,18.0s,MS5.2
ARU                               MLR     MLR
      comp=N,800nm,16.0s
ARU                               MLR     MLR
      comp=E,1µm,22.0s
DDI   Dehra Dun         54.24 280⇑eP      P        15 43 49.1  -1.6
DDI                               eS      S        15 51 26.8 +3.1
ALBI  Allahabad         54.33 273 eP      P        15 43 47.5  -3.9
SDNR  Sundarnagar       54.38 282 e       PcP      15 44 52.0  -3.1
SMLA  Simla             54.44 282⇑i       sP       15 44 05.2  -2.7
      comp=E,183nm,0.6s
SMLA                              i                15 51 39.0
      comp=E,91nm,0.9s
DLH   Dalhousie         54.55 284 eP      P        15 43 51.0  -1.9
THN   Thein Dam         54.78 284 eP      P        15 43 52.3  -2.3
      comp=E,2.7nm,1.1s
THN                               e                15 51 51.4
BHK   Bhakra            54.83 282 eP      P        15 43 56.6 +1.7
KKR   Kurukshetra       55.33 281 eP      P        15 43 57.7  -0.9
KKR                               e                15 43 59.4
      comp=Z,411nm,0.6s
NDI   New Delhi         55.76 279 eP      P        15 44 00.0  -1.7
      comp=Z,914nm,0.5s
NDI                               eS      S        15 51 43.5  -0.5
BBB   Bella Bella       55.78  48 P       P        15 44 00.7  -0.8
      comp=Z,17nm,0.9s,mb5.1,baz=270,slow=6.1,SNR=2.8
AYAN  Aya Nagar         55.93 279⇑iP      P        15 44 02.4  -0.6
AYAN                              e                15 44 03.7
      comp=Z,331nm,0.9s
BLSP  Bilaspur          55.98 270 eP      P        15 44 02.1  -1.2
BLSP                              e                15 46 08.1
AGRA  Agra              56.05 277⇑iP      P        15 44 03.3  -0.5
AGRA                              e                15 44 04.4
RES   Resolute Bay      56.17  16⇑iP      P        15 44 02.3  -1.8
RES                               e       pP       15 44 14.1  -1.2
RES                               pmax    pmax
      comp=Z,460nm,0.9s,mb6.5
RES   Resolute Bay      56.17  16⇑iP      P        15 44 02.3  -1.8
      comp=Z,456nm,0.9s,mb6.5
RES                               e       pP       15 44 14.1  -1.3
KAKA  Kakadu            56.57 195⇑iP      P        15 44 07.2  -0.5
      comp=Z,57nm,0.7s,mb5.7
KUDL  Kundal            56.59 279⇑iP      P        15 44 06.7  -0.9
KUDL                              e                15 44 09.1
      comp=Z,253nm,0.9s
KHET  Khetri            57.12 279⇓iP      P        15 44 10.7  -0.9
KHET                              e                15 44 11.8
      comp=E,69nm,0.7s
KHET                              e                15 44 12.6
      comp=N,55nm,0.9s
KHET                              eS      S        15 52 01.1  -1.1
YKW3  Yellowknife Ar    57.18  33 eP      P        15 44 09.9  -1.5
YKW3                              e       pP       15 44 21.3  -1.4
YKA   Yellowknife Ar    57.22  33 P       P        15 44 10.5  -1.2
      comp=N,14nm,0.8s,mb5.0,baz=303,slow=7.1,SNR=123
YKA   Yellowknife Ar    57.22  33 P       P        15 44 10.5  -1.2
YKA                               pmax    pmax
      comp=Z,14nm,0.8s
YKA   Yellowknife Ar    57.22  33 P       P        15 44 10.5  -1.2
BJO   Bjornoya          57.61 345 AMS     AMS      16 12 42.2
      comp=Z,732nm,16.7s,MS4.9
VIS   Vishakhapatnam    57.84 265⇓iP      P        15 44 16.7 +0.1
VIS                               e                15 44 17.5
      comp=Z,77nm,0.7s
LVZ   Lovozero          58.12 335 eP      P        15 44 14.9  -3.0
LVZ                               pmax    pmax
      comp=Z,117nm,1.0s,mb5.9
LVZ                               pmax    pmax
      comp=N,27nm,0.9s
LVZ                               pmax    pmax
      comp=E,19nm,0.9s
LVZ                               pmax    pmax
      comp=Z,155nm,1.2s,mb5.9
LVZ                               pmax    pmax
      comp=N,30nm,1.1s
LVZ                               pmax    pmax
      comp=E,117nm,1.8s
LVZ                               MLR     MLR
      comp=Z,1µm,14.0s,MS5.2
LVZ                               MLR     MLR
      comp=N,766nm,17.0s,MS5.1
LVZ                               MLR     MLR
      comp=E,944nm,16.0s,MS5.1
APA   Apatity           58.69 335⇑iP      P        15 44 19.7  -2.2
APA                               i                15 44 36.3
APA                               eS      S        15 52 21.0  -1.1
APA                               pmax    pmax
      comp=Z,92nm,0.9s,mb5.8
APA                               MLR     MLR
      comp=Z,3µm,17.0s,MS5.5
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BHPL  Bhopal            58.77 274⇑iP      P        15 44 21.9  -1.1
      comp=Z,83nm,1.0s,mb5.7
AJM   Ajmer             58.89 279⇑iP      P        15 44 23.0  -0.8
KEV   Kevo              59.13 339 ep      P        15 44 22.9  -2.0
      comp=Z,1.6nm,0.3s
ARCES ARCESS Array B    59.66 339 P       P        15 44 26.3  -2.3
      comp=Z,49nm,0.8s,mb5.6,baz=53,slow=6.1,SNR=31
ARCES                             LR      LR       16 15 43.8
      comp=Z,2µm,19.8s,MS5.2,baz=33,slow=42
OCWA  Octopus Mounta    60.19  51 PFAKE            15 44 40.0 +7.5
OCWA                              LR      LR
      comp=Z,2µm,21.0s,MS5.2
DAG   Danmarks Havn     60.23 356⇑eP      P        15 44 30.0  -2.5
DAG                               pmax    pmax
      comp=Z,46nm,1.0s,mb5.5
DAG   Danmarks Havn     60.23 356⇑eP      P        15 44 30.0  -2.5
      comp=Z,46nm,1.0s,mb5.5
DAG   Danmarks Havn     60.23 356⇑iP      P        15 44 30.0  -2.5
      comp=Z,46nm,1.0s,mb5.5
AKL   Akola             60.61 272 eP      P        15 44 36.7 +0.9
      comp=Z,200nm,0.9s,mb6.2
AKL                               i       pP       15 44 45.5  -1.5
KTK1  Kautokeino        60.61 340 eP      P        15 44 34.4  -0.7
KTK1                              AMb     AMB      15 44 36.0
      comp=Z,173nm,1.0s,mb6.2
KTK1  Kautokeino        60.61 340 eP      P        15 44 34.4  -0.7
      comp=Z,173nm,1.0s,mb6.1
TRO   Tromso            61.23 341 eP      P        15 44 36.8  -2.4
TRO                               AMS     AMS      16 14 19.9
      comp=Z,2µm,22.1s,MS5.1
JASL  Jaisalmer         61.34 281⇑i       P        15 44 34.9  -5.7
HYB   Hyderabad         61.53 268⇑eP      P        15 44 41.0  -1.0
      comp=Z,200nm,1.0s,mb6.2
HYB                               e       pP       15 44 53.5 +0.2
HYB                               eS      S        15 53 00.0 +0.7
HYB   Hyderabad         61.53 268⇑iP      P        15 44 41.0  -1.0
      comp=Z,200nm,1.0s,mb6.2
HYB                               epP     pP       15 44 53.5 +0.2
HYB                               ePcP    PcP      15 45 22.0  -1.3
HYB                               eS      S        15 53 00.0 +0.7
LATR  Latur             62.37 270 eP      P        15 44 46.2  -1.4
CTA   Charters Tower    62.63 179 eP      P        15 44 48.6  -0.7
      comp=Z,10nm,0.9s,mb5.0
CTA   Charters Tower    62.63 179 P       P        15 44 48.8  -0.5
      comp=Z,6.7nm,0.9s,mb4.8,baz=346,slow=8.5,SNR=8.0
CTA                               LR      LR       16 08 36.6
      comp=Z,562nm,21.9s,MS4.7,baz=2.9,slow=33
CTAO  Charters Tower    62.63 179 eP      P        15 44 46.9  -2.4
      comp=Z,19nm,0.9s,mb5.2
CTAO                              LR      LR
      comp=Z,605nm,20.0s,MS4.8
NAC   Naches            62.65  51 P       P        15 44 49.6 +0.5
EBG   Ellensburg        62.70  50 P       P        15 44 49.8 +0.4
EDM   Edmonton          62.88  42⇑eP      P        15 44 49.5  -1.1
EDM                               e       pP       15 45 00.6  -1.3
MDRS  Chennai           63.11 263⇑eP      P        15 44 52.0  -0.6
MDRS                              e                15 47 20.0
MDRS                              e                15 52 33.0
MDRS                              e                15 55 30.0
MDRS                              e                16 01 34.0
WRAB  Tennant Creek     63.31 192c iP     P        15 44 52.7  -1.1
WRAB  Tennant Creek     63.31 192⇑eP      P        15 44 52.5  -1.4
      comp=Z,22nm,0.9s,mb5.3
WRAB                              LR      LR
      comp=Z,219nm,22.0s,MS4.3
WRA   Warramunga Arr    63.32 192 P       P        15 44 52.2  -1.7
      comp=Z,12nm,0.8s,mb5.0,baz=12,slow=7.0,SNR=80
WRA   Warramunga Arr    63.32 192 i P     P        15 44 52.8  -1.1
WRA                               pmax    pmax
      comp=Z,12nm,0.8s
HBO   Huckleberry Mo    63.42  54 P       P        15 44 54.8 +0.5
BHV   Bhavnagar         63.54 276 eP      P        15 44 54.5  -0.9
HAWA  Hanford           63.58  50 eP      P        15 44 54.8  -0.4
      comp=Z,52nm,1.3s,mb5.4
HAWA                              e       pP       15 45 06.3  -0.3
HAWA                              LR      LR
      comp=Z,1µm,21.0s,MS5.2
HUMO  Hull Mountain     63.75  55 eP      P        15 44 58.5 +2.2
      comp=Z,21nm,1.0s,mb5.1
HUMO                              e                15 45 15.2
HUMO                              LR      LR
      comp=Z,1µm,22.0s,MS5.1
NEW   Newport           63.84  48 eP      P        15 44 56.0  -0.8
NEW                               e       pP       15 45 07.5  -0.7
NEW                               pmax    pmax
      comp=Z,46nm,1.0s
NEW   Newport           63.84  48 eP      P        15 44 56.0  -0.8
      comp=Z,46nm,1.0s,mb5.5
NEW                               e       pP       15 45 07.5  -0.7
POO   Poona             64.29 272 i P     P        15 44 57.5  -2.7
      comp=Z,290nm,1.0s,mb6.3
MOS   Moscow            64.45 323⇑iP      P        15 44 59.5  -1.2
MOS                               e       pP       15 45 13.7 +1.6
MOS                               e                15 45 33.4
MOS                               e                15 47 20.4
MOS                               ePPP    PPP      15 48 51.8  -5.7
MOS                               eS      S        15 53 36.4 +1.2
MOS                               e                15 54 47.4
MOS                               pmax    pmax
      comp=Z,347nm,1.7s,mb6.1
MOS                               MLR     MLR
      comp=Z,2µm,17.3s,MS5.5
KAF   Kangasniemi       64.57 333 ep      P        15 44 59.4  -1.9
      comp=Z,154nm,1.0s,mb6.0,baz=50,slow=6.3
KAF   Kangasniemi       64.57 333 eP      P        15 44 59.4  -1.9
KAF                               pmax    pmax
      comp=Z,154nm,1.0s,mb6.0
PUL   Pulkovo           64.78 330 eP      P        15 45 01.2  -1.5
PUL                               pmax    pmax
      comp=E,194nm,0.8s
PUL                               pmax    pmax
      comp=Z,274nm,0.8s,mb6.3
PUL                               pmax    pmax
      comp=N,251nm,0.9s
PUL                               MLR     MLR
      comp=N,2µm,18.0s,MS5.6
PUL                               MLR     MLR
      comp=Z,4µm,18.0s,MS5.7
PUL                               MLR     MLR
      comp=E,3µm,22.0s,MS5.6
PUL   Pulkovo           64.78 330 i Pr    P        15 45 01.0  -1.7
KAD   Karad             64.82 271⇑iP      P        15 45 02.9  -0.8
SUMG  Summit            64.84   1⇑eP      P        15 45 02.4  -0.6
      comp=E,142nm,0.9s,mb6.0
SUMG                              e       pP       15 45 14.3  -0.1
SUMG                              e                15 45 18.9
JMIC  Jan Mayen         64.94 351 LR      LR       16 10 12.6
      comp=E,514nm,21.9s,MS4.7,baz=54,slow=33
MOR8  Moi Rana          64.98 340⇑iP      P        15 45 01.2  -2.7
MOR8                              AMb     AMB      15 45 02.7
      comp=Z,331nm,0.9s,mb6.4
MOR8  Moi Rana          64.98 340 eP      P        15 45 01.3  -2.7
      comp=Z,331nm,0.9s,mb6.4
WALA  Waterton Lakes    65.08  45 eP      P        15 45 04.5  -0.3
      comp=Z,33nm,0.8s,mb5.4
WALA                              e       pP       15 45 15.9  -0.4
FINES FINESS Array B    65.12 333 P       P        15 45 03.5  -1.4
      comp=Z,200nm,0.8s,mb6.2,baz=56,slow=6.9,SNR=359
FINES                             pP      pP       15 45 19.0 +2.6
      comp=Z,52nm,0.7s,baz=53,slow=9.5,SNR=5.5
FINES                             LR      LR       16 16 15.7
      comp=Z,2µm,19.1s,MS5.3,baz=210,slow=38
FINES FINESS Array B    65.12 333 P       P        15 45 03.5  -1.4
FINES                             *PP     pP       15 45 19.0 +2.6
FINES                             pmax    pmax
      comp=Z,200nm,0.8s
FINES                             MLR     MLR
      comp=Z,2µm,19.1s
FINES FINESS Array B    65.12 333 P       P        15 45 03.5  -1.4
FINES                             pP      pP       15 45 19.0 +2.6
FINES                             LR      LR       16 16 15.7
LASM  Arnica Sink       65.17  56 P       P        15 45 06.4 +0.9
WDC   Whiskeytown Da    65.17  57 eP      P        15 45 05.6   0.0
WDC                               pmax    pmax
      comp=Z,31nm,1.0s,mb5.3
WDC   Whiskeytown Da    65.17  57 eP      P        15 45 05.6   0.0
      comp=Z,31nm,1.0s,mb5.3
OBN   Obninsk           65.32 323αiP      P        15 45 04.9  -1.4
OBN                               i *PP   pP       15 45 15.6  -2.1
OBN                               i *SP   sP       15 45 20.5  -1.5
OBN                                                15 47 29.0
OBN                               i S     S        15 53 41.8  -4.0
OBN                               i PPS   PPS      15 54 12.8  -9.0
OBN                               i SS    SS       15 57 58.6  -2.2
OBN                               pmax    pmax
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      comp=Z,600nm,1.2s,mb6.5
OBN                                pmax   pmax
      comp=Z,309nm,0.9s,mb6.3
OBN                                MLR    MLR
      comp=Z,4µm,16.0s,MS5.7
OBN   Obninsk           65.32 323⇑iP     P      15 45 04.9 -1.4
OBN                                LR     LR
      comp=Z,3µm,17.0s,MS5.5
LTIM  Timbered Crate    65.47  56  P     P      15 45 08.1 +0.6
BMO   Blue Mountains    65.75  51 eP     P      15 45 08.9 -0.4
      comp=Z,13nm,1.1s,mb4.9
MOD   Modoc             65.76  55 eP     P      15 45 09.3  0.0
      comp=Z,21nm,1.0s,mb5.1
GOA   Goa               66.24 269⇓i      P      15 45 17.4 +4.6
MSO   Missoula          66.42  47 eP     P      15 45 12.5 -1.0
      comp=Z,25nm,1.0s,mb5.2
OHCM  Honcut            66.57  58 eP     P      15 45 14.1 -0.4
PALK  Pallekele         66.67 258⇑iP     P      15 45 15.1 -0.5
      comp=Z,83nm,0.9s,mb5.8
NSS   Namsos            66.92 340 eP     P      15 45 13.9 -2.4
NSS                                AMb    AMB   15 45 15.7
      comp=Z,187nm,1.2s,mb6.0
NSS   Namsos            66.92 340 eP     P      15 45 13.9 -2.4
      comp=Z,187nm,1.2s,mb6.0
VSU   Vasula            67.02 330c iP    P      15 45 16.1 -0.9
VSU   Vasula            67.02 330⇑iP     P      15 45 16.1 -0.9
ASAR  Alice Springs     67.04 192  P     P      15 45 17.7  0.0
      comp=Z,12nm,0.8s,mb5.0,baz=12,slow=5.6,SNR=5.0
ASAR                               LR     LR    16 12 12.3
      comp=Z,550nm,20.7s,MS4.8,baz=3.3,slow=34
ASPA  Alice Springs     67.04 192 eP     P      15 45 17.5 -0.2
MNGI  Mangalore         67.16 267 i P    P      15 45 17.7 -0.9
MNGI                              eP            15 45 17.7
MAK   Makhachkala       67.35 308 eP     P      15 45 18.0 -1.4
MAK                               eS     S      15 54 08.0 -2.6
MAK                               ePS    PS     15 54 32.0 -7.1
MAK                                pmax   pmax
      comp=Z,2µm,6.8s
MAK                                smax
      comp=N,2µm,10.0s
MAK                                MLR    MLR
      comp=Z,2µm,13.0s,MS5.6
MAK                                MLR    MLR
      comp=N,2µm,14.0s,MS5.7
MAK                                MLR    MLR
      comp=E,2µm,14.0s,MS5.7
FCC   Fort Churchill    67.40  29 eP     P      15 45 18.1 -1.3
FCC                                pmax   pmax
      comp=Z,45nm,1.0s,mb5.5
FCC   Fort Churchill    67.40  29 eP     P      15 45 18.1 -1.3
      comp=Z,45nm,0.9s,mb5.5
HRY   Holter Researc    67.63  47 eP     P      15 45 20.8 -0.2
WCN   Washoe City       67.65  57 eP     P      15 45 21.7 +0.4
WCN                                pmax   pmax
      comp=Z,35nm,0.9s,mb5.4
WCN   Washoe City       67.65  57 eP     P      15 45 21.7 +0.4
      comp=Z,35nm,0.9s,mb5.4
MBWA  Marble Bar        67.97 206 eP     P      15 45 23.1 -0.5
      comp=Z,38nm,0.8s,mb5.5
MBWA                               LR     LR
      comp=Z,201nm,20.0s,MS4.3
CMB   Columbia Colle    68.04  58 eP     P      15 45 23.5 -0.3
CMB                                pmax   pmax
      comp=Z,21nm,0.9s,mb5.2
CMB   Columbia Colle    68.04  58 eP     P      15 45 23.5 -0.2
      comp=Z,21nm,0.9s,mb5.2
HLID  Hailey            68.19  50 eP     P      15 45 24.9 +0.3
      comp=Z,8.7nm,0.9s,mb4.8
HLID                               LR     LR
      comp=Z,777nm,20.0s,MS4.9
MCMT  McKenzie Canyo    68.27  49 eP     P      15 45 24.4 -0.6
BOZ   Bozeman (W)       68.41  47 eP     P      15 45 25.6 -0.4
      comp=Z,37nm,0.8s,mb5.5
BOZ                                LR     LR
      comp=Z,761nm,20.0s,MS4.9
BMN   Battle Mountai    68.50  54 eP     P      15 45 27.0 +0.4
BMN                               e      pP     15 45 38.2 +0.1
BMN                                pmax   pmax
      comp=Z,25nm,1.0s,mb5.2
BMN   Battle Mountai    68.50  54 eP     P      15 45 27.0 +0.4
      comp=Z,25nm,1.1s,mb5.2
BMN                               e      pP     15 45 38.1 +0.1
TRD   Trivandrum        68.54 262⇑eP     P      15 45 29.6 +2.3
GOF   Gofitskoye        68.56 312⇓iP     P      15 45 26.5 -0.4
GOF                               i      pP     15 45 37.0 -1.4
GOF                               i             15 45 42.0
GOF                               i S    S      15 54 26.5 +1.5
GOF                                pmax   pmax
      comp=Z,480nm,1.5s,mb6.2
GOF                                smax
      comp=E,440nm,1.5s
GOF                                MLR    MLR
      comp=Z,6µm,18.0s,MS5.9
QLMT  Earthquake Lak    69.04  48 eP     P      15 45 30.2 +0.4
NVAR  Mina Array Bea    69.08  57  P     P      15 45 29.4 -0.8
NVAR                               LR     LR    16 13 38.2
      comp=Z,348nm,18.5s,MS4.6,baz=130,slow=34
IZAR  Zarasai           69.16 328 i P    P      15 45 29.5 -0.9
IZAR                               AMPb   AMB   15 45 31.4
      comp=Z,66nm,0.9s,mb5.6
IZAR                              epP    pP     15 45 40.3 -1.6
IZAR                              esP    sP     15 45 45.5 -0.7
MNV   Mina              69.17  57 eP     P      15 45 30.8  0.0
MNV                                pmax   pmax
      comp=Z,18nm,0.9s,mb5.0
MNV   Mina              69.17  57 eP     P      15 45 30.8  0.0
      comp=Z,18nm,0.9s,mb5.0
IDID  Didziasalis       69.28 328 i P    P      15 45 30.4 -0.7
IDID                               AMPb   AMB   15 45 32.4
      comp=Z,118nm,1.0s,mb5.8
IDID                              epP    pP     15 45 41.1 -1.6
IDID                              esP    sP     15 45 45.6 -1.2
ISAL  Salakas           69.34 328 i P    P      15 45 30.8 -0.7
ISAL                               AMPb   AMB   15 45 32.7
      comp=Z,139nm,0.9s,mb5.9
GCMT  Greycliff         69.37  46 eP     P      15 45 30.0 -1.9
MNK   Minsk             69.44 327⇑iP     P      15 45 30.0 -2.1
KIV   Kislovodsk        69.45 311  P     P      15 45 32.4  0.0
      comp=Z,3µm,0.9s
KIV   Kislovodsk        69.45 311⇑iP     P      15 45 32.7 +0.3
KIV                                pmax   pmax
      comp=Z,470nm,0.9s,mb6.4
KIV   Kislovodsk        69.45 311⇑iP     P      15 45 32.7 +0.3
      comp=Z,466nm,0.9s,mb6.4
KIV                                LR     LR
      comp=Z,529nm,20.0s,MS4.8
IIGN  Ignalina          69.46 328 i P    P      15 45 31.6 -0.6
IIGN                               AMPb   AMB   15 45 33.6
      comp=Z,150nm,1.1s,mb5.8
ELK   Elko              69.48  53 eP     P      15 45 33.0 +0.4
ELK                                pmax   pmax
      comp=Z,9.0nm,0.9s
ELK   Elko              69.48  53 eP     P      15 45 33.0 +0.4
      comp=Z,9.0nm,0.9s,mb4.7
MTUM  Tungsten Hills    69.59  58 eP     P      15 45 33.7 +0.3
YFT   Old Faithful      69.61  48 eP     P      15 45 34.6 +1.3
MOL   Molde             69.65 341⇑iP     P      15 45 35.5 +2.2
MOL                                AMb    AMB   15 45 37.0
      comp=Z,146nm,1.6s,mb5.7
MOL   Molde             69.65 341 eP     P      15 45 35.5 +2.2
      comp=Z,146nm,1.6s,mb5.7
TI2   Plekhanov         69.71 308⇑iP     P      15 45 34.0  0.0
TI2                                             15 45 50.0
TI2                               eS     S      15 54 40.0 +1.3
TI2                               i SSS         15 54 58.0
TI2                                pmax   pmax
      comp=Z,580nm,1.0s,mb6.5
DOMB  Dombas            69.72 340⇑iP     P      15 45 33.0 -0.8
DOMB                               AMb    AMB   15 45 34.4
      comp=Z,254nm,1.0s,mb6.1
DOMB                              esP    sP     15 45 49.4  0.0
DOMB  Dombas            69.72 340 eP     P      15 45 33.0 -0.7
      comp=Z,254nm,1.0s,mb6.1
LKWY  Lake              69.77  48 eP     P      15 45 36.0 +1.7
LKWY                               pmax   pmax
      comp=Z,41nm,1.0s,mb5.3
LKWY  Lake              69.77  48 eP     P      15 45 36.0 +1.6
      comp=Z,41nm,0.9s,mb5.3
IMW   Indian Meadow     69.91  48 eP     P      15 45 35.9 +0.7
TPH   Tonopah           69.97  56⇑eP     P      15 45 36.1 +0.4
TPH                                pmax   pmax
      comp=Z,25nm,0.8s,mb5.2
TPH   Tonopah           69.97  56⇑eP     P      15 45 36.1 +0.4
      comp=Z,25nm,0.8s,mb5.2
NB2   NORSAR Subarra    70.00 338  P     P      15 45 34.6 -0.8
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      comp=Z,207nm,0.8s,mb6.1,baz=34,slow=6.2
NB2   NORSAR Subarra    70.00 338  P     P      15 45 34.6 -0.8
      baz=34,slow=6.2
NOA   NORSAR Array B    70.00 338  P     P      15 45 34.5 -1.0
      comp=Z,139nm,0.8s,mb6.0,baz=35,slow=6.1,SNR=325
NOA                                pP     pP    15 45 50.1 +3.2
      comp=Z,74nm,0.8s,baz=35,slow=6.0,SNR=8.0
NOA                                LR     LR    16 20 16.1
      comp=Z,2µm,19.6s,MS5.2,baz=25,slow=39
NOA   NORSAR Array B    70.00 338  P     P      15 45 34.5 -0.9
NOA                                *PP    pP    15 45 50.1 +3.2
NOA                                pmax   pmax
      comp=Z,139nm,0.8s
NOA                                MLR    MLR
      comp=Z,2µm,19.6s
HFS   Hagfors           70.04 337  P     P      15 45 34.6 -1.1
      comp=Z,112nm,0.6s,mb6.0,baz=45,slow=6.3,SNR=177
HFS                                pP     pP    15 45 50.8 +3.6
      comp=Z,76nm,0.7s,baz=51,slow=9.5,SNR=6.7
HFS   Hagfors           70.04 337  P     P      15 45 34.6 -1.1
HFS                                *PP    pP    15 45 50.8 +3.6
HFS                                pmax   pmax
      comp=Z,113nm,0.6s
HFS   Hagfors           70.04 337  P     P      15 45 34.6 -1.1
HFS                                pP     pP    15 45 50.8 +3.6
MOOW  Moose Ponds       70.12  48 eP     P      15 45 37.2 +0.8
TPAW  Teton Pass        70.17  49⇑eP     P      15 45 38.0 +1.2
NAO01 NORSAR Array S    70.25 338⇑eP     P      15 45 35.7 -1.2
      comp=Z,146nm,0.9s,mb5.9
SNOW  Snow King Moun    70.30  49 eP     P      15 45 38.9 +1.3
REDW  Red Top Meadow    70.31  49 eP     P      15 45 38.3 +0.7
FRB   Frobisher Bay     70.37  15  P     P      15 45 35.8 -1.9
      comp=Z,72nm,0.9s,mb5.6,baz=337,slow=6.5,SNR=85
FRB   Frobisher Bay     70.37  15  P     P      15 45 35.8 -1.9
FRB                                pmax   pmax
      comp=Z,72nm,1.0s
DGMT  Dagmar            70.38  42 eP     P      15 45 36.5 -1.5
      comp=Z,82nm,1.0s,mb5.6
DGMT                               LR     LR
      comp=Z,2µm,22.0s,MS5.3
AHID  Auburn Hatcher    70.56  49 eP     P      15 45 39.4 +0.2
      comp=Z,18nm,0.7s,mb5.1
LAO   LASA Array        70.57  44 eP     P      15 45 39.1 -0.1
      comp=Z,57nm,0.9s,mb5.5
GNI   Garni             70.73 307 eP     P      15 45 39.5 -0.7
GNI   Garni             70.73 307  P     P      15 45 40.6 +0.4
      comp=Z,46nm,0.9s,mb5.4,baz=342,slow=2.0,SNR=42
GNI   Garni             70.73 307⇑iP     P      15 45 41.4 +1.2
GNI                                pmax   pmax
      comp=Z,210nm,1.0s
SPUT  South Promonto    70.74  51 eP     P      15 45 40.7 +0.4
TRCR  Troy Canyon       70.79  55 eP     P      15 45 40.9 +0.2
HWUT  Hardware Ranch    71.05  51 eP     P      15 45 42.4 +0.3
      comp=Z,33nm,1.0s,mb5.2
HWUT                               LR     LR
      comp=Z,935nm,21.0s,MS5.0
TPNV  Topopah Spring    71.28  57⇑eP     P      15 45 43.9 +0.3
      comp=Z,21nm,1.0s,mb5.0
TPNV                               LR     LR
      comp=Z,927nm,21.0s,MS5.0
SOC   Sochi             71.32 312 i P    P      15 45 43.5 -0.3
SOC                               i             15 46 03.8
SOC                               eS     S      15 54 51.9 -5.5
SOC                               eSS    SS     15 59 39.5 +5.4
SOC                                pmax   pmax
      comp=Z,136nm,0.9s,mb5.9
SOC                                pmax   pmax
      comp=N,45nm,1.1s
SOC                                pmax   pmax
      comp=E,24nm,1.1s
SOC                                MLR    MLR
      comp=N,3µm,21.0s,MS5.6
SOC                                MLR    MLR
      comp=E,2µm,21.0s,MS5.6
SOC                                MLR    MLR
      comp=Z,5µm,21.0s,MS5.7
PDAR  Pinedale Array    71.41  49  P     P      15 45 44.3  0.0
      comp=Z,7.4nm,0.6s,mb4.8,baz=272,slow=2.0,SNR=73
AKASG Malin Array Be    71.58 323  P     P      15 45 44.4 -0.8
      comp=Z,284nm,0.8s,mb6.2,baz=40,slow=5.8,SNR=673
AKASG                              pP     pP    15 45 59.9 +3.2
      comp=Z,51nm,0.8s,baz=38,slow=6.3,SNR=5.6
AKASG Malin Array Be    71.58 323  P     P      15 45 44.4 -0.7
AKASG                              *PP    pP    15 45 59.9 +3.2
AKASG                              pmax   pmax
      comp=Z,284nm,0.8s
KONO  Kongsberg         71.61 338 i P    P      15 45 44.7 -0.4
KONO  Kongsberg         71.61 338 i P    P      15 45 44.8 -0.3
SUW   Suwalki           71.64 328⇑iP     P      15 45 44.4 -1.0
SUW                                pmax   pmax
      comp=Z,410nm,1.0s,mb6.3
SUW   Suwalki           71.64 328 eP     P      15 45 44.6 -0.8
      comp=Z,600nm,1.1s,mb6.4
SUW                                MLR    MLR   16 19 07.0
      comp=Z,4µm,20.0s,MS5.7
BCA   Borcka            71.68 310 i P    P      15 45 43.9 -2.1
ANN   Anapa             71.73 315c iP    P      15 45 45.3 -0.8
ANN                               i S    S      15 55 00.4 -1.7
ANN                               e             15 55 48.6
ANN                               eSS    SS     15 59 46.1 +6.0
ANN                                pmax   pmax
      comp=Z,328nm,1.1s,mb6.2
NLU   North Lily Min    71.84  52 eP     P      15 45 47.1 +0.3
RUND  Rundenannen       72.05 340⇑iP     P      15 45 47.8 +0.1
RUND                               AMb    AMB   15 45 49.2
      comp=Z,526nm,1.0s,mb6.4
RUND                              esP    sP     15 46 04.4 +1.0
RUND  Rundenannen       72.05 340 eP     P      15 45 47.9 +0.1
MPU   Maple Canyon      72.05  52 eP     P      15 45 48.5 +0.4
BORG  Borgarnes         72.25 354  P     P      15 45 48.7 -0.1
      comp=Z,91nm,1.0s,mb5.7,baz=21,slow=3.9,SNR=11
BORG                               pP     pP    15 46 01.7 +1.4
      comp=Z,59nm,1.0s,baz=354,slow=4.0,SNR=3.6
ARUT  Antelope Range    72.45  55 eP     P      15 45 49.1 -1.4
VANB  Van               72.53 307  P     P      15 45 52.4 +1.4
BLS5  Blasjo            72.64 339⇑iP     P      15 45 51.9 +0.8
BLS5                               AMb    AMB   15 45 53.4
      comp=Z,86nm,1.2s,mb5.5
BLS5  Blasjo            72.64 339 eP     P      15 45 51.9 +0.8
      comp=Z,86nm,1.2s,mb5.5
MVU   Marysvale         72.71  53 eP     P      15 45 52.7 +0.7
      comp=Z,17nm,1.1s,mb4.9
MSU   Marysvale         72.72  53 eP     P      15 45 53.0 +0.9
EZM   Erzurum           72.85 309  P     P      15 45 52.0 -0.9
ULM   Lac du Bonnet     72.94  36  P     P      15 45 53.2  0.0
      comp=Z,10nm,0.8s,mb4.8,baz=321,slow=6.6,SNR=19
ULM                                LR     LR    16 19 41.2
      comp=Z,561nm,20.7s,MS4.8,baz=313,slow=37
ULM   Lac du Bonnet     72.94  36⇑eP     P      15 45 52.8 -0.4
      comp=Z,7.6nm,0.7s,mb4.7
ULM                               e      pP     15 46 04.5 -0.2
NEN   Nelson            72.98  57 eP     P      15 45 54.1 +0.4
NEN                               e      pP     15 46 04.2 -1.1
HKR   Hakkari           72.99 306  P     P      15 45 53.4 -0.3
ARMA  Armidale          73.13 174 eP     P      15 45 56.1 +1.4
VRT   Varto             73.27 308 i P    P      15 45 54.8 -0.5
SRU   San Rafael        73.29  52⇑eP     P      15 45 55.5  0.0
SIM   Simferopol'       73.34 316ceP     P      15 45 55.5 -0.1
SIM                               e             15 48 47.0
SIM                               eS     S      15 55 20.0 -0.4
SIM                                pmax   pmax
      comp=Z,90nm,8.6s
SIM                                pmax   pmax
      comp=Z,253nm,0.9s,mb6.2
SIM                                MLR    MLR
      comp=Z,2µm,16.0s,MS5.6
RWWY  Rawlins           73.43  48 eP     P      15 45 56.2  0.0
GUMT  Gumushane         73.55 310  P     P      15 45 55.6 -1.3
BSD   Bornholm Skovb    73.75 333⇑iP     P      15 45 57.0 -0.8
BSD                               i      pP     15 46 08.2 -1.1
BSD                               eS     S      15 55 25.0 +0.2
BSD                                pmax   pmax
      comp=Z,270nm,0.9s,mb6.2
BSD                                MLR    MLR
      comp=Z,2µm,18.0s,MS5.4
BSD   Bornholm Skovb    73.75 333⇑iP     P      15 45 57.0 -0.8
      comp=Z,267nm,0.9s,mb6.2
BSD                               i      pP     15 46 08.2 -1.1
BSD                               eS     S      15 55 25.0 +0.2
      comp=Z,2µm,18.0s
BAR   Barrett           73.77  60 eP     P      15 45 58.0 -0.4
WAR   Warsaw            73.83 328 eP     P      15 45 58.7 +0.4
WAR                               epP    pP     15 46 09.4 -0.4
WAR                               ePcP   PcP    15 46 14.7 +0.7
WAR                                MLR    MLR   16 20 37.2
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      comp=Z,3µm,22.3s,MS5.6
EZC   Erzincan          73.84 309  P     P      15 45 59.6 +0.9
BTMT  Batman            73.92 307  P     P      15 45 59.7 +0.6
BINT  Bingol            74.04 308  P     P      15 46 00.2 +0.4
COP   Copenhagen        74.09 335⇑iP     P      15 45 59.5 -0.2
COP                               i S    S      15 55 26.1 -2.4
COP                                pmax   pmax
      comp=Z,160nm,0.9s,mb6.0
COP                                MLR    MLR
      comp=Z,980nm,17.0s,MS5.2
COP   Copenhagen        74.09 335⇑iP     P      15 45 59.5 -0.2
      comp=Z,164nm,0.9s,mb6.0
COP                               i S    S      15 55 26.1 -2.4
      comp=Z,980nm,17.0s
MUD   Monsted U'grnd    74.44 337⇑iP     P      15 46 01.5 -0.2
MUD                                pmax   pmax
      comp=Z,75nm,0.8s,mb5.7
MUD                                MLR    MLR
      comp=Z,3µm,19.0s,MS5.6
MUD   Monsted U'grnd    74.44 337⇑iP     P      15 46 01.5 -0.2
      comp=Z,75nm,0.8s,mb5.7
      comp=Z,3µm,19.0s
GKP   Gorka Klasztor    74.44 331 eP     P      15 46 01.8  0.0
      comp=Z,400nm,0.0s
GKP                               epP    pP     15 46 12.8 -0.5
GKP                               ePcP   PcP    15 46 17.6 +1.0
GKP                                MLR    MLR   16 21 41.1
      comp=Z,5µm,20.3s,MS5.8
STKA  Stephens Creek    74.45 183⇑iP     P      15 46 02.8 +0.5
      comp=Z,11nm,0.9s,mb4.8
STKA  Stephens Creek    74.45 183  P     P      15 46 00.9 -1.4
      comp=Z,9.9nm,0.9s,mb4.7,baz=341,slow=8.4,SNR=17
STKA                               LR     LR    16 16 27.5
      comp=Z,655nm,20.5s,MS4.9,baz=3.3,slow=34
KIS   Kishinev          74.45 321κ iP    P      15 45 58.5 -3.5
KIS                               i             15 46 16.0
KIS                               eS     S      15 55 30.0 -2.8
KIS                                pmax   pmax
      comp=Z,900nm,1.0s,mb6.7
KIS                                MLR    MLR
      comp=N,4µm,18.0s,MS5.8
KIS                                MLR    MLR
      comp=E,2µm,18.0s,MS5.8
KIS                                MLR    MLR
      comp=Z,4µm,18.0s,MS5.7
KIS                                MLR    MLR
      comp=Z,4µm,18.0s
PTK   Pertek            74.66 309 eP     P      15 46 01.9 -1.5
RGN   Rugen             74.75 333⇑eP     P      15 46 03.6  0.0
      comp=Z,383nm,1.0s,mb6.3
RGN                               e      pP     15 46 13.1 -2.0
DIY   Diyarbakir        74.85 308  P     P      15 46 05.4 +0.8
IAS   Iasi              74.89 321  P     P      15 46 04.8 +0.3
KVT   Kavak             75.02 312 eP     P      15 46 04.6 -0.9
KWP   Kalwaria          75.17 326 eP     P      15 46 06.8 +0.7
      comp=Z,1µm,1.1s,mb6.7
KWP                               epP    pP     15 46 17.6 -0.1
KWP                               ePcP   PcP    15 46 22.7 +2.8
KWP                                MLR    MLR   16 22 39.6
      comp=Z,4µm,17.0s,MS5.8
BYBT  Boyabat           75.44 313  P     P      15 46 07.9 +0.1
MYA   Malataya          75.60 309  P     P      15 46 10.0 +1.2
MALT  Malatya           75.61 309 eP     P      15 46 07.3 -1.6
ISCO  Idaho Springs     75.61  49 eP     P      15 46 09.8 +1.0
      comp=Z,22nm,1.1s,mb5.0
ISCO                               LR     LR
      comp=Z,892nm,20.0s,MS5.1
KOLS  Kolonicke sedl    75.89 325 eP     P      15 46 10.4 +0.2
OJC   Ojcow             75.90 327⇑iP     P      15 46 10.4 +0.2
OJC                               eS     S      15 55 47.4 -1.3
OJC                                MLR    MLR
      comp=Z,4µm,21.5s,MS5.7
OJC   Ojcow             75.90 327⇑iP     P      15 46 10.4 +0.2
OJC                               ePP    PP     15 48 53.8 -8.8
OJC                               eS     S      15 55 47.4 -1.3
OJC                                LR     LR
      comp=Z,4µm,21.5s,MS5.7
OJC   Ojcow             75.90 327 i P    P      15 46 10.4 +0.2
OJC                               ePP    PP     15 48 53.8 -8.8
OJC                               eS     S      15 55 47.4 -1.3
OJC                                MLR    MLR   16 21 57.6
      comp=Z,4µm,21.5s,MS5.7
URFA  Urfa              75.98 308 eP     P      15 46 10.7 -0.3
CFR   Carcaliu          76.11 320⇑iP     P      15 46 11.4 -0.2
UZH   Uzhgorod          76.12 325 eP     P      15 46 12.0 +0.5
UZH                               eS     S      15 55 47.0 -4.2
TOS   Tosya             76.14 314 eP     P      15 46 11.3 -0.5
BSEG  Bad Segeberg      76.23 335 eP     P      15 46 12.2 +0.2
BSEG                               pmax   pmax
      comp=Z,218nm,1.0s,mb6.0
CRVS  Cervenica-Dubn    76.26 326 eP     P      15 46 13.3 +1.0
CRVS                              e             15 46 30.6
VRI   Vrincioaia        76.26 321⇑iP     P      15 46 12.9 +0.5
RUE   Ruedersdorf       76.30 332⇑iP     P      15 46 12.4 -0.1
      comp=Z,205nm,0.9s,mb6.1
NIE   Niedzica          76.32 327 eP     P      15 46 13.4 +0.7
BRD   Bordesti          76.36 321⇓iP     P      15 46 14.9 +1.9
CORM  Corum             76.42 313 eP     P      15 46 12.2 -1.2
YOZ   Yozgat            76.42 312 i P    P      15 46 13.7 +0.2
TIRR  Tirgusor          76.51 319  P     P      15 46 14.0 +0.1
EYMN  Ely               76.57  35⇑eP     P      15 46 13.3 -0.8
      comp=Z,70nm,1.0s,mb5.5
EYMN                              e      pP     15 46 24.8 -0.9
RAC   Raciborz          76.63 328 eP     P      15 46 15.2 +0.8
RAC                               epP    pP     15 46 26.5 +0.5
RAC                                LMN          16 22 33.6
      comp=Z,3µm,20.8s
RAC                                MLR    MLR   16 22 49.4
      comp=Z,4µm,20.4s,MS5.7
RAC                                LME          16 22 56.0
      comp=Z,3µm,18.8s
CANT  Cankiri           76.66 313 eP     P      15 46 15.9 +1.2
BNN   Bunyan            76.69 311  P     P      15 46 15.7 +0.7
SAFT  Safranbolu        76.70 314  P     P      15 46 13.5 -1.5
KSP   Ksiaz             76.74 330⇑iP     P      15 46 15.2 +0.2
KSP                               ePcP   PcP    15 46 26.1 -0.5
KSP                               epP    pP     15 46 31.1 +4.5
KSP                               eS     S      15 55 56.5 -1.4
KSP                               eSS    SS     16 00 57.0 -0.1
KSP                                LR     LR
      comp=Z,9µm,20.6s,MS6.1
KSP   Ksiaz             76.74 330 eP     P      15 46 15.3 +0.3
      comp=Z,500nm,1.0s,mb6.4
KSP                               epP    pP     15 46 26.4 -0.2
KSP                               ePcP   PcP    15 46 31.5 +4.9
KSP                                MLR    MLR   16 22 58.0
      comp=Z,8µm,20.6s,MS6.0
OKC   Ostrava-Krasne    76.85 328⇑iP     P      15 46 15.8 +0.2
OKC                               epP    pP     15 46 27.2  0.0
OKC                                AMS    AMS   16 22 50.0
      comp=Z,3µm,21.1s
MLR   Muntele Rosu      76.91 321  P     P      15 46 16.2 +0.2
      comp=Z,62nm,0.8s,mb5.6,baz=350,slow=4.2,SNR=59
MLR   Muntele Rosu      76.91 321  P     P      15 46 16.2 +0.1
MLR                                pmax   pmax
      comp=Z,62nm,0.8s
ISR   Istrita           76.91 320⇑iP     P      15 46 17.1 +1.0
KECS  Kecovo            76.99 326 i P    P      15 46 16.6 +0.1
KECS                              epP    pP     15 46 28.4 +0.4
GAZ   Gaziantep         77.09 309  P     P      15 46 16.6 -0.7
LIKS  Likavka           77.10 327 eP     P      15 46 17.9 +0.8
LIKS                              e             15 46 34.8
UPC   Upice             77.12 330⇑iP     P      15 46 17.3 +0.1
UPC                               epP    pP     15 46 32.8 +4.1
DPC   Dobruska-Polom    77.13 329⇑iP     P      15 46 17.7 +0.5
DPC                               epP    pP     15 46 29.1 +0.3
DPC                               eS     S      15 55 59.5 -2.7
DPC                                AMS    AMS   16 22 50.0
      comp=Z,4µm,20.0s
MORC  Moravsky Berou    77.13 328⇑iP     P      15 46 17.4 +0.2
MORC                              e*PP   pP     15 46 29.2 +0.4
MORC                              e*SP   sP     15 46 33.8 +0.8
MORC                               pmax   pmax
      comp=Z,150nm,1.0s,mb5.9
MORC  Moravsky Berou    77.13 328⇑iP     P      15 46 17.4 +0.2
      comp=Z,154nm,1.0s,mb5.9
MORC                              epP    pP     15 46 29.2 +0.4
MORC                              esP    sP     15 46 33.8 +0.8
PSN   Preselentsi       77.20 319 i P    P      15 46 18.8 +1.0
SNX   Sinaia            77.21 321  P     P      15 46 19.1 +1.3
BRTR  Keskin Array B    77.28 313  P     P      15 46 18.6 +0.3
      comp=Z,45nm,0.8s,mb5.5,baz=70,slow=3.8,SNR=157
BRTR                               PP     PP    15 49 10.1 -4.1
      comp=Z,9.1nm,1.0s,baz=76,slow=5.9,SNR=3.8
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BRTR	**Keskin Array B**	77.28	313	P	P	15 46 18.6	+0.3
BRTR						15 49 10.1	
BRTR				pmax	pmax		
	comp=Z,45nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,9.0nm,1.0s						
HASS	**Wahat al Ahsa’**	77.32	292	P	P	15 46 17.8	-1.0
KAMT	**Kaman**	77.49	312	P	P	15 46 18.5	-1.0
MTUR	**Matau**	77.51	321	P	P	15 46 20.2	+0.7
CLL	**Collm**	77.54	332	⇑iP	P	15 46 19.0	-0.5
CLL				i *PP	pP	15 46 30.4	-0.7
CLL				eS	S	15 56 03.0	-3.6
CLL				pmax	pmax		
	comp=Z,274nm,1.0s,mb6.1						
CLL				MLR	MLR		
	comp=Z,2µm,17.7s,MS5.6						
CLL	**Collm**	77.54	332	⇑iP	P	15 46 19.0	-0.5
	comp=Z,274nm,1.0s,mb6.1						
CLL				i pP	pP	15 46 30.4	-0.7
CLL				eS	S	15 56 03.0	-3.6
CLL				LR	LR		
	comp=Z,2µm,17.7s,MS5.6						
CLL	**Collm**	77.54	332	⇑P	P	15 46 19.0	-0.5
	comp=Z,logA/T=2.4,mb6.1						
CLL				e		15 46 23.0	
CLL				i *PP	pP	15 46 30.4	-0.7
CLL				i *SP	sP	15 46 35.7	+0.4
CLL				eS	S	15 56 03.0	-3.6
CLL				eSCS	ScS	15 56 23.0	-8.3
CLL				ePS	PS	15 56 51.0	-0.7
BRG	**Berggiesshubel**	77.57	331	⇑iP	P	15 46 19.5	-0.2
BRG				i		15 46 35.5	
BRG				eS	S	15 56 04.0	-2.9
BRG				pmax	pmax		
	comp=Z,78nm,1.0s,mb5.6						
BRG				MLR	MLR		
	comp=N,2µm,19.5s,MS5.6						
BRG				MLR	MLR		
	comp=E,1µm,19.5s,MS5.6						
BRG				MLR	MLR		
	comp=Z,4µm,19.5s,MS5.7						
BRG	**Berggiesshubel**	77.57	331	⇑iP	P	15 46 19.5	-0.2
	comp=Z,78nm,1.0s,mb5.6						
BRG				i		15 46 35.5	
BRG				ePP	PP	15 49 07.0	-10
BRG				eS	S	15 56 04.0	-2.9
BRG				eSS	tx	16 01 51.0	
BRG				LR	LR		
	comp=Z,4µm,19.5s,MS5.7						
ANTO	**Ankara**	77.63	313	P	P	15 46 19.7	-0.6
ANTO	**Ankara**	77.63	313	P	P	15 46 21.0	+0.8
LOD	**Lodumlu**	77.63	313	eP	P	15 46 18.8	-1.4
PVCC	**Panska Ves**	77.63	330	⇑iP	P	15 46 20.2	+0.2
PVCC				AMS	AMS	16 23 40.0	
	comp=Z,4µm,18.4s						
VYHS	**Vyhne**	77.65	327	eP	P	15 46 20.7	+0.6
VYHS				esP	sP	15 46 35.2	-0.7
PSZ	**Piszkesteto**	77.68	326	⇑iP	P	15 46 20.7	+0.4
PSZ				e*PP	pP	15 46 32.2	+0.3
PSZ				e*SP	sP	15 46 37.2	+1.1
PSZ				pmax	pmax		
	comp=Z,160nm,0.9s,mb6.0						
PSZ	**Piszkesteto**	77.68	326	⇑iP	P	15 46 21.1	+0.8
TUC	**Tucson**	77.72	57	eP	P	15 46 21.3	+0.4
	comp=Z,16nm,1.0s,mb4.9						
TUC				LR	LR		
	comp=Z,602nm,22.0s,MS4.9						
KOLL	**Kolacno**	77.75	327	i P	P	15 46 21.4	+0.7
KOLL				epP	pP	15 46 31.3	-1.0
VRAC	**Vranov**	77.87	329	P	P	15 46 21.5	+0.1
	comp=Z,129nm,0.9s,mb5.8,baz=37,slow=6.1,SNR=109						
VRAC	**Vranov**	77.87	329	P	P	15 46 22.0	+0.7
NIG	**Nigde**	77.90	311	P	P	15 46 20.1	-1.7
PRD	**Provadia**	77.94	319	i P	P	15 46 23.0	+1.2
CLZ	**Clausthal**	77.99	333	eP	P	15 46 22.3	+0.4
	comp=Z,215nm,1.1s,mb6.0						
MDU	**Mudurnu**	78.03	315	P	P	15 46 21.5	-0.9
CEYT	**Ceyhan**	78.04	310	eP	P	15 46 22.3	-0.2
PRU	**Pruhonice**	78.09	330	⇑iP	P	15 46 22.7	+0.2
PRU				e*PP	pP	15 46 33.9	-0.2
PRU				i		15 46 38.5	
PRU				pmax	pmax		
	comp=Z,173nm,1.0s,mb5.9						
PRU				MLR	MLR		
	comp=Z,4µm,19.6s,MS5.7						
PRU	**Pruhonice**	78.09	330	⇑iP	P	15 46 22.7	+0.2
	comp=Z,173nm,1.0s,mb5.9						
PRU				epP	pP	15 46 33.9	-0.2
PRU				i sP	sP	15 46 38.5	+0.2
PRU				AMS	AMS	16 23 50.0	
	comp=Z,4µm,19.6s						
SMOL	**Smolenice**	78.19	328	i P	P	15 46 24.2	+1.1
SMOL				esP	sP	15 46 40.3	+1.4
WIT	**Witteveen**	78.32	336	eP	P	15 46 24.4	+0.7
KLBR	**Kellerberrin**	78.33	204	⇑iP	P	15 46 24.3	+0.1
	comp=Z,18nm,0.8s,mb5.0						
BUD	**Budapest**	78.38	326	⇑eP	P	15 46 24.8	+0.7
SRO	**Srobarova**	78.40	327	i P	P	15 46 25.5	+1.2
SRO				epP	pP	15 46 36.2	+0.3
SRO2	**Moca**	78.41	327	eP	P	15 46 25.4	+1.1
SRO2				epP	pP	15 46 36.4	+0.5
HTY	**Hatay**	78.44	309	eP	P	15 46 24.6	-0.1
SRO1	**Iza**	78.48	327	eP	P	15 46 25.9	+1.2
LAZ	**Ladron**	78.49	54	eP	P	15 46 26.1	+1.1
ANMO	**Albuquerque**	78.51	53	eP	P	15 46 24.2	-0.9
ANMO				pmax	pmax		
	comp=Z,14nm,1.0s						
ANMO	**Albuquerque**	78.51	53	eP	P	15 46 24.2	-0.9
	comp=Z,14nm,1.0s,mb4.8						
HRT	**Hereke**	78.57	316	eP	P	15 46 24.0	-1.3
ZST	**Bratislava**	78.58	328	eP	P	15 46 26.2	+1.0
ZST				esP	sP	15 46 41.8	+0.8
MOX	**Moxa**	78.58	332	eP	P	15 46 25.0	-0.2
MOX				pmax	pmax		
	comp=Z,125nm,1.4s,mb5.7						
MOX				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.2						
MOX	**Moxa**	78.58	332	⇑iP	P	15 46 25.0	-0.2
	comp=Z,logA/T=1.9,mb5.6						
MOX				pP	pP	15 46 36.0	-0.8
MOX				sP	sP	15 46 42.0	+1.0
MOX				S	S	15 56 13.0	-4.7
MOX				sSS		16 02 11.0	
MOX				L		16 24 00.0	
MOX	**Moxa**	78.58	332	eP	P	15 46 25.0	-0.2
	comp=Z,125nm,1.4s,mb5.7						
MOX				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
SZH	**Strazhica**	78.59	320	i P	P	15 46 25.8	+0.4
EKA	**Eskdalemuir Ar**	78.62	342	P	P	15 46 25.3	0.0
	comp=Z,66nm,1.0s,mb5.5,baz=16,slow=4.8,SNR=68						
EKA	**Eskdalemuir Ar**	78.62	342	P	P	15 46 25.3	0.0
EKA				pmax	pmax		
	comp=Z,66nm,1.0s						
NKC	**Novy Kostel**	78.64	331	⇑iP	P	15 46 25.4	-0.1
NKC				epP	pP	15 46 36.6	-0.5
NKC				AMS	AMS	16 23 50.0	
	comp=Z,2µm,21.8s						
ESK	**Eskdalemuir**	78.65	342	eP	P	15 46 25.5	0.0
ESK				pmax	pmax		
	comp=Z,75nm,0.9s,mb5.6						
ESK	**Eskdalemuir**	78.65	342	eP	P	15 46 25.5	0.0
	comp=Z,75nm,0.9s,mb5.6						
PKS7	**Kunszentmiklos**	78.67	326	⇑eP	P	15 46 26.1	+0.3
ISK	**Istanbul-Kandi**	78.70	316	eP	P	15 46 24.7	-1.4
LENM	**Lemitar**	78.75	54	eP	P	15 46 27.5	+1.0
VKA	**Vienna**	78.83	328	⇑iP	P	15 46 27.0	+0.4
	comp=Z,672nm,3.0s						
KIZT	**Kizilcal**	78.83	313	P	P	15 46 24.8	-2.1
LPM	**Los Pinos Moun**	78.85	53	eP	P	15 46 27.7	+0.7
BHH	**Howats Hill**	78.86	342	⇑eP	P	15 46 26.4	-0.2
SCHQ	**Schefferville**	78.86	18	P	P	15 46 25.9	-0.8
	comp=Z,30nm,0.9s,mb5.2,baz=343,slow=5.2,SNR=20						
SCHQ				LR	LR	16 26 31.9	
	comp=Z,1µm,19.4s,MS5.2,baz=338,slow=40						
SCHQ	**Schefferville**	78.86	18	eP	P	15 46 25.9	-0.7
	comp=Z,41nm,0.8s,mb5.4						
BWH	**Wardlaw**	78.88	343	⇑iP	P	15 46 26.7	-0.1
JMB	**Yambol**	78.89	319	i P	P	15 46 23.0	-4.1
BTA	**Talkin**	78.91	342	⇑iP	P	15 46 27.0	0.0
ESKT	**Eskisehir**	78.91	314	P	P	15 46 25.6	-1.7
BNM	**Barren Site**	78.97	54	eP	P	15 46 28.5	+0.8
PKS8	**Sarbogard**	79.00	326	⇑eP	P	15 46 27.6	0.0
WTSB	**Winterswijk**	79.01	335	⇑eP	P	15 46 27.0	-0.6
	comp=Z,158nm,1.1s,mb5.9						
WTSB				epP	pP	15 46 38.6	-0.6
WTSB				esP	sP	15 46 43.7	+0.3
BDL	**Dobcross Hall**	79.06	342	⇑eP	P	15 46 28.1	+0.4
GMK	**Mull of Kintyr**	79.14	344	⇑iP	P	15 46 28.0	-0.2
KHC	**Kasperske Hory**	79.15	330	⇑iP	P	15 46 28.6	+0.3
KHC				e*PP	pP	15 46 39.7	-0.3
KHC				e		15 46 43.5	
KHC				eS	S	15 56 26.7	+3.0
KHC				MLR	MLR		
	comp=Z,5µm,18.9s,MS5.8						
KHC	**Kasperske Hory**	79.15	330	⇑iP	P	15 46 28.6	+0.3
KHC				epP	pP	15 46 39.7	-0.3
KHC				sP	sP	15 46 43.5	-0.7
KHC				eS	S	15 56 26.7	+3.0
KHC				AMS	AMS	16 24 40.0	
	comp=Z,5µm,18.9s						
BBO1	**Bothel**	79.19	342	⇑iP	P	15 46 28.5	0.0
SOP	**Sopron**	79.21	328	⇑eP	P	15 46 29.7	+1.0
KONT	**Konya--Tatoy**	79.25	312	P	P	15 46 28.5	-0.7
EDRB	**Edirne**	79.28	318	eP	P	15 46 27.0	-2.2
GEC2	**GERESS Array S**	79.34	330	eP	P	15 46 29.3	-0.1
GEC2				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.5						
GEC2	**GERESS Array S**	79.34	330	eP	P	15 46 29.3	-0.1
	comp=Z,62nm,1.1s,mb5.5						
GERES	**GERESS Array B**	79.34	330	P	P	15 46 29.3	-0.1
	comp=Z,36nm,0.8s,mb5.3,baz=34,slow=4.8,SNR=173						
GERES	**GERESS Array B**	79.34	330	P	P	15 46 29.3	-0.1
GERES				pmax	pmax		
	comp=Z,36nm,0.9s						
WET	**Wettzell**	79.39	331	eP	P	15 46 30.2	+0.5
WET				pmax	pmax		
	comp=Z,154nm,1.0s,mb5.9						
WET	**Wettzell**	79.39	331	eP	P	15 46 30.2	+0.5
	comp=Z,154nm,1.0s,mb5.9						
GAL1	**Galloway**	79.40	343	⇑eP	P	15 46 29.4	-0.2
GCL	**Cushendall**	79.50	344	⇑iP	P	15 46 30.1	0.0
GRA1	**Grafenberg Arr**	79.52	332	eP	P	15 46 30.5	+0.2
	comp=Z,226nm,1.0s,mb6.0						
GRA1				epP	pP	15 46 41.9	-0.1
GRA1				esP	sP	15 46 46.9	+0.7
GRA1				LR	LR		
	comp=Z,2µm,21.1s,MS5.4						
GRF	**Grafenberg Arr**	79.52	332	eP	P	15 46 30.5	+0.2
GRF				e*PP	pP	15 46 41.9	-0.1
GRF				e*SP	sP	15 46 46.9	+0.7
GRF				pmax	pmax		
	comp=Z,226nm,1.0s,mb6.0						
GRF				MLR	MLR		
	comp=Z,2µm,21.1s,MS5.4						
GRF	**Grafenberg Arr**	79.52	332	eP	P	15 46 30.5	+0.2
	comp=Z,226nm,1.0s,mb6.0						
GRF				epP	pP	15 46 41.9	-0.1
GRF				esP	sP	15 46 46.9	+0.7
GRF				LR	LR		
	comp=Z,2µm,21.1s,MS5.4						
ORLT	**Orhaneli**	79.54	316	P	P	15 46 31.4	+0.7
PKSM	**Moragy**	79.55	326	⇑iP	P	15 46 30.2	-0.4
ALT	**Altintas**	79.64	314	P	P	15 46 30.2	-1.0
DIM	**Dimitrovgrad**	79.71	319	i P	P	15 46 32.5	+1.0
NWAO	**Narrogin (SRO)**	79.73	204	P	P	15 46 32.4	+0.5
	comp=Z,26nm,0.9s,mb5.1,baz=16,slow=6.2,SNR=6.9						
NWAO	**Narrogin (SRO)**	79.73	204	P	P	15 46 32.4	+0.5
NWAO				pmax	pmax		
	comp=Z,26nm,1.0s						
IKL	**Isikli**	79.75	310	eP	P	15 46 29.4	-2.5
BNT	**Bandirma**	79.81	317	P	P	15 46 32.1	0.0
RHK1	**Bakonya**	79.88	326	⇑eP	P	15 46 32.3	-0.1
BEO	**Belgrade**	79.89	324	⇓iP	P	15 46 31.5	-0.9
HDMB	**Hadim**	79.89	312	P	P	15 46 31.7	-0.9
MOA	**Molln**	79.96	329	⇑iP	P	15 46 33.0	+0.3
	comp=Z,58nm,1.3s,mb5.3						
ARSA	**Arzberg**	79.97	328	⇑iP	P	15 46 33.3	+0.5
	comp=Z,150nm,1.7s,mb5.7						
SVIS	**Svilajnac**	79.97	323	⇑iP	P	15 46 30.9	-1.9
PGB	**Panagyurishte**	79.98	320	i P	P	15 46 34.0	+1.0
BOLS	**Boljevac**	80.00	322	⇓iP	P	15 46 32.2	-0.8
TOO	**Toolangi**	80.04	180	eP	P	15 46 34.8	+1.4
	comp=Z,5.7nm,0.8s						
RYDS	**Riyadh**	80.05	294	P	P	15 46 31.5	-2.2
WIM	**Isle of Man**	80.06	343	⇑eP	P	15 46 33.1	0.0
WIM				AMb	AMB	15 46 34.6	
	comp=Z,184nm,1.1s,mb5.9						
KDZ	**Kurdzhali**	80.07	319	i P	P	15 46 34.5	+1.0
GMM	**Mts of Mourne**	80.25	343	⇑iP	P	15 46 33.8	-0.3
ISP	**Isparta**	80.32	313	eP	P	15 46 33.7	-1.2
HGN	**Heimansgroeve**	80.33	335	⇑eP	P	15 46 34.2	-0.4
	comp=Z,105nm,1.2s,mb5.7						
HGN				epP	pP	15 46 45.8	-0.5
HGN				esP	sP	15 46 50.9	+0.5
HGN				eS	S	15 56 41.2	+5.1
SIND	**Sindeldorf**	80.37	333	⇑eP	P	15 46 34.6	-0.3
RZN	**Rozhen**	80.38	319	i P	P	15 46 35.6	+0.5
VTS	**Vitosha**	80.39	321	i P	P	15 46 36.0	+0.8
RDO	**Rodhopi**	80.40	318	eP	P	15 46 36.0	+0.8
TOD	**Tromm**	80.42	333	⇑eP	P	15 46 35.0	-0.1
TOD	**Tromm**	80.42	333	eP	P	15 46 35.1	0.0
GRUS	**Gruza**	80.51	323	⇓iP	P	15 46 35.8	+0.1
SWS	**Schriesheim**	80.56	333	⇑eP	P	15 46 35.7	-0.2
ABH	**Alteburg**	80.59	334	⇑eP	P	15 46 35.9	-0.2
ABH	**Alteburg**	80.59	334	eP	P	15 46 36.0	-0.1
GROS	**Grobnik**	80.62	328	i P	P	15 46 36.3	0.0
PERS	**Pernice**	80.63	328	⇑eP	P	15 46 36.4	0.0
WME	**Myndd Eilian**	80.67	342	⇑iP	P	15 46 36.1	-0.4
WME				AMb	AMB	15 46 37.8	
	comp=Z,94nm,1.4s,mb5.5						
HRI	**Mount Hermon**	80.70	307	P	P	15 46 38.1	+1.1
WPM1	**Penmaenmawr**	80.71	342	⇑eP	P	15 46 36.2	-0.4
WPM1				AMb	AMB	15 46 38.2	
	comp=Z,147nm,1.2s,mb5.8						
WCB1	**Church Bay**	80.75	342	eP	P	15 46 36.3	-0.5
DMUB	**Kingscourt**	80.76	344	⇑iP	P	15 46 37.1	+0.2
ASF	**Jabal al Asfar**	80.78	305	P	P	15 46 37.9	+0.5
	comp=Z,62nm,0.8s,mb5.6,baz=267,slow=3.5,SNR=60						
FUR	**Furstenfeldbru**	80.79	331	eP	P	15 46 37.6	+0.4
FUR				pmax	pmax		
	comp=Z,194nm,1.1s,mb6.0						
FUR	**Furstenfeldbru**	80.79	331	eP	P	15 46 37.6	+0.4
	comp=Z,194nm,1.1s,mb6.0						
HDH	**Heidenheim**	80.81	332	⇑eP	P	15 46 37.0	-0.3
CSS	**Prodhromos**	80.87	310	⇑eP	P	15 46 38.0	+0.1
	comp=Z,143nm,0.7s,mb6.0						
YRC	**Rhoscolyn**	80.87	342	eP	P	15 46 37.2	-0.3
YRC				AMb	AMB	15 46 39.8	
	comp=Z,65nm,1.3s,mb5.4						
YLL	**Llanberis**	80.88	342	⇑iP	P	15 46 37.5	0.0
YLL				AMb	AMB	15 46 39.0	
	comp=Z,185nm,1.3s,mb5.9						
KTD	**Kalmit**	80.90	333	eP	P	15 46 37.9	+0.2
RUP	**Ruppelstein**	80.90	334	⇑eP	P	15 46 37.7	0.0
KSU1	**Kansas State U**	80.92	44	eP	P	15 46 36.8	-1.2
MMB	**Musomiste**	80.93	320	i P	P	15 46 38.6	+0.6
OBKA	**Obir**	80.96	328	⇑iP	P	15 46 38.1	0.0
	comp=Z,329nm,2.6s,mb5.8						
AKS	**Akhisar**	80.97	316	i P	P	15 46 37.4	-0.9
STU	**Stuttgart**	81.00	332	⇑eP	P	15 46 38.3	+0.1
STU				pmax	pmax		
	comp=Z,110nm,0.8s,mb5.8						
STU	**Stuttgart**	81.00	332	⇑eP	P	15 46 38.3	0.0
	comp=Z,113nm,0.8s,mb5.8						
KKB	**Krupnik**	81.02	320	i P	P	15 46 39.0	+0.5
HILS	**Ha’il**	81.08	299	P	P	15 46 39.9	+0.8
SISC	**Sisak**	81.09	326	i P	P	15 46 38.9	+0.1
YRE	**Yr Eifl**	81.09	342	⇑eP	P	15 46 38.7	+0.1
YRE				AMb	AMB	15 46 40.2	
	comp=Z,143nm,1.2s,mb5.8						
MZLS	**Mizel**	81.12	294	P	P	15 46 39.8	+0.4
PDKS	**Podkum**	81.15	328	i P	P	15 46 39.0	-0.1
HNTI	**Hanita**	81.16	307	P	P	15 46 40.1	+0.7
HLM1	**Long Mynd**	81.16	341	⇑iP	P	15 46 39.0	0.0
HLM1				AMb	AMB	15 46 41.1	
	comp=Z,102nm,1.0s,mb5.7						
ARSS	**Ar Rass**	81.17	297	P	P	15 46 39.7	+0.1
DENT	**Denizli**	81.17	314	eP	P	15 46 39.9	+0.5
BUCH	**Bad Urach**	81.22	332	⇑eP	P	15 46 39.6	+0.2
WLF	**Walferdange**	81.22	335	eP	P	15 46 39.2	-0.2
WLF				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
WLF	**Walferdange**	81.22	335	eP	P	15 46 39.2	-0.2
	comp=Z,37nm,0.9s,mb5.3						
LBG	**Lerchenberg**	81.23	333	eP	P	15 46 39.5	+0.1
GIVF	**Givet**	81.25	336	⇑iP	P	15 46 39.1	-0.4
	comp=Z,104nm,1.1s,mb5.4						
DLF	**Lyons Farm**	81.25	343	⇑iP	P	15 46 39.7	+0.2
NVSS	**Nova Varos 2**	81.26	323	⇓iP	P	15 46 40.2	+0.4
DSB	**Dublin**	81.27	343	eP	P	15 46 38.8	-0.8
	comp=Z,60nm,0.9s,mb5.5						
LANF	**Langenberg**	81.29	333	eP	P	15 46 39.5	-0.2
AMTX	**Amarillo**	81.30	50	eP	P	15 46 40.0	-0.1
	comp=Z,17nm,0.7s,mb5.1						
SSP1	**Stoney Pound**	81.31	341	⇑eP	P	15 46 39.8	0.0
DCN	**Croghan**	81.36	344	⇑iP	P	15 46 40.4	+0.4
CPRX	**Cap Rock**	81.38	53	eP	P	15 46 40.9	+0.3
WATA	**Walderalm**	81.39	330	⇑iP	P	15 46 40.2	-0.1
	comp=Z,98nm,1.1s,mb5.7						
WTTA	**Wattenberg**	81.42	330	⇑iP	P	15 46 41.0	+0.5
	comp=Z,187nm,1.3s,mb5.9						
MNTX	**Cornudas Mount**	81.44	55	⇑eP	P	15 46 41.4	+0.6
	comp=Z,27nm,0.9s,mb5.2						
ELL	**Elmali**	81.45	313	eP	P	15 46 39.0	-1.9
HAF	**Haifa**	81.46	307	P	P	15 46 41.5	+0.5
MMLI	**Mount Malkishu**	81.47	307	P	P	15 46 42.2	+1.1
BAIF	**Baives**	81.47	336	⇑iP	P	15 46 40.4	-0.3
	comp=Z,86nm,1.1s,mb5.3						
BOJS	**Bojanci**	81.51	327	⇑eP	P	15 46 40.6	-0.4
HAE	**Alders End**	81.52	341	⇑eP	P	15 46 40.9	0.0
HAE				AMb	AMB	15 46 43.1	
	comp=Z,174nm,1.1s,mb5.9						
PLE	**Pljevlja**	81.54	323	⇑iP	P	15 46 42.0	+0.9
MOTA	**Moosalm**	81.55	331	⇑iP	P	15 46 41.5	+0.4
	comp=Z,100nm,1.0s,mb5.7						
OFRI	**‘Ofer**	81.60	307	P	P	15 46 42.2	+0.5
VOY	**Vojsko**	81.61	328	eP	P	15 46 40.4	-1.1
VOY				e		15 46 47.7	
IZM	**Izmir**	81.62	316	eP	P	15 46 40.9	-0.7
SQTA	**Sankt Quirin**	81.62	330	⇑iP	P	15 46 41.9	+0.4
	comp=Z,84nm,1.0s,mb5.6						
UBR	**Uberruh**	81.62	331	⇑eP	P	15 46 41.5	0.0
GUT	**Gutenstein**	81.63	332	⇑eP	P	15 46 41.5	0.0
CEY	**Cerknica**	81.64	328	⇑eP	P	15 46 41.2	-0.5
CEY				e		15 46 57.2	
MCH1	**Michaelchurch**	81.67	341	⇑iP	P	15 46 41.6	-0.1
BFO	**Black Forest**	81.67	333	eP	P	15 46 41.6	-0.2
BFO				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.5						
BFO	**Black Forest**	81.67	333	eP	P	15 46 41.6	-0.2
	comp=Z,65nm,1.1s,mb5.5						
IVA	**Berane**	81.68	323	⇑iP	P	15 46 42.3	+0.3
VAY	**Valandovo**	81.68	320	⇑iP	P	15 46 42.5	+0.5
GDL2	**Guadalupe Moun**	81.68	54	eP	P	15 46 42.8	+0.6
SKO	**Skopje**	81.70	321	⇑iP	P	15 46 43.0	+1.0
	comp=Z,0.3nm,0.9s						
SKO				i		15 46 59.9	
SPAK	**Spaichingen**	81.72	332	⇑eP	P	15 46 42.0	0.0
SLTI	**Sal’it**	81.84	307	P	P	15 46 43.8	+0.8
UPM	**Unac-Piva**	81.85	324	⇑iP	P	15 46 42.9	+0.1
PVY	**Plav**	81.87	323	⇑iP	P	15 46 42.4	-0.5
CLNB	**Carlsbad**	81.92	53	eP	P	15 46 43.7	+0.3
WLS	**Welschbruch**	81.93	333	eP	P	15 46 43.1	0.0
HGH	**Gray Hill**	81.95	341	⇑iP	P	15 46 43.2	0.0
HGH				AMb	AMB	15 46 45.0	
	comp=Z,132nm,0.9s,mb5.8						
CDF	**Champ du Feu**	81.95	333	⇑iP	P	15 46 43.2	0.0
	comp=Z,159nm,1.0s,mb5.6						
MKRJ	**Makawir**	81.97	306	P	P	15 46 44.6	+0.9
PLG	**Polygyros**	82.00	319	eP	P	15 46 44.0	+0.4
DAVA	**Damuels**	82.04	331	⇑iP	P	15 46 43.8	+0.1
	comp=Z,181nm,1.8s,mb5.7						
STEIN	**Stein am Rhein**	82.06	332	⇑iP	P	15 46 43.7	-0.1
STEIN	**Stein am Rhein**	82.06	332	⇑iP	P	15 46 43.6	-0.2
LIBD	**Limburg**	82.07	333	⇑eP	P	15 46 44.1	+0.3
LIBD	**Limburg**	82.07	333	eP	P	15 46 43.6	-0.2
DRGI	**Dragot**	82.09	306	P	P	15 46 45.0	+0.7
SLE	**Schleitheim**	82.11	332	c iP	P	15 46 43.6	-0.4
SLE	**Schleitheim**	82.11	332	⇑iP	P	15 46 43.6	-0.4
SLE	**Schleitheim**	82.11	332	⇑iP	P	15 46 43.7	-0.3
NKY	**Niksic**	82.13	323	⇑iP	P	15 46 43.6	-0.6
KIZ	**Kirchzarten**	82.14	333	⇑eP	P	15 46 43.8	-0.4
WEIN	**Weingarten**	82.14	332	⇑iP	P	15 46 44.0	-0.2
WEIN	**Weingarten**	82.14	332	⇑iP	P	15 46 44.3	+0.1
LIENZ	**Alp Oberkamor**	82.16	331	⇑iP	P	15 46 44.5	+0.2
ECH	**Echery**	82.17	333	eP	P	15 46 44.0	-0.3
FELD	**Feldberg**	82.18	333	⇑eP	P	15 46 44.3	-0.1
FLACH	**Flaach**	82.25	332	⇑iP	P	15 46 44.6	-0.1
BRY	**Bratogost**	82.25	324	⇑iP	P	15 46 44.4	-0.5
WILA	**Wila**	82.27	332	⇑iP	P	15 46 44.7	-0.1
MZDA	**Masada**	82.31	306	P	P	15 46 46.2	+0.8
TTG	**Podgorica**	82.32	323	⇑iP	P	15 46 44.7	-0.6
PLONS	**Plons**	82.42	331	⇑iP	P	15 46 45.7	+0.1
ZUR	**Zurich**	82.42	332	c iP	P	15 46 45.5	-0.1
ZUR	**Zurich**	82.42	332	⇑iP	P	15 46 45.5	-0.1
SULZ	**Sulz-Cheisache**	82.44	332	⇑iP	P	15 46 45.7	0.0
FUORN	**Ofenpass**	82.47	331	⇑iP	P	15 46 46.7	+0.8
DAVOX	**Davos**	82.47	331	P	P	15 46 45.8	-0.1
	comp=Z,51nm,0.9s,mb5.4,baz=22,slow=2.5,SNR=42						
DAVOX	**Davos**	82.47	331	⇑iP	P	15 46 46.4	+0.5
MOF	**Molkenrain**	82.49	333	eP	P	15 46 45.7	-0.3
THEF	**They Montfort**	82.54	334	eP	P	15 46 46.2	0.0
BUM	**Brajici-Budva**	82.58	323	⇑iP	P	15 46 46.5	-0.1
MEZF	**Maizieres J’vi**	82.59	335	⇑iP	P	15 46 46.6	+0.1
	comp=Z,173nm,1.1s,mb5.7						
HAU	**Haudompre**	82.61	334	⇑iP	P	15 46 46.3	-0.3
	comp=Z,93nm,1.0s,mb5.5						
HAU				eR			
	comp=Z,4µm,21.5s						
HINF	**Hinteralfeld**	82.61	333	⇑iP	P	15 46 46.2	-0.4
	comp=Z,54nm,1.0s,mb5.2						
HCY	**Herceg Novi**	82.64	323	⇑iP	P	15 46 46.3	-0.5
STON	**Ston**	82.64	324	i P	P	15 46 45.4	-1.4
AFFS	**‘Afif**	82.66	296	P	P	15 46 47.9	+0.6
OHR	**Ohrid**	82.67	321	⇑iP	P	15 46 47.1	+0.1
ULC	**Ulcinj**	82.70	323	⇑iP	P	15 46 47.1	-0.1
BBS	**Basel-Blauen**	82.70	333	⇑eP	P	15 46 47.1	0.0
LLS	**Linth-Limmern**	82.72	332	c iP	P	15 46 47.3	+0.1
LLS	**Linth-Limmern**	82.72	332	⇑iP	P	15 46 47.3	+0.1
BERNI	**Berninapass**	82.73	331	⇑iP	P	15 46 47.8	+0.6
MUO	**Muotathal**	82.75	332	⇑iP	P	15 46 47.5	+0.2
BALST	**Balsthal**	82.75	333	⇑iP	P	15 46 47.3	0.0
QSH	**Qafa e Shtames**	82.75	322	i Pn	P	15 46 49.0	+1.5
ARG	**Arkhangelos**	82.81	314	eP	P	15 46 48.5	+0.7
KZN	**Kozani**	82.85	320	eP	P	15 46 47.5	-0.5
BOURR	**Bourrignon**	82.86	333	⇑iP	P	15 46 48.0	+0.2
VDL	**Val di Lei**	82.87	331	c iP	P	15 46 48.4	+0.5
VDL	**Val di Lei**	82.87	331	⇑iP	P	15 46 48.4	+0.5
MASH	**Mash‘abbe Sade**	82.88	306	P	P	15 46 48.8	+0.5
BNALP	**Bannalp**	82.90	332	⇑iP	P	15 46 48.3	+0.2
TIR	**Tirane**	82.91	322	ePn	P	15 46 48.7	+0.4
ZFRI	**Zfri**	82.96	305	P	P	15 46 49.6	+0.8
WMOK	**Wichita Mounta**	83.02	48	eP	P	15 46 48.9	-0.1
	comp=Z,45nm,1.3s,mb5.3						
WMOK				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
LOMF	**Lomont**	83.03	333	eP	P	15 46 49.0	+0.3
HASLI	**Hasliberg**	83.10	332	⇑iP	P	15 46 49.3	+0.2
KZIT	**Kziot**	83.18	306	P	P	15 46 50.6	+0.8
FUSIO	**Fusio**	83.18	332	⇑iP	P	15 46 49.9	+0.4
PRNI	**Paran**	83.21	305	P	P	15 46 51.1	+1.1
WIMIS	**Wimmis**	83.36	332	⇑iP	P	15 46 50.4	0.0
SBD	**Saint Breward**	83.39	341	⇑eP	P	15 46 37.9	-13
TORNY	**Torny**	83.49	333	⇑iP	P	15 46 51.2	+0.1
TORNY	**Torny**	83.49	333	⇑iP	P	15 46 50.7	-0.4
MUGIO	**Muggio**	83.50	331	⇑iP	P	15 46 50.7	-0.4
MUGIO	**Muggio**	83.50	331	⇑iP	P	15 46 51.2	+0.1
APE	**Apeiranthos**	83.52	316	eP	P	15 46 50.1	-1.3
APE	**Apeiranthos**	83.52	316	c iP	P	15 46 50.4	-1.0
APE	**Apeiranthos**	83.52	316	⇑iP	P	15 46 50.5	-0.9
KMTI	**Karmit**	83.56	305	P	P	15 46 52.5	+0.7
LKBD	**Leukerbad**	83.60	332	⇑iP	P	15 46 51.8	+0.2
AQBJ	**Aqaba**	83.63	305	P	P	15 46 53.2	+1.0
MBH	**Mount Berech**	83.67	305	P	P	15 46 53.3	+1.0
SENIN	**Lac Senin**	83.73	332	⇑iP	P	15 46 52.6	+0.4
JMQS	**Jabal Moqyreh**	83.73	304	P	P	15 46 53.7	+1.0
EIL	**Elat**	83.73	305	P	P	15 46 52.9	+0.2
	comp=Z,121nm,0.8s,mb6.0,baz=24,slow=5.9,SNR=84						
EIL	**Elat**	83.73	305	P	P	15 46 53.6	+0.9
EIL	**Elat**	83.73	305	P	P	15 46 52.9	+0.2
TBKS	**Tabuk**	83.79	303	P	P	15 46 54.1	+1.1
JAN	**Janina**	83.80	320	eP	P	15 46 53.4	+0.6
KBRS	**Khaybar**	83.81	299	P	P	15 46 54.2	+1.1
KARP	**Karpathos**	83.82	314	eP	P	15 46 53.1	+0.1
AIGLE	**Aigle**	83.87	333	⇑iP	P	15 46 53.0	+0.1
AIGLE	**Aigle**	83.87	333	⇑iP	P	15 46 53.6	+0.7
GRYON	**Gryon**	83.89	332	⇑iP	P	15 46 53.3	+0.2
CABF	**La Chapelle**	83.92	333	⇑iP	P	15 46 53.5	+0.3

	comp=Z,45nm,0.8s,mb5.3						
ALWS	**Ilw as Safayha**	**83.92**	**305**	P	**P**	**15 46 54.7**	**+1.1**
EVR	**Evrytania**	**83.93**	**319**	*e*P	**P**	**15 46 52.5**	**-1.0**
DIX	**Grande Dixence**	**83.94**	**332**	*c i*P	**P**	**15 46 54.1**	**+0.8**
DIX	**Grande Dixence**	**83.94**	**332**	⇑*i*P	**P**	**15 46 54.1**	**+0.8**
DIX	**Grande Dixence**	**83.94**	**332**	⇑*i*P	**P**	**15 46 54.8**	**+1.5**
OG01	**Vacheresse**	**83.97**	**333**	*e*P	**P**	**15 46 52.8**	**-0.7**
FLN	**La Foliniere**	**83.99**	**338**	⇑*i*P	**P**	**15 46 53.5**	**0.0**
	comp=Z,66nm,1.0s,mb5.4						
FLN				*e*R			
	comp=Z,1µm,19.0s						
JMOS	**Jabal al Moall**	**84.00**	**304**	P	**P**	**15 46 55.0**	**+1.0**
LDF	**La Druitiere**	**84.04**	**338**	⇑*i*P	**P**	**15 46 53.7**	**-0.1**
	comp=Z,25nm,0.7s,mb5.2						
EMV	**Vieux Emosson**	**84.13**	**332**	⇑*i*P	**P**	**15 46 54.7**	**+0.4**
ORX	**Oropa**	**84.13**	**332**	P	**P**	**15 46 54.2**	**-0.1**
LTX	**Lajitas**	**84.16**	**55**	*e*P	**P**	**15 46 55.6**	**+0.8**
	comp=Z,29nm,0.9s,mb5.4						
LTX				LR	LR		
	comp=Z,923nm,19.0s,MS5.2						
TXAR	**Lajitas Array**	**84.16**	**55**	P	**P**	**15 46 55.4**	**+0.5**
	comp=Z,15nm,0.9s,mb5.1,baz=288,slow=4.0,SNR=47						
TXAR				LR	LR	16 23 27.0	
	comp=Z,433nm,19.6s,MS4.8,baz=355,slow=35						
HAQS	**Haql**	**84.19**	**305**	P	**P**	**15 46 55.9**	**+0.9**
KEK	**Kerkira**	**84.25**	**321**	*e*P	**P**	**15 46 55.5**	**+0.5**
TRAV		**84.31**	**332**	P	**P**	**15 46 54.5**	**-0.8**
SSF	**Saint Saulge**	**84.35**	**335**	⇑*i*P	**P**	**15 46 55.4**	**0.0**
	comp=Z,68nm,0.8s,mb5.5						
GRAM		**84.36**	**330**	P	**P**	**15 46 55.7**	**+0.3**
VALM		**84.41**	**329**	P	**P**	**15 46 55.7**	**0.0**
GRR	**Gorron**	**84.43**	**338**	⇑*i*P	**P**	**15 46 56.1**	**+0.4**
	comp=Z,210nm,1.3s,mb5.8						
HYF	**Humbligny**	**84.44**	**336**	*e*P	**P**	**15 46 56.2**	**+0.4**
SARO	**Sassorosso**	**84.50**	**329**	P	**P**	**15 46 56.5**	**+0.3**
VLC	**Villacollemand**	**84.52**	**329**	*e*P	**P**	**15 46 56.2**	**-0.1**
	comp=Z,137nm,0.9s,mb6.1						
CODM		**84.53**	**330**	P	**P**	**15 46 56.4**	**+0.1**
BDAS	**Al Bad‘**	**84.53**	**304**	P	**P**	**15 46 57.4**	**+0.7**
BACM		**84.54**	**330**	P	**P**	**15 46 56.3**	**-0.1**
RSL	**Roselend**	**84.55**	**332**	*e*P	**P**	**15 46 56.7**	**+0.3**
LSD	**Ceresole Reale**	**84.57**	**332**	P	**P**	**15 46 56.9**	**+0.5**
TAYS	**Tayyib Ism**	**84.59**	**304**	P	**P**	**15 46 57.8**	**+0.8**
AYUS	**‘Aynunah**	**84.61**	**304**	P	**P**	**15 46 57.9**	**+0.8**
PPT	**Papeete**	**84.61**	**120**	*e*S	S	15 57 21.6	+1.5
PPT				*e*SS	SS	16 03 04.2	+9.5
PPT				*e*LR	LR	16 13 11.0	
	comp=Z,6µm,29.8s,baz=318						
SMF	**Signal de Mont**	**84.62**	**335**	⇑*i*P	**P**	**15 46 56.9**	**+0.2**
	comp=Z,236nm,0.9s,mb6.0						
VINC	**Vinca**	**84.63**	**329**	P	**P**	**15 46 56.3**	**-0.5**
OG05	**Jujurieux**	**84.63**	**333**	*e*P	**P**	**15 46 57.2**	**+0.4**
LPL	**La Plagne**	**84.66**	**332**	⇑*i*P	**P**	**15 46 57.8**	**+0.8**
	comp=Z,118nm,0.9s,mb5.7						
LPG	**La Plagne**	**84.67**	**332**	⇑*i*P	**P**	**15 46 58.0**	**+1.0**
	comp=Z,139nm,1.0s,mb5.8						
MAIM		**84.69**	**329**	P	**P**	**15 46 56.3**	**-0.8**
RSP	**Reno Superiore**	**84.80**	**332**	P	**P**	**15 46 57.5**	**-0.1**
FVM	**French Village**	**84.86**	**41**	*e*P	**P**	**15 46 58.0**	**-0.1**
FVM				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.4						
FVM	**French Village**	**84.86**	**41**	*e*P	**P**	**15 46 58.0**	**-0.1**
	comp=Z,38nm,1.2s,mb5.4						
NPS	**Neapolis**	**84.86**	**315**	*e*P	**P**	**15 46 57.7**	**-0.5**
AQU	**L’Aquila**	**84.87**	**326**	⇑*i*P	**P**	**15 46 58.3**	**+0.2**
AQU				pmax	pmax		
	comp=Z,140nm,0.9s,mb6.1						
AQU	**L’Aquila**	**84.87**	**326**	⇑*i*P	**P**	**15 46 58.2**	**+0.2**
	comp=Z,142nm,0.9s,mb6.1						
DBAS	**Duba**	**84.87**	**303**	P	**P**	**15 46 59.1**	**+0.7**
PCP	**Pian Castagno**	**84.87**	**331**	P	**P**	**15 46 57.9**	**-0.1**
MUKL	**Al Mukalla**	**84.94**	**285**	⇑*e*P	**P**	**15 46 59.9**	**+0.9**
FENE	**Fenestrelle**	**84.97**	**332**	P	**P**	**15 46 58.5**	**-0.1**
BGF	**Bois d’Agland**	**85.01**	**335**	⇑*i*P	**P**	**15 46 58.9**	**+0.3**
	comp=Z,72nm,0.9s,mb5.5						
SGMF	**Saint Gilles**	**85.01**	**339**	⇑*i*P	**P**	**15 46 59.2**	**+0.6**
	comp=Z,245nm,1.1s,mb5.9						
CII	**Carovilli**	**85.02**	**326**	*e*P	**P**	**15 46 59.7**	**+0.9**
	comp=Z,102nm,1.0s,mb5.9						
BHB	**Bricherasio**	**85.07**	**332**	P	**P**	**15 46 58.6**	**-0.4**
BNI	**Bardonecchia**	**85.09**	**332**	⇑*e*P	**P**	**15 46 59.6**	**+0.5**
BNI				pmax	pmax		
	comp=Z,84nm,1.0s,mb5.8						
BNI	**Bardonecchia**	**85.09**	**332**	⇑*e*P	**P**	**15 46 59.6**	**+0.5**
	comp=Z,84nm,1.0s,mb5.8						
VLS	**Valsamata**	**85.10**	**320**	*e*P	**P**	**15 46 59.3**	**0.0**
VLI	**Veliai**	**85.10**	**317**	*e*P	**P**	**15 46 58.0**	**-1.4**
XRY	**Khrisi**	**85.11**	**314**	*e*P	**P**	**15 46 59.8**	**+0.3**
ROSF	**Rostrenen**	**85.12**	**340**	⇑*i*P	**P**	**15 46 59.9**	**+0.8**
	comp=Z,273nm,1.0s,mb6.0						
GDM	**Grand’Maison**	**85.15**	**332**	*e*P	**P**	**15 47 00.3**	**+0.9**
RRL	**Cesana Torines**	**85.17**	**332**	P	**P**	**15 47 00.1**	**+0.6**
OG22	**Abries**	**85.19**	**332**	*e*P	**P**	**15 47 00.0**	**+0.4**
IDI	**Anoyia**	**85.22**	**315**	P	**P**	**15 46 59.2**	**-0.7**
	comp=Z,136nm,0.9s,mb6.1,baz=30,slow=8.6,SNR=43						
GRN	**Grenoble**	**85.24**	**333**	*e*P	**P**	**15 47 00.4**	**+0.6**
ITM	**Ithomi**	**85.24**	**318**	*e*P	**P**	**15 46 59.5**	**-0.5**
FIN	**Finale Ligure**	**85.28**	**331**	P	**P**	**15 46 58.9**	**-1.1**
PLDF	**La Plantade**	**85.29**	**334**	*e*P	**P**	**15 47 01.7**	**+1.6**
ROB	**Roburent**	**85.33**	**331**	P	**P**	**15 46 59.7**	**-0.5**
MBDF	**Montbardon**	**85.34**	**332**	⇑*i*P	**P**	**15 47 00.5**	**+0.2**
	comp=Z,147nm,0.9s,mb5.8						
TATS	**Tathlith**	**85.36**	**292**	P	**P**	**15 47 02.3**	**+1.3**
AGO	**Saint Agoulin**	**85.37**	**335**	*e*P	**P**	**15 47 02.2**	**+1.8**
KYTH	**Kithira**	**85.39**	**317**	*e*P	**P**	**15 46 59.0**	**-1.8**
PZZ	**Prazzo**	**85.42**	**332**	P	**P**	**15 46 59.6**	**-1.1**
TCF	**Toulx Ste Croi**	**85.44**	**335**	⇑*i*P	**P**	**15 47 01.4**	**+0.6**
	comp=Z,113nm,1.2s,mb5.6						
ORIF	**Oris-en-Rattie**	**85.48**	**332**	⇑*i*P	**P**	**15 47 01.7**	**+0.7**
	comp=Z,101nm,0.9s,mb5.7						
ORIF				*e*R			
	comp=Z,4µm,22.2s						
QUIF	**Quistinic**	**85.48**	**339**	*e*P	**P**	**15 47 01.4**	**+0.5**
	comp=Z,158nm,1.0s,mb5.8						
VAM	**Vamos**	**85.48**	**316**	*e*P	**P**	**15 47 01.0**	**-0.3**
SURF	**Saint Ours**	**85.54**	**332**	*e*P	**P**	**15 47 02.1**	**+0.8**
ENR	**Entracque**	**85.55**	**331**	P	**P**	**15 46 59.7**	**-1.7**
MONE	**Monesi**	**85.56**	**331**	P	**P**	**15 47 00.8**	**-0.6**
STV2	**Anna di Valdie**	**85.56**	**331**	P	**P**	**15 46 59.7**	**-1.7**
STV	**Sta Anna Valdi**	**85.56**	**331**	P	**P**	**15 46 59.9**	**-1.6**
JCT	**Junction City**	**85.61**	**52**	*e*P	**P**	**15 47 02.2**	**+0.2**
	comp=Z,29nm,1.0s,mb5.5						
YNBS	**Yanbu‘ al Bahr**	**85.64**	**299**	P	**P**	**15 47 03.3**	**+1.0**
IMI	**Imperia**	**85.65**	**331**	P	**P**	**15 47 01.6**	**-0.3**
PYM	**Petit Puy Mans**	**85.68**	**335**	*e*P	**P**	**15 47 03.3**	**+1.3**
SAOF	**Saorge**	**85.71**	**331**	*e*P	**P**	**15 47 02.0**	**-0.2**
AUTN	**L’Aution**	**85.75**	**331**	*e*P	**P**	**15 47 02.5**	**+0.2**
NEGI	**Negi**	**85.78**	**331**	P	**P**	**15 47 02.0**	**-0.5**
TOUF	**Mont Tournerai**	**85.79**	**331**	*e*P	**P**	**15 47 02.8**	**+0.2**
SBF	**Sospel**	**85.86**	**331**	⇑*i*P	**P**	**15 47 02.7**	**-0.2**
	comp=Z,287nm,0.9s,mb6.2						
OG25	**Le Caire**	**85.89**	**332**	*e*P	**P**	**15 47 03.5**	**+0.5**
MVIF	**Mont Vial**	**85.93**	**331**	*e*P	**P**	**15 47 02.8**	**-0.4**
VIVF	**Saint-Julien-l**	**85.94**	**333**	⇑*i*P	**P**	**15 47 04.0**	**+0.8**
	comp=Z,163nm,1.0s,mb5.9						
MIAR	**Mount Ida**	**85.96**	**45**	*e*P	**P**	**15 47 03.9**	**+0.3**
	comp=Z,58nm,1.3s,mb5.7						
LCHF	**La Chataignera**	**85.97**	**337**	*e*P	**P**	**15 47 04.9**	**+1.6**
OCF	**Saint Nazaire**	**85.97**	**333**	*e*P	**P**	**15 47 04.1**	**+0.7**
OG26	**St.-Nazaire-De**	**85.97**	**333**	*e*P	**P**	**15 47 04.1**	**+0.7**
GVD	**Gavdhos**	**85.98**	**315**	⇑*e*P	**P**	**15 47 03.4**	**-0.3**
	comp=Z,284nm,1.1s,mb6.4						
REVF	**Revere**	**85.99**	**331**	*e*P	**P**	**15 47 03.5**	**0.0**
TIP	**Timpagrande**	**86.06**	**323**	*e*P	**P**	**15 47 04.4**	**+0.4**
LBL	**Lubilhac**	**86.07**	**334**	*e*P	**P**	**15 47 06.2**	**+2.3**
FRNF	**Fournols**	**86.14**	**335**	*e*P	**P**	**15 47 05.3**	**+1.1**
BLJS	**Baljurashi**	**86.39**	**294**	P	**P**	**15 47 07.5**	**+1.4**
FRF	**La Foret Royal**	**86.40**	**331**	⇑*i*P	**P**	**15 47 05.5**	**-0.1**
	comp=Z,165nm,1.1s,mb5.9						
SMRF	**Simiane la Rot**	**86.41**	**332**	⇑*i*P	**P**	**15 47 06.3**	**+0.7**
	comp=Z,75nm,1.0s,mb5.6						
PGF	**Pioggiola**	**86.42**	**329**	⇑*i*P	**P**	**15 47 05.6**	**-0.1**
	comp=Z,111nm,0.9s,mb5.8						
NAMS	**An Nimas**	**86.48**	**293**	P	**P**	**15 47 08.1**	**+1.6**
RJF	**Les Rejaudoux**	**86.54**	**335**	⇑*i*P	**P**	**15 47 07.0**	**+0.8**
	comp=Z,181nm,1.0s,mb6.0						
RJF				*e*R			
	comp=Z,2µm,20.8s						
LMR	**La Mourre**	**86.65**	**331**	⇑*i*P	**P**	**15 47 06.9**	**+0.1**
	comp=Z,371nm,1.0s,mb6.3						
CAF	**Calviac**	**86.71**	**335**	⇑*i*P	**P**	**15 47 08.4**	**+1.4**
	comp=Z,351nm,1.0s,mb6.2						
LASF	**Ste Croix**	**86.90**	**333**	⇑*i*P	**P**	**15 47 09.0**	**+1.0**
	comp=Z,165nm,1.0s,mb5.9						
LFF	**La Frestale**	**87.11**	**336**	⇑*i*P	**P**	**15 47 10.0**	**+1.0**
	comp=Z,250nm,1.0s,mb6.1						
LBOS		**88.03**	**287**	⇑*e*P	**P**	**15 47 15.3**	**+1.2**
MTLF	**Montolieu**	**88.09**	**334**	⇑*i*P	**P**	**15 47 14.8**	**+1.1**
	comp=Z,121nm,0.9s,mb5.8						
OXF	**Oxford**	**88.11**	**43**	*e*P	**P**	**15 47 13.4**	**-0.7**
OXF				pmax	pmax		
	comp=Z,110nm,1.1s,mb6.0						
OXF	**Oxford**	**88.11**	**43**	*e*P	**P**	**15 47 13.4**	**-0.7**
	comp=Z,112nm,1.1s,mb6.0						
SSPA	**Standing Stone**	**88.12**	**32**	*e*P	**P**	**15 47 14.3**	**+0.4**
	comp=Z,33nm,1.0s,mb5.5						
MCWV	**Mont Chateau**	**88.19**	**33**	*e*P	**P**	**15 47 14.8**	**+0.5**
	comp=Z,41nm,0.8s,mb5.7						
VAE	**Valguarnera**	**88.50**	**323**	P	**P**	**15 47 16.6**	**+0.7**
	comp=Z,13nm,0.9s,mb5.3,baz=59,slow=5.9,SNR=2.5						
EJON	**La Jonquera**	**88.67**	**333**	P	**P**	**15 47 16.8**	**+0.3**
	comp=Z,10nm,0.8s,mb5.2						
MLS	**Moulis**	**88.79**	**335**	*e*P	**P**	**15 47 18.0**	**+0.9**
WES	**Weston**	**88.92**	**26**	*e*P	**P**	**15 47 17.5**	**-0.2**
WES				*e*	pP	15 47 29.2	-0.4
WES				pmax	pmax		
	comp=Z,65nm,0.9s,mb6.0						
WES	**Weston**	**88.92**	**26**	*e*P	**P**	**15 47 17.5**	**-0.2**
	comp=Z,64nm,0.9s,mb6.0						
WES				*e*	pP	15 47 29.2	-0.4
EPF	**Esparros**	**88.96**	**335**	⇑*i*P	**P**	**15 47 18.2**	**+0.3**
	comp=Z,77nm,1.2s,mb5.6						
TBI	**Tubuai**	**88.96**	**124**	*e*LR	LR	16 14 37.1	
	comp=Z,2µm,31.2s,baz=316						
VALF	**Valcebollere**	**89.00**	**334**	*e*P	**P**	**15 47 19.1**	**+1.0**
RESF	**Ens**	**89.16**	**335**	*e*P	**P**	**15 47 20.5**	**+1.6**
VIEF	**Viey**	**89.19**	**335**	*e*P	**P**	**15 47 20.2**	**+1.2**
EBIE	**Bielsa**	**89.33**	**335**	P	**P**	**15 47 21.2**	**+1.5**
	comp=Z,18nm,0.8s,mb5.5						
EALK	**Alkurruntz**	**89.34**	**337**	P	**P**	**15 47 20.5**	**+0.8**
	comp=Z,14nm,0.9s,mb5.3						
ETSF	**Etsaut**	**89.35**	**336**	⇑*i*P	**P**	**15 47 20.7**	**+0.9**
	comp=Z,69nm,0.8s,mb5.7						
LARF	**Larrau**	**89.35**	**336**	*e*P	**P**	**15 47 20.8**	**+1.0**
SJPF	**Ste Jean**	**89.36**	**336**	⇑*i*P	**P**	**15 47 20.7**	**+0.9**
	comp=Z,41nm,0.9s,mb5.4						
FWV	**Forest Hill**	**89.55**	**35**	*e*P	**P**	**15 47 19.6**	**-1.2**
FWV				*e*	pP	15 47 32.8	+0.1
PWV	**Princeton**	**89.66**	**35**	*e*P	**P**	**15 47 21.9**	**+0.6**
ELN	**Prospectdale**	**89.87**	**35**	*e*P	**P**	**15 47 22.4**	**0.0**
ELN				*e*	pP	15 47 34.0	-0.2
ELAN	**Lanestosa**	**89.88**	**338**	P	**P**	**15 47 22.4**	**+0.2**
	comp=Z,28nm,0.9s,mb5.6						
MYNC	**Murphy**	**90.18**	**39**	*e*P	**P**	**15 47 24.5**	**+0.6**
MYNC				*e*	pP	15 47 34.1	-1.6
MYNC				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.6						
MYNC	**Murphy**	**90.18**	**39**	*e*P	**P**	**15 47 24.5**	**+0.7**
	comp=Z,30nm,1.1s,mb5.5						
MYNC				*e*	pP	15 47 34.1	-1.6
EPOB	**Poblet**	**90.24**	**334**	P	**P**	**15 47 24.4**	**+0.4**
	comp=Z,34nm,0.9s,mb5.7						
ESAC	**San Caprasio**	**90.40**	**335**	P	**P**	**15 47 25.9**	**+1.2**
	comp=Z,88nm,0.9s,mb6.1						
LRAL	**Lakeview Retre**	**90.49**	**42**	PFAKE		15 47 40.0	+15
LRAL				LR	LR		
	comp=Z,945nm,20.0s,MS5.2						
ERTA	**Horta de San J**	**90.84**	**334**	P	**P**	**15 47 27.1**	**+0.3**
	comp=Z,24nm,1.0s,mb5.5						
EBR	**Ebro Roquetas**	**90.91**	**334**	*e*P	**P**	**15 47 27.7**	**+0.6**
EMOS	**Mosqueruela**	**91.64**	**335**	P	**P**	**15 47 31.1**	**+0.6**
	comp=Z,30nm,0.9s,mb5.6						
PBRG	**Braganca**	**92.09**	**340**	*e*P	**P**	**15 47 32.4**	**-0.2**
PVRL	**Vila Real**	**92.84**	**340**	*e*P	**P**	**15 47 35.6**	**-0.4**
EBEN	**Beniarda**	**93.07**	**334**	P	**P**	**15 47 38.0**	**+0.9**
	comp=Z,23nm,0.9s,mb5.6						
ESDC	**Sonseca Array**	**93.32**	**337**	P	**P**	**15 47 37.7**	**-0.6**
	comp=Z,35nm,1.1s,mb5.7,baz=19,slow=3.7,SNR=35						
ESDC	**Sonseca Array**	**93.32**	**337**	P	**P**	**15 47 38.2**	**-0.1**
	comp=Z,21nm,0.9s,mb5.6						
ESLA	**Sonseca Array**	**93.32**	**337**	*e*P	**P**	**15 47 37.0**	**-1.3**
	comp=Z,4.5nm,0.9s,mb4.9						
PVIS	**Viseu**	**93.41**	**340**	*e*P	**P**	**15 47 38.6**	**0.0**
MTE	**Manteigas**	**93.62**	**340**	*e*P	**P**	**15 47 39.5**	**-0.1**
	comp=Z,49nm,1.1s,mb5.8						
MTE				*e*LR	LR	16 23 44.0	
	comp=Z,818nm,17.5s						
EVIA	**Vianos**	**93.84**	**335**	P	**P**	**15 47 42.1**	**+1.5**
	comp=Z,15nm,0.7s,mb5.5						
EQES	**Quesada**	**94.79**	**336**	P	**P**	**15 47 45.5**	**+0.6**
	comp=Z,6.9nm,0.7s,mb5.2						
EADA	**Adamuz**	**94.90**	**337**	P	**P**	**15 47 44.5**	**-0.9**
	comp=Z,8.9nm,0.9s,mb5.2						
EVO	**Evora**	**95.50**	**339**	*e*P	**P**	**15 47 47.8**	**-0.4**
	comp=Z,70nm,1.4s,mb5.6						
EVO				*e*R			
	comp=Z,1µm,17.0s						
EMIN	**Mina Concepcio**	**95.86**	**338**	P	**P**	**15 47 49.7**	**-0.1**
	comp=Z,7.9nm,0.9s,mb5.1						
ESPR	**Espera**	**96.47**	**337**	P	**P**	**15 47 53.2**	**+0.6**
	comp=Z,13nm,0.8s,mb5.4						
RKT	**Rikitea**	**98.14**	**114**	*e*SP	SP	16 00 49.2	-0.8
RKT				*e*SS	SS	16 06 11.5	+3.0
RKT				*e*LR	LR	16 19 19.8	
	comp=Z,3µm,30.0s,baz=312						
KMBO	**Kilima Mbogo**	**104.08**	**282**	Pdiff	Pdif	15 48 28.1	+0.7
	comp=Z,5.0nm,1.1s,baz=218,slow=22,SNR=8.1						
KMBO				PKiKP		15 52 45.2	
	comp=Z,2.7nm,0.8s,baz=42,slow=4.8,SNR=5.3						
KMBO	**Kilima Mbogo**	**104.08**	**282**	P	Pdif	15 48 28.1	+0.7
KMBO				*i*		15 52 45.3	
KMBO				pmax	pmax		
	comp=Z,5.0nm,1.1s						
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SDV	**Santo Domingo**	**118.88**	**42**	*e*PKPdf	PKPdf	15 53 12.3	+1.1
LSZ	**Lusaka**	**120.20**	**277**	*e*PKIKP	PKPdf	15 53 14.8	+1.1
LSZ				*e*		15 54 36.7	
VNDA	**Vanda**	**120.52**	**176**	PKP	PKPdf	15 53 13.8	+0.7
	comp=Z,3.2nm,0.9s,baz=304,slow=2.8,SNR=9.4						
VNDA	**Vanda**	**120.52**	**176**	PKIKP	PKPdf	15 53 13.8	+0.8
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
DBIC	**Dimbokro**	**123.83**	**324**	PKP	PKPdf	15 53 21.2	+0.4
	comp=Z,12nm,0.9s,baz=105,slow=2.5,SNR=10						
DBIC				PP	PP	15 55 05.9	-3.0
	comp=Z,16nm,1.0s,baz=31,slow=5.5,SNR=5.9						
DBIC	**Dimbokro**	**123.83**	**324**	PKIKP	PKPdf	15 53 21.3	+0.5
DBIC						15 55 05.9	
DBIC				pmax	pmax		
	comp=Z,12nm,0.9s						
DBIC				pmax	pmax		
	comp=Z,16nm,1.0s						
MAW	**Mawson**	**126.14**	**208**	PKP	PKPdf	15 53 25.4	+1.6
	comp=Z,12nm,0.9s,baz=211,slow=0.9,SNR=9.4						
MAW	**Mawson**	**126.14**	**208**	*e*PKIKP	PKPdf	15 53 24.6	+0.8
QSPA	**South Pole Qui**	**132.59**	**180**	⇑*i*P	PKPdf	15 53 37.4	+1.5
SYO	**Syowa Base**	**134.81**	**209**	⇓PKPdf	PKPdf	15 53 41.4	+1.1
SYO	**Syowa Base**	**134.81**	**209**	⇓pPKiKP		15 53 59.8	
NVL	**N’lazarevskaya**	**143.86**	**204**	⇑*e*PKIKP	PKPdf	15 53 55.0	-1.2
NVL				pmax	pmax		
	comp=Z,290nm,3.1s						
MAIT	**Maitri**	**143.88**	**204**	*e*PKP	PKPdf	15 53 55.8	-0.4
SNAA	**Sanae**	**147.23**	**198**	⇑*i*	PKPdf	15 54 06.0	+4.0
SNAA	**Sanae**	**147.23**	**198**	⇑*i*	PKPdf	15 54 20.6	+19
SNAA	**Sanae**	**147.23**	**198**	PKPbc	PKPdf	15 54 04.0	+2.0
	comp=Z,12nm,0.8s,baz=127,slow=3.5,SNR=44						
SNAA	**Sanae**	**147.23**	**198**	*e*PKIKP	PKPdf	15 54 03.6	+1.6
SNAA				*e*		15 54 06.1	
SNAA	**Sanae**	**147.23**	**198**	⇑*i*PKPdf	PKPdf	15 54 03.5	+1.5
SNAA				⇑*i*P		15 54 06.0	
TLL	**Tololo Astrono**	**148.44**	**78**	*e*P	PKPdf	15 54 08.3	+3.1
VNA2	**Neumayer--Watz**	**148.78**	**197**	⇑*i*P	PKPdf	15 54 08.9	+4.4
VNA2	**Neumayer--Watz**	**148.78**	**197**	⇑*i*	PKPdf	15 54 12.0	+7.5
VNA2	**Neumayer--Watz**	**148.78**	**197**	⇑*i*	PKPdf	15 54 13.9	+9.4
VNA2	**Neumayer--Watz**	**148.78**	**197**	⇑*i*	PKPdf	15 54 32.7	+28
VNA3	**Neumayer Olymp**	**148.99**	**195**	⇑*i*P	PKPdf	15 54 09.0	+4.2
VNA3	**Neumayer Olymp**	**148.99**	**195**	⇑*i*	PKPdf	15 54 13.1	+8.3
VNA1	**Neumayer--Stat**	**149.17**	**197**	⇑*i*P	PKPdf	15 54 09.4	+4.3
VNA1	**Neumayer--Stat**	**149.17**	**197**	⇑*i*	PKPdf	15 54 13.5	+8.4
VNA1	**Neumayer--Stat**	**149.17**	**197**	⇑*i*	PKPdf	15 54 29.3	+24
FCH	**Farellones**	**150.46**	**83**	⇑*e*P	PKPdf	15 54 16.0	+7.8
BDFB	**Brasilia**	**150.51**	**27**	PKP	PKPdf	15 54 11.1	+2.3
	comp=Z,50nm,0.8s,baz=309,slow=2.2,SNR=5.2						
BDFB				PKPbc	PKPdf	15 54 16.3	+7.5
	comp=Z,36nm,0.9s,baz=296,slow=3.0,SNR=10						

MAN 21 15:51:28.7,17.69N×121.00E,h20^{km},mb4.2,ML3.0,MS2.8,2C,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABRA	**Dolores**	**0.28**	**261**	*e*P	Pb	15 51 36.1	+1.1
ABRA				*e*S	Sb	15 51 40.4	+1.0
APYP	**Conner**	**0.28**	**54**	*e*P	Pb	15 51 35.6	+0.5
APYP				*e*S	Sb	15 51 40.4	+0.9
CVP	**Callao Caves**	**0.78**	**89**	⇑*i*P	Pb	15 51 43.0	-0.5
CVP				*i* S	Sb	15 51 55.0	+1.4
CAUP	**Cauayan**	**1.08**	**133**	*e*P	Pb	15 51 48.5	-0.1
CAUP				*e*S	Sb	15 52 05.3	+3.1
SGCP	**Mt. Cagua**	**1.13**	**61**	*e*P	Pb	15 51 49.5	0.0
SGCP				*e*S	Sb	15 52 05.0	+1.2
BCPH	**Baguio City Da**	**1.37**	**197**	⇑*i*P	Pn	15 51 51.8	-1.1
BCPH				*i* S	Sb	15 52 08.8	-1.7
PALP	**Palanan**	**1.50**	**115**	*e*P	Pn	15 51 53.5	-1.2
PALP				*e*S	Sn	15 52 07.3	-6.5
BALP	**Baler**	**2.02**	**164**	*e*P	Pn	15 52 01.8	-0.4
SCZP	**Santa Cruz**	**2.17**	**209**	*e*P	Pn	15 52 05.2	+0.7
POLP	**Polilio Island**	**3.08**	**163**	*e*P	Pn	15 52 20.7	+3.3

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*IDC **21** 16:13:17.9±7.1,42.57N×145.48E,h59^{km}±44^{km},mb3.7/7, mb1 3.8/8,mb1mx3.5/24,ML4.0/1,Error ellipse: s-maj=70.1km s-min=25.0km az=176.0*

*MOS **21** 16:13:18.6±1.3,43.07N×145.49E,h59^{km},mb4.2/5,Error ellipse: s-maj=40.4km s-min=24.5km az=99.0*

*JMA **21** 16:13:18.1±0.1,42.94N×145.49E,h45^{km}±1^{km},M3.7*

ISC 21 16:13:17.6±1.1,**42.96N**±0.08×**145.51E**±0.09,**h52**^{km}±6^{km}, **n22,**σ**0**^{s}**61**/28,**mb4.0**/7,**Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.44**	**23**	P	**P**	**16 13 28.6**	**+0.2**
NEM2				S	**S**	**16 13 35.9**	**-0.2**
JAK	**Akkeshi**	**0.60**	**274**	P	**P**	**16 13 30.2**	**0.0**
JAK				*e*S	**S**	**16 13 38.9**	**-0.5**
JNK	**Nakash**	**0.85**	**318**	P	**P**	**16 13 33.7**	**+0.2**
JNK				*e*S	**S**	**16 13 44.5**	**-0.8**
JRA	**Rausu**	**1.02**	**344**	P	**P**	**16 13 36.4**	**+0.6**
JRA				*e*S	**S**	**16 13 50.2**	**+0.9**
YUK	**Yuzh-Kuril’sk**	**1.10**	**13**	*e*PN	**P**	**16 13 36.5**	**-0.5**
YUK				*i* S	**S**	**16 13 50.4**	**-1.0**
YUK				pmax	pmax		
	comp=Z,390nm,0.3s						
YUK				smax			
	comp=E,6µm,1.0s						
YUK				smax			
	comp=N,3µm,0.5s						
YUK				smax			
	comp=E,1µm,0.5s						
JOB	**Onbets**	**1.23**	**268**	P	**P**	**16 13 38.6**	**-0.2**
JAR	**Ashorobuto**	**1.32**	**285**	P	**P**	**16 13 40.2**	**+0.1**
JTKR	**Abashiri--Toko**	**1.54**	**311**	P	**P**	**16 13 44.0**	**+0.8**
ASAJ	**Asahikawa**	**2.41**	**300**	P	**P**	**16 13 56.6**	**+1.1**
	comp=E,18nm,0.3s,baz=103,slow=11,SNR=58						
ASAJ				S	**S**	**16 14 28.9**	**+5.1**
	comp=E,9.7nm,0.3s,baz=17,slow=33,SNR=8.7						
SONM	**Songino Array**	**27.68**	**294**	P	**P**	**16 19 02.3**	**-0.3**
	comp=E,1.5nm,0.8s,mb3.7,baz=82,slow=8.8,SNR=6.6						
ILAR	**Eielson Array**	**42.83**	**36**	P	**P**	**16 21 12.7**	**+1.1**
	comp=E,0.5nm,0.6s,mb3.4,baz=277,slow=9.2,SNR=8.2						
ILAR	**Eielson Array**	**42.83**	**36**	P	**P**	**16 21 12.7**	**+1.2**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	**Inuvik**	**47.69**	**30**	P	**P**	**16 21 50.5**	**+0.2**
	comp=Z,0.9nm,0.6s,mb4.0,baz=288,slow=4.2,SNR=5.2						
INK	**Inuvik**	**47.69**	**30**	P	**P**	**16 21 50.5**	**+0.3**
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	**Borovoye Array**	**49.08**	**309**	P	**P**	**16 22 00.9**	**-0.3**
	comp=Z,1.0nm,0.4s,mb4.2,baz=80,slow=8.4,SNR=14						
FINES	**FINESS Array B**	**65.03**	**333**	P	**P**	**16 23 53.5**	**-0.4**
	comp=Z,1.5nm,0.5s,mb4.3,baz=49,slow=8.0,SNR=13						
FINES	**FINESS Array B**	**65.03**	**333**	P	**P**	**16 23 53.5**	**-0.4**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NB2	**NORSAR Subarra**	**69.90**	**338**	P	**P**	**16 24 24.1**	**-0.3**
	comp=Z,0.5nm,0.3s,mb3.9,baz=33,slow=6.5						
NOA	**NORSAR Array B**	**69.90**	**338**	P	**P**	**16 24 24.1**	**-0.3**
	comp=Z,1.1nm,0.6s,mb4.0,baz=34,slow=6.5,SNR=3.9						
NOA	**NORSAR Array B**	**69.90**	**338**	P	**P**	**16 24 24.1**	**-0.3**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG	**Malin Array Be**	**71.50**	**323**	P	**P**	**16 24 33.4**	**-0.8**
	comp=Z,1.1nm,0.4s,mb4.1,baz=42,slow=6.4,SNR=12						
AKASG	**Malin Array Be**	**71.50**	**323**	P	**P**	**16 24 33.4**	**-0.9**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						

IDC 21 16:20:20.7±54.0,**16.81S**×**178.75W,mb4.1**/2,**mb1 4.3**/2, **mb1mx3.8**/13,**MS4.0**/1,**Ms1 4.0**/1,**ms1mx3.5**/18,**Error ellipse: s-maj=987.0km s-min=147.3km az=77.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RPZ	**Rata Peaks**	**28.18**	**196**	LR	LR	16 34 21.0	
	comp=Z,318nm,19.3s,baz=8.4,slow=30						
STKA	**Stephens Creek**	**38.88**	**240**	*e*P	P	16 27 48.3	-1.4
	1.6nm,0.5s						
STKA	**Stephens Creek**	**38.88**	**240**	P	P	16 27 48.3	-1.4
	2.1nm,0.6s,baz=95,slow=12,SNR=9.0						
WRA	**Warramunga Arr**	**44.52**	**258**	P	P	16 28 34.4	-1.7
	0.7nm,0.4s,baz=94,slow=7.3,SNR=50						
ASAR	**Alice Springs**	**44.78**	**253**	P	P	16 28 36.0	-2.2
	54nm,0.4s,baz=88,slow=8.9,SNR=10.0						
ASPA	**Alice Springs**	**44.78**	**253**	*e*P	P	16 28 36.1	-2.1

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*NEIC **21** 16:27:21.4,57.84N×156.30W,h128^{km},After AEIC.*

*IDC **21** 16:27:22.7±9.3,58.10N×155.64W,h107^{km}±90^{km},mb3.0/2, mb1 3.4/4,mb1mx3.1/21,ML3.6/2,Error ellipse: s-maj=88.7km s-min=66.6km az=103.0*

ISC 21 16:27:19.0±0.5,**57.82N**±0.07×**156.3W**±0.1,**h137**^{km}±4^{km}, **n39,**σ**0**^{s}**76**/50,**mb3.2**/1,**Alaska Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KJL	**Kejulik**	**0.43**	**57**	P	**P**	**16 27 39.5**	**+0.4**
CNTC	**Contact Creek**	**0.48**	**24**	P	**P**	**16 27 39.5**	**+0.2**
CNTC				S	**S**	**16 27 53.6**	**-1.3**
ANCK	**Angle Creek**	**0.55**	**47**	P	**P**	**16 27 40.1**	**+0.4**
CAHL	**Cahill**	**0.56**	**65**	P	**P**	**16 27 40.0**	**+0.3**
ACHA	**Angle Creek He**	**0.63**	**51**	P	**P**	**16 27 40.9**	**+0.7**
ACHA				S	**S**	**16 27 55.8**	**-0.5**
MGLS	**Mageik LS**	**0.63**	**51**	P	**P**	**16 27 40.6**	**+0.5**
MGLS				S	**S**	**16 27 55.7**	**-0.6**
KAIC	**Katmai Ikaglui**	**0.92**	**43**	P	**P**	**16 27 42.9**	**+0.8**
KAWH	**Katmai**	**0.95**	**53**	P	**P**	**16 27 43.0**	**+0.6**
KAWH				S	**S**	**16 28 00.4**	**+0.2**
KAHC	**Katmai Hardscr**	**1.06**	**38**	P	**P**	**16 27 44.0**	**+0.6**
KAHC				S	**S**	**16 28 02.2**	**+0.3**
KAHG	**Katmai Hook Gl**	**1.13**	**53**	P	**P**	**16 27 45.0**	**+0.9**
KAPH	**Katmai Pasha**	**1.27**	**52**	P	**P**	**16 27 46.5**	**+1.0**
KAPH				S	**S**	**16 28 06.2**	**+0.4**
ANPK	**Aniakchak Peak**	**1.42**	**227**	P	**P**	**16 27 47.4**	**+0.3**
ANPK				S	**S**	**16 28 07.7**	**-0.8**
ANPB	**Aniakchak Plen**	**1.50**	**228**	P	**P**	**16 27 48.0**	**0.0**
ANPB				S	**S**	**16 28 09.6**	**-0.6**
MCNL	**McNeil River**	**1.70**	**36**	P	**P**	**16 27 50.8**	**+0.7**
MCNL				S	**S**	**16 28 14.0**	**0.0**
KDAK	**Kodiak Island**	**1.96**	**90**	P	**P**	**16 27 53.8**	**+0.5**
KDAK				S	**S**	**16 28 18.5**	**-1.0**
OPT	**Oil Point**	**2.42**	**39**	P	**P**	**16 27 59.9**	**+0.7**
ILW	**Iliamna West**	**2.77**	**34**	P	**P**	**16 28 03.9**	**+0.3**
INE	**Iliamna NE**	**2.79**	**35**	P	**P**	**16 28 04.4**	**+0.5**
ILIM	**Iliamna**	**2.83**	**36**	P	**P**	**16 28 05.3**	**+0.8**
CNPM	**China Poot**	**3.13**	**55**	P	**P**	**16 28 08.6**	**+0.3**
NCT	**North Crescent**	**3.23**	**30**	P	**P**	**16 28 10.2**	**+0.4**
BRLK	**Bradley Lake**	**3.40**	**53**	P	**P**	**16 28 11.8**	**-0.2**
DOL	**Dolgoi Island**	**4.11**	**232**	P	**P**	**16 28 21.1**	**-0.2**
SEW	**Seward**	**4.20**	**54**	P	**P**	**16 28 22.7**	**+0.2**
MPA	**Moose Pass**	**4.44**	**50**	P	**P**	**16 28 26.1**	**+0.4**
GHO	**Glory Hole Cre**	**5.42**	**40**	P	**P**	**16 28 37.6**	**-1.2**
GLI	**Glacier Island**	**5.60**	**53**	P	**P**	**16 28 39.9**	**-1.2**
FID	**Port Fidalgo**	**5.80**	**56**	P	**P**	**16 28 42.6**	**-1.3**
JPK	**Jack Peak**	**5.89**	**53**	P	**P**	**16 28 44.8**	**-0.3**
SCM	**Sheep Creek Mo**	**6.03**	**44**	P	**P**	**16 28 45.5**	**-1.5**
VLZ	**Valdez**	**6.04**	**53**	P	**P**	**16 28 46.8**	**-0.4**
EYAK	**Cordova Ski Ar**	**6.05**	**59**	P	**P**	**16 28 46.6**	**-0.7**

DIV	**Divide**	**6.28**	**54**	P	**P**	**16 28 49.9**	**-0.5**
GLB	**Gilahina Butte**	**7.27**	**55**	P	**P**	**16 29 03.0**	**-0.8**
ILAR	**Eielson Array**	**8.29**	**29**	P	**P**	**16 29 14.8**	**-2.7**
	0.6nm,0.3s,baz=216,slow=13,SNR=58						
ILAR				S	**S**	**16 30 41.5**	**-8.4**
	0.5nm,0.3s,baz=221,slow=24,SNR=11						
INK	**Inuvik**	**14.60**	**35**	P	**P**	**16 30 39.7**	**+0.2**
	0.1nm,0.3s,baz=219,slow=13,SNR=3.2						
YKA	**Yellowknife Ar**	**20.95**	**60**	P	**P**	**16 31 52.3**	**+0.3**
	0.6nm,0.4s,baz=272,slow=9.7,SNR=15						
YKA	**Yellowknife Ar**	**20.95**	**60**	P	**P**	**16 31 52.3**	**+0.3**
PDAR	**Pinedale Array**	**32.67**	**97**	P	**P**	**16 33 41.7**	**+1.9**
	0.2nm,0.4s,mb3.2,baz=326,slow=5.3,SNR=3.6						

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*IDC **21** 17:01:16.4±0.7,7.76S×125.15E,mb4.5/10,mb1 4.6/11, mb1mx4.5/15,ML4.8/2,MS4.4/12,Ms1 4.4/12, ms1mx4.0/23,Error ellipse: s-maj=27.3km s-min=15.2km az=60.0*

*MOS **21** 17:01:18.9±2.2,8.01S×125.07E,h33^{km},mb5.1/4,Error ellipse: s-maj=22.1km s-min=10.9km az=116.8*

*BJI **21** 17:01:18.4,8.29S×125.45E,h50^{km},mB5.5,mb4.9,Ms4.7, Msz4.1*

*DJA **21** 17:01:19.4±1.2,7.81S×125.18E,h32^{km}±10^{km},mb5.8/2, Error ellipse: s-maj=11.7km s-min=6.6km az=178.0*

*NEIC **21** 17:01:20.9±0.3,7.86S×125.18E,mb4.9/19,Error ellipse: s-maj=8.4km s-min=5.7km az=50.0*

*HRVD **21** 17:01:20.9±0.4,7.77S×125.12E,h18^{km}±1^{km},MW5.1/58, Centroid moment Tensor Solution. LP body waves: s24,c30;Mantle waves: s58,c90; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$0.56±.28; M$_{\theta\theta}$5.18±.20; M$_{\phi\phi}$-5.74±.27; M$_{r\theta}$0.51±.49; M$_{\theta\phi}$-0.49±.20; M$_{\phi r}$-2.03±.66; Best double couple: M$_0$5.82×10^{16} NP1:ϕ_s49°,δ73°,λ-174°. NP2:ϕ_s317°,δ84°,λ-17°. Principal axes: T 5.29, Plg8°, Azm4°; N 1.06, Plg72°, Azm119°; P -6.35, Plg16°, Azm272°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 21 17:01:17.0±2.0**,7.88S**±0.04×**125.19E**±0.04**,h17**^{km}±15^{km}**, n95,**σ1^{s}**17**/95**,mb4.8**/38**,MS4.4**/15**,10C-3D,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NINI	**Niniconang**	**6.40**	**302**⇑	*e*P	**Pn**	**17 02 54.6**	**+1.7**
	593nm,0.3s						
NINI				*e*S	**Sn**	**17 04 06.3**	**+0.1**
BUNI	**Buntu Taipa**	**6.40**	**311**⇑	*e*P	**Pn**	**17 02 52.3**	**-0.6**
	199nm,0.3s						
BUNI				*e*S	**Sn**	**17 04 05.5**	**-0.8**
TANI	**Tanete Lipujan**	**7.26**	**307**⇑	*e*P	**Pn**	**17 03 04.7**	**-0.4**
KAKA	**Kakadu**	**8.60**	**125**	*e*P	**P**	**17 03 23.5**	**-0.2**
	77nm,0.4s						
KAKA				*e*S	**Sn**	**17 04 58.6**	**-2.8**
KEDI	**Kedomdong**	**9.00**	**265**⇓	*e*P	**P**	**17 03 30.6**	**+1.3**
RATI	**Rata**	**9.59**	**264**⇑	*i*P	**P**	**17 03 38.3**	**+0.8**
RATI				*e*S	**Sn**	**17 05 25.4**	**-0.5**
MBWA	**Marble Bar**	**14.22**	**201**	*e*P	**P**	**17 04 38.0**	**-1.9**
	47nm,1.1s						
WRAB	**Tennant Creek**	**14.92**	**144**	*i* P	**P**	**17 04 45.6**	**-3.5**
WRAB	**Tennant Creek**	**14.92**	**144**	*e*P	**P**	**17 04 45.1**	**-3.9**
	259nm,1.1s						
WRA	**Warramunga Arr**	**14.92**	**144**	Pn	**P**	**17 04 45.4**	**-3.6**
	3.0nm,0.3s,baz=321,slow=14,SNR=87						
WRA				Sn	**S**	**17 07 23.6**	**-11**
	2.5nm,0.3s,baz=326,slow=22,SNR=6.5						
WRA	**Warramunga Arr**	**14.92**	**144**	*i* P	**P**	**17 04 45.4**	**-3.7**
WRA				pmax	pmax		
	comp=Z,16nm,0.7s						
YOMI	**Yo Moklole**	**16.16**	**72**⇑	*e*P	**P**	**17 05 05.5**	**+0.3**
ASPA	**Alice Springs**	**17.79**	**153**	*e*P	**P**	**17 05 24.8**	**-0.8**
ASPA				*e*S	**S**	**17 08 29.1**	**-12**
ASAR	**Alice Springs**	**17.79**	**153**	P	**P**	**17 05 25.2**	**-0.4**
	comp=Z,12nm,0.3s,baz=321,slow=10,SNR=2.9						
ASAR				S	**S**	**17 08 31.1**	**-10**
	comp=Z,3.8nm,0.3s,baz=315,slow=17,SNR=2.9						
ASAR				LR	LR	17 13 06.1	
	comp=Z,958nm,20.7s,baz=324,slow=40						
PULI	**Pulasari**	**19.12**	**273**⇑	*e*P	**P**	**17 05 42.2**	**+0.2**
PMG	**Port Moresby**	**21.78**	**96**	P	**P**	**17 06 11.3**	**+1.2**
	comp=Z,66nm,0.8s,mb5.1,baz=304,slow=5.0,SNR=20						
PMG	**Port Moresby**	**21.78**	**96**	*i* P	**P**	**17 06 13.6**	**+3.5**
PMG	**Port Moresby**	**21.78**	**96**	P	**P**	**17 06 11.3**	**+1.2**
CTA	**Charters Tower**	**23.74**	**123**	*e*P	**P**	**17 06 32.2**	**+2.8**
	comp=Z,14nm,0.8s,mb4.5						
CTA	**Charters Tower**	**23.74**	**123**	P	**P**	**17 06 31.6**	**+2.2**
	comp=Z,24nm,1.1s,mb4.6,baz=304,slow=11,SNR=11						
CTA				LR	LR	17 16 27.6	
	comp=Z,610nm,18.0s,MS4.1,baz=301,slow=38						
CTAO	**Charters Tower**	**23.74**	**123**⇓	*e*P	**P**	**17 06 31.0**	**+1.6**
	comp=Z,103nm,1.2s,mb5.1						
KLBR	**Kellerberrin**	**24.59**	**195**	*e*P	**P**	**17 06 38.2**	**+0.6**
	comp=Z,55nm,1.0s,mb5.0						
MUN	**Mundaring**	**25.40**	**198**	*e*P	**P**	**17 06 45.1**	**-0.2**
	comp=Z,22nm,1.2s,mb4.6						
NWAO	**Narrogin (SRO)**	**26.00**	**195**	P	**P**	**17 06 50.5**	**-0.4**
	comp=Z,12nm,0.8s,mb4.5,baz=7.1,slow=13,SNR=7.2						
STKA	**Stephens Creek**	**28.35**	**150**	*e*P	**P**	**17 07 12.6**	**+0.2**
	comp=Z,7.5nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**28.35**	**150**	P	**P**	**17 07 12.0**	**-0.3**
	comp=Z,4.1nm,0.7s,mb4.2,baz=335,slow=13,SNR=12						
STKA				LR	LR	17 18 55.0	
	comp=Z,430nm,18.3s,MS4.1,baz=319,slow=37						
STKA	**Stephens Creek**	**28.35**	**150**	*e*P	**P**	**17 07 13.3**	**+1.0**
JOW	**Kunigami**	**34.63**	**5**	LR	LR	17 21 55.6	
	comp=Z,428nm,21.0s,MS4.2,baz=111,slow=36						
TOO	**Toolangi**	**34.82**	**151**	*e*P	**P**	**17 08 11.6**	**+2.4**
	comp=Z,7.9nm,0.7s,mb4.8						
BDT	**Bhumibol Dam**	**35.96**	**314**	P	**P**	**17 08 19.0**	**0.0**
CM31	**Chiang Mai Arr**	**36.81**	**316**	*e*P	**P**	**17 08 26.6**	**+0.4**
	comp=Z,10.0nm,0.7s,mb4.8						
CMAR	**Chiang Mai Arr**	**36.81**	**316**	P	**P**	**17 08 25.9**	**-0.3**
	comp=Z,4.6nm,0.8s,mb4.4,baz=142,slow=6.9,SNR=38						
CHG	**Chiang Mai**	**37.05**	**316**	P	**P**	**17 08 29.1**	**+0.9**
CHRT	**Chiangrai**	**37.22**	**318**	⇓P	**P**	**17 08 31.0**	**+1.4**
CBIJ	**Chichi jima**	**38.47**	**25**	LR	LR	17 21 45.2	
	comp=Z,1μm,21.5s,MS4.6,baz=96,slow=32						
GYA	**Guiyang**	**38.58**	**333**	P	**P**	**17 08 42.0**	**+1.0**
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.5						
GYA				LR	LR		
	comp=N,390nm,12.9s,MS4.5						
GYA				LR	LR		
	comp=E,430nm,16.8s,MS4.5						
GYA				LR	LR		
	comp=Z,360nm,16.5s,MS4.3						
SSE	**Sheshan**	**38.94**	**355**	P	**P**	**17 08 45.1**	**+1.2**
SSE				XP	sP	17 08 58.4	+7.3
SSE				S	**S**	**17 14 47.0**	**+5.7**
SSE				AMB	AMB		
	comp=Z,35nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,150nm,3.9s						
SSE				LR	LR		
	comp=N,166nm,20.0s,MS3.9						
SSE				LR	LR		
	comp=E,83nm,20.0s,MS3.9						
SSE				LR	LR		
	comp=Z,181nm,20.0s,MS3.9						
SSE	**Sheshan**	**38.94**	**355**	P	**P**	**17 08 45.1**	**+1.2**
	comp=Z,35nm,0.7s,mb5.2						
SSE				sP	sP	17 08 58.4	+7.3
SSE				S	**S**	**17 14 47.0**	**+5.7**
SSE				sS		17 15 03.9	
WHN	**Wuhan**	**39.59**	**345**	*e*P	**P**	**17 08 50.8**	**+1.4**
NJ2	**Nanjing**	**40.16**	**352**	*e*P	**P**	**17 08 57.3**	**+3.2**
NJ2				AP	pP	17 09 08.3	+9.2
NJ2				XP	sP	17 09 11.0	+10
NJ2				PP	PP	17 10 35.0	+4.7
NJ2				S	**S**	**17 15 06.3**	**+6.6**
NJ2				AMB	AMB		
	comp=Z,540nm,4.8s						
NJ2				LR	LR		
	comp=N,1μm,10.5s,MS5.0						
NJ2				LR	LR		
	comp=E,660nm,11.2s,MS5.0						
NJ2				LR	LR		
	comp=Z,820nm,14.6s,MS4.7						
ENH	**Enshi**	**40.81**	**339**	*e*P	**P**	**17 08 59.8**	**+0.3**
	comp=Z,8.8nm,0.7s,mb4.5						
XAN	**Xi'an**	**44.45**	**341**	P	**P**	**17 09 28.1**	**-1.0**
XAN				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.5						
MAT	**Matsushiro**	**45.84**	**15**	P	**P**	**17 09 40.0**	**-0.2**
MAT	**Matsushiro**	**45.84**	**15**	*e*P	**P**	**17 09 40.0**	**-0.2**
	comp=Z,24nm,1.0s,mb5.1						
SHL	**Shillong**	**46.41**	**317**	*e*P	**P**	**17 09 44.2**	**-0.7**
LZH	**Lanzhou**	**48.12**	**337**	*e*P	**P**	**17 09 57.5**	**-0.6**
LZH				AP	pP	17 10 08.1	+4.9
LZH				XP	sP	17 10 13.8	+8.6
LZH				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.3						
LZH	**Lanzhou**	**48.12**	**337**	*e*P	**P**	**17 09 57.5**	**-0.6**
	comp=Z,30nm,1.0s,mb5.3						
LZH				pP	pP	17 10 08.1	+4.9
LZH				sP	sP	17 10 13.7	+8.5
LZH				PP	Px	17 10 22.3	
VIS	**Vishakhapatnam**	**48.54**	**302**	*e*	**P**	**17 10 03.5**	**+1.9**
GUN	**Gumba**	**52.05**	**315**	*e*P	**P**	**17 10 27.9**	**-0.4**
	comp=Z,92nm,0.9s,mb5.7						
PKI	**Pulchoki**	**52.18**	**314**	*e*P	**P**	**17 10 28.3**	**-1.0**
	comp=Z,16nm,0.6s,mb5.1						
MDJ	**Mudanjiang**	**52.40**	**4**	P	**P**	**17 10 31.4**	**+0.7**
MDJ				AMB	AMB		
	comp=Z,26nm,1.1s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,119nm,6.4s						
MDJ	**Mudanjiang**	**52.40**	**4**	*e*P	**P**	**17 10 30.9**	**+0.2**
	comp=Z,82nm,1.1s,mb5.6						
MDJ				*e*		17 10 39.5	
KKN	**Kakani**	**52.40**	**314**	*e*P	**P**	**17 10 30.3**	**-0.6**
	comp=Z,72nm,1.3s,mb5.4						
DMN	**Daman**	**52.42**	**314**	*e*P	**P**	**17 10 30.5**	**-0.6**
	comp=Z,76nm,1.3s,mb5.5						
HYB	**Hyderabad**	**52.48**	**299**	*e*P	**P**	**17 10 30.0**	**-1.7**
HYB	**Hyderabad**	**52.48**	**299**	*i* P	**P**	**17 10 30.0**	**-1.7**
GTA	**Gaotai**	**52.60**	**335**	*e*P	**P**	**17 10 32.6**	**+0.3**
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.5						
GTA				AMB	AMB		
	comp=Z,104nm,5.3s						
GTA				LR	LR		
	comp=N,212nm,16.4s,MS4.4						
GTA				LR	LR		
	comp=E,259nm,19.8s,MS4.4						
GTA				LR	LR		
	comp=Z,149nm,17.1s,MS4.1						
GKN	**Gorkha**	**52.98**	**314**	*e*P	**P**	**17 10 34.3**	**-1.0**
RPZ	**Rata Peaks**	**53.56**	**140**	LR	LR	17 32 11.4	
	comp=Z,322nm,21.1s,MS4.3,baz=48,slow=35						
KOLN	**Koldanda**	**53.59**	**313**	*e*P	**P**	**17 10 39.0**	**-0.8**
	comp=Z,24nm,0.8s,mb5.2						
URZ	**Urewera**	**55.60**	**131**	LR	LR	17 34 50.3	
	comp=Z,277nm,19.8s,MS4.3,baz=359,slow=36						
HIA	**Hailar**	**57.10**	**356**	*e*P	**P**	**17 11 03.9**	**-1.0**
	comp=Z,10nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**57.77**	**346**	*i* P	**P**	**17 11 09.6**	**0.0**
ULN	**Ulaanbaatar**	**57.77**	**346**	*e*P	**P**	**17 11 09.1**	**-0.5**
	comp=Z,18nm,1.2s,mb5.0						
ULN				*e*		17 11 17.7	
SONM	**Songino Array**	**57.91**	**345**	P	**P**	**17 11 09.5**	**-1.0**
	comp=Z,4.2nm,0.9s,mb4.5,baz=164,slow=9.0,SNR=14						
DDI	**Dehra Dun**	**59.04**	**312**	*e*	**P**	**17 11 24.3**	**+5.6**
ZAK	**Zakamensk**	**61.06**	**344**	*e*P	**P**	**17 11 31.1**	**-1.2**
THN	**Thein Dam**	**61.85**	**313**	*e*P	**P**	**17 11 35.9**	**-2.0**
MOY	**Mondy**	**62.85**	**343**	*e*P	**P**	**17 11 44.2**	**0.0**
BOD	**Bodaibo**	**66.10**	**353**	*e*P	**P**	**17 12 01.8**	**-3.5**
AAK	**Ala-Archa**	**68.20**	**322**	*i* P	**P**	**17 12 17.8**	**-1.1**
AAK				pmax	pmax		
	comp=Z,12nm,1.8s,mb4.6						
AAK	**Ala-Archa**	**68.20**	**322**	*e*P	**P**	**17 12 17.7**	**-1.2**
	comp=Z,7.8nm,0.9s,mb4.7						
YAK	**Yakutsk**	**69.78**	**2**	*e*P	**P**	**17 12 28.4**	**+0.2**
YAK				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
YAK				pmax	pmax		
	comp=N,4.0nm,0.8s						
YAK	**Yakutsk**	**69.78**	**2**⇑	*e*P	**P**	**17 12 28.3**	**+0.1**
	comp=N,37nm,0.8s,mb5.4						
MA2	**Magadan**	**70.27**	**14**	*e*P	**P**	**17 12 33.3**	**+2.1**
MA2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
ZAL	**Zalesovo**	**70.34**	**336**	P	**P**	**17 12 30.0**	**-1.8**
	comp=Z,2.7nm,0.9s,mb4.2,baz=346,slow=4.8,SNR=14						
NVS	**Novosibirsk**	**71.63**	**336**	*i* P	**P**	**17 12 46.3**	**+6.8**
NVS				pmax	pmax		
	comp=Z,30nm,2.0s,mb4.9						
NVS				pmax	pmax		
	comp=N,21nm,1.8s						
NVS				pmax	pmax		
	comp=E,11nm,1.6s						
VNDA	**Vanda**	**72.20**	**172**	P	**P**	**17 12 44.5**	**+1.9**
	comp=E,1.1nm,0.5s,mb4.1,baz=312,slow=6.9,SNR=9.9						
VNDA				LR	LR	17 45 32.8	
	comp=E,392nm,18.5s,MS4.7,baz=258,slow=37						
VNDA	**Vanda**	**72.20**	**172**	P	**P**	**17 12 44.5**	**+1.9**
MAW	**Mawson**	**72.42**	**201**	P	**P**	**17 12 46.1**	**+2.1**
	comp=E,3.3nm,0.7s,mb4.4,baz=39,slow=6.5,SNR=4.4						
MAW				LR	LR	17 43 09.3	
	comp=E,401nm,19.4s,MS4.7,baz=138,slow=35						
RAR	**Rarotonga**	**73.29**	**110**	LR	LR	17 41 32.6	
	comp=E,232nm,19.1s,MS4.5,baz=281,slow=33						
SEY	**Seymchan**	**73.62**	**13**	*e*P	**P**	**17 12 52.9**	**+1.8**
SEY				pmax	pmax		
	comp=E,20nm,0.7s						
SEY				pmax	pmax		
	comp=Z,70nm,0.7s,mb5.7						
BRVK	**Borovoye**	**76.39**	**329**	*e*P	**P**	**17 13 06.7**	**-0.4**
	comp=Z,14nm,1.2s,mb4.8						
CHKZ	**Chkalovo**	**76.57**	**330**	*e*P	**P**	**17 13 07.4**	**-0.7**
	comp=Z,9.5nm,0.9s,mb4.7						
TIXI	**Tiksi**	**79.39**	**1**	*e*P	**P**	**17 13 22.9**	**-0.5**
TIXI				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
QSPA	**South Pole Qui**	**82.11**	**180**	*e*P	**P**	**17 13 39.5**	**+1.9**
	comp=Z,14nm,0.7s,mb5.0						
ARU	**Arti**	**83.96**	**329**	*e*P	**P**	**17 13 47.3**	**-0.2**
KMBO	**Kilima Mbogo**	**87.80**	**269**	P	**P**	**17 14 08.6**	**+1.1**
	comp=Z,1.9nm,0.8s,mb4.3,baz=75,slow=12,SNR=3.0						
KMBO	**Kilima Mbogo**	**87.80**	**269**	P	**P**	**17 14 08.4**	**+1.0**
	comp=Z,5.3nm,0.9s,mb4.8						
KMBO				*e*		17 14 16.2	
SNAA	**Sanae**	**93.67**	**194**⇑	*i*	Px	17 14 49.4	
SNAA	**Sanae**	**93.67**	**194**	LR	LR	17 54 12.6	
	comp=Z,93nm,20.0s,MS4.2,baz=105,slow=34						
SNAA	**Sanae**	**93.67**	**194**⇑	*i*P	**P**	**17 14 38.3**	**+4.9**
SNAA			⇑	*i*P		17 14 49.4	
SUR	**Sutherland**	**97.79**	**236**	LR	LR	17 52 56.9	
	comp=Z,209nm,19.5s,MS4.6,baz=166,slow=32						
WVT	**Waverly**	**138.80**	**42**	PKP	PKPdf	17 20 40.0	-6.8
LVC	**Limon Verde**	**146.70**	**156**	*e*PKPbc	PKPbc	17 21 03.5	+4.8

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*JMA **21** 17:05:01.9±0.1,24.07N×122.75E,h18^{km}±4^{km},M3.5*

TAP 21 17:05:01.6,24.04N×122.61E,h3^{km}±1^{km},ML3.5,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.56**	**41**	P	Pg	17 05 11.1	-1.6
YOJ				S	Sg	17 05 17.4	-2.8
IRIF	**Iriomote-Funau**	**1.06**	**74**	P	Pb	17 05 19.1	-3.2
IRIF				S	Sb	17 05 32.1	-4.4
HATJ	**Hateruma jima**	**1.09**	**89**	P	Pb	17 05 19.6	-3.2
HATJ				S	Sb	17 05 32.8	-4.5
JKRS	**Kuro-shima**	**1.29**	**81**	P	Pb	17 05 23.3	-3.0
JKRS				S	Sb	17 05 39.1	-4.0
JIJ	**Ishigaki jima**	**1.44**	**77**	P	Pn	17 05 24.8	-3.8
JIJ				S	Sb	17 05 42.3	-5.0
JTJ	**Tarama**	**2.00**	**72**	P	Pn	17 05 33.8	-2.9
JTJ				S	Sn	17 05 56.8	-5.8
JMJ	**Miyako jima 2**	**2.56**	**72**	*e*S	Sn	17 06 11.7	-5.2
JKE	**Kume jima 2**	**4.42**	**58**	P	Pn	17 06 07.8	-3.3

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*IDC **21** 17:21:03.0±0.5,60.52N×147.67W,mb4.9/23,mb1 5.0/28, mb1mx5.0/29,ML4.3/5,MS4.5/16,Ms1 4.5/16, ms1mx4.3/22,Error ellipse: s-maj=14.7km s-min=9.3km az=24.0*

*MOS **21** 17:21:02.1±0.8,60.36N×147.80W,h10^{km},mb5.5/21, MS4.4/10,Error ellipse: s-maj=30.7km s-min=6.9km az=92.5*

*BJI **21** 17:21:05.0,60.37N×147.41W,h37^{km},mB5.3,mb4.8, Ms5.1,Msz4.8*

*NEIC **21** 17:21:08.3±0.1,60.55N×147.60W,mb5.2/134,MS4.6/9, ML5.1(AEIC),ML5.0(PMR),Error ellipse: s-maj=2.0km s-min=1.5km az=189.0*

NEIC Felt [IV] at Girdwood and Valdez: [III] at Chugiak; [II] at Anchorage, Eagle River and Palmer.

*SYO **21** 17:21:08.3,60.64N×147.63W,h30^{km}*

*HRVD **21** 17:21:08.3±0.3,60.53N×147.68W,h32^{km},MW5.1/50, Centroid moment Tensor Solution. LP body waves: s36,c54;Mantle waves: s50,c95; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-4.55±.24; M$_{\theta\theta}$-0.08±.18; M$_{\phi\phi}$4.63±.14; M$_{r\theta}$-0.12±.28; M$_{\theta\phi}$-0.77±.14; M$_{\phi r}$1.77±.17; Best double couple: M$_0$4.98×10^{16} NP1:ϕ_s349°,δ35°,λ-93°. NP2:ϕ_s173°,δ55°,λ-88°. Principal axes: T 5.08, Plg10°, Azm261°; N -.2, Plg2°, Azm352°; P -4.88, Plg79°, Azm92°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 21 17:21:06.7±0.1**,60.55N**±0.02×**147.60W**±0.02**,h30**^{km}**, h30**^{km}±.3^{km}**:pP-P,n511,**σ1^{s}**01**/524**,mb5.1**/181**,MS4.5**/31**, 15C-30D,Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLI	**Glacier Island**	**0.41**	**37**	P	**Pb**	**17 21 16.4**	**+0.7**
GLI				S	**Sb**	**17 21 23.1**	**+1.2**
LTI	**Latouche**	**0.53**	**194**	P	**Pb**	**17 21 17.9**	**+0.4**
LTI				S	**Sb**	**17 21 25.8**	**+0.8**
HIN	**Hinchinbrook I**	**0.57**	**105**	P	**Pb**	**17 21 18.3**	**+0.2**
FID	**Port Fidalgo**	**0.59**	**70**	P	**Pb**	**17 21 18.1**	**-0.4**
FID				S	**Sb**	**17 21 25.8**	**-0.8**
JPK	**Jack Peak**	**0.70**	**44**	P	**Pb**	**17 21 20.8**	**+0.4**
VLZ	**Valdez**	**0.85**	**46**	P	**Pn**	**17 21 23.1**	**+0.4**
MPA	**Moose Pass**	**0.87**	**267**	P	**Pn**	**17 21 24.2**	**+1.2**
MPA				S	**Sb**	**17 21 36.7**	**+2.2**
CVA	**Cordova**	**0.92**	**90**	P	**Pn**	**17 21 23.8**	**+0.1**
EYAK	**Cordova Ski Ar**	**0.92**	**89**	P	**Pn**	**17 21 23.6**	**0.0**
EYAK				S	**Sb**	**17 21 36.7**	**+0.9**
KNK	**Knik Glacier**	**0.96**	**335**	P	**Pn**	**17 21 26.2**	**+2.0**
SEW	**Seward**	**1.02**	**245**	P	**Pn**	**17 21 25.9**	**+0.7**
SEW				S	**Sn**	**17 21 40.0**	**+1.4**
DIV	**Divide**	**1.07**	**56**	P	**Pn**	**17 21 26.4**	**+0.6**
DIV				S	**Sn**	**17 21 40.4**	**+0.7**
SGAM	**Sherman Glacie**	**1.19**	**91**	P	**Pn**	**17 21 28.0**	**+0.5**
PMR	**Palmer**	**1.28**	**325**	P	**Pn**	**17 21 30.9**	**+2.1**
PMR				S	**Sn**	**17 21 49.0**	**+3.9**
SCM	**Sheep Creek Mo**	**1.29**	**6**	P	**Pn**	**17 21 31.2**	**+2.2**
SLKM	**Skilak Lake**	**1.29**	**269**	P	**Pn**	**17 21 30.6**	**+1.6**
SML	**Sawmill**	**1.31**	**345**	P	**Pn**	**17 21 32.1**	**+2.8**
SML				S	**Sn**	**17 21 50.0**	**+4.1**
GHO	**Glory Hole Cre**	**1.38**	**333**	P	**Pn**	**17 21 32.7**	**+2.4**
GHO				S	**Sn**	**17 21 50.4**	**+2.7**
VOGL	**Vogel Lake**	**1.46**	**289**	P	**Pn**	**17 21 34.0**	**+2.6**
RAGM	**Ragged Mountai**	**1.46**	**95**	P	**Pn**	**17 21 31.2**	**-0.2**
PWA	**Palmer West**	**1.56**	**316**	P	**Pn**	**17 21 35.1**	**+2.2**
KAIM	**Kayak Island**	**1.71**	**110**	P	**Pn**	**17 21 34.3**	**-0.7**
NKA	**Nikishka**	**1.80**	**278**	P	**Pn**	**17 21 38.7**	**+2.5**
BRLK	**Bradley Lake**	**1.82**	**246**	P	**Pn**	**17 21 37.3**	**+0.7**
TZL	**Tazlina**	**1.83**	**34**	P	**Pn**	**17 21 39.4**	**+2.7**
NNL	**Ninilchik**	**1.91**	**256**	P	**Pn**	**17 21 39.7**	**+1.9**
GLB	**Gilahina Butte**	**2.05**	**63**	P	**Pn**	**17 21 40.6**	**+0.8**
GLB				S	**Sn**	**17 22 07.4**	**+2.7**
CNPM	**China Poot**	**2.09**	**242**	P	**Pn**	**17 21 40.9**	**+0.4**
HOM	**Homer**	**2.21**	**248**	P	**Pn**	**17 21 43.4**	**+1.2**
SPU	**Mount Spurr**	**2.27**	**288**	P	**Pn**	**17 21 43.8**	**+0.8**
STLK	**Strandline Lak**	**2.27**	**297**	P	**Pn**	**17 21 44.1**	**+1.1**
CRP	**Crater Peak**	**2.34**	**290**	P	**Pn**	**17 21 45.2**	**+1.3**
XLV	**Seldovia**	**2.34**	**244**	P	**Pn**	**17 21 44.1**	**+0.1**
TGL	**Tana Glacier**	**2.36**	**83**	P	**Pn**	**17 21 44.1**	**-0.1**
RDT	**Redoubt**	**2.37**	**273**	P	**Pn**	**17 21 45.0**	**+0.5**
CKL	**Chakachamna La**	**2.41**	**288**	P	**Pn**	**17 21 45.8**	**+0.8**
DHY	**Denali Highway**	**2.54**	**2**	P	**Pn**	**17 21 49.2**	**+2.5**
RSO	**Redoubt South**	**2.55**	**270**	P	**Pn**	**17 21 47.4**	**+0.4**
RDN	**Redoubt North**	**2.55**	**271**	P	**Pn**	**17 21 47.1**	**+0.1**
CYK	**Cape Yakataga**	**2.59**	**98**	P	**Pn**	**17 21 46.9**	**-0.6**
HUR	**Hurricane**	**2.62**	**339**	P	**Pn**	**17 21 50.6**	**+2.6**
HUR				S	**Sn**	**17 22 23.1**	**+3.9**
BALM	**Baldy**	**2.62**	**77**	P	**Pn**	**17 21 47.9**	**-0.1**
NCT	**North Crescent**	**2.63**	**273**	P	**Pn**	**17 21 48.4**	**+0.2**
PAX	**Paxson**	**2.63**	**22**	P	**Pn**	**17 21 50.1**	**+1.9**
PAX				S	**Sn**	**17 22 23.7**	**+4.3**
ILIM	**Iliamna**	**2.71**	**262**	P	**Pn**	**17 21 49.2**	**-0.1**
IVE	**Iliamna Volcan**	**2.75**	**261**	P	**Pn**	**17 21 49.8**	**-0.1**
INE	**Iliamna NE**	**2.76**	**262**	P	**Pn**	**17 21 50.1**	**0.0**
INE				S	**Sn**	**17 22 26.9**	**+4.1**
ILW	**Iliamna West**	**2.80**	**262**	P	**Pn**	**17 21 50.6**	**+0.1**
YAH	**Yahtse**	**2.91**	**91**	P	**Pn**	**17 21 51.5**	**-0.6**
RND	**Reindeer**	**2.92**	**349**	P	**Pn**	**17 21 54.6**	**+2.2**
OPT	**Oil Point**	**2.96**	**255**	P	**Pn**	**17 21 52.8**	**-0.1**
THY	**Trims Highway**	**3.00**	**16**	P	**Pn**	**17 21 55.5**	**+2.1**
MENT	**Mentasta**	**3.02**	**36**	P	**Pn**	**17 21 55.2**	**+1.4**
MENT				S	**Sn**	**17 22 35.0**	**+5.6**
CTGM	**Chitina Glacie**	**3.10**	**80**	P	**Pn**	**17 21 54.7**	**-0.2**
SYI	**Shuyak Island**	**3.12**	**233**	P	**Pn**	**17 21 55.3**	**+0.2**
AUE	**Augustine Isla**	**3.14**	**250**	P	**Pn**	**17 21 55.9**	**+0.6**
AUL	**Augustine Lava**	**3.16**	**251**	P	**Pn**	**17 21 55.9**	**+0.3**
AGU	**Augustine-Summ**	**3.17**	**250**	P	**Pn**	**17 21 56.5**	**+0.7**
AUH	**Augustine H**	**3.17**	**250**	P	**Pn**	**17 21 56.4**	**+0.6**
TRF	**Thorofare Moun**	**3.17**	**338**	P	**Pn**	**17 21 58.0**	**+2.2**
AUI	**Augustine Isla**	**3.17**	**250**	P	**Pn**	**17 21 56.5**	**+0.6**
AUW	**Augustine West**	**3.18**	**251**	P	**Pn**	**17 21 56.8**	**+0.9**
MCK	**McKinley**	**3.25**	**349**	P	**Pn**	**17 21 59.3**	**+2.3**
CHX	**Chaix Hills**	**3.27**	**96**	P	**Pn**	**17 21 56.8**	**-0.4**
DDM	**Donnelly Dome**	**3.35**	**13**	P	**Pn**	**17 22 00.9**	**+2.6**
KTH	**Kantishna Hill**	**3.39**	**334**	P	**Pn**	**17 22 01.1**	**+2.2**
KTH				S	**Sn**	**17 22 43.6**	**+4.9**
DOT	**Dot Lake**	**3.52**	**27**	P	**Pn**	**17 22 02.2**	**+1.4**
MCNL	**McNeil River**	**3.66**	**251**	P	**Pn**	**17 22 02.0**	**-0.8**
PCA	**Pinnacle**	**3.68**	**94**	P	**Pn**	**17 22 02.1**	**-1.0**
BWN	**Browne**	**3.73**	**347**	P	**Pn**	**17 22 05.4**	**+1.6**
BCA3	**Beaver Creek A**	**3.74**	**45**	P	**Pn**	**17 22 04.8**	**+0.9**
KDAK	**Kodiak Island**	**3.78**	**225**	P	**Pn**	**17 22 03.6**	**-0.9**
HDA	**Harding Lake**	**3.88**	**4**	P	**Pn**	**17 22 07.5**	**+1.6**
KAPH	**Katmai Pasha**	**3.95**	**243**	P	**Pn**	**17 22 07.1**	**+0.2**
KAHG	**Katmai Hook Gl**	**4.09**	**243**	P	**Pn**	**17 22 09.0**	**+0.1**
NEA	**Nenana**	**4.10**	**351**	P	**Pn**	**17 22 09.9**	**+0.9**
CCB	**Clear Creek Bu**	**4.11**	**359**	P	**Pn**	**17 22 10.3**	**+1.1**
PNL	**Peninsula**	**4.20**	**99**	P	**Pn**	**17 22 08.9**	**-1.6**
KAHC	**Katmai Hardscr**	**4.22**	**246**	P	**Pn**	**17 22 10.8**	**+0.1**
ILAR	**Eielson Array**	**4.25**	**4**	Pn	**Pn**	**17 22 11.2**	**+0.1**
	24nm,0.3s,baz=185,slow=13,SNR=1199						
ILAR				Pg	**Pn**	**17 22 16.9**	**+5.7**
	64nm,0.3s,baz=185,slow=13,SNR=78						
ILAR				Sn	**Sn**	**17 23 01.6**	**+1.2**
	60nm,0.3s,baz=181,slow=17,SNR=8.3						
ILAR				Lg		17 23 36.8	
	74nm,0.3s,baz=180,slow=30,SNR=5.5						
ILAR				LR	LR	17 24 05.5	
	comp=Z,4μm,18.7s,baz=13,slow=43						
IL1	**Eielson Array**	**4.25**	**4**	P	**Pn**	**17 22 11.6**	**+0.5**
KAWH	**Katmai**	**4.27**	**243**	P	**Pn**	**17 22 10.7**	**-0.7**
KAIC	**Katmai Ikaglui**	**4.32**	**245**	P	**Pn**	**17 22 12.1**	**0.0**
COLA	**College**	**4.34**	**359**	*e*P	**Pn**	**17 22 13.1**	**+0.7**
COLA	**College**	**4.34**	**359**	P	**Pn**	**17 22 13.5**	**+1.1**
MDM	**Murphy Dome**	**4.43**	**357**	P	**Pn**	**17 22 14.6**	**+0.8**
MGLS	**Mageik LS**	**4.59**	**243**	P	**Pn**	**17 22 14.8**	**-1.2**
TT01	**Tatalina**	**4.65**	**304**	P	**Pn**	**17 22 15.8**	**-0.9**
CAHL	**Cahill**	**4.67**	**241**	P	**Pn**	**17 22 16.2**	**-0.9**
ANCK	**Angle Creek**	**4.67**	**243**	P	**Pn**	**17 22 16.3**	**-0.9**
MLY	**Manley**	**4.72**	**344**	P	**Pn**	**17 22 19.2**	**+1.4**
KJL	**Kejulik**	**4.79**	**242**	P	**Pn**	**17 22 18.6**	**-0.3**
CNTC	**Contact Creek**	**4.81**	**245**	P	**Pn**	**17 22 18.6**	**-0.5**
PRP	**Porcupine Dome**	**5.07**	**10**	P	**Pn**	**17 22 23.0**	**+0.2**
DAWY	**Dawson**	**5.20**	**44**	P	**Pn**	**17 22 24.8**	**+0.1**
GCSA	**Galena City Sc**	**6.00**	**319**	P	**Pn**	**17 22 34.9**	**-0.9**
IM3	**Indian Mountai**	**6.11**	**336**	P	**Pn**	**17 22 37.2**	**-0.3**
FYU	**Fort Yukon**	**6.13**	**9**	P	**Pn**	**17 22 37.4**	**-0.3**
IMA	**Indian Mountai**	**6.17**	**336**	*e*P	**Pn**	**17 22 38.3**	**0.0**
WHY	**Whitehorse**	**6.27**	**83**	P	**Pn**	**17 22 38.3**	**-1.3**
ANPK	**Aniakchak Peak**	**6.62**	**240**	P	**Pn**	**17 22 43.5**	**-1.2**
BESE	**Bessie Mountai**	**6.77**	**101**	P	**Pn**	**17 22 44.9**	**-1.8**
COLD	**Coldfoot**	**6.80**	**351**	P	**Pn**	**17 22 46.8**	**-0.3**
BM3	**Burnt Mountain**	**7.02**	**10**	P	**Pn**	**17 22 49.9**	**-0.3**
SIT	**Sitka**	**7.27**	**113**	P	**Pn**	**17 22 50.5**	**-3.2**
BLHA	**Black Hill**	**9.06**	**244**	P	**P**	**17 23 17.3**	**-1.2**
ANM	**Nome**	**9.12**	**304**	P	**P**	**17 23 18.3**	**-1.2**
DLBC	**Dease Lake**	**9.18**	**96**	Pn	**P**	**17 23 17.0**	**-3.3**
	2.1nm,0.3s,baz=283,slow=13,SNR=49						
DLBC				Lg		17 25 58.4	
	2.0nm,0.3s,baz=56,slow=21,SNR=3.6						
DLBC				LR	LR	17 27 26.2	
	comp=Z,7μm,18.2s,baz=295,slow=42						
DLBC	**Dease Lake**	**9.18**	**96**	P	**P**	**17 23 18.2**	**-2.1**
INK	**Inuvik**	**9.85**	**32**	Pn	**P**	**17 23 27.6**	**-1.7**
	1.7nm,0.3s,baz=216,slow=16,SNR=60						

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INK                                 Sn     Sn     17 25 32.6 +13
       2.1nm,0.3s,baz=301,slow=14,SNR=2.7
INK                                 Lg            17 26 17.8
       1.1nm,0.3s,baz=150,slow=33,SNR=5.5
INK                                 LR     LR     17 27 53.3
       comp=Z,2µm,19.0s,baz=218,slow=42
INK    Inuvik              9.85  32 eP     P      17 23 27.2 -2.0
       138nm,1.3s
UNV    Unalaska Valle     12.22 245 P      P      17 23 59.5 -2.1
MSW    Makushin Switc     12.30 246 P      P      17 24 00.3 -2.4
BBB    Bella Bella        13.62 119 Pn     P      17 24 17.4 -2.6
       0.4nm,0.3s,baz=323,slow=9.8,SNR=4.3
BBB                                 LR     LR     17 29 04.4
       comp=Z,2µm,19.0s,baz=314,slow=35
YKW3   Yellowknife Ar     15.74  68 eP     P      17 24 45.9 -1.7
YKA    Yellowknife Ar     15.76  69 Pn     P      17 24 46.2 -1.6
       0.5nm,0.3s,baz=273,slow=12,SNR=64
YKA                                 Sn     S      17 27 52.0 +10
       0.2nm,0.3s,baz=278,slow=18,SNR=2.7
YKA                                 Lg            17 29 20.8
       baz=277,slow=24,SNR=2.4
YKA                                 PcP    PcP    17 29 44.8 -2.7
       0.2nm,0.3s,baz=257,slow=0.9,SNR=4.7
YKA                                 LR     LR     17 31 33.6
       comp=Z,2µm,19.4s,baz=265,slow=40
YKA    Yellowknife Ar     15.76  69 Pn     P      17 24 46.2 -1.6
YKA                                 Sn     S      17 27 52.0 +10
YKA                                 Lg            17 29 20.8
YKA                                 PcP    PcP    17 29 44.8 -2.7
YKA                                 LR     LR     17 31 33.6
EDM    Edmonton           19.91  96 eP     P      17 25 37.1 -1.4
WTV    Waterville         20.49 116 P      P      17 25 44.7 +0.1
BILL   Bilibino           20.88 310 i P    P      17 25 47.4 -1.0
BILL                                pmax   pmax
       comp=Z,28nm,0.6s
BILL                                MLR    MLR
       comp=Z,2µm,20.0s,MS4.4
BILL   Bilibino           20.88 310 eP     P      17 25 47.0 -1.4
       comp=Z,23nm,0.5s
OD2    Odessa Site #2     21.28 115 P      P      17 25 52.9 +0.3
NEW    Newport            21.35 111 eP     P      17 25 53.7 +0.3
       comp=Z,32nm,0.9s,mb4.7
GL2    New Goldendale     21.46 121 P      P      17 25 55.6 +1.1
WRD    Warden             21.53 117 P      P      17 25 54.4 -0.8
HAWA   Hanford            21.68 118 eP     P      17 25 56.2 -0.5
       comp=Z,104nm,1.6s,mb5.0
PRW    Prosser            21.75 119 P      P      17 25 58.6 +1.2
BROR   Big Rock Looko     22.17 126 P      P      17 26 03.2 +1.6
CROR   Criterion Ridg     22.18 123 P      P      17 26 02.6 +1.0
WALA   Waterton Lakes     22.29 106 eP     P      17 26 03.0 +0.2
       comp=Z,93nm,1.5s,mb5.0
FRIS   Frissel Point      22.35 126 P      P      17 26 04.8 +1.4
IRO    Indian Ridge       22.46 126 P      P      17 26 05.7 +1.2
FX1    Attu Island--F     22.56 268 P      P      17 26 03.9 -1.2
       comp=Z,88nm,0.4s,mb5.5,baz=260,slow=4.5,SNR=9.4
FX1    Attu Island--F     22.56 268 eP     P      17 26 04.0 -1.2
BBOR   Butler Butte       23.24 128 P      P      17 26 14.8 +2.9
HUMO   Hull Mountain      23.37 129 eP     P      17 26 15.8 +2.6
       comp=Z,24nm,0.9s,mb4.6
RES    Resolute Bay       23.41  32 eP     P      17 26 08.9 -4.4
       comp=Z,19nm,1.0s,mb4.5
BMO    Blue Mountains     23.86 117 eP     P      17 26 19.2 +1.2
       comp=Z,119nm,1.6s,mb5.1
MSO    Missoula           23.87 110 eP     P      17 26 19.2 +1.1
       comp=Z,34nm,1.6s,mb4.5
YBH    Yreka Blue Hor     24.21 130 P      P      17 26 21.4  0.0
       comp=Z,26nm,0.8s,mb4.7,baz=349,slow=4.5,SNR=35
YBH    Yreka Blue Hor     24.21 130 eP     P      17 26 23.7 +2.3
       comp=Z,27nm,0.9s,mb4.7
LHEM   Herd Peak          24.49 129 P      P      17 26 26.3 +2.2
HRY    Holter Researc     24.95 108 eP     P      17 26 28.6 +0.2
MOD    Modoc              25.01 126 eP     P      17 26 30.4 +1.4
       comp=Z,50nm,1.1s,mb5.0
WDC    Whiskeytown Da     25.27 131 eP     P      17 26 33.1 +1.5
       comp=Z,70nm,1.4s,mb5.0
BOZ    Bozeman (W)        25.83 109 eP     P      17 26 37.5 +0.7
       comp=Z,72nm,1.6s,mb5.0
MCMT   McKenzie Canyo     25.88 112 eP     P      17 26 37.7 +0.5
HLID   Hailey             26.15 115 eP     P      17 26 40.1 +0.3
       comp=Z,7.7nm,0.8s,mb4.3
FCC    Fort Churchill     26.48  70 eP     P      17 26 41.1 -1.5
       comp=Z,16nm,1.2s,mb4.4
QLMT   Earthquake Lak     26.53 110 eP     P      17 26 44.3 +1.1
GCMT   Greycliff          26.64 106 eP     P      17 26 45.5 +1.2
BEKR   Beckwourth         26.72 128 eP     P      17 26 45.8 +0.7
       comp=Z,37nm,1.5s,mb4.7
YMR    Madison River      26.87 110 eP     P      17 26 47.0 +0.7
YNR    Norris Junctio     26.97 109 eP     P      17 26 48.8 +1.6
YFT    Old Faithful       27.10 110 eP     P      17 26 50.1 +1.7
LKWY   Lake               27.21 109 eP     P      17 26 50.7 +1.3
       comp=Z,19nm,1.0s,mb4.6
WCN    Washoe City        27.44 128 eP     P      17 26 51.9 +0.3
       comp=Z,176nm,2.0s,mb5.2
IMW    Indian Meadow      27.47 111 eP     P      17 26 53.0 +1.2
LAO    LASA Array         27.65 101 eP     P      17 26 53.7 +0.3
       comp=Z,179nm,1.5s,mb5.5
MOOW   Moose Ponds        27.68 111 eP     P      17 26 54.8 +1.1
TPAW   Teton Pass         27.78 111 eP     P      17 26 55.4 +0.8
WUWY   Wally Ulrich       27.84 111 eP     P      17 26 56.5 +1.4
LOHW   Long Hollow        27.85 111 eP     P      17 26 56.1 +0.8
SNOW   Snow King Moun     27.89 111 eP     P      17 26 57.0 +1.4
REDW   Red Top Meadow     27.93 111 eP     P      17 26 57.0 +1.1
ELK    Elko               28.07 120 eP     P      17 26 58.3 +1.0
       comp=Z,24nm,1.2s,mb4.7
HVU    Hansel Valley      28.30 116 eP     P      17 27 00.4 +1.1
CMB    Columbia Colle     28.31 130 eP     P      17 26 59.5 +0.1
       comp=Z,4.9nm,0.8s,mb4.2
NVAR   Mina Array Bea     28.77 127 P      P      17 27 03.2 -0.4
       comp=Z,7.2nm,0.8s,mb4.5,baz=324,slow=7.4,SNR=39
NVAR                                PcP    PcP    17 30 10.3 -3.0
       comp=Z,4.6nm,0.8s,baz=355,slow=2.0,SNR=7.4
NVAR                                LR     LR     17 37 05.3
       comp=Z,925nm,18.9s,MS4.4,baz=5.0,slow=33
NVAR   Mina Array Bea     28.77 127 P      P      17 27 03.2 -0.4
NVAR                                PcP    PcP    17 30 10.3 -3.0
NVAR                                LR     LR     17 37 05.3
MNV    Mina               28.82 127 eP     P      17 27 04.2 +0.2
       comp=Z,28nm,1.2s,mb4.9
SPUT   South Promonto     28.83 116 eP     P      17 27 05.0 +0.9
HWUT   Hardware Ranch     28.98 114 eP     P      17 27 06.0 +0.5
       comp=Z,19nm,1.4s,mb4.6
PDAR   Pinedale Array     28.98 111 P      P      17 27 05.3 -0.1
       comp=Z,7.7nm,0.9s,mb4.4,baz=315,slow=6.3,SNR=40
PDAR                                PcP    PcP    17 30 10.3 -3.6
       comp=Z,1.6nm,0.7s,baz=347,slow=1.1,SNR=3.9
PDAR                                LR     LR     17 38 30.1
       comp=Z,640nm,18.8s,MS4.3,baz=333,slow=36
LRV    Little Rabbit      29.50 133 eP     P      17 27 11.8 +1.6
TPH    Tonopah            29.50 126 eP     P      17 27 11.1 +0.9
       comp=Z,81nm,1.6s,mb5.2
MTUM   Tungsten Hills     29.60 128 eP     P      17 27 12.4 +1.3
MA2    Magadan            29.79 296 i P    P      17 27 11.5 -1.0
MA2                                 MLR    MLR
       comp=Z,1µm,15.0s,MS4.6
TRCR   Troy Canyon        29.93 123 eP     P      17 27 14.5 +0.4
NLU    North Lily Min     30.09 117 eP     P      17 27 15.8 +0.4
ULM    Lac du Bonnet      30.34  86 P      P      17 27 17.6 +0.1
       comp=Z,5.6nm,0.8s,mb4.4,baz=318,slow=9.9,SNR=10
ULM                                 PcP    PcP    17 30 15.8 -1.4
       comp=Z,6.2nm,0.8s,baz=272,slow=4.2,SNR=3.7
ULM                                 LR     LR     17 40 13.9
       comp=Z,2µm,19.1s,MS4.7,baz=70,slow=38
ULM    Lac du Bonnet      30.34  86 eP     P      17 27 17.7 +0.2
       comp=Z,34nm,1.5s,mb4.9
TPNV   Topopah Spring     30.86 126 eP     P      17 27 22.7 +0.5
       comp=Z,135nm,1.9s,mb5.5
MVU    Marysvale          31.23 119 eP     P      17 27 26.1 +0.6
       comp=Z,18nm,0.9s,mb4.9
MSU    Marysvale          31.24 119 eP     P      17 27 26.4 +0.9
ARUT   Antelope Range     31.31 121 eP     P      17 27 27.1 +1.0
SRU    San Rafael         31.47 116 eP     P      17 27 28.0 +0.4
PHWY   Pilot Hill         32.04 108 eP     P      17 27 32.7 +0.2
NEN    Nelson             32.55 125 eP     P      17 27 37.8 +0.7
TIXI   Tiksi              32.62 324⇑iP     P      17 27 36.0 -1.3
TIXI                                pmax   pmax
       comp=Z,7.0nm,0.8s,mb4.6
TIXI                                MLR    MLR
       comp=Z,691nm,13.0s,MS4.5
EYMN   Ely                34.02  86 eP     P      17 27 48.9 -0.7
       comp=Z,30nm,0.8s,mb5.3
BAR    Barrett            34.45 130 eP     P      17 27 54.5 +1.0
SDCO   Great Sand Dun     34.86 112 eP     P      17 27 57.4 +0.5
       comp=Z,30nm,1.1s,mb5.1
FRB    Frobisher Bay      34.88  50 LR     LR     17 42 36.4
       comp=Z,2µm,18.8s,MS4.8,baz=206,slow=37
LAZ    Ladron             36.89 117 eP     P      17 28 15.1 +0.9
TUC    Tucson             37.12 123 eP     P      17 28 17.3 +1.2
LENM   Lemitar            37.16 117 eP     P      17 28 18.0 +1.5
LPM    Los Pinos Moun     37.19 116 eP     P      17 28 17.0 +0.3
YAK    Yakutsk            37.23 309 eP     P      17 28 16.1 -0.6
YAK                                 pmax   pmax
       comp=Z,13nm,0.9s,mb4.8
YAK                                 pmax   pmax
       comp=N,5.0nm,1.0s
YAK                                 pmax   pmax
       comp=E,4.0nm,1.1s
YAK    Yakutsk            37.23 309 eP     P      17 28 15.9 -0.9
       comp=E,11nm,0.7s,mb4.8
BNM    Barren Site        37.33 116 eP     P      17 28 18.7 +0.9
KSU1   Kansas State U     37.99 101 eP     P      17 28 23.1 -0.3
JFWS   Jewell Farm        38.22  91 eP     P      17 28 24.9 -0.4
       comp=E,45nm,0.9s,mb5.2
AMTX   Amarillo           38.96 110 eP     P      17 28 32.5 +0.9
       comp=E,46nm,1.0s,mb5.2
DAG    Danmarks Havn      39.24  16⇑iP     P      17 28 33.7 +0.2
DAG                                 i      pP     17 28 42.5 +0.1
DAG                                 pmax   pmax
       comp=Z,50nm,0.9s,mb5.2
DAG    Danmarks Havn      39.24  16⇑iP     P      17 28 33.7 +0.2
       comp=Z,50nm,0.9s,mb5.2
DAG                                 i      pP     17 28 42.5 +0.1
CPRX   Cap Rock           39.50 114 eP     P      17 28 36.8 +0.7
GDL2   Guadalupe Moun     39.98 115 eP     P      17 28 41.1 +1.1
CLNB   Carlsbad           40.15 115 eP     P      17 28 42.3 +0.9
WMOK   Wichita Mounta     40.44 107 eP     P      17 28 43.5 -0.3
       comp=Z,33nm,0.9s,mb5.1
SCHQ   Schefferville      40.98  61 P      P      17 28 47.2 -0.7
       comp=Z,18nm,0.9s,mb4.7,baz=315,slow=8.7,SNR=12
SCHQ                                LR     LR     17 46 23.0
       comp=Z,968nm,18.9s,MS4.7,baz=317,slow=37
SCHQ   Schefferville      40.98  61 eP     P      17 28 47.5 -0.4
       comp=Z,32nm,0.9s,mb4.9
SCHQ                                epP    pP     17 28 56.1 -0.8
CCM    Cathedral Cave     41.43  97 eP     P      17 28 50.4 -1.5
       comp=Z,45nm,1.4s,mb4.9
CCM                                 epP    pP     17 28 59.8 -1.0
FVM    French Village     41.89  96 eP     P      17 28 54.5 -1.0
FVM                                 epP    pP     17 29 04.1 -0.4
CLNS   Chul'man           42.43 306 eP     P      17 29 11.5 +12
CLNS                                pmax   pmax
       comp=N,20nm,0.9s
CLNS                                pmax   pmax
       comp=E,12nm,0.9s
CLNS                                pmax   pmax
       comp=Z,17nm,0.9s,mb4.7
TXAR   Lajitas Array      42.74 117 P      P      17 29 02.9 +0.3
       comp=Z,5.4nm,0.8s,mb4.3,baz=338,slow=6.7,SNR=21
TXAR                                PcP    PcP    17 30 53.1 -1.3
       comp=Z,8.2nm,1.1s,baz=315,slow=1.8,SNR=4.6
TXAR                                LR     LR     17 46 39.2
       comp=Z,362nm,21.6s,MS4.2,baz=265,slow=36
BLO    Bloomington        42.89  91 eP     P      17 29 03.5 -0.3
MIAR   Mount Ida          43.09 102 eP     P      17 29 04.8 -0.6
       comp=Z,34nm,1.0s,mb5.0
USIN   University of      43.26  93 eP     P      17 29 06.2 -0.5
       comp=Z,109nm,0.9s,mb5.6
USIN                                epP    pP     17 29 15.3 -0.4
ASAJ   Asahikawa          43.45 281 P      P      17 29 07.3 -0.8
       comp=Z,7.8nm,0.8s,mb4.5,baz=54,slow=19,SNR=4.2
UALR   University of      43.50 101 eP     P      17 29 07.5 -1.2
UALR                                epP    pP     17 29 16.5 -1.1
JCT    Junction City      43.51 112 eP     P      17 29 09.1 +0.2
       comp=Z,114nm,1.3s,mb5.4
JCT                                 epP    pP     17 29 17.9 +0.2
ACSO   Alum Creek Sta     43.83  87 eP     P      17 29 10.8 -0.5
       comp=Z,90nm,1.2s,mb5.4
ACSO                                epP    pP     17 29 19.4 -0.8
ALLY   Alegheny Colle     44.15  84 eP     P      17 29 14.1 +0.2
ALLY                                epP    pP     17 29 23.3 +0.5
GENY   Geneseo            44.45  81 eP     P      17 29 15.9 -0.4
FRNY   Flat Rock          44.95  76 eP     P      17 29 18.7 -1.6
FRNY                                epP    pP     17 29 28.1 -1.1
OXF    Oxford             45.14  98 eP     P      17 29 21.6 -0.4
       comp=Z,149nm,1.0s,mb5.8
MIV    Mineville/With     45.54  76 eP     P      17 29 24.1 -0.9
MIV                                 epP    pP     17 29 33.0 -0.9
BINY   Binghamton         45.77  80 eP     P      17 29 26.7 -0.1
       comp=Z,73nm,1.0s,mb5.6
BINY                                epP    pP     17 29 35.4 -0.3
MCWV   Mont Chateau       45.81  85 eP     P      17 29 26.5 -0.7
MCWV                                epP    pP     17 29 35.5 -0.7
BOD    Bodaibo            45.91 313⇑iP     P      17 29 26.2 -1.5
SSPA   Standing Stone     46.02  83 eP     P      17 29 28.2 -0.7
       comp=Z,80nm,1.2s,mb5.5
CPCT   Cooper Cave        46.79  93 eP     P      17 29 34.2 -0.8
CPCT                                epP    pP     17 29 43.5 -0.5
FWV    Forest Hill        46.95  88 eP     P      17 29 35.8 -0.3
FWV                                 epP    pP     17 29 44.9 -0.3
PWV    Princeton          47.02  88 eP     P      17 29 35.8 -1.0
PWV                                 epP    pP     17 29 45.2 -0.6
ELN    Prospectdale       47.25  88 eP     P      17 29 37.3 -1.4
ELN                                 epP    pP     17 29 46.4 -1.2
MVL    Millersville       47.27  82 eP     P      17 29 38.4 -0.3
MYNC   Murphy             47.29  93 eP     P      17 29 38.1 -0.8
       comp=Z,67nm,1.0s,mb5.5
MYNC                                epP    pP     17 29 47.1 -0.8
BLA    Blacksburg         47.43  88 eP     P      17 29 39.7 -0.4
       comp=Z,96nm,1.2s,mb5.6
BLA                                 epP    pP     17 29 48.2 -0.8
SDMD   Soldier's Deli     47.48  83 eP     P      17 29 39.9 -0.5
SDMD                                epP    pP     17 29 48.2 -1.2
LRAL   Lakeview Retre     47.51  97 eP     P      17 29 39.6 -1.2
       comp=Z,18nm,0.8s,mb5.2
PAL    Palisades          47.68  79 eP     P      17 29 41.4 -0.6
BORG   Borgarnes          48.71  27 LR     LR     17 50 53.6
       comp=Z,560nm,20.9s,MS4.5,baz=306,slow=37
GOGA   Godfrey            48.95  94 eP     P      17 29 50.8 -1.0
       comp=Z,21nm,0.9s,mb5.2
MDJ    Mudanjiang         49.25 291 P      P      17 29 53.1 -0.9
MDJ                                 PCP    PcP    17 31 17.4 +0.4
MDJ                                 PP     PP     17 31 46.5 -1.7
MDJ                                 SS     SS     17 40 29.0 +4.7
MDJ                                 AMB    AMB
       comp=Z,13nm,2.2s,mb4.6
MDJ                                 AMB    AMB
       comp=Z,238nm,5.5s
MDJ                                 LR     LR
       comp=N,350nm,26.8s,MS4.2
MDJ                                 LR     LR
       comp=E,50nm,26.8s,MS4.2
MDJ                                 LR     LR
       comp=Z,309nm,23.1s,MS4.2
JSC    Jenkinsville       49.34  91 eP     P      17 29 53.9 -0.9
JSC                                 epP    pP     17 30 02.8 -1.1
KEV    Kevo               49.93   2 ep     P      17 29 55.5 -3.4
       comp=Z,40nm,1.0s,mb5.4
KEV    Kevo               49.93   2 eP     P      17 29 55.5 -3.4
KEV                                 pmax   pmax
       comp=Z,40nm,1.0s,mb5.4
HIA    Hailar             50.07 301 eP     P      17 29 59.0 -1.2
       comp=Z,14nm,1.0s,mb5.0
ARCES  ARCESS Array B     50.11   3 P      P      17 29 59.1 -1.2
       comp=Z,18nm,0.8s,mb5.1,baz=5.6,slow=7.0,SNR=14
ARCES                               PcP    PcP    17 31 18.3 -1.5
       comp=Z,6.1nm,0.8s,baz=326,slow=4.4,SNR=4.1
NHSC   New Hope           50.81  91 eP     P      17 30 05.8 -0.3
       comp=Z,200nm,1.3s,mb5.9
NHSC                                epP    pP     17 30 14.8 -0.4
CSU    Charleston Sou     50.97  91 eP     P      17 30 07.0 -0.3
CSU                                 epP    pP     17 30 16.0 -0.4
CN2    Changchun          51.78 293 eP     P      17 30 12.1 -1.2
CN2                                 eS     S      17 37 30.5 -1.4
CN2                                 AMB    AMB
       comp=Z,10.0nm,1.0s,mb4.7
CN2                                 AMB    AMB
       comp=Z,200nm,5.0s
CN2                                 LR     LR
       comp=N,500nm,16.0s,MS4.8
CN2                                 LR     LR
       comp=E,500nm,16.0s,MS4.8
CN2                                 LR     LR
       comp=Z,600nm,16.0s,MS4.7
APA    Apatity            52.18 360⇑iP     P      17 30 15.2 -0.8
APA                                 pmax   pmax
       comp=Z,34nm,1.0s,mb5.2
MOY    Mondy              55.40 315 eP     P      17 30 40.6 +0.7
ZAK    Zakamensk          55.65 313 eP     P      17 30 41.0 -0.7
KS15   Wonju Array Si     55.67 286 eP     P      17 30 39.4 -2.7
ULN    Ulaanbaatar        56.31 309d iP    P      17 30 46.5  0.0
ULN    Ulaanbaatar        56.31 309 eP     P      17 30 46.2 -0.3
       comp=Z,22nm,0.9s,mb5.2
ULN                                 e      pP     17 30 54.8 -0.9
SONM   Songino Array      56.59 309 P      P      17 30 48.8 +0.3
       comp=Z,32nm,0.9s,mb5.3,baz=37,slow=7.7,SNR=100
KAF    Kangasniemi        57.57   3 ep     P      17 30 53.5 -1.8
       comp=Z,8.5nm,0.7s,mb4.9,baz=351,slow=7.1
KAF    Kangasniemi        57.57   3 eP     P      17 30 53.5 -1.8
KAF                                 pmax   pmax
       comp=Z,9.0nm,0.7s,mb4.9
NB2    NORSAR Subarra     57.64  12 P      P      17 30 54.3 -1.5
       comp=Z,72nm,2.0s,mb5.4,baz=350,slow=7.0
NB2    NORSAR Subarra     57.64  12 P      P      17 30 54.3 -1.5
       baz=350,slow=6.9
NOA    NORSAR Array B     57.64  12 P      P      17 30 53.5 -2.3
       comp=Z,5.3nm,0.8s,mb4.7,baz=349,slow=6.9,SNR=17
NOA                                 LR     LR     17 55 46.5
       comp=Z,86nm,18.5s,MS3.9,baz=350,slow=36
NOA    NORSAR Array B     57.64  12 P      P      17 30 53.5 -2.3
NOA                                 LR     LR     17 55 46.5
NVS    Novosibirsk        58.09 328⇓iP     P      17 30 56.0 -2.9
NVS                                 e             17 31 48.3
NVS                                 pmax   pmax
       comp=Z,31nm,1.6s,mb5.1
NVS                                 pmax   pmax
       comp=N,17nm,1.3s
NVS                                 pmax   pmax
       comp=E,13nm,1.3s
FINES  FINESS Array B     58.23   4 P      P      17 30 58.1 -1.8
       comp=E,24nm,0.8s,mb5.3,baz=11,slow=8.1,SNR=59
ZAL    Zalesovo           58.48 327 P      P      17 30 59.8 -1.9
       comp=E,4.6nm,0.5s,mb4.8,baz=82,slow=7.2,SNR=36
ZAL                                 LR     LR     17 58 55.5
       comp=E,302nm,21.8s,MS4.4,baz=83,slow=39
HHC    Hu-ho-hao-te       60.27 301 eP     P      17 31 13.3 -0.9
HHC                                 AP     pP     17 31 23.9 +0.4
HHC                                 XP     sP     17 31 27.4 +0.5
HHC                                 PCP    PcP    17 32 00.0 +0.9
HHC                                 PP     PP     17 33 27.0 -2.1
HHC                                 PCS           17 35 59.4
HHC                                 S      S      17 39 19.8 -4.8
HHC                                 SCS    ScS    17 40 57.9 -1.0
HHC                                 AMB    AMB
       comp=Z,21nm,0.8s,mb5.2
HHC                                 AMB    AMB
       comp=Z,157nm,4.2s
HHC                                 LR     LR
       comp=N,852nm,16.7s,MS5.0
HHC                                 LR     LR
       comp=E,524nm,15.5s,MS5.0
HHC                                 LR     LR
       comp=Z,1µm,16.7s,MS5.1
SVE    Sverdlovsk         60.86 343⇓iP     P      17 31 17.0 -1.1
SVE                                 e             17 31 59.0
SVE                                 e             17 39 37.0
SVE                                 pmax   pmax
       comp=Z,120nm,1.5s,mb5.8
ESK    Eskdalemuir        61.08  22 eP     P      17 31 18.8 -0.8
       comp=Z,90nm,1.3s,mb5.7
ESK                                 epP    pP     17 31 27.4 -1.5
BTO    Baotou             61.12 302 eP     P      17 31 17.8 -2.2
VSU    Vasula             61.24   3 i P    P      17 31 20.0 -0.6
ARU    Arti               61.54 344⇓iP     P      17 31 16.3 -6.4
ARU                                 e             17 31 57.0
ARU                                 e             17 33 34.1
ARU                                 e             17 41 05.3
ARU                                 eSSS   SSS    17 46 22.3 -1.3
ARU                                 pmax   pmax
       comp=Z,73nm,0.8s,mb5.9
ARU                                 MLR    MLR
       comp=N,200nm,20.0s,MS4.4
ARU                                 MLR    MLR
       comp=Z,400nm,20.0s,MS4.6
ARU                                 MLR    MLR
       comp=E,200nm,21.0s,MS4.4
CHKZ   Chkalovo           62.11 335 P      P      17 31 24.8 -1.8
CHKZ                                pmax   pmax
       comp=Z,15nm,0.7s,mb5.2
CHKZ   Chkalovo           62.11 335 eP     P      17 31 24.6 -2.0
       comp=Z,36nm,0.8s,mb5.5
DCN    Croghan            62.11  26 eP     P      17 31 25.5 -1.1
DLF    Lyons Farm         62.32  25 eP     P      17 31 27.0 -0.9
BRVK   Borovoye           62.76 335 P      P      17 31 29.5 -1.3
BRVK                                pmax   pmax
       comp=Z,38nm,1.3s,mb5.4
BRVK   Borovoye           62.76 335 eP     P      17 31 29.4 -1.5
       comp=Z,41nm,1.0s,mb5.5
BVAR   Borovoye Array     62.77 335 P      P      17 31 29.6 -1.3
       comp=Z,25nm,0.7s,mb5.5,baz=37,slow=7.4,SNR=110
MOS    Moscow             63.98 357 eP     P      17 31 37.1 -1.6
MOS                                 e      pP     17 31 44.7 -3.3
MOS                                 pmax   pmax
       comp=Z,58nm,0.9s,mb5.6
SSE    Sheshan            64.03 287 P      P      17 31 35.5 -4.0
SSE                                 S      S      17 40 12.4 +0.2
SSE                                 AMB    AMB
       comp=Z,30nm,0.7s,mb5.4
SSE                                 AMB    AMB
       comp=Z,46nm,12.0s
SSE                                 LR     LR
       comp=N,120nm,24.1s,MS4.2
SSE                                 LR     LR
       comp=E,163nm,24.1s,MS4.2
SSE                                 LR     LR
       comp=Z,265nm,24.8s,MS4.3
SSE    Sheshan            64.03 287 P      P      17 31 35.5 -4.0
       comp=Z,30nm,0.7s,mb5.4
SSE                                 sP     sP     17 31 44.2 -7.9
SSE                                 S      S      17 40 12.4 +0.2
SSE                                 sS            17 40 23.3
SSE                                 LR     LR
       comp=Z,260nm,24.8s,MS4.3
NJ2    Nanjing            64.33 290 eP     P      17 31 37.0 -4.4
NJ2                                 PP     PP     17 33 59.0 -5.7
NJ2                                 S      S      17 40 09.0 -6.9
NJ2                                 AMB    AMB
       comp=Z,80nm,1.0s,mb5.7
NJ2                                 AMB    AMB
       comp=Z,20nm,5.7s
NJ2                                 LR     LR
       comp=N,1µm,14.9s,MS5.3
NJ2                                 LR     LR
       comp=E,670nm,11.2s,MS5.3
NJ2                                 LR     LR
       comp=Z,760nm,14.6s,MS5.0
BSEG   Bad Segeberg       64.51  14 eP     P      17 31 41.8 -0.4
BSEG                                pmax   pmax
       comp=Z,21nm,1.0s,mb5.1
OBN    Obninsk            64.63 357κ iP    P      17 31 42.1 -0.9
OBN                                               17 32 15.0
OBN                                 S      S      17 40 12.0 -7.2
OBN                                 pmax   pmax
       comp=Z,46nm,0.8s,mb5.6
OBN                                 MLR    MLR
       comp=Z,300nm,21.0s,MS4.5
OBN    Obninsk            64.63 357 eP     P      17 31 42.2 -0.7
       comp=Z,30nm,0.6s,mb5.5
OBN                                 epP    pP     17 31 51.1 -1.1
MKAR   Makanchi Array     65.61 325 P      P      17 31 44.1 -5.3
MKAR                                pmax   pmax
       comp=Z,22nm,1.4s
WTSB   Winterswijk        65.97  17 eP     P      17 31 46.1 -5.4
       comp=Z,35nm,2.1s,mb5.0
WTSB                                ex     x      17 31 59.4
GTA    Gaotai             66.25 309 ⇓P     P      17 31 53.5 -0.1
GTA                                 PP     PP     17 34 21.0 -0.7
GTA                                 PPP    PPP    17 35 57.3 +0.1
GTA                                 SCP           17 36 24.8
GTA                                 S      S      17 40 41.3 +2.0
GTA                                 SS     SS     17 44 56.3 -0.7
GTA                                 AMB    AMB
       comp=Z,39nm,1.0s,mb5.4
GTA                                 AMB    AMB
       comp=Z,82nm,4.6s
GTA                                 LR     LR
       comp=N,477nm,19.0s,MS4.9
GTA                                 LR     LR
       comp=E,399nm,17.1s,MS4.9
GTA                                 LR     LR
       comp=Z,735nm,18.3s,MS4.9
RUE    Ruedersdorf        66.33  12 eP     P      17 31 53.3 -0.6
CLZ    Clausthal          66.57  15 eP     P      17 31 55.4  0.0
       comp=Z,39nm,1.0s,mb5.4
WMQ    Urumqi             66.66 320 P      P      17 31 57.3 +1.2
WMQ                                 PCP    PcP    17 32 26.5 +1.5
WMQ                                 PP     PP     17 34 26.3 +1.5
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WMQ                                 S        S        17 40 48.3 +4.2
WMQ                                 AMB      AMB
      comp=Z,5.0nm,0.9s,mb4.5
WMQ                                 LR       LR
      comp=N,219nm,23.0s,MS4.5
WMQ                                 LR       LR
      comp=E,245nm,23.0s,MS4.5
WMQ                                 LR       LR
      comp=Z,175nm,25.0s,MS4.2
HGN   Heimansgroeve     67.01  18  eP        P        17 31 57.4 -0.8
      comp=Z,36nm,0.8s,mb5.4
HGN                                ex        x        17 32 06.6
XAN   Xi'an             67.12 299   P        P        17 31 57.8 -1.5
XAN                                 AP       pP       17 32 09.8 +1.2
XAN                                 AMB      AMB
      comp=Z,8.0nm,1.6s,mb4.5
CLL   Collm             67.41  13⇓iP        P        17 31 59.8 -0.9
CLL                                e         pP       17 32 09.0 -1.0
CLL                                 pmax     pmax
      comp=Z,23nm,1.0s,mb5.2
CLL   Collm             67.41  13⇓iP        P        17 31 59.8 -0.9
      comp=Z,23nm,1.0s,mb5.2
CLL                                e         pP       17 32 09.0 -1.0
CLL   Collm             67.41  13 ⇓P        P        17 31 59.8 -0.9
      comp=Z,logA/T=1.4,mb5.2
CLL                                e*PP      pP       17 32 09.0 -1.0
BAIF  Baives            67.42  19  eP        P        17 32 00.2 -0.7
      comp=Z,49nm,1.0s,mb5.2
GIVF  Givet             67.48  19  eP        P        17 32 00.5 -0.7
      comp=Z,78nm,1.2s,mb5.3
LZH   Lanzhou           67.51 304 ⇑P        P        17 32 01.0 -0.7
LZH                                 AP       pP       17 32 10.1 -0.9
LZH                                 XP       sP       17 32 14.8 +0.5
LZH                                 PP       PP       17 34 30.0 -2.3
LZH                                eS        S        17 40 51.0 -3.6
LZH                                 AMB      AMB
      comp=Z,80nm,1.0s,mb5.7
LZH                                 AMB      AMB
      comp=Z,200nm,4.6s
LZH                                 LR       LR
      comp=E,2µm,17.2s
LZH                                 LR       LR
      comp=Z,2µm,20.0s,MS5.4
LZH   Lanzhou           67.51 304 ⇑P        P        17 32 01.0 -0.7
      comp=Z,80nm,1.0s,mb5.7
LZH                                 pP       pP       17 32 10.1 -0.9
LZH                                 sP       sP       17 32 14.7 +0.4
LZH                                 PP       PP       17 34 30.0 -2.3
LZH                                eS        S        17 40 51.0 -3.6
LZH                                 sS                17 41 07.0
LZH                                 PS       PS       17 41 17.0 -5.0
LZH                                 SS       SS       17 45 11.0 -5.7
LZH                                 LR       LR
      comp=Z,2µm,20.0s,MS5.4
ROSF  Rostrenen         67.69  25  eP        P        17 32 01.8 -0.8
FLN   La Foliniere      67.84  23  eP        P        17 32 02.5 -1.0
      comp=Z,91nm,1.1s,mb5.4
FLN                                eR
      comp=Z,408nm,19.2s
MOX   Moxa              67.90  14  eP        P        17 32 03.1 -0.7
MOX                                 pmax     pmax
      comp=Z,60nm,1.3s,mb5.5
MOX   Moxa              67.90  14  i P       P        17 32 03.1 -0.7
      comp=Z,logA/T=1.7,mb5.5
MOX                                 pP       pP       17 32 13.0 -0.1
MOX   Moxa              67.90  14  eP        P        17 32 03.1 -0.7
      comp=Z,60nm,1.3s,mb5.5
MOX                                e         pP       17 32 12.7 -0.4
SGMF  Saint Gilles      67.91  24  eP        P        17 32 03.3 -0.7
BRG   Berggiesshubel    67.94  12⇑iP        P        17 32 03.9 -0.2
BRG                                 pmax     pmax
      comp=Z,45nm,1.4s,mb5.3
BRG   Berggiesshubel    67.94  12⇑iP        P        17 32 03.9 -0.2
      comp=Z,45nm,1.4s,mb5.3
BRG                                i         pP       17 32 13.4  0.0
LDF   La Druitiere      68.07  23  eP        P        17 32 03.9 -1.0
      comp=Z,75nm,1.1s,mb5.3
ABH   Alteburg          68.11  17  eP        P        17 32 04.3 -0.9
QUIF  Quistinic         68.11  25  eP        P        17 32 04.6 -0.6
GRR   Gorron            68.12  23  eP        P        17 32 04.5 -0.8
      comp=Z,41nm,0.8s,mb5.2
KSP   Ksiaz             68.20  11  eP        P        17 32 05.0 -0.7
KSP                                e*PP      pP       17 32 13.4 -1.6
RUP   Ruppelstein       68.21  17  eP        P        17 32 05.7 -0.1
PVCC  Panska Ves        68.34  12⇓iP        P        17 32 06.6  0.0
PVCC                               epP       pP       17 32 16.1 +0.2
NKC   Novy Kostel       68.40  14⇓iP        P        17 32 06.6 -0.4
NKC                                epP       pP       17 32 16.1 -0.2
NKC                                 AMS      AMS      17 59 50.0
UPC   Upice             68.51  11⇓iP        P        17 32 07.3 -0.3
UPC                                epP       pP       17 32 16.6 -0.3
TOD   Tromm             68.55  16  eP        P        17 32 07.9  0.0
DPC   Dobruska-Polom    68.69  11⇓iP        P        17 32 08.8  0.0
DPC                                epP       pP       17 32 18.1  0.0
DPC                                 AMS      AMS      17 58 20.0
GRA1  Grafenberg Arr    68.79  15  eP        P        17 32 09.2 -0.2
      comp=Z,24nm,0.9s,mb5.1
GRA1                                LR       LR
      comp=Z,200nm,22.0s,MS4.3
GRF   Grafenberg Arr    68.79  15  eP        P        17 32 09.2 -0.2
GRF                                 pmax     pmax
      comp=Z,24nm,0.9s,mb5.1
GRF                                 MLR      MLR
      comp=Z,200nm,22.0s,MS4.3
GRF   Grafenberg Arr    68.79  15  eP        P        17 32 09.2 -0.2
      comp=Z,24nm,0.9s,mb5.1
GRF                                 LR       LR
      comp=Z,200nm,22.0s,MS4.3
PRU   Pruhonice         68.88  12⇓iP        P        17 32 09.8 -0.1
PRU                                e*PP      pP       17 32 18.9 -0.3
PRU                                 pmax     pmax
      comp=Z,30nm,1.2s,mb5.1
PRU                                 MLR      MLR
      comp=Z,300nm,19.1s,MS4.5
PRU   Pruhonice         68.88  12⇓iP        P        17 32 09.8 -0.1
      comp=Z,30nm,1.2s,mb5.1
PRU                                epP       pP       17 32 18.9 -0.3
PRU                                 AMS      AMS      18 01 50.0
      comp=Z,300nm,19.1s
LANF  Langenberg        69.02  17  eP        P        17 32 10.2 -0.6
MEZF  Maizieres J'vi    69.07  19  eP        P        17 32 10.5 -0.6
      comp=Z,56nm,1.1s,mb5.1
AKASG Malin Array Be    69.07   2   P        P        17 32 09.6 -1.5
      comp=Z,12nm,0.6s,mb5.0,baz=358,slow=6.0,SNR=32
OJC   Ojcow             69.12   9  eP        P        17 32 10.7 -0.7
OKC   Ostrava-Krasne    69.36  10⇓iP        P        17 32 12.5 -0.4
OKC                                epP       pP       17 32 21.4 -0.8
THEF  They Montfort     69.48  19  eP        P        17 32 12.3 -1.4
CDF   Champ du Feu      69.50  18  eP        P        17 32 13.3 -0.5
      comp=Z,50nm,1.2s,mb5.0
WLS   Welschbruch       69.51  18  eP        P        17 32 13.5 -0.3
WET   Wettzell          69.52  14  eP        P        17 32 13.9  0.0
WET                                 pmax     pmax
      comp=Z,38nm,1.3s,mb5.2
WET   Wettzell          69.52  14  eP        P        17 32 13.9  0.0
      comp=Z,38nm,1.3s,mb5.2
KHC   Kasperske Hory    69.62  13⇓iP        P        17 32 14.5  0.0
KHC                                epP       pP       17 32 23.9 +0.1
KHC                                 AMS      AMS      18 00 50.0
      comp=Z,300nm,18.5s
ECH   Echery            69.67  18  eP        P        17 32 14.4 -0.4
BFO   Black Forest      69.73  17  eP        P        17 32 14.7 -0.5
BFO                                 pmax     pmax
      comp=Z,17nm,1.1s,mb4.9
BFO   Black Forest      69.73  17  eP        P        17 32 14.7 -0.5
      comp=Z,17nm,1.1s,mb4.9
HAU   Haudompre         69.75  18  eP        P        17 32 14.7 -0.6
      comp=Z,36nm,1.0s,mb5.0
HAU                                eR
      comp=Z,159nm,21.8s
HYF   Humbligny         69.85  21  eP        P        17 32 15.5 -0.4
GEC2  GERESS Array S    69.91  13  eP        P        17 32 15.9 -0.4
GEC2                                pmax     pmax
      comp=Z,38nm,1.7s,mb5.0
GEC2  GERESS Array S    69.91  13  eP        P        17 32 15.9 -0.4
      comp=Z,38nm,1.7s,mb5.0
GEC2                               epP       pP       17 32 25.2 -0.3
GERES GERESS Array B    69.91  13   P        P        17 32 15.7 -0.6
      comp=Z,5.7nm,0.8s,mb4.5,baz=349,slow=4.9,SNR=42
NIE   Niedzica          69.95   8  eP        P        17 32 17.0 +0.5
HINF  Hinteralfeld      70.02  18  eP        P        17 32 16.2 -0.7
      comp=Z,35nm,1.1s,mb4.9
MOF   Molkenrain        70.03  18  eP        P        17 32 16.8 -0.2
ENH   Enshi             70.09 296  eP        P        17 32 16.7 -0.9
      comp=Z,11nm,1.1s,mb4.7
SSF   Saint Saulge      70.20  21  eP        P        17 32 17.4 -0.7
      comp=Z,87nm,1.2s,mb5.3
FUR   Furstenfeldbru    70.29  15  eP        P        17 32 18.8 +0.2
FUR                                 pmax     pmax
      comp=Z,66nm,1.1s,mb5.5
FUR   Furstenfeldbru    70.29  15  eP        P        17 32 18.8 +0.2
      comp=Z,66nm,1.1s,mb5.5
LOMF  Lomont            70.47  18  eP        P        17 32 19.1 -0.6
CRVS  Cervenica-Dubn    70.54   8  eP        P        17 32 21.7 +1.6
KOLS  Kolonicke sedl    70.56   7  eP        P        17 32 20.3 +0.1
KOLS                               esP       sP       17 32 33.0 +0.1
BGF   Bois d'Agland     70.58  21  eP        P        17 32 19.4 -0.9
      comp=Z,71nm,1.2s,mb5.2
SMOL  Smolenice         70.62  10  eP        P        17 32 20.9 +0.3
SMOL                               epP       pP       17 32 30.4 +0.5
SMF   Signal de Mont    70.67  20  eP        P        17 32 19.9 -1.0
      comp=Z,80nm,1.3s,mb5.2
TCF   Toulx Ste Croi    70.72  22  eP        P        17 32 20.3 -0.9
VYHS  Vyhne             70.76  10  i P       P        17 32 21.1 -0.3
VYHS                               epP       pP       17 32 30.2 -0.5
KECS  Kecovo            70.89   8  eP        P        17 32 22.0 -0.3
ZST   Bratislava        70.90  11  eP        P        17 32 22.1 -0.2
ZST                                epP       pP       17 32 31.7 +0.1
MOA   Molln             70.96  13⇓iP        P        17 32 22.1 -0.6
      comp=Z,14nm,1.2s,mb4.8
DAVA  Damuels           70.97  16⇓iP        P        17 32 22.6 -0.2
      comp=Z,15nm,1.1s,mb4.8
USP   Ospenovka         70.98 329   P        P        17 32 22.5 -0.3
      SNR=20
TKM2  Tokmak 2          71.02 328   P        P        17 32 23.0 -0.1
      SNR=25
CABF  La Chapelle       71.07  19  eP        P        17 32 22.9 -0.5
      comp=Z,106nm,1.3s,mb5.3
MOTA  Moosalm           71.08  15⇓iP        P        17 32 23.3 -0.1
      comp=Z,25nm,1.3s,mb5.0
AGO   Saint Agoulin     71.11  21  eP        P        17 32 24.7 +1.1
WATA  Walderalm         71.15  15⇓iP        P        17 32 23.7 -0.1
      comp=Z,39nm,1.1s,mb5.2
CHMS  Chumysh           71.17 329   P        P        17 32 23.9 -0.1
      SNR=25
SQTA  Sankt Quirin      71.21  15⇓iP        P        17 32 24.3 +0.1
      comp=Z,48nm,1.1s,mb5.3
WTTA  Wattenberg        71.22  15⇓iP        P        17 32 24.5 +0.2
      comp=Z,75nm,1.3s,mb5.5
PLDF  La Plantade       71.28  21  eP        P        17 32 25.2 +0.6
KBK   Karagaybulak      71.43 328   P        P        17 32 25.8 +0.2
      SNR=27
EMAZ  Mazaricos         71.46  31   P        P        17 32 24.6 -1.2
      comp=Z,35nm,0.7s,mb5.4
RJF   Les Rejaudoux     71.54  22  eP        P        17 32 25.3 -0.9
RJF                                eR
      comp=Z,337nm,19.0s
EPON  Pontenova         71.56  29   P        P        17 32 26.9 +0.5
      comp=Z,24nm,0.9s,mb5.1
AAK   Ala-Archa         71.57 329   P        P        17 32 26.3 -0.1
      SNR=18
AAK   Ala-Archa         71.57 329d iP        P        17 32 25.2 -1.3
AAK                                 pmax     pmax
      comp=Z,35nm,1.1s,mb5.2
AAK                                 MLR      MLR
      comp=Z,200nm,17.0s,MS4.5
AAK   Ala-Archa         71.57 329  eP        P        17 32 25.2 -1.2
      comp=Z,29nm,0.9s,mb5.2
KBA   Koelnbreinsper    71.61  14⇓iP        P        17 32 27.1 +0.5
      comp=Z,67nm,1.3s,mb5.4
ARSA  Arzberg           71.68  12⇑iP        P        17 32 27.3 +0.3
      comp=Z,16nm,1.4s,mb4.8
EKS2  Erkin-Say         71.73 329   P        P        17 32 27.5 +0.1
      SNR=46
LFF   La Frestale       71.74  23  eP        P        17 32 26.9 -0.5
      comp=Z,62nm,0.8s,mb5.3
KZA   Kyzart            71.90 328   P        P        17 32 28.7 +0.3
      SNR=6.0
LBL   Lubilhac          71.93  21  eP        P        17 32 29.2 +0.7
UCH   Uchtor            71.95 328   P        P        17 32 29.4 +0.7
      SNR=5.1
CAF   Calviac           72.01  22  eP        P        17 32 28.2 -0.8
      comp=Z,87nm,1.5s,mb5.2
CD2   Chengdu           72.02 301  eP        P        17 32 28.9 -0.4
RSL   Roselend          72.06  19  eP        P        17 32 29.6 +0.3
LPL   La Plagne         72.24  19  eP        P        17 32 30.8 +0.4
      comp=Z,62nm,1.2s,mb5.1
PERS  Pernice           72.25  12  eP        P        17 32 30.0 -0.4
AML   Almayashu         72.25 329   P        P        17 32 31.2 +0.7
      SNR=23
LPG   La Plagne         72.26  19  eP        P        17 32 31.1 +0.6
      comp=Z,70nm,1.3s,mb5.1
EZAM  Zamans            72.28  31   P        P        17 32 31.1 +0.4
      comp=Z,20nm,0.6s,mb5.2
OBKA  Obir              72.31  13⇓iP        P        17 32 30.7 -0.1
      comp=Z,48nm,0.8s,mb5.5
ORX   Oropa             72.32  18   P        P        17 32 30.8  0.0
LSD   Ceresole Reale    72.36  18   P        P        17 32 31.7 +0.6
TRAV                    72.40  18   P        P        17 32 31.5 +0.2
ERUA  La Rua            72.44  30   P        P        17 32 31.7 +0.1
      comp=Z,16nm,0.8s,mb5.0
GROS  Grobnik           72.46  12  eP        P        17 32 31.2 -0.5
CADS  Cadrg             72.50  13  eP        P        17 32 30.6 -1.3
ELAN  Lanestosa         72.51  27   P        P        17 32 31.9  0.0
      comp=Z,24nm,0.8s,mb5.2
VIVF  Saint-Julien-l    72.54  20  eP        P        17 32 31.6 -0.4
      comp=Z,37nm,1.0s,mb5.0
RSP   Reno Superiore    72.68  18   P        P        17 32 33.5 +0.7
BNI   Bardonecchia      72.68  19  eP        P        17 32 34.1 +1.2
BNI                                epP       pP       17 32 42.5 +0.3
ORIF  Oris-en-Rattie    72.69  19  eP        P        17 32 32.7 -0.2
      comp=Z,62nm,1.4s,mb5.1
ORIF                               eR
      comp=Z,186nm,20.8s
ELOB  Lobios            72.71  31   P        P        17 32 32.4 -0.7
      comp=Z,9.7nm,0.8s,mb4.8
FENE  Fenestrelle       72.77  19   P        P        17 32 34.2 +0.9
KIS   Kishinev          72.77   3  eP        P        17 32 31.0 -2.3
KIS                                e         pP       17 32 39.0 -3.7
KIS                                e                  17 32 57.0
RRL   Cesana Torines    72.83  19   P        P        17 32 34.2 +0.5
OG22  Abries            72.95  19  eP        P        17 32 35.7 +1.3
BHB   Bricherasio       72.98  18   P        P        17 32 34.5 -0.1
MBDF  Montbardon        73.02  19  eP        P        17 32 35.4 +0.6
      comp=Z,24nm,0.8s,mb4.8
SJPF  Ste Jean          73.10  25  eP        P        17 32 33.7 -1.6
      comp=Z,24nm,1.1s,mb4.8
LASF  Ste Croix         73.16  21  eP        P        17 32 35.5 -0.2
PZZ   Prazzo            73.28  19   P        P        17 32 36.6 +0.2
PVRL  Vila Real         73.35  30  eP        P        17 32 37.3 +0.4
      comp=Z,50nm,1.2s,mb5.3
PVRL                               epP       pP       17 32 47.1 +0.9
ETSF  Etsaut            73.44  25  eP        P        17 32 37.6 +0.2
      comp=Z,54nm,1.0s,mb5.1
PCP   Pian Castagno     73.47  18   P        P        17 32 36.6 -0.9
EPF   Esparros          73.50  24  eP        P        17 32 36.6 -1.1
      comp=Z,40nm,1.3s,mb4.9
SMRF  Simiane la Rot    73.55  20  eP        P        17 32 38.3 +0.4
      comp=Z,108nm,1.3s,mb5.3
MTLF  Montolieu         73.57  22  eP        P        17 32 37.6 -0.5
      comp=Z,34nm,1.0s,mb4.9
STV2  Anna di Valdie    73.57  19   P        P        17 32 36.5 -1.6
STV   Sta Anna Valdi    73.57  19   P        P        17 32 37.2 -0.9
ENR   Entracque         73.61  18   P        P        17 32 36.4 -1.9
ROB   Roburent          73.61  18   P        P        17 32 37.2 -1.1
FIN   Finale Ligure     73.74  18   P        P        17 32 37.1 -2.0
EBIE  Bielsa            73.79  24   P        P        17 32 39.7 +0.3
      comp=Z,10nm,0.8s,mb4.8
MONE  Monesi            73.80  18   P        P        17 32 38.5 -0.9
CODM                    73.81  17   P        P        17 32 39.2 -0.2
PVIS  Viseu             73.83  31  eP        P        17 32 40.0 +0.3
      comp=Z,38nm,1.1s,mb5.2
PVIS                               epP       pP       17 32 50.0 +1.0
VALM                    73.90  16   P        P        17 32 39.1 -0.9
BACM                    73.95  16   P        P        17 32 39.5 -0.8
SBF   Sospel            73.96  19  eP        P        17 32 40.0 -0.3
      comp=Z,72nm,0.9s,mb5.3
IMI   Imperia           73.99  18   P        P        17 32 38.9 -1.6
NEGI  Negi              74.02  18   P        P        17 32 39.2 -1.5
VINC  Vinca             74.09  16   P        P        17 32 40.2 -0.8
KSH   Kashi             74.09 326  eP        P        17 32 41.8 +0.6
KSH                                ePCP      PcP      17 32 57.4 +0.9
KSH                                ePP       PP       17 35 28.3 -0.1
KSH                                ePPP      PPP      17 37 12.4 -1.0
KSH                                eS        S        17 42 10.8 +0.1
KSH                                eSKS      SKS      17 42 43.5 -6.5
KSH                                ePS       PS       17 42 46.0 -2.7
KSH                                eSCS      ScS      17 42 47.4 +1.7
KSH                                eSS       SS       17 46 58.0 -0.2
KSH                                 AMB      AMB
      comp=Z,150nm,3.6s
KSH                                 LR       LR
      comp=N,330nm,5.2s
KSH                                 LR       LR
      comp=E,400nm,5.4s
FRF   La Foret Royal    74.13  19  eP        P        17 32 41.0 -0.3
      comp=E,56nm,1.0s,mb5.2
MLR   Muntele Rosu      74.19   5   P        P        17 32 41.7 +0.2
      comp=E,7.6nm,0.9s,mb4.6,baz=244,slow=1.1,SNR=8.0
MTE   Manteigas         74.22  31  eP        P        17 32 42.5 +0.6
      comp=E,64nm,1.1s,mb5.5
MTE                                epP       pP       17 32 52.6 +1.3
LMR   La Mourre         74.33  19  eP        P        17 32 42.3 -0.2
      comp=E,79nm,1.1s,mb5.2
MAIM                    74.36  16   P        P        17 32 41.2 -1.5
GOF   Gofitskoye        74.39 352⇓iP        P        17 32 41.0 -1.8
GOF                                 pmax     pmax
      comp=Z,40nm,1.2s,mb5.2
GYA   Guiyang           74.62 297⇑iP        P        17 32 44.3 -0.2
GYA                                 AMB      AMB
      comp=Z,10.0nm,1.2s,mb4.6
GYA                                 AMB      AMB
      comp=Z,160nm,3.4s
GYA                                 LR       LR
      comp=N,180nm,16.9s,MS4.6
GYA                                 LR       LR
      comp=E,172nm,18.4s,MS4.6
GYA                                 LR       LR
      comp=Z,140nm,17.6s,MS4.3
PCBR  Castelo Branco    74.77  31  eP        P        17 32 45.1  0.0
PCBR                               epP       pP       17 32 54.8 +0.4
PGF   Pioggiola         75.49  18  eP        P        17 32 48.7 -0.5
      comp=Z,59nm,1.1s,mb5.1
KIV   Kislovodsk        75.51 352  i P       P        17 32 49.1 -0.2
KIV                                 pmax     pmax
      comp=Z,19nm,1.1s,mb4.9
KIV                                 MLR      MLR
      comp=Z,100nm,17.0s,MS4.2
KIV   Kislovodsk        75.51 352  eP        P        17 32 49.3  0.0
      comp=Z,9.1nm,0.8s,mb4.8
ESDC  Sonseca Array     75.78  28   P        P        17 32 51.4 +0.5
      comp=Z,50nm,1.1s,mb5.4,baz=340,slow=5.5,SNR=51
ESDC  Sonseca Array     75.78  28   P        P        17 32 51.1 +0.3
      comp=Z,33nm,0.9s,mb5.3
ESLA  Sonseca Array     75.78  28  eP        P        17 32 51.3 +0.4
      comp=Z,19nm,1.3s,mb4.9
ESLA                               epP       pP       17 33 00.2 -0.1
EVO   Evora             75.86  32  eP        P        17 32 50.9 -0.5
      comp=Z,69nm,1.2s,mb5.2
EVO                                eR
      comp=Z,337nm,18.2s
EMOS  Mosqueruela       75.89  25   P        P        17 32 50.0 -1.6
      comp=Z,12nm,0.9s,mb4.8
SDV   Santo Domingo     75.91  97  eP        P        17 32 50.8 -1.3
      comp=Z,5.7nm,0.8s,mb4.5
EBAD  Badajoz           75.91  31   P        P        17 32 50.4 -1.2
      comp=Z,10nm,0.8s,mb4.8
SOC   Sochi             76.05 355  eP        P        17 32 38.3  -14
SOC                                e                  17 35 39.5
SOC                                ePPP      PPP      17 37 30.5 -1.4
SOC                                eSS       SS       17 47 33.4 +4.9
SOC                                 pmax     pmax
      comp=Z,32nm,1.0s,mb5.2
SOC                                 pmax     pmax
      comp=N,34nm,1.2s
SOC                                 pmax     pmax
      comp=E,24nm,0.9s
SOC                                 MLR      MLR
      comp=N,243nm,20.0s,MS4.6
SOC                                 MLR      MLR
      comp=E,171nm,20.0s,MS4.6
SOC                                 MLR      MLR
      comp=Z,267nm,20.0s,MS4.5
PBEJ  Beja              76.38  32  eP        P        17 32 54.9 +0.6
PBEJ                               epP       pP       17 33 04.3 +0.6
EMIN  Mina Concepcio    76.93  31   P        P        17 32 57.9 +0.6
      comp=Z,13nm,1.0s,mb4.8
PALC  Alcoutim          77.01  32  epP       pP       17 33 08.3 +1.1
EADA  Adamuz            77.07  29   P        P        17 32 58.9 +0.8
      comp=Z,9.9nm,1.0s,mb4.7
EVIA  Vianos            77.10  27   P        P        17 32 59.6 +1.3
      comp=Z,15nm,0.8s,mb5.0
SKO   Skopje            77.44   8  eP        P        17 33 05.5 +5.4
KMI   Kunming           77.50 299  eP        P        17 33 00.8  0.0
KMI                                 S        S        17 42 47.6 -0.8
KMI                                 SS       SS       17 47 52.6 +1.9
KMI                                 AMB      AMB
      comp=Z,9.0nm,1.0s,mb4.7
KMI                                 LR       LR
      comp=N,369nm,19.4s,MS4.8
KMI                                 LR       LR
      comp=E,320nm,17.9s,MS4.8
KMI                                 LR       LR
      comp=Z,319nm,18.3s,MS4.7
KMI   Kunming           77.50 299  eP        P        17 33 00.8  0.0
      comp=Z,9.0nm,1.0s,mb4.7
KMI                                 sP       sP       17 33 07.0 -6.4
KMI                                 S        S        17 42 47.6 -0.8
KMI                                 SS       SS       17 47 52.6 +1.9
KMI                                 LR       LR
      comp=Z,320nm,18.3s,MS4.7
ROSC  El Rosal          77.59 102   P        P        17 33 01.1 -0.4
      comp=Z,4.4nm,0.6s,mb4.6,baz=87,slow=23,SNR=4.8
ROSC                                LR       LR       18 11 39.9
      comp=Z,238nm,19.3s,MS4.5,baz=17,slow=39
EQES  Quesada           77.77  28   P        P        17 33 04.3 +2.3
      comp=Z,5.3nm,0.8s,mb4.5
ESPR  Espera            77.98  31   P        P        17 33 03.2  0.0
      comp=Z,22nm,1.0s,mb5.0
ELOJ  Sierra Loja       78.14  29   P        P        17 33 06.3 +2.3
      comp=Z,3.1nm,0.4s,mb4.6
LSA   Lhasa             78.14 311   P        P        17 33 06.3 +2.1
LSA   Lhasa             78.14 311  eP        P        17 33 05.9 +1.7
      comp=Z,11nm,0.6s,mb5.0
EMUR  La Murta          78.15  27   P        P        17 33 04.8 +0.7
      comp=Z,8.0nm,0.5s,mb4.9
ERON  Agron             78.34  29   P        P        17 33 06.7 +1.6
      comp=Z,7.8nm,0.7s,mb4.8
EMIJ  Mijas             78.54  30   P        P        17 33 07.4 +1.1
      comp=Z,16nm,0.7s,mb5.0
EBER  Berja             78.68  28   P        P        17 33 08.1 +1.2
      comp=Z,5.8nm,0.5s,mb4.8
GNI   Garni             79.14 350  eP        P        17 33 10.5 +1.0
      comp=Z,6.9nm,0.9s,mb4.6
OTAV  Otavalo           79.66 108  eP        P        17 33 12.1 -0.7
      comp=Z,6.7nm,1.0s,mb4.5
BRTR  Keskin Array B    80.07 359   P        P        17 33 14.6 +0.1
      comp=Z,10.0nm,1.0s,mb4.7,baz=27,slow=2.8,SNR=23
SDNR  Sundarnagar       81.30 323  eP        P        17 33 21.8 +0.7
IMP   Imphal            81.47 306⇓iP        P        17 33 21.8 -0.3
SHL   Shillong          81.58 308  eP        P        17 33 22.2 -0.5
GUN   Gumba             81.69 314  eP        P        17 33 23.9 +0.7
      comp=Z,78nm,1.0s,mb5.6
KKN   Kakani            82.01 314  eP        P        17 33 25.4 +0.5
      comp=Z,34nm,0.9s,mb5.3
GKN   Gorkha            82.04 315  eP        P        17 33 25.4 +0.4
      comp=Z,87nm,1.2s,mb5.6
DDI   Dehra Dun         82.06 321  eP        P        17 33 23.3 -1.8
PKI   Pulchoki          82.16 314  eP        P        17 33 25.0 -0.7
      comp=Z,52nm,1.2s,mb5.3
DMN   Daman             82.24 315  eP        P        17 33 26.6 +0.5
      comp=Z,62nm,1.1s,mb5.4
KOLN  Koldanda          82.61 316  eP        P        17 33 28.3 +0.3
      comp=Z,84nm,1.4s,mb5.6
NDI   New Delhi         83.85 321  eP        sP       17 33 52.5 +5.6
NANT  Nan               83.95 298   P        P        17 33 35.0  0.0
CHG   Chiang Mai        84.70 299   P        P        17 33 38.0 -0.7
CMAR  Chiang Mai Arr    85.02 299   P        P        17 33 40.1 -0.1
      comp=Z,7.5nm,1.0s,mb4.8,baz=7.4,slow=5.4,SNR=50
CMAR                                LR       LR       18 14 58.3
      comp=Z,333nm,18.9s,MS4.8,baz=30,slow=38
ASF   Jabal al Asfar    87.54 356   P        P        17 33 53.5 +1.1
      comp=Z,10nm,0.9s,mb5.0,baz=189,slow=1.2,SNR=7.1
HYB   Hyderabad         93.91 316  eP        P        17 34 21.0 -1.4
HYB   Hyderabad         93.91 316  i P       P        17 34 21.0 -1.4
POO   Poona             94.41 321  e         P        17 34 23.0 -1.7
CTA   Charters Tower    96.26 240   P        P        17 34 32.5 -0.6
      comp=Z,5.2nm,1.0s,mb4.9,baz=12,slow=8.5,SNR=2.4
KMBO  Kilima Mbogo     120.61 354   PKP      PKPdf    17 39 56.0 -4.7
      comp=Z,4.6nm,1.0s,baz=20,slow=7.2,SNR=9.4
KMBO  Kilima Mbogo     120.61 354  ePKPdf    PKPdf    17 39 57.2 -3.5
BOSA  Boshof           147.70  12  ePKPdf    PKPdf    17 40 47.9 -2.1
QSPA  South Pole Qui   150.36 180   P        PKPdf    17 40 54.0 +1.3
SUR   Sutherland       150.80  20  ePKPdf    PKPdf    17 40 51.1 -3.7
VNA3  Neumayer Olymp   160.27 140⇑iP        PKPab    17 41 44.3 +0.4
VNA2  Neumayer--Watz   161.06 140⇑iP        PKPab    17 41 45.5 -1.8
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Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA2	**Neumayer--Watz**	**161.06**	**140**	⇓*i*	PKPab	17 41 48.6	+1.3
SNAA	**Sanae**	**162.25**	**143**	⇑*i*P	PKPab	17 41 50.4	-2.1
SYO	**Syowa Base**	**170.98**	**197**	⇑P	PKPdf	17 41 00.1	-15

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*NEIC **21** 17:29:06.5±5.9,29.93S×179.31E,h592^{km}±50^{km},mb4.3/4, Error ellipse: s-maj=116.7km s-min=20.2km az=150.0*

*IDC **21** 17:29:08.3±22.0,30.10S×179.23E,h612^{km}±224^{km}, mb3.1/4,mb1 3.2/4,mb1mx3.0/12,Error ellipse: s-maj=167.0km s-min=95.2km az=93.0*

ISC 21 17:29:01.1±4.2,**30.0S**±0.8×**179.1E**±0.6,**h500**^{km}**,n13, σ0.^{s}60**/9,**mb3.9**/5,**Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
AFI	**Afiamalu**	**18.09**	**30**	P	**P**	**17 32 42.2**	**0.0**
	34nm,0.8s						
CTA	**Charters Tower**	**31.26**	**281**	P	**P**	**17 34 40.2**	**-0.5**
	5.3nm,1.0s,mb3.9,baz=111,slow=8.6,SNR=3.8						
CTA	**Charters Tower**	**31.26**	**281**	P	**P**	**17 34 40.2**	**-0.5**
CTAO	**Charters Tower**	**31.26**	**281**	*e*P	**P**	**17 34 41.8**	**+1.1**
	7.1nm,0.8s,mb4.2						
STKA	**Stephens Creek**	**32.13**	**257**	*e*P	**P**	**17 34 47.5**	**-0.4**
	2.4nm,0.7s,mb3.7						
STKA	**Stephens Creek**	**32.13**	**257**	P	**P**	**17 34 47.6**	**-0.3**
	3.5nm,0.8s,mb3.8,baz=123,slow=7.6,SNR=8.0						
ASAR	**Alice Springs**	**40.63**	**268**	P	**P**	**17 35 59.2**	**+1.1**
	1.4nm,1.0s,mb3.4,baz=102,slow=7.0,SNR=0.2						
WRAB	**Tennant Creek**	**41.57**	**273**	*e*P	**P**	**17 36 05.2**	**-0.5**
	3.5nm,0.3s,mb4.3						
WRA	**Warramunga Arr**	**41.58**	**273**	P	**P**	**17 36 05.5**	**-0.3**
	1.7nm,0.3s,mb3.9,baz=110,slow=8.1,SNR=70						
FINES	**FINESS Array B**	**143.88**	**338**	PKP	PKPdf	17 47 32.0	-5.8
	1.1nm,0.4s,baz=59,slow=4.3,SNR=12						
HFS	**Hagfors**	**148.31**	**346**	PKPbc	PKPdf	17 47 47.8	+2.6
	2.3nm,0.9s,baz=27,slow=3.2,SNR=3.3						
HFS	**Hagfors**	**148.31**	**346**	PKPbc	PKPdf	17 47 47.8	+2.6
AKASG	**Malin Array Be**	**149.44**	**321**	PKPbc	PKPdf	17 47 48.1	+0.8
	1.2nm,0.6s,baz=41,slow=2.8,SNR=3.0						

CASC 21 17:50:37.8±3.0,**12.79N**×**87.01W,h1**^{km}±5^{km}**,MD4.1, ML3.2,6C-7D,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CRIN	**San Cristobal**	**0.10**	**201**	⇓*i*P	Pg	17 50 40.6	+0.8
TEL3	**Telica 3**	**0.28**	**143**	⇓*i*P	Pg	17 50 44.1	+0.8
LEON	**Leon**	**0.39**	**162**	⇓*i*P	Pg	17 50 45.4	-0.2
CNGN	**Cerro Negro**	**0.42**	**133**	⇓*e*P	Pg	17 50 46.8	+0.5
MIRN	**Miramar**	**0.46**	**140**	⇑*i*P	Pg	17 50 47.3	+0.4
MOMJ	**Momotombo**	**0.60**	**130**	⇓*e*P	Pg	17 50 49.9	+0.1
MOMJ				*e*S	Sg	17 51 03.0	+5.1
COPN	**Copaltepe**	**0.74**	**146**	⇑*e*P	Pg	17 50 51.7	-0.8
APYN	**Apoyeque**	**0.85**	**131**	⇓*e*P	Pg	17 50 54.2	-0.6
APYN				*e*S	Sg	17 51 09.0	+2.7
XAVN	**Gruta Xavier**	**0.93**	**134**	⇓*e*P	Pg	17 50 55.5	-0.8
CNCH	**Conchagua**	**0.93**	**301**	*e*S	Sg	17 51 10.7	+1.9
PYTN	**Playitas**	**0.97**	**105**	⇑*e*P	Pb	17 50 56.3	-0.8
PYTN				*e*S	Sg	17 51 10.3	+0.3
PYTN				*i*		17 51 13.3	
	comp=Z,643nm,0.4s						
MGAN	**Managua**	**0.99**	**131**	*e*P	Pb	17 50 56.5	-0.9
MGAN				*e*S	Sg	17 51 10.7	0.0
WILN	**Americas 2**	**1.02**	**128**	*e*S	Sb	17 51 12.4	+0.6
CRUN	**El Crucero**	**1.07**	**139**	*e*P	Pb	17 50 57.9	-0.8
TICN	**Ticuantepe**	**1.07**	**135**	⇑*e*P	Pb	17 50 58.0	-0.9
APON	**Apoyo**	**1.27**	**133**	*e*P	Pb	17 51 01.0	-1.2
BLLM	**Bellamira**	**1.35**	**299**	⇑*e*P	Pb	17 51 01.9	-1.7
BLLM				*e*S	Sb	17 51 21.2	-0.2
VSM	**San Miguel**	**1.38**	**297**	⇑*e*P	Pb	17 51 02.6	-1.5
VSM				*e*S	Sb	17 51 23.1	+1.0
SNVI	**San Vicente**	**1.96**	**295**	*e*S	Sn	17 51 38.9	+0.9
LCBS	**La Ceiba**	**2.10**	**294**	*e*P	Pn	17 51 14.3	-0.2
LCBS				*e*S	Sn	17 51 40.0	-1.5
LFRS	**El Faro**	**2.16**	**293**	*e*P	Pn	17 51 15.1	-0.3
LFRS				*e*S	Sn	17 51 42.7	-0.5
BOQS	**Boqueron**	**2.40**	**293**	*e*P	Pn	17 51 19.4	+0.6
BOQS				*e*S	Sn	17 51 50.5	+1.3
SNJE	**San Jose**	**2.74**	**293**	*e*P	Pn	17 51 24.9	+1.2
SBLS	**San Blas**	**2.74**	**293**	*e*P	Pn	17 51 24.6	+0.9
SBLS				*e*S	Sn	17 52 01.4	+3.3
MTO2	**Montecristo 2**	**2.79**	**305**	*e*P	Pn	17 51 25.8	+1.4
RBDL	**Robledal**	**2.91**	**297**	*e*P	Pn	17 51 28.0	+1.8

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*IDC **21** 18:26:13.6±2.8,60.23N×148.91W,mb4.0/2,mb1 4.0/6, mb1mx3.7/21,ML3.7/4,Error ellipse: s-maj=44.6km s-min=22.1km az=41.0*

*NEIC **21** 18:26:23.4,60.89N×147.64W,h9^{km},ML3.7(PMR), ML3.6(AEIC),After AEIC.*

ISC 21 18:26:21.7±0.8,**60.87N**±0.02×**147.65W**±0.03,**h11**^{km}±6^{km}, **n78,σ1.^{s}05**/99,**mb3.9**/2,**Southern Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
GLI	**Glacier Island**	**0.27**	**88**	P	**Pg**	**18 26 30.1**	**+2.7**
JPK	**Jack Peak**	**0.54**	**70**	P	**Pb**	**18 26 33.8**	**+1.0**
JPK				S	**Sb**	**18 26 41.6**	**+1.3**
FID	**Port Fidalgo**	**0.59**	**102**	P	**Pb**	**18 26 33.9**	**+0.4**
KNK	**Knik Glacier**	**0.67**	**324**	P	**Pb**	**18 26 35.9**	**+1.0**
VLZ	**Valdez**	**0.69**	**67**	P	**Pb**	**18 26 35.7**	**+0.4**
VLZ				S	**Sb**	**18 26 44.5**	**-0.1**
HIN	**Hinchinbrook I**	**0.74**	**130**	P	**Pb**	**18 26 37.8**	**+1.7**
LTI	**Latouche**	**0.84**	**187**	P	**Pb**	**18 26 38.8**	**+1.0**
LTI				S	**Sb**	**18 26 51.0**	**+2.1**
MPA	**Moose Pass**	**0.93**	**246**	P	**Pb**	**18 26 40.2**	**+0.9**
MPA				S	**Sb**	**18 26 52.6**	**+1.2**
DIV	**Divide**	**0.95**	**73**	P	**Pb**	**18 26 39.8**	**+0.1**
DIV				S	**Sb**	**18 26 52.8**	**+0.7**
SCM	**Sheep Creek Mo**	**0.98**	**9**	P	**Pb**	**18 26 40.6**	**+0.5**
EYAK	**Cordova Ski Ar**	**0.99**	**108**	P	**Pb**	**18 26 41.2**	**+0.8**
EYAK				S	**Sb**	**18 26 56.1**	**+2.9**
CVA	**Cordova**	**0.99**	**108**	P	**Pb**	**18 26 41.3**	**+0.9**
SML	**Sawmill**	**0.99**	**341**	P	**Pb**	**18 26 41.0**	**+0.5**
SML				S	**Sb**	**18 26 54.7**	**+1.3**
PMR	**Palmer**	**1.02**	**316**	P	**Pb**	**18 26 41.0**	**+0.2**
PMR				S	**Sb**	**18 26 55.2**	**+1.2**
GHO	**Glory Hole Cre**	**1.09**	**326**	P	**Pb**	**18 26 42.5**	**+0.4**
SEW	**Seward**	**1.18**	**230**	P	**Pb**	**18 26 44.2**	**+0.6**
SEW				S	**Sb**	**18 26 59.5**	**+0.8**
SLKM	**Skilak Lake**	**1.32**	**255**	P	**Pb**	**18 26 46.3**	**+0.3**
PWA	**Palmer West**	**1.33**	**307**	P	**Pb**	**18 26 46.2**	**0.0**
VOGL	**Vogel Lake**	**1.36**	**276**	P	**Pn**	**18 26 47.9**	**+1.1**
RAGM	**Ragged Mountai**	**1.54**	**107**	P	**Pn**	**18 26 47.4**	**-2.0**
TZL	**Tazlina**	**1.59**	**41**	P	**Pn**	**18 26 50.6**	**+0.6**
TZL				S	**Sn**	**18 27 11.6**	**+0.9**
NKA	**Nikishka**	**1.76**	**267**	P	**Pn**	**18 26 53.9**	**+1.4**
GLB	**Gilahina Butte**	**1.95**	**71**	P	**Pn**	**18 26 54.8**	**-0.3**
GLB				S	**Sn**	**18 27 18.6**	**-1.1**
BRLK	**Bradley Lake**	**1.96**	**237**	P	**Pn**	**18 26 55.1**	**-0.2**
CUT	**Chulitna**	**1.98**	**322**	P	**Pn**	**18 26 56.1**	**+0.5**
NNL	**Ninilchik**	**1.99**	**247**	P	**Pn**	**18 26 56.7**	**+1.0**
STLK	**Strandline Lak**	**2.12**	**289**	P	**Pn**	**18 26 57.6**	**0.0**
CKN	**Chakachatna No**	**2.23**	**281**	P	**Pn**	**18 26 59.5**	**+0.3**
CNPM	**China Poot**	**2.24**	**235**	P	**Pn**	**18 26 58.9**	**-0.5**
BGL	**Barrier Glacie**	**2.34**	**282**	P	**Pn**	**18 27 00.2**	**-0.5**
PAX	**Paxson**	**2.34**	**25**	P	**Pn**	**18 27 01.0**	**+0.2**
PAX				S	**Sn**	**18 27 30.7**	**+0.8**
RDT	**Redoubt**	**2.36**	**265**	P	**Pn**	**18 27 01.2**	**+0.2**
TGL	**Tana Glacier**	**2.36**	**91**	P	**Pn**	**18 27 00.5**	**-0.6**
XLV	**Seldovia**	**2.48**	**237**	P	**Pn**	**18 27 03.7**	**+0.9**
RDN	**Redoubt North**	**2.54**	**264**	P	**Pn**	**18 27 02.4**	**-1.2**
RSO	**Redoubt South**	**2.55**	**263**	P	**Pn**	**18 27 02.7**	**-1.0**
RSO				S	**Sn**	**18 27 34.4**	**-0.6**
BALM	**Baldy**	**2.59**	**84**	P	**Pn**	**18 27 03.5**	**-0.8**
RND	**Reindeer**	**2.60**	**348**	P	**Pn**	**18 27 04.8**	**+0.2**
NCT	**North Crescent**	**2.62**	**265**	P	**Pn**	**18 27 03.7**	**-0.9**
NCT				S	**Sn**	**18 27 35.3**	**-1.5**
THY	**Trims Highway**	**2.70**	**18**	P	**Pn**	**18 27 06.2**	**+0.3**
ILIM	**Iliamna**	**2.75**	**256**	P	**Pn**	**18 27 05.3**	**-1.3**
ILIM				S	**Sn**	**18 27 40.7**	**+0.6**
MENT	**Mentasta**	**2.78**	**40**	P	**Pn**	**18 27 06.3**	**-0.8**
INE	**Iliamna NE**	**2.80**	**255**	P	**Pn**	**18 27 06.1**	**-1.2**
ILW	**Iliamna West**	**2.84**	**256**	P	**Pn**	**18 27 06.8**	**-1.1**
TRF	**Thorofare Moun**	**2.87**	**336**	P	**Pn**	**18 27 08.7**	**+0.4**
TRF				S	**Sn**	**18 27 44.7**	**+1.5**
MCK	**McKinley**	**2.93**	**349**	P	**Pn**	**18 27 09.8**	**+0.6**
MCK				S	**Sn**	**18 27 45.3**	**+0.5**
YAH	**Yahtse**	**2.96**	**97**	P	**Pn**	**18 27 08.8**	**-0.8**
DDM	**Donnelly Dome**	**3.04**	**15**	P	**Pn**	**18 27 11.0**	**+0.3**
CTGM	**Chitina Glacie**	**3.09**	**86**	P	**Pn**	**18 27 11.2**	**-0.2**
KTH	**Kantishna Hill**	**3.10**	**332**	P	**Pn**	**18 27 11.6**	**+0.1**
KTH				S	**Sn**	**18 27 50.8**	**+1.9**
DOT	**Dot Lake**	**3.25**	**29**	P	**Pn**	**18 27 13.3**	**-0.4**
CHX	**Chaix Hills**	**3.33**	**101**	P	**Pn**	**18 27 14.2**	**-0.8**
BWN	**Browne**	**3.42**	**347**	P	**Pn**	**18 27 15.8**	**-0.3**
BCA3	**Beaver Creek A**	**3.54**	**49**	P	**Pn**	**18 27 17.4**	**-0.4**
HDA	**Harding Lake**	**3.56**	**5**	P	**Pn**	**18 27 17.6**	**-0.6**
PCA	**Pinnacle**	**3.74**	**99**	P	**Pn**	**18 27 19.4**	**-1.3**
MCNL	**McNeil River**	**3.76**	**246**	P	**Pn**	**18 27 20.8**	**-0.2**
CCB	**Clear Creek Bu**	**3.79**	**359**	P	**Pn**	**18 27 20.3**	**-1.1**
IL1	**Eielson Array**	**3.93**	**5**	P	**Pn**	**18 27 21.9**	**-1.5**
ILAR	**Eielson Array**	**3.93**	**5**	Pn	**Pn**	**18 27 21.9**	**-1.4**
	3.3nm,0.3s,baz=186,slow=13,SNR=229						
ILAR				Sn	**Sn**	**18 28 06.5**	**-3.5**
	6.4nm,0.3s,baz=172,slow=16,SNR=6.1						
KDAK	**Kodiak Island**	**4.00**	**221**	P	**Pn**	**18 27 23.4**	**-0.9**
COLA	**College**	**4.02**	**359**	P	**Pn**	**18 27 23.3**	**-1.4**
MDM	**Murphy Dome**	**4.11**	**357**	P	**Pn**	**18 27 24.6**	**-1.3**
PNL	**Peninsula**	**4.28**	**103**	P	**Pn**	**18 27 27.4**	**-1.0**
MLY	**Manley**	**4.41**	**343**	P	**Pn**	**18 27 30.5**	**+0.3**
TT01	**Tatalina**	**4.46**	**301**	P	**Pn**	**18 27 28.3**	**-2.6**
MGLS	**Mageik LS**	**4.73**	**239**	P	**Pn**	**18 27 34.6**	**-0.2**
DAWY	**Dawson**	**4.99**	**47**	P	**Pn**	**18 27 37.5**	**-1.0**
IM3	**Indian Mountai**	**5.81**	**335**	P	**Pn**	**18 27 47.6**	**-2.4**
IMA	**Indian Mountai**	**5.87**	**335**	*e*P	**Pn**	**18 27 51.1**	**+0.3**
WHY	**Whitehorse**	**6.26**	**86**	P	**Pn**	**18 27 54.8**	**-1.5**
BM3	**Burnt Mountain**	**6.71**	**10**	P	**Pn**	**18 27 59.6**	**-3.0**
DLBC	**Dease Lake**	**9.24**	**98**	Pn	**P**	**18 28 36.1**	**-1.9**
	0.2nm,0.3s,baz=203,slow=14,SNR=5.3						
DLBC				Sn	**Sn**	**18 30 15.1**	**-8.0**
	0.2nm,0.3s,baz=162,slow=22,SNR=2.2						
INK	**Inuvik**	**9.59**	**33**	Pn	**P**	**18 28 42.2**	**-0.3**
	0.2nm,0.3s,baz=221,slow=29,SNR=4.3						
INK				Sn	**Sn**	**18 30 32.8**	**+1.3**
	0.1nm,0.3s,baz=294,slow=19,SNR=2.0						
YKA	**Yellowknife Ar**	**15.66**	**70**	Pn	**P**	**18 30 05.6**	**+2.0**
	0.3nm,0.3s,baz=280,slow=10.0,SNR=26						
YKA	**Yellowknife Ar**	**15.66**	**70**	Pn	**P**	**18 30 05.6**	**+2.0**
FINES	**FINESS Array B**	**57.92**	**4**	P	**P**	**18 36 11.1**	**-4.3**
	0.7nm,0.5s,mb4.0,baz=14,slow=7.9,SNR=8.6						
AKASG	**Malin Array Be**	**68.75**	**2**	P	**P**	**18 37 23.0**	**-4.0**
	0.9nm,0.5s,mb3.9,baz=0.1,slow=5.5,SNR=5.6						

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*NIED **21** 18:43:00,42.90N×145.50E,h35^{km},Mw3.9 Best double couple: M$_0$9.18×10^{14} NP1:φ$_s$31°,δ69°,λ71°. NP2:φ$_s$255°, δ27°,λ130°.*

*MOS **21** 18:43:40.9±1.9,42.84N×145.57E,h33^{km},mb4.3/4,Error ellipse: s-maj=33.9km s-min=19.8km az=94.7*

*JMA **21** 18:43:43.3±0.1,42.94N×145.49E,h45^{km}±1^{km},M4.0*

*NEIC **21** 18:43:45.9±0.8,43.13N×145.13E,h50^{km},mb4.1/3,Error ellipse: s-maj=22.0km s-min=15.0km az=145.0*

*IDC **21** 18:43:52.3±12.0,43.09N×145.12E,h108^{km}±118^{km}, mb3.5/8,mb1 3.6/9,mb1mx3.5/22,ML3.9/1,Error ellipse: s-maj=29.1km s-min=21.0km az=133.0*

ISC 21 18:43:43.4±0.8,**42.99N**±0.07×**145.46E**±0.08,**h52**^{km}±5^{km}, **n26,σ0.^{s}97**/33,**mb3.9**/10,**2C-6D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NEM2	**Nemuro 2**	**0.42**	**29**	⇑P	**P**	**18 43 53.7**	**-0.2**
NEM2				*e*S	**S**	**18 44 00.9**	**-0.6**
JAK	**Akkeshi**	**0.56**	**271**	⇓P	**P**	**18 43 55.4**	**-0.1**
JAK				*e*S	**S**	**18 44 04.0**	**-0.3**
JNK	**Nakash**	**0.80**	**318**	⇓P	**P**	**18 43 58.9**	**+0.3**
JNK				*e*S	**S**	**18 44 09.7**	**-0.1**
JRA	**Rausu**	**0.98**	**345**	⇓P	**P**	**18 44 01.5**	**+0.5**
JRA				*e*S	**S**	**18 44 15.2**	**+1.1**
YUK	**Yuzh-Kuril'sk**	**1.08**	**15**	⇑*i*PN	**P**	**18 44 01.5**	**-1.0**
YUK				*i* S	**S**	**18 44 15.8**	**-0.8**
YUK				pmax	pmax		
	comp=Z,690nm,0.2s						
YUK				pmax	pmax		
	comp=N,250nm,0.5s						
YUK				pmax	pmax		
	comp=E,190nm,0.3s						
YUK				smax			
	comp=N,9µm,1.0s						
YUK				smax			
	comp=N,3µm,0.5s						
YUK				smax			
	comp=E,2µm,0.5s						
JOB	**Onbets**	**1.20**	**266**	⇓P	**P**	**18 44 03.9**	**-0.1**
JAR	**Ashorobuto**	**1.27**	**284**	⇓P	**P**	**18 44 05.4**	**+0.2**
JTKR	**Abashiri--Toko**	**1.49**	**311**	⇓P	**P**	**18 44 09.2**	**+0.9**
ASAJ	**Asahikawa**	**2.37**	**299**	P	**P**	**18 44 22.2**	**+1.6**
	comp=E,28nm,0.3s,baz=116,slow=11,SNR=77						
ASAJ				S	**S**	**18 44 54.5**	**+6.0**
	comp=E,14nm,0.3s,baz=19,slow=32,SNR=9.7						
ASAJ	**Asahikawa**	**2.37**	**299**	PN	**P**	**18 44 22.2**	**+1.6**
ASAJ				S	**S**	**18 44 54.5**	**+6.0**
ASAJ				pmax	pmax		
	comp=Z,28nm,0.3s						
SONM	**Songino Array**	**27.64**	**294**	P	**P**	**18 49 26.9**	**-1.0**
	comp=Z,2.2nm,0.8s,mb3.9,baz=85,slow=8.1,SNR=9.3						
IMA	**Indian Mountai**	**40.00**	**34**	*e*P	**P**	**18 51 14.9**	**+0.8**
ILAR	**Eielson Array**	**42.82**	**36**	P	**P**	**18 51 39.0**	**+1.7**
	comp=Z,0.6nm,0.6s,mb3.5,baz=281,slow=9.3,SNR=10.0						
ILAR	**Eielson Array**	**42.82**	**36**	P	**P**	**18 51 39.1**	**+1.8**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**46.13**	**253**	P	**P**	**18 52 05.0**	**+0.5**
	comp=Z,0.4nm,0.7s,mb3.5,baz=48,slow=6.7,SNR=4.8						
CHKZ	**Chkalovo**	**48.68**	**310**	*e*P	**P**	**18 52 22.3**	**-1.6**
	comp=Z,0.8nm,0.5s,mb4.0						
BRVK	**Borovoye**	**49.08**	**309**	P	**P**	**18 52 24.4**	**-2.6**
	comp=Z,3.5nm,0.8s,mb4.4						
YKA	**Yellowknife Ar**	**57.11**	**33**	P	**P**	**18 53 28.2**	**+1.8**
	comp=Z,0.2nm,0.6s,mb3.4,baz=297,slow=7.1,SNR=3.5						
FINES	**FINESS Array B**	**64.98**	**332**	P	**P**	**18 54 18.7**	**-0.8**
	comp=Z,3.3nm,0.7s,mb4.5,baz=38,slow=8.2,SNR=15						
FINES	**FINESS Array B**	**64.98**	**332**	P	**P**	**18 54 18.7**	**-0.8**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ASAR	**Alice Springs**	**67.17**	**191**	P	**P**	**18 54 34.4**	**+0.4**
	comp=Z,0.3nm,0.8s,mb3.4,baz=8.0,slow=5.3,SNR=4.4						
NB2	**NORSAR Subarra**	**69.86**	**338**	P	**P**	**18 54 49.3**	**-0.7**
	comp=Z,0.6nm,0.3s,mb4.0,baz=32,slow=6.2						
NOA	**NORSAR Array B**	**69.86**	**338**	P	**P**	**18 54 49.6**	**-0.4**
	comp=Z,0.8nm,0.4s,mb4.0,baz=33,slow=6.3,SNR=4.1						
NOA	**NORSAR Array B**	**69.86**	**338**	P	**P**	**18 54 49.6**	**-0.4**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
AKASG	**Malin Array Be**	**71.45**	**323**	P	**P**	**18 54 59.2**	**-0.6**
	comp=Z,1.9nm,0.5s,mb4.3,baz=41,slow=6.3,SNR=16						
AKASG	**Malin Array Be**	**71.45**	**323**	P	**P**	**18 54 59.2**	**-0.6**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						

KRSC 21 19:02:02.3±0.3,**48.86N**×**156.32E,h40**^{km}±15^{km}**,ML4.1, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.83**	**356**	*e*P	P	19 02 31.9	0.0
PAU	**Pauzhetka**	**2.63**	**7**	*e*P	P	19 02 42.6	-0.7
PAU				*i* S	S	19 03 12.0	-2.2
PAU				Smax			
	180nm,0.3s						
GRL	**Gorelyy**	**3.86**	**16**	*e*P	P	19 03 00.9	+0.1
GRL				*e*S	S	19 03 43.7	-1.8
AVH	**Avacha**	**4.67**	**18**	P	P	19 03 11.8	-0.4
AVH				*e*S	S	19 04 03.3	-2.5
KOK	**Koryaka**	**4.67**	**17**	*e*P	P	19 03 13.1	+0.8
SDLR	**Sedlovina**	**4.71**	**19**	*e*P	P	19 03 12.7	-0.1
SPN	**Mys Shipunski**	**4.84**	**27**	*e*P	P	19 03 14.6	-0.1
GNL	**Ganaly**	**4.95**	**11**	*e*P	P	19 03 16.8	+0.6
KBTR	**Krutoberegovo**	**8.36**	**26**	*e*P	P	19 04 01.3	-2.4

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*IDC **21** 19:03:01.4±1.4,2.47N×128.58E,mb3.9/5,mb1 4.1/5, mb1mx3.9/16,Error ellipse: s-maj=71.8km s-min=19.2km az=64.0*

*NEIC **21** 19:03:26.7±0.5,2.24N×128.43E,h250^{km},mb4.1/5,Error ellipse: s-maj=32.6km s-min=8.5km az=67.0*

ISC 21 19:03:25.1±0.7,**2.3N**±0.1×**128.5E**±0.2,**h250**^{km}**,n17, σ0.^{s}33**/18,**mb4.0**/14,**Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRAB	**Tennant Creek**	**22.82**	**166**	*e*P	**P**	**19 08 07.6**	**-0.3**
	6.1nm,0.4s,mb4.5						
WRA	**Warramunga Arr**	**22.83**	**166**	P	**P**	**19 08 08.2**	**+0.3**
	2.5nm,0.4s,mb4.1,baz=344,slow=11,SNR=52						
WRA				S	**S**	**19 12 10.6**	**+15**
	0.5nm,0.7s,baz=350,slow=17,SNR=4.7						
ASAR	**Alice Springs**	**26.34**	**169**	P	**P**	**19 08 39.8**	**-0.5**
	0.3nm,0.4s,mb3.3,baz=351,slow=7.6,SNR=6.3						
CMAR	**Chiang Mai Arr**	**33.12**	**301**	P	**P**	**19 09 40.2**	**+0.2**
	1.0nm,0.8s,mb3.4,baz=118,slow=7.5,SNR=9.3						
STKA	**Stephens Creek**	**36.19**	**161**	P	**P**	**19 10 07.0**	**+1.1**
	1.7nm,0.4s,mb3.9,baz=342,slow=9.0,SNR=13						
STKA	**Stephens Creek**	**36.19**	**161**	*e*P	**P**	**19 10 05.9**	**+0.1**
STKA				P		19 10 07.0	
SHL	**Shillong**	**42.14**	**307**	*e*P	**P**	**19 10 55.0**	**0.0**
LSA	**Lhasa**	**44.71**	**311**	*e*P	**P**	**19 11 15.3**	**-0.2**
	3.5nm,0.7s,mb3.8						
GUN	**Gumba**	**47.99**	**306**	*e*P	**P**	**19 11 41.3**	**+0.2**
	24nm,0.5s,mb4.8						
PKI	**Pulchoki**	**48.23**	**306**	*e*P	**P**	**19 11 42.5**	**-0.4**
KKN	**Kakani**	**48.43**	**306**	*e*P	**P**	**19 11 44.4**	**0.0**
	7.5nm,0.6s,mb4.2						
DMN	**Daman**	**48.50**	**306**	*e*P	**P**	**19 11 44.8**	**-0.1**
	9.7nm,0.7s,mb4.2						
SONM	**Songino Array**	**49.22**	**340**	P	**P**	**19 11 50.1**	**-0.1**
	1.2nm,0.5s,mb3.5,baz=148,slow=7.1,SNR=7.1						
KOLN	**Koldanda**	**49.79**	**305**	*e*P	**P**	**19 11 55.2**	**+0.5**
	26nm,0.7s,mb4.7						
YAK	**Yakutsk**	**59.60**	**1**	*e*P	**P**	**19 13 04.6**	**0.0**
	12nm,0.7s,mb4.6						
BRVK	**Borovoye**	**69.55**	**327**	*e*P	**P**	**19 14 08.6**	**+0.1**
	1.8nm,0.6s,mb3.9						
CHKZ	**Chkalovo**	**69.63**	**327**	*e*P	**P**	**19 14 08.8**	**-0.2**
	0.7nm,0.4s,mb3.6						

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*NEIC **21** 19:04:54.3±0.4,43.75N×105.26W,ML3.7,Error ellipse: s-maj=5.5km s-min=3.9km az=92.0,Suspected Mining explosion.*

NEIC 65 km [40 miles] SSE of Gillette.

*IDC **21** 19:04:58.6±2.4,43.87N×105.70W,h32^{km}±21^{km},mb3.8/6, mb1 3.9/12,mb1mx3.7/21,ML3.8/6,Error ellipse: s-maj=20.5km s-min=10.8km az=141.0*

ISC 21 19:04:52.0±0.5,**43.77N**±0.03×**105.20W**±0.06,**n54, σ1.^{s}08**/56,**mb4.2**/5,**Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PHWY	**Pilot Hill**	**2.48**	**185**	*e*P	**Pn**	**19 05 35.4**	**+1.1**
PHWY				*e*S	**Sn**	**19 06 07.4**	**+1.6**
RWWY	**Rawlins**	**2.56**	**216**	*e*Pn	**Pn**	**19 05 37.0**	**+1.5**
LAO	**LASA Array**	**3.00**	**346**	*e*Pn	**Pn**	**19 05 42.7**	**+1.0**
PDAR	**Pinedale Array**	**3.34**	**254**	Pn	**Pn**	**19 05 47.0**	**+0.5**
	7.1nm,0.3s,baz=72,slow=16,SNR=107						
PDAR				Sn	**Sn**	**19 06 28.0**	**+0.5**
	5.1nm,0.3s,baz=65,slow=28,SNR=6.8						
PDAR				Lg		19 06 34.0	
	18nm,0.3s,baz=69,slow=25,SNR=10						
BW06	**Boulder Array**	**3.34**	**254**	*e*Pn	**Pn**	**19 05 46.9**	**+0.3**
BW06				*e*Sn	**Sn**	**19 06 27.4**	**-0.1**
GCMT	**Greycliff**	**3.77**	**304**	*e*Pn	**Pn**	**19 05 53.5**	**+0.8**
LKWY	**Lake**	**3.82**	**284**	*e*Pn	**Pn**	**19 05 54.4**	**+1.0**
LOHW	**Long Hollow**	**3.92**	**270**	*e*Pn	**Pn**	**19 05 54.5**	**-0.3**
ISCO	**Idaho Springs**	**3.98**	**185**	*e*Pn	**Pn**	**19 05 56.6**	**+0.9**
MOOW	**Moose Ponds**	**4.02**	**272**	*e*Pn	**Pn**	**19 05 57.4**	**+1.2**
WUWY	**Wally Ulrich**	**4.03**	**269**	Pn	**Pn**	**19 05 56.5**	**+0.2**
SNOW	**Snow King Moun**	**4.05**	**267**	*e*Pn	**Pn**	**19 05 57.4**	**+0.8**
YNR	**Norris Junctio**	**4.05**	**285**	*e*Pn	**Pn**	**19 05 58.0**	**+1.4**
YFT	**Old Faithful**	**4.12**	**281**	*e*Pn	**Pn**	**19 05 58.7**	**+1.1**
REDW	**Red Top Meadow**	**4.13**	**266**	*e*Pn	**Pn**	**19 05 57.6**	**-0.2**
IMW	**Indian Meadow**	**4.15**	**274**	*e*Pn	**Pn**	**19 05 59.7**	**+1.5**
TPAW	**Teton Pass**	**4.18**	**268**	*e*Pn	**Pn**	**19 05 58.5**	**0.0**
YMR	**Madison River**	**4.24**	**284**	*e*Pn	**Pn**	**19 06 00.1**	**+0.7**
AHID	**Auburn Hatcher**	**4.42**	**259**	*e*Pn	**Pn**	**19 06 03.5**	**+1.5**
QLMT	**Earthquake Lak**	**4.59**	**285**	*e*Pn	**Pn**	**19 06 04.4**	**0.0**
DGMT	**Dagmar**	**4.75**	**8**	*e*Pn	**Pn**	**19 06 08.5**	**+1.9**
BOZ	**Bozeman (W)**	**4.95**	**294**	*e*Pn	**Pn**	**19 06 08.3**	**-1.1**
HWUT	**Hardware Ranch**	**5.17**	**247**	*e*Pn	**Pn**	**19 06 11.7**	**-0.8**
HRY	**Holter Researc**	**5.53**	**304**	*e*Pn	**Pn**	**19 06 17.1**	**-0.5**
MCMT	**McKenzie Canyo**	**5.59**	**284**	*e*Pn	**Pn**	**19 06 22.9**	**+4.4**
DAU	**Daniels Canyon**	**5.62**	**235**	*e*Pn	**Pn**	**19 06 18.6**	**-0.2**
RW3	**Ridgway**	**5.83**	**200**	*e*Pn	**Pn**	**19 06 23.2**	**+1.3**
SPUT	**South Promonto**	**5.89**	**248**	*e*Pn	**Pn**	**19 06 22.0**	**-0.8**
HVU	**Hansel Valley**	**5.92**	**253**	*e*Pn	**Pn**	**19 06 22.2**	**-0.9**
SDCO	**Great Sand Dun**	**6.03**	**182**	*e*Pn	**Pn**	**19 06 24.6**	**-0.1**
PV10	**Paradox Valley**	**6.12**	**210**	*e*Pn	**Pn**	**19 06 25.2**	**-0.8**
SRU	**San Rafael**	**6.14**	**222**	*e*Pn	**Pn**	**19 06 24.4**	**-1.8**
PV01	**Paradox Valley**	**6.18**	**205**	*e*Pn	**Pn**	**19 06 19.7**	**-7.2**
TMUT	**Trail Mountain**	**6.35**	**227**	*e*P	**Pn**	**19 06 28.4**	**-0.8**
NLU	**North Lily Min**	**6.39**	**236**	*e*P	**Pn**	**19 06 28.4**	**-1.4**
BGU	**Big Grassy Mou**	**6.46**	**247**	*e*P	**Pn**	**19 06 28.9**	**-1.8**
CHMT	**Chamberlain Mo**	**6.49**	**302**	*e*P	**Pn**	**19 06 30.4**	**-0.7**
HLID	**Hailey**	**6.69**	**271**	*e*P	**Pn**	**19 06 34.0**	**+0.1**
MSU	**Marysvale**	**7.44**	**227**	*e*P	**Pn**	**19 06 43.1**	**-1.4**
MVU	**Marysvale**	**7.46**	**228**	*e*P	**Pn**	**19 06 43.6**	**-1.2**
ELK	**Elko**	**8.04**	**251**	*e*P	**P**	**19 06 49.0**	**-3.8**
ULM	**Lac du Bonnet**	**9.08**	**41**	Pn	**P**	**19 07 07.2**	**-0.2**
	1.0nm,0.3s,baz=232,slow=11,SNR=11						
NVAR	**Mina Array Bea**	**11.23**	**246**	Pn	**P**	**19 07 36.6**	**-0.3**
	0.2nm,0.3s,baz=57,slow=14,SNR=7.2						
YBH	**Yreka Blue Hor**	**13.03**	**267**	Pn	**P**	**19 08 00.5**	**-0.6**
	0.2nm,0.3s,baz=83,slow=15,SNR=3.9						
TXAR	**Lajitas Array**	**14.46**	**175**	Pn	**P**	**19 08 25.3**	**+5.3**
	0.3nm,0.3s,baz=346,slow=11,SNR=3.7						
YKA	**Yellowknife Ar**	**19.54**	**347**	P	**P**	**19 09 22.0**	**-1.7**
	0.2nm,0.3s,baz=156,slow=12,SNR=13						
ILAR	**Eielson Array**	**31.27**	**327**	P	**P**	**19 11 13.7**	**-1.6**
	0.3nm,0.8s,baz=90,slow=7.6,SNR=5.8						
ARCES	**ARCESS Array B**	**61.37**	**18**	P	**P**	**19 15 09.8**	**-1.6**
	7.1nm,1.0s,mb4.8,baz=315,slow=8.6,SNR=7.7						
FINES	**FINESS Array B**	**67.98**	**23**	P	**P**	**19 15 53.6**	**-0.8**
	1.2nm,0.8s,mb4.2,baz=297,slow=8.5,SNR=3.5						
PPT	**Papeete**	**73.31**	**224**	P	**P**	**19 16 24.6**	**-2.9**
	34nm,0.4s,baz=22,slow=6.1,SNR=3.6						
AKASG	**Malin Array Be**	**77.90**	**28**	P	**P**	**19 16 52.8**	**0.0**
	0.3nm,0.3s,mb3.9,baz=322,slow=5.2,SNR=5.5						
ZAL	**Zalesovo**	**82.29**	**354**	P	**P**	**19 17 16.9**	**+0.7**
	1.4nm,0.8s,mb4.1,baz=121,slow=5.1,SNR=8.4						
SONM	**Songino Array**	**84.62**	**339**	P	**P**	**19 17 29.7**	**+1.6**
	0.9nm,0.6s,mb4.2,baz=4.6,slow=4.7,SNR=5.3						
CTA	**Charters Tower**	**116.87**	**267**	PKP	PKPdf	19 23 36.2	-4.3
	12nm,1.3s,baz=280,slow=4.5,SNR=3.9						

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*IDC **21** 19:21:36.2±22.0,30.68N×104.81E,mb3.4/2,mb1 3.7/3, mb1mx3.4/17,Error ellipse: s-maj=466.0km s-min=69.7km az=146.0*

BJI 21 19:21:30.1,30.98N×103.55E,h26^{km}**,ML3.4,Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
XAN	**Xi'an**	**5.47**	**55**	P	Pn	19 22 50.3	-1.8
XAN				Smax			
	comp=N,70nm,1.0s						
XAN				Smax			
	comp=E,96nm,0.9s						
CMAR	**Chiang Mai Arr**	**13.15**	**200**	Pn	P	19 24 46.2	+8.3
	baz=11,slow=10,SNR=5.8						
PKI	**Pulchoki**	**16.19**	**262**	*e*P	P	19 25 16.6	-1.0
	comp=E,3.0nm,0.4s						
KKN	**Kakani**	**16.24**	**263**	*e*P	P	19 25 17.6	-0.6
	comp=E,6.1nm,0.7s						
GKN	**Gorkha**	**16.73**	**265**	*e*P	P	19 25 22.6	-1.8
	comp=E,4.2nm,0.5s						
KOLN	**Koldanda**	**17.68**	**265**	*e*P	P	19 25 33.6	-2.7
WRA	**Warramunga Arr**	**58.64**	**146**	P	P	19 31 27.9	+0.2
	comp=E,0.5nm,0.8s,baz=337,slow=7.6,SNR=8.8						
ASAR	**Alice Springs**	**61.63**	**148**	P	P	19 31 52.0	+3.9
	comp=E,0.1nm,0.5s,baz=330,slow=6.4,SNR=4.8						

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*IDC **21** 19:36:31.1±3.8,4.17S×152.70E,mb3.8/4,mb1 4.1/4, mb1mx3.8/14,MS4.0/1,Ms1 4.0/1,ms1mx3.0/21,Error ellipse: s-maj=101.0km s-min=33.6km az=103.0*

*NEIC **21** 19:36:40.3±7.5,4.64S×153.11E,h101^{km}±36^{km},mb4.4/1, Error ellipse: s-maj=118.6km s-min=31.8km az=102.0*

ISC 21 19:36:42.6±8.7,**4.3S**±0.3×**152.4E**±0.9,**h99**^{km}±48^{km}**,n9, σ1.^{s}42**/8,**mb4.0**/6,**New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**7.28**	**225**	Pn	**P**	**19 38 27.9**	**-0.1**
WRAB	**Tennant Creek**	**23.48**	**227**	*e*P	**P**	**19 41 43.7**	**-0.6**
	8.4nm,0.5s,mb4.3						
WRA	**Warramunga Arr**	**23.50**	**227**	P	**P**	**19 41 44.7**	**+0.2**

	2.7nm,0.4s,mb3.9,baz=52,slow=9.8,SNR=31						
ASAR	Alice Springs	26.27	221	P	P	19 42 12.3	+1.6
	0.7nm,0.4s,mb3.5,baz=55,slow=9.1,SNR=6.2						
ASAR	Alice Springs	26.27	221	P	P	19 42 12.3	+1.6
MBWA	Marble Bar	35.89	239	P	P	19 43 33.5	-1.6
	22nm,1.1s,mb5.0						
JHJ	Hachijo jima 2	39.08	343	LR	LR	19 56 08.2	
	comp=Z,242nm,21.2s,baz=103,slow=30						
CMAR	Chiang Mai Arr	57.31	295	P	P	19 46 24.0	+1.1
	0.2nm,0.5s,mb3.4,baz=108,slow=5.4,SNR=5.3						
BVAR	Borovoye Array	88.60	323	P	P	19 49 24.9	-0.7
	0.6nm,0.7s,mb3.8,baz=104,slow=6.1,SNR=6.7						

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*IDC **21** 19:45:43.0±11.0, 0.09S×124.06E, h107^{km}±117^{km}, mb3.6/6, mb1 3.8/6, mb1mx3.6/15, Error ellipse: s-maj=92.7km s-min=20.2km az=57.0*

*NEIC **21** 19:45:42.4±3.1, 0.08S×124.09E, h101^{km}±30^{km}, mb4.3/3, Error ellipse: s-maj=35.3km s-min=10.3km az=57.0*

ISC 21 19:45:41.6±2.9**, 0.1S**±0.1×**124.0E**±0.1**, h109**^{km}±27^{km}**, n21, σ0^{s}83**/23**, mb4.3**/13**, 2C-1D, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUNI	Buntu Taipa	5.14	226	⇓ePn	P	19 46 56.3	-1.2
BUNI				eSn	S	19 47 52.4	-3.7
TANI	Tanete Lipujan	5.72	234	⇑ePn	P	19 47 06.5	+1.1
NINI	Niniconang	6.07	225	⇑ePn	P	19 47 11.0	+0.8
NINI				eSn	S	19 48 19.0	+0.1
MBWA	Marble Bar	21.38	191	eP	P	19 50 21.7	-0.1
	7.2nm,0.6s,mb4.2						
WRAB	Tennant Creek	22.18	153	eP	P	19 50 30.1	+0.5
	6.3nm,0.5s,mb4.2						
WRA	Warramunga Arr	22.18	154	P	P	19 50 28.9	-0.8
	3.8nm,0.6s,mb3.9,baz=334,slow=10.0,SNR=58						
ASAR	Alice Springs	25.34	158	P	P	19 51 00.9	+0.8
	1.8nm,0.5s,mb3.8,baz=339,slow=8.9,SNR=34						
CMAR	Chiang Mai Arr	30.76	308	P	P	19 51 49.2	+0.2
	0.5nm,0.7s,mb3.4,baz=135,slow=7.8,SNR=5.7						
STKA	Stephens Creek	35.74	154	P	P	19 52 31.0	-0.7
	1.5nm,0.4s,mb4.3,baz=328,slow=8.8,SNR=7.8						
STKA	Stephens Creek	35.74	154	eP	P	19 52 31.7	-0.1
GUN	Gumba	45.94	310	eP	P	19 53 55.5	0.0
	8.2nm,0.7s,mb4.6						
PKI	Pulchoki	46.13	310	eP	P	19 53 57.8	+0.8
KKN	Kakani	46.33	310	eP	P	19 53 57.9	-0.7
DMN	Daman	46.38	310	eP	P	19 53 58.9	-0.1
GKN	Gorkha	46.93	310	eP	P	19 54 03.4	+0.1
KOLN	Koldanda	47.62	309	eP	P	19 54 08.3	-0.4
	5.6nm,0.5s,mb4.7						
SONM	Songino Array	50.12	345	P	P	19 54 28.4	+0.8
	1.2nm,0.6s,mb4.0,baz=162,slow=8.0,SNR=5.1						
YAK	Yakutsk	62.09	3	eP	P	19 55 51.6	-1.3
	25nm,0.6s,mb5.4						
BVAR	Borovoye Array	69.07	329	P	P	19 56 36.2	-1.5
	0.5nm,0.4s,mb3.7,baz=124,slow=10,SNR=7.0						
KIV	Kislovodsk	83.80	314	P	P	19 58 00.8	+0.6
	3.3nm,0.6s,mb4.3						
ARCES	ARCESS Array B	93.05	340	P	P	19 58 44.8	+1.1
	9.4nm,1.0s,mb5.1,baz=79,slow=6.2,SNR=3.9						

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*CSEM **21** 19:46:31.5, 1.86N×127.34E, h33^{km}, mb5.5*

*DJA **21** 19:46:37.7±0.5, 2.35N×127.28E, h100^{km}, mb5.8/2, Error ellipse: s-maj=26.3km s-min=7.7km az=171.0*

*MOS **21** 19:46:40.5±0.8, 1.71N×127.37E, h121^{km}, mb5.3/15, Error ellipse: s-maj=24.8km s-min=8.8km az=115.2*

*SYO **21** 19:46:41.9, 1.63N×127.36E, h119^{km}, MB5.4*

*BJI **21** 19:46:42.1, 1.51N×127.56E, h146^{km}, mB5.4, mb5.7*

*NEIC **21** 19:46:43.7±0.8, 1.63N×127.39E, h136^{km}±7^{km}, mb5.4/43, Error ellipse: s-maj=6.0km s-min=4.4km az=71.0*

*HRVD **21** 19:46:43.7±0.2, 1.71N×127.35E, h146^{km}±2^{km}, MW5.3/70, Centroid moment Tensor Solution. LP body waves: s48,c70;Mantle waves: s70,c133; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.25±.03; $M_{\theta\theta}$0.21±.03; $M_{\phi\phi}$-0.47±.03; $M_{r\theta}$-0.56±.02; $M_{\theta\phi}$-0.09±.03; $M_{\phi r}$-0.67±.02; Best double couple: M_0.96×10^{17} NP1:ϕ_s332°,δ21°,λ25°. NP2:ϕ_s218°,δ82°,λ109°. Principal axes: T .94, Plg50°, Azm149°; N .05, Plg19°, Azm36°; P -.99, Plg34°, Azm293°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **21** 19:46:44.6±1.2, 1.66N×127.37E, h143^{km}±10^{km}, mb4.8/22, mb1 4.9/23, mb1mx4.9/24, MS4.0/5, Ms1 4.0/5, ms1mx3.6/19 Error ellipse: s-maj=15.9km s-min=6.8km az=64.0*

ISC 21 19:46:42.3±0.4**, 1.64N**±0.02×**127.38E**±0.03**, h136**^{km}±3^{km}**, h131**^{km}±3.3^{km}**:pP-P, n291, σ1^{s}04**/303**, mb5.4**/104**, 33C-50D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	5.39	348	eP	P	19 48 02.5	+0.8
MATI				eS	S	19 48 58.0	-5.0
DAV	Davao City (W)	5.68	342	eP	P	19 48 06.0	+0.4
DMPH	Davao City--Mi	5.72	341	eP	P	19 48 06.6	+0.6
DMPH				eS	S	19 49 12.2	+1.2
KCP	Kidapawan	5.80	337	⇓eP	P	19 48 07.6	+0.4
KCP				eS	S	19 49 13.6	+0.6
CTBH	Cotabato--PC H	6.36	331	⇑eP	P	19 48 14.4	-0.4
CTBH				i S	S	19 49 22.5	-4.1
BIPH	Bislig	6.58	351	eP	P	19 48 18.1	+0.4
BIPH				eS	S	19 49 33.0	+1.2
BUKP	Musuan	6.61	340	eP	P	19 48 18.6	+0.4
BUKP				eS	S	19 49 30.0	-2.6
CGP	Cagayan de Oro	7.28	339	⇓eP	P	19 48 29.7	+2.6
PAGZ	Pagadian	7.34	327	eP	P	19 48 27.0	-1.0
PAGZ				eS	S	19 49 46.6	-3.6
BUTP	Butuan	7.49	347	eP	P	19 48 29.6	-0.4
IPIL	Ipil	7.76	322	eP	P	19 48 32.7	-0.9
IPIL				eS	S	19 49 51.9	-8.5
SCPH	Surigao	8.30	347	eP	P	19 48 41.9	+1.0
SCPH				eS	S	19 50 09.3	-4.1
BUNI	Buntu Taipa	8.80	233	⇑iP	P	19 48 47.0	-0.5
	950nm,0.3s						
MSLP	Maasin	8.80	344	eP	P	19 48 45.6	-1.9
LLP	Lapu-Lapu	9.26	339	⇑eP	P	19 48 53.4	-0.3
LLP				eS	S	19 50 32.4	-4.0
TANI	Tanete Lipujan	9.45	238	⇑eP	P	19 48 56.3	+0.1
NINI	Niniconang	9.71	232	⇑eP	P	19 49 01.9	+2.2
NINI	Niniconang	9.71	232	⇓eP	P	19 49 02.1	+2.4
BESP	Borongan	10.08	349	eP	P	19 49 05.3	+0.7
GUIM	Jordan	10.12	332	eP	P	19 49 03.5	-1.6
RCP	Roxas	10.87	335	⇑eP	P	19 49 16.1	+1.0
CUYO	Cuyo Island	11.12	326	eP	P	19 49 16.2	-2.1
PPR	Puerto Princes	11.80	314	⇓iP	P	19 49 26.4	-0.9
BATP	Bataraza	11.89	307	eP	P	19 49 25.4	-3.1
PVCP	Virac	12.30	345	eP	P	19 49 34.4	+0.6
ENPP	El Nido	12.35	321	eP	P	19 49 33.4	-1.2
SJMP	San Jose	12.41	330	eP	P	19 49 32.7	-2.6
AUQP	San Andres	12.51	338	eP	P	19 49 50.9	+14
BOAC	Boac	12.96	335	eP	P	19 49 42.3	-0.1
GQP	Guinayangan	13.12	338	⇑iP	P	19 49 48.0	+3.5
LQP	Lukban	13.67	335	eP	P	19 49 51.8	+0.1
YOMI	Yo Moklole	13.85	108	⇑eP	P	19 49 54.8	+0.9
TGY	Tagaytay City	13.92	333	P	P	19 49 55.0	+0.2
	25nm,0.3s,baz=208,slow=7.6,SNR=7.6						
LUBP	Lubang	13.93	330	eP	P	19 49 55.6	+0.6
LUBP	Lubang	13.93	330	⇓eP	P	19 49 55.4	+0.4
POLP	Polilio Island	14.07	338	eP	P	19 49 57.0	+0.2
KEDI	Kedomdong	15.08	228	⇑eP	P	19 50 11.5	+1.9
KAKA	Kakadu	15.12	161	⇑iP	P	19 50 08.3	-1.7
	3µm,1.5s						
KAKA				eSCS	ScS	20 02 07.8	+1.6
BALP	Baler	15.13	338	eP	P	19 50 11.3	+1.1
RATI	Rata	15.67	229	⇓eP	P	19 50 18.5	+1.6
SCZP	Santa Cruz	15.86	333	eP	P	19 50 18.9	-0.4
BCPH	Baguio City Da	16.10	336	⇓iP	P	19 50 22.9	+0.6
KELI	Kelakatan	16.16	233	⇓eP	P	19 50 26.4	+3.4
KELI	Kelakatan	16.16	233	⇓eP	P	19 50 25.3	+2.3
CAUP	Cauayan	16.16	341	eP	P	19 50 22.7	-0.3
BOLP	Bolinao	16.39	334	eP	P	19 50 26.0	+0.1
SRDI	Scrawed	16.59	232	⇓eP	P	19 50 30.6	+2.2
CVP	Callao Caves	16.87	341	eP	P	19 50 32.0	+0.2
SGCP	Mt. Cagua	17.31	343	eP	P	19 50 37.1	-0.1
BBP	Basco	19.42	345	eP	P	19 50 59.0	-1.3
GUMO	Guam	20.98	55	eP	P	19 51 15.9	-0.4
	60nm,0.6s						
WRAB	Tennant Creek	22.50	163	⇑iP	P	19 51 31.7	+0.4
	725nm,0.7s,mb6.2						
WRAB				e		19 51 37.6	
WRA	Warramunga Arr	22.51	163	P	P	19 51 31.3	-0.1
	249nm,0.7s,mb5.8,baz=341,slow=11,SNR=453						
WRA				S	S	19 55 30.1	+5.9
	23nm,1.1s,baz=350,slow=16,SNR=6.4						
WRA				ScP		19 58 46.4	
	19nm,1.0s,baz=336,slow=3.2,SNR=12						
PMG	Port Moresby	22.55	119	P	P	19 51 32.5	+0.6
	28nm,0.5s,mb4.9,baz=328,slow=5.0,SNR=19						
PMG				S	S	19 55 30.0	+5.0
	21nm,1.2s,baz=246,slow=22,SNR=4.2						
PMG	Port Moresby	22.55	119	eP	P	19 51 31.8	-0.1
	55nm,0.7s,mb5.1						
PULI	Pulasari	22.79	249	⇑eP	P	19 51 33.8	-0.4
PENI	Pendagan	23.31	252	⇓eP	P	19 51 38.5	-0.7
	499nm,0.6s,mb5.8						
MBWA	Marble Bar	23.86	198	⇑iP	P	19 51 44.0	-0.4
	201nm,1.0s,mb5.6						
TATO	Taipei	23.89	347	eP	P	19 51 45.0	+0.4
	235nm,0.6s,mb5.9						
QIZ	Qiongzhong	24.37	316	P	P	19 51 49.5	+0.2
QIZ				S	S	19 55 58.6	+2.7
QIZ				AMB	AMB		
	comp=Z,265nm,1.0s,mb5.7						
QIZ				LR	LR		
	comp=N,1µm,15.7s						
QIZ				LR	LR		
	comp=E,959nm,17.3s						
QZH	Quanzhou	24.67	341	⇑iP	P	19 51 53.0	+0.9
QZH				AP		19 52 26.1	
QZH				S	S	19 56 05.3	+4.3
QZH				AMB	AMB		
	comp=Z,1µm,1.5s,mb6.2						
JOW	Kunigami	25.06	2	P	P	19 51 56.5	+0.8
	comp=Z,129nm,0.8s,mb5.5						
GZH	Guangzhou	25.30	328	P	P	19 52 02.0	+4.0
GZH				AMB	AMB		
	comp=Z,610nm,4.7s						
GZH				LR	LR		
	comp=N,500nm,13.1s						
GZH				LR	LR		
	comp=E,590nm,13.5s						
GZH				LR	LR		
	comp=Z,600nm,12.9s						
UBT	Ubonrachathani	25.88	303	P	P	19 52 02.0	-1.4
ASAR	Alice Springs	25.94	166	P	P	19 52 03.2	-0.7
	comp=Z,81nm,0.6s,mb5.5,baz=346,slow=7.7,SNR=296						
ASAR				S	S	19 56 38.1	+16
	comp=Z,49nm,1.2s,baz=344,slow=19,SNR=5.0						
ASAR				ScP		19 58 56.1	
	comp=Z,12nm,0.6s,baz=346,slow=2.8,SNR=15						
ASAR				LR	LR	20 02 28.1	
	comp=Z,219nm,19.1s,baz=344,slow=36						
ASPA	Alice Springs	25.94	166	⇑iP	P	19 52 03.2	-0.8
ASPA				eS	S	19 56 38.0	+16
ASPA				eSCP		19 58 56.0	
ASPA				eSCS	ScS	20 02 42.5	-1.0
SNG	Songkhla	27.23	282	P	P	19 52 15.0	-0.9
	comp=Z,242nm,0.9s,mb5.8						
CTA	Charters Tower	28.44	140	⇑iP	P	19 52 27.1	+0.4
	comp=Z,51nm,0.9s,mb5.3						
CTA				eSCP		19 59 04.8	
CTA	Charters Tower	28.44	140	P	P	19 52 27.4	+0.6
	comp=Z,43nm,0.8s,mb5.3,baz=320,slow=11,SNR=21						
CTA				ScP		19 59 04.8	
	comp=Z,21nm,1.1s,baz=291,slow=4.1,SNR=4.5						
CTAO	Charters Tower	28.44	140	eP	P	19 52 26.9	+0.2
	comp=Z,82nm,0.8s,mb5.5						
CTAO				e		19 52 31.6	
NNT	Nongplab	29.47	293	P	P	19 52 35.5	-0.4
SSE	Sheshan	29.88	349	P	P	19 52 35.1	-4.3
SSE				S	S	19 57 30.3	+5.3
SSE				AMB	AMB		
	comp=Z,55nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,111nm,3.8s						
SSE				LR	LR		
	comp=N,42nm,26.4s						
SSE				LR	LR		
	comp=E,243nm,26.4s						
SSE				LR	LR		
	comp=Z,195nm,20.0s						
SSE	Sheshan	29.88	349	P	P	19 52 35.1	-4.3
	comp=Z,55nm,0.8s,mb5.3						
SSE				sP	Px	19 52 47.3	
SSE				S	S	19 57 30.3	+5.3
SSE				sS		19 57 45.1	
NST	Nakhon Sawan	30.27	299	P	P	19 52 43.6	+0.6
NANT	Nan	31.22	305	⇓P	P	19 52 51.5	+0.2
WHN	Wuhan	31.29	338	⇓P	P	19 52 53.0	+1.2
WHN				AMB	AMB		
	comp=Z,22nm,1.0s,mb4.8						
NJ2	Nanjing	31.30	346	eP	P	19 52 53.3	+1.4
NJ2				AP	pP	19 53 20.3	-0.9
NJ2				PP	PP	19 54 03.3	+3.4
NJ2				S	S	19 57 51.3	+4.0
NJ2				XS		19 58 39.4	
NJ2				AMB	AMB		
	comp=Z,120nm,1.2s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,320nm,5.2s						
NJ2				LR	LR		
	comp=N,1µm,10.5s						
NJ2				LR	LR		
	comp=E,660nm,11.2s						
NJ2				LR	LR		
	comp=Z,820nm,14.6s						
BDT	Bhumibol Dam	31.91	301	P	P	19 52 58.0	+0.6
	comp=Z,96nm,0.7s,mb5.6						
CHRT	Chiangrai	32.50	306	⇓P	P	19 53 02.0	-0.4
	comp=Z,1µm,0.5s						
CM31	Chiang Mai Arr	32.51	303	⇓iP	P	19 53 02.1	-0.4
	comp=Z,84nm,0.8s,mb5.5						
CM31				eScP		19 59 17.6	
CMAR	Chiang Mai Arr	32.51	303	P	P	19 53 02.1	-0.4
	comp=Z,33nm,0.8s,mb5.1,baz=128,slow=7.5,SNR=177						
CMAR				ScP		19 59 17.7	
	comp=Z,11nm,0.9s,baz=153,slow=2.6,SNR=23						
CMAR				LR	LR	20 05 06.7	
	comp=Z,338nm,19.4s,baz=105,slow=34						
CHG	Chiang Mai	32.68	303	⇓P	P	19 53 03.8	-0.2
	comp=Z,136nm,0.9s,mb5.7						
CHG				S	S	19 58 10.6	+1.6
KMI	Kunming	33.32	317	eP	P	19 53 10.6	+1.2
KMI				AP	pP	19 53 40.3	+1.2
KMI				XP	sP	19 53 56.3	+1.4
KMI				PP	PP	19 54 27.1	+1.5
KMI				PPP	PPP	19 54 46.8	+3.5
KMI				S	S	19 58 20.6	+1.7
KMI				XS		19 59 12.5	
KMI				SCP		19 59 20.0	
KMI				PCS		19 59 34.1	
KMI				SS	SS	20 00 32.8	+1.8
KMI				SSS	SSS	20 01 02.5	+1.6
KMI				SCS	ScS	20 03 19.5	+1.1
KMI				AMB	AMB		
	comp=Z,211nm,1.2s,mb5.8						
KMI				AMB	AMB		
	comp=Z,581nm,3.1s						
KMI	Kunming	33.32	317	eP	P	19 53 10.6	+1.2
	comp=Z,211nm,1.2s,mb5.8						
KMI				pP	pP	19 53 40.3	+1.2
KMI				sP	sP	19 53 56.2	+1.3
KMI				PP	PP	19 54 27.1	+1.5
KMI				PPP	PPP	19 54 46.7	+3.4
KMI				S	S	19 58 20.6	+1.7
KMI				sS		19 59 12.5	
KMI				ScP		19 59 20.0	
KMI				PcS		19 59 34.1	
KMI				SS	SS	20 00 32.7	+1.7
KMI				SSS	SSS	20 01 02.5	+1.6
KMI				ScS	ScS	20 03 19.5	+1.1
KLBR	Kellerberrin	34.29	195	⇑iP	P	19 53 16.4	-1.2
	comp=Z,33nm,0.3s,mb5.5						
KLBR				ePCP	PcP	19 55 50.4	-0.7
KLBR				eSCP		19 59 22.9	
MUN	Mundaring	35.07	197	⇑iP	P	19 53 23.1	-1.2
	comp=Z,33nm,0.4s,mb5.3						
KS15	Wonju Array Si	35.63	1	eP	P	19 53 27.9	-1.0
TIA	Tai'an	35.69	346	eP	P	19 53 27.8	-1.6
NWAO	Narrogin (SRO)	35.69	195	P	P	19 53 28.8	-0.7
	comp=Z,39nm,0.6s,mb5.2,baz=25,slow=9.0,SNR=38						
NWAO				PP	PP	19 54 55.4	+0.9
	comp=Z,20nm,0.7s,baz=353,slow=13,SNR=3.4						
NWAO				ScP		19 59 28.7	
	comp=Z,37nm,1.2s,baz=38,slow=4.1,SNR=4.6						
NWAO	Narrogin (SRO)	35.69	195	⇑eP	P	19 53 28.7	-0.8
	comp=Z,60nm,0.8s,mb5.3						
NWAO				eScP		19 59 28.2	
STKA	Stephens Creek	35.96	159	eP	P	19 53 31.4	-0.3
	comp=Z,379nm,0.8s,mb6.1						
STKA				ePP	PP	19 54 52.2	-5.4
STKA	Stephens Creek	35.96	159	P	P	19 53 31.7	0.0
	comp=Z,401nm,0.8s,mb6.1,baz=332,slow=8.3,SNR=345						
STKA				PP	PP	19 54 56.8	-0.8
	comp=Z,104nm,1.0s,baz=328,slow=12,SNR=4.1						
STKA				LR	LR	20 08 37.5	
	comp=Z,353nm,20.1s,baz=274,slow=36						
MAJO	Matsushiro	36.14	15	eP	P	19 53 31.9	-1.3
	comp=Z,40nm,0.7s,mb5.2						
MAT	Matsushiro	36.14	15	P	P	19 53 32.2	-1.0
MAT				S	S	19 59 00.1	-2.1
MAT	Matsushiro	36.14	15	eP	P	19 53 32.0	-1.2
	comp=Z,375nm,2.6s,mb5.6						
MAT				eS	S	19 59 00.0	-2.2
XAN	Xi'an	36.56	334	P	P	19 53 37.4	+0.6
XAN				S	S	19 59 03.3	-5.3
XAN				SS	SS	20 01 47.4	+3.8
XAN				AMB	AMB		
	comp=Z,471nm,0.9s,mb6.1						
XAN				LR	LR		
	comp=N,163nm,11.5s						
XAN				LR	LR		
	comp=E,115nm,12.4s						
XAN				LR	LR		
	comp=Z,205nm,10.5s						
CD2	Chengdu	36.71	325	⇓iP	P	19 53 38.4	+0.4
CD2				PPP	PPP	19 55 24.9	-3.5
CD2				S	S	19 59 07.0	-3.8
CD2				AMB	AMB		
	comp=Z,150nm,1.1s,mb5.5						
CD2				AMB	AMB		
	comp=Z,440nm,6.7s						
CD2				LR	LR		
	comp=N,480nm,12.6s						
CD2				LR	LR		
	comp=Z,300nm,6.6s						
DL2	Dalian	37.46	353	P	P	19 53 45.3	+1.0
DL2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.2						
BJI	Beijing	39.55	346	P	P	19 54 02.3	+0.7
BJI				AMB	AMB		
	comp=Z,179nm,0.8s,mb5.8						
BJI				LR	LR		
	comp=N,242nm,19.6s						
BJI				LR	LR		
	comp=E,426nm,15.2s						
BJI				LR	LR		
	comp=Z,209nm,45.1s						
BJI	Beijing	39.55	346	P	P	19 54 02.2	+0.6
	comp=Z,179nm,0.8s,mb5.8						
BJI				S	S	19 59 39.9	-14
IMP	Imphal	39.65	308	eP	P	19 54 02.6	+0.1
SNY	Shenyang	40.15	356	⇓P	P	19 54 07.1	+0.6
SNY				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.3						
LZH	Lanzhou	40.62	330	⇓P	P	19 54 12.5	+2.1
LZH				AP	pP	19 54 41.8	+0.9
LZH				PP	PP	19 55 52.0	+3.0
LZH				PCP	PcP	19 56 13.8	+3.4
LZH				SCP		19 59 47.3	
LZH				PCS		20 00 04.0	
LZH				S	S	20 00 12.0	+2.4
LZH				XS		20 01 04.0	
LZH				SCS	ScS	20 04 02.0	+2.8
LZH				AMB	AMB		
	comp=Z,710nm,1.0s,mb6.2						
LZH				AMB	AMB		
	comp=Z,1µm,4.0s						
LZH				LR	LR		
	comp=N,490nm,14.2s						
LZH				LR	LR		
	comp=Z,650nm,14.6s						
LZH	Lanzhou	40.62	330	⇓P	P	19 54 12.5	+2.1
	comp=Z,710nm,1.0s,mb6.2						
LZH				pP	pP	19 54 41.8	+0.9
LZH				sP	sP	19 54 52.1	-4.8
LZH				PP	PP	19 55 52.0	+3.0
LZH				PcP	PcP	19 56 13.7	+3.3
LZH				ScP		19 59 47.3	
LZH				PcS		20 00 04.0	
LZH				S	S	20 00 12.0	+2.4
LZH				sS		20 01 04.0	
LZH				SS	SS	20 03 07.0	-2.9
LZH				ScS	ScS	20 04 02.0	+2.8
AGT	Agartala	41.37	305	⇓iP	P	19 54 18.0	+1.3
AGT				i		19 54 56.0	
HHC	Hu-ho-hao-te	41.57	342	⇓P	P	19 54 19.5	+1.3
HHC				AP	pP	19 54 47.6	-1.2
HHC				XP	sP	19 55 03.3	-1.4
HHC				PP	PP	19 56 01.4	+2.3
HHC				PCP	PcP	19 56 14.8	+1.3
HHC				SCP		19 59 51.4	
HHC				PCS		20 00 04.5	
HHC				S	S	20 00 24.5	+0.9
HHC				SS	SS	20 03 29.3	+1.4
HHC				SCS	ScS	20 04 07.3	+2.4
HHC				AMB	AMB		
	comp=Z,65nm,0.9s,mb5.3						
HHC				AMB	AMB		
	comp=Z,149nm,4.5s						
SHL	Shillong	41.65	308	⇓eP	P	19 54 19.0	-0.1
SHL				e		19 59 51.0	
SHL				e		20 00 22.0	
SHL				e		20 04 05.0	
BTO	Baotou	41.85	340	eP	P	19 54 19.9	-0.7
BTO				AMB	AMB		
	comp=Z,47nm,1.2s,mb5.0						
CN2	Changchun	42.01	358	eP	P	19 54 21.8	0.0
CN2				eS	S	20 00 32.0	+2.0
CN2				AMB	AMB		
	comp=Z,300nm,3.0s						
CNB	Canberra Magne	42.12	153	⇑iP	P	19 54 23.9	+1.0
	comp=Z,110nm,0.9s,mb5.5						
CNB				ePP	PP	19 56 03.5	-1.6
TOO	Toolangi	42.47	159	⇑iP	P	19 54 26.8	+1.2
	comp=Z,14nm,0.4s,mb4.9						
TOO				ePP	PP	19 56 09.1	+0.6
MDJ	Mudanjiang	42.84	2	P	P	19 54 29.3	+0.8
MDJ				PCP	PcP	19 56 17.6	-0.1
MDJ				S	S	20 00 47.3	+5.3
MDJ				AMB	AMB		
	comp=Z,53nm,1.0s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,211nm,5.2s						
MDJ				LR	LR		
	comp=N,112nm,22.8s						
MDJ				LR	LR		
	comp=E,42nm,23.4s						
MDJ				LR	LR		
	comp=Z,138nm,23.4s						
LSA	Lhasa	44.31	313	P	P	19 54 42.5	+2.0
ASAJ	Asahikawa	44.40	16	P	P	19 54 41.6	+0.5
	comp=Z,9.1nm,0.4s,mb4.8,baz=250,slow=31,SNR=6.6						
NOUC	Port Laguerre	44.72	124	⇑eP	P	19 54 44.6	+0.6
DZM	Mont Dzumac	44.82	124	⇑eP	P	19 54 45.5	+0.7
GTA	Gaotai	45.21	330	P	P	19 54 49.1	+1.5
GTA				AP	pP	19 55 17.8	-0.7
GTA				PCP	PcP	19 56 26.5	+0.6
GTA				PP	PP	19 56 37.8	+1.9
GTA				PPP	PPP	19 57 22.6	+2.2
GTA				SCP		20 00 05.3	
GTA				PCS		20 00 20.5	
GTA				S	S	20 01 21.1	+4.8
GTA				SCS	ScS	20 04 29.6	+2.1
GTA				SS	SS	20 04 40.3	+6.0
GTA				AMB	AMB		
	comp=Z,132nm,1.1s,mb5.5						
GTA				AMB	AMB		
	comp=Z,222nm,5.3s						
GTA				LR	LR		
	comp=N,198nm,16.7s						
GTA				LR	LR		
	comp=E,229nm,17.9s						
GTA				LR	LR		
	comp=Z,271nm,19.4s						
VIS	Vishakhapatnam	46.10	293	eP	P	19 54 54.0	-0.9
	comp=Z,121nm,0.3s,mb6.0						
VIS				eP		19 54 55.1	
VIS				AMb	AMB	19 54 55.8	

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              comp=Z,129nm,0.5s,mb5.8
PALK  Pallekele          46.84 278⇓iP      P       19 54 59.7  -1.1
              comp=Z,42nm,0.7s,mb5.2
PALK                               eScP            20 00 11.4
YSS   Yuzh-Sakhalins     47.08  14 i P     P       19 55 01.2  -1.0
YSS                                 pmax   pmax
              comp=Z,40nm,1.4s,mb4.9
GUN   Gumba              47.48 307 eP      P       19 55 06.2  +0.6
              comp=Z,665nm,0.7s,mb6.4
PKI   Pulchoki           47.71 307 eP      P       19 55 07.5  +0.1
KKN   Kakani             47.91 307 eP      P       19 55 09.0  +0.1
              comp=Z,275nm,0.6s,mb6.0
DMN   Daman              47.97 307 eP      P       19 55 09.7  +0.3
              comp=Z,530nm,1.1s,mb6.1
BLSP  Bilaspur           48.46 298 eP      P       19 55 12.9  -0.3
BLSP                                AMb    AMB     19 55 14.6
              comp=Z,206nm,1.0s,mb5.7
GKN   Gorkha             48.52 307 eP      P       19 55 13.6   0.0
              comp=Z,495nm,1.0s,mb6.1
KOLN  Koldanda           49.25 306 eP      P       19 55 19.9  +0.6
              comp=Z,927nm,0.8s
ULN   Ulaanbaatar        49.29 342d iP     P       19 55 20.1  +0.8
ULN   Ulaanbaatar        49.29 342⇓iP      P       19 55 19.9  +0.7
              comp=Z,103nm,1.0s,mb5.4
ULN                                e       pP      19 55 53.1  +2.5
ULN                                eScP            20 00 21.7
SONM  Songino Array      49.47 341  P      P       19 55 21.3  +0.6
              comp=Z,42nm,0.7s,mb5.2,baz=154,slow=8.5,SNR=149
SONM                                PP     PP      19 57 17.8  +1.3
              comp=Z,8.1nm,1.0s,baz=153,slow=11,SNR=3.0
SONM                                ScP            20 00 22.7
              comp=Z,2.4nm,0.7s,baz=162,slow=3.9,SNR=4.0
ALBI  Allahabad          49.80 302 eP      P       19 55 21.0  -2.5
HYB   Hyderabad          50.45 291⇓eP      P       19 55 28.0  -0.5
              comp=Z,220nm,1.0s,mb5.7
HYB                                eS      S       20 02 30.0  -0.1
HYB   Hyderabad          50.45 291⇓iP      P       19 55 28.0  -0.5
              comp=Z,220nm,1.0s,mb5.7
HYB                                epP     pP      19 55 56.5  -3.5
HYB                                esP     sP      19 56 13.0  -1.9
HYB                                ePcP    PcP     19 56 47.0  +2.0
HYB                                eScP            20 00 28.0
HYB                                eS      S       20 02 30.0  -0.1
TRD   Trivandrum         50.64 280 eP      P       19 55 29.1  -1.0
TRD                                 AMb    AMB     19 55 30.5
              comp=Z,201nm,1.0s,mb5.7
TRD                               ⇑e               20 02 39.6
LATR  Latur              52.52 292 eP      P       19 55 42.2  -1.9
LGTI  Lohaghat           52.62 306⇓iP      P       19 55 44.5  -0.2
AKL   Akola              52.63 295⇑iP      P       19 55 46.4  +1.5
AKL                                i               19 55 56.7
PTH   Pithoragarh        52.69 307 eP      P       19 55 43.9  -1.3
ZAK   Zakamensk          52.70 341⇑iP      P       19 55 44.0  -1.0
BHPL  Bhopal             52.94 298 eP      P       19 55 45.5  -1.6
BHPL                              ⇓iP              19 55 46.8
              comp=Z,209nm,0.9s
BHPL                                AMb    AMB     19 55 47.5
              comp=Z,276nm,1.1s,mb5.9
TLY   Talaya             53.70 342 i P     P       19 55 52.0  -0.3
TLY                                 pmax   pmax
              comp=Z,22nm,0.6s,mb5.1
TLY   Talaya             53.70 342 eP      P       19 55 52.5  +0.2
              comp=Z,43nm,0.9s,mb5.2
KAD   Karad              54.52 290 eP      P       19 55 56.5  -2.2
KAD                               ⇓iP              19 55 57.2
KAD                                 AMb    AMB     19 55 58.7
              comp=Z,111nm,0.9s,mb5.6
MOY   Mondy              54.55 340 eP      P       19 55 59.1  +0.6
DDI   Dehra Dun          54.72 307⇓eP      P       19 55 59.3  -0.7
DDI                                eS      S       20 03 31.8  +4.0
WMQ   Urumqi             54.80 326 ⇓P      P       19 56 01.0  +0.6
WMQ                                 PCP    PcP     19 57 02.0  +1.1
WMQ                                 PP     PP      19 58 07.0  +1.1
WMQ                                 S      S       20 03 31.4  +2.7
WMQ                                 AMB    AMB
              comp=Z,275nm,0.8s,mb6.0
WMQ                                 AMB    AMB
              comp=Z,44nm,6.3s
WMQ                                 LR     LR
              comp=N,400nm,20.8s
WMQ                                 LR     LR
              comp=E,292nm,21.8s
WMQ                                 LR     LR
              comp=Z,132nm,21.6s
NDI   New Delhi          54.81 304⇓iP      P       19 55 58.0  -2.8
              comp=Z,333nm,0.6s,mb6.2
AYAN  Aya Nagar          54.82 304 eP      P       19 55 59.5  -1.3
AYAN                               e               19 56 02.3
KLP   Kalpa              55.02 308 eP      P       19 56 02.6  +0.4
KLP                                e               19 56 04.1
              comp=Z,203nm,0.9s
POO   Poona              55.06 291 eP      P       19 56 00.1  -2.5
POO                                 AMb    AMB     19 56 02.2
              comp=Z,119nm,2.2s,mb5.2
CLNS  Chul'man           55.07 358 eP      P       19 56 01.6  -0.6
CLNS                                pmax   pmax
              comp=Z,22nm,0.8s,mb4.9
CLNS                                pmax   pmax
              comp=N,13nm,1.0s
CLNS                                pmax   pmax
              comp=E,17nm,0.9s
KUDL  Kundal             55.24 303 eP      P       19 56 02.6  -1.2
SMLA  Simla              55.72 307⇓i       P       19 56 21.0   +14
              comp=E,267nm,3.3s
SMLA                               i               20 03 55.6
KHET  Khetri             55.78 303 eP      P       19 56 06.8  -1.0
KHET                               e               19 56 08.8
              comp=Z,256nm,1.5s
SDNR  Sundarnagar        56.02 307 eP      P       19 56 10.4  +1.0
SDNR                               eS      S       20 03 48.4  +3.3
AJM   Ajmer              56.28 301 eP      P       19 56 09.8  -1.6
AJM                               ⇓iP              19 56 10.0
AJM                                 AMb    AMB     19 56 11.9
              comp=Z,105nm,1.5s,mb5.4
BHK   Bhakra             56.43 307 e       P       19 56 12.4  +0.1
BOD   Bodaibo            57.01 352 eP      P       19 56 14.9  -1.1
DLH   Dalhousie          57.19 308 eP      P       19 56 17.0  -0.6
THN   Thein Dam          57.35 308 eP      P       19 56 17.6  -1.1
MSZ   Milford Sound      58.53 147 ⇑P      P       19 56 27.1  +0.2
JCZ   Jackson Bay        58.61 146 ⇑P      P       19 56 27.9  +0.5
LBZ   Lake Benmore       59.60 146 ⇑P      P       19 56 33.8  -0.5
JASL  Jaisalmer          59.62 300 e       P       19 56 28.2  -6.4
MKAR  Makanchi Array     59.63 326 i P     P       19 56 34.2  -0.2
MKAR                                pmax   pmax
              comp=Z,147nm,0.8s
RPZ   Rata Peaks         59.69 145  P      P       19 56 34.3  -0.6
              comp=Z,164nm,0.8s,mb5.9,baz=294,slow=1.8,SNR=8.6
LTZ   Lake Taylor        59.86 143  P      P       19 56 35.2  -0.8
KSH   Kashi              59.98 316 i PR            19 56 38.1
KSH                                 PCP    PcP     19 57 23.8  +2.5
KSH                                 PP     PP      19 58 53.0  +0.4
KSH                                ePPP    PPP     20 00 21.1  +1.6
KSH                                 SCP            20 01 10.0
KSH                                ePCS            20 01 23.3
KSH                                 S      S       20 04 38.6  +2.1
KSH                                 SCS    ScS     20 06 12.6  +2.6
KSH                                 SS     SS      20 08 38.3  +1.9
KSH                                 AMB    AMB
              comp=Z,220nm,1.0s,mb5.9
KSH                                 LR     LR
              comp=N,310nm,4.9s
KSH                                 LR     LR
              comp=E,350nm,5.6s
YAK   Yakutsk            60.27   1d iP     P       19 56 37.9  -0.6
YAK                                i               19 57 19.7
YAK                                i *PP   pP      19 57 23.3   +12
YAK                                i               19 58 53.9
YAK                                 pmax   pmax
              comp=Z,72nm,0.8s,mb5.5
YAK   Yakutsk            60.27   1⇓eP      P       19 56 37.8  -0.7
              comp=Z,83nm,0.6s,mb5.7
MA2   Magadan            60.57  13 eP      P       19 56 40.1  -0.5
MA2                                e*PP    pP      19 57 20.2  +7.1
MA2                                ePPP    PPP     20 00 18.7  -7.0
MA2                                eS      S       20 04 41.7  -2.1
MA2                                eSS     SS      20 08 39.8  -5.7
MA2                                eSSS    SSS     20 11 19.7  -5.9
MA2                                 pmax   pmax
              comp=Z,10.0nm,0.8s,mb4.7
MA2   Magadan            60.57  13 eP      P       19 56 40.1  -0.4
              comp=Z,17nm,0.8s,mb4.9
URZ   Urewera            60.59 136  P      P       19 56 40.0  -1.1
              comp=Z,19nm,0.5s,mb5.2,baz=346,slow=5.2,SNR=11
URZ                                 PP     PP      19 58 58.6  +0.5
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              comp=Z,4.1nm,0.6s,baz=45,slow=21,SNR=6.8
ULHL  Ulahol             61.00 319  P      P       19 56 44.4  +0.6
              SNR=22
KZA   Kyzart             61.59 318  P      P       19 56 48.9  +1.2
              SNR=32
TKM2  Tokmak 2           61.73 319  P      P       19 56 49.1  +0.4
              SNR=113
KBK   Karagaybulak       62.04 319  P      P       19 56 51.4  +0.6
              SNR=7.1
UCH   Uchtor             62.14 318  P      P       19 56 52.7  +1.2
              SNR=144
CHMS  Chumysh            62.32 319  P      P       19 56 52.5  -0.1
              SNR=39
AAK   Ala-Archa          62.33 318  P      P       19 56 53.4  +0.7
              SNR=32
AAK   Ala-Archa          62.33 318d iP     P       19 56 52.2  -0.5
AAK                                 pmax   pmax
              comp=Z,37nm,1.0s,mb5.2
AAK   Ala-Archa          62.33 318⇓iP      P       19 56 52.0  -0.7
              comp=Z,46nm,0.8s,mb5.4
FRU   Bishkek            62.34 319⇓iP      P       19 56 53.0  +0.3
FRU                                 pmax   pmax
              comp=Z,50nm,1.2s,mb5.2
USP   Ospenovka          62.61 319  P      P       19 56 54.5   0.0
              SNR=134
AML   Almayashu          62.65 318  P      P       19 56 55.8  +0.9
              SNR=98
ZAL   Zalesovo           62.73 333  P      P       19 56 53.8  -1.4
              comp=Z,22nm,0.7s,mb5.1,baz=353,slow=6.5,SNR=81
ZAL                                 PcP    PcP     19 57 28.8  -3.4
              comp=Z,20nm,1.0s,baz=358,slow=6.5,SNR=5.1
ZAL                                 S      S       20 05 09.4  -1.8
              comp=Z,1.1nm,0.7s,baz=107,slow=20,SNR=8.9
ZAL                                 LR     LR      20 25 47.8
              comp=Z,93nm,18.5s,baz=340,slow=37
EKS2  Erkin-Say          62.82 318  P      P       19 56 56.6  +0.7
              SNR=11
NVS   Novosibirsk        64.02 333⇓iP      P       19 57 01.5  -2.0
NVS                                e       pP      19 57 35.3  -1.1
NVS                                i S     S       20 05 24.8  -2.3
NVS                                e               20 05 57.8
NVS                                 pmax   pmax
              comp=Z,62nm,0.8s,mb5.5
NVS                                 pmax   pmax
              comp=N,43nm,0.8s
NVS                                 pmax   pmax
              comp=E,31nm,0.8s
NVS                                 smax
              comp=E,24nm,1.4s
NVS                                 smax
              comp=N,38nm,2.0s
CASY  Casey              68.84 187 eP      P       19 57 33.2  -0.6
              comp=N,18nm,0.4s,mb5.1
BVAR  Borovoye Array     69.41 327  P      P       19 57 37.1  -0.4
              comp=N,56nm,0.7s,mb5.4,baz=127,slow=7.4,SNR=265
BVAR                                S      S       20 06 31.2  -0.8
              comp=N,3.9nm,1.1s,baz=135,slow=8.4,SNR=8.7
BRVK  Borovoye           69.49 327  P      P       19 57 37.6  -0.4
BRVK                                pmax   pmax
              comp=Z,47nm,0.9s,mb5.2
BRVK  Borovoye           69.49 327⇓iP      P       19 57 37.5  -0.4
              comp=Z,126nm,0.9s,mb5.7
CHKZ  Chkalovo           69.58 328  P      P       19 57 37.8  -0.8
CHKZ                                pmax   pmax
              comp=Z,38nm,0.9s,mb5.1
TIXI  Tiksi              69.91   1 eP      P       19 57 39.2  -1.1
TIXI                               eS      S       20 06 39.2  +1.6
TIXI                                pmax   pmax
              comp=Z,11nm,0.9s,mb4.6
TIXI                                MLR    MLR
              comp=Z,100nm,17.0s
BILL  Bilibino           71.40  14 i P     P       19 57 48.8  -0.4
BILL                                pmax   pmax
              comp=Z,3.0nm,0.5s,mb4.3
BILL  Bilibino           71.40  14 eP      P       19 57 48.9  -0.4
              comp=Z,7.6nm,0.7s,mb4.5
MIR   Mirnyy             72.29 194⇑eP      P       19 57 54.7  +0.2
MIR                                 pmax   pmax
              comp=Z,120nm,1.0s,mb5.6
SVE   Sverdlovsk         76.07 329⇓iP      P       19 58 15.5  -0.8
SVE                                 pmax   pmax
              comp=Z,160nm,1.3s,mb5.5
ARU   Arti               77.04 328⇓iP      P       19 58 19.7  -2.1
ARU                                i               19 58 26.4
ARU                                i               20 01 15.4
ARU                                ePPP    PPP     20 03 01.7  -5.2
ARU                                eS      S       20 07 52.4  -5.1
ARU                                e               20 08 21.0
ARU                                eSS     SS      20 12 55.9  -4.4
ARU                                 pmax   pmax
              comp=Z,62nm,0.8s,mb5.3
QRN   Al-Qurain          79.97 299 eP      P       19 58 38.4   0.0
QRN                                 AMb    AMB     19 58 43.1
              comp=Z,229nm,0.6s,mb6.0
UMR   Umm Al-Rimmam      80.20 300 eP      P       19 58 38.7  -0.9
UMR                                 AMb    AMB     19 58 43.6
              comp=Z,125nm,0.5s,mb5.8
RDF   Al-Radifah         80.30 299 eP      P       19 58 40.2   0.0
RDF                                 AMb    AMB     19 58 44.8
              comp=Z,97nm,0.5s,mb5.7
MIB   Mutribah           80.54 300 eP      P       19 58 41.1  -0.3
MIB                                 AMb    AMB     19 58 46.6
              comp=Z,162nm,0.6s,mb5.8
RST   Umm Al-Ruwaisa     80.82 299 eP      P       19 58 42.5  -0.3
RST                                 AMb    AMB     19 58 47.6
              comp=Z,242nm,0.5s,mb6.0
VNDA  Vanda              81.29 173  P      P       19 58 44.3  -0.1
              comp=Z,24nm,0.6s,mb5.0,baz=318,slow=6.3,SNR=125
VNDA  Vanda              81.29 173⇑iP      P       19 58 44.3  -0.1
              comp=Z,29nm,0.6s,mb5.1
MAW   Mawson             82.03 200 eP      P       19 58 48.8  +0.4
              comp=Z,33nm,0.8s,mb5.0
MAW   Mawson             82.03 200  P      P       19 58 48.8  +0.4
              comp=Z,37nm,0.6s,mb5.2,baz=71,slow=5.4,SNR=34
MAW                                 LR     LR      20 31 14.8
              comp=Z,55nm,20.9s,baz=247,slow=32
MZLS  Mizel              82.18 294  P      P       19 58 50.2  +0.2
SBA   Scott Base         82.19 172 eP      P       19 58 49.8  +0.7
              comp=Z,30nm,0.9s,mb4.9
KAMS  Al Khamasin        82.68 290  P      P       19 58 52.1  -0.5
GNI   Garni              83.31 310  P      P       19 58 56.4  +1.0
              comp=Z,2.9nm,0.6s,baz=206,slow=4.5,SNR=5.6
GNI   Garni              83.31 310 i P     P       19 58 55.8  +0.4
GNI                                 pmax   pmax
              comp=Z,24nm,1.1s
GNI   Garni              83.31 310 eP      P       19 58 56.3  +0.8
              comp=Z,52nm,1.1s,mb5.2
GNI                                ePP     PP      20 02 09.0  -1.4
TI2   Plekhanov          83.41 312 eP      P       19 58 58.0  +2.1
RSO   Redoubt South      83.58  29 eP      P       19 58 57.0  +0.7
TATS  Tathlith           83.71 289  P      P       19 58 58.8  +0.8
ARSS  Ar Rass            84.02 296  P      P       19 58 59.6  +0.3
IMA   Indian Mountai     84.02  24 eP      P       19 59 00.2  +1.8
              comp=Z,68nm,0.8s,mb5.4
AFFS  'Afif              84.20 294  P      P       19 59 01.2  +0.9
SLKM  Skilak Lake        84.83  30 eP      P       19 59 03.2  +0.6
GOF   Gofitskoye         84.84 315⇓iP      P       19 59 03.5  +0.5
GOF                                 pmax   pmax
              comp=Z,50nm,1.5s,mb5.0
NAMS  An Nimas           84.90 289  P      P       19 59 05.5  +1.6
FRSS  Farasan al Kab     85.00 287  P      P       19 59 06.0  +1.6
KIV   Kislovodsk         85.04 314 i P     P       19 59 04.0   0.0
KIV                                i *PP   pP      19 59 46.6  +7.9
KIV                                 pmax   pmax
              comp=Z,32nm,1.2s,mb4.9
KIV   Kislovodsk         85.04 314 eP      P       19 59 03.9  -0.2
              comp=Z,23nm,0.7s,mb5.0
HILS  Ha'il              85.33 297  P      P       19 59 06.8  +1.0
BLJS  Baljurashi         85.48 290  P      P       19 59 08.2  +1.4
MCK   McKinley           85.73  26 eP      P       19 59 07.2  +0.3
              comp=Z,7.4nm,0.7s,mb4.5
SML   Sawmill            85.86  28 eP      P       19 59 08.3  +0.7
COLA  College            86.30  25 i P     P       19 59 08.0  -1.7
ILAR  Eielson Array      86.70  25  P      P       19 59 10.9  -0.7
              comp=Z,3.6nm,0.9s,baz=247,slow=4.4,SNR=18
ILAR                                S      S       20 09 29.0  -6.5
              comp=Z,0.6nm,1.0s,baz=186,slow=14,SNR=3.5
ILAR                                PKKPbc         20 17 06.4
              comp=Z,0.9nm,0.8s,baz=33,slow=0.9,SNR=8.3
DIV   Divide             87.05  29 eP      P       19 59 14.9  +1.6
              comp=Z,60nm,0.9s,mb5.4
SOC   Sochi              87.18 313 eP      P       19 59 13.8  -0.6
SOC                                ePPP    PPP     20 04 40.5   0.0
SOC                                eS      S       20 09 38.5  -2.0
SOC                                eSSS    SSS     20 19 05.1  +2.2
SOC                                 pmax   pmax
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              comp=Z,43nm,0.8s,mb5.3
SOC                                 pmax   pmax
              comp=N,31nm,0.9s
SOC                                 pmax   pmax
              comp=E,19nm,0.9s
VOR   Voronezh           87.59 322 eP      P       19 59 21.5  +5.3
VOR                                 pmax   pmax
              comp=Z,160nm,1.0s,mb5.8
KBRS  Khaybar            87.60 296  P      P       19 59 17.8  +0.9
ANN   Anapa              88.82 315 eP      P       19 59 21.2  -1.0
ANN                                e*PP    pP      20 00 05.9  +8.8
ANN                                 pmax   pmax
              comp=Z,59nm,0.9s,mb5.5
OBN   Obninsk            89.13 325κ iP     P       19 59 22.7  -0.7
OBN                                e               20 00 04.6
OBN                                e               20 02 55.3
OBN                                ePPP    PPP     20 04 59.1  +1.5
OBN                                i               20 09 39.5
OBN                                i S     S       20 09 57.3  -1.1
OBN                                e               20 11 40.5
OBN                                 pmax   pmax
              comp=Z,19nm,0.6s,mb5.2
OBN   Obninsk            89.13 325 eP      P       19 59 22.4  -1.0
              comp=Z,24nm,0.7s,mb5.2
ASF   Jabal al Asfar     89.55 302  P      P       19 59 27.7  +1.8
              comp=Z,15nm,1.1s,mb4.9,baz=357,slow=1.2,SNR=8.5
ASF                                 PP     PP      20 03 02.0  +0.5
              comp=Z,1.3nm,0.4s,baz=156,slow=4.4,SNR=3.1
DAWY  Dawson             89.95  26 eP      P       19 59 27.8  +0.7
KMBO  Kilima Mbogo       90.16 269  P      P       19 59 30.2  +0.9
              comp=Z,3.7nm,0.9s,mb4.3,baz=60,slow=5.6,SNR=12
KMBO  Kilima Mbogo       90.16 269 eP      P       19 59 29.8  +0.5
              comp=Z,18nm,1.0s,mb5.0
JMQS  Jabal Moqyreh      90.53 299  P      P       19 59 31.3  +0.6
SYO   Syowa Base         90.72 201 ⇑P      P       19 59 29.3  -1.3
SYO   Syowa Base         90.72 201 ⇓P      P       19 59 31.4  +0.8
SYO   Syowa Base         90.72 201 ⇓PKiKP          20 04 22.2
SIM   Simferopol'        91.17 315 eP      P       19 59 32.9  -0.3
SIM                                 pmax   pmax
              comp=Z,17nm,0.8s,mb5.1
QSPA  South Pole Qui     91.56 180⇑iP      P       19 59 35.0  +0.7
              comp=Z,15nm,0.8s,mb5.1
BRTR  Keskin Array B     91.84 310  P      P       19 59 36.0  -0.5
              comp=Z,4.3nm,0.8s,mb4.5,baz=118,slow=5.1,SNR=15
BRTR                                PP     PP      20 03 18.6  -1.0
              comp=Z,2.6nm,0.8s,baz=101,slow=7.5,SNR=5.1
INK   Inuvik             91.86  22  S      S       20 09 56.0   -26
              comp=Z,1.9nm,0.8s,baz=112,slow=23,SNR=9.0
INK   Inuvik             91.86  22 eP      P       19 59 34.7  -1.1
              comp=Z,19nm,1.1s,mb5.0
KEV   Kevo               92.06 340 ep      P       19 59 35.5  -1.3
ARCES ARCESS Array B     92.62 340  P      P       19 59 38.1  -1.2
              comp=Z,9.7nm,0.7s,mb5.0,baz=90,slow=6.1,SNR=11
KAF   Kangasniemi        93.74 332 ep      P       19 59 44.4  -0.1
AKASG Malin Array Be     93.91 321  P      P       19 59 44.3  -1.3
              comp=Z,1.7nm,0.8s,baz=73,slow=4.5,SNR=6.8
AKASG                               PP     PP      20 03 34.2  -1.5
              comp=Z,3.5nm,0.8s,baz=69,slow=7.3,SNR=5.5
FINES FINESS Array B     93.97 332  P      P       19 59 46.4  +0.8
              comp=Z,1.1nm,0.6s,baz=71,slow=5.0,SNR=7.4
VRI   Vrincioaia         96.24 316⇑iP      P       19 59 56.7  +0.4
MLR   Muntele Rosu       96.84 316  P      P       19 59 59.2  +0.1
              comp=Z,8.1nm,0.8s,mb5.1,baz=291,slow=2.2,SNR=10.0
MLR                                 PP     PP      20 03 58.3  +0.2
              comp=Z,7.2nm,0.8s,baz=113,slow=8.2,SNR=3.9
MLR   Muntele Rosu       96.84 316⇑iP      P       19 59 59.2  +0.1
DAG   Danmarks Havn      99.40 353 eP      P       20 00 11.0  +0.9
DAG   Danmarks Havn      99.40 353 i P     P       20 00 11.0  +0.9
RES   Resolute Bay       99.74  10 eP      P       20 00 12.1  +0.5
              comp=Z,5.4nm,0.7s,mb5.1
OJC   Ojcow              99.91 322 eP      P       20 00 19.9  +7.0
HFS   Hagfors           100.16 332  P      P       20 00 13.3  -0.5
              comp=Z,1.2nm,0.6s,baz=90,slow=8.9,SNR=4.1
HFS                                 PP     PP      20 04 23.0  -0.1
              comp=Z,6.3nm,0.8s,baz=83,slow=12,SNR=4.4
NB2   NORSAR Subarra100.93 334  P      P       20 00 16.1  -1.1
              comp=Z,1.1nm,0.7s,baz=66,slow=4.8
NOA   NORSAR Array B 100.93 334  P      P       20 00 16.2  -1.0
              comp=Z,1.8nm,0.8s,baz=66,slow=4.6,SNR=4.7
NOA                                 PP     PP      20 04 25.7  -3.6
              comp=Z,2.0nm,0.8s,baz=68,slow=7.6,SNR=4.2
YKA   Yellowknife Ar    101.12  25  P      P       20 00 18.8  +0.8
              comp=Z,1.9nm,0.8s,baz=297,slow=4.7,SNR=22
YKA                                 PKiKP          20 04 42.5
              comp=Z,0.3nm,0.5s,baz=295,slow=1.8,SNR=6.7
YKA                                 PKKPbc         20 16 27.8
              comp=Z,3.7nm,1.1s,baz=111,slow=2.6,SNR=16
VRAC  Vranov            102.16 321  PP     PP      20 04 47.1  +8.7
              comp=Z,4.8nm,0.3s,baz=66,slow=13,SNR=13
BRG   Berggiesshubel    103.29 323 eP      Pdif    20 00 34.2  +6.3
BRG                                e               20 04 46.4
BRG                                 pmax   pmax
              comp=Z,32nm,1.8s
SNAA  Sanae             103.37 194⇑iP      Pdif    20 00 28.3  +0.5
SNAA  Sanae             103.37 194  Pdiff  Pdif    20 00 29.0  +1.2
              comp=Z,0.9nm,0.8s,baz=155,slow=1.2,SNR=13
SNAA                                PP     PP      20 04 34.8   -12
              comp=Z,0.6nm,1.0s,baz=142,slow=7.7,SNR=3.6
SNAA                                PKKPbc         20 16 22.3
              comp=Z,0.7nm,0.9s,baz=36,slow=3.7,SNR=4.7
CLL   Collm             103.70 324 e               20 04 40.0
CLL                                i PP    PP      20 04 51.5  +1.6
KHC   Kasperske Hory    104.09 322 ePP     PP      20 04 51.5  -1.4
GERES GERESS Array B    104.11 321  Pdiff  Pdif    20 00 33.1  +1.6
              comp=Z,0.5nm,0.8s,baz=63,slow=6.0,SNR=5.2
GERES                               PP     PP      20 04 49.1  -3.9
              comp=Z,1.8nm,0.7s,baz=68,slow=7.2,SNR=4.4
NVAR  Mina Array Bea    107.80  49  PKKPbc         20 16 09.9
              comp=Z,0.9nm,0.7s,baz=114,slow=4.7,SNR=4.1
ORIF  Oris-en-Rattie    110.55 320 ePP     PP      20 05 37.1  -4.0
              comp=Z,27nm,1.1s
MSU   Marysvale         112.32  47 ePKPdf  PKPdf   20 05 07.5  +5.3
PDAR  Pinedale Array    112.48  42  PKKPbc         20 15 53.9
              comp=Z,1.8nm,0.7s,baz=113,slow=5.1,SNR=16
FRB   Frobisher Bay     113.70   8  PKiKP          20 05 05.6
              comp=Z,2.8nm,0.9s,baz=259,slow=1.9,SNR=3.2
ULM   Lac du Bonnet     116.46  29  PKP    PKPdf   20 05 10.9  +0.8
              comp=Z,2.8nm,0.5s,baz=312,slow=2.8,SNR=7.8
ULM                                 PKKPbc         20 15 45.0
              comp=Z,3.5nm,0.8s,baz=155,slow=2.6,SNR=6.5
ESDC  Sonseca Array     119.44 318  PP     PP      20 06 40.2  -3.8
              comp=Z,3.2nm,1.0s,baz=55,slow=6.7,SNR=6.1
TXAR  Lajitas Array     122.34  53  PKP    PKPdf   20 05 24.3  +2.4
              comp=Z,6.2nm,1.1s,baz=180,slow=1.3,SNR=11
TXAR                                PKKPbc         20 15 21.1
              comp=Z,1.2nm,0.7s,baz=45,slow=1.8,SNR=6.0
TXAR  Lajitas Array     122.34  53  PKP    PKPdf   20 05 24.3  +2.4
TXAR                                PKKPbc         20 15 21.1
SCHQ  Schefferville     122.51  10  PKP    PKPdf   20 05 22.6  +1.0
              comp=Z,4.0nm,0.6s,baz=339,slow=4.5,SNR=9.8
SADO  Sadowa            128.11  24  PKP    PKPdf   20 05 34.9  +2.1
              comp=Z,5.9nm,0.7s,baz=72,slow=3.0,SNR=3.6
DBIC  Dimbokro          131.62 280  PKP    PKPdf   20 05 42.5  +2.3
              comp=Z,4.6nm,0.7s,baz=121,slow=2.1,SNR=10
TRQA  Tornquist         142.75 168 ePKPdf  PKPdf   20 05 56.8  -3.1
MDZ   Mendoza           145.38 156 eP      PKPdf   20 06 07.7  +3.1
SDV   Santo Domingo     159.22  59 ePKPdf  PKPdf   20 06 27.1  +2.0
SDV                                ePKPab  PKPab   20 07 05.6  +0.2
BDFB  Brasilia          165.37 198  PKP    PKPdf   20 06 34.6  +3.3
              comp=Z,3.0nm,0.7s,baz=91,slow=4.3,SNR=6.2
BDFB                                PKPab  PKPab   20 07 31.2  -0.7
              comp=Z,10.0nm,0.8s,baz=178,slow=1.6,SNR=8.5
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IDC ***21*** *19:47:24.8±1.0, 15.91N×61.47W, mb4.1/4, mb1 4.4/6, mb1mx3.9/21, ML4.7/2, MS3.0/3, Ms1 3.0/3, ms1mx2.4/25, Error ellipse: s-maj=18.0km s-min=14.7km az=127.0*

NEIC ***21*** *19:47:25.6±1.1, 15.84N×61.42W, h10^{km}, mb4.2/2, Error ellipse: s-maj=24.8km s-min=12.6km az=97.0*

TRN ***21*** *19:47:26.5, 15.82N×61.51W, h21^{km}, MD4.1*

ISC 21 19:47:27.5±0.6**, 15.81N**±0.03×**61.67W**±0.06**, h24**^{km}±6^{km}**, n34,** $\sigma 1^{s}$**20**/44**, mb4.2**/7**, 8C-2D, Leeward Islands**

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Code  Station Name        Δ°   AZ°   Phase ID           Time       Res
                                    Op      ISC        h  m  s     ISC
BBL   Barber's Block      0.34 145⇑iP      Pb      19 47 34.5  -0.6
BBL   Barber's Block      0.34 145⇑iP      Pb      19 47 35.6  +0.4
BBL                                eS      Sb      19 47 39.2  -1.1
MGG   Marie-Galante       0.36  73⇑eP      Pb      19 47 33.8  -1.6
DWS   Wesley              0.42 125 eP      Pb      19 47 36.4   0.0
DWS                                eS      Sb      19 47 41.9  -0.5
MDN   Morne-Daniel        0.56 151⇑iP      Pb      19 47 39.3  +0.7
MDN                                eS      Sb      19 47 47.2  +1.0
SEG   Port Louis          0.61  15⇑eP      Pb      19 47 38.4  -1.1
DBCT  Belle View Cho      0.62 150 eP      Pb      19 47 40.4  +0.8
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DSHT	Scott’s Head	0.66	154	*e*P	Pb	19 47 41.1	+0.8
DSTT	Stowe	0.66	148	*e*P	Pb	19 47 41.0	+0.7
DSTT				*e*S	Sb	19 47 49.6	+0.4
DEG	La Desirade	0.77	50	⇑*i*P	Pb	19 47 40.2	-2.0
FDF	Fort de France	1.18	155	⇑*e*P	Pn	19 47 48.0	-0.8
FDF				*e*S	Sb	19 48 03.6	-0.5
BPA	Boggy Peak	1.24	352	*e*P	Pn	19 47 51.0	+1.4
BPA				*e*S	Sb	19 48 07.5	+1.8
CRM	Caravelle	1.28	145	⇑*e*P	Pn	19 47 49.6	-0.6
BIM	Bigot	1.41	156	⇓*e*P	Pn	19 47 51.6	-0.4
MVM	Montagne Vaucl	1.46	149	⇓*e*P	Pn	19 47 52.4	-0.3
MVM				*e*S	Sn	19 48 12.1	+0.9
CPB	Codrington	1.82	355	*e*P	Pn	19 47 59.4	+1.5
CPB				*e*S	Sn	19 48 23.1	+2.6
STAT	Sint Eustatius	2.09	323	*e*P	Pn	19 48 12.1	+10
SVV	Soufriere Volc	2.52	170	*e*P	Pn	19 48 08.8	+0.9
SVV				*e*S	Sn	19 48 40.9	+2.8
STMA	St. Maarten, A	2.61	328	*e*	Sn	19 48 43.3	+2.8
GRW	Mount Saint Ca	3.63	180	*e*P	Pn	19 48 25.0	+1.3
SJG	San Juan	4.86	299	Pn	Pn	19 48 41.8	+0.7
	7.9nm,0.3s,baz=314,slow=18,SNR=3.8						
SJG				Sn	Sn	19 49 34.9	-2.4
	8.2nm,0.3s,baz=256,slow=20,SNR=4.3						
SJG	San Juan	4.86	299	Pn	Pn	19 48 41.8	+0.7
SJG				Sn	Sn	19 49 34.9	-2.4
PCRV	Puerto La Cruz	6.30	208	Pn	Pn	19 49 00.6	-0.9
	1.3nm,0.3s,baz=38,slow=16,SNR=5.0						
PCRV				Sn	Sn	19 50 12.4	-1.0
	2.0nm,0.3s,baz=9.5,slow=7.2,SNR=3.8						
PCRV				LR	LR	19 51 37.8	
	comp=Z,159nm,21.0s,baz=188,slow=39						
SDV	Santo Domingo	11.13	233	LR	LR	19 54 25.0	
	comp=Z,77nm,18.7s,baz=261,slow=37						
ROSC	El Rosal	16.53	230	LR	LR	19 57 59.4	
	comp=Z,46nm,20.3s,baz=235,slow=38						
LRAL	Lakeview Retre	28.62	311	P	P	19 53 28.8	+4.5
	23nm,0.7s,mb5.0						
MNTX	Cornudas Mount	42.72	300	P	P	19 55 24.4	-0.2
	1.0nm,0.5s,mb3.8						
ULM	Lac du Bonnet	44.05	329	P	P	19 55 33.5	-1.7
	2.0nm,0.6s,mb4.1,baz=115,slow=6.6,SNR=5.5						
PDAR	Pinedale Array	48.81	313	P	P	19 56 12.7	-0.2
	2.2nm,0.8s,mb4.2,baz=111,slow=9.6,SNR=18						
QLMT	Earthquake Lak	50.75	315	*e*P	P	19 56 27.6	-0.1
YKA	Yellowknife Ar	59.39	335	P	P	19 57 28.6	-1.6
	2.4nm,0.6s,mb4.4,baz=107,slow=7.4,SNR=35						
YKA	Yellowknife Ar	59.39	335	P	P	19 57 28.6	-1.6
INK	Inuvik	68.72	338	*e*P	P	19 58 29.8	-1.3
	3.4nm,0.7s,mb4.4						
ILAR	Eielson Array	73.80	334	P	P	19 59 00.8	-0.6
	1.2nm,0.8s,mb3.9,baz=77,slow=5.3,SNR=10						

MOS ***21*** *20:11:55.3±0.9, 36.10N×70.64E, h109^{km}, mb4.3/20, Error ellipse: s-maj=12.6km s-min=7.3km az=90.7*

NEIC ***21*** *20:11:56.7±1.7, 36.11N×70.68E, h110^{km}±16^{km}, mb4.7/10, Error ellipse: s-maj=11.5km s-min=8.3km az=220.0*

BJI ***21*** *20:11:57.0, 36.41N×70.59E, h103^{km}, mb4.7*

IDC ***21*** *20:11:60.0±2.7, 36.05N×70.62E, h140^{km}±25^{km}, mb3.8/18, mb1 4.0/19, mb1mx3.9/23, Error ellipse: s-maj=12.0km s-min=11.1km az=178.0*

NNC ***21*** *20:12:01.6±30.0, 36.13N×71.54E, h188^{km}±274^{km}, mpv5.4, Error ellipse: s-maj=360.4km s-min=246.0km az=87.0*

ISC 21 20:11:54.9±0.5**, 36.02N**±0.02×**70.70E**±0.04**, h111**^{km}±5^{km}**, n138, **σ1^{s}**15**/164**, mb4.3**/30**, 11C-7D, Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	2.41	155	⇑P	P	20 12 36.4	+2.5
CHCP	Chirah Chowk	3.16	137	⇓P	P	20 12 46.9	+2.8
THW	Thamme Wali	3.33	165	⇑P	P	20 12 48.0	+1.6
SBDP	Sheikh Budin	3.72	179	⇓P	P	20 12 52.0	+0.4
DRP	Derazinda	4.29	186	⇑P	P	20 13 00.0	+0.6
SARP	Sargodha	4.41	158	P	P	20 13 01.4	+0.4
KSH	Kashi	5.44	49	P	P	20 13 18.6	+3.7
KSH				S	S	20 14 19.9	+3.1
KSH				Smax			
	comp=N,1µm,0.3s						
KSH				Smax			
	comp=E,1µm,0.5s						
THN	Thein Dam	5.49	129	*e*P	P	20 13 17.0	+1.5
THN				*e*S	S	20 14 18.6	+0.7
DLH	Dalhousie	5.57	127	*e*P	P	20 13 18.0	+1.3
DLH				*e*S	S	20 14 18.0	-2.1
AML	Almayashu	6.53	20	P	P	20 13 29.8	0.0
	SNR=646						
BHK	Bhakra	6.62	132	*e*	P	20 13 39.0	+8.0
BHK				*e*S	S	20 14 43.0	-2.5
UCH	Uchtor	6.87	24	P	P	20 13 34.6	+0.1
	SNR=220						
KZA	Kyzart	7.00	29	P	P	20 13 36.4	0.0
	SNR=61						
EKS2	Erkin-Say	7.04	19	P	P	20 13 36.9	0.0
	SNR=260						
AAK	Ala-Archa	7.22	23	⇑P	P	20 13 39.6	+0.2
	comp=E,128nm,0.5s						
AAK				⇑S	S	20 14 59.2	-1.1
	comp=E,327nm,0.8s						
AAK	Ala-Archa	7.22	23	P	P	20 13 39.6	+0.3
	SNR=163						
AAK	Ala-Archa	7.22	23	*c* *i*PN	P	20 13 38.6	-0.8
AAK	Ala-Archa	7.22	23	⇑*e*P	P	20 13 38.4	-0.9
SMLA	Simla	7.28	130	⇑*i*	P	20 13 54.1	+14
SMLA				*i*		20 15 13.3	
KBK	Karagaybulak	7.39	25	P	P	20 13 41.5	-0.2
	SNR=107						
FRU	Bishkek	7.44	23	⇑*i*PN	P	20 13 43.0	+0.7
FRU				pmax	pmax		
	comp=Z,120nm,1.2s						
ULHL	Ulahol	7.56	33	P	P	20 13 44.2	+0.4
	SNR=72						
CHMS	Chumysh	7.63	23	P	P	20 13 44.5	-0.4
	SNR=184						
KLP	Kalpa	7.72	123	*e*P	P	20 13 46.4	+0.4
KLP				*e*		20 14 41.6	
KLP				AML	AML	20 15 16.9	
	comp=E,2µm,1.0s						
KLP				AML	AML	20 15 32.7	
	comp=N,2µm,1.0s						
USP	Ospenovka	7.80	21	P	P	20 13 47.4	+0.2
	SNR=90						
TKM2	Tokmak 2	7.86	27	P	P	20 13 47.9	0.0
	SNR=203						
KKR	Kurukshetra	7.93	138	*e*P	P	20 13 49.5	+0.6
DDI	Dehra Dun	8.38	131	*e*P	P	20 13 55.1	+0.1
DDI				*e*S	S	20 15 24.9	-3.7
KHET	Khetri	9.03	150	*e*P	P	20 14 03.0	-0.7
KHET				*i* S	S	20 15 36.6	-7.6
KHET				AML	AML	20 15 39.7	
JASL	Jaisalmer	9.07	179	*e*	P	20 14 07.2	+3.0
JASL				*i* S	S	20 15 35.1	-10
NDI	New Delhi	9.16	141	*e*P	P	20 14 05.0	-0.4
NDI				*e*S	S	20 15 42.0	-5.3
KUDL	Kundal	9.26	146	*e*P	P	20 14 06.6	-0.2
KUDL				*e*S	S	20 15 42.3	-7.5
KUDL				AML	AML	20 15 48.8	
	comp=Z,187nm,1.0s						
AYAN	Aya Nagar	9.28	142	*e*P	P	20 14 06.8	-0.2
AYAN				*e*S	S	20 15 44.6	-5.6
AYAN				*e*		20 15 47.1	
	comp=Z,208nm,0.5s						
AJM	Ajmer	10.09	159	*i* P	P	20 14 16.0	-2.0
PTH	Pithoragarh	10.28	126	*e*P	P	20 14 19.9	-0.6
PTH				*e*S	S	20 16 09.2	-5.1
LGTI	Lohaghat	10.37	127	*e*P	P	20 14 20.7	-0.9
LGTI				*e*		20 16 13.0	
AGRA	Agra	10.72	143	*e*P	P	20 14 25.7	-0.6
AGRA				*i* S	S	20 16 16.5	-8.1
AGRA				AML	AML	20 16 21.0	
	comp=E,363nm,0.6s						
JHNI	Jhansi	12.49	145	*e*	P	20 14 47.0	-2.8
JHNI				*e*S	S	20 16 57.0	-10
KOLN	Koldanda	13.69	123	*e*P	P	20 15 03.6	-1.8
	comp=E,28nm,0.3s						
MK31	Makanchi Array	13.82	35	⇓P	P	20 15 05.5	-1.3
	comp=E,37nm,0.8s,baz=223,slow=15						
MKAR	Makanchi Array	13.82	35	*i* P	P	20 15 09.0	+2.2
MKAR				pmax	pmax		
	comp=Z,21nm,0.7s						
BHPL	Bhopal	14.01	154	*e*P	P	20 15 09.6	+0.1
BHPL				*e*		20 17 34.0	
BHPL				AML	AML	20 17 39.1	
	comp=E,143nm,0.6s						
GKN	Gorkha	14.26	120	*e*P	P	20 15 10.9	-1.8
	comp=E,97nm,0.3s						
GKN				*e*S	S	20 17 42.0	-6.4
DMN	Daman	14.83	120	*e*P	P	20 15 17.9	-2.1
	comp=E,76nm,0.4s						
KKN	Kakani	14.84	119	*e*P	P	20 15 18.3	-1.8
	comp=E,135nm,0.6s						
KKN				*e*S	S	20 17 56.3	-5.6
PKI	Pulchoki	15.07	120	*e*P	P	20 15 21.7	-1.3
	comp=E,47nm,0.3s						
PKI				*e*S	S	20 18 01.3	-5.8
WMQ	Urumqi	15.17	54	*e*P	P	20 15 24.8	+0.6
WMQ				AMB	AMB		
	comp=Z,13nm,0.6s						
GUN	Gumba	15.20	118	*e*P	P	20 15 23.6	-1.0
	comp=Z,58nm,0.4s						
AKL	Akola	16.24	158	⇓*i*P	P	20 15 40.3	+2.6
	comp=Z,71nm,1.1s						
AKL				*i*		20 18 29.2	
BVA0	Borovoye Array	17.00	359	P	P	20 15 44.7	-2.2
	comp=Z,8.5nm,1.2s,baz=165,slow=12,SNR=156						
BVAR	Borovoye Array	17.00	359	P	P	20 15 44.8	-2.1
	comp=Z,4.2nm,0.3s,baz=165,slow=11,SNR=70						
BVAR				S	S	20 18 55.5	+4.7
	comp=Z,0.7nm,0.3s,baz=215,slow=23,SNR=3.0						
BRVK	Borovoye	17.03	359	P	P	20 15 45.8	-1.5
BRVK				pmax	pmax		
	comp=Z,26nm,0.9s						
BRVK	Borovoye	17.03	359	*e*P	P	20 15 45.8	-1.6
	comp=Z,83nm,1.0s						
POO	Poona	17.65	170	*e*P	P	20 15 55.5	+0.4
POO				*i* S	S	20 19 14.0	+8.6
CHKZ	Chkalovo	17.65	360	⇓P	P	20 15 53.5	-1.5
	comp=Z,35nm,1.1s						
CHKZ	Chkalovo	17.65	360	P	P	20 15 53.1	-1.9
CHKZ				pmax	pmax		
	comp=Z,39nm,1.1s						
CHKZ	Chkalovo	17.65	360	*e*P	P	20 15 53.2	-1.7
	comp=Z,19nm,0.5s						
LSA	Lhasa	18.29	104	*e*P	P	20 16 04.1	+1.7
	comp=Z,20nm,0.6s						
KAD	Karad	18.90	170	*e*P	P	20 16 09.6	+0.3
KAD				*i*		20 19 36.8	
HYB	Hyderabad	19.80	157	*e*P	P	20 16 20.0	+1.2
	comp=Z,50nm,1.0s						
HYB				*e*S	S	20 19 45.5	-5.1
HYB	Hyderabad	19.80	157	⇓*i*P	P	20 16 20.0	+1.2
	comp=Z,50nm,1.0s						
HYB				*e*S	S	20 19 45.5	-5.1
HYB				*e*		20 20 22.0	
UMR	Umm Al-Rimmam	20.35	258	*e*P	P	20 16 23.5	-1.0
UMR				AMb	AMB	20 16 28.2	
	comp=Z,66nm,0.7s						
ZAL	Zalesovo	20.43	24	P	P	20 16 25.4	+0.3
	comp=Z,205nm,0.4s,baz=248,slow=8.0,SNR=332						
ZAL				S	S	20 20 07.2	+4.8
	comp=Z,1.8nm,0.5s,baz=146,slow=20,SNR=4.6						
ZAL	Zalesovo	20.43	24	P	P	20 16 25.4	+0.3
ZAL				S	S	20 20 07.3	+4.8
ZAL				pmax	pmax		
	comp=Z,205nm,0.4s						
MIB	Mutribah	20.55	259	*e*P	P	20 16 25.6	-0.8
MIB				AMb	AMB	20 16 29.5	
	comp=Z,78nm,0.7s						
NVS	Novosibirsk	20.71	21	⇑*i*P	P	20 16 27.7	-0.2
NVS				*e*S	S	20 20 00.1	-7.7
NVS				pmax	pmax		
	comp=Z,132nm,1.1s						
NVS				pmax	pmax		
	comp=N,147nm,1.4s						
NVS				pmax	pmax		
	comp=E,35nm,1.1s						
NVS				smax			
	comp=E,33nm,1.9s						
NVS				smax			
	comp=N,32nm,2.0s						
RDF	Al-Radifah	20.75	257	*e*P	P	20 16 28.4	0.0
RDF				AMb	AMB	20 16 29.4	
	comp=Z,95nm,0.5s						
GNI	Garni	20.82	289	P	P	20 16 31.0	+2.0
	comp=Z,12nm,0.7s,baz=5.5,slow=2.2,SNR=17						
GNI	Garni	20.82	289	*i* P	P	20 16 30.6	+1.6
GNI				pmax	pmax		
	comp=Z,32nm,1.0s						
SHL	Shillong	20.93	114	*e*P	P	20 16 32.5	+2.2
SHL				*e*		20 20 17.0	
RST	Umm Al-Ruwaisa	20.94	259	*e*P	P	20 16 28.9	-1.5
RST				AMb	AMB	20 16 29.7	
	comp=Z,100nm,0.5s						
VIS	Vishakhapatnam	21.39	145	*e*P	P	20 16 38.5	+3.6
VIS				*e*S	S	20 20 26.5	+6.0
	comp=Z,76nm,0.6s						
SVE	Sverdlovsk	21.89	345	⇓*i*P	P	20 16 39.0	-0.6
SVE				pmax	pmax		
	comp=Z,60nm,1.6s,mb4.7						
ARU	Arti	22.01	342	⇑*i*P	P	20 16 41.7	+1.0
ARU				*e*S	S	20 20 37.1	+5.8
ARU				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.4						
ARU	Arti	22.01	342	*e*P	P	20 16 41.2	+0.4
	comp=Z,23nm,0.9s,mb4.5						
KIV	Kislovodsk	22.80	299	*i* P	P	20 16 51.1	+2.6
KIV				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.1						
IMP	Imphal	22.90	113	*e*P	P	20 16 53.6	+4.0
GTA	Gaotai	23.23	73	*e*P	P	20 16 57.6	+4.9
GTA				XP		20 17 35.3	
GTA				AMB	AMB		
	comp=Z,14nm,0.7s,mb4.4						
SOC	Sochi	24.87	297	*e*P	P	20 17 07.9	-0.5
SOC				*e*S	S	20 21 26.9	+6.4
SOC				pmax	pmax		
	comp=Z,29nm,0.8s,mb4.8						
SOC				pmax	pmax		
	comp=N,9.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,45nm,1.1s						
MZLS	Mizel	25.02	248	P	P	20 17 10.6	+0.6
ARSS	Ar Rass	25.56	254	P	P	20 17 14.5	-0.5
HILS	Ha’il	25.99	259	P	P	20 17 18.6	-0.4
ANN	Anapa	26.65	299	*e*P	P	20 17 16.3	-8.7
ANN				*e*	pP	20 17 44.4	-4.6
ANN				pmax	pmax		
	comp=Z,84nm,1.1s,mb5.2						
AFFS	‘Afif	26.76	251	P	P	20 17 25.8	-0.3
ZAK	Zakamensk	27.48	48	*e*P	P	20 17 33.0	+0.5
KAMS	Al Khamasin	27.73	243	D		20 17 33.3	
KBRS	Khaybar	28.73	258	P	P	20 17 44.7	+0.8
SONM	Songino Array	28.81	55	P	P	20 17 46.4	+2.0
	comp=Z,5.0nm,1.1s,mb4.1,baz=269,slow=9.4,SNR=14						
TATS	Tathlith	29.01	243	P	P	20 17 45.8	-0.7
ULN	Ulaanbaatar	29.25	55	*i* P	P	20 17 49.4	+1.1
BRTR	Keskin Array B	29.35	289	P	P	20 17 49.0	-0.3
	comp=Z,3.0nm,1.1s,mb3.8,baz=102,slow=7.9,SNR=5.4						
BRTR	Keskin Array B	29.35	289	P	P	20 17 49.0	-0.3
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
OBN	Obninsk	30.14	320	P	P	20 17 56.0	-0.2
OBN						20 18 55.0	
OBN				*e*		20 19 10.4	
NAMS	An Nimas	30.17	244	P	P	20 17 57.3	+0.5
BLJS	Baljurashi	30.17	246	P	P	20 17 56.7	-0.1
CMAR	Chiang Mai Arr	30.44	118	P	P	20 18 00.4	+1.2
	comp=Z,1.7nm,0.7s,mb3.8,baz=296,slow=8.4,SNR=16						
CMAR				ScP		20 24 26.9	
	comp=Z,1.0nm,0.8s,baz=299,slow=5.3,SNR=6.4						
CMAR	Chiang Mai Arr	30.44	118	P	P	20 18 00.4	+1.2
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
XAN	Xi’an	31.23	82	P	P	20 18 09.3	+3.3
AKASG	Malin Array Be	33.06	309	P	P	20 18 20.3	-1.3
	comp=Z,0.6nm,0.3s,mb3.9,baz=82,slow=7.1,SNR=6.5						
AKASG				PcP	PcP	20 21 01.6	-1.2
	comp=Z,0.5nm,0.4s,baz=78,slow=2.8,SNR=4.2						
AKASG	Malin Array Be	33.06	309	P	P	20 18 20.3	-1.3
AKASG						20 21 01.6	
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MLR	Muntele Rosu	34.80	300	P	P	20 18 37.8	+1.2
	comp=Z,3.3nm,0.6s,mb4.4,baz=174,slow=19,SNR=10						
MLR	Muntele Rosu	34.80	300	P	P	20 18 37.8	+1.2
MLR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MLR	Muntele Rosu	34.80	300	P	P	20 18 37.8	+1.1
BOD	Bodaibo	35.87	39	*e*P	P	20 18 45.8	+0.3
BOD				*e*		20 19 25.9	
IDI	Anoyia	36.97	283	P	P	20 18 54.1	-0.8
	comp=Z,3.5nm,0.6s,mb4.5,baz=68,slow=17,SNR=4.4						
FINES	FINESS Array B	37.74	327	P	P	20 19 01.2	+0.1
	comp=Z,1.7nm,0.5s,mb4.2,baz=116,slow=9.6,SNR=16						
FINES	FINESS Array B	37.74	327	P	P	20 19 01.3	+0.1
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
KAF	Kangasniemi	37.90	328	*e*p	P	20 19 02.4	0.0
	baz=112,slow=8.3						
NJ2	Nanjing	39.78	81	*e*P	P	20 19 19.0	+0.6
KEV	Kevo	41.16	339	*e*p	P	20 19 29.6	+0.3
	comp=Z,44nm,1.6s,mb5.0						
KEV	Kevo	41.16	339	*e*P	P	20 19 29.6	+0.3
KEV				pmax	pmax		
	comp=Z,44nm,1.6s,mb5.0						
ARCES	ARCESS Array B	41.49	338	P	P	20 19 32.8	+0.7
	comp=Z,5.3nm,0.8s,mb4.4,baz=107,slow=7.3,SNR=12						
ARCES	ARCESS Array B	41.49	338	P	P	20 19 32.8	+0.7
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SSE	Sheshan	41.98	82	*e*P	P	20 19 34.5	-2.0
	comp=Z,18nm,0.7s,mb4.9						
HFS	Hagfors	43.29	322	P	P	20 19 47.0	+0.2
	comp=Z,4.3nm,0.7s,mb4.3,baz=100,slow=9.0,SNR=22						
HFS	Hagfors	43.29	322	P	P	20 19 47.0	+0.3
HFS				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YAK	Yakutsk	44.49	35	*i* P	P	20 19 56.9	+0.5
YAK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
NB2	NORSAR Subarra	44.62	323	P	P	20 19 57.0	-0.4
	comp=Z,1.5nm,0.5s,mb4.0,baz=97,slow=7.9						
NOA	NORSAR Array B	44.62	323	P	P	20 19 57.1	-0.3
	comp=Z,1.4nm,0.5s,mb4.0,baz=97,slow=7.8,SNR=6.8						
NOA	NORSAR Array B	44.62	323	P	P	20 19 57.1	-0.3
NOA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
TIXI	Tiksi	46.30	22	*e*P	P	20 20 11.3	+0.7
TIXI				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.7						
KMBO	Kilima Mbogo	48.33	228	P	P	20 20 27.9	+0.6
	comp=Z,2.2nm,0.6s,mb4.2,baz=39,slow=13,SNR=16						
KMBO	Kilima Mbogo	48.33	228	P	P	20 20 27.9	+0.7
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KMBO	Kilima Mbogo	48.33	228	*i* P	P	20 20 28.2	+1.0
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ESDC	Sonseca Array	57.47	298	P	P	20 21 33.5	-1.0
	comp=Z,1.2nm,0.6s,mb4.1,baz=58,slow=7.0,SNR=6.0						
BILL	Bilibino	59.14	26	*i* P	P	20 21 46.2	+0.5
BILL				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
LBTB	Lobatse	74.16	222	*e*P	P	20 23 20.9	-0.3
	comp=Z,7.0nm,0.7s,mb4.5						
INK	Inuvik	74.41	9	*e*P	P	20 23 22.1	+0.4
	comp=Z,2.6nm,0.5s,mb4.2						
DBIC	Dimbokro	74.43	267	P	P	20 23 21.1	-1.8
	comp=Z,3.9nm,0.9s,mb4.1,baz=29,slow=8.3,SNR=3.5						
DBIC	Dimbokro	74.43	267	P	P	20 23 21.1	-1.8
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
COLA	College	75.00	16	*i* P	P	20 23 25.8	+0.7
ILAR	Eielson Array	75.30	16	P	P	20 23 27.0	+0.2
	comp=Z,3.5nm,1.2s,mb4.0,baz=297,slow=5.2,SNR=13						
ILAR	Eielson Array	75.30	16	P	P	20 23 27.0	+0.2
ILAR				pmax	pmax		
	comp=Z,4.0nm,1.2s						
YKA	Yellowknife Ar	81.73	2	P	P	20 24 02.3	+0.4
	comp=Z,0.6nm,0.4s,mb3.8,baz=351,slow=5.4,SNR=17						
YKA	Yellowknife Ar	81.73	2	P	P	20 24 02.3	+0.4
YKA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
WRA	Warramunga Arr	81.94	122	P	P	20 24 04.0	+0.1
	comp=Z,1.0nm,0.6s,mb3.9,baz=324,slow=5.0,SNR=28						
WRA	Warramunga Arr	81.94	122	P	P	20 24 04.0	+0.1
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ASAR	Alice Springs	84.18	125	P	P	20 24 15.7	+0.5
	comp=Z,1.6nm,0.9s,mb3.9,baz=311,slow=4.8,SNR=20						

CSEM ***21*** *20:23:33.1±0.9, 38.62N×28.38W, h8^{km}±3^{km}, ML1.9, Error ellipse: s-maj=3.8km s-min=2.1km az=159.0*

PDA ***21*** *20:23:33.1±0.9, 38.62N×28.38W, h8^{km}±3^{km}, MD3.1, ML1.9, Error ellipse: s-maj=3.8km s-min=2.1km az=159.0*

SVSA 21 20:23:33.1±0.9**, 38.62N×28.38W, h8**^{km}±3^{km}**, MD3.1, ML1.9, Error ellipse: s-maj=3.8km s-min=2.1km az=159.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PICO	Pico	0.12	197	*i* P	Pg	20 23 35.4	-0.5
PICO				*e*S	Sg	20 23 37.9	+0.2
PICO	Pico	0.12	197	*e*S	Sg	20 23 37.9	+0.2
ROSA	Rosais	0.15	46	*e*P	Pg	20 23 36.1	-0.3
HOR	Horta	0.21	246	*e*S	Sg	20 23 39.9	-0.7
PMAN	Manadas	0.23	86	*e*P	Pg	20 23 37.2	-0.7
PMAN				*e*S	Sg	20 23 40.6	-0.4
	67nm,0.2s						
PMAN	Manadas	0.23	86	*e*P	Pg	20 23 37.2	-0.7
PMAN				*e*S	Sg	20 23 40.6	-0.4
	67nm,0.2s						
PCED	Cedros	0.25	273	*e*S	Sg	20 23 41.1	-0.7
	41nm,0.2s						
PCED	Cedros	0.25	273	*e*S	Sg	20 23 41.1	-0.7
	41nm,0.2s						
CALA	Caldeira	0.26	262	*e*S	Sg	20 23 41.8	-0.1
PID	Ribeirinha	0.27	130	*e*P	Pg	20 23 38.1	-0.5

IDC ***21*** *21:01:36.9±1.1, 63.38N×145.02W, mb3.7/4, mb1 4.0/7, mb1mx3.7/21, ML4.0/3, MS3.2/2, Ms1 3.2/2, ms1mx2.8/25, Error ellipse: s-maj=16.1km s-min=9.0km az=40.0*

NEIC ***21*** *21:01:36.9, 63.26N×145.15W, h7^{km}, ML4.0(PMR), ML3.9(AEIC), After AEIC.*

PGC ***21*** *21:01:36.9, 63.35N×145.22W, h1^{km}, ML4.2/2, Eastern Alaska.*

ISC 21 21:01:36.5±0.5**, 63.30N**±0.02×**145.10W**±0.04**, h8**^{km}±3^{km}**, n81, **σ1^{s}**03**/109**, mb3.6**/4**, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THY	Trims Highway	0.32	292	P	Pg	21 01 42.8	-0.1
THY				S	Sg	21 01 47.5	+0.2
PAX	Paxson	0.37	207	P	Pg	21 01 43.3	-0.7
PAX				S	Sg	21 01 47.8	-1.3
DOT	Dot Lake	0.58	52	P	Pg	21 01 49.3	+1.1
DOT				S	Sg	21 01 57.9	+1.8
DDM	Donnelly Dome	0.60	325	P	Pg	21 01 48.9	+0.4
DDM				S	Sg	21 01 57.4	+0.9
MENT	Mentasta	0.72	119	P	Pb	21 01 51.1	+0.2
MENT				S	Sg	21 02 01.3	+0.6
DHY	Denali Highway	1.05	259	P	Pb	21 01 55.8	-0.7
TZL	Tazlina	1.27	187	P	Pb	21 01 59.8	-0.4
HDA	Harding Lake	1.38	324	P	Pn	21 02 01.8	-0.3
WANC	Wrangell North	1.38	159	P	Pn	21 02 01.7	-0.4
BCA3	Beaver Creek A	1.52	97	P	Pn	21 02 04.6	+0.5
BCA3				S	Sb	21 02 26.0	+2.2
IL1	Eielson Array	1.68	333	P	Pn	21 02 07.0	+0.7
ILAR	Eielson Array	1.68	333	Pg	Pg	21 02 05.6	-4.3
	98nm,0.3s,baz=153,slow=16,SNR=404						
ILAR				Lg		21 02 29.5	
	255nm,0.3s,baz=146,slow=27,SNR=38						
RND	Reindeer	1.70	275	P	Pn	21 02 06.9	+0.3
RND				S	Sn	21 02 28.7	0.0
MCK	McKinley	1.77	286	P	Pn	21 02 08.6	+0.9
MCK				S	Sn	21 02 31.8	+1.2
SCM	Sheep Creek Mo	1.80	216	P	Pn	21 02 07.4	-0.6
SCM				S	Sn	21 02 30.4	-0.8
CCB	Clear Creek Bu	1.81	320	P	Pn	21 02 08.0	-0.1
GLB	Gilahina Butte	1.96	162	P	Pn	21 02 10.2	-0.1
GLM	Gilmore Dome	1.97	330	P	Pn	21 02 09.6	-1.0
GLM				S	Sn	21 02 36.7	+1.1
COLA	College	1.99	324	P	Pn	21 02 10.8	0.0
SML	Sawmill	2.12	226	P	Pn	21 02 12.0	-0.6
SML				S	Sn	21 02 38.3	-1.1
BWN	Browne	2.13	296	P	Pn	21 02 11.7	-1.2

MDM	**Murphy Dome**	2.16	322	P	Pn	21 02 13.2	0.0
NEA	**Nenana**	2.18	308	P	Pn	21 02 12.7	-0.8
DIV	**Divide**	2.20	189	P	Pn	21 02 13.4	-0.4
DIV				S	Sn	21 02 42.6	+1.1
PRP	**Porcupine Dome**	2.24	355	P	Pn	21 02 14.6	+0.3
VLZ	**Valdez**	2.25	195	P	Pn	21 02 13.9	-0.6
TRF	**Thorofare Moun**	2.34	276	P	Pn	21 02 16.9	+1.1
GHO	**Glory Hole Cre**	2.34	231	P	Pn	21 02 16.1	+0.3
JPK	**Jack Peak**	2.36	198	P	Pn	21 02 15.7	-0.4
JPK				S	Sn	21 02 47.1	+1.6
KNK	**Knik Glacier**	2.46	221	P	Pn	21 02 18.6	+1.1
CUT	**Chulitna**	2.54	252	P	Pn	21 02 19.4	+0.9
PMR	**Palmer**	2.54	229	P	Pn	21 02 18.5	-0.1
PMR				S	Sn	21 02 49.5	-0.5
GLI	**Glacier Island**	2.60	202	P	Pn	21 02 20.0	+0.4
BALM	**Baldy**	2.61	149	P	Pn	21 02 21.1	+1.4
KTH	**Kantishna Hill**	2.63	278	P	Pn	21 02 20.4	+0.5
KTH				S	Sn	21 02 55.1	+2.7
FID	**Port Fidalgo**	2.64	195	P	Pn	21 02 21.3	+1.2
FID				S	Sn	21 02 52.4	-0.2
DAWY	**Dawson**	2.66	71	Pn	Pn	21 02 38.4	+18
DAWY				Pg	Pg	21 02 46.3	+17
DAWY				Sn	Sn	21 03 10.7	+18
DAWY				Sg	Sg	21 03 19.0	+14
DAWY				Trac		21 03 22.9	
	comp=Z,747nm,0.2s						
DAWY	**Dawson**	2.66	71	P	Pn	21 02 20.4	+0.1
TGL	**Tana Glacier**	2.77	156	P	Pn	21 02 22.8	+0.9
PWA	**Palmer West**	2.77	235	P	Pn	21 02 23.1	+1.1
EYAK	**Cordova Ski Ar**	2.78	187	P	Pn	21 02 22.8	+0.7
EYAK				S	Sn	21 02 59.0	+2.9
CVA	**Cordova**	2.78	187	P	Pn	21 02 22.6	+0.5
RAGM	**Ragged Mountai**	2.93	176	P	Pn	21 02 25.3	+1.1
HIN	**Hinchinbrook I**	2.99	193	P	Pn	21 02 24.7	-0.3
MLY	**Manley**	3.02	308	P	Pn	21 02 24.4	-1.1
RC01	**Rabbit Creek A**	3.10	227	P	Pn	21 02 28.7	+2.0
FIB	**Fire Island**	3.20	230	P	Pn	21 02 26.3	-1.7
MPA	**Moose Pass**	3.47	217	P	Pn	21 02 30.9	-1.0
STLK	**Strandline Lak**	3.62	243	P	Pn	21 02 34.8	+0.8
SLKM	**Skilak Lake**	3.70	223	P	Pn	21 02 35.4	+0.2
SEW	**Seward**	3.82	215	P	Pn	21 02 37.3	+0.5
SPU	**Mount Spurr**	3.88	240	P	Pn	21 02 37.6	-0.2
CKN	**Chakachatna No**	3.91	241	P	Pn	21 02 37.9	-0.2
BM3	**Burnt Mountain**	4.14	3	P	Pn	21 02 41.2	-0.3
HYT	**Haines Junctio**	4.35	121	Pn	Pn	21 02 43.9	-0.5
HYT				Pg	Pg	21 02 56.3	-7.1
HYT				Sg	Sg	21 03 56.8	-4.5
HYT				Trac		21 04 07.5	
	comp=Z,73nm,0.5s						
COLD	**Coldfoot**	4.49	334	P	Pn	21 02 45.5	-0.9
DFR	**Drift River**	4.50	236	P	Pn	21 02 46.7	+0.3
RDN	**Redoubt North**	4.58	236	P	Pn	21 02 47.5	-0.1
IM3	**Indian Mountai**	4.59	310	P	Pn	21 02 46.1	-1.7
RSO	**Redoubt South**	4.61	235	*e*P	Pn	21 02 47.7	-0.3
NCT	**North Crescent**	4.61	237	P	Pn	21 02 47.4	-0.7
IMA	**Indian Mountai**	4.61	311	*e*P	Pn	21 02 46.9	-1.3
CNPM	**China Poot**	4.80	221	P	Pn	21 02 49.8	-0.9
ILIM	**Iliamna**	4.94	233	P	Pn	21 02 52.5	-0.3
TT01	**Tatalina**	4.98	270	P	Pn	21 02 52.8	-0.5
ILW	**Iliamna West**	5.02	233	P	Pn	21 02 53.7	-0.2
WHY	**Whitehorse**	5.50	114	Pn	Pn	21 02 59.6	-1.0
WHY				Sn	Sn	21 04 02.0	-2.8
WHY				Sg	Sg	21 04 29.7	-10
WHY				Trac		21 04 41.1	
	comp=Z,38nm,0.5s						
WHY	**Whitehorse**	5.50	114	P	Pn	21 02 59.5	-1.2
INK	**Inuvik**	6.91	38	Pn	Pn	21 03 18.6	-1.9
	3.8nm,0.3s,baz=216,slow=15,SNR=54						
INK				Sn	Sn	21 04 36.9	-3.4
	2.1nm,0.3s,baz=236,slow=16,SNR=3.9						
INK				Lg		21 05 15.2	
	4.5nm,0.3s,baz=163,slow=20,SNR=6.2						
INK				LR	LR	21 06 41.4	
	comp=Z,105nm,19.2s,baz=311,slow=45						
INK	**Inuvik**	6.91	38	Pn	Pn	21 03 17.5	-3.1
INK				Trac		21 05 21.8	
	comp=Z,106nm,0.9s						
INK	**Inuvik**	6.91	38	*e*P	Pn	21 03 17.4	-3.2
DLBC	**Dease Lake**	8.81	117	Pn	P	21 03 45.4	-1.7
	0.4nm,0.3s,baz=339,slow=11,SNR=6.3						
DLBC				Lg		21 06 15.7	
	1.4nm,0.3s,baz=101,slow=7.9,SNR=8.7						
DLBC	**Dease Lake**	8.81	117	Pn	P	21 03 50.5	+3.5
DLBC				Sg	Sg	21 06 20.4	-9.4
DLBC				Trac		21 06 47.1	
	comp=Z,19nm,0.6s						
FNBB	**Fort Nelson**	11.54	102	Pn	P	21 04 21.6	-2.7
FNBB				Sn	S	21 06 27.6	-6.7
FNBB				Trac		21 07 54.1	
	comp=Z,3.0nm,0.3s						
YKW3	**Yellowknife Ar**	13.84	79	Pn	P	21 04 51.8	-3.0
YKW3				Pn	P	21 04 51.9	-2.9
YKA	**Yellowknife Ar**	13.86	80	Pn	P	21 04 52.2	-2.9
	0.4nm,0.3s,baz=286,slow=13,SNR=32						
YKA				LR	LR	21 10 51.1	
	comp=Z,138nm,18.0s,baz=265,slow=40						
YKA	**Yellowknife Ar**	13.86	80	Pn	P	21 04 52.2	-2.9
YKA				LR	LR	21 10 51.1	
PDAR	**Pinedale Array**	29.04	118	P	P	21 07 39.0	+0.3
	0.3nm,0.7s,mb3.1,baz=315,slow=2.6,SNR=2.8						
ULM	**Lac du Bonnet**	29.14	93	P	P	21 07 39.1	-0.4
	0.8nm,0.5s,mb3.8,baz=307,slow=5.1,SNR=3.4						
FRB	**Frobisher Bay**	32.24	54	P	P	21 08 06.5	-0.3
	1.4nm,0.7s,mb3.9,baz=277,slow=12,SNR=3.5						
CMAR	**Chiang Mai Arr**	84.66	301	P	P	21 14 14.1	+2.5
	0.3nm,0.5s,mb3.6,slow=6.3,SNR=5.1						

DJA 21 21:07:48.1±0.9**, 9.29S**×**114.29E, h33**^{km}**, MD4.5**/2**, ML3.9**/1**, 1C-3D, Error ellipse: s-maj=22.8km s-min=8.5km az=33.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	**Scrawed**	0.82	349⇑	*e*Pn	Pn	21 08 02.0	-1.4
	412nm,0.1s						
SRDI				*e*Sn	Sn	21 08 12.6	-1.8
KELI	**Kelakatan**	1.08	10⇓	*e*Pn	Pn	21 08 06.3	-0.9
KELI	**Kelakatan**	1.08	10	*e*P	P	21 08 06.7	-0.3
KELI				*e*Sn	Sn	21 08 19.2	-2.0
RATI	**Rata**	1.35	65⇓	*e*Pn	Pn	21 08 09.3	-1.6
	136nm,0.2s						
RATI				*e*Sn	Sn	21 08 24.5	-3.3
KEDI	**Kedomdong**	1.97	66⇓	*i*Pn	Pn	21 08 18.5	-1.3

IDC 21 21:33:41.7±27.0**, 21.16S**×**173.20W, mb4.2**/4**, mb1 4.3**/4**, mb1mx4.0**/16**, Error ellipse: s-maj=501.0km s-min=148.9km az=76.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	37.89	264	P	P	21 41 01.9	-0.6
	3.7nm,0.3s,baz=92,slow=11,SNR=8.8						
STKA	**Stephens Creek**	41.58	245	P	P	21 41 29.9	-3.0
	1.1nm,0.7s,baz=96,slow=11,SNR=2.8						
ASAR	**Alice Springs**	48.74	257	P	P	21 42 28.3	-2.0
	0.8nm,0.4s,baz=93,slow=8.0,SNR=13						
WRA	**Warramunga Arr**	48.95	262	P	P	21 42 30.4	-1.6
	1.1nm,0.3s,baz=93,slow=8.5,SNR=76						

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*LDG **21** 22:04:09.6±0.1, 49.38N×6.94E, h1^{km}, Md2.4/6, Ml2.4/7, Error ellipse: s-maj=2.2km s-min=1.8km az=85.0, Suspected Mining induced.*

*BGR **21** 22:04:09.6±0.2, 49.38N×6.90E, h1^{km}, ML1.8/1, Error ellipse: s-maj=2.2km s-min=2.2km az=69.0*

*BNS **21** 22:04:10.9±0.3, 49.43N×7.05E, h1^{km}, ML1.3*

ISC 21 22:04:07.9±0.3**, 49.36N**±0.01×**6.86E**±0.03**, n26, $\sigma 0^{s}.89$**/43**, Germany**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RUP	**Ruppelstein**	0.36	21	*e*Pg	Pg	22 04 16.4	+1.3
	SNR=11						
WLF	**Walferdange**	0.55	303	*e*Pg	Pg	22 04 20.8	+1.8
	SNR=3.2						
WLF				*e*Sg	Sg	22 04 27.2	+1.0
	SNR=2.7						
ABH	**Alteburg**	0.68	41	*e*Pg	Pg	22 04 21.7	+0.2
	SNR=2.8						
LANF	**Langenberg**	0.73	121	*e*Pg	Pg	22 04 22.8	+0.3
	SNR=3.0						
KTD	**Kalmit**	0.80	93	*e*Pg	Pg	22 04 24.6	+0.7
	SNR=4.0						
BGG	**Burgeitz**	0.90	20	*e*Pg	Pg	22 04 26.0	+0.2
BGG				*e*Sg	Sg	22 04 37.2	-0.6
	18nm,0.3s						
CDF	**Champ du Feu**	0.99	164	*e*Pn	Pn	22 04 28.7	-0.2
CDF				*e*Pg	Pg	22 04 29.0	+1.3
CDF				*e*Sg	Sg	22 04 43.1	+2.2
	14nm,0.2s						
WLS	**Welschbruch**	1.01	161	*e*Pg	Pg	22 04 29.0	+1.0
	SNR=7.7						
ECH	**Echery**	1.17	170	*e*Pg	Pg	22 04 32.0	+0.8
	SNR=5.6						
ECH				*e*Sg	Sg	22 04 47.1	+0.4
	SNR=5.1						
STB	**Steinbach**	1.23	359	*e*Sg	Sg	22 04 48.7	-0.2
THEF	**They Montfort**	1.28	207	*e*Pg	Pg	22 04 33.9	+0.5
	SNR=4.6						
THEF				*e*Sg	Sg	22 04 50.9	+0.5
	SNR=3.0						
TOD	**Tromm**	1.29	78	*e*Pg	Pg	22 04 32.7	-1.0
	SNR=4.5						
TOD				*e*Sg	Sg	22 04 50.4	-0.5
	SNR=2.1						
KLL	**Kalltalsperre**	1.33	345	*e*Pg	Pg	22 04 34.6	+0.1
KLL				*e*Sg	Sg	22 04 51.9	-0.4
	4.1nm,0.8s						
HAU	**Haudompre**	1.40	194	*e*Pg	Pg	22 04 36.2	+0.3
HAU				*e*Sg	Sg	22 04 55.2	+0.6
	7.9nm,0.3s						
BFO	**Black Forest**	1.42	136	*e*Pg	Pg	22 04 36.5	+0.3
	SNR=2.7						
BFO				*e*Sg	Sg	22 04 53.9	-1.3
	SNR=4.6						
MEZF	**Maizieres J’vi**	1.47	235	*e*Pg	Pg	22 04 38.2	+0.9
MEZF				*e*Sg	Sg	22 04 57.8	+0.9
	4.7nm,0.3s						
GIVF	**Givet**	1.51	300	*e*Pn	Pn	22 04 36.3	-0.1
HGN	**Heimansgroeve**	1.52	337	*e*Pg	Pg	22 04 38.4	+0.1
	SNR=1.4						
HGN				*e*Sg	Sg	22 04 57.7	-0.9
	SNR=2.2						
MOF	**Molkenrain**	1.52	173	*e*Pg	Pg	22 04 38.4	+0.1
	SNR=3.6						
MOF				*e*Sg	Sg	22 04 58.4	-0.2
	SNR=4.6						
HINF	**Hinteralfeld**	1.55	180	*e*Pg	Pg	22 04 38.9	+0.1
HINF				*e*Sg	Sg	22 04 58.2	-1.3
	12nm,0.3s						
FELD	**Feldberg**	1.67	153	*e*Sg	Sg	22 05 02.0	-1.6
	SNR=2.5						
BAIF	**Baives**	1.86	293	*e*Pn	Pn	22 04 41.5	+0.2
BAIF				*e*Sg	Sg	22 05 09.0	-0.7
	2.5nm,0.3s						
CABF	**La Chapelle**	2.80	191	*e*Pn	Pn	22 04 54.4	-0.4
SSF	**Saint Saulge**	3.22	225	*e*Pn	Pn	22 04 59.6	-1.1
SSF				*e*Sn	Sn	22 05 38.3	-2.0
SSF				*e*Sg	Sg	22 05 53.3	-1.7
	1.9nm,0.4s						
SMF	**Signal de Mont**	3.39	218	*e*Pn	Pn	22 05 02.5	-0.7
BGF	**Bois d’Agland**	3.89	225	*e*Pn	Pn	22 05 09.3	-1.0

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*BJI **21** 22:11:46.6, 3.19S×140.04E, h72^{km}, mB5.5, mb4.5*

*NEIC **21** 22:11:50.0±1.8, 2.86S×139.12E, h44^{km}±17^{km}, mb4.5/13, Error ellipse: s-maj=15.2km s-min=11.2km az=87.0*

*IDC **21** 22:11:51.4±3.8, 2.79S×139.26E, h54^{km}±36^{km}, mb4.1/9, mb1 4.3/12, mb1mx4.2/15, ML4.0/3, MS4.1/10, Ms1 4.1/10, ms1mx3.9/17, Error ellipse: s-maj=31.0km s-min=12.6km az=89.0*

ISC 21 22:11:47.9±2.3**, 2.95S**±0.06×**139.05E**±0.09**, h35**^{km}±21^{km}**, n42, $\sigma 1^{s}.21$**/42**, mb4.5**/24**, MS4.1**/9**, 3C, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	10.30	129	P	P	22 14 16.6	+0.2
	2.5nm,0.3s,baz=310,slow=5.6,SNR=15						
PMG	**Port Moresby**	10.30	129	P	P	22 14 16.6	+0.2
KAKA	**Kakadu**	11.71	214⇑	*i*P	P	22 14 35.5	-0.2
	113nm,0.8s						
KAKA				*e*S	S	22 16 44.9	-1.3
WRAB	**Tennant Creek**	17.49	195	*e*P	P	22 15 50.7	-0.2
	226nm,0.9s						
WRA	**Warramunga Arr**	17.50	195	P	P	22 15 50.6	-0.5
	0.6nm,0.3s,baz=13,slow=13,SNR=21						
WRA				S	S	22 18 59.9	-2.7
	0.4nm,0.3s,baz=12,slow=21,SNR=4.7						
WRA				Lg		22 21 06.4	
	baz=14,slow=26,SNR=3.2						
CTA	**Charters Tower**	18.43	158	*e*P	P	22 16 07.1	+4.5
	6.3nm,0.7s						
CTA	**Charters Tower**	18.43	158	P	P	22 16 04.1	+1.5
	0.5nm,0.3s,baz=332,slow=12,SNR=5.1						
CTA				Lg		22 21 30.8	
	0.2nm,0.3s,baz=248,slow=22,SNR=3.7						
CTA				LR	LR	22 23 41.4	
	comp=Z,931nm,18.8s,baz=351,slow=38						
CTAO	**Charters Tower**	18.43	158	*e*P	P	22 16 03.6	+1.0
	9.3nm,0.7s						
ASAR	**Alice Springs**	21.19	193	P	P	22 16 33.1	+0.4
	10.0nm,0.5s,mb4.4,baz=25,slow=9.8,SNR=92						
ASAR				S	S	22 20 30.2	+8.9
	6.1nm,1.0s,baz=9.8,slow=26,SNR=2.9						
ASAR				LR	LR	22 25 22.2	
	comp=Z,564nm,20.4s,MS3.9,baz=11,slow=38						
ASPA	**Alice Springs**	21.19	193	*e*P	P	22 16 32.8	+0.1
ASPA				*i*		22 16 50.8	
ASPA				*e*S	S	22 20 30.7	+9.3
MBWA	**Marble Bar**	26.10	225	*e*P	P	22 17 21.6	+1.0
	18nm,0.8s,mb4.6						
STKA	**Stephens Creek**	28.87	176	*e*P	P	22 17 45.5	-0.1
	3.7nm,1.1s,mb4.0						
STKA	**Stephens Creek**	28.87	176	P	P	22 17 45.8	+0.2
	2.7nm,0.6s,mb4.2,baz=344,slow=10,SNR=9.4						
STKA				LR	LR	22 30 28.2	
	comp=Z,708nm,20.2s,MS4.3,baz=1.0,slow=38						
STKA	**Stephens Creek**	28.87	176	*e*P	P	22 17 45.0	-0.6
CBIJ	**Chichi jima**	30.02	6	LR	LR	22 27 00.8	
	comp=Z,422nm,20.1s,MS4.1,baz=120,slow=30						
NWAO	**Narrogin (SRO)**	36.16	212	P	P	22 18 50.8	+1.8
	5.6nm,0.7s,mb4.6,baz=22,slow=7.1,SNR=5.4						
ENH	**Enshi**	43.46	322	P	P	22 19 50.0	+0.4
	8.0nm,0.8s,mb4.5						
CMAR	**Chiang Mai Arr**	44.85	300	P	P	22 20 01.3	+0.3
	1.4nm,0.9s,mb3.8,baz=122,slow=5.9,SNR=9.4						
CMAR				LR	LR	22 41 06.9	
	comp=Z,22nm,19.2s,MS3.1,baz=114,slow=39						
XAN	**Xi’an**	46.47	325	P	P	22 20 16.8	+3.2
XAN				AMB	AMB		
	comp=Z,3.0nm,1.3s,mb4.1						
HIA	**Hailar**	54.64	345	*e*P	P	22 21 13.0	-2.5
	comp=Z,2.5nm,0.7s,mb4.3						
GTA	**Gaotai**	55.47	323	*e*P	P	22 21 22.8	+1.2
GTA				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.4						
LSA	**Lhasa**	56.13	309	P	P	22 21 26.8	+0.3
	comp=Z,5.2nm,0.9s,mb4.6						
ULN	**Ulaanbaatar**	57.83	335	*e*P	P	22 21 37.7	-0.7
	comp=Z,2.2nm,0.8s,mb4.2						
GUN	**Gumba**	59.61	305	*e*P	P	22 21 52.0	+1.0
	comp=Z,12nm,1.0s,mb4.9						
KKN	**Kakani**	60.05	304	*e*P	P	22 21 54.6	+0.5
	comp=Z,9.1nm,0.9s,mb4.8						
DMN	**Daman**	60.13	304	*e*P	P	22 21 55.1	+0.5
	comp=Z,15nm,1.1s,mb4.9						
GKN	**Gorkha**	60.66	304	*e*P	P	22 21 55.6	-2.6
	comp=Z,21nm,1.0s,mb5.2						
KOLN	**Koldanda**	61.44	304	*e*P	P	22 22 04.5	+1.0
	comp=Z,27nm,1.4s,mb5.2						
ZAL	**Zalesovo**	72.32	330	P	P	22 23 11.5	-0.3
	comp=Z,0.5nm,0.3s,mb3.9,baz=348,slow=15,SNR=4.1						
ZAL				LR	LR	22 55 21.8	
	comp=Z,81nm,18.2s,MS4.0,baz=358,slow=36						
VNDA	**Vanda**	75.51	175	P	P	22 23 30.9	+1.0
	comp=Z,9.4nm,0.8s,mb4.8,baz=318,slow=6.0,SNR=39						
VNDA				LR	LR	22 55 13.5	
	comp=Z,169nm,18.5s,MS4.4,baz=342,slow=34						
VNDA	**Vanda**	75.51	175⇑	*e*P	P	22 23 30.7	+0.7
	comp=Z,12nm,0.8s,mb4.9						
BVAR	**Borovoye Array**	79.70	325	P	P	22 23 53.8	+0.1
	comp=Z,1.9nm,0.6s,mb4.2,baz=101,slow=7.6,SNR=13						
CHKZ	**Chkalovo**	79.79	326	*e*P	P	22 23 52.1	-2.1
	comp=Z,2.1nm,0.9s,mb4.1						
MAW	**Mawson**	82.03	202	P	P	22 24 07.3	+1.7
	comp=Z,4.9nm,0.9s,mb4.4,baz=35,slow=11,SNR=3.7						
MAW				LR	LR	22 57 56.1	
	comp=Z,144nm,18.1s,MS4.4,baz=72,slow=34						
MAW	**Mawson**	82.03	202	*e*P	P	22 24 06.8	+1.1
	comp=Z,10nm,1.0s,mb4.7						
ILAR	**Eielson Array**	85.91	24	P	P	22 24 23.1	-2.0
	comp=Z,3.5nm,0.8s,mb4.7,baz=260,slow=4.3,SNR=32						
QSPA	**South Pole Qui**	87.00	180⇑	*i*P	P	22 24 31.6	+1.4
	comp=Z,16nm,1.1s,mb5.2						
DAWY	**Dawson**	88.94	26	*e*P	P	22 24 39.5	-0.3
DAWY				*e*	pP	22 24 47.8	-3.2
INK	**Inuvik**	91.76	22	*e*P	P	22 24 50.3	-2.6
	comp=Z,1.8nm,0.9s,mb4.4						
DLBC	**Dease Lake**	92.97	32	LR	LR	23 03 10.9	
	comp=Z,84nm,18.7s,MS4.2,baz=240,slow=33						
YKA	**Yellowknife Ar**	100.12	27	LR	LR	23 07 46.3	
	comp=Z,95nm,20.1s,MS4.3,baz=290,slow=34						
DBIC	**Dimbokro**	143.86	277	PKP	PKPdf	22 31 19.7	-0.9
	comp=Z,4.3nm,0.7s,baz=52,slow=3.4,SNR=7.2						

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*NEIC **21** 22:16:36.5, 38.72N×20.59E, h8^{km}, MD3.5(ATH), After ATH.*

*ATH **21** 22:16:36.6, 38.73N×20.61E, h7^{km}±7^{km}, MD3.5/6*

*CSEM **21** 22:16:36.5±0.1, 38.73N×20.63E, h6^{km}±1^{km}, mb4.2/1, Error ellipse: s-maj=3.2km s-min=2.4km az=73.0*

ISC 21 22:16:36.2±0.7**, 38.70N**±0.04×**20.65E**±0.08**, h7**^{km}**, n18, $\sigma 1^{s}.16$**/22**, 1D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	**Valsamata**	0.53	185⇓	*i*PB	Pb	22 16 46.7	-0.6
VLS				*e*SB	Sb	22 16 55.8	+0.9
RLS	**Riolos of Patr**	0.91	135	*e*PG	Pg	22 16 54.0	-0.4
EVR	**Evrytania**	0.93	76	*e*PG	Pg	22 16 54.4	-0.5
JAN	**Janina**	0.97	9	*e*PN	Pn	22 16 55.0	-1.1
KEK	**Kerkira**	1.21	327	*e*PB	Pb	22 16 58.6	-0.4
AGG	**Agios Georgios**	1.35	76	*e*P	Pb	22 17 02.1	+0.6
LSK	**Leskovik**	1.45	359	*e*Pn	Pn	22 17 04.7	+1.7
LSK				*i* Sn	Sn	22 17 25.9	+3.5
ITM	**Ithomi**	1.82	146	*e*PG	Pg	22 17 12.5	-0.2
KZN	**Kozani**	1.82	28	*e*PG	Pg	22 17 09.6	-3.1
LKR	**Lokris**	1.84	91	*e*PG	Pg	22 17 12.0	-1.0
LIT	**Litokhoron**	2.00	45	*e*P	Pn	22 17 12.4	+1.6
FNA	**Florina**	2.15	15	*e*P	Pn	22 17 13.8	+0.8
GRG	**Griva**	2.63	30	*e*P	Pn	22 17 20.3	+0.5
SOH	**Sokhos**	2.97	44	*e*P	Pn	22 17 26.3	+1.6
KNT	**Kendrikon**	3.00	34	*e*P	Pn	22 17 25.3	0.0
SKO	**Skopje**	3.32	10	*e*Pn	Pn	22 17 28.5	-1.2
STON	**Ston**	4.73	333	*i* Pn	Pn	22 17 46.0	-3.7
STON				*i* Sn	Sn	22 18 37.0	-8.5
STON	**Ston**	4.73	333	*i* Pn	Pn	22 17 45.9	-3.8
STON				*i* Sn	Sn	22 18 37.0	-8.5

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*NEIC **21** 22:20:42.3, 36.58N×9.84W, h25^{km}, MN2.5(MDD), After MDD.*

*INMG **21** 22:20:44.0±0.8, 36.58N×9.82W, h31^{km}, ML1.9, Error ellipse: s-maj=6.8km s-min=4.5km az=71.0*

MDD 21 22:20:42.7±2.2**, 36.66N**×**9.62W, mbLg2.3**/7**, Error ellipse: s-maj=18.8km s-min=14.8km az=85.0, PRXIMO, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTEO	**Sao Teotonio**	1.14	39	*e*P	Pb	22 21 04.4	-0.5
PTEO				*e*S	Sb	22 21 20.0	-0.1
	8.1nm,0.1s						
PTEO	**Sao Teotonio**	1.14	39	P	Pb	22 21 04.4	-0.5
PTEO				S	Sb	22 21 20.0	-0.1
	4.1nm,0.1s						
PALC	**Alcoutim**	1.89	64	*e*Pn	Pn	22 21 15.5	-1.1
PALC				*e*Sn	Sn	22 21 38.5	-3.0
	7.2nm,0.1s						
PALC	**Alcoutim**	1.89	64	P	Pn	22 21 15.5	-1.1
PALC				S	Sn	22 21 38.5	-3.0
	3.6nm,0.1s						
PBEJ	**Beja**	1.95	45	*e*Sn	Sn	22 21 39.6	-3.4
	3.4nm,0.1s						
PBEJ	**Beja**	1.95	45	S	Sn	22 21 39.6	-3.4
	1.7nm,0.1s						
MOE	**Montemor**	2.12	28	*e*Pn	Pn	22 21 17.9	-1.9
MOE				*e*Sn	Sn	22 21 43.5	-3.7
EMIN	**Mina Concepcio**	2.60	64	P	Pn	22 21 25.0	-1.7
	0.0nm,0.1s,SNR=10						
EMIN				S	Sn	22 21 55.3	-4.1
	1.4nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	2.94	44	P	Pn	22 21 28.7	-2.9
	0.9nm,0.1s,SNR=8.9						
EBAD				S	Sn	22 22 03.9	-4.2
	1.5nm,0.1s,SNR=7.9						
ESPR	**Espera**	3.03	85	P	Pn	22 21 30.0	-2.8
	0.4nm,0.1s,SNR=4.0						
ESPR				S	Sn	22 22 05.5	-4.7
	14nm,0.2s,SNR=4.8						
EADA	**Adamuz**	4.28	68	P	Pn	22 21 48.0	-2.7
	0.1nm,0.0s,SNR=4.0						
EADA				S	Sn	22 22 35.2	-7.0
	1.3nm,0.1s,SNR=7.9						
ELOB	**Lobios**	5.34	13	S	Sn	22 22 59.3	-9.4
	0.3nm,0.1s,SNR=4.0						
EQES	**Quesada**	5.34	76	S	Sn	22 23 02.6	-6.3
	0.6nm,0.1s,SNR=7.9						

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*ISK **21** 22:22:39.1, 36.85N×28.22E, h30^{km}, MD3.4*

*CSEM **21** 22:22:39.7±0.1, 37.05N×28.34E, h10^{km}, MD3.4, Error ellipse: s-maj=3.1km s-min=2.3km az=44.0*

*NEIC **21** 22:22:41.4, 36.97N×28.06E, h19^{km}, MD3.2(ATH), After ATH.*

*ATH **21** 22:22:41.3, 36.97N×28.06E, h19^{km}, MD3.2/4*

ISC 21 22:22:40.3±0.7**, 36.99N**±0.04×**28.32E**±0.05**, h12**^{km}±8^{km}**, n18, $\sigma 0^{s}.87$**/24**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	**Dalyan (Mudla)**	0.34	131	*i* PG	Pg	22 22 47.9	+0.5
DALT				*i* SG	Sg	22 22 53.9	+1.7
MLSB	**Milas**	0.53	305	*i* PG	Pg	22 22 50.5	-0.5
BDRM	**Kayabasi**	0.70	276	*i* P	Pb	22 22 53.7	-0.2
BDRM				*i* S	Sb	22 23 05.2	+1.9
FETY	**Fethiye**	0.71	120	PG	Pg	22 22 54.1	-0.6
FETY				SG	Sg	22 23 03.5	-0.8
AYDN	**Tasoluk**	0.75	333	*i* P	Pb	22 22 54.8	0.0
AYDN				*i* S	Sb	22 23 04.5	-0.2
ARG	**Arkhangelos**	0.79	191	*e*PN	Pn	22 22 56.0	-1.0
DNZL	**Cakiroluk**	0.91	40	*i* P	Pb	22 22 57.4	-0.1
DNZL				*i* S	Sb	22 23 28.2	+19
DENT	**Denizli**	0.95	37	PN	Pn	22 22 58.5	-0.8
KSL	**Kastellorizon**	1.32	129	*e*PN	Pn	22 23 09.0	+4.4
SMG	**Samos**	1.38	302	*e*PN	Pn	22 23 04.5	-0.9
MANT	**Manisa**	1.51	7	*i* P	Pn	22 23 08.1	+0.8
MANT				*i* S	Sb	22 23 28.2	+1.5
IZM	**Izmir**	1.63	330	PN	Pn	22 23 08.0	-1.1
KHL	**Karahalli**	1.64	35	*e*PN	Pn	22 23 09.2	0.0
KARP	**Karpathos**	1.72	213	*e*PN	Pn	22 23 10.7	+0.4
BCK	**Bucak**	1.87	75	PN	Pn	22 23 12.4	-0.1
AKS	**Akhisar**	1.93	348	*e*PN	Pn	22 23 12.9	-0.4
ISP	**Isparta**	1.94	63	*e*PN	Pn	22 23 13.0	-0.5
ISP	**Isparta**	1.94	63	*e*Pn	Pn	22 23 14.8	+1.3

WEL 21 22:40:58.6±0.6**, 35.60S**×**179.02E, h241**^{km}±9^{km}**, ML3.8**/2**, Error ellipse: s-maj=23.6km s-min=15.1km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	2.04	196	PN	P	22 41 39.7	-1.3
MXZ				SN	S	22 42 14.1	+0.2
PUZ	**Puketiti**	2.54	194	PN	P	22 41 45.8	-0.3
PUZ				SN	S	22 42 21.7	-1.2
PUZ				SN	S	22 42 21.7	-1.2
MWZ	**Matawai**	2.98	203	*e*PN	P	22 41 51.3	+0.5
MWZ				*e*SN	S	22 42 30.4	-0.8
MRZ	**Mangatainoka R**	5.74	207	*e*PN	P	22 42 23.6	-0.3
THZ	**Tophouse**	7.79	216	*e*PN	P	22 42 49.7	-0.3
THZ				*e*SN	S	22 44 17.5	+0.3

IDC 21 23:27:12.6±4.4**, 0.11S**×**98.62E, mb3.8**/4**, mb1 3.9**/4**, mb1mx3.6**/15**, Error ellipse: s-maj=174.0km s-min=26.7km az=62.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	40.15	122	P	P	23 34 51.5	-0.8
	0.3nm,0.9s,baz=305,slow=9.1,SNR=5.5						
SONM	**Songino Array**	48.23	7	P	P	23 35 55.6	-1.5
	1.2nm,0.5s,baz=207,slow=6.4,SNR=4.2						
STKA	**Stephens Creek**	51.43	132	P	P	23 36 18.5	-3.4
	1.1nm,0.8s,baz=325,slow=12,SNR=2.8						
ZAL	**Zalesovo**	55.06	350	P	P	23 36 45.6	-2.9
	0.9nm,0.3s,baz=304,slow=5.3,SNR=3.5						

*INMG **22** 00:05:08.5±1.2,36.72N×7.87W,h27^{km}±12^{km},ML2.2, Error ellipse: s-maj=7.1km s-min=4.2km az=38.0*

MDD 22 00:05:08.0±1.4**,36.73N×7.86W,h25**^{km}±14^{km}**,** **mbLg2.2**/16**,1C-1D,Error ellipse: s-maj=13.0km s-min=5.3km az=31.0,PRXIMO,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALC	**Alcoutim**	0.80	23	eP	Pb	00 05 22.7	-0.4
PALC				eS	Sb	00 05 33.3	-0.2
	48nm,0.1s						
PALC	**Alcoutim**	0.80	23	P	Pb	00 05 22.7	-0.4
PALC				S	Sb	00 05 33.3	-0.2
	24nm,0.1s						
PTEO	**Sao Teotonio**	1.07	320	i P	Pn	00 05 26.0	-1.5
PTEO				eS	Sb	00 05 39.5	-1.8
PTEO	**Sao Teotonio**	1.07	320	⇓P	Pn	00 05 26.0	-1.5
PTEO				S	Sb	00 05 39.5	-1.8
PBEJ	**Beja**	1.29	360	eP	Pn	00 05 29.3	-1.4
PBEJ				eS	Sn	00 05 44.8	-2.5
	16nm,0.1s						
PBEJ	**Beja**	1.29	360	P	Pn	00 05 29.3	-1.4
PBEJ				S	Sn	00 05 44.8	-2.5
	7.9nm,0.1s						
EMIN	**Mina Concepcio**	1.40	42	P	Pn	00 05 30.6	-1.7
	0.2nm,0.1s,SNR=7.9						
EMIN				S	Sn	00 05 49.0	-1.1
	8.9nm,0.3s,SNR=4.0						
ESPR	**Espera**	1.61	84	⇑P	Pn	00 05 33.8	-1.5
	0.4nm,0.2s,SNR=18						
ESPR				S	Sn	00 05 53.0	-2.5
	5.0nm,0.3s,SNR=7.9						
MOE	**Montemor**	1.83	348	ePn	Pn	00 05 37.2	-1.2
MOE				eSn	Sn	00 05 58.9	-2.1
EBAD	**Badajoz**	2.13	18	P	Pn	00 05 40.6	-2.0
	0.5nm,0.1s,SNR=7.9						
EBAD				S	Sn	00 06 04.9	-3.7
	4.5nm,0.1s,SNR=7.9						
PLOU	**Loures**	2.38	335	ePn	Pn	00 05 44.5	-1.8
PLOU				eSn	Sn	00 06 12.0	-3.0
	16nm,0.2s						
PLOU	**Loures**	2.38	335	P	Pn	00 05 44.5	-1.8
PLOU				S	Sn	00 06 12.0	-3.0
	7.8nm,0.2s						
EMIJ	**Mijas**	2.49	93	P	Pn	00 05 45.5	-2.3
	0.4nm,0.1s,SNR=4.7						
EMIJ				S	Sn	00 06 14.7	-2.9
	1.1nm,0.2s,SNR=4.0						
PTOM	**Tomar**	2.92	352	ePn	Pn	00 05 52.6	-1.3
PTOM				eSn	Sn	00 06 25.2	-3.3
	12nm,0.3s						
PTOM	**Tomar**	2.92	352	P	Pn	00 05 52.6	-1.3
PTOM				S	Sn	00 06 25.2	-3.3
	6.2nm,0.3s						
EADA	**Adamuz**	2.98	60	P	Pn	00 05 52.8	-2.0
	0.6nm,0.1s,SNR=10						
EADA				S	Sn	00 06 24.4	-5.7
	0.2nm,0.2s,SNR=7.9						
ELUQ	**Luque**	2.99	73	S	Sn	00 06 26.1	-4.2
	1.9nm,0.1s,SNR=4.0						
ELOJ	**Sierra Loja**	3.00	81	S	Sn	00 06 26.2	-4.4
	1.3nm,0.2s,SNR=4.0						
PCBR	**Castelo Branco**	3.12	5	ePn	Pn	00 05 54.5	-2.3
PCBR				eSn	Sn	00 06 29.8	-3.9
	3.2nm,0.1s						
PCBR	**Castelo Branco**	3.12	5	P	Pn	00 05 54.5	-2.3
PCBR				S	Sn	00 06 29.8	-3.9
	1.6nm,0.1s						
MTE	**Manteigas**	3.67	4	eSn	Sn	00 06 42.4	-5.3
	4.4nm,0.2s						
MTE	**Manteigas**	3.67	4	S	Sn	00 06 42.4	-5.3
	2.2nm,0.2s						
EQES	**Quesada**	3.97	73	P	Pn	00 06 06.0	-2.8
	0.4nm,0.1s,SNR=6.8						
EQES				S	Sn	00 06 49.8	-5.3
	0.7nm,0.1s,SNR=7.9						
PVIS	**Viseu**	3.98	360	ePn	Pn	00 06 06.3	-2.7
PVIS				eSn	Sn	00 06 50.1	-5.3
	4.2nm,0.1s						
PVIS	**Viseu**	3.98	360	P	Pn	00 06 06.3	-2.7
PVIS				S	Sn	00 06 50.1	-5.3
	2.1nm,0.1s						
EBER	**Berja**	3.99	86	P	Pn	00 06 08.0	-1.1
	0.3nm,0.1s,SNR=4.0						
EBER				S	Sn	00 06 49.5	-6.2
	0.3nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	4.25	45	P	Pn	00 06 10.1	-2.8
	0.5nm,0.1s,baz=229,slow=13,SNR=7.9						
ESDC				S	Sn	00 06 55.3	-7.0
	0.0nm,0.2s,baz=229,slow=22,SNR=7.9						
PVRL	**Vila Real**	4.54	1	ePn	Pn	00 06 13.9	-3.1
PVRL				eSn	Sn	00 07 02.5	-7.1
EVIA	**Vianos**	4.66	64	S	Sn	00 07 05.2	-7.4
	1.8nm,0.2s,SNR=4.0						
ELOB	**Lobios**	5.13	358	P	Pn	00 06 22.0	-3.3
	0.8nm,0.3s,SNR=7.9						
ELOB				S	Sn	00 07 17.3	-7.2
	0.6nm,0.2s,SNR=7.9						
PBRG	**Braganca**	5.14	9	ePn	Pn	00 06 22.1	-3.4
PBRG				eSn	Sn	00 07 17.5	-7.2
	1.4nm,0.2s						
PBRG	**Braganca**	5.14	9	P	Pn	00 06 22.1	-3.4
PBRG				S	Sn	00 07 17.5	-7.2
	0.7nm,0.2s						
ECAL	**Calabor**	5.28	9	P	Pn	00 06 24.1	-3.2
	0.5nm,0.1s,SNR=7.9						
ECAL				S	Sn	00 07 20.7	-7.4
	4.0nm,0.2s,SNR=7.9						

*NEIC **22** 00:10:03.0,15.90N×95.98W,h46^{km},MD3.6(MEX),After MEX.*

MEX 22 00:10:03.0±0.4**,15.90N×95.99W,h46**^{km}±5^{km}**,MD3.6,2D, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HUIG	**Huatulco**	0.17	222	⇓iP	P	00 10 09.3	-1.4
HUIG				i S	S	00 10 14.4	-1.7
HUIG	**Huatulco**	0.17	222	i P	P	00 10 09.4	-1.3
HUIG				i S	S	00 10 14.4	-1.7
VHO	**Vista Hermosa**	1.37	329	⇓iP	P	00 10 24.4	-1.8
VHO				i S	S	00 10 40.7	-2.6
CMIG	**Matias Romero**	1.59	42	eP	P	00 10 27.1	-2.2
CMIG				i S	S	00 10 45.9	-2.8
PNIG	**Pinotepa**	2.12	284	i P	P	00 10 34.5	-2.2
PNIG				i S	S	00 10 58.9	-3.0
PPM	**Popocatepetl**	4.03	322	i S	S	00 11 49.1	-1.3

*NIED **22** 00:18:00,23.30N×121.60E,h23^{km},Mw4.4 Best double couple: $M_0$4.06×10^{15} NP1:ϕ_s289°,δ74°,λ-33°. NP2:ϕ_s30°, δ59°,λ-161°.*

*BJI **22** 00:18:02.5,23.28N×121.60E,h4^{km},mB4.7,mb4.2,ML4.5, Ms4.4,Msz4.2*

*NEIC **22** 00:18:04.5±0.4,23.30N×121.78E,h10^{km},mb4.3/13,Error ellipse: s-maj=10.3km s-min=7.3km az=63.0*

NEIC Recorded [4 TAP] in T'ai-tung, [3 TAP] in Hua-lien and [1 TAP] in Chia-i, Nan-t'ou and Yun-lin Counties.

*TAP **22** 00:18:07.0,23.38N×121.52E,h25^{km},ML4.7*

TAP Felt II J at Yuli, III J at Hungye, IV J at Chenggung, II J at Lidau, I J at Hualien, I J at Alishan, I J at Taitung, I J at Tauyuan, I J at Hehuanshan, I J at Tsauling, I J at Dapu, I J at Tsaushan, I J at Gukeng, I J at Nanau, I J at Lanyu.

*JMA **22** 00:18:07.8±0.2,23.34N×121.59E,h71^{km},M4.2*

*IDC **22** 00:18:08.2±4.8,23.36N×121.75E,h36^{km}±39^{km},mb4.0/17, mb1 4.2/18,mb1mx4.1/24,ML3.9/1,MS4.0/5,Ms1 4.0/5, ms1mx3.6/16,Error ellipse: s-maj=20.1km s-min=13.0km az=69.0*

ISC 22 00:18:06.3±0.3**,23.32N**±0.01×**121.61E**±0.02**,h25**^{km}±2^{km}**, n131,**σ1§**18**/191**,mb4.3**/33**,MS3.9**/7**,22C-6D,Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWF1	**Yuli**	0.29	276	P	Pb	00 18 13.5	+0.4
TWF1				S	Sb	00 18 18.0	+0.1
CHKT	**Chengkung**	0.32	225	i P	Pb	00 18 14.9	+1.4
CHKT				S	Sb	00 18 20.4	+1.9
EHY	**Hungye**	0.32	305	⇓iP	Pb	00 18 13.4	-0.2
ESL	**Shilin**	0.52	342	eP	Pb	00 18 16.4	-0.3
ESL				S	Sb	00 18 23.1	-0.8
ELDTW	**Lidau**	0.56	256	⇑iP	Pb	00 18 17.2	-0.3
ELDTW				S	Sb	00 18 23.3	-1.8
YUS	**Yu-Shan**	0.63	286	⇑iP	Pb	00 18 18.4	-0.2
YUS				S	Sb	00 18 25.7	-1.2
HWA	**Hwalien**	0.65	360	P	Pb	00 18 19.8	+0.8
HWA				S	Sb	00 18 28.9	+1.2
TWG	**Pinlang**	0.70	225	⇑iP	Pb	00 18 19.8	-0.1
TWG				S	Sb	00 18 28.8	-0.3
TTN	**Taitung**	0.71	217	eP	Pb	00 18 21.1	+1.2
TTN				S	Sb	00 18 31.9	+2.6
ALS	**Alishan**	0.76	284	⇑iP	Pb	00 18 20.8	0.0
ALS				S	Sb	00 18 30.0	-0.8
STYT	**Tauyuan**	0.80	259	⇑iP	Pb	00 18 21.4	-0.1
STYT				S	Sb	00 18 30.8	-1.1
SMLT	**Sun Moon Lake**	0.86	311	i P	Pb	00 18 21.8	-0.6
SMLT				S	Sb	00 18 32.3	-1.2
WHF	**Hehuan Shan**	0.88	339	⇑iP	Pb	00 18 22.1	-0.6
WHF				S	Sb	00 18 33.4	-0.7
CHN5	**Tsauling**	0.90	288	⇑iP	Pb	00 18 23.3	+0.1
TYC	**Yuchr**	0.90	310	⇑iP	Pb	00 18 22.6	-0.6
TYC				S	Sb	00 18 33.9	-0.9
WTP	**Ta-pu**	0.92	265	⇑iP	Pb	00 18 23.6	+0.2
CHN4	**Tsaushan**	0.94	272	⇑iP	Pb	00 18 24.1	+0.3
CHN4				S	Sb	00 18 35.9	+0.1
ECL	**Taimali**	0.94	220	eP	Pb	00 18 23.0	-0.9
ECL				S	Sb	00 18 35.0	-1.0
SGST	**Jiashian**	0.97	256	⇑iP	Pb	00 18 24.8	+0.4
SGST				S	Sb	00 18 37.1	+0.2
TWT	**Tachien**	1.01	337	⇑iP	Pn	00 18 24.8	-0.2
TWT				S	Sb	00 18 36.1	-1.8
WNT	**Mingjian**	1.01	303	⇑P	Pn	00 18 25.3	+0.3
WNT				S	Sb	00 18 37.4	-0.6
WGK	**Gukeng**	1.03	291	eP	Pn	00 18 25.5	+0.2
WGK				S	Sb	00 18 38.5	+0.1
TWK	**Hsinying**	1.03	267	⇑iP	Pn	00 18 25.6	+0.3
TWK				S	Sb	00 18 39.0	+0.5
SSD	**Sandimen**	1.07	238	eP	Pn	00 18 25.6	-0.2
SSD				S	Sb	00 18 41.2	+1.7
CHY	**Chiayi**	1.10	279	⇑P	Pn	00 18 26.9	+0.6
CHY				S	Sb	00 18 40.1	-0.4
ENA	**Nanau**	1.11	6	eP	Pn	00 18 26.0	-0.3
NNS	**Nan Shan**	1.13	349	eP	Pn	00 18 26.3	-0.5
TAW	**Tawu**	1.16	215	eP	Pn	00 18 26.6	-0.6
EAST	**Anshuo**	1.17	217	eP	Pn	00 18 26.8	-0.4
CHN3	**Shinhua**	1.17	258	eP	Pn	00 18 29.1	+1.9
CHN3				S	Sn	00 18 45.6	+3.1
TCU	**Taichung**	1.19	314	eP	Pn	00 18 27.8	+0.3
TCU				S	Sn	00 18 42.9	0.0
SGLT	**Jiouru**	1.19	240	eP	Pn	00 18 29.4	+1.9
SGLT				S	Sn	00 18 46.1	+3.1
TWQ1	**Liyutan**	1.28	323	P	Pn	00 18 29.8	+1.0
TWQ1				S	Sn	00 18 45.3	+0.1
LAY	**Lan-yu**	1.28	182	eP	Pn	00 18 28.7	-0.1
LAY				S	Sn	00 18 44.0	-1.2
CHN8	**Yiju**	1.29	271	eP	Pn	00 18 29.5	+0.6
CHN8				S	Sn	00 18 45.8	+0.4
TWC	**Suao**	1.30	10	eP	Pn	00 18 29.9	+0.8
TWC				S	Sn	00 18 46.6	+0.8
WSF	**Szhu**	1.31	284	eP	Pn	00 18 29.4	+0.1
ENTT	**Nioudou**	1.31	358	⇑P	Pn	00 18 29.0	-0.3
ENTT				S	Sn	00 18 46.1	0.0
SCZT	**Fangliau**	1.31	224	eP	Pn	00 18 29.9	+0.6
NSY	**Sanyi**	1.34	325	eP	Pn	00 18 30.9	+1.3
NSY				S	Sn	00 18 47.8	+1.1
NSK	**Sanguang**	1.37	350	⇑P	Pn	00 18 30.3	+0.2
NSK				S	Sn	00 18 46.6	-0.9
TWE	**Neicheng**	1.39	2	eP	Pn	00 18 30.5	0.0
NSTT	**Nanjuang**	1.42	337	eP	Pn	00 18 31.2	+0.4
NSTT				S	Sn	00 18 48.9	+0.1
TWP	**Hsiaoliuchiu**	1.51	230	eP	Pn	00 18 35.3	+3.3
HEN	**Hengchun**	1.54	212	eP	Pn	00 18 34.0	+1.5
HEN				S	Sn	00 18 56.0	+4.2
TWK1	**Hengchun**	1.56	209	eP	Pn	00 18 33.6	+0.7
TWK1				S	Sn	00 18 53.4	+0.9
TATO	**Taipei**	1.65	356	eP	Pn	00 18 34.4	+0.3
TWA	**Mucha**	1.65	359	eP	Pn	00 18 34.8	+0.7
YOJ	**Yonaguni jima**	1.71	48	P	Pn	00 18 36.1	+1.1
YOJ				S	Sn	00 18 57.2	+0.9
TWB1	**Santiao Chiao**	1.71	12	eP	Pn	00 18 36.0	+0.9
TWB1				S	Sn	00 18 57.6	+1.3
NWF	**Wu-fen Shan**	1.75	5	eP	Pn	00 18 36.0	+0.5
NWF				S	Sn	00 18 59.9	+2.7
TWS1	**Kuangyinshan**	1.78	354	eP	Pn	00 18 36.6	+0.7
WDGT	**Dungji**	1.79	268	⇑P	Pn	00 18 35.8	-0.4
WDGT				S	Sn	00 18 56.5	-1.8
PNG	**Penghu**	1.90	278	⇑P	Pn	00 18 37.3	-0.5
PNG				S	Sn	00 18 59.5	-1.6
HATJ	**Hateruma jima**	2.14	70	P	Pn	00 18 42.1	+0.9
HATJ				S	Sn	00 19 07.9	+0.7
IRIF	**Iriomote-Funau**	2.19	62	P	Pn	00 18 42.9	+1.1
IRIF				S	Sn	00 19 09.6	+1.2
PCYT	**Pengchaiyu**	2.34	10	eP	Pn	00 18 45.0	+1.0
JKRS	**Kuro-shima**	2.38	67	P	Pn	00 18 45.8	+1.2
JKRS				eS	Sn	00 19 14.4	+1.2
JIJ	**Ishigaki jima**	2.54	65	P	Pn	00 18 47.2	+0.3
JIJ				S	Sn	00 19 16.9	-0.4
KNM	**Kinmen**	3.10	291	eP	Pn	00 18 54.9	0.0
JTJ	**Tarama**	3.12	64	P	Pn	00 18 55.5	+0.4
JTJ				S	Sn	00 19 31.9	0.0
QZH	**Quanzhou**	3.19	301	⇓iP	Pn	00 18 54.5	-1.7
QZH				S	Sn	00 19 28.9	-5.0
QZH				Smax			
	comp=N,910nm,0.8s						
QZH				Smax			
	comp=E,920nm,0.9s						
QZH				LR	LR		
	comp=N,4μm,6.1s						
QZH				LR	LR		
	comp=E,4μm,8.2s						
QZH				LR	LR		
	comp=Z,7μm,15.1s						
JMJ	**Miyako jima 2**	3.68	65	eS	Sn	00 19 46.1	-0.1
JOGS	**Gusukube**	3.75	67	P	Pn	00 19 04.8	+0.7
JOGS				eS	Sn	00 19 49.0	+1.0
JKE	**Kume jima 2**	5.57	56	P	Pn	00 19 28.4	-1.5
JKE				eS	Sn	00 20 31.2	-2.7
JOW	**Kunigami**	6.98	59	Pn	Pn	00 19 46.1	-3.5
	comp=Z,4.8nm,0.3s,baz=211,slow=8.2,SNR=7.2						
JOW				Sn	Sn	00 21 04.0	-5.1
JOW	**Kunigami**	6.98	59	P	Pn	00 19 47.0	-2.7
JOW				eS	Sn	00 21 04.7	-4.4
GZH	**Guangzhou**	7.61	270	P	Pn	00 19 52.3	-6.2
GZH				Smax			
	comp=N,190nm,1.0s						
GZH				Smax			
	comp=E,150nm,1.0s						
JTK	**Tokunoshima**	7.98	55	P	Pn	00 20 00.6	-3.1
JTK				eS	Sn	00 21 27.0	-7.0
JAM	**Amami Oshima**	8.80	53	P	P	00 20 11.3	-3.8
JAM				S	Sn	00 21 46.1	-8.4
NJ2	**Nanjing**	9.03	345	eP	P	00 20 19.3	+1.1
NJ2				AP		00 20 23.5	
NJ2				XP		00 20 26.6	
NJ2				S	Sn	00 22 00.3	+0.1
NJ2				XS		00 22 08.1	
NJ2				AMB	AMB		
	comp=Z,40nm,0.6s						
NJ2				Smax			
	comp=N,240nm,0.8s						
NJ2				Smax			
	comp=E,190nm,0.9s						
NJ2				LR	LR		
	comp=N,980nm,15.9s						
NJ2				LR	LR		
	comp=E,1μm,14.1s						
NJ2				LR	LR		
	comp=Z,2μm,14.6s						
WHN	**Wuhan**	9.68	320	eP	P	00 20 23.5	-3.7
WHN				LR	LR		
	comp=N,570nm,7.5s						
WHN				LR	LR		
	comp=E,2μm,10.2s						
QIZ	**Qiongzhong**	11.78	251	P	P	00 20 54.4	-1.5
QIZ				S	S	00 23 10.5	+3.0
QIZ				LR	LR		
	comp=N,468nm,16.7s						
QIZ				LR	LR		
	comp=E,558nm,17.3s						
QIZ				LR	LR		
	comp=Z,812nm,16.7s						
ENH	**Enshi**	12.84	305	eP	P	00 21 09.3	-0.8
	comp=Z,7.1nm,1.0s						
GYA	**Guiyang**	13.92	286	⇑iP	P	00 21 22.6	-1.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
GYA				AMB	AMB		
	comp=Z,180nm,3.3s						
GYA				LR	LR		
	comp=N,520nm,12.6s						
GYA				LR	LR		
	comp=E,2μm,12.6s						
GYA				LR	LR		
	comp=Z,2μm,12.0s						
XAN	**Xi'an**	15.41	317	P	P	00 21 41.9	-2.0
XAN				LG2		00 26 28.5	
XAN				AMB	AMB		
	comp=Z,7.0nm,1.4s						
XAN				LR	LR		
	comp=N,587nm,10.9s						
XAN				LR	LR		
	comp=E,802nm,14.8s						
XAN				LR	LR		
	comp=Z,1μm,15.0s						
BJT	**Baijiatuau**	17.27	346	eP	P	00 22 08.7	+1.3
	comp=Z,13nm,1.3s						
BJI	**Beijing**	17.29	346	eP	P	00 22 11.0	+3.3
BJI				AMB	AMB		
	comp=Z,7.0nm,1.3s						
BJI				LR	LR		
	comp=N,507nm,12.5s						
BJI				LR	LR		
	comp=E,498nm,13.7s						
BJI				LR	LR		
	comp=Z,251nm,14.8s						
BJI	**Beijing**	17.29	346	eP	P	00 22 11.0	+3.3
	comp=Z,7.0nm,1.3s						
KMI	**Kunming**	17.31	280	eP	P	00 22 09.8	+1.8
KMI				S	S	00 25 19.9	+1.9
KMI				SS	SS	00 25 42.8	+3.1
KMI				AMB	AMB		
	comp=Z,8.0nm,1.0s						
KMI				LR	LR		
	comp=N,407nm,7.0s						
KMI				LR	LR		
	comp=E,841nm,15.3s						
KMI				LR	LR		
	comp=Z,996nm,14.1s						
KMI	**Kunming**	17.31	280	eP	P	00 22 09.8	+1.8
	comp=Z,8.0nm,1.0s						
KMI				S	S	00 25 19.9	+1.9
KMI				SS	SS	00 25 42.8	+3.1
CD2	**Chengdu**	17.59	299	⇑iP	P	00 22 14.8	+3.4
CD2				S	S	00 25 33.8	+9.5
CD2				AMB	AMB		
	comp=Z,10.0nm,0.9s						
CD2				LR	LR		
	comp=N,1μm,10.2s						
CD2				LR	LR		
	comp=Z,2μm,13.2s						
JHJ	**Hachijo jima 2**	18.73	55	LR	LR	00 28 53.0	
	comp=Z,295nm,19.3s,baz=120,slow=35						
HHC	**Hu-ho-hao-te**	19.41	337	eP	P	00 22 34.5	+1.0
HHC				AP		00 22 38.3	
HHC				XP		00 22 41.3	
HHC				PP	PP	00 22 52.4	+1.4
HHC				S	S	00 26 06.5	+0.9
HHC				XS		00 26 12.6	
HHC				SS	SS	00 26 33.3	+1.2
HHC				PCP	PcP	00 26 55.8	+1.7
HHC				AMB	AMB		
	comp=Z,6.0nm,0.8s						
HHC				AMB	AMB		
	comp=Z,122nm,4.5s						
HHC				LR	LR		
	comp=N,379nm,11.3s						
HHC				LR	LR		
	comp=E,291nm,11.0s						
HHC				LR	LR		
	comp=Z,485nm,16.0s						
BTO	**Baotou**	19.81	333	eP	P	00 22 38.3	+0.4
BTO				AMB	AMB		
	comp=Z,10.0nm,0.8s						
LZH	**Lanzhou**	19.96	314	eP	P	00 22 39.8	+0.2
LZH				eS	S	00 26 19.0	+1.7
LZH				AMB	AMB		
	comp=Z,20nm,1.2s						
LZH				AMB	AMB		
	comp=Z,290nm,4.7s						
LZH				LR	LR		
	comp=E,2μm,10.0s						
LZH				LR	LR		
	comp=Z,3μm,11.5s						
LZH	**Lanzhou**	19.96	314	eP	P	00 22 39.7	+0.1
	comp=Z,20nm,1.2s						
LZH				pP		00 22 52.1	
LZH				sP		00 22 57.0	
LZH				eS	S	00 26 19.0	+1.7
LZH				sS		00 26 40.0	
LZH				SS	SS	00 26 53.0	+7.3
LZH				LR	LR		
	comp=Z,3μm,11.5s						
CN2	**Changchun**	20.67	8	eP	P	00 22 47.3	+0.4
CN2				eXP		00 22 53.0	
CN2				eS	S	00 26 34.1	+2.5
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CN2				AMB	AMB		
	comp=Z,220nm,5.0s						
CN2				LR	LR		
	comp=N,630nm,14.0s,MS4.2						
CN2				LR	LR		
	comp=E,370nm,14.0s,MS4.2						
CN2				LR	LR		
	comp=Z,600nm,15.0s,MS4.1						
CMAR	**Chiang Mai Arr**	21.71	261	P	P	00 22 58.0	+0.4
	comp=Z,3.2nm,0.8s,mb3.8,baz=64,slow=8.4,SNR=12						
CMAR				LR	LR	00 32 05.7	
	comp=Z,243nm,19.9s,MS3.6,baz=75,slow=38						
MDJ	**Mudanjiang**	22.23	15	P	P	00 23 00.1	-2.5
MDJ				PCP	PcP	00 26 57.4	-2.0
MDJ				S	S	00 27 04.3	+3.5
MDJ				XS		00 27 09.8	
MDJ				SCP		00 30 33.9	
MDJ				PCS		00 30 35.0	
MDJ				SCS	ScS	00 34 18.9	+1.5
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.9s,mb3.7						
MDJ				AMB	AMB		
	comp=Z,167nm,5.4s						
MDJ				LR	LR		
	comp=N,81nm,21.6s,MS3.4						
MDJ				LR	LR		
	comp=E,104nm,18.4s,MS3.4						
MDJ				LR	LR		
	comp=Z,127nm,17.5s,MS3.4						
HIA	**Hailar**	25.94	357	eP	P	00 23 35.3	-3.0
	comp=Z,6.3nm,1.0s,mb4.1						
ULN	**Ulaanbaatar**	27.11	338	eP	P	00 23 47.5	-1.6
	comp=Z,5.2nm,1.3s,mb3.9						
SHL	**Shillong**	27.13	281	eP	P	00 23 51.5	+2.0
SONM	**Songino Array**	27.31	337	P	P	00 23 50.3	-0.6
	comp=Z,1.0nm,0.6s,mb3.5,baz=152,slow=10,SNR=5.8						
LSA	**Lhasa**	27.93	290	P	P	00 23 56.4	-0.3
	comp=Z,3.9nm,0.8s,mb4.1						
GUN	**Gumba**	32.47	286	eP	P	00 24 40.3	+3.3
	comp=Z,36nm,1.3s,mb5.0						
PKI	**Pulchoki**	32.89	285	eP	P	00 24 41.6	+0.9
	comp=Z,15nm,1.1s,mb4.8						
KKN	**Kakani**	33.00	285	eP	P	00 24 43.1	+1.5
	comp=Z,29nm,1.3s,mb5.1						
DMN	**Daman**	33.16	285	eP	P	00 24 43.6	+0.6
	comp=Z,24nm,1.3s,mb5.0						
GKN	**Gorkha**	33.57	286	eP	P	00 24 46.1	-0.5
	comp=Z,6.6nm,0.6s,mb4.7						
KOLN	**Koldanda**	34.49	285	eP	P	00 24 50.4	-4.1
	comp=Z,12nm,1.0s,mb4.8						
WMQ	**Urumqi**	34.53	315	P	P	00 24 55.0	+0.3

WMQ				AP	pP	00 24 59.5	-2.7
WMQ				XP	sP	00 25 02.0	-3.5
WMQ				PP	PP	00 26 11.5	+0.3
WMQ				PCP	PcP	00 27 29.3	-0.2
WMQ				S	**S**	**00 30 23.3**	**+2.3**
WMQ				AMB	AMB		
	comp=Z,2.0nm,0.4s,mb4.4						
WMQ				LR	LR		
	comp=N,123nm,15.2s,MS4.1						
WMQ				LR	LR		
	comp=E,212nm,14.3s,MS4.1						
WMQ				LR	LR		
	comp=Z,244nm,15.0s,MS4.1						
KAKA	**Kakadu**	**37.33**	**162**	*e*P	**P**	**00 25 15.0**	**-3.6**
	comp=Z,2.8nm,0.6s,mb4.3						
ZAL	**Zalesovo**	**41.18**	**327**	P	**P**	**00 25 49.1**	**-1.1**
	comp=Z,1.5nm,0.5s,mb3.9,baz=356,slow=10,SNR=11						
ZAL				LR	LR	00 44 50.6	
	comp=Z,205nm,19.2s,MS4.0,baz=345,slow=39						
WRA	**Warramunga Arr**	**44.76**	**163**	P	**P**	**00 26 17.4**	**-2.4**
	comp=Z,7.5nm,0.7s,mb4.6,baz=344,slow=8.7,SNR=69						
WRA				PcP	PcP	00 27 59.4	-2.8
	comp=Z,1.3nm,0.7s,baz=348,slow=3.8,SNR=6.3						
WB2	**Warramunga Arr**	**44.76**	**163**	⇑*i*P	**P**	**00 26 17.5**	**-2.4**
ASPA	**Alice Springs**	**48.21**	**165**	*e*P	**P**	**00 26 45.1**	**-1.9**
ASAR	**Alice Springs**	**48.21**	**165**	P	**P**	**00 26 45.4**	**-1.6**
	comp=Z,2.8nm,0.6s,mb4.5,baz=356,slow=14,SNR=41						
ASAR				PcP	PcP	00 28 11.8	-2.5
	comp=Z,2.2nm,0.9s,baz=349,slow=3.4,SNR=6.8						
BVAR	**Borovoye Array**	**48.59**	**321**	P	**P**	**00 26 48.0**	**-1.5**
	comp=Z,1.7nm,0.8s,mb4.1,baz=112,slow=8.0,SNR=7.0						
CHKZ	**Chkalovo**	**48.65**	**322**	*e*P	**P**	**00 26 47.8**	**-2.2**
	comp=Z,3.0nm,0.8s,mb4.4						
BRVK	**Borovoye**	**48.66**	**321**	*e*P	**P**	**00 26 48.4**	**-1.7**
	comp=Z,2.5nm,0.9s,mb4.2						
STKA	**Stephens Creek**	**58.12**	**160**	⇓*i*P	**P**	**00 27 58.7**	**-1.6**
	comp=Z,10nm,0.6s,mb5.0						
STKA	**Stephens Creek**	**58.12**	**160**	P	**P**	**00 27 58.4**	**-1.9**
	comp=Z,15nm,0.8s,mb5.1,baz=341,slow=7.6,SNR=32						
TOO	**Toolangi**	**64.60**	**159**	⇓*i*P	**P**	**00 28 43.2**	**-0.8**
	comp=Z,6.6nm,1.0s,mb4.6						
ILAR	**Eielson Array**	**69.80**	**27**	P	**P**	**00 29 13.2**	**-3.1**
	comp=Z,0.5nm,0.7s,mb3.6,baz=311,slow=4.1,SNR=6.3						
MALT	**Malatya**	**70.80**	**304**	*e*P	**P**	**00 29 22.9**	**+0.1**
	comp=Z,5.5nm,1.2s,mb4.4						
FINES	**FINESS Array B**	**72.38**	**330**	P	**P**	**00 29 30.6**	**-1.2**
	comp=Z,3.4nm,0.7s,mb4.4,baz=59,slow=6.7,SNR=16						
FINES				LR	LR	01 03 52.2	
	comp=Z,126nm,21.2s,MS4.2,baz=53,slow=38						
DAWY	**Dawson**	**73.12**	**27**	P	**P**	**00 29 36.5**	**+0.4**
AKASG	**Malin Array Be**	**73.77**	**319**	P	**P**	**00 29 38.2**	**-1.9**
	comp=Z,2.3nm,0.9s,mb4.1,baz=60,slow=5.9,SNR=4.7						
INK	**Inuvik**	**73.88**	**22**	P	**P**	**00 29 39.4**	**-1.0**
	comp=Z,3.4nm,0.9s,mb4.2,baz=285,slow=6.7,SNR=8.7						
INK	**Inuvik**	**73.88**	**22**	*e*P	**P**	**00 29 39.1**	**-1.3**
	comp=Z,6.4nm,1.0s,mb4.5						
INK				*e*		00 29 51.5	
BRTR	**Keskin Array B**	**74.00**	**307**	P	**P**	**00 29 40.8**	**-0.9**
	comp=Z,1.1nm,0.7s,mb3.9,baz=101,slow=7.3,SNR=4.5						
HFS	**Hagfors**	**78.51**	**331**	P	**P**	**00 30 05.3**	**-1.3**
	comp=Z,2.3nm,0.7s,mb4.2,baz=69,slow=6.7,SNR=4.2						
NB2	**NORSAR Subarra**	**79.17**	**332**	P	**P**	**00 30 08.6**	**-1.6**
	comp=Z,1.6nm,0.8s,mb4.0,baz=56,slow=5.6						
NOA	**NORSAR Array B**	**79.17**	**332**	P	**P**	**00 30 08.6**	**-1.6**
	comp=Z,2.2nm,0.8s,mb4.1,baz=58,slow=5.7,SNR=6.1						
NOA				LR	LR	01 08 17.3	
	comp=Z,106nm,18.2s,MS4.2,baz=5.0,slow=38						
YKA	**Yellowknife Ar**	**83.61**	**23**	P	**P**	**00 30 32.8**	**-0.6**
	comp=Z,0.8nm,0.8s,mb3.9,baz=315,slow=4.8,SNR=14						
YKA	**Yellowknife Ar**	**83.61**	**23**	P	**P**	**00 30 32.8**	**-0.6**
GERES	**GERESS Array B**	**83.75**	**321**	P	**P**	**00 30 33.9**	**-0.6**
	comp=Z,1.7nm,0.7s,mb4.3,baz=56,slow=4.8,SNR=14						
KMBO	**Kilima Mbogo**	**85.26**	**267**	P	**P**	**00 30 44.1**	**+1.3**
	comp=Z,1.8nm,1.0s,mb4.2,baz=39,slow=12,SNR=5.0						
VNA2	**Neumayer--Watz**	**124.19**	**198**	⇓*i*	PKPdf	00 37 04.1	-3.0
VNA3	**Neumayer Olymp**	**124.66**	**197**	⇓*i*	PKPdf	00 37 04.6	-3.3

NIED ***22*** *00:28:00, 23.40N×121.80E, h32^{km}, Mw4.0 Best double couple: M$_0$1.02×10^{15} NP1:φ$_s$35°, δ74°, λ-142°. NP2: φ$_s$293°, δ54°, λ-20°.*

IDC ***22*** *00:28:43.2±0.7, 23.30N×121.48E, mb3.8/10, mb1 4.0/11, mb1mx3.8/22, ML3.7/1, MS3.2/1, Ms1 3.4/1, ms1mx2.6/16, Error ellipse: s-maj=34.9km s-min=15.3km az=70.0*

NEIC ***22*** *00:28:44.7±0.4, 23.27N×121.50E, h10^{km}, mb4.5/1, ML4.7(TAP), Error ellipse: s-maj=11.8km s-min=7.1km az=75.0*

NEIC Recorded [2 TAP] in Hua-lien and T'ai-tung; [1 TAP] in I-lan, Nan-t'ou and Yun-lin Counties.

JMA ***22*** *00:28:46.6±0.3, 23.36N×121.75E, M3.9*

TAP ***22*** *00:28:47.1, 23.37N×121.54E, h25^{km}, ML4.4*

TAP Felt II J at Yuli, II J at Chenggung, I J at Hualien, I J at Hehuanshan.

BJI ***22*** *00:28:52.1, 23.75N×120.93E, h5^{km}, mB4.7, mb4.5, ML4.1, Ms4.1, Msz4.0*

ISC 22 00:28:47.0±0.3**, 23.35N**±0.02×**121.58E**±0.02**, h29**^{km}±2^{km}**, n82, σ1^{s}00**/119**, mb3.7**/11**, MS3.5**/2**, 16C-2D, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TWF1	**Yuli**	**0.26**	**271**	*e*P	**Pb**	**00 28 53.6**	**-0.1**
TWF1				S	**Sb**	**00 28 58.1**	**-0.2**
EHY	**Hungye**	**0.28**	**304**	⇓*i*P	**Pb**	**00 28 53.7**	**-0.4**
EHY				S	**Sb**	**00 28 57.9**	**-1.0**
CHKT	**Chengkung**	**0.31**	**218**	*e*P	**Pb**	**00 28 55.0**	**+0.5**
CHKT				S	**Sb**	**00 29 00.6**	**+0.9**
ESL	**Shilin**	**0.48**	**344**	*e*P	**Pb**	**00 28 56.8**	**-0.3**
ESL				S	**Sb**	**00 29 03.0**	**-0.9**
ELDTW	**Lidau**	**0.54**	**253**	⇑P	**Pb**	**00 28 57.3**	**-0.7**
ELDTW				S	**Sb**	**00 29 04.1**	**-1.4**
YUS	**Yu-Shan**	**0.59**	**284**	⇑*i*P	**Pb**	**00 28 58.6**	**-0.2**
YUS				S	**Sb**	**00 29 06.1**	**-0.8**
HWA	**Hwalien**	**0.63**	**2**	*e*P	**Pb**	**00 29 00.1**	**+0.6**
TWG	**Pinlang**	**0.70**	**222**	⇑*i*P	**Pb**	**00 28 59.9**	**-0.8**
TWG				S	**Sb**	**00 29 09.5**	**-0.4**
TTN	**Taitung**	**0.71**	**214**	*e*P	**Pb**	**00 29 01.3**	**+0.5**
TTN				S	**Sb**	**00 29 13.0**	**+2.8**
ALS	**Alishan**	**0.73**	**283**	⇑P	**Pb**	**00 29 01.0**	**0.0**
ALS				S	**Sb**	**00 29 10.6**	**-0.1**
STYT	**Tauyuan**	**0.78**	**256**	⇑P	**Pb**	**00 29 01.5**	**-0.3**
STYT				S	**Sb**	**00 29 12.0**	**-0.1**
SMLT	**Sun Moon Lake**	**0.82**	**311**	⇑P	**Pb**	**00 29 02.1**	**-0.5**
SMLT				S	**Sb**	**00 29 12.6**	**-0.7**
WHF	**Hehuan Shan**	**0.84**	**340**	⇑P	**Pb**	**00 29 02.5**	**-0.6**
WHF				S	**Sb**	**00 29 13.1**	**-0.9**
CHN5	**Tsauling**	**0.86**	**287**	⇑P	**Pn**	**00 29 03.5**	**+0.1**
TYC	**Yuchr**	**0.86**	**310**	⇑*i*P	**Pn**	**00 29 02.9**	**-0.4**
TYC				S	**Sb**	**00 29 14.4**	**-0.1**
WTP	**Ta-pu**	**0.89**	**264**	⇑P	**Pn**	**00 29 03.9**	**+0.2**
WTP				S	**Sb**	**00 29 15.3**	**0.0**
CHN4	**Tsaushan**	**0.90**	**270**	⇑*i*P	**Pn**	**00 29 04.3**	**+0.4**
CHN4				S	**Sb**	**00 29 16.4**	**+0.7**
ECL	**Taimali**	**0.94**	**218**	*e*P	**Pn**	**00 29 03.2**	**-1.2**
SGST	**Jiashian**	**0.95**	**254**	⇑P	**Pn**	**00 29 05.0**	**+0.4**
SGST				S	**Sb**	**00 29 18.0**	**+0.9**
TWT	**Tachien**	**0.97**	**338**	*e*P	**Pn**	**00 29 05.1**	**+0.2**
TWT				S	**Sb**	**00 29 16.3**	**-1.4**
WNT	**Mingjian**	**0.97**	**303**	⇑P	**Pn**	**00 29 05.5**	**+0.6**
WNT				S	**Sb**	**00 29 18.2**	**+0.4**
WGK	**Gukeng**	**0.99**	**290**	*e*P	**Pn**	**00 29 05.6**	**+0.5**
WGK				S	**Sb**	**00 29 18.6**	**+0.5**
TWK	**Hsinying**	**1.00**	**266**	⇑P	**Pn**	**00 29 05.8**	**+0.4**
TWK				S	**Sb**	**00 29 19.4**	**+0.8**
SSD	**Sandimen**	**1.06**	**236**	*e*P	**Pn**	**00 29 05.9**	**-0.2**
CHY	**Chiayi**	**1.07**	**278**	*e*P	**Pn**	**00 29 07.0**	**+0.7**
CHY				S	**Sn**	**00 29 20.6**	**+0.4**
ENA	**Nanau**	**1.09**	**8**	*e*P	**Pn**	**00 29 06.0**	**-0.5**
NNS	**Nan Shan**	**1.10**	**350**	*e*P	**Pn**	**00 29 06.7**	**-0.1**
NNS				S	**Sn**	**00 29 19.6**	**-1.5**
CHN3	**Shinhua**	**1.15**	**257**	*e*P	**Pn**	**00 29 08.0**	**+0.6**
TCU	**Taichung**	**1.15**	**314**	*e*P	**Pn**	**00 29 08.4**	**+1.0**
TCU				S	**Sn**	**00 29 23.1**	**+0.9**
EAST	**Anshuo**	**1.17**	**215**	*e*P	**Pn**	**00 29 06.8**	**-0.9**
SGLT	**Jiouru**	**1.18**	**238**	*e*P	**Pn**	**00 29 09.6**	**+1.8**
TWQ1	**Liyutan**	**1.24**	**324**	*e*P	**Pn**	**00 29 10.1**	**+1.4**
TWQ1				S	**Sn**	**00 29 26.2**	**+1.7**
CHN8	**Yiju**	**1.25**	**270**	*e*P	**Pn**	**00 29 09.8**	**+0.9**
CHN8				S	**Sn**	**00 29 26.2**	**+1.3**
WSF	**Szhu**	**1.28**	**283**	*e*P	**Pn**	**00 29 09.7**	**+0.5**
WSF				S	**Sn**	**00 29 26.3**	**+0.8**
TWC	**Suao**	**1.28**	**11**	*e*P	**Pn**	**00 29 09.8**	**+0.5**
ENTT	**Nioudou**	**1.29**	**360**	*e*P	**Pn**	**00 29 09.3**	**-0.1**
NSY	**Sanyi**	**1.30**	**325**	*e*P	**Pn**	**00 29 11.4**	**+1.8**
LAY	**Lan-yu**	**1.30**	**181**	*e*P	**Pn**	**00 29 09.1**	**-0.6**
SCZT	**Fangliau**	**1.31**	**222**	*e*P	**Pn**	**00 29 10.2**	**+0.5**
NSK	**Sanguang**	**1.34**	**351**	⇑P	**Pn**	**00 29 10.5**	**+0.3**
NSK				S	**Sn**	**00 29 27.0**	**-0.1**
TWE	**Neicheng**	**1.37**	**3**	*e*P	**Pn**	**00 29 10.7**	**+0.1**
NSTT	**Nanjuang**	**1.38**	**338**	*e*P	**Pn**	**00 29 11.2**	**+0.5**
TWP	**Hsiaoliuchiu**	**1.50**	**229**	*e*P	**Pn**	**00 29 15.3**	**+2.9**
HEN	**Hengchun**	**1.54**	**210**	*e*P	**Pn**	**00 29 14.5**	**+1.5**
TWK1	**Hengchun**	**1.57**	**207**	*e*P	**Pn**	**00 29 14.0**	**+0.6**
TWK1				S	**Sn**	**00 29 32.0**	**-1.0**
TATO	**Taipei**	**1.62**	**357**	*e*P	**Pn**	**00 29 14.8**	**+0.6**
TWA	**Mucha**	**1.62**	**0**	*e*P	**Pn**	**00 29 15.2**	**+1.0**
TWB1	**Santiao Chiao**	**1.70**	**13**	*e*P	**Pn**	**00 29 16.5**	**+1.3**
YOJ	**Yonaguni jima**	**1.72**	**50**	P	**Pn**	**00 29 16.1**	**+0.5**
YOJ				S	**Sn**	**00 29 37.6**	**+0.8**
NWF	**Wu-fen Shan**	**1.73**	**6**	*e*P	**Pn**	**00 29 16.4**	**+0.8**
TWS1	**Kuangyinshan**	**1.75**	**355**	*e*P	**Pn**	**00 29 16.9**	**+0.8**
WDGT	**Dungji**	**1.76**	**268**	*e*P	**Pn**	**00 29 16.2**	**0.0**
PNG	**Penghu**	**1.87**	**277**	⇑P	**Pn**	**00 29 17.7**	**0.0**
PNG				S	**Sn**	**00 29 39.5**	**-1.1**
HATJ	**Hateruma jima**	**2.16**	**71**	P	**Pn**	**00 29 22.4**	**+0.5**
HATJ				S	**Sn**	**00 29 48.4**	**+0.4**
IRIF	**Iriomote-Funau**	**2.20**	**63**	P	**Pn**	**00 29 23.0**	**+0.5**
IRIF				S	**Sn**	**00 29 50.4**	**+1.3**
PCYT	**Pengchaiyu**	**2.32**	**11**	*e*P	**Pn**	**00 29 26.0**	**+1.9**
JKRS	**Kuro-shima**	**2.40**	**68**	S	**Sn**	**00 29 54.5**	**+0.5**
JIJ	**Ishigaki jima**	**2.56**	**66**	P	**Pn**	**00 29 28.1**	**+0.5**
JIJ				S	**Sn**	**00 29 56.8**	**-1.3**
KNM	**Kinmen**	**3.07**	**291**	*e*P	**Pn**	**00 29 34.8**	**0.0**
JTJ	**Tarama**	**3.13**	**65**	P	**Pn**	**00 29 36.0**	**+0.2**
JTJ				*e*S	**Sn**	**00 30 12.3**	**-0.4**
QZH	**Quanzhou**	**3.15**	**301**	⇓*i*P	**Pn**	**00 29 34.9**	**-1.1**
QZH				S	**Sn**	**00 30 09.9**	**-3.3**
QZH				Smax			
	comp=N,460nm,1.0s						
QZH				Smax			
	comp=E,300nm,0.6s						
QZH				LR	LR		
	comp=N,1µm,13.9s						
QZH				LR	LR		
	comp=E,2µm,13.9s						
QZH				LR	LR		
	comp=Z,2µm,16.6s						
JOGS	**Gusukube**	**3.77**	**67**	P	**Pn**	**00 29 45.9**	**+1.1**
JOGS				*e*S	**Sn**	**00 30 29.3**	**+0.5**
JOW	**Kunigami**	**6.99**	**59**	Pn	**Pn**	**00 30 28.1**	**-2.2**
	comp=Z,2.9nm,0.3s,baz=222,slow=18,SNR=3.4						
NJ2	**Nanjing**	**9.00**	**345**	*e*P	**P**	**00 30 59.5**	**+1.3**
NJ2				AP		00 31 03.6	
NJ2				XP		00 31 07.1	
NJ2				S	**Sn**	**00 32 41.5**	**+1.8**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s						
NJ2				Smax			
	comp=N,130nm,0.8s						
NJ2				Smax			
	comp=E,100nm,0.8s						
NJ2				LR	LR		
	comp=N,560nm,11.8s						
NJ2				LR	LR		
	comp=E,910nm,12.0s						
NJ2				LR	LR		
	comp=Z,810nm,10.2s						
WHN	**Wuhan**	**9.64**	**320**	*e*P	**P**	**00 31 04.5**	**-2.6**
WHN				*e*S	**Sn**	**00 32 53.8**	**-1.6**
HHC	**Hu-ho-hao-te**	**19.38**	**337**	*e*P	**P**	**00 33 11.3**	**-2.2**
HHC				AP		00 33 17.8	
HHC				XP		00 33 23.8	
HHC				PP	PP	00 33 28.0	-2.9
HHC				AMB	AMB		
	comp=Z,8.0nm,0.4s						
HHC				AMB	AMB		
	comp=Z,156nm,4.5s						
CMAR	**Chiang Mai Arr**	**21.69**	**261**	LR	LR	00 43 03.6	
	comp=Z,59nm,20.6s,MS3.0,baz=75,slow=40						
GTA	**Gaotai**	**24.43**	**316**	*e*P	**P**	**00 34 08.8**	**+4.3**
GTA				AP		00 34 13.6	
GTA				XP		00 34 16.5	
GTA				AMB	AMB		
	comp=Z,2.0nm,0.8s,mb3.6						
GTA				LR	LR		
	comp=N,160nm,12.9s,MS4.0						
GTA				LR	LR		
	comp=E,257nm,14.1s,MS4.0						
GTA				LR	LR		
	comp=Z,309nm,12.9s,MS4.0						
SONM	**Songino Array**	**27.27**	**337**	P	**P**	**00 34 29.0**	**-1.9**
	comp=Z,0.3nm,0.3s,mb3.3,baz=153,slow=9.7,SNR=2.7						
ZAL	**Zalesovo**	**41.14**	**327**	P	**P**	**00 36 28.9**	**-1.4**
	comp=Z,0.7nm,0.3s,mb3.8,baz=164,slow=9.2,SNR=3.4						
WRA	**Warramunga Arr**	**44.79**	**163**	P	**P**	**00 36 58.1**	**-2.3**
	comp=Z,2.1nm,0.8s,mb4.0,baz=344,slow=8.7,SNR=15						
WRA				PcP	PcP	00 38 40.1	-2.5
	comp=Z,0.4nm,0.8s,baz=348,slow=3.9,SNR=4.6						
WB2	**Warramunga Arr**	**44.80**	**163**	*e*P	**P**	**00 36 58.0**	**-2.4**
ASAR	**Alice Springs**	**48.24**	**165**	P	**P**	**00 37 26.1**	**-1.4**
	comp=Z,0.7nm,0.6s,mb3.8,baz=357,slow=14,SNR=9.5						
ASAR				PcP	PcP	00 38 52.5	-2.3
	comp=Z,1.1nm,1.0s,baz=306,slow=1.6,SNR=5.5						
BVAR	**Borovoye Array**	**48.55**	**321**	P	**P**	**00 37 28.1**	**-1.4**
	comp=Z,0.2nm,0.3s,mb3.6,baz=126,slow=12,SNR=2.5						
CHKZ	**Chkalovo**	**48.61**	**322**	*e*P	**P**	**00 37 28.2**	**-1.8**
STKA	**Stephens Creek**	**58.16**	**160**	*e*P	**P**	**00 38 38.8**	**-2.0**
	comp=Z,2.8nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**58.16**	**160**	P	**P**	**00 38 39.2**	**-1.6**
	comp=Z,3.2nm,0.6s,mb4.5,baz=334,slow=7.1,SNR=10						
ILAR	**Eielson Array**	**69.79**	**27**	P	**P**	**00 39 56.0**	**-0.4**
	comp=Z,0.3nm,0.6s,mb3.4,baz=273,slow=5.4,SNR=4.5						
FINES	**FINESS Array B**	**72.35**	**330**	P	**P**	**00 40 10.7**	**-1.2**
	comp=Z,0.7nm,0.6s,mb3.7,baz=90,slow=4.2,SNR=5.0						
YKA	**Yellowknife Ar**	**83.60**	**23**	P	**P**	**00 41 13.4**	**-0.2**
	comp=Z,0.1nm,0.4s,mb3.3,baz=312,slow=4.6,SNR=3.8						
YKA	**Yellowknife Ar**	**83.60**	**23**	P	**P**	**00 41 13.4**	**-0.2**
GERES	**GERESS Array B**	**83.72**	**321**	P	**P**	**00 41 13.9**	**-0.7**
	comp=Z,0.4nm,0.8s,mb3.6,baz=53,slow=6.7,SNR=4.8						

CSEM ***22*** *00:28:47.8±0.1, 67.77N×19.99E, h2^{km}, ML2.9/3, Error ellipse: s-maj=3.5km s-min=2.6km az=87.0, Mining explosion.*

HEL ***22*** *00:28:49.5±0.1, 67.83N×20.18E, ML1.8, ML2.5(UPP), ML1.8(BER), Explosion*

UPP ***22*** *00:28:49.3, 67.83N×20.19E, h0^{km}, ML2.5, Mining explosion.*

NAO ***22*** *00:28:50.9±1.9, 67.83N×20.33E, ML2.0*

BER ***22*** *00:28:51.2±3.2, 67.85N×20.11E, ML1.8, ML2.0(NAO), Suspected explosion*

ISC 22 00:28:47.8±0.5**, 67.83N**±0.03×**20.09E**±0.08**, n30, σ0^{s}90**/41**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KUA	**Kurravaara**	**0.16**	**36**	*i* P	**Pg**	**00 28 51.9**	**+0.9**
KUA				*i* S	**Sg**	**00 28 53.9**	**+0.8**
NIKU	**Nikkaluokta**	**0.40**	**276**	*i* P	**Pg**	**00 28 57.4**	**+1.5**
DUNU	**Dundret**	**0.73**	**165**	*i* P	**Pg**	**00 29 02.5**	**0.0**
DUNU	**Dundret**	**0.73**	**165**	P	**Pg**	**00 29 02.4**	**-0.1**
MASU	**Masugnsbyn**	**0.82**	**116**	*i* P	**Pg**	**00 29 03.8**	**-0.4**
PAJU	**Pajala**	**1.42**	**123**	*e*P	**Pb**	**00 29 14.3**	**-0.6**
ERTU	**Ertsjaerv**	**1.52**	**146**	*e*P	**Pn**	**00 29 16.2**	**-0.1**
KTK1	**Kautokeino**	**1.66**	**43**	*e*P	**Pn**	**00 29 19.4**	**+1.0**
KTK1				*e*Sg	**Sg**	**00 29 41.8**	**-1.4**
KTK1				AML	AML	00 29 54.6	
	comp=Z,11nm,0.4s						
KTK1	**Kautokeino**	**1.66**	**43**	P	**Pn**	**00 29 19.4**	**+1.0**
KTK1				*e*Sg	**Sg**	**00 29 41.8**	**-1.4**
	comp=Z,11nm,0.4s,SNR=90						
TRO	**Tromso**	**1.86**	**347**	*e*P	**Pn**	**00 29 21.9**	**+0.6**
TRO				*e*Sg	**Sg**	**00 29 47.0**	**-2.8**
TRO				AML	AML	00 29 50.2	
	comp=Z,10.0nm,0.4s						
TRO	**Tromso**	**1.86**	**347**	P	**Pn**	**00 29 21.9**	**+0.6**
TRO				*e*Sg	**Sg**	**00 29 47.0**	**-2.8**
	comp=Z,10.0nm,0.4s,SNR=90						
SJUU	**Sjulsmark**	**2.41**	**165**	*e*P	**Pn**	**00 29 30.4**	**+1.4**
LOF	**Lofoten**	**2.49**	**280**	*e*Sg	**Sg**	**00 30 10.1**	**-0.5**
LOF				AML	AML	00 30 13.4	
	comp=Z,9.9nm,0.6s						
LOF	**Lofoten**	**2.49**	**280**	Sg	**Sg**	**00 30 10.1**	**-0.5**
	comp=Z,9.9nm,0.6s						
SGF	**Sodankyl**	**2.49**	**96**	*e*P	**Pn**	**00 29 30.6**	**+0.3**
SGF				*e*SG	**Sg**	**00 30 04.3**	**-6.5**
SGF				MSG		00 30 05.6	
	comp=Z,3.5nm,0.2s						
SGF	**Sodankyl**	**2.49**	**96**	P	**Pn**	**00 29 30.5**	**+0.2**
SGF				Sg	**Sg**	**00 30 04.2**	**-6.6**
	comp=Z,3.5nm,0.2s						
ARA0	**ARCESS Array S**	**2.62**	**47**	Pn	**Pn**	**00 29 32.5**	**+0.4**
	baz=231,slow=14						
ARA0				Sn	**Sn**	**00 30 05.3**	**+0.2**
	baz=230,slow=28						
ARA0	**ARCESS Array S**	**2.62**	**47**	*e*P	**Pn**	**00 29 32.5**	**+0.4**
ARA0				*e*S	**Sn**	**00 30 05.3**	**+0.2**
ARA0	**ARCESS Array S**	**2.62**	**47**	P	**Pn**	**00 29 32.4**	**+0.3**
ARA0				S	**Sn**	**00 30 05.2**	**+0.2**
MOR8	**Moi Rana**	**2.77**	**236**	*e*Sg	**Sg**	**00 30 12.0**	**-8.2**
MOR8				AML	AML	00 30 13.0	
	comp=Z,13nm,0.4s						
STOK	**Stokkvaagen**	**3.15**	**245**	*e*Sg	**Sg**	**00 30 31.9**	**-0.8**
KEV	**Kevo**	**3.17**	**49**	*e*SB	**Sb**	**00 30 23.6**	**-0.7**
OUL	**Oulu**	**3.61**	**137**	*e*SG	**Sg**	**00 30 39.3**	**-8.6**
MSF	**Maaselka**	**4.02**	**114**	*e*P	**Pn**	**00 29 51.9**	**-0.1**
MSF				*e*SG	**Sg**	**00 30 51.8**	**-10**
NSS	**Namsos**	**4.67**	**229**	*e*Sg	**Sg**	**00 31 15.4**	**-7.9**
NSS				AML	AML	00 31 16.9	
	comp=Z,6.2nm,0.4s						
NSS	**Namsos**	**4.67**	**229**	*e*Sg	**Sg**	**00 31 15.4**	**-7.9**
	comp=Z,6.2nm,0.4s,SNR=90						
KJN	**Kajaani**	**4.88**	**137**	*e*SG	**Sg**	**00 31 19.2**	**-11**
VAF	**Ylistaro**	**4.93**	**166**	*e*SG	**Sg**	**00 31 20.9**	**-11**
FIA0	**FINESS Array S**	**6.90**	**155**	Pn	**Pn**	**00 30 31.6**	**-1.2**
	baz=344,slow=11						
FIA0	**FINESS Array S**	**6.90**	**155**	*e*P	**Pn**	**00 30 31.6**	**-1.2**

NEIC ***22*** *00:35:10.0, 39.84N×20.39E, h23^{km}, MD2.9(ATH), After ATH.*

ATH ***22*** *00:35:10.1, 39.83N×20.38E, h21^{km}, MD2.9/5*

THE ***22*** *00:35:11.9, 39.74N×20.32E, h10^{km}*

CSEM ***22*** *00:35:12.2±0.1, 39.68N×20.31E, h2^{km}, MD2.9, Error ellipse: s-maj=3.2km s-min=2.1km az=162.0*

ISC 22 00:35:11.1±0.8**, 39.65N**±0.06×**20.32E**±0.06**, h10**^{km}**, n12, σ1^{s}39**/17**, 1C-1D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEK	**Kerkira**	**0.41**	**280**	⇓*i*PB	**Pb**	**00 35 19.6**	**-0.4**
JAN	**Janina**	**0.41**	**88**	⇑*i*PB	**Pb**	**00 35 17.8**	**-2.2**
JAN				*e*SB	**Sb**	**00 35 24.7**	**-1.3**
MEV	**Metsovon**	**0.71**	**78**	*e*Pg	**Pg**	**00 35 23.8**	**-1.7**
MEV				*e*Sg	**Sg**	**00 35 35.2**	**+0.1**
KZN	**Kozani**	**1.30**	**59**	*e*PN	**Pn**	**00 35 32.5**	**-2.8**
EVR	**Evrytania**	**1.36**	**122**	*e*PN	**Pn**	**00 35 37.0**	**+0.7**
EVR	**Evrytania**	**1.36**	**122**	*e*Pb	**Pb**	**00 35 35.5**	**-0.8**
FNA	**Florina**	**1.40**	**35**	*e*Pb	**Pb**	**00 35 36.1**	**-0.8**
FNA				*e*Sb	**Sb**	**00 35 56.3**	**+1.7**
VLS	**Valsamata**	**1.48**	**172**	*e*PN	**Pn**	**00 35 40.5**	**+2.5**
AGG	**Agios Georgios**	**1.68**	**111**	*e*Pb	**Pb**	**00 35 42.2**	**+0.5**
AGG				*e*Sb	**Sb**	**00 36 06.5**	**+3.7**
LIT	**Litokhoron**	**1.73**	**74**	*e*Pb	**Pb**	**00 35 42.3**	**-0.3**
LIT				*e*Sb	**Sb**	**00 36 06.6**	**+2.3**
GRG	**Griva**	**2.06**	**50**	*e*Pn	**Pn**	**00 35 47.1**	**+0.8**
KNT	**Kendrikon**	**2.48**	**52**	*e*Pn	**Pn**	**00 35 52.6**	**+0.3**

NEIC ***22*** *01:07:04.7, 15.92N×97.60W, h20^{km}, MD4.1(MEX), After MEX.*

MEX 22 01:07:04.6±0.7**, 15.92N**×**97.60W, h24**^{km}±18^{km}**, MD4.1, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	**Pinotepa**	**0.69**	**313**	*i* P	Pb	01 07 16.1	-1.8
PNIG				*i* S	Sb	01 07 24.3	-2.8
VHO	**Vista Hermosa**	**1.42**	**36**	*i* P	Pn	01 07 26.8	-2.4
VHO				*i* S	Sn	01 07 43.2	-4.0
HUIG	**Huatulco**	**1.45**	**96**	*e*P	Pn	01 07 26.9	-2.6
HUIG				*i* S	Sn	01 07 43.5	-4.4
CAIG	**El Cayaco**	**2.79**	**294**	*i* P	Pn	01 07 51.8	+2.9
CAIG				*i* S	Sn	01 08 15.9	-6.2
CMIG	**Matias Romero**	**2.85**	**66**	*e*P	Pn	01 07 46.6	-3.1
CMIG				*i* S	Sn	01 08 21.3	-2.4
CMIG	**Matias Romero**	**2.85**	**66**	*e*P	Pn	01 07 46.6	-3.1
CMIG				*i* S	Sn	01 08 19.0	-4.7
PLIG	**Platanillo**	**3.06**	**324**	*i* P	Pn	01 07 57.0	+4.4
PLIG				*i* S	Sn	01 08 27.9	-0.9
PLIG	**Platanillo**	**3.06**	**324**	*e*P	Pn	01 07 49.3	-3.3
PLIG				*i* S	Sn	01 08 25.3	-3.5
YAIG	**Yautepec**	**3.24**	**335**	*e*P	Pn	01 07 56.8	+1.6
YAIG				*i* S	Sn	01 08 30.5	-3.0
YAIG	**Yautepec**	**3.24**	**335**	*e*P	Pn	01 07 56.8	+1.6
YAIG				*i* S	Sn	01 08 29.9	-3.7
PPM	**Popocatepetl**	**3.28**	**343**	*e*P	Pn	01 07 58.4	+2.6
PPM				*e*S	Sn	01 08 38.9	+4.5
PPM	**Popocatepetl**	**3.28**	**343**	*e*P	Pn	01 07 57.8	+2.0
PPM				*i* S	Sn	01 08 31.3	-3.2
LVIG	**Laguna Verde**	**3.95**	**16**	*e*P	Pn	01 08 02.0	-3.2
LVIG				*i* S	Sn	01 08 46.6	-4.7
LVIG	**Laguna Verde**	**3.95**	**16**	*e*P	Pn	01 08 01.2	-4.1
LVIG				*i* S	Sn	01 08 46.6	-4.7

NEIC ***22*** *01:40:36.4±0.7, 9.63S×118.16E, h10^{km}, mb3.8/1, Error ellipse: s-maj=12.4km s-min=8.9km az=216.0*

DJA ***22*** *01:40:38.3±0.7, 9.49S×118.11E, h160^{km}, MD4.7/5, ML5.2/7, Error ellipse: s-maj=18.4km s-min=4.7km az=151.0*

ISC 22 01:40:41.3±0.7**, 9.22S**±0.10×**117.96E**±0.10**, h166**^{km}±22^{km}**, n17, σ0^{s}76**/27**, 4C-7D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	**1.96**	**292**	⇑*e*Pn	**P**	**01 41 16.5**	**-0.8**
KEDI				*e*Sn	**S**	**01 41 45.8**	**+0.7**
KEDI	**Kedomdong**	**1.96**	**292**	⇑*e*Pn	**P**	**01 41 16.5**	**-0.8**
	3µm,0.2s						
KEDI	**Kedomdong**	**1.96**	**292**	*e*P	**P**	**01 41 17.6**	**+0.3**
KEDI				*e*Sn	**S**	**01 41 45.8**	**+0.7**
RATI	**Rata**	**2.44**	**282**	⇓*e*Pn	**P**	**01 41 22.1**	**-1.0**
RATI				*e*Sn	**S**	**01 41 54.9**	**-0.3**
RATI	**Rata**	**2.44**	**282**	⇓*e*Pn	**P**	**01 41 22.1**	**-1.0**
	4µm,0.2s						
RATI	**Rata**	**2.44**	**282**	*e*P	**P**	**01 41 23.5**	**+0.4**
RATI				*e*Sn	**S**	**01 41 54.9**	**-0.3**
KELI	**Kelakatan**	**3.57**	**286**	⇓*e*Pn	**P**	**01 41 36.4**	**-0.8**
KELI				*e*Sn	**S**	**01 42 21.6**	**+1.4**
KELI	**Kelakatan**	**3.57**	**286**	⇓*e*Pn	**P**	**01 41 36.4**	**-0.8**
	308nm,0.2s						
KELI				*e*Sn	**S**	**01 42 20.6**	**+0.4**
SRDI	**Scrawed**	**3.84**	**281**	⇓*e*Pn	**P**	**01 41 39.9**	**-0.8**
	690nm,0.2s						
SRDI				*e*Sn	**S**	**01 42 26.7**	**+0.3**
NINI	**Niniconang**	**5.09**	**21**	⇑*e*Pn	**P**	**01 41 57.8**	**+0.8**
	467nm,0.2s						
NINI				*e*Sn	**S**	**01 42 55.0**	**-0.6**
TANI	**Tanete Lipujan**	**5.92**	**14**	⇓*e*Pn	**P**	**01 42 08.3**	**+0.4**
TANI				*e*Sn	**S**	**01 43 11.9**	**-3.3**
TANI	**Tanete Lipujan**	**5.92**	**14**	⇓*e*Pn	**P**	**01 42 08.3**	**+0.4**
	55nm,0.1s						
TANI				*e*Sn	**S**	**01 43 14.2**	**-1.0**
BUNI	**Buntu Taipa**	**6.01**	**23**	⇑*e*Pn	**P**	**01 42 10.4**	**+1.3**
	44nm,0.2s						
MBWA	**Marble Bar**	**11.99**	**172**	*e*P	**P**	**01 43 21.9**	**-5.9**
KAKA	**Kakadu**	**14.60**	**105**	*e*P	**P**	**01 44 00.9**	**-0.3**
	5.8nm,0.6s						
WRAB	**Tennant Creek**	**19.09**	**126**	*e*P	**P**	**01 44 54.1**	**+0.5**
	5.9nm,1.0s						
WB2	**Warramunga Arr**	**19.09**	**126**	*e*P	**P**	**01 44 53.4**	**-0.3**

IDC ***22*** *01:56:01.6±0.8, 14.44N×146.91E, mb4.1/10, mb1 4.3/10, mb1mx4.1/21, Error ellipse: s-maj=31.2km s-min=19.5km az=113.0*

NEIC ***22*** *01:56:06.1±5.2, 14.37N×146.96E, h31^{km}±35^{km}, mb4.7/5, Error ellipse: s-maj=21.8km s-min=13.0km az=102.0*

BJI ***22*** *01:56:06.1, 14.40N×147.00E, h31^{km}, mB4.9, mb4.6, Ms4.2, Msz3.9*

ISC 22 01:56:05.0±1.5**, 14.34N**±0.08×**146.9E**±0.1**, h37**^{km}±11^{km}**, h38**^{km}±2.0^{km}**:pP-P, n35, σ1^{s}05**/37**, mb4.5**/24**, MS4.0**/3**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.15	250	*e*P	P	01 56 39.7	+0.5
SARN	Sarigan	2.60	334	*e*P	P	01 56 45.6	0.0
MDJ	Mudanjiang	33.59	337	P	P	02 02 43.6	-0.3
MDJ				AP	pP	02 02 54.5	+0.1
MDJ				XP	sP	02 02 59.8	+0.6
MDJ				PP	PP	02 04 00.8	+3.9
MDJ				PCP	PcP	02 05 22.1	-1.7
MDJ				S	S	02 07 57.1	-5.6
MDJ				XS		02 08 22.8	
MDJ				SCP		02 09 04.3	
MDJ				PCS		02 09 08.4	
MDJ				SCS	ScS	02 13 05.3	+1.3
MDJ				AMB	AMB		
	comp=Z,8.0nm,1.5s,mb4.4						
MDJ				AMB	AMB		
	comp=Z,203nm,5.7s						
MDJ				LR	LR		
	comp=N,122nm,52.7s						
MDJ				LR	LR		
	comp=E,99nm,65.3s						
CN2	Changchun	34.64	332	*e*P	P	02 02 55.4	+2.5
WRA	Warramunga Arr	36.26	200	P	P	02 03 07.3	+0.4
	comp=E,1.5nm,0.8s,mb4.0,baz=23,slow=9.6,SNR=9.2						
ENH	Enshi	37.90	301	*e*P	P	02 03 21.1	+0.5
ASAR	Alice Springs	39.87	199	P	P	02 03 37.4	+0.4
	comp=E,0.5nm,0.7s,mb3.4,baz=24,slow=8.8,SNR=4.4						
HHC	Hu-ho-hao-te	40.55	317	*e*P	P	02 03 48.3	+5.9
HHC				PP	PP	02 05 26.3	+7.0
HHC				PCP	PcP	02 05 48.3	+3.3
HHC				PCS		02 09 38.5	
HHC				S	S	02 09 57.1	+8.2
HHC				SCS	ScS	02 13 46.3	+3.4
HHC				AMB	AMB		
	comp=Z,11nm,0.5s,mb4.7						
HHC				AMB	AMB		
	comp=Z,162nm,6.3s						
HHC				LR	LR		
	comp=N,132nm,16.7s,MS4.2						
HHC				LR	LR		
	comp=E,224nm,14.3s,MS4.2						
HHC				LR	LR		
	comp=Z,117nm,13.1s,MS3.9						
LZH	Lanzhou	44.14	307	*e*P	P	02 04 15.0	+3.0
LZH				AP	pP	02 04 25.0	+2.3
LZH				XP	sP	02 04 30.0	+2.7
LZH				AMB	AMB		
	comp=Z,40nm,1.6s,mb4.9						
LZH	Lanzhou	44.14	307	*e*P	P	02 04 15.0	+3.0
	comp=Z,40nm,1.6s,mb4.9						
LZH				pP	pP	02 04 25.0	+2.3
LZH				sP	sP	02 04 30.0	+2.7
CMAR	Chiang Mai Arr	46.13	282	P	P	02 04 28.5	+0.5
	comp=Z,1.0nm,0.4s,mb4.1,baz=82,slow=5.9,SNR=5.5						
ULN	Ulaanbaatar	46.94	324	*e*P	P	02 04 33.8	-0.2
	comp=Z,3.1nm,0.7s,mb4.3						
SONM	Songino Array	47.30	323	P	P	02 04 36.5	-0.4
	comp=Z,1.9nm,0.7s,mb4.2,baz=137,slow=8.1,SNR=11						
GTA	Gaotai	48.20	310	*e*P	P	02 04 44.3	+0.3
GTA				AP	pP	02 04 55.5	+0.7
GTA				XP	sP	02 05 01.4	+2.0
GTA				PP	PP	02 06 35.1	-0.7
GTA				S	S	02 11 41.3	+1.7
GTA				XS		02 11 59.8	
GTA				SS	SS	02 15 05.0	+1.1
GTA				AMB	AMB		
	comp=Z,2.0nm,0.6s,mb4.3						
GTA				AMB	AMB		
	comp=Z,65nm,5.3s						
GTA				LR	LR		
	comp=N,152nm,11.8s,MS4.3						
GTA				LR	LR		
	comp=E,146nm,14.1s,MS4.3						
GTA				LR	LR		
	comp=Z,170nm,14.1s,MS4.2						
LSA	Lhasa	53.46	296	*e*P	P	02 05 24.5	+0.5
	comp=Z,8.6nm,0.8s,mb4.7						
GUN	Gumba	58.02	294	*e*P	P	02 05 56.8	0.0
	comp=Z,22nm,0.5s,mb5.4						
WMQ	Urumqi	58.09	313	*e*P	P	02 05 58.3	+1.2
WMQ				AP	pP	02 06 10.3	+2.1
WMQ				XP	sP	02 06 15.8	+3.2
WMQ				PCP	PcP	02 06 49.6	+1.2
WMQ				PP	PP	02 08 09.0	+1.4
WMQ				S	S	02 13 54.3	+0.6
WMQ				AMB	AMB		
	comp=Z,23nm,0.8s,mb5.3						
WMQ				LR	LR		
	comp=N,7.0nm,20.0s,MS3.6						
WMQ				LR	LR		
	comp=E,37nm,15.2s,MS3.6						
WMQ				LR	LR		
	comp=Z,47nm,15.0s,MS3.7						
PKI	Pulchoki	58.44	294	*e*P	P	02 05 58.0	-1.8
	comp=Z,7.1nm,0.5s,mb5.0						
KKN	Kakani	58.55	294	*e*P	P	02 05 59.8	-0.8
	comp=Z,13nm,0.6s,mb5.2						
DMN	Daman	58.71	294	*e*P	P	02 06 00.8	-0.8
	comp=Z,15nm,0.6s,mb5.2						
GKN	Gorkha	59.12	294	*e*P	P	02 06 03.2	-1.3
	comp=Z,21nm,0.6s,mb5.3						
KOLN	Koldanda	60.04	294	*e*P	P	02 06 10.1	-0.8
	comp=Z,11nm,0.7s,mb5.0						
ZAL	Zalesovo	62.21	324	P	P	02 06 23.4	-1.7
	comp=Z,1.5nm,0.6s,mb4.3,baz=13,slow=8.6,SNR=9.5						
ZAL	Zalesovo	62.21	324	P	P	02 06 23.4	-1.7
ILAR	Eielson Array	67.03	25	P	P	02 06 54.8	-1.3
	comp=Z,1.1nm,0.6s,mb4.0,baz=249,slow=6.1,SNR=14						
BRVK	Borovoye	70.66	322	*e*P	P	02 07 17.8	-0.9
	comp=Z,7.1nm,0.8s,mb4.7						
INK	Inuvik	72.91	22	P	P	02 07 32.8	+1.0
	comp=Z,2.2nm,0.8s,mb4.1,baz=274,slow=8.3,SNR=6.6						
INK	Inuvik	72.91	22	*e*P	P	02 07 32.5	+0.7
	comp=Z,2.8nm,0.8s,mb4.2						
DLBC	Dease Lake	74.26	33	P	P	02 07 41.8	+1.9
	comp=Z,2.0nm,0.9s,mb4.0,baz=218,slow=12,SNR=3.7						
YKA	Yellowknife Ar	81.26	28	P	P	02 08 18.8	+0.2
	comp=Z,0.8nm,0.8s,mb3.7,baz=286,slow=5.5,SNR=11						
FINES	FINESS Array B	91.32	336	P	P	02 09 06.6	-1.2
	comp=Z,3.1nm,0.8s,mb4.7,baz=117,slow=4.3,SNR=5.4						
FINES	FINESS Array B	91.32	336	P	P	02 09 06.6	-1.2
PV10	Paradox Valley	91.85	50	*e*P	P	02 09 16.2	+5.3
DBIC	Dimbokro	145.09	305	PKPbc	PKPbc	02 15 41.4	+1.5
	comp=Z,9.6nm,0.7s,baz=49,slow=3.7,SNR=17						
DBIC	Dimbokro	145.09	305	*e*PKPdf	PKPdf	02 15 40.9	+1.3

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*NEIC **22** 02:10:46.7±0.5, 15.26S×167.94E, h10^{km}, mb4.3/2, Error ellipse: s-maj=22.2km s-min=14.3km az=128.0*

*LDG **22** 02:10:48.8±0.5, 14.40S×168.04E, h10^{km}, Mb4.1/2, Error ellipse: s-maj=76.2km s-min=14.5km az=92.0*

*IDC **22** 02:10:57.9±14.0, 15.30S×167.76E, h98^{km}±122^{km}, mb3.6/7, mb1 3.8/7, mb1mx3.7/15, Error ellipse: s-maj=51.0km s-min=29.0km az=72.0*

ISC 22 02:11:00.8±3.6**, 15.4S**±0.2×**167.6E**±0.2**, h133**^{km}±29^{km}**,**
n28, σ0^{s}77/11**, mb3.7**/9**, 1C, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.69	189	*e*P	P	02 12 38.5	+0.7
DZM				*e*S	S	02 13 52.4	-0.7
STKA	Stephens Creek	28.78	231	P	P	02 16 49.5	+1.2
	1.7nm,0.6s,mb4.0,baz=39,slow=9.0,SNR=7.1						
WRAB	Tennant Creek	31.95	257	*e*P	P	02 17 15.9	-0.5
	0.9nm,0.5s,mb3.8						
WRA	Warramunga Arr	31.96	257	P	P	02 17 15.8	-0.6
	0.3nm,0.4s,mb3.4,baz=85,slow=9.0,SNR=7.0						
WRA				PcP	PcP	02 20 03.6	+0.1
	0.3nm,0.5s,baz=79,slow=3.3,SNR=5.4						
ASAR	Alice Springs	32.72	250	P	P	02 17 22.6	-0.4
	1.2nm,0.5s,mb3.9,baz=79,slow=8.9,SNR=20						
ASAR				PcP	PcP	02 20 05.1	-0.4
	0.4nm,0.6s,baz=96,slow=3.1,SNR=5.7						
VNDA	Vanda	62.17	181	P	P	02 21 09.7	-0.2
	1.6nm,0.8s,mb3.9,baz=360,slow=7.5,SNR=11						
QSPA	South Pole Qui	74.60	180	⇑*i*P	P	02 22 27.1	+0.7
	6.3nm,0.8s,mb4.3						
SONM	Songino Array	83.24	324	P	P	02 23 14.8	+1.2
	0.4nm,0.4s,mb3.5,baz=144,slow=5.0,SNR=3.6						
ILAR	Eielson Array	87.10	18	P	P	02 23 30.9	-1.3
	0.3nm,0.8s,mb3.2,baz=230,slow=5.6,SNR=4.5						
SNAA	Sanae	92.87	183	P	P	02 23 58.9	-0.2
	0.4nm,0.6s,mb3.8,baz=180,slow=3.0,SNR=10						
ARCES	ARCESS Array B	121.01	345	PKP	PKPdf	02 29 38.1	+1.0
	12nm,1.2s,baz=90,slow=1.2,SNR=6.5						
HINF	Hinteralfeld	143.99	338	*e*PKP1	PKPbc	02 30 20.6	+0.9
HAU	Haudompre	144.02	338	*e*PKP1	PKPbc	02 30 20.9	+1.2
	3.8nm,0.6s						
MEZF	Maizieres J'vi	144.03	340	*e*PKP1	PKPbc	02 30 21.0	+1.2
	5.6nm,0.5s						
CABF	La Chapelle	145.29	337	*e*PKP1	PKPbc	02 30 25.1	+1.8
FLN	La Foliniere	145.35	346	*e*PKP1	PKPbc	02 30 24.3	+1.0
	13nm,0.7s						
LDF	La Druitiere	145.42	346	*e*PKP1	PKPbc	02 30 24.4	+0.9
	12nm,0.8s						
GRR	Gorron	145.79	346	*e*PKP1	PKPbc	02 30 25.9	+1.5
	4.8nm,0.5s						
SSF	Saint Saulge	145.80	341	*e*PKP1	PKPbc	02 30 26.3	+1.8
	7.4nm,0.6s						
HYF	Humbligny	145.88	342	*e*PKP1	PKPbc	02 30 26.7	+2.0
LPL	La Plagne	145.96	336	*e*PKP1	PKPbc	02 30 27.2	+2.2
	3.7nm,0.7s						
LPG	La Plagne	145.97	336	*e*PKP1	PKPbc	02 30 27.3	+2.3
	4.2nm,0.6s						
SMF	Signal de Mont	146.05	340	*e*PKP1	PKPbc	02 30 26.7	+1.6
	16nm,0.9s						
SGMF	Saint Gilles	146.28	348	*e*PKP1	PKPbc	02 30 27.2	+1.6
	7.8nm,0.6s						
BGF	Bois d'Agland	146.45	341	*e*PKP1	PKPbc	02 30 28.0	+1.9
	6.8nm,0.5s						
ORIF	Oris-en-Rattie	146.79	336	*e*PKP1	PKPbc	02 30 30.0	+3.1
	4.8nm,0.6s						
TCF	Toulx Ste Croi	146.89	341	*e*PKP1	PKPbc	02 30 29.2	+2.1
ETSF	Etsaut	150.80	342	*e*PKP1	PKPdf	02 30 39.8	+8.1

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*IDC **22** 02:19:48.2±6.0, 44.94S×167.39E, h118^{km}±46^{km}, mb3.6/4, mb1 3.8/5, mb1mx3.6/9, MS2.8/1, Ms1 2.8/1, ms1mx2.0/17, Error ellipse: s-maj=102.0km s-min=26.0km az=5.0*

*NEIC **22** 02:19:48.8, 45.14S×167.29E, h117^{km}, After WEL.*

NEIC Felt at Queenstown and Te Anau.

*WEL **22** 02:19:49.7±0.4, 45.14S×167.37E, h112^{km}±3^{km}, ML4.8/10, Error ellipse: s-maj=3.1km s-min=1.6km az=90.0*

WEL Felt from Otago to Southland, maximum reported intensity MM 4.

ISC 22 02:19:47.4±0.5**, 45.11S**±0.05×**167.57E**±0.07**, h134**^{km}±4^{km}**,**
n54, σ1^{s}09/71**, mb3.7**/4**, 6C-2D, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	Deep Cove	0.47	218	⇑PN	P	02 20 05.3	-1.7
DCZ				SN	S	02 20 17.0	-4.8
MLZ	Mavora Lakes	0.49	120	P	P	02 20 07.3	+0.3
MLZ				S	S	02 20 21.3	-0.7
MLZ	Mavora Lakes	0.49	120	⇑PN	P	02 20 07.3	+0.2
MLZ				SN	S	02 20 21.0	-1.0
MSZ	Milford Sound	0.50	31	PN	P	02 20 07.5	+0.4
MSZ				SN	S	02 20 21.1	-1.0
WHZ	Wether Hill Ro	0.83	161	P	P	02 20 09.4	+0.1
WHZ				S	S	02 20 24.3	-1.9
WHZ	Wether Hill Ro	0.83	161	⇑PN	P	02 20 09.4	0.0
WHZ				SN	S	02 20 24.3	-1.9
WKZ	Wanaka	1.07	76	P	P	02 20 13.5	+1.9
WKZ	Wanaka	1.07	76	⇑PN	P	02 20 13.5	+1.9
WKZ				SN	S	02 20 31.3	+1.4
EAZ	Earnscleugh	1.24	97	PN	P	02 20 15.0	+1.7
EAZ				SN	S	02 20 33.2	+0.2
JCZ	Jackson Bay	1.34	40	P	P	02 20 15.7	+1.3
JCZ	Jackson Bay	1.34	40	⇑PN	P	02 20 15.7	+1.3
JCZ				SN	S	02 20 35.5	+0.4
TUZ	Tuapeka	1.68	121	P	P	02 20 19.7	+1.4
TUZ	Tuapeka	1.68	121	⇓PN	P	02 20 19.7	+1.5
TUZ				SN	S	02 20 40.7	-1.1
LBZ	Lake Benmore	2.00	70	P	P	02 20 23.0	+1.0
LBZ	Lake Benmore	2.00	70	⇑PN	P	02 20 23.0	+1.1
LBZ				SN	S	02 20 47.7	-0.6
FOZ	Fox Glacier	2.17	45	PN	P	02 20 25.6	+1.5
FOZ				SN	S	02 20 53.6	+1.6
ODZ	Otahua Downs	2.18	90	P	P	02 20 25.6	+1.3
ODZ	Otahua Downs	2.18	90	⇓PN	P	02 20 25.6	+1.2
ODZ				SN	S	02 20 51.9	-0.5
RPZ	Rata Peaks	2.86	62	P	P	02 20 33.5	+0.3
	32nm,0.3s,baz=222,slow=6.5,SNR=47						
RPZ				S	S	02 21 08.1	+0.2
	110nm,0.3s,baz=38,slow=21,SNR=24						
WVZ	Waitaha Valley	3.06	50	*e*P	P	02 20 35.5	-0.2
WVZ	Waitaha Valley	3.06	50	PN	P	02 20 35.2	-0.5
MQZ	McQueen's Vall	3.90	71	*e*P	P	02 20 47.2	+0.3
MQZ	McQueen's Vall	3.90	71	PN	P	02 20 47.0	+0.1
MQZ				SN	S	02 21 29.0	-3.6
LTZ	Lake Taylor	4.11	57	*e*P	P	02 20 49.5	-0.2
LTZ	Lake Taylor	4.11	57	PN	P	02 20 49.5	-0.3
LTZ				SN	S	02 21 36.8	-0.7
DSZ	Denniston Nort	4.56	44	*e*P	P	02 20 55.5	-0.2
DSZ	Denniston Nort	4.56	44	PN	P	02 20 55.4	-0.3
DSZ				SN	S	02 21 46.0	-2.2
KHZ	Kahutara	5.09	60	*e*P	P	02 21 03.6	+0.8
KHZ	Kahutara	5.09	60	PN	P	02 21 03.8	+1.0
KHZ				SN	S	02 21 58.9	-2.1
THZ	Tophouse	5.12	51	*e*P	P	02 21 02.8	-0.4
THZ	Tophouse	5.12	51	PN	P	02 21 02.6	-0.6
QRZ	Quartz Range	5.62	42	*e*P	P	02 21 10.1	+0.3
QRZ	Quartz Range	5.62	42	PN	P	02 21 10.0	+0.2
NNZ	Nelson	5.76	50	P	P	02 21 13.1	+1.4
NNZ	Nelson	5.76	50	PN	P	02 21 11.9	+0.2
NNZ				SN	S	02 22 15.5	-1.6
TUWZ	Tuamarina	5.93	54	PN	P	02 21 15.1	+1.1
TUWZ				SN	S	02 22 20.6	-0.6
MRW	Makara Radio	6.50	56	P	P	02 21 22.3	+0.6
MRW	Makara Radio	6.50	56	PN	P	02 21 22.0	+0.3
CAW	Cannon Point	6.79	57	P	P	02 21 25.7	0.0
CAW	Cannon Point	6.79	57	PN	P	02 21 25.5	-0.2
KIW	Kapiti Island	6.85	54	P	P	02 21 26.7	+0.1
KIW	Kapiti Island	6.85	54	PN	P	02 21 26.5	-0.1
MTW	Mount Morrison	7.02	59	P	P	02 21 28.7	-0.1
MTW	Mount Morrison	7.02	59	PN	P	02 21 28.0	-0.8
MRZ	Mangatainoka R	7.37	56	*e*P	P	02 21 33.3	-0.2
MRZ	Mangatainoka R	7.37	56	PN	P	02 21 32.7	-0.9
BFZ	Birch Farm	7.75	58	*e*P	P	02 21 35.1	-3.6
STKA	Stephens Creek	24.12	294	P	P	02 24 50.0	-1.7
	0.6nm,0.5s,mb3.4,baz=132,slow=14,SNR=3.6						
ASAR	Alice Springs	34.69	297	P	P	02 26 25.4	-0.6
	1.1nm,0.6s,mb3.6,baz=133,slow=8.8,SNR=21						
WRA	Warramunga Arr	37.18	301	P	P	02 26 46.5	-0.5
	1.6nm,0.7s,mb3.8,baz=137,slow=7.9,SNR=40						
NWAO	Narrogin (SRO)	40.34	270	LR	LR	02 40 06.3	
	comp=Z,14nm,20.7s,baz=221,slow=30						
CMAR	Chiang Mai Arr	88.69	298	P	P	02 32 28.4	+1.7
	0.5nm,0.3s,mb3.9,baz=146,slow=3.3,SNR=4.4						
BRTR	Keskin Array B	145.93	277	PKPbc	PKPbc	02 39 12.4	+1.8
	1.1nm,0.7s,baz=108,slow=4.6,SNR=5.2						
FINES	FINESS Array B	152.31	320	PKPbc	PKPdf	02 39 27.9	+9.0
	6.1nm,1.2s,baz=131,slow=3.9,SNR=4.2						
FINES				PKPab	PKPab	02 39 38.2	-0.5
	1.5nm,0.8s,baz=63,slow=8.5,SNR=4.5						

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*ISK **22** 02:32:17.0, 37.01N×28.16E, h2^{km}, MD3.5*

*CSEM **22** 02:32:18.5±0.1, 37.07N×28.22E, h5^{km}, MD3.5, Error ellipse: s-maj=2.1km s-min=1.9km az=147.0*

*NEIC **22** 02:32:19.6, 37.05N×28.21E, h19^{km}, MD3.4(ATH), After ATH.*

*ATH **22** 02:32:19.7, 37.05N×28.20E, h23^{km}±8^{km}, MD3.4/5*

ISC 22 02:32:19.1±0.6**, 37.02N**±0.03×**28.22E**±0.04**, h10**^{km}±6^{km}**,**
n26, σ0^{s}99/33**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.42	126	PG	Pg	02 32 26.4	-1.1
DALT				SG	Sg	02 32 34.0	+0.8
BDRM	Kayabasi	0.62	275	*i* P	Pg	02 32 30.9	-0.7
BDRM				*i* S	Sg	02 32 41.4	+1.5
AYDN	Tasoluk	0.70	337	*i* P	Pb	02 32 31.6	-1.3
AYDN				*i* S	Sg	02 32 43.6	+1.1
FETY	Fethiye	0.79	118	PG	Pg	02 32 33.4	-1.6
ARG	Arkhangelos	0.80	185	*e*PB	Pb	02 32 35.0	+0.4
ARG				*e*SN	Sn	02 32 47.6	-0.6
ARG	Arkhangelos	0.80	185	*e*Pn	Pn	02 32 34.4	-1.8
ARG				*e*Sn	Sn	02 32 47.6	-0.6
DNZL	Cakiroluk	0.94	44	*i* P	Pb	02 32 35.6	-1.5
DNZL				*i* S	Sb	02 32 55.1	+5.7
NISR	Nisiros	0.96	246	*e*PN	Pn	02 32 39.0	+0.5
SMG	Samos	1.30	303	*e*PN	Pn	02 32 43.5	+0.1
ELL	Elmali	1.38	101	*e*PN	Pn	02 32 45.2	+0.7
KSL	Kastellorizon	1.40	128	*e*PN	Pn	02 32 47.0	+2.3
MANT	Manisa	1.50	10	*i* P	Pn	02 32 45.7	-0.5
MANT				*i* S	Sb	02 33 08.9	+3.3
IZM	Izmir	1.57	332	PN	Pn	02 32 46.7	-0.6
BLCB	Balcova	1.66	326	PN	Pn	02 32 47.6	-0.8
KHL	Karahalli	1.67	38	*e*PN	Pn	02 32 48.9	+0.3
KARP	Karpathos	1.69	211	*e*PN	Pn	02 32 50.3	+1.3
AKS	Akhisar	1.89	350	*e*PN	Pn	02 32 51.0	-0.8
BCK	Bucak	1.94	76	*e*PN	Pn	02 32 53.0	+0.4
ISP	Isparta	2.00	65	*e*PN	Pn	02 32 54.1	+0.7
APE	Apeiranthos	2.15	272	*e*PN	Pn	02 32 55.3	-0.2
ALT	Altintas	2.53	36	*e*PN	Pn	02 33 01.3	+0.4
DST	Dursunbey	2.61	7	*e*PN	Pn	02 33 01.8	-0.3
BALB	Balikesir	2.63	354	*e*PN	Pn	02 33 02.0	-0.5
ESKT	Eskisehir	3.25	39	*e*PN	Pn	02 33 11.4	+0.2
HDMB	Hadim	3.42	90	*e*PN	Pn	02 33 14.4	+0.8
KIZT	Kizilcal	3.44	56	*e*PN	Pn	02 33 14.1	+0.2

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*FUNV **22** 02:43:57.1, 10.64N×62.47W, h88^{km}, MW3.3*

*TRN **22** 02:43:57.5, 10.79N×62.44W, h13^{km}, MD3.7*

*IDC **22** 02:44:00.4±2.5, 11.14N×62.99W, h98^{km}±9^{km}, mb3.3/6, mb1 3.6/7, mb1mx3.3/19, Error ellipse: s-maj=57.4km s-min=7.2km az=135.0*

ISC 22 02:43:55.0±0.3**, 10.64N**±0.04×**62.56W**±0.03**, h103**^{km}±4^{km}**,**
n33, σ0^{s}97/49**, mb3.5**/6**, 4C-5D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	Guiria	0.33	89	⇓*i*P	P	02 44 10.2	-0.1
GUIV				*e*S	S	02 44 18.7	-2.9
GUNV	Guanoco	0.61	218	⇑*i*P	P	02 44 13.6	+1.6
GUNV				*e*S	S	02 44 25.2	+0.3
CRUV	Carupano	0.67	273	⇓*i*P	P	02 44 13.4	+0.8
CRUV				*e*S	S	02 44 25.3	-0.5
ITEV	Isla Los Testi	0.91	322	⇓*i*P	P	02 44 15.8	+0.9
ITEV				*e*S	S	02 44 29.1	-0.7
TPP	Pointe-a-Pierr	1.14	106	*e*P	P	02 44 18.7	+1.2
TPP				*e*S	S	02 44 34.3	-0.1
TRN	Trinidad (W)	1.14	90	⇓*i*P	P	02 44 17.8	+0.3
TRN				*i* S	S	02 44 32.0	-2.4
SIPA	Siparia	1.15	116	*e*P	P	02 44 19.8	+2.1
SIPA				*e*S	S	02 44 38.9	+4.3
TBH	Brigand Hill	1.48	96	*e*P	P	02 44 22.1	+0.5
GRW	Mount Saint Ca	1.75	30	*e*P	P	02 44 25.7	+0.8
GRW				*e*S	S	02 44 46.0	-1.2
ORIV	Oritupano	1.77	208	⇑*i*P	P	02 44 26.6	+1.4
TPR	Prospect	1.83	73	*e*P	P	02 44 26.3	+0.3
TPR				*e*S	S	02 44 48.9	-0.2
BOT	Bacolet	1.88	74	*e*P	P	02 44 26.8	+0.2
BOT				*e*S	S	02 44 49.6	-0.6
PCRV	Puerto La Cruz	2.10	257	P	P	02 44 30.8	+1.3
	15nm,0.3s,baz=46,slow=5.3,SNR=168						
PCRV				S	S	02 44 54.8	-0.3
	33nm,0.3s,baz=242,slow=18,SNR=31						
IBAV	Isla La Blanqu	2.30	301	*e*P	P	02 44 33.6	+1.4
RIOV	Rio Grande	2.66	164	*e*P	P	02 44 37.3	+0.1
GURV	El Guri	2.91	190	⇑*i*P	P	02 44 40.6	0.0
GURV				*e*S	S	02 45 12.5	-2.4
CUPV	Cœpira	3.23	260	⇑*e*P	P	02 44 46.1	+1.2
CUPV				*e*S	S	02 45 22.6	-0.1
MERV	Las Mercedes	3.93	250	*e*P	P	02 44 54.7	+0.2
CAOV	Caicara del Or	4.97	229	*e*P	P	02 45 08.1	-0.5
CAOV				*e*S	S	02 46 01.0	-4.3
TURV	Turiamo	5.20	268	*e*P	P	02 45 11.6	-0.1
BAUV	El Baul	5.66	253	⇓*e*P	P	02 45 17.4	-0.6
BAUV				*e*S	S	02 46 18.1	-4.2
TEPV	Terepaima	6.56	265	*e*P	P	02 45 29.6	-0.8
CURV	Curarigua	7.31	266	*e*P	P	02 45 40.7	0.0
MONV	Montecano	7.39	281	*e*P	P	02 45 41.7	-0.1
ELOV	Elorza	7.74	243	*e*P	P	02 45 46.0	-0.5
SDV	Santo Domingo	8.15	258	P	P	02 45 50.9	-1.1
	1.0nm,0.3s,baz=48,slow=4.8,SNR=3.3						
SDV				S	S	02 47 18.3	-4.8
	7.1nm,0.3s,baz=56,slow=17,SNR=21						
SOCV	Socops	8.51	255	*e*P	P	02 45 55.8	-1.2
TXAR	Lajitas Array	42.59	302	P	P	02 51 43.3	+0.7
	0.1nm,0.6s,mb2.8,baz=124,slow=6.5,SNR=3.2						
SCHQ	Schefferville	44.21	356	P	P	02 51 55.9	+0.6
	2.3nm,0.8s,mb4.0,baz=193,slow=10,SNR=4.9						
ULM	Lac du Bonnet	48.08	332	P	P	02 52 25.9	0.0
	0.5nm,0.3s,mb3.8,baz=137,slow=8.5,SNR=2.8						
PDAR	Pinedale Array	51.84	317	P	P	02 52 54.6	-0.1
	0.7nm,0.5s,mb4.0,baz=115,slow=9.8,SNR=14						
YKA	Yellowknife Ar	63.69	336	P	P	02 54 15.5	-1.9
	0.2nm,0.4s,mb3.3,baz=112,slow=7.2,SNR=5.2						
ILAR	Eielson Array	78.03	334	P	P	02 55 43.3	-0.1
	0.4nm,0.8s,mb3.2,baz=104,slow=3.7,SNR=4.3						

IDC 22 02:50:37.3±5.9**, 23.00S**×**179.65E, h607**^{km}±71^{km}**, mb3.0**/5**,**
mb1 3.4/5**, mb1mx3.1**/13**, Error ellipse: s-maj=188.0km**
s-min=29.1km az=163.0, South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	41.87	260	P	P	02 57 36.2	-1.4
	0.3nm,0.4s,baz=91,slow=7.6,SNR=6.2						
WRA	Warramunga Arr	42.15	265	P	P	02 57 38.3	-1.6
	0.5nm,0.3s,baz=96,slow=8.5,SNR=26						
NVAR	Mina Array Bea	84.33	44	P	P	03 02 06.9	-0.8
	0.4nm,0.5s,baz=221,slow=8.3,SNR=3.2						
TXAR	Lajitas Array	90.23	58	P	P	03 02 34.6	-1.1
	1.0nm,0.7s,baz=215,slow=6.7,SNR=15						
PDAR	Pinedale Array	92.27	44	P	P	03 02 44.0	-0.7
	0.4nm,0.5s,baz=223,slow=5.0,SNR=4.7						
BVAR	Borovoye Array	119.55	319	PKP	PKPdf	03 08 19.0	+0.2
	0.5nm,0.3s,baz=204,slow=1.1,SNR=4.2						
HFS	Hagfors	141.61	349	PKhKP		03 08 56.5	
	2.8nm,0.3s,baz=60,slow=2.7,SNR=22						
AKASG	Malin Array Be	144.04	328	PKP	PKPdf	03 09 04.1	-0.1
	1.4nm,0.4s,baz=44,slow=4.0,SNR=7.5						
EKA	Eskdalemuir Ar	147.64	3	PKPbc	PKPdf	03 09 13.7	+3.5
	1.0nm,0.6s,baz=343,slow=2.4,SNR=3.9						
CLL	Collm	149.91	343	P	PKPdf	03 09 20.7	+6.9
GERES	GERESS Array B	151.91	340	PKP	PKPdf	03 09 16.2	-0.5
	0.7nm,0.4s,baz=27,slow=2.2,SNR=7.1						
GERES				PKPbc	PKPdf	03 09 24.4	+7.6
	0.2nm,0.4s,baz=180,slow=3.9,SNR=2.6						

WEL 22 02:56:06.5±0.4**, 39.27S**×**174.63E, h187**^{km}±4^{km}**, ML3.5**/6**,**
4D, Error ellipse: s-maj=5.8km s-min=2.0km az=90.0,
North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKE	Pukeiti	0.51	278	*e*PN	P	02 56 32.7	+0.3
WAZ	Wanganui	0.56	151	PN	P	02 56 33.0	+0.3
WAZ				SN	S	02 56 52.7	-0.3
CNZ	Chateau	0.71	85	PN	P	02 56 33.1	-0.3
FWVZ	Far West T-bar	0.71	90	PN	P	02 56 33.2	-0.2
WNVZ	Wahianoa	0.75	95	⇓PN	P	02 56 33.5	-0.1
WNVZ				SN	S	02 56 53.9	-0.7
MGZ	Maungaku	0.75	70	⇓PN	P	02 56 33.1	-0.5
NGZ	Ngauruhoe	0.76	84	PN	P	02 56 33.2	-0.4
HIZ	Hauiti	0.77	13	⇓PN	P	02 56 32.5	-1.2
TUVZ	Tukino	0.79	91	PN	P	02 56 33.8	0.0
OTVZ	Oturere	0.81	83	PN	P	02 56 33.8	-0.1
MOVZ	Moawhango	0.88	100	⇓PN	P	02 56 33.8	-0.5
MOVZ				SN	S	02 56 54.0	-1.8
TSZ	Takapari Road	1.30	128	PN	P	02 56 37.3	-0.3
TSZ				SN	S	02 57 00.1	-1.5
MRZ	Mangatainoka R	1.57	153	PN	P	02 56 39.5	-0.6
MRZ				SN	S	02 57 03.9	-2.2
KIW	Kapiti Island	1.61	173	PN	P	02 56 39.8	-0.7
KIW				SN	S	02 57 04.3	-2.4
CAW	Cannon Point	1.87	170	PN	P	02 56 42.2	-0.8
CAW				SN	S	02 57 09.3	-2.0
BFZ	Birch Farm	1.88	139	*e*PN	P	02 56 42.8	-0.4
BFZ				SN	S	02 57 09.1	-2.3
MRW	Makara Radio	1.96	179	PN	P	02 56 43.1	-0.9
MRW				SN	S	02 57 10.6	-2.3
MTW	Mount Morrison	2.00	161	PN	P	02 56 43.2	-1.3
MTW				SN	S	02 57 11.4	-2.3
NNZ	Nelson	2.17	206	PN	P	02 56 44.9	-1.4
NNZ				SN	S	02 57 14.7	-2.4
MSWZ	Moikau Station	2.20	168	PN	P	02 56 45.0	-1.6
MSWZ				SN	S	02 57 14.8	-2.8
PAWZ	Paruwai Farm	2.20	164	PN	P	02 56 45.2	-1.5
PAWZ				SN	S	02 57 14.8	-2.8
TUWZ	Tuamarina	2.23	193	PN	P	02 56 45.8	-1.2
TUWZ				SN	S	02 57 15.7	-2.5

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QRZ	Quartz Range	2.25	225	PN	P	02 56 45.2	-2.0
THZ	Tophouse	2.82	207	PN	P	02 56 51.8	-2.1
THZ				SN	S	02 57 29.8	-0.7
KHZ	Kahutara	3.26	194	PN	P	02 56 57.2	-2.0
KHZ				SN	S	02 57 36.0	-3.8
DSZ	Denniston Nort	3.29	220	PN	P	02 56 56.7	-2.9
DSZ				*e*SN	S	02 57 35.8	-4.7
LTZ	Lake Taylor	3.94	206	PN	P	02 57 04.9	-2.9
LTZ				SN	S	02 57 50.6	-4.5
MQZ	McQueen's Vall	4.68	198	PN	P	02 57 12.8	-4.4
MQZ				SN	S	02 58 04.9	-7.1
LBZ	Lake Benmore	6.10	212	*e*PN	P	02 57 30.7	-5.0

NIED ***22*** *02:56:00,30.70N×131.10E,h35^{km},Mw4.6 Best double couple: M₀1.01×10^{16} NP1:φs167°,δ88°,λ-130°. NP2: φs75°,δ40°,λ-3°.*
MOS ***22*** *02:56:07.2±0.8,30.70N×131.11E,h33^{km},mb4.4/13,Error ellipse: s-maj=26.2km s-min=13.4km az=112.9*
IDC ***22*** *02:56:10.6±2.5,30.71N×130.98E,h41^{km}±24^{km},mb4.0/22, mb1 4.1/24,mb1mx4.1/28,ML4.3/2,MS3.8/8,Ms1 3.9/8, ms1mx3.6/28,Error ellipse: s-maj=16.0km s-min=13.1km az=101.0*
BJI ***22*** *02:56:10.6,30.56N×131.38E,h81^{km},mB4.7,mb4.3, Ms4.2,Msz3.8*
JMA ***22*** *02:56:10.3±0.1,30.69N×131.14E,h39^{km}±1^{km},M4.6*
JMA Felt II J1.
NEIC ***22*** *02:56:12.2±0.9,30.67N×131.17E,h58^{km}±8^{km},mb4.4/10, Error ellipse: s-maj=8.6km s-min=7.9km az=118.0*
NEIC Recorded [2 JMA] in Kagoshima and [1 JMA] in Miyazaki Prefectures. Also recorded [2 JMA] on Tanega-shima and [1 JMA] on Kuchinoerabu-jima and Yaku-shima.
ISC 22 02:56:09.4±0.5,**30.65N**±0.03×**131.18E**±0.04,**h50**^{km}±3^{km}, **n82**,σ1§**11**/92,**mb4.3**/35,**MS4.0**/8,**5C-4D,Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTN	Tanegashima 3	0.17	272	⇓P	P	02 56 16.9	-0.5
JTN				S	S	02 56 21.8	-1.4
JTSR	Tashiro 2	0.56	337	⇑P	P	02 56 21.0	-0.4
JTSR				S	S	02 56 28.9	-1.2
JKC	Kuchinoerabu	0.86	258	P	P	02 56 25.9	+0.5
JKC				S	S	02 56 37.5	+0.2
JNAR	Kushima--Naru	0.88	5	⇓P	P	02 56 26.4	+0.8
JNAR				S	S	02 56 39.6	+2.0
JSU	Suzuyama	1.05	324	⇑P	P	02 56 27.8	-0.3
JSU				S	S	02 56 42.0	+0.1
JTZ	Takazaki	1.25	357	⇓P	P	02 56 31.5	+0.7
JTZ				S	S	02 56 47.7	+0.9
JNN	Nakanoshima	1.38	235	P	P	02 56 33.5	+0.7
JNN				S	S	02 56 52.2	+2.0
JZO	Okuchi	1.57	342	⇓P	P	02 56 35.4	+0.1
JSJ	Shimokoshiki	1.62	310	⇑P	P	02 56 35.3	-0.8
JOW	Kunigami	4.58	215	P	P	02 57 17.9	0.0
	17nm,0.3s,baz=106,slow=22,SNR=19						
JOW				S	S	02 58 06.8	-3.6
	20nm,0.3s,baz=119,slow=26,SNR=6.6						
JHJ	Hachijo jima 2	7.72	69	P	P	02 58 03.0	+1.2
	56nm,0.3s,baz=83,slow=12,SNR=7.1						
JHJ				S	S	02 59 27.6	-1.2
	20nm,0.3s,baz=128,slow=20,SNR=7.3						
JHJ				LR	LR	03 00 58.2	
	comp=Z,171nm,19.2s,baz=258,slow=36						
MAJO	Matsushiro	8.30	43	*e*P	P	02 58 08.9	-0.9
	21nm,0.4s						
MAT	Matsushiro	8.30	43	P	P	02 58 08.7	-1.1
MAT				*e*S	S	02 59 46.8	+3.6
CBIJ	Chichi jima	10.28	107	LR	LR	03 01 35.9	
	comp=Z,451nm,20.2s,baz=200,slow=31						
CN2	Changchun	13.89	342	*e*P	P	02 59 24.6	-0.6
CN2				AMB	AMB		
	comp=Z,10.0nm,1.3s						
CN2				LR	LR		
	comp=N,630nm,15.0s						
CN2				LR	LR		
	comp=E,770nm,15.0s						
CN2				LR	LR		
	comp=Z,520nm,16.0s						
BJT	Baijiatuau	15.39	311	*e*P	P	02 59 47.4	+2.7
	comp=Z,15nm,0.8s						
BJI	Beijing	15.40	312	*e*P	P	02 59 47.9	+3.1
BJI				AMB	AMB		
	comp=Z,14nm,1.1s						
BJI				LR	LR		
	comp=Z,241nm,23.8s						
BJI	Beijing	15.40	312	*e*P	P	02 59 47.9	+3.1
	comp=Z,14nm,1.1s						
ASAJ	Asahikawa	16.20	31	LR	LR	03 06 36.6	
	comp=Z,229nm,18.3s,baz=42,slow=39						
ENH	Enshi	18.70	274	*e*P	P	03 00 25.8	-0.4
	comp=Z,18nm,0.7s						
HHC	Hu-ho-hao-te	18.86	308	*e*P	P	03 00 31.5	+3.6
HHC				AP		03 00 43.3	
HHC				PP	PP	03 00 49.9	+5.3
HHC				XP		03 00 51.8	
HHC				S	S	03 03 57.5	+4.7
HHC				SS	SS	03 04 24.5	+5.4
HHC				PCP	PcP	03 04 54.3	+1.5
HHC				AMB	AMB		
	comp=Z,11nm,0.8s						
HHC				AMB	AMB		
	comp=Z,99nm,4.8s						
HHC				LR	LR		
	comp=N,238nm,10.4s						
HHC				LR	LR		
	comp=E,326nm,10.6s						
HHC				LR	LR		
	comp=Z,288nm,18.1s						
XAN	Xi'an	19.10	286	P	P	03 00 28.4	-2.3
XAN				AMB	AMB		
	comp=Z,6.0nm,1.2s						
HIA	Hailar	20.51	338	*e*P	P	03 00 46.6	+0.8
	comp=Z,22nm,1.3s						
GYA	Guiyang	21.92	265	⇑*i*P	P	03 01 00.6	+0.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.3						
LZH	Lanzhou	23.42	291	*e*P	P	03 01 16.6	+1.9
LZH				XS		03 05 53.0	
LZH				AMB	AMB		
	comp=Z,50nm,1.0s,mb4.9						
LZH				LR	LR		
	comp=E,760nm,14.2s						
LZH				LR	LR		
	comp=Z,640nm,18.6s,MS4.1						
LZH	Lanzhou	23.42	291	*e*P	P	03 01 16.6	+1.9
	comp=Z,50nm,1.0s,mb4.9						
LZH				pP		03 01 23.2	
LZH				sP		03 01 26.7	
LZH				*e*S	S	03 05 41.0	+20
LZH				sS		03 05 53.0	
LZH				SS	tx	03 06 47.0	
LZH				LR	LR		
	comp=Z,640nm,18.6s,MS4.1						
CD2	Chengdu	23.54	278	⇑*i*P	P	03 01 17.6	+1.7
CD2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.0						
CD2				AMB	AMB		
	comp=Z,220nm,5.5s						
CD2				LR	LR		
	comp=N,400nm,5.3s						
CD2				LR	LR		
	comp=Z,280nm,6.1s						
ULN	Ulaanbaatar	25.23	320	*e*P	P	03 01 31.8	-0.2
	comp=Z,3.4nm,0.7s,mb4.0						
SONM	Songino Array	25.58	319	P	P	03 01 35.1	-0.2
	comp=Z,1.7nm,0.5s,mb3.8,baz=132,slow=9.9,SNR=9.1						
GTA	Gaotai	27.02	297	*e*P	P	03 01 51.8	+3.0
GTA				S	S	03 06 17.3	-3.7
GTA				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.2						
GTA				AMB	AMB		
	comp=Z,99nm,5.3s						
GTA				LR	LR		
	comp=N,138nm,14.1s						
GTA				LR	LR		
	comp=E,161nm,20.9s						
GTA				LR	LR		
	comp=Z,261nm,17.1s,MS3.9						
CMAR	Chiang Mai Arr	31.62	255	P	P	03 02 28.9	-1.0
	comp=Z,0.7nm,0.4s,mb3.9,baz=63,slow=8.1,SNR=3.5						
CMAR				LR	LR	03 16 20.7	
	comp=Z,88nm,20.2s,MS3.4,baz=70,slow=38						
CMAR	Chiang Mai Arr	31.62	255	P	P	03 02 29.0	-0.9
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR				MLR	MLR		
	comp=Z,88nm,20.2s						
GUN	Gumba	39.40	278	*e*P	P	03 03 36.4	+0.4
PKI	Pulchoki	39.90	277	*e*P	P	03 03 39.6	-0.5
	comp=Z,7.1nm,0.4s,mb4.7						
KKN	Kakani	39.95	278	*e*P	P	03 03 40.8	+0.3
	comp=Z,16nm,0.8s,mb4.8						
DMN	Daman	40.14	278	*e*P	P	03 03 41.3	-0.9
	comp=Z,3.3nm,0.4s,mb4.4						
GKN	Gorkha	40.44	278	*e*P	P	03 03 44.1	-0.5
	comp=Z,10nm,0.7s,mb4.7						
ZAL	Zalesovo	40.48	319	P	P	03 03 45.6	+0.9
	comp=Z,1.1nm,0.4s,mb4.0,baz=20,slow=11,SNR=7.5						
ZAL				LR	LR	03 22 42.9	
	comp=Z,120nm,19.2s,MS3.8,baz=99,slow=40						
ZAL	Zalesovo	40.48	319	P	P	03 03 45.6	+0.9
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZAL				MLR	MLR		
	comp=Z,121nm,19.2s						
KOLN	Koldanda	41.39	278	*e*P	P	03 03 52.0	-0.4
	comp=Z,16nm,1.1s,mb4.5						
BVAR	Borovoye Array	48.83	316	P	P	03 04 50.6	-0.9
	comp=Z,5.3nm,0.4s,mb4.9,baz=101,slow=9.0,SNR=34						
BRVK	Borovoye	48.89	316	*e*P	P	03 04 50.9	-1.1
	comp=Z,9.5nm,0.4s,mb5.2						
WRA	Warramunga Arr	50.39	176	P	P	03 05 04.0	+0.1
	comp=Z,2.0nm,0.7s,mb4.3,baz=351,slow=8.0,SNR=21						
WRA	Warramunga Arr	50.39	176	P	P	03 05 04.0	0.0
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WB2	Warramunga Arr	50.39	176	*e*P	P	03 05 03.4	-0.6
ASAR	Alice Springs	54.07	177	P	P	03 05 32.5	+1.1
	comp=Z,0.9nm,0.7s,mb3.8,baz=9.9,slow=12,SNR=13						
ARU	Arti	55.61	320	*e*P	P	03 05 40.3	-1.8
ILAR	Eielson Array	59.33	30	P	P	03 06 07.7	-0.6
	comp=Z,1.1nm,0.7s,mb4.0,baz=273,slow=6.6,SNR=11						
ILAR	Eielson Array	59.33	30	P	P	03 06 07.7	-0.6
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
STKA	Stephens Creek	62.97	170	P	P	03 06 33.9	+0.6
	comp=Z,1.4nm,0.4s,mb4.4,baz=4.3,slow=3.5,SNR=4.7						
INK	Inuvik	63.82	24	P	P	03 06 38.1	-0.2
	comp=Z,3.3nm,0.7s,mb4.5,baz=284,slow=6.3,SNR=12						
INK	Inuvik	63.82	24	P	P	03 06 38.1	-0.2
INK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KEV	Kevo	66.29	338	*e*p	P	03 06 52.9	-1.3
ARCES	ARCESS Array B	66.86	338	P	P	03 06 56.9	-0.8
	comp=Z,7.4nm,1.0s,mb4.7,baz=16,slow=8.8,SNR=4.0						
ARCES				LR	LR	03 40 25.1	
	comp=Z,272nm,18.9s,MS4.5,baz=23,slow=40						
ARCES	ARCESS Array B	66.86	338	P	P	03 06 56.9	-0.9
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.0s						
ARCES				MLR	MLR		
	comp=Z,272nm,19.0s						
JOF	Joensuu	67.45	331	*e*p	P	03 07 00.0	-1.6
KIV	Kislovodsk	68.45	309	*e*P	P	03 07 07.7	-0.4
KIV				pmax	pmax		
	comp=N,12nm,1.1s						
KIV				pmax	pmax		
	comp=E,9.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
KIV				MLR	MLR		
	comp=N,70nm,18.0s,MS4.0						
KIV				MLR	MLR		
	comp=E,44nm,18.0s,MS4.0						
KIV				MLR	MLR		
	comp=Z,81nm,18.0s,MS4.0						
KIV	Kislovodsk	68.45	309	*e*P	P	03 07 08.2	+0.1
	comp=Z,32nm,1.3s,mb5.2						
GNI	Garni	68.48	305	P	P	03 07 08.4	+0.1
	comp=Z,1.2nm,0.3s,mb4.3,baz=115,slow=12,SNR=3.9						
GNI	Garni	68.48	305	P	P	03 07 08.4	0.0
GNI				pmax	pmax		
	comp=Z,1.0nm,0.3s						
GNI	Garni	68.48	305	*e*P	P	03 07 09.2	+0.8
	comp=Z,6.1nm,0.8s,mb4.7						
KAF	Kangasniemi	69.90	331	*e*p	P	03 07 15.9	-0.8
FINES	FINESS Array B	70.31	330	P	P	03 07 17.7	-1.5
	comp=Z,1.6nm,0.4s,mb4.3,baz=72,slow=6.7,SNR=23						
FINES				LR	LR	03 43 04.8	
	comp=Z,138nm,19.0s,MS4.2,baz=86,slow=40						
FINES	FINESS Array B	70.31	330	P	P	03 07 17.7	-1.5
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES				MLR	MLR		
	comp=Z,138nm,19.0s						
YKA	Yellowknife Ar	73.44	26	P	P	03 07 38.3	+0.6
	comp=Z,2.0nm,0.8s,mb4.1,baz=302,slow=5.7,SNR=34						
YKA	Yellowknife Ar	73.44	26	P	P	03 07 38.3	+0.6
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MALT	Malatya	73.70	305	*e*P	P	03 07 39.2	-0.5
	comp=Z,2.0nm,0.8s,mb4.1						
AKASG	Malin Array Be	73.86	320	P	P	03 07 39.2	-1.2
	comp=Z,1.8nm,0.5s,mb4.3,baz=53,slow=6.4,SNR=11						
AKASG	Malin Array Be	73.86	320	P	P	03 07 39.2	-1.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
HFS	Hagfors	76.11	333	P	P	03 07 52.3	-0.8
	comp=Z,1.9nm,0.6s,mb4.2,baz=76,slow=6.1,SNR=6.9						
HFS	Hagfors	76.11	333	P	P	03 07 52.3	-0.8
HFS				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BRTR	Keskin Array B	76.37	308	P	P	03 07 55.1	+0.1
	comp=Z,4.0nm,1.0s,mb4.3,baz=104,slow=5.1,SNR=14						
BRTR	Keskin Array B	76.37	308	P	P	03 07 55.1	+0.1
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
NOA	NORSAR Array B	76.49	334	P	P	03 07 54.7	-0.6
	comp=Z,0.5nm,0.4s,mb3.8,baz=52,slow=5.5,SNR=3.4						
NOA				LR	LR	03 48 34.3	
	comp=Z,91nm,18.1s,MS4.1,baz=315,slow=41						
ASF	Jabal al Asfar	77.63	300	P	P	03 08 02.4	+0.2
	comp=Z,2.6nm,0.9s,mb4.2,baz=82,slow=6.3,SNR=3.8						
MORC	Moravsky Berou	80.66	323	*e*P	P	03 08 19.0	+0.7
GERES	GERESS Array B	83.22	324	P	P	03 08 31.0	-0.5
	comp=Z,0.3nm,0.4s,mb3.6,baz=31,slow=7.8,SNR=4.8						
NVAR	Mina Array Bea	85.60	48	P	P	03 08 45.2	+1.5
	comp=Z,0.6nm,0.7s,mb4.0,baz=284,slow=6.1,SNR=3.7						
NVAR	Mina Array Bea	85.60	48	P	P	03 08 45.2	+1.5
PDAR	Pinedale Array	88.11	40	P	P	03 08 57.4	+1.6
	comp=Z,1.2nm,0.9s,mb4.1,baz=292,slow=1.7,SNR=8.7						
ULM	Lac du Bonnet	89.32	28	P	P	03 09 03.4	+2.1
	comp=Z,1.6nm,0.6s,mb4.5,baz=280,slow=6.2,SNR=3.6						
PV10	Paradox Valley	91.31	43	*e*P	P	03 09 13.9	+2.9

DJA ***22*** *03:11:19.8±0.9,9.15S×120.04E,h240^{km},MD4.7/4, ML4.6/3,Error ellipse: s-maj=149.6km s-min=19.8km az=7.0*
IDC ***22*** *03:11:26.9±7.1,9.30S×119.78E,h178^{km}±106^{km},mb3.6/1, mb1 3.3/3,mb1mx3.2/14,MS4.0/1,Ms1 4.0/1,ms1mx2.9/17, Error ellipse: s-maj=190.0km s-min=74.5km az=23.0*
ISC 22 03:11:23.4±2.4,**8.5S**±0.5×**119.9E**±0.2,**h225**^{km}±39^{km},**n9**, σ1§**11**/13,**mb3.8**/1,**3C-1D,Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	3.77	269	⇑*e*Pn	P	03 12 23.7	-0.1
	99nm,0.2s						
KEDI				*e*Sn	S	03 13 11.0	+0.4
RATI	Rata	4.35	266	⇑*e*Pn	P	03 12 31.4	+0.5
	119nm,0.2s						
RATI				*e*Sn	S	03 13 22.7	-0.6
KELI	Kelakatan	5.38	272	⇓*e*Pn	P	03 12 45.2	+1.4
KELI				*e*Sn	S	03 13 47.2	+0.9
SRDI	Scrawed	5.71	269	⇑*e*Pn	P	03 12 47.5	-0.5
	43nm,0.2s						
SRDI				*e*Sn	S	03 13 52.4	-1.6
WRA	Warramunga Arr	18.02	131	P	P	03 15 18.7	-1.6
	0.4nm,0.3s,baz=309,slow=12,SNR=23						
WRA				S	S	03 18 34.5	+3.9
	0.2nm,0.3s,baz=301,slow=24,SNR=6.6						
WB2	Warramunga Arr	18.03	131	*e*P	P	03 15 18.9	-1.4
ASAR	Alice Springs	20.20	140	P	P	03 15 43.1	+0.8
	0.2nm,0.3s,baz=324,slow=9.3,SNR=10						
STKA	Stephens Creek	30.80	142	P	P	03 17 20.9	+0.6
	0.9nm,0.4s,mb3.8,baz=312,slow=14,SNR=3.4						
URZ	Urewera	59.19	130	LR	LR	03 45 28.1	
	comp=Z,145nm,20.9s,baz=66,slow=35						

ISK ***22*** *03:23:53.5,36.97N×28.19E,h4^{km},MD3.6*
CSEM ***22*** *03:23:54.7±0.1,37.03N×28.25E,h5^{km},MD3.6,Error ellipse: s-maj=2.1km s-min=2.0km az=70.0*
NEIC ***22*** *03:23:55.3,36.99N×28.22E,h20^{km},MD3.5(ATH),After ATH.*
ATH ***22*** *03:23:55.2,36.99N×28.23E,h20^{km}±2^{km},MD3.5/6*
ISC 22 03:23:54.6±0.8,**36.92N**±0.03×**28.25E**±0.04,**h9**^{km}±6^{km}, **n43**,σ1§**24**/50,**1C-1D,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.34	115	*i* PG	Pg	03 24 02.5	+0.9
DALT				*i* SG	Sg	03 24 08.5	+2.2
BDRM	Kayabasi	0.66	283	*i* P	Pb	03 24 08.4	+0.5
BDRM				*i* S	Sb	03 24 19.5	+2.6
ARG	Arkhangelos	0.70	188	⇑*i*PN	Pn	03 24 10.0	-0.4
ARG				*e*SN	Sn	03 24 21.5	+0.1
FETY	Fethiye	0.72	112	PG	Pg	03 24 08.7	-0.5
AYDN	Tasoluk	0.80	338	*i* P	Pb	03 24 09.8	-0.4
AYDN				*i* S	Sb	03 24 20.4	-0.5
NISR	Nisiros	0.95	252	*e*PN	Pn	03 24 14.0	0.0
DNZL	Cakiroluk	1.00	39	*i* P	Pb	03 24 12.6	-1.0
DNZL				*i* S	Sb	03 24 26.0	-0.7
DENT	Denizli	1.04	36	PG	Pg	03 24 13.3	-2.2
KSL	Kastellorizon	1.32	125	*e*PN	Pn	03 24 21.5	+2.3
ELL	Elmali	1.34	97	PN	Pn	03 24 20.8	+1.3
SMG	Samos	1.38	306	⇓*i*PN	Pn	03 24 20.0	-0.1
MANT	Manisa	1.59	9	*i* P	Pn	03 24 22.6	-0.6
MANT				*i* S	Sb	03 24 45.8	+1.9
KARP	Karpathos	1.62	213	*e*PN	Pn	03 24 25.8	+2.2
IZM	Izmir	1.68	332	PN	Pn	03 24 23.7	-0.6
KDAG	Bornova	1.68	333	*i* P	Pn	03 24 23.9	-0.5
KDAG				*i* S	Sn	03 24 48.5	+2.3
KHL	Karahalli	1.73	35	PN	Pn	03 24 25.2	+0.1
BLCB	Balcova	1.75	327	*e*PN	Pn	03 24 24.7	-0.7
ANTB	Antalya	1.93	90	*e*PN	Pn	03 24 28.9	+1.0
BCK	Bucak	1.94	73	*e*PN	Pn	03 24 29.2	+1.0
AKS	Akhisar	1.99	350	PN	Pn	03 24 28.0	-0.8
ISP	Isparta	2.02	62	PN	Pn	03 24 29.5	+0.2
ISP	Isparta	2.02	62	*e*P	Pn	03 24 29.8	+0.5
ISP	Isparta	2.02	62	*e*P	Pn	03 24 29.8	+0.5
APE	Apeiranthos	2.18	275	PN	Pn	03 24 30.8	-0.8
ALT	Altintas	2.59	34	*e*PN	Pn	03 24 37.4	0.0
NPS	Neapolis	2.70	233	*e*PN	Pn	03 24 39.8	+0.8
DST	Dursunbey	2.70	6	*e*PN	Pn	03 24 38.7	-0.3
BALB	Balikesir	2.74	354	*e*PN	Pn	03 24 38.5	-1.0
ORLT	Orhaneli	3.17	9	*e*PN	Pn	03 24 45.5	-0.1
ESKT	Eskisehir	3.31	37	*e*PN	Pn	03 24 48.0	+0.4
HDMB	Hadim	3.39	88	*e*PN	Pn	03 24 49.8	+1.0
KONT	Konya--Tatoy	3.43	71	*e*PN	Pn	03 24 50.1	+0.8
KIZT	Kizilcal	3.48	55	PN	Pn	03 24 50.5	+0.5
MDU	Mudurnu	4.24	32	*e*PN	Pn	03 25 01.1	+0.3
CSS	Prodhromos	4.56	114	*e*P	Pn	03 25 04.9	-0.5
CSS	Prodhromos	4.56	114	*e*P	Pn	03 25 04.9	-0.5
EIL	Elat	9.14	140	*e*P	P	03 26 06.3	-3.4
	7.7nm,0.6s						
JMOS	Jabal al Moall	9.63	141	P	P	03 26 13.8	-2.7
HAQS	Haql	9.63	143	P	P	03 26 14.1	-2.4
TAYS	Tayyib Ism	10.03	144	P	P	03 26 19.3	-2.6
BDAS	Al Bad‘	10.24	144	P	P	03 26 21.1	-3.6
JMQS	Jabal Moqyreh	10.25	139	P	P	03 26 22.2	-2.8
AYUS	‘Aynunah	10.52	144	P	P	03 26 25.1	-3.6

NNC ***22*** *03:24:54.3±0.8,43.98N×84.74E,h32^{km}±3^{km},mpv3.6, Error ellipse: s-maj=58.0km s-min=6.1km az=59.0*
BJI 22 03:24:51.5,43.57N×84.35E,h12^{km}**,ML3.6,1C-2D, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	Urumqi	2.44	83	*e*P	Pn	03 25 33.6	+1.8
WMQ				SG	Sg	03 26 06.1	-6.7
WMQ				Smax			
	comp=N,188nm,0.7s						
WMQ				Smax			
	comp=E,220nm,0.4s						
MK31	Makanchi Array	3.54	336	⇓Pn	Pn	03 25 46.6	-0.9
	comp=E,6.4nm,0.3s,baz=149,slow=13,SNR=577						
MK31				⇑Pg	Pg	03 25 54.8	-7.4
	comp=E,7.2nm,0.2s,baz=146,slow=18,SNR=50						
MK31				⇓Lg		03 26 39.9	
	comp=E,33nm,0.6s,baz=144,slow=18,SNR=3.7						

IDC 22 03:57:53.4±2.9,**55.11S**×**147.26E,mb3.7**/3,**mb1 4.0**/3, **mb1mx3.6**/8,**MS3.7**/2,**Ms1 3.6**/2,**ms1mx2.8**/17,**Error ellipse: s-maj=313.0km s-min=25.9km az=76.0,West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	19.12	63	LR	LR	04 08 28.9	
	comp=Z,269nm,20.8s,baz=12,slow=33						
VNDA	Vanda	23.11	172	P	P	04 03 00.3	-0.8
	2.5nm,0.9s,baz=348,slow=13,SNR=6.0						
ASAR	Alice Springs	32.94	337	P	P	04 04 28.8	-2.7
	0.4nm,0.6s,baz=163,slow=9.4,SNR=5.5						
WRA	Warramunga Arr	36.45	339	P	P	04 05 00.1	-1.6
	1.3nm,0.7s,baz=166,slow=7.5,SNR=14						
MAW	Mawson	38.97	217	LR	LR	04 19 57.0	
	comp=Z,80nm,18.2s,baz=249,slow=34						

MEX ***22*** *04:32:41.6±0.7,13.74N×92.58W,h16^{km}±56^{km},MD4.6*
CASC ***22*** *04:32:46.2±2.6,14.19N×92.06W,h16^{km}±20^{km},MD4.6, ML4.2,mb4.3(NEIC)*
NEIC ***22*** *04:32:49.5±1.2,14.35N×91.93W,h79^{km}±10^{km},mb4.3/21, Error ellipse: s-maj=12.6km s-min=7.0km az=218.0*
IDC ***22*** *04:32:51.7±4.7,14.87N×91.55W,h80^{km}±40^{km},mb4.0/9, mb1 4.2/12,mb1mx4.0/21,ML3.5/2,MS3.8/9,Ms1 3.8/9, ms1mx3.3/26,Error ellipse: s-maj=47.4km s-min=15.9km az=36.0*
ISC 22 04:32:43.6±0.6,**14.14N**±0.05×**92.29W**±0.04,**h48**^{km}±6^{km}, **n102**,σ1§**40**/104,**mb4.4**/23,**MS3.9**/8,**5C-2D,Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TP2	Tecpan 2	1.38	62	⇑*e*P	P	04 33 08.2	+1.3
FUG	Fuego 3	1.43	78	⇓*e*P	P	04 33 07.2	-0.4
PCG	Pacaya	1.65	81	⇑*e*P	P	04 33 10.6	-0.1
PCG				*e*S	S	04 33 32.0	+1.3
IXG	Ixpaco	1.78	89	⇑*e*P	P	04 33 11.7	-0.7
IXG				*e*S	S	04 33 36.0	+2.1
NBG	Las Nubes	1.93	76	⇑*e*P	P	04 33 15.9	+1.3
CCIG	Comitan	2.13	4	*e*P	P	04 33 19.3	+1.8
CCIG				*i* S	S	04 33 49.5	+6.7
CCIG	Comitan	2.13	4	*e*P	P	04 33 19.5	+2.0
CCIG				*i* S	S	04 33 49.5	+6.7
CMIG	Matias Romero	3.86	320	*e*P	P	04 33 39.8	-2.1
CMIG				*e*S	S	04 34 23.9	-2.6
CMIG	Matias Romero	3.86	320	*e*PN	P	04 33 39.8	-2.1
CMIG				*i* S	S	04 34 24.5	-2.0
CMIG				*i* S	S	04 34 25.2	-1.3
HUIG	Huatulco	4.03	294	*e*P	P	04 33 41.8	-2.6
HUIG				*i* S	S	04 34 24.0	-7.0
HUIG	Huatulco	4.03	294	*i* P	P	04 33 40.8	-3.7
HUIG				*i* S	S	04 34 23.4	-7.6
VHO	Vista Hermosa	5.18	305	*e*P	P	04 34 00.3	-0.3
VHO				*e*S	S	04 34 58.2	-1.7
VHO	Vista Hermosa	5.18	305	*e*P	P	04 33 59.6	-1.0
VHO				*i* S	S	04 34 55.5	-4.4
TEL3	Telica 3	5.52	106	⇓*e*P	P	04 34 04.6	-0.7
TEL3				*i*		04 35 30.9	
	comp=Z,450nm,0.8s						
LEON	Leon	5.52	107	*e*P	P	04 34 05.4	+0.1
CNGN	Cerro Negro	5.68	106	*e*P	P	04 34 06.4	-1.1
MIRN	Miramar	5.68	107	⇑*e*P	P	04 34 06.6	-1.0
MOMJ	Momotombo	5.85	106	*e*P	P	04 34 11.3	+1.4
COPN	Copaltepe	5.88	109	*e*P	P	04 34 09.6	-0.7
APYN	Apoyeque	6.08	107	*e*P	P	04 34 12.2	-1.0
CRUN	El Crucero	6.21	109	*e*P	P	04 34 15.6	+0.6
TICN	Ticuantepe	6.26	109	*e*P	P	04 34 15.0	-0.7
APON	Apoyo	6.45	109	*e*P	P	04 34 20.4	+2.1
TEIG	Tepich	7.16	32	*e*P	P	04 34 27.0	-1.3
	comp=Z,98nm,0.6s						
PPM	Popocatepetl	7.81	310	*e*P	P	04 34 38.1	+0.9

PPM				*e*S	S	04 35 58.7	-6.4
PPM	Popocatepetl	7.81	310	*e*P	P	04 34 37.4	+0.2
PPM				*i* S	S	04 36 02.2	-2.9
PLIG	Platanillo	8.12	302	*i* S	S	04 36 02.4	-11
JTS	JuntasAbangare	8.12	117	*e*P	P	04 34 41.5	-0.1
	comp=Z,37nm,1.1s						
CAIG	El Cayaco	8.21	292	*e*PN	P	04 34 40.9	-2.0
CGA2	Cerro Gallo 2	8.68	117	*e*P	P	04 34 47.9	-1.3
VPS2	Volcan Poas 2	8.79	116	*e*P	P	04 34 50.5	-0.4
LAJ	Bijagual	9.05	117	*e*P	P	04 34 53.0	-1.4
TRTC	Tortuguero	9.09	112	*e*P	P	04 34 54.3	-0.7
LCR2	La Lucha 2	9.21	117	*e*P	P	04 34 57.8	+1.3
ICR	Volcan Irazu	9.24	116	*e*P	P	04 34 58.4	+1.4
URSC	Urasca	9.36	116	*e*P	P	04 35 02.4	+3.8
BUS	Buena Vista	9.51	118	*e*P	P	04 35 04.1	+3.3
JCT	Junction City	17.67	338	*e*P	P	04 36 49.2	+1.2
	comp=Z,11nm,1.2s						
LTX	Lajitas	18.43	327	*e*P	P	04 36 59.6	+2.2
	comp=Z,12nm,1.0s						
TXAR	Lajitas Array	18.43	327	P	P	04 36 58.5	+1.1
	comp=Z,0.2nm,0.3s,baz=154,slow=14,SNR=42						
TXAR				LR	LR	04 45 46.0	
	comp=Z,128nm,18.5s,baz=165,slow=42						
TXAR	Lajitas Array	18.43	327	P	P	04 36 58.5	+1.1
TXAR				LR	LR	04 45 46.0	
LRAL	Lakeview Retre	19.42	13	*e*P	P	04 37 07.8	-0.8
	comp=Z,11nm,0.9s						
ROSC	El Rosal	19.95	116	P	P	04 37 15.8	+1.2
	comp=Z,0.5nm,0.3s,baz=206,slow=1.8,SNR=15						
MIAR	Mount Ida	20.35	357	*e*P	P	04 37 21.6	+3.0
	comp=Z,56nm,1.1s						
MIAR				*e*		04 37 37.2	
UALR	University of	20.55	360	*e*P	P	04 37 20.7	0.0
	comp=Z,7.4nm,0.6s						
UALR				*e*		04 37 32.4	
UALR				*e*		04 37 39.6	
GOGA	Godfrey	20.79	21	*e*P	P	04 37 21.8	-1.4
	comp=Z,9.4nm,0.7s						
CLNB	Carlsbad	20.92	332	*e*P	P	04 37 25.9	+1.3
GDL2	Guadalupe Moun	21.10	330	*e*P	P	04 37 27.1	+0.8
WMOK	Wichita Mounta	21.33	345	*e*P	P	04 37 27.7	-0.9
	comp=Z,8.6nm,0.9s,mb4.1						
CPRX	Cap Rock	21.56	333	*e*P	P	04 37 32.1	+1.2
SWET	Sewanee	21.75	14	*e*P	P	04 37 31.9	-0.9
SDV	Santo Domingo	21.84	101	P	P	04 37 31.5	-2.3
	comp=Z,8.9nm,0.9s,mb4.2,baz=309,slow=6.2,SNR=10						
SDV	Santo Domingo	21.84	101	*e*P	P	04 37 31.6	-2.2
	comp=Z,10nm,0.9s,mb4.2						
NHSC	New Hope	21.86	28	P	P	04 37 31.4	-2.5
MYNC	Murphy	22.10	18	*e*P	P	04 37 37.0	+0.7
	comp=Z,22nm,0.9s,mb4.6						
WVT	Waverly	22.26	10	*e*P	P	04 37 37.5	-0.4
	comp=Z,3.9nm,0.6s,mb4.0						
AMTX	Amarillo	22.33	339	*e*P	P	04 37 39.2	+0.7
	comp=Z,50nm,0.9s,mb5.0						
CPCT	Cooper Cave	22.34	17	*e*P	P	04 37 38.1	-0.5
CPCT				*e*		04 37 52.2	
BNM	Barren Site	23.78	329	*e*P	P	04 37 55.9	+3.2
LPM	Los Pinos Moun	23.91	330	*e*P	P	04 37 56.7	+2.7
LENM	Lemitar	23.97	329	*e*P	P	04 37 57.5	+3.0
ANMO	Albuquerque	24.35	331	P	P	04 38 00.3	+2.1
	comp=Z,5.5nm,0.7s,mb4.1,baz=152,slow=11,SNR=28						
ANMO				LR	LR	04 49 20.0	
	comp=Z,109nm,19.1s,MS3.4,slow=41						
ANMO	Albuquerque	24.35	331	*e*P	P	04 37 59.8	+1.6
	comp=Z,11nm,1.0s,mb4.2						
WCI	Wyandotte Cave	24.57	11	*e*P	P	04 37 59.4	-1.1
	comp=Z,44nm,0.8s,mb5.0						
WCI				*e*		04 38 20.1	
TUC	Tucson	24.75	320	*e*P	P	04 38 06.8	+4.6
	comp=Z,2.1nm,0.8s,mb3.7						
PWV	Princeton	25.18	21	*e*P	P	04 38 05.2	-1.0
ELN	Prospectdale	25.19	22	*e*P	P	04 38 05.3	-1.1
SJG	San Juan	25.41	78	LR	LR	04 45 39.6	
	comp=Z,73nm,21.4s,MS3.2,baz=25,slow=31						
BLO	Bloomington	25.45	10	*e*P	P	04 38 06.4	-2.4
	comp=Z,17nm,0.8s,mb4.6						
FWV	Forest Hill	25.48	22	*e*P	P	04 38 07.5	-1.5
PV01	Paradox Valley	27.92	332	*e*P	P	04 38 33.6	+2.1
PV10	Paradox Valley	28.33	331	*e*P	P	04 38 36.1	+0.9
HWUT	Hardware Ranch	32.08	332	*e*P	P	04 39 09.0	+0.7
	comp=Z,5.6nm,0.8s,mb4.5						
PDAR	Pinedale Array	32.18	336	P	P	04 39 07.4	-1.7
	comp=Z,1.0nm,0.7s,mb3.7,baz=157,slow=6.9,SNR=6.6						
PDAR				PcP	PcP	04 41 57.6	+0.4
	comp=Z,0.7nm,0.6s,baz=133,slow=5.3,SNR=5.2						
REDW	Red Top Meadow	33.20	335	*e*P	P	04 39 18.7	+0.7
ELK	Elko	33.22	327	*e*P	P	04 39 19.7	+1.4
	comp=Z,5.2nm,0.8s,mb4.5						
SNOW	Snow King Moun	33.24	335	*e*P	P	04 39 19.4	+1.0
MNV	Mina	33.30	321	*e*P	P	04 39 20.7	+1.8
	comp=Z,1.0nm,0.3s,mb4.2						
TPAW	Teton Pass	33.34	335	*e*P	P	04 39 20.3	+1.1
NVAR	Mina Array Bea	33.39	321	P	P	04 39 22.1	+2.4
	comp=Z,2.6nm,0.6s,mb4.3,baz=143,slow=7.8,SNR=14						
NVAR				PcP	PcP	04 42 03.5	+2.9
	comp=Z,1.4nm,0.8s,baz=143,slow=4.5,SNR=4.9						
NVAR				LR	LR	04 54 34.6	
	comp=Z,240nm,19.0s,MS3.9,baz=115,slow=39						
LAO	LASA Array	34.49	343	*e*P	P	04 39 28.8	-0.3
	comp=Z,7.3nm,0.9s,mb4.6						
HLID	Hailey	34.92	331	*e*P	P	04 39 34.1	+1.3
	comp=Z,8.5nm,1.0s,mb4.6						
MCMT	McKenzie Canyo	35.23	334	*e*P	P	04 39 37.3	+1.9
ULM	Lac du Bonnet	36.13	356	LR	LR	04 57 41.0	
	comp=Z,117nm,19.7s,MS3.7,baz=298,slow=42						
BMO	Blue Mountains	37.26	330	*e*P	P	04 39 53.0	+0.4
	comp=Z,4.6nm,0.9s,mb4.3						
EDM	Edmonton	42.41	341	*e*P	P	04 40 33.7	-1.4
SCHQ	Schefferville	45.19	21	P	P	04 40 54.4	-3.2
	comp=Z,3.4nm,0.8s,mb4.2,baz=234,slow=12,SNR=3.7						
SCHQ				LR	LR	05 00 53.9	
	comp=Z,218nm,18.6s,MS4.1,baz=190,slow=38						
YKA	Yellowknife Ar	50.83	347	P	P	04 41 40.1	-1.2
	comp=Z,10nm,0.7s,mb4.8,baz=150,slow=7.4,SNR=121						
YKA				PcP	PcP	04 42 56.6	-1.1
	comp=Z,1.2nm,0.6s,baz=149,slow=3.7,SNR=9.5						
YKW3	Yellowknife Ar	50.89	347	*e*P	P	04 41 40.2	-1.5
DLBC	Dease Lake	52.41	336	LR	LR	05 07 27.3	
	comp=Z,136nm,18.1s,MS4.0,baz=156,slow=40						
RKT	Rikitea	55.83	229	*e*LR	LR	04 57 55.0	
	comp=Z,226nm,29.8s						
INK	Inuvik	60.23	344	P	P	04 42 48.2	-0.8
	comp=Z,6.5nm,0.7s,mb4.8,baz=130,slow=6.8,SNR=22						
ILAR	Eielson Array	62.60	337	P	P	04 43 04.7	-0.4
	comp=Z,4.7nm,0.8s,mb4.7,baz=133,slow=3.2,SNR=44						
ILAR				PcP	PcP	04 43 43.8	+0.4
	comp=Z,0.7nm,0.7s,baz=128,slow=1.6,SNR=4.3						
ILAR				LR	LR	05 12 08.3	
	comp=Z,124nm,18.2s,MS4.1,baz=177,slow=38						
PPT	Papeete	64.71	243	*e*LR	LR	05 02 03.7	
	comp=Z,135nm,26.5s						
TBI	Tubuai	67.19	237	*e*LR	LR	05 03 12.0	
	comp=Z,133nm,24.5s						
ESDC	Sonseca Array	79.85	52	P	P	04 44 46.3	-2.6
	comp=Z,1.7nm,0.9s,mb4.0,baz=291,slow=4.7,SNR=4.0						
ARCES	ARCESS Array B	86.09	18	LR	LR	05 28 31.1	
	comp=Z,140nm,18.6s,MS4.4,baz=153,slow=39						
GERES	GERESS Array B	89.67	39	P	P	04 45 35.6	-2.2
	comp=Z,0.6nm,0.8s,mb4.0,baz=281,slow=5.0,SNR=3.3						
WRA	Warramunga Arr	135.16	256	PKhKP		04 52 00.2	
	comp=Z,0.4nm,0.8s,baz=90,slow=2.7,SNR=5.7						
CMAR	Chiang Mai Arr	145.77	341	PKPbc	PKPbc	04 52 20.2	+1.5
	comp=Z,9.6nm,0.7s,baz=341,slow=3.8,SNR=40						
HYB	Hyderabad	147.37	16	*e*P	PKPdf	04 52 24.0	+3.5
HYB	Hyderabad	147.37	16	*i* PKP	PKPdf	04 52 24.0	+3.5

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*PRU **22** 04:38:04.6, 50.25N×19.14E*

WAR 22 04:38:02.9, 50.17N×19.30E, h0^{km}, ML2.4, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.32	81	*e*PG	Pg	04 38 10.0	+0.6
OJC				*e*SG	Sg	04 38 15.0	+1.3
OKC	Ostrava-Krasne	0.81	246	*e*PG	Pg	04 38 19.5	+0.3
OKC				*e*SG	Sg	04 38 30.7	+0.7
NIE	Niedzica	1.00	139	*e*Pg	Pg	04 38 22.4	-0.4
NIE				*e*Sg	Sg	04 38 37.4	+1.2
DPC	Dobruska-Polom	1.92	277	*e*PG	Pg	04 38 36.3	-4.9
DPC				*e*SG	Sg	04 39 02.0	-4.8
KSP	Ksiaz	2.03	290	*e*PG	Pg	04 38 41.0	-2.5
KSP				*e*(SN)	Sn	04 39 04.0	-1.2
UPC	Upice	2.13	280	*e*SG	Sg	04 39 09.4	-4.5
PRU	Pruhonice	3.07	268	*e*SG	Sg	04 39 40.0	-5.1
KHC	Kasperske Hory	3.86	257	*e*PG	Pg	04 39 16.5	-3.5
KHC				*e*x	x	04 39 49.5	
KHC				*e*SG	Sg	04 40 06.0	-5.4
MOA	Molln	4.05	237	*i*	Pn	04 39 08.0	+0.6
MOA	Molln	4.05	237	*i* SG	Sg	04 40 11.8	-5.8
	1.6nm,0.4s						

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*IDC **22** 04:46:18.7±1.7, 55.43S×145.74E, mb4.0/4, mb1 4.2/4, mb1mx3.9/9, MS3.8/7, Ms1 3.8/7, ms1mx3.4/17, Error ellipse: s-maj=107.0km s-min=22.8km az=81.0*

NEIC 22 04:46:17.2±0.9**, 55.57S**×**146.94E, h10^{km}, mb4.3**/1**, Error ellipse: s-maj=78.4km s-min=13.2km az=74.0, West of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	19.49	63	LR	LR	04 56 52.0	
	comp=Z,620nm,20.3s,baz=218,slow=32						
VNDA	Vanda	22.67	172	P	P	04 51 23.7	+4.4
	5.8nm,1.1s,baz=325,slow=12,SNR=8.7						
VNDA	Vanda	22.67	172	*e*P	P	04 51 19.0	-0.3
STKA	Stephens Creek	23.98	349	P	P	04 51 32.8	+0.3
	1.1nm,0.5s,baz=180,slow=10,SNR=3.5						
STKA				LR	LR	04 58 46.2	
	comp=Z,96nm,21.7s,baz=18,slow=32						
STKA	Stephens Creek	23.98	349	*e*P	P	04 51 32.8	+0.3
STKA				LR	LR	04 58 46.2	
URZ	Urewera	26.60	62	LR	LR	05 01 32.0	
	comp=Z,317nm,21.3s,baz=319,slow=34						
ASAR	Alice Springs	33.29	338	P	P	04 52 54.8	-2.2
	1.3nm,0.7s,baz=166,slow=9.9,SNR=10.0						
ASAR				LR	LR	05 05 40.8	
	comp=Z,45nm,19.3s,baz=170,slow=35						
CTA	Charters Tower	35.43	359	LR	LR	05 06 18.8	
	comp=Z,178nm,20.3s,baz=39,slow=34						
WRA	Warramunga Arr	36.82	340	P	P	04 53 24.8	-2.3
	2.7nm,0.6s,baz=165,slow=7.7,SNR=30						
WRAB	Tennant Creek	36.83	340	*e*P	P	04 53 24.9	-2.2
MAW	Mawson	38.49	218	LR	LR	05 09 27.5	
	comp=Z,213nm,18.0s,baz=77,slow=36						
MBWA	Marble Bar	39.93	318	*e*P	P	04 53 50.8	-2.3
	5.4nm,0.7s						
PMG	Port Moresby	46.05	0	LR	LR	05 12 09.1	
	comp=Z,164nm,18.2s,baz=154,slow=34						
PMSA	Palmer Station	57.66	165	*e*P	P	04 56 05.5	-3.9
GERES	GERESS Array B	151.04	276	PKPbc	PKPdf	05 06 10.7	+4.3
	1.1nm,0.9s,baz=135,slow=1.9,SNR=5.3						
GERES				PKPab	PKPab	05 06 16.7	-2.4
	0.6nm,0.7s,baz=135,slow=1.4,SNR=5.5						

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*ISK **22** 04:57:39.4, 37.04N×28.22E, h14^{km}, MD3.5*

*CSEM **22** 04:57:39.1±0.1, 37.07N×28.25E, h5^{km}, MD3.5, Error ellipse: s-maj=1.8km s-min=1.5km az=59.0*

*ATH **22** 04:57:40.1, 37.04N×28.24E, h20^{km}±10^{km}, MD3.4/5*

*NEIC **22** 04:57:42.5, 36.87N×28.13E, h26^{km}, MD3.4(ATH), After ATH.*

ISC 22 04:57:39.8±0.5**, 37.06N**±0.03×**28.24E**±0.03**, h8^{km}**±5^{km}**, n28, σ0^{s}73**/33**, 1C, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.43	133	*i* PG	Pg	04 57 48.0	-0.5
DALT				*i* SG	Sg	04 57 55.4	+1.1
BDRM	Kayabasi	0.64	271	*i* P	Pg	04 57 52.4	-0.3
BDRM				*i* S	Sg	04 58 02.0	+0.8
AYDN	Tasoluk	0.66	334	*i* P	Pg	04 57 53.1	-0.1
AYDN				*i* S	Sg	04 58 02.1	+0.1
FETY	Fethiye	0.80	122	*i* PG	Pg	04 57 54.8	-1.0
FETY				*i* SG	Sg	04 58 07.2	+0.7
ARG	Arkhangelos	0.85	186	*e*PB	Pb	04 57 55.3	-1.1
DNZL	Cakiroluk	0.90	45	*i* P	Pb	04 57 56.6	-0.6
DNZL				*i* S	Sb	04 58 14.1	+5.0
DENT	Denizli	0.93	42	PG	Pg	04 57 57.5	-1.0
NISR	Nisiros	1.00	244	*e*PN	Pn	04 57 59.6	-0.4
SMG	Samos	1.29	300	⇑*i*PN	Pn	04 58 04.5	+0.3
ELL	Elmali	1.37	103	PN	Pn	04 58 05.0	-0.3
KSL	Kastellorizon	1.41	130	*e*PN	Pn	04 58 07.0	+1.1
IZM	Izmir	1.54	330	PN	Pn	04 58 08.0	+0.2
KHL	Karahalli	1.62	38	PN	Pn	04 58 09.2	+0.3
BLCB	Balcova	1.63	325	*e*PN	Pn	04 58 09.2	+0.2
KARP	Karpathos	1.75	210	*e*PN	Pn	04 58 11.0	+0.3
AKS	Akhisar	1.85	350	PN	Pn	04 58 12.2	+0.1
BCK	Bucak	1.91	77	PN	Pn	04 58 13.0	-0.1
ISP	Isparta	1.96	66	*e*PN	Pn	04 58 13.3	-0.5
ISP	Isparta	1.96	66	*e*P	Pn	04 58 15.7	+1.9
ISP	Isparta	1.96	66	*e*P	Pn	04 58 15.7	+1.9
APE	Apeiranthos	2.17	271	*e*PN	Pn	04 58 15.8	-1.0
ALT	Altintas	2.48	36	*e*PN	Pn	04 58 21.4	+0.3
DST	Dursunbey	2.56	7	*e*PN	Pn	04 58 21.8	-0.5
BALB	Balikesir	2.59	354	*e*PN	Pn	04 58 22.9	+0.1
PRK	Paraskevi	2.68	325	*e*Pb	Pb	04 58 30.8	+3.1
ESKT	Eskisehir	3.20	39	*e*PN	Pn	04 58 31.4	0.0
HDMB	Hadim	3.40	90	*e*PN	Pn	04 58 33.4	-0.9
KIZT	Kizilcal	3.40	57	*e*PN	Pn	04 58 34.6	+0.3

IDC 22 05:08:04.3±34.0**, 14.67S**×**176.65E, mb4.6**/4**, mb1 4.7**/4**, mb1mx4.1**/15**, 3D, Error ellipse: s-maj=593.0km s-min=129.0km az=67.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	12.16	231	*e*P	P	05 10 47.8	-14
NOUC	Port Laguerre	12.28	231	*e*P	P	05 10 49.1	-14
CTA	Charters Tower	29.47	255	P	P	05 14 08.9	-3.5
	5.1nm,0.7s,baz=86,slow=12,SNR=8.3						
STKA	Stephens Creek	36.26	236	⇓*i*P	P	05 15 09.5	-1.8
	2.1nm,0.6s						
STKA	Stephens Creek	36.26	236	P	P	05 15 09.6	-1.7
	2.5nm,0.6s,baz=56,slow=8.9,SNR=12						
WB2	Warramunga Arr	40.64	256	⇓*i*P	P	05 15 46.8	-1.2
WRA	Warramunga Arr	40.65	256	P	P	05 15 47.2	-0.9
	1.6nm,0.3s,baz=81,slow=6.4,SNR=74						
ASAR	Alice Springs	41.22	251	P	P	05 15 51.4	-1.3
	10nm,0.4s,baz=85,slow=8.1,SNR=231						
ASPA	Alice Springs	41.23	251	⇓*i*P	P	05 15 51.5	-1.2

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*SYO **22** 05:41:06.5, 56.68S×25.51W, h33^{km}, MB4.5*

*IDC **22** 05:41:13.0±0.6, 56.89S×25.76W, h88^{km}±4^{km}, mb4.1/5, mb1 4.2/6, mb1mx3.8/12, MS3.1/4, Ms1 3.1/4, ms1mx2.7/12, Error ellipse: s-maj=24.2km s-min=16.7km az=74.0*

*NEIC **22** 05:41:13.3±3.2, 56.89S×25.73W, h93^{km}±28^{km}, mb4.5/5, Error ellipse: s-maj=17.7km s-min=9.3km az=50.0*

*BJI **22** 05:41:13.2, 56.90S×25.70W, h93^{km}, mB4.5*

ISC 22 05:41:10.8±0.7**, 57.11S**±0.08×**25.2W**±0.2**, h100^{km}, n45, σ1^{s}29**/32**, mb4.4**/7**, 5C-1D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	15.41	159	*e*S	S	05 47 31.3	0.0
VNA1	Neumayer--Stat	15.41	159	⇑*i*P	P	05 44 51.4	+8.1
VNA1				*e*S	S	05 47 31.3	0.0
VNA3	Neumayer Olymp	15.63	161	*e*	P	05 44 55.6	+9.5
VNA3	Neumayer Olymp	15.63	161	*e*S	S	05 47 33.2	-3.2
VNA3	Neumayer Olymp	15.63	161	⇑*i*P	P	05 44 53.5	+7.4
VNA3				*e*		05 44 55.6	
VNA3				*e*S	S	05 47 33.2	-3.2
VNA2	Neumayer--Watz	15.80	158	*e*	P	05 44 58.3	+10
VNA2	Neumayer--Watz	15.80	158	*e*S	S	05 47 36.2	-4.0
VNA2	Neumayer--Watz	15.80	158	⇑*i*P	P	05 44 56.3	+8.0
VNA2				*e*		05 44 58.3	
VNA2				*e*S	S	05 47 36.2	-4.0
SNAA	Sanae	17.33	156	⇑*i*P	P	05 45 15.2	+7.9
SNAA	Sanae	17.33	156	*e*S	S	05 48 14.5	-0.3
SNAA	Sanae	17.33	156	P	P	05 45 12.0	+4.6
	2.4nm,0.3s,baz=308,slow=9.1,SNR=182						
SNAA				LR	LR	05 51 06.9	
	comp=Z,15nm,18.4s,baz=213,slow=34						
SNAA	Sanae	17.33	156	*e*P	P	05 45 10.9	+3.6
	23nm,0.6s						
SNAA				⇑*i*P		05 45 15.2	
SNAA				*e*S	S	05 48 14.5	-0.3
EFI	East Falkland	19.75	272	*e*P	P	05 45 31.4	-3.3
PMSA	Palmer Station	20.06	232	*e*P	P	05 45 38.2	+0.4
	20nm,0.9s						
USHA	Ushuaia	23.99	257	P	P	05 46 17.0	+0.6
	4.8nm,0.5s,mb4.1,baz=92,slow=14,SNR=9.1						
USHA				LR	LR	05 53 36.9	
	comp=Z,35nm,19.5s,baz=104,slow=31						
SYO	Syowa Base	30.07	139	⇓P	P	05 47 10.5	-1.7
TRQA	Tornquist	30.73	292	*e*P	P	05 47 15.1	-3.2
MAW	Mawson	38.65	142	P	P	05 48 30.4	+5.0
	2.7nm,0.9s,mb4.1,baz=29,slow=14,SNR=4.3						
MAW	Mawson	38.65	142	P	P	05 48 30.6	+5.2
BAO	Brasilia Array	44.83	328	P	P	05 49 16.6	+0.2
BDFB	Brasilia	44.83	328	P	P	05 49 16.5	+0.1
	5.1nm,0.5s,mb4.5,baz=152,slow=2.5,SNR=19						
BDFB				LR	LR	06 06 03.7	
	comp=Z,37nm,20.7s,baz=172,slow=34						
SBA	Scott Base	45.09	184	P	P	05 49 22.4	+4.7
VNDA	Vanda	45.56	182	P	P	05 49 25.5	+4.1
	4.5nm,0.7s,mb4.3,baz=184,slow=6.0,SNR=28						
VNDA				LR	LR	06 08 05.7	
	comp=Z,56nm,18.1s,baz=51,slow=35						
VNDA	Vanda	45.56	182	*e*P	P	05 49 25.1	+3.6
	5.0nm,0.8s,mb4.3						
LVC	Limon Verde	46.77	299	*e*P	P	05 49 30.4	-1.3
	8.1nm,0.5s,mb4.7						
DBIC	Dimbokro	65.71	22	P	P	05 51 47.5	+0.7
	5.7nm,0.7s,mb4.5,baz=155,slow=6.9,SNR=14						
DBIC				pP	pP	05 52 11.1	-1.0
	2.8nm,0.7s,baz=146,slow=9.7,SNR=2.5						
DBIC	Dimbokro	65.71	22	P	P	05 51 47.5	+0.7
DBIC				pP	pP	05 52 11.1	-1.0
OTAV	Otavalo	71.14	302	*e*P	P	05 52 20.7	+0.4
	3.4nm,0.6s,mb4.3						
ASAR	Alice Springs	97.64	161	pP	pP	05 55 00.5	-1.3
	0.7nm,0.7s,baz=195,slow=4.4,SNR=5.4						
HFS	Hagfors	120.86	21	PKP	PKPdf	05 59 51.4	+1.2
	2.1nm,0.5s,baz=162,slow=4.6,SNR=5.8						
NOA	NORSAR Array B	121.23	20	PKP	PKPdf	05 59 53.5	+2.6
	2.0nm,1.0s,baz=224,slow=3.5,SNR=2.9						
PDAR	Pinedale Array	121.82	300	PKP	PKPdf	05 59 54.4	+1.9
	0.4nm,0.5s,baz=121,slow=5.3,SNR=6.1						
NVAR	Mina Array Bea	122.80	291	PKP	PKPdf	05 59 57.1	+2.6
	0.5nm,0.8s,baz=153,slow=4.1,SNR=3.5						
CMAR	Chiang Mai Arr	123.68	109	PKP	PKPdf	06 00 00.6	+4.0
	1.0nm,0.5s,baz=237,slow=2.4,SNR=7.2						
CMAR				pPKP		06 00 24.2	
	0.9nm,0.3s,baz=231,slow=4.3,SNR=2.6						
FINES	FINESS Array B	124.82	27	PKP	PKPdf	06 00 00.3	+2.6
	6.6nm,0.7s,baz=150,slow=3.0,SNR=35						
FINES				pPKP		06 00 25.1	
	3.1nm,0.7s,baz=162,slow=6.0,SNR=2.8						
KAF	Kangasniemi	125.45	27	*e*pkp	PKPdf	06 00 01.0	+2.2
	baz=223,slow=1.6						
ARCES	ARCESS Array B	131.53	21	PKP	PKPdf	06 00 13.2	+2.9
	1.6nm,0.4s,baz=184,slow=1.6,SNR=20						
WMQ	Urumqi	137.06	78	PKP	PKPdf	06 00 31.0	+10
WMQ				PP	PP	06 03 19.5	+10
WMQ				PP	PP		
	comp=Z,29nm,8.4s						
WMQ				LR	LR		
	comp=N,406nm,14.0s						
WMQ				LR	LR		
	comp=E,56nm,15.2s						
WMQ				LR	LR		
	comp=Z,48nm,14.7s						
YKA	Yellowknife Ar	137.69	316	PKhKP		06 00 10.9	
	comp=Z,0.1nm,0.4s,baz=120,slow=3.9,SNR=4.3						
YKA				PKP	PKPdf	06 00 24.2	+2.3
	comp=Z,1.5nm,0.5s,baz=130,slow=2.1,SNR=6.4						
YKA				pPKP		06 00 48.2	
	comp=Z,1.0nm,0.5s,baz=125,slow=2.2,SNR=5.3						
YKA				SKP		06 03 49.4	
	comp=Z,0.5nm,0.8s,baz=123,slow=1.9,SNR=6.2						
YKA	Yellowknife Ar	137.69	316	PKP	PKPdf	06 00 24.2	+2.3
YKA				pPKP		06 00 48.2	
YKA				SKP		06 03 49.4	
NJ2	Nanjing	144.87	120	*e*PKP	PKPdf	06 00 40.1	+4.8
SONM	Songino Array	149.71	87	PKP	PKPdf	06 00 45.0	+2.2
	comp=Z,0.4nm,0.3s,baz=229,slow=26,SNR=2.3						
SONM				PKPbc	PKPdf	06 00 52.1	+9.3
	comp=Z,7.6nm,0.7s,baz=222,slow=3.3,SNR=19						
SONM				pPKPbc		06 01 16.4	
	comp=Z,3.4nm,0.5s,baz=229,slow=3.3,SNR=5.9						
ULN	Ulaanbaatar	150.08	87	*e*PKPbc	PKPdf	06 00 52.4	+9.1
ILAR	Eielson Array	151.63	310	PKPbc	PKPdf	06 00 54.4	+9.2
	comp=Z,4.9nm,0.6s,baz=133,slow=1.9,SNR=13						
ILAR				pPKPbc		06 01 17.7	
	comp=Z,4.9nm,0.9s,baz=111,slow=0.8,SNR=5.5						
MDJ	Mudanjiang	159.92	118	PKP	PKPdf	06 01 00.1	+3.5

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*IDC **22** 05:44:30.5±11.0, 45.58N×144.66E, mb3.5/4, mb1 3.9/4, mb1mx3.6/21, Error ellipse: s-maj=365.0km s-min=119.4km az=93.0*

*JMA **22** 05:45:18.6±0.4, 46.55N×145.16E, h392^{km}, M3.6*

ISC 22 05:45:17.8±0.7**, 46.5N**±0.1×**145.1E**±0.2**, h401^{km}**±12^{km}**, n15, σ0^{s}89**/20**, mb3.0**/4**, Sea of Okhotsk**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSE	Soyaes	2.36	230	P	P	05 46 16.7	+0.1
JWK2	Keihoku	2.56	244	P	P	05 46 18.2	+0.2
JTKR	Abashiri--Toko	2.67	199	P	P	05 46 20.2	+1.3
NEM2	Nemuro 2	3.16	172	P	P	05 46 22.9	+0.1
NEM2				*e*S	S	05 47 13.5	-0.5
JAK	Akkeshi	3.52	185	P	P	05 46 26.1	+0.2
JAK				*e*S	S	05 47 19.5	0.0
JCH	Churui	4.09	199	P	P	05 46 31.2	-0.1
JCH				*e*S	S	05 47 28.2	-0.7
JNBK	Urakawa-nobuka	4.55	203	P	P	05 46 36.2	+0.3
JNBK				*e*S	S	05 47 37.3	+0.2
JKB	Kayabe	5.47	214	P	P	05 46 45.3	-0.1
JOT	Ohata	5.91	211	P	P	05 46 50.0	0.0
JOT				*e*S	S	05 48 01.1	-1.4
JANG	Nango	6.67	205	P	P	05 46 59.7	+1.2
ILAR	Eielson Array	40.15	38	P	P	05 52 16.0	-1.7
	0.4nm,0.6s,mb3.0,baz=270,slow=9.0,SNR=6.5						
YKA	Yellowknife Ar	54.32	34	P	P	05 54 04.1	-2.0
	0.3nm,0.6s,mb2.7,baz=305,slow=6.9,SNR=7.0						
PDAR	Pinedale Array	69.21	49	P	P	05 55 44.5	+0.7
	0.4nm,0.5s,mb3.4,baz=342,slow=2.9,SNR=4.7						
LKD	Levkas	81.71	319	*e*P	P	05 56 53.5	0.0
TXAR	Lajitas Array	82.28	55	P	P	05 56 58.5	+1.9
	0.2nm,0.5s,mb3.1,baz=297,slow=2.8,SNR=3.7						

IDC 22 05:48:02.4±43.0**, 15.40S**×**171.02W, mb4.3**/3**, mb1 4.4**/3**, mb1mx3.9**/15**, Error ellipse: s-maj=844.0km s-min=197.4km az=79.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	46.02	240	P	P	05 56 28.6	-1.0
	1.4nm,0.3s,baz=95,slow=11,SNR=3.0						
WRA	Warramunga Arr	52.07	257	P	P	05 57 13.8	-2.8
	0.7nm,0.6s,baz=97,slow=6.9,SNR=17						
ASAR	Alice Springs	52.29	252	P	P	05 57 16.2	-1.9
	7.7nm,0.7s,baz=89,slow=8.1,SNR=89						

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*ATH **22** 05:56:00.8, 36.65N×21.17E, h15^{km}±4^{km}, MD3.9/15, ML3.9*

*IDC **22** 05:56:01.0±2.1, 36.93N×21.48E, mb3.9/7, mb1 4.0/12, mb1mx3.8/25, ML3.6/4, Error ellipse: s-maj=48.6km s-min=21.0km az=43.0*

*NEIC **22** 05:56:01.9, 36.69N×21.23E, h21^{km}, ML3.9(ATH), After ATH.*

*CSEM **22** 05:56:02.9±0.2, 36.63N×21.13E, h60^{km}, ML3.9, Error ellipse: s-maj=4.5km s-min=2.3km az=42.0*

ISC 22 05:56:00.4±0.7**, 36.65N**±0.06×**21.09E**±0.06**, h15^{km}, n61, σ1^{s}46**/65**, mb3.8**/7**, 3C-1D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.85	51	*e*PN	Pn	05 56 16.0	-1.8
VLI	Veliai	1.48	87	*e*PN	Pn	05 56 28.0	+1.2
VLS	Valsamata	1.58	345	*e*PN	Pn	05 56 30.6	+2.5
KYTH	Kithira	1.61	103	*e*PN	Pn	05 56 30.5	+2.0
MGER	Gerania Oros	2.19	52	*e*PB	Pb	05 56 37.1	-2.1
NAIG	Nisos Aigina	2.21	59	*e*PN	Pn	05 56 38.5	+1.3
NSAL	Nisos Salamina	2.27	56	*e*PB	Pb	05 56 38.5	-2.2
EVR	Evrytania	2.34	14	*e*PN	Pn	05 56 41.5	+2.5
ATH	Athens Observa	2.48	57	*e*PN	Pn	05 56 42.0	+1.1
AGG	Agios Georgios	2.57	22	*e*P	Pn	05 56 45.1	+2.8
MPAR	Parnis Oros	2.59	54	*e*PB	Pb	05 56 44.4	-1.6
PTL	Penteli	2.62	57	*e*PN	Pn	05 56 43.5	+0.6
VAM	Vamos	2.81	115	*e*PN	Pn	05 56 46.0	+0.3
JAN	Janina	3.01	356	*e*PN	Pn	05 56 50.5	+1.9

MEV	**Metsovon**	**3.14**	**2**	*e*P	**Pn**	**05 56 53.3**	**+3.0**
KEK	**Kerkira**	**3.23**	**342**	*e*PN	**Pn**	**05 56 53.0**	**+1.3**
KEK	**Kerkira**	**3.23**	**342**	*e*Pn	**Pn**	**05 56 52.1**	**+0.4**
IDI	**Anoyia**	**3.37**	**113**	Pn	**Pn**	**05 56 53.2**	**-0.4**
	1.1nm,0.3s,baz=304,slow=13,SNR=7.0						
IDI				Sn	**Sn**	**05 57 32.8**	**-0.8**
	6.6nm,0.3s,baz=28,slow=16,SNR=5.1						
IDI	**Anoyia**	**3.37**	**113**	Sn	**Sn**	**05 57 32.8**	**-0.8**
LIT	**Litokhoron**	**3.62**	**17**	*e*P	**Pn**	**05 56 58.4**	**+1.2**
KZN	**Kozani**	**3.69**	**8**	*e*PN	**Pn**	**05 57 00.5**	**+2.2**
PAIG	**Paliouri**	**3.86**	**31**	*e*P	**Pn**	**05 57 01.1**	**+0.5**
FNA	**Florina**	**4.14**	**3**	*e*P	**Pn**	**05 57 06.0**	**+1.4**
THE	**Thessaloniki**	**4.24**	**20**	*e*P	**Pn**	**05 57 08.1**	**+2.0**
TIP	**Timpagrande**	**4.26**	**308**	*e*P	**Pn**	**05 57 07.4**	**+1.1**
TIP	**Timpagrande**	**4.26**	**308**	*e*P	**Pn**	**05 57 07.4**	**+1.1**
OUR	**Ouranopolis**	**4.32**	**31**	*e*P	**Pn**	**05 57 07.3**	**+0.1**
GRG	**Griva**	**4.42**	**13**	*e*P	**Pn**	**05 57 09.3**	**+0.6**
SOH	**Sokhos**	**4.53**	**22**	*e*P	**Pn**	**05 57 11.6**	**+1.4**
KNT	**Kendrikon**	**4.72**	**17**	*e*P	**Pn**	**05 57 13.5**	**+0.6**
SRS	**Serrai**	**4.87**	**23**	*e*P	**Pn**	**05 57 13.7**	**-1.3**
SRS	**Serrai**	**4.87**	**23**	*e*P	**Pn**	**05 57 13.6**	**-1.4**
SKO	**Skopje**	**5.33**	**3**	*e*Pn	**Pn**	**05 57 16.3**	**-5.1**
SKO				*e*		05 57 22.5	
MMB	**Musomiste**	**5.34**	**22**	P	**Pn**	**05 57 20.5**	**-1.2**
KKB	**Krupnik**	**5.44**	**16**	*e*P	**Pn**	**05 57 23.0**	**0.0**
RZN	**Rozhen**	**5.77**	**28**	P	**Pn**	**05 57 27.5**	**-0.1**
KDZ	**Kurdzhali**	**6.02**	**33**	*e*P	**Pn**	**05 57 30.0**	**-1.2**
VTS	**Vitosha**	**6.16**	**15**	*e*P	**Pn**	**05 57 32.5**	**-0.6**
STON	**Ston**	**6.74**	**338**	*i* Pn	**Pn**	**05 57 39.6**	**-1.8**
STON				*i* Sn	**Sn**	**05 58 53.3**	**-5.3**
PVL	**Pavlikeni**	**7.33**	**25**	*e*P	**Pn**	**05 57 44.0**	**-5.6**
DIVS	**Divcibare**	**7.49**	**354**	⇑*i*Pn	**Pn**	**05 57 49.9**	**-2.0**
MLR	**Muntele Rosu**	**9.56**	**21**	Pn	**P**	**05 58 21.5**	**+0.9**
	0.1nm,0.3s,baz=210,slow=16,SNR=2.4						
CRES	**Cresnjev**	**10.10**	**337**	*e*Pn	**P**	**05 58 25.6**	**-2.4**
OBKA	**Obir**	**11.00**	**336**	⇑*i*PN	**P**	**05 58 39.1**	**-1.2**
OBKA				*i* SN	**S**	**06 00 36.4**	**-7.7**
ARSA	**Arzberg**	**11.38**	**340**	⇑*i*PN	**P**	**05 58 44.6**	**-0.8**
ARSA	**Arzberg**	**11.38**	**340**	*i* SN	**S**	**06 00 45.7**	**-7.5**
MOA	**Molln**	**12.28**	**338**	⇓*i*PN	**P**	**05 58 56.6**	**-1.0**
MOA	**Molln**	**12.28**	**338**	*i* SN	**S**	**06 01 07.6**	**-7.6**
DAVOX	**Davos**	**13.13**	**324**	Pn	**P**	**05 59 10.3**	**+1.4**
	0.3nm,0.3s,baz=132,slow=23,SNR=2.7						
DAVOX				Sn	**S**	**06 01 32.1**	**-3.5**
GERES	**GERESS Array B**	**13.34**	**338**	Pn	**P**	**05 59 09.3**	**-2.4**
	0.3nm,0.3s,baz=156,slow=13,SNR=6.2						
KHC	**Kasperske Hory**	**13.63**	**339**	*e*P	**P**	**05 59 16.5**	**+1.0**
AKASG	**Malin Array Be**	**15.22**	**20**	Pn	**P**	**05 59 31.3**	**-5.0**
	baz=210,slow=12,SNR=2.8						
HFS	**Hagfors**	**23.98**	**351**	P	**P**	**06 01 14.2**	**-0.7**
	2.4nm,0.5s,mb3.9,baz=146,slow=11,SNR=9.7						
FINES	**FINESS Array B**	**25.02**	**6**	P	**P**	**06 01 23.6**	**-1.3**
	1.6nm,0.5s,mb3.8,baz=174,slow=11,SNR=7.3						
NOA	**NORSAR Array B**	**25.21**	**349**	P	**P**	**06 01 27.8**	**+1.1**
	0.8nm,0.7s,mb3.4,baz=149,slow=9.9,SNR=2.7						
KAF	**Kangasniemi**	**25.70**	**6**	*e*p	**P**	**06 01 33.0**	**+1.7**
JOF	**Joensuu**	**27.05**	**10**	*e*p	**P**	**06 01 42.3**	**-1.4**
ARCES	**ARCESS Array B**	**33.03**	**3**	P	**P**	**06 02 34.9**	**-2.0**
	4.2nm,0.9s,mb4.4,baz=180,slow=9.7,SNR=3.9						
ZAL	**Zalesovo**	**46.38**	**47**	P	**P**	**06 04 25.0**	**-2.5**
	1.9nm,0.3s,mb4.5,baz=193,slow=2.3,SNR=5.2						
YKA	**Yellowknife Ar**	**74.98**	**340**	P	**P**	**06 07 41.7**	**-0.5**
	0.3nm,0.6s,mb3.4,baz=34,slow=5.5,SNR=4.1						
ILAR	**Eielson Array**	**78.47**	**355**	P	**P**	**06 08 02.9**	**+1.2**
	0.4nm,0.7s,mb3.5,baz=345,slow=6.2,SNR=4.1						

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*IDC **22** 06:02:56.9±2.4, 8.26S×125.02E, mb3.7/1, mb1 4.2/3, mb1mx3.9/12, ML3.5/2, Error ellipse: s-maj=165.0km s-min=29.8km az=53.0*

ISC 22 06:03:00.3±1.3**, 8.7S**±0.2×**124.6E**±0.1**, h33**^{km}**, n5,** σ**1**^{s}**12**/9**, mb3.7**/1**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**8.67**	**118**	*e*P	**P**	**06 05 07.3**	**+1.1**
	6.8nm,0.5s						
KAKA				*e*S	**S**	**06 06 43.3**	**-0.6**
WRA	**Warramunga Arr**	**14.60**	**141**	Pn	**P**	**06 06 25.3**	**-1.3**
	0.4nm,0.3s,baz=318,slow=13,SNR=25						
WRA				Sn	**S**	**06 09 01.6**	**-6.5**
	0.2nm,0.3s,baz=314,slow=25,SNR=4.8						
WB2	**Warramunga Arr**	**14.61**	**141**	*e*P	**P**	**06 06 27.3**	**+0.7**
WB2				*e*S	**S**	**06 09 03.3**	**-5.0**
ASAR	**Alice Springs**	**17.33**	**150**	P	**P**	**06 07 03.5**	**+2.2**
	0.1nm,0.3s,baz=321,slow=11,SNR=22						
ASAR				S	**S**	**06 10 10.4**	**-0.8**
	0.1nm,0.3s,baz=309,slow=16,SNR=4.3						
CMAR	**Chiang Mai Arr**	**37.02**	**317**	P	**P**	**06 10 08.2**	**-0.7**
	0.5nm,0.4s,mb3.7,baz=148,slow=7.1,SNR=4.7						

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*NNC **22** 07:27:20.0±9.0, 40.37N×76.04E, mpv3.7, Error ellipse: s-maj=98.8km s-min=49.2km az=43.0*

ISC 22 07:27:10.4±0.8**, 39.67N**±0.06×**75.8E**±0.2**, h10**^{km}**, n14,** σ**0**^{s}**65**/14**, 4C-1D, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KZA	**Kyzart**	**2.45**	**350**	P	**Pn**	**07 27 50.9**	**-0.2**
	SNR=48						
ULHL	**Ulahol**	**2.60**	**7**	P	**Pn**	**07 27 55.0**	**+1.8**
	SNR=28						
UCH	**Uchtor**	**2.74**	**340**	P	**Pn**	**07 27 55.0**	**-0.2**
	SNR=39						
AML	**Almayashu**	**2.94**	**328**	P	**Pn**	**07 27 57.7**	**-0.4**
	SNR=185						
KBK	**Karagaybulak**	**3.06**	**348**	P	**Pn**	**07 28 00.1**	**+0.3**
	SNR=25						
AAK	**Ala-Archa**	**3.12**	**342**	⇓Pn	**Pn**	**07 28 01.0**	**+0.3**
	78nm,0.8s						
AAK				⇑Lg		07 28 40.8	
	58nm,0.5s						
AAK	**Ala-Archa**	**3.12**	**342**	P	**Pn**	**07 28 00.8**	**+0.1**
	SNR=30						
TKM2	**Tokmak 2**	**3.26**	**357**	P	**Pn**	**07 28 03.0**	**+0.3**
	SNR=15						
EKS2	**Erkin-Say**	**3.36**	**334**	P	**Pn**	**07 28 03.9**	**-0.2**
	SNR=12						
CHMS	**Chumysh**	**3.42**	**347**	P	**Pn**	**07 28 04.6**	**-0.4**
	SNR=12						
USP	**Ospenovka**	**3.73**	**345**	P	**Pn**	**07 28 09.2**	**-0.1**
	SNR=18						
SDNR	**Sundarnagar**	**8.20**	**173**	*e*P	**Sn**	**07 30 46.2**	**+0.1**
MK31	**Makanchi Array**	**8.55**	**31**	⇑Pn	**P**	**07 29 16.1**	**-1.2**
	1.3nm,0.6s,baz=213,slow=16,SNR=9.2						
MK31				⇑Lg		07 31 27.9	
	1.4nm,0.7s,baz=212,slow=28,SNR=4.2						
BVA0	**Borovoye Array**	**13.87**	**346**	Pn	**P**	**07 30 33.6**	**+4.4**
	0.5nm,0.9s						
BVA0				⇑Lg		07 34 14.5	
	2.3nm,1.4s						

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*NEIC **22** 07:52:38.5, 29.98S×71.59W, h29^{km}, ML4.4(GUC), After GUC.*

GUC 22 07:52:38.5±0.9**, 29.98S**×**71.59W, h29**^{km}±5^{km}**, ML4.4, 7C-3D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSCH	**La Serena**	**0.30**	**76**	⇑*i*P	Pb	07 52 52.6	+6.7
LSCH				*i* S	Sb	07 52 58.2	+7.2
LSCH				AMP		07 52 58.5	
	comp=E,58µm,0.2s						
TLL	**Tololo Astrono**	**0.70**	**106**	⇓*i*P	Pb	07 52 52.3	+0.2
TLL				*i* S	Sb	07 53 02.4	+0.9
TLL	**Tololo Astrono**	**0.70**	**106**	*i* P	Pb	07 52 52.3	+0.1
TLL				⇓*i*P		07 52 52.3	
TLL				*i* S	Sb	07 53 02.4	+0.9
TLL				AMP		07 53 08.3	
	comp=N,14µm,0.5s						
OVCH	**Ovalle**	**0.71**	**152**	⇑*i*P	Pb	07 52 52.7	+0.5
OVCH				*i* S	Sb	07 53 02.5	+0.9
OVCH				AMP		07 53 03.2	
	comp=E,16µm,0.2s						
CMCH	**Combarbala**	**1.29**	**157**	⇑*i*P	Pn	07 53 01.2	+0.3
CMCH				*i* S	Sn	07 53 18.3	+1.0
CMCH				AMP		07 53 20.3	
	comp=E,12µm,0.8s						
VACH	**Vallenar**	**1.58**	**27**	*e*P	Pn	07 53 09.2	+4.3
VACH				*i* S	Sn	07 53 29.5	+4.9
ILCH	**Illapel**	**1.69**	**168**	⇑*i*P	Pn	07 53 07.1	+0.6
ILCH				*i* S	Sn	07 53 28.9	+1.5
PTCH	**Petorca**	**2.34**	**166**	⇑*i*P	Pn	07 53 16.2	+0.3
PTCH				*i* S	Sn	07 53 44.7	+0.6
PTCH				AMP		07 53 55.0	
	comp=E,5µm,0.3s						
JACH	**Jahuel**	**2.82**	**163**	⇑*i*P	Pn	07 53 23.5	+0.7
JACH				*i* S	Sn	07 53 57.5	+1.2
PEL	**Peldehue**	**3.25**	**167**	⇓*i*P	Pn	07 53 28.7	0.0
PEL				AMP		07 54 24.6	
	comp=N,1µm,0.7s						
FCH	**Farellones**	**3.51**	**162**	AMP		07 54 32.7	
	comp=E,453nm,0.3s						
DSCH	**Colegio Aleman**	**3.52**	**166**	*e*P	Pn	07 53 32.5	-0.2
DSCH				AMP		07 54 28.8	
	comp=E,1µm,0.5s						
CLCH	**Cerro Calan**	**3.52**	**166**	⇑*i*P	Pn	07 53 32.9	+0.3
CLCH				AMP		07 54 33.4	
	comp=E,1µm,0.7s						
CLCH				AMP		07 54 33.9	
	comp=E,1µm,0.8s						
STL	**Santa Lucia**	**3.54**	**167**	*e*	rx	07 54 32.5	
STL				AMP		07 54 32.8	
	comp=N,226nm,0.3s						
RCDM	**Rinconada Maip**	**3.56**	**169**	*i* P	Pn	07 53 32.8	-0.5
RCDM				AMP		07 54 30.7	
	comp=E,579nm,0.5s						
FSR	**Penalolen**	**3.60**	**166**	AMP		07 54 33.6	
	comp=E,550nm,0.3s						
TACH	**Talagante**	**3.70**	**172**	*i* P	Pn	07 53 34.6	-0.6
MDZ	**Mendoza**	**3.72**	**142**	*e*P	Pn	07 53 40.0	+4.5
MDZ				*e*		07 53 57.8	
MDZ				*e*S	Sn	07 54 30.9	+12
PCH	**Pirque**	**3.74**	**166**	*i* P	Pn	07 53 35.5	-0.3
CHCH	**Chadas Angostu**	**4.02**	**169**	*i* P	Pn	07 53 39.2	-0.5
LMEL	**Las Melosas**	**4.03**	**163**	*i* P	Pn	07 53 40.5	+0.6

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*NIED **22** 08:02:00, 42.90N×145.50E, h32^{km}, Mw3.7 Best double couple: $M_0$3.75×10^{14} NP1:ϕ_s27°, δ59°, λ73°. NP2:ϕ_s238°, δ35°, λ116°.*

*JMA **22** 08:02:20.0±0.1, 42.89N×145.47E, h44^{km}±1^{km}, M3.8*

*IDC **22** 08:02:23.2±6.7, 42.85N×145.38E, h74^{km}±37^{km}, mb3.6/8, mb1 3.7/9, mb1mx3.4/25, ML4.0/1, Error ellipse: s-maj=74.6km s-min=25.6km az=174.0*

*MOS **22** 08:02:30.2±0.6, 45.10N×144.67E, h33^{km}, mb4.4/4, Error ellipse: s-maj=33.4km s-min=20.6km az=92.1*

ISC 22 08:02:18.9±1.1**, 42.86N**±0.07×**145.51E**±0.07**, h50**^{km}±6^{km}**, n22,** σ**0**^{s}**79**/31**, mb3.9**/8**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NEM2	**Nemuro 2**	**0.53**	**19**	P	**P**	**08 02 30.9**	**+0.3**
NEM2				S	**S**	**08 02 38.6**	**-0.5**
JAK	**Akkeshi**	**0.61**	**283**	P	**P**	**08 02 31.9**	**+0.3**
JAK				S	**S**	**08 02 40.6**	**-0.3**
JNK	**Nakash**	**0.93**	**322**	P	**P**	**08 02 35.9**	**+0.1**
JNK				S	**S**	**08 02 46.9**	**-1.5**
JRA	**Rausu**	**1.11**	**345**	P	**P**	**08 02 38.8**	**+0.3**
JRA				*e*S	**S**	**08 02 52.6**	**-0.4**
YUK	**Yuzh-Kuril'sk**	**1.20**	**12**	*i* PN	**P**	**08 02 53.0**	**+13**
YUK				pmax	pmax		
	comp=Z,2µm,0.6s						
JOB	**Onbets**	**1.23**	**273**	P	**P**	**08 02 40.3**	**+0.2**
JOB				*e*S	**S**	**08 02 55.7**	**-0.2**
JAR	**Ashorobuto**	**1.35**	**290**	P	**P**	**08 02 42.0**	**+0.1**
JAR				*e*S	**S**	**08 02 58.5**	**-0.4**
JCH	**Churui**	**1.60**	**262**	P	**P**	**08 02 45.1**	**-0.3**
JCH				*e*S	**S**	**08 03 04.6**	**-0.4**
JTKR	**Abashiri--Toko**	**1.61**	**314**	P	**P**	**08 02 46.2**	**+0.7**
JTKR				*e*S	**S**	**08 03 05.8**	**+0.5**
ASAJ	**Asahikawa**	**2.46**	**302**	P	**P**	**08 02 59.0**	**+1.4**
	comp=Z,24nm,0.3s,baz=125,slow=12,SNR=36						
ASAJ				S	**S**	**08 03 29.4**	**+2.8**
	comp=Z,8.2nm,0.3s,baz=31,slow=30,SNR=5.6						
SONM	**Songino Array**	**27.72**	**294**	P	**P**	**08 08 04.2**	**-0.2**
	comp=Z,0.5nm,0.4s,mb3.5,baz=91,slow=8.2,SNR=3.4						
ILAR	**Eielson Array**	**42.91**	**36**	P	**P**	**08 10 15.6**	**+1.8**
	comp=Z,0.3nm,0.6s,mb3.2,baz=281,slow=9.5,SNR=4.3						
INK	**Inuvik**	**47.77**	**30**	P	**P**	**08 10 52.4**	**0.0**
	comp=Z,0.3nm,0.4s,mb3.7,baz=253,slow=5.5,SNR=7.0						
BVAR	**Borovoye Array**	**49.14**	**309**	P	**P**	**08 11 02.5**	**-0.7**
	comp=Z,0.3nm,0.3s,mb3.8,baz=80,slow=8.5,SNR=5.3						
FINES	**FINESS Array B**	**65.12**	**333**	P	**P**	**08 12 54.8**	**-1.3**
	comp=Z,3.7nm,1.0s,mb4.4,baz=59,slow=8.1,SNR=15						
FINES	**FINESS Array B**	**65.12**	**333**	P	**P**	**08 12 54.8**	**-1.3**
FINES				pmax	pmax		
	comp=Z,4.0nm,1.0s						
NOA	**NORSAR Array B**	**70.00**	**338**	P	**P**	**08 13 26.3**	**-0.3**
	comp=Z,1.1nm,0.6s,mb4.0,baz=34,slow=6.4,SNR=3.9						
NOA	**NORSAR Array B**	**70.00**	**338**	P	**P**	**08 13 26.3**	**-0.3**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
HFS	**Hagfors**	**70.04**	**337**	P	**P**	**08 13 26.4**	**-0.4**
	comp=Z,3.5nm,0.9s,mb4.3,baz=31,slow=8.6,SNR=5.2						
HFS	**Hagfors**	**70.04**	**337**	P	**P**	**08 13 26.4**	**-0.5**
HFS				pmax	pmax		
	comp=Z,4.0nm,0.9s						
AKASG	**Malin Array Be**	**71.58**	**323**	P	**P**	**08 13 36.1**	**-0.2**
	comp=Z,0.6nm,0.3s,mb3.9,baz=40,slow=6.6,SNR=5.7						
AKASG	**Malin Array Be**	**71.58**	**323**	P	**P**	**08 13 36.2**	**-0.1**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						

IDC 22 08:33:08.5±15.0**, 9.51S**×**125.33E, h122**^{km}±113^{km}**, mb3.7**/2**, mb1 3.8**/4**, mb1mx3.6**/13**, ML4.0**/2**, MS3.2**/1**, Ms1 3.1**/1**, ms1mx2.8**/13**, Error ellipse: s-maj=101.0km s-min=74.5km az=131.0, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**7.67**	**115**	*e*P	P	08 34 59.6	+0.8
	13nm,0.4s						
KAKA				*e*S	S	08 36 30.4	+5.8
WRA	**Warramunga Arr**	**13.54**	**141**	P	P	08 36 15.7	-0.9
	0.9nm,0.3s,baz=318,slow=13,SNR=58						
WRA				S	S	08 38 46.1	+1.6
	2.3nm,0.3s,baz=313,slow=23,SNR=12						
WB2	**Warramunga Arr**	**13.54**	**141**	*e*P	P	08 36 15.7	-1.1
WB2				*i*		08 36 23.5	
WB2				*e*S	S	08 38 45.5	+0.9
ASPA	**Alice Springs**	**16.29**	**151**	*e*P	P	08 36 51.3	-0.2
ASPA				*e*S	S	08 39 45.8	-1.8
ASAR	**Alice Springs**	**16.29**	**151**	P	P	08 36 51.0	-0.5
	0.8nm,0.3s,baz=323,slow=11,SNR=39						
ASAR				S	S	08 39 50.9	+3.2
	0.8nm,0.3s,baz=320,slow=20,SNR=14						
CTA	**Charters Tower**	**22.77**	**120**	P	P	08 37 59.5	-1.7
	5.5nm,1.2s,baz=276,slow=10,SNR=3.1						
STKA	**Stephens Creek**	**26.89**	**148**	*e*P	P	08 38 38.8	-1.2
	2.2nm,1.0s						
STKA	**Stephens Creek**	**26.89**	**148**	P	P	08 38 38.6	-1.4
	1.7nm,0.5s,baz=309,slow=12,SNR=9.1						
STKA				LR	LR	08 50 49.2	
	comp=Z,54nm,21.3s,baz=296,slow=40						

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*ISK **22** 08:33:37.9, 38.43N×25.59E, h114^{km}, MD3.1*

*ATH **22** 08:33:39.2, 38.43N×25.57E, h3^{km}, MD3.2/7, ML3.4*

*NEIC **22** 08:33:40.9, 38.52N×25.70E, h39^{km}, MD3.2(ATH), After ATH.*

*CSEM **22** 08:33:41.2±0.1, 38.53N×25.74E, h20^{km}, ML3.5, Error ellipse: s-maj=4.0km s-min=2.5km az=159.0*

ISC 22 08:33:41.0±0.7**, 38.54N**±0.04×**25.56E**±0.05**, h27**^{km}±9^{km}**, n22,** σ**1**^{s}**07**/29**, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	**Paraskevi**	**0.90**	**38**	*e*PB	**Pb**	**08 33 57.5**	**-0.4**
AYVA	**Ayvalik**	**1.17**	**49**	*i* P	**Pn**	**08 34 03.4**	**+1.5**
AYVA				*i* S	**Sb**	**08 34 17.8**	**+0.5**
BLCB	**Balcova**	**1.18**	**97**	PN	**Pn**	**08 34 01.4**	**-0.5**
BLCB				SN	**Sn**	**08 34 18.2**	**+1.0**
SMG	**Samos**	**1.31**	**129**	*e*PN	**Pn**	**08 34 03.0**	**-0.8**
IZM	**Izmir**	**1.35**	**96**	PN	**Pn**	**08 34 03.4**	**-1.0**
IZM				SN	**Sn**	**08 34 23.2**	**+1.7**
KDAG	**Bornova**	**1.35**	**95**	*i* P	**Pn**	**08 34 03.8**	**-0.6**
KDAG				*i* S	**Sn**	**08 34 21.1**	**-0.5**
BOZC	**Bozcaada**	**1.35**	**16**	*i* P	**Pn**	**08 34 04.6**	**+0.1**
BOZC				*i* S	**Sn**	**08 34 21.2**	**-0.4**
EZN	**Ezine**	**1.42**	**25**	*e*PN	**Pn**	**08 34 06.0**	**+0.7**
PTL	**Penteli**	**1.42**	**250**	*e*PB	**Pb**	**08 34 05.0**	**-1.7**
PTL	**Penteli**	**1.42**	**250**	*e*Pn	**Pn**	**08 34 04.9**	**-0.5**
APE	**Apeiranthos**	**1.47**	**181**	*e*PN	**Pn**	**08 34 04.2**	**-1.9**
APE	**Apeiranthos**	**1.47**	**181**	*e*Pn	**Pn**	**08 34 04.0**	**-2.1**
APE				*e*Sn	**Sn**	**08 34 26.0**	**+1.4**
APE	**Apeiranthos**	**1.47**	**181**	*e*Sn	**Sn**	**08 34 26.0**	**+1.4**
MPAR	**Parnis Oros**	**1.48**	**255**	*e*PB	**Pb**	**08 34 07.5**	**-0.3**
ATH	**Athens Observa**	**1.56**	**249**	*e*PB	**Pb**	**08 34 09.0**	**0.0**
ATH	**Athens Observa**	**1.56**	**249**	*e*Pb	**Pb**	**08 34 11.0**	**+2.0**
NSAL	**Nisos Salamina**	**1.77**	**250**	*e*PB	**Pb**	**08 34 12.2**	**-0.4**
NSAL	**Nisos Salamina**	**1.77**	**250**	*e*Pb	**Pb**	**08 34 13.5**	**+0.9**
AKS	**Akhisar**	**1.80**	**79**	*e*PN	**Pn**	**08 34 09.0**	**-1.8**
NAIG	**Nisos Aigina**	**1.81**	**245**	*e*Pb	**Pb**	**08 34 14.6**	**+1.3**
MGER	**Gerania Oros**	**1.89**	**254**	*e*Pb	**Pb**	**08 34 15.6**	**+0.9**
MANT	**Manisa**	**2.36**	**90**	*i* P	**Pn**	**08 34 23.7**	**+4.9**
MANT				*i* S	**Sn**	**08 34 54.7**	**+7.6**

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*NEIC **22** 08:52:58.1±1.2, 16.62S×177.31W, h367^{km}±15^{km}, mb4.0/7, Error ellipse: s-maj=25.5km s-min=10.8km az=151.0*

*IDC **22** 08:53:03.5±7.0, 16.70S×177.40W, h425^{km}±75^{km}, mb3.4/9, mb1 3.6/9, mb1mx3.5/16, Error ellipse: s-maj=28.5km s-min=22.6km az=121.0*

ISC 22 08:52:57.0±1.4**, 16.6S**±0.2×**177.4W**±0.1**, h369**^{km}±18^{km}**, n20,** σ**0**^{s}**91**/20**, mb3.8**/12**, 4C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**6.02**	**64**	*e*P	**P**	**08 54 29.2**	**-0.1**
	46nm,0.7s						
ARMA	**Armidale**	**31.46**	**239**	⇑*i*P	**P**	**08 58 48.3**	**+0.9**
CTA	**Charters Tower**	**34.67**	**259**	⇑*i*P	**P**	**08 59 15.4**	**+0.6**
	2.5nm,0.8s,mb3.5						
CTA	**Charters Tower**	**34.67**	**259**	P	**P**	**08 59 14.9**	**+0.1**
	3.3nm,0.8s,mb3.6,baz=89,slow=8.6,SNR=4.0						
CTAO	**Charters Tower**	**34.67**	**259**	*e*P	**P**	**08 59 15.4**	**+0.6**
	4.5nm,0.8s,mb3.8						
CNB	**Canberra Magne**	**35.00**	**231**	⇑*i*P	**P**	**08 59 18.3**	**+0.8**
	12nm,0.6s,mb4.3						
PMG	**Port Moresby**	**35.28**	**277**	P	**P**	**08 59 22.2**	**+2.2**
	3.5nm,0.4s,mb3.9,baz=51,slow=5.0,SNR=6.7						
PMG	**Port Moresby**	**35.28**	**277**	P	**P**	**08 59 22.2**	**+2.2**
PMG				*e*P		08 59 23.0	
TOO	**Toolangi**	**38.76**	**230**	⇑*i*P	**P**	**08 59 49.1**	**+0.5**
	2.8nm,0.3s,mb4.0						
STKA	**Stephens Creek**	**40.13**	**240**	*e*P	**P**	**09 00 01.1**	**+1.2**
	3.5nm,0.4s,mb3.9						
STKA	**Stephens Creek**	**40.13**	**240**	P	**P**	**09 00 00.1**	**+0.1**
	7.7nm,0.6s,mb4.1,baz=86,slow=9.5,SNR=19						
WB2	**Warramunga Arr**	**45.86**	**258**	*e*P	**P**	**09 00 45.2**	**-0.6**
WRAB	**Tennant Creek**	**45.86**	**258**	*e*P	**P**	**09 00 44.5**	**-1.3**
	7.1nm,1.0s,mb3.8						
WRA	**Warramunga Arr**	**45.87**	**258**	P	**P**	**09 00 44.9**	**-1.0**
	1.4nm,0.7s,mb3.2,baz=86,slow=6.9,SNR=50						
WRA				PcP	PcP	09 02 15.5	-1.1
	1.5nm,0.8s,baz=90,slow=3.4,SNR=8.6						
ASAR	**Alice Springs**	**46.12**	**253**	P	**P**	**09 00 47.0**	**-0.7**
	15nm,0.6s,mb4.3,baz=88,slow=8.0,SNR=223						
ASAR				PcP	PcP	09 02 15.7	-1.7
	1.3nm,0.7s,baz=99,slow=3.5,SNR=8.0						
ASPA	**Alice Springs**	**46.12**	**253**	*e*P	**P**	**09 00 46.9**	**-0.9**
VNDA	**Vanda**	**61.79**	**185**	P	**P**	**09 02 38.5**	**-0.7**
	1.0nm,0.6s,mb3.5,baz=81,slow=8.5,SNR=8.9						
NVAR	**Mina Array Bea**	**77.81**	**44**	P	**P**	**09 04 16.3**	**+0.3**
	0.5nm,0.6s,mb3.4,baz=225,slow=9.7,SNR=3.6						
ILAR	**Eielson Array**	**84.43**	**13**	P	**P**	**09 04 48.9**	**-0.8**
	0.6nm,0.5s,mb3.7,baz=224,slow=5.3,SNR=24						
TXAR	**Lajitas Array**	**84.46**	**57**	P	**P**	**09 04 51.6**	**+0.9**
	0.5nm,1.0s,mb3.3,baz=194,slow=5.2,SNR=4.3						

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*JMA **22** 08:56:18.4±0.3, 23.58N×121.64E, h98^{km}, M2.8*

TAP 22 08:56:17.1, 23.47N×**121.63E, h38**^{km}**, ML3.7, Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**1.60**	**52**	P	P	08 56 45.2	+1.8
YOJ				*e*S	S	08 57 05.5	+2.4
HATJ	**Hateruma jima**	**2.08**	**73**	P	P	08 56 52.0	+1.8
HATJ				*e*S	S	08 57 17.0	+2.0
JKRS	**Kuro-shima**	**2.31**	**70**	*e*S	S	08 57 23.3	+2.4
JIJ	**Ishigaki jima**	**2.47**	**68**	P	P	08 56 56.6	+0.9
JIJ				*e*S	S	08 57 25.6	+0.7
JTJ	**Tarama**	**3.04**	**67**	P	P	08 57 04.7	+0.8
JTJ				*e*S	S	08 57 40.3	+0.8

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*IDC **22** 09:01:14.7±1.0, 41.69N×29.43W, mb4.0/10, mb1 4.1/11, mb1mx3.9/23, ML4.7/1, MS3.6/5, Ms1 3.6/5, ms1mx3.2/18, Error ellipse: s-maj=34.0km s-min=19.7km az=13.0*

*SVSA **22** 09:01:56.6±0.7, 39.05N×27.46W, h10^{km}, MD1.6, ML1.6, Error ellipse: s-maj=10.7km s-min=4.4km az=72.0*

ISC 22 09:01:12.9±0.5**, 41.35N**±0.09×**29.5W**±0.1**, h10**^{km}**, n21,** σ**0**^{s}**63**/17**, mb4.0**/10**, MS3.6**/5**, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBIS	**Biscoitos**	**3.09**	**146**	*e*P	**Pn**	**09 02 02.7**	**0.0**
PBIS				*e*S	Sn	09 02 07.1	-33
	12nm,0.2s						
ASBA	**Santa Barbara**	**3.09**	**147**	*i* P	**Pn**	**09 02 02.7**	**0.0**
ASBA				*i* S	Sn	09 02 07.1	-33
	120nm,0.2s						
PPAD	**Pico dos Padre**	**3.12**	**147**	*e*P	**Pn**	**09 02 03.1**	**-0.1**
PPAD				*e*S	Sn	09 02 07.8	-33
	59nm,0.2s						
PVNV	**Vila Nova**	**3.13**	**145**	*e*P	**Pn**	**09 02 03.1**	**-0.2**
PVNV				*e*S	Sn	09 02 07.6	-33
	40nm,0.2s						
ADH	**Angra Heroismo**	**3.18**	**147**	*e*P	**Pn**	**09 02 03.9**	**-0.2**
ADH				*e*S	Sn	09 02 09.7	-33
RIB2	**Ribeirinha**	**3.19**	**146**	*e*P	**Pn**	**09 02 03.9**	**-0.3**
ESDC	**Sonseca Array**	**19.43**	**87**	P	**P**	**09 05 42.8**	**+0.7**
	0.5nm,0.3s,baz=263,slow=10,SNR=2.6						
SCHQ	**Schefferville**	**28.00**	**312**	LR	LR	09 16 54.4	
	comp=Z,103nm,20.4s,MS3.4,baz=257,slow=34						
DBIC	**Dimbokro**	**40.89**	**141**	P	**P**	**09 09 00.8**	**+3.9**
	2.3nm,0.8s,mb3.8,baz=39,slow=2.7,SNR=3.1						
ULM	**Lac du Bonnet**	**45.74**	**305**	LR	LR	09 29 21.4	
	comp=Z,76nm,18.0s,MS3.7,baz=26,slow=37						
YKA	**Yellowknife Ar**	**52.24**	**324**	P	**P**	**09 10 25.2**	**-0.6**
	0.7nm,0.8s,mb3.6,baz=69,slow=7.2,SNR=7.0						
YKA				PcP	PcP	09 11 36.2	-1.1
	0.4nm,0.8s,baz=68,slow=3.7,SNR=6.3						
INK	**Inuvik**	**57.12**	**335**	P	**P**	**09 11 00.2**	**-1.2**
	2.0nm,0.8s,mb4.2,baz=60,slow=9.0,SNR=7.5						
PDAR	**Pinedale Array**	**57.28**	**300**	P	**P**	**09 11 02.6**	**-0.3**
	1.9nm,0.9s,mb4.1,baz=59,slow=7.3,SNR=15						
PDAR				LR	LR	09 34 02.6	
	comp=Z,57nm,18.6s,MS3.7,baz=145,slow=34						
BDFB	**Brasilia**	**59.25**	**201**	LR	LR	09 33 18.0	
	comp=Z,30nm,19.5s,MS3.4,baz=118,slow=32						
TXAR	**Lajitas Array**	**60.03**	**284**	P	**P**	**09 11 23.4**	**+1.2**
	1.8nm,0.9s,mb4.1,baz=71,slow=6.7,SNR=13						
BVAR	**Borovoye Array**	**63.46**	**42**	P	**P**	**09 11 44.3**	**-0.6**
	1.6nm,0.9s,mb4.2,baz=297,slow=3.3,SNR=6.0						
ILAR	**Eielson Array**	**63.52**	**335**	P	**P**	**09 11 44.7**	**-0.3**
	0.6nm,0.9s,mb3.6,baz=38,slow=6.0,SNR=6.7						
NVAR	**Mina Array Bea**	**65.22**	**300**	P	**P**	**09 11 57.1**	**+0.6**
	1.0nm,1.0s,mb3.8,baz=67,slow=6.9,SNR=3.1						
NVAR				LR	LR	09 40 51.6	
	comp=Z,84nm,18.9s,MS4.0,slow=36						
ZAL	**Zalesovo**	**69.64**	**35**	P	**P**	**09 12 24.1**	**0.0**
	1.4nm,0.5s,mb4.2,baz=276,slow=3.7,SNR=5.6						
SONM	**Songino Array**	**82.97**	**28**	P	**P**	**09 13 40.0**	**+0.9**
	1.3nm,0.8s,mb4.0,baz=315,slow=5.2,SNR=5.0						
ASAR	**Alice Springs**	**157.53**	**43**	PKPab	PKPab	09 21 42.9	-0.7
	1.1nm,0.8s,baz=344,slow=4.5,SNR=8.6						

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*MOS **22** 09:22:11.9±2.1, 51.90N×100.30E, h15^{km}, mb4.4/1, Error ellipse: s-maj=13.8km s-min=11.7km az=26.7*

BYKL 22 09:22:10.6±0.5**, 51.83N**×**100.19E, 5C-7D, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MOY	**Mondy**	**0.53**	**108**	⇑*i*Pg	Pg	09 22 21.2	+0.1
	64nm,0.5s						
MOY				⇓*i*Pg	Pg	09 22 21.2	+0.1
	227nm,0.5s						
MOY				⇓*i*Pg	Pg	09 22 21.2	+0.1
	428nm,0.5s						
MOY				*i* Sg	Sg	09 22 28.4	+0.3
MOY				Pmax			
	378nm,0.4s						
MOY				Smax			
	5µm,0.9s						

MOY	**Mondy**	**0.53**	**108**	*e*PG	Pg	09 22 21.1	0.0
MOY				*e*		09 22 28.5	
MOY				pmax	pmax		
	comp=Z,376nm,0.2s						
MOY				smax			
	comp=E,4µm,0.4s						
ORL	**Orlik**	**0.75**	**342**	⇑*i*Pg	Pg	09 22 25.2	-0.3
	comp=E,324nm,0.6s						
ORL				⇓*i*Pg	Pg	09 22 25.2	-0.3
	comp=E,134nm,0.6s						
ORL				⇓*i*Pg	Pg	09 22 25.2	-0.3
	comp=E,458nm,0.6s						
ORL				*e*Sg	Sg	09 22 34.6	-0.9
ORL				Pmax			
	comp=E,469nm,0.3s						
ORL				Smax			
	comp=E,937nm,0.4s						
ORL	**Orlik**	**0.75**	**342**	⇑*i*PG	Pg	09 22 25.2	-0.3
ORL				*e*		09 22 34.7	
ORL				pmax	pmax		
	comp=Z,476nm,0.2s						
ORL				smax			
	comp=N,936nm,0.5s						
ARS	**Arshan**	**1.39**	**85**	*e*Pg	Pg	09 22 36.2	-2.1
ARS				*e*Pb	Pb	09 22 37.6	+0.5
ARS				*e*Sg	Sg	09 22 54.9	-1.9
ARS				*e*		09 22 58.8	
ARS				max			
	comp=N,518nm,0.5s						
ARS				max			
	comp=N,3µm,0.6s						
ARS	**Arshan**	**1.39**	**85**	*e*PG	Pg	09 22 37.2	-1.1
TLY	**Talaya**	**2.15**	**93**	⇑*i*Pg	Pg	09 22 49.0	-4.6
TLY				*e*Sg	Sg	09 23 16.8	-5.4
TLY				Pmax			
	comp=N,115nm,0.6s						
TLY				Smax			
	comp=N,416nm,0.3s						
ZAK	**Zakamensk**	**2.43**	**125**	⇓*i*Pg	Pg	09 22 54.4	-4.7
ZAK				*e*Sg	Sg	09 23 27.1	-4.3
ZAK				Pmax			
ZAK				Smax			
	comp=N,650nm,0.7s						
ZAK	**Zakamensk**	**2.43**	**125**	*e*PN	Pn	09 22 54.3	+2.2
ZAK				*e*		09 23 26.6	
ZAK				pmax	pmax		
	comp=Z,64nm,0.4s						
ZAK				smax			
	comp=N,650nm,0.6s						
IRK	**Irkutsk**	**2.55**	**79**	*e*Pg	Pg	09 22 56.0	-5.6
IRK				*e*Sg	Sg	09 23 28.5	-7.1
IRK				Pmax			
	comp=N,324nm,0.3s						
IRK				Smax			
	comp=N,2µm,0.5s						
IRK	**Irkutsk**	**2.55**	**79**	*e*PN	Pn	09 22 55.8	+1.9
IRK				*e*		09 23 28.7	
IRK				pmax	pmax		
	comp=Z,327nm,0.3s						
IRK				smax			
	comp=N,2µm,0.4s						
TDJR	**Todzha**	**2.59**	**284**	*i* Pg	Pg	09 22 57.4	-4.8
TDJR				*e*Sg	Sg	09 23 31.0	-5.7
LSTR	**Listvyanka**	**2.88**	**87**	⇑*i*Pg	Pg	09 23 01.5	-6.6
LSTR				*e*Sg	Sg	09 23 39.0	-7.5
LSTR				Pmax			
	comp=N,89nm,0.9s						
LSTR				Smax			
	comp=N,210nm,0.8s						
LSTR	**Listvyanka**	**2.88**	**87**	*e*PN	Pn	09 23 01.5	+2.9
LSTR				*e*		09 23 37.9	
LSTR				pmax	pmax		
	comp=Z,50nm,0.6s						
LSTR				smax			
	comp=N,218nm,0.7s						
TSC	**Tosontsengel**	**3.31**	**203**	*e*Pg	Pg	09 23 10.4	-6.2
TSC				*e*Sg	Sg	09 23 56.6	-4.1
BLGM	**Bulgan**	**3.72**	**144**	*e*Pg	Pg	09 23 13.5	-11
BLGM				*e*Sg	Sg	09 24 03.1	-11
BLGM				Smax			
	comp=N,254nm,0.9s						
TRG	**Tyrgan**	**3.89**	**74**	*e*	Pn	09 23 14.3	+1.3
TRG				*e*Pg	Pg	09 23 21.5	-6.8
TRG				*e*Sg	Sg	09 24 11.9	-8.3
TRG				Pmax			
	comp=N,125nm,0.4s						
TRG				Smax			
	comp=N,255nm,1.0s						
TRG	**Tyrgan**	**3.89**	**74**	*e*PN	Pn	09 23 21.7	+8.7
TRG				*e*		09 24 11.8	
TRG				pmax	pmax		
	comp=Z,130nm,0.4s						
TRG				smax			
	comp=N,253nm,0.7s						
KAB	**Kabansk**	**4.01**	**84**	*e*	Sn	09 24 05.2	+2.2
KAB				*e*Sg	Sg	09 24 14.2	-10
KAB				Smax			
	comp=N,608nm,0.9s						
ARDR	**Aradan**	**4.23**	**283**	*e*Pg	Pg	09 23 24.8	-10
ARDR				*e*Sg	Sg	09 24 18.5	-13
OGRR	**Ongureny**	**4.85**	**65**	*e*	Pn	09 23 30.9	+4.3
OGRR				*e*Pg	Pg	09 23 37.4	-10
OGRR				*e*Sn	Sn	09 24 21.0	-3.4
OGRR				*e*Sg	Sg	09 24 39.7	-12
OGRR				Pmax			
	comp=N,29nm,0.7s						
OGRR				Smax			
	comp=N,238nm,0.4s						
OGRR	**Ongureny**	**4.85**	**65**	*e*PN	Pn	09 23 26.3	-0.3
OGRR				*e*		09 23 36.9	
OGRR				*e*		09 24 38.0	
OGRR				pmax	pmax		
	comp=Z,26nm,0.5s						
OGRR				smax			
	comp=E,236nm,0.5s						
ULN	**Ulaanbaatar**	**5.95**	**129**	*d i*PN	Pn	09 23 37.9	-4.2
ULN				*i*		09 23 59.8	
ULN				*i*		09 25 24.9	
ULN	**Ulaanbaatar**	**5.95**	**129**	*e*PN	Pn	09 23 57.4	+15
SYVR	**Suvo**	**6.23**	**69**	*e*Pn	Pn	09 23 43.1	-3.0
SYVR				*e*Pg	Pg	09 24 01.2	-14
SYVR				*e*Sn	Sn	09 24 53.2	-5.8
SYVR				*e*Sg	Sg	09 25 21.8	-16
SYVR				Pmax			
	comp=E,9.0nm,0.7s						
SYVR				Smax			
	comp=E,140nm,2.0s						
NIZ	**Nizh Angarsk**	**6.80**	**51**	*e*	Pn	09 23 55.7	+1.6
NIZ				*e*Sn	Sn	09 25 07.1	-6.2
NIZ				*e*Sg	Sg	09 25 40.4	-17
NIZ				Smax			
	comp=E,224nm,0.5s						
KMO	**Kumora**	**7.67**	**54**	*e*	Sn	09 25 29.7	-5.3
KMO				*e*Sg	Sg	09 26 09.8	-16
KMO				Smax			
	comp=E,127nm,1.3s						
KMO	**Kumora**	**7.67**	**54**	*e*PG	Pg	09 24 26.8	-17
KMO				*e*S	Sn	09 25 26.6	-8.4
KMO				*e*		09 26 05.8	
KMO				pmax	pmax		
	comp=Z,14nm,0.8s						
KMO				smax			
	comp=N,128nm,1.3s						
KPC	**Khapcheranga**	**8.02**	**101**	*e*	P	09 24 13.5	+2.4
KPC				*e*Pg	P	09 24 35.0	+24
KPC				*e*Sg	Sg	09 26 18.9	-19
KPC				Pmax			
	comp=N,2.0nm,0.6s						
KPC				Smax			
	comp=N,49nm,1.1s						
KPC	**Khapcheranga**	**8.02**	**101**	*e*PG	P	09 24 35.1	+24
UKT	**Uakit**	**8.78**	**60**	*e*Pn	P	09 24 21.4	-0.3
UKT				*e*Pg	P	09 24 48.3	+27
UKT				*e*Sg	Sg	09 26 41.6	-21
UKT				Pmax			
	comp=N,3.0nm,0.6s						
UKT				Smax			
	comp=N,47nm,1.5s						
BOD	**Bodaibo**	**9.97**	**48**	*e*P	P	09 24 34.9	-3.1
BOD				*e*S	Sn	09 26 22.4	-9.4
BOD				pmax	pmax		
	comp=Z,4.0nm,0.2s						
BOD				smax			
	comp=N,59nm,1.1s						
AAK	**Ala-Archa**	**19.64**	**252**	⇓*i*P	P	09 26 41.3	-2.1
AAK				*i*		09 30 23.6	
SOC	**Sochi**	**40.45**	**283**	*e*P	P	09 29 49.5	-2.6
SOC				*e*		09 31 23.2	
SOC				*e*PPP	PPP	09 31 51.1	-4.6
SOC				*e*S	S	09 35 59.7	-1.9
SOC				*e*SS	SS	09 38 48.2	-6.1

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*JMA **22** 09:27:45.0±0.2,24.30N×122.54E,h49^{km},M2.1*

TAP 22 09:27:44.2,24.34N×122.56E,h47^{km}±1^{km},ML2.9, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.43**	**73**	P	P	09 27 55.6	+1.2
YOJ				*e*S	S	09 28 03.3	+1.6
IRIF	**Iriomote-Funau**	**1.07**	**90**	P	P	09 28 03.8	+0.8
IRIF				*e*S	S	09 28 18.1	+1.2
JKRS	**Kuro-shima**	**1.33**	**94**	P	P	09 28 08.0	+1.2
JKRS				*e*S	S	09 28 25.4	+1.9
JIJ	**Ishigaki jima**	**1.44**	**89**	P	P	09 28 09.1	+0.7
JIJ				*e*S	S	09 28 26.7	+0.3
JTJ	**Tarama**	**1.97**	**81**	P	P	09 28 17.3	+1.5
JTJ				*e*S	S	09 28 40.5	+1.1

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*IDC **22** 09:38:43.4±2.8, 19.90S×177.38W, h584^{km}±41^{km}, mb3.4/5, mb1 3.5/6, mb1mx3.2/16, Error ellipse: s-maj=39.9km s-min=24.4km az=147.0*

*NEIC **22** 09:38:44.5±1.0, 19.96S×177.39W, h600^{km}, mb4.3/2, Error ellipse: s-maj=22.3km s-min=19.2km az=125.0*

ISC 22 09:38:41.6±3.5,**19.9S**±0.3×**177.4W**±0.2,**h576**^{km}±54^{km}, **n11,**σ**0**^{s}**32**/12,**mb4.0**/6,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	**Urewera**	**18.93**	**193**	P	**P**	**09 42 27.6**	**0.0**
	1.4nm,0.3s,baz=21,slow=18,SNR=6.8						
CTA	**Charters Tower**	**34.11**	**263**	*e*P	**P**	**09 44 41.3**	**+0.6**
	4.6nm,0.4s,mb4.5						
CTA	**Charters Tower**	**34.11**	**263**	P	**P**	**09 44 41.1**	**+0.4**
	5.4nm,0.4s,mb4.5,baz=92,slow=11,SNR=16						
CTAO	**Charters Tower**	**34.11**	**263**	*e*P	**P**	**09 44 41.2**	**+0.5**
STKA	**Stephens Creek**	**38.56**	**244**	P	**P**	**09 45 17.3**	**+0.1**
	3.7nm,0.7s,mb4.0,baz=80,slow=12,SNR=5.6						
ASAR	**Alice Springs**	**45.20**	**256**	P	**P**	**09 46 10.1**	**+0.2**
	4.1nm,0.4s,mb4.3,baz=87,slow=8.5,SNR=130						
ASAR				S	**S**	**09 52 08.7**	**+0.1**
	1.8nm,1.1s,baz=93,slow=16,SNR=12						
ASPA	**Alice Springs**	**45.20**	**256**	*e*P	**P**	**09 46 10.1**	**+0.3**
WB2	**Warramunga Arr**	**45.23**	**261**	*e*P	**P**	**09 46 09.7**	**-0.3**
WRAB	**Tennant Creek**	**45.23**	**261**	*e*P	**P**	**09 46 09.4**	**-0.6**
	3.8nm,0.5s,mb4.2						
WRA	**Warramunga Arr**	**45.24**	**261**	P	**P**	**09 46 09.9**	**-0.2**
	2.0nm,0.3s,mb4.1,baz=97,slow=7.9,SNR=105						
ILAR	**Eielson Array**	**87.58**	**13**	P	**P**	**09 50 29.7**	**+0.1**
	0.4nm,0.9s,mb3.1,baz=219,slow=6.3,SNR=5.0						

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*NAO **22** 10:02:17.4±4.0, 67.23N×32.83E, ML2.1*

HEL 22 10:02:15.4±0.5,**67.70N×34.16E,ML2.0,ML2.1**(NAO), **Explosion,Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
APA0	**Apatity Array**	**0.46**	**258**	Pg	Pg	10 02 24.1	-0.4
	baz=96,slow=16						
APA0				Lg		10 02 29.9	
	baz=103,slow=28						
APA0	**Apatity Array**	**0.46**	**258**	*i* P	Pg	10 02 24.1	-0.4
APA0				*i* S		10 02 29.9	
KU4	**Oulanka**	**2.24**	**235**	*e*SG	Sg	10 03 24.4	-5.7
MSF	**Maaselka**	**2.71**	**231**	*e*P	Pn	10 03 00.0	-1.0
MSF				*e*SG	Sg	10 03 37.7	-7.9
MSF				MSG		10 03 44.8	
	comp=Z,7.2nm,0.2s						
SGF	**Sodankyl**	**2.94**	**268**	*e*P	Pn	10 03 03.4	-0.8
SGF				*e*SG	Sg	10 03 44.6	-8.7
SGF				MSG		10 03 46.1	
	comp=Z,4.9nm,0.2s						
KEV	**Kevo**	**3.32**	**312**	*e*P	Pn	10 03 07.3	-2.4
KEV				*e*SG	Sg	10 03 56.8	-9.3
ARA0	**ARCESS Array S**	**3.66**	**304**	Pn	Pn	10 03 14.2	-0.4
	baz=122,slow=16						
ARA0				Sn	Sn	10 03 56.1	-3.0
	baz=128,slow=28						
ARA0				Lg		10 04 07.9	
	baz=121,slow=37						
ARA0	**ARCESS Array S**	**3.66**	**304**	*e*P	Pn	10 03 14.2	-0.4
ARA0				*e*S	Sn	10 03 56.1	-3.0
ARA0				*e*SG		10 04 07.9	
OUL	**Oulu**	**4.24**	**236**	*e*SG	Sg	10 04 25.6	-11
KJN	**Kajaani**	**4.49**	**219**	*e*SG	Sg	10 04 32.6	-12
JOF	**Joensuu**	**4.95**	**195**	*e*SG	Sg	10 04 47.6	-13
JOF				MSG		10 04 50.6	
	comp=Z,2.1nm,0.2s						

GUC 22 10:37:09.2±0.6,**35.06S×70.45W,h15**^{km}±48^{km},**MD3.7, ML2.4,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CHCH	**Chadas Angostu**	**1.14**	**352**	*e*P	Pb	10 37 29.0	-1.1
CHCH				*i* S	Sb	10 37 44.4	-0.1
LNV	**Longovilo**	**1.36**	**324**	*e*P	Pn	10 37 32.5	-1.2
LNV				*i* S	Sb	10 37 50.3	-0.6
TACH	**Talagante**	**1.46**	**344**	*i* S	Sb	10 37 53.0	-0.9
RCDM	**Rinconada Maip**	**1.60**	**349**	*e*P	Pn	10 37 36.9	-0.2
RCDM				*i* S	Sn	10 37 57.3	-0.3
RCDM				AMP		10 38 04.3	
	comp=E,109nm,0.1s						
FCH	**Farellones**	**1.74**	**4**	*e*P	Pn	10 37 39.2	0.0
FCH				*i* S	Sn	10 38 02.2	+1.1
FCH				AMP		10 38 16.9	
	comp=N,44nm,0.2s						

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*IDC **22** 10:45:36.5±2.3, 33.91N×73.10E, mb3.6/4, mb1 3.8/5, mb1mx3.6/20, ML3.6/1, Error ellipse: s-maj=76.7km s-min=24.6km az=60.0*

*NDI **22** 10:45:43.4±4.7, 33.01N×72.25E, h39^{km}±534^{km}, MD3.7*

ISC 22 10:45:34.2±1.3,**32.8N**±0.1×**72.0E**±0.1,**h33**^{km},**n14,** σ**1**^{s}**37**/17,**mb3.5**/4,**Pakistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
THN	**Thein Dam**	**3.16**	**95**	*e*P	**P**	**10 46 26.2**	**+3.5**
	2.7nm,0.2s						
THN				*e*S	**S**	**10 47 01.1**	**+1.4**
DLH	**Dalhousie**	**3.35**	**93**	*e*P	**P**	**10 46 33.0**	**+7.4**
DLH				*e*S	**S**	**10 47 03.0**	**-1.8**
SDNR	**Sundarnagar**	**4.41**	**106**	*e*P	**P**	**10 46 44.8**	**+4.3**
	417nm,0.2s						
SDNR				*e*S	**S**	**10 47 32.1**	**+0.7**
NDI	**New Delhi**	**6.07**	**131**	*e*S	**S**	**10 48 13.0**	**-0.2**
KOLN	**Koldanda**	**11.20**	**113**	*e*P	**P**	**10 48 14.5**	**-0.6**
	3.1nm,0.3s						
GKN	**Gorkha**	**11.90**	**110**	*e*P	**P**	**10 48 24.5**	**0.0**
DMN	**Daman**	**12.45**	**111**	*e*P	**P**	**10 48 27.2**	**-4.7**
KKN	**Kakani**	**12.51**	**110**	*e*P	**P**	**10 48 30.4**	**-2.3**
	6.1nm,0.5s						
PKI	**Pulchoki**	**12.71**	**111**	*e*P	**P**	**10 48 30.6**	**-4.8**
	4.2nm,0.3s						
BVAR	**Borovoye Array**	**20.27**	**357**	P	**P**	**10 50 02.3**	**-7.1**
	0.2nm,0.3s,baz=166,slow=12,SNR=5.1						
ZAL	**Zalesovo**	**23.03**	**20**	P	**P**	**10 50 28.1**	**-9.1**
	1.4nm,0.7s,mb3.5,baz=141,slow=2.2,SNR=4.2						
CMAR	**Chiang Mai Arr**	**28.07**	**114**	P	**P**	**10 51 27.1**	**+2.2**
	0.5nm,0.6s,mb3.4,baz=300,slow=11,SNR=4.2						
ARCES	**ARCESS Array B**	**44.89**	**339**	P	**P**	**10 53 46.7**	**-0.2**
	3.4nm,1.1s,mb4.1,baz=127,slow=14,SNR=3.0						
WRA	**Warramunga Arr**	**79.33**	**122**	P	**P**	**10 57 43.1**	**+4.6**
	0.1nm,0.5s,mb3.0,baz=322,slow=4.5,SNR=4.8						

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*PRU **22** 11:01:57.7, 50.29N×18.84E*

WAR 22 11:01:58.2,50.23N×18.88E,h1^{km},Location given by Central Institute of Mining, origin time based upon OJC,Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.59**	**90**	*e*Pg	Pg	11 02 09.6	-0.4
OJC				*e*Sg	Sg	11 02 17.4	-0.5
OKC	**Ostrava-Krasne**	**0.61**	**231**	*e*PG	Pg	11 02 09.6	-0.8
DPC	**Dobruska-Polom**	**1.64**	**275**	*e*PG	Pg	11 02 27.3	-3.7
DPC				*e*SG	Sg	11 02 49.5	-3.4

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*NIED **22** 11:13:00, 37.10N×138.80E, h8^{km}, Mw3.4 Best double couple: M$_0$1.51×10^{14} NP1:ϕ_s314°, δ75°, λ60°. NP2:ϕ_s199°, δ33°, λ151°.*

JMA 22 11:13:18.2,37.15N×138.82E,h8^{km}±2^{km},M3.3,1C-2D, Near west coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHK	**Hiroka**	**0.18**	**58**	⇓P	Pg	11 13 22.1	-0.1
JHK				S	Sg	11 13 25.2	+0.4
JIZZ	**Izumozaki**	**0.39**	**347**	P	Pg	11 13 26.5	+0.4
JIZZ				S	Sg	11 13 33.4	+2.0
JKT	**Katashina**	**0.51**	**138**	P	Pg	11 13 28.2	-0.4
JKT				S	Sg	11 13 35.7	+0.2
JGK	**Kuni**	**0.60**	**194**	P	Pg	11 13 29.8	-0.6
JFY	**Yanaizu**	**0.75**	**70**	⇓P	Pb	11 13 32.2	-0.9
JFY				S	Sb	11 13 42.4	-0.8
JNS	**Sasagawa**	**0.78**	**31**	P	Pb	11 13 32.4	-1.1
JNS				S	Sb	11 13 42.7	-1.2
MAT	**Matsushiro**	**0.78**	**219**	P	Pb	11 13 32.2	-1.4
MAT				S	Sb	11 13 42.5	-1.6
MAT	**Matsushiro**	**0.78**	**219**	P	Pb	11 13 32.3	-1.3
MAT				S	Sb	11 13 42.6	-1.5
JAG	**Ashikaga**	**0.88**	**145**	⇑P	Pb	11 13 35.1	-0.3
JAG				S	Sb	11 13 46.9	-0.2
JSD	**Sado**	**0.99**	**334**	P	Pb	11 13 35.6	-1.6
JSD				S	Sb	11 13 48.5	-1.7

DJA 22 11:36:04.5±1.1,**9.55S×113.99E,h33**^{km},**MD5.0**/3, **ML4.5**/3,**2C-3D,Error ellipse: s-maj=29.1km s-min=12.8km az=38.0,South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SRDI	**Scrawed**	**1.08**	**8**	*e*Pn	Pn	11 36 21.7	-1.8
	552nm,0.2s						
SRDI				⇑*e*Sn	Sn	11 36 35.1	-2.2
KELI	**Kelakatan**	**1.42**	**21**	⇓*e*Pn	Pn	11 36 27.5	-0.8
	230nm,0.2s						
RATI	**Rata**	**1.73**	**62**	⇓*e*Pn	Pn	11 36 31.8	-1.0
	1µm,0.2s						
RATI				⇓*e*Sn	Sn	11 36 50.5	-3.5
KEDI	**Kedomdong**	**2.35**	**63**	⇑*e*P	P	11 36 40.8	-0.7

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*IDC **22** 11:51:33.0±3.3, 10.61S×166.04E, h168^{km}±29^{km}, mb4.1/13, mb1 4.3/14, mb1mx4.2/19, Error ellipse: s-maj=17.6km s-min=16.0km az=132.0*

*NEIC **22** 11:51:38.2±4.6, 10.73S×165.95E, h218^{km}±43^{km}, mb4.6/5, Error ellipse: s-maj=17.9km s-min=13.1km az=50.0*

ISC 22 11:51:37.1±3.2,**10.7S**±0.1×**165.89E**±0.09,**h220**^{km}±30^{km}, **n28,**σ**0**^{s}**85**/29,**mb4.3**/16,**5D,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**11.30**	**177**	*e*P	**P**	**11 54 13.7**	**+0.2**
DZM				*e*S	**S**	**11 56 16.7**	**+0.2**
PMG	**Port Moresby**	**18.49**	**272**	P	**P**	**11 55 38.8**	**-0.3**
	0.6nm,0.3s,baz=77,slow=6.7,SNR=8.6						
CTA	**Charters Tower**	**21.08**	**241**	⇓*i*P	**P**	**11 56 06.8**	**+1.6**
	17nm,0.7s,mb4.7						
CTA	**Charters Tower**	**21.08**	**241**	P	**P**	**11 56 06.8**	**+1.6**
	51nm,1.1s,mb5.0,baz=71,slow=12,SNR=26						
CTAO	**Charters Tower**	**21.08**	**241**	*e*P	**P**	**11 56 06.4**	**+1.2**
URZ	**Urewera**	**29.21**	**162**	P	**P**	**11 57 20.1**	**-0.5**
	20nm,1.0s,mb4.7,baz=309,slow=12,SNR=6.9						
STKA	**Stephens Creek**	**30.77**	**223**	⇓*i*P	**P**	**11 57 35.0**	**+0.7**
	7.8nm,0.6s,mb4.5						
STKA	**Stephens Creek**	**30.77**	**223**	P	**P**	**11 57 35.2**	**+1.0**
	7.6nm,0.5s,mb4.6,baz=47,slow=8.3,SNR=25						
WB2	**Warramunga Arr**	**31.72**	**249**	⇓*i*P	**P**	**11 57 42.2**	**-0.4**
WRAB	**Tennant Creek**	**31.72**	**249**	*e*P	**P**	**11 57 42.0**	**-0.6**
	7.4nm,0.8s,mb4.3						
WRA	**Warramunga Arr**	**31.73**	**249**	P	**P**	**11 57 42.3**	**-0.4**
	6.1nm,0.7s,mb4.3,baz=81,slow=9.0,SNR=96						
KAKA	**Kakadu**	**32.84**	**263**	⇓*i*P	**P**	**11 57 51.4**	**-0.9**
	30nm,0.5s,mb5.1						
ASAR	**Alice Springs**	**33.06**	**243**	P	**P**	**11 57 53.6**	**-0.6**
	6.4nm,0.9s,mb4.2,baz=74,slow=9.5,SNR=44						
ASAR				ScP		12 04 01.9	
	0.9nm,0.9s,baz=78,slow=3.4,SNR=5.9						
ASPA	**Alice Springs**	**33.07**	**243**	⇓*i*P	**P**	**11 57 53.5**	**-0.7**
RPZ	**Rata Peaks**	**33.18**	**173**	P	**P**	**11 57 53.7**	**-1.2**
	22nm,0.7s,mb4.8,baz=317,slow=2.5,SNR=13						
MBWA	**Marble Bar**	**45.44**	**251**	*e*P	**P**	**11 59 37.2**	**+1.1**
NWAO	**Narrogin (SRO)**	**49.76**	**236**	P	**P**	**12 00 09.6**	**+0.3**
	8.8nm,0.7s,mb4.2,baz=69,slow=6.7,SNR=4.8						
NWAO	**Narrogin (SRO)**	**49.76**	**236**	P	**P**	**12 00 09.6**	**+0.3**
NWAO				P		12 00 10.8	
SBA	**Scott Base**	**67.12**	**180**	*e*P	**P**	**12 02 05.3**	**-3.3**
CMAR	**Chiang Mai Arr**	**72.11**	**293**	P	**P**	**12 02 40.6**	**+0.8**
	2.1nm,0.7s,mb3.9,baz=122,slow=4.6,SNR=14						
SONM	**Songino Array**	**78.49**	**324**	P	**P**	**12 03 15.8**	**+0.5**
	0.9nm,0.6s,mb3.6,baz=143,slow=6.2,SNR=3.8						
QSPA	**South Pole Qui**	**79.28**	**180**	*e*P	**P**	**12 03 20.4**	**+1.3**
	3.8nm,0.6s,mb4.2						
ILAR	**Eielson Array**	**83.16**	**18**	P	**P**	**12 03 39.1**	**-0.4**
	2.0nm,0.5s,mb4.2,baz=238,slow=4.9,SNR=76						
NVAR	**Mina Array Bea**	**85.71**	**50**	P	**P**	**12 03 53.0**	**+0.2**
	1.9nm,1.0s,mb3.8,baz=232,slow=8.8,SNR=9.2						
TUC	**Tucson**	**90.09**	**57**	P	**P**	**12 04 14.9**	**+1.2**
ZAL	**Zalesovo**	**93.39**	**324**	P	**P**	**12 04 28.4**	**+0.1**
	0.9nm,0.3s,mb4.3,baz=343,slow=7.3,SNR=3.3						
YKA	**Yellowknife Ar**	**94.62**	**27**	P	**P**	**12 04 32.4**	**-1.3**
	0.4nm,0.6s,mb3.7,baz=258,slow=4.7,SNR=7.1						
YKA	**Yellowknife Ar**	**94.62**	**27**	P	**P**	**12 04 32.4**	**-1.3**

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*NAO **22** 12:03:22.6±1.6, 69.41N×30.78E, ML2.1*

*BER **22** 12:03:27.3±2.9, 69.10N×30.22E, ML2.1(NAO), Suspected explosion*

HEL 22 12:03:23.9±0.1,**69.37N×30.81E,ML2.2,ML2.1**(NAO), **Explosion,Norway-Murmansk border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KEV	**Kevo**	**1.39**	**288**	*e*P	Pb	12 03 48.8	-1.6
KEV				*e*S	Sb	12 04 06.6	-2.1
ARA0	**ARCESS Array S**	**1.88**	**278**	Pn	Pn	12 03 56.9	-0.7
	baz=87,slow=16						
ARA0				Lg		12 04 20.4	
	baz=96,slow=28						
ARA0				Rg		12 04 31.4	
	baz=97,slow=37						
ARA0	**ARCESS Array S**	**1.88**	**278**	*e*P	Pn	12 03 56.9	-0.7
ARA0				*e*S		12 04 20.4	
ARA0				*e*RG		12 04 31.4	
APA0	**Apatity Array**	**1.95**	**154**	Pn	Pn	12 03 58.2	-0.3
	baz=334,slow=16						
APA0				Lg		12 04 23.4	
	baz=330,slow=37						
APA0	**Apatity Array**	**1.95**	**154**	*e*P	Pn	12 03 58.2	-0.3
APA0				*e*SG		12 04 23.4	
SGF	**Sodankyl**	**2.50**	**221**	*e*P	Pn	12 04 05.8	-0.6
SGF				*e*S	Sn	12 04 36.4	-1.8
SGF				MSG		12 04 42.0	
	comp=Z,6.9nm,0.1s						
KU4	**Oulanka**	**3.05**	**189**	*e*P	Pn	12 04 13.2	-1.2
KU4				*e*S	Sn	12 04 49.6	-2.5
MSF	**Maaselka**	**3.54**	**192**	*e*P	Pn	12 04 20.4	-0.8
MSF				*e*SB	Sb	12 05 09.1	-1.9
MSF				MSG		12 05 20.7	
	comp=Z,5.4nm,0.4s						
OUL	**Oulu**	**4.71**	**206**	*e*SG	Sg	12 05 48.6	-12
OUL				MSG		12 05 51.0	
	comp=Z,5.1nm,0.5s						
KJN	**Kajaani**	**5.45**	**194**	*e*SG	Sg	12 06 09.3	-16
FIA0	**FINESS Array S**	**8.20**	**196**	Lg		12 07 29.8	
	baz=20,slow=28						
FIA0	**FINESS Array S**	**8.20**	**196**	Lg		12 07 29.8	
	baz=20,slow=28						

*NEIC **22** 12:38:50.0,38.55N×23.55E,h28^{km},ML3.0(ATH),After ATH.*
*ATH **22** 12:38:50.0,38.54N×23.54E,h29^{km}±2^{km},MD3.0/8,ML3.0*
*THE **22** 12:38:50.4,38.56N×23.48E,h12^{km},ML3.3*
*CSEM **22** 12:38:50.7±0.1,38.55N×23.49E,h14^{km}±1^{km},ML3.0, Error ellipse: s-maj=3.2km s-min=1.2km az=76.0*
ISC 22 12:38:49.9±0.5,**38.54N**±0.02×**23.54E**±0.06,**h25**^{km}±5^{km}, **n16,**σ**0**^{s}.**74**/27,**Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MPAR	**Parnis Oros**	0.41	158	*e*PB	Pb	12 38 59.0	+0.3
MPAR				*e*SB	Sb	12 39 05.5	+0.9
PTL	**Penteli**	0.55	152	*e*PN	Pn	12 39 01.6	-0.4
PTL				*e*SN	Sn	12 39 10.1	-0.3
ATH	**Athens Observa**	0.58	166	*e*PN	Pn	12 39 02.0	-0.5
ATH				*e*SN	Sn	12 39 11.0	-0.2
MGER	**Gerania Oros**	0.59	202	*e*PB	Pb	12 39 01.6	0.0
MGER				*e*SN	Sn	12 39 12.0	+0.5
NSAL	**Nisos Salamina**	0.63	186	*e*PN	Pn	12 39 02.9	-0.3
AOS	**Alonnisos**	0.69	22	*e*Pg	Pb	12 39 02.8	-0.3
AOS				*e*Sg	Sb	12 39 13.3	+1.1
NAIG	**Nisos Aigina**	0.78	183	*e*PN	Pn	12 39 05.5	+0.2
NEO	**Neokhori**	0.81	342	*e*PB	Pb	12 39 05.1	-0.1
NEO				*e*SN	Sn	12 39 17.9	+1.0
XOR	**Xorichti**	0.87	342	*e*Pg	Pb	12 39 06.4	+0.2
XOR				*e*Sg	Sb	12 39 18.8	+1.3
AGG	**Agios Georgios**	1.06	297	*e*Pg	Pn	12 39 09.2	-0.2
AGG				*e*Sg	Sb	12 39 23.5	+0.5
LIT	**Litokhoron**	1.76	333	*e*Pb	Pb	12 39 20.3	-1.1
LIT				*e*Sb	Sb	12 39 41.6	-1.6
OUR	**Ouranopolis**	1.83	11	*e*Pb	Pb	12 39 21.1	-1.3
OUR				*e*Sb	Sb	12 39 44.4	-0.7
OUR	**Ouranopolis**	1.83	11	*e*Sb	Sb	12 39 44.3	-0.8
PLG	**Polygyros**	1.84	358	*e*PN	Pn	12 39 21.1	+0.7
PLG				*e*SN	Sn	12 39 44.0	+0.9
PLG	**Polygyros**	1.84	358	*e*Sn	Sn	12 39 44.0	+0.9
GRG	**Griva**	2.57	340	*e*Pn	Pn	12 39 30.3	-0.6

IDC 22 12:45:49.5±5.0,**5.98S**×**133.33E,mb3.8**/1,**mb1 4.3**/3, **mb1mx3.9**/11,**ML4.1**/2,**1C,Error ellipse: s-maj=141.0km s-min=39.4km az=96.0,Aru Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	6.75	187	⇑*i*P	Pn	12 47 32.0	-0.3
	15nm,0.2s						
KAKA				*e*S	Sn	12 48 51.2	+0.4
WRA	**Warramunga Arr**	13.92	176	Pn	P	12 49 07.8	-2.7
	1.1nm,0.3s,baz=356,slow=13,SNR=36						
WRA				Sn	S	12 51 47.1	+0.2
	1.0nm,0.3s,baz=356,slow=23,SNR=8.0						
WB2	**Warramunga Arr**	13.92	176	*e*P	P	12 49 09.1	-1.5
WB2				*e*S	S	12 51 47.1	+0.1
ASAR	**Alice Springs**	17.60	178	P	P	12 49 57.0	-0.9
	1.1nm,0.3s,baz=351,slow=10,SNR=69						
ASAR				S	S	12 53 13.9	+1.1
	0.2nm,0.3s,baz=358,slow=27,SNR=4.4						
ASPA	**Alice Springs**	17.60	178	*e*P	P	12 49 56.8	-1.1
ASPA				*e*S	S	12 53 12.4	-0.4
STKA	**Stephens Creek**	26.90	164	P	P	12 51 32.3	-2.0
	1.4nm,1.0s,baz=337,slow=13,SNR=3.1						

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*BER **22** 13:42:27.5±2.3,60.73N×11.04E,ML2.2(NAO), Suspected explosion*
NAO 22 13:42:25.9±3.0,**60.68N**×**10.93E,h6**^{km}±23^{km},**ML2.2, Southern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NC6	**NORSAR Subarra**	0.27	75	Pg	Pg	13 42 30.1	-1.3
NB2	**NORSAR Subarra**	0.39	21	Pg	Pg	13 42 33.9	+0.2
NB2				Lg		13 42 38.0	
NC4	**NORSAR Subarra**	0.56	44	Pg	Pg	13 42 35.7	-1.4
NC4				Lg		13 42 41.6	
HFS	**Hagfors**	1.48	111	Pn	Pn	13 42 53.3	+0.2
	baz=296,slow=18						
HFS				Sn	Sn	13 43 11.1	-1.8
	baz=298,slow=37						
HFS				Lg		13 43 13.8	
	baz=285,slow=28						

PRE 22 14:03:43.7±1.2,**27.03S**×**26.75E,h2**^{km},**ML3.7,South Africa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SEK	**Senekal**	1.50	149	*e*P	Pn	14 04 11.5	-0.3
SEK				*e*S	Sb	14 04 30.2	-1.3
SEK				*e*		14 04 33.4	
	comp=Z,422nm,0.3s						
SLR	**Silverton**	1.89	47	*e*P	Pn	14 04 16.0	-1.2
SLR				*e*S	Sn	14 04 40.5	-1.4
SLR				*e*		14 04 42.1	
	comp=Z,766nm,0.2s						
BOSA	**Boshof**	2.06	220	*e*P	Pn	14 04 18.8	-0.9
BOSA				*e*S	Sn	14 04 44.4	-1.9
NWL	**Newcastle**	2.93	104	*e*P	Pn	14 04 35.0	+2.8
NWL				*e*S	Sn	14 05 10.1	+1.6
NWL				*e*		14 05 15.9	
	comp=Z,474nm,0.5s						

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*PRU **22** 14:16:47.8,50.26N×18.99E*
WAR 22 14:16:47.8,50.23N×**19.04E,h1**^{km},**Location given by Central Institute of Mining, origin time based upon OJC,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	0.49	91	*e*Pg	Pg	14 16 57.6	+0.1
OJC				*e*Sg	Sg	14 17 04.5	+0.5
OKC	**Ostrava-Krasne**	0.70	236	*e*PG	Pg	14 17 01.4	-0.3
NIE	**Niedzica**	1.16	134	*e*Pg	Pg	14 17 10.7	-0.2
NIE				*e*		14 17 25.7	
NIE				*e*Sg	Sg	14 17 27.3	+0.9
DPC	**Dobruska-Polom**	1.75	275	*e*PG	Pg	14 17 18.2	-4.4
DPC				*e*SG	Sg	14 17 42.5	-3.4
UPC	**Upice**	1.96	279	*e*SG	Sg	14 17 50.4	-2.6
KHC	**Kasperske Hory**	3.71	255	*e*SG	Sg	14 18 44.0	-7.4

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*MOS **22** 14:28:24.9±2.2,49.01N×156.42E,h61^{km},mb4.2/1,Error ellipse: s-maj=99.9km s-min=19.5km az=78.5*
KRSC 22 14:28:23.3±2.5,**48.98N**×**155.94E,h20**^{km}±8^{km},**ML4.5, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	1.71	4	*e*PN	Pn	14 28 49.5	-2.9
SKR				*e*S	Sn	14 29 11.3	-2.6
SKR				pmax	pmax		
	comp=Z,60nm,0.5s						
SKR				smax			
	comp=N,650nm,0.4s						
SKR				smax			
	comp=E,1µm,0.4s						
SKR				smax			
	comp=Z,160nm,0.4s						
ALID	**Alaid**	1.91	353	*e*P	Pn	14 28 54.9	-0.4
ALID				*i* S	Sn	14 29 20.2	+1.3
GRL	**Gorelyy**	3.82	20	*i* P	Pn	14 29 23.8	+1.2
GRL				*e*S	Sn	14 30 07.5	0.0
RUS	**Russkaya**	3.83	24	P	Pn	14 29 22.3	-0.3
RUS				S	Sn	14 30 05.4	-2.1
RUS	**Russkaya**	3.83	24	P	Pn	14 29 21.5	-1.1
RUS				*i* S	Sn	14 30 05.3	-2.2
PET	**Petropavlovsk**	4.40	22	P	Pn	14 29 30.7	0.0
PET				S	Sn	14 30 19.9	-2.1
PET	**Petropavlovsk**	4.40	22	*e*P	Pn	14 29 30.6	-0.1
PET				*i* S	Sn	14 30 20.1	-1.9
AVH	**Avacha**	4.64	21	*e*P	Pn	14 29 35.6	+1.5
AVH				*e*S	Sn	14 30 26.4	-1.7
SDLR	**Sedlovina**	4.69	22	*i* P	Pn	14 29 35.0	+0.2
NLC	**Nalytchevo**	4.71	26	*e*S	Sn	14 30 24.9	-5.1
SPN	**Mys Shipunski**	4.86	30	P	Pn	14 29 37.2	-0.1
SPN				S	Sn	14 30 29.1	-4.6
SPN	**Mys Shipunski**	4.86	30	*e*P	Pn	14 29 38.1	+0.8
SPN				*i* S	Sn	14 30 31.0	-2.7
GNL	**Ganaly**	4.88	14	*i* P	Pn	14 29 39.3	+1.7
GNL				*e*S	Sn	14 30 31.8	-2.5
KMNR	**Kamenistaya**	7.28	20	P	Pn	14 30 10.1	-1.2
KBTR	**Krutoberegovo**	8.36	27	P	P	14 30 24.3	-2.1
KBTR	**Krutoberegovo**	8.36	27	*e*P	P	14 30 24.5	-1.9

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*NEIC **22** 14:35:26.5,36.95N×28.21E,h14^{km},MD3.5(ATH),After ATH.*
*ATH **22** 14:35:26.5,36.94N×28.19E,h12^{km}±8^{km},MD3.5/6*
*ISK **22** 14:35:26.1,36.90N×28.26E,h29^{km},MD3.5*
*CSEM **22** 14:35:26.4±0.1,37.01N×28.38E,h25^{km},MD3.5,Error ellipse: s-maj=3.0km s-min=1.6km az=50.0*
ISC 22 14:35:27.1±0.4,**36.90N**±0.04×**28.34E**±0.06,**h44**^{km}±8^{km}, **n31,**σ**0**^{s}.**91**/33,**2D,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DALT	**Dalyan (Mudla)**	0.27	119	*i* PG	P	14 35 34.6	-0.8
DALT				*i* SG	S	14 35 40.1	-1.0
FETY	**Fethiye**	0.65	114	PG	P	14 35 40.7	+0.8
FETY				SG	S	14 35 50.2	+0.9
ARG	**Arkhangelos**	0.70	194	*e*PB	P	14 35 41.0	+0.3
DENT	**Denizli**	1.01	33	PG	P	14 35 44.7	-0.3
KSL	**Kastellorizon**	1.25	126	⇓*i*PG	P	14 35 52.1	+3.7
ELL	**Elmali**	1.27	96	PN	P	14 35 49.0	+0.4
SMG	**Samos**	1.45	304	⇓*i*PG	P	14 35 51.3	+0.1
KARP	**Karpathos**	1.65	216	*e*PB	P	14 35 57.0	+2.8
KHL	**Karahalli**	1.70	33	PN	P	14 35 55.4	+0.6
IZM	**Izmir**	1.72	330	PN	P	14 35 54.3	-0.8
BLCB	**Balcova**	1.81	326	PN	P	14 35 55.4	-0.9
BCK	**Bucak**	1.88	72	*e*PN	P	14 35 58.6	+1.3
ISP	**Isparta**	1.97	61	*e*PN	P	14 35 59.4	+0.8
ISP	**Isparta**	1.97	61	*e*P	P	14 35 57.7	-0.9
ISP	**Isparta**	1.97	61	*e*P	P	14 35 57.7	-0.9
ISP	**Isparta**	1.97	61	*e*Pn	P	14 35 59.4	+0.8
AKS	**Akhisar**	2.02	348	PN	P	14 35 58.8	-0.5
APE	**Apeiranthos**	2.26	275	*e*PB	P	14 36 03.1	+0.4
ALT	**Altintas**	2.56	32	*e*PN	P	14 36 07.3	+0.2
BALB	**Balikesir**	2.76	353	*e*PN	P	14 36 08.9	-1.0
PRK	**Paraskevi**	2.85	326	*e*PB	P	14 36 13.5	+2.2
LEF	**Lefka**	4.09	114	*e*PN	P	14 36 29.5	+0.7
EIL	**Elat**	9.09	141	*e*P	P	14 37 38.0	-0.5
	5.3nm,0.5s						
EIL	**Elat**	9.09	141	*e*P	P	14 37 38.0	-0.5
	5.3nm,0.5s						
ALWS	**Ilw as Safayha**	9.44	141	P	P	14 37 43.2	-0.1
JMOS	**Jabal al Moall**	9.57	142	P	P	14 37 44.7	-0.5
HAQS	**Haql**	9.58	143	P	P	14 37 44.5	-0.8
TAYS	**Tayyib Ism**	9.97	145	P	P	14 37 50.0	-0.7
BDAS	**Al Bad‘**	10.18	144	P	P	14 37 52.6	-1.0
JMQS	**Jabal Moqyreh**	10.19	139	P	P	14 37 54.7	+0.9
AYUS	**‘Aynunah**	10.47	144	P	P	14 37 56.6	-0.9

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*TAP **22** 14:53:31.8,23.81N×121.59E,h28^{km},ML3.9*
TAP Felt III J at Hualien, II J at Hehuanshan, I J at Chenggung.
*JMA **22** 14:53:31.8±0.2,23.80N×121.67E,h71^{km},M3.6*
*NEIC **22** 14:53:32.5±2.2,23.80N×121.78E,h42^{km}±23^{km},Error ellipse: s-maj=28.4km s-min=16.0km az=54.0*
NEIC Recorded [3 TAP] in Hua-lien and [1 TAP] in T'ai-tung Counties.
*IDC **22** 14:53:33.4±9.4,23.79N×121.88E,h48^{km}±79^{km},mb3.3/4, mb1 3.6/5,mb1mx3.4/21,ML3.6/1,Error ellipse: s-maj=91.6km s-min=26.4km az=100.0*
ISC 22 14:53:31.2±0.3,**23.77N**±0.02×**121.69E**±0.02,**h26**^{km}±2^{km}, **n75,**σ**0**^{s}.**99**/130,**mb3.6**/4,**12C-3D,Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HWA	**Hwalien**	0.22	340	*i* P	Pb	14 53 37.9	+0.7
HWA				S	Sb	14 53 42.9	+1.5
ESL	**Shilin**	0.24	281	⇓*i*P	Pb	14 53 37.5	+0.1
ESL				S	Sb	14 53 41.6	0.0
EHY	**Hungye**	0.42	232	⇑*i*P	Pb	14 53 39.9	-0.4
WHF	**Hehuan Shan**	0.54	314	⇓*i*P	Pb	14 53 41.6	-0.4
WHF				S	Sb	14 53 48.7	-0.7
ENA	**Nanau**	0.66	4	⇓*i*P	Pb	14 53 44.2	+0.2
ENA				S	Sb	14 53 54.3	+1.5
TWT	**Tachien**	0.67	316	P	Pb	14 53 44.2	0.0
TWT				S	Sb	14 53 52.3	-0.9
SMLT	**Sun Moon Lake**	0.73	279	⇑*i*P	Pb	14 53 44.7	-0.5
SMLT				S	Sb	14 53 53.8	-1.0
CHKT	**Chengkung**	0.73	204	*e*P	Pb	14 53 45.3	0.0
CHKT				S	Sb	14 53 56.6	+1.8
TYC	**Yuchr**	0.77	280	⇑P	Pb	14 53 45.2	-0.7
TYC				S	Sb	14 53 54.7	-1.4
ELDTW	**Lidau**	0.84	227	⇑*i*P	Pb	14 53 46.0	-1.2
ELDTW				S	Sb	14 53 59.2	+1.1
ALS	**Alishan**	0.85	252	⇑P	Pb	14 53 47.2	0.0
ALS				S	Sb	14 53 57.3	-1.0
TWC	**Suao**	0.85	10	*e*P	Pb	14 53 47.5	+0.3
TWC				S	Sb	14 54 00.2	+1.9
ENTT	**Nioudou**	0.87	353	*e*P	Pb	14 53 47.3	-0.4
WNT	**Mingjian**	0.92	277	⇑*i*P	Pb	14 53 48.6	+0.1
WNT				S	Sb	14 54 00.2	-0.2
CHN5	**Tsauling**	0.94	260	⇑*i*P	Pb	14 53 48.7	-0.1
CHN5				S	Sb	14 54 00.5	-0.4
TWE	**Neicheng**	0.95	359	*e*P	Pb	14 53 48.8	-0.1
TWE				S	Sb	14 54 01.8	+0.8
NSK	**Sanguang**	0.95	342	⇑*i*P	Pb	14 53 48.6	-0.4
NSK				S	Sb	14 54 00.5	-0.7
TCU	**Taichung**	1.00	292	*e*P	Pn	14 53 49.7	0.0
TCU				S	Sb	14 54 02.8	+0.3
TWQ1	**Liyutan**	1.01	305	⇑P	Pn	14 53 50.2	+0.3
TWQ1				S	Sb	14 54 03.0	0.0
WGK	**Gukeng**	1.03	266	*e*P	Pn	14 53 50.0	-0.2
WGK				S	Sb	14 54 03.6	+0.1
STYT	**Tauyuan**	1.04	235	⇑*i*P	Pn	14 53 50.0	-0.4
STYT				S	Sb	14 54 03.7	-0.2
NSTT	**Nanjuang**	1.06	324	*e*P	Pn	14 53 50.8	+0.2
NSTT				S	Sb	14 54 03.4	-1.0
NSY	**Sanyi**	1.06	307	*e*P	Pn	14 53 50.9	+0.3
NSY				S	Sb	14 54 04.8	+0.4
CHN4	**Tsaushan**	1.09	248	*e*P	Pn	14 53 51.0	0.0
CHN4				S	Sb	14 54 05.2	+0.1
TWG	**Pinlang**	1.10	211	*e*P	Pn	14 53 49.2	-1.9
WTP	**Ta-pu**	1.11	242	⇑P	Pn	14 53 51.4	+0.1
WTP				S	Sb	14 54 06.3	+0.4
TTN	**Taitung**	1.13	206	*e*P	Pn	14 53 50.8	-0.7
TTN				S	Sn	14 54 09.9	+3.7
CHY	**Chiayi**	1.19	257	*e*P	Pn	14 53 52.2	-0.2
CHY				S	Sn	14 54 07.4	-0.4
TWA	**Mucha**	1.21	356	*e*P	Pn	14 53 53.0	+0.3
TWA				S	Sn	14 54 07.9	-0.4
TWK	**Hsinying**	1.21	246	*e*P	Pn	14 53 52.6	0.0
TWK				S	Sn	14 54 08.7	+0.4
TATO	**Taipei**	1.21	351	*e*P	Pn	14 53 52.8	0.0
SGST	**Jiashian**	1.22	236	⇑*i*P	Pn	14 53 53.2	+0.3
SGST				S	Sn	14 54 09.4	+0.7
TWB1	**Santiao Chiao**	1.26	13	*e*P	Pn	14 53 54.4	+0.9
TWB1				S	Sn	14 54 11.6	+1.9
NCU	**National Centr**	1.28	339	*e*P	Pn	14 53 53.9	+0.2
NCU				S	Sn	14 54 11.0	+0.9
NWF	**Wu-fen Shan**	1.30	4	*e*P	Pn	14 53 54.2	+0.3
NWF				S	Sn	14 54 12.1	+1.5
TWS1	**Kuangyinshan**	1.35	350	*e*P	Pn	14 53 54.8	+0.1
TWS1				S	Sn	14 54 12.9	+1.1
ECL	**Taimali**	1.35	210	*e*P	Pn	14 53 52.3	-2.4
ECL				S	Sn	14 54 12.4	+0.5
WSF	**Szhu**	1.35	265	*e*P	Pn	14 53 54.5	-0.2
WSF				S	Sn	14 54 12.3	+0.4
YOJ	**Yonaguni jima**	1.39	60	P	Pn	14 53 55.7	+0.4
YOJ				*e*S	Sn	14 54 13.5	+0.5
CHN3	**Shinhua**	1.40	241	*e*P	Pn	14 53 56.0	+0.6
CHN3				S	Sn	14 54 15.0	+1.9
SSD	**Sandimen**	1.41	224	*e*P	Pn	14 53 55.0	-0.5
SSD				S	Sn	14 54 14.2	+0.8
CHN8	**Yiju**	1.42	253	*e*P	Pn	14 53 55.3	-0.4
CHN8				S	Sn	14 54 13.7	+0.1
TWM1	**Shoushan**	1.50	231	*e*P	Pn	14 53 58.6	+1.8
TWM1				S	Sn	14 54 18.2	+2.6
TWY	**Chenhua**	1.50	357	*e*P	Pn	14 53 57.1	+0.2
SGLT	**Jiouru**	1.51	227	*e*P	Pn	14 53 58.1	+1.0
SGLT				S	Sn	14 54 19.2	+3.2
EAST	**Anshuo**	1.58	209	*e*P	Pn	14 53 56.1	-1.9
EAST				S	Sn	14 54 19.8	+2.0
TAW	**Tawu**	1.58	208	*e*P	Pn	14 53 59.3	+1.3
SCZT	**Fangliau**	1.70	215	*e*P	Pn	14 53 59.8	+0.1
SCZT				S	Sn	14 54 22.1	+1.2
LAY	**Lan-yu**	1.73	184	*e*P	Pn	14 53 58.4	-1.7
LAY				S	Sn	14 54 22.8	+1.2
TWP	**Hsiaoliuchiu**	1.87	221	*e*P	Pn	14 54 02.6	+0.5
PCYT	**Pengchaiyu**	1.88	11	*e*P	Pn	14 54 03.3	+0.9
WDGT	**Dungji**	1.93	255	*e*P	Pn	14 54 01.8	-1.2
WDGT				S	Sn	14 54 24.0	-2.6
IRIF	**Iriomote-Funau**	1.95	73	P	Pn	14 54 03.7	+0.4
IRIF				*e*S	Sn	14 54 28.1	+0.9
HATJ	**Hateruma jima**	1.96	81	P	Pn	14 54 03.6	+0.2
HATJ				*e*S	Sn	14 54 27.1	-0.3
HEN	**Hengchun**	1.96	207	*e*P	Pn	14 54 04.5	+1.0
PNG	**Penghu**	1.96	265	*e*P	Pn	14 54 02.5	-1.0
PNG				S	Sn	14 54 25.6	-1.9
TWK1	**Hengchun**	1.99	204	*e*P	Pn	14 54 03.4	-0.5
JKRS	**Kuro-shima**	2.17	77	P	Pn	14 54 06.9	+0.4
JKRS				*e*S	Sn	14 54 33.8	+0.9
JIJ	**Ishigaki jima**	2.32	75	P	Pn	14 54 08.4	-0.2
JIJ				*e*S	Sn	14 54 35.4	-1.2
JTJ	**Tarama**	2.89	72	P	Pn	14 54 16.3	-0.4
JTJ				*e*S	Sn	14 54 50.0	-1.0
KNM	**Kinmen**	3.04	283	*e*P	Pn	14 54 18.9	0.0
JMJ	**Miyako jima 2**	3.45	72	P	Pn	14 54 24.7	0.0
JMJ				*e*S	Sn	14 55 04.4	-0.8
JOGS	**Gusukube**	3.54	73	P	Pn	14 54 25.9	0.0
JKE	**Kume jima 2**	5.28	60	P	Pn	14 54 48.9	-1.7
JKE				*e*S	Sn	14 55 47.5	-3.8
JAGN	**Aguni-jima**	5.76	60	P	Pn	14 54 55.8	-1.6
JAGN				*e*S	Sn	14 55 58.1	-5.4
JOW	**Kunigami**	6.70	62	P	Pn	14 55 07.0	-3.5
	2.9nm,0.3s,baz=280,slow=18,SNR=17						
JOW				S	Sn	14 56 20.9	-5.9
	0.8nm,0.3s,baz=120,slow=23,SNR=2.3						
JOW	**Kunigami**	6.70	62	P	Pn	14 55 07.2	-3.4
JOW				*e*S	Sn	14 56 20.1	-6.7
JTK	**Tokunoshima**	7.67	57	P	Pn	14 55 19.9	-4.3
JAM	**Amami Oshima**	8.49	55	P	P	14 55 30.9	-4.7
WRA	**Warramunga Arr**	45.16	163	P	P	15 01 44.2	-3.8
	0.5nm,0.7s,mb3.5,baz=344,slow=8.6,SNR=4.6						
CHKZ	**Chkalovo**	48.34	322	*e*P	P	15 02 09.9	-2.6
ASAR	**Alice Springs**	48.62	165	P	P	15 02 13.8	-1.2
	0.4nm,1.1s,mb3.4,baz=344,slow=6.6,SNR=3.6						
STKA	**Stephens Creek**	58.52	160	P	P	15 03 24.4	-3.6
	1.4nm,0.8s,mb4.1,baz=325,slow=13,SNR=4.0						
YKA	**Yellowknife Ar**	83.17	23	P	P	15 05 53.7	-2.4
	0.4nm,0.7s,mb3.6,baz=317,slow=5.0,SNR=8.2						
YKA	**Yellowknife Ar**	83.17	23	P	P	15 05 53.7	-2.4

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*ISK **22** 15:07:27.5,36.90N×28.26E,h30^{km},MD3.2*
*ATH **22** 15:07:28.8,36.94N×28.16E,h22^{km},MD3.2/4*
*CSEM **22** 15:07:28.2±0.1,37.02N×28.39E,h24^{km}±1^{km},MD3.2, Error ellipse: s-maj=3.7km s-min=1.8km az=48.0*
*NEIC **22** 15:07:31.0,36.78N×28.13E,h34^{km},MD3.3(ATH),After ATH.*
*NIC **22** 15:07:33.3±0.1,37.03N×28.48E,h25^{km},ML3.3,MW3.3*
ISC 22 15:07:28.7±0.4,**36.95N**±0.03×**28.32E**±0.04,**h30**^{km}±4^{km}, **n33,**σ**1**^{s}.**19**/43,**1C-3D,Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DALT	**Dalyan (Mudla)**	0.31	125	*i* PG	Pb	15 07 35.9	-0.4
DALT				*i* SG	Sb	15 07 41.9	+0.4
FETY	**Fethiye**	0.69	117	PG	Pb	15 07 42.0	-0.2
FETY				SG	Sb	15 07 51.9	+0.5
BDRM	**Kayabasi**	0.71	280	*i* P	Pb	15 07 41.5	-1.0
BDRM				*i* S	Sb	15 07 52.1	+0.2
ARG	**Arkhangelos**	0.75	192	*e*PN	Pn	15 07 43.0	-0.2
ARG	**Arkhangelos**	0.75	192	*e*Pn	Pn	15 07 43.4	+0.2
AYDN	**Tasoluk**	0.79	334	*i* P	Pb	15 07 42.7	-1.2
AYDN				*i* S	Sb	15 07 54.5	+0.2
DNZL	**Cakiroluk**	0.94	38	*i* P	Pn	15 07 45.5	-0.5
DNZL				*i* S	Sb	15 07 57.6	-0.9
DENT	**Denizli**	0.98	35	PG	Pn	15 07 46.5	-0.1
ELL	**Elmali**	1.29	98	PN	Pn	15 07 49.8	-1.2
KSL	**Kastellorizon**	1.29	128	*e*PN	Pn	15 07 55.0	+3.9
KSL	**Kastellorizon**	1.29	128	*e*Pb	Pb	15 07 54.1	+1.8
SMG	**Samos**	1.40	303	⇓*i*PN	Pn	15 07 53.5	+0.9
SMG	**Samos**	1.40	303	⇓*i*Pn	Pn	15 07 53.1	+0.5
MANT	**Manisa**	1.55	7	*i* P	Pn	15 07 57.8	+3.0
MANT				*i* S	Sn	15 08 20.0	+6.0
IZM	**Izmir**	1.67	330	PN	Pn	15 07 55.3	-1.1
KDAG	**Bornova**	1.67	330	*i* P	Pn	15 07 56.5	0.0
KDAG				*i* S	Sn	15 08 19.1	+1.9
KARP	**Karpathos**	1.68	214	*e*PN	Pn	15 07 58.0	+1.4
KARP	**Karpathos**	1.68	214	*e*Pn	Pn	15 07 58.6	+2.0
BLCB	**Balcova**	1.75	325	PN	Pn	15 07 57.4	-0.2
BCK	**Bucak**	1.89	74	*e*PN	Pn	15 07 59.8	+0.3
AKS	**Akhisar**	1.97	348	*e*PN	Pn	15 08 00.0	-0.7
ALT	**Altintas**	2.54	33	*e*PN	Pn	15 08 09.4	+0.6
BALB	**Balikesir**	2.71	353	*e*PN	Pn	15 08 10.5	-0.8
PRK	**Paraskevi**	2.80	325	*e*Pb	Pb	15 08 21.2	+3.2
AKMC	**Akamas**	3.78	119	⇓*i*P	Pn	15 08 28.1	+1.6
AKMC				S	Sn	15 09 10.6	+0.1
ALFC	**Alevga**	3.90	116	⇑*e*P	Pn	15 08 29.6	+1.4
	1.0nm,0.5s						
ALFC				S	Sn	15 09 13.8	+0.2
SZAC	**Souni-Zanaja**	4.31	119	P	Pn	15 08 35.2	+1.2
SZAC				S	Sn	15 09 24.1	+0.2
ALWS	**Ilw as Safayha**	9.49	141	P	P	15 09 48.1	+1.6
JMOS	**Jabal al Moall**	9.62	142	P	P	15 09 46.7	-1.7
HAQS	**Haql**	9.63	143	P	P	15 09 46.9	-1.6
TAYS	**Tayyib Ism**	10.03	145	P	P	15 09 52.1	-1.8
BDAS	**Al Bad‘**	10.23	144	P	P	15 09 54.3	-2.5
AYUS	**‘Aynunah**	10.52	144	P	P	15 09 58.4	-2.3

MOS 22 15:19:49.0±2.3,**52.33N**×**99.10E,h10**^{km},**mb4.2**/1,**1D, Error ellipse: s-maj=22.4km s-min=15.9km az=170.1, Tuva-Buryatia-Mongolia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ORL	**Orlik**	0.48	64	⇓*i*PG	Pg	15 19 58.2	-0.6
ORL				*e*		15 20 05.4	
ORL				pmax	pmax		
	comp=Z,870nm,0.2s						
ORL				smax			
	comp=N,3µm,0.3s						
MOY	**Mondy**	1.35	119	*e*PG	Pg	15 20 12.9	-3.0
MOY				*e*		15 20 31.4	
MOY				pmax	pmax		
	comp=Z,170nm,0.2s						
MOY				smax			
	comp=E,1µm,0.8s						
ARS	**Arshan**	2.09	100	*e*PN	Pn	15 20 26.1	+1.5
ARS				*e*		15 20 54.7	
ARS				pmax	pmax		
	comp=Z,247nm,0.3s						
ARS				smax			
	comp=E,1µm,0.4s						
TLY	**Talaya**	2.88	101	*e*PN	Pn	15 20 40.1	+4.2
TLY				*e*		15 21 17.7	
TLY				pmax	pmax		
	comp=Z,58nm,0.3s						
TLY				smax			
	comp=N,192nm,0.7s						
ZAK	**Zakamensk**	3.27	125	*e*PN	Pn	15 20 45.9	+4.5
ZAK				*e*		15 21 31.3	
ZAK				pmax	pmax		
	comp=Z,59nm,0.8s						
ZAK				smax			
	comp=N,197nm,0.7s						
LSTR	**Listvyanka**	3.56	95	*e*PN	Pn	15 20 52.5	+6.9
LSTR				*e*		15 21 37.6	
LSTR				pmax	pmax		
	comp=Z,74nm,1.5s						
LSTR				smax			
	comp=E,112nm,1.5s						
TRG	**Tyrgan**	4.45	82	*e*PN	Pn	15 20 57.2	-0.9
TRG				*e*		15 21 09.2	
TRG				*e*S	Sn	15 21 48.4	-2.1
TRG				*e*		15 22 06.0	
TRG				pmax	pmax		
	comp=Z,37nm,0.3s						
TRG				smax			
	comp=E,106nm,0.5s						
OGRR	**Ongureny**	5.30	72	*e*PN	Pn	15 21 09.3	-0.9
OGRR				*e*		15 21 24.5	
OGRR				*e*		15 22 33.0	
OGRR				pmax	pmax		
	comp=Z,24nm,0.9s						
OGRR				smax			

	comp=E,84nm,0.5s						
NIZ	**Nizh Angarsk**	**7.05**	**57**	*e*PG	Pg	15 21 56.5	-13
BOD	**Bodaibo**	**10.15**	**51**	*e*P	P	15 22 15.2	-2.6
BOD				*e*S	S	15 24 05.1	-7.6
BOD				pmax	pmax		
	comp=Z,4.0nm,0.2s						
BOD				smax			
	comp=N,41nm,1.5s						

NIED ***22*** *15:24:00, 41.50N×141.30E, h101^{km}, Mw4.0 Best double couple: $M_0$1.32×10^{15} NP1:ϕ_s59°, δ88°, λ-166°. NP2: ϕ_s329°, δ76°, λ-3°.*
MOS ***22*** *15:24:16.0±1.0, 41.47N×141.20E, h95^{km}, mb4.3/8, Error ellipse: s-maj=27.4km s-min=15.8km az=74.2*
IDC ***22*** *15:24:17.4±1.5, 41.40N×141.13E, h91^{km}±13^{km}, mb3.7/13, mb1 3.9/15, mb1mx3.8/26, Error ellipse: s-maj=18.0km s-min=10.2km az=107.0*
JMA ***22*** *15:24:19.1±0.1, 41.53N×141.26E, h97^{km}±1^{km}, M3.5*
JMA Felt I J1.
NEIC ***22*** *15:24:20.4±0.8, 41.49N×141.12E, h117^{km}±8^{km}, mb4.4/9, Error ellipse: s-maj=11.1km s-min=7.9km az=117.0*
NEIC Recorded [1 JMA] in Aomori and Iwate Prefectures, Honshu.

ISC 22 15:24:17.7±0.3**, 41.50N**±0.03×**141.22E**±0.05**, h107**^{km}±2^{km}**, n57,** σ**0^{s}89**/71**, mb4.3**/23**, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOT	**Ohata**	**0.18**	**227**	P	**P**	**15 24 33.0**	**+0.2**
JOT				*e*S	**S**	**15 24 43.1**	**-1.0**
JKB	**Kayabe**	**0.41**	**340**	P	**P**	**15 24 33.9**	**+0.1**
JKB				*e*S	**S**	**15 24 45.3**	**-0.5**
JSR	**Shiriuchi**	**0.60**	**273**	P	**P**	**15 24 35.7**	**+0.6**
JSR				S	**S**	**15 24 47.5**	**-0.7**
JTM	**Tenmabayashi**	**0.72**	**189**	P	**P**	**15 24 36.9**	**+0.7**
JTM				S	**S**	**15 24 50.7**	**+0.7**
JYM2	**Yakumo 2**	**0.88**	**314**	P	**P**	**15 24 38.4**	**+0.6**
JYM2				*e*S	**S**	**15 24 52.5**	**-0.3**
JNB	**Noboribetsu**	**0.97**	**352**	P	**P**	**15 24 38.6**	**-0.1**
JNB				S	**S**	**15 24 53.8**	**-0.6**
JANG	**Nango**	**1.15**	**169**	P	**P**	**15 24 41.1**	**+0.4**
JANG				S	**S**	**15 24 57.4**	**-0.5**
JEW	**Eniwo**	**1.35**	**7**	P	**P**	**15 24 43.5**	**+0.5**
JNBK	**Urakawa-nobuka**	**1.38**	**55**	P	**P**	**15 24 43.5**	**+0.1**
JOSM	**Okushiri--Mats**	**1.43**	**295**	P	**P**	**15 24 44.0**	**+0.1**
JOSM				*e*S	**S**	**15 25 02.9**	**-0.7**
JSK	**Shakotan**	**1.93**	**344**	P	**P**	**15 24 51.1**	**+1.0**
JCH	**Churui**	**1.94**	**54**	P	**P**	**15 24 51.0**	**+0.7**
JCH				*e*S	**S**	**15 25 13.4**	**-1.2**
JFR	**Furan**	**1.95**	**31**	P	**P**	**15 24 50.3**	**-0.1**
ASAJ	**Asahikawa**	**2.80**	**21**	P	**P**	**15 25 01.6**	**-0.4**
	22nm,0.3s,baz=240,slow=9.6,SNR=241						
ASAJ				S	**S**	**15 25 37.2**	**+2.0**
	6.5nm,0.3s,baz=283,slow=33,SNR=3.5						
ASAJ	**Asahikawa**	**2.80**	**21**	P	**P**	**15 25 01.6**	**-0.3**
ASAJ				S	**S**	**15 25 37.3**	**+2.1**
ASAJ				pmax	pmax		
	comp=Z,22nm,0.3s						
YUK	**Yuzh-Kuril'sk**	**4.25**	**52**	*e*P	**P**	**15 25 18.9**	**-2.7**
YUK				*i* S	**S**	**15 26 04.0**	**-6.5**
YUK				smax			
	comp=N,480nm,0.5s						
YUK				smax			
	comp=E,570nm,0.5s						
MAJO	**Matsushiro**	**5.48**	**206**	*e*P	**P**	**15 25 39.5**	**+1.2**
	comp=E,21nm,0.6s						
MAT	**Matsushiro**	**5.48**	**206**	P	**P**	**15 25 38.6**	**+0.3**
MAT				*e*S	**S**	**15 26 40.7**	**+0.1**
MAT	**Matsushiro**	**5.48**	**206**	*e*P	**P**	**15 25 39.0**	**+0.7**
	comp=E,16nm,0.7s						
YSS	**Yuzh-Sakhalins**	**5.56**	**11**	*e*P	**P**	**15 25 39.7**	**+0.3**
JHJ	**Hachijo jima 2**	**8.45**	**188**	P	**P**	**15 26 14.8**	**-4.0**
	comp=E,21nm,0.3s,baz=63,slow=22,SNR=6.4						
JHJ				S	**S**	**15 27 44.4**	**-8.7**
	comp=E,8.4nm,0.3s,baz=259,slow=22,SNR=2.4						
MDJ	**Mudanjiang**	**9.06**	**294**	*e*P	**P**	**15 26 29.1**	**+2.0**
BJT	**Baijiatuau**	**19.02**	**274**	*e*P	**P**	**15 28 30.6**	**-3.0**
	comp=E,9.1nm,0.9s						
SONM	**Songino Array**	**25.41**	**296**	P	**P**	**15 29 36.3**	**-0.3**
	comp=E,0.7nm,0.3s,mb3.5,baz=90,slow=8.6,SNR=4.1						
ENH	**Enshi**	**27.90**	**257**	P	**P**	**15 29 56.7**	**-3.0**
	comp=E,2.7nm,0.4s,mb4.1						
ZAL	**Zalesovo**	**38.92**	**308**	P	**P**	**15 31 33.8**	**-0.4**
	comp=E,2.6nm,0.7s,mb4.2,baz=16,slow=8.6,SNR=14						
ZAL				PcP	PcP	15 33 43.4	-0.1
	comp=E,1.3nm,0.5s,baz=11,slow=2.8,SNR=4.9						
ZAL	**Zalesovo**	**38.92**	**308**	P	**P**	**15 31 33.8**	**-0.4**
ZAL						15 33 43.4	
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MKAR	**Makanchi Array**	**41.76**	**298**	*e*P	**P**	**15 31 57.8**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
CMAR	**Chiang Mai Arr**	**42.67**	**250**	P	**P**	**15 32 06.0**	**+0.6**
	comp=Z,0.5nm,0.4s,mb3.6,baz=50,slow=7.0,SNR=5.4						
CMAR	**Chiang Mai Arr**	**42.67**	**250**	P	**P**	**15 32 06.1**	**+0.7**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
IMA	**Indian Mountai**	**42.97**	**33**	*e*P	**P**	**15 32 09.0**	**+1.7**
	comp=Z,17nm,0.7s,mb4.9						
ILAR	**Eielson Array**	**45.85**	**35**	P	**P**	**15 32 31.0**	**+0.7**
	comp=Z,1.6nm,0.8s,mb3.8,baz=277,slow=5.3,SNR=16						
ILAR	**Eielson Array**	**45.85**	**35**	P	**P**	**15 32 31.0**	**+0.7**
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
GUN	**Gumba**	**46.73**	**271**	*e*P	**P**	**15 32 38.4**	**+0.6**
	comp=Z,44nm,0.4s						
CHKZ	**Chkalovo**	**47.23**	**310**	*e*P	**P**	**15 32 40.4**	**-0.9**
	comp=Z,77nm,1.1s,mb5.3						
KKN	**Kakani**	**47.25**	**272**	*e*P	**P**	**15 32 42.0**	**+0.2**
	comp=Z,25nm,0.8s,mb5.0						
PKI	**Pulchoki**	**47.27**	**271**	*e*P	**P**	**15 32 42.5**	**+0.5**
	comp=Z,6.7nm,0.5s,mb4.6						
DMN	**Daman**	**47.47**	**272**	*e*P	**P**	**15 32 44.1**	**+0.5**
	comp=Z,6.7nm,0.5s,mb4.6						
BVAR	**Borovoye Array**	**47.54**	**309**	P	**P**	**15 32 43.4**	**-0.3**
	comp=Z,2.8nm,0.3s,mb4.5,baz=81,slow=9.5,SNR=33						
BVAR				PcP	PcP	15 34 12.1	-0.4
	comp=Z,1.1nm,0.5s,baz=89,slow=3.5,SNR=5.7						
BRVK	**Borovoye**	**47.59**	**309**	*e*P	**P**	**15 32 44.3**	**+0.1**
	comp=Z,2.2nm,0.5s,mb4.2						
GKN	**Gorkha**	**47.62**	**272**	*e*P	**P**	**15 32 44.9**	**+0.2**
	comp=Z,15nm,0.5s,mb5.1						
KOLN	**Koldanda**	**48.52**	**273**	*e*P	**P**	**15 32 52.1**	**+0.4**
	comp=Z,8.8nm,0.5s,mb5.0						
INK	**Inuvik**	**50.51**	**29**	P	**P**	**15 33 07.0**	**+0.6**
	comp=Z,1.8nm,0.3s,mb4.5,baz=306,slow=7.3,SNR=24						
INK	**Inuvik**	**50.51**	**29**	P	**P**	**15 33 07.1**	**+0.7**
INK				pmax	pmax		
	comp=Z,2.0nm,0.3s						
INK	**Inuvik**	**50.51**	**29**	*e*P	**P**	**15 33 06.8**	**+0.4**
	comp=Z,3.3nm,0.6s,mb4.5						
RES	**Resolute Bay**	**58.32**	**15**	*e*P	**P**	**15 34 03.0**	**-0.2**
	comp=Z,2.0nm,0.5s,mb4.4						
YKA	**Yellowknife Ar**	**60.05**	**31**	P	**P**	**15 34 14.4**	**-0.7**
	comp=Z,0.2nm,0.4s,mb3.5,baz=305,slow=6.2,SNR=3.7						
WRA	**Warramunga Arr**	**61.46**	**187**	P	**P**	**15 34 24.4**	**-0.9**
	comp=Z,1.4nm,0.6s,mb4.2,baz=5.1,slow=6.7,SNR=10						
WRA	**Warramunga Arr**	**61.46**	**187**	P	**P**	**15 34 24.4**	**-1.0**
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	**FINESS Array B**	**64.81**	**331**	P	**P**	**15 34 45.4**	**-1.3**
	comp=Z,7.3nm,1.1s,mb4.4,baz=34,slow=9.6,SNR=11						
FINES	**FINESS Array B**	**64.81**	**331**	P	**P**	**15 34 45.4**	**-1.3**
FINES				pmax	pmax		
	comp=Z,7.0nm,1.1s						
ASAR	**Alice Springs**	**65.19**	**187**	P	**P**	**15 34 48.5**	**-1.3**
	comp=Z,0.3nm,0.5s,mb3.4,baz=2.8,slow=7.3,SNR=3.8						
HFS	**Hagfors**	**69.97**	**335**	P	**P**	**15 35 18.5**	**-0.5**
	comp=Z,11nm,1.2s,mb4.6,baz=43,slow=4.7,SNR=10						
HFS	**Hagfors**	**69.97**	**335**	P	**P**	**15 35 18.5**	**-0.5**
HFS				pmax	pmax		
	comp=Z,11nm,1.2s						
AKASG	**Malin Array Be**	**70.70**	**321**	P	**P**	**15 35 22.4**	**-1.1**
	comp=Z,0.9nm,0.3s,mb4.0,baz=43,slow=6.6,SNR=11						
AKASG	**Malin Array Be**	**70.70**	**321**	P	**P**	**15 35 22.4**	**-1.1**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PDAR	**Pinedale Array**	**74.66**	**46**	P	**P**	**15 35 47.4**	**+0.5**
	comp=Z,0.3nm,0.4s,mb3.3,baz=168,slow=0.1,SNR=4.4						

IDC ***22*** *15:32:22.1±12.0, 11.84S×160.10E, h308^{km}±112^{km}, mb3.3/8, mb1 3.5/9, mb1mx3.4/15, MS3.4/3, Ms1 3.4/3, ms1mx3.1/11, Error ellipse: s-maj=51.8km s-min=22.4km az=69.0*
NEIC ***22*** *15:32:22.3±7.0, 11.86S×160.07E, h312^{km}±65^{km}, mb4.4/1, Error ellipse: s-maj=41.0km s-min=23.8km az=73.0*

ISC 22 15:32:17.2±7.0**, 11.8S**±0.2×**160.1E**±0.3**, h276**^{km}±63^{km}**, n18,** σ**0^{s}95**/16**, mb3.6**/9**, 1D, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**15.65**	**237**	P	**P**	**15 35 45.0**	**-0.3**
	0.2nm,0.3s,baz=57,slow=16,SNR=3.6						
CTA				LR	LR	15 41 08.7	
	comp=Z,124nm,21.6s,baz=280,slow=34						
CTAO	**Charters Tower**	**15.65**	**237**	*e*P	**P**	**15 35 45.5**	**+0.1**
WRAB	**Tennant Creek**	**26.03**	**249**	*e*P	**P**	**15 37 26.9**	**-0.5**
WB2	**Warramunga Arr**	**26.03**	**249**	*e*P	**P**	**15 37 27.3**	**-0.1**
WRA	**Warramunga Arr**	**26.05**	**249**	P	**P**	**15 37 27.1**	**-0.4**
	3.0nm,0.8s,mb3.8,baz=76,slow=9.1,SNR=20						
STKA	**Stephens Creek**	**26.26**	**218**	P	**P**	**15 37 31.5**	**+2.2**
	1.7nm,0.5s,mb3.7,baz=36,slow=13,SNR=9.8						
STKA				LR	LR	15 47 26.9	
	comp=Z,104nm,19.8s,baz=204,slow=34						
STKA	**Stephens Creek**	**26.26**	**218**	P	**P**	**15 37 31.5**	**+2.2**
STKA				*e*P		15 37 32.0	
STKA				LR	LR	15 47 26.9	
ASAR	**Alice Springs**	**27.55**	**241**	P	**P**	**15 37 40.5**	**-0.6**
	1.1nm,0.6s,mb3.5,baz=61,slow=10,SNR=9.9						
ASAR				LR	LR	15 48 33.0	
	comp=Z,69nm,21.3s,baz=320,slow=35						
MBWA	**Marble Bar**	**39.72**	**251**	*e*P	**P**	**15 39 24.4**	**-0.4**
	26nm,1.1s,mb4.5						
VNDA	**Vanda**	**65.70**	**180**	P	**P**	**15 42 33.8**	**+0.2**
	0.9nm,0.8s,mb3.5,baz=332,slow=8.4,SNR=7.5						
VNDA	**Vanda**	**65.70**	**180**	P	**P**	**15 42 33.8**	**+0.2**
VNDA				*e*P		15 42 33.9	
CMAR	**Chiang Mai Arr**	**67.41**	**296**	P	**P**	**15 42 45.5**	**+0.2**
	0.3nm,0.7s,mb3.1,baz=90,slow=1.8,SNR=2.8						
SONM	**Songino Array**	**76.11**	**326**	P	**P**	**15 43 38.3**	**+2.0**
	0.9nm,0.8s,mb3.5,baz=143,slow=6.2,SNR=4.5						
QSPA	**South Pole Qui**	**78.19**	**180**	*e*P	**P**	**15 43 47.7**	**+0.5**
QSPA				⇓*i*P		15 43 47.8	
ILAR	**Eielson Array**	**86.06**	**20**	P	**P**	**15 44 26.6**	**-1.0**
	1.2nm,1.1s,mb3.6,baz=241,slow=4.9,SNR=5.4						
SNAA	**Sanae**	**95.92**	**185**	P	**P**	**15 45 11.9**	**-1.3**
	0.5nm,0.9s,mb3.7,baz=174,slow=2.7,SNR=5.4						
WVT	**Waverly**	**114.65**	**56**	*e*P	Pdif	15 46 41.8	+4.5
WCI	**Wyandotte Cave**	**115.72**	**53**	*e*P	Pdif	15 46 42.7	+0.8

IDC ***22*** *15:47:01.4±17.0, 31.11N×103.11E, mb3.9/2, mb1 4.1/3, mb1mx3.6/17, ML3.5/1, Error ellipse: s-maj=378.0km s-min=72.4km az=139.0*
BJI ***22*** *15:47:17.9, 27.60N×101.13E, h11^{km}, mb3.9, ML3.3, Ms3.4*

ISC 22 15:47:10.7±0.7**, 27.59N**±0.04×**101.20E**±0.06**, h11**^{km}**, n11,** σ**1^{s}41**/14**, mb4.0**/2**, Sichuan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	**Kunming**	**2.82**	**150**	*e*PG	**Pg**	**15 48 07.8**	**+0.8**
KMI				SG	**Sg**	**15 48 43.4**	**-1.3**
KMI				Smax			
	comp=N,110nm,0.9s						
KMI				Smax			
	comp=E,81nm,1.1s						
KMI				LR	LR		
	comp=N,296nm,5.1s						
KMI				LR	LR		
	comp=E,223nm,4.7s						
CD2	**Chengdu**	**3.99**	**33**	PG	**Pg**	**15 48 31.3**	**+1.0**
CD2				SG	**Sg**	**15 49 22.5**	**-1.0**
CD2				Smax			
	comp=N,140nm,0.8s						
CD2				Smax			
	comp=E,180nm,0.7s						
GYA	**Guiyang**	**5.00**	**102**	P	**Pn**	**15 48 36.4**	**+8.9**
GYA				PG	**Pg**	**15 48 44.6**	**-6.0**
GYA				Smax			
	comp=N,30nm,0.7s						
GYA				Smax			
	comp=E,30nm,0.6s						
GUN	**Gumba**	**13.57**	**275**	*e*P	**P**	**15 50 27.4**	**+1.7**
PKI	**Pulchoki**	**14.01**	**274**	*e*P	**P**	**15 50 31.6**	**+0.2**
	comp=E,4.5nm,0.6s						
KKN	**Kakani**	**14.11**	**274**	*e*P	**P**	**15 50 31.1**	**-1.6**
	comp=E,5.1nm,0.5s						
DMN	**Daman**	**14.27**	**274**	*e*P	**P**	**15 50 33.5**	**-1.4**
GKN	**Gorkha**	**14.67**	**275**	*e*P	**P**	**15 50 33.7**	**-6.4**
KOLN	**Koldanda**	**15.60**	**275**	*e*P	**P**	**15 50 39.6**	**-13**
	comp=E,2.8nm,0.5s						
WRA	**Warramunga Arr**	**57.12**	**142**	P	**P**	**15 57 02.9**	**+3.1**
	comp=E,1.1nm,0.5s,mb4.2,baz=330,slow=8.0,SNR=16						
ASAR	**Alice Springs**	**59.94**	**145**	P	**P**	**15 57 22.9**	**+3.4**
	comp=E,0.8nm,0.8s,mb3.8,baz=326,slow=6.6,SNR=14						

IDC ***22*** *15:55:09.4±4.6, 29.68N×50.67E, mb4.0/6, mb1 4.2/6, mb1mx3.8/19, Error ellipse: s-maj=99.7km s-min=44.1km az=1.0*
THR ***22*** *15:55:10.6±0.7, 29.57N×50.91E, h14^{km}±13^{km}, ML3.7*
KISR ***22*** *15:55:13.4±1.0, 29.59N×51.09E, h33^{km}, ML3.4*
CSEM ***22*** *15:55:14.8±0.1, 29.46N×51.06E, h35^{km}, ML3.7, Error ellipse: s-maj=4.9km s-min=1.0km az=25.0*
SNSN ***22*** *15:55:26.3, 28.95N×49.96E, h13^{km}, Ml3.8*

ISC 22 15:55:14.9±0.7**, 29.70N**±0.06×**51.02E**±0.05**, h51**^{km}±10^{km}**, n23,** σ**1^{s}02**/26**, mb3.9**/6**, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GHIR	**Ghir-Karzin**	**2.23**	**129**	*e*PG	**P**	**15 55 51.0**	**+0.7**
GHIR				*e*SG	**S**	**15 56 20.4**	**+3.7**
QRN	**Al-Qurain**	**2.87**	**251**	*e*P	**P**	**15 55 59.8**	**+0.4**
UMR	**Umm Al-Rimmam**	**2.88**	**268**	*e*P	**P**	**15 55 59.9**	**+0.4**
UMR				*e*S	**S**	**15 56 34.2**	**+1.1**
UMR				AML	AML	15 56 38.8	
	comp=Z,128nm,0.5s						
SHGR	**Shooshtar-Gavs**	**3.06**	**322**	*e*PN	**P**	**15 56 01.1**	**-1.0**
SHGR				AMP		15 57 00.1	
	comp=E,248nm,0.6s						
SHGR				AMP		15 57 20.0	
	comp=N,206nm,0.6s						
RDF	**Al-Radifah**	**3.13**	**256**	*e*P	**P**	**15 56 02.9**	**-0.1**
RDF				*e*S	**S**	**15 56 39.1**	**-0.2**
RDF				AML	AML	15 56 44.6	
	comp=Z,73nm,0.5s						
NASN	**Na'in**	**3.44**	**26**	*e*PN	**P**	**15 56 08.6**	**+1.1**
RST	**Umm Al-Ruwaisa**	**3.51**	**268**	*e*P	**P**	**15 56 07.9**	**-0.5**
RST				*e*S	**S**	**15 56 49.9**	**+0.9**
RST				AML	AML	15 56 59.9	
	comp=Z,84nm,0.5s						
HASS	**Wahat al Ahsa'**	**4.65**	**195**	P	**P**	**15 56 24.0**	**-0.5**
ASAO	**Ashtian**	**4.90**	**350**	*e*PN	**P**	**15 56 28.1**	**+0.1**
ASAO				AMP		15 57 27.5	
	comp=N,52nm,0.7s						
ASAO				AMP		15 57 27.7	
	comp=E,45nm,0.6s						
ASAO	**Ashtian**	**4.90**	**350**	*e*Pn	**P**	**15 56 28.1**	**+0.1**
	comp=E,45nm,0.6s						
BNDS	**Bandar-Abbas**	**5.08**	**116**	*e*PN	**P**	**15 56 29.4**	**-1.2**
DAMV	**Damavand**	**5.96**	**7**	*e*PN	**P**	**15 56 42.4**	**-0.4**
MZLS	**Mizel**	**7.67**	**224**	P	**P**	**15 57 02.4**	**-4.3**
ARSS	**Ar Rass**	**7.87**	**243**	P	**P**	**15 57 04.0**	**-5.4**
HILS	**Ha'il**	**8.44**	**256**	P	**P**	**15 57 14.0**	**-3.2**
AFFS	**'Afif**	**9.18**	**233**	P	**P**	**15 57 22.1**	**-5.4**
DBAS	**Duba**	**13.46**	**263**	D		15 56 51.3	
AKASG	**Malin Array Be**	**26.59**	**328**	P	**P**	**16 00 48.6**	**-1.5**
	comp=E,0.2nm,0.3s,mb3.1,baz=132,slow=8.8,SNR=6.0						
BVAR	**Borovoye Array**	**27.29**	**26**	P	**P**	**16 00 57.4**	**+0.9**
	comp=E,1.4nm,0.5s,mb3.8,baz=224,slow=7.1,SNR=14						
ZAL	**Zalesovo**	**34.39**	**36**	P	**P**	**16 01 59.3**	**+0.2**
	comp=E,3.1nm,0.3s,mb4.7,baz=228,slow=12,SNR=3.3						
FINES	**FINESS Array B**	**35.76**	**340**	P	**P**	**16 02 07.8**	**-2.9**
	comp=E,2.5nm,0.9s,mb4.1,baz=158,slow=10,SNR=4.1						
ILAR	**Eielson Array**	**84.80**	**8**	P	**P**	**16 07 45.3**	**+0.8**
	comp=E,0.4nm,0.6s,mb3.7,baz=316,slow=4.2,SNR=9.6						
YKA	**Yellowknife Ar**	**87.40**	**353**	P	**P**	**16 07 58.4**	**+1.1**
	comp=E,0.9nm,0.9s,mb4.0,baz=13,slow=5.4,SNR=7.0						

NEIC ***22*** *15:57:43.9±2.9, 23.44S×179.74W, h527^{km}±32^{km}, mb4.4/5, Error ellipse: s-maj=23.0km s-min=14.8km az=213.0*
IDC ***22*** *15:57:47.4±1.6, 23.50S×179.88W, h564^{km}±17^{km}, mb3.6/11, mb1 3.8/12, mb1mx3.7/18, Error ellipse: s-maj=16.0km s-min=11.5km az=0.0*

ISC 22 15:57:45.1±1.6**, 23.61S**±0.09×**179.90W**±0.09**, h546**^{km}±20^{km}**, n36,** σ**0^{s}98**/35**, mb4.2**/15**, 5C-1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**14.83**	**189**	P	**P**	**16 00 51.4**	**-1.2**
	3.2nm,0.3s,baz=11,slow=4.2,SNR=15						
URZ				S	**S**	**16 03 23.1**	**-0.6**
	2.0nm,0.3s,baz=243,slow=21,SNR=13						
BKZ	**Black Stump Fm**	**15.81**	**190**	P	**P**	**16 01 01.0**	**-1.2**
PWZ	**Pawanui**	**16.60**	**189**	P	**P**	**16 01 07.1**	**-2.7**
QRZ	**Quartz Range**	**18.31**	**199**	P	**P**	**16 01 28.4**	**+2.1**
QRZ				S	**S**	**16 04 33.8**	**+9.3**
THZ	**Tophouse**	**19.07**	**197**	P	**P**	**16 01 34.1**	**+0.6**
KHZ	**Kahutara**	**19.54**	**195**	P	**P**	**16 01 38.1**	**+0.2**
LTZ	**Lake Taylor**	**20.20**	**197**	P	**P**	**16 01 43.5**	**-0.5**
RPZ	**Rata Peaks**	**21.39**	**198**	P	**P**	**16 01 55.2**	**+0.2**
	33nm,0.5s,mb5.2,baz=16,slow=1.5,SNR=36						
CTA	**Charters Tower**	**31.57**	**270**	P	**P**	**16 03 25.6**	**+1.1**
	16nm,0.3s,mb5.0,baz=96,slow=11,SNR=77						
CTAO	**Charters Tower**	**31.57**	**270**	*e*P	**P**	**16 03 25.6**	**+1.0**
	18nm,0.5s,mb4.9						
PMG	**Port Moresby**	**34.48**	**289**	P	**P**	**16 03 49.4**	**+0.3**
	18nm,0.6s,mb4.8,baz=96,slow=4.8,SNR=22						
STKA	**Stephens Creek**	**34.91**	**248**	P	**P**	**16 03 53.3**	**+0.8**
	1.9nm,0.9s,mb3.6,baz=349,slow=9.7,SNR=6.2						
STKA				PcP	PcP	16 06 09.2	-1.1
	0.9nm,0.7s,baz=71,slow=8.3,SNR=3.0						
ASAR	**Alice Springs**	**42.17**	**260**	P	**P**	**16 04 52.2**	**+0.7**
	1.4nm,0.3s,mb4.0,baz=90,slow=7.6,SNR=90						
ASAR				pP	pP	16 06 30.9	+0.8
	3.2nm,1.2s,baz=88,slow=8.3,SNR=2.6						
ASAR				ScP		16 09 31.8	
	1.2nm,0.9s,baz=121,slow=4.4,SNR=5.4						
ASAR				S	**S**	**16 10 32.2**	**-0.7**
	0.8nm,0.7s,baz=93,slow=14,SNR=15						
ASPA	**Alice Springs**	**42.17**	**260**	⇑*i*P	**P**	**16 04 52.2**	**+0.7**
ASPA				*e*S	**S**	**16 10 32.4**	**-0.6**
WB2	**Warramunga Arr**	**42.51**	**266**	⇑*i*P	**P**	**16 04 54.2**	**0.0**
WB2				*e*S	**S**	**16 10 32.2**	**-5.5**
WRAB	**Tennant Creek**	**42.51**	**266**	*e*P	**P**	**16 04 53.8**	**-0.4**
	6.8nm,0.5s,mb4.4						
WRA	**Warramunga Arr**	**42.52**	**266**	P	**P**	**16 04 54.1**	**-0.2**
	3.8nm,0.3s,mb4.3,baz=92,slow=8.5,SNR=192						
WRA				PcP	PcP	16 06 33.4	-1.4
	0.8nm,0.6s,baz=96,slow=4.6,SNR=4.8						
WRA				ScP		16 09 33.2	
	1.0nm,0.8s,baz=97,slow=4.1,SNR=6.6						
WRA				S	**S**	**16 10 35.1**	**-2.8**
	0.8nm,0.7s,baz=99,slow=14,SNR=4.7						
KAKA	**Kakadu**	**46.41**	**275**	*e*P	**P**	**16 05 23.6**	**-1.0**
	4.4nm,0.3s,mb4.5						
SBA	**Scott Base**	**54.67**	**183**	*e*P	**P**	**16 06 26.4**	**+2.2**
	11nm,0.9s,mb4.1						
VNDA	**Vanda**	**54.68**	**185**	P	**P**	**16 06 25.1**	**+0.8**
	2.2nm,0.5s,mb3.6,baz=1.6,slow=8.7,SNR=23						
VNDA				PcP	PcP	16 07 18.1	-0.5
	2.2nm,0.7s,baz=8.5,slow=2.9,SNR=9.2						
KLBR	**Kellerberrin**	**55.18**	**247**	*e*P	**P**	**16 06 28.2**	**-0.2**
	5.9nm,0.5s,mb4.1						
QSPA	**South Pole Qui**	**66.47**	**180**	*e*P	**P**	**16 07 42.1**	**+0.5**
QSPA				⇓*i*P		16 07 42.7	
NVAR	**Mina Array Bea**	**84.48**	**44**	P	**P**	**16 09 21.3**	**-0.1**
	1.0nm,0.4s,mb3.7,baz=238,slow=8.5,SNR=6.7						
SNAA	**Sanae**	**84.96**	**179**	⇑*i*	**P**	**16 09 22.6**	**-0.4**
SNAA	**Sanae**	**84.96**	**179**	P	**P**	**16 09 22.6**	**-0.5**
	1.0nm,0.5s,mb3.6,baz=212,slow=8.6,SNR=27						
VNA3	**Neumayer Olymp**	**85.16**	**177**	⇑*i*	**P**	**16 09 28.0**	**+4.0**
VNA2	**Neumayer--Watz**	**85.58**	**178**	⇑*i*	**P**	**16 09 30.2**	**+4.2**
TXAR	**Lajitas Array**	**90.20**	**58**	P	**P**	**16 09 48.2**	**-0.5**
	2.2nm,0.7s,mb4.1,baz=211,slow=6.6,SNR=19						
PDAR	**Pinedale Array**	**92.42**	**44**	P	**P**	**16 09 57.8**	**-0.8**
	0.9nm,0.8s,mb3.9,baz=218,slow=3.4,SNR=8.1						
BVAR	**Borovoye Array**	**120.28**	**319**	PKP	PKPdf	16 15 33.4	-0.4
	0.7nm,0.3s,baz=114,slow=1.7,SNR=10						
SUR	**Sutherland**	**120.91**	**200**	PKP	PKPdf	16 15 35.9	+0.2
	9.3nm,1.0s,baz=162,slow=3.2,SNR=3.9						
ARCES	**ARCESS Array B**	**131.62**	**348**	PKP	PKPdf	16 15 54.2	-1.0
	4.1nm,0.8s,baz=27,slow=2.7,SNR=5.6						
ARCES	**ARCESS Array B**	**131.62**	**348**	PKP	PKPdf	16 15 54.2	-1.1
AKASG	**Malin Array Be**	**144.77**	**328**	PKP	PKPdf	16 16 19.4	+0.2
	2.6nm,0.7s,baz=42,slow=4.0,SNR=15						
BRTR	**Keskin Array B**	**147.47**	**308**	PKPbc	PKPdf	16 16 27.6	+3.5
	2.3nm,1.0s,baz=160,slow=4.9,SNR=3.7						
CLL	**Collm**	**150.60**	**343**	*i* PKP1	PKPdf	16 16 35.5	+6.8

IDC ***22*** *16:06:51.8±2.8, 31.39S×177.74W, mb4.2/4, mb1 4.3/5, mb1mx4.0/14, ML3.2/1, Error ellipse: s-maj=59.8km s-min=34.8km az=116.0*
NEIC ***22*** *16:06:52.4±1.9, 31.40S×177.63W, h10^{km}, mb4.3/2, Error ellipse: s-maj=37.2km s-min=20.2km az=96.0*

ISC 22 16:06:50.3±5.1**, 31.5S**±0.2×**177.1W**±0.7**, h33**^{km}**, n11,** σ**0^{s}66**/10**, mb4.2**/5**, 1C, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**8.20**	**214**	Pn	**P**	**16 08 49.8**	**-0.1**
	0.3nm,0.3s,baz=50,slow=18,SNR=2.1						
URZ				Sn	**Sn**	**16 10 22.5**	**-0.1**
	1.6nm,0.3s,baz=151,slow=21,SNR=8.0						
CTA	**Charters Tower**	**34.72**	**280**	P	**P**	**16 13 39.2**	**-0.2**
	2.5nm,0.8s,mb4.2,baz=116,slow=14,SNR=4.1						
CTAO	**Charters Tower**	**34.72**	**280**	P	**P**	**16 13 39.8**	**+0.4**
	2.3nm,0.8s,mb4.2						
STKA	**Stephens Creek**	**34.96**	**258**	P	**P**	**16 13 42.9**	**+1.5**
	0.8nm,0.5s,mb3.9,baz=100,slow=11,SNR=3.8						
ASAR	**Alice Springs**	**43.80**	**268**	P	**P**	**16 14 55.0**	**+0.1**
	2.1nm,0.4s,mb4.2,baz=107,slow=7.3,SNR=56						
ASPA	**Alice Springs**	**43.80**	**268**	*e*P	**P**	**16 14 55.2**	**+0.3**
WB2	**Warramunga Arr**	**44.88**	**273**	⇑*i*P	**P**	**16 15 03.2**	**-0.4**
WRAB	**Tennant Creek**	**44.88**	**273**	*e*P	**P**	**16 15 02.5**	**-1.2**
	3.5nm,0.6s,mb4.4						
WRA	**Warramunga Arr**	**44.89**	**273**	P	**P**	**16 15 03.5**	**-0.2**
	3.1nm,0.6s,mb4.3,baz=111,slow=8.1,SNR=57						
FINES	**FINESS Array B**	**146.47**	**340**	PKPbc	PKPbc	16 26 32.4	+5.3
	3.5nm,1.0s,baz=45,slow=2.7,SNR=12						
FINES	**FINESS Array B**	**146.47**	**340**	PKPbc	PKPbc	16 26 32.4	+5.3

OTT 22 16:11:01.5±0.2**, 53.10N**×**80.42W, h18**^{km}**, MN2.1**/3**, James Bay 108km west from Wemindji, Qc Eastern Background Seismic Zone., Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VIMO	**Victor Mine**	**2.03**	**263**	PN	Pn	16 11 34.7	-0.7
VIMO				SN	Sn	16 11 59.4	-1.2
VIMO				Trac		16 12 02.8	
	comp=Z,0.9nm,0.1s						
SILO	**Sutton Inlier**	**3.00**	**299**	PN	Pn	16 11 48.7	-0.6
SILO				SN	Sn	16 12 20.3	-4.9
SILO				Trac		16 12 24.0	
	comp=Z,0.2nm,0.1s						
MALO	**McAlpine Lake**	**3.10**	**172**	PN	Pn	16 11 49.1	-1.6
MALO				SN	Sn	16 12 23.3	-4.5
KAPO	**Kapuskasing**	**3.88**	**201**	PN	Pn	16 12 00.0	-1.7
KAPO				SN	Sn	16 12 43.0	-4.3
KAPO				Trac		16 13 11.3	
	comp=Z,0.7nm,0.2s						
TBO	**Thunder Bay**	**7.22**	**236**	PN	Pn	16 12 46.2	-2.7
TBO				SN	Sn	16 14 02.2	-9.1
TBO				Trac		16 14 10.1	
	comp=Z,0.4nm,0.2s						
ULM	**Lac du Bonnet**	**10.02**	**260**	PN	P	16 13 22.9	-4.7
ULM				Trac		16 15 42.0	
	comp=Z,0.3nm,0.1s						

IDC ***22*** *16:42:16.8±1.0, 53.50N×166.27W, h63^{km}±9^{km}, mb3.8/12, mb1 4.0/13, mb1mx3.8/27, MS3.7/2, Ms1 3.6/2, ms1mx2.9/32, Error ellipse: s-maj=27.9km s-min=16.1km az=150.0*
NEIC ***22*** *16:42:17.1±0.3, 53.47N×166.15W, mb4.1/2, ML4.3(AEIC), Error ellipse: s-maj=8.5km s-min=3.5km az=153.0*

ISC 22 16:42:16.3±0.7**, 53.5N**±0.1×**166.1W**±0.1**, h72**^{km}±6^{km}**, h63**^{km}±1.1^{km}**:pP-P, n45,** σ**0^{s}79**/47**, mb3.9**/12**, Fox Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
UNV	**Unalaska Valle**	**0.44**	**328**	P	**P**	**16 42 27.7**	**-1.2**
UNV				S	**S**	**16 42 36.2**	**-1.9**
MSW	**Makushin Switc**	**0.59**	**318**	P	**P**	**16 42 30.7**	**+0.2**
MTBL	**Makushin Table**	**0.60**	**326**	P	**P**	**16 42 30.9**	**+0.4**
LVA	**Lava Point**	**0.69**	**4**	P	**P**	**16 42 30.7**	**-0.7**
OKCD	**Okmok Cone D**	**1.20**	**268**	P	**P**	**16 42 37.9**	**+0.2**
OKCD				S	**S**	**16 42 55.0**	**+1.2**
OKCE	**Okmok Cone E**	**1.23**	**268**	P	**P**	**16 42 38.6**	**+0.5**
OKCE				S	**S**	**16 42 55.7**	**+1.2**
WESS	**West Dahl Sout**	**1.30**	**39**	P	**P**	**16 42 39.1**	**-0.1**
WESS				S	**S**	**16 42 56.1**	**+0.1**
WFAR	**Faris Peak**	**1.32**	**36**	P	**P**	**16 42 39.4**	**-0.1**
WESN	**West Dahl Nort**	**1.42**	**39**	P	**P**	**16 42 40.9**	**+0.1**
WTUG	**Tugumak**	**1.71**	**36**	P	**P**	**16 42 44.4**	**-0.2**
NIKO	**Nikolski**	**1.72**	**254**	P	**P**	**16 42 44.9**	**0.0**
SSLN	**Shishaldin Nor**	**1.83**	**42**	P	**P**	**16 42 46.6**	**+0.3**
FALS	**False Pass**	**2.10**	**48**	P	**P**	**16 42 50.1**	**0.0**
FALS				S	**S**	**16 43 16.8**	**+1.8**
BALA	**Baldy Mountain**	**2.60**	**47**	P	**P**	**16 42 57.6**	**+0.6**
DT1	**Dutton Round H**	**2.78**	**52**	P	**P**	**16 42 59.1**	**-0.5**
DTNA	**Dutton South F**	**2.81**	**52**	P	**P**	**16 42 59.9**	**-0.2**
DOL	**Dolgoi Island**	**3.00**	**54**	P	**P**	**16 43 02.4**	**-0.3**
HAG	**Hague Volcano**	**3.07**	**51**	P	**P**	**16 43 04.0**	**+0.2**
PVV	**Pavlof Volcano**	**3.16**	**51**	P	**P**	**16 43 04.7**	**-0.2**
ATKA	**Atka Island**	**5.06**	**259**	P	**P**	**16 43 31.1**	**-0.3**
ANPK	**Aniakchak Peak**	**5.68**	**50**	P	**P**	**16 43 39.2**	**-0.7**
RSO	**Redoubt South**	**10.09**	**41**	*e*P	**P**	**16 44 41.3**	**+0.9**
PMR	**Palmer**	**12.19**	**41**	*e*P	**P**	**16 45 09.0**	**+0.5**
	4.5nm,0.5s						
IMA	**Indian Mountai**	**14.05**	**21**	*e*P	**P**	**16 45 35.8**	**+3.0**
	2.6nm,0.9s						
COLA	**College**	**14.69**	**32**	*e*P	**P**	**16 45 44.7**	**+3.6**
ILAR	**Eielson Array**	**14.93**	**33**	P	**P**	**16 45 43.1**	**-1.1**
	0.2nm,0.3s,baz=219,slow=13,SNR=7.0						
DLBC	**Dease Lake**	**20.62**	**62**	P	**P**	**16 46 52.0**	**+0.3**
	9.3nm,0.8s,baz=267,slow=7.9,SNR=3.1						
INK	**Inuvik**	**21.34**	**33**	P	**P**	**16 46 54.9**	**-3.9**
	3.2nm,0.5s,mb3.9,baz=243,slow=10,SNR=15						
INK	**Inuvik**	**21.34**	**33**	*e*P	**P**	**16 46 55.0**	**-3.7**
	4.2nm,0.6s,mb4.0						
YKA	**Yellowknife Ar**	**28.02**	**51**	P	**P**	**16 48 01.9**	**-0.2**
	0.8nm,0.4s,mb3.6,baz=275,slow=8.0,SNR=23						
YKA				pP	pP	16 48 17.8	-1.4
	0.6nm,0.5s,baz=272,slow=8.3,SNR=5.1						
YKA				PcP	PcP	16 51 14.4	-1.1
	0.3nm,0.7s,baz=269,slow=2.3,SNR=5.4						
YKA				pPcP		16 51 31.0	
	0.8nm,0.9s,baz=281,slow=2.2,SNR=5.5						
YKA				LR	LR	16 58 28.2	
	comp=Z,95nm,19.9s,baz=280,slow=35						
YBH	**Yreka Blue Hor**	**31.05**	**94**	pP	pP	16 48 46.1	-0.5
	4.4nm,0.8s,baz=295,slow=7.9,SNR=5.9						
NVAR	**Mina Array Bea**	**35.75**	**95**	pP	pP	16 49 27.3	-0.2
	2.9nm,0.8s,baz=295,slow=7.9,SNR=4.2						
PDAR	**Pinedale Array**	**38.28**	**83**	P	**P**	**16 49 31.9**	**+1.0**
	0.5nm,0.6s,mb3.5,baz=308,slow=4.0,SNR=5.0						
PDAR				pP	pP	16 49 47.2	-1.5
	0.8nm,0.6s,baz=279,slow=3.5,SNR=5.5						
FRB	**Frobisher Bay**	**46.92**	**37**	P	**P**	**16 50 40.2**	**-0.5**
	3.3nm,0.5s,mb4.3,baz=323,slow=8.8,SNR=9.5						
FRB	**Frobisher Bay**	**46.92**	**37**	P	**P**	**16 50 40.2**	**-0.5**
MNTX	**Cornudas Mount**	**48.06**	**92**	*e*P	**P**	**16 50 50.0**	**-0.2**
	2.8nm,0.8s,mb4.1						
MNTX				*e*pP	pP	16 51 06.2	-2.1
TXAR	**Lajitas Array**	**50.79**	**92**	P	**P**	**16 51 11.1**	**0.0**
	2.0nm,0.9s,mb4.2,baz=299,slow=5.2,SNR=9.0						
TXAR				pP	pP	16 51 27.3	-2.1
	2.9nm,0.8s,baz=297,slow=5.6,SNR=9.8						
TXAR	**Lajitas Array**	**50.79**	**92**	P	**P**	**16 51 11.1**	**0.0**
TXAR				pP	pP	16 51 27.3	-2.1
SCHQ	**Schefferville**	**53.26**	**45**	LR	LR	17 13 22.0	
	comp=Z,107nm,21.1s,baz=222,slow=35						
BVAR	**Borovoye Array**	**63.92**	**326**	P	**P**	**16 52 41.9**	**-1.3**
	0.4nm,0.5s,mb3.5,baz=45,slow=4.2,SNR=4.3						
BVAR				PcP	PcP	16 53 17.5	-0.5
	0.6nm,0.4s,baz=25,slow=4.2,SNR=5.3						
PMG	**Port Moresby**	**74.09**	**228**	P	**P**	**16 53 45.7**	**-0.7**
	4.9nm,0.9s,mb4.2,baz=297,slow=6.8,SNR=4.0						
CMAR	**Chiang Mai Arr**	**78.27**	**285**	P	**P**	**16 54 09.7**	**-0.1**
	0.3nm,0.6s,mb3.2,baz=26,slow=4.1,SNR=4.3						
CTA	**Charters Tower**	**83.98**	**224**	P	**P**	**16 54 39.9**	**+0.2**
	2.5nm,0.9s,mb4.0,baz=18,slow=6.4,SNR=4.2						
WRA	**Warramunga Arr**	**89.25**	**234**	P	**P**	**16 55 04.7**	**-0.6**
	0.9nm,0.7s,mb3.9,baz=34,slow=6.0,SNR=11						
ASAR	**Alice Springs**	**92.63**	**233**	P	**P**	**16 55 21.1**	**+0.2**
	0.4nm,0.5s,mb4.0,baz=24,slow=4.5,SNR=12						

IDC 22 16:50:03.7±76.0**, 14.84S**×**173.47W, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.6**/14**, Error ellipse: s-maj=1466.0km s-min=193.7km az=78.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**44.26**	**239**	P	P	16 58 15.3	-1.6
	0.5nm,0.5s,baz=90,slow=11,SNR=5.6						
WRA	**Warramunga Arr**	**49.91**	**256**	P	P	16 58 59.3	-2.1
	0.3nm,0.5s,baz=89,slow=7.5,SNR=8.8						
ASAR	**Alice Springs**	**50.22**	**251**	P	P	16 59 01.8	-2.0
	1.2nm,0.4s,baz=89,slow=7.8,SNR=95						

OTT 22 16:59:14.3±0.3**, 52.77N**×**67.29W, MN3.1**/7**, Blast, Mount Wright, Qc Mining explosion., Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	**Schefferville**	**2.09**	**7**	PN	Pn	16 59 50.6	-0.4
SCHQ				SN	Sn	17 00 17.6	-0.4
SCHQ				Trac		17 00 21.2	
	comp=Z,43nm,0.2s						
MNQ	**Manicouagan**	**2.42**	**203**	PN	Pn	16 59 55.6	-0.1
MNQ				Trac		17 00 31.6	
	comp=Z,33nm,0.2s						
SMQ	**Clarke City**	**2.57**	**172**	PN	Pn	16 59 56.5	-1.5
SMQ				SN	Sn	17 00 28.5	-1.9
SMQ				Trac		17 00 34.1	
	comp=Z,44nm,0.2s						
ICQ	**Pointe Anglais**	**3.25**	**180**	PN	Pn	17 00 05.7	-1.9
ICQ				SN	Sn	17 00 43.5	-4.1
ICQ				Trac		17 00 54.0	
	comp=Z,22nm,0.2s						
CNQ	**Baie Comeau**	**3.50**	**188**	PN	Pn	17 00 10.0	-1.2
CNQ				SN	Sn	17 00 50.2	-3.8
CNQ				Trac		17 01 01.0	
	comp=Z,17nm,0.2s						
GSQ	**Grosses Roches**	**3.86**	**178**	PN	Pn	17 00 13.8	-2.5
GSQ				SN	Sn	17 00 59.4	-3.7
LG4Q	**La Grande 4**	**4.19**	**285**	PN	Pn	17 00 18.1	-2.8
LG4Q				SG	Sg	17 01 20.3	-13
LG4Q				Trac		17 01 24.5	
	comp=Z,15nm,0.2s						
DAQ	**Lac Daran**	**5.43**	**209**	PN	Pn	17 00 36.0	-2.5
DAQ				SN	Sn	17 01 38.7	-4.0
DAQ				Trac		17 02 09.3	
	comp=Z,7.4nm,0.2s						
LMQ	**La Malbaie**	**5.58**	**202**	PN	Pn	17 00 37.0	-3.6
LMQ				SN	Sn	17 01 41.0	-5.4
DRLN	**Deer Lake**	**7.10**	**116**	PN	Pn	17 00 57.4	-4.7
DRLN				SN	Sn	17 02 15.5	-9.0
LMN	**Caledonia Moun**	**7.11**	**166**	PN	Pn	17 00 58.1	-4.0
LMN				SN	Sn	17 02 14.9	-10
VLDQ	**Val d'Or**	**7.99**	**238**	PN	Pn	17 01 10.7	-3.8
VLDQ				SN	Sn	17 02 36.7	-10
MALO	**McAlpine Lake**	**8.27**	**256**	PN	P	17 01 12.7	-5.7
MALO				SN	Sn	17 02 42.7	-11
VIMO	**Victor Mine**	**9.97**	**277**	PN	P	17 01 35.4	-6.5
VIMO				SN	Sn	17 03 21.4	-14
SILO	**Sutton Inlier**	**10.61**	**286**	PN	P	17 01 43.2	-7.4
SILO				SN	S	17 03 35.9	-16
FRB	**Frobisher Bay**	**11.03**	**357**	PN	P	17 01 50.3	-6.0

IDC ***22*** *17:05:01.7±1.4, 18.63N×121.19E, mb3.3/4, mb1 3.7/4, mb1mx3.5/18, Error ellipse: s-maj=43.8km s-min=30.3km az=58.0*

ISC 22 17:05:11.7±2.0**, 18.5N**±0.2×**120.9E**±0.2**, h94**^{km}±17^{km}**, n5, σ1**^{s}**73**/6**, mb3.2**/3**, 1D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CVP	**Callao Caves**	**1.20**	**130**	⇓*e*P	**P**	**17 05 32.5**	**-1.9**
CVP				*i* S	**S**	**17 05 52.5**	**+1.3**
CMAR	**Chiang Mai Arr**	**20.79**	**273**	P	**P**	**17 09 47.7**	**+0.4**
	1.3nm,1.0s,baz=93,slow=8.4,SNR=7.5						
WRA	**Warramunga Arr**	**40.41**	**160**	P	**P**	**17 12 41.4**	**-0.8**
	0.3nm,0.9s,mb3.1,baz=344,slow=9.0,SNR=4.1						
ASAR	**Alice Springs**	**43.78**	**163**	P	**P**	**17 13 10.4**	**+0.5**
	0.2nm,0.6s,mb3.0,baz=347,slow=6.8,SNR=4.9						
YKA	**Yellowknife Ar**	**88.32**	**22**	P	**P**	**17 17 53.8**	**+0.3**
	0.3nm,0.6s,mb3.5,baz=311,slow=4.3,SNR=7.5						

NEIC 22 17:07:38.8, 19.39N×**155.25W, h4**^{km}**, MD4.0**(HVO)**, 18C-12D, After HVO., Hawaiian Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AHA	**Ahua**	**0.03**	**229**	⇑*i*P	Pg	17 07 39.9	+0.2
PUH	**Pauahi**	**0.03**	**117**	⇑*i*P	Pg	17 07 39.9	+0.2
PUH				*e*S	Sg	17 07 40.9	+0.5
RIM	**Rim**	**0.03**	**285**	⇓*i*P	Pg	17 07 40.0	+0.3
OUT	**Outlet**	**0.04**	**270**	⇓*i*P	Pg	17 07 40.1	+0.3
NPH	**North Pit**	**0.04**	**305**	⇑*i*P	Pg	17 07 40.2	+0.2
UWE	**Uwekahuna**	**0.06**	**306**	⇑*i*P	Pg	17 07 40.7	+0.6
KNHH	**Kane Nui o Ham**	**0.07**	**98**	⇓*i*P	Pg	17 07 40.8	+0.4
KNHH				*e*S	Sg	17 07 42.5	+1.0
CPK	**Cone Peak**	**0.08**	**274**	⇓*i*P	Pg	17 07 40.9	+0.4
RSD	**Rainshed**	**0.08**	**337**	⇑*i*P	Pg	17 07 41.0	+0.5
PWH	**Poliokeawe Pal**	**0.11**	**170**	⇑*i*P	Pg	17 07 41.6	+0.5
HLP	**Hilina Pali**	**0.11**	**214**	⇑*i*P	Pg	17 07 41.6	+0.5
STCH	**Steam Cracks**	**0.11**	**91**	⇓*i*P	Pg	17 07 41.4	+0.3
DES	**Desert**	**0.14**	**249**	⇑*i*P	Pg	17 07 42.0	+0.3
KLCH	**Kalalua Cone**	**0.17**	**85**	⇓*i*P	Pg	17 07 42.4	+0.2
MLH	**Mauna Loa**	**0.17**	**308**	⇑*i*P	Pg	17 07 42.9	+0.6
MLH				*e*S	Sg	17 07 45.7	+1.1
PLL	**Puu Ulaula**	**0.25**	**305**	⇑*i*P	Pg	17 07 44.1	+0.3
HUL	**Heiheiahulu**	**0.25**	**83**	⇑*i*P	Pg	17 07 43.8	0.0
HUL				*e*S	Sg	17 07 47.5	+0.2
WOH	**Wood Valley**	**0.28**	**240**	⇑*i*P	Pg	17 07 44.6	+0.2
WIH	**Wilkes Camp**	**0.33**	**284**	⇓*e*P	Pg	17 07 45.6	+0.2
WIH				*e*S	Sg	17 07 50.6	+0.8
SWH	**Southwest Rift**	**0.35**	**281**	⇓*i*P	Pg	17 07 45.6	-0.1
MWH	**Mokuaweoweo**	**0.35**	**286**	⇓*e*P	Pg	17 07 45.9	+0.1
RCO	**Red Cone**	**0.36**	**273**	⇓*i*P	Pg	17 07 45.7	-0.4
NGH	**National Guard**	**0.37**	**33**	⇑*e*P	Pg	17 07 46.6	+0.4
NGH				*e*S	Sg	17 07 52.6	+1.5
DAH	**Dandelion**	**0.40**	**265**	⇓*i*P	Pg	17 07 46.3	-0.5
KIH	**Kanekii**	**0.51**	**284**	⇑*e*P	Pg	17 07 48.2	-0.7
KIH				*e*S	Sg	17 07 55.7	+0.1
KKU	**Keanakolu**	**0.51**	**349**	⇑*e*P	Pg	17 07 48.9	0.0
OVEH	**Oceanview Est**	**0.55**	**245**	⇑*e*P	Pg	17 07 49.0	-0.6
WKH	**Waikii**	**0.61**	**320**	⇑*e*P	Pg	17 07 50.1	-0.8
HUH	**Hualalai**	**0.63**	**298**	⇓*e*P	Pg	17 07 51.4	-0.1
KKH	**Kailua Kona**	**0.78**	**290**	*e*P	Pg	17 07 53.9	-0.3
KOH	**Kohala**	**0.89**	**326**	⇑*e*P	Pb	17 07 53.7	-2.7
HKL	**Haleakala**	**1.62**	**324**	*e*P	Pn	17 08 08.4	+0.1

CSEM ***22*** *17:12:46.8±0.2, 38.09N×26.24W, h30*^{km}*, ML2.7, Error ellipse: s-maj=28.4km s-min=3.2km az=34.0*

PDA ***22*** *17:12:49.6±0.8, 38.10N×26.27W, h5*^{km}*±3*^{km}*, MD2.7, ML2.7, Error ellipse: s-maj=8.3km s-min=0.8km az=41.0*

SVSA 22 17:12:49.6±0.8**, 38.10N**×**26.27W, h5**^{km}±3^{km}**, MD2.7, ML2.7, Error ellipse: s-maj=8.3km s-min=0.8km az=41.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SET4	**Mosteiros**	**0.44**	**121**	*i* P	Pg	17 12 57.4	-1.0
SET4				*i* S	Sg	17 13 03.1	-1.1
SET2	**Ginetes**	**0.45**	**125**	*i* P	Pg	17 12 57.5	-1.1
SET2				*i* S	Sg	17 13 03.5	-1.1
PFET	**Feteiras**	**0.48**	**126**	*i* P	Pg	17 12 57.9	-1.3
PFET				*i* S	Sg	17 13 04.2	-1.3
PSAN	**Santo Antonio**	**0.50**	**120**	*i* P	Pg	17 12 58.3	-1.3
PSAN				*i* S	Sg	17 13 04.5	-1.8
PSET	**Sete Cidades**	**0.52**	**122**	*e*P	Pg	17 12 58.6	-1.4
PSET				*e*S	Sg	17 13 05.7	-1.2
	438nm,0.3s						
PSET	**Sete Cidades**	**0.52**	**122**	*e*P	Pg	17 12 58.6	-1.4
PSET				*e*S	Sg	17 13 05.7	-1.2
	438nm,0.3s						
FAC	**Faja de Cima**	**0.59**	**124**	*e*P	Pg	17 12 59.8	-1.6
FAC				*i* S	Sg	17 13 07.3	-2.0
PDA	**Ponta Delgada**	**0.60**	**126**	*e*S	Sg	17 13 08.0	-1.6
CML	**Cha da Macela**	**0.66**	**120**	*e*P	Pg	17 13 00.9	-2.0
CML				*i* S	Sg	17 13 09.2	-2.5
PVER	**Pico Vermelho**	**0.67**	**117**	*i* S	Sg	17 13 09.0	-3.0
	169nm,0.3s						
PVER	**Pico Vermelho**	**0.67**	**117**	*i* S	Sg	17 13 09.0	-3.0
	169nm,0.3s						
PMAT	**Coroa da Mata**	**0.69**	**114**	*i* P	Pg	17 13 01.3	-2.2
PMAT				*e*S	Sg	17 13 10.0	-2.8
	379nm,0.2s						
PMAT	**Coroa da Mata**	**0.69**	**114**	*e*S	Sg	17 13 10.0	-2.8
	379nm,0.2s						
LFA	**Lagoa do Fogo**	**0.71**	**118**	*i* P	Pg	17 13 01.3	-2.4
MESC	**Monte Escuro**	**0.72**	**115**	*i* P	Pg	17 13 01.6	-2.5
MESC				*i* S	Sg	17 13 10.7	-3.0
PRCH	**Ribeira Ch**	**0.73**	**121**	*e*P	Pg	17 13 01.4	-2.8
PRCH				*i* S	Sg	17 13 10.7	-3.2
	1μm,0.2s						
PRCH	**Ribeira Ch**	**0.73**	**121**	*e*P	Pg	17 13 01.4	-2.8
PRCH				*i* S	Sg	17 13 10.7	-3.2
	1μm,0.2s						
VIF	**Vila Franca**	**0.75**	**118**	*e*P	Pg	17 13 02.2	-2.4
VIF				*i* S	Sg	17 13 11.1	-3.5
	68nm,0.2s						
VIF	**Vila Franca**	**0.75**	**118**	*e*P	Pg	17 13 02.2	-2.4
VIF				*i* S	Sg	17 13 11.1	-3.5
	68nm,0.2s						
PCNG	**Congro**	**0.77**	**115**	*i* P	Pg	17 13 02.3	-2.7
PCNG				*i* S	Sg	17 13 12.1	-3.2
	129nm,0.2s						
PCNG	**Congro**	**0.77**	**115**	*i* S	Sg	17 13 12.1	-3.2
	129nm,0.2s						
PFAD	**Fenais da Ajud**	**0.80**	**109**	*i* P	Pg	17 13 02.5	-3.0
PFAD				*i* S	Sg	17 13 12.0	-4.1
FRA1	**Furnas**	**0.81**	**116**	*i* P	Pg	17 13 02.9	-2.9
FRA1				*i* S	Sg	17 13 12.8	-3.7
MIRA	**Miradouro**	**0.85**	**112**	*i* P	Pb	17 13 03.4	-3.0
MIRA				*i* S	Sg	17 13 13.5	-4.3
PFAV	**Pico das Favas**	**0.88**	**314**	*e*P	Pb	17 13 03.6	-3.4
PFAV				*i* S	Sb	17 13 14.3	-4.6
	36nm,0.1s						
PFAV	**Pico das Favas**	**0.88**	**314**	*e*P	Pb	17 13 03.6	-3.4
	36nm,0.1s						
PFAV				*i* S	Sb	17 13 14.3	-4.6
PSCM	**Serra do Cume**	**0.89**	**312**	*e*P	Pb	17 13 03.7	-3.5
PSCM				*e*S	Sb	17 13 14.9	-4.3
	106nm,0.1s						
PSCM	**Serra do Cume**	**0.89**	**312**	*e*P	Pb	17 13 03.7	-3.5
PSCM				*e*S	Sb	17 13 14.9	-4.3
	106nm,0.1s						
RIB2	**Ribeirinha**	**0.91**	**309**	*e*P	Pb	17 13 03.9	-3.6
RIB2				*e*S	Sb	17 13 15.1	-4.6
	32nm,0.2s						
RIB2	**Ribeirinha**	**0.91**	**309**	*e*P	Pb	17 13 03.9	-3.6
RIB2				*e*S	Sb	17 13 15.1	-4.6
	32nm,0.2s						
ADH	**Angra Heroismo**	**0.94**	**306**	*e*P	Pb	17 13 04.3	-3.7
ADH				*e*S	Sb	17 13 16.1	-4.4
PVNV	**Vila Nova**	**0.96**	**314**	*e*P	Pb	17 13 04.6	-3.7
PVNV				*i* S	Sb	17 13 16.2	-4.9
	66nm,0.2s						
PPAD	**Pico dos Padre**	**1.00**	**307**	*e*P	Pb	17 13 05.4	-3.6
PPAD				*i* S	Sb	17 13 17.3	-4.9
	28nm,0.3s						
PBIS	**Biscoitos**	**1.01**	**311**	*e*S	Sb	17 13 17.7	-5.0
	10nm,0.2s						
ASBA	**Santa Barbara**	**1.03**	**307**	*e*P	Pb	17 13 06.0	-3.6
ASBA				*i* S	Sb	17 13 18.1	-5.2
	29nm,0.2s						
PSMN	**Pico do Norte,**	**1.46**	**138**	*i* S	Sb	17 13 27.9	-7.7

WEL 22 17:37:02.2±0.3**, 45.03S**×**167.49E, h91**^{km}±3^{km}**, ML3.6**/10**, 1C-6D, Error ellipse: s-maj=3.8km s-min=1.9km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	**Mavora Lakes**	**0.58**	**123**	⇓PN	P	17 37 17.4	-0.4
MLZ				SN	S	17 37 28.8	-0.7
WHZ	**Wether Hill Ro**	**0.92**	**160**	PN	P	17 37 20.6	-0.7
WHZ				SN	S	17 37 33.9	-1.7
WKZ	**Wanaka**	**1.10**	**80**	⇓PN	P	17 37 23.4	-0.1
WKZ				SN	S	17 37 38.3	-1.1
EAZ	**Earnscleugh**	**1.30**	**99**	⇓PN	P	17 37 25.5	-0.4
EAZ				SN	S	17 37 42.5	-1.1
JCZ	**Jackson Bay**	**1.32**	**44**	⇑PN	P	17 37 25.5	-0.7
JCZ				SN	S	17 37 42.2	-1.8
TUZ	**Tuapeka**	**1.77**	**122**	⇓PN	P	17 37 31.1	-0.7
TUZ				SN	S	17 37 51.5	-2.2
LBZ	**Lake Benmore**	**2.03**	**72**	⇓PN	P	17 37 33.5	-1.8
LBZ				SN	S	17 37 56.8	-2.9
FOZ	**Fox Glacier**	**2.16**	**48**	PN	P	17 37 36.1	-1.0
FOZ				SN	S	17 38 01.0	-1.9
ODZ	**Otahua Downs**	**2.24**	**91**	⇓PN	P	17 37 36.5	-1.7
ODZ				SN	S	17 38 00.5	-4.4
RPZ	**Rata Peaks**	**2.88**	**64**	PN	P	17 37 43.9	-3.1
RPZ				SN	S	17 38 16.0	-4.7
DSZ	**Denniston Nort**	**4.55**	**45**	PN	P	17 38 06.3	-3.8

DJA 22 17:49:27.5±1.2**, 8.39S**×**114.96E, h179**^{km}±10^{km}**, MD4.5**/2**, 1C-5D, Error ellipse: s-maj=69.1km s-min=12.9km az=8.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KELI	**Kelakatan**	**0.49**	**290**	⇓*e*Pg	P	17 49 52.5	-0.1
RATI	**Rata**	**0.66**	**120**	⇓*e*Pg	P	17 49 53.1	-0.2
	191nm,0.2s						
RATI				⇓*e*Sg	S	17 50 11.9	-1.3
SRDI	**Scrawed**	**0.81**	**264**	⇓*e*Pg	P	17 49 53.7	-0.4
	43nm,0.2s						
SRDI				⇓*e*Sg	S	17 50 12.4	-2.2
KEDI	**Kedomdong**	**1.15**	**95**	⇑*e*Pn	P	17 49 55.8	-0.8

ISC 22 18:27:12.2±0.7**, 38.30N**±0.07×**27.20E**±0.07**, h10**^{km}±10^{km}**, n8, σ0**^{s}**83**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IZM	**Izmir**	**0.11**	**26**	*i* PG	**Pg**	**18 27 14.9**	**0.0**
IZM				*i* SG	**Sg**	**18 27 17.2**	**+0.4**
KDAG	**Bornova**	**0.11**	**27**	*i* P	**Pg**	**18 27 15.0**	**0.0**
KDAG				*i* S	**Sg**	**18 27 16.8**	**-0.1**
BLCB	**Balcova**	**0.15**	**303**	*i* PG	**Pg**	**18 27 15.4**	**-0.3**
BLCB				*i* SG	**Sg**	**18 27 18.0**	**0.0**
AKS	**Akhisar**	**0.75**	**40**	PG	**Pg**	**18 27 26.0**	**-1.2**
AKS				SG	**Sg**	**18 27 37.6**	**+0.4**
AYDN	**Tasoluk**	**0.83**	**140**	*i* P	**Pb**	**18 27 27.8**	**-0.5**
AYDN				*i* S	**Sb**	**18 27 38.8**	**-0.6**
MANT	**Manisa**	**1.08**	**80**	*i* P	**Pb**	**18 27 32.3**	**-0.2**
MANT				*i* S	**Sb**	**18 27 45.9**	**-0.6**
BDRM	**Kayabasi**	**1.25**	**171**	*i* P	**Pb**	**18 27 36.8**	**+1.3**
BDRM				*i* S	**Sb**	**18 27 50.5**	**-0.9**
DNZL	**Cakiroluk**	**1.58**	**112**	*i* P	**Pn**	**18 27 42.2**	**+1.8**
DNZL				*i* S	**Sb**	**18 28 04.5**	**+3.5**

IDC 22 18:47:07.0±15.0**, 17.39S**×**178.47W, h453**^{km}±151^{km}**, mb3.3**/4**, mb1 3.5**/4**, mb1mx3.2**/14**, Error ellipse: s-maj=141.0km s-min=53.9km az=134.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**38.83**	**241**	P	P	18 53 51.5	-1.3
	1.0nm,0.6s,baz=68,slow=5.4,SNR=4.6						
WRA	**Warramunga Arr**	**44.67**	**259**	P	P	18 54 38.0	-1.7
	0.8nm,0.6s,baz=94,slow=7.2,SNR=16						
ASAR	**Alice Springs**	**44.88**	**254**	P	P	18 54 40.1	-1.2
	7.1nm,0.5s,baz=90,slow=8.1,SNR=221						
ILAR	**Eielson Array**	**85.40**	**13**	P	P	18 58 55.0	-0.9
	0.5nm,0.4s,baz=225,slow=5.2,SNR=12						
BRTR	**Keskin Array B**	**144.38**	**315**	PKP	PKPdf	19 05 50.4	-0.2
	1.5nm,0.7s,baz=50,slow=0.7,SNR=7.3						
GERES	**GERESS Array B**	**147.10**	**345**	PKPbc	PKPdf	19 05 57.7	+2.9
	0.7nm,0.5s,baz=37,slow=6.7,SNR=4.3						

IDC 22 18:56:40.5±6.1**, 6.49N**×**73.57W, h141**^{km}±35^{km}**, mb3.2**/1**, mb1 3.6**/1**, mb1mx2.7**/19**, Error ellipse: s-maj=185.0km s-min=40.7km az=97.0, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	**El Rosal**	**1.79**	**205**	P	P	18 57 13.1	0.0
	13nm,0.3s,baz=172,slow=22,SNR=14						
ROSC				S	S	18 57 38.4	+0.5
	19nm,0.3s,baz=284,slow=21,SNR=10						
YKA	**Yellowknife Ar**	**63.42**	**340**	P	P	19 06 54.8	-2.4
	0.4nm,0.5s,baz=132,slow=6.5,SNR=8.9						
WRA	**Warramunga Arr**	**149.79**	**241**	PKPbc	PKPdf	19 16 14.4	+4.8
	0.2nm,0.7s,baz=107,slow=2.7,SNR=5.7						

IDC ***22*** *20:19:59.3±1.4, 0.24S×143.77E, mb3.7/4, mb1 4.1/4, mb1mx3.8/13, MS3.4/3, Ms1 3.4/3, ms1mx3.2/19, Error ellipse: s-maj=48.0km s-min=26.3km az=101.0*

NEIC ***22*** *20:20:00.9±0.8, 0.27S×143.70E, h10*^{km}*, mb4.4/2, Error ellipse: s-maj=31.9km s-min=13.7km az=104.0*

ISC 22 20:19:59.0±1.3**, 0.28S**±0.09×**143.7E**±0.3**, h10**^{km}**, n18, σ0**^{s}**53**/13**, mb4.2**/5**, MS3.3**/2**, Ninigo Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**9.70**	**159**	LR	LR	20 26 16.0	
	comp=Z,283nm,19.4s,baz=147,slow=39						
KAKA	**Kakadu**	**16.65**	**222**	*e*P	**P**	**20 23 50.1**	**-4.2**
	11nm,0.6s						
WRAB	**Tennant Creek**	**21.57**	**205**	*e*P	**P**	**20 24 50.8**	**-0.2**
	37nm,1.1s,mb4.7						
WB2	**Warramunga Arr**	**21.58**	**205**	*e*P	**P**	**20 24 50.7**	**-0.4**
WRA	**Warramunga Arr**	**21.59**	**205**	P	**P**	**20 24 50.7**	**-0.5**
	2.7nm,0.7s,mb3.8,baz=29,slow=10,SNR=31						
ASAR	**Alice Springs**	**25.12**	**202**	P	**P**	**20 25 27.1**	**+1.3**
	0.9nm,0.6s,mb3.5,baz=26,slow=15,SNR=14						
ASAR				LR	LR	20 35 57.3	
	comp=Z,62nm,20.0s,MS3.1,baz=34,slow=38						
STKA	**Stephens Creek**	**31.49**	**183**	LR	LR	20 40 16.0	
	comp=Z,102nm,20.9s,MS3.5,baz=24,slow=39						
CMAR	**Chiang Mai Arr**	**47.74**	**295**	P	**P**	**20 28 38.9**	**+0.4**
	1.7nm,0.9s,mb4.1,baz=113,slow=6.1,SNR=14						
GUN	**Gumba**	**62.03**	**302**	*e*P	**P**	**20 30 22.6**	**+0.4**
	15nm,0.8s,mb5.1						
PKI	**Pulchoki**	**62.33**	**301**	*e*P	**P**	**20 30 23.8**	**-0.5**
KKN	**Kakani**	**62.50**	**302**	*e*P	**P**	**20 30 25.3**	**-0.1**
	14nm,0.9s						
DMN	**Daman**	**62.60**	**301**	*e*P	**P**	**20 30 26.2**	**+0.1**
	21nm,1.1s						
GKN	**Gorkha**	**63.11**	**302**	*e*P	**P**	**20 30 29.4**	**0.0**
	25nm,1.0s						
KOLN	**Koldanda**	**63.93**	**301**	*e*P	**P**	**20 30 34.7**	**-0.2**
	12nm,1.0s						
ILAR	**Eielson Array**	**81.58**	**24**	P	**P**	**20 32 18.1**	**-0.1**
	0.3nm,0.7s,baz=249,slow=5.9,SNR=5.0						
LPAZ	**La Paz**	**144.55**	**119**	PKP	PKPdf	20 39 40.4	+0.6
	1.3nm,0.6s,baz=219,slow=4.3,SNR=3.5						
LPAZ	**La Paz**	**144.55**	**119**	PKP	PKPdf	20 39 40.4	+0.6
DBIC	**Dimbokro**	**148.00**	**282**	PKPbc	PKPdf	20 39 47.3	+1.5
	3.6nm,1.1s,baz=72,slow=2.2,SNR=3.2						

ATH ***22*** *20:29:18.5, 37.02N×28.17E, h21*^{km}*±3*^{km}*, MD3.5/6*

CSEM ***22*** *20:29:18.1±0.1, 37.04N×28.27E, h15*^{km}*, MD3.5, Error ellipse: s-maj=3.2km s-min=3.0km az=69.0*

NEIC ***22*** *20:29:21.7, 36.79N×28.13E, h30*^{km}*, MD3.5(ATH), After ATH.*

ISK 22 20:29:16.9, 36.86N×**28.12E, h26**^{km}**, MD3.5, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	**Dalyan (Mudla)**	**0.42**	**102**	*i* PG	Pb	20 29 26.2	+0.3
DALT				*i* SG	Sb	20 29 33.7	+1.7
BDRM	**Kayabasi**	**0.58**	**291**	*i* P	Pb	20 29 30.5	+2.1
BDRM				*i* S	Sb	20 29 39.8	+3.6
ARG	**Arkhangelos**	**0.64**	**179**	*e*PN	Pn	20 29 34.0	+3.8
FETY	**Fethiye**	**0.81**	**106**	PG	Pb	20 29 32.5	+0.3
DNZL	**Cakiroluk**	**1.11**	**41**	*i* P	Pn	20 29 34.6	-2.4
DNZL				*i* S	Sb	20 29 49.4	-2.1
SMG	**Samos**	**1.33**	**310**	*e*PN	Pn	20 29 42.5	+2.4
KSL	**Kastellorizon**	**1.38**	**120**	*e*PN	Pn	20 29 45.3	+4.6

ELL	Elmali	1.44	94	PN	Pn	20 29 42.2	+0.5
KARP	Karpathos	1.52	211	*e*PN	Pn	20 29 48.6	+5.8
MANT	Manisa	1.67	12	*i* P	Pn	20 29 43.5	-1.4
IZM	Izmir	1.68	336	PN	Pn	20 29 46.0	+0.9
BLCB	Balcova	1.75	331	*e*PN	Pn	20 29 46.6	+0.5
KHL	Karahalli	1.84	37	PN	Pn	20 29 47.1	-0.3
AKS	Akhisar	2.03	353	PN	Pn	20 29 49.7	-0.5
ANTB	Antalya	2.03	88	*e*PN	Pn	20 29 49.7	-0.5
BCK	Bucak	2.06	72	*e*PN	Pn	20 29 51.4	+0.8
APE	Apeiranthos	2.08	277	*e*PN	Pn	20 29 51.0	+0.1
ISP	Isparta	2.14	62	*e*PN	Pn	20 29 51.9	+0.1
ISP	Isparta	2.14	62	*e*P	Pn	20 29 52.2	+0.5
ISP	Isparta	2.14	62	*e*P	Pn	20 29 52.2	+0.4
NPS	Neapolis	2.58	233	*e*PB	Pb	20 30 04.0	+1.7
NPS	Neapolis	2.58	233	*e*Pb	Pb	20 30 05.0	+2.7
ALT	Altintas	2.70	35	*e*PN	Pn	20 30 00.0	+0.3
BALB	Balikesir	2.79	356	*e*PN	Pn	20 30 00.6	-0.3
PRK	Paraskevi	2.80	329	*e*Pb	Pb	20 30 10.1	+4.1
ESKT	Eskisehir	3.42	38	*e*PN	Pn	20 30 10.0	+0.1
HDMB	Hadim	3.50	87	*e*PN	Pn	20 30 11.4	+0.3
KIZT	Kizilcal	3.60	55	*e*PN	Pn	20 30 12.9	+0.5

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*IDC **22** 20:43:17.6±2.5, 4.06S×152.43E, h181^{km}±19^{km}, mb3.7/6, mb1 3.9/8, mb1mx3.8/13, Error ellipse: s-maj=25.6km s-min=15.6km az=95.0*

*NEIC **22** 20:43:20.5±2.6, 4.03S×152.27E, h206^{km}±21^{km}, mb4.2/7, Error ellipse: s-maj=21.0km s-min=12.5km az=76.0*

ISC 22 20:43:17.3±1.6, **4.00S**±0.07×**152.3E**±0.1, **h192**^{km}±13^{km}, **n36**, σ**0^{s}84**/35, **mb4.3**/15, **3C-1D, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	7.42	223	P	P	20 45 05.1	+1.3
	3.9nm,0.3s,baz=61,slow=13,SNR=14						
PMG				S	S	20 46 25.7	-1.3
	0.9nm,0.3s,baz=343,slow=23,SNR=5.5						
PMG	Port Moresby	7.42	223	P	P	20 45 05.1	+1.3
PMG				S	S	20 46 25.7	-1.3
CTA	Charters Tower	17.05	200	⇑*i*P	P	20 47 06.7	+0.8
	7.4nm,1.0s						
CTA	Charters Tower	17.05	200	P	P	20 47 07.3	+1.4
	0.6nm,0.3s,baz=43,slow=5.0,SNR=5.3						
CTAO	Charters Tower	17.05	200	*e*P	P	20 47 06.5	+0.7
	21nm,1.2s						
KAKA	Kakadu	21.47	245	⇑*i*P	P	20 47 51.8	+0.4
	18nm,0.4s,mb4.9						
WRAB	Tennant Creek	23.61	226	*e*P	P	20 48 12.4	+0.2
	135nm,0.6s						
WB2	Warramunga Arr	23.62	226	⇓*i*P	P	20 48 12.7	+0.4
WB2				*e*S	S	20 52 10.7	+1.2
WRA	Warramunga Arr	23.63	226	P	P	20 48 12.7	+0.4
	66nm,0.6s,mb5.4,baz=49,slow=9.7,SNR=650						
WRA				PcP	PcP	20 51 52.0	-0.7
	1.2nm,0.5s,baz=50,slow=2.2,SNR=5.9						
WRA				S	S	20 52 10.5	+0.8
	2.5nm,0.8s,baz=50,slow=15,SNR=8.5						
WRA				ScP		20 55 12.9	
	1.7nm,1.1s,baz=51,slow=2.7,SNR=8.0						
ARMA	Armidale	26.29	181	*e*P	P	20 48 37.2	+0.2
ASAR	Alice Springs	26.43	221	P	P	20 48 37.5	-0.8
	3.3nm,0.5s,mb4.2,baz=52,slow=8.2,SNR=58						
ASAR				PcP	PcP	20 51 58.1	-0.7
	1.4nm,0.8s,baz=56,slow=3.4,SNR=4.7						
ASAR				S	S	20 52 55.1	-0.7
	0.6nm,0.7s,baz=42,slow=15,SNR=4.6						
ASAR				ScP		20 55 20.2	
	0.6nm,0.7s,baz=52,slow=2.4,SNR=4.4						
ASPA	Alice Springs	26.43	221	*e*P	P	20 48 37.7	-0.7
STKA	Stephens Creek	29.50	199	⇑*i*P	P	20 49 04.8	-1.1
	2.8nm,0.6s,mb4.1						
STKA	Stephens Creek	29.50	199	P	P	20 49 04.7	-1.2
	4.9nm,0.8s,mb4.2,baz=39,slow=15,SNR=14						
STKA	Stephens Creek	29.50	199	*e*P	P	20 49 04.6	-1.3
MBWA	Marble Bar	35.96	239	*e*P	P	20 49 59.9	-1.6
ENH	Enshi	53.26	313	*e*P	P	20 52 18.3	-0.2
	3.8nm,0.8s,mb3.9						
CM31	Chiang Mai Arr	57.10	295	*e*P	P	20 52 47.5	+1.3
	3.8nm,0.8s,mb4.1						
CMAR	Chiang Mai Arr	57.10	295	P	P	20 52 47.4	+1.2
	2.5nm,0.8s,mb3.9,baz=116,slow=5.4,SNR=22						
SONM	Songino Array	65.39	328	P	P	20 53 41.3	0.0
	0.7nm,0.6s,mb3.5,baz=144,slow=5.1,SNR=5.8						
GUN	Gumba	71.30	301	*e*P	P	20 54 18.5	+0.4
	18nm,0.7s,mb4.8						
PKI	Pulchoki	71.61	301	*e*P	P	20 54 19.3	-0.7
KKN	Kakani	71.78	301	*e*P	P	20 54 20.9	0.0
	9.5nm,0.5s,mb4.7						
DMN	Daman	71.88	301	*e*P	P	20 54 21.8	+0.2
	17nm,0.9s,mb4.7						
GKN	Gorkha	72.38	301	*e*P	P	20 54 24.4	-0.1
	5.2nm,0.5s,mb4.4						
KOLN	Koldanda	73.22	300	*e*P	P	20 54 28.0	-1.5
	6.8nm,0.7s,mb4.4						
VNDA	Vanda	73.64	178	P	P	20 54 31.2	+0.2
	2.1nm,0.8s,mb3.9,baz=341,slow=6.3,SNR=12						
VNDA	Vanda	73.64	178	*e*P	P	20 54 31.3	+0.2
	2.2nm,0.8s,mb3.8						
ILAR	Eielson Array	81.60	22	P	P	20 55 13.9	-0.9
	0.5nm,0.7s,baz=243,slow=6.1,SNR=7.0						
QSPA	South Pole Qui	85.95	180	*e*P	P	20 55 37.1	+0.8
	2.9nm,0.6s,mb4.2						
YKA	Yellowknife Ar	94.95	28	PKKPbc		21 13 12.6	
	0.3nm,0.8s,baz=83,slow=2.9,SNR=5.0						
GERES	GERESS Array B	123.13	329	PKP	PKPdf	21 01 52.4	+1.3
	0.8nm,0.5s,baz=315,slow=1.9,SNR=3.5						
DAVOX	Davos	126.43	329	PKP	PKPdf	21 01 58.9	+1.4
	1.4nm,0.5s,baz=57,slow=3.3,SNR=4.1						
DAVOX	Davos	126.43	329	PKP	PKPdf	21 01 58.9	+1.4
BDFB	Brasilia	151.97	135	PKPbc	PKPdf	21 02 52.6	+9.0
	2.8nm,0.4s,baz=207,slow=5.6,SNR=4.5						
DBIC	Dimbokro	157.12	278	PKPab	PKPab	21 03 24.5	-0.2
	3.1nm,1.0s,baz=85,slow=4.4,SNR=4.4						

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*IDC **22** 20:45:49.1±6.4, 21.03S×178.73W, h586^{km}±69^{km}, mb3.2/7, mb1 3.5/7, mb1mx3.2/14, Error ellipse: s-maj=110.0km s-min=27.4km az=153.0*

*NEIC **22** 20:45:50.1±5.5, 21.01S×178.77W, h599^{km}±66^{km}, mb4.0/3, Error ellipse: s-maj=79.7km s-min=28.4km az=155.0*

ISC 22 20:45:49.5±1.7, **20.9S**±0.6×**178.9W**±0.3, **h600**^{km}, **n13**, σ**0^{s}93**/11, **mb3.7**/9, **Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	32.62	265	P	P	20 51 35.6	+0.8
	11nm,1.2s,mb4.3,baz=102,slow=13,SNR=4.4						
CTAO	Charters Tower	32.62	265	P	P	20 51 35.7	+0.9
	1.9nm,0.4s,mb4.1						
STKA	Stephens Creek	36.86	244	P	P	20 52 10.4	+0.6
ASAR	Alice Springs	43.61	257	P	P	20 53 03.7	-0.2
	1.8nm,0.4s,mb3.9,baz=92,slow=7.2,SNR=17						
ASAR				PcP	PcP	20 54 37.2	-0.7
	0.8nm,0.7s,baz=119,slow=3.7,SNR=4.2						
WRAB	Tennant Creek	43.71	263	*e*P	P	20 53 04.1	-0.6
	4.9nm,0.9s,mb4.0						
WRA	Warramunga Arr	43.72	263	P	P	20 53 04.1	-0.6
	1.2nm,0.4s,mb3.8,baz=98,slow=7.6,SNR=21						
MBWA	Marble Bar	56.95	258	*e*P	P	20 54 39.8	-1.2
	3.6nm,0.5s,mb3.9						
NVAR	Mina Array Bea	81.88	44	P	P	20 57 08.9	+0.6
	0.5nm,0.5s,mb3.4,baz=220,slow=7.0,SNR=2.3						
ILAR	Eielson Array	88.88	13	P	P	20 57 40.4	-1.1
	0.3nm,0.5s,mb3.4,baz=217,slow=5.2,SNR=5.4						
CMAR	Chiang Mai Arr	89.45	290	P	P	20 57 47.4	+2.1
	0.9nm,1.0s,mb3.5,baz=141,slow=4.4,SNR=5.6						
PDAR	Pinedale Array	89.82	44	P	P	20 57 46.3	-0.1
	0.4nm,0.6s,mb3.5,baz=205,slow=3.4,SNR=3.9						
AKASG	Malin Array Be	142.94	330	PKhKP		21 04 13.4	
	2.3nm,0.4s,baz=40,slow=4.2,SNR=14						
GERES	GERESS Array B	150.34	343	PKPbc	PKPdf	21 04 34.6	+7.1
	0.9nm,0.6s,baz=34,slow=3.5,SNR=2.2						

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*IDC **22** 20:47:23.8±1.0, 42.25N×126.88W, mb4.3/15, mb1 4.4/21, mb1mx4.3/29, ML3.7/5, MS4.5/13, Ms1 4.5/13, ms1mx4.2/25, Error ellipse: s-maj=26.6km s-min=10.6km az=34.0*

*BJI **22** 20:47:23.8, 42.32N×127.68W, h4^{km}, mB5.4, mb5.0, Ms5.1, Msz4.8*

*NEIC **22** 20:47:27.3±0.3, 42.48N×126.77W, h10^{km}, mb5.0/42, MS4.5/5, Error ellipse: s-maj=5.8km s-min=3.4km az=221.0*

*HRVD **22** 20:47:27.3±0.2, 42.40N×127.03W, h12^{km}, MW5.1/61, Centroid moment Tensor Solution. LP body waves: s31,c53;Mantle waves: s61,c110; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.48±.15; $M_{\theta\theta}$0.64±.15; $M_{\phi\phi}$4.84±.13; $M_{r\theta}$0.78±.45; $M_{\theta\phi}$1.56±.12; $M_{\phi r}$0.22±.40; Best double couple: $M_0$5.48×10^{16} NP1:ϕ_s12°, δ43°, λ-100°. NP2:ϕ_s205°, δ48°, λ-81°. Principal axes: T 5.37, Plg2°, Azm289°; N .2, Plg7°, Azm19°; P -5.58, Plg83°, Azm179°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 22 20:47:26.1±0.3, **42.47N**±0.04×**126.70W**±0.04, **h10**^{km}, **(h15**^{km}±1.7^{km}**:pP-P)**, **n172**, σ**1^{s}02**/167, **mb4.8**/52, **MS4.6**/20, **1D, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRMB	Red Mountain	2.29	114	*e*P	Pn	20 48 03.0	-1.5
KHMM	Horse Mountain	2.74	125	*e*P	Pn	20 48 09.0	-1.9
HUMO	Hull Mountain	2.77	86	*e*P	Pn	20 48 10.2	-1.2
HSO	Harness Mounta	2.85	67	P	Pn	20 48 11.8	-0.7
BBOR	Butler Butte	2.99	81	P	Pn	20 48 14.2	-0.4
YBH	Yreka Blue Hor	3.06	103	Pn	Pn	20 48 14.4	-1.1
	4.7nm,0.3s,baz=282,slow=11,SNR=63						
YBH				Sn	Sn	20 48 53.3	+0.8
	4.7nm,0.3s,baz=182,slow=18,SNR=3.2						
YBH	Yreka Blue Hor	3.06	103	*e*P	Pn	20 48 14.4	-1.1
MPOR	Mary's Peak	3.06	47	P	Pn	20 48 16.0	+0.5
COR	Corvallis	3.25	48	*e*P	Pn	20 48 17.8	-0.4
BUOR	Burton Butte	3.31	92	P	Pn	20 48 19.0	0.0
LHEM	Herd Peak	3.44	103	P	Pn	20 48 20.4	-0.5
BROR	Big Rock Looko	3.58	58	P	Pn	20 48 22.4	-0.4
IRO	Indian Ridge	3.59	63	P	Pn	20 48 22.8	-0.3
WDC	Whiskeytown Da	3.65	120	*e*P	Pn	20 48 22.6	-1.3
HOG	Hogback Mounta	3.71	92	P	Pn	20 48 24.1	-0.6
FRIS	Frissel Point	3.78	61	P	Pn	20 48 25.6	-0.2
SSOR	Sweet Springs	3.89	51	P	Pn	20 48 27.5	+0.2
HOPS	Hopland	4.43	140	*e*P	Pn	20 48 33.7	-1.3
TDH	Tom, Dick, Har	4.53	50	P	Pn	20 48 36.6	+0.2
VLL	Laurance Lake	4.70	49	P	Pn	20 48 39.5	+0.8
BMW	Boistfort Moun	4.71	31	P	Pn	20 48 38.0	-1.0
OHCM	Honcut	5.04	127	*e*P	Pn	20 48 41.1	-2.5
WCN	Washoe City	6.14	119	*e*P	Pn	20 48 58.1	-1.0
PAHR	Pah Rah Range	6.18	114	*e*P	Pn	20 49 00.3	+0.7
CMB	Columbia Colle	6.55	130	*e*P	Pn	20 49 06.0	+1.1
BMO	Blue Mountains	7.22	68	*e*P	Pn	20 49 13.6	-0.7
NVAR	Mina Array Bea	7.57	119	Pn	Pn	20 49 17.8	-1.4
	0.5nm,0.3s,baz=294,slow=14,SNR=24						
NVAR				LR	LR	20 52 23.9	
	comp=Z,6µm,18.4s,slow=40						
OMM	Old Mammoth Mi	7.64	127	*e*P	Pn	20 49 21.9	+1.7
MTUM	Tungsten Hills	8.07	127	P	P	20 49 25.2	-1.0
TPH	Tonopah	8.47	118	P	P	20 49 29.5	-2.3
ELK	Elko	8.76	98	*e*P	P	20 49 36.6	+0.8
NEW	Newport	8.88	46	*e*P	P	20 49 37.4	-0.1
HLID	Hailey	9.07	79	*e*P	P	20 49 38.3	-1.7
TPNV	Topopah Spring	9.76	121	P	P	20 49 48.8	-0.7
BBB	Bella Bella	9.77	355	Pn	P	20 49 48.6	-0.9
	0.4nm,0.3s,baz=146,slow=6.4,SNR=5.2						
BBB				LR	LR	20 52 51.8	
	comp=Z,2µm,20.9s,baz=14,slow=33						
MSO	Missoula	10.08	60	*e*P	P	20 49 51.9	-2.0
MCMT	McKenzie Canyo	10.31	72	*e*P	P	20 49 56.0	-1.1
BGU	Big Grassy Mou	10.34	94	*e*P	P	20 49 55.8	-1.8
HVU	Hansel Valley	10.37	89	*e*P	P	20 49 58.3	+0.4
SPUT	South Promonto	10.69	91	*e*P	P	20 50 01.7	-0.6
ARUT	Antelope Range	11.17	110	*e*P	P	20 50 08.9	0.0
BOZ	Bozeman (W)	11.30	69	*e*P	P	20 50 10.3	-0.3
NLU	North Lily Min	11.30	98	*e*P	P	20 50 11.0	+0.4
QLMT	Earthquake Lak	11.31	73	*e*P	P	20 50 08.3	-2.5
HRY	Holter Researc	11.42	63	*e*P	P	20 50 12.5	+0.3
NEN	Nelson	11.45	123	*e*P	P	20 50 13.2	+0.5
TPAW	Teton Pass	11.59	80	*e*P	P	20 50 14.8	+0.3
REDW	Red Top Meadow	11.66	80	*e*P	P	20 50 15.8	+0.3
LDFC	Landfair	11.67	125	*e*P	P	20 50 17.3	+1.7
MVU	Marysvale	11.72	105	*e*P	P	20 50 17.3	+1.0
MOOW	Moose Ponds	11.73	78	*e*P	P	20 50 17.4	+0.8
DAU	Daniels Canyon	11.77	95	P	P	20 50 18.2	+1.2
BW06	Boulder Array	12.63	83	*e*P	P	20 50 27.8	-0.8
PDAR	Pinedale Array	12.63	83	Pn	P	20 50 27.7	-0.9
	0.1nm,0.3s,baz=274,slow=8.7,SNR=9.1						
PDAR				LR	LR	20 55 44.1	
	comp=Z,4µm,18.2s,baz=271,slow=39						
PV01	Paradox Valley	14.49	101	P	P	20 50 51.6	-1.5
RW3	Ridgway	15.09	100	*e*P	P	20 51 02.5	+1.5
LAO	LASA Array	15.18	67	P	P	20 51 02.6	+0.6
	100nm,1.3s						
PHWY	Pilot Hill	15.86	87	*e*P	P	20 51 12.5	+1.6
ISCO	Idaho Springs	16.11	92	*e*P	P	20 51 13.4	-0.7
	39nm,1.2s						
DLBC	Dease Lake	16.12	354	Pn	P	20 51 18.6	+4.4
	0.1nm,0.3s,baz=188,slow=11,SNR=6.2						
DLBC				LR	LR	20 56 42.6	
	comp=Z,1µm,19.2s,baz=164,slow=34						
TUC	Tucson	16.19	124	*e*P	P	20 51 16.6	+1.5
	41nm,1.7s						
DGMT	Dagmar	16.86	61	*e*P	P	20 51 25.6	+2.0
	114nm,1.0s						
SDCO	Great Sand Dun	16.88	99	*e*P	P	20 51 24.5	+0.6
	104nm,1.5s						
LAZ	Ladron	17.29	111	*e*P	P	20 51 31.2	+2.1
ANMO	Albuquerque	17.46	109	P	P	20 51 31.5	+0.2
	baz=309,slow=9.1,SNR=5.6						
ANMO				LR	LR	20 58 40.9	
	comp=Z,3µm,21.0s,slow=39						
ANMO	Albuquerque	17.46	109	*e*P	P	20 51 32.1	+0.8
	50nm,1.7s						
LENM	Lemitar	17.53	112	*e*P	P	20 51 28.7	-3.4
LPM	Los Pinos Moun	17.69	111	*e*P	P	20 51 36.3	+2.3
BNM	Barren Site	17.78	111	*e*P	P	20 51 36.2	+1.0
MNTX	Cornudas Mount	20.07	115	*e*P	P	20 52 01.6	-0.8
	11nm,1.2s						
CPRX	Cap Rock	20.31	110	*e*P	P	20 52 06.4	+1.5
GDL2	Guadalupe Moun	20.45	113	*e*P	P	20 52 06.7	+0.4
CLNB	Carlsbad	20.75	112	*e*P	P	20 52 08.2	-1.2
AMTX	Amarillo	20.90	103	*e*P	P	20 52 11.4	+0.4
	93nm,1.4s						
YKA	Yellowknife Ar	21.29	16	P	P	20 52 13.2	-1.5
	16nm,0.8s,mb4.4,baz=204,slow=11,SNR=102						
YKA				PcP	PcP	20 56 15.4	-4.2
	1.0nm,1.0s,baz=209,slow=2.6,SNR=5.3						
YKA				LR	LR	21 00 24.7	
	comp=Z,333nm,18.3s,MS3.8,baz=245,slow=36						
YKA	Yellowknife Ar	21.29	16	P	P	20 52 13.2	-1.5
YKA				PcP	PcP	20 56 15.4	-4.2
YKA				LR	LR	21 00 24.7	
ULM	Lac du Bonnet	22.53	59	P	P	20 52 28.5	+1.4
	7.4nm,0.7s,mb4.2,baz=262,slow=12,SNR=13						
ULM				LR	LR	21 01 32.8	
	comp=Z,723nm,19.2s,MS4.1,baz=245,slow=37						
LTX	Lajitas	22.71	118	*e*P	P	20 52 30.1	+0.9
	109nm,1.8s,mb5.0						
LTX				LR	LR		
	comp=Z,1µm,19.0s,MS4.3						
TXAR	Lajitas Array	22.71	118	P	P	20 52 31.1	+1.9
	comp=Z,3.4nm,0.7s,mb3.9,baz=304,slow=9.0,SNR=32						
KSU1	Kansas State U	22.97	88	*e*P	P	20 52 33.0	+1.4
WMOK	Wichita Mounta	23.07	100	*e*P	P	20 52 32.6	0.0
	comp=Z,32nm,1.4s,mb4.6						
WMOK				LR	LR		
	comp=Z,2µm,19.0s,MS4.6						
JCT	Junction City	24.61	110	*e*P	P	20 52 49.1	+1.5
	comp=Z,28nm,1.3s,mb4.6						
ILAR	Eielson Array	25.12	340	P	P	20 52 52.2	+0.1
	comp=Z,1.2nm,1.0s,baz=156,slow=8.4,SNR=9.2						
ILAR				PcP	PcP	20 56 23.7	-3.6
	comp=Z,1.3nm,0.7s,baz=180,slow=1.8,SNR=12						
ILAR				LR	LR	21 01 02.2	
	comp=Z,1µm,21.9s,MS4.3,baz=168,slow=32						
EYMN	Ely	25.25	65	*e*P	P	20 52 53.7	+0.1
	comp=Z,55nm,1.3s,mb4.9						
INK	Inuvik	26.15	354	P	P	20 53 00.9	-0.8
	comp=Z,2.0nm,1.0s,baz=209,slow=11,SNR=3.5						
INK				LR	LR	21 02 56.6	
	comp=Z,1µm,20.9s,MS4.3,baz=336,slow=35						
CCM	Cathedral Cave	27.29	87	*e*P	P	20 53 13.6	+1.2
	comp=Z,19nm,1.2s,mb4.5						
CPCT	Cooper Cave	33.27	88	*e*P	P	20 54 05.1	-0.5
MYNC	Murphy	33.72	88	P	P	20 54 08.2	-1.4
	comp=Z,71nm,1.7s,mb5.3						
SADO	Sadowa	34.12	70	P	P	20 54 11.8	-1.2
	comp=Z,17nm,1.1s,mb4.9,baz=300,slow=8.8,SNR=3.3						
ALLY	Alegheny Colle	34.24	75	*e*P	P	20 54 13.0	-1.0
PWV	Princeton	35.06	83	P	P	20 54 21.2	+0.1
MVL	Millersville	37.50	76	*e*P	P	20 54 41.6	0.0
MIV	Mineville/With	38.18	69	*e*P	P	20 54 47.0	-0.4
SCHQ	Schefferville	40.22	51	LR	LR	21 12 01.0	
	comp=Z,571nm,18.1s,MS4.5,baz=20,slow=36						
SUMG	Summit	49.59	23	*e*P	P	20 56 18.6	-0.2
	comp=Z,26nm,1.1s,mb5.2						
SDV	Santo Domingo	59.24	107	*e*P	P	20 57 29.2	-0.9
	comp=Z,29nm,1.6s,mb5.1						
OTAV	Otavalo	60.30	121	*e*P	P	20 57 37.3	-0.1
	comp=Z,22nm,1.2s,mb5.1						
OTAV				LR	LR		
	comp=Z,501nm,21.0s,MS4.6						
MDJ	Mudanjiang	69.78	312	P	P	20 58 33.3	-4.9
MDJ				AP	pP	20 58 36.8	-4.5
MDJ				XP	sP	20 58 37.8	-4.7
MDJ				PCP	PcP	20 58 56.0	-5.0
MDJ				PP	PP	21 01 06.3	-8.2
MDJ				S	S	21 07 40.1	-5.9
MDJ				SCS	ScS	21 08 34.3	-2.2
MDJ				SS	SS	21 12 06.6	-9.4
MDJ				AMB	AMB		
	comp=Z,14nm,2.4s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,198nm,5.6s						
MDJ				LR	LR		
	comp=N,182nm,35.2s,MS4.3						
MDJ				LR	LR		
	comp=E,238nm,35.9s,MS4.3						
MDJ				LR	LR		
	comp=Z,369nm,35.2s,MS4.4						
NB2	NORSAR Subarra	71.31	20	P	P	20 58 45.6	-1.6
	comp=Z,9.5nm,1.1s,mb4.6,baz=329,slow=6.2						
NOA	NORSAR Array B	71.31	20	P	P	20 58 46.7	-0.5
	comp=Z,1.5nm,0.9s,mb3.9,baz=314,slow=7.8,SNR=4.4						
CN2	Changchun	72.56	314	*e*P	P	20 58 52.3	-2.6
CN2				*e*XP	sP	20 58 59.3	+0.1
CN2				*e*S	S	21 08 13.3	-4.8
CN2				AMB	AMB		
	comp=Z,300nm,3.0s						
CN2				LR	LR		
	comp=Z,330nm,14.0s,MS4.8						
CBIJ	Chichi jima	73.03	291	LR	LR	21 25 37.0	
	comp=Z,255nm,20.5s,MS4.5,baz=67,slow=31						
FINES	FINESS Array B	74.11	13	P	P	20 59 02.6	-0.9
	comp=Z,8.2nm,1.0s,mb4.6,baz=18,slow=6.0,SNR=5.3						
FINES	FINESS Array B	74.11	13	P	P	20 59 02.6	-0.9
ROSF	Rostrenen	76.75	35	*e*P	P	20 59 19.2	+0.3
	comp=Z,185nm,1.6s,mb5.5						
SGMF	Saint Gilles	77.12	35	*e*P	P	20 59 21.1	+0.1
	comp=Z,144nm,1.5s,mb5.4						
GRR	Gorron	77.72	34	*e*P	P	20 59 24.8	+0.5
	comp=Z,86nm,1.4s,mb5.2						
LDF	La Druitiere	77.86	33	*e*P	P	20 59 25.4	+0.4
BAIF	Baives	78.34	30	*e*P	P	20 59 28.3	+0.7
GIVF	Givet	78.53	29	*e*P	P	20 59 29.3	+0.6
SONM	Songino Array	78.59	327	P	P	20 59 27.6	-1.5
	comp=Z,3.8nm,1.1s,mb4.2,baz=45,slow=3.5,SNR=12						
MFF	Saint Martin d	79.43	34	*e*P	P	20 59 34.2	+0.5
	comp=Z,57nm,1.3s,mb5.0						
LPAZ	La Paz	79.45	124	P	P	20 59 33.0	-1.4
	comp=Z,3.6nm,0.9s,mb4.3,baz=349,slow=8.5,SNR=11						
MEZF	Maizieres J'vi	79.94	30	*e*P	P	20 59 36.9	+0.5
BJI	Beijing	80.09	316	*e*P	P	20 59 35.9	-1.5
BJI				S	S	21 09 43.1	+2.7
BJI				LR	LR		
	comp=Z,401nm,33.1s,MS4.5						
ZAL	Zalesovo	80.24	342	P	P	20 59 36.7	-1.2
	comp=Z,1.6nm,0.8s,mb4.0,baz=93,slow=7.2,SNR=12						
ZAL				LR	LR	21 39 45.3	
	comp=Z,370nm,18.1s,MS4.8,baz=217,slow=39						
CLL	Collm	80.24	24	*e*P	pP	20 59 43.0	+1.9
CLL	Collm	80.24	24	P	P	20 59 38.0	+0.1
CLL				*e**PP	pP	20 59 43.0	+1.9
MOX	Moxa	80.39	25	*e*P	P	20 59 40.0	+1.3
SSF	Saint Saulge	80.54	32	*e*P	P	20 59 40.0	+0.4
	comp=Z,25nm,1.3s,mb4.7						
TCF	Toulx Ste Croi	80.65	33	*e*P	P	20 59 40.4	+0.2
	comp=Z,94nm,1.9s,mb5.1						
BGF	Bois d'Agland	80.69	33	*e*P	P	20 59 40.6	+0.2
CDF	Champ du Feu	80.83	29	*e*P	P	20 59 40.9	-0.2
	comp=Z,32nm,1.2s,mb4.8						
HAU	Haudompre	80.83	30	*e*P	P	20 59 40.9	-0.2
BRG	Berggiesshubel	80.91	24	*e*P	P	20 59 41.1	-0.4
	comp=Z,16nm,1.3s,mb4.8						
NKC	Novy Kostel	81.01	25	*e*P	P	20 59 43.1	+1.1
SMF	Signal de Mont	81.01	32	*e*P	P	20 59 42.2	+0.1
GRA1	Grafenberg Arr	81.09	26	*e*P	P	20 59 43.7	+1.3
	comp=Z,12nm,1.1s,mb4.7						
GRA1				*e*		21 00 02.8	
GRF	Grafenberg Arr	81.09	26	*e*P	P	20 59 43.7	+1.3
	comp=Z,12nm,1.1s,mb4.7						
GRF				*e*		21 00 02.8	
LFF	La Frestale	81.13	35	*e*P	P	20 59 43.2	+0.4
	comp=Z,57nm,1.3s,mb5.1						
RJF	Les Rejaudoux	81.17	34	*e*P	P	20 59 43.2	+0.3
	comp=Z,13nm,0.9s,mb4.5						
RJF				*e*R			
	comp=Z,553nm,18.2s						
HINF	Hinteralfeld	81.18	30	*e*P	P	20 59 43.4	+0.5
	comp=Z,15nm,1.0s,mb4.6						
KSP	Ksiaz	81.63	23	*e*P	P	20 59 46.0	+0.8
CAF	Calviac	81.70	34	*e*P	P	20 59 45.9	+0.2
	comp=Z,20nm,1.1s,mb4.7						
SJPF	Ste Jean	81.74	37	*e*P	P	20 59 46.3	+0.3
	comp=Z,56nm,1.5s,mb5.0						
HHC	Hu-ho-hao-te	81.78	319	*e*P	P	20 59 45.4	-0.8
HHC				AP	pP	20 59 49.9	+0.5
HHC				XP	sP	20 59 51.8	+1.4
HHC				PP	PP	21 02 53.8	-1.7
HHC				S	S	21 09 54.3	-3.5
HHC				SKS	SKS	21 09 59.5	-7.2
HHC				XS		21 10 02.5	
HHC				SS	SS	21 15 13.5	-5.5
HHC				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
HHC				AMB	AMB		
	comp=Z,298nm,7.1s						
HHC				LR	LR		
	comp=N,310nm,18.6s						
HHC				LR	LR		
	comp=E,210nm,12.0s						
HHC				LR	LR		
	comp=Z,367nm,15.5s,MS4.8						
CABF	La Chapelle	81.90	31	*e*P	P	20 59 47.6	+0.9
DPC	Dobruska-Polom	82.08	23	*e*P	P	20 59 49.0	+1.5
ETSF	Etsaut	82.21	37	*e*P	P	20 59 49.0	+0.6
KHC	Kasperske Hory	82.33	25	*e*P	P	20 59 51.7	+2.8
JOW	Kunigami	82.50	299	LR	LR	21 28 17.1	
	comp=Z,160nm,21.4s,MS4.4,baz=304,slow=30						
EPF	Esparros	82.50	36	*e*P	P	20 59 50.4	+0.5
MTLF	Montolieu	83.05	35	*e*P	P	20 59 52.8	0.0
OKC	Ostrava-Krasne	83.05	22	*e*P	P	20 59 53.8	+1.2
LPL	La Plagne	83.07	31	*e*P	P	20 59 53.4	+0.6
VRAC	Vranov	83.09	23	P	P	20 59 54.2	+1.4
	comp=Z,6.7nm,0.9s,mb4.7,baz=344,slow=6.6,SNR=6.9						
LPG	La Plagne	83.09	31	*e*P	P	20 59 52.9	0.0
LASF	Ste Croix	83.13	33	*e*P	P	20 59 52.8	-0.4
	comp=Z,55nm,1.4s,mb5.1						
DAVOX	Davos	83.14	28	P	P	20 59 54.1	+0.9
	comp=Z,1.6nm,0.7s,mb4.2,baz=12,slow=9.3,SNR=4.4						
ESDC	Sonseca Array	83.17	41	P	P	20 59 53.2	-0.3
	comp=Z,1.7nm,0.8s,mb4.1,baz=309,slow=4.2,SNR=7.8						
ORIF	Oris-en-Rattie	83.24	32	*e*P	P	20 59 53.6	-0.1
	comp=Z,8.8nm,0.9s,mb4.5						
BRVK	Borovoye	83.73	350	*e*P	P	20 59 54.7	-1.2
	comp=Z,22nm,1.2s,mb5.2						
MBDF	Montbardon	83.75	31	*e*P	P	20 59 57.0	+0.8
	comp=Z,21nm,1.0s,mb4.9						
SSE	Sheshan	83.87	307	P	P	20 59 51.1	-6.1
SSE				S	S	21 10 12.6	-6.7
SSE				XS		21 10 27.6	
SSE				SS	SS	21 15 41.8	-8.0
SSE				AMB	AMB		
	comp=Z,37nm,0.7s,mb5.6						
SSE				AMB	AMB		
	comp=Z,265nm,4.5s						
SSE				LR	LR		
	comp=N,148nm,20.0s,MS4.5						
SSE				LR	LR		
	comp=E,101nm,20.0s,MS4.5						
SSE				LR	LR		
	comp=Z,129nm,20.5s,MS4.3						
SSE	Sheshan	83.87	307	P	P	20 59 51.1	-6.1
	comp=Z,37nm,0.7s,mb5.6						
SSE				S	S	21 10 12.6	-6.7

SSE				sS		21 10 27.6	
SSE				SS	SS	21 15 41.8	-8.0
SSE				LR	LR		
	comp=Z,130nm,20.5s,MS4.3						
SMRF	**Simiane la Rot**	**83.91**	**32**	*e*P	**P**	**20 59 57.3**	**+0.2**
	comp=Z,34nm,1.2s,mb5.0						
SMOL	**Smolenice**	**84.04**	**23**	*e*P	**P**	**20 59 59.0**	**+1.4**
ZST	**Bratislava**	**84.23**	**23**	*e*P	**P**	**20 59 59.9**	**+1.3**
VYHS	**Vyhne**	**84.46**	**22**	*e*P	**P**	**21 00 00.6**	**+0.9**
NJ2	**Nanjing**	**84.53**	**309**	*e*P	**P**	**20 59 58.1**	**-2.4**
NJ2				AP	pP	21 00 03.1	-0.6
NJ2				XP	sP	21 00 05.1	+0.3
NJ2				SKS	SKS	21 10 17.0	-8.7
NJ2				S	S	21 10 21.0	-4.8
NJ2				XS		21 10 29.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,770nm,4.8s						
NJ2				LR	LR		
	comp=Z,810nm,24.3s,MS5.0						
FRF	**La Foret Royal**	**84.68**	**32**	*e*P	**P**	**21 00 01.5**	**+0.6**
	comp=Z,80nm,1.2s,mb5.4						
SBF	**Sospel**	**84.73**	**31**	*e*P	**P**	**21 00 01.5**	**+0.3**
	comp=Z,42nm,1.1s,mb5.2						
LMR	**La Mourre**	**84.81**	**32**	*e*P	**P**	**21 00 01.4**	**-0.2**
	comp=Z,66nm,1.2s,mb5.3						
AKASG	**Malin Array Be**	**84.86**	**15**	P	**P**	**21 00 00.0**	**-1.6**
	comp=Z,2.1nm,0.7s,mb4.4,baz=340,slow=4.1,SNR=12						
GTA	**Gaotai**	**88.23**	**326**	*e*P	**P**	**21 00 18.0**	**-0.4**
GTA				AP	pP	21 00 21.8	+0.1
GTA				XP	sP	21 00 24.3	+1.6
GTA				PP	PP	21 03 48.9	+0.8
GTA				SKS	SKS	21 10 44.9	-5.0
GTA				S	S	21 11 01.8	+0.7
GTA				XS		21 11 09.4	
GTA				PS	PS	21 12 08.4	+1.1
GTA				AMB	AMB		
	comp=Z,4.0nm,1.3s,mb4.5						
GTA				AMB	AMB		
	comp=Z,91nm,5.7s						
GTA				LR	LR		
	comp=N,471nm,18.3s,MS5.1						
GTA				LR	LR		
	comp=E,397nm,16.0s,MS5.1						
GTA				LR	LR		
	comp=Z,747nm,18.6s,MS5.1						
WMQ	**Urumqi**	**88.73**	**336**	⇓P	**P**	**21 00 21.4**	**+0.7**
WMQ				AP	pP	21 00 25.9	+2.0
WMQ				XP	sP	21 00 28.4	+3.4
WMQ				PP	PP	21 03 52.4	+0.4
WMQ				SKS	SKS	21 10 47.9	-4.9
WMQ				S	S	21 11 05.6	0.0
WMQ				AMB	AMB		
	comp=Z,17nm,1.0s,mb5.3						
WMQ				LR	LR		
	comp=N,653nm,23.6s,MS5.0						
WMQ				LR	LR		
	comp=E,187nm,24.0s,MS5.0						
WMQ				LR	LR		
	comp=Z,585nm,21.6s,MS5.0						
LZH	**Lanzhou**	**89.22**	**321**	*e*P	**P**	**21 00 23.0**	**-0.3**
LZH				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb5.1						
LZH	**Lanzhou**	**89.22**	**321**	*e*P	**P**	**21 00 23.0**	**-0.3**
	comp=Z,10.0nm,1.0s,mb5.1						
LZH				pP	pP	21 00 33.0	+6.5
LZH				sP	sP	21 00 38.4	+11
KMI	**Kunming**	**98.75**	**316**	*e*P	**P**	**21 01 06.8**	**-0.3**
KMI				PP	PP	21 05 10.5	-0.4
KMI				S	S	21 12 31.3	-1.8
KMI				SS	SS	21 19 17.0	-6.2
KMI				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb4.8						
KMI				LR	LR		
	comp=N,659nm,34.7s						
KMI				LR	LR		
	comp=E,505nm,27.0s						
KMI				LR	LR		
	comp=Z,761nm,25.7s						
KMI	**Kunming**	**98.75**	**316**	*e*P	**P**	**21 01 06.7**	**-0.4**
	comp=Z,3.0nm,0.9s,mb4.8						
KMI				PP	PP	21 05 10.5	-0.4
KMI				S	S	21 12 31.3	-1.8
KMI				SS	SS	21 19 17.0	-6.2
KMI				LR	LR		
	comp=Z,760nm,25.7s,MS5.1						
SNAA	**Sanae**	**140.23**	**156**	PKP	PKPdf	21 06 51.1	-6.0
	comp=Z,1.4nm,1.1s,baz=227,slow=3.2,SNR=5.2						
LSZ	**Lusaka**	**145.36**	**46**	*e*PKPdf	PKPdf	21 07 04.6	-2.8

JMA ***22*** *20:57:29.8±0.2,24.39N×122.40E,M2.3*

TAP 22 20:57:29.5,24.77N×122.29E,h9^{km},ML2.8,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.72**	**115**	P	Pb	20 57 41.1	-2.8
YOJ				S	Sb	20 57 49.0	-4.6
IRIF	**Iriomote-Funau**	**1.38**	**108**	P	Pn	20 57 53.2	-1.9
IRIF				S	Sb	20 58 09.3	-3.4
HATJ	**Hateruma jima**	**1.55**	**117**	*e*S	Sb	20 58 11.6	-6.1
JKRS	**Kuro-shima**	**1.65**	**108**	P	Pn	20 57 58.1	-0.9
JIJ	**Ishigaki jima**	**1.73**	**103**	P	Pn	20 57 59.6	-0.5
JIJ				*e*S	Sn	20 58 20.1	-2.5

IDC ***22*** *21:03:37.6±0.5,55.90S×125.00W,mb4.5/12,mb1 4.7/12, mb1mx4.5/16,MS5.4/18,Ms1 5.4/18,ms1mx5.1/21,Error ellipse: s-maj=23.0km s-min=18.0km az=158.0*

MOS ***22*** *21:03:37.3±1.0,56.12S×124.83W,h10^{km},mb5.4/5, MS5.5/7,Error ellipse: s-maj=38.2km s-min=17.4km az=87.2*

NEIC ***22*** *21:03:39.4±0.3,55.94S×125.00W,h10^{km},mb5.0/15, MS5.6/108,MW6.0,Error ellipse: s-maj=13.2km s-min=9.5km az=144.0,Moment Tensor Solution. s10 Moment tensor: Scale 10^{18}Nm; M_{rr}0.00; $M_{\theta\theta}$0.00; $M_{\phi\phi}$0.00; $M_{r\theta}$0.00; $M_{\theta\phi}$0.00; $M_{\phi r}$0.00; Best double couple: $M_0$1.2×10^{18} NP1:ϕ_s198°,δ81°,λ173°. NP2:ϕ_s290°,δ83°, λ10°. Principal axes: T 1.26, Plg11°, Azm154°; N -.19, Plg78°, Azm324°; P -1.08, Plg2°, Azm64°;*

HRVD ***22*** *21:03:39.4±0.1,55.77S×124.40W,h14^{km}±1^{km},MW6.0/76, Centroid moment Tensor Solution. LP body waves: s76,c177;Mantle waves: s62,c113; Half duration: 2^{s}6 Moment tensor: Scale 10^{18}Nm; M_{rr}-0.15±.01; $M_{\theta\theta}$0.96±.02; $M_{\phi\phi}$-0.81±.01; $M_{r\theta}$0.12±.03; $M_{\theta\phi}$1.18±.01; $M_{\phi r}$0.09±.03; Best double couple: $M_0$1.48×10^{18} NP1: ϕ_s109°,δ86°,λ3°. NP2:ϕ_s18°,δ87°,λ176°. Principal axes: T 1.56, Plg5°, Azm333°; N -.17, Plg85°, Azm165°; P -1.4, Plg1°, Azm63°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s.*

BJI ***22*** *21:03:39.3,55.90S×125.00W,h10^{km},mB5.7,Ms5.8, Msz5.5*

ISC 22 21:03:37.5±0.3**,56.00S**±0.08×**124.9W**±0.1**,h10^{km},n251, σ1^{s}02**/55**,mb4.8**/22**,MS5.5**/127**,16C-2D,Southern East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMSA	**Palmer Station**	**30.15**	**132**	PFAKE		21 10 00.0	+11
PMSA				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
PTCN	**Pitcairn Islan**	**31.13**	**351**	PFAKE		21 10 10.0	+12
PTCN				LR	LR		
	comp=Z,17µm,21.0s,MS5.7						
USHA	**Ushuaia**	**31.32**	**112**	LR	LR	21 19 06.1	
	comp=Z,4µm,20.0s,MS5.0,baz=224,slow=30						
SBA	**Scott Base**	**31.52**	**202**	PFAKE		21 10 10.0	+8.8
SBA				LR	LR		
	comp=Z,6µm,21.0s,MS5.2						
VNDA	**Vanda**	**32.57**	**203**	P	**P**	**21 10 10.8**	**+0.4**
	comp=Z,1.6nm,0.9s,mb4.0,baz=68,slow=6.6,SNR=3.6						
VNDA	**Vanda**	**32.57**	**203**	*e*P	**P**	**21 10 09.1**	**-1.3**
VNDA				pmax	pmax		
	comp=Z,12nm,1.3s						
VNDA				MLR	MLR		
	comp=Z,8µm,22.0s						
VNDA	**Vanda**	**32.57**	**203**	*e*P	**P**	**21 10 09.1**	**-1.3**
	comp=Z,12nm,1.3s,mb4.7						
VNDA				LR	LR		
	comp=Z,8µm,22.0s,MS5.3						
RKT	**Rikitea**	**33.67**	**343**	*e*S	**S**	**21 15 23.9**	**-18**
RKT				*e*LQ		21 17 36.1	
RKT				*e*LR	LR	21 18 47.4	
	comp=Z,38µm,29.0s,baz=169						
QSPA	**South Pole Qui**	**34.18**	**180**	*e*P	**P**	**21 10 23.3**	**-1.0**
	comp=Z,83nm,2.1s,mb5.3						
QSPA				LR	LR		
	comp=Z,5µm,22.0s,MS5.2						
TBI	**Tubuai**	**37.28**	**321**	*e*S	**S**	**21 16 19.3**	**-19**
TBI				*e*LQ		21 19 05.2	
TBI				*e*LR	LR	21 20 21.8	
	comp=Z,29µm,29.8s,baz=162						
RPZ	**Rata Peaks**	**41.57**	**259**	LR	LR	21 24 26.8	
	comp=Z,5µm,18.9s,MS5.4,baz=121,slow=30						
URZ	**Urewera**	**41.87**	**270**	LR	LR	21 24 49.6	
	comp=Z,11µm,19.7s,MS5.8,baz=131,slow=30						
PPT	**Papeete**	**42.68**	**324**	*e*S	**S**	**21 17 40.3**	**-19**
PPT				*e*LQ		21 21 14.5	
PPT				*e*LR	LR	21 22 52.3	
	comp=Z,33µm,26.5s,baz=164						
RAR	**Rarotonga**	**43.30**	**309**	LR	LR	21 24 02.1	
	comp=Z,7µm,21.5s,MS5.5,baz=154,slow=28						
TRQA	**Tornquist**	**44.80**	**94**	P	**P**	**21 11 54.4**	**+1.5**
	comp=Z,32nm,1.5s,mb4.9						
TRQA				LR	LR		
	comp=Z,3µm,19.0s,MS5.2						
VNA3	**Neumayer Olymp**	**45.15**	**156**	⇑*i*	**P**	**21 11 59.1**	**+3.9**
VNA3	**Neumayer Olymp**	**45.15**	**156**	⇑*i*	**P**	**21 12 03.4**	**+8.2**
VNA1	**Neumayer--Stat**	**45.89**	**155**	⇑*i*	**P**	**21 12 05.7**	**+4.6**
VNA1	**Neumayer--Stat**	**45.89**	**155**	⇑*i*	Px	21 12 21.5	
VNA2	**Neumayer--Watz**	**45.90**	**156**	⇑*i*	**P**	**21 12 05.5**	**+4.4**
VNA2	**Neumayer--Watz**	**45.90**	**156**	⇑*i*	**P**	**21 12 10.4**	**+9.3**
SNAA	**Sanae**	**46.34**	**158**	⇑*i*	**P**	**21 12 05.2**	**+0.6**
SNAA	**Sanae**	**46.34**	**158**	⇑*i*	**P**	**21 12 11.4**	**+6.8**
SNAA	**Sanae**	**46.34**	**158**	P	**P**	**21 12 04.7**	**+0.1**
	comp=Z,2.4nm,0.7s,mb4.2,baz=246,slow=5.5,SNR=23						
SNAA				LR	LR	21 30 30.5	
	comp=Z,2µm,19.4s,MS5.0,baz=240,slow=35						
SNAA	**Sanae**	**46.34**	**158**	*e*P	**P**	**21 12 03.0**	**-1.6**
SNAA				pmax	pmax		
	comp=Z,15nm,1.0s						
SNAA	**Sanae**	**46.34**	**158**	⇑*i*P	**P**	**21 12 05.2**	**+0.6**
NVL	**N'lazarevskaya**	**49.84**	**163**	⇑*e*P	**P**	**21 12 31.0**	**-0.9**
NVL				*e*S	**S**	**21 19 43.0**	**+2.7**
NVL				pmax	pmax		
	comp=Z,430nm,5.1s						
NVL				MLR	MLR		
	comp=Z,2µm,13.0s,MS5.4						
CASY	**Casey**	**51.12**	**205**	PFAKE		21 12 50.0	+8.3
CASY				LR	LR		
	comp=Z,5µm,21.0s,MS5.5						
LVC	**Limon Verde**	**52.66**	**74**	*e*P	**P**	**21 12 53.8**	**-0.2**
	comp=Z,24nm,1.3s,mb5.0						
LVC				LR	LR		
	comp=Z,710nm,19.0s,MS4.7						
SYO	**Syowa Base**	**54.78**	**173**	⇑P	**P**	**21 13 06.2**	**-2.7**
AFI	**Afiamalu**	**55.21**	**300**	P	**P**	**21 13 12.6**	**-0.1**
AFI				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.2						
AFI				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
AFI	**Afiamalu**	**55.21**	**300**	P	**P**	**21 13 12.6**	**-0.1**
	comp=Z,16nm,0.6s,mb5.2						
AFI				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
MAW	**Mawson**	**56.57**	**184**	*e*P	**P**	**21 13 22.0**	**+0.1**
	comp=Z,14nm,0.9s,mb5.0						
MAW	**Mawson**	**56.57**	**184**	P	**P**	**21 13 22.1**	**+0.2**
	comp=Z,9.2nm,0.8s,mb4.8,baz=187,slow=10,SNR=7.1						
MAW				LR	LR	21 35 31.3	
	comp=Z,8µm,20.8s,MS5.8,baz=165,slow=34						
MAW	**Mawson**	**56.57**	**184**	*e*P	**P**	**21 13 20.2**	**-1.7**
MAW				pmax	pmax		
	comp=Z,12nm,0.8s						
MAW				MLR	MLR		
	comp=Z,13µm,22.0s						
LPAZ	**La Paz**	**58.26**	**71**	P	**P**	**21 13 29.9**	**-4.5**
	comp=Z,2.8nm,0.8s,mb4.3,baz=192,slow=4.2,SNR=8.3						
LPAZ	**La Paz**	**58.26**	**71**	P	**P**	**21 13 26.8**	**-7.6**
	comp=Z,17nm,1.3s,mb4.9						
TOO	**Toolangi**	**59.63**	**247**	*e*P	**P**	**21 13 45.8**	**+2.0**
	comp=Z,10nm,1.3s,mb4.7						
PAYG	**Puerto Ayora**	**61.85**	**40**	PFAKE		21 14 10.0	+11
PAYG				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
STKA	**Stephens Creek**	**66.06**	**248**	*e*P	**P**	**21 14 28.0**	**+1.6**
	comp=Z,7.1nm,0.9s,mb4.7						
STKA	**Stephens Creek**	**66.06**	**248**	P	**P**	**21 14 27.6**	**+1.3**
	comp=Z,5.8nm,0.8s,mb4.7,baz=133,slow=6.1,SNR=7.5						
STKA				LR	LR	21 39 04.7	
	comp=Z,4µm,18.3s,MS5.7,baz=135,slow=32						
OTAV	**Otavalo**	**67.45**	**52**	P	**P**	**21 14 35.1**	**-0.4**
	comp=Z,14nm,1.5s,mb4.8						
BDFB	**Brasilia**	**69.86**	**88**	P	**P**	**21 14 50.9**	**+0.6**
	comp=Z,6.1nm,1.0s,mb4.5,baz=221,slow=6.4,SNR=4.8						
BDFB				LR	LR	21 42 18.4	
	comp=Z,5µm,21.6s,MS5.7,baz=216,slow=33						
TRIS	**Tristan da Cun**	**71.11**	**129**	PFAKE		21 15 10.0	+12
TRIS				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
CTA	**Charters Tower**	**72.95**	**259**	*e*P	**P**	**21 15 10.1**	**+1.3**
	comp=Z,8.1nm,0.9s,mb4.7						
CTA	**Charters Tower**	**72.95**	**259**	P	**P**	**21 15 09.6**	**+0.8**
	comp=Z,9.2nm,0.9s,mb4.7,baz=128,slow=6.7,SNR=7.3						
CTA				LR	LR	21 42 23.8	
	comp=Z,2µm,19.6s,MS5.5,baz=138,slow=32						
CTAO	**Charters Tower**	**72.95**	**259**	PFAKE		21 15 20.0	+11
CTAO				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
ROSC	**El Rosal**	**73.39**	**53**	LR	LR	21 40 51.3	
	comp=Z,1µm,21.5s,MS5.1,baz=194,slow=30						
JTS	**JuntasAbangare**	**73.93**	**41**	P	**P**	**21 15 14.2**	**-0.4**
JTS				LR	LR		
	comp=Z,708nm,20.0s,MS5.0						
ASAR	**Alice Springs**	**76.68**	**248**	P	**P**	**21 15 29.8**	**-0.3**
	comp=Z,7.0nm,0.8s,mb4.6,baz=152,slow=6.0,SNR=25						
ASAR				LR	LR	21 43 46.5	
	comp=Z,3µm,21.1s,MS5.6,baz=132,slow=31						
ASPA	**Alice Springs**	**76.68**	**248**	*e*P	**P**	**21 15 28.9**	**-1.3**
NWAO	**Narrogin (SRO)**	**76.89**	**230**	PFAKE		21 15 40.0	+8.9
NWAO				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
SDV	**Santo Domingo**	**78.63**	**55**	LR	LR	21 45 53.6	
	comp=Z,1µm,20.0s,MS5.2,baz=169,slow=32						
SDV	**Santo Domingo**	**78.63**	**55**	PFAKE		21 15 50.0	+8.9
SDV				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
WB2	**Warramunga Arr**	**79.51**	**250**	*e*P	**P**	**21 15 45.9**	**+0.2**
WRA	**Warramunga Arr**	**79.51**	**250**	P	**P**	**21 15 45.7**	**-0.1**
	comp=Z,7.2nm,0.8s,mb4.6,baz=145,slow=4.9,SNR=14						
WRAB	**Tennant Creek**	**79.52**	**250**	*i* P	**P**	**21 15 45.4**	**-0.4**
WRAB	**Tennant Creek**	**79.52**	**250**	*e*P	**P**	**21 15 45.2**	**-0.6**
	comp=Z,18nm,1.0s,mb5.0						
PMG	**Port Moresby**	**81.12**	**266**	P	**P**	**21 15 54.7**	**+0.3**
	comp=Z,8.6nm,0.8s,mb4.8,baz=114,slow=10.0,SNR=4.1						
PMG				LR	LR	21 47 20.9	
	comp=Z,3µm,19.1s,MS5.7,baz=24,slow=32						
TEIG	**Tepich**	**82.01**	**34**	PFAKE		21 16 10.0	+11
TEIG				LR	LR		
	comp=Z,426nm,20.0s,MS4.8						
KIP	**Kipapa**	**82.06**	**329**	PFAKE		21 16 10.0	+11
KIP				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
RCBR	**Riachuelo**	**84.66**	**92**	PFAKE		21 16 20.0	+7.4
RCBR				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
MBWA	**Marble Bar**	**85.85**	**238**	PFAKE		21 16 30.0	+12
MBWA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
LTX	**Lajitas**	**86.91**	**18**	PFAKE		21 16 40.0	+17
LTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
TXAR	**Lajitas Array**	**86.91**	**18**	P	**P**	**21 16 23.0**	**-0.4**
	comp=Z,2.6nm,1.0s,mb4.4,baz=191,slow=7.9,SNR=14						
TXAR				LR	LR	21 46 49.9	
	comp=Z,1µm,21.6s,MS5.3,baz=215,slow=30						
TXAR	**Lajitas Array**	**86.91**	**18**	P	**P**	**21 16 23.0**	**-0.4**
TXAR				LR	LR	21 46 49.9	
JCT	**Junction City**	**88.76**	**22**	*e*P	**P**	**21 16 32.3**	**0.0**
SJG	**San Juan**	**88.78**	**54**	LR	LR	21 50 46.4	
	comp=Z,696nm,21.2s,MS5.0,baz=215,slow=32						
SJG	**San Juan**	**88.78**	**54**	PFAKE		21 16 40.0	+7.4
SJG				LR	LR		
	comp=Z,991nm,21.0s,MS5.2						
TUC	**Tucson**	**88.78**	**12**	*e*P	**P**	**21 16 32.9**	**+0.5**
	comp=Z,19nm,1.4s,mb5.2						
MNTX	**Cornudas Mount**	**88.93**	**17**	PFAKE		21 16 40.0	+6.9
MNTX				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
HKT	**Hockley**	**89.13**	**25**	PFAKE		21 16 50.0	+16
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
PFO	**Pinyon Flat Ob**	**89.55**	**7**	PFAKE		21 16 50.0	+14
PFO				LR	LR		
	comp=Z,868nm,20.0s,MS5.2						
NATX	**Nacogdoches**	**91.15**	**25**	PFAKE		21 16 50.0	+6.6
NATX				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
ANMO	**Albuquerque**	**91.95**	**15**	LR	LR	21 50 24.5	
	comp=Z,772nm,18.1s,MS5.2,slow=31						
ANMO	**Albuquerque**	**91.95**	**15**	⇑*e*P	**P**	**21 16 47.2**	**+0.2**
ANMO	**Albuquerque**	**91.95**	**15**	*e*P	**P**	**21 16 46.9**	**-0.1**
	comp=Z,6.5nm,1.0s,mb4.9						
ANMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BOSA	**Boshof**	**91.97**	**154**	PFAKE		21 17 00.0	+13
BOSA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
DAC	**Darwin (Calif)**	**92.13**	**6**	PFAKE		21 17 00.0	+12
DAC				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
SAO	**San Andreas Ge**	**92.45**	**3**	PFAKE		21 17 00.0	+11
SAO				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
AMTX	**Amarillo**	**92.67**	**19**	PFAKE		21 17 00.0	+10
AMTX				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
TPNV	**Topopah Spring**	**92.88**	**7**	*e*P	**P**	**21 16 51.1**	**-0.1**
TPNV				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.2						
TPNV				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.8						
TPNV	**Topopah Spring**	**92.88**	**7**	*e*P	**P**	**21 16 51.1**	**-0.1**
	comp=Z,11nm,1.1s,mb5.2						
TPNV				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
WMOK	**Wichita Mounta**	**93.09**	**21**	P	**P**	**21 16 53.6**	**+1.4**
CMB	**Columbia Colle**	**93.75**	**4**	PFAKE		21 17 10.0	+15
CMB				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
TPH	**Tonopah**	**93.94**	**6**	PFAKE		21 17 10.0	+14
TPH				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
NVAR	**Mina Array Bea**	**94.23**	**5**	P	**P**	**21 16 55.8**	**-1.6**
	comp=Z,1.7nm,0.8s,mb4.5,baz=189,slow=5.0,SNR=4.9						
NVAR				LR	LR	21 49 27.5	
	comp=Z,3µm,21.8s,MS5.7,baz=230,slow=29						
LRAL	**Lakeview Retre**	**94.39**	**31**	PFAKE		21 17 10.0	+12
LRAL				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
HOPS	**Hopland**	**94.64**	**1**	PFAKE		21 17 10.0	+11
HOPS				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
MVU	**Marysvale**	**94.76**	**10**	PFAKE		21 17 10.0	+10
MVU				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
MSU	**Marysvale**	**94.77**	**10**	P	**P**	**21 16 59.1**	**-0.8**
SDCO	**Great Sand Dun**	**94.84**	**15**	PFAKE		21 17 10.0	+10
SDCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
OXF	**Oxford**	**95.11**	**29**	PFAKE		21 17 10.0	+8.5
OXF				LR	LR		
	comp=Z,578nm,21.0s,MS5.0						
BMN	**Battle Mountai**	**96.29**	**6**	PFAKE		21 17 20.0	+13
BMN				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
NHSC	**New Hope**	**96.59**	**36**	PFAKE		21 17 20.0	+12
NHSC				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
ELK	**Elko**	**96.73**	**7**	PFAKE		21 17 20.0	+11
ELK				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
ISCO	**Idaho Springs**	**96.84**	**15**	PFAKE		21 17 20.0	+11
ISCO				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
MYNC	**Murphy**	**97.15**	**33**	PFAKE		21 17 20.0	+9.2
MYNC				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
MOD	**Modoc**	**97.61**	**3**	PFAKE		21 17 20.0	+7.3
MOD				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
HWUT	**Hardware Ranch**	**97.90**	**10**	PFAKE		21 17 30.0	+16
HWUT				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
CCM	**Cathedral Cave**	**97.98**	**26**	PFAKE		21 17 30.0	+16
CCM				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
HUMO	**Hull Mountain**	**98.25**	**1**	PFAKE		21 17 30.0	+14
HUMO				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
AHID	**Auburn Hatcher**	**99.09**	**10**	PFAKE		21 17 30.0	+11
AHID				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
BW06	**Boulder Array**	**99.25**	**11**	PFAKE		21 17 30.0	+10
BW06				LR	LR		
	comp=Z,4µm,22.0s,MS5.8						
PDAR	**Pinedale Array**	**99.25**	**11**	LR	LR	21 53 49.1	
	comp=Z,2µm,19.4s,MS5.7,baz=207,slow=30						
HLID	**Hailey**	**99.59**	**8**	PFAKE		21 17 30.0	+8.4
HLID				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
COR	**Corvallis**	**100.22**	**1**	PFAKE		21 17 40.0	+16
COR				LR	LR		
	comp=Z,3µm,22.0s,MS5.7						
BMO	**Blue Mountains**	**100.69**	**6**	PFAKE		21 17 40.0	+13
BMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
LKWY	**Lake**	**100.94**	**11**	PFAKE		21 17 40.0	+12
LKWY				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
GUMO	**Guam**	**101.25**	**278**	PFAKE		21 17 40.0	+10
GUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
BBSR	**BB Station**	**101.81**	**49**	PFAKE		21 17 40.0	+8.1
BBSR				LR	LR		
	comp=Z,624nm,20.0s,MS5.1						
BOZ	**Bozeman (W)**	**101.89**	**9**	PFAKE		21 17 40.0	+8.0
BOZ				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
CBN	**Corbin**	**102.17**	**36**	PFAKE		21 17 50.0	+17
CBN				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
ACSO	**Alum Creek Sta**	**102.26**	**32**	PFAKE		21 17 50.0	+16
ACSO				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
MCWV	**Mont Chateau**	**102.69**	**34**	PFAKE		21 17 50.0	+14
MCWV				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
JFWS	**Jewell Farm**	**102.82**	**25**	PFAKE		21 17 50.0	+14
JFWS				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
MSO	**Missoula**	**102.87**	**8**	PFAKE		21 17 50.0	+14
MSO				LR	LR		
	comp=Z,3µm,22.0s,MS5.8						
OCWA	**Octopus Mounta**	**103.38**	**1**	PFAKE		21 17 50.0	+11
OCWA				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
LAO	**LASA Array**	**103.52**	**13**	PFAKE		21 17 50.0	+11
LAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
COCO	**West Island**	**103.66**	**222**	PFAKE		21 17 50.0	+10
COCO				LR	LR		
	comp=Z,325nm,20.0s,MS4.9						
AAM	**Ann Arbor**	**103.97**	**30**	PFAKE		21 17 50.0	+8.7
AAM				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
NEW	**Newport**	**104.10**	**5**	PFAKE		21 17 50.0	+8.3
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
ERPA	**Erie**	**104.89**	**33**	PFAKE		21 18 00.0	+15
ERPA				LR	LR		
	comp=Z,1µm,21.0s,MS5.3						
LSZ	**Lusaka**	**105.48**	**153**	PFAKE		21 22 10.0	
LSZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
DGMT	**Dagmar**	**105.53**	**14**	PFAKE		21 22 10.0	
DGMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BINY	**Binghamton**	**106.23**	**36**	PFAKE		21 22 10.0	
BINY				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						

EYMN	**Ely**	**107.29**	**23**	PFAKE		21 22 20.0	
EYMN				LR	LR		
	comp=Z,900nm,22.0s,MS5.3						
HRV	**Harvard--Oak R**	**108.00**	**39**	PFAKE		21 22 20.0	
HRV				LR	LR		
	comp=Z,2μm,22.0s,MS5.6						
NCB	**Newcomb**	**108.39**	**36**	PFAKE		21 22 20.0	
NCB				LR	LR		
	comp=Z,2μm,20.0s,MS5.6						
ULM	**Lac du Bonnet**	**108.60**	**19**	PFAKE		21 22 20.0	
ULM				LR	LR		
	comp=Z,3μm,20.0s,MS5.8						
WVL	**Waterville**	**110.47**	**39**	PFAKE		21 22 20.0	+7.8
WVL				LR	LR		
	comp=Z,9μm,21.0s,MS6.3						
EMMW	**East Machias**	**111.38**	**40**	PFAKE		21 22 20.0	+6.1
EMMW				LR	LR		
	comp=Z,4μm,20.0s,MS6.0						
DBIC	**Dimbokro**	**112.02**	**112**	PFAKE		21 22 30.0	+14
DBIC				LR	LR		
	comp=Z,674nm,22.0s,MS5.2						
PQI	**Presque Isle**	**112.87**	**39**	PFAKE		21 22 30.0	+13
PQI				LR	LR		
	comp=Z,18μm,21.0s,MS6.6						
SIT	**Sitka**	**113.02**	**354**	PFAKE		21 22 30.0	+13
SIT				LR	LR		
	comp=Z,4μm,21.0s,MS6.0						
DGAR	**Diego Garcia**	**115.19**	**199**	PFAKE		21 22 30.0	+7.9
DGAR				LR	LR		
	comp=Z,406nm,22.0s,MS5.0						
KDAK	**Kodiak Island**	**115.60**	**344**	PFAKE		21 22 30.0	+8.1
KDAK				LR	LR		
	comp=Z,1μm,20.0s,MS5.6						
DIV	**Divide**	**117.94**	**349**	PFAKE		21 22 40.0	+14
DIV				LR	LR		
	comp=Z,9μm,20.0s,MS6.4						
YKA	**Yellowknife Ar**	**118.43**	**5**	PKP	PKPdf	21 22 26.8	-0.5
	comp=Z,0.1nm,0.3s,baz=153,slow=1.4,SNR=2.8						
FIB	**Fire Island**	**118.51**	**346**	PFAKE		21 22 40.0	+13
FIB				LR	LR		
	comp=Z,2μm,21.0s,MS5.8						
SMY	**Shemya**	**119.41**	**322**	PFAKE		21 22 40.0	+11
SMY				LR	LR		
	comp=Z,6μm,22.0s,MS6.2						
SCHQ	**Schefferville**	**120.20**	**35**	PFAKE		21 22 40.0	+9.2
SCHQ				LR	LR		
	comp=Z,4μm,21.0s,MS6.0						
MBAR	**Mbarara**	**120.21**	**152**	PFAKE		21 22 40.0	+8.2
MBAR				LR	LR		
	comp=Z,225nm,20.0s,MS4.8						
MCK	**McKinley**	**120.83**	**348**	PFAKE		21 22 40.0	+8.1
MCK				LR	LR		
	comp=Z,1μm,22.0s,MS5.5						
KMBO	**Kilima Mbogo**	**121.23**	**159**	PFAKE		21 22 40.0	+6.1
KMBO				LR	LR		
	comp=Z,1μm,20.0s,MS5.5						
ILAR	**Eielson Array**	**121.61**	**349**	PKP	PKPdf	21 22 31.4	-2.0
	comp=Z,1.0nm,0.7s,baz=181,slow=2.0,SNR=8.7						
COLA	**College**	**121.82**	**349**	PFAKE		21 22 40.0	+6.2
COLA				LR	LR		
	comp=Z,3μm,19.0s,MS5.9						
MAJO	**Matsushiro**	**123.00**	**288**	PFAKE		21 22 50.0	+13
MAJO				LR	LR		
	comp=Z,2μm,21.0s,MS5.6						
QIZ	**Qiongzhong**	**125.08**	**251**	PKP	PKPdf	21 22 35.6	-5.6
QIZ				PP	PP	21 24 30.6	-0.7
QIZ				LR	LR		
	comp=N,478nm,20.0s						
QIZ				LR	LR		
	comp=Z,948nm,24.9s,MS5.4						
QIZ	**Qiongzhong**	**125.08**	**251**	PFAKE		21 22 50.0	+8.8
QIZ				LR	LR		
	comp=Z,472nm,22.0s,MS5.1						
PET	**Petropavlovsk**	**125.43**	**314**	PFAKE		21 22 50.0	+9.1
PET				LR	LR		
	comp=Z,3μm,20.0s,MS5.9						
PALK	**Pallekele**	**127.34**	**213**	PFAKE		21 23 00.0	+14
PALK				LR	LR		
	comp=Z,328nm,21.0s,MS5.0						
INCN	**Inchon**	**129.99**	**280**	PFAKE		21 23 00.0	+10
INCN				LR	LR		
	comp=Z,935nm,21.0s,MS5.5						
CM31	**Chiang Mai Arr**	**130.15**	**239**	PFAKE		21 23 00.0	+9.1
CM31				LR	LR		
	comp=Z,814nm,19.0s,MS5.4						
CMAR	**Chiang Mai Arr**	**130.15**	**239**	PKP	PKPdf	21 22 49.3	-1.6
	comp=Z,0.9nm,0.9s,baz=225,slow=1.9,SNR=7.0						
NJ2	**Nanjing**	**130.37**	**269**	*e*PKP	PKPdf	21 22 44.9	-6.1
NJ2				XPKP		21 22 58.3	
NJ2				PP	PP		
	comp=Z,520nm,5.3s						
NJ2				LR	LR		
	comp=N,6μm,32.6s,MS6.2						
NJ2				LR	LR		
	comp=E,6μm,31.9s,MS6.2						
NJ2				LR	LR		
	comp=Z,5μm,26.0s						
GYA	**Guiyang**	**132.81**	**253**	PKP	PKPdf	21 22 57.5	+1.7
GYA				PKS	PKS	21 26 32.4	+4.6
GYA				PP	PP		
	comp=Z,180nm,9.8s						
GYA				LR	LR		
	comp=N,1μm,24.6s,MS5.5						
GYA				LR	LR		
	comp=E,720nm,24.3s,MS5.5						
GYA				LR	LR		
	comp=Z,900nm,24.0s,MS5.4						
MA2	**Magadan**	**133.14**	**316**	PFAKE		21 23 10.0	+15
MA2				LR	LR		
	comp=Z,2μm,21.0s,MS5.8						
MDJ	**Mudanjiang**	**133.33**	**289**	PKP	PKPdf	21 22 56.9	+0.7
MDJ				PP	PP	21 25 22.0	-2.4
MDJ				PKS	PKS	21 26 32.4	+4.1
MDJ				SKS	SKS	21 30 00.3	-6.3
MDJ				SS	SS	21 43 10.0	+3.9
MDJ				PP	PP		
	comp=Z,504nm,5.8s						
MDJ				LR	LR		
	comp=N,941nm,48.0s,MS5.2						
MDJ				LR	LR		
	comp=E,773nm,48.0s,MS5.2						
MDJ				LR	LR		
	comp=Z,629nm,37.3s						
MDJ	**Mudanjiang**	**133.33**	**289**	PFAKE		21 23 10.0	+14
MDJ				LR	LR		
	comp=Z,925nm,21.0s,MS5.5						
BILL	**Bilibino**	**133.64**	**331**	PFAKE		21 23 10.0	+14
BILL				LR	LR		
	comp=Z,2μm,22.0s,MS5.8						
KMI	**Kunming**	**133.81**	**248**	*e*PKP	PKPdf	21 22 56.4	-1.1
KMI				PP	PP	21 25 30.9	+2.6
KMI				SKKS		21 32 19.3	
KMI				SS	SS	21 43 13.0	+0.7
KMI				PP	PP		
	comp=Z,183nm,9.6s						
KMI				LR	LR		
	comp=N,478nm,22.7s,MS5.3						
KMI				LR	LR		
	comp=E,438nm,25.9s,MS5.3						
KMI				LR	LR		
	comp=Z,669nm,23.6s,MS5.3						
KMI	**Kunming**	**133.81**	**248**	*e*PKP	PKPdf	21 22 56.4	-1.1
KMI				PP	PP	21 25 30.9	+2.6
KMI				SKKS		21 32 19.2	
KMI				SS	SS	21 43 13.0	+0.7
KMI				LR	LR		
	comp=Z,670nm,23.6s,MS5.3						
ENH	**Enshi**	**134.25**	**259**	PKPdf	PKPdf	21 22 56.4	-1.9
CN2	**Changchun**	**135.01**	**285**	PKP	PKPdf	21 22 54.5	-4.9
CN2				PP	PP	21 25 34.8	-0.4
CN2				*e*SS	SS	21 43 25.0	-1.2
CN2				PP	PP		
	comp=Z,400nm,7.0s						
CN2				LR	LR		
	comp=N,800nm,20.0s,MS5.6						
CN2				LR	LR		
	comp=E,700nm,20.0s,MS5.6						
CN2				LR	LR		
	comp=Z,1μm,22.0s,MS5.5						
BJT	**Baijiatuau**	**137.60**	**274**	PFAKE		21 23 10.0	+5.8
BJT				LR	LR		
	comp=Z,939nm,21.0s,MS5.5						
CD2	**Chengdu**	**137.88**	**254**	*e*PKP	PKPdf	21 23 05.1	+0.1
CD2				PP	PP	21 25 58.4	+4.8
CD2				PKS	PKS	21 26 34.0	-2.9
CD2				PPP	PPP	21 28 59.5	+4.9
CD2				SKKS		21 32 46.1	
CD2				SS	SS	21 44 08.0	+7.2
CD2				PP	PP		
	comp=Z,390nm,7.2s						
CD2				LR	LR		
	comp=E,760nm,21.0s						
CD2				LR	LR		
	comp=Z,930nm,27.6s						
ESDC	**Sonseca Array**	**138.51**	**88**	PKP	PKPdf	21 23 06.5	+0.6
	comp=Z,1.6nm,0.8s,baz=56,slow=0.4,SNR=6.1						
ESLA	**Sonseca Array**	**138.51**	**88**	PFAKE		21 23 20.0	+14
ESLA				LR	LR		
	comp=Z,5μm,21.0s,MS6.2						
HHC	**Hu-ho-hao-te**	**140.75**	**272**	*e*PKP	PKPdf	21 23 13.8	+4.0
HHC				SKS	SKS	21 30 17.3	-1.8
HHC				PP	PP		
	comp=Z,214nm,7.8s						
HHC				LR	LR		
	comp=N,1μm,34.5s						
HHC				LR	LR		
	comp=E,794nm,26.2s						
HHC				LR	LR		
	comp=Z,2μm,39.2s,MS5.5						
HIA	**Hailar**	**141.50**	**288**	PFAKE		21 23 20.0	+9.2
HIA				LR	LR		
	comp=Z,1μm,20.0s,MS5.6						
LZH	**Lanzhou**	**141.73**	**260**	PKP	PKPdf	21 23 20.8	+9.2
LZH				pPKP		21 23 31.9	
LZH				sPKP		21 23 36.9	
LZH				PP	PP	21 26 26.0	+9.4
LZH				SS	SS	21 44 52.2	+6.4
LZH				LR	LR		
	comp=Z,2μm,21.0s,MS5.8						
LSA	**Lhasa**	**143.41**	**239**	PKIKP	PKPdf	21 23 13.6	-1.1
LSA				MLR	MLR		
	comp=Z,640nm,21.0s,MS5.4						
PKI	**Pulchoki**	**144.22**	**230**	*e*P	PKPbc	21 23 09.7	-2.9
GUN	**Gumba**	**144.32**	**231**	*e*P	PKPbc	21 23 09.5	-3.3
DMN	**Daman**	**144.39**	**230**	*e*P	PKPbc	21 23 09.7	-3.3
	comp=Z,224nm,1.2s						
KKN	**Kakani**	**144.47**	**230**	*e*P	PKPbc	21 23 09.2	-4.0
	comp=Z,290nm,1.4s						
LFF	**La Frestale**	**144.59**	**85**	*e*PKP1	PKPbc	21 23 15.3	+2.3
MFF	**Saint Martin d**	**145.10**	**82**	*e*PKP1	PKPbc	21 23 16.9	+2.5
RJF	**Les Rejaudoux**	**145.24**	**85**	*e*PKP1	PKPbc	21 23 17.4	+2.6
RJF				*e*R			
	comp=Z,1μm,22.0s						
CAF	**Calviac**	**145.32**	**86**	*e*PKP1	PKPbc	21 23 16.3	+1.3
	comp=Z,101nm,1.5s						
LASF	**Ste Croix**	**145.80**	**88**	*e*PKP1	PKPbc	21 23 19.5	+3.3
	comp=Z,97nm,1.4s						
TCF	**Toulx Ste Croi**	**146.22**	**84**	*e*PKP1	PKPbc	21 23 18.8	+1.6
LDF	**La Druitiere**	**146.25**	**79**	*e*PKP1	PKPbc	21 23 18.6	+1.5
BGF	**Bois d'Agland**	**146.74**	**84**	*e*PKP1	PKPbc	21 23 22.2	+3.9
	comp=Z,62nm,1.1s						
VIVF	**Saint-Julien-l**	**146.74**	**88**	*e*PKP1	PKPbc	21 23 22.5	+4.1
	comp=Z,74nm,1.6s						
AFFS	**'Afif**	**146.75**	**160**	P	PKPbc	21 23 25.2	+6.2
LMR	**La Mourre**	**146.82**	**92**	*e*PKP1	PKPbc	21 23 22.7	+4.1
	comp=Z,76nm,1.3s						
FRF	**La Foret Royal**	**147.04**	**91**	*e*PKP1	PKPdf	21 23 23.2	+2.7
	comp=Z,64nm,1.3s						
SMF	**Signal de Mont**	**147.34**	**85**	*e*PKP1	PKPdf	21 23 22.0	+1.1
	comp=Z,74nm,1.3s						
SSF	**Saint Saulge**	**147.40**	**84**	*e*PKP1	PKPdf	21 23 23.3	+2.3
	comp=Z,65nm,1.6s						
ORIF	**Oris-en-Rattie**	**147.46**	**89**	*e*PKP1	PKPdf	21 23 24.6	+3.5
	comp=Z,46nm,1.3s						
ORIF				*e*R			
	comp=Z,766nm,22.0s						
ULN	**Ulaanbaatar**	**147.64**	**278**	*e*PKP2	PKPab	21 23 20.3	-5.1
ULN				MLR	MLR		
	comp=Z,1μm,21.0s,MS5.6						
SBF	**Sospel**	**147.67**	**92**	*e*PKP1	PKPdf	21 23 25.0	+3.5
	comp=Z,60nm,1.1s						
PGF	**Pioggiola**	**147.71**	**95**	*e*PKP1	PKPdf	21 23 25.3	+3.7
	comp=Z,70nm,1.2s						
MBDF	**Montbardon**	**147.84**	**90**	*e*PKP1	PKPdf	21 23 24.4	+2.6
	comp=Z,62nm,1.4s						
EKA	**Eskdalemuir Ar**	**147.98**	**66**	PKP	PKPdf	21 23 21.1	-0.5
	comp=Z,12nm,0.9s,baz=248,slow=2.6,SNR=6.3						
EKA				PKPbc	PKPdf	21 23 24.7	+3.1
	comp=Z,7.2nm,0.7s,baz=252,slow=2.7,SNR=13						
BNI	**Bardonecchia**	**147.99**	**89**	*e*PKP2	PKPab	21 23 23.3	-3.5
SONM	**Songino Array**	**147.99**	**277**	PKPbc	PKPdf	21 23 22.4	+0.6
	comp=Z,3.3nm,0.8s,baz=139,slow=2.3,SNR=11						
DBAS	**Duba**	**148.10**	**147**	P	PKPdf	21 23 23.7	+0.9
LPG	**La Plagne**	**148.30**	**89**	*e*PKP1	PKPdf	21 23 25.8	+3.3
	comp=Z,51nm,1.1s						
LPL	**La Plagne**	**148.30**	**89**	*e*PKP1	PKPdf	21 23 25.5	+3.0
	comp=Z,53nm,1.2s						
NDI	**New Delhi**	**148.45**	**219**	*e*P	PKPdf	21 23 29.5	+6.2
CABF	**La Chapelle**	**148.58**	**86**	*e*PKP1	PKPdf	21 23 26.3	+3.4
	comp=Z,64nm,1.4s						
ARSS	**Ar Rass**	**148.70**	**159**	P	PKPdf	21 23 27.6	+3.9
AYUS	**'Aynunah**	**148.79**	**145**	P	PKPdf	21 23 28.8	+5.0
BDAS	**Al Bad'**	**148.96**	**144**	P	PKPdf	21 23 27.7	+3.6
MEZF	**Maizieres J'vi**	**149.07**	**83**	*e*PKP1	PKPdf	21 23 26.6	+3.0
TBKS	**Tabuk**	**149.23**	**147**	P	PKPdf	21 23 26.8	+2.3
BAIF	**Baives**	**149.43**	**79**	*e*PKP1	PKPdf	21 23 27.4	+3.3
	comp=Z,64nm,1.5s						
HAU	**Haudompre**	**149.52**	**84**	*e*PKP1	PKPdf	21 23 27.7	+3.3
	comp=Z,17nm,1.0s						
HAU				*e*R			
	comp=Z,765nm,19.5s						
DDI	**Dehra Dun**	**149.63**	**222**	*e*	PKPdf	21 23 25.9	+0.8
JMQS	**Jabal Moqyreh**	**149.63**	**145**	P	PKPdf	21 23 30.7	+5.6
JMOS	**Jabal al Moall**	**149.64**	**144**	P	PKPdf	21 23 33.4	+8.3
TIP	**Timpagrande**	**149.66**	**107**	*e*PKPbc	PKPdf	21 23 27.7	+2.8
HINF	**Hinteralfeld**	**149.70**	**85**	*e*PKP1	PKPdf	21 23 29.9	+5.3
	comp=Z,11nm,0.9s						
GIVF	**Givet**	**149.79**	**80**	*e*PKP1	PKPdf	21 23 26.5	+1.8
HILS	**Ha'il**	**149.84**	**156**	P	PKPdf	21 23 30.6	+5.1
EIL	**Elat**	**150.05**	**143**	PKPbc	PKPdf	21 23 30.1	+4.4
CDF	**Champ du Feu**	**150.26**	**84**	*e*PKP1	PKPdf	21 23 30.6	+5.1
BFO	**Black Forest**	**150.81**	**85**	*e*PKP	PKPdf	21 23 32.9	+6.6
DAVOX	**Davos**	**150.81**	**89**	PKPbc	PKPdf	21 23 29.6	+3.2
	comp=Z,8.4nm,0.8s,baz=208,slow=4.5,SNR=7.9						
ZAK	**Zakamensk**	**151.07**	**279**	*e*PKIKP	PKPdf	21 23 23.7	-2.9
ZAK				*e*		21 23 38.2	
DAVA	**Damuels**	**151.10**	**88**	⇑*i*P	PKPdf	21 23 33.0	+6.2
SQTA	**Sankt Quirin**	**151.81**	**89**	⇑*i*P	PKPdf	21 23 32.5	+4.7
MOTA	**Moosalm**	**151.82**	**89**	⇓*i*P	PKPdf	21 23 31.7	+3.8
WTTA	**Wattenberg**	**152.07**	**90**	⇓*i*P	PKPdf	21 23 33.5	+5.3
WATA	**Walderalm**	**152.08**	**90**	⇑*i*P	PKPdf	21 23 36.2	+8.0
FUR	**Furstenfeldbru**	**152.37**	**88**	*e*PKP	PKPdf	21 23 36.9	+8.3
GRA1	**Grafenberg Arr**	**153.15**	**85**	*e*PKP	PKPdf	21 23 39.2	+10
GRA1				LR	LR		
	comp=Z,1μm,19.8s,MS5.7						
GRF	**Grafenberg Arr**	**153.15**	**85**	*e*PKP	PKPdf	21 23 39.2	+10
GRF				LR	LR		
	comp=Z,1μm,19.8s,MS5.7						
MOX	**Moxa**	**153.84**	**83**	P	PKPdf	21 23 38.0	+7.4
MOA	**Molln**	**153.88**	**91**	⇑*i*P	PKPdf	21 23 37.4	+6.7
GERES	**GERESS Array B**	**154.10**	**88**	PKPbc	PKPdf	21 23 37.8	+6.8
	comp=Z,3.0nm,0.9s,baz=207,slow=3.0,SNR=6.9						
SKO	**Skopje**	**154.15**	**109**	*e*PKP	PKPdf	21 23 53.8	+23
KHC	**Kasperske Hory**	**154.18**	**88**	*e*P	PKPdf	21 23 39.5	+8.4
KHC				*e*		21 23 52.5	
KHC	**Kasperske Hory**	**154.18**	**88**	*e*PKPbc	PKPdf	21 23 39.5	+8.4
KHC				pPKP		21 23 52.5	
CLL	**Collm**	**154.92**	**83**	*e*PKP1	PKPdf	21 23 40.0	+8.0
WMQ	**Urumqi**	**155.97**	**253**	PKP	PKPdf	21 23 34.0	+0.4
WMQ				APKP		21 23 38.5	
WMQ				XPKP		21 23 41.6	
WMQ				PKP2	PKPab	21 24 03.8	+3.5
WMQ				SKKS		21 34 25.5	
WMQ				PP	PP		
	comp=Z,135nm,10.5s						
WMQ				LR	LR		
	comp=N,2μm,35.5s,MS5.7						
WMQ				LR	LR		
	comp=E,1μm,37.5s,MS5.7						
WMQ				LR	LR		
	comp=Z,617nm,34.5s,MS5.2						
BR131	**Keskin Array S**	**158.42**	**130**	PFAKE		21 23 50.0	+13
BR131				LR	LR		
	comp=Z,682nm,21.0s,MS5.5						
BRTR	**Keskin Array B**	**158.42**	**130**	PKP	PKPdf	21 23 37.8	+0.8
	comp=Z,2.1nm,1.1s,slow=3.7,SNR=4.3						
BRTR				PKPab	PKPab	21 24 09.6	-1.4
	comp=Z,1.1nm,0.6s,baz=191,slow=4.6,SNR=3.9						
AAK	**Ala-Archa**	**161.67**	**231**	PFAKE		21 23 50.0	+10
AAK				LR	LR		
	comp=Z,390nm,21.0s						
GNI	**Garni**	**162.73**	**152**	PFAKE		21 23 50.0	+8.5
GNI				LR	LR		
	comp=Z,1μm,20.0s						
ZAL	**Zalesovo**	**162.88**	**275**	PKPab	PKPab	21 24 28.1	-1.6
	comp=Z,1.6nm,0.8s,baz=14,slow=5.3,SNR=7.6						
AKASG	**Malin Array Be**	**163.73**	**98**	PKP	PKPdf	21 23 41.7	-0.4
	comp=Z,0.2nm,0.3s,baz=277,slow=1.7,SNR=5.7						
AKASG				PKPab	PKPab	21 24 33.6	0.0
	comp=Z,1.1nm,0.7s,baz=249,slow=4.4,SNR=4.7						
KIV	**Kislovodsk**	**165.57**	**142**	PFAKE		21 23 50.0	+5.9
KIV				LR	LR		
	comp=Z,311nm,20.0s						
OBN	**Obninsk**	**169.48**	**87**	*e*PKIKP	PKPdf	21 23 41.8	-4.5
OBN				*e*SS	SS	21 49 51.3	+8.1
OBN				pmax	pmax		
	comp=Z,10.0nm,1.0s						
OBN	**Obninsk**	**169.48**	**87**	PFAKE		21 24 00.0	+14
OBN				LR	LR		
	comp=Z,1μm,21.0s						
BVAR	**Borovoye Array**	**170.61**	**258**	PKPab	PKPab	21 25 01.5	-2.1
	comp=Z,3.0nm,0.9s,baz=117,slow=9.9,SNR=10						
BRVK	**Borovoye**	**170.68**	**258**	PFAKE		21 24 00.0	+13
BRVK				LR	LR		
	comp=Z,535nm,21.0s						
ARU	**Arti**	**178.01**	**284**	PFAKE		21 24 00.0	+10
ARU				LR	LR		
	comp=Z,612nm,20.0s						

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*NNC **22** 21:19:50.0±1.1, 41.76N×81.06E, mpv3.1, Error ellipse: s-maj=241.7km s-min=8.8km az=99.0*

BJI 22 21:19:55.3, 41.68N×81.62E, h25^{km}, ML3.5, 1C-1D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	**Kashi**	**4.81**	**245**	*e*PG	Pn	21 21 25.0	+17
KSH				SG	Sn	21 22 23.4	+20
KSH				Smax			
	comp=N,30nm,1.0s						
KSH				Smax			
	comp=E,40nm,0.8s						
MK31	**Makanchi Array**	**5.13**	**5**	⇑Pn	Pn	21 21 10.5	-2.2
	comp=E,1.5nm,0.5s,baz=192,slow=13,SNR=96						
MK31				⇓Lg		21 22 30.2	
	comp=E,24nm,0.8s,baz=189,slow=31,SNR=5.3						
GKN	**Gorkha**	**13.87**	**169**	*e*P	P	21 23 10.2	-2.4
	comp=E,160nm,1.2s						
KOLN	**Koldanda**	**13.97**	**173**	*e*P	P	21 23 08.7	-5.3
	comp=E,245nm,1.3s						
GTA	**Gaotai**	**14.02**	**93**	*e*PKP	P	21 23 19.0	+4.4
GTA				LR	LR		
	comp=N,566nm,17.5s						
GTA				LR	LR		
	comp=E,471nm,16.7s						
GTA				LR	LR		
	comp=Z,624nm,22.8s						

DJA 22 21:52:50.0±1.0**, 9.26S×116.65E, h140^{km}±11^{km}, MD4.4**/2**, ML4.8**/3**, 2C-4D, Error ellipse: s-maj=66.8km s-min=20.5km az=178.0, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	**0.93**	**325**	⇑*e*Pn	P	21 53 13.6	+0.2
	968nm,0.2s						
KEDI				⇓*e*Sn	S	21 53 29.9	-1.5
RATI	**Rata**	**1.23**	**296**	⇑*e*Pn	P	21 53 16.0	-0.2
	3μm,0.2s						
RATI				⇓*e*Sn	S	21 53 34.8	-1.6
KELI	**Kelakatan**	**2.37**	**296**	⇓*e*Pn	P	21 53 29.3	-0.3
SRDI	**Scrawed**	**2.59**	**287**	*e*Pn	P	21 53 31.8	-0.7
	216nm,0.2s						
SRDI				⇓*e*Sn	S	21 54 03.5	-1.4

CASC 22 22:08:30.4±2.4**, 13.98N×91.64W, h17^{km}±14^{km}, MD3.8, 5C-1D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	**Jato**	**0.33**	**1**	⇓*e*P	Pb	22 08 39.4	+1.9
FUG	**Fuego 3**	**0.90**	**59**	⇑*e*P	Pb	22 08 46.8	-0.4
FUG				*e*S	Sb	22 08 59.1	+0.3
PCG	**Pacaya**	**1.08**	**68**	*e*P	Pb	22 08 49.9	-0.4
PCG				*e*S	Sb	22 09 05.1	+1.1
IXG	**Ixpaco**	**1.17**	**80**	*e*P	Pb	22 08 51.0	-0.8
IXG				*e*S	Sb	22 09 08.3	+1.8
NBG	**Las Nubes**	**1.39**	**64**	⇑*e*P	Pn	22 08 55.0	-0.2
NBG				*e*S	Sb	22 09 16.1	+3.2
RBDL	**Robledal**	**1.90**	**86**	⇑*e*P	Pn	22 09 02.2	-0.3
RBDL				*e*S	Sn	22 09 27.7	+1.5
RTR	**El Retiro**	**1.94**	**92**	*e*P	Pn	22 09 03.0	0.0
RTR				*e*S	Sn	22 09 28.9	+1.7
SBLS	**San Blas**	**1.97**	**94**	⇑*e*P	Pn	22 09 03.0	-0.4
SBLS				*e*S	Sn	22 09 28.0	+0.2
SNJE	**San Jose**	**1.98**	**93**	⇑*e*P	Pn	22 09 03.1	-0.6
SNJE				*e*S	Sn	22 09 30.9	+2.7
BOQS	**Boqueron**	**2.31**	**96**	*e*P	Pn	22 09 07.7	-0.6
BOQS				*e*S	Sn	22 09 35.4	-1.1
LFU	**La Fuente**	**2.47**	**95**	*e*P	Pn	22 09 10.1	-0.5
LFRS	**El Faro**	**2.53**	**98**	*e*P	Pn	22 09 11.2	-0.4
LFRS				*e*S	Sn	22 09 40.4	-1.8
LCBS	**La Ceiba**	**2.61**	**97**	*e*P	Pn	22 09 12.5	-0.1
LCBS				*e*S	Sn	22 09 43.8	-0.3
SNVI	**San Vicente**	**2.75**	**97**	*e*S	Sn	22 09 48.2	+0.6
CNCH	**Conchagua**	**3.77**	**100**	*e*P	Pn	22 09 28.4	-0.7
CNCH				*e*S	Sn	22 10 13.0	-0.5

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*JMA **22** 22:13:42.6±0.1, 25.53N×126.31E, h22^{km}, M3.4*

*IDC **22** 22:13:52.7±3.0, 26.43N×126.69E, h88^{km}±30^{km}, mb3.3/7, mb1 3.5/7, mb1mx3.4/21, Error ellipse: s-maj=43.2km s-min=16.8km az=70.0*

*NEIC **22** 22:13:52.7±2.8, 26.42N×126.72E, h89^{km}±29^{km}, mb4.3/1, Error ellipse: s-maj=45.5km s-min=15.0km az=70.0*

ISC 22 22:13:43.2±0.5**, 25.52N**±0.09×**126.32E**±0.09**, h57^{km}±7^{km}, n27, σ0^{s}89**/35**, mb3.8**/9**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JKE	**Kume jima 2**	**0.90**	**27**	P	**P**	**22 13 59.3**	**-0.7**
JKE				*e*S	**S**	**22 14 12.5**	**0.0**
JOGS	**Gusukube**	**1.13**	**228**	P	**P**	**22 14 02.7**	**-0.4**
JOGS				*e*S	**S**	**22 14 18.3**	**+0.5**
JMJ	**Miyako jima 2**	**1.17**	**233**	P	**P**	**22 14 03.6**	**0.0**
JMJ				*e*S	**S**	**22 14 19.2**	**+0.3**
JAGN	**Aguni-jima**	**1.34**	**38**	P	**P**	**22 14 05.7**	**-0.6**
JAGN				*e*S	**S**	**22 14 24.6**	**+1.3**
NAH1	**Naha**	**1.41**	**61**	P	**P**	**22 14 07.7**	**+0.6**
NAH1				*e*S	**S**	**22 14 25.8**	**+1.1**
JJT2	**Tamagusuku 2**	**1.42**	**64**	P	**P**	**22 14 08.2**	**+0.9**
JTJ	**Tarama**	**1.71**	**240**	P	**P**	**22 14 10.3**	**-1.0**
JTJ				*e*S	**S**	**22 14 34.2**	**+2.1**
JIH	**Iheya**	**2.11**	**44**	P	**P**	**22 14 17.3**	**+0.5**
JOW	**Kunigami**	**2.18**	**53**	P	**P**	**22 14 17.6**	**-0.3**
JIJ	**Ishigaki jima**	**2.29**	**240**	P	**P**	**22 14 18.9**	**-0.5**
JKRS	**Kuro-shima**	**2.46**	**239**	P	**P**	**22 14 21.2**	**-0.7**
IRIF	**Iriomote-Funau**	**2.64**	**244**	P	**P**	**22 14 23.9**	**-0.4**
IRIF				*e*S	**S**	**22 14 55.4**	**+0.2**
YOJ	**Yonaguni jima**	**3.19**	**251**	P	**P**	**22 14 31.5**	**-0.6**
JTK	**Tokunoshima**	**3.26**	**46**	P	**P**	**22 14 31.2**	**-1.9**
JAM	**Amami Oshima**	**4.11**	**45**	P	**P**	**22 14 42.2**	**-2.8**
JMZ	**Minamidaito 2**	**4.43**	**85**	P	**P**	**22 14 42.0**	**-7.6**
JMZ				*e*S	**S**	**22 15 27.3**	**-13**
SONM	**Songino Array**	**27.26**	**330**	P	**P**	**22 19 24.6**	**+0.6**
	0.6nm,0.4s,mb3.5,baz=149,slow=11,SNR=9.6						
ZAL	**Zalesovo**	**41.80**	**324**	P	**P**	**22 21 30.0**	**+1.5**
	0.4nm,0.3s,mb3.5,baz=26,slow=5.7,SNR=3.6						
ZAL	**Zalesovo**	**41.80**	**324**	P	**P**	**22 21 30.0**	**+1.5**
WRAB	**Tennant Creek**	**45.85**	**169**	P	**P**	**22 22 12.5**	**+11**
	5.3nm,1.2s,mb4.3						
WRA	**Warramunga Arr**	**45.86**	**169**	P	**P**	**22 22 11.6**	**+10**
	1.0nm,1.0s,mb3.7,baz=350,slow=9.0,SNR=4.2						
ASAR	**Alice Springs**	**49.45**	**171**	P	**P**	**22 22 41.6**	**+12**
	0.2nm,0.5s,mb3.4,slow=7.2,SNR=3.6						
BVAR	**Borovoye Array**	**49.67**	**319**	P	**P**	**22 22 30.5**	**-0.5**
	0.3nm,0.3s,mb3.8,baz=108,slow=4.6,SNR=3.6						
FINES	**FINESS Array B**	**72.63**	**330**	P	**P**	**22 25 06.0**	**0.0**
	12nm,1.1s,mb4.7,baz=72,slow=4.4,SNR=6.8						
NOA	**NORSAR Array B**	**79.18**	**333**	P	**P**	**22 25 43.1**	**-0.1**
	0.9nm,0.8s,mb3.7,baz=71,slow=7.0,SNR=2.7						

YKA	Yellowknife Ar	79.88	24	P	P	22 25 46.8	-0.2
	0.5nm,0.9s,mb3.4,baz=304,slow=5.1,SNR=6.3						
YKA	Yellowknife Ar	79.88	24	P	P	22 25 46.8	-0.2

ISC 22 22:15:19.1±2.7, 23.3N±0.2×94.2E±0.2, h33^{km}, n8, $\sigma 0\overset{s}{.}76$/9, 2C, Myanmar-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IMP	Imphal	1.51	352	⇑eP	P	22 15 43.6	-0.5
SHL	Shillong	3.08	318	⇑ePN	Pn	22 16 09.0	+2.4
SHL				eSN	Sn	22 16 42.5	-0.2
GUN	Gumba	8.78	303	eP	P	22 17 26.1	-0.5
	5.2nm,0.2s						
PKI	Pulchoki	8.98	300	eP	P	22 17 29.5	+0.1
	5.5nm,0.3s						
KKN	Kakani	9.19	301	eP	P	22 17 32.3	+0.1
	8.4nm,0.2s						
DMN	Daman	9.24	300	eP	P	22 17 33.0	0.0
	3.1nm,0.2s						
GKN	Gorkha	9.79	301	eP	P	22 17 40.1	-0.5
	7.2nm,0.3s						
KOLN	Koldanda	10.53	297	eP	P	22 17 50.6	-0.2
	3.0nm,0.2s						

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*ATH **22** 22:33:04.7, 40.22N×25.16E, h10^{km}, MD3.0/3*
*THE **22** 22:33:04.8, 40.24N×25.12E, h1^{km}, ML3.0*
*CSEM **22** 22:33:05.3±0.1, 40.23N×25.13E, h10^{km}, ML3.0, Error ellipse: s-maj=2.8km s-min=2.3km az=152.0*

ISC 22 22:33:03.9±0.6, 40.26N±0.04×25.13E±0.04, h3^{km}±7^{km}, n19, $\sigma 0\overset{s}{.}74$/27, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LOS	Limnos	0.33	187	ePg	Pg	22 33 11.2	+0.6
LOS				eSg	Sg	22 33 15.1	+0.2
LOS	Limnos	0.33	187	ePg	Pg	22 33 11.1	+0.6
LOS				eSg	Sg	22 33 15.1	+0.2
OUR	Ouranopolis	0.88	275	ePg	Pg	22 33 21.7	+0.2
OUR				eSg	Sg	22 33 34.2	+0.8
RDO	Rodhopi	0.94	19	ePB	Pb	22 33 23.0	+0.5
ALN	Alexandroupoli	0.94	47	ePg	Pg	22 33 22.8	0.0
ALN				eSg	Sg	22 33 36.3	+0.9
ALN	Alexandroupoli	0.94	47	eSg	Sg	22 33 36.3	+1.0
PAIG	Paliouri	1.16	254	ePg	Pg	22 33 26.5	-0.6
PAIG				eSg	Sg	22 33 42.3	-0.3
PLG	Polygyros	1.29	276	ePB	Pb	22 33 29.0	+0.4
PRK	Paraskevi	1.34	139	ePB	Pb	22 33 29.1	-0.3
KDZ	Kurdzhali	1.41	9	P	Pb	22 33 30.0	-0.5
KDZ	Kurdzhali	1.41	9	Pg	Pg	22 33 31.2	-0.8
SRS	Serrai	1.45	307	ePb	Pb	22 33 30.7	-0.5
SRS				eSb	Sb	22 33 52.0	+2.0
RZN	Rozhen	1.46	348	P	Pn	22 33 31.2	-0.1
SOH	Sokhos	1.47	293	ePb	Pb	22 33 30.8	-0.7
MMB	Musomiste	1.70	322	P	Pn	22 33 34.0	-0.7
KNT	Kendrikon	1.92	299	ePb	Pb	22 33 38.1	-1.3
KNT				eSb	Sb	22 34 03.2	-0.6
LIT	Litokhoron	2.03	266	ePn	Pn	22 33 39.4	-0.1
LIT				eSn	Sn	22 34 06.2	+0.6
PGB	Panagyurishte	2.40	343	eP	Pn	22 33 44.0	-0.8
VTS	Vitosha	2.74	329	eP	Pn	22 33 51.0	+1.4

IDC 22 22:52:09.4±1.7, 1.42N×126.80E, mb3.5/3, mb1 3.7/3, mb1mx3.6/15, Error ellipse: s-maj=163.0km s-min=26.6km az=72.0, Northern Molucca Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	22.48	161	P	P	22 57 09.1	-2.8
	0.8nm,0.6s,baz=340,slow=11,SNR=14						
ASAR	Alice Springs	25.87	165	P	P	22 57 44.4	-0.3
	0.5nm,0.5s,baz=351,slow=15,SNR=4.7						
SONM	Songino Array	49.50	342	P	P	23 01 01.7	-1.9
	0.7nm,0.9s,baz=157,slow=9.4,SNR=4.3						

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*IDC **22** 23:00:29.6±1.9, 3.13S×129.77E, mb3.9/3, mb1 4.2/4, mb1mx4.0/15, ML4.1/1, Error ellipse: s-maj=83.8km s-min=24.6km az=67.0*
*NEIC **22** 23:00:34.9±1.5, 3.10S×130.20E, h50^{km}, mb3.9/1, Error ellipse: s-maj=86.4km s-min=12.6km az=68.0*

ISC 22 23:00:30.9±1.5, 3.0S±0.2×130.3E±0.5, h33^{km}, n8, $\sigma 1\overset{s}{.}03$/13, mb3.7/2, Seram

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	9.89	168	eP	P	23 02 51.2	-2.7
	3.5nm,0.5s						
KAKA				eS	S	23 04 38.9	-5.9
WRAB	Tennant Creek	17.30	167	eP	P	23 04 32.4	+0.8
	4.2nm,0.4s						
WRA	Warramunga Arr	17.30	167	P	P	23 04 31.1	-0.5
	0.6nm,0.3s,baz=341,slow=12,SNR=26						
WRA				S	S	23 07 35.4	-5.9
	0.2nm,0.3s,baz=341,slow=24,SNR=5.7						
WB2	Warramunga Arr	17.30	167	eP	P	23 04 31.9	+0.2
WB2				eS	S	23 07 34.3	-7.1
ASAR	Alice Springs	20.85	171	P	P	23 05 13.2	+0.7
	7.3nm,0.5s,baz=351,slow=11,SNR=55						
ASAR				S	S	23 09 01.6	+3.4
	0.8nm,0.7s,baz=350,slow=16,SNR=3.5						
ASPA	Alice Springs	20.85	171	eP	P	23 05 13.2	+0.7
ASPA				eS	S	23 09 01.7	+3.5
CMAR	Chiang Mai Arr	37.55	306	P	P	23 07 44.0	-0.1
	0.6nm,0.4s,mb3.6,baz=122,slow=6.9,SNR=5.1						
SONM	Songino Array	54.78	340	P	P	23 09 59.7	-0.1
	0.3nm,0.4s,mb3.7,baz=149,slow=8.4,SNR=4.1						

PRE 22 23:13:47.0±2.0, 26.89S×26.81E, h2^{km}, ML3.6, South Africa

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KSR	Koster	1.03	5	eP	Pb	23 13 35.7	-32
KSR				eS	Sb	23 13 48.3	-33
KSR				e		23 13 53.8	
	comp=Z,591nm,0.1s						
SEK	Senekal	1.60	153	eP	Pn	23 14 16.7	+0.2
SEK				eS	Sb	23 14 36.8	-0.9
SEK				e		23 14 39.1	
	comp=Z,305nm,0.2s						
SLR	Silverton	1.75	49	eP	Pn	23 14 17.3	-1.3
SLR				eS	Sn	23 14 41.2	-0.6
SLR				e		23 14 43.0	
	comp=Z,2µm,0.3s						
BOSA	Boshof	2.20	218	eP	Pn	23 14 23.2	-1.9
BOSA				eS	Sn	23 14 51.8	-1.5
NWL	Newcastle	2.92	107	eP	Pn	23 14 49.1	+14
NWL				eS	Sn	23 15 13.6	+2.1
NWL				e		23 15 21.6	
	comp=Z,674nm,0.5s						

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*IDC **22** 23:32:47.1±4.3, 6.72N×72.96W, h169^{km}±33^{km}, mb3.0/3, mb1 3.5/4, mb1mx3.0/20, Error ellipse: s-maj=72.4km s-min=32.1km az=83.0*
*NEIC **22** 23:32:47.0±0.7, 6.71N×72.90W, h173^{km}±8^{km}, Error ellipse: s-maj=17.8km s-min=9.9km az=118.0*

ISC 22 23:32:46.4±0.9, 6.8N±0.1×73.0W±0.1, h177^{km}±11^{km}, n9, $\sigma 0\overset{s}{.}38$/9, mb3.2/3, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ROSC	El Rosal	2.33	216	P	P	23 33 27.9	+0.4
	50nm,0.3s,baz=283,slow=19,SNR=128						
ROSC				S	S	23 33 58.7	-0.4
	88nm,0.3s,baz=105,slow=20,SNR=11						
SDV	Santo Domingo	3.13	47	eP	P	23 33 37.0	0.0
OTAV	Otavalo	8.48	220	eP	P	23 34 47.0	+0.1
LPAZ	La Paz	23.39	168	P	P	23 37 40.5	+0.1
TXAR	Lajitas Array	36.62	312	P	P	23 39 37.6	+0.2
	0.3nm,0.6s,mb3.1,baz=112,slow=9.7,SNR=3.3						
PDAR	Pinedale Array	48.22	324	P	P	23 41 11.4	+0.4
	0.2nm,0.5s,mb3.0,baz=128,slow=10,SNR=2.9						
YKA	Yellowknife Ar	63.37	340	P	P	23 42 58.0	-0.8
	0.6nm,0.5s,mb3.6,baz=132,slow=6.6,SNR=16						
YKA	Yellowknife Ar	63.37	340	P	P	23 42 58.0	-0.8
WRA	Warramunga Arr	150.45	241	PKPbc	PKPdf	23 52 19.3	+7.2
	0.2nm,0.3s,baz=108,slow=2.7,SNR=7.7						

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*IDC **22** 23:50:22.9±2.1, 56.08S×27.87W, h133^{km}±17^{km}, mb4.4/9, mb1 4.5/10, mb1mx4.2/15, MS3.6/3, Ms1 3.6/3, ms1mx2.8/15, Error ellipse: s-maj=19.1km s-min=13.4km az=52.0*
*NEIC **22** 23:50:24.9±2.6, 56.00S×28.00W, h154^{km}±23^{km}, mb4.6/7, Error ellipse: s-maj=16.5km s-min=9.4km az=217.0*

ISC 22 23:50:23.4±3.5, 56.0S±0.1×27.8W±0.2, h153^{km}±34^{km}, n60, $\sigma 1\overset{s}{.}05$/30, mb4.5/14, 10C-2D, South Sandwich Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	16.95	157	⇑i	P	23 54 13.5	+1.3
VNA3	Neumayer Olymp	17.13	160	⇓i	P	23 54 16.4	+2.0
VNA3	Neumayer Olymp	17.13	160	⇑i	P	23 54 23.4	+9.0
VNA3	Neumayer Olymp	17.13	160	⇑i	P	23 54 30.3	+16
VNA2	Neumayer--Watz	17.34	157	⇑i	P	23 54 17.0	0.0
VNA2	Neumayer--Watz	17.34	157	⇑i	P	23 54 24.8	+7.8
EFI	East Falkland	18.27	271	eP	P	23 54 23.1	-4.5
SNAA	Sanae	18.91	156	⇑i	P	23 54 31.2	-2.9
SNAA	Sanae	18.91	156	⇑i	P	23 54 33.6	-0.5
SNAA	Sanae	18.91	156	⇑i	P	23 54 38.9	+4.8
SNAA	Sanae	18.91	156	P	P	23 54 31.3	-2.8
	14nm,0.3s,baz=308,slow=10.0,SNR=1776						
SNAA				PcP	PcP	23 58 52.9	-0.7
	0.3nm,0.3s,baz=286,slow=4.1,SNR=6.1						
SNAA				ScP		00 02 16.4	
	0.1nm,0.3s,baz=352,slow=0.9,SNR=12						
SNAA	Sanae	18.91	156	⇑iP	P	23 54 33.6	-0.5
PMSA	Palmer Station	19.64	229	eP	P	23 54 41.1	-0.6
USHA	Ushuaia	22.84	256	P	P	23 55 12.9	-0.4
	15nm,1.0s,mb4.4,baz=287,slow=0.8,SNR=6.8						
TRQA	Tornquist	28.98	294	eP	P	23 56 08.9	-1.5
	8.9nm,0.6s,mb4.7						
SYO	Syowa Base	31.83	141	⇓P	P	23 56 32.6	-2.5
QSPA	South Pole Qui	34.22	180	⇑iP	P	23 56 55.4	-0.1
	37nm,0.4s,mb5.5						
MAW	Mawson	40.38	144	eP	P	23 57 46.5	-0.6
	15nm,0.7s,mb4.7						
MAW	Mawson	40.38	144	P	P	23 57 46.5	-0.5
	14nm,0.6s,mb4.8,baz=234,slow=7.5,SNR=27						
MAW				PcP	PcP	23 59 47.6	-0.3
	6.5nm,0.7s,baz=275,slow=5.3,SNR=4.0						
MAW				LR	LR	00 12 55.4	
	comp=Z,87nm,18.5s,baz=244,slow=34						
BDFB	Brasilia	43.17	331	LR	LR	00 15 36.4	
	comp=Z,104nm,18.2s,baz=55,slow=35						
LVC	Limon Verde	44.98	301	P	P	23 58 25.5	+0.8
	10.0nm,0.4s,mb4.8,baz=148,slow=3.8,SNR=42						
SBA	Scott Base	46.07	184	eP	P	23 58 33.9	+1.3
	16nm,1.0s,mb4.6						
VNDA	Vanda	46.57	183	P	P	23 58 36.9	+0.3
	10nm,0.7s,mb4.6,baz=189,slow=5.7,SNR=52						
VNDA	Vanda	46.57	183	eP	P	23 58 36.3	-0.3
	12nm,0.8s,mb4.6						
LBTB	Lobatse	49.35	74	eP	P	23 58 57.8	-1.0
	13nm,0.8s,mb4.6						
LPAZ	La Paz	50.07	306	P	P	23 59 05.2	+0.9
	7.0nm,0.4s,mb4.7,baz=88,slow=6.7,SNR=32						
LPAZ				LR	LR	00 20 05.7	
	comp=Z,41nm,18.2s,baz=142,slow=36						
DBIC	Dimbokro	65.30	25	P	P	00 00 50.5	-0.6
	4.5nm,0.5s,mb4.6,baz=162,slow=8.2,SNR=21						
OTAV	Otavalo	69.34	304	eP	P	00 01 16.9	+0.7
	2.9nm,0.6s,mb4.2						
KMBO	Kilima Mbogo	75.37	70	P	P	00 01 53.5	+2.0
	1.2nm,0.8s,mb3.6,baz=197,slow=5.0,SNR=4.1						
STKA	Stephens Creek	91.98	171	P	P	00 03 15.4	+0.2
	1.8nm,0.7s,mb4.2,baz=155,slow=11,SNR=2.2						
ASAR	Alice Springs	99.11	163	P	P	00 03 47.8	-0.2
	2.3nm,0.9s,mb4.6,baz=182,slow=4.3,SNR=7.8						
ASAR				PP	PP	00 07 50.0	-3.8
	0.4nm,0.7s,baz=190,slow=7.1,SNR=5.2						
WRA	Warramunga Arr	102.83	163	PKKPbc		00 20 01.5	
	0.4nm,0.4s,baz=357,slow=2.8,SNR=16						
PDAR	Pinedale Array	120.03	303	PKP	PKPdf	00 08 55.7	+0.7
	0.2nm,0.4s,baz=109,slow=4.6,SNR=4.7						
HFS	Hagfors	120.41	23	PKP	PKPdf	00 08 54.8	-0.6
	6.3nm,1.0s,baz=225,slow=2.0,SNR=4.4						
NVAR	Mina Array Bea	121.06	294	PKP	PKPdf	00 08 59.9	+2.7
	0.5nm,0.4s,baz=111,slow=4.1,SNR=5.3						
KOLN	Koldanda	124.43	91	eP	PKPdf	00 09 04.7	+0.8
	15nm,0.9s						
FINES	FINESS Array B	124.54	28	PKP	PKPdf	00 09 04.0	+0.8
	6.4nm,0.7s,baz=157,slow=2.4,SNR=33						
FINES	FINESS Array B	124.54	28	PKP	PKPdf	00 09 04.0	+0.8
DMN	Daman	125.15	92	eP	PKPdf	00 09 06.2	+0.9
KAF	Kangasniemi	125.16	28	ep	PKPdf	00 09 04.9	+0.6
	0.8nm,0.4s						
GKN	Gorkha	125.19	91	eP	PKPdf	00 09 05.6	+0.3
PKI	Pulchoki	125.29	92	eP	PKPdf	00 09 06.5	+1.0
KKN	Kakani	125.38	92	eP	PKPdf	00 09 05.3	-0.4
CMAR	Chiang Mai Arr	125.41	111	PKP	PKPdf	00 09 07.2	+1.3
	2.9nm,0.9s,baz=234,slow=4.0,SNR=10						
YBH	Yreka Blue Hor	125.77	293	PKP	PKPdf	00 09 09.4	+3.4
	1.2nm,0.2s,baz=324,slow=0.3,SNR=11						
GUN	Gumba	125.81	92	eP	PKPdf	00 09 07.0	+0.5
JOF	Joensuu	127.16	30	ep	PKPdf	00 09 08.7	+0.6
	3.0nm,0.6s						
ARCES	ARCESS Array B	131.06	22	PKP	PKPdf	00 09 16.6	+1.2
	3.1nm,0.6s,baz=177,slow=2.0,SNR=22						
BVAR	Borovoye Array	135.08	58	SKP		00 12 47.0	
	0.6nm,0.5s,baz=225,slow=2.1,SNR=4.4						
YKA	Yellowknife Ar	135.91	318	PKP	PKPdf	00 09 25.4	+0.8
	1.0nm,0.5s,baz=126,slow=2.2,SNR=19						
YKA				SKPbc		00 12 43.6	
	2.4nm,1.0s,baz=122,slow=2.6,SNR=12						
RES	Resolute Bay	137.71	339	eP	PKPdf	00 09 26.1	-1.6
ZAL	Zalesovo	142.67	64	PKhKP		00 09 34.7	
	2.1nm,0.5s,baz=196,slow=3.0,SNR=9.9						
ZAL	Zalesovo	142.67	64	PKP	PKPdf	00 09 34.7	-2.2
INK	Inuvik	145.56	321	PKP	PKPdf	00 09 42.4	+1.0
	8.2nm,0.4s,baz=89,slow=2.9,SNR=74						
INK				PKPbc	PKPbc	00 09 43.6	+1.4
	8.2nm,0.4s,baz=86,slow=2.6,SNR=75						
JOW	Kunigami	146.11	140	PKPbc	PKPbc	00 09 46.7	+1.9
	28nm,0.8s,baz=272,slow=8.4,SNR=7.4						
ILAR	Eielson Array	149.83	312	PKPbc	PKPdf	00 09 55.1	+6.7
	11nm,0.9s,baz=134,slow=1.7,SNR=72						
MCK	McKinley	150.48	309	ePKPbc	PKPdf	00 09 57.1	+7.7
SONM	Songino Array	151.09	87	PKP	PKPdf	00 09 54.1	+3.2
	16nm,0.5s,baz=225,slow=1.7,SNR=3.5						
SONM				PKPbc	PKPdf	00 09 58.8	+8.0
	23nm,0.7s,baz=221,slow=3.7,SNR=104						
SPU	Mount Spurr	151.27	304	ePKPbc	PKPdf	00 09 58.6	+7.9
IMA	Indian Mountai	152.84	314	ePKPbc	PKPdf	00 10 02.5	+10

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*ORF **22** 23:53:29.0, 15.50S×169.11E, h30^{km}, mb6.1*
*LDG **22** 23:53:32.5±0.3, 14.50S×167.38E, h33^{km}, Mb5.1/4, Error ellipse: s-maj=39.4km s-min=11.6km az=91.0*
*BJI **22** 23:53:38.9, 14.95S×167.50E, h103^{km}, mb5.0, mB5.4*
*IDC **22** 23:53:40.0±2.2, 15.28S×167.61E, h112^{km}±17^{km}, mb4.5/18, mb1 4.6/18, mb1mx4.6/20, MS3.9/5, Ms1 3.9/5, ms1mx3.5/23, Error ellipse: s-maj=16.1km s-min=13.4km az=92.0*
*NEIC **22** 23:53:40.9±2.9, 15.26S×167.53E, h118^{km}±23^{km}, mb4.9/20, Error ellipse: s-maj=11.9km s-min=7.5km az=66.0*
*HRVD **22** 23:53:40.9±0.6, 15.20S×167.30E, h127^{km}±5^{km}, MW5.1/46, Centroid moment Tensor Solution. LP body waves: s12,c12; Mantle waves: s46,c66; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.10±.24; $M_{\theta\theta}$0.58±.29; $M_{\phi\phi}$-4.68±.23; $M_{r\theta}$-1.55±.29; $M_{\theta\phi}$-0.23±.40; $M_{\phi r}$-0.62±.28; Best double couple: $M_0$4.73×10^{16} NP1: ϕ_s343°, δ44°, λ60°. NP2: ϕ_s202°, δ53°, λ115°. Principal axes: T 4.71, Plg69°, Azm171°; N .03, Plg20°, Azm6°; P -4.75, Plg5°, Azm274°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 22 23:53:42.2±1.3, 15.35S±0.06×167.45E±0.05, h144^{km}±11^{km}, n174, $\sigma 1\overset{s}{.}10$/84, mb4.8/45, 42C-2D, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	6.75	188	eP	P	23 55 20.4	+0.5
DZM				eS	S	23 56 33.1	-2.7
NOUC	Port Laguerre	6.80	189	eP	P	23 55 21.2	+0.7
NOUC				eS	S	23 56 36.9	-0.1
PMG	Port Moresby	20.67	284	P	P	23 58 13.4	+1.1
	23nm,0.9s,baz=76,slow=6.3,SNR=9.1						
CTA	Charters Tower	20.72	254	eP	P	23 58 14.5	+1.6
	4.3nm,0.6s						
CTA				ePP	PP	23 58 53.7	+14
CTA				eS	S	00 01 59.9	+9.0
CTA	Charters Tower	20.72	254	P	P	23 58 14.3	+1.5
	11nm,1.1s,baz=79,slow=13,SNR=9.2						
CTAO	Charters Tower	20.72	254	eP	P	23 58 14.3	+1.4
	9.1nm,0.8s						
URZ	Urewera	24.36	161	P	P	23 58 48.8	+0.7
	55nm,0.6s,mb5.2,baz=312,slow=4.0,SNR=18						
CNB	Canberra Magne	25.65	216	eP	P	23 59 01.5	+1.2
	44nm,1.1s,mb5.0						
CNB				eS	S	00 03 11.1	-4.6
RPZ	Rata Peaks	28.43	175	P	P	23 59 25.0	-0.5
	21nm,0.7s,mb5.0,baz=341,slow=2.7,SNR=7.8						
RPZ	Rata Peaks	28.43	175	P	P	23 59 25.0	-0.5
STKA	Stephens Creek	28.73	231	eP	P	23 59 28.6	+0.4
	20nm,0.8s,mb4.9						
STKA				ePCP	PcP	00 02 34.9	-0.1
STKA				ePCP	PcP	00 02 34.9	-0.1
STKA	Stephens Creek	28.73	231	P	P	23 59 29.2	+1.1
	28nm,0.8s,mb5.0,baz=55,slow=7.1,SNR=41						
STKA				PcP	PcP	00 02 35.1	+0.2
	12nm,0.8s,baz=31,slow=2.0,SNR=10						
STKA				ScP		00 06 06.5	
	5.1nm,0.8s,baz=18,slow=9.6,SNR=5.8						
STKA				LR	LR	00 08 51.1	
	comp=Z,104nm,21.5s,baz=299,slow=32						
TOO	Toolangi	29.46	217	eP	P	23 59 35.2	+0.6
	13nm,0.9s,mb4.7						
TOO				eS		00 05 06.7	
WB2	Warramunga Arr	31.84	257	eP	P	23 59 54.5	-1.2
WB2				ePCP	PcP	00 02 44.3	+1.1
WB2				eS	S	00 04 51.9	-2.3
WB2				ePCS		00 06 27.9	
WB2				eSCS	ScS	00 10 12.4	+3.6
WRAB	Tennant Creek	31.84	257	eP	P	23 59 54.8	-1.0
	13nm,1.2s,mb4.5						
WRA	Warramunga Arr	31.85	257	P	P	23 59 54.3	-1.5
	3.9nm,0.9s,mb4.1,baz=86,slow=9.1,SNR=27						
WRA				PcP	PcP	00 02 42.2	-1.0
	3.5nm,0.8s,baz=85,slow=2.8,SNR=8.6						
WRA				S	S	00 04 52.4	-2.0
	2.7nm,1.2s,baz=84,slow=14,SNR=7.5						
WRA				ScP		00 06 16.6	
	3.9nm,1.2s,baz=88,slow=3.5,SNR=7.7						
WRA				PKiKP		00 10 09.8	
	1.4nm,0.8s,baz=339,slow=0.3,SNR=11						
ASAR	Alice Springs	32.62	250	P	P	00 00 01.6	-0.9
	20nm,0.7s,mb4.9,baz=79,slow=9.1,SNR=162						
ASAR				PcP	PcP	00 02 44.9	-0.4
	2.6nm,0.7s,baz=96,slow=2.7,SNR=7.4						
ASAR				S	S	00 05 05.4	-1.0
	1.0nm,1.0s,baz=84,slow=16,SNR=2.9						
ASAR				ScP		00 06 19.0	
	4.4nm,0.8s,baz=88,slow=3.3,SNR=18						
ASAR				PKiKP		00 10 10.8	
	0.7nm,0.7s,baz=80,slow=1.9,SNR=4.6						
ASAR				LR	LR	00 13 15.5	
	comp=Z,177nm,18.7s,baz=184,slow=36						
ASPA	Alice Springs	32.62	250	eP	P	00 00 01.7	-0.8
ASPA				eS	S	00 05 05.8	-0.7
ASPA				eSCP		00 06 20.1	
ASPA				eSCS	ScS	00 10 15.1	+2.3
KAKA	Kakadu	34.04	270	eP	P	00 00 13.7	-1.0
PAE	Paea	41.20	99	eP	P	00 01 12.6	-1.8
	233nm,1.2s,mb5.7						
PPT	Papeete	41.21	99	eP	P	00 01 12.8	-1.7
	138nm,1.4s,mb5.4						
TBI	Tubuai	41.30	108	eP	P	00 01 30.0	+15
TIAR	Tiarei	41.43	99	eP	P	00 01 17.6	+1.3
TVO	Taravao	41.51	100	eP	P	00 01 15.3	-1.7
PMOR	Pomariorio Ree	43.04	96	eP	P	00 01 28.4	-1.1
MBWA	Marble Bar	45.55	255	eP	P	00 01 49.5	0.0
	21nm,0.8s,mb4.8						
KLBR	Kellerberrin	47.95	241	eP	P	00 02 07.9	-0.3
NWAO	Narrogin (SRO)	48.58	240	eP	P	00 02 12.9	-0.1
RKT	Rikitea	54.63	108	eP	P	00 03 12.5	+14
VNDA	Vanda	62.24	181	P	P	00 03 49.0	-1.6
	7.2nm,0.7s,mb4.6,baz=358,slow=7.1,SNR=25						
VNDA	Vanda	62.24	181	eP	P	00 03 49.0	-1.6
	30nm,1.3s,mb5.0						
SBA	Scott Base	62.52	180	eP	P	00 03 53.2	+0.8
	46nm,0.9s,mb5.3						
ASAJ	Asahikawa	63.38	340	P	P	00 03 57.1	-1.4
	19nm,1.1s,mb4.8,baz=164,slow=5.0,SNR=3.8						
NJ2	Nanjing	66.24	316	eP	P	00 04 16.6	-0.6
NJ2				PCP	PcP	00 04 45.8	-0.1
NJ2				S	S	00 13 01.0	+8.1
NJ2				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,550nm,4.0s						
NJ2				LR	LR		
	comp=N,4µm,26.3s						
NJ2				LR	LR		
	comp=E,3µm,22.2s						
NJ2				LR	LR		
	comp=Z,660nm,15.0s						
WHN	Wuhan	68.48	312	eP	P	00 04 30.8	-0.3
MDJ	Mudanjiang	68.91	332	eP	P	00 04 32.6	-0.8
	comp=Z,36nm,1.1s,mb5.0						
CN2	Changchun	70.27	329	eP	P	00 04 46.4	+4.7
CN2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.1						
ENH	Enshi	71.89	310	eP	P	00 04 50.7	-1.0
	comp=Z,38nm,1.1s,mb5.0						
GYA	Guiyang	72.21	305	⇑iP	P	00 04 54.0	+0.4
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
GYA				AMB	AMB		
	comp=Z,200nm,6.3s						
BJT	Baijiatuau	72.85	321	eP	P	00 04 56.9	-0.2
	comp=Z,18nm,1.1s,mb4.7						
QSPA	South Pole Qui	74.68	180	eP	P	00 05 08.0	+1.0
	comp=Z,80nm,0.9s,mb5.3						
KMI	Kunming	74.78	302	eP	P	00 05 09.8	+1.2
KMI				AMB	AMB		
	comp=Z,25nm,1.2s,mb4.7						
KMI				AMB	AMB		
	comp=Z,93nm,3.3s						
KMI				LR	LR		
	comp=Z,49nm,28.5s						
KMI	Kunming	74.78	302	eP	P	00 05 09.8	+1.2
	comp=Z,25nm,1.2s,mb4.7						
KMI				S	S	00 14 07.8	-24
KMI				LR	LR		
	comp=Z,50nm,28.5s						
CMAR	Chiang Mai Arr	75.36	294	P	P	00 05 13.4	+1.5
	comp=Z,4.5nm,0.7s,mb4.2,baz=132,slow=4.5,SNR=26						
HHC	Hu-ho-hao-te	76.17	320	eP	P	00 05 16.8	+0.7
HHC				AMB	AMB		
	comp=Z,17nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,113nm,4.3s						
CD2	Chengdu	76.52	308	P	P	00 05 18.3	0.0
CD2				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.8						
HIA	Hailar	76.91	330	eP	P	00 05 20.0	-0.1
	comp=Z,3.5nm,0.3s,mb4.5						
LZH	Lanzhou	78.86	312	⇑P	P	00 05 32.5	+1.4
LZH				AMB	AMB		
	comp=Z,60nm,1.4s,mb5.0						
LZH	Lanzhou	78.86	312	⇑P	P	00 05 32.5	+1.4
	comp=Z,60nm,1.4s,mb5.0						
LZH				pP	pP	00 05 47.5	-20
LZH				sP	sP	00 05 52.5	-30
MAW	Mawson	81.37	202	P	P	00 05 44.6	+0.8
	comp=Z,16nm,0.9s,mb4.6,baz=113,slow=6.8,SNR=13						
MAW	Mawson	81.37	202	eP	P	00 05 44.5	+0.7
	comp=Z,34nm,1.2s,mb4.9						
IMP	Imphal	82.00	298	⇑eP	P	00 05 47.6	-0.3
YAK	Yakutsk	82.67	343	eP	P	00 05 49.6	-1.0
	comp=Z,27nm,0.7s,mb5.1						
SONM	Songino Array	83.10	324	P	P	00 05 53.8	+0.8
	comp=Z,14nm,0.9s,mb4.7,baz=135,slow=5.2,SNR=60						
GTA	Gaotai	83.22	314	⇑iP	P	00 05 55.3	+1.5
GTA				AP	pP	00 06 27.1	-3.1
GTA				AMB	AMB		
	comp=Z,32nm,1.1s,mb5.0						
SHL	Shillong	84.01	298	⇑eP	P	00 06 00.0	+1.8
LSA	Lhasa	86.03	302	P	P	00 06 09.8	+1.7
LSA	Lhasa	86.03	302	eP	P	00 06 09.5	+1.5
	comp=Z,11nm,0.9s,mb4.6						
ILAR	Eielson Array	87.06	18	P	P	00 06 10.4	-1.7
	comp=Z,2.3nm,0.8s,mb4.0,baz=240,slow=4.0,SNR=17						

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ILAR                                  PP      PP       00 09 33.4  -6.4
       comp=Z,0.7nm,1.0s,baz=225,slow=8.9,SNR=4.0
ILAR                                  LR      LR       00 44 40.0
       comp=Z,78nm,18.2s,baz=350,slow=35
BBB    Bella Bella       87.19  34    LR      LR       00 40 51.4
       comp=Z,117nm,20.4s,baz=273,slow=32
NVAR   Mina Array Bea    87.55  49    P       P        00 06 15.6  +0.5
       comp=Z,2.3nm,0.9s,mb4.0,baz=236,slow=10,SNR=14
NVAR                                  PKKPbc           00 24 06.3
       comp=Z,1.0nm,0.8s,baz=94,slow=4.4,SNR=5.2
NVAR                                  LR      LR       00 37 53.7
       comp=Z,49nm,21.5s,baz=75,slow=30
NVAR   Mina Array Bea    87.55  49    P       P        00 06 15.6  +0.5
NVAR                                  PKKPbc           00 24 06.3
NVAR                                  LR      LR       00 37 53.7
TPNV   Topopah Spring    88.54  51   eP       P        00 06 20.1  +0.2
       comp=Z,5.6nm,0.9s,mb4.5
GUN    Gumba             89.85 299   eP       P        00 06 26.5  +0.3
       comp=Z,15nm,0.9s,mb4.9
PKI    Pulchoki          90.14 298   eP       P        00 06 27.7   0.0
       comp=Z,9.7nm,0.6s,mb4.9
KKN    Kakani            90.32 299   eP       P        00 06 27.6  -0.9
       comp=Z,10nm,0.8s,mb4.8
DMN    Daman             90.41 298   eP       P        00 06 28.8  -0.1
       comp=Z,28nm,1.1s,mb5.1
GKN    Gorkha            90.92 299   eP       P        00 06 31.1  -0.2
       comp=Z,17nm,1.1s,mb5.0
SNAA   Sanae             92.94 183⇑i          P        00 06 39.5  -0.1
SNAA   Sanae             92.94 183    P       P        00 06 39.6   0.0
       comp=Z,14nm,1.2s,mb5.0,baz=196,slow=5.1,SNR=93
WMQ    Urumqi            93.28 314  ⇑P        P        00 06 42.5  +0.7
WMQ                                   AMB     AMB
       comp=Z,19nm,1.0s,mb5.2
VNA3   Neumayer Olymp    93.60 181⇑i          P        00 06 44.7  +2.2
VNA2   Neumayer--Watz    93.87 182⇑i          P        00 06 46.3  +2.5
VNA1   Neumayer--Stat    94.16 181⇑i          P        00 06 47.5  +2.4
PDAR   Pinedale Array    95.24  47    P       P        00 06 51.5  +0.8
       comp=Z,0.2nm,0.6s,mb3.5,baz=180,slow=1.5,SNR=3.4
PDAR                                  PKKPbc           00 23 44.5
       comp=Z,0.7nm,0.7s,baz=76,slow=6.1,SNR=6.5
ZAL    Zalesovo          98.00 324    P       P        00 07 02.4  -0.5
       comp=Z,4.3nm,0.9s,mb4.9,baz=359,slow=5.1,SNR=25
YKA    Yellowknife Ar    98.02  27    P       P        00 07 01.5  -1.3
       comp=Z,2.4nm,0.7s,mb4.7,baz=255,slow=4.6,SNR=42
YKA                                   PKKPbc           00 23 36.1
       comp=Z,0.5nm,0.7s,baz=72,slow=2.8,SNR=5.3
ARCES  ARCESS Array B   120.90 345    PKP     PKPdf    00 12 18.1  +1.1
       comp=Z,9.2nm,0.7s,baz=70,slow=0.9,SNR=20
SDV    Santo Domingo    122.99  89   eP       PKPdf    00 12 22.2   0.0
GNI    Garni            124.65 308    PKP     PKPdf    00 12 27.2  +2.3
       comp=Z,7.7nm,1.0s,baz=312,slow=6.0,SNR=5.4
FINES  FINESS Array B   126.36 338    PKP     PKPdf    00 12 29.2  +1.7
       comp=Z,7.9nm,0.9s,baz=90,slow=1.4,SNR=4.9
KMBO   Kilima Mbogo     128.13 256    PKP     PKPdf    00 12 34.9  +2.6
       comp=Z,8.1nm,1.1s,baz=51,slow=3.6,SNR=18
KMBO   Kilima Mbogo     128.13 256    PKP     PKPdf    00 12 34.9  +2.6
LSZ    Lusaka           129.54 235   eP       PKPdf    00 12 36.9  +1.9
NB2    NORSAR Subarra   131.27 345    PKPdf   PKPdf    00 12 38.5  +1.5
       comp=Z,20nm,1.7s,baz=31,slow=1.8
NB2    NORSAR Subarra   131.27 345    PKPd             00 12 38.5
       baz=31,slow=1.8
NOA    NORSAR Array B   131.27 345    PKP     PKPdf    00 12 38.8  +1.7
       comp=Z,2.2nm,0.7s,baz=34,slow=2.0,SNR=4.9
AKASG  Malin Array Be   131.34 326    PKP     PKPdf    00 12 38.4  +1.0
       comp=Z,1.6nm,0.8s,baz=52,slow=1.7,SNR=9.6
ASF    Jabal al Asfar   132.17 300    PKP     PKPdf    00 12 41.6  +2.0
       comp=Z,3.8nm,1.1s,baz=60,slow=4.7,SNR=3.7
BRTR   Keskin Array B   133.04 310    PKP     PKPdf    00 12 42.9  +1.9
       comp=Z,0.9nm,0.7s,baz=45,slow=2.0,SNR=3.1
MBAR   Mbarara          134.38 254   eP       PKPdf    00 12 46.4  +2.2
KSP    Ksiaz            137.67 333   ePKP     PKPdf    00 12 51.1  +1.9
PVCC   Panska Ves       138.64 334   ePKP     PKPdf    00 12 53.2  +2.2
BRG    Berggiesshubel   138.65 335   eP       PKPdf    00 12 53.2  +2.2
EKA    Eskdalemuir Ar   139.45 352    PKhKP            00 12 46.0
       comp=Z,1.3nm,0.7s,baz=333,slow=1.9,SNR=3.6
KHC    Kasperske Hory   140.12 333   ePKP     PKPdf    00 12 56.0  +2.3
GERES  GERESS Array B   140.28 333    PKhKP            00 12 50.6
       comp=Z,1.1nm,0.6s,baz=326,slow=4.8,SNR=5.4
GRA1   Grafenberg Arr   140.67 336   ePKP     PKPdf    00 12 56.2  +1.6
RUP    Ruppelstein      142.20 339    PKP     PKPdf    00 12 55.4  -1.9
WATA   Walderalm        142.35 333⇓iP         PKPdf    00 12 55.5  -2.1
WTTA   Wattenberg       142.38 333⇑iP         PKPdf    00 12 56.3  -1.4
MOTA   Moosalm          142.55 333⇑iP         PKPdf    00 12 56.2  -1.8
SQTA   Sankt Quirin     142.60 333⇓iP         PKPdf    00 12 56.2  -1.8
BAIF   Baives           142.81 342   ePKP1    PKPdf    00 12 55.6  -2.7
       comp=Z,9.5nm,0.9s
DAVA   Damuels          143.11 334⇑iP         PKPbc    00 12 58.2  +1.1
WLS    Welschbruch      143.19 338    PKP     PKPdf    00 12 58.2  -0.8
CDF    Champ du Feu     143.22 338   ePKP1    PKPbc    00 12 57.4  +0.1
       comp=Z,60nm,1.2s
LIBD   Limburg          143.31 337    PKP     PKPdf    00 12 58.6  -0.6
FELD   Feldberg         143.39 337    PKP     PKPdf    00 12 58.9  -0.4
ECH    Echery           143.42 338    PKP     PKPdf    00 12 57.9  -1.5
DAVOX  Davos            143.51 334    PKP     PKPdf    00 12 59.3  -0.3
       comp=Z,20nm,0.8s,baz=50,slow=2.8,SNR=38
MOF    Molkenrain       143.74 337    PKP     PKPdf    00 12 59.1  -0.8
THEF   They Montfort    143.83 339    PKP     PKPdf    00 12 59.6  -0.5
HINF   Hinteralfeld     143.87 338   ePKP1    PKPbc    00 12 59.4  +0.1
       comp=Z,23nm,0.8s
HAU    Haudompre        143.89 338   ePKP1    PKPbc    00 12 59.8  +0.4
       comp=Z,71nm,0.9s
MEZF   Maizieres J'vi   143.91 340⇑iPKP1      PKPbc    00 13 00.1  +0.7
       comp=Z,93nm,1.1s
BBS    Basel-Blauen     143.92 337    PKP     PKPdf    00 13 00.8  +0.5
LOMF   Lomont           144.27 337    PKP     PKPdf    00 13 00.1  -0.8
CII    Carovilli        144.96 324   eP       PKPdf    00 13 04.8  +2.4
TIP    Timpagrande      145.03 318   eP       PKPdf    00 13 04.2  +1.7
AQU    L'Aquila         145.05 326   eP       PKPdf    00 13 05.0  +2.5
CABF   La Chapelle      145.17 337⇑iPKP1      PKPbc    00 13 04.7  +1.7
       comp=Z,392nm,1.0s
FLN    La Foliniere     145.24 346⇑iPKP1      PKPbc    00 13 04.0  +0.9
       comp=Z,280nm,0.8s
LDF    La Druitiere     145.31 345   ePKP1    PKPbc    00 13 04.1  +0.8
       comp=Z,208nm,0.9s
MAIM                    145.43 330    P       PKPdf    00 13 03.9  +0.8
SSF    Saint Saulge     145.68 340⇑iPKP1      PKPbc    00 13 06.0  +1.8
       comp=Z,375nm,1.1s
GRR    Gorron           145.68 346⇑iPKP1      PKPbc    00 13 05.6  +1.4
       comp=Z,362nm,1.0s
HYF    Humbligny        145.76 342⇑iPKP1      PKPbc    00 13 06.5  +2.1
LPL    La Plagne        145.83 336⇑iPKP1      PKPbc    00 13 06.9  +2.2
       comp=Z,176nm,1.2s
LPG    La Plagne        145.84 336⇑iPKP1      PKPbc    00 13 07.1  +2.4
       comp=Z,213nm,1.2s
SMF    Signal de Mont   145.93 340⇑iPKP1      PKPbc    00 13 06.5  +1.6
       comp=Z,210nm,1.1s
SGMF   Saint Gilles     146.17 348⇑iPKP1      PKPbc    00 13 06.9  +1.5
       comp=Z,165nm,1.0s
BNI    Bardonecchia     146.23 335   eP       PKPdf    00 13 06.2  +1.9
ROSF   Rostrenen        146.23 349⇑iPKP1      PKPbc    00 13 07.1  +1.6
       comp=Z,44nm,0.7s
GDM    Grand'Maison     146.33 336    PKP     PKPdf    00 13 08.3  +3.8
BGF    Bois d'Agland    146.33 341⇑iPKP1      PKPbc    00 13 07.8  +2.0
       comp=Z,114nm,0.7s
GRN    Grenoble         146.44 336    PKP     PKPdf    00 13 08.6  +3.9
MBDF   Montbardon       146.46 335   ePKP1    PKPbc    00 13 08.1  +1.9
       comp=Z,60nm,1.0s
PLDF   La Plantade      146.60 339    PKP     PKPdf    00 13 09.7  +4.8
QUIF   Quistinic        146.62 348⇑iPKP1      PKPbc    00 13 07.9  +1.5
       comp=Z,38nm,0.8s
SURF   Saint Ours       146.64 334    PKP     PKPdf    00 13 09.4  +4.4
ORIF   Oris-en-Rattie   146.66 336⇑iPKP1      PKPbc    00 13 09.0  +2.4
       comp=Z,93nm,0.9s
AGO    Saint Agoulin    146.69 340    PKP     PKPdf    00 13 10.1  +5.0
SAOF   Saorge           146.72 333    PKP     PKPdf    00 13 08.8  +3.6
AUTN   L'Aution         146.77 333    PKP     PKPdf    00 13 07.9  +2.6
TCF    Toulx Ste Croi   146.77 341⇑iPKP1      PKPbc    00 13 09.0  +2.2
       comp=Z,124nm,1.1s
TOUF   Mont Tournerai   146.84 333    PKP     PKPdf    00 13 09.1  +3.7
SBF    Sospel           146.88 333⇑iPKP1      PKPbc    00 13 08.9  +1.7
       comp=Z,172nm,0.9s
MVIF   Mont Vial        146.97 333    PKP     PKPdf    00 13 08.8  +3.2
PYM    Petit Puy Mans   146.99 340    PKP     PKPdf    00 13 10.4  +4.8
REVF   Revere           147.00 333    PKP     PKPdf    00 13 08.1  +2.4
MFF    Saint Martin d   147.17 344⇑iPKP1      PKPdf    00 13 10.0  +4.2
       comp=Z,188nm,0.8s
PGF    Pioggiola        147.18 330   ePKP1    PKPdf    00 13 10.0  +4.0
       comp=Z,68nm,0.8s
VIVF   Saint-Julien-l   147.18 337⇑iPKP1      PKPdf    00 13 10.3  +4.4
       comp=Z,55nm,1.0s
LBL    Lubilhac         147.37 339    PKP     PKPdf    00 13 12.5  +6.3
FRF    La Foret Royal   147.46 334⇑iPKP1      PKPdf    00 13 10.6  +4.2
       comp=Z,77nm,1.0s
SMRF   Simiane la Rot   147.57 335⇑iPKP1      PKPdf    00 13 11.6  +5.0
       comp=Z,54nm,0.9s
LMR    La Mourre        147.70 334⇑iPKP1      PKPdf    00 13 11.4  +4.5
       comp=Z,95nm,1.0s
RJF    Les Rejaudoux    147.87 341⇑iPKP1      PKPdf    00 13 12.2  +5.1
       comp=Z,75nm,0.9s
CAF    Calviac          148.03 340⇑iPKP1      PKPdf    00 13 12.8  +5.4
       comp=Z,78nm,1.2s
LASF   Ste Croix        148.15 337⇑iPKP1      PKPdf    00 13 13.0  +5.4
       comp=Z,114nm,1.1s
LFF    La Frestale      148.44 342⇑iPKP1      PKPdf    00 13 13.6  +5.6
       comp=Z,101nm,0.9s
MTLF   Montolieu        149.38 339⇑iPKP1      PKPdf    00 13 16.0  +6.5
       comp=Z,129nm,1.3s
EPF    Esparros         150.29 341⇑iPKP1      PKPdf    00 13 19.4  +8.5
       comp=Z,89nm,1.4s
SJPF   Ste Jean         150.68 343   ePKP1    PKPdf    00 13 19.3  +7.8
       comp=Z,137nm,1.5s
ETSF   Etsaut           150.68 342⇑iPKP1      PKPdf    00 13 19.6  +8.1
       comp=Z,59nm,1.0s
PBRG   Braganca         153.17 350   ePKPab   PKPab    00 13 36.9  -0.5
PVRL   Vila Real        153.83 352   ePKPab   PKPab    00 13 40.0  -0.3
PVIS   Viseu            154.41 352   ePKPab   PKPab    00 13 42.6  -0.1
ESDC   Sonseca Array    154.63 344    PKP     PKPdf    00 13 20.0  +2.8
       comp=Z,1.4nm,0.9s,slow=3.0,SNR=6.1
ESDC                                  PKPbc   PKPdf    00 13 28.1   +11
       comp=Z,1.6nm,0.9s,baz=23,slow=4.6,SNR=5.2
ESDC                                  PKPab   PKPab    00 13 43.2  -0.4
       comp=Z,5.7nm,1.0s,baz=21,slow=3.4,SNR=10
ESDC                                  PP      PP       00 17 15.2  -5.3
       comp=Z,1.4nm,1.1s,baz=34,slow=5.3,SNR=4.5
MTE    Manteigas        154.67 351   ePKPab   PKPab    00 13 43.9  +0.1
PCBR   Castelo Branco   155.20 351   ePKPab   PKPab    00 13 45.7  -0.4
PBEJ   Beja             157.04 350   ePKPab   PKPab    00 13 54.1  +0.1
DBIC   Dimbokro         168.53 222    PKP     PKPdf    00 13 33.5  +1.2
       comp=Z,7.5nm,1.0s,baz=213,slow=1.8,SNR=6.7
```

NIED ***23*** *00:04:00, 42.90N×145.50E, h38^{km}, Mw4.3 Best double couple: M$_0$3.25×10^{15} NP1:φ$_s$23°, δ68°, λ78°. NP2:φ$_s$233°, δ25°, λ117°.*

MOS ***23*** *00:04:39.6±1.2, 42.85N×145.67E, h47^{km}, mb4.6/17, Error ellipse: s-maj=17.6km s-min=8.4km az=100.9*

MOS Felt (II) at Yuzhno-Kuril'sk.

BJI ***23*** *00:04:41.6, 42.74N×145.43E, h55^{km}, mB5.3, mb4.6, Ms4.9, Msz4.1*

JMA ***23*** *00:04:41.3±0.1, 42.89N×145.50E, h44^{km}±1^{km}, M4.3*

JMA Felt I J1.

NEIC ***23*** *00:04:42.6±1.2, 42.90N×145.40E, h49^{km}±10^{km}, mb4.6/20, MW4.3(NIED), Error ellipse: s-maj=10.2km s-min=6.6km az=126.0*

NEIC Felt [II] at Yuzhno-Kuril'sk, Kunashir. Recorded [1 JMA] in eastern Hokkaido.

SKHL ***23*** *00:04:42.1±0.2, 42.85N×145.64E, h44^{km}±5^{km}, mb4.6/5*

SKHL Felt (II) at Yushno-Kurilsk.

IDC ***23*** *00:04:45.0±2.4, 42.92N×145.47E, h70^{km}±19^{km}, mb4.0/23, mb1 4.1/24, mb1mx4.1/28, MS3.5/3, Ms1 3.6/3, ms1mx3.0/31, Error ellipse: s-maj=16.3km s-min=14.1km az=119.0*

ISC 23 00:04:40.1±0.7**, 42.86N**±0.04×**145.52E**±0.05**, h46**^{km}±4^{km}**, n126,** σ1**§02**/132**, mb4.5**/50**, MS3.9**/5**, 10C-7D, Hokkaido region**

```
Code   Station Name       Δ°   AZ°     Phase ID         Time       Res
                                     Op      ISC      h  m  s     ISC
NEM2   Nemuro 2           0.53  18  ⇑P       P        00 04 52.2  +0.7
NEM2                                 S       S        00 04 59.9  +0.2
JAK    Akkeshi            0.62 283  ⇓P       P        00 04 53.5  +0.9
JAK                                 eS       S        00 05 02.2  +0.5
JNK    Nakash             0.93 321  ⇓P       P        00 04 57.5  +0.6
JNK                                 eS       S        00 05 08.6  -0.7
JRA    Rausu              1.11 345  ⇓P       P        00 05 00.3  +0.8
JRA                                  S       S        00 05 14.6  +0.6
YUK    Yuzh-Kuril'sk      1.20  12   PN      P        00 05 00.5  -0.2
YUK                                 i S      S        00 05 14.5  -1.6
YUK                                  pmax    pmax
       comp=N,760nm,0.3s
YUK                                  pmax    pmax
       comp=E,760nm,0.3s
YUK                                  pmax    pmax
       comp=Z,3µm,0.3s
YUK                                  pmax    pmax
       comp=Z,5µm,0.4s
YUK                                  smax
       comp=N,13µm,0.5s
YUK                                  smax
       comp=E,12µm,0.5s
YUK                                  smax
       comp=N,30µm,1.0s
YUK                                  smax
       comp=E,20µm,0.6s
YUK    Yuzh-Kuril'sk      1.20  12  eP       P        00 05 00.5  -0.2
YUK                                  AMB     AMB      00 05 01.7
       comp=E,760nm,0.3s
YUK                                  AMB     AMB      00 05 01.7
       comp=E,700nm,0.3s
YUK                                 i S      S        00 05 14.5  -1.6
YUK                                  A                00 05 16.0
       comp=E,13µm,0.5s
YUK                                  A                00 05 16.0
       comp=E,12µm,0.5s
YUK                                  A                00 05 19.0
       comp=E,30µm,1.0s
JOB    Onbets             1.24 273  ⇓P       P        00 05 01.9  +0.6
JOB                                 eS       S        00 05 17.3  +0.2
JAR    Ashorobuto         1.35 289  ⇓P       P        00 05 03.6  +0.6
JAR                                 eS       S        00 05 19.1  -0.9
JCH    Churui             1.61 262  ⇓P       P        00 05 06.7  +0.1
JTKR   Abashiri--Toko     1.61 314  ⇓P       P        00 05 07.8  +1.1
ASAJ   Asahikawa          2.47 302   P       P        00 05 20.7  +1.9
       comp=E,137nm,0.3s,baz=120,slow=9.0,SNR=94
ASAJ                                 S       S        00 05 51.5  +3.6
       comp=E,48nm,0.3s,baz=32,slow=30,SNR=7.9
ASAJ                                 LR      LR       00 06 24.2
       comp=E,728nm,18.9s,baz=179,slow=41
ASAJ   Asahikawa          2.47 302   PN      P        00 05 20.7  +1.9
ASAJ                                 S       S        00 05 51.5  +3.6
ASAJ                                 pmax    pmax
       comp=Z,137nm,0.3s
ASAJ                                 MLR     MLR
       comp=Z,728nm,18.9s
KUR    Kuril'sk           2.91  35⇑iPN       P        00 05 24.0  -1.2
KUR                                  pmax    pmax
       comp=Z,150nm,0.5s
KUR                                  pmax    pmax
       comp=N,530nm,0.5s
KUR                                  pmax    pmax
       comp=E,380nm,0.5s
KUR    Kuril'sk           2.91  35⇑iP        P        00 05 24.0  -1.2
KUR                                  AMB     AMB      00 05 25.7
       comp=E,150nm,0.5s
KUR                                 i S      S        00 05 57.6  -1.6
KUR                                  A                00 05 58.2
       comp=E,530nm,0.5s
KUR                                  A                00 05 58.2
       comp=E,380nm,0.5s
YSS    Yuzh-Sakhalins     4.54 335   Pn      P        00 05 50.0  +1.9
YSS    Yuzh-Sakhalins     4.54 335  eP       P        00 05 48.9  +0.8
YSS                                 erx      rx       00 06 13.3
MAJO   Matsushiro         8.46 224  ePn      P        00 06 40.7  -2.1
       comp=E,14nm,0.6s
MAT    Matsushiro         8.46 224   P       P        00 06 40.9  -1.9
MAT                                  S       S        00 08 14.5  -3.4
MAT    Matsushiro         8.46 224  eP       P        00 06 41.0  -1.8
       comp=E,11nm,0.8s
GRNR   Gornyy            10.06 325  eP       P        00 07 05.2  +0.4
KLR    Kul'dur           11.48 308  eP       P        00 07 30.4  +6.3
EKMR   Ekimchan          13.21 325  eP       P        00 07 46.2  -1.0
EKMR                                 AMB     AMB      00 07 50.5
       comp=E,4.0nm,0.6s
KS15   Wonju Array Si    14.52 254   P       P        00 08 03.3  -1.1
CN2    Changchun         14.64 281  eP       P        00 08 04.3  -1.5
CN2                                  AMB     AMB
       comp=Z,10.0nm,1.2s
BMKR   Bomnak            16.11 323  eP       P        00 08 23.5  -1.2
BMKR                                 AMB     AMB      00 08 24.4
       comp=Z,11nm,0.7s
ZEA    Zeya              16.26 318  erx      rx       00 08 42.1
ZEA                                 erx      rx       00 08 48.4
KROS   Kirovskiy         16.80 320  eP       P        00 08 32.5  -0.8
KROS                                 AMB     AMB      00 08 34.8
       comp=Z,5.0nm,0.9s
MA2    Magadan           17.05   9   P       P        00 08 37.1  +0.7
       comp=Z,20nm,1.0s
HIA    Hailar            18.94 299  eP       P        00 08 58.8  -1.0
       comp=Z,7.4nm,0.5s
JOW    Kunigami          21.29 227   P       P        00 09 25.5  +0.8
       comp=Z,13nm,0.8s,mb4.3,baz=97,slow=22,SNR=3.7
BJI    Beijing           22.12 273  eP       P        00 09 32.3  -0.7
BJI                                  AMB     AMB
       comp=Z,19nm,0.7s,mb4.6
BJI    Beijing           22.12 273  eP       P        00 09 32.3  -0.7
       comp=Z,19nm,0.7s,mb4.6
BJT    Baijiatuau        22.14 273  eP       P        00 09 32.0  -1.0
       comp=Z,25nm,0.9s,mb4.6
BJT                                 e                 00 09 46.8
SSE    Sheshan           22.62 247   P       P        00 09 37.3  -0.7
SSE                                  S       S        00 13 39.3  +1.3
SSE                                  AMB     AMB
       comp=Z,24nm,0.8s,mb4.7
SSE                                  AMB     AMB
       comp=Z,217nm,4.1s
SSE    Sheshan           22.62 247   P       P        00 09 37.3  -0.7
       comp=Z,24nm,0.8s,mb4.7
SSE                                  pP               00 09 45.4
SSE                                  sP               00 09 48.8
SSE                                  S       S        00 13 39.2  +1.2
SSE                                  sS               00 23 52.5
NJ2    Nanjing           23.66 252  eP       P        00 09 48.1  +0.1
NJ2                                  AP               00 09 57.6
NJ2                                  PP      PP       00 10 22.3  +0.6
NJ2                                  PPP     PPP      00 10 29.5  -2.5
NJ2                                  S       S        00 13 56.0  -0.3
NJ2                                  XS               00 14 18.0
NJ2                                  AMB     AMB
       comp=Z,40nm,0.7s,mb5.0
NJ2                                  AMB     AMB
       comp=Z,400nm,5.3s
NJ2                                  LR      LR
       comp=N,3µm,21.2s,MS4.8
NJ2                                  LR      LR
       comp=E,2µm,18.4s,MS4.8
NJ2                                  LR      LR
       comp=Z,720nm,23.6s
BILL   Bilibino          27.55  17  eP       P        00 10 24.9  +0.6
BILL                                 pmax    pmax
       comp=Z,11nm,2.2s,mb4.1
BILL                                 MLR     MLR
       comp=Z,100nm,18.0s,MS3.4
SONM   Songino Array     27.73 294   P       P        00 10 26.4  +0.3
       comp=Z,5.0nm,0.5s,mb4.5,baz=85,slow=7.8,SNR=20
XAN    Xi'an             29.79 265   P       P        00 10 44.1  -0.5
XAN                                  AMB     AMB
       comp=Z,7.0nm,1.0s,mb4.3
GTA    Gaotai            34.27 280  eP       P        00 11 24.4  +0.7
GTA                                  AMB     AMB
       comp=Z,5.0nm,0.9s,mb4.4
CD2    Chengdu           35.13 264   P       P        00 11 31.8  +0.6
KMI    Kunming           39.16 257⇑eP        P        00 12 06.5  +1.5
KMI                                  AMB     AMB
       comp=Z,10.0nm,0.9s,mb4.5
KMI    Kunming           39.16 257⇑eP        P        00 12 06.5  +1.5
       comp=Z,10.0nm,0.9s,mb4.5
IMA    Indian Mountai    40.08  34  eP       P        00 12 13.5  +1.2
       comp=Z,56nm,0.8s,mb5.3
ZAL    Zalesovo          40.60 308   P       P        00 12 17.2  +0.5
       comp=Z,0.8nm,0.7s,mb3.5,baz=19,slow=9.3,SNR=5.1
ZAL                                  PcP     PcP      00 14 18.7  -0.1
       comp=Z,1.6nm,0.5s,baz=330,slow=3.7,SNR=6.6
ZAL                                  LR      LR       00 31 26.6
       comp=Z,104nm,19.5s,MS3.7,baz=270,slow=40
ZAL    Zalesovo          40.60 308   P       P        00 12 17.2  +0.5
ZAL                                                   00 14 18.7
ZAL                                  pmax    pmax
       comp=Z,1.0nm,0.7s
ZAL                                  pmax    pmax
       comp=Z,2.0nm,0.5s
ZAL                                  MLR     MLR
       comp=Z,104nm,19.5s
WMQ    Urumqi            41.32 292  eP       P        00 12 22.5  -0.2
COLA   College           42.49  35   P       P        00 12 33.4  +1.5
       comp=Z,8.6nm,0.9s,mb4.4
ILAR   Eielson Array     42.91  36   P       P        00 12 36.1  +0.7
       comp=Z,1.7nm,0.8s,mb3.8,baz=266,slow=5.5,SNR=14
ILAR   Eielson Array     42.91  36   P       P        00 12 36.1  +0.7
ILAR                                 pmax    pmax
       comp=Z,2.0nm,0.8s
MKAR   Makanchi Array    43.94 298  i P      P        00 12 44.2  +0.2
MKAR                                 pmax    pmax
       comp=Z,4.0nm,0.4s
LSA    Lhasa             45.02 272  eP       P        00 12 54.9  +2.0
       comp=Z,5.6nm,0.8s,mb4.5
CMAR   Chiang Mai Arr    46.13 253   P       P        00 13 03.0  +1.2
       comp=Z,1.5nm,0.6s,mb4.1,baz=41,slow=6.9,SNR=10.0
CMAR                                 LR      LR       00 33 06.8
       comp=Z,43nm,20.3s,MS3.4,baz=140,slow=37
CMAR   Chiang Mai Arr    46.13 253  i P      P        00 13 03.0  +1.2
CMAR                                 pmax    pmax
       comp=Z,2.0nm,0.6s
INK    Inuvik            47.77  30   P       P        00 13 10.8  -3.3
       comp=Z,2.9nm,0.5s,mb4.6,baz=290,slow=6.4,SNR=14
INK    Inuvik            47.77  30   P       P        00 13 10.8  -3.3
INK                                  pmax    pmax
       comp=Z,3.0nm,0.5s
INK    Inuvik            47.77  30  eP       P        00 13 09.7  -4.4
       comp=Z,7.5nm,0.9s,mb4.7
BVAR   Borovoye Array    49.15 309   P       P        00 13 25.0  +0.1
       comp=Z,2.4nm,0.4s,mb4.6,baz=80,slow=8.7,SNR=32
BRVK   Borovoye          49.20 310  eP       P        00 13 25.2  -0.1
       comp=Z,5.3nm,0.8s,mb4.6
GUN    Gumba             49.87 273  eP       P        00 13 31.3  +0.5
       comp=Z,21nm,0.4s,mb5.5
KKN    Kakani            50.38 273  eP       P        00 13 35.1  +0.4
       comp=Z,6.8nm,0.4s,mb5.0
PKI    Pulchoki          50.41 273  eP       P        00 13 35.5  +0.6
DMN    Daman             50.61 273  eP       P        00 13 36.7  +0.2
       comp=Z,8.8nm,0.6s,mb4.9
AAK    Ala-Archa         50.67 296  eP       P        00 13 34.9  -1.8
       comp=Z,2.8nm,0.6s,mb4.4
GKN    Gorkha            50.73 274  eP       P        00 13 37.5  +0.1
       comp=Z,12nm,0.5s,mb5.1
KOLN   Koldanda          51.62 274  eP       P        00 13 44.2  +0.1
       comp=Z,11nm,0.5s,mb5.1
DLBC   Dease Lake        52.14  42  eP       P        00 13 51.1  +3.6
ARU    Arti              54.18 317  eP       P        00 14 01.8  -1.0
       comp=Z,3.3nm,0.5s,mb4.5
RES    Resolute Bay      56.16  16  eP       P        00 14 15.9  -1.0
       comp=Z,19nm,0.8s,mb5.2
YKW3   Yellowknife Ar    57.16  33  eP       P        00 14 23.6  -0.6
YKA    Yellowknife Ar    57.20  33   P       P        00 14 23.9  -0.5
       comp=Z,0.6nm,0.5s,mb3.9,baz=302,slow=7.5,SNR=8.6
YKA    Yellowknife Ar    57.20  33   P       P        00 14 23.9  -0.5
YKA                                  pmax    pmax
       comp=Z,1.0nm,0.5s
YKA    Yellowknife Ar    57.20  33   P       P        00 14 23.9  -0.5
KEV    Kevo              59.12 339  ep       P        00 14 36.0  -1.7
       comp=Z,0.5nm,0.3s,mb4.0
KEV    Kevo              59.12 339  eP       P        00 14 36.0  -1.7
KEV                                  pmax    pmax
       comp=Z,1.0nm,0.3s,mb4.3
ARCES  ARCESS Array B    59.66 339   P       P        00 14 40.7  -0.8
       comp=Z,13nm,1.0s,mb4.9,baz=27,slow=8.1,SNR=7.2
ARCES  ARCESS Array B    59.66 339   P       P        00 14 40.7  -0.8
ARCES                                pmax    pmax
       comp=Z,13nm,1.0s
ARCES  ARCESS Array B    59.66 339   P       P        00 14 40.7  -0.8
JOF    Joensuu           62.31 332  ep       P        00 14 58.4  -1.1
       comp=Z,3.5nm,0.4s,mb4.8
JOF    Joensuu           62.31 332  eP       P        00 14 58.4  -1.1
JOF                                  pmax    pmax
       comp=Z,4.0nm,0.4s,mb4.9
WRA    Warramunga Arr    63.33 192   P       P        00 15 05.9  -1.0
       comp=Z,0.5nm,0.8s,mb3.7,baz=7.6,slow=7.6,SNR=7.9
WRA    Warramunga Arr    63.33 192   P       P        00 15 05.9  -0.9
WRA                                  pmax    pmax
       comp=Z,1.0nm,0.8s
KAF    Kangasniemi       64.57 333  ep       P        00 15 11.6  -2.6
       comp=Z,2.1nm,0.5s,mb4.4,baz=45,slow=6.2
KAF    Kangasniemi       64.57 333  eP       P        00 15 11.6  -2.6
KAF                                  pmax    pmax
       comp=Z,2.0nm,0.5s,mb4.4
FINES  FINESS Array B    65.12 333   P       P        00 15 17.1  -0.6
       comp=Z,12nm,0.5s,mb5.2,baz=51,slow=7.8,SNR=113
FINES  FINESS Array B    65.12 333  i P      P        00 15 17.1  -0.6
FINES                                pmax    pmax
       comp=Z,12nm,0.5s
ASAR   Alice Springs     67.06 192   P       P        00 15 31.4  +0.7
       comp=Z,0.4nm,0.5s,mb3.7,baz=5.1,slow=6.8,SNR=5.0
MBWA   Marble Bar        67.99 206  eP       P        00 15 36.4  -0.2
       comp=Z,14nm,1.2s,mb4.9
NVAR   Mina Array Bea    69.06  57   P       P        00 15 44.3  +1.3
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	comp=Z,1.1nm,0.6s,mb4.0,baz=285,slow=7.9,SNR=8.6						
KIV	**Kislovodsk**	69.46	311	c *i*P	P	00 15 46.6	+1.3
KIV				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
KIV				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.2						
KIV	**Kislovodsk**	69.46	311	*e*P	P	00 15 45.9	+0.6
	comp=Z,14nm,0.8s,mb4.9						
NB2	**NORSAR Subarra**	69.99	338	P	P	00 15 48.0	-0.2
	comp=Z,5.7nm,0.8s,mb4.5,baz=33,slow=6.2						
NOA	**NORSAR Array B**	69.99	338	P	P	00 15 48.1	-0.1
	comp=Z,7.6nm,0.8s,mb4.7,baz=35,slow=6.1,SNR=16						
NOA	**NORSAR Array B**	69.99	338	P	P	00 15 48.1	-0.1
NOA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HFS	**Hagfors**	70.04	337	P	P	00 15 48.3	-0.2
	comp=Z,11nm,0.6s,mb5.0,baz=35,slow=7.3,SNR=35						
HFS	**Hagfors**	70.04	337	P	P	00 15 48.3	-0.2
HFS				pmax	pmax		
	comp=Z,11nm,0.6s						
SOC	**Sochi**	71.33	312	*e*P	P	00 15 54.0	-2.6
SOC				*e*		00 16 22.3	
SOC				*e*		00 18 32.3	
SOC				*e*PPP	PPP	00 20 17.7	-0.9
SOC				*e*S	S	00 25 05.5	-4.2
SOC				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
SOC				pmax	pmax		
	comp=N,12nm,0.9s						
SOC				pmax	pmax		
	comp=E,13nm,0.9s						
PDAR	**Pinedale Array**	71.39	49	P	P	00 15 58.0	+1.0
	comp=E,0.7nm,0.5s,mb3.9,baz=284,slow=1.0,SNR=7.8						
AKASG	**Malin Array Be**	71.58	323	P	P	00 15 57.0	-1.0
	comp=E,5.8nm,0.4s,mb4.9,baz=41,slow=6.4,SNR=48						
AKASG	**Malin Array Be**	71.58	323	P	P	00 15 57.0	-1.0
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.4s						
ANN	**Anapa**	71.73	315	*e*P	P	00 15 59.5	+0.5
ANN				pmax	pmax		
	comp=Z,73nm,2.5s,mb5.2						
OJC	**Ojcow**	75.90	327	*e*P	P	00 16 22.9	-0.1
DPC	**Dobruska-Polom**	77.13	329	*e*P	P	00 16 29.0	-1.0
BRTR	**Keskin Array B**	77.28	313	P	P	00 16 32.1	+1.0
	comp=Z,1.6nm,0.8s,mb4.0,baz=71,slow=4.0,SNR=4.9						
BRTR	**Keskin Array B**	77.28	313	P	P	00 16 32.1	+1.0
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
CLL	**Collm**	77.54	332	*e*P	P	00 16 33.0	+0.7
CLL	**Collm**	77.54	332	P	P	00 16 33.0	+0.7
VRAC	**Vranov**	77.87	329	P	P	00 16 35.5	+1.4
	comp=Z,1.9nm,0.7s,mb4.1,baz=41,slow=8.8,SNR=4.5						
VRAC	**Vranov**	77.87	329	P	P	00 16 35.5	+1.4
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
PRU	**Pruhonice**	78.09	330	*e*P	P	00 16 36.4	+1.1
EKA	**Eskdalemuir Ar**	78.62	342	P	P	00 16 38.2	+0.1
	comp=Z,1.6nm,0.5s,mb4.2,baz=21,slow=5.1,SNR=5.9						
EKA	**Eskdalemuir Ar**	78.62	342	P	P	00 16 38.3	+0.2
EKA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
SCHQ	**Schefferville**	78.85	18	P	P	00 16 38.9	-0.5
	comp=Z,3.0nm,1.0s,mb4.2,baz=6.0,slow=3.8,SNR=5.6						
SCHQ	**Schefferville**	78.85	18	*e*P	P	00 16 38.8	-0.6
	comp=Z,2.2nm,0.6s,mb4.3						
KHC	**Kasperske Hory**	79.15	330	*e*P	P	00 16 42.2	+1.1
KHC				*e*pP	pP	00 16 53.2	-1.4
GERES	**GERESS Array B**	79.34	330	P	P	00 16 41.5	-0.7
	comp=Z,0.6nm,0.4s,mb3.8,baz=37,slow=4.9,SNR=4.4						
GERES	**GERESS Array B**	79.34	330	P	P	00 16 41.5	-0.7
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
TXAR	**Lajitas Array**	84.14	55	P	P	00 17 09.1	+1.6
	comp=Z,0.9nm,0.8s,mb4.0,baz=290,slow=2.4,SNR=6.1						
SNAA	**Sanae**	147.25	198	⇑*i*P	PKPdf	00 24 19.1	+4.4
SNAA	**Sanae**	147.25	198	PKPbc	PKPdf	00 24 18.2	+3.4
	comp=Z,0.3nm,0.8s,baz=112,slow=9.4,SNR=5.9						
VNA2	**Neumayer--Watz**	148.79	197	*e*	PKPdf	00 24 41.1	+24
VNA2	**Neumayer--Watz**	148.79	197	⇑*i*PKPdf	PKPdf	00 24 25.9	+8.7
VNA2				*e*		00 24 41.1	
VNA3	**Neumayer Olymp**	149.01	195	⇑*i*P	PKPdf	00 24 21.8	+4.3
VNA1	**Neumayer--Stat**	149.19	197	⇑*i*P	PKPdf	00 24 27.1	+9.2
BDFB	**Brasilia**	150.50	27	PKPbc	PKPdf	00 24 28.9	+7.4
	comp=Z,2.7nm,0.7s,baz=244,slow=8.7,SNR=3.8						
BDFB	**Brasilia**	150.50	27	PKIKP	PKPdf	00 24 28.9	+7.4
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.7s						

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*NEIC **23** 00:18:45.5, 33.64N×25.88E, h10^{km}, MD3.7(ATH), After ATH.*

*CSEM **23** 00:18:45.5, 33.64N×25.88E, h10^{km}, MD3.7/5, After ATH*

ATH 23 00:18:59.6, 34.55N×26.13E, h10^{km}, MD3.6/3, **Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
XRY	**Khrisi**	0.48	312	*e*PB	Pb	00 19 09.0	-0.7
NPS	**Neapolis**	0.83	329	*e*PB	Pb	00 19 15.0	-0.6
NPS	**Neapolis**	0.83	329	*e*Pb	Pb	00 19 15.5	-0.1
NPS				*e*Sb	Sb	00 19 38.0	+11
KARP	**Karpathos**	1.31	40	*e*PB	Pb	00 19 24.2	+0.4
KARP	**Karpathos**	1.31	40	*e*Pn	Pn	00 19 24.0	+0.1
VAM	**Vamos**	1.80	299	*e*Pn	Pn	00 19 25.0	-6.0
APE	**Apeiranthos**	2.56	349	*e*Pg	Pg	00 19 48.0	-2.7

KRSC 23 00:40:51.4±0.4, **52.05N×158.76E, h46^{km}**±7^{km}, **ML3.9, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RUS	**Russkaya**	0.41	339	*i* P	P	00 41 01.8	+0.4
RUS				*i* S	S	00 41 09.4	+1.0
GRL	**Gorelyy**	0.66	320	*i* P	P	00 41 05.4	+1.0
GRL				*e*S	S	00 41 15.9	+1.9
KRMR	**Karymshinskiy**	0.87	334	*i* P	P	00 41 08.0	+0.6
KRMR				*i* S	S	00 41 20.7	+1.5
PET	**Petropavlovsk**	0.98	356	*i* P	P	00 41 09.1	+0.2
PET				*e*S	S	00 41 22.1	+0.2
UGLR	**Uglovaya**	1.16	2	*e*P	P	00 41 12.2	+0.7
UGLR				*e*S	S	00 41 26.8	+0.4
NLC	**Nalytchevo**	1.18	17	*e*P	P	00 41 10.3	-1.4
NLC				*e*S	S	00 41 24.3	-2.6
AVH	**Avacha**	1.22	359	*e*P	P	00 41 12.8	+0.5
AVH				*e*S	S	00 41 28.4	+0.5
SPN	**Mys Shipunski**	1.30	36	*i* P	P	00 41 13.8	+0.2
SPN				*i* S	S	00 41 29.9	-0.2
APC	**Apacha**	1.31	312	*i* P	P	00 41 14.1	+0.3
APC				*e*S	S	00 41 30.8	+0.4
APC				Smax			
	110nm,0.8s						
PAU	**Pauzhetka**	1.34	245	*e*P	P	00 41 13.9	-0.3
PAU				*i* S	S	00 41 30.2	-0.9
PAU				Smax			
	300nm,0.5s						
GNL	**Ganaly**	1.72	344	*e*P	P	00 41 20.1	+0.6
GNL				*e*S	S	00 41 40.9	+0.5
SKR	**Severo-Kuril’s**	2.15	231	*e*P	P	00 41 25.5	0.0
SKR				*e*S	S	00 41 48.0	-3.1
ALID	**Alaid**	2.33	241	P	P	00 41 27.1	-1.0
KMNR	**Kamenistaya**	3.81	13	P	P	00 41 50.9	+1.7
ZLN	**Zelenaya**	4.15	16	P	P	00 41 55.4	+1.4
KBTR	**Krutoberegovo**	4.80	28	*e*P	P	00 42 02.5	-0.6

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*ROM **23** 00:49:14.4±0.4, 43.15N×15.37E, h10^{km}, MD3.1/4, ML2.7/7, Error ellipse: s-maj=4.6km s-min=2.6km az=90.0*

*NEIC **23** 00:49:14.4, 43.15N×15.37E, h10^{km}, MD3.1(ROM), ML3.4(VIE), ML3.3(LDG), After ROM.*

*CSEM **23** 00:49:15.9±0.1, 43.26N×15.29E, h35^{km}, ML3.2/5, Error ellipse: s-maj=3.2km s-min=2.2km az=100.0*

*LDG **23** 00:49:19.1±0.6, 43.15N×15.01E, h10^{km}, Ml3.3/7, Error ellipse: s-maj=15.1km s-min=8.1km az=63.0*

ISC 23 00:49:12.5±0.4, **43.18N**±0.02×**15.39E**±0.04, **h10^{km}, n69, σ1^{s}07**/100, **7C-2D, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NVLJ	**Novalja**	1.43	345	*i* Pn	**Pn**	**00 49 37.6**	**-1.1**
NVLJ				*i* Pg	**Pg**	**00 49 38.6**	**-2.5**
NVLJ				*i* Sn	**Sn**	**00 49 58.9**	**+1.3**
NVLJ				*i* Sg	**Sg**	**00 49 59.1**	**-1.2**
NVLJ	**Novalja**	1.43	345	*i* Pg	**Pg**	**00 49 38.6**	**-2.5**
NVLJ				*i* Sn	**Sn**	**00 49 58.8**	**+1.2**
NVLJ				*i* Sg	**Sg**	**00 49 59.0**	**-1.2**
RGNG	**Rignano Grg**	1.52	174	*e*PN	**Pn**	**00 49 39.7**	**-0.2**
RGNG	**Rignano Grg**	1.52	174	*e*Pn	**Pn**	**00 49 39.7**	**-0.2**
INTR	**Introdacqua**	1.60	224	*e*PN	**Pn**	**00 49 42.1**	**+1.0**
CING	**Cingoli**	1.61	278	*e*PN	**Pn**	**00 49 42.8**	**+1.5**
CING	**Cingoli**	1.61	278	*e*Pn	**Pn**	**00 49 42.8**	**+1.5**
CII	**Carovilli**	1.66	209	*e*PN	**Pn**	**00 49 43.2**	**+1.2**
	96nm,0.6s						
CII	**Carovilli**	1.66	209	*e*Pn	**Pn**	**00 49 40.0**	**-2.0**
CII	**Carovilli**	1.66	209	*e*Pn	**Pn**	**00 49 43.2**	**+1.2**
	96nm,0.6s						
AQU	**L’Aquila**	1.68	241	*e*PN	**Pn**	**00 49 44.3**	**+2.1**
AQU	**L’Aquila**	1.68	241	*e*Pn	**Pn**	**00 49 44.3**	**+2.0**
NRCA	**Norcia**	1.70	259	*e*PN	**Pn**	**00 49 42.2**	**-0.4**
	18nm,0.4s						
NRCA	**Norcia**	1.70	259	*e*Pn	**Pn**	**00 49 42.2**	**-0.4**
NRCA	**Norcia**	1.70	259	*e*Pn	**Pn**	**00 49 42.2**	**-0.4**
	18nm,0.4s						
STON	**Ston**	1.73	100	*i* Pn	**Pn**	**00 49 42.1**	**-0.8**
STON				*i* Sn	**Sn**	**00 50 04.2**	**-0.9**
STON				*i* Sg	**Sg**	**00 50 05.1**	**-5.0**
STON	**Ston**	1.73	100	*i* Pn	**Pn**	**00 49 42.1**	**-0.8**
STON				*i* Sn	**Sn**	**00 50 04.2**	**-0.9**
STON				*i* Sg	**Sg**	**00 50 05.0**	**-5.1**
SNTG	**Esanatoglia**	1.79	273	*e*PN	**Pn**	**00 49 43.9**	**+0.1**
SNTG				SN	**Sn**	**00 50 06.3**	**-0.4**
SNTG	**Esanatoglia**	1.79	273	*e*Pn	**Pn**	**00 49 43.9**	**+0.1**
SNTG				*e*Sn	**Sn**	**00 50 06.3**	**-0.5**
PTQR	**Pietraquaria**	1.87	232	*e*PN	**Pn**	**00 49 45.5**	**+0.6**
	17nm,0.4s						
PTQR	**Pietraquaria**	1.87	232	*e*Pn	**Pn**	**00 49 45.5**	**+0.6**
PTQR	**Pietraquaria**	1.87	232	*e*Pn	**Pn**	**00 49 45.5**	**+0.6**
	17nm,0.4s						
FSSB	**Fossombrone**	1.97	286	*e*PN	**Pn**	**00 49 46.5**	**+0.2**
	57nm,0.7s						
FSSB	**Fossombrone**	1.97	286	*e*Pn	**Pn**	**00 49 46.5**	**+0.2**
FSSB	**Fossombrone**	1.97	286	*e*Pn	**Pn**	**00 49 46.5**	**+0.2**
	57nm,0.7s						
BLY	**Banja Luka**	2.03	39	*e*Pn	**Pn**	**00 49 49.8**	**+2.5**
MURB	**Monte Urbino**	2.09	273	*e*PN	**Pn**	**00 49 50.1**	**+1.9**
MURB	**Monte Urbino**	2.09	273	*e*Pn	**Pn**	**00 49 50.1**	**+2.0**
MNS	**Montasola**	2.15	249	*e*PN	**Pn**	**00 49 49.5**	**+0.6**
	29nm,0.6s						
MNS	**Montasola**	2.15	249	*e*Pn	**Pn**	**00 49 49.5**	**+0.6**
MNS	**Montasola**	2.15	249	*e*Pn	**Pn**	**00 49 49.5**	**+0.6**
	29nm,0.6s						
TREB	**Trebinje**	2.23	101	Sn	**Sn**	**00 50 17.5**	**-0.3**
BOJS	**Bojanci**	2.32	358	*i* Pn	**Pn**	**00 49 52.5**	**+1.0**
BOJS				*e*Sn	**Sn**	**00 50 25.0**	**+4.7**
CSSN	**Cassano Irpino**	2.34	187	*e*PN	**Pn**	**00 49 52.6**	**+1.0**
CSSN	**Cassano Irpino**	2.34	187	*e*Pn	**Pn**	**00 49 52.6**	**+1.0**
KNDS	**Knezji Dol**	2.45	343	*i* Pn	**Pn**	**00 49 53.7**	**+0.4**
KNDS				*i* Sn	**Sn**	**00 50 25.9**	**+2.3**
PGD	**Poggio Sodo**	2.75	286	*e*PN	**Pn**	**00 49 58.6**	**+1.0**
	25nm,0.8s						
PGD	**Poggio Sodo**	2.75	286	*e*Pn	**Pn**	**00 49 58.6**	**+1.0**
PGD	**Poggio Sodo**	2.75	286	*e*Pn	**Pn**	**00 49 58.6**	**+1.0**
	25nm,0.8s						
CSNT	**Castellina Chi**	3.00	277	*e*PN	**Pn**	**00 50 01.8**	**+0.7**
	14nm,0.5s						
CSNT	**Castellina Chi**	3.00	277	*e*Pn	**Pn**	**00 50 01.8**	**+0.7**
CSNT	**Castellina Chi**	3.00	277	*e*Pn	**Pn**	**00 50 01.8**	**+0.7**
	14nm,0.5s						
VOY	**Vojsko**	3.04	340	*e*Pn	**Pn**	**00 50 01.4**	**-0.3**
VOY				*e*		00 50 07.3	
VOY				*e*Sn	**Sn**	**00 50 39.3**	**+0.8**
OBKA	**Obir**	3.38	350	⇑*i*PN	**Pn**	**00 50 06.8**	**+0.3**
OBKA				*i* SN	**Sn**	**00 50 48.4**	**+1.3**
OBKA				*i* SG	**Sg**	**00 51 06.0**	**+0.9**
	64nm,0.8s						
RHK1	**Bakonya**	3.49	32	*e*P	**Pn**	**00 50 08.5**	**+0.5**
RHK1				*e*S	**Sn**	**00 50 49.0**	**-0.8**
PTCC	**Patocco-Chiusa**	3.53	337	*e*PN	**Pn**	**00 50 09.0**	**+0.3**
	32nm,0.6s						
PTCC	**Patocco-Chiusa**	3.53	337	*e*Pn	**Pn**	**00 50 09.0**	**+0.4**
PTCC	**Patocco-Chiusa**	3.53	337	*e*Pn	**Pn**	**00 50 09.0**	**+0.3**
	32nm,0.6s						
FVI	**Forni Avoltri**	3.88	332	*e*PN	**Pn**	**00 50 14.7**	**+1.0**
	25nm,0.6s						
FVI	**Forni Avoltri**	3.88	332	*e*Pn	**Pn**	**00 50 14.7**	**+1.1**
FVI	**Forni Avoltri**	3.88	332	*e*Pn	**Pn**	**00 50 14.7**	**+1.0**
	25nm,0.6s						
ARSA	**Arzberg**	4.07	1	⇓*i*PN	**Pn**	**00 50 17.0**	**+0.7**
ARSA				*i* SN	**Sn**	**00 51 05.6**	**+1.0**
KBA	**Koelnbreinsper**	4.16	340	⇓*i*PN	**Pn**	**00 50 17.6**	**+0.1**
KBA				*i* SN	**Sn**	**00 51 07.3**	**+0.6**
MOA	**Molln**	4.73	351	⇑*i*PN	**Pn**	**00 50 25.5**	**-0.2**
MOA				*i* SN	**Sn**	**00 51 20.9**	**-0.5**
PGF	**Pioggiola**	4.74	264	*e*Pn	**Pn**	**00 50 24.4**	**-1.4**
WTTA	**Wattenberg**	4.87	328	⇑*i*PN	**Pn**	**00 50 26.8**	**-0.8**
WTTA				*i* SN	**Sn**	**00 51 24.4**	**-0.3**
WATA	**Walderalm**	4.95	328	⇑*i*PN	**Pn**	**00 50 28.3**	**-0.5**
WATA				*i* SN	**Sn**	**00 51 26.4**	**-0.4**
SQTA	**Sankt Quirin**	5.00	325	⇑*i*PN	**Pn**	**00 50 28.7**	**-0.8**
SQTA				*i* SN	**Sn**	**00 51 27.9**	**-0.2**
MOTA	**Moosalm**	5.14	325	⇑*i*PN	**Pn**	**00 50 30.8**	**-0.7**
MOTA				*i* SN	**Sn**	**00 51 31.7**	**0.0**
DAVA	**Damuels**	5.65	318	⇑*i*PN	**Pn**	**00 50 37.5**	**-1.2**
DAVA				*i* SN	**Sn**	**00 51 43.5**	**-1.0**
SBF	**Sospel**	5.82	279	*e*Pn	**Pn**	**00 50 40.0**	**-1.1**
SBF				*e*Sn	**Sn**	**00 51 39.8**	**-8.9**
	5.8nm,0.4s						
KHC	**Kasperske Hory**	6.08	349	*e*PN	**Pn**	**00 50 42.3**	**-2.4**
KHC				*e*SN	**Sn**	**00 51 50.3**	**-4.9**
FRF	**La Foret Royal**	6.38	276	*e*Pn	**Pn**	**00 50 47.7**	**-1.3**
FRF				*e*Sn	**Sn**	**00 51 52.8**	**-10**
	2.2nm,0.3s						
MBDF	**Montbardon**	6.41	287	*e*Pn	**Pn**	**00 50 45.5**	**-3.8**
MBDF				*e*Sn	**Sn**	**00 51 54.5**	**-8.8**
	4.4nm,0.5s						
LPG	**La Plagne**	6.61	293	*e*Pn	**Pn**	**00 50 50.6**	**-1.6**
LPG				*e*Sn	**Sn**	**00 51 59.4**	**-9.0**
	6.8nm,0.4s						
LPL	**La Plagne**	6.63	294	*e*Pn	**Pn**	**00 50 51.0**	**-1.5**
LPL				*e*Sn	**Sn**	**00 51 59.8**	**-9.1**
	6.7nm,0.4s						
ORIF	**Oris-en-Rattie**	7.07	287	*e*Pn	**Pn**	**00 50 54.8**	**-3.8**
HINF	**Hinteralfeld**	7.58	311	*e*Sn	**Sn**	**00 52 23.3**	**-9.3**
	3.0nm,0.3s						
HAU	**Haudompre**	7.96	310	*e*Sn	**Sn**	**00 52 33.1**	**-9.1**
	11nm,0.4s						

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*IDC **23** 00:53:04.7±0.8, 21.11S×67.85W, h154^{km}±8^{km}, mb4.1/11, mb1 4.1/13, mb1mx4.0/18, MS2.8/1, Ms1 2.9/1, ms1mx2.6/15, Error ellipse: s-maj=20.6km s-min=8.3km az=95.0*

*NEIC **23** 00:53:04.2±0.9, 21.04S×67.77W, h150^{km}±9^{km}, mb4.3/16, Error ellipse: s-maj=13.5km s-min=8.1km az=74.0*

*SYO **23** 00:53:04.2, 21.03S×67.73W, h150^{km}, MB4.3*

ISC 23 00:53:02.6±0.8, **21.03S**±0.05×**67.71W**±0.10, **h150^{km}**±8^{km}, **n47, σ1^{s}13**/47, **mb4.2**/21, **6C-2D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LVC	**Limon Verde**	1.93	215	P	**P**	**00 53 38.1**	**+0.9**
	49nm,0.3s,baz=32,slow=8.4,SNR=845						
LVC				S	**S**	**00 54 03.6**	**-0.2**
	85nm,0.3s,baz=273,slow=23,SNR=52						
LVC	**Limon Verde**	1.93	215	*e*Pn	**P**	**00 53 38.0**	**+0.8**
LVC				*e*Sn	**S**	**00 54 03.8**	**-0.1**
LPAZ	**La Paz**	4.74	355	P	**P**	**00 54 17.8**	**+4.4**
	33nm,0.3s,baz=174,slow=8.4,SNR=256						
LPAZ				S	**S**	**00 55 14.6**	**+6.6**
	3.6nm,0.3s,baz=290,slow=20,SNR=4.8						
LPAZ				LR	LR	00 55 39.1	
	comp=Z,98nm,18.2s,baz=7.4,slow=32						
LPAZ	**La Paz**	4.74	355	*e*Pn	**P**	**00 54 17.6**	**+4.1**
LPAZ				*e*Sn	**S**	**00 55 11.8**	**+3.8**
ARE	**Arequipa**	5.79	321	*e*P	**P**	**00 54 27.0**	**-0.3**
ARE				*i* S	**S**	**00 55 29.0**	**-4.1**
NNA	**Nana**	12.55	314	*e*P	**P**	**00 55 55.5**	**-1.3**
	29nm,0.8s						
TRQA	**Tornquist**	17.68	165	*e*P	**P**	**00 56 58.3**	**-2.5**
	5.6nm,0.7s						
BDFB	**Brasilia**	19.44	77	P	**P**	**00 57 20.9**	**+1.1**
	2.2nm,0.3s,baz=274,slow=8.7,SNR=18						
BAO	**Brasilia Array**	19.47	77	P	**P**	**00 57 20.7**	**+0.6**
BAO				*e*		00 57 23.7	
OTAV	**Otavalo**	23.60	332	*e*P	**P**	**00 58 03.1**	**+2.1**
	8.2nm,0.9s,mb4.3						
SDV	**Santo Domingo**	29.87	354	P	**P**	**00 58 56.7**	**-1.7**
	6.5nm,0.6s,mb4.5,baz=304,slow=22,SNR=7.0						
SDV	**Santo Domingo**	29.87	354	*e*P	**P**	**00 58 56.1**	**-2.4**
	12nm,0.9s,mb4.6						
PCRV	**Puerto La Cruz**	31.16	6	P	**P**	**00 59 10.3**	**+0.5**
	11nm,0.6s,mb4.8,baz=342,slow=6.4,SNR=4.0						
USHA	**Ushuaia**	33.75	181	P	**P**	**00 59 31.3**	**-0.5**
	9.2nm,1.1s,mb4.4,baz=324,slow=8.7,SNR=2.9						
RCBR	**Riachuelo**	34.33	68	*e*P	**P**	**00 59 34.7**	**-2.3**
	21nm,1.2s,mb4.8						
JTS	**JuntasAbangare**	35.44	330	*e*P	**P**	**00 59 47.4**	**+0.9**
	7.0nm,0.8s,mb4.3						
SJG	**San Juan**	38.93	2	P	**P**	**01 00 14.3**	**-1.3**
	12nm,0.5s,mb4.8,baz=144,slow=21,SNR=4.7						
SJG	**San Juan**	38.93	2	*e*P	**P**	**01 00 13.6**	**-2.0**
	22nm,0.7s,mb4.9						
TEIG	**Tepich**	45.67	333	*e*P	**P**	**01 01 07.7**	**-2.7**
	13nm,1.3s,mb4.4						
VNA3	**Neumayer Olymp**	60.16	162	⇑*i*	**P**	**01 02 56.6**	**+0.2**
VNA1	**Neumayer--Stat**	60.35	161	⇑*i*	**P**	**01 02 59.2**	**+1.5**
VNA2	**Neumayer--Watz**	60.72	161	⇑*i*	**P**	**01 03 00.6**	**+0.4**
TXAR	**Lajitas Array**	60.90	324	P	**P**	**01 03 01.3**	**-0.6**
	0.2nm,0.5s,mb3.2,baz=112,slow=4.9,SNR=2.7						
SNAA	**Sanae**	62.36	161	⇑*i*	**P**	**01 03 10.1**	**-1.1**
SNAA	**Sanae**	62.36	161	P	**P**	**01 03 10.4**	**-0.8**
	1.3nm,0.7s,mb3.9,baz=282,slow=7.0,SNR=22						
DBIC	**Dimbokro**	67.53	73	P	**P**	**01 03 44.9**	**-0.4**
	4.0nm,0.7s,mb4.3,baz=239,slow=7.6,SNR=5.7						
DBIC	**Dimbokro**	67.53	73	*e*P	**P**	**01 03 44.0**	**-1.3**
	4.4nm,0.8s,mb4.2						
SDCO	**Great Sand Dun**	68.42	329	*e*P	**P**	**01 03 50.8**	**+0.4**
	2.6nm,1.0s,mb3.9						
QSPA	**South Pole Qui**	69.16	180	⇓*i*P	**P**	**01 03 54.6**	**+0.4**
	6.7nm,0.5s,mb4.6						
HWUT	**Hardware Ranch**	74.39	327	P	**P**	**01 04 26.5**	**+0.7**
	2.9nm,0.8s,mb4.1						
ULM	**Lac du Bonnet**	75.22	342	P	**P**	**01 04 30.4**	**+0.1**
	1.5nm,0.6s,mb3.8,baz=162,slow=6.7,SNR=3.6						
ULM	**Lac du Bonnet**	75.22	342	P	**P**	**01 04 30.4**	**+0.1**
SCHQ	**Schefferville**	75.56	1	P	**P**	**01 04 32.0**	**-0.1**
	4.6nm,1.0s,mb4.1,baz=356,slow=6.6,SNR=4.0						
SYO	**Syowa Base**	76.54	159	⇑P	**P**	**01 04 36.7**	**-0.7**
SYO	**Syowa Base**	76.54	159	⇑PcP	PcP	01 04 43.0	-5.7
SYO	**Syowa Base**	76.54	159	⇓PP	PP	01 07 29.8	-2.8
HLID	**Hailey**	77.25	327	*e*P	**P**	**01 04 43.1**	**+1.3**
	2.3nm,0.9s,mb3.8						
VNDA	**Vanda**	77.50	190	P	**P**	**01 04 43.1**	**+0.5**
	0.8nm,0.7s,mb3.5,baz=51,slow=3.0,SNR=3.5						
VNDA	**Vanda**	77.50	190	P	**P**	**01 04 43.2**	**+0.6**
	1.1nm,0.8s,mb3.5						
LBTB	**Lobatse**	84.19	114	*e*P	**P**	**01 05 19.4**	**+0.6**
	1.6nm,0.6s,mb3.9						
MAW	**Mawson**	84.45	163	P	**P**	**01 05 19.8**	**+0.7**
	3.1nm,0.6s,mb4.2,baz=308,slow=19,SNR=7.5						
MAW	**Mawson**	84.45	163	*e*P	**P**	**01 05 19.3**	**+0.2**
	4.2nm,0.6s,mb4.3						
YKA	**Yellowknife Ar**	91.12	340	P	**P**	**01 05 51.5**	**+0.4**
	1.5nm,0.5s,mb4.3,baz=134,slow=4.5,SNR=54						
YKA	**Yellowknife Ar**	91.12	340	P	**P**	**01 05 51.5**	**+0.4**
ASAR	**Alice Springs**	130.84	207	PKP	PKPdf	01 11 58.0	+1.1
	0.9nm,0.8s,baz=150,slow=2.9,SNR=7.4						
WRA	**Warramunga Arr**	133.92	209	PKP	PKPdf	01 12 04.3	+1.6
	0.8nm,0.7s,baz=159,slow=1.6,SNR=13						
SONM	**Songino Array**	152.84	9	PKPbc	PKPdf	01 12 42.9	+8.8
	0.3nm,0.4s,baz=315,slow=1.7,SNR=3.6						
SONM				PKPab	PKPab	01 12 56.6	+1.0
	0.5nm,0.6s,baz=326,slow=4.7,SNR=3.6						

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*IDC **23** 00:58:37.6±6.7, 2.51N×125.65E, mb4.1/4, mb1 4.2/4, mb1mx3.8/17, Error ellipse: s-maj=114.0km s-min=71.6km az=8.0*

ISC 23 00:58:13.1±0.5, **5.76N**±0.05×**125.63E**±0.07, **h33^{km}, n16, σ1^{s}26**/18, **mb4.3**/7, **Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	**Mati**	1.34	28	*e*P	**P**	**00 58 36.6**	**+0.9**
MATI				*e*S	**S**	**00 58 51.4**	**-1.1**
CTBH	**Cotabato--PC H**	2.00	317	*e*P	**P**	**00 58 47.3**	**+2.1**
CTBH				*i* S	**S**	**00 59 09.9**	**+0.6**
BUKP	**Musuan**	2.18	345	*e*P	**P**	**00 58 49.8**	**+2.1**
PAGZ	**Pagadian**	3.05	313	*e*P	**P**	**00 59 02.8**	**+2.7**
KAKA	**Kakadu**	19.55	160	*e*P	**P**	**01 02 41.2**	**+0.1**
	8.6nm,0.6s						
WRA	**Warramunga Arr**	26.94	162	P	**P**	**01 03 53.7**	**0.0**
	1.1nm,0.3s,mb3.9,baz=338,slow=10,SNR=35						
WB2	**Warramunga Arr**	26.94	162	*e*P	**P**	**01 03 53.7**	**0.0**
ASAR	**Alice Springs**	30.34	165	P	**P**	**01 04 24.5**	**+0.3**
	1.0nm,0.4s,mb3.9,baz=344,slow=7.3,SNR=16						
NWAO	**Narrogin (SRO)**	39.29	191	P	**P**	**01 05 41.4**	**+0.7**
	2.1nm,0.4s,mb4.2,baz=25,slow=9.6,SNR=4.4						
STKA	**Stephens Creek**	40.40	159	P	**P**	**01 05 51.4**	**+1.4**
	2.8nm,0.8s,mb4.1,baz=340,slow=11,SNR=7.0						
GUN	**Gumba**	43.66	305	*e*P	**P**	**01 06 15.7**	**-1.1**
	23nm,0.6s,mb5.1						
PKI	**Pulchoki**	43.92	304	*e*P	**P**	**01 06 17.5**	**-1.4**
	5.8nm,0.6s,mb4.5						
KKN	**Kakani**	44.11	304	*e*P	**P**	**01 06 18.8**	**-1.6**
DMN	**Daman**	44.18	304	*e*P	**P**	**01 06 19.9**	**-1.1**
	11nm,0.9s,mb4.6						
GKN	**Gorkha**	44.71	304	*e*P	**P**	**01 06 23.5**	**-1.7**
KOLN	**Koldanda**	45.48	304	*e*P	**P**	**01 06 30.2**	**-1.2**

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*LDG **23** 00:58:16.6±0.1, 48.29N×7.74E, h15^{km}, Md2.1/1, Ml2.2/4, Error ellipse: s-maj=2.5km s-min=1.7km az=104.0*

*STR **23** 00:58:16.9±0.3, 48.23N×7.65E, h10^{km}±1^{km}, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

BGR 23 00:58:16.8±0.3, **48.22N×7.73E, h10^{km}, ML0.9**/1, **Error ellipse: s-maj=3.3km s-min=2.2km az=173.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LIBD	**Limburg**	0.11	231	*e*Pg	Pg	00 58 20.0	+0.4
	SNR=3.0						
LIBD				*e*Sg	Sg	00 58 21.5	+0.1
	SNR=1.5						
WLS	**Welschbruch**	0.32	308	*e*Pg	Pg	00 58 23.1	-0.3
	SNR=2.6						
WLS				*e*Sg	Sg	00 58 27.0	-0.8
	SNR=6.0						
WLS	**Welschbruch**	0.32	308	Pg	Pg	00 58 23.1	-0.3
WLS				Sg	Sg	00 58 27.1	-0.7
CDF	**Champ du Feu**	0.36	303	*e*Pg	Pg	00 58 23.9	-0.3
CDF				*e*Sg	Sg	00 58 28.5	-0.6
	4.3nm,0.2s						
ECH	**Echery**	0.38	270	*e*Pg	Pg	00 58 24.0	-0.6
	SNR=1.2						
ECH				*e*Sg	Sg	00 58 28.9	-1.0
	SNR=9.5						
ECH	**Echery**	0.38	270	Pg	Pg	00 58 24.3	-0.3
ECH				Sg	Sg	00 58 29.0	-0.8
BFO	**Black Forest**	0.42	74	*e*Pg	Pg	00 58 24.7	-0.6
	SNR=1.2						
BFO				*e*Sg	Sg	00 58 30.4	-0.6
	SNR=4.4						
MOF	**Molkenrain**	0.54	228	Pg	Pg	00 58 27.0	-0.8
HINF	**Hinteralfeld**	0.71	236	*e*Pg	Pg	00 58 30.2	-0.9
HINF				*e*Pn	Pn	00 58 31.0	-1.6
HINF				*e*Sg	Sg	00 58 40.2	-0.5
	6.2nm,0.3s						
HINF	**Hinteralfeld**	0.71	236	*e*Pg	Pg	00 58 30.3	-0.8
	SNR=3.3						
HINF				*e*Sg	Sg	00 58 39.5	-1.2
	SNR=4.9						
HAU	**Haudompre**	0.95	258	*e*Pn	Pn	00 58 34.8	-1.2
HAU				*e*Pg	Pg	00 58 35.2	-0.6
HAU				*e*Sn	Sn	00 58 47.0	-2.7
HAU				*e*Sg	Sg	00 58 47.9	-0.6
	3.0nm,0.2s						
HAU	**Haudompre**	0.95	258	*e*Pg	Pg	00 58 34.6	-1.2
	SNR=3.8						
HAU				*e*Sg	Sg	00 58 47.0	-1.5
	SNR=2.4						
LOMF	**Lomont**	1.06	215	*e*Pg	Pg	00 58 37.2	-0.9
	SNR=2.0						
THEF	**They Montfort**	1.17	271	*e*Sg	Sg	00 58 53.9	-1.8
	SNR=2.0						
RFYF	**Reffroy**	1.56	286	*e*Sg	Sg	00 59 05.5	-3.2
	5.7nm,0.3s						
RFYF	**Reffroy**	1.56	286	*e*Sg	Sg	00 59 07.0	-1.8
	SNR=2.4						
SFTF	**Sexfontaines**	1.80	271	*e*Sg	Sg	00 59 13.7	-3.1
	2.5nm,0.2s						

*PRU **23** 00:59:29.1, 50.37N×18.97E*

WAR 23 00:59:29.2, 50.23N×19.03E, h1^{km}, Location given by Central Institute of Mining, origin time based upon OJC, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.49**	**91**	*e*Pg	Pg	00 59 39.1	+0.1
OJC				*e*Sg	Sg	00 59 46.9	+1.3
OKC	**Ostrava-Krasne**	**0.70**	**236**	*e*PG	Pg	00 59 43.1	0.0
OKC				*e*SG	Sg	00 59 53.6	+1.2
NIE	**Niedzica**	**1.16**	**134**	*e*Pg	Pg	00 59 52.1	-0.3
NIE				*e*Sg	Sg	01 00 08.8	+0.9
DPC	**Dobruska-Polom**	**1.74**	**275**	*e*PG	Pg	01 00 00.1	-3.9
DPC				*e*SG	Sg	01 00 23.4	-3.9
UPC	**Upice**	**1.95**	**279**	*e*PG	Pg	01 00 05.0	-3.2

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*PRU **23** 01:01:48.8, 50.37N×19.01E*

WAR 23 01:01:48.8, 50.23N×19.03E, h1^{km}, Location given by Central Institute of Mining, origin time based upon OJC, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.49**	**91**	*e*Pg	Pg	01 01 58.7	+0.1
OJC				*e*Sg	Sg	01 02 05.8	+0.6
OKC	**Ostrava-Krasne**	**0.70**	**236**	*e*SG	Sg	01 02 13.5	+1.5
DPC	**Dobruska-Polom**	**1.74**	**275**	*e*PG	Pg	01 02 19.4	-4.2
DPC				*e*SG	Sg	01 02 43.8	-3.1
UPC	**Upice**	**1.95**	**279**	*e*SG	Sg	01 02 50.9	-3.0

IDC 23 01:35:24.4±4.2**, 1.66S×135.86E, mb3.7**/2**, mb1 4.0**/3**, mb1mx3.7**/12**, ML3.4**/1**, Error ellipse: s-maj=109.0km s-min=29.9km az=67.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.23**	**185**	P	P	01 39 38.4	-2.4
	0.1nm,0.3s,baz=6.3,slow=12,SNR=13						
ASAR	**Alice Springs**	**21.96**	**185**	P	P	01 40 20.1	-1.6
	1.2nm,0.6s,baz=8.7,slow=10,SNR=21						
CMAR	**Chiang Mai Arr**	**41.45**	**301**	P	P	01 43 13.3	-1.4
	0.6nm,0.3s,baz=124,slow=6.7,SNR=4.2						

IGQ 23 02:18:24.1, 3.80S×76.97W, h12^{km}±6^{km}, mb4.2, 1D, Error ellipse: s-maj=10.9km s-min=6.1km az=145.2, Northern Peru

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PATA	**Patacocha**	**2.71**	**327**	P	Pn	02 19 11.0	+2.7
PATA				S	Sn	02 19 44.0	+2.7
ARRY	**Arrayan**	**2.72**	**327**	⇓P	Pn	02 19 10.1	+1.7
ULBA	**Ulba**	**2.74**	**328**	P	Pn	02 19 10.4	+1.7
RETU	**Refugio**	**2.76**	**328**	P	Pn	02 19 10.9	+1.9
RUN2	**Runtun**	**2.77**	**329**	P	Pn	02 19 10.6	+1.5
RUN2				S	Sn	02 19 43.4	+0.6
CUSU	**Cusua**	**2.79**	**327**	P	Pn	02 19 11.3	+1.9
JUIV	**Juive**	**2.79**	**328**	P	Pn	02 19 11.4	+1.9
JUIV				S	Sn	02 19 44.5	+1.1
PISA	**Pisayambo**	**3.07**	**333**	P	Pn	02 19 15.1	+1.7
PISA				S	Sn	02 19 53.0	+2.7
TAMB	**Tambo**	**3.39**	**336**	P	Pn	02 19 19.6	+1.6
VC1	**Cotopaxi 1**	**3.45**	**336**	P	Pn	02 19 21.4	+2.6
ANTI	**Antisana**	**3.54**	**340**	P	Pn	02 19 21.7	+1.6
CAYR	**Refugio Cayamb**	**3.93**	**345**	P	Pn	02 19 27.5	+1.9
CAYA	**Cayambe**	**3.98**	**345**	P	Pn	02 19 28.6	+2.3

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*IDC **23** 02:19:05.8±6.6, 6.24S×151.67E, h49^{km}±61^{km}, mb3.7/4, mb1 4.1/5, mb1mx3.8/13, ML3.4/1, Error ellipse: s-maj=78.0km s-min=32.7km az=117.0*

ISC 23 02:19:05.4±4.7**, 6.1S**±0.3×**151.5E**±0.3**, h60^{km}**±39^{km}**, n7, σ0^{s}79**/8**, mb3.9**/4**, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**5.39**	**232**	P	**P**	**02 20 24.7**	**-0.4**
	7.8nm,0.3s,baz=48,slow=5.0,SNR=30						
PMG				S	**S**	**02 21 27.5**	**+0.9**
	16nm,0.3s,baz=156,slow=16,SNR=9.7						
KAKA	**Kakadu**	**19.93**	**249**	*e*P	**P**	**02 23 34.4**	**-0.6**
	1.5nm,0.3s						
WB2	**Warramunga Arr**	**21.59**	**229**	*e*P	**P**	**02 23 51.8**	**-0.2**
WRA	**Warramunga Arr**	**21.60**	**229**	P	**P**	**02 23 51.4**	**-0.7**
	1.3nm,0.5s,mb3.6,baz=57,slow=11,SNR=17						
ASAR	**Alice Springs**	**24.30**	**222**	P	**P**	**02 24 18.8**	**+0.2**
	4.2nm,0.5s,mb4.1,baz=58,slow=9.0,SNR=44						
STKA	**Stephens Creek**	**27.25**	**199**	P	**P**	**02 24 46.1**	**0.0**
	2.2nm,0.7s,mb3.8,baz=4.0,slow=13,SNR=5.0						
ILAR	**Eielson Array**	**83.86**	**22**	P	**P**	**02 31 30.3**	**+0.8**
	0.8nm,1.0s,mb3.8,baz=249,slow=5.3,SNR=5.9						

IDC 23 02:19:09.3±2.9**, 28.54S×176.98W, mb3.9**/5**, mb1 4.1**/5**, mb1mx3.9**/13**, MS3.6**/2**, Ms1 3.6**/2**, ms1mx3.1**/19**, Error ellipse: s-maj=152.0km s-min=30.7km az=160.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**34.44**	**276**	P	P	02 26 00.0	-0.8
	2.1nm,0.7s,baz=105,slow=12,SNR=2.7						
CTA				LR	LR	02 37 35.2	
	comp=Z,99nm,20.4s,baz=229,slow=32						
STKA	**Stephens Creek**	**35.81**	**254**	P	P	02 26 10.4	-2.0
	2.3nm,0.9s,baz=85,slow=12,SNR=2.9						
STKA				LR	LR	02 39 12.7	
	comp=Z,104nm,20.3s,baz=172,slow=34						
ASAR	**Alice Springs**	**44.14**	**265**	P	P	02 27 19.6	-1.9
	0.9nm,0.5s,baz=99,slow=6.8,SNR=8.8						
WRA	**Warramunga Arr**	**44.96**	**270**	P	P	02 27 25.7	-2.5
	1.4nm,0.8s,baz=109,slow=7.7,SNR=7.3						
NVAR	**Mina Array Bea**	**86.26**	**42**	P	P	02 31 53.8	-0.4
	0.2nm,0.7s,baz=229,slow=4.9,SNR=4.2						
AKASG	**Malin Array Be**	**150.32**	**325**	PKPbc	PKPdf	02 39 00.9	+2.2
	0.8nm,0.6s,baz=46,slow=3.0,SNR=4.2						

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*NEIC **23** 03:07:49.6, 31.20S×69.54W, h155^{km}, MD3.5(GUC), After GUC.*

GUC 23 03:07:49.6±1.0**, 31.20S×69.54W, h155^{km}**±11^{km}**, MD3.5, ML3.7, 14C-3D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	**Combarbala**	**1.26**	**271**	*e*P	P	03 08 18.2	+0.8
CMCH				*i* S	S	03 08 39.1	+0.3
CMCH				AMP		03 08 40.4	
	comp=N,2µm,0.6s						
ILCH	**Illapel**	**1.46**	**252**	⇓*i*P	P	03 08 20.0	+0.6
ILCH				*i* S	S	03 08 42.2	-0.3
ILCH				AMP		03 08 45.5	
	comp=N,275nm,0.2s						
TLL	**Tololo Astrono**	**1.50**	**313**	⇑*i*P	P	03 08 20.7	+0.8
TLL				*i* S	S	03 08 43.3	+0.1
PTCH	**Petorca**	**1.59**	**228**	⇑*i*P	P	03 08 21.2	+0.4
PTCH				*i* S	S	03 08 44.7	-0.2
PTCH				AMP		03 08 46.4	
	comp=N,1µm,0.2s						
JACH	**Jahuel**	**1.73**	**211**	⇑*i*P	P	03 08 23.0	+0.7
JACH				*i* S	S	03 08 47.9	+0.3
MDZ	**Mendoza**	**1.78**	**161**	*e*P	P	03 08 21.3	-1.5
MDZ				S	S	03 08 44.1	-4.4
LSCH	**La Serena**	**1.96**	**311**	⇓*i*P	P	03 08 44.8	+20
LSCH				*i* S	S	03 09 10.7	+19
LSCH				AMP		03 09 11.3	
	comp=N,447nm,0.4s						
PACH	**Papudo**	**2.10**	**230**	⇑*i*P	P	03 08 26.7	+0.2
PACH				*i* S	S	03 08 54.7	-0.2
ROCH	**El Roble**	**2.17**	**215**	⇑*i*P	P	03 08 27.6	+0.3
ROCH				*i* S	S	03 08 56.0	-0.4
PEL	**Peldehue**	**2.17**	**206**	⇑*i*P	P	03 08 27.6	+0.2
PEL				*i* S	S	03 08 56.2	-0.3
FCH	**Farellones**	**2.22**	**197**	⇑*i*P	P	03 08 28.6	+0.6
FCH				*i* S	S	03 08 58.4	+0.9
FCH				AMP		03 09 01.2	
	comp=N,260nm,0.1s						
CLCH	**Cerro Calan**	**2.35**	**201**	⇑*i*P	P	03 08 29.8	+0.1
CLCH				*i* S	S	03 09 00.2	-0.1
CLCH				AMP		03 09 02.0	
	comp=E,347nm,0.4s						
RCDM	**Rinconada Maip**	**2.52**	**205**	⇑*i*P	P	03 08 31.8	-0.1
RCDM				*i* S	S	03 09 04.0	-0.2
RCDM				AMP		03 09 04.5	
	comp=E,374nm,0.6s						
PCH	**Pirque**	**2.55**	**199**	⇑*i*P	P	03 08 32.5	+0.4
PCH				*i* S	S	03 09 05.1	+0.3
LMEL	**Las Melosas**	**2.70**	**192**	⇑*i*P	P	03 08 34.3	+0.3
LMEL				*i* S	S	03 09 08.7	+0.6
LMEL				AMP		03 09 16.2	
	comp=N,133nm,0.2s						
TACH	**Talagante**	**2.72**	**205**	⇑*i*P	P	03 08 33.9	-0.4
TACH				*i* S	S	03 09 07.9	-0.6
LCCH	**Las Cruces**	**2.85**	**217**	⇑*i*P	P	03 08 35.8	-0.1
CHCH	**Chadas Angostu**	**2.88**	**199**	⇑*i*P	P	03 08 36.1	-0.2
CHCH				*i* S	S	03 09 12.0	-0.2
LNV	**Longovilo**	**3.17**	**209**	⇓*i*P	P	03 08 38.5	-1.5

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*IDC **23** 03:22:59.6±1.3, 36.43N×70.99E, mb3.9/7, mb1 4.1/9, mb1mx3.9/21, ML3.9/2, Error ellipse: s-maj=40.0km s-min=21.9km az=59.0*

ISC 23 03:23:15.0±1.6**, 36.9N**±0.1×**71.9E**±0.2**, h122^{km}**±18^{km}**, n18, σ1^{s}02**/23**, mb3.7**/7**, 1C, Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
THN	**Thein Dam**	**5.49**	**144**	*e*P	**P**	**03 24 35.6**	**-0.1**
	2.2nm,0.4s						
THN				*e*S	**S**	**03 25 38.7**	**+0.5**
DLH	**Dalhousie**	**5.53**	**141**	*e*P	**P**	**03 24 37.0**	**+0.8**
DLH				*e*S	**S**	**03 25 40.0**	**+1.0**
SDNR	**Sundarnagar**	**6.87**	**141**	*e*P	**P**	**03 24 54.8**	**+0.3**
	417nm,0.2s						
SDNR				*e*S	**S**	**03 26 10.4**	**-1.2**
SMLA	**Simla**	**7.27**	**141**	⇑*i*P	**P**	**03 25 15.9**	**+16**
SMLA				*i* S	**S**	**03 26 33.4**	**+12**
KOLN	**Koldanda**	**13.47**	**129**	*e*P	**P**	**03 26 21.4**	**-0.7**
	6.2nm,0.3s						
GKN	**Gorkha**	**13.97**	**126**	*e*P	**P**	**03 26 28.3**	**-0.2**
	11nm,0.3s						
DMN	**Daman**	**14.54**	**126**	*e*P	**P**	**03 26 35.4**	**-0.4**
	4.4nm,0.3s						
PKI	**Pulchoki**	**14.76**	**125**	*e*P	**P**	**03 26 39.0**	**+0.3**
	5.1nm,0.3s						
GUN	**Gumba**	**14.85**	**123**	*e*P	**P**	**03 26 39.4**	**-0.4**
	9.3nm,0.3s						
GUN				*e*S	**S**	**03 29 20.1**	**-1.1**
BVAR	**Borovoye Array**	**16.13**	**357**	Pn	**P**	**03 26 50.6**	**-5.1**
	0.1nm,0.3s,baz=164,slow=10,SNR=3.4						
ZAL	**Zalesovo**	**19.23**	**24**	P	**P**	**03 27 32.1**	**+0.4**
	1.7nm,0.3s,baz=262,slow=7.3,SNR=15						
SONM	**Songino Array**	**27.52**	**56**	P	**P**	**03 28 56.0**	**+4.1**
	0.8nm,0.6s,mb3.5,baz=264,slow=9.2,SNR=7.6						
ARCES	**ARCESS Array B**	**41.02**	**337**	P	**P**	**03 30 45.7**	**-1.5**
	3.3nm,0.9s,mb4.2,baz=101,slow=6.2,SNR=4.7						
NOA	**NORSAR Array B**	**44.46**	**323**	P	**P**	**03 31 11.9**	**-3.2**
	0.7nm,0.7s,mb3.5,baz=103,slow=7.5,SNR=2.6						
INK	**Inuvik**	**73.37**	**10**	P	**P**	**03 34 36.2**	**+1.7**
	1.4nm,0.6s,mb4.0,baz=29,slow=3.1,SNR=8.8						
YKA	**Yellowknife Ar**	**80.79**	**3**	P	**P**	**03 35 16.8**	**+1.1**
	1.0nm,0.7s,mb3.8,baz=347,slow=5.4,SNR=21						
WRA	**Warramunga Arr**	**81.63**	**123**	P	**P**	**03 35 21.6**	**+0.5**
	0.5nm,0.5s,mb3.6,baz=324,slow=4.9,SNR=16						
ASAR	**Alice Springs**	**83.93**	**125**	P	**P**	**03 35 33.4**	**+0.6**
	0.5nm,0.7s,mb3.5,baz=307,slow=5.2,SNR=7.0						

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*IDC **23** 03:54:00.1±1.7, 2.72S×141.39E, mb3.6/2, mb1 3.9/3, mb1mx3.7/12, ML3.7/1, Error ellipse: s-maj=204.0km s-min=28.6km az=111.0*

ISC 23 03:54:03.8±1.6**, 2.9S**±0.3×**141.7E**±0.5**, h33^{km}, n5, σ0^{s}62**/5**, mb3.6**/2**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**13.38**	**223**	*e*P	**P**	**03 57 13.8**	**-0.1**
	5.4nm,0.4s						
WB2	**Warramunga Arr**	**18.39**	**202**	*e*P	**P**	**03 58 18.8**	**+0.6**
WRA	**Warramunga Arr**	**18.40**	**202**	P	**P**	**03 58 18.4**	**+0.1**
	0.3nm,0.3s,baz=22,slow=13,SNR=13						
ASAR	**Alice Springs**	**21.98**	**199**	P	**P**	**03 58 55.9**	**-0.8**
	0.5nm,0.5s,mb3.2,baz=26,slow=12,SNR=6.4						
ILAR	**Eielson Array**	**84.78**	**24**	P	**P**	**04 06 35.9**	**+0.1**
	0.6nm,0.6s,mb3.9,baz=258,slow=4.2,SNR=12						

IDC 23 04:27:37.2±7.5**, 15.05S×124.41E, mb3.6**/1**, mb1 4.2**/3**, mb1mx3.8**/10**, ML3.9**/2**, Error ellipse: s-maj=97.8km s-min=72.9km az=12.0, Western Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**10.64**	**119**	Pn	P	04 30 10.8	-3.3
	1.4nm,0.3s,baz=295,slow=13,SNR=48						
WRA				Sn	S	04 32 11.3	-4.0
	0.6nm,0.3s,baz=293,slow=23,SNR=4.6						
ASAR	**Alice Springs**	**12.39**	**135**	Pn	P	04 30 36.0	-1.9
	1.0nm,0.3s,baz=314,slow=12,SNR=46						
ASAR				Sn	S	04 32 56.8	-1.1
	0.3nm,0.3s,baz=316,slow=25,SNR=11						
STKA	**Stephens Creek**	**22.95**	**140**	P	P	04 32 42.9	-1.4
	1.5nm,0.7s,baz=317,slow=12,SNR=4.3						

CASC 23 04:45:58.3±2.8**, 13.38N×90.36W, h25^{km}**±8^{km}**, MD3.7, 4C, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IXG	**Ixpaco**	**0.80**	**353**	⇑*e*P	Pb	04 46 13.2	-0.3
IXG				*e*S	Sb	04 46 25.9	+2.1
SBLS	**San Blas**	**0.85**	**57**	*e*P	Pb	04 46 14.2	-0.1
SBLS				*e*S	Sb	04 46 25.5	+0.2
RTR	**El Retiro**	**0.87**	**53**	*e*P	Pb	04 46 14.6	0.0
RTR				*e*S	Sb	04 46 28.7	+3.0
SNJE	**San Jose**	**0.88**	**56**	⇑*e*P	Pb	04 46 14.5	-0.3
SNJE				*e*S	Sb	04 46 27.4	+1.3
RBDL	**Robledal**	**0.98**	**42**	⇑*e*P	Pb	04 46 16.4	-0.1
RBDL				*e*S	Sb	04 46 28.3	-0.8
BOQS	**Boqueron**	**1.11**	**71**	*e*P	Pn	04 46 17.9	-0.5
BOQS				*e*S	Sb	04 46 32.5	-0.3
NBG	**Las Nubes**	**1.20**	**1**	*e*P	Pn	04 46 20.5	+0.8
NBG				*e*S	Sn	04 46 39.6	+4.3
LFU	**La Fuente**	**1.27**	**73**	*e*P	Pn	04 46 20.7	+0.1
LFRS	**El Faro**	**1.29**	**79**	*e*P	Pn	04 46 20.2	-0.7
LFRS				*e*S	Sn	04 46 38.0	+0.5
LBRS	**Las Brisas**	**1.33**	**74**	*e*P	Pn	04 46 21.8	+0.2
LBRS				*e*S	Sn	04 46 38.7	+0.1
LCBS	**La Ceiba**	**1.37**	**78**	*e*P	Pn	04 46 22.1	-0.1
LCBS				*e*S	Sn	04 46 40.5	+0.9
SNVI	**San Vicente**	**1.50**	**81**	*e*P	Pn	04 46 24.3	+0.4
SNVI				*e*S	Sn	04 46 43.1	+0.3
TP2	**Tecpan 2**	**1.54**	**335**	⇑*e*P	Pn	04 46 25.1	+0.5
TP2				*e*S	Sn	04 46 44.4	+0.5
JAT	**Jato**	**1.56**	**307**	*e*P	Pn	04 46 23.2	-1.5
JAT				*e*S	Sn	04 46 42.7	-1.5
BLLM	**Bellamira**	**2.06**	**88**	*e*P	Pn	04 46 33.5	+1.4
BLLM				*e*S	Sn	04 46 56.7	-0.5
CAHU	**Cacacuatique**	**2.12**	**79**	*e*P	Pn	04 46 33.1	+0.1
CNCH	**Conchagua**	**2.46**	**92**	*e*P	Pn	04 46 37.2	-0.5
CNCH				*e*S	Sn	04 47 07.8	+0.5

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*NIED **23** 05:00:00, 39.90N×144.40E, h68^{km}, Mw4.1 Best double couple: M$_0$1.59×10^{15} NP1: φ$_s$158°, δ76°, λ101°. NP2: φ$_s$299°, δ18°, λ52°.*

JMA 23 05:00:28.8±0.2**, 39.95N×144.41E, h48^{km}, M4.0, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIYJ	**Miyakonagasawa**	**2.03**	**260**	P	P	05 01 01.6	+0.3
MIYJ				*e*S	S	05 01 25.5	0.0
JANG	**Nango**	**2.26**	**282**	P	P	05 01 04.8	+0.3
JANG				*e*S	S	05 01 30.8	-0.4
JOM	**Ohasama**	**2.45**	**260**	P	P	05 01 08.0	+0.7
JOM				*e*S	S	05 01 36.8	+0.7
JNBK	**Urakawa-nobuka**	**2.64**	**332**	P	P	05 01 11.2	+1.2
JNBK				*e*S	S	05 01 42.5	+1.5
JMK	**Ichinoseki**	**2.66**	**249**	P	P	05 01 10.3	0.0
JMK				*e*S	S	05 01 40.4	-1.1
JCH	**Churui**	**2.78**	**344**	P	P	05 01 11.8	-0.1
JCH				*e*S	S	05 01 43.9	-0.5
JOT	**Ohata**	**2.93**	**300**	P	P	05 01 15.1	+1.0
JOT				S	S	05 01 48.9	+0.6
JAK	**Akkeshi**	**3.05**	**4**	P	P	05 01 14.7	-1.1
JAK				*e*S	S	05 01 49.8	-1.6
JYK	**Kaneyama**	**3.30**	**253**	P	P	05 01 19.6	+0.3
JAR	**Ashorobuto**	**3.38**	**352**	P	P	05 01 19.7	-0.7
JAR				S	S	05 01 58.0	-1.6
JMM	**Marumori**	**3.51**	**235**	P	P	05 01 20.5	-1.7
JMM				*e*S	S	05 01 58.1	-4.8
NEM2	**Nemuro 2**	**3.56**	**16**	P	P	05 01 20.4	-2.5
NEM2				*e*S	S	05 02 00.1	-4.0
JTKR	**Abashiri--Toko**	**4.04**	**355**	P	P	05 01 29.5	-0.2
JTKR				S	S	05 02 14.6	-1.6

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*IDC **23** 05:12:52.3±0.7, 63.32N×151.47W, mb4.2/16, mb1 4.5/21, mb1mx4.4/24, ML4.2/5, MS3.8/6, Ms1 3.7/6, ms1mx3.3/27, Error ellipse: s-maj=14.3km s-min=10.4km az=4.0*

*MOS **23** 05:12:53.6±1.7, 63.01N×150.79W, h33^{km}, mb4.3/3, Error ellipse: s-maj=43.4km s-min=12.9km az=86.2*

*NEIC **23** 05:12:53.2, 63.29N×151.50W, h12^{km}, mb4.4/16, MS3.8/1, ML4.8(PMR), ML4.5(AEIC), After AEIC.*

NEIC Felt [III] at Cantwell and Healy. Also felt at Denali National Park.

*BJI **23** 05:12:53.2, 63.30N×151.50W, h12^{km}, mB4.8, mb4.7, Ms4.4, Msz4.1*

ISC 23 05:12:53.0±0.7**, 63.30N**±0.02×**151.44W**±0.05**, h15^{km}**±4^{km}**, n134, σ0^{s}98**/144**, mb4.4**/38**, MS3.9**/7**, 1C, Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTH	**Kantishna Hill**	**0.35**	**42**	P	**Pg**	**05 13 00.7**	**+0.3**
KTH				S	**Sg**	**05 13 05.8**	**+0.5**
TRF	**Thorofare Moun**	**0.54**	**73**	P	**Pb**	**05 13 03.7**	**+0.1**
TRF				S	**Sb**	**05 13 11.3**	**+0.4**
HUR	**Hurricane**	**0.88**	**111**	P	**Pb**	**05 13 09.2**	**-0.2**
CUT	**Chulitna**	**1.04**	**149**	P	**Pb**	**05 13 12.3**	**0.0**
RND	**Reindeer**	**1.17**	**84**	P	**Pb**	**05 13 14.7**	**+0.3**
MCK	**McKinley**	**1.20**	**68**	P	**Pb**	**05 13 15.4**	**+0.5**
MCK				S	**Sb**	**05 13 31.7**	**+1.5**
BWN	**Browne**	**1.24**	**44**	P	**Pb**	**05 13 16.8**	**+1.2**
NEA	**Nenana**	**1.66**	**38**	P	**Pn**	**05 13 21.2**	**-0.5**
MLY	**Manley**	**1.77**	**10**	P	**Pn**	**05 13 23.7**	**+0.4**
PWA	**Palmer West**	**1.81**	**156**	P	**Pn**	**05 13 23.8**	**-0.1**
STLK	**Strandline Lak**	**1.81**	**186**	P	**Pn**	**05 13 23.9**	**-0.1**
DHY	**Denali Highway**	**1.86**	**95**	P	**Pn**	**05 13 25.7**	**+1.0**
GHO	**Glory Hole Cre**	**1.93**	**142**	P	**Pn**	**05 13 25.4**	**-0.2**
PMR	**Palmer**	**2.02**	**147**	P	**Pn**	**05 13 26.6**	**-0.4**
PMR				S	**Sn**	**05 13 51.1**	**-1.0**
SML	**Sawmill**	**2.08**	**135**	P	**Pn**	**05 13 27.3**	**-0.4**
CCB	**Clear Creek Bu**	**2.10**	**48**	P	**Pn**	**05 13 27.3**	**-0.8**
CKN	**Chakachatna No**	**2.11**	**190**	P	**Pn**	**05 13 28.7**	**+0.5**
TT01	**Tatalina**	**2.12**	**261**	P	**Pn**	**05 13 27.2**	**-1.2**
SPU	**Mount Spurr**	**2.14**	**188**	*e*P	**Pn**	**05 13 28.7**	**-0.1**
MDM	**Murphy Dome**	**2.18**	**39**	P	**Pn**	**05 13 28.8**	**-0.5**
FIB	**Fire Island**	**2.22**	**164**	P	**Pn**	**05 13 31.3**	**+1.5**
COLA	**College**	**2.23**	**43**	*e*P	**Pn**	**05 13 28.5**	**-1.5**
COLA	**College**	**2.23**	**43**	P	**Pn**	**05 13 29.3**	**-0.7**
HDA	**Harding Lake**	**2.28**	**59**	P	**Pn**	**05 13 29.9**	**-0.7**
KNK	**Knik Glacier**	**2.35**	**142**	P	**Pn**	**05 13 32.0**	**+0.4**
RC01	**Rabbit Creek A**	**2.36**	**159**	P	**Pn**	**05 13 31.8**	**0.0**
VOGL	**Vogel Lake**	**2.36**	**168**	P	**Pn**	**05 13 33.5**	**+1.6**
SCM	**Sheep Creek Mo**	**2.41**	**126**	P	**Pn**	**05 13 31.8**	**-0.7**
GLM	**Gilmore Dome**	**2.46**	**45**	P	**Pn**	**05 13 32.7**	**-0.5**
IL1	**Eielson Array**	**2.49**	**52**	P	**Pn**	**05 13 32.8**	**-0.9**
ILAR	**Eielson Array**	**2.49**	**52**	Pn	**Pn**	**05 13 32.8**	**-0.9**
	16nm,0.3s,baz=239,slow=14,SNR=172						
ILAR				Pg	**Pg**	**05 13 35.8**	**-7.0**
	77nm,0.3s,baz=242,slow=17,SNR=265						
ILAR				Lg		05 14 11.1	
	502nm,0.3s,baz=248,slow=30,SNR=16						
ILAR	**Eielson Array**	**2.49**	**52**	P	**Pn**	**05 13 32.8**	**-0.9**
ILAR				S	**Sn**	**05 14 11.1**	**+7.1**
THY	**Trims Highway**	**2.57**	**85**	P	**Pn**	**05 13 36.0**	**+1.3**
PAX	**Paxson**	**2.73**	**94**	P	**Pn**	**05 13 37.6**	**+0.5**
DFR	**Drift River**	**2.78**	**193**	P	**Pn**	**05 13 38.0**	**+0.2**
GCSA	**Galena City Sc**	**2.80**	**304**	P	**Pn**	**05 13 38.0**	**-0.1**
NCT	**North Crescent**	**2.83**	**195**	P	**Pn**	**05 13 38.6**	**0.0**
SLKM	**Skilak Lake**	**2.86**	**168**	P	**Pn**	**05 13 38.6**	**-0.3**
RDN	**Redoubt North**	**2.86**	**193**	P	**Pn**	**05 13 38.9**	**-0.1**
IM3	**Indian Mountai**	**2.87**	**341**	P	**Pn**	**05 13 39.1**	**0.0**
RSO	**Redoubt South**	**2.91**	**193**	*e*P	**Pn**	**05 13 39.6**	**-0.1**
IMA	**Indian Mountai**	**2.94**	**342**	*e*P	**Pn**	**05 13 40.3**	**+0.1**
MPA	**Moose Pass**	**2.99**	**160**	P	**Pn**	**05 13 41.0**	**+0.3**
TZL	**Tazlina**	**3.05**	**112**	P	**Pn**	**05 13 42.2**	**+0.6**
VLZ	**Valdez**	**3.23**	**130**	P	**Pn**	**05 13 43.6**	**-0.6**
ILIM	**Iliamna**	**3.31**	**193**	P	**Pn**	**05 13 45.4**	**+0.1**
DOT	**Dot Lake**	**3.33**	**81**	P	**Pn**	**05 13 45.3**	**-0.3**
INE	**Iliamna NE**	**3.34**	**194**	P	**Pn**	**05 13 45.9**	**+0.1**
SEW	**Seward**	**3.34**	**163**	P	**Pn**	**05 13 46.4**	**+0.6**
ILW	**Iliamna West**	**3.35**	**195**	P	**Pn**	**05 13 45.9**	**0.0**
PRP	**Porcupine Dome**	**3.40**	**46**	P	**Pn**	**05 13 46.2**	**-0.4**
DIV	**Divide**	**3.43**	**127**	P	**Pn**	**05 13 47.2**	**+0.1**
MENT	**Mentasta**	**3.53**	**92**	P	**Pn**	**05 13 49.5**	**+1.0**
BRLK	**Bradley Lake**	**3.56**	**175**	P	**Pn**	**05 13 49.1**	**+0.2**
HIN	**Hinchinbrook I**	**3.73**	**139**	P	**Pn**	**05 13 51.4**	**0.0**
CNPM	**China Poot**	**3.79**	**178**	P	**Pn**	**05 13 51.9**	**-0.2**
EYAK	**Cordova Ski Ar**	**3.85**	**133**	P	**Pn**	**05 13 53.4**	**+0.3**
COLD	**Coldfoot**	**3.98**	**7**	P	**Pn**	**05 13 54.6**	**-0.3**
GLB	**Gilahina Butte**	**4.01**	**114**	P	**Pn**	**05 13 52.9**	**-2.4**
AUP	**Augustine Pinn**	**4.06**	**194**	P	**Pn**	**05 13 56.9**	**+0.8**
MCNL	**McNeil River**	**4.36**	**200**	P	**Pn**	**05 13 60.0**	**-0.3**
BCA3	**Beaver Creek A**	**4.38**	**89**	P	**Pn**	**05 14 00.1**	**-0.5**
BALM	**Baldy**	**4.83**	**114**	P	**Pn**	**05 14 06.6**	**-0.4**
BM3	**Burnt Mountain**	**5.03**	**32**	P	**Pn**	**05 14 07.8**	**-1.9**
DAWY	**Dawson**	**5.42**	**76**	P	**Pn**	**05 14 14.0**	**-1.2**
YAH	**Yahtse**	**5.45**	**118**	P	**Pn**	**05 14 14.6**	**-1.1**
KDAK	**Kodiak Island**	**5.56**	**186**	P	**Pn**	**05 14 15.9**	**-1.4**
ANM	**Nome**	**6.27**	**288**	*e*P	**Pn**	**05 14 26.1**	**-1.2**
PNL	**Peninsula**	**6.81**	**117**	P	**Pn**	**05 14 33.4**	**-1.5**
INK	**Inuvik**	**8.88**	**48**	Pn	**P**	**05 15 01.6**	**-2.2**
	6.6nm,0.3s,baz=240,slow=17,SNR=156						
INK				LR	LR	05 19 10.6	
	comp=Z,252nm,19.6s,baz=199,slow=43						
INK	**Inuvik**	**8.88**	**48**	*e*P	**P**	**05 15 01.8**	**-2.0**
	67nm,0.7s						
SIT	**Sitka**	**10.15**	**121**	*e*P	**P**	**05 15 18.2**	**-2.9**
	64nm,0.8s						
DLBC	**Dease Lake**	**11.48**	**105**	Pn	**P**	**05 15 37.4**	**-1.9**
	1.0nm,0.3s,baz=289,slow=13,SNR=9.4						
DLBC				Lg		05 18 59.5	
	0.7nm,0.3s,baz=43,slow=26,SNR=5.7						
DLBC				LR	LR	05 20 18.6	
	comp=Z,487nm,19.6s,baz=36,slow=39						
DLBC	**Dease Lake**	**11.48**	**105**	*e*P	**P**	**05 15 37.4**	**-1.9**
BBB	**Bella Bella**	**16.58**	**121**	Pn	**P**	**05 16 46.4**	**+0.2**
	0.3nm,0.3s,baz=329,slow=5.9,SNR=3.3						
YKW3	**Yellowknife Ar**	**16.63**	**76**	*e*P	**P**	**05 16 47.5**	**+0.7**
YKA	**Yellowknife Ar**	**16.66**	**76**	Pn	**P**	**05 16 45.3**	**-1.7**
	0.5nm,0.3s,baz=289,slow=10,SNR=37						
YKA				LR	LR	05 23 53.3	
	comp=Z,359nm,19.0s,baz=265,slow=40						
BILL	**Bilibino**	**17.76**	**304**	*e*P	**P**	**05 17 04.7**	**+3.8**
BILL				pmax	pmax		
	comp=Z,10.0nm,1.5s						
BILL				MLR	MLR		
	comp=Z,100nm,13.0s						
PGC	**Sidney**	**21.20**	**121**	*e*P	**P**	**05 17 39.4**	**-0.6**
	comp=Z,25nm,0.8s,mb4.6						
OCWA	**Octopus Mounta**	**21.66**	**123**	*e*P	**P**	**05 17 45.5**	**+0.9**
	comp=Z,30nm,0.9s,mb4.7						
EDM	**Edmonton**	**22.08**	**99**	*e*P	**P**	**05 17 48.3**	**-0.5**
RES	**Resolute Bay**	**22.14**	**36**	*e*P	**P**	**05 17 50.5**	**+1.3**
	comp=Z,3.4nm,0.6s,mb4.0						
NEW	**Newport**	**24.07**	**113**	*e*P	**P**	**05 18 06.9**	**-1.2**
	comp=Z,6.6nm,0.9s,mb4.1						
WALA	**Waterton Lakes**	**24.82**	**107**	*e*P	**P**	**05 18 15.8**	**+0.4**
	comp=Z,16nm,1.1s,mb4.5						
MSO	**Missoula**	**26.53**	**111**	*e*P	**P**	**05 18 30.6**	**-0.8**
	comp=Z,1.5nm,0.5s,mb3.8						
BMO	**Blue Mountains**	**26.74**	**117**	*e*P	**P**	**05 18 34.0**	**+0.7**
	comp=Z,2.8nm,0.9s,mb3.8						
FCC	**Fort Churchill**	**27.32**	**73**	*e*P	**P**	**05 18 40.0**	**+1.5**
	comp=Z,10nm,1.0s,mb4.3						
YMR	**Madison River**	**29.51**	**110**	*e*P	**P**	**05 18 57.9**	**-0.5**
LOHW	**Long Hollow**	**30.52**	**111**	*e*P	**P**	**05 19 07.7**	**+0.4**
PDAR	**Pinedale Array**	**31.65**	**110**	P	**P**	**05 19 17.6**	**+0.2**
	comp=Z,9.0nm,1.2s,mb4.5,baz=333,slow=6.6,SNR=12						
PDAR				LR	LR	05 32 02.6	

	comp=Z,86nm,20.0s,MS3.4,baz=76,slow=36						
NVAR	Mina Array Bea	31.86	126	P	P	05 19 19.1	-0.1
	comp=Z,1.0nm,0.6s,mb3.8,baz=322,slow=9.7,SNR=6.1						
ULM	Lac du Bonnet	32.00	88	P	P	05 19 21.4	+1.1
	comp=Z,6.5nm,0.7s,mb4.6,baz=312,slow=8.7,SNR=16						
MSU	Marysvale	34.14	118	eP	P	05 19 39.6	+0.5
SRU	San Rafael	34.30	115	eP	P	05 19 38.8	-1.6
EYMN	Ely	35.66	87	eP	P	05 19 51.4	-0.5
	comp=Z,38nm,0.6s,mb5.5						
PV01	Paradox Valley	35.93	114	eP	P	05 19 52.6	-1.7
KSU1	Kansas State U	40.28	100	P	P	05 20 32.4	+1.6
SCHQ	Schefferville	41.22	61	P	P	05 20 38.7	+0.5
	comp=Z,4.9nm,0.7s,mb4.2,baz=308,slow=5.9,SNR=13						
SCHQ	Schefferville	41.22	61	P	P	05 20 38.7	+0.5
BOD	Bodaibo	42.74	308	eP	P	05 20 51.2	+0.7
WMOK	Wichita Mounta	42.97	106	eP	P	05 20 52.0	-0.7
	comp=Z,10.0nm,1.2s,mb4.4						
TXAR	Lajitas Array	45.58	115	P	P	05 21 14.0	+0.2
	comp=Z,2.0nm,0.7s,mb4.2,baz=324,slow=6.3,SNR=11						
TXAR				LR	LR	05 41 03.9	
	comp=Z,86nm,21.1s,MS3.7,baz=330,slow=37						
TXAR	Lajitas Array	45.58	115	P	P	05 21 14.0	+0.2
TXAR				LR	LR	05 41 03.9	
JCT	Junction City	46.19	110	eP	P	05 21 17.8	-0.7
	comp=Z,10nm,0.8s,mb4.8						
MIV	Mineville/With	46.64	76	eP	P	05 21 23.4	+1.5
KEV	Kevo	47.22	1	ep	P	05 21 29.1	+2.8
	comp=Z,0.9nm,0.3s,mb4.2						
KEV	Kevo	47.22	1	eP	P	05 21 29.1	+2.8
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
ARCES	ARCESS Array B	47.43	1	P	P	05 21 27.5	-0.4
	comp=Z,4.2nm,0.8s,mb4.4,baz=6.3,slow=8.2,SNR=4.5						
SSPA	Standing Stone	47.46	82	eP	P	05 21 28.0	-0.6
	comp=Z,7.9nm,0.9s,mb4.6						
CN2	Changchun	49.11	288	eP	P	05 21 38.1	-3.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.5s,mb4.6						
CBN	Corbin	49.67	84	eP	P	05 21 45.1	-0.5
	comp=Z,72nm,0.6s,mb5.9						
SONM	Songino Array	53.48	305	P	P	05 22 14.4	+0.2
	comp=Z,2.5nm,0.8s,mb4.2,baz=21,slow=7.4,SNR=14						
JOF	Joensuu	54.08	358	ep	P	05 22 21.0	+2.6
	comp=Z,0.5nm,0.3s,mb3.9						
JOF	Joensuu	54.08	358	eP	P	05 22 21.0	+2.6
JOF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
KAF	Kangasniemi	54.89	1	ep	P	05 22 26.4	+2.0
	comp=Z,0.5nm,0.4s,mb3.9						
KAF	Kangasniemi	54.89	1	eP	P	05 22 26.4	+2.0
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
ZAL	Zalesovo	55.18	323	P	P	05 22 25.2	-1.4
	comp=Z,2.2nm,0.5s,mb4.5,baz=80,slow=10.0,SNR=6.2						
NOA	NORSAR Array B	55.29	10	P	P	05 22 26.1	-1.2
	comp=Z,1.3nm,0.8s,mb4.0,baz=329,slow=5.9,SNR=2.9						
FINES	FINESS Array B	55.56	1	P	P	05 22 27.4	-1.9
	comp=Z,3.9nm,1.0s,mb4.4,baz=11,slow=7.1,SNR=2.9						
FINES				LR	LR	05 48 43.4	
	comp=Z,200nm,18.1s,MS4.2,baz=356,slow=39						
FINES	FINESS Array B	55.56	1	P	P	05 22 27.4	-1.9
FINES				LR	LR	05 48 43.4	
EKA	Eskdalemuir Ar	59.16	20	P	P	05 22 55.0	+0.1
	comp=Z,5.0nm,0.7s,mb4.6,baz=336,slow=5.5,SNR=4.8						
BVAR	Borovoye Array	59.49	332	P	P	05 22 55.3	-1.9
	comp=Z,1.5nm,0.7s,mb4.1,baz=53,slow=7.4,SNR=4.5						
SSE	Sheshan	61.56	283	P	P	05 23 10.4	-1.1
SSE				S	S	05 31 30.4	-0.6
SSE				AMB	AMB		
	comp=Z,17nm,1.2s,mb5.0						
SSE				AMB	AMB		
	comp=Z,66nm,4.1s						
SSE				LR	LR		
	comp=N,65nm,22.2s,MS4.0						
SSE				LR	LR		
	comp=E,99nm,22.2s,MS4.0						
SSE				LR	LR		
	comp=Z,64nm,24.8s,MS3.7						
SSE	Sheshan	61.56	283	P	P	05 23 10.4	-1.1
	comp=Z,17nm,1.2s,mb5.0						
SSE				pP	pP	05 23 13.6	-2.6
SSE				S	S	05 31 30.4	-0.6
SSE				sS		05 31 36.0	
SSE				LR	LR		
	comp=Z,60nm,24.8s,MS3.6						
NJ2	Nanjing	61.76	285	eP	P	05 23 14.5	+1.6
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.4						
GTA	Gaotai	63.15	305	eP	P	05 23 21.8	-0.2
GTA				AP	pP	05 23 25.8	-0.9
GTA				XP	sP	05 23 28.8	+0.4
GTA				PP	PP	05 25 43.0	+0.4
GTA				S	S	05 31 49.5	-1.4
GTA				SS	SS	05 35 55.9	-3.3
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.8						
GTA				AMB	AMB		
	comp=Z,33nm,3.6s						
GTA				LR	LR		
	comp=N,188nm,15.2s,MS4.5						
GTA				LR	LR		
	comp=E,163nm,15.6s,MS4.5						
GTA				LR	LR		
	comp=Z,142nm,16.0s,MS4.2						
WMQ	Urumqi	63.40	316	⇑P	P	05 23 26.9	+3.3
WMQ				PCP	PcP	05 24 03.8	+3.4
WMQ				PP	PP	05 25 48.0	+3.2
WMQ				PPP	PPP	05 27 19.4	+3.2
WMQ				S	S	05 31 58.9	+4.9
WMQ				PS	PS	05 32 15.5	+1.0
WMQ				SKS	SKS	05 33 17.5	-0.8
WMQ				AMB	AMB		
	comp=Z,11nm,0.7s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,15nm,4.6s						
WMQ				LR	LR		
	comp=N,38nm,17.2s,MS3.8						
WMQ				LR	LR		
	comp=E,42nm,17.2s,MS3.8						
WMQ				LR	LR		
	comp=Z,66nm,15.6s,MS3.9						
AKASG	Malin Array Be	66.34	360	P	P	05 23 42.9	+0.6
	comp=Z,2.0nm,0.6s,mb4.3,baz=1.3,slow=6.3,SNR=11						
GERES	GERESS Array B	67.59	11	P	P	05 23 49.4	-0.9
	comp=Z,0.5nm,0.6s,mb3.7,baz=284,slow=4.0,SNR=1.7						
CD2	Chengdu	69.10	297	eP	P	05 24 02.0	+2.0
ESDC	Sonseca Array	74.14	26	P	P	05 24 31.4	+1.5
	comp=Z,1.7nm,0.6s,mb4.2,baz=345,slow=6.0,SNR=11						
KMI	Kunming	74.63	295	eP	P	05 24 34.0	+1.0
KMI				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.6						
KMI				LR	LR		
	comp=Z,47nm,20.9s,MS3.8						
KMI	Kunming	74.63	295	eP	P	05 24 34.0	+1.0
	comp=Z,6.0nm,0.7s,mb4.6						
KMI				LR	LR		
	comp=Z,50nm,20.9s,MS3.8						
CMAR	Chiang Mai Arr	82.14	296	P	P	05 25 13.7	-0.4
	comp=Z,0.6nm,0.5s,mb3.8,baz=9.5,slow=5.5,SNR=5.0						

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*ATH **23** 05:15:52.1, 36.98N×28.05E, h32^{km}, MD3.1/3*
*ISK **23** 05:15:52.8, 36.96N×27.82E, h21^{km}, MD3.2*
*CSEM **23** 05:15:52.8±0.2, 37.01N×27.86E, h16^{km}±1^{km}, MD3.2, Error ellipse: s-maj=4.0km s-min=3.7km az=154.0*
ISC 23 05:15:53.9±0.6**, 36.97N**±0.04×**27.83E**±0.05**, h24**^{km}±6^{km}**, n13, σ0^{s}67**/19**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	Kayabasi	0.33	287	iP	Pb	05 16 00.5	-0.7
BDRM				iS	Sb	05 16 06.4	+0.2
DALT	Dalyan (Mudla)	0.68	107	PG	Pb	05 16 06.6	-0.3
DALT				SG	Sb	05 16 16.8	+0.9
AYDN	Tasoluk	0.69	3	iP	Pb	05 16 06.8	-0.3
AYDN				iS	Sb	05 16 16.3	+0.1
ARG	Arkhangelos	0.79	163	ePN	Pn	05 16 07.5	-2.0
FETY	Fethiye	1.06	108	PG	Pn	05 16 13.0	-0.3
SMG	Samos	1.08	313	ePN	Pn	05 16 14.5	+0.8
DNZL	Cakiroluk	1.20	53	iP	Pn	05 16 15.2	-0.2
DNZL				iS	Sb	05 16 31.7	+0.7
DENT	Denizli	1.23	50	PN	Pn	05 16 15.7	-0.1
IZM	Izmir	1.49	343	PN	Pn	05 16 19.4	-0.1
KARP	Karpathos	1.52	201	ePN	Pn	05 16 20.1	+0.1
KARP				eSN	Sn	05 16 40.5	+1.3
MANT	Manisa	1.62	21	iP	Pn	05 16 21.8	+0.4
MANT				iS	Sn	05 16 41.6	0.0
ELL	Elmali	1.68	97	ePN	Pn	05 16 21.9	-0.3
AKS	Akhisar	1.90	360	ePN	Pn	05 16 25.2	-0.2

IDC 23 05:21:02.8±6.6**, 17.55S**×**178.77W, h600**^{km}±75^{km}**, mb3.0**/7**, mb1 3.4**/7**, mb1mx3.2**/14**, Error ellipse: s-maj=90.3km s-min=23.9km az=149.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	44.36	259	P	P	05 28 21.0	-2.1
	0.5nm,0.7s,baz=93,slow=7.8,SNR=8.9						
WRA				PcP	PcP	05 29 51.8	-2.2
	1.3nm,1.3s,baz=90,slow=3.8,SNR=4.8						
ASAR	Alice Springs	44.56	254	P	P	05 28 23.4	-1.2
	1.9nm,0.6s,baz=88,slow=8.8,SNR=27						
ASAR				PcP	PcP	05 29 52.1	-2.4
	0.1nm,0.4s,baz=98,slow=5.0,SNR=4.6						
NVAR	Mina Array Bea	79.41	44	P	P	05 32 08.7	-0.4
	0.6nm,0.6s,baz=217,slow=7.4,SNR=4.0						
ILAR	Eielson Array	85.62	13	P	P	05 32 38.1	-1.4
	0.5nm,0.5s,baz=221,slow=5.0,SNR=19						
TXAR	Lajitas Array	86.10	58	P	P	05 32 41.5	-1.2
	0.8nm,0.6s,baz=219,slow=8.0,SNR=7.1						
PDAR	Pinedale Array	87.33	44	P	P	05 32 47.1	-1.0
	0.5nm,0.6s,baz=230,slow=3.7,SNR=6.3						
YKA	Yellowknife Ar	94.15	25	P	P	05 33 17.6	-1.3
	0.2nm,0.7s,baz=245,slow=4.5,SNR=3.7						
GERES	GERESS Array B	147.18	345	PKPbc	PKPdf	05 39 40.0	+4.0
	0.9nm,0.6s,baz=63,slow=3.0,SNR=3.5						

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*JMA **23** 05:24:54.2±0.2, 39.63N×143.33E, h20^{km}±3^{km}, M3.8*
ISC 23 05:24:54.1±1.5**, 39.55N**±0.04×**143.36E**±0.09**, h18**^{km}±10^{km}**, n13, σ0^{s}74**/22**, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MIYJ	Miyakonagasawa	1.19	272	P	Pb	05 25 15.3	-0.5
JTH	Tanohata	1.22	289	P	Pb	05 25 15.7	-0.5
JTH				eS	Sb	05 25 31.5	0.0
OFUJ	Ofunato	1.39	251	P	Pn	05 25 19.3	+0.5
JOM	Ohasama	1.60	268	P	Pn	05 25 22.1	+0.3
JOM				eS	Sn	05 25 42.4	+0.3
JANG	Nango	1.64	301	P	Pn	05 25 21.4	-0.9
JMK	Ichinoseki	1.77	251	P	Pn	05 25 24.8	+0.6
JMK				eS	Sn	05 25 47.2	+0.9
JIO	Ouri	1.91	236	P	Pn	05 25 26.7	+0.4
JIO				S	Sn	05 25 48.4	-1.6
JTM	Tenmabayashi	2.15	306	P	Pn	05 25 29.5	-0.1
JTM				eS	Sn	05 25 55.6	-0.3
JAH	Hinai	2.19	288	P	Pn	05 25 30.7	+0.5
JAH				eS	Sn	05 25 58.3	+1.2
JYK	Kaneyama	2.42	256	P	Pn	05 25 34.1	+0.6
JMM	Marumori	2.62	231	P	Pn	05 25 36.4	0.0
JMM				eS	Sn	05 26 07.6	-0.4
JNBK	Urakawa-nobuka	2.76	351	P	Pn	05 25 38.5	+0.1
JNBK				eS	Sn	05 26 10.9	-0.7
MAT	Matsushiro	5.06	235	P	Pn	05 26 12.1	+1.1
MAT				eS	Sn	05 27 08.1	-1.5

IDC 23 05:40:38.8±3.4**, 17.07N**×**148.18E, mb3.7**/4**, mb1 3.9**/4**, mb1mx3.6**/20**, Error ellipse: s-maj=100.0km s-min=30.5km az=83.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	39.21	201	P	P	05 48 08.8	-1.9
	0.2nm,0.6s,baz=24,slow=9.1,SNR=3.0						
SONM	Songino Array	45.88	321	P	P	05 49 02.8	-1.8
	0.9nm,0.8s,baz=131,slow=6.0,SNR=5.4						
CMAR	Chiang Mai Arr	46.79	279	P	P	05 49 10.5	-1.7
	0.9nm,0.7s,baz=72,slow=6.9,SNR=6.3						
BVAR	Borovoye Array	69.22	321	P	P	05 51 47.5	-1.9
	1.1nm,0.4s,baz=90,slow=7.4,SNR=7.6						

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*IDC **23** 05:40:54.9±0.8, 19.46N×121.43E, mb3.9/8, mb1 4.1/9, mb1mx4.0/21, ML3.9/1, MS3.2/1, Ms1 3.2/1, ms1mx2.5/22, Error ellipse: s-maj=29.7km s-min=18.0km az=72.0*
*BJI **23** 05:40:54.7, 19.39N×121.42E, h17^{km}, mB5.0, mb4.2, Ms4.3, Msz3.7*
*MAN **23** 05:40:56.1, 19.67N×121.00E, h2^{km}, mb5.4, ML4.3, MS4.6*
*NEIC **23** 05:40:57.5±4.5, 19.43N×121.42E, h16^{km}±29^{km}, mb4.5/5, Error ellipse: s-maj=10.5km s-min=7.4km az=75.0*
ISC 23 05:41:00.4±0.7**, 19.54N**±0.04×**121.28E**±0.10**, h53**^{km}±9^{km}**, n28, σ1^{s}34**/32**, mb4.1**/13**, MS3.9**/1**, 2C-1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBP	Basco	1.10	35	eP	P	05 41 18.0	-1.9
BBP				eS	S	05 41 36.9	+2.6
SGCP	Mt. Cagua	1.48	151	eP	P	05 41 24.4	-0.8
SGCP				eS	S	05 41 45.0	+1.4
APYP	Conner	1.67	181	eP	P	05 41 26.0	-1.9
APYP				eS	S	05 41 47.3	-0.9
CVP	Callao Caves	1.90	164	⇓iP	P	05 41 30.0	-1.0
CVP				iS	S	05 41 55.0	+1.3
ABRA	Dolores	1.96	196	eP	P	05 41 20.6	-11
CAUP	Cauayan	2.63	169	eP	P	05 41 43.9	+2.5
PALP	Palanan	2.69	156	eP	P	05 41 44.7	+2.4
PALP				eS	S	05 42 20.6	+6.7
BOLP	Bolinao	3.40	203	eP	P	05 41 51.5	-0.9
BALP	Baler	3.79	176	eP	P	05 41 59.0	+1.2
JOW	Kunigami	9.70	40	Pn	P	05 43 16.1	-3.8
	2.5nm,0.3s,baz=190,slow=16,SNR=4.9						
JOW				LR	LR	05 46 49.3	
	comp=Z,134nm,20.0s,baz=130,slow=37						
KS15	Wonju Array Si	18.75	17	P	P	05 45 16.7	-0.7
BJT	Baijiatuau	20.88	349	eP	P	05 45 40.8	+0.5
	20nm,0.9s						
CMAR	Chiang Mai Arr	21.15	271	P	P	05 45 43.0	-0.1
	0.8nm,0.6s,mb3.2,baz=77,slow=9.3,SNR=10.0						
LZH	Lanzhou	22.51	321	⇑P	P	05 45 58.0	+1.4
LZH				AP		05 46 07.5	
LZH				XP		05 46 11.0	
LZH				AMB	AMB		
	comp=Z,30nm,1.6s,mb4.5						
LZH	Lanzhou	22.51	321	⇑P	P	05 45 58.0	+1.4
	comp=Z,30nm,1.6s,mb4.5						
LZH				pP		05 46 07.5	
LZH				sP		05 46 11.0	
HHC	Hu-ho-hao-te	22.81	341	eP	P	05 45 56.6	-2.9
HHC				AP		05 46 05.3	
HHC				XP		05 46 14.1	
HHC				AMB	AMB		
	comp=Z,5.0nm,0.4s,mb4.3						
HHC				AMB	AMB		
	comp=Z,120nm,4.0s						
HHC				LR	LR		
	comp=N,224nm,11.9s,MS4.2						
HHC				LR	LR		
	comp=E,484nm,14.2s,MS4.2						
HHC				LR	LR		
	comp=Z,223nm,16.6s,MS3.7						
SONM	Songino Array	30.71	340	P	P	05 47 12.9	+0.5
	comp=Z,3.1nm,0.8s,mb4.2,baz=158,slow=9.4,SNR=24						
WRAB	Tennant Creek	41.27	161	eP	P	05 48 40.5	-1.7
	comp=Z,16nm,1.4s,mb4.5						
WRA	Warramunga Arr	41.27	161	P	P	05 48 41.1	-1.2
	comp=Z,1.4nm,0.5s,mb3.8,baz=343,slow=9.0,SNR=16						
ZAL	Zalesovo	44.23	330	P	P	05 49 07.2	+1.1
	comp=Z,2.5nm,0.3s,mb4.5,baz=73,slow=2.8,SNR=4.5						
ASAR	Alice Springs	44.67	163	P	P	05 49 08.8	-1.1
	comp=Z,1.5nm,0.7s,mb4.0,baz=344,slow=6.8,SNR=14						
BVAR	Borovoye Array	51.37	323	P	P	05 50 02.7	+1.0
	comp=Z,0.8nm,0.8s,mb3.7,baz=117,slow=6.6,SNR=5.1						
BVAR				PcP	PcP	05 51 16.0	+0.1
	comp=Z,0.8nm,0.8s,baz=108,slow=4.6,SNR=3.1						
BRVK	Borovoye	51.44	323	eP	P	05 50 03.2	+1.0
	comp=Z,4.8nm,1.1s,mb4.3						
NWAO	Narrogin (SRO)	52.31	184	P	P	05 50 08.4	-0.6
	comp=Z,8.1nm,1.1s,mb4.6						
ILAR	Eielson Array	73.29	27	P	P	05 52 28.5	+0.9
	comp=Z,0.4nm,0.7s,mb3.4,baz=301,slow=5.3,SNR=3.4						
YKA	Yellowknife Ar	87.20	23	P	P	05 53 42.0	+0.3
	comp=Z,0.5nm,0.6s,mb3.9,baz=311,slow=4.6,SNR=13						
YKA	Yellowknife Ar	87.20	23	P	P	05 53 42.0	+0.3
SDV	Santo Domingo	149.41	24	PKPbc	PKPdf	06 00 46.9	+7.0
	comp=Z,2.8nm,0.7s,baz=357,slow=2.7,SNR=6.7						

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*IDC **23** 05:47:19.2±2.9, 66.46N×7.61E, mb1 3.7/4, mb1mx3.4/21, ML3.4/4, Error ellipse: s-maj=32.9km s-min=15.7km az=110.0*
*HEL **23** 05:47:21.9±0.4, 66.25N×7.74E, h10^{km}, ML3.4, MD3.1(BER), ML2.7(BER)*
*CSEM **23** 05:47:21.2±0.2, 66.35N×7.14E, h30^{km}, mb5.3, Error ellipse: s-maj=5.3km s-min=2.7km az=118.0*
*NEIC **23** 05:47:23.3, 66.29N×7.57E, h13^{km}, ML2.7(BER), After BER.*
*NAO **23** 05:47:25.9±4.2, 66.22N×8.60E, h7^{km}±33^{km}, ML3.0*
BER 23 05:47:24.2±3.9**, 66.26N**×**7.83E, h15**^{km}**, MD3.1, ML2.7, ML3.0**(NAO)**, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NSS	Namsos	2.45	133	eP	Pn	05 48 01.6	-2.8
NSS				eS	Sn	05 48 30.9	-3.5
MOR8	Moi Rana	2.68	89	eP	Pn	05 48 07.7	0.0
MOR8				eS	Sn	05 48 40.7	+0.6
MOR8				AML	AML	05 48 42.9	
	comp=Z,127nm,0.4s						
MOR8	Moi Rana	2.68	89	P	Pn	05 48 07.6	-0.1
MOR8				S	Sn	05 48 40.7	+0.6
	comp=Z,127nm,0.4s						
LOF	Lofoten	2.91	47	eP	Pn	05 48 08.7	-2.2
LOF				eS	Sn	05 48 41.4	-4.5
LOF				AML	AML	05 48 45.0	
	comp=Z,22nm,0.2s						
LOF	Lofoten	2.91	47	S	Sn	05 48 41.4	-4.5
	comp=Z,22nm,0.2s						
TRON	Trondheim	3.03	157	eP	Pn	05 48 11.0	-1.7
TRON				eS	Sn	05 48 44.8	-4.2
TRON	Trondheim	3.03	157	S	Sn	05 48 44.7	-4.3
MOL	Molde	3.71	182	eP	Pn	05 48 19.6	-2.7
MOL				eS	Sn	05 49 01.1	-5.0
MOL				AML	AML	05 49 02.8	
	comp=Z,41nm,0.4s						
MOL	Molde	3.71	182	P	Pn	05 48 19.5	-2.8
MOL				S	Sn	05 49 01.1	-5.1
	comp=Z,41nm,0.4s						
DOMB	Dombas	4.27	172	eP	Pn	05 48 26.6	-3.7
DOMB				eS	Sn	05 49 12.5	-7.8
DOMB	Dombas	4.27	172	P	Pn	05 48 26.5	-3.8
HYA	Hoyanger	5.17	189	eP	Pn	05 48 39.0	-4.0
HYA				AML	AML	05 49 47.1	
	comp=Z,27nm,0.3s						
NOA	NORSAR Array B	5.46	162	Pn	Pn	05 48 42.7	-4.3
	comp=Z,1.0nm,0.3s,baz=346,slow=15,SNR=4.9						
NOA				Sn	Sn	05 49 43.8	-6.4
	comp=Z,2.1nm,0.3s,baz=13,slow=20,SNR=4.0						
NOA	NORSAR Array B	5.46	162	Pn	Pn	05 48 42.7	-4.3
NOA				Sn	Sn	05 49 43.8	-6.4
ASK	Askoy	5.92	193	eP	Pn	05 48 47.0	-6.6
ASK				e		05 49 48.0	
EGD	Espegrend	6.13	192	eP	Pn	05 48 51.0	-5.5
ODD1	Odda	6.40	185	eP	Pn	05 48 54.5	-5.9
HFS	Hagfors	6.70	154	Pn	Pn	05 49 00.8	-3.7
	baz=354,slow=12						
HFS				Sn	Sn	05 50 12.8	-8.5
	baz=345,slow=28						
HFS	Hagfors	6.70	154	Pn	Pn	05 49 00.5	-4.0
	comp=Z,0.4nm,0.3s,baz=333,slow=9.7,SNR=53						
HFS				Sn	Sn	05 50 13.1	-8.1
	comp=Z,0.5nm,0.3s,baz=347,slow=26,SNR=7.4						
HFS	Hagfors	6.70	154	eP	Pn	05 49 00.8	-3.7
HFS				eS	Sn	05 50 12.8	-8.5
VAF	Ylistaro	7.14	110	eP	Pn	05 49 07.5	-3.2
VAF				MPN		05 49 09.1	
	comp=Z,5.5nm,0.2s						
VAF				eS	Sn	05 50 25.2	-7.0
ARA0	ARCESS Array S	7.42	56	Pn	Pn	05 49 08.9	-5.7
	baz=243,slow=12						
ARA0				Sn	Sn	05 50 28.9	-10
	baz=238,slow=22						
ARA0	ARCESS Array S	7.42	56	eP	Pn	05 49 08.9	-5.7
ARA0				eS	Sn	05 50 28.9	-10
ARA0	ARCESS Array S	7.42	56	Pn	Pn	05 49 08.9	-5.7
	SNR=55						
ARA0				Sn	Sn	05 50 28.9	-10
	SNR=55						
ARCES	ARCESS Array B	7.42	56	Pn	Pn	05 49 08.3	-6.3
	comp=Z,0.3nm,0.3s,baz=246,slow=11,SNR=13						
ARCES				Sn	Sn	05 50 28.6	-11
	comp=Z,0.8nm,0.3s,baz=233,slow=32,SNR=6.1						
SGF	Sodankyl	7.46	72	eP	Pn	05 49 10.6	-4.6
SGF				eS	Sn	05 50 29.2	-11
OUL	Oulu	7.55	91	eP	Pn	05 49 11.2	-5.3
OUL				eS	Sn	05 50 31.9	-11
KEV	Kevo	7.98	55	eP	Pn	05 49 17.5	-5.0
KEV				eS	Sn	05 50 40.4	-13
KEF	Keuruu	8.47	111	eP	P	05 49 25.7	-3.6
KEF				eS	Sn	05 50 55.6	-10
MSF	Maaselka	8.61	83	eP	P	05 49 25.7	-5.5
MSF				MPN		05 49 28.3	
	comp=Z,1.3nm,0.2s						
MSF				eS	Sn	05 50 56.2	-13
KJN	Kajaani	8.63	95	eP	P	05 49 26.3	-5.2
KJN				MPN		05 49 28.2	
	comp=Z,3.0nm,0.2s						
KJN				eS	Sn	05 50 58.1	-12
SUF	Sumiainen	8.65	106	eP	P	05 49 27.1	-4.8
SUF				MPN		05 49 29.6	
	comp=Z,2.8nm,0.3s						
SUF				eS	Sn	05 51 00.4	-10
KU4	Oulanka	8.74	79	eP	P	05 49 27.6	-5.5
KU4				eS	Sn	05 50 59.0	-13
KAF	Kangasniemi	9.05	109	eP	P	05 49 33.0	-4.4
KAF				MPN		05 49 33.7	
	comp=Z,1.5nm,0.2s						
KAF				eS	Sn	05 51 08.9	-11
FIA0	FINESS Array S	9.37	112	Pn	P	05 49 37.1	-4.6
	baz=315,slow=11						
FIA0				Sn	Sn	05 51 16.1	-12
	baz=312,slow=22						
FIA0				Lg		05 52 09.5	
	baz=319,slow=28						
FIA0	FINESS Array S	9.37	112	eP	P	05 49 37.9	-3.9
FIA0				MPN		05 49 39.2	
	comp=Z,1.7nm,0.2s						
FIA0				eS	Sn	05 51 18.0	-10
FINES	FINESS Array B	9.37	112	Pn	P	05 49 37.2	-4.5
	comp=Z,1.0nm,0.3s,baz=313,slow=11,SNR=36						
FINES				Sn	Sn	05 51 17.4	-10
	comp=Z,1.2nm,0.3s,baz=314,slow=21,SNR=9.3						
FINES	FINESS Array B	9.37	112	Pn	P	05 49 37.2	-4.5
FINES				Sn	Sn	05 51 17.4	-10
FINES	FINESS Array B	9.37	112	Sn	Sn	05 51 17.4	-10
PVF	Pernaja	9.88	117	eP	P	05 49 43.6	-5.0
PVF				eS	Sn	05 51 29.7	-11
JOF	Joensuu	10.60	97	eP	P	05 49 52.7	-5.8
JOF				eS	S	05 51 43.1	-15
SPA0	Spitsbergen Ar	12.23	8	Pn	P	05 50 16.6	-4.0
	baz=176,slow=12						

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*JMA **23** 05:50:50.4±0.1, 25.00N×122.40E, h11^{km}, M2.7*
TAP 23 05:50:53.8, 24.38N×**122.20E, h4**^{km}±1^{km}**, ML2.9, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.74	84	P	Pg	05 51 05.1	-3.5
YOJ				eS	Sg	05 51 15.3	-3.3
IRIF	Iriomote-Funau	1.40	92	P	Pb	05 51 15.3	-4.8
IRIF				eS	Sb	05 51 34.0	-4.1
HATJ	Hateruma jima	1.50	102	P	Pn	05 51 18.6	-3.0
HATJ				eS	Sb	05 51 39.5	-1.7
JKRS	Kuro-shima	1.66	95	P	Pn	05 51 19.5	-4.3
JIJ	Ishigaki jima	1.77	90	P	Pn	05 51 20.6	-4.9
JIJ				eS	Sn	05 51 42.1	-6.6

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*NIED **23** 05:53:00, 39.60N×143.30E, h23^{km}, Mw4.1 Best double couple: $M_0$1.85×10^{15} NP1:ϕ_s36°, δ71°, λ95°. NP2:ϕ_s202°, δ20°, λ77°.*
*IDC **23** 05:53:12.8±1.0, 39.66N×143.57E, mb4.0/11, mb1 4.1/12, mb1mx3.9/24, ML3.5/1, MS3.1/1, Ms1 3.1/1, ms1mx2.9/25, Error ellipse: s-maj=33.4km s-min=19.1km az=81.0*
*MOS **23** 05:53:15.2±0.9, 39.59N×143.50E, h33^{km}, mb4.3/9, Error*

ellipse: s-maj=33.1km s-min=12.5km az=107.0
*JMA **23** 05:53:15.8±0.2, 39.64N×143.31E, h22^{km}±4^{km}, M4.2*
*BJI **23** 05:53:20.6, 39.60N×142.90E, h57^{km}, mB4.9, mb4.2, Ms4.3, Msz3.7*
*NEIC **23** 05:53:22.3±1.9, 39.60N×142.93E, h58^{km}±17^{km}, mb4.3/12, Error ellipse: s-maj=18.0km s-min=13.1km az=98.0*

ISC 23 05:53:16.2±0.9, **39.61N**±0.05×**143.39E**±0.07, **h33**^{km}±6^{km}, **n62,** σ**0^{s}96**/72, **mb4.3**/26, **MS3.9**/3, **2C-1D, Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MIYJ	Miyakonagasawa	1.21	269	P	P	05 53 36.6	-0.2
JTH	Tanohata	1.22	286	P	P	05 53 36.8	-0.1
JTH				*e*S	S	05 53 52.7	+0.2
OFUJ	Ofunato	1.43	249	P	P	05 53 40.3	+0.2
JOM	Ohasama	1.62	266	P	P	05 53 43.1	+0.3
JOM				*e*S	S	05 54 03.2	+0.4
JANG	Nango	1.63	299	P	P	05 53 42.3	-0.6
JANG				*e*S	S	05 54 01.0	-1.8
JMK	Ichinoseki	1.81	249	P	P	05 53 45.9	+0.5
JIO	Ouri	1.96	235	P	P	05 53 47.8	+0.2
JIO				S	S	05 54 09.5	-1.8
JTM	Tenmabayashi	2.13	304	P	P	05 53 50.3	+0.3
JTM				*e*S	S	05 54 15.9	+0.3
JAH	Hinai	2.19	286	P	P	05 53 51.7	+0.7
JEM	Erimo	2.41	356	P	P	05 53 55.2	+1.2
JYK	Kaneyama	2.45	255	P	P	05 53 55.7	+1.1
ASAJ	Asahikawa	4.54	353	Pn	P	05 54 22.6	-1.7
	1.9nm,0.3s,baz=180,slow=12,SNR=3.4						
ASAJ				Sn	S	05 55 05.0	-12
	3.0nm,0.3s,baz=329,slow=6.2,SNR=4.8						
ASAJ				LR	LR	05 56 58.0	
	comp=Z,217nm,20.0s,baz=169,slow=50						
MAJO	Matsushiro	5.11	235	*e*Pn	P	05 54 32.4	0.0
MAT	Matsushiro	5.11	235	P	P	05 54 33.2	+0.8
MAT				S	S	05 55 37.2	+6.2
MAT	Matsushiro	5.11	235	*e*P	P	05 54 33.0	+0.6
MAT				*e*S	S	05 55 49.0	+18
HIA	Hailar	19.38	308	*e*P	P	05 57 38.1	-3.6
	7.7nm,0.6s						
SSE	Sheshan	19.96	252	P	P	05 57 44.9	-3.4
SSE				AMB	AMB		
	comp=Z,21nm,0.8s						
SSE				AMB	AMB		
	comp=Z,196nm,4.5s						
SSE				LR	LR		
	comp=Z,47nm,13.5s						
SSE	Sheshan	19.96	252	P	P	05 57 44.9	-3.4
	comp=Z,21nm,0.8s						
SSE				sP		05 57 56.8	
SSE				S	S	06 01 27.0	+1.0
SSE				sS		06 01 39.5	
MA2	Magadan	20.52	11	*e*P	P	05 57 55.0	+1.1
	comp=Z,12nm,0.8s						
BJT	Baijiatuau	20.89	280	*e*P	P	05 58 01.2	+3.3
	comp=Z,12nm,1.0s						
NJ2	Nanjing	21.23	257	*e*P	P	05 58 01.3	-0.1
NJ2				AP		05 58 10.6	
NJ2				PP	PP	05 58 24.0	-1.2
NJ2				PPP	PPP	05 58 32.5	-1.9
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb4.7						
NJ2				AMB	AMB		
	comp=Z,420nm,6.0s						
NJ2				LR	LR		
	comp=N,490nm,16.2s,MS4.2						
NJ2				LR	LR		
	comp=E,540nm,15.0s,MS4.2						
NJ2				LR	LR		
	comp=Z,1μm,14.1s,MS4.5						
YAK	Yakutsk	23.96	344	⇓*e*P	P	05 58 27.8	-0.1
YAK				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.5						
YAK				MLR	MLR		
	comp=Z,100nm,14.0s,MS3.4						
HHC	Hu-ho-hao-te	24.26	283	*e*P	P	05 58 25.5	-5.6
HHC				PCP	PcP	06 02 15.0	+2.9
HHC				S	S	06 02 32.1	-13
HHC				PCS		06 05 52.8	
HHC				AMB	AMB		
	comp=Z,6.0nm,0.5s,mb4.3						
HHC				AMB	AMB		
	comp=Z,228nm,4.9s						
HHC				LR	LR		
	comp=N,224nm,12.4s,MS4.2						
HHC				LR	LR		
	comp=E,484nm,12.5s,MS4.2						
HHC				LR	LR		
	comp=Z,223nm,16.9s,MS3.7						
WHN	Wuhan	25.34	258	*e*P	P	05 58 41.4	-0.2
BOD	Bodaibo	26.28	324	*e*P	P	05 58 49.6	-0.4
ULN	Ulaanbaatar	27.31	300*c*	*i*P	P	05 58 59.7	+0.1
ULN	Ulaanbaatar	27.31	300	*e*P	P	05 58 59.7	0.0
	comp=Z,5.9nm,1.0s,mb4.1						
SONM	Songino Array	27.75	299	P	P	05 59 04.1	+0.4
	comp=Z,2.3nm,0.6s,mb4.0,baz=88,slow=7.6,SNR=17						
ENH	Enshi	29.17	262	*e*P	P	05 59 15.2	-1.2
	comp=Z,15nm,0.9s,mb4.7						
LZH	Lanzhou	31.25	276	*e*P	P	05 59 25.5	-9.4
	comp=Z,15nm,1.2s,mb4.7						
LZH				pP	pP	05 59 34.0	-11
LZH				sP	sP	05 59 38.5	-10
ZAL	Zalesovo	41.40	310	P	P	06 01 00.8	+0.2
	comp=Z,2.2nm,0.4s,mb4.2,baz=17,slow=7.7,SNR=7.9						
ZAL	Zalesovo	41.40	310	P	P	06 01 00.8	+0.2
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.4s						
ILAR	Eielson Array	46.49	34	P	P	06 01 40.0	-1.5
	comp=Z,0.5nm,0.9s,mb3.4,baz=278,slow=6.4,SNR=2.4						
ILAR	Eielson Array	46.49	34	P	P	06 01 40.1	-1.4
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
GUN	Gumba	48.48	274	*e*P	P	06 01 58.3	+0.7
	comp=Z,17nm,0.5s,mb5.4						
KKN	Kakani	49.00	275	*e*P	P	06 02 02.2	+0.6
	comp=Z,23nm,0.6s,mb5.4						
DMN	Daman	49.22	275	*e*P	P	06 02 03.1	-0.2
GKN	Gorkha	49.39	275	*e*P	P	06 02 04.9	+0.3
	comp=Z,10nm,0.5s,mb5.1						
BVAR	Borovoye Array	50.02	311	P	P	06 02 09.2	+0.1
	comp=Z,1.8nm,0.5s,mb4.3,baz=72,slow=9.4,SNR=14						
BRVK	Borovoye	50.07	311	*e*P	P	06 02 09.7	+0.2
	comp=Z,5.0nm,0.9s,mb4.5						
KOLN	Koldanda	50.30	276	*e*P	P	06 02 10.5	-1.1
	comp=Z,5.5nm,0.5s,mb4.9						
AAK	Ala-Archa	50.67	297	⇑*e*P	P	06 02 13.2	-1.0
AAK				pmax	pmax		
	comp=Z,4.0nm,1.7s,mb4.1						
AAK	Ala-Archa	50.67	297	*e*P	P	06 02 13.0	-1.2
	comp=Z,1.6nm,0.6s,mb4.1						
INK	Inuvik	51.39	28	P	P	06 02 28.9	+10
	comp=Z,1.2nm,0.7s,mb3.9						
ARU	Arti	55.48	318	*e*P	P	06 02 45.3	-4.3
WRA	Warramunga Arr	59.84	190	P	P	06 03 20.1	-0.8
	comp=Z,0.5nm,0.5s,mb3.8,baz=7.2,slow=6.8,SNR=6.4						
WRA	Warramunga Arr	59.84	190	*i* P	P	06 03 19.1	-1.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRA	Warramunga Arr	59.84	190	P	P	06 03 20.1	-0.8
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ASAR	Alice Springs	63.57	190	P	P	06 03 46.0	+0.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=1.2,slow=4.1,SNR=3.5						
NEW	Newport	67.21	46	P	P	06 04 13.9	+5.1
	comp=Z,2.1nm,0.8s,mb4.2						
FINES	FINESS Array B	67.26	332	P	P	06 04 08.1	-0.7
	comp=Z,3.3nm,0.9s,mb4.3,baz=74,slow=10,SNR=3.6						
FINES	FINESS Array B	67.26	332	P	P	06 04 08.1	-0.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KIV	Kislovodsk	70.39	311	P	P	06 04 31.0	+2.5
SOC	Sochi	72.33	312	*e*P	P	06 04 37.8	-2.3
SOC				*e*		06 04 57.8	
SOC				*e*S	S	06 14 01.2	+1.3
SOC				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
SOC				pmax	pmax		
	comp=N,7.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,37nm,1.0s						
HFS	Hagfors	72.37	336	P	P	06 04 41.1	+1.1
	comp=E,2.1nm,0.5s,mb4.4,baz=45,slow=8.4,SNR=8.9						
HFS	Hagfors	72.37	336	P	P	06 04 41.1	+1.0
HFS				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NB2	NORSAR Subarra	72.40	338	P	P	06 04 41.1	+0.9
	comp=Z,1.2nm,0.6s,mb4.0,baz=36,slow=6.2						
NOA	NORSAR Array B	72.40	338	P	P	06 04 40.9	+0.7
	comp=Z,1.7nm,0.7s,mb4.1,baz=38,slow=6.1,SNR=4.9						
NOA	NORSAR Array B	72.40	338	P	P	06 04 40.9	+0.7
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
AKASG	Malin Array Be	73.20	323	P	P	06 04 45.2	+0.1
	comp=Z,1.0nm,0.5s,mb4.0,baz=45,slow=6.3,SNR=5.9						
AKASG	Malin Array Be	73.20	323	P	P	06 04 45.2	+0.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
GERES	GERESS Array B	81.32	329	P	P	06 05 31.6	+1.2
	comp=Z,0.4nm,0.5s,mb3.6,baz=23,slow=7.5,SNR=3.8						

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*NEIC **23** 05:56:29.2±0.9, 15.34N×93.62W, h66^{km}±7^{km}, mb3.9/12, MD4.4(MEX), Error ellipse: s-maj=12.1km s-min=8.2km az=199.0*
*IDC **23** 05:56:31.0±1.7, 15.76N×93.15W, h73^{km}±7^{km}, mb3.7/8, mb1 4.0/9, mb1mx3.6/21, MS3.4/2, Ms1 3.4/2, ms1mx2.4/21, Error ellipse: s-maj=67.7km s-min=22.2km az=48.0*
*MEX **23** 05:56:31.7±1.2, 15.49N×93.76W, h35^{km}, MD4.5*
*CASC **23** 05:56:31.1±1.8, 15.09N×93.95W, h34^{km}±999^{km}, MD4.6, ML4.4, mb3.9(NEIC)*

ISC 23 05:56:30.3±0.3, **15.58N**±0.05×**93.78W**±0.03, **h70**^{km}±5^{km}, **h73**^{km}±.8^{km}**:pP-P, n64,** σ**1^{s}20**/78, **mb3.9**/13, **1C-1D, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SCX	San Cristobal	1.59	44	*i* P	P	05 56 57.3	+0.2
SCX				*i* S	S	05 57 15.7	-1.1
CCIG	Comitan	1.73	66	*e*P	P	05 56 58.5	-0.4
CCIG				*i* S	S	05 57 17.5	-2.5
CMIG	Matias Romero	1.84	325	*e*P	P	05 57 01.3	+0.9
CMIG				*e*S	S	05 57 22.1	-0.4
HUIG	Huatulco	2.25	275	*e*P	P	05 57 05.0	-1.1
HUIG				*e*S	S	05 57 31.6	-1.0
HUIG	Huatulco	2.25	275	*e*P	P	05 57 05.0	-1.1
HUIG				*e*S	S	05 57 30.1	-2.5
JAT	Jato	2.42	121	⇓*e*P	P	05 57 07.2	-1.3
JAT				*e*S	S	05 57 34.4	-2.7
OXX	Oaxaca	3.19	298	*i* P	P	05 57 21.8	+2.4
OXX				*i* S	S	05 57 56.2	-0.2
VHO	Vista Hermosa	3.20	298	*e*P	P	05 57 19.9	+0.4
VHO				*e*S	S	05 57 57.5	+1.0
EVV	El Vigia	3.23	333	*i* P	P	05 57 19.0	-0.9
NBG	Las Nubes	3.46	106	*e*P	P	05 57 23.1	-0.1
RBDL	Robledal	4.22	110	*e*P	P	05 57 33.9	+0.2
PNIG	Pinotepa	4.26	282	*e*P	P	05 57 34.8	+0.7
PNIG				*i* S	S	05 58 22.9	-0.1
RTR	El Retiro	4.34	112	*e*P	P	05 57 35.8	+0.4
SBLS	San Blas	4.38	113	*e*P	P	05 57 35.9	-0.1
SBLS				*e*S	S	05 58 26.8	+0.7
SNJE	San Jose	4.38	112	*e*P	P	05 57 36.6	+0.6
SNJE				*e*S	S	05 58 27.7	+1.5
BOQS	Boqueron	4.73	112	*e*P	P	05 57 41.5	+0.8
BOQS				*e*S	S	05 58 35.7	+0.9
IISM	Ciudad Serdan	4.83	315	*i* P	P	05 57 45.6	+3.5
LFU	La Fuente	4.87	111	*e*P	P	05 57 43.0	+0.2
LFU				*e*S	S	05 58 38.2	-0.1
LBRS	Las Brisas	4.94	111	*e*P	P	05 57 43.5	-0.2
LFRS	El Faro	4.97	112	⇑*e*P	P	05 57 44.6	+0.5
LCBS	La Ceiba	5.03	112	*e*P	P	05 57 45.8	+0.8
LCBS				*e*S	S	05 58 43.1	+0.8
SNVI	San Vicente	5.17	112	*e*S	S	05 58 46.0	+0.2
BLLM	Bellamira	5.77	111	*e*S	S	05 59 01.7	+0.8
PPM	Popocatepetl	5.78	308	*i* P	P	05 58 00.3	+5.0
PLIG	Platanillo	6.15	298	*i* S	S	05 59 09.4	-0.6
CNCH	Conchagua	6.20	111	*e*P	P	05 58 00.4	-0.8
CNCH				*e*S	S	05 59 11.1	-0.3
CAIG	El Cayaco	6.39	284	*e*S	S	05 59 15.7	-0.5
TEIG	Tepich	6.99	48	*e*Pn	P	05 58 08.0	-4.1
	41nm,0.3s						
TEIG				*e*Sn	S	05 59 20.4	-10
JTS	JuntasAbangare	10.08	120	*e*Pn	P	05 58 52.4	-2.1
	7.4nm,0.4s						
LTX	Lajitas	16.44	328	P	P	06 00 23.3	+5.4
	3.6nm,0.9s						
TXAR	Lajitas Array	16.44	328	P	P	06 00 20.6	+2.7
	0.1nm,0.3s,baz=146,slow=12,SNR=9.2						
DWPF	Disney	16.92	40	*e*P	P	06 00 26.4	+2.5
	77nm,1.2s						
CLNB	Carlsbad	18.98	333	*e*P	P	06 00 49.5	+0.7
GDL2	Guadalupe Moun	19.14	332	*e*P	P	06 00 51.1	+0.6
MNTX	Cornudas Mount	19.22	329	*e*P	P	06 00 51.1	-0.3
	2.4nm,0.7s						
WMOK	Wichita Mounta	19.60	348	*e*P	P	06 00 53.5	-2.0
	1.9nm,0.7s						
CPRX	Cap Rock	19.63	334	*e*P	P	06 00 55.4	-0.4
AMTX	Amarillo	20.49	341	*e*P	P	06 00 59.6	-5.2
	8.7nm,0.6s						
OTAV	Otavalo	21.48	134	*e*P	P	06 01 10.6	-4.4
	8.2nm,1.3s,mb3.9						
LPM	Los Pinos Moun	21.95	331	*e*P	P	06 01 22.3	+2.9
ANMO	Albuquerque	22.40	332	P	P	06 01 25.1	+1.3
	1.0nm,0.6s,mb3.3,baz=140,slow=11,SNR=5.7						
ANMO	Albuquerque	22.40	332	*e*P	P	06 01 25.2	+1.3
	3.3nm,0.9s,mb3.7						
SDV	Santo Domingo	23.57	104	P	P	06 01 34.9	-0.4
	3.1nm,0.7s,mb3.8						
SDCO	Great Sand Dun	24.39	337	*e*P	P	06 01 44.9	+1.7
	2.1nm,0.7s,mb3.6						
PV01	Paradox Valley	25.98	333	*e*P	P	06 01 59.5	+1.2
PV10	Paradox Valley	26.39	332	*e*P	P	06 01 56.6	-5.4
SJG	San Juan	26.56	81	LR	LR	06 11 36.6	
	comp=Z,38nm,21.6s,baz=93,slow=35						
PDAR	Pinedale Array	30.29	337	P	P	06 02 37.0	0.0
	0.7nm,0.9s,mb3.3,baz=146,slow=5.3,SNR=4.7						
SNOW	Snow King Moun	31.34	336	*e*P	P	06 02 46.6	+0.3
NVAR	Mina Array Bea	31.37	321	P	P	06 02 47.7	+1.2
	1.9nm,0.8s,mb3.9,baz=126,slow=9.4,SNR=13						
NVAR				pP	pP	06 03 05.5	+2.0
	1.5nm,0.8s,baz=142,slow=8.2,SNR=3.9						
NVAR	Mina Array Bea	31.37	321	P	P	06 02 47.7	+1.2
NVAR				pP	pP	06 03 05.5	+2.0
HLID	Hailey	32.98	332	*e*P	P	06 03 00.6	+0.1
	2.8nm,1.0s,mb4.0						
MCMT	McKenzie Canyo	33.31	335	*e*P	P	06 03 04.5	+1.1
YKA	Yellowknife Ar	49.11	347	P	P	06 05 10.2	-2.2
	0.9nm,0.5s,mb4.0,baz=152,slow=7.4,SNR=30						
YKA				pP	pP	06 05 28.2	-2.0
	1.0nm,0.8s,baz=151,slow=7.6,SNR=5.3						
YKA				LR	LR	06 30 46.2	
	comp=Z,70nm,18.1s,baz=170,slow=42						
YKA	Yellowknife Ar	49.11	347	P	P	06 05 10.2	-2.2
YKA				pP	pP	06 05 28.2	-2.0
YKA				LR	LR	06 30 46.2	
BDFB	Brasilia	54.82	122	P	P	06 05 51.5	-4.3
	3.3nm,0.8s,mb4.4,baz=331,slow=4.7,SNR=4.0						
INK	Inuvik	58.45	344	P	P	06 06 18.5	-2.4
	1.8nm,0.6s,mb4.3,baz=134,slow=6.8,SNR=17						
INK				pP	pP	06 06 37.3	-1.9
	1.9nm,0.7s,baz=140,slow=8.1,SNR=3.6						
INK	Inuvik	58.45	344	*e*P	P	06 06 18.3	-2.6
	2.5nm,0.6s,mb4.4						
RES	Resolute Bay	59.11	360	*e*P	P	06 06 20.1	-5.3
	1.2nm,0.7s,mb4.0						
ILAR	Eielson Array	60.72	337	P	P	06 06 34.7	-1.8
	0.7nm,0.9s,mb3.7,baz=141,slow=5.8,SNR=5.6						
ILAR				pP	pP	06 06 53.9	-1.2
	0.6nm,0.7s,baz=150,slow=4.7,SNR=4.2						
PMSA	Palmer Station	83.25	168	P	P	06 08 46.9	-3.2
	125nm,1.2s						
ARCES	ARCESS Array B	85.18	18	P	P	06 08 57.7	-1.9
	8.7nm,1.2s,mb4.6,baz=315,slow=5.1,SNR=5.2						
ARCES	ARCESS Array B	85.18	18	P	P	06 08 57.7	-1.9
WRA	Warramunga Arr	134.08	257	PKP	PKPdf	06 15 40.0	-0.6
	0.4nm,0.7s,baz=99,slow=2.6,SNR=4.7						

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*NEIC **23** 06:22:45.7±3.0, 6.24S×150.21E, h61^{km}±21^{km}, mb4.4/2, Error ellipse: s-maj=34.0km s-min=20.5km az=87.0*
*IDC **23** 06:22:46.3±6.5, 6.17S×150.10E, h64^{km}±54^{km}, mb3.5/4, mb1 3.7/6, mb1mx3.6/14, ML3.4/2, MS3.3/3, Ms1 3.3/3, ms1mx3.2/10, Error ellipse: s-maj=56.5km s-min=30.2km az=92.0*

ISC 23 06:22:43.7±3.9, **6.2S**±0.2×**150.2E**±0.2, **h63**^{km}±30^{km}**, n9,** σ**0^{s}70**/11, **mb3.8**/4, **New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	4.40	223	P	P	06 23 50.0	+0.4
	11nm,0.3s,baz=33,slow=12,SNR=25						
PMG				S	S	06 24 40.2	+0.1
	22nm,0.3s,baz=87,slow=18,SNR=13						
CTA	Charters Tower	14.34	195	P	P	06 26 04.3	-0.6
	0.2nm,0.3s,baz=30,slow=14,SNR=2.5						
CTA				LR	LR	06 30 38.1	
	comp=Z,116nm,21.6s,baz=227,slow=33						
WRAB	Tennant Creek	20.59	227	*e*P	P	06 27 19.0	-1.0
	27nm,0.8s						
WRAB				*e*S	S	06 31 07.4	+5.8
WB2	Warramunga Arr	20.60	227	*e*P	P	06 27 19.6	-0.4
WRA	Warramunga Arr	20.61	227	P	P	06 27 19.8	-0.3
	4.5nm,0.9s,baz=52,slow=11,SNR=55						
ASAR	Alice Springs	23.41	220	P	P	06 27 49.6	+1.8
	0.8nm,0.4s,mb3.5,baz=54,slow=9.3,SNR=16						
ASAR				LR	LR	06 37 09.3	
	comp=Z,53nm,21.4s,baz=232,slow=37						
FITZ	Fitzroy Crossi	26.74	242	*e*P	P	06 28 19.3	-0.2
	3.3nm,0.4s,mb4.2						
STKA	Stephens Creek	26.80	196	P	P	06 28 20.3	+0.4
	2.6nm,0.9s,mb3.8,baz=6.9,slow=12,SNR=5.1						
STKA				LR	LR	06 39 21.8	
	comp=Z,106nm,19.4s,baz=26,slow=37						
SONM	Songino Array	66.16	329	P	P	06 33 26.8	0.0
	0.3nm,0.6s,mb3.5,baz=124,slow=5.2,SNR=3.4						

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*IDC **23** 06:26:04.6±1.6, 1.21N×125.60E, mb3.9/4, mb1 4.1/4, mb1mx3.8/15, Error ellipse: s-maj=181.0km s-min=25.0km az=71.0*

ISC 23 06:26:22.2±1.3, **0.0S**±0.2×**122.5E**±0.5, **h200**^{km}**, n7,** σ**0^{s}21**/7, **mb3.6**/4, **Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	15.99	142	*e*P	P	06 29 58.0	+0.2
	18nm,0.7s						
FITZ	Fitzroy Crossi	18.21	170	*e*P	P	06 30 22.9	+0.2
	4.4nm,0.3s						
WRA	Warramunga Arr	22.93	150	P	P	06 31 09.8	-0.1
	1.3nm,0.3s,mb3.9,baz=339,slow=9.4,SNR=42						
WB2	Warramunga Arr	22.93	150	*e*P	P	06 31 10.1	+0.1
ASAR	Alice Springs	25.96	156	P	P	06 31 38.2	0.0
	0.7nm,0.5s,mb3.6,baz=332,slow=9.0,SNR=15						
STKA	Stephens Creek	36.45	152	P	P	06 33 09.2	-0.5
	3.5nm,0.6s,mb4.1,baz=324,slow=9.9,SNR=8.5						
SONM	Songino Array	49.70	346	P	P	06 34 55.8	+0.1
	0.8nm,0.9s,mb3.0,baz=164,slow=9.0,SNR=4.4						

KRSC 23 06:27:06.8±1.6, **48.88N**×**156.56E, h60**^{km}±43^{km}**, ML4.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.83	351	*e*P	P	06 27 35.9	-0.6
SKR				*e*S	S	06 27 58.6	+0.1
ALID	Alaid	2.10	342	*e*P	P	06 27 41.6	+1.3
ALID				*e*S	S	06 28 06.7	+1.6
PAU	Pauzhetka	2.59	3	*e*P	P	06 27 48.0	+0.6
PAU				*e*S	S	06 28 16.8	-1.0
PAU				Smax			
	140nm,0.2s						
GRL	Gorelyy	3.80	14	*i* P	P	06 28 05.1	+0.8
GRL				*e*S	S	06 28 47.7	-0.5
AVH	Avacha	4.60	17	*e*P	P	06 28 17.0	+1.4
SDLR	Sedlovina	4.64	18	*e*P	P	06 28 16.4	+0.3
SPN	Mys Shipunski	4.76	26	*e*P	P	06 28 18.4	+0.7
GNL	Ganaly	4.90	10	P	P	06 28 22.2	+2.5
KBTR	Krutoberegovo	8.27	25	*e*P	P	06 29 05.4	-1.1

ISC 23 06:33:43.0±2.6, **22.0N**±0.1×**93.3E**±0.2, **h33**^{km}**, n7,** σ**1^{s}22**/9, **Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHL	Shillong	3.81	341	*e*PN	Pn	06 34 42.7	+1.8
SHL				*e*SN	Sn	06 35 24.0	-1.1
GUN	Gumba	8.95	313	*e*P	P	06 35 53.4	+0.5
PKI	Pulchoki	9.07	310	*e*P	P	06 35 54.5	-0.1
	3.5nm,0.3s						
KKN	Kakani	9.29	310	*e*P	P	06 35 57.6	-0.1
	4.7nm,0.2s						
DMN	Daman	9.31	309	*e*S	S	06 37 44.6	+2.0
GKN	Gorkha	9.88	309	*e*P	P	06 36 05.2	-0.6
	7.7nm,0.3s						
KOLN	Koldanda	10.52	305	*e*P	P	06 36 11.6	-3.0
KOLN				*e*S	S	06 38 11.6	-0.7

DJA 23 06:35:36.1±0.9, **9.49S**×**115.18E, h10**^{km}±4^{km}**, ML4.1**/3, **4C-4D, Error ellipse: s-maj=17.9km s-min=8.3km az=175.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RATI	Rata	0.84	25	⇓*e*Pg	Pg	06 35 50.9	-2.1
RATI				⇑*e*Sg	Sg	06 36 01.3	-3.0
KEDI	Kedomdong	1.36	43	⇑*e*Pn	Pn	06 35 58.3	-2.9
	196nm,0.2s						
KEDI				⇓*e*Sn	Sn	06 36 14.5	-4.9
SRDI	Scrawed	1.44	314	⇑*e*Pn	Pn	06 35 59.3	-3.0
	262nm,0.2s						
SRDI				⇓*e*Sn	Sn	06 36 16.6	-4.7
KELI	Kelakatan	1.44	332	⇑*e*Pn	Pn	06 36 00.0	-2.3
	172nm,0.1s						
KELI				⇓*e*Sn	Sn	06 36 16.9	-4.4

WEL 23 06:41:54.8±0.4, **37.93S**×**176.30E, h155**^{km}±3^{km}**, ML3.5**/6, **Error ellipse: s-maj=6.8km s-min=4.2km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	0.72	117	PN	P	06 42 18.1	-0.3
URZ				SN	S	06 42 35.6	-0.9
MWZ	Matawai	1.05	113	PN	P	06 42 20.6	-0.1
MWZ				SN	S	06 42 40.2	-0.4
BKZ	Black Stump Fm	1.24	173	PN	P	06 42 22.6	+0.1
BKZ				SN	S	06 42 43.1	-0.7
PUZ	Puketiti	1.55	96	PN	P	06 42 24.8	-0.9
PUZ				SN	S	06 42 48.5	-0.9
TSZ	Takapari Road	2.14	187	PN	P	06 42 31.6	-0.7
TSZ				SN	S	06 42 59.9	-1.2
MRZ	Mangatainoka R	2.78	191	PN	P	06 42 38.1	-2.2
MRZ				SN	S	06 43 11.3	-3.8
KIW	Kapiti Island	3.12	200	*e*PN	P	06 42 41.9	-2.6
MTW	Mount Morrison	3.28	191	PN	P	06 42 43.5	-3.2
CAW	Cannon Point	3.31	196	PN	P	06 42 44.1	-3.0
MSWZ	Moikau Station	3.57	193	PN	P	06 42 47.0	-3.4
TUWZ	Tuamarina	3.94	207	SN	S	06 43 36.4	-5.3
NNZ	Nelson	3.98	214	SN	S	06 43 38.6	-4.1
THZ	Tophouse	4.63	213	PN	P	06 43 00.8	-3.5
THZ				SN	S	06 43 53.8	-4.1
KHZ	Kahutara	4.95	204	*e*PN	P	06 43 04.3	-4.3
KHZ				SN	S	06 44 00.2	-5.3

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*WAR **23** 07:09:06.3, 50.27N×18.78E, h1^{km}, Location given by Central Institute of Mining, origin time based upon OJC*
*PRU **23** 07:09:06.5, 50.29N×18.73E*

ISC 23 07:09:04.6±0.9, **50.27N**±0.06×**18.68E**±0.04**, n7,** σ**0^{s}94**/10, **Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OKC	Ostrava-Krasne	0.55	218	*e*PG	Pg	07 09 17.6	+2.0
OJC	Ojcow	0.72	94	*e*Pg	Pg	07 09 19.0	0.0
OJC				*e*Sg	Sg	07 09 28.9	+0.2
NIE	Niedzica	1.36	128	*e*Pg	Pg	07 09 31.0	-0.8
NIE				*e*Sg	Sg	07 09 49.9	0.0
NIE				*e*		07 09 51.0	
DPC	Dobruska-Polom	1.51	274	*e*PG	Pg	07 09 34.7	-0.1
DPC				*e*SG	Sg	07 09 55.6	+0.7
VYHS	Vyhne	1.78	177	*e*SN	Sn	07 09 59.9	-0.7
SMOL	Smolenice	1.94	205	*e*SG	Sg	07 10 09.8	+0.6
KHC	Kasperske Hory	3.50	253	*e*SG	Sg	07 10 59.2	-2.0

*JMA **23** 07:24:18.0±0.2,24.06N×122.48E,h69^{km}±4^{km},M3.1*
TAP 23 07:24:18.4,23.94N×122.40E,h18^{km},ML3.5,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.76**	**47**	P	Pb	07 24 32.1	-0.8
YOJ				*e*S	Sb	07 24 42.4	-0.4
HATJ	**Hateruma jima**	**1.29**	**85**	P	Pn	07 24 39.3	-2.4
HATJ				*e*S	Sb	07 24 55.2	-2.8
JKRS	**Kuro-shima**	**1.50**	**78**	P	Pn	07 24 42.2	-2.5
JKRS				*e*S	Sn	07 25 00.3	-3.6
JIJ	**Ishigaki jima**	**1.65**	**75**	P	Pn	07 24 43.5	-3.3
JIJ				*e*S	Sn	07 25 02.2	-5.5
JTJ	**Tarama**	**2.21**	**71**	P	Pn	07 24 51.5	-3.4
JTJ				*e*S	Sn	07 25 17.0	-5.1

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*IDC **23** 07:37:45.9±6.0,6.70S×155.26E,h42^{km}±51^{km},mb3.4/6,mb1 3.7/8,mb1mx3.7/15,ML3.1/2,MS3.0/1,Ms1 3.0/1,ms1mx2.7/7,Error ellipse: s-maj=44.6km s-min=28.7km az=118.0*
*NEIC **23** 07:37:46.5±2.8,6.73S×155.28E,h48^{km}±23^{km},mb3.9/2,Error ellipse: s-maj=29.1km s-min=16.7km az=112.0*
ISC 23 07:37:44.8±4.5,**6.6S**±0.2×**155.1E**±0.2,**h42**^{km}±39^{km},**n11,σ0^{s}.69**/13,**mb3.6**/7,**Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**8.38**	**250**	P	**P**	**07 39 46.5**	**0.0**
	0.6nm,0.3s,baz=63,slow=14,SNR=2.1						
PMG				S	**S**	**07 41 20.5**	**-0.2**
	0.4nm,0.3s,baz=239,slow=5.9,SNR=2.1						
PMG				LR	LR	07 42 47.5	
	comp=Z,95nm,20.0s,baz=30,slow=36						
PMG	**Port Moresby**	**8.38**	**250**	P	**P**	**07 39 46.5**	**0.0**
PMG				S	**S**	**07 41 20.5**	**-0.2**
PMG				LR	LR	07 42 47.5	
CTA	**Charters Tower**	**15.95**	**212**	P	**P**	**07 41 27.6**	**-0.3**
	0.1nm,0.3s,baz=44,slow=14,SNR=1.7						
CTAO	**Charters Tower**	**15.95**	**212**	P	**P**	**07 41 31.4**	**+3.5**
	5.6nm,0.9s						
WRAB	**Tennant Creek**	**24.14**	**235**	*e*P	**P**	**07 42 58.9**	**+0.7**
	8.8nm,1.1s,mb4.1						
WRA	**Warramunga Arr**	**24.16**	**235**	P	**P**	**07 42 58.9**	**+0.6**
	0.6nm,0.4s,mb3.4,baz=59,slow=9.3,SNR=16						
WRA				PcP	PcP	07 46 38.9	-1.0
	0.3nm,0.5s,baz=60,slow=2.3,SNR=6.9						
ASAR	**Alice Springs**	**26.54**	**228**	P	**P**	**07 43 19.4**	**-1.4**
	0.3nm,0.5s,mb3.1,baz=61,slow=8.7,SNR=7.0						
CMAR	**Chiang Mai Arr**	**60.73**	**295**	P	**P**	**07 47 55.1**	**+0.2**
	1.5nm,0.7s,mb4.2,baz=122,slow=5.2,SNR=5.4						
SONM	**Songino Array**	**69.07**	**327**	P	**P**	**07 48 48.5**	**+0.1**
	0.2nm,0.6s,mb3.2,baz=133,slow=6.3,SNR=2.5						
ILAR	**Eielson Array**	**82.95**	**21**	P	**P**	**07 50 05.8**	**-0.6**
	0.4nm,0.9s,mb3.4,baz=265,slow=5.1,SNR=7.3						
YKA	**Yellowknife Ar**	**95.92**	**28**	P	**P**	**07 51 08.3**	**+0.3**
	0.2nm,0.6s,mb3.7,baz=272,slow=4.8,SNR=5.5						

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*IDC **23** 08:01:46.3±0.6,41.67N×29.37W,mb4.0/14,mb1 4.2/16,mb1mx4.0/25,ML4.7/1,MS3.9/16,Ms1 3.9/16,ms1mx3.6/30,Error ellipse: s-maj=19.1km s-min=14.9km az=161.0*
*NEIC **23** 08:01:47.6±0.3,41.70N×29.30W,h10^{km},mb4.7/25,Error ellipse: s-maj=11.6km s-min=5.0km az=173.0*
*ZUR_RM **23** 08:01:47,41.70N×29.30W,h12^{km},Mw4.7/6,Moment Tensor Solution. s6 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.18; $M_{\theta\theta}$0.42; $M_{\phi\phi}$0.75; $M_{r\theta}$-0.43; $M_{\theta\phi}$0.28; $M_{\phi r}$0.33; Best double couple: $M_0$1.14×10^{16} NP1:ϕ_s191°,δ50°,λ-114°. NP2:ϕ_s46°,δ46°,λ-64°. Principal axes: T .917, Plg2°, Azm298°; N .443, Plg18°, Azm207°; P -1.359, Plg71°, Azm35°;*
*CSEM **23** 08:01:49.1±0.1,41.72N×29.31W,h33^{km},mb4.8/21,Ms3.6 Error ellipse: s-maj=5.9km s-min=2.5km az=173.0*
*SVSA **23** 08:02:25.2±0.8,38.96N×27.87W,h15^{km},MD2.3,ML2.2,Error ellipse: s-maj=4.8km s-min=2.2km az=29.0*
ISC 23 08:01:45.1±0.2,**41.44N**±0.03×**29.25W**±0.05,**h10**^{km},**n116,σ0^{s}.97**/105,**mb4.4**/35,**MS3.9**/16,**Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STGR	**Santa Cruz**	**2.54**	**158**	*e*P	**Pn**	**08 02 27.2**	**+0.1**
STGR				*e*S	Sn	08 02 31.2	-27
	86nm,0.3s						
ROSA	**Rosais**	**2.82**	**164**	*e*P	**Pn**	**08 02 31.9**	**+0.7**
CALA	**Caldeira**	**2.88**	**171**	*e*rx	**Pn**	**08 02 33.3**	**+1.3**
PICO	**Pico**	**3.00**	**168**	*e*P	**Pn**	**08 02 35.2**	**+1.5**
PSBA	**Serra de Santa**	**3.05**	**150**	*e*P	**Pn**	**08 02 33.2**	**-1.2**
PSBA				*e*S	Sn	08 02 38.6	-33
	466nm,0.4s						
PBIS	**Biscoitos**	**3.08**	**150**	*e*P	**Pn**	**08 02 34.3**	**-0.5**
PBIS				*e*S	Sn	08 02 39.9	-32
	94nm,0.4s						
ASBA	**Santa Barbara**	**3.09**	**151**	*e*P	**Pn**	**08 02 34.3**	**-0.7**
ASBA				*e*S	Sn	08 02 39.3	-33
	373nm,0.2s						
PID	**Ribeirinha**	**3.12**	**163**	*e*rx	**Pn**	**08 02 35.9**	**+0.6**
PVNV	**Vila Nova**	**3.12**	**148**	*e*P	**Pn**	**08 02 34.8**	**-0.6**
PVNV				*e*S	Sn	08 02 40.2	-33
	205nm,0.3s						
PPAD	**Pico dos Padre**	**3.12**	**151**	*e*P	**Pn**	**08 02 34.0**	**-1.4**
PPAD				*i* S	Sn	08 02 39.9	-33
	157nm,0.3s						
PSCM	**Serra do Cume**	**3.19**	**148**	*e*P	**Pn**	**08 02 35.2**	**-1.1**
PSCM				*e*S	Sn	08 02 42.9	-32
	194nm,0.3s						
PFAV	**Pico das Favas**	**3.19**	**148**	*e*P	**Pn**	**08 02 35.9**	**-0.5**
PFAV				*e*S	Sn	08 02 41.2	-34
	266nm,0.3s						
RIB2	**Ribeirinha**	**3.19**	**149**	*e*P	**Pn**	**08 02 35.4**	**-1.0**
SET4	**Mosteiros**	**4.44**	**142**	*e*P	**Pn**	**08 02 53.6**	**-0.6**
SET2	**Ginetes**	**4.46**	**142**	*e*P	**Pn**	**08 02 53.8**	**-0.7**
PFET	**Feteiras**	**4.50**	**142**	*e*P	**Pn**	**08 02 54.1**	**-0.8**
FAC	**Faja de Cima**	**4.59**	**142**	*e*P	**Pn**	**08 02 55.6**	**-0.7**
PVER	**Pico Vermelho**	**4.64**	**140**	*e*P	**Pn**	**08 02 56.5**	**-0.5**
CML	**Cha da Macela**	**4.64**	**141**	*e*P	**Pn**	**08 02 56.9**	**-0.2**
PMAT	**Coroa da Mata**	**4.64**	**140**	*e*P	**Pn**	**08 02 57.1**	**0.0**
LFA	**Lagoa do Fogo**	**4.67**	**140**	*e*P	**Pn**	**08 02 57.0**	**-0.5**
MESC	**Monte Escuro**	**4.68**	**140**	*e*P	**Pn**	**08 02 57.4**	**-0.1**
PFAD	**Fenais da Ajud**	**4.70**	**139**	*e*P	**Pn**	**08 02 58.3**	**+0.5**
PRCH	**Ribeira Ch**	**4.71**	**141**	*e*P	**Pn**	**08 02 57.8**	**-0.2**
VIF	**Vila Franca**	**4.72**	**140**	*e*P	**Pn**	**08 02 57.9**	**-0.2**
PCNG	**Congro**	**4.72**	**140**	*e*P	**Pn**	**08 02 58.5**	**+0.4**
FRA1	**Furnas**	**4.76**	**140**	*e*P	**Pn**	**08 02 58.7**	**0.0**
MIRA	**Miradouro**	**4.76**	**139**	*e*P	**Pn**	**08 02 59.0**	**+0.3**
ESDC	**Sonseca Array**	**19.28**	**87**	P	**P**	**08 06 15.4**	**+2.9**
	0.5nm,0.3s,baz=298,slow=9.7,SNR=9.9						
SJPF	**Ste Jean**	**20.77**	**76**	*e*P	**P**	**08 06 30.0**	**+1.4**
	175nm,1.7s						
GRR	**Gorron**	**21.19**	**61**	*e*P	**P**	**08 06 32.5**	**-0.4**
MFF	**Saint Martin d**	**21.49**	**66**	*e*P	**P**	**08 06 37.8**	**+1.9**
FLN	**La Foliniere**	**21.49**	**60**	*e*P	**P**	**08 06 37.5**	**+1.6**
FLN				*e*R			
	358nm,20.5s						
LDF	**La Druitiere**	**21.70**	**61**	*e*P	**P**	**08 06 38.0**	**-0.1**
	221nm,1.7s,mb5.0						
EPF	**Esparros**	**21.92**	**76**	*e*P	**P**	**08 06 40.4**	**+0.2**
	51nm,1.2s,mb4.5						
LFF	**La Frestale**	**22.08**	**71**	*e*P	**P**	**08 06 42.9**	**+1.0**
RJF	**Les Rejaudoux**	**22.62**	**70**	*e*P	**P**	**08 06 47.8**	**+0.6**
	71nm,1.4s,mb4.6						
RJF				*e*R			
	342nm,17.5s						
CAF	**Calviac**	**23.02**	**71**	*e*P	**P**	**08 06 51.6**	**+0.5**
	80nm,1.4s,mb4.7						
TCF	**Toulx Ste Croi**	**23.10**	**67**	*e*P	**P**	**08 06 52.9**	**+1.0**
MTLF	**Montolieu**	**23.25**	**75**	*e*P	**P**	**08 06 54.3**	**+1.0**
	35nm,1.2s,mb4.4						
BGF	**Bois d'Agland**	**23.55**	**67**	*e*P	**P**	**08 06 56.5**	**+0.3**
	39nm,1.0s,mb4.5						
SSF	**Saint Saulge**	**24.01**	**65**	*e*P	**P**	**08 07 00.9**	**+0.2**
	11nm,1.1s,mb4.2						
SMF	**Signal de Mont**	**24.23**	**66**	*e*P	**P**	**08 07 02.9**	**0.0**
BAIF	**Baives**	**24.71**	**58**	*e*P	**P**	**08 07 08.0**	**+0.5**
VIVF	**Saint-Julien-l**	**24.88**	**71**	*e*P	**P**	**08 07 06.8**	**-2.3**
GIVF	**Givet**	**25.11**	**58**	*e*P	**P**	**08 07 09.5**	**-1.8**
MEZF	**Maizieres J'vi**	**25.11**	**62**	*e*P	**P**	**08 07 10.9**	**-0.4**
WLF	**Walferdange**	**25.92**	**59**	P	**P**	**08 07 17.2**	**-1.6**
	20nm,1.0s,mb4.6						
WLF	**Walferdange**	**25.92**	**59**	P	**P**	**08 07 17.2**	**-1.7**
	20nm,1.0s,mb4.6						
MEM	**Membach**	**25.93**	**57**	P	**P**	**08 07 19.3**	**+0.4**
	18nm,1.2s,mb4.5						
HAU	**Haudompre**	**25.96**	**63**	*e*P	**P**	**08 07 18.4**	**-0.9**
HAU				*e*R			
	348nm,19.2s						
HINF	**Hinteralfeld**	**26.30**	**64**	*e*P	**P**	**08 07 21.2**	**-1.2**
	30nm,1.2s,mb4.4						
CDF	**Champ du Feu**	**26.59**	**62**	*e*P	**P**	**08 07 24.3**	**-0.8**
SCHQ	**Schefferville**	**28.06**	**311**	LR	LR	08 16 03.9	
	comp=Z,191nm,18.5s,MS3.7,baz=124,slow=31						
GERES	**GERESS Array B**	**30.85**	**61**	P	**P**	**08 08 03.0**	**-0.3**
	0.5nm,0.6s,mb3.5,baz=247,slow=10,SNR=4.1						
SUMG	**Summit**	**31.54**	**355**	P	**P**	**08 08 05.2**	**-4.1**
	5.3nm,1.0s,mb4.3						
FRB	**Frobisher Bay**	**31.87**	**328**	LR	LR	08 17 19.6	
	comp=Z,146nm,21.6s,MS3.6,baz=92,slow=30						
VAE	**Valguarnera**	**33.67**	**82**	LR	LR	08 21 25.3	
	comp=Z,253nm,18.1s,MS4.0,baz=128,slow=35						
FINES	**FINESS Array B**	**38.39**	**40**	LR	LR	08 23 12.2	
	comp=Z,195nm,20.1s,MS3.9,baz=201,slow=34						
AKASG	**Malin Array Be**	**40.64**	**56**	P	**P**	**08 09 26.4**	**-0.2**
	0.2nm,0.3s,baz=272,slow=8.8,SNR=5.1						
DBIC	**Dimbokro**	**40.86**	**141**	P	**P**	**08 09 31.6**	**+2.7**
	4.6nm,0.9s,mb4.1,baz=311,slow=10,SNR=3.1						
DBIC				LR	LR	08 25 29.1	
	comp=Z,143nm,18.4s,MS3.9,baz=308,slow=35						
DBIC	**Dimbokro**	**40.86**	**141**	*e*P	**P**	**08 09 31.6**	**+2.7**
	10nm,0.9s,mb4.5						
DBIC	**Dimbokro**	**40.86**	**141**	*e*P	**P**	**08 09 31.6**	**+2.7**
	10nm,0.9s,mb4.5						
ULM	**Lac du Bonnet**	**45.81**	**305**	LR	LR	08 27 50.3	
	comp=Z,183nm,20.6s,MS4.0,baz=115,slow=34						
OXF	**Oxford**	**47.10**	**282**	*e*P	**P**	**08 10 18.8**	**-0.2**
	60nm,1.1s,mb5.4						
RCBR	**Riachuelo**	**47.43**	**189**	P	**P**	**08 10 14.4**	**-7.5**
	54nm,1.5s,mb5.3						
SDV	**Santo Domingo**	**48.81**	**240**	P	**P**	**08 10 34.5**	**+2.0**
	6.4nm,1.2s,mb4.5,baz=61,slow=10,SNR=2.7						
SDV	**Santo Domingo**	**48.81**	**240**	*e*P	**P**	**08 10 32.9**	**+0.4**
	16nm,1.2s,mb4.9						
MIAR	**Mount Ida**	**50.13**	**284**	*e*P	**P**	**08 10 42.8**	**+0.3**
	13nm,1.2s,mb4.8						
MIAR	**Mount Ida**	**50.13**	**284**	*e*P	**P**	**08 10 42.8**	**+0.3**
	13nm,1.2s,mb4.8						
YKA	**Yellowknife Ar**	**52.25**	**324**	P	**P**	**08 10 57.5**	**-0.7**
	0.7nm,0.9s,mb3.6,baz=68,slow=7.1,SNR=6.5						
YKA				PcP	PcP	08 12 08.9	-0.7
	0.5nm,0.7s,baz=63,slow=4.3,SNR=7.0						
YKA				LR	LR	08 32 49.4	
	comp=Z,58nm,18.0s,MS3.7,baz=85,slow=36						
YKA	**Yellowknife Ar**	**52.25**	**324**	P	**P**	**08 10 57.5**	**-0.7**
YKA				PcP	PcP	08 12 08.9	-0.7
YKA	**Yellowknife Ar**	**52.25**	**324**	PcP	PcP	08 12 08.9	-0.8
WMOK	**Wichita Mounta**	**53.81**	**287**	*e*P	**P**	**08 11 08.0**	**-2.0**
	7.2nm,1.2s,mb4.5						
WMOK	**Wichita Mounta**	**53.81**	**287**	*e*P	**P**	**08 11 08.0**	**-2.1**
	7.2nm,1.2s,mb4.5						
GNI	**Garni**	**54.38**	**65**	LR	LR	08 35 53.6	
	comp=Z,66nm,19.1s,MS3.7,baz=154,slow=38						
ARU	**Arti**	**55.66**	**42**	*e*P	**P**	**08 11 22.4**	**-0.9**
	15nm,1.0s,mb5.0						
ARU	**Arti**	**55.66**	**42**	*e*P	**P**	**08 11 22.4**	**-0.9**
	15nm,1.0s,mb5.0						
INK	**Inuvik**	**57.10**	**335**	P	**P**	**08 11 31.9**	**-1.6**
	1.5nm,0.7s,mb4.1,baz=54,slow=7.4,SNR=9.9						
INK	**Inuvik**	**57.10**	**335**	*e*P	**P**	**08 11 31.9**	**-1.6**
	11nm,1.4s,mb4.7						
INK	**Inuvik**	**57.10**	**335**	*e*P	**P**	**08 11 31.9**	**-1.6**
	11nm,1.4s,mb4.7						
PDAR	**Pinedale Array**	**57.37**	**300**	P	**P**	**08 11 34.4**	**-1.4**
	1.9nm,1.1s,mb4.1,baz=59,slow=8.6,SNR=10						
PDAR				LR	LR	08 35 57.1	
	comp=Z,139nm,18.2s,MS4.1,baz=227,slow=36						
PDAR	**Pinedale Array**	**57.37**	**300**	P	**P**	**08 11 34.3**	**-1.4**
GDL2	**Guadalupe Moun**	**59.11**	**287**	*e*P	**P**	**08 11 48.4**	**+0.3**
ANMO	**Albuquerque**	**59.16**	**291**	P	**P**	**08 11 48.2**	**-0.1**
	1.2nm,0.9s,mb3.9,baz=70,slow=9.1,SNR=3.1						
HWUT	**Hardware Ranch**	**59.24**	**300**	*e*P	**P**	**08 11 48.1**	**-0.6**
	12nm,1.1s,mb4.9						
HWUT	**Hardware Ranch**	**59.24**	**300**	*e*P	**P**	**08 11 48.2**	**-0.6**
	12nm,1.1s,mb4.8						
BDFB	**Brasilia**	**59.39**	**201**	P	**P**	**08 11 51.8**	**+1.6**
	1.9nm,0.7s,mb4.2,baz=37,slow=5.1,SNR=3.0						
LPM	**Los Pinos Moun**	**59.61**	**291**	P	**P**	**08 11 47.1**	**-4.4**
BNM	**Barren Site**	**59.69**	**290**	*e*P	**P**	**08 11 53.0**	**+1.0**
BNM				*e*PcP	PcP	08 12 33.2	-5.6
TXAR	**Lajitas Array**	**60.16**	**284**	P	**P**	**08 11 54.8**	**-0.5**
	1.8nm,0.9s,mb4.1,baz=68,slow=6.7,SNR=8.9						
TXAR				LR	LR	08 37 10.7	
	comp=Z,91nm,19.5s,MS3.9,baz=40,slow=35						
TMUT	**Trail Mountain**	**60.17**	**298**	P	**P**	**08 11 54.2**	**-1.0**
TMUT	**Trail Mountain**	**60.17**	**298**	P	**P**	**08 11 54.2**	**-1.0**
OTAV	**Otavalo**	**60.40**	**241**	*e*P	**P**	**08 11 58.8**	**+1.7**
	7.2nm,1.2s,mb4.6						
MSU	**Marysvale**	**61.22**	**297**	*e*P	**P**	**08 12 02.6**	**+0.2**
MSU	**Marysvale**	**61.22**	**297**	*e*P	**P**	**08 12 02.6**	**+0.2**
BVAR	**Borovoye Array**	**63.29**	**42**	P	**P**	**08 12 16.5**	**+0.5**
	baz=304,slow=5.2						
BBB	**Bella Bella**	**63.37**	**317**	LR	LR	08 39 11.1	
	comp=Z,182nm,19.0s,MS4.3,baz=295,slow=36						
ILAR	**Eielson Array**	**63.50**	**335**	P	**P**	**08 12 16.6**	**-0.4**
	0.7nm,0.8s,mb3.7,baz=41,slow=7.1,SNR=8.4						
ILAR				LR	LR	08 39 26.2	
	comp=Z,50nm,19.3s,MS3.7,baz=168,slow=36						
ILAR	**Eielson Array**	**63.50**	**335**	P	**P**	**08 12 16.6**	**-0.5**
NEN	**Nelson**	**64.56**	**296**	*e*P	**P**	**08 12 24.6**	**+0.1**
IMA	**Indian Mountai**	**64.63**	**338**	*e*P	**P**	**08 12 23.6**	**-0.8**
	140nm,1.6s						
IMA	**Indian Mountai**	**64.63**	**338**	*e*P	**P**	**08 12 23.6**	**-0.9**
	140nm,1.6s						
MOD	**Modoc**	**64.64**	**304**	*e*P	**P**	**08 12 25.1**	**+0.1**
	9.5nm,1.0s,mb4.8						
MOD				*e*		08 12 30.4	
MOD	**Modoc**	**64.64**	**304**	*e*P	**P**	**08 12 25.1**	**+0.1**
NVAR	**Mina Array Bea**	**65.30**	**300**	P	**P**	**08 12 28.9**	**-0.4**
	0.4nm,0.5s,mb3.7,baz=59,slow=2.2,SNR=4.5						
NVAR				LR	LR	08 39 04.6	
	comp=Z,61nm,19.8s,MS3.8,baz=310,slow=34						
LPAZ	**La Paz**	**67.77**	**221**	P	**P**	**08 12 47.2**	**+1.8**
	3.1nm,1.1s,mb4.3,baz=29,slow=11,SNR=5.5						
LPAZ				LR	LR	08 38 34.1	
	comp=Z,50nm,21.1s,MS3.7,baz=298,slow=32						
LPAZ	**La Paz**	**67.77**	**221**	*e*P	**P**	**08 12 47.3**	**+2.0**
	21nm,1.5s,mb5.0						
LPAZ				*e*		08 13 02.0	
ZAL	**Zalesovo**	**69.48**	**35**	P	**P**	**08 12 55.4**	**+0.1**
	1.0nm,0.4s,mb4.1,baz=151,slow=10,SNR=5.4						
ZAL				LR	LR	08 46 03.5	
	comp=Z,56nm,18.9s,MS3.8,baz=271,slow=38						
ZAL	**Zalesovo**	**69.48**	**35**	P	**P**	**08 12 55.3**	**0.0**
KMBO	**Kilima Mbogo**	**73.33**	**107**	LR	LR	08 46 07.9	
	comp=Z,75nm,18.4s,MS4.0,baz=265,slow=36						
SONM	**Songino Array**	**82.82**	**28**	P	**P**	**08 14 11.8**	**+1.3**
	1.9nm,0.9s,mb4.1,baz=322,slow=5.6,SNR=14						
ULN	**Ulaanbaatar**	**83.03**	**28**	*e*P	**P**	**08 14 13.2**	**+1.6**
	4.0nm,0.9s,mb4.5						
LBTB	**Lobatse**	**83.36**	**132**	P	**P**	**08 14 15.0**	**+1.2**
	6.1nm,1.2s,mb4.5						
WRA	**Warramunga Arr**	**154.43**	**38**	PKPbc	PKPdf	08 21 48.1	+7.6
	0.8nm,1.0s,baz=342,slow=2.5,SNR=4.0						
WRA				PKPab	PKPab	08 22 02.1	-0.5
	0.9nm,0.8s,baz=333,slow=3.7,SNR=4.8						
ASAR	**Alice Springs**	**157.36**	**44**	PKPab	PKPab	08 22 14.8	-0.3
	2.4nm,0.8s,baz=328,slow=3.8,SNR=18						

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*NNC **23** 08:23:18.3±5.4,36.71N×71.68E,h133^{km}±60^{km},mpv3.9,Error ellipse: s-maj=91.4km s-min=50.0km az=101.0*
ISC 23 08:23:17.0±1.9,**36.56N**±0.09×**72.0E**±0.2,**h160**^{km}±22^{km},**n15,σ0^{s}.72**/17,**2C-3D,Afghanistan-Tajikistan border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DLH	**Dalhousie**	**5.18**	**140**	*e*	**S**	**08 25 33.0**	**-0.2**
AML	**Almayashu**	**5.71**	**13**	P	**P**	**08 24 40.1**	**-0.7**
	SNR=30						
UCH	**Uchtor**	**5.99**	**18**	P	**P**	**08 24 44.8**	**+0.4**
	SNR=12						
KZA	**Kyzart**	**6.06**	**24**	P	**P**	**08 24 46.0**	**+0.6**
	SNR=12						
EKS2	**Erkin-Say**	**6.25**	**12**	P	**P**	**08 24 47.8**	**-0.1**
	SNR=8.0						
AAK	**Ala-Archa**	**6.36**	**17**	⇓P	**P**	**08 24 49.0**	**-0.5**
	3.5nm,0.3s						
AAK				⇓S	**S**	**08 26 00.3**	**-1.0**
	16nm,0.6s						
AAK	**Ala-Archa**	**6.36**	**17**	P	**P**	**08 24 49.3**	**-0.2**
	SNR=10						
TKM2	**Tokmak 2**	**6.93**	**22**	P	**P**	**08 24 58.0**	**+0.9**
	SNR=8.0						
MK31	**Makanchi Array**	**12.78**	**34**	⇓P	**P**	**08 26 15.4**	**+1.7**
	0.5nm,0.6s,baz=221,slow=14,SNR=7.1						
KOLN	**Koldanda**	**13.16**	**128**	*e*P	**P**	**08 26 18.5**	**-0.2**
	2.4nm,0.2s						
KOLN				*e*S	**S**	**08 28 40.7**	**-1.0**
GKN	**Gorkha**	**13.67**	**125**	*e*P	**P**	**08 26 25.8**	**+0.6**
	5.7nm,0.3s						
DMN	**Daman**	**14.24**	**125**	*e*P	**P**	**08 26 32.3**	**-0.1**
	3.6nm,0.3s						
GUN	**Gumba**	**14.56**	**122**	*e*P	**P**	**08 26 37.1**	**+0.6**
BVA0	**Borovoye Array**	**16.50**	**357**	⇑P	**P**	**08 26 59.6**	**-0.7**
	0.1nm,0.5s						
BRVK	**Borovoye**	**16.54**	**356**	⇑P	**P**	**08 27 00.4**	**-0.4**
	0.2nm,0.3s						

IDC 23 08:34:31.8±2.7,**21.61S**×**179.63W**,**h604**^{km}±27^{km},**mb3.1**/5,**mb1 3.3**/6,**mb1mx3.2**/14,**Error ellipse: s-maj=40.7km s-min=20.8km az=24.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**16.83**	**189**	P	P	08 37 54.7	-2.4
	2.4nm,0.3s,baz=131,slow=9.3,SNR=8.4						
STKA	**Stephens Creek**	**35.94**	**245**	P	P	08 40 44.1	-0.2
	2.7nm,0.7s,baz=79,slow=10,SNR=7.1						
ASAR	**Alice Springs**	**42.79**	**258**	P	P	08 41 38.4	-1.2
	0.7nm,0.4s,baz=91,slow=8.3,SNR=23						
ASAR				ScP		08 46 09.9	
	0.3nm,0.7s,baz=109,slow=4.3,SNR=5.3						
ASAR				S	S	08 47 20.4	-1.4
	1.1nm,0.8s,baz=95,slow=16,SNR=9.9						
WRA	**Warramunga Arr**	**42.95**	**264**	P	P	08 41 38.9	-2.0
	0.9nm,0.3s,baz=96,slow=7.4,SNR=10						
WRA				S	S	08 47 21.8	-2.3
	0.4nm,0.8s,baz=110,slow=14,SNR=3.2						
VNDA	**Vanda**	**56.67**	**185**	P	P	08 43 18.4	-2.1
	0.7nm,0.5s,baz=10,slow=10.0,SNR=9.1						
CMAR	**Chiang Mai Arr**	**89.06**	**290**	P	P	08 46 23.9	-1.4
	0.6nm,0.3s,baz=90,slow=2.9,SNR=4.3						
AKASG	**Malin Array Be**	**143.22**	**329**	PKhKP		08 52 51.4	
	2.1nm,0.5s,baz=39,slow=3.9,SNR=12						

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*NIED **23** 08:42:00,39.60N×143.40E,h17^{km},Mw3.8 Best double couple: $M_0$5.21×10^{14} NP1:ϕ_s29°,δ75°,λ98°. NP2:ϕ_s183°,δ17°,λ64°.*
*JMA **23** 08:42:20.0±0.2,39.63N×143.35E,h17^{km}±3^{km},M3.7*
ISC 23 08:42:20.0±1.7,**39.61N**±0.05×**143.37E**±0.10,**h16**^{km}±11^{km},**n14,σ0^{s}.74**/21,**Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MIYJ	**Miyakonagasawa**	**1.20**	**269**	P	**Pb**	**08 42 41.4**	**-0.4**
MIYJ				*e*S	**Sb**	**08 42 56.8**	**-0.1**
JTH	**Tanohata**	**1.21**	**286**	P	**Pb**	**08 42 41.9**	**-0.1**
JTH				*e*S	**Sb**	**08 42 57.6**	**+0.5**
OFUJ	**Ofunato**	**1.42**	**249**	P	**Pn**	**08 42 45.4**	**+0.1**
JOM	**Ohasama**	**1.61**	**266**	P	**Pn**	**08 42 48.2**	**+0.1**
JOM				*e*S	**Sn**	**08 43 08.3**	**-0.3**
JANG	**Nango**	**1.61**	**299**	P	**Pn**	**08 42 47.3**	**-0.8**
JMK	**Ichinoseki**	**1.79**	**249**	P	**Pn**	**08 42 50.9**	**+0.2**
JIO	**Ouri**	**1.95**	**234**	P	**Pn**	**08 42 52.8**	**-0.1**
JIO				*e*S	**Sn**	**08 43 14.6**	**-2.6**
JTM	**Tenmabayashi**	**2.12**	**304**	P	**Pn**	**08 42 55.4**	**+0.1**
JTM				*e*S	**Sn**	**08 43 21.6**	**+0.2**
JAH	**Hinai**	**2.18**	**286**	P	**Pn**	**08 42 56.5**	**+0.3**
JYK	**Kaneyama**	**2.44**	**254**	P	**Pn**	**08 43 00.2**	**+0.3**
JOT	**Ohata**	**2.50**	**316**	P	**Pn**	**08 43 00.6**	**-0.2**
JMM	**Marumori**	**2.67**	**230**	P	**Pn**	**08 43 02.5**	**-0.6**
JNBK	**Urakawa-nobuka**	**2.71**	**350**	P	**Pn**	**08 43 04.4**	**+0.7**
JNBK				*e*S	**Sn**	**08 43 36.0**	**-0.4**
MAT	**Matsushiro**	**5.10**	**235**	P	**Pn**	**08 43 38.1**	**+0.5**
MAT				S	**Sn**	**08 44 39.2**	**+2.4**

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*MDD **23** 09:16:40.2±0.6,36.93N×2.88E,mb3.8/3,Error ellipse: s-maj=13.2km s-min=5.4km az=49.0,PRXIMO SIN SOLUCIN*
*CSEM **23** 09:16:40.0±0.3,36.85N×2.93E,h10^{km},ML2.9/3,Error ellipse: s-maj=20.4km s-min=7.6km az=46.0*
ISC 23 09:16:39.1±1.3,**36.95N**±0.10×**2.9E**±0.1,**h13**^{km}±13^{km},**n9,σ1^{s}.09**/15,**1C,Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABA	**Alger-Bouzarea**	**0.21**	**135**	P	**Pg**	**09 16 43.0**	**-1.0**
ABMS	**Boumerdes**	**0.55**	**112**	P	**Pb**	**09 16 49.8**	**-0.3**
EMHD	**Djebel Mahouad**	**0.76**	**174**	P	**Pb**	**09 16 54.0**	**+0.4**
EIBI	**Ibiza**	**2.39**	**331**	⇑P	**Pn**	**09 17 20.6**	**+1.9**
	8.3nm,0.2s,SNR=18						
EIBI				S	**Sn**	**09 17 47.8**	**-0.1**
	4.3nm,0.1s,SNR=7.9						
EIBI	**Ibiza**	**2.39**	**331**	Pn	**Pn**	**09 17 20.6**	**+2.0**
	8.3nm,0.2s,SNR=18						
EIBI				Sn	**Sn**	**09 17 47.8**	**-0.1**
	4.3nm,0.1s,SNR=7.9						
EBEN	**Beniarda**	**3.00**	**307**	P	**Pn**	**09 17 27.4**	**+0.1**
	2.8nm,0.4s,SNR=7.9						
EBEN				S	**Sn**	**09 18 02.6**	**-0.8**
	2.0nm,0.2s,SNR=7.9						
EBEN	**Beniarda**	**3.00**	**307**	Pn	**Pn**	**09 17 27.4**	**+0.1**
	2.8nm,0.4s,SNR=7.9						
EBEN				Sn	**Sn**	**09 18 02.6**	**-0.8**
	2.0nm,0.2s,SNR=7.9						
EMOS	**Mosqueruela**	**4.28**	**324**	P	**Pn**	**09 17 47.2**	**+1.7**
	1.1nm,0.1s,SNR=15						
EMOS				S	**Sn**	**09 18 34.3**	**-1.7**
	1.4nm,0.2s,SNR=5.0						
EMOS	**Mosqueruela**	**4.28**	**324**	Pn	**Pn**	**09 17 47.2**	**+1.6**
	1.1nm,0.1s,SNR=15						
EMOS				Sn	**Sn**	**09 18 34.3**	**-1.7**
	1.4nm,0.2s,SNR=5.0						

KRSC 23 09:43:55.0±0.9,**50.14N**×**156.73E**,**ML3.8**,**Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ALID	**Alaid**	**1.05**	**315**	S	Sb	09 44 32.3	+2.4
PAU	**Pauzhetka**	**1.33**	**2**	*e*P	Pb	09 44 21.7	+1.2
PAU				*e*S	Sb	09 44 40.7	+2.7
PAU				Smax			
	500nm,0.4s						
GRL	**Gorelyy**	**2.56**	**19**	*i* P	Pn	09 44 39.9	+1.5
GRL				*e*S	Sn	09 45 13.1	+2.4
AVH	**Avacha**	**3.37**	**21**	*e*P	Pn	09 44 51.3	+1.4
SDLR	**Sedlovina**	**3.42**	**22**	*e*P	Pn	09 44 51.0	+0.4
GNL	**Ganaly**	**3.64**	**11**	*e*P	Pn	09 44 56.1	+2.3
KBTR	**Krutoberegovo**	**7.09**	**29**	*e*P	Pn	09 45 41.9	-0.7

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*IDC **23** 09:56:13.0±1.2,13.03N×119.90E,mb3.8/4,mb1 4.1/4,mb1mx3.7/18,Error ellipse: s-maj=25.5km s-min=14.5km az=113.0*
*MAN **23** 09:56:15.4,12.72N×120.62E,h11^{km},mb4.2,ML3.0,MS2.8*
ISC 23 09:56:15.6±0.7,**12.77N**±0.04×**120.66E**±0.05,**h11**^{km},**n15,σ1^{s}.36**/20,**mb3.8**/4,**1C,Mindoro**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SJMP	**San Jose**	**0.54**	**124**	*e*P	**Pg**	**09 56 26.5**	**-0.1**
SJMP				*e*S	**Sg**	**09 56 35.4**	**+1.5**
LUBP	**Lubang**	**1.04**	**337**	*e*P	**Pb**	**09 56 34.2**	**-1.0**
LUBP				*e*S	**Sb**	**09 56 50.0**	**+1.3**
LUBP	**Lubang**	**1.04**	**337**	*e*P	**Pb**	**09 56 34.2**	**-1.0**
BOAC	**Boac**	**1.34**	**59**	*e*P	**Pb**	**09 56 29.1**	**-11**
BOAC				*e*S	**Sb**	**09 56 56.8**	**-0.5**
TGY	**Tagaytay City**	**1.35**	**11**	⇑*e*P	**Pb**	**09 56 40.7**	**+0.2**
TGY				*e*S	**Sb**	**09 56 59.9**	**+2.1**
TGY	**Tagaytay City**	**1.35**	**11**	Pg	**Pg**	**09 56 39.8**	**-2.9**
	420nm,0.3s,baz=198,slow=13,SNR=38						
TGY				Lg		09 56 59.5	
	319nm,0.3s,baz=333,slow=23,SNR=12						
OTRP	**Odiongan**	**1.39**	**107**	*e*P	**Pn**	**09 56 39.8**	**-1.2**
OTRP				*e*S	**Sb**	**09 56 58.0**	**-0.6**
LQP	**Lukban**	**1.59**	**32**	*e*P	**Pn**	**09 56 41.2**	**-2.6**

ENPP	**El Nido**	**1.97**	**218**	*e*P	**Pn**	**09 56 48.0**	**-1.3**
AUQP	**San Andres**	**2.04**	**74**	*e*P	**Pn**	**09 56 50.8**	**+0.5**
BALP	**Baler**	**3.09**	**17**	*e*P	**Pn**	**09 57 06.0**	**+0.7**
WRA	**Warramunga Arr**	**35.18**	**157**	P	**P**	**10 03 12.9**	**+1.0**
	1.0nm,0.5s,mb4.0,baz=335,slow=9.7,SNR=16						
SONM	**Songino Array**	**36.94**	**344**	P	**P**	**10 03 21.3**	**-5.2**
	0.5nm,0.7s,mb3.4,baz=165,slow=9.7,SNR=4.8						
ASAR	**Alice Springs**	**38.46**	**160**	P	**P**	**10 03 41.5**	**+2.1**
	0.4nm,0.5s,mb3.4,baz=340,slow=6.8,SNR=11						
ZAL	**Zalesovo**	**49.87**	**333**	P	**P**	**10 05 02.3**	**-8.6**
	2.3nm,0.5s,mb4.5,baz=7.1,slow=22,SNR=6.6						

*IDC **23** 10:26:10.3±3.5, 49.04N×156.04E, mb3.7/5, mb1 3.9/5, mb1mx3.5/23, Error ellipse: s-maj=92.3km s-min=32.3km az=1.0*

*MOS **23** 10:26:12.8±1.1, 49.07N×155.93E, h33^{km}, mb4.1/2, Error ellipse: s-maj=99.9km s-min=25.2km az=79.6*

ISC 23 10:26:10.9±4.8**, 48.99N**±0.10×**156.0E**±0.2**, h18**^{km}±34^{km}**, n9, σ0^{s}95**/11**, mb3.7**/5**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	**Severo-Kuril's**	**1.69**	**3**	*e*PN	**Pn**	**10 26 38.6**	**-1.3**
SKR				*e*S	**Sn**	**10 27 01.9**	**+0.6**
SKR				pmax	pmax		
	comp=E,50nm,0.5s						
SKR				pmax	pmax		
	comp=Z,120nm,0.5s						
SKR				pmax	pmax		
	comp=N,120nm,0.3s						
SKR				smax			
	comp=N,810nm,0.4s						
SKR				smax			
	comp=E,470nm,0.4s						
SKR				smax			
	comp=Z,160nm,0.4s						
PET	**Petropavlovsk**	**4.38**	**22**	*e*PN	**Pn**	**10 27 19.5**	**+1.3**
PET				*e*S	**Sn**	**10 28 08.9**	**-0.4**
PET				smax			
	comp=E,94nm,0.5s						
PET				smax			
	comp=N,136nm,0.8s						
ILAR	**Eielson Array**	**33.59**	**41**	P	**P**	**10 32 50.7**	**-1.0**
	comp=N,0.4nm,0.9s,mb3.3,baz=249,slow=7.7,SNR=4.3						
INK	**Inuvik**	**38.72**	**34**	P	**P**	**10 33 35.9**	**+0.8**
	comp=N,0.6nm,0.8s,mb3.4,baz=271,slow=9.2,SNR=4.5						
INK	**Inuvik**	**38.72**	**34**	P	**P**	**10 33 35.9**	**+0.8**
INK				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BVAR	**Borovoye Array**	**50.93**	**309**	P	**P**	**10 35 13.6**	**+0.9**
	comp=Z,0.5nm,0.3s,mb3.9,baz=51,slow=9.2,SNR=5.6						
FINES	**FINESS Array B**	**62.81**	**336**	P	**P**	**10 36 35.9**	**-1.2**
	comp=Z,2.8nm,0.9s,mb4.4,baz=90,slow=5.7,SNR=4.5						
FINES	**FINESS Array B**	**62.81**	**336**	P	**P**	**10 36 35.9**	**-1.2**
FINES				pmax	pmax		
	comp=Z,3.0nm,1.0s						
TXAR	**Lajitas Array**	**74.74**	**63**	P	**P**	**10 37 51.6**	**+0.4**
	comp=Z,0.3nm,0.5s,mb3.5,baz=309,slow=5.4,SNR=6.7						

*NIED **23** 10:27:00, 43.00N×145.40E, h44^{km}, Mw4.1 Best double couple: $M_0$1.71×10^{15} NP1:ϕ_s23°, δ68°, λ76°. NP2:ϕ_s237°, δ26°, λ122°.*

*MOS **23** 10:27:41.9±1.0, 42.97N×145.54E, h52^{km}, mb4.6/6, Error ellipse: s-maj=22.9km s-min=11.6km az=92.7*

*IDC **23** 10:27:43.6±0.6, 42.96N×145.49E, h46^{km}±5^{km}, mb3.8/16, mb1 4.1/17, mb1mx3.9/26, MS2.3/1, Ms1 2.3/1, ms1mx2.2/35, Error ellipse: s-maj=14.7km s-min=9.6km az=22.0*

*NEIC **23** 10:27:43.6±0.9, 43.03N×145.31E, h43^{km}±8^{km}, mb4.2/13, Error ellipse: s-maj=8.4km s-min=5.9km az=130.0*

NEIC Recorded [2 JMA] in eastern Hokkaido.

*JMA **23** 10:27:43.5±0.1, 42.98N×145.40E, h47^{km}±1^{km}, M4.0*

JMA Felt II J1.

*SKHL **23** 10:27:45.3±1.9, 43.20N×145.52E, h33^{km}, mb4.4/3*

ISC 23 10:27:41.9±0.6**, 42.93N**±0.04×**145.45E**±0.05**, h49**^{km}±4^{km}**, h42**^{km}±1.2^{km}**:pP-P, n62, σ1^{s}06**/74**, mb4.1**/27**, 2C-7D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	**Nemuro 2**	**0.49**	**26**	⇑P	**P**	**10 27 53.9**	**+0.9**
NEM2				*e*S	**S**	**10 28 01.0**	**+0.1**
JAK	**Akkeshi**	**0.56**	**277**	⇓P	**P**	**10 27 54.8**	**+0.9**
JAK				*e*S	**S**	**10 28 03.2**	**+0.7**
JNK	**Nakash**	**0.85**	**321**	⇓P	**P**	**10 27 58.1**	**+0.4**
JNK				*e*S	**S**	**10 28 08.3**	**-1.1**
JRA	**Rausu**	**1.04**	**347**	⇓P	**P**	**10 28 00.9**	**+0.5**
JRA				*e*S	**S**	**10 28 13.8**	**-0.2**
YUK	**Yuzh-Kuril'sk**	**1.15**	**15**	⇑*i*PN	**P**	**10 28 01.7**	**-0.1**
YUK				*i* S	**S**	**10 28 14.0**	**-2.7**
YUK				pmax	pmax		
	comp=Z,550nm,0.3s						
YUK				smax			
	comp=N,15µm,1.0s						
YUK				smax			
	comp=E,20µm,0.8s						
YUK				smax			
	comp=N,5µm,0.5s						
YUK				smax			
	comp=E,5µm,0.5s						
YUK	**Yuzh-Kuril'sk**	**1.15**	**15**	*i* P	**P**	**10 28 01.7**	**-0.1**
YUK				AMB	AMB	10 28 02.1	
	comp=E,550nm,0.3s						
YUK				*i* S	**S**	**10 28 14.0**	**-2.7**
YUK				A		10 28 16.0	
	comp=E,15µm,1.0s						
YUK				A		10 28 16.0	
	comp=E,20µm,1.0s						
YUK				A		10 28 17.2	
	comp=E,5µm,0.5s						
JOB	**Onbets**	**1.19**	**269**	⇓P	**P**	**10 28 03.3**	**+0.9**
JAR	**Ashorobuto**	**1.29**	**287**	⇓P	**P**	**10 28 04.7**	**+0.8**
JAR				*e*S	**S**	**10 28 20.2**	**-0.1**
JTKR	**Abashiri--Toko**	**1.53**	**313**	⇓P	**P**	**10 28 08.3**	**+0.9**
JCH	**Churui**	**1.57**	**259**	⇓P	**P**	**10 28 08.2**	**+0.3**
JCH				*e*S	**S**	**10 28 26.7**	**-0.5**
ASAJ	**Asahikawa**	**2.39**	**301**	P	**P**	**10 28 21.1**	**+1.6**
	comp=E,37nm,0.3s,baz=110,slow=10,SNR=103						
ASAJ				S	**S**	**10 28 50.2**	**+2.5**
	comp=E,16nm,0.3s,baz=351,slow=21,SNR=6.0						
ASAJ	**Asahikawa**	**2.39**	**301**	PN	**P**	**10 28 21.2**	**+1.6**
ASAJ				S	**S**	**10 28 50.3**	**+2.5**
ASAJ				pmax	pmax		
	comp=Z,37nm,0.3s						
KUR	**Kuril'sk**	**2.89**	**36**	*e*PN	**P**	**10 28 25.0**	**-1.6**
KUR				pmax	pmax		
	comp=N,610nm,0.5s						
KUR				pmax	pmax		
	comp=E,410nm,0.5s						
KUR	**Kuril'sk**	**2.89**	**36**	*e*P	**P**	**10 28 25.0**	**-1.6**
KUR				AMB	AMB	10 28 25.8	
	comp=E,60nm,0.5s						
KUR				*i* S	**S**	**10 28 59.2**	**-1.1**
KUR				A		10 29 05.0	
	comp=E,610nm,0.5s						
KUR				A		10 29 05.0	
	comp=E,410nm,0.5s						
YSS	**Yuzh-Sakhalins**	**4.46**	**335**	*e*P	**P**	**10 28 47.0**	**-1.8**
YSS	**Yuzh-Sakhalins**	**4.46**	**335**	*e*P	**P**	**10 28 48.2**	**-0.6**
YSS				*e*rx	rx	10 29 13.3	
MAJO	**Matsushiro**	**8.47**	**224**	*e*P	**P**	**10 29 43.3**	**-1.4**
	comp=E,12nm,0.8s						
MAT	**Matsushiro**	**8.47**	**224**	P	**P**	**10 29 43.7**	**-1.0**
MAT				S	**S**	**10 31 18.1**	**-1.9**
MAT	**Matsushiro**	**8.47**	**224**	*e*P	**P**	**10 29 44.0**	**-0.7**
MAT				*e*S	**S**	**10 31 18.0**	**-2.0**
FX1	**Attu Island--F**	**20.95**	**52**	LR	LR	10 40 10.4	
	comp=E,7.5nm,19.7s,baz=212,slow=36						
BJT	**Baijiatuau**	**22.09**	**272**	P	**P**	**10 32 32.6**	**-1.5**
	comp=E,8.6nm,0.9s,mb4.2						
SONM	**Songino Array**	**27.66**	**294**	P	**P**	**10 33 27.0**	**0.0**
	comp=E,2.7nm,0.6s,mb4.0,baz=85,slow=8.3,SNR=25						
ENH	**Enshi**	**31.28**	**258**	*e*P	**P**	**10 33 59.0**	**-0.3**
	comp=E,4.7nm,0.6s,mb4.5						
IMA	**Indian Mountai**	**40.05**	**34**	*e*P	**P**	**10 35 14.5**	**+1.0**
	comp=E,21nm,0.6s,mb5.0						
MCK	**McKinley**	**42.04**	**37**	*e*P	**P**	**10 35 30.7**	**+1.0**
	comp=E,1.2nm,0.6s,mb3.7						
COLA	**College**	**42.46**	**36**	P	**P**	**10 35 33.7**	**+0.5**
	comp=E,2.9nm,0.9s,mb3.9						
ILAR	**Eielson Array**	**42.88**	**36**	P	**P**	**10 35 37.3**	**+0.7**
	comp=E,0.7nm,0.4s,mb3.7,baz=260,slow=5.4,SNR=28						
ILAR	**Eielson Array**	**42.88**	**36**	P	**P**	**10 35 37.3**	**+0.7**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CMAR	**Chiang Mai Arr**	**46.10**	**253**	P	**P**	**10 36 03.5**	**+0.5**
	comp=Z,0.6nm,0.6s,mb3.7,baz=49,slow=7.9,SNR=4.6						
CMAR	**Chiang Mai Arr**	**46.10**	**253**	P	**P**	**10 36 03.6**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	**Inuvik**	**47.74**	**30**	P	**P**	**10 36 15.3**	**+0.1**
	comp=Z,1.4nm,0.6s,mb4.2,baz=301,slow=7.2,SNR=20						
INK	**Inuvik**	**47.74**	**30**	P	**P**	**10 36 15.4**	**+0.1**
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	**Inuvik**	**47.74**	**30**	*e*P	**P**	**10 36 15.0**	**-0.3**
	comp=Z,1.5nm,0.5s,mb4.3						
CHKZ	**Chkalovo**	**48.72**	**310**	*e*P	**P**	**10 36 21.9**	**-1.1**
	comp=Z,1.5nm,0.7s,mb4.1						
BVAR	**Borovoye Array**	**49.07**	**309**	P	**P**	**10 36 25.6**	**-0.2**
	comp=Z,0.7nm,0.4s,mb4.0,baz=83,slow=9.2,SNR=7.5						
BRVK	**Borovoye**	**49.12**	**309**	*e*P	**P**	**10 36 25.4**	**-0.8**
	comp=Z,1.8nm,0.8s,mb4.2						
RES	**Resolute Bay**	**56.11**	**16**	*e*P	**P**	**10 37 16.7**	**-1.2**
	comp=Z,4.4nm,0.5s,mb4.7						
YKW3	**Yellowknife Ar**	**57.13**	**33**	P	**P**	**10 37 23.9**	**-1.5**
WRA	**Warramunga Arr**	**63.39**	**192**	P	**P**	**10 38 08.2**	**-0.4**
	comp=Z,0.8nm,1.0s,mb3.8,baz=14,slow=6.8,SNR=4.8						
WRA				pP	pP	10 38 21.2	-1.3
	comp=Z,0.8nm,0.9s,baz=8.6,slow=6.7,SNR=3.7						
WRA	**Warramunga Arr**	**63.39**	**192**	P	**P**	**10 38 08.2**	**-0.5**
WRA				*PP	pP	10 38 21.2	-1.3
WRA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
KAF	**Kangasniemi**	**64.49**	**333**	*e*P	**P**	**10 38 13.6**	**-1.5**
FINES	**FINESS Array B**	**65.04**	**332**	P	**P**	**10 38 17.0**	**-1.7**
	comp=Z,16nm,1.2s,mb4.9,baz=51,slow=7.6,SNR=15						
FINES	**FINESS Array B**	**65.04**	**332**	P	**P**	**10 38 17.0**	**-1.7**
FINES				pmax	pmax		
	comp=Z,16nm,1.2s						
ASAR	**Alice Springs**	**67.11**	**191**	P	**P**	**10 38 33.3**	**+0.8**
	comp=Z,0.5nm,0.6s,mb3.7,baz=10,slow=5.5,SNR=5.9						
ASAR				pP	pP	10 38 46.0	-0.4
	comp=Z,0.7nm,0.8s,baz=3.8,slow=5.9,SNR=4.3						
FCC	**Fort Churchill**	**67.35**	**29**	*e*P	**P**	**10 38 32.8**	**-0.6**
	comp=Z,1.2nm,0.6s,mb4.1						
NVAR	**Mina Array Bea**	**69.06**	**57**	P	**P**	**10 38 45.5**	**+1.1**
	comp=Z,0.9nm,0.8s,mb3.8,baz=286,slow=6.2,SNR=6.2						
NVAR				pP	pP	10 38 57.4	-1.1
	comp=Z,0.8nm,0.7s,baz=288,slow=6.3,SNR=4.3						
NB2	**NORSAR Subarra**	**69.92**	**338**	P	**P**	**10 38 48.9**	**-0.3**
	comp=Z,1.8nm,0.5s,mb4.3,baz=33,slow=6.2						
NOA	**NORSAR Array B**	**69.92**	**338**	P	**P**	**10 38 48.8**	**-0.4**
	comp=Z,2.9nm,0.7s,mb4.3,baz=35,slow=6.1,SNR=9.7						
NOA	**NORSAR Array B**	**69.92**	**338**	P	**P**	**10 38 48.8**	**-0.4**
NOA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
HFS	**Hagfors**	**69.96**	**337**	P	**P**	**10 38 48.9**	**-0.6**
	comp=Z,4.0nm,0.6s,mb4.6,baz=63,slow=6.6,SNR=13						
HFS	**Hagfors**	**69.96**	**337**	P	**P**	**10 38 48.9**	**-0.6**
HFS				pmax	pmax		
	comp=Z,4.0nm,0.6s						
PDAR	**Pinedale Array**	**71.39**	**49**	P	**P**	**10 38 59.1**	**+0.7**
	comp=Z,0.8nm,0.5s,mb3.9,baz=349,slow=1.2,SNR=11						
PDAR				pP	pP	10 39 11.9	-0.5
	comp=Z,0.4nm,0.6s,baz=290,slow=1.1,SNR=4.1						
AKASG	**Malin Array Be**	**71.50**	**323**	P	**P**	**10 38 58.4**	**-0.6**
	comp=Z,2.3nm,0.5s,mb4.3,baz=38,slow=5.7,SNR=14						
AKASG	**Malin Array Be**	**71.50**	**323**	P	**P**	**10 38 58.4**	**-0.6**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
PV10	**Paradox Valley**	**74.62**	**52**	P	**P**	**10 39 19.5**	**+2.0**
SDCO	**Great Sand Dun**	**77.08**	**50**	P	**P**	**10 39 33.3**	**+1.8**
	comp=Z,1.7nm,1.0s,mb3.9						
PSZ	**Piszkesteto**	**77.60**	**326**	P	**P**	**10 39 35.1**	**+1.1**
	comp=Z,2.9nm,0.6s,mb4.4						
EKA	**Eskdalemuir Ar**	**78.54**	**342**	P	**P**	**10 39 39.8**	**+0.6**
	comp=Z,7.8nm,1.1s,mb4.5,baz=18,slow=4.5,SNR=5.2						
EKA	**Eskdalemuir Ar**	**78.54**	**342**	P	**P**	**10 39 39.8**	**+0.7**
EKA				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KHC	**Kasperske Hory**	**79.07**	**330**	*e*P	**P**	**10 39 42.5**	**+0.4**
GERES	**GERESS Array B**	**79.26**	**330**	P	**P**	**10 39 43.8**	**+0.6**
	comp=Z,0.3nm,0.4s,mb3.6,baz=309,slow=8.5,SNR=3.7						
TXAR	**Lajitas Array**	**84.14**	**55**	P	**P**	**10 40 11.0**	**+2.0**
	comp=Z,0.7nm,0.8s,mb3.8,baz=290,slow=3.3,SNR=6.7						
TXAR				pP	pP	10 40 23.1	-0.2
	comp=Z,1.1nm,1.1s,baz=295,slow=3.8,SNR=3.8						

MAN 23 10:47:10.0, 8.73N×126.71E, h1^{km}, mb4.6, ML3.5, MS3.4, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	**0.64**	**213**	⇓*e*P	Pg	10 47 22.8	+0.1
BIPH				*e*S	Sg	10 47 29.9	-1.4
BUTP	**Butuan**	**1.10**	**283**	*e*P	Pb	10 47 31.5	0.0
SCPH	**Surigao**	**1.60**	**311**	*e*P	Pn	10 47 39.2	-0.3
SCPH				*e*S	Sb	10 47 58.4	-2.2
BUKP	**Musuan**	**1.84**	**243**	*e*P	Pn	10 47 43.3	+0.4
BUKP				*e*S	Sn	10 48 08.3	+1.2
CGP	**Cagayan de Oro**	**2.01**	**262**	⇑*e*P	Pn	10 47 45.5	0.0
CGP				*i* S	Sn	10 48 08.8	-2.8
MSLP	**Maasin**	**2.30**	**308**	*e*P	Sn	10 48 17.9	-1.0
TBP	**Tagbilaran**	**2.97**	**289**	*e*P	Pn	10 47 59.4	+0.3
TBP				*e*S	Sn	10 48 36.3	+0.3

*IDC **23** 11:01:04.3±3.3, 28.01N×57.13E, mb4.1/15, mb1 4.2/15, mb1mx4.1/25, Error ellipse: s-maj=74.5km s-min=22.7km az=180.0*

*THR **23** 11:01:10.3±0.6, 28.53N×57.07E, h14^{km}±16^{km}, ML4.0*

*NEIC **23** 11:01:10.1±1.2, 28.14N×57.19E, h35^{km}, mb4.5/24, Error ellipse: s-maj=27.2km s-min=9.2km az=173.0*

*CSEM **23** 11:01:11.7±0.1, 28.26N×57.11E, h60^{km}, mb4.5/17, Error ellipse: s-maj=3.2km s-min=2.3km az=60.0*

*KISR **23** 11:01:13.0±0.6, 27.89N×56.90E, h28^{km}±999^{km}, ML4.6*

ISC 23 11:01:12.8±0.8**, 28.50N**±0.06×**57.01E**±0.04**, h52**^{km}±8^{km}**, n76, σ1^{s}01**/82**, mb4.3**/36**, 5C, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDS	**Bandar-Abbas**	**1.32**	**214**	*e*PG	**P**	**11 01 35.6**	**+0.2**
BNDS				*e*SG	**S**	**11 01 54.4**	**+2.2**
BNDS				AMP		11 01 56.0	
	comp=E,5µm,0.6s						
BNDS				AMP		11 01 57.6	
	comp=N,2µm,0.3s						
BNDS	**Bandar-Abbas**	**1.32**	**214**	*i* Pg	**P**	**11 01 35.8**	**+0.4**
ZHSF	**Zahedan**	**3.48**	**70**	*e*P	**P**	**11 02 05.4**	**-0.4**
GHIR	**Ghir-Karzin**	**3.55**	**268**	*e*PN	**P**	**11 02 08.1**	**+1.2**
GHIR				AMP		11 02 59.7	
	comp=E,202nm,0.4s						
GHIR				AMP		11 03 00.0	
	comp=N,183nm,0.4s						
GHIR	**Ghir-Karzin**	**3.55**	**268**	*e*Pn	**P**	**11 02 08.3**	**+1.4**
NASN	**Na'in**	**5.61**	**321**	*e*PN	**P**	**11 02 35.6**	**-0.1**
NASN	**Na'in**	**5.61**	**321**	*e*Pn	**P**	**11 02 36.4**	**+0.7**
NASN				Sn	**S**	**11 03 39.3**	**-0.5**
QRN	**Al-Qurain**	**8.00**	**274**	*e*P	**P**	**11 03 09.0**	**0.0**
QRN				*e*S	**S**	**11 04 34.1**	**-4.9**
QRN				AML	AML	11 04 34.6	
	comp=Z,42nm,0.2s						
UMR	**Umm Al-Rimmam**	**8.21**	**280**	*e*P	**P**	**11 03 12.1**	**+0.3**
UMR				AML	AML	11 04 39.9	
	comp=Z,35nm,0.4s						
UMR				*e*S	**S**	**11 04 40.6**	**-3.6**
RDF	**Al-Radifah**	**8.32**	**275**	*e*P	**P**	**11 03 13.1**	**-0.3**
RDF				*e*S	**S**	**11 04 42.5**	**-4.5**
RDF				AML	AML	11 04 47.1	
	comp=Z,90nm,0.3s						
MZLS	**Mizel**	**11.49**	**250**	P	**P**	**11 03 52.2**	**-4.5**
MZLS				S	**S**	**11 05 55.6**	**-8.9**
ARSS	**Ar Rass**	**12.54**	**261**	P	**P**	**11 04 07.0**	**-3.8**
AFFS	**'Afif**	**13.37**	**253**	P	**P**	**11 04 18.1**	**-3.8**
HILS	**Ha'il**	**13.50**	**269**	P	**P**	**11 04 20.2**	**-3.4**
TATS	**Tathlith**	**15.23**	**237**	P	**P**	**11 04 40.9**	**-5.3**
GNI	**Garni**	**15.40**	**322**	P	**P**	**11 04 46.1**	**-2.1**
	comp=Z,12nm,1.0s						
MALT	**Malatya**	**18.32**	**307**	*e*P	**P**	**11 05 27.2**	**+2.5**
	comp=Z,15nm,1.3s						
MALT	**Malatya**	**18.32**	**307**	*e*P	**P**	**11 05 27.2**	**+2.4**
	comp=Z,15nm,1.3s						
KIV	**Kislovodsk**	**19.23**	**327**	*e*P	**P**	**11 05 36.9**	**+1.5**
	comp=Z,14nm,0.8s						
KIV	**Kislovodsk**	**19.23**	**327**	*e*P	**P**	**11 05 36.9**	**+1.5**
	comp=Z,14nm,0.8s						
EIL	**Elat**	**19.32**	**279**	*e*P	**P**	**11 05 39.6**	**+3.2**
	comp=Z,9.0nm,1.0s						
AAK	**Ala-Archa**	**19.98**	**40**	*e*P	**P**	**11 05 45.1**	**+1.6**
	comp=Z,3.0nm,0.9s						
AAK	**Ala-Archa**	**19.98**	**40**	*e*P	**P**	**11 05 45.1**	**+1.7**
	comp=Z,3.0nm,0.9s						
BRTR	**Keskin Array B**	**22.29**	**306**	P	**P**	**11 06 08.5**	**+1.6**
	comp=Z,2.8nm,0.5s,mb3.9,baz=138,slow=11,SNR=14						
KOLN	**Koldanda**	**23.45**	**85**	*e*P	**P**	**11 06 19.9**	**+1.6**
GKN	**Gorkha**	**24.32**	**85**	*e*P	**P**	**11 06 26.9**	**+0.1**
KKN	**Kakani**	**24.92**	**85**	*e*P	**P**	**11 06 31.9**	**-0.6**
PKI	**Pulchoki**	**25.06**	**85**	*e*P	**P**	**11 06 32.8**	**-1.1**
GUN	**Gumba**	**25.42**	**84**	*e*P	**P**	**11 06 36.8**	**-0.5**
BVAR	**Borovoye Array**	**26.43**	**18**	P	**P**	**11 06 46.7**	**+0.4**
	comp=Z,1.5nm,0.6s,mb3.7,baz=180,slow=8.9,SNR=6.5						
AKASG	**Malin Array Be**	**30.52**	**324**	P	**P**	**11 07 22.6**	**-0.6**
	comp=Z,1.0nm,0.4s,mb4.0,baz=129,slow=8.4,SNR=10						
ZAL	**Zalesovo**	**32.52**	**31**	P	**P**	**11 07 40.0**	**-0.7**
	comp=Z,1.5nm,0.5s,mb4.2,baz=215,slow=4.3,SNR=5.9						
KOLS	**Kolonicke sedl**	**33.51**	**317**	*e*P	**P**	**11 07 50.8**	**+1.5**
JOF	**Joensuu**	**38.28**	**341**	*e*pkp	**P**	**11 08 28.8**	**-0.7**
	comp=Z,0.4nm,0.3s,mb3.6						
GERES	**GERESS Array B**	**38.79**	**314**	P	**P**	**11 08 34.6**	**+0.6**
	comp=Z,1.6nm,0.7s,mb3.9,baz=112,slow=7.2,SNR=7.5						
FINES	**FINESS Array B**	**38.83**	**337**	P	**P**	**11 08 34.5**	**+0.4**
	comp=Z,2.3nm,0.6s,mb4.1,baz=137,slow=10,SNR=14						
KHC	**Kasperske Hory**	**38.95**	**314**	*e*P	**P**	**11 08 35.4**	**+0.2**
KAF	**Kangasniemi**	**39.22**	**338**	*e*pkp	**P**	**11 08 37.8**	**+0.4**
	comp=Z,0.5nm,0.4s,mb3.6						
CLL	**Collm**	**39.93**	**317**	P	**P**	**11 08 44.0**	**+0.6**
CLL				*e**PP	pP	11 08 54.0	-3.0
DAVOX	**Davos**	**40.86**	**310**	P	**P**	**11 08 51.7**	**+0.6**
	comp=Z,4.2nm,0.4s,mb4.4,baz=118,slow=5.2,SNR=12						
SBF	**Sospel**	**42.22**	**305**	*e*P	**P**	**11 09 02.7**	**+0.4**
	comp=Z,22nm,0.6s,mb4.6						
SONM	**Songino Array**	**42.54**	**49**	P	**P**	**11 09 04.7**	**-0.2**
	comp=Z,0.7nm,0.8s,mb3.5,baz=244,slow=7.8,SNR=7.2						
MBDF	**Montbardon**	**42.77**	**306**	*e*P	**P**	**11 09 06.7**	**-0.1**
	comp=Z,11nm,0.5s,mb4.5						
LPG	**La Plagne**	**42.85**	**307**	*e*P	**P**	**11 09 08.3**	**+0.9**
	comp=Z,16nm,0.7s,mb4.5						
LPL	**La Plagne**	**42.86**	**307**	*e*P	**P**	**11 09 07.6**	**0.0**
	comp=Z,9.3nm,0.5s,mb4.5						
CDF	**Champ du Feu**	**42.87**	**312**	*e*P	**P**	**11 09 06.8**	**-0.7**
ULN	**Ulaanbaatar**	**42.98**	**49**	P	**P**	**11 09 08.3**	**-0.2**
	comp=Z,3.0nm,1.0s,mb4.0						
ULN	**Ulaanbaatar**	**42.98**	**49**	P	**P**	**11 09 08.3**	**-0.2**
	comp=Z,3.0nm,1.0s,mb4.0						
HFS	**Hagfors**	**42.99**	**330**	P	**P**	**11 09 08.6**	**+0.2**
	comp=Z,1.2nm,0.3s,mb4.0,baz=121,slow=8.6,SNR=8.6						
CABF	**La Chapelle**	**43.42**	**309**	*e*P	**P**	**11 09 12.3**	**+0.2**
	comp=Z,9.5nm,0.7s,mb4.4						
VIVF	**Saint-Julien-l**	**44.27**	**306**	*e*P	**P**	**11 09 19.2**	**+0.3**
	comp=Z,14nm,0.9s,mb4.4						
NOA	**NORSAR Array B**	**44.50**	**330**	P	**P**	**11 09 20.4**	**-0.1**
	comp=Z,1.0nm,0.7s,mb3.6,baz=101,slow=6.7,SNR=3.2						
NAO01	**NORSAR Array S**	**44.56**	**330**	P	**P**	**11 09 15.4**	**-5.6**
	comp=Z,17nm,1.0s,mb4.8						
KEV	**Kevo**	**44.74**	**346**	*e*pkp	**P**	**11 09 22.0**	**-0.4**
	comp=Z,0.5nm,0.3s,mb3.8						
ARCES	**ARCESS Array B**	**44.91**	**345**	P	**P**	**11 09 23.9**	**+0.2**
	comp=Z,4.3nm,1.0s,mb4.2,baz=138,slow=8.0,SNR=6.4						
ARE0	**ARCESS Array S**	**44.91**	**345**	*e*P	**P**	**11 09 22.6**	**-1.2**
ARE0	**ARCESS Array S**	**44.91**	**345**	*e*P	**P**	**11 09 22.6**	**-1.1**
SMF	**Signal de Mont**	**44.97**	**309**	⇑*i*P	**P**	**11 09 24.3**	**-0.2**
	comp=Z,12nm,0.7s,mb4.5						
SSF	**Saint Saulge**	**45.23**	**309**	⇑*i*P	**P**	**11 09 26.4**	**-0.2**
	comp=Z,4.5nm,0.5s,mb4.6						
BGF	**Bois d'Agland**	**45.65**	**309**	*e*P	**P**	**11 09 29.8**	**-0.1**
MTLF	**Montolieu**	**45.99**	**304**	*e*P	**P**	**11 09 33.2**	**+0.5**
	comp=Z,17nm,0.8s,mb4.7						
TCF	**Toulx Ste Croi**	**46.07**	**308**	⇑*i*P	**P**	**11 09 33.3**	**0.0**
	comp=Z,9.5nm,0.6s,mb4.6						
CAF	**Calviac**	**46.12**	**306**	⇑*i*P	**P**	**11 09 34.0**	**+0.3**
	comp=Z,13nm,0.6s,mb4.7						
RJF	**Les Rejaudoux**	**46.52**	**307**	⇑*i*P	**P**	**11 09 37.4**	**+0.6**
	comp=Z,15nm,0.6s,mb4.8						
LFF	**La Frestale**	**47.06**	**306**	*e*P	**P**	**11 09 41.5**	**+0.4**
	comp=Z,44nm,0.7s,mb5.2						
LDF	**La Druitiere**	**47.77**	**311**	*e*P	**P**	**11 09 45.7**	**-0.9**
FLN	**La Foliniere**	**48.02**	**311**	*e*P	**P**	**11 09 47.8**	**-0.8**
	comp=Z,5.6nm,0.3s,mb4.7						
GRR	**Gorron**	**48.25**	**311**	*e*P	**P**	**11 09 50.0**	**-0.4**
SJPF	**Ste Jean**	**48.51**	**304**	*e*P	**P**	**11 09 52.9**	**+0.5**
SGMF	**Saint Gilles**	**49.38**	**311**	*e*P	**P**	**11 09 59.3**	**+0.2**
EKA	**Eskdalemuir Ar**	**50.23**	**320**	P	**P**	**11 10 05.0**	**-0.5**
	comp=Z,1.3nm,0.4s,mb4.3,baz=94,slow=7.4,SNR=7.7						
FRB	**Frobisher Bay**	**78.61**	**338**	P	**P**	**11 13 09.6**	**-0.6**
	comp=Z,3.5nm,0.8s,mb4.3,baz=45,slow=5.6,SNR=5.5						
INK	**Inuvik**	**83.17**	**4**	*e*P	**P**	**11 13 31.4**	**-2.7**
	comp=Z,5.6nm,1.3s,mb4.4						
ILAR	**Eielson Array**	**85.19**	**10**	P	**P**	**11 13 43.0**	**-1.3**
	comp=Z,0.3nm,0.6s,mb3.6,baz=318,slow=4.1,SNR=7.2						
YKA	**Yellowknife Ar**	**89.08**	**356**	P	**P**	**11 14 03.8**	**+0.7**
	comp=Z,0.3nm,0.4s,mb4.0,baz=1.3,slow=5.4,SNR=13						
MAW	**Mawson**	**95.90**	**178**	*e*P	**P**	**11 14 45.0**	**+11**
	comp=Z,4.5nm,0.6s,mb5.1						

*NEIC **23** 11:06:15.7±1.5, 17.96S×178.46W, h587^{km}±17^{km}, mb4.4/35, Error ellipse: s-maj=8.4km s-min=7.0km az=155.0*

*BJI **23** 11:06:15.1, 17.08S×178.56W, h556^{km}, mB5.2, mb4.6*

*SYO **23** 11:06:15.4, 17.94S×178.46W, h583^{km}, MB4.3*

*IDC **23** 11:06:18.5±1.6, 18.06S×178.49W, h620^{km}±20^{km}, mb3.7/17, mb1 3.9/18, mb1mx3.9/19, Error ellipse: s-maj=16.7km s-min=8.5km az=159.0*

ISC 23 11:06:16.7±1.6**, 18.03S**±0.07×**178.55W**±0.06**, h614**^{km}±20^{km}**, n131, σ0^{s}92**/82**, mb4.4**/49**, 9C-9D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**20.51**	**190**	P	**P**	**11 10 19.6**	**+3.7**
	10nm,0.8s,baz=254,slow=3.3,SNR=5.6						
RPZ	**Rata Peaks**	**27.07**	**197**	P	**P**	**11 11 12.6**	**-1.4**
	5.2nm,0.7s,mb4.3,baz=346,slow=4.2,SNR=3.9						
PPT	**Papeete**	**27.58**	**94**	P	**P**	**11 11 16.5**	**-2.1**
	24nm,0.5s,mb5.1,baz=34,slow=15,SNR=2.8						
CTA	**Charters Tower**	**33.30**	**261**	⇓*i*P	**P**	**11 12 07.5**	**+0.5**
	16nm,0.4s,mb5.0						
CTA	**Charters Tower**	**33.30**	**261**	P	**P**	**11 12 07.7**	**+0.7**
	15nm,0.4s,mb5.0,baz=86,slow=10,SNR=66						
CTAO	**Charters Tower**	**33.30**	**261**	*e*P	**P**	**11 12 07.2**	**+0.1**
	34nm,0.7s,mb5.1						
PMG	**Port Moresby**	**34.35**	**280**	P	**P**	**11 12 17.3**	**+1.5**
	77nm,0.7s,mb5.4,baz=79,slow=5.8,SNR=45						
PMG	**Port Moresby**	**34.35**	**280**	P	**P**	**11 12 17.3**	**+1.5**
TOO	**Toolangi**	**36.99**	**231**	⇑*i*P	**P**	**11 12 38.6**	**+1.3**
	12nm,0.7s,mb4.5						
STKA	**Stephens Creek**	**38.46**	**241**	P	**P**	**11 12 50.6**	**+1.3**
	22nm,0.6s,mb4.9,baz=89,slow=9.0,SNR=36						
STKA	**Stephens Creek**	**38.46**	**241**	*e*P	**P**	**11 12 50.2**	**+0.9**
WB2	**Warramunga Arr**	**44.47**	**260**	⇓*i*P	**P**	**11 13 36.4**	**-0.6**
WB2				*e*S	**S**	**11 19 27.8**	**-1.5**
WRAB	**Tennant Creek**	**44.47**	**260**	*e*P	**P**	**11 13 36.4**	**-0.6**
	46nm,0.6s,mb5.2						
WRA	**Warramunga Arr**	**44.48**	**260**	P	**P**	**11 13 36.5**	**-0.6**
	25nm,0.5s,mb5.0,baz=95,slow=7.2,SNR=664						
WRA				PcP	PcP	11 15 06.9	-0.1
	3.0nm,0.4s,baz=89,slow=3.9,SNR=5.7						
WRA				S	**S**	**11 19 27.7**	**-1.7**
	2.1nm,0.9s,baz=98,slow=13,SNR=5.2						
ASAR	**Alice Springs**	**44.63**	**254**	P	**P**	**11 13 38.4**	**+0.2**
	124nm,0.6s,baz=87,slow=8.5,SNR=2250						
ASAR				PcP	PcP	11 15 07.1	-0.4
	6.0nm,0.5s,baz=100,slow=3.4,SNR=8.2						
ASAR				S	**S**	**11 19 30.9**	**-0.6**
	3.2nm,0.9s,baz=93,slow=16,SNR=13						
ASPA	**Alice Springs**	**44.63**	**254**	⇓*i*P	**P**	**11 13 38.3**	**+0.1**
ASPA				*e*PCP	PcP	11 15 07.0	-0.5
ASPA				*e*S	**S**	**11 19 31.0**	**-0.5**
KAKA	**Kakadu**	**47.45**	**269**	⇓*i*P	**P**	**11 13 59.0**	**-0.7**
	42nm,0.4s,mb5.3						
GUMO	**Guam**	**47.85**	**309**	*e*P	**P**	**11 14 02.7**	**+0.1**
	48nm,0.8s,mb5.1						
FITZ	**Fitzroy Crossi**	**52.88**	**261**	⇓*i*P	**P**	**11 14 39.1**	**-0.1**
	9.7nm,0.4s,mb4.5						
MBWA	**Marble Bar**	**57.92**	**256**	*e*P	**P**	**11 15 13.1**	**-0.8**
	22nm,0.6s,mb4.5						
KLBR	**Kellerberrin**	**58.66**	**244**	⇓*i*P	**P**	**11 15 17.9**	**-0.8**
	28nm,0.6s,mb4.6						

NWAO	Narrogin (SRO)	59.04	242	eP	P	11 15 20.6	-0.6
	8.6nm,0.7s,mb4.0						
MUN	Mundaring	59.95	243	eP	P	11 15 27.3	0.0
	11nm,0.6s,mb4.2						
SBA	Scott Base	60.29	184	eP	P	11 15 30.0	+1.1
	7.1nm,0.8s,mb4.0						
VNDA	Vanda	60.31	185	P	P	11 15 29.4	+0.3
	1.2nm,0.6s,baz=351,slow=5.8,SNR=10						
VNDA	Vanda	60.31	185	eP	P	11 15 28.3	-0.7
	5.0nm,1.0s,mb3.7						
CASY	Casey	65.97	205	P	P	11 16 03.9	-1.1
MAJO	Matsushiro	67.93	323	eP	P	11 16 16.7	-0.8
	9.5nm,0.5s,mb4.5						
MAT	Matsushiro	67.93	323	P	P	11 16 16.9	-0.5
MAT	Matsushiro	67.93	323	eP	P	11 16 17.0	-0.4
QSPA	South Pole Qui	72.02	180	eP	P	11 16 41.3	+0.6
	14nm,0.8s,mb4.5						
KS15	Wonju Array Si	74.72	318	P	P	11 16 55.5	-1.2
CMB	Columbia Colle	78.02	43	eP	P	11 17 14.2	-0.4
	8.7nm,0.9s,mb4.2						
MDJ	Mudanjiang	78.21	325	eP	P	11 17 16.6	+1.2
	18nm,0.9s,mb4.5						
YBH	Yreka Blue Hor	78.70	39	P	P	11 17 18.5	+0.5
	7.4nm,0.8s,mb4.1,baz=151,slow=1.9,SNR=14						
MTUM	Tungsten Hills	78.85	45	eP	P	11 17 19.1	+0.2
NVAR	Mina Array Bea	79.60	44	P	P	11 17 23.3	+0.5
	4.6nm,0.8s,mb3.9,baz=226,slow=8.7,SNR=28						
CN2	Changchun	80.04	322	eP	P	11 17 24.1	-0.9
CN2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.1						
TPH	Tonopah	80.13	45	eP	P	11 17 25.7	+0.2
	comp=Z,9.5nm,1.1s,mb4.0						
TPNV	Topopah Spring	80.20	46	eP	P	11 17 26.2	+0.3
	comp=Z,13nm,1.3s,mb4.1						
ELK	Elko	82.84	43	eP	P	11 17 39.3	+0.1
	comp=Z,4.7nm,0.9s,mb4.0						
MAW	Mawson	83.70	200	P	P	11 17 42.9	+0.1
	comp=Z,4.5nm,0.6s,mb4.2,baz=123,slow=7.6,SNR=11						
MAW	Mawson	83.70	200	eP	P	11 17 43.2	+0.3
	comp=Z,16nm,1.0s,mb4.5						
BJT	Baijiatuau	83.78	315	eP	P	11 17 44.1	+0.2
	comp=Z,6.1nm,0.4s,mb4.5						
ENH	Enshi	84.23	304	eP	P	11 17 47.2	+0.8
	comp=Z,22nm,0.7s,mb4.8						
HLID	Hailey	84.81	41	eP	P	11 17 49.3	+0.5
	comp=Z,2.7nm,0.7s,mb4.0						
HWUT	Hardware Ranch	85.67	44	P	P	11 17 47.3	-5.8
	comp=Z,6.8nm,1.4s,mb4.1						
NEW	Newport	85.69	36	eP	P	11 17 51.6	-1.3
	comp=Z,2.1nm,0.8s,mb3.8						
PV10	Paradox Valley	85.89	48	P	P	11 17 52.0	-2.2
ILAR	Eielson Array	86.04	13	P	P	11 17 53.0	-1.3
	comp=Z,0.3nm,0.5s,baz=224,slow=4.8,SNR=13						
PV01	Paradox Valley	86.12	48	eP	P	11 17 55.1	-0.2
LTX	Lajitas	86.17	58	eP	P	11 17 56.6	+0.9
	comp=Z,7.1nm,0.8s,mb4.3						
TXAR	Lajitas Array	86.17	58	P	P	11 17 56.7	+1.0
	comp=Z,4.0nm,0.7s,mb4.2,baz=218,slow=6.1,SNR=63						
XAN	Xi'an	86.23	307	P	P	11 17 56.9	+1.0
XAN				AMB	AMB		
	comp=Z,17nm,1.1s,mb4.6						
ANMO	Albuquerque	86.28	52	P	P	11 17 56.2	+0.2
	comp=Z,4.3nm,1.2s,mb4.0,baz=219,slow=6.0,SNR=8.5						
ANMO	Albuquerque	86.28	52	eP	P	11 17 56.0	-0.1
	comp=Z,3.2nm,1.0s,mb3.9						
HIA	Hailar	86.39	325	P	P	11 17 57.1	+0.8
	comp=Z,2.5nm,0.7s,mb4.0						
SNOW	Snow King Moun	87.08	42	eP	P	11 17 60.0	+0.4
HHC	Hu-ho-hao-te	87.27	315	eP	P	11 18 01.9	+1.3
HHC				SKS	SKS	11 27 31.9	+2.4
HHC				S	S	11 27 53.3	+4.3
HHC				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.6						
HHC				AMB	AMB		
	comp=Z,193nm,5.9s						
PDAR	Pinedale Array	87.53	43	P	P	11 18 01.9	+0.1
	comp=Z,2.3nm,0.6s,mb4.1,baz=222,slow=3.2,SNR=26						
CM31	Chiang Mai Arr	88.80	290	P	P	11 18 09.1	+0.9
	comp=Z,12nm,1.0s,mb4.7						
CMAR	Chiang Mai Arr	88.80	290	P	P	11 18 09.2	+0.9
	comp=Z,5.6nm,0.9s,mb4.4,baz=114,slow=2.9,SNR=29						
SYO	Syowa Base	89.01	193	⇑P	P	11 18 07.3	-0.8
SYO	Syowa Base	89.01	193	⇑PcP	PcP	11 18 09.9	+0.8
SNAA	Sanae	90.48	179	⇓i	P	11 18 14.5	-0.3
SNAA	Sanae	90.48	179	eP	P	11 18 14.1	-0.7
	comp=Z,3.6nm,0.7s,mb4.3						
VNA3	Neumayer Olymp	90.62	176	e	P	11 18 26.9	+11
VNA3	Neumayer Olymp	90.62	176	⇑iP	P	11 18 17.0	+1.5
VNA3				e		11 18 26.9	
LZH	Lanzhou	90.86	308	eP	P	11 18 19.0	+1.6
LZH				AMB	AMB		
	comp=Z,20nm,1.5s,mb4.8						
LZH	Lanzhou	90.86	308	eP	P	11 18 19.0	+1.6
	comp=Z,20nm,1.5s,mb4.8						
LZH				pP	Px	11 18 26.0	
LZH				sP	Px	11 18 30.0	
VNA2	Neumayer--Watz	91.06	177	e	P	11 18 29.6	+12
VNA2	Neumayer--Watz	91.06	177	⇑iP	P	11 18 19.3	+1.8
VNA2				e		11 18 29.6	
VNA1	Neumayer--Stat	91.29	177	e	P	11 18 30.5	+12
VNA1	Neumayer--Stat	91.29	177	⇑iP	P	11 18 21.0	+2.5
VNA1				e		11 18 30.5	
INK	Inuvik	92.04	15	eP	P	11 18 20.7	-1.3
	comp=Z,2.8nm,1.0s,mb4.2						
ULN	Ulaanbaatar	93.16	319	eP	P	11 18 27.8	+0.3
	comp=Z,2.7nm,0.9s,mb4.3						
DGMT	Dagmar	93.37	40	P	P	11 18 36.5	+8.0
	comp=Z,25nm,1.0s,mb5.2						
SONM	Songino Array	93.56	319	P	P	11 18 29.1	-0.3
	comp=Z,0.6nm,0.5s,mb4.0,baz=131,slow=4.1,SNR=8.6						
YKA	Yellowknife Ar	94.50	25	P	P	11 18 32.3	-0.9
	comp=Z,0.2nm,0.4s,mb3.6,baz=237,slow=4.5,SNR=6.4						
BVAR	Borovoye Array	116.86	321	PKP	PKPdf	11 23 53.0	+0.7
	comp=Z,3.1nm,0.4s,baz=140,slow=1.3,SNR=20						
ARCES	ARCESS Array B	126.41	350	PKP	PKPdf	11 24 10.9	+0.5
	comp=Z,6.2nm,0.9s,baz=45,slow=1.3,SNR=5.8						
FINES	FINESS Array B	133.27	344	PKhKP		11 24 16.4	
	comp=Z,1.8nm,0.8s,baz=32,slow=6.8,SNR=2.9						
FINES				PKP	PKPdf	11 24 25.0	+1.4
	comp=Z,4.2nm,1.0s,baz=63,slow=4.3,SNR=7.3						
FINES	FINESS Array B	133.27	344	PKP	PKPdf	11 24 16.4	-7.2
FINES				PKP	PKPdf	11 24 25.0	+1.4
NOA	NORSAR Array B	136.48	353	PKhKP		11 24 22.1	
	comp=Z,1.4nm,0.9s,baz=19,slow=3.7,SNR=3.6						
NOA				PKP	PKPdf	11 24 31.4	+1.9
	comp=Z,1.2nm,1.0s,baz=11,slow=2.8,SNR=3.0						
AKASG	Malin Array Be	140.61	332	PKhKP		11 24 32.2	
	comp=Z,2.4nm,0.6s,baz=41,slow=4.0,SNR=8.8						
AKASG				PKP	PKPdf	11 24 39.6	+2.4
	comp=Z,1.3nm,0.3s,baz=38,slow=3.1,SNR=7.3						
GZT	Gaziantep	142.98	309	i P	PKPdf	11 24 42.1	+0.3
BOYT	Boyabat	143.12	316	i P	PKPbc	11 24 42.7	+2.2
CTKT	Corum	143.57	315	i P	PKPbc	11 24 44.4	+2.5
COBT	Iskenderun	144.26	308	i P	PKPdf	11 24 46.1	+2.2
AVNT	Avonos	144.37	312	i P	PKPdf	11 24 46.1	+2.0
ELDT	Eldivan	144.55	316	i P	PKPdf	11 24 47.0	+2.7
BRTR	Keskin Array B	144.78	315	PKP	PKPdf	11 24 47.0	+2.3
	comp=Z,8.9nm,0.8s,baz=114,slow=2.9,SNR=15						
KOLS	Kolonicke sedl	144.86	336	ePKP	PKPdf	11 24 47.6	+3.0
KSP	Ksiaz	145.19	343	eP	PKPdf	11 24 47.6	+2.5
OKC	Ostrava-Krasne	145.55	341	ePKP	PKPdf	11 24 49.1	+3.4
CLL	Collm	145.56	347	⇓iPKP1	PKPbc	11 24 48.8	+1.8
UPC	Upice	145.57	344	ePKP	PKPdf	11 24 49.2	+3.5
DPC	Dobruska-Polom	145.63	343	ePKP	PKPdf	11 24 49.6	+3.8
BRG	Berggiesshubel	145.75	346	i P	PKPdf	11 24 49.5	+3.5
MEST	Erdemli	145.80	309	i P	PKPdf	11 24 49.5	+2.9
MLR	Muntele Rosu	145.87	329	PKPbc	PKPbc	11 24 50.3	+2.3
	comp=Z,5.2nm,0.5s,baz=359,slow=8.5,SNR=14						
KECS	Kecovo	145.91	337	e	PKPdf	11 24 55.3	+8.9
PRU	Pruhonice	146.43	345	ePKP	PKPdf	11 24 51.5	+4.3
VYHS	Vyhne	146.49	339	ePKP	PKPdf	11 24 52.1	+4.7
KOLL	Kolacno	146.56	339	ePKP	PKPdf	11 24 52.3	+4.8
NKC	Novy Kostel	146.69	347	ePKP	PKPdf	11 24 52.1	+4.5
GRA1	Grafenberg Arr	147.45	348	ePKP	PKPdf	11 24 54.6	+5.7
KHC	Kasperske Hory	147.46	345	ePKP	PKPdf	11 24 54.4	+5.5
ULDT	Uludag	147.51	318	i P	PKPdf	11 24 54.5	+5.2
GERES	GERESS Array B	147.70	345	PKPbc	PKPdf	11 24 54.8	+5.5
	comp=Z,4.3nm,0.5s,baz=25,slow=3.2,SNR=32						
GIVF	Givet	147.89	356	ePKP1	PKPdf	11 24 54.9	+5.3
	comp=Z,17nm,0.7s						
BAIF	Baives	147.97	357	ePKP1	PKPdf	11 24 55.2	+5.5
	comp=Z,12nm,0.6s						
FLN	La Foliniere	149.31	3	ePKP1	PKPdf	11 24 58.0	+6.2
	comp=Z,14nm,0.7s						
CDF	Champ du Feu	149.33	352	ePKP1	PKPdf	11 24 58.5	+6.6
	comp=Z,7.8nm,0.6s						
LDF	La Druitiere	149.49	2	ePKP1	PKPdf	11 24 58.3	+6.2
	comp=Z,4.5nm,0.5s						
WATA	Walderalm	149.62	346	⇑iP	PKPdf	11 24 59.3	+7.0
	comp=Z,6.0nm,0.6s						
GRR	Gorron	149.66	3	ePKP1	PKPdf	11 24 59.0	+6.6
	comp=Z,8.6nm,0.5s						
WTTA	Wattenberg	149.67	346	⇑iP	PKPdf	11 24 59.9	+7.5
	comp=Z,14nm,0.6s						
MOTA	Moosalm	149.71	347	⇑iP	PKPdf	11 24 59.5	+7.0
	comp=Z,8.2nm,0.9s						
SQTA	Sankt Quirin	149.81	347	⇓iP	PKPdf	11 24 59.8	+7.2
	comp=Z,10nm,0.6s						
HAU	Haudompre	149.84	353	ePKP1	PKPdf	11 24 59.6	+6.9
	comp=Z,5.2nm,0.5s						
HINF	Hinteralfeld	149.97	353	ePKP1	PKPdf	11 25 00.5	+7.6
	comp=Z,5.1nm,0.6s						
SSF	Saint Saulge	151.00	357	ePKP1	PKPdf	11 25 02.4	+7.9
	comp=Z,8.1nm,0.6s						
CABF	La Chapelle	151.25	353	ePKP1	PKPdf	11 25 04.1	+9.3
MFF	Saint Martin d	151.48	2	ePKP1	PKPdf	11 25 03.2	+8.0
BGF	Bois d'Agland	151.53	358	ePKP1	PKPdf	11 25 03.5	+8.3
TCF	Toulx Ste Croi	151.82	359	ePKP1	PKPdf	11 25 04.6	+9.0
ORIF	Oris-en-Rattie	152.94	353	ePKP1	PKPdf	11 25 07.4	+10
MBDF	Montbardon	153.01	352	ePKP1	PKPdf	11 25 07.7	+10
	comp=Z,11nm,0.8s						
IDI	Anoyia	153.02	314	PKPbc	PKPdf	11 25 08.2	+10
	comp=Z,3.1nm,0.3s,baz=149,slow=6.5,SNR=6.3						
CAF	Calviac	153.18	359	ePKP1	PKPdf	11 25 07.3	+10

*NEIC **23** 11:07:30.6,30.80S×71.41W,h42^{km},MD4.0(GUC),After GUC.*

GUC 23 11:07:30.6±1.0**,30.80S×71.41W,h42**^{km}±3^{km}**,MD4.0, ML3.9,8C-6D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	Ovalle	0.26	44	⇑iP	P	11 07 39.1	+0.4
OVCH				i S	S	11 07 45.2	+0.8
OVCH				AMP		11 07 45.9	
	comp=N,8µm,0.1s						
CMCH	Combarbala	0.52	137	⇑iP	P	11 07 42.2	+0.6
CMCH				i S	S	11 07 50.5	+1.0
CMCH				AMP		11 07 51.1	
	comp=N,16µm,0.3s						
TLL	Tololo Astrono	0.82	40	⇓iP	P	11 07 46.4	+0.6
TLL				i S	S	11 07 58.5	+1.5
TLL				AMP		11 07 59.0	
	comp=N,6µm,0.4s						
ILCH	Illapel	0.86	166	⇑iP	P	11 07 46.7	+0.3
ILCH				i S	S	11 07 58.5	+0.5
ILCH				AMP		11 07 58.9	
	comp=E,8µm,0.2s						
PTCH	Petorca	1.52	164	⇑iP	P	11 07 56.2	+0.4
PTCH				i S	S	11 08 15.3	+0.8
PTCH				AMP		11 08 18.1	
	comp=E,10µm,0.2s						
PACH	Papudo	1.73	181	⇑iP	P	11 07 58.8	0.0
PACH				i S	S	11 08 21.1	+1.3
JACH	Jahuel	2.00	160	⇓iP	P	11 08 03.8	+1.2
JACH				i S	S	11 08 28.3	+1.7
ROCH	El Roble	2.19	171	eP	P	11 08 05.9	+0.5
VACH	Vallenar	2.29	15	⇓iP	P	11 08 12.2	+5.5
VACH				i S	S	11 08 39.9	+6.1
PEL	Peldehue	2.42	165	i P	P	11 08 09.4	+0.9
PEL				i S	S	11 08 38.3	+1.2
LCCH	Las Cruces	2.67	183	⇓iP	P	11 08 11.5	-0.7
CLCH	Cerro Calan	2.69	164	⇑iP	P	11 08 13.2	+0.7
CLCH				AMP		11 09 00.7	
	comp=E,974nm,0.6s						
CLCH				AMP		11 09 02.3	
	comp=E,1µm,0.6s						
FCH	Farellones	2.69	160	⇓iP	P	11 08 14.1	+1.6
FCH				i S	S	11 08 46.9	+2.7
FCH				AMP		11 08 54.5	
	comp=E,469nm,0.1s						
RCDM	Rinconada Maip	2.73	169	⇑iP	P	11 08 13.3	+0.3
RCDM				AMP		11 08 58.4	
	comp=E,784nm,0.2s						
TACH	Talagante	2.87	172	i P	P	11 08 14.8	-0.3
PCH	Pirque	2.92	165	⇓iP	P	11 08 15.7	0.0
CHCH	Chadas Angostu	3.19	169	⇑iP	P	11 08 19.9	+0.3

*IDC **23** 11:08:52.2±3.3, 18.26S×178.30W, h654^{km}±53^{km}, mb3.4/7, mb1 3.5/7, mb1mx3.2/16, Error ellipse: s-maj=66.4km s-min=17.7km az=173.0*

*NEIC **23** 11:08:52.8±2.0, 18.37S×178.31W, h671^{km}±31^{km}, mb4.0/4, Error ellipse: s-maj=30.1km s-min=15.2km az=174.0*

ISC 23 11:08:51.4±2.7**,18.4S**±0.2×**178.3W**±0.1**,h674**^{km}±41^{km}**, n19,**σ1§**02**/17**,mb4.1**/12**,2C,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PPT	Papeete	27.34	93	P	P	11 13 49.0	+0.3
	32nm,0.5s,mb5.1,baz=31,slow=14,SNR=4.0						
CTA	Charters Tower	33.47	261	P	P	11 14 40.8	+0.5
	5.6nm,0.7s,mb4.2,baz=85,slow=12,SNR=4.4						
CTAO	Charters Tower	33.47	261	eP	P	11 14 40.6	+0.4
	3.0nm,0.5s,mb4.1						
PMG	Port Moresby	34.62	280	P	P	11 14 51.0	+1.2
	10nm,0.7s,mb4.5,baz=56,slow=3.4,SNR=4.6						
STKA	Stephens Creek	38.50	242	P	P	11 15 18.9	-2.3
WB2	Warramunga Arr	44.63	260	⇑iP	P	11 16 09.5	0.0
WRAB	Tennant Creek	44.63	260	P	P	11 16 08.0	-1.5
	7.7nm,0.7s,mb4.1						
WRA	Warramunga Arr	44.64	260	P	P	11 16 09.7	+0.1
	2.7nm,0.4s,mb3.9,baz=96,slow=7.8,SNR=5.6						
ASAR	Alice Springs	44.76	255	P	P	11 16 10.6	+0.1
	23nm,1.2s,mb4.4,baz=87,slow=8.9,SNR=7.6						
ASPA	Alice Springs	44.76	255	eP	P	11 16 10.6	+0.2
KAKA	Kakadu	47.67	269	⇑iP	P	11 16 32.9	+0.5
	5.4nm,0.4s,mb4.2						
KAKA				eS	tx	11 20 11.8	
FITZ	Fitzroy Crossi	53.05	261	eP	P	11 17 11.9	+0.7
	2.5nm,0.4s,mb3.8						
MBWA	Marble Bar	58.05	256	eP	P	11 17 45.1	-0.2
	4.4nm,0.7s,mb3.7						
MAJO	Matsushiro	68.32	323	P	P	11 18 48.2	-1.8
PMSA	Palmer Station	83.36	157	P	P	11 20 11.3	+0.2
	73nm,1.3s,mb5.0						
ILAR	Eielson Array	86.30	13	P	P	11 20 24.6	-0.5
	0.6nm,1.0s,mb3.2,baz=220,slow=4.9,SNR=5.0						
CMAR	Chiang Mai Arr	89.12	290	P	P	11 20 41.8	+2.4
	0.2nm,0.3s,mb3.3,baz=108,slow=2.9,SNR=4.2						
BRTR	Keskin Array B	145.16	314	PKPbc	PKPbc	11 27 18.1	+2.6
	1.0nm,0.8s,baz=90,slow=4.3,SNR=3.7						
CLL	Collm	145.92	347	ePKP1	PKPbc	11 27 22.0	+4.9

*NAO **23** 11:16:05.5±4.1, 65.06N×11.30E, h8^{km}±22^{km}, ML2.5*

*CSEM **23** 11:16:05.0±0.5, 65.07N×11.18E, h0^{km}±3^{km}, ML2.2, Error ellipse: s-maj=10.6km s-min=3.4km az=108.0*

*NEIC **23** 11:16:07.7, 65.13N×11.31E, ML2.5(BER), After BER.*

*BER **23** 11:16:07.3±4.1, 65.12N×11.23E, h1^{km}±15^{km}, MD2.5, ML2.1, ML2.5(NAO)*

HEL 23 11:16:07.1±0.5**,65.12N×11.24E,h8**^{km}±3^{km}**,ML2.2, MD2.5**(BER)**,ML2.1**(BER)**,Northern Norway**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NSS	Namsos	0.67	152	eP	Pg	11 16 18.6	-2.0
NSS				eS	Sg	11 16 28.3	-1.2
NSS	Namsos	0.67	152	i P	Pg	11 16 18.6	-2.0
NSS				i S	Sg	11 16 28.3	-1.2
NSS	Namsos	0.67	152	P	Pg	11 16 18.5	-2.0
STOK	Stokkvaagen	1.42	30	eP	Pn	11 16 32.9	-0.4
STOK				eS	Sb	11 16 52.3	+0.6
STOK				AML	AML	11 16 53.4	
	comp=Z,34nm,0.1s						
STOK	Stokkvaagen	1.42	30	P	Pn	11 16 32.9	-0.5
STOK				S	Sb	11 16 52.3	+0.6
	comp=Z,34nm,0.1s						
MOR8	Moi Rana	1.70	50	eP	Pn	11 16 39.3	+2.0
MOR8				eSg	Sg	11 17 04.6	+1.0
MOR8				AML	AML	11 17 06.8	
	comp=Z,68nm,0.1s						
TRON	Trondheim	1.71	192	eS	Sn	11 16 58.8	-0.9
MOL	Molde	3.04	214	eP	Pn	11 16 56.7	+0.3
MOL				eS	Sn	11 17 30.0	-3.5
MOL				AML	AML	11 17 46.3	
	comp=Z,9.3nm,0.5s						
MOL	Molde	3.04	214	eS	Sn	11 17 30.0	-3.4
	comp=Z,9.3nm,0.5s,SNR=50						
LOF	Lofoten	3.16	16	eS	Sn	11 17 30.4	-6.1
HFS	Hagfors	5.13	166	Pn	Pn	11 17 22.2	-4.0
	baz=340,slow=14						
HFS				Sn	Sn	11 18 18.5	-7.9
	baz=347,slow=28						
HFS				Lg		11 18 43.6	
	baz=355,slow=28						
HFS	Hagfors	5.13	166	eP	Pn	11 17 22.2	-4.0
HFS				eS	Sn	11 18 18.5	-7.9
HFS				eSG		11 18 43.6	
HFS	Hagfors	5.13	166	Pn	Pn	11 17 22.2	-4.0
	baz=340,slow=13,SNR=8.2						
HFS				Sn	Sn	11 18 18.5	-7.9
	baz=347,slow=26,SNR=4.0						
VAF	Ylistaro	5.43	107	eP	Pn	11 17 29.0	-1.4
VAF				eS	Sn	11 18 30.7	-3.2
VAF				eSG	Sg	11 18 53.5	-14
OUL	Oulu	6.19	84	eP	Pn	11 17 39.3	-1.9
OUL				eS	Sn	11 18 46.5	-6.5
OUL				eSG	Sg	11 19 14.2	-19
OUL				MSG		11 19 15.7	
	comp=Z,1.5nm,0.4s						
SGF	Sodankyl	6.59	62	eP	Pn	11 17 44.5	-2.3
SGF				eS	Sn	11 18 54.9	-8.0
SGF				eSG	Sg	11 19 27.0	-19
SUF	Sumiainen	7.00	103	eP	Pn	11 17 49.8	-2.7
SUF				eS	Sn	11 19 06.9	-6.2
SUF				eSG	Sg	11 19 41.1	-19
SUF				MSG		11 19 45.9	
	comp=Z,1.2nm,0.3s						
ARA0	ARCESS Array S	7.06	45	Pn	Pn	11 17 48.7	-4.7
	baz=233,slow=14						
ARA0				Sn	Sn	11 19 05.2	-10
	baz=230,slow=22						
ARA0	ARCESS Array S	7.06	45	eP	Pn	11 17 48.7	-4.7
ARA0				eS	Sn	11 19 05.2	-10
ARA0	ARCESS Array S	7.06	45	Pn	Pn	11 17 48.7	-4.7
	baz=233,slow=14,SNR=3.5						
ARA0				Sn	Sn	11 19 05.2	-10
	baz=230,slow=22,SNR=6.6						
KJN	Kajaani	7.16	91	eP	Pn	11 17 51.8	-2.9
KJN				eS	Sn	11 19 08.9	-8.2
KJN				eSG	Sg	11 19 45.2	-20
KJN				MSG		11 19 50.1	
	comp=Z,2.1nm,0.4s						
KAF	Kangasniemi	7.36	107	eP	Pn	11 17 55.2	-2.3
KAF				eS	Sn	11 19 14.1	-8.0
KAF				eSG	Sg	11 19 54.5	-17
KAF				MSG		11 19 58.8	
	comp=Z,1.3nm,0.4s						
MSF	Maaselka	7.44	76	eS	Sn	11 19 15.7	-8.5
KEV	Kevo	7.63	45	eP	Pn	11 17 55.9	-5.4
KEV				eS	Sn	11 19 19.1	-10
FIA0	FINESS Array S	7.63	112	Pn	Pn	11 17 54.5	-6.9
	baz=305,slow=10						
FIA0				Sn	Sn	11 19 20.2	-8.7
	baz=313,slow=22						
FIA0				Lg		11 20 05.8	
	baz=318,slow=37						
FIA0	FINESS Array S	7.63	112	eS	Sn	11 19 23.1	-5.9
FIA0				eSG	Sg	11 20 02.3	-19
FIA0	FINESS Array S	7.63	112	Pn	Pn	11 17 54.5	-6.8
	baz=305,slow=9.9						
PVF	Pernaja	8.10	118	eP	P	11 18 05.9	-2.0
PVF				eSG	Sg	11 20 17.0	-20

CASC 23 11:30:11.0±1.5**,12.18N×87.48W,h72**^{km}±26^{km}**,MD3.6, 7C-2D,Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LEON	Leon	0.62	68	⇑eP	P	11 30 25.7	+0.3
LEON				eS	S	11 30 35.9	-0.1
TEL3	Telica 3	0.73	58	⇓eP	P	11 30 26.6	+0.1
TEL3				eS	S	11 30 39.3	+1.1
MIRN	Miramar	0.79	71	⇑eP	P	11 30 27.4	+0.1
MIRN				eS	S	11 30 39.9	+0.4
CNGN	Cerro Negro	0.83	68	⇓eP	P	11 30 27.5	-0.2
CNGN				eS	S	11 30 40.4	+0.3
COPN	Copaltepe	0.87	90	⇑eP	P	11 30 28.4	+0.1
COPN				eS	S	11 30 41.2	+0.2
APYN	Apoyeque	1.11	87	⇑eP	P	11 30 30.9	-0.4
APYN				eS	S	11 30 45.8	-0.5
XAVN	Gruta Xavier	1.13	92	⇑iP	P	11 30 31.6	+0.1
XAVN				eS	S	11 30 47.3	+0.4
CNCH	Conchagua	1.14	342	eS	S	11 30 47.9	+0.8
MGAN	Managua	1.21	92	⇑eP	P	11 30 32.4	-0.1
MGAN				eS	S	11 30 48.0	-0.6
WILN	Americas 2	1.27	91	eS	S	11 30 49.6	-0.4
SNVI	San Vicente	1.94	317	eP	P	11 30 43.5	+1.0
SNVI				eS	S	11 31 06.5	+0.7
LCBS	La Ceiba	2.07	315	⇑eP	P	11 30 44.1	-0.1
LCBS				eS	S	11 31 09.4	+0.6
LFRS	El Faro	2.10	313	eP	P	11 30 44.7	0.0
LFRS				eS	S	11 31 09.7	0.0
LFU	La Fuente	2.23	315	eP	P	11 30 44.8	-1.7
LFU				eS	S	11 31 14.2	+1.4
BOQS	Boqueron	2.33	312	eS	S	11 31 16.7	+1.1
SBLS	San Blas	2.66	308	eP	P	11 30 52.7	+0.1
SBLS				eS	S	11 31 23.6	-0.1

*NEIC **23** 11:44:38.9, 17.44N×101.58W, h8^{km}, MD4.1(MEX), After MEX.*

MEX 23 11:44:38.7±1.9**,17.44N×101.59W,h8**^{km}±10^{km}**,MD4.1,1D, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZIIG	Zihuatanejo	0.21	35	⇓iP	Pg	11 44 42.0	-1.0
ZIIG				i S	Sg	11 44 46.0	+0.1
CAIG	El Cayaco	1.32	107	eP	Pb	11 44 58.7	-4.7
CAIG				i S	Sb	11 45 16.1	-4.3
ACX	Acapulco	1.70	109	eP	Pn	11 45 06.4	-2.6
ACX				i S	Sn	11 45 26.7	-4.3
ACX	Acapulco	1.70	109	i P	Pn	11 45 06.5	-2.4
ACX				i S	Sn	11 45 26.7	-4.3
PLIG	Platanillo	2.20	64	eP	Pn	11 45 14.2	-1.9
PLIG				i S	Sn	11 45 38.9	-5.0
MOIG	Morelia	2.26	10	eP	Pn	11 45 14.6	-2.4
MOIG				i S	Sn	11 45 39.8	-5.5
COLM	Colima	2.64	311	eP	Pn	11 45 18.9	-3.6
COLM				i S	Sn	11 45 50.7	-4.4
CRX	Cerrillo	2.67	43	i P	Pn	11 45 24.8	+2.0
CRX				i S	Sn	11 46 00.7	+5.0
YAIG	Yautepec	2.79	59	i P	Pn	11 45 22.4	-2.1
YAIG				i S	Sn	11 45 52.8	-5.9
CGX	Ciudad Guzman	2.89	321	i P	Pn	11 45 31.3	+5.4
UNM	Universidad Na	2.96	50	i P	Pn	11 45 27.1	+0.1
UNM				i S	Sn	11 45 57.6	-5.6
PPM	Popocatepetl	3.25	60	i P	Pn	11 45 28.1	-2.9
PPM				i S	Sn	11 46 03.6	-6.8
PPM	Popocatepetl	3.25	60	i P	Pn	11 45 28.1	-2.9
PPM				eP		11 45 32.2	
PPM				i P		11 45 32.3	
PPM				i S	Sn	11 46 03.6	-6.8
SFJM	Santa Fe	3.33	336	i P	Pn	11 45 30.6	-1.6
SFJM				i S	Sn	11 46 22.7	+10
PNIG	Pinotepa	3.47	107	i P	Pn	11 45 38.8	+4.5
PNIG				i S	Sn	11 46 11.3	-4.9
VHO	Vista Hermosa	4.66	94	i S	Sn	11 46 40.3	-5.7
CMIG	Matias Romero	6.42	92	i S	Sn	11 47 22.4	-7.8

*NIED **23** 12:03:00, 37.40N×139.00E, h8^{km}, Mw4.2 Best double couple: M$_0$2.61×10^{15} NP1:φ$_s$185°, δ59°, λ51°. NP2:φ$_s$63°, δ48°, λ137°.*

*NEIC **23** 12:03:43.6±1.2, 37.39N×138.85E, h16^{km}±8^{km}, mb4.6/23, MW4.2(NIED), Error ellipse: s-maj=6.6km s-min=5.8km az=108.0*

NEIC Recorded [4 JMA] in Niigata; [2 JMA] in Fukushima, Gumma and Yamagata; [1 JMA] in Nagano Prefectures. Also recorded [2 JMA] on Sadoga-shima.

*JMA **23** 12:03:43.3, 37.39N×138.95E, h11^{km}±2^{km}, M4.5 Broadband fault plane solution: P waves. NP1:φ$_s$70°, δ52°, λ136°. NP2:φ$_s$190°, δ57°, λ47°. Principal axes: T Plg55°, Azm43°; N Plg35°, Azm217°; P Plg3°, Azm309°;*

JMA Felt IV J1.

*MOS **23** 12:03:44.1±1.0, 37.38N×138.85E, h33^{km}, mb4.4/13 Error ellipse: s-maj=29.4km s-min=12.3km az=86.3*

*IDC **23** 12:03:46.9±3.5, 37.42N×138.73E, h38^{km}±29^{km}, mb4.0/21, mb1 4.1/24, mb1mx4.1/31, ML4.1/2, MS3.6/3, Ms1 3.7/3, ms1mx3.1/29, Error ellipse: s-maj=17.1km s-min=13.3km az=87.0*

ISC 23 12:03:42.7±0.4**, 37.41N**±0.03×**138.91E**±0.04**, h20**^{km}±3^{km}**, n91,** σ**0**^{s}**99**/94**, mb4.4**/42**, MS3.6**/3**, 1C-5D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHK	**Hiroka**	**0.18**	**153**	⇓P	**Pb**	**12 03 46.7**	**-1.0**
JHK				S	**Sb**	**12 03 49.4**	**-1.6**
JIZZ	**Izumozaki**	**0.20**	**307**	⇓P	**Pb**	**12 03 48.6**	**+0.7**
JNS	**Sasagawa**	**0.52**	**38**	⇑P	**Pb**	**12 03 52.9**	**-0.1**
JNS				S	**Sb**	**12 04 00.2**	**+0.1**
JFY	**Yanaizu**	**0.63**	**90**	S	**Sb**	**12 04 02.9**	**-0.4**
JKT	**Katashina**	**0.70**	**157**	⇓P	**Pb**	**12 03 55.9**	**-0.2**
JKT				S	**Sb**	**12 04 05.0**	**-0.2**
JSD	**Sado**	**0.81**	**321**	⇓P	**Pb**	**12 03 57.8**	**-0.2**
MAJO	**Matsushiro**	**1.03**	**213**	*e*Pg	**Pb**	**12 04 02.0**	**+0.2**
MAJO				*e*Sg	**Sb**	**12 04 15.9**	**+1.0**
MAT	**Matsushiro**	**1.03**	**213**	P	**Pb**	**12 04 01.9**	**+0.1**
MAT				S	**Sb**	**12 04 16.1**	**+1.2**
MAT	**Matsushiro**	**1.03**	**213**	P	**Pb**	**12 04 01.8**	**0.0**
MAT	**Matsushiro**	**1.03**	**213**	*e*P	**Pb**	**12 04 02.0**	**+0.2**
MAT				*e*S	**Sb**	**12 04 16.0**	**+1.1**
JAG	**Ashikaga**	**1.07**	**156**	⇓P	**Pb**	**12 04 02.8**	**+0.3**
JAG				S	**Sb**	**12 04 17.2**	**+1.1**
JHJ	**Hachijo jima 2**	**4.34**	**170**	Pn	**Pn**	**12 04 52.0**	**+2.6**
	26nm,0.3s,baz=267,slow=19,SNR=3.3						
ASAJ	**Asahikawa**	**7.26**	**21**	Pn	**Pn**	**12 05 32.2**	**+1.8**
	3.4nm,0.3s,baz=215,slow=8.7,SNR=21						
ASAJ	**Asahikawa**	**7.26**	**21**	P	**Pn**	**12 05 32.2**	**+1.8**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KS15	**Wonju Array Si**	**8.78**	**274**	*e*Pn	**P**	**12 05 51.6**	**+0.1**
YSS	**Yuzh-Sakhalins**	**9.95**	**15**	*e*P	**P**	**12 06 07.4**	**-0.4**
YSS	**Yuzh-Sakhalins**	**9.95**	**15**	*e*Pn	**P**	**12 06 07.5**	**-0.2**
BJT	**Baijiatuau**	**17.93**	**285**	*e*P	**P**	**12 07 53.0**	**+0.4**
	comp=Z,5.8nm,0.7s						
HIA	**Hailar**	**18.24**	**317**	P	**P**	**12 07 56.6**	**+0.3**
MA2	**Magadan**	**23.46**	**15**	*e*P	**P**	**12 08 52.0**	**+0.5**
	comp=Z,27nm,1.2s,mb4.5						
ENH	**Enshi**	**25.39**	**262**	*e*P	**P**	**12 09 09.0**	**-1.3**
	comp=Z,18nm,1.0s,mb4.5						
ULN	**Ulaanbaatar**	**25.49**	**304**	*e*P	**P**	**12 09 13.9**	**+2.8**
	comp=Z,6.9nm,1.1s,mb4.1						
SONM	**Songino Array**	**25.92**	**304**	P	**P**	**12 09 13.7**	**-1.4**
	comp=Z,2.6nm,0.9s,mb3.8,baz=106,slow=8.5,SNR=13						
TLY	**Talaya**	**28.58**	**311**	*e*P	**P**	**12 09 41.8**	**+2.5**
	comp=Z,18nm,1.3s,mb4.6						
CMAR	**Chiang Mai Arr**	**39.68**	**253**	LR	LR	12 27 07.8	
	comp=Z,45nm,19.3s,MS3.3,baz=80,slow=35						
ZAL	**Zalesovo**	**40.20**	**312**	P	**P**	**12 11 18.4**	**-0.8**
	comp=Z,1.0nm,0.5s,mb3.8,baz=20,slow=4.2,SNR=3.4						
ZAL				PcP	PcP	12 13 22.1	-1.7
	comp=Z,1.4nm,0.6s,baz=330,slow=4.5,SNR=7.2						
ZAL				LR	LR	12 27 28.1	
	comp=Z,63nm,18.3s,MS3.5,baz=202,slow=36						
ZAL	**Zalesovo**	**40.20**	**312**	P	**P**	**12 11 18.4**	**-0.8**
ZAL						12 13 22.1	
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ZAL				MLR	MLR		
	comp=Z,63nm,18.3s						
IMA	**Indian Mountai**	**47.38**	**31**	*e*P	**P**	**12 12 17.4**	**+0.4**
	comp=Z,26nm,1.0s,mb5.1						
CHKZ	**Chkalovo**	**48.59**	**313**	*e*P	**P**	**12 12 25.7**	**-0.8**
	comp=Z,4.0nm,1.0s,mb4.4						
BVAR	**Borovoye Array**	**48.84**	**312**	P	**P**	**12 12 27.3**	**-1.1**
	comp=Z,0.4nm,0.5s,mb3.7,baz=309,slow=21,SNR=3.1						
BVAR				PcP	PcP	12 13 52.5	-0.8
	comp=Z,2.9nm,0.8s,baz=89,slow=3.1,SNR=11						
MCK	**McKinley**	**49.43**	**34**	P	**P**	**12 12 31.5**	**-1.4**
COLA	**College**	**49.83**	**32**	*e*P	**P**	**12 12 35.8**	**-0.1**
	comp=Z,5.1nm,1.1s,mb4.5						
ILAR	**Eielson Array**	**50.25**	**32**	P	**P**	**12 12 38.1**	**-0.9**
	comp=Z,1.4nm,0.9s,mb4.0,baz=264,slow=5.7,SNR=13						
ILAR	**Eielson Array**	**50.25**	**32**	P	**P**	**12 12 38.2**	**-0.9**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ARU	**Arti**	**54.75**	**318**	*e*P	**P**	**12 13 11.7**	**-1.1**
INK	**Inuvik**	**54.96**	**27**	P	**P**	**12 13 14.0**	**-0.3**
	comp=Z,2.0nm,0.6s,mb4.3,baz=275,slow=7.9,SNR=22						
INK	**Inuvik**	**54.96**	**27**	P	**P**	**12 13 14.0**	**-0.3**
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	**Inuvik**	**54.96**	**27**	*e*P	**P**	**12 13 13.6**	**-0.6**
	comp=Z,2.9nm,0.7s,mb4.4						
WRAB	**Tennant Creek**	**57.20**	**185**	P	**P**	**12 13 29.2**	**-1.7**
	comp=Z,4.1nm,0.8s,mb4.5						
WB2	**Warramunga Arr**	**57.21**	**185**	*e*P	**P**	**12 13 29.5**	**-1.5**
WRA	**Warramunga Arr**	**57.21**	**185**	P	**P**	**12 13 29.6**	**-1.5**
	comp=Z,2.0nm,0.5s,mb4.4,baz=0.3,slow=7.6,SNR=25						
WRA				PcP	PcP	12 14 25.5	+0.3
	comp=Z,1.8nm,0.9s,baz=355,slow=4.0,SNR=4.8						
WRA	**Warramunga Arr**	**57.21**	**185**	P	**P**	**12 13 29.6**	**-1.4**
WRA						12 14 25.5	
WRA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
ASAR	**Alice Springs**	**60.93**	**185**	P	**P**	**12 13 55.5**	**-1.3**
	comp=Z,1.2nm,0.8s,mb4.1,baz=357,slow=4.6,SNR=15						
ASPA	**Alice Springs**	**60.93**	**185**	*e*P	**P**	**12 13 57.0**	**+0.3**
RES	**Resolute Bay**	**62.73**	**14**	*e*P	**P**	**12 14 06.9**	**-1.2**
	comp=Z,5.6nm,0.9s,mb4.7						
YKA	**Yellowknife Ar**	**64.48**	**30**	P	**P**	**12 14 18.9**	**-0.8**
	comp=Z,0.4nm,0.6s,mb3.6,baz=306,slow=6.9,SNR=9.1						
FINES	**FINESS Array B**	**67.54**	**331**	P	**P**	**12 14 38.4**	**-0.9**
	comp=Z,4.2nm,0.8s,mb4.5,baz=56,slow=6.9,SNR=5.8						
FINES	**FINESS Array B**	**67.54**	**331**	P	**P**	**12 14 38.4**	**-0.9**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
STKA	**Stephens Creek**	**68.97**	**178**	P	**P**	**12 14 47.8**	**-1.0**
	comp=Z,2.4nm,0.8s,mb4.2,baz=354,slow=9.2,SNR=4.6						
STKA	**Stephens Creek**	**68.97**	**178**	P	**P**	**12 14 49.3**	**+0.6**
NEW	**Newport**	**71.24**	**43**	P	**P**	**12 15 01.7**	**-0.5**
	comp=Z,2.3nm,0.8s,mb4.2						
AKASG	**Malin Array Be**	**72.77**	**321**	P	**P**	**12 15 09.6**	**-1.6**
	comp=Z,0.6nm,0.4s,mb3.9,baz=44,slow=5.8,SNR=6.3						
AKASG	**Malin Array Be**	**72.77**	**321**	P	**P**	**12 15 09.6**	**-1.6**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
HFS	**Hagfors**	**72.91**	**335**	P	**P**	**12 15 10.9**	**-0.9**
	comp=Z,2.8nm,0.8s,mb4.2,baz=90,slow=3.0,SNR=3.1						
HFS	**Hagfors**	**72.91**	**335**	P	**P**	**12 15 10.9**	**-0.9**
HFS				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NB2	**NORSAR Subarra**	**73.05**	**336**	P	**P**	**12 15 11.6**	**-1.0**
	comp=Z,2.1nm,0.7s,mb4.2,baz=42,slow=5.8						
NOA	**NORSAR Array B**	**73.05**	**336**	P	**P**	**12 15 12.0**	**-0.6**
	comp=Z,2.4nm,0.7s,mb4.2,baz=40,slow=5.8,SNR=7.1						
NOA				LR	LR	12 48 47.5	
	comp=Z,105nm,20.2s,MS4.1,baz=135,slow=37						
NOA	**NORSAR Array B**	**73.05**	**336**	P	**P**	**12 15 12.0**	**-0.6**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA				MLR	MLR		
	comp=Z,105nm,20.2s						
NOA	**NORSAR Array B**	**73.05**	**336**	P	**P**	**12 15 12.0**	**-0.6**
NOA				LR	LR	12 48 47.5	
HRY	**Holter Researc**	**75.03**	**42**	*e*P	**P**	**12 15 24.6**	**+0.2**
HLID	**Hailey**	**75.56**	**46**	*e*P	**P**	**12 15 28.4**	**+0.9**
	comp=Z,3.1nm,1.0s,mb4.2						
NVAR	**Mina Array Bea**	**76.34**	**52**	P	**P**	**12 15 33.1**	**+1.1**
	comp=Z,2.9nm,0.8s,mb4.3,baz=283,slow=8.0,SNR=16						
BRTR	**Keskin Array B**	**77.10**	**310**	P	**P**	**12 15 36.5**	**+0.3**
	comp=Z,3.2nm,1.0s,mb4.2,baz=90,slow=2.9,SNR=5.5						
BRTR	**Keskin Array B**	**77.10**	**310**	P	**P**	**12 15 36.6**	**+0.4**
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
HWUT	**Hardware Ranch**	**78.43**	**46**	*e*P	**P**	**12 15 44.3**	**+0.8**
	comp=Z,6.9nm,1.1s,mb4.5						
TPNV	**Topopah Spring**	**78.54**	**52**	*e*P	**P**	**12 15 45.2**	**+1.0**
	comp=Z,6.9nm,1.0s,mb4.5						
PDAR	**Pinedale Array**	**78.81**	**44**	P	**P**	**12 15 46.6**	**+1.1**
	comp=Z,1.6nm,0.8s,mb4.0,baz=311,slow=2.7,SNR=15						
VRAC	**Vranov**	**79.70**	**326**	P	**P**	**12 15 51.0**	**+0.7**
	comp=Z,3.5nm,0.9s,mb4.3,baz=293,slow=6.4,SNR=2.5						
VRAC	**Vranov**	**79.70**	**326**	P	**P**	**12 15 51.0**	**+0.7**
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CLL	**Collm**	**79.76**	**329**	P	**P**	**12 15 51.0**	**+0.5**
SRU	**San Rafael**	**80.65**	**48**	*e*P	**P**	**12 15 56.8**	**+1.3**
GERES	**GERESS Array B**	**81.32**	**327**	P	**P**	**12 15 59.3**	**+0.4**
	comp=Z,1.2nm,0.6s,mb4.0,baz=37,slow=6.7,SNR=6.4						
GERES	**GERESS Array B**	**81.32**	**327**	P	**P**	**12 15 59.3**	**+0.5**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GRA1	**Grafenberg Arr**	**81.73**	**329**	*e*P	**P**	**12 16 01.2**	**+0.3**
	comp=Z,7.0nm,1.1s,mb4.5						
GRF	**Grafenberg Arr**	**81.73**	**329**	*e*P	**P**	**12 16 01.2**	**+0.3**
GRF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
PV10	**Paradox Valley**	**82.01**	**47**	*e*P	**P**	**12 16 04.5**	**+1.9**
STU	**Stuttgart**	**83.28**	**329**	P	**P**	**12 16 09.3**	**+0.4**
SANT	**Santorini**	**84.18**	**312**	*e*P	**P**	**12 16 11.7**	**-2.1**
	comp=Z,27nm,0.9s,mb5.4						
CDF	**Champ du Feu**	**84.34**	**330**	*e*P	**P**	**12 16 14.8**	**+0.5**
	comp=Z,22nm,1.0s,mb4.9						
DAVOX	**Davos**	**84.56**	**328**	P	**P**	**12 16 15.7**	**+0.2**
	comp=Z,3.3nm,0.8s,mb4.5,baz=33,slow=12,SNR=5.1						
HINF	**Hinteralfeld**	**84.99**	**330**	*e*P	**P**	**12 16 17.5**	**0.0**
	comp=Z,9.5nm,0.9s,mb4.6						
HAU	**Haudompre**	**85.04**	**330**	*e*P	**P**	**12 16 17.8**	**0.0**
	comp=Z,9.7nm,0.8s,mb4.7						
IDI	**Anoyia**	**85.26**	**311**	P	**P**	**12 16 19.0**	**-0.2**
	comp=Z,9.5nm,1.0s,mb4.9,baz=345,slow=12,SNR=5.4						
ANMO	**Albuquerque**	**85.85**	**48**	P	**P**	**12 16 23.6**	**+1.4**
	comp=Z,1.0nm,0.8s,mb4.1,baz=298,slow=5.6,SNR=3.7						
ANMO	**Albuquerque**	**85.85**	**48**	P	**P**	**12 16 23.6**	**+1.4**
ANMO				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SSF	**Saint Saulge**	**86.92**	**331**	*e*P	**P**	**12 16 27.1**	**0.0**
	comp=Z,20nm,1.1s,mb4.9						
SMF	**Signal de Mont**	**87.13**	**331**	*e*P	**P**	**12 16 28.6**	**+0.4**
	comp=Z,3.7nm,0.6s,mb4.5						
TXAR	**Lajitas Array**	**91.45**	**51**	P	**P**	**12 16 50.0**	**+1.1**
	comp=Z,0.6nm,0.6s,mb4.1,baz=284,slow=3.6,SNR=11						
LPAZ	**La Paz**	**148.18**	**56**	PKPbc	PKPdf	12 23 30.7	+2.3
	comp=Z,2.0nm,0.7s,baz=334,slow=4.3,SNR=11						
LPAZ	**La Paz**	**148.18**	**56**	PKP2	PKPab	12 23 30.7	-1.9
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPAZ	**La Paz**	**148.18**	**56**	PKPbc	PKPdf	12 23 30.7	+2.2

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*NEIC **23** 12:10:11.5, 37.35N×10.61W, MN2.9(MDD), After MDD.*

*INMG **23** 12:10:12.4±0.9, 37.17N×10.84W, h31^{km}, ML2.4, Error ellipse: s-maj=6.7km s-min=3.7km az=71.0*

MDD 23 12:10:11.6±2.0**, 37.33N**×**10.61W, mbLg2.7**/17**, Error ellipse: s-maj=17.4km s-min=11.1km az=61.0, PRXIMO, Azores-Cape St. Vincent Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTEO	**Sao Teotonio**	**1.52**	**81**	*e*Pn	Pn	12 10 38.8	-1.3
PTEO				*e*Sn	Sn	12 10 58.7	-2.1
	23nm,0.2s						
PTEO	**Sao Teotonio**	**1.52**	**81**	P	Pn	12 10 38.8	-1.3
PTEO				S	Sb	12 10 58.7	-1.3
	12nm,0.2s						
PLOU	**Loures**	**1.94**	**36**	*e*Pn	Pn	12 10 44.5	-1.5
PLOU				*e*Sn	Sn	12 11 09.2	-2.2
	22nm,0.2s						
PLOU	**Loures**	**1.94**	**36**	P	Pn	12 10 44.5	-1.5
PLOU				S	Sn	12 11 09.2	-2.2
	11nm,0.2s						
MOE	**Montemor**	**2.15**	**56**	*e*Sn	Sn	12 11 14.6	-2.3
PBEJ	**Beja**	**2.29**	**71**	*e*Sn	Sn	12 11 17.5	-2.8
	9.9nm,0.1s						
PBEJ	**Beja**	**2.29**	**71**	S	Sn	12 11 17.5	-2.8
	4.9nm,0.1s						
EGRO	**El Granado**	**2.50**	**84**	P	Pn	12 10 52.2	-1.9
	1.1nm,0.1s,SNR=7.9						
EGRO				S	Sn	12 11 21.3	-4.4
	15nm,0.2s,SNR=7.9						
PALC	**Alcoutim**	**2.50**	**86**	*e*Pn	Pn	12 10 52.3	-1.8
PALC				*e*Sn	Sn	12 11 21.6	-4.2
	16nm,0.1s						
PALC	**Alcoutim**	**2.50**	**86**	P	Pn	12 10 52.3	-1.8
PALC				S	Sn	12 11 21.6	-4.2
	8.1nm,0.1s						
EMIN	**Mina Concepcio**	**3.16**	**81**	P	Pn	12 11 01.4	-2.1
	1.0nm,0.2s,SNR=10						
EMIN				S	Sn	12 11 37.4	-5.2
	4.1nm,0.1s,SNR=5.0						
EBAD	**Badajoz**	**3.18**	**62**	P	Pn	12 11 01.1	-2.7
	1.1nm,0.1s,SNR=8.3						
EBAD				S	Sn	12 11 38.5	-4.4
	18nm,0.2s,SNR=7.9						
PCBR	**Castelo Branco**	**3.51**	**43**	*e*Pn	Pn	12 11 06.5	-2.0
PCBR				*e*Sn	Sn	12 11 47.5	-3.9
	4.8nm,0.2s						
PCBR	**Castelo Branco**	**3.51**	**43**	P	Pn	12 11 06.5	-2.0
PCBR				S	Sn	12 11 47.5	-3.9
	2.4nm,0.2s						
MTE	**Manteigas**	**3.89**	**37**	*e*Sn	Sn	12 11 56.2	-4.8
	4.6nm,0.5s						
MTE	**Manteigas**	**3.89**	**37**	S	Sn	12 11 56.2	-4.8
	2.3nm,0.5s						
PVIS	**Viseu**	**3.99**	**31**	*e*Sn	Sn	12 11 58.3	-5.2
	9.5nm,0.1s						
PVIS	**Viseu**	**3.99**	**31**	S	Sn	12 11 58.3	-5.2
	4.8nm,0.1s						
PVRL	**Vila Real**	**4.54**	**29**	*e*Sn	Sn	12 12 10.7	-6.7
EADA	**Adamuz**	**4.85**	**78**	P	Pn	12 11 24.8	-2.8
	0.5nm,0.1s,SNR=7.9						
EADA				S	Sn	12 12 18.3	-7.1
	3.2nm,0.1s,SNR=6.9						
ELOB	**Lobios**	**4.94**	**23**	P	Pn	12 11 24.8	-4.1
	1.4nm,0.3s,SNR=7.9						
ELOB				S	Sn	12 12 20.2	-7.5
	4.0nm,0.1s,SNR=7.9						
EZAM	**Zamans**	**5.04**	**16**	S	Sn	12 12 21.4	-8.6
	2.3nm,0.2s,SNR=7.9						
ECAL	**Calabor**	**5.49**	**32**	P	Pn	12 11 33.4	-3.3
	1.4nm,0.3s,SNR=7.9						
ECAL				S	Sn	12 12 34.1	-7.3
	1.8nm,0.1s,SNR=5.7						
EMAZ	**Mazaricos**	**5.75**	**12**	S	Sn	12 12 36.3	-12
	2.1nm,0.1s,SNR=7.9						
EQES	**Quesada**	**6.01**	**83**	S	Sn	12 12 47.0	-7.4
	1.7nm,0.2s,SNR=7.9						
EPON	**Pontenova**	**6.55**	**23**	S	Sn	12 12 59.2	-8.7
	1.4nm,0.2s,SNR=7.9						

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*IDC **23** 12:44:43.6±1.3, 18.46N×121.23E, mb3.3/4, mb1 3.6/5, mb1mx3.5/19, ML3.5/1, Error ellipse: s-maj=36.9km s-min=23.3km az=70.0*

*MAN **23** 12:44:48.4, 18.90N×120.90E, h23^{km}, mb4.9, ML3.8, MS3.8*

ISC 23 12:44:49.4±0.6**, 18.92N**±0.04×**120.90E**±0.06**, h33**^{km}**, n15,** σ**1**^{s}**14**/24**, mb3.2**/3**, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APYP	**Conner**	**1.10**	**163**	*e*P	**P**	**12 45 07.5**	**-1.0**
APYP				*e*S	**S**	**12 45 22.3**	**-0.5**
SGCP	**Mt. Cagua**	**1.28**	**122**	*e*P	**P**	**12 45 09.6**	**-1.4**
SGCP				*e*S	**S**	**12 45 26.6**	**-0.7**
ABRA	**Dolores**	**1.28**	**188**	*e*P	**P**	**12 45 09.9**	**-1.1**
ABRA				*e*S	**S**	**12 45 27.4**	**+0.2**
CVP	**Callao Caves**	**1.49**	**144**	*i* P	**P**	**12 45 13.2**	**-1.0**
CVP				*i* S	**S**	**12 45 34.0**	**+1.3**
BBP	**Basco**	**1.81**	**33**	*e*P	**P**	**12 45 19.6**	**+0.9**
BBP				*e*S	**S**	**12 45 41.2**	**+0.5**
CAUP	**Cauayan**	**2.15**	**156**	*e*P	**P**	**12 45 24.6**	**+1.1**
CAUP				*e*S	**S**	**12 45 54.9**	**+5.5**
PALP	**Palanan**	**2.35**	**142**	*e*P	**P**	**12 45 26.5**	**+0.1**
PALP				*e*S	**S**	**12 45 55.8**	**+1.5**
BOLP	**Bolinao**	**2.70**	**201**	*e*P	**P**	**12 45 30.6**	**-0.8**
BOLP				*e*S	**S**	**12 46 12.9**	**+10**
BALP	**Baler**	**3.23**	**168**	*e*P	**P**	**12 45 38.8**	**-0.1**
SCZP	**Santa Cruz**	**3.27**	**197**	*e*P	**P**	**12 45 41.9**	**+2.3**
SCZP				*e*S	**S**	**12 46 27.5**	**+10**
JOW	**Kunigami**	**10.40**	**39**	Pn	**P**	**12 47 17.0**	**-2.3**
	0.9nm,0.3s,baz=221,slow=18,SNR=3.3						
CMAR	**Chiang Mai Arr**	**20.81**	**272**	P	**P**	**12 49 30.0**	**-0.5**
	0.9nm,0.8s,baz=80,slow=10,SNR=9.0						
SONM	**Songino Array**	**31.17**	**341**	P	**P**	**12 51 09.2**	**+1.7**
	0.4nm,0.9s,mb3.3,baz=145,slow=8.5,SNR=2.6						
WRA	**Warramunga Arr**	**40.81**	**160**	P	**P**	**12 52 22.1**	**-7.5**
	0.2nm,0.5s,mb3.0,baz=348,slow=8.8,SNR=4.7						
ASAR	**Alice Springs**	**44.19**	**163**	P	**P**	**12 52 50.6**	**-6.6**
	0.5nm,0.9s,mb3.2,baz=341,slow=7.4,SNR=6.6						

IDC 23 13:16:45.1±7.1**, 53.37S**×**24.84E, mb3.7**/4**, mb1 4.0**/4**, mb1mx3.6**/15**, MS2.9**/2**, Ms1 2.9**/2**, ms1mx2.3**/16**, 2C, Error ellipse: s-maj=193.0km s-min=39.5km az=135.0, South of Africa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNAA	**Sanae**	**21.98**	**203**	⇑*i*	P	13 21 37.7	-4.3
SNAA	**Sanae**	**21.98**	**203**	P	P	13 21 40.2	-1.9
	1.5nm,0.8s,baz=48,slow=9.7,SNR=9.3						
SNAA				LR	LR	13 29 23.3	
	comp=Z,16nm,19.4s,baz=8.9,slow=34						
VNA2	**Neumayer--Watz**	**22.68**	**207**		P	13 21 50.9	+2.1
MAW	**Mawson**	**23.03**	**143**	LR	LR	13 28 19.2	
	comp=Z,56nm,20.7s,baz=244,slow=30						
VNA3	**Neumayer Olymp**	**23.47**	**207**	⇑*i*	P	13 21 52.3	-4.2
VNDA	**Vanda**	**46.69**	**168**	P	P	13 25 14.8	-1.7
	0.6nm,0.9s,baz=180,slow=7.1,SNR=2.8						
ASAR	**Alice Springs**	**81.95**	**119**	P	P	13 29 06.7	-1.2
	1.0nm,0.6s,baz=207,slow=5.3,SNR=22						
WRA	**Warramunga Arr**	**85.23**	**117**	P	P	13 29 23.7	-0.9
	0.8nm,0.7s,baz=207,slow=3.7,SNR=5.4						

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*WAR **23** 13:37:53.6, 51.45N×16.17E, h1^{km}, ML2.8, Mining Induced*

*NEIC **23** 13:37:54.9±2.4, 51.35N×16.05E, h5^{km}, MG2.8(WAR), Error ellipse: s-maj=27.1km s-min=9.0km az=205.0*

*PRU **23** 13:37:54.3, 51.37N×16.16E*

ISC 23 13:37:51.9±1.2**, 51.42N**±0.06×**16.11E**±0.06**, n14,** σ**1**^{s}**12**/24**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.59**	**169**	*e*PG	**Pg**	**13 38 05.0**	**+1.3**
KSP				*e*SG	**Sg**	**13 38 13.0**	**+1.4**
KSP	**Ksiaz**	**0.59**	**169**	*e*Pg	**Pg**	**13 38 04.8**	**+1.1**
KSP				*e*Sg	**Sg**	**13 38 12.7**	**+1.1**
UPC	**Upice**	**0.92**	**184**	*e*PG	**Pg**	**13 38 10.9**	**+0.7**
DPC	**Dobruska-Polom**	**1.08**	**173**	*e*PG	**Pg**	**13 38 13.7**	**+0.2**
DPC				*e*SG	**Sg**	**13 38 28.4**	**+0.5**
PVCC	**Panska Ves**	**1.32**	**228**	*e*PG	**Pg**	**13 38 19.1**	**+0.8**
BRG	**Berggiesshubel**	**1.47**	**249**	*i* Pg	**Pg**	**13 38 22.2**	**+1.0**
BRG				*i* Sg	**Sg**	**13 38 42.1**	**+1.3**
PRU	**Pruhonice**	**1.75**	**215**	*e*PG	**Pg**	**13 38 26.0**	**-0.8**
PRU				*e*SG	**Sg**	**13 38 49.1**	**-1.0**
MORC	**Moravsky Berou**	**1.89**	**150**	*e*P	**Pn**	**13 38 24.2**	**-1.4**
CLL	**Collm**	**1.95**	**268**	*i* Pg	**Pg**	**13 38 30.0**	**-0.8**
CLL				*e*Sg	**Sg**	**13 38 57.0**	**+0.2**
CLL	**Collm**	**1.95**	**268**	*i* PG	**Pg**	**13 38 30.0**	**-0.8**
CLL				*i*		13 38 52.4	
CLL				*e*SG	**Sg**	**13 38 57.0**	**+0.2**
OKC	**Ostrava-Krasne**	**2.05**	**140**	*e*PG	**Pg**	**13 38 32.4**	**-0.4**
OKC				*e*SG	**Sg**	**13 38 56.5**	**-3.6**
NKC	**Novy Kostel**	**2.61**	**244**	*e*PN	**Pn**	**13 38 37.2**	**+1.2**
KHC	**Kasperske Hory**	**2.81**	**216**	*e*PG	**Pg**	**13 38 45.4**	**-2.6**
KHC				*e*SG	**Sg**	**13 39 22.3**	**-3.1**
MOX	**Moxa**	**2.94**	**256**	*e*Pg	**Pg**	**13 38 50.3**	**-0.3**
MOX				*e*Sg	**Sg**	**13 39 29.4**	**-0.4**

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*STR **23** 14:00:42.8±0.1, 42.89N×0.83W, h5^{km}±1^{km}, Ml2.2, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 23 14:00:42.2±0.2**, 42.92N**×**1.25W, h2**^{km}**, Md1.9**/2**, Ml2.2**/1**, Error ellipse: s-maj=3.9km s-min=1.8km az=47.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJPF	**Ste Jean**	**0.19**	**4**	*e*Pg	Pg	14 00 46.1	0.0
SJPF				*e*Sg	Sg	14 00 48.2	-0.4
	50nm,0.2s						
LARF	**Larrau**	**0.22**	**58**	Pg	Pg	14 00 46.8	+0.2
LARF				Sg	Sg	14 00 49.9	+0.3
ORDF	**Ordiarp**	**0.37**	**38**	Pg	Pg	14 00 49.4	-0.2
ORDF				Sg	Sg	14 00 54.2	-0.3
ETSF	**Etsaut**	**0.51**	**92**	*e*Pg	Pg	14 00 51.8	-0.5
ETSF				*e*Sg	Sg	14 00 58.4	-0.6
	8.0nm,0.2s						
EPF	**Esparros**	**1.17**	**84**	*e*Pg	Pg	14 01 04.2	-1.3
EPF				*e*Sg	Sg	14 01 19.2	-1.9
	4.6nm,0.2s						

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*IDC **23** 14:14:52.6±1.1, 49.66S×117.22E, mb3.8/6, mb1 4.1/7, mb1mx4.0/11, ML2.9/1, MS3.6/5, Ms1 3.5/5, ms1mx3.3/10, Error ellipse: s-maj=43.5km s-min=21.3km az=107.0*

*NEIC **23** 14:14:54.2±0.8, 49.80S×117.45E, h10^{km}, mb4.2/4, Error ellipse: s-maj=32.8km s-min=14.5km az=99.0*

ISC 23 14:14:51.9±0.9**, 49.7S**±0.1×**117.2E**±0.4**, h10**^{km}**, n17,** σ**0**^{s}**93**/12**, mb3.9**/7**, MS3.5**/5**, Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	**16.75**	**0**	Pn	**P**	**14 18 51.8**	**+3.7**
	2.1nm,0.3s,baz=180,slow=10,SNR=21						
NWAO	**Narrogin (SRO)**	**16.75**	**0**	*e*P	**P**	**14 18 52.3**	**+4.2**
	15nm,0.7s						
STKA	**Stephens Creek**	**25.47**	**55**	P	**P**	**14 20 22.5**	**+1.0**
	2.7nm,1.1s,mb3.7,baz=185,slow=21,SNR=2.5						
STKA				LR	LR	14 28 15.6	
	comp=Z,154nm,21.6s,MS3.5,baz=210,slow=32						
STKA	**Stephens Creek**	**25.47**	**55**	P	**P**	**14 20 22.9**	**+1.4**
ASAR	**Alice Springs**	**29.09**	**33**	P	**P**	**14 20 53.9**	**-0.8**
	0.7nm,0.7s,mb3.5,baz=197,slow=9.2,SNR=12						
ASAR				LR	LR	14 31 24.3	
	comp=Z,103nm,18.1s,MS3.5,baz=163,slow=34						
MAW	**Mawson**	**32.06**	**216**	LR	LR	14 32 15.4	
	comp=Z,94nm,19.7s,MS3.5,baz=68,slow=32						
VNDA	**Vanda**	**32.57**	**164**	P	**P**	**14 21 25.5**	**+0.6**
	1.6nm,0.9s,mb4.0,baz=302,slow=9.1,SNR=5.1						
VNDA				LR	LR	14 32 50.8	
	comp=Z,58nm,21.2s,MS3.2,baz=179,slow=33						
VNDA	**Vanda**	**32.57**	**164**	*e*P	**P**	**14 21 25.1**	**+0.2**
	2.8nm,0.9s,mb4.2						
WRA	**Warramunga Arr**	**32.68**	**31**	P	**P**	**14 21 25.7**	**-0.7**
	0.8nm,0.5s,mb3.9,baz=200,slow=11,SNR=11						
WRAB	**Tennant Creek**	**32.70**	**31**	*e*P	**P**	**14 21 25.9**	**-0.7**
	3.0nm,0.6s,mb4.4						
CTA	**Charters Tower**	**37.51**	**49**	LR	LR	14 35 35.9	
	comp=Z,124nm,19.2s,MS3.7,baz=317,slow=33						
SNAA	**Sanae**	**51.79**	**200**	P	**P**	**14 24 00.9**	**-0.4**
	0.5nm,0.8s,mb3.5,baz=139,slow=9.8,SNR=3.8						
SNAA	**Sanae**	**51.79**	**200**	*e*P	**P**	**14 24 00.7**	**-0.6**
	2.7nm,1.0s,mb4.1						
CMAR	**Chiang Mai Arr**	**69.75**	**342**	P	**P**	**14 26 04.8**	**+0.6**
	0.8nm,0.7s,mb3.8,baz=191,slow=5.5,SNR=6.6						
ARE0	**ARCESS Array S**	**135.94**	**330**	P	PKPdf	14 34 09.3	-5.7
PDAR	**Pinedale Array**	**147.36**	**84**	PKPbc	PKPdf	14 34 37.4	+1.7
	0.7nm,0.8s,baz=207,slow=2.0,SNR=5.9						
YKA	**Yellowknife Ar**	**149.31**	**46**	PKPbc	PKPdf	14 34 41.4	+3.2
	1.4nm,0.6s,baz=276,slow=2.1,SNR=34						

IDC 23 14:17:27.2±8.3**, 4.35S**×**145.58E, mb3.6**/2**, mb1 3.7**/4**, mb1mx3.5**/13**, ML3.1**/2**, Error ellipse: s-maj=118.0km s-min=57.9km az=17.0, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**5.26**	**163**	Pn	Pn	14 18 47.1	-1.9
	0.6nm,0.3s,baz=318,slow=14,SNR=4.4						
PMG				Sn	Sn	14 19 35.1	-16
	5.8nm,0.3s,baz=308,slow=23,SNR=22						
KAKA	**Kakadu**	**15.41**	**237**	*e*P	P	14 21 13.5	+5.6
	9.4nm,1.4s						
WB2	**Warramunga Arr**	**18.97**	**214**	*e*P	P	14 21 51.9	-0.7
WRA	**Warramunga Arr**	**18.98**	**214**	P	P	14 21 49.6	-3.1
	0.3nm,0.3s,baz=36,slow=11,SNR=18						
ASAR	**Alice Springs**	**22.26**	**209**	P	P	14 22 26.1	-1.5
	0.8nm,0.7s,baz=43,slow=8.4,SNR=19						
STKA	**Stephens Creek**	**27.64**	**187**	P	P	14 23 17.1	-1.6
	0.8nm,0.6s,baz=13,slow=14,SNR=2.3						

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*IDC **23** 14:58:59.8±0.3, 49.95S×161.17E, mb5.6/13, mb1 5.7/15, mb1mx5.5/16, ML5.5/2, MS7.6/16, Ms1 7.7/16, ms1mx7.2/19, Error ellipse: s-maj=9.6km s-min=7.1km*

az=51.0

NEIC ***23*** *14:59:04.4±0.1, 49.31S×161.35E, h10km, mb6.5/53, ME8.5, MS7.7/50, MW8.0, Error ellipse: s-maj=7.3km s-min=2.8km az=148.0 Broadband fault plane solution: P waves. NP1:φs70°,δ80°,λ170°. NP2:φs162°,δ80°,λ10°. Principal axes: T Plg14°, Azm26°; N Plg0°, Azm0°; P Plg0°, Azm296°; Moment Tensor Solution. s14 Moment tensor: Scale 10^{21} Nm; Mrr0.00; Mθθ0.00; Mφφ0.00; Mrθ0.00; Mθφ0.00; Mφr0.00; Best double couple: M0 1×10^{21} NP1: φs261°,δ75°,λ-174°. NP2:φs170°,δ84°,λ-15°. Principal axes: T 1.02, Plg6°, Azm216°; N .04, Plg74°, Azm327°; P -1.06, Plg15°, Azm125°; Energy computed from BB mechanism.*

NEIC Felt throughout Tasmania, Australia and in much of the South Island, New Zealand. A small tsunami generated with recorded wave heights of 30 cm at Jackson Bay, New Zealand; 15 cm at Spring Bay, Tasmania; 10 cm at Port Kembla, New South Wales, Australia.

HRVD ***23*** *14:59:04.4±0.2, 49.91S×161.25E, h28km±1km, MW8.1/79, Centroid moment Tensor Solution. Mantle waves: s79,c200; Half duration: 26s7 Moment tensor: Scale 10^{21} Nm; Mrr0.11±.01; Mθθ0.87±.01; Mφφ-0.98±.01; Mrθ0.49±.09; Mθφ-1.21±.01; Mφr-0.32±.09; Best double couple: M0 1.63×10^{21} NP1:φs69°,δ74°,λ167°. NP2:φs163°, δ78°,λ16°. Principal axes: T 1.68, Plg20°, Azm27°; N -.1, Plg70°, Azm199°; P -1.58, Plg2°, Azm296°; nsta1 refers to body waves. nsta2 refers to mantle waves, cutoff=200s.*

BJI ***23*** *14:59:04.4, 49.30S×161.30E, h10km, mB7.4, mb6.1, Ms8.0, Msz7.8*

MOS ***23*** *14:59:05.3±1.8, 49.87S×159.79E, h10km, mb6.4/12, MS8.0/25, Error ellipse: s-maj=21.0km s-min=12.7km az=102.6 Broadband fault plane solution: P waves. NP1: φs263°,δ67°,λ177°. NP2:φs354°,δ87°,λ23°. Principal axes: T Plg18°, Azm221°; N Plg67°, Azm0°; P Plg14°, Azm126°;*

ISC 23 14:59:00.7±0.2**, 49.71S**±0.03×**161.58E**±0.03**, h10**km**, (h16**km±3.8km**:pP-P), n1320, σ1s59**/379**, mb6.5**/66**, MS7.8**/102**, 76C-62D, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MCQ	Macquarie Isla	5.06	198	⇑iP	Pn	15 00 07.4	-11
MCQ	Macquarie Isla	5.06	198	eP	Pn	15 00 08.8	-10
DCZ	Deep Cove	5.67	44	P	Pn	15 00 26.4	-0.7
DCZ				S	Sn	15 01 50.5	+17
WHZ	Wether Hill Ro	5.74	51	eP	Pn	15 00 27.9	-0.2
WHZ				S	Sn	15 01 47.7	+13
WHZ	Wether Hill Ro	5.74	51	P	Pn	15 00 27.9	-0.2
WHZ				S	Sn	15 01 52.1	+17
MLZ	Mavora Lakes	6.24	48	eP	Pn	15 00 35.1	-0.1
MLZ	Mavora Lakes	6.24	48	P	Pn	15 00 35.1	-0.1
MLZ				S	Sn	15 02 02.6	+15
TUZ	Tuapeka	6.59	58	eP	Pn	15 00 39.7	-0.4
TUZ				S	Sn	15 02 09.8	+14
TUZ	Tuapeka	6.59	58	P	Pn	15 00 39.7	-0.4
TUZ				S	Sn	15 02 10.2	+14
MSZ	Milford Sound	6.64	43	P	Pn	15 00 41.2	+0.4
MSZ				S	Sn	15 02 15.2	+18
EAZ	Earnscleugh	6.89	52	eP	Pn	15 00 43.1	-1.2
EAZ	Earnscleugh	6.89	52	P	Pn	15 00 43.1	-1.2
WKZ	Wanaka	7.03	49	eP	Pn	15 00 46.6	+0.3
WKZ	Wanaka	7.03	49	P	Pn	15 00 46.6	+0.3
JCZ	Jackson Bay	7.48	44	eP	Pn	15 00 53.5	+0.9
JCZ	Jackson Bay	7.48	44	P	Pn	15 00 53.5	+0.9
ODZ	Otahua Downs	7.72	56	eP	Pn	15 00 53.3	-2.6
ODZ	Otahua Downs	7.72	56	P	Pn	15 00 53.3	-2.6
LBZ	Lake Benmore	7.93	51	eP	Pn	15 00 56.0	-2.8
LBZ	Lake Benmore	7.93	51	P	Pn	15 00 56.0	-2.8
FOZ	Fox Glacier	8.30	45	P	P	15 01 04.6	+0.6
FOZ				S	Sn	15 02 56.4	+18
RPZ	Rata Peaks	8.85	51	Pn	P	15 01 07.6	-3.9
	36nm,0.3s,baz=215,slow=7.1,SNR=83						
RPZ				Sn	Sn	15 02 57.6	+5.2
	baz=150,slow=12,SNR=1.9						
RPZ	Rata Peaks	8.85	51	eP	P	15 01 07.9	-3.7
RPZ	Rata Peaks	8.85	51	P	P	15 01 07.4	-4.2
WVZ	Waitaha Valley	9.16	47	eP	P	15 01 14.3	-1.7
WVZ	Waitaha Valley	9.16	47	P	P	15 01 14.3	-1.7
WVZ				S	Sn	15 03 15.0	+15
MQZ	McQueen's Vall	9.69	56	eP	P	15 01 20.3	-2.8
MQZ	McQueen's Vall	9.69	56	P	P	15 01 20.3	-2.8
CRLZ	Canterbury Las	9.76	55	P	P	15 01 21.8	-2.3
LTZ	Lake Taylor	10.13	51	eP	P	15 01 25.5	-3.8
LTZ	Lake Taylor	10.13	51	P	P	15 01 25.5	-3.8
DSZ	Denniston Nort	10.69	46	eP	P	15 01 34.8	-2.1
DSZ	Denniston Nort	10.69	46	P	P	15 01 34.3	-2.6
DSZ				S	S	15 03 45.1	+7.3
KHZ	Kahutara	11.05	53	eP	P	15 01 39.0	-2.8
KHZ	Kahutara	11.05	53	P	P	15 01 38.1	-3.7
THZ	Tophouse	11.21	49	eP	P	15 01 41.5	-2.4
THZ	Tophouse	11.21	49	P	P	15 01 41.3	-2.6
BSWZ	Blackbirch Sta	11.73	52	eP	P	15 01 50.3	-0.7
QRZ	Quartz Range	11.75	45	eP	P	15 01 49.1	-2.3
QRZ	Quartz Range	11.75	45	P	P	15 01 49.1	-2.3
NNZ	Nelson	11.85	49	eP	P	15 01 50.5	-2.2
NNZ	Nelson	11.85	49	P	P	15 01 50.5	-2.2
CMWZ	Cape Campbell	11.88	53	eP	P	15 01 54.2	+1.2
BHW	Baring Head	12.46	53	P	P	15 02 00.4	-0.5
BHW	Baring Head	12.46	53	P	P	15 01 59.9	-1.0
MRW	Makara Radio	12.51	52	P	P	15 02 00.2	-1.3
MSWZ	Moikau Station	12.66	54	P	P	15 02 02.4	-1.1
CAW	Cannon Point	12.78	53	P	P	15 02 03.4	-1.8
CAW	Cannon Point	12.78	53	eP	P	15 02 02.4	-2.8
KIW	Kapiti Island	12.88	52	P	P	15 02 05.3	-1.2
MTW	Mount Morrison	12.97	54	P	P	15 02 05.7	-2.0
MRZ	Mangatainoka R	13.37	53	eP	P	15 02 10.6	-2.4
MRZ	Mangatainoka R	13.37	53	P	P	15 02 09.4	-3.6
NRZ	Ngariki Road	13.59	45	eP	P	15 02 15.6	-0.2
NRZ	Ngariki Road	13.59	45	P	P	15 02 15.6	-0.2
NWEZ	Newall Road	13.61	45	eP	P	15 02 15.9	-0.2
NWEZ	Newall Road	13.61	45	P	P	15 02 15.9	-0.2
DFE	Dawson Falls	13.68	45	P	P	15 02 17.4	+0.4
DFE	Dawson Falls	13.68	45	P	P	15 02 17.2	+0.2
BFZ	Birch Farm	13.71	54	eP	P	15 02 16.0	-1.4
BFZ	Birch Farm	13.71	54	P	P	15 02 16.0	-1.4
NEZ	North Egmont	13.72	45	P	P	15 02 18.2	+0.7
NEZ	North Egmont	13.72	45	P	P	15 02 16.9	-0.6
PKE	Pukeiti	13.73	45	eP	P	15 02 17.3	-0.4
PKE	Pukeiti	13.73	45	P	P	15 02 16.3	-1.4
WAZ	Wanganui	13.76	49	eP	P	15 02 17.7	-0.3
WAZ	Wanganui	13.76	49	P	P	15 02 17.1	-0.9
RAEZ	Rainy Point	13.84	46	eP	P	15 02 18.5	-0.7
RAEZ	Rainy Point	13.84	46	P	P	15 02 18.5	-0.7
TSZ	Takapari Road	14.02	52	eP	P	15 02 22.5	+1.1
TSZ	Takapari Road	14.02	52	P	P	15 02 22.5	+1.1
VRZ	Vera Road	14.14	47	eP	P	15 02 22.0	-1.1
VRZ	Vera Road	14.14	47	P	P	15 02 22.0	-1.1
WNVZ	Wahianoa	14.39	49	eP	P	15 02 28.1	+1.8
MOVZ	Moawhango	14.40	50	P	P	15 02 26.1	-0.4
DRZ	Dome Shelter	14.41	49	P	P	15 02 28.1	+1.5
DRZ	Dome Shelter	14.41	49	P	P	15 02 28.7	+2.1
FWVZ	Far West T-bar	14.42	49	eP	P	15 02 26.9	+0.1
FWVZ	Far West T-bar	14.42	49	P	P	15 02 26.9	+0.1
WPVZ	Whakapapa	14.46	49	eP	P	15 02 32.2	+5.0
TUVZ	Tukino	14.46	49	P	P	15 02 26.9	-0.4
TUVZ	Tukino	14.46	49	P	P	15 02 27.1	-0.2
CNZ	Chateau	14.46	49	P	P	15 02 27.5	+0.2
PWZ	Pawanui	14.51	54	eP	P	15 02 27.1	-0.7
PWZ	Pawanui	14.51	54	P	P	15 02 27.1	-0.7
NGZ	Ngauruhoe	14.51	49	P	P	15 02 27.4	-0.5
NGZ	Ngauruhoe	14.51	49	P	P	15 02 28.3	+0.4
TWVZ	Taurewa	14.51	48	P	P	15 02 27.3	-0.6
WTVZ	West Tongariro	14.55	49	P	P	15 02 27.5	-0.9
MGZ	Maungaku	14.61	48	P	P	15 02 30.6	+1.3
RATZ	Rangitukua	14.83	48	eP	P	15 02 30.9	-1.2
RATZ	Rangitukua	14.83	48	P	P	15 02 30.9	-1.2
WATZ	Wairara	14.94	48	P	P	15 02 39.5	+6.0
BKZ	Black Stump Fm	14.96	51	P	P	15 02 33.9	+0.1
PATZ	Paeroa	15.45	48	eP	P	15 02 43.2	+3.0
PATZ	Paeroa	15.45	48	P	P	15 02 42.6	+2.4
UTU	Utuhina	15.58	48	P	P	15 02 43.0	+1.1
TOZ	Tahuroa Road	15.61	45	eP	P	15 02 43.0	+0.7
TOZ	Tahuroa Road	15.61	45	P	P	15 02 43.0	+0.7
KNZ	Kokohu	15.67	53	eP	P	15 02 42.7	-0.4
KNZ	Kokohu	15.67	53	P	P	15 02 42.7	-0.4
TAZ	Tarawera	15.69	49	eP	P	15 02 44.1	+0.8
TAZ	Tarawera	15.69	49	P	P	15 02 44.1	+0.8
LIRZ	Lichensteins R	15.81	48	eP	P	15 02 46.0	+1.2
LIRZ	Lichensteins R	15.81	48	P	P	15 02 46.0	+1.2
WTAZ	Waiatarua	15.86	41	eP	P	15 02 47.5	+2.0
WTAZ	Waiatarua	15.86	41	P	P	15 02 47.5	+2.0
URZ	Urewera	15.96	50	Pn	P	15 02 43.9	-2.9
	19nm,0.3s,baz=223,slow=6.9,SNR=44						
URZ				Sn	S	15 05 51.3	+7.4
	30nm,0.3s,baz=353,slow=20,SNR=3.5						
URZ	Urewera	15.96	50	eP	P	15 02 44.3	-2.5
URZ	Urewera	15.96	50	P	P	15 02 43.7	-3.1
MKAZ	Moumakai	15.97	43	eP	P	15 02 46.9	0.0
MKAZ	Moumakai	15.97	43	P	P	15 02 46.9	0.0
OTAZ	Otara	16.00	42	eP	P	15 02 49.9	+2.6
OTAZ	Otara	16.00	42	P	P	15 02 47.3	0.0
KAAZ	Kauri Point	16.01	41	P	P	15 02 51.9	+4.5
MWZ	Matawai	16.11	51	eP	P	15 02 47.9	-0.9
MWZ	Matawai	16.11	51	P	P	15 02 47.9	-0.9
MTAZ	Motutapu	16.13	42	eP	P	15 02 50.2	+1.3
MTAZ	Motutapu	16.13	42	P	P	15 02 50.2	+1.3
KUZ	Kuaotunu	16.52	44	eP	P	15 02 52.5	-1.4
KUZ	Kuaotunu	16.52	44	P	P	15 02 52.5	-1.4
WCZ	Waipu Caves	16.61	39	eP	P	15 02 57.0	+1.9
WCZ	Waipu Caves	16.61	39	P	P	15 02 56.3	+1.2
PUZ	Puketiti	16.68	52	eP	P	15 02 55.2	-0.8
PUZ	Puketiti	16.68	52	P	P	15 02 55.2	-0.8
TOO	Toolangi	16.77	310	⇓iP	P	15 02 55.3	-1.8
	2μm,0.5s						
TOO				eS	S	15 06 11.1	+8.5
TOO	Toolangi	16.77	310	eP	P	15 02 56.5	-0.6
	5μm,1.0s						
CNB	Canberra Magne	16.94	324	⇑iP	P	15 02 58.6	-0.6
	34μm,1.8s						
CNB				eS	S	15 06 06.5	0.0
CNB				eT		15 19 32.5	
OUZ	Omahuta	16.95	36	eP	P	15 03 01.1	+1.8
OUZ	Omahuta	16.95	36	P	P	15 03 01.1	+1.8
MXZ	Matakaoa Point	17.10	51	eP	P	15 03 01.7	+0.5
MXZ	Matakaoa Point	17.10	51	P	P	15 03 01.7	+0.5
RIV	Riverview	17.64	330	⇓iP	P	15 03 09.0	+1.0
RIV				eS	S	15 06 23.4	+0.9
RIV				eT		15 21 37.7	
DRV	Dumont d'Urvil	20.25	205	P	P	15 03 49.0	+10
DRV				L		15 07 00.0	
DRV				R		15 08 00.0	
STKA	Stephens Creek	23.25	313	⇓iP	P	15 04 09.1	+0.2
	5μm,1.6s,mb6.7						
STKA				eS		15 08 29.2	
STKA	Stephens Creek	23.25	313	P	P	15 04 09.4	+0.5
	696nm,1.1s,mb6.0,baz=139,slow=10,SNR=292						
STKA				S	S	15 08 22.2	+5.4
	220nm,0.9s,baz=103,slow=3.9,SNR=1.9						
STKA				LR	LR	15 13 21.4	
	comp=Z,1029μm,18.8s,MS7.3,baz=170,slow=37						
NOUC	Port Laguerre	27.80	9	⇑eP	P	15 04 53.8	+1.9
NOUC	Port Laguerre	27.80	9	⇑eP	P	15 04 53.8	+1.9
DZM	Mont Dzumac	27.85	10	⇑eP	P	15 04 54.6	+2.3
DZM	Mont Dzumac	27.85	10	⇑eP	P	15 04 54.5	+2.3
VNDA	Vanda	27.92	180	P	P	15 04 48.2	-4.1
	52nm,1.0s,baz=348,slow=9.3,SNR=73						
VNDA				S	S	15 09 32.8	-1.5
	27nm,0.9s,baz=138,slow=17,SNR=1.8						
VNDA				SS	SS	15 10 47.3	-8.0
	24nm,1.0s,baz=254,slow=16,SNR=1.5						
VNDA				LR	LR	15 13 28.0	
	comp=Z,1757μm,19.0s,MS7.7,baz=3.1,slow=31						
VNDA				P3KPbc		15 37 21.6	
	5.5nm,0.8s,baz=196,slow=4.2,SNR=4.2						
VNDA	Vanda	27.92	180	⇑eP	P	15 04 48.0	-4.4
	103nm,1.1s,mb5.4						
VNDA				LR	LR		
	comp=Z,964μm,22.0s,MS7.3						
SBA	Scott Base	28.32	178	eP	P	15 04 53.4	-2.6
SBA				pmax	pmax		
	comp=Z,7.0nm,0.2s						
SBA	Scott Base	28.32	178	⇑eP	P	15 04 53.1	-2.9
	comp=Z,6.7nm,0.2s						
SBA				LR	LR		
	comp=Z,252μm,20.0s,MS6.8						
CASY	Casey	30.60	218	⇑iP	P	15 05 11.1	-5.4
CASY				eS	S	15 10 08.8	-8.5
CTA	Charters Tower	31.98	332	⇓iP	P	15 05 28.2	-0.9
	comp=Z,481nm,1.0s,mb6.3						
CTA				eS	S	15 10 40.1	+0.7
CTA	Charters Tower	31.98	332	P	P	15 05 28.6	-0.5
	comp=Z,73nm,0.9s,mb5.5,baz=154,slow=8.1,SNR=58						
CTA				S	S	15 10 42.1	+2.7
	comp=Z,66nm,1.1s,baz=92,slow=19,SNR=1.6						
CTA				SS	SS	15 12 35.7	+4.2
	comp=Z,22nm,0.9s,baz=92,slow=22,SNR=1.6						
CTA				LR	LR	15 17 12.6	
	comp=Z,3324μm,18.7s,MS8.1,baz=252,slow=34						
CTAO	Charters Tower	31.98	332	eP	P	15 05 28.0	-1.1
	comp=Z,418nm,1.3s,mb6.1						
CTAO				LR	LR		
	comp=Z,3931μm,20.0s,MS8.1						
ASAR	Alice Springs	33.82	310	P	P	15 05 43.4	-1.7
	comp=Z,270nm,0.7s,mb6.3,baz=142,slow=8.3,SNR=997						
ASAR				S	S	15 11 10.0	+2.0
	comp=Z,37nm,1.0s,baz=193,slow=32,SNR=2.4						
ASAR				LR	LR	15 18 45.3	
	comp=Z,1533μm,18.2s,MS7.8,baz=141,slow=35						
ASAR				P3KPbc		15 36 35.5	
	comp=Z,0.9nm,0.6s,baz=269,slow=0.5,SNR=4.0						
ASAR	Alice Springs	33.82	310	P	P	15 05 43.4	-1.7
ASAR				S	S	15 11 10.0	+2.0
ASAR				LR	LR	15 18 45.3	
ASAR				e		15 36 35.5	
ASPA	Alice Springs	33.83	310	⇓iP	P	15 05 43.4	-1.7
NWAO	Narrogin (SRO)	36.68	280	P	P	15 06 06.1	-3.2
	comp=Z,287nm,1.1s,mb6.0						
NWAO				PP	PP	15 07 22.5	-12
	comp=Z,188nm,0.8s,baz=134,slow=10,SNR=1.7						
NWAO				S	S	15 11 51.2	-0.8
	comp=Z,70nm,1.0s,baz=90,slow=21,SNR=2.1						
NWAO				SS	SS	15 14 23.2	+4.5
	comp=Z,33nm,1.1s,baz=118,slow=22,SNR=1.7						
NWAO				LR	LR	15 18 19.7	
	comp=Z,13μm,18.6s,baz=130,slow=32						
NWAO				T		15 43 52.0	
	comp=Z,34nm,0.5s,baz=349,slow=23,SNR=3.6						
NWAO	Narrogin (SRO)	36.68	280	P	P	15 06 06.1	-3.2
NWAO						15 07 22.5	
NWAO				SS	SS	15 14 23.2	+4.5
NWAO				pmax	pmax		
	comp=Z,287nm,1.2s						
NWAO				pmax	pmax		
	comp=Z,189nm,0.8s						
NWAO	Narrogin (SRO)	36.68	280	eP	P	15 06 05.8	-3.6
	comp=Z,920nm,1.3s,mb6.5						
NWAO				LR	LR		
	comp=Z,1939μm,21.0s,MS7.9						
WB2	Warramunga Arr	36.78	314	⇓iP	P	15 06 08.0	-2.3
WB2				i PP	PP	15 07 54.0	+18
WB2				eS	S	15 11 50.5	-3.1
WB2	Warramunga Arr	36.78	314	eP	P	15 06 05.9	-4.4
WB2				i PP	PP	15 07 54.0	+18
WRA	Warramunga Arr	36.78	314	P	P	15 06 07.7	-2.6
	comp=Z,182nm,0.8s,mb5.9,baz=146,slow=8.0,SNR=159						
WRA				PP	PP	15 07 33.6	-2.1
	comp=Z,438nm,1.0s,baz=154,slow=9.1,SNR=2.3						
WRA				S	S	15 11 52.7	-1.0
	comp=Z,20nm,1.0s,baz=113,slow=34,SNR=2.6						
WRA				SS	SS	15 14 22.4	+1.3
	comp=Z,29nm,1.3s,baz=270,slow=8.6,SNR=2.4						
WRA	Warramunga Arr	36.78	314	P	P	15 06 07.7	-2.6
WRA						15 07 33.6	
WRA				S	S	15 11 52.7	-1.0
WRA				pmax	pmax		
	comp=Z,182nm,0.8s						
WRA				pmax	pmax		
	comp=Z,438nm,1.0s						
WRAB	Tennant Creek	36.79	314	d iP	P	15 06 08.2	-2.1
WRAB	Tennant Creek	36.79	314	eP	P	15 06 08.1	-2.3
	comp=Z,3μm,1.4s,mb6.9						
WRAB				LR	LR		
	comp=Z,940μm,22.0s,MS7.5						
KLBR	Kellerberrin	37.23	282	⇓iP	P	15 06 10.7	-3.3
	comp=Z,4μm,1.3s,mb7.1						
MIR	Mirnyy	37.62	218	α iP	P	15 06 12.8	-4.1
MIR				i		15 06 13.0	
MIR				e		15 07 57.0	
MIR				MLR	MLR		
	comp=Z,750μm,14.0s,MS7.6						
MUN	Mundaring	37.96	280	⇓iP	P	15 06 17.0	-3.1
	comp=Z,2μm,0.4s,mb7.1						
HNR	Honiara	40.17	358	P	P	15 06 39.2	+0.5
QSPA	South Pole Qui	40.41	180	eP	P	15 06 37.2	-2.8
	comp=Z,559nm,1.2s,mb6.2						
RAR	Rarotonga	41.70	61	P	P	15 06 52.8	+1.7
	comp=Z,28nm,0.7s,baz=194,slow=5.4,SNR=4.5						
RAR				PP	PP	15 08 37.6	+6.8
	comp=Z,46nm,1.1s,baz=132,slow=20,SNR=1.3						
RAR				S	S	15 13 14.7	+7.0
	comp=Z,11nm,0.7s,baz=224,slow=17,SNR=2.3						
RAR				SS	SS	15 16 19.8	+12
	comp=Z,14nm,0.8s,baz=275,slow=22,SNR=1.6						
RAR				LR	LR	15 21 53.6	
	comp=Z,753μm,21.1s,MS7.5,baz=47,slow=33						
RAR	Rarotonga	41.70	61	P	P	15 06 52.8	+1.7
RAR				PP	PP	15 08 37.6	+6.8
RAR				S	S	15 13 14.7	+7.0
RAR				SS	SS	15 16 19.8	+12
RAR				LR	LR	15 21 53.6	
AFI	Afiamalu	41.83	41	PFAKE		15 07 00.0	+7.7
AFI				LR	LR		
	comp=Z,273μm,20.0s,MS7.1						
PMG	Port Moresby	41.94	338	P	P	15 06 54.1	+1.0
	comp=Z,59nm,1.0s,baz=171,slow=5.1,SNR=46						
PMG				S	S	15 13 15.5	+4.2
	comp=Z,22nm,1.1s,baz=329,slow=21,SNR=1.8						
PMG				SS	SS	15 16 25.5	+13
	comp=Z,8.4nm,1.0s,baz=246,slow=20,SNR=1.9						
PMG				LR	LR	15 22 40.6	
	comp=Z,3165μm,19.0s,MS8.2,baz=158,slow=34						
PMG	Port Moresby	41.94	338	P	P	15 06 54.1	+1.0
PMG				S	S	15 13 15.5	+4.2
PMG				SS	SS	15 16 25.5	+13
PMG				LR	LR	15 22 40.6	
FITZ	Fitzroy Crossi	42.71	305	⇓iP	P	15 06 57.8	-1.6
	comp=Z,2μm,1.0s,mb6.8						
FITZ				ePP	PP	15 08 53.4	+12
FITZ				eS	S	15 13 37.0	+14
MBWA	Marble Bar	43.59	295	P	P	15 07 04.0	-2.5
MBWA	Marble Bar	43.59	295	eP	P	15 07 04.0	-2.5
	comp=Z,2.7nm,0.6s						
MBWA				LR	LR		
	comp=Z,1352μm,19.0s,MS7.9						
KAKA	Kakadu	43.98	317	⇓iP	P	15 07 07.8	-2.0
	comp=Z,670nm,0.8s,mb6.4						
TBI	Tubuai	46.25	74	eP	P	15 07 29.7	+1.8
	comp=Z,3μm,1.1s,mb7.1						
TBI				eLQ		15 18 25.9	
TBI				eLR	LR	15 20 46.1	
	comp=Z,1203μm,24.0s,baz=207						
MAW	Mawson	48.33	210	⇑iP	P	15 07 38.9	-4.7
	comp=Z,272nm,1.2s,mb6.2						
MAW				i PP	PP	15 09 48.7	+13
MAW				eS	S	15 14 34.2	-8.3
MAW	Mawson	48.33	210	P	P	15 07 39.2	-4.4
	comp=Z,111nm,1.3s,mb5.7,baz=110,slow=10,SNR=33						
MAW				PP	PP	15 09 33.7	-2.0
	comp=Z,301nm,1.2s,baz=97,slow=4.1,SNR=2.1						
MAW				S	S	15 14 39.6	-2.9
	comp=Z,13nm,1.0s,baz=264,slow=8.1,SNR=1.8						
MAW				SS	SS	15 18 10.6	+3.5
	comp=Z,2.6nm,0.3s,baz=76,slow=9.9,SNR=14						
MAW				LR	LR	15 26 59.5	
	comp=Z,1834μm,18.2s,MS8.1,baz=103,slow=35						
MAW	Mawson	48.33	210	P	P	15 07 39.2	-4.4
MAW						15 09 33.7	
MAW				S	S	15 14 39.6	-2.9
MAW				pmax	pmax		
	comp=Z,111nm,1.3s						
MAW				pmax	pmax		
	comp=Z,301nm,1.2s						
MAW				MLR	MLR		
	comp=Z,834μm,18.2s						
YOMI	Yo Moklole	50.19	332	⇑eP	P	15 07 56.7	-2.0
	comp=Z,1μm,1.7s,mb6.6						
YOMI				epP	pP	15 08 07.0	+5.3
PAE	Paea	50.45	69	eP	P	15 08 02.1	+1.5
	comp=Z,2μm,1.3s,mb7.0						
PPT	Papeete	50.53	69	P	P	15 08 01.9	+0.8
	comp=Z,33nm,0.6s,mb5.5,baz=133,slow=10.0,SNR=3.1						
PPT				S	S	15 15 21.5	+7.7
	comp=Z,26nm,0.7s,baz=66,slow=20,SNR=1.7						
PPT	Papeete	50.53	69	eP	P	15 08 03.1	+2.0
	comp=Z,1μm,1.2s,mb6.6						
PPT	Papeete	50.53	69	eLR	LR	15 23 02.3	
	comp=Z,1299μm,22.8s,baz=224						
TVO	Taravao	50.56	69	eP	P	15 08 03.4	+2.0
	comp=Z,3μm,1.3s,mb7.1						
TIAR	Tiarei	50.67	69	eP	P	15 08 04.3	+2.0
	comp=Z,4μm,1.2s,mb7.3						
MEH	Mehetia	51.21	70	eP	P	15 08 07.9	+1.6
	comp=Z,538nm,1.3s,mb6.3						
PMOR	Pomariorio Ree	53.53	68	eP	P	15 08 25.1	+1.4
	comp=Z,1μm,1.0s,mb6.7						
RKT	Rikitea	55.66	86	eP	P	15 08 39.3	+0.1
	comp=Z,500nm,1.3s,mb6.4						
RKT				eLQ		15 22 28.0	
RKT				eLR	LR	15 25 10.1	
	comp=Z,1534μm,28.2s,baz=220						
KEDI	Kedomdong	55.81	302	⇓eP	P	15 08 38.0	-2.4
	comp=Z,2μm,1.2s,mb7.0						
RATI	Rata	55.94	301	⇓eP	P	15 08 38.9	-2.4
	comp=Z,3μm,1.6s,mb7.1						
SRDI	Scrawed	56.92	300	⇓eP	P	15 08 46.8	-1.6
	comp=Z,830nm,1.1s,mb6.7						
KELI	Kelakatan	56.94	300	⇓eP	P	15 08 46.4	-2.1
	comp=Z,3μm,1.1s,mb7.2						
PTCN	Pitcairn Islan	57.46	91	eP	P	15 08 57.7	+5.7
	comp=Z,2μm,1.4s,mb6.9						
PTCN				LR	LR		
	comp=Z,1244μm,22.0s,MS8.0						
NVL	N'lazarevskaya	57.87	191	⇑eP	P	15 08 49.0	-5.3
NVL				e		15 11 10.0	
NVL				eS	S	15 16 54.0	+1.8
NVL				pmax	pmax		
	comp=Z,67μm,6.9s						
SNAA	Sanae	58.42	186	⇑iP	P	15 08 53.1	-5.0
SNAA	Sanae	58.42	186	⇑i	P	15 09 08.2	+10
SNAA	Sanae	58.42	186	S	S	15 16 58.1	-1.2
	comp=Z,19nm,1.5s,baz=175,slow=6.4,SNR=2.5						
SNAA				SSS	SSS	15 23 19.5	+5.1
	comp=Z,1.7nm,1.0s,baz=158,slow=11,SNR=3.0						
SNAA				LR	LR	15 33 01.5	
	comp=Z,406μm,19.7s,MS7.5,baz=178,slow=35						
SNAA				PKPPKP		15 38 28.6	
	comp=Z,3.2nm,0.8s,baz=322,slow=4.5,SNR=3.7						
SNAA				PKP2bc		15 38 47.9	
	comp=Z,30nm,1.2s,baz=97,slow=1.2,SNR=7.5						
SNAA	Sanae	58.42	186	eP	P	15 08 53.1	-5.0
SNAA				pmax	pmax		
	comp=Z,4μm,2.4s						
VNA3	Neumayer Olymp	59.19	183	⇑iP	P	15 09 02.0	-1.5
VNA3	Neumayer Olymp	59.19	183	⇑i	P	15 09 04.1	+0.6
VNA3	Neumayer Olymp	59.19	183	⇑i	P	15 09 11.8	+8.3
VNA2	Neumayer--Watz	59.41	184	⇑iP	P	15 09 03.5	-1.6
VNA2	Neumayer--Watz	59.41	184	⇑i	P	15 09 05.7	+0.6
VNA2	Neumayer--Watz	59.41	184	⇑i	P	15 09 13.0	+7.9
VNA2	Neumayer--Watz	59.41	184	⇑i	P	15 09 18.6	+14
VNA1	Neumayer--Stat	59.73	184	⇑iP	P	15 09 06.3	-0.9
VNA1	Neumayer--Stat	59.73	184	⇑i	P	15 09 15.2	+8.0
VNA1	Neumayer--Stat	59.73	184	⇑i	P	15 09 21.6	+14
PMSA	Palmer Station	60.48	159	P	P	15 09 13.1	+0.6
PMSA				S	S	15 17 30.8	+4.7
PMSA				SS	SS	15 21 30.2	+4.9
PMSA				SS	tx	15 24 25.6	
PMSA	Palmer Station	60.48	159	eP	P	15 09 12.0	-0.5
	comp=Z,120nm,1.0s,mb5.9						
PMSA				LR	LR		
	comp=Z,308μm,21.0s,MS7.4						
SINI	Singah	61.94	294	⇑eP	P	15 09 19.0	-4.1
PULI	Pulasari	63.38	293	⇑eP	P	15 09 28.3	-4.3
	comp=Z,4μm,1.5s,mb7.3						
MATI	Mati	64.25	320	eP	P	15 09 38.7	+0.5
PENI	Pendagan	64.48	293	⇓eP	P	15 09 34.2	-5.6
	comp=Z,2μm,1.8s,mb6.8						
COCO	West Island	64.50	282	eP	P	15 09 36.3	-3.7
	comp=Z,4μm,1.9s,mb7.2						
COCO				LR	LR		
	comp=Z,207μm,21.0s,MS7.3						
DAV	Davao City (W)	64.64	320	eP	P	15 09 41.0	+0.2
GUMO	Guam	64.72	342	eP	P	15 09 40.0	-1.3
	comp=Z,567nm,1.3s,mb6.4						
GUMO				LR	LR		
	comp=Z,430μm,22.0s,MS7.6						
KCP	Kidapawan	64.79	319	⇓eP	P	15 09 43.3	+1.5
BUKP	Musuan	65.59	320	eP	P	15 09 46.2	-0.7

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CGP  Cagayan de Oro   66.26 320⇓eP     P       15 10 01.9 +11
PAGZ Pagadian         66.28 318  eP     P       15 09 50.5 -0.8
BUTP Butuan           66.34 321  eP     P       15 09 58.8 +7.1
IPIL Ipil             66.58 317  eP     P       15 09 56.4 +3.1
DCPH Dipolog City     66.95 318⇓eP     P       15 09 57.0 +1.4
          comp=Z,10µm,2.0s,mb7.2
SCPH Surigao          67.13 321  eP     P       15 10 03.1 +6.4
SARN Sarigan          67.58 344  eP     P       15 09 56.9 -2.6
MSLP Maasin           67.70 320  eP     P       15 09 60.0 -0.4
TBP  Tagbilaran       67.72 319⇓eP     P       15 09 58.0 -2.5
USHA Ushuaia          67.73 151   P     P       15 09 58.9 -0.9
          comp=Z,67nm,0.9s,mb5.7,baz=201,slow=5.6,SNR=18
USHA                              S     S       15 18 57.1 +1.2
          comp=Z,5.4nm,0.9s,baz=318,slow=3.0,SNR=2.5
USHA                              SS    SS      15 23 05.3  -13
          comp=Z,3.9nm,0.7s,baz=304,slow=12,SNR=1.6
USHA                              SSS   SSS     15 26 37.1  +19
          comp=Z,2.9nm,0.7s,baz=185,slow=5.0,SNR=1.8
USHA                              LR    LR      15 32 20.6
          comp=Z,341µm,21.6s,MS7.5,baz=196,slow=30
USHA                              PKPPKP        15 38 20.4
          comp=Z,12nm,1.0s,baz=54,slow=5.3,SNR=2.7
LLP  Lapu-Lapu        68.24 320⇑eP     P       15 10 03.0 -0.7
PLP  Palo             68.58 321  eP     P       15 10 07.4 +1.6
OCLP Ormoc            68.63 321  eP     P       15 10 09.2 +3.1
BESP Borongan         68.79 322  eP     P       15 10 09.0 +1.8
WAKE Wake Island      68.83   5   PFAKE         15 10 20.0  +13
WAKE                              LR    LR
          comp=Z,114µm,22.0s,MS7.1
GUIM Jordan           69.10 319  eP     P       15 10 10.6 +1.5
RPN  Rapa Nui         69.26 108  eP     P       15 10 08.3 -1.5
          comp=Z,2µm,1.7s,mb6.7
RPN                               LR    LR
          comp=Z,39µm,19.0s,MS6.7
BATP Bataraza         69.65 313  eP     P       15 10 10.6 -1.8
RCP  Roxas            69.87 319⇓eP     P       15 10 19.0 +5.2
CNP  Catarman         69.93 321  eP     P       15 10 16.6 +2.5
CUYO Cuyo Island      69.98 317  eP     P       15 10 15.4 +1.0
KALP Kalibo           70.15 319⇑eP     P       15 10 19.0 +3.6
MMPH Masbate          70.22 320  eP     P       15 10 24.0 +8.2
OTRP Odiongan         70.90 319  eP     P       15 10 23.8 +3.8
ENPP El Nido          71.01 316  eP     P       15 10 19.3 -1.4
PVCP Virac            71.12 321  eP     P       15 10 20.4 -0.9
SJMP San Jose         71.37 318  eP     P       15 10 22.8 -0.1
AUQP San Andres       71.48 320  eP     P       15 10 31.9 +8.4
BOAC Boac             71.95 319  eP     P       15 10 29.7 +3.4
GQP  Guinayangan      72.10 320⇑eP     P       15 10 29.6 +2.4
LQP  Lukban           72.67 319⇓eP     P       15 10 33.9 +3.4
LUBP Lubang           72.89 318  eP     P       15 10 34.6 +2.8
LUBP Lubang           72.89 318  eP     P       15 10 34.6 +2.8
TGY  Tagaytay City    72.91 319  eP     P       15 10 25.0 -7.0
TGY  Tagaytay City    72.91 319   S     S       15 20 00.3 +3.2
          comp=Z,66nm,0.3s,baz=211,slow=10,SNR=1.8
TGY                               LR    LR      15 40 38.2
          comp=Z,397µm,20.8s,MS7.7,baz=284,slow=34
EFI  East Falkland    73.51 156  i P    P       15 10 35.8 +1.1
EFI  East Falkland    73.51 156  eP     P       15 10 31.2 -3.6
          comp=Z,402nm,1.2s,mb6.2
EFI                               LR    LR
          comp=Z,37µm,19.0s,MS6.7
BALP Baler            74.11 320  eP     P       15 10 39.6 +0.7
PCPH Palayan          74.15 319  eP     P       15 10 41.4 +2.2
COYC Coyhaique        74.27 144  eP     P       15 10 37.5 -1.8
SCZP Santa Cruz       74.84 318  eP     P       15 10 51.2 +8.0
PALP Palanan          74.94 321  eP     P       15 10 46.9 +3.1
CAUP Cauayan          75.08 321  eP     P       15 10 48.5 +4.0
BOLP Bolinao          75.38 319  eP     P       15 10 48.6 +2.3
CVP  Callao Caves     75.77 321  eP     P       15 10 46.0 -2.4
APYP Conner           76.15 321  eP     P       15 10 54.1 +3.5
SGCP Mt. Cagua        76.16 321  eP     P       15 10 54.5 +3.9
ABRA Dolores          76.18 320  eP     P       15 10 51.7 +1.0
BBP  Basco            78.17 322  eP     P       15 11 04.4 +2.6
CBIJ Chichi jima      78.39 342   LR    LR      15 44 07.9
          comp=Z,266µm,20.0s,MS7.6,baz=346,slow=34
HON  Honolulu         79.29  38  eP     P       15 11 12.7 +4.8
KIP  Kipapa           79.38  38  eP     P       15 11 08.7 +0.4
          comp=Z,375nm,1.1s,mb6.2
KIP                               LR    LR
          comp=Z,338µm,22.0s,MS7.6
MAUI Maui             79.51  40  i P    P       15 11 12.0 +2.9
MIDW Midway           79.81  19   P     P       15 11 16.1 +5.5
          comp=Z,2µm,1.5s,mb6.8
MIDW                              LR    LR
          comp=Z,420µm,21.0s,MS7.8
CCHI Chillan          81.84 139  eP     P       15 11 25.9 +4.8
CCHI Chillan          81.84 139  eP     P       15 11 25.9 +4.8
CCHI                             i S    S       15 21 37.5 +4.5
QIZ  Qiongzhong       82.31 311   P     P       15 11 23.6 -0.2
QIZ                               XP    sP      15 11 30.5 +2.4
QIZ                               PP    PP      15 14 40.3 +5.7
QIZ                               S     S       15 21 35.6 -2.6
QIZ                               LR    LR
          comp=N,121µm,23.7s,MS7.5
QIZ                               LR    LR
          comp=E,172µm,21.3s,MS7.5
QIZ                               LR    LR
          comp=Z,723µm,59.1s
QIZ  Qiongzhong       82.31 311   PP    PP      15 14 44.0 +9.4
QIZ  Qiongzhong       82.31 311  eP     P       15 11 22.2 -1.6
          comp=Z,308nm,1.6s,mb6.0
QIZ                               LR    LR
          comp=Z,228µm,20.0s,MS7.5
TATO Taipei           82.45 324   P     P       15 11 24.4 -0.1
          comp=Z,601nm,1.3s,mb6.4
TATO                              LR    LR
          comp=Z,550µm,22.0s,MS7.9
HKC  Hong Kong        83.11 317⇑iP     P       15 11 35.0 +7.0
NICH Los Niches       83.56 139  eP     P       15 11 32.8 +2.9
QZH  Quanzhou         83.56 321  i PR   P       15 11 35.3 +5.1
QZH                               AMB   AMB
          comp=Z,2µm,1.4s,mb7.0
QZH                               AMB   AMB
          comp=Z,19µm,6.1s
QZH                               LR    LR
          comp=N,531µm,21.0s,MS8.0
QZH                               LR    LR
          comp=E,490µm,22.7s,MS8.0
QZH                               LR    LR
          comp=Z,846µm,22.3s,MS8.1
DGAR Diego Garcia     83.84 266  i P    P       15 11 28.6 -3.2
DGAR Diego Garcia     83.84 266  eP     P       15 11 28.8 -3.1
          comp=Z,2µm,1.4s,mb7.1
DGAR                              LR    LR
          comp=Z,102µm,20.0s,MS7.2
GZH  Guangzhou        84.17 316   P     P       15 11 33.8 +0.5
GZH                               AMB   AMB
          comp=Z,43µm,6.4s
GZH                               LR    LR
          comp=N,216µm,21.6s,MS7.6
GZH                               LR    LR
          comp=E,198µm,20.1s,MS7.6
GZH                               LR    LR
          comp=Z,472µm,21.6s,MS7.8
TRQA Tornquist        84.52 147  eP     P       15 11 31.8 -2.9
          comp=Z,109nm,1.1s,mb5.9
TRQA                              LR    LR
          comp=Z,332µm,22.0s,MS7.7
JHJ  Hachijo jima 2   84.71 342   LR    LR      15 42 57.6
          comp=Z,243µm,21.1s,MS7.6,baz=28,slow=31
LMEL Las Melosas      84.98 139  eP     P       15 11 40.4 +3.3
CLCH Cerro Calan      85.23 139  eP     P       15 11 41.0 +2.7
FCH  Farellones       85.39 139  eP     P       15 11 42.4 +3.2
MDZ  Mendoza          86.39 139   PKP   P       15 11 49.3 +5.2
MDZ                               PKP   P       15 11 53.7  +10
MDZ                              e              15 12 22.5
MDZ                               PP    tx      15 14 33.6
MDZ                               SKS   PP      15 15 15.6 +8.2
MDZ                               PPP   PPP     15 17 31.3  +27
MDZ                              e              15 18 33.6
MDZ                              e              15 19 28.1
MDZ                               SKKKS         15 20 19.8
MDZ                               PS    PS      15 23 29.0 +9.2
MDZ                               SKKS          15 28 42.8
MDZ                               SS    tx      15 31 12.8
MDZ                               SSS   tx      15 37 26.7
CM31 Chiang Mai Arr   87.48 302  eP     P       15 11 48.6 -1.1
          comp=Z,340nm,1.1s,mb6.5
CMAR Chiang Mai Arr   87.48 302   P     P       15 11 49.0 -0.7
          comp=Z,32nm,0.9s,mb5.5,baz=160,slow=3.7,SNR=108
CMAR                              PP    PP      15 15 10.6 -6.4
          comp=Z,17nm,1.0s,baz=163,slow=4.5,SNR=1.9
CMAR                              S             15 22 18.4
          comp=Z,0.4nm,0.4s,baz=168,slow=41,SNR=2.8
CMAR                              SS    SS      15 28 14.1 -3.4
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          comp=Z,0.6nm,0.5s,baz=315,slow=4.0,SNR=2.9
CMAR                              PKKPbc        15 29 45.6
          comp=Z,6.0nm,1.0s,baz=315,slow=4.7,SNR=5.2
CMAR                              PKPPKP        15 37 46.2
          comp=Z,4.0nm,0.9s,baz=168,slow=2.4,SNR=13
CMAR                              LR    LR      15 53 30.9
          comp=Z,361µm,19.7s,MS7.8,baz=150,slow=37
TLL  Tololo Astrono   87.87 137  eP     P       15 11 54.2 +2.8
TLL  Tololo Astrono   87.87 137  eP     P       15 11 54.2 +2.8
TLL                              i S            15 22 18.0
SSE  Sheshan          88.09 326   P     P       15 11 55.8 +3.4
SSE                               AP    pP      15 11 59.3 +3.7
SSE                               XP    sP      15 12 00.6 +3.9
SSE                               PP    PP      15 15 21.4 -0.2
SSE                               S     S       15 22 39.3 +4.9
SSE                               XS            15 22 44.0
SSE                               AMB   AMB
          comp=Z,225nm,1.9s,mb6.1
SSE                               AMB   AMB
          comp=Z,12µm,11.7s
SSE                               LR    LR
          comp=N,138µm,32.2s,MS7.7
SSE                               LR    LR
          comp=E,495µm,32.1s,MS7.7
SSE                               LR    LR
          comp=Z,565µm,23.0s
SSE  Sheshan          88.09 326   P     P       15 11 55.7 +3.3
          comp=Z,225nm,1.9s,mb6.1
SSE                               pP    pP      15 11 59.3 +3.7
SSE                               sP    sP      15 12 00.6 +3.9
SSE                               PP    PP      15 15 21.4 -0.2
SSE                               S     S       15 22 39.3 +4.9
SSE                               sS            15 22 44.0
SSE                               SS    SS      15 28 30.1 +3.8
SSE                               LR    LR
          comp=Z,565µm,23.0s,MS7.9
MAJO Matsushiro       88.34 341   P     P       15 11 53.3 -0.2
MAJO                              pmax  pmax
          comp=Z,1µm,1.9s,mb6.8
MAJO Matsushiro       88.34 341   P     P       15 11 53.3 -0.1
          comp=Z,1µm,1.9s,mb6.8
MAT  Matsushiro       88.34 341   P     P       15 11 53.2 -0.3
MAT                               S     S       15 22 45.0 +8.4
MAT  Matsushiro       88.34 341  eP     P       15 11 53.0 -0.5
          comp=Z,86nm,1.5s,mb5.8
MAT                              eS     S       15 22 46.0 +9.4
LPA  La Plata         88.76 148beP     P       15 11 58.0 +2.5
          comp=Z,800nm,1.0s,mb7.0
LPA                              esP    sP      15 12 02.0 +2.2
LPA                               SKIKP         15 20 32.0
LPA                              eSKS   SKS     15 22 27.0 -0.7
PALK Pallekele        89.63 282  eP     P       15 11 56.1 -4.0
          comp=Z,895nm,1.8s,mb6.8
PALK                              LR    LR
          comp=Z,173µm,21.0s,MS7.5
NJ2  Nanjing          89.81 325  eP     P       15 12 01.4 +0.8
NJ2                               AP    pP      15 12 05.6 +1.8
NJ2                               PP    PP      15 15 34.8 -0.6
NJ2                               S     S       15 22 43.0 -7.3
NJ2                               SS    SS      15 28 52.0 +0.9
NJ2                               AMB   AMB
          comp=Z,60nm,0.9s,mb5.9
NJ2                               AMB   AMB
          comp=Z,37µm,12.0s
NJ2                               LR    LR
          comp=N,696µm,22.2s,MS8.2
NJ2                               LR    LR
          comp=E,756µm,20.3s,MS8.2
NJ2                               LR    LR
          comp=Z,1218µm,21.0s,MS8.3
GYA  Guiyang          90.14 313 ⇓P     P       15 12 01.5 -0.7
GYA                               S     S       15 22 49.8 -3.6
GYA                               AMB   AMB
          comp=Z,150nm,1.8s,mb6.0
GYA                               AMB   AMB
          comp=Z,12µm,9.0s
GYA                               LR    LR
          comp=N,317µm,25.7s,MS7.7
GYA                               LR    LR
          comp=E,187µm,24.5s,MS7.7
GYA                               LR    LR
          comp=Z,464µm,25.1s,MS7.8
WHN  Wuhan            90.24 321   P     P       15 12 02.3 -0.3
WHN                               AP    pP      15 12 07.0 +1.2
WHN                               PP    PP      15 15 34.0 -4.9
WHN                               S     S       15 22 50.0 -4.2
WHN                               LR    LR
          comp=Z,479µm,19.5s,MS7.9
KMI  Kunming          90.95 309⇑eP     P       15 12 08.9 +2.9
KMI                               AP    pP      15 12 12.6 +3.4
KMI                               XP    sP      15 12 13.6 +3.4
KMI                               PP    PP      15 15 46.4 +1.7
KMI                               PPP   PPP     15 17 48.9 +4.3
KMI                               SKS   SKS     15 22 38.0 -3.1
KMI                               S     S       15 23 02.9 +2.3
KMI                               XS            15 23 10.4
KMI                               PS    PS      15 24 15.3 +1.5
KMI                               AMB   AMB
          comp=Z,9µm,6.4s
KMI                               LR    LR
          comp=N,372µm,20.6s,MS7.9
KMI                               LR    LR
          comp=E,315µm,22.7s,MS7.9
KMI                               LR    LR
          comp=Z,1340µm,51.8s
KMI  Kunming          90.95 309⇑eP     P       15 12 08.9 +2.9
          comp=Z,9.2nm,6.4s
KMI                               pP    pP      15 12 12.6 +3.4
KMI                               sP    sP      15 12 13.6 +3.4
KMI                               PP    PP      15 15 46.4 +1.7
KMI                               PPP   PPP     15 17 48.9 +4.3
KMI                               SKS   SKS     15 22 38.0 -3.1
KMI                               S     S       15 23 02.9 +2.3
KMI                               sS            15 23 10.4
KMI                               PS    PS      15 24 15.3 +1.5
KMI                               SS    SS      15 29 12.2 +4.7
KMI                               LR    LR
          comp=Z,1340µm,51.8s,MS8.0
SUR  Sutherland       91.15 212   P     P       15 12 03.8 -2.9
          comp=Z,64nm,1.1s,mb5.8,baz=127,slow=1.0,SNR=11
SUR                               S             15 22 38.6
          comp=Z,10nm,1.1s,baz=148,slow=13,SNR=1.6
SUR                               SS    SS      15 28 49.9  -20
          comp=Z,4.9nm,1.1s,baz=140,slow=20,SNR=1.8
SUR                               PKKPbc        15 29 31.3
          comp=Z,6.7nm,0.8s,baz=302,slow=13,SNR=3.5
SUR                               SSS   SSS     15 32 27.4  -20
          comp=Z,5.4nm,0.8s,baz=56,slow=12,SNR=1.9
SUR                               LR    LR      15 51 59.9
          comp=Z,295µm,18.8s,MS7.8,baz=249,slow=35
SUR  Sutherland       91.15 212  eP     P       15 12 04.2 -2.5
          comp=Z,177nm,1.2s,mb6.3
SUR                               LR    LR
          comp=Z,75µm,19.0s,MS7.2
KS15 Wonju Array Si   91.75 334  eP     P       15 12 09.8 +0.5
ENH  Enshi            92.09 317  eP     P       15 12 11.3 +0.3
          comp=Z,19nm,2.3s
ENH                               LR    LR
          comp=Z,316µm,20.0s,MS7.8
INCN Inchon           92.15 333  eP     P       15 12 14.7 +3.4
          comp=Z,595nm,1.6s,mb6.7
BOSA Boshof           92.89 217  eP     P       15 12 11.1 -3.7
BOSA                              pmax  pmax
          comp=Z,100nm,1.1s,mb6.2
BOSA Boshof           92.89 217  eP     P       15 12 11.1 -3.7
          comp=Z,103nm,1.1s,mb6.2
TIA  Tai'an           94.16 325   P     P       15 12 24.3 +3.8
TIA                               PP    PP      15 16 11.3 +1.4
TIA                               S     S       15 23 34.4 +5.9
TIA                               PS    PS      15 25 02.6  +13
TIA                               AMB   AMB
          comp=Z,45nm,1.2s,mb5.8
TIA                               AMB   AMB
          comp=Z,9µm,7.0s
TIA                               LR    LR
          comp=N,117µm,21.0s,MS7.4
TIA                               LR    LR
          comp=E,68µm,19.0s,MS7.4
MDRS Chennai          94.33 285⇑eP     P       15 12 28.0 +6.3
MDRS                             e              15 16 23.0
YUK  Yuzh-Kuril'sk    94.37 349  eP     P       15 12 26.0 +4.8
YUK                              e              15 16 09.0
YUK                               S             15 23 03.0
YUK                              e              15 23 43.0
YUK                              ePS    PS      15 24 49.0 -2.9
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YUK                               pmax  pmax
          comp=Z,13µm,7.0s
YUK                               pmax  pmax
          comp=E,8µm,11.0s
YUK                               pmax  pmax
          comp=Z,29µm,11.0s
YUK                               pmax  pmax
          comp=N,16µm,15.0s
ASAJ Asahikawa        94.90 346   SS    SS      15 30 02.2 -1.1
          comp=N,21nm,1.2s,baz=297,slow=27,SNR=1.9
ASAJ                              LR    LR      15 56 10.5
          comp=N,99µm,18.2s,MS7.3,baz=167,slow=36
DL2  Dalian           95.02 330 ⇑P     P       15 12 25.8 +1.5
DL2                               PP    PP      15 16 12.5 -3.3
DL2                               S     S       15 23 32.4 -3.3
DL2                               AMB   AMB
          comp=Z,100nm,1.4s,mb6.0
DL2                               AMB   AMB
          comp=Z,8µm,6.4s
DL2                               LR    LR
          comp=N,104µm,19.4s,MS7.5
DL2                               LR    LR
          comp=E,104µm,20.0s,MS7.5
DL2                               LR    LR
          comp=Z,156µm,20.5s,MS7.5
LVC  Limon Verde      95.22 134   P     P       15 12 24.1 -1.5
          comp=Z,4.0nm,0.8s,baz=251,slow=10,SNR=3.4
LVC                               PP    PP      15 16 17.5 -0.3
          comp=Z,8.8nm,0.9s,baz=248,slow=6.9,SNR=1.8
LVC                               S             15 23 03.1
          comp=Z,4.2nm,1.0s,baz=89,slow=18,SNR=1.9
LVC                               PKKPbc        15 29 24.5
          comp=Z,2.9nm,0.8s,baz=251,slow=2.4,SNR=3.5
LVC                               PKPPKP        15 37 28.9
          comp=Z,1.2nm,0.8s,baz=248,slow=13,SNR=1.8
LVC                               LR    LR      15 45 26.1
          comp=Z,116µm,19.0s,MS7.4,baz=210,slow=29
LVC  Limon Verde      95.22 134   P     P       15 12 24.1 -1.5
LVC                               PP    PP      15 16 17.5 -0.3
LVC                               S             15 23 03.1
LVC                               PKKPbc        15 29 24.6
LVC                               P'P'          15 37 28.9
LVC                               LR    LR      15 45 26.1
CD2  Chengdu          95.26 313   P     P       15 12 25.3 -0.3
CD2                               PP    PP      15 16 15.6 -2.4
CD2                               PPP   PPP     15 18 22.6 -0.4
CD2                               SKS   SKS     15 22 57.3 -7.7
CD2                               S     S       15 23 35.5 -2.4
CD2                               PS    PS      15 25 03.0 +1.0
CD2                               SS    SS      15 30 09.5 +0.9
CD2                               AMB   AMB
          comp=Z,690nm,1.6s,mb6.8
CD2                               AMB   AMB
          comp=Z,18µm,12.0s
CD2                               LR    LR
          comp=E,419µm,21.6s
CD2                               LR    LR
          comp=Z,307µm,21.6s,MS7.7
MNCY Minicoy          95.30 276⇓i      P       15 12 38.0  +12
MNCY                             i              15 17 56.0
IMP  Imphal           95.31 302  eP     P       15 12 23.8 -2.2
XAN  Xi'an            95.55 318   P     P       15 12 25.5 -1.4
XAN                               AMB   AMB
          comp=Z,11µm,9.2s
XAN                               LR    LR
          comp=N,197µm,22.2s
XAN                               LR    LR
          comp=E,180µm,34.3s
XAN                               LR    LR
          comp=Z,369µm,23.2s,MS7.8
LBTB Lobatse          95.95 219   P     P       15 12 25.9 -3.0
LBTB                              P             15 12 32.6
LBTB                              P             15 12 32.8
LBTB                              P             15 12 40.1
LBTB                              SKSac         15 23 16.1
LBTB                              SKSac         15 23 16.5
LBTB                              PS    PS      15 25 10.0 +0.3
LBTB                              PS    PS      15 25 10.1 +0.3
LBTB Lobatse          95.95 219  eP     P       15 12 24.7 -4.3
          comp=Z,37nm,1.1s,mb5.7
LBTB                              LR    LR
          comp=Z,233µm,21.0s,MS7.6
VIS  Vishakhapatnam   95.97 290  i P    P       15 12 30.0 +0.8
VIS                              i              15 16 15.0
          comp=Z,558nm,1.6s
AGT  Agartala         96.09 300⇑iP     P       15 12 34.0 +4.4
AGT                              i              15 13 14.0
CAL  Calcutta         96.71 297⇑e      P       15 12 42.4  +10
CAL                              e              15 16 48.5
CAL                              e              15 16 51.4
SHL  Shillong         97.06 301⇑eP     P       15 12 32.5 -1.5
SHL                              e              15 15 30.0
SHL                              e              15 22 59.0
SNY  Shenyang         97.07 332 ⇑P     P       15 12 37.0 +3.4
SNY                               PP    PP      15 16 35.9 +3.7
SNY                               S     S       15 23 51.9 -1.1
SNY                               LR    LR
          comp=N,186µm,22.5s,MS7.6
SNY                               LR    LR
          comp=E,131µm,21.6s,MS7.6
SNY                               LR    LR
          comp=Z,334µm,22.2s,MS7.8
TIY  Taiyuan          97.27 323 ⇑P     P       15 12 33.0 -1.6
TIY                               LR    LR
          comp=N,357µm,23.0s
YSS  Yuzh-Sakhalins   97.65 347⇑iP     P       15 12 42.0 +5.9
YSS                              eS     S       15 24 04.0 +6.2
YSS                              ePS    PS      15 25 23.0 -4.2
YSS                              eSSS   SSS     15 34 28.0  0.0
YSS                               pmax  pmax
          comp=Z,9µm,15.0s
YSS                               pmax  pmax
          comp=N,3µm,16.0s
YSS                               smax
          comp=E,126µm,15.0s
YSS  Yuzh-Sakhalins   97.65 347   P     P       15 12 39.6 +3.5
          comp=E,671nm,1.9s,mb6.8
MNGI Mangalore        97.67 281  eP     P       15 12 40.4 +3.5
MNGI                             e              15 25 38.6
          comp=E,649µm,21.0s
BJT  Baijiatuau       97.88 326  eP     P       15 12 41.2 +3.9
          comp=E,19nm,0.9s,mb5.6
BJT                               LR    LR
          comp=Z,551µm,20.0s,MS8.0
BJI  Beijing          97.90 327   P     P       15 12 42.0 +4.6
BJI                               AMB   AMB
          comp=Z,63nm,1.5s,mb5.9
BJI                               AMB   AMB
          comp=Z,12µm,5.8s
BJI                               LR    LR
          comp=N,363µm,20.0s,MS8.0
BJI                               LR    LR
          comp=E,289µm,20.0s,MS8.0
BJI                               LR    LR
          comp=Z,560µm,24.4s,MS8.0
BJI  Beijing          97.90 327   P     P       15 12 42.0 +4.6
          comp=Z,63nm,1.5s,mb5.9
BJI                               PP    Px      15 16 03.5
BJI                               S     tx      15 23 20.4
BJI                               SS    SS      15 30 20.4  -25
BJI                               LR    LR
          comp=Z,560µm,24.4s,MS8.0
MDJ  Mudanjiang       98.00 338   P     P       15 12 42.4 +4.7
MDJ                               PP    PP      15 16 39.5  0.0
MDJ                               S     S       15 24 11.1  +10
MDJ                               PS    PS      15 25 41.4  +11
MDJ                               AMB   AMB
          comp=Z,48nm,1.7s,mb5.8
MDJ                               LR    LR
          comp=N,143µm,18.7s,MS7.5
MDJ                               LR    LR
          comp=E,89µm,20.3s,MS7.5
MDJ                               LR    LR
          comp=Z,169µm,18.4s,MS7.6
MDJ  Mudanjiang       98.00 338  eP     P       15 12 41.6 +3.9
          comp=Z,74nm,1.3s,mb6.0
MDJ                               LR    LR
          comp=Z,251µm,20.0s,MS7.7
CN2  Changchun        98.33 334 ⇓P     P       15 12 44.3 +5.1
CN2                              eXP    sP      15 12 51.3 +7.8
CN2                               PP    PP      15 16 48.0 +6.1
CN2                              eS     S       15 24 10.4 +6.8
CN2                               PS    PS      15 25 42.3 +7.9
CN2                               AMB   AMB
          comp=Z,20nm,1.2s,mb5.5
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CN2				AMB	AMB		
	comp=Z,9µm,7.0s						
CN2				LR	LR		
	comp=N,335µm,26.0s,MS7.8						
CN2				LR	LR		
	comp=E,264µm,26.0s,MS7.8						
CN2				LR	LR		
	comp=Z,433µm,25.0s,MS7.8						
HYB	**Hyderabad**	**98.68**	**287**	*e*P	**P**	**15 12 43.0**	**+1.6**
	comp=Z,556nm,2.0s,mb6.7						
HYB	**Hyderabad**	**98.68**	**287**	*i* P	**P**	**15 12 43.0**	**+1.6**
	comp=Z,556nm,2.0s,mb6.7						
HYB				*e*		15 12 58.0	
HYB				*e*		15 15 50.0	
HYB				*e*PP	PP	15 16 36.0	-9.0
HYB				*e*PPP	PPP	15 19 00.0	+6.7
HYB				*e*SKS	SKS	15 23 22.0	-1.3
HYB				*e*S	S	15 24 00.0	-7.1
HYB				*e*PS	PS	15 25 32.0	-6.8
HYB				*e*PPS	PPS	15 26 22.0	-0.7
HYB				*e*SS	SS	15 30 46.0	-11
HYB				LR	LR	16 12 20.0	
	comp=Z,327nm,18.0s						
BOK	**Bokaro**	**99.10**	**296**	⇑*i*P	**P**	**15 12 47.6**	**+4.4**
BOK				*i*		15 16 59.2	
ARE	**Arequipa**	**99.21**	**129**	*e*P	**P**	**15 12 45.0**	**+1.2**
ARE				*i*		15 13 04.5	
ARE				*i*		15 13 15.2	
LZH	**Lanzhou**	**99.52**	**316**	⇓P	**P**	**15 12 50.3**	**+5.5**
LZH				AP	pP	15 12 58.8	+11
LZH				XP	sP	15 13 02.5	+13
LZH				*e*S	S	15 24 20.0	+6.3
LZH				AMB	AMB		
	comp=Z,220nm,1.4s,mb6.4						
LZH				AMB	AMB		
	comp=Z,4µm,6.3s						
LZH				LR	LR		
	comp=E,543µm,21.7s						
LZH				LR	LR		
	comp=Z,781µm,22.5s,MS8.2						
LZH	**Lanzhou**	**99.52**	**316**	⇓P	**P**	**15 12 50.3**	**+5.5**
	comp=Z,220nm,1.4s,mb6.4						
LZH				pP	pP	15 12 58.8	+11
LZH				sP	sP	15 13 02.5	+13
LZH				PP	PP	15 17 04.0	+13
LZH				SKS	SKS	15 23 37.0	+10
LZH				*e*S	S	15 24 20.0	+6.3
LZH				sS		15 24 39.0	
LZH				PS	PS	15 26 03.1	+16
LZH				SS	SS	15 31 17.0	+8.9
LZH				LR	LR		
	comp=Z,781µm,22.5s,MS8.2						
BLSP	**Bilaspur**	**100.06**	**292**	*e*P	P	15 12 50.4	+2.8
BLSP				*e*		15 17 01.0	
GOA	**Goa**	**100.22**	**282**	⇓*i*	P	15 12 56.6	+8.1
	comp=Z,84nm,20.8s						
GOA				*i*		15 26 11.1	
HHC	**Hu-ho-hao-te**	**100.32**	**324**	*e*P	P	15 12 54.0	+5.6
HHC				AP		15 12 58.8	
HHC				SKS	SKS	15 23 31.3	+0.5
HHC				S	S	15 24 28.3	+8.0
HHC				XS		15 24 37.1	
HHC				PS	PS	15 26 05.6	+10
HHC				AMB	AMB		
	comp=Z,31nm,1.3s						
HHC				AMB	AMB		
	comp=Z,8µm,6.8s						
HHC				LR	LR		
	comp=N,290µm,21.0s,MS7.9						
HHC				LR	LR		
	comp=E,209µm,20.8s,MS7.9						
HHC				LR	LR		
	comp=Z,578µm,22.7s,MS8.0						
LATR	**Latur**	**100.68**	**286**	*e*P	P	15 12 52.5	+2.0
LSA	**Lhasa**	**100.70**	**303**	P	P	15 12 52.9	+2.5
LSA				AMB	AMB		
	comp=Z,20nm,1.7s						
LSA				LR	LR		
	comp=N,375µm,70.8s						
LSA				LR	LR		
	comp=E,544µm,57.2s						
LSA				LR	LR		
	comp=Z,861µm,63.3s						
LSA	**Lhasa**	**100.70**	**303**	Pdiff	P	15 12 54.1	+3.7
LSA				PP	PP	15 17 11.7	+11
LSA				SKSac		15 23 36.8	
LSA				PS	PS	15 26 03.1	+3.4
LSA	**Lhasa**	**100.70**	**303**	*e*Pdif	P	15 12 52.8	+2.5
	comp=Z,682nm,2.6s						
LSA				LR	LR		
	comp=Z,179µm,21.0s,MS7.6						
BTO	**Baotou**	**100.71**	**323**	*e*P	P	15 12 55.6	+5.5
BTO				AMB	AMB		
	comp=Z,74nm,2.7s						
LPAZ	**La Paz**	**101.02**	**132**	P	P	15 12 52.1	0.0
	comp=Z,0.9nm,0.5s,baz=112,slow=5.8,SNR=5.5						
LPAZ				PP	PP	15 16 51.5	-12
	comp=Z,1.6nm,0.4s,baz=172,slow=7.9,SNR=6.1						
LPAZ				S		15 23 31.8	
	comp=Z,7.3nm,1.4s,baz=163,slow=9.7,SNR=1.4						
LPAZ	**La Paz**	**101.02**	**132**	P	P	15 12 52.1	+0.1
LPAZ				S		15 23 31.8	
LPAZ	**La Paz**	**101.02**	**132**	*e*Pdif	P	15 12 51.4	-0.6
	comp=Z,20nm,1.3s						
LPAZ				LR	LR		
	comp=Z,187µm,21.0s,MS7.6						
NGP	**Nagpur**	**101.19**	**289**	*e*	P	15 12 58.1	+5.4
NGP				*e*		15 23 44.2	
KAD	**Karad**	**101.34**	**283**	*e*P	P	15 12 56.0	+2.5
KAD				*i*		15 16 28.4	
	comp=Z,193nm,1.4s						
AKL	**Akola**	**102.11**	**288**	*e*P	Pdif	15 13 01.5	+4.6
AKL				*e*		15 16 28.3	
	comp=Z,213nm,1.3s						
GUN	**Gumba**	**102.25**	**299**	*e*P	Pdif	15 12 55.4	-2.0
	comp=Z,2µm,2.0s						
PKI	**Pulchoki**	**102.26**	**298**	*e*P	Pdif	15 12 55.5	-2.0
	comp=Z,2µm,2.1s						
PET	**Petropavlovsk**	**102.39**	**358**	*c* *i*P	Pdif	15 13 03.9	+6.5
PET				*e*		15 17 21.3	
PET				*e*		15 23 39.7	
PET				*e*S	S	15 24 45.8	+8.5
PET				*e*PPS	PPS	15 27 17.3	+10
PET				*e*SS	SS	15 32 01.4	+14
PET				*e*SSS	SSS	15 35 53.3	+12
PET				pmax	pmax		
	comp=Z,6µm,16.6s						
PET				pmax	pmax		
	comp=Z,11µm,23.0s						
PET				pmax	pmax		
	comp=Z,26µm,16.3s						
PET				pmax	pmax		
	comp=Z,39µm,24.2s						
PET				pmax	pmax		
	comp=Z,225nm,1.9s						
PET				smax			
	comp=E,26µm,27.3s						
POO	**Poona**	**102.46**	**284**	*e*P	Pdif	15 12 58.1	-0.4
POO				*e*		15 13 26.8	
	comp=Z,167nm,1.9s						
DMN	**Daman**	**102.47**	**298**	*e*P	Pdif	15 12 55.8	-2.5
	comp=Z,1µm,2.1s						
KKN	**Kakani**	**102.50**	**298**	*e*P	Pdif	15 12 55.8	-2.7
	comp=Z,1µm,1.8s						
SMY	**Shemya**	**102.61**	**8**	P	Pdif	15 13 03.0	+4.6
ALBI	**Allahabad**	**102.65**	**294**	*e*	Pdif	15 13 11.0	+12
GKN	**Gorkha**	**103.03**	**298**	*e*P	Pdif	15 12 58.5	-2.3
	comp=Z,1µm,2.1s						
LSZ	**Lusaka**	**103.37**	**226**	*e*P	Pdif	15 13 00.2	-2.3
LSZ				pmax	pmax		
	comp=Z,20nm,1.4s						
LSZ	**Lusaka**	**103.37**	**226**	*e*Pdif	Pdif	15 13 00.2	-2.3
	comp=Z,20nm,1.4s						
BOM	**Bombay**	**103.39**	**283**	*e*	Pdif	15 13 46.5	+44
BOM				*e*		15 26 36.7	
KOLN	**Koldanda**	**103.45**	**297**	*e*P	Pdif	15 13 00.5	-2.2
	comp=Z,733nm,1.8s						
BHPL	**Bhopal**	**103.74**	**290**	⇓*i*P	Pdif	15 13 03.1	-0.9
BHPL				*i*		15 16 15.8	
	comp=Z,76nm,1.4s						
HIA	**Hailar**	**104.94**	**333**	*e*Pdif	Pdif	15 13 09.1	+0.4
	comp=Z,37nm,1.4s						
HIA				LR	LR		
	comp=Z,285µm,21.0s,MS7.8						
LGTI	**Lohaghat**	**106.66**	**296**	*e*	Pdif	15 13 50.5	+34
AJM	**Ajmer**	**107.83**	**290**	⇓*i*P	Pdif	15 13 25.0	+3.0
NDI	**New Delhi**	**107.89**	**293**	*e*P	Pdif	15 13 25.5	+3.3
NDI				*e*		15 16 53.0	
NDI				*e*		15 18 00.5	
ULN	**Ulaanbaatar**	**107.98**	**325**	Pdiff	Pdif	15 13 28.9	+6.8
ULN				PS	PS	15 27 34.2	+21
ULN	**Ulaanbaatar**	**107.98**	**325**	P	Pdif	15 13 32.9	+11
ULN				pmax	pmax		
	comp=Z,58nm,1.7s						
ULN	**Ulaanbaatar**	**107.98**	**325**	*e*Pdif	Pdif	15 13 26.0	+3.9
	comp=Z,58nm,1.8s						
SONM	**Songino Array**	**108.20**	**324**	Pdiff	Pdif	15 13 22.7	-0.3
	comp=Z,0.1nm,0.4s,baz=296,slow=29,SNR=2.1						
SONM				PP	Px	15 16 40.4	
	comp=Z,3.1nm,0.9s,baz=162,slow=7.8,SNR=3.5						
SONM				Sdiff		15 24 02.6	
	comp=Z,2.0nm,1.1s,baz=307,slow=2.5,SNR=1.7						
SONM				PS	PS	15 27 18.4	+3.1
	comp=Z,5.2nm,1.2s,baz=333,slow=5.5,SNR=2.7						
SONM				PKKPbc		15 28 39.0	
	comp=Z,8.3nm,1.3s,baz=330,slow=10.0,SNR=2.6						
SONM				PKKPab		15 28 49.3	
	comp=Z,3.2nm,0.9s,baz=326,slow=3.4,SNR=4.3						
BHJ	**Bhuj**	**108.58**	**284**	*e*P	Pdif	15 13 28.0	+2.7
BHJ				*e*		15 13 54.6	
	comp=Z,81nm,1.9s						
BHJ				⇑*e*		15 17 26.8	
	comp=Z,40nm,18.3s						
BHJ				*e*		15 27 29.4	
DDI	**Dehra Dun**	**108.59**	**295**	*e*P	Pdif	15 13 26.8	+1.6
DDI				*e*		15 16 39.4	
OTAV	**Otavalo**	**109.11**	**114**	*e*Pdif	Pdif	15 13 36.6	+8.7
MWC	**Mount Wilson**	**109.62**	**60**	*e*PKPdf	Px	15 17 40.9	
SMLA	**Simla**	**109.70**	**295**	*i*	Pdif	15 13 47.1	+17
	comp=Z,91nm,0.7s						
SMLA				*i*		15 18 22.7	
	comp=Z,104nm,0.9s						
BDFB	**Brasilia**	**109.88**	**150**	Pdiff	Pdif	15 13 29.3	-1.9
	comp=Z,0.9nm,0.4s,baz=104,slow=19,SNR=1.9						
BDFB				PP	Px	15 17 10.5	
	comp=Z,9.2nm,1.1s,baz=197,slow=11,SNR=2.1						
BDFB				Sdiff		15 24 10.8	
	comp=Z,3.2nm,1.0s,baz=319,slow=24,SNR=1.5						
BDFB				PS	PS	15 27 32.8	+0.8
	comp=Z,5.3nm,1.1s,baz=176,slow=14,SNR=1.8						
BDFB				PKKPbc		15 28 33.5	
	comp=Z,4.7nm,1.1s,baz=155,slow=13,SNR=2.1						
BDFB				SS	SS	15 33 30.2	-0.5
	comp=Z,13nm,1.2s,baz=314,slow=8.7,SNR=2.2						
BAO	**Brasilia Array**	**109.90**	**150**	P	Pdif	15 13 47.4	+16
SDNR	**Sundarnagar**	**110.08**	**295**	*e*	Pdif	15 13 37.2	+5.4
PFO	**Pinyon Flat Ob**	**110.08**	**62**	PFAKE		15 17 50.0	+15
PFO				LR	LR		
	comp=Z,74µm,20.0s,MS7.3						
NSHM	**Saint Helena R**	**110.30**	**54**	*e*PKPdf	PKPdf	15 17 37.8	+2.4
BHK	**Bhakra**	**110.35**	**295**	*e*	Pdif	15 13 45.2	+12
BHK				*e*		15 18 06.0	
BHK				*e*		15 27 45.6	
HOPS	**Hopland**	**110.41**	**54**	PFAKE		15 17 50.0	+14
HOPS				LR	LR		
	comp=Z,175µm,19.0s,MS7.7						
CLNS	**Chul'man**	**110.44**	**339**	*e*P	Pdif	15 13 39.9	+7.2
CLNS				*e*S	PP	15 18 12.6	+0.2
CLNS				*e*		15 20 38.9	
CLNS				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KMBO	**Kilima Mbogo**	**110.56**	**242**	Pdiff	Pdif	15 13 32.6	-1.7
	comp=Z,0.8nm,0.2s,baz=240,slow=23,SNR=2.0						
KMBO				PP	Px	15 17 02.1	
	comp=Z,0.9nm,0.5s,baz=134,slow=9.7,SNR=4.4						
KMBO				Sdiff		15 24 17.9	
	comp=Z,0.6nm,0.5s,baz=223,slow=23,SNR=1.5						
KMBO				PKKPbc		15 28 32.4	
	comp=Z,1.3nm,0.7s,baz=52,slow=20,SNR=2.4						
KMBO				SS	SS	15 33 37.0	-2.6
	comp=Z,0.9nm,0.6s,baz=241,slow=23,SNR=1.9						
KMBO				SSS	SSS	15 37 47.4	-1.4
	comp=Z,0.4nm,0.2s,baz=50,slow=24,SNR=2.0						
KMBO	**Kilima Mbogo**	**110.56**	**242**	P	Pdif	15 13 32.6	-1.7
KMBO				S	SKS	15 24 17.9	+0.5
KMBO						15 28 32.4	
KMBO				SS	SS	15 33 37.0	-2.6
ZAK	**Zakamensk**	**111.46**	**324**	*e*P	Pdif	15 13 45.1	+7.7
THN	**Thein Dam**	**111.49**	**295**	*e*	Pdif	15 13 42.8	+4.9
	comp=Z,3.1nm,1.0s						
THN				*e*		15 18 12.3	
OHCM	**Honcut**	**111.50**	**54**	*e*PKP	PKPdf	15 17 43.9	+6.3
CMIG	**Matias Romero**	**111.56**	**89**	*i* P	PKPdf	15 17 39.8	+1.6
OMM	**Old Mammoth Mi**	**111.58**	**57**	*e*Pdif	Pdif	15 13 56.9	+19
MTUM	**Tungsten Hills**	**111.62**	**58**	*e*PKPdf	PKPdf	15 17 39.1	+1.2
WDC	**Whiskeytown Da**	**111.86**	**53**	PKIKP	PKPdf	15 17 41.8	+3.6
WDC	**Whiskeytown Da**	**111.86**	**53**	*e*PKPdf	PKPdf	15 17 40.4	+2.1
WDC				LR	LR		
	comp=Z,203µm,22.0s,MS7.7						
WCN	**Washoe City**	**112.39**	**55**	PKIKP	PKPdf	15 17 44.5	+5.1
WCN	**Washoe City**	**112.39**	**55**	*e*PKPdf	PKPdf	15 17 41.6	+2.2
TUC	**Tucson**	**112.45**	**66**	Pdiff	Pdif	15 13 46.8	+4.6
TUC				sPKiKP		15 18 32.0	
TUC				Sdiff		15 26 22.9	
TUC				PS	PS	15 28 18.4	+22
TUC				SS	SS	15 34 13.9	+10
TUC				SKKSdf		15 38 42.9	
TUC				SKKSdf		15 41 53.2	
TUC	**Tucson**	**112.45**	**66**	*e*Pdif	Pdif	15 13 44.6	+2.4
NEN	**Nelson**	**112.47**	**61**	*e*PKPdf	PKPdf	15 17 46.0	+6.3
SEY	**Seymchan**	**112.53**	**355**	*e*P	Pdif	15 13 47.9	+6.1
SEY				*e*		15 18 32.7	
SEY				*e*		15 27 59.8	
SEY				*e*		15 34 14.9	
SEY				pmax	pmax		
	comp=Z,60nm,2.4s						
NVAR	**Mina Array Bea**	**112.54**	**57**	Pdiff	Pdif	15 14 05.3	+23
	comp=Z,1.1nm,0.7s,baz=224,slow=7.6,SNR=6.2						
NVAR				PKiKP		15 17 43.0	
	comp=Z,7.9nm,0.8s,baz=209,slow=4.1,SNR=10						
NVAR				PP	PP	15 18 28.5	+0.4
	comp=Z,9.1nm,0.8s,baz=210,slow=5.8,SNR=5.0						
NVAR				Sdiff		15 24 31.6	
	comp=Z,0.2nm,0.3s,baz=64,slow=44,SNR=2.0						
NVAR				PKKPbc		15 28 24.2	
	comp=Z,1.7nm,0.8s,baz=156,slow=4.3,SNR=2.4						
NVAR				PKKPab		15 28 33.5	
	comp=Z,7.7nm,0.9s,baz=63,slow=3.5,SNR=6.1						
NVAR				SS	SS	15 34 16.0	+11
	comp=Z,0.4nm,0.5s,baz=114,slow=18,SNR=1.8						
NVAR				PKPPKP		15 37 00.3	
	comp=Z,0.5nm,0.6s,baz=223,slow=55,SNR=2.3						
NVAR				SSS	SSS	15 38 12.0	-6.4
	comp=Z,0.5nm,0.5s,baz=246,slow=11,SNR=1.9						
NVAR	**Mina Array Bea**	**112.54**	**57**	Pdif	Pdif	15 14 05.3	+23
NVAR				PKPdf	PKPdf	15 17 43.0	+3.2
NVAR				PP	PP	15 18 28.5	+0.4
NVAR				Sdif		15 24 31.6	
NVAR				PKKPbc		15 28 24.2	
NVAR				PKKPab		15 28 33.5	
NVAR				SS	SS	15 34 16.0	+11
NVAR				P'P'		15 37 00.3	
NVAR				SSS	SSS	15 38 12.0	-6.4
TPNV	**Topopah Spring**	**112.61**	**59**	PKIKP	PKPdf	15 17 43.4	+3.5
TPNV	**Topopah Spring**	**112.61**	**59**	*e*PKPdf	PKPdf	15 17 39.1	-0.8
YBH	**Yreka Blue Hor**	**112.61**	**52**	Pdiff	Pdif	15 13 45.2	+2.6
	comp=Z,2.6nm,1.1s,baz=98,slow=7.4,SNR=2.0						
YBH				PKiKP		15 17 43.3	
	comp=Z,7.8nm,1.0s,baz=235,slow=3.3,SNR=4.9						
YBH				PP	PP	15 18 28.4	-0.1
	comp=Z,3.2nm,0.8s,baz=106,slow=23,SNR=2.2						
YBH				SS	SS	15 34 14.4	+8.1
	comp=Z,1.6nm,0.8s,baz=206,slow=13,SNR=2.1						
YBH				SSS	SSS	15 38 16.3	-3.3
	comp=Z,0.5nm,0.5s,baz=185,slow=13,SNR=1.9						
YBH	**Yreka Blue Hor**	**112.61**	**52**	P	Pdif	15 13 45.2	+2.6
YBH				*i*		15 17 43.3	
YBH				pmax	pmax		
	comp=Z,3.0nm,1.2s						
YBH				pmax	pmax		
	comp=Z,8.0nm,1.0s						
YBH	**Yreka Blue Hor**	**112.61**	**52**	Pdif	Pdif	15 13 45.2	+2.6
YBH				*e*PKPdf	PKPdf	15 17 42.5	+2.7
MNV	**Mina**	**112.62**	**57**	*e*PKIKP	PKPdf	15 17 45.9	+6.0
MNV	**Mina**	**112.62**	**57**	*e*PKPdf	PKPdf	15 17 42.6	+2.7
TPH	**Tonopah**	**112.88**	**58**	PKIKP	PKPdf	15 17 45.7	+5.3
TPH	**Tonopah**	**112.88**	**58**	*e*PKPdf	PKPdf	15 17 43.3	+2.9
JTS	**JuntasAbangare**	**112.92**	**101**	*i* PKIKP	PKPdf	15 17 43.7	+2.7
JTS	**JuntasAbangare**	**112.92**	**101**	*e*PKPdf	PKPdf	15 17 41.5	+0.5
KDAK	**Kodiak Island**	**113.58**	**25**	*e*PKPdf	PKPdf	15 17 42.4	+1.1
MOD	**Modoc**	**113.97**	**53**	*e*PKPdf	PKPdf	15 17 44.5	+1.9
TRCR	**Troy Canyon**	**113.97**	**59**	*e*PKPdf	PKPdf	15 17 44.3	+1.7
BOD	**Bodaibo**	**114.09**	**334**	*e*P	Pdif	15 14 00.2	+11
BOD				*e*		15 17 45.4	
YAK	**Yakutsk**	**114.26**	**344**	*e*P	Pdif	15 13 55.8	+6.4
YAK				*e*		15 18 38.5	
YAK				*e*PPP	PPP	15 21 01.3	-3.2
YAK				*e*S	SKS	15 24 36.8	+5.9
YAK				*i* PS	PS	15 28 22.1	+9.3
YAK				*i* SS	SS	15 34 42.0	+14
YAK				*e*SSS	SSS	15 38 53.6	+9.4
YAK				pmax	pmax		
	comp=Z,1µm,14.5s						
YAK				pmax	pmax		
	comp=N,486nm,16.0s						
YAK				pmax	pmax		
	comp=E,220nm,15.9s						
YAK				pmax	pmax		
	comp=Z,19µm,18.6s						
YAK				pmax	pmax		
	comp=N,11µm,18.9s						
YAK				pmax	pmax		
	comp=E,3µm,13.1s						
YAK				MLR	MLR		
	comp=N,194µm,20.0s,MS7.8						
YAK				MLR	MLR		
	comp=Z,235µm,20.0s,MS7.8						
YAK				MLR	MLR		
	comp=E,164µm,21.0s,MS7.8						
YAK	**Yakutsk**	**114.26**	**344**	*i* PKP	PKPdf	15 17 41.6	-0.9
COR	**Corvallis**	**114.39**	**49**	*e*PKPdf	PKPdf	15 17 50.9	+7.7
BMN	**Battle Mountai**	**114.56**	**56**	*e*PKPdf	PKPdf	15 17 48.9	+5.3
MBAR	**Mbarara**	**114.62**	**236**	*i* PKIKP	PKPdf	15 17 41.0	-3.3
MBAR	**Mbarara**	**114.62**	**236**	*e*PKPdf	PKPdf	15 17 43.0	-1.3
MBAR				*e*PP	PP	15 18 44.2	+0.6
LTX	**Lajitas**	**114.69**	**73**	PKIKP	PKPdf	15 17 49.5	+5.4
LTX	**Lajitas**	**114.69**	**73**	*e*PKPdf	PKPdf	15 17 46.1	+2.0
TXAR	**Lajitas Array**	**114.69**	**73**	Pdiff	Pdif	15 14 18.9	+27
	comp=E,1.0nm,0.9s,baz=202,slow=6.7,SNR=6.6						
TXAR				PKP	PKPdf	15 17 46.0	+1.9
	comp=E,5.6nm,0.9s,baz=192,slow=6.0,SNR=11						
TXAR				PP	PP	15 18 44.3	+0.5
	comp=E,1.9nm,0.8s,baz=1.9,slow=38,SNR=2.5						
TXAR				PKKPab		15 28 23.4	
	comp=E,4.2nm,1.0s,baz=83,slow=3.5,SNR=7.7						
TXAR				PKKP	PKKP	15 28 39.1	+0.8
	comp=E,16nm,0.9s,baz=90,slow=3.8,SNR=10						
TXAR				SS	SS	15 34 42.2	+8.2
	comp=E,0.9nm,1.0s,baz=104,slow=5.2,SNR=1.8						
TXAR	**Lajitas Array**	**114.69**	**73**	Pdif	Pdif	15 14 18.9	+27
TXAR				PKP	PKPdf	15 17 46.0	+1.8
TXAR				PP	PP	15 18 44.3	+0.5
TXAR				PKKPab		15 28 23.4	
TXAR				PKKP	PKKP	15 28 39.1	+0.8
TXAR				SS	SS	15 34 42.2	+8.2
ROSC	**El Rosal**	**115.25**	**114**	Pdiff	Pdif	15 14 19.2	+24
	comp=E,3.3nm,0.3s,baz=63,slow=22,SNR=2.5						
ROSC				PKP	PKPdf	15 17 45.5	-0.1
	comp=E,3.6nm,0.3s,baz=86,slow=20,SNR=2.1						
ROSC				PKKPab		15 28 22.8	
	comp=E,32nm,1.1s,baz=102,slow=7.5,SNR=5.8						
ROSC				PKKP	PKKP	15 28 37.0	-0.6
	comp=E,43nm,0.8s,baz=116,slow=6.8,SNR=11						
ROSC				SS	SS	15 34 42.8	+1.2
	comp=E,4.9nm,0.4s,baz=277,slow=24,SNR=3.1						
ROSC				SSS	SSS	15 38 48.9	-11
	comp=E,6.0nm,0.3s,baz=99,slow=21,SNR=1.8						
MNTX	**Cornudas Mount**	**115.28**	**70**	*e*Pdif	Pdif	15 14 06.1	+11
MNTX				*e*PKPdf	PKPdf	15 17 42.5	-2.8
VFP	**Flag Point**	**115.83**	**50**	P	PKPdf	15 17 51.1	+5.1
RSO	**Redoubt South**	**115.84**	**23**	*e*PKPdf	PKPdf	15 17 47.1	+1.4
ELK	**Elko**	**115.85**	**57**	PKIKP	PKPdf	15 17 49.3	+3.1
ELK	**Elko**	**115.85**	**57**	*e*PKPdf	PKPdf	15 17 48.2	+2.0
MVU	**Marysvale**	**115.97**	**61**	*e*PKPdf	PKPdf	15 17 44.2	-2.3
MSU	**Marysvale**	**116.00**	**61**	*e*Pdif	Pdif	15 14 27.6	+30
LENM	**Lemitar**	**116.03**	**67**	*e*PKPdf	PKPdf	15 17 44.7	-2.0
LAZ	**Ladron**	**116.09**	**67**	*e*PKPdf	PKPdf	15 17 49.5	+2.7
BNM	**Barren Site**	**116.22**	**68**	⇓*e*PKPdf	PKPdf	15 17 49.9	+2.8
GDL2	**Guadalupe Moun**	**116.25**	**71**	*e*PKPdf	PKPdf	15 17 48.9	+1.7
OCWA	**Octopus Mounta**	**116.25**	**46**	*e*PKPdf	PKPdf	15 17 45.2	-1.5
KSH	**Kashi**	**116.33**	**301**	PKP	PKPdf	15 17 47.5	+0.3
KSH				*e*XPKP		15 17 57.3	
KSH				*e*PP	PP	15 18 57.0	+2.0
KSH				PKS	PKS	15 21 21.6	+1.9
KSH				SKS	SKS	15 24 54.3	+15
KSH				*e*SKKS		15 25 46.8	
KSH				SS	SS	15 34 55.3	+0.2
KSH				PP	PP		
	comp=Z,24µm,5.7s						
KSH				LR	LR		
	comp=N,257µm,20.1s,MS7.9						
KSH				LR	LR		
	comp=E,148µm,17.2s,MS7.9						
LPM	**Los Pinos Moun**	**116.33**	**67**	*e*PKPdf	PKPdf	15 17 48.5	+1.2
SLKM	**Skilak Lake**	**116.54**	**24**	*e*PKIKP	PKPdf	15 17 49.6	+2.6
SLKM	**Skilak Lake**	**116.54**	**24**	*e*PKPdf	PKPdf	15 17 48.7	+1.6
CLNB	**Carlsbad**	**116.59**	**71**	*e*PKPdf	PKPdf	15 17 49.3	+1.4
SPU	**Mount Spurr**	**116.64**	**23**	*e*PKPdf	PKPdf	15 17 40.2	-7.0
ANM	**Nome**	**116.81**	**15**	*e*P	PKPdf	15 17 49.4	+1.9
ANMO	**Albuquerque**	**116.87**	**67**	Pdiff	Pdif	15 14 11.3	+10
	comp=E,0.4nm,0.4s,baz=274,slow=21,SNR=1.7						
ANMO				PKP	PKPdf	15 17 47.9	-0.4
	comp=E,1.8nm,0.7s,baz=192,slow=4.2,SNR=3.5						
ANMO				SS	SS	15 35 08.2	+5.9
	comp=E,1.0nm,0.9s,baz=89,slow=19,SNR=2.2						
ANMO				SSS	SSS	15 39 13.4	-11
	comp=E,0.4nm,0.4s,baz=73,slow=1.8,SNR=3.2						
ANMO	**Albuquerque**	**116.87**	**67**	*i* PKIKP	PKPdf	15 17 47.4	-0.9
ANMO	**Albuquerque**	**116.87**	**67**	Pdif	Pdif	15 14 11.3	+10
ANMO				*e*PKPdf	PKPdf	15 17 50.5	+2.1
NLU	**North Lily Min**	**117.05**	**59**	*e*PKPdf	PKPdf	15 17 46.7	-1.8
TMUT	**Trail Mountain**	**117.08**	**61**	*e*PKPdf	PKPdf	15 17 52.8	+4.2
CPRX	**Cap Rock**	**117.13**	**70**	*e*PKPdf	PKPdf	15 17 50.4	+1.5
BGU	**Big Grassy Mou**	**117.18**	**58**	*e*PKPdf	PKPdf	15 17 49.0	+0.2
PGC	**Sidney**	**117.24**	**46**	*e*PKPdf	PKPdf	15 17 45.5	-3.1
SRU	**San Rafael**	**117.35**	**61**	PKIKP	PKPdf	15 17 52.0	+2.9
SRU	**San Rafael**	**117.35**	**61**	*e*PKPdf	PKPdf	15 17 50.9	+1.8
EBG	**Ellensburg**	**117.39**	**49**	P	PKPdf	15 17 51.6	+2.7
LBOS		**117.44**	**259**	⇓*e*P	PKPdf	15 17 46.1	-3.7
BILL	**Bilibino**	**117.48**	**2**	⇓*i*PKIKP	PKPdf	15 17 48.9	+0.3
BILL				*e*		15 17 53.2	
BILL						15 25 01.3	
BILL				pmax	pmax		
	comp=Z,13nm,1.1s						
BILL	**Bilibino**	**117.48**	**2**	*e*Pdif	Pdif	15 14 12.8	+9.3
BILL				*i* PKP	PKPdf	15 17 48.0	-0.6
BILL				*e*PKPdf	PKPdf	15 17 49.7	+1.0
NOQ	**North Oquirrh**	**117.50**	**59**	*e*PKPdf	PKPdf	15 17 52.1	+2.8
BMO	**Blue Mountains**	**117.60**	**52**	*e*PKPdf	PKPdf	15 17 46.3	-3.1
PV10	**Paradox Valley**	**117.70**	**63**	*e*PKPdf	PKPdf	15 17 41.2	-8.6
PMR	**Palmer**	**117.74**	**24**	*e*P	PKPdf	15 17 50.9	+1.6
PV01	**Paradox Valley**	**117.80**	**63**	*e*PKPdf	PKPdf	15 17 52.5	+2.5
DAU	**Daniels Canyon**	**117.82**	**60**	PKIKP	PKPdf	15 17 53.6	+3.6
DAU	**Daniels Canyon**	**117.82**	**60**	*e*PKPdf	PKPdf	15 17 51.3	+1.4
JCT	**Junction City**	**117.90**	**75**	*e*PKIKP	PKPdf	15 17 51.2	+0.8
HVU	**Hansel Valley**	**117.91**	**58**	PKIKP	PKPdf	15 17 53.5	+3.4
HVU	**Hansel Valley**	**117.91**	**58**	*e*PKPdf	PKPdf	15 17 52.0	+1.9
RPW	**Rockport**	**118.01**	**47**	P	PKPdf	15 17 52.0	+1.8
MKAR	**Makanchi Array**	**118.02**	**310**	*i* PKIKP	PKPdf	15 17 50.3	+0.1
MKAR				pmax	pmax		
	comp=Z,668nm,1.5s						
WRD	**Warden**	**118.02**	**50**	P	PKPdf	15 17 53.3	+3.1
TEIG	**Tepich**	**118.12**	**91**	*e*PKPdf	PKPdf	15 17 51.5	+0.5
TEIG				LR	LR		
	comp=Z,128µm,21.0s,MS7.5						
SML	**Sawmill**	**118.14**	**24**	PKIKP	PKPdf	15 17 52.7	+2.6
SML	**Sawmill**	**118.14**	**24**	*e*PKPdf	PKPdf	15 17 51.5	+1.4
EPH	**Ephrata**	**118.18**	**49**	P	PKPdf	15 17 53.0	+2.5
HLID	**Hailey**	**118.23**	**55**	*e*PKPdf	PKPdf	15 17 52.1	+1.4
HLID				LR	LR		
	comp=Z,263µm,20.0s,MS7.9						
DIV	**Divide**	**118.29**	**26**	*e*PKPdf	PKPdf	15 17 51.6	+1.3
NLW	**Nelson Butte**	**118.32**	**48**	P	PKPdf	15 17 53.0	+2.2
AAA	**Alma-Ata**	**118.37**	**304**	*e*P	Pdif	15 14 10.0	+2.1
AAA				*i*		15 17 52.0	
AAA				pmax	pmax		
	comp=Z,2µm,4.0s						
RW3	**Ridgway**	**118.39**	**63**	PKIKP	PKPdf	15 17 57.7	+6.5
RW3	**Ridgway**	**118.39**	**63**	*e*PKPdf	PKPdf	15 17 56.5	+5.4
HWUT	**Hardware Ranch**	**118.46**	**58**	*e*PKPdf	PKPdf	15 17 48.5	-2.7
SIT	**Sitka**	**118.46**	**34**	PKIKP	PKPdf	15 17 52.5	+1.7
SIT	**Sitka**	**118.46**	**34**	*e*PKPdf	PKPdf	15 17 51.0	+0.2

KZA	**Kyzart**	**118.48**	**302**	P	PKPdf	15 17 55.6	+4.4
	SNR=8.4						
DHBB	**Dhamar BB**	**118.51**	**259**⇓	*e*P	PKPdf	15 17 57.8	+5.9
UCH	**Uchtor**	**118.99**	**302**	P	PKPdf	15 17 54.6	+2.3
	SNR=6.8						
KBK	**Karagaybulak**	**119.03**	**303**	P	PKPdf	15 17 54.5	+2.2
	SNR=7.0						
AAK	**Ala-Archa**	**119.27**	**302**	P	PKPdf	15 17 56.7	+4.0
	SNR=7.6						
AAK	**Ala-Archa**	**119.27**	**302**	*i* PKIKP	PKPdf	15 17 50.8	-1.9
AAK				MLR	MLR		
	comp=Z,348µm,22.0s,MS8.0						
AAK	**Ala-Archa**	**119.27**	**302**	*e*Pdif	Pdif	15 14 16.3	+4.4
AAK				*i* PKP	PKPdf	15 17 50.8	-1.9
AAK				*e*PKPdf	PKPdf	15 17 51.8	-0.9
SDCO	**Great Sand Dun**	**119.33**	**65**	*e*PKPdf	PKPdf	15 17 55.8	+2.8
FRU	**Bishkek**	**119.33**	**303**	*e*PKIKP	PKPdf	15 17 48.0	-4.8
FRU				*i*		15 17 55.0	
FRU				*e*		15 35 40.0	
CHMS	**Chumysh**	**119.37**	**303**	P	PKPdf	15 17 54.0	+1.1
	SNR=14						
AML	**Almayashu**	**119.37**	**301**	P	PKPdf	15 17 50.2	-2.7
	SNR=13						
AHID	**Auburn Hatcher**	**119.49**	**58**	*e*PKPdf	PKPdf	15 17 52.1	-1.0
MCK	**McKinley**	**119.57**	**23**	PKIKP	PKPdf	15 17 49.9	-2.8
MCK	**McKinley**	**119.57**	**23**	*e*PKPdf	PKPdf	15 17 54.0	+1.3
EKS2	**Erkin-Say**	**119.68**	**302**	P	PKPdf	15 17 54.0	+0.5
	SNR=12						
USP	**Ospenovka**	**119.69**	**303**	P	PKPdf	15 17 57.1	+3.6
	SNR=9.2						
AMTX	**Amarillo**	**119.72**	**70**	*e*PKPdf	PKPdf	15 17 55.5	+1.8
AMTX				LR	LR		
	comp=Z,250µm,19.0s,MS7.9						
NEW	**Newport**	**120.02**	**50**	*e*PKPdf	PKPdf	15 17 51.5	-2.4
NEW				LR	LR		
	comp=Z,439µm,21.0s,MS8.1						
REDW	**Red Top Meadow**	**120.02**	**57**	*e*PKPdf	PKPdf	15 17 55.8	+1.7
HKT	**Hockley**	**120.04**	**78**	PKIKP	PKPdf	15 17 59.9	+5.4
HKT	**Hockley**	**120.04**	**78**	*e*PKPdf	PKPdf	15 17 56.5	+2.0
TPAW	**Teton Pass**	**120.05**	**57**	*e*PKP	PKPdf	15 17 52.4	-1.8
SNOW	**Snow King Moun**	**120.14**	**57**	*e*PKPdf	PKPdf	15 17 54.6	+0.3
THY	**Trims Highway**	**120.14**	**24**	*e*PKPdf	PKPdf	15 17 50.9	-2.9
WUWY	**Wally Ulrich**	**120.20**	**57**	*e*PKPdf	PKPdf	15 17 57.1	+2.6
LOHW	**Long Hollow**	**120.32**	**57**	*e*PKPdf	PKPdf	15 17 53.2	-1.5
IMW	**Indian Meadow**	**120.33**	**57**	*e*PKPdf	PKPdf	15 17 53.8	-1.0
MOOW	**Moose Ponds**	**120.33**	**57**	*e*PKPdf	PKPdf	15 17 53.0	-1.7
BW06	**Boulder Array**	**120.34**	**59**	*e*PKPdf	PKPdf	15 17 55.9	+1.1
PDAR	**Pinedale Array**	**120.34**	**59**	Pdiff	Pdif	15 14 44.6	+28
	comp=Z,1.0nm,1.2s,baz=288,slow=4.7,SNR=2.7						
PDAR				PKP	PKPdf	15 17 53.6	-1.2
	comp=Z,1.7nm,1.0s,baz=338,slow=16,SNR=3.3						
PDAR				PP	PP	15 19 32.7	+11
	comp=Z,5.3nm,0.9s,baz=28,slow=44,SNR=2.8						
PDAR				PKKPbc		15 27 56.6	
	comp=Z,3.4nm,1.0s,baz=79,slow=7.6,SNR=3.0						
PDAR				SKKPbc		15 31 50.0	
	comp=Z,6.2nm,1.0s,baz=68,slow=1.1,SNR=2.6						
PDAR				SS	SS	15 35 50.2	+3.1
	comp=Z,2.1nm,1.1s,baz=180,slow=1.5,SNR=3.5						
PDAR				SSS	SSS	15 40 11.5	-4.3
	comp=Z,0.1nm,0.4s,baz=65,slow=42,SNR=1.5						
PDAR	**Pinedale Array**	**120.34**	**59**	Pdif	Pdif	15 14 44.6	+28
PDAR				PKP	PKPdf	15 17 53.6	-1.2
PDAR				PP	PP	15 19 32.7	+11
PDAR				PKKPbc		15 27 56.6	
PDAR				SKKPbc		15 31 50.0	
PDAR				SS	SS	15 35 50.2	+3.1
PDAR				SSS	SSS	15 40 11.5	-4.3
IMA	**Indian Mountai**	**120.42**	**19**	PKIKP	PKPdf	15 17 52.2	-2.2
IMA	**Indian Mountai**	**120.42**	**19**	*e*P	PKPdf	15 17 51.5	-2.9
ISCO	**Idaho Springs**	**120.63**	**63**	PKIKP	PKPdf	15 17 58.6	+3.1
ISCO	**Idaho Springs**	**120.63**	**63**	*e*PKPdf	PKPdf	15 17 58.2	+2.8
SDV	**Santo Domingo**	**120.65**	**115**	PKKPab		15 28 02.5	
	comp=Z,9.6nm,1.0s,baz=129,slow=6.2,SNR=3.4						
SDV				PS	PS	15 29 14.7	+2.6
	comp=Z,11nm,0.9s,baz=297,slow=6.0,SNR=1.3						
SDV				SKKPbc		15 31 41.6	
	comp=Z,20nm,1.2s,baz=294,slow=2.5,SNR=3.5						
SDV				SS	SS	15 35 50.1	-1.7
	comp=Z,4.2nm,0.8s,baz=15,slow=13,SNR=4.4						
SDV	**Santo Domingo**	**120.65**	**115**	*e*PKPdf	PKPdf	15 17 56.7	+0.6
MSO	**Missoula**	**120.67**	**53**	*e*PKPdf	PKPdf	15 17 52.0	-3.4
YFT	**Old Faithful**	**120.75**	**56**	*e*PKP	PKPdf	15 17 52.1	-3.5
COLA	**College**	**120.78**	**23**	*e*PKIKP	PKPdf	15 17 55.0	-0.2
COLA				MLR	MLR		
	comp=Z,370µm,23.0s,MS8.0						
YMR	**Madison River**	**120.82**	**56**	*e*PKP	PKPdf	15 17 54.9	-0.8
ILAR	**Eielson Array**	**120.94**	**23**	Pdiff	Pdif	15 14 37.8	+19
	comp=Z,2.3nm,1.3s,baz=236,slow=5.2,SNR=3.9						
ILAR				PKP	PKPdf	15 17 51.2	-4.3
	comp=Z,24nm,0.9s,baz=285,slow=2.1,SNR=28						
ILAR				PP	PP	15 19 19.9	-5.8
	comp=Z,26nm,0.9s,baz=245,slow=2.6,SNR=2.1						
ILAR				PKKPbc		15 27 53.2	
	comp=Z,5.5nm,0.9s,baz=9.7,slow=2.4,SNR=8.6						
ILAR				SKKPbc		15 31 50.0	
	comp=Z,7.2nm,1.1s,baz=28,slow=3.1,SNR=3.7						
ILAR				SS	SS	15 35 57.1	+2.7
	comp=Z,1.2nm,1.1s,baz=58,slow=1.1,SNR=2.1						
ILAR				SSS	SSS	15 40 17.5	-6.8
	comp=Z,0.5nm,0.9s,baz=1.7,slow=4.6,SNR=2.0						
RWWY	**Rawlins**	**120.95**	**61**	*e*PKP	PKPdf	15 17 54.2	-1.9
YNR	**Norris Junctio**	**121.01**	**56**	*e*PKP	PKPdf	15 17 55.0	-1.1
LKWY	**Lake**	**121.06**	**57**	*e*PKP	PKPdf	15 18 00.3	+4.1
LCCM	**Lewis and Clar**	**121.10**	**55**	P	PKPdf	15 17 59.6	+3.3
BOZ	**Bozeman (W)**	**121.11**	**55**	PKIKP	PKPdf	15 17 54.3	-2.0
BOZ	**Bozeman (W)**	**121.11**	**55**	*e*PKPdf	PKPdf	15 17 53.4	-2.9
WMOK	**Wichita Mounta**	**121.40**	**72**	PKIKP	PKPdf	15 17 54.2	-2.9
WMOK	**Wichita Mounta**	**121.40**	**72**	*e*PKPdf	PKPdf	15 17 53.3	-3.8
WMOK				LR	LR		
	comp=Z,442µm,22.0s,MS8.1						
DLBC	**Dease Lake**	**121.41**	**35**	*e*PKPdf	PKPdf	15 17 53.1	-3.5
FRSS	**Farasan al Kab**	**121.58**	**258**	P	PKPdf	15 18 01.8	+4.0
HRY	**Holter Researc**	**121.69**	**54**	*e*PKP	PKPdf	15 17 54.7	-2.7
PHWY	**Pilot Hill**	**121.70**	**62**	*e*PKPdf	PKPdf	15 17 58.3	+0.8
ZAL	**Zalesovo**	**121.71**	**317**	Pdiff	Pdif	15 14 38.2	+16
	comp=Z,0.5nm,0.3s,baz=333,slow=4.8,SNR=2.7						
ZAL				PKP	PKPdf	15 17 53.9	-3.3
	comp=Z,3.1nm,0.6s,baz=191,slow=2.2,SNR=4.1						
ZAL				PKKPab		15 27 58.0	
	comp=Z,4.7nm,0.8s,baz=147,slow=3.8,SNR=5.1						
NATX	**Nacogdoches**	**122.00**	**77**	*e*PKPdf	PKPdf	15 18 00.5	+2.1
WALA	**Waterton Lakes**	**122.14**	**51**	*e*PKP	PKPdf	15 17 55.0	-3.1
DAWY	**Dawson**	**122.43**	**27**	*e*PKP	PKPdf	15 17 55.0	-3.2
KAMS	**Al Khamasin**	**122.62**	**263**	P	PKPdf	15 18 03.1	+3.4
RCBR	**Riachuelo**	**122.64**	**159**	*e*PKP	PKPdf	15 18 00.9	+1.0
TATS	**Tathlith**	**122.77**	**262**	P	PKPdf	15 18 04.2	+4.3
NVS	**Novosibirsk**	**123.00**	**318**	*e*P	Pdif	15 14 48.2	+20
NVS				*i*		15 17 59.2	
NVS				*i*		15 19 41.2	
NVS				*i*		15 29 28.3	
NVS				pmax	pmax		
	comp=Z,22nm,1.8s						
NVS				pmax	pmax		
	comp=Z,292nm,2.2s						
NVS				pmax	pmax		
	comp=N,140nm,1.7s						
NVS				pmax	pmax		
	comp=E,75nm,1.3s						
NVS				pmax	pmax		
	comp=Z,620nm,2.1s						
NVS				pmax	pmax		
	comp=N,674nm,2.7s						
NVS				pmax	pmax		
	comp=E,225nm,1.9s						
TIXI	**Tiksi**	**123.26**	**348**	PFAKE		15 18 10.0	+10
TIXI				LR	LR		
	comp=Z,22nm,20.0s						
NAMS	**An Nimas**	**123.31**	**260**	P	PKPdf	15 18 03.5	+2.4
CBKS	**Cedar Bluff**	**123.46**	**68**	PKIKP	PKPdf	15 18 03.0	+2.0
RYDS	**Riyadh**	**124.05**	**268**	P	PKPdf	15 18 06.6	+4.1
RSSD	**Black Hills**	**124.30**	**60**	PKIKP	PKPdf	15 18 04.6	+2.1
RSSD	**Black Hills**	**124.30**	**60**	PFAKE		15 18 10.0	+7.5
RSSD				LR	LR		
	comp=Z,3.0nm,22.0s						
MIAR	**Mount Ida**	**124.52**	**76**	PKIKP	PKPdf	15 18 06.8	+3.7
MIAR	**Mount Ida**	**124.52**	**76**	*e*PKPdf	PKPdf	15 18 03.9	+0.8
MIAR				LR	LR		
	comp=Z,200µm,22.0s,MS7.7						
LAO	**LASA Array**	**124.67**	**57**	*e*PKP	PKPdf	15 18 00.5	-2.6
LAO				LR	LR		
	comp=Z,258µm,19.0s,MS7.9						
EDM	**Edmonton**	**125.05**	**47**	PKHKP		15 17 47.3	
EDM	**Edmonton**	**125.05**	**47**	*e*PKPdf	PKPdf	15 17 59.9	-3.7
PCRV	**Puerto La Cruz**	**125.15**	**120**	SKKPbc		15 31 26.6	
	comp=Z,35nm,1.3s,baz=5.6,slow=4.2,SNR=1.6						
PCRV				SS	SS	15 36 51.6	+2.4
	comp=Z,32nm,1.2s,baz=358,slow=6.6,SNR=3.6						
PCRV				SSS	SSS	15 41 12.9	-16
	comp=Z,7.4nm,0.9s,baz=9.0,slow=14,SNR=1.9						
UALR	**University of**	**125.44**	**76**	*e*PKPdf	PKPdf	15 18 05.7	+0.8
KSU1	**Kansas State U**	**125.53**	**69**	*e*PKP	PKPdf	15 18 01.9	-3.0
AFFS	**‘Afif**	**126.22**	**265**	P	PKPdf	15 18 10.2	+3.6
QRN	**Al-Qurain**	**126.35**	**273**	*e*P	PKPdf	15 18 08.9	+2.3
RDF	**Al-Radifah**	**126.71**	**273**	*e*P	PKPdf	15 18 09.5	+2.2
RDF				AMb	AMB	15 18 26.3	
	comp=Z,1µm,1.2s						
DGMT	**Dagmar**	**126.84**	**56**	*e*PKP	PKPdf	15 18 04.1	-2.9
UMR	**Umm Al-Rimmam**	**127.02**	**274**	*e*P	PKPdf	15 18 10.3	+2.4
UMR				AMb	AMB	15 18 27.1	
	comp=Z,478nm,1.2s						
OXF	**Oxford**	**127.13**	**78**	PKIKP	PKPdf	15 18 09.4	+1.4
OXF	**Oxford**	**127.13**	**78**	*e*PKPdf	PKPdf	15 18 08.8	+0.8
INK	**Inuvik**	**127.14**	**25**	Pdiff	Pdif	15 15 13.8	+28
	comp=Z,1.7nm,1.1s,baz=256,slow=17,SNR=1.6						
INK				PKhKP		15 18 00.8	
	comp=Z,23nm,1.1s,baz=167,slow=5.1,SNR=13						
INK				PP	PP	15 20 01.4	-5.4
	comp=Z,28nm,1.1s,baz=260,slow=3.3,SNR=1.5						
INK				PKS	PKS	15 21 41.2	+1.6
	comp=Z,25nm,1.1s,baz=62,slow=33,SNR=2.7						
INK				SKKPbc		15 31 21.8	
	comp=Z,23nm,1.1s,baz=293,slow=4.2,SNR=2.7						
INK				SS	SS	15 37 20.4	+7.8
	comp=Z,3.5nm,1.2s,baz=156,slow=25,SNR=2.0						
INK	**Inuvik**	**127.14**	**25**	PKIKP	PKPdf	15 18 02.0	-5.1
INK	**Inuvik**	**127.14**	**25**	Pdif	Pdif	15 15 13.8	+28
INK				*e*PKP	PKPdf	15 18 00.6	-6.5
MET	**Memphis--Engin**	**127.19**	**77**	*e*PKP	PKPdf	15 18 11.5	+3.4
RST	**Umm Al-Ruwaisa**	**127.45**	**273**	*e*P	PKPdf	15 18 10.7	+1.9
RST				AMb	AMB	15 18 27.6	
	comp=Z,551nm,1.2s						
LRAL	**Lakeview Retre**	**127.73**	**81**	*e*PKP	PKPdf	15 18 08.0	-1.3
LRAL				LR	LR		
	comp=Z,121µm,21.0s,MS7.6						
BVAR	**Borovoye Array**	**127.90**	**310**	Pdiff	Pdif	15 15 15.9	+26
	comp=Z,0.4nm,0.4s,baz=90,slow=1.5,SNR=5.6						
BVAR				PKKP	PKKP	15 28 16.9	+3.7
	comp=Z,5.7nm,1.0s,baz=145,slow=19,SNR=2.2						
BVAR				SKKPbc		15 31 17.3	
	comp=Z,4.6nm,0.9s,baz=90,slow=3.0,SNR=2.6						
BVAR				SS	SS	15 37 28.3	+6.2
	comp=Z,1.5nm,1.0s,baz=288,slow=4.7,SNR=3.0						
BVAR				SSS	SSS	15 41 59.7	-8.2
	comp=Z,0.1nm,0.3s,baz=128,slow=17,SNR=2.0						
BRVK	**Borovoye**	**127.97**	**310**	PKIKP	PKPdf	15 18 05.6	-3.6
BRVK	**Borovoye**	**127.97**	**310**	*i* PKP	PKPdf	15 18 08.1	-1.1
CHKZ	**Chkalovo**	**128.16**	**311**	*e*PKP	PKPdf	15 18 03.6	-6.0
CCM	**Cathedral Cave**	**128.19**	**74**	*e*PKPdf	PKPdf	15 18 10.9	+0.9
UTMT	**University of**	**128.63**	**77**	*e*PKPdf	PKPdf	15 18 12.4	+1.4
FVM	**French Village**	**128.66**	**74**	*e*PKIKP	PKPdf	15 18 07.5	-3.5
FVM	**French Village**	**128.66**	**74**	*e*PKP	PKPdf	15 18 06.8	-4.2
WVT	**Waverly**	**129.15**	**78**	PKIKP	PKPdf	15 18 07.0	-4.9
WVT	**Waverly**	**129.15**	**78**	*e*PKP	PKPdf	15 18 07.4	-4.6
WVT				LR	LR		
	comp=Z,166µm,20.0s,MS7.7						
SLM	**Saint Louis**	**129.17**	**74**	PKIKP	PKPdf	15 18 15.7	+3.8
SLM	**Saint Louis**	**129.17**	**74**	*e*PKPdf	PKPdf	15 18 13.0	+1.1
SWET	**Sewanee**	**129.79**	**80**	*e*PKP	PKPdf	15 18 08.4	-4.8
YKA	**Yellowknife Ar**	**129.88**	**37**	Pdiff	Pdif	15 15 31.0	+33
	comp=Z,0.6nm,1.0s,baz=254,slow=5.1,SNR=3.7						
YKA				PKP	PKPdf	15 18 07.9	-4.6
	comp=Z,4.4nm,1.0s,baz=218,slow=2.1,SNR=9.8						
YKA				PP	PP	15 20 29.8	+4.6
	comp=Z,14nm,1.1s,baz=234,slow=4.2,SNR=3.9						
YKA				PKS	PKS	15 21 44.0	-0.7
	comp=Z,5.8nm,1.0s,baz=240,slow=5.7,SNR=2.4						
YKA				SKKPbc		15 31 10.7	
	comp=Z,6.2nm,1.0s,baz=273,slow=38,SNR=3.7						
YKA				SS	SS	15 37 54.6	+8.0
	comp=Z,0.4nm,0.8s,baz=234,slow=43,SNR=2.7						
YKA	**Yellowknife Ar**	**129.88**	**37**	PKP	PKPdf	15 18 08.0	-4.6
YKA				PP	PP	15 20 29.8	+4.6
YKA				PKS	PKS	15 21 44.0	-0.7
YKA				SKKPbc		15 31 10.7	
YKA				SS	SS	15 37 54.6	+8.0
YKW3	**Yellowknife Ar**	**129.91**	**37**	*e*PKP	PKPdf	15 18 08.0	-4.7
GOGA	**Godfrey**	**130.24**	**83**	PKIKP	PKPdf	15 18 15.5	+1.4
GOGA	**Godfrey**	**130.24**	**83**	*e*PKPdf	PKPdf	15 18 15.1	+1.0
USIN	**University of**	**130.38**	**76**	*e*PKP	PKPdf	15 18 10.8	-3.4
SJG	**San Juan**	**130.57**	**112**	SKKPbc		15 31 00.3	
	comp=Z,6.0nm,0.3s,baz=305,slow=18,SNR=2.2						
SJG				SS	SS	15 38 05.4	+9.3
	comp=Z,20nm,0.2s,baz=315,slow=20,SNR=1.5						
SJG				SSS	SSS	15 42 22.4	-25
	comp=Z,8.9nm,0.3s,baz=341,slow=20,SNR=2.1						
SJG	**San Juan**	**130.57**	**112**	PKIKP	PKPdf	15 18 16.3	+1.2
SJG	**San Juan**	**130.57**	**112**	*e*PKPdf	PKPdf	15 18 15.5	+0.4
UMJS	**Umm Lajj**	**130.81**	**261**	P	PKPdf	15 18 18.1	+2.8
CPCT	**Cooper Cave**	**130.84**	**81**	*e*PKPpre		15 18 11.2	
MYNC	**Murphy**	**130.86**	**81**	PFAKE		15 18 30.0	+15
MYNC				LR	LR		
	comp=Z,230µm,21.0s,MS7.8						
JFWS	**Jewell Farm**	**131.67**	**69**	PKIKP	PKPdf	15 18 17.3	+0.8
JFWS	**Jewell Farm**	**131.67**	**69**	*e*PKPdf	PKPdf	15 18 17.2	+0.6
BLO	**Bloomington**	**131.82**	**75**	PKIKP	PKPdf	15 18 18.5	+1.6
BLO	**Bloomington**	**131.82**	**75**	*e*PKPpre		15 18 12.1	
BLO				*e*PKPdf	PKPdf	15 18 18.4	+1.5
HBF	**Harts Bluff**	**131.93**	**86**	PKIKP	PKPdf	15 18 23.0	+5.7
HBF	**Harts Bluff**	**131.93**	**86**	*e*PKPpre		15 18 13.0	
NVRH	**Round Hill, Ne**	**131.94**	**116**	*e*P	PKPdf	15 18 20.1	+2.4
SKI	**Saint Kitts**	**131.98**	**116**	*e*P	PKPdf	15 18 19.6	+1.8
COW	**Cow Castle Cre**	**132.01**	**85**	*e*PKPdf	PKPdf	15 18 19.1	+1.6
NHSC	**New Hope**	**132.17**	**86**	*e*PKP	PKPdf	15 18 19.9	+2.1
JSC	**Jenkinsville**	**132.21**	**84**	PKIKP	PKPdf	15 18 15.3	-2.5
JSC	**Jenkinsville**	**132.21**	**84**	*e*PKPpre		15 18 14.2	
BPA	**Boggy Peak**	**132.27**	**117**	*e*P	PKPdf	15 18 19.0	+0.6
STMA	**St. Maarten, A**	**132.32**	**115**	*e*P	PKPdf	15 18 26.6	+8.2
ULM	**Lac du Bonnet**	**132.36**	**58**	PKP	PKPdf	15 18 15.7	-1.9
	comp=Z,7.9nm,0.7s,baz=293,slow=4.5,SNR=4.7						
ULM				PP	PP	15 20 42.8	+1.3
	comp=Z,16nm,1.0s,baz=220,slow=12,SNR=1.6						
ULM				SS	SS	15 38 27.1	+10
	comp=Z,1.8nm,0.9s,baz=1.6,slow=7.0,SNR=2.7						
ULM				SSS	SSS	15 42 59.4	-13
	comp=Z,1.1nm,0.8s,baz=37,slow=15,SNR=2.1						
ULM	**Lac du Bonnet**	**132.36**	**58**	*e*PKPpre		15 18 15.6	
TBKS	**Tabuk**	**133.37**	**264**	P	PKPdf	15 18 22.7	+2.6
EYMN	**Ely**	**133.64**	**63**	PFAKE		15 18 30.0	+10
EYMN				LR	LR		
	comp=Z,247µm,19.0s,MS7.9						
AYUS	**‘Aynunah**	**134.17**	**263**	P	PKPdf	15 18 23.6	+2.1
PWV	**Princeton**	**134.21**	**81**	*e*PKPpre		15 18 15.9	
PWV				*e*PKPdf	PKPdf	15 18 23.3	+1.9
ELN	**Prospectdale**	**134.34**	**81**	*e*PKPdf	PKPdf	15 18 23.8	+2.2
FWV	**Forest Hill**	**134.51**	**81**	*e*PKPpre		15 18 16.9	
BLA	**Blacksburg**	**134.54**	**81**	PKIKP	PKPdf	15 18 24.5	+2.5
BLA	**Blacksburg**	**134.54**	**81**	*e*PKPdf	PKPdf	15 18 23.5	+1.5
ACSO	**Alum Creek Sta**	**134.66**	**76**	*e*PKPpre		15 18 18.9	
SVE	**Sverdlovsk**	**134.68**	**311**	*e*PKIKP	PKPdf	15 18 26.0	+4.3
SVE				pmax	pmax		
	comp=E,3µm,8.0s						
SVE				pmax	pmax		
	comp=Z,6µm,8.0s						
HAQS	**Haql**	**134.97**	**263**	P	PKPdf	15 18 26.2	+3.1
ALWS	**Ilw as Safayha**	**135.06**	**264**	P	PKPdf	15 18 27.1	+3.9
MAK	**Makhachkala**	**135.31**	**288**	*e*P	Pdif	15 15 33.0	+11
AQBJ	**Aqaba**	**135.34**	**264**	P	PKPdf	15 18 19.9	-3.9
EIL	**Elat**	**135.37**	**264**	PKP	PKPdf	15 18 22.0	-1.8
	comp=Z,46nm,1.1s,baz=251,slow=4.2,SNR=4.2						
EIL				PP	PP	15 20 57.6	-3.5
	comp=Z,26nm,1.0s,baz=52,slow=23,SNR=2.1						
EIL				SS	SS	15 38 58.7	+4.4
	comp=Z,2.3nm,0.9s,baz=340,slow=33,SNR=2.2						
EIL	**Elat**	**135.37**	**264**	P	PKPdf	15 18 20.1	-3.7
EIL	**Elat**	**135.37**	**264**	*e*PKPdf	PKPdf	15 18 19.5	-4.3
AAM	**Ann Arbor**	**135.38**	**74**	PKIKP	PKPdf	15 18 28.1	+4.6
AAM	**Ann Arbor**	**135.38**	**74**	*e*PKP	PKPdf	15 18 22.9	-0.5
TVAN	**Van**	**135.42**	**280**	*i* P	PKPdf	15 18 27.7	+4.0
VANB	**Van**	**135.47**	**280**	P	PKPdf	15 18 22.5	-1.3
MBH	**Mount Berech**	**135.47**	**264**	P	PKPdf	15 18 20.2	-3.8
GNI	**Garni**	**135.49**	**283**	P	PKPdf	15 18 20.4	-3.4
GNI	**Garni**	**135.49**	**283**	PKP	PKPdf	15 18 19.8	-4.0
	comp=Z,7.1nm,0.8s,baz=184,slow=18,SNR=3.4						
GNI				PP	PP	15 20 56.2	-5.3
	comp=Z,25nm,0.9s,baz=48,slow=18,SNR=1.5						
GNI				SS	SS	15 38 59.8	+4.4
	comp=Z,1.9nm,0.4s,baz=235,slow=21,SNR=2.3						
GNI	**Garni**	**135.49**	**283**	PKIKP	PKPdf	15 18 19.8	-3.9
GNI						15 20 56.2	
GNI				pmax	pmax		
	comp=Z,7.0nm,0.8s						
GNI				pmax	pmax		
	comp=Z,25nm,0.9s						
GNI	**Garni**	**135.49**	**283**	*e*PKPdf	PKPdf	15 18 25.0	+1.3
ARU	**Arti**	**135.53**	**309**⇓	*i*PKIKP	PKPdf	15 18 25.9	+2.6
ARU				*i*		15 21 04.6	
ARU				pmax	pmax		
	comp=Z,176nm,1.1s						
ARU	**Arti**	**135.53**	**309**	*e*PKPpre		15 18 11.8	
ARU				LR	LR		
	comp=Z,67µm,21.0s,MS7.3						
DBIC	**Dimbokro**	**135.61**	**199**	PKhKP		15 18 10.3	
	comp=Z,12nm,0.8s,baz=142,slow=5.2,SNR=11						
DBIC				PP	PP	15 21 00.9	-2.1
	comp=Z,52nm,1.2s,baz=155,slow=1.7,SNR=2.4						
DBIC				PKS	PKS	15 22 03.2	+6.5
	comp=Z,17nm,1.1s,baz=343,slow=20,SNR=2.0						
DBIC				SS	SS	15 39 03.5	+6.0
	comp=Z,3.0nm,1.1s,baz=345,slow=19,SNR=1.9						
DBIC	**Dimbokro**	**135.61**	**199**	*e*PKPpre		15 18 11.0	
ASF	**Jabal al Asfar**	**135.75**	**268**	PKP	PKPdf	15 18 19.6	-4.9
	comp=Z,3.2nm,0.8s,baz=314,slow=5.3,SNR=3.0						
ASF				PP	PP	15 21 06.6	+3.3
	comp=Z,5.7nm,0.6s,baz=269,slow=4.1,SNR=3.1						
ASF				SS	SS	15 39 02.0	+3.2
	comp=Z,1.5nm,0.3s,baz=78,slow=7.0,SNR=2.8						
PRNI	**Paran**	**135.79**	**265**	P	PKPdf	15 18 20.9	-3.6
KMTI	**Karmit**	**135.81**	**264**	P	PKPdf	15 18 20.7	-3.9
ZFRI	**Zfri**	**135.81**	**265**	P	PKPdf	15 18 20.9	-3.7
MKRJ	**Makawir**	**136.16**	**266**	P	PKPdf	15 18 22.1	-3.0
MZDA	**Masada**	**136.19**	**266**	P	PKPdf	15 18 21.7	-3.5
MCWV	**Mont Chateau**	**136.32**	**79**	*e*PKPdf	PKPdf	15 18 25.7	+0.6
DRGI	**Dragot**	**136.35**	**266**	P	PKPdf	15 18 22.0	-3.5
TI2	**Plekhanov**	**136.36**	**285**	*e*PKIKP	PKPdf	15 18 27.4	+2.2
TI2				*e*		15 18 27.8	
BEST	**Besiri**	**136.42**	**278**	*i* P	PKPdf	15 18 25.7	+0.3
BTMT	**Batman**	**136.45**	**278**	P	PKPdf	15 18 29.9	+4.5
HMDT	**Nahal Hemdat**	**136.69**	**267**	P	PKPdf	15 18 23.1	-2.9
MMLI	**Mount Malkishu**	**136.88**	**267**	P	PKPdf	15 18 23.8	-2.6
VRT	**Varto**	**136.96**	**279**	P	PKPdf	15 18 27.8	+1.5
KSHT	**Keshet**	**136.97**	**268**	P	PKPdf	15 18 23.9	-2.6
SLTI	**Sal’it**	**137.00**	**267**	P	PKPdf	15 18 23.8	-2.8
CBN	**Corbin**	**137.08**	**82**	*e*PKPdf	PKPdf	15 18 28.3	+1.8
FCC	**Fort Churchill**	**137.13**	**48**	PKHKP		15 18 16.7	
FCC	**Fort Churchill**	**137.13**	**48**	*e*PKPpre		15 18 16.0	
ALLY	**Alegheny Colle**	**137.23**	**76**	*e*PKPdf	PKPdf	15 18 26.5	-0.3
OFRI	**‘Ofer**	**137.28**	**267**	P	PKPdf	15 18 23.8	-3.3
HNTI	**Hanita**	**137.45**	**268**	P	PKPdf	15 18 27.4	-0.1
ZEI	**Tsey**	**137.45**	**285**	*i* PKHKP		15 18 18.0	
ZEI				*e*		15 24 07.0	
ZEI				*e*		15 25 33.0	
ZEI				*i*		15 31 30.0	
ZEI				pmax	pmax		
	comp=N,2µm,9.0s						
ZEI				pmax	pmax		
	comp=E,1µm,9.0s						
ZEI				pmax	pmax		
	comp=Z,4µm,9.0s						
BINT	**Bingol**	**137.48**	**278**	P	PKPdf	15 18 31.1	+3.7
ERZM	**Erzurum**	**137.50**	**280**	*i* P	PKPdf	15 18 28.9	+1.5
EZM	**Erzurum**	**137.50**	**280**	P	PKPdf	15 18 25.3	-2.1
ERPA	**Erie**	**137.58**	**76**	*e*PKPpre		15 18 23.9	
URFA	**Urfa**	**137.73**	**276**	P	PKPdf	15 18 26.1	-1.8
SDMD	**Soldier’s Deli**	**138.10**	**81**	*e*PKPpre		15 18 18.8	
SSPA	**Standing Stone**	**138.11**	**79**	*e*PKPpre		15 18 21.1	
BCA	**Borcka**	**138.18**	**282**	P	PKPdf	15 18 28.8	+0.2
PTK	**Pertek**	**138.20**	**278**	P	PKPdf	15 18 24.8	-3.9
ELZG	**Elazig**	**138.24**	**277**	*i* P	PKPdf	15 18 24.0	-4.9
MALT	**Malatya**	**138.49**	**276**	*e*PKPpre		15 18 22.0	
MALT				*e*PKPdf	PKPdf	15 18 32.4	+3.1
GZT	**Gaziantep**	**138.50**	**275**	*i* P	PKPdf	15 18 32.6	+3.3
MYA	**Malataya**	**138.50**	**276**	P	PKPdf	15 18 31.4	+2.1
GAZ	**Gaziantep**	**138.62**	**274**	P	PKPdf	15 18 29.1	-0.4
HTY	**Hatay**	**138.69**	**272**	P	PKPdf	15 18 32.3	+2.6
MVL	**Millersville**	**138.75**	**81**	*e*PKPpre		15 18 25.3	
KIV	**Kislovodsk**	**138.82**	**286**	*i* PKIKP	PKPdf	15 18 28.5	-1.2
KIV				MLR	MLR		
	comp=Z,92µm,17.0s,MS7.6						
COBT	**Iskenderun**	**138.85**	**273**	*i* P	PKPdf	15 18 33.8	+3.8
GUMT	**Gumushane**	**139.01**	**280**	P	PKPdf	15 18 29.3	-0.9
KAHT	**Ahir Dag**	**139.10**	**274**	*i* P	PKPdf	15 18 32.1	+1.7
GOF	**Gofitskoye**	**139.15**	**288**⇑	*i*PKHKP		15 18 24.0	
GOF				pmax	pmax		
	comp=Z,300nm,1.6s						
GOF				pmax	pmax		
	comp=Z,10µm,14.0s						
GENY	**Geneseo**	**139.29**	**76**	*e*PKPdf	PKPdf	15 18 33.3	+2.7
PHNC	**Paralimni**	**139.38**	**269**	P	PKPdf	15 18 31.2	+0.2
SADO	**Sadowa**	**139.47**	**73**	SS	SS	15 39 41.9	0.0
	comp=Z,28nm,1.3s,baz=7.1,slow=2.3,SNR=2.3						
CEYT	**Ceyhan**	**139.47**	**273**	P	PKPdf	15 18 33.4	+2.3
CSS	**Prodhromos**	**139.81**	**269**	P	PKPdf	15 18 35.3	+3.5
	comp=Z,2.2nm,1.1s						
CSS	**Prodhromos**	**139.81**	**269**	*e*PKPdf	PKPdf	15 18 29.5	-2.2
SZAC	**Souni-Zanaja**	**139.98**	**268**	P	PKPdf	15 18 33.7	+1.6
BINY	**Binghamton**	**140.15**	**78**	*e*PKPdf	PKPdf	15 18 32.6	+0.5
LEF	**Lefka**	**140.20**	**268**	P	PKPdf	15 18 30.7	-1.7
SVST	**Sivas**	**140.26**	**277**	*i* P	PKPdf	15 18 36.8	+4.3
MEST	**Erdemli**	**140.26**	**271**	*i* P	PKPdf	15 18 29.5	-3.1
IKL	**Isikli**	**140.35**	**270**	P	PKPdf	15 18 32.1	-0.6
PPCY	**Paphos**	**140.41**	**268**	P	PKPdf	15 18 34.0	+1.2
ALFC	**Alevga**	**140.41**	**268**	P	PKPdf	15 18 34.2	+1.4
	comp=Z,2.8nm,1.0s						
BNN	**Bunyan**	**140.46**	**275**	P	PKPdf	15 18 33.9	+1.1
SOC	**Sochi**	**140.49**	**284**	*i* PKIKP	PKPdf	15 18 31.7	-1.0
SOC				*i*		15 25 46.7	
SOC				*i* SSS	SSS	15 44 51.7	-18
SOC				pmax	pmax		
	comp=Z,271nm,1.1s						
SOC				pmax	pmax		
	comp=N,118nm,1.4s						
SOC				pmax	pmax		
	comp=E,102nm,1.3s						
AKMC	**Akamas**	**140.50**	**268**	P	PKPdf	15 18 34.9	+1.9
RES	**Resolute Bay**	**140.68**	**24**	PKHKP		15 18 20.6	
RES	**Resolute Bay**	**140.68**	**24**	*e*PKPpre		15 18 20.2	
CPNY	**Central Park**	**140.71**	**81**	*e*PKPdf	PKPdf	15 18 33.9	+0.7
NIG	**Nigde**	**140.84**	**273**	P	PKPdf	15 18 29.6	-3.8
PAL	**Palisades**	**140.85**	**81**	*e*PKIKP	PKPdf	15 18 36.6	+3.2
AVNT	**Avonos**	**141.06**	**275**	*i* P	PKPdf	15 18 34.1	+0.3
YOZ	**Yozgat**	**141.24**	**276**	P	PKPdf	15 18 31.9	-2.2
HDMB	**Hadim**	**141.56**	**270**	P	PKPdf	15 18 26.7	-8.1
BBSR	**BB Station**	**141.72**	**99**	*e*PKPdf	PKPdf	15 18 34.8	-0.4
PTN	**Potsdam (NY)**	**141.97**	**75**	*e*PKHKP	PKPdf	15 18 34.8	-0.4
CORM	**Corum**	**141.98**	**276**	P	PKPdf	15 18 30.5	-4.9
CTKT	**Corum**	**142.11**	**277**	*i* P	PKPdf	15 18 34.2	-1.3
KAMT	**Kaman**	**142.13**	**275**	P	PKPdf	15 18 30.2	-5.4
NCB	**Newcomb**	**142.16**	**77**	*e*PKPdf	PKPdf	15 18 35.8	+0.3
NCB				LR	LR		
	comp=Z,230µm,22.0s,MS7.9						
ACCN	**Adirondack Com**	**142.22**	**78**	*e*PKPdf	PKPdf	15 18 35.4	-0.2
BRTR	**Keskin Array B**	**142.37**	**275**	PKhKP		15 18 27.5	
	comp=Z,6.1nm,0.9s,baz=146,slow=4.5,SNR=16						
BRTR				PKP	PKPdf	15 18 33.0	-3.0
	comp=Z,50nm,1.1s,baz=146,slow=4.5,SNR=36						
BRTR				PP	PP	15 21 43.3	-0.5
	comp=Z,19nm,1.0s,baz=153,slow=2.8,SNR=1.9						
BRTR	**Keskin Array B**	**142.37**	**275**	PKHKP		15 18 27.5	
BRTR						15 18 33.0	
BRTR						15 21 43.3	
BRTR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,51nm,1.1s						
BRTR				pmax	pmax		
	comp=Z,19nm,1.0s						
BOYT	**Boyabat**	**142.46**	**278**	*i* P	PKPdf	15 18 33.6	-2.5
ANN	**Anapa**	**142.52**	**284***c*	*i*PKIKP	PKPdf	15 18 32.7	-3.4
ANN				*i*		15 21 49.4	
ANN				*i* SSS	SSS	15 45 23.2	-16
ANN				pmax	pmax		
	comp=Z,581nm,2.1s						
ANN				pmax	pmax		
	comp=N,168nm,2.2s						
ANN				pmax	pmax		
	comp=E,99nm,2.2s						
ANN				pmax	pmax		
	comp=N,2µm,7.9s						
ANN				pmax	pmax		
	comp=E,1µm,7.9s						

ANN				pmax	pmax		
	comp=Z,6µm,7.9s						
BYBT	Boyabat	142.57	278	P	PKPdf	15 18 33.0	-3.3
MIV	Mineville/With	142.65	77	ePKPdf	PKPdf	15 18 36.8	+0.5
ANTB	Antalya	142.71	269	P	PKPdf	15 18 37.8	+1.1
TOS	Tosya	142.82	277	P	PKPdf	15 18 35.2	-1.5
MDV	Middlebury	142.83	77	ePKPdf	PKPdf	15 18 35.2	-1.5
BRYW	Bryant College	142.85	81	ePKPdf	PKPdf	15 18 38.1	+1.3
CANT	Cankiri	142.86	276	P	PKPdf	15 18 34.0	-2.8
ELDT	Eldivan	142.92	276	i P	PKPdf	15 18 34.7	-2.3
FRNY	Flat Rock	142.97	76	ePKPpre		15 18 34.5	
FRNY				ePKPdf	PKPdf	15 18 36.9	+0.1
PECR	Pechory	143.00	305	ePKIKP	PKPdf	15 18 37.0	+0.5
ANTO	Ankara	143.00	275	P	PKPdf	15 18 34.6	-2.5
LOD	Lodumlu	143.03	275	P	PKPbc	15 18 36.0	+3.9
KIZT	Kizilcal	143.05	273	P	PKPbc	15 18 32.3	+0.2
BCK	Bucak	143.08	270	P	PKPbc	15 18 38.3	+6.0
ELL	Elmali	143.11	268	P	PKPbc	15 18 34.6	+2.2
HRV	Harvard--Oak R	143.13	80	ePKIKP	PKPdf	15 18 39.1	+1.9
WES	Weston	143.22	81	ePKIKP	PKPdf	15 18 39.5	+2.1
HNH	Hanover	143.26	78	ePKPpre		15 18 31.7	
HNH				ePKPdf	PKPdf	15 18 39.5	+2.2
ISP	Isparta	143.35	270	P	PKPbc	15 18 30.6	-2.5
ISP	Isparta	143.35	270	ePKIKP	PKPdf	15 18 36.5	-1.2
ISP	Isparta	143.35	270	P	PKPbc	15 18 30.6	-2.5
ISP				ePKPdf	PKPdf	15 18 36.5	-1.2
BALT	Daday	143.49	277	i P	PKPbc	15 18 36.1	+2.7
FFD	Franklin Falls	143.55	79	ePKPpre		15 18 31.0	
FETY	Fethiye	143.58	267	P	PKPbc	15 18 34.2	+0.4
SAFT	Safranbolu	143.79	276	P	PKPbc	15 18 35.9	+1.6
DALT	Dalyan (Mudla)	143.94	267	P	PKPbc	15 18 36.6	+1.7
ARG	Arkhangelos	143.95	266	eP	PKPbc	15 18 38.8	+3.9
ARG	Arkhangelos	143.95	266	P	PKPbc	15 18 41.0	+6.1
ESKT	Eskisehir	144.07	273	P	PKPbc	15 18 33.4	-1.8
ESKT	Eskisehir	144.07	273	i P	PKPbc	15 18 34.8	-0.4
KAP	Karpathos	144.16	264	eP	PKPbc	15 18 35.3	-0.3
DNZL	Cakiroluk	144.21	269	i P	PKPbc	15 18 36.9	+1.2
DENT	Denizli	144.26	269	P	PKPbc	15 18 36.4	+0.6
KHL	Karahalli	144.26	270	P	PKPbc	15 18 37.9	+2.2
ALT	Altintas	144.29	271	P	PKPbc	15 18 34.2	-1.6
MDU	Mudurnu	144.34	274	P	PKPbc	15 18 32.2	-3.7
SIM	Simferopol’	144.68	283c	iPKIKP	PKPdf	15 18 39.0	-0.8
SIM				i		15 18 44.0	
SIM				eSS	SS	15 40 37.0	-5.6
HENT	Hendek	144.73	275	i P	PKPbc	15 18 35.4	-1.6
MLSB	Milas	144.81	267	P	PKPbc	15 18 38.1	+0.8
BDRM	Kayabasi	144.89	267	i P	PKPbc	15 18 44.6	+7.1
AYDN	Tasoluk	144.96	268	i P	PKPbc	15 18 37.3	-0.4
MANT	Manisa	144.99	270	i P	PKPbc	15 18 37.0	-0.8
NPS	Neapolis	144.99	263	eP	PKPbc	15 18 36.5	-1.4
WVL	Waterville	145.33	78	ePKPpre		15 18 38.2	
WVL				ePKPdf	PKPdf	15 18 43.3	+2.3
IDI	Anoyia	145.47	262	PKPbc	PKPbc	15 18 37.4	-1.7
	comp=Z,149nm,0.8s,baz=112,slow=3.8,SNR=76						
IDI				SS	SS	15 40 53.8	+2.1
	comp=Z,5.5nm,1.0s,baz=82,slow=21,SNR=1.8						
ULDT	Uludag	145.51	272	i P	PKPbc	15 18 39.0	-0.1
HRT	Hereke	145.53	274	P	PKPbc	15 18 37.3	-1.7
DST	Dursunbey	145.56	271	P	PKPbc	15 18 42.4	+3.3
YLV	Yalova	145.59	273	P	PKPbc	15 18 41.5	+2.4
ORLT	Orhaneli	145.62	272	P	PKPbc	15 18 34.8	-4.5
SMG	Samos	145.66	267	eP	PKPbc	15 18 38.6	-0.9
GVD	Gavdhos	145.71	261	ePKPdf	PKPdf	15 18 38.0	-3.9
SANT	Santorini	145.76	264	ePKPdf	PKPdf	15 18 37.8	-4.2
IZM	Izmir	145.77	268	P	PKPbc	15 18 38.8	-0.9
KDAG	Bornova	145.78	268	i P	PKPbc	15 18 39.5	-0.2
VAM	Vamos	145.99	261	eP	PKPbc	15 18 40.4	0.0
BTOK	Tokmak	146.03	271	i P	PKPbc	15 18 40.4	0.0
ISK	Istanbul-Kandi	146.05	274	P	PKPbc	15 18 43.3	+3.0
BALB	Balikesir	146.06	271	P	PKPbc	15 18 45.6	+5.2
APE	Apeiranthos	146.13	265	P	PKPbc	15 18 43.0	+2.4
APE	Apeiranthos	146.13	265	eP	PKPbc	15 18 39.6	-1.1
MOS	Moscow	146.34	302α	iPKIKP	PKPdf	15 18 45.1	+2.8
MOS				e		15 25 52.3	
MOS				pmax	pmax		
	comp=Z,1µm,2.0s						
MOS				pmax	pmax		
	comp=Z,14µm,4.0s						
MOS				MLR	MLR		
	comp=E,328µm,24.0s						
MOS				MLR	MLR		
	comp=Z,350µm,24.0s,MS8.1						
BNT	Bandirma	146.42	272	P	PKPbc	15 18 42.6	+1.4
EDC	Edincik	146.45	272	P	PKPbc	15 18 45.2	+3.9
AYVA	Ayvalik	146.65	269	i P	PKPbc	15 18 41.9	+0.2
OBN	Obninsk	146.78	301	ePKPdf	PKPdf	15 18 41.8	-1.3
EMMW	East Machias	146.80	80	ePKPdf	PKPdf	15 18 43.1	-0.3
EMMW				ePKPbc	PKPbc	15 18 47.7	+5.8
PRK	Paraskevi	146.89	269	eP	PKPbc	15 18 48.7	+6.4
SART	Tekirdag	147.07	272	i P	PKPdf	15 18 42.8	-1.3
PQI	Presque Isle	147.28	76	ePKPdf	PKPdf	15 18 44.0	-0.2
PQI				ePKPbc	PKPdf	15 18 48.4	+4.2
BOZC	Bozcaada	147.35	270	i P	PKPdf	15 18 43.4	-1.2
VLI	Veliai	147.60	262	eP	PKPdf	15 18 45.2	+0.2
ATH	Athens Observa	147.83	265	eP	PKPdf	15 18 48.1	+2.7
ALN	Alexandroupoli	147.91	271	eP	PKPdf	15 18 45.0	-0.4
EDRB	Edirne	147.94	273	P	PKPdf	15 18 45.1	-0.3
LIA	Limnos Island	147.95	269	eP	PKPdf	15 18 50.0	+4.5
LOS	Limnos	148.03	269	eP	PKPdf	15 18 50.1	+4.5
PRD	Provadia	148.17	276	eP	PKPdf	15 18 45.0	-0.7
JMB	Yambol	148.35	274	eP	PKPdf	15 18 45.0	-1.1
RDO	Rodhopi	148.37	271	eP	PKPdf	15 18 46.0	-0.1
RDO	Rodhopi	148.37	271	P	PKPdf	15 18 45.7	-0.4
LVZ	Lovozero	148.39	325	i PKP2	PKPab	15 18 52.1	+0.9
LVZ				i SS	SS	15 41 26.4	+2.6
LVZ				pmax	pmax		
	comp=Z,1µm,1.2s						
LVZ				pmax	pmax		
	comp=N,272nm,1.6s						
LVZ				pmax	pmax		
	comp=E,421nm,1.6s						
LVZ	Lovozero	148.39	325	i PKP	PKPdf	15 18 49.2	+3.9
AOS	Alonnisos	148.40	267	eP	PKPdf	15 18 48.8	+2.6
HARR	Harsova	148.51	279⇑	iP	PKPdf	15 18 51.6	+5.4
HARR	Harsova	148.51	279⇑	iP	PKPdf	15 18 52.5	+6.3
ITM	Ithomi	148.52	262	eP	PKPdf	15 18 46.5	0.0
ITM	Ithomi	148.52	262	P	PKPdf	15 18 47.0	+0.5
CFR	Carcaliu	148.59	280⇓	iP	PKPdf	15 18 46.7	+0.3
CFR	Carcaliu	148.59	280⇓	eP	PKPdf	15 18 46.6	+0.3
LKR	Lokris	148.68	265	eP	PKPdf	15 18 45.5	-1.2
KDZ	Kurdzhali	148.71	272	eP	PKPdf	15 18 50.0	+3.3
DIM	Dimitrovgrad	148.83	273	eP	PKPdf	15 18 46.0	-0.8
KIS	Kishinev	148.89	283	i PKHKP		15 18 45.0	
KIS				pmax	pmax		
	comp=Z,3µm,3.0s						
KIS				pmax	pmax		
	comp=Z,14µm,10.0s						
KIS				MLR	MLR		
	comp=Z,276µm,21.0s,MS8.0						
KIS				MLR	MLR		
	comp=N,172µm,22.0s,MS7.9						
KIS				MLR	MLR		
	comp=E,141µm,19.0s,MS7.9						
NEO	Neokhori	148.90	267	eP	PKPdf	15 18 46.9	-0.1
APA	Apatity	148.91	324	i PKP2	PKPab	15 19 00.0	+6.7
APA				pmax	pmax		
	comp=Z,36µm,6.0s						
APA				MLR	MLR		
	comp=Z,820µm,21.0s,MS8.5						
PAIG	Paliouri	148.94	268	eP	PKPdf	15 18 47.0	-0.1
XOR	Xorichti	148.95	267	eP	PKPdf	15 18 46.9	-0.2
OUR	Ouranopolis	148.96	269	eP	PKPdf	15 18 47.0	-0.1
SZH	Strazhica	149.15	275	eP	PKPdf	15 18 48.0	+0.7
RZN	Rozhen	149.18	272	eP	PKPdf	15 18 47.0	-0.4
PPE	Popeni	149.22	282⇑	iP	PKPdf	15 18 51.3	+4.0
AGG	Agios Georgios	149.32	265	eP	PKPdf	15 18 49.0	+1.3
PLG	Polygyros	149.33	268	eP	PKPdf	15 18 48.0	+0.3
RLS	Riolos of Patr	149.33	263	eP	PKPdf	15 18 49.7	+1.9
PLD	Plovdiv	149.39	272	eP	PKPdf	15 18 51.0	+3.2
PVL	Pavlikeni	149.52	275	eP	PKPdf	15 18 52.0	+4.1
NVR	Nevrokopi	149.56	270	eP	PKPdf	15 18 48.6	+0.6
BUC1	Bucharest	149.58	277⇑	iP	PKPdf	15 18 55.0	+7.0
BUC1	Bucharest	149.58	277⇑	iP	PKPdf	15 18 55.0	+7.0
ISR	Istrita	149.58	279⇑	iP	PKPdf	15 18 50.4	+2.5
ISR	Istrita	149.58	279⇑	iP	PKPdf	15 18 52.0	+4.1
EVR	Evrytania	149.60	265	eP	PKPdf	15 18 50.0	+1.8
SRS	Serrai	149.62	270	eP	PKPdf	15 18 47.6	-0.5
HSP	Hornsund	149.62	346	eP	PKPdf	15 18 50.9	+3.7
SOH	Sokhos	149.62	269	eP	PKPdf	15 18 53.0	+4.8
MMB	Musomiste	149.77	271	eP	PKPdf	15 18 49.0	+0.6
VRI	Vrincioaia	149.77	280	PKIKP	PKPdf	15 18 50.5	+2.3
VRI	Vrincioaia	149.77	280⇓	iP	PKPdf	15 18 49.6	+1.4
VRI	Vrincioaia	149.77	280⇓	eP	PKPdf	15 18 49.7	+1.5
THE	Thessaloniki	149.78	268	eP	PKPdf	15 18 49.0	+0.6
LIT	Litokhoron	149.81	267	eP	PKPdf	15 18 49.0	+0.5
AKASG	Malin Array Be	149.90	290	PKPbc	PKPdf	15 18 48.3	0.0
	comp=Z,17nm,0.8s,baz=74,slow=2.2,SNR=64						
AKASG				SS	SS	15 41 43.1	+2.2
	comp=Z,0.1nm,0.3s,baz=185,slow=32,SNR=2.4						
AKASG				SSS	SSS	15 46 55.8	-26
	comp=Z,0.2nm,0.2s,baz=51,slow=24,SNR=2.6						
PGB	Panagyurishte	149.96	273	eP	PKPdf	15 18 50.0	+1.4
VLS	Valsamata	149.97	262	eP	PKPdf	15 18 50.4	+1.6
KNT	Kendrikon	150.09	269	eP	PKPdf	15 18 49.6	+0.7
MLR	Muntele Rosu	150.12	279	PKPbc	PKPdf	15 18 49.3	+0.5
	comp=Z,98nm,1.3s,baz=62,slow=1.5,SNR=24						
MLR				PP	PP	15 22 24.6	-4.4
	comp=Z,92nm,1.2s,baz=123,slow=13,SNR=1.5						
MLR				SS	SS	15 41 45.5	+2.1
	comp=Z,0.9nm,0.4s,baz=76,slow=19,SNR=2.2						
MLR	Muntele Rosu	150.12	279	PKIKP	PKPdf	15 18 49.3	+0.5
MLR						15 22 24.6	
MLR				pmax	pmax		
	comp=Z,99nm,1.3s						
MLR				pmax	pmax		
	comp=Z,92nm,1.2s						
MLR	Muntele Rosu	150.12	279⇑	iP	PKPdf	15 18 50.2	+1.4
MLR	Muntele Rosu	150.12	279⇓	eP	PKPdf	15 18 50.2	+1.4
JOF	Joensuu	150.26	315	epkp	PKPdf	15 18 50.8	+2.4
GRG	Griva	150.31	269	eP	PKPdf	15 18 50.0	+0.7
KKB	Krupnik	150.33	271	eP	PKPdf	15 18 50.0	+0.8
KZN	Kozani	150.38	267	eP	PKPdf	15 18 49.9	+0.5
VAY	Valandovo	150.39	269	i PKIKP	PKPdf	15 18 50.3	+1.0
SCHQ	Schefferville	150.43	61	PKP	PKPdf	15 18 48.8	-0.1
	comp=Z,75nm,1.2s,baz=34,slow=2.0,SNR=18						
SCHQ				SS	SS	15 41 44.4	-2.1
	comp=Z,2.8nm,1.0s,baz=214,slow=1.7,SNR=1.6						
SCHQ				SSS	SSS	15 47 10.6	-19
	comp=Z,3.0nm,0.9s,baz=282,slow=18,SNR=1.8						
SCHQ	Schefferville	150.43	61	ePKPpre		15 18 45.3	
SCHQ				PKP	PKPdf	15 18 48.8	-0.1
SCHQ				ePKPdf	PKPdf	15 18 49.7	+0.8
SCHQ				SS	SS	15 41 44.4	-2.1
SCHQ				SSS	SSS	15 47 10.6	-19
BJO	Bjornoya	150.56	340	eP	PKPdf	15 18 55.3	+6.7
BJO				eSS	SS	15 41 56.8	+9.3
BJO				AMS	AMS	16 25 09.3	
	comp=Z,162µm,18.5s,MS7.9						
MTUR	Matau	150.58	278⇑	iP	PKPdf	15 18 51.3	+1.8
MTUR	Matau	150.58	278⇑	iP	PKPdf	15 18 57.8	+8.3
VTS	Vitosha	150.60	272	eP	PKPdf	15 18 51.0	+1.4
VTS	Vitosha	150.60	272	P	PKPdf	15 18 51.3	+1.7
BJO1	Bjornoya	150.60	341	eP	PKPdf	15 18 55.3	+6.6
BJO1				eSS	SS	15 41 56.8	+8.8
BJO1				LR	LR		
	comp=Z,16µm,18.5s,MS6.9						
JAN	Janina	150.63	265	eP	PKPdf	15 18 59.4	+10
KEV	Kevo	150.65	330	epkp	PKPdf	15 18 50.9	+2.0
PUL	Pulkovo	150.77	309	i PKP2	PKPab	15 18 57.4	-3.9
PUL				pmax	pmax		
	comp=Z,1µm,1.1s						
PUL				pmax	pmax		
	comp=N,792nm,1.2s						
PUL				pmax	pmax		
	comp=E,1µm,1.5s						
PUL				pmax	pmax		
	comp=Z,13µm,2.6s						
PUL				pmax	pmax		
	comp=N,1µm,1.1s						
PUL				pmax	pmax		
	comp=E,6µm,2.0s						
PUL				MLR	MLR		
	comp=E,427µm,22.0s,MS8.3						
PUL				MLR	MLR		
	comp=Z,572µm,22.0s,MS8.3						
PUL				MLR	MLR		
	comp=N,326µm,24.0s,MS8.3						
FNA	Florina	150.89	267	eP	PKPdf	15 18 51.8	+1.7
BIA	Bitola	151.04	268	i PKIKP	PKPdf	15 18 53.3	+3.0
BIA				i PKHKP		15 19 00.2	
ARCES	ARCESS Array B	151.22	330	PKPbc	PKPdf	15 18 52.4	+2.7
	comp=N,38nm,0.7s,baz=83,slow=1.8,SNR=72						
ARCES				PP	PP	15 22 41.8	+7.0
	comp=N,26nm,0.9s,baz=126,slow=10,SNR=1.9						
ARCES				SS	SS	15 41 59.2	+4.4
	comp=N,4.8nm,0.9s,slow=3.6,SNR=2.0						
ARCES				SSS	SSS	15 47 31.4	-8.2
	comp=N,9.0nm,1.1s,baz=34,slow=26,SNR=2.3						
ARCES	ARCESS Array B	151.22	330	PKIKP	PKPdf	15 18 52.4	+2.7
ARCES						15 22 41.8	
ARCES				SS	SS	15 41 59.3	+4.5
ARCES				pmax	pmax		
	comp=Z,38nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,26nm,0.9s						
ARE0	ARCESS Array S	151.22	330	ePKPdf	PKPdf	15 18 49.3	-0.4
ARE0				ePKPbc	PKPdf	15 18 54.5	+4.8
KEK	Kerkira	151.34	264	eP	PKPdf	15 18 52.8	+2.0
OHR	Ohrid	151.43	268	i PKIKP	PKPdf	15 18 52.5	+1.6
OHR				i PKHKP		15 18 59.6	
SKO	Skopje	151.45	270⇑	iPKIKP	PKPdf	15 18 52.1	+1.2
SKO				i PKHKP		15 19 00.1	
	comp=Z,0.8nm,1.3s						
SKO				i		15 19 12.4	
	comp=Z,0.9nm,1.1s						
SKO				i		15 19 20.5	
	comp=Z,0.6nm,0.9s						
SKO				i		15 22 39.5	
MNK	Minsk	151.60	298⇑	ePKIKP	PKPdf	15 18 49.0	-1.7
MNK				e		15 22 38.0	
MNK				ePPP	PPP	15 25 50.0	-14
MNK				eSS	tx	15 42 46.0	
MNK				eSSS	SSS	15 47 30.0	-15
MNK				pmax	pmax		
	comp=Z,710nm,1.0s						
BOLS	Boljevac	151.98	274⇑	iP	PKPdf	15 18 52.5	+0.9
TIR	Tirane	152.16	267	ep	PKPdf	15 18 55.0	+3.0
KTK1	Kautokeino	152.16	329	eP	PKPdf	15 18 53.8	+2.7
KTK1	Kautokeino	152.16	329	eP	PKPdf	15 18 53.9	+2.8
QSH	Qafa e Shtames	152.22	268	ep	PKPdf	15 18 53.0	+1.0
IDID	Didziasalis	152.34	299	eP	PKPdf	15 18 55.2	+3.4
IDID				AMPb	AMB	15 19 17.8	
	comp=Z,250nm,1.1s						
IIGN	Ignalina	152.64	299	eP	PKPdf	15 18 55.6	+3.5
IIGN				AMPb	AMB	15 19 27.9	
	comp=Z,324nm,1.4s						
KAF	Kangasniemi	152.64	314	epkp	PKPdf	15 18 53.5	+1.5
SVIS	Svilajnac	152.66	274	eP	PKPdf	15 18 55.0	+2.4
IZAR	Zarasai	152.68	300	eP	PKPdf	15 18 55.7	+3.4
IZAR				AMPb	AMB	15 19 27.3	
	comp=Z,258nm,1.3s						
PVY	Plav	152.70	270⇓	iPKP	PKPdf	15 18 53.5	+0.9
ISAL	Salakas	152.72	300	eP	PKPdf	15 18 55.9	+3.6
ISAL				AMPb	AMB	15 19 25.0	
	comp=Z,220nm,1.2s						
LCI	Lecce	152.76	264	ePKP	PKPdf	15 18 57.4	+4.6
SOI	Samo	152.80	258	ePKP	PKPdf	15 18 56.4	+3.4
GRUS	Gruza	152.81	273⇑	iP	PKPdf	15 18 53.4	+0.6
FINES	FINESS Array B	152.82	313	PKPbc	PKPdf	15 18 55.6	+3.4
	comp=Z,14nm,0.6s,baz=82,slow=2.3,SNR=54						
FINES				PP	PP	15 22 44.1	+0.3
	comp=Z,16nm,0.9s,baz=146,slow=21,SNR=2.0						
FINES				SS	SS	15 42 22.9	+10
	comp=Z,4.2nm,1.0s,baz=172,slow=14,SNR=2.6						
FINES	FINESS Array B	152.82	313	PKIKP	PKPdf	15 18 55.7	+3.5
FINES						15 22 44.1	
FINES				pmax	pmax		
	comp=Z,14nm,0.6s						
FINES				pmax	pmax		
	comp=Z,16nm,0.9s						
AGST	Augusta-Monte	152.83	256	ePKP	PKPdf	15 19 05.1	+12
DAG	Danmarks Havn	152.83	0⇓	iPKIKP	PKPdf	15 18 56.9	+5.0
DAG				pmax	pmax		
	comp=Z,91nm,0.9s						
DAG	Danmarks Havn	152.83	0⇓	iP	PKPdf	15 18 56.9	+5.0
	comp=Z,91nm,0.9s						
LVV	L’vov	152.84	287	i PKIKP	PKPdf	15 19 00.7	+8.1
ULC	Ulcinj	152.86	268⇓	iPKP	PKPdf	15 18 50.4	-2.5
IVA	Berane	152.88	270	ePKP	PKPdf	15 18 54.2	+1.3
MTTG	Motta San Giov	152.99	257	ePKP	PKPdf	15 18 57.9	+4.6
TIP	Timpagrande	153.00	261	ePKPdf	PKPdf	15 18 52.1	-1.1
TIP				ePKPbc	PKPdf	15 18 57.7	+4.5
GMB	Gambarie	153.00	258	ePKP	PKPdf	15 18 58.4	+5.1
GRI	Girifalco	153.01	260	P	PKPdf	15 18 58.8	+5.6
CEL	Celeste	153.02	258	P	PKPdf	15 18 58.2	+4.9
TTG	Podgorica	153.08	269⇓	iPKP	PKPdf	15 18 50.5	-2.8
SCLL	Scilla	153.13	258	ePKP	PKPdf	15 19 04.2	+11
BUM	Brajici-Budva	153.26	268	ePKP	PKPdf	15 18 52.0	-1.4
TRO	Tromso	153.27	332	eP	PKPdf	15 19 01.0	+8.3
TRO				eSS	SS	15 42 20.9	+3.5
TRO				AMS	AMS	16 25 19.4	
	comp=Z,224µm,25.1s,MS7.9						
TRO	Tromso	153.27	332	eP	PKPdf	15 18 52.8	+0.2
TRO				eSS	SS	15 42 20.9	+3.5
TRO				LR	LR		
	comp=Z,22µm,25.1s,MS6.9						
NVSS	Nova Varos 2	153.30	271⇓	iP	PKPdf	15 18 54.2	+0.7
DIVS	Divcibare	153.37	273⇓	iP	PKPdf	15 18 54.6	+1.1
BEO	Belgrade	153.38	274⇑	iP	PKPdf	15 19 02.5	+9.0
PLE	Pljevlja	153.42	271⇓	iPKP	PKPdf	15 18 53.3	-0.3
NKY	Niksic	153.44	269⇓	iPKP	PKPdf	15 18 51.0	-2.6
VAE	Valguarnera	153.48	255	PKPbc	PKPdf	15 18 56.9	+3.0
	comp=Z,88nm,1.3s,baz=154,slow=3.8,SNR=7.1						
UZH	Uzhgorod	153.58	283	i PKIKP	PKPdf	15 18 56.5	+2.8
UZH	Uzhgorod	153.58	283	eP	PKPdf	15 18 56.5	+2.8
HCY	Herceg Novi	153.59	268⇓	iPKP	PKPdf	15 18 54.5	+0.6
KWP	Kalwaria	153.61	286	ePKIKP	PKPdf	15 18 54.3	+0.6
KWP				MLR	MLR		
	comp=Z,352µm,23.8s,MS8.1						
KWP	Kalwaria	153.61	286	ePKP	PKPdf	15 18 54.3	+0.6
KWP				ePKPdf	PKPdf	15 18 59.4	+5.7
KWP				e		15 43 32.0	
KWP				e		15 48 37.2	
KWP	Kalwaria	153.61	286	ePKP	PKPdf	15 18 54.3	+0.6
KWP				ePKPab	PKPab	15 19 17.3	+3.8
KWP				e		15 43 32.0	
KWP				e		15 48 37.2	
KWP				MLR	MLR	16 33 38.2	
	comp=Z,352µm,23.8s,MS8.1						
UPM	Unac-Piva	153.68	270⇓	iPKP	PKPdf	15 18 51.9	-2.1
KOLS	Kolonicke sedl	153.69	284	ePKP	PKPdf	15 18 58.6	+4.8
KOLS				e		15 19 05.9	
ORI	Oriolo Calabro	153.69	262	P	PKPdf	15 18 57.0	+2.9
LTRZ	Laterza	153.74	263	ePKP	PKPdf	15 18 58.1	+3.9
BRY	Bratogost	153.77	269⇓	iPKP	PKPdf	15 18 53.3	-0.9
FAVR	Favara	153.82	254	ePKP	PKPdf	15 19 06.6	+12
SLNA	Salina	153.87	257	ePKP	PKPdf	15 19 06.8	+12
CRVS	Cervenica-Dubn	154.19	284	ePKP	PKPdf	15 19 08.7	+14
CRVS				e		15 19 36.3	
CRVS				e		15 43 16.9	
SUW	Suwalki	154.23	296	ePKIKP	PKPdf	15 18 56.0	+1.6
SUW				e		15 22 49.1	
SUW				e		15 26 05.9	
SUW				MLR	MLR		
	comp=Z,363µm,22.7s,MS8.1						
SUW	Suwalki	154.23	296	ePKPdf	PKPdf	15 18 56.6	+2.2
SUW	Suwalki	154.23	296	ePKP	PKPdf	15 18 56.0	+1.6
SUW				ePKPab	PKPab	15 19 18.7	+2.8
SUW				ePP	PP	15 22 49.1	-3.1
SUW				eSKS	SKS	15 26 05.9	+5.4
SUW				e		15 43 51.6	
SUW				e		15 48 35.8	
SUW				MLR	MLR	16 29 42.6	
	comp=Z,363µm,22.7s,MS8.1						
CLTB	Caltabellotta	154.29	254	ePKP	PKPdf	15 18 59.5	+4.4
MGR	Morigerati	154.30	261	ePKP	PKPdf	15 18 57.0	+2.1
STON	Ston	154.31	268	i P	PKPdf	15 18 55.6	+0.7
MRLC	Muro Lucano	154.68	262	ePKP	PKPdf	15 18 59.2	+3.8
KECS	Kecovo	154.68	282	ePKP	PKPdf	15 19 07.1	+12
SGO	Sicignano	154.69	262	ePKP	PKPdf	15 18 58.0	+2.6
FGMS	Monte Sant’Ang	154.87	265	ePKP	PKPdf	15 18 55.2	-0.4
PSZ	Piszkesteto	154.88	281	ePKIKP	PKPdf	15 18 53.8	-1.7
PSZ				e		15 18 59.2	
PSZ	Piszkesteto	154.88	281	eP	PKPdf	15 18 57.5	+2.0
ERC	Erice	154.97	254	P	PKPdf	15 18 59.7	+3.8
CSSN	Cassano Irpino	155.03	262	P	PKPdf	15 18 56.8	+0.9
NIE	Niedzica	155.06	284	ePKP	PKPdf	15 18 55.8	+0.2
FG5	Orsara di Pugl	155.10	263	ePKP	PKPdf	15 19 02.1	+6.1
PKSM	Moragy	155.10	276⇑	eP	PKPdf	15 18 56.8	+1.0
MRB1	Monte Rocchett	155.21	263	ePKP	PKPdf	15 19 07.5	+11
WAR	Warsaw	155.24	291	ePKIKP	PKPdf	15 18 51.1	-4.7
WAR				e		15 19 20.2	
WAR				MLR	MLR		
	comp=Z,515µm,22.8s,MS8.3						
WAR	Warsaw	155.24	291	ePKP	PKPdf	15 18 51.1	-4.7
WAR				e		15 19 09.6	
WAR				e		15 43 54.8	
WAR				e		15 48 40.5	
WAR				LR	LR		
	comp=Z,515µm,22.8s,MS8.3						
WAR	Warsaw	155.24	291	ePKP	PKPdf	15 18 51.1	-4.7
WAR				e		15 19 09.6	
WAR				ePKPab	PKPab	15 19 20.2	-0.1
WAR				e		15 43 54.8	
WAR				e		15 48 40.5	
WAR				MLR	MLR	16 33 51.7	
	comp=Z,515µm,22.8s,MS8.3						
BUD	Budapest	155.30	279	epPKP/F		15 19 04.6	
SUMG	Summit	155.37	14	ePKPdf	PKPdf	15 18 57.3	+1.9
RHK1	Bakonya	155.43	276	eP	PKPdf	15 18 57.3	+1.1
OJC	Ojcow	155.58	286	P	PKPdf	15 18 59.8	+3.5
OJC			⇑	ePKP	PKPdf	15 19 05.6	+9.3
OJC				ePP	PP	15 23 12.3	+13
OJC				eSKKSac		15 30 02.6	
OJC				eSS	SS	15 42 54.9	+12
OJC				LR	LR		
	comp=Z,304µm,21.3s,MS8.1						
OJC	Ojcow	155.58	286	ePKP	PKPdf	15 19 05.6	+9.3
OJC				ePP	PP	15 23 12.3	+13
OJC				eSKKSac		15 30 02.6	
OJC				eSS	SS	15 42 54.9	+12
OJC				MLR	MLR	16 35 39.9	
	comp=Z,304µm,21.3s,MS8.1						
LOF	Lofoten	155.72	331	e	PKPdf	15 19 11.6	+16
SGG	Gregorio Mates	155.72	263	ePKP	PKPdf	15 18 58.9	+2.1
VYHS	Vyhne	155.73	282	ePKIKP	PKPdf	15 18 57.5	+1.0
VYHS				e		15 23 06.0	
VYHS	Vyhne	155.73	282	ePKP	PKPdf	15 18 57.5	+1.0
VYHS				e		15 19 09.8	
VYHS				e		15 19 38.3	
VYHS				ePP	PP	15 23 06.0	+5.3
VYHS				e		15 43 45.8	
SRO	Srobarova	155.86	280	e	PKPdf	15 19 14.2	+17
SRO				e		15 19 40.0	
RFI	Roccamonfina	155.93	262	P	PKPdf	15 19 02.5	+5.5
MIDA	Miranda	155.94	263	P	PKPdf	15 18 58.8	+1.8
CII	Carovilli	155.94	263	ePKPdf	PKPdf	15 18 55.3	-1.8
KOLL	Kolacno	156.03	282	ePKP	PKPdf	15 18 58.1	+1.2
KOLL				e		15 19 11.3	
KOLL				e		15 19 39.7	
SDI	San Donato	156.25	263	ePKP	PKPdf	15 18 58.4	+0.9
SISC	Sisak	156.29	273	i PKP	PKPdf	15 18 58.9	+1.5
INTR	Introdacqua	156.35	263	ePKP	PKPdf	15 19 10.6	+13
MOR8	Moi Rana	156.43	327	e	PKPdf	15 19 08.2	+11
OKC	Ostrava-Krasne	156.53	284	ePKIKP	PKPdf	15 19 00.1	+2.5
OKC				MLR	MLR		
	comp=Z,342µm,21.7s,MS8.1						
OKC	Ostrava-Krasne	156.53	284	ePKPDF	PKPdf	15 19 00.1	+2.5
OKC				ex	x	15 20 02.8	
OKC				ePP	PP	15 23 19.5	+15
OKC				AMS	AMS	16 36 20.0	
	comp=Z,342µm,21.7s						
RAC	Raciborz	156.55	285	ePKIKP	PKPdf	15 18 59.5	+1.9
RAC				MLR	MLR		
	comp=Z,460µm,22.5s,MS8.2						
RAC	Raciborz	156.55	285	ePKPdf	PKPdf	15 18 59.5	+1.9
RAC				ePP	PP	15 23 19.3	+14
RAC				eSS	SS	15 42 59.9	+6.4
RAC				MLR	MLR	16 35 43.4	
	comp=Z,460µm,22.5s,MS8.2						
RAC				LMN		16 36 24.0	
	comp=Z,390µm,22.0s						
RAC				LME		16 36 48.6	
	comp=Z,390µm,20.8s						
SMOL	Smolenice	156.63	281	ePKP	PKPdf	15 18 59.5	+1.7
SMOL				e		15 19 07.5	
SMOL				e		15 19 30.8	
PTQR	Pietraquaria	156.68	263	P	PKPdf	15 18 59.7	+1.7
AQU	L’Aquila	156.84	264	ePKPdf	PKPdf	15 19 00.9	+2.6
TERO	Teramo	156.84	264	ePKP	PKPab	15 19 20.5	-7.0
MORC	Moravsky Berou	156.89	284	ePKIKP	PKPdf	15 18 58.1	0.0
NVLJ	Novalja	156.90	270	i P	PKPdf	15 18 56.0	-2.2
SOP	Sopron	156.94	278⇑	ePKP/F	PKPdf	15 18 59.0	+0.8
LAV9	Lanuvio	156.95	262	P	PKPdf	15 19 08.5	+10
GOLS	Golise	156.98	274	ePKPdf	PKPdf	15 19 00.0	+1.7
BOJS	Bojanci	157.03	272	ePKPdf	PKPdf	15 19 00.2	+1.8

BOJS				*e*PP	PP	15 23 15.3	+7.8
BOJS				*e*		15 24 25.8	
BOJS				*e*		15 25 09.4	
BOJS				*e*		15 36 41.1	
BOJS				*e*SS	SS	15 43 11.6	+13
BOJS				*e*		15 44 46.7	
BOJS				*e*		15 49 30.4	
MTCE	**Montecelio**	**157.10**	**262**	P	PKPdf	15 19 01.5	+2.9
DOBS	**Dobrina**	**157.13**	**274**	P	PKPdf	15 19 01.6	+3.1
LEGS	**Legarje**	**157.15**	**274**	P	PKPdf	15 19 01.6	+3.0
NRCA	**Norcia**	**157.26**	**264**	P	PKPdf	15 19 00.1	+1.3
VKA	**Vienna**	**157.27**	**280**	⇑*i*PKP	PKPdf	15 19 01.8	+3.2
VKA				LR	LR		
	comp=Z,126µm,22.0s,MS7.7						
AOI	**Ancona**	**157.28**	**267**	P	PKPdf	15 19 03.3	+4.5
MNS	**Montasola**	**157.32**	**263**	*e*PKP	PKPdf	15 19 00.2	+1.3
VRAC	**Vranov**	**157.38**	**282**	SSS	SSS	15 49 01.4	-3.2
	comp=Z,0.9nm,0.5s,baz=124,slow=18,SNR=1.9						
VRAC	**Vranov**	**157.38**	**282**	PKIKP	PKPdf	15 18 59.9	+1.2
PDKS	**Podkum**	**157.40**	**274**	P	PKPdf	15 19 01.6	+2.7
KRUC	**Moravsky**	**157.44**	**282**	P	PKPdf	15 19 01.5	+2.7
CING	**Cingoli**	**157.46**	**266**	*e*PKP	PKPdf	15 18 46.4	-13
ARSA	**Arzberg**	**157.47**	**277**	⇑*i*P	PKPdf	15 18 54.9	-4.0
	comp=Z,12nm,1.4s						
ARSA				*i*		15 19 01.3	
	comp=Z,70nm,1.6s						
ARSA				*i*		15 19 32.8	
	comp=Z,264nm,1.1s						
ARSA				*i*		15 19 55.8	
SNTG	**Esanatoglia**	**157.57**	**265**	*e*PKP	PKPdf	15 19 01.2	+2.1
TOLF	**Tolfa**	**157.60**	**262**	P	PKPdf	15 19 02.5	+3.2
TOLF				*e*PKP	PKPab	15 19 21.0	-10
CEY	**Cerknica**	**157.65**	**272**	*e*PKPdf	PKPdf	15 19 00.5	+1.3
GKP	**Gorka Klasztor**	**157.66**	**293**	*e*PKIKP	PKPdf	15 19 01.4	+2.4
GKP				MLR	MLR		
	comp=Z,662µm,22.1s,MS8.4						
GKP	**Gorka Klasztor**	**157.66**	**293**	*e*PKP	PKPdf	15 19 01.4	+2.4
GKP				*e*SKS	SKS	15 26 15.4	+11
GKP				*e*		15 44 11.3	
GKP				*e*		15 49 34.9	
GKP				LR	LR		
	comp=Z,662µm,22.1s,MS8.4						
GKP	**Gorka Klasztor**	**157.66**	**293**	*e*PKP	PKPdf	15 19 01.4	+2.4
GKP				*e*PKPab	PKPab	15 19 29.4	-1.3
GKP				*e*SKS	SKS	15 26 15.4	+11
GKP				*e*		15 44 11.3	
GKP				*e*		15 49 34.9	
GKP				MLR	MLR	16 36 11.2	
	comp=Z,662µm,22.1s,MS8.4						
ARV	**Arcevia**	**157.68**	**266**	*e*PKP	PKPdf	15 18 59.9	+0.5
LJU	**Ljubljana**	**157.70**	**273**	*e*	PKPdf	15 18 54.5	-4.7
LJU				*e*PKPdf	PKPdf	15 19 00.9	+1.6
LJU				*e*		15 19 31.8	
LJU				*e*		15 19 43.3	
LJU				*e*		15 20 06.4	
LJU				*e*		15 20 34.6	
LJU				*e*		15 36 41.9	
LJU				*e*SS	SS	15 43 18.7	+13
LJU				*e*		15 44 53.5	
LJU				*e*		15 49 40.8	
LJU				*e*		16 03 31.3	
LJU	**Ljubljana**	**157.70**	**273**	*e*PKPdf	PKPdf	15 19 00.9	+1.6
LJU				*e*SS	SS	15 43 18.7	+13
LJU				*e*		15 44 53.5	
LJU				*e*		15 49 40.8	
DPC	**Dobruska-Polom**	**157.79**	**285**	*e*PKIKP	PKPdf	15 19 00.2	+1.0
DPC				MLR	MLR		
	comp=Z,534µm,23.7s,MS8.3						
DPC	**Dobruska-Polom**	**157.79**	**285**	*e*PKPDF	PKPdf	15 19 00.2	+1.0
DPC				*e*PKPAB	PKPab	15 19 35.1	+3.8
DPC				*e*x	x	15 23 23.9	
DPC				AMS	AMS	16 33 50.0	
	comp=Z,534µm,23.7s						
VSL	**Villasalto**	**157.85**	**253**	*e*PKPdf	PKPdf	15 19 01.9	+2.3
OBKA	**Obir**	**157.85**	**274**	⇑*i*P	PKPdf	15 19 00.7	+1.3
	comp=Z,12nm,1.5s						
OBKA				*i*		15 23 29.0	
KSP	**Ksiaz**	**157.90**	**286**	*e*PKPdf	PKPdf	15 19 00.5	+1.1
KSP				*e*PKPab	PKPab	15 19 31.6	-0.2
KSP				*e*pPKPab		15 19 35.2	
KSP				*e*PP	PP	15 23 21.5	+8.9
KSP				*e*SKKS		15 29 59.0	
KSP				*e*		15 33 35.0	
KSP				*e*SS	SS	15 43 10.0	+2.1
KSP				*e*SSS	SSS	15 48 40.0	-32
KSP				LR	LR		
	comp=Z,958µm,24.1s,MS8.6						
KSP	**Ksiaz**	**157.90**	**286**	*e*PKP	PKPdf	15 19 01.4	+2.0
KSP				*e*PKPab	PKPab	15 19 29.1	-2.7
KSP				*e*		15 44 20.4	
KSP				*e*		15 49 56.8	
KSP				MLR	MLR	16 34 21.6	
	comp=Z,831µm,24.1s,MS8.5						
JAVS	**Javornik**	**157.94**	**273**	*e*PKPdf	PKPdf	15 19 00.7	+1.1
UPC	**Upice**	**158.01**	**285**	*e*PKP	PKPdf	15 19 00.6	+1.1
UPC				*e*		15 19 37.1	
UPC				*e*PP	PP	15 23 22.8	+10
CHIE	**El Hierro**	**158.05**	**181**	PKP	PKPdf	15 19 07.0	+6.7
TRI	**Trieste**	**158.07**	**272**	P	PKPdf	15 19 01.9	+2.1
VOY	**Vojsko**	**158.11**	**273**	*e*PKPdf	PKPdf	15 19 00.5	+0.7
NSS	**Namsos**	**158.12**	**324**	*e*P	PKPdf	15 19 05.8	+6.5
NSS				*e*SS	SS	15 43 21.3	+11
NSS				AMS	AMS	16 35 13.7	
	comp=Z,231µm,26.0s,MS7.9						
BADI	**Badiali**	**158.14**	**265**	P	PKPdf	15 19 03.2	+3.3
JMIC	**Jan Mayen**	**158.16**	**351**	*e*P	PKPdf	15 19 08.9	+10
JMIC				*e*SS	SS	15 43 17.3	+7.2
JMIC				AMS	AMS	16 26 21.8	
	comp=Z,189µm,18.4s,MS8.0						
RSM	**Repubblica di**	**158.19**	**266**	*e*PKP	PKPdf	15 19 02.3	+2.4
EOSO	**Osorio**	**158.28**	**187**	PKP	PKPdf	15 19 03.3	+2.7
MAON	**Monte Argentar**	**158.34**	**262**	*e*PKP	PKPdf	15 19 11.5	+11
ROBS	**Robic**	**158.43**	**273**	P	PKPdf	15 19 01.2	+1.0
EGOM	**La Gomera**	**158.46**	**183**	PKP	PKPdf	15 19 06.3	+5.5
MOA	**Molln**	**158.47**	**278**	⇑*i*P	PKPdf	15 19 02.0	+1.8
	comp=Z,56nm,1.5s						
MOA				*i*		15 19 38.3	
	comp=Z,99nm,1.1s						
MOA				*i*		15 19 50.8	
	comp=Z,321nm,1.4s						
CCAN	**Las Canadas**	**158.50**	**184**	PKP	PKPdf	15 19 07.0	+6.2
SFI	**Santa Sofia**	**158.57**	**266**	*e*PKP	PKPdf	15 19 03.4	+3.0
PTCC	**Patocco-Chiusa**	**158.59**	**273**	*e*PKP	PKPdf	15 18 56.4	-4.0
GMNA	**Gemona**	**158.62**	**273**	*e*PKP	PKPdf	15 18 57.1	-3.3
PGD	**Poggio Sodo**	**158.64**	**266**	*e*PKP	PKPdf	15 19 04.5	+4.0
CSNT	**Castellina Chi**	**158.74**	**264**	*e*PKP	PKPdf	15 19 00.9	+0.2
GRFL	**Gerfalco**	**158.79**	**263**	P	PKPdf	15 19 03.5	+2.8
VMG	**Vicchio**	**158.79**	**266**	P	PKPdf	15 19 03.4	+2.7
KBA	**Koelnbreinsper**	**158.82**	**275**	⇑*i*P	PKPdf	15 19 01.2	+0.6
	comp=Z,66nm,1.2s						
KBA				*i*		15 19 56.8	
	comp=Z,274nm,1.2s						
KBA				*i*		15 23 36.0	
	comp=Z,177nm,1.6s						
PRU	**Pruhonice**	**158.83**	**283**	*e*PKIKP	PKPdf	15 19 00.9	+0.4
PRU				MLR	MLR		
	comp=Z,370µm,22.2s,MS8.2						
PRU	**Pruhonice**	**158.83**	**283**	*e*PKPDF	PKPdf	15 19 00.9	+0.4
PRU				*e*PKPAB	PKPab	15 19 40.1	+4.3
PRU				*e*x	x	15 23 27.6	
PRU				AMS	AMS	16 35 50.0	
	comp=Z,370µm,22.2s						
EHIG	**Higuera**	**158.87**	**182**	PKP	PKPdf	15 19 05.1	+3.9
PRA	**Prague**	**158.92**	**284**	PKPDF	PKPdf	15 19 02.0	+1.4
PRA				*e*x	x	15 19 19.0	
PRA				*e*x	x	15 19 50.0	
PRA				PP	PP	15 23 22.0	+4.2
PRA				AMS	AMS	16 37 40.0	
PVCC	**Panska Ves**	**158.92**	**285**	*e*PKPDF	PKPdf	15 19 01.5	+0.9
PVCC				AMS	AMS	16 37 20.0	
SEI	**Scarperia**	**158.96**	**266**	*e*PKP	PKPdf	15 19 06.4	+5.5
SCO	**Scoresbysund**	**159.09**	**3**	*i* P	PKPdf	15 19 08.6	+8.4
BSD	**Bornholm Skovb**	**159.09**	**298**	*i* P	PKPdf	15 19 02.2	+1.5
GEC2	**GERESS Array S**	**159.10**	**280**	*e*PKIKP	PKPdf	15 19 02.5	+1.6
GERES	**GERESS Array B**	**159.10**	**280**	PKP	PKPdf	15 18 56.2	-4.7
	comp=Z,1.1nm,0.7s,baz=297,slow=3.0,SNR=7.4						
GERES				PKPab	PKPab	15 19 36.8	-0.2
	comp=Z,59nm,1.0s,baz=153,slow=3.0,SNR=8.3						
GERES				PP	PP	15 23 24.1	+5.3
	comp=Z,15nm,1.1s,baz=54,slow=12,SNR=2.3						
GERES				SS	SS	15 43 22.1	+1.1
	comp=Z,0.2nm,0.3s,baz=332,slow=39,SNR=3.8						
GERES				SSS	SSS	15 49 17.5	-10
	comp=Z,0.1nm,0.3s,baz=136,slow=39,SNR=1.8						
GERES	**GERESS Array B**	**159.10**	**280**	PKIKP	PKPdf	15 18 56.2	-4.7
GERES						15 19 36.8	
GERES						15 23 24.1	
GERES				SSS	SSS	15 49 17.5	-10
GERES				pmax	pmax		
	comp=Z,59nm,1.0s						
GERES				pmax	pmax		
	comp=Z,15nm,1.1s						
EFAM	**Famara**	**159.11**	**192**	PKP	PKPdf	15 19 10.8	+9.3
FNVD	**Fontana Vidola**	**159.16**	**266**	*e*PKP	PKPdf	15 19 02.0	+0.9
KHC	**Kasperske Hory**	**159.25**	**281**	*e*PKIKP	PKPdf	15 18 56.6	-4.4
KHC				*e*		15 23 19.9	
KHC				MLR	MLR		
	comp=Z,464µm,21.3s,MS8.3						
KHC	**Kasperske Hory**	**159.25**	**281**	*e*PKP	PKPdf	15 18 56.6	-4.4
KHC				*e*		15 19 38.9	
KHC				*e*PP	PP	15 23 19.9	+0.4
KHC				LR	LR		
	comp=Z,464µm,21.3s,MS8.3						
KHC	**Kasperske Hory**	**159.25**	**281**	*e*PKPDF	PKPdf	15 18 56.6	-4.4
KHC				*e*x	x	15 19 14.0	
KHC				*e*PKPAB	PKPab	15 19 38.9	+1.3
KHC				*e*x	x	15 19 58.0	
KHC				*e*PP	PP	15 23 19.9	+0.4
KHC				AMS	AMS	16 38 30.0	
	comp=Z,464µm,21.3s						
ZCCA	**Zocca**	**159.33**	**266**	*e*PKP	PKPdf	15 19 04.5	+3.3
PII	**Pisa**	**159.35**	**264**	*e*PKP	PKPdf	15 19 03.6	+2.3
BRG	**Berggiesshubel**	**159.37**	**286**	*i* PKIKP	PKPdf	15 19 02.0	+0.9
BRG				*e*SS	SS	15 43 20.0	-3.7
BRG				pmax	pmax		
	comp=Z,672nm,2.4s						
BRG				MLR	MLR		
	comp=N,330µm,22.2s,MS8.2						
BRG				MLR	MLR		
	comp=E,217µm,22.2s,MS8.2						
BRG				MLR	MLR		
	comp=Z,453µm,22.2s,MS8.3						
BRG	**Berggiesshubel**	**159.37**	**286**	*i* PKP	PKPdf	15 19 02.0	+0.9
BRG				*e*		15 19 26.4	
BRG				*e*		15 19 41.6	
BRG				*e*		15 19 53.8	
BRG				*i*		15 21 21.8	
BRG				*e*PP	PP	15 23 31.6	+12
BRG				*e*SKKS		15 30 29.0	
BRG				*e*		15 33 58.0	
BRG				*e*		15 36 53.0	
BRG				*e*		15 38 32.0	
BRG				*e*SS	SS	15 43 20.0	-3.7
BRG				LR	LR		
	comp=Z,453µm,22.2s,MS8.3						
BDI	**Bagni Di Lucca**	**159.45**	**265**	P	PKPdf	15 19 01.8	+0.4
MAIM		**159.46**	**265**	P	PKPdf	15 19 00.5	-1.0
GSCL	**Gusciola**	**159.58**	**266**	P	PKPdf	15 19 03.5	+1.9
VLC	**Villacollemand**	**159.63**	**265**	*e*PKPdf	PKPdf	15 18 57.9	-3.7
SARO	**Sassorosso**	**159.63**	**265**	P	PKPdf	15 19 00.7	-1.0
RUE	**Ruedersdorf**	**159.68**	**290**	*e*PKPdf	PKPdf	15 19 01.2	-0.2
WET	**Wettzell**	**159.70**	**280**	*e*PKIKP	PKPdf	15 19 02.1	+0.6
WET				*e*		15 23 25.6	
ERBM	**Eremo**	**159.73**	**266**	*e*PKP	PKPdf	15 19 03.9	+2.2
PGF	**Pioggiola**	**159.77**	**260**	*e*PKIKP	PKPdf	15 18 59.1	-2.7
	comp=Z,286nm,1.4s						
VINC	**Vinca**	**159.78**	**265**	P	PKPdf	15 19 00.9	-0.9
VALM		**159.80**	**266**	P	PKPdf	15 19 02.0	+0.2
BACM		**159.89**	**265**	P	PKPdf	15 19 01.4	-0.5
NB2	**NORSAR Subarra**	**159.90**	**316**	PKPab	PKPdf	15 19 01.5	+0.1
	comp=Z,952nm,1.2s,baz=72,slow=4.3						
NB2	**NORSAR Subarra**	**159.90**	**316**	PKPa		15 19 01.5	
	baz=72,slow=4.4						
NOA	**NORSAR Array B**	**159.90**	**316**	PKP	PKPdf	15 19 00.6	-0.8
	comp=Z,10nm,1.1s,baz=82,slow=0.9,SNR=5.6						
NOA				PKPab	PKPab	15 19 38.5	-1.5
	comp=Z,13nm,0.8s,baz=147,slow=19,SNR=9.8						
NOA				SS	SS	15 43 51.6	+23
	comp=Z,1.7nm,0.9s,baz=40,slow=21,SNR=2.5						
NOA				SSS	tx	15 50 14.2	
	comp=Z,1.4nm,0.8s,baz=146,slow=22,SNR=2.1						
GRAM		**159.98**	**266**	P	PKPdf	15 19 02.2	+0.2
WTTA	**Wattenberg**	**159.99**	**275**	⇑*i*P	PKPdf	15 19 03.0	+1.1
	comp=Z,132nm,1.6s						
WTTA				*i*		15 23 32.9	
CLL	**Collm**	**160.02**	**287**	*i* PKIKP	PKPdf	15 19 02.6	+0.8
CLL				pmax	pmax		
	comp=Z,204nm,2.0s						
CLL				MLR	MLR		
	comp=Z,329µm,22.7s						
CLL	**Collm**	**160.02**	**287**	*i* PKIKP	PKPdf	15 19 02.6	+0.8
	comp=Z,logA/T=2.0						
CLL				*i* PKIKP	PKPdf	15 19 20.1	+18
CLL				*i* PKP2	PKPab	15 19 43.5	+2.6
CLL				*i* PKP2	PKPab	15 19 57.2	+16
CLL				*i* PKP	tx	15 20 18.3	
CLL				*e*PP	PP	15 23 32.0	+8.7
CLL				*e*		15 24 01.0	
CLL				*e*PPP	PPP	15 27 22.0	+15
CLL				*e*		15 29 53.0	
CLL				*e*		15 30 28.0	
CLL				*e*		15 31 53.0	
CLL				*e*SKSP		15 33 55.0	
CLL				*e*PPS	PPS	15 36 57.0	+12
CLL				*e*SS	SS	15 43 28.0	-2.2
CLL				*e*		15 44 49.0	
CLL				*e*SSS	SSS	15 49 15.0	-26
CLL				*e*		15 50 19.0	
CLL				*e*		15 54 19.0	
CLL				*e*		15 57 13.0	
WATA	**Walderalm**	**160.05**	**275**	⇑*i*P	PKPdf	15 19 02.6	+0.6
	comp=Z,55nm,1.4s						
WATA				*i*		15 19 57.8	
	comp=Z,668nm,1.5s						
WATA				*i*		15 23 31.2	
	comp=Z,964nm,1.8s						
CODM		**160.08**	**265**	P	PKPdf	15 19 02.9	+0.8
NAO01	**NORSAR Array S**	**160.12**	**315**	*e*PKPdf	PKPdf	15 18 59.3	-2.3
SAL	**Salo**	**160.13**	**269**	*e*PKP	PKPdf	15 19 05.4	+3.3
BERN	**Bernov**	**160.16**	**283**	⇓P	PKPdf	15 19 06.0	+4.0
NKC	**Novy Kostel**	**160.20**	**283**	*e*PKIKP	PKPdf	15 19 02.7	+0.7
NKC				MLR	MLR		
	comp=Z,344µm,20.4s						
NKC	**Novy Kostel**	**160.20**	**283**	*e*PKPDF	PKPdf	15 19 02.7	+0.7
NKC				*e*x	x	15 20 02.9	
NKC				*e*PP	PP	15 23 35.9	+11
NKC				AMS	AMS	16 37 30.0	
	comp=Z,344µm,20.4s						
SQTA	**Sankt Quirin**	**160.25**	**274**	⇑*i*P	PKPdf	15 19 04.1	+1.9
	comp=Z,107nm,1.3s						
MOTA	**Moosalm**	**160.36**	**274**	⇓*i*P	PKPdf	15 19 04.8	+2.5
	comp=Z,30nm,1.1s						
MOTA				*i*		15 19 56.1	
	comp=Z,136nm,0.9s						
MOTA				*i*		15 23 40.4	
	comp=Z,80nm,1.1s						
DOMB	**Dombas**	**160.44**	**319**	*e*	PKPab	15 19 38.1	-4.2
COP	**Copenhagen**	**160.48**	**300**	*i* PKIKP	PKPdf	15 19 05.7	+3.6
COP				*e*		15 19 40.2	
COP				MLR	MLR		
	comp=Z,150µm,22.0s						
COP	**Copenhagen**	**160.48**	**300**	*i* P	PKPdf	15 19 05.7	+3.6
COP				*e*		15 19 40.2	
COP				*i*		15 24 11.0	
	comp=Z,148µm,22.0s						
FUR	**Furstenfeldbru**	**160.48**	**277**	*e*PKIKP	PKPdf	15 19 04.1	+1.7
FUR				*e*		15 23 29.8	
BOB	**Bobbio (Coli)**	**160.50**	**266**	*e*PKP	PKPdf	15 19 08.1	+5.6
OSL	**Oslo**	**160.50**	**313**	*e*	PKPab	15 19 46.0	+3.4
BRMO	**Bormio**	**160.55**	**271**	*e*PKP	PKPdf	15 19 05.7	+3.2
GENL	**Genova Univers**	**160.65**	**265**	P	PKPdf	15 19 04.1	+1.5
MOX	**Moxa**	**160.79**	**284**	*e*P	PKPdf	15 19 03.0	+0.4
MOX				PKP2	Px	15 20 50.0	
MOX				PP	PP	15 23 40.0	+12
MOX				SKKS		15 30 37.0	
MOX				SS	SS	15 43 51.0	+13
MOX				QM		16 38 43.0	
MOX				RM		16 46 43.0	
MOX	**Moxa**	**160.79**	**284**	*e*PKP	PKPdf	15 18 49.3	-13
MOX				*e*PKP	PKPdf	15 19 03.0	+0.4
MOX				*e*PKPab	Px	15 20 50.0	
MOX				*e*PP	PP	15 23 39.9	+12
MOX				*e*SKKS		15 30 37.0	
MOX				*e*SS	SS	15 43 51.0	+13
MOL	**Molde**	**160.81**	**322**	*e*	PKPab	15 19 44.2	+0.3
GRA1	**Grafenberg Arr**	**160.88**	**281**	*e*PKPdf	PKPdf	15 19 05.4	+2.7
GRA1				*e*PP	PP	15 23 33.1	+4.6
GRA1				*e*SS	SS	15 43 38.5	-0.3
GRA1				*e*SSS	SSS	15 49 46.7	-5.9
GRA1				LR	LR		
	comp=Z,272µm,22.0s						
GRF	**Grafenberg Arr**	**160.88**	**281**	*e*PKIKP	PKPdf	15 19 05.4	+2.7
GRF				*e*		15 23 33.1	
GRF				*e*SS	SS	15 43 38.5	-0.3
GRF				*e*SSS	SSS	15 49 46.7	-5.9
GRF				MLR	MLR		
	comp=Z,272µm,22.0s						
DAVOX	**Davos**	**160.97**	**272**	SS	SS	15 43 40.3	+0.5
	comp=Z,0.8nm,0.5s,baz=1.2,slow=23,SNR=1.9						
DAVOX				SSS	SSS	15 49 22.5	-32
	comp=Z,1.0nm,0.5s,baz=292,slow=16,SNR=3.2						
PCP	**Pian Castagno**	**160.99**	**265**	P	PKPdf	15 19 04.7	+1.7
FIN	**Finale Ligure**	**161.06**	**263**	*e*PKP	PKPdf	15 19 06.6	+3.5
IMI	**Imperia**	**161.13**	**262**	P	PKPdf	15 19 04.0	+0.9
DAVA	**Damuels**	**161.13**	**273**	⇓*i*P	PKPdf	15 18 59.0	-4.0
	comp=Z,93nm,1.6s						
DAVA				*i*		15 19 04.6	
DAVA				*i*		15 20 01.5	
	comp=Z,489nm,1.3s						
DAVA				*i*		15 23 43.3	
DAVA	**Damuels**	**161.13**	**273**	⇓*i*P	PKPdf	15 18 59.0	-4.0
DAVA				*i*		15 20 01.5	
DAVA				*i*		15 23 43.3	
TUE	**Stuetta**	**161.21**	**271**	P	PKPdf	15 19 07.1	+4.0
NEGI	**Negi**	**161.22**	**262**	P	PKPdf	15 19 03.6	+0.3
MONE	**Monesi**	**161.29**	**262**	P	PKPdf	15 19 03.9	+0.6
ROB	**Roburent**	**161.31**	**263**	P	PKPdf	15 19 04.7	+1.4
VAI	**Varese**	**161.37**	**269**	*e*PKP	PKPdf	15 19 00.5	-2.8
SAOF	**Saorge**	**161.38**	**262**	PKP	PKPdf	15 19 05.0	+1.6
REVF	**Revere**	**161.39**	**261**	PKP	PKPdf	15 19 06.5	+3.1
SBF	**Sospel**	**161.40**	**262**	*e*PKIKP	PKPdf	15 19 00.5	-2.9
	comp=Z,227nm,1.1s						
AUTN	**L'Aution**	**161.47**	**262**	PKP	PKPdf	15 19 05.3	+1.8
LLS	**Linth-Limmern**	**161.56**	**272**	⇓P	PKPdf	15 19 05.7	+2.2
ENR	**Entracque**	**161.57**	**263**	P	PKPdf	15 19 05.0	+1.4
MVIF	**Mont Vial**	**161.60**	**261**	PKP	PKPdf	15 19 07.0	+3.4
STV2	**Anna di Valdie**	**161.64**	**263**	P	PKPdf	15 19 05.5	+1.8
STV	**Sta Anna Valdi**	**161.65**	**263**	P	PKPdf	15 19 05.3	+1.7
CALN	**Calern**	**161.70**	**261**	PKP	PKPdf	15 19 06.3	+2.6
CLZ	**Clausthal**	**161.71**	**288**	*e*PKPdf	PKPdf	15 19 04.9	+1.4
CLZ				*e*PP	PP	15 23 37.9	+5.2
LMR	**La Mourre**	**161.74**	**259**	*e*PKIKP	PKPdf	15 19 01.3	-2.5
	comp=Z,324nm,1.6s						
FRF	**La Foret Royal**	**161.76**	**260**	*e*PKIKP	PKPdf	15 19 01.3	-2.5
	comp=Z,367nm,1.5s						
ORO	**Oropa**	**161.79**	**267**	*e*PKP	PKPdf	15 19 06.3	+2.6
ORX	**Oropa**	**161.79**	**267**	P	PKPdf	15 19 05.6	+1.8
BSEG	**Bad Segeberg**	**161.80**	**294**	*e*PKIKP	PKPdf	15 19 04.1	+0.6
DOI	**San Damiano**	**161.81**	**263**	*e*PKP	PKPdf	15 19 11.1	+7.3
MUO	**Muotathal**	**161.84**	**272**	⇓P	PKPdf	15 19 07.3	+3.5
TRAV		**161.90**	**267**	P	PKPdf	15 19 05.8	+1.9
PZZ	**Prazzo**	**161.90**	**263**	P	PKPdf	15 19 06.0	+2.1
MCGN	**Macugnaga**	**161.91**	**268**	P	PKPdf	15 19 01.8	-2.1
BHB	**Bricherasio**	**161.94**	**264**	P	PKPdf	15 19 05.7	+1.7
MMK	**Mattmark**	**161.96**	**268**	⇑P	PKPdf	15 19 05.8	+1.9
STU	**Stuttgart**	**161.98**	**278**	PKIKP	PKPdf	15 19 06.2	+2.4
STU	**Stuttgart**	**161.98**	**278**	*e*PKPdf	PKPdf	15 19 04.0	+0.1
RSP	**Reno Superiore**	**162.07**	**265**	P	PKPdf	15 19 05.9	+1.9
SURF	**Saint Ours**	**162.08**	**263**	PKP	PKPdf	15 19 05.6	+1.5
FENE	**Fenestrelle**	**162.15**	**265**	P	PKPdf	15 19 06.6	+2.4
MUD	**Monsted U'grnd**	**162.19**	**303**	*e*PKIKP	PKPdf	15 19 10.4	+6.6
MUD	**Monsted U'grnd**	**162.19**	**303**	*i* P	PKPdf	15 19 10.4	+6.6
MBDF	**Montbardon**	**162.21**	**263**	*e*PKIKP	PKPdf	15 19 01.6	-2.6
	comp=Z,886nm,1.6s						
LSD	**Ceresole Reale**	**162.26**	**266**	P	PKPdf	15 19 06.9	+2.7
RRL	**Cesana Torines**	**162.28**	**264**	P	PKPdf	15 19 06.7	+2.5
LKBD	**Leukerbad**	**162.30**	**269**	⇓P	PKPdf	15 19 06.5	+2.3
DIX	**Grande Dixence**	**162.33**	**268**	⇓P	PKPdf	15 19 07.0	+2.7
EIBI	**Ibiza**	**162.34**	**240**	PKP	PKPdf	15 19 06.4	+1.8
TOD	**Tromm**	**162.40**	**280**	PKP	PKPdf	15 19 01.7	-2.5
BNI	**Bardonecchia**	**162.41**	**264**	PKIKP	PKPdf	15 19 06.3	+1.9
BNI	**Bardonecchia**	**162.41**	**264**	*e*PKPdf	PKPdf	15 19 00.9	-3.5
BFO	**Black Forest**	**162.43**	**276**	*e*PKIKP	PKPdf	15 19 06.7	+2.4
BFO				*e*		15 23 40.3	
OG25	**Le Caire**	**162.50**	**262**	PKP	PKPdf	15 19 08.1	+3.6
FELD	**Feldberg**	**162.52**	**274**	PKP	PKPdf	15 19 03.8	-0.6
LPG	**La Plagne**	**162.54**	**266**	*e*PKIKP	PKPdf	15 19 02.2	-2.3
	comp=Z,1µm,1.9s						
LPL	**La Plagne**	**162.56**	**266**	*e*PKIKP	PKPdf	15 19 02.1	-2.4
	comp=Z,994nm,1.8s						
CART	**Cartagena**	**162.56**	**233**	*e*PKPbc	PKPdf	15 19 08.6	+3.8
SMRF	**Simiane la Rot**	**162.65**	**260**	*e*PKIKP	PKPdf	15 19 02.5	-2.2
	comp=Z,293nm,1.4s						
EMV	**Vieux Emosson**	**162.66**	**268**	⇓P	PKPdf	15 19 06.1	+1.5
ENIJ	**Nijar**	**162.69**	**229**	PKP	PKPdf	15 19 09.3	+4.4
RSL	**Roselend**	**162.69**	**266**	PKP	PKPdf	15 19 05.6	+0.9
BBS	**Basel-Blauen**	**162.72**	**272**	PKP	PKPdf	15 19 04.0	-0.6
GDM	**Grand'Maison**	**162.83**	**264**	PKP	PKPdf	15 19 06.8	+2.0
LIBD	**Limburg**	**162.85**	**275**	PKP	PKPdf	15 19 03.5	-1.2
STR	**Strasbourg**	**162.85**	**276**	PKP	PKPdf	15 19 03.5	-1.2
ORIF	**Oris-en-Rattie**	**162.87**	**263**	*e*PKIKP	PKPdf	15 19 02.4	-2.5
	comp=Z,169nm,1.2s						
ORIF				*e*R			
	comp=Z,490µm,21.8s						
EMUR	**La Murta**	**162.88**	**233**	PKP	PKPdf	15 19 06.2	+1.1
OG01	**Vacheresse**	**162.89**	**268**	PKP	PKPdf	15 19 06.5	+1.7
LANF	**Langenberg**	**162.92**	**278**	PKP	PKPdf	15 19 03.5	-1.3
EBER	**Berja**	**162.96**	**227**	PKP	PKPdf	15 19 06.7	+1.4
EBEN	**Beniarda**	**162.98**	**237**	PKP	PKPdf	15 19 05.5	+0.3
MOF	**Molkenrain**	**163.08**	**273**	PKP	PKPdf	15 19 04.3	-0.7
WLS	**Welschbruch**	**163.08**	**275**	PKP	PKPdf	15 19 04.2	-0.7
GRN	**Grenoble**	**163.09**	**264**	PKP	PKPdf	15 19 07.4	+2.3
OCF	**Saint Nazaire**	**163.09**	**261**	PKP	PKPdf	15 19 08.2	+3.1
OG26	**St.-Nazaire-De**	**163.09**	**261**	PKP	PKPdf	15 19 08.2	+3.1
CDF	**Champ du Feu**	**163.13**	**275**	*e*PKIKP	PKPdf	15 19 01.7	-3.3
	comp=Z,351nm,1.9s						
LOMF	**Lomont**	**163.13**	**272**	PKP	PKPdf	15 19 04.9	-0.1
ECH	**Echery**	**163.16**	**275**	PKP	PKPdf	15 19 04.7	-0.3
HINF	**Hinteralfeld**	**163.25**	**273**	*e*PKIKP	PKPdf	15 19 01.7	-3.4
	comp=Z,495nm,1.9s						
ABH	**Alteburg**	**163.25**	**281**	PKP	PKPdf	15 19 02.6	-2.5
CABF	**La Chapelle**	**163.38**	**269**	*e*PKIKP	PKPdf	15 19 02.6	-2.7
	comp=Z,673nm,1.8s						
ERON	**Agron**	**163.49**	**225**	PKP	PKPdf	15 19 09.5	+3.8
RUP	**Ruppelstein**	**163.53**	**280**	PKP	PKPdf	15 19 03.2	-2.2
EMIJ	**Mijas**	**163.55**	**222**	PKP	PKPdf	15 19 09.4	+3.6
EJON	**La Jonquera**	**163.56**	**252**	PKP	PKPdf	15 19 08.2	+2.5
VIVF	**Saint-Julien-l**	**163.62**	**262**	*e*PKIKP	PKPdf	15 19 02.8	-2.8
	comp=Z,611nm,1.7s						
HAU	**Haudompre**	**163.63**	**274**	*e*PKIKP	PKPdf	15 19 02.4	-3.1
	comp=Z,302nm,1.5s						
HAU				*e*R			
	comp=Z,275µm,22.0s						
ELOJ	**Sierra Loja**	**163.75**	**225**	PKP	PKPdf	15 19 08.2	+2.1
EQES	**Quesada**	**163.77**	**229**	PKP	PKPdf	15 19 05.6	-0.4
LASF	**Ste Croix**	**163.79**	**258**	*e*PKIKP	PKPdf	15 19 03.1	-2.7
	comp=Z,686nm,1.8s						
THEF	**They Montfort**	**163.92**	**274**	PKP	PKPdf	15 19 05.6	-0.2
WTSB	**Winterswijk**	**163.93**	**288**	*e*PKP	PKPdf	15 19 06.6	+0.9
	comp=Z,316nm,3.1s						
WTSB				*e*PP	PP	15 23 57.2	+12
	comp=Z,824nm,6.0s						
EPOB	**Poblet**	**164.02**	**246**	PKP	PKPdf	15 19 06.3	+0.1
WIT	**Witteveen**	**164.02**	**291**	*e*PKP	PKPdf	15 19 13.5	+7.8
WIT				*e*PP	PP	15 23 51.6	+6.4
EBR	**Ebro Roquetas**	**164.02**	**243**	*e*Ts		15 19 10.5	
VALF	**Valcebollere**	**164.07**	**250**	PKP	PKPdf	15 19 14.3	+8.2
WLF	**Walferdange**	**164.11**	**279**	PKIKP	PKPdf	15 19 11.0	+5.1
WLF	**Walferdange**	**164.11**	**279**	*e*PKPdf	PKPdf	15 19 04.4	-1.5
EVIA	**Vianos**	**164.13**	**232**	PKP	PKPdf	15 19 09.7	+3.3
ELUQ	**Luque**	**164.14**	**225**	PKP	PKPdf	15 19 10.4	+4.1
ERTA	**Horta de San J**	**164.20**	**243**	PKP	PKPdf	15 19 07.8	+1.5
ESPR	**Espera**	**164.27**	**220**	PKP	PKPdf	15 19 09.3	+2.8
EMOS	**Mosqueruela**	**164.28**	**240**	PKP	PKPdf	15 19 08.8	+2.4
HGN	**Heimansgroeve**	**164.40**	**283**	*e*PKP	PKPdf	15 19 12.9	+6.7
	comp=Z,302nm,2.5s						
HGN				*e*PP	PP	15 23 58.4	+11
	comp=Z,679nm,8.3s						
EBAN	**Banos Encina**	**164.40**	**228**	PKP	PKPdf	15 19 10.4	+3.8
MTLF	**Montolieu**	**164.46**	**254**	*e*PKIKP	PKPdf	15 19 03.6	-2.9
	comp=Z,423nm,1.8s						
COLF	**Collangettes**	**164.52**	**263**	PKP	PKPdf	15 19 10.3	+3.8
MEZF	**Maizieres J'vi**	**164.59**	**274**	*e*PKIKP	PKPdf	15 19 03.6	-2.9
	comp=Z,1µm,1.9s						
LBL	**Lubilhac**	**164.69**	**261**	PKP	PKPdf	15 19 10.4	+3.7
PLDF	**La Plantade**	**164.75**	**264**	PKP	PKPdf	15 19 09.0	+2.3
SALF	**Salau**	**164.78**	**250**	PKP	PKPdf	15 19 13.6	+6.8

EADA	Adamuz	164.78	226	PKP	PKPdf	15 19 06.3	-0.7
BORG	Borgarnes	164.84	5	SS	SS	15 44 39.5	+20
	comp=Z,125nm,1.5s,baz=22,slow=7.7,SNR=2.8						
BORG	Borgarnes	164.84	5	*e*PKPdf	PKPdf	15 19 02.9	-3.3
BORG				*e*PKPab	PKPab	15 20 10.5	+9.1
SMF	Signal de Mont	164.84	267	*e*PKIKP	PKPdf	15 19 03.6	-3.2
	comp=Z,572nm,1.9s						
MLS	Moulis	164.94	251	PKP	PKPdf	15 19 13.8	+6.8
EGRA	Graus	164.98	247	PKP	PKPdf	15 19 11.6	+4.5
GIVF	Givet	165.02	280	*e*PKIKP	PKPdf	15 19 03.7	-3.1
	comp=Z,513nm,1.6s						
PYM	Petit Puy Mans	165.06	263	PKP	PKPdf	15 19 10.6	+3.6
AGO	Saint Agoulin	165.09	264	PKP	PKPdf	15 19 11.1	+4.1
MELF	Melles	165.10	250	PKP	PKPdf	15 19 14.5	+7.3
ESAC	San Caprasio	165.16	244	PKP	PKPdf	15 19 08.8	+1.6
FRNF	Fournols	165.19	261	PKP	PKPdf	15 19 11.3	+4.1
SSF	Saint Saulge	165.20	268	*e*PKIKP	PKPdf	15 19 04.0	-3.1
	comp=Z,884nm,1.9s						
CAF	Calviac	165.32	259	*e*PKIKP	PKPdf	15 19 04.5	-2.8
	comp=Z,400nm,1.6s						
RESF	Ens	165.32	249	PKP	PKPdf	15 19 15.2	+7.8
EBIE	Bielsa	165.37	248	PKP	PKPdf	15 19 08.9	+1.5
EMIN	Mina Concepcio	165.37	220	PKP	PKPdf	15 19 07.8	+0.2
BAIF	Baives	165.41	280	*e*PKIKP	PKPdf	15 19 04.0	-3.2
	comp=Z,400nm,1.8s						
PALC	Alcoutim	165.44	217	*e*PKPdf	PKPdf	15 19 11.4	+3.8
EPF	Esparros	165.44	250	*e*PKIKP	PKPdf	15 19 04.8	-2.7
	comp=Z,476nm,1.6s						
BGF	Bois d'Agland	165.46	266	*e*PKIKP	PKPdf	15 19 04.5	-2.9
	comp=Z,1µm,1.6s						
EGRO	El Granado	165.50	217	PKP	PKPdf	15 19 09.4	+1.8
LRW	Lerwick	165.65	323⇑	*e*P	PKPdf	15 19 02.6	-4.5
ESDC	Sonseca Array	165.66	231	PKP	PKPdf	15 19 04.3	-3.5
	comp=Z,0.2nm,0.3s,baz=270,slow=22,SNR=4.5						
ESDC				PP	PP	15 24 03.2	+9.4
	comp=Z,20nm,1.1s,baz=136,slow=5.4,SNR=3.9						
ESDC				SS	SS	15 44 30.2	+1.3
	comp=Z,0.1nm,0.3s,baz=346,slow=12,SNR=2.8						
ESDC	Sonseca Array	165.66	231	PKP	PKPdf	15 19 04.3	-3.5
ESDC				PKP	PKPdf	15 19 10.5	+2.7
ESDC				PP	PP	15 24 03.2	+9.4
ESDC				SS	SS	15 44 30.2	+1.3
ESLA	Sonseca Array	165.66	231	*e*PKPdf	PKPdf	15 19 04.7	-3.0
ESLA				LR	LR		
	comp=Z,1220µm,21.0s						
TCF	Toulx Ste Croi	165.77	264	*e*PKIKP	PKPdf	15 19 04.7	-2.9
	comp=Z,990nm,1.8s						
HYF	Humbligny	165.82	268	*e*PKIKP	PKPdf	15 19 04.7	-3.0
RJF	Les Rejaudoux	165.83	259	*e*PKIKP	PKPdf	15 19 04.8	-2.9
	comp=Z,692nm,1.9s						
RJF				*e*R			
	comp=Z,504µm,20.8s						
REYF	Montagne du Re	165.91	249	PKP	PKPdf	15 19 15.7	+7.8
ETSF	Etsaut	165.91	248	*e*PKIKP	PKPdf	15 19 05.7	-2.2
	comp=Z,195nm,1.4s						
PTEO	Sao Teotonio	165.97	214	*e*PKPdf	PKPdf	15 19 11.9	+3.8
PBEJ	Beja	166.07	217	*e*PKPdf	PKPdf	15 19 10.8	+2.6
LFF	La Frestale	166.16	257	*e*PKIKP	PKPdf	15 19 05.2	-2.8
	comp=Z,770nm,1.6s						
LARF	Larrau	166.25	248	PKP	PKPdf	15 19 17.0	+8.9
EBAD	Badajoz	166.35	221	PKP	PKPdf	15 19 06.6	-1.7
SJPF	Ste Jean	166.44	247	*e*PKIKP	PKPdf	15 19 05.9	-2.4
	comp=Z,297nm,1.2s						
GUD	Guadarrama	166.47	233	PKP	PKPdf	15 19 10.3	+1.9
EVO	Evora	166.57	218	*e*PKIKP	PKPdf	15 19 09.3	+0.8
	comp=Z,501nm,1.4s						
EVO				*e*R			
	comp=Z,479µm,23.0s						
CALA	Caldeira	166.66	143	*e*PKP	PKPdf	15 19 11.6	+3.0
EALK	Alkurruntz	166.67	247	PKP	PKPdf	15 19 07.4	-1.1
PICO	Pico	166.70	144	*e*PKP	PKPdf	15 19 13.2	+4.6
PDA	Ponta Delgada	166.96	154	*i* PKP	PKPdf	15 19 15.0	+6.2
PDA	Ponta Delgada	166.96	154	*i* SS	SS	15 44 29.0	-13
PDA	Ponta Delgada	166.96	154	*i* LQ		16 09 00.0	
PDA				*i* LR	LR	16 17 30.0	
ROSA	Rosais	166.96	144	*e*PKP	PKPdf	15 19 11.4	+2.6
PRCH	Ribeira Ch	166.99	154	*e*PKP	PKPdf	15 19 15.1	+6.3
CML	Cha da Macela	167.01	154	*e*PKP	tx	15 20 29.0	
VIF	Vila Franca	167.02	154	*e*PKP	PKPdf	15 19 21.6	+13
LFA	Lagoa do Fogo	167.03	154	*e*PKP	PKPdf	15 19 15.5	+6.7
FRA1	Furnas	167.04	155	*e*PKP	PKPdf	15 19 24.7	+16
PCNG	Congro	167.05	155	*e*PKP	PKPdf	15 19 26.8	+18
MESC	Monte Escuro	167.06	154	*e*PKP	PKPdf	15 19 20.6	+12
PMAT	Coroa da Mata	167.07	154	*e*PKP	PKPdf	15 19 18.6	+10
MIRA	Miradouro	167.10	155	*e*PKP	PKPdf	15 19 28.9	+20
PFAD	Fenais da Ajud	167.14	155	*e*PKP	PKPdf	15 19 24.7	+16
LIS	Lisbon	167.17	215	*e*P	PKPdf	15 19 10.2	+1.3
LIS				*e*SS	SS	15 44 42.1	-1.9
LIS				*e*SS	SS	15 44 42.1	-1.9
LIS				AMS	AMS	16 47 16.0	
	comp=E,144µm,15.0s						
ADH	Angra Heroismo	167.28	147	*e*PKP	PKPdf	15 19 29.5	+21
ADH	Angra Heroismo	167.28	147	*i* PP	PP	15 24 21.0	+19
PPAD	Pico dos Padre	167.30	147	*e*PKP	PKPdf	15 19 27.2	+18
ASBA	Santa Barbara	167.31	147	*e*PKP	PKPdf	15 19 25.0	+16
PLOU	Loures	167.31	215	*e*PKPdf	PKPdf	15 19 10.7	+1.7
PBIS	Biscoitos	167.37	147	*e*PKP	PKPdf	15 19 21.7	+13
STGR	Santa Cruz	167.37	144	*e*PKP	PKPdf	15 19 21.6	+13
PFAV	Pico das Favas	167.38	147	*e*PKP	PKPdf	15 19 21.7	+13
PVNV	Vila Nova	167.40	147	*e*PKP	PKPdf	15 19 21.4	+12
MFF	Saint Martin d	167.41	263	*e*PKIKP	PKPdf	15 19 05.7	-3.1
	comp=E,821nm,1.8s						
PCBR	Castelo Branco	167.45	222	*e*PKPdf	PKPdf	15 19 11.7	+2.7
PTOM	Tomar	167.66	219	*e*PKPdf	PKPdf	15 19 14.1	+4.9
ELAN	Lanestosa	167.81	244	PKP	PKPdf	15 19 10.3	+1.1
LCHF	La Chataignera	167.81	262	PKP	PKPdf	15 19 14.4	+5.4
MTE	Manteigas	167.94	224	*e*PKPdf	PKPdf	15 19 10.9	+1.6
MTE				*e*PP	PP	15 24 16.1	+11
MTE				*e*SS	SS	15 44 59.2	+7.5
MTE				*e*LQ		16 08 50.4	
MTE				*e*LR	LR	16 17 34.1	
	comp=E,282µm,19.4s						
MTE	Manteigas	167.94	224	*e*PKPdf	PKPdf	15 19 11.5	+2.2
LDF	La Druitiere	167.96	272	*e*PKIKP	PKPdf	15 19 05.8	-3.2
	comp=E,232nm,1.4s						
FLN	La Foliniere	168.23	272	*e*PKIKP	PKPdf	15 19 05.8	-3.4
	comp=E,355nm,1.4s						
FLN				*e*R			
	comp=E,431µm,21.8s						
PVIS	Viseu	168.35	223	*e*PKPdf	PKPdf	15 19 13.3	+3.8
GRR	Gorron	168.40	270	*e*PKIKP	PKPdf	15 19 05.9	-3.4
	comp=E,383nm,1.8s						
PBRG	Braganca	168.65	230	*e*PKPdf	PKPdf	15 19 13.1	+3.4
PVRL	Vila Real	168.71	226	*e*PKPdf	PKPdf	15 19 13.6	+3.9
ECAL	Calabor	168.75	231	PKP	PKPdf	15 19 12.7	+2.9
EARI	Arriondas	168.87	240	PKP	PKPdf	15 19 12.0	+2.2
EDI	Edinburgh	168.89	310⇑	*e*P	PKPdf	15 19 04.2	-5.2
ELOB	Lobios	169.34	227	PKP	PKPdf	15 19 09.7	-0.4
SGMF	Saint Gilles	169.47	268	*e*PKIKP	PKPdf	15 19 06.8	-3.2
	comp=E,288nm,1.4s						
QUIF	Quistinic	169.77	266	*e*PKIKP	PKPdf	15 19 07.1	-3.1
	comp=E,552nm,1.6s						
EZAM	Zamans	169.85	226	PKP	PKPdf	15 19 14.4	+4.0
EPON	Pontenova	169.95	235	PKP	PKPdf	15 19 18.2	+7.8
STS	Santiago	170.35	229	PKP	PKPdf	15 19 14.9	+4.2
EMAZ	Mazaricos	170.60	228	PKP	PKPdf	15 19 14.8	+4.0
HTL	Hartland	170.99	284⇑	*e*P	PKPdf	15 19 05.3	-5.5
DMUB	Kingscourt	171.72	305	*e*P	PKPdf	15 19 13.3	+2.2
DMUB	Kingscourt	171.72	305	*e*P	PKPab	15 20 39.7	+7.7
DLF	Lyons Farm	171.76	300	*e*P	PKPdf	15 19 13.2	+2.0
DLF	Lyons Farm	171.76	300	*e*P	PKPab	15 20 39.5	+7.4
DCN	Croghan	172.15	302	*e*P	PKPab	15 20 41.3	+7.4

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*IDC **23** 15:04:36.2±1.4, 49.60S×161.84E, mb5.6/3, mb1 5.9/3, mb1mx5.1/8, Error ellipse: s-maj=107.0km s-min=41.4km az=39.0*

ISC 23 15:04:39.1±1.9**, 49.4S**±0.3×**161.5E**±0.2**, h10^{km}, n23, σ1^{s}39**/15**, mb5.6**/3**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.62	54	P	Pn	15 06 05.5	+0.7
MLZ	Mavora Lakes	6.11	51	P	Pn	15 06 12.6	+1.0
MLZ				S	Sn	15 07 21.2	-1.1
MSZ	Milford Sound	6.48	46	P	Pn	15 06 19.4	+2.5
TUZ	Tuapeka	6.51	61	P	Pn	15 06 17.3	-0.1
TUZ				S	Sn	15 07 30.0	-2.5
EAZ	Earnscleugh	6.78	55	P	Pn	15 06 21.2	+0.1
WKZ	Wanaka	6.90	51	P	Pn	15 06 25.0	+2.2
JCZ	Jackson Bay	7.32	46	P	Pn	15 06 31.8	+3.1
ODZ	Otahua Downs	7.62	59	*e*P	Pn	15 06 31.1	-1.9
DSZ	Denniston Nort	10.54	47	P	P	15 07 12.3	-0.9
QRZ	Quartz Range	11.60	47	P	P	15 07 28.6	+0.9
ASAR	Alice Springs	33.56	310	P	P	15 11 21.2	0.0
	115nm,0.7s,mb5.9,baz=147,slow=8.2,SNR=18						
WRA	Warramunga Arr	36.51	314	P	P	15 11 45.1	-1.3
	93nm,0.8s,mb5.7,baz=147,slow=8.8,SNR=7.6						
CMAR	Chiang Mai Arr	87.25	303	P	P	15 17 26.4	-0.7
	16nm,0.8s,mb5.3,baz=163,slow=4.1,SNR=4.9						
ILAR	Eielson Array	120.69	23	PKP	PKPdf	15 23 28.7	-4.7
	1.6nm,0.7s,baz=280,slow=2.7,SNR=4.2						
IDI	Anoyia	145.43	263	PKPbc	PKPbc	15 24 15.9	-1.5
	41nm,0.7s,baz=112,slow=4.8,SNR=5.6						
AKASG	Malin Array Be	149.71	291	PKPbc	PKPdf	15 24 26.4	0.0
	12nm,0.6s,baz=86,slow=2.7,SNR=5.8						
JOF	Joensuu	149.98	316	*e*p	PKPdf	15 24 26.2	-0.2
ARCES	ARCESS Array B	150.91	330	PKPbc	PKPdf	15 24 30.1	+2.4
	32nm,0.7s,baz=103,slow=2.4,SNR=6.8						
KAF	Kangasniemi	152.37	314	*e*p	PKPdf	15 24 31.6	+1.6
FINES	FINESS Array B	152.54	313	PKPbc	PKPdf	15 24 33.4	+3.1
	19nm,0.7s,baz=101,slow=5.3,SNR=8.5						
DMUB	Kingscourt	171.48	306	*e*P	PKPdf	15 24 29.2	-20
DLF	Lyons Farm	171.53	302	*e*P	PKPdf	15 24 28.9	-21
DCN	Croghan	171.92	304	*e*P	PKPdf	15 24 30.8	-19

IDC 23 15:07:56.1±8.2**, 49.53S×159.60E, Error ellipse: s-maj=515.0km s-min=243.6km az=115.0, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDI	Anoyia	144.22	264	PKP	PKPdf	15 27 33.0	-2.3
	7.5nm,0.6s,baz=65,slow=13,SNR=5.8						
AKASG	Malin Array Be	148.63	291	PKPbc	PKPdf	15 27 43.6	+1.5
	1.3nm,0.6s,baz=89,slow=2.7,SNR=4.7						
ARCES	ARCESS Array B	150.41	329	PKPbc	PKPdf	15 27 47.8	+3.4
	14nm,1.0s,baz=72,slow=2.9,SNR=5.3						
FINES	FINESS Array B	151.75	313	PKPbc	PKPdf	15 27 50.9	+4.3
	8.1nm,1.1s,baz=90,slow=2.8,SNR=4.1						

IDC 23 15:09:14.7±1.8**, 49.81S×161.85E, mb4.5**/2**, mb1 4.7**/2**, mb1mx4.2**/9**, Error ellipse: s-maj=108.0km s-min=59.3km az=46.0, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	34.02	310	P	P	15 16 00.2	-2.1
	4.8nm,0.8s,baz=144,slow=7.5,SNR=4.5						
CMAR	Chiang Mai Arr	87.69	302	P	P	15 22 05.2	-1.2
	4.1nm,0.9s,baz=162,slow=4.5,SNR=4.6						
IDI	Anoyia	145.64	262	PKPbc	PKPbc	15 28 54.2	-0.9
	20nm,0.6s,baz=123,slow=1.6,SNR=10						
AKASG	Malin Array Be	150.10	290	PKPbc	PKPdf	15 29 05.5	+2.4
	4.6nm,0.6s,baz=81,slow=2.4,SNR=5.7						
AKASG				PKPab	PKPab	15 29 11.7	-2.6
	3.7nm,0.6s,baz=79,slow=2.8,SNR=4.7						
ARCES	ARCESS Array B	151.39	330	PKPbc	PKPdf	15 29 09.2	+4.8
	17nm,0.9s,baz=45,slow=1.7,SNR=10						
ARCES				PKPab	PKPab	15 29 16.7	-2.5
	9.5nm,0.7s,baz=92,slow=1.9,SNR=7.5						
KAF	Kangasniemi	152.84	314	*e*p	PKPdf	15 29 11.0	+4.3
	0.5nm,0.3s						
KAF	Kangasniemi	152.84	314	*e*p	PKPdf	15 29 18.5	+12
	0.5nm,0.4s						
FINES	FINESS Array B	153.01	312	PKPbc	PKPdf	15 29 12.3	+5.4
	12nm,0.9s,baz=108,slow=4.4,SNR=7.0						

IDC 23 15:13:01.3±2.0**, 49.93S×161.96E, mb4.6**/2**, mb1 4.8**/2**, mb1mx4.1**/8**, Error ellipse: s-maj=206.0km s-min=60.6km az=39.0, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	34.16	310	P	P	15 19 47.8	-2.4
	16nm,1.1s,baz=145,slow=8.0,SNR=14						
CMAR	Chiang Mai Arr	87.81	302	P	P	15 25 53.0	-0.6
	2.0nm,0.9s,baz=162,slow=3.9,SNR=4.1						
AKASG	Malin Array Be	150.21	290	PKPbc	PKPdf	15 32 52.4	+2.5
	0.6nm,0.4s,baz=89,slow=2.8,SNR=4.7						
ARCES	ARCESS Array B	151.53	329	PKPbc	PKPdf	15 32 56.0	+4.7
	3.1nm,0.6s,baz=63,slow=2.0,SNR=5.0						
FINES	FINESS Array B	153.15	312	PKPbc	PKPdf	15 32 59.4	+5.6
	1.4nm,0.5s,baz=108,slow=4.4,SNR=8.1						

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*IDC **23** 15:16:25.5±1.4, 50.20S×161.78E, mb4.8/3, mb1 4.9/5, mb1mx4.5/11, ML4.3/2, Error ellipse: s-maj=43.9km s-min=33.4km az=155.0*

*NEIC **23** 15:16:32.3±0.7, 49.51S×161.37E, h10^{km}, mb5.0/2, Error ellipse: s-maj=22.0km s-min=8.3km az=164.0*

ISC 23 15:16:27.2±1.2**, 49.9S**±0.2×**161.6E**±0.1**, h10^{km}, n32, σ1^{s}37**/33**, mb4.9**/5**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	Deep Cove	5.77	43	P	Pn	15 17 56.5	+1.6
DCZ				S	Sn	15 19 05.3	+3.4
MLZ	Mavora Lakes	6.33	47	P	Pn	15 18 04.8	+1.9
MLZ				S	Sn	15 19 15.3	-0.7
TUZ	Tuapeka	6.66	57	P	Pn	15 18 08.7	+1.2
TUZ				S	Sn	15 19 22.5	-1.8
MSZ	Milford Sound	6.74	42	P	Pn	15 18 10.5	+1.9
EAZ	Earnscleugh	6.97	51	P	Pn	15 18 13.1	+1.2
EAZ				S	Sn	15 19 30.6	-1.4
WKZ	Wanaka	7.12	48	P	Pn	15 18 16.7	+2.8
WKZ				S	Sn	15 19 35.5	-0.2
JCZ	Jackson Bay	7.58	43	P	Pn	15 18 23.8	+3.4
ODZ	Otahua Downs	7.79	55	P	Pn	15 18 22.7	-0.7
ODZ				S	Sn	15 19 49.0	-3.6
LBZ	Lake Benmore	8.01	50	P	P	15 18 26.1	-0.3
LBZ				S	Sn	15 19 55.8	-2.2
RPZ	Rata Peaks	8.93	50	Pn	P	15 18 37.5	-1.7
	6.7nm,0.3s,baz=58,slow=17,SNR=9.1						
RPZ	Rata Peaks	8.93	50	P	P	15 18 37.8	-1.4
WVZ	Waitaha Valley	9.25	46	P	P	15 18 45.7	+2.0
WVZ				S	Sn	15 20 28.9	0.0
MQZ	McQueen's Vall	9.76	55	P	P	15 18 50.0	-0.5
DSZ	Denniston Nort	10.78	45	P	P	15 19 04.7	+0.1
THZ	Tophouse	11.29	48	P	P	15 19 12.4	+0.8
QRZ	Quartz Range	11.85	44	P	P	15 19 19.7	+0.6
QRZ				S	S	15 21 27.4	-5.0
URZ	Urewera	16.05	50	Pn	P	15 20 13.3	-1.0
	0.6nm,0.3s,baz=161,slow=11,SNR=3.0						
CTA	Charters Tower	32.12	332	P	P	15 22 58.5	+1.7
	7.5nm,1.0s,mb4.5,baz=93,slow=20,SNR=3.1						
ASAR	Alice Springs	33.93	310	P	P	15 23 12.2	-0.3
	25nm,0.9s,mb5.2,baz=142,slow=8.2,SNR=22						
ASPA	Alice Springs	33.93	310	*e*P	P	15 23 12.2	-0.3
NWAO	Narrogin (SRO)	36.72	280	*e*P	P	15 23 34.1	-2.1
	24nm,1.3s,mb4.9						
KLBR	Kellerberrin	37.28	283	*e*P	P	15 23 39.3	-1.5
MBWA	Marble Bar	43.66	296	*e*P	P	15 24 32.4	-1.2
	25nm,0.6s,mb5.1						
CMAR	Chiang Mai Arr	87.58	302	P	P	15 29 17.3	+0.6
	6.7nm,1.0s,mb4.8,baz=159,slow=3.9,SNR=10						
IDI	Anoyia	145.47	262	PKPbc	PKPbc	15 36 05.4	-0.2
	5.2nm,0.7s,baz=113,slow=3.0,SNR=7.1						
AKASG	Malin Array Be	149.97	290	PKPbc	PKPdf	15 36 16.7	+1.9
	3.6nm,0.6s,baz=84,slow=2.7,SNR=12						
ARCES	ARCESS Array B	151.35	329	PKPbc	PKPdf	15 36 20.6	+4.3
	5.9nm,0.6s,baz=90,slow=1.2,SNR=18						
KAF	Kangasniemi	152.76	314	*e*p	PKPdf	15 36 22.2	+3.6
	0.9nm,0.4s						
FINES	FINESS Array B	152.93	312	PKPbc	PKPdf	15 36 23.4	+4.6
	3.3nm,0.5s,baz=106,slow=3.8,SNR=28						
FINES	FINESS Array B	152.93	312	PKPbc	PKPdf	15 36 23.4	+4.6
GERES	GERESS Array B	159.14	280	PKPab	PKPab	15 37 01.5	-2.2
	3.4nm,1.1s,baz=117,slow=3.0,SNR=6.2						
NOA	NORSAR Array B	160.01	315	PKPab	PKPab	15 37 09.8	+2.8
	3.2nm,1.0s,baz=338,slow=3.9,SNR=3.3						

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*IDC **23** 15:25:20.7±1.1, 49.84S×161.49E, mb5.0/4, mb1 5.1/5, mb1mx4.5/10, ML3.8/1, Error ellipse: s-maj=42.3km s-min=31.1km az=18.0*

ISC 23 15:25:20.5±1.8**, 49.9S**±0.3×**161.4E**±0.2**, h10^{km}, n19, σ1^{s}07**/11**, mb5.0**/4**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TUZ	Tuapeka	6.77	58	P	Pn	15 27 02.2	-0.3
WKZ	Wanaka	7.22	49	*e*P	Pn	15 27 10.2	+1.4
WKZ				*e*S	Sn	15 28 32.6	+1.0
JCZ	Jackson Bay	7.67	44	*e*S	Sn	15 28 40.4	-2.5
RPZ	Rata Peaks	9.03	51	Pn	P	15 27 29.8	-4.2
	1.1nm,0.3s,baz=34,slow=5.3,SNR=3.2						
LTZ	Lake Taylor	10.32	51	*e*P	P	15 27 50.6	-1.1
NNZ	Nelson	12.04	49	*e*P	P	15 28 15.9	+0.8
CTA	Charters Tower	32.08	332	P	P	15 31 50.5	+0.8
	15nm,0.9s,mb4.8,baz=57,slow=5.0,SNR=3.5						
ASAR	Alice Springs	33.84	311	P	P	15 32 05.6	+0.5
	22nm,1.0s,mb5.0,baz=146,slow=8.1,SNR=11						
WRA	Warramunga Arr	36.82	314	P	P	15 32 29.9	-0.5
	30nm,1.0s,mb5.1,baz=147,slow=8.1,SNR=9.9						
CMAR	Chiang Mai Arr	87.48	303	P	P	15 38 08.6	-1.0
	10nm,1.2s,mb4.9,baz=159,slow=13,SNR=8.2						
ILAR	Eielson Array	121.13	23	PKP	PKPdf	15 44 13.7	-2.0
	1.3nm,1.1s,baz=225,slow=1.3,SNR=5.2						
INK	Inuvik	127.33	25	PKP	PKPdf	15 44 26.0	-1.3
	1.9nm,0.9s,baz=193,slow=7.1,SNR=5.0						
BVAR	Borovoye Array	127.92	310	PKP	PKPdf	15 44 27.2	-1.8
	0.7nm,0.8s,baz=135,slow=4.1,SNR=4.0						
YKA	Yellowknife Ar	130.08	37	PKP	PKPdf	15 44 31.4	-1.4
	0.7nm,0.9s,baz=223,slow=1.5,SNR=4.7						
IDI	Anoyia	145.34	262	PKPbc	PKPbc	15 45 00.1	+1.5
	20nm,0.9s,baz=213,slow=2.3,SNR=9.9						
AKASG	Malin Array Be	149.85	290	PKPbc	PKPdf	15 45 10.8	+2.8
	2.5nm,0.7s,baz=80,slow=2.4,SNR=7.7						
ARCES	ARCESS Array B	151.30	329	PKPbc	PKPdf	15 45 14.7	+5.1
	9.8nm,0.9s,baz=63,slow=2.7,SNR=9.7						
FINES	FINESS Array B	152.84	312	PKPbc	PKPdf	15 45 18.2	+6.1
	3.2nm,0.8s,baz=108,slow=6.0,SNR=8.2						
GERES	GERESS Array B	159.02	280	PKPab	PKPab	15 45 55.7	-0.7
	2.1nm,0.9s,baz=117,slow=3.0,SNR=8.4						

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*NEIC **23** 15:24:59.2±0.7, 18.46S×169.78E, h10^{km}, mb5.0/6, Error ellipse: s-maj=32.1km s-min=13.7km az=154.0*

*IDC **23** 15:25:27.9±8.8, 19.08S×169.50E, h279^{km}±84^{km}, mb3.8/9, mb1 4.1/9, mb1mx4.0/13, Error ellipse: s-maj=54.0km s-min=29.8km az=166.0*

ISC 23 15:25:27.5±1.6**, 19.5S**±0.2×**169.5E**±0.1**, h291**^{km}±14^{km}**, n25, σ1^{s}03**/20**, mb4.3**/14**, 1D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NOUC	Port Laguerre	3.97	229	*e*P	P	15 26 34.5	+1.1
NOUC				*e*S	S	15 27 23.7	-1.1
CTA	Charters Tower	21.92	265	*e*P	P	15 30 00.1	+1.8
	87nm,1.5s,mb4.9						
CTA	Charters Tower	21.92	265	P	P	15 29 59.7	+1.4
	12nm,0.6s,mb4.4,baz=102,slow=11,SNR=10						
CTAO	Charters Tower	21.92	265	*e*P	P	15 29 60.0	+1.7
	24nm,1.1s,mb4.4						
STKA	Stephens Creek	27.94	238	P	P	15 30 55.1	+1.5
	18nm,0.7s,mb4.6,baz=52,slow=11,SNR=10						
WRAB	Tennant Creek	33.09	263	*e*P	P	15 31 37.1	-1.4
	20nm,0.7s,mb4.8						
WRA	Warramunga Arr	33.10	263	P	P	15 31 37.6	-1.0
	4.5nm,0.4s,mb4.3,baz=82,slow=5.9,SNR=78						
ASAR	Alice Springs	33.34	256	P	P	15 31 40.5	0.0
	53nm,0.5s,mb5.3,baz=76,slow=9.0,SNR=136						
ASPA	Alice Springs	33.34	256⇓	*i*P	P	15 31 40.5	-0.1
FITZ	Fitzroy Crossi	41.50	264	*e*P	P	15 32 49.0	+0.6
	102nm,1.5s,mb4.8						
MBWA	Marble Bar	46.58	259	*e*P	P	15 33 25.4	-3.3
	45nm,1.0s,mb4.8						
KLBR	Kellerberrin	47.85	245	*e*P	P	15 33 38.6	+0.2
KLBR				*e*T		15 44 00.3	
VNDA	Vanda	58.15	182	*e*P	P	15 34 52.2	-0.4
	6.2nm,1.2s,mb3.9						
CMAR	Chiang Mai Arr	78.88	294	P	P	15 37 01.3	+0.7
	0.3nm,0.3s,mb3.5,baz=139,slow=4.5,SNR=4.5						
YBH	Yreka Blue Hor	87.31	44	P	P	15 37 42.5	-0.3
	1.5nm,0.5s,mb4.0,baz=209,slow=2.8,SNR=4.2						
SONM	Songino Array	87.62	323	P	P	15 37 43.7	-0.4
	3.4nm,1.2s,mb4.0,baz=138,slow=6.0,SNR=3.9						
NVAR	Mina Array Bea	88.78	48	P	P	15 37 49.8	0.0
	2.2nm,0.9s,mb4.0,baz=229,slow=6.9,SNR=4.1						
ILAR	Eielson Array	90.42	17	P	P	15 37 53.5	-3.3
	1.6nm,1.1s,mb3.8,baz=238,slow=5.5,SNR=9.0						
TXAR	Lajitas Array	96.65	61	P	P	15 38 26.8	+0.6
	0.7nm,0.8s,mb3.9,baz=211,slow=5.3,SNR=2.8						
YKA	Yellowknife Ar	100.79	27	P	P	15 38 43.6	-0.5
	0.3nm,0.5s,baz=256,slow=4.7,SNR=5.8						
ARCES	ARCESS Array B	125.42	345	PKP	PKPdf	15 43 53.0	-0.4
	7.5nm,1.1s,baz=88,slow=2.7,SNR=7.2						
GERES	GERESS Array B	144.88	332	PKP	PKPdf	15 44 29.9	+0.2
	0.9nm,0.5s,baz=40,slow=4.1,SNR=8.0						
IDI	Anoyia	145.13	304	PKP	PKPdf	15 44 31.2	+0.6
	3.7nm,0.8s,baz=210,slow=3.1,SNR=3.5						
IDI	Anoyia	145.13	304	PKP	PKPdf	15 44 31.2	+0.6
DAVOX	Davos	148.12	333	PKPbc	PKPdf	15 44 39.6	+4.5
	2.9nm,0.4s,baz=262,slow=3.0,SNR=6.5						

IDC 23 15:37:48.3±5.2**, 48.41S×163.65E, mb4.1**/3**, mb1 4.4**/3**, mb1mx4.0**/8**, Error ellipse: s-maj=600.0km s-min=66.2km az=45.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	Mavora Lakes	4.36	47	*e*P	Pn	15 38 30.5	-27
MLZ				*e*S	Sn	15 40 06.9	+17
TUZ	Tuapeka	4.76	61	*e*P	Pn	15 38 35.8	-27
EAZ	Earnscleugh	5.02	53	S	Sn	15 40 16.8	+11
ASAR	Alice Springs	34.10	306	P	P	15 44 34.5	-2.1
	2.9nm,0.8s,baz=145,slow=8.6,SNR=9.3						
WRA	Warramunga Arr	36.92	310	P	P	15 44 58.8	-1.8
	5.2nm,0.9s,baz=146,slow=8.0,SNR=3.4						
CMAR	Chiang Mai Arr	87.96	301	P	P	15 50 40.0	-1.3
	0.3nm,0.4s,baz=180,slow=2.7,SNR=4.6						
AKASG	Malin Array Be	150.70	292	PKPbc	PKPdf	15 57 41.1	+3.5
	0.2nm,0.3s,baz=72,slow=3.0,SNR=4.4						

IDC 23 15:45:32.2±3.7**, 50.22S×161.54E, mb4.0**/2**, mb1 4.3**/3**, mb1mx3.8**/9**, ML3.5**/1**, Error ellipse: s-maj=89.1km s-min=41.2km az=175.0, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	9.19	49	Pn	P	15 47 46.1	-2.9
	0.5nm,0.3s,baz=217,slow=6.3,SNR=4.7						
ASAR	Alice Springs	34.13	311	P	P	15 52 18.7	-2.1
	2.7nm,0.7s,baz=145,slow=8.1,SNR=15						
WRA	Warramunga Arr	37.12	315	P	P	15 52 44.4	-1.8
	1.3nm,0.8s,baz=141,slow=9.5,SNR=2.9						
FINES	FINESS Array B	153.14	312	PKPbc	PKPdf	16 05 30.3	+5.7
	2.0nm,1.0s,baz=135,slow=3.9,SNR=3.4						

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*IDC **23** 15:48:14.9±0.6, 49.73S×161.55E, mb4.8/8, mb1 4.9/10, mb1mx4.7/13, ML4.5/2, Error ellipse: s-maj=25.5km s-min=17.6km az=67.0*

*NEIC **23** 15:48:21.1±0.3, 49.17S×161.11E, h10^{km}, mb5.3/10, Error ellipse: s-maj=9.2km s-min=8.2km az=67.0*

ISC 23 15:48:14.7±0.5**, 49.68S**±0.07×**161.56E**±0.07**, h10^{km}, n58, σ1^{s}08**/46**, mb5.1**/15**, 1C-1D, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	Mavora Lakes	6.23	48	P	Pn	15 49 49.9	+0.8
MLZ				S	Sn	15 51 00.4	-0.7
TUZ	Tuapeka	6.59	59	P	Pn	15 49 54.5	+0.4
TUZ				S	Sn	15 51 08.0	-2.1
MSZ	Milford Sound	6.63	43	P	Pn	15 49 56.7	+2.1
MSZ				S	Sn	15 51 10.3	-0.7
EAZ	Earnscleugh	6.88	53	P	Pn	15 49 58.8	+0.6
EAZ				S	Sn	15 51 14.0	-3.4
WKZ	Wanaka	7.02	49	P	Pn	15 50 02.3	+2.1
WKZ				S	Sn	15 51 20.9	0.0
JCZ	Jackson Bay	7.46	44	P	Pn	15 50 08.1	+1.7
FOZ	Fox Glacier	8.29	46	P	P	15 50 19.2	+1.4
FOZ				S	Sn	15 51 51.3	-1.2
RPZ	Rata Peaks	8.84	51	Pn	P	15 50 24.1	-1.4
	6.1nm,0.3s,baz=218,slow=5.6,SNR=13						
WVZ	Waitaha Valley	9.15	47	P	P	15 50 30.4	+0.5
LTZ	Lake Taylor	10.12	51	P	P	15 50 43.4	+0.2
DSZ	Denniston Nort	10.68	46	P	P	15 50 50.2	-0.6
KHZ	Kahutara	11.04	53	P	P	15 50 56.0	+0.3
THZ	Tophouse	11.20	49	P	P	15 50 57.9	+0.1
QRZ	Quartz Range	11.74	45	P	P	15 51 04.4	-0.8
NNZ	Nelson	11.84	49	P	P	15 51 06.5	-0.1
URZ	Urewera	15.95	50	Pn	P	15 52 02.2	+1.4
	1.6nm,0.3s,baz=246,slow=6.4,SNR=7.9						
STKA	Stephens Creek	23.22	313	*e*P	P	15 53 22.0	-0.7
	66nm,1.5s,mb4.8						
STKA	Stephens Creek	23.22	313	P	P	15 53 25.4	+2.8

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
	39nm,1.1s,mb4.8,baz=134,slow=10,SNR=9.3						
VNDA	Vanda	27.95	180	P	P	15 54 06.5	-0.2
	2.6nm,0.9s,mb3.9,baz=218,slow=3.8,SNR=4.4						
VNDA	Vanda	27.95	180	P	P	15 54 06.5	-0.2
CTA	Charters Tower	31.95	332	eP	P	15 54 43.1	+0.2
CTA	Charters Tower	31.95	332	P	P	15 54 42.2	-0.6
	13nm,1.0s,mb4.7,baz=181,slow=11,SNR=4.5						
CTAO	Charters Tower	31.95	332	eP	P	15 54 42.5	-0.4
	80nm,1.5s,mb5.3						
ASAR	Alice Springs	33.80	310	P	P	15 54 58.6	-0.3
	31nm,0.8s,mb5.3,baz=147,slow=8.0,SNR=55						
ASAR				PcP	PcP	15 57 37.0	-1.3
	1.5nm,0.8s,baz=138,slow=3.4,SNR=4.3						
ASPA	Alice Springs	33.80	310	⇑iP	P	15 54 58.6	-0.3
WB2	Warramunga Arr	36.75	314	⇓iP	P	15 55 23.4	-0.7
WRA	Warramunga Arr	36.75	314	P	P	15 55 23.0	-1.1
	57nm,1.0s,mb5.4,baz=146,slow=8.2,SNR=28						
WRAB	Tennant Creek	36.76	314	eP	P	15 55 23.1	-1.0
	243nm,1.3s,mb5.9						
KLBR	Kellerberrin	37.21	282	eP	P	15 55 28.2	+0.4
	204nm,1.3s,mb5.8						
QSPA	South Pole Qui	40.44	180	eP	P	15 55 54.9	+0.5
	37nm,1.0s,mb5.1						
PMG	Port Moresby	41.90	338	P	P	15 56 07.9	+1.0
	11nm,0.8s,mb4.5,baz=231,slow=2.8,SNR=6.4						
PMG	Port Moresby	41.90	338	P	P	15 56 07.9	+1.0
FITZ	Fitzroy Crossi	42.68	305	eP	P	15 56 13.5	+0.2
MBWA	Marble Bar	43.56	295	eP	P	15 56 19.2	-1.2
	66nm,1.2s,mb5.2						
KAKA	Kakadu	43.95	317	eP	P	15 56 23.2	-0.4
	67nm,1.2s,mb5.2						
MAW	Mawson	48.35	210	eP	P	15 56 54.5	-3.2
	8.3nm,0.5s,mb5.0						
SNAA	Sanae	58.45	186	P	P	15 58 11.1	-1.3
	2.6nm,0.9s,mb4.3,baz=185,slow=8.9,SNR=7.7						
SNAA	Sanae	58.45	186	eP	P	15 58 10.0	-2.4
	32nm,1.3s,mb5.2						
CM31	Chiang Mai Arr	87.46	302	eP	P	16 01 04.5	+0.8
	20nm,1.1s,mb5.2						
CMAR	Chiang Mai Arr	87.46	302	P	P	16 01 05.1	+1.4
	5.8nm,0.9s,mb4.8,baz=169,slow=3.7,SNR=18						
ILAR	Eielson Array	120.92	23	PKP	PKPdf	16 07 07.5	-2.0
	0.7nm,0.8s,baz=270,slow=6.3,SNR=4.7						
INK	Inuvik	127.11	25	PKP	PKPdf	16 07 18.1	-3.0
	0.3nm,0.5s,baz=92,slow=0.4,SNR=3.9						
BVAR	Borovoye Array	127.87	310	PKP	PKPdf	16 07 21.7	-1.4
	1.1nm,0.8s,baz=180,slow=1.5,SNR=5.7						
CHKZ	Chkalovo	128.13	311	ePKPdf	PKPdf	16 07 21.7	-1.8
YKA	Yellowknife Ar	129.86	37	PKP	PKPdf	16 07 25.6	-0.9
	0.3nm,0.8s,baz=229,slow=2.0,SNR=3.8						
BRTR	Keskin Array B	142.36	275	PKhKP		16 07 46.1	
	2.3nm,1.2s,baz=323,slow=6.2,SNR=2.8						
IDI	Anoyia	145.47	262	PKPbc	PKPbc	16 07 54.6	+1.5
	42nm,1.2s,baz=97,slow=4.8,SNR=11						
AKASG	Malin Array Be	149.88	290	PKPbc	PKPdf	16 08 05.1	+2.9
	5.1nm,0.7s,baz=79,slow=2.6,SNR=21						
FRB	Frobisher Bay	150.03	43	PKPbc	PKPdf	16 08 06.2	+4.0
	6.4nm,1.1s,baz=326,slow=2.8,SNR=4.7						
MLR	Muntele Rosu	150.10	279	PKPbc	PKPdf	16 08 06.3	+3.5
	4.3nm,0.8s,baz=355,slow=4.7,SNR=4.9						
JOF	Joensuu	150.23	315	epkp	PKPdf	16 08 05.9	+3.5
SCHQ	Schefferville	150.42	61	PKPbc	PKPdf	16 08 06.8	+3.8
	9.0nm,1.2s,baz=274,slow=3.4,SNR=3.2						
ARCES	ARCESS Array B	151.19	330	PKPbc	PKPdf	16 08 08.8	+5.1
	9.0nm,0.7s,baz=82,slow=2.0,SNR=18						
ARCES				PKPab	PKPab	16 08 16.1	-0.7
	7.7nm,0.6s,baz=95,slow=2.1,SNR=16						
ARCES	ARCESS Array B	151.19	330	PKPbc	PKPdf	16 08 08.8	+5.1
ARCES				PKPab	PKPab	16 08 16.1	-0.7
KAF	Kangasniemi	152.61	314	epkp	PKPdf	16 08 10.3	+4.3
FINES	FINESS Array B	152.79	313	PKPbc	PKPdf	16 08 12.0	+5.7
	4.2nm,0.7s,baz=99,slow=4.8,SNR=13						
TIP	Timpagrande	152.99	261	ePKPdf	PKPdf	16 08 09.5	+2.3
GERES	GERESS Array B	159.09	280	PKPab	PKPab	16 08 50.4	-0.6
	1.6nm,0.7s,baz=135,slow=3.8,SNR=9.0						

PRU 23 15:49:32.2,50.32N×19.16E

WAR 23 15:49:31.8,50.17N×19.30E,h0^{km},ML2.4,Mining Induced,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	Ojcow	0.32	81	ePG	Pg	15 49 38.0	-0.3
OJC				eSG	Sg	15 49 43.0	+0.4
OKC	Ostrava-Krasne	0.81	246	ePG	Pg	15 49 47.3	-0.8
OKC				eSG	Sg	15 49 58.6	-0.3
NIE	Niedzica	1.00	138	ePg	Pg	15 49 50.8	-0.9
NIE				eSg	Sg	15 50 05.9	+0.9
DPC	Dobruska-Polom	1.92	277	ePG	Pg	15 50 04.7	-5.4
DPC				eSG	Sg	15 50 30.1	-5.6
KSP	Ksiaz	2.04	290	ePG	Pg	15 50 11.0	-1.4
KSP				eSG	Sg	15 50 36.0	-3.5
UPC	Upice	2.13	280	eSG	Sg	15 50 37.4	-5.4
UPC	Upice	2.13	280	eSg	Sg	15 50 37.4	-5.4
KHC	Kasperske Hory	3.86	257	eSG	Sg	15 51 34.4	-5.9
KHC	Kasperske Hory	3.86	257	eSg	Sg	15 51 34.4	-5.9

IDC 23 15:54:10.7±3.1,48.10S×163.72E,mb4.2/3,mb1 4.5/3, mb1mx4.0/8,Error ellipse: s-maj=420.0km s-min=67.1km az=37.0,Off west coast of South Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	33.96	305	P	P	16 00 55.9	-1.9
	2.6nm,0.8s,baz=146,slow=8.6,SNR=13						
WRA	Warramunga Arr	36.77	310	P	P	16 01 19.9	-1.8
	2.8nm,0.8s,baz=140,slow=9.1,SNR=6.2						
CMAR	Chiang Mai Arr	87.85	301	P	P	16 07 01.2	-1.9
	0.7nm,0.4s,baz=157,slow=4.2,SNR=5.1						
FINES	FINESS Array B	152.72	315	PKPbc	PKPdf	16 14 08.5	+5.8
	2.4nm,0.9s,baz=135,slow=5.9,SNR=3.6						

IDC 23 15:59:54.7±1.7,49.75S×161.79E,mb4.1/4,mb1 4.4/5, mb1mx4.1/9,ML3.3/1,Error ellipse: s-maj=56.5km s-min=34.6km az=14.0

NEIC 23 15:59:60.0±0.9,49.33S×161.57E,h10^{km},mb4.8/2,Error ellipse: s-maj=21.7km s-min=16.4km az=187.0

ISC 23 15:59:53.0±3.1,50.0S±0.1×161.8E±0.1,h8^{km}±20^{km},n20, σ1^{s}22/19,mb4.4/6,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLZ	Mavora Lakes	6.29	45	S	Sn	16 02 41.9	+0.5
MLZ				P		16 02 22.7	
TUZ	Tuapeka	6.59	56	S	Sn	16 02 47.9	-0.9
MSZ	Milford Sound	6.72	40	eP	Pn	16 01 37.4	+3.0
MSZ				eS	Sn	16 02 55.0	+3.1
EAZ	Earnscleugh	6.92	50	eP	Pn	16 01 38.5	+1.2
EAZ				S	Sn	16 02 56.2	-0.8
ODZ	Otahua Downs	7.73	54	eP	Pn	16 01 48.0	-0.6
RPZ	Rata Peaks	8.88	49	Pn	P	16 02 02.4	-2.2
	0.3nm,0.3s,baz=101,slow=20,SNR=2.4						
STKA	Stephens Creek	23.54	313	eP	P	16 05 06.5	+2.1
	26nm,1.1s,mb4.6						
STKA	Stephens Creek	23.54	313	P	P	16 05 06.0	+1.6
	3.9nm,0.9s,mb3.8,baz=136,slow=12,SNR=3.6						
STKA	Stephens Creek	23.54	313	eP	P	16 05 05.6	+1.2
STKA				eP		16 05 06.5	
ASAR	Alice Springs	34.12	310	P	P	16 06 39.8	-0.4
	6.8nm,0.7s,mb4.7,baz=144,slow=8.1,SNR=74						
ASPA	Alice Springs	34.12	310	eP	P	16 06 40.1	-0.2
WB2	Warramunga Arr	37.07	314	eP	P	16 07 04.5	-0.9
WRA	Warramunga Arr	37.08	314	P	P	16 07 04.1	-1.4
	4.9nm,0.8s,mb4.4,baz=148,slow=7.4,SNR=14						
WRAB	Tennant Creek	37.08	314	eP	P	16 07 04.5	-0.9
	20nm,0.8s,mb5.0						
FITZ	Fitzroy Crossi	42.99	305	eP	P	16 07 54.6	+0.2
	8.7nm,0.6s,mb4.7						
SNAA	Sanae	58.19	186	P	P	16 09 49.6	+0.5
CMAR	Chiang Mai Arr	87.76	302	P	P	16 12 45.0	+1.3
	0.2nm,0.5s,mb3.6,baz=159,slow=2.8,SNR=5.1						
AKASG	Malin Array Be	150.14	290	PKPbc	PKPdf	16 19 45.1	+4.0
	0.1nm,0.3s,baz=52,slow=3.3,SNR=4.8						
ARCES	ARCESS Array B	151.52	329	PKP	PKPdf	16 19 43.2	+0.6
	3.0nm,0.8s,baz=61,slow=22,SNR=2.4						
ARCES				PKPbc	PKPdf	16 19 49.0	+6.4
	13nm,1.2s,baz=108,slow=3.8,SNR=5.4						
FINES	FINESS Array B	153.11	312	PKPbc	PKPdf	16 19 51.8	+6.8
	2.2nm,0.9s,baz=90,slow=1.9,SNR=5.6						

IDC 23 16:00:43.7±3.9,51.64S×160.51E,mb3.9/2,mb1 4.2/2, mb1mx3.7/8,Error ellipse: s-maj=488.0km s-min=74.3km az=48.0

ISC 23 16:00:45.7±6.2,50.3S±0.9×162.0E±0.3,h10^{km},n7, σ0^{s}86/6,mb3.9/2,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TUZ	Tuapeka	6.70	53	P	Pn	16 02 26.9	+0.4
MSZ	Milford Sound	6.89	38	eP	Pn	16 02 29.2	-0.1
EAZ	Earnscleugh	7.05	47	P	Pn	16 02 31.7	+0.2
ODZ	Otahua Downs	7.84	52	eP	Pn	16 02 42.1	-0.5
ASAR	Alice Springs	34.37	310	P	P	16 07 33.8	-0.9
	1.9nm,0.8s,mb4.1,baz=149,slow=8.0,SNR=4.2						
WRA	Warramunga Arr	37.34	314	P	P	16 08 00.9	+1.0
	1.2nm,0.8s,mb3.8,baz=147,slow=8.6,SNR=3.7						
FINES	FINESS Array B	153.37	312	PKPbc	PKPdf	16 20 42.9	+4.9
	1.3nm,0.8s,baz=146,slow=5.0,SNR=3.3						

IDC 23 16:05:46.2±2.3,49.10S×161.31E,mb4.2/3,mb1 4.5/4, mb1mx4.1/9,ML4.3/1,Error ellipse: s-maj=66.1km s-min=30.5km az=172.0

ISC 23 16:05:48.2±1.6,48.9S±0.2×161.1E±0.1,h10^{km},n15, σ1^{s}21/15,mb4.3/3,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	5.51	60	P	Pn	16 07 12.2	-0.2
MLZ	Mavora Lakes	5.97	56	P	Pn	16 07 19.7	+0.8
MSZ	Milford Sound	6.29	51	P	Pn	16 07 24.8	+1.4
MSZ				S	Sn	16 08 35.9	-0.2
TUZ	Tuapeka	6.47	66	P	Pn	16 07 24.6	-1.4
EAZ	Earnscleugh	6.68	60	P	Pn	16 07 28.9	+0.1
WKZ	Wanaka	6.76	56	P	Pn	16 07 31.5	+1.5
JCZ	Jackson Bay	7.13	50	P	Pn	16 07 37.3	+2.1
RPZ	Rata Peaks	8.60	57	Pn	P	16 07 53.0	-2.6
	3.5nm,0.3s,baz=52,slow=0.2,SNR=13						
RPZ				Sn	Sn	16 09 30.5	-3.2
	0.9nm,0.3s,baz=340,slow=8.0,SNR=2.6						
ASAR	Alice Springs	33.06	310	P	P	16 12 26.4	+0.3
	3.0nm,0.6s,mb4.4,baz=146,slow=8.5,SNR=48						
ASPA	Alice Springs	33.06	310	eP	P	16 12 26.0	0.0
WB2	Warramunga Arr	35.99	314	eP	P	16 12 51.1	-0.1
WRA	Warramunga Arr	35.99	314	P	P	16 12 49.8	-1.4
	3.1nm,0.7s,mb4.4,baz=151,slow=9.8,SNR=15						
CMAR	Chiang Mai Arr	86.78	303	P	P	16 18 34.1	+0.2
	0.9nm,0.8s,mb4.0,baz=152,slow=3.9,SNR=8.3						
ARCES	ARCESS Array B	150.35	330	PKPbc	PKPdf	16 25 37.5	+1.6
	6.1nm,1.2s,slow=1.8,SNR=4.2						
FINES	FINESS Array B	152.03	314	PKPbc	PKPdf	16 25 42.2	+3.6
	1.4nm,0.7s,baz=108,slow=6.0,SNR=5.2						

IDC 23 16:07:31.9±0.6,49.28S×161.41E,mb4.5/8,mb1 4.7/10, mb1mx4.6/13,ML4.6/2,Error ellipse: s-maj=27.1km s-min=17.4km az=69.0

SYO 23 16:07:34.7,49.28S×161.07E,h10^{km},MB5.1

NEIC 23 16:07:38.4±0.2,48.70S×161.19E,h10^{km},mb4.9/8,Error ellipse: s-maj=5.8km s-min=3.2km az=160.0

ISC 23 16:07:32.2±0.4,49.22S±0.06×161.44E±0.06,h10^{km},n77, σ1^{s}32/70,mb4.8/14,7C-2D,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	Deep Cove	5.39	48	P	Pn	16 08 55.7	+1.1
WHZ	Wether Hill Ro	5.51	55	eP	Pn	16 08 58.3	+1.9
WHZ				S	Sn	16 09 59.6	-1.1
WHZ	Wether Hill Ro	5.51	55	P	Pn	16 08 58.1	+1.7
WHZ				S	Sn	16 09 59.6	-1.1
MLZ	Mavora Lakes	5.99	52	eP	Pn	16 09 05.3	+2.1
MLZ				S	Sn	16 10 11.9	-0.8
MLZ	Mavora Lakes	5.99	52	P	Pn	16 09 05.1	+1.9
MLZ				S	Sn	16 10 11.9	-0.8
MSZ	Milford Sound	6.35	47	P	Pn	16 09 11.0	+2.8
TUZ	Tuapeka	6.43	63	eP	Pn	16 09 10.4	+1.1
TUZ	Tuapeka	6.43	63	P	Pn	16 09 10.3	+1.0
TUZ				S	Sn	16 10 21.3	-2.2
EAZ	Earnscleugh	6.67	56	eP	Pn	16 09 13.6	+0.8
EAZ	Earnscleugh	6.67	56	P	Pn	16 09 13.6	+0.8
EAZ				S	Sn	16 10 29.5	-0.2
WKZ	Wanaka	6.79	53	eP	Pn	16 09 17.0	+2.7
WKZ	Wanaka	6.79	53	P	Pn	16 09 17.0	+2.7
WKZ				S	Sn	16 10 33.3	+0.8
JCZ	Jackson Bay	7.19	47	eP	Pn	16 09 23.6	+3.5
JCZ	Jackson Bay	7.19	47	P	Pn	16 09 23.6	+3.5
JCZ				S	Sn	16 10 42.1	-0.6
ODZ	Otahua Downs	7.53	60	eP	Pn	16 09 24.4	-0.4
ODZ	Otahua Downs	7.53	60	P	Pn	16 09 23.5	-1.3
LBZ	Lake Benmore	7.70	54	eP	Pn	16 09 27.0	-0.1
LBZ	Lake Benmore	7.70	54	P	Pn	16 09 26.7	-0.4
LBZ				eS	Sn	16 10 51.7	-3.6
FOZ	Fox Glacier	8.02	48	P	P	16 09 34.1	+2.4
RPZ	Rata Peaks	8.61	54	Pn	P	16 09 38.4	-1.5
	21nm,0.3s,baz=181,slow=2.6,SNR=21						
RPZ				Sn	Sn	16 11 14.4	-3.7
	2.5nm,0.3s,baz=42,slow=18,SNR=3.4						
WVZ	Waitaha Valley	8.90	50	eP	P	16 09 44.5	+0.6
WVZ	Waitaha Valley	8.90	50	P	P	16 09 44.2	+0.3
LTZ	Lake Taylor	9.90	54	eP	P	16 09 55.9	-1.7
LTZ	Lake Taylor	9.90	54	P	P	16 09 55.9	-1.7
DSZ	Denniston Nort	10.42	48	eP	P	16 10 04.4	-0.3
DSZ	Denniston Nort	10.42	48	P	P	16 10 04.4	-0.3
THZ	Tophouse	10.96	51	eP	P	16 10 11.5	-0.6
THZ	Tophouse	10.96	51	P	P	16 10 10.9	-1.2
QRZ	Quartz Range	11.47	47	eP	P	16 10 19.6	+0.5
QRZ	Quartz Range	11.47	47	P	P	16 10 18.8	-0.3
NNZ	Nelson	11.60	51	eP	P	16 10 20.4	-0.4
NNZ	Nelson	11.60	51	P	P	16 10 20.4	-0.4
URZ	Urewera	15.72	52	Pn	P	16 11 14.8	-0.4
	0.6nm,0.3s,baz=210,slow=14,SNR=3.5						
WCZ	Waipu Caves	16.28	40	P	P	16 11 25.9	+3.4
STKA	Stephens Creek	22.85	312	eP	P	16 12 38.3	+1.7
	11nm,0.9s,mb4.3						
STKA	Stephens Creek	22.85	312	P	P	16 12 37.4	+0.8
	6.4nm,0.9s,mb4.1,baz=153,slow=12,SNR=5.1						
VNDA	Vanda	28.41	180	P	P	16 13 28.1	-0.3
	2.8nm,0.8s,mb3.9,baz=340,slow=9.6,SNR=8.3						
VNDA	Vanda	28.41	180	eP	P	16 13 28.0	-0.4
	12nm,1.3s,mb4.4						
CTA	Charters Tower	31.51	332	P	P	16 13 57.8	+1.4
	2.4nm,0.7s,mb4.1,baz=210,slow=8.1,SNR=3.1						
ASAR	Alice Springs	33.44	310	P	P	16 14 12.8	-0.5
	16nm,0.7s,mb5.0,baz=147,slow=8.5,SNR=88						
ASAR				PcP	PcP	16 16 52.0	-2.6
	4.5nm,0.9s,baz=146,slow=6.9,SNR=11						
ASPA	Alice Springs	33.44	310	⇑iP	P	16 14 12.8	-0.5
ASPA				e		16 14 20.4	
WB2	Warramunga Arr	36.37	314	⇑iP	P	16 14 37.3	-1.1
WB2				e		16 14 44.3	
WRA	Warramunga Arr	36.38	314	P	P	16 14 37.4	-1.0
	22nm,0.8s,mb5.1,baz=145,slow=8.7,SNR=58						
WRA				PcP	PcP	16 17 01.9	-1.4
	2.7nm,0.9s,baz=150,slow=2.8,SNR=8.7						
WRAB	Tennant Creek	36.38	314	eP	P	16 14 37.3	-1.1
	51nm,0.9s,mb5.5						
WRAB				e		16 14 44.6	
QSPA	South Pole Qui	40.91	180	eP	P	16 15 16.3	+0.7
	33nm,1.1s,mb4.9						
QSPA				e		16 15 29.7	
PMG	Port Moresby	41.44	338	P	P	16 15 19.9	-0.7
	14nm,0.8s,mb4.6,baz=242,slow=1.7,SNR=7.7						
FITZ	Fitzroy Crossi	42.35	304	⇑iP	P	16 15 28.1	0.0
	11nm,0.7s,mb4.6						
FITZ				i		16 15 35.3	
MBWA	Marble Bar	43.30	295	eP	P	16 15 34.4	-1.4
	19nm,1.1s,mb4.7						
MBWA				e		16 15 41.6	
KAKA	Kakadu	43.56	317	eP	P	16 15 37.3	-0.6
SYO	Syowa Base	54.58	202	⇓P	P	16 17 00.3	-2.0
SYO	Syowa Base	54.58	202	⇑pP	pP	16 17 02.2	-3.1
SNAA	Sanae	58.90	186	⇑i	P	16 17 31.1	-2.0
SNAA	Sanae	58.90	186	P	P	16 17 31.2	-1.9
	1.9nm,0.8s,mb4.2,baz=166,slow=7.5,SNR=11						
VNA3	Neumayer Olymp	59.68	183	⇓i	P	16 17 40.3	+1.8
VNA3	Neumayer Olymp	59.68	183		P	16 17 49.0	+11
VNA1	Neumayer--Stat	60.22	184	⇑i	P	16 17 44.6	+2.5
VNA1	Neumayer--Stat	60.22	184	⇑i	P	16 17 51.6	+9.5
SCPH	Surigao	66.69	321	i P	P	16 18 29.2	+3.7
CM31	Chiang Mai Arr	87.14	303	eP	P	16 20 21.2	+1.5
	13nm,0.9s,mb5.2						
CM31				e		16 20 28.1	
CMAR	Chiang Mai Arr	87.14	303	P	P	16 20 20.9	+1.2
	5.5nm,0.9s,mb4.8,baz=163,slow=3.9,SNR=39						
SUR	Sutherland	91.52	212	eP	P	16 20 33.8	-6.2
	50nm,1.6s,mb5.6						
ILAR	Eielson Array	120.52	23	PKP	PKPdf	16 26 23.7	-2.5
	1.0nm,0.7s,baz=294,slow=3.6,SNR=8.0						
INK	Inuvik	126.72	25	PKP	PKPdf	16 26 36.2	-1.6
	2.8nm,0.9s,baz=264,slow=4.2,SNR=7.9						
INK	Inuvik	126.72	25	PKP	PKPdf	16 26 36.2	-1.6
BVAR	Borovoye Array	127.52	310	PKP	PKPdf	16 26 37.6	-2.2
	4.3nm,1.2s,baz=146,slow=5.3,SNR=6.8						
YKA	Yellowknife Ar	129.54	37	PKP	PKPdf	16 26 41.7	-1.8
	1.2nm,1.1s,baz=223,slow=1.8,SNR=7.2						
YKA	Yellowknife Ar	129.54	37	PKP	PKPdf	16 26 41.7	-1.8
DBIC	Dimbokro	136.05	200	PKP	PKPdf	16 26 54.9	-2.1
	1.0nm,0.8s,baz=252,slow=2.5,SNR=3.9						
IDI	Anoyia	145.45	263	PKPbc	PKPbc	16 27 11.0	+0.4
	9.8nm,0.8s,baz=162,slow=4.6,SNR=6.0						
AKASG	Malin Array Be	149.64	291	PKPbc	PKPdf	16 27 21.8	+2.4
	8.1nm,0.9s,baz=80,slow=2.5,SNR=23						
ARCES	ARCESS Array B	150.75	330	PKPbc	PKPdf	16 27 25.0	+4.5
	30nm,1.1s,baz=102,slow=1.6,SNR=22						
ARCES	ARCESS Array B	150.75	330	PKPbc	PKPdf	16 27 25.0	+4.5
KAF	Kangasniemi	152.23	315	ep	PKPdf	16 27 26.8	+3.9
	0.5nm,0.4s						
FINES	FINESS Array B	152.42	313	PKPbc	PKPdf	16 27 27.8	+4.5
	4.2nm,0.6s,baz=106,slow=4.7,SNR=34						
GERES	GERESS Array B	158.93	281	PKPab	PKPab	16 28 06.4	-1.4
	2.4nm,0.7s,baz=108,slow=4.2,SNR=15						
KHC	Kasperske Hory	159.07	282	ePKPab	PKPab	16 28 07.5	-0.9
NOA	NORSAR Array B	159.48	316	PKPab	PKPab	16 28 07.4	-2.4
	2.1nm,0.8s,baz=67,slow=4.6,SNR=4.2						

NEIC 23 16:13:46.3±1.1,20.64S×178.81W,h586^{km}±13^{km},mb4.4/8, Error ellipse: s-maj=16.7km s-min=9.5km az=146.0

IDC 23 16:13:51.9±2.6,20.58S×179.03W,h650^{km}±32^{km}, mb3.3/14,mb1 3.5/15,mb1mx3.5/18,Error ellipse: s-maj=22.3km s-min=13.3km az=155.0

ISC 23 16:13:45.4±1.3,20.7S±0.1×178.9W±0.1,h585^{km}±18^{km}, n33,σ0^{s}94/26,mb3.9/17,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	9.55	46	eP	P	16 15 59.4	-0.4
	60nm,0.8s						
URZ	Urewera	17.88	190	P	P	16 17 19.5	-1.7
	2.2nm,0.3s,baz=353,slow=3.4,SNR=11						
CTA	Charters Tower	32.64	265	eP	P	16 19 32.4	+0.7
	8.9nm,0.6s,mb4.6						
CTA	Charters Tower	32.64	265	P	P	16 19 32.6	+0.9
	3.5nm,0.5s,mb4.2,baz=273,slow=4.2,SNR=15						
CTAO	Charters Tower	32.64	265	eP	P	16 19 33.2	+1.5
	4.5nm,0.5s,mb4.3						
STKA	Stephens Creek	36.97	244	eP	P	16 20 08.7	+1.3
	10.0nm,0.6s,mb4.5						
STKA	Stephens Creek	36.97	244	P	P	16 20 08.4	+1.0
	3.3nm,0.6s,mb4.1,baz=92,slow=10,SNR=12						
ASAR	Alice Springs	43.67	257	P	P	16 21 01.8	+0.6
	8.5nm,0.9s,mb4.3,baz=91,slow=7.7,SNR=80						
ASAR				S	S	16 26 47.0	-2.9
	1.0nm,0.8s,baz=89,slow=16,SNR=6.4						
ASPA	Alice Springs	43.67	257	eP	P	16 21 01.7	+0.6
WB2	Warramunga Arr	43.74	262	eP	P	16 21 01.4	-0.3
WRAB	Tennant Creek	43.74	262	eP	P	16 21 01.8	0.0
	14nm,1.2s,mb4.4						
WRA	Warramunga Arr	43.75	262	P	P	16 21 01.8	0.0
	1.6nm,0.4s,mb3.9,baz=96,slow=7.5,SNR=37						
MBWA	Marble Bar	57.00	258	eP	P	16 22 37.4	-1.0
	11nm,0.9s,mb4.1						
VNDA	Vanda	57.68	185	P	P	16 22 43.2	+0.9
	1.3nm,0.6s,mb3.2,baz=357,slow=14,SNR=8.3						
VNDA	Vanda	57.68	185	eP	P	16 22 42.7	+0.4
	1.8nm,0.7s,mb3.3						
QSPA	South Pole Qui	69.41	180	eP	P	16 23 57.2	+0.7
	7.4nm,1.0s,mb4.1						
YBH	Yreka Blue Hor	80.94	39	P	P	16 25 01.6	+1.0
	2.1nm,0.5s,mb3.8,baz=4.3,slow=0.7,SNR=5.5						
NVAR	Mina Array Bea	81.71	44	P	P	16 25 05.5	+0.8
	1.2nm,0.6s,mb3.6,baz=224,slow=10,SNR=6.9						
TXAR	Lajitas Array	87.84	58	P	P	16 25 36.1	+1.5
	0.3nm,0.6s,mb3.2,baz=203,slow=6.9,SNR=2.9						
SNAA	Sanae	87.88	179	P	P	16 25 33.0	-0.8
	0.4nm,0.6s,mb3.3,baz=204,slow=13,SNR=6.8						
ILAR	Eielson Array	88.65	13	P	P	16 25 36.4	-1.2
	1.4nm,0.5s,mb4.1,baz=214,slow=5.1,SNR=26						
CMAR	Chiang Mai Arr	89.38	290	P	P	16 25 42.2	+0.1
	1.6nm,1.0s,mb3.8,baz=148,slow=4.6,SNR=5.4						
PDAR	Pinedale Array	89.65	44	P	P	16 25 42.8	0.0
	0.9nm,0.6s,mb3.8,baz=206,slow=3.2,SNR=9.2						
INK	Inuvik	94.64	15	P	P	16 26 03.9	-1.0
	1.8nm,1.1s,mb4.1,baz=0.9,slow=7.7,SNR=3.1						
YKA	Yellowknife Ar	97.00	25	P	P	16 26 14.6	-1.0
	0.1nm,0.5s,mb3.3,baz=241,slow=4.5,SNR=6.0						
BVAR	Borovoye Array	118.66	320	PKP	PKPdf	16 31 26.9	-0.3
	0.8nm,0.4s,baz=128,slow=2.8,SNR=6.2						
ARCES	ARCESS Array B	128.92	349	PKP	PKPdf	16 31 47.0	+0.4
	5.1nm,0.9s,baz=45,slow=8.6,SNR=4.5						
ARCES	ARCESS Array B	128.92	349	PKP	PKPdf	16 31 47.0	+0.4
FINES	FINESS Array B	135.68	343	PKP	PKPdf	16 32 00.3	+0.9
	2.6nm,0.9s,baz=153,slow=4.3,SNR=3.8						
FINES				SKPab		16 34 35.6	
	3.4nm,0.8s,baz=63,slow=3.1,SNR=10						
HFS	Hagfors	139.56	350	PKhKP		16 31 58.8	
	2.6nm,0.9s,baz=63,slow=3.3,SNR=7.7						
AKASG	Malin Array Be	142.74	330	PKP	PKPdf	16 32 09.8	-2.5
	2.8nm,0.4s,baz=42,slow=4.2,SNR=22						
BRTR	Keskin Array B	146.32	312	PKPbc	PKPbc	16 32 21.7	+1.1
	1.1nm,0.5s,baz=91,slow=2.8,SNR=4.6						
GERES	GERESS Array B	150.12	343	PKPbc	PKPdf	16 32 30.9	+6.4
	1.2nm,0.8s,baz=27,slow=3.0,SNR=4.9						

IDC 23 16:16:26.7±0.7,49.88S×161.80E,mb4.5/8,mb1 4.7/10, mb1mx4.5/13,ML4.4/2,Error ellipse: s-maj=23.9km s-min=18.2km az=72.0

SYO 23 16:16:29.8,49.82S×161.51E,h10^{km},MB5.1

NEIC 23 16:16:33.7±0.3,49.27S×161.40E,h10^{km},mb4.9/12,Error ellipse: s-maj=8.5km s-min=4.6km az=158.0

ISC 23 16:16:27.5±0.5,49.85S±0.06×161.75E±0.07,h10^{km},n66, σ1^{s}33/64,mb4.8/15,1C-2D,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	5.74	49	eP	Pn	16 17 56.3	+1.4
WHZ				S	Sn	16 18 59.9	-1.7
WHZ	Wether Hill Ro	5.74	49	P	Pn	16 17 56.3	+1.4
WHZ				S	Sn	16 18 59.9	-1.7
MLZ	Mavora Lakes	6.25	46	eP	Pn	16 18 03.7	+1.6
MLZ				S	Sn	16 19 14.0	-0.3
MLZ	Mavora Lakes	6.25	46	P	Pn	16 18 03.7	+1.6
MLZ				S	Sn	16 19 14.0	-0.3
TUZ	Tuapeka	6.57	57	eP	Pn	16 18 07.9	+1.3
TUZ	Tuapeka	6.57	57	P	Pn	16 18 07.9	+1.3
TUZ				S	Sn	16 19 20.2	-2.2
MSZ	Milford Sound	6.66	41	P	Pn	16 18 09.5	+1.6
MSZ				S	Sn	16 19 27.3	+2.6
EAZ	Earnscleugh	6.88	51	eP	Pn	16 18 12.1	+1.1
EAZ	Earnscleugh	6.88	51	P	Pn	16 18 11.2	+0.2
EAZ				S	Sn	16 19 28.8	-1.4
WKZ	Wanaka	7.04	47	eP	Pn	16 18 15.4	+2.3
WKZ	Wanaka	7.04	47	P	Pn	16 18 15.4	+2.3
WKZ				S	Sn	16 19 33.5	-0.5
JCZ	Jackson Bay	7.50	42	eP	Pn	16 18 22.1	+2.5
JCZ	Jackson Bay	7.50	42	P	Pn	16 18 21.5	+1.9
ODZ	Otahua Downs	7.70	55	eP	Pn	16 18 21.7	-0.8
ODZ	Otahua Downs	7.70	55	P	Pn	16 18 21.7	-0.8
ODZ				S	Sn	16 19 46.5	-4.2
LBZ	Lake Benmore	7.93	50	eP	Pn	16 18 24.4	-1.2
LBZ	Lake Benmore	7.93	50	P	Pn	16 18 24.4	-1.2
LBZ				S	Sn	16 19 52.0	-4.2
FOZ	Fox Glacier	8.31	44	P	P	16 18 32.8	+1.8
RPZ	Rata Peaks	8.84	50	Pn	P	16 18 35.4	-3.0
	5.7nm,0.3s,baz=236,slow=4.5,SNR=14						
RPZ				Sn	Sn	16 20 15.3	-3.8
	3.3nm,0.3s,baz=58,slow=22,SNR=4.0						
WVZ	Waitaha Valley	9.17	46	eP	P	16 18 46.4	+3.5
WVZ	Waitaha Valley	9.17	46	P	P	16 18 43.1	+0.2
LTZ	Lake Taylor	10.13	50	P	P	16 18 56.7	+0.7
DSZ	Denniston Nort	10.71	45	eP	P	16 19 03.8	-0.1
DSZ	Denniston Nort	10.71	45	P	P	16 19 03.8	-0.1
THZ	Tophouse	11.21	48	P	P	16 19 11.1	+0.3
QRZ	Quartz Range	11.77	44	eP	P	16 19 18.0	-0.4
QRZ	Quartz Range	11.77	44	P	P	16 19 18.0	-0.4
URZ	Urewera	15.96	49	Pn	P	16 20 12.8	-0.8
	1.1nm,0.3s,baz=154,slow=7.4,SNR=8.1						

WCZ	Waipu Caves	16.64	38	*e*P	P	16 20 26.7	+4.4
WCZ	Waipu Caves	16.64	38	P	P	16 20 26.7	+4.4
STKA	Stephens Creek	23.43	312	*e*P	P	16 21 38.3	+0.9
	12nm,0.9s,mb4.3						
STKA	Stephens Creek	23.43	312	P	P	16 21 38.1	+0.7
	14nm,0.9s,mb4.4,baz=146,slow=11,SNR=7.9						
VNDA	Vanda	27.78	180	P	P	16 22 17.7	-0.2
	1.5nm,0.9s,mb3.6,baz=339,slow=7.7,SNR=3.4						
VNDA	Vanda	27.78	180	P	P	16 22 18.1	+0.2
	9.7nm,1.3s,mb4.3						
CTA	Charters Tower	32.16	332	*e*P	P	16 22 58.1	+0.7
	8.3nm,1.0s,mb4.5						
CTA	Charters Tower	32.16	332	P	P	16 22 56.7	-0.7
	11nm,1.0s,mb4.6,baz=167,slow=6.4,SNR=4.7						
CTAO	Charters Tower	32.16	332	*e*P	P	16 22 57.6	+0.2
	22nm,1.1s,mb4.9						
ASAR	Alice Springs	34.00	310	P	P	16 23 11.8	-1.6
	23nm,0.8s,mb5.2,baz=143,slow=7.7,SNR=31						
ASPA	Alice Springs	34.00	310	⇑*i*P	P	16 23 12.5	-0.9
NWAO	Narrogin (SRO)	36.82	280	P	P	16 23 37.2	-0.1
	35nm,1.3s,mb5.0						
WB2	Warramunga Arr	36.95	314	*e*P	P	16 23 39.7	+1.2
WRA	Warramunga Arr	36.96	314	P	P	16 23 38.3	-0.3
	27nm,0.9s,mb5.0,baz=147,slow=8.1,SNR=24						
WRAB	Tennant Creek	36.96	314	*e*P	P	16 23 37.6	-1.0
	55nm,0.9s,mb5.4						
QSPA	South Pole Qui	40.28	180	*e*P	P	16 24 07.0	+1.3
	16nm,1.2s,mb4.6						
QSPA				*e*		16 24 13.8	
PMG	Port Moresby	42.10	338	P	P	16 24 22.1	+0.8
	8.1nm,0.9s,mb4.3,baz=93,slow=5.0,SNR=3.9						
MBWA	Marble Bar	43.75	295	*e*P	P	16 24 32.9	-1.7
	16nm,0.8s,mb4.8						
MBWA				*e*	pP	16 24 36.0	-1.6
SYO	Syowa Base	54.07	202	⇓P	P	16 25 52.9	-0.9
SYO	Syowa Base	54.07	202	⇓pP	pP	16 25 57.8	+1.0
SNAA	Sanae	58.30	186	P	P	16 26 22.2	-1.9
	1.4nm,1.0s,mb3.9,baz=198,slow=6.1,SNR=5.9						
SNAA	Sanae	58.30	186	*e*P	P	16 26 23.4	-0.7
	30nm,1.5s,mb5.1						
EFI	East Falkland	73.34	155	*e*P	P	16 28 03.8	+3.2
	40nm,1.1s,mb5.3						
CM31	Chiang Mai Arr	87.65	302	*e*P	P	16 29 17.6	+0.2
	4.2nm,0.7s,mb4.8						
CMAR	Chiang Mai Arr	87.65	302	P	P	16 29 17.8	+0.4
	2.3nm,0.8s,mb4.5,baz=156,slow=3.4,SNR=21						
SUR	Sutherland	91.10	212	P	P	16 29 30.5	-2.8
	23nm,1.1s,mb5.4						
ILAR	Eielson Array	121.02	23	PKP	PKPdf	16 35 19.1	-3.3
	0.6nm,0.8s,baz=310,slow=4.2,SNR=5.4						
INK	Inuvik	127.21	25	PKP	PKPdf	16 35 31.1	-3.0
	1.6nm,0.9s,baz=226,slow=6.4,SNR=4.4						
YKA	Yellowknife Ar	129.92	37	PKP	PKPdf	16 35 37.7	-1.7
	0.2nm,0.6s,baz=269,slow=2.0,SNR=4.9						
YKA	Yellowknife Ar	129.92	37	PKP	PKPdf	16 35 37.7	-1.8
IDI	Anoyia	145.57	262	PKPbc	PKPbc	16 36 05.5	-0.6
	14nm,0.9s,baz=335,slow=0.6,SNR=8.1						
AKASG	Malin Array Be	150.05	290	PKPbc	PKPdf	16 36 16.5	+1.2
	4.1nm,0.9s,baz=80,slow=2.3,SNR=14						
FRB	Frobisher Bay	150.06	43	PKPbc	PKPdf	16 36 17.7	+2.8
	5.2nm,0.7s,baz=343,slow=2.9,SNR=5.8						
MLR	Muntele Rosu	150.25	279	PKPbc	PKPdf	16 36 19.2	+3.5
	5.6nm,1.1s,baz=146,slow=5.2,SNR=4.5						
ARCES	ARCESS Array B	151.39	329	PKPbc	PKPdf	16 36 20.9	+4.2
	6.7nm,0.7s,baz=45,slow=3.4,SNR=12						
ARCES	ARCESS Array B	151.39	329	PKPbc	PKPdf	16 36 20.9	+4.2
FINES	FINESS Array B	152.99	312	PKPbc	PKPdf	16 36 23.9	+4.6
	1.9nm,0.6s,baz=119,slow=3.9,SNR=11						
GERES	GERESS Array B	159.24	280	PKPab	PKPab	16 37 02.5	-1.9
	1.0nm,0.8s,baz=117,slow=3.0,SNR=5.9						

*IDC **23** 16:20:02.7±0.9, 49.05N×156.19E, mb4.1/18, mb1 4.3/20, mb1mx4.2/30, ML4.2/2, Error ellipse: s-maj=25.1km s-min=14.0km az=160.0*

*MOS **23** 16:20:08.4±0.9, 49.23N×156.04E, h41^{km}, mb4.4/10, Error ellipse: s-maj=30.1km s-min=11.2km az=91.0*

*NEIC **23** 16:20:11.2±3.6, 49.16N×156.06E, h56^{km}±25^{km}, mb4.4/9, Error ellipse: s-maj=37.6km s-min=13.6km az=162.0*

ISC 23 16:20:03.3±3.0, **48.96N**±0.06×**156.2E**±0.1, **h14**^{km}±18^{km}, **n56,** σ**0**^{s}**.97**/59, **mb4.2**/27, **East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	Severo-Kuril's	1.72	359	*e*PN	Pn	16 20 32.5	-0.6
SKR				*i* S	Sn	16 20 55.5	+0.6
SKR				pmax	pmax		
	comp=E,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,540nm,0.5s						
SKR				smax			
	comp=E,690nm,0.5s						
SKR				smax			
	comp=Z,310nm,0.5s						
PET	Petropavlovsk	4.36	20	*e*PN	Pn	16 21 11.8	+1.2
PET				*e*S	Sn	16 22 02.0	+0.3
PET				pmax	pmax		
	comp=Z,13nm,0.3s						
PET				smax			
	comp=E,65nm,0.4s						
PET				smax			
	comp=N,171nm,0.5s						
PET	Petropavlovsk	4.36	20	*e*Pn	Pn	16 21 11.2	+0.5
ASAJ	Asahikawa	10.53	248	Pn	P	16 22 37.3	+0.5
	comp=N,4.0nm,0.3s,baz=87,slow=13,SNR=22						
ASAJ	Asahikawa	10.53	248	PN	P	16 22 37.3	+0.5
ASAJ				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MA2	Magadan	11.09	346	*e*P	P	16 22 45.7	+1.4
FX1	Attu Island--F	11.41	63	Pn	P	16 22 44.5	-4.2
	comp=Z,3.2nm,0.3s,baz=292,slow=19,SNR=8.0						
FX1				Sn	S	16 24 41.4	-16
	comp=Z,12nm,0.3s,baz=52,slow=19,SNR=11						
MAJO	Matsushiro	18.06	233	P	P	16 24 20.8	+5.6
	comp=Z,13nm,0.8s						
YAK	Yakutsk	19.72	321	*e*P	P	16 24 32.8	-2.1
YAK				pmax	pmax		
	comp=Z,9.0nm,0.9s						
YAK	Yakutsk	19.72	321	*e*P	P	16 24 33.2	-1.7
	comp=Z,32nm,0.7s						
BILL	Bilibino	19.79	11	*e*P	P	16 24 35.3	-0.4
	comp=Z,7.9nm,0.9s						
SONM	Songino Array	32.59	287	P	P	16 26 35.9	-0.2
	comp=Z,0.4nm,0.8s,mb3.4,baz=63,slow=9.7,SNR=4.0						
ILAR	Eielson Array	33.53	41	P	P	16 26 43.1	-0.9
	comp=Z,0.3nm,0.6s,mb3.4,baz=244,slow=7.5,SNR=4.8						
INK	Inuvik	38.67	34	P	P	16 27 27.7	+0.1
	comp=Z,0.9nm,0.6s,mb3.7,baz=275,slow=5.8,SNR=5.4						
INK	Inuvik	38.67	34	P	P	16 27 27.7	+0.1
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
INK	Inuvik	38.67	34	*e*P	P	16 27 28.6	+1.0
	comp=Z,1.6nm,0.6s,mb3.9						
YKA	Yellowknife Ar	47.91	39	P	P	16 28 42.6	+0.3
	comp=Z,0.4nm,0.6s,mb3.6,baz=293,slow=7.4,SNR=5.7						
RES	Resolute Bay	48.07	20	*e*P	P	16 28 44.6	+1.2
	comp=Z,2.1nm,0.7s,mb4.3						
CHKZ	Chkalovo	50.59	310	*e*P	P	16 29 01.8	-1.2
	comp=Z,2.4nm,0.5s,mb4.4						
BVAR	Borovoye Array	51.05	309	P	P	16 29 04.9	-1.7
	comp=Z,1.5nm,0.8s,mb4.0,baz=56,slow=7.5,SNR=8.0						
BVAR				PcP	PcP	16 30 21.4	-1.3
	comp=Z,0.2nm,0.4s,baz=104,slow=5.9,SNR=2.1						
LSA	Lhasa	52.20	274	*e*P	P	16 29 17.4	+1.8
	comp=Z,4.9nm,0.7s,mb4.5						
AAK	Ala-Archa	54.70	297	*e*P	P	16 29 32.2	-1.6
	comp=Z,5.1nm,1.2s,mb4.4						
ARU	Arti	54.77	318	*e*P	P	16 29 33.2	-0.9
	comp=Z,3.0nm,0.5s,mb4.6						
CMAR	Chiang Mai Arr	54.88	257	P	P	16 29 36.6	+1.1
	comp=Z,1.7nm,0.8s,mb4.1,baz=37,slow=5.6,SNR=6.0						
CMAR	Chiang Mai Arr	54.88	257	P	P	16 29 36.6	+1.1
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
GUN	Gumba	56.85	276	*e*P	P	16 29 49.9	+0.3
	comp=Z,7.3nm,0.6s,mb4.9						
KKN	Kakani	57.32	276	*e*P	P	16 29 52.0	-0.9
	comp=Z,17nm,0.9s,mb5.1						
PKI	Pulchoki	57.38	276	*e*P	P	16 29 54.7	+1.3
DMN	Daman	57.56	276	*e*P	P	16 29 55.2	+0.6
	comp=Z,17nm,0.8s,mb5.1						
GKN	Gorkha	57.60	277	*e*P	P	16 29 55.3	+0.4
	comp=Z,30nm,1.1s,mb5.2						
KOLN	Koldanda	58.44	277	*e*P	P	16 30 01.2	+0.5
KAF	Kangasniemi	62.28	336	*e*p	P	16 30 18.2	-8.4
FINES	FINESS Array B	62.90	336	P	P	16 30 29.2	-1.4
	comp=Z,1.5nm,0.7s,mb4.2,baz=40,slow=6.7,SNR=12						
FINES	FINESS Array B	62.90	336	P	P	16 30 29.2	-1.4
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA	NORSAR Array B	66.77	342	P	P	16 30 54.0	-1.6
	comp=Z,1.0nm,0.7s,mb4.0,baz=26,slow=6.5,SNR=3.4						
NOA	NORSAR Array B	66.77	342	P	P	16 30 54.0	-1.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
HFS	Hagfors	67.08	341	P	P	16 30 57.5	-0.1
	comp=Z,18nm,1.3s,mb4.9,baz=90,slow=1.5,SNR=6.2						
HFS	Hagfors	67.08	341	P	P	16 30 57.5	0.0
HFS				pmax	pmax		
	comp=Z,18nm,1.3s						
AKASG	Malin Array Be	70.82	327	P	P	16 31 20.0	-0.8
	comp=Z,0.9nm,0.4s,mb4.0,baz=33,slow=6.3,SNR=7.0						
AKASG	Malin Array Be	70.82	327	P	P	16 31 20.0	-0.8
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
TXAR	Lajitas Array	74.63	63	P	P	16 31 42.8	-0.8
	comp=Z,0.2nm,0.5s,mb3.3,baz=302,slow=6.6,SNR=5.1						
EKA	Eskdalemuir Ar	74.64	348	P	P	16 31 44.0	+0.9
	comp=Z,6.1nm,1.1s,mb4.5,baz=16,slow=5.4,SNR=8.1						
EKA	Eskdalemuir Ar	74.64	348	P	P	16 31 44.0	+0.9
EKA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ASAR	Alice Springs	74.99	201	P	P	16 31 45.5	-0.3
	comp=Z,0.5nm,0.8s,mb3.5,baz=18,slow=5.7,SNR=4.7						
OKC	Ostrava-Krasne	75.17	333	*e*P	P	16 31 47.3	+1.0
DPC	Dobruska-Polom	75.24	335	*e*P	P	16 31 47.0	+0.3
VRAC	Vranov	76.10	334	P	P	16 31 51.4	-0.2
	comp=Z,4.5nm,0.7s,mb4.5,baz=33,slow=6.0,SNR=6.9						
VRAC	Vranov	76.10	334	P	P	16 31 51.4	-0.2
VRAC				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MLR	Muntele Rosu	76.40	326	P	P	16 31 54.1	+0.7
	comp=Z,3.0nm,0.5s,mb4.5,baz=156,slow=16,SNR=6.4						
MLR	Muntele Rosu	76.40	326	P	P	16 31 54.1	+0.8
MLR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
KHC	Kasperske Hory	77.10	336	*e*P	P	16 31 58.3	+1.1
GERES	GERESS Array B	77.33	336	P	P	16 31 57.0	-1.4
	comp=Z,1.4nm,0.8s,mb4.0,baz=51,slow=8.5,SNR=8.3						
GERES	GERESS Array B	77.33	336	P	P	16 31 57.0	-1.4
GERES				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR	Keskin Array B	78.15	318	P	P	16 32 03.4	+0.3
	comp=Z,4.1nm,1.1s,mb4.3,baz=45,slow=3.5,SNR=7.3						
BRTR	Keskin Array B	78.15	318	P	P	16 32 03.4	+0.3
BRTR				pmax	pmax		
	comp=Z,4.0nm,1.1s						
DAVOX	Davos	80.24	337	P	P	16 32 15.0	+0.7
	comp=Z,1.0nm,0.4s,mb4.1,baz=346,slow=14,SNR=4.0						

*IDC **23** 16:22:11.1±1.7, 50.27S×162.18E, mb4.2/4, mb1 4.4/6, mb1mx4.1/10, ML3.6/2, Error ellipse: s-maj=47.6km s-min=28.1km az=166.0*

*NEIC **23** 16:22:19.6±0.8, 49.58S×161.65E, h10^{km}, mb4.8/3, Error ellipse: s-maj=16.0km s-min=6.6km az=165.0*

ISC 23 16:22:13.5±0.8, **50.0S**±0.1×**161.91E**±0.10, **h10**^{km}**, n41,** σ**1**^{s}**.35**/48, **mb4.4**/7, **North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	5.79	47	*e*P	Pn	16 23 42.6	+1.0
WHZ	Wether Hill Ro	5.79	47	P	Pn	16 23 42.5	+0.9
WHZ				S	Sn	16 24 46.9	-2.0
MLZ	Mavora Lakes	6.31	44	*e*P	Pn	16 23 50.1	+1.2
MLZ				S	Sn	16 25 00.3	-1.5
MLZ	Mavora Lakes	6.31	44	P	Pn	16 23 50.1	+1.2
MLZ				S	Sn	16 25 00.3	-1.5
TUZ	Tuapeka	6.59	55	*e*P	Pn	16 23 53.8	+0.9
TUZ				S	Sn	16 25 07.7	-1.2
TUZ	Tuapeka	6.59	55	P	Pn	16 23 53.8	+0.9
TUZ				S	Sn	16 25 07.7	-1.2
MSZ	Milford Sound	6.74	40	P	Pn	16 23 57.7	+2.7
EAZ	Earnscleugh	6.93	49	*e*P	Pn	16 23 58.0	+0.4
EAZ	Earnscleugh	6.93	49	P	Pn	16 23 58.0	+0.4
EAZ				S	Sn	16 25 16.0	-1.3
WKZ	Wanaka	7.09	45	*e*P	Pn	16 24 02.1	+2.2
WKZ	Wanaka	7.09	45	P	Pn	16 24 02.1	+2.2
WKZ				S	Sn	16 25 21.8	+0.4
JCZ	Jackson Bay	7.57	41	*e*P	Pn	16 24 10.6	+4.0
JCZ	Jackson Bay	7.57	41	P	Pn	16 24 08.9	+2.3
JCZ				S	Sn	16 25 35.4	+2.0
ODZ	Otahua Downs	7.73	53	*e*P	Pn	16 24 08.3	-0.6
ODZ	Otahua Downs	7.73	53	P	Pn	16 24 08.1	-0.8
ODZ				S	Sn	16 25 33.6	-3.8
FOZ	Fox Glacier	8.38	42	P	P	16 24 21.6	+3.7
FOZ				S	Sn	16 25 54.4	+0.8
RPZ	Rata Peaks	8.89	48	Pn	P	16 24 22.5	-2.5
	1.0nm,0.3s,baz=116,slow=6.1,SNR=4.7						
RPZ				Sn	Sn	16 26 01.2	-5.1
	2.5nm,0.3s,baz=69,slow=17,SNR=4.3						
WVZ	Waitaha Valley	9.23	44	*e*P	P	16 24 31.8	+2.1
WVZ	Waitaha Valley	9.23	44	P	P	16 24 31.8	+2.1
DSZ	Denniston Nort	10.77	43	*e*P	P	16 24 51.0	+0.2
DSZ	Denniston Nort	10.77	43	P	P	16 24 51.0	+0.2
THZ	Tophouse	11.26	47	*e*P	P	16 24 57.3	-0.2
THZ	Tophouse	11.26	47	P	P	16 24 57.3	-0.2
QRZ	Quartz Range	11.84	43	*e*P	P	16 25 04.7	-0.6
QRZ	Quartz Range	11.84	43	P	P	16 25 04.7	-0.6
URZ	Urewera	16.01	48	Pn	P	16 25 58.3	-1.9
	0.2nm,0.3s,baz=264,slow=9.2,SNR=2.8						
STKA	Stephens Creek	23.63	313	*e*P	P	16 27 29.2	+3.9
	7.4nm,1.9s,mb3.8						
STKA	Stephens Creek	23.63	313	P	P	16 27 27.1	+1.8
	3.8nm,0.8s,mb3.9,baz=157,slow=11,SNR=4.0						
STKA	Stephens Creek	23.63	313	*e*P	P	16 27 27.9	+2.5
ASAR	Alice Springs	34.20	310	P	P	16 29 00.8	-0.3
	2.2nm,0.7s,mb4.2,baz=146,slow=8.2,SNR=19						
ASPA	Alice Springs	34.20	310	*e*P	P	16 29 00.3	-0.8
WB2	Warramunga Arr	37.16	314	*e*P	P	16 29 25.8	-0.4
WRA	Warramunga Arr	37.16	314	P	P	16 29 25.7	-0.5
	5.9nm,1.2s,mb4.3,baz=147,slow=8.0,SNR=8.0						
WRAB	Tennant Creek	37.17	314	*e*P	P	16 29 25.8	-0.5
	25nm,1.4s,mb4.8						
QSPA	South Pole Qui	40.09	180	*e*P	P	16 29 50.5	+0.4
	6.8nm,1.0s,mb4.3						
AFI	Afiamalu	41.94	40	P	P	16 30 17.7	+12
	46nm,1.0s,mb5.1						
CMAR	Chiang Mai Arr	87.84	302	P	P	16 35 02.8	-1.5
	1.8nm,1.1s,mb4.2,baz=161,slow=2.9,SNR=7.6						
AKASG	Malin Array Be	150.21	290	PKPbc	PKPdf	16 42 04.8	+3.3
	0.2nm,0.2s,baz=77,slow=3.1,SNR=3.8						
ARCES	ARCESS Array B	151.61	329	PKPbc	PKPdf	16 42 06.2	+3.1
	2.6nm,0.7s,baz=68,slow=6.5,SNR=5.0						
FINES	FINESS Array B	153.19	312	PKPbc	PKPdf	16 42 08.5	+3.0
	5.4nm,1.0s,baz=104,slow=7.9,SNR=6.7						
FINES	FINESS Array B	153.19	312	PKPbc	PKPdf	16 42 08.5	+3.0

*IDC **23** 16:26:23.6±2.1, 50.11S×161.65E, mb4.2/4, mb1 4.4/6, mb1mx4.1/10, ML4.2/2, Error ellipse: s-maj=53.9km s-min=27.3km az=170.0*

*NEIC **23** 16:26:30.8±0.9, 49.50S×161.26E, h10^{km}, mb4.7/4, Error ellipse: s-maj=22.3km s-min=13.1km az=179.0*

ISC 23 16:26:22.1±1.5, **50.4S**±0.2×**161.6E**±0.1, **h10**^{km}**, n30,** σ**0**^{s}**.95**/30, **mb4.5**/8, **2C, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	6.21	46	P	Pn	16 27 56.4	+0.3
MLZ	Mavora Lakes	6.73	44	P	Pn	16 28 03.1	-0.3
TUZ	Tuapeka	6.99	54	P	Pn	16 28 07.7	+0.6
MSZ	Milford Sound	7.17	39	P	Pn	16 28 10.7	+1.1
MSZ				S	Sn	16 29 32.0	+0.1
EAZ	Earnscleugh	7.34	48	P	Pn	16 28 11.8	-0.2
EAZ				S	Sn	16 29 34.3	-1.9
WKZ	Wanaka	7.51	45	P	Pn	16 28 16.0	+1.6
JCZ	Jackson Bay	8.00	40	P	Pn	16 28 22.4	+1.2
ODZ	Otahua Downs	8.13	52	P	P	16 28 22.0	-1.1
FOZ	Fox Glacier	8.80	42	P	P	16 28 32.8	+0.4
RPZ	Rata Peaks	9.30	48	Pn	P	16 28 35.5	-3.8
	2.9nm,0.3s,baz=245,slow=20,SNR=11						
RPZ				Sn	Sn	16 30 17.8	-7.3
	0.1nm,0.3s,baz=211,slow=20,SNR=2.4						
WVZ	Waitaha Valley	9.65	44	P	P	16 28 45.5	+1.4
DSZ	Denniston Nort	11.19	43	P	P	16 29 04.7	-0.4
THZ	Tophouse	11.67	47	P	P	16 29 10.7	-1.0
QRZ	Quartz Range	12.26	43	P	P	16 29 19.5	-0.1
URZ	Urewera	16.42	48	Pn	P	16 30 13.6	-0.5
	0.8nm,0.3s,baz=233,slow=5.1,SNR=3.4						
STKA	Stephens Creek	23.72	314	*e*P	P	16 31 37.8	+2.9
	5.8nm,0.6s,mb4.2						
STKA	Stephens Creek	23.72	314	P	P	16 31 37.0	+2.1
	3.1nm,0.6s,mb3.9,baz=144,slow=12,SNR=8.0						
STKA	Stephens Creek	23.72	314	*e*P	P	16 31 37.5	+2.7
ASAR	Alice Springs	34.27	311	P	P	16 33 10.2	-0.1
	5.5nm,0.6s,mb4.6,baz=147,slow=8.3,SNR=37						
ASPA	Alice Springs	34.27	311	*e*P	P	16 33 10.4	0.0
WB2	Warramunga Arr	37.26	315	⇑*i*P	P	16 33 35.1	-0.6
WRA	Warramunga Arr	37.27	315	P	P	16 33 34.6	-1.2
	3.8nm,0.7s,mb4.3,baz=149,slow=7.5,SNR=24						
WRAB	Tennant Creek	37.27	315	*e*P	P	16 33 35.0	-0.8
	12nm,0.9s,mb4.7						
FITZ	Fitzroy Crossi	43.10	305	⇑*i*P	P	16 34 24.6	+0.5
	5.6nm,0.8s,mb4.3						
MBWA	Marble Bar	43.88	296	*e*P	P	16 34 29.7	-0.6
	18nm,1.1s,mb4.7						
PMSA	Palmer Station	59.84	159	*e*P	P	16 36 38.1	+8.6
	12nm,0.7s,mb5.0						
CMAR	Chiang Mai Arr	87.85	302	P	P	16 39 13.0	+0.1
	0.3nm,0.5s,mb3.8,baz=170,slow=2.4,SNR=5.4						
ARCES	ARCESS Array B	151.81	329	PKPbc	PKPdf	16 46 17.8	+5.8
	5.1nm,1.0s,baz=18,slow=3.8,SNR=5.8						
FINES	FINESS Array B	153.28	311	PKPbc	PKPdf	16 46 22.9	+8.7
	1.8nm,0.7s,baz=117,slow=4.3,SNR=5.7						
FINES	FINESS Array B	153.28	311	PKPbc	PKPdf	16 46 22.9	+8.7

*ATH **23** 16:33:20.7, 39.94N×21.73E, h10^{km}, MD2.9/3*

*THE **23** 16:33:20.9, 39.96N×21.55E, h1^{km}, ML2.8*

*CSEM **23** 16:33:21.4±0.1, 39.99N×21.56E, h2^{km}, ML2.8, Error ellipse: s-maj=3.1km s-min=2.6km az=82.0*

ISC 23 16:33:20.0±0.8, **39.95N**±0.03×**21.53E**±0.06, **h1**^{km}±8^{km}, **n13,** σ**0**^{s}**.97**/20, **1C, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KZN	Kozani	0.40	27	⇑*i*PB	Pb	16 33 28.1	-1.5
JAN	Janina	0.60	241	*e*PB	Pb	16 33 34.5	+1.5
LIT	Litokhoron	0.75	78	*e*Pg	Pg	16 33 34.8	-0.3
LIT				*e*Sg	Sg	16 33 45.4	+0.3
FNA	Florina	0.84	352	*e*Pg	Pg	16 33 36.2	-0.6
FNA				*e*Sg	Sg	16 33 48.6	+0.6
EVR	Evrytania	1.05	168	*e*PB	Pb	16 33 40.0	-0.8
BIA	Bitola	1.08	352	*i* Pn	Pn	16 33 41.2	-1.0
BIA				*i* Sg	Sg	16 33 56.8	+0.8
AGG	Agios Georgios	1.11	146	*e*Pg	Pg	16 33 42.2	-0.1
AGG				*e*Sg	Sg	16 33 57.7	+0.6
GRG	Griva	1.21	33	*e*Pb	Pb	16 33 42.9	-0.5
GRG				*e*Sb	Sb	16 34 00.4	+1.1
GRG	Griva	1.21	33	*e*Pb	Pb	16 33 42.8	-0.6
GRG				*e*Sb	Sb	16 34 00.4	+1.1
XOR	Xorichti	1.41	114	*e*Pb	Pb	16 33 47.6	+0.8
XOR				*e*Sb	Sb	16 34 05.8	+0.5
KNT	Kendrikon	1.60	40	*e*Pb	Pb	16 33 49.1	-1.0
KNT				*e*Sb	Sb	16 34 11.9	+1.1
OUR	Ouranopolis	1.92	78	*e*Pb	Pb	16 33 52.7	-2.8
VKA	Vienna	9.12	337	MLRZ		16 35 00.0	
	126nm,22.0s						

*IDC **23** 16:33:50.7±5.2, 49.26S×161.16E, mb3.7/3, mb1 4.0/4, mb1mx3.7/9, ML4.0/1, Error ellipse: s-maj=127.0km s-min=40.2km az=172.0*

ISC 23 16:33:50.5±1.7, **49.3S**±0.3×**161.2E**±0.2, **h10**^{km}**, n12,** σ**1**^{s}**.27**/15, **mb3.7**/3, **North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	5.72	56	P	Pn	16 35 18.4	+0.8
MLZ	Mavora Lakes	6.20	53	P	Pn	16 35 25.6	+1.2
MSZ	Milford Sound	6.55	47	P	Pn	16 35 32.2	+2.8
TUZ	Tuapeka	6.63	63	P	Pn	16 35 29.9	-0.6
TUZ				S	Sn	16 36 44.0	-2.9
EAZ	Earnscleugh	6.88	57	P	Pn	16 35 33.9	-0.1
WKZ	Wanaka	6.99	53	P	Pn	16 35 36.1	+0.6
JCZ	Jackson Bay	7.39	48	P	Pn	16 35 43.9	+2.7
JCZ				S	Sn	16 37 05.8	-0.2
RPZ	Rata Peaks	8.82	54	Pn	P	16 35 59.2	-1.9
	1.9nm,0.3s,baz=345,slow=2.0,SNR=7.9						
RPZ				Sn	Sn	16 37 33.3	-8.2
	0.6nm,0.3s,baz=351,slow=18,SNR=2.8						
DSZ	Denniston Nort	10.62	49	P	P	16 36 25.8	0.0
ASAR	Alice Springs	33.37	310	P	P	16 40 30.6	-0.4
	0.8nm,0.7s,mb3.8,baz=148,slow=8.6,SNR=11						
WRA	Warramunga Arr	36.32	314	P	P	16 40 55.1	-1.2
	0.9nm,0.9s,mb3.7,baz=145,slow=7.6,SNR=4.2						
CMAR	Chiang Mai Arr	87.05	303	P	P	16 46 37.9	+0.3
	0.4nm,0.9s,mb3.6,baz=165,slow=3.0,SNR=4.2						

IDC 23 16:35:15.9±1.2, **5.48N**×**77.27W, mb3.4**/2, **mb1 3.8**/3, **mb1mx3.4**/19, **ML2.7**/1, **MS5.0**/1, **Ms1 5.0**/1, **ms1mx3.0**/14, **Error ellipse: s-maj=49.2km s-min=28.4km az=51.0, Near west coast of Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	El Rosal	2.99	102	Pn	Pn	16 36 04.4	-1.1
	22nm,0.3s,baz=45,slow=2.2,SNR=21						
ROSC				LR	LR	16 37 30.7	
	comp=Z,23µm,19.2s,baz=1.9,slow=45						
LPAZ	La Paz	23.44	157	P	P	16 40 29.0	+1.1
	0.4nm,0.4s,baz=315,slow=12,SNR=2.3						
YKA	Yellowknife Ar	63.16	342	P	P	16 45 45.9	-1.8
	0.4nm,0.6s,baz=136,slow=6.2,SNR=8.3						
ASAR	Alice Springs	144.96	236	PKP	PKPdf	16 54 54.5	-3.2
	0.4nm,0.6s,baz=117,slow=3.5,SNR=10.0						
WRA	Warramunga Arr	146.07	242	PKPbc	PKPbc	16 54 57.2	-1.6
	0.6nm,0.9s,baz=110,slow=3.0,SNR=5.8						

IDC 23 16:48:43.9±2.8, **5.00N**×**73.42W, h65**^{km}±15^{km}**, mb3.1**/1, **mb1 3.5**/2, **mb1mx2.9**/20, **Error ellipse: s-maj=60.2km s-min=12.0km az=142.0, Colombia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	El Rosal	0.92	261	P	P	16 49 00.5	-0.8
	38nm,0.3s,baz=103,slow=23,SNR=35						
ROSC				S	S	16 49 15.2	+1.0
	66nm,0.3s,baz=60,slow=17,SNR=27						
SDV	Santo Domingo	4.75	35	P	P	16 49 52.9	-1.7
	3.2nm,0.3s,baz=214,slow=10,SNR=18						
SDV				S	S	16 50 48.2	-0.8
	1.8nm,0.3s,baz=63,slow=22,SNR=6.7						
YKA	Yellowknife Ar	64.86	340	P	P	16 59 15.5	-2.7
	0.2nm,0.6s,baz=135,slow=6.2,SNR=7.8						
WRA	Warramunga Arr	149.18	239	PKPbc	PKPdf	17 08 26.3	+4.7
	0.2nm,0.5s,baz=104,slow=2.8,SNR=4.8						

IDC 23 16:50:33.5±1.8, **30.16S**×**177.40W, mb4.2**/4, **mb1 4.3**/5, **mb1mx4.0**/15, **ML3.6**/1, **Error ellipse: s-maj=54.9km s-min=34.1km az=151.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	9.27	208	Pn	P	16 52 48.0	-3.4
	0.6nm,0.3s,baz=229,slow=11,SNR=2.3						
URZ				Sn	Sn	16 54 28.1	-10
	1.1nm,0.3s,baz=204,slow=20,SNR=5.7						
CTA	Charters Tower	34.27	278	P	P	16 57 22.2	-1.3
	3.5nm,0.5s,baz=104,slow=11,SNR=7.7						
STKA	Stephens Creek	35.04	256	P	P	16 57 28.7	-1.3
	1.1nm,0.5s,baz=100,slow=10,SNR=9.1						
ASAR	Alice Springs	43.64	266	P	P	16 58 39.5	-2.1
	1.2nm,0.5s,baz=105,slow=7.4,SNR=24						
WRA	Warramunga Arr	44.61	272	P	P	16 58 46.9	-2.6
	3.6nm,0.8s,baz=110,slow=8.0,SNR=48						
BVAR	Borovoye Array	126.59	316	PKP	PKPdf	17 09 38.5	-1.7
	0.6nm,0.5s,baz=112,slow=2.3,SNR=6.4						
KAF	Kangasniemi	144.49	341	*e*p	PKPbc	17 10 06.4	-4.2
	0.2nm,0.3s						
FINES	FINESS Array B	145.10	340	PKP	PKPdf	17 10 11.0	-2.9
	4.0nm,0.5s,baz=69,slow=3.4,SNR=39						
AKASG	Malin Array Be	151.42	323	PKPbc	PKPdf	17 10 28.6	+4.2
	1.0nm,0.4s,baz=45,slow=3.1,SNR=11						

IDC 23 16:55:05.0±3.8, **49.20S**×**162.15E, mb3.9**/3, **mb1 4.2**/4, **mb1mx3.9**/9, **ML3.8**/1, **Error ellipse: s-maj=102.0km**

s-min=44.0km az=7.0,Auckland Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	15.35	50	Pn	P	16 58 43.0	-1.5
	0.4nm,0.3s,baz=106,slow=22,SNR=3.7						
STKA	**Stephens Creek**	23.19	311	P	P	17 00 15.1	+0.9
	2.4nm,0.7s,baz=137,slow=12,SNR=4.8						
ASAR	**Alice Springs**	33.79	309	P	P	17 01 48.0	-2.7
	1.2nm,0.6s,baz=144,slow=8.0,SNR=14						
WRA	**Warramunga Arr**	36.71	313	P	P	17 02 12.9	-2.7
	1.4nm,0.9s,baz=146,slow=7.8,SNR=5.6						
ARCES	**ARCESS Array B**	150.97	330	PKPbc	PKPdf	17 14 58.3	+4.1
	3.8nm,0.8s,baz=63,slow=5.4,SNR=4.1						

OTT 23 16:58:58.8±0.5,52.72N×66.78W,MN2.7/7,Blast, Labrador City, Nf Mining explosion.,Northern Quebec

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	**Schefferville**	2.12	359	PN	Pn	16 59 34.8	-1.1
SCHQ				SN	Sn	17 00 02.8	-0.6
SCHQ				Trac		17 00 06.2	
	comp=Z,13nm,0.2s						
SMQ	**Clarke City**	2.50	179	PN	Pn	16 59 38.7	-2.7
SMQ				SN	Sn	17 00 14.2	+1.2
SMQ				Trac		17 00 20.5	
	comp=Z,11nm,0.2s						
MNQ	**Manicouagan**	2.52	210	PN	Pn	16 59 40.5	-1.1
MNQ				SN	Sn	17 00 11.2	-2.2
MNQ				Trac		17 00 15.5	
	comp=Z,15nm,0.2s						
ICQ	**Pointe Anglais**	3.21	186	PN	Pn	16 59 49.8	-1.7
ICQ				SN	Sn	17 00 29.1	-2.1
ICQ				Trac		17 00 34.0	
	comp=Z,4.0nm,0.1s						
CNQ	**Baie Comeau**	3.52	194	PN	Pn	16 59 54.2	-1.6
CNQ				SN	Sn	17 00 36.7	-2.0
CNQ				Trac		17 00 52.4	
	comp=Z,5.8nm,0.2s						
GSQ	**Grosses Roches**	3.82	183	PN	Pn	16 59 59.1	-1.0
GSQ				SN	Sn	17 00 42.8	-3.6
GSQ				Trac		17 01 01.9	
	comp=Z,5.9nm,0.2s						
LG4Q	**La Grande 4**	4.49	285	Trac		17 01 10.1	
	comp=Z,4.2nm,0.2s						
LMQ	**La Malbaie**	5.65	205	PN	Pn	17 00 20.7	-5.4
LMQ				SN	Sn	17 01 26.5	-6.2
DRLN	**Deer Lake**	6.80	117	PN	Pn	17 00 41.6	-0.8
DRLN				SN	Sn	17 01 59.4	-2.1
MALO	**McAlpine Lake**	8.56	257	PN	P	17 00 56.1	-11
MALO				SN	Sn	17 02 26.2	-19
VIMO	**Victor Mine**	10.28	277	PN	P	17 01 19.2	-11
VIMO				SN	S	17 03 04.3	-24
SILO	**Sutton Inlier**	10.92	287	PN	P	17 01 29.1	-10
SILO				SN	S	17 03 19.8	-24

IDC 23 17:12:50.4±7.1,48.45S×162.28E,mb3.8/4,mb1 4.0/4, mb1mx3.8/8,Error ellipse: s-maj=290.0km s-min=28.2km az=66.0,Off west coast of South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNDA	**Vanda**	29.18	180	P	P	17 18 52.9	-2.2
	0.6nm,0.6s,baz=85,slow=20,SNR=6.6						
ASAR	**Alice Springs**	33.39	308	P	P	17 19 30.3	-2.3
	0.6nm,0.6s,baz=143,slow=8.0,SNR=6.0						
WRA	**Warramunga Arr**	36.26	312	P	P	17 19 55.1	-2.1
	1.1nm,0.8s,baz=148,slow=8.0,SNR=5.7						
CMAR	**Chiang Mai Arr**	87.20	302	P	P	17 25 39.0	-0.8
	0.5nm,0.7s,baz=157,slow=4.9,SNR=4.8						

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*IDC **23** 17:35:32.1±1.6,49.81S×161.83E,mb4.2/4,mb1 4.4/6, mb1mx4.2/10,ML3.7/2,Error ellipse: s-maj=46.8km s-min=31.2km az=176.0*

ISC 23 17:35:32.7±3.1,49.9S±0.4×161.6E±0.2,h10^{km},n15, σ1^{s}.11/11,mb4.2/4,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	**Mavora Lakes**	6.34	47	P	Pn	17 37 08.8	+0.3
TUZ	**Tuapeka**	6.66	57	P	Pn	17 37 12.5	-0.5
MSZ	**Milford Sound**	6.75	42	P	Pn	17 37 15.7	+1.4
EAZ	**Earnscleugh**	6.97	51	P	Pn	17 37 16.8	-0.6
JCZ	**Jackson Bay**	7.58	43	P	Pn	17 37 26.4	+0.4
RPZ	**Rata Peaks**	8.93	50	Pn	P	17 37 40.4	-4.3
	0.6nm,0.3s,baz=57,slow=17,SNR=3.1						
URZ	**Urewera**	16.05	49	Pn	P	17 39 16.4	-3.5
	0.4nm,0.3s,baz=221,slow=14,SNR=2.8						
STKA	**Stephens Creek**	23.40	313	P	P	17 40 43.0	+0.6
	3.3nm,0.8s,mb3.8,baz=166,slow=12,SNR=3.2						
ASAR	**Alice Springs**	33.97	310	P	P	17 42 17.5	-0.8
	4.5nm,0.7s,mb4.5,baz=145,slow=8.3,SNR=47						
WRA	**Warramunga Arr**	36.93	314	P	P	17 42 42.3	-1.3
	4.7nm,0.9s,mb4.3,baz=147,slow=8.0,SNR=24						
CMAR	**Chiang Mai Arr**	87.61	302	P	P	17 48 23.9	+1.6
	1.7nm,1.0s,mb4.2,baz=161,slow=3.9,SNR=12						
IDI	**Anoyia**	145.48	262	PKPbc	PKPbc	17 55 09.4	-1.7
	7.2nm,0.8s,baz=102,slow=7.6,SNR=3.9						
ARCES	**ARCESS Array B**	151.39	329	PKPbc	PKPdf	17 55 27.0	+5.1
	2.4nm,0.7s,baz=270,slow=2.7,SNR=4.7						
FINES	**FINESS Array B**	152.96	312	PKPbc	PKPdf	17 55 29.2	+4.8
	1.9nm,0.8s,baz=129,slow=12,SNR=5.4						
GERES	**GERESS Array B**	159.17	279	PKPab	PKPab	17 56 09.6	+0.4
	0.2nm,0.3s,SNR=4.4						

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*GUC **23** 17:55:38.9±0.8,30.86S×71.74W,h17^{km}±2^{km},ML4.6*

*IDC **23** 17:55:39.4±1.4,30.98S×70.22W,mb4.3/3,mb1 4.2/5, mb1mx3.9/16,ML4.1/2,Error ellipse: s-maj=54.5km s-min=25.8km az=99.0*

*NEIC **23** 17:55:40.6±0.8,30.78S×71.63W,h36^{km}±7^{km},mb4.7/4, ML4.6(GUC),Error ellipse: s-maj=16.3km s-min=5.2km az=102.0*

ISC 23 17:55:39.0±0.6,30.76S±0.03×71.76W±0.06,h33^{km},n46, σ1^{s}.08/61,mb4.5/6,6C-4D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OVCH	**Ovalle**	0.50	73	⇓*i*P	P	17 55 49.5	-0.1
OVCH				*i* S	S	17 55 56.8	-0.3
OVCH				AMP		17 55 57.2	
	comp=N,31µm,0.2s						
CMCH	**Combarbala**	0.77	123	⇑*i*P	P	17 55 52.4	-1.0
CMCH				*i* S	S	17 56 02.0	-2.1
CMCH				AMP		17 56 03.2	
	comp=E,61µm,0.6s						
TLL	**Tololo Astrono**	1.01	55	⇓*i*P	P	17 55 58.1	+1.2
TLL				*i* S	S	17 56 12.4	+2.3
TLL				AMP		17 56 16.4	
	comp=E,31µm,0.4s						
ILCH	**Illapel**	1.01	150	⇑*i*P	P	17 55 55.1	-1.8
ILCH				*i* S	S	17 56 07.4	-2.8
ILCH				AMP		17 56 09.5	
	comp=E,14µm,0.4s						
PTCH	**Petorca**	1.66	155	*i* P	P	17 56 05.9	-0.3
PTCH				*i* S	S	17 56 25.9	-0.6
PTCH				AMP		17 56 29.6	
	comp=E,20µm,0.4s						
PACH	**Papudo**	1.80	171	*e*P	P	17 56 07.6	-0.5
PACH				*i* S	S	17 56 29.8	-0.1
JACH	**Jahuel**	2.16	153	⇑*i*P	P	17 56 13.6	+0.2
JACH				*i* S	S	17 56 40.2	+1.0
IHA	**Instituto Hidr**	2.27	178	*i* P	P	17 56 14.7	-0.2
IHA				*i* S	S	17 56 42.2	+0.3
ROCH	**El Roble**	2.30	164	⇑*i*P	P	17 56 16.4	+1.0
ROCH				*i* S	S	17 56 44.2	+1.4
VACH	**Vallenar**	2.34	22	*i* P	P	17 56 23.9	+8.0
VACH				*i* S	S	17 56 54.5	+11
VACH				AMP		17 57 01.3	
	comp=E,10µm,0.7s						
PEL	**Peldehue**	2.55	159	⇑*i*P	P	17 56 18.7	-0.2
PEL				*i* S	S	17 56 49.6	+0.5
PEL				AMP		17 56 57.1	
	comp=N,6µm,0.5s						
LCCH	**Las Cruces**	2.72	177	⇑*i*P	P	17 56 21.6	+0.3
LCCH				*i* S	S	17 56 53.2	-0.1
DSCH	**Colegio Aleman**	2.82	159	AMP		17 57 06.6	
	comp=E,7µm,0.4s						
CLCH	**Cerro Calan**	2.83	159	*i* P	P	17 56 23.0	+0.1
CLCH				*i* S	S	17 56 56.8	+0.6
CLCH				AMP		17 57 08.8	
	comp=N,5µm,0.6s						
CLCH				AMP		17 57 09.4	
	comp=N,6µm,0.5s						
STL	**Santa Lucia**	2.84	161	AMP		17 57 08.2	
	comp=N,1µm,1.0s						
RCDM	**Rinconada Maip**	2.84	164	AMP		17 57 10.1	
	comp=N,2µm,0.4s						
FCH	**Farellones**	2.85	154	*i* P	P	17 56 24.0	+0.8
FCH				*i* S	S	17 56 58.6	+1.8
FCH				AMP		17 57 10.9	
	comp=E,2µm,0.7s						
FSR	**Penalolen**	2.91	159	AMP		17 57 09.6	
	comp=N,4µm,0.4s						
ANTU	**Antumapu**	2.96	162	AMP		17 57 09.9	
	comp=N,3µm,0.1s						
TACH	**Talagante**	2.97	167	*i* P	P	17 56 24.9	0.0
TACH				*i* S	S	17 56 59.6	-0.2
PCH	**Pirque**	3.04	160	*e*P	P	17 56 26.5	+0.5
PCH				*i* S	S	17 57 01.7	+0.1
SJCH	**San Jose de Ma**	3.11	158	AMP		17 57 20.1	
	comp=E,1µm,0.6s						
MDZ	**Mendoza**	3.26	131	⇓*i*P	P	17 56 32.3	+3.3
MDZ				*i*		17 56 35.6	
MDZ				*i*		17 56 53.6	
MDZ				S	S	17 57 21.3	+14
MDZ				S	S	17 57 24.3	+17
CHCH	**Chadas Angostu**	3.30	164	*i* P	P	17 56 29.2	-0.4
CHCH				*i* S	S	17 57 08.1	-0.1
LMEL	**Las Melosas**	3.35	157	*i* P	P	17 56 30.8	+0.4
LMEL				*i* S	S	17 57 09.5	0.0
LMEL				AMP		17 57 21.8	
	comp=N,1µm,0.4s						
CACH	**El Canelo**	3.49	164	*i* P	P	17 56 32.8	+0.4
CACH				*i* S	S	17 57 13.5	+0.5
CICH	**Cipreses**	3.73	163	*e*P	P	17 56 35.8	+0.1
CICH				*i* S	S	17 57 18.7	-0.4
SFDO	**San Fernando**	3.90	171	*i* P	P	17 56 37.4	-0.7
SFDO				*i* S	S	17 57 22.8	-0.6
LVC	**Limon Verde**	8.50	18	Pn	P	17 57 41.1	-1.6
	comp=N,0.6nm,0.3s,baz=196,slow=8.1,SNR=8.4						
LVC				Pg	P	17 58 09.8	+27
	comp=N,3.4nm,0.3s,baz=285,slow=15,SNR=8.4						
LVC				Sn	Sn	17 59 34.2	+15
	comp=N,3.2nm,0.3s,baz=93,slow=23,SNR=3.0						
TRQA	**Tornquist**	10.87	135	*e*Pn	P	17 58 13.2	-2.1
LPAZ	**La Paz**	14.78	14	Pn	P	17 59 09.8	+2.3
	comp=N,0.2nm,0.3s,baz=193,slow=7.9,SNR=9.6						
LPAZ	**La Paz**	14.78	14	*e*P	P	17 59 07.8	+0.4
	comp=N,3.8nm,0.8s						
BDFB	**Brasilia**	26.43	61	P	P	18 01 10.6	-4.2
	comp=N,5.0nm,0.6s,mb4.2,baz=272,slow=8.8,SNR=3.3						
BAO	**Brasilia Array**	26.45	61	P	P	18 01 14.8	-0.1
BAO				*e*		18 01 20.8	
BAO				*e*	pP	18 01 24.0	-0.3
VNA3	**Neumayer Olymp**	52.28	159		P	18 04 50.6	+1.7
VNA2	**Neumayer--Watz**	52.91	158		P	18 04 55.9	+2.2
SNAA	**Sanae**	54.50	159	⇓*i*	P	18 05 03.1	-2.3
SNAA	**Sanae**	54.50	159	P	P	18 05 02.7	-2.7
	comp=N,1.4nm,0.7s,mb4.1,baz=285,slow=7.0,SNR=34						
QSPA	**South Pole Qui**	59.47	180	*e*P	P	18 05 39.4	-1.2
	comp=N,8.3nm,1.4s,mb4.6						
DBIC	**Dimbokro**	73.93	72	P	P	18 07 09.6	-3.5
	comp=N,2.2nm,0.5s,mb4.4,baz=226,slow=3.8,SNR=7.0						
DBIC	**Dimbokro**	73.93	72	*e*P	P	18 07 11.4	-1.7
	comp=N,5.1nm,0.6s,mb4.6						
DBIC				*e*		18 07 23.8	
MAW	**Mawson**	76.22	164	*e*P	P	18 07 18.3	-6.9
	comp=N,8.0nm,0.6s,mb4.8						
LBTB	**Lobatse**	83.46	115	*e*P	P	18 08 04.0	-0.8
	comp=N,4.0nm,0.7s,mb4.6						
WRA	**Warramunga Arr**	123.70	210	PKP	PKPdf	18 14 41.7	+7.7
	comp=N,0.6nm,1.1s,baz=159,slow=1.7,SNR=5.9						
ZAL	**Zalesovo**	151.32	29	PKP	PKPdf	18 15 28.8	+6.2
	comp=N,1.3nm,0.5s,baz=116,slow=2.0,SNR=6.8						
ZAL				PKPab	PKPab	18 15 38.5	-0.5
	comp=N,1.8nm,0.5s,baz=173,slow=4.3,SNR=7.0						
ZAL	**Zalesovo**	151.32	29	PKP	PKPdf	18 15 28.8	+6.2
ZAL				PKPab	PKPab	18 15 38.5	-0.5

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*NEIC **23** 18:18:49.4,38.68N×22.74E,h17^{km},MD2.9(ATH),After ATH.*

*ATH **23** 18:18:49.4,38.67N×22.75E,h18^{km}±4^{km},MD2.9/8*

*CSEM **23** 18:18:49.2±0.1,38.67N×22.71E,h12^{km},MD2.9,Error ellipse: s-maj=1.8km s-min=1.4km az=68.0*

*THE **23** 18:18:50.2,38.74N×22.74E,h10^{km},ML2.8*

ISC 23 18:18:49.4±0.6,38.69N±0.04×22.72E±0.05,h20^{km}±6^{km}, n16,σ0^{s}.93/21,Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKR	**Lokris**	0.22	99	*e*PB	Pb	18 18 54.0	-0.9
LKR				*e*SB	Sb	18 18 57.9	-0.7
AGG	**Agios Georgios**	0.45	318	*e*Pg	Pb	18 18 58.1	-0.5
AGG				*e*Sg	Sb	18 19 04.6	-0.3
NEO	**Neokhori**	0.73	32	*e*PN	Pn	18 19 03.3	-1.4
NEO				*e*SN	Sn	18 19 13.9	-1.4
NEO	**Neokhori**	0.73	32	*e*Sn	Sn	18 19 13.9	-1.4
EVR	**Evrytania**	0.75	288	*e*PN	Pn	18 19 04.5	-0.3
XOR	**Xorichti**	0.77	28	*e*Pg	Pb	18 19 03.9	-0.1
MGER	**Gerania Oros**	0.82	148	*e*PB	Pb	18 19 04.2	-0.6
MPAR	**Parnis Oros**	0.96	123	*e*PN	Pn	18 19 07.5	-0.4
NSAL	**Nisos Salamina**	0.97	143	*e*PN	Pn	18 19 08.5	+0.4
AOS	**Alonnisos**	1.03	61	*e*Pg	Pb	18 19 09.1	+0.7
AOS				*e*Sg	Sb	18 19 22.8	+1.4
PTL	**Penteli**	1.10	125	*e*PN	Pn	18 19 11.0	+1.1
PTL	**Penteli**	1.10	125	*e*Pn	Pn	18 19 11.3	+1.4
NAIG	**Nisos Aigina**	1.11	147	*e*PN	Pn	18 19 10.5	+0.5
RLS	**Riolos of Patr**	1.17	238	*e*PN	Pn	18 19 11.5	+0.7
LIT	**Litokhoron**	1.43	353	*e*Pb	Pb	18 19 16.0	+0.8
LIT				*e*Sb	Sb	18 19 35.8	+2.8
GRG	**Griva**	2.28	354	*e*Pn	Pn	18 19 26.2	-0.6

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*JMA **23** 18:27:47.6±0.2,24.86N×122.56E,h35^{km}*

TAP 23 18:27:47.1,24.79N×122.35E,h8^{km},ML2.6,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	0.69	118	P	Pb	18 27 58.9	-1.9
YOJ				S	Sg	18 28 06.8	-3.2
IRIF	**Iriomote-Funau**	1.34	110	P	Pb	18 28 07.9	-4.1
IRIF				*e*S	Sb	18 28 24.5	-4.6
JKRS	**Kuro-shima**	1.61	110	P	Pn	18 28 12.3	-3.7
JKRS				*e*S	Sb	18 28 30.3	-6.7
JIJ	**Ishigaki jima**	1.69	104	P	Pn	18 28 13.2	-3.9
JIJ				*e*S	Sn	18 28 32.6	-6.4

MAN 23 18:36:46.8,19.35N×122.18E,h26^{km},mb4.7,ML3.6, MS3.6,Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBP	**Basco**	1.10	349	*e*P	Pn	18 37 07.1	+0.3
BBP				*e*S	Sb	18 37 20.6	-0.5
SGCP	**Mt. Cagua**	1.11	187	*e*P	Pn	18 37 06.5	-0.4
SGCP				*e*S	Sb	18 37 20.1	-1.3
CVP	**Callao Caves**	1.68	192	*e*P	Pn	18 37 14.6	-0.3
CVP				*i* S	Sn	18 37 37.5	+1.8
APYP	**Conner**	1.73	211	*e*P	Pn	18 37 14.8	-0.8
APYP				*e*S	Sn	18 37 36.7	-0.4
ABRA	**Dolores**	2.19	220	*e*P	Pn	18 37 22.0	-0.4
ABRA				*e*S	Sn	18 37 49.3	+0.4
PALP	**Palanan**	2.29	174	*e*P	Pn	18 37 25.0	+1.3
CAUP	**Cauayan**	2.42	188	*e*P	Pn	18 37 28.1	+2.5
BALP	**Baler**	3.64	189	*e*P	Pn	18 37 42.3	-0.6

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*TAP **23** 18:42:46.6,24.61N×122.22E,h59^{km},ML2.4*

JMA 23 18:42:04.8±0.2,25.54N×123.46E,h167^{km},M2.9, Northeast of Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IRIF	**Iriomote-Funau**	1.23	168	P	P	18 42 33.1	-0.3
IRIF				*e*S	S	18 42 55.4	0.0
JIJ	**Ishigaki jima**	1.32	152	P	P	18 42 34.0	-0.3
JIJ				S	S	18 42 55.9	-1.2
JKRS	**Kuro-shima**	1.39	159	P	P	18 42 34.8	-0.1
JKRS				S	S	18 42 57.6	-0.6
JTJ	**Tarama**	1.44	128	P	P	18 42 35.4	0.0
JTJ				*e*S	S	18 42 58.6	-0.5
HATJ	**Hateruma jima**	1.51	168	P	P	18 42 35.9	-0.2
HATJ				*e*S	S	18 42 59.7	-0.6
JMJ	**Miyako jima 2**	1.81	113	*e*S	S	18 43 05.3	-0.5
JOGS	**Gusukube**	1.93	113	P	P	18 42 40.7	+0.2
JOGS				*e*S	S	18 43 07.5	-0.5
JKE	**Kume jima 2**	3.10	75	P	P	18 42 54.0	-0.7
JKE				*e*S	S	18 43 30.7	-2.3

DJA 23 18:53:17.5±1.0,9.35S×113.11E,h33^{km},MD4.9/4, ML4.1/4,4C-4D,Error ellipse: s-maj=24.0km s-min=19.3km az=6.0,South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	**Scrawed**	1.34	50	⇑*e*Pg	P	18 53 38.5	-1.5
	247nm,0.2s						
SRDI				⇑*e*Sg	S	18 53 53.1	-3.7
KELI	**Kelakatan**	1.77	51	⇓*e*Pn	Pn	18 53 45.2	-1.2
	106nm,0.2s						
KELI				⇑*e*Sn	Sn	18 54 05.3	-2.6
RATI	**Rata**	2.47	76	⇓*e*Pn	Pn	18 53 54.8	-1.6
	160nm,0.2s						
RATI				⇓*e*Sn	Sn	18 54 22.5	-3.3
KEDI	**Kedomdong**	3.09	74	⇑*e*Pn	Pn	18 54 03.4	-1.8
	38nm,0.2s						
KEDI				⇓*e*Sn	Sn	18 54 36.4	-5.0

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*PRU **23** 19:00:43.9,51.47N×16.13E*

*WAR **23** 19:00:44.3,51.50N×16.10E,h1^{km},ML2.7,Mining Induced*

ISC 23 19:00:42.4±1.5,51.47N±0.07×16.03E±0.07,n9,σ1^{s}.17/16, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	0.65	165	*e*PG	Pg	19 00 56.0	+0.7
KSP				*e*SG	Sg	19 01 05.0	+1.1
UPC	**Upice**	0.96	181	*e*PG	Pg	19 01 02.4	+0.9
DPC	**Dobruska-Polom**	1.13	170	*e*PG	Pg	19 01 05.1	+0.1
DPC				*e*SG	Sg	19 01 19.9	-0.2
PVCC	**Panska Ves**	1.31	225	*e*PG	Pg	19 01 09.6	+1.0
PRU	**Pruhonice**	1.75	213	*e*PG	Pg	19 01 17.0	-0.4
PRU				*e*SG	Sg	19 01 41.6	+0.8
CLL	**Collm**	1.90	266	*e*PG	Pg	19 01 20.0	-0.3
CLL				*e*SG	Sg	19 01 46.0	+0.3
OKC	**Ostrava-Krasne**	2.12	140	*e*SG	Sg	19 01 49.8	-3.0
NKC	**Novy Kostel**	2.58	243	*e*PG	Pg	19 01 32.5	-1.4
NKC				*e*SG	Sg	19 02 08.8	+0.5
KHC	**Kasperske Hory**	2.82	215	*e*PN	Pn	19 01 31.1	+1.7
KHC				*e*PG	Pg	19 01 36.2	-2.4
KHC				*e*SG	Sg	19 02 14.3	-1.8

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*NEIC **23** 19:01:43.2,38.70N×22.76E,h21^{km},ML3.4(ATH),After ATH.*

*ATH **23** 19:01:43.1,38.68N×22.76E,h20^{km}±1^{km},MD3.5/17, ML3.4*

*THE **23** 19:01:43.1,38.67N×22.74E,h4^{km},ML3.7*

*CSEM **23** 19:01:43.2±0.1,38.67N×22.74E,h2^{km},ML3.4,Error ellipse: s-maj=1.9km s-min=1.2km az=65.0*

ISC 23 19:01:42.4±0.6,38.67N±0.02×22.78E±0.03,h6^{km}±5^{km}, n35,σ1^{s}.14/49,Greece

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LKR	**Lokris**	0.17	97	*e*PB	Pb	19 01 48.0	+0.5
LKR				*e*SB	Sb	19 01 51.9	+1.1
AGG	**Agios Georgios**	0.50	315	*e*Pg	Pg	19 01 52.2	-0.2
AGG				*e*Sg	Sg	19 01 58.6	-0.3
NEO	**Neokhori**	0.72	28	*e*PN	Pn	19 01 56.9	-1.9
NEO				*e*SN	Sn	19 02 07.9	-2.3
XOR	**Xorichti**	0.76	25	*e*Pg	Pg	19 01 57.9	+0.3
XOR				*e*Sg	Sg	19 02 09.8	+1.9
MGER	**Gerania Oros**	0.78	151	*e*PB	Pb	19 01 58.0	+0.1
EVR	**Evrytania**	0.80	288	*e*PN	Pn	19 01 57.8	-2.1
MPAR	**Parnis Oros**	0.91	124	*e*PN	Pn	19 02 01.0	-0.5
NSAL	**Nisos Salamina**	0.93	145	*e*PN	Pn	19 02 01.0	-0.8
AOS	**Alonnisos**	0.99	60	*e*Pg	Pg	19 02 02.8	+0.7
AOS				*e*Sg	Sg	19 02 16.3	+0.9
ATH	**Athens Observa**	1.01	133	*e*Pn	Pn	19 02 02.9	-0.1
ATH				*e*Sn	Sn	19 02 18.7	+1.1
PTL	**Penteli**	1.05	126	*e*PN	Pn	19 02 03.6	+0.1
NAIG	**Nisos Aigina**	1.07	148	*e*PN	Pn	19 02 04.0	+0.3
RLS	**Riolos of Patr**	1.20	240	*e*PN	Pn	19 02 05.2	-0.4
RLS				*e*SN	Sn	19 02 22.3	0.0
LIT	**Litokhoron**	1.45	351	*e*Pb	Pb	19 02 08.9	-0.3
LIT				*e*Sb	Sb	19 02 29.7	+1.9
ITM	**Ithomi**	1.64	205	*e*PN	Pn	19 02 13.7	+1.9
PLG	**Polygyros**	1.78	17	*e*PB	Pb	19 02 13.5	-1.4
VLS	**Valsamata**	1.79	255	*e*PN	Pn	19 02 15.8	+1.8
JAN	**Janina**	1.79	304	*e*PN	Pn	19 02 16.6	+2.5
KZN	**Kozani**	1.81	335	*e*PN	Pn	19 02 14.7	+0.4
OUR	**Ouranopolis**	1.90	29	*e*Pb	Pb	19 02 15.6	-1.5
OUR				*e*Sb	Sb	19 02 41.3	+0.2
VLI	**Veliai**	1.95	176	*e*PB	Pb	19 02 16.7	-1.3
THE	**Thessaloniki**	1.96	4	*e*Pb	Pb	19 02 16.0	-2.1
THE				*e*Sb	Sb	19 02 41.8	-1.0
LOS	**Limnos**	2.19	54	*e*Pn	Pn	19 02 19.6	-0.1
SOH	**Sokhos**	2.19	11	*e*Pn	Pn	19 02 20.1	+0.3
SOH				*e*Sn	Sn	19 02 48.3	+0.8
GRG	**Griva**	2.30	353	*e*Pn	Pn	19 02 21.3	0.0
GRG				*e*Sn	Sn	19 02 51.0	+0.7
FNA	**Florina**	2.37	333	*e*Pn	Pn	19 02 22.5	+0.1
FNA				*e*Sn	Sn	19 02 52.8	+0.7
KYTH	**Kithira**	2.40	175	*e*PB	Pb	19 02 24.0	-1.5
KNT	**Kendrikon**	2.49	2	*e*Pn	Pn	19 02 24.2	+0.1
KNT				*e*Sn	Sn	19 02 56.2	+1.1
SRS	**Serrai**	2.52	14	*e*Pn	Pn	19 02 24.3	-0.2
KEK	**Kerkira**	2.54	295	*e*Pb	Pb	19 02 30.3	+2.3
APE	**Apeiranthos**	2.70	125	*e*PN	Pn	19 02 28.1	+1.0
MMB	**Musomiste**	3.00	14	*i* P	Pn	19 02 30.0	-1.4
KKB	**Krupnik**	3.20	4	*i* P	Pn	19 02 32.0	-2.2
RZN	**Rozhen**	3.36	26	*i* P	Pn	19 02 35.0	-1.4
VAM	**Vamos**	3.45	160	*e*PN	Pn	19 02 38.0	+0.3

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*IDC **23** 19:05:29.2±0.6,49.36S×161.35E,mb4.7/9,mb1 4.8/11, mb1mx4.6/13,ML4.8/2,MS4.5/1,Ms1 4.6/1,ms1mx3.1/8, Error ellipse: s-maj=22.8km s-min=18.3km az=52.0*

*SYO **23** 19:05:31.6,49.18S×161.55E,h10^{km},MB5.0*

*NEIC **23** 19:05:35.1±0.2,48.68S×161.40E,h10^{km},mb5.0/7,Error ellipse: s-maj=6.6km s-min=4.0km az=152.0*

ISC 23 19:05:29.2±0.4,49.18S±0.06×161.61E±0.07,h10^{km},n70, σ1^{s}.43/59,mb4.8/14,MS4.4/1,4C-4D,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	**Wether Hill Ro**	5.40	55	P	Pn	19 06 53.3	+1.4
WHZ				S	Sn	19 07 54.5	-0.4
MLZ	**Mavora Lakes**	5.88	52	P	Pn	19 07 00.3	+1.6
MLZ				S	Sn	19 08 06.3	-0.7
MSZ	**Milford Sound**	6.25	46	P	Pn	19 07 05.9	+2.1
TUZ	**Tuapeka**	6.31	62	P	Pn	19 07 05.6	+0.9
TUZ	**Tuapeka**	6.31	62	P	Pn	19 07 05.5	+0.8
TUZ				S	Sn	19 08 15.5	-2.2
EAZ	**Earnscleugh**	6.56	56	P	Pn	19 07 08.7	+0.5
WKZ	**Wanaka**	6.68	52	P	Pn	19 07 12.0	+2.2
WKZ				S	Sn	19 08 26.3	-0.5
JCZ	**Jackson Bay**	7.09	47	P	Pn	19 07 18.4	+2.8
ODZ	**Otahua Downs**	7.42	60	*e*P	Pn	19 07 19.1	-1.2
ODZ	**Otahua Downs**	7.42	60	P	Pn	19 07 19.1	-1.2
LBZ	**Lake Benmore**	7.59	54	*e*P	Pn	19 07 19.7	-2.9
LBZ	**Lake Benmore**	7.59	54	P	Pn	19 07 21.6	-1.0
FOZ	**Fox Glacier**	7.92	48	P	Pn	19 07 29.4	+2.2
FOZ				S	Sn	19 08 59.5	+1.7
RPZ	**Rata Peaks**	8.50	54	Pn	P	19 07 33.2	-2.1
	25nm,0.3s,baz=213,slow=5.7,SNR=31						
RPZ				Sn	Sn	19 09 10.8	-1.7
	5.9nm,0.3s,baz=14,slow=19,SNR=4.2						
RPZ	**Rata Peaks**	8.50	54	P	P	19 07 33.2	-2.2
WVZ	**Waitaha Valley**	8.79	49	*e*P	P	19 07 39.1	-0.3
WVZ	**Waitaha Valley**	8.79	49	P	P	19 07 39.1	-0.3
LTZ	**Lake Taylor**	9.79	53	*e*P	P	19 07 52.1	-1.0
LTZ	**Lake Taylor**	9.79	53	P	P	19 07 51.4	-1.7
DSZ	**Denniston Nort**	10.31	48	*e*P	P	19 07 59.6	-0.7
DSZ	**Denniston Nort**	10.31	48	P	P	19 07 59.6	-0.7

THZ	Tophouse	10.85	51	eP	P	19 08 06.8	-0.8
THZ	Tophouse	10.85	51	P	P	19 08 06.8	-0.8
QRZ	Quartz Range	11.37	47	P	P	19 08 14.2	-0.5
NNZ	Nelson	11.49	51	eP	P	19 08 16.8	+0.4
NNZ	Nelson	11.49	51	P	P	19 08 15.8	-0.6
URZ	Urewera	15.61	51	Pn	P	19 09 10.8	0.0
	1.7nm,0.3s,baz=228,slow=8.5,SNR=6.6						
WCZ	Waipu Caves	16.19	40	P	P	19 09 21.4	+3.1
STKA	Stephens Creek	22.91	312	eP	P	19 10 36.7	+2.5
	3.7nm,0.8s,mb3.9						
STKA	Stephens Creek	22.91	312	P	P	19 10 35.0	+0.8
	27nm,1.4s,mb4.5,baz=148,slow=16,SNR=6.6						
STKA				PcP	PcP	19 14 25.0	-1.1
	1.5nm,0.6s,baz=345,slow=9.1,SNR=4.2						
VNDA	Vanda	28.45	180	P	P	19 11 24.2	-1.5
	2.1nm,0.8s,mb3.8,baz=342,slow=11,SNR=8.0						
VNDA				LR	LR	19 21 30.0	
	comp=Z,1µm,21.7s,MS4.4,baz=237,slow=34						
VNDA	Vanda	28.45	180	eP	P	19 11 25.1	-0.5
	5.5nm,1.1s,mb4.1						
CTA	Charters Tower	31.53	332	P	P	19 11 54.1	+0.4
	4.6nm,0.9s,mb4.3,baz=161,slow=5.0,SNR=4.1						
CTAO	Charters Tower	31.53	332	eP	P	19 11 54.4	+0.7
	19nm,1.4s,mb4.7						
ASAR	Alice Springs	33.50	309	P	P	19 12 10.0	-0.9
	12nm,0.7s,mb5.0,baz=143,slow=8.4,SNR=90						
ASAR				PcP	PcP	19 14 50.5	-1.4
	2.2nm,0.7s,baz=145,slow=3.1,SNR=12						
ASPA	Alice Springs	33.50	309	⇓iP	P	19 12 10.1	-0.8
WB2	Warramunga Arr	36.43	313	⇓iP	P	19 12 34.6	-1.3
WRA	Warramunga Arr	36.43	313	P	P	19 12 34.4	-1.5
	16nm,0.8s,mb5.0,baz=143,slow=8.3,SNR=62						
WRA				PcP	PcP	19 14 59.0	-1.4
	2.6nm,0.6s,baz=151,slow=2.6,SNR=12						
WRAB	Tennant Creek	36.44	313	eP	P	19 12 34.3	-1.7
	32nm,0.8s,mb5.3						
WRAB				ePcP	PcP	19 14 59.1	-1.3
QSPA	South Pole Qui	40.94	180	⇑iP	P	19 13 13.3	+0.4
	14nm,0.9s,mb4.6						
RAR	Rarotonga	41.42	62	P	P	19 13 18.9	+1.5
	18nm,0.3s,mb5.2,baz=135,slow=5.9,SNR=9.7						
RAR				PcP	PcP	19 15 14.6	-1.5
	20nm,0.5s,baz=176,slow=16,SNR=4.2						
RAR	Rarotonga	41.42	62	P	P	19 13 18.9	+1.5
RAR				PcP	PcP	19 15 14.6	-1.5
PMG	Port Moresby	41.45	338	P	P	19 13 19.4	+1.6
	10.0nm,0.8s,mb4.5,baz=141,slow=2.5,SNR=8.2						
MAW	Mawson	48.79	210	P	P	19 14 13.2	-2.6
	1.4nm,0.4s,mb4.3,baz=120,slow=14,SNR=4.7						
SYO	Syowa Base	54.65	202	⇓P	P	19 14 57.2	-2.6
SYO	Syowa Base	54.65	202	⇓pP	pP	19 14 59.0	-3.9
SNAA	Sanae	58.95	186		P	19 15 28.9	-1.5
SNAA	Sanae	58.95	186	eP	P	19 15 28.4	-2.0
	24nm,1.2s,mb5.1						
VNA3	Neumayer Olymp	59.72	183	⇑i	P	19 15 36.5	+0.7
VNA2	Neumayer--Watz	59.94	184	⇑i	P	19 15 38.7	+1.4
VNA1	Neumayer--Stat	60.26	184	⇑i	P	19 15 41.5	+2.1
PMSA	Palmer Station	60.97	159	eP	P	19 15 49.5	+5.1
	11nm,0.9s,mb5.0						
CMAR	Chiang Mai Arr	87.22	302	P	P	19 18 18.1	+1.0
	3.9nm,0.8s,mb4.7,baz=165,slow=3.2,SNR=28						
SUR	Sutherland	91.61	212	P	P	19 18 43.4	+6.0
	63nm,1.5s,mb5.7						
ILAR	Eielson Array	120.44	23	PKP	PKPdf	19 24 21.1	-2.0
	1.4nm,0.8s,baz=310,slow=5.0,SNR=11						
DLBC	Dease Lake	120.96	35	PKP	PKPdf	19 24 22.8	-1.5
	1.4nm,0.3s,baz=202,slow=5.4,SNR=3.7						
DLBC	Dease Lake	120.96	35	PKP	PKPdf	19 24 22.8	-1.5
INK	Inuvik	126.65	25	PKP	PKPdf	19 24 33.6	-1.1
	1.7nm,0.6s,baz=226,slow=3.3,SNR=8.6						
YKA	Yellowknife Ar	129.44	37	PKP	PKPdf	19 24 37.7	-2.6
	0.6nm,0.7s,baz=232,slow=1.8,SNR=12						
YKA	Yellowknife Ar	129.44	37	PKP	PKPdf	19 24 37.7	-2.6
DBIC	Dimbokro	136.12	200	PKP	PKPdf	19 24 52.5	-1.6
	3.6nm,0.8s,baz=42,slow=3.5,SNR=4.5						
IDI	Anoyia	145.57	263	PKPbc	PKPbc	19 25 08.2	+0.3
	5.4nm,0.7s,baz=122,slow=4.3,SNR=4.7						
FRB	Frobisher Bay	149.64	42	PKP	PKPdf	19 25 14.3	-1.7
	0.9nm,0.5s,baz=271,slow=14,SNR=6.5						
FRB				PKPbc	PKPdf	19 25 19.9	+3.9
	10.0nm,0.8s,baz=309,slow=3.4,SNR=15						
FRB				PKPab	PKPab	19 25 25.8	+0.8
	14nm,0.8s,baz=263,slow=3.9,SNR=14						
AKASG	Malin Array Be	149.73	291	PKPbc	PKPdf	19 25 19.2	+2.6
	6.0nm,0.6s,baz=78,slow=2.5,SNR=47						
KEV	Kevo	150.20	330	epkp	PKPdf	19 25 16.8	0.0
ARCES	ARCESS Array B	150.77	330	PKPbc	PKPdf	19 25 22.4	+4.8
	20nm,1.0s,baz=101,slow=2.5,SNR=24						
ARCES				PKPab	PKPab	19 25 28.6	-1.0
	4.6nm,0.7s,baz=63,slow=2.7,SNR=5.7						
KAF	Kangasniemi	152.29	315	epkp	PKPdf	19 25 24.2	+4.1
FINES	FINESS Array B	152.47	313	PKPbc	PKPdf	19 25 25.8	+5.4
	4.5nm,0.5s,baz=96,slow=4.4,SNR=43						
GERES	GERESS Array B	159.03	281	PKPab	PKPab	19 26 03.6	-1.6
	1.9nm,0.8s,baz=135,slow=3.8,SNR=12						
NOA	NORSAR Array B	159.53	317	PKPab	PKPab	19 26 05.2	-1.8
	1.2nm,0.7s,baz=100,slow=6.9,SNR=3.5						

NEIC ***23*** *19:08:11.9, 38.70N×22.81E, h13^{km}, MD2.9(ATH), After ATH.*
ATH ***23*** *19:08:11.9, 38.71N×22.81E, h15^{km}±2^{km}, MD2.9/6*
THE ***23*** *19:08:11.6, 38.75N×22.72E, h23^{km}, ML3.0*
CSEM ***23*** *19:08:11.3±0.1, 38.72N×22.75E, h14^{km}±1^{km}, MD2.9, Error ellipse: s-maj=3.2km s-min=2.0km az=66.0*
ISC 23 19:08:10.7±0.6**, 38.76N**±0.03×**22.77E**±0.05**, h15^{km}, n14, σ0^{s}71**/20**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKR	Lokris	0.20	121	ePB	Pb	19 08 15.3	-0.3
LKR				eSB	Sb	19 08 19.2	+0.3
AGG	Agios Georgios	0.44	308	ePg	Pg	19 08 19.5	-0.4
AGG				eSg	Sg	19 08 26.8	+0.9
NEO	Neokhori	0.65	32	ePN	Pn	19 08 24.9	-0.3
XOR	Xorichti	0.69	28	ePg	Pg	19 08 25.2	+0.4
XOR				eSg	Sg	19 08 35.6	+1.4
EVR	Evrytania	0.77	282	ePN	Pn	19 08 27.5	+0.6
MGER	Gerania Oros	0.86	153	ePN	Pn	19 08 27.5	-0.6
AOS	Alonnisos	0.96	64	ePg	Pg	19 08 29.5	-0.5
AOS				eSg	Sg	19 08 43.1	+0.2
AOS	Alonnisos	0.96	64	eSg	Sg	19 08 43.1	+0.2
MPAR	Parnis Oros	0.97	128	ePN	Pn	19 08 29.5	-0.2
NSAL	Nisos Salamina	1.01	147	ePB	Pb	19 08 29.5	+0.2
PTL	Penteli	1.11	129	ePN	Pn	19 08 32.5	+0.8
NAIG	Nisos Aigina	1.14	150	ePN	Pn	19 08 32.5	+0.3
LIT	Litokhoron	1.36	351	ePb	Pb	19 08 35.3	-0.1
LIT				eSb	Sb	19 08 52.7	+0.3
KNT	Kendrikon	2.41	2	ePn	Pn	19 08 48.6	-1.6
KNT				eSn	Sn	19 09 18.2	-1.4

PDA ***23*** *19:12:31.4±0.9, 37.39N×24.76W, h15^{km}, MD2.8, ML2.5, Error ellipse: s-maj=6.5km s-min=2.4km az=73.0*
CSEM ***23*** *19:12:33.2±0.2, 37.64N×25.11W, h25^{km}, ML2.5, Error ellipse: s-maj=4.9km s-min=3.9km az=17.0*
SVSA 23 19:12:31.4±0.9**, 37.39N×24.76W, h15^{km}, MD2.8, ML2.5, Error ellipse: s-maj=6.5km s-min=2.4km az=73.0, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSMN	Pico do Norte,	0.46	212	eP	Pb	19 12 39.1	-1.5
PSMN				i S	Sb	19 12 44.6	-2.3
MIRA	Miradouro	0.57	314	i P	Pb	19 12 40.1	-2.4
MIRA				eS	Sb	19 12 47.8	-2.3
FRA1	Furnas	0.59	307	eP	Pb	19 12 40.6	-2.2
FRA1				eS	Sb	19 12 47.9	-2.7
PCNG	Congro	0.63	307	eS	Sb	19 12 49.1	-2.7
	133nm,0.4s						
PCNG	Congro	0.63	307	eS	Sb	19 12 49.1	-2.7
	133nm,0.4s						
PFAD	Fenais da Ajud	0.63	315	eP	Pb	19 12 41.1	-2.4
PFAD				i S	Sb	19 12 48.4	-3.5
VIF	Vila Franca	0.64	303	eP	Pb	19 12 41.7	-2.1
VIF				eS	Sb	19 12 49.4	-2.8
	88nm,0.3s						
VIF	Vila Franca	0.64	303	eP	Pb	19 12 41.7	-2.1
VIF				eS	Sb	19 12 49.4	-2.8
	88nm,0.3s						
PRCH	Ribeira Ch	0.66	301	eP	Pb	19 12 41.9	-2.2
PRCH				eS	Sb	19 12 50.0	-2.8
	344nm,0.2s						
PRCH	Ribeira Ch	0.66	301	eS	Sb	19 12 50.0	-2.8
	344nm,0.2s						
MESC	Monte Escuro	0.67	306	eP	Pb	19 12 42.0	-2.3
MESC				i S	Sb	19 12 49.8	-3.4
LFA	Lagoa do Fogo	0.69	304	eP	Pb	19 12 42.4	-2.1
PMAT	Coroa da Mata	0.70	307	eP	Pb	19 12 42.5	-2.3
PMAT				eS	Sb	19 12 51.2	-2.8
	53nm,0.2s						
PMAT	Coroa da Mata	0.70	307	eP	Pb	19 12 42.5	-2.3
PMAT				eS	Sb	19 12 51.2	-2.8
	53nm,0.2s						
PVER	Pico Vermelho	0.72	304	eP	Pb	19 12 42.7	-2.4
CML	Cha da Macela	0.73	301	eP	Pb	19 12 42.8	-2.4
CML				eS	Sb	19 12 51.0	-3.7
PDA	Ponta Delgada	0.80	296	eS	Sb	19 12 52.5	-4.3
FAC	Faja de Cima	0.80	298	eP	Pb	19 12 43.7	-2.8
FAC				eS	Sb	19 12 52.6	-4.3
PSAN	Santo Antonio	0.89	301	eP	Pb	19 12 44.9	-3.1
PSAN				i S	Sb	19 12 55.5	-4.0
PFET	Feteiras	0.92	298	eP	Pb	19 12 45.8	-2.7
PFET				eS	Sb	19 12 55.7	-4.6
SET2	Ginetes	0.94	299	eP	Pb	19 12 45.8	-3.1
SET4	Mosteiros	0.95	301	erx	Sb	19 12 55.8	-5.5
PFAV	Pico das Favas	2.26	306	erx	Sn	19 13 30.2	-6.3
RIB2	Ribeirinha	2.29	305	erx	Sn	19 13 30.6	-6.8
PVNV	Vila Nova	2.33	307	erx	Sn	19 13 32.0	-6.4
PPAD	Pico dos Padre	2.38	304	erx	Sn	19 13 33.9	-5.8
ASBA	Santa Barbara	2.42	304	erx	Sn	19 13 34.0	-6.6
PICO	Pico	3.10	292	eP	Sn	19 13 49.9	-8.0
PICO				eS	Sn	19 13 51.8	-6.1
PICO	Pico	3.10	292	eS	Sn	19 13 51.8	-6.1

IDC 23 19:13:17.3±36.0**, 16.43S×171.68W, mb4.5**/4**, mb1 4.6**/4**, mb1mx4.0**/17**, 1C-2D, Error ellipse: s-maj=699.0km s-min=99.7km az=74.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	40.66	275	P	P	19 21 00.6	-0.6
	9.7nm,0.9s,baz=104,slow=12,SNR=4.6						
STKA	Stephens Creek	44.98	241	⇑iP	P	19 21 36.7	+0.4
	4.1nm,1.0s						
STKA	Stephens Creek	44.98	241	P	P	19 21 35.9	-0.4
	2.9nm,0.6s,baz=79,slow=12,SNR=9.7						
WB2	Warramunga Arr	51.22	257	⇓iP	P	19 22 21.2	-3.7
WRA	Warramunga Arr	51.23	257	P	P	19 22 21.4	-3.7
	1.8nm,0.8s,baz=97,slow=7.6,SNR=38						
ASAR	Alice Springs	51.38	253	P	P	19 22 23.8	-2.4
	9.8nm,0.5s,baz=88,slow=8.0,SNR=200						
ASPA	Alice Springs	51.38	253	⇓iP	P	19 22 23.7	-2.4
KAKA	Kakadu	54.12	266	eP	P	19 22 44.2	-2.4
	3.4nm,0.3s						

THE ***23*** *19:13:58.7, 38.65N×22.71E, h10^{km}, ML3.2*
NEIC ***23*** *19:13:59.8, 38.68N×22.71E, h11^{km}, ML3.0(ATH), After ATH.*
ATH ***23*** *19:13:59.9, 38.68N×22.71E, h6^{km}, MD3.1/9, ML3.0*
CSEM ***23*** *19:13:59.6±0.2, 38.67N×22.70E, h2^{km}, ML3.0, Error ellipse: s-maj=3.7km s-min=2.4km az=51.0*
ISC 23 19:13:58.6±0.8**, 38.67N**±0.03×**22.69E**±0.05**, h0^{km}**±7^{km}**, n17, σ0^{s}86**/24**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LKR	Lokris	0.24	93	ePG	Pg	19 14 03.9	+0.4
LKR				eSG	Sg	19 14 08.2	+1.5
AGG	Agios Georgios	0.45	322	ePg	Pg	19 14 08.1	+0.5
AGG				eSg	Sg	19 14 14.6	+0.9
EVR	Evrytania	0.73	290	ePB	Pb	19 14 14.0	+0.2
NEO	Neokhori	0.77	33	ePB	Pb	19 14 14.2	-0.2
XOR	Xorichti	0.80	29	ePg	Pg	19 14 13.9	-0.7
XOR				eSg	Sg	19 14 25.9	+0.5
MGER	Gerania Oros	0.81	146	ePB	Pb	19 14 14.5	-0.8
MGER				eSB	Sb	19 14 28.0	+1.4
MPAR	Parnis Oros	0.97	122	ePB	Pb	19 14 17.0	-0.9
NSAL	Nisos Salamina	0.97	141	ePB	Pb	19 14 18.6	+0.6
AOS	Alonnisos	1.06	61	ePg	Pg	19 14 18.5	-1.3
AOS				eSg	Sg	19 14 34.1	+0.2
ATH	Athens Observa	1.06	130	ePN	Pn	19 14 20.5	-0.1
NAIG	Nisos Aigina	1.10	145	ePG	Pg	19 14 20.5	-0.1
PTL	Penteli	1.11	123	ePG	Pg	19 14 20.5	-0.3
LIT	Litokhoron	1.44	354	ePb	Pb	19 14 25.2	-0.8
LIT				eSb	Sb	19 14 45.9	+1.1
OUR	Ouranopolis	1.94	31	ePb	Pb	19 14 31.9	-2.7
GRG	Griva	2.30	355	ePn	Pn	19 14 37.6	-0.6
GRG				eSn	Sn	19 15 08.2	+0.6
GRG	Griva	2.30	355	eSn	Sn	19 15 08.2	+0.6
KNT	Kendrikon	2.50	4	ePn	Pn	19 14 40.6	-0.5

ATH ***23*** *19:43:31.2, 39.95N×21.71E, h5^{km}, MD3.2/4*
NEIC ***23*** *19:43:32.1, 39.99N×21.67E, h7^{km}, MD3.2(ATH), After ATH.*
THE ***23*** *19:43:32.3, 40.04N×21.65E, h9^{km}, ML3.2*
CSEM ***23*** *19:43:32.2±0.4, 40.03N×21.64E, h5^{km}, MD3.2, Error ellipse: s-maj=8.3km s-min=4.0km az=76.0*
ISC 23 19:43:31.7±0.6**, 40.03N**±0.02×**21.67E**±0.04**, h9^{km}**±6^{km}**, n15, σ1^{s}29**/24**, Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KZN	Kozani	0.29	16	ePB	Pb	19 43 38.5	-0.1
KZN				eSB	Sb	19 43 44.0	+0.8
LIT	Litokhoron	0.64	83	ePg	Pg	19 43 44.2	-0.3
LIT				eSg	Sg	19 43 54.3	+1.3
JAN	Janina	0.73	240	ePB	Pb	19 43 44.0	-2.2
FNA	Florina	0.79	344	ePg	Pg	19 43 46.5	-0.9
FNA				eSg	Sg	19 43 58.5	+0.5
BIA	Bitola	1.02	345	i Pn	Pn	19 43 51.8	-0.4
BIA				i Sg	Sg	19 44 07.7	+1.8
GRG	Griva	1.08	31	ePg	Pg	19 43 52.6	-0.8
EVR	Evrytania	1.11	174	ePb	Pb	19 43 51.0	-1.7
EVR				eSb	Sb	19 44 09.2	+2.0
AGG	Agios Georgios	1.13	153	ePg	Pg	19 43 53.4	-0.9
AGG				eSg	Sg	19 44 10.1	+0.8
OHR	Ohrid	1.27	329	i Sg	Sg	19 44 14.2	+0.2
XOR	Xorichti	1.35	119	ePb	Pb	19 43 56.5	-0.2
XOR				eSb	Sb	19 44 16.4	+2.4
KNT	Kendrikon	1.47	39	ePb	Pb	19 43 58.2	-0.6
KNT				eSb	Sb	19 44 18.5	+1.0
KEK	Kerkira	1.47	258	ePB	Pb	19 44 00.5	+1.6
OUR	Ouranopolis	1.80	79	ePb	Pb	19 44 02.8	-1.7
SRS	Serrai	1.82	53	ePb	Pb	19 44 03.2	-1.7
SRS				eSb	Sb	19 44 26.4	-1.4
SKO	Skopje	1.95	355	i Pn	Pn	19 44 08.8	+3.4

IDC ***23*** *19:49:60.0±0.5, 49.92S×161.57E, mb5.2/11, mb1 5.3/13, mb1mx5.1/15, ML4.6/2, MS5.7/14, Ms1 5.7/14, ms1mx5.3/17, Error ellipse: s-maj=20.2km s-min=14.9km az=72.0*
SYO ***23*** *19:50:00.6, 49.89S×161.60E, h10^{km}, MB5.6, MS5.7*
BJI ***23*** *19:50:01.2, 49.33S×161.36E, h8^{km}, mB6.1, mb5.5, Ms6.0, Msz5.6*
MOS ***23*** *19:50:03.7±2.4, 50.19S×160.20E, h10^{km}, mb6.4/2, MS5.8/9, Error ellipse: s-maj=32.4km s-min=15.2km az=95.8*
NEIC ***23*** *19:50:05.1±0.2, 49.31S×161.45E, h10^{km}, mb5.5/29, MS5.6/29, Error ellipse: s-maj=6.4km s-min=4.4km az=155.0*
ISC 23 19:49:59.5±1.2**, 49.89S**±0.04×**161.78E**±0.05**, h14^{km}**±7^{km}**, h20^{km}**±6.7^{km}**:pP-P, n253, σ1^{s}20**/126**, mb5.5**/39**, MS5.7**/48**, 37C-19D, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCQ	Macquarie Isla	4.93	200	eP	Pn	19 51 08.5	-6.5
MCQ				eS	Sn	19 51 57.0	-16
WHZ	Wether Hill Ro	5.76	48	eP	Pn	19 51 27.2	+0.4
WHZ				S	Sn	19 52 33.5	+0.1
WHZ	Wether Hill Ro	5.76	48	P	Pn	19 51 27.2	+0.4
WHZ				S	Sn	19 52 33.5	+0.1
MLZ	Mavora Lakes	6.27	46	P	Pn	19 51 34.3	+0.3
TUZ	Tuapeka	6.58	56	eP	Pn	19 51 39.6	+1.2
TUZ	Tuapeka	6.58	56	P	Pn	19 51 39.1	+0.7
TUZ				S	Sn	19 52 52.9	-1.1
MSZ	Milford Sound	6.69	41	P	Pn	19 51 42.0	+2.1
EAZ	Earnscleugh	6.90	50	eP	Pn	19 51 42.7	-0.2
EAZ	Earnscleugh	6.90	50	P	Pn	19 51 42.7	-0.2
EAZ				S	Sn	19 53 01.9	-0.1
WKZ	Wanaka	7.06	47	eP	Pn	19 51 46.6	+1.6
WKZ	Wanaka	7.06	47	P	Pn	19 51 46.6	+1.6
JCZ	Jackson Bay	7.52	42	eP	Pn	19 51 53.6	+2.0
JCZ	Jackson Bay	7.52	42	P	Pn	19 51 53.4	+1.8
ODZ	Otahua Downs	7.72	54	eP	Pn	19 51 53.1	-1.2
ODZ	Otahua Downs	7.72	54	P	Pn	19 51 53.1	-1.2
LBZ	Lake Benmore	7.95	49	eP	Pn	19 51 55.7	-1.8
LBZ	Lake Benmore	7.95	49	P	Pn	19 51 55.7	-1.8
FOZ	Fox Glacier	8.34	44	P	P	19 52 04.5	+1.6
RPZ	Rata Peaks	8.86	49	Pn	P	19 52 09.0	-1.2
	6.6nm,0.3s,baz=208,slow=7.1,SNR=24						
RPZ				Sn	Sn	19 53 49.1	-1.8
	6.3nm,0.3s,baz=233,slow=3.8,SNR=2.4						
RPZ				LR	LR	19 55 34.4	
	comp=Z,55µm,19.2s,baz=226,slow=37						
RPZ	Rata Peaks	8.86	49	P	P	19 52 08.2	-2.0
WVZ	Waitaha Valley	9.20	46	eP	P	19 52 15.6	+0.8
WVZ	Waitaha Valley	9.20	46	P	P	19 52 13.4	-1.4
LTZ	Lake Taylor	10.15	50	eP	P	19 52 25.8	-2.1
LTZ	Lake Taylor	10.15	50	P	P	19 52 25.8	-2.1
DSZ	Denniston Nort	10.73	44	P	P	19 52 34.9	-0.9
THZ	Tophouse	11.23	48	P	P	19 52 42.1	-0.5
QRZ	Quartz Range	11.79	44	eP	P	19 52 49.5	-0.8
QRZ	Quartz Range	11.79	44	P	P	19 52 49.5	-0.8
NNZ	Nelson	11.88	47	P	P	19 52 51.4	0.0
URZ	Urewera	15.98	49	Pn	P	19 53 45.9	+0.4
	1.9nm,0.3s,baz=229,slow=6.5,SNR=10						
URZ				LR	LR	20 00 22.0	
	comp=Z,45µm,19.4s,baz=218,slow=39						
TOO	Toolangi	16.99	310	eP	P	19 53 58.4	+0.2
	148nm,1.2s						
CNB	Canberra Magne	17.16	323	eP	P	19 54 00.9	+0.5
	179nm,1.0s						
CNB				i S	S	19 57 02.5	-7.1
CNB				eT		20 09 41.5	
STKA	Stephens Creek	23.47	313	⇑iP	P	19 55 11.7	+2.4
	97nm,1.4s,mb5.0						
STKA	Stephens Creek	23.47	313	P	P	19 55 10.9	+1.6
	224nm,1.3s,mb5.4,baz=133,slow=8.8,SNR=51						
STKA				LR	LR	20 03 38.8	
	comp=Z,45µm,18.9s,MS6.0,baz=134,slow=35						
VNDA	Vanda	27.73	180	P	P	19 55 50.1	+1.2
	8.6nm,1.0s,baz=353,slow=9.1,SNR=18						
VNDA				LR	LR	20 06 00.9	
	comp=Z,2µm,20.3s,MS4.7,baz=190,slow=35						
VNDA	Vanda	27.73	180	eP	P	19 55 49.3	+0.3
	104nm,1.7s,mb5.2						
VNDA				LR	LR		
	comp=Z,4µm,19.0s,MS5.0						
NOUC	Port Laguerre	27.96	9	eP	P	19 55 53.9	+2.3
DZM	Mont Dzumac	28.01	9	eP	P	19 55 55.2	+3.2
DZM	Mont Dzumac	28.01	9	eP	P	19 55 55.1	+3.2
SBA	Scott Base	28.13	178	eP	P	19 55 49.4	-3.2
	comp=Z,217nm,1.8s,mb5.5						
SBA				LR	LR		
	comp=Z,7µm,19.0s,MS5.2						
CASY	Casey	30.54	218	eP	P	19 56 13.4	-0.8
CTA	Charters Tower	32.21	332	⇑iP	P	19 56 29.6	+0.3
	comp=Z,53nm,1.2s,mb5.2						
CTA	Charters Tower	32.21	332	P	P	19 56 29.7	+0.4
	comp=Z,60nm,1.0s,mb5.4,baz=158,slow=8.8,SNR=33						
CTA				LR	LR	20 06 57.2	
	comp=Z,20µm,20.7s,MS5.8,baz=158,slow=32						
CTAO	Charters Tower	32.21	332	eP	P	19 56 29.4	+0.1
	comp=Z,308nm,1.5s,mb5.9						
CTAO				LR	LR		
	comp=Z,22µm,21.0s,MS5.8						
ASAR	Alice Springs	34.04	310	P	P	19 56 45.3	+0.1
	comp=Z,120nm,0.8s,mb5.9,baz=146,slow=8.2,SNR=541						
ASAR				LR	LR	20 10 53.8	
	comp=Z,24µm,18.1s,MS6.0,baz=148,slow=37						
ASAR	Alice Springs	34.04	310	P	P	19 56 45.3	+0.1
ASAR				LR	LR	20 10 53.8	
ASPA	Alice Springs	34.04	310	⇓iP	P	19 56 44.0	-1.2
ASPA				i S	S	20 02 10.1	+0.9
NWAO	Narrogin (SRO)	36.84	280	P	P	19 57 06.8	-2.2
	comp=Z,37nm,1.1s,mb5.1,baz=138,slow=8.0,SNR=7.5						
NWAO				LR	LR	20 09 09.3	
	comp=Z,134nm,18.3s,baz=135,slow=31						
NWAO	Narrogin (SRO)	36.84	280	P	P	19 57 06.8	-2.2
NWAO				LR	LR	20 09 09.3	
WB2	Warramunga Arr	37.00	314	⇑iP	P	19 57 08.9	-1.5
WB2				eS	S	20 02 53.2	-1.6
WRA	Warramunga Arr	37.00	314	P	P	19 57 09.6	-0.8
	comp=Z,138nm,1.0s,mb5.8,baz=148,slow=7.3,SNR=240						
WRAB	Tennant Creek	37.01	314	c iP	P	19 57 09.2	-1.2
WRAB	Tennant Creek	37.01	314	eP	P	19 57 08.7	-1.7
	comp=Z,513nm,1.2s,mb6.2						
WRAB				LR	LR		
	comp=Z,17µm,19.0s,MS5.8						
KLBR	Kellerberrin	37.40	282	eP	P	19 57 12.1	-1.5
	comp=Z,102nm,1.1s,mb5.6						
MIR	Mirnyy	37.56	218	αeP	P	19 57 14.6	0.0
MIR				e		19 57 15.0	
MIR				e		19 58 42.0	
MIR				eS	S	20 03 02.0	-0.9
MIR				pmax	pmax		
	comp=Z,270nm,2.0s,mb5.6						
MIR				pmax	pmax		
	comp=Z,2µm,7.0s						
MIR				smax			
	comp=E,3µm,9.0s						
MIR				smax			
	comp=E,1µm,9.0s						
MIR				MLR	MLR		
	comp=N,6µm,15.0s,MS5.8						
MIR				MLR	MLR		
	comp=E,11µm,15.0s,MS5.8						
MIR				MLR	MLR		
	comp=Z,26µm,15.0s,MS6.2						
MUN	Mundaring	38.12	281	eP	P	19 57 18.1	-1.6
	comp=Z,29nm,1.2s,mb4.9						
QSPA	South Pole Qui	40.23	180	eP	P	19 57 38.3	+1.5
	comp=Z,193nm,1.5s,mb5.6						
QSPA				LR	LR		
	comp=Z,7µm,22.0s,MS5.5						
RAR	Rarotonga	41.67	61	LR	LR	20 12 56.1	
	comp=Z,5µm,18.6s,MS5.4,baz=217,slow=33						
PMG	Port Moresby	42.15	338	P	P	19 57 55.3	+2.1
	comp=Z,34nm,0.9s,mb5.0,baz=179,slow=5.1,SNR=19						
PMG				LR	LR	20 12 41.0	
	comp=Z,12µm,19.2s,MS5.8,baz=347,slow=32						
PMG	Port Moresby	42.15	338	eP	P	19 57 54.7	+1.5
	comp=Z,51nm,0.9s,mb5.2						
PMG				LR	LR		
	comp=Z,8µm,19.0s,MS5.6						
FITZ	Fitzroy Crossi	42.92	305	⇓iP	P	19 57 58.5	-0.9
	comp=Z,79nm,0.7s,mb5.5						
FITZ				eS	S	20 04 24.1	+0.6
MBWA	Marble Bar	43.78	295	eP	P	19 58 04.9	-1.5
	comp=Z,188nm,1.1s,mb5.7						
MBWA				LR	LR		
	comp=Z,14µm,19.0s,MS5.9						
KAKA	Kakadu	44.20	317	⇑iP	P	19 58 09.2	-0.6
	comp=Z,64nm,0.6s,mb5.5						
KAKA				eS	S	20 04 47.2	+5.1
TBI	Tubuai	46.18	73	eLQ		20 09 43.4	
TBI				eLR	LR	20 11 31.0	
	comp=Z,6µm,24.0s						
MAW	Mawson	48.23	211	eP	P	19 58 41.2	+0.1
	comp=Z,11nm,1.1s,mb4.8						
MAW				eS	S	20 05 40.5	+1.5
MAW	Mawson	48.23	211	P	P	19 58 41.3	+0.2
	comp=Z,8.8nm,0.8s,mb4.9,baz=104,slow=7.7,SNR=9.2						
MAW				LR	LR	20 17 39.6	
	comp=Z,23µm,18.1s,MS6.2,baz=101,slow=34						
YOMI	Yo Moklole	50.41	332	⇑eP	P	19 58 55.2	-3.4
	comp=Z,42nm,1.4s,mb5.3						
PPT	Papeete	50.47	68	eLQ		20 10 32.3	
PPT				eLR	LR	20 13 27.4	
	comp=Z,8µm,26.2s,baz=227						
TIAR	Tiarei	50.62	68	eP	P	19 59 04.5	+4.4
	comp=Z,209nm,0.9s,mb6.0						
SYO	Syowa Base	54.03	202	⇑P	P	19 59 23.5	-1.4
SYO	Syowa Base	54.03	202	⇓pP	pP	19 59 24.9	-4.3
SYO	Syowa Base	54.03	202	⇓sP	sP	19 59 29.7	-1.1
RKT	Rikitea	55.54	86	eLQ		20 13 27.9	
RKT				eLR	LR	20 15 48.0	
	comp=Z,7µm,30.2s,baz=218						
KEDI	Kedomdong	56.02	301	⇓eP	P	19 59 39.8	-0.3
	comp=Z,59nm,1.1s,mb5.5						
RATI	Rata	56.15	301	⇓eP	P	19 59 40.6	-0.4
	comp=Z,98nm,1.1s,mb5.8						
SRDI	Scrawed	57.12	300	⇑eP	P	19 59 48.0	-0.1

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         comp=Z,41nm,1.0s,mb5.4
KELI  Kelakatan          57.14 300⇑eP     P        19 59 48.1  -0.1
         comp=Z,159nm,1.1s,mb6.0
NINI  Niniconang         57.49 308⇓eP     P        19 59 51.4  +0.8
NVL   N'lazarevskaya     57.72 191⇓eP     P        19 59 48.0  -3.5
NVL                               eS      S        20 07 48.0  +0.1
NVL                                pmax   pmax
         comp=Z,717nm,3.5s
BUNI  Buntu Taipa        57.85 309⇓eP     P        19 59 52.9  -0.3
SNAA  Sanae              58.25 186⇓iP     P        19 59 54.3  -0.9
SNAA  Sanae              58.25 186⇑i      P        20 00 04.7  +10
SNAA  Sanae              58.25 186⇑i      PcP      20 00 47.0  +0.7
SNAA  Sanae              58.25 186  P     P        19 59 54.7  -0.5
         comp=Z,9.0nm,1.1s,mb4.7,baz=175,slow=6.9,SNR=40
SNAA  Sanae              58.25 186d iP    P        19 59 54.4  -0.8
TANI  Tanete Lipujan     58.52 308⇑eP     P        19 59 56.7  -1.1
VNA3  Neumayer Olymp     59.02 183⇑iP     P        20 00 04.2  +3.6
VNA3  Neumayer Olymp     59.02 183⇑i      P        20 00 18.3  +18
VNA3  Neumayer Olymp     59.02 183⇑i      PcP      20 00 52.8  +3.5
VNA2  Neumayer--Watz     59.24 184  P     P        20 00 04.5  +2.4
VNA2  Neumayer--Watz     59.24 184⇑i      P        20 00 14.2  +12
VNA2  Neumayer--Watz     59.24 184        PcP      20 00 50.8  +0.6
VNA2  Neumayer--Watz     59.24 184        PP       20 02 15.9  +1.0
VNA2  Neumayer--Watz     59.24 184  S     S        20 08 07.9  +0.1
VNA1  Neumayer--Stat     59.55 184⇑iP     P        20 00 08.2  +3.9
VNA1  Neumayer--Stat     59.55 184⇑i      P        20 00 19.3  +15
VNA1  Neumayer--Stat     59.55 184⇑i      P        20 00 23.7  +19
VNA1  Neumayer--Stat     59.55 184⇑i      PcP      20 00 56.1  +4.7
VNA1  Neumayer--Stat     59.55 184⇑i      PP       20 02 17.6  -0.1
PMSA  Palmer Station     60.27 159  PFAKE          20 00 30.0  +21
PMSA                                LR    LR
         comp=Z,6µm,20.0s,MS5.7
PULI  Pulasari           63.57 293⇓eP     P        20 00 29.3  -2.8
         comp=Z,170nm,1.6s,mb5.8
PENI  Pendagan           64.67 293⇓eP     P        20 00 35.5  -3.8
         comp=Z,47nm,2.0s,mb5.2
DAV   Davao City (W)     64.86 320 eP     P        20 00 41.2  +0.7
GUMO  Guam               64.94 342  PFAKE          20 00 50.0  +9.1
GUMO                                LR    LR
         comp=Z,2µm,21.0s,MS5.3
USHA  Ushuaia            67.50 151  LR    LR       20 23 33.6
         comp=Z,7µm,20.3s,MS5.9,baz=208,slow=30
TGY   Tagaytay City      73.14 318  P     P        20 01 31.4  -0.1
         comp=Z,31nm,0.5s,mb5.5,baz=193,slow=9.4,SNR=2.3
TGY                                 LR    LR       20 32 01.5
         comp=Z,3µm,22.0s,MS5.5,baz=168,slow=34
JOW   Kunigami           81.98 330  LR    LR       20 36 04.9
         comp=Z,3µm,21.9s,MS5.6,baz=349,slow=34
TRQA  Tornquist          84.29 147  PFAKE          20 02 50.0  +18
TRQA                                LR    LR
         comp=Z,5µm,20.0s,MS5.9
JHJ   Hachijo jima 2     84.92 342  LR    LR       20 37 38.1
         comp=Z,2µm,20.2s,MS5.4,baz=73,slow=34
BDT   Bhumibol Dam       86.67 302  P     P        20 02 44.0   0.0
NANT  Nan                87.02 304  P     P        20 02 45.0  -0.7
CM31  Chiang Mai Arr     87.69 302 eP     P        20 02 49.7  +0.8
         comp=Z,60nm,1.1s,mb5.7
CMAR  Chiang Mai Arr     87.69 302  P     P        20 02 50.4  +1.5
         comp=Z,14nm,0.9s,mb5.2,baz=159,slow=3.4,SNR=79
CMAR                                LR    LR       20 42 29.9
         comp=Z,5µm,20.6s,MS5.9,baz=150,slow=36
CHG   Chiang Mai         87.98 303 ⇑P     P        20 02 51.2  +0.9
         comp=Z,44nm,1.2s,mb5.6
SSE   Sheshan            88.32 326  P     P        20 02 52.0  +0.3
SSE                                 XP    sP       20 03 05.3  +7.7
SSE                                 S     S        20 13 34.6  +0.4
SSE                                 SS    SS       20 19 24.1  -3.2
SSE                                 AMB   AMB
         comp=Z,31nm,1.3s,mb5.4
SSE                                 AMB   AMB
         comp=Z,429nm,7.6s
SSE                                 LR    LR
         comp=N,2µm,29.4s,MS5.5
SSE                                 LR    LR
         comp=E,2µm,29.4s,MS5.5
SSE                                 LR    LR
         comp=Z,3µm,26.5s,MS5.6
SSE   Sheshan            88.32 326  P     P        20 02 52.0  +0.3
         comp=Z,31nm,1.3s,mb5.4
SSE                                 sP    sP       20 03 05.3  +7.7
SSE                                 S     S        20 13 34.6  +0.4
SSE                                 sS             20 13 51.4
SSE                                 SS    SS       20 19 24.1  -3.2
SSE                                 LR    LR
         comp=Z,3µm,26.5s,MS5.6
CHRT  Chiangrai          88.39 304 ⇑P     P        20 02 53.0  +0.7
         comp=Z,179nm,1.3s,mb6.1
MAJO  Matsushiro         88.55 341  PFAKE          20 03 10.0  +17
MAJO                                LR    LR
         comp=Z,2µm,19.0s,MS5.5
MAT   Matsushiro         88.55 341  P     P        20 02 54.1  +1.4
MAT   Matsushiro         88.55 341 eP     P        20 02 54.0  +1.3
         comp=Z,208nm,2.2s,mb6.1
NJ2   Nanjing            90.04 325 eP     P        20 03 01.1  +1.3
NJ2                                 AP    pP       20 03 12.0  +7.7
NJ2                                 S     S        20 13 55.0  +5.0
NJ2                                 AMB   AMB
         comp=Z,280nm,1.0s,mb6.5
NJ2                                 AMB   AMB
         comp=Z,1µm,4.6s
NJ2                                 LR    LR
         comp=N,7µm,21.2s,MS6.2
NJ2                                 LR    LR
         comp=E,7µm,23.8s,MS6.2
NJ2                                 LR    LR
         comp=Z,6µm,19.4s,MS6.1
GYA   Guiyang            90.36 313⇑iP     P        20 03 02.4  +0.9
GYA                                 S     S        20 13 54.3  +1.2
GYA                                 SS    SS       20 19 56.3  -0.8
GYA                                 AMB   AMB
         comp=Z,60nm,1.9s,mb5.6
GYA                                 AMB   AMB
         comp=Z,780nm,5.4s
GYA                                 LR    LR
         comp=N,4µm,26.0s,MS5.8
GYA                                 LR    LR
         comp=E,3µm,25.7s,MS5.8
GYA                                 LR    LR
         comp=Z,4µm,25.7s,MS5.7
WHN   Wuhan              90.47 321  P     P        20 03 03.0  +1.2
SUR   Sutherland         91.07 212  PFAKE          20 03 20.0  +15
SUR                                 LR    LR
         comp=Z,1µm,19.0s,MS5.3
KMI   Kunming            91.17 309⇑eP     P        20 03 07.1  +1.9
KMI                                 AP    pP       20 03 10.8  +1.2
KMI                                 PP    PP       20 06 40.6  -4.0
KMI                                 SKS   SKS      20 13 40.3  -0.6
KMI                                 S     S        20 14 01.9  +1.6
KMI                                 XS             20 14 07.4
KMI                                 PS    PS       20 15 05.9  -8.8
KMI                                 SS    SS       20 20 03.9  -4.5
KMI                                 AMB   AMB
         comp=Z,24nm,2.0s,mb5.2
KMI                                 AMB   AMB
         comp=Z,509nm,4.1s
KMI                                 LR    LR
         comp=N,2µm,21.4s,MS5.8
KMI                                 LR    LR
         comp=E,3µm,23.1s,MS5.8
KMI                                 LR    LR
         comp=Z,4µm,38.0s
KMI   Kunming            91.17 309⇑eP     P        20 03 07.1  +1.9
         comp=Z,24nm,2.0s,mb5.2
KMI                                 pP    pP       20 03 10.8  +1.2
KMI                                 sP    sP       20 03 11.5  +0.4
KMI                                 PP    PP       20 06 40.6  -4.0
KMI                                 SKS   SKS      20 13 40.2  -0.7
KMI                                 S     S        20 14 01.9  +1.6
KMI                                 sS             20 14 07.4
KMI                                 PS    PS       20 15 05.9  -8.8
KMI                                 SS    SS       20 20 03.9  -4.5
KMI                                 LR    LR
         comp=Z,4µm,38.0s,MS5.6
ENH   Enshi              92.31 317 eP     P        20 03 10.0  -0.3
         comp=Z,44nm,1.6s,mb5.5
LVC   Limon Verde        94.99 134  PFAKE          20 03 40.0  +17
LVC                                 LR    LR
         comp=Z,2µm,21.0s,MS5.6
CD2   Chengdu            95.48 313  P     P        20 03 26.0  +1.1
CD2                                 AMB   AMB
         comp=Z,20nm,1.6s,mb5.3
XAN   Xi'an              95.78 318  P     P        20 03 25.5  -0.7
LBTB  Lobatse            95.89 219  PFAKE          20 03 40.0  +13
LBTB                                LR    LR
         comp=Z,2µm,19.0s,MS5.5
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SHL   Shillong           97.27 301 eP     P        20 03 33.5  +0.4
MDJ   Mudanjiang         98.22 337  PFAKE          20 03 50.0  +13
MDJ                                 LR    LR
         comp=Z,2µm,21.0s,MS5.7
LZH   Lanzhou            99.74 316 ⇓P     P        20 03 45.5  +1.5
LZH                                 AP    pP       20 03 52.5  +4.0
LZH                                 XP    sP       20 03 56.5  +6.6
LZH                                 AMB   AMB
         comp=Z,30nm,1.6s,mb5.5
LZH   Lanzhou            99.74 316 ⇓P     P        20 03 45.5  +1.5
         comp=Z,30nm,1.6s,mb5.5
LZH                                 pP    pP       20 03 52.5  +4.0
LZH                                 sP    sP       20 03 56.5  +6.6
LZH                                 PP    PP       20 07 42.5  -8.4
HHC   Hu-ho-hao-te      100.54 324 eP     P        20 03 52.5  +4.9
HHC                                 AP             20 03 57.5
HHC                                 SKS   SKS      20 14 29.4  -1.1
HHC                                 S     S        20 15 25.9  +6.0
HHC                                 XS             20 15 35.4
HHC                                 PS    PS       20 17 04.6  +8.7
HHC                                 AMB   AMB
         comp=Z,7.0nm,0.9s
HHC                                 AMB   AMB
         comp=Z,259nm,4.7s
HHC                                 LR    LR
         comp=N,2µm,21.4s,MS5.6
HHC                                 LR    LR
         comp=E,806nm,23.8s,MS5.6
HHC                                 LR    LR
         comp=Z,4µm,22.6s,MS5.8
LPAZ  La Paz            100.80 132  PFAKE          20 04 10.0  +21
LPAZ                                LR    LR
         comp=Z,3µm,21.0s,MS5.7
LSZ   Lusaka            103.34 226  PFAKE          20 04 20.0  +19
LSZ                                 LR    LR
         comp=Z,4µm,20.0s,MS6.0
ULN   Ulaanbaatar       108.20 325  PFAKE          20 08 40.0
ULN                                 LR    LR
         comp=Z,3µm,22.0s,MS5.8
SONM  Songino Array     108.42 324  PKiKP          20 08 29.1
         comp=Z,0.5nm,0.8s,baz=162,slow=3.9,SNR=4.2
TLY   Talaya            112.60 325  PFAKE          20 08 50.0  +12
TLY                                 LR    LR
         comp=Z,530nm,21.0s,MS5.1
WMQ   Urumqi            113.44 311 ePKP   PKPdf    20 08 43.3  +3.2
YAK   Yakutsk           114.47 344 i PKIKP PKPdf   20 08 36.0  -5.6
YAK                                 MLR   MLR
         comp=Z,2µm,22.0s,MS5.7
TXAR  Lajitas Array     114.62  73  PKP   PKPdf    20 08 42.2  -0.4
         comp=Z,0.6nm,1.0s,baz=198,slow=4.0,SNR=3.9
TXAR  Lajitas Array     114.62  73  PKP   PKPdf    20 08 42.2  -0.4
MSU   Marysvale         115.97  61 ePKPdf PKPdf    20 08 46.3  +1.2
ANMO  Albuquerque       116.83  67  PFAKE          20 09 00.0  +13
ANMO                                LR    LR
         comp=Z,2µm,21.0s,MS5.8
BILL  Bilibino          117.66   2 i PKIKP PKPdf   20 08 42.5  -5.1
BILL                                pmax  pmax
         comp=Z,6.0nm,1.4s
HLID  Hailey            118.23  55  PFAKE          20 09 00.0  +11
HLID                                LR    LR
         comp=Z,2µm,20.0s,MS5.7
HWUT  Hardware Ranch    118.44  58  PFAKE          20 09 00.0  +10
HWUT                                LR    LR
         comp=Z,4µm,20.0s,MS6.0
PDAR  Pinedale Array    120.32  59  PP    PP       20 10 20.6  +0.5
         comp=Z,14nm,0.6s,baz=135,slow=13,SNR=6.3
SDV   Santo Domingo     120.46 115  PFAKE          20 09 10.0  +16
SDV                                 LR    LR
         comp=Z,3µm,20.0s,MS6.0
IMA   Indian Mountai    120.55  19 ePKPdf PKPdf    20 08 52.2  -1.1
MSO   Missoula          120.68  53 ePKPdf PKPdf    20 08 52.9  -1.2
ILAR  Eielson Array     121.06  23  PKP   PKPdf    20 08 53.2  -1.1
         comp=Z,0.3nm,0.6s,baz=13,slow=17,SNR=26
BOZ   Bozeman (W)       121.10  55 ePKPdf PKPdf    20 08 54.5  -0.4
WMOK  Wichita Mounta    121.33  72  PFAKE          20 09 10.0  +14
WMOK                                LR    LR
         comp=Z,3µm,21.0s,MS5.9
HRY   Holter Researc    121.69  54 ePKPdf PKPdf    20 08 54.8  -1.2
ZAL   Zalesovo          121.93 317  PKP   PKPdf    20 08 55.2  -1.1
         comp=Z,1.2nm,0.4s,baz=286,slow=2.2,SNR=4.3
KSU1  Kansas State U    125.48  69 ePKPdf PKPdf    20 09 02.3  -1.2
INK   Inuvik            127.25  25  PKP   PKPdf    20 09 04.5  -1.5
         comp=Z,7.9nm,1.0s,baz=208,slow=2.3,SNR=20
BVAR  Borovoye Array    128.12 310  PKP   PKPdf    20 09 06.5  -1.6
         comp=Z,2.5nm,0.8s,baz=135,slow=2.1,SNR=8.9
BRVK  Borovoye          128.19 310 i PKP  PKPdf    20 09 03.9  -4.4
BRVK                                LR    LR
         comp=Z,544nm,21.0s,MS5.2
WVT   Waverly           129.06  78 ePKPdf PKPdf    20 09 08.1  -2.4
YKA   Yellowknife Ar    129.95  37  PKP   PKPdf    20 09 09.0  -2.3
         comp=Z,1.3nm,0.7s,baz=263,slow=1.9,SNR=17
MYNC  Murphy            130.76  81 ePKPdf PKPdf    20 09 12.6  -1.1
ULM   Lac du Bonnet     132.34  58  PKP   PKPdf    20 09 16.3  +0.1
         comp=Z,3.5nm,1.0s,baz=277,slow=3.4,SNR=5.1
DBIC  Dimbokro          135.48 199  PKP   PKPdf    20 09 22.0  -1.1
         comp=Z,6.8nm,0.8s,baz=163,slow=3.0,SNR=7.9
DBIC  Dimbokro          135.48 199  PKP   PKPdf    20 09 22.0  -1.1
DBIC                                LR    LR
         comp=Z,2µm,19.0s,MS5.8
ARU   Arti              135.75 309 ePKHKP          20 09 12.0
ARU                                 MLR   MLR
         comp=N,1µm,21.0s,MS5.7
ARU                                 MLR   MLR
         comp=E,1µm,21.0s,MS5.7
ARU                                 MLR   MLR
         comp=Z,3µm,21.0s,MS6.0
ARU   Arti              135.75 309  PFAKE          20 09 40.0  +18
ARU                                 LR    LR
         comp=Z,854nm,22.0s,MS5.4
SOC   Sochi             140.66 284 i PKIKP PKPdf   20 09 31.2  -0.4
SOC                                e               20 12 27.2
SOC                                eSS    SS       20 30 43.5  -10
SOC                                eSSS   SSS      20 35 57.2  -12
SOC                                 pmax  pmax
         comp=N,48nm,1.0s
SOC                                 pmax  pmax
         comp=Z,97nm,1.0s
SOC                                 pmax  pmax
         comp=E,94nm,1.1s
RES   Resolute Bay      140.79  24 ePKPdf PKPdf    20 09 23.8  -7.1
BRTR  Keskin Array B    142.52 275  PKhKP          20 09 29.6
         comp=E,1.9nm,0.9s,baz=143,slow=6.2,SNR=6.1
BRTR                                PKP   PKPdf    20 09 35.2  +0.2
         comp=E,5.2nm,0.9s,baz=150,slow=5.0,SNR=14
BRTR                                PP    PP       20 12 42.6  -0.3
         comp=E,0.5nm,0.4s,baz=150,slow=10.0,SNR=4.2
ANN   Anapa             142.69 284 i PKHKP         20 09 30.8
ANN                                 pmax  pmax
         comp=Z,75nm,1.6s
ELDT  Eldivan           143.07 275 i P    PKPbc    20 09 30.2  -0.1
ESKT  Eskisehir         144.21 272 i P    PKPbc    20 09 34.3  +0.5
SIM   Simferopol'       144.85 282d iPKIKP PKPdf   20 09 36.0  -2.8
SIM                                e               20 12 52.0
SIM                                ePPP   PPP      20 16 05.0  -6.4
SIM                                 pmax  pmax
         comp=Z,510nm,15.7s
HENT  Hendek            144.88 274 i P    PKPbc    20 09 35.8  +0.2
WVL   Waterville        145.24  79 ePKPdf PKPdf    20 09 38.0  -1.5
IDI   Anoyia            145.58 262  PKPbc PKPbc    20 09 39.1  +1.6
         comp=Z,31nm,0.8s,baz=126,slow=5.3,SNR=16
SANT  Santorini         145.88 264 ePKPdf PKPdf    20 09 37.0  -3.9
KDAG  Bornova           145.90 268 i P    PKPbc    20 09 39.9  +1.6
BTOK  Tokmak            146.16 271 i P    PKPbc    20 09 40.3  +1.5
MOS   Moscow            146.55 302 ePKIKP PKPdf    20 09 41.2  -0.1
MOS                                e               20 13 13.4
MOS                                 pmax  pmax
         comp=Z,2µm,3.4s
MOS                                 pmax  pmax
         comp=Z,307nm,2.4s
MOS                                 MLR   MLR
         comp=Z,2µm,21.8s,MS5.9
OBN   Obninsk           146.98 301d iPKP2 PKPab    20 09 42.9  -1.3
OBN                                 pmax  pmax
         comp=Z,166nm,1.7s
OBN   Obninsk           146.98 301 i PKP  PKPdf    20 09 42.9  +0.8
OBN                                 LR    LR
         comp=Z,676nm,20.0s,MS5.4
SART  Tekirdag          147.21 271 i P    PKPdf    20 09 44.6  +1.7
CFR   Carcaliu          148.75 279⇓iP     PKPdf    20 09 47.5  +2.3
KIS   Kishinev          149.06 283 i PKIKP PKPdf   20 09 47.0  +1.3
KIS                                 MLR   MLR
         comp=Z,3µm,23.0s,MS6.0
APA   Apatity           149.13 324⇑iPKP2  PKPab    20 09 51.5  -1.0
APA                                 pmax  pmax
         comp=Z,31nm,1.0s
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RZN   Rozhen            149.31 271 eP     PKPdf    20 09 48.0  +1.7
MMB   Musomiste         149.90 270 eP     PKPdf    20 09 49.0  +1.8
VRI   Vrincioaia        149.93 280⇑iP     PKPdf    20 09 50.9  +3.8
FRB   Frobisher Bay     150.08  43  PKP   PKPdf    20 09 46.0  -0.8
         comp=Z,8.8nm,1.1s,baz=291,slow=3.4,SNR=4.0
FRB                                 PKPbc PKPdf    20 09 51.3  +4.5
         comp=Z,22nm,0.8s,baz=296,slow=2.0,SNR=31
AKASG Malin Array Be    150.08 290  PKP   PKPdf    20 09 45.3  -1.9
         comp=Z,3.7nm,0.6s,baz=75,slow=2.0,SNR=9.1
AKASG                               PKPbc PKPdf    20 09 48.9  +1.7
         comp=Z,4.3nm,0.6s,baz=81,slow=2.4,SNR=30
PGB   Panagyurishte     150.10 272 eP     PKPdf    20 09 50.0  +2.5
SCHQ  Schefferville     150.40  61  PKPbc PKPdf    20 09 52.2  +4.7
         comp=Z,14nm,1.0s,baz=287,slow=2.1,SNR=8.1
SCHQ  Schefferville     150.40  61 ePKPbc PKPdf    20 09 51.7  +4.2
KKB   Krupnik           150.46 270 eP     PKPdf    20 09 50.0  +1.9
JOF   Joensuu           150.49 315 ep     PKPdf    20 09 51.2  +3.8
VTS   Vitosha           150.74 272 eP     PKPdf    20 09 51.0  +2.5
KEV   Kevo              150.87 329 epkp   PKPdf    20 09 51.5  +3.7
ARCES ARCESS Array B    151.44 329  PKPbc PKPdf    20 09 53.9  +5.2
         comp=Z,19nm,0.6s,baz=87,slow=2.0,SNR=60
ARE0  ARCESS Array S    151.44 329 ePKPbc PKPdf    20 09 53.3  +4.6
OHR   Ohrid             151.55 267 i P    PKPdf    20 09 54.0  +4.3
SKO   Skopje            151.58 269 i P    PKPdf    20 09 54.0  +4.3
MNK   Minsk             151.80 297 ePKIKP PKPdf    20 09 52.0  +2.4
BOLS  Boljevac          152.12 273 eP     PKPdf    20 09 54.5  +4.0
KAF   Kangasniemi       152.86 314 epkp   PKPdf    20 09 54.0  +3.1
GRUS  Gruza             152.95 272⇑iP     PKPdf    20 09 56.7  +5.0
FINES FINESS Array B    153.04 312  PKPbc PKPdf    20 09 57.0  +5.8
         comp=Z,7.3nm,0.6s,baz=109,slow=4.0,SNR=53
TIP   Timpagrande       153.09 260 ePKPbc PKPdf    20 09 56.9  +5.0
DIVS  Divcibare         153.51 272⇓iP     PKPdf    20 09 57.6  +5.2
BEO   Belgrade          153.53 274⇑iP     PKPdf    20 09 58.5  +6.1
KOLS  Kolonicke sedl    153.86 284 e      PKPab    20 10 12.6  -0.2
CRVS  Cervenica-Dubn    154.36 283 ePKP   PKPab    20 10 19.0  +4.1
KECS  Kecovo            154.85 282 ePKP   PKPab    20 10 21.8  +4.9
VYHS  Vyhne             155.90 281 ePKP2  PKPab    20 10 18.7  -2.7
VYHS  Vyhne             155.90 281 e      PKPab    20 10 18.7  -2.7
SRO   Srobarova         156.02 279 ePKP2  PKPab    20 10 21.9  -0.1
SRO   Srobarova         156.02 279 e      PKPab    20 10 21.9  -0.1
OKC   Ostrava-Krasne    156.70 284 ePKPAB PKPab    20 10 25.7  +0.9
SMOL  Smolenice         156.80 280 e      Px       20 10 37.2
AQU   L'Aquila          156.95 263 ePKPab PKPab    20 10 25.7  -0.5
ARSA  Arzberg           157.62 276⇑iP     PKPdf    20 09 55.5  -2.3
         comp=Z,7.9nm,1.9s
ARSA                               i               20 10 07.6
         comp=Z,7.4nm,1.4s
ARSA                               i               20 10 28.7
         comp=Z,24nm,1.2s
DPC   Dobruska-Polom    157.96 285 ePKPAB PKPab    20 10 30.5  +0.3
DPC                                 AMS   AMS      21 28 40.0
         comp=Z,2µm,22.2s
OBKA  Obir              158.00 274 i      PKPab    20 10 32.2  +1.7
KSP   Ksiaz             158.08 286 ePKPab PKPab    20 10 30.2  -0.5
KSP                                ePP    PP       20 14 11.0  -0.8
MOA   Molln             158.62 277 i      PKPab    20 10 28.2  -5.0
PRU   Pruhonice         159.00 283 ePKPAB PKPab    20 10 35.8  +1.1
PRU                                 AMS   AMS      21 28 00.0
         comp=Z,3µm,20.9s
GERES GERESS Array B    159.26 279  PKP   PKPdf    20 09 59.9  +0.2
         comp=Z,0.7nm,0.9s,baz=236,slow=4.8,SNR=3.0
GERES                               PKPab PKPab    20 10 35.4  -0.5
         comp=Z,3.6nm,0.8s,baz=124,slow=4.8,SNR=11
KHC   Kasperske Hory    159.41 280 ePKP2  PKPab    20 10 35.6  -0.9
KHC                                 MLR   MLR
         comp=Z,2µm,21.9s,MS6.0
KHC   Kasperske Hory    159.41 280 ePKPAB PKPab    20 10 32.5  -4.0
KHC                                ex     x        20 10 35.6
KHC                                 AMS   AMS      21 29 10.0
         comp=Z,2µm,21.9s
BRG   Berggiesshubel    159.55 285 i PKP2 PKPab    20 10 35.8  -1.3
BRG                                 pmax  pmax
         comp=Z,20nm,1.6s
BRG                                 MLR   MLR
         comp=N,1µm,23.6s,MS5.9
BRG                                 MLR   MLR
         comp=E,2µm,23.6s,MS5.9
BRG                                 MLR   MLR
         comp=Z,2µm,23.6s,MS5.9
NB2   NORSAR Subarra160.12 315      PKP   PKPab    20 10 38.0  -1.2
         comp=Z,56nm,1.7s,baz=70,slow=4.3
NB2   NORSAR Subarra160.12 315      PKPa           20 10 38.0
         baz=70,slow=4.4
NOA   NORSAR Array B160.12 315      PKP   PKPdf    20 09 59.7  -0.5
         comp=Z,2.3nm,0.9s,baz=219,slow=4.8,SNR=3.3
NOA                                 PKPab PKPab    20 10 38.9  -0.4
         comp=Z,13nm,1.2s,baz=68,slow=4.5,SNR=5.1
WTTA  Wattenberg        160.13 274⇑iP     PKPdf    20 09 58.9  -1.8
WTTA                               i               20 10 08.4
WTTA                               i               20 10 44.8
CLL   Collm             160.20 286 ePKP2  PKPab    20 10 45.0  +5.1
SQTA  Sankt Quirin      160.39 273⇑iP     PKPdf    20 10 03.7  +2.7
SQTA                               i               20 10 19.4
SQTA                               i               20 10 42.4
MOTA  Moosalm           160.50 274⇑iP     PKPdf    20 10 03.4  +2.3
MOTA                               i               20 10 42.5
MOX   Moxa              160.97 284  PKP2  PKPab    20 10 45.0  +1.8
GRA1  Grafenberg Arr    161.04 281 ePKP   PKPdf    20 09 59.1  -2.4
GRF   Grafenberg Arr    161.04 281 ePKIKP PKPdf    20 09 59.1  -2.4
DAVOX Davos             161.11 271  PKP   PKPdf    20 10 02.1  +0.4
         comp=Z,1.9nm,0.8s,baz=340,slow=17,SNR=3.0
DAVOX                               PKPab PKPab    20 10 44.5  +0.6
         comp=Z,3.3nm,0.9s,baz=359,slow=3.9,SNR=3.6
DAVA  Damuels           161.27 273⇑iP     PKPdf    20 10 11.5  +10
DAVA                               i               20 10 45.8
CDF   Champ du Feu      163.28 275 ePKP2  PKPab    20 10 53.4  +0.1
         comp=Z,56nm,1.5s
HAU   Haudompre         163.77 273 ePKP2  PKPab    20 10 54.6  -0.9
BAIF  Baives            165.57 279 ePKP2  PKPab    20 11 03.5  +0.2
         comp=Z,25nm,1.0s
ESDC  Sonseca Array     165.64 230  PKPab PKPab    20 11 04.2  +0.3
         comp=Z,1.9nm,1.0s,baz=127,slow=3.8,SNR=4.5
ESLA  Sonseca Array     165.64 230  PFAKE          20 10 20.0  +14
ESLA                                LR    LR
         comp=Z,16µm,19.0s
EKA   Eskdalemuir Ar    169.35 307  PKPab PKPab    20 11 21.6  +2.0
         comp=Z,5.1nm,0.9s,baz=90,slow=4.2,SNR=4.4
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*CSEM **23** 19:52:13.2±0.1, 41.49N×29.31W, h2^{km}, mb4.8/27, Error ellipse: s-maj=2.3km s-min=1.4km az=57.0*

*IDC **23** 19:52:16.4±0.6, 41.77N×29.35W, mb4.0/16, mb1 4.2/17, mb1mx4.0/25, ML4.4/1, Error ellipse: s-maj=17.9km s-min=14.9km az=1.0*

*NEIC **23** 19:52:17.6±0.2, 41.68N×29.32W, h10^{km}, mb4.8/34, Error ellipse: s-maj=8.5km s-min=3.8km az=174.0*

ISC 23 19:52:15.0±0.2, **41.47N**±0.03×**29.30W**±0.05, **h10^{km}, n109,** σ**1^{s}00**/106, **mb4.5**/43, **Azores Islands region**

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Code  Station Name        Δ°   AZ°   Phase ID          Time       Res
                                    Op     ISC        h  m  s     ISC
STGR  Santa Cruz         2.58 157 eP     Pn        19 52 57.5  -0.1
PBIS  Biscoitos          3.12 149 eP     Pn        19 53 05.0  -0.3
ASBA  Santa Barbara      3.13 150 i P    Pn        19 53 04.8  -0.6
PVNV  Vila Nova          3.16 148 eP     Pn        19 53 05.2  -0.6
PPAD  Pico dos Padre     3.16 150 eP     Pn        19 53 05.2  -0.7
RIB2  Ribeirinha         3.23 149 eP     Pn        19 53 06.1  -0.8
PFAV  Pico das Favas     3.23 148 eP     Pn        19 53 06.2  -0.7
SET4  Mosteiros          4.49 142 eP     Pn        19 53 24.2  -0.5
SET2  Ginetes            4.51 142 eP     Pn        19 53 24.4  -0.6
PFET  Feteiras           4.54 142 e      Pn        19 53 25.3  -0.1
PSAN  Santo Antonio      4.54 141 eP     Pn        19 53 25.1  -0.4
FAC   Faja de Cima       4.64 141 eP     Pn        19 53 26.8  -0.1
PDA   Ponta Delgada      4.66 142 eP     Pn        19 53 27.0  -0.1
PVER  Pico Vermelho      4.69 140 eP     Pn        19 53 27.0  -0.5
CML   Cha da Macela      4.69 141 eP     Pn        19 53 27.3  -0.3
LFA   Lagoa do Fogo      4.72 140 eP     Pn        19 53 27.2  -0.8
MESC  Monte Escuro       4.72 140 eP     Pn        19 53 27.7  -0.3
PFAD  Fenais da Ajud     4.75 138 eP     Pn        19 53 27.7  -0.7
PRCH  Ribeira Ch         4.76 140 eP     Pn        19 53 27.8  -0.7
VIF   Vila Franca        4.76 140 e      Pn        19 53 30.1  +1.5
PCNG  Congro             4.77 140 e      Pn        19 53 31.2  +2.6
MIRA  Miradouro          4.81 139 eP     Pn        19 53 28.8  -0.5
PSMN  Pico do Norte,     5.54 142 eP     Pn        19 53 38.9  -0.6
EVO   Evora             16.57  93 eP     P         19 56 09.7  +0.8
         200nm,1.8s
ESDC  Sonseca Array     19.31  87  P     P         19 56 43.7  +0.9
         0.3nm,0.3s,baz=289,slow=9.9,SNR=7.1
ESLA  Sonseca Array     19.31  87 eP     P         19 56 47.6  +4.8
         7.5nm,1.3s
QUIF  Quistinic         19.61  62 eP     P         19 56 45.1  -1.1
         353nm,1.8s
ROSF  Rostrenen         19.61  61 eP     P         19 56 44.9  -1.3
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	178nm,1.5s						
SJPF	Ste Jean	20.80	76	*e*P	P	19 56 59.6	+0.8
	107nm,1.5s						
GRR	Gorron	21.21	61	*e*P	P	19 57 02.3	-0.7
	215nm,1.7s,mb4.9						
ETSF	Etsaut	21.31	77	*e*P	P	19 57 06.0	+2.0
	158nm,1.7s,mb4.8						
MFF	Saint Martin d	21.51	66	*e*P	P	19 57 04.7	-1.3
	248nm,1.9s,mb5.0						
LDF	La Druitiere	21.73	61	*e*P	P	19 57 07.2	-1.0
	179nm,1.8s,mb4.9						
EPF	Esparros	21.95	76	*e*P	P	19 57 11.3	+0.9
	98nm,1.7s,mb4.7						
LFF	La Frestale	22.11	71	*e*P	P	19 57 11.9	-0.1
	132nm,1.5s,mb4.8						
CAF	Calviac	23.05	71	*e*P	P	19 57 21.8	+0.6
	107nm,1.7s,mb4.7						
TCF	Toulx Ste Croi	23.13	67	*e*P	P	19 57 21.9	-0.1
	100nm,1.7s,mb4.7						
MTLF	Montolieu	23.28	75	*e*P	P	19 57 24.3	+0.8
	141nm,1.8s,mb4.8						
BGF	Bois d'Agland	23.57	67	*e*P	P	19 57 26.8	+0.5
SSF	Saint Saulge	24.04	65	*e*P	P	19 57 27.9	-2.9
	91nm,1.8s,mb4.6						
BAIF	Baives	24.73	58	*e*P	P	19 57 37.2	-0.3
	71nm,1.5s,mb4.7						
GIVF	Givet	25.13	58	*e*P	P	19 57 40.7	-0.6
	73nm,1.4s,mb4.7						
MEZF	Maizieres J'vi	25.14	62	*e*P	P	19 57 40.9	-0.5
WLF	Walferdange	25.94	59	*e*P	P	19 57 50.2	+1.3
	14nm,1.0s,mb4.4						
WLF	Walferdange	25.94	59	*e*P	P	19 57 50.2	+1.3
	14nm,1.0s,mb4.4						
HAU	Haudompre	25.98	63	*e*P	P	19 57 49.3	0.0
HINF	Hinteralfeld	26.32	64	*e*P	P	19 57 52.6	+0.2
CDF	Champ du Feu	26.61	62	*e*P	P	19 57 54.4	-0.7
GRA1	Grafenberg Arr	29.23	60	*e*P	P	19 58 18.4	-0.5
	18nm,1.8s,mb4.5						
PSZ	Piszkesteto	35.06	62	P	P	19 59 12.4	+2.5
	5.1nm,0.9s,mb4.5						
AKASG	Malin Array Be	40.65	56	P	P	19 59 56.1	-0.6
	0.2nm,0.3s,baz=280,slow=7.5,SNR=6.2						
DBIC	Dimbokro	40.91	141	P	P	20 00 01.7	+2.6
	2.3nm,0.8s,mb3.8,baz=300,slow=13,SNR=3.4						
DBIC	Dimbokro	40.91	141	P	P	20 00 01.4	+2.3
RES	Resolute Bay	44.07	340	*e*P	P	20 00 24.9	+0.7
	16nm,1.3s,mb4.6						
RES	Resolute Bay	44.07	340	*e*P	P	20 00 25.0	+0.7
	16nm,1.3s,mb4.6						
BRTR	Keskin Array B	46.87	70	P	P	20 00 47.6	+0.6
	0.6nm,0.6s,mb3.7,baz=307,slow=10,SNR=2.5						
SDV	Santo Domingo	48.79	240	P	P	20 01 05.8	+3.6
	3.2nm,0.9s,mb4.4,baz=20,slow=23,SNR=4.0						
SDV	Santo Domingo	48.79	240	P	P	20 01 04.1	+1.8
	14nm,1.4s,mb4.8						
MALT	Malatya	50.85	70	*e*P	P	20 01 19.4	+1.6
	5.2nm,1.1s,mb4.4						
MALT	Malatya	50.85	70	*e*P	P	20 01 19.4	+1.6
	5.2nm,1.1s,mb4.4						
YKA	Yellowknife Ar	52.21	324	P	P	20 01 27.1	-0.6
	0.6nm,0.8s,mb3.6,baz=67,slow=7.0,SNR=7.2						
YKA				PcP	PcP	20 02 38.2	-1.2
	0.6nm,0.9s,baz=78,slow=3.9,SNR=6.5						
YKA	Yellowknife Ar	52.21	324	P	P	20 01 27.1	-0.6
YKA				PcP	PcP	20 02 38.2	-1.2
YKA	Yellowknife Ar	52.21	324	PcP	PcP	20 02 38.2	-1.2
WMOK	Wichita Mounta	53.76	287	*e*P	P	20 01 38.8	-0.8
	11nm,1.4s,mb4.6						
WMOK	Wichita Mounta	53.76	287	*e*P	P	20 01 38.8	-0.8
	11nm,1.4s,mb4.6						
ARU	Arti	55.66	42	*e*P	P	20 01 52.8	-0.4
	11nm,1.0s,mb4.8						
ARU	Arti	55.66	42	*e*P	P	20 01 52.8	-0.4
	11nm,1.0s,mb4.8						
SDCO	Great Sand Dun	57.03	293	*e*P	P	20 02 05.9	+2.6
	5.1nm,1.1s,mb4.5						
INK	Inuvik	57.06	335	P	P	20 02 01.1	-2.0
	2.4nm,0.8s,mb4.2,baz=32,slow=6.7,SNR=4.6						
INK	Inuvik	57.06	335	*e*P	P	20 02 01.8	-1.3
	30nm,1.7s,mb5.0						
INK	Inuvik	57.06	335	*e*P	P	20 02 01.8	-1.3
	30nm,1.7s,mb5.0						
PDAR	Pinedale Array	57.32	300	P	P	20 02 04.5	-0.7
	1.9nm,0.9s,mb4.1,baz=63,slow=6.6,SNR=14						
RW3	Ridgway	58.28	295	*e*P	P	20 02 12.1	+0.1
GDL2	Guadalupe Moun	59.07	287	*e*P	P	20 02 16.5	-1.1
PV10	Paradox Valley	59.13	296	P	P	20 02 26.4	+8.4
HWUT	Hardware Ranch	59.19	300	*e*P	P	20 02 18.2	-0.1
	18nm,1.4s,mb4.9						
HWUT				*e*	pP	20 02 23.1	+1.6
HWUT	Hardware Ranch	59.19	300	*e*P	P	20 02 18.2	-0.1
NEW	Newport	59.35	309	*e*P	P	20 02 18.4	-0.9
	34nm,1.6s,mb5.1						
NEW				*e*		20 02 23.8	
NEW	Newport	59.35	309	*e*P	P	20 02 18.4	-0.9
BDFB	Brasilia	59.40	201	P	P	20 02 22.6	+2.5
	9.3nm,1.2s,mb4.7,baz=342,slow=9.7,SNR=3.4						
DAU	Daniels Canyon	59.59	299	*e*P	P	20 02 20.9	-0.2
LAZ	Ladron	59.88	291	*e*P	P	20 02 22.8	-0.4
HLID	Hailey	60.03	303	*e*P	P	20 02 24.4	+0.3
	9.8nm,1.4s,mb4.7						
HLID	Hailey	60.03	303	*e*P	P	20 02 24.4	+0.3
	9.8nm,1.4s,mb4.7						
LTX	Lajitas	60.11	284	*e*P	P	20 02 24.9	+0.1
	19nm,1.4s,mb4.9						
TXAR	Lajitas Array	60.11	284	P	P	20 02 25.1	+0.2
	2.1nm,0.9s,mb4.2,baz=72,slow=4.0,SNR=17						
TMUT	Trail Mountain	60.12	298	*e*P	P	20 02 24.9	+0.2
TMUT				*e*		20 02 30.2	
TMUT	Trail Mountain	60.12	298	*e*P	P	20 02 24.9	+0.1
OTAV	Otavalo	60.38	240	P	P	20 02 26.8	-0.1
	1.5nm,0.7s,mb4.1						
BMO	Blue Mountains	61.17	306	P	P	20 02 30.7	-1.1
	14nm,1.7s,mb4.8						
MSU	Marysvale	61.17	297	*e*P	P	20 02 32.7	+0.8
MSU	Marysvale	61.17	297	*e*P	P	20 02 32.7	+0.8
DAWY	Dawson	61.38	332	*e*P	P	20 02 32.0	-1.1
DAWY	Dawson	61.38	332	*e*P	P	20 02 32.0	-1.0
BVAR	Borovoye Array	63.30	42	P	P	20 02 46.1	+0.2
	2.1nm,0.8s,mb4.3,baz=297,slow=6.4,SNR=6.5						
ILAR	Eielson Array	63.46	335	P	P	20 02 45.3	-1.5
	1.9nm,1.1s,mb4.1,baz=56,slow=5.2,SNR=5.7						
IMA	Indian Mountai	64.59	338	*e*P	P	20 02 54.6	+0.6
	180nm,1.7s						
IMA	Indian Mountai	64.59	338	*e*P	P	20 02 54.6	+0.5
	180nm,1.7s						
NVAR	Mina Array Bea	65.26	300	P	P	20 02 58.9	0.0
	0.2nm,0.3s,mb3.7,baz=82,slow=9.0,SNR=5.3						
NVAR				PcP	PcP	20 03 31.3	+0.1
	0.9nm,0.7s,baz=225,slow=8.4,SNR=3.7						
LPAZ	La Paz	67.77	221	P	P	20 03 17.8	+2.6
	3.0nm,1.1s,mb4.2,baz=31,slow=10,SNR=6.6						
LPAZ	La Paz	67.77	221	*e*P	P	20 03 17.0	+1.9
	9.8nm,1.3s,mb4.7						
NNA	Nana	68.88	231	P	P	20 03 22.1	0.0
	34nm,1.3s,mb5.1						
ZAL	Zalesovo	69.48	35	P	P	20 03 25.2	+0.1
	1.5nm,0.3s,mb4.5,baz=353,slow=2.1,SNR=3.1						
KMBO	Kilima Mbogo	73.37	107	P	P	20 03 52.1	+2.9
	1.3nm,0.9s,mb3.9,baz=53,slow=23,SNR=2.9						
LSZ	Lusaka	77.46	124	*e*P	P	20 04 14.4	+2.0
	4.1nm,1.1s,mb4.3						
DDI	Dehra Dun	82.09	56	*e*	P	20 04 36.3	-0.7
SONM	Songino Array	82.81	28	P	P	20 04 41.7	+1.3
	1.5nm,0.9s,mb4.0,baz=318,slow=5.8,SNR=9.0						
QSPA	South Pole Qui	131.35	180	*e*P	Pdif	20 08 14.7	-3.9
ASAR	Alice Springs	157.37	44	PKPab	PKPab	20 12 44.2	-0.7
	1.4nm,0.7s,baz=321,slow=4.0,SNR=10						

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*IDC **23** 19:57:13.5±1.9, 50.05S×161.01E, mb4.0/3, mb1 4.2/4, mb1mx3.8/9, ML3.5/1, Error ellipse: s-maj=64.0km s-min=40.2km az=0.0*

*NEIC **23** 19:57:20.0±0.9, 49.49S×160.73E, h10^{km}, Error ellipse: s-maj=25.1km s-min=22.8km az=130.0*

ISC 23 19:57:13.6±0.9, 49.9S±0.1×161.1E±0.2, h10^{km}, n13, σ1^{s}05/9, mb4.0/3, 3C-2D, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	9.20	51	Pn	P	19 59 29.3	-0.1
	0.5nm,0.3s,baz=352,slow=18,SNR=2.1						
ASAR	Alice Springs	33.74	311	P	P	20 03 56.9	-0.4
	1.1nm,0.7s,mb3.9,baz=149,slow=9.1,SNR=4.8						
WRA	Warramunga Arr	36.72	315	P	P	20 04 21.9	-0.8
	5.8nm,1.5s,mb4.2,baz=150,slow=7.7,SNR=5.5						
SNAA	Sanae	58.19	186	⇓*i*	P	20 07 09.9	+0.4
SNAA	Sanae	58.19	186	⇑*i*P	P	20 07 09.9	+0.4
VNA3	Neumayer Olymp	58.97	183	⇓*i*	P	20 07 13.4	-1.6
VNA3	Neumayer Olymp	58.97	183	⇑*i*	P	20 07 23.0	+8.0
VNA2	Neumayer--Watz	59.19	184	⇑*i*	P	20 07 12.4	-4.1
CMAR	Chiang Mai Arr	87.35	303	P	P	20 10 04.0	+1.9
	0.6nm,0.9s,mb3.8,baz=172,slow=4.9,SNR=5.0						
AKASG	Malin Array Be	149.70	290	PKPbc	PKPdf	20 17 01.9	+1.0
	0.2nm,0.2s,baz=163,slow=16,SNR=4.1						
ARCES	ARCESS Array B	151.25	329	PKPbc	PKPdf	20 17 07.8	+5.1
	7.0nm,1.0s,baz=45,slow=5.1,SNR=4.9						
FINES	FINESS Array B	152.74	312	PKPbc	PKPdf	20 17 11.0	+6.0
	5.2nm,1.1s,baz=108,slow=8.8,SNR=5.8						
FINES	FINESS Array B	152.74	312	PKPbc	PKPdf	20 17 11.0	+6.0

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*NEIC **23** 20:00:37.2±0.3, 48.81S×161.19E, h10^{km}, mb4.6/4, Error ellipse: s-maj=7.7km s-min=4.6km az=150.0*

*IDC **23** 20:00:40.0±2.1, 47.93S×160.98E, mb4.1/4, mb1 4.4/6, mb1mx4.2/10, ML4.3/2, Error ellipse: s-maj=65.0km s-min=26.1km az=174.0*

ISC 23 20:00:32.0±0.5, 49.19S±0.07×161.39E±0.08, h10^{km}, n46, σ1^{s}40/55, mb4.2/8, 5C, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.53	56	*e*P	Pn	20 01 57.5	+1.1
WHZ				S	Sn	20 02 58.8	-2.0
WHZ	Wether Hill Ro	5.53	56	P	Pn	20 01 57.5	+1.1
WHZ				S	Sn	20 02 58.8	-2.0
MLZ	Mavora Lakes	6.00	53	*e*P	Pn	20 02 04.8	+1.7
MLZ				S	Sn	20 03 11.8	-0.9
MLZ	Mavora Lakes	6.00	53	P	Pn	20 02 04.8	+1.7
MLZ				S	Sn	20 03 11.8	-0.9
MSZ	Milford Sound	6.36	47	P	Pn	20 02 10.9	+2.8
TUZ	Tuapeka	6.45	63	*e*P	Pn	20 02 09.8	+0.5
TUZ				S	Sn	20 03 20.9	-2.8
TUZ	Tuapeka	6.45	63	P	Pn	20 02 09.8	+0.5
TUZ				S	Sn	20 03 20.9	-2.8
EAZ	Earnscleugh	6.69	57	*e*P	Pn	20 02 13.1	+0.3
EAZ				S	Sn	20 03 27.2	-2.6
EAZ	Earnscleugh	6.69	57	P	Pn	20 02 13.1	+0.3
EAZ				S	Sn	20 03 27.2	-2.6
WKZ	Wanaka	6.80	53	*e*P	Pn	20 02 16.6	+2.3
WKZ	Wanaka	6.80	53	P	Pn	20 02 16.6	+2.3
WKZ				S	Sn	20 03 33.6	+1.1
JCZ	Jackson Bay	7.20	48	*e*P	Pn	20 02 22.8	+2.8
JCZ	Jackson Bay	7.20	48	P	Pn	20 02 22.2	+2.2
JCZ				S	Sn	20 03 42.0	-0.7
ODZ	Otahua Downs	7.55	60	*e*P	Pn	20 02 23.5	-1.3
ODZ	Otahua Downs	7.55	60	P	Pn	20 02 23.5	-1.3
LBZ	Lake Benmore	7.71	55	*e*P	Pn	20 02 26.0	-1.1
LBZ	Lake Benmore	7.71	55	P	Pn	20 02 26.0	-1.1
FOZ	Fox Glacier	8.03	49	P	P	20 02 33.9	+2.3
RPZ	Rata Peaks	8.63	54	Pn	P	20 02 40.6	+0.7
	8.2nm,0.3s,baz=160,slow=4.1,SNR=23						
RPZ				Sn	Sn	20 04 14.0	-4.2
	4.8nm,0.3s,baz=30,slow=19,SNR=6.3						
WVZ	Waitaha Valley	8.91	50	*e*P	P	20 02 42.9	-0.9
WVZ	Waitaha Valley	8.91	50	P	P	20 02 45.2	+1.4
LTZ	Lake Taylor	9.91	54	*e*P	P	20 02 56.9	-0.6
LTZ	Lake Taylor	9.91	54	P	P	20 02 56.9	-0.6
DSZ	Denniston Nort	10.43	48	*e*P	P	20 03 04.6	0.0
DSZ	Denniston Nort	10.43	48	P	P	20 03 04.6	0.0
THZ	Tophouse	10.97	52	*e*P	P	20 03 10.9	-1.1
THZ	Tophouse	10.97	52	P	P	20 03 10.9	-1.1
QRZ	Quartz Range	11.48	47	*e*P	P	20 03 19.1	+0.1
QRZ	Quartz Range	11.48	47	P	P	20 03 19.1	+0.1
NNZ	Nelson	11.61	51	P	P	20 03 22.4	+1.7
URZ	Urewera	15.73	52	Pn	P	20 04 15.4	+0.3
	0.5nm,0.3s,baz=235,slow=2.2,SNR=2.7						
STKA	Stephens Creek	22.81	312	P	P	20 05 37.9	+2.0
	3.1nm,0.9s,mb3.7,baz=146,slow=3.6,SNR=3.1						
VNDA	Vanda	28.44	180	*e*P	P	20 06 25.1	-3.2
	14nm,1.5s,mb4.4						
ASAR	Alice Springs	33.40	310	P	P	20 07 11.8	-0.8
	4.1nm,0.9s,mb4.4,baz=147,slow=8.6,SNR=27						
ASPA	Alice Springs	33.40	310	*e*P	P	20 07 11.9	-0.8
WB2	Warramunga Arr	36.33	314	*e*P	P	20 07 36.0	-1.8
WRA	Warramunga Arr	36.33	314	P	P	20 07 36.6	-1.3
	6.4nm,0.8s,mb4.6,baz=145,slow=8.7,SNR=27						
WRAB	Tennant Creek	36.34	314	*e*P	P	20 07 36.4	-1.5
	12nm,0.9s,mb4.8						
QSPA	South Pole Qui	40.93	180	⇑*i*P	P	20 08 14.8	-0.8
	10.0nm,1.2s,mb4.3						
SNAA	Sanae	58.92	186	⇑*i*P	P	20 10 28.3	-4.7
	0.4nm,1.3s,mb3.3						
VNA3	Neumayer Olymp	59.71	183	⇑*i*	P	20 10 38.2	-0.2
VNA2	Neumayer--Watz	59.92	184	⇑*i*	P	20 10 40.1	+0.2
VNA1	Neumayer--Stat	60.24	184	⇑*i*	P	20 10 42.7	+0.7
CMAR	Chiang Mai Arr	87.10	303	P	P	20 13 21.3	+2.1
	1.1nm,0.9s,mb4.1,baz=157,slow=2.7,SNR=9.4						
AKASG	Malin Array Be	149.60	291	PKPbc	PKPdf	20 20 28.9	+10
	1.5nm,0.7s,baz=85,slow=2.5,SNR=6.6						
FINES	FINESS Array B	152.37	313	PKPbc	PKPdf	20 20 34.5	+12
	6.3nm,1.0s,baz=90,slow=2.8,SNR=7.2						

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*IDC **23** 20:06:54.6±1.4, 49.79S×161.62E, mb4.4/5, mb1 4.5/6, mb1mx4.2/11, ML3.3/1, MS4.8/1, Ms1 4.8/1, ms1mx2.9/7, Error ellipse: s-maj=45.9km s-min=29.6km az=8.0*

*NEIC **23** 20:07:00.9±0.8, 49.20S×161.36E, h10^{km}, mb4.3/2, Error ellipse: s-maj=21.4km s-min=16.1km az=184.0*

ISC 23 20:06:54.8±0.9, 49.8S±0.1×161.5E±0.1, h10^{km}, n19, σ1^{s}07/15, mb4.3/7, MS4.8/1, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	Mavora Lakes	6.37	48	P	Pn	20 08 32.0	+0.9
TUZ	Tuapeka	6.71	58	P	Pn	20 08 36.2	+0.2
EAZ	Earnscleugh	7.01	52	P	Pn	20 08 39.8	-0.4
JCZ	Jackson Bay	7.61	44	P	Pn	20 08 51.2	+2.8
RPZ	Rata Peaks	8.97	51	Pn	P	20 09 04.5	-2.9
	0.3nm,0.3s,baz=286,slow=20,SNR=2.2						
RPZ				Sn	Sn	20 10 42.2	-7.4
	0.4nm,0.3s,baz=2.6,slow=22,SNR=2.8						
STKA	Stephens Creek	23.26	313	P	P	20 12 03.8	+0.6
CTA	Charters Tower	32.04	332	P	P	20 13 23.9	+0.2
	6.5nm,1.0s,mb4.4,baz=186,slow=11,SNR=4.4						
ASAR	Alice Springs	33.83	310	P	P	20 13 39.0	-0.3
	7.1nm,1.1s,mb4.5,baz=147,slow=8.5,SNR=24						
NWAO	Narrogin (SRO)	36.62	280	P	P	20 14 04.0	+1.0
	1.6nm,0.3s,mb4.3,baz=338,slow=22,SNR=7.4						
WB2	Warramunga Arr	36.79	314	*e*P	P	20 14 03.6	-0.9
WRA	Warramunga Arr	36.80	314	P	P	20 14 03.9	-0.6
	5.7nm,0.9s,mb4.4,baz=146,slow=8.1,SNR=24						
WRA				PcP	PcP	20 16 25.9	-1.2
	0.9nm,0.8s,baz=153,slow=2.5,SNR=5.7						
PMG	Port Moresby	42.00	339	LR	LR	20 30 06.2	
	comp=Z,1µm,19.5s,MS4.8,baz=193,slow=33						
MBWA	Marble Bar	43.56	296	*e*P	P	20 14 59.5	-0.9
	18nm,1.3s,mb4.6						
SNAA	Sanae	58.31	186	*e*P	P	20 16 51.3	-0.2
	1.1nm,0.9s,mb3.9						
CMAR	Chiang Mai Arr	87.47	303	P	P	20 19 45.0	+1.2
	1.5nm,0.9s,mb4.2,baz=165,slow=4.1,SNR=11						
PDAR	Pinedale Array	120.46	59	PKP	PKPdf	20 25 47.9	-1.3
	0.3nm,0.4s,baz=259,slow=4.6,SNR=6.9						
AKASG	Malin Array Be	149.86	290	PKPbc	PKPdf	20 26 45.4	+3.0
	0.9nm,0.6s,baz=84,slow=2.2,SNR=4.6						
ARCES	ARCESS Array B	151.27	329	PKPbc	PKPdf	20 26 47.4	+3.5
	5.1nm,0.8s,baz=18,slow=3.8,SNR=7.1						
FINES	FINESS Array B	152.83	312	PKPbc	PKPdf	20 26 52.0	+5.6
	2.7nm,0.8s,baz=90,slow=3.8,SNR=7.1						

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*NEIC **23** 20:21:49.7, 60.28N×152.55W, h112^{km}, After AEIC.*

*IDC **23** 20:21:58.1±7.7, 61.27N×152.74W, h154^{km}±69^{km}, mb3.8/1, mb1 3.2/4, mb1mx3.0/21, Error ellipse: s-maj=71.0km s-min=29.4km az=24.0*

ISC 23 20:21:47.4±0.3, 60.27N±0.03×152.51W±0.06, h123^{km}±3^{km}, n72, σ0^{s}76/88, mb4.4/1, Southern Alaska

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RSO	Redoubt South	0.22	327	*e*P	P	20 22 04.8	+0.3
REF	Redoubt East F	0.24	336	P	P	20 22 05.1	+0.6
REF				S	S	20 22 17.3	-0.2
RDN	Redoubt North	0.27	333	P	P	20 22 05.0	+0.3
ILIM	Iliamna	0.30	229	P	P	20 22 04.8	+0.1
ILIM				S	S	20 22 17.3	-0.6
DFR	Drift River	0.33	345	P	P	20 22 05.1	+0.3
INE	Iliamna NE	0.35	232	P	P	20 22 05.2	+0.3
INE				S	S	20 22 17.8	-0.5
NCT	North Crescent	0.36	324	P	P	20 22 05.2	+0.2
NCT				S	S	20 22 18.1	-0.3
ILW	Iliamna West	0.38	236	P	P	20 22 05.4	+0.3
ILW				S	S	20 22 18.1	-0.4
OPT	Oil Point	0.72	210	P	P	20 22 07.8	+0.5
OPT				S	S	20 22 21.5	-0.9
HOM	Homer	0.76	144	P	P	20 22 08.8	+1.2
NKA	Nikishka	0.79	53	P	P	20 22 10.4	+2.6
XLV	Seldovia	0.91	154	P	P	20 22 09.9	+0.8
XLV				S	S	20 22 25.9	+0.5
SPU	Mount Spurr	0.94	14	*e*P	P	20 22 09.7	+0.4
BRLK	Bradley Lake	0.96	121	P	P	20 22 10.2	+0.6
CKN	Chakachatna No	0.97	10	P	P	20 22 10.4	+0.7
CNPM	China Poot	0.99	139	P	P	20 22 10.7	+0.9
CNPM				S	S	20 22 27.2	+0.6
AUL	Augustine Lava	1.01	208	P	P	20 22 10.6	+0.5
AUL				S	S	20 22 26.9	-0.1
AUW	Augustine West	1.03	209	P	P	20 22 10.7	+0.4
AUI	Augustine Isla	1.05	207	P	P	20 22 10.6	+0.2
AUI				S	S	20 22 26.6	-1.2
SLKM	Skilak Lake	1.16	77	P	P	20 22 12.4	+0.7
VOGL	Vogel Lake	1.25	54	P	P	20 22 14.6	+1.9
STLK	Strandline Lak	1.27	15	P	P	20 22 13.5	+0.6
MCNL	McNeil River	1.43	221	P	P	20 22 14.5	-0.1
FIB	Fire Island	1.46	51	P	P	20 22 16.6	+1.7
SEW	Seward	1.54	95	P	P	20 22 16.5	+0.5
SEW				S	S	20 22 36.8	-0.7
MPA	Moose Pass	1.58	81	P	P	20 22 16.9	+0.5
RC01	Rabbit Creek A	1.59	58	P	P	20 22 17.0	+0.5
RC01				S	S	20 22 38.5	-0.1
SYI	Shuyak Island	1.67	178	P	P	20 22 17.9	+0.4
PWA	Palmer West	1.89	42	P	P	20 22 20.7	+0.6
KAPH	Katmai Pasha	1.93	210	P	P	20 22 20.9	+0.4
KAPH				S	S	20 22 44.9	-0.7
KAHC	Katmai Hardscr	2.07	219	P	P	20 22 22.3	0.0
PMR	Palmer	2.12	50	P	P	20 22 22.6	-0.3
PMR				S	S	20 22 48.6	-1.2
PWL	Port Wells	2.14	72	P	P	20 22 23.0	-0.3
KAIC	Katmai Ikaglui	2.21	217	P	P	20 22 24.4	+0.1
KAWH	Katmai	2.23	213	P	P	20 22 24.4	-0.1
GHO	Glory Hole Cre	2.30	48	P	P	20 22 25.4	-0.1
LTI	Latouche	2.34	94	P	P	20 22 25.8	-0.2
CUT	Chulitna	2.40	26	P	P	20 22 27.0	+0.3
KDAK	Kodiak Island	2.50	181	P	P	20 22 26.8	-1.3
KDAK				S	S	20 22 56.0	-2.8
SML	Sawmill	2.55	51	P	P	20 22 28.4	-0.3
GLI	Glacier Island	2.74	75	P	P	20 22 30.0	-1.3
SCM	Sheep Creek Mo	2.97	56	P	P	20 22 34.0	-0.2
JPK	Jack Peak	3.01	72	P	P	20 22 33.9	-1.0
FID	Port Fidalgo	3.02	78	P	P	20 22 33.4	-1.6
TT01	Tatalina	3.13	329	P	P	20 22 35.8	-0.6
VLZ	Valdez	3.16	72	P	P	20 22 36.0	-0.8
TRF	Thorofare Moun	3.36	17	P	P	20 22 39.5	0.0
EYAK	Cordova Ski Ar	3.37	82	P	P	20 22 39.6	+0.1
KTH	Kantishna Hill	3.38	12	P	P	20 22 39.6	-0.2
DIV	Divide	3.42	73	P	P	20 22 39.6	-0.8
RND	Reindeer	3.59	27	P	P	20 22 42.7	+0.1
MCK	McKinley	3.86	24	P	P	20 22 46.1	-0.1
PAX	Paxson	4.31	48	P	P	20 22 52.5	+0.2
GLB	Gilahina Butte	4.41	71	P	P	20 22 53.2	-0.5
CCB	Clear Creek Bu	4.90	24	P	P	20 22 59.5	-0.7
MENT	Mentasta	4.97	54	*e*P	P	20 23 00.9	-0.3
BALM	Baldy	5.06	77	P	P	20 23 02.0	-0.3
COLA	College	5.09	23	P	P	20 23 02.7	-0.1
MDM	Murphy Dome	5.10	21	P	P	20 23 02.7	-0.1
IL1	Eielson Array	5.21	28	P	P	20 23 04.0	-0.4
ILAR	Eielson Array	5.21	28	P	P	20 23 03.9	-0.5
	2.1nm,0.3s,baz=223,slow=14,SNR=99						
ILAR				S	S	20 23 56.1	-7.7
	4.0nm,0.3s,baz=229,slow=19,SNR=11						
YAH	Yahtse	5.35	84	P	P	20 23 07.6	+1.4
IM3	Indian Mountai	5.76	355	P	P	20 23 11.0	-0.7
BCA3	Beaver Creek A	5.82	57	P	P	20 23 12.3	-0.3
IMA	Indian Mountai	5.84	355	*e*P	P	20 23 13.5	+0.7
PNL	Peninsula	6.61	90	P	P	20 23 23.7	+0.3
DAWY	Dawson	7.22	53	P	P	20 23 32.0	+0.4
ANM	Nome	7.35	311	P	P	20 23 33.3	-0.2
BM3	Burnt Mountain	7.97	23	P	P	20 23 40.4	-1.4
INK	Inuvik	11.47	37	P	P	20 24 26.0	-2.2
	0.0nm,0.3s,baz=229,slow=12,SNR=2.2						
YKA	Yellowknife Ar	18.12	67	P	P	20 25 53.1	+1.2
	0.1nm,0.3s,baz=277,slow=9.6,SNR=12						
SONM	Songino Array	54.83	306	P	P	20 31 07.5	+1.0
	2.3nm,0.6s,mb4.4,baz=40,slow=7.2,SNR=19						

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*IDC **23** 20:49:09.4±1.6, 49.36S×162.37E, mb4.5/3, mb1 4.8/4, mb1mx4.3/9, ML3.0/1, Error ellipse: s-maj=59.7km s-min=34.6km az=8.0*

ISC 23 20:49:12.3±4.2, 49.1S±0.6×161.9E±0.3, h10^{km}, n12, σ0^{s}13/8, mb4.5/4, 3D, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	8.31	53	Pn	P	20 51 09.5	-6.3
	0.2nm,0.3s,baz=107,slow=17,SNR=2.9						
RPZ				Sn	Sn	20 52 50.7	0.0
	0.2nm,0.3s,baz=220,slow=15,SNR=1.5						
ASAR	Alice Springs	33.60	309	P	P	20 55 54.9	0.0
	8.0nm,0.7s,mb4.8,baz=146,slow=8.3,SNR=98						
ASPA	Alice Springs	33.60	309	⇓*i*P	P	20 55 55.1	+0.3
WB2	Warramunga Arr	36.51	313	⇓*i*P	P	20 56 19.7	0.0
WRA	Warramunga Arr	36.52	313	P	P	20 56 19.6	-0.2
	7.4nm,0.8s,mb4.6,baz=146,slow=8.1,SNR=41						
FITZ	Fitzroy Crossi	42.54	304	⇓*i*P	P	20 57 09.6	-0.2
	4.7nm,0.6s,mb4.4						
CMAR	Chiang Mai Arr	87.34	302	P	P	21 02 00.8	0.0
	1.4nm,0.8s,mb4.3,baz=167,slow=3.9,SNR=16						
ILAR	Eielson Array	120.30	23	PKP	PKPdf	21 08 02.0	-3.8
	0.2nm,0.6s,baz=284,slow=3.2,SNR=5.0						
AKASG	Malin Array Be	149.88	291	PKPbc	PKPdf	21 08 59.9	0.0
	1.1nm,0.5s,baz=91,slow=2.3,SNR=6.3						
ARCES	ARCESS Array B	150.80	330	PKPbc	PKPdf	21 09 02.6	+1.8
	2.7nm,0.6s,baz=90,slow=1.2,SNR=12						
KAF	Kangasniemi	152.37	315	*e*p	PKPdf	21 09 04.8	+1.5
	0.3nm,0.4s						
FINES	FINESS Array B	152.56	313	PKPbc	PKPdf	21 09 07.3	+3.8
	2.2nm,0.7s,baz=90,slow=1.9,SNR=12						

IDC 23 20:56:06.3±2.3, 49.36S×162.71E, mb4.0/4, mb1 4.3/4, mb1mx3.9/8, Error ellipse: s-maj=302.0km s-min=47.3km az=37.0, Auckland Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	23.57	310	P	P	21 01 19.5	+0.5
	3.4nm,1.0s,baz=141,slow=10.0,SNR=3.1						
ASAR	Alice Springs	34.17	308	P	P	21 02 52.6	-2.6
	2.8nm,0.7s,baz=147,slow=8.5,SNR=44						
WRA	Warramunga Arr	37.08	312	P	P	21 03 17.9	-2.0
	2.3nm,0.8s,baz=147,slow=8.0,SNR=15						
CMAR	Chiang Mai Arr	87.92	302	P	P	21 08 57.7	-1.4
	0.6nm,0.7s,baz=165,slow=3.4,SNR=6.4						
ARCES	ARCESS Array B	151.28	330	PKPbc	PKPdf	21 15 59.7	+3.9
	1.6nm,0.6s,baz=90,slow=2.4,SNR=5.4						
FINES	FINESS Array B	153.12	313	PKPbc	PKPdf	21 16 04.9	+6.2
	4.4nm,1.0s,baz=135,slow=5.4,SNR=5.2						

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*ISK **23** 20:57:18.9, 38.06N×25.95E, h16^{km}, MD3.6*

*CSEM **23** 20:57:20.1±0.2, 38.12N×25.81E, h30^{km}, MD3.6, Error ellipse: s-maj=8.5km s-min=2.8km az=114.0*

*NEIC **23** 20:57:40.7, 38.11N×23.87E, h10^{km}, MD3.1(ATH), After ATH.*

ATH 23 20:57:16.4, 38.50N×25.77E, h34^{km}±3^{km}, MD3.2/6, Aegean Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PRK	Paraskevi	0.84	28	*e*PN	P	20 57 32.9	+1.1
SMG	Samos	1.15	133	*e*PN	P	20 57 37.9	+1.6
IZM	Izmir	1.18	95	PN	P	20 57 39.1	+2.5
KDAG	Bornova	1.18	94	*i* P	P	20 57 39.1	+2.5
KDAG				*i* S	S	20 57 56.8	+5.1
BOZC	Bozcaada	1.36	9	*i* P	P	20 57 41.9	+2.6
BOZC				*i* S	S	20 58 03.2	+7.0
APE	Apeiranthos	1.44	188	PN	P	20 57 39.3	-1.1
APE				SN	S	20 57 54.6	-3.8
LIA	Limnos Island	1.47	342	*e*PN	P	20 57 42.4	+1.6
LIA	Limnos Island	1.47	342	*e*Pb	P	20 57 40.9	+0.1

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
PTL	Penteli	1.57	254	ePN	P	20 57 42.4	+0.2
MPAR	Parnis Oros	1.64	258	ePg	P	20 57 42.9	-0.3
AKS	Akhisar	1.64	76	PN	P	20 57 48.9	+5.6
AYDN	Tasoluk	1.86	116	i P	P	20 57 53.2	+6.7
AYDN				i S	S	20 58 18.8	+10
NSAL	Nisos Salamina	1.91	253	ePN	P	20 57 48.5	+1.4
NAIG	Nisos Aigina	1.94	248	ePN	P	20 57 49.0	+1.4
BDRM	Kayabasi	1.95	137	i P	P	20 57 54.6	+6.9
BDRM				i S	S	20 58 17.0	+5.7
MLSB	Milas	1.99	127	ePN	P	20 57 47.7	-0.6
BALB	Balikesir	2.00	55	ePN	P	20 57 55.8	+7.4
EDC	Edincik	2.46	41	ePN	P	20 58 03.1	+8.2
DST	Dursunbey	2.48	63	ePN	P	20 58 01.9	+6.6
BNT	Bandirma	2.49	41	ePN	P	20 58 03.5	+8.1
KCT	Karacabey	2.67	48	ePN	P	20 58 05.8	+7.8
ORLT	Orhaneli	2.88	57	ePN	P	20 58 08.5	+7.6
EDRB	Edirne	3.42	12	ePN	P	20 58 18.2	+9.5
YLV	Yalova	3.47	52	ePN	P	20 58 16.4	+7.1

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*JMA **23** 21:02:47.9, 37.39N×139.04E, h6^{km}±3^{km}, M3.5*
Broadband fault plane solution: P waves. NP1:φs160°, δ25°, λ25°. NP2:φs47°, δ80°, λ112°. Principal axes: T Plg50°, Azm342°; N Plg22°, Azm223°; P Plg31°, Azm119°;
JMA Felt II J1.

ISC 23 21:02:47.3±0.6**, 37.40N**±0.04×**139.04E**±0.06**, h10**^{km}±6^{km}**, n8, σ0^{s}33**/12**, 2C-4D, Eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHK	Hiroka	0.15	187	⇑P	Pg	21 02 50.8	-0.1
JHK				S	Sg	21 02 53.1	-0.2
JIZZ	Izumozaki	0.29	297	⇓P	Pg	21 02 54.1	+0.6
JNS	Sasagawa	0.47	28	⇑P	Pg	21 02 56.9	0.0
JNS				S	Sg	21 03 03.3	-0.1
JFY	Yanaizu	0.53	89	⇓P	Pg	21 02 58.2	+0.1
JFY				S	Sg	21 03 05.4	+0.1
JKT	Katashina	0.66	165	⇓P	Pb	21 03 00.0	-0.4
JSD	Sado	0.89	316	P	Pb	21 03 03.8	-0.5
JAG	Ashikaga	1.03	161	⇓P	Pb	21 03 07.2	+0.4
MAT	Matsushiro	1.08	218	P	Pb	21 03 07.4	-0.3
MAT				S	Sb	21 03 22.1	+0.4

CASC 23 21:14:01.4±2.0**, 13.34N×90.06W, h42**^{km}±30^{km}**, MD3.7, ML4.0, 4C-6D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	San Blas	0.65	40	⇓iP	P	21 14 14.8	+0.6
RTR	El Retiro	0.68	36	⇓iP	P	21 14 15.2	+0.6
SNJE	San Jose	0.68	40	⇓iP	P	21 14 15.2	+0.5
RBDL	Robledal	0.85	25	⇑eP	P	21 14 17.3	+0.4
RBDL				eS	S	21 14 29.8	+1.4
BOQS	Boqueron	0.85	63	⇓eP	P	21 14 17.2	+0.2
BOQS				eS	S	21 14 29.3	+0.8
SNET	Serv Nac Est T	0.87	67	i	S	21 14 33.9	+4.8
	comp=Z,3μm,0.2s						
IXG	Ixpaco	0.91	335	eP	P	21 14 17.3	-0.6
IXG				eS	S	21 14 29.9	-0.2
IXG				AML	AML	21 14 32.8	
	comp=N,13μm,0.4s						
LFU	La Fuente	1.00	66	⇓eP	P	21 14 19.4	+0.2
LFU				eS	S	21 14 35.5	+3.2
LFRS	El Faro	1.01	74	⇓eP	P	21 14 18.9	-0.4
LBRS	Las Brisas	1.06	68	⇑eP	P	21 14 20.3	+0.3
LBRS				eS	S	21 14 33.4	-0.4
LCBS	La Ceiba	1.09	73	⇑eP	P	21 14 20.3	-0.1
LCBS				eS	S	21 14 35.1	+0.5
SNVI	San Vicente	1.22	77	eP	P	21 14 22.4	+0.2
SNVI				eS	S	21 14 38.5	+0.7
MTO2	Montecristo 2	1.25	33	eP	P	21 14 22.5	-0.2
MTO2				eS	S	21 14 38.5	-0.1
NBG	Las Nubes	1.27	347	eP	P	21 14 23.4	+0.5
NBG				eS	S	21 14 41.1	+2.0
NBG				AML	AML	21 14 42.8	
	comp=E,4μm,0.5s						
TP2	Tecpan 2	1.71	327	eP	P	21 14 29.9	+0.7
TP2				eS	S	21 14 52.0	+1.9
TP2				AML	AML	21 14 55.3	
	comp=N,952nm,0.8s						
VSM	San Miguel	1.74	87	eP	P	21 14 29.8	+0.2
VSM				eS	S	21 14 52.3	+1.5
BLLM	Bellamira	1.77	87	eP	P	21 14 30.0	-0.2
BLLM				eS	S	21 14 51.8	+0.1
JAT	Jato	1.81	302	eP	P	21 14 30.9	+0.1
JAT				eS	S	21 14 52.0	-0.7
JAT				AML	AML	21 14 54.7	
	comp=N,1μm,0.3s						
CAHU	Cacacuatique	1.84	76	eP	P	21 14 30.7	-0.5
CNCH	Conchagua	2.17	91	⇑eP	P	21 14 35.0	-0.7
CNCH				eS	S	21 15 01.4	-0.1

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*IDC **23** 21:42:21.5±2.8, 8.90S×118.10E, mb3.0/2, mb1 3.4/3, mb1mx3.3/14, ML3.3/1, Error ellipse: s-maj=155.0km s-min=29.1km az=57.0*
*DJA **23** 21:42:32.9±0.9, 8.93S×118.41E, h160^{km}, MD4.8/2, ML4.7/2, Error ellipse: s-maj=100.1km s-min=20.5km az=4.0*

ISC 23 21:42:33.7±2.1**, 9.0S**±0.2×**118.4E**±0.2**, h125**^{km}±29^{km}**, n8, σ0^{s}93**/13**, mb3.4**/1**, 6C-2D, Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	Kedomdong	2.31	282	⇑ePn	P	21 43 11.8	-0.1
RATI	Rata	2.84	275	⇓ePn	P	21 43 19.5	+0.6
	666nm,0.2s						
RATI				⇑eSn	S	21 43 53.3	0.0
KELI	Kelakatan	3.94	281	⇓ePn	P	21 43 33.8	+0.3
	72nm,0.2s						
KELI	Kelakatan	3.94	281	⇑eP	P	21 43 34.9	+1.4
KELI				⇑eSn	S	21 44 17.9	-1.4
SRDI	Scrawed	4.24	276	⇑eP	P	21 43 37.2	-0.3
SRDI				⇑eS	S	21 44 26.9	+0.4
WRA	Warramunga Arr	18.89	127	P	P	21 46 45.7	-1.3
	0.1nm,0.3s,baz=301,slow=12,SNR=7.4						
WRA				S	S	21 50 09.1	-0.6
	0.1nm,0.3s,baz=297,slow=22,SNR=3.7						
ASAR	Alice Springs	20.83	136	P	P	21 47 09.2	+2.2
	0.4nm,0.9s,baz=313,slow=9.0,SNR=3.8						
ASAR				S	S	21 50 56.2	+9.2
	0.5nm,0.8s,baz=308,slow=23,SNR=4.4						
ASAR				PcP	PcP	21 51 13.4	+1.9
	0.6nm,1.1s,baz=333,slow=1.7,SNR=3.6						
SONM	Songino Array	57.54	350	P	P	21 52 12.4	0.0
	0.2nm,0.5s,mb3.4,baz=165,slow=8.8,SNR=4.2						

MAN 23 21:54:10.4, 7.14N×126.58E, h21^{km}**, mb4.2, ML3.0, MS2.8, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	0.37	240	eP	Pb	21 54 19.4	+1.0
MATI				eS	Sb	21 54 25.5	+1.8
KCP	Kidapawan	1.49	265	⇓eP	Pn	21 54 35.4	-0.9
KCP				i S	Sn	21 54 55.2	0.0
BUKP	Musuan	1.68	296	eP	Pn	21 54 40.9	+1.8
BUKP				eS	Sn	21 55 03.1	+3.0
BUTP	Butuan	2.06	332	eP	Pn	21 54 43.8	-0.6
BUTP				eS	Sn	21 55 19.1	+9.5
PAGZ	Pagadian	3.25	283	eP	Pn	21 55 02.6	+1.1

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*MOS **23** 22:03:23.1±2.3, 85.36N×89.01E, h10^{km}, mb4.6/15, Error ellipse: s-maj=99.9km s-min=9.5km az=88.1*
*IDC **23** 22:03:24.8±0.6, 85.36N×88.89E, mb4.1/14, mb1 4.3/16, mb1mx4.2/22, ML3.6/1, MS4.2/7, Ms1 4.2/7, ms1mx3.8/25, Error ellipse: s-maj=23.2km s-min=11.7km az=121.0*
*NEIC **23** 22:03:26.5±0.3, 85.28N×90.42E, h10^{km}, mb4.8/27, Error ellipse: s-maj=11.0km s-min=6.8km az=118.0*
*BJI **23** 22:03:26.4, 85.30N×90.40E, h10^{km}, mB5.5, mb4.7*

ISC 23 22:03:24.8±0.3**, 85.22N**±0.05×**91.5E**±0.8**, h10**^{km}**, n109, σ1^{s}37**/102**, mb4.6**/53**, MS4.2**/7**, 1C-2D, North of Severnaya Zemlya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEV	Kevo	18.79	257	ep	P	22 07 41.2	-4.7
	0.7nm,0.3s						
KEV	Kevo	18.79	257	eP	P	22 07 41.2	-4.7
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ARCES	ARCESS Array B	19.12	259	P	P	22 07 46.3	-3.6
	comp=Z,0.3nm,0.3s,baz=20,slow=9.4,SNR=8.6						
ARCES				LR	LR	22 15 14.6	
	comp=Z,298nm,21.5s,baz=357,slow=38						
RES	Resolute Bay	20.20	5	eP	P	22 08 03.2	+1.3
	comp=Z,5.2nm,1.2s						
SUMG	Summit	20.94	320	eP	P	22 08 08.8	-0.8
	comp=Z,60nm,1.6s						
BILL	Bilibino	21.32	93	i P	P	22 08 16.0	+2.5
BILL				eS	S	22 12 13.4	+8.1
BILL				pmax	pmax		
	comp=Z,31nm,1.6s,mb4.4						
BILL				MLR	MLR		
	comp=Z,300nm,17.0s,MS3.8						
BILL	Bilibino	21.32	93	eP	P	22 08 16.6	+3.1
	comp=Z,20nm,1.1s,mb4.4						
YAK	Yakutsk	24.52	135	i P	P	22 08 45.4	+0.6
YAK				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.6						
YAK	Yakutsk	24.52	135	P	P	22 08 44.0	-0.8
	comp=Z,23nm,0.8s,mb4.8						
JOF	Joensuu	25.17	249	ep	P	22 08 50.9	-0.1
	comp=Z,11nm,0.7s,mb4.5						
JOF	Joensuu	25.17	249	eP	P	22 08 50.9	-0.1
JOF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.5						
INK	Inuvik	25.44	38	P	P	22 08 53.5	-0.1
	comp=Z,4.8nm,0.8s,mb4.1,baz=360,slow=12,SNR=14						
INK	Inuvik	25.44	38	P	P	22 08 53.5	-0.1
INK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
INK	Inuvik	25.44	38	eP	P	22 08 53.1	-0.5
	comp=Z,26nm,1.3s,mb4.6						
KAF	Kangasniemi	26.36	254	ep	P	22 09 06.4	+4.2
	comp=Z,0.2nm,0.3s						
IMA	Indian Mountai	26.43	56	eP	P	22 09 04.5	+1.7
	comp=Z,197nm,1.8s,mb5.3						
FINES	FINESS Array B	27.05	254	P	P	22 09 06.1	-2.3
	comp=Z,8.3nm,1.2s,mb4.2,baz=168,slow=18,SNR=6.3						
FINES	FINESS Array B	27.05	254	P	P	22 09 06.1	-2.3
FINES				pmax	pmax		
	comp=Z,8.0nm,1.2s						
BOD	Bodaibo	27.97	154	eP	P	22 09 10.3	-6.5
COLA	College	28.01	51	i P	P	22 09 27.1	+10
COLA	College	28.01	51	P	P	22 09 20.1	+2.9
	comp=Z,19nm,1.3s,mb4.6						
ILAR	Eielson Array	28.18	51	P	P	22 09 19.7	+1.0
	comp=Z,0.7nm,0.9s,baz=360,slow=6.4,SNR=4.6						
ILAR				PcP	PcP	22 12 30.9	-1.9
	comp=Z,0.4nm,0.7s,baz=347,slow=2.7,SNR=4.2						
ARU	Arti	29.81	217	⇑iP	P	22 09 38.4	+4.9
ARU				e		22 10 34.1	
ARU				e		22 12 35.5	
ARU				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.4						
ARU	Arti	29.81	217	P	P	22 09 33.2	-0.3
	comp=Z,19nm,1.3s,mb4.7						
NVS	Novosibirsk	30.59	189	eP	P	22 09 46.4	+6.0
NVS				pmax	pmax		
	comp=N,21nm,1.6s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.6s						
NVS				pmax	pmax		
	comp=Z,15nm,1.6s,mb4.6						
ZAL	Zalesovo	31.48	188	P	P	22 09 47.8	-0.4
	comp=Z,1.7nm,0.3s,mb4.4,baz=120,slow=6.5,SNR=6.6						
ZAL				tx	tx	22 09 54.6	
	comp=Z,3.5nm,0.7s,baz=117,slow=2.8,SNR=12						
YKW3	Yellowknife Ar	31.98	23	eP	P	22 09 51.2	-1.3
YKW3				e		22 09 58.2	
YKA	Yellowknife Ar	32.05	23	P	P	22 09 51.3	-1.8
	comp=Z,1.1nm,0.7s,mb3.8,baz=356,slow=8.4,SNR=22						
YKA				tx	tx	22 09 58.6	
	comp=Z,2.1nm,0.8s,baz=355,slow=8.3,SNR=17						
YKA				PcP	PcP	22 12 41.5	-1.3
	comp=Z,1.1nm,0.7s,baz=339,slow=3.4,SNR=14						
YKA	Yellowknife Ar	32.05	23	P	P	22 09 51.3	-1.8
YKA						22 12 41.5	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	32.05	23	P	P	22 09 51.3	-1.8
YKA				PcP	PcP	22 12 41.5	-1.3
OBN	Obninsk	32.51	241	⇓eP	P	22 10 02.1	+4.9
OBN				pmax	pmax		
	comp=Z,34nm,1.7s,mb5.0						
BRVK	Borovoye	32.69	204	eP	P	22 09 57.9	-0.8
	comp=Z,31nm,1.2s,mb5.1						
BRVK				e		22 10 05.6	
BVAR	Borovoye Array	32.71	204	P	P	22 09 59.1	+0.1
	comp=Z,2.5nm,0.8s,mb4.2,baz=350,slow=9.0,SNR=9.5						
BVAR				tx	tx	22 10 06.2	
	comp=Z,23nm,1.2s,baz=11,slow=7.6,SNR=18						
MOY	Mondy	33.79	169	eP	P	22 10 16.6	+8.3
DLBC	Dease Lake	35.46	37	P	P	22 10 23.6	+1.0
	comp=Z,2.1nm,0.7s,mb4.2,baz=316,slow=13,SNR=4.5						
DLBC				tx	tx	22 10 30.4	
	comp=Z,5.8nm,0.8s,baz=30,slow=9.5,SNR=6.2						
DLBC				LR	LR	22 25 27.4	
	comp=Z,432nm,18.0s,MS4.2,baz=182,slow=37						
DLBC	Dease Lake	35.46	37	eP	P	22 10 23.6	+0.9
DLBC				e		22 10 31.1	
AKASG	Malin Array Be	37.45	248	P	P	22 10 37.7	-1.8
	comp=Z,2.2nm,0.7s,mb4.1,baz=9.3,slow=8.5,SNR=8.5						
AKASG				tx	tx	22 10 45.2	
	comp=Z,7.4nm,0.7s,baz=7.8,slow=8.5,SNR=25						
ULN	Ulaanbaatar	37.71	163	i P	P	22 10 42.0	+0.3
ULN	Ulaanbaatar	37.71	163	eP	P	22 10 44.1	+2.4
	comp=Z,12nm,1.4s,mb4.4						
ULN				e		22 10 51.4	
SONM	Songino Array	37.73	164	P	P	22 10 43.6	+1.8
	comp=Z,1.8nm,0.7s,mb3.9,baz=346,slow=7.7,SNR=12						
SONM				tx	tx	22 10 49.9	
	comp=Z,2.3nm,0.6s,baz=344,slow=6.2,SNR=18						
CLL	Collm	38.17	264	e*PP	pP	22 10 53.0	+4.5
OJC	Ojcow	38.69	257	eP	P	22 10 57.1	+7.2
MOX	Moxa	38.94	266	eP	P	22 10 58.3	+6.3
MOX	Moxa	38.94	266	i P	P	22 10 58.3	+6.3
NIE	Niedzica	39.44	257	eP	P	22 10 58.5	+2.3
VRAC	Vranov	39.85	260	tx	tx	22 11 05.9	
	comp=Z,6.2nm,0.9s,baz=25,slow=7.1,SNR=6.9						
GRA1	Grafenberg Arr	39.92	266	eP	P	22 11 08.2	+8.1
GRF	Grafenberg Arr	39.92	266	eP	P	22 11 08.2	+8.1
BAIF	Baives	40.14	273	eP	P	22 11 08.5	+6.5
	comp=Z,25nm,1.4s,mb4.8						
WET	Wettzell	40.33	264	eP	P	22 11 10.7	+7.2
WLF	Walferdange	40.37	271	eP	P	22 11 07.8	+4.0
	comp=Z,19nm,1.3s,mb4.7						
GEC2	GERESS Array S	40.55	263	eP	P	22 11 13.3	+8.0
GERES	GERESS Array B	40.55	263	tx	tx	22 11 11.5	
	comp=Z,0.7nm,0.6s,baz=63,slow=6.0,SNR=4.4						
PSZ	Piszkesteto	40.96	257	eP	P	22 11 08.4	-0.3
	comp=Z,12nm,1.1s,mb4.4						
PSZ				e		22 11 15.3	
CDF	Champ du Feu	41.52	270	eP	P	22 11 20.6	+7.5
	comp=Z,29nm,1.2s,mb4.5						
WMQ	Urumqi	41.58	184	eP	P	22 11 21.0	+7.4
BBB	Bella Bella	41.80	36	LR	LR	22 28 18.6	
	comp=Z,502nm,20.4s,MS4.4,baz=62,slow=36						
HAU	Haudompre	42.00	270	eP	P	22 11 23.6	+6.5
	comp=Z,30nm,1.0s,mb4.5						
HINF	Hinteralfeld	42.15	270	eP	P	22 11 25.4	+7.1
SGMF	Saint Gilles	42.50	279	eP	P	22 11 27.4	+6.3
	comp=Z,160nm,1.7s,mb5.1						
ANN	Anapa	42.71	238	eP	P	22 11 17.3	-5.6
ANN				e*PP	pP	22 11 21.1	-4.8
ANN				eS	S	22 17 38.3	-7.8
ANN				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.0						
FRU	Bishkek	42.77	198	eP	P	22 11 32.0	+8.5
FRU				pmax	pmax		
	comp=Z,60nm,2.0s,mb5.0						
MLR	Muntele Rosu	42.89	250	tx	tx	22 11 32.3	
	comp=Z,2.1nm,0.5s,baz=105,slow=18,SNR=3.6						
AAK	Ala-Archa	42.98	198	i P	P	22 11 25.9	+0.8
AAK				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.6						
AAK	Ala-Archa	42.98	198	eP	P	22 11 26.9	+1.8
	comp=Z,31nm,1.5s,mb4.8						
CADS	Cadrg	43.15	263	i P	P	22 11 33.4	+7.0
SSF	Saint Saulge	43.18	273	eP	P	22 11 32.3	+5.6
	comp=Z,27nm,1.2s,mb4.5						
KIV	Kislovodsk	43.19	233	i P	P	22 11 31.9	+5.1
KIV				pmax	pmax		
	comp=Z,21nm,0.8s,mb4.9						
KIV	Kislovodsk	43.19	233	eP	P	22 11 27.3	+0.4
	comp=Z,35nm,1.2s,mb5.0						
LEGS	Legarje	43.30	261	i P	P	22 11 35.0	+7.3
BGF	Bois d'Agland	43.73	274	eP	P	22 11 38.0	+6.8
	comp=Z,33nm,0.9s,mb4.7						
TCF	Toulx Ste Croi	44.05	274	eP	P	22 11 40.3	+6.5
	comp=Z,34nm,1.3s,mb4.6						
ULM	Lac du Bonnet	44.71	7	P	P	22 11 38.4	-0.7
	comp=Z,0.8nm,0.5s,mb3.8,baz=348,slow=15,SNR=2.6						
ULM	Lac du Bonnet	44.71	7	P	P	22 11 38.4	-0.7
GTA	Gaotai	46.02	171	eP	P	22 11 58.1	+8.5
GTA				AMB	AMB		
	comp=Z,8.0nm,1.9s,mb4.3						
AQU	L'Aquila	47.02	262	eP	P	22 11 59.2	+1.7
	comp=Z,30nm,1.0s,mb5.2						
BRTR	Keskin Array B	48.03	241	P	P	22 12 03.9	-1.6
	comp=Z,1.6nm,0.8s,mb4.1,baz=355,slow=4.8,SNR=6.4						
BRTR	Keskin Array B	48.03	241	P	P	22 12 03.9	-1.6
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LZH	Lanzhou	49.41	167	⇓P	P	22 12 25.5	+9.4
	comp=Z,30nm,1.5s,mb5.1						
LZH				pP	pP	22 12 32.5	+13
LZH				sP	sP	22 12 36.0	+16
LZH				PP	PP	22 14 18.5	+7.7
IMW	Indian Meadow	50.77	21	eP	P	22 12 27.6	+1.2
ESDC	Sonseca Array	51.14	279	tx	tx	22 12 35.0	
	comp=Z,0.1nm,0.3s,baz=357,slow=8.9,SNR=4.5						
ESLA	Sonseca Array	51.14	279	eP	P	22 12 34.8	+5.6
	comp=Z,1.2nm,1.0s,mb3.8						
XAN	Xi'an	51.56	161	P	P	22 12 33.0	+0.4
PDAR	Pinedale Array	51.94	20	tx	tx	22 12 42.6	
	comp=Z,1.3nm,0.9s,baz=342,slow=4.7,SNR=5.6						
PDAR				LR	LR	22 37 14.7	
	comp=Z,167nm,18.2s,MS4.1,baz=294,slow=39						
MOD	Modoc	52.42	30	P	P	22 12 39.5	+0.5
	comp=Z,5.3nm,1.0s,mb4.4						
MOD				e		22 12 49.0	
NLU	North Lily Min	54.67	22	eP	P	22 12 55.6	+0.1
SSE	Sheshan	54.93	149	eP	P	22 12 55.6	-2.0
	comp=Z,26nm,0.8s,mb5.3						
ASF	Jabal al Asfar	55.30	237	tx	tx	22 13 06.5	
	comp=Z,5.1nm,1.0s,baz=15,slow=4.9,SNR=4.7						
ENH	Enshi	55.34	161	eP	P	22 13 00.7	+0.1
	comp=Z,8.7nm,0.8s,mb4.8						
NVAR	Mina Array Bea	55.97	28	LR	LR	22 39 10.3	
	comp=Z,168nm,18.9s,MS4.2,baz=95,slow=38						
MSU	Marysvale	56.10	22	eP	P	22 13 06.0	+0.1
PV01	Paradox Valley	56.59	19	eP	P	22 13 09.4	0.0
PV01				e		22 13 17.6	
GKN	Gorkha	57.38	187	eP	P	22 13 14.2	-1.1
	comp=Z,26nm,0.8s,mb5.3						
GUN	Gumba	57.46	186	eP	P	22 13 15.4	-0.4
	comp=Z,13nm,0.7s,mb5.1						
KKN	Kakani	57.59	187	eP	P	22 13 15.3	-1.4
	comp=Z,16nm,0.7s,mb5.1						
KOLN	Koldanda	57.63	188	eP	P	22 13 16.3	-0.7
	comp=Z,9.8nm,0.8s,mb4.9						
DMN	Daman	57.77	187	eP	P	22 13 17.3	-0.7
	comp=Z,10nm,0.6s,mb5.0						
PKI	Pulchoki	57.81	186	eP	P	22 13 16.7	-1.5
	comp=Z,15nm,1.0s,mb5.0						
EIL	Elat	57.93	239	P	P	22 13 19.3	+0.3
	comp=Z,3.0nm,0.6s,mb4.5,baz=19,slow=19,SNR=3.1						
GYA	Guiyang	59.06	164	P	P	22 13 27.8	+0.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
ANMO	Albuquerque	59.82	17	P	P	22 13 30.6	-1.5
	comp=Z,1.1nm,0.7s,mb4.0,baz=7.8,slow=5.8,SNR=4.6						
ANMO				tx	tx	22 13 38.0	
	comp=Z,2.7nm,0.9s,baz=352,slow=7.3,SNR=5.6						
ANMO				LR	LR	22 38 48.1	
	comp=Z,290nm,19.0s,MS4.4,slow=36						
ANMO	Albuquerque	59.82	17	P	P	22 13 30.6	-1.5
ANMO				LR	LR	22 38 48.1	
WMOK	Wichita Mounta	60.18	10	eP	P	22 13 31.7	-2.9
	comp=Z,12nm,1.1s,mb4.8						
JCT	Junction City	64.41	11	eP	P	22 14 02.3	-0.4
	comp=Z,13nm,1.0s,mb4.9						
JCT				e		22 14 08.9	
TXAR	Lajitas Array	65.48	15	P	P	22 14 08.0	-1.7
	comp=Z,1.4nm,0.6s,mb4.2,baz=355,slow=3.4,SNR=22						
TXAR				tx	tx	22 14 14.7	
	comp=Z,2.0nm,0.7s,baz=356,slow=3.1,SNR=12						
TXAR				LR	LR	22 43 47.5	
	comp=Z,211nm,19.0s,MS4.4,baz=65,slow=37						
TXAR	Lajitas Array	65.48	15	P	P	22 14 08.0	-1.7
TXAR				LR	LR	22 43 47.5	
DWPF	Disney	66.82	353	P	P	22 14 13.5	-4.8
	comp=Z,265nm,1.5s						
CMAR	Chiang Mai Arr	66.89	172	P	P	22 14 18.5	-0.4
	comp=Z,1.7nm,0.6s,mb4.2,baz=348,slow=7.7,SNR=6.4						
CMAR				tx	tx	22 14 25.5	
	comp=Z,1.5nm,0.6s,baz=346,slow=7.1,SNR=13						
CMAR	Chiang Mai Arr	66.89	172	i P	P	22 14 22.3	+3.4
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						

IDC 23 22:04:40.0±3.8**, 0.73S×130.47E, mb3.7**/2**, mb1 4.1**/3**, mb1mx3.6**/15**, ML3.8**/1**, MS4.0**/1**, Ms1 4.2**/1**, ms1mx3.5**/12**, Error ellipse: s-maj=249.0km s-min=32.2km az=91.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.47	169	P	P	22 09 08.0	-3.2
	0.3nm,0.3s,baz=353,slow=12,SNR=12						
WB2	Warramunga Arr	19.47	169	eP	P	22 09 07.7	-3.5
ASAR	Alice Springs	23.04	172	P	P	22 09 47.3	-0.8
	1.7nm,0.5s,baz=354,slow=8.8,SNR=25						
ASPA	Alice Springs	23.04	172	eP	P	22 09 47.7	-0.4
CMAR	Chiang Mai Arr	36.38	303	LR	LR	22 27 16.7	
	comp=Z,208nm,19.6s,baz=50,slow=37						
ILAR	Eielson Array	87.51	25	P	P	22 17 29.6	-1.1
	0.2nm,0.5s,baz=253,slow=4.3,SNR=4.1						

IDC 23 22:34:29.1±2.8**, 47.37S×165.00E, mb4.2**/3**, mb1 4.5**/3**, mb1mx4.0**/8**, Error ellipse: s-maj=206.0km s-min=50.3km az=25.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	34.27	303	P	P	22 41 16.1	-2.8
	3.5nm,0.7s,baz=141,slow=8.1,SNR=38						
ASPA	Alice Springs	34.27	303	eP	P	22 41 15.7	-3.2
WB2	Warramunga Arr	36.98	307	eP	P	22 41 40.5	-1.5
WRA	Warramunga Arr	36.99	307	P	P	22 41 41.1	-1.0
	2.5nm,0.8s,baz=147,slow=7.7,SNR=19						
CMAR	Chiang Mai Arr	88.22	300	P	P	22 47 21.9	-1.6
	0.5nm,0.4s,baz=162,slow=3.2,SNR=5.6						
ARCES	ARCESS Array B	150.27	333	PKPbc	PKPdf	22 54 21.4	+4.1
	3.1nm,0.8s,baz=101,slow=4.6,SNR=5.9						
ARCES				PKPab	PKPab	22 54 25.6	-3.5
	3.0nm,0.8s,baz=108,slow=2.9,SNR=5.8						
FINES	FINESS Array B	152.81	316	PKPbc	PKPdf	22 54 26.6	+5.4
	3.4nm,1.0s,baz=315,slow=2.7,SNR=4.6						

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*LDG **23** 23:12:42.9±0.0, 44.36N×6.64E, h2^{km}, Md2.4/1, Ml1.9/5, Error ellipse: s-maj=0.9km s-min=0.6km az=75.0*
*STR **23** 23:12:42.9±0.2, 44.36N×6.67E, h5^{km}±1^{km}, Ml2.0, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 23 23:12:41.8±0.4**, 44.35N**±0.02×**6.61E**±0.04**, h5**^{km}±9^{km}**, n16, σ0^{s}62**/30**, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SURF	Saint Ours	0.20	48	Pg	Pg	23 12 46.3	+0.5
SURF				Sg	Sg	23 12 49.3	+0.8
OG25	Le Caire	0.38	273	Pg	Pg	23 12 51.0	+1.5
MBDF	Montbardon	0.39	17	ePg	Pg	23 12 50.6	+0.9
MBDF				eSg	Sg	23 12 55.1	+0.1
	7.5nm,0.2s						
OG22	Abries	0.53	27	Pg	Pg	23 12 52.7	+0.3
OG22				Sg	Sg	23 12 59.5	0.0
TOUF	Mont Tournerai	0.57	126	Pg	Pg	23 12 52.7	-0.5
MVIF	Mont Vial	0.60	139	Pg	Pg	23 12 54.3	+0.5
MVIF				Sg	Sg	23 13 02.4	+0.5
AUTN	L'Aution	0.69	121	Pg	Pg	23 12 55.7	+0.1
AUTN				Sg	Sg	23 13 03.8	-1.0
ORIF	Oris-en-Rattie	0.77	318	ePg	Pg	23 12 57.7	+0.5
ORIF				eSg	Sg	23 13 07.9	+0.4
	3.8nm,0.4s						

SBF	Sospel	0.77	129	*e*Pg	Pg	23 12 57.4	+0.2
SBF				*e*Sg	Sg	23 13 07.0	-0.5
	11nm,0.3s						
SAOF	Saorge	0.77	118	Pg	Pg	23 12 57.3	0.0
SAOF				Sg	Sg	23 13 07.2	-0.4
FRF	La Foret Royal	0.79	178	*e*Pg	Pg	23 12 57.8	+0.2
FRF				*e*Sg	Sg	23 13 08.3	+0.1
	4.9nm,0.2s						
SMRF	Simiane la Rot	0.83	244	*e*Pn	Pn	23 13 00.5	+0.5
SMRF				*e*Sn	Sn	23 13 12.9	+0.1
	8.9nm,0.3s						
LMR	La Mourre	1.02	184	*e*Pg	Pg	23 13 02.0	-0.2
LMR				*e*Sg	Sg	23 13 15.6	-0.2
	6.9nm,0.2s						
LPG	La Plagne	1.15	5	*e*Pg	Pg	23 13 04.8	0.0
LPG				*e*Sg	Sg	23 13 19.3	-0.9
	1.9nm,0.3s						
LPL	La Plagne	1.17	4	*e*Pg	Pg	23 13 04.8	-0.4
LPL				*e*Sg	Sg	23 13 20.1	-0.6
	1.5nm,0.3s						
VIVF	Saint-Julien-l	1.47	291	*e*Pg	Pg	23 13 09.7	-1.5
VIVF				*e*Sg	Sg	23 13 29.8	-1.1
	1.3nm,0.2s						

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*IDC **23** 23:24:54.5±3.1,3.69S×128.34E,mb4.2/3,mb1 4.3/5, mb1mx4.0/17,ML3.6/2,Error ellipse: s-maj=55.5km s-min=53.5km az=89.0*

*NEIC **23** 23:24:56.2±2.5,3.79S×128.13E,h20^{km},mb4.3/4,Error ellipse: s-maj=35.3km s-min=30.3km az=131.0*

ISC 23 23:24:54.4±1.1,**3.6S**±0.1×**128.2E**±0.2,**h33**^{km},**n12,** σ**1**^{s}.**30**/12,**mb4.2**/4,**1C,Seram**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KAKA	Kakadu	9.98	155	⇑*i*P	P	23 27 16.6	-2.1
	12nm,0.5s						
WRAB	Tennant Creek	17.31	160	*e*P	P	23 28 53.9	-1.3
	19nm,1.0s						
WRA	Warramunga Arr	17.32	160	Pn	P	23 28 54.4	-0.8
	0.3nm,0.3s,baz=342,slow=13,SNR=21						
WB2	Warramunga Arr	17.32	160	*e*P	P	23 28 54.3	-1.0
MBWA	Marble Bar	19.27	204	P	P	23 29 25.4	+6.3
	11nm,1.0s						
PMG	Port Moresby	19.73	108	P	P	23 29 25.0	+0.7
	0.4nm,0.3s,baz=294,slow=6.3,SNR=7.1						
ASAR	Alice Springs	20.70	165	P	P	23 29 37.0	+2.6
	18nm,0.9s,baz=345,slow=11,SNR=113						
ASAR				PcP	PcP	23 33 46.1	+2.6
	0.5nm,0.4s,baz=6.7,slow=1.5,SNR=5.6						
ASPA	Alice Springs	20.70	165	*e*P	P	23 29 35.9	+1.5
CTA	Charters Tower	24.07	134	P	P	23 30 08.3	+0.3
	1.2nm,0.2s,mb3.9,baz=312,slow=12,SNR=2.8						
STKA	Stephens Creek	30.82	157	P	P	23 31 11.0	+1.3
	1.8nm,0.7s,mb4.0,baz=320,slow=17,SNR=2.7						
HIA	Hailar	53.17	353	P	P	23 34 10.2	-1.2
	4.6nm,1.0s,mb4.4						
MAW	Mawson	77.42	201	P	P	23 36 48.1	+0.4
	3.4nm,0.8s,mb4.3						

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*IDC **23** 23:32:02.1±11.0,17.43S×178.01W,h343^{km}±113^{km}, mb3.3/8,mb1 3.6/8,mb1mx3.5/15,Error ellipse: s-maj=31.9km s-min=25.3km az=18.0*

ISC 23 23:31:56.8±0.8,**17.4S**±0.2×**178.0W**±0.2,**h300**^{km},**n9,** σ**0**^{s}.**56**/8,**mb3.6**/8,**Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	Urewera	21.24	191	P	P	23 36 20.1	-0.2
	2.7nm,0.3s,mb4.0,baz=144,slow=16,SNR=5.4						
STKA	Stephens Creek	39.20	241	P	P	23 38 58.5	+0.5
	1.1nm,0.5s,mb3.6,baz=96,slow=10,SNR=3.0						
WRA	Warramunga Arr	45.08	259	P	P	23 39 44.9	-0.7
	0.6nm,0.7s,mb2.9,baz=96,slow=7.5,SNR=5.2						
ASAR	Alice Springs	45.28	254	P	P	23 39 47.7	+0.6
	3.6nm,0.5s,mb3.9,baz=89,slow=7.7,SNR=41						
VNDA	Vanda	61.00	185	P	P	23 41 40.1	-0.3
	1.7nm,0.9s,mb3.6,baz=7.7,slow=6.7,SNR=6.0						
NVAR	Mina Array Bea	78.80	44	P	P	23 43 28.5	+0.3
	1.5nm,0.7s,mb3.8,baz=219,slow=9.4,SNR=6.8						
ILAR	Eielson Array	85.29	13	P	P	23 44 00.0	-0.9
	1.2nm,0.9s,mb3.7,baz=224,slow=5.4,SNR=15						
TXAR	Lajitas Array	85.41	58	P	P	23 44 02.9	+0.6
	0.6nm,0.9s,mb3.4,baz=225,slow=10,SNR=5.3						
ARCES	ARCESS Array B	125.86	350	PKP	PKPdf	23 50 21.0	-1.6
	1.1nm,0.6s,baz=45,slow=1.7,SNR=5.0						

IDC 23 23:38:55.9±2.3,**49.82S**×**162.21E,mb3.9**/4,**mb1 4.2**/4, **mb1mx3.9**/8,**Error ellipse: s-maj=314.0km s-min=47.7km az=39.0,Auckland Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	23.63	312	P	P	23 44 08.8	-0.5
	2.1nm,0.8s,baz=152,slow=6.8,SNR=3.4						
ASAR	Alice Springs	34.21	309	P	P	23 45 43.1	-2.1
	2.3nm,0.6s,baz=147,slow=8.3,SNR=31						
WRA	Warramunga Arr	37.16	313	P	P	23 46 08.0	-2.1
	2.2nm,0.8s,baz=144,slow=7.9,SNR=11						
CMAR	Chiang Mai Arr	87.89	302	P	P	23 51 47.7	-0.8
	0.3nm,0.4s,baz=166,slow=3.7,SNR=4.1						
ARCES	ARCESS Array B	151.52	330	PKPbc	PKPdf	23 58 50.8	+4.9
	4.2nm,0.9s,baz=104,slow=3.7,SNR=4.9						
FINES	FINESS Array B	153.19	312	PKPbc	PKPdf	23 58 53.4	+5.0
	3.0nm,0.8s,baz=166,slow=5.7,SNR=5.5						

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*IDC **23** 23:41:06.5±1.9,49.74S×161.97E,mb4.2/4,mb1 4.4/4, mb1mx4.0/8,Error ellipse: s-maj=180.0km s-min=38.1km az=34.0*

ISC 23 23:41:07.6±0.8,**50.3S**±0.1×**161.1E**±0.1,**h10**^{km},**n16,** σ**0**^{s}.**97**/14,**mb4.1**/4,**2C-1D,North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	6.32	49	P	Pn	23 42 43.1	-0.1
MLZ	Mavora Lakes	6.83	47	P	Pn	23 42 50.4	0.0
TUZ	Tuapeka	7.14	56	P	Pn	23 42 55.1	+0.4
EAZ	Earnscleugh	7.46	51	P	Pn	23 42 58.2	-1.0
JCZ	Jackson Bay	8.08	43	P	P	23 43 08.7	+0.9
JCZ				S	Sn	23 44 41.0	+0.8
ODZ	Otahua Downs	8.28	55	P	P	23 43 09.2	-1.4
STKA	Stephens Creek	23.40	314	P	P	23 46 19.1	+1.8
	1.6nm,0.5s,mb3.7,baz=184,slow=10.0,SNR=4.0						
ASAR	Alice Springs	33.95	311	P	P	23 47 52.1	-0.9
	2.9nm,0.7s,mb4.3,baz=146,slow=8.4,SNR=19						
WRA	Warramunga Arr	36.95	315	P	P	23 48 16.9	-1.7
	3.1nm,0.8s,mb4.2,baz=147,slow=7.9,SNR=15						
SNAA	Sanae	57.85	186	⇓*i*	P	23 50 56.4	-4.6
VNA3	Neumayer Olymp	58.63	183	⇑*i*	P	23 51 06.4	-0.1
VNA2	Neumayer--Watz	58.85	184	⇑*i*	P	23 51 08.8	+0.8
CMAR	Chiang Mai Arr	87.52	303	P	P	23 53 57.5	+0.6
	2.2nm,0.9s,mb4.4,baz=158,slow=3.9,SNR=16						
YKA	Yellowknife Ar	130.50	37	PKP	PKPdf	00 00 17.7	-2.9
	0.1nm,0.6s,baz=268,slow=1.4,SNR=4.3						
ARCES	ARCESS Array B	151.53	329	PKPbc	PKPdf	00 00 59.5	+2.4
	2.3nm,0.7s,baz=135,slow=3.4,SNR=5.3						
ARCES				PKPab	PKPab	00 01 07.2	-3.9
	5.1nm,0.8s,baz=23,slow=9.2,SNR=4.0						
FINES	FINESS Array B	152.96	312	PKPbc	PKPdf	00 01 04.2	+4.9
	1.6nm,0.5s,baz=118,slow=5.3,SNR=12						

IDC 23 23:50:14.6±10.0,**10.46S**×**167.38E,mb3.5**/3,**mb1 3.7**/3, **mb1mx3.5**/14,**Error ellipse: s-maj=287.0km s-min=45.6km az=120.0,Low Confidence,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DZM	Mont Dzumac	11.58	184	*e*P	P	23 53 22.8	+18
WRA	Warramunga Arr	33.19	250	P	P	23 56 53.8	-1.6
	0.3nm,0.7s,baz=81,slow=9.1,SNR=3.8						
ASAR	Alice Springs	34.48	243	P	P	23 57 04.1	-2.5
	0.3nm,0.6s,baz=68,slow=9.7,SNR=3.1						
SONM	Songino Array	79.16	323	P	P	00 02 21.5	-1.4
	1.1nm,1.1s,baz=90,slow=4.9,SNR=4.3						

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*IDC **23** 23:56:18.2±2.3,48.92S×162.80E,mb4.0/4,mb1 4.2/5, mb1mx3.9/9,ML3.8/1,MS3.8/1,Ms1 3.8/1,ms1mx2.6/7, Error ellipse: s-maj=231.0km s-min=44.6km az=34.0*

ISC 23 23:56:25.4±1.7,**48.4S**±0.2×**161.7E**±0.1,**h10**^{km},**n13,** σ**1**^{s}.**42**/15,**mb4.0**/4,**MS3.7**/1,**North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	4.91	62	S	Sn	23 58 47.6	+8.9
MLZ	Mavora Lakes	5.36	58	P	Pn	23 57 50.6	+3.3
MLZ				S	Sn	23 58 59.3	+9.4
MSZ	Milford Sound	5.66	51	P	Pn	23 57 58.7	+7.1
TUZ	Tuapeka	5.90	69	P	Pn	23 57 54.3	-0.8
TUZ				S	Sn	23 59 03.7	+0.1
EAZ	Earnscleugh	6.08	61	P	Pn	23 57 59.1	+1.6
EAZ				S	Sn	23 59 08.1	+0.2
JCZ	Jackson Bay	6.50	51	P	Pn	23 58 08.9	+5.4
JCZ				S	Sn	23 59 17.4	-1.1
RPZ	Rata Peaks	7.98	58	Pn	P	23 58 23.3	-1.0
	1.2nm,0.3s,baz=22,slow=7.5,SNR=5.8						
RPZ				Sn	Sn	23 59 33.4	-22
	2.2nm,0.3s,baz=297,slow=22,SNR=4.2						
STKA	Stephens Creek	22.46	310	P	P	00 01 28.9	+3.0
	2.8nm,0.7s,mb3.8,baz=123,slow=14,SNR=4.0						
ASAR	Alice Springs	33.07	308	P	P	00 03 03.1	-0.2
	1.5nm,0.6s,mb4.1,baz=145,slow=8.0,SNR=22						
ASAR				LR	LR	00 16 07.5	
	comp=Z,156nm,19.0s,MS3.7,baz=201,slow=35						
WRA	Warramunga Arr	35.96	312	P	P	00 03 27.2	-0.9
	1.6nm,0.8s,mb4.0,baz=148,slow=9.2,SNR=11						
CMAR	Chiang Mai Arr	86.87	302	P	P	00 09 10.0	-1.5
	0.4nm,0.3s,mb4.1,baz=170,slow=5.5,SNR=4.1						
ARCES	ARCESS Array B	150.13	331	PKPbc	PKPdf	00 16 12.3	-0.5
	8.0nm,0.9s,baz=108,slow=2.9,SNR=5.0						
ARCES				PKPab	PKPab	00 16 18.8	-4.3
	4.1nm,1.0s,baz=45,slow=1.7,SNR=4.0						
FINES	FINESS Array B	151.99	314	PKPbc	PKPdf	00 16 14.9	-0.8
	1.4nm,0.6s,baz=90,slow=5.7,SNR=7.8						
FINES				PKPab	PKPab	00 16 24.8	-6.2
	2.6nm,0.9s,baz=135,slow=2.7,SNR=3.9						

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*INMG **24** 00:22:01.5±1.1,42.82N×7.24W,h18^{km}±4^{km},ML1.7,Error ellipse: s-maj=3.4km s-min=1.8km az=86.0*

MDD 24 00:22:01.2±0.4,**42.82N**×**7.24W,h15**^{km}±12^{km}, **mbLg1.9**/12,**Error ellipse: s-maj=4.5km s-min=2.8km az=98.0,PRXIMO,Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EPON	Pontenova	0.51	7	Pg	Pb	00 22 10.7	-0.6
	5.3nm,0.1s,SNR=16						
EPON				Lg		00 22 17.8	
	18nm,0.2s,SNR=26						
ECAL	Calabor	0.95	157	Pg	Pb	00 22 18.7	-0.1
	2.7nm,0.1s,SNR=17						
ECAL				Lg		00 22 30.7	
	16nm,0.2s,SNR=5.0						
STS	Santiago	0.97	274	Pg	Pb	00 22 19.2	0.0
	4.5nm,0.2s,SNR=6.2						
STS				Lg		00 22 32.1	
	18nm,0.2s,SNR=23						
PBRG	Braganca	1.08	160	*e*P	Pb	00 22 20.8	-0.2
PBRG				*e*S	Sb	00 22 34.5	-0.1
	8.9nm,0.2s						
PBRG	Braganca	1.08	160	Pg	Pb	00 22 20.8	-0.2
PBRG				Lg		00 22 34.5	
	4.4nm,0.2s						
ELOB	Lobios	1.13	213	Pg	Pb	00 22 20.9	-0.9
	1.1nm,0.1s,SNR=18						
ELOB				UNK		00 22 22.2	
	SNR=6.1						
ELOB				Lg		00 22 35.6	
	7.1nm,0.1s,SNR=18						
EZAM	Zamans	1.27	239	Pn	Pn	00 22 22.6	-1.9
	0.4nm,0.1s,SNR=7.9						
EZAM				Pg	Pb	00 22 24.7	+0.5
	2.3nm,0.1s,SNR=5.7						
EZAM				Lg		00 22 39.8	
	4.7nm,0.2s,SNR=5.0						
EMAZ	Mazaricos	1.29	276	Pg	Pb	00 22 24.6	+0.1
	3.5nm,0.1s,SNR=8.9						
EMAZ				Lg		00 22 41.2	
	14nm,0.1s,SNR=15						
EARI	Arriondas	1.56	71	Pg	Pn	00 22 29.5	+0.9
	2.3nm,0.2s,SNR=12						
EARI				Lg		00 22 49.9	
	3.3nm,0.2s,SNR=5.0						
PVRL	Vila Real	1.58	193	*e*Pg	Pn	00 22 29.4	+0.5
PVRL				*e*Sg	Sn	00 22 50.6	+1.5
	13nm,0.1s						
PVRL	Vila Real	1.58	193	Pg	Pn	00 22 29.4	+0.5
PVRL				Lg		00 22 50.6	
	6.4nm,0.1s						
PVIS	Viseu	2.16	193	*e*Sg	Sn	00 23 07.7	+3.9
	3.9nm,0.1s						
PVIS	Viseu	2.16	193	Lg		00 23 07.7	
	1.9nm,0.1s						
MTE	Manteigas	2.43	186	*e*Sg	Sn	00 23 16.1	+5.5
	3.6nm,0.6s						
MTE	Manteigas	2.43	186	Lg		00 23 16.1	
	1.8nm,0.6s						
PCBR	Castelo Branco	2.98	184	*e*Sn	Sn	00 23 21.0	-3.6
PCBR				*e*Sg	Sn	00 23 33.5	+8.9
GUD	Guadarrama	3.17	132	Pg	Pn	00 22 59.1	+7.6
	0.5nm,0.3s,SNR=7.9						
GUD				Lg		00 23 38.4	
	1.5nm,0.3s,SNR=7.9						

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*IDC **24** 01:30:37.8±0.9,50.33S×161.36E,mb4.3/7,mb1 4.4/7, mb1mx4.2/11,Error ellipse: s-maj=40.5km s-min=22.3km az=55.0*

*NEIC **24** 01:30:43.3±0.7,49.59S×161.58E,h10^{km},mb4.7/2,Error ellipse: s-maj=30.8km s-min=12.5km az=62.0*

ISC 24 01:30:39.0±1.6,**50.2S**±0.2×**161.1E**±0.6,**h10**^{km},**n24,** σ**1**^{s}.**04**/16,**mb4.4**/8,**2C-1D,North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	23.37	314	P	P	01 35 51.3	+2.9
	3.3nm,0.8s,mb3.8,baz=124,slow=13,SNR=4.5						
CTA	Charters Tower	32.30	333	P	P	01 37 10.6	+0.4
	3.3nm,0.9s,mb4.2,baz=169,slow=4.8,SNR=3.8						
CTA	Charters Tower	32.30	333	P	P	01 37 10.6	+0.4
CTAO	Charters Tower	32.30	333	*e*P	P	01 37 08.9	-1.3
	11nm,1.2s,mb4.5						
ASAR	Alice Springs	33.92	311	P	P	01 37 24.7	+0.5
	4.6nm,0.8s,mb4.5,baz=145,slow=8.5,SNR=55						
ASAR				PcP	PcP	01 40 00.0	-2.8
	0.3nm,0.7s,baz=132,slow=3.9,SNR=4.0						
ASPA	Alice Springs	33.92	311	*e*P	P	01 37 24.3	0.0
NWAO	Narrogin (SRO)	36.46	281	P	P	01 37 45.6	-0.2
	7.2nm,0.7s,mb4.7,baz=201,slow=4.8,SNR=3.0						
WB2	Warramunga Arr	36.91	315	*e*P	P	01 37 49.0	-0.7
WRA	Warramunga Arr	36.92	315	P	P	01 37 48.8	-1.0
	5.1nm,0.8s,mb4.4,baz=147,slow=8.6,SNR=32						
WRA				PcP	PcP	01 40 08.1	-3.5
	1.1nm,0.9s,baz=151,slow=2.6,SNR=5.7						
WRAB	Tennant Creek	36.92	315	*e*P	P	01 37 49.0	-0.9
	25nm,1.4s,mb4.8						
SNAA	Sanae	57.86	186	⇑*i*	P	01 40 30.8	-1.8
SNAA	Sanae	57.86	186	P	P	01 40 30.9	-1.7
	1.7nm,1.1s,mb4.0,baz=172,slow=8.1,SNR=7.8						
SNAA	Sanae	57.86	186	*e*P	P	01 40 31.0	-1.5
VNA3	Neumayer Olymp	58.65	183	⇓*i*	P	01 40 39.0	+0.9
VNA2	Neumayer--Watz	58.86	184	⇑*i*	P	01 40 39.9	+0.3
CMAR	Chiang Mai Arr	87.49	303	P	P	01 43 29.5	+1.4
	3.7nm,1.0s,mb4.6,baz=162,slow=2.9,SNR=17						
ILAR	Eielson Array	121.55	23	PKP	PKPdf	01 49 32.6	-2.3
	2.5nm,1.3s,baz=217,slow=4.5,SNR=5.3						
AKASG	Malin Array Be	149.77	290	PKPbc	PKPdf	01 50 28.5	+2.2
	0.2nm,0.3s,baz=75,slow=2.7,SNR=6.1						
SCHQ	Schefferville	150.96	62	PKPbc	PKPdf	01 50 30.9	+2.9
	6.0nm,1.1s,baz=86,slow=13,SNR=3.6						
SCHQ	Schefferville	150.96	62	PKPbc	PKPdf	01 50 30.9	+2.9
ARCES	ARCESS Array B	151.50	329	PKPbc	PKPdf	01 50 32.5	+4.0
	3.8nm,0.7s,baz=108,slow=3.8,SNR=6.8						
FINES	FINESS Array B	152.93	312	PKPbc	PKPdf	01 50 36.1	+5.4
	3.6nm,1.1s,baz=153,slow=8.5,SNR=4.9						
VAE	Valguarnera	153.03	255	PKPbc	PKPdf	01 50 35.6	+4.0
	7.9nm,0.9s,baz=288,slow=20,SNR=3.3						
GERES	GERESS Array B	158.87	279	PKPab	PKPab	01 51 13.7	-0.5
	0.7nm,0.7s,baz=191,slow=6.8,SNR=2.4						

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*IDC **24** 01:31:58.1±1.5,49.37S×124.76E,mb3.9/5,mb1 4.1/5, mb1mx3.9/10,Error ellipse: s-maj=81.1km s-min=20.6km az=103.0*

*NEIC **24** 01:31:59.5±0.9,49.37S×124.75E,h10^{km},mb4.2/1,Error ellipse: s-maj=47.2km s-min=12.7km az=105.0*

ISC 24 01:31:57.5±1.3,**49.4S**±0.2×**124.8E**±0.7,**h10**^{km},**n9,** σ**0**^{s}.**31**/8,**mb3.8**/5,**Western Indian-Antarctic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
STKA	Stephens Creek	21.56	42	P	P	01 36 48.7	-0.4
	5.0nm,0.8s,mb4.0,baz=206,slow=13,SNR=6.4						
STKA	Stephens Creek	21.56	42	*e*P	P	01 36 48.9	-0.2
ASAR	Alice Springs	26.65	19	P	P	01 37 38.7	+0.5
	12nm,1.3s,mb4.3,baz=196,slow=8.8,SNR=11						
WRA	Warramunga Arr	30.36	18	P	P	01 38 11.4	-0.2
	0.7nm,0.7s,mb3.5,baz=196,slow=8.2,SNR=7.3						
VNDA	Vanda	31.54	165	P	P	01 38 21.8	+0.2
	0.9nm,0.8s,mb3.6,baz=309,slow=11,SNR=2.9						
VNDA	Vanda	31.54	165	P	P	01 38 21.8	+0.2
SNAA	Sanae	53.72	198	P	P	01 41 21.0	-0.2
	0.5nm,0.8s,mb3.5,baz=146,slow=7.0,SNR=3.3						
SNAA	Sanae	53.72	198	*e*P	P	01 41 20.9	-0.2
	2.6nm,0.9s,mb4.2						
YKA	Yellowknife Ar	145.57	45	PKPbc	PKPbc	01 51 36.6	+1.3
	0.3nm,0.6s,baz=262,slow=3.7,SNR=9.9						

IDC 24 01:37:10.6±8.2,**51.06S**×**160.87E,mb3.8**/4,**mb1 4.0**/4, **mb1mx3.7**/9,**Error ellipse: s-maj=361.0km s-min=28.2km az=68.0,North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAR	Alice Springs	34.38	313	P	P	01 43 59.6	-1.6
	1.2nm,0.7s,baz=149,slow=7.8,SNR=7.9						
WRA	Warramunga Arr	37.42	316	P	P	01 44 24.7	-2.4
	1.6nm,1.1s,baz=151,slow=9.8,SNR=7.1						
SNAA	Sanae	57.03	186	P	P	01 46 57.5	-2.4
	0.3nm,0.8s,baz=149,slow=5.9,SNR=2.7						
CMAR	Chiang Mai Arr	87.83	303	P	P	01 50 01.9	-1.1
	0.4nm,0.3s,baz=162,slow=5.7,SNR=3.0						

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*IDC **24** 01:58:39.3±2.5,5.99S×147.97E,mb3.8/3,mb1 4.0/6, mb1mx3.8/14,ML3.5/2,MS3.0/1,Ms1 3.0/1,ms1mx2.6/17, Error ellipse: s-maj=74.2km s-min=23.9km az=93.0*

*NEIC **24** 01:58:46.8±2.3,6.10S×147.76E,h49^{km}±23^{km},mb4.2/2, Error ellipse: s-maj=31.4km s-min=19.4km az=109.0*

ISC 24 01:58:44.4±3.7,**6.0S**±0.2×**147.7E**±0.3,**h49**^{km}±35^{km},**n10,** σ**0**^{s}.**90**/11,**mb3.9**/4,**Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	3.45	189	Pn	P	01 59 36.8	-0.1
	6.9nm,0.3s,baz=27,slow=9.0,SNR=14						
PMG				Sn	S	02 00 18.2	+1.3
	8.8nm,0.3s,baz=302,slow=15,SNR=3.8						
PMG				LR	LR	02 01 16.8	
	comp=Z,209nm,18.1s,baz=221,slow=45						
CTA	Charters Tower	14.10	186	Pn	P	02 02 02.4	-0.7
	baz=142,slow=22,SNR=2.8						
CTAO	Charters Tower	14.10	186	Pn	P	02 02 02.2	-1.0
WRAB	Tennant Creek	19.00	222	*e*P	P	02 03 04.1	-0.6
	3.8nm,0.6s						
WB2	Warramunga Arr	19.00	222	*e*P	P	02 03 04.0	-0.8
WRA	Warramunga Arr	19.01	222	P	P	02 03 03.6	-1.3
	0.4nm,0.3s,baz=50,slow=11,SNR=17						
ASAR	Alice Springs	22.04	216	P	P	02 03 36.9	+0.5
	1.9nm,0.5s,mb3.8,baz=52,slow=9.3,SNR=44						
FITZ	Fitzroy Crossi	24.67	239	*e*P	P	02 04 03.7	+1.5
	8.0nm,0.5s,mb4.5						
STKA	Stephens Creek	26.39	192	P	P	02 04 17.9	-0.3
	3.2nm,1.1s,mb3.8,baz=6.0,slow=12,SNR=3.7						
SONM	Songino Array	64.72	331	P	P	02 09 20.5	+0.8
	0.5nm,0.7s,mb3.6,baz=148,slow=14,SNR=3.7						

IDC 24 02:14:51.6±5.5,**12.74S**×**167.36E,mb3.5**/3,**mb1 3.8**/3, **mb1mx3.6**/14,**Error ellipse: s-maj=275.0km s-min=33.6km az=141.0,Santa Cruz Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	32.44	253	P	P	02 21 23.9	-2.0
	0.6nm,1.1s,baz=84,slow=8.8,SNR=5.6						
ASAR	Alice Springs	33.50	246	P	P	02 21 33.0	-2.1
	0.4nm,0.8s,baz=79,slow=8.6,SNR=4.4						
ILAR	Eielson Array	84.61	18	P	P	02 27 26.7	-1.2
	0.5nm,0.8s,baz=236,slow=5.2,SNR=7.8						

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*IDC **24** 02:18:08.3±8.1,17.15S×178.91W,h467^{km}±92^{km},mb3.3/8, mb1 3.5/8,mb1mx3.4/15,Error ellipse: s-maj=83.2km s-min=31.7km az=151.0*

*NEIC **24** 02:18:12.0±5.5,17.18S×178.99W,h510^{km}±63^{km},mb3.8/3, Error ellipse: s-maj=67.8km s-min=24.2km az=151.0*

ISC 24 02:18:10.5±1.6,**17.1S**±0.6×**179.0W**±0.4,**h500**^{km},**n15,** σ**0**^{s}.**44**/12,**mb3.6**/9,**1D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	32.98	259	P	P	02 24 04.4	-0.3
	1.4nm,0.5s,mb3.6,baz=95,slow=11,SNR=3.5						
CTAO	Charters Tower	32.98	259	*e*P	P	02 24 05.6	+1.0
	1.1nm,0.4s,mb3.6						
STKA	Stephens Creek	38.48	240	⇓*i*P	P	02 24 50.3	+0.3
	2.2nm,0.6s,mb3.8						
STKA	Stephens Creek	38.48	240	P	P	02 24 49.8	-0.2
	5.7nm,0.9s,mb4.0,baz=93,slow=10,SNR=11						
WRAB	Tennant Creek	44.17	259	P	P	02 25 35.5	-0.2
	2.0nm,0.7s,mb3.7						
WRA	Warramunga Arr	44.18	259	P	P	02 25 35.6	-0.3
	0.9nm,0.7s,mb3.3,baz=94,slow=7.9,SNR=18						
ASAR	Alice Springs	44.42	254	P	P	02 25 37.8	+0.1
	6.6nm,0.4s,mb4.4,baz=89,slow=8.1,SNR=143						
ASPA	Alice Springs	44.42	254	*e*P	P	02 25 37.7	0.0
NVAR	Mina Array Bea	79.30	44	P	P	02 29 24.0	-0.7
	0.7nm,0.7s,mb3.3,baz=221,slow=8.7,SNR=4.5						
ILAR	Eielson Array	85.28	13	P	P	02 29 54.0	-0.3
	0.4nm,0.4s,mb3.4,baz=223,slow=5.2,SNR=12						
PDAR	Pinedale Array	87.22	44	P	P	02 30 04.5	+0.4
	0.3nm,0.5s,mb3.3,baz=213,slow=4.2,SNR=4.7						
YKA	Yellowknife Ar	93.89	25	P	P	02 30 35.1	+0.7
	0.5nm,1.1s,mb3.5,baz=244,slow=4.5,SNR=3.7						
GERES	GERESS Array B	146.72	345	PKPbc	PKPbc	02 36 57.2	+2.5
	0.6nm,0.5s,baz=72,slow=3.1,SNR=3.1						
DAVOX	Davos	149.53	348	PKPbc	PKPdf	02 37 03.2	+5.9
	baz=53,slow=5.1						
DAVOX	Davos	149.53	348	PKPbc	PKPdf	02 37 03.2	+5.9

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*ATH **24** 02:22:47.8,37.06N×28.49E,h15^{km},MD3.2/3*

*ISK **24** 02:22:49.7,36.87N×28.23E,h26^{km},MD3.3*

*CSEM **24** 02:22:50.3±0.1,37.05N×28.36E,h11^{km}±1^{km},MD3.3, Error ellipse: s-maj=2.6km s-min=1.9km az=31.0*

ISC 24 02:22:51.0±0.5,**36.95N**±0.03×**28.30E**±0.04,**h20**^{km}±6^{km}, **n18,**σ**0**^{s}.**91**/25,**Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.33	123	PG	Pb	02 22 58.2	+0.1
DALT				SG	Sb	02 23 04.0	+1.1
MLSB	Milas	0.54	310	PG	Pb	02 23 01.3	-0.4
BDRM	Kayabasi	0.69	280	*i* P	Pb	02 23 04.0	-0.3
BDRM				*i* S	Sb	02 23 14.5	+1.2
FETY	Fethiye	0.70	116	*i* PG	Pb	02 23 04.1	-0.3
ARG	Arkhangelos	0.74	191	*e*PN	Pn	02 23 04.9	-1.4
ARG				*e*SN	Sn	02 23 17.4	+0.4
AYDN	Tasoluk	0.79	335	*i* P	Pb	02 23 05.0	-0.8
AYDN				*i* S	Sb	02 23 15.2	-0.9
DNZL	Cakiroluk	0.95	39	*i* P	Pb	02 23 07.8	-0.9
DNZL				*i* S	Sb	02 23 22.9	+2.1
DENT	Denizli	1.00	36	PN	Pn	02 23 08.8	-1.1
ELL	Elmali	1.31	98	PN	Pn	02 23 13.5	-0.9
SMG	Samos	1.39	304	*e*PN	Pn	02 23 15.4	-0.1
MANT	Manisa	1.56	8	*i* P	Pn	02 23 18.0	+0.1
MANT				*i* S	Sn	02 23 39.4	+1.8
IZM	Izmir	1.67	331	PN	Pn	02 23 19.3	-0.2
KDAG	Bornova	1.67	331	*i* P	Pn	02 23 19.0	-0.5
KDAG				*i* S	Sn	02 23 41.7	+1.2
KARP	Karpathos	1.67	214	*e*PN	Pn	02 23 21.2	+1.6
BCK	Bucak	1.90	74	PN	Pn	02 23 22.6	-0.2
AKS	Akhisar	1.97	349	PN	Pn	02 23 23.2	-0.6
ISP	Isparta	1.98	62	*e*PN	Pn	02 23 23.7	-0.2
ALT	Altintas	2.55	34	*e*PN	Pn	02 23 32.1	0.0

IDC 24 02:28:12.0±58.0,**20.33S**×**178.18W,mb3.9**/3,**mb1 4.0**/3,

mb1mx3.7/13, Error ellipse: s-maj=1060.0km s-min=162.2km az=83.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**37.71**	**244**	P	P	02 35 30.2	-0.9
	1.1nm,0.5s,baz=84,slow=11,SNR=4.3						
ASAR	**Alice Springs**	**44.39**	**257**	P	P	02 36 24.6	-1.8
	1.5nm,0.6s,baz=100,slow=7.6,SNR=19						
WRA	**Warramunga Arr**	**44.46**	**262**	P	P	02 36 24.5	-2.3
	0.6nm,0.7s,baz=100,slow=7.6,SNR=16						

JSN 24 02:28:28.9±1.2, 18.91N×81.22W, h15^{km}±999^{km}, MD4.4, 2C, North of Honduras

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CVJ	**Coleyville**	**3.56**	**100**	i P	Pn	02 29 21.9	-2.9
STH	**Stony Hill**	**4.27**	**100**	⇑eP	Pn	02 29 32.9	-2.0
STH				eS	Sn	02 30 19.8	-5.2
GWJ	**Greenwich**	**4.34**	**100**	⇑eP	Pn	02 29 33.7	-2.2

IDC 24 02:33:20.7±47.0, 17.05S×179.14W, mb3.9/3, mb1 4.1/3, mb1mx3.7/14, Error ellipse: s-maj=860.0km s-min=155.6km az=78.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**38.44**	**240**	P	P	02 40 44.9	-1.2
	1.6nm,0.8s,baz=95,slow=11,SNR=4.4						
WRA	**Warramunga Arr**	**44.11**	**259**	P	P	02 41 30.8	-2.0
	0.3nm,0.5s,baz=95,slow=7.9,SNR=8.1						
ASAR	**Alice Springs**	**44.36**	**253**	P	P	02 41 33.0	-1.9
	4.2nm,0.8s,baz=88,slow=8.2,SNR=58						

MAN 24 02:39:09.3, 18.87N×120.91E, h2^{km}, mb4.3, ML3.1, MS2.9, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APYP	**Conner**	**1.05**	**162**	eP	Pb	02 39 29.8	-0.1
APYP				eS	Sb	02 39 44.4	+0.3
ABRA	**Dolores**	**1.23**	**189**	eP	Pb	02 39 31.8	-1.2
SGCP	**Mt. Cagua**	**1.25**	**120**	eP	Pb	02 39 32.9	-0.4
SGCP				eS	Sb	02 39 49.3	-0.4
CVP	**Callao Caves**	**1.45**	**143**	eP	Pn	02 39 36.5	-0.2
CVP				i S	Sb	02 39 55.0	-0.6
BBP	**Basco**	**1.85**	**32**	eP	Pn	02 39 42.2	-0.2
CAUP	**Cauayan**	**2.11**	**155**	eP	Pn	02 39 48.9	+2.8
PALP	**Palanan**	**2.31**	**141**	eP	Pn	02 39 51.8	+2.9
BOLP	**Bolinao**	**2.65**	**201**	eP	Pn	02 39 54.2	+0.4

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*STR **24** 02:40:21.8±0.1, 43.04N×0.52W, h5^{km}±1^{km}, Ml2.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **24** 02:40:21.8, 43.04N×0.52W, h5^{km}, ML3.4(LDG), ML2.6(STR), MN2.9(MDD), After STR.*

*LDG **24** 02:40:22.7±0.1, 43.13N×0.42W, h2^{km}, Md3.2/3, Ml3.4/12, Error ellipse: s-maj=1.5km s-min=1.3km az=142.0*

*CSEM **24** 02:40:22.6±0.0, 43.11N×0.44W, h5^{km}, ML3.2/20, Error ellipse: s-maj=0.8km s-min=0.7km az=139.0*

MDD 24 02:40:22.4±0.2, 43.13N×0.45W, h6^{km}±2^{km}, mbLg2.7/18, 1C, Error ellipse: s-maj=2.5km s-min=1.2km az=10.0, PRXIMO, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
REYF	**Montagne du Re**	**0.07**	**144**	Pg	Pg	02 40 24.1	0.0
REYF	**Montagne du Re**	**0.07**	**144**	Pg	Pg	02 40 24.0	-0.1
REYF				Lg		02 40 25.5	
ATE	**Arette**	**0.19**	**258**	Pg	Pg	02 40 25.4	-0.9
ATE				Lg		02 40 28.1	
ETSF	**Etsaut**	**0.24**	**200**	ePg	Pg	02 40 26.1	-1.2
ETSF				eSg	Sg	02 40 30.7	+0.1
	469nm,0.2s						
FDAF	**Les Forges d'A**	**0.32**	**196**	Pg	Pg	02 40 21.0	-7.8
FDAF				Lg		02 40 25.1	
ORDF	**Ordiarp**	**0.37**	**284**	Pg	Pg	02 40 29.6	-0.2
ORDF				Sg	Sg	02 40 34.1	-0.6
ORDF	**Ordiarp**	**0.37**	**284**	Pg	Pg	02 40 29.3	-0.5
ORDF				Lg		02 40 35.3	
ORDF	**Ordiarp**	**0.37**	**284**	Sg	Sg	02 40 34.1	-0.6
LABF	**Labassere**	**0.39**	**101**	Pg	Pg	02 40 30.1	-0.1
LABF				Sg	Sg	02 40 35.9	+0.5
LABF	**Labassere**	**0.39**	**101**	Pg	Pg	02 40 29.5	-0.7
LABF				Lg		02 40 35.8	
LABF	**Labassere**	**0.39**	**101**	Sg	Sg	02 40 35.9	+0.5
LARF	**Larrau**	**0.41**	**258**	Pg	Pg	02 40 28.7	-1.8
LARF				Sg	Sg	02 40 33.5	-2.5
LARF	**Larrau**	**0.41**	**258**	Pg	Pg	02 40 29.5	-1.1
LARF				Lg		02 40 35.0	
LARF	**Larrau**	**0.41**	**258**	Sg	Sg	02 40 33.5	-2.5
VIEF	**Viey**	**0.42**	**125**	Pg	Pg	02 40 30.2	-0.6
VIEF				Sg	Sg	02 40 35.6	-0.9
VIEF	**Viey**	**0.42**	**125**	Pg	Pg	02 40 30.1	-0.8
VIEF				Lg		02 40 35.7	
VIEF	**Viey**	**0.42**	**125**	Sg	Sg	02 40 35.6	-0.9
SJPF	**Ste Jean**	**0.57**	**269**	ePg	Pg	02 40 32.6	-1.2
SJPF				eSg	Sg	02 40 41.5	+0.1
	101nm,0.2s						
EPF	**Esparros**	**0.58**	**99**	ePg	Pg	02 40 33.2	-0.9
EPF				eSg	Sg	02 40 41.1	-0.8
	140nm,0.2s						
OSSF	**Osses**	**0.61**	**283**	Pg	Pg	02 40 32.7	-1.9
OSSF				Sg	Sg	02 40 40.4	-2.4
OSSF	**Osses**	**0.61**	**283**	Pg	Pg	02 40 32.9	-1.7
OSSF				Lg		02 40 43.5	
EBIE	**Bielsa**	**0.62**	**135**	⇑Pg	Pg	02 40 33.5	-1.3
	31nm,0.1s,SNR=18						
EBIE				Lg		02 40 41.2	
	88nm,0.1s,SNR=10						
EBIE	**Bielsa**	**0.62**	**135**	Pg	Pg	02 40 33.5	-1.2
	31nm,0.1s,SNR=18						
RESF	**Ens**	**0.66**	**119**	Pg	Pg	02 40 34.5	-1.0
RESF				Sg	Sg	02 40 43.7	-0.6
RESF	**Ens**	**0.66**	**119**	Pg	Pg	02 40 34.5	-1.0
RESF				Lg		02 40 43.4	
EALK	**Alkurruntz**	**0.78**	**277**	Pg	Pg	02 40 35.8	-2.2
	5.7nm,0.1s,SNR=40						
EALK				Lg		02 40 47.2	
	74nm,0.2s,SNR=14						
MELF	**Melles**	**0.92**	**105**	Pg	Pg	02 40 40.1	-0.7
MELF				Sg	Sg	02 40 53.3	+0.3
MELF	**Melles**	**0.92**	**105**	Pg	Pg	02 40 40.0	-0.8
MELF				Lg		02 40 52.5	
MLS	**Moulis**	**1.14**	**98**	Lg		02 41 00.1	
SALF	**Salau**	**1.26**	**106**	Pg	Pg	02 40 46.5	-1.0
SALF				Sg	Sg	02 41 03.3	-0.9
SALF	**Salau**	**1.26**	**106**	Pg	Pg	02 40 45.9	-1.5
SALF				Lg		02 41 03.1	
ESAC	**San Caprasio**	**1.40**	**181**	Pg	Pg	02 40 48.4	-2.0
ESAC				Lg		02 41 06.3	
ESAC	**San Caprasio**	**1.40**	**181**	Pg	Pg	02 40 48.4	-2.0
	89nm,0.1s,SNR=48						
ESAC				Lg		02 41 07.2	
	455nm,0.3s,SNR=27						
ESAC	**San Caprasio**	**1.40**	**181**	Pg	Pg	02 40 48.4	-2.0
	89nm,0.1s,SNR=48						
PAND	**Andorre**	**1.59**	**112**	Pg	Pg	02 40 52.8	-1.2
PAND				Lg		02 41 15.9	
CARF	**Carcanieres**	**1.92**	**101**	Pg	Pg	02 40 59.0	-1.7
CARF				Sg	Sg	02 41 23.8	-2.5
CARF	**Carcanieres**	**1.92**	**101**	Pg	Pg	02 40 59.5	-1.2
CARF				Lg		02 41 23.8	
VALF	**Valcebollere**	**1.95**	**111**	Pg	Pg	02 40 59.1	-2.3
VALF				Sg	Sg	02 41 27.0	-0.4
VALF	**Valcebollere**	**1.95**	**111**	Pg	Pg	02 40 59.3	-2.1
VALF				Lg		02 41 26.5	
MTLF	**Montolieu**	**1.96**	**83**	ePn	Pn	02 40 54.5	-2.1
MTLF				ePg	Pg	02 40 59.1	-2.4
MTLF				eSn	Sn	02 41 18.5	-3.2
MTLF				eSg	Sg	02 41 24.0	-3.6
	31nm,0.2s						
MTLF	**Montolieu**	**1.96**	**83**	ePg	Pg	02 40 59.1	-2.4
MTLF				eSn	Sn	02 41 18.5	-3.2
MTLF				eSg	Sg	02 41 24.0	-3.6
	15nm,0.2s						
LFF	**La Frestale**	**2.01**	**25**	ePn	Pn	02 40 55.2	-2.0
LFF				ePg	Pg	02 41 00.5	-1.9
LFF				eSn	Sn	02 41 19.9	-3.0
LFF				eSg	Sg	02 41 26.5	-2.7
	109nm,0.4s						
LFF	**La Frestale**	**2.01**	**25**	ePg	Pg	02 41 00.5	-1.9
LFF				eSn	Sn	02 41 19.9	-3.0
LFF				eSg	Sg	02 41 26.5	-2.7
	54nm,0.4s						
EPOB	**Poblet**	**2.10**	**147**	Pn	Pn	02 40 57.4	-1.2
	0.2nm,0.1s,SNR=7.9						
EPOB				Pg	Pg	02 41 00.4	-3.9
	4.2nm,0.1s,SNR=27						
EPOB				Lg		02 41 27.5	
	47nm,0.2s,SNR=23						
EPOB	**Poblet**	**2.10**	**147**	Pn	Pn	02 40 57.4	-1.2
	0.2nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**2.10**	**147**	Pg	Pg	02 41 00.4	-4.0
	4.2nm,0.1s,SNR=27						
ERTA	**Horta de San J**	**2.24**	**165**	Pn	Pn	02 40 59.6	-1.0
	0.3nm,0.1s,SNR=7.9						
ERTA				Pg	Pg	02 41 03.5	-3.6
	5.8nm,0.2s,SNR=35						
ERTA				Lg		02 41 31.2	
	63nm,0.4s,SNR=20						
ERTA	**Horta de San J**	**2.24**	**165**	Pn	Pn	02 40 59.6	-1.0
	0.3nm,0.1s,SNR=7.9						
ERTA	**Horta de San J**	**2.24**	**165**	Pg	Pg	02 41 03.5	-3.7
	5.8nm,0.2s,SNR=35						
EBR	**Ebro Roquetas**	**2.41**	**163**	eS*	Sb	02 41 38.0	+2.2
EJON	**La Jonquera**	**2.55**	**104**	Pg	Pg	02 41 06.9	-6.3
	2.7nm,0.2s,SNR=13						
EJON				Lg		02 41 44.0	
	14nm,0.2s,SNR=8.3						
EJON	**La Jonquera**	**2.55**	**104**	Pg	Pg	02 41 06.9	-6.3
	2.7nm,0.2s,SNR=13						
CAF	**Calviac**	**2.55**	**44**	ePn	Pn	02 41 03.2	-1.9
CAF				eSn	Sn	02 41 32.9	-4.0
CAF				eSg	Sg	02 41 43.6	-3.8
	29nm,0.3s						
RJF	**Les Rejaudoux**	**2.60**	**32**	ePn	Pn	02 41 03.2	-2.5
RJF				eSn	Sn	02 41 34.0	-3.9
RJF				eSg	Sg	02 41 44.5	-4.3
	54nm,0.4s						
EMOS	**Mosqueruela**	**2.76**	**180**	Pn	Pn	02 41 07.0	-1.0
	4.3nm,0.3s,SNR=11						
EMOS				Sn	Sn	02 41 38.6	-3.4
	4.2nm,0.2s,SNR=4.0						
EMOS				Lg		02 41 45.8	
	36nm,0.4s,SNR=19						
EMOS	**Mosqueruela**	**2.76**	**180**	Pn	Pn	02 41 07.0	-1.0
	4.3nm,0.3s,SNR=11						
EMOS				Sn	Sn	02 41 38.7	-3.4
LASF	**Ste Croix**	**3.27**	**72**	ePn	Pn	02 41 12.5	-2.7
LASF				eSn	Sn	02 41 50.0	-5.0
LASF				eSg	Sg	02 42 05.5	-5.7
	19nm,0.3s						
MFF	**Saint Martin d**	**3.48**	**3**	ePn	Pn	02 41 15.5	-2.8
MFF				eSn	Sn	02 41 55.6	-4.8
MFF				eSg	Sg	02 42 12.4	-6.0
	17nm,0.3s						
EARI	**Arriondas**	**3.49**	**275**	Pn	Pn	02 41 17.2	-1.1
	0.6nm,0.1s,SNR=7.1						
EARI				Sn	Sn	02 41 57.3	-3.1
	1.3nm,0.2s,SNR=5.0						
EARI	**Arriondas**	**3.49**	**275**	Pn	Pn	02 41 17.2	-1.1
	0.6nm,0.1s,SNR=7.1						
EARI				Sn	Sn	02 41 57.3	-3.2
	1.3nm,0.2s,SNR=5.0						
TCF	**Toulx Ste Croi**	**3.69**	**30**	ePn	Pn	02 41 17.1	-4.1
TCF				eSn	Sn	02 42 00.4	-5.1
TCF				eSg	Sg	02 42 18.5	-6.6
	27nm,0.4s						
GUD	**Guadarrama**	**3.72**	**229**	Pn	Pn	02 41 20.3	-1.3
	0.9nm,0.2s,SNR=8.4						
GUD				Sn	Sn	02 42 01.4	-4.9
	1.9nm,0.2s,SNR=6.8						
VIVF	**Saint-Julien-l**	**4.08**	**63**	ePn	Pn	02 41 24.0	-2.8
VIVF				eSn	Sn	02 42 09.2	-6.3
VIVF				eSg	Sg	02 42 29.8	-8.4
	8.5nm,0.3s						
BGF	**Bois d'Agland**	**4.16**	**33**	ePn	Pn	02 41 25.0	-2.8
BGF				eSn	Sn	02 42 10.6	-6.8
BGF				eSg	Sg	02 42 33.3	-7.4
	56nm,0.4s						
EIBI	**Ibiza**	**4.31**	**161**	Pn	Pn	02 41 27.6	-2.5
	1.0nm,0.2s,SNR=7.9						
EIBI				Sn	Sn	02 42 13.9	-7.5
	1.5nm,0.1s,SNR=7.9						
EIBI	**Ibiza**	**4.31**	**161**	Pn	Pn	02 41 27.6	-2.5
	1.0nm,0.2s,SNR=7.9						
EIBI				Sn	Sn	02 42 13.9	-7.5
	1.5nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	**4.34**	**219**	Pn	Pn	02 41 27.7	-2.8
	2.2nm,0.2s,baz=40,slow=14,SNR=17						
ESDC				Sn	Sn	02 42 15.6	-6.6
	2.3nm,0.2s,baz=40,slow=24,SNR=8.2						
ESDC				Lg		02 42 36.9	
	1.1nm,0.2s,baz=38,slow=30,SNR=8.5						
ESDC	**Sonseca Array**	**4.34**	**219**	Pn	Pn	02 41 27.7	-2.8
	2.2nm,0.2s,SNR=17						
ESDC				Sn	Sn	02 42 15.6	-6.6
	2.3nm,0.2s,slow=24,SNR=8.2						
EBEN	**Beniarda**	**4.42**	**178**	Pn	Pn	02 41 29.9	-1.7
	0.7nm,0.2s,SNR=7.9						
EBEN				Sn	Sn	02 42 17.9	-6.2
	2.1nm,0.4s,SNR=7.9						
EBEN				Lg		02 42 34.9	
	2.7nm,0.5s,SNR=7.9						
EBEN	**Beniarda**	**4.42**	**178**	Pn	Pn	02 41 29.9	-1.7
	0.7nm,0.2s,SNR=7.9						
EBEN				Sn	Sn	02 42 17.9	-6.2
	2.1nm,0.4s,SNR=7.9						
SMRF	**Simiane la Rot**	**4.46**	**77**	ePn	Pn	02 41 28.9	-3.3
SMF	**Signal de Mont**	**4.66**	**39**	ePn	Pn	02 41 31.4	-3.5
SMF				eSn	Sn	02 42 23.1	-7.0
SMF				eSg	Sg	02 42 48.9	-8.5
	5.5nm,0.3s						
HYF	**Humbligny**	**4.68**	**27**	ePn	Pn	02 41 32.2	-3.1
HYF				eSn	Sn	02 42 23.8	-7.0
HYF				eSg	Sg	02 42 49.6	-8.7
ECAL	**Calabor**	**4.80**	**258**	Pn	Pn	02 41 34.7	-2.2
	1.2nm,0.1s,SNR=10						
ECAL				Sn	Sn	02 42 26.9	-6.7
	4.7nm,0.1s,SNR=8.9						
ECAL	**Calabor**	**4.80**	**258**	Pn	Pn	02 41 34.7	-2.2
	1.2nm,0.1s,SNR=10						
ECAL				Sn	Sn	02 42 27.0	-6.6
SSF	**Saint Saulge**	**4.83**	**34**	ePn	Pn	02 41 34.0	-3.4
SSF				eSn	Sn	02 42 27.3	-7.2
SSF				eSg	Sg	02 42 54.2	-9.0
	2.9nm,0.3s						
EPON	**Pontenova**	**4.90**	**275**	Pn	Pn	02 41 37.4	-1.0
	1.1nm,0.3s,SNR=7.9						
EPON				Sn	Sn	02 42 31.1	-5.2
	1.7nm,0.3s,SNR=7.9						
EPON	**Pontenova**	**4.90**	**275**	Pn	Pn	02 41 37.4	-1.0
	1.1nm,0.3s,SNR=7.9						
EPON				Sn	Sn	02 42 31.1	-5.2
	1.7nm,0.3s,SNR=7.9						
ORIF	**Oris-en-Rattie**	**4.90**	**66**	ePn	Pn	02 41 35.2	-3.2
ERUA	**La Rua**	**4.98**	**264**	Pn	Pn	02 41 37.4	-2.2
	1.3nm,0.3s,SNR=7.9						
ERUA				Sn	Sn	02 42 33.5	-4.8
	1.2nm,0.2s,SNR=7.9						
LMR	**La Mourre**	**5.09**	**85**	ePn	Pn	02 41 37.1	-4.0
QUIF	**Quistinic**	**5.16**	**339**	ePn	Pn	02 41 37.8	-4.3
QUIF				eSn	Sn	02 42 34.4	-8.4
FRF	**La Foret Royal**	**5.19**	**83**	ePn	Pn	02 41 38.8	-3.7
GRR	**Gorron**	**5.27**	**357**	ePn	Pn	02 41 40.4	-3.3
EMUR	**La Murta**	**5.31**	**187**	Pn	Pn	02 41 41.9	-2.3
	1.7nm,0.5s,SNR=4.0						
EMUR	**La Murta**	**5.31**	**187**	Pn	Pn	02 41 41.9	-2.3
	1.7nm,0.5s,SNR=4.0						
SGMF	**Saint Gilles**	**5.34**	**345**	ePn	Pn	02 41 41.3	-3.3
SGMF				eSn	Sn	02 42 39.5	-7.8
LDF	**La Druitiere**	**5.47**	**2**	eSn	Sn	02 42 41.3	-9.4
ROSF	**Rostrenen**	**5.58**	**340**	ePn	Pn	02 41 44.5	-3.4
ROSF				eSn	Sn	02 42 44.7	-8.5
FLN	**La Foliniere**	**5.64**	**360**	eSn	Sn	02 42 45.3	-10
EQES	**Quesada**	**5.68**	**201**	Pn	Pn	02 41 47.3	-2.1
	0.4nm,0.1s,SNR=7.8						
EQES				Sn	Sn	02 42 48.8	-7.1
	0.6nm,0.2s,SNR=4.0						
EQES	**Quesada**	**5.68**	**201**	Pn	Pn	02 41 47.3	-2.1
	0.4nm,0.1s,SNR=7.8						
EQES				Sn	Sn	02 42 48.8	-7.0
	0.6nm,0.2s,SNR=4.0						
ELOB	**Lobios**	**5.77**	**260**	Pn	Pn	02 41 47.8	-2.8
	0.5nm,0.2s,SNR=7.9						
ELOB				Sn	Sn	02 42 50.3	-7.7
	1.3nm,0.2s,SNR=7.9						
ELOB	**Lobios**	**5.77**	**260**	Pn	Pn	02 41 47.8	-2.9
	0.5nm,0.2s,SNR=7.9						
ELOB				Sn	Sn	02 42 50.3	-7.7
	1.3nm,0.2s,SNR=7.9						
EADA	**Adamuz**	**5.86**	**214**	Pn	Pn	02 41 49.5	-2.5
	0.5nm,0.1s,SNR=7.9						
EADA				Sn	Sn	02 42 51.4	-9.0
	1.3nm,0.2s,SNR=7.9						
EADA				Lg		02 43 26.8	
	0.9nm,0.2s,SNR=4.0						
EADA	**Adamuz**	**5.86**	**214**	Pn	Pn	02 41 49.5	-2.5
	0.5nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	**6.25**	**271**	Pn	Pn	02 41 54.8	-2.7
	0.9nm,0.2s,SNR=4.0						
EMAZ				Sn	Sn	02 43 02.8	-7.4
	0.8nm,0.1s,SNR=7.9						
EMAZ	**Mazaricos**	**6.25**	**271**	Pn	Pn	02 41 54.8	-2.7
	0.9nm,0.2s,SNR=4.0						
EMAZ				Sn	Sn	02 43 02.8	-7.4
EBAD	**Badajoz**	**6.61**	**231**	Pn	Pn	02 41 59.0	-3.6
	0.4nm,0.1s,SNR=7.9						
EBAD				Sn	Sn	02 43 10.9	-8.3
	1.0nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**6.61**	**231**	Pn	Pn	02 41 59.0	-3.6
EBAD				Sn	Sn	02 43 10.9	-8.3
EMIN	**Mina Concepcio**	**7.15**	**224**	Sn	Sn	02 43 23.4	-9.3
	0.2nm,0.1s,SNR=4.0						

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*NEIC **24** 02:43:30.1±7.4, 6.53S×80.93W, h15^{km}±45^{km}, Error ellipse: s-maj=38.2km s-min=12.4km az=76.0*

*IDC **24** 02:43:40.0±8.6, 6.31S×80.82W, h89^{km}±80^{km}, mb3.5/4, mb1 3.7/5, mb1mx3.4/16, ML4.2/1, Error ellipse: s-maj=87.9km s-min=28.8km az=42.0*

ISC 24 02:43:37.7±5.3, 6.1S±0.2×80.7W±0.4, h76^{km}±42^{km}, n8, σ0^{s}27/7, mb3.7/4, Near coast of northern Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OTAV	**Otavalo**	**6.66**	**20**	ePn	**P**	**02 45 14.9**	**0.0**
	3.8nm,0.6s						
NNA	**Nana**	**7.01**	**147**	ePn	**P**	**02 45 08.9**	**-11**
LPAZ	**La Paz**	**15.96**	**131**	P	**P**	**02 47 19.1**	**0.0**
	0.4nm,0.3s,baz=314,slow=11,SNR=17						
PDAR	**Pinedale Array**	**55.22**	**334**	P	**P**	**02 53 05.7**	**+0.3**
	0.5nm,0.8s,mb3.6,baz=121,slow=8.6,SNR=5.2						
ULM	**Lac du Bonnet**	**57.61**	**349**	P	**P**	**02 53 22.1**	**-0.1**
	1.6nm,0.8s,mb4.1,baz=160,slow=6.1,SNR=3.9						
YKA	**Yellowknife Ar**	**73.13**	**344**	P	**P**	**02 55 01.2**	**-0.3**
	0.2nm,0.4s,mb3.3,baz=143,slow=6.2,SNR=7.5						
DBIC	**Dimbokro**	**76.74**	**82**	P	**P**	**02 55 23.4**	**+0.1**
	2.6nm,1.0s,mb3.9,baz=252,slow=9.6,SNR=3.0						
WRA	**Warramunga Arr**	**136.92**	**232**	PKP	PKPdf	03 02 52.7	0.0
	0.4nm,0.8s,baz=117,slow=2.4,SNR=3.1						

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*IDC **24** 02:46:16.2±10.0, 5.10S×153.55E, h148^{km}±62^{km}, mb3.6/3, mb1 3.8/4, mb1mx3.5/14, Error ellipse: s-maj=100.0km s-min=75.5km az=178.0*

ISC 24 02:46:13.6±5.3, 4.9S±0.2×153.5E±0.3, h155^{km}±39^{km}, n12, σ0^{s}90/13, mb4.1/6, New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**7.76**	**234**	P	**P**	**02 48 05.1**	**+0.3**
	9.6nm,0.3s,baz=41,slow=12,SNR=23						
PMG				S	**S**	**02 49 30.9**	**-0.6**
	1.4nm,0.3s,baz=350,slow=19,SNR=2.2						
WB2	**Warramunga Arr**	**23.94**	**230**	eP	**P**	**02 51 16.2**	**+1.5**
WRA	**Warramunga Arr**	**23.95**	**230**	P	**P**	**02 51 16.1**	**+1.3**
	3.3nm,0.8s,mb3.9,baz=55,slow=9.9,SNR=39						
ASAR	**Alice Springs**	**26.59**	**223**	P	**P**	**02 51 39.5**	**+0.1**
	0.8nm,0.5s,mb3.6,baz=54,slow=8.7,SNR=21						
STKA	**Stephens Creek**	**29.10**	**201**	P	**P**	**02 52 00.6**	**-1.3**
	0.9nm,0.5s,mb3.8,baz=31,slow=8.1,SNR=3.5						
FITZ	**Fitzroy Crossi**	**30.27**	**242**	eP	**P**	**02 52 12.2**	**-0.2**
	4.2nm,0.6s,mb4.3						
GUN	**Gumba**	**72.79**	**301**	eP	**P**	**02 57 28.3**	**+1.0**
PKI	**Pulchoki**	**73.11**	**301**	eP	**P**	**02 57 28.3**	**-0.9**
	2.5nm,0.3s,mb4.4						
KKN	**Kakani**	**73.28**	**301**	eP	**P**	**02 57 29.9**	**-0.3**
	6.6nm,0.5s,mb4.6						
DMN	**Daman**	**73.38**	**301**	eP	**P**	**02 57 30.4**	**-0.4**
GKN	**Gorkha**	**73.88**	**301**	eP	**P**	**02 57 34.7**	**+1.0**
KOLN	**Koldanda**	**74.71**	**300**	eP	**P**	**02 57 37.1**	**-1.3**

MAN 24 02:47:57.6, 6.89N×124.56E, h28^{km}, mb2.7, ML2.3, MS3.9, 1C-1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTBH	**Cotabato--PC H**	**0.45**	**316**	⇑iP	Pb	02 48 08.2	+1.1
CTBH				i S	Sb	02 48 11.8	-1.8
KCP	**Kidapawan**	**0.54**	**78**	⇓eP	Pb	02 48 09.2	+0.8
KCP				i S	Sb	02 48 36.2	+20
BUKP	**Musuan**	**1.10**	**27**	eP	Pn	02 48 16.8	-0.4
PAGZ	**Pagadian**	**1.51**	**309**	eP	Pn	02 48 22.7	-0.5
PAGZ				eS	Sn	02 48 36.9	-5.1

CASC 24 02:56:54.0±2.1, 12.52N×88.22W, h35^{km}±999^{km}, MD3.7, 2C-5D, Off coast of central America

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CNCH	**Conchagua**	**0.84**	**27**	⇓eP	P	02 57 10.0	+0.6
CNCH				eS	S	02 57 22.1	+1.3
BLLM	**Bellamira**	**0.92**	**359**	⇓eP	P	02 57 10.9	+0.4
BLLM				eS	S	02 57 23.6	+0.9
CRIN	**San Cristobal**	**1.16**	**81**	eP	P	02 57 14.9	+1.0
CRIN				eS	S	02 57 29.7	+0.9
SNVI	**San Vicente**	**1.24**	**331**	eP	P	02 57 15.5	+0.4
SNVI				eS	S	02 57 31.3	+0.3
CAHU	**Cacacuatique**	**1.24**	**0**	eP	P	02 57 15.9	+0.8
CAHU				eS	S	02 57 32.3	+1.3
LEON	**Leon**	**1.30**	**94**	⇓eP	P	02 57 15.8	-0.2
LEON				eS	S	02 57 32.2	-0.3
TEL3	**Telica 3**	**1.34**	**88**	⇓eP	P	02 57 16.8	+0.2
TEL3				eS	S	02 57 32.4	-1.1
LCBS	**La Ceiba**	**1.35**	**327**	eP	P	02 57 16.6	-0.1
LCBS				eS	S	02 57 33.4	-0.2
LFRS	**El Faro**	**1.37**	**323**	⇑eP	P	02 57 16.8	-0.2
LFRS				eS	S	02 57 33.2	-1.0
LBRS	**Las Brisas**	**1.45**	**327**	eP	P	02 57 18.5	+0.3
LBRS				eS	S	02 57 36.7	+0.4
MIRN	**Miramar**	**1.48**	**93**	⇑eP	P	02 57 18.3	-0.2
MIRN				eS	S	02 57 36.0	-0.8
LFU	**La Fuente**	**1.50**	**325**	⇓eP	P	02 57 19.0	+0.1
LFU				eS	S	02 57 36.7	-0.7
BOQS	**Boqueron**	**1.59**	**320**	eP	P	02 57 20.4	+0.3
BOQS				eS	S	02 57 39.5	-0.2
COPN	**Copaltepe**	**1.63**	**102**	eP	P	02 57 20.5	-0.2
APYN	**Apoyeque**	**1.85**	**99**	eP	P	02 57 23.7	-0.1
APYN				eS	S	02 57 46.6	+0.4
SBLS	**San Blas**	**1.90**	**314**	eP	P	02 57 24.2	-0.3
SNJE	**San Jose**	**1.90**	**315**	eP	P	02 57 25.4	+0.7
RTR	**El Retiro**	**1.95**	**315**	eP	P	02 57 24.9	-0.4
MGAN	**Managua**	**1.96**	**101**	eP	P	02 57 22.3	-3.2
MGAN				eS	S	02 57 48.5	-0.7
TICN	**Ticuantepe**	**2.00**	**104**	eP	P	02 57 25.8	-0.2
TICN				eS	S	02 57 50.0	-0.1
RBDL	**Robledal**	**2.13**	**318**	eP	P	02 57 29.2	+1.3

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*IDC **24** 03:28:39.4±0.7, 49.85S×161.86E, mb4.6/7, mb1 4.7/9, mb1mx4.5/12, ML4.2/2, MS4.2/10, Ms1 4.3/10, ms1mx3.9/14, Error ellipse: s-maj=24.4km s-min=21.2km az=26.0*

*NEIC **24** 03:28:45.5±0.2, 49.39S×161.50E, h10^{km}, mb4.7/8, Error ellipse: s-maj=6.2km s-min=4.2km az=152.0*

ISC 24 03:28:39.5±0.4, 49.84S±0.06×161.77E±0.07, h10^{km}, n57, σ1^{s}29/53, mb4.6/12, MS4.2/8, 4C-3D, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	**Mavora Lakes**	**6.24**	**46**	eP	**Pn**	**03 30 15.9**	**+2.0**
MLZ	**Mavora Lakes**	**6.24**	**46**	P	**Pn**	**03 30 15.7**	**+1.8**
TUZ	**Tuapeka**	**6.56**	**57**	P	**Pn**	**03 30 19.5**	**+1.1**

TUZ				S	Sn	03 31 33.5	-0.5
TUZ	Tuapeka	6.56	57	P	Pn	03 30 19.4	+1.0
TUZ				S	Sn	03 31 32.6	-1.4
MSZ	Milford Sound	6.65	41	P	Pn	03 30 22.4	+2.7
EAZ	Earnscleugh	6.87	51	*e*P	Pn	03 30 24.0	+1.2
EAZ				S	Sn	03 31 40.8	-1.1
EAZ	Earnscleugh	6.87	51	P	Pn	03 30 24.0	+1.2
EAZ				S	Sn	03 31 40.4	-1.5
WKZ	Wanaka	7.02	47	*e*P	Pn	03 30 27.0	+2.1
WKZ				S	Sn	03 31 46.2	+0.5
WKZ	Wanaka	7.02	47	P	Pn	03 30 26.9	+2.0
WKZ				S	Sn	03 31 45.0	-0.7
JCZ	Jackson Bay	7.49	42	*e*P	Pn	03 30 33.8	+2.4
JCZ	Jackson Bay	7.49	42	P	Pn	03 30 33.6	+2.2
JCZ				S	Sn	03 31 58.5	+1.2
ODZ	Otahua Downs	7.69	55	*e*P	Pn	03 30 34.3	0.0
ODZ	Otahua Downs	7.69	55	P	Pn	03 30 34.0	-0.3
ODZ				S	Sn	03 32 00.2	-2.2
LBZ	Lake Benmore	7.91	50	*e*P	Pn	03 30 36.3	-1.1
LBZ	Lake Benmore	7.91	50	P	Pn	03 30 36.3	-1.1
LBZ				S	Sn	03 32 03.3	-4.6
RPZ	Rata Peaks	8.83	50	Pn	P	03 30 47.0	-3.1
	3.5nm,0.3s,baz=246,slow=12,SNR=7.4						
RPZ				Sn	Sn	03 32 26.2	-4.6
	0.8nm,0.3s,baz=17,slow=19,SNR=4.4						
RPZ				LR	LR	03 34 11.4	
	comp=Z,2µm,18.7s,baz=240,slow=38						
DSZ	Denniston Nort	10.69	45	*e*P	P	03 31 15.5	-0.2
DSZ	Denniston Nort	10.69	45	P	P	03 31 15.5	-0.2
THZ	Tophouse	11.20	48	*e*P	P	03 31 22.8	+0.2
THZ	Tophouse	11.20	48	P	P	03 31 22.6	0.0
URZ	Urewera	15.95	49	Pn	P	03 32 24.2	-1.3
	0.6nm,0.3s,baz=243,slow=4.5,SNR=2.7						
URZ				LR	LR	03 38 59.7	
	comp=Z,1µm,19.6s,baz=43,slow=39						
STKA	Stephens Creek	23.43	312	*e*P	P	03 33 51.9	+2.5
	12nm,1.2s,mb4.2						
STKA	Stephens Creek	23.43	312	P	P	03 33 50.7	+1.3
	17nm,1.1s,mb4.4,baz=151,slow=10,SNR=12						
STKA				LR	LR	03 42 28.0	
	comp=Z,1µm,18.5s,MS4.3,baz=126,slow=35						
VNDA	Vanda	27.79	180	P	P	03 34 28.2	-1.8
	3.5nm,1.2s,mb3.9,baz=5.1,slow=5.9,SNR=4.0						
VNDA				LR	LR	03 45 14.0	
	comp=Z,103nm,18.2s,MS3.5,baz=197,slow=36						
VNDA	Vanda	27.79	180	*e*P	P	03 34 28.8	-1.3
CTA	Charters Tower	32.15	332	*e*P	P	03 35 10.2	+0.8
	6.0nm,1.0s,mb4.4						
CTA	Charters Tower	32.15	332	P	P	03 35 08.6	-0.8
	15nm,1.2s,mb4.7,baz=156,slow=6.9,SNR=7.3						
CTA				LR	LR	03 46 13.0	
	comp=Z,524nm,20.0s,MS4.2,baz=317,slow=33						
CTAO	Charters Tower	32.15	332	*e*P	P	03 35 09.4	0.0
	9.6nm,1.0s,mb4.6						
CTAO				*e*		03 35 21.5	
ASAR	Alice Springs	34.00	310	P	P	03 35 25.1	-0.4
	14nm,0.7s,mb5.0,baz=147,slow=8.4,SNR=87						
ASAR				LR	LR	03 49 34.5	
	comp=Z,429nm,19.0s,MS4.2,baz=147,slow=37						
ASPA	Alice Springs	34.00	310	⇓*i*P	P	03 35 25.0	-0.4
NWAO	Narrogin (SRO)	36.83	280	P	P	03 35 49.5	+0.1
	7.7nm,0.9s,mb4.5,baz=125,slow=3.7,SNR=2.6						
WB2	Warramunga Arr	36.95	314	⇓*i*P	P	03 35 49.6	-0.9
WRA	Warramunga Arr	36.96	314	P	P	03 35 49.8	-0.7
	19nm,0.9s,mb4.9,baz=146,slow=8.0,SNR=78						
WRAB	Tennant Creek	36.96	314	*e*P	P	03 35 49.5	-1.1
	45nm,1.0s,mb5.3						
QSPA	South Pole Qui	40.28	180	⇓*i*P	P	03 36 17.8	0.0
	24nm,1.5s,mb4.7						
PMG	Port Moresby	42.10	338	LR	LR	03 51 41.8	
	comp=Z,299nm,19.3s,MS4.2,baz=191,slow=33						
FITZ	Fitzroy Crossi	42.88	305	*e*P	P	03 36 39.4	-0.2
	11nm,0.8s,mb4.6						
MBWA	Marble Bar	43.75	295	*e*P	P	03 36 45.3	-1.4
	12nm,0.9s,mb4.6						
MAW	Mawson	48.28	210	LR	LR	03 56 19.1	
	comp=Z,574nm,18.3s,MS4.6,baz=77,slow=34						
SNAA	Sanae	58.31	186	⇑*i*	P	03 38 33.6	-2.5
SNAA	Sanae	58.31	186	*e*P	P	03 38 33.3	-2.8
	11nm,1.3s,mb4.7						
VNA3	Neumayer Olymp	59.07	183	⇑*i*	P	03 38 42.3	+0.8
VNA2	Neumayer--Watz	59.30	184	⇑*i*	P	03 38 44.0	+1.0
VNA1	Neumayer--Stat	59.61	184	⇑*i*	P	03 38 46.3	+1.1
USHA	Ushuaia	67.56	151	LR	LR	04 06 05.7	
	comp=Z,195nm,20.4s,MS4.3,baz=148,slow=33						
CMAR	Chiang Mai Arr	87.66	302	P	P	03 41 30.9	+1.6
	1.3nm,0.4s,mb4.5,baz=156,slow=2.9,SNR=16						
CMAR				LR	LR	04 21 09.1	
	comp=Z,107nm,18.5s,MS4.3,baz=145,slow=36						
ILAR	Eielson Array	121.01	23	PKP	PKPdf	03 47 32.8	-1.7
	2.5nm,1.3s,baz=209,slow=5.0,SNR=4.5						
INK	Inuvik	127.20	25	PKP	PKPdf	03 47 45.0	-1.0
	2.3nm,1.0s,baz=126,slow=2.8,SNR=4.4						
BVAR	Borovoye Array	128.08	310	PKP	PKPdf	03 47 46.3	-1.9
	0.3nm,0.5s,baz=146,slow=5.2,SNR=3.1						
CHKZ	Chkalovo	128.34	311	*e*PKPdf	PKPdf	03 47 46.0	-2.6
YKA	Yellowknife Ar	129.91	37	PKP	PKPdf	03 47 48.7	-2.7
	0.2nm,0.7s,baz=254,slow=1.6,SNR=4.1						
IDI	Anoyia	145.58	262	PKPbc	PKPbc	03 48 18.9	+0.7
	10nm,0.7s,baz=165,slow=13,SNR=4.4						
FRB	Frobisher Bay	150.05	43	PKPbc	PKPdf	03 48 30.9	+4.1
	14nm,1.3s,baz=255,slow=5.6,SNR=5.3						
AKASG	Malin Array Be	150.06	290	PKPbc	PKPdf	03 48 30.1	+2.8
	2.4nm,0.7s,baz=78,slow=2.1,SNR=12						
MLR	Muntele Rosu	150.26	279	PKPbc	PKPdf	03 48 31.8	+4.0
	2.5nm,0.5s,baz=131,slow=14,SNR=2.5						
ARCES	ARCESS Array B	151.39	329	PKPbc	PKPdf	03 48 33.5	+4.8
	4.4nm,0.7s,baz=45,slow=1.7,SNR=15						
FINES	FINESS Array B	152.99	312	PKPbc	PKPdf	03 48 37.3	+6.0
	2.3nm,0.6s,baz=109,slow=4.8,SNR=16						

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*IDC **24** 03:32:46.6±7.2, 4.49S×153.46E, h123^{km}±55^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.7/14, MS2.8/1, Ms1 2.8/1, ms1mx2.4/13, Error ellipse: s-maj=56.3km s-min=24.9km az=84.0*

*NEIC **24** 03:32:46.7±3.6, 4.53S×153.47E, h120^{km}±25^{km}, mb4.4/1, Error ellipse: s-maj=39.7km s-min=20.6km az=89.0*

ISC 24 03:32:44.7±5.1**, 4.5S**±0.2×**153.5E**±0.3**, h120**^{km}±41^{km}**, n8, σ0.^{s}50**/9**, mb3.8**/6**, New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	7.96	232	P	P	03 34 39.2	+0.2
	6.9nm,0.3s,baz=47,slow=5.5,SNR=17						
PMG				S	S	03 36 07.5	-0.4
	1.8nm,0.3s,baz=135,slow=21,SNR=13						
PMG				LR	LR	03 37 37.2	
	comp=Z,64nm,20.7s,baz=356,slow=37						
WRAB	Tennant Creek	24.16	229	*e*P	P	03 37 51.2	+0.2
	10.0nm,0.7s,mb4.2						
WB2	Warramunga Arr	24.16	229	*e*P	P	03 37 51.7	+0.7
WRA	Warramunga Arr	24.17	229	P	P	03 37 51.8	+0.7
	7.1nm,0.6s,mb4.2,baz=54,slow=9.9,SNR=34						
WRA				PcP	PcP	03 41 28.7	-1.3
	0.3nm,0.6s,baz=45,slow=2.3,SNR=4.9						
ASAR	Alice Springs	26.84	223	P	P	03 38 15.6	-0.4
	0.7nm,0.5s,mb3.5,baz=55,slow=8.9,SNR=8.7						
ASAR				PcP	PcP	03 41 34.4	-1.5
	0.2nm,0.4s,baz=59,slow=2.6,SNR=4.5						
STKA	Stephens Creek	29.44	201	P	P	03 38 38.6	-0.8
	2.2nm,0.5s,mb4.0,baz=25,slow=15,SNR=8.1						
SONM	Songino Array	66.44	327	P	P	03 43 22.9	-0.4
	0.3nm,0.5s,mb3.4,baz=131,slow=3.7,SNR=2.7						
VNDA	Vanda	73.11	178	P	P	03 44 03.3	+0.1
	0.6nm,0.7s,mb3.5,baz=331,slow=5.1,SNR=6.6						

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*NEIC **24** 03:37:46.5±1.3, 19.36N×145.54E, h122^{km}±12^{km}, mb4.6/4, Error ellipse: s-maj=15.0km s-min=8.6km az=97.0*

*IDC **24** 03:37:57.9±3.4, 19.30N×145.37E, h227^{km}±32^{km}, mb3.7/16, mb1 3.9/18, mb1mx3.8/26, Error ellipse: s-maj=19.0km s-min=10.6km az=94.0*

ISC 24 03:37:45.2±1.3**, 19.38N**±0.05×**145.5E**±0.1**, h123**^{km}±12^{km}**, n33, σ0.^{s}81**/31**, mb4.3**/22**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SARN	Sarigan	2.68	173	*e*P	P	03 38 27.9	-0.2
CBIJ	Chichi jima	8.25	339	P	P	03 39 56.7	+13
	12nm,0.3s,baz=260,slow=18,SNR=4.5						
CBIJ				S	S	03 41 15.2	-0.1
	7.3nm,0.3s,baz=289,slow=20,SNR=2.9						
WRAB	Tennant Creek	40.55	196	*e*P	P	03 45 13.9	-0.1
	14nm,0.8s,mb4.9						
WB2	Warramunga Arr	40.56	196	*e*P	P	03 45 14.3	+0.2
WRA	Warramunga Arr	40.56	196	P	P	03 45 14.2	0.0
	5.5nm,0.6s,mb4.6,baz=4.3,slow=8.7,SNR=65						
FITZ	Fitzroy Crossi	42.02	209	*e*P	P	03 45 27.2	+1.0
	3.5nm,0.8s,mb4.1						
SONM	Songino Array	42.47	321	P	P	03 45 31.7	+2.1
	1.8nm,0.5s,mb4.1,baz=136,slow=8.1,SNR=21						
CMAR	Chiang Mai Arr	43.90	277	P	P	03 45 46.7	+5.2
	1.0nm,0.3s,mb4.0,baz=67,slow=6.9,SNR=3.8						
YAK	Yakutsk	44.02	349	*e*P	P	03 45 42.8	+1.0
	25nm,0.6s,mb5.1						
ASAR	Alice Springs	44.24	195	P	P	03 45 44.2	+0.1
	1.1nm,0.6s,mb3.7,baz=12,slow=9.3,SNR=14						
ASPA	Alice Springs	44.24	195	*e*P	P	03 45 44.8	+0.7
STKA	Stephens Creek	51.09	184	P	P	03 46 35.8	-1.5
	1.1nm,0.7s,mb4.0,baz=330,slow=13,SNR=3.2						
ZAL	Zalesovo	57.35	322	P	P	03 47 21.3	-1.2
	1.1nm,0.8s,mb3.9,baz=357,slow=8.7,SNR=6.5						
ILAR	Eielson Array	63.15	26	P	P	03 48 00.4	-1.5
	2.2nm,1.0s,mb4.0,baz=268,slow=5.6,SNR=10						
BVAR	Borovoye Array	65.81	320	P	P	03 48 19.0	-0.3
	2.0nm,0.4s,mb4.3,baz=95,slow=8.0,SNR=22						
BRVK	Borovoye	65.87	320	*e*P	P	03 48 19.3	-0.4
	3.2nm,0.7s,mb4.3						
INK	Inuvik	68.85	23	P	P	03 48 37.5	-0.5
	4.9nm,0.8s,mb4.4,baz=275,slow=5.5,SNR=13						
INK	Inuvik	68.85	23	*e*P	P	03 48 37.8	-0.2
DLBC	Dease Lake	70.86	34	P	P	03 48 51.0	+0.7
	3.7nm,0.7s,mb4.3,baz=252,slow=7.0,SNR=4.9						
ARU	Arti	72.38	324	*e*P	P	03 48 59.5	+0.1
YKA	Yellowknife Ar	77.50	28	P	P	03 49 28.7	+0.3
	4.6nm,0.6s,mb4.4,baz=290,slow=5.5,SNR=99						
YBH	Yreka Blue Hor	78.70	50	P	P	03 49 36.1	+0.7
	3.2nm,0.8s,mb4.2,baz=353,slow=2.4,SNR=7.5						
ARCES	ARCESS Array B	81.78	342	P	P	03 49 51.4	+0.2
	2.0nm,0.7s,mb4.0,baz=44,slow=3.8,SNR=5.5						
ARCES	ARCESS Array B	81.78	342	P	P	03 49 51.4	+0.2
NVAR	Mina Array Bea	82.91	52	P	P	03 49 58.4	+0.8
	7.8nm,0.6s,mb4.7,baz=268,slow=6.0,SNR=15						
NVAR	Mina Array Bea	82.91	52	P	P	03 49 58.4	+0.8
FINES	FINESS Array B	86.18	335	P	P	03 50 12.6	-0.8
	1.1nm,0.4s,mb4.2,baz=79,slow=5.4,SNR=20						
PDAR	Pinedale Array	87.52	45	P	P	03 50 20.7	+0.4
	0.3nm,0.4s,mb3.7,baz=184,slow=1.1,SNR=6.7						
HFS	Hagfors	91.67	338	P	P	03 50 38.0	-1.4
	3.6nm,1.0s,mb4.6,SNR=4.3						
ANMO	Albuquerque	93.02	51	P	P	03 50 45.8	-0.4
	0.4nm,0.3s,mb4.2,baz=264,slow=6.3,SNR=4.1						
LVC	Limon Verde	147.80	102	PKPbc	PKPdf	03 57 17.7	+4.6
	3.9nm,0.6s,baz=314,slow=3.1,SNR=7.7						
LPAZ	La Paz	147.91	90	PKP	PKPdf	03 57 16.0	+2.6
	1.5nm,0.6s,baz=340,slow=2.0,SNR=7.5						
LPAZ				PKPbc	PKPdf	03 57 19.1	+5.6
	1.6nm,0.6s,baz=328,slow=2.3,SNR=7.6						
LPAZ	La Paz	147.91	90	PKP	PKPdf	03 57 16.0	+2.6
LPAZ				PKPbc	PKPdf	03 57 19.1	+5.6

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*IDC **24** 03:50:55.9±2.2, 1.99N×96.83W, mb3.9/10, mb1 4.1/10, mb1mx3.9/19, MS3.8/6, Ms1 3.8/6, ms1mx3.4/20, Error ellipse: s-maj=61.7km s-min=20.2km az=36.0*

*NEIC **24** 03:50:58.0±1.2, 2.00N×96.76W, h10^{km}, mb4.2/4, Error ellipse: s-maj=33.5km s-min=9.8km az=217.0*

ISC 24 03:50:56.4±1.6**, 2.0N**±0.3×**96.8W**±0.2**, h10**^{km}**, n22, σ0.^{s}82**/19**, mb3.9**/14**, MS3.8**/6**, West of Galapagos Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	22.59	82	P	P	03 55 58.8	+0.1
	1.0nm,0.4s,mb3.6,baz=93,slow=19,SNR=2.4						
SDV	Santo Domingo	26.90	74	P	P	03 56 39.6	-0.2
	1.6nm,0.8s,mb3.6,baz=311,slow=8.1,SNR=2.4						
TXAR	Lajitas Array	27.96	347	P	P	03 56 50.2	+0.9
	0.9nm,0.8s,mb3.5,baz=168,slow=12,SNR=5.6						
TXAR				LR	LR	04 07 38.6	
	comp=Z,133nm,18.1s,MS3.6,baz=195,slow=36						
TUC	Tucson	32.91	338	P	P	03 57 33.1	0.0
	6.1nm,1.4s,mb4.3						
BNM	Barren Site	33.28	345	*e*P	P	03 57 36.0	-0.4
LPAZ	La Paz	33.63	124	P	P	03 57 40.1	+0.6
	1.6nm,1.0s,mb3.9,baz=284,slow=6.5,SNR=3.6						
SDCO	Great Sand Dun	36.47	348	*e*P	P	03 58 03.7	+0.2
	2.0nm,0.8s,mb4.1						
NVAR	Mina Array Bea	41.27	334	P	P	03 58 42.8	-0.7
	1.1nm,0.9s,mb3.5,baz=180,slow=4.5,SNR=2.7						
NVAR				LR	LR	04 15 41.1	
	comp=Z,70nm,18.5s,MS3.6,baz=5.0,slow=36						
HWUT	Hardware Ranch	41.62	343	*e*P	P	03 58 46.8	+0.4
	5.0nm,1.2s,mb4.0						
ELK	Elko	42.03	339	*e*P	P	03 58 51.4	+1.6
	10.0nm,1.5s,mb4.2						
PDAR	Pinedale Array	42.17	346	P	P	03 58 50.5	-0.4
	1.3nm,0.8s,mb3.6,baz=149,slow=8.6,SNR=9.8						
PDAR				LR	LR	04 16 00.9	
	comp=Z,261nm,18.4s,MS4.2,baz=215,slow=36						
SNOW	Snow King Moun	43.12	345	*e*P	P	03 58 59.6	+0.9
LOHW	Long Hollow	43.22	345	*e*P	P	03 58 59.8	+0.3
MCMT	McKenzie Canyo	44.95	344	*e*P	P	03 59 14.6	+1.1
ULM	Lac du Bonnet	48.08	1	P	P	03 59 37.4	-0.7
	2.2nm,0.8s,mb4.2,baz=183,slow=7.9,SNR=3.1						
YKA	Yellowknife Ar	61.81	351	P	P	04 01 15.9	-1.8
	0.5nm,0.9s,mb3.6,baz=156,slow=6.8,SNR=7.1						
INK	Inuvik	70.74	346	P	P	04 02 13.5	-0.9
	2.4nm,0.9s,mb4.1,baz=134,slow=7.4,SNR=5.4						
INK	Inuvik	70.74	346	P	P	04 02 13.5	-0.9
ILAR	Eielson Array	72.18	340	P	P	04 02 22.1	-1.1
	1.9nm,0.8s,mb4.0,baz=169,slow=4.3,SNR=12						
DBIC	Dimbokro	91.69	83	LR	LR	04 43 40.6	
	comp=Z,48nm,19.4s,MS4.0,baz=177,slow=34						
SNAA	Sanae	93.13	162	LR	LR	04 37 06.9	
	comp=Z,17nm,21.9s,MS3.5,baz=192,slow=30						
VNDA	Vanda	94.39	192	LR	LR	04 36 59.8	
	comp=Z,68nm,21.3s,MS4.1,baz=7.5,slow=29						

IGQ 24 03:57:13.9, 2.87S×78.47W, h12^{km}±3^{km}, mb4.3, 6C-2D, Error ellipse: s-maj=9.8km s-min=3.2km az=177.5, Ecuador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ARRY	Arrayan	1.35	1	⇑P	Pn	03 57 38.9	+0.3
ARRY				S	Sb	03 57 54.8	-1.0
PATA	Patacocha	1.35	1	⇓P	Pn	03 57 39.3	+0.6
IGUA	Igualata	1.38	353	⇑P	Pn	03 57 41.8	+2.7
RETU	Refugio	1.41	1	P	Pn	03 57 40.4	+0.9
RETU				S	Sb	03 57 59.2	+1.8
ULBA	Ulba	1.41	2	P	Pn	03 57 40.0	+0.5
ULBA				S	Sb	03 57 57.6	+0.2
CUSU	Cusua	1.41	359	P	Pn	03 57 40.7	+1.1
CUSU				S	Sb	03 58 00.1	+2.5
JUIV	Juive	1.43	0	P	Pn	03 57 40.8	+1.0
RUN2	Runtun	1.44	2	P	Pn	03 57 40.6	+0.7
PISA	Pisayambo	1.80	3	P	Pn	03 57 46.8	+1.7
PISA				S	Sn	03 58 10.0	+2.1
MARY	Rancho Maria	2.12	359	P	Pn	03 57 52.9	+3.2
TAMB	Tambo	2.16	3	⇑P	Pn	03 57 52.4	+2.2
VC1	Cotopaxi 1	2.21	2	⇑P	Pn	03 57 53.8	+2.8
VC1				S	Sn	03 58 22.7	+4.3
NAS1	Nasa	2.22	360	⇑P	Pn	03 57 54.4	+3.3
NAS1				S	Sn	03 58 23.4	+4.8
ANTI	Antisana	2.42	7	P	Pn	03 57 55.5	+1.5
CGGP	Crater GGP	2.68	357	P	Pn	03 58 02.8	+5.1
PINO	Pino	2.69	357	⇓P	Pn	03 58 03.1	+5.2
YANA	Yana	2.73	358	P	Pn	03 58 02.9	+4.5
YANA				S	Sn	03 58 38.1	+6.5
JOR1	San Jorge 1	2.85	357	P	Pn	03 58 01.7	+1.6
JOR1				S	Sn	03 58 35.3	+0.5
CONE	Cono NE Rev Vo	2.90	17	P	Pn	03 58 02.5	+1.7
CONE				S	Sn	03 58 37.6	+1.7
CAYR	Refugio Cayamb	2.90	9	P	Pn	03 58 03.6	+2.8
CAYR				S	Sn	03 58 39.4	+3.5
CAYA	Cayambe	2.96	9	P	Pn	03 58 04.3	+2.7
CAYA				S	Sn	03 58 40.3	+2.9
COTA	Cotacachi	3.18	2	⇑P	Pn	03 58 10.8	+6.0

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*IDC **24** 04:07:03.6±1.3, 9.77N×82.55W, mb3.4/3, mb1 3.8/4, mb1mx3.5/16, ML2.6/2, Error ellipse: s-maj=37.8km s-min=20.1km az=31.0*

*CASC **24** 04:07:03.4±2.5, 8.99N×82.88W, h10^{km}±11^{km}, MD4.2, MW4.3*

ISC 24 04:07:02.9±0.7**, 8.96N**±0.07×**82.82W**±0.05**, h24**^{km}±10^{km}**, n26, σ1.^{s}21**/28**, mb3.3**/3**, 9C-3D, Panama-Costa Rica border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACR	Cerro Adams	0.46	228	⇓*i*P	Pb	04 07 12.7	+0.3
CNI	Changuinola	0.54	34	⇓*i*P	Pb	04 07 13.7	0.0
DVD	David	0.64	145	⇑*i*P	Pb	04 07 16.6	+1.2
PTP1	Petroterminal	0.85	153	⇑*i*P	Pb	04 07 17.0	-1.8
BUS	Buena Vista	1.10	303	⇑*i*P	Pb	04 07 21.9	-1.2
URSC	Urasca	1.28	313	⇑*i*P	Pn	04 07 25.1	-0.4
LCR2	La Lucha 2	1.40	304	⇑*i*P	Pn	04 07 26.8	-0.4
ICR	Volcan Irazu	1.42	315	⇑*e*P	Pn	04 07 27.8	+0.3
SJS	Escuela Geolog	1.56	309	⇓*i*P	Pn	04 07 28.9	-0.6
SJS				*e*S	Sn	04 07 48.1	-1.0
LAJ	Bijagual	1.56	305	*e*P	Pn	04 07 34.2	+4.6
LAJ				*e*S	Sn	04 07 58.3	+9.0
PRS1	Puriscal	1.79	305	*e*P	Pn	04 07 32.2	-0.6
TRTC	Tortuguero	1.83	331	*e*P	Pn	04 07 33.1	-0.3
VPS2	Volcan Poas 2	1.85	311	⇑*e*P	Pn	04 07 34.8	+1.1
CGA2	Cerro Gallo 2	1.93	303	⇑*e*P	Pn	04 07 35.1	+0.3
CGA2				*e*S	Sn	04 07 58.9	+0.3
FORC	Fortuna	2.36	310	*e*P	Pn	04 07 41.6	+0.6
JCR	Jicaral	2.43	291	*e*P	Pn	04 07 41.4	-0.5
JTS	JuntasAbangare	2.48	302	Pn	Pn	04 07 45.0	+2.3
	0.2nm,0.3s,baz=207,slow=20,SNR=7.1						
JTS				Sn	Sn	04 08 14.8	+2.3
	0.2nm,0.3s,baz=198,slow=20,SNR=10						
UPA	Univ. de Panam	3.25	89	*e*P	Pn	04 07 55.0	+1.4
JEF	Cerro Jefe	3.41	85	⇑*e*P	Pn	04 07 57.2	+1.2
SDV	Santo Domingo	12.04	89	Pn	P	04 09 53.7	-2.5
	0.2nm,0.3s,baz=322,slow=11,SNR=3.3						
SDV				Sn	S	04 12 05.8	-4.9
	0.1nm,0.3s,baz=71,slow=22,SNR=2.8						
LPAZ	La Paz	29.00	150	P	P	04 13 11.0	+7.8
	0.5nm,0.7s,mb3.4,baz=331,slow=10,SNR=2.7						
PDAR	Pinedale Array	41.02	330	P	P	04 14 43.0	-2.9
	0.2nm,0.4s,mb3.1,baz=135,slow=7.7,SNR=2.1						
ULM	Lac du Bonnet	42.56	348	tx	tx	04 15 03.6	
	1.7nm,0.6s,baz=178,slow=8.9,SNR=4.7						
YKA	Yellowknife Ar	58.20	343	P	P	04 16 55.0	-2.3
	0.4nm,0.8s,mb3.5,baz=139,slow=6.7,SNR=9.2						
YKA				tx	tx	04 17 01.9	
	0.6nm,0.7s,baz=137,slow=7.1,SNR=14						
ILAR	Eielson Array	71.03	336	tx	tx	04 18 25.1	
	0.5nm,0.7s,baz=134,slow=3.7,SNR=6.1						
ESDC	Sonseca Array	75.77	51	tx	tx	04 18 54.3	
	0.8nm,0.8s,baz=284,slow=6.1,SNR=4.2						

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*NEIC **24** 04:08:05.7, 31.69S×71.71W, h30^{km}, ML3.6(GUC), After GUC.*

GUC 24 04:08:05.7±0.8**, 31.69S×71.71W, h30**^{km}±2^{km}**, MD3.9, ML3.6, 12C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILCH	Illapel	0.46	83	⇑*i*P	Pb	04 08 15.6	+0.1
ILCH				*i* S	Sb	04 08 22.8	+0.5
ILCH				AMP		04 08 23.2	
	comp=N,13µm,0.2s						
CMCH	Combarbala	0.80	50	⇑*i*P	Pb	04 08 20.6	-0.3
CMCH				*i* S	Sb	04 08 31.8	+0.3
CMCH				AMP		04 08 33.2	
	comp=E,8µm,0.5s						
PACH	Papudo	0.88	165	⇑*i*P	Pn	04 08 21.6	-0.5
PACH				*i* S	Sb	04 08 33.9	+0.3
PTCH	Petorca	0.88	131	⇑*i*P	Pn	04 08 21.7	-0.4
PTCH				*i* S	Sb	04 08 33.5	-0.1
PTCH				AMP		04 08 36.3	
	comp=E,5µm,0.3s						
IHA	Instituto Hidr	1.33	178	⇓*i*P	Pn	04 08 28.3	-0.3
IHA				*i* S	Sn	04 08 46.6	+1.2
JACH	Jahuel	1.37	137	*i* P	Pn	04 08 29.6	+0.5
JACH				*i* S	Sn	04 08 48.6	+2.2
ROCH	El Roble	1.41	155	⇑*i*P	Pn	04 08 30.4	+0.7
ROCH				*i* S	Sn	04 08 49.3	+1.9
PEL	Peldehue	1.69	149	*i* P	Pn	04 08 34.7	+1.0
PEL				*i* S	Sn	04 08 56.3	+1.8
TLL	Tololo Astrono	1.71	27	*i* P	Pn	04 08 34.6	+0.7
TLL				*i* S	Sn	04 08 58.0	+3.1
TLL				AMP		04 09 00.9	
	comp=N,988nm,0.4s						
RCDM	Rinconada Maip	1.95	157	⇑*i*P	Pn	04 08 37.8	+0.4
RCDM				*i* S	Sn	04 09 02.8	+1.7
RCDM				AMP		04 09 10.6	
	comp=E,347nm,0.3s						
DSCH	Colegio Aleman	1.96	151	⇑*i*P	Pn	04 08 38.3	+0.8
DSCH				*i* S	Sn	04 09 03.1	+1.8
DSCH				AMP		04 09 13.2	
	comp=N,1µm,0.6s						
CLCH	Cerro Calan	1.97	150	⇑*i*P	Pn	04 08 38.5	+0.8
CLCH				*i* S	Sn	04 09 03.6	+2.0
CLCH				AMP		04 09 12.8	
	comp=N,552nm,0.4s						
CLCH				AMP		04 09 20.9	
	comp=E,690nm,0.8s						
FCH	Farellones	2.02	144	⇑*i*P	Pn	04 08 39.6	+1.1
FCH				*i* S	Sn	04 09 05.7	+2.6
FCH				AMP		04 09 09.9	
	comp=E,326nm,0.3s						
FSR	Penalolen	2.04	151	*i* P	Pn	04 08 39.8	+1.0
FSR				AMP		04 09 14.3	
	comp=E,537nm,0.6s						
TACH	Talagante	2.06	162	⇑*i*P	Pn	04 08 39.8	+0.7
TACH				*i* S	Sn	04 09 05.1	+1.1
PCH	Pirque	2.17	153	⇑*i*P	Pn	04 08 41.6	+1.0
PCH				*i* S	Sn	04 09 08.4	+1.6
LNV	Longovilo	2.27	174	*e*P	Pn	04 08 43.0	+1.0
CHCH	Chadas Angostu	2.41	159	*e*P	Pn	04 08 44.4	+0.4
LMEL	Las Melosas	2.50	150	⇑*i*P	Pn	04 08 46.4	+1.1
LMEL				*i* S	Sn	04 09 16.6	+1.6
LMEL				AMP		04 09 24.6	
	comp=N,352nm,0.2s						

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*IDC **24** 04:14:32.4±1.1, 21.11S×68.90W, h104^{km}±14^{km}, mb3.4/7, mb1 3.6/8, mb1mx3.5/15, Error ellipse: s-maj=22.3km s-min=15.5km az=86.0*

ISC 24 04:14:31.9±0.9**, 21.16S**±0.09×**68.9W**±0.1**, h118**^{km}±10^{km}**, n12, σ0.^{s}50**/12**, mb3.7**/7**, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.44	180	P	P	04 14 58.8	-0.1
	59nm,0.3s,baz=0.4,slow=8.6,SNR=569						
LVC				S	S	04 15 19.1	-0.2
	406nm,0.3s,baz=265,slow=21,SNR=67						
LPAZ	La Paz	4.91	9	P	P	04 15 45.2	+0.5
	2.9nm,0.3s,baz=204,slow=6.7,SNR=47						
CPUP	Villa Florida	11.79	118	P	P	04 17 17.7	+0.5
	0.0nm,0.3s,baz=181,slow=20,SNR=1.5						
BDFB	Brasilia	20.57	78	P	P	04 19 02.8	-0.5
	1.9nm,0.4s,baz=282,slow=3.6,SNR=7.3						
SJG	San Juan	39.13	4	P	P	04 21 48.8	-0.7
	8.0nm,0.5s,mb4.8,baz=326,slow=21,SNR=3.6						
TXAR	Lajitas Array	60.35	325	P	P	04 24 30.1	-0.8
	0.3nm,0.6s,mb3.5,baz=150,slow=7.3,SNR=3.1						
SNAA	Sanae	62.60	161	P	P	04 24 45.9	+0.4
	0.3nm,0.8s,mb3.2,baz=276,slow=5.9,SNR=3.9						
DBIC	Dimbokro	68.65	74	P	P	04 25 24.5	-0.4
	2.3nm,0.9s,mb4.0,baz=281,slow=23,SNR=5.8						
PDAR	Pinedale Array	73.82	330	P	P	04 25 55.9	+0.6
	0.3nm,0.6s,mb3.2,baz=127,slow=7.8,SNR=3.7						
ULM	Lac du Bonnet	74.99	342	P	P	04 26 02.1	+0.3
	0.6nm,0.5s,mb3.6,baz=173,slow=3.5,SNR=4.4						
YKA	Yellowknife Ar	90.87	341	P	P	04 27 23.4	+0.5
	0.4nm,0.6s,mb3.7,baz=135,slow=4.3,SNR=11						
YKA				pP	pP	04 27 50.4	-3.3
	0.6nm,0.9s,baz=129,slow=4.8,SNR=6.4						
WRA	Warramunga Arr	133.24	211	PKP	PKPdf	04 33 38.0	+3.3
	0.2nm,0.7s,baz=155,slow=1.6,SNR=3.5						

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*IDC **24** 04:20:02.7±7.9, 19.91S×175.86W, h159^{km}±73^{km}, mb3.9/8, mb1 4.1/9, mb1mx3.8/17, Error ellipse: s-maj=39.7km s-min=21.2km az=158.0*

*NEIC **24** 04:20:15.4±3.4, 20.28S×175.83W, h290^{km}±34^{km}, mb4.4/5, Error ellipse: s-maj=23.6km s-min=15.8km az=168.0*

ISC 24 04:20:12.0±4.9**, 20.2S**±0.2×**175.9W**±0.2**, h268**^{km}±48^{km}**, n22, σ0.^{s}72**/18**, mb4.1**/13**, 1D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	16.61	260	*e*P	P	04 23 51.7	+0.5
NOUC	Port Laguerre	16.74	260	*e*P	P	04 23 52.7	+0.1

URZ	**Urewera**	**18.98**	**197**	P	**P**	**04 24 15.3**	**-0.2**
	1.9nm,0.3s,baz=315,slow=7.1,SNR=6.0						
CTAO	**Charters Tower**	**35.52**	**264**	*e*P	**P**	**04 26 45.8**	**+0.3**
	13nm,0.5s,mb4.7						
PMG	**Port Moresby**	**37.25**	**281**	P	**P**	**04 26 59.9**	**-0.1**
	10nm,0.8s,mb4.3,baz=86,slow=8.1,SNR=4.3						
STKA	**Stephens Creek**	**39.72**	**244**	P	**P**	**04 27 20.6**	**+0.4**
	2.0nm,0.4s,mb3.8,baz=96,slow=11,SNR=12						
STKA				PcP	PcP	04 29 23.5	+1.8
	1.5nm,0.6s,baz=140,slow=8.3,SNR=3.2						
ASAR	**Alice Springs**	**46.54**	**256**	P	**P**	**04 28 15.1**	**+0.1**
	15nm,0.5s,mb4.5,baz=99,slow=8.3,SNR=238						
ASAR				PcP	PcP	04 29 46.0	+1.1
	0.7nm,0.4s,baz=106,slow=4.3,SNR=3.9						
ASPA	**Alice Springs**	**46.54**	**256**	*e*P	**P**	**04 28 15.3**	**+0.3**
WB2	**Warramunga Arr**	**46.62**	**261**	*e*P	**P**	**04 28 15.1**	**-0.5**
WRAB	**Tennant Creek**	**46.62**	**261**	*e*P	**P**	**04 28 14.3**	**-1.3**
	9.8nm,0.6s,mb4.3						
WRA	**Warramunga Arr**	**46.63**	**261**	P	**P**	**04 28 14.7**	**-1.0**
	6.0nm,0.5s,mb4.2,baz=98,slow=8.8,SNR=145						
KAKA	**Kakadu**	**49.98**	**270**	⇓*i*P	**P**	**04 28 41.0**	**-0.3**
	11nm,0.4s,mb4.5						
FITZ	**Fitzroy Crossi**	**55.05**	**262**	*e*P	**P**	**04 29 19.0**	**+0.6**
	12nm,1.6s,mb4.1						
MBWA	**Marble Bar**	**59.87**	**257**	*e*P	**P**	**04 29 51.9**	**-0.1**
	12nm,1.0s,mb4.4						
YBH	**Yreka Blue Hor**	**78.83**	**38**	P	**P**	**04 31 47.0**	**+0.1**
	0.7nm,0.7s,mb3.5,baz=150,slow=6.3,SNR=1.7						
NVAR	**Mina Array Bea**	**79.45**	**42**	P	**P**	**04 31 50.9**	**+0.6**
	0.8nm,0.9s,mb3.5,baz=218,slow=7.2,SNR=3.8						
ILAR	**Eielson Array**	**87.61**	**12**	P	**P**	**04 32 29.3**	**-1.3**
	0.1nm,0.4s,mb3.0,baz=213,slow=5.8,SNR=5.2						
CMAR	**Chiang Mai Arr**	**91.92**	**289**	P	**P**	**04 32 53.6**	**+1.8**
	1.1nm,0.3s,mb4.2,baz=171,slow=1.5,SNR=5.3						
FINES	**FINESS Array B**	**136.05**	**345**	PKP	PKPdf	04 39 05.7	+4.9
	11nm,1.2s,SNR=4.2						
AKASG	**Malin Array Be**	**143.71**	**333**	PKhKP		04 39 13.8	
	0.3nm,0.3s,baz=41,slow=4.3,SNR=4.5						
MALT	**Malatya**	**145.34**	**309**	*e*PKPbc	PKPbc	04 39 21.7	+2.9
BRTR	**Keskin Array B**	**148.12**	**314**	PKPbc	PKPdf	04 39 28.9	+6.4
	1.5nm,0.7s,baz=121,slow=3.8,SNR=8.7						

IDC ***24*** *04:22:20.8±26.0, 50.82S×161.78E, mb4.1/3, mb1 4.3/5, mb1mx4.0/10, ML3.9/2, MS3.5/4, Ms1 3.5/4, ms1mx2.9/16, Error ellipse: s-maj=532.0km s-min=34.1km az=168.0*

ISC 24 04:22:18.4±5.5**, 51.0S**±0.7×**162.1E**±0.3**, h10^{km}, n10, σ0^{s}98**/10**, mb4.0**/3**, MS3.5**/2**, Auckland Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TUZ	**Tuapeka**	**7.11**	**48**	P	**Pn**	**04 24 06.9**	**+1.9**
MSZ	**Milford Sound**	**7.45**	**34**	P	**Pn**	**04 24 10.1**	**+0.3**
EAZ	**Earnscleugh**	**7.52**	**43**	P	**Pn**	**04 24 10.2**	**-0.6**
ODZ	**Otahua Downs**	**8.26**	**47**	P	**P**	**04 24 20.1**	**-1.1**
JCZ	**Jackson Bay**	**8.27**	**35**	P	**P**	**04 24 20.7**	**-0.5**
RPZ	**Rata Peaks**	**9.48**	**43**	Pn	**P**	**04 24 37.9**	**-0.2**
	0.9nm,0.3s,baz=243,slow=5.1,SNR=4.1						
RPZ				LR	LR	04 28 16.0	
	comp=Z,132nm,18.7s,baz=220,slow=37						
URZ	**Urewera**	**16.58**	**46**	Pn	**P**	**04 26 16.2**	**+3.8**
	0.6nm,0.3s,baz=219,slow=15,SNR=2.4						
URZ				LR	LR	04 31 59.4	
	comp=Z,216nm,21.5s,baz=66,slow=35						
STKA	**Stephens Creek**	**24.39**	**314**	P	**P**	**04 27 38.8**	**+1.2**
	1.9nm,0.6s,mb3.7,baz=95,slow=13,SNR=3.5						
STKA				LR	LR	04 35 05.9	
	comp=Z,144nm,19.6s,MS3.5,baz=128,slow=32						
ASAR	**Alice Springs**	**34.93**	**311**	P	**P**	**04 29 11.9**	**-0.4**
	6.6nm,1.1s,mb4.5,baz=147,slow=8.5,SNR=9.5						
ASAR				LR	LR	04 43 38.2	
	comp=Z,83nm,18.4s,MS3.5,baz=323,slow=37						
WRA	**Warramunga Arr**	**37.94**	**315**	P	**P**	**04 29 36.8**	**-0.8**
	2.5nm,0.8s,mb4.0,baz=146,slow=8.0,SNR=7.5						

NEIC ***24*** *04:41:27.4±2.2, 18.31S×174.76W, h62^{km}±20^{km}, mb4.9/10, Error ellipse: s-maj=12.8km s-min=8.4km az=157.0*

IDC ***24*** *04:41:29.6±5.2, 18.37S×174.75W, h81^{km}±46^{km}, mb4.1/17, mb1 4.3/18, mb1mx4.2/22, ML4.6/1, MS3.7/4, Ms1 3.7/4, ms1mx3.3/21, Error ellipse: s-maj=23.5km s-min=14.6km az=150.0*

ISC 24 04:41:24.3±3.2**, 18.36S**±0.10×**174.81W**±0.08**, h48**^{km}±28^{km}**, n73, σ1^{s}06**/37**, mb4.5**/24**, MS3.7**/4**, 9C-5D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAR	**Rarotonga**	**14.43**	**104**	P	**P**	**04 44 47.4**	**-0.1**
	3.0nm,0.3s,baz=270,slow=10,SNR=4.0						
RAR				S	**S**	**04 47 11.8**	**-15**
	1.8nm,0.3s,baz=73,slow=14,SNR=2.7						
URZ	**Urewera**	**21.05**	**198**	P	**P**	**04 46 06.9**	**+0.4**
	16nm,0.4s,mb4.7,baz=9.6,slow=6.3,SNR=13						
RPZ	**Rata Peaks**	**27.95**	**202**	P	**P**	**04 47 11.7**	**-0.7**
	7.4nm,0.5s,mb4.5,baz=180,slow=1.0,SNR=4.0						
RPZ				LR	LR	04 57 18.0	
	comp=Z,113nm,19.9s,MS3.5,baz=17,slow=34						
CTA	**Charters Tower**	**36.75**	**261**	*e*P	**P**	**04 48 30.2**	**+0.9**
	16nm,0.6s,mb5.0						
CTA	**Charters Tower**	**36.75**	**261**	P	**P**	**04 48 30.0**	**+0.8**
	18nm,0.6s,mb5.1,baz=98,slow=10,SNR=52						
CTAO	**Charters Tower**	**36.75**	**261**	*e*P	**P**	**04 48 29.9**	**+0.6**
	17nm,0.6s,mb5.1						
PMG	**Port Moresby**	**37.91**	**278**	P	**P**	**04 48 41.7**	**+2.7**
	6.0nm,0.7s,mb4.5,baz=259,slow=20,SNR=3.1						
STKA	**Stephens Creek**	**41.44**	**242**	*e*P	**P**	**04 49 08.7**	**+0.6**
	5.3nm,1.1s,mb4.1						
STKA	**Stephens Creek**	**41.44**	**242**	P	**P**	**04 49 08.3**	**+0.3**
	5.4nm,0.9s,mb4.2,baz=86,slow=9.2,SNR=7.8						
STKA				LR	LR	05 06 03.0	
	comp=Z,84nm,19.0s,MS3.6,baz=203,slow=36						
WB2	**Warramunga Arr**	**47.91**	**259**	⇑*i*P	**P**	**04 49 59.9**	**-0.2**
WRAB	**Tennant Creek**	**47.91**	**259**	*e*P	**P**	**04 49 59.6**	**-0.5**
	33nm,0.8s,mb5.4						
WRA	**Warramunga Arr**	**47.92**	**259**	P	**P**	**04 49 59.7**	**-0.6**
	24nm,0.9s,mb5.2,baz=95,slow=8.1,SNR=116						
ASAR	**Alice Springs**	**47.97**	**254**	P	**P**	**04 50 00.5**	**-0.1**
	59nm,0.9s,mb5.6,baz=86,slow=8.7,SNR=347						
ASAR				LR	LR	05 08 01.3	
	comp=Z,80nm,19.2s,MS3.7,baz=244,slow=33						
ASPA	**Alice Springs**	**47.97**	**254**	⇑*i*P	**P**	**04 50 00.8**	**+0.2**
KAKA	**Kakadu**	**51.04**	**268**	⇑*i*P	**P**	**04 50 23.9**	**-0.3**
	9.7nm,0.5s,mb5.0						
FITZ	**Fitzroy Crossi**	**56.33**	**260**	*e*P	**P**	**04 51 02.7**	**-0.4**
	11nm,1.2s,mb4.8						
SBA	**Scott Base**	**60.21**	**184**	*e*P	**P**	**04 51 30.0**	**+0.5**
	5.1nm,0.7s,mb4.7						
VNDA	**Vanda**	**60.31**	**186**	P	**P**	**04 51 30.4**	**+0.2**
	2.3nm,0.8s,mb4.3,baz=354,slow=5.8,SNR=10						
VNDA	**Vanda**	**60.31**	**186**	*e*P	**P**	**04 51 29.4**	**-0.8**
	7.5nm,1.3s,mb4.6						
MBWA	**Marble Bar**	**61.28**	**256**	*e*P	**P**	**04 51 35.4**	**-2.0**
	6.8nm,0.6s,mb5.0						
QSPA	**South Pole Qui**	**71.70**	**180**	⇓*i*P	**P**	**04 52 42.5**	**-0.2**
	6.5nm,0.8s,mb4.6						
YBH	**Yreka Blue Hor**	**76.75**	**37**	P	**P**	**04 53 13.2**	**+0.6**
	1.5nm,0.6s,mb4.1,baz=90,slow=8.6,SNR=3.1						
NVAR	**Mina Array Bea**	**77.41**	**42**	P	**P**	**04 53 17.1**	**+0.8**
	0.8nm,0.7s,mb3.8,baz=222,slow=7.8,SNR=5.8						
BBB	**Bella Bella**	**81.12**	**27**	P	**P**	**04 53 36.5**	**+0.4**
	11nm,0.8s,mb4.8,baz=158,slow=7.1,SNR=2.9						
TXAR	**Lajitas Array**	**83.37**	**56**	P	**P**	**04 53 48.1**	**0.0**
	0.5nm,0.8s,mb3.6,baz=254,slow=6.6,SNR=3.3						
MAW	**Mawson**	**84.58**	**199**	P	**P**	**04 53 53.1**	**-0.2**
	3.3nm,0.8s,mb4.5,baz=169,slow=5.2,SNR=3.8						
PDAR	**Pinedale Array**	**85.35**	**42**	P	**P**	**04 53 58.6**	**+0.9**
	0.7nm,1.0s,mb3.8,baz=180,slow=4.4,SNR=4.0						
ILAR	**Eielson Array**	**85.59**	**12**	P	**P**	**04 53 57.0**	**-1.4**
	1.1nm,0.7s,mb4.2,baz=228,slow=5.9,SNR=14						
ILAR				LR	LR	05 28 07.3	
	comp=Z,65nm,18.2s,MS4.1,baz=1.7,slow=33						
SNAA	**Sanae**	**90.03**	**177**	⇑*i*	**P**	**04 54 16.9**	**-2.7**
VNA3	**Neumayer Olymp**	**90.04**	**175**	⇓*i*	**P**	**04 54 21.7**	**+2.0**
VNA2	**Neumayer--Watz**	**90.52**	**176**	⇑*i*	**P**	**04 54 24.6**	**+2.7**
VNA1	**Neumayer--Stat**	**90.73**	**176**	⇑*i*	**P**	**04 54 22.3**	**-0.6**
INK	**Inuvik**	**91.45**	**14**	P	**P**	**04 54 24.9**	**-1.4**
	2.0nm,0.9s,mb4.5,baz=215,slow=4.5,SNR=5.3						
CMAR	**Chiang Mai Arr**	**92.27**	**289**	P	**P**	**04 54 32.9**	**+1.7**
	1.2nm,0.4s,mb4.6,baz=108,slow=2.4,SNR=6.2						
YKA	**Yellowknife Ar**	**93.33**	**24**	P	**P**	**04 54 33.9**	**-1.1**
	0.3nm,0.5s,mb4.0,baz=238,slow=4.3,SNR=9.3						
YKA	**Yellowknife Ar**	**93.33**	**24**	P	**P**	**04 54 33.9**	**-1.1**
ARCES	**ARCESS Array B**	**127.32**	**351**	PKP	PKPdf	05 00 22.8	-0.7
	2.5nm,0.8s,SNR=11						
FINES	**FINESS Array B**	**134.50**	**346**	PKP	PKPdf	05 00 36.5	-0.7
	2.3nm,0.9s,SNR=7.3						
AKASG	**Malin Array Be**	**142.49**	**335**	PKhKP		05 00 49.2	
	0.2nm,0.3s,baz=37,slow=3.6,SNR=4.1						
KMBO	**Kilima Mbogo**	**143.00**	**242**	PKP	PKPdf	05 00 55.6	+1.8
	0.8nm,0.6s,baz=241,slow=24,SNR=3.4						
MALT	**Malatya**	**144.90**	**311**	*e*PKPdf	PKPdf	05 00 57.4	+0.9
KSP	**Ksiaz**	**146.40**	**347**	*e*PKP	PKPdf	05 01 00.8	+2.2
CLL	**Collm**	**146.54**	**351**	⇑*i*PKP1	PKPbc	05 01 01.0	+0.8
DPC	**Dobruska-Polom**	**146.86**	**347**	*e*P	PKPdf	05 01 02.3	+2.9
BRTR	**Keskin Array B**	**147.49**	**317**	PKP	PKPdf	05 01 01.5	+0.8
	1.9nm,0.7s,baz=210,slow=4.6,SNR=6.6						
BRTR				PKPbc	PKPdf	05 01 04.2	+3.5
	2.6nm,0.8s,baz=136,slow=3.7,SNR=11						
BRTR	**Keskin Array B**	**147.49**	**317**	PKP	PKPdf	05 01 01.5	+0.8
BRTR				PKPbc	PKPdf	05 01 04.2	+3.5
PRU	**Pruhonice**	**147.56**	**349**	*e*P	PKPdf	05 01 03.7	+3.2
NKC	**Novy Kostel**	**147.67**	**351**	*e*P	PKPdf	05 01 05.2	+4.5
MLR	**Muntele Rosu**	**147.91**	**332**	PKPbc	PKPdf	05 01 06.1	+4.9
GIVF	**Givet**	**148.33**	**0**	*e*PKP1	PKPdf	05 01 04.5	+2.7
BAIF	**Baives**	**148.36**	**1**	*e*PKP1	PKPdf	05 01 05.5	+3.7
	4.9nm,0.6s						
KHC	**Kasperske Hory**	**148.56**	**349**	*e*P	PKPdf	05 01 06.6	+4.4
GERES	**GERESS Array B**	**148.82**	**349**	PKPbc	PKPdf	05 01 07.1	+4.6
	1.0nm,0.3s,baz=252,slow=4.2,SNR=6.7						
FLN	**La Foliniere**	**149.32**	**7**	*e*PKP1	PKPdf	05 01 08.0	+4.6
	14nm,0.6s						
GRR	**Gorron**	**149.64**	**8**	*e*PKP1	PKPdf	05 01 09.0	+5.1
CDF	**Champ du Feu**	**149.97**	**357**	*e*PKP1	PKPdf	05 01 10.2	+5.7
HAU	**Haudompre**	**150.41**	**358**	*e*PKP1	PKPdf	05 01 11.0	+5.9
WATA	**Walderalm**	**150.63**	**351**	⇑*i*P	PKPdf	05 01 11.0	+5.5
MOTA	**Moosalm**	**150.69**	**352**	⇓*i*P	PKPdf	05 01 11.5	+5.9
WTTA	**Wattenberg**	**150.69**	**351**	⇓*i*P	PKPdf	05 01 11.7	+6.1
SQTA	**Sankt Quirin**	**150.79**	**352**	⇓*i*P	PKPdf	05 01 11.8	+6.1
DAVA	**Damuels**	**150.89**	**353**	⇑*i*P	PKPdf	05 01 12.8	+6.9
SSF	**Saint Saulge**	**151.34**	**2**	*e*PKP1	PKPdf	05 01 13.3	+6.7
	12nm,0.9s						
DAVOX	**Davos**	**151.39**	**353**	PKPbc	PKPdf	05 01 13.5	+6.9
	6.6nm,0.5s,baz=231,slow=3.1,SNR=20						
DAVOX	**Davos**	**151.39**	**353**	PKPbc	PKPdf	05 01 13.5	+6.9
SMF	**Signal de Mont**	**151.77**	**2**	*e*PKP1	PKPdf	05 01 14.8	+7.6
BGF	**Bois d'Agland**	**151.81**	**3**	*e*PKP1	PKPdf	05 01 14.3	+7.0
	14nm,0.5s						
CABF	**La Chapelle**	**151.81**	**359**	*e*PKP1	PKPdf	05 01 15.3	+8.0
TCF	**Toulx Ste Croi**	**152.04**	**4**	*e*PKP1	PKPdf	05 01 14.5	+6.9
	6.2nm,0.5s						
LPL	**La Plagne**	**152.89**	**358**	*e*PKP1	PKPdf	05 01 17.8	+9.0
LPG	**La Plagne**	**152.91**	**358**	*e*PKP1	PKPdf	05 01 18.3	+9.4
RJF	**Les Rejaudoux**	**152.96**	**6**	*e*PKP1	PKPdf	05 01 16.9	+8.0
ORIF	**Oris-en-Rattie**	**153.51**	**359**	*e*PKP1	PKPdf	05 01 19.2	+9.5

CASC ***24*** *04:58:20.7±2.4, 13.26N×90.39W, h24^{km}±7^{km}, MD4.1, ML4.5, mb3.7(NEIC)*

NEIC ***24*** *04:58:25.5±1.4, 13.85N×89.73W, h44^{km}±14^{km}, mb3.7/1, Error ellipse: s-maj=34.4km s-min=10.2km az=219.0*

IDC ***24*** *04:58:31.4±5.5, 13.97N×89.68W, h96^{km}±51^{km}, mb3.4/5, mb1 3.5/8, mb1mx3.3/21, Error ellipse: s-maj=44.4km s-min=20.4km az=38.0*

ISC 24 04:58:19.2±1.2**, 13.16N**±0.06×**90.41W**±0.03**, h18**^{km}±7^{km}**, n32, σ0^{s}75**/42**, mb3.7**/6**, 8C-6D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IXG	**Ixpaco**	**1.01**	**357**	*e*P	**Pb**	**04 58 37.2**	**-0.6**
IXG				*e*S	**Sb**	**04 58 50.5**	**-0.1**
IXG				AML	AML	04 58 52.9	
	comp=E,70µm,0.4s						
SBLS	**San Blas**	**1.02**	**48**	⇓*e*P	**Pb**	**04 58 38.2**	**+0.3**
SBLS				*e*S	**Sb**	**04 58 50.6**	**-0.3**
RTR	**El Retiro**	**1.04**	**45**	⇓*e*P	**Pb**	**04 58 38.7**	**+0.3**
SNJE	**San Jose**	**1.05**	**48**	⇓*e*P	**Pb**	**04 58 38.7**	**+0.2**
RBDL	**Robledal**	**1.18**	**36**	⇑*e*P	**Pb**	**04 58 40.8**	**+0.1**
BOQS	**Boqueron**	**1.24**	**62**	⇑*e*P	**Pb**	**04 58 41.5**	**-0.2**
PCG	**Pacaya**	**1.24**	**351**	*e*P	**Pb**	**04 58 43.3**	**+1.5**
SNET	**Serv Nac Est T**	**1.26**	**65**	⇓*e*P	**Pn**	**04 58 41.8**	**-0.2**
SNET				*e*S	**Sb**	**04 58 57.9**	**+0.1**
SNET				*i*		04 58 59.7	
	comp=Z,5µm,0.3s						
LFRS	**El Faro**	**1.39**	**70**	⇑*e*P	**Pn**	**04 58 43.3**	**-0.6**
LFU	**La Fuente**	**1.39**	**65**	⇓*e*P	**Pn**	**04 58 43.9**	**0.0**
NBG	**Las Nubes**	**1.42**	**2**	*e*P	**Pn**	**04 58 44.6**	**+0.2**
NBG				*e*S	**Sb**	**04 59 02.9**	**+0.3**
NBG				AML	AML	04 59 09.0	
	comp=N,22µm,0.5s						
LBRS	**Las Brisas**	**1.45**	**66**	⇑*e*P	**Pn**	**04 58 44.7**	**0.0**
LBRS				*e*S	**Sb**	**04 59 02.2**	**-1.1**
LCBS	**La Ceiba**	**1.47**	**70**	⇑*e*P	**Pn**	**04 58 44.8**	**-0.4**
SNVI	**San Vicente**	**1.59**	**73**	⇑*e*P	**Pn**	**04 58 47.1**	**+0.3**
SNVI				*e*S	**Sn**	**04 59 06.3**	**-0.8**
MTO2	**Montecristo 2**	**1.60**	**39**	⇑*e*P	**Pn**	**04 58 47.2**	**+0.3**
MTO2				*e*S	**Sn**	**04 59 07.0**	**-0.1**
JAT	**Jato**	**1.66**	**314**	*e*P	**Pn**	**04 58 46.3**	**-1.5**
JAT				*e*S	**Sn**	**04 59 07.5**	**-1.3**
JAT				AML	AML	04 59 13.9	
	comp=N,5µm,0.3s						
BLLM	**Bellamira**	**2.13**	**82**	*e*P	**Pn**	**04 58 55.0**	**+0.5**
BLLM				*e*S	**Sn**	**04 59 23.9**	**+3.2**
CAHU	**Cacacuatique**	**2.22**	**74**	⇑*e*P	**Pn**	**04 58 55.7**	**-0.1**
CAHU				*e*S	**Sn**	**04 59 23.6**	**+0.6**
CNCH	**Conchagua**	**2.51**	**87**	⇓*e*P	**Pn**	**04 59 00.1**	**+0.2**
CNCH				*e*S	**Sn**	**04 59 30.3**	**0.0**
CCIG	**Comitan**	**3.53**	**332**	*e*P	**Pn**	**04 59 15.2**	**+0.7**
CCIG				*i* S	**Sn**	**04 59 56.6**	**+0.5**
JTS	**JuntasAbangare**	**6.05**	**118**	*e*Pn	**Pn**	**04 59 49.5**	**-0.7**
	comp=N,7.6nm,0.3s						
ROSC	**El Rosal**	**17.88**	**116**	P	**P**	**05 02 32.4**	**+3.4**
	comp=N,0.4nm,0.3s,baz=102,slow=23,SNR=2.3						
SDV	**Santo Domingo**	**19.86**	**100**	P	**P**	**05 02 48.4**	**-4.2**
	comp=N,0.1nm,0.3s,baz=314,slow=9.0,SNR=4.4						
TXAR	**Lajitas Array**	**20.26**	**325**	P	**P**	**05 02 57.1**	**+0.5**
	comp=N,1.3nm,0.6s,baz=147,slow=12,SNR=13						
MNTX	**Cornudas Mount**	**23.02**	**326**	*e*P	**P**	**05 03 24.4**	**0.0**
	comp=N,2.0nm,0.7s,mb3.7						
ANMO	**Albuquerque**	**26.11**	**329**	P	**P**	**05 03 54.0**	**+0.1**
	comp=N,0.5nm,0.6s,mb3.3,baz=154,slow=14,SNR=3.7						
NVAR	**Mina Array Bea**	**35.30**	**321**	P	**P**	**05 05 16.1**	**+0.8**
	comp=N,1.3nm,0.6s,mb4.0,baz=120,slow=8.8,SNR=10						
NVAR				PcP	PcP	05 07 45.5	-0.4
	comp=N,0.6nm,0.6s,baz=158,slow=4.0,SNR=4.4						
ULM	**Lac du Bonnet**	**37.26**	**354**	P	**P**	**05 05 28.2**	**-3.5**
	comp=N,1.3nm,0.7s,mb3.9,baz=172,slow=13,SNR=2.3						
SCHQ	**Schefferville**	**45.49**	**19**	P	**P**	**05 06 33.6**	**-5.6**
	comp=N,1.6nm,0.5s,mb4.1,baz=234,slow=9.9,SNR=16						
YKA	**Yellowknife Ar**	**52.20**	**346**	P	**P**	**05 07 26.1**	**-4.9**
	comp=N,0.1nm,0.4s,mb3.1,baz=147,slow=8.2,SNR=6.1						
WRA	**Warramunga Arr**	**136.68**	**255**	PKP	PKPdf	05 17 46.1	+0.8
	comp=N,0.2nm,0.7s,baz=88,slow=2.6,SNR=4.6						
CMAR	**Chiang Mai Arr**	**147.26**	**343**	PKPbc	PKPdf	05 18 01.9	-2.2
	comp=N,0.9nm,0.3s,baz=342,slow=2.4,SNR=5.1						

WAR ***24*** *05:20:30.7, 50.23N×18.88E, h1^{km}, Location given by Central Institute of Mining, origin time based upon OJC*

PRU ***24*** *05:20:30.8, 50.28N×18.83E*

ISC 24 05:20:29.1±0.9**, 50.25N**±0.09×**18.78E**±0.05**, n6, σ0^{s}90**/9**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	**Ostrava-Krasne**	**0.58**	**225**	*e*PG	**Pg**	**05 20 42.3**	**+1.6**
OJC	**Ojcow**	**0.66**	**92**	*e*Pg	**Pg**	**05 20 42.1**	**-0.2**
OJC				*e*Sg	**Sg**	**05 20 50.8**	**-0.2**
NIE	**Niedzica**	**1.30**	**129**	*e*Pg	**Pg**	**05 20 55.2**	**+0.2**
NIE				*e*Sg	**Sg**	**05 21 12.2**	**-0.1**
DPC	**Dobruska-Polom**	**1.58**	**275**	*e*PG	**Pg**	**05 21 00.5**	**-0.1**
DPC				*e*SG	**Sg**	**05 21 22.5**	**+0.9**
UPC	**Upice**	**1.79**	**279**	*e*PG	**Pg**	**05 21 04.6**	**-0.2**
KHC	**Kasperske Hory**	**3.56**	**254**	*e*SG	**Sg**	**05 22 25.3**	**-2.2**

JMA ***24*** *05:27:23.4±0.4, 24.36N×122.38E, h9^{km}, M2.7*

TAP 24 05:27:23.4, 24.77N×122.38E, h5^{km}±1^{km}**, ML3.0, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.65**	**118**	P	Pg	05 27 34.7	-1.7
YOJ				S	Sg	05 27 42.7	-2.4
IRIF	**Iriomote-Funau**	**1.30**	**109**	P	Pb	05 27 46.8	-1.2
IRIF				*e*S	Sb	05 28 02.1	-2.8
HATJ	**Hateruma jima**	**1.48**	**118**	P	Pn	05 27 47.8	-3.0
HATJ				*e*S	Sb	05 28 05.8	-4.2
JKRS	**Kuro-shima**	**1.58**	**109**	*e*S	Sb	05 28 07.2	-5.6
JIJ	**Ishigaki jima**	**1.66**	**104**	P	Pn	05 27 49.5	-3.8
JIJ				*e*S	Sb	05 28 12.2	-2.9

BJI ***24*** *05:31:40.4, 50.45S×162.24E, h10^{km}, mB6.1, mb5.7, Ms5.2, Msz5.0*

IDC ***24*** *05:31:43.3±0.3, 50.12S×161.45E, mb5.4/14, mb1 5.3/16, mb1mx5.3/17, ML4.5/2, MS4.6/14, Ms1 4.6/14, ms1mx4.3/20, Error ellipse: s-maj=17.8km s-min=13.0km az=56.0*

MOS ***24*** *05:31:44.1±0.9, 50.28S×160.96E, h10^{km}, mb5.8/13, MS4.7/5, Error ellipse: s-maj=29.5km s-min=13.1km az=95.8*

SYO ***24*** *05:31:44.8, 50.05S×161.49E, h10^{km}, MB5.4, MS4.7*

NEIC ***24*** *05:31:48.3±0.2, 49.56S×161.37E, h10^{km}, mb5.4/32, MS4.7/8, Error ellipse: s-maj=7.5km s-min=5.3km az=154.0*

HRVD ***24*** *05:31:48.3±0.6, 50.17S×161.13E, h12^{km}, MW5.3/49, Centroid moment Tensor Solution. LP body waves: s18,c23;Mantle waves: s49,c83; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}1.13±.06; $M_{\theta\theta}$-0.51±.06; $M_{\phi\phi}$-0.62±.06; $M_{r\theta}$0.18±.21; $M_{\theta\phi}$-0.57±.05; $M_{\phi r}$-0.20±.21; Best double couple: $M_0$1.16×10^{17} NP1: ϕ_s55°, δ46°, λ108°. NP2:ϕ_s210°, δ47°, λ72°. Principal axes: T 1.19, Plg77°, Azm46°; N -.06, Plg13°, Azm222°; P -1.13, Plg1°, Azm312°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 24 05:31:43.3±1.8**, 50.03S**±0.04×**161.60E**±0.06**, h10**^{km}±11^{km}**, h23**^{km}±4.9^{km}**:pP-P, n414, σ1^{s}30**/144**, mb5.5**/47**, MS4.8**/30**, 22C-19D, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCQ	**Macquarie Isla**	**4.76**	**199**	*e*P	**Pn**	**05 32 50.0**	**-7.0**
MCQ				*e*S	**Sn**	**05 33 38.1**	**-15**
WHZ	**Wether Hill Ro**	**5.94**	**48**	P	**Pn**	**05 33 13.6**	**0.0**
WHZ				S	**Sn**	**05 34 19.4**	**-3.1**
WHZ	**Wether Hill Ro**	**5.94**	**48**	P	**Pn**	**05 33 13.6**	**0.0**
WHZ				S	**Sn**	**05 34 18.7**	**-3.8**
MLZ	**Mavora Lakes**	**6.45**	**46**	*e*P	**Pn**	**05 33 20.9**	**+0.1**
MLZ				S	**Sn**	**05 34 32.8**	**-2.5**
MLZ	**Mavora Lakes**	**6.45**	**46**	P	**Pn**	**05 33 20.9**	**+0.1**
MLZ				S	**Sn**	**05 34 30.5**	**-4.8**
TUZ	**Tuapeka**	**6.76**	**56**	*e*P	**Pn**	**05 33 24.9**	**-0.2**
TUZ	**Tuapeka**	**6.76**	**56**	P	**Pn**	**05 33 24.9**	**-0.2**
TUZ				S	**Sn**	**05 34 38.3**	**-4.6**
MSZ	**Milford Sound**	**6.87**	**41**	P	**Pn**	**05 33 27.5**	**+0.9**
EAZ	**Earnscleugh**	**7.08**	**50**	P	**Pn**	**05 33 29.6**	**0.0**
EAZ	**Earnscleugh**	**7.08**	**50**	P	**Pn**	**05 33 29.3**	**-0.3**
WKZ	**Wanaka**	**7.24**	**47**	P	**Pn**	**05 33 33.0**	**+1.2**
WKZ	**Wanaka**	**7.24**	**47**	P	**Pn**	**05 33 32.6**	**+0.8**
JCZ	**Jackson Bay**	**7.70**	**42**	*e*P	**Pn**	**05 33 39.5**	**+1.1**
JCZ	**Jackson Bay**	**7.70**	**42**	P	**Pn**	**05 33 39.4**	**+1.0**
ODZ	**Otahua Downs**	**7.89**	**54**	*e*P	**Pn**	**05 33 39.0**	**-2.0**
ODZ	**Otahua Downs**	**7.89**	**54**	P	**Pn**	**05 33 39.0**	**-2.0**
LBZ	**Lake Benmore**	**8.12**	**49**	*e*P	**P**	**05 33 42.1**	**-2.1**
LBZ	**Lake Benmore**	**8.12**	**49**	P	**P**	**05 33 40.2**	**-4.0**
FOZ	**Fox Glacier**	**8.52**	**44**	P	**P**	**05 33 50.2**	**+0.5**
RPZ	**Rata Peaks**	**9.04**	**49**	Pn	**P**	**05 33 53.6**	**-3.3**
	7.9nm,0.3s,baz=236,slow=6.0,SNR=26						
RPZ				Sn	**Sn**	**05 35 34.7**	**-5.2**
	3.5nm,0.3s,baz=31,slow=23,SNR=3.2						
RPZ				LR	LR	05 37 17.1	
	comp=Z,2µm,20.0s,baz=216,slow=36						
LTZ	**Lake Taylor**	**10.33**	**50**	P	**P**	**05 34 12.2**	**-2.4**
LTZ	**Lake Taylor**	**10.33**	**50**	P	**P**	**05 34 11.1**	**-3.5**
DSZ	**Denniston Nort**	**10.91**	**44**	*e*P	**P**	**05 34 21.5**	**-1.0**
DSZ	**Denniston Nort**	**10.91**	**44**	*e*P	**P**	**05 34 20.3**	**-2.2**
THZ	**Tophouse**	**11.41**	**48**	*e*P	**P**	**05 34 28.0**	**-1.4**
THZ	**Tophouse**	**11.41**	**48**	P	**P**	**05 34 28.0**	**-1.4**
QRZ	**Quartz Range**	**11.97**	**44**	*e*P	**P**	**05 34 36.0**	**-1.0**
QRZ	**Quartz Range**	**11.97**	**44**	P	**P**	**05 34 35.6**	**-1.4**
URZ	**Urewera**	**16.16**	**49**	Pn	**P**	**05 35 34.0**	**+2.0**
	1.4nm,0.3s,baz=240,slow=6.1,SNR=12						
URZ				LR	LR	05 41 58.6	
	comp=Z,536nm,18.5s,baz=241,slow=38						
TOO	**Toolangi**	**16.99**	**311**	*e*P	**P**	**05 35 44.3**	**+1.8**
	73nm,1.2s						
TOO				*e*S	**S**	**05 38 48.2**	**-2.1**
TOO				*e*T		05 51 57.9	
OUZ	**Omahuta**	**17.20**	**35**	*e*P	**P**	**05 35 49.5**	**+4.4**
OUZ	**Omahuta**	**17.20**	**35**	P	**P**	**05 35 49.5**	**+4.4**
CNB	**Canberra Magne**	**17.20**	**324**	*e*P	**P**	**05 35 46.7**	**+1.5**
	408nm,1.7s						
CNB				*e*T		05 51 38.1	
STKA	**Stephens Creek**	**23.47**	**313**	*e*P	**P**	**05 36 55.6**	**+1.8**
	66nm,1.1s,mb5.0						
STKA				*i* PCP	PcP	05 40 40.1	-1.3
STKA				*i* S		05 44 18.0	
STKA	**Stephens Creek**	**23.47**	**313**	P	**P**	**05 36 55.5**	**+1.8**
	85nm,1.1s,mb5.1,baz=140,slow=10,SNR=63						
STKA				tx	tx	05 37 04.7	
	35nm,0.8s,baz=138,slow=9.5,SNR=16						
STKA				PcP	PcP	05 40 40.0	-1.4
	12nm,0.8s,baz=122,slow=3.5,SNR=7.8						
STKA				LR	LR	05 45 43.2	
	comp=Z,4µm,18.3s,MS4.9,baz=92,slow=36						
VNDA	**Vanda**	**27.60**	**180**	P	**P**	**05 37 31.0**	**-1.2**
	8.8nm,0.8s,mb4.4,baz=344,slow=9.6,SNR=27						
VNDA				tx	tx	05 37 39.9	
	12nm,1.0s,baz=354,slow=8.7,SNR=10						
VNDA				PcP	PcP	05 40 48.9	-1.3
	2.0nm,0.7s,baz=326,slow=3.2,SNR=4.2						
VNDA				LR	LR	05 45 53.4	
	comp=Z,3µm,19.1s,MS4.8,baz=8.6,slow=31						
VNDA	**Vanda**	**27.60**	**180**	*e*P	**P**	**05 37 31.1**	**-1.1**
	25nm,1.2s,mb4.7						
VNDA				LR	LR		
	comp=Z,2µm,22.0s,MS4.6						
SBA	**Scott Base**	**28.00**	**178**	*e*P	**P**	**05 37 35.2**	**-0.7**
SBA				LR	LR		
	comp=Z,2µm,19.0s,MS4.7						
DZM	**Mont Dzumac**	**28.16**	**10**	⇑*e*P	**P**	**05 37 40.8**	**+3.0**
DZM	**Mont Dzumac**	**28.16**	**10**	⇑*e*P	**P**	**05 37 40.8**	**+3.0**
CASY	**Casey**	**30.36**	**219**	*e*P	**P**	**05 37 53.4**	**-3.6**
	comp=Z,62nm,1.2s,mb5.2						
CASY				LR	LR		
	comp=Z,198nm,21.0s						
CTA	**Charters Tower**	**32.27**	**332**	⇑*i*P	**P**	**05 38 14.7**	**+0.4**
	comp=Z,57nm,1.1s,mb5.3						
CTA				*i* PCP	PcP	05 41 02.4	-0.3
CTA	**Charters Tower**	**32.27**	**332**	P	**P**	**05 38 14.9**	**+0.7**
	comp=Z,74nm,1.1s,mb5.5,baz=158,slow=8.6,SNR=49						
CTA				PcP	PcP	05 41 01.6	-1.0
	comp=Z,18nm,0.9s,baz=201,slow=4.8,SNR=10						
CTA				LR	LR	05 49 41.3	
	comp=Z,3µm,19.1s,MS5.0,baz=158,slow=33						
CTAO	**Charters Tower**	**32.27**	**332**	*e*P	**P**	**05 38 14.4**	**+0.2**
	comp=Z,121nm,1.1s,mb5.6						
CTAO				LR	LR		
	comp=Z,3µm,21.0s,MS4.9						
ASAR	**Alice Springs**	**34.04**	**310**	P	**P**	**05 38 29.1**	**-0.5**
	comp=Z,125nm,0.8s,mb5.9,baz=146,slow=8.1,SNR=853						
ASAR				tx	tx	05 38 37.6	
	comp=Z,74nm,0.7s,baz=145,slow=8.4,SNR=17						
ASAR				PcP	PcP	05 41 06.0	-1.6
	comp=Z,22nm,1.0s,baz=150,slow=3.2,SNR=13						
ASAR				PKiKP		05 48 28.9	
	comp=Z,0.9nm,0.8s,baz=128,slow=1.2,SNR=5.9						
ASAR				LR	LR	05 52 48.6	
	comp=Z,2µm,18.0s,MS4.8,baz=143,slow=37						
ASAR				P3KPbc		06 09 34.4	
	comp=Z,1.2nm,0.9s,baz=328,slow=4.5,SNR=9.0						
ASAR	**Alice Springs**	**34.04**	**310**	P	**P**	**05 38 29.1**	**-0.5**
ASAR				PcP	PcP	05 41 06.0	-1.6
ASPA	**Alice Springs**	**34.04**	**310**	⇑*i*P	**P**	**05 38 29.2**	**-0.4**
ASPA				*i* PCP	PcP	05 41 06.0	-1.5
ASPA				*e*S		05 44 50.3	
NWAO	**Narrogin (SRO)**	**36.75**	**281**	P	**P**	**05 38 51.3**	**-1.3**
	comp=Z,55nm,1.0s,mb5.3,baz=124,slow=6.9,SNR=13						
NWAO				PcP	PcP	05 41 14.0	-1.4
	comp=Z,22nm,1.0s,baz=259,slow=0.4,SNR=4.2						
NWAO	**Narrogin (SRO)**	**36.75**	**281**	*e*P	**P**	**05 38 50.9**	**-1.7**
	comp=Z,56nm,1.0s,mb5.3						
NWAO				LR	LR		
	comp=Z,2µm,21.0s,MS4.8						
WB2	**Warramunga Arr**	**37.01**	**314**	⇑*i*P	**P**	**05 38 54.0**	**-0.9**
WB2				*i* PCP	PcP	05 41 14.8	-1.5
WB2				*e*S	**S**	**05 44 39.6**	**-0.2**
WB2				*e*PCS		05 45 01.2	
WRA	**Warramunga Arr**	**37.01**	**314**	P	**P**	**05 38 53.7**	**-1.2**

	comp=Z,131nm,0.8s,mb5.8,baz=145,slow=7.9,SNR=171						
WRA				tx	tx	05 39 02.1	
	comp=Z,68nm,0.9s,baz=149,slow=7.4,SNR=25						
WRA				PcP	PcP	05 41 15.1	-1.2
	comp=Z,31nm,0.9s,baz=152,slow=2.5,SNR=14						
WRA	**Warramunga Arr**	**37.01**	**314**	P	**P**	**05 38 53.7**	**-1.2**
WRA				PcP	PcP	05 41 15.1	-1.2
WRAB	**Tennant Creek**	**37.02**	**314**	⇑*e*P	**P**	**05 38 53.9**	**-1.1**
	comp=Z,281nm,0.9s,mb6.1						
WRAB				LR	LR		
	comp=Z,958nm,19.0s,MS4.6						
KLBR	**Kellerberrin**	**37.31**	**283**	*e*P	**P**	**05 38 56.0**	**-1.3**
	comp=Z,125nm,1.0s,mb5.7						
KLBR				*e*PCP	PcP	05 41 15.6	-1.5
MUN	**Mundaring**	**38.03**	**281**	*e*P	**P**	**05 39 02.3**	**-1.0**
	comp=Z,50nm,0.9s,mb5.2						
MUN				*e*PCP	PcP	05 41 18.1	-1.2
MUN				*e*S	**S**	**05 44 55.3**	**0.0**
QSPA	**South Pole Qui**	**40.09**	**180**	*e*P	**P**	**05 39 20.4**	**+0.3**
	comp=Z,95nm,1.3s,mb5.4						
RAR	**Rarotonga**	**41.84**	**61**	P	**P**	**05 39 35.2**	**+0.3**
	comp=Z,36nm,0.4s,mb5.4,baz=156,slow=2.8,SNR=13						
RAR				LR	LR	05 51 49.8	
	comp=Z,339nm,21.7s,MS4.2,baz=243,slow=29						
PMG	**Port Moresby**	**42.23**	**339**	P	**P**	**05 39 39.6**	**+1.3**
	comp=Z,36nm,0.9s,mb5.0,baz=159,slow=5.4,SNR=14						
PMG				LR	LR	05 54 28.5	
	comp=Z,2µm,19.9s,MS5.0,baz=163,slow=32						
FITZ	**Fitzroy Crossi**	**42.90**	**305**	⇓*i*P	**P**	**05 39 43.9**	**+0.2**
	comp=Z,93nm,0.8s,mb5.6						
FITZ				*i* PCP	PcP	05 41 34.7	-0.4
MBWA	**Marble Bar**	**43.73**	**296**	⇑*e*P	**P**	**05 39 49.3**	**-1.1**
	comp=Z,111nm,0.9s,mb5.6						
MBWA				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
KAKA	**Kakadu**	**44.22**	**317**	⇑*i*P	**P**	**05 39 53.9**	**-0.5**
	comp=Z,71nm,0.9s,mb5.4						
KAKA				*i* PCP	PcP	05 41 38.3	-1.3
TBI	**Tubuai**	**46.33**	**73**	*e*S	**S**	**05 47 05.7**	**+8.1**
TBI				*e*LR	LR	05 53 04.3	
	comp=Z,687nm,37.2s						
MAW	**Mawson**	**48.06**	**211**	*e*P	**P**	**05 40 22.7**	**-1.5**
	comp=Z,12nm,1.2s,mb4.8						
MAW	**Mawson**	**48.06**	**211**	P	**P**	**05 40 22.5**	**-1.7**
	comp=Z,13nm,1.0s,mb4.9,baz=117,slow=6.9,SNR=8.7						
MAW				PcP	PcP	05 41 51.2	-1.2
	comp=Z,12nm,0.8s,baz=132,slow=3.0,SNR=5.9						
MAW				LR	LR	05 59 26.2	
	comp=Z,406nm,18.2s,MS4.4,baz=312,slow=35						
MAW	**Mawson**	**48.06**	**211**	*e*P	**P**	**05 40 22.4**	**-1.8**
MAW				*e*		05 41 50.7	
MAW				pmax	pmax		
	comp=Z,190nm,2.0s						
PAE	**Paea**	**50.56**	**68**	*e*P	**P**	**05 40 46.7**	**+2.7**
	comp=Z,188nm,1.3s,mb5.9						
PPT	**Papeete**	**50.63**	**68**	*e*S	**S**	**05 48 05.1**	**+7.1**
PPT				*e*LR	LR	05 55 02.6	
	comp=Z,908nm,27.8s						
TVO	**Taravao**	**50.66**	**69**	*e*P	**P**	**05 40 47.9**	**+3.1**
	comp=Z,66nm,0.8s,mb5.6						
TIAR	**Tiarei**	**50.78**	**68**	*e*P	**P**	**05 40 48.8**	**+3.1**
	comp=Z,368nm,1.0s,mb6.3						
SYO	**Syowa Base**	**53.86**	**202**	⇓P	**P**	**05 41 05.9**	**-2.2**
SYO	**Syowa Base**	**53.86**	**202**	⇓pP	pP	05 41 07.8	-3.3
SYO	**Syowa Base**	**53.86**	**202**	⇓sP	sP	05 41 10.8	-1.5
SYO	**Syowa Base**	**53.86**	**202**	⇑PcP	PcP	05 42 12.1	-1.7
RKT	**Rikitea**	**55.67**	**86**	*e*S	**S**	**05 49 14.2**	**+7.8**
RKT				*e*LQ		05 55 10.0	
RKT				*e*LR	LR	05 57 30.8	
	comp=Z,2µm,31.2s,baz=215						
NVL	**N'lazarevskaya**	**57.56**	**191**	⇑*e*P	**P**	**05 41 32.0**	**-2.9**
NVL				pmax	pmax		
	comp=Z,245nm,2.2s,mb5.8						
SNAA	**Sanae**	**58.10**	**186**	⇑*i*P	**P**	**05 41 36.6**	**-2.0**
SNAA	**Sanae**	**58.10**	**186**	*e*	**P**	**05 41 39.1**	**+0.5**
SNAA	**Sanae**	**58.10**	**186**	*e*	**P**	**05 41 39.8**	**+1.2**
SNAA	**Sanae**	**58.10**	**186**	*e*	PcP	05 42 24.8	-5.4
SNAA	**Sanae**	**58.10**	**186**	LR	LR	06 04 35.9	
	comp=Z,265nm,19.0s,MS4.4,baz=180,slow=34						
SNAA	**Sanae**	**58.10**	**186**	*e*P	**P**	**05 41 36.2**	**-2.4**
SNAA				pmax	pmax		
	comp=Z,33nm,1.1s						
SNAA	**Sanae**	**58.10**	**186**	*e*P	**P**	**05 41 36.2**	**-2.4**
	comp=Z,15nm,0.7s,mb5.1						
SNAA				*e*		05 42 24.8	
SNAA				*e*		05 43 45.1	
SNAA				*e*		05 48 41.4	
VNA3	**Neumayer Olymp**	**58.88**	**183**	*e*	**P**	**05 41 47.5**	**+3.5**
VNA3	**Neumayer Olymp**	**58.88**	**183**	*e*	**P**	**05 41 48.1**	**+4.1**
VNA3	**Neumayer Olymp**	**58.88**	**183**	*e*	PcP	05 42 33.2	0.0
VNA3	**Neumayer Olymp**	**58.88**	**183**	*e*	PP	05 43 52.5	-3.6
VNA3	**Neumayer Olymp**	**58.88**	**183**	⇑*i*P	**P**	**05 41 44.9**	**+0.9**
VNA3				*e*		05 42 33.2	
VNA3				*e*		05 43 52.5	
VNA3				*e*		05 48 49.0	
VNA2	**Neumayer--Watz**	**59.10**	**184**	*e*	**P**	**05 41 49.5**	**+3.9**
VNA2	**Neumayer--Watz**	**59.10**	**184**	*e*	**P**	**05 41 50.2**	**+4.6**
VNA2	**Neumayer--Watz**	**59.10**	**184**	*e*	PcP	05 42 35.5	+1.4
VNA2	**Neumayer--Watz**	**59.10**	**184**	⇑*i*P	**P**	**05 41 46.8**	**+1.2**
VNA2				*e*		05 42 35.5	
VNA2				*e*		05 43 54.8	
VNA2				*e*		05 48 51.5	
VNA1	**Neumayer--Stat**	**59.41**	**184**	*e*	**P**	**05 41 51.8**	**+4.1**
VNA1	**Neumayer--Stat**	**59.41**	**184**	*e*	**P**	**05 41 52.7**	**+5.0**
VNA1	**Neumayer--Stat**	**59.41**	**184**	*e*	PcP	05 42 38.5	+3.2
VNA1	**Neumayer--Stat**	**59.41**	**184**	⇑*i*P	**P**	**05 41 49.3**	**+1.6**
VNA1				*e*		05 42 38.5	
VNA1				*e*		05 43 57.8	
VNA1				*e*		05 48 54.6	
BUKP	**Musuan**	**65.83**	**320**	*e*P	**P**	**05 42 30.1**	**-1.1**
PAGZ	**Pagadian**	**66.52**	**318**	*e*P	**P**	**05 42 34.4**	**-1.1**
IPIL	**Ipil**	**66.82**	**317**	*e*P	**P**	**05 42 36.5**	**-0.9**
USHA	**Ushuaia**	**67.44**	**151**	P	**P**	**05 42 41.2**	**+0.5**
	comp=Z,29nm,1.0s,mb5.2,baz=196,slow=3.1,SNR=4.8						
MSLP	**Maasin**	**67.95**	**321**	*e*P	**P**	**05 42 42.8**	**-1.8**
TBP	**Tagbilaran**	**67.97**	**319**	*e*P	**P**	**05 42 43.6**	**-1.1**
OCLP	**Ormoc**	**68.89**	**321**	*e*P	**P**	**05 42 48.4**	**-2.0**
TGY	**Tagaytay City**	**73.16**	**319**	P	**P**	**05 43 16.2**	**+0.1**
	comp=Z,132nm,0.4s,mb6.2,baz=189,slow=8.4,SNR=2.9						
TGY				LR	LR	06 13 49.2	
	comp=Z,320nm,22.0s,MS4.6,baz=208,slow=34						
EFI	**East Falkland**	**73.22**	**155**	*e*P	**P**	**05 43 15.1**	**-0.6**
EFI				pmax	pmax		
	comp=Z,59nm,1.0s,mb5.5						
EFI	**East Falkland**	**73.22**	**155**	*e*P	**P**	**05 43 15.1**	**-0.6**
	comp=Z,59nm,1.0s,mb5.5						
CBIJ	**Chichi jima**	**78.69**	**342**	P	**P**	**05 43 46.5**	**-0.6**
	comp=Z,132nm,1.0s,mb5.8,baz=349,slow=10,SNR=2.7						
CBIJ				LR	LR	06 12 23.1	
	comp=Z,307nm,20.5s,MS4.6,baz=121,slow=31						
JOW	**Kunigami**	**82.04**	**330**	LR	LR	06 21 01.3	
	comp=Z,484nm,18.6s,MS4.9,baz=133,slow=36						
QIZ	**Qiongzhong**	**82.53**	**311**	*e*P	**P**	**05 44 08.0**	**+0.4**
	comp=Z,31nm,1.0s,mb5.3						
TRQA	**Tornquist**	**84.25**	**147**	*e*P	**P**	**05 44 15.9**	**-0.2**
	comp=Z,19nm,1.0s,mb5.2						
NST	**Nakhon Sawan**	**84.74**	**302**	P	**P**	**05 44 20.0**	**+1.1**
	comp=Z,75nm,0.8s,mb5.9						
NANT	**Nan**	**87.00**	**304**	⇑P	**P**	**05 44 31.0**	**+0.9**
CM31	**Chiang Mai Arr**	**87.66**	**302**	*e*P	**P**	**05 44 34.5**	**+1.2**
	comp=Z,128nm,1.0s,mb6.1						
CMAR	**Chiang Mai Arr**	**87.66**	**302**	P	**P**	**05 44 34.4**	**+1.1**
	comp=Z,71nm,0.9s,mb5.9,baz=161,slow=3.7,SNR=264						
CMAR				PKKPbc		06 02 22.8	
	comp=Z,1.0nm,0.4s,baz=289,slow=2.0,SNR=6.1						
CMAR				LR	LR	06 24 14.8	
	comp=Z,439nm,19.7s,MS4.9,baz=150,slow=36						
CMAR	**Chiang Mai Arr**	**87.66**	**302**	*i* P	**P**	**05 44 34.4**	**+1.1**
CMAR				pmax	pmax		
	comp=Z,71nm,0.9s						
SSE	**Sheshan**	**88.36**	**326**	P	**P**	**05 44 38.1**	**+1.7**
SSE				AP	pP	05 44 41.5	+2.0
SSE				S	S	05 55 23.3	+3.7
SSE				SS	SS	06 01 14.6	+1.8
SSE				AMB	AMB		
	comp=Z,71nm,1.0s,mb5.8						
SSE				AMB	AMB		
	comp=Z,164nm,10.3s						
SSE				LR	LR		
	comp=N,227nm,26.1s,MS4.5						
SSE				LR	LR		
	comp=E,121nm,26.1s,MS4.5						
SSE				LR	LR		
	comp=Z,372nm,26.1s,MS4.7						
SSE	**Sheshan**	**88.36**	**326**	P	**P**	**05 44 38.1**	**+1.7**
	comp=Z,71nm,1.0s,mb5.8						
SSE				pP	pP	05 44 41.5	+2.0
SSE				S	S	05 55 23.2	+3.6
SSE				sS		05 55 27.8	
SSE				SS	SS	06 01 14.6	+1.8
SSE				LR	LR		
	comp=Z,370nm,26.1s,MS4.7						
CHRT	**Chiangrai**	**88.36**	**304**	⇑P	**P**	**05 44 38.0**	**+1.4**
	comp=Z,363nm,0.9s						
MAJO	**Matsushiro**	**88.64**	**341**	*e*P	**P**	**05 44 38.5**	**+0.9**
MAJO				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.4						
MAJO	**Matsushiro**	**88.64**	**341**	*e*P	**P**	**05 44 38.5**	**+0.9**
	comp=Z,18nm,0.8s,mb5.5						
MAT	**Matsushiro**	**88.64**	**341**	P	**P**	**05 44 38.7**	**+1.1**
MAT	**Matsushiro**	**88.64**	**341**	*e*P	**P**	**05 44 39.0**	**+1.4**
	comp=Z,40nm,1.1s,mb5.7						
PALK	**Pallekele**	**89.70**	**282**	*e*P	**P**	**05 44 42.4**	**-0.8**
	comp=Z,30nm,1.0s,mb5.6						
NJ2	**Nanjing**	**90.08**	**325**	*e*P	**P**	**05 44 45.8**	**+1.3**
NJ2				AP	pP	05 44 55.5	+7.9
NJ2				PP	PP	05 48 23.3	+3.1
NJ2				PPP	PPP	05 50 21.1	+1.9
NJ2				S	S	05 55 36.0	+0.6
NJ2				AMB	AMB		
	comp=Z,210nm,1.2s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,2µm,4.8s						
NJ2				LR	LR		
	comp=N,730nm,15.4s,MS5.3						
NJ2				LR	LR		
	comp=E,530nm,18.4s,MS5.3						
NJ2				LR	LR		
	comp=Z,5µm,18.8s						
GYA	**Guiyang**	**90.37**	**313**	⇑*i*P	**P**	**05 44 47.1**	**+1.2**
GYA				S	S	05 55 33.0	-5.2
GYA				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.8						
GYA				AMB	AMB		
	comp=Z,160nm,4.8s						
GYA				LR	LR		
	comp=N,310nm,17.2s,MS4.9						
GYA				LR	LR		
	comp=E,210nm,18.7s,MS4.9						
GYA				LR	LR		
	comp=Z,300nm,19.9s,MS4.7						
WHN	**Wuhan**	**90.50**	**321**	⇓P	**P**	**05 44 47.5**	**+1.1**
WHN				PP	PP	05 48 22.0	-1.6
WHN				AMB	AMB		
	comp=Z,67nm,1.4s,mb5.8						
SUR	**Sutherland**	**90.89**	**212**	P	**P**	**05 44 48.1**	**-0.1**
	comp=Z,8.5nm,0.7s,mb5.2,baz=138,slow=9.1,SNR=12						
SUR	**Sutherland**	**90.89**	**212**	*e*P	**P**	**05 44 47.6**	**-0.6**
	comp=Z,18nm,0.9s,mb5.4						
KMI	**Kunming**	**91.16**	**309**	*e*P	**P**	**05 44 51.6**	**+2.0**
KMI				XP	sP	05 44 59.6	+5.9
KMI				S	S	05 55 50.5	+5.3
KMI				AMB	AMB		
	comp=Z,31nm,1.8s,mb5.3						
KMI				AMB	AMB		
	comp=Z,411nm,3.5s						
KMI				LR	LR		
	comp=N,322nm,19.2s,MS4.9						
KMI				LR	LR		
	comp=E,333nm,20.3s,MS4.9						
KMI				LR	LR		
	comp=Z,439nm,39.0s						
KMI	**Kunming**	**91.16**	**309**	*e*P	**P**	**05 44 51.6**	**+2.0**
	comp=Z,31nm,1.8s,mb5.3						
KMI				sP	sP	05 44 59.6	+5.9
KMI				PP	PP	05 48 31.1	+2.1
KMI				S	S	05 55 50.5	+5.3
KMI				SS	SS	06 01 58.6	+5.5
KMI				LR	LR		
	comp=Z,440nm,39.0s,MS4.6						
ENH	**Enshi**	**92.33**	**317**	*e*P	**P**	**05 44 54.6**	**-0.2**
	comp=Z,20nm,1.3s,mb5.3						
BOSA	**Boshof**	**92.65**	**217**	*e*P	**P**	**05 44 55.1**	**-1.3**
BOSA				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.3						
BOSA	**Boshof**	**92.65**	**217**	*e*P	**P**	**05 44 55.1**	**-1.2**
	comp=Z,12nm,1.0s,mb5.3						
LVC	**Limon Verde**	**94.98**	**134**	P	**P**	**05 45 09.3**	**+2.1**
	comp=Z,3.8nm,0.9s,mb4.8,baz=180,slow=4.2,SNR=3.6						
LVC	**Limon Verde**	**94.98**	**134**	*e*P	**P**	**05 45 08.8**	**+1.5**
	comp=Z,12nm,1.1s,mb5.2						
CD2	**Chengdu**	**95.48**	**313**	P	**P**	**05 45 10.0**	**+0.6**
CD2				PP	PP	05 49 04.4	+2.0
CD2				PPP	PPP	05 51 10.3	+2.9
CD2				SKS	SKS	05 55 46.0	-2.9
CD2				S	S	05 56 23.1	+0.6
CD2				PS	PS	05 57 43.8	-3.3
CD2				AMB	AMB		
	comp=Z,220nm,10.8s						
CD2				LR	LR		
	comp=E,340nm,15.6s						
CD2				LR	LR		
	comp=Z,450nm,18.0s,MS5.0						
XAN	**Xi'an**	**95.80**	**318**	P	**P**	**05 45 10.8**	**+0.1**
XAN				AP	pP	05 45 18.3	+4.4
XAN				AMB	AMB		
	comp=Z,18nm,1.3s,mb5.3						
CPUP	**Villa Florida**	**96.50**	**145**	P	**P**	**05 45 14.7**	**+0.6**
	comp=Z,0.0nm,0.3s,baz=6.2,slow=14,SNR=1.6						
SHL	**Shillong**	**97.24**	**301**	*e*P	**P**	**05 45 18.0**	**+0.6**
BJI	**Beijing**	**98.17**	**326**	*e*P	**P**	**05 45 22.8**	**+1.5**
BJI				S	S	05 56 49.3	+4.3
BJI				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb5.2						
BJI				LR	LR		
	comp=N,399nm,26.7s,MS4.9						
BJI				LR	LR		
	comp=E,387nm,27.6s,MS4.9						
BJI				LR	LR		
	comp=Z,586nm,24.7s,MS5.0						
BJI	**Beijing**	**98.17**	**326**	*e*P	**P**	**05 45 22.7**	**+1.4**
	comp=Z,8.0nm,0.9s,mb5.2						
BJI				S	S	05 56 49.2	+4.2
BJI				SS	tx	06 04 39.3	
BJI				LR	LR		
	comp=Z,590nm,24.7s,MS5.0						
MDJ	**Mudanjiang**	**98.30**	**338**	P	**P**	**05 45 22.3**	**+0.6**
MDJ				S	S	05 56 53.3	+7.3
MDJ				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,189nm,5.3s						
MDJ				LR	LR		
	comp=N,295nm,39.6s						
MDJ				LR	LR		
	comp=E,171nm,33.7s						
MDJ				LR	LR		
	comp=Z,420nm,40.9s,MS4.6						
CN2	**Changchun**	**98.62**	**334**	*e*P	**P**	**05 45 23.3**	**+0.1**
LZH	**Lanzhou**	**99.75**	**316**	P	**P**	**05 45 30.0**	**+1.4**
LZH				AP	pP	05 45 38.3	+6.6
LZH				PP	PP	05 49 36.5	+1.0
LZH				SKS	SKS	05 56 06.0	-4.8
LZH				*e*S	S	05 56 59.0	+0.6
LZH				PS	PS	05 58 38.4	+6.4
LZH				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.9						
LZH				AMB	AMB		
	comp=Z,200nm,5.2s						
LZH				LR	LR		
	comp=E,540nm,14.0s						
LZH				LR	LR		
	comp=Z,700nm,18.0s,MS5.2						
LZH	**Lanzhou**	**99.75**	**316**	P	**P**	**05 45 30.0**	**+1.4**
	comp=Z,60nm,1.2s,mb5.9						
LZH				pP	pP	05 45 38.3	+6.6
LZH				sP	sP	05 45 43.4	+11
LZH				PP	PP	05 49 36.5	+1.0
LZH				SKS	SKS	05 56 06.0	-4.8
LZH				*e*S	S	05 56 59.0	+0.6
LZH				PS	PS	05 58 38.4	+6.4
LZH				SS	SS	06 03 58.0	+3.9
LZH				LR	LR		
	comp=Z,700nm,18.0s,MS5.2						
HHC	**Hu-ho-hao-te**	**100.58**	**324**	*e*P	P	05 45 33.3	+1.1
HHC				AP		05 45 38.3	
HHC				PP	PP	05 49 45.3	+3.3
HHC				SKS	SKS	05 56 09.4	-5.4
HHC				S	S	05 57 08.5	+3.2
HHC				XS		05 57 17.3	
HHC				AMB	AMB		
	comp=Z,12nm,0.4s						
HHC				AMB	AMB		
	comp=Z,123nm,4.6s						
HHC				LR	LR		
	comp=N,294nm,15.5s,MS5.1						
HHC				LR	LR		
	comp=E,318nm,15.5s,MS5.1						
HHC				LR	LR		
	comp=Z,324nm,19.6s,MS4.8						
LPAZ	**La Paz**	**100.80**	**132**	P	P	05 45 35.8	+2.1
	comp=Z,1.2nm,0.9s,baz=141,slow=2.7,SNR=4.0						
LPAZ	**La Paz**	**100.80**	**132**	*e*Pdif	P	05 45 35.7	+1.9
GUN	**Gumba**	**102.42**	**299**	*e*P	Pdif	05 45 40.7	-0.1
	comp=Z,15nm,0.9s						
PKI	**Pulchoki**	**102.42**	**298**	*e*P	Pdif	05 45 40.2	-0.6
	comp=Z,8.4nm,0.6s						
DMN	**Daman**	**102.62**	**298**	*e*P	Pdif	05 45 41.3	-0.4
	comp=Z,30nm,1.2s						
KKN	**Kakani**	**102.66**	**298**	*e*P	Pdif	05 45 41.4	-0.5
	comp=Z,30nm,1.1s						
GKN	**Gorkha**	**103.19**	**298**	*e*P	Pdif	05 45 43.7	-0.5
KOLN	**Koldanda**	**103.61**	**297**	*e*P	Pdif	05 45 45.2	-0.8
	comp=Z,20nm,1.1s						
SONM	**Songino Array**	**108.46**	**324**	PKiKP		05 50 12.1	
	comp=Z,0.7nm,0.8s,baz=166,slow=5.1,SNR=4.6						
SONM				PKKPbc		06 01 23.6	
	comp=Z,1.4nm,0.8s,baz=320,slow=2.7,SNR=8.9						
KMBO	**Kilima Mbogo**	**110.42**	**242**	PKiKP		05 50 18.0	
	comp=Z,1.9nm,0.9s,baz=41,slow=24,SNR=4.8						
NVAR	**Mina Array Bea**	**112.70**	**57**	PKiKP		05 50 22.6	
	comp=Z,2.4nm,0.9s,baz=219,slow=5.2,SNR=12						
NVAR				PKKPbc		06 01 09.7	
	comp=Z,2.6nm,1.0s,baz=60,slow=3.6,SNR=8.4						
TPNV	**Topopah Spring**	**112.76**	**59**	*e*PKP	PKPdf	05 50 21.6	-1.3
YBH	**Yreka Blue Hor**	**112.80**	**52**	PKiKP		05 50 21.7	
	comp=Z,3.6nm,1.2s,baz=144,slow=3.9,SNR=3.6						
WMQ	**Urumqi**	**113.44**	**311**	⇓PKP	PKPdf	05 50 22.3	-1.8
WMQ				PP	PP	05 51 18.5	+1.2
WMQ				SKKS		05 58 07.5	
WMQ				PP	PP		
	comp=Z,44nm,6.2s						
WMQ				LR	LR		
	comp=N,190nm,27.3s,MS4.7						
WMQ				LR	LR		
	comp=E,143nm,26.8s,MS4.7						
WMQ				LR	LR		
	comp=Z,247nm,33.8s						
MOD	**Modoc**	**114.16**	**53**	*e*PKiKP		05 50 24.6	
BOD	**Bodaibo**	**114.38**	**334**	*e*PKIKP	PKPdf	05 50 21.8	-3.7
YAK	**Yakutsk**	**114.57**	**344**	*i* PKIKP	PKPdf	05 50 23.5	-2.2
TXAR	**Lajitas Array**	**114.77**	**73**	PKP	PKPdf	05 50 25.9	-1.0
	comp=Z,1.7nm,0.9s,baz=180,slow=3.8,SNR=8.7						
TXAR				PKKPbc		06 01 03.3	
	comp=Z,0.4nm,0.8s,baz=83,slow=4.4,SNR=3.6						
ROSC	**El Rosal**	**115.11**	**114**	PKKPbc		06 01 01.7	
	comp=Z,9.2nm,0.9s,baz=91,slow=3.3,SNR=6.1						
MNTX	**Cornudas Mount**	**115.38**	**70**	*e*PKPdf	PKPdf	05 50 26.9	-1.2
MVU	**Marysvale**	**116.12**	**61**	*e*PKPdf	PKPdf	05 50 29.6	+0.2
MSU	**Marysvale**	**116.14**	**61**	*e*PKIKP	PKPdf	05 50 29.7	+0.2
KSH	**Kashi**	**116.50**	**300**	*e*PKP	PKPdf	05 50 24.1	-6.0
KSH				*e*XPKP		05 50 33.8	
KSH				*e*PKS	PKS	05 54 00.6	-2.1
KSH				PP	PP		
	comp=Z,230nm,5.6s						
KSH				LR	LR		
	comp=N,490nm,7.9s						
KSH				LR	LR		
	comp=E,520nm,6.9s						
PGC	**Sidney**	**117.45**	**46**	*e*PKPdf	PKPdf	05 50 30.4	-1.3
BMO	**Blue Mountains**	**117.79**	**53**	PKIKP	PKPdf	05 50 31.1	-1.3
BMO	**Blue Mountains**	**117.79**	**53**	*e*PKPdf	PKPdf	05 50 30.9	-1.5
BILL	**Bilibino**	**117.79**	**2**	*i* PKIKP	PKPdf	05 50 30.4	-1.5
BILL				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.5						
PV10	**Paradox Valley**	**117.83**	**63**	*e*PKPdf	PKPdf	05 50 32.0	-0.7
PV01	**Paradox Valley**	**117.94**	**63**	*e*PKPdf	PKPdf	05 50 32.2	-0.7
JCT	**Junction City**	**117.97**	**75**	*e*PKIKP	PKPdf	05 50 31.0	-2.1
MKAR	**Makanchi Array**	**118.23**	**310**	*i* PKIKP	PKPdf	05 50 30.3	-3.0
MKAR				pmax	pmax		
	comp=Z,47nm,1.3s						
HWUT	**Hardware Ranch**	**118.61**	**59**	*e*PKPdf	PKPdf	05 50 32.9	-1.2
KZA	**Kyzart**	**118.66**	**302**	P	PKPdf	05 50 33.5	-0.8
	SNR=10						
TKM2	**Tokmak 2**	**119.04**	**303**	P	PKPdf	05 50 32.9	-2.1
	SNR=8.2						
UCH	**Uchtor**	**119.16**	**302**	P	PKPdf	05 50 34.2	-1.0
	SNR=11						
AAK	**Ala-Archa**	**119.45**	**302**	P	PKPdf	05 50 34.0	-1.7
	SNR=6.8						
AAK	**Ala-Archa**	**119.45**	**302**	*i* PKIKP	PKPdf	05 50 32.1	-3.6
AAK				MLR	MLR		
	comp=Z,200nm,16.0s,MS4.8						
AAK	**Ala-Archa**	**119.45**	**302**	*e*PKPdf	PKPdf	05 50 32.2	-3.5
SDCO	**Great Sand Dun**	**119.45**	**65**	*e*PKPdf	PKPdf	05 50 35.0	-0.8
FRU	**Bishkek**	**119.52**	**302**	*e*PKIKP	PKPdf	05 50 33.5	-2.3
FRU				pmax	pmax		
	comp=Z,30nm,2.0s						
AML	**Almayashu**	**119.55**	**301**	P	PKPdf	05 50 35.0	-0.9
	SNR=11						
CHMS	**Chumysh**	**119.55**	**303**	P	PKPdf	05 50 34.1	-1.7
	SNR=7.7						
EKS2	**Erkin-Say**	**119.86**	**302**	P	PKPdf	05 50 35.2	-1.2
	SNR=11						
MCK	**McKinley**	**119.86**	**23**	PKIKP	PKPdf	05 50 34.5	-1.4
MCK	**McKinley**	**119.86**	**23**	*e*PKPdf	PKPdf	05 50 34.1	-1.8
USP	**Ospenovka**	**119.87**	**303**	P	PKPdf	05 50 34.7	-1.7
	SNR=11						
MCMT	**McKenzie Canyo**	**120.09**	**55**	*e*PKPdf	PKPdf	05 50 36.8	0.0
TPAW	**Teton Pass**	**120.21**	**57**	*e*PKPdf	PKPdf	05 50 36.6	-0.5
NEW	**Newport**	**120.22**	**50**	PKIKP	PKPdf	05 50 36.2	-0.8
NEW	**Newport**	**120.22**	**50**	*e*PKPdf	PKPdf	05 50 35.4	-1.7
PDAR	**Pinedale Array**	**120.50**	**59**	PKP	PKPdf	05 50 37.1	-0.7
	comp=Z,1.6nm,0.7s,baz=165,slow=3.4,SNR=13						
SDV	**Santo Domingo**	**120.51**	**115**	PKP	PKPdf	05 50 35.7	-2.8
	comp=Z,4.1nm,0.9s,baz=262,slow=2.8,SNR=4.8						
SDV				PKKPbc		06 00 42.7	
	comp=Z,4.5nm,0.9s,baz=59,slow=3.8,SNR=6.4						
SDV	**Santo Domingo**	**120.51**	**115**	*e*PKPdf	PKPdf	05 50 35.5	-3.0
IMA	**Indian Mountai**	**120.72**	**20**	PKIKP	PKPdf	05 50 37.0	-0.7
IMA	**Indian Mountai**	**120.72**	**20**	*e*PKPdf	PKPdf	05 50 36.8	-0.9
ISCO	**Idaho Springs**	**120.76**	**64**	*e*PKPdf	PKPdf	05 50 37.4	-1.0
QLMT	**Earthquake Lak**	**120.85**	**56**	*e*PKPdf	PKPdf	05 50 39.0	+0.6
COLA	**College**	**121.07**	**23**	*i* PKIKP	PKPdf	05 50 36.4	-2.0
COLA	**College**	**121.07**	**23**	*e*PKPdf	PKPdf	05 50 35.3	-3.1
ILAR	**Eielson Array**	**121.23**	**23**	PKP	PKPdf	05 50 36.5	-2.2
	comp=Z,8.8nm,0.9s,baz=285,slow=3.7,SNR=53						
ILAR				tx	tx	05 50 44.5	
	comp=Z,4.7nm,0.7s,baz=286,slow=3.6,SNR=14						
ILAR				PKKPbc		06 00 34.5	
	comp=Z,1.6nm,0.9s,baz=4.3,slow=4.4,SNR=9.6						
ILAR				SKKPbc		06 04 30.8	
	comp=Z,0.9nm,0.9s,baz=18,slow=2.9,SNR=4.4						
ILAR	**Eielson Array**	**121.23**	**23**	PKP	PKPdf	05 50 36.5	-2.2
ILAR				PKKPbc		06 00 34.5	
ILAR				SKKPbc		06 04 30.8	
BOZ	**Bozeman (W)**	**121.28**	**55**	*e*PKIKP	PKPdf	05 50 39.2	-0.1
WMOK	**Wichita Mounta**	**121.49**	**72**	*e*PKIKP	PKPdf	05 50 38.4	-1.5
HRY	**Holter Researc**	**121.87**	**54**	*e*PKPdf	PKPdf	05 50 38.4	-2.0
ZAL	**Zalesovo**	**121.95**	**317**	PKP	PKPdf	05 50 36.7	-3.6
	comp=Z,3.2nm,1.0s,baz=307,slow=2.7,SNR=12						
ZAL				tx	tx	05 50 44.2	
	comp=Z,1.3nm,0.7s,baz=308,slow=2.2,SNR=5.1						
ZAL				PKKPbc		06 00 37.0	
	comp=Z,1.4nm,0.6s,baz=173,slow=5.8,SNR=10						
ZAL	**Zalesovo**	**121.95**	**317**	PKP	PKPdf	05 50 36.7	-3.6
ZAL				PKKPbc		06 00 37.0	
DAWY	**Dawson**	**122.71**	**27**	*e*PKPdf	PKPdf	05 50 39.8	-1.6
TATS	**Tathlith**	**122.73**	**261**	P	PKPdf	05 50 41.8	-0.8
NAMS	**An Nimas**	**123.27**	**260**	P	PKPdf	05 50 43.1	-0.5
BLJS	**Baljurashi**	**124.18**	**260**	P	PKPdf	05 50 45.1	-0.3
LAO	**LASA Array**	**124.83**	**57**	*e*PKPdf	PKPdf	05 50 45.5	-0.4
MZLS	**Mizel**	**124.86**	**267**	P	PKPdf	05 50 45.1	-1.5
EDM	**Edmonton**	**125.25**	**47**	*e*PKIKP	PKPdf	05 50 44.7	-1.9
EDM	**Edmonton**	**125.25**	**47**	*e*PKPdf	PKPdf	05 50 44.4	-2.2
UALR	**University of**	**125.51**	**76**	*e*PKPdf	PKPdf	05 50 46.1	-1.5
KSU1	**Kansas State U**	**125.63**	**70**	*e*PKPdf	PKPdf	05 50 46.5	-1.3
AFFS	**'Afif**	**126.20**	**265**	P	PKPdf	05 50 47.6	-1.6
QRN	**Al-Qurain**	**126.37**	**273**	*e*P	PKPdf	05 50 47.4	-2.0
RDF	**Al-Radifah**	**126.73**	**273**	*e*P	PKPdf	05 50 48.9	-1.1
RDF				AMb	AMB	05 50 50.9	
	comp=Z,113nm,1.0s						
DGMT	**Dagmar**	**127.01**	**56**	PKPdf	PKPdf	05 50 46.8	-3.2
OXF	**Oxford**	**127.18**	**79**	PKIKP	PKPdf	05 50 49.6	-1.2
OXF				*e*		05 50 57.0	

OXF	**Oxford**	**127.18**	**79**	*e*PKPdf	PKPdf	05 50 48.5	-2.2
INK	**Inuvik**	**127.42**	**25**	PKP	PKPdf	05 50 48.5	-1.8
	comp=Z,28nm,1.0s,baz=219,slow=2.1,SNR=46						
INK				tx	tx	05 50 56.8	
	comp=Z,13nm,0.8s,baz=335,slow=1.3,SNR=14						
INK	**Inuvik**	**127.42**	**25**	PKIKP	PKPdf	05 50 48.9	-1.4
INK	**Inuvik**	**127.42**	**25**	*e*PKPdf	PKPdf	05 50 48.6	-1.8
ARSS	**Ar Rass**	**127.43**	**267**	P	PKPdf	05 50 49.9	-1.6
RST	**Umm Al-Ruwaisa**	**127.48**	**273**	*e*P	PKPdf	05 50 49.7	-1.8
RST				AMb	AMB	05 50 52.1	
	comp=Z,45nm,1.1s						
BVA0	**Borovoye Array**	**128.11**	**310**	PKIKP	PKPdf	05 50 49.8	-2.3
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.1s						
BVAR	**Borovoye Array**	**128.11**	**310**	PKP	PKPdf	05 50 49.9	-2.2
	comp=Z,14nm,0.9s,baz=135,slow=4.2,SNR=29						
BRVK	**Borovoye**	**128.19**	**310**	PKIKP	PKPdf	05 50 50.2	-2.1
BRVK	**Borovoye**	**128.19**	**310**	*e*PKPdf	PKPdf	05 50 49.9	-2.4
CCM	**Cathedral Cave**	**128.27**	**74**	PKIKP	PKPdf	05 50 50.6	-2.3
CCM	**Cathedral Cave**	**128.27**	**74**	*e*PKPdf	PKPdf	05 50 50.1	-2.8
CHKZ	**Chkalovo**	**128.37**	**311**	*e*PKPdf	PKPdf	05 50 49.8	-2.8
WVT	**Waverly**	**129.21**	**78**	*e*PKIKP	PKPdf	05 50 51.9	-2.8
HILS	**Ha'il**	**129.40**	**267**	P	PKPdf	05 50 54.1	-1.2
KBRS	**Khaybar**	**129.91**	**263**	P	PKPdf	05 50 55.3	-1.0
YKA	**Yellowknife Ar**	**130.13**	**37**	PKhKP		05 50 40.2	
	comp=Z,0.3nm,0.8s,baz=239,slow=3.0,SNR=5.0						
YKA				PKP	PKPdf	05 50 52.7	-3.0
	comp=Z,4.2nm,0.8s,baz=255,slow=1.7,SNR=43						
YKA				SKPbc		05 54 16.9	
	comp=Z,0.5nm,1.0s,baz=251,slow=4.3,SNR=3.7						
YKA				SKKPbc		06 03 54.0	
	comp=Z,0.3nm,0.8s,baz=71,slow=5.2,SNR=3.6						
YKA	**Yellowknife Ar**	**130.13**	**37**	PKP	PKPdf	05 50 40.2	-15
YKA				PKP	PKPdf	05 50 52.7	-3.0
YKA				SKPbc		05 54 16.9	
YKA				SKKPbc		06 03 54.0	
YKW3	**Yellowknife Ar**	**130.16**	**37**	*e*PKPdf	PKPdf	05 50 52.0	-3.8
GOGA	**Godfrey**	**130.26**	**84**	PKIKP	PKPdf	05 50 56.1	-0.7
GOGA	**Godfrey**	**130.26**	**84**	*e*PKPdf	PKPdf	05 50 55.5	-1.3
SJG	**San Juan**	**130.44**	**112**	PKP	PKPdf	05 50 55.3	-2.1
	comp=Z,32nm,1.0s,baz=308,slow=4.9,SNR=5.7						
SJG	**San Juan**	**130.44**	**112**	PKIKP	PKPdf	05 50 55.9	-1.6
SJG	**San Juan**	**130.44**	**112**	*e*PKPdf	PKPdf	05 50 55.6	-1.9
USIN	**University of**	**130.44**	**76**	*e*PKPdf	PKPdf	05 50 55.2	-1.8
CPCT	**Cooper Cave**	**130.88**	**81**	*e*PKPdf	PKPdf	05 50 55.4	-2.5
BLO	**Bloomington**	**131.88**	**76**	PKIKP	PKPdf	05 50 58.3	-1.4
BLO	**Bloomington**	**131.88**	**76**	*e*PKPdf	PKPdf	05 50 58.0	-1.7
JSC	**Jenkinsville**	**132.23**	**84**	PKIKP	PKPdf	05 51 00.1	-0.4
JSC	**Jenkinsville**	**132.23**	**84**	*e*PKPdf	PKPdf	05 50 59.4	-1.1
ULM	**Lac du Bonnet**	**132.51**	**58**	PKP	PKPdf	05 50 58.5	-2.1
	comp=Z,6.7nm,0.8s,baz=233,slow=3.9,SNR=9.6						
JMQS	**Jabal Moqyreh**	**134.22**	**263**	P	PKPdf	05 51 04.4	+0.1
FWV	**Forest Hill**	**134.54**	**81**	*e*PKPdf	PKPdf	05 51 03.2	-1.5
ACSO	**Alum Creek Sta**	**134.72**	**77**	*e*PKPdf	PKPdf	05 51 03.4	-1.6
HAQS	**Haql**	**134.94**	**263**	P	PKPdf	05 51 05.6	-0.1
ALWS	**Ilw as Safayha**	**135.03**	**263**	P	PKPdf	05 51 04.9	-1.0
DBIC	**Dimbokro**	**135.32**	**199**	PKhKP		05 50 55.8	
	comp=Z,7.4nm,1.0s,baz=180,slow=3.5,SNR=3.7						
DBIC				PKP	PKPdf	05 51 04.2	-2.5
	comp=Z,14nm,0.8s,baz=113,slow=3.4,SNR=13						
DBIC	**Dimbokro**	**135.32**	**199**	PKP	PKPdf	05 50 55.8	-11
DBIC				*e*PKPdf	PKPdf	05 51 04.4	-2.3
EIL	**Elat**	**135.35**	**264**	*e*PKPdf	PKPdf	05 51 04.4	-2.0
GNI	**Garni**	**135.57**	**282**	*i* PKIKP	PKPdf	05 51 04.3	-2.2
GNI				MLR	MLR		
	comp=Z,100nm,20.0s						
GNI	**Garni**	**135.57**	**282**	*e*PKPdf	PKPdf	05 51 05.0	-1.6
ARU	**Arti**	**135.74**	**309**	*i* PKIKP	PKPdf	05 51 03.7	-2.7
BEST	**Besiri**	**136.47**	**277**	*i* P	PKPdf	05 51 08.7	+0.5
FCC	**Fort Churchill**	**137.34**	**48**	*e*PKPpre		05 50 56.2	
FCC				*e*PKPdf	PKPdf	05 51 05.5	-3.6
ELZG	**Elazig**	**138.29**	**277**	*i* P	PKPdf	05 51 10.6	-1.0
GZT	**Gaziantep**	**138.53**	**274**	*i* P	PKPdf	05 51 09.1	-2.9
MALT	**Malatya**	**138.54**	**276**	*e*PKPdf	PKPdf	05 51 10.5	-1.5
COBT	**Iskenderun**	**138.88**	**272**	*i* P	PKPdf	05 51 13.2	+0.5
KIV	**Kislovodsk**	**138.92**	**286**	*e*PKIKP	PKPdf	05 51 08.3	-4.2
KIV				*e*		05 54 00.5	
KIV				*e*		05 58 11.6	
KIV				*e*SS	SS	06 12 41.8	+24
KIV				pmax	pmax		
	comp=Z,36nm,1.4s						
KIV				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.6						
KIV	**Kislovodsk**	**138.92**	**286**	*e*PKPdf	PKPdf	05 51 10.8	-1.7
SOC	**Sochi**	**140.58**	**284**	*i* PKIKP	PKPdf	05 51 14.0	-1.5
SOC				*e*PPP	PPP	05 57 20.1	-1.6
SOC				pmax	pmax		
	comp=N,30nm,0.9s						
SOC				pmax	pmax		
	comp=Z,23nm,0.9s						
SOC				pmax	pmax		
	comp=E,16nm,0.7s						
RES	**Resolute Bay**	**140.96**	**24**	*e*PKHKP		05 51 08.1	
CTKT	**Corum**	**142.16**	**277**	*i* P	PKPdf	05 51 09.9	-8.4
BRTR	**Keskin Array B**	**142.41**	**275**	PKhKP		05 51 12.3	
	comp=E,8.6nm,0.9s,baz=146,slow=4.5,SNR=29						
BRTR				PP	PP	05 54 21.0	-5.7
	comp=E,4.9nm,1.2s,baz=146,slow=4.5,SNR=6.7						
BOYT	**Boyabat**	**142.51**	**278**	*i* P	PKPdf	05 51 13.2	-5.6
ELDT	**Eldivan**	**142.96**	**275**	*i* P	PKPdf	05 51 12.5	-7.2
BALT	**Daday**	**143.54**	**277**	*i* P	PKPbc	05 51 15.3	-0.9
ESKT	**Eskisehir**	**144.09**	**272**	*i* P	PKPbc	05 51 17.0	-0.9
SIM	**Simferopol'**	**144.76**	**282**	*d i*PKIKP	PKPdf	05 51 20.2	-2.4
SIM				*i*		05 51 27.0	
SIM				pmax	pmax		
	comp=Z,100nm,0.8s						
HENT	**Hendek**	**144.77**	**274**	*i* P	PKPbc	05 51 19.5	-0.2
AYDN	**Tasoluk**	**144.95**	**267**	*i* P	PKPbc	05 51 21.1	+0.7
MANT	**Manisa**	**144.99**	**269**	*i* P	PKPbc	05 51 21.1	+0.7
ULDT	**Uludag**	**145.54**	**272**	*i* P	PKPbc	05 51 22.5	+0.7
GVD	**Gavdhos**	**145.67**	**260**	*e*PKPdf	PKPdf	05 51 22.3	-2.2
SANT	**Santorini**	**145.74**	**263**	*e*PKPdf	PKPdf	05 51 22.3	-2.3
KDAG	**Bornova**	**145.78**	**268**	*i* P	PKPbc	05 51 23.2	+0.8
BTOK	**Tokmak**	**146.04**	**271**	*i* P	PKPbc	05 51 23.4	+0.4
APE	**Apeiranthos**	**146.12**	**265**	*i* PKP2	PKPab	05 51 23.3	-2.6
MOS	**Moscow**	**146.52**	**302**	*e*PKIKP	PKPdf	05 51 22.1	-3.2
MOS				*e*		05 54 53.7	
MOS				pmax	pmax		
	comp=Z,373nm,2.4s						
MOS				pmax	pmax		
	comp=Z,1μm,2.9s						
OBN	**Obninsk**	**146.95**	**300**	*e*PKIKP	PKPdf	05 51 24.4	-1.6
OBN				*i*		05 51 26.4	
OBN				pmax	pmax		
	comp=Z,50nm,1.4s						
OBN				pmax	pmax		
	comp=Z,348nm,1.3s						
OBN				MLR	MLR		
	comp=Z,300nm,15.0s,MS5.2						
OBN	**Obninsk**	**146.95**	**300**	*e*PKPbc	PKPbc	05 51 26.6	+2.0
SART	**Tekirdag**	**147.09**	**271**	*i* P	PKPdf	05 51 27.0	+0.3
ALN	**Alexandroupoli**	**147.93**	**271**	*e*P	PKPdf	05 51 29.1	+1.1
HARR	**Harsova**	**148.57**	**278**	⇓*i*P	PKPdf	05 51 31.0	+2.0
HARR	**Harsova**	**148.57**	**278**	⇓*i*P	PKPdf	05 51 31.1	+2.1
CFR	**Carcaliu**	**148.65**	**279**	⇓*i*P	PKPdf	05 51 31.1	+2.0
CFR	**Carcaliu**	**148.65**	**279**	⇓*i*P	PKPdf	05 51 31.1	+2.0
LVZ	**Lovozero**	**148.66**	**324**	*i* PKP2	PKPab	05 51 31.2	-3.8
XOR	**Xorichti**	**148.94**	**266**	*e*P	PKPdf	05 51 31.6	+1.8
OUR	**Ouranopolis**	**148.97**	**268**	*e*P	PKPdf	05 51 31.3	+1.6
AGG	**Agios Georgios**	**149.31**	**265**	*e*P	PKPdf	05 51 31.8	+1.4
SOH	**Sokhos**	**149.63**	**269**	*e*P	PKPdf	05 51 32.8	+2.0
SRS	**Serrai**	**149.63**	**269**	*e*P	PKPdf	05 51 32.4	+1.6
ISR	**Istrita**	**149.64**	**278**	⇓*i*P	PKPdf	05 51 34.3	+3.6
ISR	**Istrita**	**149.64**	**278**	⇓*i*P	PKPdf	05 51 34.2	+3.5
THE	**Thessaloniki**	**149.78**	**268**	*e*P	PKPdf	05 51 33.5	+2.4
LIT	**Litokhoron**	**149.80**	**267**	*e*P	PKPdf	05 51 33.4	+2.3
VRI	**Vrincioaia**	**149.84**	**280**	⇓*i*P	PKPdf	05 51 34.2	+3.2
VRI	**Vrincioaia**	**149.84**	**280**	⇓*i*P	PKPdf	05 51 34.1	+3.1
AKASG	**Malin Array Be**	**150.02**	**290**	PKP	PKPdf	05 51 28.3	-2.8
	comp=Z,4.8nm,1.0s,baz=82,slow=1.1,SNR=20						
AKASG				PKPbc	PKPdf	05 51 33.9	+2.8
	comp=Z,220nm,1.2s,baz=79,slow=2.4,SNR=86						
AKASG				tx	tx	05 51 41.8	
	comp=Z,12nm,0.6s,baz=74,slow=2.8,SNR=13						
KNT	**Kendrikon**	**150.10**	**269**	*e*P	PKPdf	05 51 34.0	+2.5
MLR	**Muntele Rosu**	**150.18**	**279**	PKP	PKPdf	05 51 29.7	-1.8
	comp=Z,9.6nm,1.0s						
MLR				PKPbc	PKPdf	05 51 34.9	+3.3
	baz=153,slow=6.8						
LKD	**Levkas**	**150.20**	**263**	*e*P	PKPdf	05 51 36.7	+5.0
GRG	**Griva**	**150.31**	**268**	*e*P	PKPdf	05 51 34.8	+2.9
MEV	**Metsovon**	**150.44**	**265**	*e*P	PKPdf	05 51 36.5	+4.4
JOF	**Joensuu**	**150.50**	**315**	*e*pkp	PKPdf	05 51 35.6	+4.2
SCHQ	**Schefferville**	**150.57**	**62**	PKP	PKPdf	05 51 30.3	-1.5
	comp=Z,12nm,1.0s,baz=294,slow=3.7,SNR=6.3						
SCHQ				PKPbc	PKPdf	05 51 35.9	+4.1
	comp=Z,63nm,1.1s,baz=298,slow=1.9,SNR=21						
SCHQ				tx	tx	05 51 43.9	
	comp=Z,30nm,1.1s,baz=239,slow=7.4,SNR=11						
SCHQ	**Schefferville**	**150.57**	**62**	*e*PKPdf	PKPdf	05 51 28.9	-2.9
SCHQ				*e*PKPbc	PKPdf	05 51 35.8	+4.0
SCHQ				*e*PKPab	PKPab	05 51 43.3	+0.1
IGT	**Igoumenitsa**	**150.87**	**264**	*e*P	PKPdf	05 51 36.8	+4.0
FNA	**Florina**	**150.88**	**267**	*e*P	PKPdf	05 51 36.0	+3.2
KEV	**Kevo**	**150.93**	**329**	*e*pkp	PKPdf	05 51 36.0	+4.1
BIA	**Bitola**	**151.04**	**267**	⇑*i*PKHKP		05 51 37.3	
OHR	**Ohrid**	**151.43**	**267**	⇑*i*PKIKP	PKPdf	05 51 31.5	-2.0
OHR				⇑*i*PKHKP		05 51 37.7	
SKO	**Skopje**	**151.46**	**269**	⇑*i*PKHKP		05 51 37.5	
	comp=Z,0.1nm,1.0s						
ARCES	**ARCESS Array B**	**151.50**	**329**	PKP	PKPdf	05 51 31.6	-1.1
	comp=Z,84nm,0.8s,baz=342,slow=3.8,SNR=3.7						
ARCES				PKPbc	PKPdf	05 51 38.0	+5.3
	comp=Z,94nm,0.7s,baz=92,slow=1.3,SNR=120						
ARCES				tx	tx	05 51 45.8	
	comp=Z,55nm,0.7s,baz=79,slow=1.1,SNR=22						
ARE0	**ARCESS Array S**	**151.50**	**329**	*e*PKPbc	PKPdf	05 51 37.9	+5.2
ARE0				*e*PKPab	PKPab	05 51 45.7	-1.0
MNK	**Minsk**	**151.76**	**297**	⇓*e*PKIKP	PKPdf	05 51 36.0	+2.4
MNK				pmax	pmax		
	comp=Z,670nm,1.1s						
BOLS	**Boljevac**	**152.01**	**273**	⇓*i*P	PKPdf	05 51 38.7	+4.4
VSU	**Vasula**	**152.78**	**305**	*i* PKIKP	PKPdf	05 51 40.9	+6.0
GRUS	**Gruza**	**152.84**	**272**	⇓*i*P	PKPdf	05 51 41.1	+5.6
KAF	**Kangasniemi**	**152.87**	**313**	*e*pkp	PKPdf	05 51 40.0	+5.1
	baz=83,slow=2.5						
TIP	**Timpagrande**	**152.96**	**260**	*e*PKPbc	PKPdf	05 51 41.3	+5.5
FINES	**FINESS Array B**	**153.04**	**312**	PKP	PKPdf	05 51 34.4	-0.8
	comp=Z,5.3nm,0.9s,baz=166,slow=16,SNR=3.7						
FINES				PKPbc	PKPdf	05 51 41.3	+6.1
	comp=Z,30nm,0.6s,baz=96,slow=3.8,SNR=92						
FINES				tx	tx	05 51 48.7	
	comp=Z,23nm,0.6s,baz=106,slow=4.8,SNR=20						
DIVS	**Divcibare**	**153.40**	**272**	⇑*i*P	PKPdf	05 51 34.0	-2.3
VAE	**Valguarnera**	**153.41**	**254**	PKPbc	PKPdf	05 51 44.2	+7.7
	comp=Z,37nm,1.0s,baz=336,slow=16,SNR=5.2						
BEO	**Belgrade**	**153.42**	**274**	⇑*i*p	PKPdf	05 51 42.3	+6.1
KOLS	**Kolonicke sedl**	**153.77**	**283**	*e*PKP	PKPdf	05 51 43.6	+7.0
KOLS				*e*		05 51 56.5	
CRVS	**Cervenica-Dubn**	**154.27**	**283**	*e*PKP	PKPdf	05 51 45.9	+8.6
SUW	**Suwalki**	**154.37**	**295**	*e*PKPdf	PKPdf	05 51 35.9	-1.3
SUW				*e*PKPbc	PKPdf	05 51 43.9	+6.7
KECS	**Kecovo**	**154.76**	**282**	*e*PKP2	PKPab	05 51 59.5	-1.5
KECS	**Kecovo**	**154.76**	**282**	*e*	PKPab	05 51 59.5	-1.5
PSZ	**Piszkesteto**	**154.95**	**280**	PKIKP	PKPdf	05 51 35.9	-2.3
PSZ	**Piszkesteto**	**154.95**	**280**	*e*PKPdf	PKPdf	05 51 35.7	-2.5
PSZ				*e*PKPbc	PKPdf	05 51 45.8	+7.6
NIE	**Niedzica**	**155.15**	**284**	*e*PKP	PKPdf	05 51 43.1	+4.7
SUMG	**Summit**	**155.68**	**15**	*e*PKPdf	PKPdf	05 51 38.4	-0.1
SUMG				*e*PKPab	PKPab	05 52 05.3	+1.1
OJC	**Ojcow**	**155.68**	**285**	*e*PKP2	PKPab	05 52 02.6	-2.3
OJC	**Ojcow**	**155.68**	**285**	*e*PKPdf	PKPdf	05 51 38.5	-0.6
OJC				*e*PKPab	PKPab	05 52 02.6	-2.3
VYHS	**Vyhne**	**155.81**	**281**	*e*PKIKP	PKPdf	05 51 37.1	-2.2
VYHS	**Vyhne**	**155.81**	**281**	*e*	PKPdf	05 51 37.1	-2.2
VYHS	**Vyhne**	**155.81**	**281**	*e*PKP	PKPdf	05 51 47.3	+8.0
VYHS				*e*		05 52 04.2	
SRO2	**Moca**	**155.85**	**279**	*e*PKP2	PKPab	05 52 04.9	-0.8
SRO2	**Moca**	**155.85**	**279**	*e*	PKPab	05 52 04.9	-0.8
SRO2	**Moca**	**155.85**	**279**	*e*PKP	Px	05 52 12.2	
SRO	**Srobarova**	**155.92**	**279**	*e*PKP2	PKPab	05 52 05.5	-0.5
SRO	**Srobarova**	**155.92**	**279**	*e*	PKPab	05 52 05.5	-0.5
OKC	**Ostrava-Krasne**	**156.61**	**284**	*e*PKPDF	PKPdf	05 51 37.3	-3.0
OKC				*e*PKPAB	PKPab	05 52 07.5	-1.4
ZST	**Bratislava**	**156.81**	**279**	*e*PKP2	PKPab	05 52 08.9	-1.0
ZST	**Bratislava**	**156.81**	**279**	*e*	PKPab	05 52 08.9	-1.0
MORC	**Moravsky Berou**	**156.98**	**283**	*e*PKPdf	PKPdf	05 51 38.1	-2.7
CRES	**Cresnjev**	**157.04**	**273**	*i* PKPab	PKPab	05 52 09.0	-1.9
BOJS	**Bojanci**	**157.05**	**272**	*i* PKPdf	PKPdf	05 51 49.2	+8.1
BOJS				*i* PKPab	PKPab	05 52 09.4	-1.5
GROS	**Grobnik**	**157.26**	**274**	*i* PKPab	PKPab	05 52 10.3	-1.5
VISS	**Visnje**	**157.43**	**272**	*e*PKPdf	PKPdf	05 51 45.5	+3.9
VISS				*i* PKPab	PKPab	05 52 11.0	-1.6
DPC	**Dobruska-Polom**	**157.88**	**284**	*e*PKPDF	PKPdf	05 51 39.8	-2.2
DPC				*e*x	x	05 52 21.6	
KSP	**Ksiaz**	**158.00**	**286**	*e*PKPdf	PKPdf	05 51 40.0	-2.1
KSP				*e*PKPab	PKPab	05 52 14.4	-0.5
UPC	**Upice**	**158.10**	**285**	*e*PKPDF	PKPdf	05 51 39.9	-2.4
UPC				*e*PKPAB	PKPab	05 52 14.8	-0.5
VOJS	**Vojsko**	**158.14**	**272**	*i* PKPdf	PKPdf	05 51 45.2	+2.7
PRU	**Pruhonice**	**158.91**	**283**	*e*PKPDF	PKPdf	05 51 40.4	-2.9
PRU				*e*PKPAB	PKPab	05 52 17.9	-0.9
PRU				*e*pPKP		05 52 24.0	
GEC2	**GERESS Array S**	**159.17**	**279**	*e*PKP2	PKPab	05 52 18.5	-1.4
GERES	**GERESS Array B**	**159.17**	**279**	PKP	PKPdf	05 51 40.8	-2.8
	comp=Z,5.3nm,1.1s,baz=162,slow=4.2,SNR=7.7						
GERES				PKPab	PKPab	05 52 19.0	-1.0
	comp=Z,19nm,0.9s,baz=124,slow=4.8,SNR=27						
KHC	**Kasperske Hory**	**159.32**	**280**	*e*PKPDF	PKPdf	05 51 40.4	-3.4
KHC				*e*PKPAB	PKPab	05 52 19.6	-1.0
KHC				*e*x	x	05 52 27.0	
BRG	**Berggiesshubel**	**159.47**	**285**	*e*PKIKP	PKPdf	05 51 41.8	-2.1
BRG				pmax	pmax		
	comp=Z,33nm,1.2s						
BRG	**Berggiesshubel**	**159.47**	**285**	*e*P	PKPdf	05 51 41.8	-2.1
BRG				*i*		05 52 20.7	
WET	**Wettzell**	**159.77**	**280**	*e*PKP2	PKPab	05 52 21.5	-1.0
CLL	**Collm**	**160.12**	**286**	*i* PKP2	PKPab	05 52 23.1	-0.9
CLL				pmax	pmax		
	comp=Z,29nm,1.2s						
CLL	**Collm**	**160.12**	**286**	⇓*i*PKP2	PKPab	05 52 23.1	-0.9
NB2	**NORSAR Subarra**	**160.13**	**315**	PKPab	PKPab	05 52 22.6	-1.1
	comp=Z,24nm,1.0s,baz=73,slow=4.1						
NB2	**NORSAR Subarra**	**160.13**	**315**	PKPa	PKPab	05 52 22.6	-1.1
	baz=73,slow=4.3						
NOA	**NORSAR Array B**	**160.13**	**315**	PKP	PKPdf	05 51 42.9	-1.3
	comp=Z,1.7nm,0.8s,baz=117,slow=16,SNR=3.1						
NOA				PKPab	PKPab	05 52 23.0	-0.7
	comp=Z,13nm,0.9s,baz=72,slow=4.2,SNR=17						
NKC	**Novy Kostel**	**160.28**	**283**	*e*PKPAB	PKPab	05 52 23.3	-1.4
FUR	**Furstenfeldbru**	**160.53**	**276**	*e*PKP2	PKPab	05 52 24.5	-1.3
MOX	**Moxa**	**160.88**	**283**	*e*PKIKP	PKPdf	05 51 41.2	-4.1
MOX				*e*		05 52 25.9	
MOX				pmax	pmax		
	comp=Z,57nm,1.8s						
MOX	**Moxa**	**160.88**	**283**	*i* P	PKPdf	05 51 41.2	-4.1
MOX				PKP2	PKPab	05 52 26.0	-1.3
GRF	**Grafenberg Arr**	**160.95**	**280**	*e*PKP2	PKPab	05 52 26.9	-0.7
BSEG	**Bad Segeberg**	**161.94**	**294**	*e*PKP2	PKPab	05 52 31.8	0.0
MBDF	**Montbardon**	**162.18**	**262**	*e*PKP2	PKPab	05 52 31.7	-1.5
	comp=Z,58nm,1.6s						
BFO	**Black Forest**	**162.47**	**275**	*e*PKP2	PKPab	05 52 33.0	-1.3
ORIF	**Oris-en-Rattie**	**162.84**	**262**	*e*PKP2	PKPab	05 52 34.3	-1.7
	comp=Z,108nm,1.7s						
CDF	**Champ du Feu**	**163.17**	**274**	*e*PKP2	PKPab	05 52 35.4	-1.9
	comp=Z,45nm,1.2s						
HINF	**Hinteralfeld**	**163.27**	**272**	*e*PKP2	PKPab	05 52 35.3	-2.5
	comp=Z,11nm,0.8s						
CABF	**La Chapelle**	**163.38**	**268**	*e*PKP2	PKPab	05 52 36.5	-1.8
VIVF	**Saint-Julien-l**	**163.58**	**260**	*e*PKP2	PKPab	05 52 37.2	-2.0
	comp=Z,30nm,1.3s						
HAU	**Haudompre**	**163.65**	**272**	*e*PKP2	PKPab	05 52 37.4	-2.0
	comp=Z,31nm,1.1s						
LASF	**Ste Croix**	**163.73**	**257**	*e*PKP2	PKPab	05 52 38.3	-1.6
	comp=Z,80nm,1.4s						
MTLF	**Montolieu**	**164.37**	**253**	*e*PKP2	PKPab	05 52 41.1	-1.6
	comp=Z,78nm,1.5s						
MEZF	**Maizieres J'vi**	**164.62**	**273**	*e*PKP2	PKPab	05 52 42.4	-1.2
	comp=Z,137nm,1.4s						
GIVF	**Givet**	**165.09**	**279**	*e*PKP2	PKPab	05 52 44.4	-1.2
	comp=Z,89nm,1.2s						
SSF	**Saint Saulge**	**165.20**	**267**	*e*PKP2	PKPab	05 52 44.4	-1.8
	comp=Z,59nm,1.4s						
CAF	**Calviac**	**165.26**	**258**	*e*PKP2	PKPab	05 52 45.1	-1.4
EPF	**Esparros**	**165.34**	**249**	*e*PKP2	PKPab	05 52 45.5	-1.4
BGF	**Bois d'Agland**	**165.44**	**264**	*e*PKP2	PKPab	05 52 45.8	-1.5
	comp=Z,122nm,1.4s						
ESDC	**Sonseca Array**	**165.47**	**230**	PKP	PKPdf	05 51 48.7	-1.5
	comp=Z,2.5nm,0.9s,baz=317,slow=0.6,SNR=12						
ESDC				PKPab	PKPab	05 52 46.1	-1.4
	comp=Z,2.5nm,0.9s,baz=154,slow=4.5,SNR=7.4						
BAIF	**Baives**	**165.47**	**279**	*e*PKP2	PKPab	05 52 46.3	-1.0
	comp=Z,108nm,1.2s						
TCF	**Toulx Ste Croi**	**165.75**	**263**	*e*PKP2	PKPab	05 52 47.7	-0.9
	comp=Z,108nm,1.8s						
RJF	**Les Rejaudoux**	**165.78**	**258**	*e*PKP2	PKPab	05 52 47.4	-1.4
ETSF	**Etsaut**	**165.80**	**247**	*e*PKP2	PKPab	05 52 48.1	-0.9
	comp=Z,39nm,1.3s						
LFF	**La Frestale**	**166.10**	**256**	*e*PKP2	PKPab	05 52 48.8	-1.4
MFF	**Saint Martin d**	**167.37**	**261**	*e*PKP2	PKPab	05 52 54.0	-1.7
	comp=Z,36nm,1.1s						

IDC ***24*** *05:33:06.2±0.5, 26.64N×140.63E, h480^{km}±5^{km}, mb3.5/16, mb1 3.7/17, mb1mx3.6/22, Error ellipse: s-maj=14.4km s-min=11.1km az=89.0*

BJI ***24*** *05:33:09.3, 26.47N×140.48E, h545^{km}, mB5.1, mb5.0*

JMA ***24*** *05:33:09.0±0.1, 26.96N×141.16E, h485^{km}, M4.3*

NEIC ***24*** *05:33:10.0±1.3, 26.61N×140.45E, h524^{km}±14^{km}, mb4.4/9, Error ellipse: s-maj=13.3km s-min=8.7km az=84.0*

ISC 24 05:33:06.1±0.4**, 26.65N**±0.04×**140.65E**±0.08**, h493**^{km}±4^{km}**, n68, σ0^{s}95**/74**, mb4.1**/31**, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHHJ	**Haha-jima-NKT**	**1.37**	**91**	P	**P**	**05 34 09.2**	**+1.0**
JHHJ				S	**S**	**05 34 57.3**	**-0.1**
CBIJ	**Chichi jima**	**1.44**	**72**	P	**P**	**05 34 08.7**	**+0.2**
	168nm,0.3s,baz=242,slow=1.8,SNR=224						
CBIJ				S	**S**	**05 34 56.0**	**-1.8**
	252nm,0.3s,baz=290,slow=22,SNR=10						
CBIJ	**Chichi jima**	**1.44**	**72**	P	**P**	**05 34 08.9**	**+0.4**
CBIJ				S	**S**	**05 34 55.5**	**-2.4**
BSO1	**Boso 1**	**7.98**	**2**	P	**P**	**05 35 03.6**	**+0.4**
BSO1				*e*S	**S**	**05 36 37.4**	**+1.1**
JIM2	**Oshima 3**	**8.11**	**353**	P	**P**	**05 35 04.9**	**+0.3**
BSO3	**Boso 3**	**8.13**	**359**	P	**P**	**05 35 04.8**	**0.0**
BSO4	**Boso 4**	**8.32**	**358**	P	**P**	**05 35 07.2**	**+0.4**
JIE	**Ise**	**8.43**	**337**	P	**P**	**05 35 10.5**	**+2.5**
JOD2	**Odawara 2**	**8.69**	**352**	P	**P**	**05 35 11.1**	**+0.3**
JOD2				*e*S	**S**	**05 36 50.2**	**+0.4**
JTO	**Tosashimizu**	**9.21**	**314**	P	**P**	**05 35 18.0**	**+1.8**
JHU	**Hanno**	**9.25**	**353**	P	**P**	**05 35 16.2**	**-0.5**
JHU				*e*S	**S**	**05 36 58.8**	**-1.7**
JRY	**Ryogami san**	**9.46**	**351**	P	**P**	**05 35 19.3**	**+0.4**
JRY				*e*S	**S**	**05 37 03.9**	**-0.6**
JYT	**Yasato**	**9.56**	**358**	P	**P**	**05 35 19.5**	**-0.5**
JYT				*e*S	**S**	**05 37 04.8**	**-1.7**
JAG	**Ashikaga**	**9.80**	**354**	P	**P**	**05 35 21.8**	**-0.7**
JAG				*e*S	**S**	**05 37 08.4**	**-2.8**
JHO	**Hitachi**	**9.93**	**360**	P	**P**	**05 35 24.0**	**+0.1**
JHO				*e*S	**S**	**05 37 12.8**	**-1.0**
JHS	**Saijyo**	**10.54**	**324**	P	**P**	**05 35 32.0**	**+1.6**
JFK	**Kawauchi**	**10.69**	**1**	P	**P**	**05 35 33.3**	**+1.4**
JOW	**Kunigami**	**11.06**	**274**	P	**P**	**05 35 36.2**	**+0.3**
	3.3nm,0.3s,baz=120,slow=17,SNR=4.8						
JMK	**Ichinoseki**	**12.28**	**2**	P	**P**	**05 35 50.2**	**+1.6**
KS15	**Wonju Array Si**	**15.24**	**318**	*e*P	**P**	**05 36 23.4**	**+4.2**
ENH	**Enshi**	**27.59**	**285**	*e*P	**P**	**05 38 12.8**	**-1.5**
	5.8nm,0.3s,mb4.5						
ULN	**Ulaanbaatar**	**33.72**	**318**	*e*P	**P**	**05 39 06.8**	**+0.3**
	4.6nm,0.6s,mb4.1						
SONM	**Songino Array**	**34.10**	**317**	P	**P**	**05 39 10.0**	**+0.3**
	5.4nm,0.4s,mb4.3,baz=127,slow=7.6,SNR=5.0						
SONM				PcP	PcP	05 41 33.8	-0.2
	0.5nm,0.5s,baz=117,slow=2.1,SNR=3.8						
YAK	**Yakutsk**	**36.13**	**351**	*e*P	**P**	**05 39 26.4**	**-0.1**
	18nm,0.5s,mb4.8						
GTA	**Gaotai**	**36.23**	**301**	*e*P	**P**	**05 39 27.8**	**+0.2**
GTA				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.1						
CMAR	**Chiang Mai Arr**	**39.23**	**267**	P	**P**	**05 39 52.8**	**+0.5**
	comp=Z,1.2nm,0.4s,mb3.7,baz=60,slow=8.1,SNR=12						
WMQ	**Urumqi**	**45.73**	**306**	*e*P	**P**	**05 40 44.6**	**+1.0**
WRA	**Warramunga Arr**	**46.72**	**188**	P	**P**	**05 40 50.6**	**-0.9**
	comp=Z,1.2nm,0.4s,mb3.6,baz=5.6,slow=7.7,SNR=13						
WRA				ScP		05 45 19.9	
	comp=Z,0.5nm,0.6s,baz=2.3,slow=4.8,SNR=4.6						
GUN	**Gumba**	**48.34**	**285**	*e*P	**P**	**05 41 04.1**	**+0.3**
	comp=Z,17nm,0.6s,mb4.6						
PKI	**Pulchoki**	**48.82**	**284**	*e*P	**P**	**05 41 05.4**	**-2.0**
	comp=Z,8.7nm,0.6s,mb4.2						
KKN	**Kakani**	**48.89**	**285**	*e*P	**P**	**05 41 06.9**	**-1.0**
	comp=Z,14nm,0.8s,mb4.4						
ZAL	**Zalesovo**	**48.94**	**320**	P	**P**	**05 41 07.0**	**-0.8**
	comp=Z,4.1nm,0.5s,mb4.1,baz=360,slow=6.6,SNR=14						
ZAL				PcP	PcP	05 42 21.8	-1.5
	comp=Z,2.3nm,0.4s,baz=323,slow=2.6,SNR=5.2						
DMN	**Daman**	**49.08**	**284**	*e*P	**P**	**05 41 07.8**	**-1.5**
	comp=Z,12nm,0.7s,mb4.3						
GKN	**Gorkha**	**49.40**	**285**	*e*P	**P**	**05 41 11.6**	**-0.1**
KOLN	**Koldanda**	**50.35**	**285**	*e*P	**P**	**05 41 18.4**	**-0.3**
ASAR	**Alice Springs**	**50.44**	**188**	P	**P**	**05 41 18.6**	**-0.8**
	comp=Z,2.0nm,0.8s,mb3.5,baz=1.4,slow=5.2,SNR=4.7						
ULHL	**Ulahol**	**54.13**	**304**	P	**P**	**05 41 46.4**	**+0.5**
	SNR=5.8						
TKM2	**Tokmak 2**	**54.55**	**305**	P	**P**	**05 41 49.5**	**+0.7**
	SNR=5.5						
KZA	**Kyzart**	**54.88**	**304**	P	**P**	**05 41 52.6**	**+1.5**
	SNR=5.2						
AAK	**Ala-Archa**	**55.38**	**305**	*e*P	**P**	**05 41 53.3**	**-1.4**
	comp=Z,3.3nm,0.4s,mb4.0						
UCH	**Uchtor**	**55.41**	**304**	P	**P**	**05 41 56.1**	**+1.2**
	SNR=9.1						
AML	**Almayashu**	**56.03**	**304**	P	**P**	**05 42 00.4**	**+1.2**
	SNR=6.5						
CHKZ	**Chkalovo**	**57.29**	**318**	*e*P	**P**	**05 42 06.3**	**-1.2**
	comp=Z,12nm,0.7s,mb4.3						
BVAR	**Borovoye Array**	**57.44**	**318**	P	**P**	**05 42 08.5**	**-0.2**
	comp=Z,29nm,0.5s,mb4.9,baz=87,slow=6.8,SNR=170						
BVAR				PcP	PcP	05 42 55.2	-0.6
	comp=Z,1.6nm,0.4s,baz=129,slow=3.1,SNR=2.1						
BRVK	**Borovoye**	**57.51**	**318**	*e*P	**P**	**05 42 08.7**	**-0.4**
	comp=Z,19nm,0.7s,mb4.5						
STKA	**Stephens Creek**	**58.21**	**179**	P	**P**	**05 42 13.7**	**-0.4**
	comp=Z,1.7nm,0.8s,mb3.4,baz=349,slow=16,SNR=2.3						
ILAR	**Eielson Array**	**58.76**	**29**	P	**P**	**05 42 17.2**	**-0.2**
	comp=Z,0.3nm,0.4s,mb3.0,baz=267,slow=4.9,SNR=5.3						
ARU	**Arti**	**63.93**	**322**	*e*P	**P**	**05 42 50.7**	**-0.6**
	comp=Z,16nm,0.4s,mb4.9						
INK	**Inuvik**	**64.00**	**24**	P	**P**	**05 42 51.7**	**+0.1**
	comp=Z,0.5nm,0.3s,mb3.5,baz=251,slow=6.7,SNR=9.2						
INK	**Inuvik**	**64.00**	**24**	*e*P	**P**	**05 42 51.7**	**+0.1**
	comp=Z,0.6nm,0.3s,mb3.6						
KEV	**Kevo**	**72.94**	**341**	*e*p	**P**	**05 43 45.1**	**-0.3**
YKW3	**Yellowknife Ar**	**73.15**	**28**	*e*P	**P**	**05 43 47.0**	**+0.4**
YKA	**Yellowknife Ar**	**73.18**	**28**	P	**P**	**05 43 47.4**	**+0.5**
	comp=Z,1.0nm,0.5s,mb3.6,baz=298,slow=5.6,SNR=32						
ARCES	**ARCESS Array B**	**73.51**	**341**	P	**P**	**05 43 49.3**	**+0.7**
	comp=Z,8.0nm,0.6s,mb4.4,baz=76,slow=8.1,SNR=45						
JOF	**Joensuu**	**74.87**	**333**	*e*p	**P**	**05 43 56.0**	**-0.4**
	comp=Z,4.3nm,0.3s,mb4.5						
KAF	**Kangasniemi**	**77.27**	**334**	*e*p	**P**	**05 44 09.3**	**-0.3**
	comp=Z,4.6nm,0.4s,mb4.4,baz=59,slow=5.1						
FINES	**FINESS Array B**	**77.73**	**333**	P	**P**	**05 44 12.1**	**0.0**
	comp=Z,6.1nm,0.3s,mb4.5,baz=77,slow=5.2,SNR=183						
AKASG	**Malin Array Be**	**82.16**	**323**	P	**P**	**05 44 35.2**	**-0.1**
	comp=Z,4.6nm,0.3s,mb4.4,baz=51,slow=5.3,SNR=41						
NB2	**NORSAR Subarra**	**83.51**	**338**	P	**P**	**05 44 41.3**	**-0.5**
	comp=Z,4.5nm,0.5s,mb4.2,baz=47,slow=4.8						
NOA	**NORSAR Array B**	**83.51**	**338**	P	**P**	**05 44 41.5**	**-0.2**
	comp=Z,3.6nm,0.5s,mb4.2,baz=46,slow=4.8,SNR=12						
BRTR	**Keskin Array B**	**85.29**	**312**	P	**P**	**05 44 51.0**	**-0.1**
	comp=Z,3.4nm,1.1s,mb3.9,baz=113,slow=3.3,SNR=9.6						
PDAR	**Pinedale Array**	**85.49**	**44**	P	**P**	**05 44 54.7**	**+2.7**
	comp=Z,0.2nm,0.5s,mb3.0,baz=326,slow=3.3,SNR=3.1						
KHC	**Kasperske Hory**	**91.03**	**328**	*e*P	**P**	**05 45 18.0**	**+0.3**
GERES	**GERESS Array B**	**91.17**	**328**	P	**P**	**05 45 18.4**	**0.0**
	comp=Z,2.5nm,0.9s,mb4.1,baz=68,slow=7.2,SNR=4.3						
SNAA	**Sanae**	**130.60**	**194**	PKP	PKPdf	05 51 20.9	+1.3
	comp=Z,0.4nm,0.9s,baz=178,slow=20,SNR=2.7						
SDV	**Santo Domingo**	**133.42**	**45**	PKP	PKPdf	05 51 29.0	+2.8
	comp=Z,3.0nm,0.8s,baz=262,slow=5.3,SNR=3.1						
LPAZ	**La Paz**	**151.37**	**75**	PKPbc	PKPdf	05 52 06.8	+10
	comp=Z,1.4nm,0.4s,baz=359,slow=3.9,SNR=7.0						
LPAZ	**La Paz**	**151.37**	**75**	PKPbc	PKPdf	05 52 06.8	+10

IDC ***24*** *05:46:25.7±1.2, 24.69N×94.65E, mb3.9/6, mb1 4.0/6, mb1mx3.7/19, Error ellipse: s-maj=60.9km s-min=23.4km az=55.0*

ISC 24 05:46:33.4±1.4**, 24.6N**±0.2×**94.5E**±0.1**, h82**^{km}±13^{km}**, n15, σ1^{s}03**/15**, mb3.8**/6**, 1D, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	**Imphal**	**0.57**	**287**	⇓*e*P	**P**	**05 46 48.0**	**-0.1**
SHL	**Shillong**	**2.58**	**292**	*e*PN	**P**	**05 47 16.0**	**+2.0**
SHL				*e*SN	**S**	**05 47 47.0**	**+2.7**
CMAR	**Chiang Mai Arr**	**7.38**	**145**	Lg		05 50 26.6	
	0.2nm,0.3s,baz=320,slow=32,SNR=6.2						

GUN	Gumba	8.43	295	eP	P	05 48 35.0	+0.3
	12nm,0.4s						
PKI	Pulchoki	8.71	292	eP	P	05 48 37.0	-1.5
	5.7nm,0.3s						
KKN	Kakani	8.89	293	eP	P	05 48 39.5	-1.4
	9.8nm,0.3s						
DMN	Daman	8.98	291	eP	P	05 48 41.3	-0.8
	7.4nm,0.4s						
GKN	Gorkha	9.49	293	eP	P	05 48 47.8	-1.4
	9.5nm,0.3s						
KOLN	Koldanda	10.31	290	eP	P	05 49 00.0	-0.2
	2.8nm,0.2s						
SONM	Songino Array	25.01	19	P	P	05 51 50.5	-0.4
	0.8nm,0.9s,mb3.1,baz=193,slow=10,SNR=3.1						
AKASG	Malin Array Be	55.84	316	P	P	05 56 05.0	+0.6
	0.4nm,0.3s,mb3.9,baz=74,slow=6.1,SNR=4.0						
FINES	FINESS Array B	58.40	328	P	P	05 56 22.9	+0.5
	5.1nm,1.1s,mb4.5,baz=90,slow=9.7,SNR=1.7						
WRA	Warramunga Arr	58.85	135	P	P	05 56 26.2	+0.2
	0.9nm,0.9s,mb3.8,baz=324,slow=7.5,SNR=3.7						
ASAR	Alice Springs	61.33	138	P	P	05 56 43.3	+0.4
	0.5nm,0.8s,mb3.6,baz=320,slow=7.0,SNR=4.2						
HFS	Hagfors	64.46	327	P	P	05 57 03.4	+0.4
	3.1nm,0.9s,mb4.1,baz=56,slow=10,SNR=3.2						

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*IDC **24** 05:48:21.8±1.2, 49.99S×161.80E, mb4.0/5, mb1 4.2/5, mb1mx4.0/8, Error ellipse: s-maj=62.8km s-min=24.6km az=60.0*

*NEIC **24** 05:48:26.4±0.9, 49.21S×162.15E, h10^{km}, mb4.3/1, Error ellipse: s-maj=42.0km s-min=15.9km az=57.0*

ISC 24 05:48:22.0±0.9**, 50.0S**±0.1×**161.8E**±0.1**, h10**^{km}**, n13, σ1^{s}36**/11**, mb4.0**/6**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	Mavora Lakes	6.33	46	P	Pn	05 49 58.6	+1.0
EAZ	Earnscleugh	6.96	50	P	Pn	05 50 07.5	+1.0
JCZ	Jackson Bay	7.58	42	P	Pn	05 50 16.0	+0.7
JCZ				S	Sn	05 51 39.2	-2.9
STKA	Stephens Creek	23.50	313	P	P	05 53 34.4	+1.8
	2.3nm,1.1s,mb3.5,baz=127,slow=18,SNR=3.0						
VNDA	Vanda	27.67	180	P	P	05 54 10.5	-0.9
	0.9nm,0.8s,mb3.5,baz=40,slow=11,SNR=2.9						
VNDA	Vanda	27.67	180	P	P	05 54 10.5	-0.9
ASAR	Alice Springs	34.07	310	P	P	05 55 08.2	-0.3
	2.4nm,0.7s,mb4.2,baz=145,slow=7.9,SNR=33						
WRA	Warramunga Arr	37.03	314	P	P	05 55 32.9	-0.8
	1.8nm,0.8s,mb4.0,baz=148,slow=8.1,SNR=11						
WRAB	Tennant Creek	37.03	314	eP	P	05 55 31.6	-2.2
	3.6nm,0.7s,mb4.3						
CMAR	Chiang Mai Arr	87.71	302	P	P	06 01 13.2	+1.2
	0.8nm,0.3s,mb4.4,baz=171,slow=3.8,SNR=6.3						
FRB	Frobisher Bay	150.14	43	PKPbc	PKPdf	06 08 13.2	+3.7
	2.8nm,0.8s,baz=174,slow=3.6,SNR=4.7						
ARCES	ARCESS Array B	151.49	329	PKPbc	PKPdf	06 08 15.4	+4.1
	3.6nm,0.9s,baz=22,slow=4.9,SNR=5.7						
FINES	FINESS Array B	153.06	312	PKPbc	PKPdf	06 08 19.4	+5.6
	1.8nm,0.8s,baz=90,slow=3.8,SNR=5.2						

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*CSEM **24** 05:57:50.4±0.7, 38.59N×28.55W, h10^{km}, ML1.8, Error ellipse: s-maj=2.6km s-min=1.9km az=176.0*

*PDA **24** 05:57:50.4±0.7, 38.59N×28.55W, h10^{km}, MD3.0, ML1.8, Error ellipse: s-maj=2.6km s-min=1.9km az=176.0*

SVSA 24 05:57:50.4±0.7**, 38.59N**×**28.55W, h10**^{km}**, MD3.0, ML1.8, Error ellipse: s-maj=2.6km s-min=1.9km az=176.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HOR	Horta	0.09	225	i P	Pg	05 57 52.3	-0.6
HOR				eS	Sg	05 57 54.5	-0.1
HOR	Horta	0.09	225	eS	Sg	05 57 54.5	-0.1
CALA	Caldeira	0.12	266	i P	Pg	05 57 53.1	-0.3
CALA				eS	Sg	05 57 55.3	-0.1
CALA	Caldeira	0.12	266	eS	Sg	05 57 55.3	-0.1
PCED	Cedros	0.13	288	i P	Pg	05 57 52.9	-0.6
PCED				i S	Sg	05 57 55.4	-0.1
	64nm,0.1s						
PCED	Cedros	0.13	288	i S	Sg	05 57 55.4	-0.1
PICO	Pico	0.13	133	i P	Pg	05 57 53.0	-0.6
PICO				i S	Sg	05 57 55.7	0.0
PICO	Pico	0.13	133	i S	Sg	05 57 55.7	0.0
ROSA	Rosais	0.27	62	i P	Pg	05 57 55.4	-0.7
ROSA				eS	Sg	05 57 59.1	-0.9

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*IDC **24** 06:02:55.0±3.1, 19.56S×177.75W, h603^{km}±39^{km}, mb3.1/8, mb1 3.3/8, mb1mx3.2/16, Error ellipse: s-maj=28.3km s-min=16.4km az=168.0*

*NEIC **24** 06:02:54.9±0.6, 19.42S×177.85W, h600^{km}, mb4.0/3, Error ellipse: s-maj=24.1km s-min=13.9km az=176.0*

ISC 24 06:02:52.2±3.5**, 19.5S**±0.2×**177.9W**±0.1**, h579**^{km}±44^{km}**, n17, σ0^{s}90**/18**, mb3.6**/10**, 1C-2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	33.75	263	P	P	06 08 49.3	+1.2
	5.2nm,0.6s,mb4.3,baz=91,slow=9.7,SNR=13						
CTAO	Charters Tower	33.75	263	eP	P	06 08 48.8	+0.7
	4.3nm,0.6s,mb4.3						
STKA	Stephens Creek	38.38	243	P	P	06 09 26.6	+0.5
	2.1nm,0.7s,mb3.8,baz=105,slow=11,SNR=6.1						
STKA	Stephens Creek	38.38	243	eP	P	06 09 26.6	+0.5
WB2	Warramunga Arr	44.88	261	eP	P	06 10 17.6	-0.2
WRAB	Tennant Creek	44.88	261	eP	P	06 10 17.3	-0.5
	3.0nm,0.7s,mb3.9						
WRA	Warramunga Arr	44.89	261	P	P	06 10 17.3	-0.5
	0.7nm,0.3s,mb3.6,baz=97,slow=7.8,SNR=6.6						
ASAR	Alice Springs	44.90	256	P	P	06 10 18.0	+0.1
	4.2nm,0.8s,mb4.0,baz=88,slow=7.9,SNR=52						
ASAR				S	S	06 16 14.8	+0.2
	1.0nm,1.0s,baz=94,slow=16,SNR=5.3						
ASPA	Alice Springs	44.91	256	eP	P	06 10 18.2	+0.3
MBWA	Marble Bar	58.23	257	eP	P	06 11 53.1	-0.9
	3.2nm,0.5s,mb3.7						
VNDA	Vanda	58.96	185	P	P	06 11 57.1	-1.1
	0.7nm,0.8s,mb2.8,slow=6.1,SNR=4.0						
TXAR	Lajitas Array	86.37	57	P	P	06 14 35.5	+0.3
	0.8nm,0.6s,mb3.5,baz=220,slow=6.5,SNR=10						
PDAR	Pinedale Array	88.11	43	P	P	06 14 42.5	-0.4
	0.6nm,0.7s,mb3.4,baz=270,slow=1.5,SNR=5.4						
SNAA	Sanae	89.05	178	⇓i	P	06 14 44.9	-1.8
SNAA	Sanae	89.05	178	P	P	06 14 44.8	-1.9
	0.5nm,0.8s,mb3.4,baz=258,slow=6.3,SNR=4.3						
VNA3	Neumayer Olymp	89.17	176	⇓i	P	06 14 48.6	+1.3
VNA2	Neumayer--Watz	89.62	177	⇑i	P	06 14 51.0	+1.7

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*CSEM **24** 06:07:36.9±0.2, 27.70N×55.34E, h20^{km}, ML4.6/1, Error ellipse: s-maj=6.2km s-min=2.8km az=20.0*

*KISR **24** 06:07:38.1±0.6, 28.58N×55.58E, h26^{km}±999^{km}, ML3.6*

THR 24 06:07:39.1±1.1**, 27.93N**×**55.67E, h15**^{km}±22^{km}**, ML3.5, Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BNDS	Bandar-Abbas	0.69	140	ePG	Pg	06 07 52.2	-1.0
BNDS				eSG	Sg	06 08 02.5	-0.1
BNDS				AMP		06 08 08.6	
	comp=N,1µm,0.4s						
BNDS				AMP		06 08 10.9	
	comp=E,2µm,0.3s						
BNDS	Bandar-Abbas	0.69	140	ePg	Pg	06 07 52.2	-1.0
BNDS				eSg	Sg	06 08 02.5	-0.1
	comp=E,2µm,0.3s						
GHIR	Ghir-Karzin	2.40	279	ePN	Pn	06 08 20.2	+1.7
GHIR				AMP		06 09 04.1	
	comp=N,406nm,0.5s						
GHIR				AMP		06 09 09.1	
	comp=E,319nm,0.4s						
GHIR	Ghir-Karzin	2.40	279	ePn	Pn	06 08 20.2	+1.7
	comp=E,319nm,0.4s						
ZHSF	Zahedan	4.78	68	ePN	Pn	06 08 53.4	+1.0
NASN	Na’in	5.44	334	ePN	Pn	06 09 01.7	0.0
QRN	Al-Qurain	6.88	279	eP	Pn	06 09 18.2	-3.8
QRN				eS	Sn	06 10 31.6	-9.1
RDF	Al-Radifah	7.22	280	eP	Pn	06 09 21.6	-5.1
RDF				eS	Sn	06 10 39.1	-10
RST	Umm Al-Ruwaisa	7.77	284	eP	Pn	06 09 28.9	-5.6
RST				AML	AML	06 10 53.4	
	comp=Z,6.6nm,0.3s						

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*IDC **24** 06:14:34.1±8.8, 20.01S×178.10W, h475^{km}±95^{km}, mb3.2/8, mb1 3.5/8, mb1mx3.3/15, Error ellipse: s-maj=41.3km s-min=37.3km az=137.0*

*NEIC **24** 06:14:45.2±1.0, 20.12S×178.46W, h600^{km}, mb4.2/2, Error ellipse: s-maj=44.8km s-min=20.9km az=158.0*

ISC 24 06:14:26.4±0.9**, 20.0S**±0.3×**178.0W**±0.2**, h400**^{km}**, n13, σ0^{s}74**/11**, mb3.6**/9**, 1C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	33.51	264	P	P	06 20 33.6	+1.7
	4.5nm,0.8s,mb3.9,baz=102,slow=11,SNR=8.4						
CTAO	Charters Tower	33.51	264	eP	P	06 20 33.4	+1.4
	4.1nm,0.8s,mb3.8						
STKA	Stephens Creek	37.97	244	P	P	06 21 08.7	-0.4
	1.6nm,0.8s,mb3.4,baz=146,slow=18,SNR=2.9						
ASAR	Alice Springs	44.60	256	P	P	06 22 02.4	-0.3
	4.6nm,0.7s,mb3.9,baz=102,slow=7.6,SNR=53						
WB2	Warramunga Arr	44.63	262	⇑iP	P	06 22 02.6	-0.3
WRAB	Tennant Creek	44.63	262	eP	P	06 22 02.1	-0.8
	6.7nm,0.9s,mb4.0						
WRA	Warramunga Arr	44.64	262	P	P	06 22 02.7	-0.3
	1.1nm,0.3s,mb3.7,baz=96,slow=7.5,SNR=19						
TXAR	Lajitas Array	86.82	57	P	P	06 26 27.1	-1.0
	0.3nm,0.7s,mb3.1,baz=219,slow=5.8,SNR=3.3						
ILAR	Eielson Array	87.86	13	P	P	06 26 32.9	+0.8
	0.6nm,1.1s,mb3.2,baz=225,slow=5.1,SNR=3.1						
SNAA	Sanae	88.49	178	P	P	06 26 35.7	+0.7
	0.3nm,0.9s,mb3.0,baz=4.1,slow=12,SNR=4.2						
CMAR	Chiang Mai Arr	89.93	290	P	P	06 26 43.0	+0.1
	1.3nm,0.4s,mb4.2,baz=128,slow=4.1,SNR=4.4						
AKASG	Malin Array Be	142.58	331	PKhKP		06 33 06.8	
	0.4nm,0.5s,baz=42,slow=4.4,SNR=7.3						
BRTR	Keskin Array B	146.50	313	PKPbc	PKPbc	06 33 19.7	-1.3
	0.7nm,0.7s,baz=60,slow=4.4,SNR=3.8						

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*IDC **24** 07:01:52.2±2.2, 50.12S×161.51E, mb4.1/4, mb1 4.3/5, mb1mx4.0/9, ML3.5/1, Error ellipse: s-maj=63.8km s-min=37.0km az=7.0*

*NEIC **24** 07:01:58.2±1.4, 49.63S×161.16E, h10^{km}, mb4.4/1, Error ellipse: s-maj=35.3km s-min=14.5km az=175.0*

ISC 24 07:01:56.0±4.1**, 49.4S**±0.7×**161.3E**±0.3**, h10**^{km}**, n9, σ0^{s}75**/6**, mb4.2**/5**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	8.76	53	Pn	P	07 04 05.7	0.0
	0.5nm,0.3s,baz=164,slow=22,SNR=2.3						
STKA	Stephens Creek	22.91	312	P	P	07 07 04.9	+4.0
	2.9nm,1.0s,mb3.7,baz=140,slow=16,SNR=4.0						
ASAR	Alice Springs	33.49	310	P	P	07 08 37.8	+0.3
	2.3nm,0.7s,mb4.2,baz=145,slow=8.4,SNR=29						
WRA	Warramunga Arr	36.44	314	P	P	07 09 02.6	-0.2
	2.6nm,0.8s,mb4.2,baz=146,slow=8.2,SNR=12						
WRAB	Tennant Creek	36.44	314	eP	P	07 09 02.2	-0.5
	5.7nm,0.9s,mb4.5						
CMAR	Chiang Mai Arr	87.17	303	P	P	07 14 43.6	+0.1
	0.7nm,0.3s,mb4.3,baz=180,slow=4.5,SNR=5.6						
ARCES	ARCESS Array B	150.85	330	PKPbc	PKPdf	07 21 45.9	+1.4
	2.1nm,0.7s,baz=45,slow=2.6,SNR=5.6						
FINES	FINESS Array B	152.48	313	PKPbc	PKPdf	07 21 50.2	+3.1
	5.5nm,1.0s,baz=117,slow=6.2,SNR=4.9						
FINES	FINESS Array B	152.48	313	PKPbc	PKPdf	07 21 50.2	+3.1

MAN 24 07:09:17.7, 17.65N×119.91E, h3^{km}, mb3.9, ML2.7, MS2.3, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ABRA	Dolores	0.76	90	eP	Pg	07 09 32.7	-0.3
BOLP	Bolinao	1.27	180	eP	Pb	07 09 41.2	-0.6
APYP	Conner	1.28	80	eP	Pb	07 09 40.6	-1.6
APYP				eS	Sb	07 09 55.6	-3.3
CVP	Callao Caves	1.82	88	eP	Pn	07 09 50.0	-0.2
CVP				i S	Sn	07 10 12.0	-2.1
CAUP	Cauayan	1.96	111	eP	Pn	07 09 52.7	+0.5

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*NEIC **24** 07:35:05.5, 39.38N×24.82E, h25^{km}, ML3.6(ATH), After ATH.*

*CSEM **24** 07:35:06.4±0.1, 39.35N×24.84E, h20^{km}, ML3.6, Error ellipse: s-maj=1.8km s-min=1.5km az=102.0*

*THE **24** 07:35:07.4, 39.34N×24.87E, h21^{km}, ML4.0*

ATH 24 07:35:05.4, 39.38N×24.81E, h24^{km}±3^{km}**, MD3.8**/16**, ML3.6, 2C-1D, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIA	Limnos Island	0.59	29	⇑iPN	Pn	07 35 17.6	-0.6
LIA				eSN	Sn	07 35 25.3	-1.8
LIA	Limnos Island	0.59	29	eSn	Sn	07 35 25.3	-1.8
LOS	Limnos	0.59	21	ePg	Pb	07 35 18.2	+1.1
LOS				eSg	Sb	07 35 28.6	+3.7
LOS	Limnos	0.59	21	eSg	Sb	07 35 28.6	+3.6
AOS	Alonnisos	0.75	254	ePg	Pb	07 35 21.9	+2.2
PAIG	Paliouri	1.03	302	ePg	Pb	07 35 26.0	+1.6
PAIG				eSg	Sb	07 35 41.6	+4.1
BOZC	Bozcaada	1.06	64	i P	Pn	07 35 24.9	0.0
BOZC				i S	Sb	07 35 41.5	+3.0
PRK	Paraskevi	1.14	96	ePN	Pn	07 35 27.0	+0.9
PRK				eSN	Sn	07 35 43.6	+2.6
OUR	Ouranopolis	1.15	326	ePb	Pb	07 35 28.0	+1.6
OUR				eSb	Sb	07 35 43.9	+2.9
NEO	Neokhori	1.23	267	ePN	Pn	07 35 28.7	+1.3
NEO				eSN	Sn	07 35 47.1	+3.8
XOR	Xorichti	1.25	270	ePb	Pb	07 35 28.9	+0.6
XOR				eSb	Sb	07 35 46.5	+2.5
PLG	Polygyros	1.45	314	ePN	Pn	07 35 32.9	+2.5
AYVA	Ayvalik	1.46	92	i P	Pn	07 35 31.4	+0.8
AYVA				i S	Sn	07 35 50.0	+0.9
MPAR	Parnis Oros	1.49	215	ePB	Pb	07 35 32.0	-0.2
PTL	Penteli	1.52	209	ePN	Pn	07 35 32.5	+1.0
LKR	Lokris	1.59	243	ePN	Pn	07 35 33.9	+1.5
ATH	Athens Observa	1.65	212	ePB	Pb	07 35 34.4	-0.5
ALN	Alexandroupoli	1.79	32	ePb	Pb	07 35 36.0	-1.3
NSAL	Nisos Salamina	1.81	216	ePB	Pb	07 35 36.5	-1.2
SOH	Sokhos	1.82	323	ePb	Pb	07 35 38.0	+0.1
MGER	Gerania Oros	1.85	222	ePB	Pb	07 35 37.0	-1.3
RDO	Rodhopi	1.85	17	ePB	Pb	07 35 36.9	-1.5
NAIG	Nisos Aigina	1.92	213	ePB	Pb	07 35 37.8	-1.8
NAIG	Nisos Aigina	1.92	213	ePn	Pn	07 35 37.0	-0.2
LIT	Litokhoron	1.93	293	ePn	Pn	07 35 39.8	+2.4
LIT				eSn	Sn	07 36 03.2	+2.2
LIT	Litokhoron	1.93	293	ePn	Pn	07 35 39.8	+2.5
LIT				eSn	Sn	07 36 03.2	+2.2
AGG	Agios Georgios	1.96	260	ePn	Pn	07 35 39.5	+1.8
AGG	Agios Georgios	1.96	260	ePn	Pn	07 35 39.5	+1.7
SRS	Serrai	1.97	332	ePn	Pn	07 35 40.0	+2.1
SRS				eSn	Sn	07 36 05.7	+3.6
NVR	Nevrokopi	2.10	340	ePN	Pn	07 35 41.2	+1.5
KDAG	Bornova	2.15	116	i P	Pn	07 35 41.1	+0.6
KDAG				i S	Sn	07 36 14.9	+8.2
SART	Tekirdag	2.24	54	i P	Pn	07 35 41.6	-0.1
SART				i S	Sn	07 36 15.0	+6.0
KNT	Kendrikon	2.30	321	ePn	Pn	07 35 44.8	+2.1
KNT				eSn	Sn	07 36 12.7	+2.1
SMG	Samos	2.31	136	ePB	Pb	07 35 45.0	-1.1
APE	Apeiranthos	2.38	166	ePN	Pn	07 35 44.5	+0.8
EVR	Evrytania	2.38	260	ePN	Pn	07 35 44.9	+1.1
GRG	Griva	2.43	311	ePn	Pn	07 35 46.9	+2.4
GRG				eSn	Sn	07 36 16.8	+3.1
KZN	Kozani	2.52	293	ePB	Pb	07 35 47.9	-1.8
FNA	Florina	2.98	299	ePn	Pn	07 35 54.6	+2.2
VLI	Veliai	3.04	210	ePN	Pn	07 35 53.6	+0.4
ITM	Ithomi	3.16	227	ePB	Pb	07 35 57.9	-2.8
SKO	Skopje	3.64	316	ePn	Pn	07 35 55.0	-6.7
SKO				i		07 36 06.8	
HARR	Harsova	5.79	23	⇓iP	Pn	07 36 32.3	+0.1
VRI	Vrincioaia	6.63	12	⇑iP	Pn	07 36 47.5	+3.5
CII	Carovilli	8.33	290	Pn	P	07 37 05.3	-2.4
	7.3nm,0.6s						

MAN 24 07:48:57.3, 8.17N×123.33E, h34^{km}, mb4.0, ML2.7, MS2.4, 1D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PAGZ	Pagadian	0.32	171	eP	P	07 49 07.1	+1.8
PAGZ				eS	S	07 49 13.6	+2.6
IPIL	Ipil	0.84	243	eP	P	07 49 13.5	+0.8
IPIL				eS	S	07 49 24.9	+0.9
SNPH	Sibulan	1.17	356	⇓iP	P	07 49 17.5	+0.1
SNPH				i S	S	07 49 32.5	+0.1
TBP	Tagbilaran	1.60	19	eP	P	07 49 23.5	-0.1
TBP				eS	S	07 49 42.5	-0.8

IDC 24 07:52:52.6±15.0**, 51.10N**×**177.54E, mb3.1**/3**, mb1 3.5**/3**, mb1mx3.3**/22**, Error ellipse: s-maj=294.0km s-min=98.3km az=84.0, Rat Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILAR	Eielson Array	22.91	40	P	P	07 57 57.8	-0.9
	0.3nm,0.7s,baz=246,slow=9.0,SNR=4.1						
YKA	Yellowknife Ar	37.08	46	P	P	08 00 03.7	-2.1
	0.1nm,0.6s,baz=284,slow=7.6,SNR=4.4						
PDAR	Pinedale Array	48.57	70	P	P	08 01 37.8	-1.5
	0.4nm,0.6s,baz=315,slow=2.1,SNR=5.0						

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*IDC **24** 07:53:02.4±12.0, 22.99S×179.70W, h483^{km}±93^{km}, mb3.4/5, mb1 3.6/6, mb1mx3.3/15, Error ellipse: s-maj=150.0km s-min=22.9km az=43.0*

*NEIC **24** 07:53:17.6±5.9, 24.08S×179.34E, h600^{km}, mb4.4/3, Error ellipse: s-maj=136.0km s-min=22.2km az=47.0*

ISC 24 07:53:09.3±4.8**, 23.5S**±0.2×**179.8E**±0.4**, h554**^{km}±54^{km}**, n11, σ0^{s}64**/12**, mb4.0**/7**, 1D, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	14.89	188	P	P	07 56 16.9	-0.3
	1.0nm,0.3s,baz=270,slow=18,SNR=4.1						
URZ				S	S	07 58 48.5	-0.2
	0.3nm,0.3s,baz=138,slow=23,SNR=3.6						
CTA	Charters Tower	31.33	270	P	P	07 58 47.3	+1.1
	6.7nm,0.3s,mb4.6,baz=97,slow=13,SNR=29						
CTAO	Charters Tower	31.33	270	eP	P	07 58 46.9	+0.7
	7.7nm,0.5s,mb4.5						
STKA	Stephens Creek	34.73	248	P	P	07 59 15.7	+1.0
	2.4nm,0.5s,mb4.0,baz=97,slow=13,SNR=9.3						
ASAR	Alice Springs	41.95	260	P	P	08 00 13.8	+0.3
	2.4nm,0.5s,mb4.0,baz=93,slow=7.2,SNR=60						
ASPA	Alice Springs	41.96	260	eP	P	08 00 13.8	+0.3
WB2	Warramunga Arr	42.28	266	⇓iP	P	08 00 15.7	-0.4
WRAB	Tennant Creek	42.28	266	eP	P	08 00 15.3	-0.8
	5.0nm,0.3s,mb4.5						
WRA	Warramunga Arr	42.29	266	P	P	08 00 15.8	-0.3
	2.6nm,0.4s,mb4.2,baz=96,slow=8.5,SNR=33						
VNDA	Vanda	54.76	185	P	P	08 01 49.0	+0.6
	0.7nm,0.9s,mb2.9,baz=18,slow=6.4,SNR=3.5						
MBWA	Marble Bar	55.30	260	P	P	08 01 51.6	-1.2
	2.3nm,0.4s,mb3.8						

WEL 24 08:08:59.3±0.2**, 38.78S**×**176.28E, h108**^{km}±1^{km}**, ML3.6**/7**, 7C-2D, Error ellipse: s-maj=1.4km s-min=1.0km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PATZ	Paeroa	0.40	358	PN	P	08 09 15.2	-0.2
BKZ	Black Stump Fm	0.42	157	⇑PN	P	08 09 15.7	+0.1
BKZ				SN	S	08 09 27.8	+0.1
WATZ	Wairara	0.43	279	PN	P	08 09 15.4	-0.2
TAZ	Tarawera	0.57	18	PN	P	08 09 16.5	-0.1
UTU	Utuhina	0.60	354	PN	P	08 09 16.9	+0.1
OTVZ	Oturere	0.61	231	⇓PN	P	08 09 17.1	+0.3
OTVZ				SN	S	08 09 30.2	+0.1
MGZ	Maungaku	0.62	249	PN	P	08 09 16.4	-0.5
MGZ				SN	S	08 09 29.7	-0.5
WTVZ	West Tongariro	0.63	238	PN	P	08 09 16.8	-0.2
WTVZ				SN	S	08 09 30.3	-0.1
NGZ	Ngauruhoe	0.66	233	PN	P	08 09 17.2	0.0
TUVZ	Tukino	0.69	225	PN	P	08 09 17.6	+0.1
TUVZ				SN	S	08 09 31.0	-0.2
CNZ	Chateau	0.71	233	PN	P	08 09 17.6	0.0
WPVZ	Whakapapa	0.71	233	SN	S	08 09 32.2	+0.7
TWVZ	Taurewa	0.72	246	PN	P	08 09 17.3	-0.5
TWVZ				SN	S	08 09 30.9	-0.7
FWVZ	Far West T-bar	0.74	230	PN	P	08 09 18.1	+0.1
FWVZ				SN	S	08 09 31.5	-0.5
MOVZ	Moawhango	0.75	213	PN	P	08 09 17.7	-0.3
MOVZ				SN	S	08 09 31.1	-1.0
WNVZ	Wahianoa	0.76	224	PN	P	08 09 18.1	-0.1
WNVZ				SN	S	08 09 31.6	-0.7
URZ	Urewera	0.83	52	⇓PN	P	08 09 18.4	-0.5
URZ				SN	S	08 09 32.4	-1.1
MWZ	Matawai	1.07	66	PN	P	08 09 21.2	-0.2
MWZ				SN	S	08 09 36.5	-1.5
KNZ	Kokohu	1.11	103	PN	P	08 09 21.7	-0.1
TSZ	Takapari Road	1.30	191	⇑PN	P	08 09 23.2	-0.8
TSZ				SN	S	08 09 40.3	-2.4
PWZ	Pawanui	1.33	160	PN	P	08 09 23.9	-0.5
PWZ				SN	S	08 09 43.1	-0.1
WAZ	Wanganui	1.40	225	SN	S	08 09 43.7	-1.0
PUZ	Puketiti	1.71	66	PN	P	08 09 28.2	-0.7
PUZ				SN	S	08 09 49.4	-1.7
BFZ	Birch Farm	1.90	181	⇑PN	P	08 09 29.8	-1.6
BFZ				SN	S	08 09 53.3	-2.0
MRZ	Mangatainoka R	1.96	196	⇑PN	P	08 09 30.2	-1.8
MRZ				SN	S	08 09 54.2	-2.4
KIW	Kapiti Island	2.33	206	PN	P	08 09 34.5	-2.7
KIW				SN	S	08 10 01.4	-4.1
MTW	Mount Morrison	2.45	194	⇑PN	P	08 09 35.7	-3.1
MTW				SN	S	08 10 03.9	-4.4
CAW	Cannon Point	2.50	201	⇑PN	P	08 09 36.5	-3.0
CAW				SN	S	08 10 05.5	-4.2
PAWZ	Paruwai Farm	2.68	194	⇑PN	P	08 09 38.4	-3.4
PAWZ				SN	S	08 10 08.9	-5.0
MRW	Makara Radio	2.73	206	PN	P	08 09 39.1	-3.4
MRW				SN	S	08 10 11.2	-3.9
TUWZ	Tuamarina	3.20	213	PN	P	08 09 44.9	-4.0
TUWZ				SN	S	08 10 20.7	-5.7
THZ	Tophouse	3.94	220	PN	P	08 09 54.9	-4.1
THZ				SN	S	08 10 39.4	-5.1
LTZ	Lake Taylor	5.03	216	SN	S	08 11 02.0	-9.0
MQZ	McQueen’s Vall	5.63	208	SN	S	08 11 14.4	-11

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*IDC **24** 08:09:28.9±4.8, 22.14S×169.90E, mb3.7/4, mb1 3.9/4, mb1mx3.8/13, Error ellipse: s-maj=187.0km s-min=37.6km az=155.0*

ISC 24 08:09:43.0±3.4**, 19.6S**±0.4×**168.4E**±0.5**, h38**^{km}±39^{km}**, n6, σ0^{s}44**/8**, mb3.5**/3**, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.07	215	eP	P	08 10 30.1	-0.2
DZM				eS	S	08 11 06.7	+0.4
NOUC	Port Laguerre	3.17	217	eP	P	08 10 32.0	+0.2
NOUC				eS	S	08 11 08.4	-0.4
CTA	Charters Tower	20.80	265	P	P	08 14 28.4	+4.7
	6.0nm,0.8s,baz=95,slow=11,SNR=7.0						
WRA	Warramunga Arr	31.99	263	P	P	08 16 08.1	0.0
	0.2nm,0.3s,mb3.4,baz=96,slow=8.4,SNR=3.8						
ASAR	Alice Springs	32.24	256	P	P	08 16 05.4	-4.9
	0.2nm,0.4s,mb3.3,baz=83,slow=8.7,SNR=5.6						
ILAR	Eielson Array	90.78	18	P	P	08 22 43.1	0.0
	0.4nm,0.8s,mb3.8,baz=235,slow=4.3,SNR=5.0						

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*IDC **24** 08:22:30.5±0.7, 29.15N×139.51E, h405^{km}±7^{km}, mb3.3/13, mb1 3.4/17, mb1mx3.4/27, Error ellipse: s-maj=16.2km s-min=9.0km az=81.0*

*JMA **24** 08:22:30.2±0.1, 29.36N×140.04E, h428^{km}, M3.9*

*NEIC **24** 08:22:32.3±2.1, 29.23N×139.42E, h422^{km}±24^{km}, mb3.7/3, Error ellipse: s-maj=16.6km s-min=9.0km az=82.0*

ISC 24 08:22:29.6±0.4**, 29.18N**±0.05×**139.48E**±0.10**, h409**^{km}±5^{km}**, n35, σ0^{s}78**/39**, mb3.5**/15**, 1C, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	3.17	130	P	P	08 23 35.3	+0.1
	63nm,0.3s,baz=278,slow=23,SNR=23						
CBIJ				S	S	08 24 26.6	-0.3
	155nm,0.3s,baz=280,slow=22,SNR=25						
CBIJ	Chichi jima	3.17	130	P	P	08 23 35.5	+0.3
CBIJ				eS	S	08 24 27.0	+0.1
JHHJ	Haha-jima-NKT	3.49	136	P	P	08 23 38.5	+0.5
JHHJ				eS	S	08 24 31.1	-0.7

JHJ2	**Mitsune**	3.93	4	P	P	08 23 42.6	+0.6
JHJ	**Hachijo jima 2**	3.93	4	P	P	08 23 42.7	+0.6
	45nm,0.3s,baz=91,slow=17,SNR=3.6						
JHJ				S	S	08 24 43.0	+4.0
	30nm,0.3s,baz=57,slow=23,SNR=2.4						
JIM2	**Oshima 3**	5.52	360	P	P	08 23 57.8	-0.2
BSO3	**Boso 3**	5.67	9	P	P	08 23 58.9	-0.7
BSO4	**Boso 4**	5.84	7	P	P	08 23 59.8	-1.5
HMMJ	**Hamamatsu 2**	5.85	346	P	P	08 24 02.4	+0.9
JOD2	**Odawara 2**	6.07	357	P	P	08 24 03.7	-0.2
JNY	**Yasuok**	6.31	348	P	P	08 24 07.5	+1.0
JAO	**Obara**	6.35	343	P	P	08 24 08.3	+1.3
JHU	**Hanno**	6.65	359	P	P	08 24 08.9	-1.4
JRY	**Ryogami san**	6.83	356	P	P	08 24 11.7	-0.7
JOW	**Kunigami**	10.18	259	P	P	08 24 50.9	+0.2
	1.5nm,0.3s,baz=7.0,slow=9.0,SNR=2.6						
ASAJ	**Asahikawa**	15.11	9	P	P	08 25 45.5	+0.6
	0.7nm,0.3s,baz=299,slow=17,SNR=3.1						
ENH	**Enshi**	26.04	280	*e*P	P	08 27 29.6	+0.1
	5.7nm,0.5s,mb4.3						
SONM	**Songino Array**	31.56	315	P	P	08 28 17.4	0.0
	0.8nm,0.7s,mb3.2,baz=123,slow=8.1,SNR=8.4						
WB2	**Warramunga Arr**	49.09	186	⇑*i*P	P	08 30 39.7	+0.1
WRA	**Warramunga Arr**	49.09	186	P	P	08 30 39.1	-0.5
	3.8nm,0.4s,mb4.1,baz=2.9,slow=7.8,SNR=75						
ASAR	**Alice Springs**	52.82	186	P	P	08 31 06.8	-0.4
	1.0nm,0.5s,mb3.3,baz=8.3,slow=8.2,SNR=27						
ASPA	**Alice Springs**	52.82	186	*e*P	P	08 31 07.9	+0.7
CHKZ	**Chkalovo**	54.73	317	*e*P	P	08 31 19.3	-1.1
	1.6nm,0.5s,mb3.5						
BVAR	**Borovoye Array**	54.89	316	P	P	08 31 20.6	-1.0
	2.1nm,0.4s,mb3.7,baz=97,slow=6.2,SNR=9.1						
ILAR	**Eielson Array**	57.05	29	P	P	08 31 36.4	-0.1
	0.6nm,1.0s,mb2.9,baz=304,slow=9.3,SNR=4.6						
INK	**Inuvik**	62.14	25	P	P	08 32 10.0	-0.4
	0.7nm,0.3s,mb3.6,baz=272,slow=4.6,SNR=9.1						
INK	**Inuvik**	62.14	25	*e*P	P	08 32 09.6	-0.8
	0.7nm,0.4s,mb3.5						
ARCES	**ARCESS Array B**	70.78	340	P	P	08 33 04.2	+0.2
	1.9nm,0.6s,mb3.8,baz=60,slow=9.8,SNR=5.1						
YKA	**Yellowknife Ar**	71.44	28	P	P	08 33 07.2	-0.8
	0.2nm,0.4s,mb3.0,baz=299,slow=6.2,SNR=8.1						
YKA	**Yellowknife Ar**	71.44	28	P	P	08 33 07.2	-0.8
FINES	**FINESS Array B**	75.02	333	P	P	08 33 28.1	-0.4
	4.0nm,1.0s,mb4.0,baz=82,slow=5.6,SNR=12						
AKASG	**Malin Array Be**	79.52	323	P	P	08 33 53.3	+0.1
	0.4nm,0.4s,mb3.4,baz=53,slow=5.7,SNR=4.0						
NOA	**NORSAR Array B**	80.78	337	P	P	08 33 59.6	0.0
	0.4nm,0.5s,mb3.5,baz=49,slow=4.4,SNR=2.8						
NVAR	**Mina Array Bea**	81.09	51	P	P	08 34 02.9	+1.3
	0.6nm,0.6s,mb3.5,baz=294,slow=6.0,SNR=5.8						
ANMO	**Albuquerque**	90.93	49	P	P	08 34 51.1	+1.8
	0.4nm,0.5s,mb3.5,baz=335,slow=14,SNR=2.6						

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*NEIC **24** 08:44:02.9, 45.21S×170.09E, h12^{km}, ML3.9(WEL), After WEL.*

NEIC Felt at Ranfurly.

WEL 24 08:44:02.2±0.1**, 45.23S×170.07E, h5^{km}, ML3.9**/6**, 2C-3D, Error ellipse: s-maj=0.9km s-min=0.7km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ODZ	**Otahua Downs**	0.45	66	P	Pg	08 44 11.5	+0.4
ODZ				S	Sg	08 44 17.0	-0.1
ODZ	**Otahua Downs**	0.45	66	⇓PG	Pg	08 44 11.5	+0.3
ODZ				SG	Sg	08 44 16.7	-0.4
EAZ	**Earnscleugh**	0.54	269	P	Pg	08 44 12.8	-0.1
EAZ	**Earnscleugh**	0.54	269	⇓PG	Pg	08 44 12.8	-0.2
EAZ				SG	Sg	08 44 18.8	-1.4
TUZ	**Tuapeka**	0.79	203	P	Pg	08 44 17.7	-0.3
TUZ	**Tuapeka**	0.79	203	⇑P*	Pb	08 44 17.7	-0.3
TUZ				S*	Sb	08 44 27.7	-1.1
LBZ	**Lake Benmore**	0.84	6	P	Pb	08 44 18.3	-0.6
LBZ	**Lake Benmore**	0.84	6	⇑P*	Pb	08 44 18.3	-0.6
WKZ	**Wanaka**	0.84	298	P	Pb	08 44 18.4	-0.5
WKZ	**Wanaka**	0.84	298	⇓P*	Pb	08 44 18.4	-0.5
WKZ				S*	Sb	08 44 30.4	0.0
MLZ	**Mavora Lakes**	1.34	264	P	Pb	08 44 27.8	+0.3
MLZ	**Mavora Lakes**	1.34	264	PN	Pn	08 44 27.6	0.0
MLZ				SN	Sn	08 44 46.4	+0.4
JCZ	**Jackson Bay**	1.48	320	P	Pn	08 44 29.4	-0.2
JCZ	**Jackson Bay**	1.48	320	PN	Pn	08 44 29.0	-0.7
JCZ				SN	Sn	08 44 48.5	-1.1
MSZ	**Milford Sound**	1.62	289	PN	Pn	08 44 30.5	-1.0
MSZ				SN	Sn	08 44 52.7	-0.3
WHZ	**Wether Hill Ro**	1.63	245	P	Pn	08 44 30.8	-1.0
WHZ	**Wether Hill Ro**	1.63	245	PN	Pn	08 44 30.8	-0.9
WHZ				SN	Sn	08 44 51.7	-1.7
FOZ	**Fox Glacier**	1.68	351	PN	Pn	08 44 32.3	-0.2
FOZ				SN	Sn	08 44 53.5	-1.1
DCZ	**Deep Cove**	2.07	262	PN	Pn	08 44 37.5	-0.5
DCZ				SN	Sn	08 45 02.8	-1.7
WVZ	**Waitaha Valley**	2.20	13	*e*P	Pn	08 44 40.3	+0.4
WVZ	**Waitaha Valley**	2.20	13	PN	Pn	08 44 40.3	+0.4
MQZ	**McQueen's Vall**	2.39	52	*e*P	Pn	08 44 41.5	-1.2
MQZ	**McQueen's Vall**	2.39	52	PN	Pn	08 44 41.5	-1.1
LTZ	**Lake Taylor**	2.91	34	P	Pn	08 44 48.5	-1.6
LTZ	**Lake Taylor**	2.91	34	PN	Pn	08 44 48.3	-1.8
DSZ	**Denniston Nort**	3.70	21	*e*P	Pn	08 44 59.4	-1.9
DSZ	**Denniston Nort**	3.70	21	PN	Pn	08 44 59.0	-2.3
THZ	**Tophouse**	4.03	32	*e*P	Pn	08 45 04.6	-1.3
THZ	**Tophouse**	4.03	32	PN	Pn	08 45 04.6	-1.3
QRZ	**Quartz Range**	4.75	23	*e*PN	Pn	08 45 14.1	-2.1
QRZ				SN	Sn	08 46 05.6	-6.9

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*NEIC **24** 09:49:05.8, 45.15S×167.47E, h121^{km}, After WEL.*

WEL 24 09:49:06.8±0.4**, 45.16S×167.46E, h109^{km}**±3^{km}**, ML4.0**/11**, 3C-4D, Error ellipse: s-maj=3.0km s-min=1.8km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	**Deep Cove**	0.38	215	PN	P	09 49 22.1	-1.0
DCZ				SN	S	09 49 33.9	-1.3
MLZ	**Mavora Lakes**	0.53	111	P	P	09 49 23.7	-0.3
MLZ				S	S	09 49 37.2	+0.3
MLZ	**Mavora Lakes**	0.53	111	⇑PN	P	09 49 23.7	-0.3
MLZ				SN	S	09 49 36.4	-0.4
MSZ	**Milford Sound**	0.59	34	⇑PN	P	09 49 24.2	-0.1
WHZ	**Wether Hill Ro**	0.81	155	P	P	09 49 26.0	-0.3
WHZ				S	S	09 49 40.6	-0.3
WHZ	**Wether Hill Ro**	0.81	155	PN	P	09 49 26.0	-0.3
WHZ				SN	S	09 49 40.1	-0.7
WKZ	**Wanaka**	1.15	74	P	P	09 49 29.8	-0.2
WKZ	**Wanaka**	1.15	74	PN	P	09 49 29.7	-0.3
WKZ				SN	S	09 49 46.6	-0.8
EAZ	**Earnscleugh**	1.31	94	⇓PN	P	09 49 31.2	-0.6
EAZ				SN	S	09 49 49.0	-1.5
JCZ	**Jackson Bay**	1.43	41	P	P	09 49 32.4	-0.8
JCZ				S	S	09 49 51.7	-1.3
JCZ	**Jackson Bay**	1.43	41	⇓PN	P	09 49 32.4	-0.8
JCZ				SN	S	09 49 51.7	-1.3
TUZ	**Tuapeka**	1.72	118	P	P	09 49 36.0	-0.7
TUZ	**Tuapeka**	1.72	118	⇑PN	P	09 49 36.0	-0.7
TUZ				SN	S	09 49 56.5	-2.6
LBZ	**Lake Benmore**	2.09	69	P	P	09 49 39.4	-2.0
LBZ	**Lake Benmore**	2.09	69	⇓PN	P	09 49 39.4	-2.0
LBZ				SN	S	09 50 04.3	-3.0
ODZ	**Otahua Downs**	2.26	88	P	P	09 49 41.8	-1.9
ODZ	**Otahua Downs**	2.26	88	⇓PN	P	09 49 41.8	-1.9
ODZ				SN	S	09 50 07.5	-3.8
FOZ	**Fox Glacier**	2.26	46	PN	P	09 49 42.1	-1.6
FOZ				SN	S	09 50 09.8	-1.6
WVZ	**Waitaha Valley**	3.15	50	*e*P	P	09 49 52.0	-3.8
WVZ	**Waitaha Valley**	3.15	50	PN	P	09 49 51.7	-4.1
WVZ				SN	S	09 50 27.1	-5.8
MQZ	**McQueen's Vall**	3.99	70	*e*P	P	09 50 03.7	-3.5
MQZ	**McQueen's Vall**	3.99	70	PN	P	09 50 03.7	-3.5
MQZ				SN	S	09 50 45.4	-7.9
LTZ	**Lake Taylor**	4.21	57	*e*P	P	09 50 05.7	-4.4
LTZ	**Lake Taylor**	4.21	57	PN	P	09 50 05.7	-4.5
LTZ				SN	S	09 50 52.5	-6.1
DSZ	**Denniston Nort**	4.65	44	*e*P	P	09 50 11.9	-4.3
DSZ	**Denniston Nort**	4.65	44	PN	P	09 50 11.7	-4.5
DSZ				SN	S	09 51 02.5	-6.9
KHZ	**Kahutara**	5.18	60	*e*P	P	09 50 19.6	-3.8
KHZ	**Kahutara**	5.18	60	PN	P	09 50 19.6	-3.8
QRZ	**Quartz Range**	5.71	42	PN	P	09 50 26.3	-4.2
TUWZ	**Tuamarina**	6.02	54	PN	P	09 50 31.2	-3.6
CAW	**Cannon Point**	6.88	57	P	P	09 50 41.4	-5.2
CAW	**Cannon Point**	6.88	57	PN	P	09 50 41.4	-5.3

DJA 24 10:01:21.2±0.8**, 9.16S×114.72E, h80^{km}, MD4.7**/4**, ML4.0**/4**, 4C-4D, Error ellipse: s-maj=27.9km s-min=5.8km az=11.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	0.88	319	⇑*e*Pn	P	10 01 38.9	-0.2
	304nm,0.2s						
SRDI	**Scrawed**	0.88	319	*e*P	P	10 01 39.2	+0.1
SRDI				⇑*e*Sn	S	10 01 51.3	-1.2
RATI	**Rata**	0.91	62	⇑*i*Pn	P	10 01 39.4	+0.1
	433nm,0.2s						
RATI	**Rata**	0.91	62	⇑*i*P	P	10 01 39.7	+0.4
RATI				⇓*i*Sn	S	10 01 51.5	-1.5
KELI	**Kelakatan**	0.96	346	⇓*i*Pn	P	10 01 40.0	0.0
	425nm,0.2s						
KELI	**Kelakatan**	0.96	346	*e*P	P	10 01 40.4	+0.4
KEDI	**Kedomdong**	1.52	64	⇓*i*Pn	P	10 01 45.9	-1.4
	32nm,0.2s						
KEDI				⇓*i*Sn	S	10 02 04.9	-1.7

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*IDC **24** 10:13:10.4±3.7, 1.88S×133.78E, mb3.8/2, mb1 4.0/3, mb1mx3.7/13, ML3.8/1, Error ellipse: s-maj=104.0km s-min=32.2km az=92.0*

ISC 24 10:13:17.9±2.3**, 2.3S**±0.2×**134.2E**±0.4**, h33^{km}, n7,** σ0^{s}45/9**, mb3.7**/2**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	10.46	189	*e*P	P	10 15 48.9	+0.2
	8.7nm,0.6s						
KAKA				*e*S	S	10 17 45.5	-0.3
WB2	**Warramunga Arr**	17.51	179	*e*P	P	10 17 21.6	+0.4
WRA	**Warramunga Arr**	17.51	179	P	P	10 17 22.1	+0.8
	0.3nm,0.3s,baz=358,slow=12,SNR=21						
WRA				S	S	10 20 43.8	+11
	0.1nm,0.3s,baz=353,slow=24,SNR=4.7						
FITZ	**Fitzroy Crossi**	17.77	207	*e*P	P	10 17 24.4	0.0
	5.5nm,0.4s						
ASAR	**Alice Springs**	21.22	181	P	P	10 18 02.5	-0.7
	1.5nm,0.6s,mb3.5,baz=6.7,slow=12,SNR=44						
ASPA	**Alice Springs**	21.22	181	*e*P	P	10 18 03.2	0.0
STKA	**Stephens Creek**	30.22	167	P	P	10 19 27.3	-0.5
	1.7nm,0.8s,mb3.9,baz=342,slow=9.6,SNR=2.9						

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*NEIC **24** 10:19:06.2, 30.75S×71.70W, h22^{km}, ML3.9(GUC), After GUC.*

GUC 24 10:19:06.2±0.9**, 30.75S×71.70W, h22^{km}**±5^{km}**, MD3.7, ML3.9, 3C-2D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OVCH	**Ovalle**	0.46	71	⇓*i*P	Pb	10 19 15.7	+0.1
OVCH				*i* S	Sb	10 19 22.6	+0.7
OVCH				AMP		10 19 23.0	
	comp=N,19µm,0.2s						
CMCH	**Combarbala**	0.73	125	⇑*i*P	Pb	10 19 20.2	0.0
CMCH				*i* S	Sb	10 19 30.2	+0.5
CMCH				AMP		10 19 32.7	
	comp=N,8µm,0.6s						
LSCH	**La Serena**	0.93	25	AMP		10 20 19.1	
	comp=N,2µm,0.3s						
TLL	**Tololo Astrono**	0.97	53	⇓*i*P	Pb	10 19 24.1	-0.2
TLL				*i* S	Sb	10 19 37.0	+0.4
TLL				AMP		10 19 41.5	
	comp=N,5µm,0.5s						
ILCH	**Illapel**	0.99	153	⇑*i*P	Pb	10 19 23.5	-1.1
ILCH				*i* S	Sb	10 19 37.1	-0.1
ILCH				AMP		10 19 38.4	
	comp=E,3µm,0.2s						
JACH	**Jahuel**	2.14	154	⇑*i*P	Pn	10 19 42.1	+0.7
ROCH	**El Roble**	2.29	165	*i* P	Pn	10 19 44.4	+1.0
PEL	**Peldehue**	2.53	160	AMP		10 20 28.9	
	comp=N,875nm,0.3s						
DSCH	**Colegio Aleman**	2.81	160	AMP		10 20 40.2	
	comp=E,707nm,0.5s						
CLCH	**Cerro Calan**	2.81	160	AMP		10 20 45.3	
	comp=E,493nm,0.4s						
CLCH				AMP		10 20 45.9	
	comp=E,613nm,0.3s						
FCH	**Farellones**	2.83	155	*i* P	Pn	10 19 52.9	+1.7
FCH				*i* S	Sn	10 20 28.0	+3.0
FCH				AMP		10 20 36.0	
	comp=N,255nm,0.4s						
TACH	**Talagante**	2.96	168	*i* P	Pn	10 19 53.2	+0.2
TACH				*i* S	Sn	10 20 28.9	+0.6
MDZ	**Mendoza**	3.23	132	*e*P	Pn	10 19 59.9	+3.2
MDZ				*e*		10 20 50.7	
LMEL	**Las Melosas**	3.33	158	*e*P	Pn	10 19 58.8	+0.5
LMEL				*i* S	Sn	10 20 38.1	+0.4
LMEL				AMP		10 20 50.6	
	comp=N,405nm,0.4s						

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*STR **24** 10:22:03.7±0.1, 42.99N×0.21E, h5^{km}±1^{km}, Ml2.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **24** 10:22:03.8, 42.98N×0.21E, h6^{km}, ML2.7(LDG), ML2.5(STR), MN2.1(MDD), After LDG.*

*CSEM **24** 10:22:03.9±0.0, 42.99N×0.21E, h5^{km}, ML2.8/10, Error ellipse: s-maj=0.9km s-min=0.8km az=177.0*

*MDD **24** 10:22:04.0±0.2, 42.99N×0.22E, h9^{km}±2^{km}, mbLg2.0/20, Error ellipse: s-maj=1.4km s-min=1.4km az=126.0, PRXIMO*

LDG 24 10:22:03.8±0.0**, 42.98N×0.21E, h6^{km}, Md2.7**/2**, Ml2.7**/11**, 1C-1D, Error ellipse: s-maj=0.9km s-min=0.7km az=4.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EPF	**Esparros**	0.11	63	*e*Pg	Pg	10 22 06.6	+0.4
EPF				*e*Sg	Sg	10 22 08.4	+0.5
	1µm,0.2s						
LABF	**Labassere**	0.12	304	Pg	Pg	10 22 06.7	+0.3
LABF				Sg	Sg	10 22 08.7	+0.6
LABF	**Labassere**	0.12	304	Pg	Pg	10 22 06.7	+0.3
LABF				Lg		10 22 08.7	
VIEF	**Viey**	0.17	234	Pg	Pg	10 22 07.6	+0.3
VIEF				Lg		10 22 10.1	
RESF	**Ens**	0.20	151	Pg	Pg	10 22 08.2	+0.3
RESF				Sg	Sg	10 22 11.4	+0.7
RESF	**Ens**	0.20	151	Pg	Pg	10 22 08.3	+0.3
RESF				Lg		10 22 11.4	
EBIE	**Bielsa**	0.30	189	⇑Pg	Pg	10 22 10.0	+0.2
	17nm,0.1s,SNR=18						
EBIE				Lg		10 22 14.1	
	113nm,0.1s,SNR=69						
EBIE	**Bielsa**	0.30	189	Pg	Pg	10 22 10.0	+0.1
	17nm,0.1s,SNR=18						
EBIE				Lg		10 22 14.1	
	113nm,0.1s,SNR=69						
MELF	**Melles**	0.42	105	Pg	Pg	10 22 11.7	-0.6
MELF				Sg	Sg	10 22 17.0	-0.9
MELF	**Melles**	0.42	105	Pg	Pg	10 22 11.7	-0.5
MELF				Lg		10 22 17.1	
REYF	**Montagne du Re**	0.45	282	Pg	Pg	10 22 12.3	-0.5
REYF				Sg	Sg	10 22 18.8	0.0
REYF	**Montagne du Re**	0.45	282	Pg	Pg	10 22 12.6	-0.2
REYF				Lg		10 22 18.9	
ETSF	**Etsaut**	0.57	262	*e*Pg	Pg	10 22 14.5	-0.7
ETSF				*e*Sg	Sg	10 22 22.2	-0.6
	33nm,0.2s						
FDAF	**Les Forges d'A**	0.59	254	Pg	Pg	10 22 08.8	-6.8
FDAF				Lg		10 22 16.7	
MLS	**Moulis**	0.65	92	Pg	Pg	10 22 16.4	-0.5
MLS				Sg	Sg	10 22 25.7	+0.1
MLS	**Moulis**	0.65	92	Pg	Pg	10 22 15.4	-1.5
ATE	**Arette**	0.67	279	Lg		10 22 25.9	
SALF	**Salau**	0.76	107	Pg	Pg	10 22 18.0	-0.9
SALF				Sg	Sg	10 22 27.8	-1.2
SALF	**Salau**	0.76	107	Pg	Pg	10 22 17.2	-1.7
SALF				Lg		10 22 27.9	
EGRA	**Graus**	0.79	174	⇓Pg	Pg	10 22 19.4	-0.2
	1.7nm,0.1s,SNR=18						
EGRA				Lg		10 22 28.8	
	5.3nm,0.2s,SNR=5.0						
LARF	**Larrau**	0.88	274	Lg		10 22 32.7	
CSOR	**Sort**	0.91	131	Pg	Pg	10 22 21.3	-0.8
CSOR				Lg		10 22 33.3	
	3.8nm,0.1s						
GRBF	**Gourbit**	0.99	98	Pn	Pn	10 22 21.6	-2.4
SJPF	**Ste Jean**	1.06	278	*e*Pg	Pg	10 22 23.6	-1.3
SJPF				*e*Sg	Sg	10 22 37.4	-1.6
	9.1nm,0.2s						
CORG	**Organya**	1.11	132	Pg	Pg	10 22 25.2	-0.8
CORG				Lg		10 22 39.6	
	1.4nm,0.1s						
CAVN	**Les Avellanes**	1.17	160	Pg	Pg	10 22 26.7	-0.5
CAVN				Lg		10 22 42.0	
	14nm,0.1s						
EALK	**Alkurruntz**	1.28	281	Pg	Pg	10 22 29.4	+0.1
	0.8nm,0.1s,SNR=12						
EALK				Lg		10 22 46.0	
	3.8nm,0.2s,SNR=5.0						
ESAC	**San Caprasio**	1.35	202	Pg	Pg	10 22 30.5	-0.3
	22nm,0.3s,SNR=10						
ESAC				Lg		10 22 48.5	
	33nm,0.1s,SNR=5.0						
ESAC	**San Caprasio**	1.35	202	Pg	Pg	10 22 30.5	-0.4
	22nm,0.3s,SNR=10						
CLLI	**Llivia**	1.40	110	Pg	Pg	10 22 30.0	-1.7
CLLI				Lg		10 22 48.8	
CARF	**Carcanieres**	1.42	100	Lg		10 22 49.6	
MTLF	**Montolieu**	1.52	76	*e*Pn	Pn	10 22 29.9	-1.7
MTLF				*e*Pg	Pg	10 22 32.1	-2.0
MTLF				*e*Sg	Sg	10 22 51.2	-3.1
	16nm,0.3s						
MTLF	**Montolieu**	1.52	76	*e*Pg	Pg	10 22 32.1	-2.0
MTLF				*e*Sg	Sg	10 22 51.2	-3.1
	7.9nm,0.3s						
CBRU	**Bruguera**	1.61	115	Pg	Pg	10 22 34.2	-1.8
CBRU				Lg		10 22 56.3	
	1.5nm,0.1s						
EPOB	**Poblet**	1.75	158	Pg	Pg	10 22 36.8	-2.0
	1.4nm,0.1s,SNR=7.6						
EPOB				Lg		10 22 59.0	
	4.1nm,0.2s,SNR=5.0						
EPOB	**Poblet**	1.75	158	Pg	Pg	10 22 36.8	-2.0
	1.4nm,0.1s,SNR=7.6						
LFF	**La Frestale**	2.00	11	*e*Pn	Pn	10 22 36.4	-2.1
LFF				*e*Pg	Pg	10 22 40.8	-2.8
LFF				*e*Sn	Sn	10 23 00.1	-3.9
LFF				*e*Sg	Sg	10 23 06.8	-3.4
	18nm,0.3s						
LFF	**La Frestale**	2.00	11	*e*Pg	Pg	10 22 40.8	-2.8
LFF				*e*Sn	Sn	10 23 00.1	-3.9
LFF				*e*Sg	Sg	10 23 06.8	-3.4
	8.9nm,0.3s						
ERTA	**Horta de San J**	2.03	177	Pg	Pg	10 22 41.0	-3.3
	0.5nm,0.1s,SNR=7.9						
ERTA				Lg		10 23 07.9	
	7.5nm,0.2s,SNR=7.0						
ERTA	**Horta de San J**	2.03	177	Pg	Pg	10 22 41.0	-3.3
	0.5nm,0.1s,SNR=7.9						
EJON	**La Jonquera**	2.05	104	Pg	Pg	10 22 42.8	-1.9
	0.2nm,0.1s,SNR=7.9						
EJON				Lg		10 23 09.9	
	1.9nm,0.2s,SNR=7.9						
EJON	**La Jonquera**	2.05	104	Pg	Pg	10 22 42.8	-1.9
	0.2nm,0.1s,SNR=7.9						
CFON	**Fontmartina**	2.05	126	Lg		10 23 09.3	
	10nm,0.2s						
CAF	**Calviac**	2.36	34	*e*Pn	Pn	10 22 41.1	-2.6
CAF				*e*Pg	Pg	10 22 47.7	-3.3
CAF				*e*Sn	Sn	10 23 09.1	-4.2
CAF				*e*Sg	Sg	10 23 18.2	-4.3
	6.2nm,0.2s						
CAF	**Calviac**	2.36	34	*e*Pg	Pg	10 22 47.7	-3.3
CAF				*e*Sn	Sn	10 23 09.1	-4.2
CAF				*e*Sg	Sg	10 23 18.2	-4.3
	3.1nm,0.2s						
RJF	**Les Rejaudoux**	2.51	22	*e*Pn	Pn	10 22 43.3	-2.5
RJF				*e*Pg	Pg	10 22 49.9	-3.9
RJF				*e*Sn	Sn	10 23 12.5	-4.5
RJF				*e*Sg	Sg	10 23 22.4	-4.9
	7.6nm,0.2s						
RJF	**Les Rejaudoux**	2.51	22	*e*Pg	Pg	10 22 49.9	-3.9
RJF				*e*Sn	Sn	10 23 12.5	-4.5
RJF				*e*Sg	Sg	10 23 22.4	-4.9
	3.8nm,0.2s						
LASF	**Ste Croix**	2.87	66	*e*Pn	Pn	10 22 48.1	-2.9
LASF				*e*Pg	Pg	10 22 57.2	-3.9
LASF				*e*Sn	Sn	10 23 21.1	-5.2
LASF				*e*Sg	Sg	10 23 33.9	-5.5
	5.2nm,0.3s						
LASF	**Ste Croix**	2.87	66	*e*Pg	Pg	10 22 57.2	-3.9
LASF				*e*Sn	Sn	10 23 21.1	-5.2
LASF				*e*Sg	Sg	10 23 33.9	-5.5
	2.6nm,0.3s						
TCF	**Toulx Ste Croi**	3.60	23	*e*Pn	Pn	10 22 58.2	-3.2
TCF				*e*Sn	Sn	10 23 38.3	-6.5
TCF				*e*Sg	Sg	10 23 56.7	-7.0
	3.5nm,0.3s						
MFF	**Saint Martin d**	3.63	356	*e*Pn	Pn	10 22 58.6	-3.1
MFF				*e*Pg	Pg	10 23 11.0	-5.3
MFF				*e*Sg	Sg	10 23 57.7	-6.9
	2.6nm,0.2s						
MFF	**Saint Martin d**	3.63	356	*e*Pg	Pg	10 23 11.0	-5.3
MFF				*e*Sg	Sg	10 23 57.7	-6.9
	1.3nm,0.2s						
VIVF	**Saint-Julien-l**	3.73	58	*e*Pg	Pg	10 23 13.0	-5.3
VIVF				*e*Sg	Sg	10 24 00.9	-7.1
	1.5nm,0.2s						
BGF	**Bois d'Agland**	4.04	27	*e*Pn	Pn	10 23 03.9	-3.7
BGF				*e*Sg	Sg	10 24 10.6	-7.7
	8.4nm,0.3s						
GRR	**Gorron**	5.46	353	*e*Pn	Pn	10 23 23.4	-4.3
SGMF	**Saint Gilles**	5.62	341	*e*Pn	Pn	10 23 25.9	-4.0

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*IDC **24** 10:23:58.7±0.6, 49.89S×161.41E, mb4.5/9, mb1 4.6/11, mb1mx4.4/14, ML4.4/2, MS3.9/8, Ms1 3.9/8, ms1mx3.5/15, Error ellipse: s-maj=25.5km s-min=17.2km az=73.0*

*NEIC **24** 10:24:04.8±0.4, 49.29S×161.20E, h10^{km}, mb4.7/9, Error ellipse: s-maj=8.5km s-min=4.6km az=165.0*

ISC 24 10:23:59.3±0.4**, 49.74S**±0.06×**161.46E**±0.07**, h10^{km}, n77,** σ**1^{s}31**/65**, mb4.6**/12**, MS3.9**/7**, 6C, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MCQ	**Macquarie Isla**	5.01	197	⇑*i*P	Pn	10 25 09.5	-6.9
MCQ				*e*S	Sn	10 26 01.6	-13
WHZ	**Wether Hill Ro**	5.82	51	P	Pn	10 25 28.9	+1.1
WHZ				S	Sn	10 26 33.9	-1.6
WHZ	**Wether Hill Ro**	5.82	51	P	Pn	10 25 28.7	+0.9
WHZ				S	Sn	10 26 33.9	-1.6
MLZ	**Mavora Lakes**	6.32	49	P	Pn	10 25 36.2	+1.3
MLZ				S	Sn	10 26 43.3	-4.6
MLZ	**Mavora Lakes**	6.32	49	P	Pn	10 25 35.7	+0.8
MLZ				S	Sn	10 26 41.7	-6.2
TUZ	**Tuapeka**	6.68	59	*e*P	Pn	10 25 40.1	+0.2
TUZ	**Tuapeka**	6.68	59	P	Pn	10 25 40.1	+0.2
TUZ				S	Sn	10 26 52.4	-4.4
MSZ	**Milford Sound**	6.71	43	P	Pn	10 25 42.2	+1.8
EAZ	**Earnscleugh**	6.97	53	*e*P	Pn	10 25 44.9	+0.9
EAZ	**Earnscleugh**	6.97	53	P	Pn	10 25 44.0	0.0
WKZ	**Wanaka**	7.11	49	*e*P	Pn	10 25 47.9	+1.9
WKZ	**Wanaka**	7.11	49	P	Pn	10 25 47.7	+1.7
JCZ	**Jackson Bay**	7.55	44	*e*P	Pn	10 25 54.4	+2.2
JCZ	**Jackson Bay**	7.55	44	P	Pn	10 25 53.8	+1.6
ODZ	**Otahua Downs**	7.80	56	*e*P	Pn	10 25 53.8	-1.9
ODZ	**Otahua Downs**	7.80	56	P	Pn	10 25 53.8	-1.9
LBZ	**Lake Benmore**	8.01	51	*e*P	P	10 25 55.1	-3.4
LBZ	**Lake Benmore**	8.01	51	P	P	10 25 55.7	-2.8
FOZ	**Fox Glacier**	8.38	46	P	P	10 26 04.6	+1.0
RPZ	**Rata Peaks**	8.93	51	Pn	P	10 26 08.9	-2.3
	7.0nm,0.3s,baz=225,slow=6.5,SNR=16						
RPZ				Sn	Sn	10 27 46.7	-6.2
	1.0nm,0.3s,baz=218,slow=22,SNR=1.7						
WVZ	**Waitaha Valley**	9.24	47	*e*P	P	10 26 17.7	+2.0
WVZ	**Waitaha Valley**	9.24	47	P	P	10 26 16.7	+1.0
LTZ	**Lake Taylor**	10.21	51	*e*P	P	10 26 27.8	-1.2
LTZ	**Lake Taylor**	10.21	51	P	P	10 26 27.8	-1.2
DSZ	**Denniston Nort**	10.77	46	*e*P	P	10 26 36.2	-0.4
DSZ	**Denniston Nort**	10.77	46	P	P	10 26 35.2	-1.4
THZ	**Tophouse**	11.29	49	*e*P	P	10 26 43.1	-0.5
THZ	**Tophouse**	11.29	49	P	P	10 26 43.1	-0.5
QRZ	**Quartz Range**	11.83	45	*e*P	P	10 26 50.7	-0.3
QRZ	**Quartz Range**	11.83	45	P	P	10 26 50.7	-0.3
NNZ	**Nelson**	11.93	49	P	P	10 26 51.9	-0.5

URZ	Urewera	16.04	50	Pn	P	10 27 47.0	+0.6
	0.9nm,0.3s,baz=248,slow=8.4,SNR=5.2						
URZ				LR	LR	10 34 29.0	
	comp=Z,362nm,18.3s,baz=193,slow=39						
TOO	Toolangi	16.73	311	eP	P	10 27 56.0	+0.8
	16nm,0.5s						
CNB	Canberra Magne	16.91	324	eP	P	10 27 57.3	-0.2
	117nm,1.9s						
ARMA	Armidale	20.68	335	eP	P	10 28 45.0	+3.2
STKA	Stephens Creek	23.21	313	eP	P	10 29 08.5	+1.4
	7.5nm,0.9s,mb4.1						
STKA	Stephens Creek	23.21	313	P	P	10 29 08.7	+1.6
	7.0nm,1.0s,mb4.1,baz=140,slow=11,SNR=8.1						
STKA				LR	LR	10 36 23.6	
	comp=Z,463nm,20.9s,MS3.9,baz=301,slow=32						
VNDA	Vanda	27.89	180	P	P	10 29 49.3	-1.4
	2.9nm,0.7s,mb4.0,baz=341,slow=9.5,SNR=16						
VNDA				LR	LR	10 38 04.8	
	comp=Z,249nm,19.5s,MS3.8,baz=12,slow=30						
VNDA	Vanda	27.89	180	eP	P	10 29 49.4	-1.3
CTA	Charters Tower	31.97	332	eP	P	10 30 28.3	+0.7
	6.2nm,0.8s,mb4.5						
CTA	Charters Tower	31.97	332	P	P	10 30 28.9	+1.2
	7.8nm,0.9s,mb4.5,baz=147,slow=8.0,SNR=7.6						
CTA				LR	LR	10 41 40.4	
	comp=Z,181nm,19.1s,MS3.8,baz=176,slow=33						
CTAO	Charters Tower	31.97	332	eP	P	10 30 28.2	+0.6
	13nm,1.0s,mb4.7						
ASAR	Alice Springs	33.78	310	P	P	10 30 42.5	-0.8
	7.4nm,0.8s,mb4.7,baz=146,slow=7.7,SNR=53						
ASAR				PcP	PcP	10 33 20.4	-2.3
	2.4nm,1.0s,baz=135,slow=2.8,SNR=5.3						
ASAR				LR	LR	10 44 04.3	
	comp=Z,166nm,18.3s,MS3.8,baz=146,slow=36						
ASPA	Alice Springs	33.78	310	eP	P	10 30 42.2	-1.1
ASPA				i		10 30 50.4	
WB2	Warramunga Arr	36.74	314	eP	P	10 31 07.1	-1.4
WB2				i		10 31 15.1	
WRA	Warramunga Arr	36.75	314	P	P	10 31 07.4	-1.2
	8.3nm,0.9s,mb4.6,baz=147,slow=8.2,SNR=32						
WRA				PcP	PcP	10 33 29.7	-1.7
	2.5nm,0.7s,baz=153,slow=2.5,SNR=11						
WRAB	Tennant Creek	36.75	314	eP	P	10 31 07.6	-1.1
	32nm,0.9s,mb5.2						
QSPA	South Pole Qui	40.38	180	⇑iP	P	10 31 38.8	+0.4
	18nm,1.0s,mb4.8						
PMG	Port Moresby	41.93	339	P	P	10 31 55.6	+3.9
	7.3nm,0.8s,mb4.4,baz=178,slow=8.4,SNR=4.8						
PMG				LR	LR	10 46 31.4	
	comp=Z,116nm,18.0s,MS3.8,baz=128,slow=32						
FITZ	Fitzroy Crossi	42.66	305	eP	P	10 31 57.0	-0.6
	9.4nm,0.7s,mb4.6						
MAW	Mawson	48.26	211	LR	LR	10 51 41.8	
	comp=Z,237nm,18.4s,MS4.2,baz=70,slow=35						
SNAA	Sanae	58.38	186	⇑i	P	10 33 54.3	-2.2
SNAA	Sanae	58.38	186	P	P	10 33 54.0	-2.5
	1.9nm,0.8s,mb4.2,baz=182,slow=7.9,SNR=12						
SNAA				LR	LR	10 58 03.1	
	comp=Z,73nm,19.6s,MS3.8,baz=7.2,slow=35						
SNAA	Sanae	58.38	186	eP	P	10 33 54.1	-2.3
	7.7nm,0.9s,mb4.7						
VNA3	Neumayer Olymp	59.16	183	⇑i	P	10 34 03.1	+1.2
VNA2	Neumayer--Watz	59.38	184	⇑i	P	10 34 04.8	+1.4
VNA1	Neumayer--Stat	59.69	184	⇑i	P	10 34 07.5	+1.9
CMAR	Chiang Mai Arr	87.43	303	P	P	10 36 48.8	+0.7
	3.5nm,0.9s,mb4.6,baz=156,slow=3.7,SNR=17						
SUR	Sutherland	91.08	212	P	P	10 37 04.1	-0.9
	4.3nm,0.7s,mb4.9,baz=340,slow=10,SNR=6.0						
ILAR	Eielson Array	121.00	23	PKP	PKPdf	10 42 51.5	-2.7
	0.6nm,0.7s,baz=286,slow=3.0,SNR=9.1						
INK	Inuvik	127.20	25	PKP	PKPdf	10 43 04.1	-1.7
	4.3nm,1.2s,baz=340,slow=0.3,SNR=4.2						
BVAR	Borovoye Array	127.86	310	PKP	PKPdf	10 43 05.2	-2.3
	1.0nm,0.6s,baz=45,slow=2.0,SNR=5.3						
YKA	Yellowknife Ar	129.95	37	PKP	PKPdf	10 43 08.3	-3.0
	0.1nm,0.5s,baz=257,slow=2.0,SNR=5.4						
BRTR	Keskin Array B	142.30	275	PKP	PKPdf	10 43 30.9	-3.6
	0.7nm,0.8s,baz=146,slow=5.2,SNR=4.3						
IDI	Anoyia	145.39	262	PKPbc	PKPbc	10 43 38.0	+0.5
	29nm,0.6s,baz=121,slow=3.3,SNR=22						
AKASG	Malin Array Be	149.83	290	PKPbc	PKPdf	10 43 49.2	+2.5
	4.4nm,0.6s,baz=82,slow=2.6,SNR=36						
MLR	Muntele Rosu	150.05	279	PKPbc	PKPdf	10 43 50.2	+2.9
	4.6nm,0.7s,baz=116,slow=7.4,SNR=5.1						
FRB	Frobisher Bay	150.12	43	PKPbc	PKPdf	10 43 50.6	+3.8
	4.8nm,0.9s,baz=283,slow=7.1,SNR=5.5						
KEV	Kevo	150.63	330	ep	PKPdf	10 43 51.4	+4.0
	58nm,2.1s						
ARCES	ARCESS Array B	151.20	329	PKPbc	PKPdf	10 43 53.7	+5.4
	9.9nm,0.7s,baz=102,slow=1.2,SNR=35						
ARCES	ARCESS Array B	151.20	329	PKPbc	PKPdf	10 43 53.7	+5.4
KAF	Kangasniemi	152.60	314	ep	PKPdf	10 43 50.5	0.0
FINES	FINESS Array B	152.78	312	PKPbc	PKPdf	10 43 55.7	+4.9
	3.4nm,0.5s,baz=104,slow=4.2,SNR=31						
FINES	FINESS Array B	152.78	312	PKPbc	PKPdf	10 43 55.7	+4.9
GERES	GERESS Array B	159.03	280	PKPab	PKPab	10 44 33.5	-1.8
	1.0nm,0.6s,baz=149,slow=5.7,SNR=2.6						
DAVOX	Davos	160.89	272	PKPab	PKPab	10 44 42.4	-1.0
	5.0nm,1.1s,baz=132,slow=11,SNR=3.1						
ESDC	Sonseca Array	165.58	231	PKPab	PKPab	10 45 01.8	-2.2
	0.2nm,0.4s,baz=146,slow=5.3,SNR=4.0						

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*IDC **24** 10:59:44.6±2.1, 46.45S×96.12E, mb3.9/6, mb1 4.0/6, mb1mx3.9/10, MS3.9/4, Ms1 3.9/4, ms1mx3.6/14, Error ellipse: s-maj=47.1km s-min=34.2km az=92.0*

*NEIC **24** 10:59:46.2±1.3, 46.47S×96.12E, $h10^{km}$, mb4.3/1, Error ellipse: s-maj=29.9km s-min=19.6km az=100.0*

ISC 24 10:59:44.0±1.7**, 46.4S**±0.2×**96.0E**±0.4**, $h10^{km}$, n10, $\sigma 0^{s}30$**/9**, mb3.9**/7**, MS3.6**/5**, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NWAO	Narrogin (SRO)	21.11	58	LR	LR	11 09 52.8	
	comp=Z,18nm,19.7s,MS2.5,baz=207,slow=29						
STKA	Stephens Creek	37.69	84	P	P	11 07 01.1	-0.1
	1.5nm,0.6s,mb3.9,baz=236,slow=8.4,SNR=3.8						
STKA				LR	LR	11 19 24.1	
	comp=Z,234nm,19.3s,MS4.0,baz=203,slow=31						
ASAR	Alice Springs	37.94	66	P	P	11 07 03.5	+0.1
	0.7nm,0.9s,mb3.4,baz=215,slow=7.3,SNR=5.2						
ASAR				LR	LR	11 20 19.2	
	comp=Z,118nm,20.3s,MS3.7,baz=235,slow=33						
VNDA	Vanda	39.95	162	P	P	11 07 19.7	0.0
	1.0nm,0.9s,mb3.6,baz=260,slow=10,SNR=3.1						
VNDA				LR	LR	11 22 29.4	
	comp=Z,192nm,18.1s,MS4.0,baz=355,slow=34						
VNDA	Vanda	39.95	162	P	P	11 07 19.7	0.0
VNDA				LR	LR	11 22 29.4	
WRA	Warramunga Arr	40.95	63	P	P	11 07 28.0	-0.4
	2.4nm,0.9s,mb3.8,baz=222,slow=7.7,SNR=13						
WB2	Warramunga Arr	40.96	63	eP	P	11 07 19.8	-8.7
WRAB	Tennant Creek	40.97	63	eP	P	11 07 29.1	+0.6
	5.8nm,0.8s,mb4.3						
CTA	Charters Tower	48.53	75	P	P	11 08 28.9	-0.2
	2.7nm,0.9s,mb4.2,baz=232,slow=12,SNR=2.2						
CTA				LR	LR	11 27 48.7	
	comp=Z,147nm,18.2s,MS4.0,baz=228,slow=35						
CMAR	Chiang Mai Arr	64.64	3	P	P	11 10 24.1	0.0
	0.9nm,0.9s,mb3.8,baz=197,slow=5.1,SNR=4.3						

IDC 24 11:15:03.1±50.0**, 44.04S**×**97.09E, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.6**/10**, Error ellipse: s-maj=1182.0km s-min=52.2km az=24.0, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	36.30	68	P	P	11 22 08.3	-2.0
	0.3nm,0.8s,baz=234,slow=5.7,SNR=3.9						
WRA	Warramunga Arr	39.20	64	P	P	11 22 32.9	-1.7
	0.8nm,0.9s,baz=220,slow=8.4,SNR=6.3						
CMAR	Chiang Mai Arr	62.21	2	P	P	11 25 26.4	-2.4
	1.1nm,1.0s,baz=211,slow=6.1,SNR=4.4						

IDC 24 11:21:00.2±60.0**, 46.05S**×**94.79E, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.6**/10**, 1D, Error ellipse: s-maj=1425.0km s-min=49.0km az=25.0, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SYO	Syowa Base	35.65	211	⇓P	P	11 28 04.8	+3.4
ASAR	Alice Springs	38.57	68	P	P	11 28 24.7	-1.7
	0.4nm,0.9s,baz=224,slow=8.4,SNR=2.5						
WRA	Warramunga Arr	41.54	65	P	P	11 28 49.3	-1.7
	1.1nm,0.9s,baz=222,slow=8.3,SNR=5.7						
CMAR	Chiang Mai Arr	64.30	4	P	P	11 31 37.4	-2.4
	0.3nm,0.4s,baz=183,slow=6.4,SNR=2.7						

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*IDC **24** 11:29:20.4±0.6, 46.48S×96.00E, mb4.4/11, mb1 4.5/11, mb1mx4.5/12, MS4.4/1, Ms1 4.4/1, ms1mx3.6/6, Error ellipse: s-maj=22.1km s-min=16.2km az=133.0*

*NEIC **24** 11:29:22.4±0.3, 46.41S×95.99E, $h10^{km}$, mb4.7/13, Error ellipse: s-maj=12.0km s-min=6.3km az=134.0*

*BJI **24** 11:29:22.3, 46.40S×96.00E, $h10^{km}$, mB5.5, mb5.0, Ms5.3, Msz5.0*

ISC 24 11:29:20.4±0.4**, 46.40S**±0.07×**95.9E**±0.1**, $h10^{km}$, n58, $\sigma 0^{s}83$**/47**, mb4.7**/28**, MS4.8**/3**, 1C-4D, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NWAO	Narrogin (SRO)	21.15	58	P	P	11 34 07.4	-0.4
	11nm,0.8s,mb4.2,baz=219,slow=15,SNR=3.5						
NWAO	Narrogin (SRO)	21.15	58	eP	P	11 34 07.6	-0.2
MUN	Mundaring	21.25	54	eP	P	11 34 09.3	+0.5
	21nm,1.0s,mb4.4						
MUN				e		11 35 31.8	
KLBR	Kellerberrin	22.42	56	eP	P	11 34 21.1	+0.6
	48nm,1.3s,mb4.8						
MAW	Mawson	27.24	207	eP	P	11 35 04.7	-1.3
	15nm,1.0s,mb4.5						
MAW				e		11 36 29.8	
MAW	Mawson	27.24	207	P	P	11 35 04.2	-1.8
	14nm,1.1s,mb4.4,baz=42,slow=10,SNR=6.5						
MBWA	Marble Bar	31.80	46	eP	P	11 35 47.1	-0.1
	7.8nm,0.7s,mb4.7						
SYO	Syowa Base	35.74	211	⇓P	P	11 36 18.9	-1.8
FITZ	Fitzroy Crossi	37.40	51	eP	P	11 36 36.1	+0.9
	7.0nm,0.8s,mb4.5						
FITZ				eS	S	11 42 26.5	+3.6
STKA	Stephens Creek	37.76	84	eP	P	11 36 37.7	-0.4
	8.1nm,0.9s,mb4.5						
STKA				e		11 38 01.6	
STKA				eS	S	11 42 30.6	+2.3
STKA	Stephens Creek	37.76	84	P	P	11 36 37.4	-0.8
	11nm,1.0s,mb4.6,baz=216,slow=9.3,SNR=11						
STKA	Stephens Creek	37.76	84	eP	P	11 36 37.5	-0.7
STKA				e		11 38 01.6	
STKA				eS	S	11 42 30.6	+2.3
ASPA	Alice Springs	37.99	67	eP	P	11 36 40.1	0.0
ASAR	Alice Springs	37.99	67	P	P	11 36 39.1	-1.1
	4.4nm,1.1s,mb4.1,baz=221,slow=7.2,SNR=14						
ASAR				PcP	PcP	11 38 55.1	-1.2
	1.5nm,0.9s,baz=207,slow=2.0,SNR=4.1						
VNDA	Vanda	40.01	162	P	P	11 36 56.2	-0.3
	4.8nm,0.9s,mb4.2,baz=277,slow=8.3,SNR=14						
VNDA	Vanda	40.01	162	eP	P	11 36 56.9	+0.4
WRA	Warramunga Arr	41.00	63	P	P	11 37 04.1	-1.0
	5.4nm,0.9s,mb4.2,baz=222,slow=8.1,SNR=27						
WRAB	Tennant Creek	41.02	63	eP	P	11 37 05.0	-0.2
	13nm,0.9s,mb4.6						
QSPA	South Pole Qui	43.74	180	P	P	11 37 27.8	+1.0
	19nm,1.0s,mb4.8						
CTA	Charters Tower	48.59	75	eP	P	11 38 05.4	-0.6
	4.3nm,0.9s,mb4.5						
CTA	Charters Tower	48.59	75	P	P	11 38 05.3	-0.6
	6.0nm,0.9s,mb4.6,baz=233,slow=11,SNR=5.1						
CTAO	Charters Tower	48.59	75	eP	P	11 38 05.3	-0.7
	7.6nm,0.9s,mb4.7						
SNAA	Sanae	49.34	204	⇑i	P	11 38 10.5	-0.6
SNAA	Sanae	49.34	204	P	P	11 38 10.3	-0.8
	2.5nm,0.7s,mb4.3,baz=102,slow=9.0,SNR=10						
SNAA				LR	LR	11 55 53.9	
	comp=Z,455nm,21.2s,MS4.4,baz=316,slow=32						
SNAA	Sanae	49.34	204	eP	P	11 38 10.7	-0.4
VNA2	Neumayer--Watz	50.99	204	⇓i	P	11 38 24.7	+1.0
VNA1	Neumayer--Stat	51.38	204	⇓i	P	11 38 26.9	+0.3
VNA3	Neumayer Olymp	51.47	203	⇓i	P	11 38 29.9	+2.6
LSZ	Lusaka	63.75	275	eP	P	11 39 55.1	+0.5
	43nm,1.5s,mb5.3						
CM31	Chiang Mai Arr	64.61	3	eP	P	11 40 00.5	+0.2
	8.0nm,0.8s,mb4.8						
CMAR	Chiang Mai Arr	64.61	3	P	P	11 40 00.2	-0.1
	7.2nm,0.8s,mb4.7,baz=203,slow=5.9,SNR=49						
KMBO	Kilima Mbogo	68.03	293	P	P	11 40 22.9	+0.7
	4.1nm,1.1s,mb4.4,baz=48,slow=24,SNR=6.3						
KMBO	Kilima Mbogo	68.03	293	eP	P	11 40 23.0	+0.8
KMI	Kunming	71.45	7	eP	P	11 40 33.6	-9.3
	15nm,1.4s,mb4.7						
PKI	Pulchoki	74.23	350	eP	P	11 40 59.0	-0.2
DMN	Daman	74.31	350	eP	P	11 40 59.3	-0.3
	18nm,0.9s,mb5.0						
KKN	Kakani	74.47	350	eP	P	11 41 00.3	-0.2
	54nm,1.5s,mb5.2						
GUN	Gumba	74.52	351	eP	P	11 41 01.3	+0.5
	31nm,0.8s,mb5.3						
KOLN	Koldanda	74.66	349	eP	P	11 41 01.2	-0.5
	26nm,1.2s,mb5.0						
GKN	Gorkha	74.75	350	eP	P	11 41 01.7	-0.5
	27nm,1.0s,mb5.1						
ENH	Enshi	77.30	12	eP	P	11 41 16.9	+0.4
	2.7nm,0.5s,mb4.4						
GTA	Gaotai	85.50	3	eP	P	11 41 59.9	+0.6
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.5						
GTA				AMB	AMB		
	comp=Z,236nm,6.1s						
GTA				LR	LR		
	comp=N,312nm,15.2s,MS4.8						
GTA				LR	LR		
	comp=E,132nm,16.3s,MS4.8						
GTA				LR	LR		
	comp=Z,416nm,19.8s,MS4.8						
HHC	Hu-ho-hao-te	87.99	12	eP	P	11 42 18.1	+6.7
HHC				PP	PP	11 45 41.0	+0.7
HHC				SKS	SKS	11 52 39.6	-2.9
HHC				S	S	11 53 04.6	+12
HHC				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.3						
HHC				AMB	AMB		
	comp=Z,211nm,5.0s						
HHC				LR	LR		
	comp=N,634nm,19.0s,MS5.1						
HHC				LR	LR		
	comp=E,308nm,15.5s,MS5.1						
HHC				LR	LR		
	comp=Z,702nm,19.0s,MS5.1						
SONM	Songino Array	94.30	7	P	P	11 42 40.3	-0.3
	comp=Z,0.8nm,1.0s,mb4.1,baz=153,slow=3.2,SNR=3.7						
ESDC	Sonseca Array	123.40	294	PKP	PKPdf	11 48 19.0	-1.5
	comp=Z,0.1nm,0.3s,baz=124,slow=0.3,SNR=3.5						
OTAV	Otavalo	133.76	188	ePKPdf	PKPdf	11 48 40.9	0.0
ILAR	Eielson Array	141.99	38	PKP	PKPdf	11 48 53.4	-0.9
	comp=Z,0.6nm,1.0s,baz=270,slow=2.7,SNR=3.5						
DAWY	Dawson	145.25	39	ePKPbc	PKPbc	11 48 58.8	+1.4
INK	Inuvik	146.88	31	PKPbc	PKPbc	11 49 02.2	+1.0
	comp=Z,7.2nm,0.9s,baz=289,slow=4.3,SNR=22						
INK	Inuvik	146.88	31	ePKPbc	PKPbc	11 49 02.6	+1.4
DLBC	Dease Lake	150.13	49	PKPbc	PKPdf	11 49 11.8	+3.7
	comp=Z,8.5nm,1.2s,baz=240,slow=8.1,SNR=3.1						
DLBC	Dease Lake	150.13	49	PKPbc	PKPdf	11 49 11.8	+3.7
NVAR	Mina Array Bea	153.68	95	PKP	PKPdf	11 49 13.6	-0.4
	comp=Z,0.3nm,0.8s,baz=286,slow=18,SNR=2.5						
NVAR				PKPbc	PKPdf	11 49 21.4	+7.4
	comp=Z,1.0nm,0.8s,baz=226,slow=3.0,SNR=5.3						
YKA	Yellowknife Ar	156.38	36	PKP	PKPdf	11 49 14.6	-2.2
	comp=Z,0.1nm,0.8s,baz=277,slow=12,SNR=2.7						
YKA				PKPab	PKPab	11 49 44.4	-0.2
	comp=Z,0.7nm,0.9s,baz=299,slow=4.7,SNR=8.4						
YKA	Yellowknife Ar	156.38	36	PKP	PKPdf	11 49 14.6	-2.2
YKA				PKPab	PKPab	11 49 44.4	-0.2
TXAR	Lajitas Array	157.10	131	PKPab	PKPab	11 49 48.8	-0.1
	comp=Z,0.7nm,0.8s,baz=112,slow=6.7,SNR=2.8						
ANMO	Albuquerque	159.62	116	PKPab	PKPab	11 49 56.5	-3.0
	comp=Z,0.4nm,0.7s,baz=226,slow=13,SNR=3.1						
PDAR	Pinedale Array	161.54	92	PKPab	PKPab	11 50 08.5	+1.0
	comp=Z,1.1nm,1.1s,baz=153,slow=2.0,SNR=3.1						

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*IDC **24** 11:30:43.1±1.0, 46.34S×95.81E, mb4.1/10, mb1 4.2/10, mb1mx4.2/11, MS4.3/1, Ms1 4.3/1, ms1mx3.5/6, Error ellipse: s-maj=35.1km s-min=21.0km az=121.0*

*NEIC **24** 11:30:44.9±0.4, 46.35S×95.94E, $h10^{km}$, mb4.7/8, Error ellipse: s-maj=14.8km s-min=9.9km az=135.0*

ISC 24 11:30:43.1±0.5**, 46.36S**±0.10×**95.9E**±0.1**, $h10^{km}$, n29, $\sigma 1^{s}09$**/23**, mb4.3**/14**, MS4.3**/1**, 1C-2D, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MAW	Mawson	27.29	207	P	P	11 36 29.2	+0.1
	4.9nm,1.0s,mb4.0,baz=13,slow=14,SNR=2.1						
STKA	Stephens Creek	37.74	84	P	P	11 38 01.5	+0.9
	14nm,1.3s,mb4.5,baz=237,slow=7.9,SNR=2.5						
ASAR	Alice Springs	37.96	67	P	P	11 38 03.7	+1.1
	1.3nm,0.8s,mb3.7,baz=217,slow=9.0,SNR=3.2						
VNDA	Vanda	40.05	162	P	P	11 38 18.5	-1.0
	1.6nm,0.9s,mb3.8,baz=294,slow=5.6,SNR=2.1						
VNDA	Vanda	40.05	162	eP	P	11 38 19.9	+0.5
	12nm,1.4s,mb4.4						
WRA	Warramunga Arr	40.97	63	P	P	11 38 26.6	-1.0
	1.8nm,0.8s,mb3.8,baz=221,slow=8.5,SNR=2.8						
WRAB	Tennant Creek	40.98	63	eP	P	11 38 27.5	-0.2
	34nm,1.5s,mb4.8						
QSPA	South Pole Qui	43.78	180	eP	P	11 38 51.8	+1.9
	28nm,1.4s,mb4.8						
CTA	Charters Tower	48.56	75	P	P	11 39 28.9	+0.5
	3.6nm,0.9s,mb4.4,baz=203,slow=10,SNR=2.9						
CTA	Charters Tower	48.56	75	P	P	11 39 28.9	+0.5
CTAO	Charters Tower	48.56	75	eP	P	11 39 28.4	0.0
	8.7nm,1.0s,mb4.7						
SNAA	Sanae	49.39	204	⇓i	P	11 39 33.9	-0.2
SNAA	Sanae	49.39	204	P	P	11 39 33.6	-0.6
	2.0nm,0.9s,mb4.1,baz=154,slow=8.5,SNR=3.2						
SNAA	Sanae	49.39	204	eP	P	11 39 33.9	-0.3
	21nm,1.2s,mb5.0						
VNA2	Neumayer--Watz	51.04	204	⇑i	P	11 39 44.6	-2.1
VNA3	Neumayer Olymp	51.51	203	⇓i	P	11 39 49.4	-0.9
LSZ	Lusaka	63.76	275	eP	P	11 41 18.9	+1.4
TGY	Tagaytay City	64.26	27	LR	LR	12 10 22.2	
	comp=Z,185nm,18.1s,MS4.3,baz=157,slow=37						
CMAR	Chiang Mai Arr	64.57	3	P	P	11 41 22.1	-0.5
	1.8nm,0.7s,mb4.2,baz=202,slow=6.2,SNR=5.2						
KMBO	Kilima Mbogo	68.03	293	P	P	11 41 48.5	+3.6
	1.6nm,0.9s,mb4.0,baz=174,slow=5.6,SNR=4.2						
KMBO	Kilima Mbogo	68.03	293	P	P	11 41 46.0	+1.1
	5.5nm,1.1s,mb4.5						
MBAR	Mbarara	72.65	288	eP	P	11 42 13.4	+0.4
	1.7nm,0.5s,mb4.2						
ENH	Enshi	77.25	12	eP	P	11 42 37.0	-2.0
	3.8nm,0.5s,mb4.6						
SONM	Songino Array	94.26	7	P	P	11 44 03.1	0.0
	0.4nm,1.0s,mb3.8,baz=135,slow=2.0,SNR=2.6						
DAWY	Dawson	145.20	39	ePKPbc	PKPbc	11 50 21.7	+1.8
INK	Inuvik	146.83	31	PKPbc	PKPbc	11 50 24.1	+0.4
	5.7nm,1.1s,baz=223,slow=3.7,SNR=4.2						
INK	Inuvik	146.83	31	ePKPbc	PKPbc	11 50 24.7	+0.9
NVAR	Mina Array Bea	153.67	95	PKPbc	PKPdf	11 50 44.1	+7.5
	0.3nm,0.5s,baz=236,slow=3.3,SNR=2.4						
TXAR	Lajitas Array	157.12	131	PKPab	PKPab	11 51 11.8	+0.2
	0.9nm,0.8s,baz=219,slow=8.0,SNR=4.6						

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*NEIC **24** 11:54:20.7±0.7, 46.41S×95.80E, $h10^{km}$, Error ellipse: s-maj=36.2km s-min=13.1km az=132.0*

IDC 24 11:54:19.2±1.1**, 46.39S**×**95.80E, mb3.9**/6**, mb1 4.0**/6**, mb1mx3.8**/11**, MS3.9**/2**, Ms1 3.9**/2**, ms1mx3.5**/16**, Error ellipse: s-maj=51.5km s-min=19.5km az=130.0, Southeast Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NWAO	Narrogin (SRO)	21.20	58	P	P	11 59 07.2	-1.4
	7.5nm,0.8s,baz=172,slow=14,SNR=2.6						
MAW	Mawson	27.22	207	P	P	12 00 04.2	-2.0
	3.3nm,0.8s,baz=313,slow=14,SNR=3.0						
ASAR	Alice Springs	38.05	67	P	P	12 01 38.4	-2.7
	0.7nm,0.8s,baz=225,slow=6.9,SNR=8.1						
ASAR				LR	LR	12 16 14.5	
	comp=Z,210nm,18.8s,baz=14,slow=35						
WRA	Warramunga Arr	41.06	63	P	P	12 02 04.5	-1.5
	1.3nm,0.8s,baz=222,slow=8.4,SNR=7.7						
SNAA	Sanae	49.32	204	P	P	12 03 09.5	-1.9
	0.7nm,0.9s,baz=184,slow=14,SNR=3.0						
PMG	Port Moresby	57.07	67	LR	LR	12 27 19.8	
	comp=Z,88nm,18.3s,baz=93,slow=35						
CMAR	Chiang Mai Arr	64.60	3	P	P	12 04 57.9	-2.8
	0.4nm,0.4s,baz=191,slow=4.6,SNR=4.3						
INK	Inuvik	146.90	31	PKPbc	PKPbc	12 14 02.6	+0.9
	1.5nm,1.0s,baz=172,slow=5.9,SNR=2.5						

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*IDC **24** 12:06:31.2±1.4, 49.72S×161.54E, mb3.7/4, mb1 4.0/6, mb1mx3.9/10, ML3.8/2, Error ellipse: s-maj=33.2km s-min=25.3km az=64.0*

*NEIC **24** 12:06:37.4±0.7, 49.18S×161.31E, $h10^{km}$, Error ellipse: s-maj=14.8km s-min=7.3km az=163.0*

ISC 24 12:06:31.7±0.8**, 49.7S**±0.1×**161.7E**±0.1**, $h10^{km}$, n33, $\sigma 1^{s}38$**/44**, mb3.6**/4**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	5.71	50	eP	Pn	12 07 59.9	+1.2
WHZ				S	Sn	12 09 03.7	-1.4
WHZ	Wether Hill Ro	5.71	50	P	Pn	12 07 59.9	+1.2
WHZ				S	Sn	12 09 03.7	-1.4
MLZ	Mavora Lakes	6.21	47	P	Pn	12 08 06.9	+1.1
MLZ				S	Sn	12 09 17.4	-0.3
MLZ	Mavora Lakes	6.21	47	P	Pn	12 08 06.9	+1.1
MLZ				S	Sn	12 09 16.9	-0.8
TUZ	Tuapeka	6.56	58	P	Pn	12 08 11.3	+0.7
TUZ	Tuapeka	6.56	58	P	Pn	12 08 11.1	+0.5
TUZ				S	Sn	12 09 22.8	-3.4
MSZ	Milford Sound	6.62	42	P	Pn	12 08 13.6	+2.1
EAZ	Earnscleugh	6.86	52	eP	Pn	12 08 15.1	+0.2
EAZ	Earnscleugh	6.86	52	P	Pn	12 08 14.6	-0.3
WKZ	Wanaka	7.00	48	eP	Pn	12 08 18.7	+1.8
WKZ	Wanaka	7.00	48	P	Pn	12 08 18.6	+1.7
WKZ				S	Sn	12 09 37.2	-0.2
JCZ	Jackson Bay	7.46	43	P	Pn	12 08 25.6	+2.4
JCZ	Jackson Bay	7.46	43	P	Pn	12 08 25.4	+2.2
ODZ	Otahua Downs	7.69	56	eP	Pn	12 08 25.0	-1.4
ODZ	Otahua Downs	7.69	56	P	Pn	12 08 25.0	-1.4
ODZ				S	Sn	12 09 49.8	-4.6
LBZ	Lake Benmore	7.90	51	eP	Pn	12 08 28.2	-1.2
LBZ	Lake Benmore	7.90	51	P	Pn	12 08 28.2	-1.2
FOZ	Fox Glacier	8.28	45	P	P	12 08 36.6	+1.9
FOZ				S	Sn	12 10 08.8	-0.4
RPZ	Rata Peaks	8.81	50	Pn	P	12 08 40.2	-1.9
	1.2nm,0.3s,baz=102,slow=20,SNR=7.8						
RPZ				Sn	Sn	12 10 18.0	-4.7
	2.5nm,0.3s,baz=33,slow=20,SNR=6.1						
WVZ	Waitaha Valley	9.14	47	eP	P	12 08 47.1	+0.5
WVZ	Waitaha Valley	9.14	47	P	P	12 08 47.1	+0.5
DSZ	Denniston Nort	10.67	45	eP	P	12 09 06.7	-0.9
DSZ	Denniston Nort	10.67	45	P	P	12 09 06.4	-1.2
THZ	Tophouse	11.18	49	eP	P	12 09 14.5	0.0
THZ	Tophouse	11.18	49	P	P	12 09 14.5	0.0
THZ				S	S	12 11 16.4	-4.2
QRZ	Quartz Range	11.73	45	P	P	12 09 21.4	-0.7
QRZ				S	S	12 11 29.6	-4.5
NNZ	Nelson	11.82	48	P	P	12 09 25.1	+1.8
URZ	Urewera	15.93	50	Pn	P	12 10 18.4	+0.9
	0.3nm,0.3s,baz=248,slow=8.5,SNR=2.5						
STKA	Stephens Creek	23.32	312	P	P	12 11 41.7	+1.2
	3.3nm,0.8s,mb3.8,baz=117,slow=11,SNR=5.1						
STKA	Stephens Creek	23.32	312	P	P	12 11 41.7	+1.1
VNDA	Vanda	27.89	180	P	P	12 12 22.5	-0.6
	0.5nm,0.7s,mb3.2,baz=266,slow=9.6,SNR=4.3						
ASAR	Alice Springs	33.89	310	P	P	12 13 14.2	-2.5
	1.3nm,0.9s,mb3.9,baz=142,slow=8.2,SNR=14						
WRA	Warramunga Arr	36.85	314	P	P	12 13 39.9	-1.9
	0.3nm,0.5s,mb3.4,baz=144,slow=7.2,SNR=5.2						

IGQ 24 12:44:42.7, 0.74N×**80.90W, $h12^{km}$**±20^{km}**, mb4.1, 1C-4D, Error ellipse: s-maj=19.3km s-min=15.0km az=26.1, Near coast of Ecuador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOR1	San Jorge 1	2.38	108	P	Pn	12 45 24.1	+1.9
PINO	Pino	2.46	111	⇓P	Pn	12 45 24.3	+1.0
CGGP	Crater GGP	2.46	112	P	Pn	12 45 24.3	+0.9
YANA	Yana	2.48	110	P	Pn	12 45 24.4	+0.9
YANA				S	Sn	12 45 55.1	+1.1
COTA	Cotacachi	2.59	99	⇑P	Pn	12 45 27.1	+1.9
COTA				S	Sn	12 45 55.7	-1.2
NAS1	Nasa	2.78	119	P	Pn	12 45 30.2	+2.3
VC1	Cotopaxi 1	2.85	119	P	Pn	12 45 31.9	+3.0
TAMB	Tambo	2.90	119	⇓P	Pn	12 45 32.0	+2.4
ANTI	Antisana	2.98	113	⇓P	Pn	12 45 33.5	+2.8

ANTI				S	Sn	12 46 08.9	+2.2
CAYR	Refugio Cayamb	2.98	104	P	Pn	12 45 34.0	+3.3
CAYR				S	Sn	12 46 08.9	+2.2
CAYA	Cayambe	2.98	103	⇓P	Pn	12 45 33.8	+3.0
PISA	Pisayambo	3.08	125	P	Pn	12 45 34.2	+2.0

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*PRU **24** 12:47:18.3, 50.30N×18.76E*

WAR 24 12:47:17.4, 50.26N×18.84E, h0^{km}, ML2.5, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OKC	Ostrava-Krasne	0.61	227	*e*PG	Pg	12 47 30.0	+0.3
OKC				*e*SG	Sg	12 47 40.1	+2.2
OJC	Ojcow	0.62	93	*e*PG	Pg	12 47 30.0	+0.3
OJC				*e*SG	Sg	12 47 38.0	+0.1
NIE	Niedzica	1.27	131	*e*Pg	Pg	12 47 42.5	-0.3
NIE				*e*Sg	Sg	12 47 59.9	+0.1
DPC	Dobruska-Polom	1.62	274	*e*PG	Pg	12 47 46.7	-3.0
DPC				*e*SG	Sg	12 48 07.9	-3.3
KSP	Ksiaz	1.73	291	*e*PG	Pg	12 47 50.0	-1.9
KSP				*e*SG	Sg	12 48 13.0	-1.9
VYHS	Vyhne	1.77	180	*e*PN	Pn	12 47 48.7	-0.7
VYHS				*e*SN	Sn	12 48 12.7	-0.2
UPC	Upice	1.83	279	*e*SG	Sg	12 48 14.3	-3.9
CRVS	Cervenica-Dubn	2.18	128	*e*PN	Pn	12 47 58.1	+2.8
PVCC	Panska Ves	2.75	277	*e*SG	Sg	12 48 43.9	-4.9
PRU	Pruhonice	2.78	266	*e*SG	Sg	12 48 43.6	-6.3
KHC	Kasperske Hory	3.60	254	*e*x	x	12 48 21.0	
KHC				*e*x	x	12 48 57.0	
KHC				*e*SG	Sg	12 49 11.1	-6.1
CLL	Collm	3.85	288	*e*SG	Sg	12 49 21.0	-4.6

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*NEIC **24** 13:01:27.2, 36.51N×21.03E, h14^{km}, ML4.0(ATH), After ATH.*

*ATH **24** 13:01:27.7, 36.53N×21.05E, h15^{km}±6^{km}, MD3.9/15, ML4.0*

*CSEM **24** 13:01:33.3±0.1, 36.73N×21.25E, h55^{km}±1^{km}, ML4.0, Error ellipse: s-maj=4.4km s-min=1.7km az=16.0*

*IDC **24** 13:01:38.7±9.0, 37.15N×21.27E, h58^{km}±52^{km}, mb3.5/6, mb1 3.6/10, mb1mx3.4/26, ML3.7/3, Error ellipse: s-maj=92.2km s-min=38.7km az=10.0*

ISC 24 13:01:29.5±0.8**, 36.66N**±0.07×**21.11E**±0.03**, h15^{km}, n69, σ1^{s}26**/78**, mb3.7**/6**, 1C-2D, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	0.83	51	⇓*i*PB	Pb	13 01 44.8	-0.4
ITM				*e*SN	Sn	13 01 59.6	+1.1
ITM	Ithomi	0.83	51	⇓*i*Pb	Pb	13 01 44.5	-0.7
ITM				*e*Sb	Sn	13 01 59.6	+1.1
ITM	Ithomi	0.83	51	*e*Sb	Sn	13 01 59.6	+1.1
RLS	Riolos of Patr	1.43	11	⇑*i*PN	Pn	13 01 57.2	+2.2
VLI	Veliai	1.47	87	*e*PN	Pn	13 01 56.8	+1.2
VLI				*e*SN	Sn	13 02 18.1	+3.5
VLS	Valsamata	1.57	345	*e*PN	Pn	13 01 59.4	+2.3
KYTH	Kithira	1.60	103	*e*PN	Pn	13 01 58.5	+1.1
MGER	Gerania Oros	2.17	52	*e*PB	Pb	13 02 06.0	-1.9
NAIG	Nisos Aigina	2.19	59	*e*PB	Pb	13 02 06.7	-1.7
NSAL	Nisos Salamina	2.25	56	*e*PB	Pb	13 02 07.0	-2.4
EVR	Evrytania	2.32	14	*e*PN	Pn	13 02 10.5	+2.7
ATH	Athens Observa	2.46	57	*e*PB	Pb	13 02 11.5	-1.4
LKR	Lokris	2.49	36	*e*PN	Pn	13 02 11.7	+1.5
AGG	Agios Georgios	2.55	22	*e*P	Pn	13 02 13.2	+2.1
AGG	Agios Georgios	2.55	22	*e*P	Pn	13 02 13.1	+2.0
MPAR	Parnis Oros	2.57	54	*e*PB	Pb	13 02 14.0	-0.8
PTL	Penteli	2.60	57	*e*PN	Pn	13 02 11.5	-0.3
IGT	Igoumenitsa	2.94	348	*e*P	Pn	13 02 17.5	+1.0
NEO	Neokhori	3.13	32	*e*PN	Pn	13 02 20.0	+0.7
XOR	Xorichti	3.16	31	*e*P	Pn	13 02 20.6	+0.8
KEK	Kerkira	3.22	342	*e*PN	Pn	13 02 21.3	+0.7
AOS	Alonnisos	3.33	40	*e*P	Pn	13 02 22.0	-0.2
LIT	Litokhoron	3.60	17	*e*P	Pn	13 02 26.8	+0.7
FNA	Florina	4.12	3	*e*P	Pn	13 02 34.4	+0.9
TIP	Timpagrande	4.26	307	*e*Pn	Pn	13 02 35.3	-0.2
TIP	Timpagrande	4.26	307	*e*Pn	Pn	13 02 35.3	-0.2
SOI	Samo	4.27	291	*e*Pn	Pn	13 02 36.0	+0.5
SOI	Samo	4.27	291	*e*Pn	Pn	13 02 36.0	+0.5
GRI	Girifalco	4.30	302	*e*Pn	Pn	13 02 36.4	+0.4
GRI	Girifalco	4.30	302	*e*Pn	Pn	13 02 36.4	+0.4
OUR	Ouranopolis	4.31	31	*e*P	Pn	13 02 35.7	-0.4
GRG	Griva	4.41	13	*e*P	Pn	13 02 37.5	-0.1
KNT	Kendrikon	4.71	17	*e*P	Pn	13 02 42.2	+0.4
SRS	Serrai	4.86	23	*e*P	Pn	13 02 43.5	-0.4
ORI	Oriolo Calabro	5.00	314	*e*Pn	Pn	13 02 47.5	+1.6
ORI				*e*Sn	Sn	13 03 42.2	-1.8
ORI	Oriolo Calabro	5.00	314	*e*Pn	Pn	13 02 47.5	+1.6
ORI				*e*Sn	Sn	13 03 42.2	-1.8
MGR	Morigerati	5.58	310	*e*Pn	Pn	13 02 54.0	-0.1
MGR				*e*Sn	Sn	13 03 57.6	-1.0
MGR	Morigerati	5.58	310	*e*Pn	Pn	13 02 54.0	-0.1
MGR				*e*Sn	Sn	13 03 57.6	-1.0
SGO	Sicignano	5.99	312	*e*Pn	Pn	13 03 00.6	+0.8
SGO				*e*Sn	Sn	13 04 05.3	-3.5
SGO	Sicignano	5.99	312	*e*Pn	Pn	13 03 00.6	+0.8
SGO				*e*Sn	Sn	13 04 05.3	-3.5
MRLC	Muro Lucano	6.01	315	*e*Pn	Pn	13 03 00.8	+0.8
MRLC	Muro Lucano	6.01	315	*e*Pn	Pn	13 03 00.8	+0.7
CSSN	Cassano Irpino	6.34	313	*e*Pn	Pn	13 03 06.4	+1.5
CSSN	Cassano Irpino	6.34	313	*e*Pn	Pn	13 03 06.4	+1.6
FG5	Orsara di Pugl	6.48	317	*e*Pn	Pn	13 03 06.6	-0.2
SGG	Gregorio Mates	7.05	314	*e*Pn	Pn	13 03 14.8	0.0
SGG	Gregorio Mates	7.05	314	*e*Pn	Pn	13 03 14.8	0.0
CII	Carovilli	7.31	316	*e*Pn	Pn	13 03 20.6	+2.1
SDI	San Donato	7.59	314	*e*Pn	Pn	13 03 21.4	-0.9
SDI	San Donato	7.59	314	*e*Pn	Pn	13 03 21.4	-0.9
SNTG	Esanatoglia	9.09	319	*e*Pn	P	13 03 42.6	-0.6
SNTG	Esanatoglia	9.09	319	*e*Pn	P	13 03 42.7	-0.6
ARV	Arcevia	9.26	320	*e*Pn	P	13 03 44.7	-0.9
ARV	Arcevia	9.26	320	*e*Pn	P	13 03 44.7	-0.9
FSSB	Fossombrone	9.48	320	*e*Pn	P	13 03 47.9	-0.7
FSSB	Fossombrone	9.48	320	*e*Pn	P	13 03 47.9	-0.7
VRAC	Vranov	13.06	347	P	P	13 04 35.8	-1.4
	baz=173,slow=8.1,SNR=2.6						
DAVOX	Davos	13.13	324	P	P	13 04 39.5	+1.5
	0.2nm,0.3s,baz=350,slow=20,SNR=2.7						
GERES	GERESS Array B	13.33	338	P	P	13 04 38.2	-2.5
	0.2nm,0.3s,baz=148,slow=13,SNR=4.1						
AKASG	Malin Array Be	15.20	20	P	P	13 05 01.4	-3.7
	0.3nm,0.3s,baz=210,slow=11,SNR=3.5						
HFS	Hagfors	23.97	351	P	P	13 06 42.8	-1.1
	2.1nm,0.8s,mb3.6,baz=164,slow=11,SNR=6.4						
HFS	Hagfors	23.97	351	P	P	13 06 42.8	-1.1
FINES	FINESS Array B	25.00	6	P	P	13 06 51.7	-2.1
	1.5nm,0.6s,mb3.7,baz=163,slow=11,SNR=14						
FINES	FINESS Array B	25.00	6	P	P	13 06 51.7	-2.1
KAF	Kangasniemi	25.69	6	*e*p	P	13 06 48.7	-12
ARCES	ARCESS Array B	33.02	3	P	P	13 08 05.1	-0.8
	4.1nm,0.9s,mb4.4,baz=197,slow=9.4,SNR=3.2						
BVAR	Borovoye Array	37.76	48	P	P	13 08 44.9	-1.5
	0.6nm,0.6s,mb3.5,baz=270,slow=5.8,SNR=3.7						
SONM	Songino Array	61.06	50	P	P	13 11 44.2	-0.7
	0.5nm,1.0s,mb3.6,baz=309,slow=9.2,SNR=3.7						
YKA	Yellowknife Ar	74.98	340	P	P	13 13 10.4	-0.9
	0.2nm,0.5s,mb3.3,baz=35,slow=5.5,SNR=6.1						

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*NEIC **24** 13:13:08.8±3.4, 49.03S×160.82E, h10^{km}, Error ellipse: s-maj=71.2km s-min=9.2km az=176.0*

*IDC **24** 13:13:11.1±10.0, 48.34S×160.94E, mb3.7/3, mb1 4.0/5, mb1mx3.8/10, ML4.1/2, Error ellipse: s-maj=237.0km s-min=26.2km az=174.0*

ISC 24 13:13:06.7±1.4**, 49.0S**±0.2×**161.1E**±0.1**, h10^{km}, n34, σ1^{s}39**/45**, mb3.7**/3**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	5.61	59	S	Sn	13 15 37.4	-0.2
MLZ	Mavora Lakes	6.07	56	*e*P	Pn	13 14 40.6	+1.8
MLZ				S	Sn	13 15 49.2	0.0
MLZ	Mavora Lakes	6.07	56	P	Pn	13 14 40.4	+1.6
MLZ				S	Sn	13 15 49.0	-0.2
MSZ	Milford Sound	6.40	50	P	Pn	13 14 46.1	+2.7
MSZ				S	Sn	13 15 57.1	-0.2
TUZ	Tuapeka	6.56	65	*e*P	Pn	13 14 45.9	+0.2
TUZ				S	Sn	13 15 58.7	-2.7
TUZ	Tuapeka	6.56	65	P	Pn	13 14 45.5	-0.2
TUZ				S	Sn	13 15 58.0	-3.4
EAZ	Earnscleugh	6.77	59	*e*P	Pn	13 14 49.1	+0.4
EAZ				S	Sn	13 16 05.6	-1.1
EAZ	Earnscleugh	6.77	59	P	Pn	13 14 48.8	+0.1
EAZ				S	Sn	13 16 05.5	-1.2
WKZ	Wanaka	6.86	55	*e*P	Pn	13 14 52.4	+2.4
WKZ	Wanaka	6.86	55	P	Pn	13 14 52.3	+2.3
WKZ				S	Sn	13 16 10.0	+1.0
JCZ	Jackson Bay	7.24	50	*e*P	Pn	13 14 58.2	+2.9
JCZ	Jackson Bay	7.24	50	P	Pn	13 14 57.3	+2.0
ODZ	Otahua Downs	7.65	62	*e*P	Pn	13 14 59.4	-1.6
ODZ	Otahua Downs	7.65	62	P	Pn	13 14 59.3	-1.7
ODZ				S	Sn	13 16 24.4	-4.3
LBZ	Lake Benmore	7.79	57	*e*P	Pn	13 15 02.1	-0.8
LBZ	Lake Benmore	7.79	57	P	Pn	13 15 01.8	-1.1
FOZ	Fox Glacier	8.08	51	P	P	13 15 09.4	+2.4
RPZ	Rata Peaks	8.70	56	Pn	P	13 15 13.7	-1.9
	2.8nm,0.3s,baz=159,slow=5.4,SNR=11						
RPZ				Sn	Sn	13 16 51.6	-3.2
	1.6nm,0.3s,baz=62,slow=23,SNR=6.1						
RPZ	Rata Peaks	8.70	56	Pn	P	13 15 13.7	-1.9
RPZ				Sn	Sn	13 16 51.6	-3.2
WVZ	Waitaha Valley	8.96	52	*e*P	P	13 15 20.9	+1.6
WVZ	Waitaha Valley	8.96	52	P	P	13 15 20.9	+1.6
LTZ	Lake Taylor	9.98	56	*e*P	P	13 15 32.2	-1.0
LTZ	Lake Taylor	9.98	56	P	P	13 15 32.1	-1.1
DSZ	Denniston Nort	10.47	50	P	P	13 15 39.7	-0.2
THZ	Tophouse	11.03	53	*e*P	P	13 15 46.6	-1.0
THZ	Tophouse	11.03	53	P	P	13 15 46.6	-1.0
QRZ	Quartz Range	11.52	49	*e*P	P	13 15 54.8	+0.5
QRZ	Quartz Range	11.52	49	P	P	13 15 54.7	+0.4
NNZ	Nelson	11.67	53	*e*P	P	13 15 57.8	+1.5
NNZ	Nelson	11.67	53	P	P	13 15 57.8	+1.5
URZ	Urewera	15.79	53	Pn	P	13 16 50.6	0.0
	0.6nm,0.3s,baz=232,slow=12,SNR=2.6						
STKA	Stephens Creek	22.53	312	P	P	13 18 06.5	-1.5
	2.1nm,0.9s,mb3.6,baz=186,slow=10.0,SNR=2.7						
ASAR	Alice Springs	33.11	310	P	P	13 19 43.9	-1.1
	1.1nm,0.8s,mb3.8,baz=146,slow=8.7,SNR=11						
WRA	Warramunga Arr	36.05	314	P	P	13 20 10.6	+0.4
	1.0nm,0.8s,mb3.8,baz=146,slow=8.6,SNR=6.4						

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*MOS **24** 13:25:16.8±1.1, 5.81S×129.59E, h150^{km}, mb4.8/5, Error ellipse: s-maj=27.9km s-min=11.2km az=116.1*

*BJI **24** 13:25:17.6, 5.83S×130.22E, h175^{km}, mB5.0, mb4.8*

*NEIC **24** 13:25:19.3±1.1, 5.71S×129.80E, h157^{km}±10^{km}, mb4.7/31, Error ellipse: s-maj=10.1km s-min=5.8km az=69.0*

*IDC **24** 13:25:25.6±0.8, 5.78S×129.84E, h210^{km}±7^{km}, mb4.3/13, mb1 4.5/16, mb1mx4.4/19, Error ellipse: s-maj=15.1km s-min=7.2km az=64.0*

*DJA **24** 13:25:31.2±0.3, 4.28S×129.81E, h500^{km}, mb4.8/6, Error ellipse: s-maj=49.3km s-min=9.0km az=172.0*

ISC 24 13:25:20.8±0.8**, 5.78S**±0.04×**129.78E**±0.05**, h187^{km}**±8^{km}**, h206^{km}**±7.4^{km}**:pP-P, n124, σ1^{s}12**/108**, mb4.8**/52**, 2C-13D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	Kakadu	7.37	159	*e*P	P	13 27 05.6	-1.1
	517nm,0.6s						
KAKA				*e*S	S	13 28 23.6	-5.7
NINI	Niniconang	10.07	277	⇓*i*P	P	13 27 50.5	+8.5
	79nm,0.6s						
TANI	Tanete Lipujan	10.62	282	⇑*i*P	P	13 27 54.1	+4.9
	18nm,0.4s						
YOMI	Yo Moklole	11.20	74	⇑*i*P	P	13 27 58.8	+2.2
	148nm,0.7s						
YOMI				⇓*i*S	S	13 30 03.7	+4.9
FITZ	Fitzroy Crossi	12.90	198	*e*P	P	13 28 16.1	-2.2
	96nm,0.3s						
FITZ				*e*S	S	13 30 31.9	-6.2
KEDI	Kedomdong	13.82	258	⇓*e*P	P	13 28 30.0	-0.1
	92nm,0.6s						
BUKP	Musuan	14.36	341	*e*P	P	13 28 38.4	+1.6
RATI	Rata	14.43	257	⇓*i*P	P	13 28 40.1	+2.4
WRAB	Tennant Creek	14.76	163	*d* *i*P	P	13 28 38.9	-2.8
WRAB	Tennant Creek	14.76	163	*e*Pn	P	13 28 39.5	-2.2
	58nm,0.3s						
WRAB				Sn	S	13 31 07.9	-12
WRA	Warramunga Arr	14.76	163	P	P	13 28 39.4	-2.4
	5.0nm,0.3s,baz=332,slow=13,SNR=142						
WRA				S	S	13 31 14.7	-5.9
	3.3nm,0.3s,baz=351,slow=19,SNR=63						
WB2	Warramunga Arr	14.77	163	*e*P	P	13 28 39.2	-2.6
WB2				*e*S	S	13 31 15.1	-5.5
PAGZ	Pagadian	14.96	335	*e*P	P	13 28 46.1	+1.7
BUTP	Butuan	15.22	344	*e*P	P	13 28 48.2	+0.6
KELI	Kelakatan	15.36	260	⇓*e*P	P	13 28 51.9	+2.6
	231nm,1.1s						
SRDI	Scrawed	15.74	259	⇓*e*P	P	13 28 52.7	-1.3
	68nm,0.4s						
PMG	Port Moresby	17.60	103	P	P	13 29 15.1	-0.7
	11nm,0.3s,baz=292,slow=6.0,SNR=104						
PMG				S	S	13 32 25.5	+2.0
	0.8nm,0.3s,baz=197,slow=22,SNR=5.2						
MBWA	Marble Bar	18.13	212	*e*P	P	13 29 20.9	-0.5
	38nm,0.7s						
ASAR	Alice Springs	18.22	168	P	P	13 29 22.9	+0.5
	22nm,0.3s,baz=350,slow=10,SNR=2464						
ASAR				S	S	13 32 38.4	+2.2
	7.2nm,0.3s,baz=350,slow=20,SNR=13						
ASPA	Alice Springs	18.22	168	*e*P	P	13 29 22.8	+0.4
CTA	Charters Tower	21.42	133	*e*P	P	13 29 56.7	+1.9
	37nm,0.6s,mb4.9						
CTA	Charters Tower	21.42	133	P	P	13 29 56.7	+2.0
	51nm,0.7s,mb5.0,baz=312,slow=11,SNR=114						
CTAO	Charters Tower	21.42	133	*e*P	P	13 29 56.5	+1.7
	55nm,0.8s,mb4.9						
TGY	Tagaytay City	21.61	336	P	P	13 30 07.7	+11
	86nm,0.3s,mb5.6,baz=234,slow=5.8,SNR=3.1						
KLBR	Kellerberrin	28.04	202	*e*P	P	13 30 56.8	0.0
	38nm,0.6s,mb5.3						
STKA	Stephens Creek	28.22	158	*e*P	P	13 30 58.3	-0.1
	4.3nm,0.3s,mb4.7						
STKA	Stephens Creek	28.22	158	P	P	13 30 58.8	+0.4
	6.4nm,0.4s,mb4.7,baz=330,slow=9.5,SNR=26						
STKA	Stephens Creek	28.22	158	*e*P	P	13 30 57.8	-0.7
MUN	Mundaring	28.99	204	*e*P	P	13 31 05.4	+0.1
	10nm,0.4s,mb4.9						
NWAO	Narrogin (SRO)	29.43	202	P	P	13 31 09.2	0.0
	22nm,0.8s,mb4.9,baz=17,slow=7.6,SNR=16						
NWAO	Narrogin (SRO)	29.43	202	*e*P	P	13 31 08.7	-0.5
	22nm,0.9s,mb4.9						
CNB	Canberra Magne	34.49	151	*e*P	P	13 31 54.4	+1.5
	5.7nm,0.5s,mb4.6						
TOO	Toolangi	34.74	158	*e*P	P	13 31 57.2	+2.2
	3.6nm,0.5s,mb4.3						
CBIJ	Chichi jima	34.82	20	P	P	13 31 54.7	-1.1
	30nm,0.4s,mb5.2,baz=287,slow=23,SNR=4.0						
SSE	Sheshan	37.57	348	P	P	13 32 16.3	-2.6
SSE				S	S	13 37 59.6	+5.8
SSE				AMB	AMB		
	comp=Z,18nm,0.7s,mb4.8						
SSE				AMB	AMB		
	comp=Z,58nm,4.5s						
SSE				LR	LR		
	comp=N,23nm,23.2s						
SSE				LR	LR		
	comp=E,43nm,23.1s						
SSE				LR	LR		
	comp=Z,56nm,21.3s						
SSE	Sheshan	37.57	348	P	P	13 32 16.3	-2.6
	comp=Z,18nm,0.7s,mb4.8						
SSE				sP	Px	13 32 47.2	
SSE				S	S	13 37 59.6	+5.8
SSE				sS		13 38 35.7	
SSE				LR	LR		
	comp=Z,60nm,21.3s						
CM31	Chiang Mai Arr	38.79	309	*e*P	P	13 32 29.1	+0.1
	comp=Z,5.0nm,0.7s,mb4.2						
CMAR	Chiang Mai Arr	38.79	309	P	P	13 32 30.1	+1.0
	comp=Z,3.3nm,0.6s,mb4.2,baz=137,slow=7.4,SNR=29						
CMAR				pP	pP	13 33 14.2	+4.9
	comp=Z,3.5nm,0.8s,baz=136,slow=7.3,SNR=4.5						
CMAR				PcP	PcP	13 34 38.7	+1.7
	comp=Z,1.3nm,0.6s,baz=164,slow=2.6,SNR=6.6						
CMAR				ScP		13 38 08.1	
	comp=Z,2.8nm,1.1s,baz=160,slow=2.8,SNR=7.1						
WHN	Wuhan	39.02	339	P	P	13 32 31.5	+0.6
NJ2	Nanjing	39.03	345	*e*P	P	13 32 30.1	-0.9
NJ2				PP	PP	13 34 06.4	-0.3
NJ2				PPP	PPP	13 34 32.1	-3.8
NJ2				S	S	13 38 23.0	+7.3
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.2						
NJ2				LR	LR		
	comp=N,1µm,14.2s						
NJ2				LR	LR		
	comp=E,1µm,16.2s						
NJ2				LR	LR		
	comp=Z,2µm,18.4s						
GYA	Guiyang	39.10	326	P	P	13 32 32.1	+0.5
GYA				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.5						
ENH	Enshi	40.78	333	*e*P	P	13 32 45.3	-0.1
	comp=Z,8.3nm,0.8s,mb4.4						
MAJO	Matsushiro	42.83	10	*e*P	P	13 33 01.0	-1.1
	comp=Z,30nm,0.8s,mb5.0						
MAT	Matsushiro	42.83	10	P	P	13 33 00.9	-1.2
MAT	Matsushiro	42.83	10	*e*P	P	13 33 01.0	-1.1
	comp=Z,18nm,0.7s,mb4.8						
XAN	Xi’an	44.24	335	P	P	13 33 12.4	-1.0
XAN				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.5						
BJT	Baijiatuau	47.27	346	*e*P	P	13 33 36.4	-0.6
	comp=Z,14nm,0.7s,mb4.7						
BJI	Beijing	47.28	346	*e*P	P	13 33 36.8	-0.4
BJI				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.0						
BJI				LR	LR		
	comp=Z,136nm,26.5s						
BJI	Beijing	47.28	346	*e*P	P	13 33 36.7	-0.5
	comp=Z,25nm,0.7s,mb5.0						
BJI				LR	LR		
	comp=Z,140nm,26.5s						
LZH	Lanzhou	48.23	332	*e*P	P	13 33 45.0	+0.4
LZH				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.6						
LZH	Lanzhou	48.23	332	*e*P	P	13 33 45.0	+0.4
	comp=Z,20nm,1.2s,mb4.6						
LZH				pP	Px	13 33 53.5	
LZH				sP	Px	13 34 01.0	
HHC	Hu-ho-hao-te	49.32	342	*e*P	P	13 33 52.8	0.0
HHC				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.6						
HHC				AMB	AMB		
	comp=Z,140nm,4.6s						
MDJ	Mudanjiang	50.16	360	*e*P	P	13 33 58.8	-0.4
LSA	Lhasa	51.17	316	*e*P	P	13 34 07.9	+0.9
	comp=Z,6.6nm,0.7s,mb4.4						
RPZ	Rata Peaks	52.33	143	P	P	13 34 16.6	+1.2
	comp=Z,21nm,0.7s,mb4.9,baz=321,slow=3.6,SNR=9.5						
RPZ	Rata Peaks	52.33	143	P	P	13 34 16.6	+1.2
GTA	Gaotai	52.80	331	P	P	13 34 19.8	+0.8
GTA				S	S	13 41 29.6	-1.5
GTA				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
GTA				AMB	AMB		
	comp=Z,63nm,3.8s						
GTA				LR	LR		
	comp=N,140nm,15.2s						
GTA				LR	LR		
	comp=E,220nm,15.2s						
GTA				LR	LR		
	comp=Z,156nm,20.2s						
URZ	Urewera	53.66	134	P	P	13 34 24.7	-0.7
	comp=Z,10nm,0.8s,mb4.6,baz=294,slow=7.3,SNR=6.0						
GUN	Gumba	53.99	311	*e*P	P	13 34 27.9	+0.1
	comp=Z,57nm,0.7s,mb5.4						
PKI	Pulchoki	54.17	310	*e*P	P	13 34 28.7	-0.4
	comp=Z,7.9nm,0.2s,mb5.1						
KKN	Kakani	54.38	310	*e*P	P	13 34 30.6	-0.1
	comp=Z,34nm,0.9s,mb5.1						
DMN	Daman	54.42	310	*e*P	P	13 34 30.9	-0.1
	comp=Z,31nm,0.9s,mb5.1						
GKN	Gorkha	54.98	310	*e*P	P	13 34 34.8	-0.2
	comp=Z,43nm,0.7s,mb5.3						
KOLN	Koldanda	55.66	309	*e*P	P	13 34 39.9	0.0
	comp=Z,34nm,0.8s,mb5.2						
ULN	Ulaanbaatar	57.04	342	*e*P	P	13 34 47.3	-2.1
ULN	Ulaanbaatar	57.04	342	*e*P	P	13 34 49.7	+0.3
	comp=Z,13nm,0.6s,mb4.9						
SONM	Songino Array	57.22	341	P	P	13 34 51.1	+0.5
	comp=Z,4.2nm,0.7s,mb4.4,baz=161,slow=7.0,SNR=46						
SONM				pP	pP	13 35 38.3	+4.8
	comp=Z,2.8nm,0.9s,baz=169,slow=6.3,SNR=3.2						
ZAK	Zakamensk	60.45	341	*e*P	P	13 35 12.5	-0.3
ZAK				*e*	pP	13 35 55.7	-0.5
WMQ	Urumqi	62.26	327	⇓P	P	13 35 25.6	+0.6
WMQ				AMB	AMB		
	comp=Z,21nm,0.8s,mb5.0						
WMQ				AMB	AMB		
	comp=Z,34nm,5.0s						
MOY	Mondy	62.30	340	*e*P	P	13 35 26.3	+1.1
BOD	Bodaibo	64.66	351	*e*P	P	13 35 39.7	-0.8
MKAR	Makanchi Array	67.09	327	*i* P	P	13 35 56.5	+0.4
MKAR				pmax	pmax		
	comp=Z,15nm,0.7s						
YAK	Yakutsk	67.61	360	⇓*i*P	P	13 35 58.7	-0.4
YAK				pmax	pmax		
	comp=Z,53nm,0.6s,mb5.5						
YAK	Yakutsk	67.61	360	*e*P	P	13 35 58.8	-0.3
	comp=Z,72nm,0.8s,mb5.5						
AAK	Ala-Archa	69.47	320	⇓*i*P	P	13 36 10.2	-0.6
AAK				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.4						
AAK	Ala-Archa	69.47	320	*e*P	P	13 36 10.8	0.0
	comp=Z,5.4nm,1.0s,mb4.2						
ZAL	Zalesovo	70.40	334	P	P	13 36 15.8	-0.4
	comp=Z,4.8nm,1.0s,mb4.2,baz=343,slow=6.1,SNR=32						
ZAL				PcP	PcP	13 36 36.0	-0.6
	comp=Z,1.8nm,0.9s,baz=348,slow=4.2,SNR=4.5						
ZAL				pP	pP	13 37 07.6	+6.6
	comp=Z,1.5nm,0.8s,baz=289,slow=4.9,SNR=2.1						
ZAL				S	S	13 45 10.7	-1.4
	comp=Z,0.5nm,0.4s,baz=49,slow=22,SNR=6.3						
ZAL	Zalesovo	70.40	334	P	P	13 36 15.8	-0.4
ZAL				PcP	PcP	13 36 36.0	-0.6
ZAL				pP	pP	13 37 07.6	+6.6
ZAL				S	S	13 45 10.7	-1.4
NVS	Novosibirsk	71.68	334	*i* P	P	13 36 22.8	-1.1
NVS				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.6						
NVS				pmax	pmax		
	comp=N,13nm,1.6s						
NVS				pmax	pmax		
	comp=E,9.0nm,1.3s						
VNDA	Vanda	73.68	173	P	P	13 36 35.5	+0.2
	comp=E,3.6nm,1.0s,mb4.1,baz=317,slow=7.1,SNR=14						
VNDA	Vanda	73.68	173	*e*P	P	13 36 35.5	+0.2
	comp=E,2.8nm,0.8s,mb4.0						
MAW	Mawson	76.00	201	P	P	13 36 50.3	+1.8
	comp=E,3.1nm,0.8s,mb4.0,baz=106,slow=17,SNR=2.3						
MAW	Mawson	76.00	201	*e*P	P	13 36 49.8	+1.3
	comp=E,3.7nm,0.6s,mb4.2						
BRVK	Borovoye	76.99	328	*e*P	P	13 36 54.5	+0.2
	comp=E,12nm,1.1s,mb4.4						
CHKZ	Chkalovo	77.11	328	*e*P	P	13 36 54.9	-0.1
	comp=E,11nm,1.1s,mb4.4						
TIXI	Tiksi	77.28	360	*e*P	P	13 36 54.2	-1.4
TIXI				pmax	pmax		
	comp=N,3.0nm,0.5s						
BILL	Bilibino	77.98	13	⇓*i*P	P	13 37 01.7	+2.2
BILL				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.1						
QSPA	South Pole Qui	84.19	180	*e*P	P	13 37 32.2	+0.6
	comp=Z,3.6nm,0.7s,mb4.2						
ARU	Arti	84.56	328	⇓*i*P	P	13 37 34.0	0.0
ARU				*e*		13 40 50.3	
ARU				*e*S	S	13 47 48.0	+4.8
ARU				*e*SS	SS	13 53 24.2	+2.6
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.4						
ARU	Arti	84.56	328	*e*P	P	13 37 34.1	+0.2
	comp=Z,4.1nm,0.5s,mb4.4						
MCK	McKinley	91.29	26	*e*P	P	13 38 05.3	-0.6
	comp=Z,2.6nm,0.6s,mb4.4						
KIV	Kislovodsk	91.87	314	P	P	13 38 09.7	+0.7
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
COLA	College	91.95	25	*e*P	P	13 38 08.0	-0.9
	comp=Z,3.5nm,0.7s,mb4.5						
ILAR	Eielson Array	92.34	25	P	P	13 38 09.3	-1.4
	comp=Z,2.9nm,0.8s,mb4.4,baz=252,slow=4.8,SNR=44						
ANN	Anapa	95.69	314	*e*P	P	13 38 30.7	+4.3
ANN				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.8						
INK	Inuvik	97.82	22	*e*P	P	13 38 35.0	-0.5
	comp=Z,4.6nm,1.0s,mb4.9						
YKW3	Yellowknife Ar	106.73	26	PKP		13 43 24.9	

YKW3				*e*PP	PP	13 43 43.8	-1.8
YKA	Yellowknife Ar	106.76	26	Pdiff	Pdif	13 39 16.0	+0.6
	comp=Z,0.2nm,0.6s,baz=296,slow=4.3,SNR=6.4						
YKA				PKiKP		13 43 25.0	
	comp=Z,2.3nm,0.8s,baz=295,slow=1.7,SNR=52						
YKA				PKKPbc		13 54 44.0	
	comp=Z,0.3nm,0.6s,baz=114,slow=3.4,SNR=5.6						
YKA	Yellowknife Ar	106.76	26	Pdif	Pdif	13 39 16.0	+0.6
YKA				PKPdf		13 43 25.1	
YKA				PKKPbc		13 54 44.0	
GERES	GERESS Array B	111.35	320	PKiKP		13 43 34.6	
	comp=Z,0.5nm,0.5s,baz=63,slow=4.4,SNR=1.8						
HLID	Hailey	112.56	45	*e*PKP	PKPdf	13 43 37.9	+3.1
SNOW	Snow King Moun	115.15	44	*e*PKP	PKPdf	13 43 43.2	+3.2
BW06	Boulder Array	116.19	45	*e*PKPdf	PKPdf	13 43 44.1	+2.2
PDAR	Pinedale Array	116.19	45	PKP	PKPdf	13 43 44.4	+2.4
	comp=Z,2.5nm,1.1s,baz=244,slow=1.3,SNR=10						
FCC	Fort Churchill	117.34	24	*e*PKPdf	PKPdf	13 43 44.8	+1.1
TUC	Tucson	117.86	57	*e*PKPdf	PKPdf	13 43 47.8	+2.4
ISCO	Idaho Springs	119.94	47	PKPdf	PKPdf	13 43 52.3	+3.0
FRB	Frobisher Bay	120.64	9	PKP	PKPdf	13 43 51.2	+1.1
	comp=Z,10.0nm,1.2s,baz=271,slow=3.1,SNR=6.1						
SDCO	Great Sand Dun	120.68	49	*e*PKPdf	PKPdf	13 43 53.6	+2.8
ANMO	Albuquerque	120.75	53	⇓*i*PKIKP	PKPdf	13 43 53.2	+2.2
ANMO	Albuquerque	120.75	53	*e*PKPdf	PKPdf	13 43 53.9	+2.9
ULM	Lac du Bonnet	121.55	33	PKP	PKPdf	13 43 54.6	+2.5
	comp=Z,4.0nm,0.6s,baz=345,slow=2.1,SNR=7.7						
AMTX	Amarillo	124.52	51	*e*PKPdf	PKPdf	13 44 00.9	+2.6
WMOK	Wichita Mounta	126.81	50	*e*PKPdf	PKPdf	13 44 04.8	+2.1
DBIC	Dimbokro	134.90	274	SKPbc		13 47 32.6	
	comp=Z,5.4nm,0.8s,baz=178,slow=4.5,SNR=7.9						
JTS	JuntasAbangare	145.34	80	*e*PKPbc	PKPbc	13 44 40.1	+2.2
LVC	Limon Verde	146.38	148	*e*PKPdf	PKPdf	13 44 41.4	+2.7
LVC				*e*PKPbc	PKPbc	13 44 42.8	+2.6
LVC				*e*PKPab	PKPab	13 44 44.4	+0.5
CPUP	Villa Florida	147.35	168	PKP	PKPdf	13 44 42.7	+2.4
	comp=Z,0.0nm,0.3s,baz=244,slow=11,SNR=1.5						
CPUP				PKPbc	PKPdf	13 44 45.6	+5.4
	comp=Z,0.0nm,0.3s,baz=38,slow=14,SNR=1.7						
CPUP	Villa Florida	147.35	168	PKP	PKPdf	13 44 42.7	+2.4
CPUP				PKPbc	PKPdf	13 44 45.6	+5.4
NNA	Nana	148.18	124	*e*PKPdf	PKPdf	13 44 44.2	+2.3
NNA				*e*PKPbc	PKPdf	13 44 48.2	+6.2
NNA				*e*PKPab	PKPab	13 44 51.4	+0.2
OTAV	Otavalo	151.29	100	*e*PKPdf	PKPdf	13 44 49.9	+3.1
LPAZ	La Paz	151.81	141	PKPbc	PKPdf	13 44 57.9	+10
	comp=Z,6.6nm,0.5s,baz=70,slow=1.1,SNR=26						
LPAZ				PKPab	PKPab	13 45 07.9	+1.8
	comp=Z,11nm,0.6s,baz=29,slow=0.4,SNR=6.4						
LPAZ	La Paz	151.81	141	*e*PKPdf	PKPdf	13 44 50.6	+3.1
LPAZ				*e*PKPbc	PKPdf	13 44 57.5	+10
LPAZ				PKPbc	PKPdf	13 44 57.9	+10
LPAZ				*e*PKPab	PKPab	13 45 07.3	+1.2
LPAZ				PKPab	PKPab	13 45 07.9	+1.8
SDV	Santo Domingo	159.53	80	PKP	PKPdf	13 45 00.3	+2.6
	comp=Z,10nm,0.9s,baz=14,slow=1.6,SNR=12						
SDV				PKPab	PKPab	13 45 39.9	+0.8
	comp=Z,4.0nm,0.7s,baz=279,slow=3.9,SNR=4.9						

WAR ***24*** *13:26:40.9, 51.54N×16.06E, h1^{km}, ML2.7, Mining Induced*

PRU ***24*** *13:26:40.8, 51.51N×16.06E*

ISC 24 13:26:39.2±1.5**, 51.49N**±0.07×**15.98E**±0.07**, n9,** σ**1^{s}04**/16**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.68	163	*e*PG	Pg	13 26 54.0	+1.2
KSP				*e*SG	Sg	13 27 03.0	+1.2
UPC	Upice	0.98	179	*e*PG	Pg	13 26 59.9	+1.0
DPC	Dobruska-Polom	1.16	169	*e*PG	Pg	13 27 02.7	+0.3
DPC				*e*SG	Sg	13 27 18.2	+0.3
PVCC	Panska Ves	1.31	223	*e*PG	Pg	13 27 06.7	+1.3
PRU	Pruhonice	1.76	212	*e*PG	Pg	13 27 13.9	-0.5
PRU				*e*SG	Sg	13 27 38.3	+0.5
CLL	Collm	1.87	266	*e*PG	Pg	13 27 16.0	-0.6
CLL				*i* SG	Sg	13 27 42.5	+0.9
OKC	Ostrava-Krasne	2.15	139	*e*SG	Sg	13 27 49.0	-1.9
NKC	Novy Kostel	2.57	242	*e*SG	Sg	13 28 04.5	-0.2
KHC	Kasperske Hory	2.82	214	*e*PN	Pn	13 27 26.0	-0.4
KHC				*e*PG	Pg	13 27 33.1	-2.4
KHC				*e*SN	Sn	13 28 01.5	-0.1
KHC				*e*SG	Sg	13 28 11.7	-1.4

ORF ***24*** *13:31:23.3, 17.79S×179.43E, h30^{km}, mb5.6*

SYO ***24*** *13:32:16.5, 20.14S×178.64W, h600^{km}, MB4.4*

NEIC ***24*** *13:32:17.9±1.5, 20.25S×178.56W, h618^{km}±17^{km}, mb4.4/28, Error ellipse: s-maj=10.5km s-min=8.6km az=167.0*

BJI ***24*** *13:32:17.0, 20.30S×178.60W, h618^{km}, mB5.2, mb4.7*

IDC ***24*** *13:32:19.3±1.5, 20.28S×178.65W, h627^{km}±17^{km}, mb3.8/16, mb1 4.0/17, mb1mx3.9/19, Error ellipse: s-maj=15.2km s-min=10.0km az=154.0*

ISC 24 13:32:15.7±1.5**, 20.38S**±0.07×**178.55W**±0.07**, h606**^{km}±20^{km}**, n143,** σ**0^{s}98**/78**, mb4.4**/46**, 14C-7D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	14.10	260	*e*P	P	13 35 16.5	+1.5
DZM	Mont Dzumac	14.10	260	*e*P	P	13 35 16.5	+1.5
OUZ	Omahuta	16.33	203	P	P	13 35 39.9	+3.6
URZ	Urewera	18.21	191	P	P	13 35 52.9	-1.2
	10nm,0.3s,baz=353,slow=2.6,SNR=36						
URZ				S	S	13 38 48.7	-0.8
	0.3nm,0.3s,baz=228,slow=22,SNR=3.2						
URZ	Urewera	18.21	191	P	P	13 35 52.2	-1.8
MWZ	Matawai	18.22	190	P	P	13 35 53.2	-0.8
NNZ	Nelson	21.88	197	P	P	13 36 26.5	-1.1
THZ	Tophouse	22.52	197	P	P	13 36 32.2	-1.1
LTZ	Lake Taylor	23.64	197	P	P	13 36 41.5	-1.8
RPZ	Rata Peaks	24.84	198	P	P	13 36 54.6	+0.7
	18nm,0.8s,mb4.7,baz=239,slow=6.7,SNR=6.6						
JCZ	Jackson Bay	25.89	201	P	P	13 36 50.2	-13
CTA	Charters Tower	32.99	264	P	P	13 38 04.7	+0.8
	3.5nm,0.4s,mb4.3,baz=197,slow=19,SNR=3.8						
PMG	Port Moresby	34.81	283	P	P	13 38 19.5	+0.4
	31nm,0.7s,mb5.0,baz=83,slow=4.9,SNR=15						
STKA	Stephens Creek	37.38	244	P	P	13 38 41.4	+1.5
	16nm,0.6s,mb4.7,baz=91,slow=13,SNR=6.9						
STKA	Stephens Creek	37.38	244	P	P	13 38 41.4	+1.4
ASAR	Alice Springs	44.05	257	P	P	13 39 33.1	0.0
	4.6nm,0.6s,mb4.2,baz=85,slow=7.4,SNR=15						
ASAR				PcP	PcP	13 41 04.8	-0.4
	3.0nm,0.6s,baz=101,slow=4.0,SNR=6.3						
ASAR				S	S	13 45 20.7	-2.5
	4.0nm,1.0s,baz=89,slow=16,SNR=13						
ASPA	Alice Springs	44.05	257	*e*P	P	13 39 33.6	+0.4
WB2	Warramunga Arr	44.10	262	*e*P	P	13 39 33.2	-0.4
WRA	Warramunga Arr	44.11	262	P	P	13 39 33.3	-0.4
	2.0nm,0.2s,mb4.2,baz=97,slow=7.4,SNR=20						
WRA				PcP	PcP	13 41 04.9	-0.5
	0.4nm,0.4s,baz=100,slow=5.8,SNR=4.6						
WRA				S	S	13 45 20.7	-3.4
	2.1nm,0.8s,baz=92,slow=13,SNR=9.9						
SBA	Scott Base	57.96	184	*e*P	P	13 41 15.0	+2.0
	14nm,1.0s,mb4.0						
VNDA	Vanda	57.99	185	P	P	13 41 14.7	+1.5
	1.8nm,0.6s,mb3.4,baz=357,slow=7.6,SNR=14						
VNDA	Vanda	57.99	185	*e*P	P	13 41 14.3	+1.1
	1.8nm,0.5s,mb3.5						
QSPA	South Pole Qui	69.69	180	⇑*i*P	P	13 42 28.4	+1.6
	14nm,0.9s,mb4.4						
JOW	Kunigami	69.69	310	P	P	13 42 27.9	+0.2
	48nm,1.0s,mb4.9,baz=148,slow=13,SNR=4.3						
MAJO	Matsushiro	69.81	324	*e*P	P	13 42 26.8	-1.4
	12nm,0.6s,mb4.5						
MAT	Matsushiro	69.81	324	P	P	13 42 26.9	-1.3
MAT	Matsushiro	69.81	324	*e*P	P	13 42 27.0	-1.2
	11nm,0.8s,mb4.3						
ASAJ	Asahikawa	73.38	332	P	P	13 42 49.5	+1.0
	26nm,0.7s,mb4.9,baz=226,slow=6.6,SNR=16						
MDJ	Mudanjiang	80.12	325	P	P	13 43 25.1	+0.1
MDJ				AP	pP	13 45 35.3	+2.5
MDJ				XP	sP	13 46 40.4	+7.6
MDJ				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.4						
MDJ				AMB	AMB		
	comp=Z,185nm,7.9s						
MDJ	Mudanjiang	80.12	325	*e*P	P	13 43 25.3	+0.4
	comp=Z,7.8nm,0.8s,mb4.1						
MTUM	Tungsten Hills	80.51	44	*e*P	P	13 43 28.2	+1.1
NVAR	Mina Array Bea	81.29	44	P	P	13 43 32.1	+1.1
	comp=Z,4.8nm,0.8s,mb4.0,baz=228,slow=9.9,SNR=30						
TPNV	Topopah Spring	81.82	46	*e*P	P	13 43 34.3	+0.5
	comp=Z,5.4nm,0.8s,mb4.1						
CN2	Changchun	81.89	323	*e*P	P	13 43 34.5	+0.5
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
MOD	Modoc	82.05	40	*e*P	P	13 43 35.4	+0.5
	comp=Z,15nm,1.1s,mb4.4						
BMN	Battle Mountai	83.11	42	*e*P	P	13 43 40.5	+0.3
TUC	Tucson	83.31	52	*e*P	P	13 43 42.3	+1.0
	comp=Z,2.8nm,0.8s,mb3.8						
BJT	Baijiatuau	85.44	316	*e*P	P	13 43 51.4	-0.2
	comp=Z,7.9nm,0.7s,mb4.5						
BJI	Beijing	85.44	316	*e*P	P	13 43 51.6	0.0
BJI				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.6						
BJI	Beijing	85.44	316	*e*P	P	13 43 51.6	0.0
	comp=Z,12nm,0.7s,mb4.6						
BMO	Blue Mountains	85.54	39	*e*P	P	13 43 52.1	+0.2
	comp=Z,2.7nm,0.6s,mb4.0						
ENH	Enshi	85.55	304	*e*P	P	13 43 52.4	+0.1
	comp=Z,39nm,1.3s,mb4.9						
HLID	Hailey	86.57	41	*e*P	P	13 43 57.2	+0.3
	comp=Z,4.7nm,0.8s,mb4.3						
SYO	Syowa Base	86.73	193	⇑P	P	13 43 57.4	+0.4
MCK	McKinley	86.96	13	*e*P	P	13 43 57.1	-1.1
	comp=Z,3.9nm,0.6s,mb4.3						
MNTX	Cornudas Mount	87.10	55	*e*P	P	13 43 56.8	-2.8
	comp=Z,9.6nm,1.0s,mb4.5						
LTX	Lajitas	87.42	58	*e*P	P	13 44 00.8	-0.4
	comp=Z,5.6nm,0.9s,mb4.3						
TXAR	Lajitas Array	87.42	58	P	P	13 44 01.0	-0.2
	comp=Z,4.2nm,0.8s,mb4.2,baz=208,slow=3.3,SNR=20						
NEW	Newport	87.57	36	*e*P	P	13 44 01.0	-0.4
	comp=Z,1.1nm,0.4s,mb3.9						
XAN	Xi'an	87.65	308	P	P	13 44 02.8	+0.6
XAN				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.7						
COLA	College	88.20	13	*e*P	P	13 44 02.6	-1.3
	comp=Z,20nm,0.9s,mb4.8						
IMA	Indian Mountai	88.21	10	*e*P	P	13 44 03.0	-1.0
HIA	Hailar	88.30	325	*e*P	P	13 44 04.1	-0.7
	comp=Z,3.2nm,0.4s,mb4.4						
ILAR	Eielson Array	88.31	13	P	P	13 44 03.1	-1.4
	comp=Z,4.5nm,0.5s,mb4.4,baz=228,slow=3.9,SNR=59						
REDW	Red Top Meadow	88.69	42	*e*P	P	13 44 06.4	-0.4
TPAW	Teton Pass	88.69	42	P	P	13 44 07.6	+0.8
SNOW	Snow King Moun	88.80	42	*e*P	P	13 44 07.9	+0.6
KMI	Kunming	88.84	297	*e*P	P	13 44 09.5	+1.6
KMI				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.7						
KMI	Kunming	88.84	297	*e*P	P	13 44 09.5	+1.6
	comp=Z,16nm,1.2s,mb4.7						
BILL	Bilibino	88.86	354	*e*P	P	13 44 06.3	-0.7
	comp=Z,10nm,1.1s,mb4.6						
IMW	Indian Meadow	88.90	42	*e*P	P	13 44 08.8	+1.0
HHC	Hu-ho-hao-te	88.90	315	*e*P	P	13 44 08.0	+0.1
HHC				AP	pP	13 46 17.8	-0.9
HHC				XP	sP	13 47 17.1	-1.1
HHC				PP	PP	13 47 50.4	+0.4
HHC				SKS	SKS	13 53 39.1	-0.6
HHC				S	S	13 54 03.9	0.0
HHC				XS		13 57 54.6	
HHC				SS	SS	14 00 19.8	+0.3
HHC				AMB	AMB		
	comp=Z,10.0nm,0.4s,mb5.0						
HHC				AMB	AMB		
	comp=Z,163nm,6.0s						
MOOW	Moose Ponds	88.95	42	*e*P	P	13 44 08.2	+0.2
LOHW	Long Hollow	88.97	42	*e*P	P	13 44 08.4	+0.3
BW06	Boulder Array	89.22	43	*e*P	P	13 44 09.3	-0.1
	comp=Z,3.6nm,0.7s,mb4.3						
PDAR	Pinedale Array	89.22	43	P	P	13 44 09.7	+0.3
	comp=Z,3.6nm,0.7s,mb4.3,baz=218,slow=3.4,SNR=23						
BOZ	Bozeman (W)	89.35	40	*e*P	P	13 44 10.0	+0.1
	comp=Z,5.6nm,0.7s,mb4.5						
CM31	Chiang Mai Arr	89.59	290	*e*P	P	13 44 12.8	+1.3
	comp=Z,1.5nm,0.3s,mb4.3						
CMAR	Chiang Mai Arr	89.59	290	P	P	13 44 12.8	+1.3
	comp=Z,6.3nm,0.8s,mb4.5,baz=124,slow=2.9,SNR=41						
YAK	Yakutsk	91.81	338	*e*P	P	13 44 19.4	-1.3
	comp=Z,14nm,0.6s,mb5.2						
INK	Inuvik	94.29	15	*e*P	P	13 44 30.7	-1.1
	comp=Z,2.4nm,0.8s,mb4.4						
ULN	Ulaanbaatar	94.93	319	*e*P	P	13 44 33.7	-1.5
	comp=Z,1.7nm,0.8s,mb4.2						
SONM	Songino Array	95.32	319	P	P	13 44 36.8	-0.2
	comp=Z,0.9nm,0.9s,mb3.9,baz=141,slow=7.9,SNR=5.9						
SONM				PP	PP	13 48 36.1	-3.0
	comp=Z,0.5nm,0.8s,baz=117,slow=8.3,SNR=4.2						
SONM	Songino Array	95.32	319	P	P	13 44 36.8	-0.2
SONM				PP	PP	13 48 36.1	-3.0
YKA	Yellowknife Ar	96.61	25	P	P	13 44 41.6	-0.8
	comp=Z,0.5nm,0.7s,mb3.9,baz=243,slow=4.5,SNR=7.6						
ZAL	Zalesovo	110.09	321	PKiKP		13 49 38.6	
	comp=Z,0.7nm,0.6s,baz=325,slow=3.8,SNR=5.1						
CHKZ	Chkalovo	118.47	321	*e*PKPdf	PKPdf	13 49 54.5	-0.7
BVAR	Borovoye Array	118.66	320	PKP	PKPdf	13 49 55.6	0.0
	comp=Z,3.4nm,0.4s,baz=136,slow=1.3,SNR=28						
BRVK	Borovoye	118.72	320	*e*PKPdf	PKPdf	13 49 55.3	-0.4
ARU	Arti	124.81	325	*e*PKPdf	PKPdf	13 50 07.7	+0.4
ARCES	ARCESS Array B	128.71	349	PKP	PKPdf	13 50 15.4	+0.9
	comp=Z,4.2nm,0.6s,baz=110,slow=1.1,SNR=19						
FINES	FINESS Array B	135.51	343	PKhKP		13 50 14.4	
	comp=Z,1.7nm,0.8s,baz=125,slow=30,SNR=3.8						
FINES				PKP	PKPdf	13 50 27.8	+0.4
	comp=Z,2.4nm,0.8s,baz=65,slow=3.7,SNR=9.5						
NB2	NORSAR Subarra	138.80	353	PKP	PKPdf	13 50 24.6	-8.8
	comp=Z,0.4nm,0.5s,baz=10.0,slow=3.1						
NB2	NORSAR Subarra	138.80	353	⇑PKPab	PKPdf	13 50 24.6	-8.8
NOA	NORSAR Array B	138.80	353	PKhKP		13 50 26.6	
	comp=Z,2.3nm,0.7s,baz=13,slow=2.3,SNR=4.7						
NOA				PKP	PKPdf	13 50 35.6	+2.2
	comp=Z,1.2nm,0.8s,baz=51,slow=4.5,SNR=2.7						
HFS	Hagfors	139.34	351	PKhKP		13 50 26.0	
	comp=Z,3.3nm,0.4s,baz=90,slow=4.4,SNR=26						
HFS				PKP	PKPdf	13 50 37.3	+2.9
	comp=Z,2.4nm,0.8s,baz=56,slow=5.3,SNR=3.4						
AKASG	Malin Array Be	142.66	331	PKhKP		13 50 38.1	
	comp=Z,18nm,0.6s,baz=41,slow=4.3,SNR=59						
AKASG				SKPbc		13 53 24.1	
	comp=Z,0.2nm,0.3s,baz=32,slow=2.8,SNR=4.0						
MALT	Malatya	143.45	307	*e*PKPdf	PKPdf	13 50 42.8	+0.6
MBAR	Mbarara	144.55	237	*e*PKPdf	PKPdf	13 50 46.1	+1.3
EKA	Eskdalemuir Ar	144.93	5	PKP	PKPdf	13 50 45.5	+1.4
	comp=Z,7.4nm,0.8s,baz=345,slow=2.8,SNR=10						
DMUB	Kingscourt	145.93	9	⇑*i*P	PKPdf	13 50 48.9	+3.0
ASF	Jabal al Asfar	146.26	298	PKPbc	PKPbc	13 50 51.4	+2.4
	comp=Z,7.7nm,0.7s,baz=318,slow=2.7,SNR=8.1						
BRTR	Keskin Array B	146.38	312	PKPbc	PKPbc	13 50 50.4	+1.3
	comp=Z,6.1nm,0.7s,baz=133,slow=4.4,SNR=24						
DCN	Croghan	146.41	9	⇑*i*P	PKPdf	13 50 50.2	+3.4
DLF	Lyons Farm	146.57	9	⇑*i*P	PKPdf	13 50 50.6	+3.6
CFR	Carcaliu	146.89	324	⇓*i*P	PKPdf	13 50 51.6	+3.8
KOLS	Kolonicke sedl	146.98	335	*e*PKP	PKPdf	13 50 52.7	+4.8
VRI	Vrincioaia	147.18	327	⇓*i*P	PKPdf	13 50 52.5	+4.2
CRVS	Cervenica-Dubn	147.33	335	*e*PKP	PKPdf	13 50 53.2	+4.8
KSP	Ksiaz	147.42	342	*e*PKP	PKPdf	13 50 53.4	+4.9
OKC	Ostrava-Krasne	147.74	340	*e*PKP	PKPdf	13 50 53.7	+4.6
OKC				*e*		13 50 59.0	
OKC	Ostrava-Krasne	147.74	340	⇑*e*PKPB	PKPdf	13 50 53.7	+4.6
OKC				*e*PKPAB	PKPab	13 50 59.0	-1.1
UPC	Upice	147.80	342	*e*PKP	PKPdf	13 50 54.1	+5.0
UPC				*e*		13 50 58.7	
UPC	Upice	147.80	342	⇑*e*PKPB	PKPdf	13 50 54.1	+5.0
UPC				*e*PKPAB	PKPab	13 50 58.7	-1.6
CLL	Collm	147.82	346	⇓*i*PKP1	PKPdf	13 50 54.1	+5.0
CLL				*i* PKP2	PKPab	13 50 58.4	-2.0
CLL				*e*		13 51 15.0	
MLR	Muntele Rosu	147.84	327	PKPbc	PKPdf	13 50 54.0	+4.6
	comp=Z,7.8nm,0.7s,baz=147,slow=18,SNR=13						
MLR				PKPab	PKPab	13 51 00.3	-0.3
	comp=Z,6.0nm,0.6s,baz=62,slow=2.9,SNR=8.5						
DPC	Dobruska-Polom	147.85	342	*e*PKP	PKPdf	13 50 54.5	+5.3
DPC				*e*		13 50 59.6	
DPC	Dobruska-Polom	147.85	342	⇑*e*PKPB	PKPdf	13 50 54.5	+5.3
DPC				*e*PKPAB	PKPab	13 50 59.6	-0.9
MORC	Moravsky Berou	147.99	340	*e*PKPbc	PKPdf	13 50 54.2	+4.7
MORC				*e*PKPab	PKPab	13 50 60.0	-1.1
KECS	Kecovo	148.05	336	*e*PKP	PKPdf	13 50 55.1	+5.5
PVCC	Panska Ves	148.17	344	*e*PKP	PKPdf	13 50 54.8	+5.1
PVCC	Panska Ves	148.17	344	⇑*e*PKPB	PKPdf	13 50 54.8	+5.1
EIL	Elat	148.36	294	PKPbc	PKPdf	13 50 56.9	+6.2
	comp=Z,7.1nm,0.7s,baz=328,slow=5.6,SNR=7.8						
EIL	Elat	148.36	294	*e*PKPbc	PKPdf	13 50 56.4	+5.7
CSS	Prodhromos	148.41	304	*e*PKPbc	PKPdf	13 50 55.9	+5.4
VYHS	Vyhne	148.65	338	*e*PKP	PKPdf	13 50 56.7	+6.2
VYHS				*e*		13 51 02.8	
PRU	Pruhonice	148.67	344	*e*PKP	PKPdf	13 50 56.4	+5.9
PRU				*e*		13 51 02.5	
PRU	Pruhonice	148.67	344	⇑*e*PKPB	PKPdf	13 50 56.4	+5.9
PRU				*e*PKPAB	PKPab	13 51 02.5	-1.4
VRAC	Vranov	148.70	341	PKPbc	PKPdf	13 50 56.7	+6.1
	comp=Z,18nm,1.3s,baz=120,slow=2.8,SNR=4.7						
VRAC				PKPab	PKPab	13 51 03.1	-0.9
	comp=Z,3.4nm,0.6s,baz=1.7,slow=2.4,SNR=5.6						
PSZ	Piszkesteto	148.74	336	*e*PKPbc	PKPdf	13 50 56.2	+5.6
NKC	Novy Kostel	148.96	346	*e*PKP	PKPdf	13 50 57.0	+6.1
NKC				*e*		13 51 03.4	
NKC	Novy Kostel	148.96	346	⇑*e*PKPB	PKPdf	13 50 57.0	+6.1
NKC				*e*PKPAB	PKPab	13 51 03.4	-1.6
SRO	Srobarova	149.41	337	*e*PKP	PKPdf	13 50 58.3	+6.6
SRO				*e*		13 51 05.6	
KHC	Kasperske Hory	149.71	344	*e*PKPDF	PKPdf	13 50 53.3	+1.2
KHC				⇑*e*PKPB	PKPdf	13 50 58.8	+6.7
KHC				*e*PKPAB	PKPab	13 51 06.9	-1.2
GRF	Grafenberg Arr	149.73	347	*e*PKP	PKPdf	13 50 59.4	+7.3
GRF				*e*PKP	PKPab	13 51 07.0	-1.2
GERES	GERESS Array B	149.94	344	PKPbc	PKPdf	13 50 59.6	+7.1
	comp=Z,4.9nm,0.7s,baz=63,slow=3.0,SNR=13						
GERES				PKPab	PKPab	13 51 07.7	-1.4
	comp=Z,1.8nm,0.6s,baz=90,slow=6.7,SNR=4.3						
GIVF	Givet	150.22	356	*e*PKP1	PKPdf	13 50 59.6	+6.7
	comp=Z,31nm,0.7s						
BAIF	Baives	150.30	356	*e*PKP1	PKPdf	13 50 59.7	+6.7
	comp=Z,58nm,1.2s						
MOA	Molln	150.69	342	⇓*i*P	PKPdf	13 51 00.8	+7.1
FLN	La Foliniere	151.64	3	*e*PKP1	PKPdf	13 51 02.4	+7.4
	comp=Z,29nm,1.0s						
CDF	Champ du Feu	151.64	352	*e*PKP1	PKPdf	13 51 02.6	+7.6
	comp=Z,7.1nm,0.7s						
MEZF	Maizieres J'vi	151.79	355	*e*PKP1	PKPdf	13 51 03.2	+8.0
LDF	La Druitiere	151.82	2	*e*PKP1	PKPdf	13 51 02.6	+7.3
WATA	Walderalm	151.88	345	⇓*i*P	PKPdf	13 51 03.3	+7.9
WTTA	Wattenberg	151.93	345	⇓*i*P	PKPdf	13 51 03.9	+8.4
MOTA	Moosalm	151.98	346	⇓*i*P	PKPdf	13 51 04.1	+8.6
GRR	Gorron	151.99	3	*e*PKP1	PKPdf	13 51 03.3	+7.8
	comp=Z,7.8nm,0.5s						
SQTA	Sankt Quirin	152.07	346	⇑*i*P	PKPdf	13 51 04.0	+8.4
HAU	Haudompre	152.15	353	*e*PKP1	PKPdf	13 51 03.6	+7.9
HINF	Hinteralfeld	152.28	352	*e*PKP1	PKPdf	13 51 03.7	+7.8
	comp=Z,6.2nm,0.7s						
DAVOX	Davos	152.78	347	PKP	PKPdf	13 50 58.4	+1.7
	comp=Z,1.2nm,0.8s,baz=197,slow=20,SNR=4.1						
DAVOX				PKPbc	PKPdf	13 51 05.8	+9.2
	comp=Z,8.0nm,0.5s,baz=242,slow=2.6,SNR=20						
DAVOX				PKPab	PKPab	13 51 20.0	-1.0
	comp=Z,3.4nm,0.7s,baz=55,slow=6.9,SNR=4.7						
IDI	Anoyia	154.59	311	PKPab	PKPab	13 51 28.7	-0.3
	comp=Z,9.4nm,0.9s,baz=39,slow=23,SNR=2.6						
ESDC	Sonseca Array	160.21	12	PKPab	PKPab	13 51 52.0	-1.0
	comp=Z,2.4nm,1.0s,baz=348,slow=4.0,SNR=8.1						

CSEM ***24*** *13:38:39.5, 20.38S×179.59W, h33^{km}, mb5.6*

IDC ***24*** *13:39:44.0±0.4, 20.40S×178.66W, h610^{km}±3^{km}, mb4.7/25, mb1 4.8/27, mb1mx4.8/27, Error ellipse: s-maj=8.9km s-min=6.8km az=140.0, Putative timing error at DLBC*

NEIC ***24*** *13:39:43.8±0.1, 20.36S×178.67W, mb5.2/71, Error ellipse: s-maj=5.3km s-min=2.9km az=116.0*

HRVD ***24*** *13:39:43.8±0.3, 20.21S×178.55W, h621^{km}±2^{km}, MW5.7/59, Centroid moment Tensor Solution. LP body waves: s59,c102;Mantle waves: s48,c67; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.94±.09; $M_{\theta\theta}$1.76±.12; $M_{\phi\phi}$-0.83±.12; $M_{r\theta}$-3.87±.12; $M_{\theta\phi}$-0.96±.11; $M_{\phi r}$-2.22±.12; Best double couple: $M_0$4.79×10^{17} NP1: ϕ_s321°,δ20°,λ-14°. NP2:ϕ_s65°,δ85°,λ-110°. Principal axes: T 4.56, Plg37°, Azm172°; N .46, Plg20°, Azm67°; P -5.02, Plg46°, Azm314°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

BJI ***24*** *13:39:43.8, 20.40S×178.70W, h614^{km}, mB5.4, mb5.4*

SYO ***24*** *13:39:44.1, 20.36S×178.75W, h620^{km}, MB5.2*

MOS ***24*** *13:39:47.4±3.0, 19.25S×179.82W, h612^{km}, mb5.4/6, Error ellipse: s-maj=34.7km s-min=15.2km az=111.9*

BGS ***24*** *13:39:47.6±2.5, 20.36S×178.75W, h620^{km}*

ISC 24 13:39:42.4±0.7**, 20.45S**±0.04×**178.67W**±0.03**, h614**^{km}±9^{km}**, h617**^{km}±1.7^{km}**:pP-P, n642,** σ**1^{s}04**/330**, mb5.2**/112**, 67C-63D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	13.97	261	*e*P	P	13 42 42.7	+2.2
DZM				*e*S	S	13 45 10.3	+7.0
NOUC	Port Laguerre	14.10	261	⇓*e*P	P	13 42 43.5	+1.8
NOUC				*e*S	S	13 45 12.6	+7.0
OUZ	Omahuta	16.22	203	*e*P	P	13 43 06.3	+4.4
OUZ	Omahuta	16.22	203	P	P	13 43 06.3	+4.4
OUZ				S	S	13 45 55.0	+13
WCZ	Waipu Caves	16.61	200	*e*P	P	13 43 09.7	+4.2
WCZ	Waipu Caves	16.61	200	P	P	13 43 09.7	+4.2
KUZ	Kuaotunu	16.96	196	*e*P	P	13 43 11.7	+2.9
KUZ	Kuaotunu	16.96	196	P	P	13 43 11.7	+2.9
MTAZ	Motutapu	17.22	198	*e*P	P	13 43 14.9	+3.7
MTAZ	Motutapu	17.22	198	P	P	13 43 14.9	+3.7
OTAZ	Otara	17.37	197	*e*P	P	13 43 16.2	+3.6
OTAZ	Otara	17.37	197	P	P	13 43 16.2	+3.6
MKAZ	Moumakai	17.45	197	*e*P	P	13 43 16.6	+3.2
MKAZ	Moumakai	17.45	197	P	P	13 43 16.6	+3.2
WTAZ	Waiatarua	17.45	198	P	P	13 43 17.1	+3.7
WTAZ	Waiatarua	17.45	198	P	P	13 43 16.9	+3.5
RAR	Rarotonga	17.68	96	P	P	13 43 15.5	-0.2
	2.5nm,0.3s,baz=236,slow=8.5,SNR=5.8						
PUZ	Puketiti	17.76	188	*e*P	P	13 43 16.6	+0.3
PUZ	Puketiti	17.76	188	P	P	13 43 16.4	+0.1
PUZ				S	S	13 46 06.8	-1.4
PUZ				ScP		13 50 00.4	
MARZ	Manawahe	17.94	192	P	P	13 43 19.5	+1.6
MARZ	Manawahe	17.94	192	P	P	13 43 19.1	+1.2
LIRZ	Lichensteins R	18.01	193	P	P	13 43 19.4	+0.8
LIRZ	Lichensteins R	18.01	193	P	P	13 43 19.2	+0.6
EDRZ	Edgecumbe	18.04	192	P	P	13 43 19.3	+0.4
URZ	Urewera	18.12	191	P	P	13 43 18.8	-0.8
	49nm,0.3s,baz=16,slow=3.7,SNR=157						
URZ				S	S	13 46 14.2	0.0
	7.2nm,0.3s,baz=161,slow=19,SNR=7.5						
URZ				ScP		13 49 59.6	
	0.4nm,0.3s,baz=27,slow=12,SNR=4.5						
URZ	Urewera	18.12	191	*e*P	P	13 43 18.1	-1.6
URZ	Urewera	18.12	191	P	P	13 43 18.0	-1.7
MWZ	Matawai	18.13	190	*e*P	P	13 43 18.3	-1.4
MWZ	Matawai	18.13	190	P	P	13 43 18.3	-1.4
MWZ				S	S	13 46 11.8	-2.5
MWZ				ScP		13 50 00.1	
TAZ	Tarawera	18.21	192	P	P	13 43 21.6	+1.1
TAZ	Tarawera	18.21	192	P	P	13 43 21.5	+1.0
UTU	Utuhina	18.22	193	P	P	13 43 22.7	+2.1
UTU	Utuhina	18.22	193	P	P	13 43 22.3	+1.7
PATZ	Paeroa	18.40	193	P	P	13 43 23.0	+0.8
PATZ	Paeroa	18.40	193	P	P	13 43 22.3	+0.1
HIZ	Hauiti	18.85	196	*e*P	P	13 43 25.8	-0.6
HIZ	Hauiti	18.85	196	P	P	13 43 25.8	-0.6
BKZ	Black Stump Fm	19.11	192	*e*P	P	13 43 27.2	-1.6
BKZ	Black Stump Fm	19.11	192	P	P	13 43 27.1	-1.7
BKZ				S	S	13 46 26.1	-4.6
NGZ	Ngauruhoe	19.31	194	P	P	13 43 30.6	0.0
NGZ	Ngauruhoe	19.31	194	P	P	13 43 30.4	-0.2
CNZ	Chateau	19.34	194	P	P	13 43 29.7	-1.2
TUVZ	Tukino	19.38	193	P	P	13 43 30.4	-0.9
TUVZ	Tukino	19.38	193	P	P	13 43 30.5	-0.8
FWVZ	Far West T-bar	19.39	194	*e*P	P	13 43 30.7	-0.7
FWVZ	Far West T-bar	19.39	194	P	P	13 43 30.7	-0.7
DRZ	Dome Shelter	19.41	194	P	P	13 43 32.9	+1.4
DRZ	Dome Shelter	19.41	194	P	P	13 43 31.1	-0.4
MOVZ	Moawhango	19.50	193	*e*P	P	13 43 30.6	-1.7
RAEZ	Rainy Point	19.70	196	*e*P	P	13 43 34.7	+0.5
RAEZ	Rainy Point	19.70	196	P	P	13 43 34.7	+0.5
NEZ	North Egmont	19.77	197	*e*P	P	13 43 37.9	+3.1
NEZ	North Egmont	19.77	197	P	P	13 43 38.0	+3.2
DFE	Dawson Falls	19.82	197	*e*P	P	13 43 38.5	+3.2
DFE	Dawson Falls	19.82	197	P	P	13 43 38.5	+3.2
BFZ	Birch Farm	20.63	191	*e*P	P	13 43 41.7	-0.9
BFZ	Birch Farm	20.63	191	P	P	13 43 41.6	-1.0

MRZ	**Mangatainoka R**	**20.74**	**192**	P	**P**	**13 43 42.1**	**-1.5**
MRZ				pP		13 44 52.9	
KIW	**Kapiti Island**	**21.07**	**194**	P	**P**	**13 43 45.5**	**-1.2**
KIW	**Kapiti Island**	**21.07**	**194**	P	**P**	**13 43 45.3**	**-1.4**
MTW	**Mount Morrison**	**21.23**	**192**	P	**P**	**13 43 46.9**	**-1.2**
MTW	**Mount Morrison**	**21.23**	**192**	P	**P**	**13 43 46.7**	**-1.4**
CAW	**Cannon Point**	**21.27**	**193**	P	**P**	**13 43 47.5**	**-1.0**
CAW	**Cannon Point**	**21.27**	**193**	P	**P**	**13 43 47.1**	**-1.4**
MRW	**Makara Radio**	**21.47**	**194**	P	**P**	**13 43 49.3**	**-1.0**
MRW	**Makara Radio**	**21.47**	**194**	P	**P**	**13 43 49.2**	**-1.1**
WEL	**Wellington**	**21.51**	**194**	P	**P**	**13 43 50.3**	**-0.3**
WEL	**Wellington**	**21.51**	**194**	P	**P**	**13 43 50.1**	**-0.5**
MSWZ	**Moikau Station**	**21.53**	**193**	P	**P**	**13 43 50.7**	**-0.1**
THZ	**Tophouse**	**22.42**	**197**	S	**S**	**13 47 20.5**	**-3.7**
DSZ	**Denniston Nort**	**22.71**	**199**	*e*P	**P**	**13 44 01.6**	**+0.1**
DSZ	**Denniston Nort**	**22.71**	**199**	P	**P**	**13 44 01.4**	**-0.1**
DSZ				pP		13 45 07.2	
KHZ	**Kahutara**	**22.87**	**195**	*e*P	**P**	**13 44 01.7**	**-1.1**
KHZ	**Kahutara**	**22.87**	**195**	P	**P**	**13 44 02.0**	**-0.8**
LTZ	**Lake Taylor**	**23.54**	**197**	*e*P	**P**	**13 44 07.7**	**-1.1**
LTZ	**Lake Taylor**	**23.54**	**197**	P	**P**	**13 44 07.7**	**-1.1**
LTZ				S	**S**	**13 47 38.4**	**-3.5**
CRLZ	**Canterbury Las**	**24.18**	**196**	*e*P	**P**	**13 44 13.7**	**-0.8**
WVZ	**Waitaha Valley**	**24.25**	**199**	*e*P	**P**	**13 44 14.7**	**-0.4**
WVZ	**Waitaha Valley**	**24.25**	**199**	P	**P**	**13 44 15.0**	**-0.1**
WVZ				pP		13 45 18.5	
WVZ				S	**S**	**13 47 50.8**	**-2.4**
RPZ	**Rata Peaks**	**24.74**	**198**	P	**P**	**13 44 18.8**	**-0.6**
	68nm,0.5s,mb5.5,baz=297,slow=0.5,SNR=28						
RPZ				ScP		13 50 17.0	
	42nm,1.0s,baz=199,slow=4.8,SNR=4.6						
RPZ	**Rata Peaks**	**24.74**	**198**	*e*P	**P**	**13 44 19.8**	**+0.5**
RPZ	**Rata Peaks**	**24.74**	**198**	P	**P**	**13 44 19.0**	**-0.3**
RPZ				pP		13 45 24.9	
FOZ	**Fox Glacier**	**25.02**	**200**	P	**P**	**13 44 20.4**	**-1.4**
FOZ				pP		13 45 24.6	
FOZ				S	**S**	**13 48 00.4**	**-4.9**
LBZ	**Lake Benmore**	**25.61**	**199**	*e*P	**P**	**13 44 25.3**	**-1.7**
LBZ	**Lake Benmore**	**25.61**	**199**	P	**P**	**13 44 25.3**	**-1.7**
LBZ				S	**S**	**13 48 11.0**	**-3.4**
JCZ	**Jackson Bay**	**25.78**	**201**	*e*P	**P**	**13 44 29.1**	**+0.6**
JCZ	**Jackson Bay**	**25.78**	**201**	P	**P**	**13 44 28.4**	**-0.1**
JCZ				sP	Px	13 45 31.8	
JCZ				S	**S**	**13 48 11.3**	**-5.9**
JCZ				ScP		13 50 21.0	
JCZ				*e*E		13 53 26.7	
ODZ	**Otahua Downs**	**26.07**	**197**	*e*P	**P**	**13 44 31.3**	**+0.2**
ODZ	**Otahua Downs**	**26.07**	**197**	P	**P**	**13 44 31.0**	**-0.1**
WKZ	**Wanaka**	**26.37**	**200**	*e*P	**P**	**13 44 33.2**	**-0.4**
WKZ	**Wanaka**	**26.37**	**200**	P	**P**	**13 44 33.0**	**-0.6**
MSZ	**Milford Sound**	**26.59**	**202**	P	**P**	**13 44 36.5**	**+0.9**
EAZ	**Earnscleugh**	**26.64**	**199**	*e*P	**P**	**13 44 36.1**	**+0.1**
EAZ	**Earnscleugh**	**26.64**	**199**	P	**P**	**13 44 36.1**	**+0.1**
MLZ	**Mavora Lakes**	**27.10**	**201**	*e*P	**P**	**13 44 41.0**	**+1.0**
MLZ	**Mavora Lakes**	**27.10**	**201**	P	**P**	**13 44 41.0**	**+1.0**
TUZ	**Tuapeka**	**27.20**	**198**	*e*P	**P**	**13 44 41.7**	**+0.9**
TUZ	**Tuapeka**	**27.20**	**198**	P	**P**	**13 44 41.5**	**+0.7**
PAE	**Paea**	**27.62**	**89**	*e*P	**P**	**13 44 44.0**	**-0.7**
	311nm,1.3s,mb5.8						
PAE				*e*pP		13 46 14.5	
	337nm,1.5s						
PPT	**Papeete**	**27.64**	**89**	P	**P**	**13 44 44.4**	**-0.5**
	91nm,1.0s,mb5.4,baz=298,slow=7.2,SNR=3.3						
PPT	**Papeete**	**27.64**	**89**	*e*P	**P**	**13 44 44.5**	**-0.4**
	139nm,1.3s,mb5.4						
PPT				*e*pP		13 46 14.7	
	160nm,1.4s						
TIAR	**Tiarei**	**27.86**	**89**	*e*P	**P**	**13 44 46.3**	**-0.4**
	203nm,1.0s,mb5.7						
TIAR				*e*pP		13 46 16.8	
	601nm,1.4s						
TVO	**Taravao**	**27.91**	**90**	*e*P	**P**	**13 44 46.1**	**-1.0**
	87nm,0.7s,mb5.5						
TVO				*e*pP		13 46 17.3	
	300nm,1.4s						
PMOR	**Pomariorio Ree**	**29.78**	**85**	*e*P	**P**	**13 45 02.7**	**-0.5**
	185nm,1.1s,mb5.6						
CNB	**Canberra Magne**	**31.73**	**235**	*e*P	**P**	**13 45 21.9**	**+2.4**
	113nm,1.0s,mb5.5						
CNB				*e*S	**S**	**13 49 50.4**	**+1.2**
CNB				*e*SCP		13 50 41.8	
CTA	**Charters Tower**	**32.87**	**264**	⇓*i*P	**P**	**13 45 30.3**	**+1.1**
	367nm,0.8s,mb6.1						
CTA				*e*S	**S**	**13 50 05.4**	**-1.2**
CTA				*e*SCP		13 50 45.6	
CTA				*e*SCS	ScS	13 54 48.0	+5.1
CTA	**Charters Tower**	**32.87**	**264**	P	**P**	**13 45 30.6**	**+1.4**
	340nm,0.7s,mb6.1,baz=95,slow=10,SNR=368						
CTA				ScP		13 50 45.3	
	62nm,1.0s,baz=159,slow=1.0,SNR=12						
CTAO	**Charters Tower**	**32.87**	**264**	⇓*i*P	**P**	**13 45 30.2**	**+1.0**
	384nm,0.8s,mb6.1						
PMG	**Port Moresby**	**34.72**	**283**	P	**P**	**13 45 45.3**	**+0.7**
	816nm,0.8s,baz=80,slow=5.7,SNR=288						
PMG				ScP		13 50 51.3	
	18nm,0.9s,baz=62,slow=3.0,SNR=4.4						
PMG	**Port Moresby**	**34.72**	**283**	P	**P**	**13 45 45.3**	**+0.7**
PMG				ScP		13 50 51.3	
TOO	**Toolangi**	**35.42**	**233**	⇑*i*P	**P**	**13 45 52.2**	**+2.1**
	48nm,0.6s,mb5.3						
TOO				*e*S	**S**	**13 50 44.8**	**+0.1**
TOO				*e*SCS	ScS	13 55 00.8	+4.3
STKA	**Stephens Creek**	**37.24**	**244**	⇓*i*P	**P**	**13 46 07.1**	**+1.9**
	12nm,0.7s,mb4.5						
STKA				*e*S	**S**	**13 51 11.4**	**-0.2**
STKA				*e*SCS	ScS	13 55 10.6	+3.7
STKA	**Stephens Creek**	**37.24**	**244**	P	**P**	**13 46 07.2**	**+2.0**
	30nm,0.8s,mb4.8,baz=89,slow=9.2,SNR=56						
STKA				ScP		13 51 01.8	
	14nm,1.0s,baz=168,slow=5.9,SNR=4.4						
STKA				S	**S**	**13 51 11.0**	**-0.6**
	24nm,1.1s,baz=237,slow=18,SNR=12						
RKT	**Rikitea**	**40.56**	**102**	*e*P	**P**	**13 46 31.9**	**-0.1**
	270nm,1.3s,mb5.6						
ASAR	**Alice Springs**	**43.92**	**257**	P	**P**	**13 46 59.0**	**+0.5**
	635nm,1.1s,mb6.0,baz=92,slow=7.4,SNR=1188						
ASAR				PcP	PcP	13 48 29.9	-0.9
	11nm,0.6s,baz=95,slow=5.7,SNR=5.3						
ASAR				ScP		13 51 27.9	
	8.8nm,0.8s,baz=97,slow=3.9,SNR=5.7						
ASAR				S	**S**	**13 52 46.3**	**-0.9**
	44nm,0.8s,baz=90,slow=15,SNR=29						
ASPA	**Alice Springs**	**43.92**	**257**	⇓*i*P	**P**	**13 46 59.0**	**+0.6**
ASPA				*e*S	**S**	**13 52 46.7**	**-0.6**
ASPA				*e*SCS	ScS	13 55 51.7	+4.0
WB2	**Warramunga Arr**	**43.97**	**262**	⇓*i*P	**P**	**13 46 58.7**	**-0.2**
WB2				*e*S	**S**	**13 52 45.5**	**-2.6**
WB2				*e*SCS	ScS	13 55 52.1	+4.1
WRAB	**Tennant Creek**	**43.98**	**262**	*e*P	**P**	**13 46 56.7**	**-2.2**
WRAB	**Tennant Creek**	**43.98**	**262**	⇓*i*P	**P**	**13 46 58.7**	**-0.2**
	487nm,1.0s,mb6.0						
WRA	**Warramunga Arr**	**43.98**	**262**	P	**P**	**13 46 59.3**	**+0.3**
	187nm,0.7s,mb5.7,baz=97,slow=8.4,SNR=805						
WRA				PcP	PcP	13 48 30.0	-0.9
	18nm,1.0s,baz=94,slow=4.5,SNR=4.6						
WRA				ScP		13 51 27.9	
	14nm,1.0s,baz=85,slow=4.8,SNR=7.3						
WRA				S	**S**	**13 52 45.6**	**-2.6**
	15nm,0.8s,baz=90,slow=14,SNR=14						
WRA	**Warramunga Arr**	**43.98**	**262**	P	**P**	**13 46 59.3**	**+0.3**
WRA				PcP	PcP	13 48 30.0	-0.9
WRA				ScP		13 51 27.9	
WRA				S	**S**	**13 52 45.6**	**-2.6**
KAKA	**Kakadu**	**47.34**	**271**	⇓*i*P	**P**	**13 47 24.2**	**-0.4**
	300nm,0.6s,mb6.0						
KAKA				*e*S	**S**	**13 53 33.9**	**-0.9**
GUMO	**Guam**	**49.29**	**310**	⇓*e*P	**P**	**13 47 37.5**	**-1.6**
	936nm,1.3s,mb6.1						
FITZ	**Fitzroy Crossi**	**52.41**	**263**	⇓*i*P	**P**	**13 48 01.8**	**+0.3**
	91nm,0.6s,mb5.3						
FITZ				*e*S	**S**	**13 54 43.8**	**+0.9**
DRV	**Dumont d’Urvil**	**53.19**	**199**	P	**P**	**13 48 05.0**	**-1.4**
MBWA	**Marble Bar**	**57.25**	**257**	⇓*i*P	**P**	**13 48 34.7**	**-0.4**
	131nm,0.8s,mb5.2						
KLBR	**Kellerberrin**	**57.51**	**245**	⇓*i*P	**P**	**13 48 36.8**	**+0.1**
	118nm,0.9s,mb5.0						
KLBR				*e*S	**S**	**13 55 49.2**	**+0.5**
NWAO	**Narrogin (SRO)**	**57.83**	**243**	P	**P**	**13 48 39.3**	**+0.5**
	28nm,0.7s,mb4.5,baz=109,slow=4.7,SNR=12						
NWAO	**Narrogin (SRO)**	**57.83**	**243**	*e*P	**P**	**13 48 37.7**	**-1.1**
	19nm,0.8s,mb4.3						
SBA	**Scott Base**	**57.88**	**184**	⇑*i*P	**P**	**13 48 41.3**	**+2.7**
	293nm,1.1s,mb5.3						
VNDA	**Vanda**	**57.91**	**185**	P	**P**	**13 48 40.8**	**+2.0**
	67nm,1.0s,mb4.7,baz=0.6,slow=7.2,SNR=167						
VNDA				ScP		13 52 26.6	
	20nm,1.3s,baz=346,slow=7.2,SNR=4.9						
VNDA	**Vanda**	**57.91**	**185**	⇑*i*P	**P**	**13 48 40.5**	**+1.7**
	132nm,1.2s,mb4.9						
MUN	**Mundaring**	**58.78**	**244**	*e*P	**P**	**13 48 46.1**	**+0.9**
	38nm,0.8s,mb4.6						
CBIJ	**Chichi jima**	**60.59**	**320**	P	**P**	**13 48 56.1**	**-1.1**
	160nm,0.9s,mb5.2,baz=207,slow=3.5,SNR=4.7						
CTBH	**Cotabato--PC H**	**62.47**	**290**	⇓*e*P	**P**	**13 49 09.6**	**+0.1**
CTBH				*i* S	PcP	13 49 41.1	-0.7
CGP	**Cagayan de Oro**	**62.65**	**292**	*i* P	**P**	**13 49 11.1**	**+0.4**
RPN	**Rapa Nui**	**63.10**	**111**	*e*P	**P**	**13 49 14.3**	**+0.9**
CASY	**Casey**	**63.74**	**205**	⇑*i*P	**P**	**13 49 18.0**	**+1.1**
	127nm,0.9s,mb5.2						
KEDI	**Kedomdong**	**63.91**	**270**	⇓*e*Pn	**P**	**13 49 18.0**	**-0.8**
KEDI				*i* Sn	PcP	13 49 50.7	+2.8
RATI	**Rata**	**64.38**	**270**	⇓*i*Pn	**P**	**13 49 21.5**	**-0.2**
JHJ	**Hachijo jima 2**	**66.41**	**323**	P	**P**	**13 49 33.0**	**-1.1**
	929nm,1.0s,mb6.2,baz=214,slow=11,SNR=7.0						
GQP	**Guinayangan**	**67.19**	**296**	⇑*i*P	**P**	**13 49 38.7**	**-0.2**
TGY	**Tagaytay City**	**68.56**	**295**	P	**P**	**13 49 48.2**	**+1.0**
	537nm,1.0s,mb5.9,baz=158,slow=14,SNR=9.9						
QSPA	**South Pole Qui**	**69.62**	**180**	*e*P	**P**	**13 49 54.6**	**+2.1**
	438nm,1.1s,mb5.8						
JOW	**Kunigami**	**69.65**	**310**	P	**P**	**13 49 54.1**	**+0.6**
	37nm,0.4s,mb5.2,baz=130,slow=9.0,SNR=22						
MAJO	**Matsushiro**	**69.80**	**324**	⇓*i*P	**P**	**13 49 52.9**	**-1.3**
	31nm,0.6s,mb4.9						
MAJO				*e*pP	pP	13 51 57.7	-0.8
MAT	**Matsushiro**	**69.80**	**324**	P	**P**	**13 49 52.9**	**-1.3**
MAT				*e*S	S	13 58 09.0	-7.1
MAT	**Matsushiro**	**69.80**	**324**	*e*P	**P**	**13 49 53.0**	**-1.2**
	69nm,0.9s,mb5.1						
MAT				S	S	13 58 09.0	-7.1
FX1	**Attu Island--F**	**73.36**	**355**	⇑*i*P	**P**	**13 50 12.7**	**-1.8**
ASAJ	**Asahikawa**	**73.38**	**332**	P	**P**	**13 50 15.4**	**+0.7**
	180nm,0.8s,mb5.7,baz=195,slow=6.1,SNR=53						
UNV	**Unalaska Valle**	**74.73**	**7**	*e*P	**P**	**13 50 19.4**	**-2.7**
	351nm,1.0s,mb5.8						
YSS	**Yuzh-Sakhalins**	**75.57**	**334**	⇑*i*P	**P**	**13 50 26.0**	**-0.8**
YSS				pmax	pmax		
	comp=Z,220nm,1.0s,mb5.5						
YSS	**Yuzh-Sakhalins**	**75.57**	**334**	⇓*i*P	**P**	**13 50 26.7**	**-0.2**
	comp=Z,230nm,1.0s,mb5.6						
PET	**Petropavlovsk**	**75.77**	**346**	⇑*i*P	**P**	**13 50 26.6**	**-1.2**
PET				*e**PP	pP	13 52 36.4	+1.4
PET				*e**SP	sP	13 53 38.1	+1.9
PET				pmax	pmax		
	comp=Z,39nm,0.9s,mb4.8						
PET				pmax	pmax		
	comp=Z,200nm,15.5s						
PET				pmax	pmax		
	comp=Z,100nm,13.6s						
PET				pmax	pmax		
	comp=Z,300nm,14.1s						
PET	**Petropavlovsk**	**75.77**	**346**	*e*P	**P**	**13 50 25.5**	**-2.3**
	comp=Z,256nm,1.7s,mb5.4						
QZH	**Quanzhou**	**75.86**	**304**	⇑*i*P	**P**	**13 50 28.8**	**-0.1**
QZH				AMB	AMB		
	comp=Z,460nm,1.1s,mb5.8						
QZH				AMB	AMB		
	comp=Z,2µm,3.3s						
KS15	**Wonju Array Si**	**76.45**	**319**	*e*P	**P**	**13 50 31.3**	**-0.5**
SSE	**Sheshan**	**77.17**	**310**	P	**P**	**13 50 33.3**	**-2.5**
SSE				S	S	13 59 39.0	+2.5
SSE				AMB	AMB		
	comp=Z,58nm,0.9s,mb5.0						
SSE				AMB	AMB		
	comp=Z,215nm,5.2s						
SSE	**Sheshan**	**77.17**	**310**	P	**P**	**13 50 33.3**	**-2.5**
	comp=Z,58nm,0.9s,mb5.0						
SSE				sP	sP	13 53 26.3	-18
SSE				PP	PP	13 53 36.7	-4.4
SSE				S	S	13 59 39.0	+2.5
SSE				sS		14 03 06.6	
SSE				LR	LR		
	comp=Z,340nm,30.8s						
INCN	**Inchon**	**77.25**	**318**	⇓*e*P	**P**	**13 50 36.2**	**+0.1**
	comp=Z,143nm,1.1s,mb5.3						
NSHM	**Saint Helena R**	**78.74**	**42**	*e*P	**P**	**13 50 44.3**	**+0.3**
HOPS	**Hopland**	**78.74**	**41**	*e*P	**P**	**13 50 44.0**	**0.0**
	comp=Z,70nm,1.0s,mb4.9						
MWC	**Mount Wilson**	**79.23**	**47**	⇓*e*P	**P**	**13 50 47.0**	**+0.4**
BAR	**Barrett**	**79.36**	**49**	*e*P	**P**	**13 50 48.1**	**+0.7**
NJ2	**Nanjing**	**79.36**	**310**	*e*P	**P**	**13 50 48.1**	**+0.7**
NJ2				AP	pP	13 52 54.8	-1.4
NJ2				PP	PP	13 53 59.6	+0.4
NJ2				PPP	PPP	13 55 55.4	+0.6
NJ2				S	S	14 00 06.0	+7.0
NJ2				AMB	AMB		
	comp=Z,300nm,1.1s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,4µm,4.8s						
CMB	**Columbia Colle**	**79.85**	**43**	*e*P	**P**	**13 50 49.5**	**-0.4**
	comp=Z,37nm,0.9s,mb4.7						
OHCM	**Honcut**	**79.93**	**41**	*e*P	**P**	**13 50 50.1**	**-0.1**
PFO	**Pinyon Flat Ob**	**80.01**	**49**	*e*P	**P**	**13 50 51.1**	**+0.4**
	comp=Z,5.5nm,0.9s						
WDC	**Whiskeytown Da**	**80.04**	**40**	⇓*e*P	**P**	**13 50 50.6**	**-0.1**
	comp=Z,55nm,1.0s,mb4.8						
MDJ	**Mudanjiang**	**80.12**	**325**	P	**P**	**13 50 51.8**	**+0.8**
MDJ				AP	pP	13 53 00.6	+0.5
MDJ				XP	sP	13 54 03.1	+2.2
MDJ				S	S	14 00 08.3	+2.0
MDJ				AMB	AMB		
	comp=Z,140nm,1.0s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,482nm,6.8s						
MDJ	**Mudanjiang**	**80.12**	**325**	⇓*i*P	**P**	**13 50 51.1**	**0.0**
	comp=Z,143nm,1.0s,mb5.3						
MDJ				*e*pP	pP	13 52 59.8	-0.3
QIZ	**Qiongzhong**	**80.26**	**294**	P	**P**	**13 50 50.9**	**-1.4**
QIZ				XP	sP	13 53 57.3	-4.8
QIZ				S	S	14 00 09.3	+1.0
QIZ				AMB	AMB		
	comp=Z,36nm,1.1s,mb4.6						
QIZ				AMB	AMB		
	comp=Z,239nm,4.5s						
OMM	**Old Mammoth Mi**	**80.51**	**44**	*e*P	**P**	**13 50 53.0**	**-0.2**
MTUM	**Tungsten Hills**	**80.64**	**44**	*e*P	**P**	**13 50 54.5**	**+0.6**
YBH	**Yreka Blue Hor**	**80.64**	**39**	P	**P**	**13 50 54.4**	**+0.6**
	comp=Z,53nm,0.9s,mb5.0,baz=100,slow=0.5,SNR=85						
YBH	**Yreka Blue Hor**	**80.64**	**39**	⇓*e*P	**P**	**13 50 53.8**	**0.0**
	comp=Z,57nm,0.9s,mb5.0						
LBCM	**Butte Creek Ri**	**80.91**	**40**	P	**P**	**13 50 55.5**	**+0.3**
WCN	**Washoe City**	**80.99**	**42**	⇓*i*P	**P**	**13 50 55.8**	**+0.2**
	comp=Z,59nm,1.0s,mb5.0						
WCN				pP	pP	13 53 06.7	+1.7
HUMO	**Hull Mountain**	**81.04**	**38**	⇓*e*P	**P**	**13 50 56.2**	**+0.4**
	comp=Z,63nm,1.1s,mb5.0						
DL2	**Dalian**	**81.26**	**317**	P	**P**	**13 50 57.8**	**+0.8**
DL2				AMB	AMB		
	comp=Z,50nm,1.1s,mb4.9						
BBOR	**Butler Butte**	**81.37**	**38**	P	**P**	**13 50 58.5**	**+1.0**
MAW	**Mawson**	**81.40**	**200**	*e*P	**P**	**13 50 58.6**	**+1.5**
	comp=Z,30nm,1.2s,mb4.6						
MAW	**Mawson**	**81.40**	**200**	P	**P**	**13 50 58.6**	**+1.5**
	comp=Z,34nm,1.0s,mb4.7,baz=132,slow=6.2,SNR=24						
NVAR	**Mina Array Bea**	**81.42**	**44**	P	**P**	**13 50 58.4**	**+0.5**
	comp=Z,24nm,0.8s,mb4.7,baz=224,slow=9.3,SNR=128						
NVAR				pP	pP	13 53 06.8	-0.6
	comp=Z,1.1nm,0.8s,baz=253,slow=4.5,SNR=1.8						
MNV	**Mina**	**81.52**	**44**	⇓*e*P	**P**	**13 50 58.2**	**-0.1**
	comp=Z,60nm,1.2s,mb5.0						
MNV				*e*pP	pP	13 53 07.5	-0.4
HOG	**Hogback Mounta**	**81.55**	**39**	P	**P**	**13 50 59.1**	**+0.7**
PMSA	**Palmer Station**	**81.58**	**157**	⇑*i*P	**P**	**13 50 59.1**	**+1.0**
	comp=Z,138nm,1.1s,mb5.4						
LDFC	**Landfair**	**81.73**	**48**	*e*P	**P**	**13 51 00.1**	**+0.5**
SNY	**Shenyang**	**81.77**	**320**	⇓P	**P**	**13 50 59.4**	**-0.1**
SNY				AMB	AMB		
	comp=Z,70nm,1.7s,mb4.9						
CN2	**Changchun**	**81.88**	**323**	*e*P	**P**	**13 50 59.3**	**-0.7**
CN2				*e*AP	pP	13 53 09.8	0.0
CN2				*e*S	S	14 00 24.1	+0.3
CN2				AMB	AMB		
	comp=Z,170nm,1.2s,mb5.5						
CN2				AMB	AMB		
	comp=Z,910nm,3.0s						
WHN	**Wuhan**	**81.91**	**307**	⇓P	**P**	**13 51 00.8**	**+0.3**
WHN				AMB	AMB		
	comp=Z,134nm,1.4s,mb5.3						
TPH	**Tonopah**	**81.93**	**44**	*e*P	**P**	**13 51 00.6**	**+0.2**
	comp=Z,72nm,1.1s,mb5.1						
TPNV	**Topopah Spring**	**81.96**	**46**	⇓*e*P	**P**	**13 51 01.2**	**+0.6**
	comp=Z,39nm,0.8s,mb5.0						
HBO	**Huckleberry Mo**	**82.17**	**37**	P	**P**	**13 51 02.4**	**+0.9**
MOD	**Modoc**	**82.18**	**40**	*e*P	**P**	**13 51 01.6**	**0.0**
	comp=Z,62nm,0.9s,mb5.1						
MOD				pP	pP	13 53 14.7	+3.2
BMN	**Battle Mountai**	**83.24**	**42**	*e*P	**P**	**13 51 06.9**	**0.0**
	comp=Z,54nm,0.9s,mb5.1						
RSO	**Redoubt South**	**83.32**	**13**	*e*P	**P**	**13 51 05.8**	**-1.1**
RSO				*e*pP	pP	13 53 14.8	-2.3
TUC	**Tucson**	**83.44**	**52**	*e*P	**P**	**13 51 09.4**	**+1.3**
	comp=Z,19nm,0.8s,mb4.7						
TUC				*e*pP	pP	13 53 22.1	+3.7
MA2	**Magadan**	**83.57**	**345**	*e*P	**P**	**13 51 05.7**	**-2.4**
MA2				*e*		13 56 23.7	
MA2				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.2						
OOW	**Octopus West**	**83.60**	**34**	P	**P**	**13 51 10.0**	**+1.5**
OCWA	**Octopus Mounta**	**83.61**	**34**	*e*P	**P**	**13 51 08.9**	**+0.4**
	comp=Z,110nm,0.9s,mb5.4						
LON	**Longmire**	**84.24**	**35**	P	**P**	**13 51 12.0**	**+0.3**
ARUT	**Antelope Range**	**84.30**	**46**	*e*P	**P**	**13 51 12.9**	**+0.7**
PGC	**Sidney**	**84.56**	**33**	*e*P	**P**	**13 51 12.6**	**-0.6**
	comp=Z,209nm,1.4s,mb5.6						
ELK	**Elko**	**84.67**	**43**	*e*P	**P**	**13 51 13.8**	**-0.1**
	comp=Z,15nm,0.9s,mb4.6						
ELK				*e*pP	pP	13 53 26.2	+1.6
TTW	**Tolt Reservoir**	**84.89**	**35**	P	**P**	**13 51 15.4**	**+0.6**
EBG	**Ellensburg**	**85.02**	**36**	P	**P**	**13 51 16.3**	**+0.9**
PMR	**Palmer**	**85.11**	**14**	*e*P	**P**	**13 51 14.0**	**-1.6**
	comp=Z,150nm,1.3s,mb5.5						
KKTK	**Khon Kaen**	**85.28**	**289**	⇓P	**P**	**13 51 18.6**	**+1.2**
	comp=Z,1µm,1.0s,mb6.5						
KKTK	**Khon Kaen**	**85.28**	**289**	⇓P	**P**	**13 51 31.6**	**+14**
	comp=Z,506nm,1.0s,mb6.1						
BJT	**Baijiatuau**	**85.41**	**316**	⇓*i*P	**P**	**13 51 17.6**	**0.0**
BJI	**Beijing**	**85.41**	**316**	P	**P**	**13 51 17.8**	**+0.2**
BJI				AP	pP	13 53 28.6	+0.1
BJI				XP	sP	13 54 30.0	+1.2
BJI				SKS	SKS	14 00 42.8	-0.6
BJI				S	S	14 01 02.1	+4.4
BJI				AMB	AMB		
	comp=Z,97nm,1.4s,mb5.2						
BJI				AMB	AMB		
	comp=Z,944nm,2.6s,mb6.0						
BJI	**Beijing**	**85.41**	**316**	P	**P**	**13 51 17.8**	**+0.2**
	comp=Z,97nm,1.4s,mb5.2						
BJI				pP	pP	13 53 28.6	+0.1
BJI				sP	sP	13 54 30.0	+1.2
BJI				SKS	SKS	14 00 42.8	-0.6
BJI				S	S	14 01 02.1	+4.4
BJI				ScS	ScS	14 01 30.3	+27
BJI				sS		14 05 08.2	
SML	**Sawmill**	**85.48**	**14**	*e*P	**P**	**13 51 16.6**	**-0.7**
ENH	**Enshi**	**85.49**	**304**	⇓*i*P	**P**	**13 51 18.6**	**+0.4**
	comp=Z,267nm,1.1s,mb5.8						
MVU	**Marysvale**	**85.50**	**46**	*e*P	**P**	**13 51 18.8**	**+0.8**
	comp=Z,6.8nm,0.8s,mb4.3						
MVU				*e*pP	pP	13 53 31.8	+2.8
DIV	**Divide**	**85.50**	**15**	⇓*e*P	**P**	**13 51 16.3**	**-1.1**
	comp=Z,378nm,1.0s,mb6.0						
MSU	**Marysvale**	**85.52**	**46**	*e*P	**P**	**13 51 18.3**	**+0.2**
MSU				*e*pP	pP	13 53 31.8	+2.7
BMO	**Blue Mountains**	**85.67**	**39**	⇓*e*P	**P**	**13 51 18.1**	**-0.5**
	comp=Z,24nm,0.8s,mb4.9						
GYA	**Guiyang**	**86.08**	**300**	⇓*i*P	**P**	**13 51 21.8**	**+0.8**
GYA				AP	pP	13 53 31.0	-1.2
GYA				XP	sP	13 54 32.3	-0.1
GYA				PP	PP	13 54 52.5	-0.9
GYA				SKS	SKS	14 00 51.5	+3.5
GYA				S	S	14 01 09.3	+5.1
GYA				AMB	AMB		
	comp=Z,80nm,1.2s,mb5.2						
GYA				AMB	AMB		
	comp=Z,300nm,6.6s						
SEY	**Seymchan**	**86.18**	**347**	*e*P	**P**	**13 51 20.6**	**0.0**
SEY				*e*	pP	13 53 32.0	+0.1
SEY				*e*		14 00 52.1	
SEY				pmax	pmax		
	comp=N,20nm,1.0s						
SEY				pmax	pmax		
	comp=E,40nm,1.0s						
SEY				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.2						
OD2	**Odessa Site #2**	**86.32**	**36**	P	**P**	**13 51 22.3**	**+0.6**
TMUT	**Trail Mountain**	**86.57**	**46**	*e*P	**P**	**13 51 23.5**	**+0.5**
TMUT				*e*pP	pP	13 53 34.9	+0.5
COYC	**Coyhaique**	**86.61**	**138**	⇑*i*P	**P**	**13 51 25.2**	**+2.1**
SYO	**Syowa Base**	**86.64**	**193**	⇓P	**P**	**13 51 23.3**	**+0.6**
SYO	**Syowa Base**	**86.64**	**193**	⇓PcP	PcP	13 51 24.8	+0.4
SYO	**Syowa Base**	**86.64**	**193**	⇓pP	pP	13 53 34.8	+0.8
HLID	**Hailey**	**86.70**	**41**	*e*P	**P**	**13 51 23.9**	**+0.4**
	comp=Z,40nm,0.9s,mb5.1						
HLID				*e*pP	pP	13 53 35.3	+0.4
SPUT	**South Promonto**	**86.76**	**44**	⇓*i*P	**P**	**13 51 23.6**	**-0.3**
SRU	**San Rafael**	**86.94**	**46**	*e*P	**P**	**13 51 24.8**	**0.0**
SRU				*e*pP	pP	13 53 35.9	-0.3
MCK	**McKinley**	**87.06**	**13**	*e*P	**P**	**13 51 22.7**	**-2.0**
	comp=Z,40nm,0.9s,mb5.2						
MCK				*e*pP	pP	13 53 35.2	-1.1
MNTX	**Cornudas Mount**	**87.23**	**55**	*e*P	**P**	**13 51 25.9**	**-0.5**
	comp=Z,21nm,1.0s,mb4.8						
MNTX				*e*pP	pP	13 53 39.7	+1.8
BNM	**Barren Site**	**87.38**	**52**	*e*P	**P**	**13 51 27.3**	**+0.3**
NST	**Nakhon Sawan**	**87.42**	**288**	P	**P**	**13 51 29.0**	**+1.5**
	comp=Z,92nm,1.0s,mb5.5						
LPM	**Los Pinos Moun**	**87.45**	**52**	*e*P	**P**	**13 51 27.4**	**+0.1**
HWUT	**Hardware Ranch**	**87.49**	**44**	*e*P	**P**	**13 51 27.0**	**-0.3**
	comp=Z,27nm,1.5s,mb4.8						
LTX	**Lajitas**	**87.56**	**58**	*e*P	**P**	**13 51 29.2**	**+1.3**
	comp=Z,30nm,0.9s,mb5.0						
LTX				*e*pP	pP	13 53 41.5	+1.9
TXAR	**Lajitas Array**	**87.56**	**58**	P	**P**	**13 51 28.9**	**+1.0**
	comp=Z,24nm,0.8s,mb5.0,baz=220,slow=5.8,SNR=132						
TXAR				pP	pP	13 53 41.9	+2.3
	comp=Z,0.7nm,1.0s,baz=203,slow=35,SNR=2.1						
TXAR	**Lajitas Array**	**87.56**	**58**	P	**P**	**13 51 28.9**	**+1.0**
TXAR				pP	pP	13 53 41.9	+2.3
XAN	**Xi’an**	**87.60**	**308**	P	**P**	**13 51 28.6**	**+0.6**
XAN				AMB	AMB		
	comp=Z,150nm,1.3s,mb5.6						
PV10	**Paradox Valley**	**87.60**	**48**	*e*P	**P**	**13 51 27.4**	**-0.5**
NEW	**Newport**	**87.70**	**36**	*e*P	**P**	**13 51 26.9**	**-1.2**
	comp=Z,29nm,1.3s,mb4.8						
PV01	**Paradox Valley**	**87.81**	**48**	*e*P	**P**	**13 51 28.4**	**-0.5**
ANMO	**Albuquerque**	**87.86**	**52**	*i* P	**P**	**13 51 26.8**	**-2.4**
ANMO	**Albuquerque**	**87.86**	**52**	*e*P	**P**	**13 51 29.4**	**+0.1**
	comp=Z,20nm,1.2s,mb4.7						
ANMO				*e*pP	pP	13 53 43.8	+2.8
SNAA	**Sanae**	**88.08**	**179**	⇑*i*P	**P**	**13 51 29.5**	**+0.1**
SNAA	**Sanae**	**88.08**	**179**	⇓*i*	pP	13 53 41.1	-0.1
SNAA	**Sanae**	**88.08**	**179**	P	**P**	**13 51 29.8**	**+0.4**
	comp=Z,5.7nm,0.6s,mb4.5,baz=198,slow=4.7,SNR=43						
SNAA				pP	pP	13 53 40.8	-0.4
	comp=Z,2.5nm,1.1s,baz=195,slow=8.8,SNR=2.1						
GDL2	**Guadalupe Moun**	**88.23**	**55**	*e*P	**P**	**13 51 31.7**	**+0.7**
VNA3	**Neumayer Olymp**	**88.23**	**176**	⇑*i*P	**P**	**13 51 35.0**	**+4.9**
VNA3	**Neumayer Olymp**	**88.23**	**176**	⇓*i*	pP	13 53 46.0	+4.0
VNA3	**Neumayer Olymp**	**88.23**	**176**	S	S	14 01 26.4	+3.6
DLBC	**Dease Lake**	**88.25**	**23**	P	**P**	**13 51 44.1**	**+14**
	comp=Z,21nm,1.0s,mb4.8,baz=213,slow=6.5,SNR=18						
HIA	**Hailar**	**88.29**	**325**	⇓*i*P	**P**	**13 51 30.3**	**-0.5**
	comp=Z,53nm,1.0s,mb5.2						
COLA	**College**	**88.29**	**13**	*d i*P	**P**	**13 51 27.5**	**-3.0**
COLA	**College**	**88.29**	**13**	*e*P	**P**	**13 51 29.0**	**-1.5**
	comp=Z,160nm,1.0s,mb5.7						
IMA	**Indian Mountai**	**88.30**	**10**	*e*P	**P**	**13 51 30.5**	**0.0**
	comp=Z,63nm,1.1s,mb5.3						
AHID	**Auburn Hatcher**	**88.37**	**43**	*e*P	**P**	**13 51 32.0**	**+0.6**
	comp=Z,44nm,1.3s,mb5.0						
ILAR	**Eielson Array**	**88.40**	**13**	P	**P**	**13 51 29.2**	**-1.8**
	comp=Z,28nm,0.7s,mb5.1,baz=229,slow=4.4,SNR=171						
ILAR				pP	pP	13 53 41.5	-1.5
	comp=Z,21nm,1.1s,baz=231,slow=5.6,SNR=14						
ILAR				PP	PP	13 55 12.9	+1.1
	comp=Z,4.8nm,0.9s,baz=226,slow=7.8,SNR=5.3						
VNA2	**Neumayer--Watz**	**88.67**	**177**	⇑*i*P	**P**	**13 51 37.5**	**+5.4**
VNA2	**Neumayer--Watz**	**88.67**	**177**	⇓*i*	pP	13 53 48.2	+4.0
VNA2	**Neumayer--Watz**	**88.67**	**177**	S	S	14 01 31.4	+4.8
MSO	**Missoula**	**88.72**	**38**	*e*P	**P**	**13 51 32.0**	**-0.9**
	comp=Z,4.9nm,0.8s,mb4.4						
NVL	**N’lazarevskaya**	**88.73**	**183**	⇑*e*P	**P**	**13 51 32.0**	**-0.5**
NVL				pmax	pmax		
	comp=Z,184nm,0.9s,mb5.9						

KMI	**Kunming**	**88.77**	**297**	*e*P	**P**	**13 51 35.3**	**+1.6**
KMI				AP	pP	13 53 49.0	+3.3
KMI				PP	PP	13 55 17.4	+1.8
KMI				SKS	SKS	14 01 06.3	+1.6
KMI				S	S	14 01 31.1	+2.5
KMI				SS	SS	14 07 40.3	-3.6
KMI				SSS	SSS	14 11 27.3	+1.5
KMI				AMB	AMB		
	comp=Z,104nm,1.0s,mb5.6						
KMI				AMB	AMB		
	comp=Z,477nm,4.6s						
KMI	**Kunming**	**88.77**	**297**	*e*P	**P**	**13 51 35.2**	**+1.5**
	comp=Z,104nm,1.0s,mb5.6						
KMI				pP	pP	13 53 49.0	+3.3
KMI				PP	PP	13 55 17.4	+1.8
KMI				SKS	SKS	14 01 06.2	+1.5
KMI				S	S	14 01 31.1	+2.5
KMI				SS	SS	14 07 40.3	-3.6
KMI				SSS	SSS	14 11 27.2	+1.4
KMI				LR	LR		
	comp=Z,150nm,19.6s						
REDW	**Red Top Meadow**	**88.82**	**42**	*e*P	**P**	**13 51 33.6**	**+0.1**
REDW				*e*pP	pP	13 53 46.6	+1.0
TPAW	**Teton Pass**	**88.82**	**42**	*e*P	**P**	**13 51 34.6**	**+1.1**
HHC	**Hu-ho-hao-te**	**88.87**	**315**	*e*P	**P**	**13 51 34.6**	**+0.8**
HHC				AP	pP	13 53 43.9	-2.0
HHC				XP	sP	13 54 43.4	-2.5
HHC				SKS	SKS	14 01 02.6	-2.3
HHC				AMB	AMB		
	comp=Z,70nm,1.3s,mb5.3						
HHC				AMB	AMB		
	comp=Z,135nm,6.1s						
VNA1	**Neumayer--Stat**	**88.90**	**177**	⇑*i*P	**P**	**13 51 37.6**	**+4.4**
VNA1	**Neumayer--Stat**	**88.90**	**177**	⇓*i*	pP	13 53 49.9	+4.6
BILL	**Bilibino**	**88.92**	**354**	*d* *i*P	**P**	**13 51 30.7**	**-2.7**
BILL				pmax	pmax		
	comp=Z,69nm,1.7s,mb5.2						
BILL	**Bilibino**	**88.92**	**354**	*e*P	**P**	**13 51 32.4**	**-1.0**
	comp=Z,38nm,1.0s,mb5.2						
BILL				*e*PP	PP	13 55 11.4	-4.4
SNOW	**Snow King Moun**	**88.93**	**42**	*e*P	**P**	**13 51 34.3**	**+0.3**
WUWY	**Wally Ulrich**	**88.98**	**42**	*e*P	**P**	**13 51 34.7**	**+0.5**
IMW	**Indian Meadow**	**89.03**	**42**	*e*P	**P**	**13 51 34.7**	**+0.2**
IMW				*e*pP	pP	13 53 45.7	-0.9
MOOW	**Moose Ponds**	**89.08**	**42**	*e*P	**P**	**13 51 34.8**	**+0.1**
LOHW	**Long Hollow**	**89.10**	**42**	*e*P	**P**	**13 51 34.8**	**0.0**
CHRT	**Chiangrai**	**89.29**	**291**	⇓P	**P**	**13 51 38.0**	**+1.8**
	comp=Z,760nm,1.3s,mb6.4						
PDAR	**Pinedale Array**	**89.36**	**43**	P	**P**	**13 51 35.9**	**-0.1**
	comp=Z,22nm,0.8s,mb5.0,baz=209,slow=2.9,SNR=142						
PDAR				pP	pP	13 53 47.5	-0.7
	comp=Z,2.7nm,1.4s,baz=87,slow=30,SNR=2.4						
YFT	**Old Faithful**	**89.37**	**42**	*e*P	**P**	**13 51 38.2**	**+2.2**
YMR	**Madison River**	**89.40**	**41**	*e*P	**P**	**13 51 36.4**	**+0.3**
YMR				*e*pP	pP	13 53 48.0	-0.4
BOZ	**Bozeman (W)**	**89.48**	**40**	*e*P	**P**	**13 51 36.9**	**+0.4**
	comp=Z,85nm,1.8s,mb5.3						
CMAR	**Chiang Mai Arr**	**89.50**	**290**	P	**P**	**13 51 38.9**	**+1.6**
	comp=Z,73nm,0.9s,mb5.5,baz=120,slow=3.0,SNR=7.3						
CMAR				pP	pP	13 53 49.0	-0.5
	comp=Z,0.3nm,0.4s,baz=167,slow=25,SNR=1.5						
CMAR				PP	PP	13 55 23.4	+1.9
	comp=Z,11nm,1.1s,baz=129,slow=6.2,SNR=6.4						
DAWY	**Dawson**	**89.58**	**16**	*e*P	**P**	**13 51 35.4**	**-1.1**
YNR	**Norris Junctio**	**89.60**	**41**	*e*P	**P**	**13 51 38.1**	**+1.0**
BTO	**Baotou**	**89.79**	**314**	*e*P	**P**	**13 51 38.8**	**+0.8**
BTO				AMB	AMB		
	comp=Z,34nm,1.4s,mb5.0						
SDCO	**Great Sand Dun**	**89.80**	**49**	*e*P	**P**	**13 51 38.3**	**+0.2**
	comp=Z,8.2nm,0.8s,mb4.6						
HRY	**Holter Researc**	**89.90**	**39**	*e*P	**P**	**13 51 38.5**	**+0.2**
WALA	**Waterton Lakes**	**89.92**	**37**	*e*P	**P**	**13 51 38.5**	**+0.1**
	comp=Z,10nm,0.7s,mb4.8						
CD2	**Chengdu**	**90.23**	**303**	P	**P**	**13 51 41.1**	**+0.8**
CD2				XP	sP	13 54 53.1	+0.3
CD2				PP	PP	13 55 32.4	+5.4
CD2				PPP	PPP	13 57 35.9	+4.5
CD2				SKS	SKS	14 01 13.0	-0.2
CD2				S	S	14 01 44.8	+3.4
CD2				SS	SS	14 08 10.3	+5.4
CD2				AMB	AMB		
	comp=Z,370nm,4.9s						
CLNS	**Chul'man**	**90.30**	**333**	*e*P	**P**	**13 51 37.6**	**-2.4**
CLNS				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.0						
CLNS				pmax	pmax		
	comp=N,21nm,1.5s						
CLNS				pmax	pmax		
	comp=E,10.0nm,1.4s						
JCT	**Junction City**	**91.09**	**58**	*e*P	**P**	**13 51 44.0**	**-0.2**
	comp=E,13nm,0.7s,mb5.0						
PHWY	**Pilot Hill**	**91.39**	**46**	*e*P	**P**	**13 51 45.5**	**+0.1**
PHWY				*e*PP	PP	13 55 35.4	-0.4
YAK	**Yakutsk**	**91.83**	**338**	*e*P	**P**	**13 51 45.5**	**-1.3**
YAK				*i* PPP	PP	13 55 32.9	-5.8
YAK				*e*S		14 01 17.2	
YAK				*i* *SS		14 01 52.2	
YAK				pmax	pmax		
	comp=N,7.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,64nm,1.0s,mb5.6						
YAK				pmax	pmax		
	comp=E,15nm,1.2s						
YAK				smax			
	comp=N,10.0nm,1.0s						
YAK				smax			
	comp=E,8.0nm,1.2s						
LZH	**Lanzhou**	**92.24**	**308**	⇓P	**P**	**13 51 50.5**	**+1.2**
LZH				AP	pP	13 54 08.9	+6.8
LZH				PP	PP	13 55 39.9	-2.6
LZH				SKS	SKS	14 01 23.0	-1.2
LZH				S	S	14 02 06.0	+7.4
LZH				PS	tx	14 06 08.0	
LZH				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.8						
LZH				AMB	AMB		
	comp=Z,660nm,5.9s						
LZH	**Lanzhou**	**92.24**	**308**	⇓P	**P**	**13 51 50.5**	**+1.2**
	comp=Z,90nm,1.0s,mb5.8						
LZH				pP	pP	13 54 08.9	+6.8
LZH				sP	sP	13 55 09.6	+7.6
LZH				PP	PP	13 55 39.9	-2.6
LZH				SKS	SKS	14 01 23.0	-1.2
LZH				S	S	14 02 06.0	+7.4
LZH				PS	tx	14 06 08.0	
LZH				SS	SS	14 08 50.0	+18
LZH				LR	LR		
	comp=Z,430nm,19.0s						
INK	**Inuvik**	**94.39**	**15**	P	**P**	**13 51 57.0**	**-1.3**
	comp=Z,16nm,0.9s,mb5.1,baz=225,slow=5.1,SNR=36						
INK				pP	pP	13 54 12.9	+1.6
	comp=Z,5.2nm,1.2s,baz=202,slow=7.4,SNR=3.3						
INK				PP	PP	13 55 52.9	-5.2
	comp=Z,4.5nm,1.0s,baz=234,slow=8.8,SNR=4.6						
INK	**Inuvik**	**94.39**	**15**	*e*P	**P**	**13 51 56.9**	**-1.4**
	comp=Z,36nm,1.2s,mb5.4						
ULN	**Ulaanbaatar**	**94.91**	**319**	*i* P	**P**	**13 51 58.4**	**-2.8**
ULN	**Ulaanbaatar**	**94.91**	**319**	*e*P	**P**	**13 52 00.5**	**-0.7**
	comp=Z,11nm,0.9s,mb5.0						
ULN				*e*PP	PP	13 55 57.2	-5.0
DGMT	**Dagmar**	**95.29**	**40**	*e*P	**P**	**13 52 02.9**	**+0.1**
	comp=Z,35nm,1.2s,mb5.4						
SONM	**Songino Array**	**95.30**	**319**	P	**P**	**13 52 02.6**	**-0.3**
	comp=Z,4.5nm,0.8s,mb4.7,baz=108,slow=3.9,SNR=33						
SONM				pP	pP	13 54 14.5	-1.4
	comp=Z,0.5nm,0.8s,baz=166,slow=5.1,SNR=1.4						
SONM				PP	PP	13 55 58.8	-6.3
	comp=Z,4.6nm,0.9s,baz=114,slow=3.7,SNR=6.0						
BOD	**Bodaibo**	**95.73**	**330**	*e*P	**P**	**13 52 01.1**	**-3.5**
BOD				*e*		14 01 35.6	
IMP	**Imphal**	**96.09**	**294**	⇓*i*P	**P**	**13 52 06.9**	**-0.1**
GTA	**Gaotai**	**96.45**	**310**	⇓P	**P**	**13 52 08.6**	**+0.3**
GTA				AP	pP	13 54 21.8	+0.4
GTA				XP	sP	13 55 23.3	+2.3
GTA				S	S	14 02 31.1	-3.1
GTA				PS	PS	14 05 19.3	-8.2
GTA				AMB	AMB		
	comp=Z,18nm,1.4s,mb5.1						
GTA				AMB	AMB		
	comp=Z,51nm,4.9s						
YKA	**Yellowknife Ar**	**96.73**	**25**	P	**P**	**13 52 08.0**	**-0.9**
	comp=Z,3.6nm,0.8s,mb4.6,baz=245,slow=4.5,SNR=65						
YKA				pP	pP	13 54 21.2	-0.9
	comp=Z,1.9nm,1.0s,baz=243,slow=4.0,SNR=7.8						
YKA				PP	PP	13 56 10.1	-5.8
	comp=Z,0.7nm,0.9s,baz=246,slow=7.5,SNR=4.0						
YKA	**Yellowknife Ar**	**96.73**	**25**	P	**P**	**13 52 08.1**	**-0.9**
YKA				pP	pP	13 54 21.2	-0.9
YKA				PP	PP	13 56 10.1	-5.8
KSU1	**Kansas State U**	**96.74**	**51**	*e*P	**P**	**13 52 09.4**	**-0.2**
YKW3	**Yellowknife Ar**	**96.76**	**25**	*e*P	**P**	**13 52 08.4**	**-0.7**
SHL	**Shillong**	**98.10**	**294**	*e*P	**P**	**13 52 17.0**	**+1.0**
ZAK	**Zakamensk**	**98.19**	**321**	*e*P	**P**	**13 52 15.4**	**-0.5**
ZAK				*e*		14 01 54.8	
TIXI	**Tiksi**	**98.54**	**345**	*e*P	**P**	**13 52 16.2**	**-0.7**
TIXI				pmax	pmax		
	comp=N,6.0nm,1.4s						
LPAZ	**La Paz**	**102.66**	**113**	P	Pdif	13 52 41.1	+4.6
	comp=N,3.2nm,0.8s,baz=239,slow=3.7,SNR=11						
LPAZ				PP	PP	13 57 00.1	-1.1
	comp=N,0.9nm,0.7s,baz=3.8,slow=3.3,SNR=3.4						
LPAZ	**La Paz**	**102.66**	**113**	*e*Pdif	Pdif	13 52 39.5	+2.9
	comp=N,5.4nm,1.1s						
GUN	**Gumba**	**103.92**	**295**	*e*P	Pdif	13 52 43.0	+1.1
	comp=N,31nm,1.3s						
PKI	**Pulchoki**	**104.23**	**294**	*e*P	Pdif	13 52 42.8	-0.4
	comp=N,7.6nm,0.6s						
KKN	**Kakani**	**104.39**	**295**	*e*P	Pdif	13 52 43.9	-0.1
	comp=N,12nm,0.9s						
DMN	**Daman**	**104.50**	**294**	*e*P	Pdif	13 52 44.6	+0.2
	comp=N,18nm,1.0s						
GKN	**Gorkha**	**105.00**	**295**	*e*P	Pdif	13 52 46.8	+0.2
	comp=N,2.2nm,0.2s						
KOLN	**Koldanda**	**105.83**	**294**	*e*P	Pdif	13 52 49.6	-0.7
	comp=N,8.2nm,0.9s						
WMQ	**Urumqi**	**106.42**	**311**	PDIF	Pdif	13 52 53.0	+0.5
WMQ				PP	PP	13 57 29.5	+1.6
WMQ				PPP	PPP	13 59 51.0	+1.3
WMQ				S		14 03 57.0	
WMQ				PP	PP		
	comp=Z,91nm,8.4s						
CPUP	**Villa Florida**	**106.53**	**127**	PP	PP	13 57 26.9	-2.3
	comp=Z,0.0nm,0.2s,baz=131,slow=16,SNR=1.5						
ZAL	**Zalesovo**	**110.07**	**321**	Pdiff	Pdif	13 53 08.0	-0.3
	comp=Z,0.3nm,0.4s,baz=316,slow=14,SNR=3.4						
ZAL				PKiKP		13 57 05.9	
	comp=Z,2.2nm,0.6s,baz=273,slow=1.0,SNR=12						
ZAL				PP	PP	13 57 44.9	-9.2
	comp=Z,1.5nm,0.3s,baz=7.2,slow=7.7,SNR=5.9						
ZAL				SKiKP		13 59 45.0	
	comp=Z,1.1nm,0.7s,baz=104,slow=16,SNR=3.3						
ZAL	**Zalesovo**	**110.07**	**321**	Pdif	Pdif	13 53 08.0	-0.3
ZAL				PKPdf	PKPdf	13 57 05.9	+1.1
ZAL				PP	PP	13 57 44.9	-9.2
MKAR	**Makanchi Array**	**110.70**	**313**	*i* PKP	PKPdf	13 57 06.7	+0.5
DDI	**Dehra Dun**	**111.14**	**296**	*e*	PKPdf	13 57 07.7	+0.2
AAK	**Ala-Archa**	**115.77**	**308**	⇑*i*PKIKP	PKPdf	13 57 16.0	-0.2
AAK	**Ala-Archa**	**115.77**	**308**	⇑*i*PKP	PKPdf	13 57 16.1	-0.1
CHKZ	**Chkalovo**	**118.46**	**321**	*i* PKIKP	PKPdf	13 57 20.8	-0.4
CHKZ				pmax	pmax		
	comp=Z,17nm,1.0s						
CHKZ	**Chkalovo**	**118.46**	**321**	*e*PKPdf	PKPdf	13 57 21.0	-0.1
CHKZ				*e*SKPdf		14 00 00.5	
BVA0	**Borovoye Array**	**118.64**	**320**	PKIKP	PKPdf	13 57 21.6	+0.1
BVA0				pmax	pmax		
	comp=Z,5.0nm,1.1s						
BVAR	**Borovoye Array**	**118.64**	**320**	PKP	PKPdf	13 57 21.8	+0.3
	comp=Z,7.8nm,0.4s,baz=126,slow=1.8,SNR=89						
BVAR				PP	PP	13 58 44.1	-10
	comp=Z,3.2nm,0.9s,baz=112,slow=8.0,SNR=3.5						
BVAR				SKP		14 00 02.0	
	comp=Z,11nm,1.0s,baz=90,slow=3.0,SNR=8.2						
BRVK	**Borovoye**	**118.70**	**320**	PKIKP	PKPdf	13 57 22.0	+0.4
BRVK				pmax	pmax		
	comp=Z,14nm,1.0s						
BRVK	**Borovoye**	**118.70**	**320**	*e*PKPdf	PKPdf	13 57 21.7	+0.1
BRVK				*e*SKPdf		14 00 00.6	
BDFB	**Brasilia**	**119.71**	**123**	PKP	PKPdf	13 57 25.6	+1.1
	comp=Z,4.5nm,0.6s,baz=349,slow=1.6,SNR=6.2						
BDFB	**Brasilia**	**119.71**	**123**	PKP	PKPdf	13 57 25.6	+1.1
ARU	**Arti**	**124.80**	**325**	⇓*i*PKIKP	PKPdf	13 57 33.3	0.0
ARU				*i*		13 59 28.4	
ARU				*e*		14 03 40.2	
ARU				pmax	pmax		
	comp=Z,48nm,1.0s						
ARU	**Arti**	**124.80**	**325**	*e*PKPdf	PKPdf	13 57 33.5	+0.2
ARU				*e*PP	PP	13 59 26.6	-7.7
ARU				*e*SKPdf		14 00 13.2	
LVZ	**Lovozero**	**128.17**	**345**	*i* PKIKP	PKPdf	13 57 39.6	+0.1
KEV	**Kevo**	**128.30**	**349**	*e*p	PKPdf	13 57 39.5	-0.2
	comp=Z,30nm,1.1s						
KEV	**Kevo**	**128.30**	**349**	*e*PKIKP	PKPdf	13 57 39.5	-0.2
KEV				pmax	pmax		
	comp=Z,30nm,1.1s						
ARCES	**ARCESS Array B**	**128.76**	**349**	PKhKP		13 57 25.8	
	comp=Z,4.1nm,0.9s,baz=308,slow=2.2,SNR=5.7						
ARCES				PKP	PKPdf	13 57 40.6	0.0
	comp=Z,12nm,0.8s,slow=1.2,SNR=20						
ARCES				PP	PP	13 59 55.2	-4.5
	comp=Z,13nm,1.1s,baz=12,slow=11,SNR=3.8						
JOF	**Joensuu**	**132.89**	**342**	*e*p	PKPdf	13 57 48.2	-0.3
KAF	**Kangasniemi**	**134.93**	**344**	*e*p	PKPdf	13 57 39.0	-13
FINES	**FINESS Array B**	**135.54**	**343**	PKhKP		13 57 41.0	
	comp=Z,0.6nm,0.4s,baz=62,slow=3.4,SNR=7.8						
FINES				PKP	PKPdf	13 57 54.5	+1.1
	comp=Z,8.2nm,0.7s,baz=37,slow=2.3,SNR=16						
FINES				SKP		14 00 30.8	
	comp=Z,21nm,1.1s,baz=72,slow=4.4,SNR=12						
FINES	**FINESS Array B**	**135.54**	**343**	*i* PKHKP		13 57 41.0	
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	**FINESS Array B**	**135.54**	**343**	PKP	PKPdf	13 57 41.0	-12
FINES				PKP	PKPdf	13 57 54.5	+1.1
FINES				SKP		14 00 30.8	
MOS	**Moscow**	**135.55**	**331**	*e*PKIKP	PKPdf	13 57 53.2	-0.4
LSZ	**Lusaka**	**135.76**	**219**	*e*PKPdf	PKPdf	13 57 57.4	+2.4
LSZ				*e*SKPbc		14 00 32.2	
OBN	**Obninsk**	**136.41**	**331**	⇓*i*PKIKP	PKPdf	13 57 54.2	-1.0
OBN				*i* *PP		14 00 07.9	
OBN				pmax	pmax		
	comp=Z,50nm,1.2s						
OBN	**Obninsk**	**136.41**	**331**	⇓*i*PKP	PKPdf	13 57 54.3	-0.9
VSU	**Vasula**	**137.79**	**340**	*i* PKHKP		13 57 54.0	
GNI	**Garni**	**138.18**	**308**	SKP		14 00 40.1	
	comp=Z,30nm,1.1s,baz=217,slow=16,SNR=6.4						
GNI	**Garni**	**138.18**	**308**	*i* PKIKP	PKPdf	13 58 00.9	+2.0
KIV	**Kislovodsk**	**138.47**	**314**	*e*PKIKP	PKPdf	13 57 58.5	-0.8
KIV				*e*		14 00 58.6	
KIV				*e*		14 04 12.8	
KIV				pmax	pmax		
	comp=Z,21nm,1.5s						
KIV	**Kislovodsk**	**138.47**	**314**	*i* PKP	PKPdf	13 57 59.9	+0.6
KMBO	**Kilima Mbogo**	**138.80**	**243**	PKhKP		13 57 55.2	
	comp=Z,1.6nm,0.7s,baz=53,slow=22,SNR=3.2						
KMBO				PKP	PKPdf	13 58 03.0	+2.3
	comp=Z,2.0nm,0.6s,baz=41,slow=22,SNR=6.2						
KMBO				pPKP		14 00 25.7	
	comp=Z,1.5nm,0.8s,baz=49,slow=23,SNR=2.2						
KMBO				SKPbc		14 00 43.4	
	comp=Z,5.4nm,0.9s,baz=61,slow=22,SNR=10						
KMBO	**Kilima Mbogo**	**138.80**	**243**	PKP	PKPdf	13 57 55.2	-5.5
KMBO				PKPdf	PKPdf	13 57 59.3	-1.4
KMBO				PKP	PKPdf	13 58 03.0	+2.3
KMBO				pPKP		14 00 25.7	
KMBO				SKPbc		14 00 43.4	
NB2	**NORSAR Subarra**	**138.85**	**353**	PKP	PKPdf	13 57 50.7	-8.8
	comp=Z,26nm,1.4s,baz=10.0,slow=3.1						
NB2	**NORSAR Subarra**	**138.85**	**353**	⇑PKPab	PKPdf	13 57 50.7	-8.8
NOA	**NORSAR Array B**	**138.85**	**353**	PKhKP		13 57 51.4	
	comp=Z,12nm,0.9s,baz=16,slow=2.4,SNR=19						
NOA				PKP	PKPdf	13 58 02.8	+3.3
	comp=Z,5.6nm,0.9s,baz=14,slow=4.0,SNR=6.1						
NOA				SKP		14 00 40.2	
	comp=Z,29nm,1.0s,baz=16,slow=4.4,SNR=18						
HFS	**Hagfors**	**139.39**	**351**	PKhKP		13 57 53.2	
	comp=Z,8.2nm,0.4s,baz=56,slow=2.6,SNR=41						
HFS				PKP	PKPdf	13 58 00.7	+0.2
	comp=Z,5.2nm,0.6s,baz=63,slow=3.3,SNR=5.7						
HFS				SKP		14 00 41.4	
	comp=Z,36nm,0.9s,SNR=17						
SOC	**Sochi**	**140.60**	**315**	*i* PKIKP	PKPdf	13 58 03.2	+0.1
SOC				*e*		14 01 10.6	
SOC				*e*		14 04 14.2	
SOC				*e*PPP	PPP	14 04 15.4	-11
SOC				pmax	pmax		
	comp=Z,16nm,0.9s						
SOC				pmax	pmax		
	comp=N,8.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,19nm,0.9s						
ANN	**Anapa**	**141.56**	**318**	*i* PKIKP	PKPdf	13 58 04.1	-0.6
ANN				pmax	pmax		
	comp=Z,53nm,0.9s						
SUW	**Suwalki**	**142.57**	**339**	*e*PKP	PKPdf	13 58 04.6	-1.6
AKASG	**Malin Array Be**	**142.66**	**331**	PKhKP		13 58 03.9	
	comp=Z,39nm,0.5s,baz=38,slow=4.4,SNR=164						
AKASG				SKPbc		14 00 49.7	
	comp=Z,22nm,0.9s,baz=37,slow=3.1,SNR=29						
ELZG	**Elazig**	**142.93**	**307**	*i* P	PKPdf	13 58 07.7	+0.4
MALT	**Malatya**	**143.40**	**307**	*e*PKPdf	PKPdf	13 58 08.8	+0.7
SIM	**Simferopol'**	**143.55**	**320**	*d* *i*PKIKP	PKPdf	13 58 08.5	+0.3
SIM				pmax	pmax		
	comp=Z,290nm,0.9s						
MUD	**Monsted U'grnd**	**143.57**	**353**	*i* PKHKP		13 58 07.6	
MUD				pmax	pmax		
	comp=Z,300nm,1.0s						
MUD	**Monsted U'grnd**	**143.57**	**353**	*i* P	PKPbc	13 58 07.6	+0.5
	comp=Z,303nm,1.0s						
COP	**Copenhagen**	**143.84**	**349**	⇓*i*PKHKP		13 58 08.1	
COP				pmax	pmax		
	comp=Z,230nm,1.1s						
COP	**Copenhagen**	**143.84**	**349**	⇓*i*P	PKPbc	13 58 08.1	+0.2
	comp=Z,232nm,1.1s						
BSD	**Bornholm Skovb**	**143.90**	**347**	*i* P	PKPbc	13 58 00.7	-7.4
SVST	**Sivas**	**143.98**	**310**	*i* P	PKPbc	13 58 11.1	+2.3
MBAR	**Mbarara**	**144.41**	**238**	*i* PKHKP		13 58 12.9	
MBAR	**Mbarara**	**144.41**	**238**	*e*PKPdf	PKPdf	13 58 12.8	+2.2
BOYT	**Boyabat**	**144.74**	**314**	*i* P	PKPdf	13 58 12.5	+2.2
WAR	**Warsaw**	**144.76**	**339**	*e*PKP	PKPdf	13 58 12.5	+2.5
KAHT	**Ahir Dag**	**144.78**	**307**	*i* P	PKPdf	13 58 12.5	+2.0
GCL	**Cushendall**	**144.97**	**7**	*e*P	PKPdf	13 58 13.1	+2.8
EKA	**Eskdalemuir Ar**	**145.01**	**4**	PKP	PKPdf	13 58 11.8	+1.4
	comp=Z,46nm,0.8s,baz=341,slow=2.8,SNR=52						
EKA				SKPbc		14 00 54.6	
	comp=Z,14nm,1.2s,baz=346,slow=3.0,SNR=5.2						
GKP	**Gorka Klasztor**	**145.02**	**343**	*e*PKP	PKPdf	13 58 12.4	+2.0
CTKT	**Corum**	**145.16**	**313**	*i* P	PKPdf	13 58 14.0	+2.9
COBT	**Iskenderun**	**145.60**	**305**	*i* P	PKPdf	13 58 14.9	+3.0
BALT	**Daday**	**145.70**	**315**	*i* P	PKPdf	13 58 15.0	+3.0
AVNT	**Avonos**	**145.86**	**310**	*i* P	PKPdf	13 58 12.9	+0.6
BSEG	**Bad Segeberg**	**145.87**	**351**	*e*PKIKP	PKPdf	13 58 14.8	+3.0
DMUB	**Kingscourt**	**146.01**	**9**	*e*P	PKPdf	13 58 15.0	+2.9
LWH	**Whinny Nab**	**146.14**	**2**	⇑*e*P	PKPdf	13 58 16.1	+3.8
ELDT	**Eldivan**	**146.15**	**313**	*i* P	PKPdf	13 58 16.4	+3.7
ASF	**Jabal al Asfar**	**146.19**	**298**	PKPbc	PKPbc	13 58 17.2	+2.3
	comp=Z,86nm,1.0s,baz=332,slow=1.0,SNR=36						
ASF				pPKPbc		14 00 36.0	
	comp=Z,6.5nm,0.9s,baz=312,slow=6.9,SNR=2.3						
ASF				SKPbc		14 00 59.8	
	comp=Z,9.8nm,1.0s,baz=9.6,slow=1.9,SNR=3.7						
KWP	**Kalwaria**	**146.27**	**335**	*e*PKP	PKPdf	13 58 16.4	+3.8
KWP				*e*		13 58 19.5	
BRTR	**Keskin Array B**	**146.34**	**312**	PKP	PKPdf	13 58 14.2	+1.2
	comp=Z,53nm,1.1s,baz=123,slow=2.4,SNR=68						
BRTR				PKPbc	PKPbc	13 58 16.5	+1.5
	comp=Z,53nm,1.1s,baz=135,slow=3.5,SNR=85						
BRTR				pPKPbc		14 00 36.6	
	comp=Z,13nm,1.2s,baz=45,slow=3.5,SNR=4.9						
BRTR				SKPbc		14 00 58.7	
	comp=Z,12nm,1.0s,baz=117,slow=2.8,SNR=6.5						
HPK	**Haverah Park**	**146.47**	**3**	⇑*e*P	PKPdf	13 58 16.5	+3.7
DCN	**Croghan**	**146.50**	**9**	*e*P	PKPdf	13 58 16.4	+3.5
RUE	**Ruedersdorf**	**146.60**	**346**	*e*PKPbc	PKPbc	13 58 16.8	+1.6
DLF	**Lyons Farm**	**146.66**	**9**	*e*P	PKPdf	13 58 16.9	+3.7
DSB	**Dublin**	**146.73**	**8**	*e*PKPbc	PKPbc	13 58 17.3	+1.9
WCB1	**Church Bay**	**146.82**	**6**	⇑*e*P	PKPdf	13 58 16.9	+3.5
WCB1				AMb	AMB	13 58 18.8	
	comp=Z,182nm,1.1s						
WME	**Myndd Eilian**	**146.83**	**6**	⇑*e*P	PKPdf	13 58 17.5	+4.0
LHO	**Holmfirth**	**146.87**	**3**	*e*P	PKPdf	13 58 17.3	+3.8
CFR	**Carcaliu**	**146.88**	**324**	⇑*i*P	PKPdf	13 58 18.3	+4.5
CFR	**Carcaliu**	**146.88**	**324**	⇑*i*P	PKPdf	13 58 18.3	+4.5
OJC	**Ojcow**	**146.88**	**338**	*e*PKP	PKPdf	13 58 15.7	+2.1
OJC				*i*		13 58 18.7	
OJC	**Ojcow**	**146.88**	**338**	*e*PKP	PKPdf	13 58 15.7	+2.1
OJC				*e*		13 58 18.7	
KSHT	**Keshet**	**146.92**	**299**	P	PKPdf	13 58 19.3	+5.0
KSDI	**Kefar Szold**	**146.99**	**300**	P	PKPdf	13 58 19.3	+4.9
KOLS	**Kolonicke sedl**	**147.00**	**334**	*e*PKP	PKPdf	13 58 16.1	+2.2
KOLS				*e*		13 58 18.9	
WPM1	**Penmaenmawr**	**147.00**	**6**	⇑*e*P	PKPdf	13 58 18.0	+4.2
SGKT	**Sivrigoynuk**	**147.04**	**314**	*i* P	PKPdf	13 58 18.1	+3.8
YLL	**Llanberis**	**147.09**	**6**	⇑*e*P	PKPdf	13 58 18.1	+4.2
YLL				AMb	AMB	13 58 19.6	
	comp=Z,109nm,0.9s						
TIRR	**Tirgusor**	**147.17**	**323**	P	PKPdf	13 58 19.2	+4.9
VRI	**Vrincioaia**	**147.18**	**326**	⇑*i*P	PKPdf	13 58 18.9	+4.7
VRI	**Vrincioaia**	**147.18**	**326**	⇑*i*P	PKPdf	13 58 18.9	+4.6
YRE	**Yr Eifl**	**147.22**	**6**	⇑*e*P	PKPdf	13 58 18.2	+4.1
HARR	**Harsova**	**147.30**	**324**	⇑*i*P	PKPdf	13 58 19.7	+5.2
HARR	**Harsova**	**147.30**	**324**	⇑*i*P	PKPdf	13 58 19.7	+5.2
CRVS	**Cervenica-Dubn**	**147.34**	**335**	*e*PKP	PKPdf	13 58 24.5	+10
CRVS				*e*		14 00 39.1	
MMLI	**Mount Malkishu**	**147.36**	**299**	P	PKPdf	13 58 20.5	+5.5
NIE	**Niedzica**	**147.36**	**337**	*i* PKP	PKPdf	13 58 20.1	+5.6
MKRJ	**Makawir**	**147.36**	**297**	P	PKPdf	13 58 20.3	+5.3
HNTI	**Hanita**	**147.41**	**300**	P	PKPdf	13 58 20.1	+5.0
WIT	**Witteveen**	**147.43**	**354**	*e*PKP	PKPdf	13 58 19.8	+5.3
	comp=Z,1μm,1.2s						
KSP	**Ksiaz**	**147.45**	**342**	*e*PKP	PKPdf	13 58 15.7	+1.1
KSP				*e*PKPdf	PKPdf	13 58 19.6	+5.0
KSP				*e*		13 58 24.1	
KSP				*e*pPKP		14 00 39.5	
KSP				*e*		14 01 01.6	
KSP	**Ksiaz**	**147.45**	**342**	*e*PKP	PKPdf	13 58 19.4	+4.8
KSP				*e*		13 58 24.3	
RAC	**Raciborz**	**147.54**	**340**	*e*PKPdf	PKPdf	13 58 20.3	+5.6
DRGI	**Dragot**	**147.56**	**297**	P	PKPdf	13 58 20.6	+5.2
HAF	**Haifa**	**147.61**	**299**	P	PKPdf	13 58 20.5	+5.1
MZDA	**Masada**	**147.65**	**296**	P	PKPdf	13 58 20.9	+5.4
OFRI	**'Ofer**	**147.68**	**299**	P	PKPdf	13 58 20.4	+4.9
HENT	**Hendek**	**147.69**	**316**	*i* P	PKPdf	13 58 19.6	+4.3
SLTI	**Sal'it**	**147.72**	**298**	P	PKPdf	13 58 21.1	+5.5
OKC	**Ostrava-Krasne**	**147.77**	**339**	*e*PKPDF	PKPdf	13 58 16.5	+1.4
OKC				⇑*e*PKPB	PKPdf	13 58 20.5	+5.4
OKC				*e*PKPAB	PKPab	13 58 25.5	-0.8
OKC				*e*pPKP		14 00 39.9	
ISR	**Istrita**	**147.77**	**326**	⇑*i*P	PKPdf	13 58 20.9	+5.6
ISR	**Istrita**	**147.77**	**326**	⇑*i*P	PKPdf	13 58 20.9	+5.6
HLM1	**Long Mynd**	**147.82**	**5**	⇑*e*P	PKPdf	13 58 20.0	+4.9
HLM1				AMb	AMB	13 58 21.8	
	comp=Z,165nm,1.0s						
UPC	**Upice**	**147.83**	**342**	*e*PKPDF	PKPdf	13 58 15.6	+0.4
UPC				⇑*e*PKPB	PKPdf	13 58 20.8	+5.6
UPC				*e*PKPAB	PKPab	13 58 25.8	-0.7
UPC				*e*pPKP		14 00 41.0	
MLR	**Muntele Rosu**	**147.84**	**327**	PKP	PKPdf	13 58 16.8	+1.5
	comp=Z,61nm,0.9s,baz=158,slow=1.6,SNR=12						
MLR				PKPbc	PKPdf	13 58 19.7	+4.4
	comp=Z,51nm,1.0s,baz=139,slow=2.7,SNR=5.0						
MLR				pPKPbc		14 00 40.4	
	comp=Z,20nm,1.2s,baz=131,slow=6.1,SNR=3.5						
MLR	**Muntele Rosu**	**147.84**	**327**	PKP	PKPdf	13 58 16.8	+1.5
MLR				PKPbc	PKPdf	13 58 19.7	+4.4
MLR				pPKPbc		14 00 40.4	
MLR	**Muntele Rosu**	**147.84**	**327**	⇑*i*P	PKPdf	13 58 21.1	+5.8
CLL	**Collm**	**147.87**	**346**	*i* PKHKP		13 58 16.6	
CLL				*i*		13 58 20.3	
CLL				*i*		14 00 40.0	
CLL				pmax	pmax		
	comp=Z,35nm,1.3s						
CLL				pmax	pmax		
	comp=Z,220nm,1.0s						
CLL	**Collm**	**147.87**	**346**	*i* PKP	PKPdf	13 58 16.6	+1.4
CLL				*i* PKP	PKPdf	13 58 20.3	+5.1
CLL				*i* pPKP		14 00 40.0	
CLL				*i* SKP		14 01 02.5	
CLL	**Collm**	**147.87**	**346**	*i* PKIKP	PKPdf	13 58 16.6	+1.4
	comp=Z,logA/T=1.4						
CLL				*i* PKP1	PKPdf	13 58 20.3	+5.1
CLL				*i* PKP2	PKPab	13 58 24.8	-1.8
CLL				*e*		13 58 44.0	
CLL				*i* *PPKP		14 00 40.0	
CLL				*i*		14 01 02.5	
CLL				*e*PP	PP	14 01 49.0	-6.9
CLZ	**Clausthal**	**147.88**	**349**	*e*PKPdf	PKPdf	13 58 16.3	+1.1
CLZ				*e*PKPbc	PKPdf	13 58 20.1	+4.9
DPC	**Dobruska-Polom**	**147.88**	**342**	*e*PKPDF	PKPdf	13 58 16.7	+1.4
DPC				⇑*e*PKPB		13 58 20.9	
DPC				*e*pPKP		14 00 40.7	
SSP1	**Stoney Pound**	**147.91**	**5**	⇑*e*P	PKPdf	13 58 20.1	+4.9

ZFRI	**Zfri**	**147.94**	**295**	P	PKPdf	13 58 21.8	+5.8
MORC	**Moravsky Berou**	**148.02**	**340**	*e*PKPdf	PKPdf	13 58 16.6	+1.2
MORC				*e*PKPbc	PKPdf	13 58 20.8	+5.3
MORC				*e*PKPab	PKPab	13 58 25.9	-1.3
BRG	**Berggiesshubel**	**148.05**	**345**	*i* PKHKP		13 58 17.0	
BRG				*i*		13 58 21.5	
BRG				*i*		13 58 25.5	
BRG				*i*		14 00 41.5	
BRG				pmax	pmax		
	comp=Z,139nm,1.1s						
BRG	**Berggiesshubel**	**148.05**	**345**	*i* PKP	PKPdf	13 58 17.0	+1.5
BRG				*i*		13 58 21.5	
BRG				*i*		13 58 25.5	
BRG				*i*		14 00 41.5	
BRG				*i*		14 08 33.9	
BRG				*e*		14 10 55.1	
KECS	**Kecovo**	**148.06**	**336**	*e*PKP	PKPdf	13 58 21.3	+5.7
KECS				*e*		13 58 26.3	
LIKS	**Likavka**	**148.11**	**338**	*e*PKP	PKPdf	13 58 22.1	+6.5
LIKS				*e*		13 58 27.5	
PRNI	**Paran**	**148.12**	**295**	P	PKPdf	13 58 22.3	+6.0
SNX	**Sinaia**	**148.15**	**327**	P	PKPdf	13 58 22.2	+6.4
AQBJ	**Aqaba**	**148.19**	**294**	P	PKPdf	13 58 22.3	+5.9
MASH	**Mash'abbe Sade**	**148.19**	**296**	P	PKPdf	13 58 22.1	+5.7
PVCC	**Panska Ves**	**148.21**	**344**	*e*PKPDF	PKPdf	13 58 17.6	+1.9
PVCC				⇑*e*PKPB	PKPdf	13 58 21.9	+6.2
PVCC				*e*pPKP		14 00 41.6	
HTR	**Trewern Hill**	**148.23**	**5**	⇑*e*P	PKPdf	13 58 21.0	+5.3
HTR				AMb	AMB	13 58 23.5	
	comp=Z,123nm,1.7s						
WTSB	**Winterswijk**	**148.25**	**354**	*e*PKP	PKPdf	13 58 20.9	+5.1
	comp=Z,194nm,1.3s						
EIL	**Elat**	**148.28**	**294**	PKP	PKPdf	13 58 18.1	+1.5
	comp=Z,32nm,1.1s,baz=270,slow=9.3,SNR=2.9						
EIL				PKPbc	PKPdf	13 58 22.5	+5.9
	comp=Z,50nm,0.9s,baz=14,slow=3.9,SNR=35						
EIL				PKPab	PKPab	13 58 28.9	-0.1
	comp=Z,72nm,1.1s,baz=144,slow=8.0,SNR=13						
EIL				pPKPbc		14 00 42.1	
	comp=Z,6.5nm,1.0s,baz=201,slow=11,SNR=1.9						
EIL	**Elat**	**148.28**	**294**	P	PKPdf	13 58 22.6	+6.1
EIL	**Elat**	**148.28**	**294**	*e*PKPbc	PKPdf	13 58 22.4	+5.8
EIL				*e*PKPab	PKPab	13 58 28.2	-0.8
EIL				pPKPbc		14 00 42.1	
MBH	**Mount Berech**	**148.29**	**294**	P	PKPdf	13 58 22.6	+6.1
HAE	**Alders End**	**148.33**	**5**	⇑*e*P	PKPdf	13 58 21.1	+5.2
HAE				AMb	AMB	13 58 24.1	
	comp=Z,252nm,1.8s						
MCH1	**Michaelchurch**	**148.33**	**5**	⇑*e*P	PKPdf	13 58 20.9	+5.1
CSS	**Prodhromos**	**148.35**	**304**	*e*PKPbc	PKPdf	13 58 21.9	+5.4
MAMC	**Mammari**	**148.37**	**304**	P	PKPdf	13 58 22.6	+6.1
KZIT	**Kziot**	**148.54**	**296**	P	PKPdf	13 58 23.1	+6.2
VYHS	**Vyhne**	**148.67**	**337**	*e*PKP	PKPdf	13 58 23.0	+6.5
VYHS				*e*		13 58 29.3	
VYHS				*e*		14 00 43.0	
HGH	**Gray Hill**	**148.71**	**5**	⇑*e*P	PKPdf	13 58 21.8	+5.4
HGH				AMb	AMB	13 58 24.7	
	comp=Z,227nm,1.6s						
PRU	**Pruhonice**	**148.71**	**343**	*e*PKPDF	PKPdf	13 58 18.3	+1.8
PRU				⇑*e*PKPB		13 58 22.6	
PRU				*e*PKPAB	PKPab	13 58 28.8	-1.3
PRU				*e*pPKP		14 00 42.6	
VRAC	**Vranov**	**148.73**	**341**	PKPbc	PKPdf	13 58 23.3	+6.7
	comp=Z,43nm,1.0s,baz=34,slow=3.3,SNR=30						
VRAC				PKPab	PKPab	13 58 29.6	-0.6
	comp=Z,56nm,1.1s,baz=19,slow=4.8,SNR=18						
VRAC				pPKPbc		14 00 41.4	
	comp=Z,4.8nm,0.9s,baz=83,slow=10,SNR=2.5						
VRAC	**Vranov**	**148.73**	**341**	P	PKPdf	13 58 22.8	+6.2
PSZ	**Piszkesteto**	**148.75**	**336**	⇑*i*PKP/F	PKPdf	13 58 23.0	+6.3
SZAC	**Souni-Zanaja**	**148.77**	**304**	⇑P	PKPdf	13 58 23.4	+6.3
SZAC	**Souni-Zanaja**	**148.77**	**304**	⇑*i*P	PKPdf	13 58 23.4	+6.3
MOX	**Moxa**	**148.79**	**347**	*e*PKHKP		13 58 18.0	
MOX				*e*		13 58 22.5	
MOX				pmax	pmax		
	comp=Z,167nm,1.5s						
MOX	**Moxa**	**148.79**	**347**	*i* P	PKPdf	13 58 18.0	+1.4
MOX				PP2		13 58 22.0	
ALFC	**Alevga**	**148.85**	**305**	⇑P	PKPdf	13 58 23.4	+6.2
	comp=Z,2.4nm,0.8s						
ALFC	**Alevga**	**148.85**	**305**	⇑*i*P	PKPdf	13 58 23.4	+6.2
NKC	**Novy Kostel**	**149.00**	**346**	*e*PKPDF	PKPdf	13 58 19.2	+2.2
NKC				*e*PKPAB	PKPab	13 58 29.7	-1.6
NKC				*e*pPKP		14 00 46.1	
AKMC	**Akamas**	**149.10**	**305**	⇑P	PKPdf	13 58 23.6	+6.0
AKMC	**Akamas**	**149.10**	**305**	⇑*i*P	PKPdf	13 58 23.6	+6.0
PPCY	**Paphos**	**149.14**	**304**	P	PKPdf	13 58 23.6	+5.9
SMOL	**Smolenice**	**149.15**	**339**	*e*PKP	PKPdf	13 58 24.8	+7.5
SMOL				*e*		13 58 32.1	
ULDT	**Uludag**	**149.19**	**316**	*i* P	PKPdf	13 58 23.7	+6.1
SRO	**Srobarova**	**149.44**	**337**	*e*PKP	PKPdf	13 58 24.5	+6.8
SRO				*e*		13 58 32.4	
SRO2	**Moca**	**149.45**	**337**	*e*PKP	PKPdf	13 58 24.6	+6.8
SRO2				*e*		13 58 32.5	
SRO1	**Iza**	**149.51**	**337**	*e*PKP	PKPdf	13 58 25.1	+7.2
SRO1				*e*		13 58 33.0	
HGN	**Heimansgroeve**	**149.53**	**354**	*e*PKP	PKPdf	13 58 24.4	+6.6
	comp=Z,118nm,1.5s						
HGN				*e*x	x	13 58 31.6	
ZST	**Bratislava**	**149.53**	**339**	*e*PKP	PKPdf	13 58 24.9	+7.0
ZST				*e*		13 58 32.9	
SBD	**Saint Breward**	**149.57**	**8**	⇑*e*P	PKPdf	13 58 18.9	+1.0
KHC	**Kasperske Hory**	**149.75**	**344**	*e*PKPDF	PKPdf	13 58 19.7	+1.5
KHC				⇑*e*PKPB		13 58 25.4	
KHC				*e*PKPAB	PKPab	13 58 33.1	-1.3
KHC				*e*pPKP		14 00 46.5	
GRF	**Grafenberg Arr**	**149.77**	**347**	*e*PKP2	PKPab	13 58 32.6	-1.9
GRF	**Grafenberg Arr**	**149.77**	**347**	*e*PKP	PKPdf	13 58 25.3	+7.1
GRF				*e*PKP	PKPab	13 58 32.6	-1.9
WET	**Wettzell**	**149.91**	**345**	*e*PKHKP		13 58 25.8	
WET	**Wettzell**	**149.91**	**345**	*e*PKP2	PKPab	13 58 33.7	-1.4
GEC2	**GERESS Array S**	**149.98**	**344**	*e*PKHKP		13 58 25.5	
GERES	**GERESS Array B**	**149.98**	**344**	PKP	PKPdf	13 58 20.0	+1.5
	comp=Z,4.7nm,0.7s,slow=1.3,SNR=5.7						
GERES				PKPbc	PKPdf	13 58 25.8	+7.3
	comp=Z,32nm,0.8s,baz=45,slow=1.9,SNR=56						
GERES				PKPab	PKPab	13 58 34.5	-0.9
	comp=Z,16nm,0.9s,baz=14,slow=5.5,SNR=9.9						
GERES				pPKPab		14 00 48.1	
	comp=Z,4.3nm,0.8s,baz=90,slow=2.7,SNR=2.8						
GERES				PKKP	PKKP	14 07 10.1	+63
	comp=Z,1.1nm,0.5s,baz=55,slow=16,SNR=3.5						
GERES	**GERESS Array B**	**149.98**	**344**	PKP	PKPdf	13 58 20.0	+1.5
GERES				PKPbc	PKPdf	13 58 25.8	+7.3
GERES				PKPab	PKPab	13 58 34.5	-0.8
GERES				pPKPab		14 00 48.1	
GERES				PKKP	PKKP	14 07 10.1	+63
BTOK	**Tokmak**	**150.11**	**316**	*i* P	PKPdf	13 58 20.8	+1.8
SART	**Tekirdag**	**150.14**	**318**	*i* P	PKPdf	13 58 24.9	+5.9
SOP	**Sopron**	**150.16**	**339**	⇑*e*PKP/F	PKPdf	13 58 26.8	+7.9
PKS2	**Kecel**	**150.19**	**335**	⇑*i*P	PKPdf	13 58 26.7	+7.7
ABH	**Alteburg**	**150.22**	**352**	*e*P	PKPdf	13 58 26.3	+7.4
ABH	**Alteburg**	**150.22**	**352**	PKP	PKPab	13 58 37.6	+1.3
GIVF	**Givet**	**150.28**	**355**	*e*PKIKP	PKPdf	13 58 21.0	+2.0
TOD	**Tromm**	**150.30**	**350**	*e*P	PKPdf	13 58 26.1	+7.1
TOD	**Tromm**	**150.30**	**350**	PKP	PKPab	13 58 36.6	-0.1
BAIF	**Baives**	**150.37**	**356**	*e*PKIKP	PKPdf	13 58 21.3	+2.2
MANT	**Manisa**	**150.41**	**313**	*i* P	PKPdf	13 58 26.9	+7.4
SIND	**Sindeldorf**	**150.41**	**349**	*e*P	PKPdf	13 58 26.2	+7.0
SWS	**Schriesheim**	**150.44**	**350**	*e*P	PKPdf	13 58 26.3	+7.1
RUP	**Ruppelstein**	**150.46**	**352**	*e*P	PKPdf	13 58 26.8	+7.5
RUP	**Ruppelstein**	**150.46**	**352**	PKP	PKPab	13 58 37.5	+0.2
DNZL	**Cakiroluk**	**150.46**	**312**	*i* P	PKPdf	13 58 27.3	+7.6
PKS9	**Tamasi**	**150.48**	**336**	⇑*i*P	PKPdf	13 58 26.7	+7.3
WLF	**Walferdange**	**150.60**	**354**	*e*PKPbc	PKPdf	13 58 27.1	+7.6
WLF				*e*PKPab	PKPab	13 58 36.3	-1.6
PKSM	**Moragy**	**150.65**	**335**	⇑*e*P	PKPdf	13 58 20.9	+1.2
PKSM				*i*		13 58 27.2	
KTD	**Kalmit**	**150.69**	**351**	*e*P	PKPdf	13 58 27.2	+7.6
KTD	**Kalmit**	**150.69**	**351**	PKP	PKPab	13 58 37.3	-1.0
MOA	**Molln**	**150.73**	**342**	⇑*i*P	PKPdf	13 58 20.5	+0.8
PGB	**Panagyurishte**	**150.77**	**324**	*i* P	PKPdf	13 58 27.0	+7.0
ARSA	**Arzberg**	**150.88**	**340**	⇓*i*P	PKPdf	13 58 21.6	+1.6
RHK1	**Bakonya**	**150.97**	**336**	*e*P	PKPdf	13 58 21.7	+1.6
RHK1				*i*		13 58 27.7	
BEO	**Belgrade**	**150.99**	**331**	⇑*i*P	PKPdf	13 58 27.1	+6.9
RZN	**Rozhen**	**151.02**	**322**	*i* P	PKPdf	13 58 28.0	+7.6
BOLS	**Boljevac**	**151.02**	**328**	⇓*i*P	PKPdf	13 58 20.9	+0.6
HDH	**Heidenheim**	**151.03**	**348**	*e*P	PKPdf	13 58 27.7	+7.6
STU	**Stuttgart**	**151.04**	**349**	*e*PKPdf	PKPdf	13 58 21.9	+1.7
STU				*e*PKPbc	PKPdf	13 58 27.9	+7.7
STU				*e*PKPab	PKPab	13 58 38.3	-1.5
LANF	**Langenberg**	**151.06**	**351**	PKP	PKPab	13 58 38.2	-1.7
FUR	**Furstenfeldbru**	**151.21**	**346**	*e*PKHKP		13 58 28.2	
LBG	**Lerchenberg**	**151.22**	**350**	*e*P	PKPdf	13 58 28.3	+7.9
VTS	**Vitosha**	**151.26**	**325**	*i* P	PKPdf	13 58 28.8	+8.1
VTS	**Vitosha**	**151.26**	**325**	P	PKPdf	13 58 28.5	+7.8
BUCH	**Bad Urach**	**151.33**	**349**	*e*P	PKPdf	13 58 28.8	+8.2
KDAG	**Bornova**	**151.33**	**314**	*i* P	PKPdf	13 58 27.9	+7.0
STR	**Strasbourg**	**151.46**	**351**	PKP	PKPab	13 58 39.6	-2.0
PERS	**Pernice**	**151.55**	**340**	*e*PKPbc	PKPdf	13 58 28.6	+7.6
GRUS	**Gruza**	**151.58**	**330**	⇓*i*P	PKPdf	13 58 21.7	+0.6
BFO	**Black Forest**	**151.62**	**350**	*e*PKIKP	PKPdf	13 58 28.9	+7.9
MMB	**Musomiste**	**151.65**	**323**	*i* P	PKPdf	13 58 29.0	+7.8
WLS	**Welschbruch**	**151.68**	**352**	PKP	PKPab	13 58 39.7	-2.8
KBA	**Koelnbreinsper**	**151.69**	**343**	⇑*i*P	PKPdf	13 58 23.4	+2.3
CDF	**Champ du Feu**	**151.69**	**352**	*e*PKIKP	PKPdf	13 58 23.3	+2.2
FLN	**La Foliniere**	**151.71**	**3**	*e*PKIKP	PKPdf	13 58 23.1	+2.0
GUT	**Gutenstein**	**151.73**	**349**	*e*P	PKPdf	13 58 28.9	+7.7
DIVS	**Divcibare**	**151.76**	**331**	⇓*i*P	PKPdf	13 58 22.5	+1.2
SPAK	**Spaichingen**	**151.76**	**349**	*e*P	PKPdf	13 58 29.3	+8.1
KKB	**Krupnik**	**151.82**	**324**	*i* P	PKPdf	13 58 29.5	+8.0
OBKA	**Obir**	**151.84**	**340**	⇓*i*P	PKPdf	13 58 23.1	+1.7
MEZF	**Maizieres J'vi**	**151.85**	**355**	*e*PKIKP	PKPdf	13 58 23.9	+2.6
LDF	**La Druitiere**	**151.90**	**2**	*e*PKIKP	PKPdf	13 58 23.2	+1.8
	comp=Z,61nm,1.1s						
ECH	**Echery**	**151.90**	**352**	PKP	PKPab	13 58 40.0	-3.4
LIBD	**Limburg**	**151.90**	**351**	PKP	PKPab	13 58 40.2	-3.2
WATA	**Walderalm**	**151.91**	**345**	⇑*i*P	PKPdf	13 58 23.0	+1.6
ROSF	**Rostrenen**	**151.93**	**7**	*e*PKIKP	PKPdf	13 58 23.0	+1.6
WTTA	**Wattenberg**	**151.97**	**345**	⇑*i*P	PKPdf	13 58 23.2	+1.7
MOTA	**Moosalm**	**152.02**	**346**	⇑*i*P	PKPdf	13 58 23.1	+1.5
SRS	**Serrai**	**152.03**	**322**	*e*P	PKPdf	13 58 29.8	+8.0
THEF	**They Montfort**	**152.03**	**353**	PKP	PKPab	13 58 40.7	-3.3
KIZ	**Kirchzarten**	**152.04**	**351**	*e*P	PKPdf	13 58 29.5	+7.9
GRR	**Gorron**	**152.07**	**3**	*e*PKIKP	PKPdf	13 58 23.8	+2.2
SGMF	**Saint Gilles**	**152.08**	**6**	*e*PKIKP	PKPdf	13 58 23.3	+1.7
FELD	**Feldberg**	**152.11**	**350**	*e*P	PKPdf	13 58 30.3	+8.6
FELD				PKP	PKPab	13 58 39.4	-4.9
SQTA	**Sankt Quirin**	**152.11**	**346**	⇑*i*P	PKPdf	13 58 23.3	+1.6
CRES	**Cresnjev**	**152.15**	**339**	*i* PKPdf	PKPdf	13 58 23.3	+1.5
HAU	**Haudompre**	**152.21**	**353**	*e*PKIKP	PKPdf	13 58 24.1	+2.3
	comp=Z,18nm,0.9s						
MOF	**Molkenrain**	**152.26**	**352**	PKP	PKPab	13 58 40.4	-4.6
LJU	**Ljubljana**	**152.27**	**340**	*e*PKPbc	PKPdf	13 58 31.0	+9.1
LJU				*e*PKPab	PKPab	13 58 43.0	-2.1
LJU				*e*pPKPbc		14 00 52.9	
FVI	**Forni Avoltri**	**152.29**	**343**	*e*PKP	PKPdf	13 58 30.2	+8.3
PTCC	**Patocco-Chiusa**	**152.30**	**342**	*e*PKP	PKPdf	13 58 23.2	+1.2
HINF	**Hinteralfeld**	**152.33**	**352**	*e*PKIKP	PKPdf	13 58 24.2	+2.2
	comp=Z,13nm,0.9s						
DAVA	**Damuels**	**152.34**	**347**	⇓*i*P	PKPdf	13 58 24.4	+2.4
SOH	**Sokhos**	**152.36**	**322**	*e*P	PKPdf	13 58 30.8	+8.5
KNT	**Kendrikon**	**152.40**	**323**	*e*P	PKPdf	13 58 30.4	+8.1
GMNA	**Gemona**	**152.45**	**342**	*e*PKP	PKPdf	13 58 23.2	+1.0
VOY	**Vojsko**	**152.48**	**341**	*e*PKPdf	PKPdf	13 58 23.3	+1.1
VOY				*e*PKPbc	PKPdf	13 58 30.2	+8.0
BOJS	**Bojanci**	**152.50**	**339**	*e*PKPdf	PKPdf	13 58 24.3	+2.0
BOJS				*e*PKPbc	PKPdf	13 58 29.7	+7.4
BOJS				*e*PKPab	PKPab	13 58 43.9	-2.1
BOJS				*e*pPKPbc		14 00 51.6	
BBS	**Basel-Blauen**	**152.59**	**351**	*e*P	PKPdf	13 58 31.5	+9.1
SKO	**Skopje**	**152.63**	**326**	*e*PKIKP	PKPdf	13 58 24.0	+1.4
SKO				*i* PKHKP		13 58 31.9	
SKO				⇑*i*PKP2	PKPab	13 58 46.2	-0.5
LOMF	**Lomont**	**152.79**	**352**	PKP	PKPab	13 58 42.7	-4.5
DAVOX	**Davos**	**152.82**	**347**	PKP	PKPdf	13 58 24.7	+2.0
	comp=Z,13nm,1.1s,baz=223,slow=3.2,SNR=17						
DAVOX				PKPbc	PKPdf	13 58 32.4	+10
	comp=Z,28nm,0.7s,baz=246,slow=3.9,SNR=40						
DAVOX				PKPab	PKPab	13 58 46.4	-1.0
	comp=Z,42nm,1.0s,baz=232,slow=1.5,SNR=14						
DAVOX				pPKPbc		14 00 54.3	
	comp=Z,6.3nm,0.9s,baz=215,slow=14,SNR=3.3						
BRMO	**Bormio**	**153.00**	**346**	*e*PKP	PKPdf	13 58 25.0	+2.0
CTI	**Castel Tesino**	**153.10**	**344**	*e*PKP	PKPdf	13 58 24.2	+1.1
LIT	**Litokhoron**	**153.33**	**322**	*e*P	PKPdf	13 58 32.8	+9.2
SSF	**Saint Saulge**	**153.40**	**357**	*e*PKIKP	PKPdf	13 58 25.9	+2.4
FNA	**Florina**	**153.50**	**324**	*e*P	PKPdf	13 58 24.9	+1.0
CABF	**La Chapelle**	**153.62**	**353**	*e*PKIKP	PKPdf	13 58 27.0	+3.2
	comp=Z,17nm,0.8s						
MFF	**Saint Martin d**	**153.88**	**2**	*e*PKIKP	PKPdf	13 58 26.3	+2.2
	comp=Z,83nm,1.4s						
VAI	**Varese**	**153.92**	**348**	*e*PKP	PKPdf	13 58 25.5	+1.3
MCGN	**Macugnaga**	**153.98**	**349**	*e*PKP	PKPdf	13 58 26.6	+2.3
AGG	**Agios Georgios**	**154.12**	**320**	*e*P	PKPdf	13 58 34.7	+10
TCF	**Toulx Ste Croi**	**154.22**	**359**	*e*PKIKP	PKPdf	13 58 26.9	+2.3
OG05	**Jujurieux**	**154.25**	**353**	PKP	PKPab	13 58 45.0	-8.4
AGO	**Saint Agoulin**	**154.42**	**357**	PKP	PKPab	13 58 47.6	-6.5
RSL	**Roselend**	**154.45**	**351**	PKP	PKPab	13 58 45.3	-8.9
PLDF	**La Plantade**	**154.48**	**356**	PKP	PKPab	13 58 47.4	-6.9
IDI	**Anoyia**	**154.55**	**310**	PKP	PKPdf	13 58 27.4	+2.0
	comp=Z,14nm,1.0s,baz=73,slow=4.6,SNR=3.1						
IDI				PKPbc	PKPdf	13 58 37.7	+12
	comp=Z,13nm,0.8s,baz=201,slow=11,SNR=5.5						
IDI				PKPab	PKPab	13 58 53.7	-1.3
	comp=Z,37nm,1.1s,baz=53,slow=19,SNR=4.8						
PYM	**Petit Puy Mans**	**154.73**	**357**	PKP	PKPab	13 58 47.6	-7.8
BOB	**Bobbio (Coli)**	**154.83**	**346**	*e*PKP	PKPab	13 58 55.2	-0.7
ZCCA	**Zocca**	**154.85**	**344**	*e*PKP	PKPab	13 58 56.2	+0.3
FSSB	**Fossombrone**	**154.93**	**340**	*e*PKP	PKPab	13 58 55.6	-0.7
GSCL	**Gusciola**	**154.95**	**344**	*e*PKP	PKPab	13 58 55.7	-0.7
SEI	**Scarperia**	**155.02**	**343**	*e*PKP	PKPdf	13 58 28.7	+2.9
ARV	**Arcevia**	**155.05**	**340**	*e*PKP	PKPab	13 58 55.8	-1.0
VMG	**Vicchio**	**155.05**	**342**	*e*PKP	PKPab	13 58 57.2	+0.4
BNI	**Bardonecchia**	**155.07**	**351**	*e*PKPdf	PKPdf	13 58 27.9	+2.1
BNI				*e*PKPab	PKPab	13 58 55.9	-1.0
VLC	**Villacollemand**	**155.18**	**344**	*e*PKPab	PKPab	13 58 55.6	-1.8
RJF	**Les Rejaudoux**	**155.21**	**360**	*e*PKIKP	PKPdf	13 58 28.4	+2.4
	comp=Z,21nm,0.9s						
BDI	**Bagni Di Lucca**	**155.22**	**344**	*e*PKP	PKPab	13 58 55.7	-1.8
LBL	**Lubilhac**	**155.23**	**357**	PKP	PKPdf	13 58 48.1	+22
SNTG	**Esanatoglia**	**155.26**	**339**	*e*PKP	PKPdf	13 58 27.6	+1.5
FGMS	**Monte Sant'Ang**	**155.45**	**333**	*e*PKP	PKPab	13 58 57.2	-1.4
LFF	**La Frestale**	**155.57**	**1**	*e*PKIKP	PKPdf	13 58 28.9	+2.4
CSNT	**Castellina Chi**	**155.57**	**342**	*e*PKP	PKPab	13 58 56.9	-2.2
NRCA	**Norcia**	**155.58**	**339**	*e*PKP	PKPab	13 58 58.2	-0.9
AQU	**L'Aquila**	**155.90**	**338**	*e*PKP	PKPab	13 59 00.3	-0.2
SAOF	**Saorge**	**155.96**	**349**	PKP	PKPdf	13 58 46.2	+19
AUTN	**L'Aution**	**155.97**	**349**	PKP	PKPdf	13 58 47.4	+20
TOUF	**Mont Tournerai**	**155.99**	**349**	PKP	PKPdf	13 58 48.1	+21
CII	**Carovilli**	**156.11**	**335**	*e*PKP	PKPab	13 59 00.8	-0.7
MVIF	**Mont Vial**	**156.12**	**350**	PKP	PKPdf	13 58 47.6	+20
REVF	**Revere**	**156.23**	**349**	PKP	PKPdf	13 58 46.8	+19
CALN	**Calern**	**156.30**	**350**	PKP	PKPdf	13 58 46.9	+19
LASF	**Ste Croix**	**156.34**	**355**	*e*PKIKP	PKPdf	13 58 30.3	+2.8
	comp=Z,20nm,0.9s						
PGF	**Pioggiola**	**157.04**	**345**	*e*PKIKP	PKPdf	13 58 32.6	+4.2
	comp=Z,62nm,1.1s						
TIP	**Timpagrande**	**157.09**	**328**	*e*PKPdf	PKPdf	13 58 30.0	+1.4
TIP				*e*PKPab	PKPab	13 59 04.5	-1.2
EPF	**Esparros**	**157.47**	**2**	*e*PKIKP	PKPdf	13 58 31.7	+2.7
ETSF	**Etsaut**	**157.56**	**4**	*e*PKIKP	PKPdf	13 58 32.1	+3.0
	comp=Z,6.9nm,0.7s						
PBRG	**Braganca**	**157.64**	**16**	*e*PKPab	PKPab	13 59 07.1	-0.9
PVRL	**Vila Real**	**157.86**	**18**	*e*PKPab	PKPab	13 59 08.4	-0.6
PCBR	**Castelo Branco**	**159.25**	**19**	*e*PKPab	PKPab	13 59 14.3	-0.7
EBR	**Ebro Roquetas**	**159.68**	**2**	*e*Ts	PKPab	13 59 16.2	-0.6
EVO	**Evora**	**160.25**	**22**	*e*PKIKP	PKPdf	13 58 34.7	+2.4
	comp=Z,39nm,1.2s						
ESDC	**Sonseca Array**	**160.31**	**12**	PKP	PKPdf	13 58 35.3	+3.0
	comp=Z,1.5nm,0.9s,baz=324,slow=2.1,SNR=7.7						
ESDC				PKPab	PKPab	13 59 18.3	-1.2
	comp=Z,26nm,1.1s,baz=345,slow=4.2,SNR=38						
ESDC				PP	PP	14 03 03.4	-0.3
	comp=Z,4.1nm,1.1s,baz=347,slow=4.4,SNR=5.0						
PBEJ	**Beja**	**160.75**	**23**	*e*PKPab	PKPab	13 59 20.3	-1.2
PTEO	**Sao Teotonio**	**160.85**	**25**	*e*PKPab	PKPab	13 59 21.4	-0.6
PALC	**Alcoutim**	**161.40**	**22**	*e*PKPab	PKPab	13 59 23.7	-0.6
DBIC	**Dimbokro**	**165.05**	**155**	PKP	PKPdf	13 58 39.2	+1.4
	comp=Z,7.8nm,0.8s,baz=158,slow=2.8,SNR=11						
DBIC				PKPab	PKPab	13 59 41.9	+0.9
	comp=Z,40nm,0.9s,baz=182,slow=5.9,SNR=26						

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*NEIC **24** 13:49:55.8±1.1, 20.28S×178.68W, h603^{km}±13^{km}, mb4.7/47, Error ellipse: s-maj=8.7km s-min=7.2km az=165.0*

*BJI **24** 13:49:55.8, 20.30S×178.70W, h603^{km}, mB5.1, mb4.9*

*SYO **24** 13:49:55.4, 20.26S×178.75W, h600^{km}, MB4.6*

*IDC **24** 13:49:56.5±0.6, 20.36S×178.70W, h606^{km}±6^{km}, mb4.2/26, mb1 4.2/29, mb1mx4.2/29, Error ellipse: s-maj=9.2km s-min=7.1km az=139.0*

*MOS **24** 13:50:05.1±1.6, 18.50S×179.76E, h622^{km}, mb4.9/2, Error ellipse: s-maj=23.2km s-min=19.7km az=126.7*

ISC 24 13:49:55.1±0.9**, 20.39S**±0.06×**178.68W**±0.04**,**
h610^{km}±12^{km}**, h608**^{km}±2.3^{km}**:pP-P, n323,** σ1^{s}**13**/163**,**
mb4.7/78**, 31C-18D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**13.97**	**260**	*e*P	**P**	**13 52 55.4**	**+2.3**
DZM	**Mont Dzumac**	**13.97**	**260**	*e*P	**P**	**13 52 55.4**	**+2.3**
NOUC	**Port Laguerre**	**14.11**	**260**	*e*P	**P**	**13 52 56.1**	**+1.7**
MTAZ	**Motutapu**	**17.28**	**198**	P	**P**	**13 53 27.7**	**+3.2**
OTAZ	**Otara**	**17.42**	**197**	P	**P**	**13 53 29.0**	**+3.1**
OTAZ	**Otara**	**17.42**	**197**	P	**P**	**13 53 28.9**	**+3.0**
MKAZ	**Moumakai**	**17.51**	**197**	P	**P**	**13 53 29.3**	**+2.6**
MKAZ	**Moumakai**	**17.51**	**197**	P	**P**	**13 53 29.2**	**+2.5**
WTAZ	**Waiatarua**	**17.51**	**198**	P	**P**	**13 53 28.9**	**+2.2**
WTAZ	**Waiatarua**	**17.51**	**198**	P	**P**	**13 53 28.7**	**+2.0**
RAR	**Rarotonga**	**17.70**	**96**	P	**P**	**13 53 28.6**	**+0.1**
	1.9nm,0.3s,baz=254,slow=5.7,SNR=3.1						
PUZ	**Puketiti**	**17.82**	**188**	*e*P	**P**	**13 53 29.3**	**-0.3**
PUZ	**Puketiti**	**17.82**	**188**	P	**P**	**13 53 29.3**	**-0.3**
URZ	**Urewera**	**18.18**	**191**	P	**P**	**13 53 31.6**	**-1.4**
	16nm,0.3s,baz=339,slow=3.6,SNR=64						
URZ				S	**S**	**13 56 25.2**	**-2.9**
	1.0nm,0.3s,baz=168,slow=20,SNR=7.4						
URZ	**Urewera**	**18.18**	**191**	*e*P	**P**	**13 53 30.8**	**-2.2**
URZ	**Urewera**	**18.18**	**191**	P	**P**	**13 53 30.8**	**-2.2**
MWZ	**Matawai**	**18.19**	**190**	P	**P**	**13 53 31.6**	**-1.4**
MWZ	**Matawai**	**18.19**	**190**	P	**P**	**13 53 31.5**	**-1.5**
NGZ	**Ngauruhoe**	**19.36**	**194**	P	**P**	**13 53 45.1**	**+1.2**
TUVZ	**Tukino**	**19.44**	**193**	P	**P**	**13 53 43.6**	**-1.0**
TUVZ	**Tukino**	**19.44**	**193**	P	**P**	**13 53 43.5**	**-1.1**
MRZ	**Mangatainoka R**	**20.80**	**192**	*e*P	**P**	**13 53 54.9**	**-2.1**
MRZ	**Mangatainoka R**	**20.80**	**192**	P	**P**	**13 53 54.9**	**-2.1**
CAW	**Cannon Point**	**21.33**	**193**	P	**P**	**13 54 00.2**	**-1.6**
QRZ	**Quartz Range**	**21.71**	**198**	*e*P	**P**	**13 54 05.5**	**+0.2**
QRZ	**Quartz Range**	**21.71**	**198**	P	**P**	**13 54 05.3**	**0.0**
QRZ				S	**S**	**13 57 21.1**	**-4.8**
NNZ	**Nelson**	**21.84**	**196**	P	**P**	**13 54 04.7**	**-1.7**
NNZ				S	**S**	**13 57 20.2**	**-7.7**
THZ	**Tophouse**	**22.47**	**197**	*e*P	**P**	**13 54 10.9**	**-1.2**
THZ	**Tophouse**	**22.47**	**197**	P	**P**	**13 54 10.7**	**-1.4**
THZ				S	**S**	**13 57 33.0**	**-5.0**
DSZ	**Denniston Nort**	**22.77**	**199**	*e*P	**P**	**13 54 14.5**	**-0.3**
DSZ	**Denniston Nort**	**22.77**	**199**	P	**P**	**13 54 14.4**	**-0.4**
KHZ	**Kahutara**	**22.93**	**195**	*e*P	**P**	**13 54 14.7**	**-1.4**
KHZ	**Kahutara**	**22.93**	**195**	P	**P**	**13 54 14.5**	**-1.6**
LTZ	**Lake Taylor**	**23.59**	**197**	*e*P	**P**	**13 54 21.5**	**-0.6**
LTZ	**Lake Taylor**	**23.59**	**197**	P	**P**	**13 54 20.4**	**-1.7**
RPZ	**Rata Peaks**	**24.80**	**198**	P	**P**	**13 54 33.6**	**+0.9**
	7.6nm,0.4s,mb4.7,baz=359,slow=4.4,SNR=8.9						
FOZ	**Fox Glacier**	**25.08**	**200**	P	**P**	**13 54 33.7**	**-1.4**
FOZ				pP		13 55 36.6	
JCZ	**Jackson Bay**	**25.84**	**201**	P	**P**	**13 54 41.8**	**0.0**
JCZ				pP		13 55 43.2	
MSZ	**Milford Sound**	**26.65**	**202**	P	**P**	**13 54 49.0**	**+0.1**
PAE	**Paea**	**27.63**	**89**	*e*P	**P**	**13 54 56.7**	**-0.9**
	190nm,1.2s,mb5.6						
PPT	**Papeete**	**27.65**	**89**	P	**P**	**13 54 57.7**	**-0.1**
	48nm,0.7s,mb5.2,baz=190,slow=7.2,SNR=3.6						
PPT	**Papeete**	**27.65**	**89**	*e*P	**P**	**13 54 56.9**	**-0.9**
	93nm,1.3s,mb5.3						
TIAR	**Tiarei**	**27.87**	**89**	*e*P	**P**	**13 54 58.9**	**-0.7**
	131nm,1.0s,mb5.5						
MEH	**Mehetia**	**29.01**	**90**	*e*P	**P**	**13 55 09.1**	**-0.4**
	131nm,1.2s,mb5.5						
PMOR	**Pomariorio Ree**	**29.79**	**85**	*e*P	**P**	**13 55 15.3**	**-0.8**
	220nm,1.1s,mb5.7						
PMOR				*e*pP		13 56 48.1	
	138nm,1.5s						
CNB	**Canberra Magne**	**31.76**	**235**	*e*P	**P**	**13 55 34.1**	**+1.5**
	26nm,0.7s,mb5.0						
CTA	**Charters Tower**	**32.87**	**264**	⇓*i*P	**P**	**13 55 42.9**	**+0.9**
	32nm,0.4s,mb5.3						
CTA				*e*sP	sP	13 58 48.1	+18
CTA				*e*SCP		14 00 57.7	
CTA	**Charters Tower**	**32.87**	**264**	P	**P**	**13 55 43.0**	**+1.0**
	46nm,0.5s,mb5.4,baz=92,slow=10,SNR=96						
CTA				ScP		14 00 57.8	
	25nm,1.0s,baz=143,slow=1.6,SNR=12						
CTAO	**Charters Tower**	**32.87**	**264**	⇓*i*P	**P**	**13 55 42.6**	**+0.6**
	44nm,0.5s,mb5.3						
PMG	**Port Moresby**	**34.69**	**283**	P	**P**	**13 55 57.9**	**+0.7**
	82nm,0.7s,mb5.5,baz=82,slow=5.5,SNR=49						
TOO	**Toolangi**	**35.45**	**233**	*e*P	**P**	**13 56 05.2**	**+2.0**
	11nm,0.6s,mb4.7						
STKA	**Stephens Creek**	**37.26**	**244**	*e*P	**P**	**13 56 19.6**	**+1.4**
	16nm,1.0s,mb4.5						
STKA	**Stephens Creek**	**37.26**	**244**	P	**P**	**13 56 19.7**	**+1.5**
	15nm,0.6s,mb4.7,baz=80,slow=9.5,SNR=23						
STKA				ScP		14 01 13.8	
	2.2nm,0.4s,baz=330,slow=19,SNR=3.2						
ASAR	**Alice Springs**	**43.92**	**257**	P	**P**	**13 57 12.0**	**+0.7**
	30nm,0.5s,mb5.1,baz=85,slow=8.3,SNR=336						
ASAR				PcP	PcP	13 58 43.3	-0.4
	4.7nm,0.6s,baz=101,slow=3.5,SNR=5.1						
ASAR				pP	pP	13 58 58.4	+0.1
	5.5nm,0.9s,baz=86,slow=8.0,SNR=2.6						
ASAR				ScP		14 01 40.2	
	4.6nm,0.9s,baz=106,slow=4.0,SNR=11						
ASAR				S	**S**	**14 02 58.6**	**-1.7**
	3.4nm,0.6s,baz=92,slow=16,SNR=18						
ASPA	**Alice Springs**	**43.92**	**257**	⇓*i*P	**P**	**13 57 11.5**	**+0.1**
ASPA				*e*sP	sP	14 00 16.8	+12
ASPA				*e*S	**S**	**14 02 58.6**	**-1.8**
ASPA				*e*SCS	ScS	14 06 04.1	+3.1
WB2	**Warramunga Arr**	**43.97**	**262**	⇓*i*P	**P**	**13 57 11.3**	**-0.4**
WB2				*e*sP	sP	14 00 16.3	+11
WB2				*e*S	**S**	**14 02 58.3**	**-2.8**
WB2				*e*SCS	ScS	14 06 04.6	+3.3
WRAB	**Tennant Creek**	**43.97**	**262**	*e*P	**P**	**13 57 10.1**	**-1.7**
WRAB	**Tennant Creek**	**43.97**	**262**	*e*P	**P**	**13 57 10.6**	**-1.2**
	56nm,0.8s,mb5.2						
WRA	**Warramunga Arr**	**43.98**	**262**	P	**P**	**13 57 11.3**	**-0.6**
	36nm,0.3s,mb5.4,baz=97,slow=7.4,SNR=853						
WRA				ScP		14 01 40.4	
	5.5nm,1.1s,baz=90,slow=4.2,SNR=10						
WRA				S	**S**	**14 02 58.3**	**-3.0**
	3.2nm,1.0s,baz=93,slow=14,SNR=8.3						
KAKA	**Kakadu**	**47.33**	**271**	⇓*i*P	**P**	**13 57 36.8**	**-0.6**
	49nm,0.6s,mb5.2						
KAKA				*e*S	**S**	**14 03 39.6**	**-8.1**
FITZ	**Fitzroy Crossi**	**52.41**	**262**	⇓*i*P	**P**	**13 58 14.3**	**-0.1**
	25nm,0.4s,mb4.9						
MBWA	**Marble Bar**	**57.25**	**257**	*e*P	**P**	**13 58 47.3**	**-0.7**
	18nm,0.4s,mb4.7						
KLBR	**Kellerberrin**	**57.52**	**245**	*e*P	**P**	**13 58 49.5**	**-0.2**
	55nm,1.5s,mb4.5						
NWAO	**Narrogin (SRO)**	**57.85**	**243**	P	**P**	**13 58 51.8**	**-0.1**
	11nm,0.8s,mb4.0,baz=82,slow=8.7,SNR=7.8						
NWAO	**Narrogin (SRO)**	**57.85**	**243**	P	**P**	**13 58 50.2**	**-1.6**
	20nm,1.1s,mb4.2						
SBA	**Scott Base**	**57.94**	**184**	*e*P	**P**	**13 58 53.7**	**+1.7**
	9.8nm,0.8s,mb4.0						
VNDA	**Vanda**	**57.97**	**185**	P	**P**	**13 58 53.5**	**+1.4**
	8.8nm,0.5s,mb4.2,baz=359,slow=7.0,SNR=66						
VNDA				ScP		14 02 40.0	
	0.9nm,0.8s,baz=329,slow=5.2,SNR=3.4						
VNDA	**Vanda**	**57.97**	**185**	*e*P	**P**	**13 58 53.2**	**+1.0**
	8.7nm,0.6s,mb4.1						
MUN	**Mundaring**	**58.80**	**244**	*e*P	**P**	**13 58 58.8**	**+0.5**
	5.2nm,0.4s,mb4.0						
CBIJ	**Chichi jima**	**60.54**	**320**	P	**P**	**13 59 09.2**	**-0.6**
	83nm,0.9s,mb5.0,baz=82,slow=22,SNR=2.7						
JOW	**Kunigami**	**69.60**	**310**	P	**P**	**14 00 06.5**	**+0.2**
	15nm,0.4s,mb4.8,baz=119,slow=8.5,SNR=9.6						
QSPA	**South Pole Qui**	**69.68**	**180**	⇑*i*P	**P**	**14 00 07.2**	**+1.4**
	40nm,0.8s,mb4.9						
MAJO	**Matsushiro**	**69.74**	**324**	*e*P	**P**	**14 00 05.6**	**-1.2**
	19nm,0.6s,mb4.7						
MAT	**Matsushiro**	**69.74**	**324**	P	**P**	**14 00 05.9**	**-1.0**
MAT	**Matsushiro**	**69.74**	**324**	*e*P	**P**	**14 00 06.0**	**-0.9**
	20nm,1.0s,mb4.5						
FX1	**Attu Island--F**	**73.30**	**355**	P	**P**	**14 00 25.5**	**-1.5**
	49nm,0.6s,mb5.2,baz=310,slow=6.5,SNR=10.0						
ASAJ	**Asahikawa**	**73.32**	**332**	P	**P**	**14 00 28.3**	**+0.9**
	45nm,0.8s,mb5.0,baz=215,slow=4.8,SNR=36						
UNV	**Unalaska Valle**	**74.67**	**7**	*e*P	**P**	**14 00 32.8**	**-1.9**
	52nm,0.5s,mb5.3						
YSS	**Yuzh-Sakhalins**	**75.51**	**334**	⇑*i*P	**P**	**14 00 38.8**	**-0.7**
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.0						
YSS	**Yuzh-Sakhalins**	**75.51**	**334**	*i* Pr		14 00 38.0	

SSE	**Sheshan**	**77.12**	**310**	*e*P	**P**	**14 00 47.3**	**-1.3**
SSE				AMB	AMB		
	comp=Z,48nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,69nm,4.2s						
SSE	**Sheshan**	**77.12**	**310**	*e*P	**P**	**14 00 47.2**	**-1.4**
	comp=Z,48nm,0.8s,mb5.0						
HOPS	**Hopland**	**78.70**	**41**	*e*P	**P**	**14 00 56.9**	**+0.1**
	comp=Z,20nm,1.0s,mb4.4						
NJ2	**Nanjing**	**79.31**	**310**	*e*P	**P**	**14 00 57.3**	**-2.8**
NJ2				PP	PP	14 04 18.0	+6.3
NJ2				S	S	14 10 10.0	-1.7
NJ2				SKS	SKS	14 10 14.0	-1.7
NJ2				SCS	ScS	14 10 27.0	+0.5
NJ2				AMB	AMB		
	comp=Z,130nm,1.3s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,5µm,6.4s						
OHCM	**Honcut**	**79.89**	**41**	P	**P**	**14 01 03.3**	**+0.4**
MDJ	**Mudanjiang**	**80.06**	**325**	P	**P**	**14 01 03.6**	**-0.1**
MDJ				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,336nm,4.8s						
MDJ	**Mudanjiang**	**80.06**	**325**	*e*P	**P**	**14 01 03.3**	**-0.4**
	comp=Z,15nm,0.6s,mb4.5						
YBH	**Yreka Blue Hor**	**80.60**	**39**	P	**P**	**14 01 07.7**	**+1.2**
	comp=Z,10nm,0.8s,mb4.3,baz=167,slow=1.8,SNR=21						
YBH	**Yreka Blue Hor**	**80.60**	**39**	*e*P	**P**	**14 01 07.3**	**+0.8**
	comp=Z,17nm,1.1s,mb4.4						
MTUM	**Tungsten Hills**	**80.60**	**44**	*e*P	**P**	**14 01 07.4**	**+0.8**
HUMO	**Hull Mountain**	**81.00**	**38**	*e*P	**P**	**14 01 09.5**	**+1.0**
	comp=Z,15nm,1.1s,mb4.3						
NVAR	**Mina Array Bea**	**81.38**	**44**	P	**P**	**14 01 11.5**	**+0.9**
	comp=Z,5.1nm,0.8s,mb4.0,baz=226,slow=8.1,SNR=27						
MAW	**Mawson**	**81.45**	**200**	P	**P**	**14 01 11.4**	**+1.1**
	comp=Z,4.1nm,0.7s,mb4.0,baz=166,slow=8.4,SNR=9.0						
MNV	**Mina**	**81.48**	**44**	*e*P	**P**	**14 01 11.5**	**+0.4**
	comp=Z,28nm,1.7s,mb4.4						
SNY	**Shenyang**	**81.71**	**320**	⇓*i*P	**P**	**14 01 12.5**	**+0.3**
SNY				AMB	AMB		
	comp=Z,20nm,0.5s,mb4.9						
CN2	**Changchun**	**81.82**	**323**	*e*P	**P**	**14 01 12.8**	**+0.1**
CN2				AMB	AMB		
	comp=Z,40nm,1.3s,mb4.8						
CN2				AMB	AMB		
	comp=Z,320nm,3.0s						
WHN	**Wuhan**	**81.86**	**307**	⇑P	**P**	**14 01 14.0**	**+0.8**
TPNV	**Topopah Spring**	**81.92**	**46**	*e*P	**P**	**14 01 13.9**	**+0.5**
	comp=Z,6.5nm,0.8s,mb4.2						
MOD	**Modoc**	**82.14**	**40**	*e*P	**P**	**14 01 14.9**	**+0.5**
	comp=Z,18nm,1.1s,mb4.5						
TUC	**Tucson**	**83.41**	**52**	*e*P	**P**	**14 01 21.6**	**+0.7**
	comp=Z,3.9nm,0.9s,mb3.9						
MA2	**Magadan**	**83.50**	**345**	*e*P	**P**	**14 01 17.6**	**-3.1**
MA2				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.5						
USHA	**Ushuaia**	**84.57**	**147**	P	**P**	**14 01 28.8**	**+2.7**
	comp=Z,16nm,1.2s,mb4.5,baz=256,slow=7.0,SNR=3.3						
PMR	**Palmer**	**85.06**	**14**	*e*P	**P**	**14 01 27.2**	**-1.1**
	comp=Z,72nm,1.4s,mb5.1						
BJT	**Baijiatuau**	**85.36**	**316**	*e*P	**P**	**14 01 29.9**	**-0.4**
	comp=Z,20nm,0.6s,mb4.9						
ENH	**Enshi**	**85.45**	**304**	*e*P	**P**	**14 01 31.4**	**+0.4**
	comp=Z,234nm,1.7s,mb5.5						
BMO	**Blue Mountains**	**85.62**	**39**	*e*P	**P**	**14 01 31.2**	**-0.2**
	comp=Z,5.6nm,1.1s,mb4.1						
GYA	**Guiyang**	**86.04**	**300**	P	**P**	**14 01 34.8**	**+1.0**
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
HLID	**Hailey**	**86.66**	**41**	*e*P	**P**	**14 01 36.7**	**+0.4**
	comp=Z,11nm,1.2s,mb4.5						
SYO	**Syowa Base**	**86.70**	**193**	⇓P	**P**	**14 01 35.8**	**-0.1**
SYO	**Syowa Base**	**86.70**	**193**	⇑PcP	PcP	14 01 38.5	+0.9
SYO	**Syowa Base**	**86.70**	**193**	⇑pP	pP	14 03 45.4	-1.3
SRU	**San Rafael**	**86.90**	**46**	*e*P	**P**	**14 01 37.9**	**+0.3**
MCK	**McKinley**	**87.00**	**13**	*e*P	**P**	**14 01 35.9**	**-1.5**
	comp=Z,18nm,1.0s,mb4.8						
MNTX	**Cornudas Mount**	**87.21**	**55**	*e*P	**P**	**14 01 39.7**	**+0.5**
TXAR	**Lajitas Array**	**87.53**	**58**	P	**P**	**14 01 42.4**	**+1.6**
	comp=Z,5.7nm,0.9s,mb4.3,baz=218,slow=6.0,SNR=30						
TXAR				pP	pP	14 03 52.8	+1.0
	comp=Z,1.6nm,1.1s,baz=210,slow=7.3,SNR=3.4						
XAN	**Xi’an**	**87.56**	**308**	P	**P**	**14 01 41.6**	**+0.8**
XAN				AMB	AMB		
	comp=Z,29nm,1.3s,mb4.8						
NEW	**Newport**	**87.66**	**36**	*e*P	**P**	**14 01 40.4**	**-0.5**
	comp=Z,2.1nm,0.5s,mb4.1						
PV01	**Paradox Valley**	**87.78**	**48**	*e*P	**P**	**14 01 42.2**	**+0.5**
ANMO	**Albuquerque**	**87.83**	**52**	P	**P**	**14 01 43.1**	**+1.0**
	comp=Z,2.2nm,1.0s,mb3.8,baz=218,slow=7.9,SNR=6.8						
ANMO	**Albuquerque**	**87.83**	**52**	*e*P	**P**	**14 01 42.2**	**+0.2**
	comp=Z,2.3nm,1.0s,mb3.9						
NANT	**Nan**	**88.05**	**291**	P	**P**	**14 01 44.5**	**+1.1**
SNAA	**Sanae**	**88.14**	**179**	⇑*i*P	**P**	**14 01 41.2**	**-1.4**
SNAA	**Sanae**	**88.14**	**179**	P	**P**	**14 01 43.8**	**+1.1**
	comp=Z,1.7nm,0.8s,mb3.8,baz=211,slow=6.6,SNR=20						
SNAA	**Sanae**	**88.14**	**179**	*e*P	**P**	**14 01 43.0**	**+0.4**
	comp=Z,3.6nm,0.6s,mb4.3						
DLBC	**Dease Lake**	**88.20**	**23**	P	**P**	**14 01 43.6**	**+0.4**
	comp=Z,3.4nm,1.0s,mb4.0,baz=207,slow=13,SNR=4.3						
GDL2	**Guadalupe Moun**	**88.20**	**55**	*e*P	**P**	**14 01 45.2**	**+1.4**
HIA	**Hailar**	**88.23**	**325**	*e*P	**P**	**14 01 43.1**	**-0.5**
	comp=Z,6.7nm,0.7s,mb4.5						
COLA	**College**	**88.23**	**13**	*e*P	**P**	**14 01 42.0**	**-1.2**
	comp=Z,30nm,0.7s,mb5.1						
IMA	**Indian Mountai**	**88.24**	**10**	*e*P	**P**	**14 01 43.0**	**-0.2**
	comp=Z,9.6nm,0.8s,mb4.6						
VNA3	**Neumayer Olymp**	**88.30**	**176**	⇑*i*P	**P**	**14 01 47.7**	**+4.3**
ILAR	**Eielson Array**	**88.34**	**13**	P	**P**	**14 01 42.6**	**-1.1**
	comp=Z,11nm,0.7s,mb4.7,baz=221,slow=5.6,SNR=116						
ILAR				pP	pP	14 03 54.4	-0.6
	comp=Z,1.2nm,0.9s,baz=216,slow=6.1,SNR=4.2						
ILAR				PP	PP	14 05 24.9	+0.8
	comp=Z,1.4nm,0.9s,baz=225,slow=8.0,SNR=4.5						
ILAR	**Eielson Array**	**88.34**	**13**	P	**P**	**14 01 42.6**	**-1.1**
ILAR				pP	pP	14 03 54.4	-0.6
ILAR				PP	PP	14 05 24.9	+0.8
KMI	**Kunming**	**88.73**	**297**	*e*P	**P**	**14 01 48.5**	**+2.0**
KMI				AMB	AMB		
	comp=Z,24nm,1.6s,mb4.8						
KMI	**Kunming**	**88.73**	**297**	*e*P	**P**	**14 01 48.5**	**+2.0**
	comp=Z,24nm,1.6s,mb4.8						
VNA2	**Neumayer--Watz**	**88.73**	**177**	⇑*i*P	**P**	**14 01 50.2**	**+4.8**
REDW	**Red Top Meadow**	**88.78**	**42**	*e*P	**P**	**14 01 46.5**	**+0.2**
HHC	**Hu-ho-hao-te**	**88.82**	**315**	*e*P	**P**	**14 01 47.3**	**+0.8**
HHC				AP	pP	14 03 58.0	+0.1
HHC				XP	sP	14 04 56.1	-1.7
HHC				SKS	SKS	14 11 21.6	+3.7
HHC				S	S	14 11 52.5	+11
HHC				AMB	AMB		
	comp=Z,18nm,1.3s,mb4.7						
HHC				AMB	AMB		
	comp=Z,214nm,6.3s						
BILL	**Bilibino**	**88.86**	**354**	*e*P	**P**	**14 01 45.0**	**-1.1**
BILL				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
BILL	**Bilibino**	**88.86**	**354**	*e*P	**P**	**14 01 44.9**	**-1.1**
	comp=Z,6.5nm,0.6s,mb4.6						
VNA1	**Neumayer--Stat**	**88.96**	**177**	⇑*i*P	**P**	**14 01 51.6**	**+5.1**
IMW	**Indian Meadow**	**88.99**	**42**	*e*P	**P**	**14 01 48.0**	**+0.8**
CHRT	**Chiangrai**	**89.26**	**291**	⇓P	**P**	**14 01 50.0**	**+1.0**
	comp=Z,150nm,1.2s,mb5.7						
BW06	**Boulder Array**	**89.32**	**43**	*e*P	**P**	**14 01 48.6**	**-0.2**
	comp=Z,2.6nm,0.6s,mb4.2						
PDAR	**Pinedale Array**	**89.32**	**43**	P	**P**	**14 01 49.1**	**+0.3**
	comp=Z,3.8nm,0.7s,mb4.3,baz=213,slow=3.9,SNR=29						
BOZ	**Bozeman (W)**	**89.44**	**40**	*e*P	**P**	**14 01 49.4**	**+0.2**
	comp=Z,10.0nm,1.2s,mb4.5						
CM31	**Chiang Mai Arr**	**89.47**	**290**	*e*P	**P**	**14 01 51.3**	**+1.2**
	comp=Z,9.8nm,0.6s,mb4.8						
CMAR	**Chiang Mai Arr**	**89.47**	**290**	P	**P**	**14 01 51.6**	**+1.5**
	comp=Z,13nm,0.9s,mb4.8,baz=106,slow=2.9,SNR=45						
DAWY	**Dawson**	**89.53**	**16**	*e*P	**P**	**14 01 48.8**	**-0.4**
YAK	**Yakutsk**	**91.77**	**338**	⇑*i*P	**P**	**14 01 58.4**	**-1.1**
YAK				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.4						
YAK	**Yakutsk**	**91.77**	**338**	*e*P	**P**	**14 01 58.2**	**-1.3**
	comp=Z,16nm,0.6s,mb5.2						
INK	**Inuvik**	**94.33**	**15**	P	**P**	**14 02 10.0**	**-1.0**
	comp=Z,3.8nm,0.8s,mb4.6,baz=202,slow=3.7,SNR=12						
INK				PP	PP	14 06 11.6	+1.0
	comp=Z,3.3nm,1.1s,baz=224,slow=4.3,SNR=3.8						
INK	**Inuvik**	**94.33**	**15**	*e*P	**P**	**14 02 09.4**	**-1.6**
	comp=Z,3.5nm,0.6s,mb4.7						
ULN	**Ulaanbaatar**	**94.86**	**319**	*e*P	**P**	**14 02 13.4**	**-0.5**
	comp=Z,4.6nm,0.8s,mb4.7						
SONM	**Songino Array**	**95.25**	**319**	P	**P**	**14 02 16.4**	**+0.7**
	comp=Z,1.7nm,0.8s,mb4.2,baz=133,slow=5.2,SNR=7.9						
YKA	**Yellowknife Ar**	**96.68**	**25**	P	**P**	**14 02 21.1**	**-0.6**
	comp=Z,0.9nm,0.7s,mb4.1,baz=243,slow=4.4,SNR=16						
YKA				PKiKP		14 06 53.9	
	comp=Z,0.3nm,1.0s,baz=257,slow=1.6,SNR=4.6						
YKA	**Yellowknife Ar**	**96.68**	**25**	*e*P	**P**	**14 02 21.1**	**-0.6**
TIXI	**Tiksi**	**98.47**	**345**	*e*P	**P**	**14 02 27.1**	**-2.5**
TIXI				pmax	pmax		
	comp=N,10.0nm,1.6s						
ZAL	**Zalesovo**	**110.01**	**321**	PKiKP		14 07 17.9	
	comp=N,1.2nm,0.5s,baz=28,slow=2.2,SNR=8.1						
AAK	**Ala-Archa**	**115.72**	**308**	⇑*i*PKIKP	PKPdf	14 07 26.9	-2.3
AAK	**Ala-Archa**	**115.72**	**308**	⇑*i*PKP	PKPdf	14 07 26.0	-3.2
FRB	**Frobisher Bay**	**116.98**	**28**	PKP	PKPdf	14 07 31.0	-0.1
	comp=N,2.9nm,0.7s,baz=6.4,slow=4.7,SNR=3.6						
CHKZ	**Chkalovo**	**118.40**	**321**	*e*PKPdf	PKPdf	14 07 33.5	-0.5
CHKZ				*e*SKPdf		14 10 13.8	
BVAR	**Borovoye Array**	**118.58**	**320**	PKP	PKPdf	14 07 34.7	+0.2
	comp=N,9.6nm,0.7s,baz=123,slow=2.0,SNR=67						
BVAR				SKP		14 10 14.7	
	comp=N,3.9nm,1.0s,baz=90,slow=4.4,SNR=7.2						
BRVK	**Borovoye**	**118.64**	**320**	*e*PKPdf	PKPdf	14 07 34.7	+0.1
BRVK				*e*SKPdf		14 10 14.7	
BDFB	**Brasilia**	**119.75**	**123**	PKP	PKPdf	14 07 39.0	+1.4
	comp=N,5.0nm,0.8s,baz=95,slow=3.6,SNR=5.5						
ARU	**Arti**	**124.74**	**325**	*i* PKIKP	PKPdf	14 07 46.1	-0.1
ARU				*e*		14 09 42.8	
ARU				*e*		14 13 53.9	
ARU	**Arti**	**124.74**	**325**	*i* PKP	PKPdf	14 07 45.1	-1.1
KEV	**Kevo**	**128.24**	**349**	*e*p	PKPdf	14 07 52.1	-0.5
ARCES	**ARCESS Array B**	**128.69**	**349**	PKP	PKPdf	14 07 54.3	+0.8
	comp=N,4.9nm,0.5s,baz=34,slow=0.8,SNR=33						
JOF	**Joensuu**	**132.82**	**342**	*e*p	PKPdf	14 08 01.8	+0.4
	comp=N,7.0nm,0.6s						
JOF	**Joensuu**	**132.82**	**342**	*e*PKIKP	PKPdf	14 08 01.8	+0.4
JOF				pmax	pmax		
	comp=Z,7.0nm,0.6s						
KAF	**Kangasniemi**	**134.86**	**344**	*e*p	PKPdf	14 08 01.6	-3.6
	comp=Z,12nm,1.3s						
KAF	**Kangasniemi**	**134.86**	**344**	*e*PKHKP		14 08 01.6	
KAF				pmax	pmax		
	comp=Z,12nm,1.3s						
FINES	**FINESS Array B**	**135.48**	**343**	PKhKP		14 07 56.0	
	comp=Z,2.2nm,0.8s,baz=48,slow=3.0,SNR=8.5						
FINES				PKP	PKPdf	14 08 08.3	+2.0
	comp=Z,2.3nm,0.5s,baz=71,slow=2.5,SNR=8.7						
FINES				SKPbc		14 10 43.6	
	comp=Z,4.3nm,0.7s,baz=74,slow=4.0,SNR=10.0						
FINES	**FINESS Array B**	**135.48**	**343**	*i* PKHKP		14 07 56.0	
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
MOS	**Moscow**	**135.49**	**331**	*e*PKHKP		14 07 54.4	
LSZ	**Lusaka**	**135.81**	**219**	*e*PKPdf	PKPdf	14 08 11.1	+2.9
OBN	**Obninsk**	**136.35**	**331**	*i* PKIKP	PKPdf	14 08 08.8	+0.7
OBN				pmax	pmax		
	comp=Z,38nm,1.7s						
OBN	**Obninsk**	**136.35**	**331**	*i* PKP	PKPdf	14 08 08.9	+0.8
KIV	**Kislovodsk**	**138.42**	**314**	*e*PKHKP		14 08 02.2	
KIV				*i*		14 14 34.8	
KIV				*i* SS	SS	14 28 24.1	-15
KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s						
NB2	**NORSAR Subarra**	**138.79**	**353**	PKP	PKPdf	14 08 03.3	-9.1
	comp=Z,1.2nm,0.6s,baz=10.0,slow=3.1						
NB2	**NORSAR Subarra**	**138.79**	**353**	⇑PKPab	PKPdf	14 08 03.3	-9.1
NOA	**NORSAR Array B**	**138.79**	**353**	PKhKP		14 08 06.2	
	comp=Z,1.6nm,0.6s,baz=6.9,slow=3.6,SNR=8.6						
NOA				PKP	PKPdf	14 08 15.3	+2.9
	comp=Z,1.4nm,0.6s,baz=14,slow=3.9,SNR=5.1						
NOA				SKPbc		14 10 52.8	
	comp=Z,9.3nm,0.9s,baz=16,slow=4.4,SNR=13						
NOA	**NORSAR Array B**	**138.79**	**353**	PKP	PKPdf	14 08 06.2	-6.2
NOA				PKP	PKPdf	14 08 15.3	+2.9
NOA				SKPbc		14 10 52.8	
KMBO	**Kilima Mbogo**	**138.82**	**243**	PKhKP		14 08 08.9	
	comp=Z,1.0nm,0.7s,baz=45,slow=23,SNR=2.7						
KMBO				SKPbc		14 10 55.1	
	comp=Z,1.2nm,0.7s,baz=38,slow=24,SNR=5.5						
HFS	**Hagfors**	**139.32**	**351**	PKhKP		14 08 05.4	
	comp=Z,6.5nm,0.5s,baz=63,slow=3.3,SNR=30						
HFS				SKPbc		14 10 54.3	
	comp=Z,18nm,1.0s,SNR=9.7						
SOC	**Sochi**	**140.55**	**315**	*i* PKIKP	PKPdf	14 08 19.0	+3.0
SOC				*e*		14 11 22.0	
SOC				*e*		14 14 34.0	
SOC				*e*SSS	SSS	14 34 03.8	-26
SOC				pmax	pmax		
	comp=N,14nm,0.8s						
SOC				pmax	pmax		
	comp=Z,11nm,0.8s						
SOC				pmax	pmax		
	comp=E,13nm,0.6s						
NAMS	**An Nimas**	**141.57**	**275**	P	PKPdf	14 08 18.3	-0.2
BLJS	**Baljurashi**	**142.24**	**276**	P	PKPdf	14 08 19.7	+0.1
AKASG	**Malin Array Be**	**142.60**	**331**	PKhKP		14 08 16.9	
	comp=E,24nm,0.5s,baz=41,slow=4.2,SNR=169						
AKASG				SKPbc		14 11 02.6	
	comp=E,6.6nm,0.8s,baz=37,slow=2.5,SNR=21						
MALT	**Malatya**	**143.35**	**307**	PKHKP		14 08 21.9	
MALT	**Malatya**	**143.35**	**307**	*e*PKPdf	PKPdf	14 08 21.7	+0.6
MALT				*e*SKPbc		14 11 05.8	
SIM	**Simferopol’**	**143.49**	**320**	*i* PKHKP		14 08 21.4	
SIM				pmax	pmax		
	comp=Z,70nm,0.7s						
MUD	**Monsted U’grnd**	**143.51**	**353**	*i* PKHKP		14 08 20.5	
MUD				pmax	pmax		
	comp=Z,54nm,0.8s						
MUD	**Monsted U’grnd**	**143.51**	**353**	*i* P	PKPbc	14 08 20.5	+0.6
	comp=Z,54nm,0.8s						
COP	**Copenhagen**	**143.78**	**349**	*e*PKHKP		14 08 19.1	
COP	**Copenhagen**	**143.78**	**349**	*i* P	PKPbc	14 08 19.1	-1.6
BSD	**Bornholm Skovb**	**143.83**	**347**	*e*PKHKP		14 08 18.9	
BSD				pmax	pmax		
	comp=Z,50nm,0.6s						
BSD	**Bornholm Skovb**	**143.83**	**347**	*i* P	PKPbc	14 08 18.9	-2.0
	comp=Z,50nm,0.6s						
MBAR	**Mbarara**	**144.44**	**238**	*i* PKHKP		14 08 24.1	
MBAR	**Mbarara**	**144.44**	**238**	*e*PKPdf	PKPdf	14 08 24.9	+1.2
KBRS	**Khaybar**	**144.77**	**286**	P	PKPdf	14 08 26.3	+2.4
EKA	**Eskdalemuir Ar**	**144.94**	**4**	PKP	PKPdf	14 08 24.4	+1.2
	comp=Z,18nm,1.0s,baz=317,slow=2.6,SNR=14						
EKA				SKPbc		14 11 08.3	
	comp=Z,5.5nm,1.1s,baz=288,slow=2.6,SNR=3.6						
BSEG	**Bad Segeberg**	**145.81**	**351**	*e*PKHKP		14 08 27.8	
DMUB	**Kingscourt**	**145.95**	**9**	*e*P	PKPdf	14 08 27.4	+2.4
ASF	**Jabal al Asfar**	**146.16**	**298**	PKPbc	PKPbc	14 08 30.1	+2.3
	comp=Z,16nm,0.8s,baz=7.9,slow=2.8,SNR=13						
ASF				PKPab	PKPab	14 08 33.5	-0.1
	comp=Z,16nm,0.8s,baz=334,slow=4.6,SNR=9.1						
BRTR	**Keskin Array B**	**146.29**	**312**	PKP	PKPdf	14 08 28.2	+2.2
	comp=Z,7.4nm,0.5s,baz=138,slow=4.1,SNR=36						
BRTR				PKPbc	PKPbc	14 08 29.6	+1.7
	comp=Z,8.4nm,0.6s,baz=134,slow=3.5,SNR=37						
BRTR				SKPbc		14 11 11.4	
	comp=Z,2.8nm,1.0s,baz=135,slow=1.7,SNR=5.6						
DCN	**Croghan**	**146.44**	**9**	*e*P	PKPdf	14 08 29.1	+3.3
DLF	**Lyons Farm**	**146.60**	**9**	⇓*i*P	PKPdf	14 08 29.4	+3.3
OJC	**Ojcow**	**146.82**	**338**	*e*PKP	PKPdf	14 08 30.6	+4.0
CFR	**Carcaliu**	**146.82**	**324**	⇑*i*P	PKPdf	14 08 30.9	+4.2
CFR	**Carcaliu**	**146.82**	**324**	⇓*i*P	PKPdf	14 08 31.0	+4.3
KOLS	**Kolonicke sedl**	**146.93**	**334**	*e*PKP	PKPdf	14 08 31.5	+4.7
KOLS				*e*		14 08 35.0	
KOLS				*e*SKP		14 11 14.3	
TBKS	**Tabuk**	**147.05**	**291**	P	PKPdf	14 08 32.9	+5.2
TIRR	**Tirgusor**	**147.12**	**323**	PKIKP	PKPdf	14 08 31.7	+4.5
VRI	**Vrincioaia**	**147.12**	**326**	⇑*i*P	PKPdf	14 08 31.8	+4.6
VRI	**Vrincioaia**	**147.12**	**326**	⇑*i*P	PKPdf	14 08 31.1	+3.9
HARR	**Harsova**	**147.24**	**324**	PKIKP	PKPdf	14 08 32.5	+5.1
HARR	**Harsova**	**147.24**	**324**	⇑*i*P	PKPdf	14 08 32.4	+5.0
HARR	**Harsova**	**147.24**	**324**	⇓*i*P	PKPdf	14 08 32.4	+5.0
CRVS	**Cervenica-Dubn**	**147.28**	**335**	*i* PKP	PKPdf	14 08 32.6	+5.2
NIE	**Niedzica**	**147.30**	**337**	*e*PKP	PKPdf	14 08 32.5	+5.1
MMLI	**Mount Malkishu**	**147.32**	**299**	P	PKPdf	14 08 33.4	+5.4
WIT	**Witteveen**	**147.37**	**354**	*e*PKP	PKPdf	14 08 32.8	+5.4
KSP	**Ksiaz**	**147.39**	**342**	⇓*e*PKP	PKPdf	14 08 32.5	+5.0
KSP				*e*pPKP		14 10 50.7	
JMQS	**Jabal Moqyreh**	**147.56**	**292**	P	PKPdf	14 08 34.1	+5.7
OKC	**Ostrava-Krasne**	**147.71**	**339**	*e*PKP	PKPdf	14 08 33.0	+5.0
OKC				*e*		14 08 37.9	
OKC	**Ostrava-Krasne**	**147.71**	**339**	⇑*e*PKPB		14 08 33.0	
OKC				*e*PKPAB	PKPab	14 08 37.9	-1.1
ISR	**Istrita**	**147.72**	**326**	⇑*i*P	PKPdf	14 08 33.0	+4.8
UPC	**Upice**	**147.77**	**342**	*e*PKIKP	PKPdf	14 08 33.4	+5.3
UPC	**Upice**	**147.77**	**342**	⇑*e*PKPB		14 08 33.4	
MLR	**Muntele Rosu**	**147.78**	**327**	PKPbc	PKPdf	14 08 33.3	+5.0
	comp=Z,16nm,0.7s,baz=356,slow=0.9,SNR=24						
MLR	**Muntele Rosu**	**147.78**	**327**	PKIKP	PKPdf	14 08 33.2	+4.9
CLL	**Collm**	**147.80**	**346**	*i* PKIKP	PKPdf	14 08 33.2	+5.1
CLL				*i*		14 08 37.8	
CLL				*e*		14 10 55.0	
CLL				pmax	pmax		
	comp=Z,60nm,0.7s						
CLL				pmax	pmax		
	comp=Z,29nm,0.7s						
CLL	**Collm**	**147.80**	**346**	*i* PKP1	PKPdf	14 08 33.2	+5.1
CLL				*i* PKP2	PKPab	14 08 37.8	-1.5
CLL				*e**PPKP		14 10 55.0	
CLL				*i*		14 11 15.2	
CLL				*e*PP	PP	14 12 04.0	-4.5
DPC	**Dobruska-Polom**	**147.82**	**342**	*e*PKIKP	PKPdf	14 08 33.7	+5.5
DPC				*e*		14 08 38.8	
DPC	**Dobruska-Polom**	**147.82**	**342**	⇑*e*PKPB	PKPdf	14 08 33.7	+5.5
DPC				*e*PKPAB	PKPab	14 08 38.8	-0.6
ZFRI	**Zfri**	**147.91**	**295**	P	PKPdf	14 08 34.7	+5.8
MORC	**Moravsky Berou**	**147.95**	**340**	*e*PKPbc	PKPdf	14 08 33.2	+4.8
KECS	**Kecovo**	**148.00**	**336**	*e*PKP	PKPdf	14 08 34.1	+5.6
KECS				*e*		14 08 39.3	
PRNI	**Paran**	**148.09**	**295**	P	PKPdf	14 08 35.2	+6.0
SNX	**Sinaia**	**148.09**	**327**	PKIKP	PKPdf	14 08 35.2	+6.4
PVCC	**Panska Ves**	**148.15**	**344**	*e*PKIKP	PKPdf	14 08 34.5	+5.8
PVCC	**Panska Ves**	**148.15**	**344**	⇑*e*PKPB	PKPdf	14 08 34.5	+5.8
AQBJ	**Aqaba**	**148.15**	**294**	P	PKPdf	14 08 35.3	+6.0
AYUS	**‘Aynunah**	**148.17**	**291**	P	PKPdf	14 08 35.4	+6.0
JMOS	**Jabal al Moall**	**148.19**	**293**	P	PKPdf	14 08 35.5	+6.1
WTSB	**Winterswijk**	**148.19**	**354**	*e*PKP	PKPdf	14 08 33.9	+5.2
	comp=Z,50nm,0.7s						
ALWS	**Ilw as Safayha**	**148.21**	**293**	P	PKPdf	14 08 35.5	+6.1
EIL	**Elat**	**148.25**	**294**	PKPbc	PKPdf	14 08 35.4	+5.9
	comp=Z,15nm,0.8s,baz=349,slow=2.5,SNR=13						
EIL				PKPab	PKPab	14 08 41.7	-0.2
	comp=Z,11nm,0.7s,baz=143,slow=10,SNR=6.6						
EIL	**Elat**	**148.25**	**294**	P	PKPdf	14 08 35.5	+6.0
EIL	**Elat**	**148.25**	**294**	*e*PKPbc	PKPdf	14 08 35.1	+5.6
MBH	**Mount Berech**	**148.26**	**294**	P	PKPdf	14 08 35.6	+6.1
BDAS	**Al Bad‘**	**148.29**	**291**	P	PKPdf	14 08 35.7	+6.1
CSS	**Prodhromos**	**148.31**	**304**	*e*PKPbc	PKPdf	14 08 34.8	+5.4
HAQS	**Haql**	**148.36**	**293**	P	PKPdf	14 08 35.8	+6.1
KZIT	**Kziot**	**148.50**	**296**	P	PKPdf	14 08 36.1	+6.3
BUC1	**Bucharest**	**148.50**	**325**	PKHKP		14 08 29.5	
VYHS	**Vyhne**	**148.61**	**337**	*e*PKP	PKPdf	14 08 35.7	+6.3
VYHS				*e*		14 08 41.6	
PRU	**Pruhonice**	**148.65**	**344**	*e*PKP	PKPdf	14 08 30.5	+1.1
PRU				*e*		14 08 35.4	
PRU				*e*		14 08 41.6	
PRU	**Pruhonice**	**148.65**	**344**	*e*PKPDF	PKPdf	14 08 30.5	+1.1
PRU				⇑*e*PKPB	PKPdf	14 08 35.4	+6.0
PRU				*e*PKPAB	PKPab	14 08 41.6	-1.2
VRAC	**Vranov**	**148.66**	**341**	PKPbc	PKPdf	14 08 35.6	+6.2
	comp=Z,7.4nm,0.8s,baz=41,slow=2.6,SNR=9.0						
VRAC				PKPab	PKPab	14 08 42.3	-0.6
	comp=Z,6.4nm,0.6s,baz=24,slow=4.9,SNR=8.5						
VRAC	**Vranov**	**148.66**	**341**	PKIKP	PKPdf	14 08 35.7	+6.2
PSZ	**Piszkesteto**	**148.69**	**336**	PKIKP	PKPdf	14 08 36.1	+6.5
PSZ	**Piszkesteto**	**148.69**	**336**	*e*PKPbc	PKPdf	14 08 35.4	+5.8
KOLL	**Kolacno**	**148.69**	**338**	*i* PKP	PKPdf	14 08 36.3	+6.7
KOLL				*e*		14 08 42.1	
MOX	**Moxa**	**148.73**	**347**	*e*PKIKP	PKPdf	14 08 35.4	+5.9
MOX				pmax	pmax		
	comp=Z,68nm,1.6s						
NKC	**Novy Kostel**	**148.93**	**346**	*e*PKIKP	PKPdf	14 08 36.2	+6.3
NKC				*e*		14 08 42.5	
NKC	**Novy Kostel**	**148.93**	**346**	⇑*e*PKPB	PKPdf	14 08 36.2	+6.3
NKC				*e*PKPAB	PKPab	14 08 42.5	-1.5
SMOL	**Smolenice**	**149.09**	**339**	*e*PKP	PKPdf	14 08 37.4	+7.2
SMOL				*e*		14 08 44.6	
SRO	**Srobarova**	**149.37**	**337**	*e*PKP	PKPdf	14 08 37.9	+7.2
SRO				*e*		14 08 45.1	
SRO2	**Moca**	**149.39**	**337**	*e*PKP	PKPdf	14 08 37.5	+6.8
SRO2				*e*		14 08 45.1	
SRO1	**Iza**	**149.45**	**337**	*e*PKP	PKPdf	14 08 37.6	+6.8
SRO1				*e*		14 08 45.5	
HGN	**Heimansgroeve**	**149.47**	**354**	*e*PKP	PKPdf	14 08 36.7	+6.0
	comp=Z,22nm,0.5s						
ZST	**Bratislava**	**149.47**	**339**	*e*PKP	PKPdf	14 08 37.8	+7.0
ZST				*e*		14 08 45.5	
KHC	**Kasperske Hory**	**149.68**	**344**	⇓*i*PKHKP		14 08 36.6	
KHC	**Kasperske Hory**	**149.68**	**344**	*e*PKP	PKPdf	14 08 32.7	+1.6
KHC				*e*		14 08 37.9	
KHC				*e*		14 08 46.1	
KHC	**Kasperske Hory**	**149.68**	**344**	*e*PKPDF	PKPdf	14 08 32.7	+1.6
KHC				⇑*e*PKPB	PKPdf	14 08 37.9	+6.8
KHC				*e*PKPAB	PKPab	14 08 46.1	-1.0
GRF	**Grafenberg Arr**	**149.71**	**347**	*e*PKIKP	PKPdf	14 08 37.7	+6.6
WET	**Wettzell**	**149.85**	**345**	*e*PKP2	PKPab	14 08 46.7	-1.1
GEC2	**GERESS Array S**	**149.91**	**344**	*e*PKIKP	PKPdf	14 08 38.2	+6.7
GERES	**GERESS Array B**	**149.91**	**344**	PKPbc	PKPdf	14 08 38.4	+6.9
	comp=Z,9.3nm,0.8s,baz=31,slow=2.9,SNR=16						
GERES				PKPab	PKPab	14 08 47.0	-1.0
	comp=Z,3.2nm,0.7s,baz=18,slow=4.2,SNR=5.2						
GIVF	**Givet**	**150.22**	**355**	*e*PKP1	PKPdf	14 08 38.8	+6.9
	comp=Z,75nm,1.0s						
BAIF	**Baives**	**150.30**	**356**	*e*PKP1	PKPdf	14 08 39.1	+7.1
	comp=Z,46nm,0.9s						
WLF	**Walferdange**	**150.53**	**354**	*e*PKPbc	PKPdf	14 08 40.0	+7.6
WLF				*e*PKPab	PKPab	14 08 48.1	-2.5
PKSM	**Moragy**	**150.58**	**335**	⇓*e*P	PKPdf	14 08 39.6	+7.0
MOA	**Molln**	**150.66**	**342**	⇑*i*P	PKPdf	14 08 40.3	+7.7
ARSA	**Arzberg**	**150.82**	**340**	⇑*i*P	PKPdf	14 08 40.3	+7.4
RHK1	**Bakonya**	**150.90**	**336**	⇓*e*P	PKPdf	14 08 40.5	+7.4
RZN	**Rozhen**	**150.96**	**322**	*i* P	PKPdf	14 08 41.0	+7.7
STU	**Stuttgart**	**150.98**	**349**	*e*PKPbc	PKPdf	14 08 40.7	+7.6
FUR	**Furstenfeldbru**	**151.14**	**346**	*e*PKP2	PKPab	14 08 51.9	-1.3
VTS	**Vitosha**	**151.20**	**325**	*i* P	PKPdf	14 08 42.0	+8.4
GRUS	**Gruza**	**151.52**	**330**	⇓*i*P	PKPdf	14 08 41.9	+7.9
MMB	**Musomiste**	**151.59**	**323**	*i* P	PKPdf	14 08 42.0	+7.8
CDF	**Champ du Feu**	**151.63**	**352**	*e*PKP1	PKPdf	14 08 41.9	+7.9
FLN	**La Foliniere**	**151.65**	**3**	*e*PKP1	PKPdf	14 08 41.6	+7.6
	comp=Z,37nm,0.8s						
DIVS	**Divcibare**	**151.70**	**331**	⇑*i*P	PKPdf	14 08 42.1	+7.9
KKB	**Krupnik**	**151.76**	**324**	*i* P	PKPdf	14 08 42.5	+8.1
MEZF	**Maizieres J’vi**	**151.79**	**355**	*e*PKP1	PKPdf	14 08 42.5	+8.3
	comp=Z,25nm,0.8s						
LDF	**La Druitiere**	**151.83**	**2**	*e*PKP1	PKPdf	14 08 41.9	+7.6
WATA	**Walderalm**	**151.85**	**345**	⇑*i*P	PKPdf	14 08 42.5	+8.2
ROSF	**Rostrenen**	**151.87**	**7**	*e*PKP1	PKPdf	14 08 42.5	+8.2
WTTA	**Wattenberg**	**151.90**	**345**	⇑*i*P	PKPdf	14 08 43.3	+8.9
MOTA	**Moosalm**	**151.95**	**346**	⇑*i*P	PKPdf	14 08 42.7	+8.2
GRR	**Gorron**	**152.01**	**3**	*e*PKP1	PKPdf	14 08 42.6	+8.1
	comp=Z,16nm,0.6s						
SGMF	**Saint Gilles**	**152.02**	**6**	*e*PKP1	PKPdf	14 08 42.3	+7.7
	comp=Z,26nm,0.8s						
SQTA	**Sankt Quirin**	**152.05**	**346**	⇓*i*P	PKPdf	14 08 43.1	+8.5
HAU	**Haudompre**	**152.15**	**353**	*e*PKP1	PKPdf	14 08 42.9	+8.2
	comp=Z,13nm,0.7s						
HINF	**Hinteralfeld**	**152.27**	**352**	*e*PKP1	PKPdf	14 08 43.0	+8.1
	comp=Z,12nm,0.8s						
DAVOX	**Davos**	**152.76**	**347**	PKP	PKPdf	14 08 37.5	+1.9
	comp=Z,2.0nm,0.6s,baz=53,slow=7.0,SNR=4.8						
DAVOX				PKPbc	PKPdf	14 08 45.3	+10
	comp=Z,12nm,0.4s,baz=247,slow=3.3,SNR=40						
DAVOX				PKPab	PKPab	14 08 59.2	-0.9
	comp=Z,10nm,0.9s,baz=280,slow=2.5,SNR=6.4						
DAVOX	**Davos**	**152.76**	**347**	PKP	PKPdf	14 08 37.5	+1.8
DAVOX				PKPbc	PKPdf	14 08 45.3	+10
DAVOX				PKPab	PKPab	14 08 59.2	-0.9
SSF	**Saint Saulge**	**153.33**	**357**	*e*PKP1	PKPdf	14 08 47.3	+11
CABF	**La Chapelle**	**153.55**	**353**	*e*PKP1	PKPdf	14 08 47.1	+10
	comp=Z,15nm,0.8s						
MFF	**Saint Martin d**	**153.82**	**2**	*e*PKP1	PKPdf	14 08 46.4	+9.3
	comp=Z,6.8nm,0.6s						
TCF	**Toulx Ste Croi**	**154.15**	**359**	*e*PKP1	PKPdf	14 08 49.1	+12
IDI	**Anoyia**	**154.50**	**311**	PKPbc	PKPdf	14 08 50.4	+12
	comp=Z,16nm,1.0s,baz=22,slow=23,SNR=4.7						
IDI				PKPab	PKPab	14 09 08.5	+0.8
	comp=Z,8.1nm,0.6s,baz=304,slow=17,SNR=4.4						
LPL	**La Plagne**	**154.54**	**351**	*e*PKP1	PKPdf	14 08 49.0	+11
BNI	**Bardonecchia**	**155.00**	**351**	*e*PKPdf	PKPdf	14 08 41.0	+2.3
BNI				*e*PKPab	PKPab	14 09 08.7	-0.8
MBDF	**Montbardon**	**155.31**	**351**	*e*PKP1	PKPdf	14 08 50.0	+11
	comp=Z,11nm,0.8s						
TIP	**Timpagrande**	**157.03**	**328**	*e*PKPab	PKPab	14 09 17.4	-1.0
ESDC	**Sonseca Array**	**160.25**	**12**	PKPab	PKPab	14 09 31.1	-1.1
	comp=Z,4.9nm,1.0s,baz=346,slow=4.3,SNR=13						
DBIC	**Dimbokro**	**165.11**	**155**	PKPab	PKPab	14 09 54.5	+0.4

comp=Z,4.6nm,0.6s,baz=166,slow=4.4,SNR=11

NEIC 24 13:52:59.0±1.5,20.36S×178.37W,h600^{km},mb4.2/1,
Error ellipse: s-maj=79.3km s-min=18.7km az=157.0
IDC 24 13:53:04.5±3.1,20.10S×178.78W,h646^{km}±29^{km},mb3.5/5,
mb1 3.7/5,mb1mx3.3/15,Error ellipse: s-maj=78.8km
s-min=15.3km az=157.0
ISC 24 13:53:02.7±3.7,20.2S±0.7×178.7W±0.4,h648^{km}±42^{km},
n13,σ0^{s}42/8,mb4.1/5,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	32.84	264	P	P	13 58 48.3	+0.7
	5.0nm,0.4s,mb4.4,baz=89,slow=12,SNR=5.7						
CTAO	Charters Tower	32.84	264	eP	P	13 58 47.7	+0.1
	3.3nm,0.6s,mb4.0						
PMG	Port Moresby	34.61	283	P	P	13 59 02.2	0.0
	16nm,1.0s,mb4.5,baz=122,slow=5.4,SNR=5.2						
ASAR	Alice Springs	43.93	257	P	P	14 00 16.8	0.0
	4.7nm,0.5s,mb4.1,baz=87,slow=8.6,SNR=5.3						
ASAR				S	S	14 06 04.5	+0.4
	3.1nm,1.1s,baz=97,slow=7.2,SNR=9.9						
WRA	Warramunga Arr	43.97	262	P	P	14 00 16.8	-0.4
	4.4nm,0.3s,mb4.3,baz=97,slow=7.1,SNR=13						
WRA				S	S	14 06 04.4	-0.3
	2.1nm,0.9s,baz=93,slow=8.9,SNR=8.2						
ILAR	Eielson Array	88.17	13	P	P	14 04 47.4	+0.1
	0.5nm,0.5s,mb3.4,baz=215,slow=5.0,SNR=5.9						
BVAR	Borovoye Array	118.41	320	PKP	PKPdf	14 10 39.8	+1.6
	0.5nm,0.3s,baz=128,slow=2.3,SNR=4.5						
ARCES	ARCESS Array B	128.50	349	PKP	PKPdf	14 10 57.8	+0.6
	6.1nm,0.9s,slow=3.6,SNR=2.5						
FINES	FINESS Array B	135.29	343	PKP	PKPdf	14 11 09.2	-0.8
	2.2nm,0.9s,baz=180,slow=3.8,SNR=2.0						
AKASG	Malin Array Be	142.42	331	PKhKP		14 11 21.9	
	2.1nm,0.5s,baz=41,slow=4.3,SNR=6.5						
CLL	Collm	147.61	346	ePKP1	PKPdf	14 11 39.0	+7.2
GERES	GERESS Array B	149.72	344	PKPbc	PKPdf	14 11 43.5	+8.3
	1.3nm,0.8s,slow=3.9,SNR=2.1						
DAVOX	Davos	152.56	347	PKPbc	PKPdf	14 11 50.3	+11
	1.0nm,0.4s,baz=268,slow=5.7,SNR=4.4						

NEIC 24 14:02:09.4±4.0,20.26S×178.56W,h586^{km}±47^{km},mb4.2/4,
Error ellipse: s-maj=28.6km s-min=18.7km az=212.0
IDC 24 14:02:11.9±4.4,20.22S×178.60W,h615^{km}±54^{km},
mb3.2/11,mb1 3.4/12,mb1mx3.3/17,Error ellipse:
s-maj=28.4km s-min=20.8km az=43.0
ISC 24 14:02:09.4±0.7,20.3S±0.1×178.6W±0.1,h600^{km},n26,
σ0^{s}82/20,mb3.9/13,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	18.24	191	P	P	14 05 46.9	-1.2
	1.5nm,0.3s,baz=331,slow=2.4,SNR=9.4						
RPZ	Rata Peaks	24.86	198	P	P	14 06 47.8	-0.2
	20nm,1.1s,mb4.7,baz=195,slow=23,SNR=3.0						
CTA	Charters Tower	32.95	264	eP	P	14 07 58.5	+1.0
	4.4nm,0.7s,mb4.2						
CTA	Charters Tower	32.95	264	P	P	14 07 58.5	+1.0
	9.8nm,0.9s,mb4.4,baz=108,slow=10,SNR=17						
CTAO	Charters Tower	32.95	264	eP	P	14 07 58.0	+0.6
	9.0nm,0.8s,mb4.5						
PMG	Port Moresby	34.76	283	P	P	14 08 13.1	+0.5
	3.1nm,0.5s,mb4.2,baz=246,slow=17,SNR=5.6						
STKA	Stephens Creek	37.35	244	P	P	14 08 35.3	+1.6
	1.4nm,0.5s,mb3.8,baz=125,slow=3.3,SNR=1.9						
ASAR	Alice Springs	44.01	257	P	P	14 09 27.1	+0.2
	3.5nm,0.6s,mb4.1,baz=89,slow=7.4,SNR=80						
ASPA	Alice Springs	44.01	257	eP	P	14 09 27.0	+0.1
WB2	Warramunga Arr	44.05	262	eP	P	14 09 26.8	-0.5
WRAB	Tennant Creek	44.06	262	eP	P	14 09 26.4	-0.9
	4.1nm,0.4s,mb4.3						
WRA	Warramunga Arr	44.06	262	P	P	14 09 26.9	-0.4
	2.3nm,0.3s,mb4.2,baz=97,slow=7.0,SNR=108						
KAKA	Kakadu	47.41	271	eP	P	14 09 52.3	-0.6
	3.2nm,0.6s,mb4.0						
VNDA	Vanda	58.02	185	P	P	14 11 08.7	+1.1
	2.3nm,1.2s,mb3.2,baz=356,slow=6.4,SNR=5.3						
VNDA	Vanda	58.02	185	P	P	14 11 08.4	+0.9
	0.8nm,0.6s,mb3.0						
NVAR	Mina Array Bea	81.30	44	P	P	14 13 26.0	+0.7
	0.6nm,0.7s,mb3.1,baz=226,slow=8.0,SNR=3.7						
NVAR	Mina Array Bea	81.30	44	P	P	14 13 26.0	+0.7
ILAR	Eielson Array	88.28	13	P	P	14 13 57.1	-1.5
	0.6nm,0.6s,mb3.5,baz=224,slow=6.2,SNR=6.7						
PDAR	Pinedale Array	89.23	43	P	P	14 14 04.2	+0.6
	0.1nm,0.4s,mb3.0,baz=180,slow=3.0,SNR=3.6						
CMAR	Chiang Mai Arr	89.53	290	P	P	14 14 05.3	-0.2
	0.9nm,0.7s,mb3.7,baz=121,slow=3.4,SNR=5.1						
BVAR	Borovoye Array	118.59	320	PKP	PKPdf	14 19 49.9	+0.2
	0.6nm,0.6s,SNR=4.3						
AKASG	Malin Array Be	142.60	331	PKhKP		14 20 32.4	
	1.3nm,0.4s,baz=42,slow=4.4,SNR=9.1						
BRTR	Keskin Array B	146.31	312	PKPbc	PKPbc	14 20 43.8	+0.6
	0.7nm,0.6s,baz=135,slow=3.5,SNR=4.3						
CLL	Collm	147.78	346	eP	PKPdf	14 20 48.0	+4.6
CLL	Collm	147.78	346	P	PKPdf	14 20 48.0	+4.6
DAVOX	Davos	152.73	347	PKPbc	PKPdf	14 21 00.6	+10
	1.0nm,0.5s,baz=330,slow=13,SNR=2.9						

IDC 24 14:03:00.5±4.3,20.24S×178.55W,h580^{km}±49^{km},mb3.3/8,
mb1 3.6/9,mb1mx3.4/17,Error ellipse: s-maj=28.3km
s-min=20.4km az=49.0
NEIC 24 14:03:00.8±3.5,20.29S×178.58W,h588^{km}±39^{km},mb4.3/6,
Error ellipse: s-maj=25.3km s-min=15.9km az=224.0
ISC 24 14:02:57.3±4.9,20.3S±0.2×178.6W±0.2,h551^{km}±61^{km},
n27,σ0^{s}76/18,mb3.9/11,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	18.30	191	P	P	14 06 38.1	-0.1
	1.8nm,0.3s,baz=162,slow=21,SNR=9.1						
CTA	Charters Tower	32.96	264	eP	P	14 08 49.4	+1.2
	2.4nm,0.3s,mb4.2						
CTA	Charters Tower	32.96	264	P	P	14 08 49.4	+1.2
	3.5nm,0.3s,mb4.3,baz=107,slow=10,SNR=13						
CTAO	Charters Tower	32.96	264	eP	P	14 08 49.1	+0.9
	5.0nm,0.7s,mb4.2						
PMG	Port Moresby	34.75	283	P	P	14 09 04.2	+1.0
	4.7nm,0.5s,mb4.3,baz=233,slow=16,SNR=6.9						
PMG	Port Moresby	34.75	283	eP	P	14 09 04.2	+1.0
	14nm,0.9s,mb4.5						
ASAR	Alice Springs	44.03	257	P	P	14 10 18.1	+0.1
	5.2nm,0.8s,mb4.1,baz=89,slow=7.6,SNR=27						
ASAR				PcP	PcP	14 11 49.8	-1.9
	0.5nm,0.5s,baz=108,slow=3.5,SNR=4.3						
ASPA	Alice Springs	44.03	257	eP	P	14 10 18.1	+0.1
WB2	Warramunga Arr	44.07	262	eP	P	14 10 17.7	-0.6
WRAB	Tennant Creek	44.07	262	eP	P	14 10 17.4	-0.9
	4.9nm,0.4s,mb4.4						
WRA	Warramunga Arr	44.08	262	P	P	14 10 18.1	-0.3
	2.9nm,0.3s,mb4.3,baz=97,slow=7.4,SNR=40						
KAKA	Kakadu	47.45	271	eP	P	14 10 43.4	-0.9
	5.2nm,0.6s,mb4.2						
VNDA	Vanda	58.08	185	P	P	14 11 60.0	+0.5
	0.7nm,0.5s,mb3.2,baz=28,slow=4.5,SNR=7.6						
VNDA	Vanda	58.08	185	eP	P	14 11 59.5	+0.1
QSPA	South Pole Qui	69.79	180	eP	P	14 13 13.3	0.0
	3.0nm,0.8s,mb3.9						
NVAR	Mina Array Bea	81.25	44	P	P	14 14 17.9	+0.8
	0.8nm,0.9s,mb3.2,baz=227,slow=7.5,SNR=3.7						
ILAR	Eielson Array	88.22	13	P	P	14 14 49.0	-1.4
	0.7nm,0.5s,mb3.7,baz=224,slow=5.7,SNR=15						
CMAR	Chiang Mai Arr	89.52	290	P	P	14 14 58.5	+0.9
	1.1nm,0.8s,mb3.7,baz=129,slow=3.1,SNR=6.5						
BVAR	Borovoye Array	118.55	320	PKP	PKPdf	14 20 41.3	-1.0
	0.7nm,0.4s,baz=100,slow=0.9,SNR=6.2						
ARCES	ARCESS Array B	128.60	349	PKP	PKPdf	14 21 00.5	-0.7
	4.6nm,1.0s,baz=34,slow=4.4,SNR=5.1						
ARCES	ARCESS Array B	128.60	349	PKP	PKPdf	14 21 00.5	-0.7
HFS	Hagfors	139.23	351	PKhKP		14 21 13.1	
	2.3nm,0.8s,baz=45,slow=2.1,SNR=5.3						
AKASG	Malin Array Be	142.55	331	PKhKP		14 21 23.6	
	2.7nm,0.5s,baz=40,slow=4.2,SNR=14						
BRTR	Keskin Array B	146.28	312	PKPbc	PKPbc	14 21 36.1	+0.4
	0.9nm,0.6s,baz=147,slow=5.2,SNR=4.3						
CLL	Collm	147.72	346	i PKP1	PKPdf	14 21 40.0	+4.1
MLR	Muntele Rosu	147.74	327	PKPbc	PKPdf	14 21 41.1	+5.0
	1.9nm,0.8s,baz=158,slow=21,SNR=2.6						
DAVOX	Davos	152.67	347	PKPbc	PKPdf	14 21 51.7	+8.2
	1.6nm,0.5s,baz=0.3,slow=3.2,SNR=3.9						

IDC 24 14:09:17.7±5.3,4.85S×153.89E,h118^{km}±44^{km},mb3.8/10,
mb1 4.0/11,mb1mx3.9/15,MS3.1/2,Ms1 3.1/2,
ms1mx2.8/20,Error ellipse: s-maj=38.9km s-min=20.8km
az=98.0
NEIC 24 14:09:18.6±2.7,4.86S×153.84E,h127^{km}±22^{km},mb4.6/4,
Error ellipse: s-maj=25.7km s-min=13.1km az=108.0
BJI 24 14:09:18.6,4.90S×153.80E,h126^{km},mb4.6
ISC 24 14:09:17.0±3.8,4.9S±0.1×153.9E±0.2,h124^{km}±30^{km},n27,
σ0^{s}68/29,mb4.3/20,New Ireland region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	8.04	236	P	P	14 11 12.5	+0.2
	7.5nm,0.3s,baz=38,slow=7.7,SNR=28						
PMG				S	S	14 12 42.0	0.0
	3.2nm,0.3s,baz=90,slow=20,SNR=4.7						
PMG				LR	LR	14 13 19.9	
	comp=Z,103nm,21.8s,baz=78,slow=30						
PMG	Port Moresby	8.04	236	P	P	14 11 12.5	+0.2
PMG				S	S	14 12 42.0	0.0
PMG				LR	LR	14 13 19.9	
CTA	Charters Tower	16.84	205	eP	P	14 13 16.1	+9.4
	3.3nm,1.4s						
KAKA	Kakadu	22.55	248	eP	P	14 14 07.4	-0.1
	14nm,0.5s,mb4.5						
WRAB	Tennant Creek	24.19	230	eP	P	14 14 23.5	+0.2
	12nm,0.8s,mb4.3						
WB2	Warramunga Arr	24.20	230	eP	P	14 14 24.5	+1.1
WRA	Warramunga Arr	24.21	230	P	P	14 14 23.8	+0.3
	6.4nm,0.6s,mb4.1,baz=54,slow=9.7,SNR=61						
ASAR	Alice Springs	26.83	224	P	P	14 14 47.2	-0.6
	2.3nm,0.8s,mb3.8,baz=54,slow=9.0,SNR=37						
ASAR				LR	LR	14 25 21.7	
	comp=Z,65nm,19.0s,baz=184,slow=36						
ASPA	Alice Springs	26.83	224	eP	P	14 14 47.6	-0.3
STKA	Stephens Creek	29.23	202	P	P	14 15 08.5	-0.9
	3.3nm,0.7s,mb4.0,baz=46,slow=11,SNR=5.3						
FITZ	Fitzroy Crossi	30.57	242	eP	P	14 15 20.1	-1.3
	7.5nm,0.6s,mb4.6						
ENH	Enshi	54.99	312	eP	P	14 18 37.0	-1.0
	10nm,0.9s,mb4.8						
CMAR	Chiang Mai Arr	58.88	295	P	P	14 19 05.3	-0.2
	0.9nm,0.7s,mb3.9,baz=116,slow=5.4,SNR=7.6						
GTA	Gaotai	66.44	317	eP	P	14 19 56.3	+0.9
GTA				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.2						
SONM	Songino Array	66.96	327	P	P	14 19 58.4	-0.1
	comp=Z,0.6nm,0.5s,mb3.7,baz=145,slow=6.2,SNR=7.0						
GUN	Gumba	73.08	301	eP	P	14 20 36.5	+0.6
	comp=Z,22nm,0.8s,mb5.0						
PKI	Pulchoki	73.39	300	eP	P	14 20 38.1	+0.4
KKN	Kakani	73.56	301	eP	P	14 20 39.0	+0.3
	comp=Z,13nm,0.7s,mb4.8						
DMN	Daman	73.66	300	eP	P	14 20 39.6	+0.3
	comp=Z,23nm,1.0s,mb4.9						
GKN	Gorkha	74.16	301	eP	P	14 20 42.5	+0.3
	comp=Z,18nm,0.9s,mb4.8						
KOLN	Koldanda	75.00	300	eP	P	14 20 47.4	+0.5
	comp=Z,13nm,0.9s,mb4.7						
ZAL	Zalesovo	81.82	326	P	P	14 21 21.8	-1.8
	comp=Z,0.7nm,0.3s,mb3.9,baz=109,slow=8.2,SNR=3.0						
ILAR	Eielson Array	81.83	22	P	P	14 21 23.2	-0.2
	comp=Z,0.4nm,0.7s,mb3.3,baz=231,slow=5.7,SNR=5.0						
MAW	Mawson	85.91	203	P	P	14 21 44.8	+1.0
	comp=Z,3.6nm,0.8s,mb4.3,baz=104,slow=12,SNR=3.5						
BVAR	Borovoye Array	89.94	323	P	P	14 22 03.1	-0.2
	comp=Z,2.0nm,0.8s,mb4.3,baz=90,slow=4.4,SNR=13						
YKA	Yellowknife Ar	94.99	28	P	P	14 22 26.7	+0.3
	comp=Z,0.3nm,0.9s,mb3.7,baz=266,slow=4.6,SNR=4.8						
YKA	Yellowknife Ar	94.99	28	P	P	14 22 26.7	+0.3

NEIC 24 14:12:13.8±2.6,20.34S×178.59W,h612^{km}±29^{km},mb4.5/5,
Error ellipse: s-maj=18.8km s-min=15.2km az=215.0
IDC 24 14:12:16.4±2.3,20.28S×178.74W,h636^{km}±26^{km},
mb3.3/13,mb1 3.5/14,mb1mx3.4/18,Error ellipse:
s-maj=20.8km s-min=13.1km az=157.0
ISC 24 14:12:13.8±2.0,20.4S±0.1×178.7W±0.1,h624^{km}±27^{km},
n34,σ0^{s}95/27,mb4.0/16,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	13.94	261	eP	P	14 15 15.0	+3.6
URZ	Urewera	18.16	191	P	P	14 15 49.3	-1.8
	0.8nm,0.3s,baz=102,slow=3.5,SNR=9.9						
CTA	Charters Tower	32.83	264	eP	P	14 18 00.3	+0.6
	7.9nm,0.5s,mb4.6						
CTA	Charters Tower	32.83	264	P	P	14 18 00.5	+0.8
	9.5nm,0.5s,mb4.7,baz=92,slow=11,SNR=40						
CTAO	Charters Tower	32.83	264	eP	P	14 17 60.0	+0.2
	12nm,0.7s,mb4.7						
PMG	Port Moresby	34.67	283	P	P	14 18 15.3	+0.3
	15nm,0.7s,mb4.7,baz=104,slow=6.7,SNR=9.7						
PMG	Port Moresby	34.67	283	P	P	14 18 15.3	+0.3
STKA	Stephens Creek	37.23	244	P	P	14 18 36.1	+0.2
	4.7nm,1.2s,mb3.9,baz=83,slow=8.4,SNR=4.2						
STKA	Stephens Creek	37.23	244	P	P	14 18 36.6	+0.8
ASAR	Alice Springs	43.89	257	P	P	14 19 29.5	+0.5
	7.2nm,0.6s,mb4.4,baz=92,slow=7.4,SNR=152						
ASAR				PcP	PcP	14 21 01.1	0.0
	1.0nm,0.6s,baz=105,slow=3.6,SNR=4.0						
ASAR				S	S	14 25 17.1	0.0
	0.5nm,0.7s,baz=94,slow=15,SNR=6.2						
ASPA	Alice Springs	43.89	257	eP	P	14 19 29.0	0.0
WB2	Warramunga Arr	43.94	262	eP	P	14 19 28.8	-0.6
WRAB	Tennant Creek	43.94	262	eP	P	14 19 28.7	-0.8
	7.7nm,0.4s,mb4.6						
WRA	Warramunga Arr	43.95	262	P	P	14 19 28.9	-0.6
	3.5nm,0.3s,mb4.4,baz=97,slow=7.0,SNR=168						
WRA				S	S	14 25 16.4	-1.6
	0.6nm,1.1s,baz=92,slow=12,SNR=3.1						
KAKA	Kakadu	47.34	271	eP	P	14 19 54.5	-0.8
	8.1nm,0.6s,mb4.4						
FITZ	Fitzroy Crossi	52.38	262	eP	P	14 20 32.1	+0.1
	4.3nm,0.4s,mb4.1						
VNDA	Vanda	57.95	185	P	P	14 21 10.8	+1.0
	0.9nm,0.9s,mb2.9,baz=335,slow=7.1,SNR=5.5						
VNDA	Vanda	57.95	185	eP	P	14 21 10.3	+0.6
ASAJ	Asahikawa	73.32	332	P	P	14 22 45.5	+0.5
	5.7nm,0.6s,mb4.3,baz=92,slow=11,SNR=4.1						
NVAR	Mina Array Bea	81.42	44	P	P	14 23 28.4	+0.1
	0.5nm,0.7s,mb3.0,baz=218,slow=9.8,SNR=3.5						
SNAA	Sanae	88.12	179	P	P	14 24 01.0	+0.9
	1.7nm,1.4s,mb3.6,baz=194,slow=17,SNR=2.2						
ILAR	Eielson Array	88.37	13	P	P	14 24 00.1	-1.3
	0.8nm,0.6s,mb3.6,baz=219,slow=4.4,SNR=13						
PDAR	Pinedale Array	89.35	43	P	P	14 24 06.8	+0.3
	0.4nm,0.6s,mb3.4,baz=270,slow=1.5,SNR=4.0						
CMAR	Chiang Mai Arr	89.45	290	P	P	14 24 09.5	+2.0
	3.0nm,1.0s,mb4.1,baz=126,slow=2.8,SNR=12						
YKA	Yellowknife Ar	96.70	25	P	P	14 24 38.6	-0.8
	0.2nm,0.7s,mb3.4,baz=242,slow=4.4,SNR=4.0						
BVAR	Borovoye Array	118.57	320	PKP	PKPdf	14 29 52.3	+0.5
	0.8nm,0.4s,baz=114,slow=3.0,SNR=5.9						
ARCES	ARCESS Array B	128.70	349	PKP	PKPdf	14 30 11.5	+0.6
	5.7nm,0.9s,baz=34,slow=4.4,SNR=6.5						
FINES	FINESS Array B	135.49	343	PKP	PKPdf	14 30 25.7	+2.0
	4.3nm,1.1s,baz=108,slow=6.0,SNR=4.8						
AKASG	Malin Array Be	142.60	331	PKhKP		14 30 35.0	
	10.0nm,0.8s,baz=42,slow=4.2,SNR=23						
BRTR	Keskin Array B	146.28	312	PKPbc	PKPbc	14 30 46.9	+1.6
	1.5nm,0.8s,baz=143,slow=6.4,SNR=4.7						
MLR	Muntele Rosu	147.78	327	PKPbc	PKPdf	14 30 51.2	+5.5
	2.4nm,0.7s,baz=202,slow=8.5,SNR=3.8						
CLL	Collm	147.81	346	i PKP1	PKPdf	14 30 50.8	+5.3
GERES	GERESS Array B	149.92	344	PKPbc	PKPdf	14 30 55.8	+6.9
	1.1nm,0.7s,baz=346,slow=5.5,SNR=2.8						
DAVOX	Davos	152.77	347	PKPbc	PKPdf	14 31 02.4	+9.4
	2.5nm,0.7s,baz=319,slow=9.4,SNR=5.3						

IDC 24 14:20:23.4±2.0,20.56S×178.59W,h634^{km}±24^{km},
mb3.7/17,mb1 3.8/18,mb1mx3.7/22,Error ellipse:
s-maj=15.2km s-min=11.4km az=141.0
NEIC 24 14:20:25.4±1.7,20.50S×178.67W,h657^{km}±20^{km},mb4.5/9,
Error ellipse: s-maj=16.1km s-min=11.6km az=175.0
ISC 24 14:20:23.2±2.0,20.6S±0.1×178.68W±0.10,h645^{km}±27^{km},
n59,σ0^{s}92/35,mb4.2/24,2D,Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	13.94	261	eP	P	14 23 23.2	+2.6
URZ	Urewera	18.02	191	P	P	14 23 57.0	-1.6
	3.5nm,0.3s,baz=40,slow=7.9,SNR=23						
URZ				S	S	14 26 51.1	-0.4
	0.3nm,0.3s,baz=148,slow=20,SNR=3.4						
RPZ	Rata Peaks	24.63	198	P	P	14 24 59.4	+1.5
	12nm,1.0s,mb4.3,baz=35,slow=15,SNR=3.4						
CTA	Charters Tower	32.85	265	eP	P	14 26 08.5	+0.3
	10nm,0.3s,mb4.8						
CTA	Charters Tower	32.85	265	P	P	14 26 08.6	+0.4
	15nm,0.4s,mb4.9,baz=92,slow=10,SNR=83						
CTAO	Charters Tower	32.85	265	eP	P	14 26 08.4	+0.2
	15nm,0.8s,mb4.6						
PMG	Port Moresby	34.73	283	P	P	14 26 23.5	-0.4
	26nm,0.9s,mb4.7,baz=95,slow=5.0,SNR=14						
STKA	Stephens Creek	37.19	244	eP	P	14 26 45.2	+1.4
	3.9nm,0.6s,mb4.1						
STKA	Stephens Creek	37.19	244	P	P	14 26 45.0	+1.1
	3.7nm,0.4s,mb4.2,baz=89,slow=7.8,SNR=14						
ASAR	Alice Springs	43.88	257	P	P	14 27 37.2	+0.1
	20nm,0.8s,mb4.5,baz=88,slow=7.7,SNR=426						
ASAR				PcP	PcP	14 29 08.8	+0.3
	2.3nm,0.5s,baz=105,slow=3.6,SNR=8.8						
ASAR				S	S	14 33 25.1	+0.9
	0.6nm,0.8s,baz=86,slow=14,SNR=5.0						
ASPA	Alice Springs	43.88	257	eP	P	14 27 37.2	+0.1
WB2	Warramunga Arr	43.95	262	⇓iP	P	14 27 36.8	-0.8
WRAB	Tennant Creek	43.95	262	eP	P	14 27 36.7	-1.0
	14nm,0.3s,mb4.8						
WRA	Warramunga Arr	43.96	262	P	P	14 27 36.9	-0.8
	12nm,0.3s,mb4.7,baz=97,slow=7.2,SNR=561						
KAKA	Kakadu	47.38	271	eP	P	14 28 02.7	-0.9
	7.3nm,0.2s,mb4.7						
FITZ	Fitzroy Crossi	52.38	263	eP	P	14 28 40.0	0.0
	7.9nm,0.4s,mb4.3						
MBWA	Marble Bar	57.22	258	eP	P	14 29 12.8	-0.6
	6.3nm,0.4s,mb4.1						
KLBR	Kellerberrin	57.45	245	eP	P	14 29 14.4	-0.5
	36nm,1.5s,mb4.3						
NWAO	Narrogin (SRO)	57.77	243	P	P	14 29 17.7	+0.7
	13nm,1.1s,mb3.9,baz=115,slow=15,SNR=3.0						
NWAO	Narrogin (SRO)	57.77	243	P	P	14 29 17.7	+0.7
TGY	Tagaytay City	68.60	295	P	P	14 30 25.5	-0.3
	49nm,0.3s,mb5.2,baz=129,slow=12,SNR=3.1						
JOW	Kunigami	69.71	310	P	P	14 30 31.8	-0.4
	16nm,0.7s,mb4.5,baz=146,slow=15,SNR=3.3						
ASAJ	Asahikawa	73.47	332	P	P	14 30 53.9	+0.3
	7.5nm,0.9s,mb4.1,baz=146,slow=15,SNR=4.9						
YBH	Yreka Blue Hor	80.73	39	P	P	14 31 33.1	+0.7
	2.0nm,0.5s,mb3.8,baz=123,slow=11,SNR=3.4						
NVAR	Mina Array Bea	81.50	44	P	P	14 31 36.9	+0.4
	2.1nm,0.8s,mb3.7,baz=226,slow=8.3,SNR=13						
ENH	Enshi	85.54	304	eP	P	14 31 56.8	+0.2
	6.8nm,0.8s,mb4.3						
TXAR	Lajitas Array	87.62	58	P	P	14 32 07.0	+0.6
	1.8nm,0.8s,mb3.8,baz=217,slow=6.3,SNR=12						
TXAR	Lajitas Array	87.62	58	P	P	14 32 07.0	+0.6
ANMO	Albuquerque	87.94	52	P	P	14 32 08.2	+0.6
	0.8nm,0.8s,mb3.4,baz=189,slow=6.9,SNR=2.7						
ILAR	Eielson Array	88.51	13	P	P	14 32 07.9	-1.7
	1.4nm,0.5s,mb4.0,baz=223,slow=5.5,SNR=44						
PDAR	Pinedale Array	89.44	43	P	P	14 32 14.6	+0.2
	1.4nm,0.6s,mb3.9,baz=221,slow=3.5,SNR=14						
CMAR	Chiang Mai Arr	89.53	290	P	P	14 32 17.4	+2.0
	4.7nm,1.1s,mb4.2,baz=131,slow=2.8,SNR=15						
YKA	Yellowknife Ar	96.83	25	P	P	14 32 46.4	-1.2
	0.2nm,0.6s,mb3.5,baz=247,slow=4.2,SNR=6.3						
CHKZ	Chkalovo	118.53	321	ePKPdf	PKPdf	14 37 59.1	0.0
BVAR	Borovoye Array	118.71	320	PKP	PKPdf	14 38 00.2	+0.6
	1.9nm,0.3s,baz=119,slow=2.0,SNR=17						
BRVK	Borovoye	118.77	320	ePKPdf	PKPdf	14 38 00.2	+0.5
ARCES	ARCESS Array B	128.86	349	PKP	PKPdf	14 38 19.7	+1.1
	4.2nm,0.7s,baz=76,slow=1.1,SNR=12						
FINES	FINESS Array B	135.64	343	PKP	PKPdf	14 38 30.5	-0.9
	3.0nm,0.9s,baz=90,slow=3.8,SNR=6.4						
KMBO	Kilima Mbogo	138.75	243	PKhKP		14 38 31.2	
	1.5nm,0.6s,baz=60,slow=23,SNR=3.5						
NOA	NORSAR Array B	138.96	353	PKhKP		14 38 32.1	
	1.0nm,0.8s,baz=176,slow=15,SNR=3.0						
HFS	Hagfors	139.49	350	PKhKP		14 38 31.2	
	2.0nm,0.3s,baz=72,slow=4.7,SNR=13						
AKASG	Malin Array Be	142.75	331	PKhKP		14 38 43.0	
	7.2nm,0.5s,baz=41,slow=4.2,SNR=36						
MALT	Malatya	143.45	307	ePKPdf	PKPdf	14 38 47.4	+1.3
MBAR	Mbarara	144.35	237	ePKPdf	PKPdf	14 38 50.2	+1.9
EKA	Eskdalemuir Ar	145.11	4	PKPbc	PKPbc	14 38 50.1	+0.9
	3.3nm,0.8s,baz=341,slow=2.8,SNR=5.1						
ASF	Jabal al Asfar	146.23	297	PKPbc	PKPbc	14 38 54.5	+1.7
	5.5nm,0.8s,baz=282,slow=2.4,SNR=5.0						
BRTR	Keskin Array B	146.40	312	PKPbc	PKPbc	14 38 55.0	+2.1
	3.2nm,0.7s,baz=135,slow=4.1,SNR=9.5						
MLR	Muntele Rosu	147.92	326	PKPbc	PKPdf	14 38 58.0	+4.8
	3.9nm,0.8s,baz=11,slow=10,SNR=7.4						
UPC	Upice	147.93	342	ePKP	PKPdf	14 38 58.8	+5.7
CLL	Collm	147.97	346	⇓iPKP1	PKPdf	14 38 58.7	+5.6
CLL				i PKP2	PKPab	14 39 03.1	-2.1
DPC	Dobruska-Polom	147.98	342	ePKP	PKPdf	14 38 59.2	+6.0
DPC				ex	x	14 39 04.2	
EIL	Elat	148.31	293	PKPbc	PKPdf	14 39 00.9	+6.5
	3.3nm,0.7s,baz=332,slow=8.2,SNR=4.6						
EIL	Elat	148.31	293	ePKPbc	PKPdf	14 39 00.6	+6.2
PRU	Pruhonice	148.81	343	ePKP	PKPdf	14 39 00.8	+6.3
PRU				ex	x	14 39 07.0	
NKC	Novy Kostel	149.10	346	ePKP	PKPdf	14 39 01.8	+6.9
NKC				ex	x	14 39 08.2	
KHC	Kasperske Hory	149.85	344	ePKP	PKPdf	14 39 03.4	+7.3
KHC				ex	x	14 39 11.7	
GERES	GERESS Array B	150.08	343	PKPbc	PKPdf	14 39 03.2	+6.7
	2.8nm,0.7s,baz=72,slow=4.2,SNR=7.0						
GERES				PKPab	PKPab	14 39 12.3	-1.6
	0.5nm,0.4s,baz=2.2,slow=35,SNR=4.5						
GERES	GERESS Array B	150.08	343	PKPbc	PKPdf	14 39 03.2	+6.7
GERES				PKPab	PKPab	14 39 12.3	-1.6
DAVOX	Davos	152.92	347	PKPbc	PKPdf	14 39 10.7	+10
	4.4nm,0.5s,baz=256,slow=3.9,SNR=13						
DAVOX				PKPab	PKPab	14 39 24.7	-1.3
	1.3nm,0.5s,baz=173,slow=23,SNR=3.0						

MAN 24 14:22:49.9,4.89N×126.84E,h47^{km},mb4.8,ML3.7,MS3.8
IDC 24 14:22:53.7±7.0,4.99N×126.83E,h86^{km}±64^{km},mb4.0/15,
mb1 4.1/15,mb1mx4.1/21,MS3.1/1,Ms1 3.1/1,
ms1mx2.7/25,Error ellipse: s-maj=31.9km s-min=14.1km
az=73.0
BJI 24 14:22:54.6,4.90N×126.80E,h116^{km},mB5.1,mb4.5
NEIC 24 14:22:56.6±2.8,4.95N×126.78E,h117^{km}±26^{km},mb4.7/15,
Error ellipse: s-maj=14.1km s-min=4.9km az=77.0
ISC 24 14:22:52.2±0.9,4.98N±0.05×126.70E±0.10,h89^{km}±7^{km},
n53,σ0^{s}85/55,mb4.4/36,1D,Talaud Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	2.01	347	eP	P	14 23 23.8	-1.2
KCP	Kidapawan	2.58	322	⇓eP	P	14 23 36.8	+3.9
KCP				i S	S	14 24 19.2	+16
BIPH	Bislig	3.21	354	eP	P	14 23 40.0	-1.6
BIPH				eS	S	14 24 17.7	-1.1
BUKP	Musuan	3.31	331	eP	P	14 23 42.7	-0.3
BUTP	Butuan	4.11	345	eP	P	14 23 55.9	+1.8
PAGZ	Pagadian	4.36	311	eP	P	14 23 59.2	+1.7
SCPH	Surigao	4.92	346	eP	P	14 24 05.5	+0.2
SCPH				eS	S	14 25 02.7	+1.3
IPIL	Ipil	4.96	304	eP	P	14 24 05.9	+0.1
MSLP	Maasin	5.44	341	eP	P	14 24 12.2	-0.1
OCLP	Ormoc	6.38	341	eP	P	14 24 18.1	-7.2
FITZ	Fitzroy Crossi	22.95	183	eP	P	14 27 50.3	+0.7
	23nm,0.8s,mb4.6						
WRAB	Tennant Creek	25.87	163	eP	P	14 28 18.2	+0.7
	9.6nm,0.6s,mb4.4						
WRA	Warramunga Arr	25.88	163	P	P	14 28 17.1	-0.5
	6.8nm,0.8s,mb4.2,baz=342,slow=10,SNR=12						
CBIJ	Chichi jima	26.50	32	LR	LR	14 37 56.5	
	comp=Z,50nm,22.0s,baz=182,slow=34						
MBWA	Marble Bar	26.86	195	eP	P	14 28 26.2	-0.4
	17nm,0.8s,mb4.6						
ASAR	Alice Springs	29.32	166	P	P	14 28 48.2	-0.5
	0.7nm,0.6s,mb3.5,baz=354,slow=8.2,SNR=3.3						
ASAR				PcP	PcP	14 31 55.0	+1.7
	0.5nm,0.5s,baz=342,slow=2.3,SNR=5.8						
ENH	Enshi	29.94	329	eP	P	14 28 53.5	-0.7
	4.9nm,0.7s,mb4.2						
CMAR	Chiang Mai Arr	30.23	299	P	P	14 28 57.2	+0.4
	0.4nm,0.4s,mb3.4,baz=114,slow=6.6,SNR=4.7						
XAN	Xi’an	33.30	332	P	P	14 29 22.0	-1.5
XAN				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.2						
BJT	Baijiatuau	36.16	346	eP	P	14 29 47.8	0.0
	comp=Z,16nm,0.7s,mb5.1						

BJI	Beijing	36.18	346	eP	P	14 29 48.3	+0.4
BJI				AMB	AMB		
	comp=Z,21nm,0.7s,mb5.2						
BJI	Beijing	36.18	346	eP	P	14 29 48.2	+0.3
	comp=Z,21nm,0.7s,mb5.2						
KLBR	Kellerberrin	37.35	193	eP	P	14 29 57.9	+0.1
	comp=Z,7.5nm,0.4s,mb5.0						
MUN	Mundaring	38.08	195	eP	P	14 30 04.3	+0.4
	comp=Z,10nm,0.4s,mb5.0						
HHC	Hu-ho-hao-te	38.21	341	eP	P	14 30 05.9	+1.0
HHC				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
HHC				AMB	AMB		
	comp=Z,111nm,5.0s						
HHC				LR	LR		
	comp=N,185nm,14.3s						
HHC				LR	LR		
	comp=E,216nm,13.1s						
HHC				LR	LR		
	comp=Z,96nm,14.3s						
NWAO	Narrogin (SRO)	38.75	193	P	P	14 30 10.4	+0.9
	comp=Z,15nm,0.6s,mb5.0,baz=13,slow=8.0,SNR=22						
NWAO	Narrogin (SRO)	38.75	193	eP	P	14 30 09.7	+0.2
	comp=Z,10nm,0.5s,mb4.9						
STKA	Stephens Creek	39.30	160	P	P	14 30 13.6	-0.4
	comp=Z,2.4nm,0.6s,mb4.2,baz=16,slow=7.4,SNR=5.0						
ASAJ	Asahikawa	41.42	17	P	P	14 30 32.3	+1.0
	comp=Z,6.4nm,0.7s,mb4.6,baz=221,slow=9.3,SNR=3.6						
HIA	Hailar	44.53	354	P	P	14 30 57.5	+0.9
	comp=Z,2.8nm,0.8s,mb4.0						
GUN	Gumba	44.98	305	eP	P	14 31 00.6	+0.1
	comp=Z,12nm,0.7s,mb4.8						
PKI	Pulchoki	45.24	304	eP	P	14 31 01.3	-1.2
KKN	Kakani	45.42	305	eP	P	14 31 03.0	-1.0
	comp=Z,4.0nm,0.5s,mb4.4						
DMN	Daman	45.50	304	eP	P	14 31 02.8	-1.8
	comp=Z,11nm,1.0s,mb4.5						
ULN	Ulaanbaatar	45.93	342	eP	P	14 31 08.7	+0.9
	comp=Z,13nm,0.9s,mb4.7						
GKN	Gorkha	46.03	305	eP	P	14 31 08.3	-0.5
	comp=Z,5.3nm,0.5s,mb4.6						
SONM	Songino Array	46.12	341	P	P	14 31 10.3	+1.1
	comp=Z,3.7nm,0.7s,mb4.2,baz=154,slow=7.8,SNR=27						
SONM				PcP	PcP	14 32 44.9	+0.5
	comp=Z,0.7nm,0.5s,baz=149,slow=3.3,SNR=4.1						
KOLN	Koldanda	46.80	304	eP	P	14 31 14.2	-0.7
	comp=Z,7.4nm,0.4s,mb4.8						
YAK	Yakutsk	56.97	2	eP	P	14 32 29.5	-1.0
	comp=Z,18nm,0.7s,mb5.2						
ZAL	Zalesovo	59.47	333	P	P	14 32 47.9	-0.2
	comp=Z,0.7nm,0.4s,mb4.0,baz=1.9,slow=9.0,SNR=4.1						
BVAR	Borovoye Array	66.27	327	P	P	14 33 32.8	-0.2
	comp=Z,3.0nm,0.5s,mb4.4,baz=111,slow=5.9,SNR=26						
BRVK	Borovoye	66.34	327	eP	P	14 33 33.5	+0.1
	comp=Z,6.5nm,0.7s,mb4.6						
CHKZ	Chkalovo	66.42	327	eP	P	14 33 33.4	-0.5
	comp=Z,3.1nm,0.9s,mb4.1						
IMA	Indian Mountai	81.27	24	eP	P	14 35 00.1	+0.4
ILAR	Eielson Array	84.00	25	P	P	14 35 13.3	-0.2
	comp=Z,0.7nm,0.6s,mb3.7,baz=251,slow=5.6,SNR=24						
VNDA	Vanda	84.66	173	eP	P	14 35 16.2	-0.4
	comp=Z,5.0nm,0.9s,mb4.4						
BRTR	Keskin Array B	89.21	310	P	P	14 35 40.9	+1.4
	comp=Z,0.3nm,0.4s,mb3.7,baz=79,slow=4.3,SNR=3.0						
ARCES	ARCESS Array B	89.28	340	P	P	14 35 39.5	+0.4
	comp=Z,6.0nm,1.1s,mb4.6,baz=45,slow=3.4,SNR=8.0						
FINES	FINESS Array B	90.73	332	P	P	14 35 46.2	+0.2
	comp=Z,1.4nm,0.7s,mb4.2,baz=56,slow=6.9,SNR=11						
FINES	FINESS Array B	90.73	332	P	P	14 35 46.2	+0.2
HFS	Hagfors	96.91	332	P	P	14 36 15.0	+0.6
	comp=Z,4.3nm,1.0s,mb4.8,baz=90,slow=5.8,SNR=4.9						
YKA	Yellowknife Ar	98.38	24	P	P	14 36 20.4	-0.5
	comp=Z,0.4nm,0.8s,mb4.0,baz=298,slow=4.5,SNR=7.4						
YKA	Yellowknife Ar	98.38	24	P	P	14 36 20.4	-0.5

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*IDC **24** 14:29:23.1±0.8, 49.56S×162.55E, mb4.7/9, mb1 4.8/11, mb1mx4.7/13, ML4.5/2, MS4.4/8, Ms1 4.4/8, ms1mx3.8/17, Error ellipse: s-maj=38.3km s-min=18.2km az=69.0*

*NEIC **24** 14:29:29.8±0.5, 49.59S×161.54E, h10^{km}, mb4.8/15, Error ellipse: s-maj=13.2km s-min=5.2km az=163.0*

ISC 24 14:29:25.6±0.4**, 49.73S**±0.06×**161.71E**±0.06**, h10^{km}, n89, σ1^{s}47**/81**, mb4.7**/18**, MS4.3**/8**, 5C-2D, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.69	50	P	Pn	14 30 54.3	+2.0
WHZ				S	Sn	14 31 58.2	-0.2
WHZ	Wether Hill Ro	5.69	50	P	Pn	14 30 54.0	+1.7
WHZ				S	Sn	14 31 57.5	-0.9
MLZ	Mavora Lakes	6.19	47	P	Pn	14 31 01.5	+2.1
MLZ				S	Sn	14 32 11.2	+0.2
TUZ	Tuapeka	6.53	58	P	Pn	14 31 05.6	+1.4
TUZ				S	Sn	14 32 18.7	-0.8
TUZ	Tuapeka	6.53	58	P	Pn	14 31 05.3	+1.1
TUZ				S	Sn	14 32 17.5	-2.0
MSZ	Milford Sound	6.59	42	P	Pn	14 31 08.5	+3.4
EAZ	Earnscleugh	6.83	52	P	Pn	14 31 09.5	+1.1
EAZ				S	Sn	14 32 27.0	-0.1
EAZ	Earnscleugh	6.83	52	P	Pn	14 31 09.4	+1.0
EAZ				S	Sn	14 32 27.0	-0.1
WKZ	Wanaka	6.98	48	P	Pn	14 31 12.8	+2.3
WKZ	Wanaka	6.98	48	P	Pn	14 31 12.6	+2.1
WKZ				S	Sn	14 32 32.6	+1.9
JCZ	Jackson Bay	7.43	43	⇓P	Pn	14 31 20.2	+3.4
ODZ	Otahua Downs	7.66	56	P	Pn	14 31 19.3	-0.7
ODZ				S	Sn	14 32 45.0	-2.7
LBZ	Lake Benmore	7.87	50	eP	Pn	14 31 22.3	-0.7
LBZ	Lake Benmore	7.87	50	P	Pn	14 31 22.0	-1.0
LBZ				S	Sn	14 32 50.1	-2.9
FOZ	Fox Glacier	8.25	45	P	P	14 31 31.0	+2.8
FOZ				S	Sn	14 33 03.7	+1.2
RPZ	Rata Peaks	8.79	50	Pn	P	14 31 33.9	-1.8
	4.0nm,0.3s,baz=335,slow=24,SNR=22						
RPZ				Sn	Sn	14 33 12.6	-3.3
	13nm,0.3s,baz=355,slow=18,SNR=6.4						
WVZ	Waitaha Valley	9.11	47	eP	P	14 31 40.7	+0.5
WVZ	Waitaha Valley	9.11	47	P	P	14 31 40.7	+0.5
WVZ				S	Sn	14 33 23.4	-0.5
LTZ	Lake Taylor	10.08	50	eP	P	14 31 52.0	-1.4
LTZ	Lake Taylor	10.08	50	P	P	14 31 51.8	-1.6
LTZ				S	S	14 33 42.0	-5.6
DSZ	Denniston Nort	10.64	45	eP	P	14 32 00.8	-0.4
DSZ	Denniston Nort	10.64	45	P	P	14 32 00.8	-0.4
DSZ				S	S	14 33 55.5	-6.0
THZ	Tophouse	11.15	49	P	P	14 32 08.1	0.0
THZ				S	S	14 34 11.2	-2.7
QRZ	Quartz Range	11.70	45	P	P	14 32 16.2	+0.5
QRZ				S	S	14 34 23.0	-4.4
NNZ	Nelson	11.80	48	eP	P	14 32 15.4	-1.5
NNZ	Nelson	11.80	48	P	P	14 32 15.4	-1.5
BKZ	Black Stump Fm	14.90	50	P	P	14 33 05.9	+7.9
URZ	Urewera	15.90	50	Pn	P	14 33 13.0	+1.9
	3.3nm,0.3s,baz=240,slow=6.0,SNR=17						
URZ				Sn	S	14 36 02.7	-4.9
	0.3nm,0.3s,baz=337,slow=18,SNR=3.9						
MWZ	Matawai	16.06	51	eP	P	14 33 14.0	+1.0
TOO	Toolangi	16.85	310	eP	P	14 33 26.8	+3.8
	39nm,0.7s						
CNB	Canberra Magne	17.00	323	eP	P	14 33 29.3	+4.3
	39nm,0.6s						
STKA	Stephens Creek	23.32	312	eP	P	14 34 38.6	+4.0
	35nm,1.0s,mb4.7						
STKA	Stephens Creek	23.32	312	P	P	14 34 37.2	+2.7
	6.8nm,0.7s,mb4.2,baz=144,slow=12,SNR=12						
STKA				LR	LR	14 43 57.3	
	comp=Z,639nm,18.0s,MS4.1,baz=310,slow=37						
DZM	Mont Dzumac	27.85	9	⇑eP	P	14 35 21.4	+4.1
VNDA	Vanda	27.90	180	P	P	14 35 16.6	-0.6
	3.4nm,1.0s,mb3.9,baz=326,slow=7.9,SNR=7.2						
VNDA				LR	LR	14 43 27.1	
	comp=Z,1µm,20.6s,MS4.4,baz=9.0,slow=30						
CTA	Charters Tower	32.04	332	eP	P	14 35 56.0	+1.5
	11nm,1.0s,mb4.6						
CTA	Charters Tower	32.04	332	P	P	14 35 56.0	+1.5
	15nm,1.0s,mb4.8,baz=119,slow=5.8,SNR=9.8						
CTA				LR	LR	14 46 47.0	
	comp=Z,697nm,20.0s,MS4.3,baz=158,slow=32						
CTAO	Charters Tower	32.04	332	eP	P	14 35 55.8	+1.2
	18nm,1.0s,mb4.9						
ASAR	Alice Springs	33.90	310	P	P	14 36 11.2	+0.4
	14nm,0.9s,mb4.9,baz=146,slow=8.4,SNR=73						
ASAR				PcP	PcP	14 38 45.9	-3.6
	2.9nm,0.8s,baz=142,slow=2.8,SNR=5.0						
ASAR				LR	LR	14 50 27.8	
	comp=Z,344nm,18.1s,MS4.1,baz=148,slow=37						
ASPA	Alice Springs	33.90	310	eP	P	14 36 11.4	+0.7
NWAO	Narrogin (SRO)	36.77	280	eP	P	14 36 32.5	-2.6
	23nm,1.0s,mb5.0						
WB2	Warramunga Arr	36.85	314	eP	P	14 36 35.8	0.0
WRA	Warramunga Arr	36.86	314	P	P	14 36 35.7	-0.2
	13nm,0.8s,mb4.8,baz=147,slow=8.2,SNR=58						
WRA				PcP	PcP	14 38 54.9	-3.2
	5.4nm,0.8s,baz=148,slow=2.7,SNR=14						
WRAB	Tennant Creek	36.86	314	eP	P	14 36 35.3	-0.6
	46nm,1.1s,mb5.2						
KLBR	Kellerberrin	37.32	282	eP	P	14 36 37.9	-1.8
	30nm,1.0s,mb5.1						
MUN	Mundaring	38.05	280	eP	P	14 36 44.0	-1.8
	14nm,0.9s,mb4.7						
QSPA	South Pole Qui	40.40	180	eP	P	14 37 05.5	+0.6
	7.7nm,1.1s,mb4.3						
PMG	Port Moresby	41.98	338	P	P	14 37 21.1	+2.6
	18nm,0.8s,mb4.8,baz=182,slow=1.1,SNR=8.9						
PMG				LR	LR	14 52 58.5	
	comp=Z,578nm,19.1s,MS4.5,baz=225,slow=34						
PMG	Port Moresby	41.98	338	P	P	14 37 21.1	+2.6
PMG				LR	LR	14 52 58.5	
KNA	Kununurra	43.14	310	eP	P	14 37 26.6	-1.4
	5.2nm,1.1s,mb4.2						
MBWA	Marble Bar	43.67	295	eP	P	14 37 30.9	-1.3
	26nm,1.1s,mb4.9						
KAKA	Kakadu	44.05	317	eP	P	14 37 35.4	+0.1
	8.2nm,0.6s,mb4.6						
MAW	Mawson	48.36	210	P	P	14 38 09.0	+0.2
	8.8nm,1.0s,mb4.8,baz=108,slow=5.3,SNR=7.0						
MAW				LR	LR	14 57 07.1	
	comp=Z,609nm,18.1s,MS4.6,baz=91,slow=34						
SYO	Syowa Base	54.17	202	⇑P	P	14 38 48.1	-4.6
SYO	Syowa Base	54.17	202	⇓P	P	14 38 52.3	-0.4
SNAA	Sanae	58.41	186	⇑i	P	14 39 22.7	-0.3
SNAA	Sanae	58.41	186	P	P	14 39 22.1	-1.0
	4.1nm,1.1s,mb4.4,baz=174,slow=7.2,SNR=9.5						
SNAA	Sanae	58.41	186	eP	P	14 39 19.1	-3.9
	20nm,1.3s,mb5.0						
VNA3	Neumayer Olymp	59.18	183	⇑i	P	14 39 32.4	+4.0
VNA2	Neumayer--Watz	59.40	184	⇑i	P	14 39 34.6	+4.6
VNA1	Neumayer--Stat	59.72	184	⇑i	P	14 39 35.1	+3.0
CBIJ	Chichi jima	78.43	342	LR	LR	15 10 32.6	
	comp=Z,115nm,18.1s,MS4.2,baz=177,slow=32						
JOW	Kunigami	81.81	330	LR	LR	15 16 58.1	
	comp=Z,178nm,18.3s,MS4.5,baz=12,slow=35						
CM31	Chiang Mai Arr	87.56	302	P	P	14 42 14.2	-0.9
	4.7nm,0.5s,mb5.0						
CMAR	Chiang Mai Arr	87.56	302	P	P	14 42 14.8	-0.3
	8.5nm,0.9s,mb5.0,baz=163,slow=3.8,SNR=14						
ILAR	Eielson Array	120.92	23	PKP	PKPdf	14 48 15.3	-5.1
	1.5nm,0.8s,baz=256,slow=3.7,SNR=9.2						
BVAR	Borovoye Array	127.98	310	PKP	PKPdf	14 48 30.1	-4.1
	1.3nm,0.8s,baz=108,slow=4.7,SNR=5.9						
BRVK	Borovoye	128.05	310	PKPdf	PKPdf	14 48 29.6	-4.7
CHKZ	Chkalovo	128.24	311	ePKPdf	PKPdf	14 48 30.1	-4.5
YKA	Yellowknife Ar	129.84	37	PKP	PKPdf	14 48 32.2	-5.3
	0.8nm,0.7s,baz=227,slow=1.8,SNR=14						
YKA	Yellowknife Ar	129.84	37	PKP	PKPdf	14 48 32.2	-5.3
ULM	Lac du Bonnet	132.29	58	PKP	PKPdf	14 48 37.4	-5.1
	3.6nm,1.0s,baz=234,slow=6.3,SNR=4.0						
BRTR	Keskin Array B	142.46	275	PKhKP		14 48 50.9	
	1.0nm,0.9s,baz=158,slow=6.7,SNR=3.9						
BRTR				PKP	PKPdf	14 48 58.8	-2.3
	0.9nm,0.6s,baz=155,slow=7.7,SNR=3.9						
BRTR	Keskin Array B	142.46	275	PKP	PKPdf	14 48 58.8	-2.3
IDI	Anoyia	145.56	262	PKPbc	PKPbc	14 49 02.6	-1.6
	12nm,0.7s,baz=168,slow=10,SNR=4.5						
AKASG	Malin Array Be	149.99	290	PKPbc	PKPdf	14 49 13.4	0.0
	3.9nm,0.7s,baz=77,slow=2.3,SNR=20						
JOF	Joensuu	150.34	315	ep	PKPdf	14 49 20.9	+7.4
	16nm,1.2s						
KEV	Kevo	150.71	330	ep	PKPdf	14 49 15.5	+1.6
	19nm,0.7s						
ARCES	ARCESS Array B	151.28	330	PKPbc	PKPdf	14 49 17.8	+3.0
	18nm,0.7s,baz=90,slow=2.4,SNR=44						
ARCES	ARCESS Array B	151.28	330	PKPbc	PKPdf	14 49 17.8	+3.0
KAF	Kangasniemi	152.72	314	ep	PKPdf	14 49 18.2	+1.2
FINES	FINESS Array B	152.89	312	PKPbc	PKPdf	14 49 20.9	+3.6
	6.1nm,0.7s,baz=98,slow=4.1,SNR=25						
HFS	Hagfors	159.09	312	PKPab	PKPab	14 49 59.6	-2.0
	2.6nm,0.7s,baz=90,slow=1.4,SNR=3.7						
GERES	GERESS Array B	159.19	280	PKPab	PKPab	14 49 59.0	-3.3
	1.5nm,0.8s,baz=63,slow=3.0,SNR=4.4						
KHC	Kasperske Hory	159.34	281	eP	PKPab	14 50 00.0	-3.0
NB2	NORSAR Subarra	159.97	316	PKPab	PKPab	14 50 02.7	-2.6
	3.7nm,0.8s,baz=74,slow=4.3						
NOA	NORSAR Array B	159.97	316	PKPab	PKPab	14 50 03.0	-2.3
	2.5nm,0.8s,baz=69,slow=4.5,SNR=6.2						
CLL	Collm	160.11	287	ePKP2	PKPab	14 50 10.0	+3.8
EKA	Eskdalemuir Ar	169.22	307	PKPab	PKPab	14 50 45.6	-0.2
	3.3nm,0.9s,baz=166,slow=6.9,SNR=3.5						

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*IDC **24** 14:39:33.0±6.5, 20.17S×178.57W, h590^{km}±80^{km}, mb3.1/8, mb1 3.2/9, mb1mx3.1/17, Error ellipse: s-maj=37.5km s-min=23.9km az=52.0*

*NEIC **24** 14:39:35.6±6.0, 20.20S×178.53W, h638^{km}±71^{km}, mb4.0/1, Error ellipse: s-maj=45.4km s-min=26.1km az=47.0*

ISC 24 14:39:32.4±1.3**, 20.3S**±0.2×**178.6W**±0.2**, h600^{km}, n15, σ0^{s}67**/13**, mb3.7**/9**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	18.33	191	P	P	14 43 11.3	-0.7
	0.4nm,0.3s,baz=173,slow=20,SNR=5.4						
CTA	Charters Tower	32.97	264	P	P	14 45 21.5	+0.8
	2.9nm,0.8s,mb4.0,baz=92,slow=14,SNR=5.8						
CTA	Charters Tower	32.97	264	P	P	14 45 21.5	+0.8
PMG	Port Moresby	34.75	283	P	P	14 45 36.3	+0.7
	2.9nm,0.6s,mb4.1,baz=158,slow=16,SNR=3.0						
PMG	Port Moresby	34.75	283	P	P	14 45 36.3	+0.7
STKA	Stephens Creek	37.40	244	P	P	14 45 57.7	+0.5
	1.7nm,1.1s,mb3.5,baz=89,slow=6.5,SNR=3.5						
ASAR	Alice Springs	44.04	257	P	P	14 46 50.1	0.0
	1.8nm,0.7s,mb3.7,baz=87,slow=8.1,SNR=41						
WB2	Warramunga Arr	44.08	262	eP	P	14 46 50.0	-0.5
WRAB	Tennant Creek	44.08	262	eP	P	14 46 50.0	-0.5
	1.8nm,0.3s,mb4.1						
WRA	Warramunga Arr	44.09	262	P	P	14 46 50.1	-0.4
	0.9nm,0.3s,mb3.8,baz=97,slow=7.1,SNR=20						
NWAO	Narrogin (SRO)	57.99	243	P	P	14 48 30.0	-0.9
	7.9nm,0.9s,mb3.8,baz=60,slow=14,SNR=2.0						
VNDA	Vanda	58.11	185	P	P	14 48 32.4	+1.2
	0.7nm,0.8s,mb2.9,baz=18,slow=3.4,SNR=4.1						
ILAR	Eielson Array	88.19	13	P	P	14 51 20.9	-0.3
	1.3nm,1.1s,mb3.6,baz=216,slow=5.2,SNR=8.8						
HFS	Hagfors	139.21	351	PKhKP		14 57 48.6	
	1.7nm,0.8s,baz=37,slow=7.4,SNR=2.5						
AKASG	Malin Array Be	142.53	331	PKhKP		14 57 55.7	
	1.4nm,0.5s,baz=42,slow=4.1,SNR=8.6						

BJI 24 14:40:28.6, 27.15N×103.72E, h16^{km}, ML3.1, Ms3.7, Yunnan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	Kunming	2.20	204	ePG	Pn	14 41 07.3	+2.2
KMI				SG	Sn	14 41 36.3	+4.1
KMI				Smax			
	comp=N,28nm,0.9s						
KMI				Smax			
	comp=E,41nm,0.9s						
GYA	Guiyang	2.72	104	P	Pn	14 41 15.8	+3.3
GYA				SG	Sn	14 41 55.9	+11
GYA				Smax			
	comp=N,90nm,0.8s						
GYA				Smax			
	comp=E,60nm,0.8s						
CD2	Chengdu	3.75	0	ePG	Pn	14 41 37.5	+10
CD2				SG	Sn	14 42 25.3	+14
CD2				Smax			
	comp=N,90nm,1.0s						
CD2				Smax			
	comp=E,186nm,1.0s						
CD2				LR	LR		
	comp=E,590nm,4.5s						
XAN	Xi’an	8.20	32	P	P	14 42 27.0	-2.8

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*NEIC **24** 14:43:56.9, 18.04N×100.65W, h60^{km}, MD3.5(MEX), After MEX.*

MEX 24 14:43:56.9±0.4**, 18.04N**×**100.65W, h60^{km}**±13^{km}**, MD3.5, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZIIG	Zihuatanejo	0.89	241	i P	P	14 44 11.8	-1.9
ZIIG				i S	S	14 44 24.1	-2.1
CAIG	El Cayaco	1.05	160	i P	P	14 44 14.1	-1.8
CAIG				i S	S	14 44 27.5	-2.4
PLIG	Platanillo	1.14	72	i P	P	14 44 15.7	-1.4
PLIG				i S	S	14 44 29.5	-2.6
ACX	Acapulco	1.36	149	eP	P	14 44 18.5	-1.7

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*NEIC **24** 14:53:41.9, 34.01S×70.59W, h102^{km}, MD3.3(GUC), After GUC.*

GUC 24 14:53:41.9±0.7**, 34.01S**×**70.59W, h102^{km}**±2^{km}**, MD3.3, ML3.5, 10C-11D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHCH	Chadas Angostu	0.10	326	⇓iP	P	14 53 56.3	+0.1
CHCH				i S	S	14 54 07.0	0.0
CACH	El Canelo	0.10	186	⇑iP	P	14 53 56.8	+0.5
CACH				i S	S	14 54 07.9	+0.9
CICH	Cipreses	0.34	156	⇑iP	P	14 53 57.6	+0.5
CICH				i S	S	14 54 09.7	+1.3
LMEL	Las Melosas	0.36	63	⇓iP	P	14 53 57.2	0.0
LMEL				i S	S	14 54 09.7	+1.0
LMEL				AMP		14 54 11.5	
	comp=N,2µm,0.2s						
PCH	Pirque	0.40	9	⇑iP	P	14 53 57.7	+0.3
PCH				i S	S	14 54 09.2	+0.2
SJCH	San Jose de Ma	0.42	27	eP	P	14 53 57.5	0.0
SJCH				i S	S	14 54 09.6	+0.2
SJCH				AMP		14 54 10.5	
	comp=N,948nm,0.2s						
ANTU	Antumapu	0.45	355	⇑iP	P	14 53 57.9	+0.2
ANTU				i S	S	14 54 09.9	+0.3
ANTU				AMP		14 54 10.5	
	comp=E,3µm,0.2s						
TACH	Talagante	0.46	321	⇓iP	P	14 53 58.0	+0.1
TACH				i S	S	14 54 10.0	+0.2
FSR	Penalolen	0.54	5	⇑iP	P	14 53 58.8	+0.4
FSR				i S	S	14 54 11.0	+0.3
FSR				AMP		14 54 12.4	
	comp=E,2µm,0.2s						
RCDM	Rinconada Maip	0.56	341	⇑iP	P	14 53 58.6	+0.1
RCDM				i S	S	14 54 11.0	+0.1
RCDM				AMP		14 54 12.3	
	comp=N,8µm,0.1s						
SAN	Santiago	0.56	354	i P	P	14 53 57.0	-1.5
SAN				i S	S	14 54 11.4	+0.3
SAN				AMP		14 54 11.7	
	comp=N,2µm,0.3s						
STL	Santa Lucia	0.58	355	⇓iP	P	14 53 58.7	0.0
STL				i S	S	14 54 11.5	+0.2
STL				AMP		14 54 11.7	
	comp=E,622nm,0.1s						
PUEX	Pudahuel	0.59	346	⇑iP	P	14 53 59.3	+0.6
PUEX				i S	S	14 54 12.1	+0.6
PUEX				AMP		14 54 13.2	
	comp=E,3µm,0.2s						
DSCH	Colegio Aleman	0.61	1	⇓iP	P	14 53 59.4	+0.4
DSCH				i S	S	14 54 12.4	+0.6
DSCH				AMP		14 54 13.5	
	comp=N,2µm,0.5s						
CLCH	Cerro Calan	0.62	4	⇓iP	P	14 53 59.4	+0.4
CLCH				i S	S	14 54 12.5	+0.6
CLCH				AMP		14 54 13.7	
	comp=N,4µm,0.3s						
CLCH				AMP		14 54 14.2	
	comp=N,4µm,0.4s						
LNV	Longovilo	0.69	275	⇑iP	P	14 53 59.4	-0.2
LNV				i S	S	14 54 12.8	-0.1
SFDO	San Fernando	0.70	210	eP	P	14 53 59.6	-0.1
SFDO				i S	S	14 54 13.6	+0.6
FCH	Farellones	0.73	20	⇓iP	P	14 54 00.3	+0.3
FCH				i S	S	14 54 14.8	+1.3
FCH				AMP		14 54 15.3	
	comp=N,1µm,0.2s						
PEL	Peldehue	0.87	355	⇓iP	P	14 54 02.0	+0.5
PEL				i S	S	14 54 16.5	+0.4
LCCH	Las Cruces	0.98	303	⇓iP	P	14 54 02.4	-0.2
LCCH				i S	S	14 54 17.9	-0.2
NICH	Los Niches	1.12	208	⇓iP	P	14 54 04.1	-0.1
NICH				i S	S	14 54 20.8	-0.1
JACH	Jahuel	1.33	360	⇑iP	P	14 54 06.7	+0.1
JACH				i S	S	14 54 25.7	+0.5
TALC	Talca	1.63	212	⇓iP	P	14 54 10.0	-0.3
TALC				AMP		14 54 31.5	
	comp=N,2µm,0.1s						
PACH	Papudo	1.64	334	⇑iP	P	14 54 10.0	-0.4
PTCH	Petorca	1.77	351	i P	P	14 54 11.9	-0.2
PTCH				i S	S	14 54 34.0	-0.6
PTCH				AMP		14 54 36.4	
	comp=N,598nm,0.1s						
PTCH				AMP		14 54 38.3	
	comp=E,643nm,0.2s						

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*NEIC **24** 15:19:25.7±4.0, 3.04N×125.94E, h71^{km}±39^{km}, mb4.4/4, Error ellipse: s-maj=27.0km s-min=9.2km az=81.0*

*IDC **24** 15:19:26.5±3.0, 2.99N×125.81E, h81^{km}±25^{km}, mb4.0/11, mb1 4.1/11, mb1mx3.9/19, Error ellipse: s-maj=49.3km s-min=11.9km az=76.0*

ISC 24 15:19:20.6±2.9**, 3.04N**±0.07×**125.8E**±0.2**, h39^{km}**±25^{km}**, n22, σ0^{s}77**/25**, mb4.3**/15**, 1C, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	21.01	180	⇑iP	P	15 24 03.9	+0.5
	5.3nm,0.4s,mb4.2						
FITZ				i		15 24 07.6	
JOW	Kunigami	23.78	5	P	P	15 24 31.9	+1.2
	11nm,0.7s,mb4.4,baz=190,slow=11,SNR=2.5						
WRAB	Tennant Creek	24.32	160	eP	P	15 24 36.0	-0.2
	15nm,0.8s,mb4.5						
WRA	Warramunga Arr	24.33	160	P	P	15 24 36.1	-0.1
	3.3nm,0.5s,mb4.0,baz=336,slow=10,SNR=58						
WRA				S	S	15 28 50.7	+0.7
	1.0nm,0.7s,baz=336,slow=20,SNR=5.9						
WB2	Warramunga Arr	24.33	160	eP	P	15 24 24.4	-12
WB2				i		15 24 36.2	
WB2				eS	S	15 28 50.0	0.0
MBWA	Marble Bar	24.77	194	eP	P	15 24 41.7	+1.3
	11nm,0.8s,mb4.4						
ASAR	Alice Springs	27.69	164	P	P	15 25 06.8	-0.7
	1.2nm,0.5s,mb3.8,baz=343,slow=7.5,SNR=32						
ASAR				S	S	15 29 52.8	+7.4
	1.1nm,0.7s,baz=352,slow=23,SNR=5.3						
ASAR				ScP		15 31 55.6	
	0.3nm,0.6s,baz=339,slow=2.7,SNR=3.9						
ASPA	Alice Springs	27.69	164	eP	P	15 25 06.4	-1.1
ASPA				eS	S	15 29 53.3	+7.9
STKA	Stephens Creek	37.83	158	eP	P	15 26 35.5	0.0
	1.3nm,0.5s,mb3.9						
STKA	Stephens Creek	37.83	158	P	P	15 26 35.0	-0.5
	3.0nm,0.8s,mb4.1,baz=343,slow=9.1,SNR=5.2						
STKA	Stephens Creek	37.83	158	eP	P	15 26 35.2	-0.2
ASAJ	Asahikawa	43.52	18	P	P	15 27 23.2	+0.9
	11nm,0.8s,mb4.7,baz=278,slow=9.3,SNR=7.7						
SONM	Songino Array	47.66	342	P	P	15 27 54.9	-0.3
	0.9nm,0.8s,mb3.8,baz=153,slow=8.3,SNR=6.2						
SONM				PcP	PcP	15 29 23.1	-1.5
	0.6nm,0.9s,baz=63,slow=3.2,SNR=3.4						
YAK	Yakutsk	58.92	2	eP	P	15 29 17.1	-1.1
	6.9nm,0.6s,mb4.9						
BVAR	Borovoye Array	67.39	327	P	P	15 30 13.7	-0.4
	0.5nm,0.5s,mb3.8,baz=124,slow=5.3,SNR=4.2						
VNDA	Vanda	82.86	173	P	P	15 31 42.7	+0.5
	1.5nm,1.1s,mb3.9,baz=314,slow=4.4,SNR=3.1						
VNDA	Vanda	82.86	173	P	P	15 31 42.7	+0.5
IMA	Indian Mountai	83.39	24	eP	P	15 31 46.2	+1.2
ILAR	Eielson Array	86.12	25	P	P	15 31 57.6	-0.9
	2.1nm,1.3s,mb4.2,baz=248,slow=5.9,SNR=4.6						
ARCES	ARCESS Array B	90.77	340	P	P	15 32 20.6	-0.1
	2.9nm,0.8s,mb4.7,baz=82,slow=6.4,SNR=3.6						
FINES	FINESS Array B	92.00	332	P	P	15 32 25.9	-0.6
	7.9nm,1.3s,mb4.9,baz=72,slow=8.8,SNR=5.4						
YKA	Yellowknife Ar	100.50	24	P	P	15 33 05.1	0.0
	0.2nm,0.8s,baz=296,slow=4.3,SNR=4.2						

ORF **24** *15:32:29.2, 49.82N×18.19E, h10^{km}*

PRU 24 15:32:26.7, 49.89N×18.39E, Czech and Slovak Republics

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OKC	**Ostrava-Krasne**	0.17	252	*e*PG	Pg	15 32 30.3	+0.3
OKC				*e*SG	Sg	15 32 33.6	+1.4
OJC	**Ojcow**	0.97	69	*e*Pg	Pg	15 32 43.1	-2.9
OJC				*e*Sg	Sg	15 32 58.8	-0.1
DPC	**Dobruska-Polom**	1.41	290	*e*PG	Pg	15 32 52.7	-2.1
DPC				*e*SG	Sg	15 33 12.5	-1.1
UPC	**Upice**	1.65	293	*e*PG	Pg	15 32 57.0	-2.6
UPC				*e*SG	Sg	15 33 19.5	-2.1
PRU	**Pruhonice**	2.49	274	*e*SG	Sg	15 33 44.9	-4.6
KHC	**Kasperske Hory**	3.23	258	*e*PN	Pn	15 33 16.5	-3.1
KHC				*e*PG	Pg	15 33 24.5	-6.6
KHC				*e*SG	Sg	15 34 09.0	-5.1

DJA 24 15:36:20.2±0.8, 8.64S×115.35E, h129^{km}±7^{km}, MD4.4/3, ML4.0/1, 4C-4D, Error ellipse: s-maj=24.5km s-min=7.5km az=3.0, Bali region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RATI	**Rata**	0.20	114	⇑*i*Pn	P	15 36 38.1	+0.1
	126nm,0.2s						
RATI	**Rata**	0.20	114	⇑*i*P	P	15 36 38.5	+0.5
RATI				⇑*i*Sn	S	15 36 51.0	-0.6
KEDI	**Kedomdong**	0.77	78	⇓*i*Pn	P	15 36 41.1	0.0
	78nm,0.2s						
KEDI	**Kedomdong**	0.77	78	⇓*e*P	P	15 36 41.8	+0.7
KEDI				⇓*i*Sn	S	15 36 54.7	-2.4
SRDI	**Scrawed**	1.21	278	⇑*i*Pn	P	15 36 44.8	-0.6
	178nm,0.2s						
SRDI				⇓*i*Sn	S	15 37 02.5	-1.9

CNRM **24** *15:58:18.9, 35.01N×2.59W, h7^{km}, MD3.4*

CSEM **24** *15:58:19.3±0.1, 34.96N×2.78W, h10^{km}, MD3.4, Error ellipse: s-maj=4.4km s-min=2.3km az=138.0*

NEIC **24** *15:58:21.6, 35.00N×2.91W, h9^{km}, MG3.4(MDD), After MDD.*

MDD **24** *15:58:21.6±1.7, 35.00N×2.91W, h9^{km}±5^{km}, mb3.4/8, Error ellipse: s-maj=13.0km s-min=9.7km az=144.0, PRXIMO AftershockPLICA*

ISC 24 15:58:19.1±0.6, 34.98N±0.03×2.81W±0.05, h10^{km}, n49, σ1^{s}38/78, Morocco

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAI	**Zaio**	0.05	103	*i* P	Pg	15 58 21.2	0.0
EMLI	**Melilla**	0.34	340	P	Pg	15 58 27.2	+1.2
	194nm,0.2s						
EMEL	**Melilla**	0.34	339	P	Pg	15 58 27.2	+1.1
EMEL				S	Sg	15 58 31.8	+1.0
	470nm,0.1s,SNR=7.9						
TOU	**Touzarine**	0.78	269	*i* P	Pb	15 58 36.0	+1.8
TOU				*i* S	Sb	15 58 49.0	+4.5
MPAL	**Palemas**	0.96	285	*e*P	Pb	15 58 39.5	+2.2
MPAL				*i* S	Sb	15 58 53.0	+3.1
TZK	**Tazeka**	1.44	232	*i* P	Pn	15 58 46.0	+0.6
TZK				*i* S	Sb	15 59 05.0	+1.1
EBER	**Berja**	1.91	358	P	Pn	15 58 53.4	+1.2
EBER				S	Sn	15 59 16.5	+0.1
EBER				S	Sn	15 59 17.1	+0.7
EBER	**Berja**	1.91	358	P	Pn	15 58 53.4	+1.2
	4.8nm,0.5s,SNR=6.0						
EBER				S	Sn	15 59 16.5	+0.1
	18nm,0.4s,SNR=11						
EBER	**Berja**	1.91	358	P	Pn	15 58 53.3	+1.2
EBER				S	Sn	15 59 16.5	+0.1
	18nm,0.4s,SNR=11						
ENIJ	**Nijar**	2.04	14	P	Pn	15 58 55.5	+1.5
ENIJ				S	Sn	15 59 21.0	+1.2
ENIJ	**Nijar**	2.04	14	P	Pn	15 58 54.2	+0.2
	1.2nm,0.2s,SNR=7.9						
ENIJ				S	Sn	15 59 19.0	-0.7
	14nm,0.6s,SNR=4.0						
ENIJ	**Nijar**	2.04	14	P	Pn	15 58 54.2	+0.2
	1.2nm,0.2s,SNR=7.9						
ENIJ				S	Sn	15 59 21.0	+1.2
EMIJ	**Mijas**	2.25	315	P	Pn	15 58 56.2	-0.7
EMIJ				S	Sn	15 59 21.7	-3.2
EMIJ				S	Sn	15 59 23.3	-1.6
EMIJ	**Mijas**	2.25	315	P	Pn	15 58 56.2	-0.7
	1.3nm,0.3s,SNR=7.2						
EMIJ				S	Sn	15 59 21.7	-3.2
	5.4nm,0.5s						
EMIJ	**Mijas**	2.25	315	S	Sn	15 59 21.7	-3.2
	5.4nm,0.5s						
ELOJ	**Sierra Loja**	2.42	334	P	Pn	15 59 00.3	+0.9
ELOJ	**Sierra Loja**	2.42	334	P	Pn	15 58 59.8	+0.5
	3.1nm,0.4s,SNR=7.9						
ELOJ	**Sierra Loja**	2.42	334	P	Pn	15 59 00.3	+0.9
MIF	**Mishlifen**	2.55	233	*e*P	Pn	15 59 02.0	+0.8
MIF				*i* S	Sn	15 59 31.0	-1.5
CZD	**Col de Zad**	2.69	224	*i* P	Pn	15 59 03.0	-0.2
EQES	**Quesada**	2.82	356	P	Pn	15 59 07.3	+2.2
EQES				S	Sn	15 59 41.4	+1.8
EQES	**Quesada**	2.82	356	P	Pn	15 59 07.3	+2.2
	3.4nm,0.3s,SNR=11						
EQES				S	Sn	15 59 41.4	+1.8
	29nm,0.4s						
EQES	**Quesada**	2.82	356	S	Sn	15 59 41.4	+1.9
	29nm,0.4s						
EQES	**Quesada**	2.82	356	P	Pn	15 59 07.3	+2.2
	3.4nm,0.3s,SNR=11						
ESPR	**Espera**	3.11	308	P	Pn	15 59 08.3	-0.8
	0.2nm,0.1s,SNR=7.9						
ESPR	**Espera**	3.11	308	P	Pn	15 59 08.3	-0.9
	0.2nm,0.1s,SNR=7.9						
EMUR	**La Murta**	3.12	23	P	Pn	15 59 10.4	+1.0
	5.5nm,0.4s,SNR=13						
EMUR				S	Sn	15 59 44.9	-2.2
	13nm,0.6s						
EMUR	**La Murta**	3.12	23	S	Sn	15 59 44.9	-2.2
	13nm,0.6s						
EMUR	**La Murta**	3.12	23	P	Pn	15 59 10.4	+1.0
	5.5nm,0.4s,SNR=13						
ZFT	**Errachidia**	3.21	204	*e*P	Pn	15 59 09.0	-1.6
EADA	**Adamuz**	3.48	336	P	Pn	15 59 14.6	+0.1
EADA				S	Sn	15 59 54.0	-2.3
EADA				S	Sn	15 59 54.7	-1.5
EADA	**Adamuz**	3.48	336	P	Pn	15 59 14.6	+0.1
	0.2nm,0.1s,SNR=10						
EADA				S	Sn	15 59 54.0	-2.3
	0.1nm,0.1s						
EADA	**Adamuz**	3.48	336	P	Pn	15 59 14.6	+0.1
	0.2nm,0.1s,SNR=10						
EADA				S	Sn	15 59 54.0	-2.2
	0.1nm,0.1s						
EVIA	**Vianos**	3.66	4	S	Sn	15 59 58.9	-1.8
	4.4nm,0.5s,SNR=4.0						
EMIN	**Mina Concepcio**	4.18	313	P	Pn	15 59 23.0	-1.4
	2.4nm,0.5s,SNR=12						
EMIN				S	Sn	16 00 09.8	-4.0
	0.5nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	4.18	313	P	Pn	15 59 23.0	-1.4
	2.4nm,0.5s,SNR=12						
EBEN	**Beniarda**	4.25	28	P	Pn	15 59 26.4	+0.9
	0.5nm,0.3s,SNR=7.9						
EBEN				S	Sn	16 00 12.0	-3.8
	0.6nm,0.5s,SNR=7.9						
EBEN	**Beniarda**	4.25	28	P	Pn	15 59 26.4	+0.9
	0.5nm,0.3s,SNR=7.9						
EBEN				S	Sn	16 00 12.0	-3.8
	0.6nm,0.5s,SNR=7.9						
PALC	**Alcoutim**	4.51	305	*e*Pn	Pn	15 59 28.0	-1.1
EGRO	**El Granado**	4.55	305	P	Pn	15 59 28.1	-1.6
EGRO				S	Sn	16 00 17.8	-5.6
EGRO				S	Sn	16 00 19.2	-4.2
EGRO	**El Granado**	4.55	305	P	Pn	15 59 28.1	-1.6
	4.2nm,0.3s,SNR=7.9						
EGRO				S	Sn	16 00 17.7	-5.6
	1.2nm,0.3s,SNR=7.9						
EGRO	**El Granado**	4.55	305	P	Pn	15 59 28.1	-1.6
	4.2nm,0.3s,SNR=7.9						
ESDC	**Sonseca Array**	4.77	349	P	Pn	15 59 33.4	+0.5
ESDC				S	Sn	16 00 32.8	+3.9
ESDC	**Sonseca Array**	4.77	349	P	Pn	15 59 33.1	+0.3
	1.3nm,0.2s,baz=172,slow=12,SNR=16						
ESDC	**Sonseca Array**	4.77	349	P	Pn	15 59 33.4	+0.6
EBAD	**Badajoz**	5.05	319	P	Pn	15 59 35.7	-1.1
	0.6nm,0.4s,SNR=7.9						
EBAD	**Badajoz**	5.05	319	P	Pn	15 59 35.7	-1.1
PCBR	**Castelo Branco**	6.11	324	*e*Pn	Pn	15 59 50.0	-1.7
PBRG	**Braganca**	7.48	337	*e*Pn	Pn	16 00 09.1	-1.8

JMA **24** *16:14:56.7±0.1, 24.85N×122.75E, h31^{km}±4^{km}, M2.9*

TAP 24 16:14:53.9, 24.84N×122.75E, h4^{km}±1^{km}, ML3.3, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	0.45	148	P	Pg	16 15 06.1	+3.3
YOJ				*e*S	Sg	16 15 12.8	+4.0
IRIF	**Iriomote-Funau**	1.02	119	P	Pb	16 15 14.9	+1.1
HATJ	**Hateruma jima**	1.24	129	P	Pb	16 15 18.4	+0.9
HATJ				*e*S	Sb	16 15 34.7	+1.0
JKRS	**Kuro-shima**	1.29	117	P	Pb	16 15 19.1	+0.6
JKRS				*e*S	Sb	16 15 35.4	+0.1
JIJ	**Ishigaki jima**	1.35	110	P	Pb	16 15 20.1	+0.6

IDC **24** *16:18:24.7±2.0, 49.09S×161.59E, mb3.8/2, mb1 4.2/3, mb1mx3.8/9, ML4.3/1, Error ellipse: s-maj=59.0km s-min=31.3km az=170.0*

ISC 24 16:18:26.9±2.5, 48.8S±0.4×161.5E±0.2, h10^{km}, n17, σ1^{s}44/16, mb3.9/2, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	**Wether Hill Ro**	5.27	59	P	Pn	16 19 48.3	+0.6
MLZ	**Mavora Lakes**	5.74	55	P	Pn	16 19 55.5	+1.3
MSZ	**Milford Sound**	6.07	49	P	Pn	16 20 01.3	+2.4
TUZ	**Tuapeka**	6.22	66	P	Pn	16 20 00.3	-0.8
TUZ				S	Sn	16 21 10.3	-2.8
EAZ	**Earnscleugh**	6.44	59	P	Pn	16 20 03.9	-0.2
WKZ	**Wanaka**	6.53	55	P	Pn	16 20 07.6	+2.2
JCZ	**Jackson Bay**	6.91	49	P	Pn	16 20 13.9	+3.1
FOZ	**Fox Glacier**	7.74	50	P	Pn	16 20 24.5	+2.0
RPZ	**Rata Peaks**	8.36	56	Pn	P	16 20 29.0	-2.1
	3.8nm,0.3s,baz=77,slow=21,SNR=20						
RPZ				Sn	Sn	16 22 05.4	-1.2
	0.6nm,0.3s,baz=42,slow=15,SNR=2.2						
DSZ	**Denniston Nort**	10.14	49	P	P	16 20 54.6	-0.9
QRZ	**Quartz Range**	11.19	48	P	P	16 21 09.8	-0.1
NNZ	**Nelson**	11.33	52	P	P	16 21 11.8	-0.1
ASAR	**Alice Springs**	33.23	309	P	P	16 25 05.3	-0.8
	0.9nm,0.6s,mb3.9,baz=139,slow=7.7,SNR=8.7						
WRA	**Warramunga Arr**	36.14	313	P	P	16 25 30.3	-0.9
	1.2nm,0.7s,mb3.9,baz=146,slow=8.2,SNR=5.6						
BVAR	**Borovoye Array**	127.30	311	PKP	PKPdf	16 37 30.8	-3.3
	0.4nm,0.8s,baz=90,slow=1.4,SNR=2.9						
AKASG	**Malin Array Be**	149.54	292	PKPbc	PKPdf	16 38 14.4	+0.5
	0.6nm,0.6s,baz=96,slow=2.1,SNR=2.1						
FINES	**FINESS Array B**	152.18	314	PKPbc	PKPdf	16 38 20.9	+3.3
	3.6nm,1.1s,baz=88,slow=4.3,SNR=1.8						

JMA **24** *16:19:05.1±0.1, 24.84N×122.75E, h32^{km}±3^{km}, M2.9*

TAP 24 16:19:05.5, 24.83N×122.59E, h6^{km}±1^{km}, ML3.3, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	0.53	134	P	Pg	16 19 14.5	-1.6
YOJ				*e*S	Sg	16 19 21.2	-2.0
IRIF	**Iriomote-Funau**	1.15	115	P	Pb	16 19 23.4	-3.9
HATJ	**Hateruma jima**	1.35	125	P	Pb	16 19 26.7	-4.0
HATJ				*e*S	Sb	16 19 43.1	-5.0
JKRS	**Kuro-shima**	1.42	114	P	Pn	16 19 27.7	-4.2
JKRS				*e*S	Sb	16 19 43.4	-6.8
JIJ	**Ishigaki jima**	1.49	108	P	Pn	16 19 28.1	-4.7
JTJ	**Tarama**	1.93	95	P	Pn	16 19 34.8	-4.4

CSEM **24** *16:27:33.0±0.7, 38.76N×28.96W, ML2.6, Error ellipse: s-maj=6.1km s-min=3.6km az=73.0, After PDA*

PDA **24** *16:27:33.0±0.7, 38.76N×28.96W, MD3.1, ML2.6, Error ellipse: s-maj=6.1km s-min=3.6km az=73.0*

SVSA 24 16:27:33.0±0.7, 38.76N×28.96W, MD3.1, ML2.6, Error ellipse: s-maj=6.1km s-min=3.6km az=73.0, Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PCED	**Cedros**	0.24	124	*i* P	Pg	16 27 37.9	+0.1
PCED				*e*S	Sg	16 27 41.5	+0.4
	215nm,0.2s						
PCED	**Cedros**	0.24	124	*e*S	Sg	16 27 41.5	+0.4
	215nm,0.2s						
	215nm,0.2s						
CALA	**Caldeira**	0.27	132	*i* P	Pg	16 27 38.1	-0.3
CALA				*e*S	Sg	16 27 41.9	-0.1
CALA	**Caldeira**	0.27	132	*e*S	Sg	16 27 41.9	-0.1
HOR	**Horta**	0.35	132	*e*P	Pg	16 27 39.3	-0.7
HOR				*e*S	Sg	16 27 44.4	-0.2
PICO	**Pico**	0.49	122	*e*P	Pg	16 27 42.0	-0.9
PICO				*e*S	Sg	16 27 49.1	-0.3
ROSA	**Rosais**	0.56	94	*e*P	Pg	16 27 43.2	-1.1
ROSA				*e*S	Sg	16 27 50.3	-1.5

IDC **24** *16:29:39.4±1.4, 15.64S×173.15W, h35^{km}±5^{km}, mb3.8/8, mb1 4.1/8, mb1mx3.9/17, Error ellipse: s-maj=81.3km s-min=17.2km az=146.0*

NEIC **24** *16:29:39.4±1.1, 15.65S×173.22W, mb4.3/2, Error ellipse: s-maj=70.5km s-min=12.3km az=146.0*

ISC 24 16:29:36.4±1.7, 15.9S±0.6×173.1W±0.4, h33^{km}, (h36^{km}±1.0^{km}:pP-P), n18, σ0^{s}56/14, mb4.0/9, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	38.83	258	P	P	16 37 01.8	+1.6
	1.3nm,0.5s,mb3.9,baz=92,slow=9.4,SNR=4.2						
STKA	**Stephens Creek**	44.06	240	*e*P	P	16 37 43.1	-0.1
	3.9nm,0.8s,mb4.2						
STKA	**Stephens Creek**	44.06	240	P	P	16 37 43.6	+0.4
	4.4nm,0.7s,mb4.3,baz=84,slow=7.9,SNR=10.0						
WB2	**Warramunga Arr**	50.02	257	*e*P	P	16 38 29.4	-0.6
WRAB	**Tennant Creek**	50.02	257	*e*P	P	16 38 29.8	-0.3
	2.4nm,0.6s,mb4.4						
WRA	**Warramunga Arr**	50.03	257	P	P	16 38 29.9	-0.3
	4.2nm,1.1s,mb4.4,baz=92,slow=6.7,SNR=41						
WRA				PcP	PcP	16 39 51.1	+1.2
	1.0nm,0.9s,baz=86,slow=3.9,SNR=4.5						
ASAR	**Alice Springs**	50.25	252	P	P	16 38 31.6	-0.1
	5.5nm,0.7s,mb4.7,baz=89,slow=6.9,SNR=86						
ASPA	**Alice Springs**	50.25	252	*e*P	P	16 38 31.4	-0.4
NVAR	**Mina Array Bea**	74.47	42	P	P	16 41 13.4	0.0
	0.5nm,0.7s,mb3.6,baz=243,slow=8.1,SNR=2.6						
NVAR				pP	pP	16 41 25.0	+1.3
	1.0nm,0.7s,baz=229,slow=8.3,SNR=5.5						
NVAR	**Mina Array Bea**	74.47	42	P	P	16 41 13.4	0.0
NVAR				pP	pP	16 41 25.0	+1.3
PDAR	**Pinedale Array**	82.41	42	P	P	16 41 56.9	+0.1
	0.9nm,1.0s,mb3.6,baz=243,slow=4.0,SNR=4.8						
PDAR				pP	pP	16 42 07.9	+0.7
	1.0nm,0.9s,baz=207,slow=2.0,SNR=4.9						
ILAR	**Eielson Array**	82.83	11	P	P	16 41 58.1	-0.3
	0.9nm,0.7s,mb3.9,baz=217,slow=5.3,SNR=15						
ILAR				pP	pP	16 42 09.2	+0.3
	1.3nm,0.7s,baz=217,slow=5.3,SNR=7.7						
YKA	**Yellowknife Ar**	90.40	23	P	P	16 42 35.7	+0.3
	0.2nm,0.7s,mb3.6,baz=238,slow=4.8,SNR=4.4						
YKA	**Yellowknife Ar**	90.40	23	P	P	16 42 35.7	+0.3
HFS	**Hagfors**	135.51	355	PKP	PKPdf	16 48 56.2	+3.1
	2.7nm,0.8s,baz=254,slow=42,SNR=4.3						
KMBO	**Kilima Mbogo**	145.60	243	PKPbc	PKPbc	16 49 16.6	+3.6
	0.4nm,0.3s,baz=233,slow=24,SNR=4.6						
GERES	**GERESS Array B**	146.63	352	pPKPbc		16 49 27.9	
	0.6nm,0.7s,baz=18,slow=3.1,SNR=2.9						
BRTR	**Keskin Array B**	146.70	321	PKPbc	PKPbc	16 49 18.1	+3.2
	2.4nm,0.9s,baz=58,slow=1.9,SNR=8.6						
BRTR				pPKPbc		16 49 29.1	
	1.7nm,0.8s,baz=53,slow=2.0,SNR=4.3						

IDC **24** *16:34:41.4±0.6, 9.12N×126.12E, mb4.1/13, mb1 4.2/13, mb1mx4.1/21, Error ellipse: s-maj=40.9km s-min=14.1km az=66.0*

NEIC **24** *16:34:48.8±5.2, 9.02N×126.06E, h55^{km}±48^{km}, mb4.3/5, Error ellipse: s-maj=26.9km s-min=8.9km az=56.0*

MAN **24** *16:34:50.3, 9.03N×126.28E, h29^{km}, mb4.5, ML3.4, MS3.3*

ISC 24 16:34:49.4±0.5, 9.01N±0.03×126.28E±0.05, h72^{km}±5^{km}, n40, σ1^{s}19/49, mb3.9/15, 1C-3D, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	**Butuan**	0.65	266	*e*P	P	16 35 03.4	-0.6
BUTP				*e*S	S	16 35 13.0	-2.0
BIPH	**Bislig**	0.83	174	*e*P	P	16 35 06.2	+0.1
BIPH				*i* S	S	16 35 17.0	-1.5
SCPH	**Surigao**	1.09	315	*e*P	P	16 35 08.7	-0.7
SCPH				*e*S	S	16 35 23.2	-1.1
BUKP	**Musuan**	1.65	227	*e*P	P	16 35 17.7	+0.8
BUKP				*e*S	S	16 35 38.7	+1.5
CGP	**Cagayan de Oro**	1.66	251	⇓*e*P	S	16 35 36.4	-1.2
MSLP	**Maasin**	1.79	309	*e*P	P	16 35 19.7	+0.9
MSLP				*e*S	S	16 35 41.5	+0.9
MATI	**Mati**	2.05	181	*e*P	P	16 35 24.3	+1.9
KCP	**Kidapawan**	2.31	211	⇓*i*P	P	16 35 31.4	+5.3
TBP	**Tagbilaran**	2.48	286	*e*P	P	16 35 25.6	-2.8
TBP				*e*S	S	16 35 56.8	-0.8
PLP	**Palo**	2.49	329	*e*P	P	16 35 29.9	+1.3
PLP				*i* S	S	16 35 59.7	+1.8
OCLP	**Ormoc**	2.61	321	*e*P	P	16 35 31.9	+1.6
LLP	**Lapu-Lapu**	2.62	300	⇑*i*P	P	16 35 31.2	+0.7
LLP				*i* S	S	16 36 01.4	+0.2
CTBH	**Cotabato--PC H**	2.69	229	⇓*i*P	P	16 35 31.6	+0.2
CTBH				*i* S	S	16 36 05.6	+2.8
BESP	**Borongan**	2.70	342	*e*P	P	16 35 32.1	+0.5
PAGZ	**Pagadian**	3.09	248	*e*P	P	16 35 37.9	+0.8
CNP	**Catarman**	3.82	336	*e*P	P	16 35 47.3	+0.1
GUIM	**Jordan**	3.98	294	*e*P	P	16 35 49.0	-0.3
PVCP	**Virac**	5.01	336	*e*P	P	16 36 02.8	-1.0
KAKA	**Kakadu**	22.43	164	*e*P	P	16 39 43.7	+0.5
	8.2nm,0.6s,mb4.2						
CMAR	**Chiang Mai Arr**	28.13	292	P	P	16 40 35.3	-1.7
	0.3nm,0.4s,mb3.2,baz=120,slow=7.3,SNR=3.1						
WRAB	**Tennant Creek**	29.84	165	*e*P	P	16 40 51.0	-1.2
	1.9nm,0.6s,mb3.9						
WRA	**Warramunga Arr**	29.84	165	P	P	16 40 51.1	-1.1
	1.3nm,0.7s,mb3.7,baz=348,slow=9.7,SNR=13						
WB2	**Warramunga Arr**	29.85	165	*e*P	P	16 40 51.1	-1.2
ASAR	**Alice Springs**	33.32	167	P	P	16 41 22.0	-0.6
	0.9nm,0.4s,mb3.9,baz=347,slow=7.1,SNR=32						
CTA	**Charters Tower**	34.97	146	*e*P	P	16 41 37.6	+0.9
	2.4nm,0.6s,mb4.2						
CTA	**Charters Tower**	34.97	146	P	P	16 41 37.8	+1.0
	2.6nm,0.5s,mb4.3,baz=324,slow=11,SNR=13						
CTAO	**Charters Tower**	34.97	146	*e*P	P	16 41 37.3	+0.6
	3.4nm,0.6s,mb4.3						
STKA	**Stephens Creek**	43.21	161	*e*P	P	16 42 45.6	+0.4
	1.4nm,0.4s,mb4.0						
STKA	**Stephens Creek**	43.21	161	P	P	16 42 45.7	+0.5
	2.2nm,0.5s,mb4.2,baz=332,slow=8.4,SNR=9.9						
STKA	**Stephens Creek**	43.21	161	*e*P	P	16 42 45.3	+0.1
POO	**Poona**	51.64	286	*e*P	P	16 43 55.0	+3.8
ZAL	**Zalesovo**	55.73	332	P	P	16 44 18.1	-2.8
	0.6nm,0.3s,mb4.0,baz=340,slow=14,SNR=2.6						
BVAR	**Borovoye Array**	62.70	326	P	P	16 45 06.4	-2.5
	0.9nm,0.8s,mb3.8,baz=146,slow=5.2,SNR=5.5						
RPZ	**Rata Peaks**	66.34	146	P	P	16 45 33.2	+0.6
	3.8nm,0.5s,mb4.5,baz=337,slow=4.3,SNR=5.1						
ILAR	**Eielson Array**	80.56	26	P	P	16 46 55.8	+0.6
	0.2nm,0.6s,mb3.1,baz=267,slow=3.8,SNR=7.2						
ARCES	**ARCESS Array B**	85.37	340	P	P	16 47 19.6	+0.1
	2.1nm,0.8s,mb4.1,baz=78,slow=5.9,SNR=5.7						
FINES	**FINESS Array B**	87.00	332	P	P	16 47 27.1	-0.5
	2.7nm,0.9s,mb4.2,baz=75,slow=5.9,SNR=14						
VNDA	**Vanda**	88.69	173	P	P	16 47 37.0	+1.6
	1.1nm,0.7s,mb4.0,baz=322,slow=4.8,SNR=10						
VNDA	**Vanda**	88.69	173	*e*P	P	16 47 35.9	+0.5
	1.2nm,0.7s,mb4.0						
YKA	**Yellowknife Ar**	94.90	24	P	P	16 48 05.2	+0.8
	0.2nm,0.6s,mb3.7,baz=292,slow=4.2,SNR=5.3						

DJA **24** *16:40:25.5±0.6, 9.30S×116.70E, h320^{km}, MD4.6/4, ML4.4/4, Error ellipse: s-maj=27.0km s-min=18.5km az=15.0*

ISC 24 16:40:25.7±1.8, 9.0S±0.7×116.7E±0.2, h323^{km}±20^{km}, n7, σ0^{s}99/11, 3C-7D, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	0.75	311	⇑*i*Pn	P	16 41 07.7	-0.2
	393nm,0.2s						
KEDI	**Kedomdong**	0.75	311	⇓*i*P	P	16 41 08.5	+0.6
KEDI				⇓*i*Sn	S	16 41 40.2	-0.7
RATI	**Rata**	1.17	282	⇓*i*Pn	P	16 41 11.1	+1.4
	2µm,0.2s						
RATI				⇓*i*Sn	S	16 41 44.5	+0.5
KELI	**Kelakatan**	2.30	289	⇑*i*Pn	P	16 41 17.9	+0.6
	74nm,0.2s						
KELI	**Kelakatan**	2.30	289	⇓*i*P	P	16 41 18.4	+1.1
KELI				⇓*i*Sn	S	16 41 55.8	-1.8
SRDI	**Scrawed**	2.56	281	⇓*i*Pn	P	16 41 20.5	+0.9
	151nm,0.2s						
SRDI				⇑*i*Sn	S	16 42 01.1	-0.5
WB2	**Warramunga Arr**	20.26	124	*e*P	P	16 44 37.2	-1.0

IDC **24** *16:52:34.1±2.5, 12.36S×77.41W, mb3.3/1, mb1 3.7/2, mb1mx3.2/16, ML3.8/1, Error ellipse: s-maj=122.0km s-min=43.1km az=39.0*

NEIC **24** *16:52:40.4±1.2, 12.39S×77.22W, h45^{km}, Error ellipse: s-maj=24.4km s-min=19.5km az=38.0*

NEIC Felt [II] at Chilca and Mala.

ISC 24 16:52:38.8±1.9, 12.5S±0.1×77.2W±0.2, h45^{km}, n6, σ1^{s}10/6, mb3.1/1, 1C, Near coast of Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	**Nana**	0.58	38	⇑*i*Pg	P	16 52 52.2	+1.3
NNA				*e*Sg	S	16 52 58.9	-0.6
ARE	**Arequipa**	6.82	126	*e*P	P	16 54 25.0	+6.2
LPAZ	**La Paz**	9.59	115	Pn	P	16 54 57.0	-0.2
	0.3nm,0.3s,baz=294,slow=11,SNR=6.0						
YKA	**Yellowknife Ar**	80.18	343	P	P	17 04 45.2	-0.5
	0.1nm,0.4s,mb3.1,baz=147,slow=5.8,SNR=4.3						
YKA	**Yellowknife Ar**	80.18	343	P	P	17 04 45.2	-0.5
WRA	**Warramunga Arr**	135.27	224	PKP	PKPdf	17 11 56.4	+1.8
	0.4nm,1.0s,baz=134,slow=2.3,SNR=4.7						

WEL 24 16:54:52.1±0.1, 42.87S×172.94E, h14^{km}±2^{km}, ML3.5/7, 1D, Error ellipse: s-maj=1.4km s-min=1.2km az=90.0, South Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LTZ	**Lake Taylor**	0.50	280	⇓P*	Pb	16 55 01.8	-0.3
LTZ				S*	Sb	16 55 09.1	+0.1
KHZ	**Kahutara**	0.64	44	P*	Pb	16 55 04.1	-0.3
CRLZ	**Canterbury Las**	0.74	198	P*	Pb	16 55 05.9	-0.3
CRLZ				S*	Sb	16 55 16.9	+1.0
MQZ	**McQueen's Vall**	0.86	194	P*	Pb	16 55 07.2	-1.1
MQZ				S*	Sb	16 55 18.8	-0.6
THZ	**Tophouse**	1.11	359	P*	Pb	16 55 12.2	-0.4
THZ				S*	Sb	16 55 25.2	-1.4
BSWZ	**Blackbirch Sta**	1.35	31	PN	Pn	16 55 16.1	-0.5
DSZ	**Denniston Nort**	1.41	323	PN	Pn	16 55 16.7	-0.7
TUWZ	**Tuamarina**	1.62	28	PN	Pn	16 55 19.4	-1.1
WVZ	**Waitaha Valley**	1.63	262	PN	Pn	16 55 19.9	-0.7
WVZ				SN	Sn	16 55 39.6	-1.8
QRZ	**Quartz Range**	2.07	351	PN	Pn	16 55 26.4	-0.5
QRZ				SN	Sn	16 55 51.6	-0.9
WEL	**Wellington**	2.09	41	PN	Pn	16 55 25.2	-2.0
CAW	**Cannon Point**	2.37	43	PN	Pn	16 55 28.7	-2.5
CAW				SN	Sn	16 55 56.4	-3.9
FOZ	**Fox Glacier**	2.48	253	PN	Pn	16 55 30.5	-2.2
FOZ				SN	Sn	16 55 58.8	-4.1
KIW	**Kapiti Island**	2.49	37	PN	Pn	16 55 30.9	-2.0
LBZ	**Lake Benmore**	2.51	232	PN	Pn	16 55 31.4	-1.8
ODZ	**Otahua Downs**	2.73	217	PN	Pn	16 55 33.6	-2.8
ODZ				SN	Sn	16 56 04.4	-5.0
MRZ	**Mangatainoka R**	2.96	43	PN	Pn	16 55 36.2	-3.4
MRZ				SN	Sn	16 56 09.8	-5.4
JCZ	**Jackson Bay**	3.27	247	PN	Pn	16 55 41.9	-2.1
EAZ	**Earnscleugh**	3.52	227	PN	Pn	16 55 44.3	-3.3

NEIC **24** *17:18:43.4, 31.47S×70.41W, h120^{km}, mb3.5/1,* *MD3.4(GUC), After GUC.*

GUC 24 17:18:43.4±0.9, 31.47S×70.41W, h120^{km}±5^{km}, MD3.4, ML3.9, 9C-11D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMCH	Combarbala	0.58	300	⇓iP	P	17 19 02.6	+0.7
CMCH				iS	S	17 19 16.7	+0.6
CMCH				AMP		17 19 20.6	
	comp=E,5μm,0.6s						
ILCH	Illapel	0.67	255	⇑iP	P	17 19 03.0	+0.4
ILCH				iS	S	17 19 17.4	+0.2
ILCH				AMP		17 19 19.2	
	comp=N,4μm,0.2s						
PTCH	Petorca	0.91	209	⇑iP	P	17 19 04.8	-0.1
PTCH				iS	S	17 19 20.5	-0.4
PTCH				AMP		17 19 21.7	
	comp=N,7μm,0.7s						
JACH	Jahuel	1.22	187	⇑iP	P	17 19 08.2	+0.1
JACH				iS	S	17 19 26.6	0.0
TLL	Tololo Astrono	1.34	345	⇑iP	P	17 19 09.9	+0.6
TLL				iS	S	17 19 29.6	+0.6
TLL				AMP		17 19 32.3	
	comp=E,3μm,0.6s						
PACH	Papudo	1.38	219	⇑iP	P	17 19 10.0	+0.1
PACH				iS	S	17 19 30.0	0.0
ROCH	El Roble	1.59	199	⇓iP	P	17 19 12.3	+0.1
ROCH				iS	S	17 19 34.4	+0.3
PEL	Peldehue	1.69	188	⇑iP	P	17 19 13.3	-0.2
PEL				iS	S	17 19 35.9	-0.3
PEL				AMP		17 19 38.1	
	comp=N,986nm,0.5s						
FCH	Farellones	1.86	177	⇓iP	P	17 19 16.3	+0.8
FCH				iS	S	17 19 41.0	+1.2
FCH				AMP		17 19 43.8	
	comp=E,768nm,0.3s						
CLCH	Cerro Calan	1.93	183	⇓iP	P	17 19 16.5	+0.2
CLCH				iS	S	17 19 41.9	+0.6
CLCH				AMP		17 19 45.6	
	comp=N,554nm,0.5s						
CLCH				AMP		17 19 47.6	
	comp=E,1μm,0.8s						
DSCH	Colegio Aleman	1.93	184	iP	P	17 19 16.5	+0.1
DSCH				iS	S	17 19 41.8	+0.5
DSCH				AMP		17 19 44.4	
	comp=E,1μm,0.5s						
MDZ	Mendoza	1.94	137	⇓iP	P	17 19 16.0	-0.5
MDZ				iS	S	17 19 40.7	-0.7
FSR	Penalolen	2.01	183	iP	P	17 19 17.8	+0.4
FSR				iS	S	17 19 43.6	+0.5
FSR				AMP		17 19 50.0	
	comp=E,508nm,0.3s						
RCDM	Rinconada Maip	2.05	189	⇑iP	P	17 19 17.4	-0.5
RCDM				iS	S	17 19 43.7	-0.2
RCDM				AMP		17 19 44.4	
	comp=E,954nm,0.2s						
ANTU	Antumapu	2.11	185	⇑iP	P	17 19 18.5	-0.2
ANTU				iS	S	17 19 45.2	-0.1
ANTU				AMP		17 19 46.6	
	comp=E,510nm,0.3s						
PCH	Pirque	2.15	182	⇓iP	P	17 19 19.7	+0.4
TACH	Talagante	2.23	191	⇓iP	P	17 19 19.7	-0.6
TACH				iS	S	17 19 47.9	-0.2
LCCH	Las Cruces	2.23	206	⇑iP	P	17 19 20.1	-0.2
LCCH				iS	S	17 19 48.3	0.0
LMEL	Las Melosas	2.38	176	⇓iP	P	17 19 22.5	+0.1
LMEL				iS	S	17 19 52.6	+0.9
LMEL	Las Melosas	2.38	176	eP	P	17 19 22.4	+0.1
LMEL				⇓iP		17 19 22.5	
LMEL				iS	S	17 19 52.6	+0.9
LMEL				AMP		17 19 56.8	
	comp=N,400nm,0.3s						
CHCH	Chadas Angostu	2.47	185	iP	P	17 19 22.8	-0.8
CHCH				iS	S	17 19 53.8	0.0
CACH	El Canelo	2.65	183	⇓iP	P	17 19 25.9	0.0
CACH				iS	S	17 19 59.3	+1.3
CICH	Cipreses	2.85	180	iP	P	17 19 28.2	-0.3
CICH				iS	S	17 20 03.1	+0.4
VACH	Vallenar	2.90	354	⇓iP	P	17 19 34.3	+5.1
VACH				iS	S	17 20 08.9	+5.0
LVC	Limon Verde	8.92	9	ePn	P	17 20 45.6	-4.9
LPAZ	La Paz	15.25	8	eP	P	17 22 14.5	+1.0
	comp=N,3.1nm,1.1s						

STR 24 17:27:35.3±0.2, 44.58N×6.78E, h2^{km}±1^{km}, Ml2.0, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0

LDG 24 17:27:35.1±0.1, 44.60N×6.78E, h2^{km}, Md1.8/2, Ml2.0/1, Error ellipse: s-maj=3.8km s-min=1.5km az=86.0, France

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SURF	Saint Ours	0.12	169	Pg	Pg	17 27 37.6	+0.1
SURF				Sg	Sg	17 27 39.4	+0.3
MBDF	Montbardon	0.13	357	ePg	Pg	17 27 38.1	+0.4
MBDF				eSg	Sg	17 27 40.3	+0.9
	16nm,0.2s						
OG22	Abries	0.25	28	Pg	Pg	17 27 40.6	+0.4
OG22				Sg	Sg	17 27 44.3	+0.8
ORIF	Oris-en-Rattie	0.72	297	ePg	Pg	17 27 48.6	-0.8
ORIF				eSg	Sg	17 27 57.8	-1.2
	2.1nm,0.2s						
LPL	La Plagne	0.92	358	ePg	Pg	17 27 52.3	-1.1
FRF	La Foret Royal	1.04	185	ePg	Pg	17 27 54.4	-1.5
FRF				eSg	Sg	17 28 08.3	-1.5
	2.5nm,0.2s						
LMR	La Mourre	1.28	189	ePg	Pg	17 27 59.1	-1.5

IDC 24 17:35:11.2±2.0, 49.47S×161.63E, mb4.0/4, mb1 4.2/5, mb1mx3.9/9, ML3.6/1, MS3.5/1, Ms1 3.4/1, ms1mx2.1/17, Error ellipse: s-maj=52.6km s-min=30.4km az=174.0

NEIC 24 17:35:17.3±0.6, 48.97S×161.34E, h10^{km}, mb4.4/2, Error ellipse: s-maj=13.9km s-min=6.1km az=170.0

ISC 24 17:35:12.0±0.8, 49.4S±0.1×161.56E±0.09, h10^{km}, n27, σ1^{s}41/33, mb4.1/6, MS3.4/1, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	Wether Hill Ro	5.53	54	eP	Pn	17 36 37.8	+1.3
WHZ				S	Sn	17 37 39.9	-1.0
WHZ	Wether Hill Ro	5.53	54	P	Pn	17 36 37.8	+1.3
WHZ				S	Sn	17 37 39.5	-1.4
MLZ	Mavora Lakes	6.02	51	P	Pn	17 36 45.1	+1.7
MLZ				S	Sn	17 37 53.4	+0.3
MLZ	Mavora Lakes	6.02	51	P	Pn	17 36 45.1	+1.7
MLZ				S	Sn	17 37 52.8	-0.3
MSZ	Milford Sound	6.39	45	P	Pn	17 36 51.2	+2.6
MSZ				S	Sn	17 38 02.7	+0.3
TUZ	Tuapeka	6.42	61	eP	Pn	17 36 49.7	+0.6
TUZ	Tuapeka	6.42	61	P	Pn	17 36 49.4	+0.3
TUZ				S	Sn	17 38 01.1	-2.2
EAZ	Earnscleugh	6.69	55	eP	Pn	17 36 54.5	+1.7
EAZ	Earnscleugh	6.69	55	P	Pn	17 36 53.8	+1.0
WKZ	Wanaka	6.81	51	P	Pn	17 36 57.0	+2.5
JCZ	Jackson Bay	7.23	46	P	Pn	17 37 03.1	+2.6
JCZ				S	Sn	17 38 22.3	-1.2
ODZ	Otahua Downs	7.54	59	P	Pn	17 37 03.6	-1.1
FOZ	Fox Glacier	8.06	47	P	P	17 37 14.5	+2.5
RPZ	Rata Peaks	8.63	53	Pn	P	17 37 18.3	-1.7
	0.6nm,0.3s,baz=56,slow=22,SNR=3.2						
RPZ				Sn	Sn	17 38 56.5	-2.0
	0.5nm,0.3s,baz=358,slow=21,SNR=3.6						
LTZ	Lake Taylor	9.92	53	P	P	17 37 39.0	+1.3
DSZ	Denniston Nort	10.45	47	P	P	17 37 44.3	-0.7
THZ	Tophouse	10.98	51	P	P	17 37 51.9	-0.4
STKA	Stephens Creek	23.00	312	P	P	17 40 19.6	+1.8
	3.0nm,1.1s,mb3.6,baz=274,slow=15,SNR=2.7						
STKA				LR	LR	17 47 19.0	
	comp=Z,126nm,20.1s,MS3.4,baz=25,slow=32						
ASAR	Alice Springs	33.59	310	P	P	17 41 53.7	-0.7
	2.7nm,0.7s,mb4.3,baz=146,slow=8.4,SNR=47						
ASPA	Alice Springs	33.59	310	eP	P	17 41 53.7	-0.7
WB2	Warramunga Arr	36.52	314	eP	P	17 42 18.4	-1.1
WRA	Warramunga Arr	36.53	314	P	P	17 42 18.4	-1.1
	3.6nm,0.8s,mb4.2,baz=145,slow=8.1,SNR=24						
WRAB	Tennant Creek	36.53	314	eP	P	17 42 18.4	-1.1
	7.5nm,0.9s,mb4.5						
QSPA	South Pole Qui	40.77	180	eP	P	17 42 53.0	-1.3
	5.1nm,1.1s,mb4.1						
CMAR	Chiang Mai Arr	87.28	302	P	P	17 48 00.7	+0.6
	0.3nm,0.7s,mb3.6,baz=169,slow=4.6,SNR=2.7						
AKASG	Malin Array Be	149.76	291	PKPbc	PKPdf	17 55 01.6	+2.1
	0.4nm,0.5s,baz=90,slow=2.5,SNR=4.3						
FINES	FINESS Array B	152.56	313	PKPbc	PKPdf	17 55 08.2	+4.9
	1.8nm,0.7s,baz=90,slow=4.2,SNR=7.0						

DJA 24 17:46:37.6±0.9, 9.72S×113.84E, h33^{km}, MD5.0/3, ML3.8/3, 4C-4D, Error ellipse: s-maj=20.7km s-min=14.4km az=33.0, South of Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	Scrawed	1.27	13	⇓iPn	Pn	17 46 58.1	-1.2
	85nm,0.2s						
SRDI	Scrawed	1.27	13	⇓iP	P	17 46 58.3	-0.8
SRDI				⇑iSn	Sn	17 47 12.4	-3.0
KELI	Kelakatan	1.63	23	⇓iPn	Pn	17 47 03.8	-0.7
	50nm,0.4s						
KELI	Kelakatan	1.63	23	⇑iP	P	17 47 04.0	-0.3
KELI				⇓iSn	Sn	17 47 23.3	-1.1
RATI	Rata	1.94	59	⇑iPn	Pn	17 47 07.9	-1.0
	138nm,0.3s						
RATI				⇑iSn	Sn	17 47 27.4	-5.0

IDC 24 17:51:47.4±4.6, 18.21S×173.00W, mb3.9/3, mb1 4.1/3, mb1mx3.7/17, Error ellipse: s-maj=259.0km s-min=66.5km az=155.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	38.47	260	P	P	17 59 12.2	-0.8
	4.4nm,1.1s,baz=99,slow=13,SNR=7.3						
WRA	Warramunga Arr	49.63	259	P	P	18 00 40.5	-2.4
	0.3nm,0.3s,baz=98,slow=7.5,SNR=17						
ASAR	Alice Springs	49.66	254	P	P	18 00 41.0	-2.2
	0.7nm,0.6s,baz=86,slow=8.2,SNR=28						
FINES	FINESS Array B	134.75	347	PKP	PKPdf	18 11 07.2	-2.5
	2.2nm,0.8s,baz=29,slow=5.6,SNR=6.3						

ROM 24 18:17:00.2±0.8, 38.55N×15.08E, h236^{km}±8^{km}, MD2.7/8, ML2.2/5, Error ellipse: s-maj=5.7km s-min=2.3km az=90.0

NEIC 24 18:17:00.3, 38.55N×15.08E, h236^{km}, MD2.7(ROM), After ROM.

IDC 24 18:17:01.2±1.4, 38.78N×14.72E, h230^{km}±27^{km}, mb3.0/6, mb1 3.1/8, mb1mx2.9/24, Error ellipse: s-maj=44.4km s-min=32.1km az=11.0

CSEM 24 18:17:02.1±0.4, 38.57N×15.07E, h216^{km}±4^{km}, ML2.2/5, Error ellipse: s-maj=3.6km s-min=2.8km az=97.0

ISC 24 18:16:59.9±0.6, 38.59N±0.07×15.1E±0.1, h240^{km}±5^{km}, n45, σ0^{s}89/51, mb3.4/5, 11C-5D, Sicily

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLNA	Salina	0.18	262	⇓iP	P	18 17 31.0	-0.2
MSRU	Castanea	0.48	132	⇑iP	P	18 17 31.2	-0.7
SCLL	Scilla	0.61	122	eP	P	18 17 31.9	-0.4
SCLL				S	S	18 17 55.4	-2.1
	93nm,0.2s						
SCLL	Scilla	0.61	122	ePg	P	18 17 31.9	-0.4
SCLL				eSg	S	18 17 55.4	-2.1
SCLL	Scilla	0.61	122	eP	P	18 17 31.9	-0.4
	93nm,0.2s						
SCLL				eS	S	18 17 55.4	-2.1
MMME	Mongiuffi-Meli	0.67	166	eP	P	18 17 32.5	0.0
GMB	Gambarie	0.74	124	eP	P	18 17 33.1	+0.3
GMB	Gambarie	0.74	124	ePg	P	18 17 33.1	+0.4
MTTG	Motta San Giov	0.77	139	eP	P	18 17 33.2	+0.3
	111nm,0.5s						
MTTG	Motta San Giov	0.77	139	eP	P	18 17 33.2	+0.3
	111nm,0.5s						
SOI	Samo	0.94	123	⇓iP	P	18 17 33.9	+0.2
SOI	Samo	0.94	123	⇓iPg	P	18 17 33.9	+0.2
GRI	Girifalco	1.09	77	eP	P	18 17 35.3	+0.7
	99nm,0.4s						
GRI	Girifalco	1.09	77	ePg	P	18 17 35.3	+0.7
GRI	Girifalco	1.09	77	eP	P	18 17 35.3	+0.7
	99nm,0.4s						
VAE	Valguarnera	1.22	205	P	P	18 17 36.4	+0.9
	2.3nm,0.3s,baz=301,slow=12,SNR=7.7						
AGST	Augusta-Monte	1.34	174	eP	P	18 17 36.0	-0.3
AGST	Augusta-Monte	1.34	174	ePg	P	18 17 36.0	-0.3
SSY	Sortino	1.43	179	⇓iP	P	18 17 36.8	-0.3
SSY	Sortino	1.43	179	⇓iPg	P	18 17 36.8	-0.3
TIP	Timpagrande	1.45	66	ePn	P	18 17 37.6	+0.4
TIP				eS	S	18 18 01.7	-4.5
TIP	Timpagrande	1.45	66	eP	P	18 17 37.6	+0.4
MGR	Morigerati	1.59	14	⇑iP	P	18 17 38.8	+0.4
	14nm,0.5s						
MGR	Morigerati	1.59	14	⇑iPg	P	18 17 38.8	+0.4
MGR	Morigerati	1.59	14	⇑iP	P	18 17 38.8	+0.4
	14nm,0.5s						
FAVR	Favara	1.72	220	eP	P	18 17 40.0	+0.7
FAVR	Favara	1.72	220	ePg	P	18 17 40.0	+0.7
SGO	Sicignano	1.98	6	⇑iP	P	18 17 42.4	+0.8
	9.0nm,0.4s						
SGO	Sicignano	1.98	6	⇑iPg	P	18 17 42.4	+0.8
SGO	Sicignano	1.98	6	⇑iP	P	18 17 42.4	+0.8
	9.0nm,0.4s						
MRLC	Muro Lucano	2.19	9	⇑iP	P	18 17 44.8	+1.1
MRLC	Muro Lucano	2.19	9	⇑iPg	P	18 17 44.8	+1.1
LTRZ	Laterza	2.43	34	⇑iP	P	18 17 45.3	-0.8
LTRZ				S	S	18 18 21.3	-0.7
LTRZ	Laterza	2.43	34	⇑iPg	P	18 17 45.2	-0.9
LTRZ				eSg	S	18 18 21.3	-0.7
SGG	Gregorio Mates	2.84	350	eP	P	18 17 51.4	+0.9
SGG	Gregorio Mates	2.84	350	ePg	P	18 17 51.4	+1.0
DAVOX	Davos	9.03	337	P	P	18 19 12.5	+5.5
	0.3nm,0.3s,baz=173,slow=14,SNR=4.9						
AKASG	Malin Array Be	15.72	35	P	P	18 20 30.9	+0.7
	2.4nm,0.3s,baz=224,slow=9.2,SNR=15						
EKA	Eskdalemuir Ar	20.75	330	P	P	18 21 21.2	-1.6
	1.5nm,1.0s,baz=141,slow=10,SNR=2.9						
HFS	Hagfors	21.58	358	P	P	18 21 31.2	+0.3
	3.9nm,1.0s,mb3.9,baz=175,slow=9.4,SNR=4.5						
FINES	FINESS Array B	23.89	13	P	P	18 21 52.3	-0.4
	1.4nm,0.7s,mb3.7,baz=192,slow=9.2,SNR=12						
ARCES	ARCESS Array B	31.51	7	P	P	18 22 58.9	-2.2
	4.4nm,1.0s,mb3.9,baz=192,slow=8.3,SNR=4.6						
BVAR	Borovoye Array	40.16	50	P	P	18 24 15.7	+1.8
	0.2nm,0.4s,mb2.9,baz=254,slow=10,SNR=3.3						
YKA	Yellowknife Ar	71.47	338	P	P	18 27 54.9	-0.5
	0.1nm,0.8s,mb2.5,baz=38,slow=5.9,SNR=3.9						
YKA	Yellowknife Ar	71.47	338	P	P	18 27 54.9	-0.5

NEIC 24 18:17:57.0±0.8, 11.90S×167.04E, h200^{km}, Error ellipse: s-maj=50.6km s-min=15.1km az=141.0

IDC 24 18:18:00.7±13.0, 11.94S×166.97E, h235^{km}±125^{km}, mb3.3/8, mb1 3.5/8, mb1mx3.5/15, MS3.0/1, Ms1 3.0/1, ms1mx2.5/15, Error ellipse: s-maj=62.1km s-min=35.6km az=152.0

ISC 24 18:18:01.0±1.0, 12.0S±0.3×166.9E±0.3, h250^{km}, n12, σ0^{s}78/9, mb3.5/8, Santa Cruz Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	21.41	245	LR	LR	18 29 20.9	
	comp=Z,35nm,18.6s,baz=54,slow=32						
STKA	Stephens Creek	30.57	226	P	P	18 23 54.6	+0.9
	2.1nm,0.8s,mb3.8,baz=72,slow=13,SNR=3.0						
WRA	Warramunga Arr	32.26	252	P	P	18 24 08.0	-0.5
	0.5nm,0.9s,mb3.0,baz=85,slow=9.0,SNR=3.3						
ASAR	Alice Springs	33.42	245	P	P	18 24 17.5	-0.8
	0.4nm,0.7s,mb3.1,baz=70,slow=9.6,SNR=9.6						
SONM	Songino Array	80.12	323	P	P	18 29 45.8	+1.2
	0.4nm,0.9s,mb3.0,baz=90,slow=2.9,SNR=3.6						
YBH	Yreka Blue Hor	83.74	45	P	P	18 30 03.9	+0.5
	0.9nm,0.8s,mb3.5,baz=214,slow=2.2,SNR=5.7						
ILAR	Eielson Array	84.06	18	P	P	18 30 04.1	-0.2
	3.0nm,0.6s,mb4.2,baz=247,slow=5.2,SNR=40						
NVAR	Mina Array Bea	85.76	49	P	P	18 30 13.5	0.0
	0.7nm,0.7s,mb3.5,baz=232,slow=8.8,SNR=6.3						
YKA	Yellowknife Ar	95.30	27	P	P	18 30 56.0	-1.2
	0.3nm,0.6s,mb3.6,baz=258,slow=4.8,SNR=7.7						
YKA	Yellowknife Ar	95.30	27	P	P	18 30 56.0	-1.2
ARCES	ARCESS Array B	117.55	346	PKP	PKPdf	18 36 17.8	+1.2
	4.6nm,0.9s,baz=76,slow=3.7,SNR=6.5						
FINES	FINESS Array B	123.09	339	PKP	PKPdf	18 36 28.2	+0.8
	1.5nm,0.9s,baz=49,slow=4.7,SNR=3.5						

IDC 24 18:28:45.4±9.2, 16.76S×173.06W, mb4.4/5, mb1 4.6/5, mb1mx4.0/17, Error ellipse: s-maj=215.0km s-min=40.8km az=35.0

NEIC 24 18:30:12.0±3.6, 18.33S×178.15W, h500^{km}, mb4.1/7, Error ellipse: s-maj=94.3km s-min=26.0km az=212.0

ISC 24 18:29:00.2±6.0, 17.4S±0.8×173.5W±0.7, h100^{km}, n14, σ0^{s}94/13, mb4.5/8, 4C-1D, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	38.12	259	⇑iP	P	18 36 10.6	-0.6
	4.7nm,0.6s,mb4.5						
CTA	Charters Tower	38.12	259	P	P	18 36 10.8	-0.5
	3.8nm,0.4s,mb4.5,baz=94,slow=10,SNR=16						
CTAO	Charters Tower	38.12	259	eP	P	18 36 10.2	-1.1
	6.1nm,0.7s,mb4.5						
STKA	Stephens Creek	42.97	242	⇑iP	P	18 36 52.5	+1.4
	3.7nm,0.8s,mb4.2						
STKA	Stephens Creek	42.97	242	P	P	18 36 52.5	+1.4
	2.7nm,0.3s,mb4.4,baz=93,slow=11,SNR=22						
WB2	Warramunga Arr	49.29	258	⇑iP	P	18 37 40.3	-0.8
WRAB	Tennant Creek	49.29	258	eP	P	18 37 39.9	-1.3
	3.2nm,0.5s,mb4.5						
WRA	Warramunga Arr	49.30	258	P	P	18 37 40.5	-0.7
	1.8nm,0.4s,mb4.3,baz=98,slow=6.3,SNR=52						
ASAR	Alice Springs	49.41	253	P	P	18 37 42.1	+0.1
	12nm,0.5s,mb5.1,baz=90,slow=8.4,SNR=526						
ASPA	Alice Springs	49.41	253	⇑iP	P	18 37 41.9	-0.1
KAKA	Kakadu	52.25	267	⇓iP	P	18 38 04.6	+1.0
	4.3nm,0.6s,mb4.7						
FITZ	Fitzroy Crossi	57.70	259	eP	P	18 38 44.7	+1.7
	2.8nm,0.3s,mb4.8						
VNDA	Vanda	61.41	186	P	P	18 39 07.5	-0.3
	0.5nm,0.8s,mb3.6,baz=49,slow=9.3,SNR=2.3						
QSPA	South Pole Qui	72.68	180	eP	pP	18 40 42.7	-1.4
	4.2nm,0.6s						

IDC 24 19:02:29.7±3.1, 31.21S×178.28W, mb3.6/2, mb1 3.9/3, mb1mx3.6/14, ML3.2/1, Error ellipse: s-maj=69.1km s-min=36.4km az=109.0, Kermadec Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PUZ	Puketiti	7.42	202	eP	Pn	19 04 21.3	-0.6
PUZ				S	Sn	19 05 40.6	-7.2
URZ	Urewera	7.99	207	Pn	Pn	19 04 28.2	-1.7
	0.4nm,0.3s,baz=247,slow=3.8,SNR=4.2						
URZ				Sn	Sn	19 05 56.8	-5.3
	2.0nm,0.3s,baz=182,slow=21,SNR=11						
BFZ	Birch Farm	10.44	204	S	S	19 06 51.5	-11
MRZ	Mangatainoka R	10.66	206	S	S	19 06 54.1	-14
KIW	Kapiti Island	11.10	208	S	S	19 07 04.6	-14
NNZ	Nelson	12.04	212	S	S	19 07 26.8	-15
MQZ	McQueen's Vall	14.39	207	S	S	19 08 18.3	-20
ASAR	Alice Springs	42.84	268	P	P	19 10 29.6	-1.7
	0.3nm,0.4s,baz=107,slow=7.3,SNR=15						
WRA	Warramunga Arr	43.90	273	P	P	19 10 38.2	-1.7
	0.5nm,0.4s,baz=112,slow=8.0,SNR=9.1						
FINES	FINESS Array B	145.82	339	PKPbc	PKPbc	19 22 09.1	-1.2
	6.3nm,1.2s,baz=72,slow=4.4,SNR=5.4						

IDC 24 19:07:06.5±0.8, 43.88N×105.66W, mb3.9/3, mb1 3.9/9, mb1mx3.6/23, ML4.0/4, Error ellipse: s-maj=20.4km s-min=8.0km az=146.0

NEIC 24 19:07:06.9±0.6, 43.87N×105.37W, ML3.2, Error ellipse: s-maj=10.5km s-min=7.5km az=152.0, Suspected Mining explosion.

NEIC 50 km [30 miles] SSE of Gillette.

ISC 24 19:07:04.8±0.7, 43.90N±0.07×105.33W±0.08, n22, σ1^{s}14/26, mb4.1/3, Wyoming

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BW06	Boulder Array	3.29	251	ePn	Pn	19 07 58.8	+0.1
PDAR	Pinedale Array	3.29	251	Pn	Pn	19 07 58.9	+0.2
	4.5nm,0.3s,baz=72,slow=15,SNR=133						
PDAR				Lg		19 08 42.7	
	12nm,0.3s,baz=77,slow=20,SNR=5.2						
LOHW	Long Hollow	3.83	268	ePn	Pn	19 08 07.3	+0.9
MOOW	Moose Ponds	3.92	270	ePn	Pn	19 08 08.7	+1.0
WUWY	Wally Ulrich	3.94	267	ePb	Pb	19 08 16.1	+1.0
WUWY				ePg	Pg	19 08 22.4	-1.2
SNOW	Snow King Moun	3.96	266	eP	Pn	19 08 09.0	+0.8
SNOW				ePb	Pb	19 08 15.7	+0.3
SNOW				ePg	Pg	19 08 21.7	-2.2
REDW	Red Top Meadow	4.05	264	eP	Pn	19 08 10.0	+0.6
TPAW	Teton Pass	4.10	266	ePn	Pn	19 08 10.6	+0.5
TPAW				ePg	Pg	19 08 23.1	-3.6
ISCO	Idaho Springs	4.10	183	eP	Pn	19 08 08.7	-1.5
AHID	Auburn Hatcher	4.36	257	ePn	Pn	19 08 14.3	+0.4
QLMT	Earthquake Lak	4.47	284	ePn	Pn	19 08 14.1	-1.4
ULM	Lac du Bonnet	9.05	42	Pn	P	19 09 18.8	-0.9
	0.9nm,0.3s,baz=236,slow=11,SNR=8.4						
ULM				Lg		19 11 51.4	
	0.4nm,0.3s,baz=136,slow=20,SNR=2.7						
ULM	Lac du Bonnet	9.05	42	Pn	P	19 09 18.8	-0.9
ULM				Lg		19 11 51.4	
NVAR	Mina Array Bea	11.20	245	Pn	P	19 09 47.0	-2.2
	baz=55,slow=11,SNR=2.6						
YBH	Yreka Blue Hor	12.95	266	Pn	P	19 10 13.2	+0.4
	0.1nm,0.3s,baz=92,slow=14,SNR=4.6						
TXAR	Lajitas Array	14.60	174	Pn	P	19 10 36.5	+1.9
	0.3nm,0.3s,baz=339,slow=11,SNR=5.4						
TXAR				Lg		19 14 41.2	
	baz=357,slow=21,SNR=3.5						
TXAR	Lajitas Array	14.60	174	Pn	P	19 10 36.5	+1.9
TXAR				Lg		19 14 41.2	
YKA	Yellowknife Ar	19.40	347	P	P	19 11 35.5	+0.7
	0.1nm,0.3s,baz=155,slow=9.7,SNR=7.4						
ARCES	ARCESS Array B	61.28	18	P	P	19 17 22.5	-1.1
	1.5nm,0.5s,mb4.3,baz=346,slow=5.0,SNR=7.3						
ARCES	ARCESS Array B	61.28	18	P	P	19 17 22.5	-1.1
FINES	FINESS Array B	67.90	23	P	P	19 18 06.6	-0.1
	1.4nm,0.8s,mb4.2,baz=338,slow=7.5,SNR=5.7						
SONM	Songino Array	84.47	339	P	P	19 19 41.8	+1.6
	0.3nm,0.6s,mb3.7,baz=7.3,slow=3.4,SNR=4.3						

IDC 24 19:16:08.6±26.0, 21.90S×173.13W, mb4.4/4, mb1 4.5/4, mb1mx4.0/17, 1D, Error ellipse: s-maj=489.0km s-min=154.6km az=76.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	37.89	265	P	P	19 23 28.4	-0.9
	3.5nm,0.5s,baz=94,slow=9.0,SNR=12						
STKA	Stephens Creek	41.33	246	P	P	19 23 55.1	-2.7
	23nm,1.6s,baz=94,slow=10,SNR=4.1						
ASAR	Alice Springs	48.63	257	P	P	19 24 54.3	-2.1
	1.0nm,0.5s,baz=95,slow=7.4,SNR=38						
WB2	Warramunga Arr	48.90	262	⇓iP	P	19 24 56.6	-1.9
WRA	Warramunga Arr	48.91	262	P	P	19 24 56.8	-1.8
	1.8nm,0.3s,baz=96,slow=8.4,SNR=86						

DJA 24 19:31:31.3±0.9, 8.62S×116.89E, h171^{km}±5^{km}, MD4.6/4, ML4.1/3, 3C-7D, Error ellipse: s-maj=55.1km s-min=17.4km az=5.0, Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	Kedomdong	0.78	280	⇓iPn	P	19 31 56.8	-0.1
	969nm,0.2s						
KEDI	Kedomdong	0.78	280	⇑iP	P	19 31 57.2	+0.3
KEDI				⇑iSn	S	19 32 15.9	-0.7
RATI	Rata	1.35	265	⇓iPn	P	19 32 01.4	0.0
	842nm,0.2s						
RATI				⇓iSn	S	19 32 23.1	-1.6
KELI	Kelakatan	2.41	279	⇓iPn	P	19 32 13.4	+0.5
	27nm,0.2s						
KELI				⇓iSn	S	19 32 43.2	-1.7
SRDI	Scrawed	2.72	273	⇑iPn	P	19 32 16.5	-0.2
	87nm,0.2s						
SRDI	Scrawed	2.72	273	⇓iP	P	19 32 16.8	+0.1
SRDI				⇓iSn	S	19 32 50.2	-1.5

WEL 24 19:31:59.0±0.4, 36.80S×177.54E, h178^{km}±4^{km}, ML3.6/6, Error ellipse: s-maj=5.6km s-min=5.0km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

MXZ	Matakaoa Point	0.98	142	PN	P	19 32 26.2	-0.3
MXZ				SN	S	19 32 47.0	-0.7
PUZ	Puketiti	1.39	156	PN	P	19 32 29.9	-0.2
PUZ				SN	S	19 32 53.0	-1.1
URZ	Urewera	1.50	193	PN	P	19 32 31.1	0.0
URZ				SN	S	19 32 55.5	-0.5
MWZ	Matawai	1.53	180	PN	P	19 32 31.2	-0.3
MWZ				SN	S	19 32 56.1	-0.4
KNZ	Kokohu	2.22	177	PN	P	19 32 37.7	-1.1
PWZ	Pawanui	3.27	189	PN	P	19 32 49.6	-1.9
BFZ	Birch Farm	4.01	194	SN	S	19 33 44.7	-3.8
MRZ	Mangatainoka R	4.15	201	PN	P	19 32 59.4	-3.3
KIW	Kapiti Island	4.55	206	PN	P	19 33 03.9	-3.9
KIW				SN	S	19 33 56.2	-4.7
MTW	Mount Morrison	4.63	199	PN	P	19 33 04.9	-4.0
CAW	Cannon Point	4.72	203	PN	P	19 33 05.9	-4.1
TUWZ	Tuamarina	5.41	210	PN	P	19 33 14.3	-4.7
QRZ	Quartz Range	5.61	223	PN	P	19 33 17.1	-4.5
THZ	Tophouse	6.12	215	PN	P	19 33 23.1	-5.3
KHZ	Kahutara	6.41	208	PN	P	19 33 27.0	-5.1

LDG ***24*** *19:36:36.3±0.2, 18.98S×167.04E, h10^{km}, Mb5.1/2, Error ellipse: s-maj=25.7km s-min=3.4km az=94.0*

MOS ***24*** *19:36:36.2±1.7, 19.20S×168.35E, h33^{km}, mb5.6/3, Error ellipse: s-maj=33.9km s-min=23.5km az=110.0*

BJI ***24*** *19:36:37.0, 18.95S×167.93E, h33^{km}, mB5.1, mb4.8, Ms5.0, Msz4.4*

IDC ***24*** *19:36:38.9±0.5, 19.14S×167.72E, h32^{km}±3^{km}, mb4.6/18, mb1 4.7/18, mb1mx4.7/19, MS3.9/11, Ms1 4.0/11, ms1mx3.8/16, Error ellipse: s-maj=15.9km s-min=11.4km az=146.0*

NEIC ***24*** *19:36:38.7±0.2, 19.21S×167.75E, mb5.2/43, Error ellipse: s-maj=7.8km s-min=5.1km az=145.0*

HRVD ***24*** *19:36:38.7±0.5, 18.83S×167.49E, h20^{km}±1^{km}, MW4.9/52, Centroid moment Tensor Solution. LP body waves: s19,c24;Mantle waves: s52,c76; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.03±.30; $M_{\theta\theta}$0.53±.17; $M_{\phi\phi}$2.50±.18; $M_{r\theta}$0.88±.39; $M_{\theta\phi}$-0.47±.12; $M_{\phi r}$0.44±.29; Best double couple: $M_0$2.95×10^{16} NP1:ϕ_s334°,δ44°, λ-111°. NP2:ϕ_s182°,δ49°,λ-71°. Principal axes: T 2.62, Plg3°, Azm258°; N .67, Plg14°, Azm349°; P -3.29, Plg75°, Azm159°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***24*** *19:36:39.3, 18.91S×167.67E, h33^{km}, MB5.3*

ISC 24 19:36:35.9±1.8**, 19.22S**±0.07×**167.70E**±0.05**, h33**^{km}±16^{km}**, h32**^{km}±.4^{km}**:pP-P, n229,** σ**0**^{s}**84**/121**, mb5.0**/61**, MS4.1**/19**, 18C-11D, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.07	202	eP	P	19 37 23.4	+0.2
DZM				eS	S	19 37 58.0	-1.1
DZM	Mont Dzumac	3.07	202	eP	P	19 37 23.4	+0.2
DZM				eS	S	19 37 58.0	-1.1
NOUC	Port Laguerre	3.15	204	⇑eP	P	19 37 24.8	+0.5
NOUC				eS	S	19 38 00.4	-0.7
CTA	Charters Tower	20.21	264	eP	P	19 41 12.4	+1.6
	37nm,1.0s						
CTA				i pP		19 41 22.5	
CTA	Charters Tower	20.21	264	P	P	19 41 12.6	+1.8
	48nm,1.0s,baz=82,slow=11,SNR=38						
CTA				pP		19 41 21.6	
	211nm,0.8s,baz=85,slow=12,SNR=62						
CTA				LR	LR	19 47 38.6	
	comp=Z,962nm,21.2s,MS4.1,baz=79,slow=33						
CTAO	Charters Tower	20.21	264	eP	P	19 41 12.4	+1.5
	110nm,1.3s						
CTAO				epP		19 41 21.8	
CTAO				LR	LR		
	comp=Z,960nm,21.0s,MS4.1						
URZ	Urewera	20.66	159	P	P	19 41 18.1	+2.7
	comp=Z,32nm,1.1s,baz=343,slow=10,SNR=6.8						
URZ				LR	LR	19 47 24.1	
	comp=Z,303nm,19.0s,MS3.7,baz=36,slow=31						
URZ	Urewera	20.66	159	P	P	19 41 18.1	+2.7
URZ				LR	LR	19 47 24.1	
PMG	Port Moresby	22.14	293	P	P	19 41 33.6	+3.2
	comp=Z,9.8nm,0.8s,mb4.3,baz=133,slow=6.8,SNR=5.3						
PMG				LR	LR	19 48 42.8	
	comp=Z,398nm,19.0s,MS3.9,baz=20,slow=33						
PMG	Port Moresby	22.14	293	P	P	19 41 33.6	+3.2
PMG				LR	LR	19 48 42.8	
RPZ	Rata Peaks	24.58	174	P	P	19 41 56.9	+2.7
	comp=Z,24nm,0.7s,mb4.8,baz=285,slow=2.5,SNR=11						
STKA	Stephens Creek	26.63	237	eP	P	19 42 15.4	+1.9
	comp=Z,12nm,0.9s,mb4.4						
STKA				i pP	pP	19 42 25.4	+2.5
STKA	Stephens Creek	26.63	237	P	P	19 42 15.4	+1.9
	comp=Z,13nm,0.9s,mb4.5,baz=65,slow=7.7,SNR=19						
STKA				pP	pP	19 42 25.1	+2.2
	comp=Z,51nm,0.9s,baz=66,slow=7.8,SNR=32						
STKA				LR	LR	19 52 45.4	
	comp=Z,231nm,20.4s,MS3.7,baz=36,slow=36						
RAR	Rarotonga	30.56	99	LR	LR	19 51 19.8	
	comp=Z,103nm,19.7s,MS3.5,baz=292,slow=29						
WB2	Warramunga Arr	31.40	263	eP	P	19 42 57.8	+1.5
WB2				epP	pP	19 43 05.7	-0.2
WRAB	Tennant Creek	31.40	263	⇑iP	pP	19 43 04.1	-1.8
WRAB	Tennant Creek	31.40	263	eP	P	19 42 56.0	-0.3
	comp=Z,36nm,1.1s,mb5.1						
WRAB				epP	pP	19 43 04.7	-1.3
WRAB				LR	LR		
	comp=Z,188nm,21.0s,MS3.7						
WRA	Warramunga Arr	31.41	263	P	P	19 42 57.7	+1.3
	comp=Z,1.8nm,0.9s,mb3.9,baz=100,slow=8.6,SNR=9.1						
WRA				pP	pP	19 43 05.2	-0.8
	comp=Z,12nm,0.9s,baz=91,slow=8.6,SNR=31						
ASAR	Alice Springs	31.72	256	P	P	19 42 59.0	-0.1
	comp=Z,8.7nm,0.7s,mb4.7,baz=83,slow=8.2,SNR=85						
ASAR				pP	pP	19 43 09.1	+0.4
	comp=Z,51nm,0.9s,baz=84,slow=8.3,SNR=43						
ASAR				LR	LR	19 55 16.5	
	comp=Z,487nm,18.9s,MS4.2,baz=85,slow=35						
ASPA	Alice Springs	31.72	256	eP	P	19 42 59.6	+0.5
ASPA				i pP	pP	19 43 10.0	+1.3
KAKA	Kakadu	34.46	275	eP	pP	19 43 33.0	+0.4
	comp=Z,30nm,1.0s						
FITZ	Fitzroy Crossi	39.79	265	eP	P	19 44 09.0	+1.3
	comp=Z,23nm,1.0s,mb4.9						
FITZ				i pP	pP	19 44 19.1	+1.6
MBWA	Marble Bar	44.93	259	eP	pP	19 45 00.8	+1.2
	comp=Z,83nm,1.1s						
KLBR	Kellerberrin	46.40	244	eP	P	19 45 02.0	+0.7
	comp=Z,22nm,0.9s,mb5.1						
KLBR				i pP	pP	19 45 11.8	+0.6
NWAO	Narrogin (SRO)	46.92	243	P	P	19 45 07.0	+1.7
	comp=Z,12nm,0.8s,mb4.9,baz=47,slow=9.9,SNR=4.1						
NWAO				pP	pP	19 45 16.3	+1.1
	comp=Z,70nm,1.0s,baz=82,slow=8.7,SNR=14						
NWAO	Narrogin (SRO)	46.92	243	eP	P	19 45 06.7	+1.3
	comp=Z,69nm,1.0s,mb5.5						
NWAO				epP	pP	19 45 16.1	+0.9
MUN	Mundaring	47.74	244	eP	P	19 45 12.7	+0.9
	comp=Z,9.9nm,0.8s,mb4.9						
MUN				i pP	pP	19 45 22.8	+1.1
VNDA	Vanda	58.40	181	P	P	19 46 31.1	+0.9
	comp=Z,2.1nm,0.9s,mb4.2,baz=339,slow=5.5,SNR=3.9						
SSE	Sheshan	67.06	317	eP	P	19 47 29.6	+1.4
SSE				AMB	AMB		
	comp=Z,45nm,0.8s,mb5.5						
SSE				AMB	AMB		
	comp=Z,79nm,3.4s						
SSE	Sheshan	67.06	317	eP	P	19 47 29.6	+1.4
	comp=Z,45nm,0.8s,mb5.5						
NJ2	Nanjing	69.19	317	eP	P	19 47 43.8	+2.3
NJ2				AP	pP	19 47 54.1	+2.3
NJ2				XP	sP	19 47 57.1	+1.6
NJ2				PP	PP	19 50 19.8	+3.1
NJ2				PPP	PPP	19 51 59.8	+4.7
NJ2				S	S	19 56 47.0	+3.3
NJ2				XS		19 57 05.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
NJ2				LR	LR		
	comp=N,1µm,18.2s,MS5.5						
NJ2				LR	LR		
	comp=E,2µm,16.8s,MS5.5						
YSS	Yuzh-Sakhalins	69.60	342	⇑iP	P	19 47 45.0	+1.3
YSS				e	pP	19 47 54.5	+0.5
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
YSS	Yuzh-Sakhalins	69.60	342	eP	P	19 47 44.8	+1.0
	comp=Z,34nm,1.1s,mb5.2						
QSPA	South Pole Qui	70.83	180	eP	P	19 47 52.3	+1.6
	comp=Z,13nm,1.0s,mb4.8						
WHN	Wuhan	71.27	313	⇑P	P	19 47 55.0	+0.9
MDJ	Mudanjiang	72.42	332	P	P	19 48 03.3	+2.6
MDJ				AP	pP	19 48 12.8	+1.8
MDJ				XP	sP	19 48 16.5	+1.8
MDJ				PCP	PcP	19 48 20.5	+1.7
MDJ				S	S	19 57 25.6	+4.5
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.8s,mb4.1						
MDJ				AMB	AMB		
	comp=Z,77nm,4.8s						
MDJ				LR	LR		
	comp=N,32nm,14.4s						
MDJ				LR	LR		
	comp=E,41nm,20.6s						
MDJ				LR	LR		
	comp=Z,51nm,23.7s						
CN2	Changchun	73.70	330	eP	P	19 48 08.0	-0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
ENH	Enshi	74.54	310	eP	P	19 48 13.8	+0.3
	comp=Z,11nm,0.9s,mb4.8						
ENH				epP	pP	19 48 23.6	-0.2
GYA	Guiyang	74.62	306	⇑iP	P	19 48 15.5	+1.5
GYA				AP	pP	19 48 25.8	+1.5
GYA				S	S	19 57 54.4	+8.3
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
GYA				AMB	AMB		
	comp=Z,140nm,3.9s						
GYA				LR	LR		
	comp=N,90nm,18.3s,MS4.3						
GYA				LR	LR		
	comp=E,110nm,16.2s,MS4.3						
GYA				LR	LR		
	comp=Z,120nm,19.5s,MS4.2						
BJT	Baijiatuau	76.00	322	eP	P	19 48 21.8	+0.2
	comp=Z,5.5nm,0.7s,mb4.6						
BJT				epP	pP	19 48 32.7	+0.7
BJI	Beijing	76.02	322	eP	P	19 48 22.9	+1.2
BJI				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.8						
BJI	Beijing	76.02	322	eP	P	19 48 22.9	+1.2
	comp=Z,13nm,1.0s,mb4.8						
KMI	Kunming	77.03	303	eP	P	19 48 30.1	+2.3
KMI				AP	pP	19 48 40.5	+2.4
KMI				PP	PP	19 51 25.5	+2.8
KMI				S	S	19 58 16.3	+3.7
KMI				AMB	AMB		
	comp=Z,12nm,1.3s,mb4.7						
KMI				AMB	AMB		
	comp=Z,138nm,4.7s						
KMI				LR	LR		
	comp=Z,56nm,23.9s,MS3.8						
KMI	Kunming	77.03	303	eP	P	19 48 30.1	+2.3
	comp=Z,12nm,1.3s,mb4.7						
KMI				pP	pP	19 48 40.5	+2.4
KMI				PP	PP	19 51 25.5	+2.8
KMI				S	S	19 58 16.2	+3.6
KMI				SS	SS	20 03 20.1	+7.2
KMI				LR	LR		
	comp=Z,60nm,23.9s,MS3.8						
XAN	Xi’an	77.03	313	P	P	19 48 26.0	-1.6
XAN				AMB	AMB		
	comp=Z,6.0nm,1.3s,mb4.4						
CM31	Chiang Mai Arr	77.17	295	eP	P	19 48 30.3	+1.7
	comp=Z,16nm,1.0s,mb4.9						
CM31				epP	pP	19 48 39.8	+0.8
CMAR	Chiang Mai Arr	77.17	295	P	P	19 48 30.7	+2.0
	comp=Z,4.6nm,0.9s,mb4.4,baz=129,slow=4.3,SNR=31						
CMAR				pP	pP	19 48 40.4	+1.4
	comp=Z,7.4nm,0.8s,baz=128,slow=4.2,SNR=25						
CMAR				LR	LR	20 24 15.2	
	comp=Z,26nm,18.8s,MS3.6,baz=165,slow=37						
MAW	Mawson	77.90	202	P	P	19 48 34.0	+2.3
	comp=Z,6.4nm,0.8s,mb4.6,baz=121,slow=7.4,SNR=7.7						
MAW				pP	pP	19 48 43.8	+1.8
	comp=Z,7.3nm,0.9s,baz=116,slow=6.6,SNR=4.9						
CD2	Chengdu	79.08	308	P	P	19 48 41.3	+2.4
CD2				S	S	19 58 38.8	+4.4
CD2				SS	SS	20 03 46.3	+2.9
CD2				LR	LR		
	comp=N,230nm,7.2s						
CD2				LR	LR		
	comp=Z,210nm,15.6s,MS4.6						
HHC	Hu-ho-hao-te	79.27	320	eP	P	19 48 41.4	+1.7
HHC				PP	PP	19 51 40.5	-0.7
HHC				S	S	19 58 34.9	-1.3
HHC				SKS	SKS	19 58 50.4	+2.3
HHC				SCS	ScS	19 58 57.4	+0.8
HHC				SS	SS	20 03 41.3	-4.8
HHC				AMB	AMB		
	comp=Z,19nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,167nm,5.1s						
HHC				LR	LR		
	comp=N,209nm,14.3s,MS4.7						
HHC				LR	LR		
	comp=E,163nm,13.1s,MS4.7						
HHC				LR	LR		
	comp=Z,128nm,16.6s,MS4.3						
BTO	Baotou	80.07	319	eP	P	19 48 46.5	+2.5
BTO				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.5						
HIA	Hailar	80.37	330	eP	P	19 48 46.2	+0.7
	comp=Z,17nm,1.1s,mb4.9						
HIA				epP	pP	19 48 56.8	+0.9
LZH	Lanzhou	81.64	313	⇓P	P	19 48 54.5	+2.1
LZH				AP	pP	19 49 05.0	+2.1
LZH				XP	sP	19 49 12.5	+6.1
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
LZH	Lanzhou	81.64	313	⇓P	P	19 48 54.5	+2.1
	comp=Z,20nm,1.0s,mb5.0						
LZH				pP	pP	19 49 05.0	+2.1
LZH				sP	sP	19 49 12.5	+6.1
SYO	Syowa Base	84.54	197	⇑P	P	19 49 08.0	+1.6
SYO	Syowa Base	84.54	197	⇓PcP	PcP	19 49 10.4	0.0
SYO	Syowa Base	84.54	197	⇑pP	pP	19 49 18.7	+1.8
SYO	Syowa Base	84.54	197	⇑pP	pP	19 49 22.8	+5.9
RSO	Redoubt South	85.60	18	eP	P	19 49 12.7	+0.9
ULN	Ulaanbaatar	85.99	324	⇓iP	P	19 49 15.5	+1.4
ULN	Ulaanbaatar	85.99	324	eP	P	19 49 15.7	+1.6
	comp=Z,25nm,0.9s,mb5.5						
ULN				epP	pP	19 49 26.3	+1.7
SHL	Shillong	86.06	299	eP	P	19 49 17.5	+2.5
GTA	Gaotai	86.06	314	eP	P	19 49 17.0	+2.4
GTA				AP	pP	19 49 27.3	+2.1
GTA				XP	sP	19 49 31.5	+2.9
GTA				PP	PP	19 52 41.8	+5.1
GTA				SKS	SKS	19 59 38.3	+3.2
GTA				S	S	19 59 50.8	+5.9
GTA				XS		20 00 07.8	
GTA				PS	PS	20 00 55.8	+6.9
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,185nm,6.1s						
GTA				LR	LR		
	comp=N,156nm,15.2s,MS4.6						
GTA				LR	LR		
	comp=E,110nm,16.7s,MS4.6						
GTA				LR	LR		
	comp=Z,125nm,15.6s,MS4.4						
SONM	Songino Array	86.34	324	P	P	19 49 17.6	+1.8
	comp=Z,12nm,0.9s,mb5.1,baz=150,slow=5.3,SNR=75						
SONM				pP	pP	19 49 28.2	+1.9
	comp=Z,8.8nm,0.8s,baz=118,slow=3.7,SNR=15						
YAK	Yakutsk	86.42	343	⇓iP	P	19 49 15.7	-0.2
YAK				pmax	pmax		
	comp=Z,50nm,1.7s,mb5.5						
YAK	Yakutsk	86.42	343	eP	P	19 49 16.9	+1.0
	comp=Z,15nm,0.7s,mb5.3						
YAK				epP	pP	19 49 27.5	+1.1
SAO	San Andreas Ge	86.92	49	eP	P	19 49 20.4	+1.5
BILL	Bilibino	87.02	359	eP	P	19 49 19.5	+0.9
BILL				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.4						
BILL	Bilibino	87.02	359	eP	P	19 49 19.6	+0.9
	comp=Z,29nm,1.2s,mb5.4						
BILL				epP	pP	19 49 29.9	+0.7
WDC	Whiskeytown Da	87.89	46	eP	P	19 49 24.8	+1.3
	comp=Z,53nm,1.3s,mb5.6						
WDC				epP	pP	19 49 35.0	+1.0
OHCM	Honcut	88.04	47	eP	P	19 49 25.6	+1.3
OHCM				epP	pP	19 49 35.9	+1.0
CMB	Columbia Colle	88.23	49	eP	P	19 49 26.3	+1.1
	comp=Z,33nm,1.1s,mb5.5						
CMB				epP	pP	19 49 36.7	+1.0
LSA	Lhasa	88.28	302	eP	P	19 49 27.4	+1.8
YBH	Yreka Blue Hor	88.31	45	P	P	19 49 27.4	+1.9
	comp=Z,18nm,0.8s,mb5.3,baz=219,slow=0.6,SNR=41						
YBH				pP	pP	19 49 38.2	+2.2
	comp=Z,22nm,1.0s,baz=227,slow=3.4,SNR=13						
YBH	Yreka Blue Hor	88.31	45	eP	P	19 49 27.3	+1.8
	comp=Z,49nm,1.3s,mb5.6						
YBH				epP	pP	19 49 38.0	+1.9
MWC	Mount Wilson	88.32	53	eP	P	19 49 26.6	+0.9
MWC				epP	pP	19 49 37.3	+1.0
HUMO	Hull Mountain	88.55	44	eP	P	19 49 28.2	+1.7
	comp=Z,27nm,0.9s,mb5.6						
HUMO				epP	pP	19 49 39.5	+2.4
BOD	Bodaibo	88.68	334	eP	P	19 49 26.4	-0.5
MPOR	Mary’s Peak	89.06	42	P	P	19 49 31.4	+2.4
SNAA	Sanae	89.11	183	⇑iP	P	19 49 29.4	+0.8
SNAA	Sanae	89.11	183	⇑i	pP	19 49 40.2	+1.0
SNAA	Sanae	89.11	183	P	P	19 49 30.2	+1.6
	comp=Z,3.0nm,0.8s,mb4.7,baz=188,slow=7.3,SNR=19						
SNAA				LR	LR	20 26 08.3	
	comp=Z,26nm,18.3s,MS3.7,baz=11,slow=33						
SNAA	Sanae	89.11	183	eP	P	19 49 27.7	-0.9
MTUM	Tungsten Hills	89.25	50	eP	P	19 49 31.8	+1.7
MTUM				epP	pP	19 49 42.1	+1.4
MCK	McKinley	89.28	18	eP	P	19 49 29.7	+0.2
	comp=Z,8.9nm,1.2s,mb5.0						
PFO	Pinyon Flat Ob	89.28	54	eP	P	19 49 31.4	+1.1
ZAK	Zakamensk	89.44	325	⇓iP	P	19 49 31.2	+0.6
PAHR	Pah Rah Range	89.66	48	eP	P	19 49 33.5	+1.5
	comp=Z,58nm,1.1s,mb5.8						
PAHR				epP	pP	19 49 44.4	+1.8
VNA3	Neumayer Olymp	89.75	181	⇑iP	P	19 49 37.7	+6.1
VNA3	Neumayer Olymp	89.75	181	⇑i	sP	19 49 47.7	+2.1
IMA	Indian Mountai	89.87	15	eP	P	19 49 33.8	+1.5
	comp=Z,37nm,1.1s,mb5.6						
NVAR	Mina Array Bea	89.89	49	P	P	19 49 34.6	+1.5
	comp=Z,12nm,0.9s,mb5.2,baz=229,slow=8.8,SNR=80						
NVAR				pP	pP	19 49 45.6	+1.9
	comp=Z,18nm,1.0s,baz=230,slow=8.9,SNR=14						
NVAR				LR	LR	20 21 15.0	
	comp=Z,90nm,21.1s,MS4.2,baz=150,slow=30						
MOD	Modoc	89.99	45	eP	P	19 49 34.9	+1.4
	comp=Z,44nm,1.1s,mb5.7						
MNV	Mina	89.99	49	eP	P	19 49 34.9	+1.4
	comp=Z,20nm,1.0s,mb5.4						
THY	Trims Highway	90.00	19	eP	P	19 49 35.1	+2.2
VNA2	Neumayer--Watz	90.03	182	⇑iP	P	19 49 39.3	+6.4
VNA2	Neumayer--Watz	90.03	182	⇓i	sP	19 49 49.5	+2.6
OOW	Octopus West	90.21	39	P	P	19 49 37.0	+2.6
OCWA	Octopus Mounta	90.22	39	eP	P	19 49 36.6	+2.2
	comp=Z,84nm,1.0s,mb6.0						
OCWA				epP	pP	19 49 47.2	+2.2
VNA1	Neumayer--Stat	90.32	181	⇑iP	P	19 49 40.9	+6.6
COLA	College	90.46	17	⇓iP	P	19 49 35.0	-0.1
COLA	College	90.46	17	eP	P	19 49 34.8	-0.3
	comp=Z,21nm,1.0s,mb5.4						
COLA				epP	pP	19 49 45.5	-0.2
TPH	Tonopah	90.52	50	eP	P	19 49 37.1	+1.1
	comp=Z,12nm,1.1s,mb5.1						
ILAR	Eielson Array	90.65	18	P	P	19 49 35.5	-0.5
	comp=Z,9.4nm,0.8s,mb5.2,baz=238,slow=5.5,SNR=65						
ILAR				pP	pP	19 49 46.3	-0.3
	comp=Z,9.1nm,1.0s,baz=237,slow=4.6,SNR=7.5						
ILAR				LR	LR	20 25 37.6	
	comp=Z,93nm,18.4s,MS4.2,baz=186,slow=32						
VFP	Flag Point	90.75	42	P	P	19 49 38.7	+1.8
TPNV	Topopah Spring	90.77	51	eP	P	19 49 38.6	+1.3
	comp=Z,34nm,1.3s,mb5.5						
TPNV				epP	pP	19 49 49.1	+1.2
PGC	Sidney	91.08	38	eP	P	19 49 39.8	+1.4
PGC				epP	pP	19 49 49.8	+0.8
LON	Longmire	91.18	40	P	P	19 49 40.2	+1.3
BMN	Battle Mountai	91.47	48	eP	P	19 49 41.7	+1.3
	comp=Z,33nm,1.1s,mb5.6						
BMN				epP	pP	19 49 52.1	+1.1
EBG	Ellensburg	92.02	41	P	P	19 49 44.6	+1.9
TBM	Table Mountain	92.11	40	P	P	19 49 44.9	+1.7
DAWY	Dawson	92.49	21	eP	P	19 49 44.6	+0.2
ELK	Elko	92.98	48	eP	P	19 49 48.7	+1.4
	comp=Z,11nm,1.2s,mb5.2						
BMO	Blue Mountains	93.21	43	eP	P	19 49 48.1	-0.2
	comp=Z,14nm,1.6s,mb5.2						
TUC	Tucson	93.22	57	eP	P	19 49 50.1	+1.5
	comp=Z,14nm,1.1s,mb5.3						
TUC				epP	pP	19 50 00.8	+1.6
MVU	Marysvale	94.32	51	eP	P	19 49 55.0	+1.6
	comp=Z,5.1nm,1.0s,mb4.9						
MSU	Marysvale	94.35	51	eP	P	19 49 55.2	+1.7
MSU				epP	pP	19 50 05.8	+1.7
HLID	Hailey	94.62	45	eP	P	19 49 56.0	+1.4
	comp=Z,6.2nm,1.0s,mb5.0						
HLID				epP	pP	19 50 06.6	+1.3
SRU	San Rafael	95.77	51	eP	P	19 50 01.3	+1.3
MCMT	McKenzie Canyo	96.14	45	eP	P	19 50 01.7	+0.2
WMQ	Urumqi	96.15	314	eP	P	19 50 03.0	+1.4
WMQ				AP	pP	19 50 13.5	+1.3
WMQ				XP	sP	19 50 17.5	+1.9
WMQ				PP	PP	19 53 58.5	+1.3
WMQ				SKS	SKS	20 00 35.5	+1.3
WMQ				eS	S	20 01 16.3	+1.2
WMQ				AMB	AMB		
	comp=Z,3.0nm,0.5s,mb5.0						
WMQ				AMB	AMB		
	comp=Z,7.0nm,5.2s						
WMQ				LR	LR		
	comp=N,105nm,16.4s,MS4.4						
WMQ				LR	LR		
	comp=E,24nm,17.8s,MS4.4						
WMQ				LR	LR		
	comp=Z,81nm,16.8s,MS4.3						
REDW	Red Top Meadow	96.98	47	eP	P	19 50 06.7	+1.3
LOHW	Long Hollow	97.23	46	eP	P	19 50 07.8	+1.2
MNTX	Cornudas Mount	97.35	59	eP	P	19 50 08.5	+1.1
MNTX				epP	pP	19 50 18.6	+0.6
ANMO	Albuquerque	97.49	56	⇓iP	P	19 50 08.0	0.0
ANMO	Albuquerque	97.49	56	eP	P	19 50 09.0	+1.0
	comp=Z,2.6nm,1.0s,mb4.6						
PDAR	Pinedale Array	97.67	47	P	P	19 50 09.8	+1.2
	comp=Z,1.0nm,0.8s,mb4.4,baz=252,slow=4.7,SNR=7.2						
TXAR	Lajitas Array	98.04	62	P	P	19 50 12.3	+1.7
	comp=Z,1.4nm,0.8s,mb4.5,baz=221,slow=5.8,SNR=13						
TXAR				pP	pP	19 50 22.5	+1.3
	comp=Z,1.1nm,0.7s,baz=219,slow=5.1,SNR=7.6						
TXAR				LR	LR	20 29 47.4	
	comp=Z,73nm,18.0s,MS4.2,baz=185,slow=32						
ZAL	Zalesovo	101.24	323	P	P	19 50 26.6	+2.2
	comp=Z,0.7nm,0.6s,baz=328,slow=8.4,SNR=4.5						
ZAL	Zalesovo	101.24	323	i P	P	19 50 27.3	+2.9
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	101.33	28	P	P	19 50 25.9	+1.3
	comp=Z,8.9nm,1.1s,baz=254,slow=4.7,SNR=66						
YKA				pP		19 50 36.4	
	comp=Z,1.7nm,0.5s,baz=257,slow=4.8,SNR=12						
YKA	Yellowknife Ar	101.33	28	P	P	19 50 25.9	+1.3
YKA				pP		19 50 36.4	
ARU	Arti	116.37	324	ePKPdf	PKPdf	19 55 17.8	+1.8
SDV	Santo Domingo	122.72	92	ePKPdf	PKPdf	19 55 31.1	+1.7
ARCES	ARCESS Array B	124.68	345	PKP	PKPdf	19 55 34.5	+2.7
	comp=Z,9.9nm,1.2s,baz=78,slow=11,SNR=4.2						
KIV	Kislovodsk	128.16	311	⇑iPKIKP	PKPdf	19 55 37.1	-2.1
FINES	FINESS Array B	130.01	337	PKP	PKPdf	19 55 45.6	+3.5
	comp=Z,3.7nm,1.0s,baz=45,slow=1.4,SNR=4.3						
AKASG	Malin Array Be	134.62	324	PKP	PKPdf	19 55 53.0	+1.9
	comp=Z,0.5nm,0.5s,baz=49,slow=2.2,SNR=6.1						
AKASG				pPKP		19 56 03.2	
	comp=Z,0.9nm,0.5s,baz=52,slow=2.2,SNR=4.3						
NOA	NORSAR Array B	135.04	344	PKP	PKPdf	19 55 54.7	+3.1
	comp=Z,0.8nm,0.9s,baz=355,slow=6.2,SNR=3.6						
NOA	NORSAR Array B	135.04	344	PKP	PKPdf	19 55 54.7	+3.1
CLL	Collm	142.28	334	ePKIKP	PKPdf	19 56 08.0	+3.1
KHC	Kasperske Hory	143.63	331	ePKP	PKPdf	19 56 08.4	+1.2
GERES	GERESS Array B	143.78	331	PKP	PKPdf	19 56 08.9	+1.4
	comp=Z,2.4nm,0.8s,baz=45,slow=1.9,SNR=10						
MOA	Molln	144.21	329	⇑iP	PKPbc	19 56 10.2	+2.5
GRA1	Grafenberg Arr	144.25	334	ePKP	PKPdf	19 56 09.9	+1.6
GRF	Grafenberg Arr	144.25	334	ePKIKP	PKPdf	19 56 09.9	+1.6

PERS	**Pernice**	**144.60**	**327**	*e*PKPbc	PKPbc	19 56 10.4	+1.6
CRES	**Cresnjev**	**144.95**	**325**	*i* PKPbc	PKPbc	19 56 11.8	+2.0
DMUB	**Kingscourt**	**145.14**	**354**	*e*P	PKPdf	19 56 10.8	+1.0
KBA	**Koelnbreinsper**	**145.19**	**329**	⇑*i*P	PKPdf	19 56 12.6	+2.5
BOJS	**Bojanci**	**145.27**	**325**	*e*PKPbc	PKPbc	19 56 13.3	+2.6
BOJS				*e*		19 56 23.4	
TOD	**Tromm**	**145.29**	**336**	PKP	PKPdf	19 56 15.2	+5.0
LJU	**Ljubljana**	**145.30**	**326**	*e*PKPbc	PKPbc	19 56 12.9	+2.2
LJU				*e*		19 56 23.3	
ABH	**Alteburg**	**145.54**	**337**	PKP	PKPdf	19 56 14.9	+4.3
VOY	**Vojsko**	**145.64**	**327**	*e*PKPbc	PKPbc	19 56 13.8	+2.2
VOY				*e*		19 56 24.3	
PTCC	**Patocco-Chiusa**	**145.66**	**328**	*e*PKP	PKPdf	19 56 13.5	+2.6
DLF	**Lyons Farm**	**145.70**	**354**	*e*P	PKPdf	19 56 13.9	+3.2
DCN	**Croghan**	**145.72**	**355**	*e*P	PKPdf	19 56 13.0	+2.2
KTD	**Kalmit**	**145.80**	**336**	PKP	PKPdf	19 56 16.3	+5.3
STU	**Stuttgart**	**145.80**	**334**	*e*PKPdf	PKPdf	19 56 14.2	+3.1
STU				*e*		19 56 25.2	
FVI	**Forni Avoltri**	**145.81**	**329**	*e*PKP	PKPdf	19 56 13.8	+2.6
RUP	**Ruppelstein**	**145.87**	**337**	PKP	PKPdf	19 56 15.9	+4.8
WTTA	**Wattenberg**	**145.88**	**330**	⇓*i*P	PKPdf	19 56 14.9	+3.7
MOTA	**Moosalm**	**146.06**	**331**	⇓*i*P	PKPdf	19 56 15.4	+3.8
SQTA	**Sankt Quirin**	**146.11**	**331**	⇑*i*P	PKPdf	19 56 15.5	+3.9
LANF	**Langenberg**	**146.18**	**336**	PKP	PKPdf	19 56 16.3	+4.6
WLF	**Walferdange**	**146.22**	**338**	*e*PKPbc	PKPbc	19 56 16.0	+3.1
GIVF	**Givet**	**146.29**	**340**	*e*PKP1	PKPbc	19 56 15.5	+2.5
	comp=Z,74nm,1.2s						
STR	**Strasbourg**	**146.52**	**336**	PKP	PKPdf	19 56 17.7	+5.4
BAIF	**Baives**	**146.53**	**341**	*e*PKP1	PKPbc	19 56 16.3	+2.7
	comp=Z,69nm,1.2s						
DAVA	**Damuels**	**146.66**	**332**	⇑*i*P	PKPdf	19 56 17.7	+5.1
CTI	**Castel Tesino**	**146.75**	**329**	*e*PKP	PKPdf	19 56 17.5	+4.7
WLS	**Welschbruch**	**146.82**	**336**	PKP	PKPdf	19 56 17.5	+4.7
CDF	**Champ du Feu**	**146.85**	**336**	*e*PKP1	PKPbc	19 56 17.2	+2.8
	comp=Z,78nm,0.9s						
FELD	**Feldberg**	**146.99**	**335**	PKP	PKPdf	19 56 18.2	+5.1
BRMO	**Bormio**	**147.04**	**331**	*e*PKP	PKPdf	19 56 18.7	+5.4
ECH	**Echery**	**147.05**	**336**	PKP	PKPdf	19 56 18.4	+5.2
MOF	**Molkenrain**	**147.36**	**335**	PKP	PKPdf	19 56 18.9	+5.2
THEF	**They Montfort**	**147.49**	**337**	PKP	PKPdf	19 56 19.6	+5.7
HINF	**Hinteralfeld**	**147.50**	**336**	*e*PKP1	PKPdf	19 56 18.8	+4.9
	comp=Z,40nm,1.2s						
HAU	**Haudompre**	**147.54**	**336**	*e*PKP1	PKPdf	19 56 19.1	+5.1
	comp=Z,77nm,1.1s						
MEZF	**Maizieres J'vi**	**147.59**	**338**	*e*PKP1	PKPdf	19 56 19.7	+5.6
	comp=Z,130nm,1.1s						
SAL	**Salo**	**147.61**	**329**	*e*PKP	PKPdf	19 56 19.9	+5.7
ARV	**Arcevia**	**147.83**	**324**	*e*PKP	PKPdf	19 56 21.3	+6.7
LOMF	**Lomont**	**147.89**	**335**	PKP	PKPdf	19 56 20.8	+6.2
TIP	**Timpagrande**	**147.98**	**315**	*e*PKPbc	PKPdf	19 56 20.3	+5.3
SNTG	**Esanatoglia**	**147.99**	**324**	*e*PKP	PKPdf	19 56 21.2	+6.4
SFI	**Santa Sofia**	**148.15**	**326**	*e*PKP	PKPdf	19 56 22.5	+7.4
NRCA	**Norcia**	**148.16**	**323**	*e*PKP	PKPdf	19 56 21.4	+6.2
SGO	**Sicignano**	**148.20**	**318**	*e*PKP	PKPdf	19 56 21.2	+5.9
VAI	**Varese**	**148.24**	**331**	*e*PKP	PKPdf	19 56 21.1	+5.9
VMG	**Vicchio**	**148.27**	**326**	*e*PKP	PKPdf	19 56 23.1	+7.9
AQU	**L'Aquila**	**148.30**	**322**	PKPbc	PKPdf	19 56 22.1	+6.7
SEI	**Scarperia**	**148.30**	**327**	*e*PKP	PKPdf	19 56 21.9	+6.6
GSCL	**Gusciola**	**148.49**	**328**	*e*PKP	PKPdf	19 56 22.8	+7.2
MCGN	**Macugnaga**	**148.51**	**332**	*e*PKP	PKPdf	19 56 22.7	+7.0
ERBM	**Eremo**	**148.53**	**328**	*e*PKP	PKPdf	19 56 23.2	+7.5
BOB	**Bobbio (Coli)**	**148.75**	**329**	*e*PKP	PKPdf	19 56 23.9	+7.8
ORO	**Oropa**	**148.77**	**332**	*e*PKP	PKPdf	19 56 22.7	+6.6
CABF	**La Chapelle**	**148.78**	**335**	*e*PKP1	PKPdf	19 56 23.0	+7.0
	comp=Z,74nm,1.0s						
FLN	**La Foliniere**	**149.02**	**345**	*e*PKP1	PKPdf	19 56 22.8	+6.5
LDF	**La Druitiere**	**149.09**	**344**	*e*PKP1	PKPdf	19 56 22.8	+6.3
	comp=Z,13nm,0.8s						
SSF	**Saint Saulge**	**149.37**	**339**	*e*PKP1	PKPdf	19 56 24.1	+7.1
	comp=Z,65nm,1.0s						
LPL	**La Plagne**	**149.40**	**333**	*e*PKP1	PKPdf	19 56 24.5	+7.4
	comp=Z,24nm,0.9s						
LPG	**La Plagne**	**149.41**	**333**	*e*PKP1	PKPdf	19 56 24.7	+7.6
	comp=Z,61nm,1.3s						
GRR	**Gorron**	**149.46**	**345**	*e*PKP1	PKPdf	19 56 24.0	+6.9
	comp=Z,144nm,1.3s						
HYF	**Humbligny**	**149.48**	**340**	*e*PKP1	PKPdf	19 56 24.6	+7.5
SMF	**Signal de Mont**	**149.60**	**338**	*e*PKP1	PKPdf	19 56 24.4	+7.0
	comp=Z,51nm,1.2s						
BNI	**Bardonecchia**	**149.80**	**333**	*e*PKPbc	PKPdf	19 56 25.3	+7.6
SGMF	**Saint Gilles**	**149.98**	**347**	*e*PKP1	PKPdf	19 56 25.0	+7.1
	comp=Z,88nm,1.3s						
BGF	**Bois d'Agland**	**150.03**	**339**	*e*PKP1	PKPdf	19 56 25.5	+7.5
	comp=Z,138nm,1.3s						
ORIF	**Oris-en-Rattie**	**150.24**	**333**	*e*PKP1	PKPdf	19 56 26.2	+7.8
	comp=Z,28nm,0.8s						
PLDF	**La Plantade**	**150.26**	**337**	PKP	PKPdf	19 56 25.1	+6.7
AGO	**Saint Agoulin**	**150.37**	**338**	PKP	PKPdf	19 56 24.0	+5.4
SBF	**Sospel**	**150.38**	**330**	*e*PKP1	PKPdf	19 56 25.9	+7.3
	comp=Z,129nm,1.3s						
TCF	**Toulx Ste Croi**	**150.48**	**339**	*e*PKP1	PKPdf	19 56 26.7	+8.0
	comp=Z,50nm,1.0s						
PGF	**Pioggiola**	**150.58**	**327**	*e*PKP1	PKPdf	19 56 26.8	+7.8
	comp=Z,145nm,1.1s						
PYM	**Petit Puy Mans**	**150.67**	**338**	PKP	PKPdf	19 56 25.5	+6.5
VIVF	**Saint-Julien-l**	**150.79**	**335**	*e*PKP1	PKPdf	19 56 27.4	+8.2
	comp=Z,38nm,1.0s						
MFF	**Saint Martin d**	**150.92**	**343**	*e*PKP1	PKPdf	19 56 27.5	+8.1
	comp=Z,41nm,1.0s						
FRF	**La Foret Royal**	**150.98**	**331**	*e*PKP1	PKPdf	19 56 27.5	+8.0
	comp=Z,55nm,1.2s						
LBL	**Lubilhac**	**151.03**	**337**	PKP	PKPdf	19 56 26.0	+6.4
SMRF	**Simiane la Rot**	**151.13**	**333**	*e*PKP1	PKPdf	19 56 28.5	+8.7
	comp=Z,55nm,1.1s						
LMR	**La Mourre**	**151.22**	**331**	*e*PKP1	PKPdf	19 56 28.1	+8.2
	comp=Z,68nm,1.1s						
RJF	**Les Rejaudoux**	**151.57**	**339**	*e*PKP1	PKPdf	19 56 29.2	+8.8
	comp=Z,28nm,1.0s						
LASF	**Ste Croix**	**151.77**	**335**	*e*PKP1	PKPdf	19 56 29.8	+9.1
	comp=Z,63nm,1.1s						
LFF	**La Frestale**	**152.15**	**340**	*e*PKP1	PKPdf	19 56 30.4	+9.2
	comp=Z,88nm,1.2s						
MTLF	**Montolieu**	**153.03**	**336**	*e*PKP1	PKPdf	19 56 32.3	+10
	comp=Z,22nm,1.1s						
ESDC	**Sonseca Array**	**158.39**	**342**	PKPab	PKPab	19 57 06.8	+0.1
	comp=Z,0.8nm,0.7s,baz=1.5,slow=4.4,SNR=5.3						

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*LDG **24** 19:39:02.0±0.2, 18.96S×166.62E, h10^{km}, Mb4.6/2, Error ellipse: s-maj=36.9km s-min=3.8km az=86.0*

*IDC **24** 19:39:03.3±0.6, 19.08S×167.77E, h31^{km}±4^{km}, mb4.2/12, mb1 4.4/12, mb1mx4.3/16, Error ellipse: s-maj=25.2km s-min=14.5km az=150.0*

*NEIC **24** 19:39:03.2±0.3, 19.13S×167.77E, mb4.7/16, Error ellipse: s-maj=9.3km s-min=6.4km az=145.0*

ISC 24 19:39:01.6±0.4, 19.18S±0.06×167.68E±0.08, h32^{km}, h32^{km}±.3^{km}:pP-P, n58, σ0^{s}69/37, mb4.5/24, 3C, Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**3.10**	**202**	*e*P	**Pn**	**19 39 49.6**	**+0.1**
DZM				*e*S	**Sn**	**19 40 24.4**	**-1.5**
CTA	**Charters Tower**	**20.20**	**264**	*e*P	**P**	**19 43 37.8**	**+1.1**
	5.7nm,0.9s						
CTA				*i* pP		19 43 47.3	
CTA	**Charters Tower**	**20.20**	**264**	P	**P**	**19 43 37.4**	**+0.7**
	5.0nm,0.6s,baz=102,slow=11,SNR=2.2						
CTA				pP		19 43 46.8	
	62nm,0.8s,baz=88,slow=12,SNR=20						
CTAO	**Charters Tower**	**20.20**	**264**	*e*P	**P**	**19 43 36.5**	**-0.1**
	72nm,0.9s						
CTAO				*e*		19 43 47.1	
RPZ	**Rata Peaks**	**24.63**	**174**	P	**P**	**19 44 22.2**	**+1.7**
	29nm,1.2s,mb4.7,baz=61,slow=15,SNR=2.0						
STKA	**Stephens Creek**	**26.64**	**237**	P	**P**	**19 44 40.8**	**+1.4**
	4.5nm,1.0s,mb4.0,baz=36,slow=11,SNR=1.5						
STKA				pP	pP	19 44 49.8	+1.1
	8.3nm,0.9s,baz=82,slow=12,SNR=3.5						
WRAB	**Tennant Creek**	**31.38**	**263**	*e*P	**P**	**19 45 22.5**	**+0.4**
	5.0nm,0.7s,mb4.5						
WRA	**Warramunga Arr**	**31.39**	**263**	P	**P**	**19 45 22.7**	**+0.5**
	1.0nm,0.7s,mb3.8,baz=90,slow=8.0,SNR=3.3						
ASAR	**Alice Springs**	**31.71**	**256**	P	**P**	**19 45 24.4**	**-0.5**
	2.9nm,0.6s,mb4.3,baz=83,slow=8.3,SNR=3.8						
ASAR				pP	pP	19 45 34.0	-0.3
	10nm,0.7s,baz=84,slow=8.4,SNR=9.6						
ASPA	**Alice Springs**	**31.71**	**256**	*e*P	**P**	**19 45 24.4**	**-0.5**
ASPA				*e*pP	pP	19 45 34.4	+0.1
FITZ	**Fitzroy Crossi**	**39.78**	**265**	*e*P	**P**	**19 46 33.5**	**-0.1**
	10nm,0.8s,mb4.6						
FITZ				*e*pP	pP	19 46 43.5	+0.4
QSPA	**South Pole Qui**	**70.87**	**180**	*e*P	**P**	**19 50 16.9**	**0.0**
	3.0nm,0.8s,mb4.3						
QSPA				*e*pP	pP	19 50 26.8	-0.2
ENH	**Enshi**	**74.50**	**310**	*e*P	**P**	**19 50 38.3**	**-0.9**
	5.7nm,0.9s,mb4.5						
BJT	**Baijiatuau**	**75.96**	**322**	*e*P	**P**	**19 50 46.8**	**-0.5**
CM31	**Chiang Mai Arr**	**77.14**	**295**	*e*P	**P**	**19 50 54.4**	**+0.1**
	2.6nm,0.8s,mb4.2						
CMAR	**Chiang Mai Arr**	**77.14**	**295**	P	**P**	**19 50 54.8**	**+0.5**
	2.0nm,0.9s,mb4.0,baz=128,slow=4.5,SNR=7.6						
HIA	**Hailar**	**80.32**	**330**	*e*P	**P**	**19 51 10.2**	**-0.9**
	2.3nm,0.5s,mb4.4						
ULN	**Ulaanbaatar**	**85.94**	**324**	*e*P	**P**	**19 51 40.3**	**+0.4**
	10.0nm,1.0s,mb5.0						
SONM	**Songino Array**	**86.29**	**324**	P	**P**	**19 51 42.0**	**+0.5**
	4.5nm,0.9s,mb4.7,baz=146,slow=5.3,SNR=13						
SONM				pP	pP	19 51 52.0	+0.1
	2.0nm,0.8s,baz=150,slow=4.6,SNR=5.2						
BILL	**Bilibino**	**86.97**	**359**	*e*P	**P**	**19 51 43.8**	**-0.6**
	4.0nm,0.4s,mb5.0						
BILL				*e*pP	pP	19 51 54.4	-0.3
WDC	**Whiskeytown Da**	**87.87**	**46**	*e*P	**P**	**19 51 49.0**	**-0.4**
CMB	**Columbia Colle**	**88.22**	**49**	*e*P	**P**	**19 51 50.7**	**-0.5**
	7.9nm,1.1s,mb4.9						
LSA	**Lhasa**	**88.24**	**302**	*e*P	**P**	**19 51 51.8**	**+0.3**
YBH	**Yreka Blue Hor**	**88.29**	**45**	P	**P**	**19 51 51.9**	**+0.5**
	4.9nm,0.7s,mb4.8,baz=263,slow=1.6,SNR=7.8						
YBH				pP	pP	19 52 01.8	+0.1
	5.5nm,0.8s,baz=216,slow=1.6,SNR=5.6						
SNAA	**Sanae**	**89.15**	**183**	⇑*i*	**P**	**19 51 54.8**	**0.0**
SNAA	**Sanae**	**89.15**	**183**	P	**P**	**19 51 54.8**	**0.0**
	0.9nm,0.8s,mb4.2,baz=230,slow=11,SNR=4.4						
SNAA				pP	pP	19 52 05.6	+0.5
	1.0nm,0.7s,baz=202,slow=8.5,SNR=3.6						
SNAA	**Sanae**	**89.15**	**183**	*e*P	**P**	**19 51 54.6**	**-0.2**
	4.1nm,1.0s,mb4.7						
SNAA				*e*pP	pP	19 52 04.9	-0.1
MTUM	**Tungsten Hills**	**89.24**	**50**	*e*P	**P**	**19 51 56.3**	**+0.3**
MTUM				*e*pP	pP	19 52 06.7	+0.4
VNA3	**Neumayer Olymp**	**89.80**	**181**	⇑*i*	sP	19 52 12.8	+1.4
NVAR	**Mina Array Bea**	**89.87**	**49**	P	**P**	**19 51 59.4**	**+0.5**
	2.9nm,0.8s,mb4.6,baz=227,slow=8.6,SNR=16						
NVAR				pP	pP	19 52 09.3	0.0
	3.9nm,0.9s,baz=225,slow=6.5,SNR=10						
MOD	**Modoc**	**89.97**	**45**	*e*P	**P**	**19 51 59.6**	**+0.2**
	11nm,1.0s,mb5.2						
MOD				*e*pP	pP	19 52 09.3	-0.3
MNV	**Mina**	**89.98**	**49**	*e*P	**P**	**19 51 58.8**	**-0.7**
	4.0nm,0.7s,mb4.9						
MNV				*e*pP	pP	19 52 09.6	-0.2
VNA2	**Neumayer--Watz**	**90.07**	**182**	⇑*i*	sP	19 52 13.7	+1.0
ILAR	**Eielson Array**	**90.62**	**18**	P	**P**	**19 52 00.2**	**-1.6**
	3.5nm,0.9s,mb4.7,baz=240,slow=5.5,SNR=16						
ILAR				pP	pP	19 52 10.2	-1.8
	4.0nm,0.8s,baz=237,slow=5.7,SNR=11						
TPNV	**Topopah Spring**	**90.76**	**51**	*e*P	**P**	**19 52 03.3**	**+0.2**
	6.2nm,1.0s,mb4.9						
TPNV				*e*pP	pP	19 52 13.3	-0.1
ELK	**Elko**	**92.97**	**48**	*e*P	**P**	**19 52 13.1**	**0.0**
	2.3nm,1.0s,mb4.6						
ELK				*e*pP	pP	19 52 23.9	+0.4
TXAR	**Lajitas Array**	**98.04**	**62**	P	**P**	**19 52 37.0**	**+0.5**
	0.5nm,0.9s,mb4.0,baz=217,slow=4.5,SNR=3.7						
TXAR				pP	pP	19 52 47.2	+0.3
	0.4nm,0.7s,baz=215,slow=6.3,SNR=3.7						
TXAR	**Lajitas Array**	**98.04**	**62**	P	**P**	**19 52 37.0**	**+0.5**
TXAR				pP	pP	19 52 47.2	+0.3
YKA	**Yellowknife Ar**	**101.30**	**28**	P	P	19 52 50.7	+0.2
	0.9nm,0.6s,baz=256,slow=4.7,SNR=12						
YKA				pP		19 53 00.5	
	1.4nm,0.7s,baz=254,slow=4.7,SNR=14						
YKA	**Yellowknife Ar**	**101.30**	**28**	P	P	19 52 50.7	+0.2
YKA				pP		19 53 00.6	
STU	**Stuttgart**	**145.75**	**334**	*e*PKPbc	PKPbc	19 58 39.2	+1.6
GIVF	**Givet**	**146.25**	**340**	*e*PKP1	PKPbc	19 58 40.8	+2.0
CDF	**Champ du Feu**	**146.80**	**336**	*e*PKP1	PKPbc	19 58 42.3	+2.2
	24nm,1.0s						
HINF	**Hinteralfeld**	**147.45**	**336**	*e*PKP1	PKPdf	19 58 43.7	-1.3
HAU	**Haudompre**	**147.49**	**336**	*e*PKP1	PKPdf	19 58 44.0	-1.1
MEZF	**Maizieres J'vi**	**147.54**	**338**	*e*PKP1	PKPdf	19 58 44.8	-0.4
CABF	**La Chapelle**	**148.74**	**335**	*e*PKP1	PKPdf	19 58 47.9	+0.8
	27nm,1.0s						
SSF	**Saint Saulge**	**149.32**	**339**	*e*PKP1	PKPdf	19 58 49.1	+1.1
	16nm,0.9s						
LPL	**La Plagne**	**149.36**	**333**	*e*PKP1	PKPdf	19 58 49.5	+1.3
LPG	**La Plagne**	**149.36**	**333**	*e*PKP1	PKPdf	19 58 49.7	+1.5
BNI	**Bardonecchia**	**149.75**	**333**	*e*PKPbc	PKPdf	19 58 50.1	+1.3
ORIF	**Oris-en-Rattie**	**150.20**	**333**	*e*PKP1	PKPdf	19 58 51.3	+1.8
	5.5nm,0.7s						
SBF	**Sospel**	**150.33**	**330**	*e*PKP1	PKPdf	19 58 51.0	+1.3
TCF	**Toulx Ste Croi**	**150.43**	**339**	*e*PKP1	PKPdf	19 58 51.6	+1.8
PGF	**Pioggiola**	**150.54**	**327**	*e*PKP1	PKPdf	19 58 51.8	+1.7
	60nm,1.1s						
VIVF	**Saint-Julien-l**	**150.74**	**335**	*e*PKP1	PKPdf	19 58 52.5	+2.2
	17nm,1.1s						
FRF	**La Foret Royal**	**150.93**	**331**	*e*PKP1	PKPdf	19 58 52.4	+1.8
	124nm,1.6s						
SMRF	**Simiane la Rot**	**151.08**	**333**	*e*PKP1	PKPdf	19 58 53.6	+2.7
	15nm,1.0s						

CSEM 24 19:39:16.4, 66.26N×16.72W, h10^{km}, ML3.3, After REY, Iceland region

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*NEIC **24** 19:46:58.7±0.8, 19.32S×167.84E, mb3.8/1, Error ellipse: s-maj=21.0km s-min=12.2km az=129.0*

*IDC **24** 19:46:59.2±1.3, 19.06S×167.74E, h32^{km}±5^{km}, mb3.8/8, mb1 4.0/8, mb1mx3.8/14, Error ellipse: s-maj=68.7km s-min=16.1km az=154.0*

ISC 24 19:46:56.4±4.7, 19.25S±0.08×167.7E±0.2, h25^{km}±33^{km}, h31^{km}±1.2^{km}:pP-P, n15, σ0^{s}83/17, mb3.9/7, Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	**3.05**	**203**	*e*P	**Pn**	**19 47 44.0**	**-0.2**
DZM				*e*S	**Sn**	**19 48 20.6**	**+0.3**
DZM	**Mont Dzumac**	**3.05**	**203**	*e*P	**Pn**	**19 47 44.0**	**-0.2**
DZM				*e*S	**Sn**	**19 48 20.6**	**+0.3**
NOUC	**Port Laguerre**	**3.13**	**205**	*e*P	**Pn**	**19 47 45.4**	**+0.1**
NOUC				*e*S	**Sn**	**19 48 21.8**	**-0.6**
NOUC	**Port Laguerre**	**3.13**	**205**	*e*P	**Pn**	**19 47 45.4**	**+0.1**
NOUC				*e*S	**Sn**	**19 48 21.8**	**-0.6**
CTA	**Charters Tower**	**20.23**	**264**	P	**P**	**19 51 33.0**	**+0.5**
	3.2nm,0.8s,baz=85,slow=9.1,SNR=6.2						
CTA				pP		19 51 42.4	
	9.7nm,0.9s,baz=93,slow=12,SNR=7.3						
CTAO	**Charters Tower**	**20.23**	**264**	*e*P	**P**	**19 51 31.8**	**-0.8**
	3.5nm,0.7s						
CTAO				*e*		19 51 42.2	
STKA	**Stephens Creek**	**26.63**	**237**	P	**P**	**19 52 36.8**	**+1.8**
	2.4nm,0.8s,mb3.8,baz=60,slow=13,SNR=4.0						
WRA	**Warramunga Arr**	**31.42**	**263**	P	**P**	**19 53 18.0**	**-0.1**
	0.2nm,0.6s,mb3.1,baz=76,slow=6.9,SNR=2.9						
WRA				pP	pP	19 53 28.1	+2.6
	0.3nm,0.5s,baz=83,slow=7.7,SNR=2.0						
ASAR	**Alice Springs**	**31.73**	**256**	P	**P**	**19 53 19.9**	**-0.7**
	0.6nm,0.6s,mb3.6,baz=83,slow=8.4,SNR=11						
ASAR				pP	pP	19 53 29.6	+1.4
	0.8nm,0.5s,baz=83,slow=8.4,SNR=5.4						
TBI	**Tubuai**	**40.01**	**104**	*e*LR	LR	19 55 14.3	
	473nm,28.5s						
SONM	**Songino Array**	**86.36**	**324**	P	**P**	**19 59 38.1**	**+0.4**
	1.4nm,0.9s,mb4.2,baz=150,slow=3.3,SNR=9.3						
YBH	**Yreka Blue Hor**	**88.31**	**45**	P	**P**	**19 59 48.2**	**+1.0**
	1.7nm,0.7s,mb4.4,baz=184,slow=4.8,SNR=5.5						
YBH				pP	pP	19 59 57.3	+1.9
	1.8nm,0.8s,baz=206,slow=6.5,SNR=3.0						
NVAR	**Mina Array Bea**	**89.89**	**49**	P	**P**	**19 59 54.8**	**0.0**
	1.1nm,0.9s,mb4.2,baz=226,slow=8.9,SNR=7.6						
NVAR				pP	pP	20 00 04.6	+1.7
	0.2nm,0.4s,baz=233,slow=5.3,SNR=2.8						
ILAR	**Eielson Array**	**90.67**	**18**	P	**P**	**19 59 56.0**	**-1.8**
	1.0nm,0.8s,mb4.2,baz=234,slow=4.9,SNR=12						
YKA	**Yellowknife Ar**	**101.34**	**28**	P	P	20 00 46.3	-0.1
	0.4nm,0.5s,baz=256,slow=4.9,SNR=10						
YKA				pP		20 00 55.6	
	0.2nm,0.7s,baz=254,slow=4.6,SNR=3.9						

IDC 24 19:55:20.2±25.0, 16.67S×174.00W, mb4.2/4, mb1 4.4/4, mb1mx3.8/16, Error ellipse: s-maj=462.0km s-min=153.8km az=72.0, Tonga Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**37.81**	**259**	P	P	20 02 39.4	-1.0
	0.9nm,0.4s,baz=94,slow=14,SNR=5.1						
STKA	**Stephens Creek**	**42.91**	**241**	P	P	20 03 21.4	-1.0
	1.4nm,0.6s,baz=96,slow=13,SNR=5.5						
WRA	**Warramunga Arr**	**49.01**	**258**	P	P	20 04 08.4	-2.6
	1.2nm,0.3s,baz=96,slow=7.5,SNR=77						
ASAR	**Alice Springs**	**49.18**	**253**	P	P	20 04 10.0	-2.3
	7.3nm,0.7s,baz=88,slow=8.4,SNR=160						

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*IDC **24** 20:14:14.3±0.6, 49.26S×161.48E, mb4.6/8, mb1 4.8/10, mb1mx4.6/12, ML4.4/2, MS4.4/9, Ms1 4.4/9, ms1mx4.0/16, Error ellipse: s-maj=25.1km s-min=16.5km az=75.0*

*NEIC **24** 20:14:20.7±0.3, 48.63S×161.29E, h10^{km}, mb4.8/10, Error ellipse: s-maj=7.2km s-min=4.6km az=161.0*

*MOS **24** 20:14:23.0±1.8, 50.42S×156.55E, h10^{km}, mb5.6/1, Error ellipse: s-maj=90.7km s-min=23.5km az=102.9*

ISC 24 20:14:15.0±0.4, 49.10S±0.06×161.55E±0.06, h10^{km}, n92, σ1^{s}28/65, mb4.8/15, MS4.4/9, 9C-4D, North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	**Wether Hill Ro**	**5.39**	**56**	P	**Pn**	**20 15 38.9**	**+1.4**
WHZ				S	**Sn**	**20 16 40.3**	**-0.1**
WHZ	**Wether Hill Ro**	**5.39**	**56**	P	**Pn**	**20 15 38.9**	**+1.4**
WHZ				S	**Sn**	**20 16 39.3**	**-1.1**
MLZ	**Mavora Lakes**	**5.87**	**53**	*e*P	**Pn**	**20 15 45.8**	**+1.6**
MLZ				S	**Sn**	**20 16 52.3**	**0.0**
MLZ	**Mavora Lakes**	**5.87**	**53**	P	**Pn**	**20 15 45.8**	**+1.6**
MLZ				S	**Sn**	**20 16 52.3**	**0.0**
MSZ	**Milford Sound**	**6.22**	**47**	P	**Pn**	**20 15 51.1**	**+1.9**
TUZ	**Tuapeka**	**6.31**	**63**	*e*P	**Pn**	**20 15 51.3**	**+0.8**
TUZ				S	**Sn**	**20 17 02.8**	**-0.6**
TUZ	**Tuapeka**	**6.31**	**63**	P	**Pn**	**20 15 51.1**	**+0.6**
TUZ				S	**Sn**	**20 17 02.5**	**-0.9**
EAZ	**Earnscleugh**	**6.55**	**57**	*e*P	**Pn**	**20 15 54.7**	**+0.9**
EAZ	**Earnscleugh**	**6.55**	**57**	P	**Pn**	**20 15 54.4**	**+0.6**
EAZ				S	**Sn**	**20 17 07.4**	**-2.0**
WKZ	**Wanaka**	**6.66**	**53**	*e*P	**Pn**	**20 15 58.1**	**+2.7**
WKZ	**Wanaka**	**6.66**	**53**	P	**Pn**	**20 15 57.9**	**+2.5**
JCZ	**Jackson Bay**	**7.07**	**47**	*e*P	**Pn**	**20 16 04.0**	**+2.9**
JCZ	**Jackson Bay**	**7.07**	**47**	P	**Pn**	**20 16 03.4**	**+2.3**
ODZ	**Otahua Downs**	**7.42**	**60**	*e*P	**Pn**	**20 16 04.7**	**-1.3**
ODZ	**Otahua Downs**	**7.42**	**60**	P	**Pn**	**20 16 04.7**	**-1.3**
LBZ	**Lake Benmore**	**7.58**	**55**	*e*P	**Pn**	**20 16 07.8**	**-0.4**
LBZ	**Lake Benmore**	**7.58**	**55**	P	**Pn**	**20 16 07.1**	**-1.1**
FOZ	**Fox Glacier**	**7.90**	**48**	P	**Pn**	**20 16 14.9**	**+2.2**
RPZ	**Rata Peaks**	**8.49**	**54**	Pn	**P**	**20 16 19.6**	**-1.3**
	10nm,0.3s,baz=223,slow=6.5,SNR=21						
RPZ				Sn	**Sn**	**20 17 55.4**	**-2.4**
	1.0nm,0.3s,baz=16,slow=18,SNR=3.2						
RPZ				LR	LR	20 19 36.6	
	comp=Z,2µm,19.7s,baz=218,slow=37						
WVZ	**Waitaha Valley**	**8.78**	**50**	*e*P	**P**	**20 16 25.0**	**+0.1**
WVZ	**Waitaha Valley**	**8.78**	**50**	P	**P**	**20 16 24.8**	**-0.1**
LTZ	**Lake Taylor**	**9.78**	**54**	*e*P	**P**	**20 16 37.5**	**-1.2**
LTZ	**Lake Taylor**	**9.78**	**54**	P	**P**	**20 16 37.5**	**-1.2**
DSZ	**Denniston Nort**	**10.29**	**48**	P	**P**	**20 16 45.2**	**-0.5**
THZ	**Tophouse**	**10.83**	**52**	P	**P**	**20 16 53.2**	**+0.1**
QRZ	**Quartz Range**	**11.35**	**47**	*e*P	**P**	**20 17 00.6**	**+0.5**
QRZ	**Quartz Range**	**11.35**	**47**	P	**P**	**20 17 00.2**	**+0.1**
URZ	**Urewera**	**15.59**	**52**	Pn	**P**	**20 17 57.3**	**+0.9**
	0.8nm,0.3s,baz=232,slow=3.1,SNR=4.5						
TOO	**Toolangi**	**16.37**	**309**	*e*P	**P**	**20 18 06.5**	**+0.1**
	20nm,0.8s						
CNB	**Canberra Magne**	**16.44**	**322**	*e*P	**P**	**20 18 07.6**	**+0.3**
	25nm,0.7s						
STKA	**Stephens Creek**	**22.83**	**312**	*e*P	**P**	**20 19 20.5**	**+1.4**
	13nm,0.9s,mb4.4						
STKA	**Stephens Creek**	**22.83**	**312**	P	**P**	**20 19 19.8**	**+0.7**
	11nm,1.0s,mb4.2,baz=145,slow=11,SNR=11						
STKA				PcP	PcP	20 23 10.1	-1.6
	4.4nm,1.1s,baz=74,slow=2.4,SNR=3.4						
STKA				LR	LR	20 27 29.5	
	comp=Z,2µm,18.5s,MS4.6,baz=80,slow=35						
VNDA	**Vanda**	**28.52**	**180**	P	**P**	**20 20 10.2**	**-1.9**
	8.2nm,1.0s,mb4.4,baz=353,slow=9.4,SNR=16						
VNDA				LR	LR	20 28 46.9	
	comp=Z,744nm,20.2s,MS4.3,baz=11,slow=31						
CTA	**Charters Tower**	**31.44**	**332**	PcP	PcP	20 23 30.0	-2.1
	2.3nm,0.8s,baz=356,slow=9.3,SNR=3.7						
CTA				LR	LR	20 32 28.7	
	comp=Z,713nm,19.1s,MS4.4,baz=157,slow=35						
ASAR	**Alice Springs**	**33.42**	**309**	P	**P**	**20 20 55.3**	**-0.6**
	15nm,0.6s,mb5.1,baz=141,slow=8.1,SNR=173						
ASAR				PcP	PcP	20 23 35.1	-2.3
	2.9nm,0.7s,baz=141,slow=3.0,SNR=10						
ASAR				LR	LR	20 34 57.0	
	comp=Z,1µm,18.1s,MS4.6,baz=149,slow=37						
ASPA	**Alice Springs**	**33.42**	**309**	⇓*i*P	**P**	**20 20 55.3**	**-0.6**
WB2	**Warramunga Arr**	**36.35**	**313**	⇓*i*P	**P**	**20 21 19.8**	**-1.2**
WRA	**Warramunga Arr**	**36.35**	**313**	P	**P**	**20 21 19.9**	**-1.1**
	25nm,0.8s,mb5.2,baz=152,slow=9.9,SNR=163						
WRA				PcP	PcP	20 23 44.4	-1.6
	3.3nm,0.6s,baz=152,slow=2.7,SNR=15						
WRAB	**Tennant Creek**	**36.35**	**313**	⇑*i*P	**P**	**20 21 18.4**	**-2.6**
WRAB	**Tennant Creek**	**36.35**	**313**	*e*P	**P**	**20 21 19.8**	**-1.2**
	65nm,0.9s,mb5.6						
WRAB				*e*PcP	PcP	20 23 44.5	-1.4
QSPA	**South Pole Qui**	**41.02**	**180**	*e*P	**P**	**20 21 58.6**	**-0.7**
	45nm,1.2s,mb5.0						
PMG	**Port Moresby**	**41.37**	**338**	P	**P**	**20 22 04.4**	**+1.6**
	12nm,0.9s,mb4.5,baz=186,slow=8.6,SNR=5.1						
PMG				LR	LR	20 36 48.1	
	comp=Z,570nm,20.1s,MS4.4,baz=169,slow=33						
FITZ	**Fitzroy Crossi**	**42.35**	**304**	⇓*i*P	**P**	**20 22 10.5**	**-0.3**
	22nm,0.6s,mb5.0						
MBWA	**Marble Bar**	**43.31**	**295**	*e*P	**P**	**20 22 17.6**	**-1.1**
	15nm,0.8s,mb4.8						
KAKA	**Kakadu**	**43.52**	**316**	*e*P	**P**	**20 22 19.8**	**-0.6**
	9.6nm,0.6s,mb4.7						
MAW	**Mawson**	**48.84**	**210**	P	**P**	**20 23 00.4**	**-1.4**
	2.3nm,0.8s,mb4.2,baz=143,slow=12,SNR=2.8						
MAW				PcP	PcP	20 24 24.4	-2.4
	3.1nm,0.7s,baz=4.9,slow=1.0,SNR=3.7						
MAW				LR	LR	20 41 49.9	
	comp=Z,140nm,18.2s,MS4.0,baz=233,slow=34						
SNAA	**Sanae**	**59.02**	**186**	⇑*i*	**P**	**20 24 13.5**	**-3.2**
SNAA	**Sanae**	**59.02**	**186**	⇑*i*	**P**	**20 24 17.4**	**+0.7**
SNAA	**Sanae**	**59.02**	**186**	P	**P**	**20 24 13.7**	**-2.9**
	5.6nm,1.0s,mb4.6,baz=170,slow=7.4,SNR=22						
SNAA	**Sanae**	**59.02**	**186**	⇓*i*P	**P**	**20 24 11.8**	**-4.9**
VNA3	**Neumayer Olymp**	**59.80**	**183**	⇑*i*	**P**	**20 24 23.4**	**+1.4**
VNA3	**Neumayer Olymp**	**59.80**	**183**	⇑*i*	**P**	**20 24 31.9**	**+10**
VNA2	**Neumayer--Watz**	**60.02**	**184**	⇑*i*	**P**	**20 24 25.1**	**+1.6**
VNA1	**Neumayer--Stat**	**60.33**	**184**	⇑*i*	**P**	**20 24 27.9**	**+2.2**
VNA1	**Neumayer--Stat**	**60.33**	**184**	⇑*i*	**P**	**20 24 34.9**	**+9.2**
JOW	**Kunigami**	**81.22**	**330**	LR	LR	21 02 35.1	
	comp=Z,204nm,18.4s,MS4.5,baz=304,slow=36						
CM31	**Chiang Mai Arr**	**87.14**	**302**	*e*P	**P**	**20 27 02.4**	**0.0**
	14nm,1.0s,mb5.2						
CMAR	**Chiang Mai Arr**	**87.14**	**302**	P	**P**	**20 27 03.0**	**+0.6**
	4.3nm,0.8s,mb4.7,baz=164,slow=3.5,SNR=35						
CMAR				LR	LR	21 05 43.5	
	comp=Z,254nm,20.4s,MS4.6,baz=135,slow=35						
KMI	**Kunming**	**90.56**	**309**	*e*P	**P**	**20 27 21.2**	**+2.7**
	11nm,1.9s,mb4.9						
KMI				pP	pP	20 27 30.7	+9.0
KMI				sP	sP	20 27 34.2	+11
KMI				S	S	20 38 14.7	+3.2
KMI				SS	SS	20 44 23.0	+6.8
KMI				LR	LR		
	comp=Z,210nm,34.0s,MS4.3						
TXAR	**Lajitas Array**	**114.53**	**73**	PKKPbc		20 43 34.6	
	comp=Z,0.3nm,0.7s,baz=27,slow=8.1,SNR=3.6						
ILAR	**Eielson Array**	**120.39**	**23**	PKP	PKPdf	20 33 06.0	-2.6
	comp=Z,1.8nm,0.8s,baz=289,slow=2.6,SNR=20						
ILAR				PKKPbc		20 43 11.3	
	comp=Z,1.1nm,1.1s,baz=16,slow=3.8,SNR=8.7						
ZAL	**Zalesovo**	**121.25**	**318**	PKP	PKPdf	20 33 06.4	-4.3
	comp=Z,0.7nm,0.3s,baz=158,slow=7.0,SNR=3.4						
INK	**Inuvik**	**126.59**	**25**	*e*PKPdf	PKPdf	20 33 18.4	-2.0
BRVK	**Borovoye**	**127.57**	**310**	*e*PKPdf	PKPdf	20 33 19.6	-3.1
CHKZ	**Chkalovo**	**127.75**	**311**	*e*PKPdf	PKPdf	20 33 20.4	-2.7
WVT	**Waverly**	**129.03**	**77**	*e*PKPdf	PKPdf	20 33 23.2	-2.8
YKA	**Yellowknife Ar**	**129.41**	**37**	PKhKP		20 33 15.2	
	comp=Z,0.2nm,0.8s,baz=233,slow=3.5,SNR=3.6						
YKA				PKP	PKPdf	20 33 22.6	-3.4
	comp=Z,0.7nm,0.7s,baz=234,slow=1.6,SNR=12						
YKA	**Yellowknife Ar**	**129.41**	**37**	PKP	PKPdf	20 33 15.2	-11
YKA				PKP	PKPdf	20 33 22.6	-3.3

DBIC	**Dimbokro**	**136.18**	**200**	PKhKP		20 33 28.1	
	comp=Z,2.2nm,0.9s,baz=156,slow=6.8,SNR=2.8						
KIV	**Kislovodsk**	**138.63**	**287**	*i* PKHKP		20 33 35.1	
BRTR	**Keskin Array B**	**142.30**	**276**	PKhKP		20 33 42.0	
	comp=Z,0.3nm,0.5s,baz=286,slow=35,SNR=2.7						
BRTR				PKP	PKPdf	20 33 47.9	-2.3
	comp=Z,0.7nm,0.6s,baz=117,slow=3.2,SNR=4.0						
MOS	**Moscow**	**146.00**	**303**	*e*PKHKP		20 33 54.0	
MOS				pmax	pmax		
	comp=Z,121nm,1.6s						
OBN	**Obninsk**	**146.45**	**302**	⇑*i*PKIKP	PKPdf	20 33 56.6	-0.3
OBN				pmax	pmax		
	comp=Z,133nm,1.7s						
OBN	**Obninsk**	**146.45**	**302**	*e*PKPbc	PKPbc	20 33 56.5	+1.4
AKASG	**Malin Array Be**	**149.67**	**291**	PKPbc	PKPdf	20 34 04.0	+1.8
	comp=Z,8.4nm,0.7s,baz=81,slow=2.5,SNR=42						
JOF	**Joensuu**	**149.82**	**316**	*e*p	PKPdf	20 34 04.8	+2.7
	comp=Z,12nm,1.0s						
JOF	**Joensuu**	**149.82**	**316**	*e*PKIKP	PKPdf	20 34 04.8	+2.7
JOF				pmax	pmax		
	comp=Z,12nm,1.0s						
KEV	**Kevo**	**150.12**	**330**	*e*p	PKPdf	20 34 05.9	+3.5
SCHQ	**Schefferville**	**150.14**	**60**	PKPbc	PKPdf	20 34 07.2	+4.3
	comp=Z,15nm,1.3s,baz=254,slow=7.4,SNR=3.5						
ARCES	**ARCESS Array B**	**150.69**	**330**	PKPbc	PKPdf	20 34 07.8	+4.5
	comp=Z,16nm,0.7s,baz=90,slow=2.3,SNR=43						
SKO	**Skopje**	**151.43**	**271**	*e*Pn	PKPdf	20 34 08.5	+3.3
KAF	**Kangasniemi**	**152.21**	**315**	*e*p	PKPdf	20 34 10.1	+4.4
	comp=Z,12nm,1.5s						
KAF	**Kangasniemi**	**152.21**	**315**	*e*PKIKP	PKPdf	20 34 10.1	+4.4
KAF				pmax	pmax		
	comp=Z,13nm,1.5s						
VSU	**Vasula**	**152.21**	**307**	*i* PKIKP	PKPdf	20 34 09.1	+3.3
FINES	**FINESS Array B**	**152.39**	**313**	PKPbc	PKPdf	20 34 11.1	+5.2
	comp=Z,6.5nm,0.5s,baz=108,slow=4.5,SNR=74						
FINES	**FINESS Array B**	**152.39**	**313**	*i* PKIKP	PKPdf	20 34 11.1	+5.1
FINES				pmax	pmax		
	comp=Z,7.0nm,0.5s						
TIP	**Timpagrande**	**153.07**	**262**	*e*PKPbc	PKPdf	20 34 13.3	+5.7
GERES	**GERESS Array B**	**158.97**	**282**	PKP	PKPdf	20 34 12.6	-2.4
	comp=Z,2.0nm,1.1s,baz=14,slow=5.5,SNR=4.5						
GERES				PKPab	PKPab	20 34 49.2	-1.5
	comp=Z,1.9nm,0.7s,baz=117,slow=3.0,SNR=14						
NB2	**NORSAR Subarra**	**159.45**	**317**	PKPab	PKPab	20 34 51.1	-1.3
	comp=Z,7.5nm,1.1s,baz=72,slow=4.5						
NB2	**NORSAR Subarra**	**159.45**	**317**	PKPa		20 34 51.1	
	baz=72,slow=4.4						
NOA	**NORSAR Array B**	**159.45**	**317**	PKP	PKPdf	20 34 12.8	-2.4
	comp=Z,1.4nm,0.8s,baz=156,slow=8.7,SNR=4.5						
NOA				PKPab	PKPab	20 34 51.3	-1.1
	comp=Z,2.3nm,0.8s,baz=68,slow=4.5,SNR=6.7						
ESDC	**Sonseca Array**	**166.02**	**233**	PKP	PKPdf	20 34 21.2	-1.2
	comp=Z,0.1nm,0.4s,baz=45,slow=2.1,SNR=4.0						
ESDC				PKPab	PKPab	20 35 19.4	-2.2
	comp=Z,1.0nm,0.8s,baz=155,slow=4.5,SNR=7.1						

*NEIC **24** 20:23:22.6, 16.14N×96.03W, h49^{km}, MD3.6(MEX), After MEX.*

MEX 24 20:23:22.2±0.6, 16.13N×96.01W, h53^{km}±14^{km}, MD3.7, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	**0.38**	**195**	*e*P	P	20 23 30.8	-1.6
HUIG				*e*S	S	20 23 37.8	-1.9
HUIG	**Huatulco**	**0.38**	**195**	*e*P	P	20 23 30.7	-1.7
HUIG				*e*S	S	20 23 37.8	-1.9
VHO	**Vista Hermosa**	**1.16**	**323**	*e*P	P	20 23 40.7	-1.7
VHO				*e*S	S	20 23 54.4	-3.2
VHO	**Vista Hermosa**	**1.16**	**323**	*e*P	P	20 23 40.6	-1.8
VHO				*e*S	S	20 23 54.4	-3.2
OXX	**Oaxaca**	**1.17**	**324**	*i* P	P	20 23 41.0	-1.5
OXX				*i* S	S	20 23 55.0	-2.6
CMIG	**Matias Romero**	**1.44**	**48**	*e*P	P	20 23 44.4	-2.1
CMIG				*e*S	S	20 24 02.6	-1.8
CMIG	**Matias Romero**	**1.44**	**48**	*e*P	P	20 23 44.2	-2.2
CMIG				*e*S	S	20 24 02.6	-1.8

*IDC **24** 20:38:05.0±1.5, 4.58N×94.21E, mb4.0/6, mb1 4.1/7, mb1mx3.8/19, ML3.4/1, Error ellipse: s-maj=67.5km s-min=20.4km az=56.0*

*NEIC **24** 20:38:09.5±0.8, 4.57N×94.21E, h30^{km}, mb4.3/2, Error ellipse: s-maj=25.8km s-min=10.4km az=65.0*

ISC 24 20:38:08.2±1.1, 4.6N±0.1×94.2E±0.2, h33^{km}, n9, $\sigma0\overset{s}{.}43$/9, mb4.0/8, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.54**	**18**	Pn	**P**	**20 41 34.0**	**+0.3**
	0.1nm,0.3s,baz=207,slow=10,SNR=3.4						
LSA	**Lhasa**	**25.16**	**354**	*e*P	**P**	**20 43 32.7**	**+0.5**
	2.3nm,0.5s,mb4.0						
SONM	**Songino Array**	**44.34**	**12**	P	**P**	**20 46 16.0**	**-1.1**
	0.4nm,0.7s,mb3.3,baz=189,slow=7.4,SNR=4.3						
WRA	**Warramunga Arr**	**46.34**	**123**	P	**P**	**20 46 33.4**	**+0.1**
	2.1nm,0.7s,mb4.2,baz=301,slow=9.2,SNR=17						
WRAB	**Tennant Creek**	**46.34**	**123**	*e*P	**P**	**20 46 33.5**	**+0.2**
	3.9nm,0.7s,mb4.5						
ASAR	**Alice Springs**	**47.78**	**128**	P	**P**	**20 46 44.5**	**-0.1**
	0.7nm,0.5s,mb4.0,baz=297,slow=7.8,SNR=16						
BVAR	**Borovoye Array**	**52.13**	**342**	P	**P**	**20 47 17.3**	**-0.1**
	0.7nm,0.7s,mb3.7,baz=146,slow=5.2,SNR=3.5						
FINES	**FINESS Array B**	**75.66**	**333**	P	**P**	**20 49 51.5**	**-0.1**
	9.6nm,1.3s,mb4.6,baz=101,slow=7.1,SNR=3.9						
ARCES	**ARCESS Array B**	**78.38**	**340**	P	**P**	**20 50 07.0**	**+0.3**
	3.3nm,0.9s,mb4.2,baz=108,slow=5.7,SNR=2.8						

IDC 24 20:41:36.3±2.5, 18.74S×177.71W, mb3.6/3, mb1 3.9/3, mb1mx3.6/14, Error ellipse: s-maj=268.0km s-min=30.9km az=160.0, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**45.14**	**260**	P	P	20 49 55.1	-1.6
	0.3nm,0.3s,baz=96,slow=7.5,SNR=27						
ASAR	**Alice Springs**	**45.22**	**255**	P	P	20 49 55.2	-2.0
	0.5nm,0.7s,baz=88,slow=8.5,SNR=10						
TXAR	**Lajitas Array**	**85.88**	**57**	P	P	20 54 18.5	-1.2
	0.3nm,0.8s,baz=225,slow=6.4,SNR=3.5						

MAN 24 20:42:09.8, 9.88N×126.11E, h13^{km}, mb4.0, ML2.8, MS2.5, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	**Surigao**	**0.62**	**261**	*e*P	Pb	20 42 21.9	0.0
SCPH				*e*S	Sb	20 42 30.2	+0.1
BUTP	**Butuan**	**1.02**	**208**	*e*P	Pb	20 42 28.1	-0.8
BUTP				*e*S	Sb	20 42 43.0	+1.1
MSLP	**Maasin**	**1.26**	**282**	*e*P	Pb	20 42 32.3	-0.5
MSLP				*e*S	Sb	20 42 49.2	+0.5
PLP	**Palo**	**1.69**	**319**	*e*P	Pn	20 42 38.2	-1.1
PLP				*i* S	Sn	20 42 59.1	-1.9
BIPH	**Bislig**	**1.70**	**171**	*e*P	Pn	20 42 36.9	-2.5
BIPH				*e*S	Sn	20 42 59.5	-1.6
BESP	**Borongan**	**1.83**	**339**	*e*P	Pn	20 42 41.4	0.0
OCLP	**Ormoc**	**1.88**	**309**	*e*P	Pn	20 42 41.6	-0.4
BUKP	**Musuan**	**2.24**	**208**	*e*P	Pn	20 42 47.2	+0.1
PAGZ	**Pagadian**	**3.36**	**233**	*e*P	Pn	20 43 03.0	-0.2
GUIM	**Jordan**	**3.54**	**282**	*e*P	Pn	20 43 05.7	0.0

TAP 24 20:56:48.2, 24.03N×121.63E, h10^{km}, ML3.6, 9C-3D, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HWA	**Hwalien**	**0.06**	**203**	⇓*i*P	Pg	20 56 51.0	+0.6
HWA				S	Sg	20 56 52.6	+0.8
TWD	**Chiawan**	**0.06**	**328**	*i* P	Pg	20 56 51.0	+0.6
TWD				S	Sg	20 56 52.5	+0.6
ESL	**Shilin**	**0.28**	**220**	⇑*i*P	Pg	20 56 54.3	+0.2
ESL				S	Sg	20 56 58.6	+0.6
WHF	**Hehuan Shan**	**0.35**	**289**	⇑*i*P	Pg	20 56 56.2	+0.8
WHF				S	Sg	20 57 01.6	+1.2
ENA	**Nanau**	**0.41**	**14**	⇑*i*P	Pg	20 56 57.1	+0.5
ENA				S	Sg	20 57 02.5	+0.3
NNS	**Nan Shan**	**0.47**	**330**	⇑*i*P	Pg	20 56 58.5	+0.7
NNS				S	Sg	20 57 05.2	+1.1
TWT	**Tachien**	**0.47**	**298**	⇑P	Pg	20 56 59.0	+1.3
TWT				S	Sg	20 57 06.0	+1.9
EHY	**Hungye**	**0.59**	**208**	⇓*i*P	Pb	20 57 00.2	0.0
EHY				S	Sg	20 57 09.6	+1.4
ENTT	**Nioudou**	**0.61**	**355**	⇑*i*P	Pb	20 57 01.2	+0.7
ENTT				S	Sg	20 57 09.3	+0.6
TWC	**Suao**	**0.61**	**19**	⇑*i*P	Pb	20 57 00.8	+0.4
TWC				S	Sg	20 57 09.0	+0.2
SMLT	**Sun Moon Lake**	**0.68**	**258**	*e*P	Pb	20 57 02.6	+0.9
SMLT				S	Sb	20 57 12.6	+1.7
NSK	**Sanguang**	**0.69**	**339**	⇑*i*P	Pb	20 57 02.8	+1.0
NSK				S	Sb	20 57 11.9	+0.9
TWE	**Neicheng**	**0.69**	**3**	⇑*i*P	Pb	20 57 02.6	+0.8
TWE				S	Sb	20 57 11.8	+0.8
TYC	**Yuchr**	**0.72**	**260**	⇓P	Pb	20 57 03.0	+0.8
TYC				S	Sb	20 57 13.3	+1.4
YUS	**Yu-Shan**	**0.82**	**229**	*e*P	Pb	20 57 05.0	+0.9
YUS				S	Sb	20 57 16.4	+1.5
NSTT	**Nanjuang**	**0.83**	**316**	*e*P	Pb	20 57 05.5	+1.3
NSTT				S	Sb	20 57 16.8	+1.7
TWQ1	**Liyutan**	**0.84**	**292**	*e*P	Pb	20 57 06.7	+2.2
TWQ1				S	Sb	20 57 18.7	+3.1
WNT	**Mingjian**	**0.88**	**260**	*e*P	Pb	20 57 07.4	+2.4
WNT				S	Sb	20 57 20.6	+4.0
TCU	**Taichung**	**0.88**	**278**	*e*P	Pb	20 57 06.8	+1.8
TCU				S	Sb	20 57 21.0	+4.4
NSY	**Sanyi**	**0.88**	**296**	*e*P	Pb	20 57 06.7	+1.7
NSY				S	Sb	20 57 20.5	+3.8
ALS	**Alishan**	**0.92**	**236**	*e*P	Pb	20 57 06.9	+1.3
TWA	**Mucha**	**0.95**	**357**	*e*P	Pb	20 57 07.7	+1.5
TWA				S	Sb	20 57 19.8	+1.2
CHKT	**Chengkung**	**0.96**	**195**	*e*P	Pb	20 57 06.8	+0.4
CHKT				S	Sb	20 57 21.5	+2.7
CHN5	**Tsauling**	**0.97**	**244**	*e*P	Pb	20 57 08.4	+1.7
CHN5				S	Sb	20 57 22.2	+2.9
HSN	**Hsinchu**	**0.98**	**322**	*e*P	Pb	20 57 08.7	+2.0
ELDTW	**Lidau**	**1.01**	**214**	*e*P	Pb	20 57 07.0	-0.3
ELDTW				S	Sb	20 57 22.2	+1.9
TAP1	**Taipei**	**1.01**	**354**	*e*P	Pb	20 57 08.6	+1.3
TAP1				S	Sb	20 57 22.4	+2.0
TAP	**Taipei**	**1.01**	**354**	*e*P	Pb	20 57 08.3	+1.0
TAP				S	Sb	20 57 22.7	+2.3
TWB1	**Santiao Chiao**	**1.03**	**18**	*e*P	Pb	20 57 08.3	+0.7
TWB1				S	Sb	20 57 22.9	+2.0
WGK	**Gukeng**	**1.04**	**251**	*e*P	Pb	20 57 09.0	+1.3
WGK				S	Sb	20 57 25.2	+4.1
NWF	**Wu-fen Shan**	**1.04**	**8**	*e*P	Pb	20 57 09.4	+1.5
NWF				S	Sb	20 57 22.6	+1.2
TWS1	**Kuangyinshan**	**1.08**	**350**	*e*P	Pb	20 57 10.6	+2.1
TWS1				S	Sb	20 57 26.1	+3.6
CHN4	**Tsaushan**	**1.17**	**235**	*e*P	Pb	20 57 12.1	+2.1
CHN4				S	Sb	20 57 29.5	+4.6
STYT	**Tauyuan**	**1.18**	**223**	*e*P	Pb	20 57 11.3	+1.2
STYT				S	Sb	20 57 27.8	+2.5
WTP	**Ta-pu**	**1.22**	**230**	*e*P	Pb	20 57 12.4	+1.6
WTP				S	Sb	20 57 29.9	+3.5
CHY	**Chiayi**	**1.23**	**245**	*e*P	Pb	20 57 12.7	+1.7
CHY				S	Sb	20 57 29.8	+3.2
TWK	**Hsinying**	**1.29**	**234**	*e*P	Pb	20 57 13.8	+1.7
TWK				S	Sb	20 57 33.0	+4.4
TWG	**Pinlang**	**1.31**	**203**	*e*P	Pb	20 57 10.8	-1.6
SGST	**Jiashian**	**1.35**	**226**	*e*P	Pb	20 57 14.6	+1.5
SGST				S	Sb	20 57 34.0	+3.8
WSF	**Szhu**	**1.35**	**253**	*e*P	Pb	20 57 14.3	+1.2
WSF				S	Sb	20 57 34.4	+4.3
CHN3	**Shinhua**	**1.50**	**231**	*e*P	Pn	20 57 17.3	+2.1
ECL	**Taimali**	**1.56**	**204**	*e*P	Pn	20 57 15.6	-0.5
ECL				S	Sb	20 57 37.6	+1.4
SSD	**Sandimen**	**1.57**	**216**	*e*P	Pn	20 57 16.9	+0.6
SSD				S	Sb	20 57 39.6	+2.9
EAST	**Anshuo**	**1.79**	**204**	*e*P	Pn	20 57 20.2	+0.8
SCZT	**Fangliau**	**1.89**	**210**	*e*P	Pn	20 57 22.6	+1.7
PNG	**Penghu**	**1.96**	**257**	*e*P	Pn	20 57 22.3	+0.5
PNG				S	Sn	20 57 47.8	+1.2
WDGT	**Dungji**	**1.96**	**247**	*e*P	Pn	20 57 22.5	+0.6

*NEIC **24** 21:00:20.0±4.4, 20.86S×178.02W, h418^{km}±51^{km}, mb4.2/9, Error ellipse: s-maj=29.1km s-min=15.4km az=188.0*

*IDC **24** 21:00:26.0±3.9, 21.13S×178.06W, h493^{km}±46^{km}, mb3.4/8, mb1 3.6/9, mb1mx3.5/16, Error ellipse: s-maj=22.0km s-min=19.7km az=18.0*

ISC 24 21:00:23.2±3.8, 21.0S±0.1×178.1W±0.1, h467^{km}±44^{km}, n23, $\sigma0\overset{s}{.}85$/23, mb4.0/15, 2C-2D, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**17.70**	**192**	P	**P**	**21 04 01.0**	**-0.9**
	3.5nm,0.3s,baz=336,slow=3.5,SNR=16						
URZ				S	**S**	**21 06 58.6**	**-0.1**
	0.3nm,0.3s,baz=14,slow=5.3,SNR=3.1						
RPZ	**Rata Peaks**	**24.40**	**199**	P	**P**	**21 05 04.7**	**+0.2**
	23nm,1.2s,mb4.5,baz=88,slow=12,SNR=3.1						
ARMA	**Armidale**	**28.75**	**245**	*e*P	**P**	**21 05 44.7**	**+1.5**
CNB	**Canberra Magne**	**31.86**	**236**	⇓*i*P	**P**	**21 06 10.8**	**+0.9**
	24nm,0.6s,mb4.8						
CTA	**Charters Tower**	**33.32**	**265**	*e*P	**P**	**21 06 23.1**	**+0.8**
	1.7nm,0.4s,mb3.8						
CTAO	**Charters Tower**	**33.32**	**265**	*e*P	**P**	**21 06 22.7**	**+0.4**
	2.8nm,0.4s,mb4.0						
PMG	**Port Moresby**	**35.33**	**284**	P	**P**	**21 06 39.6**	**+0.4**
	5.9nm,0.8s,mb4.1,baz=80,slow=12,SNR=3.8						
PMG	**Port Moresby**	**35.33**	**284**	P	**P**	**21 06 39.6**	**+0.4**
TOO	**Toolangi**	**35.51**	**234**	⇑*i*P	**P**	**21 06 41.6**	**+1.0**
	9.2nm,0.6s,mb4.4						
STKA	**Stephens Creek**	**37.47**	**245**	*e*P	**P**	**21 06 57.5**	**+0.7**
	3.1nm,0.5s,mb4.0						
STKA	**Stephens Creek**	**37.47**	**245**	P	**P**	**21 06 57.6**	**+0.8**
	4.9nm,0.6s,mb4.1,baz=86,slow=10,SNR=16						
ASAR	**Alice Springs**	**44.29**	**257**	P	**P**	**21 07 51.6**	**-0.2**
	9.7nm,0.6s,mb4.4,baz=98,slow=7.8,SNR=171						
ASAR				PcP	PcP	21 09 25.4	-1.5
	0.9nm,0.6s,baz=99,slow=4.4,SNR=4.9						
ASPA	**Alice Springs**	**44.29**	**257**	⇑*i*P	**P**	**21 07 51.8**	**-0.1**
WB2	**Warramunga Arr**	**44.40**	**263**	⇓*i*P	**P**	**21 07 51.8**	**-1.0**
WRAB	**Tennant Creek**	**44.40**	**263**	*e*P	**P**	**21 07 51.7**	**-1.1**
	9.3nm,0.8s,mb4.3						
WRA	**Warramunga Arr**	**44.41**	**263**	P	**P**	**21 07 52.0**	**-0.9**
	2.2nm,0.3s,mb4.1,baz=97,slow=7.3,SNR=209						
KAKA	**Kakadu**	**47.90**	**272**	*e*P	**P**	**21 08 18.7**	**-1.0**
	3.4nm,0.3s,mb4.2						
FITZ	**Fitzroy Crossi**	**52.84**	**263**	*e*P	**P**	**21 08 56.0**	**-0.3**
	3.8nm,0.3s,mb4.2						
MBWA	**Marble Bar**	**57.63**	**258**	*e*P	**P**	**21 09 28.4**	**-1.3**
	11nm,0.5s,mb4.4						
NVAR	**Mina Array Bea**	**81.46**	**43**	P	**P**	**21 11 51.7**	**+0.1**
	0.4nm,0.8s,mb3.0,baz=259,slow=4.6,SNR=2.9						
TXAR	**Lajitas Array**	**87.42**	**57**	P	**P**	**21 12 21.1**	**-0.1**
	0.2nm,0.6s,mb3.0,baz=217,slow=4.5,SNR=3.0						
CMAR	**Chiang Mai Arr**	**90.16**	**290**	P	**P**	**21 12 35.9**	**+1.8**
	0.6nm,0.8s,mb3.5,baz=124,slow=3.3,SNR=4.6						
AKASG	**Malin Array Be**	**143.37**	**331**	PKP	PKPdf	21 19 01.0	-2.1
	1.2nm,0.3s,baz=42,slow=4.4,SNR=16						

*LDG **24** 21:18:17.9±0.2, 18.95S×166.90E, h10^{km}, Mb4.5/2, Error ellipse: s-maj=27.7km s-min=3.2km az=91.0*

*NEIC **24** 21:18:19.9±0.4, 19.35S×167.84E, mb4.5/8, Error ellipse: s-maj=11.9km s-min=8.3km az=136.0*

*IDC **24** 21:18:20.0±1.0, 19.19S×167.82E, h35^{km}±4^{km}, mb4.1/9, mb1 4.3/9, mb1mx4.1/14, MS3.7/5, Ms1 3.6/5, ms1mx3.3/20, Error ellipse: s-maj=39.5km s-min=16.2km az=153.0*

ISC 24 21:18:20.0±2.3, 19.4S±0.1×167.7E±0.1, h48^{km}±19^{km}, h34^{km}±.7^{km}:pP-P, n48, $\sigma0\overset{s}{.}82$/29, mb4.4/14, MS3.6/5, Vanuatu Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**2.93**	**204**	*e*P	**P**	**21 19 05.0**	**-0.4**
DZM				*e*S	**S**	**21 19 39.8**	**+0.2**
DZM	**Mont Dzumac**	**2.93**	**204**	*e*P	**P**	**21 19 05.0**	**-0.4**
DZM				*e*S	**S**	**21 19 39.8**	**+0.2**
NOUC	**Port Laguerre**	**3.02**	**206**	*e*P	**P**	**21 19 06.4**	**-0.1**
NOUC				*e*S	**S**	**21 19 41.9**	**+0.1**
NOUC	**Port Laguerre**	**3.02**	**206**	*e*P	**P**	**21 19 06.4**	**-0.1**
NOUC				*e*S	**S**	**21 19 41.9**	**+0.1**
CTA	**Charters Tower**	**20.22**	**264**	*e*P	**P**	**21 22 54.0**	**+0.2**
	4.6nm,0.7s						
CTA				*i*		21 23 03.8	
CTA	**Charters Tower**	**20.22**	**264**	P	**P**	**21 22 54.5**	**+0.7**
	6.8nm,0.8s,baz=94,slow=13,SNR=7.4						
CTA				pP		21 23 03.9	
	29nm,1.1s,baz=87,slow=13,SNR=11						
CTA				LR	LR	21 29 19.5	
	comp=Z,130nm,19.4s,MS3.3,baz=58,slow=32						
CTAO	**Charters Tower**	**20.22**	**264**	*e*P	**P**	**21 22 54.1**	**+0.3**
	34nm,1.0s						
CTAO				*e*		21 23 03.6	
PMG	**Port Moresby**	**22.22**	**294**	P	**P**	**21 23 15.7**	**+1.7**
	4.6nm,0.7s,mb4.0,baz=344,slow=15,SNR=2.4						
PMG	**Port Moresby**	**22.22**	**294**	P	**P**	**21 23 15.7**	**+1.7**
STKA	**Stephens Creek**	**26.56**	**237**	*e*P	**P**	**21 23 56.6**	**+1.0**
	2.8nm,1.0s,mb3.8						
STKA				*i*	pP	21 24 06.9	-0.9
STKA	**Stephens Creek**	**26.56**	**237**	P	**P**	**21 23 56.2**	**+0.7**
	3.3nm,0.9s,mb3.9,baz=74,slow=12,SNR=6.2						
STKA				pP	pP	21 24 06.8	-1.0
	9.9nm,0.8s,baz=66,slow=8.2,SNR=16						
STKA				LR	LR	21 33 06.0	
	comp=Z,80nm,18.3s,MS3.3,baz=22,slow=33						
ASAR	**Alice Springs**	**31.70**	**256**	P	**P**	**21 24 40.1**	**-1.5**
	3.2nm,0.5s,mb4.4,baz=85,slow=9.1,SNR=199						
ASAR				LR	LR	21 37 07.9	
	comp=Z,75nm,18.0s,MS3.4,baz=287,slow=35						
ASPA	**Alice Springs**	**31.71**	**256**	*e*P	**P**	**21 24 40.9**	**-0.7**
MBWA	**Marble Bar**	**44.92**	**259**	P	**P**	**21 26 32.0**	**-0.3**
	13nm,0.9s,mb4.8						
MBWA				*e*pP	pP	21 26 42.2	-3.0
JHJ	**Hachijo jima 2**	**58.63**	**333**	LR	LR	21 49 28.9	
	comp=Z,113nm,19.6s,MS4.0,baz=219,slow=32						
CASY	**Casey**	**59.43**	**203**	*e*P	**P**	**21 28 18.7**	**-1.2**
	65nm,1.2s,mb5.5						
QSPA	**South Pole Qui**	**70.67**	**180**	*e*P	**P**	**21 29 32.9**	**+0.7**
	2.0nm,0.8s,mb4.1						
QSPA				*e*pP	pP	21 29 43.9	-2.0
CMAR	**Chiang Mai Arr**	**77.26**	**295**	P	**P**	**21 30 11.7**	**+0.1**
	1.0nm,0.8s,mb3.8,baz=125,slow=4.3,SNR=7.9						
CMAR				pP	pP	21 30 22.5	-2.9
	1.2nm,0.9s,baz=122,slow=4.5,SNR=4.5						
MAW	**Mawson**	**77.77**	**202**	LR	LR	22 01 18.0	
	comp=Z,69nm,18.3s,MS4.0,baz=65,slow=33						
SONM	**Songino Array**	**86.48**	**324**	P	**P**	**21 30 58.6**	**-0.2**
	2.6nm,0.8s,mb4.5,baz=141,slow=5.3,SNR=19						
SONM				pP	pP	21 31 09.1	-3.8
	3.0nm,0.9s,baz=151,slow=5.2,SNR=12						
SNAA	**Sanae**	**88.95**	**183**	*e*P	**P**	**21 31 11.0**	**+0.8**
	1.9nm,0.7s,mb4.5						
SNAA				*e*pP	pP	21 31 22.0	-2.3
NVAR	**Mina Array Bea**	**89.97**	**49**	P	**P**	**21 31 16.1**	**+0.3**
	1.3nm,0.7s,mb4.4,baz=232,slow=8.4,SNR=12						
NVAR				pP	pP	21 31 27.3	-2.7
	1.4nm,0.8s,baz=232,slow=8.8,SNR=5.6						
NVAR	**Mina Array Bea**	**89.97**	**49**	P	**P**	**21 31 16.1**	**+0.3**
NVAR				pP	pP	21 31 27.3	-2.7
MOD	**Modoc**	**90.08**	**45**	*e*P	**P**	**21 31 16.5**	**+0.3**
	2.6nm,0.7s,mb4.7						
MOD				*e*pP	pP	21 31 26.8	-3.6
ILAR	**Eielson Array**	**90.79**	**18**	P	**P**	**21 31 16.9**	**-2.0**
	1.4nm,0.8s,mb4.3,baz=238,slow=5.2,SNR=20						
ILAR				pP	pP	21 31 27.6	-5.7
	1.5nm,1.0s,baz=237,slow=5.1,SNR=4.6						
TPNV	**Topopah Spring**	**90.85**	**51**	*e*P	**P**	**21 31 20.0**	**0.0**
	2.3nm,0.8s,mb4.6						
TXAR	**Lajitas Array**	**98.09**	**62**	P	**P**	**21 31 53.8**	**+0.6**
	0.8nm,1.1s,mb4.2,baz=214,slow=6.5,SNR=3.2						
YKA	**Yellowknife Ar**	**101.45**	**28**	P	P	21 32 07.2	-0.3
	0.5nm,0.5s,baz=255,slow=4.8,SNR=23						
YKA				pP		21 32 17.8	
	0.3nm,0.6s,baz=256,slow=4.8,SNR=5.7						
YKA	**Yellowknife Ar**	**101.45**	**28**	P	P	21 32 07.2	-0.3
YKA				pP		21 32 17.8	
NOA	**NORSAR Array B**	**135.19**	**344**	PKP	PKPdf	21 37 35.1	+0.9
	1.0nm,0.8s,baz=32,slow=6.0,SNR=3.4						
GERES	**GERESS Array B**	**143.92**	**331**	PKP	PKPdf	21 37 51.5	+1.5
	0.4nm,0.7s,baz=27,slow=3.0,SNR=3.8						
GIVF	**Givet**	**146.45**	**340**	*e*PKP1	PKPbc	21 37 56.8	+1.1
BAIF	**Baives**	**146.68**	**341**	*e*PKP1	PKPbc	21 37 57.5	+1.3
CDF	**Champ du Feu**	**147.00**	**336**	*e*PKP1	PKPbc	21 37 58.2	+1.2
	19nm,0.9s						
MEZF	**Maizieres J'vi**	**147.75**	**338**	*e*PKP1	PKPdf	21 38 00.6	+4.1
CABF	**La Chapelle**	**148.94**	**335**	*e*PKP1	PKPdf	21 38 04.0	+5.5
	45nm,1.3s						
LDF	**La Druitiere**	**149.24**	**344**	*e*PKP1	PKPdf	21 38 04.5	+5.6
SSF	**Saint Saulge**	**149.52**	**338**	*e*PKP1	PKPdf	21 38 05.2	+5.8
LPL	**La Plagne**	**149.55**	**333**	*e*PKP1	PKPdf	21 38 06.3	+6.7
LPG	**La Plagne**	**149.56**	**333**	*e*PKP1	PKPdf	21 38 05.8	+6.2
ORIF	**Oris-en-Rattie**	**150.39**	**333**	*e*PKP1	PKPdf	21 38 07.3	+6.4
	13nm,1.0s						
TCF	**Toulx Ste Croi**	**150.63**	**339**	*e*PKP1	PKPdf	21 38 08.6	+7.4
PGF	**Pioggiola**	**150.72**	**327**	*e*PKP1	PKPdf	21 38 08.1	+6.6
VIVF	**Saint-Julien-l**	**150.94**	**335**	*e*PKP1	PKPdf	21 38 08.5	+6.8
SMRF	**Simiane la Rot**	**151.28**	**333**	*e*PKP1	PKPdf	21 38 09.6	+7.4
	30nm,1.1s						
LMR	**La Mourre**	**151.36**	**331**	*e*PKP1	PKPdf	21 38 09.1	+6.7
RJF	**Les Rejaudoux**	**151.73**	**339**	*e*PKP1	PKPdf	21 38 11.1	+8.2
LFF	**La Frestale**	**152.31**	**340**	*e*PKP1	PKPdf	21 38 11.9	+8.2

*IDC **24** 21:20:10.2±2.3, 3.69S×134.72E, mb3.7/2, mb1 4.2/4, mb1mx3.9/11, ML3.9/2, Error ellipse: s-maj=211.0km s-min=28.0km az=77.0*

*NEIC **24** 21:20:11.5±1.1, 3.66S×135.35E, h10^{km}, mb3.8/3, Error ellipse: s-maj=25.5km s-min=14.0km az=87.0*

ISC 24 21:20:12.4±2.2, 3.91S±0.09×135.2E±0.1, h51^{km}±22^{km}, n9, $\sigma1\overset{s}{.}35$/14, mb3.6/2, Irian Jaya region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**9.15**	**197**	*e*P	**P**	**21 22 25.4**	**+1.0**
	11nm,0.6s						
KAKA				*e*S	**S**	**21 24 07.8**	**+0.7**
WRAB	**Tennant Creek**	**15.94**	**183**	*e*P	**P**	**21 23 53.8**	**-1.1**
	7.0nm,0.6s						
WB2	**Warramunga Arr**	**15.95**	**183**	*e*P	**P**	**21 23 53.0**	**-2.1**
WB2				*i*		21 24 01.1	
WB2				*e*S	**S**	**21 26 45.2**	**-4.9**
WRA	**Warramunga Arr**	**15.95**	**183**	Pn	**P**	**21 23 53.5**	**-1.6**
	0.4nm,0.3s,baz=5.3,slow=13,SNR=14						
WRA				Sn	**S**	**21 26 42.1**	**-8.0**
	0.3nm,0.3s,baz=4.4,slow=22,SNR=6.0						
FITZ	**Fitzroy Crossi**	**16.91**	**213**	*e*P	**P**	**21 24 09.0**	**+2.0**
	11nm,1.5s						
FITZ				*e*S	**S**	**21 27 10.8**	**-1.2**
CTAO	**Charters Tower**	**19.38**	**147**	P	**P**	**21 24 37.5**	**+0.7**
	4.9nm,0.9s						
ASAR	**Alice Springs**	**19.68**	**183**	P	**P**	**21 24 43.0**	**+2.9**
	1.5nm,0.3s,baz=10,slow=11,SNR=188						
ASAR				S	**S**	**21 28 14.3**	**+0.4**
	0.1nm,0.3s,baz=4.2,slow=24,SNR=3.8						
STKA	**Stephens Creek**	**28.47**	**168**	P	**P**	**21 26 10.1**	**+5.1**
	0.9nm,0.4s,mb3.8,baz=323,slow=5.1,SNR=3.7						
SONM	**Songino Array**	**57.37**	**337**	P	**P**	**21 29 57.7**	**-0.2**
	0.3nm,0.8s,mb3.4,baz=156,slow=8.8,SNR=3.9						

IGQ 24 21:31:04.5, 0.59N×80.80W, h12^{km}±13^{km}, mb4.0, 1C-2D, Error ellipse: s-maj=21.1km s-min=13.1km az=93.6, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOR1	**San Jorge 1**	**2.24**	**105**	P	Pn	21 31 44.3	+2.3
PINO	**Pino**	**2.31**	**109**	⇓P	Pn	21 31 44.6	+1.5
CGGP	**Crater GGP**	**2.32**	**109**	P	Pn	21 31 44.7	+1.6
JUA2	**San Juan 2**	**2.33**	**110**	⇓P	Pn	21 31 45.2	+1.8
YANA	**Yana**	**2.33**	**108**	⇑P	Pn	21 31 44.7	+1.3
COTA	**Cotacachi**	**2.47**	**96**	P	Pn	21 31 47.2	+1.8
COTA				S	Sn	21 32 15.7	0.0
VC1	**Cotopaxi 1**	**2.69**	**117**	P	Pn	21 31 52.1	+3.7
ANTI	**Antisana**	**2.83**	**111**	P	Pn	21 31 53.3	+2.8
CAYR	**Refugio Cayamb**	**2.85**	**102**	P	Pn	21 31 54.5	+3.8
CAYR				S	Sn	21 32 29.8	+4.5
CAYA	**Cayambe**	**2.85**	**100**	P	Pn	21 31 54.0	+3.2
CAYA				S	Sn	21 32 27.0	+1.6

*IDC **24** 21:46:27.0±1.0, 11.22N×146.49E, mb3.6/5, mb1 3.9/5, mb1mx3.7/19, Error ellipse: s-maj=52.1km s-min=21.9km az=108.0*

*NEIC **24** 21:46:28.0±0.7, 11.56N×145.80E, h10^{km}, mb4.4/1, Error ellipse: s-maj=27.5km s-min=10.8km az=97.0*

ISC 24 21:46:28.4±7.1, 11.53N±0.07×145.7E±0.2, h24^{km}±51^{km}, n9, $\sigma0\overset{s}{.}50$/10, mb3.9/7, South of Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUMO	**Guam**	**2.21**	**338**	*e*Pn	**Pn**	**21 47 04.5**	**+0.1**

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
GUMO				*e*Sn	Sn	21 47 31.0	-0.2
WRAB	Tennant Creek	33.21	200	*e*P	P	21 53 05.2	-0.7
	3.2nm,0.7s,mb4.4						
WB2	Warramunga Arr	33.22	200	*e*P	P	21 53 05.8	-0.2
WRA	Warramunga Arr	33.22	200	P	P	21 53 05.6	-0.4
	1.8nm,0.8s,mb4.1,baz=28,slow=9.8,SNR=20						
FITZ	Fitzroy Crossi	35.49	214	*e*P	P	21 53 26.8	+1.2
	18nm,1.6s,mb4.7						
ASAR	Alice Springs	36.84	198	P	P	21 53 36.8	-0.1
	1.0nm,0.9s,mb3.6,baz=19,slow=8.1,SNR=9.1						
SONM	Songino Array	48.88	325	P	P	21 55 19.5	+5.1
	0.5nm,0.8s,mb3.6,baz=141,slow=9.2,SNR=4.8						
ILAR	Eielson Array	70.07	25	P	P	21 57 40.5	+0.1
	0.2nm,0.4s,mb3.4,baz=256,slow=5.4,SNR=5.8						
NVAR	Mina Array Bea	87.55	51	P	P	21 59 16.1	+0.1
	0.1nm,0.4s,mb3.4,baz=243,slow=4.0,SNR=2.6						

*IDC **24** 21:55:56.8±1.6, 49.48S×161.31E, mb4.1/4, mb1 4.4/5, mb1mx4.1/9, ML4.0/1, Error ellipse: s-maj=53.7km s-min=35.0km az=13.0*

*NEIC **24** 21:56:02.4±1.2, 48.98S×161.14E, h10^{km}, mb4.6/1, Error ellipse: s-maj=30.3km s-min=6.4km az=172.0*

ISC 24 21:55:59.7±1.3**, 49.0S**±0.2×**161.2E**±0.1**, h10^{km}, n27, σ1^{s}16**/30**, mb4.2**/5**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.52	58	*e*P	Pn	21 57 24.3	+0.2
WHZ				S	Sn	21 58 25.7	-2.7
WHZ	Wether Hill Ro	5.52	58	P	Pn	21 57 24.3	+0.2
WHZ				S	Sn	21 58 25.5	-2.9
MLZ	Mavora Lakes	5.99	55	P	Pn	21 57 31.4	+0.8
MSZ	Milford Sound	6.32	49	P	Pn	21 57 38.1	+2.9
MSZ				S	Sn	21 58 48.1	-0.1
TUZ	Tuapeka	6.47	65	*e*P	Pn	21 57 36.3	-1.1
TUZ	Tuapeka	6.47	65	P	Pn	21 57 36.3	-1.1
EAZ	Earnscleugh	6.69	59	*e*P	Pn	21 57 41.1	+0.6
EAZ	Earnscleugh	6.69	59	P	Pn	21 57 40.8	+0.3
JCZ	Jackson Bay	7.16	50	*e*P	Pn	21 57 49.9	+2.8
JCZ				S	Sn	21 59 08.6	-0.7
JCZ	Jackson Bay	7.16	50	P	Pn	21 57 49.9	+2.8
JCZ				S	Sn	21 59 07.9	-1.4
FOZ	Fox Glacier	8.00	50	P	Pn	21 58 00.3	+1.5
FOZ				S	Sn	21 59 31.2	+1.0
RPZ	Rata Peaks	8.61	56	Pn	P	21 58 06.3	-1.1
	1.7nm,0.3s,baz=220,slow=0.9,SNR=7.4						
RPZ				Sn	Sn	21 59 40.7	-4.9
	0.7nm,0.3s,baz=48,slow=14,SNR=3.6						
WVZ	Waitaha Valley	8.88	52	*e*P	P	21 58 11.7	+0.6
WVZ	Waitaha Valley	8.88	52	P	P	21 58 11.1	0.0
DSZ	Denniston Nort	10.39	50	*e*P	P	21 58 30.6	-1.2
DSZ	Denniston Nort	10.39	50	P	P	21 58 30.8	-1.0
STKA	Stephens Creek	22.58	312	P	P	22 01 03.0	+1.6
	1.6nm,0.8s,mb3.5,baz=155,slow=12,SNR=3.4						
ASAR	Alice Springs	33.17	310	P	P	22 02 38.5	0.0
	3.1nm,0.6s,mb4.4,baz=143,slow=8.1,SNR=78						
ASPA	Alice Springs	33.17	310	*e*P	P	22 02 38.3	-0.2
WB2	Warramunga Arr	36.09	314	*e*P	P	22 03 02.4	-1.2
WRA	Warramunga Arr	36.10	314	P	P	22 03 03.0	-0.7
	4.0nm,0.8s,mb4.4,baz=148,slow=9.0,SNR=37						
WRAB	Tennant Creek	36.10	314	*e*P	P	22 03 02.9	-0.7
	6.9nm,0.8s,mb4.6						
CMAR	Chiang Mai Arr	86.89	303	P	P	22 08 45.9	-0.1
	1.4nm,0.8s,mb4.2,baz=166,slow=3.7,SNR=13						
AKASG	Malin Array Be	149.41	292	PKPbc	PKPdf	22 15 46.9	+0.4
	0.2nm,0.3s,baz=86,slow=3.1,SNR=4.7						
ARCES	ARCESS Array B	150.47	330	PKPbc	PKPdf	22 15 48.8	+1.2
	3.1nm,0.7s,slow=1.2,SNR=6.1						
FINES	FINESS Array B	152.14	313	PKPbc	PKPdf	22 15 53.6	+3.3
	7.1nm,1.2s,baz=108,slow=6.0,SNR=5.6						
GERES	GERESS Array B	158.72	282	PKPab	PKPab	22 16 31.7	-2.7
	0.2nm,0.6s,baz=135,slow=5.7,SNR=5.4						

IDC 24 22:12:49.7±10.0**, 29.35N**×**139.69E, h272^{km}**±84^{km}**, mb3.3**/3**, mb1 3.5**/4**, mb1mx3.1**/19**, Error ellipse: s-maj=234.0km s-min=21.3km az=107.0, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	3.15	135	P	P	22 13 45.2	-0.4
	22nm,0.3s,baz=296,slow=22,SNR=16						
CBIJ				S	S	22 14 12.8	-16
	40nm,0.3s,baz=250,slow=22,SNR=18						
SONM	Songino Array	31.57	315	pP	pP	22 19 44.4	+1.7
	0.4nm,0.7s,baz=135,slow=7.7,SNR=3.1						
WB2	Warramunga Arr	49.27	187	*e*P	P	22 21 10.6	-2.5
WRA	Warramunga Arr	49.27	187	P	P	22 21 10.8	-2.4
	2.4nm,0.4s,baz=9.3,slow=8.6,SNR=73						
ILAR	Eielson Array	56.82	29	P	P	22 22 05.4	-2.0
	0.3nm,0.9s,baz=251,slow=5.9,SNR=5.4						
STKA	Stephens Creek	60.92	178	P	P	22 22 35.5	-0.4
	1.9nm,1.0s,baz=5.7,slow=10,SNR=2.9						

*IDC **24** 22:23:01.6±16.0, 32.06N×93.86E, mb3.8/2, mb1 3.9/3, mb1mx3.5/17, ML4.1/1, MS2.9/1, Ms1 3.1/1, ms1mx2.6/25, Error ellipse: s-maj=508.0km s-min=39.7km az=95.0*

ISC 24 22:22:59.9±0.9**, 32.2N**±0.2×**92.8E**±0.1**, h33^{km}, n9, σ0^{s}37**/8**, mb3.8**/2**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUN	Gumba	7.34	236	*e*P	P	22 24 47.7	+0.3
	13nm,0.3s						
KKN	Kakani	7.83	238	*e*P	P	22 24 54.8	+0.5
	8.5nm,0.3s						
PKI	Pulchoki	7.87	236	*e*P	P	22 24 54.8	0.0
	13nm,0.3s						
DMN	Daman	8.07	237	*e*P	P	22 24 57.1	-0.4
	4.7nm,0.5s						
KOLN	Koldanda	9.09	243	*e*P	P	22 25 11.2	-0.5
	2.6nm,0.3s						
CMAR	Chiang Mai Arr	14.78	156	LR	LR	22 32 40.2	
	comp=Z,40nm,18.4s,baz=319,slow=40						
SONM	Songino Array	18.74	30	P	P	22 27 18.2	0.0
	0.2nm,0.3s,baz=212,slow=12,SNR=13						
WRA	Warramunga Arr	65.37	137	P	P	22 33 41.0	-0.4
	1.1nm,1.0s,mb3.8,baz=328,slow=6.7,SNR=5.3						
ASAR	Alice Springs	68.06	139	P	P	22 33 58.8	+0.4
	0.5nm,0.6s,mb3.7,baz=324,slow=6.4,SNR=8.7						

*IDC **24** 22:33:47.2±0.8, 9.68S×150.61E, mb4.3/9, mb1 4.4/12, mb1mx4.4/13, ML3.4/3, MS4.1/4, Ms1 4.1/4, ms1mx3.4/17, Error ellipse: s-maj=19.7km s-min=18.0km az=136.0*

*BJI **24** 22:33:47.4, 9.90S×150.82E, h30^{km}, mB5.2, mb4.8*

*NEIC **24** 22:33:49.4±7.2, 9.68S×150.53E, h12^{km}±43^{km}, mb4.7/7, Error ellipse: s-maj=20.1km s-min=10.7km az=67.0*

ISC 24 22:33:51.2±2.7**, 9.74S**±0.06×**150.4E**±0.1**, h36^{km}**±22^{km}**, n42, σ0^{s}98**/36**, mb4.6**/20**, MS4.1**/4**, 1D, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.22	276	Pn	P	22 34 41.5	+0.9
	8.2nm,0.3s,baz=96,slow=8.2,SNR=26						
PMG				Lg		22 35 36.0	
	11nm,0.3s,baz=34,slow=8.0,SNR=1.9						
PMG	Port Moresby	3.22	276	Pn	P	22 34 41.5	+0.8
PMG				Lg		22 35 36.0	
CTA	Charters Tower	11.04	201	*e*P	P	22 36 28.2	-1.6
	4.2nm,0.8s						
CTA	Charters Tower	11.04	201	Pn	P	22 36 28.3	-1.6
	0.3nm,0.3s,baz=52,slow=14,SNR=7.8						
CTA				Sn	S	22 38 32.5	-0.7
	0.3nm,0.3s,baz=299,slow=18,SNR=2.7						
CTAO	Charters Tower	11.04	201	*e*Pn	P	22 36 28.1	-1.8
	4.9nm,0.7s						
WRAB	Tennant Creek	18.52	235	*e*P	P	22 38 05.4	-1.6
	14nm,1.1s						
WB2	Warramunga Arr	18.52	235	*e*P	P	22 38 06.9	-0.1
WRA	Warramunga Arr	18.54	235	P	P	22 38 07.1	0.0
	0.2nm,0.3s,baz=62,slow=12,SNR=19						
ARMA	Armidale	20.61	177	*e*P	P	22 38 31.1	+1.2
ASAR	Alice Springs	20.98	227	P	P	22 38 34.8	+0.9
	4.5nm,0.7s,baz=65,slow=11,SNR=42						
ASPA	Alice Springs	20.98	227	*e*P	P	22 38 34.2	+0.3
STKA	Stephens Creek	23.49	199	*e*P	P	22 38 59.3	+0.6
	5.3nm,0.7s,mb4.1						
STKA	Stephens Creek	23.49	199	P	P	22 38 59.3	+0.6
	9.9nm,1.1s,mb4.2,baz=1.1,slow=12,SNR=10						
STKA	Stephens Creek	23.49	199	*e*P	P	22 38 58.8	+0.1
FITZ	Fitzroy Crossi	25.41	248	*e*P	P	22 39 19.8	+2.4
	12nm,0.9s,mb4.4						
CBIJ	Chichi jima	37.48	348	LR	LR	22 53 39.4	
	comp=Z,277nm,19.5s,MS4.1,baz=190,slow=32						
WHN	Wuhan	52.95	320	*e*P	P	22 43 07.4	+0.8
CMAR	Chiang Mai Arr	57.99	299	P	P	22 43 44.0	+0.9
	1.5nm,0.7s,mb4.1,baz=121,slow=4.9,SNR=11						
LZH	Lanzhou	63.23	319	*e*P	P	22 44 18.5	-0.1
LZH				AP	pP	22 44 24.5	-4.9
LZH				XP	sP	22 44 27.0	-6.6
LZH				AMB	AMB		
	comp=Z,20nm,1.5s,mb5.0						
LZH	Lanzhou	63.23	319	*e*P	P	22 44 18.5	-0.1
	comp=Z,20nm,1.5s,mb5.0						
LZH				pP	pP	22 44 24.5	-4.9
LZH				sP	sP	22 44 27.0	-6.6
HIA	Hailar	64.63	338	*e*P	P	22 44 26.4	-1.1
	comp=Z,6.9nm,0.8s,mb4.7						
GTA	Gaotai	67.76	320	*e*P	P	22 44 48.3	+0.8
GTA				AP	pP	22 44 52.8	-5.7
GTA				XP	sP	22 44 55.9	-6.6
GTA				AMB	AMB		
	comp=Z,3.0nm,1.3s,mb4.2						
VNDA	Vanda	68.02	177	P	P	22 44 48.3	-0.2
	comp=Z,1.1nm,0.8s,mb3.9,baz=317,slow=3.1,SNR=2.0						
ULN	Ulaanbaatar	69.00	330	*e*P	P	22 44 54.9	-0.2
	comp=Z,6.6nm,1.0s,mb4.5						
LSA	Lhasa	69.17	307	*e*P	P	22 44 56.6	+0.1
	comp=Z,3.7nm,0.7s,mb4.4						
SONM	Songino Array	69.30	330	P	P	22 44 57.4	+0.4
	comp=Z,4.9nm,1.0s,mb4.4,baz=152,slow=5.8,SNR=25						
GUN	Gumba	72.73	303	*e*P	P	22 45 17.8	-0.2
	comp=Z,18nm,0.9s,mb5.0						
PKI	Pulchoki	73.00	303	*e*P	P	22 45 17.6	-2.0
	comp=Z,31nm,1.6s,mb5.0						
KKN	Kakani	73.18	303	*e*P	P	22 45 20.4	-0.3
	comp=Z,6.6nm,0.7s,mb4.7						
DMN	Daman	73.26	303	*e*P	P	22 45 20.3	-0.9
	comp=Z,30nm,1.2s,mb5.1						
KOLN	Koldanda	74.57	302	*e*P	P	22 45 28.8	+0.1
	comp=Z,26nm,1.3s,mb5.0						
MAW	Mawson	80.13	203	P	P	22 45 59.6	+0.8
	comp=Z,2.1nm,0.8s,mb4.1,baz=68,slow=5.4,SNR=2.7						
QSPA	South Pole Qui	80.25	180	⇓*i*P	P	22 46 00.1	+0.8
	comp=Z,8.1nm,1.2s,mb4.5						
ILAR	Eielson Array	87.60	22	P	P	22 46 34.7	-1.9
	comp=Z,4.2nm,0.9s,mb4.7,baz=270,slow=4.2,SNR=12						
ILAR				LR	LR	23 26 36.3	
	comp=Z,82nm,18.2s,MS4.2,baz=183,slow=36						
BVAR	Borovoye Array	91.77	323	P	P	22 46 55.3	-1.2
	comp=Z,2.5nm,0.8s,mb4.6,baz=117,slow=6.6,SNR=8.3						
DLBC	Dease Lake	92.81	31	LR	LR	23 21 58.3	
	comp=Z,54nm,20.2s,MS4.0,baz=92,slow=31						
INK	Inuvik	93.89	21	LR	LR	23 25 07.4	
	comp=Z,109nm,19.8s,MS4.3,baz=202,slow=33						
NVAR	Mina Array Bea	96.97	52	P	P	22 47 21.9	+1.3
	comp=Z,2.1nm,0.8s,mb4.6,baz=252,slow=4.7,SNR=10.0						
PDAR	Pinedale Array	103.90	48	Pdiff	Pdif	22 47 52.2	+0.6
	comp=Z,0.5nm,0.9s,baz=217,slow=4.5,SNR=3.5						
GERES	GERESS Array B	126.89	326	PKP	PKPdf	22 52 54.0	+2.4
	comp=Z,0.8nm,0.8s,baz=124,slow=4.8,SNR=5.2						
BDFB	Brasilia	148.87	144	PKPbc	PKPdf	22 53 37.8	+5.7
	comp=Z,5.4nm,0.6s,baz=273,slow=0.6,SNR=9.4						
BAO	Brasilia Array	148.89	144	P	PKPdf	22 53 39.8	+7.6

*IDC **24** 22:34:34.4±0.8, 49.16S×161.36E, mb4.8/4, mb1 5.0/5, mb1mx4.5/9, ML4.3/1, MS4.1/8, Ms1 4.1/8, ms1mx3.5/18, Error ellipse: s-maj=31.9km s-min=25.0km az=60.0*

*NEIC **24** 22:34:40.0±0.5, 48.62S×161.32E, h10^{km}, mb4.9/6, Error ellipse: s-maj=12.2km s-min=6.6km az=165.0*

*HRVD **24** 22:34:40.0±1.2, 49.04S×161.07E, h14^{km}±2^{km}, MW4.8/36, Centroid moment Tensor Solution. LP body waves: s9,c9; Mantle waves: s36,c48; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.36±.41; M$_{\theta\theta}$-0.88±.24; M$_{\phi\phi}$-1.48±.25; M$_{r\theta}$-0.55±.64; M$_{\theta\phi}$-0.88±.12; M$_{\phi r}$-0.44±.44; Best double couple: M$_0$2.34×10^{16} NP1:φ$_s$32°,δ37°,λ84°. NP2:φ$_s$220°, δ54°,λ95°. Principal axes: T 2.47, Plg81°, Azm151°; N -.26, Plg4°, Azm37°; P -2.21, Plg8°, Azm306°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 24 22:34:34.6±0.5**, 49.09S**±0.07×**161.45E**±0.07**, h10^{km}, n55, σ1^{s}38**/46**, mb4.9**/9**, MS4.2**/8**, 5C, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.44	56	*e*P	Pn	22 35 58.4	+0.7
WHZ				S	Sn	22 36 59.1	-2.0
WHZ	Wether Hill Ro	5.44	56	P	Pn	22 35 58.4	+0.7
WHZ				S	Sn	22 36 59.1	-2.0
MLZ	Mavora Lakes	5.91	53	P	Pn	22 36 05.4	+1.1
MLZ	Mavora Lakes	5.91	53	P	Pn	22 36 05.3	+0.9
MSZ	Milford Sound	6.26	48	P	Pn	22 36 10.8	+1.5
TUZ	Tuapeka	6.36	64	*e*P	Pn	22 36 09.4	-1.3
TUZ	Tuapeka	6.36	64	P	Pn	22 36 10.5	-0.2
EAZ	Earnscleugh	6.60	57	P	Pn	22 36 15.0	+0.9
EAZ	Earnscleugh	6.60	57	P	Pn	22 36 13.6	-0.5
WKZ	Wanaka	6.70	53	*e*P	Pn	22 36 16.4	+0.9
WKZ	Wanaka	6.70	53	P	Pn	22 36 16.9	+1.4
JCZ	Jackson Bay	7.10	48	P	Pn	22 36 23.5	+2.4
JCZ				S	Sn	22 37 44.4	+1.7
JCZ	Jackson Bay	7.10	48	*e*P	Pn	22 36 23.0	+1.9
JCZ				S	Sn	22 37 41.3	-1.4
ODZ	Otahua Downs	7.46	61	*e*P	Pn	22 36 24.0	-2.2
ODZ	Otahua Downs	7.46	61	P	Pn	22 36 23.8	-2.4
LBZ	Lake Benmore	7.62	55	*e*P	Pn	22 36 24.6	-3.8
LBZ	Lake Benmore	7.62	55	P	Pn	22 36 27.1	-1.3
FOZ	Fox Glacier	7.93	49	P	Pn	22 36 35.0	+2.2
RPZ	Rata Peaks	8.53	55	Pn	P	22 36 40.5	-0.7
	3.7nm,0.3s,baz=178,slow=2.3,SNR=12						
RPZ				Sn	Sn	22 38 14.1	-4.3
	0.4nm,0.3s,baz=31,slow=16,SNR=2.4						
RPZ				LR	LR	22 39 56.8	
	comp=Z,757nm,19.3s,baz=25,slow=37						
DSZ	Denniston Nort	10.33	49	*e*P	P	22 37 06.0	+0.2
DSZ	Denniston Nort	10.33	49	P	P	22 37 04.4	-1.4
THZ	Tophouse	10.87	52	*e*P	P	22 37 13.1	-0.1
THZ	Tophouse	10.87	52	P	P	22 37 13.1	-0.1
TOO	Toolangi	16.31	309	*e*P	P	22 38 25.5	+0.4
	15nm,1.0s						
VNDA	Vanda	28.54	180	P	P	22 40 30.9	-1.0
	4.2nm,1.0s,mb4.1,baz=349,slow=6.7,SNR=8.2						
VNDA				LR	LR	22 49 06.6	
	comp=Z,363nm,20.4s,MS4.0,baz=11,slow=31						
CTA	Charters Tower	31.39	332	LR	LR	22 52 47.3	
	comp=Z,426nm,19.2s,MS4.1,baz=177,slow=35						
ASAR	Alice Springs	33.36	310	P	P	22 41 14.3	-0.7
	20nm,1.1s,mb5.0,baz=144,slow=8.4,SNR=28						
ASAR				LR	LR	22 54 29.9	
	comp=Z,523nm,18.4s,MS4.3,baz=242,slow=36						
ASPA	Alice Springs	33.36	310	*e*P	P	22 41 14.7	-0.3
ASPA				*e*		22 41 21.3	
WB2	Warramunga Arr	36.28	314	*e*P	P	22 41 38.8	-1.2
WB2				*e*		22 41 45.9	
WB2				*i*		22 41 51.9	
WRA	Warramunga Arr	36.29	314	P	P	22 41 39.4	-0.6
	14nm,0.8s,mb4.9,baz=143,slow=8.3,SNR=36						
WRA				PcP	PcP	22 44 04.3	-1.1
	1.4nm,0.8s,baz=151,slow=2.8,SNR=6.2						
WRAB	Tennant Creek	36.29	314	*e*P	P	22 41 39.2	-0.9
	22nm,0.8s,mb5.2						
QSPA	South Pole Qui	41.04	180	*e*P	P	22 42 18.7	-0.3
	74nm,1.3s,mb5.2						
PMG	Port Moresby	41.32	338	LR	LR	22 56 56.2	
	comp=Z,334nm,19.0s,MS4.2,baz=2.6,slow=32						
FITZ	Fitzroy Crossi	42.29	304	*e*P	P	22 42 30.2	+0.3
	9.8nm,0.8s,mb4.5						
FITZ				*e*		22 42 36.3	
FITZ				*e*		22 42 42.6	
MAW	Mawson	48.82	210	LR	LR	23 01 35.8	
	comp=Z,84nm,18.2s,MS3.8,baz=250,slow=33						
SYO	Syowa Base	54.70	202	⇑P	P	22 44 02.9	-2.6
SNAA	Sanae	59.03	186		P	22 44 33.9	-2.4
SNAA	Sanae	59.03	186	*e*P	P	22 44 33.5	-2.8
	28nm,1.3s,mb5.1						
VNA3	Neumayer Olymp	59.81	183	⇑*i*	P	22 44 42.8	+1.1
VNA2	Neumayer--Watz	60.03	184	⇑*i*	P	22 44 46.6	+3.4
VNA2	Neumayer--Watz	60.03	184	⇑*i*	P	22 44 52.5	+9.3
VNA1	Neumayer--Stat	60.34	184	⇑*i*	P	22 44 49.1	+3.8
TGY	Tagaytay City	72.39	319	LR	LR	23 20 43.7	
	comp=Z,193nm,19.9s,MS4.4,baz=113,slow=38						
CMAR	Chiang Mai Arr	87.08	303	P	P	22 47 22.2	+0.6
	14nm,1.3s,mb5.0,baz=161,slow=3.7,SNR=26						
KMI	Kunming	90.49	309	*e*P	P	22 47 40.9	+3.1
	8.0nm,1.7s,mb4.8						
KMI				sP	sP	22 47 53.6	+12
KMI				S	tx	22 54 40.5	
KMI				SS		22 58 01.7	
KMI				LR	LR		
	comp=Z,200nm,25.0s,MS4.5						
LVC	Limon Verde	95.71	134	LR	LR	23 20 34.1	
	comp=Z,86nm,21.9s,MS4.2,baz=43,slow=29						
ILAR	Eielson Array	120.40	23	PKP	PKPdf	22 53 26.1	-2.1
	comp=Z,3.2nm,1.3s,baz=271,slow=1.9,SNR=6.0						
YKA	Yellowknife Ar	129.43	37	PKP	PKPdf	22 53 42.3	-3.3
	comp=Z,3.0nm,1.4s,baz=219,slow=1.8,SNR=4.6						
AKASG	Malin Array Be	149.60	291	PKPbc	PKPdf	22 54 24.1	+2.4
	comp=Z,2.3nm,0.7s,baz=82,slow=2.1,SNR=17						
FRB	Frobisher Bay	149.64	42	PKPbc	PKPdf	22 54 25.1	+3.8
	comp=Z,16nm,1.3s,baz=308,slow=9.7,SNR=2.8						
MLR	Muntele Rosu	149.94	280	PKPbc	PKPdf	22 54 25.3	+2.9
	comp=Z,20nm,1.4s,baz=137,slow=2.3,SNR=7.9						
ARCES	ARCESS Array B	150.64	330	PKPbc	PKPdf	22 54 27.4	+4.7
	comp=Z,9.5nm,1.0s,baz=63,slow=2.7,SNR=8.8						
FINES	FINESS Array B	152.33	313	PKPbc	PKPdf	22 54 30.2	+4.7
	comp=Z,1.5nm,0.5s,baz=100,slow=6.6,SNR=17						
GERES	GERESS Array B	158.91	282	PKPab	PKPab	22 55 09.3	-0.8
	comp=Z,2.7nm,1.1s,baz=117,slow=3.0,SNR=11						
ESDC	Sonseca Array	165.97	233	PKPab	PKPab	22 55 39.6	-1.5
	comp=Z,0.2nm,0.6s,baz=135,slow=2.1,SNR=5.1						

*MOS **24** 22:50:29.0±1.1, 0.09N×123.90E, h33^{km}, mb5.7/7, Error ellipse: s-maj=39.8km s-min=13.2km az=107.2*

*BJI **24** 22:50:36.6, 0.29S×124.55E, h128^{km}, mB5.1, mb5.1*

*NEIC **24** 22:50:43.6±1.3, 0.35N×123.97E, h128^{km}±12^{km}, mb5.0/38, Error ellipse: s-maj=9.7km s-min=4.8km az=70.0*

*HRVD **24** 22:50:43.6±0.4, 0.35N×124.10E, h116^{km}±3^{km}, MW4.9/57, Centroid moment Tensor Solution. LP body waves: s22,c25;Mantle waves: s57,c93; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.07±.18; M$_{\theta\theta}$-2.04±.18; M$_{\phi\phi}$-0.03±.20; M$_{r\theta}$1.97±.11; M$_{\theta\phi}$-1.31±.14; M$_{\phi r}$0.61±.14; Best double couple: M$_0$3.15×10^{16} NP1:φ$_s$234°,δ25°,λ74°. NP2:φ$_s$71°,δ66°,λ97°. Principal axes: T 2.86, Plg68°, Azm355°; N .58, Plg7°, Azm248°; P -3.44, Plg20°, Azm155°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **24** 22:50:44.2±1.8, 0.42N×123.92E, h130^{km}±15^{km}, mb4.6/26, mb1 4.7/27, mb1mx4.7/28, MS3.8/4, Ms1 3.8/4, ms1mx3.2/22 Error ellipse: s-maj=15.5km s-min=8.8km az=70.0*

*DJA **24** 22:50:51.0±0.4, 0.28N×124.01E, h320^{km}, mb4.8/7, Error ellipse: s-maj=28.0km s-min=9.4km az=165.0*

ISC 24 22:50:46.3±0.6**, 0.35N**±0.03×**124.08E**±0.05**, h169^{km}**±5^{km}**, h139^{km}**±1.7^{km}**:pP-P, n197, σ1^{s}12**/178**, mb4.9**/77**, 14C-13D, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	Kidapawan	6.70	9	⇓*e*P	P	22 52 31.1	+7.9
MATI	Mati	6.91	18	*e*P	P	22 52 23.9	-2.1
PAGZ	Pagadian	7.49	355	*e*P	P	22 52 32.5	-1.1
IPIL	Ipil	7.54	349	*e*P	P	22 52 34.2	-0.3
BUKP	Musuan	7.55	7	*e*P	P	22 52 35.0	+0.5
BUTP	Butuan	8.70	10	*e*P	P	22 52 50.3	+0.5
MSLP	Maasin	9.76	5	*e*P	P	22 53 02.6	-1.1
GUIM	Jordan	10.32	352	*e*P	P	22 53 11.2	+0.1
BATP	Bataraza	10.47	323	*e*P	P	22 53 13.7	+0.7
OCLP	Ormoc	10.65	3	*e*P	P	22 53 16.4	+1.0
PPR	Puerto Princes	10.78	331	⇑*i*P	P	22 53 18.3	+1.3
CUYO	Cuyo Island	10.87	344	*e*P	P	22 53 21.5	+3.3
ENPP	El Nido	11.74	337	*e*P	P	22 53 31.6	+2.1
KEDI	Kedomdong	11.83	222	⇑*i*P	P	22 53 30.7	0.0
	72nm,1.1s						
OTRP	Odiongan	12.11	350	*e*P	P	22 53 29.2	-5.0
SJMP	San Jose	12.39	346	*e*P	P	22 53 42.4	+4.5
RATI	Rata	12.40	223	⇓*i*P	P	22 53 38.4	+0.4
	113nm,0.3s						
KELI	Kelakatan	12.79	228	⇑*e*P	P	22 53 42.6	-0.5
	50nm,0.5s						
BOAC	Boac	13.21	350	*e*P	P	22 53 43.7	-4.8
SRDI	Scrawed	13.23	228	⇑*e*P	P	22 53 48.1	-0.5
	107nm,0.2s						
LUBP	Lubang	13.83	344	*e*P	P	22 54 01.1	+4.7
TGY	Tagaytay City	14.02	347	P	P	22 53 57.3	-1.4
	38nm,0.3s,baz=129,slow=8.3,SNR=1.9						
KAKA	Kakadu	15.40	148	⇓*i*P	P	22 54 12.7	-3.3
	110nm,0.6s						
BALP	Baler	15.49	351	*e*P	P	22 54 09.3	-7.9
BOLP	Bolinao	16.45	346	*e*P	P	22 54 31.3	+2.2
CAUP	Cauayan	16.64	352	*e*P	P	22 54 33.5	+2.1
YOMI	Yo Moklole	16.74	100	⇓*i*P	P	22 54 28.7	-3.8
	97nm,1.0s						
CVP	Callao Caves	17.39	353	*e*P	P	22 54 41.0	+0.9
	13μm,0.5s						
ABRA	Dolores	17.51	349	*e*P	P	22 54 40.3	-1.2
APYP	Conner	17.63	351	*e*P	P	22 54 42.4	-0.5
FITZ	Fitzroy Crossi	18.40	175	⇓*i*P	P	22 54 49.1	-2.0
	160nm,0.9s						
PULI	Pulasari	19.25	250	⇑*i*P	P	22 54 52.5	-7.6
	769nm,0.2s						
PENI	Pendagan	19.77	252	⇑*e*P	P	22 54 57.9	-7.5
	191nm,1.0s						
MBWA	Marble Bar	21.79	191	*e*P	P	22 55 24.8	-0.6
	34nm,0.7s,mb4.9						
WRAB	Tennant Creek	22.53	154	*e*P	P	22 55 31.9	-0.8
	164nm,0.7s,mb5.6						
WRA	Warramunga Arr	22.53	154	P	P	22 55 31.9	-0.8
	98nm,0.6s,mb5.4,baz=332,slow=10.0,SNR=410						
WRA				PcP	PcP	22 59 23.0	+0.8
	2.5nm,0.5s,baz=334,slow=1.9,SNR=4.7						
WRA				S	S	22 59 27.4	+3.8
	11nm,0.8s,baz=332,slow=18,SNR=10						
WRA				ScP		23 02 48.2	
	5.7nm,1.3s,baz=324,slow=2.4,SNR=5.1						
WB2	Warramunga Arr	22.54	154	⇓*i*P	P	22 55 32.0	-0.8
WB2				*e*S	S	22 59 27.0	+3.4
QIZ	Qiongzhong	23.23	324	P	P	22 55 41.8	+2.2
QIZ	Qiongzhong	23.23	324	*e*P	P	22 55 40.6	+1.0
	55nm,1.1s,mb4.9						
PMG	Port Moresby	24.94	113	P	P	22 55 56.0	+0.3
	39nm,0.9s,mb4.9,baz=245,slow=6.5,SNR=7.3						
ASPA	Alice Springs	25.70	159	⇓*i*P	P	22 56 02.4	-0.4
ASPA				*e*S	S	23 00 19.8	+3.0
ASAR	Alice Springs	25.71	159	P	P	22 56 02.6	-0.2
	55nm,0.5s,mb5.4,baz=336,slow=7.5,SNR=130						
ASAR				PcP	PcP	22 59 30.1	+1.0
	10nm,0.5s,baz=348,slow=2.1,SNR=18						
ASAR				S	S	23 00 20.4	+3.6
	9.2nm,1.0s,baz=352,slow=20,SNR=4.1						
ASAR				ScP		23 02 56.4	
	4.3nm,0.8s,baz=346,slow=2.0,SNR=9.9						
ASAR				LR	LR	23 06 40.0	
	comp=Z,102nm,19.2s,baz=254,slow=37						
KKTK	Khon Kaen	26.30	308	P	P	22 56 09.0	+0.7
	926nm,0.6s						
JOW	Kunigami	26.64	8	P	P	22 56 12.4	+1.1
	41nm,0.9s,mb5.1,baz=158,slow=3.4,SNR=4.9						
JOW				LR	LR	23 05 24.1	
	comp=Z,99nm,19.1s,baz=128,slow=33						
NANT	Nan	29.37	310	P	P	22 56 36.0	0.0
CTA	Charters Tower	29.73	134	*e*P	P	22 56 39.2	0.0
	6.2nm,1.0s,mb4.3						
CTA	Charters Tower	29.73	134	P	P	22 56 39.3	+0.2
	16nm,1.2s,mb4.6,baz=318,slow=11,SNR=6.3						
CTAO	Charters Tower	29.73	134	*e*P	P	22 56 38.9	-0.3
	13nm,1.1s,mb4.6						
CM31	Chiang Mai Arr	30.55	308	*e*P	P	22 56 45.9	-0.5
	19nm,0.9s,mb4.8						
CMAR	Chiang Mai Arr	30.55	308	P	P	22 56 46.1	-0.3
	6.8nm,0.7s,mb4.5,baz=139,slow=7.8,SNR=59						
CMAR				PcP	PcP	22 59 42.3	+1.4
	6.8nm,0.8s,baz=173,slow=1.8,SNR=18						
CMAR				ScP		23 03 11.5	
	3.5nm,0.8s,baz=162,slow=2.7,SNR=14						
CMAR				LR	LR	23 08 10.2	
	comp=Z,127nm,18.6s,baz=125,slow=34						
GYA	Guiyang	30.91	329	⇑*i*P	P	22 56 51.0	+1.6
GYA				PCP	PcP	22 59 43.1	+1.3
GYA				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
GYA				AMB	AMB		
	comp=Z,240nm,6.0s						
WHN	Wuhan	31.42	344	P	P	22 56 54.8	+0.9

CBIJ	Chichi jima	31.78	32	P	P	22 56 55.5	-1.5
	comp=Z,153nm,0.6s,mb5.9,baz=281,slow=6.1,SNR=15						
KMI	Kunming	32.13	322	eP	P	22 57 01.9	+1.8
KMI				AMB	AMB		
	comp=Z,12nm,1.5s,mb4.4						
KMI				LR	LR		
	comp=Z,79nm,34.4s						
KMI	Kunming	32.13	322	eP	P	22 57 01.9	+1.8
	comp=Z,12nm,1.5s,mb4.4						
KMI				LR	LR		
	comp=Z,80nm,34.4s						
KLBR	Kellerberrin	32.32	190	eP	P	22 57 00.3	-1.4
	comp=Z,9.9nm,0.4s,mb4.9						
KLBR				e		22 59 46.4	
ENH	Enshi	32.84	336	eP	P	22 57 05.9	-0.3
	comp=Z,46nm,0.8s,mb5.3						
ENH				ePcP	PcP	22 59 47.4	+0.5
MUN	Mundaring	33.00	192	eP	P	22 57 06.6	-0.9
	comp=Z,13nm,1.7s,mb4.4						
NWAO	Narrogin (SRO)	33.72	190	P	P	22 57 12.7	-0.9
	comp=Z,12nm,0.7s,mb4.7,baz=21,slow=8.4,SNR=11						
STKA	Stephens Creek	36.08	154	⇓iP	P	22 57 33.9	+0.3
	comp=Z,43nm,1.0s,mb5.0						
STKA				e		22 58 55.5	
STKA				eS	S	23 03 02.0	+2.3
STKA	Stephens Creek	36.08	154	P	P	22 57 34.0	+0.4
	comp=Z,47nm,0.9s,mb5.1,baz=326,slow=8.0,SNR=66						
STKA				PP	PP	22 58 55.5	-5.3
	comp=Z,29nm,0.9s,baz=328,slow=12,SNR=5.8						
STKA				PcP	PcP	22 59 57.2	+0.9
	comp=Z,6.2nm,0.6s,baz=350,slow=5.4,SNR=3.7						
STKA				ScP		23 03 31.2	
	comp=Z,3.9nm,0.8s,baz=324,slow=8.3,SNR=3.1						
XAN	Xi’an	36.41	339	P	P	22 57 36.0	-0.3
XAN				AMB	AMB		
	comp=Z,45nm,0.9s,mb5.1						
MAJO	Matsushiro	38.32	18	eP	P	22 57 50.6	-1.7
	comp=Z,45nm,1.0s,mb5.0						
MAT	Matsushiro	38.32	18	P	P	22 57 51.8	-0.5
MAT	Matsushiro	38.32	18	eP	P	22 57 52.0	-0.3
	comp=Z,42nm,1.0s,mb5.0						
SHL	Shillong	39.92	311	eP	P	22 58 08.0	+2.4
BJT	Baijiatuau	40.14	351	eP	P	22 58 06.4	-0.8
	comp=Z,7.8nm,0.7s,mb4.5						
BJI	Beijing	40.16	351	eP	P	22 58 06.6	-0.8
BJI				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
BJI				LR	LR		
	comp=Z,77nm,17.8s						
BJI	Beijing	40.16	351	eP	P	22 58 06.6	-0.8
	comp=Z,10.0nm,1.0s,mb4.4						
BJI				LR	LR		
	comp=Z,80nm,17.8s						
LZH	Lanzhou	40.23	334	⇑P	P	22 58 08.8	+0.8
LZH				AP	pP	22 58 40.5	-4.3
LZH				XP	sP	22 58 52.5	-12
LZH				SCP		23 03 45.5	
LZH				AMB	AMB		
	comp=Z,60nm,1.5s,mb5.0						
LZH	Lanzhou	40.23	334	⇑P	P	22 58 08.7	+0.7
	comp=Z,60nm,1.5s,mb5.0						
LZH				pP	pP	22 58 40.5	-4.3
LZH				sP	sP	22 58 52.5	-12
LZH				PcP	Px	22 59 19.5	
LZH				ScP		23 03 45.5	
ARMA	Armidale	40.28	142	⇓iP	P	22 58 10.2	+1.7
HHC	Hu-ho-hao-te	41.89	346	eP	P	22 58 23.0	+1.4
HHC				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.5						
HHC				AMB	AMB		
	comp=Z,52nm,4.9s						
HHC				LR	LR		
	comp=N,174nm,13.9s						
HHC				LR	LR		
	comp=E,203nm,13.4s						
HHC				LR	LR		
	comp=Z,182nm,15.6s						
TOO	Toolangi	42.60	155	eP	P	22 58 29.1	+1.7
	comp=Z,6.6nm,0.7s,mb4.4						
CNB	Canberra Magne	42.61	149	eP	P	22 58 29.3	+1.8
	comp=Z,27nm,0.9s,mb4.9						
LSA	Lhasa	42.84	316	P	P	22 58 32.5	+3.0
LSA	Lhasa	42.84	316	eP	P	22 58 30.8	+1.3
	comp=Z,57nm,1.0s,mb5.2						
LSA				ePcP	PcP	23 00 19.5	+1.6
MDJ	Mudanjiang	44.35	6	P	P	22 58 41.6	+0.2
MDJ				AMB	AMB		
	comp=Z,26nm,0.9s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,80nm,6.5s						
MDJ	Mudanjiang	44.35	6	eP	P	22 58 41.9	+0.6
	comp=Z,24nm,0.8s,mb4.9						
GTA	Gaotai	44.76	333	eP	P	22 58 45.5	+0.8
GTA				AP	pP	22 59 16.8	-5.2
GTA				XP	sP	22 59 32.8	-8.7
GTA				PCP	PcP	23 00 25.4	+1.1
GTA				PP	PP	23 00 34.8	+2.5
GTA				SCP		23 04 04.3	
GTA				PCS		23 04 16.8	
GTA				S	S	23 05 13.3	+5.3
GTA				XS		23 06 09.1	
GTA				SCS	ScS	23 08 25.9	+4.3
GTA				SS	SS	23 08 31.8	+6.1
GTA				AMB	AMB		
	comp=Z,58nm,1.0s,mb5.2						
GTA				AMB	AMB		
	comp=Z,228nm,5.3s						
GTA				LR	LR		
	comp=N,208nm,16.0s						
GTA				LR	LR		
	comp=E,143nm,14.8s						
GTA				LR	LR		
	comp=Z,200nm,18.6s						
GUN	Gumba	45.71	310	eP	P	22 58 53.0	+0.6
	comp=Z,65nm,0.6s,mb5.4						
PKI	Pulchoki	45.91	309	eP	P	22 58 53.9	-0.1
KKN	Kakani	46.11	310	eP	P	22 58 55.7	+0.1
	comp=Z,56nm,1.0s,mb5.2						
DMN	Daman	46.16	309	eP	P	22 58 56.2	+0.3
	comp=Z,99nm,1.2s,mb5.3						
BLSP	Bilaspur	46.22	301	eP	P	22 58 54.7	-1.8
BLSP				AMb	AMB	22 58 60.0	
	comp=Z,29nm,0.8s,mb4.9						
ASAJ	Asahikawa	46.60	18	P	P	22 58 59.9	+0.8
	comp=Z,44nm,0.8s,mb5.2,baz=247,slow=7.9,SNR=18						
GKN	Gorkha	46.71	309	eP	P	22 58 59.8	-0.4
	comp=Z,49nm,0.8s,mb5.2						
KOLN	Koldanda	47.41	309	eP	P	22 59 05.9	+0.2
	comp=Z,108nm,0.7s,mb5.6						
HYB	Hyderabad	47.88	293	⇑eP	P	22 59 08.5	-1.0
	comp=Z,40nm,1.0s,mb5.0						
HYB				e		22 59 40.0	
HYB				e		22 59 55.0	
HYB	Hyderabad	47.88	293	⇑iP	P	22 59 08.5	-1.0
	comp=Z,40nm,1.0s,mb5.0						
HYB				epP	pP	22 59 40.0	-7.3
HYB				esP	sP	22 59 55.0	-11
HIA	Hailar	48.88	356	eP	P	22 59 15.6	-1.1
	comp=Z,18nm,0.8s,mb4.8						
HIA				ePcP	PcP	23 00 39.2	+0.4
YSS	Yuzh-Sakhalins	49.21	17	⇑iP	P	22 59 18.2	-1.0
YSS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.2						
YSS	Yuzh-Sakhalins	49.21	17	eP	P	22 59 18.6	-0.7
	comp=Z,45nm,1.0s,mb5.1						
SONM	Songino Array	49.73	344	P	P	22 59 22.5	-0.8
	comp=Z,12nm,0.8s,mb4.6,baz=157,slow=8.4,SNR=93						
SONM				PcP	PcP	23 00 42.2	+0.3
	comp=Z,4.2nm,0.7s,baz=164,slow=4.1,SNR=5.0						
SONM				ScP		23 04 24.7	
	comp=Z,1.1nm,1.2s,baz=141,slow=2.5,SNR=4.3						
PTH	Pithoragarh	50.86	309	eP	P	22 59 32.0	-0.1
PTH				e		23 00 47.0	
DGAR	Diego Garcia	52.06	260	eP	P	22 59 39.8	-1.5
POO	Poona	52.49	293	eP	P	22 59 40.0	-4.4
DDI	Dehra Dun	52.89	309	eP	P	22 59 44.4	-2.8
ZAK	Zakamensk	52.91	343	eP	P	22 59 45.0	-2.0
WMQ	Urumqi	54.07	328	⇓P	P	22 59 55.9	+0.3
WMQ				AMB	AMB		
	comp=Z,28nm,1.1s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,40nm,8.8s						
AJM	Ajmer	54.16	303	eP	P	22 59 51.1	-5.4
AJM				AMb	AMB	22 59 54.6	
	comp=Z,16nm,0.6s,mb4.9						
SDNR	Sundarnagar	54.23	310	eP	P	22 59 57.8	+0.8
MOY	Mondy	54.72	343	eP	P	23 00 00.3	+0.1
BOD	Bodaibo	57.86	354	⇓iP	P	23 00 21.6	-0.8
KSH	Kashi	58.65	318	eP	P	23 00 30.8	+2.6
KSH				AMB	AMB		
	comp=Z,200nm,7.6s						
MK02	Makanchi Array	58.87	328	P	P	23 00 28.7	-0.9
MK02				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.9						
KZA	Kyzart	60.39	320	P	P	23 00 40.6	+0.6
	SNR=10						
TKM2	Tokmak 2	60.60	321	P	P	23 00 41.3	-0.1
	SNR=16						
RPZ	Rata Peaks	60.62	143	P	P	23 00 43.5	+1.9
	comp=Z,17nm,0.9s,mb4.9,baz=359,slow=20,SNR=3.2						
RPZ	Rata Peaks	60.62	143	P	P	23 00 43.5	+1.9
KBK	Karagaybulak	60.87	320	P	P	23 00 43.6	+0.3
	SNR=14						
UCH	Uchtor	60.94	320	P	P	23 00 44.5	+0.7
	SNR=9.0						
AAK	Ala-Archa	61.15	320	P	P	23 00 45.5	+0.3
	SNR=16						
AAK	Ala-Archa	61.15	320	eP	P	23 00 43.8	-1.4
	comp=Z,22nm,1.0s,mb5.0						
CHMS	Chumysh	61.17	321	P	P	23 00 44.3	-1.0
	SNR=6.9						
AML	Almayashu	61.43	319	P	P	23 00 47.3	+0.2
	SNR=11						
USP	Ospenovka	61.46	321	P	P	23 00 46.1	-1.2
	SNR=27						
EKS2	Erkin-Say	61.63	320	P	P	23 00 48.4	0.0
	SNR=16						
YAK	Yakutsk	61.67	3	eP	P	23 00 47.5	-0.9
YAK				pmax	pmax		
	comp=Z,101nm,0.8s,mb5.7						
YAK				pmax	pmax		
	comp=N,24nm,1.1s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.0s						
YAK	Yakutsk	61.67	3	eP	P	23 00 47.6	-0.8
	comp=E,242nm,0.7s						
MA2	Magadan	62.62	15c	iP	P	23 00 55.7	+1.0
MA2				e		23 01 01.2	
MA2				e		23 09 40.3	
MA2				pmax	pmax		
	comp=E,10.0nm,0.8s						
MA2				pmax	pmax		
	comp=Z,80nm,0.8s,mb5.6						
MA2				pmax	pmax		
	comp=N,40nm,0.9s						
NVS	Novosibirsk	63.74	335	⇑iP	P	23 00 59.6	-2.5
NVS				i		23 01 34.3	
NVS				eS	tx	23 10 47.2	
NVS				pmax	pmax		
	comp=N,8.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,9.0nm,0.8s						
NVS				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
NVS				smax			
	comp=N,37nm,2.8s						
NVS				smax			
	comp=E,34nm,3.6s						
BVA0	Borovoye Array	68.75	329	P	P	23 01 32.4	-1.4
BVA0				pmax	pmax		
	comp=Z,5.0nm,1.4s,mb4.0						
BVAR	Borovoye Array	68.75	329	P	P	23 01 32.4	-1.4
	comp=Z,9.6nm,0.8s,mb4.6,baz=143,slow=7.4,SNR=31						
BRVK	Borovoye	68.82	329	P	P	23 01 32.9	-1.3
BRVK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.6						
BRVK	Borovoye	68.82	329	eP	P	23 01 32.7	-1.6
	comp=Z,28nm,1.1s,mb4.9						
CHKZ	Chkalovo	68.96	329	P	P	23 01 33.7	-1.4
CHKZ				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
CHKZ	Chkalovo	68.96	329	eP	P	23 01 33.6	-1.5
	comp=Z,18nm,1.0s,mb4.8						
TIXI	Tiksi	71.26	2	eP	P	23 01 47.8	-0.9
TIXI				pmax	pmax		
	comp=N,23nm,1.0s						
ARU	Arti	76.40	329	⇓iP	P	23 02 15.0	-3.5
ARU				pmax	pmax		
	comp=Z,22nm,0.9s,mb4.8						
ARU	Arti	76.40	329	eP	P	23 02 17.0	-1.5
	comp=Z,29nm,1.1s,mb4.8						
MAW	Mawson	79.69	200	eP	P	23 02 37.5	+1.2
	comp=Z,6.1nm,0.6s,mb4.4						
MAW	Mawson	79.69	200	P	P	23 02 38.0	+1.8
	comp=Z,7.5nm,0.7s,mb4.5,baz=75,slow=4.9,SNR=15						
MZLS	Mizel	79.69	294	P	P	23 02 36.3	-0.9
VNDA	Vanda	80.44	172	P	P	23 02 41.3	+1.2
	comp=Z,1.9nm,0.5s,mb4.0,baz=313,slow=8.1,SNR=18						
VNDA	Vanda	80.44	172	eP	P	23 02 41.1	+1.0
	comp=Z,2.0nm,0.5s,mb4.0						
VNDA				P		23 02 41.3	
TATS	Tathlith	81.03	290	P	P	23 02 44.4	+0.1
ARSS	Ar Rass	81.61	296	P	P	23 02 47.0	-0.3
TI2	Plekhanov	81.80	312	i P	P	23 02 48.0	+0.1
NAMS	An Nimas	82.21	289	P	P	23 02 51.1	+0.6
BLJS	Baljurashi	82.81	290	P	P	23 02 54.9	+1.4
HILS	Ha’il	82.99	297	P	P	23 02 55.0	+0.7
KIV	Kislovodsk	83.56	314	⇓iP	P	23 02 56.9	0.0
KIV				pmax	pmax		
	comp=Z,7.0nm,1.5s,mb4.2						
MALT	Malatya	86.37	308	eP	P	23 03 11.5	+0.6
	comp=Z,17nm,1.3s,mb4.6						
IMA	Indian Mountai	86.53	24	eP	P	23 03 13.2	+2.2
	comp=Z,42nm,0.6s,mb5.5						
KMBO	Kilima Mbogo	86.83	269	P	P	23 03 14.8	+1.1
	comp=Z,6.6nm,0.8s,mb4.5,baz=53,slow=7.4,SNR=12						
ASF	Jabal al Asfar	87.43	302	P	P	23 03 17.2	+1.1
	comp=Z,11nm,0.8s,mb4.8,baz=334,slow=3.1,SNR=16						
JMQS	Jabal Moqyreh	88.26	299	P	P	23 03 21.2	+1.1
OBN	Obninsk	88.29	325	eP	P	23 03 14.8	-4.8
OBN				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.0						
MCK	McKinley	88.35	26	eP	P	23 03 20.3	+0.6
	comp=Z,16nm,1.5s,mb4.6						
AYUS	‘Aynunah	88.79	298	P	P	23 03 22.5	-0.1
JMOS	Jabal al Moall	88.93	299	P	P	23 03 24.2	+0.9
EIL	Elat	89.07	300	P	P	23 03 23.1	-0.9
	comp=Z,2.9nm,0.7s,mb4.3,baz=328,slow=17,SNR=2.8						
HAQS	Haql	89.09	299	P	P	23 03 24.6	+0.6
ILAR	Eielson Array	89.28	25	P	P	23 03 23.9	-0.2
	comp=Z,1.7nm,0.5s,mb4.3,baz=257,slow=4.0,SNR=42						
ILAR				PP	PP	23 06 56.5	-2.8
	comp=Z,2.0nm,1.1s,baz=256,slow=6.7,SNR=5.2						
ILAR				PKKPbc		23 21 01.8	
	comp=Z,0.7nm,0.7s,baz=105,slow=1.7,SNR=8.1						
BRTR	Keskin Array B	90.12	310	P	P	23 03 28.1	-0.5
	comp=Z,2.5nm,0.9s,mb4.2,baz=127,slow=5.8,SNR=11						
QSPA	South Pole Qui	90.28	180	eP	P	23 03 30.4	+2.0
	comp=Z,7.7nm,0.6s,mb4.8						
JOF	Joensuu	90.96	333	ep	P	23 03 30.5	-1.5
	comp=Z,25nm,0.8s,mb5.3						
JOF	Joensuu	90.96	333	eP	P	23 03 30.5	-1.5
JOF				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
KEV	Kevo	92.13	340	ep	P	23 03 36.7	-0.6
DAWY	Dawson	92.56	26	eP	P	23 03 40.9	+1.6
ARCES	ARCESS Array B	92.68	340	P	P	23 03 39.5	-0.3
	comp=Z,7.3nm,0.6s,mb5.0,baz=83,slow=7.1,SNR=48						
AKASG	Malin Array Be	92.82	321	P	P	23 03 39.7	-1.1
	comp=Z,4.3nm,0.8s,mb4.6,baz=67,slow=4.4,SNR=12						
KAF	Kangasniemi	93.34	332	ep	P	23 03 41.6	-1.3
	comp=Z,11nm,0.9s,mb5.0						
KAF	Kangasniemi	93.34	332	eP	P	23 03 41.6	-1.3
KAF				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.0						
FINES	FINESS Array B	93.53	332	P	P	23 03 43.1	-0.7
	comp=Z,5.0nm,1.0s,mb4.6,baz=71,slow=4.8,SNR=17						
INK	Inuvik	94.26	21	P	P	23 03 47.6	+0.7
	comp=Z,5.7nm,0.7s,mb4.8,baz=301,slow=4.3,SNR=28						
INK				PKKP	PKKP	23 20 48.0	+24
	comp=Z,0.7nm,0.5s,baz=61,slow=2.7,SNR=5.1						
INK	Inuvik	94.26	21	eP	P	23 03 47.4	+0.5
INK				PKKP	PKKP	23 20 48.0	+24
MLR	Muntele Rosu	95.47	316	P	P	23 03 53.3	+0.3
	comp=Z,3.9nm,0.9s,mb4.6,baz=294,slow=2.0,SNR=7.3						
MLR				PP	PP	23 07 47.1	-0.7
	comp=Z,2.7nm,0.9s,baz=58,slow=21,SNR=2.6						
MLR				LR	LR	23 50 28.8	
	comp=Z,189nm,18.3s,baz=252,slow=38						
LSZ	Lusaka	95.78	255	eP	P	23 03 55.5	+0.4
	comp=Z,3.9nm,0.6s,mb4.9						
IDI	Anoyia	97.31	305	P	P	23 04 00.8	-0.9
	comp=Z,11nm,0.9s,mb5.2,baz=337,slow=9.9,SNR=2.9						
HFS	Hagfors	99.74	332	P	P	23 04 10.7	-1.3
	comp=Z,2.7nm,0.6s,mb4.9,baz=124,slow=5.3,SNR=9.6						
NB2	NORSAR Subarra	100.59	333	PKPab	P	23 04 14.2	-1.7
	comp=Z,2.7nm,0.8s,baz=74,slow=4.3						
NOA	NORSAR Array B	100.59	333	P	P	23 04 14.9	-1.0
	comp=Z,1.8nm,0.7s,baz=74,slow=4.3,SNR=5.2						
NOA				PP	PP	23 08 26.4	-0.7
	comp=Z,0.9nm,0.8s,baz=337,slow=8.2,SNR=3.5						
GERES	GERESS Array B	103.03	321	Pdiff	Pdif	23 04 26.3	-0.7
	comp=Z,0.4nm,0.7s,baz=90,slow=3.9,SNR=3.2						
YKA	Yellowknife Ar	103.65	24	Pdiff	Pdif	23 04 31.0	+1.6
	comp=Z,0.2nm,0.4s,baz=297,slow=4.6,SNR=8.7						
YKA				PKiKP		23 08 47.8	
	comp=Z,0.4nm,0.7s,baz=302,slow=1.8,SNR=11						
YKA				PKKPbc		23 20 21.1	
	comp=Z,0.7nm,0.5s,baz=120,slow=3.3,SNR=19						
NVAR	Mina Array Bea	111.12	48	PKiKP		23 09 04.3	
	comp=Z,0.8nm,0.8s,baz=162,slow=1.1,SNR=6.0						
NVAR	Mina Array Bea	111.12	48	PKPdf	PKPdf	23 09 04.3	+4.5
HLID	Hailey	112.07	42	ePKP	PKPdf	23 09 05.5	+3.9
ELK	Elko	112.57	45	ePKP	PKPdf	23 09 06.3	+3.7
HWUT	Hardware Ranch	114.79	43	ePKP	PKPdf	23 09 09.6	+2.6
PDAR	Pinedale Array	115.63	41	PKP	PKPdf	23 09 11.9	+3.3
	comp=Z,0.6nm,0.8s,baz=270,slow=1.5,SNR=5.4						
PDAR				PKKPbc		23 19 43.2	
	comp=Z,1.2nm,0.6s,baz=90,slow=4.4,SNR=3.6						
PDAR				PKKPab		23 19 49.3	
	comp=Z,1.3nm,0.6s,baz=117,slow=6.3,SNR=11						
PV10	Paradox Valley	117.91	45	ePKPdf	PKPdf	23 09 16.4	+3.3
ESDC	Sonseca Array	118.15	316	PKP	PKPdf	23 09 16.1	+2.6
	comp=Z,0.5nm,0.6s,baz=11,slow=1.7,SNR=5.3						
ULM	Lac du Bonnet	119.18	28	PKP	PKPdf	23 09 18.0	+2.7
	comp=Z,2.2nm,0.7s,baz=354,slow=4.7,SNR=6.4						
SDCO	Great Sand Dun	120.69	45	ePKPdf	PKPdf	23 09 21.5	+3.0
ANMO	Albuquerque	121.24	48	ePKPdf	PKPdf	23 09 22.8	+3.1
SCHQ	Schefferville	124.28	8	PKP	PKPdf	23 09 27.6	+2.6
	comp=Z,7.2nm,0.7s,baz=21,slow=4.7,SNR=7.9						
TXAR	Lajitas Array	125.75	53	PKP	PKPdf	23 09 31.9	+3.3
	comp=Z,1.2nm,0.8s,baz=201,slow=1.2,SNR=12						
WMOK	Wichita Mounta	126.89	44	ePKPdf	PKPdf	23 09 33.3	+2.7
DBIC	Dimbokro	128.58	279	PKP	PKPdf	23 09 36.8	+2.4
	comp=Z,5.0nm,0.7s,baz=229,slow=1.5,SNR=7.8						
WVT	Waverly	133.13	36	ePKPdf	PKPdf	23 09 45.0	+2.5
JTS	JuntasAbangare	149.25	69	ePKPbc	PKPdf	23 10 18.8	+7.4
JTS				ePKPab	PKPab	23 10 24.3	+1.1
LVC	Limon Verde	154.51	151	PKPbc	PKPdf	23 10 32.4	+14
	comp=Z,4.4nm,0.6s,baz=275,slow=3.3,SNR=12						
LPAZ	La Paz	160.10	143	PKP	PKPdf	23 10 31.0	+5.0
	comp=Z,2.4nm,1.0s,baz=58,slow=0.8,SNR=8.2						
LPAZ				PKPab	PKPab	23 11 12.5	+3.4
	comp=Z,2.3nm,0.6s,baz=230,slow=6.9,SNR=7.6						
ROSC	El Rosal	160.90	74	PKPab	PKPab	23 11 15.9	+3.2
	comp=Z,5.7nm,0.7s,baz=97,slow=18,SNR=6.2						
BDFB	Brasilia	162.91	207	PKPab	PKPab	23 11 21.7	+0.4
	comp=Z,5.3nm,0.8s,baz=72,slow=1.8,SNR=6.4						

IDC ***24*** *23:04:08.0±0.7,14.59N×147.00E,mb4.1/14,mb1 4.2/15, mb1mx4.1/25,ML5.3/1,Error ellipse: s-maj=24.3km s-min=14.8km az=92.0*

BJI ***24*** *23:04:12.3,14.60N×146.90E,h35^{km},mb4.9*

NEIC ***24*** *23:04:13.3±0.4,14.55N×146.95E,h35^{km},mb4.5/5,Error ellipse: s-maj=11.4km s-min=8.5km az=90.0*

ISC 24 23:04:11.7±2.5**,14.59N**±0.07×**146.9E**±0.1**,h36^{km}**±21^{km}**, n35,σ0^{s}84**/32**,mb4.4**/25**,2C,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.24	244	ePn	P	23 04 47.2	+0.2
JHJ	Hachijo jima 2	19.56	342	P	P	23 08 37.7	-1.6
	37nm,0.3s,baz=65,slow=19,SNR=3.5						
JOW	Kunigami	21.25	308	P	P	23 08 57.6	+0.6
	17nm,0.7s,mb4.5,baz=152,slow=15,SNR=4.3						
PMG	Port Moresby	23.84	179	P	P	23 09 24.1	+1.4
	10nm,0.8s,mb4.3,baz=318,slow=8.4,SNR=3.5						
PMG	Port Moresby	23.84	179	P	P	23 09 24.1	+1.4
ASAJ	Asahikawa	29.66	354	P	P	23 10 16.4	+0.3
	7.2nm,0.7s,mb4.5,baz=49,slow=33,SNR=3.5						
CTA	Charters Tower	34.47	181	P	P	23 10 58.0	-0.4
	0.9nm,0.5s,mb4.0,baz=135,slow=23,SNR=3.0						
WRAB	Tennant Creek	36.47	200	eP	P	23 11 14.5	-0.9
	3.1nm,0.8s,mb4.3						
WRA	Warramunga Arr	36.48	200	P	P	23 11 14.7	-0.8
	1.2nm,0.8s,mb3.9,baz=25,slow=9.6,SNR=15						
ENH	Enshi	37.77	301	eP	P	23 11 26.1	-0.1
ASAR	Alice Springs	40.10	199	P	P	23 11 45.2	-0.4
	0.4nm,0.6s,mb3.3,baz=25,slow=6.8,SNR=7.4						
LZH	Lanzhou	43.99	307	⇑P	P	23 12 18.5	+1.0
LZH				AP	pP	23 12 29.5	+1.5
LZH				XP	sP	23 12 33.5	+1.1
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
LZH	Lanzhou	43.99	307	⇑P	P	23 12 18.5	+1.0
	comp=Z,20nm,1.0s,mb4.8						
LZH				pP	pP	23 12 29.5	+1.5
LZH				sP	sP	23 12 33.5	+1.1
CMAR	Chiang Mai Arr	46.07	282	P	P	23 12 34.8	+0.4
	comp=Z,2.3nm,0.9s,mb4.1,baz=80,slow=6.3,SNR=12						
SONM	Songino Array	47.10	323	P	P	23 12 42.2	+0.2
	comp=Z,1.2nm,0.6s,mb4.0,baz=140,slow=7.5,SNR=14						
LSA	Lhasa	53.34	296	eP	P	23 13 31.5	+1.6
	comp=Z,12nm,0.6s,mb5.0						
GUN	Gumba	57.91	294	eP	P	23 14 03.1	+0.2
	comp=Z,28nm,0.7s,mb5.4						
PKI	Pulchoki	58.33	294	eP	P	23 14 05.6	-0.2
	comp=Z,12nm,0.7s,mb5.0						
KKN	Kakani	58.44	294	eP	P	23 14 06.2	-0.4
	comp=Z,10nm,0.7s,mb5.0						
DMN	Daman	58.60	294	eP	P	23 14 07.6	-0.1
	comp=Z,13nm,0.6s,mb5.1						
GKN	Gorkha	59.01	294	eP	P	23 14 10.3	-0.2
	comp=Z,20nm,0.7s,mb5.3						
KOLN	Koldanda	59.93	294	eP	P	23 14 16.7	-0.2
	comp=Z,17nm,1.2s,mb5.0						
ILAR	Eielson Array	66.81	25	P	P	23 14 59.9	-1.6
	comp=Z,0.4nm,0.5s,mb3.7,baz=259,slow=5.9,SNR=11						
CHKZ	Chkalovo	70.28	322	eP	P	23 15 22.7	-0.5
	comp=Z,2.0nm,0.7s,mb4.2						
BVAR	Borovoye Array	70.39	321	P	P	23 15 23.8	-0.1
	comp=Z,6.1nm,0.8s,mb4.6,baz=99,slow=8.2,SNR=25						
BRVK	Borovoye	70.46	321	eP	P	23 15 23.9	-0.4
	comp=Z,2.8nm,0.8s,mb4.2						
INK	Inuvik	72.68	23	P	P	23 15 38.3	+1.0
	comp=Z,2.8nm,1.2s,mb4.1,baz=291,slow=8.1,SNR=3.6						
YKA	Yellowknife Ar	81.05	28	P	P	23 16 24.3	+0.1
	comp=Z,0.3nm,0.5s,mb3.5,baz=284,slow=5.2,SNR=10.0						
YKA	Yellowknife Ar	81.05	28	P	P	23 16 24.3	+0.1
NVAR	Mina Array Bea	84.73	52	P	P	23 16 45.8	+2.2
	comp=Z,0.2nm,0.3s,mb3.7,baz=248,slow=4.9,SNR=3.3						
FINES	FINESS Array B	91.09	336	P	P	23 17 12.5	-1.1
	comp=Z,1.9nm,0.8s,mb4.5,baz=45,slow=5.4,SNR=7.4						
FINES	FINESS Array B	91.09	336	P	P	23 17 12.5	-1.1
DBIC	Dimbokro	144.94	305	PKP	PKPdf	23 23 47.5	+1.3
	comp=Z,7.8nm,0.6s,baz=34,slow=3.6,SNR=20						
DBIC	Dimbokro	144.94	305	PKP	PKPdf	23 23 47.5	+1.3
LPAZ	La Paz	146.18	98	PKPbc	PKPbc	23 23 51.3	+2.0
	comp=Z,0.6nm,0.5s,baz=36,slow=7.1,SNR=3.5						

IDC 24 23:09:51.1±51.0**,16.33S**×**176.25W,mb4.0**/3**,mb1 4.2**/3**, mb1mx3.7**/14**,Error ellipse: s-maj=960.0km s-min=163.3km az=78.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	41.20	240	P	P	23 17 38.0	-1.2
	0.7nm,0.4s,baz=85,slow=12,SNR=5.4						
WRA	Warramunga Arr	46.97	258	P	P	23 18 23.8	-2.1
	0.4nm,0.4s,baz=95,slow=7.3,SNR=22						
ASAR	Alice Springs	47.22	253	P	P	23 18 26.0	-1.9
	3.3nm,0.5s,baz=88,slow=8.4,SNR=88						

IDC ***24*** *23:22:35.9±2.8,48.45S×163.78E,mb4.3/4,mb1 4.6/4, mb1mx4.2/8,MS3.6/5,Ms1 3.6/5,ms1mx3.0/17,Error ellipse: s-maj=220.0km s-min=53.4km az=42.0*

ISC 24 23:22:38.2±2.2**,49.8S**±0.3×**161.5E**±0.2**,h10^{km},n14, σ1^{s}02**/10**,mb4.3**/4**,MS3.5**/5**,North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MLZ	Mavora Lakes	6.30	48	P	Pn	23 24 12.7	-0.8
EAZ	Earnscleugh	6.95	52	P	Pn	23 24 21.9	-0.8
JCZ	Jackson Bay	7.54	44	P	Pn	23 24 32.3	+1.4
JCZ				S	Sn	23 25 57.5	+0.2

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STKA  Stephens Creek   23.24 313  P        P         23 27 49.6 +3.2
      2.4nm,0.9s,mb3.6,baz=155,slow=17,SNR=3.3
STKA                              LR       LR        23 35 38.8
      comp=Z,151nm,20.2s,MS3.4,baz=206,slow=33
VNDA  Vanda            27.88 180  LR       LR        23 38 32.5
      comp=Z,38nm,21.9s,MS2.9,baz=116,slow=33
CTA   Charters Tower   31.99 332  LR       LR        23 39 34.1
      comp=Z,102nm,19.5s,MS3.5,baz=39,slow=32
ASAR  Alice Springs    33.81 310  P        P         23 29 22.1 -0.4
      7.0nm,0.8s,mb4.7,baz=146,slow=8.5,SNR=64
ASAR                              LR       LR        23 43 48.8
      comp=Z,104nm,18.4s,MS3.6,baz=172,slow=37
ASPA  Alice Springs    33.81 310  eP       P         23 29 22.0 -0.5
WB2   Warramunga Arr   36.77 314  eP       P         23 29 47.5 -0.2
WB2                               e                  23 29 52.8
WRA   Warramunga Arr   36.77 314  P        P         23 29 46.7 -1.1
      6.5nm,0.8s,mb4.5,baz=147,slow=8.0,SNR=37
MAW   Mawson           48.27 211  LR       LR        23 50 14.8
      comp=Z,165nm,18.6s,MS4.0,baz=70,slow=33
CMAR  Chiang Mai Arr   87.46 303  P        P         23 35 28.4 +1.2
      0.9nm,0.3s,mb4.5,baz=157,slow=4.4,SNR=6.6
FINES FINESS Array B  152.81 312  PKPbc    PKPdf     23 42 33.9 +4.2
      1.8nm,0.9s,SNR=4.8
GERES GERESS Array B  159.06 280  PKPab    PKPab     23 43 16.6 +2.3
      0.6nm,0.8s,baz=243,slow=3.0,SNR=3.9
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*DJA **24** 23:54:43.5±1.1, 7.52S×108.90E, h288km±12km, mb5.6/4, Error ellipse: s-maj=139.2km s-min=7.5km az=17.0*

*NEIC **24** 23:54:46.5±0.4, 6.62S×109.17E, h249km±3km, mb4.6/32, Error ellipse: s-maj=6.8km s-min=4.4km az=224.0*

*SYO **24** 23:54:46.3, 6.59S×109.20E, h248km, MB4.5*

*BJI **24** 23:54:46.5, 6.60S×109.20E, h248km, mB4.7, mb4.8*

*MOS **24** 23:54:47.3±1.2, 6.47S×109.34E, h277km, mb4.6/12, Error ellipse: s-maj=20.7km s-min=14.7km az=97.6*

*IDC **24** 23:54:48.6±0.7, 6.58S×109.25E, h262km±6km, mb4.2/19, mb1 4.3/19, mb1mx4.3/22, Error ellipse: s-maj=12.9km s-min=7.6km az=58.0*

ISC 24 23:54:45.6±0.5**, 6.64S**±0.04×**109.21E**±0.04**, h255**km±4km**, h267**km±6.1km**:pP-P, n169,** σ1**s06**/131**, mb4.5**/58**, 10C-16D, Jawa**

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Code  Station Name       Δ°  AZ°   Phase ID           Time      Res
                                   Op       ISC      h  m  s    ISC
SINI  Singah            1.74 257⇓iP        P         23 55 25.9 -0.7
PULI  Pulasari          3.23 275⇑iP        P         23 55 41.0 -0.3
PENI  Pendagan          4.15 285⇑iP        P         23 55 51.5 -0.4
SRDI  Scrawed           5.22 111⇓iP        P         23 56 04.4 -0.4
      3µm,0.2s
SRDI                            ⇑iS        S         23 57 07.1 +0.4
KELI  Kelakatan         5.47 107⇑iP        P         23 56 09.3 +1.5
      853nm,0.2s
RATI  Rata              6.60 109⇓iP        P         23 56 21.3 -0.7
      5µm,0.2s
RATI                             i S       S         23 57 35.2 -2.2
KEDI  Kedomdong         7.09 105⇓eP        P         23 56 26.8 -1.3
      1µm,0.2s
MBWA  Marble Bar       17.67 146  eP       P         23 58 36.8 +0.1
      15nm,0.6s
FITZ  Fitzroy Crossi   19.66 127⇑iP        P         23 58 58.2 +1.3
      32nm,0.6s
FITZ                              e                  23 59 15.1
FITZ                              eS       S         00 02 35.1  +15
KAKA  Kakadu           23.63 107  eP       P         23 59 37.2 +1.7
      66nm,0.9s,mb5.0
KAKA                              e                  23 59 52.0
MUN   Mundaring        26.05 166  eP       P         23 59 57.3 -0.3
      17nm,0.8s,mb4.5
KLBR  Kellerberrin     26.08 163  eP       P         23 59 57.7 -0.2
      8.6nm,0.4s,mb4.5
CM31  Chiang Mai Arr   26.91 338  eP       P         00 00 07.0 +1.5
      22nm,0.8s,mb4.6
CMAR  Chiang Mai Arr   26.91 338  P        P         00 00 07.0 +1.4
      26nm,0.8s,mb4.7,baz=173,slow=8.2,SNR=141
CMAR                              PcP      PcP       00 03 21.5 +0.6
      5.8nm,0.9s,baz=203,slow=2.7,SNR=13
CMAR                              ScP                00 06 37.0
      0.9nm,0.4s,baz=186,slow=3.3,SNR=4.1
NWAO  Narrogin (SRO)   27.20 165  P        P         00 00 08.1  0.0
      36nm,1.2s,mb4.7,baz=348,slow=18,SNR=14
NWAO                              PcP      PcP       00 03 21.2 -0.2
      4.8nm,0.7s,baz=311,slow=15,SNR=3.0
NWAO  Narrogin (SRO)   27.20 165  eP       P         00 00 07.9 -0.2
      3.1nm,0.4s,mb4.1
WRA   Warramunga Arr   27.75 121  P        P         00 00 13.1  0.0
      2.9nm,0.7s,mb3.8,baz=297,slow=11,SNR=25
WRA                               PcP      PcP       00 03 22.9  0.0
      7.9nm,0.6s,baz=301,slow=2.1,SNR=15
WRA                               S        S         00 04 32.8 -2.6
      7.0nm,0.9s,baz=299,slow=16,SNR=7.3
WRAB  Tennant Creek    27.75 121⇑iP        P         00 00 12.0 -1.2
WRAB  Tennant Creek    27.75 121  eP       P         00 00 12.5 -0.7
      8.9nm,0.6s,mb4.4
WB2   Warramunga Arr   27.76 121  eP       P         00 00 13.5 +0.3
WB2                               epP      pP        00 00 59.9 -3.0
WB2                               i PCP    PcP       00 03 23.0 +0.1
WB2                               eS       S         00 04 34.0 -1.5
ASPA  Alice Springs    29.15 128⇑iP        P         00 00 25.7 +0.2
ASPA                              epP      pP        00 01 22.7 +7.0
ASPA                              eS       S         00 04 56.5 -1.1
ASAR  Alice Springs    29.15 128  P        P         00 00 25.6 +0.1
      10nm,0.7s,mb4.4,baz=303,slow=8.5,SNR=104
ASAR                              PcP      PcP       00 03 26.4  0.0
      7.1nm,0.7s,baz=304,slow=1.9,SNR=15
ASAR                              S        S         00 04 56.7 -0.9
      1.1nm,0.5s,baz=294,slow=15,SNR=6.0
IMP   Imphal           34.59 335⇓eP        P         00 01 13.3 +0.8
SHL   Shillong         36.17 333⇓eP        P         00 01 28.0 +2.3
ENH   Enshi            36.70   0  eP       P         00 01 31.0 +0.9
      4.0nm,0.6s,mb4.0
PMG   Port Moresby     37.67  97  P        P         00 01 38.9 +0.6
      13nm,0.8s,mb4.4,baz=277,slow=6.3,SNR=6.8
PMG                               PcP      PcP       00 03 51.2 +0.7
      9.8nm,0.6s,baz=179,slow=10,SNR=5.2
JOW   Kunigami         38.05  28  P        P         00 01 43.0 +1.5
CTA   Charters Tower   38.33 114  P        P         00 01 44.5 +0.8
      2.4nm,0.5s,mb3.9,baz=284,slow=11,SNR=5.5
CTA                               PcP      PcP       00 03 52.6 +0.1
      4.7nm,0.5s,baz=289,slow=6.6,SNR=5.9
SSE   Sheshan          39.23  16  eP       P         00 01 52.8 +1.8
SSE                               AMB      AMB
      comp=Z,21nm,0.8s,mb4.6
SSE                               AMB      AMB
      comp=Z,71nm,4.7s
SSE   Sheshan          39.23  16  eP       P         00 01 52.7 +1.7
      comp=Z,21nm,0.8s,mb4.6
STKA  Stephens Creek   39.28 134⇓iP        P         00 01 52.6 +1.1
STKA                             i PCP     PcP       00 03 55.4  0.0
STKA  Stephens Creek   39.28 134  P        P         00 01 52.7 +1.2
      comp=Z,11nm,0.3s,mb4.8,baz=310,slow=8.4,SNR=71
STKA                              PcP      PcP       00 03 54.1 -1.2
      comp=Z,10nm,0.5s,baz=310,slow=5.7,SNR=5.5
STKA                              S        S         00 07 32.9 -0.1
      comp=Z,3.6nm,0.8s,baz=83,slow=17,SNR=6.2
NJ2   Nanjing          39.55  13  eP       P         00 01 57.3 +3.6
NJ2                               AMB      AMB
      comp=Z,40nm,0.9s,mb4.8
LSA   Lhasa            40.08 335  P        P         00 02 00.0 +2.0
LSA   Lhasa            40.08 335  eP       P         00 01 60.0 +1.9
      comp=Z,73nm,0.7s,mb5.1
XAN   Xi'an            40.45 360  P        P         00 02 01.6 +0.5
XAN                               AMB      AMB
      comp=Z,19nm,0.8s,mb4.5
PKI   Pulchoki         41.06 327  eP       P         00 02 05.9 -0.2
      comp=Z,21nm,1.0s,mb4.3
GUN   Gumba            41.08 328  eP       P         00 02 06.7 +0.4
      comp=Z,49nm,0.6s,mb4.9
DMN   Daman            41.26 327  eP       P         00 02 07.8 +0.1
      comp=Z,28nm,0.7s,mb4.6
KKN   Kakani           41.30 327  eP       P         00 02 08.1  0.0
      comp=Z,33nm,0.9s,mb4.5
GKN   Gorkha           41.82 327  eP       P         00 02 12.0 -0.4
KOLN  Koldanda         42.22 325  eP       P         00 02 15.4 -0.2
      comp=Z,40nm,0.7s,mb4.8
LZH   Lanzhou          42.79 354 ⇓P        P         00 02 22.0 +1.9
LZH                               XP       sP        00 03 46.5 +3.8
LZH                               PCP      PcP       00 04 07.0 +0.1
LZH                               AMB      AMB
      comp=Z,42nm,1.0s,mb4.6
LZH   Lanzhou          42.79 354 ⇓P        P         00 02 22.0 +1.9
      comp=Z,42nm,1.0s,mb4.6
LZH                               pP       pP        00 03 21.5 +8.0
LZH                               sP       sP        00 03 46.5 +3.8
LZH                               PcP      PcP       00 04 07.0 +0.1
GTA   Gaotai           46.63 350 ⇓P        P         00 02 52.5 +2.2
GTA                               AP       pP        00 03 50.1 +5.4
GTA                               PP       PP        00 04 46.4 +4.1
GTA                               S        S         00 09 22.4 +3.4
GTA                               XS                 00 10 57.9
GTA                               SS       SS        00 12 48.1 +3.7
GTA                               AMB      AMB
      comp=Z,25nm,0.9s,mb4.5
GTA                               AMB      AMB
      comp=Z,195nm,5.3s
GTA                               LR       LR
      comp=N,116nm,14.8s
GTA                               LR       LR
      comp=E,116nm,17.5s
GTA                               LR       LR
      comp=Z,84nm,17.5s
BJT   Baijiatuau       46.86   7  eP       P         00 02 52.4 +0.3
      comp=Z,12nm,0.5s,mb4.5
BJT                               ePcP     PcP       00 04 20.4 -0.6
BTO   Baotou           47.01   1  eP       P         00 02 54.1 +0.8
BTO                               AMB      AMB
      comp=Z,30nm,0.5s,mb4.9
KS15  Wonju Array Si   47.19  20  P        P         00 02 55.5 +0.8
HHC   Hu-ho-hao-te     47.30   2  eP       P         00 02 56.9 +1.4
HHC                               PCP      PcP       00 04 20.9 -1.7
HHC                               PP       PP        00 04 51.8 +3.3
HHC                               S        S         00 09 30.0 +1.6
HHC                               SCS      ScS       00 12 17.8 -1.5
HHC                               SS       SS        00 13 00.0 +4.5
HHC                               AMB      AMB
      comp=Z,10.0nm,0.9s,mb4.2
HHC                               AMB      AMB
      comp=Z,119nm,4.8s
SDNR  Sundarnagar      48.85 323  eP       P         00 03 07.0 -0.5
MAJO  Matsushiro       50.83  30  eP       P         00 03 21.0 -1.3
MAJO                              pmax     pmax
      comp=Z,8.0nm,0.7s,mb4.2
MAJO  Matsushiro       50.83  30  eP       P         00 03 21.0 -1.3
      comp=Z,7.7nm,0.7s,mb4.1
MAT   Matsushiro       50.83  30  P        P         00 03 20.7 -1.6
MAT   Matsushiro       50.83  30  eP       P         00 03 21.0 -1.3
      comp=Z,13nm,1.0s,mb4.2
CN2   Changchun        52.31  15  eP       P         00 03 32.3 -0.8
CN2                               PCP      PcP       00 04 40.9  0.0
CN2                               eS       S         00 10 34.5 -2.7
CN2                               AMB      AMB
      comp=Z,10.0nm,0.7s,mb4.2
CN2                               AMB      AMB
      comp=Z,300nm,3.0s
WMQ   Urumqi           53.86 341 ⇓P        P         00 03 42.5 -1.9
WMQ                               AP       pP        00 04 38.5 -2.1
WMQ                               PCP      PcP       00 04 45.0 -1.8
WMQ                               XP       sP        00 05 06.5 -2.3
WMQ                               PP       PP        00 05 48.5 -1.3
WMQ                               S        S         00 10 55.9 -2.2
WMQ                               AMB      AMB
      comp=Z,12nm,0.8s,mb4.3
WMQ                               AMB      AMB
      comp=Z,31nm,4.7s
MDJ   Mudanjiang       54.22  18  P        P         00 03 46.8 -0.2
MDJ                               AMB      AMB
      comp=Z,10.0nm,0.6s,mb4.3
MDJ                               AMB      AMB
      comp=Z,99nm,4.6s
MDJ   Mudanjiang       54.22  18  P        P         00 03 46.4 -0.5
      comp=Z,10.0nm,0.8s,mb4.2
SONM  Songino Array    54.29 358  P        P         00 03 48.3 +0.8
      comp=Z,10nm,0.7s,mb4.3,baz=178,slow=8.1,SNR=124
SONM                              PcP      PcP       00 04 47.8 -0.6
      comp=Z,8.2nm,0.9s,baz=175,slow=3.0,SNR=14
ULN   Ulaanbaatar      54.30 358  eP       P         00 03 47.3 -0.2
ULN   Ulaanbaatar      54.30 358  eP       P         00 03 47.5 -0.1
      comp=Z,14nm,0.7s,mb4.4
ZAK   Zakamensk        57.02 355  eP       P         00 04 06.2 -0.6
AAK   Ala-Archa        58.32 330  eP       P         00 04 14.6 -1.4
YSS   Yuzh-Sakhalins   61.08  26  eP       P         00 04 34.0 -0.7
YSS                               pmax     pmax
      comp=Z,22nm,0.7s,mb4.8
YSS   Yuzh-Sakhalins   61.08  26  eP       P         00 04 34.0 -0.7
      comp=Z,22nm,0.7s,mb4.8
BOD   Bodaibo          64.36   3  eP       P         00 04 54.2 -1.8
RPZ   Rata Peaks       65.23 135  P        P         00 05 02.0 +0.1
      comp=Z,8.8nm,0.5s,mb4.7,baz=55,slow=23,SNR=3.7
BVAR  Borovoye Array   67.91 336  P        P         00 05 17.9 -0.6
      comp=Z,5.5nm,0.8s,mb4.3,baz=143,slow=7.4,SNR=27
BVAR                              pP       pP        00 06 18.7 +1.0
      comp=Z,3.8nm,0.6s,baz=143,slow=7.4,SNR=7.3
CHKZ  Chkalovo         68.31 336  eP       P         00 05 20.1 -0.8
CHKZ                              pmax     pmax
      comp=Z,10.0nm,0.9s,mb4.5
CHKZ  Chkalovo         68.31 336  eP       P         00 05 20.1 -0.8
      comp=Z,10nm,0.9s,mb4.6
MAW   Mawson           68.36 197  P        P         00 05 22.2 +1.2
      comp=Z,19nm,0.6s,mb5.0,baz=53,slow=5.7,SNR=29
MAW   Mawson           68.36 197  eP       P         00 05 22.1 +1.1
MAW                               pmax     pmax
      comp=Z,57nm,2.0s
MAW   Mawson           68.36 197  eP       P         00 05 22.1 +1.1
      comp=Z,57nm,2.0s,mb5.0
URZ   Urewera          68.59 128  P        P         00 05 24.1 +1.2
      comp=Z,10nm,0.7s,mb4.7,baz=167,slow=3.5,SNR=6.1
KAMS  Al Khamasin      68.91 295  P        P         00 05 23.3 -1.8
MZLS  Mizel            69.41 299  P        P         00 05 27.2 -1.0
TATS  Tathlith         69.70 294  P        P         00 05 29.7 -0.3
YAK   Yakutsk          70.27  10  eP       P         00 05 30.4 -2.3
YAK                               pmax     pmax
      comp=Z,26nm,0.9s,mb5.0
YAK                               pmax     pmax
      comp=N,7.0nm,1.1s
YAK   Yakutsk          70.27  10  eP       P         00 05 31.9 -0.8
      comp=N,59nm,0.6s,mb5.5
AFFS  'Afif            71.31 298  P        P         00 05 39.4 -0.2
ARSS  Ar Rass          71.67 300  P        P         00 05 40.9 -0.8
KMBO  Kilima Mbogo     71.95 271  P        P         00 05 45.1 +1.5
      comp=N,5.0nm,0.7s,mb4.2,baz=59,slow=9.4,SNR=20
KMBO  Kilima Mbogo     71.95 271  i P      P         00 05 45.2 +1.6
KMBO                              pmax     pmax
      comp=Z,5.0nm,0.7s
KMBO  Kilima Mbogo     71.95 271  eP       P         00 05 44.7 +1.1
      comp=Z,5.7nm,1.0s,mb4.2
HILS  Ha'il            73.34 301  D                  00 05 51.5
KBRS  Khaybar          75.08 299  P        P         00 06 01.3 -0.4
ARU   Arti             75.26 334⇑iP        P         00 06 00.1 -1.9
ARU                               e                  00 06 07.6
ARU                               e                  00 08 53.4
ARU                               ePPP     PPP       00 10 44.3 +1.5
ARU                               eS       S         00 15 15.3 -3.2
ARU                               eSS      SS        00 20 12.3 -4.3
ARU                               pmax     pmax
      comp=Z,8.0nm,1.0s,mb4.3
ARU   Arti             75.26 334  eP       P         00 06 00.5 -1.5
      comp=Z,9.2nm,1.0s,mb4.4
VNDA  Vanda            75.93 170  P        P         00 06 06.3 +0.9
      comp=Z,5.1nm,0.5s,mb4.4,baz=312,slow=6.1,SNR=39
VNDA  Vanda            75.93 170  eP       P         00 06 06.2 +0.8
VNDA                              pmax     pmax
      comp=Z,4.0nm,0.7s
VNDA  Vanda            75.93 170  eP       P         00 06 06.2 +0.8
      comp=Z,4.4nm,0.7s,mb4.2
SYO   Syowa Base       76.60 200 ⇑P        P         00 06 10.0 +0.8
SYO   Syowa Base       76.60 200 ⇑PcP      PcP       00 06 17.3 -2.7
KIV   Kislovodsk       78.09 317  eP       P         00 06 17.6 -0.3
      comp=Z,3.6nm,0.4s,mb4.5
MBAR  Mbarara          78.48 271  i P      P         00 06 18.9 -1.7
JMQS  Jabal Moqyreh    78.77 301  P        P         00 06 21.9  0.0
AYUS  'Aynunah         79.13 300  P        P         00 06 24.3 +0.5
MALT  Malatya          79.26 311  eP       P         00 06 23.8 -0.5
      comp=Z,1.9nm,0.7s,mb3.9
JMOS  Jabal al Moall   79.49 301  P        P         00 06 25.5 -0.2
HAQS  Haql             79.62 301  P        P         00 06 27.0 +0.6
EIL   Elat             79.75 302  eP       P         00 06 26.8 -0.2
      comp=Z,6.6nm,0.6s,mb4.5
SOC   Sochi            79.98 316  eP       P         00 06 25.6 -2.4
SOC                               e                  00 06 36.7
SOC                               e                  00 09 41.5
SOC                               ePPP     PPP       00 11 25.6 -1.5
SOC                               eS       S         00 16 02.7 -6.3
SOC                               eSS      SS        00 21 17.0  -11
SOC                               pmax     pmax
      comp=Z,10.0nm,0.7s,mb4.7
SOC                               pmax     pmax
      comp=N,15nm,0.8s
SOC                               pmax     pmax
      comp=E,6.0nm,0.6s
LBTB  Lobatse          81.46 246  eP       P         00 06 37.1 +1.0
LBTB                              pmax     pmax
      comp=Z,7.0nm,1.0s,mb4.3
LBTB  Lobatse          81.46 246  eP       P         00 06 37.1 +1.0
      comp=Z,7.0nm,0.9s,mb4.4
BOSA  Boshof           81.56 242  eP       P         00 06 37.5 +0.9
BOSA                              pmax     pmax
      comp=Z,5.0nm,0.7s,mb4.3
BOSA  Boshof           81.56 242  eP       P         00 06 37.5 +0.9
      comp=Z,4.9nm,0.7s,mb4.3
CSS   Prodhromos       82.32 307  eP       P         00 06 40.4  0.0
      comp=Z,15nm,0.9s,mb4.7
BRTR  Keskin Array B   83.23 311  P        P         00 06 44.8 -0.1
      comp=Z,7.4nm,0.7s,mb4.7,baz=136,slow=7.2,SNR=51
QSPA  South Pole Qui   83.35 180⇓iP        P         00 06 46.0 +1.3
      comp=Z,11nm,1.0s,mb4.6
AKASG Malin Array Be   88.78 321  P        P         00 07 10.7 -0.9
      comp=Z,2.0nm,0.5s,mb4.2,baz=82,slow=4.6,SNR=8.8
JOF   Joensuu          90.39 333  ep       P         00 07 17.7 -1.1
SNAA  Sanae            90.52 197⇓i         P         00 07 21.2 +1.9
SNAA  Sanae            90.52 197  P        P         00 07 21.2 +1.9
      comp=Z,3.8nm,0.7s,mb4.3,baz=146,slow=4.1,SNR=38
SNAA                              pP       pP        00 08 24.4 +3.0
      comp=Z,0.4nm,0.4s,baz=90,slow=9.4,SNR=2.7
SNAA  Sanae            90.52 197  eP       P         00 07 19.1 -0.2
VNA2  Neumayer--Watz   92.17 197⇓i         P         00 07 32.1 +5.2
FINES FINESS Array B   92.50 331  P        P         00 07 28.3 -0.3
      comp=Z,1.2nm,0.6s,mb4.0,baz=108,slow=6.0,SNR=11
KAF   Kangasniemi      92.50 332  ep       P         00 07 27.6 -1.0
      comp=Z,2.4nm,0.6s,mb4.3,baz=91,slow=4.2
KAF   Kangasniemi      92.50 332  eP       P         00 07 27.6 -1.0
KAF                               pmax     pmax
      comp=Z,2.0nm,0.6s,mb4.2
VNA1  Neumayer--Stat   92.55 197⇓i         P         00 07 34.8 +6.1
VNA3  Neumayer Olymp   92.67 196⇓i         P         00 07 34.7 +5.4
ARCES ARCESS Array B   93.97 339  P        P         00 07 34.3 -0.8
      comp=Z,2.4nm,0.6s,mb4.4,baz=76,slow=5.0,SNR=7.5
ESDC  Sonseca Array   112.00 310  PKiKP              00 12 52.3
      comp=Z,0.2nm,0.3s,baz=27,slow=2.9,SNR=6.1
DBIC  Dimbokro        114.56 274  PKP      PKPdf     00 12 57.8 +1.7
      comp=Z,2.2nm,1.0s,baz=345,slow=5.3,SNR=7.5
YKA   Yellowknife Ar  115.75  21  PKP      PKPdf     00 12 58.4 +1.1
      comp=Z,2.1nm,0.6s,baz=333,slow=1.8,SNR=70
YKA                               PKKPbc             00 23 32.6
      comp=Z,0.3nm,0.5s,baz=127,slow=3.6,SNR=7.1
YKA                               PKKPab             00 23 37.3
      comp=Z,0.3nm,0.5s,baz=120,slow=4.7,SNR=7.2
YKA   Yellowknife Ar  115.75  21  PKP      PKPdf     00 12 58.4 +1.1
YKA                               PKKPbc             00 23 32.6
YKA                               PKKPab             00 23 37.4
FRB   Frobisher Bay   122.98 359  PKP      PKPdf     00 13 12.1 +0.8
      comp=Z,3.8nm,0.5s,baz=13,slow=6.1,SNR=9.3
NVAR  Mina Array Bea  126.73  46  PKP      PKPdf     00 13 22.5 +3.3
      comp=Z,2.2nm,0.8s,baz=252,slow=4.4,SNR=19
REDW  Red Top Meadow  129.28  37  ePKPdf   PKPdf     00 13 25.6 +1.6
SNOW  Snow King Moun  129.28  37  ePKPdf   PKPdf     00 13 25.7 +1.8
LOHW  Long Hollow     129.28  37  ePKPdf   PKPdf     00 13 25.8 +1.9
PDAR  Pinedale Array  130.39  37  PKP      PKPdf     00 13 26.8 +0.6
      comp=Z,1.1nm,0.6s,baz=22,slow=1.1,SNR=13
PDAR                              SKPbc              00 16 26.0
      comp=Z,1.2nm,0.9s,slow=1.5,SNR=6.5
MSU   Marysvale       130.99  43  ePKIKP   PKPdf     00 13 30.6 +3.2
ULM   Lac du Bonnet   131.73  21  PKP      PKPdf     00 13 30.5 +2.0
      comp=Z,2.5nm,0.5s,baz=321,slow=2.6,SNR=7.9
ULM                               SKPbc              00 16 30.8
      comp=Z,2.5nm,0.6s,baz=327,slow=4.9,SNR=5.9
SCHQ  Schefferville   131.84 357  PKP      PKPdf     00 13 30.1 +1.6
      comp=Z,3.7nm,0.5s,baz=250,slow=16,SNR=15
PV10  Paradox Valley  133.17  42  ePKPdf   PKPdf     00 13 34.0 +2.5
ANMO  Albuquerque     136.75  44  ePKPdf   PKPdf     00 13 39.9 +1.8
MNTX  Cornudas Mount  139.21  48  ePKPpre            00 13 36.9
TXAR  Lajitas Array   141.67  50  PKhKP              00 13 44.7
      comp=Z,0.7nm,0.5s,baz=271,slow=0.8,SNR=24
WMOK  Wichita Mounta  141.96  39  ePKIKP   PKPdf     00 13 44.2 -3.3
GENY  Geneseo         143.49   9  ePKPpre            00 13 48.4
JCT   Junction City   143.89  45  ePKIKP   PKPdf     00 13 51.5 +0.6
FVM   French Village  144.06  27  ePKIKP   PKPdf     00 13 50.7 -0.3
FVM   French Village  144.06  27  ePKPdf   PKPdf     00 13 50.6 -0.5
BLO   Bloomington     144.64  21  ePKIKP   PKPdf     00 13 52.9 +0.9
ACSO  Alum Creek Sta  144.81  16  ePKPdf   PKPdf     00 13 53.3 +1.0
MIAR  Mount Ida       145.17  34  ePKIKP   PKPdf     00 13 55.3 +2.3
USIN  University of   145.25  24  ePKPdf   PKPdf     00 13 54.6 +1.6
SSPA  Standing Stone  145.56  10  ePKPdf   PKPdf     00 13 55.5 +2.0
UALR  University of   145.66  32  ePKPdf   PKPdf     00 13 55.7 +1.8
HBAR  Harrisburg      145.92  30  ePKPbc   PKPbc     00 13 57.5 +2.0
UTMT  University of   146.12  27  ePKPbc   PKPbc     00 13 57.3 +1.2
MCWV  Mont Chateau    146.13  13  ePKPbc   PKPbc     00 13 57.6 +1.7
NATX  Nacogdoches     146.51  39  ePKPbc   PKPbc     00 13 59.4 +2.4
WVT   Waverly         146.75  26  ePKP2    PKPab     00 13 59.6 -2.4
SDMD  Soldier's Deli  146.92   9  ePKPbc   PKPbc     00 13 59.5 +1.7
OXF   Oxford          147.37  29  ePKP2    PKPab     00 14 01.2 -3.3
ELN   Prospectdale    148.22  15  ePKPbc   PKPdf     00 14 02.7 +4.7
SWET  Sewanee         148.33  24  ePKPbc   PKPdf     00 14 03.1 +4.8
BAO   Brasilia Array  148.38 225  P        PKPdf     00 14 05.2 +6.3
BAO                               e                  00 14 08.2
BAO                               i                  00 14 10.2
BDFB  Brasilia        148.40 225  PKP      PKPdf     00 14 01.6 +2.7
      comp=Z,10nm,0.6s,baz=122,slow=2.5,SNR=6.5
BDFB                              PKPbc    PKPdf     00 14 05.3 +6.4
      comp=Z,11nm,0.5s,baz=121,slow=2.5,SNR=23
BDFB                              PKPab    PKPab     00 14 10.0 +1.0
      comp=Z,12nm,0.5s,baz=77,slow=3.0,SNR=19
BDFB                              pPKPbc             00 15 10.5
      comp=Z,6.0nm,0.7s,baz=92,slow=1.6,SNR=3.4
CPCT  Cooper Cave     148.67  22  ePKPbc   PKPdf     00 14 04.6 +5.7
MYNC  Murphy          149.15  22  PKIKP    PKPdf     00 13 56.3 -3.3
LRAL  Lakeview Retre  149.72  28  ePKPbc   PKPdf     00 14 06.8 +6.2
LVC   Limon Verde     150.87 184  PKPbc    PKPdf     00 14 12.2  +10
      comp=Z,15nm,0.6s,baz=255,slow=2.0,SNR=48
LVC                               PKPab    PKPab     00 14 20.6 +1.5
      comp=Z,9.5nm,0.7s,baz=187,slow=2.8,SNR=7.9
LVC   Limon Verde     150.87 184  ePKPbc   PKPdf     00 14 12.1  +10
LVC                               ePKPab   PKPab     00 14 19.9 +0.7
TWB   Tillmans-White  152.27  17  ePKPdf   PKPdf     00 14 05.0 +0.6
LPAZ  La Paz          157.07 187  PKP      PKPdf     00 14 15.0 +3.7
      comp=Z,0.8nm,0.8s,baz=68,slow=11,SNR=3.1
LPAZ                              PKPab    PKPab     00 14 47.0 +1.5
      comp=Z,2.9nm,0.7s,baz=182,slow=5.3,SNR=10
OTAV  Otavalo         170.06 129  ePKPdf   PKPdf     00 14 26.1 +2.9
ROSC  El Rosal        176.06 116  PKP      PKPdf     00 14 28.3 +2.6
      comp=Z,1.8nm,0.4s,baz=282,slow=23,SNR=3.5
```

IDC 25 00:14:00.6±3.9**, 48.30S**×**163.32E, mb4.1**/2**, mb1 4.4**/2**, mb1mx3.7**/8**, Error ellipse: s-maj=604.0km s-min=68.9km az=36.0, Off west coast of South Island**

```
Code  Station Name       Δ°  AZ°   Phase ID           Time      Res
                                   Op       ISC      h  m  s    ISC
ASAR  Alice Springs    33.86 306  P        P         00 20 44.6 -2.1
      2.0nm,0.7s,baz=145,slow=8.0,SNR=28
WRA   Warramunga Arr   36.69 310  P        P         00 21 09.1 -1.9
      2.9nm,0.8s,baz=146,slow=8.1,SNR=20
FINES FINESS Array B  152.67 315  PKPbc    PKPdf     00 33 57.8 +5.4
      1.4nm,0.8s,baz=76,slow=2.1,SNR=3.9
```

IDC 25 00:27:32.4±23.0**, 30.53S**×**179.13E, h612**km±230km**, mb3.1**/4**, mb1 3.3**/4**, mb1mx3.1**/12**, Error ellipse: s-maj=183.0km s-min=83.6km az=92.0, Kermadec Islands region**

```
Code  Station Name       Δ°  AZ°   Phase ID           Time      Res
                                   Op       ISC      h  m  s    ISC
CTA   Charters Tower   31.38 282  P        P         00 33 05.7 -1.0
      3.0nm,0.5s,baz=94,slow=9.4,SNR=11
STKA  Stephens Creek   32.03 258  eP       P         00 33 11.5 -0.5
      2.8nm,0.5s
STKA  Stephens Creek   32.03 258  P        P         00 33 09.9 -2.1
      4.0nm,0.6s,baz=101,slow=10,SNR=12
ASAR  Alice Springs    40.62 268  P        P         00 34 21.4 -1.2
      0.8nm,0.5s,baz=104,slow=7.3,SNR=20
WB2   Warramunga Arr   41.62 274  eP       P         00 34 29.6 -0.9
WB2                               eS       Px        00 36 58.4
WRA   Warramunga Arr   41.63 274  P        P         00 34 29.4 -1.2
      1.6nm,0.4s,baz=111,slow=7.9,SNR=42
FINES FINESS Array B  144.37 338  PKP      PKPdf     00 45 59.2 +0.2
      1.3nm,0.5s,baz=63,slow=3.1,SNR=17
AKASG Malin Array Be  149.86 321  PKPbc    PKPdf     00 46 13.5 +5.3
      0.6nm,0.5s,baz=44,slow=2.6,SNR=4.7
```

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*HEL **25** 00:29:52.8±0.1, 67.85N×20.19E, ML2.6(UPP), Explosion*

*CSEM **25** 00:29:52.0±0.3, 67.78N×20.03E, h2km, ML2.5, Error ellipse: s-maj=11.0km s-min=9.1km az=30.0, Mining*

explosion.
*UPP **25** 00:29:52.6,67.85N×20.20E,h0^{km},ML2.5,Mining explosion.*
ISC 25 00:29:51.9±0.9,**67.82N**±0.05×**20.1E**±0.2,**n12,**σ**0^{s}78**/15, **Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUA	**Kurravaara**	**0.16**	**32**	*i* P	**Pg**	**00 29 54.7**	**-0.3**
KUA				*i* S	**Sg**	**00 29 56.6**	**-0.5**
NIKU	**Nikkaluokta**	**0.41**	**277**	*i* P	**Pg**	**00 30 00.7**	**+0.5**
NIKU	**Nikkaluokta**	**0.41**	**277**	P	**Pg**	**00 30 00.6**	**+0.4**
DUNU	**Dundret**	**0.73**	**166**	*i* P	**Pg**	**00 30 06.3**	**-0.2**
DUNU	**Dundret**	**0.73**	**166**	P	**Pg**	**00 30 06.2**	**-0.2**
MASU	**Masugnsbyn**	**0.81**	**116**	*i* P	**Pg**	**00 30 07.1**	**-1.0**
PAJU	**Pajala**	**1.41**	**123**	*e*P	**Pb**	**00 30 17.8**	**-1.0**
ERTU	**Ertsjaerv**	**1.51**	**147**	*e*P	**Pn**	**00 30 20.2**	**-0.1**
ERTU	**Ertsjaerv**	**1.51**	**147**	P	**Pn**	**00 30 20.2**	**-0.1**
KTK1	**Kautokeino**	**1.66**	**43**	*e*P	**Pn**	**00 30 22.8**	**+0.2**
SGF	**Sodankyl**	**2.48**	**96**	*e*P	**Pn**	**00 30 35.3**	**+1.1**
SGF				*e*S	**Sn**	**00 31 07.3**	**+1.6**
SGF	**Sodankyl**	**2.48**	**96**	P	**Pn**	**00 30 35.3**	**+1.0**
SGF				S	**Sn**	**00 31 07.2**	**+1.5**

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*NEIC **25** 00:39:56.1±1.2,51.33N×179.20W,h53^{km}±8^{km},mb3.9/2, ML3.5(AEIC),Error ellipse: s-maj=16.3km s-min=10.0km az=199.0*
*IDC **25** 00:39:57.5±3.8,51.34N×179.22W,h68^{km}±34^{km},mb3.4/11, mb1 3.7/12,mb1mx3.5/24,ML3.4/1,Error ellipse: s-maj=24.9km s-min=16.3km az=8.0*
ISC 25 00:39:54.0±1.1,**51.2N**±0.1×**179.33W**±0.09,**h57**^{km}±8^{km}, **n32,**σ**0^{s}86**/41,**mb3.7**/13,**Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KIMD	**Kanaga Island**	**1.42**	**66**	P	**P**	**00 40 16.4**	**-1.7**
KIMD				S	**S**	**00 40 35.3**	**-0.7**
KIKV	**Kanaga Island**	**1.51**	**62**	P	**P**	**00 40 18.9**	**-0.4**
KIKV				S	**S**	**00 40 38.6**	**+0.6**
KIWB	**Kanaga Island**	**1.51**	**63**	P	**P**	**00 40 18.3**	**-1.0**
KIWB				S	**S**	**00 40 37.7**	**-0.3**
KINC	**Kanaga Island**	**1.56**	**61**	P	**P**	**00 40 19.8**	**-0.2**
KINC				S	**S**	**00 40 39.1**	**-0.1**
KIRH	**Kanaga Island**	**1.56**	**62**	P	**P**	**00 40 19.9**	**-0.1**
ADAG	**Mount Adagdak**	**1.87**	**64**	P	**P**	**00 40 24.4**	**+0.1**
ADAG				S	**S**	**00 40 46.9**	**+0.2**
GSSP	**Great Sitkin S**	**2.16**	**64**	P	**P**	**00 40 28.7**	**+0.4**
GSTD	**Great Sitkin T**	**2.16**	**65**	P	**P**	**00 40 28.4**	**0.0**
GSTD				S	**S**	**00 40 55.1**	**+1.1**
GSMY	**Great Sitkin M**	**2.21**	**66**	P	**P**	**00 40 28.7**	**-0.4**
GSMY				S	**S**	**00 40 56.8**	**+1.7**
GSTR	**Great Sitkin T**	**2.22**	**65**	P	**P**	**00 40 29.8**	**+0.4**
GSIG	**Igitkin Island**	**2.26**	**68**	P	**P**	**00 40 29.2**	**-0.6**
GSIG				S	**S**	**00 40 58.1**	**+1.5**
ATKA	**Atka Island**	**3.35**	**71**	P	**P**	**00 40 44.5**	**-0.7**
FX1	**Attu Island--F**	**4.93**	**293**	P	**P**	**00 41 08.8**	**+1.3**
	4.8nm,0.3s,baz=257,slow=11,SNR=6.4						
FX1				S	**S**	**00 42 16.6**	**+13**
	2.4nm,0.3s,baz=98,slow=19,SNR=2.6						
ILAR	**Eielson Array**	**21.59**	**39**	P	**P**	**00 44 39.0**	**-1.4**
	0.5nm,0.4s,mb3.3,baz=240,slow=8.2,SNR=27						
INK	**Inuvik**	**27.80**	**35**	P	**P**	**00 45 38.5**	**-0.7**
	0.5nm,0.6s,mb3.4,baz=287,slow=12,SNR=6.0						
YKA	**Yellowknife Ar**	**35.59**	**46**	P	**P**	**00 46 46.4**	**-1.0**
	0.7nm,0.4s,mb3.9,baz=279,slow=9.1,SNR=24						
YKA	**Yellowknife Ar**	**35.59**	**46**	P	**P**	**00 46 46.4**	**-1.0**
HLID	**Hailey**	**43.31**	**74**	*e*P	**P**	**00 47 51.6**	**+0.1**
	1.0nm,0.7s,mb3.6						
NVAR	**Mina Array Bea**	**43.90**	**82**	P	**P**	**00 47 58.5**	**+2.1**
	0.3nm,0.6s,mb3.2,baz=284,slow=11,SNR=3.6						
SONM	**Songino Array**	**46.43**	**296**	P	**P**	**00 48 18.1**	**+1.6**
	0.9nm,0.9s,mb3.7,baz=69,slow=11,SNR=5.8						
BW06	**Boulder Array**	**46.68**	**72**	*e*P	**P**	**00 48 18.2**	**-0.2**
	2.1nm,0.7s,mb4.2						
PDAR	**Pinedale Array**	**46.68**	**72**	P	**P**	**00 48 18.5**	**+0.1**
	3.9nm,1.0s,mb4.3,baz=307,slow=3.9,SNR=24						
MNTX	**Cornudas Mount**	**56.31**	**80**	P	**P**	**00 49 31.4**	**+0.4**
WMOK	**Wichita Mounta**	**58.26**	**73**	P	**P**	**00 49 43.8**	**-1.0**
TXAR	**Lajitas Array**	**59.01**	**81**	P	**P**	**00 49 49.6**	**-0.4**
	1.3nm,1.1s,mb3.9,baz=303,slow=6.1,SNR=7.1						
BVAR	**Borovoye Array**	**60.81**	**320**	P	**P**	**00 50 02.3**	**+0.3**
	0.2nm,0.4s,mb3.6,baz=56,slow=10,SNR=3.4						
KAF	**Kangasniemi**	**65.21**	**347**	*e*p	**P**	**00 50 30.7**	**-0.1**
	baz=19,slow=4.1						
FINES	**FINESS Array B**	**65.89**	**347**	P	**P**	**00 50 34.5**	**-0.7**
	0.6nm,0.5s,mb3.9,baz=12,slow=7.1,SNR=8.6						
FINES	**FINESS Array B**	**65.89**	**347**	P	**P**	**00 50 34.5**	**-0.7**
RAR	**Rarotonga**	**74.12**	**161**	P	**P**	**00 51 26.3**	**+0.4**
	28nm,0.5s,baz=182,slow=3.2,SNR=7.3						
AKASG	**Malin Array Be**	**75.62**	**342**	P	**P**	**00 51 32.9**	**-1.0**
	0.3nm,0.3s,mb3.6,baz=20,slow=5.5,SNR=4.3						
BRTR	**Keskin Array B**	**84.97**	**335**	P	**P**	**00 52 24.7**	**+0.9**
	1.1nm,1.0s,mb4.0,baz=11,slow=6.3,SNR=3.6						

IDC 25 01:05:59.5±15.0,**14.34S**×**166.94E**,**h266**^{km}±138^{km}, **mb3.0**/5,**mb1 3.2**/5,**mb1mx3.1**/14,**Error ellipse: s-maj=92.8km s-min=50.2km az=118.0,Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**20.56**	**251**	P	P	01 10 19.8	+0.8
	1.8nm,0.6s,baz=79,slow=13,SNR=2.9						
STKA	**Stephens Creek**	**29.01**	**229**	P	P	01 11 34.9	-2.2
	0.7nm,0.4s,baz=53,slow=8.7,SNR=7.5						
WRA	**Warramunga Arr**	**31.61**	**255**	P	P	01 11 58.0	-2.0
	0.2nm,0.5s,baz=85,slow=8.8,SNR=6.6						
ASAR	**Alice Springs**	**32.52**	**248**	P	P	01 12 05.0	-2.8
	0.4nm,0.5s,baz=78,slow=9.1,SNR=16						
ILAR	**Eielson Array**	**86.25**	**18**	P	P	01 18 10.0	-2.0
	0.5nm,0.7s,baz=230,slow=4.9,SNR=5.2						
ARCES	**ARCESS Array B**	**119.80**	**345**	PKP	PKPdf	01 24 18.5	+0.9
	9.7nm,1.1s,baz=52,slow=2.6,SNR=8.0						
FLN	**La Foliniere**	**144.14**	**346**	*e*PKP1	PKPbc	01 25 05.2	+2.2
	32nm,1.0s						
SSF	**Saint Saulge**	**144.56**	**340**	*e*PKP1	PKPbc	01 25 06.7	+2.5
	30nm,1.1s						
LPL	**La Plagne**	**144.71**	**336**	*e*PKP1	PKPbc	01 25 07.8	+3.1
LPG	**La Plagne**	**144.72**	**336**	*e*PKP1	PKPbc	01 25 07.9	+3.2
SMF	**Signal de Mont**	**144.81**	**340**	*e*PKP1	PKPbc	01 25 07.4	+2.4
	17nm,1.1s						

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*NIED **25** 01:23:00,37.40N×138.90E,h8^{km},Mw4.1 Best double couple: M$_0$1.88×10^{15} NP1:φ$_s$188°,δ70°,λ43°. NP2:φ$_s$80°, δ50°,λ153°.*
*IDC **25** 01:23:28.9±0.6,37.34N×138.81E,mb4.0/17,mb1 4.2/18, mb1mx4.2/25,ML4.0/1,Error ellipse: s-maj=20.3km s-min=16.4km az=93.0*
*MOS **25** 01:23:31.8±0.9,37.31N×138.99E,h33^{km},mb4.3/9,Error ellipse: s-maj=38.0km s-min=13.5km az=83.9*
*JMA **25** 01:23:31.8,37.41N×138.96E,h10^{km}±1^{km},M4.4 Broadband fault plane solution: P waves. NP1:φ$_s$78°,δ31°, λ133°. NP2:φ$_s$210°,δ68°,λ68°. Principal axes: T Plg61°, Azm87°; N Plg20°, Azm219°; P Plg20°, Azm317°;*
JMA Felt III J1.
*NEIC **25** 01:23:34.1±3.1,37.30N×138.87E,h35^{km}±23^{km},mb4.3/6 Error ellipse: s-maj=9.8km s-min=8.2km az=80.0*
NEIC Recorded [3 JMA] in Niigata, [2 JMA] in Gumma and [1 JMA] in Fukushima and Ishikawa Prefectures. Also recorded [1 JMA] on Sadoga-shima.
*BJI **25** 01:23:35.1,37.30N×138.90E,h34^{km},mB4.6,mb4.5, Ms3.9,Msz3.8*
ISC 25 01:23:31.0±0.4,**37.37N**±0.04×**138.94E**±0.04,**h22**^{km}±3^{km}, **n59,**σ**0^{s}86**/58,**mb4.0**/23,**6C-3D,Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHK	**Hiroka**	**0.14**	**153**	⇓P	**Pb**	**01 23 35.3**	**-0.3**
JHK				S	**Sb**	**01 23 38.1**	**-0.7**
JIZZ	**Izumozaki**	**0.24**	**311**	⇓P	**Pb**	**01 23 37.0**	**+0.1**
JIZZ				S	**Sb**	**01 23 41.4**	**+0.5**
JNS	**Sasagawa**	**0.54**	**34**	⇑P	**Pb**	**01 23 41.3**	**-0.4**
JNS				S	**Sb**	**01 23 48.3**	**-0.7**
JFY	**Yanaizu**	**0.61**	**87**	⇓P	**Pb**	**01 23 43.2**	**+0.3**
JFY				S	**Sb**	**01 23 51.2**	**+0.1**
MAJO	**Matsushiro**	**1.01**	**215**	*e*P	**Pb**	**01 23 50.1**	**+0.4**
MAT	**Matsushiro**	**1.01**	**215**	P	**Pb**	**01 23 50.3**	**+0.6**
MAT				S	**Sb**	**01 24 04.1**	**+1.4**
MAT	**Matsushiro**	**1.01**	**215**	*e*P	**Pb**	**01 23 50.0**	**+0.3**
MAT				*e*S	**Sb**	**01 24 04.0**	**+1.3**
ASAJ	**Asahikawa**	**7.29**	**21**	Pn	**Pn**	**01 25 20.2**	**+1.3**
	2.6nm,0.3s,baz=215,slow=6.7,SNR=9.9						
ASAJ	**Asahikawa**	**7.29**	**21**	P	**Pn**	**01 25 20.3**	**+1.4**
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KS15	**Wonju Array Si**	**8.80**	**274**	*e*P	**P**	**01 25 39.8**	**-0.2**
YSS	**Yuzh-Sakhalins**	**9.98**	**15**	⇑*e*P	**P**	**01 25 55.8**	**-0.5**
YSS				MLR	MLR		
	comp=Z,500nm,17.0s						
HHC	**Hu-ho-hao-te**	**21.49**	**288**	*e*P	**P**	**01 28 27.8**	**+7.6**
ENH	**Enshi**	**25.40**	**263**	*e*P	**P**	**01 28 57.3**	**-1.2**
	comp=Z,9.7nm,0.9s,mb4.3						
SONM	**Songino Array**	**25.96**	**304**	P	**P**	**01 29 01.9**	**-1.5**
	comp=Z,0.5nm,0.6s,mb3.3,baz=108,slow=9.1,SNR=5.1						
IMA	**Indian Mountai**	**47.41**	**31**	*e*P	**P**	**01 32 05.2**	**0.0**
BVAR	**Borovoye Array**	**48.88**	**312**	P	**P**	**01 32 16.7**	**0.0**
	comp=Z,0.4nm,0.4s,mb3.9,baz=226,slow=41,SNR=3.5						
BVAR				PcP	PcP	01 33 40.3	-1.1
	comp=Z,1.5nm,0.5s,baz=90,slow=3.0,SNR=9.8						
ILAR	**Eielson Array**	**50.27**	**32**	P	**P**	**01 32 26.6**	**-0.6**
	comp=Z,0.9nm,0.8s,mb3.9,baz=268,slow=5.8,SNR=12						
ILAR	**Eielson Array**	**50.27**	**32**	P	**P**	**01 32 26.6**	**-0.6**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
INK	**Inuvik**	**54.98**	**27**	P	**P**	**01 33 02.2**	**-0.2**
	comp=Z,1.8nm,0.6s,mb4.3,baz=305,slow=6.7,SNR=20						
INK	**Inuvik**	**54.98**	**27**	P	**P**	**01 33 02.2**	**-0.2**
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
WRA	**Warramunga Arr**	**57.17**	**185**	P	**P**	**01 33 17.5**	**-1.2**
	comp=Z,1.6nm,0.5s,mb4.3,baz=0.1,slow=7.5,SNR=14						
WRA	**Warramunga Arr**	**57.17**	**185**	P	**P**	**01 33 17.5**	**-1.2**
WRA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ASAR	**Alice Springs**	**60.90**	**185**	P	**P**	**01 33 43.0**	**-1.4**
	comp=Z,0.5nm,0.5s,mb3.9,baz=357,slow=4.9,SNR=13						
YKA	**Yellowknife Ar**	**64.50**	**30**	P	**P**	**01 34 06.8**	**-1.0**
	comp=Z,0.4nm,0.8s,mb3.5,baz=303,slow=6.5,SNR=13						
YKA				PcP	PcP	01 34 41.8	+0.1
	comp=Z,0.5nm,0.8s,baz=304,slow=3.7,SNR=7.0						
YKA	**Yellowknife Ar**	**64.50**	**30**	P	**P**	**01 34 06.8**	**-1.0**
YKA						01 34 41.8	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**64.50**	**30**	P	**P**	**01 34 06.8**	**-1.0**
YKA				PcP	PcP	01 34 41.8	+0.1
KAF	**Kangasniemi**	**67.09**	**332**	*e*p	**P**	**01 34 23.3**	**-1.1**
	comp=Z,1.7nm,0.5s,mb4.3,baz=51,slow=6.0						
KAF	**Kangasniemi**	**67.09**	**332**	*e*P	**P**	**01 34 23.3**	**-1.1**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
FINES	**FINESS Array B**	**67.58**	**331**	P	**P**	**01 34 26.4**	**-1.0**
	comp=Z,1.7nm,0.6s,mb4.2,baz=50,slow=8.9,SNR=9.5						
FINES	**FINESS Array B**	**67.58**	**331**	P	**P**	**01 34 26.5**	**-1.0**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
STKA	**Stephens Creek**	**68.94**	**178**	P	**P**	**01 34 34.5**	**-1.9**
	comp=Z,1.3nm,0.7s,mb4.0,baz=359,slow=11,SNR=3.3						
NEW	**Newport**	**71.25**	**43**	*e*P	**P**	**01 34 50.3**	**+0.1**
	comp=Z,1.0nm,0.6s,mb3.9						
AKASG	**Malin Array Be**	**72.81**	**321**	P	**P**	**01 34 58.4**	**-0.9**
	comp=Z,1.7nm,0.8s,mb4.0,baz=46,slow=6.2,SNR=6.2						
AKASG	**Malin Array Be**	**72.81**	**321**	P	**P**	**01 34 58.4**	**-1.0**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NB2	**NORSAR Subarra**	**73.10**	**336**	P	**P**	**01 35 00.2**	**-0.6**
	comp=Z,1.6nm,0.7s,mb4.1,baz=42,slow=5.8						
NOA	**NORSAR Array B**	**73.10**	**336**	P	**P**	**01 35 00.6**	**-0.3**
	comp=Z,1.8nm,0.6s,mb4.2,baz=41,slow=5.9,SNR=7.3						
NOA	**NORSAR Array B**	**73.10**	**336**	P	**P**	**01 35 00.6**	**-0.2**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
NVAR	**Mina Array Bea**	**76.35**	**52**	P	**P**	**01 35 21.4**	**+1.3**
	comp=Z,2.3nm,0.8s,mb4.2,baz=296,slow=5.8,SNR=20						
BRTR	**Keskin Array B**	**77.14**	**310**	P	**P**	**01 35 25.4**	**+1.0**
	comp=Z,1.1nm,0.8s,mb3.8,baz=90,slow=3.7,SNR=5.2						
BRTR	**Keskin Array B**	**77.14**	**310**	P	**P**	**01 35 25.4**	**+1.0**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
TPNV	**Topopah Spring**	**78.55**	**52**	*e*P	**P**	**01 35 33.0**	**+0.9**
	comp=Z,3.8nm,0.9s,mb4.3						
BW06	**Boulder Array**	**78.82**	**44**	*e*P	**P**	**01 35 34.2**	**+0.6**
	comp=Z,2.1nm,0.9s,mb4.1						
PDAR	**Pinedale Array**	**78.82**	**44**	P	**P**	**01 35 34.5**	**+1.0**
	comp=Z,1.0nm,0.7s,mb3.9,baz=302,slow=3.0,SNR=9.3						
KHC	**Kasperske Hory**	**81.20**	**327**	*e*P	**P**	**01 35 46.5**	**+0.3**
GERES	**GERESS Array B**	**81.37**	**327**	P	**P**	**01 35 47.2**	**+0.2**
	comp=Z,0.8nm,0.6s,mb3.8,baz=41,slow=4.8,SNR=9.2						
GERES	**GERESS Array B**	**81.37**	**327**	P	**P**	**01 35 47.2**	**+0.2**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
GRF	**Grafenberg Arr**	**81.77**	**329**	*e*P	**P**	**01 35 50.3**	**+1.2**
PV10	**Paradox Valley**	**82.02**	**47**	*e*P	**P**	**01 35 51.8**	**+1.2**
SDCO	**Great Sand Dun**	**84.50**	**46**	*e*P	**P**	**01 36 04.1**	**+0.8**
	comp=Z,1.4nm,0.8s,mb4.1						
DAVOX	**Davos**	**84.60**	**328**	P	**P**	**01 36 03.8**	**+0.2**
	comp=Z,2.8nm,1.0s,mb4.3,baz=31,slow=13,SNR=5.4						
WMOK	**Wichita Mounta**	**90.43**	**44**	*e*P	**P**	**01 36 33.0**	**+0.9**
TXAR	**Lajitas Array**	**91.46**	**51**	P	**P**	**01 36 37.9**	**+0.9**
	comp=Z,0.5nm,0.6s,mb4.0,baz=295,slow=3.6,SNR=10						
SNAA	**Sanae**	**140.48**	**198**	⇑*i*	PKPdf	01 42 50.7	-11
VNA2	**Neumayer--Watz**	**142.07**	**197**	⇑*i*	PKPdf	01 43 00.2	-4.4
VNA3	**Neumayer Olymp**	**142.36**	**196**	⇑*i*	PKPdf	01 43 06.8	+1.7
VNA1	**Neumayer--Stat**	**142.47**	**197**	⇑*i*	PKPdf	01 43 07.2	+1.9
LPAZ	**La Paz**	**148.19**	**56**	PKPbc	PKPdf	01 43 18.3	+1.7
	comp=Z,1.6nm,0.6s,baz=315,slow=2.1,SNR=8.9						
LPAZ	**La Paz**	**148.19**	**56**	PKP2	PKPab	01 43 18.3	-2.3
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.6s						
LPAZ	**La Paz**	**148.19**	**56**	PKPbc	PKPdf	01 43 18.3	+1.7

OTT 25 01:33:16.7±0.1,**61.54N**×**72.13W**,**h18**^{km},**MN2.3**/3,**11km southwest from Kangiqsujuaq, Qc Boothia Ungava Seismic Zone.,Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FRB	**Frobisher Bay**	**2.77**	**35**	PN	Pn	01 33 59.6	-1.6
FRB				SN	Sn	01 34 32.3	-2.1
FRB				Trac		01 34 39.2	
	comp=Z,5.5nm,0.2s						
KUQ	**Kuujjuuaa**	**3.92**	**150**	PN	Pn	01 34 15.5	-2.0
KUQ				SN	Sn	01 34 59.2	-4.3
KUQ				Trac		01 35 22.2	
	comp=Z,1.4nm,0.1s						
SCHQ	**Schefferville**	**7.28**	**155**	PN	Pn	01 35 01.4	-3.6
SCHQ				Trac		01 36 39.4	
	comp=Z,0.3nm,0.1s						
LG4Q	**La Grande 4**	**8.00**	**188**	PN	P	01 35 10.7	-4.4
LG4Q				SN	Sn	01 36 36.0	-10
LG4Q				Trac		01 37 08.3	
	comp=Z,0.3nm,0.1s						
IGL	**Igloolik**	**8.82**	**337**	PN	P	01 35 21.1	-5.3
IGL				SN	Sn	01 36 55.4	-11
SILO	**Sutton Inlier**	**9.79**	**229**	PN	P	01 35 35.7	-3.8
SILO				SN	Sn	01 37 14.3	-16
SILO				Trac		01 37 19.4	
	comp=Z,0.3nm,0.2s						
VIMO	**Victor Mine**	**10.76**	**221**	PN	P	01 35 48.9	-4.1
VIMO				SN	S	01 37 40.3	-14
VIMO				Trac		01 37 48.9	
	comp=Z,0.2nm,0.1s						

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*IDC **25** 01:45:06.3±6.0,4.91S×153.92E,h104^{km}±50^{km},mb3.6/5, mb1 3.8/7,mb1mx3.7/14,MS3.5/3,Ms1 3.5/3,ms1mx3.1/15, Error ellipse: s-maj=51.8km s-min=25.6km az=105.0*
*NEIC **25** 01:45:07.6±2.9,4.88S×153.86E,h114^{km}±22^{km},mb4.2/3, Error ellipse: s-maj=32.1km s-min=17.8km az=108.0*
ISC 25 01:45:06.8±3.8,**4.9S**±0.2×**153.8E**±0.2,**h118**^{km}±32^{km},**n13,** σ**0^{s}90**/13,**mb3.8**/8,**New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**7.96**	**235**	P	**P**	**01 47 01.2**	**0.0**
	6.6nm,0.3s,baz=56,slow=6.7,SNR=17						
PMG				S	**S**	**01 48 29.2**	**-1.0**
	1.3nm,0.3s,baz=217,slow=10.0,SNR=2.7						
CTA	**Charters Tower**	**16.81**	**205**	P	**P**	**01 48 57.5**	**+1.0**
	0.0nm,0.3s,baz=28,slow=15,SNR=2.6						
CTA				LR	LR	01 53 53.9	
	comp=Z,79nm,21.1s,baz=185,slow=31						
KAKA	**Kakadu**	**22.49**	**248**	*e*P	**P**	**01 49 57.7**	**+0.5**
	6.8nm,0.6s,mb4.2						
WRAB	**Tennant Creek**	**24.12**	**230**	*e*P	**P**	**01 50 13.4**	**+0.4**
	3.2nm,0.7s,mb3.8						
WB2	**Warramunga Arr**	**24.13**	**230**	*e*P	**P**	**01 50 14.1**	**+1.1**
WRA	**Warramunga Arr**	**24.14**	**230**	P	**P**	**01 50 13.9**	**+0.8**
	7.2nm,1.1s,mb3.9,baz=54,slow=9.9,SNR=25						
ASAR	**Alice Springs**	**26.77**	**224**	P	**P**	**01 50 37.4**	**-0.3**
	1.6nm,0.7s,mb3.6,baz=54,slow=8.9,SNR=24						
ASAR				LR	LR	01 59 26.0	
	comp=Z,42nm,21.7s,baz=56,slow=32						
ASPA	**Alice Springs**	**26.77**	**224**	*e*P	**P**	**01 50 38.3**	**+0.6**
STKA	**Stephens Creek**	**29.20**	**202**	P	**P**	**01 50 57.3**	**-2.2**
	2.9nm,0.8s,mb4.0,baz=358,slow=11,SNR=6.8						
FITZ	**Fitzroy Crossi**	**30.48**	**242**	*e*P	**P**	**01 51 10.1**	**-0.9**
	3.9nm,0.6s,mb4.2						
TGY	**Tagaytay City**	**37.63**	**300**	LR	LR	02 04 35.9	
	comp=Z,386nm,21.1s,baz=121,slow=31						
SONM	**Songino Array**	**66.89**	**327**	P	**P**	**01 55 48.9**	**+0.4**
	0.4nm,0.6s,mb3.4,baz=136,slow=5.5,SNR=4.3						
ILAR	**Eielson Array**	**81.85**	**22**	P	**P**	**01 57 13.1**	**-0.9**
	0.4nm,0.9s,mb3.2,baz=241,slow=5.0,SNR=5.0						

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*NEIC **25** 02:25:20.4,36.78N×21.22E,h17^{km},MD3.5(ATH),After ATH.*
*CSEM **25** 02:25:20.4,36.78N×21.22E,h17^{km},MD3.5/5,After ATH*
ATH 25 02:25:21.4,36.83N×**21.28E,h22**^{km},**MD3.5**/5,**Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	**Ithomi**	**0.62**	**56**	*e*PN	Pn	02 25 33.7	-1.1
VLI	**Veliai**	**1.33**	**94**	*e*PN	Pn	02 25 47.0	+2.0
VLS	**Valsamata**	**1.45**	**338**	*e*PN	Pn	02 25 48.5	+1.8
KYTH	**Kithira**	**1.52**	**111**	*e*PN	Pn	02 25 49.0	+1.4
EVR	**Evrytania**	**2.12**	**11**	*e*PN	Pn	02 25 58.5	+2.2

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*FUNV **25** 02:34:28.9,10.27N×61.98W,h15^{km},MW3.1*
*TRN **25** 02:34:29.5,10.23N×62.09W,h9^{km},MD3.7*
ISC 25 02:34:29.4±0.7,**10.20N**±0.03×**62.12W**±0.04,**h15**^{km}±8^{km}, **n13,**σ**0^{s}96**/23,**Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUIV	**Guiria**	**0.46**	**347**	*e*P	**Pb**	**02 34 37.3**	**-1.4**
GUIV				*e*S	**Sb**	**02 34 43.3**	**-1.6**
TPP	**Pointe-a-Pierr**	**0.67**	**80**	*e*P	**Pb**	**02 34 42.7**	**+0.5**
TPP				*e*S	**Sb**	**02 34 55.3**	**+4.4**
GUNV	**Guanoco**	**0.81**	**267**	*e*P	**Pb**	**02 34 46.2**	**+1.5**
GUNV				*e*S	**Sb**	**02 34 59.8**	**+4.6**
TRN	**Trinidad (W)**	**0.83**	**57**	*e*P	**Pb**	**02 34 43.5**	**-1.5**
TRN				*e*S	**Sb**	**02 34 56.6**	**+0.9**
TBH	**Brigand Hill**	**1.07**	**75**	*e*P	**Pb**	**02 34 50.2**	**+1.1**
CRUV	**Carupano**	**1.20**	**293**	*e*P	**Pb**	**02 34 51.2**	**-0.1**
ITEV	**Isla Los Testi**	**1.52**	**319**	*e*P	**Pn**	**02 34 56.1**	**-0.2**
ITEV				*e*S	**Sn**	**02 35 15.8**	**0.0**
TPR	**Prospect**	**1.64**	**53**	*e*P	**Pn**	**02 34 58.0**	**0.0**
TPR				*e*S	**Sn**	**02 35 19.3**	**+0.4**
BOT	**Bacolet**	**1.68**	**55**	*e*P	**Pn**	**02 34 58.5**	**0.0**
ORIV	**Oritupano**	**1.70**	**229**	*e*P	**Pn**	**02 35 00.3**	**+1.5**
ORIV				*e*S	**Sn**	**02 35 21.7**	**+1.4**
GRW	**Mount Saint Ca**	**2.00**	**13**	*e*P	**Pn**	**02 35 03.8**	**+0.7**
GRW				*e*S	**Sn**	**02 35 28.5**	**+0.5**
RIOV	**Rio Grande**	**2.14**	**172**	*e*P	**Pn**	**02 35 04.3**	**-0.7**
RIOV				*e*S	**Sn**	**02 35 30.2**	**-1.3**
GURV	**El Guri**	**2.61**	**202**	*e*P	**Pn**	**02 35 11.3**	**-0.5**
GURV				*e*S	**Sn**	**02 35 42.9**	**-0.5**

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*NIED **25** 02:36:00,32.10N×131.80E,h41^{km},Mw3.9 Best double couple: M$_0$8.24×10^{14} NP1:φ$_s$183°,δ71°,λ-88°. NP2: φ$_s$358°,δ20°,λ-95°.*
*JMA **25** 02:36:59.9±0.1,32.13N×131.75E,h35^{km}±1^{km},M3.9 Broadband fault plane solution: P waves. NP1:φ$_s$5°,δ23°, λ-78°. NP2:φ$_s$172°,δ67°,λ-95°. Principal axes: T Plg22°, Azm266°; N Plg5°, Azm174°; P Plg67°, Azm73°;*
JMA Felt II J1.
*IDC **25** 02:37:00.8±0.9,32.04N×131.65E,h48^{km}±9^{km},mb3.5/8, mb1 3.7/8,mb1mx3.5/22,MS3.2/1,Ms1 3.4/1,ms1mx2.6/28 Error ellipse: s-maj=27.9km s-min=14.9km az=105.0*
ISC 25 02:36:58.2±1.2,**32.10N**±0.05×**131.9E**±0.1,**h41**^{km}±11^{km}, **h48**^{km}±2.1^{km}**:pP-P,n16,**σ**0^{s}79**/20,**mb3.7**/8,**MS3.1**/1,**4C-2D, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTSN	**Tsuno**	**0.34**	**294**	⇓P	**P**	**02 37 06.7**	**-0.4**
JTSN				S	**S**	**02 37 12.1**	**-1.2**
JKIT	**Kitakata**	**0.63**	**326**	⇓P	**P**	**02 37 11.4**	**+0.6**
JKIT				S	**S**	**02 37 20.0**	**+0.1**
JTZ	**Takazaki**	**0.70**	**253**	⇑P	**P**	**02 37 11.6**	**-0.1**
JNAR	**Kushima--Naru**	**0.77**	**222**	⇑P	**P**	**02 37 13.8**	**+1.1**
JNAR				S	**S**	**02 37 24.7**	**+1.3**
JIU2	**Izumi 2**	**1.00**	**296**	⇑P	**P**	**02 37 16.4**	**+0.4**
JZO	**Okuchi**	**1.08**	**272**	⇑P	**P**	**02 37 17.5**	**+0.3**
JZO				*e*S	**S**	**02 37 31.0**	**-0.2**
JOW	**Kunigami**	**6.12**	**212**	P	**P**	**02 38 27.5**	**-1.0**
JOW				S	**S**	**02 39 33.1**	**-5.0**
SONM	**Songino Array**	**24.90**	**317**	P	**P**	**02 42 18.3**	**-0.4**
	0.9nm,0.7s,mb3.4,baz=123,slow=9.5,SNR=8.0						
CMAR	**Chiang Mai Arr**	**32.59**	**253**	LR	LR	02 59 19.2	
	comp=Z,40nm,18.6s,MS3.1,baz=78,slow=41						
WRA	**Warramunga Arr**	**51.80**	**177**	P	**P**	**02 46 03.3**	**-1.1**
	0.5nm,0.8s,mb3.5,baz=354,slow=8.0,SNR=6.4						
WRA				pP	pP	02 46 16.2	+0.1
	1.3nm,0.9s,baz=353,slow=8.5,SNR=5.6						
ASAR	**Alice Springs**	**55.49**	**178**	P	**P**	**02 46 30.4**	**-1.0**
	0.3nm,0.6s,mb3.5,baz=11,slow=14,SNR=7.1						
ASAR				pP	pP	02 46 44.8	+1.4
	0.4nm,0.6s,baz=11,slow=12,SNR=3.9						
ILAR	**Eielson Array**	**57.77**	**30**	P	**P**	**02 46 47.0**	**-0.3**
	0.5nm,0.7s,mb3.7,baz=264,slow=6.5,SNR=12						
INK	**Inuvik**	**62.25**	**25**	P	**P**	**02 47 18.2**	**+0.4**
	0.9nm,0.9s,mb3.9,baz=312,slow=5.7,SNR=4.9						
STKA	**Stephens Creek**	**64.30**	**171**	P	**P**	**02 47 31.5**	**-0.3**
	1.1nm,0.7s,mb4.0,baz=346,slow=12,SNR=2.9						
STKA				pP	pP	02 47 44.3	+0.4
	1.2nm,0.7s,baz=344,slow=9.1,SNR=2.6						
FINES	**FINESS Array B**	**69.34**	**330**	P	**P**	**02 48 03.2**	**+0.1**
	3.1nm,1.2s,mb4.1,baz=72,slow=8.8,SNR=4.2						
NVAR	**Mina Array Bea**	**84.18**	**48**	P	**P**	**02 49 28.3**	**+1.8**
	0.5nm,0.6s,mb3.8,baz=305,slow=4.8,SNR=6.7						

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*NIED **25** 02:43:00,45.00N×149.90E,h98^{km},Mw4.4 Best double couple: M$_0$3.97×10^{15} NP1:φ$_s$67°,δ73°,λ115°. NP2:φ$_s$190°, δ30°,λ36°.*
*SKHL **25** 02:43:18.1±3.3,45.67N×150.21E,h109^{km}±26^{km},mb6.7/1, msh6.1/2*
*MOS **25** 02:43:19.2±1.1,46.18N×149.69E,h95^{km},mb4.4/11,Error ellipse: s-maj=18.1km s-min=10.6km az=72.0*
*IDC **25** 02:43:20.9±0.9,45.74N×149.80E,h119^{km}±7^{km},mb4.0/19, mb1 4.2/21,mb1mx4.1/26,Error ellipse: s-maj=18.2km s-min=11.1km az=161.0*
*BJI **25** 02:43:20.4,45.64N×150.04E,h136^{km},mB4.7,mb4.9*
*NEIC **25** 02:43:21.1±0.3,45.79N×149.93E,mb4.6/25,Error ellipse: s-maj=9.6km s-min=4.3km az=163.0*
*JMA **25** 02:43:23.5±0.5,45.05N×149.91E,h122^{km},M4.5*
ISC 25 02:43:19.0±0.6,**45.60N**±0.05×**149.94E**±0.06,**h120**^{km}±6^{km}, **h122**^{km}±4.8^{km}**:pP-P,n146,**σ**1^{s}27**/158,**mb4.6**/46,**6C-1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KUR	**Kuril'sk**	**1.51**	**257**	⇑*i*PN	**P**	**02 43 46.5**	**-0.4**
KUR				*i* S	**S**	**02 44 07.8**	**-0.3**
KUR				pmax	pmax		
	comp=N,2µm,0.5s						
KUR				pmax	pmax		
	comp=E,740nm,0.5s						
KUR				pmax	pmax		
	comp=Z,3µm,0.5s						
KUR				smax			
	comp=N,12µm,1.2s						
KUR				smax			
	comp=E,36µm,1.2s						
KUR				smax			
	comp=N,9µm,0.5s						
KUR				smax			

	comp=E,10µm,0.5s						
KUR	Kuril'sk	1.51	257	iP	P	02 43 46.5	-0.4
KUR				AMB	AMB	02 43 48.0	
	comp=E,2µm,0.5s						
KUR				AMB	AMB	02 43 48.0	
	comp=E,740nm,0.5s						
KUR				AMB	AMB	02 43 48.0	
	comp=E,3µm,0.5s						
KUR				iS	S	02 44 07.8	-0.3
KUR				A		02 44 10.0	
	comp=E,12µm,1.0s						
KUR				A		02 44 10.0	
	comp=E,36µm,1.0s						
KUR				A		02 44 12.0	
	comp=E,9µm,0.5s						
KUR				A		02 44 12.0	
	comp=E,10µm,0.5s						
YUK	Yuzh-Kuril'sk	3.30	243	⇑iPN	P	02 44 11.0	+0.8
YUK				iS	S	02 44 48.0	-1.1
YUK				pmax	pmax		
	comp=Z,1800µm,0.4s						
YUK				pmax	pmax		
	comp=Z,990nm,0.4s						
YUK				pmax	pmax		
	comp=N,180nm,0.4s						
YUK				pmax	pmax		
	comp=E,280nm,0.4s						
YUK				smax			
	comp=N,4µm,0.8s						
YUK				smax			
	comp=E,5µm,0.7s						
YUK				smax			
	comp=N,4µm,0.5s						
YUK				smax			
	comp=E,2µm,0.3s						
YUK	Yuzh-Kuril'sk	3.30	243	iP	P	02 44 11.0	+0.8
YUK				AMB	AMB	02 44 11.6	
	comp=E,2µm,0.3s						
YUK				AMB	AMB	02 44 11.7	
	comp=E,180nm,0.4s						
YUK				AMB	AMB	02 44 11.7	
	comp=E,280nm,0.4s						
YUK				AMB	AMB	02 44 11.7	
	comp=E,990nm,0.4s						
YUK				iS	S	02 44 48.0	-1.1
YUK				A		02 44 51.8	
	comp=E,4µm,1.0s						
YUK				A		02 44 51.8	
	comp=E,5µm,1.0s						
YUK				A		02 44 53.8	
	comp=E,4µm,0.5s						
YUK				A		02 44 53.8	
	comp=E,2µm,0.5s						
NEM2	Nemuro 2	3.75	235	P	P	02 44 16.1	-0.1
NEM2				eS	S	02 44 57.0	-2.8
JRA	Rausu	3.81	246	P	P	02 44 19.0	+1.9
JNK	Nakash	4.24	243	P	P	02 44 24.5	+1.7
JAK	Akkeshi	4.58	237	P	P	02 44 27.3	-0.1
JAK				eS	S	02 45 16.3	-3.6
JTKR	Abashiri--Toko	4.59	251	P	P	02 44 29.8	+2.2
JMP	Maruseppu	4.95	254	P	P	02 44 34.6	+2.2
JAR	Ashorobuto	4.98	245	P	P	02 44 34.6	+1.7
JAR				eS	S	02 45 30.5	+0.7
JOB	Onbets	5.15	241	P	P	02 44 36.0	+0.9
JOB				eS	S	02 45 31.8	-2.0
YSS	Yuzh-Sakhalins	5.16	288	eP	P	02 44 36.1	+0.9
	comp=E,188nm,0.6s						
YSS	Yuzh-Sakhalins	5.16	288	iP	P	02 44 37.9	+2.6
YSS				AMB	AMB	02 44 38.9	
	comp=E,130nm,0.9s						
YSS				AMB	AMB	02 44 38.9	
	comp=E,310nm,0.9s						
YSS				AMB	AMB	02 44 38.9	
	comp=E,220nm,0.9s						
YSS				eS	S	02 45 37.7	+3.6
YSS				A		02 45 41.0	
	comp=E,70nm,1.0s						
YSS				A		02 45 41.0	
	comp=E,120nm,1.0s						
JSE	Soyaes	5.23	266	P	P	02 44 39.3	+3.1
JKK2	Kamakawa 2	5.41	254	P	P	02 44 41.3	+2.7
ASAJ	Asahikawa	5.43	257	P	P	02 44 41.0	+2.2
	comp=E,8.9nm,0.3s,baz=91,slow=14,SNR=38						
ASAJ	Asahikawa	5.43	257	P	P	02 44 41.6	+2.8
ASAJ	Asahikawa	5.43	257	PN	P	02 44 41.1	+2.3
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.3s						
JCH	Churui	5.60	240	P	P	02 44 41.2	+0.1
JCH				eS	S	02 45 41.5	-3.3
JWK2	Keihoku	5.67	270	P	P	02 44 46.4	+4.4
JAB	Ashibetsu	5.90	252	P	P	02 44 48.3	+3.1
JEM	Erimo	6.08	236	P	P	02 44 49.1	+1.5
JBT2	Biratori 2	6.13	245	P	P	02 44 49.2	+0.8
JBT2				eS	S	02 45 53.5	-4.3
JNBK	Urakawa-nobuka	6.16	240	P	P	02 44 48.4	-0.4
JNBK				eS	S	02 45 52.2	-6.2
UGL	Uglegorsk	6.38	306	eP	P	02 44 52.0	+0.2
UGL				AMB	AMB	02 44 53.0	
	comp=Z,170nm,1.0s						
SKR	Severo-Kuril's	6.55	37	eP	P	02 44 48.5	-5.6
SKR				AMB	AMB	02 45 51.1	
	comp=Z,180nm,0.4s						
JNB	Noboribetsu	7.14	247	P	P	02 45 02.2	0.0
JNB				eS	S	02 46 19.1	-3.1
TYV	Tymovskoe	7.17	320	eP	P	02 45 00.5	-2.0
TYV				AMB	AMB	02 45 01.5	
	comp=Z,40nm,1.0s						
JKB	Kayabe	7.44	243	P	P	02 45 05.8	-0.5
JKB				eS	S	02 46 23.8	-5.8
JSH	Shimam	7.71	251	P	P	02 45 11.2	+1.3
JYM2	Yakumo 2	7.74	247	P	P	02 45 10.1	-0.2
JSR	Shiriuchi	8.02	243	P	P	02 45 13.5	-0.6
JSR				eS	S	02 46 36.4	-7.3
JTM	Tenmabayashi	8.07	237	P	P	02 45 13.9	-0.8
JTM				eS	S	02 46 36.5	-8.4
JANG	Nango	8.09	233	P	P	02 45 12.6	-2.4
JANG				eS	S	02 46 36.2	-9.1
JTH	Tanohata	8.20	229	eS	S	02 46 38.3	-10
JOSM	Okushiri--Mats	8.34	249	P	P	02 45 18.2	-0.2
JRG	Rokugo	9.25	231	P	P	02 45 29.6	-1.0
JRG				eS	S	02 47 06.7	-6.7
JIO	Ouri	9.58	225	P	P	02 45 32.7	-2.2
JIO				eS	S	02 47 11.6	-10
JFK	Kawauchi	10.67	223	P	P	02 45 46.7	-2.7
JFK				eS	S	02 47 38.4	-8.7
JFY	Yanaizu	11.21	227	P	P	02 45 55.6	-1.0
MAJO	Matsushiro	12.65	228	P	P	02 46 18.6	+3.1
EKMR	Ekimchan	13.34	310	eP	P	02 46 20.8	-3.6
EKMR				AMB	AMB	02 46 25.5	
	comp=Z,5.0nm,0.7s						
MDJ	Mudanjiang	14.40	273	P	P	02 46 42.5	+4.5
MDJ				AMB	AMB		
	comp=Z,30nm,0.8s						
MDJ				AMB	AMB		
	comp=Z,61nm,4.6s						
MDJ	Mudanjiang	14.40	273	eP	P	02 46 38.9	+0.9
	comp=Z,22nm,0.8s						
BMKR	Bomnak	16.25	312	eP	P	02 46 58.9	-2.3
BMKR				AMB	AMB	02 47 01.7	
	comp=Z,10.0nm,0.5s						
ZEA	Zeya	16.74	307	eP	P	02 47 05.2	-2.0
ZEA				AMB	AMB	02 47 06.1	
	comp=Z,29nm,1.0s						
FX1	Attu Island--F	16.77	56	P	P	02 47 09.2	+1.6
	comp=Z,3.1nm,0.3s,baz=113,slow=20,SNR=5.0						
FX1	Attu Island--F	16.77	56	P	P	02 47 09.2	+1.5
FX1				pmax	pmax		
	comp=Z,3.0nm,0.3s						
KROS	Kirovskiy	17.14	309	eP	P	02 47 08.1	-4.1
KROS				AMB	AMB	02 47 11.0	
	comp=Z,8.0nm,0.9s						
KROS				AMB	AMB	02 47 11.0	
	comp=Z,10.0nm,0.9s						
CN2	Changchun	17.49	273	eP	P	02 47 16.5	-0.1
SNY	Shenyang	19.39	268	⇑iP	P	02 47 38.9	+1.2
SNY				AMB	AMB		
	comp=Z,30nm,1.0s						
BJI	Beijing	25.26	269	eP	P	02 48 38.3	+3.0
BJI				AMB	AMB		
	comp=Z,44nm,0.8s,mb4.9						
BJI				LR	LR		
	comp=Z,52nm,17.3s						
BJI	Beijing	25.26	269	eP	P	02 48 38.3	+3.0
	comp=Z,44nm,0.8s,mb4.9						
BJI				LR	LR		
	comp=Z,50nm,17.3s						
BJT	Baijiatuau	25.27	269	eP	P	02 48 37.8	+2.4
	comp=Z,27nm,0.8s,mb4.7						
HHC	Hu-ho-hao-te	28.18	274	eP	P	02 49 03.3	+1.3
HHC				AMB	AMB		
	comp=Z,106nm,7.0s						
HHC				LR	LR		
	comp=N,192nm,14.9s						
HHC				LR	LR		
	comp=E,400nm,18.8s						
HHC				LR	LR		
	comp=Z,236nm,11.9s						
SONM	Songino Array	29.65	290	P	P	02 49 14.2	-0.8
	comp=Z,0.9nm,0.3s,mb3.9,baz=80,slow=9.0,SNR=22						
LZH	Lanzhou	35.71	271	eP	P	02 50 09.0	+1.5
LZH				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.2						
LZH	Lanzhou	35.71	271	eP	P	02 50 09.0	+1.5
	comp=Z,30nm,1.0s,mb5.2						
LZH				pP	pP	02 50 26.0	-8.5
LZH				sP	sP	02 50 36.0	-13
IMA	Indian Mountai	36.03	35	eP	P	02 50 10.0	+0.2
	comp=Z,106nm,0.9s						
GTA	Gaotai	36.97	279	⇓iP	P	02 50 20.0	+2.0
GTA				AP	pP	02 50 51.0	+5.8
GTA				XP	sP	02 51 06.0	+6.6
GTA				AMB	AMB		
	comp=Z,38nm,0.5s,mb5.6						
GTA				AMB	AMB		
	comp=Z,84nm,5.3s						
GTA				LR	LR		
	comp=N,105nm,14.1s						
GTA				LR	LR		
	comp=E,156nm,16.3s						
GTA				LR	LR		
	comp=Z,116nm,16.0s						
MCK	McKinley	37.95	39	eP	P	02 50 25.0	-0.9
	comp=Z,4.7nm,0.8s,mb4.4						
COLA	College	38.40	37	eP	P	02 50 29.4	-0.3
	comp=Z,11nm,0.6s,mb4.9						
ILAR	Eielson Array	38.81	38	P	P	02 50 33.0	-0.2
	comp=Z,5.7nm,0.6s,mb4.6,baz=264,slow=8.0,SNR=156						
ILAR	Eielson Array	38.81	38	P	P	02 50 33.0	-0.1
ILAR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
DIV	Divide	39.60	43	eP	P	02 50 40.0	+0.3
	comp=Z,30nm,0.6s,mb5.3						
DAWY	Dawson	42.12	38	eP	P	02 51 00.3	+0.1
INK	Inuvik	43.79	31	P	P	02 51 13.8	+0.1
	comp=Z,14nm,1.0s,mb4.7,baz=295,slow=6.5,SNR=48						
INK	Inuvik	43.79	31	P	P	02 51 13.9	+0.2
INK				pmax	pmax		
	comp=Z,14nm,1.0s						
DLBC	Dease Lake	47.97	44	P	P	02 51 47.1	+0.4
	comp=Z,4.6nm,1.1s,mb4.2,baz=274,slow=12,SNR=8.1						
CHKZ	Chkalovo	49.48	310	eP	P	02 51 56.2	-2.3
	comp=Z,4.0nm,0.5s,mb4.6						
BVAR	Borovoye Array	49.88	309	P	P	02 52 00.4	-1.2
	comp=Z,1.6nm,0.5s,mb4.2,baz=51,slow=9.2,SNR=9.8						
BVAR				PcP	PcP	02 53 20.2	-0.3
	comp=Z,0.6nm,0.3s,baz=90,slow=2.9,SNR=3.7						
CMAR	Chiang Mai Arr	49.95	255	P	P	02 52 02.0	-0.6
	comp=Z,1.3nm,0.5s,mb4.1,baz=39,slow=8.5,SNR=5.7						
CMAR				pP	pP	02 52 29.6	-1.1
	comp=Z,0.7nm,0.4s,baz=39,slow=5.8,SNR=2.5						
CMAR	Chiang Mai Arr	49.95	255	P	P	02 52 02.0	-0.6
CMAR				*PP	pP	02 52 29.6	-1.1
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
RES	Resolute Bay	52.61	18	eP	P	02 52 20.4	-1.6
	comp=Z,12nm,0.8s,mb5.0						
GUN	Gumba	52.89	274	eP	P	02 52 25.7	+1.1
	comp=Z,18nm,0.4s,mb5.5						
YKA	Yellowknife Ar	53.15	35	P	P	02 52 25.7	-0.4
	comp=Z,3.9nm,0.5s,mb4.7,baz=299,slow=6.9,SNR=107						
YKA				PcP	PcP	02 53 31.9	-0.6
	comp=Z,0.9nm,0.6s,baz=303,slow=3.6,SNR=6.9						
YKA	Yellowknife Ar	53.15	35	P	P	02 52 25.7	-0.3
YKA						02 53 31.9	
YKA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	53.15	35	P	P	02 52 25.7	-0.4
YKA				PcP	PcP	02 53 31.9	-0.6
KKN	Kakani	53.38	274	eP	P	02 52 29.9	+1.6
	comp=Z,5.0nm,0.2s,mb5.2						
PKI	Pulchoki	53.43	274	eP	P	02 52 30.0	+1.4
	comp=Z,9.3nm,0.5s,mb5.1						
DMN	Daman	53.62	274	eP	P	02 52 31.3	+1.3
	comp=Z,25nm,0.8s,mb5.3						
GKN	Gorkha	53.70	275	eP	P	02 52 31.9	+1.3
	comp=Z,25nm,0.5s,mb5.5						
ARU	Arti	54.36	317	eP	P	02 52 32.8	-2.1
KOLN	Koldanda	54.57	275	eP	P	02 52 38.0	+1.1
	comp=Z,9.2nm,0.3s,mb5.3						
EDM	Edmonton	58.69	44	eP	P	02 53 04.6	-1.1
NEW	Newport	59.62	51	eP	P	02 53 11.6	-0.6
	comp=Z,3.9nm,0.6s,mb4.6						
YBH	Yreka Blue Hor	60.23	59	P	P	02 53 17.0	+0.5
	comp=Z,3.0nm,0.7s,mb4.4,baz=354,slow=5.6,SNR=13						
YBH	Yreka Blue Hor	60.23	59	P	P	02 53 17.0	+0.5
YBH				pmax	pmax		
	comp=Z,3.0nm,0.7s						
JOF	Joensuu	61.37	333	ep	P	02 53 21.5	-2.4
BMO	Blue Mountains	61.54	54	eP	P	02 53 24.9	-0.4
	comp=Z,1.4nm,0.7s,mb4.1						
MSO	Missoula	62.20	51	eP	P	02 53 29.1	-0.6
	comp=Z,11nm,1.3s,mb4.7						
HRY	Holter Researc	63.41	50	eP	P	02 53 37.5	-0.2
FCC	Fort Churchill	63.41	32	eP	P	02 53 36.3	-1.3
	comp=Z,3.8nm,0.6s,mb4.5						
KAF	Kangasniemi	63.53	334	ep	P	02 53 36.5	-1.7
	baz=42,slow=6.5						
HLID	Hailey	63.97	54	eP	P	02 53 41.3	0.0
	comp=Z,1.2nm,0.7s,mb3.8						
FINES	FINESS Array B	64.12	334	P	P	02 53 40.1	-1.8
	comp=Z,0.9nm,0.4s,mb3.9,baz=37,slow=7.5,SNR=17						
FINES				PcP	PcP	02 54 15.9	+0.1
	comp=Z,1.1nm,0.7s,baz=18,slow=6.0,SNR=3.5						
FINES	FINESS Array B	64.12	334	P	P	02 53 40.1	-1.8
FINES						02 54 15.9	
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NVAR	Mina Array Bea	64.92	60	P	P	02 53 48.0	+0.4
	comp=Z,4.6nm,0.7s,mb4.4,baz=293,slow=6.7,SNR=62						
NVAR				pP	pP	02 54 17.7	+0.6
	comp=Z,0.7nm,0.7s,baz=296,slow=7.1,SNR=2.3						
NVAR	Mina Array Bea	64.92	60	P	P	02 53 48.0	+0.4
NVAR				pP	pP	02 54 17.7	+0.6
TPAW	Teton Pass	65.95	52	eP	P	02 53 55.0	+0.9
REDW	Red Top Meadow	66.09	52	eP	P	02 53 55.0	+0.1
DGMT	Dagmar	66.18	44	eP	P	02 53 54.8	-0.7
WRA	Warramunga Arr	66.75	196	P	P	02 53 59.8	+0.3
	comp=Z,0.1nm,0.4s,baz=11,slow=6.8,SNR=9.7						
FRB	Frobisher Bay	66.83	18	P	P	02 53 57.4	-1.9
	comp=Z,3.5nm,0.6s,mb4.4,baz=330,slow=8.1,SNR=6.5						
FRB	Frobisher Bay	66.83	18	P	P	02 53 57.4	-1.9
FRB				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FRB	Frobisher Bay	66.83	18	P	P	02 53 57.4	-1.9
HWUT	Hardware Ranch	66.84	54	eP	P	02 53 59.8	0.0
	comp=Z,2.7nm,0.6s,mb4.2						
TPNV	Topopah Spring	67.12	60	eP	P	02 54 01.8	+0.2
	comp=Z,3.5nm,0.8s,mb4.2						
BW06	Boulder Array	67.20	52	eP	P	02 54 01.4	-0.5
	comp=Z,4.7nm,0.6s,mb4.5						
PDAR	Pinedale Array	67.20	52	P	P	02 54 02.0	+0.1
	comp=Z,6.3nm,0.6s,mb4.6,baz=280,slow=1.6,SNR=74						
NLU	North Lily Min	67.63	55	eP	P	02 54 04.8	+0.2
NB2	NORSAR Subarra	68.58	340	P	P	02 54 09.4	-0.7
	comp=Z,0.6nm,0.5s,mb3.7,baz=29,slow=6.2						
NOA	NORSAR Array B	68.58	340	P	P	02 54 09.5	-0.7
	comp=Z,2.1nm,0.9s,mb3.9,baz=36,slow=6.0,SNR=3.5						
NOA	NORSAR Array B	68.58	340	P	P	02 54 09.5	-0.6
NOA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
ULM	Lac du Bonnet	68.82	39	P	P	02 54 11.2	-0.5
	comp=Z,4.1nm,0.8s,mb4.3,baz=316,slow=5.9,SNR=8.8						
SRU	San Rafael	69.09	55	eP	P	02 54 13.7	+0.1
PV10	Paradox Valley	70.44	55	eP	P	02 54 22.7	+0.8
ASAR	Alice Springs	70.46	196	pP	pP	02 54 51.2	-1.0
	comp=Z,1.2nm,0.8s,baz=13,slow=6.0,SNR=5.6						
PV01	Paradox Valley	70.88	55	eP	P	02 54 24.9	+0.3
AKASG	Malin Array Be	71.24	325	P	P	02 54 25.5	-0.9
	comp=Z,2.1nm,0.4s,mb4.3,baz=38,slow=6.1,SNR=15						
AKASG	Malin Array Be	71.24	325	P	P	02 54 25.5	-1.0
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
SDCO	Great Sand Dun	72.89	53	eP	P	02 54 36.5	+0.1
	comp=Z,2.0nm,0.6s,mb4.1						
ANMO	Albuquerque	74.31	56	eP	P	02 54 45.1	+0.4
	comp=Z,2.1nm,0.7s,mb4.0						
CLL	Collm	76.56	334	P	P	02 54 57.1	0.0
	comp=Z,logA/T=1.0,mb4.5						
AMTX	Amarillo	77.09	53	eP	P	02 55 00.4	+0.1
	comp=Z,12nm,0.8s,mb4.7						
MNTX	Cornudas Mount	77.25	58	eP	P	02 55 01.4	0.0
BRTR	Keskin Array B	77.68	315	P	P	02 55 04.7	+1.2
	comp=Z,0.6nm,0.8s,baz=81,slow=3.8,SNR=3.6						
BRTR	Keskin Array B	77.68	315	P	P	02 55 04.7	+1.2
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
KHC	Kasperske Hory	78.28	332	eP	P	02 55 07.5	+0.9
GERES	GERESS Array B	78.48	332	P	P	02 55 07.9	+0.2
	comp=Z,1.5nm,0.5s,mb4.0,baz=40,slow=5.9,SNR=23						
GERES	GERESS Array B	78.48	332	P	P	02 55 07.9	+0.2
GERES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
GRA1	Grafenberg Arr	78.53	334	eP	P	02 55 09.2	+1.3
	comp=Z,13nm,0.9s,mb4.8						
GRF	Grafenberg Arr	78.53	334	eP	P	02 55 09.2	+1.3
GRF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.8						
GRF	Grafenberg Arr	78.53	334	eP	P	02 55 09.2	+1.3
	comp=Z,13nm,0.9s,mb4.8						
WMOK	Wichita Mounta	78.81	51	eP	P	02 55 09.5	-0.3
	comp=Z,4.9nm,0.6s,mb4.5						
LTX	Lajitas	79.97	58	eP	P	02 55 16.7	+0.5
TXAR	Lajitas Array	79.97	58	P	P	02 55 16.8	+0.6
	comp=Z,4.7nm,0.8s,mb4.4,baz=293,slow=4.6,SNR=112						
TXAR				pP	pP	02 55 46.7	-0.1
	comp=Z,0.6nm,0.6s,baz=294,slow=4.3,SNR=2.7						
TXAR	Lajitas Array	79.97	58	P	P	02 55 16.8	+0.6
TXAR				pP	pP	02 55 46.7	-0.1
BDFB	Brasilia	146.54	33	PKPbc	PKPbc	03 02 47.8	+1.7
	comp=Z,6.9nm,0.5s,baz=320,slow=3.0,SNR=16						
BDFB	Brasilia	146.54	33	PKIKP	PKPdf	03 02 47.8	+3.2
BDFB				pmax	pmax		
	comp=Z,7.0nm,0.5s						
SNAA	Sanae	150.82	197	⇑i	PKPdf	03 02 57.9	+8.1
SNAA	Sanae	150.82	197	PKPbc	PKPdf	03 02 57.9	+8.1
	comp=Z,0.8nm,0.7s,baz=217,slow=5.2,SNR=12						
SNAA	Sanae	150.82	197	PKIKP	PKPdf	03 02 57.9	+8.1
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
VNA2	Neumayer--Watz	152.32	196	⇑i	PKPdf	03 03 04.8	+13
VNA3	Neumayer Olymp	152.46	194	⇑i	PKPdf	03 03 04.7	+12

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*IDC **25** 02:43:31.4±1.5, 50.54S×161.42E, mb4.7/5, mb1 4.8/7, mb1mx4.5/11, ML4.0/2, MS3.1/1, Ms1 3.2/1, ms1mx2.3/7, Error ellipse: s-maj=40.0km s-min=30.9km az=2.0*

*NEIC **25** 02:43:33.1±1.6, 50.57S×161.32E, h10^{km}, mb4.8/4, Error ellipse: s-maj=34.9km s-min=8.6km az=165.0*

ISC 25 02:43:33.6±0.7**, 50.21S**±0.09×**161.29E**±0.09**, h10^{km}, n33, σ1^{s}22**/35**, mb4.7**/8**, MS3.0**/1**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	Milford Sound	7.13	42	P	Pn	02 45 22.5	+1.9
MSZ				eS	Sn	02 46 42.9	+0.3
EAZ	Earnscleugh	7.35	50	P	Pn	02 45 23.8	+0.2
EAZ				S	Sn	02 46 45.4	-2.5
EAZ	Earnscleugh	7.35	50	P	Pn	02 45 23.4	-0.2
EAZ				S	Sn	02 46 45.4	-2.5
WKZ	Wanaka	7.50	47	eP	Pn	02 45 27.5	+1.7
WKZ				S	Sn	02 46 50.6	-1.2
WKZ	Wanaka	7.50	47	eP	Pn	02 45 27.0	+1.2
WKZ				eS	Sn	02 46 50.4	-1.4
JCZ	Jackson Bay	7.97	43	P	Pn	02 45 34.2	+1.9
JCZ				S	Sn	02 47 04.4	+1.0
JCZ	Jackson Bay	7.97	43	P	Pn	02 45 34.2	+1.9
JCZ				eS	Sn	02 47 02.8	-0.6
LBZ	Lake Benmore	8.39	49	eP	P	02 45 36.6	-1.6
LBZ	Lake Benmore	8.39	49	eP	P	02 45 36.5	-1.7
FOZ	Fox Glacier	8.78	44	P	P	02 45 45.1	+1.5
RPZ	Rata Peaks	9.31	50	Pn	P	02 45 47.9	-3.0
	2.1nm,0.3s,baz=180,slow=7.7,SNR=9.0						
RPZ				Sn	Sn	02 47 32.2	-4.5
	1.9nm,0.3s,baz=64,slow=18,SNR=3.0						
URZ	Urewera	16.43	49	Pn	P	02 47 26.5	+0.9
	0.4nm,0.3s,baz=213,slow=13,SNR=3.7						
STKA	Stephens Creek	23.45	314	P	P	02 48 46.1	+2.3
	13nm,1.0s,mb4.3,baz=140,slow=8.6,SNR=20						
STKA	Stephens Creek	23.45	314	eP	P	02 48 46.4	+2.7
VNDA	Vanda	27.42	180	LR	LR	02 58 13.3	
	comp=Z,44nm,20.2s,MS3.0,baz=176,slow=33						
CTA	Charters Tower	32.34	333	eP	P	02 50 05.8	+0.7
	6.5nm,1.1s,mb4.4						
CTA	Charters Tower	32.34	333	P	P	02 50 05.5	+0.4
	13nm,1.2s,mb4.7,baz=155,slow=7.9,SNR=8.0						
ASAR	Alice Springs	34.01	311	P	P	02 50 19.2	-0.3
	13nm,0.8s,mb4.9,baz=147,slow=8.2,SNR=116						
ASPA	Alice Springs	34.01	311	eP	P	02 50 19.8	+0.2
WB2	Warramunga Arr	36.99	315	eP	P	02 50 44.2	-0.8
WRA	Warramunga Arr	37.00	315	P	P	02 50 43.9	-1.2
	14nm,0.8s,mb4.9,baz=146,slow=8.1,SNR=50						
WRAB	Tennant Creek	37.00	315	eP	P	02 50 43.9	-1.2
	19nm,0.7s,mb5.0						
FITZ	Fitzroy Crossi	42.84	305	eP	P	02 51 33.9	+0.5
	12nm,0.6s,mb4.8						
MBWA	Marble Bar	43.63	296	P	P	02 51 38.4	-1.5
KAKA	Kakadu	44.21	318	eP	P	02 51 44.7	+0.1
	9.5nm,0.6s,mb4.7						
VNA3	Neumayer Olymp	58.69	183	e	P	02 53 32.7	-0.2
VNA2	Neumayer--Watz	58.90	184	e	P	02 53 34.5	+0.1
CMAR	Chiang Mai Arr	87.59	303	P	P	02 56 23.4	+0.2
	3.7nm,0.9s,mb4.6,baz=162,slow=3.9,SNR=16						
AKASG	Malin Array Be	149.89	290	PKPbc	PKPdf	03 03 22.0	+0.9
	1.7nm,0.9s,baz=69,slow=2.5,SNR=5.9						
ARCES	ARCESS Array B	151.55	329	PKPbc	PKPdf	03 03 26.8	+3.7
	4.9nm,0.8s,baz=45,slow=1.7,SNR=9.5						
ARCES	ARCESS Array B	151.55	329	PKPbc	PKPdf	03 03 26.8	+3.7
FINES	FINESS Array B	153.01	312	PKPbc	PKPdf	03 03 30.0	+4.6
	2.6nm,0.9s,baz=135,slow=5.4,SNR=11						
GERES	GERESS Array B	159.00	279	PKPab	PKPab	03 04 07.1	-2.3
	0.8nm,0.8s,baz=117,slow=6.0,SNR=5.9						

BJI 25 02:46:24.2, 32.30N×95.72E, h11^{km}, mb4.0, ML3.6, Xizang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	4.70	238	P	Pn	02 47 37.4	+0.6
SHL	Shillong	7.50	208	eP	Pn	02 48 12.0	-4.3
SHL				eS	Sn	02 50 20.0	+38

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*IDC **25** 02:47:09.8±1.1, 50.31S×161.91E, mb4.1/5, mb1 4.4/7, mb1mx4.2/10, ML3.2/2, Error ellipse: s-maj=32.6km s-min=24.5km az=66.0*

*NEIC **25** 02:47:11.2±0.8, 50.29S×161.91E, h10^{km}, mb4.4/1, Error ellipse: s-maj=18.6km s-min=14.1km az=157.0*

ISC 25 02:47:09.4±0.9**, 50.4S**±0.1×**161.9E**±0.1**, h10^{km}, n13, σ1^{s}05**/12**, mb4.1**/6**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	Milford Sound	7.01	38	eP	Pn	02 48 55.2	+0.5
EAZ	Earnscleugh	7.17	47	P	Pn	02 48 57.1	+0.2
JCZ	Jackson Bay	7.84	39	eP	Pn	02 49 07.4	+1.1
RPZ	Rata Peaks	9.13	47	Pn	P	02 49 21.5	-2.8
	0.3nm,0.3s,baz=315,slow=8.6,SNR=3.0						
RPZ				Sn	Sn	02 51 01.6	-6.5
	0.5nm,0.3s,baz=36,slow=18,SNR=2.5						
URZ	Urewera	16.25	48	Pn	P	02 50 58.9	-0.2
	0.1nm,0.3s,baz=281,slow=12,SNR=1.9						
STKA	Stephens Creek	23.83	313	P	P	02 52 23.8	+0.6
	2.3nm,0.8s,mb3.6,baz=144,slow=11,SNR=3.6						
VNDA	Vanda	27.27	180	P	P	02 52 55.0	-0.1
	2.9nm,0.8s,mb3.9,baz=98,slow=12,SNR=9.8						
ASAR	Alice Springs	34.38	310	P	P	02 53 58.6	0.0
	4.2nm,0.8s,mb4.4,baz=147,slow=8.5,SNR=39						
WRA	Warramunga Arr	37.37	314	P	P	02 54 23.0	-1.0
	2.6nm,0.8s,mb4.1,baz=148,slow=9.0,SNR=12						
WRAB	Tennant Creek	37.37	314	eP	P	02 54 22.8	-1.1
	5.1nm,0.7s,mb4.5						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**87.99**	**302**	P	**P**	**03 00 02.5**	**+1.7**
	1.2nm,0.7s,mb4.2,baz=158,slow=3.6,SNR=7.1						
ARCES	**ARCESS Array B**	**151.87**	**329**	PKPbc	PKPdf	03 07 03.6	+4.3
	2.2nm,0.7s,slow=2.4,SNR=7.3						
FINES	**FINESS Array B**	**153.39**	**312**	PKPbc	PKPdf	03 07 10.2	+8.5
	2.7nm,1.0s,baz=91,slow=3.8,SNR=13						

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*FUNV **25** 02:57:30.4, 10.28N×62.03W, h22^{km}, MW2.7*

*TRN **25** 02:57:32.4, 10.40N×61.96W, h4^{km}, MD3.3*

ISC 25 02:57:29.9±0.7**, 10.18N**±0.03×**62.14W**±0.03**, h20**^{km}±7^{km}**, n15,** σ1^{s}**17**/25**, 1D, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	**Guiria**	**0.47**	**350**	*e*P	**Pb**	**02 57 38.0**	**-1.3**
GUIV				*e*S	**Sb**	**02 57 44.8**	**-0.9**
TPP	**Pointe-a-Pierr**	**0.69**	**79**	⇓*i*P	**Pb**	**02 57 43.0**	**-0.2**
TPP				*e*S	**Sb**	**02 57 58.1**	**+5.9**
GUNV	**Guanoco**	**0.79**	**268**	*e*P	**Pb**	**02 57 47.1**	**+2.3**
GUNV				*e*S	**Sb**	**02 58 00.1**	**+5.2**
TRN	**Trinidad (W)**	**0.86**	**58**	*e*P	**Pb**	**02 57 43.7**	**-2.3**
TRN				*e*S	**Sb**	**02 57 59.2**	**+2.1**
TBH	**Brigand Hill**	**1.10**	**74**	*e*P	**Pb**	**02 57 49.9**	**-0.2**
CRUV	**Carupano**	**1.18**	**294**	*e*P	**Pn**	**02 57 51.6**	**+0.1**
CRUV				*e*S	**Sb**	**02 58 07.2**	**+0.9**
ITEV	**Isla Los Testi**	**1.52**	**320**	*e*P	**Pn**	**02 57 56.2**	**-0.1**
ITEV				*e*S	**Sn**	**02 58 15.1**	**-0.4**
ORIV	**Oritupano**	**1.67**	**229**	*e*P	**Pn**	**02 58 01.0**	**+2.5**
TPR	**Prospect**	**1.67**	**53**	*e*P	**Pn**	**02 57 58.1**	**-0.3**
TPR				*e*S	**Sn**	**02 58 19.2**	**-0.3**
BOT	**Bacolet**	**1.71**	**55**	*e*P	**Pn**	**02 57 58.9**	**-0.1**
GRW	**Mount Saint Ca**	**2.02**	**13**	*e*P	**Pn**	**02 58 05.1**	**+1.6**
GRW				*e*S	**Sn**	**02 58 29.2**	**+0.8**
RIOV	**Rio Grande**	**2.13**	**171**	*e*P	**Pn**	**02 58 05.2**	**+0.2**
RIOV				*e*S	**Sn**	**02 58 31.4**	**+0.3**
GURV	**El Guri**	**2.58**	**201**	*e*S	**Sn**	**02 58 42.0**	**-0.7**
CAOV	**Caicara del Or**	**5.01**	**236**	*e*P	**Pn**	**02 58 44.9**	**-1.2**
CAOV				*e*S	**Sn**	**02 59 39.9**	**-4.2**
BAUV	**El Baul**	**5.95**	**259**	*e*P	**Pn**	**02 58 57.3**	**-1.9**

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*NAO **25** 03:27:25.5±2.8, 67.54N×34.03E, ML2.2*

HEL 25 03:27:28.2±0.5**, 67.69N**×**33.84E, ML2.4, ML2.2**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	**Apatity Array**	**0.34**	**255**	Pg	Pg	03 27 33.5	-1.4
	baz=89,slow=16						
APA0				Lg		03 27 38.6	
	baz=89,slow=37						
APA0				Rg		03 27 40.4	
	baz=89,slow=37						
APA0	**Apatity Array**	**0.34**	**255**	*i* P	Pg	03 27 33.5	-1.4
APA0				*i* S	Sg	03 27 38.6	-0.8
APA0				*e*RG		03 27 40.4	
KU4	**Oulanka**	**2.14**	**233**	*e*P	Pn	03 28 05.3	-0.3
KU4				*e*S	Sn	03 28 32.6	-0.6
MSF	**Maaselka**	**2.61**	**229**	*e*PB	Pb	03 28 13.1	-2.5
MSF				*e*SB	Sb	03 28 45.8	-2.6
SGF	**Sodankyl**	**2.82**	**268**	*e*PB	Pb	03 28 17.4	-1.8
SGF				*e*S	Sn	03 28 49.4	-1.0
KEV	**Kevo**	**3.24**	**313**	*e*P	Pn	03 28 20.5	-0.8
KEV				*e*S	Sn	03 28 58.8	-2.3
KEV				MSG		03 29 14.2	
	comp=Z,7.4nm,0.3s						
ARA0	**ARCESS Array S**	**3.57**	**305**	Pn	Pn	03 28 24.3	-1.7
	baz=122,slow=16						
ARA0				Pg	Pg	03 28 33.0	-6.5
	baz=117,slow=16						
ARA0				Sn	Sn	03 29 05.8	-3.6
	baz=129,slow=28						
ARA0				Lg		03 29 17.1	
	baz=116,slow=28						
ARA0	**ARCESS Array S**	**3.57**	**305**	*e*P	Pn	03 28 24.3	-1.7
ARA0				*e*PG	Pg	03 28 33.0	-6.5
ARA0				*e*S	Sn	03 29 05.8	-3.6
ARA0				*e*SG		03 29 17.1	
OUL	**Oulu**	**4.13**	**234**	*e*SG	Sg	03 29 35.3	-10
KJN	**Kajaani**	**4.41**	**218**	*e*SB	Sb	03 29 40.0	-0.6
KJN				MSG		03 29 44.2	
	comp=Z,10.0nm,0.5s						
FIA0	**FINESS Array S**	**7.10**	**212**	Sn	Sn	03 30 26.5	-12
	baz=38,slow=22						
FIA0				Lg		03 31 01.1	
	baz=21,slow=28						
FIA0	**FINESS Array S**	**7.10**	**212**	*e*	Sn	03 30 26.5	-12
FIA0				*e*		03 31 01.1	

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*IDC **25** 03:29:41.6±11.0, 49.97S×162.47E, mb4.0/3, mb1 4.3/5, mb1mx4.0/10, ML4.2/2, MS3.4/2, Ms1 3.4/2, ms1mx2.7/12, Error ellipse: s-maj=217.0km s-min=28.1km az=165.0*

ISC 25 03:29:41.8±1.9**, 50.0S**±0.2×**162.6E**±0.2**, h10**^{km}**, n13,** σ1^{s}**22**/15**, mb4.0**/3**, MS3.5**/2**, Auckland Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	**Milford Sound**	**6.43**	**37**	*e*P	**Pn**	**03 31 19.5**	**+0.5**
EAZ	**Earnscleugh**	**6.58**	**47**	P	**Pn**	**03 31 21.2**	**+0.2**
EAZ				S	**Sn**	**03 32 33.0**	**-3.9**
WKZ	**Wanaka**	**6.76**	**43**	*e*P	**Pn**	**03 31 24.9**	**+1.4**
WKZ				*e*S	**Sn**	**03 32 40.3**	**-1.0**
JCZ	**Jackson Bay**	**7.26**	**38**	P	**Pn**	**03 31 31.9**	**+1.3**
JCZ				S	**Sn**	**03 32 54.6**	**+0.7**
LBZ	**Lake Benmore**	**7.63**	**46**	*e*P	**Pn**	**03 31 34.1**	**-1.6**
FOZ	**Fox Glacier**	**8.06**	**40**	*e*P	**P**	**03 31 42.8**	**+1.0**
RPZ	**Rata Peaks**	**8.54**	**46**	Pn	**P**	**03 31 46.8**	**-1.7**
	3.6nm,0.3s,baz=154,slow=1.8,SNR=11						
RPZ				Sn	**Sn**	**03 33 25.4**	**-0.6**
	1.6nm,0.3s,baz=34,slow=21,SNR=2.0						
URZ	**Urewera**	**15.66**	**47**	Pn	**P**	**03 33 25.1**	**+1.1**
	0.6nm,0.3s,baz=208,slow=7.2,SNR=4.4						
STKA	**Stephens Creek**	**23.89**	**311**	P	**P**	**03 34 57.9**	**+1.6**
	3.1nm,1.1s,mb3.7,baz=129,slow=10,SNR=4.3						
ASAR	**Alice Springs**	**34.48**	**309**	P	**P**	**03 36 30.6**	**-1.2**
	2.4nm,0.6s,mb4.3,baz=146,slow=8.2,SNR=33						
WRA	**Warramunga Arr**	**37.42**	**313**	P	**P**	**03 36 55.2**	**-1.5**
	2.1nm,0.8s,mb4.0,baz=145,slow=8.1,SNR=11						
PMG	**Port Moresby**	**42.41**	**337**	LR	LR	03 53 02.0	
	comp=Z,68nm,18.7s,MS3.6,baz=178,slow=33						
SNAA	**Sanae**	**58.22**	**185**	LR	LR	04 04 08.2	
	comp=Z,24nm,19.0s,MS3.3,baz=206,slow=36						

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*WAR **25** 03:49:29, 51.47N×16.11E, h1^{km}, ML2.6, Mining Induced*

*PRU **25** 03:49:29.4, 51.40N×16.11E*

ISC 25 03:49:27.5±1.2**, 51.40N**±0.06×**16.03E**±0.06**, n9,** σ1^{s}**23**/19**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	**Ksiaz**	**0.58**	**164**	*e*PG	**Pg**	**03 49 40.0**	**+0.8**
KSP				*e*SG	**Sg**	**03 49 49.0**	**+2.0**
UPC	**Upice**	**0.90**	**181**	*e*PG	**Pg**	**03 49 46.7**	**+1.2**
DPC	**Dobruska-Polom**	**1.07**	**170**	*e*PG	**Pg**	**03 49 49.1**	**+0.2**
DPC				*e*SG	**Sg**	**03 50 03.9**	**+0.7**
PVCC	**Panska Ves**	**1.28**	**227**	*e*PG	**Pg**	**03 49 54.2**	**+1.2**
PRU	**Pruhonice**	**1.71**	**214**	*e*PG	**Pg**	**03 50 01.0**	**-0.6**
PRU				*e*SG	**Sg**	**03 50 25.3**	**+1.0**
CLL	**Collm**	**1.90**	**268**	*i* PG	**Pg**	**03 50 05.9**	**+0.4**
CLL				*e*SG	**Sg**	**03 50 31.0**	**+0.1**
OKC	**Ostrava-Krasne**	**2.07**	**139**	*e*PG	**Pg**	**03 50 07.3**	**-1.5**
OKC				*e*SG	**Sg**	**03 50 33.8**	**-2.5**
NKC	**Novy Kostel**	**2.56**	**244**	*e*PN	**Pn**	**03 50 12.4**	**+1.5**
NKC				*e*PG	**Pg**	**03 50 18.0**	**-0.6**
NKC				*e*SG	**Sg**	**03 50 52.2**	**-0.5**
KHC	**Kasperske Hory**	**2.77**	**216**	*e*PN	**Pn**	**03 50 14.8**	**+0.9**
KHC				*e*PG	**Pg**	**03 50 20.5**	**-2.3**
KHC				*e*SN	**Sn**	**03 50 47.0**	**-1.5**
KHC				*e*SG	**Sg**	**03 50 58.2**	**-1.5**

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*STR **25** 03:51:29.9±0.1, 45.64N×3.05E, h5^{km}±1^{km}, Ml1.9, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 25 03:51:28.0±0.1**, 45.64N**×**2.96E, h7**^{km}**, Md1.7**/2**, Ml1.7**/8**, Error ellipse: s-maj=1.0km s-min=0.8km az=96.0, France**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGO	**Saint Agoulin**	**0.43**	**16**	Pg	Pg	03 51 37.9	+1.1
AGO				Sg	Sg	03 51 43.8	+1.2
LBL	**Lubilhac**	**0.45**	**153**	Pg	Pg	03 51 38.3	+1.2
LBL				Sg	Sg	03 51 44.5	+1.4
TCF	**Toulx Ste Croi**	**0.84**	**322**	*e*Pg	Pg	03 51 44.0	-0.8
TCF				*e*Sg	Sg	03 51 54.4	-1.5
	3.7nm,0.2s						
BGF	**Bois d'Agland**	**0.93**	**355**	*e*Pg	Pg	03 51 45.4	-1.1
BGF				*e*Pn	Pn	03 51 46.0	-1.3
BGF				*e*Sg	Sg	03 51 57.8	-1.1
	14nm,0.4s						
CAF	**Calviac**	**0.95**	**222**	*e*Pg	Pg	03 51 46.0	-1.0
CAF				*e*Sg	Sg	03 51 58.1	-1.6
	1.6nm,0.2s						
RJF	**Les Rejaudoux**	**1.07**	**252**	*e*Pg	Pg	03 51 48.0	-1.3
RJF				*e*Sg	Sg	03 52 01.3	-2.3
	2.2nm,0.3s						
SMF	**Signal de Mont**	**1.18**	**31**	*e*Pn	Pn	03 51 49.4	-1.5
SMF				*e*Pg	Pg	03 51 50.1	-1.5
SMF				*e*Sg	Sg	03 52 05.3	-2.1
	0.7nm,0.2s						
VIVF	**Saint-Julien-l**	**1.44**	**122**	*e*Pg	Pg	03 51 55.2	-1.6
VIVF				*e*Sg	Sg	03 52 13.3	-2.7
	0.8nm,0.2s						
SSF	**Saint Saulge**	**1.48**	**15**	*e*Pg	Pg	03 51 55.4	-2.1
SSF				*e*Sg	Sg	03 52 14.6	-2.6
	0.9nm,0.2s						
LASF	**Ste Croix**	**1.68**	**157**	*e*Pg	Pg	03 51 59.2	-2.4
LASF				*e*Sg	Sg	03 52 21.1	-3.0
	1.5nm,0.3s						
LFF	**La Frestale**	**1.71**	**247**	*e*Sg	Sg	03 52 22.4	-2.7
	0.9nm,0.2s						

MAN 25 03:55:57.3, 17.52N×**119.29E, h4**^{km}**, mb4.0, ML2.8, MS2.4, 1D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BOLP	**Bolinao**	**1.28**	**152**	*e*P	Pb	03 56 21.9	+0.3
BOLP				*e*S	Pn	03 56 22.1	+0.1
BCPH	**Baguio City Da**	**1.67**	**132**	⇓*i*P	Pn	03 56 27.1	-0.5
BCPH				*i* S	Sb	03 56 49.1	-0.6
SCZP	**Santa Cruz**	**1.83**	**161**	*e*P	Pn	03 56 29.4	-0.4
APYP	**Conner**	**1.89**	**79**	*e*P	Pn	03 56 28.1	-2.5
APYP				*e*S	Sn	03 56 50.8	-4.4
CVP	**Callao Caves**	**2.42**	**85**	*i* P	Pn	03 56 37.2	-1.0
CVP				*e*S	Sn	03 57 08.0	-0.7
CAUP	**Cauayan**	**2.48**	**103**	*e*P	Pn	03 56 39.6	+0.4
CAUP				*e*S	Pb	03 56 41.6	-0.6
BALP	**Baler**	**2.81**	**129**	*e*P	Pn	03 56 45.4	+1.5

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*TRN **25** 04:09:28.0, 10.27N×62.25W, MD3.2*

*FUNV **25** 04:09:30.5, 10.27N×61.96W, h18^{km}, MW2.7*

ISC 25 04:09:30.9±0.7**, 10.18N**±0.04×**62.13W**±0.03**, h20**^{km}±7^{km}**, n14,** σ1^{s}**23**/25**, 1C, Near coast of Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUIV	**Guiria**	**0.47**	**349**	*e*P	**Pb**	**04 09 39.3**	**-1.1**
GUIV				*e*S	**Sb**	**04 09 46.0**	**-0.9**
TPP	**Pointe-a-Pierr**	**0.69**	**78**	*e*P	**Pb**	**04 09 43.5**	**-0.5**
TPP				*e*S	**Sb**	**04 09 55.4**	**+2.4**
GUNV	**Guanoco**	**0.80**	**269**	*e*P	**Pb**	**04 09 48.0**	**+2.1**
GUNV				*e*S	**Sb**	**04 10 02.0**	**+5.8**
TRN	**Trinidad (W)**	**0.86**	**57**	⇑*i*P	**Pb**	**04 09 44.8**	**-2.2**
TRN				*e*S	**Sb**	**04 09 57.9**	**0.0**
TBH	**Brigand Hill**	**1.09**	**74**	*e*P	**Pb**	**04 09 51.4**	**+0.5**
CRUV	**Carupano**	**1.19**	**295**	*e*P	**Pn**	**04 09 52.5**	**-0.1**
CRUV				*e*S	**Sb**	**04 10 08.5**	**+0.9**
ITEV	**Isla Los Testi**	**1.53**	**320**	*e*P	**Pn**	**04 09 56.8**	**-0.6**
ITEV				*e*S	**Sn**	**04 10 17.6**	**+0.8**
TPR	**Prospect**	**1.67**	**53**	*e*P	**Pn**	**04 09 59.1**	**-0.3**
TPR				*e*S	**Sn**	**04 10 23.3**	**+2.9**
ORIV	**Oritupano**	**1.67**	**229**	*e*P	**Pn**	**04 10 00.5**	**+1.0**
ORIV				*e*S	**Sn**	**04 10 23.9**	**+3.4**
BOT	**Bacolet**	**1.70**	**55**	*e*P	**Pn**	**04 09 59.8**	**-0.1**
GRW	**Mount Saint Ca**	**2.02**	**13**	*e*P	**Pn**	**04 10 06.0**	**+1.5**
GRW				*e*S	**Sn**	**04 10 29.0**	**-0.5**
RIOV	**Rio Grande**	**2.12**	**171**	*e*P	**Pn**	**04 10 05.5**	**-0.4**
RIOV				*e*S	**Sn**	**04 10 31.5**	**-0.4**
CAOV	**Caicara del Or**	**5.02**	**236**	*e*P	**Pn**	**04 10 46.3**	**-0.7**
CAOV				*e*S	**Sn**	**04 11 42.6**	**-2.5**
BAUV	**El Baul**	**5.95**	**259**	*e*P	**Pn**	**04 10 58.8**	**-1.5**

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*IDC **25** 04:11:06.7±2.3, 50.14S×161.77E, mb4.2/4, mb1 4.3/5, mb1mx4.0/10, ML4.0/1, Error ellipse: s-maj=53.3km s-min=31.1km az=173.0*

ISC 25 04:11:07.0±1.1**, 50.3S**±0.1×**161.5E**±0.2**, h10**^{km}**, n15,** σ1^{s}**40**/15**, mb4.2**/4**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	**Milford Sound**	**7.08**	**41**	*e*P	**Pn**	**04 12 54.5**	**+1.3**
EAZ	**Earnscleugh**	**7.28**	**49**	P	**Pn**	**04 12 55.5**	**-0.5**
WKZ	**Wanaka**	**7.44**	**46**	P	**Pn**	**04 12 59.3**	**+1.0**
JCZ	**Jackson Bay**	**7.91**	**42**	P	**Pn**	**04 13 06.2**	**+1.3**
JCZ				S	**Sn**	**04 14 34.2**	**-1.2**
FOZ	**Fox Glacier**	**8.73**	**43**	P	**P**	**04 13 16.8**	**+0.6**
RPZ	**Rata Peaks**	**9.24**	**49**	Pn	**P**	**04 13 20.0**	**-3.2**
	1.4nm,0.3s,baz=266,slow=4.8,SNR=4.8						
RPZ				Sn	**Sn**	**04 15 01.0**	**-7.4**
	0.8nm,0.3s,baz=48,slow=18,SNR=2.8						
STKA	**Stephens Creek**	**23.57**	**314**	P	**P**	**04 16 21.1**	**+2.8**
	2.2nm,0.6s,mb3.8,baz=138,slow=9.5,SNR=14						
ASAR	**Alice Springs**	**34.13**	**311**	P	**P**	**04 17 54.0**	**0.0**
	5.2nm,0.7s,mb4.6,baz=148,slow=8.4,SNR=59						
WRA	**Warramunga Arr**	**37.12**	**315**	P	**P**	**04 18 18.6**	**-0.8**
	3.9nm,0.8s,mb4.3,baz=146,slow=8.3,SNR=21						
PMG	**Port Moresby**	**42.41**	**339**	P	**P**	**04 19 01.0**	**-2.4**
	1.9nm,0.5s,mb4.0,baz=208,slow=11,SNR=3.6						
SNAA	**Sanae**	**57.88**	**186**	*e*S	**S**	**04 28 58.0**	**-0.5**
VNA3	**Neumayer Olymp**	**58.65**	**183**	*e*S	**S**	**04 29 13.6**	**+4.9**
VNA2	**Neumayer--Watz**	**58.87**	**184**	*e*S	**S**	**04 29 03.5**	**-8.1**
ARCES	**ARCESS Array B**	**151.65**	**329**	PKPbc	PKPdf	04 31 01.7	+5.1
	3.1nm,0.9s,baz=90,slow=2.7,SNR=5.9						
FINES	**FINESS Array B**	**153.13**	**312**	PKPbc	PKPdf	04 31 04.5	+5.6
	3.0nm,1.1s,baz=135,slow=2.0,SNR=5.2						

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*IDC **25** 04:14:50.4±1.9, 14.71S×171.78E, h600^{km}±20^{km}, mb3.3/11, mb1 3.5/11, mb1mx3.5/14, Error ellipse: s-maj=24.9km s-min=15.1km az=142.0*

*NEIC **25** 04:14:53.1±4.3, 14.81S×171.64E, h632^{km}±51^{km}, mb4.2/4, Error ellipse: s-maj=29.8km s-min=23.1km az=211.0*

ISC 25 04:14:49.3±0.7**, 14.8S**±0.2×**171.7E**±0.1**, h600**^{km}**, n20,** σ0^{s}**76**/18**, mb3.9**/14**, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**24.86**	**254**	P	**P**	**04 19 28.2**	**0.0**
	2.5nm,0.8s,mb3.9,baz=70,slow=14,SNR=5.1						
STKA	**Stephens Creek**	**32.34**	**233**	*e*P	**P**	**04 20 33.3**	**+1.0**
	4.0nm,0.6s,mb4.2						
STKA	**Stephens Creek**	**32.34**	**233**	P	**P**	**04 20 33.2**	**+1.0**
	4.9nm,0.6s,mb4.3,baz=62,slow=8.8,SNR=20						
STKA				ScP		04 25 49.0	
	1.0nm,0.5s,baz=78,slow=5.0,SNR=6.9						
WB2	**Warramunga Arr**	**36.00**	**256**	*e*P	**P**	**04 21 02.6**	**-0.1**
WRAB	**Tennant Creek**	**36.00**	**256**	*e*P	**P**	**04 21 01.4**	**-1.3**
	7.6nm,0.7s,mb4.3						
WRA	**Warramunga Arr**	**36.01**	**256**	P	**P**	**04 21 02.7**	**-0.1**
	6.2nm,0.8s,mb4.2,baz=88,slow=8.3,SNR=39						
WRA				ScP		04 26 02.0	
	0.6nm,0.7s,baz=87,slow=4.4,SNR=4.6						
ASAR	**Alice Springs**	**36.71**	**250**	P	**P**	**04 21 08.4**	**0.0**
	4.9nm,0.6s,mb4.2,baz=78,slow=8.9,SNR=58						
ASAR				PcP	PcP	04 23 14.1	-0.9
	0.7nm,0.8s,baz=105,slow=3.7,SNR=4.9						
ASAR				ScP		04 26 04.8	
	1.0nm,0.7s,baz=91,slow=3.8,SNR=8.9						
ASPA	**Alice Springs**	**36.71**	**250**	*e*P	**P**	**04 21 08.5**	**0.0**
KAKA	**Kakadu**	**38.19**	**268**	*e*P	**P**	**04 21 20.9**	**+0.2**
	5.5nm,0.6s,mb4.3						
FITZ	**Fitzroy Crossi**	**44.25**	**259**	*e*P	**P**	**04 22 09.1**	**+0.3**
	7.6nm,0.9s,mb4.2						
VNDA	**Vanda**	**62.96**	**182**	P	**P**	**04 24 19.1**	**-0.7**
	1.0nm,0.6s,mb3.3,baz=23,slow=5.6,SNR=8.0						
CMAR	**Chiang Mai Arr**	**78.94**	**292**	P	**P**	**04 25 54.6**	**+1.1**
	2.5nm,0.8s,mb3.6,baz=129,slow=4.5,SNR=10						
NVAR	**Mina Array Bea**	**84.06**	**48**	P	**P**	**04 26 20.0**	**+0.9**
	1.0nm,0.7s,mb3.5,baz=224,slow=7.8,SNR=11						
NVAR	**Mina Array Bea**	**84.06**	**48**	P	**P**	**04 26 20.0**	**+0.9**
SONM	**Songino Array**	**85.14**	**322**	P	**P**	**04 26 24.0**	**-0.2**
	0.2nm,0.5s,mb3.0,baz=137,slow=5.1,SNR=4.2						
ILAR	**Eielson Array**	**85.29**	**17**	P	**P**	**04 26 22.5**	**-2.0**
	1.0nm,0.6s,mb3.6,baz=238,slow=5.1,SNR=24						
TXAR	**Lajitas Array**	**92.52**	**60**	P	**P**	**04 26 59.6**	**+0.6**
	0.4nm,0.6s,mb3.6,baz=217,slow=4.7,SNR=7.0						
YKA	**Yellowknife Ar**	**95.63**	**27**	P	**P**	**04 27 12.1**	**-0.1**
	0.4nm,0.5s,mb3.9,baz=256,slow=4.7,SNR=21						
ARCES	**ARCESS Array B**	**121.33**	**347**	PKP	PKPdf	04 32 34.5	-0.1
	1.6nm,0.8s,baz=69,slow=2.0,SNR=10						
FINES	**FINESS Array B**	**127.30**	**340**	PKP	PKPdf	04 32 46.6	+0.2
	1.5nm,1.0s,baz=45,slow=2.7,SNR=3.4						

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*IDC **25** 04:21:39.3±1.1, 53.99S×6.61E, mb4.3/5, mb1 4.4/6, mb1mx3.9/15, ML4.0/1, MS4.1/8, Ms1 4.1/8, ms1mx3.7/17, Error ellipse: s-maj=42.0km s-min=25.7km az=49.0*

*NEIC **25** 04:21:40.6±0.6, 53.99S×6.64E, h10^{km}, mb4.6/2, Error ellipse: s-maj=25.6km s-min=13.1km az=60.0*

ISC 25 04:21:38.8±1.1**, 53.9S**±0.2×**6.7E**±0.3**, h10**^{km}**, n29,** σ0^{s}**58**/16**, mb4.4**/7**, MS4.1**/7**, 5C, Bouvet Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA2	**Neumayer--Watz**	**18.18**	**195**	⇑*i*	**P**	**04 25 53.3**	**+0.7**
VNA2	**Neumayer--Watz**	**18.18**	**195**	*e*	**P**	**04 26 02.8**	**+10**
SNAA	**Sanae**	**18.30**	**190**	⇑*i*	**P**	**04 25 52.4**	**-1.7**
SNAA	**Sanae**	**18.30**	**190**	*e*	**P**	**04 26 02.7**	**+8.6**
SNAA	**Sanae**	**18.30**	**190**	P	**P**	**04 25 52.2**	**-1.9**
	0.5nm,0.3s,baz=19,slow=14,SNR=81						
SNAA				LR	LR	04 31 10.6	
	comp=Z,330nm,20.1s,baz=13,slow=31						
VNA3	**Neumayer Olymp**	**18.82**	**196**	⇑*i*	**P**	**04 26 01.4**	**+0.9**
VNA3	**Neumayer Olymp**	**18.82**	**196**	*e*	**P**	**04 26 12.7**	**+12**
SYO	**Syowa Base**	**21.38**	**148**	⇑P	**P**	**04 26 28.1**	**-0.2**
MAW	**Mawson**	**29.42**	**140**	LR	LR	04 37 08.5	
	comp=Z,241nm,19.4s,MS3.8,baz=81,slow=32						
MAW	**Mawson**	**29.42**	**140**	P	**P**	**04 27 43.7**	**-0.3**
	5.5nm,0.9s,mb4.3						
QSPA	**South Pole Qui**	**36.32**	**180**	⇑*i*P	**P**	**04 28 44.0**	**+0.1**
	16nm,1.0s,mb4.9						
VNDA	**Vanda**	**47.91**	**173**	P	**P**	**04 30 18.9**	**+0.5**
	2.9nm,0.9s,mb4.3,baz=208,slow=7.8,SNR=5.6						
VNDA				LR	LR	04 49 16.8	
	comp=Z,241nm,18.5s,MS4.2,baz=198,slow=35						
BDFB	**Brasilia**	**56.97**	**290**	P	**P**	**04 31 26.4**	**-0.4**
	5.1nm,0.9s,mb4.5,baz=116,slow=4.6,SNR=4.8						
BDFB				LR	LR	04 50 34.0	
	comp=Z,216nm,18.4s,MS4.3,baz=333,slow=30						
KMBO	**Kilima Mbogo**	**58.32**	**37**	LR	LR	04 55 24.9	
	comp=Z,231nm,18.9s,MS4.3,baz=268,slow=35						
DBIC	**Dimbokro**	**61.15**	**347**	LR	LR	04 53 33.1	
	comp=Z,91nm,18.4s,MS4.0,baz=229,slow=31						
LVC	**Limon Verde**	**63.65**	**267**	P	**P**	**04 32 12.4**	**+0.2**
	2.0nm,0.7s,mb4.3,baz=150,slow=12,SNR=3.1						
LPAZ	**La Paz**	**68.09**	**272**	P	**P**	**04 32 40.7**	**0.0**
	2.5nm,0.8s,mb4.3,baz=130,slow=6.0,SNR=9.9						
LPAZ				LR	LR	04 58 19.9	
	comp=Z,83nm,21.1s,MS3.9,baz=344,slow=32						
LPAZ	**La Paz**	**68.09**	**272**	P	**P**	**04 32 40.7**	**-0.1**
LPAZ				LR	LR	04 58 19.9	
RPZ	**Rata Peaks**	**81.82**	**169**	LR	LR	05 10 29.3	
	comp=Z,132nm,18.2s,MS4.3,baz=124,slow=36						
ASAR	**Alice Springs**	**90.34**	**133**	P	**P**	**04 34 41.5**	**+0.4**
	1.2nm,1.0s,mb4.2,baz=202,slow=4.8,SNR=6.1						
SONM	**Songino Array**	**131.51**	**62**	PKP	PKPdf	04 40 53.5	-0.6
	0.5nm,1.0s,baz=225,slow=1.7,SNR=3.5						
SONM	**Songino Array**	**131.51**	**62**	PKP	PKPdf	04 40 53.5	-0.6
PDAR	**Pinedale Array**	**137.59**	**282**	PKP	PKPdf	04 41 02.4	-3.1
	0.3nm,0.7s,baz=90,slow=3.0,SNR=3.7						
NVAR	**Mina Array Bea**	**139.97**	**270**	PKP	PKPdf	04 41 10.2	+0.3
	0.2nm,0.8s,baz=225,slow=2.6,SNR=2.6						
EDM	**Edmonton**	**145.34**	**294**	*e*PKP	PKPdf	04 41 17.4	-1.3
YKA	**Yellowknife Ar**	**148.97**	**310**	PKPbc	PKPdf	04 41 26.4	+2.1
	2.3nm,0.8s,baz=98,slow=2.5,SNR=23						
YKA	**Yellowknife Ar**	**148.97**	**310**	PKPbc	PKPdf	04 41 26.4	+2.1
YKW3	**Yellowknife Ar**	**148.99**	**310**	*e*PKPbc	PKPdf	04 41 26.4	+2.0
ILAR	**Eielson Array**	**162.86**	**320**	PKPab	PKPab	04 42 31.5	+0.8
	1.5nm,0.9s,baz=45,slow=3.2,SNR=13						

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*IDC **25** 04:30:49.0±1.6, 21.60N×143.17E, h304^{km}±16^{km}, mb3.7/13, mb1 3.8/14, mb1mx3.7/25, Error ellipse: s-maj=21.6km s-min=9.2km az=92.0*

*NEIC **25** 04:30:50.0±2.4, 21.62N×143.04E, h315^{km}±24^{km}, mb3.9/5, Error ellipse: s-maj=19.1km s-min=6.7km az=90.0*

ISC 25 04:30:48.5±1.2**, 21.59N**±0.06×**143.1E**±0.2**, h314**^{km}±11^{km}**, n29,** σ0^{s}**71**/30**, mb4.0**/17**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**5.54**	**352**	P	**P**	**04 32 12.9**	**-0.4**
	25nm,0.3s,baz=180,slow=16,SNR=12						
CBIJ				S	**S**	**04 33 20.7**	**+0.8**
	13nm,0.3s,baz=310,slow=19,SNR=4.8						
MAT	**Matsushiro**	**15.49**	**345**	P	**P**	**04 34 10.5**	**-2.2**
MAT	**Matsushiro**	**15.49**	**345**	*e*P	**P**	**04 34 11.0**	**-1.7**
SONM	**Songino Array**	**39.35**	**321**	P	**P**	**04 37 50.6**	**+1.1**
	0.9nm,0.5s,mb3.5,baz=135,slow=7.9,SNR=12						
CTA	**Charters Tower**	**41.54**	**175**	*e*P	**P**	**04 38 08.3**	**+0.6**
	4.8nm,1.5s,mb3.5						
CTA	**Charters Tower**	**41.54**	**175**	P	**P**	**04 38 07.5**	**-0.2**
	1.2nm,0.4s,mb3.5,baz=355,slow=9.8,SNR=7.9						
WRAB	**Tennant Creek**	**42.14**	**192**	*e*P	**P**	**04 38 12.2**	**-0.3**
	10nm,0.5s,mb4.3						
WB2	**Warramunga Arr**	**42.15**	**192**	*e*P	**P**	**04 38 12.7**	**+0.1**
WRA	**Warramunga Arr**	**42.15**	**192**	P	**P**	**04 38 12.7**	**+0.1**
	7.0nm,0.7s,mb4.0,baz=14,slow=8.5,SNR=53						
FITZ	**Fitzroy Crossi**	**42.98**	**205**	*e*P	**P**	**04 38 19.4**	**+0.1**
	7.0nm,0.6s,mb4.1						
ASAR	**Alice Springs**	**45.86**	**192**	P	**P**	**04 38 41.6**	**-0.3**
	1.1nm,0.5s,mb3.4,baz=9.9,slow=6.2,SNR=21						
ASPA	**Alice Springs**	**45.86**	**192**	*e*P	**P**	**04 38 42.2**	**+0.2**
STKA	**Stephens Creek**	**53.18**	**182**	P	**P**	**04 39 36.7**	**-0.2**
	3.2nm,0.5s,mb3.9,baz=4.8,slow=6.7,SNR=13						
STKA	**Stephens Creek**	**53.18**	**182**	P	**P**	**04 39 36.7**	**-0.2**
ILAR	**Eielson Array**	**62.18**	**27**	P	**P**	**04 40 37.5**	**-1.1**
	1.2nm,0.5s,mb3.8,baz=259,slow=5.5,SNR=35						
CHKZ	**Chkalovo**	**62.55**	**320**	*e*P	**P**	**04 40 41.0**	**-0.1**
	1.0nm,0.4s,mb3.8						
BVAR	**Borovoye Array**	**62.68**	**320**	P	**P**	**04 40 42.5**	**+0.4**
	5.8nm,0.3s,mb4.6,baz=101,slow=7.9,SNR=48						
INK	**Inuvik**	**67.71**	**24**	P	**P**	**04 41 13.6**	**-0.1**
	2.1nm,0.9s,mb3.9,baz=286,slow=4.8,SNR=12						
INK	**Inuvik**	**67.71**	**24**	P	**P**	**04 41 13.6**	**-0.1**
YKA	**Yellowknife Ar**	**76.60**	**28**	P	**P**	**04 42 06.1**	**+0.2**
	1.7nm,0.5s,mb4.1,baz=291,slow=6.0,SNR=30						
YKA	**Yellowknife Ar**	**76.60**	**28**	P	**P**	**04 42 06.1**	**+0.2**
KEV	**Kevo**	**78.42**	**341**	*e*p	**P**	**04 42 16.1**	**+0.4**
ARCES	**ARCESS Array B**	**78.99**	**341**	P	**P**	**04 42 19.7**	**+1.0**
	4.3nm,0.6s,mb4.4,baz=71,slow=8.1,SNR=33						
JOF	**Joensuu**	**80.36**	**334**	*e*p	**P**	**04 42 26.0**	**-0.1**
KAF	**Kangasniemi**	**82.77**	**335**	*e*p	**P**	**04 42 38.0**	**-0.5**
	0.8nm,0.4s,mb3.9,baz=54,slow=4.8						
FINES	**FINESS Array B**	**83.23**	**334**	P	**P**	**04 42 40.7**	**-0.1**
	1.8nm,0.4s,mb4.3,baz=74,slow=5.4,SNR=51						
FINES	**FINESS Array B**	**83.23**	**334**	P	**P**	**04 42 40.7**	**-0.1**
NVAR	**Mina Array Bea**	**83.29**	**51**	P	**P**	**04 42 43.1**	**+1.5**
	0.9nm,0.7s,mb3.7,baz=282,slow=5.9,SNR=9.5						
HFS	**Hagfors**	**88.78**	**337**	P	**P**	**04 43 06.6**	**-1.1**
	3.7nm,0.8s,mb4.2,baz=72,slow=4.6,SNR=6.4						

IDC 25 05:00:21.6±4.8**, 50.80S**×**161.93E, mb4.1**/4**, mb1 4.3**/5**, mb1mx4.0**/9**, ML3.6**/1**, MS3.5**/1**, Ms1 3.4**/1**, ms1mx2.3**/15**, Error ellipse: s-maj=104.0km s-min=42.6km az=167.0, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	**Rata Peaks**	**9.41**	**45**	Pn	P	05 02 38.6	-3.0
	0.6nm,0.3s,baz=164,slow=14,SNR=2.8						
STKA	**Stephens Creek**	**24.16**	**314**	P	P	05 05 39.6	-0.5
	5.7nm,1.1s,baz=130,slow=7.9,SNR=4.2						
STKA				LR	LR	05 13 02.1	
	comp=Z,103nm,20.2s,baz=121,slow=32						
ASAR	**Alice Springs**	**34.70**	**311**	P	P	05 07 13.3	-1.8
	2.4nm,0.9s,baz=149,slow=8.3,SNR=16						
WRA	**Warramunga Arr**	**37.71**	**315**	P	P	05 07 38.3	-2.2
	2.6nm,1.0s,baz=148,slow=8.0,SNR=8.7						
CMAR	**Chiang Mai Arr**	**88.26**	**302**	P	P	05 13 14.7	-1.3
	0.7nm,0.3s,baz=149,slow=5.3,SNR=4.5						

*IDC **25** 05:00:47.2±1.0, 22.64S×170.81E, mb3.9/8, mb1 4.1/8, mb1mx4.0/14, MS3.6/1, Ms1 3.6/1, ms1mx2.9/21, Error ellipse: s-maj=36.5km s-min=24.0km az=151.0*
*NEIC **25** 05:00:49.0±0.8, 22.65S×170.76E, h10^{km}, mb4.0/1, Error ellipse: s-maj=17.6km s-min=12.0km az=198.0*
ISC 25 05:00:50.9±2.7**, 22.8S**±0.2×**170.6E**±0.1**, h33**^{km}±22^{km}**, n20, σ0ˢ70**/18**, mb3.9**/7**, MS3.6**/1**, Southeast of Loyalty Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.94	279	eP	P	05 01 50.8	+0.3
DZM				eS	S	05 02 36.8	+0.5
DZM	Mont Dzumac	3.94	279	eP	P	05 01 50.8	+0.3
DZM				eS	S	05 02 36.8	+0.5
NOUC	Port Laguerre	4.07	278	eP	P	05 01 52.7	+0.4
NOUC				eS	S	05 02 38.1	-1.3
NOUC	Port Laguerre	4.07	278	eP	P	05 01 52.7	+0.4
NOUC				eS	S	05 02 38.1	-1.3
RPZ	Rata Peaks	20.91	179	P	P	05 05 32.6	-0.2
	12nm,0.9s,baz=79,slow=6.2,SNR=3.7						
CTA	Charters Tower	22.85	272	P	P	05 05 54.6	+2.2
	1.9nm,0.9s,mb3.5,baz=98,slow=7.1,SNR=3.8						
CTAO	Charters Tower	22.85	272	eP	P	05 05 53.0	+0.5
	4.1nm,0.9s,mb3.9						
STKA	Stephens Creek	27.29	244	P	P	05 06 35.5	+1.0
	1.5nm,0.8s,mb3.6,baz=83,slow=13,SNR=3.3						
ASAR	Alice Springs	33.72	261	P	P	05 07 32.0	+0.7
	1.2nm,0.9s,mb3.8,baz=85,slow=8.9,SNR=6.5						
WRA	Warramunga Arr	33.87	268	P	P	05 07 32.4	-0.3
	0.3nm,0.5s,mb3.5,baz=93,slow=8.4,SNR=3.7						
WRA	Warramunga Arr	33.87	268	P	P	05 07 32.4	-0.3
VNDA	Vanda	54.98	182	LR	LR	05 30 27.9	
	comp=Z,51nm,18.8s,MS3.6,baz=353,slow=32						
CMAR	Chiang Mai Arr	81.13	294	P	P	05 13 05.8	+0.9
	0.7nm,0.4s,mb4.0,baz=104,slow=3.7,SNR=3.2						
NVAR	Mina Array Bea	90.16	48	P	P	05 13 49.0	-0.1
	0.6nm,0.6s,mb4.1,baz=232,slow=9.5,SNR=11						
SONM	Songino Array	90.80	323	P	P	05 13 52.3	+0.3
	2.8nm,1.3s,mb4.4,baz=124,slow=4.5,SNR=4.1						
ARCES	ARCESS Array B	128.78	345	PKP	PKPdf	05 19 54.6	+0.1
	6.8nm,1.0s,slow=1.2,SNR=5.2						
EKA	Eskdalemuir Ar	147.14	353	PKPbc	PKPdf	05 20 30.9	+3.0
	2.0nm,0.5s,baz=354,slow=2.9,SNR=9.5						
KHC	Kasperske Hory	148.04	331	ePKP	PKPdf	05 20 35.0	+5.4
GERES	GERESS Array B	148.19	331	PKPbc	PKPdf	05 20 34.5	+4.6
	0.9nm,0.7s,SNR=5.2						
DAVOX	Davos	151.44	332	PKPbc	PKPdf	05 20 43.0	+8.0
	2.9nm,0.8s,baz=44,slow=3.7,SNR=7.9						
DAVOX				PKPab	PKPab	05 20 51.5	-0.3
	2.7nm,0.5s,baz=314,slow=12,SNR=7.4						

*IDC **25** 05:27:40.7±2.4, 41.86N×29.24W, mb3.4/3, mb1 3.8/4, mb1mx3.4/23, ML4.2/1, MS3.6/6, Ms1 3.6/6, ms1mx3.3/18, Error ellipse: s-maj=85.5km s-min=29.0km az=1.0*
ISC 25 05:27:38.8±0.9**, 41.5N**±0.1×**29.2W**±0.2**, h10**^{km}**, n13, σ0ˢ48**/8**, mb3.5**/3**, MS3.6**/6**, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASBA	Santa Barbara	3.17	152	eP	Pn	05 28 29.5	-0.3
ASBA				eS	Sn	05 28 30.2	-38
	48nm,0.2s						
PVNV	Vila Nova	3.20	149	eS	Pn	05 28 30.3	+0.1
	30nm,0.2s						
PPAD	Pico dos Padre	3.20	151	eS	Pn	05 28 30.4	+0.1
	10nm,0.1s						
PFAV	Pico das Favas	3.27	149	eS	Pn	05 28 31.0	-0.2
	22nm,0.2s						
ESDC	Sonseca Array	19.27	87	P	P	05 32 06.2	+0.1
	0.1nm,0.3s,baz=288,slow=13,SNR=5.8						
SCHQ	Schefferville	28.00	311	LR	LR	05 42 51.5	
	comp=Z,81nm,18.8s,MS3.3,baz=248,slow=33						
FINES	FINESS Array B	38.32	40	LR	LR	05 48 49.3	
	comp=Z,94nm,20.1s,MS3.6,baz=328,slow=33						
ULM	Lac du Bonnet	45.76	305	LR	LR	05 53 18.8	
	comp=Z,81nm,21.2s,MS3.6,baz=38,slow=34						
YKA	Yellowknife Ar	52.18	324	P	P	05 36 50.3	-1.0
	0.4nm,0.9s,mb3.3,baz=64,slow=7.4,SNR=3.8						
PDAR	Pinedale Array	57.32	300	LR	LR	06 00 00.3	
	comp=Z,80nm,20.8s,MS3.8,baz=243,slow=34						
BDFB	Brasilia	59.48	201	LR	LR	05 59 07.3	
	comp=Z,46nm,20.8s,MS3.6,baz=115,slow=32						
TXAR	Lajitas Array	60.13	284	P	P	05 37 49.6	+0.8
	0.4nm,0.8s,mb3.5,baz=90,slow=5.4,SNR=2.9						
TXAR				LR	LR	06 01 50.1	
	comp=Z,72nm,20.0s,MS3.8,baz=160,slow=34						
BVAR	Borovoye Array	63.22	42	P	P	05 38 09.5	+0.3
	0.5nm,0.7s,mb3.8,baz=297,slow=3.2,SNR=3.5						

*JMA **25** 05:37:09.9±0.1, 24.60N×122.79E, h87^{km}, M2.2*
TAP 25 05:37:09.6, 24.69N×122.84E, h43^{km}±1^{km}**, ML3.0, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.28	146	P	P	05 37 22.7	+4.9
YOJ				S	S	05 37 32.5	+8.9
IRIF	Iriomote-Funau	0.88	113	P	P	05 37 28.2	+2.5
IRIF				S	S	05 37 41.7	+4.1
HATJ	Hateruma jima	1.08	125	S	S	05 37 45.3	+2.8
JKRS	Kuro-shima	1.16	113	P	P	05 37 31.9	+2.4
JKRS				S	S	05 37 47.9	+3.5
JIJ	Ishigaki jima	1.23	105	P	P	05 37 32.5	+1.9
JIJ				S	S	05 37 48.7	+2.4

*NEIC **25** 06:02:36.0, 39.81N×20.40E, h26^{km}, MD3.3(ATH), After ATH.*
*ATH **25** 06:02:36.0, 39.82N×20.40E, h27^{km}±1^{km}, MD3.3/6*
*CSEM **25** 06:02:37.7±0.1, 39.67N×20.34E, h1^{km}±1^{km}, ML3.3, Error ellipse: s-maj=3.4km s-min=2.6km az=116.0*
THE 25 06:02:36.8, 39.70N×20.22E, h10^{km}**, ML3.3, 2D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IGT	Igoumenitsa	0.19	152	ePg	Pg	06 02 40.4	-0.6
IGT				eSg	Sg	06 02 43.8	0.0
KEK	Kerkira	0.33	273	⇓iPB	Pb	06 02 45.7	+1.5
KEK				eSB	Sb	06 02 53.6	+4.4
JAN	Janina	0.49	95	⇓iPB	Pb	06 02 44.0	-3.0
JAN				eSB	Sb	06 02 50.7	-3.2
KZN	Kozani	1.34	63	ePN	Pn	06 02 58.2	-3.4
FNA	Florina	1.40	39	ePb	Pb	06 03 03.2	+0.6
FNA				eSb	Sb	06 03 22.8	+2.5
EVR	Evrytania	1.46	122	ePN	Pn	06 03 02.4	-1.0
VLS	Valsamata	1.55	169	ePN	Pn	06 03 05.4	+0.8
VLS				eSN	Sn	06 03 27.0	+2.1
AGG	Agios Georgios	1.77	112	ePb	Pb	06 03 07.8	-1.1
AGG				eSb	Sb	06 03 32.4	+1.2
AGG	Agios Georgios	1.77	112	eSb	Sb	06 03 32.4	+1.3
LIT	Litokhoron	1.79	76	ePb	Pb	06 03 07.8	-1.5
LIT				eSb	Sb	06 03 32.8	+1.1
GRG	Griva	2.09	52	ePn	Pn	06 03 12.6	+0.2
GRG				eSn	Sn	06 03 40.3	+1.7
XOR	Xorichti	2.32	97	ePn	Pn	06 03 16.3	+0.6
XOR				eSn	Sn	06 03 45.8	+1.2
LKR	Lokris	2.40	115	ePB	Pb	06 03 16.4	-3.3
KNT	Kendrikon	2.51	54	ePn	Pn	06 03 18.4	0.0
SOH	Sokhos	2.65	64	ePn	Pn	06 03 21.0	+0.6
PAIG	Paliouri	2.67	84	ePn	Pn	06 03 19.8	-1.0
PAIG				eSn	Sn	06 03 54.9	+1.4
OUR	Ouranopolis	2.96	76	ePn	Pn	06 03 23.9	-0.9
LOS	Limnos	3.75	85	ePn	Pn	06 03 35.5	-0.5

IDC 25 06:09:01.0±55.0**, 19.12S**×**178.83W, mb3.6**/3**, mb1 3.8**/3**, mb1mx3.6**/13**, MS3.3**/1**, Ms1 3.3**/1**, ms1mx2.9**/19**, Error ellipse: s-maj=1011.0km s-min=154.6km az=81.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	34.29	282	LR	LR	06 26 04.1	
	comp=Z,44nm,20.2s,baz=232,slow=30						
STKA	Stephens Creek	37.71	242	P	P	06 16 18.5	-1.6
	0.5nm,0.6s,baz=67,slow=5.6,SNR=3.3						
WRA	Warramunga Arr	44.03	261	P	P	06 17 11.0	-1.5
	0.3nm,0.3s,baz=97,slow=7.6,SNR=4.6						
ASAR	Alice Springs	44.09	255	P	P	06 17 10.9	-2.0
	0.5nm,0.7s,baz=89,slow=7.7,SNR=11						

*NEIC **25** 06:20:52.8, 38.55N×23.56E, h2^{km}, ML2.6(ATH), After ATH.*
*ATH **25** 06:20:52.6, 38.54N×23.56E, h5^{km}±2^{km}, MD2.8/6, ML2.6*
*CSEM **25** 06:20:53.0±0.1, 38.55N×23.59E, h10^{km}, ML2.6, Error ellipse: s-maj=2.6km s-min=1.0km az=82.0*
*THE **25** 06:20:54.5, 38.62N×23.61E, h16^{km}, ML2.6*
ISC 25 06:20:51.7±0.5**, 38.55N**±0.02×**23.61E**±0.06**, h5**^{km}**, n14, σ0ˢ76**/20**, 1C, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPAR	Parnis Oros	0.41	166	ePB	Pb	06 21 00.7	-0.2
MPAR				eSB	Sb	06 21 07.0	-0.1
LKR	Lokris	0.49	282	ePB	Pb	06 21 01.5	-0.9
PTL	Penteli	0.54	158	ePB	Pb	06 21 03.0	-0.1
ATH	Athens Observa	0.58	172	ePB	Pb	06 21 04.0	+0.1
ATH				eSB	Sb	06 21 12.2	+0.1
MGER	Gerania Oros	0.62	207	ePB	Pb	06 21 04.7	0.0
NSAL	Nisos Salamina	0.65	191	ePB	Pb	06 21 05.3	+0.2
AOS	Alonnisos	0.66	18	ePg	Pg	06 21 05.2	+0.4
AOS				eSg	Sg	06 21 15.1	+1.5
NAIG	Nisos Aigina	0.79	187	ePB	Pb	06 21 08.5	+1.0
NEO	Neokhori	0.82	338	⇑iPB	Pb	06 21 08.2	+0.2
XOR	Xorichti	0.88	338	ePg	Pg	06 21 09.2	-0.1
XOR				eSg	Sg	06 21 21.5	+0.5
AGG	Agios Georgios	1.11	296	ePg	Pg	06 21 13.4	-0.4
AGG				eSg	Sg	06 21 29.8	+1.1
PAIG	Paliouri	1.38	2	ePb	Pb	06 21 17.4	-0.2
OUR	Ouranopolis	1.81	9	ePb	Pb	06 21 23.7	-1.2
KNT	Kendrikon	2.67	348	ePn	Pn	06 21 35.6	-0.4
KNT				eSn	Sn	06 22 06.3	-2.9

*NEIC **25** 06:34:50.2±0.5, 11.08S×163.67E, h10^{km}, mb4.7/9, Error ellipse: s-maj=18.2km s-min=10.8km az=138.0*
*IDC **25** 06:34:56.4±3.8, 11.05S×163.63E, h56^{km}±34^{km}, mb3.9/9, mb1 4.2/11, mb1mx4.1/16, ML3.8/2, MS3.6/3, Ms1 3.6/3, ms1mx3.2/21, Error ellipse: s-maj=37.8km s-min=16.4km az=141.0*
ISC 25 06:34:48.5±0.5**, 11.24S**±0.08×**163.64E**±0.08**, h10**^{km}**, n36, σ1ˢ03**/37**, mb4.5**/20**, MS3.6**/2**, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	11.10	166	eP	P	06 37 30.8	+0.3
DZM				eS	S	06 39 31.5	-4.2
PMG	Port Moresby	16.32	275	P	P	06 38 46.2	+6.6
	0.3nm,0.3s,baz=130,slow=7.0,SNR=4.1						
CTA	Charters Tower	18.90	240	eP	P	06 39 14.9	+3.3
	20nm,0.8s						
CTA	Charters Tower	18.90	240	P	P	06 39 14.9	+3.3
	0.7nm,0.3s,baz=66,slow=11,SNR=38						
CTA				LR	LR	06 45 33.3	
	comp=Z,143nm,18.8s,baz=50,slow=34						
CTAO	Charters Tower	18.90	240	eP	P	06 39 14.6	+3.0
	33nm,0.9s						
STKA	Stephens Creek	28.91	221	eP	P	06 40 51.5	+1.6
	3.2nm,0.9s,mb4.0						
STKA	Stephens Creek	28.91	221	P	P	06 40 51.8	+1.9
	2.1nm,0.7s,mb4.0,baz=34,slow=12,SNR=10						
STKA				LR	LR	06 51 43.1	
	comp=Z,127nm,18.7s,MS3.6,baz=27,slow=35						
WRAB	Tennant Creek	29.47	249	eP	P	06 40 54.5	-0.6
	9.3nm,0.7s,mb4.6						
WB2	Warramunga Arr	29.47	249	eP	P	06 40 54.6	-0.5
WRA	Warramunga Arr	29.48	249	P	P	06 40 54.8	-0.4
	7.4nm,0.8s,mb4.5,baz=78,slow=9.1,SNR=24						
WRA				S	S	06 45 47.6	-0.5
	3.9nm,1.2s,baz=76,slow=14,SNR=5.4						
KAKA	Kakadu	30.59	264	eP	P	06 41 01.6	-3.4
	6.6nm,0.5s,mb4.7						
ASAR	Alice Springs	30.87	242	P	P	06 41 06.9	-0.5
	2.7nm,0.6s,mb4.3,baz=63,slow=10.0,SNR=32						
ASAR	Alice Springs	30.87	242	P	P	06 41 06.9	-0.5
ASPA	Alice Springs	30.87	242	eP	P	06 41 06.8	-0.6
FITZ	Fitzroy Crossi	37.34	255	eP	P	06 42 02.2	-0.9
	12nm,0.6s,mb4.9						
MBWA	Marble Bar	43.18	251	eP	P	06 42 51.4	-0.1
ASAJ	Asahikawa	58.32	342	LR	LR	07 05 31.1	
	comp=Z,67nm,21.8s,MS3.7,baz=328,slow=32						
CMAR	Chiang Mai Arr	70.30	294	P	P	06 46 04.4	-0.3
	0.9nm,0.4s,mb4.1,baz=110,slow=4.3,SNR=6.0						
ULN	Ulaanbaatar	77.26	325	eP	P	06 46 45.1	+0.5
SONM	Songino Array	77.61	325	P	P	06 46 46.8	+0.2
	1.5nm,0.9s,mb3.9,baz=96,slow=12,SNR=9.8						
BILL	Bilibino	79.09	1	eP	P	06 46 53.6	-0.7
	9.3nm,0.9s,mb4.7						
MAW	Mawson	83.76	202	P	P	06 47 21.1	+2.3
	4.2nm,0.7s,mb4.7,baz=76,slow=6.6,SNR=5.5						
COLA	College	84.12	19	eP	P	06 47 20.4	-0.2
	4.4nm,0.9s,mb4.6						
GUN	Gumba	84.61	300	eP	P	06 47 25.0	+1.0
	5.7nm,0.5s,mb5.0						
PKI	Pulchoki	84.93	299	eP	P	06 47 25.7	+0.1
	7.0nm,0.6s,mb5.0						
KKN	Kakani	85.09	299	eP	P	06 47 26.7	+0.3
	5.4nm,0.5s,mb4.9						
DMN	Daman	85.20	299	eP	P	06 47 27.9	+1.0
	19nm,1.2s,mb5.1						
GKN	Gorkha	85.70	299	eP	P	06 47 29.6	+0.2
KOLN	Koldanda	86.53	299	eP	P	06 47 33.6	+0.1
	2.5nm,0.2s,mb5.0						
NVAR	Mina Array Bea	87.73	50	P	P	06 47 38.5	-0.6
	0.6nm,0.8s,mb3.9,baz=209,slow=5.0,SNR=4.6						
MNV	Mina	87.84	50	eP	P	06 47 42.5	+2.8
	4.5nm,1.3s,mb4.5						
BMO	Blue Mountains	90.21	44	eP	P	06 47 51.0	+0.3
ELK	Elko	90.62	49	P	P	06 47 52.1	-0.6
PDAR	Pinedale Array	95.20	48	P	P	06 48 13.8	+0.1
	0.1nm,0.5s,mb3.5,baz=141,slow=5.8,SNR=2.0						
YKA	Yellowknife Ar	96.10	28	P	P	06 48 15.2	-2.1
	0.4nm,0.8s,mb3.9,baz=254,slow=4.7,SNR=6.7						
YKA	Yellowknife Ar	96.10	28	P	P	06 48 15.2	-2.1

*LDG **25** 06:35:56.7±0.1, 45.67N×6.43E, h3^{km}, Md1.9/2, Ml1.4/3, Error ellipse: s-maj=2.0km s-min=1.3km az=62.0*
ZUR 25 06:35:54.3, 45.83N×7.14E, h5^{km}**, ML0.9**/5**, 3C-1D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMV	Vieux Emosson	0.29	323	⇑iPg	Pg	06 36 00.3	+0.2
EMV				eSg	Sg	06 36 04.1	+0.2
DIX	Grande Dixence	0.31	37	⇓iPg	Pg	06 36 00.9	+0.4
DIX				eSg	Sg	06 36 05.3	+0.6
SALAN	Lac Salanfe	0.33	339	⇑iPg	Pg	06 36 01.3	+0.3
SALAN				i Sg	Sg	06 36 05.8	+0.3
GRYON	Gryon	0.42	357	⇑iPg	Pg	06 36 03.0	+0.3
GRYON				eSg	Sg	06 36 08.7	+0.4
LPL	La Plagne	0.43	222	ePg	Pg	06 36 02.2	-0.7
LPL				eSg	Sg	06 36 05.9	-2.8
	3.6nm,0.3s						
LPG	La Plagne	0.43	219	ePg	Pg	06 36 02.3	-0.7
LPG				eSg	Sg	06 36 06.9	-1.9
	6.8nm,0.2s						
AIGLE	Aigle	0.53	345	ePg	Pg	06 36 04.9	+0.1
MMK	Mattmark	0.61	69	ePg	Pg	06 36 06.2	-0.4
CABF	La Chapelle	1.07	317	ePg	Pg	06 36 15.1	-0.6
CABF				eSn	Sn	06 36 29.2	-2.0
	2.1nm,0.3s						
MBDF	Montbardon	1.14	193	ePg	Pg	06 36 15.2	-1.8
MBDF				eSg	Sg	06 36 27.9	-4.3
	1.5nm,0.3s						
ORIF	Oris-en-Rattie	1.28	225	eSg	Sn	06 36 23.7	-13
	0.3nm,0.2s						
VIVF	Saint-Julien-l	2.00	242	eSg	Sn	06 36 43.5	-11
	0.2nm,0.2s						

*MOS **25** 06:44:46.0±1.0, 55.34N×161.14E, h116^{km}, mb3.9/1, Error ellipse: s-maj=34.8km s-min=13.6km az=77.2*
*KRSC **25** 06:44:46.3±2.0, 55.42N×160.97E, h127^{km}±2^{km}, ML3.8*
*IDC **25** 06:44:53.6±9.8, 55.72N×161.98E, h134^{km}±60^{km}, mb3.1/4, mb1 3.6/5, mb1mx3.2/22, Error ellipse: s-maj=113.0km s-min=61.2km az=47.0*
ISC 25 06:44:46.7±0.4**, 55.44N**±0.03×**161.00E**±0.07**, h128**^{km}±4^{km}**, n39, σ0ˢ82**/73**, mb3.5**/4**, Near east coast of Kamchatka Peninsula**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TUMR	Tumrok	0.51	253	i P	P	06 45 05.8	+0.1
TUMR				i S	S	06 45 20.1	-0.1
KMNR	Kamenistaya	0.54	307	i P	P	06 45 05.9	0.0
KMNR				eS	S	06 45 20.6	+0.1
ZLN	Zelenaya	0.59	349	i P	P	06 45 06.7	+0.5
ZLN				i S	S	06 45 22.2	+1.1
LGNR	Loginova	0.67	345	i P	P	06 45 07.4	+0.7
LGNR				i S	S	06 45 22.5	+0.4
KPT	Kopyto	0.69	321	i P	P	06 45 06.5	-0.4
KPT				eS	S	06 45 21.3	-1.0
CIRR	Tsirk	0.70	348	i P	P	06 45 07.2	+0.3
CIRR				i S	S	06 45 23.0	+0.6
KRSR	Krestovskiy	0.82	343	i P	P	06 45 07.9	0.0
KRSR				i S	S	06 45 24.0	-0.1
KOZR	Kozyr	0.89	316	PN	P	06 45 08.5	0.0
KOZR				S	S	06 45 24.8	-0.3
KOZ	Kozyrevsk	0.89	315	i P	P	06 45 08.5	0.0
KOZ				i S	S	06 45 25.1	-0.1
KLY	Klyuchi	0.90	347	i P	P	06 45 08.6	0.0
KLY				eS	S	06 45 25.3	0.0
KLY	Klyuchi	0.90	347	PN	P	06 45 08.7	+0.1
KLY				S	S	06 45 24.9	-0.4
SRDR	Sredinnyy	1.14	321	i P	P	06 45 10.6	-0.5
SRDR				eS	S	06 45 28.4	-1.1
SVLR	Shiveluch	1.15	6	i P	P	06 45 11.7	+0.5
SVLR				i S	S	06 45 30.2	+0.5
KBG	Krutoberegovo	1.26	49	i P	P	06 45 12.5	+0.1
KBG				i S	S	06 45 32.2	+0.4
KBG				Smax			
	750nm,1.0s						
KBTR	Krutoberegovo	1.28	52	i P	P	06 45 12.6	0.0
KBTR				i S	S	06 45 31.6	-0.6
KBTR	Krutoberegovo	1.28	52	PN	P	06 45 12.6	0.0
KBTR				S	S	06 45 31.7	-0.5
ESO	Esso	1.39	292	i P	P	06 45 13.6	-0.2
ESO				i S	S	06 45 33.6	-0.9
ESO				Smax			
	320nm,1.1s						
SPN	Mys Shipunski	2.41	194	i P	P	06 45 24.6	-1.7
SPN				i S	S	06 45 53.8	-2.6
SPN	Mys Shipunski	2.41	194	PN	P	06 45 24.7	-1.6
SPN				S	S	06 45 52.9	-3.5
NLC	Nalytchevo	2.47	204	i P	P	06 45 26.5	-0.6
NLC				eS	S	06 45 56.8	-0.9
NLC	Nalytchevo	2.47	204	PN	P	06 45 26.5	-0.6
NLC				S	S	06 45 56.6	-1.1
SDLR	Sedlovina	2.49	211	eP	P	06 45 27.8	+0.4
SDLR				eS	S	06 45 58.9	+0.7
GNL	Ganaly	2.49	227	i P	P	06 45 27.4	0.0
GNL				eS	S	06 45 57.3	-1.0
SMAR	Somma	2.53	212	eP	P	06 45 28.3	+0.4
SMAR				eS	S	06 46 00.2	+1.1
AVH	Avacha	2.55	212	eP	P	06 45 28.7	+0.6
AVH				eS	S	06 46 00.4	+0.9
KOK	Koryaka	2.56	214	i P	P	06 45 29.1	+0.9
KOK				eS	S	06 46 01.6	+1.9
UGLR	Uglovaya	2.57	211	eP	P	06 45 28.6	+0.2
UGLR				eS	S	06 46 01.6	+1.6
PET	Petropavlovsk	2.78	211	eP	P	06 45 31.3	+0.1
PET				eS	S	06 46 05.1	+0.1
PET	Petropavlovsk	2.78	211	PN	P	06 45 31.4	+0.2
PET				S	S	06 46 03.9	-1.1
BKI	Bering	2.85	93	i P	P	06 45 33.7	+1.6
BKI				i S	S	06 46 03.6	-2.9
RUS	Russkaya	3.35	207	eP	P	06 45 37.8	-0.9
RUS				eS	S	06 46 16.9	-1.5
RUS	Russkaya	3.35	207	PN	P	06 45 37.8	-0.9
RUS				S	S	06 46 15.7	-2.7
GRL	Gorelyy	3.37	212	eP	P	06 45 39.0	+0.1
FX1	Attu Island--F	7.58	105	P	P	06 46 35.3	-0.5
	1.7nm,0.3s,baz=48,slow=12,SNR=4.9						
FX1				S	S	06 47 55.3	-5.3
	19nm,0.3s,baz=147,slow=23,SNR=28						
FX1	Attu Island--F	7.58	105	PN	P	06 46 35.3	-0.5
FX1				S	S	06 47 55.3	-5.3
FX1				pmax	pmax		
	comp=Z,2.0nm,0.3s						
YKA	Yellowknife Ar	41.10	45	P	P	06 52 18.1	-0.7
	comp=Z,0.2nm,0.6s,mb3.1,baz=301,slow=7.8,SNR=4.9						
NVAR	Mina Array Bea	54.48	72	P	P	06 54 03.5	+0.7
	comp=Z,1.2nm,0.9s,mb3.9,baz=306,slow=7.8,SNR=7.8						
PDAR	Pinedale Array	55.94	63	P	P	06 54 13.2	-0.1
	comp=Z,0.3nm,0.7s,mb3.5,baz=325,slow=1.4,SNR=5.1						
TXAR	Lajitas Array	69.25	68	P	P	06 55 41.7	+0.2
	comp=Z,0.6nm,0.6s,mb3.6,baz=292,slow=4.9,SNR=18						

*NIED **25** 06:47:00, 31.80N×129.20E, h5^{km}, Mw3.7 Best double couple: M$_0$3.92×10^{14} NP1:φ$_s$28°, δ88°, λ120°. NP2:φ$_s$122°, δ30°, λ4°.*
*JMA **25** 06:47:37.5±0.1, 31.77N×129.18E, h6^{km}±1^{km}, M3.6*
ISC 25 06:47:36.7±1.5**, 31.77N**±0.07×**129.16E**±0.08**, h2**^{km}±11^{km}**, n8, σ0ˢ49**/14**, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.48	101	P	Pg	06 47 46.6	+0.3
JSJ				S	Sg	06 47 52.7	-0.1
JFU	Fukue jima 2	0.95	339	P	Pb	06 47 55.8	+0.3
JFU				S	Sg	06 48 08.6	+0.2
NGSJ	Nagasakinomoza	1.02	32	P	Pb	06 47 56.8	+0.1
NGSJ				S	Sb	06 48 10.1	-0.2
JHD	Hondo	1.08	50	P	Pb	06 47 57.6	-0.2
JHD				S	Sb	06 48 11.9	-0.3
JSU	Suzuyama	1.14	103	P	Pb	06 47 58.3	-0.4
JSU				S	Sb	06 48 13.8	+0.1
JZO	Okuchi	1.28	73	P	Pb	06 48 00.1	-1.0
JZO				S	Sb	06 48 17.7	-0.2
JIU2	Izumi 2	1.60	61	S	Sb	06 48 27.5	+0.2
JTZ	Takazaki	1.65	85	S	Sb	06 48 29.9	+1.3

*CSEM **25** 07:06:57.3±1.1, 36.76N×21.25E, h2^{km}, MD3.5, Error ellipse: s-maj=35.8km s-min=6.0km az=55.0*
*ATH **25** 07:07:02.2, 36.99N×21.67E, h30^{km}, MD3.5/3*
ISC 25 07:06:58.6±2.5**, 36.8N**±0.1×**21.3E**±0.2**, h10**^{km}**, n10, σ0ˢ79**/10**, Southern Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ITM	Ithomi	0.61	52	ePB	Pb	07 07 09.5	-1.4
RLS	Riolos of Patr	1.25	5	ePN	Pn	07 07 22.9	+0.7
VLI	Veliai	1.30	93	ePN	Pn	07 07 23.0	+0.2
KYTH	Kithira	1.48	110	ePB	Pb	07 07 25.7	0.0
AGG	Agios Georgios	2.35	19	eP	Pb	07 07 40.5	-0.1
IGT	Igoumenitsa	2.83	344	eP	Pn	07 07 43.2	-1.6
XOR	Xorichti	2.95	29	eP	Pn	07 07 47.6	+1.1
LIT	Litokhoron	3.41	15	eP	Pn	07 07 53.3	+0.3
FNA	Florina	3.97	1	eP	Pn	07 08 01.4	+0.5
GRG	Griva	4.23	11	eP	Pn	07 08 04.7	+0.1

*NEIC **25** 08:02:17.8, 36.53N×4.69W, h54^{km}, MG3.2(MDD), After MDD.*
*MDD **25** 08:02:17.8±0.8, 36.53N×4.69W, h54^{km}±5^{km}, mb3.2/7, Error ellipse: s-maj=9.3km s-min=4.3km az=171.0, PRXIMO*
*INMG **25** 08:02:17.5±0.8, 36.55N×4.70W, h55^{km}±3^{km}, ML2.1, Error ellipse: s-maj=3.5km s-min=1.9km az=163.0*
*SFS **25** 08:02:17.0, 36.52N×4.71W, h54^{km}, ML3.5*
*CSEM **25** 08:02:17.5±0.1, 36.71N×4.76W, h40^{km}, mb3.2/7, Error ellipse: s-maj=2.5km s-min=1.6km az=5.0*
ISC 25 08:02:17.1±0.8**, 36.67N**±0.05×**4.76W**±0.03**, h60**^{km}±7^{km}**, n49, σ1ˢ00**/97**, 1C-2D, Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMIJ	Mijas	0.10	186	P	P	08 02 25.5	-0.6
EMIJ				S	S	08 02 31.2	-1.6
EMIJ				S	S	08 02 31.6	-1.2
EMIJ	Mijas	0.10	186	P	P	08 02 25.5	-0.6
	26nm,0.1s,SNR=7.9						
EMIJ				S	S	08 02 31.6	-1.2
	45nm,0.1s,SNR=7.9						
EMIJ	Mijas	0.10	186	P	P	08 02 25.5	-0.6
	26nm,0.1s,SNR=7.9						
EMIJ				S	S	08 02 31.2	-1.6
EMAL	Malaga-Limoner	0.28	70	⇑P	P	08 02 26.9	-0.3

	3.6nm,0.1s,SNR=18						
EMAL				S	S	08 02 33.6	-0.9
	36nm,0.3s,SNR=7.9						
LIJA	**Lijar**	0.57	295	*e*P	P	08 02 37.0	+7.1
ELOJ	**Sierra Loja**	0.69	45	P	P	08 02 32.1	+0.9
ELOJ				P		08 02 33.3	
ELOJ				S	S	08 02 42.0	+0.2
ELOJ				S	S	08 02 43.5	+1.7
ELOJ	**Sierra Loja**	0.69	45	P	P	08 02 33.3	+2.0
	5.4nm,0.2s,SNR=7.2						
ELOJ				S	S	08 02 42.0	+0.2
	2.7nm,0.1s,SNR=7.5						
ELOJ	**Sierra Loja**	0.69	45	P	P	08 02 32.1	+0.8
ELOJ				S	S	08 02 42.0	+0.2
	2.7nm,0.1s,SNR=7.5						
ERON	**Agron**	0.84	65	P	P	08 02 33.4	+0.2
	5.1nm,0.2s,SNR=5.9						
ERON				S	S	08 02 45.2	-0.1
	7.8nm,0.3s,SNR=6.9						
ESPR	**Espera**	0.90	283	P	P	08 02 35.6	+1.5
ESPR				P		08 02 35.8	
ESPR				S	S	08 02 46.4	-0.3
ESPR				S	S	08 02 48.2	+1.5
ESPR	**Espera**	0.90	283	P	P	08 02 35.8	+1.7
	0.8nm,0.1s,SNR=7.9						
ESPR				S	S	08 02 48.2	+1.5
	13nm,0.3s,SNR=7.9						
ESPR	**Espera**	0.90	283	P	P	08 02 35.6	+1.5
ESPR				S	S	08 02 48.2	+1.5
	13nm,0.3s,SNR=7.9						
ELUQ	**Luque**	0.98	24	P	P	08 02 36.1	+1.1
	2.6nm,0.1s,SNR=17						
ELUQ				S	S	08 02 50.3	+1.9
	11nm,0.1s,SNR=16						
EADA	**Adamuz**	1.51	5	P	P	08 02 43.3	+0.8
	0.5nm,0.1s,SNR=7.9						
EADA				S	S	08 03 02.5	+1.3
	4.1nm,0.1s,SNR=7.9						
EADA	**Adamuz**	1.51	5	P	P	08 02 43.3	+0.8
	0.5nm,0.1s,SNR=7.9						
EADA				S	S	08 03 02.5	+1.3
	4.1nm,0.1s,SNR=7.9						
EBER	**Berja**	1.52	81	P	P	08 02 41.1	-1.5
	2.2nm,0.2s,SNR=7.9						
EBER				S	S	08 02 59.7	-1.8
	3.5nm,0.3s,SNR=7.9						
EBER	**Berja**	1.52	81	P	P	08 02 41.1	-1.5
	2.2nm,0.2s,SNR=7.9						
EBER				S	S	08 02 59.7	-1.8
	3.5nm,0.3s,SNR=7.9						
EBAN	**Banos Encina**	1.69	27	P	P	08 02 45.5	+0.6
EBAN				S	S	08 03 05.3	-0.2
EBAN				S	S	08 03 06.3	+0.9
EBAN	**Banos Encina**	1.69	27	P	P	08 02 45.5	+0.6
	1.9nm,0.2s,SNR=7.9						
EBAN				S	S	08 03 06.3	+0.9
	3.6nm,0.1s,SNR=4.0						
EBAN	**Banos Encina**	1.69	27	P	P	08 02 45.5	+0.6
	1.9nm,0.2s,SNR=7.9						
EBAN				S	S	08 03 05.3	-0.1
EQES	**Quesada**	1.76	49	P	P	08 02 45.8	-0.1
	0.5nm,0.1s,SNR=7.9						
EQES				S	S	08 03 06.9	-0.4
	3.5nm,0.2s,SNR=7.9						
EQES	**Quesada**	1.76	49	P	P	08 02 45.8	-0.2
	0.5nm,0.1s,SNR=7.9						
EQES				S	S	08 03 06.9	-0.4
	3.5nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	1.88	306	⇓P	P	08 02 48.2	+0.6
EMIN				S	S	08 03 10.1	-0.1
EMIN	**Mina Concepcio**	1.88	306	⇓P	P	08 02 48.2	+0.6
	4.2nm,0.1s,SNR=18						
EMIN				S	S	08 03 10.1	-0.1
	16nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	1.88	306	P	P	08 02 48.2	+0.6
	4.2nm,0.1s,SNR=18						
EMIN				S	S	08 03 10.1	-0.1
	16nm,0.1s,SNR=7.9						
PALC	**Alcoutim**	2.31	291	*e*P	P	08 02 54.1	+0.4
PALC				*e*S	S	08 03 20.9	-0.1
	5.9nm,0.1s						
PALC	**Alcoutim**	2.31	291	*e*P	P	08 02 54.1	+0.4
PALC				*e*S	S	08 03 20.9	-0.1
	5.9nm,0.1s						
EGRO	**El Granado**	2.34	293	P	P	08 02 54.4	+0.3
EGRO				S	S	08 03 19.7	-2.0
EGRO				S	S	08 03 21.4	-0.3
EGRO	**El Granado**	2.34	293	P	P	08 02 54.4	+0.3
	1.2nm,0.1s,SNR=7.9						
EGRO				S	S	08 03 21.4	-0.3
	8.0nm,0.1s,SNR=7.9						
EGRO	**El Granado**	2.34	293	P	P	08 02 54.4	+0.3
	1.2nm,0.1s,SNR=7.9						
EGRO				S	S	08 03 21.4	-0.3
	8.0nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	2.75	320	P	P	08 03 00.4	+0.5
	4.1nm,0.1s,SNR=7.9						
EBAD				S	S	08 03 31.7	-0.3
	3.5nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	2.75	320	P	P	08 03 00.4	+0.5
	4.1nm,0.1s,SNR=7.9						
EBAD				S	S	08 03 31.7	-0.3
	3.5nm,0.1s,SNR=7.9						
PBEJ	**Beja**	2.82	300	*e*P	P	08 03 01.2	+0.2
PBEJ				*e*S	S	08 03 33.3	-0.6
	3.0nm,0.1s						
PBEJ	**Beja**	2.82	300	*e*P	P	08 03 01.2	+0.2
PBEJ				*e*S	S	08 03 33.3	-0.6
	3.0nm,0.1s						
ESDC	**Sonseca Array**	3.07	12	P	P	08 03 04.6	+0.2
ESDC				P		08 03 04.9	
ESDC				S	S	08 03 39.5	-0.6
ESDC	**Sonseca Array**	3.07	12	P	P	08 03 04.9	+0.5
	1.0nm,0.1s,baz=194,slow=12,SNR=7.9						
ESDC				S	S	08 03 39.5	-0.6
	6.5nm,0.1s,baz=188,slow=23,SNR=13						
ESDC	**Sonseca Array**	3.07	12	P	P	08 03 04.6	+0.2
PTEO	**Sao Teotonio**	3.29	287	*e*S	S	08 03 45.0	-0.6
	6.3nm,0.4s						
PTEO	**Sao Teotonio**	3.29	287	*e*S	S	08 03 45.0	-0.6
	6.3nm,0.4s						
PCBR	**Castelo Branco**	3.82	327	*e*P	P	08 03 15.2	+0.2
PTOM	**Tomar**	4.12	317	*e*P	P	08 03 21.3	+2.1
PTOM				S	S	08 04 05.7	-0.8
	3.9nm,0.2s						
PTOM	**Tomar**	4.12	317	*e*P	P	08 03 21.3	+2.1
PTOM				S	S	08 04 05.7	-0.8
	3.9nm,0.2s						
MTE	**Manteigas**	4.32	331	*e*P	P	08 03 22.5	+0.5
MTE				*e*S	S	08 04 10.5	-1.1
	2.3nm,0.4s						
MTE	**Manteigas**	4.32	331	*e*P	P	08 03 22.5	+0.5
MTE				*e*S	S	08 04 10.5	-1.1
	2.3nm,0.4s						
PVIS	**Viseu**	4.73	330	*e*P	P	08 03 28.3	+0.6
PVIS				*e*S	S	08 04 19.9	-1.9
	2.6nm,0.1s						
PVIS	**Viseu**	4.73	330	P	P	08 03 28.3	+0.6
PVIS				S	S	08 04 19.9	-1.9
	1.3nm,0.1s						
PBRG	**Braganca**	5.36	344	*e*P	P	08 03 36.8	+0.4
PBRG				S	S	08 04 35.0	-2.5
ELOB	**Lobios**	5.79	335	P	P	08 03 42.4	0.0
	0.9nm,0.1s,SNR=7.9						
ELOB				S	S	08 04 45.1	-3.3
	2.1nm,0.2s,SNR=7.9						
ELOB	**Lobios**	5.79	335	P	P	08 03 42.4	0.0
	0.9nm,0.1s,SNR=7.9						

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*ATH **25** 08:17:02.5, 36.99N×27.93E, h57^{km}, MD3.2/3*
*ISK **25** 08:17:03.7, 37.02N×27.78E, h15^{km}, MD3.1*
*CSEM **25** 08:17:03.3±0.1, 37.00N×27.82E, h12^{km}, MD3.1, Error ellipse: s-maj=2.6km s-min=1.6km az=52.0*
ISC 25 08:17:03.2±0.7**, 36.98N**±0.03×**27.77E**±0.04**, h8**^{km}±5^{km}**, n16,** σ**0^{s}80**/25**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BDRM	**Kayabasi**	0.28	288	*i* P	Pg	08 17 08.5	-0.5
BDRM				*i* S	Sg	08 17 12.7	0.0
MLSB	**Milas**	0.31	1	*i* PG	Pg	08 17 10.1	+0.5
MLSB				*i* SG	Sg	08 17 14.6	+0.7
AYDN	**Tasoluk**	0.68	7	*i* P	Pg	08 17 16.9	-0.1
AYDN				*i* S	Sg	08 17 26.6	+0.5
DALT	**Dalyan (Mudla)**	0.72	107	PG	Pg	08 17 18.5	+0.7
ARG	**Arkhangelos**	0.81	159	*e*Pb	Pb	08 17 18.6	-0.6
ARG				*e*Sb	Sb	08 17 31.5	+1.3
SMG	**Samos**	1.04	314	*e*P	Pb	08 17 23.0	-0.1
SMG				*e*S	Sb	08 17 38.1	+1.4
FETY	**Fethiye**	1.11	108	PN	Pn	08 17 24.6	-0.4
FETY				SN	Sn	08 17 41.1	+0.6
DNZL	**Cakiroluk**	1.24	55	*i* P	Pb	08 17 26.3	-0.2
DNZL				*i* S	Sb	08 17 41.7	-0.7
DENT	**Denizli**	1.27	52	PN	Pn	08 17 27.2	-0.1
IZM	**Izmir**	1.47	344	PN	Pn	08 17 30.1	-0.1
KDAG	**Bornova**	1.47	344	*i* P	Pn	08 17 31.2	+0.9
KDAG				*i* S	Sb	08 17 55.6	+6.3
KARP	**Karpathos**	1.52	199	*e*P	Pn	08 17 29.3	-1.5
MANT	**Manisa**	1.63	22	*i* P	Pn	08 17 33.3	+0.8
MANT				*i* S	Sb	08 17 52.3	-1.5
APE	**Apeiranthos**	1.80	273	*e*PN	Pn	08 17 34.8	-0.1
AKS	**Akhisar**	1.89	1	*e*PN	Pn	08 17 36.2	-0.1
PRK	**Paraskevi**	2.55	333	*e*Pg	Pg	08 17 52.5	-1.7

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*IDC **25** 08:23:09.5±1.2, 19.13S×167.76E, h35^{km}±6^{km}, mb3.7/6, mb1 3.9/6, mb1mx3.7/14, MS3.3/3, Ms1 3.3/3, ms1mx2.9/26, Error ellipse: s-maj=61.3km s-min=17.8km az=151.0*
*NEIC **25** 08:23:09.8±0.7, 19.34S×167.78E, Error ellipse: s-maj=13.6km s-min=11.5km az=118.0*
ISC 25 08:23:06.6±4.7**, 19.27S**±0.09×**167.7E**±0.2**, h26**^{km}±33^{km}, **h34**^{km}±1.4^{km}**:pP-P, n13,** σ**0^{s}42**/16**, mb3.9**/5**, MS3.2**/3**, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	**Mont Dzumac**	3.04	203	*e*P	Pn	08 23 54.1	-0.1
DZM				*e*S	Sn	08 24 30.5	+0.4
DZM	**Mont Dzumac**	3.04	203	*e*P	Pn	08 23 54.1	-0.1
DZM				*e*S	Sn	08 24 30.5	+0.4
NOUC	**Port Laguerre**	3.12	205	*e*P	Pn	08 23 55.4	+0.1
NOUC				*e*S	Sn	08 24 31.8	-0.4
NOUC	**Port Laguerre**	3.12	205	*e*P	Pn	08 23 55.4	+0.1
NOUC				*e*S	Sn	08 24 31.8	-0.4
CTA	**Charters Tower**	20.23	264	P	P	08 27 43.2	+0.5
	3.9nm,0.9s,baz=81,slow=16,SNR=4.0						
CTA				pP		08 27 53.2	
	10nm,0.8s,baz=93,slow=13,SNR=11						
CTA				LR	LR	08 34 06.9	
	comp=Z,72nm,18.2s,MS3.1,baz=224,slow=32						
CTA	**Charters Tower**	20.23	264	P	P	08 27 43.2	+0.5
CTA				pP		08 27 53.2	
CTA				LR	LR	08 34 06.9	
CTAO	**Charters Tower**	20.23	264	*e*P	P	08 27 42.2	-0.5
CTAO				*e*pP		08 27 53.1	
STKA	**Stephens Creek**	26.62	237	P	P	08 28 45.8	+0.7
	1.4nm,0.9s,mb3.5,baz=129,slow=6.5,SNR=2.3						
STKA				pP	pP	08 28 56.6	+4.0
	4.5nm,0.9s,baz=67,slow=6.6,SNR=6.5						
STKA				LR	LR	08 39 05.3	
	comp=Z,102nm,19.6s,MS3.4,baz=184,slow=36						
ASAR	**Alice Springs**	31.73	256	P	P	08 29 30.2	-0.6
	0.8nm,0.5s,mb3.8,baz=82,slow=8.3,SNR=15						
ASAR				pP	pP	08 29 39.6	+1.1
	2.0nm,0.5s,baz=84,slow=8.3,SNR=14						
ASAR				LR	LR	08 41 46.7	
	comp=Z,45nm,19.4s,MS3.2,baz=40,slow=35						
SONM	**Songino Array**	86.38	324	P	P	08 35 47.9	0.0
	0.3nm,0.7s,mb3.6,baz=160,slow=6.5,SNR=7.2						
YBH	**Yreka Blue Hor**	88.32	45	P	P	08 35 57.8	+0.4
	2.1nm,1.0s,mb4.3,baz=188,slow=7.1,SNR=3.8						
NVAR	**Mina Array Bea**	89.90	49	P	P	08 36 04.6	-0.4
	0.8nm,0.9s,mb4.1,baz=216,slow=7.5,SNR=6.0						
NVAR				pP	pP	08 36 15.5	+2.2
	0.5nm,0.7s,baz=231,slow=5.5,SNR=4.0						
YKA	**Yellowknife Ar**	101.35	28	P	P	08 36 56.1	-0.5
	0.2nm,0.5s,baz=254,slow=4.9,SNR=9.3						
YKA				pP		08 37 06.7	
	0.2nm,0.5s,baz=259,slow=4.8,SNR=4.2						

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*IDC **25** 08:26:06.8±2.9, 32.39S×178.51W, mb3.9/3, mb1 4.0/4, mb1mx3.7/15, ML3.3/1, MS3.2/1, Ms1 3.2/1, ms1mx2.2/31, Error ellipse: s-maj=61.0km s-min=44.9km az=119.0*
ISC 25 08:26:11.4±3.0**, 32.9S**±0.2×**178.2W**±0.3**, h74**^{km}±29^{km}**, n11,** σ**0^{s}52**/11**, mb3.8**/3**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	5.46	211	P	P	08 27 32.4	+0.5
MXZ				*e*S	S	08 28 33.5	-0.5
PUZ	**Puketiti**	5.91	208	P	P	08 27 38.2	+0.1
MWZ	**Matawai**	6.44	212	P	P	08 27 44.7	-0.8
URZ	**Urewera**	6.57	214	Pn	P	08 27 48.1	+0.7
	0.6nm,0.3s,baz=272,slow=6.5,SNR=8.3						
URZ				Sn	S	08 29 02.1	+0.6
	1.1nm,0.3s,baz=272,slow=23,SNR=5.6						
URZ	**Urewera**	6.57	214	*e*P	P	08 27 47.4	0.0
OUZ	**Omahuta**	7.20	249	P	P	08 27 55.9	-0.2
RPZ	**Rata Peaks**	13.69	215	LR	LR	08 33 32.2	
	comp=Z,98nm,21.3s,baz=343,slow=32						
CTA	**Charters Tower**	34.13	283	P	P	08 32 51.9	+0.6
	5.2nm,1.2s,mb4.2,baz=127,slow=10,SNR=3.7						
ASAR	**Alice Springs**	42.88	270	P	P	08 34 04.3	+0.1
	0.5nm,0.8s,mb3.3,baz=109,slow=7.5,SNR=5.2						
WRA	**Warramunga Arr**	44.09	275	P	P	08 34 13.4	-0.7
	0.7nm,0.3s,mb3.9,baz=113,slow=8.0,SNR=16						
FINES	**FINESS Array B**	147.43	338	PKPbc	PKPdf	08 45 49.7	+6.3
	1.4nm,0.7s,baz=63,slow=6.2,SNR=7.8						

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*GUC **25** 09:03:31.8±0.8, 26.30S×70.78W, h50^{km}, ML5.0*
*IDC **25** 09:03:33.7±0.6, 26.33S×70.51W, h58^{km}±4^{km}, mb4.1/9, mb1 4.3/12, mb1mx4.2/18, MS4.0/5, Ms1 4.0/5, ms1mx3.6/16, Error ellipse: s-maj=18.1km s-min=11.5km az=95.0*
*NEIC **25** 09:03:33.5±0.2, 26.36S×70.50W, mb4.5/10, Error ellipse: s-maj=10.0km s-min=4.8km az=86.0*
NEIC Felt [IV] at Chanaral and [III] at Caldera and Copiapo.
ISC 25 09:03:31.3±0.5**, 26.37S**±0.02×**70.58W**±0.09**, h50**^{km}±6^{km}, **h55**^{km}±.7^{km}**:pP-P, n62,** σ**0^{s}96**/62**, mb4.4**/19**, MS4.0**/5**, 1C-8D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPCH	**Copiapo**	1.01	168	⇓*i*P	P	09 03 51.9	+2.6
CPCH				*i* S	S	09 04 06.4	+3.7
CPCH				AMP		09 04 08.8	
	comp=N,119µm,0.1s						
CPN1	**Cerro Paranal**	1.74	5	⇓*i*P	P	09 04 00.6	+0.9
CPN1				*i* S	S	09 04 21.5	+0.8
CPN1				AMP		09 04 22.8	
	comp=E,15µm,0.5s						
VACH	**Vallenar**	2.21	184	⇓*i*P	P	09 04 13.8	+7.6
VACH				*i* S	S	09 04 40.0	+7.6
VACH				AMP		09 04 41.5	
	comp=N,15µm,0.5s						
ANCH	**Antofagasta**	2.68	3	⇓*i*P	P	09 04 12.2	-0.7
ANCH				*i* S	S	09 04 42.9	-1.5
ANCH				AMP		09 05 08.4	
	comp=N,3µm,0.8s						
TLL	**Tololo Astrono**	3.79	183	⇓*i*P	P	09 04 30.0	+1.3
TLL				*i* S	S	09 05 13.8	+1.2
LVC	**Limon Verde**	4.04	23	P	P	09 04 33.1	+1.0
	comp=N,16nm,0.3s,baz=174,slow=9.3,SNR=248						
LVC				S	S	09 05 18.9	+0.2
	comp=N,142nm,0.3s,baz=18,slow=23,SNR=9.0						
LVC				Lg		09 05 36.1	
	comp=N,434nm,0.3s,baz=315,slow=22,SNR=11						
LVC	**Limon Verde**	4.04	23	*e*P	P	09 04 33.1	+0.9
LVC	**Limon Verde**	4.04	23	⇓*i*P	P	09 04 33.0	+0.8
LVC				*i* S	S	09 05 18.4	-0.3
CMCH	**Combarbala**	4.80	184	⇑*i*P	P	09 04 42.4	-0.5
CMCH				*i* S	S	09 05 36.6	-1.4
PTCH	**Petorca**	5.88	183	*i* P	P	09 04 57.1	-0.9
JACH	**Jahuel**	6.29	180	⇓*i*P	P	09 05 03.5	-0.3
FCH	**Farellones**	6.94	178	*e*P	P	09 05 12.8	-0.1
FCH				*i* S	S	09 06 30.1	-1.2
CLCH	**Cerro Calan**	7.00	180	*e*P	P	09 05 12.6	-1.2
CLCH				*i* S	S	09 06 29.9	-3.0
ARE	**Arequipa**	9.89	355	*e*P	P	09 05 50.0	-3.7
ARE				*e*S	S	09 07 35.0	-9.3
LPAZ	**La Paz**	10.29	13	P	P	09 05 57.7	-1.3
	comp=N,1.2nm,0.3s,baz=207,slow=6.7,SNR=26						
LPAZ	**La Paz**	10.29	13	*e*P	P	09 05 57.5	-1.6
	comp=N,4.4nm,0.5s						
NNA	**Nana**	15.47	336	P	P	09 07 03.0	-4.8
BDFB	**Brasilia**	23.58	68	P	P	09 08 37.9	-0.4
	comp=N,30nm,0.6s,mb4.9,baz=246,slow=10,SNR=73						
BDFB				LR	LR	09 19 05.1	
	comp=N,519nm,19.3s,MS4.0,baz=254,slow=40						
BAO	**Brasilia Array**	23.60	68	P	P	09 08 38.3	-0.3
BAO				*e*		09 08 52.3	
OTAV	**Otavalo**	27.52	343	P	P	09 09 14.7	-0.8
USHA	**Ushuaia**	28.48	177	LR	LR	09 22 40.8	
	comp=N,158nm,18.2s,MS3.6,baz=224,slow=40						
RCBR	**Riachuelo**	38.87	64	P	P	09 10 54.6	+1.0
SNAA	**Sanae**	58.23	160	P	P	09 13 22.0	-0.5
	comp=N,2.0nm,0.8s,mb4.2,baz=282,slow=6.4,SNR=13						
SNAA				pP	pP	09 13 37.7	+1.4
	comp=N,0.8nm,0.5s,baz=284,slow=4.8,SNR=4.3						
SNAA	**Sanae**	58.23	160	*e*P	P	09 13 21.8	-0.7
	comp=N,4.7nm,0.8s,mb4.6						
JCT	**Junction City**	63.06	332	*e*P	P	09 13 54.5	-1.4
LTX	**Lajitas**	63.83	328	P	P	09 14 00.5	-0.5
TXAR	**Lajitas Array**	63.83	328	P	P	09 14 00.3	-0.6
	comp=N,2.4nm,0.7s,mb4.3,baz=156,slow=9.5,SNR=35						
TXAR				pP	pP	09 14 15.4	+0.5
	comp=N,2.0nm,1.0s,baz=149,slow=7.4,SNR=4.8						
QSPA	**South Pole Qui**	63.84	180	⇓*i*P	P	09 14 01.0	+0.7
	comp=N,14nm,1.0s,mb5.0						
MNTX	**Cornudas Mount**	66.61	328	*e*P	P	09 14 17.5	-1.3
	comp=N,9.1nm,1.0s,mb4.8						
CPRX	**Cap Rock**	67.02	330	*e*P	P	09 14 20.9	-0.5
TUC	**Tucson**	69.80	324	*e*P	P	09 14 39.0	+0.4
	comp=N,7.8nm,1.3s,mb4.5						
ANMO	**Albuquerque**	69.80	329	P	P	09 14 38.8	+0.3
	comp=N,1.6nm,0.7s,mb4.0,baz=164,slow=7.8,SNR=8.8						
ANMO				pP	pP	09 14 54.4	+1.6
	comp=N,2.6nm,1.1s,baz=130,slow=11,SNR=5.2						
DBIC	**Dimbokro**	71.62	73	P	P	09 14 49.5	-0.4
	comp=N,5.1nm,0.6s,mb4.7,baz=216,slow=6.2,SNR=17						
SDCO	**Great Sand Dun**	71.70	331	*e*P	P	09 14 50.3	+0.4
	comp=N,9.4nm,1.3s,mb4.6						
PV10	**Paradox Valley**	73.79	329	*e*P	P	09 15 02.3	0.0
NEN	**Nelson**	74.51	324	*e*P	P	09 15 06.8	+0.3
MSU	**Marysvale**	75.38	327	*e*P	P	09 15 12.3	+0.9
MSU				*e*pP	pP	09 15 27.3	+1.6
ARUT	**Antelope Range**	75.43	326	*e*P	P	09 15 13.2	+1.4
ARUT				*e*pP	pP	09 15 28.6	+2.6
TPNV	**Topopah Spring**	76.24	324	*e*P	P	09 15 17.2	+0.9
	comp=N,7.3nm,1.1s,mb4.5						
HWUT	**Hardware Ranch**	77.54	330	*e*P	P	09 15 23.5	-0.1
	comp=N,4.0nm,0.7s,mb4.5						
PDAR	**Pinedale Array**	77.60	332	P	P	09 15 23.9	+0.1
	comp=N,1.2nm,1.0s,mb3.8,baz=139,slow=7.9,SNR=7.6						
NVAR	**Mina Array Bea**	78.43	324	P	P	09 15 29.1	+0.6
	comp=N,1.7nm,0.8s,mb4.0,baz=154,slow=6.7,SNR=11						
ELK	**Elko**	78.60	327	*e*P	P	09 15 29.6	+0.2
	comp=N,5.4nm,0.9s,mb4.5						
ELK				*e*pP	pP	09 15 45.2	+1.5
REDW	**Red Top Meadow**	78.64	331	*e*P	P	09 15 29.8	+0.3
TPAW	**Teton Pass**	78.78	331	*e*P	P	09 15 31.2	+0.9
IMW	**Indian Meadow**	79.10	332	*e*P	P	09 15 33.0	+1.0
WCN	**Washoe City**	79.84	323	P	P	09 15 37.7	+1.5
	comp=N,2.5nm,0.6s,mb4.3						
MAW	**Mawson**	80.12	164	P	P	09 15 37.1	+0.1
	comp=N,3.9nm,0.6s,mb4.5,baz=183,slow=5.1,SNR=7.4						
RAR	**Rarotonga**	80.17	251	LR	LR	09 43 56.7	
	comp=N,64nm,19.4s,MS4.0,baz=104,slow=30						
BMO	**Blue Mountains**	82.70	329	*e*P	P	09 15 51.3	+0.3
	comp=N,2.2nm,1.1s,mb4.1						
YBH	**Yreka Blue Hor**	83.15	323	P	P	09 15 52.8	-0.5
	comp=N,2.4nm,0.8s,mb4.3,baz=101,slow=4.9,SNR=6.2						
EDM	**Edmonton**	87.53	336	*e*P	P	09 16 13.8	-0.9
URZ	**Urewera**	89.75	227	LR	LR	09 45 37.2	
	comp=N,119nm,20.3s,MS4.3,baz=245,slow=28						
RPZ	**Rata Peaks**	90.28	220	LR	LR	09 47 03.9	
	comp=N,120nm,20.4s,MS4.3,baz=15,slow=29						
YKA	**Yellowknife Ar**	95.26	341	P	P	09 16 49.9	-0.5
	comp=N,1.0nm,0.8s,mb4.3,baz=140,slow=4.5,SNR=24						
BRTR	**Keskin Array B**	116.82	57	PKP	PKPdf	09 22 11.2	+0.8
	comp=N,0.6nm,0.4s,baz=284,slow=5.1,SNR=3.5						
ASAR	**Alice Springs**	124.91	208	PKP	PKPdf	09 22 27.0	+0.5
	comp=N,1.5nm,0.9s,baz=127,slow=1.4,SNR=12						
WRA	**Warramunga Arr**	128.00	210	PKP	PKPdf	09 22 33.2	+0.7
	comp=N,1.9nm,0.7s,baz=155,slow=1.8,SNR=19						
WRA				pPKP		09 22 51.7	
	comp=N,0.9nm,0.7s,baz=159,slow=1.7,SNR=4.4						
BVAR	**Borovoye Array**	140.63	37	pPKP		09 23 13.6	
	comp=N,2.5nm,1.1s,baz=270,slow=1.5,SNR=4.1						
ZAL	**Zalesovo**	146.98	27	PKPbc	PKPbc	09 23 09.3	+1.7
	comp=N,2.1nm,0.8s,baz=185,slow=3.0,SNR=14						
ZAL				pPKPbc		09 23 24.7	
	comp=N,4.1nm,0.6s,baz=170,slow=3.3,SNR=6.7						
AAK	**Ala-Archa**	147.24	51	*e*P	PKPdf	09 23 10.9	+4.1
SONM	**Songino Array**	158.44	6	PKP	PKPdf	09 23 25.4	+2.8
	comp=N,1.0nm,1.0s,slow=1.2,SNR=5.5						
SONM				pPKP		09 23 41.7	
	comp=N,1.3nm,0.9s,baz=315,slow=1.7,SNR=6.5						
SONM				PKPab	PKPab	09 23 56.8	-3.0
	comp=N,1.1nm,1.0s,baz=45,slow=1.7,SNR=4.2						

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*IDC **25** 09:08:36.3±0.5, 10.29N×72.45W, h17^{km}±2^{km}, mb4.0/20, mb1 4.2/24, mb1mx4.1/28, ML4.6/2, MS3.7/6, Ms1 3.7/6, ms1mx3.0/25, Error ellipse: s-maj=14.9km s-min=10.3km az=52.0*
*NEIC **25** 09:08:36.4, 10.40N×72.57W, h9^{km}, mb4.4/7, MD4.9(CAR), After CAR.*
*FUNV **25** 09:08:36.0, 10.43N×72.61W, h12^{km}, MW4.2*
ISC 25 09:08:35.6±0.6**, 10.34N**±0.03×**72.50W**±0.03**, h20**^{km}±4^{km}, **h16**^{km}±.5^{km}**:pP-P, n88,** σ**1^{s}17**/100**, mb4.1**/26**, MS3.9**/4**, 4C-2D, Venezuela**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIRV	**Villa del Rosa**	0.18	30	*e*P	Pb	09 08 40.7	+0.1
VIRV				*i* S	Sb	09 08 44.0	+0.1
VIGV	**El Vigia**	1.87	143	*e*P	Pn	09 09 08.9	+1.9
VIGV				*e*S	Sn	09 09 34.1	+3.9
DABV	**Dabajuro**	1.92	72	*e*P	Pn	09 09 09.4	+1.6
DABV				*e*S	Sn	09 09 34.0	+2.5
SDV	**Santo Domingo**	2.34	128	Pn	Pn	09 09 14.9	+1.1
	145nm,0.3s,baz=323,slow=4.7,SNR=2230						
SDV				Pg	Pn	09 09 18.8	+5.0
	1µm,0.3s,baz=331,slow=8.5,SNR=64						
SDV				Sn	Sn	09 09 44.3	+2.0
	245nm,0.3s,baz=9.5,slow=21,SNR=3.8						
SDV				Lg		09 09 53.6	
	3µm,0.3s,baz=7.5,slow=23,SNR=19						
SDV	**Santo Domingo**	2.34	128	*e*Pn	Pn	09 09 14.2	+0.4
SDV				*e*Pg	Pn	09 09 22.5	+8.7
SDV				*e*Sg	Sn	09 09 55.3	+13
CAPV	**Capacho**	2.47	176	*e*P	Pn	09 09 17.2	+1.6
IMOV	**Isla Los Monje**	2.54	38	*e*P	Pn	09 09 16.6	-0.1
SIQV	**Siquisique**	2.67	83	*e*P	Pn	09 09 19.6	+1.2
SIQV				*e*S	Sn	09 09 51.6	+1.2
MONV	**Montecano**	2.95	57	*e*P	Pn	09 09 22.1	-0.4
MONV				*e*S	Sn	09 09 56.7	-1.1
TEPV	**Terepaima**	3.28	96	*e*P	Pn	09 09 28.3	+1.2
TEPV				*e*S	Sn	09 10 06.4	+0.4
JACV	**Jacura**	3.68	78	*e*P	Pn	09 09 33.4	+0.5
TURV	**Turiamo**	4.58	88	⇓*i*P	Pn	09 09 44.5	-1.2
BAUV	**El Baul**	4.61	107	⇓*i*P	Pn	09 09 45.8	-0.3
BAUV				*e*S	Sn	09 10 37.7	-2.0
ROSC	**El Rosal**	5.75	199	Pn	Pn	09 10 02.8	+0.7
	7.8nm,0.3s,baz=87,slow=6.9,SNR=61						
ROSC				Sn	Sn	09 11 09.4	+1.2
	39nm,0.3s,baz=285,slow=22,SNR=4.1						
ROSC				Lg		09 11 41.4	
	50nm,0.3s,baz=104,slow=19,SNR=7.4						
ROSC				LR	LR	09 12 27.2	
	comp=Z,167nm,21.7s,baz=100,slow=40						
CAOV	**Caicara del Or**	6.80	116	*e*P	Pn	09 10 14.3	-2.6
CAOV				*e*S	Sn	09 11 28.3	-6.3
PCRV	**Puerto La Cruz**	7.74	91	Pn	Pn	09 10 29.2	-0.9
	12nm,0.3s,baz=258,slow=6.4,SNR=49						
PCRV				Sn	Sn	09 11 57.5	-0.6
	7.1nm,0.3s,baz=210,slow=18,SNR=4.1						
PCRV				Lg		09 12 48.8	
	6.7nm,0.3s,baz=92,slow=6.3,SNR=1.8						
HOJ	**Hope**	8.66	332	⇑*e*P	P	09 10 41.9	-1.0
GWJ	**Greenwich**	8.71	332	⇑*e*P	P	09 10 43.0	-0.5
STH	**Stony Hill**	8.75	332	⇑*e*P	P	09 10 43.6	-0.5
STH				*e*S	Sn	09 12 15.6	-7.6
MCJ	**Malvern**	9.06	327	*e*S	Sn	09 12 24.1	-6.8
CVJ	**Coleyville**	9.23	329	⇑*e*P	P	09 10 49.4	-1.4
CVJ				*e*S	Sn	09 12 28.6	-6.6
NEJ	**Negril**	9.68	325	*e*P	P	09 10 55.9	-1.2

SJG	San Juan	9.87	38	Pn	P	09 10 54.2	-5.6
	5.1nm,0.3s,baz=258,slow=10,SNR=15						
SJG				Sn	Sn	09 12 41.1	-10
	11nm,0.3s,baz=72,slow=23,SNR=4.5						
SJG				LR	LR	09 15 02.6	
	comp=Z,246nm,20.7s,baz=225,slow=39						
SJG	San Juan	9.87	38	*e*Pn	P	09 10 53.4	-6.4
SJG				*e*Sn	Sn	09 12 39.9	-11
OTAV	Otavalo	11.65	211	*e*P	P	09 11 21.5	-2.6
JTS	JuntasAbangare	12.25	271	*e*Pn	P	09 11 31.1	-1.1
	16nm,1.0s						
NNA	Nana	22.60	191	*e*P	P	09 13 35.0	-1.6
	12nm,0.9s,mb4.3						
ARE	Arequipa	26.65	178	*e*P	P	09 14 14.0	-1.3
LPAZ	La Paz	26.81	171	P	P	09 14 15.3	-1.4
	1.7nm,0.4s,mb3.9,baz=349,slow=7.5,SNR=7.6						
LPAZ				LR	LR	09 25 57.8	
	comp=Z,433nm,19.7s,MS4.0,baz=198,slow=39						
LPAZ	La Paz	26.81	171	*e*P	P	09 14 15.9	-0.9
	3.4nm,0.7s,mb4.0						
LVC	Limon Verde	32.94	174	P	P	09 15 08.8	-2.5
	1.1nm,0.5s,mb4.0,baz=317,slow=7.9,SNR=3.9						
WMOK	Wichita Mounta	34.13	319	*e*P	P	09 15 20.6	-0.8
TXAR	Lajitas Array	34.70	307	P	P	09 15 25.2	-1.3
	0.2nm,0.7s,mb3.1,baz=56,slow=3.3,SNR=2.2						
BDFB	Brasilia	35.42	136	P	P	09 15 30.6	-2.1
	4.4nm,0.6s,mb4.6,baz=302,slow=9.9,SNR=11						
BAO	Brasilia Array	35.43	136	P	P	09 15 31.0	-1.8
KSU1	Kansas State U	35.82	327	*e*P	P	09 15 35.0	-0.9
CPRX	Cap Rock	36.63	313	P	P	09 15 42.5	-0.2
MNTX	Cornudas Mount	37.10	310	*e*P	P	09 15 47.3	+0.6
	2.3nm,0.7s,mb4.1						
ANMO	Albuquerque	39.45	314	P	P	09 16 07.3	+0.9
	0.4nm,0.5s,mb3.4,baz=137,slow=16,SNR=2.1						
SDCO	Great Sand Dun	40.28	318	*e*P	P	09 16 14.3	+1.1
	8.8nm,0.9s,mb4.5						
EYMN	Ely	40.75	340	*e*P	P	09 16 17.0	+0.1
PV01	Paradox Valley	42.53	317	*e*P	P	09 16 33.1	+1.3
ULM	Lac du Bonnet	44.23	339	P	P	09 16 46.6	+1.3
	3.9nm,0.5s,mb4.4,baz=143,slow=8.0,SNR=9.1						
ULM				LR	LR	09 36 22.3	
	comp=Z,111nm,18.9s,MS3.8,baz=262,slow=38						
SCHQ	Schefferville	44.60	5	P	P	09 16 47.7	-0.6
	2.7nm,0.7s,mb4.2,baz=180,slow=15,SNR=4.2						
SCHQ				pP	pP	09 16 52.9	-1.5
	6.5nm,0.7s,baz=183,slow=6.8,SNR=3.8						
SCHQ				LR	LR	09 35 11.2	
	comp=Z,114nm,19.2s,MS3.8,baz=58,slow=36						
SCHQ	Schefferville	44.60	5	P	P	09 16 47.7	-0.6
SCHQ				pP	pP	09 16 52.9	-1.5
SCHQ				LR	LR	09 35 11.2	
MSU	Marysvale	45.19	315	P	P	09 16 53.4	+0.2
DAU	Daniels Canyon	45.49	318	P	P	09 16 58.2	+2.7
PDAR	Pinedale Array	45.66	322	P	P	09 16 56.9	0.0
	1.5nm,0.9s,mb3.9,baz=120,slow=8.7,SNR=4.1						
PDAR				pP	pP	09 17 02.0	-0.9
	2.2nm,0.8s,baz=119,slow=11,SNR=9.7						
NEN	Nelson	45.91	310	*e*P	P	09 16 59.0	+0.1
HWUT	Hardware Ranch	46.30	319	P	P	09 17 02.8	+0.9
SNOW	Snow King Moun	46.77	322	P	P	09 17 06.7	+1.1
REDW	Red Top Meadow	46.78	322	*e*P	P	09 17 07.0	+1.3
TPAW	Teton Pass	46.91	322	*e*P	P	09 17 07.1	+0.4
BGU	Big Grassy Mou	46.91	318	*e*P	P	09 17 08.3	+1.5
IMW	Indian Meadow	47.12	322	P	P	09 17 10.2	+1.8
HRY	Holter Researc	49.22	325	*e*P	P	09 17 25.2	+0.5
NVAR	Mina Array Bea	49.52	312	P	P	09 17 28.6	+1.5
	1.1nm,0.6s,mb4.1,baz=106,slow=6.6,SNR=4.9						
NVAR				pP	pP	09 17 33.1	-0.2
	1.3nm,0.7s,baz=113,slow=7.6,SNR=8.0						
WCN	Washoe City	50.90	313	*e*P	P	09 17 38.4	+0.8
	4.6nm,0.9s,mb4.4						
OHCM	Honcut	52.16	312	P	P	09 17 47.5	+0.3
OHCM				*e*	pP	09 17 51.9	-1.5
YBH	Yreka Blue Hor	53.87	315	P	P	09 17 59.2	-0.5
	2.8nm,1.0s,mb4.2,baz=96,slow=9.2,SNR=2.1						
YBH				pP	pP	09 18 03.7	-2.3
	2.2nm,0.9s,baz=24,slow=5.5,SNR=3.6						
YKA	Yellowknife Ar	60.20	339	P	P	09 18 42.6	-1.8
	1.0nm,0.8s,mb3.9,baz=125,slow=7.3,SNR=16						
YKA				pP	pP	09 18 48.2	-2.6
	3.2nm,0.8s,baz=126,slow=7.1,SNR=22						
YKA				LR	LR	09 44 08.8	
	comp=Z,76nm,19.4s,MS3.8,baz=125,slow=35						
YKA	Yellowknife Ar	60.20	339	P	P	09 18 42.6	-1.8
YKA				pP	pP	09 18 48.2	-2.6
YKA				LR	LR	09 44 08.8	
DLBC	Dease Lake	64.56	331	pP	pP	09 19 18.8	-1.1
	4.8nm,0.9s,baz=135,slow=2.9,SNR=2.6						
DBIC	Dimbokro	66.90	87	P	P	09 19 26.9	-2.4
	3.7nm,0.8s,mb4.4,baz=254,slow=8.1,SNR=7.3						
ESDC	Sonseca Array	66.97	51	P	P	09 19 28.4	-0.9
	0.9nm,0.9s,mb3.8,baz=280,slow=14,SNR=3.0						
ESDC				pP	pP	09 19 33.4	-2.2
	0.6nm,0.6s,baz=270,slow=6.0,SNR=4.0						
SJPF	Ste Jean	69.34	48	*e*P	P	09 19 43.9	-0.1
ETSF	Etsaut	69.81	48	*e*P	P	09 19 46.7	-0.2
INK	Inuvik	69.95	340	P	P	09 19 46.7	-0.6
	1.1nm,0.7s,mb3.9,baz=83,slow=3.3,SNR=9.9						
GRR	Gorron	70.15	42	*e*P	P	09 19 48.1	-0.8
MFF	Saint Martin d	70.44	44	*e*P	P	09 19 50.5	-0.1
	14nm,0.6s,mb4.8						
FLN	La Foliniere	70.44	42	*e*P	P	09 19 50.0	-0.6
	20nm,0.8s,mb4.8						
EPF	Esparros	70.48	48	*e*P	P	09 19 50.6	-0.4
LDF	La Druitiere	70.66	42	*e*P	P	09 19 51.5	-0.5
MTLF	Montolieu	71.87	48	*e*P	P	09 19 58.6	-0.7
ILAR	Eielson Array	74.06	335	P	P	09 20 11.6	-0.2
	0.6nm,0.6s,mb3.7,baz=108,slow=4.5,SNR=12						
IMA	Indian Mountai	77.03	336	*e*P	P	09 20 32.2	+3.6
DAVOX	Davos	77.33	44	P	P	09 20 31.8	+1.1
	2.5nm,0.8s,mb4.2,baz=204,slow=11,SNR=4.0						
NB2	NORSAR Subarra	77.98	30	P	P	09 20 39.3	+5.4
	1.8nm,0.7s,mb4.1,baz=269,slow=5.6						
NOA	NORSAR Array B	77.98	30	P	P	09 20 34.3	+0.4
	0.9nm,0.8s,mb3.8,baz=153,slow=3.7,SNR=2.7						
NOA				pP	pP	09 20 39.5	-0.8
	2.5nm,0.7s,baz=271,slow=5.8,SNR=6.0						
KHC	Kasperske Hory	79.71	42	x	P	09 20 46.5	+2.9
GERES	GERESS Array B	79.81	42	P	P	09 20 43.9	-0.2
	1.6nm,0.8s,mb4.0,baz=236,slow=4.8,SNR=8.5						
ARCES	ARCESS Array B	83.18	21	P	P	09 21 01.5	+0.1
	2.2nm,0.8s,mb4.2,baz=297,slow=2.7,SNR=4.4						
FINES	FINESS Array B	85.07	28	P	P	09 21 12.3	+1.2
	2.9nm,1.0s,mb4.3,baz=252,slow=6.0,SNR=3.3						
CMAR	Chiang Mai Arr	150.16	16	PKPbc	PKPdf	09 28 26.8	+1.7
	1.1nm,0.7s,baz=322,slow=3.0,SNR=5.2						
CMAR				pPKPbc		09 28 32.0	
	2.6nm,0.9s,baz=313,slow=2.8,SNR=2.8						
ASAR	Alice Springs	151.55	239	PKPbc	PKPdf	09 28 29.6	+2.5
	1.4nm,0.4s,baz=118,slow=3.1,SNR=42						
ASAR				pPKPbc		09 28 36.9	
	5.3nm,0.7s,baz=116,slow=2.4,SNR=16						
ASPA	Alice Springs	151.56	239	*e*P	PKPdf	09 28 29.5	+2.4
WB2	Warramunga Arr	152.42	247	*e*P	PKPdf	09 28 31.9	+3.5
WRA	Warramunga Arr	152.43	247	PKPbc	PKPdf	09 28 31.9	+3.5
	2.9nm,0.3s,baz=104,slow=2.8,SNR=182						
WRA				PKPab	PKPab	09 28 42.9	-1.0
	7.8nm,0.7s,baz=101,slow=2.4,SNR=21						

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*IDC **25** 09:26:40.7±0.7, 28.01N×139.61E, h503^{km}±8^{km}, mb3.2/11, mb1 3.3/13, mb1mx3.2/25, Error ellipse: s-maj=18.2km s-min=10.9km az=95.0*

*NEIC **25** 09:26:41.3±0.7, 28.00N×139.61E, h511^{km}±9^{km}, mb4.3/4, Error ellipse: s-maj=13.6km s-min=6.7km az=92.0*

*JMA **25** 09:26:42.0±0.2, 28.08N×139.98E, h519^{km}, M4.2*

ISC 25 09:26:40.4±0.5**, 27.97N**±0.05×**139.6E**±0.2**, h517**^{km}±7^{km}**, n28,** σ**0^{s}69**/34**, mb3.6**/13**, 2D, Bonin Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.48	110	P	P	09 27 50.1	0.0
	40nm,0.3s,baz=167,slow=17,SNR=23						
CBIJ				S	S	09 28 43.5	-1.8
	201nm,0.3s,baz=290,slow=22,SNR=31						
CBIJ	Chichi jima	2.48	110	P	P	09 27 50.2	+0.1
CBIJ				S	S	09 28 44.3	-1.0
JHHJ	Haha-jima-NKT	2.67	119	P	P	09 27 51.9	+0.6
JHHJ				*e*S	S	09 28 47.7	+0.3
JHJ2	Mitsune	5.13	2	P	P	09 28 10.8	+0.6
BSO1	Boso 1	6.77	10	S	S	09 29 51.0	+1.5
BSO3	Boso 3	6.86	6	S	S	09 29 50.9	-0.2
BSO4	Boso 4	7.03	5	P	P	09 28 28.9	+0.5
BSO4				S	S	09 29 54.4	+0.2
MAJO	Matsushiro	8.63	353	*e*P	P	09 28 44.1	-0.7
	23nm,0.6s						
MAT	Matsushiro	8.63	353	P	P	09 28 43.9	-0.8
MAT				S	S	09 30 21.9	-1.7
MAT	Matsushiro	8.63	353	*e*P	P	09 28 44.0	-0.7
	20nm,0.9s						
MAT				*e*S	S	09 30 22.0	-1.6
ASAJ	Asahikawa	16.30	8	P	P	09 30 04.5	+1.5
	1.0nm,0.3s,baz=348,slow=8.5,SNR=6.2						
SONM	Songino Array	32.48	317	P	P	09 32 28.9	-0.1
	0.7nm,0.7s,mb3.3,baz=135,slow=10,SNR=5.5						
SONM				ScP		09 37 55.6	
	0.6nm,0.6s,baz=140,slow=2.6,SNR=4.0						
CMAR	Chiang Mai Arr	38.37	265	P	P	09 33 19.1	+1.1
	0.5nm,0.3s,mb3.5,baz=54,slow=9.2,SNR=4.7						
FITZ	Fitzroy Crossi	47.74	198	⇓*i*P	P	09 34 32.4	+0.5
	3.3nm,0.5s,mb4.1						
WRAB	Tennant Creek	47.88	187	*e*P	P	09 34 32.6	-0.4
	7.0nm,0.6s,mb4.4						
WB2	Warramunga Arr	47.89	187	⇓*i*P	P	09 34 32.9	-0.1
WRA	Warramunga Arr	47.90	187	P	P	09 34 33.0	0.0
	5.4nm,0.6s,mb4.3,baz=2.2,slow=7.8,SNR=118						
ASAR	Alice Springs	51.62	187	P	P	09 35 00.5	-0.2
	4.3nm,0.9s,mb3.8,baz=3.0,slow=5.7,SNR=90						
MBWA	Marble Bar	52.47	204	*e*P	P	09 35 06.6	-0.2
CHKZ	Chkalovo	55.67	318	P	P	09 35 28.3	-0.5
BVAR	Borovoye Array	55.83	317	P	P	09 35 29.7	-0.3
	2.0nm,0.4s,mb3.7,baz=78,slow=6.9,SNR=14						
ILAR	Eielson Array	58.07	29	P	P	09 35 44.5	-0.7
	0.6nm,0.6s,mb3.0,baz=261,slow=6.3,SNR=12						
STKA	Stephens Creek	59.54	178	P	P	09 35 55.6	+0.1
	1.1nm,0.5s,mb3.4,baz=342,slow=13,SNR=5.0						
INK	Inuvik	63.20	25	P	P	09 36 18.4	-0.4
	0.4nm,0.4s,mb3.2,baz=273,slow=12,SNR=6.8						
YKA	Yellowknife Ar	72.47	28	P	P	09 37 15.5	+0.4
	0.3nm,0.4s,mb3.1,baz=298,slow=6.0,SNR=15						
KAF	Kangasniemi	75.67	334	*e*p	P	09 37 33.0	0.0
	baz=55,slow=6.5						
FINES	FINESS Array B	76.13	333	P	P	09 37 35.9	+0.4
	1.0nm,0.3s,mb3.7,baz=71,slow=5.3,SNR=32						
HFS	Hagfors	81.70	336	P	P	09 38 04.4	-0.4
	3.5nm,1.0s,mb3.7,baz=117,slow=3.3,SNR=5.4						

IDC 25 10:00:41.6±16.0**, 3.76S**×**123.48E, mb3.7**/2**, mb1 3.7**/3**, mb1mx3.5**/15**, ML3.4**/1**, Error ellipse: s-maj=265.0km s-min=242.3km az=75.0, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	19.26	147	P	P	10 05 09.7	-0.8
	0.1nm,0.3s,baz=325,slow=13,SNR=7.5						
ASAR	Alice Springs	22.21	154	P	P	10 05 38.7	-2.7
	0.8nm,0.4s,baz=327,slow=12,SNR=22						
STKA	Stephens Creek	32.75	151	P	P	10 07 16.4	-2.1
	1.9nm,1.1s,baz=311,slow=8.8,SNR=4.0						

WEL 25 10:19:29.1±0.3**, 38.09S**×**176.17E, h172**^{km}±3^{km}**, ML3.6**/10**, 5C, Error ellipse: s-maj=3.4km s-min=3.0km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.76	104	⇑PN	P	10 19 54.2	-0.5
URZ				SN	S	10 20 13.3	-0.9
MGZ	Maungaku	1.04	208	PN	P	10 19 56.6	+0.1
MWZ	Matawai	1.10	104	PN	P	10 19 57.0	0.0
MWZ				SN	S	10 20 18.1	-0.3
BKZ	Black Stump Fm	1.11	167	PN	P	10 19 57.0	-0.1
BKZ				SN	S	10 20 17.7	-0.9
NGZ	Ngauruhoe	1.18	202	PN	P	10 19 57.8	0.0
TUVZ	Tukino	1.25	199	PN	P	10 19 58.4	0.0
MOVZ	Moawhango	1.36	194	PN	P	10 19 58.6	-0.8
KNZ	Kokohu	1.50	129	PN	P	10 20 00.8	0.0
KNZ				SN	S	10 20 24.4	-0.8
PUZ	Puketiti	1.64	90	PN	P	10 20 01.6	-0.6
PUZ				SN	S	10 20 25.7	-2.0
MXZ	Matakaoa Point	1.77	73	⇑PN	P	10 20 03.0	-0.5
MXZ				SN	S	10 20 30.0	0.0
TSZ	Takapari Road	1.98	185	PN	P	10 20 04.6	-1.1
TSZ				SN	S	10 20 32.1	-1.8
PWZ	Pawanui	2.01	165	⇑PN	P	10 20 05.6	-0.5
PWZ				*e*SN	S	10 20 33.3	-1.3
BFZ	Birch Farm	2.59	179	PN	P	10 20 11.0	-2.0
BFZ				SN	S	10 20 44.2	-2.6
MRZ	Mangatainoka R	2.61	190	⇑PN	P	10 20 10.9	-2.4
MRZ				SN	S	10 20 43.7	-3.5
KIW	Kapiti Island	2.94	199	PN	P	10 20 14.1	-3.1
MTW	Mount Morrison	3.11	189	⇑PN	P	10 20 16.0	-3.4
CAW	Cannon Point	3.14	195	PN	P	10 20 16.3	-3.5
MRW	Makara Radio	3.34	199	PN	P	10 20 18.2	-4.1
WEL	Wellington	3.38	198	PN	P	10 20 18.6	-4.1
MSWZ	Moikau Station	3.40	192	PN	P	10 20 19.4	-3.7
MSWZ				SN	S	10 20 58.4	-6.2
TUWZ	Tuamarina	3.76	207	PN	P	10 20 23.1	-4.5
TUWZ				SN	S	10 21 06.2	-6.4
NNZ	Nelson	3.80	214	PN	P	10 20 22.9	-5.2
QRZ	Quartz Range	3.93	225	PN	P	10 20 24.7	-5.1
THZ	Tophouse	4.45	213	*e*PN	P	10 20 32.0	-4.5
THZ				SN	S	10 21 23.1	-5.5
KHZ	Kahutara	4.77	204	PN	P	10 20 36.1	-4.7
DSZ	Denniston Nort	4.96	221	PN	P	10 20 38.2	-5.1
DSZ				SN	S	10 21 32.8	-7.8
LTZ	Lake Taylor	5.56	211	*e*PN	P	10 20 45.5	-5.5
MQZ	McQueen’s Vall	6.22	204	SN	S	10 21 59.2	-11

WEL 25 10:28:07.0±0.2**, 45.17S**×**167.35E, h84**^{km}±1^{km}**, ML3.7**/4**, 3C-6D, Error ellipse: s-maj=2.0km s-min=1.1km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	Deep Cove	0.34	203	PN	P	10 28 19.4	-0.6
DCZ				SN	S	10 28 29.2	-0.6
MLZ	Mavora Lakes	0.61	108	⇑PN	P	10 28 21.7	-0.6
MLZ				SN	S	10 28 32.7	-0.9
MSZ	Milford Sound	0.64	40	PN	P	10 28 22.0	-0.6
MSZ				SN	S	10 28 33.6	-0.5
WHZ	Wether Hill Ro	0.84	150	⇑PN	P	10 28 24.3	-0.3
WHZ				SN	S	10 28 37.3	-0.6
WKZ	Wanaka	1.23	75	⇓PN	P	10 28 29.1	-0.3
WKZ				SN	S	10 28 45.3	-0.9
EAZ	Earnscleugh	1.39	93	⇓PN	P	10 28 30.9	-0.6
EAZ				SN	S	10 28 48.2	-1.4
JCZ	Jackson Bay	1.48	43	⇓PN	P	10 28 31.4	-1.3
TUZ	Tuapeka	1.79	117	⇓PN	P	10 28 36.0	-0.7
TUZ				SN	S	10 28 56.2	-2.4
LBZ	Lake Benmore	2.17	70	⇓PN	P	10 28 39.5	-2.3
LBZ				SN	S	10 29 03.8	-3.8
FOZ	Fox Glacier	2.32	47	⇑PN	P	10 28 42.2	-1.8
FOZ				*e*SN	S	10 29 08.5	-3.0
ODZ	Otahua Downs	2.34	88	⇓PN	P	10 28 42.2	-2.0
ODZ				SN	S	10 29 07.3	-4.6
RPZ	Rata Peaks	3.02	63	PN	P	10 28 50.1	-3.7
WVZ	Waitaha Valley	3.21	51	PN	P	10 28 52.5	-4.0
MQZ	McQueen’s Vall	4.07	71	PN	P	10 29 04.1	-4.1
DSZ	Denniston Nort	4.71	45	PN	P	10 29 12.6	-4.6
THZ	Tophouse	5.28	52	PN	P	10 29 19.9	-5.1
QRZ	Quartz Range	5.76	43	PN	P	10 29 26.9	-4.6

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*IDC **25** 10:36:29.9±1.9, 19.32S×167.96E, h32^{km}±8^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.7/13, Error ellipse: s-maj=78.0km s-min=22.9km az=151.0*

ISC 25 10:36:29.7±3.1**, 19.3S**±0.2×**167.9E**±0.2**, h41**^{km}±30^{km}**, n8,** σ**0^{s}63**/9**, mb3.8**/4**, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.04	206	*e*P	P	10 37 16.6	0.0
DZM				*e*S	S	10 37 52.5	+0.4
NOUC	Port Laguerre	3.13	208	*e*P	P	10 37 17.8	+0.1
NOUC				*e*S	S	10 37 53.8	-0.5
CTA	Charters Tower	20.36	264	P	P	10 41 05.6	+0.1
	2.7nm,0.8s,baz=94,slow=16,SNR=3.0						
CTA				pP		10 41 14.7	
	3.9nm,0.9s,baz=90,slow=15,SNR=2.9						
STKA	Stephens Creek	26.70	237	P	P	10 42 08.4	+1.1
	1.5nm,0.7s,mb3.6,baz=34,slow=7.3,SNR=2.7						
ASAR	Alice Springs	31.84	256	P	P	10 42 52.0	-1.2
	0.9nm,0.6s,mb3.8,baz=83,slow=8.7,SNR=20						
ASAR				pP	pP	10 43 01.5	-2.9
	1.4nm,0.5s,baz=84,slow=8.3,SNR=24						
SONM	Songino Array	86.51	324	P	P	10 49 10.0	+0.5
	1.0nm,0.8s,mb4.1,baz=142,slow=4.5,SNR=4.6						
NVAR	Mina Array Bea	89.83	49	P	P	10 49 25.3	-0.4
	0.4nm,0.8s,mb3.8,baz=222,slow=3.7,SNR=5.8						
YKA	Yellowknife Ar	101.34	28	P	P	10 50 17.7	+0.2
	0.2nm,0.6s,baz=254,slow=4.9,SNR=8.4						
YKA				pP		10 50 27.7	
	0.3nm,0.8s,baz=254,slow=4.9,SNR=6.7						

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*NIED **25** 10:45:00, 38.90N×141.60E, h86^{km}, Mw3.6 Best double couple: M$_0$2.76×10^{14} NP1:φ$_s$230°, δ76°, λ81°. NP2:φ$_s$82°, δ17°, λ122°.*

*JMA **25** 10:45:55.8±0.1, 38.89N×141.64E, h64^{km}±1^{km}, M3.6 Broadband fault plane solution: P waves. NP1:φ$_s$94°, δ3°, λ162°. NP2:φ$_s$202°, δ89°, λ87°. Principal axes: T Plg46°, Azm109°; N Plg3°, Azm202°; P Plg44°, Azm295°;*

JMA Felt II J1.

*IDC **25** 10:45:57.0±3.5, 37.57N×140.21E, mb3.5/4, mb1 3.8/4, mb1mx3.4/22 Error ellipse: s-maj=328.0km s-min=23.3km az=109.0*

*NEIC **25** 10:46:00.8±0.8, 37.03N×142.15E, h10^{km}, Error ellipse: s-maj=21.5km s-min=12.9km az=153.0*

ISC 25 10:45:54.6±0.9**, 38.88N**±0.06×**141.7E**±0.1**, h69**^{km}±6^{km}**, n13,** σ**0^{s}73**/19**, mb3.7**/2**, 6C, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OFUJ	Ofunato	0.21	352	⇑P	P	10 46 05.7	+0.6
OFUJ				S	S	10 46 12.7	-0.1
JMK	Ichinoseki	0.39	282	⇑P	P	10 46 06.5	+0.2
JMK				S	S	10 46 14.3	-0.8
JIO	Ouri	0.50	214	⇑P	P	10 46 07.8	+0.4
JIO				S	S	10 46 16.3	-0.6
JOM	Ohasama	0.68	332	⇑P	P	10 46 09.7	+0.4
JOM				S	S	10 46 20.0	-0.2
JOU	Okura	0.96	238	⇑P	P	10 46 13.0	+0.2
JOU				S	S	10 46 25.5	-0.8
JYK	Kaneyama	1.05	273	⇑P	P	10 46 14.1	+0.1
JYK				*e*S	S	10 46 27.9	-0.4
MAJO	Matsushiro	3.62	231	*e*P	P	10 46 51.5	+1.9
MAT	Matsushiro	3.62	231	P	P	10 46 50.0	+0.4
MAT				*e*S	S	10 47 32.0	+0.6
MAT	Matsushiro	3.62	231	*e*P	P	10 46 51.0	+1.4
MAT				*e*S	S	10 47 45.0	+14
ILAR	Eielson Array	47.83	33	P	pP	10 54 49.5	+5.5
	0.2nm,0.6s,baz=264,slow=6.3,SNR=5.2						
INK	Inuvik	52.65	28	P	pP	10 55 24.6	+3.6
	0.7nm,1.0s,baz=284,slow=4.2,SNR=3.7						
WRA	Warramunga Arr	58.91	188	P	P	10 55 47.8	-1.2
	0.7nm,0.5s,mb3.9,baz=5.6,slow=6.5,SNR=19						
ASAR	Alice Springs	62.64	188	P	P	10 56 13.4	-0.8
	0.2nm,0.4s,mb3.4,baz=357,slow=5.1,SNR=11						

IDC 25 11:24:20.3±3.9**, 15.90S**×**167.22E, mb3.7**/4**, mb1 4.0**/4**, mb1mx3.8**/14**, Error ellipse: s-maj=214.0km s-min=28.8km az=147.0, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	31.51	258	P	P	11 30 44.7	-1.8
	0.3nm,0.8s,baz=88,slow=8.2,SNR=3.9						
ASAR	Alice Springs	32.23	251	P	P	11 30 50.2	-2.5
	0.8nm,0.6s,baz=79,slow=9.2,SNR=15						
ILAR	Eielson Array	87.65	18	P	P	11 37 10.2	-1.4
	0.4nm,0.5s,baz=241,slow=5.1,SNR=18						
YKA	Yellowknife Ar	98.60	27	P	P	11 38 00.6	-1.5
	0.2nm,0.7s,baz=255,slow=4.2,SNR=5.0						
ARCES	ARCESS Array B	121.36	345	PKP	PKPdf	11 43 15.1	-2.1
	6.1nm,1.1s,baz=45,slow=1.3,SNR=3.8						

IDC 25 11:37:01.8±1.2**, 13.21S**×**70.55W, mb3.6**/3**, mb1 3.9**/5**, mb1mx3.6**/18**, ML3.6**/2**, Error ellipse: s-maj=61.8km s-min=15.5km az=59.0, Central Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	3.85	143	Pn	Pn	11 38 04.7	+1.2
	1.0nm,0.3s,baz=330,slow=12,SNR=15						
LPAZ				Pg	Pg	11 38 11.2	-7.4
	9.8nm,0.3s,baz=324,slow=12,SNR=67						
LPAZ				Lg		11 39 03.2	
	24nm,0.3s,baz=159,slow=23,SNR=8.9						
LVC	Limon Verde	9.48	171	Pn	P	11 39 19.8	-2.8
	0.3nm,0.3s,baz=355,slow=11,SNR=3.9						
SDV	Santo Domingo	21.95	360	P	P	11 41 57.5	-1.6
	5.0nm,0.9s,baz=23,slow=7.7,SNR=3.3						
TXAR	Lajitas Array	53.02	323	P	P	11 46 19.9	-3.0
	0.4nm,0.8s,baz=164,slow=9.1,SNR=4.8						
NVAR	Mina Array Bea	68.06	321	P	P	11 48 03.8	-1.6
	0.4nm,0.8s,baz=124,slow=6.5,SNR=3.5						
WRA	Warramunga Arr	138.94	217	PKP	PKPdf	11 56 32.0	-1.0
	0.3nm,0.8s,baz=137,slow=1.5,SNR=8.0						

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*SNSN **25** 11:40:19.6, 26.24N×35.60E, Ml2.2*

*CSEM **25** 11:40:20.4±0.1, 26.09N×35.58E, h35^{km}, ML3.3, Error ellipse: s-maj=4.0km s-min=1.4km az=106.0*

*HLW **25** 11:40:22.3, 26.05N×35.52E, h29^{km}, Mb3.3*

ISC 25 11:40:18.2±1.0**, 26.10N**±0.07×**35.6E**±0.1**, h10**^{km}**, n9,** σ**0^{s}45**/10**, 2C-1D, Red Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HADB		1.13	229	⇑P	Pb	11 40 40.2	+0.8
HADB				S	Sb	11 40 53.2	-0.8
DBAS	Duba	1.17	18	P	Pb	11 40 39.4	-0.7
EMRS	Mersa Alam	1.27	211	P	Pb	11 40 42.0	+0.2
HAGS	Hagol	1.79	197	⇑P	Pn	11 40 49.5	-0.1
HHRG	Al Ghardaqah	2.11	302	⇓P	Pn	11 40 54.5	+0.4
TBKS	Tabuk	2.29	22	P	Pn	11 40 56.9	+0.3
JMQS	Jabal Moqyreh	2.79	6	P	Pn	11 41 03.8	0.0
HAQS	Haql	3.00	349	P	Pn	11 41 06.7	-0.1
JMOS	Jabal al Moall	3.08	353	P	Pn	11 41 07.9	0.0

FUNV 25 11:55:56.6, 6.62N×**73.18W, h159**^{km}**, MD3.6, 1C-1D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAPV	Capacho	1.51	35	⇓*i*P	P	11 56 27.1	-0.1
CAPV				*e*S	S	11 56 48.0	-2.9
SOCV	Socops	2.84	54	⇑*i*P	P	11 56 42.0	-0.9
SOCV				*e*S	S	11 57 14.2	-4.2
VIGV	El Vigia	2.85	39	*e*P	P	11 56 41.6	-1.5
VIGV				*e*S	S	11 57 14.0	-4.7
VIRV	Villa del Rosa	3.94	11	*e*P	P	11 56 54.0	-3.0
VIRV				*e*S	S	11 57 38.2	-5.4
CURV	Curarigua	4.64	43	*e*P	P	11 57 03.8	-2.4
CURV				*e*S	S	11 57 54.5	-5.6
BAUV	El Baul	5.59	65	*e*P	P	11 57 15.3	-3.5
BAUV				*e*S	S	11 58 14.8	-7.8

TRN 25 11:59:10.3, 15.79N×**61.43W, h24**^{km}**, 2C-4D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	Marie-Galante	0.17	41	⇓*e*P	Pb	11 59 17.3	+1.8
BBL	Barber’s Block	0.26	188	⇑*i*P	Pb	11 59 17.5	+0.7
SEG	Port Louis	0.62	354	*e*P	Pb	11 59 24.4	+2.0
DEG	La Desirade	0.63	34	*e*P	Pb	11 59 24.4	+1.7
FDF	Fort de France	1.08	165	⇓*e*P	Pn	11 59 31.9	+1.8
CRM	Caravelle	1.14	154	⇑*e*P	Pn	11 59 32.5	+1.5
CRM				*e*S	Sb	11 59 47.8	+2.1
BIM	Bigot	1.31	164	⇓*e*P	Pn	11 59 35.5	+2.1
MVM	Montagne Vaucl	1.33	157	⇓*e*P	Pn	11 59 35.4	+1.7
MVM				*e*S	Sn	11 59 53.1	+2.3

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*IDC **25** 12:04:13.1±1.4, 8.65N×126.82E, mb3.6/6, mb1 3.8/6, mb1mx3.6/19, Error ellipse: s-maj=75.1km s-min=20.7km az=64.0*

*MAN **25** 12:04:16.7, 8.41N×126.76E, h9^{km}, mb4.8, ML3.7, MS3.7*

ISC 25 12:04:16.1±1.4**, 8.44N**±0.04×**126.86E**±0.05**, h19**^{km}±9^{km}**, n20,** σ**1^{s}04**/30**, mb3.7**/6**, 1C-1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BIPH	Bislig	0.55	243	eP	Pb	12 04 27.6	+0.6
BIPH				eS	Sb	12 04 32.7	-1.7
BUTP	Butuan	1.33	293	eP	Pn	12 04 39.9	0.0
BUTP				eS	Sb	12 04 56.0	-0.8
MATI	Mati	1.60	202	eP	Pn	12 04 43.5	-0.2
BUKP	Musuan	1.86	253	eP	Pn	12 04 47.1	-0.3
BUKP				eS	Sn	12 05 10.7	+0.1
SCPH	Surigao	1.90	315	eP	Pn	12 04 49.0	+1.1
SCPH				eS	Sn	12 05 11.6	+0.1
CGP	Cagayan de Oro	2.14	271	eP	Pn	12 04 51.6	+0.2
CGP				eS	Sn	12 05 18.0	+0.3
KCP	Kidapawan	2.26	231	⇓iP	Pn	12 04 56.0	+2.9
KCP				iS	Sn	12 05 22.1	+1.5
MSLP	Maasin	2.59	311	eP	Pn	12 04 58.7	+0.8
MSLP						12 05 32.0	
TBP	Tagbilaran	3.21	293	eP	Pn	12 05 06.3	-0.4
TBP				eS	Sn	12 05 43.2	-1.6
PLP	Palo	3.28	326	eP	Pn	12 05 08.2	+0.5
PLP				iS	Sn	12 05 53.2	+6.6
LLP	Lapu-Lapu	3.41	303	⇑eP	Pn	12 05 10.7	+1.2
LLP				iS	Sn	12 05 50.3	+0.4
OCLP	Ormoc	3.41	320	eP	Pn	12 05 10.8	+1.3
OCLP				eS	Sn	12 06 00.0	+10
PAGZ	Pagadian	3.49	261	eP	Pn	12 05 11.5	+0.8
GUIM	Jordan	4.74	298	eP	Pn	12 05 27.4	-0.9
CMAR	Chiang Mai Arr	28.88	293	P	P	12 10 13.3	-2.7
	0.9nm,0.4s,mb3.9,baz=111,slow=7.4,SNR=5.8						
WRA	Warramunga Arr	29.15	165	P	P	12 10 18.3	-0.1
	0.2nm,0.8s,mb2.9,baz=344,slow=9.2,SNR=4.3						
ASAR	Alice Springs	32.64	168	P	P	12 10 48.4	-0.8
	1.5nm,1.3s,mb3.8,baz=342,slow=7.4,SNR=4.0						
ZAL	Zalesovo	56.50	332	P	P	12 13 55.1	-4.2
	0.6nm,0.9s,mb3.6,baz=354,slow=1.9,SNR=4.0						
BVAR	Borovoye Array	63.49	326	P	P	12 14 43.2	-4.0
	0.8nm,0.7s,mb4.0,baz=130,slow=12,SNR=5.1						
FINES	FINESS Array B	87.77	332	P	P	12 17 03.5	-1.4
	1.2nm,0.9s,mb4.1,baz=51,slow=8.9,SNR=3.6						

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*NIED **25** 12:16:00,25.00N×128.70E,h8^{km},Mw3.9 Best double couple: M$_0$7.98×10^{14} NP1:φ$_s$205°,δ68°,λ-105°. NP2: φ$_s$62°,δ26°,λ-57°.*

*IDC **25** 12:16:33.4±1.1,24.96N×128.62E,mb3.7/5,mb1 3.9/5, mb1mx3.6/21,Error ellipse: s-maj=55.3km s-min=19.6km az=76.0*

*JMA **25** 12:16:35.2±0.4,25.01N×128.74E,h57^{km},M3.7*

ISC 25 12:16:36.1±1.5**,25.00N**±0.04×**128.49E**±0.05**,h28**^{km}±10^{km}**, n29,**σ**1**^{s}**12**/44**,mb4.1**/9**,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JJT2	Tamagusuku 2	1.31	330	P	Pn	12 16 59.6	+0.7
JJT2				S	Sb	12 17 17.5	+1.0
NAH1	Naha	1.40	329	P	Pn	12 17 00.6	+0.5
NAH1				S	Sb	12 17 19.0	+0.1
JOW	Kunigami	1.83	354	Pn	Pn	12 17 05.8	-0.5
	53nm,0.3s,baz=146,slow=17,SNR=191						
JOW				Sn	Sn	12 17 26.4	-2.3
	105nm,0.3s,baz=108,slow=23,SNR=25						
JOW	Kunigami	1.83	354	P	Pn	12 17 05.8	-0.5
JOW				S	Sn	12 17 26.6	-2.1
JAGN	Aguni-jima	1.94	325	P	Pn	12 17 08.4	+0.6
JAGN				S	Sn	12 17 32.1	+0.7
JKE	Kume jima 2	2.02	311	P	Pn	12 17 09.3	+0.2
JKE				S	Sn	12 17 33.7	+0.1
JIH	Iheya	2.08	347	P	Pn	12 17 09.9	+0.1
JIH				S	Sn	12 17 33.7	-1.3
JMZ	Minamidaito 2	2.60	71	P	Pn	12 17 12.3	-5.0
JMZ				eS	Sn	12 17 40.4	-7.9
JTK	Tokunoshima	2.80	8	P	Pn	12 17 18.9	-1.3
JTK				eS	Sn	12 17 49.2	-4.2
JOGS	Gusukube	2.81	266	P	Pn	12 17 20.7	+0.4
JOGS				eS	Sn	12 17 53.0	-0.6
JMJ	Miyako jima 2	2.91	267	P	Pn	12 17 22.0	+0.3
JMJ				S	Sn	12 17 55.3	-0.8
JTJ	Tarama	3.46	265	P	Pn	12 17 29.2	-0.3
JTJ				S	Sn	12 18 07.6	-2.4
JAM	Amami Oshima	3.54	16	P	Pn	12 17 29.6	-1.0
JAM				S	Sn	12 18 06.3	-5.7
JZK	Kikaishima	3.56	22	S	Sn	12 18 08.4	-4.0
JIJ	Ishigaki jima	4.00	262	P	Pn	12 17 36.2	-1.0
JIJ				S	Sn	12 18 19.4	-4.4
JKRS	Kuro-shima	4.15	260	P	Pn	12 17 38.4	-0.9
JKRS				S	Sn	12 18 24.1	-3.4
HATJ	Hateruma jima	4.37	259	S	Sn	12 18 28.1	-4.9
IRIF	Iriomote-Funau	4.38	262	eS	Sn	12 18 29.6	-3.7
GUN	Gumba	38.12	284	eP	P	12 23 56.9	+2.3
	16nm,0.9s,mb4.8						
PKI	Pulchoki	38.57	283	eP	P	12 23 59.6	+1.2
	4.3nm,0.5s,mb4.5						
KKN	Kakani	38.66	284	eP	P	12 24 00.6	+1.4
	15nm,0.9s,mb4.7						
DMN	Daman	38.83	284	eP	P	12 24 02.0	+1.4
GKN	Gorkha	39.20	284	eP	P	12 24 05.3	+1.6
	5.9nm,0.7s,mb4.4						
KOLN	Koldanda	40.14	284	eP	P	12 24 10.8	-0.6
ZAL	Zalesovo	43.37	324	P	P	12 24 38.1	+0.5
	1.8nm,0.8s,mb3.8,baz=355,slow=6.4,SNR=8.2						
WRA	Warramunga Arr	45.04	172	P	P	12 24 49.6	-1.9
	0.7nm,0.8s,mb3.6,baz=352,slow=8.5,SNR=10						
ASAR	Alice Springs	48.66	173	P	P	12 25 19.9	-0.1
	0.7nm,1.2s,mb3.6,baz=0.4,slow=15,SNR=3.0						
BVAR	Borovoye Array	51.34	319	P	P	12 25 41.0	+0.9
	1.7nm,0.6s,mb4.1,baz=90,slow=7.4,SNR=7.5						
YKA	Yellowknife Ar	79.54	25	P	P	12 28 41.9	+0.3
	0.2nm,0.6s,mb3.2,baz=302,slow=5.2,SNR=6.7						

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*BJI **25** 12:32:12.9,39.38N×77.31E,h20^{km},ML3.8*

*NNC **25** 12:32:15.8±25.0,39.59N×78.18E,mpv3.7,Error ellipse: s-maj=288.8km s-min=131.8km az=17.0*

ISC 25 12:32:11.1±0.5**,39.12N**±0.07×**77.19E**±0.10**,h10**^{km}**,n17,** σ**0**^{s}**55**/19**,1C-3D,Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	1.02	293	⇑iPG	Pg	12 32 31.0	-0.7
KSH				SG	Sg	12 32 46.0	+0.6
KSH				Smax			
	comp=N,2µm,0.7s						
KSH				Smax			
	comp=E,2µm,0.6s						
ULHL	Ulahol	3.20	347	P	Pn	12 33 03.7	+1.1
	SNR=5.8						
KZA	Kyzart	3.30	334	P	Pn	12 33 03.6	-0.4
	SNR=17						
UCH	Uchtor	3.71	328	P	Pn	12 33 09.6	-0.2
	SNR=9.9						
KBK	Karagaybulak	3.92	335	P	Pn	12 33 12.5	-0.2
	SNR=15						
TKM2	Tokmak 2	3.98	343	P	Pn	12 33 13.9	+0.3
	SNR=14						
AML	Almayashu	4.01	320	P	Pn	12 33 21.1	+7.0
	SNR=8.6						
AAK	Ala-Archa	4.06	331	⇓P	Pn	12 33 20.5	+5.8
	comp=E,20nm,0.6s						
AAK				⇓S	Sn	12 34 09.8	+6.9
	comp=E,51nm,0.7s						
AAK	Ala-Archa	4.06	331	P	Pn	12 33 20.7	+6.0
	SNR=12						
CHMS	Chumysh	4.29	335	P	Pn	12 33 17.3	-0.7
	SNR=8.2						
MK31	Makanchi Array	8.53	24	⇓Pn	P	12 34 11.8	-5.8
	comp=E,1.2nm,0.7s,baz=184,slow=12,SNR=14						
MK31				Lg		12 36 24.5	
	comp=E,4.1nm,0.7s,baz=209,slow=28,SNR=4.4						
KOLN	Koldanda	12.52	153	eP	P	12 35 11.9	-0.3
	comp=E,4.2nm,0.3s						
GKN	Gorkha	12.70	149	eP	P	12 35 14.9	+0.3
	comp=E,8.1nm,0.3s						
KKN	Kakani	13.16	147	eP	P	12 35 21.5	+0.8
	comp=E,6.1nm,0.5s						
DMN	Daman	13.24	148	eP	P	12 35 21.1	-0.7
	comp=E,3.0nm,0.3s						
GUN	Gumba	13.31	145	eP	P	12 35 23.0	+0.2
	comp=E,2.7nm,0.3s						
PKI	Pulchoki	13.40	147	eP	P	12 35 23.9	0.0
	comp=E,7.2nm,0.6s						

WEL 25 12:41:10.8±0.3**,45.05S**×**167.55E,h113**^{km}±2^{km}**,ML3.6**/12**, 4C-2D,Error ellipse: s-maj=2.9km s-min=1.6km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSZ	Milford Sound	0.46	36	⇑PN	P	12 41 27.9	0.0
MSZ				SN	S	12 41 40.2	-0.5
DCZ	Deep Cove	0.52	213	PN	P	12 41 27.4	-0.8
DCZ				SN	S	12 41 39.9	-1.5
MLZ	Mavora Lakes	0.53	125	⇑PN	P	12 41 28.1	-0.2
MLZ				SN	S	12 41 41.3	-0.4
WHZ	Wether Hill Ro	0.89	162	PN	P	12 41 31.2	-0.4
WHZ				SN	S	12 41 46.4	-0.6
WKZ	Wanaka	1.06	79	PN	P	12 41 33.0	-0.2
WKZ				SN	S	12 41 49.1	-0.9
EAZ	Earnscleugh	1.26	99	PN	P	12 41 35.0	-0.4
EAZ				SN	S	12 41 51.8	-2.0
JCZ	Jackson Bay	1.30	42	⇑PN	P	12 41 35.1	-0.7
JCZ				SN	S	12 41 53.3	-1.4
TUZ	Tuapeka	1.72	123	⇑PN	P	12 41 40.4	-0.5
TUZ				SN	S	12 42 00.8	-2.8
LBZ	Lake Benmore	1.99	72	⇓PN	P	12 41 42.3	-1.9
LBZ				eSN	S	12 42 05.8	-3.6
FOZ	Fox Glacier	2.13	47	PN	P	12 41 44.8	-1.3
FOZ				SN	S	12 42 11.3	-1.4
ODZ	Otahua Downs	2.19	91	⇓PN	P	12 41 45.4	-1.6
ODZ				eSN	S	12 42 10.5	-3.6
RPZ	Rata Peaks	2.84	63	PN	P	12 41 52.5	-3.2
RPZ				SN	S	12 42 24.6	-5.0
WVZ	Waitaha Valley	3.02	51	PN	P	12 41 54.7	-3.4
WVZ				SN	S	12 42 28.4	-5.5
MQZ	McQueen’s Vall	3.89	72	PN	P	12 42 07.5	-2.4
MQZ				SN	S	12 42 47.6	-7.4
LTZ	Lake Taylor	4.09	58	PN	P	12 42 11.0	-1.5
DSZ	Denniston Nort	4.52	45	PN	P	12 42 14.5	-3.9
THZ	Tophouse	5.09	52	PN	P	12 42 22.0	-4.1
QRZ	Quartz Range	5.58	43	PN	P	12 42 29.0	-3.7
NNZ	Nelson	5.73	50	PN	P	12 42 32.5	-2.1

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*CSEM **25** 13:00:00.5±0.4,38.50N×25.73E,MD3.2,Error ellipse: s-maj=4.2km s-min=3.8km az=47.0*

*ISK **25** 13:00:01.3,38.32N×25.66E,h6^{km},MD3.2*

*THE **25** 13:00:01.2,38.56N×25.75E,h10^{km}*

*ATH **25** 13:00:02.8,38.57N×25.71E,h42^{km}±3^{km},MD3.2/6*

ISC 25 13:00:02.0±0.4**,38.45N**±0.03×**25.59E**±0.03**,h10**^{km}**,n23,** σ**1**^{s}**56**/35**,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PRK	Paraskevi	0.96	34	eP	Pb	13 00 18.8	-1.5
PRK				eS	Sb	13 00 32.7	-0.1
AYVA	Ayvalik	1.22	45	iP	Pb	13 00 24.1	-0.6
AYVA				iS	Sb	13 00 41.5	+1.3
SMG	Samos	1.23	126	eP	Pb	13 00 24.5	-0.5
SMG				eS	Sb	13 00 41.4	+0.6
IZM	Izmir	1.32	92	ePN	Pn	13 00 25.2	-1.3
IZM				eSN	Sn	13 00 44.4	+0.1
KDAG	Bornova	1.32	91	iP	Pb	13 00 25.6	-0.9
KDAG				iS	Sb	13 00 44.9	+1.6
APE	Apeiranthos	1.38	182	ePN	Pn	13 00 24.8	-2.6
APE				eSN	Sn	13 00 43.9	-1.9
PTL	Penteli	1.41	254	eP	Pn	13 00 28.3	+0.4
BOZC	Bozcaada	1.44	14	iP	Pn	13 00 26.0	-2.3
BOZC				iS	Sb	13 00 49.1	+2.4
LIA	Limnos Island	1.48	348	eP	Pn	13 00 26.9	-2.0
MPAR	Parnis Oros	1.49	259	eP	Pn	13 00 30.2	+1.3
EZN	Ezine	1.49	22	ePN	Pn	13 00 31.4	+2.4
AOS	Alonnisos	1.52	299	ePb	Pb	13 00 30.3	+0.5
AOS				eSb	Sb	13 00 51.6	+2.7
LOS	Limnos	1.53	345	ePb	Pb	13 00 27.7	-2.5
LOS				eSb	Sb	13 00 49.0	-0.5
NSAL	Nisos Salamina	1.76	253	eP	Pn	13 00 34.7	+1.9
NAIG	Nisos Aigina	1.79	248	eP	Pn	13 00 36.2	+2.9
AKS	Akhisar	1.80	75	ePN	Pn	13 00 33.6	+0.2
OUR	Ouranopolis	2.26	327	ePn	Pn	13 00 38.2	-1.8
MANT	Manisa	2.33	88	iP	Pn	13 00 46.5	+5.4
MANT				iS	Sn	13 01 13.1	+3.1
ALN	Alexandroupoli	2.47	8	ePn	Pn	13 00 40.5	-2.6
ALN				eSn	Sn	13 01 10.4	-3.2
AGG	Agios Georgios	2.61	284	ePn	Pn	13 00 45.1	0.0
BNT	Bandirma	2.63	43	ePN	Pn	13 00 45.9	+0.6
MRMT	Marmara Adasi	2.65	35	ePN	Pn	13 00 46.7	+1.0
ULDT	Uludag	3.23	57	iP	Pn	13 00 59.0	+5.2
ULDT				iS	Sn	13 01 45.4	+13

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*IDC **25** 13:10:00.6±6.0,4.78S×152.62E,h59^{km}±53^{km},mb3.6/6, mb1 3.9/7,mb1mx3.7/15,ML3.2/1,MS2.9/1,Ms1 2.9/1, ms1mx2.4/14,Error ellipse: s-maj=50.2km s-min=29.0km az=122.0*

*NEIC **25** 13:10:03.6±2.7,4.84S×152.50E,h86^{km}±22^{km},mb4.1/2, Error ellipse: s-maj=36.6km s-min=16.5km az=130.0*

ISC 25 13:10:01.7±3.9**,4.7S**±0.3×**152.4E**±0.3**,h80**^{km}±33^{km}**,n14,** σ**0**^{s}**82**/13**,mb3.8**/8**,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	6.99	228	P	P	13 11 43.3	-0.1
	2.2nm,0.3s,baz=55,slow=9.5,SNR=13						
PMG				S	S	13 13 02.1	+0.2
	1.5nm,0.3s,baz=351,slow=20,SNR=5.5						
CTA	Charters Tower	16.40	201	LR	LR	13 19 26.1	
	comp=Z,43nm,19.6s,baz=38,slow=34						
WRAB	Tennant Creek	23.19	228	eP	P	13 15 02.8	+0.5
	3.3nm,0.6s,mb3.8						
WB2	Warramunga Arr	23.20	228	eP	P	13 15 02.8	+0.5
WRA	Warramunga Arr	23.20	228	P	P	13 15 02.5	0.0
	1.9nm,0.5s,mb3.6,baz=52,slow=10,SNR=40						
ASAR	Alice Springs	25.94	222	P	P	13 15 28.9	+0.3
	0.6nm,0.5s,mb3.3,baz=55,slow=8.8,SNR=19						
FITZ	Fitzroy Crossi	29.36	241	eP	P	13 15 58.0	-1.5
	5.4nm,0.7s,mb4.3						
MBWA	Marble Bar	35.67	240	eP	P	13 16 53.6	-0.8
CMAR	Chiang Mai Arr	57.51	295	P	P	13 19 46.3	+0.9
	0.5nm,0.7s,mb3.7,baz=122,slow=5.2,SNR=4.5						
ILAR	Eielson Array	82.24	22	P	P	13 22 13.8	-1.6
	1.3nm,0.9s,mb3.8,baz=248,slow=5.5,SNR=20						
INK	Inuvik	88.53	21	P	P	13 22 46.5	+0.2
	2.8nm,1.2s,mb4.2,baz=279,slow=4.4,SNR=6.4						
INK	Inuvik	88.53	21	P	P	13 22 46.5	+0.2
YKA	Yellowknife Ar	95.55	28	P	P	13 23 20.0	+1.2
	0.2nm,0.5s,mb3.8,baz=269,slow=5.1,SNR=11						
BDFB	Brasilia	151.38	135	PKPbc	PKPdf	13 29 49.0	+8.0
	1.4nm,0.6s,baz=245,slow=3.0,SNR=4.2						

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*NEIC **25** 13:28:08.6,30.33S×71.34W,h45^{km},MD3.8(GUC),After GUC.*

GUC 25 13:28:08.6±0.8**,30.33S**×**71.34W,h45**^{km}±4^{km}**,MD3.8, ML3.2,3C-1D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSCH	La Serena	0.43	11	⇓iP	P	13 28 18.9	+0.1
LSCH				iS	S	13 28 27.3	+1.5
LSCH				AMP		13 28 27.8	
	comp=N,4µm,0.3s						
TLL	Tololo Astrono	0.49	71	⇑iP	P	13 28 20.2	+0.7
TLL				iS	S	13 28 29.1	+1.9
TLL				AMP		13 28 29.9	
	comp=E,2µm,0.4s						
CMCH	Combarbala	0.89	161	⇑iP	P	13 28 25.2	+0.4
CMCH				iS	S	13 28 38.4	+1.6
CMCH				AMP		13 28 42.3	
	comp=N,2µm,0.5s						
ILCH	Illapel	1.31	173	⇑iP	P	13 28 31.1	+0.2
ILCH				iS	S	13 28 47.9	+0.5
ILCH				AMP		13 28 50.7	
	comp=E,413nm,0.3s						
VACH	Vallenar	1.82	16	eP	P	13 28 43.3	+5.2
VACH				iS	S	13 29 05.8	+5.7
PTCH	Petorca	1.96	170	eP	P	13 28 40.1	+0.1
PTCH				iS	S	13 29 03.6	+0.2
PTCH				AMP		13 29 05.7	
	comp=E,575nm,0.2s						
FCH	Farellones	3.12	164	iP	P	13 28 57.2	+0.6
FCH				iS	S	13 29 34.0	+1.1
FCH				AMP		13 29 36.6	
	comp=E,45nm,0.3s						
RCDM	Rinconada Maip	3.18	172	eP	P	13 28 56.9	-0.5
RCDM				iS	S	13 29 33.9	-0.6
RCDM				AMP		13 29 35.7	
	comp=E,64nm,0.2s						
CHCH	Chadas Angostu	3.64	171	eS	S	13 29 44.4	-1.7
CICH	Cipreses	4.05	169	eS	S	13 29 54.6	-1.9

IDC 25 14:52:00.5±2.5**,23.93S**×**66.78W,h198**^{km}±21^{km}**,mb3.2**/1**, mb1 3.3**/4**,mb1mx3.2**/15**,Error ellipse: s-maj=36.4km s-min=29.1km az=177.0,Jujuy Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	2.36	303	P	P	14 52 43.3	+0.2
	16nm,0.3s,baz=127,slow=5.5,SNR=197						
LVC				S	S	14 53 16.3	+0.3
	7.2nm,0.3s,baz=271,slow=19,SNR=12						
LPAZ	La Paz	7.70	350	P	P	14 53 51.0	+0.3
	0.3nm,0.3s,baz=188,slow=10,SNR=8.0						
LPAZ				S	S	14 55 18.2	+1.5
	0.1nm,0.3s,baz=338,slow=5.4,SNR=2.7						
BDFB	Brasilia	19.47	68	P	P	14 56 12.4	-1.8
	0.3nm,0.3s,baz=249,slow=11,SNR=7.3						
YKA	Yellowknife Ar	94.12	340	P	P	15 04 55.9	-1.2
	0.1nm,0.5s,baz=138,slow=4.5,SNR=6.9						

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*NIED **25** 15:13:00,42.30N×144.70E,h23^{km},Mw3.6 Best double couple: M$_0$2.72×10^{14} NP1:φ$_s$63°,δ66°,λ122°. NP2:φ$_s$186°, δ39°,λ39°.*

*IDC **25** 15:13:01.7±7.2,42.03N×144.61E,h44^{km}±51^{km},mb3.4/4, mb1 3.6/5,mb1mx3.3/22,ML3.7/1,Error ellipse: s-maj=58.5km s-min=31.6km az=179.0*

*JMA **25** 15:13:01.1,42.33N×144.65E,h30^{km}±1^{km},M3.8*

ISC 25 15:13:01.2±1.2**,42.32N**±0.08×**144.68E**±0.08**,h42**^{km}±10^{km}**, n14,**σ**0**^{s}**58**/21**,mb3.6**/4**,2C-2D,Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	Akkeshi	0.67	1	⇑P	P	15 13 14.2	-0.1
JAK				eS	S	15 13 23.9	0.0
JOB	Onbets	0.85	313	⇓P	P	15 13 16.9	+0.1
JCH	Churui	1.01	287	⇓P	P	15 13 19.3	+0.2
JCH				eS	S	15 13 32.5	+0.1
JEM	Erimo	1.17	255	P	P	15 13 21.7	+0.4
JAR	Ashorobuto	1.18	326	P	P	15 13 21.2	-0.2
JAR				eS	S	15 13 36.3	-0.3
JNK	Nakash	1.26	1	⇑P	P	15 13 22.2	-0.5
JNK				eS	S	15 13 38.4	-0.3
NEM2	Nemuro 2	1.30	37	P	P	15 13 23.2	-0.2
NEM2				eS	S	15 13 39.7	-0.1
JNBK	Urakawa-nobuka	1.43	269	P	P	15 13 24.3	-0.8
JRA	Rausu	1.65	11	P	P	15 13 28.2	0.0
JRA				eS	S	15 13 48.8	+0.5
ASAJ	Asahikawa	2.35	320	P	P	15 13 39.5	+1.3
	11nm,0.3s,baz=124,slow=16,SNR=26						
ASAJ				S	S	15 14 11.0	+5.0
	8.7nm,0.3s,baz=318,slow=31,SNR=15						
SONM	Songino Array	27.38	295	P	P	15 18 44.4	0.0
	0.5nm,0.6s,mb3.2,baz=79,slow=6.3,SNR=4.5						
ILAR	Eielson Array	43.70	35	P	P	15 21 04.8	+1.5
	0.8nm,0.9s,mb3.5,baz=279,slow=9.6,SNR=8.3						
YKA	Yellowknife Ar	57.99	33	P	P	15 22 50.8	-0.6
	0.4nm,0.9s,mb3.5,baz=302,slow=7.0,SNR=5.5						
FINES	FINESS Array B	65.31	332	P	P	15 23 39.4	-1.0
	1.3nm,0.6s,mb4.1,baz=45,slow=8.1,SNR=10						

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*IDC **25** 15:26:08.2±28.0,20.00S×177.34W,h423^{km}±251^{km}, mb3.2/4,mb1 3.4/4,mb1mx3.1/15,Error ellipse: s-maj=175.0km s-min=91.0km az=86.0*

NEIC 25 15:26:34.1±1.0**,20.38S**×**179.23W,h600**^{km}**,mb4.1**/3**, Error ellipse: s-maj=28.6km s-min=20.3km az=168.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	32.35	264	eP	P	15 32 17.0	-0.2
	1.3nm,0.3s						
CTA	Charters Tower	32.35	264	P	P	15 32 16.9	-0.3
	1.6nm,0.3s,baz=88,slow=13,SNR=14						
CTAO	Charters Tower	32.35	264	eP	P	15 32 16.7	-0.5
	1.8nm,0.4s						
STKA	Stephens Creek	36.80	244	P	P	15 32 52.4	-1.5
	1.1nm,1.0s,baz=90,slow=12,SNR=3.5						
STKA	Stephens Creek	36.80	244	P	P	15 32 52.4	-1.5
ASAR	Alice Springs	43.42	257	P	P	15 33 45.7	-1.3
	2.2nm,0.5s,baz=91,slow=8.1,SNR=72						
ASAR				PcP	PcP	15 35 18.4	-3.5
	0.2nm,0.6s,baz=104,slow=3.8,SNR=4.2						
ASPA	Alice Springs	43.43	257	eP	P	15 33 45.8	-1.3
WB2	Warramunga Arr	43.46	262	eP	P	15 33 45.6	-1.8
WRAB	Tennant Creek	43.47	262	eP	P	15 33 44.7	-2.7
	7.9nm,1.1s						
WRA	Warramunga Arr	43.47	262	P	P	15 33 46.0	-1.5
	0.8nm,0.3s,baz=97,slow=7.4,SNR=64						
SBA	Scott Base	57.92	183	eP	P	15 35 29.7	-1.8
AKASG	Malin Array Be	142.35	330	PKP	PKPdf	15 44 51.1	-7.8
	1.4nm,0.6s,baz=39,slow=4.1,SNR=5.0						

IDC 25 15:28:38.1±1.9**,20.57N**×**45.74W,mb3.6**/3**,mb1 3.8**/3**, mb1mx3.3**/21**,Error ellipse: s-maj=83.1km s-min=32.8km az=113.0,Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LPAZ	La Paz	42.72	213	P	P	15 36 37.8	-1.1
	0.8nm,0.5s,baz=14,slow=9.9,SNR=4.5						
NOA	NORSAR Array B	56.37	29	P	P	15 38 20.6	-2.7
	1.1nm,0.8s,baz=258,slow=5.9,SNR=3.2						
YKA	Yellowknife Ar	62.22	331	P	P	15 39 01.5	-2.1
	0.1nm,0.4s,baz=105,slow=7.6,SNR=3.5						

IDC 25 15:46:36.5±9.6**,5.19S**×**153.46E,h115**^{km}±63^{km}**,mb3.0**/3**, mb1 3.3**/4**,mb1mx3.2**/14**,Error ellipse: s-maj=83.7km s-min=42.5km az=90.0,New Ireland region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	7.52	236	P	P	15 48 23.3	-1.7
	2.3nm,0.3s,baz=77,slow=6.7,SNR=17						
PMG				S	S	15 49 48.6	-0.5
	1.5nm,0.3s,baz=287,slow=22,SNR=8.3						
WRA	Warramunga Arr	23.69	230	P	P	15 51 38.3	-0.5
	0.6nm,0.5s,baz=56,slow=10,SNR=14						
ASAR	Alice Springs	26.31	224	P	P	15 52 01.6	-2.0
	0.3nm,0.5s,baz=56,slow=8.9,SNR=13						
CMAR	Chiang Mai Arr	58.64	295	P	P	15 56 22.1	-2.3
	0.2nm,0.5s,baz=100,slow=4.4,SNR=4.2						

IDC 25 15:53:29.1±3.9**,14.50S**×**173.14W,mb3.8**/4**,mb1 4.0**/4**, mb1mx3.7**/16**,Error ellipse: s-maj=215.0km s-min=36.9km az=142.0,Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	44.71	239	P	P	16 01 43.9	-2.1
	1.4nm,0.9s,baz=118,slow=15,SNR=2.7						
WRA	Warramunga Arr	50.30	256	P	P	16 02 28.3	-1.5
	0.4nm,0.8s,baz=91,slow=7.5,SNR=5.8						
ASAR	Alice Springs	50.64	251	P	P	16 02 30.2	-2.2
	1.2nm,0.7s,baz=86,slow=8.2,SNR=28						
YKA	Yellowknife Ar	89.17	23	P	P	16 06 26.2	-1.4
	1.3nm,1.4s,baz=247,slow=4.7,SNR=4.2						

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*IDC **25** 16:03:33.2±1.6,3.10N×65.47E,mb3.6/6,mb1 3.8/6, mb1mx3.6/17,Error ellipse: s-maj=47.0km s-min=26.7km az=45.0*

*NEIC **25** 16:03:34.1±1.1,3.09N×65.32E,h10^{km},mb4.4/3,Error ellipse: s-maj=32.8km s-min=16.5km az=216.0*

ISC 25 16:03:31.4±0.9**,3.0N**±0.2×**65.3E**±0.2**,h10**^{km}**,n12,** σ**0**^{s}**99**/10**,mb3.8**/9**,Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	36.38	63	P	P	16 10 38.8	+0.8
	0.3nm,0.6s,mb3.4,baz=263,slow=7.3,SNR=4.4						
EIL	Elat	39.13	316	P	P	16 11 01.3	+0.3
	13nm,1.3s,mb4.5						
GNI	Garni	41.41	336	P	P	16 11 18.7	-1.0
	11nm,1.2s,mb4.3						
BRTR	Keskin Array B	46.48	326	P	P	16 12 02.6	+2.0

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	0.5nm,0.8s,mb3.5,baz=143,slow=7.2,SNR=3.0						
CHKZ	Chkalovo	50.73	4	*e*P	P	16 12 33.6	+0.3
	2.3nm,0.7s,mb4.2						
ZAL	Zalesovo	53.27	14	P	P	16 12 51.1	-1.3
	0.7nm,0.6s,mb3.8,baz=275,slow=9.5,SNR=4.7						
SONM	Songino Array	56.98	32	P	P	16 13 18.8	-0.7
	0.3nm,0.5s,mb3.6,baz=239,slow=8.4,SNR=3.2						
WRA	Warramunga Arr	71.45	112	P	P	16 14 55.5	+0.9
	0.9nm,0.7s,mb3.8,baz=287,slow=5.5,SNR=6.5						
ASAR	Alice Springs	71.76	116	P	P	16 14 56.5	+0.2
	0.5nm,0.9s,mb3.4,baz=291,slow=6.1,SNR=4.4						
VNDA	Vanda	94.31	167	P	P	16 16 50.6	-1.2
TXAR	Lajitas Array	146.17	342	PKPbc	PKPbc	16 23 16.3	+3.5
	0.5nm,0.7s,baz=42,slow=2.7,SNR=9.1						
TXAR	Lajitas Array	146.17	342	PKPbc	PKPbc	16 23 16.3	+3.5

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*NEIC **25** 16:08:00.2, 68.02N×9.80E, h8^{km}, ML2.6(BER), After BER.*

*BER **25** 16:08:01.4±3.5, 67.99N×9.91E, h12^{km}±17^{km}, MD3.1, ML2.2, ML2.6(NAO)*

*NAO **25** 16:08:02.4±7.3, 67.94N×10.39E, h19^{km}±45^{km}, ML2.6*

*IDC **25** 16:08:02.9±3.4, 67.99N×10.22E, h27^{km}±32^{km}, mb1 3.3/4, mb1mx3.1/20, ML2.6/4, Error ellipse: s-maj=29.9km s-min=11.1km az=123.0*

HEL 25 16:08:03.6±0.5**, 67.94N×10.73E, h10**^{km}**, ML2.5, ML2.4**(UPP)**, ML2.2**(BER)**, Norwegian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STOK	Stokkvaagen	1.84	150	*e*P	Pn	16 08 34.4	-1.3
STOK				*e*S	Sn	16 08 56.6	-2.6
STOK	Stokkvaagen	1.84	150	*e*P	Pn	16 08 33.4	-2.2
MOR8	Moi Rana	2.30	139	*e*P	Pn	16 08 41.4	-0.7
MOR8				*e*S	Sn	16 09 10.6	-0.1
MOR8				AML	AML	16 09 12.1	
	comp=Z,32nm,0.3s						
MOR8	Moi Rana	2.30	139	*e*P	Pn	16 08 39.8	-2.4
MOR8				*e*S	Sn	16 09 10.6	-0.1
NIKU	Nikkaluokta	3.14	87	*e*P	Pn	16 08 53.3	-0.9
KUA	Kurravaara	3.62	85	*e*P	Pn	16 09 00.2	-0.8
DUNU	Dundret	3.87	98	*e*P	Pn	16 09 03.2	-1.2
DUNU				*e*S	Sn	16 09 46.7	-3.7
MASU	Masugnsbyn	4.32	91	*e*P	Pn	16 09 09.5	-1.5
LILU	Lilltraesk	4.50	122	*e*P	Pn	16 09 12.7	-0.9
ERTU	Ertsjaerv	4.66	102	*e*P	Pn	16 09 14.3	-1.5
KTK1	Kautokeino	4.73	71	*e*P	Pn	16 09 15.3	-1.4
KTK1				AML	AML	16 10 52.3	
	comp=Z,6.8nm,0.5s						
KTK1	Kautokeino	4.73	71	*e*P	Pn	16 09 14.8	-1.9
PAJU	Pajala	4.85	95	*e*P	Pn	16 09 16.4	-2.1
SJUU	Sjulsmark	4.96	114	*e*P	Pn	16 09 18.1	-1.8
SVAU	Svanoeiden	4.98	130	*e*P	Pn	16 09 18.5	-1.7
BREU	Bredtraesk	5.18	138	*e*P	Pn	16 09 20.8	-2.3
SOLU	Sollefteaa	5.43	147	*e*P	Pn	16 09 24.7	-1.9
ARA0	ARCESS Array S	5.61	67	Pn	Pn	16 09 25.5	-3.7
	baz=250,slow=14						
ARA0				Sn	Sn	16 10 30.8	-3.6
	baz=249,slow=22						
ARA0				Lg		16 11 01.9	
	baz=258,slow=37						
ARA0	ARCESS Array S	5.61	67	*e*P	Pn	16 09 25.5	-3.7
ARA0				*e*S	Sn	16 10 30.8	-3.6
ARCES	ARCESS Array B	5.61	67	Pn	Pn	16 09 25.7	-3.4
	comp=Z,0.1nm,0.3s,baz=245,slow=13,SNR=12						
ARCES				Sn	Sn	16 10 30.5	-3.9
	comp=Z,0.3nm,0.3s,baz=249,slow=22,SNR=2.9						
ARCES				Lg		16 11 02.3	
	comp=Z,1.1nm,0.3s,baz=259,slow=26,SNR=5.7						
SGF	Sodankyl	6.04	87	*e*P	Pn	16 09 31.8	-3.4
SGF				*e*S	Sn	16 10 37.1	-8.0
SGF				MSN		16 10 40.1	
	comp=Z,1.4nm,0.3s						
KEV	Kevo	6.16	65	*e*P	Pn	16 09 34.3	-2.6
KEV				*e*S	Sn	16 10 43.2	-5.0
OUL	Oulu	6.70	108	*e*P	Pn	16 09 41.5	-3.0
OUL				*e*S	Sn	16 10 53.8	-7.9
OUL				MSN		16 10 55.6	
	comp=Z,1.6nm,0.2s						
NOA	NORSAR Array B	6.93	178	Pn	Pn	16 09 43.0	-4.7
	comp=Z,0.1nm,0.3s,slow=13,SNR=2.8						
NOA				Sn	Sn	16 10 57.8	-10
	comp=Z,0.2nm,0.3s,baz=222,slow=21,SNR=3.0						
VAF	Ylistaro	6.98	129	*e*P	Pn	16 09 46.1	-2.4
VAF				*e*S	Sn	16 11 02.3	-6.4
MSF	Maaselka	7.47	97	*e*P	Pn	16 09 51.1	-4.2
MSF				*e*S	Sn	16 11 11.1	-10
MSF				MSN		16 11 15.6	
	comp=Z,1.3nm,0.3s						
KU4	Oulanka	7.50	93	*e*P	Pn	16 09 51.7	-4.0
KU4				*e*S	Sn	16 11 13.1	-8.6
KJN	Kajaani	7.91	111	*e*P	Pn	16 09 58.8	-2.7
KJN				*e*S	Sn	16 11 22.9	-9.1
KJN				MSN		16 11 26.1	
	comp=Z,1.3nm,0.2s						
HFS	Hagfors	7.94	169	Pn	Pn	16 09 56.7	-5.3
	baz=345,slow=14						
HFS				Sn	Sn	16 11 22.6	-10
	baz=347,slow=28						
HFS	Hagfors	7.94	169	Pn	Pn	16 09 56.8	-5.1
	comp=Z,0.0nm,0.3s,baz=349,slow=13,SNR=3.4						
HFS				Sn	Sn	16 11 22.7	-10
	comp=Z,0.1nm,0.3s,slow=22,SNR=4.1						
HFS	Hagfors	7.94	169	*e*P	Pn	16 09 56.7	-5.3
HFS				*e*S	Sn	16 11 22.6	-10
SUF	Sumiainen	8.29	122	*e*P	P	16 10 03.4	-3.4
SUF				*e*S	Sn	16 11 32.3	-9.2
SUF				MSN		16 11 34.6	
	comp=Z,0.6nm,0.2s						
KEF	Keuruu	8.30	127	*e*P	P	16 10 03.5	-3.5
KEF				*e*S	Sn	16 11 33.1	-8.7
KEF				MSN		16 11 35.1	
	comp=Z,0.7nm,0.2s						
KAF	Kangasniemi	8.79	124	*e*P	P	16 10 10.1	-3.6
KAF				*e*S	Sn	16 11 45.2	-8.6
KAF				MSN		16 11 48.2	
	comp=Z,0.4nm,0.3s						
FIA0	FINESS Array S	9.23	128	Pn	P	16 10 15.8	-4.0
	baz=326,slow=12						
FIA0				Sn	Sn	16 11 56.8	-8.1
	baz=328,slow=22						
FIA0				Lg		16 12 55.6	
	baz=332,slow=28						
FIA0	FINESS Array S	9.23	128	*e*P	P	16 10 15.8	-4.0
FIA0				*e*S	Sn	16 11 56.5	-8.3
FIA0				MSN		16 11 58.3	
	comp=Z,0.7nm,0.3s						
FINES	FINESS Array B	9.23	128	Pn	P	16 10 15.7	-4.2
	comp=Z,0.1nm,0.3s,baz=325,slow=13,SNR=7.0						
FINES				Sn	Sn	16 11 55.2	-10
	comp=Z,0.3nm,0.3s,baz=324,slow=21,SNR=6.9						
PVF	Pernaja	9.89	131	*e*P	P	16 10 25.2	-3.5
PVF				*e*S	Sn	16 12 10.4	-10
PVF				MSN		16 12 14.4	
	comp=Z,0.6nm,0.2s						
JOF	Joensuu	9.91	111	*e*P	P	16 10 24.7	-4.3
JOF				*e*S	Sn	16 12 08.6	-13
JOF				MSN		16 12 10.8	
	comp=Z,0.3nm,0.2s						

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*IDC **25** 16:35:57.4±24.0, 53.18S×161.05E, mb3.8/3, mb1 4.0/4, mb1mx3.8/10, ML3.6/1, MS3.4/3, Ms1 3.4/3, ms1mx2.8/16, Error ellipse: s-maj=456.0km s-min=47.7km az=163.0*

ISC 25 16:36:06.6±5.7**, 51.9S**±0.7×**160.6E**±0.3**, h10**^{km}**, n16,** σ**0**^{s}**.50**/16**, mb3.7**/3**, MS3.4**/2**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	7.72	41	P	Pn	16 38 01.4	-0.4
WHZ				S	Sn	16 39 17.2	-13
MLZ	Mavora Lakes	8.25	40	P	P	16 38 08.8	-0.5
TUZ	Tuapeka	8.40	48	P	P	16 38 12.2	+0.8
MSZ	Milford Sound	8.73	37	P	P	16 38 16.0	+0.1
EAZ	Earnscleugh	8.82	44	P	P	16 38 16.5	-0.6
WKZ	Wanaka	9.02	41	*e*P	P	16 38 20.6	+0.7
JCZ	Jackson Bay	9.55	38	P	P	16 38 27.2	+0.1
ODZ	Otahua Downs	9.56	48	P	P	16 38 27.2	-0.1
FOZ	Fox Glacier	10.34	40	P	P	16 38 38.1	+0.1
RPZ	Rata Peaks	10.78	44	Pn	P	16 38 43.8	-0.3
	0.4nm,0.3s,baz=108,slow=14,SNR=2.8						
RPZ				LR	LR	16 42 21.8	
	comp=Z,167nm,19.5s,baz=197,slow=33						
DSZ	Denniston Nort	12.71	41	P	P	16 39 09.7	-0.5
THZ	Tophouse	13.16	44	*e*P	P	16 39 16.7	+0.6
STKA	Stephens Creek	24.41	318	P	P	16 41 26.9	+0.8
	2.9nm,1.0s,mb3.6,baz=155,slow=17,SNR=4.3						
ASAR	Alice Springs	34.87	314	P	P	16 43 00.0	0.0
	1.1nm,0.6s,mb3.9,baz=149,slow=8.1,SNR=19						
ASAR				LR	LR	16 56 29.8	
	comp=Z,51nm,19.6s,MS3.3,baz=318,slow=34						
WRA	Warramunga Arr	37.96	317	P	P	16 43 25.3	-0.8
	0.6nm,0.7s,mb3.5,baz=155,slow=7.4,SNR=8.6						
MAW	Mawson	46.12	212	LR	LR	17 03 34.6	
	comp=Z,57nm,19.3s,MS3.5,baz=250,slow=37						

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*IDC **25** 16:42:52.2±2.1, 6.03S×130.40E, mb3.7/2, mb1 4.0/4, mb1mx3.8/12, ML3.7/2, Error ellipse: s-maj=96.7km s-min=27.7km az=68.0*

*NEIC **25** 16:42:53.4±0.7, 6.03S×130.49E, h10^{km}, mb4.0/3, Error ellipse: s-maj=18.5km s-min=9.7km az=73.0*

ISC 25 16:43:04.6±1.8**, 6.61S**±0.07×**130.0E**±0.1**, h137**^{km}±19^{km}**, n14,** σ**1**^{s}**.21**/21**, mb3.6**/4**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	6.52	159	*e*P	P	16 44 40.2	+1.0
	20nm,0.3s						
KAKA				*e*S	S	16 45 50.1	-2.5
FITZ	Fitzroy Crossi	12.19	200	*e*P	P	16 45 55.9	+1.3
	4.5nm,0.3s						
FITZ				*e*S	S	16 48 07.0	-1.0
WRAB	Tennant Creek	13.90	163	*e*P	P	16 46 16.5	-0.2
WRAB				*e*S	Sx	16 48 32.3	
WRA	Warramunga Arr	13.90	163	Pn	P	16 46 16.7	-0.2
	0.6nm,0.3s,baz=350,slow=13,SNR=25						
WRA				Sn	S	16 48 42.7	-5.3
	1.3nm,0.3s,baz=333,slow=23,SNR=11						
WRA	Warramunga Arr	13.90	163	Pn	P	16 46 16.7	-0.2
WRA				Sn	S	16 48 42.7	-5.3
WB2	Warramunga Arr	13.91	163	*e*P	P	16 46 16.4	-0.5
WB2				*e*S	S	16 48 42.4	-5.7
PMG	Port Moresby	17.21	100	P	P	16 46 49.0	-9.1
	8.4nm,0.9s						
ASAR	Alice Springs	17.36	168	P	P	16 47 02.6	+2.6
	0.3nm,0.3s,baz=349,slow=14,SNR=19						
ASAR				S	S	16 50 07.4	+0.7
	0.2nm,0.3s,baz=356,slow=24,SNR=4.4						
ASPA	Alice Springs	17.36	168	*e*P	P	16 47 04.0	+4.0
ASPA				*e*S	S	16 50 06.0	-0.7
STKA	Stephens Creek	27.37	158	*e*P	P	16 48 40.7	+1.6
CMAR	Chiang Mai Arr	39.49	310	P	P	16 50 23.8	+0.3
	0.8nm,0.5s,mb3.6,baz=133,slow=6.8,SNR=13						
ULN	Ulaanbaatar	57.90	342	P	P	16 52 43.5	-1.0
	1.4nm,0.6s,mb4.0						
SONM	Songino Array	58.08	341	P	P	16 52 44.7	-1.1
	0.3nm,0.5s,mb3.4,baz=158,slow=6.1,SNR=5.8						
CHKZ	Chkalovo	77.94	328	*e*P	P	16 54 44.5	-4.4
	1.0nm,0.8s,mb3.5						

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*IDC **25** 17:02:24.9±20.0, 20.24S×178.55W, h583^{km}±237^{km}, mb3.0/5, mb1 3.2/5, mb1mx3.0/14, Error ellipse: s-maj=119.0km s-min=73.1km az=114.0*

*NEIC **25** 17:02:29.1±0.7, 19.59S×179.14W, h600^{km}, mb4.0/6, Error ellipse: s-maj=41.6km s-min=13.9km az=171.0*

ISC 25 17:02:28.0±0.8**, 19.6S**±0.3×**179.2W**±0.1**, h600**^{km}**, n14,** σ**0**^{s}**.92**/14**, mb3.8**/8**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	18.24	98	P	P	17 06 07.2	+0.3
CTA	Charters Tower	32.50	263	*e*P	P	17 08 13.7	+1.3
	1.1nm,0.3s,mb4.0						
CTA	Charters Tower	32.50	263	P	P	17 08 13.2	+0.8
	1.5nm,0.4s,mb4.0,baz=87,slow=8.9,SNR=12						
CTAO	Charters Tower	32.50	263	*e*P	P	17 08 11.7	-0.8
	4.7nm,0.9s,mb4.1						
STKA	Stephens Creek	37.21	243	*e*P	P	17 08 49.8	-1.4
	6.2nm,1.3s,mb4.0						
STKA	Stephens Creek	37.21	243	P	P	17 08 49.1	-2.1
	1.0nm,0.6s,mb3.5,baz=91,slow=12,SNR=7.5						
WB2	Warramunga Arr	43.64	261	*e*P	P	17 09 42.9	+0.2
WRAB	Tennant Creek	43.64	261	*e*P	P	17 09 42.0	-0.7
	1.5nm,0.4s,mb3.9						
WRA	Warramunga Arr	43.65	261	P	P	17 09 42.5	-0.3
	0.6nm,0.4s,mb3.5,baz=96,slow=7.6,SNR=15						
ASAR	Alice Springs	43.67	256	P	P	17 09 43.1	+0.2
	2.0nm,0.5s,mb3.9,baz=94,slow=8.5,SNR=96						
ASPA	Alice Springs	43.67	256	*e*P	P	17 09 43.1	+0.2
FITZ	Fitzroy Crossi	52.07	262	*e*P	P	17 10 47.9	+2.2
	5.7nm,1.4s,mb3.7						
MBWA	Marble Bar	56.99	257	P	P	17 11 20.1	+0.2
	10nm,1.1s,mb4.0						
ILAR	Eielson Array	87.70	13	P	P	17 14 13.8	-0.7
	0.8nm,1.2s,mb3.3,baz=226,slow=5.0,SNR=4.8						

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*NEIC **25** 17:05:30.1, 40.22S×173.52E, h203^{km}, After WEL.*

WEL 25 17:05:32.0±0.2**, 40.25S×173.55E, h184**^{km}±2^{km}**, ML3.9**/8**, 10C-7D, Error ellipse: s-maj=1.6km s-min=0.8km az=90.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NRZ	Ngariki Road	0.96	18	P	P	17 05 59.7	-0.2
NRZ	Ngariki Road	0.96	18	⇑PN	P	17 05 59.7	-0.2
QRZ	Quartz Range	0.97	233	P	P	17 05 59.7	-0.3
QRZ				S	S	17 06 20.5	-1.2
QRZ	Quartz Range	0.97	233	⇑PN	P	17 05 59.6	-0.4
QRZ				SN	S	17 06 20.5	-1.2
NWEZ	Newall Road	1.00	14	P	P	17 06 00.0	-0.3
NWEZ	Newall Road	1.00	14	PN	P	17 05 59.8	-0.5
DFE	Dawson Falls	1.01	25	P	P	17 06 00.1	-0.2
DFE	Dawson Falls	1.01	25	PN	P	17 06 00.1	-0.3
NEZ	North Egmont	1.06	24	P	P	17 06 00.4	-0.4
NEZ	North Egmont	1.06	24	PN	P	17 06 00.3	-0.4
PKE	Pukeiti	1.10	18	P	P	17 06 00.6	-0.5
PKE	Pukeiti	1.10	18	PN	P	17 06 00.6	-0.5
PKE				SN	S	17 06 22.7	-1.0
RAEZ	Rainy Point	1.16	34	P	P	17 06 01.1	-0.5
RAEZ	Rainy Point	1.16	34	PN	P	17 06 01.1	-0.5
KIW	Kapiti Island	1.20	121	PN	P	17 06 01.9	-0.1
KIW				SN	S	17 06 23.4	-1.7
WAZ	Wanganui	1.21	66	P	P	17 06 02.2	+0.2
WAZ				S	S	17 06 25.7	+0.5
WAZ	Wanganui	1.21	66	PN	P	17 06 02.2	+0.2
WAZ				SN	S	17 06 25.0	-0.2
TUWZ	Tuamarina	1.22	166	PN	P	17 06 01.9	-0.2
TUWZ				SN	S	17 06 24.3	-1.0
MRW	Makara Radio	1.31	139	P	P	17 06 02.9	0.0
MRW	Makara Radio	1.31	139	⇑PN	P	17 06 02.9	0.0
MRW				SN	S	17 06 25.6	-1.3
WEL	Wellington	1.39	139	P	P	17 06 03.4	-0.2
WEL	Wellington	1.39	139	PN	P	17 06 03.4	-0.2
WEL				SN	S	17 06 26.6	-1.5
CAW	Cannon Point	1.44	127	P	P	17 06 03.9	-0.2
CAW	Cannon Point	1.44	127	⇑PN	P	17 06 03.9	-0.2
CAW				SN	S	17 06 27.7	-1.2
VRZ	Vera Road	1.46	40	P	P	17 06 03.4	-0.9
VRZ	Vera Road	1.46	40	PN	P	17 06 03.2	-1.1
BSWZ	Blackbirch Sta	1.49	171	P	P	17 06 04.5	0.0
BSWZ	Blackbirch Sta	1.49	171	PN	P	17 06 04.4	-0.2
BSWZ				SN	S	17 06 28.8	-0.8
BHW	Baring Head	1.53	140	PN	P	17 06 04.5	-0.5
BHW				SN	S	17 06 28.7	-1.7
THZ	Tophouse	1.59	198	⇑PN	P	17 06 04.9	-0.6
THZ				SN	S	17 06 29.2	-2.2
MRZ	Mangatainoka R	1.60	106	P	P	17 06 05.1	-0.5
MRZ	Mangatainoka R	1.60	106	PN	P	17 06 05.1	-0.6
MRZ				SN	S	17 06 29.7	-1.9
MSWZ	Moikau Station	1.74	133	P	P	17 06 06.5	-0.5
MSWZ	Moikau Station	1.74	133	PN	P	17 06 06.5	-0.5
MSWZ				SN	S	17 06 32.2	-1.7
MTW	Mount Morrison	1.74	122	P	P	17 06 06.5	-0.5
MTW	Mount Morrison	1.74	122	PN	P	17 06 06.4	-0.6
MTW				SN	S	17 06 32.0	-2.0
PAWZ	Paruwai Farm	1.82	129	PN	P	17 06 07.1	-0.7
WNVZ	Wahianoa	1.83	60	P	P	17 06 06.8	-1.1
WNVZ	Wahianoa	1.83	60	⇓PN	P	17 06 06.8	-1.1
WNVZ				SN	S	17 06 33.5	-2.1
FWVZ	Far West T-bar	1.83	58	P	P	17 06 06.9	-1.0
FWVZ	Far West T-bar	1.83	58	⇑PN	P	17 06 06.9	-1.1
FWVZ				SN	S	17 06 33.6	-2.0
TSZ	Takapari Road	1.86	85	P	P	17 06 07.2	-1.0
TSZ	Takapari Road	1.86	85	PN	P	17 06 07.1	-1.1
TSZ				SN	S	17 06 34.0	-2.1
WPVZ	Whakapapa	1.86	57	P	P	17 06 07.0	-1.2
WPVZ	Whakapapa	1.86	57	PN	P	17 06 07.0	-1.2
WPVZ				SN	S	17 06 33.6	-2.5
CNZ	Chateau	1.86	56	P	P	17 06 07.1	-1.1
CNZ	Chateau	1.86	56	⇑PN	P	17 06 07.0	-1.2
TWVZ	Taurewa	1.87	52	P	P	17 06 06.8	-1.5
TWVZ	Taurewa	1.87	52	⇓PN	P	17 06 06.8	-1.5
MOVZ	Moawhango	1.89	64	P	P	17 06 07.1	-1.4
MOVZ	Moawhango	1.89	64	⇓PN	P	17 06 07.1	-1.5
TUVZ	Tukino	1.89	60	P	P	17 06 07.6	-1.0
TUVZ	Tukino	1.89	60	PN	P	17 06 07.6	-0.9
NGZ	Ngauruhoe	1.91	57	⇓PN	P	17 06 07.5	-1.2
WTVZ	West Tongariro	1.94	55	P	P	17 06 07.7	-1.3
WTVZ	West Tongariro	1.94	55	PN	P	17 06 07.7	-1.3
OTVZ	Oturere	1.96	57	⇓PN	P	17 06 08.2	-1.0
MGZ	Maungaku	1.98	52	P	P	17 06 08.0	-1.4
MGZ	Maungaku	1.98	52	PN	P	17 06 08.0	-1.4
DSZ	Denniston Nort	2.00	221	P	P	17 06 08.5	-1.1
DSZ	Denniston Nort	2.00	221	⇑PN	P	17 06 08.5	-1.1
DSZ				SN	S	17 06 35.7	-3.0
HIZ	Hauiti	2.00	31	P	P	17 06 08.0	-1.7
HIZ	Hauiti	2.00	31	⇓PN	P	17 06 08.0	-1.7
KHZ	Kahutara	2.17	180	P	P	17 06 10.4	-1.2
KHZ	Kahutara	2.17	180	PN	P	17 06 10.4	-1.2
BKZ	Black Stump Fm	2.51	66	⇑PN	P	17 06 13.7	-1.9
PWZ	Pawanui	2.55	86	*e*P	P	17 06 14.7	-1.3
PWZ	Pawanui	2.55	86	PN	P	17 06 14.6	-1.4
PWZ				SN	S	17 06 47.0	-2.9
LTZ	Lake Taylor	2.71	200	P	P	17 06 16.4	-1.5
LTZ	Lake Taylor	2.71	200	PN	P	17 06 16.3	-1.6
CRLZ	Canterbury Las	3.40	191	P	P	17 06 23.3	-3.0
CRLZ	Canterbury Las	3.40	191	⇓PN	P	17 06 23.2	-3.1
CRLZ				SN	S	17 07 02.3	-5.9
URZ	Urewera	3.40	55	*e*P	P	17 06 23.1	-3.3
URZ	Urewera	3.40	55	PN	P	17 06 23.0	-3.4
URZ				SN	S	17 07 02.3	-6.0
KNZ	Kokohu	3.41	70	*e*P	P	17 06 24.1	-2.4
KNZ	Kokohu	3.41	70	⇑PN	P	17 06 24.1	-2.4
MQZ	McQueen's Vall	3.52	191	P	P	17 06 24.3	-3.6
MQZ	McQueen's Vall	3.52	191	PN	P	17 06 24.3	-3.5
MQZ				SN	S	17 07 04.9	-6.0
WVZ	Waitaha Valley	3.52	216	P	P	17 06 25.1	-2.8
WVZ	Waitaha Valley	3.52	216	PN	P	17 06 25.0	-2.9
WVZ				SN	S	17 07 04.1	-6.9
MWZ	Matawai	3.63	60	*e*P	P	17 06 26.2	-3.0
MWZ	Matawai	3.63	60	PN	P	17 06 25.9	-3.3
PUZ	Puketiti	4.25	61	*e*P	P	17 06 33.4	-3.8
PUZ	Puketiti	4.25	61	PN	P	17 06 33.3	-3.9
PUZ				SN	S	17 07 21.1	-6.4
FOZ	Fox Glacier	4.39	220	PN	P	17 06 34.0	-4.9
MXZ	Matakaoa Point	4.58	56	*e*P	P	17 06 37.4	-3.9
MXZ	Matakaoa Point	4.58	56	PN	P	17 06 37.4	-3.9
LBZ	Lake Benmore	4.83	210	*e*P	P	17 06 40.9	-3.6
LBZ	Lake Benmore	4.83	210	PN	P	17 06 40.8	-3.7
JCZ	Jackson Bay	5.22	221	*e*P	P	17 06 46.0	-3.7
JCZ	Jackson Bay	5.22	221	PN	P	17 06 45.9	-3.8
ODZ	Otahua Downs	5.25	203	*e*P	P	17 06 46.9	-3.1
ODZ	Otahua Downs	5.25	203	*e*PN	P	17 06 46.6	-3.5
WKZ	Wanaka	5.67	215	*e*P	P	17 06 51.0	-4.5
WKZ	Wanaka	5.67	215	PN	P	17 06 51.0	-4.5

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*NEIC **25** 17:06:10.2, 39.33N×24.82E, h20^{km}, ML3.3(ATH), After ATH.*

*ATH **25** 17:06:10.1, 39.32N×24.81E, h19^{km}±2^{km}, MD3.3/12, ML3.3*

*CSEM **25** 17:06:10.6±0.1, 39.30N×24.87E, h8^{km}, ML3.4, Error ellipse: s-maj=1.7km s-min=1.4km az=88.0*

*THE **25** 17:06:11.4, 39.37N×24.84E, h10^{km}, ML3.4*

ISC 25 17:06:10.1±0.6**, 39.36N**±0.02×**24.85E**±0.03**, h11**^{km}±4^{km}**, n29,** σ**1**^{s}**.09**/42**, 1C, Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIA	Limnos Island	0.60	26	⇑*i*PB	Pb	17 06 22.4	+0.3
LOS	Limnos	0.61	17	*e*Pg	Pg	17 06 22.9	+0.5
LOS				*e*Sg	Sg	17 06 31.6	+1.0
AOS	Alonnisos	0.77	256	*e*Pg	Pg	17 06 25.9	+0.2
AOS				*e*Sg	Sg	17 06 37.3	+1.3
PAIG	Paliouri	1.07	303	*e*Pg	Pg	17 06 30.7	-0.8
PAIG				*e*Sg	Sg	17 06 46.6	+0.9
PRK	Paraskevi	1.11	95	*e*PN	Pn	17 06 31.9	+0.4
PRK				*e*SN	Sn	17 06 47.5	+0.7
OUR	Ouranopolis	1.18	326	*e*Pg	Pg	17 06 32.5	-1.3
OUR				*e*Sg	Sg	17 06 50.0	+0.4
NEO	Neokhori	1.26	268	*e*PN	Pn	17 06 33.2	-0.4
XOR	Xorichti	1.28	271	*e*Pb	Pb	17 06 33.8	+0.1
XOR				*e*Sb	Sb	17 06 52.4	+2.4
MPAR	Parnis Oros	1.48	216	*e*PN	Pn	17 06 37.5	+0.7
PLG	Polygyros	1.48	314	*e*PN	Pn	17 06 38.5	+1.7
PTL	Penteli	1.51	211	*e*PN	Pn	17 06 37.5	+0.2
LKR	Lokris	1.60	245	*e*PN	Pn	17 06 38.2	-0.3
ATH	Athens Observa	1.64	213	*e*PN	Pn	17 06 40.5	+1.4
ALN	Alexandroupoli	1.79	30	*e*Pb	Pb	17 06 41.1	-1.4
ALN				*e*Sb	Sb	17 07 04.7	-0.2
NSAL	Nisos Salamina	1.81	217	*e*PN	Pn	17 06 41.5	+0.1
MGER	Gerania Oros	1.85	223	*e*PB	Pb	17 06 41.7	-1.7
SOH	Sokhos	1.86	322	*e*Pb	Pb	17 06 42.0	-1.6
SOH				*e*Sb	Sb	17 07 06.8	0.0
SOH	Sokhos	1.86	322	*e*Sb	Sb	17 07 06.8	0.0
RDO	Rodhopi	1.87	16	*e*PN	Pn	17 06 43.8	+1.5
NAIG	Nisos Aigina	1.92	214	*e*Pb	Pb	17 06 41.5	-3.1
THE	Thessaloniki	1.93	312	*e*Pb	Pb	17 06 43.4	-1.4
THE				*e*Sb	Sb	17 07 07.9	-0.8
LIT	Litokhoron	1.96	293	*e*Pb	Pb	17 06 44.3	-1.1
LIT				*e*Sb	Sb	17 07 08.3	-1.6
AGG	Agios Georgios	1.98	261	*e*Pn	Pn	17 06 44.2	+0.3
AGG				*e*Sn	Sn	17 07 10.2	+1.2
SRS	Serrai	2.00	332	*e*Pn	Pn	17 06 44.0	-0.3
SRS				*e*Sn	Sn	17 07 10.2	+0.7
SMG	Samos	2.27	136	*e*PB	Pb	17 06 48.1	-2.5
KNT	Kendrikon	2.34	321	*e*Pn	Pn	17 06 49.5	+0.4
KNT				*e*Sn	Sn	17 07 17.7	-0.3
APE	Apeiranthos	2.34	166	*e*PN	Pn	17 06 50.2	+1.0
EVR	Evrytania	2.40	260	*e*PB	Pb	17 06 50.8	-2.1
GRG	Griva	2.46	311	*e*Pn	Pn	17 06 51.6	+0.8

IDC 25 17:41:47.2±2.1**, 49.79S×162.24E, mb3.8**/3**, mb1 4.1**/3**, mb1mx3.7**/8**, MS3.4**/1**, Ms1 3.3**/1**, ms1mx2.3**/17**, Error ellipse: s-maj=294.0km s-min=50.4km az=38.0, Auckland Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	23.62	312	LR	LR	17 54 24.2	
	comp=Z,87nm,18.3s,baz=340,slow=32						
ASAR	Alice Springs	34.20	309	P	P	17 48 34.5	-1.8
	1.3nm,0.7s,baz=147,slow=8.5,SNR=18						
WRA	Warramunga Arr	37.15	313	P	P	17 48 59.3	-2.1
	1.3nm,0.8s,baz=148,slow=8.4,SNR=7.6						
WRA				PcP	PcP	17 51 19.7	-2.4
	0.3nm,1.0s,baz=144,slow=3.1,SNR=5.6						
CMAR	Chiang Mai Arr	87.89	302	P	P	17 54 38.4	-1.5
	0.3nm,0.7s,baz=172,slow=3.7,SNR=4.0						
ARCES	ARCESS Array B	151.50	330	PKPbc	PKPdf	18 01 41.8	+4.7
	4.2nm,0.9s,baz=68,slow=6.5,SNR=6.2						
FINES	FINESS Array B	153.18	312	PKPbc	PKPdf	18 01 45.1	+5.4
	5.2nm,1.0s,baz=124,slow=5.0,SNR=8.3						

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*IDC **25** 17:46:31.3±1.2, 41.61N×29.51W, mb3.6/7, mb1 3.9/8, mb1mx3.5/23, ML4.4/1, MS3.8/8, Ms1 3.8/8, ms1mx3.3/25, Error ellipse: s-maj=36.9km s-min=25.6km az=174.0*

ISC 25 17:46:29.4±0.6**, 41.29N**±0.10×**29.4W**±0.2**, h10**^{km}**, n18,** σ**0**^{s}**.86**/14**, mb3.6**/7**, MS3.8**/8**, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBIS	Biscoitos	3.03	146	*e*P	Pn	17 47 19.2	+0.8
ASBA	Santa Barbara	3.03	147	*e*P	Pn	17 47 18.8	+0.3
ASBA				*e*S	Sn	17 47 53.2	-2.0
	23nm,0.2s						
PPAD	Pico dos Padre	3.06	147	*e*P	Pn	17 47 19.3	+0.4
PVNV	Vila Nova	3.07	144	*e*P	Pn	17 47 19.2	+0.2
PFAV	Pico das Favas	3.14	144	*e*P	Pn	17 47 20.3	+0.3
ESDC	Sonseca Array	19.43	86	P	P	17 50 58.6	+0.1

	0.3nm,0.3s,baz=288,slow=12,SNR=5.3						
NOA	NORSAR Array B	31.52	37	LR	LR	18 06 09.0	
	comp=Z,134nm,18.1s,MS3.7,baz=15,slow=38						
SADO	Sadowa	36.05	293	LR	LR	18 06 45.5	
	comp=Z,178nm,18.1s,MS3.9,baz=101,slow=34						
FINES	FINESS Array B	38.60	39	LR	LR	18 10 01.5	
	comp=Z,127nm,18.3s,MS3.8,baz=191,slow=37						
MLR	Muntele Rosu	39.79	65	LR	LR	18 09 53.6	
	comp=Z,140nm,18.4s,MS3.8,baz=136,slow=35						
YKA	Yellowknife Ar	52.29	324	P	P	17 55 41.5	-1.3
	0.3nm,0.8s,mb3.3,baz=69,slow=7.3,SNR=4.3						
PDAR	Pinedale Array	57.32	300	P	P	17 56 19.1	-0.6
	1.2nm,0.9s,mb3.9,baz=79,slow=7.6,SNR=7.7						
BDFB	Brasilia	59.20	201	LR	LR	18 16 35.6	
	comp=Z,44nm,19.2s,MS3.6,baz=299,slow=30						
TXAR	Lajitas Array	60.05	284	P	P	17 56 39.4	+0.5
	0.5nm,0.8s,mb3.6,baz=90,slow=9.0,SNR=7.3						
TXAR				LR	LR	18 20 44.7	
	comp=Z,58nm,18.9s,MS3.7,baz=115,slow=34						
BVAR	Borovoye Array	63.50	42	P	P	17 57 02.2	+0.6
	0.7nm,0.9s,mb3.7,baz=315,slow=6.3,SNR=4.6						
ILAR	Eielson Array	63.58	335	P	P	17 57 01.3	-0.6
	0.4nm,0.8s,mb3.5,baz=44,slow=5.5,SNR=5.1						
NVAR	Mina Array Bea	65.26	300	P	P	17 57 13.7	+0.4
	0.4nm,0.8s,mb3.5,baz=56,slow=3.3,SNR=3.6						
NVAR				LR	LR	18 27 58.8	
	comp=Z,73nm,19.2s,MS3.9,baz=270,slow=38						
LPAZ	La Paz	67.56	221	P	P	17 57 31.9	+3.5
	0.8nm,0.7s,mb3.9,baz=347,slow=4.1,SNR=3.8						
LPAZ				LR	LR	18 23 48.1	
	comp=Z,52nm,19.1s,MS3.8,baz=227,slow=33						

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*IDC **25** 17:49:45.3±11.0, 17.12N×98.93W, mb3.4/2, mb1 3.7/3, mb1mx3.4/19, ML2.7/1, MS3.6/1, Ms1 3.5/1, ms1mx2.4/19, Error ellipse: s-maj=420.0km s-min=128.6km az=58.0*

*NEIC **25** 17:49:56.3, 17.29N×100.35W, h22^{km}, MD4.3(MEX), After MEX.*

*MEX **25** 17:49:56.2±0.6, 17.29N×100.35W, h15^{km}±6^{km}, MD4.3*

ISC 25 17:49:53.7±0.6**, 17.27N**±0.04×**100.35W**±0.04**, h38**^{km}±9^{km}**, n25,** $\sigma0\overset{s}{.}73$/39**, mb3.2**/2**, MS3.5**/1**, 1D, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.23	160	eP	P	17 50 01.3	+0.2
CAIG				eS	S	17 50 05.4	-0.8
ACX	Acapulco	0.58	134	⇓iP	P	17 50 05.4	0.0
ACX				i S	S	17 50 13.6	-0.2
ZIIG	Zihuatanejo	1.12	288	eP	P	17 50 13.5	+0.5
ZIIG				eS	S	17 50 27.1	-0.3
ZIIG	Zihuatanejo	1.12	288	i P	P	17 50 13.3	+0.4
ZIIG				eS	S	17 50 27.1	-0.3
PLIG	Platanillo	1.38	36	eP	P	17 50 17.6	+0.8
PLIG				eS	S	17 50 33.3	-0.8
CHVM	Chichinautzin	2.14	32	i P	P	17 50 27.9	+0.2
CHVM				i S	S	17 50 58.0	+4.8
IIZ	Mezontepec	2.18	29	i P	P	17 50 27.9	-0.3
PNIG	Pinotepa	2.30	112	eP	P	17 50 30.7	+0.7
PNIG				eS	S	17 50 58.1	+0.9
PPM	Popocatepetl	2.42	42	i P	P	17 50 31.4	-0.4
PPM				eS	S	17 51 02.1	+1.7
PPM	Popocatepetl	2.42	42	i P	P	17 50 31.4	-0.4
PPM				eP		17 50 32.4	
PPM				eP		17 50 34.4	
PPM				i S	S	17 50 59.5	-0.9
MDVM	Presa Madin	2.48	25	eP	P	17 50 32.4	-0.2
IIJ	Jocotitlan	2.52	13	i P	P	17 50 38.3	+5.2
MOIG	Morelia	2.52	342	eP	P	17 50 37.2	+4.1
MOIG				eS	S	17 51 03.3	+0.3
PTVM	Pico Tres Padr	2.59	27	eP	P	17 50 33.8	-0.3
PTVM				i S	S	17 51 12.2	+7.5
IIC	Rita Coyotepec	2.69	22	i P	P	17 50 40.2	+4.7
IIO	Organos	2.78	34	eP	P	17 50 36.0	-0.8
IISM	Ciudad Serdan	3.30	58	eP	P	17 50 44.3	0.0
VHO	Vista Hermosa	3.46	93	eP	P	17 50 47.3	+0.8
VHO				eS	S	17 51 26.7	-0.1
OXX	Oaxaca	3.47	93	eP	P	17 50 46.1	-0.5
OXX				eS	S	17 51 27.0	-0.1
SFJM	Santa Fe	4.09	322	i P	P	17 51 00.2	+4.8
SFJM				i S	S	17 51 49.2	+6.5
CMIG	Matias Romero	5.23	91	eP	P	17 51 11.7	+0.3
CMIG				eS	S	17 52 10.9	-0.4
TXAR	Lajitas Array	12.39	346	Pn	P	17 52 52.2	+1.9
	0.0nm,0.3s,baz=157,slow=12,SNR=2.0						
PDAR	Pinedale Array	26.60	345	P	P	17 55 29.9	-0.4
	0.6nm,1.1s,mb3.0,baz=150,slow=12,SNR=3.0						
ULM	Lac du Bonnet	33.09	5	LR	LR	18 11 50.5	
	comp=Z,88nm,18.9s,MS3.5,baz=324,slow=40						
YKA	Yellowknife Ar	46.27	351	P	P	17 58 15.3	-1.7
	0.5nm,0.9s,mb3.5,baz=160,slow=7.4,SNR=6.4						

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*IDC **25** 17:59:05.8±2.7, 34.06S×178.76W, mb4.2/4, mb1 4.3/6, mb1mx4.0/15, ML4.0/2, MS3.9/2, Ms1 4.0/2, ms1mx2.8/21, Error ellipse: s-maj=56.9km s-min=31.0km az=115.0*

*NEIC **25** 17:59:07.4±1.0, 33.99S×178.84W, h10^{km}, mb4.6/6, Error ellipse: s-maj=21.9km s-min=14.3km az=98.0*

ISC 25 17:59:06.4±2.4**, 34.2S**±0.2×**178.4W**±0.2**, h40**^{km}±30^{km}**, n26,** $\sigma0\overset{s}{.}90$/25**, mb4.4**/8**, MS4.0**/2**, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	Matakaoa Point	4.30	218	P	P	18 00 11.6	+0.5
MXZ				eS	S	18 01 00.6	-0.2
PUZ	Puketiti	4.73	215	P	P	18 00 17.3	+0.2
PUZ				S	S	18 01 11.4	0.0
MWZ	Matawai	5.29	218	P	P	18 00 24.8	-0.2
MWZ				S	S	18 01 26.4	+0.8
URZ	Urewera	5.45	221	Pn	P	18 00 28.0	+0.7
	8.5nm,0.3s,baz=296,slow=2.7,SNR=47						
URZ				Sn	S	18 01 29.0	-0.7
	12nm,0.3s,baz=134,slow=22,SNR=11						
URZ	Urewera	5.45	221	P	P	18 00 28.1	+0.8
RPZ	Rata Peaks	12.56	218	Pn	P	18 02 03.9	-1.2
	0.5nm,0.3s,baz=27,slow=15,SNR=3.0						
RPZ				Sn	S	18 04 10.6	-14
	0.5nm,0.3s,baz=31,slow=20,SNR=5.7						
RAR	Rarotonga	20.89	56	P	P	18 03 47.1	-0.6
	52nm,1.1s						
STKA	Stephens Creek	33.51	263	eP	P	18 05 45.7	+1.5
	2.1nm,1.1s,mb4.0						
STKA	Stephens Creek	33.51	263	P	P	18 05 44.6	+0.3
	3.2nm,1.0s,mb4.2,baz=97,slow=14,SNR=6.7						
STKA	Stephens Creek	33.51	263	eP	P	18 05 45.6	+1.3
CTA	Charters Tower	34.31	285	P	P	18 05 51.5	+0.4
	1.7nm,0.6s,mb4.2,baz=112,slow=11,SNR=4.0						
CTAO	Charters Tower	34.31	285	eP	P	18 05 49.4	-1.8
	5.4nm,1.0s,mb4.4						
ASAR	Alice Springs	42.75	271	P	P	18 07 01.8	+0.1
	2.2nm,0.6s,mb4.0,baz=111,slow=7.5,SNR=38						
ASPA	Alice Springs	42.75	271	eP	P	18 07 02.1	+0.4
WB2	Warramunga Arr	44.07	276	eP	P	18 07 12.1	-0.3
WRAB	Tennant Creek	44.08	276	eP	P	18 07 10.9	-1.6
	4.6nm,0.7s,mb4.3						
WRA	Warramunga Arr	44.08	276	P	P	18 07 12.4	-0.2
	1.7nm,0.3s,mb4.2,baz=118,slow=7.5,SNR=62						
QSPA	South Pole Qui	55.91	180	P	P	18 08 47.8	+5.7
	5.7nm,1.3s,mb4.4						
MAW	Mawson	68.65	201	P	P	18 10 03.0	-4.0
	6.0nm,0.8s,mb4.6						
JHJ	Hachijo jima 2	77.67	325	LR	LR	18 41 39.8	
	comp=Z,98nm,21.1s,MS4.1,baz=41,slow=33						
MDJ	Mudanjiang	91.60	326	P	P	18 12 12.7	+2.5
	18nm,1.2s,mb5.3						
CMAR	Chiang Mai Arr	94.37	289	LR	LR	18 51 13.2	
	comp=Z,44nm,20.7s,MS3.9,baz=135,slow=33						
JOF	Joensuu	145.81	336	ep	PKPdf	18 18 43.9	+4.0
KAF	Kangasniemi	148.01	338	ep	PKPdf	18 18 50.4	+6.9
FINES	FINESS Array B	148.59	338	PKPbc	PKPdf	18 18 52.5	+8.0
	8.3nm,1.1s,baz=56,slow=5.0,SNR=10						
FINES	FINESS Array B	148.59	338	PKPbc	PKPdf	18 18 52.5	+8.0

IDC 25 18:03:38.5±5.9**, 5.48S**×**150.29E, h64**^{km}±55^{km}**, mb3.5**/4**, mb1 3.8**/5**, mb1mx3.5**/13**, ML2.0**/1**, Error ellipse: s-maj=128.0km s-min=33.9km az=126.0, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	4.99	218	P	P	18 04 51.4	-1.2
	0.4nm,0.3s,baz=42,slow=12,SNR=5.4						
PMG				S	S	18 05 47.6	-1.9
	0.6nm,0.3s,baz=343,slow=19,SNR=4.7						
WRA	Warramunga Arr	21.15	226	P	P	18 08 18.6	-1.8
	2.0nm,0.8s,baz=53,slow=11,SNR=7.7						
ASAR	Alice Springs	24.00	220	P	P	18 08 47.5	-0.8
	2.3nm,0.8s,baz=51,slow=9.3,SNR=17						
ILAR	Eielson Array	83.73	23	P	P	18 15 59.9	-1.7
	0.7nm,0.8s,baz=257,slow=4.3,SNR=6.5						
YKA	Yellowknife Ar	97.19	28	P	P	18 17 04.1	-0.8
	0.2nm,0.8s,baz=272,slow=5.2,SNR=5.1						

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*IDC **25** 18:17:24.9±0.9, 5.94S×150.81E, mb4.6/6, mb1 4.7/8, mb1mx4.5/13, ML3.3/2, MS3.8/5, Ms1 3.8/5, ms1mx3.4/18, Error ellipse: s-maj=45.0km s-min=12.2km az=127.0*

*NEIC **25** 18:17:31.7±1.8, 6.16S×151.13E, h50^{km}±16^{km}, mb4.6/12, Error ellipse: s-maj=14.6km s-min=10.5km az=113.0*

*SYO **25** 18:17:33.0, 6.22S×151.08E, h64^{km}, MB4.6*

ISC 25 18:17:28.4±0.5**, 6.09S**±0.09×**151.1E**±0.1**, h33**^{km}**, n30,** $\sigma0\overset{s}{.}94$/31**, mb4.5**/17**, MS3.9**/4**, 1D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	5.09	229	Pn	Pn	18 18 45.4	+1.0
	2.5nm,0.3s,baz=48,slow=10,SNR=18						
PMG				Sn	Sn	18 19 42.6	-0.2
	23nm,0.3s,baz=336,slow=21,SNR=10						
PMG	Port Moresby	5.09	229	ePn	Pn	18 18 46.6	+2.2
	33nm,0.6s						
CTA	Charters Tower	14.68	198	Pn	P	18 20 55.5	-0.2
	0.3nm,0.3s,baz=8.1,slow=14,SNR=7.1						
CTA				LR	LR	18 25 52.5	
	comp=Z,222nm,20.7s,baz=13,slow=34						
CTAO	Charters Tower	14.68	198	eP	P	18 20 54.7	-1.0
	2.6nm,0.7s						
KAKA	Kakadu	19.51	249	eP	P	18 21 55.7	-0.2
	18nm,0.6s						
WRAB	Tennant Creek	21.29	228	eP	P	18 22 13.8	-0.6
	55nm,0.9s,mb4.9						
WB2	Warramunga Arr	21.30	228	eP	P	18 22 14.7	+0.2
WB2				eS	S	18 26 09.2	+4.9
WRA	Warramunga Arr	21.31	228	P	P	18 22 14.1	-0.5
	30nm,1.1s,mb4.6,baz=53,slow=11,SNR=79						
WRA				S	S	18 26 08.4	+4.0
	4.0nm,1.2s,baz=54,slow=19,SNR=9.2						
ASAR	Alice Springs	24.05	222	P	P	18 22 42.6	+0.9
	20nm,0.6s,mb4.7,baz=56,slow=8.7,SNR=172						
ASAR				S	S	18 27 02.1	+8.3
	1.4nm,1.1s,baz=41,slow=19,SNR=2.6						
ASAR				ScP		18 30 03.4	
	0.6nm,0.8s,baz=36,slow=3.4,SNR=4.4						
ASPA	Alice Springs	24.05	222	eP	P	18 22 43.4	+1.7
ASPA				eS	S	18 27 05.8	+12
STKA	Stephens Creek	27.15	198	eP	P	18 23 09.8	-1.0
	3.3nm,0.5s,mb4.1						
STKA	Stephens Creek	27.15	198	P	P	18 23 09.6	-1.2
	7.3nm,0.9s,mb4.2,baz=2.3,slow=10,SNR=11						
STKA				LR	LR	18 33 34.6	
	comp=Z,171nm,19.2s,MS3.6,baz=26,slow=36						
FITZ	Fitzroy Crossi	27.54	242	eP	P	18 23 14.7	+0.2
	14nm,0.6s,mb4.8						
MBWA	Marble Bar	33.84	241	eP	P	18 24 07.9	-2.2
	27nm,1.3s,mb5.0						
HIA	Hailar	61.52	337	P	P	18 27 44.2	-0.2
	3.3nm,1.0s,mb4.4						
SONM	Songino Array	66.51	329	P	P	18 28 15.5	-1.5
	0.4nm,0.6s,mb3.6,baz=146,slow=4.5,SNR=3.7						
LSA	Lhasa	67.56	305	P	P	18 28 25.0	+1.0
	2.0nm,0.7s,mb4.3						
VNDA	Vanda	71.62	178	LR	LR	18 54 08.6	
	comp=Z,36nm,20.6s,MS3.6,baz=79,slow=31						
VNDA	Vanda	71.62	178	eP	P	18 28 47.5	-0.5
	4.0nm,1.1s,mb4.3						
IMA	Indian Mountai	82.24	20	eP	P	18 29 48.1	+0.6
	17nm,1.0s,mb4.9						
MCK	McKinley	82.71	23	eP	P	18 29 49.4	-0.5
	7.9nm,1.0s,mb4.7						
COLA	College	83.68	22	eP	P	18 29 55.0	+0.2
	9.2nm,1.0s,mb4.9						
MAW	Mawson	83.73	203	LR	LR	19 03 00.9	
	comp=Z,72nm,20.3s,MS4.0,baz=238,slow=33						
QSPA	South Pole Qui	83.88	180	eP	P	18 29 55.8	+0.2
	3.7nm,0.9s,mb4.5						
ILAR	Eielson Array	83.99	22	P	P	18 29 55.6	-0.8
	4.0nm,0.8s,mb4.6,baz=270,slow=5.7,SNR=24						
ILAR				LR	LR	19 07 02.2	
	comp=Z,126nm,18.6s,MS4.3,baz=358,slow=36						
SYO	Syowa Base	91.89	200	⇓pP	pP	18 30 50.3	+5.4
NVAR	Mina Array Bea	94.23	52	P	P	18 30 47.2	+1.6
	1.1nm,0.8s,mb4.4,baz=254,slow=6.8,SNR=9.4						
YKA	Yellowknife Ar	97.36	28	P	P	18 30 59.7	+0.4
	1.3nm,0.9s,mb4.4,baz=270,slow=4.6,SNR=19						
YKA	Yellowknife Ar	97.36	28	P	P	18 30 59.7	+0.4
GERES	GERESS Array B	124.22	327	PKP	PKPdf	18 36 25.5	+1.5
	0.7nm,0.6s,baz=45,slow=1.9,SNR=8.5						

CASC 25 19:03:05.4±1.9**, 11.27N**×**85.60W, h171**^{km}±6^{km}**, MD4.0, 8C-3D, Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MADN	Villa Maderas	0.15	25	⇑eP	P	19 03 28.4	0.0
MADN				eS	S	19 03 47.0	+0.9
SSNN	San Juan del S	0.25	275	⇑eP	P	19 03 28.3	-0.4
SSNN				eS	S	19 03 46.0	-0.5
CONN	Concepcion	0.29	355	⇑eP	P	19 03 28.5	-0.3
APON	Apoyo	0.79	325	eP	P	19 03 31.6	+0.6
TICN	Ticuantepe	0.98	321	⇑eP	P	19 03 32.8	+0.6
CRUN	El Crucero	0.99	316	eP	P	19 03 33.1	+0.8
CRUN				eS	S	19 03 56.2	+3.2
MGAN	Managua	1.08	324	eP	P	19 03 32.7	-0.3
MGAN				eS	S	19 03 55.7	+1.3
XAVN	Gruta Xavier	1.13	321	⇑eP	P	19 03 33.6	+0.2
XAVN				eS	S	19 03 57.4	+2.2
APYN	Apoyeque	1.21	323	eP	P	19 03 34.0	-0.1
APYN				eS	S	19 03 56.8	+0.4
COPN	Copaltepe	1.33	313	⇓eP	P	19 03 35.1	-0.2
COPN				eS	S	19 03 57.9	-0.5
MOMJ	Momotombo	1.46	321	eP	P	19 03 36.1	-0.5
MOMJ				eS	S	19 04 00.8	+0.2
JCR	Jicaral	1.49	161	⇓eP	P	19 03 37.3	+0.4
JCR				eS	S	19 04 00.8	-0.4
MIRN	Miramar	1.59	317	eP	P	19 03 37.8	-0.1
MIRN				eS	S	19 04 03.0	+0.1
CNGN	Cerro Negro	1.63	319	eP	P	19 03 38.2	0.0
CNGN				eS	S	19 04 03.8	+0.2
CGA2	Cerro Gallo 2	1.67	138	⇓eP	P	19 03 39.5	+0.8
CGA2				eS	S	19 04 04.8	+0.5
LEON	Leon	1.70	312	eP	P	19 03 38.5	-0.5
LEON				eS	S	19 04 04.0	-0.9
TEL3	Telica 3	1.78	317	⇑eP	P	19 03 39.5	-0.2
TEL3				eS	S	19 04 04.7	-1.7
PRS1	Puriscal	1.80	135	eP	P	19 03 41.5	+1.4
SJS	Escuela Geolog	2.01	131	eS	S	19 04 10.8	+0.1
LAJ	Bijagual	2.02	134	eP	P	19 03 41.6	-0.8
LAJ				eS	S	19 04 10.4	-0.5
LCR2	La Lucha 2	2.18	134	⇑eP	P	19 03 45.0	+0.7
LCR2				eS	S	19 04 15.3	+1.0
BUS	Buena Vista	2.49	133	⇑eP	P	19 03 49.3	+1.3
BUS				eS	S	19 04 22.3	+1.6
ACR	Cerro Adams	3.53	137	eP	P	19 04 00.6	-0.4
ACR				eS	S	19 04 44.7	+0.9

MAN 25 19:12:10.6, 7.61N×**126.62E, h1**^{km}**, mb4.5, ML3.4, MS3.2, 1D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	Bislig	0.63	336	eP	Pg	19 12 24.4	+1.3
BIPH				eS	Sg	19 12 33.8	+2.3
KCP	Kidapawan	1.63	249	⇓iP	Pn	19 12 40.4	-0.1
CGP	Cagayan de Oro	2.09	294	eP	Pn	19 12 46.2	-0.9
CGP				eS	Sn	19 13 14.5	+0.4
SCPH	Surigao	2.44	333	eP	Pn	19 12 52.5	+0.4
SCPH				eS	Sn	19 13 28.0	+5.1

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*CSEM **25** 19:13:16.5±0.1, 43.80N×44.15E, h15^{km}, mb4.1/6, Error ellipse: s-maj=4.6km s-min=3.6km az=171.0*

*MOS **25** 19:13:17.5±2.1, 43.77N×43.98E, h10^{km}, mb4.0/2, Error ellipse: s-maj=12.2km s-min=7.3km az=121.3*

*IDC **25** 19:13:18.0±1.1, 43.76N×43.97E, mb3.4/5, mb1 3.6/7, mb1mx3.4/19, ML3.9/1, Error ellipse: s-maj=35.2km s-min=18.0km az=71.0*

*NEIC **25** 19:13:18.5±0.6, 43.75N×43.97E, h10^{km}, mb4.2/7, Error ellipse: s-maj=10.9km s-min=9.2km az=171.0*

ISC 25 19:13:16.6±0.7**, 43.79N**±0.04×**44.10E**±0.04**, h7**^{km}±5^{km}**, n41,** $\sigma1\overset{s}{.}28$/50**, mb4.1**/6**, 4D, Western Caucasus**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PYA	Pyatigorsk	0.79	289	ePG	Pg	19 13 33.1	+0.6
PYA				eS	Sb	19 13 43.8	+0.7
ZEI	Tsey	1.03	188	i PG	Pg	19 13 36.1	-1.1
ZEI				eS	Sb	19 13 49.7	-0.2
ZEI				pmax	pmax		
	comp=Z,1µm,0.2s						
KIV	Kislovodsk	1.04	280	κ iPG	Pg	19 13 36.9	-0.5
KIV				i		19 13 50.3	
KIV				pmax	pmax		
	comp=Z,25nm,0.8s						
KIV				smax			
	comp=E,513nm,0.7s						
KIV	Kislovodsk	1.04	280	ePg	Pg	19 13 36.6	-0.8
KIV				eSg	Sg	19 13 51.0	-0.2
KIV	Kislovodsk	1.04	280	ePg	Pg	19 13 36.6	-0.8
KIV				eSg	Sg	19 13 51.0	-0.2
SHAR	Shatzhatmas	1.04	268	ePG	Pg	19 13 37.3	-0.1
SHAR				eS	Sb	19 13 51.8	+1.6
NAGR	Nagutskaya	1.17	305	ePG	Pg	19 13 41.1	+1.1
NAGR				eS	Sb	19 13 57.0	+2.9
GOF	Gofitskoye	1.48	329	⇓iPG	Pg	19 13 45.5	-0.8
GOF				i S	Sb	19 14 09.5	+6.3
GOF				pmax	pmax		
	comp=Z,450nm,1.0s						
GOF				smax			
	comp=E,2µm,1.2s						
TI2	Plekhanov	2.11	167	ePN	Pn	19 13 54.4	+1.6
TI2				i		19 13 58.4	
MAK	Makhachkala	2.62	107	ePN	Pg	19 14 15.2	+6.3
MAK				i S	Sg	19 14 46.0	+2.3
MAK				smax			
	comp=N,580nm,0.9s						
MAK				smax			
	comp=E,510nm,0.9s						
SOC	Sochi	3.19	268	ePN	Pn	19 14 13.7	+5.4
SOC				e		19 14 53.3	
SOC				i		19 15 00.5	
SOC				pmax	pmax		
	comp=Z,38nm,0.5s						
SOC				pmax	pmax		
	comp=N,20nm,1.0s						
SOC				pmax	pmax		
	comp=E,23nm,0.7s						
SOC				smax			
	comp=E,164nm,1.3s						
GNI	Garni	3.67	172	Pn	Pn	19 14 18.6	+3.6
	comp=E,0.3nm,0.3s,baz=356,slow=8.6,SNR=2.2						
GNI	Garni	3.67	172	i PN	Pn	19 14 20.3	+5.3
GNI	Garni	3.67	172	eP	Pn	19 14 14.2	-0.9
GNI	Garni	3.67	172	eP	Pn	19 14 14.2	-0.8
ANN	Anapa	4.89	284	ePN	Pn	19 14 28.8	-3.7
ANN				pmax	pmax		
	comp=Z,36nm,1.1s						
OBN	Obninsk	12.34	339	eP	P	19 16 15.0	-0.7
OBN				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ARU	Arti	15.65	31	⇓iP	P	19 17 05.4	+6.3
ARU				eS	S	19 20 01.7	+8.5
ARU				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARU	Arti	15.65	31	P	P	19 16 57.7	-1.3
	comp=Z,2.1nm,0.6s						
ARU	Arti	15.65	31	P	P	19 16 57.7	-1.4
	comp=Z,2.1nm,0.6s						
KWP	Kalwaria	15.77	299	P	P	19 17 04.5	+3.7
SUW	Suwalki	17.08	314	P	P	19 17 15.3	-2.0
	comp=Z,14nm,0.8s						
SUW	Suwalki	17.08	314	P	P	19 17 15.3	-2.0
	comp=Z,14nm,0.8s						
GVD	Gavdhos	17.84	247	P	P	19 17 24.8	-2.3
	comp=Z,18nm,1.0s						
GVD	Gavdhos	17.84	247	P	P	19 17 24.8	-2.2
	comp=Z,18nm,1.0s						
BVAR	Borovoye Array	19.65	53	P	P	19 17 50.0	+1.3
	comp=Z,0.4nm,0.3s,baz=264,slow=13,SNR=7.0						
CHKZ	Chkalovo	19.98	51	P	P	19 17 50.7	-1.7
	comp=Z,2.8nm,0.7s						
CHKZ	Chkalovo	19.98	51	P	P	19 17 50.7	-1.7
	comp=Z,2.8nm,0.7s						
JOF	Joensuu	20.56	343	ep	P	19 17 58.0	-0.3
FINES	FINESS Array B	20.67	335	P	P	19 17 57.7	-1.8
	comp=Z,0.5nm,0.3s,baz=139,slow=13,SNR=9.0						
GERES	GERESS Array B	21.52	294	P	P	19 18 08.1	-0.1
	comp=Z,0.2nm,0.5s,baz=90,slow=8.8,SNR=4.0						
HFS	Hagfors	24.55	322	P	P	19 18 38.4	+0.5
	comp=Z,4.9nm,1.0s,mb4.0,baz=121,slow=8.6,SNR=8.7						
HFS	Hagfors	24.55	322	P	P	19 18 38.4	+0.6
HFS				pmax	pmax		
	comp=Z,5.0nm,1.0s						
NOA	NORSAR Array B	26.06	323	P	P	19 18 54.2	+2.2
	comp=Z,1.2nm,0.8s,mb3.5,baz=118,slow=9.1,SNR=2.7						
NOA	NORSAR Array B	26.06	323	P	P	19 18 54.2	+2.2
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SSE	Sheshan	60.45	74	eP	P	19 23 30.4	+1.1
	comp=Z,50nm,0.7s						
LSZ	Lusaka	60.55	198	eP	P	19 23 29.4	-0.8
	comp=Z,1.6nm,0.6s,mb4.3						
YSS	Yuzh-Sakhalins	64.68	49	eP	P	19 23 56.9	-0.2
	comp=Z,10nm,1.5s,mb4.6						
YSS	Yuzh-Sakhalins	64.68	49	eP	P	19 23 56.9	-0.3
	comp=Z,10nm,1.5s,mb4.6						
SCHQ	Schefferville	65.63	324	eP	P	19 24 01.9	-1.2
	comp=Z,19nm,1.3s,mb5.0						
YKA	Yellowknife Ar	72.70	350	P	P	19 24 46.9	+0.4
	comp=Z,0.2nm,0.6s,mb3.2,baz=12,slow=6.3,SNR=5.9						

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*NEIC **25** 19:51:05.5, 40.42N×0.92W, h11^{km}, ML2.6(LDG), MN2.1(MDD), After MDD.*

*CSEM **25** 19:51:05.0±0.1, 40.45N×0.95W, h10^{km}, ML2.7/13, Error ellipse: s-maj=1.7km s-min=1.2km az=110.0*

*LDG **25** 19:51:07.0±0.2, 40.52N×0.82W, h5^{km}, Ml2.6/8, Error ellipse: s-maj=4.7km s-min=2.8km az=142.0*

MDD 25 19:51:05.6±0.4**, 40.42N**×**0.92W, h11**^{km}**, mbLg2.1**/14**, 1D, Error ellipse: s-maj=3.3km s-min=3.1km az=165.0, TC: PREZ PRXIMO, Spain**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EMOS	Mosqueruela	0.34	99	⇓Pg	Pg	19 51 12.2	-0.5
	SNR=18						
EMOS				Lg		19 51 17.1	
	29nm,0.1s,SNR=7.9						
EMOS	Mosqueruela	0.34	99	Pg	Pg	19 51 12.2	-0.5
	SNR=18						
EMOS				Lg		19 51 17.1	
	29nm,0.1s,SNR=7.9						
ERTA	Horta de San J	1.09	60	Pg	Pg	19 51 25.8	-1.7
	24nm,0.2s,SNR=97						
ERTA				Lg		19 51 40.6	
	46nm,0.1s,SNR=7.9						
ERTA	Horta de San J	1.09	60	Pg	Pg	19 51 25.8	-1.6
	24nm,0.2s,SNR=97						
EBR	Ebro Roquetas	1.14	69	ePN	Pn	19 51 28.5	+1.0
EBR				eS*	Sb	19 51 43.5	+1.9
ESAC	San Caprasio	1.34	14	Pg	Pg	19 51 29.9	-2.5
	22nm,0.1s,SNR=7.9						
ESAC				Lg		19 51 48.1	
	31nm,0.1s,SNR=7.9						
ESAC	San Caprasio	1.34	14	Pg	Pg	19 51 29.9	-2.5
	22nm,0.1s,SNR=7.9						
EPOB	Poblet	1.77	58	Pn	Pn	19 51 35.5	-1.1
	1.2nm,0.1s,SNR=7.9						
EPOB				Pg	Pg	19 51 37.5	-3.6
	5.3nm,0.1s,SNR=7.9						
EPOB				Lg		19 52 00.2	
	3.6nm,0.1s,SNR=7.9						
EPOB	Poblet	1.77	58	Pn	Pn	19 51 35.5	-1.0
	1.2nm,0.1s,SNR=7.9						
EPOB	Poblet	1.77	58	Pg	Pg	19 51 37.5	-3.6
	5.3nm,0.1s,SNR=7.9						
EBEN	Beniarda	1.80	163	Pg	Pg	19 51 38.6	-2.9
	3.3nm,0.1s,SNR=7.9						
EBEN				Lg		19 52 02.4	
	1.2nm,0.2s,SNR=4.0						
EBEN	Beniarda	1.80	163	Pg	Pg	19 51 38.6	-2.9

	3.3nm,0.1s,SNR=7.9						
EVIA	**Vianos**	2.16	215	Pn	Pn	19 51 40.0	-2.1
	0.9nm,0.2s,SNR=7.9						
EVIA				Pg	Pg	19 51 45.4	-3.4
	3.8nm,0.3s,SNR=7.9						
EVIA				Lg		19 52 11.9	
	4.7nm,0.3s,SNR=7.9						
EVIA	**Vianos**	2.16	215	Pg	Pg	19 51 45.4	-3.4
	3.8nm,0.3s,SNR=7.9						
EBIE	**Bielsa**	2.40	19	Pn	Pn	19 51 44.5	-1.0
	0.2nm,0.1s,SNR=7.9						
EBIE				Pg	Pg	19 51 48.7	-4.8
	1.2nm,0.1s,SNR=7.9						
EBIE				Lg		19 52 21.6	
	0.7nm,0.1s,SNR=4.0						
EBIE	**Bielsa**	2.40	19	Pn	Pn	19 51 44.5	-1.0
	0.2nm,0.1s,SNR=7.9						
EBIE	**Bielsa**	2.40	19	Pg	Pg	19 51 48.7	-4.8
	1.2nm,0.1s,SNR=7.9						
ESDC	**Sonseca Array**	2.46	253	Pn	Pn	19 51 44.2	-2.0
	2.0nm,0.1s,baz=73,slow=15,SNR=9.5						
ESDC				Pg	Pg	19 51 50.3	-4.3
	1.1nm,0.1s,SNR=7.9						
ESDC				Sn	Sn	19 52 12.0	-4.6
	2.5nm,0.1s,SNR=7.9						
ESDC				Lg		19 52 20.3	
	1.0nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	2.46	253	Pn	Pn	19 51 44.2	-2.1
	2.0nm,0.1s,baz=73,slow=15,SNR=9.5						
ESDC	**Sonseca Array**	2.46	253	Pg	Pg	19 51 50.3	-4.3
	1.1nm,0.1s,SNR=7.9						
ESDC				Sn	Sn	19 52 12.0	-4.6
	2.5nm,0.1s,SNR=7.9						
GUD	**Guadarrama**	2.48	276	Pn	Pn	19 51 45.0	-1.6
	0.5nm,0.1s,SNR=7.9						
GUD				Pg	Pg	19 51 51.2	-3.9
	1.2nm,0.2s,SNR=5.8						
GUD				Sn	Sn	19 52 13.3	-3.8
	1.8nm,0.2s,SNR=7.9						
GUD				Lg		19 52 22.4	
	1.8nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	2.48	276	Pg	Pg	19 51 51.2	-3.9
	1.2nm,0.2s,SNR=5.8						
GUD				Sn	Sn	19 52 13.3	-3.8
	1.8nm,0.2s,SNR=7.9						
ETSF	**Etsaut**	2.49	6	*e*Pn	Pn	19 51 45.4	-1.4
ETSF				*e*Pg	Pg	19 51 50.2	-5.1
ETSF				*e*Sn	Sn	19 52 13.6	-3.8
ETSF				*e*Sg	Sg	19 52 21.8	-6.7
	3.6nm,0.2s						
ETSF	**Etsaut**	2.49	6	*e*Pg	Pg	19 51 50.2	-5.1
ETSF				*e*Sn	Sn	19 52 13.6	-3.8
ETSF				*e*Sg	Sg	19 52 21.8	-6.7
	1.8nm,0.2s						
EMUR	**La Murta**	2.59	186	Pg	Pg	19 51 52.8	-4.5
	0.8nm,0.1s,SNR=7.9						
EMUR				Sn	Sn	19 52 16.8	-3.1
	0.5nm,0.3s,SNR=7.9						
EMUR				Lg		19 52 25.3	
	1.9nm,0.3s,SNR=7.9						
EMUR	**La Murta**	2.59	186	Pg	Pg	19 51 52.8	-4.5
	0.8nm,0.1s,SNR=7.9						
EMUR				Sn	Sn	19 52 16.8	-3.1
	0.5nm,0.3s,SNR=7.9						
SJPF	**Ste Jean**	2.70	355	*e*Pn	Pn	19 51 48.5	-1.3
SJPF				*e*Pg	Pg	19 51 55.2	-4.3
SJPF				*e*Sn	Sn	19 52 19.0	-3.8
SJPF				*e*Sg	Sg	19 52 28.8	-6.7
	7.0nm,0.3s						
SJPF	**Ste Jean**	2.70	355	*e*Pg	Pg	19 51 55.2	-4.3
SJPF				*e*Sn	Sn	19 52 19.0	-3.8
SJPF				*e*Sg	Sg	19 52 28.8	-6.7
	3.5nm,0.3s						
EPF	**Esparros**	2.77	19	*e*Pg	Pg	19 51 55.2	-5.7
EPF				*e*Sn	Sn	19 52 19.2	-5.4
EPF				*e*Sg	Sg	19 52 31.0	-6.9
	7.6nm,0.2s						
EALK	**Alkurruntz**	2.83	351	Pg	Pg	19 51 56.7	-5.4
	0.7nm,0.1s,SNR=7.9						
EALK				Sn	Sn	19 52 23.3	-2.8
	2.3nm,0.2s,SNR=7.9						
EALK				Lg		19 52 34.9	
	5.3nm,0.2s,SNR=7.9						
EQES	**Quesada**	3.11	213	Pg	Pg	19 52 02.8	-4.8
	0.9nm,0.2s,SNR=7.9						
EQES				Lg		19 52 42.5	
	2.1nm,0.3s,SNR=7.9						
EQES	**Quesada**	3.11	213	Pg	Pg	19 52 02.8	-4.8
	0.9nm,0.2s,SNR=7.9						
EADA	**Adamuz**	3.62	233	Pn	Pn	19 51 59.9	-3.0
	0.5nm,0.1s,SNR=7.9						
EADA				Sn	Sn	19 52 40.6	-5.6
	1.9nm,0.1s,SNR=7.9						
EADA				Lg		19 52 59.2	
	2.6nm,0.2s,SNR=4.0						
EADA	**Adamuz**	3.62	233	Pn	Pn	19 51 59.9	-3.0
	0.5nm,0.1s,SNR=7.9						
EADA				Sn	Sn	19 52 40.6	-5.6
	1.9nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	3.74	38	*e*Pn	Pn	19 52 02.3	-2.2
MTLF				*e*Pg	Pg	19 52 13.3	-6.9
MTLF				*e*Sg	Sg	19 52 59.8	-10
	1.7nm,0.2s						
MTLF	**Montolieu**	3.74	38	*e*Pg	Pg	19 52 13.3	-6.9
MTLF				*e*Sg	Sg	19 52 59.8	-10
	0.9nm,0.2s						
ECAL	**Calabor**	4.65	291	Pn	Pn	19 52 14.4	-3.1
	1.8nm,0.1s,SNR=7.9						
ECAL				Sn	Sn	19 53 06.2	-5.8
	3.0nm,0.2s,SNR=7.9						
ECAL	**Calabor**	4.65	291	Pn	Pn	19 52 14.4	-3.1
	1.8nm,0.1s,SNR=7.9						
ECAL				Sn	Sn	19 53 06.2	-5.9
	3.0nm,0.2s,SNR=7.9						
LFF	**La Frestale**	4.68	15	*e*Pn	Pn	19 52 14.8	-3.1
EBAD	**Badajoz**	5.00	253	Pn	Pn	19 52 18.1	-4.3
	0.4nm,0.1s,SNR=7.9						
EBAD				Sn	Sn	19 53 11.4	-9.4
	0.9nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	5.00	253	Pn	Pn	19 52 18.1	-4.3
	0.4nm,0.1s,SNR=7.9						
EBAD				Sn	Sn	19 53 11.4	-9.4
CAF	**Calviac**	5.01	25	*e*Pn	Pn	19 52 19.2	-3.4
CAF				*e*Sn	Sn	19 53 12.7	-8.5
	1.1nm,0.2s						
LASF	**Ste Croix**	5.09	43	*e*Pn	Pn	19 52 20.2	-3.5
LASF				*e*Sg	Sg	19 53 41.9	-13
	0.3nm,0.2s						
RJF	**Les Rejaudoux**	5.20	19	*e*Pn	Pn	19 52 21.7	-3.5
RJF				*e*Sn	Sn	19 53 17.8	-8.1
	1.7nm,0.2s						
ELOB	**Lobios**	5.58	287	Pn	Pn	19 52 26.9	-3.8
	0.5nm,0.1s,SNR=7.9						
ELOB				Sn	Sn	19 53 28.1	-7.5
	1.1nm,0.2s,SNR=7.9						
ELOB	**Lobios**	5.58	287	Pn	Pn	19 52 26.9	-3.8
ELOB				Sn	Sn	19 53 28.1	-7.5
EVO	**Evora**	5.81	253	*e*Sn	Sn	19 53 38.9	-2.3
EVO				*e*Sg	Sg	19 54 13.5	-5.4
	2.7nm,0.3s						
BGF	**Bois d'Agland**	6.71	23	*e*Pn	Pn	19 52 42.4	-4.2

IDC 25 19:53:53.1±28.0,22.05S×173.56W,mb3.9/4,mb1 4.0/4, mb1mx3.8/16,Error ellipse: s-maj=510.0km s-min=156.5km az=76.0,Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	37.48	265	P	P	20 01 09.6	-0.8
	1.0nm,0.3s,baz=92,slow=12,SNR=8.0						
STKA	**Stephens Creek**	40.91	246	P	P	20 01 36.2	-2.6
	0.6nm,0.8s,baz=94,slow=14,SNR=4.2						
ASAR	**Alice Springs**	48.21	257	P	P	20 02 35.5	-2.1
	0.7nm,0.4s,baz=96,slow=7.5,SNR=29						
WRA	**Warramunga Arr**	48.50	262	P	P	20 02 38.1	-1.8
	0.7nm,0.3s,baz=96,slow=8.4,SNR=7.8						

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*NEIC **25** 19:59:16.2,19.69N×68.23W,h25^{km},MD3.5(RSPR), After RSPR.*

RSPR 25 19:59:16.2,19.69N×68.23W,h25^{km}±37^{km},MD3.5/11, MD3.5/11,12C-1D,North Atlantic Ocean

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDE	**Isla Desecheo**	1.48	151	⇑*e*P	Pn	19 59 37.5	-4.1
LSP	**Las Mesas**	1.85	144	*e*S	Sn	20 00 06.4	-3.4
LSP	**Las Mesas**	1.85	144	⇑*e*P	Pn	19 59 44.7	-2.2
LSP				*e*S	Sn	20 00 06.4	-3.4
MGP	**Maguayo**	1.99	147	⇑*e*P	Pn	19 59 46.0	-2.9
MGP				*e*S	Sn	20 00 10.2	-3.1
MGP	**Maguayo**	1.99	147	⇑*e*P	Pn	19 59 46.5	-2.5
MGP	**Maguayo**	1.99	147	*e*S	Sn	20 00 09.0	-4.3
MGP	**Maguayo**	1.99	147	⇑*e*P	Pn	19 59 46.5	-2.5
MGP				*e*S	Sn	20 00 09.0	-4.3
PORP	**Portuguez**	2.22	137	⇓*e*P	Pn	19 59 50.0	-2.2
PORP				*e*S	Sn	20 00 15.4	-3.6
CELP	**Cerrillos**	2.24	136	⇑*e*P	Pn	19 59 50.1	-2.5
CELP				*e*S	Sn	20 00 16.3	-3.3
OBIP	**Obispado Ponce**	2.25	137	*e*S	Sn	20 00 15.5	-4.3
OBIP	**Obispado Ponce**	2.25	137	⇑*e*P	Pn	19 59 50.4	-2.2
OBIP				*e*S	Sn	20 00 15.5	-4.3
CSB	**Colonia Sabana**	2.40	125	⇑*e*P	Pn	19 59 52.1	-2.7
SJG	**San Juan**	2.52	128	*e*S	Sn	20 00 23.2	-3.5
SJG	**San Juan**	2.52	128	⇑*e*P	Pn	19 59 54.0	-2.5
SJG				*e*S	Sn	20 00 23.8	-2.9
SJG	**San Juan**	2.52	128	⇑*e*P	Pn	19 59 54.1	-2.4
SJG				*e*S	Sn	20 00 23.2	-3.5
CBYP	**Canovanas**	2.65	122	⇑*e*P	Pn	19 59 55.2	-3.2
MTP	**Monte Pirata**	2.99	122	⇑*e*P	Pn	19 59 59.8	-3.4

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*IDC **25** 20:02:59.4±3.3,49.43S×160.62E,mb3.6/2,mb1 3.9/3, mb1mx3.6/9,ML3.6/1,Error ellipse: s-maj=89.5km s-min=41.3km az=1.0*

ISC 25 20:02:53.7±6.0,50.1S±0.9×161.0E±0.3,h10^{km},n10, σ0^{s}.82/10,mb3.6/2,North of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MLZ	**Mavora Lakes**	6.76	48	*e*P	**Pn**	**20 04 35.8**	**+0.3**
TUZ	**Tuapeka**	7.10	58	P	**Pn**	**20 04 41.2**	**+0.9**
TUZ				*e*S	**Sn**	**20 05 55.9**	**-6.0**
EAZ	**Earnscleugh**	7.41	52	P	**Pn**	**20 04 44.2**	**-0.4**
ODZ	**Otahua Downs**	8.23	56	P	**P**	**20 04 54.6**	**-1.5**
FOZ	**Fox Glacier**	8.82	46	*e*P	**P**	**20 05 04.6**	**+0.4**
RPZ	**Rata Peaks**	9.36	51	Pn	**P**	**20 05 13.1**	**+1.3**
	0.6nm,0.3s,baz=220,slow=7.9,SNR=2.9						
DSZ	**Denniston Nort**	11.21	46	*e*P	**P**	**20 05 36.0**	**-1.0**
ASAR	**Alice Springs**	33.77	311	P	**P**	**20 09 37.6**	**0.0**
	0.6nm,0.8s,mb3.6,baz=146,slow=9.2,SNR=6.5						
WRA	**Warramunga Arr**	36.76	315	P	**P**	**20 10 03.1**	**0.0**
	0.8nm,0.8s,mb3.6,baz=143,slow=8.0,SNR=5.5						
FINES	**FINESS Array B**	152.77	312	PKPbc	PKPdf	20 22 55.4	+10
	3.5nm,0.9s,baz=90,slow=5.6,SNR=5.6						

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*NEIC **25** 20:03:49.7±0.4,43.75N×105.19W,ML3.4,Error ellipse: s-maj=4.8km s-min=4.1km az=92.0,Suspected Mining explosion.*

NEIC 65 km [40 miles] SSE of Gillette.

*IDC **25** 20:03:50.9±0.9,44.05N×105.86W,mb4.2/2,mb1 3.8/8, mb1mx3.6/23,ML3.7/5,Error ellipse: s-maj=23.8km s-min=8.1km az=144.0*

ISC 25 20:03:47.4±0.5,43.73N±0.04×105.12W±0.05,n55, σ1^{s}.19/55,mb4.3/2,Wyoming

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PHWY	**Pilot Hill**	2.44	186	*e*Pn	**Pn**	**20 04 30.9**	**+1.8**
RWWY	**Rawlins**	2.56	218	*e*Pn	**Pn**	**20 04 32.6**	**+1.9**
LAO	**LASA Array**	3.06	346	*e*Pn	**Pn**	**20 04 37.4**	**-0.5**
BW06	**Boulder Array**	3.38	255	*e*Pn	**Pn**	**20 04 42.8**	**+0.3**
PDAR	**Pinedale Array**	3.38	255	Pn	**Pn**	**20 04 43.0**	**+0.4**
	5.6nm,0.3s,baz=71,slow=15,SNR=138						
PDAR				Lg		20 05 24.1	
	10nm,0.3s,baz=76,slow=18,SNR=5.8						
GCMT	**Greycliff**	3.84	304	*e*Pn	**Pn**	**20 04 49.5**	**+0.5**
LKWY	**Lake**	3.89	284	Pn	**Pn**	**20 04 52.3**	**+2.6**
ISCO	**Idaho Springs**	3.95	186	*e*Pn	**Pn**	**20 04 52.5**	**+2.0**
LOHW	**Long Hollow**	3.98	270	*e*Pn	**Pn**	**20 04 51.1**	**+0.1**
MOOW	**Moose Ponds**	4.08	272	*e*Pn	**Pn**	**20 04 52.7**	**+0.4**
WUWY	**Wally Ulrich**	4.09	269	*e*Pn	**Pn**	**20 04 55.4**	**+2.8**
SNOW	**Snow King Moun**	4.10	268	*e*Pn	**Pn**	**20 04 53.2**	**+0.5**
YNR	**Norris Junctio**	4.12	286	*e*Pn	**Pn**	**20 04 52.8**	**-0.1**
YFT	**Old Faithful**	4.18	282	*e*Pn	**Pn**	**20 04 54.2**	**+0.3**
REDW	**Red Top Meadow**	4.18	267	*e*Pn	**Pn**	**20 04 54.2**	**+0.3**
IMW	**Indian Meadow**	4.22	274	*e*Pn	**Pn**	**20 04 55.5**	**+1.1**
TPAW	**Teton Pass**	4.24	269	*e*Pn	**Pn**	**20 04 54.7**	**0.0**
YMR	**Madison River**	4.31	285	*e*Pn	**Pn**	**20 04 57.1**	**+1.5**
AHID	**Auburn Hatcher**	4.47	260	*e*Pn	**Pn**	**20 04 57.4**	**-0.7**
QLMT	**Earthquake Lak**	4.66	286	*e*P	**Pn**	**20 04 59.0**	**-1.7**
DGMT	**Dagmar**	4.78	7	*e*Pn	**Pn**	**20 05 03.2**	**+0.8**
BOZ	**Bozeman (W)**	5.02	295	*e*Pn	**Pn**	**20 05 06.6**	**+0.8**
HWUT	**Hardware Ranch**	5.21	248	*e*P	**Pn**	**20 05 07.1**	**-1.3**
	11nm,0.4s						
HRY	**Holter Researc**	5.60	304	*e*Pn	**Pn**	**20 05 14.2**	**+0.3**
DAU	**Daniels Canyon**	5.64	236	*e*Pn	**Pn**	**20 05 14.4**	**-0.1**
MCMT	**McKenzie Canyo**	5.66	284	*e*Pn	**Pn**	**20 05 19.7**	**+5.0**
RW3	**Ridgway**	5.81	200	*e*Pn	**Pn**	**20 05 20.6**	**+3.7**
SPUT	**South Promonto**	5.93	248	*e*Pn	**Pn**	**20 05 18.6**	**0.0**
HVU	**Hansel Valley**	5.96	254	*e*Pn	**Pn**	**20 05 16.4**	**-2.6**
SDCO	**Great Sand Dun**	5.99	183	*e*Pn	**Pn**	**20 05 20.6**	**+1.2**
	1.7nm,0.5s						
NOQ	**North Oquirrh**	6.04	242	*e*Pn	**Pn**	**20 05 19.6**	**-0.6**
PV10	**Paradox Valley**	6.12	210	*e*Pn	**Pn**	**20 05 22.4**	**+1.2**
MPU	**Maple Canyon**	6.12	235	*e*Pn	**Pn**	**20 05 20.9**	**-0.3**
SRU	**San Rafael**	6.15	223	*e*Pn	**Pn**	**20 05 20.4**	**-1.3**
PV01	**Paradox Valley**	6.17	206	*e*Pn	**Pn**	**20 05 22.9**	**+0.9**
TMUT	**Trail Mountain**	6.37	228	*e*Pn	**Pn**	**20 05 24.4**	**-0.3**
NLU	**North Lily Min**	6.42	236	*e*Pn	**Pn**	**20 05 24.5**	**-1.0**
BGU	**Big Grassy Mou**	6.50	247	*e*Pn	**Pn**	**20 05 24.6**	**-2.0**
CHMT	**Chamberlain Mo**	6.56	302	*e*Pn	**Pn**	**20 05 26.3**	**-1.1**
HLID	**Hailey**	6.75	272	*e*Pn	**Pn**	**20 05 30.3**	**+0.2**
	1.7nm,0.8s						
MSU	**Marysvale**	7.45	228	*e*Pn	**Pn**	**20 05 39.4**	**-0.6**
MVU	**Marysvale**	7.48	228	*e*Pn	**Pn**	**20 05 39.1**	**-1.3**
	2.8nm,0.5s						
KSU1	**Kansas State U**	7.89	123	Pn	**Pn**	**20 05 45.3**	**-0.9**
ARUT	**Antelope Range**	8.66	230	*e*Pn	**P**	**20 05 56.3**	**-0.7**
ULM	**Lac du Bonnet**	9.07	41	Pn	**P**	**20 06 02.7**	**+0.1**
	0.6nm,0.3s,baz=229,slow=12,SNR=7.3						
ULM				Lg		20 08 33.9	
	0.4nm,0.3s,baz=295,slow=19,SNR=2.5						
AMTX	**Amarillo**	9.23	162	*e*Pn	**P**	**20 06 04.5**	**-0.3**
	9.5nm,0.5s						
WMOK	**Wichita Mounta**	10.23	149	*e*Pn	**P**	**20 06 16.4**	**-2.2**
EDM	**Edmonton**	10.95	333	*e*Pn	**P**	**20 06 24.1**	**-4.2**
NVAR	**Mina Array Bea**	11.27	246	Pn	**P**	**20 06 30.7**	**-2.0**
	0.2nm,0.3s,baz=53,slow=10,SNR=8.5						
NVAR	**Mina Array Bea**	11.27	246	Pn	**P**	**20 06 30.7**	**-2.0**
YBH	**Yreka Blue Hor**	13.09	267	Pn	**P**	**20 07 00.4**	**+3.2**
	0.2nm,0.3s,baz=66,slow=10.0,SNR=5.2						
TXAR	**Lajitas Array**	14.42	175	Pn	**P**	**20 07 23.1**	**+8.4**
	0.1nm,0.3s,baz=0.3,slow=8.1,SNR=6.1						
YKA	**Yellowknife Ar**	19.60	347	P	**P**	**20 08 17.2**	**-2.4**
	0.1nm,0.3s,baz=164,slow=13,SNR=6.8						
ARCES	**ARCESS Array B**	61.39	18	P	**P**	**20 14 06.5**	**-0.4**
	1.4nm,0.6s,mb4.2,baz=349,slow=6.2,SNR=7.3						
FINES	**FINESS Array B**	67.99	23	P	**P**	**20 14 51.0**	**+1.2**
	2.4nm,0.9s,mb4.4,baz=315,slow=5.4,SNR=3.5						

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*INMG **25** 20:13:44.0±0.7,36.60N×11.16W,h10^{km},ML1.8,Error ellipse: s-maj=6.1km s-min=5.5km az=101.0*

MDD 25 20:13:43.5±2.5,36.64N×11.04W,mbLg2.0/5,Error ellipse: s-maj=22.2km s-min=20.0km az=3.0,PRXIMO, Azores-Cape St. Vincent Ridge

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	**Sao Teotonio**	2.06	63	*e*Pn	Pn	20 14 18.1	-1.6
PTEO				*e*Sn	Sn	20 14 43.6	-2.8
	8.5nm,0.6s						
PTEO	**Sao Teotonio**	2.06	63	P	Pn	20 14 18.1	-1.6
PTEO				S	Sn	20 14 43.6	-2.8
	4.2nm,0.6s						
PLOU	**Loures**	2.69	33	*e*Pn	Pn	20 14 26.5	-2.3
PLOU				*e*Sn	Sn	20 14 58.8	-3.7
MOE	**Montemor**	2.84	48	*e*Pn	Pn	20 14 29.1	-1.8
MOE				*e*Sn	Sn	20 15 02.9	-3.5
PBEJ	**Beja**	2.88	60	*e*Sn	Sn	20 15 03.4	-3.9
PALC	**Alcoutim**	2.96	73	*e*Pn	Pn	20 14 30.6	-2.1
PALC				*e*Sn	Sn	20 15 05.8	-3.7
	3.2nm,0.3s						
PALC	**Alcoutim**	2.96	73	P	Pn	20 14 30.6	-2.1
PALC				S	Sn	20 15 05.8	-3.7
	1.6nm,0.3s						
EGRO	**El Granado**	2.98	72	S	Sn	20 15 06.3	-3.5
	1.1nm,0.1s,SNR=4.0						
EMIN	**Mina Concepcio**	3.66	71	P	Pn	20 14 40.0	-2.6
	0.4nm,0.1s,SNR=8.6						
EMIN				S	Sn	20 15 21.6	-5.5
	0.3nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	3.83	55	P	Pn	20 14 42.3	-2.6
	84nm,2.8s,SNR=9.8						
EBAD				S	Sn	20 15 25.0	-6.2
	1.6nm,0.2s						
ESPR	**Espera**	4.17	85	P	Pn	20 14 46.9	-2.9
	50nm,1.7s,SNR=7.9						
ESPR				S	Sn	20 15 33.3	-6.6
	3.5nm,0.2s,SNR=7.9						
EADA	**Adamuz**	5.36	72	P	Pn	20 15 03.6	-3.1
	34nm,1.8s,SNR=7.9						
EADA				S	Sn	20 16 02.6	-7.5
	0.4nm,0.1s,SNR=7.9						

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*ISK **25** 20:22:14.3,34.16N×32.20E,h65^{km}*

*CSEM **25** 20:22:17.6,34.48N×32.11E,h30^{km},mb4.6*

*MOS **25** 20:22:17.4±1.1,34.48N×31.97E,h33^{km},mb4.3/10,Error ellipse: s-maj=13.0km s-min=7.0km az=92.4*

*GRAL **25** 20:22:18.1±2.3,34.45N×32.21E,MD4.1*

*IDC **25** 20:22:19.8±2.7,34.52N×32.11E,h37^{km}±27^{km},mb3.8/11, mb1 4.0/17,mb1mx3.9/23,ML4.1/6,MS4.0/2,Ms1 4.0/2, ms1mx3.1/24,Error ellipse: s-maj=20.4km s-min=16.6km az=33.0*

*NEIC **25** 20:22:19.5±0.3,34.49N×32.07E,h36^{km}±5^{km},mb4.2/24, Error ellipse: s-maj=4.9km s-min=3.5km az=213.0*

*ZUR_RM **25** 20:22:19,34.49N×32.07E,h21^{km},Mw4.3/15,Moment Tensor Solution. s15 Moment tensor: Scale 10^{15}Nm; M$_{rr}$-0.85; M$_{\theta\theta}$3.51; M$_{\phi\phi}$-2.66; M$_{r\theta}$-0.11; M$_{\theta\phi}$0.14; M$_{\phi r}$-0.26; Best double couple: M$_0$3.11×10^{15} NP1:φ$_s$44°,δ86°,λ-173°. NP2:φ$_s$313°,δ83°,λ-5°. Principal axes: T 3.514, Plg1°, Azm179°; N -.816, Plg82°, Azm78°; P -2.698, Plg8°, Azm269°;*

*GII **25** 20:22:20.5±0.4,34.43N×32.12E,h25^{km}±30^{km},mb4.3/10, ML4.1/10,Mw3.8/7*

ISC 25 20:22:18.3±0.3,34.47N±0.02×32.14E±0.03,h47^{km}±4^{km}, n157,σ1^{s}.03/177,mb4.2/29,MS4.0/2,1C-4D,Cyprus region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LEF	**Lefka**	0.90	44	*i* PN	**P**	**20 22 33.9**	**-0.7**
CSS	**Prodhromos**	1.10	63	*e*Pg	**P**	**20 22 37.8**	**+0.3**
CSS				*e*Sg	**S**	**20 22 49.3**	**-2.5**
CSS	**Prodhromos**	1.10	63	*e*Pg	**P**	**20 22 37.8**	**+0.3**
CSS				*e*Sg	**S**	**20 22 49.3**	**-2.5**
IKL	**Isikli**	2.17	35	PN	**P**	**20 22 52.6**	**-0.1**
HDMB	**Hadim**	2.50	6	PN	**P**	**20 22 58.7**	**+1.2**
MEST	**Erdemli**	2.67	37	*i* P	**P**	**20 23 00.8**	**+1.0**
MATL	**Matirih**	2.83	109	*e*PN	**P**	**20 23 02.6**	**+0.5**
HNTI	**Hanita**	2.89	118	Pn	**P**	**20 23 03.5**	**+0.6**
HNTI				Sn	**S**	**20 23 36.6**	**0.0**
ELL	**Elmali**	2.91	322	PN	**P**	**20 23 04.2**	**+1.0**
HAF	**Haifa**	2.94	124	Pn	**P**	**20 23 03.9**	**+0.2**
BHL	**Bhannes**	2.97	100	*e*PN	**P**	**20 23 03.3**	**-0.9**
BHL				SN	**S**	**20 23 37.6**	**-1.2**
BHL	**Bhannes**	2.97	100	Sn	**S**	**20 23 37.6**	**-1.2**
OFRI	**'Ofer**	3.01	127	Pn	**P**	**20 23 05.2**	**+0.5**
OFRI				Sn	**S**	**20 23 41.1**	**+1.2**
HWQ	**Hawqa**	3.16	92	*e*PN	**P**	**20 23 08.2**	**+1.4**
HWQ				SN	**S**	**20 23 43.5**	**0.0**
KSDI	**Kefar Szold**	3.20	113	Pn	**P**	**20 23 07.4**	**0.0**
KSDI	**Kefar Szold**	3.20	113	⇑Pn	**P**	**20 23 07.4**	**0.0**
BCK	**Bucak**	3.23	338	PN	**P**	**20 23 09.7**	**+1.9**
FETY	**Fethiye**	3.29	312	PN	**P**	**20 23 08.9**	**+0.2**
SLTI	**Sal'it**	3.30	132	Pn	**P**	**20 23 09.1**	**+0.3**
SLTI				Sn	**S**	**20 23 47.5**	**+0.4**
MMLI	**Mount Malkishu**	3.42	126	Pn	**P**	**20 23 11.2**	**+0.7**
KONT	**Konya--Tatoy**	3.47	3	PN	**P**	**20 23 12.6**	**+1.4**
FKH	**Fakeheh**	3.54	93	*e*PN	**P**	**20 23 12.3**	**+0.2**
FKH				SN	**S**	**20 23 52.8**	**-0.4**
ISP	**Isparta**	3.61	339	PN	**P**	**20 23 14.6**	**+1.4**
ISP	**Isparta**	3.61	339	*i* P	**P**	**20 23 14.7**	**+1.5**
DALT	**Dalyan (Mudla)**	3.66	310	PN	**P**	**20 23 13.6**	**-0.2**
HTY	**Hatay**	3.66	62	PN	**P**	**20 23 13.0**	**-0.9**
CEYT	**Ceyhan**	3.88	48	*e*PN	**P**	**20 23 16.6**	**-0.3**
COBT	**Iskenderun**	3.93	58	*i* P	**P**	**20 23 18.4**	**+0.7**
DRGI	**Dragot**	3.97	135	Pn	**P**	**20 23 18.9**	**+0.7**
KZIT	**Kziot**	4.04	151	Pn	**P**	**20 23 19.3**	**+0.2**
KZIT				Sn	**S**	**20 24 05.2**	**-0.5**
DNZL	**Cakiroluk**	4.07	323	*i* P	**P**	**20 23 20.5**	**+0.9**
MASH	**Mash'abbe Sade**	4.12	146	Pn	**P**	**20 23 20.6**	**+0.1**
DENT	**Denizli**	4.13	323	*e*PN	**P**	**20 23 21.3**	**+0.9**
MKRJ	**Makawir**	4.14	134	Pn	**P**	**20 23 21.4**	**+0.8**
NIG	**Nigde**	4.14	28	*e*PN	**P**	**20 23 21.4**	**+0.7**
MZDA	**Masada**	4.16	138	Pn	**P**	**20 23 21.2**	**+0.3**
MZDA				Sn	**S**	**20 24 08.5**	**-0.4**
KHL	**Karahalli**	4.38	332	*e*PN	**P**	**20 23 24.2**	**+0.1**
KIZT	**Kizilcal**	4.40	357	*e*PN	**P**	**20 23 24.6**	**+0.2**
MLSB	**Milas**	4.52	310	*e*PN	**P**	**20 23 26.3**	**+0.3**
ASF	**Jabal al Asfar**	4.60	119	Pn	**P**	**20 23 28.1**	**+1.0**
	6.9nm,0.3s,baz=171,slow=9.0,SNR=35						
ASF				Sn	**S**	**20 24 21.9**	**+1.9**
	5.5nm,0.3s,baz=336,slow=23,SNR=3.3						
ZFRI	**Zfri**	4.68	146	Pn	**P**	**20 23 29.0**	**+0.8**
AYDN	**Tasoluk**	4.69	314	*i* P	**P**	**20 23 28.2**	**-0.2**
PRNI	**Paran**	4.77	149	Pn	**P**	**20 23 29.4**	**-0.2**
PRNI				S	**S**	**20 24 24.6**	**+0.3**
PRNI	**Paran**	4.77	149	Pn	**P**	**20 23 29.4**	**-0.2**
PRNI				Sn	**S**	**20 24 23.5**	**-0.8**
GAZ	**Gaziantep**	4.93	55	*e*PN	**P**	**20 23 30.6**	**-1.1**
KAMT	**Kaman**	5.05	14	*e*PN	**P**	**20 23 32.6**	**-0.8**
ESKT	**Eskisehir**	5.14	349	*e*PN	**P**	**20 23 34.6**	**-0.1**
MBH	**Mount Berech**	5.23	152	Pn	**P**	**20 23 36.2**	**+0.3**
MBH				Sn	**S**	**20 24 35.7**	**0.0**
MBH	**Mount Berech**	5.23	152	Pn	**P**	**20 23 36.2**	**+0.3**
MBH				Sn	**S**	**20 24 35.8**	**+0.1**
BNN	**Bunyan**	5.29	33	*e*PN	**P**	**20 23 36.2**	**-0.6**
EIL	**Elat**	5.35	153	Pn	**P**	**20 23 37.1**	**-0.5**
	6.4nm,0.3s,baz=335,slow=14,SNR=75						
EIL				Sn	**S**	**20 24 39.5**	**+0.7**
	31nm,0.3s,baz=49,slow=15,SNR=7.9						
EIL	**Elat**	5.35	153	Pn	**P**	**20 23 37.1**	**-0.5**
EIL				Sn	**S**	**20 24 38.4**	**-0.5**
EIL	**Elat**	5.35	153	Pn	**P**	**20 23 37.1**	**-0.5**
EIL				Sn	**S**	**20 24 38.4**	**-0.4**
BRTR	**Keskin Array B**	5.38	12	Pn	**P**	**20 23 38.3**	**+0.3**
	1.1nm,0.3s,baz=190,slow=17,SNR=21						
BRTR	**Keskin Array B**	5.38	12	P	**P**	**20 23 38.3**	**+0.3**
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
IZM	**Izmir**	5.55	316	*e*PN	**P**	**20 23 39.6**	**-0.7**
AKS	**Akhisar**	5.60	323	*e*PN	**P**	**20 23 39.9**	**-1.2**
ALWS	**Ilw as Safayha**	5.72	153	P	**P**	**20 23 42.2**	**-0.6**
YOZ	**Yozgat**	5.75	25	*e*PN	**P**	**20 23 43.4**	**+0.2**
SANT	**Santorini**	5.77	291	*e*Pn	**P**	**20 23 41.0**	**-2.4**
	comp=Z,19nm,0.4s						
SANT				*e*Sn	**S**	**20 24 39.4**	**-10**
SANT	**Santorini**	5.77	291	*e*Pn	**P**	**20 23 41.0**	**-2.5**
	comp=Z,19nm,0.4s						
SANT				*e*Sn	**S**	**20 24 39.4**	**-10**
JMOS	**Jabal al Moall**	5.86	154	P	**P**	**20 23 44.1**	**-0.7**
HAQS	**Haql**	5.90	155	P	**P**	**20 23 44.5**	**-0.8**
APE	**Apeiranthos**	5.96	298	*e*PN	**P**	**20 23 44.0**	**-2.1**
APE	**Apeiranthos**	5.96	298	*d i*P	**P**	**20 23 43.7**	**-2.4**
IDI	**Anoyia**	6.01	280	Pn	**P**	**20 23 44.6**	**-2.2**
	comp=Z,2.6nm,0.3s,baz=85,slow=12,SNR=29						
IDI				Sn	**S**	**20 24 50.5**	**-4.8**
	comp=Z,20nm,0.3s,baz=284,slow=12,SNR=13						
URFA	**Urfa**	6.18	59	*e*PN	**P**	**20 23 46.6**	**-2.6**
MALT	**Malatya**	6.36	51	*e*Pn	**P**	**20 23 50.9**	**-0.9**
	comp=Z,11nm,0.9s						
MALT	**Malatya**	6.36	51	*e*Pn	**P**	**20 23 50.9**	**-0.8**
	comp=Z,11nm,0.9s						
JMQS	**Jabal Moqyreh**	6.42	149	P	**P**	**20 23 52.5**	**0.0**
BDAS	**Al Bad'**	6.53	156	P	**P**	**20 23 51.8**	**-2.4**
GVD	**Gavdhos**	6.64	275	*e*Pn	**P**	**20 23 52.0**	**-3.8**
	comp=Z,8.2nm,0.4s						
GVD	**Gavdhos**	6.64	275	*e*Pn	**P**	**20 23 52.0**	**-3.7**
	comp=Z,8.2nm,0.4s						
AYUS	**'Aynunah**	6.81	156	P	**P**	**20 23 56.8**	**-1.4**
PTK	**Pertek**	7.31	51	*e*PN	**P**	**20 24 01.7**	**-3.3**
SOC	**Sochi**	10.84	31	*e*P	**P**	**20 24 52.4**	**-1.1**
SOC				*e*		20 26 48.0	
SOC				pmax	pmax		

	comp=Z,12nm,1.3s						
SOC				pmax	pmax		
	comp=N,16nm,1.1s						
SOC				pmax	pmax		
	comp=E,8.0nm,1.1s						
SOC				smax			
	comp=N,14nm,0.8s						
SOC				MLR	MLR		
	comp=Z,166nm,14.0s						
SOC				MLR	MLR		
	comp=N,72nm,8.0s						
SOC				MLR	MLR		
	comp=E,83nm,11.0s						
ANN	**Anapa**	**11.09**	**20**	eP	**P**	**20 25 08.7**	**+12**
ANN				pmax	pmax		
	comp=Z,61nm,1.2s						
GNI	**Garni**	**11.52**	**57**	i P	**P**	**20 25 04.5**	**+1.7**
GNI				pmax	pmax		
	comp=Z,6.0nm,1.5s						
GNI	**Garni**	**11.52**	**57**	P	**P**	**20 25 02.6**	**-0.2**
GNI	**Garni**	**11.52**	**57**	P	**P**	**20 25 02.6**	**-0.2**
KIV	**Kislovodsk**	**12.50**	**38**	i P	**P**	**20 25 15.9**	**-0.1**
KIV				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KIV	**Kislovodsk**	**12.50**	**38**	eP	**P**	**20 25 17.1**	**+1.1**
PSZ	**Piszkesteto**	**16.26**	**329**	eP	**P**	**20 26 05.4**	**+0.7**
	comp=Z,6.6nm,0.7s						
PSZ	**Piszkesteto**	**16.26**	**329**	eP	**P**	**20 26 05.4**	**+0.7**
	comp=Z,6.6nm,0.7s						
AKASG	**Malin Array Be**	**16.36**	**353**	Pn	**P**	**20 26 07.0**	**+1.1**
	comp=Z,4.3nm,0.3s,baz=177,slow=9.9,SNR=75						
AKASG	**Malin Array Be**	**16.36**	**353**	P	**P**	**20 26 07.0**	**+1.1**
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.3s						
AQU	**L'Aquila**	**16.64**	**304**	eP	**P**	**20 26 12.1**	**+2.6**
	comp=Z,38nm,1.3s						
KWP	**Kalwaria**	**16.66**	**338**	eP	**P**	**20 26 12.3**	**+2.5**
	comp=Z,11nm,0.8s						
VSL	**Villasalto**	**18.84**	**292**	P	**P**	**20 26 39.7**	**+2.8**
	comp=Z,78nm,1.4s						
GERES	**GERESS Array B**	**19.82**	**322**	P	**P**	**20 26 46.6**	**-1.0**
	comp=Z,0.6nm,0.3s,baz=126,slow=9.2,SNR=39						
GERES	**GERESS Array B**	**19.82**	**322**	P	**P**	**20 26 46.6**	**-1.0**
GERES				pmax	pmax		
	comp=Z,1.0nm,0.3s						
WTTA	**Wattenberg**	**20.02**	**316**	⇓iP	**P**	**20 26 49.2**	**-0.4**
	comp=Z,4.8nm,0.6s						
KHC	**Kasperske Hory**	**20.07**	**322**	eP	**P**	**20 26 49.2**	**-1.0**
PRU	**Pruhonice**	**20.17**	**326**	eP	**P**	**20 26 50.2**	**-1.1**
SQTA	**Sankt Quirin**	**20.24**	**315**	⇓iP	**P**	**20 26 51.3**	**-0.7**
	comp=Z,6.3nm,0.7s						
MOTA	**Moosalm**	**20.36**	**315**	⇓iP	**P**	**20 26 52.4**	**-0.9**
	comp=Z,2.4nm,0.6s						
SUW	**Suwalki**	**20.53**	**345**	eP	**P**	**20 26 52.8**	**-2.2**
	comp=Z,15nm,0.7s						
SUW	**Suwalki**	**20.53**	**345**	eP	**P**	**20 26 52.8**	**-2.2**
	comp=Z,15nm,0.7s						
DAVOX	**Davos**	**20.81**	**313**	P	**P**	**20 26 58.3**	**+0.4**
	comp=Z,2.6nm,0.5s,baz=121,slow=8.0,SNR=13						
OBN	**Obninsk**	**20.87**	**7**	eP	**P**	**20 26 59.4**	**+0.9**
OBN				e		20 27 10.4	
OBN				pmax	pmax		
	comp=Z,7.0nm,0.5s						
OBN	**Obninsk**	**20.87**	**7**	eP	**P**	**20 26 57.8**	**-0.7**
	comp=Z,17nm,0.6s						
DAVA	**Damuels**	**21.05**	**314**	⇑iP	**P**	**20 26 59.8**	**-0.6**
	comp=Z,3.8nm,0.4s,mb4.1						
BRG	**Berggiesshubel**	**21.06**	**327**	eP	**P**	**20 26 59.9**	**-0.5**
BRG				pmax	pmax		
	comp=Z,18nm,1.6s,mb4.2						
BRG	**Berggiesshubel**	**21.06**	**327**	eP	**P**	**20 26 59.9**	**-0.5**
	comp=Z,18nm,1.6s,mb4.2						
CLL	**Collm**	**21.79**	**326**	eP	**P**	**20 27 07.0**	**-0.7**
CLL	**Collm**	**21.79**	**326**	P	**P**	**20 27 07.0**	**-0.7**
MBDF	**Montbardon**	**21.98**	**305**	eP	**P**	**20 27 09.5**	**-0.2**
	comp=Z,35nm,1.0s,mb4.5						
MOX	**Moxa**	**22.01**	**323**	eP	**P**	**20 27 10.1**	**+0.2**
MOX				pmax	pmax		
	comp=Z,21nm,1.6s,mb4.3						
MOX	**Moxa**	**22.01**	**323**	i P	**P**	**20 27 10.1**	**+0.2**
	comp=Z,logA/T=1.1,mb4.3						
MOX	**Moxa**	**22.01**	**323**	eP	**P**	**20 27 10.1**	**+0.2**
	comp=Z,21nm,1.6s,mb4.3						
LPG	**La Plagne**	**22.26**	**307**	eP	**P**	**20 27 13.0**	**+0.6**
	comp=Z,11nm,0.7s,mb4.1						
LPL	**La Plagne**	**22.28**	**307**	eP	**P**	**20 27 13.0**	**+0.4**
	comp=Z,11nm,0.8s,mb4.0						
ORIF	**Oris-en-Rattie**	**22.64**	**305**	eP	**P**	**20 27 16.9**	**+0.7**
	comp=Z,42nm,1.2s,mb4.4						
CABF	**La Chapelle**	**23.10**	**309**	eP	**P**	**20 27 21.9**	**+1.3**
	comp=Z,13nm,0.8s,mb4.1						
HINF	**Hinteralfeld**	**23.11**	**313**	eP	**P**	**20 27 21.7**	**+1.0**
	comp=Z,3.7nm,0.6s,mb3.7						
SSF	**Saint Saulge**	**24.91**	**309**	eP	**P**	**20 27 37.7**	**-0.5**
RJF	**Les Rejaudoux**	**25.72**	**304**	eP	**P**	**20 27 46.3**	**+0.5**
	comp=Z,9.7nm,0.6s,mb4.2						
FINES	**FINESS Array B**	**27.27**	**354**	P	**P**	**20 27 58.9**	**-1.0**
	comp=Z,4.8nm,0.5s,mb4.3,baz=153,slow=11,SNR=50						
FINES	**FINESS Array B**	**27.27**	**354**	i P	**P**	**20 27 58.9**	**-1.0**
FINES				pmax	pmax		
	comp=Z,5.0nm,0.5s						
KAF	**Kangasniemi**	**27.91**	**354**	ep	**P**	**20 28 04.2**	**-1.5**
HFS	**Hagfors**	**28.35**	**341**	P	**P**	**20 28 09.8**	**+0.1**
	comp=Z,2.3nm,0.6s,mb4.0,baz=143,slow=7.4,SNR=8.2						
HFS	**Hagfors**	**28.35**	**341**	P	**P**	**20 28 09.8**	**+0.1**
HFS				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ARU	**Arti**	**28.42**	**31**	eP	**P**	**20 28 13.5**	**+3.2**
ARU	**Arti**	**28.42**	**31**	eP	**P**	**20 28 10.9**	**+0.6**
	comp=Z,2.8nm,0.7s,mb4.0						
ARU	**Arti**	**28.42**	**31**	eP	**P**	**20 28 10.9**	**+0.6**
	comp=Z,2.8nm,0.7s,mb4.0						
ESDC	**Sonseca Array**	**29.14**	**291**	P	**P**	**20 28 17.8**	**+0.9**
	comp=Z,1.4nm,0.9s,mb3.7,baz=81,slow=9.7,SNR=6.9						
NOA	**NORSAR Array B**	**29.80**	**340**	P	**P**	**20 28 22.7**	**+0.1**
	comp=Z,1.2nm,0.8s,mb3.7,baz=149,slow=10,SNR=4.1						
NOA	**NORSAR Array B**	**29.80**	**340**	P	**P**	**20 28 22.7**	**+0.1**
NOA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	**NORSAR Array B**	**29.80**	**340**	P	**P**	**20 28 22.7**	**+0.1**
BRVK	**Borovoye**	**32.71**	**44**	eP	**P**	**20 28 47.4**	**-0.9**
	comp=Z,2.1nm,0.9s,mb4.1						
BRVK	**Borovoye**	**32.71**	**44**	eP	**P**	**20 28 47.4**	**-0.9**
	comp=Z,2.1nm,0.9s,mb4.1						
CHKZ	**Chkalovo**	**33.11**	**43**	eP	**P**	**20 28 50.1**	**-1.6**
	comp=Z,3.6nm,0.9s,mb4.3						
CHKZ	**Chkalovo**	**33.11**	**43**	eP	**P**	**20 28 50.1**	**-1.6**
	comp=Z,3.6nm,0.9s,mb4.3						
ARCES	**ARCESS Array B**	**35.31**	**356**	P	**P**	**20 29 09.5**	**-0.9**
	comp=Z,3.5nm,0.6s,mb4.5,baz=168,slow=8.5,SNR=18						
ARCES				pP	pP	20 29 19.0	-4.0
	comp=Z,2.3nm,0.6s,baz=167,slow=7.3,SNR=9.9						
ARCES	**ARCESS Array B**	**35.31**	**356**	P	**P**	**20 29 09.5**	**-0.9**
ARCES				*PP	pP	20 29 19.0	-4.0
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ARCES	**ARCESS Array B**	**35.31**	**356**	P	**P**	**20 29 09.5**	**-0.9**
ARCES				pP	pP	20 29 19.0	-4.0
NVS	**Novosibirsk**	**40.56**	**44**	eP	**P**	**20 29 54.8**	**+0.3**
ZAL	**Zalesovo**	**41.35**	**45**	P	**P**	**20 30 01.2**	**+0.2**
	comp=Z,0.9nm,0.4s,mb3.7,baz=328,slow=2.6,SNR=4.0						
ZAL				LR	LR	20 50 48.4	
	comp=Z,84nm,18.1s,MS3.6,baz=302,slow=41						
ZAL	**Zalesovo**	**41.35**	**45**	P	**P**	**20 30 01.2**	**+0.2**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZAL				MLR	MLR		
	comp=Z,84nm,18.1s						
ZAL	**Zalesovo**	**41.35**	**45**	i P	**P**	**20 30 03.0**	**+2.0**
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.4s						
DBIC	**Dimbokro**	**43.91**	**240**	P	**P**	**20 30 22.6**	**+0.2**
	comp=Z,4.0nm,1.0s,mb4.1,baz=22,slow=17,SNR=3.4						
DBIC	**Dimbokro**	**43.91**	**240**	P	**P**	**20 30 22.6**	**+0.3**
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
DBIC	**Dimbokro**	**43.91**	**240**	P	**P**	**20 30 23.2**	**+0.8**
	comp=Z,17nm,1.5s,mb4.5						
DBIC	**Dimbokro**	**43.91**	**240**	P	**P**	**20 30 23.2**	**+0.9**
	comp=Z,17nm,1.5s,mb4.5						
KOLN	**Koldanda**	**44.18**	**84**	eP	**P**	**20 30 27.1**	**+2.8**
	comp=Z,9.6nm,1.1s,mb4.5						
DMN	**Daman**	**45.47**	**84**	eP	**P**	**20 30 41.1**	**+6.4**
	comp=Z,11nm,0.9s,mb4.7						
KKN	**Kakani**	**45.55**	**83**	eP	**P**	**20 30 40.6**	**+5.3**
	comp=Z,7.5nm,0.7s,mb4.7						
PKI	**Pulchoki**	**45.74**	**83**	eP	**P**	**20 30 44.9**	**+8.1**
	comp=Z,10nm,0.8s,mb4.8						
GUN	**Gumba**	**45.99**	**83**	eP	**P**	**20 30 46.0**	**+7.2**
	comp=Z,23nm,1.2s,mb5.0						
PALK	**Pallekele**	**52.18**	**110**	eP	**P**	**20 31 31.2**	**+4.6**
	comp=Z,27nm,1.3s,mb5.0						
ZAK	**Zakamensk**	**52.86**	**49**	eP	**P**	**20 31 37.1**	**+5.8**
SONM	**Songino Array**	**55.44**	**52**	P	**P**	**20 31 51.1**	**+0.9**
	comp=Z,0.5nm,0.5s,mb3.8,baz=286,slow=9.0,SNR=3.7						
SONM				pP	pP	20 31 58.6	-4.6
	comp=Z,1.6nm,0.9s,baz=286,slow=7.3,SNR=6.6						
SCHQ	**Schefferville**	**67.35**	**322**	P	**P**	**20 33 11.0**	**+0.8**
	comp=Z,1.3nm,0.7s,mb4.1,baz=74,slow=15,SNR=2.9						
SSE	**Sheshan**	**72.47**	**64**	eP	**P**	**20 33 38.9**	**-2.9**
	comp=Z,40nm,0.7s						
YKA	**Yellowknife Ar**	**79.73**	**345**	P	**P**	**20 34 23.3**	**+1.1**
	comp=Z,0.2nm,0.6s,mb3.2,baz=24,slow=5.5,SNR=8.7						
YKA	**Yellowknife Ar**	**79.73**	**345**	i P	**P**	**20 34 23.3**	**+1.1**
JHJ	**Hachijo jima 2**	**84.48**	**53**	LR	LR	21 12 24.9	
	comp=Z,155nm,18.5s,MS4.4,baz=93,slow=36						

ISK **25** 20:29:18.7,38.25N×25.59E,h11^{km},MD3.2
NEIC **25** 20:29:21.1,38.21N×25.69E,h39^{km},MD3.3(ATH),After ATH.
ATH **25** 20:29:21.0,38.21N×25.71E,h38^{km}±6^{km},MD3.3/7
CSEM **25** 20:29:21.4±0.2,38.23N×25.65E,h30^{km},MD3.3,Error ellipse: s-maj=5.5km s-min=4.5km az=125.0
ISC 25 20:29:21.7±1.1,**38.21N**±0.05×**25.70E**±0.07,**h75**^{km}±22^{km},**n12**,σ**0**^{s}**70**/16,**Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SMG	**Samos**	**1.03**	**119**	ePN	**P**	**20 29 40.9**	**-0.2**
SMG				eSN	**S**	**20 29 54.5**	**-1.1**
PRK	**Paraskevi**	**1.12**	**23**	ePB	**P**	**20 29 41.1**	**-1.1**
PRK				eSN	**S**	**20 29 57.7**	**+0.1**
APE	**Apeiranthos**	**1.15**	**187**	PN	**P**	**20 29 41.6**	**-1.0**
APE				SN	**S**	**20 29 58.5**	**+0.3**
APE	**Apeiranthos**	**1.15**	**187**	ePN	**P**	**20 29 42.3**	**-0.3**
IZM	**Izmir**	**1.25**	**81**	PN	**P**	**20 29 43.8**	**0.0**
IZM				SN	**S**	**20 30 02.2**	**+1.8**
PTL	**Penteli**	**1.45**	**264**	ePB	**P**	**20 29 46.5**	**-0.2**
LIA	**Limnos Island**	**1.73**	**347**	ePN	**P**	**20 29 49.7**	**-0.6**
AKS	**Akhisar**	**1.79**	**68**	ePN	**P**	**20 29 51.6**	**+0.5**
NSAL	**Nisos Salamina**	**1.79**	**261**	ePN	**P**	**20 29 51.5**	**+0.3**
NAIG	**Nisos Aigina**	**1.80**	**256**	ePB	**P**	**20 29 52.0**	**+0.7**
NEO	**Neokhori**	**2.22**	**300**	ePN	**P**	**20 29 57.6**	**+0.5**
BNT	**Bandirma**	**2.75**	**38**	ePN	**P**	**20 30 04.3**	**-0.3**

IDC **25** 21:07:35.7±1.8,2.56N×127.52E,mb4.0/4,mb1 4.2/4, mb1mx3.7/16,Error ellipse: s-maj=128.0km s-min=25.3km az=67.0
NEIC **25** 21:07:56.8±0.9,2.83N×129.07E,h200^{km},mb4.3/4,Error ellipse: s-maj=46.5km s-min=10.8km az=63.0
ISC 25 21:07:55.3±1.3,**2.8N**±0.2×**129.0E**±0.4,**h200**^{km},**n11**,σ**0**^{s}**65**/11,**mb4.0**/7,**Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**15.80**	**168**	eP	**P**	**21 11 28.8**	**+0.2**
	3.2nm,0.5s						
WRAB	**Tennant Creek**	**23.21**	**167**	eP	**P**	**21 12 45.6**	**-0.1**
	17nm,0.9s,mb4.6						
WRA	**Warramunga Arr**	**23.22**	**167**	P	**P**	**21 12 45.3**	**-0.5**
	2.8nm,0.4s,mb4.1,baz=342,slow=10.0,SNR=58						
WB2	**Warramunga Arr**	**23.22**	**167**	eP	**P**	**21 12 46.4**	**+0.6**
ASAR	**Alice Springs**	**26.75**	**170**	P	**P**	**21 13 18.1**	**-0.6**
	1.3nm,0.5s,mb3.9,baz=353,slow=7.7,SNR=59						
ASPA	**Alice Springs**	**26.75**	**170**	eP	**P**	**21 13 18.1**	**-0.5**
STKA	**Stephens Creek**	**36.52**	**162**	P	**P**	**21 14 44.7**	**+1.4**
	1.6nm,0.4s,mb3.9,baz=343,slow=7.5,SNR=15						
STKA	**Stephens Creek**	**36.52**	**162**	eP	**P**	**21 14 43.8**	**+0.5**
PALK	**Pallekele**	**48.33**	**277**	P	**P**	**21 16 19.1**	**+0.3**
	28nm,1.3s,mb4.4						
BVAR	**Borovoye Array**	**69.33**	**327**	P	**P**	**21 18 41.8**	**-1.1**
	0.2nm,0.3s,mb3.2,baz=124,slow=5.2,SNR=4.1						
ARU	**Arti**	**76.93**	**327**	P	**P**	**21 19 27.9**	**+0.9**
	1.7nm,0.8s,mb3.7						

IDC **25** 21:31:07.4±1.9,43.74N×105.47W,mb4.2/1,mb1 3.7/5, mb1mx3.4/21,ML3.4/4,Error ellipse: s-maj=55.2km s-min=8.4km az=149.0
NEIC **25** 21:31:07.7±0.6,43.80N×105.23W,ML3.1,Error ellipse: s-maj=8.2km s-min=6.4km az=105.0,Suspected Mining explosion.
NEIC 60 km [35 miles] SSE of Gillette.
ISC 25 21:31:05.8±0.7,**43.83N**±0.05×**105.17W**±0.09,**n24**,σ**1**^{s}**10**/24,**mb4.4**/1,**Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PHWY	**Pilot Hill**	**2.53**	**185**	ePn	**Pn**	**21 31 49.4**	**+0.5**
RWWY	**Rawlins**	**2.61**	**216**	ePn	**Pn**	**21 31 51.0**	**+1.0**
LAO	**LASA Array**	**2.96**	**346**	ePn	**Pn**	**21 31 56.9**	**+2.0**
PDAR	**Pinedale Array**	**3.37**	**253**	Pn	**Pn**	**21 32 01.4**	**+0.7**
	3.4nm,0.3s,baz=68,slow=15,SNR=85						
PDAR				Lg		21 32 45.8	
	8.7nm,0.3s,baz=298,slow=25,SNR=7.0						
GCMT	**Greycliff**	**3.75**	**303**	ePn	**Pn**	**21 32 07.1**	**+0.9**
LKWY	**Lake**	**3.83**	**283**	ePn	**Pn**	**21 32 09.0**	**+1.7**
LOHW	**Long Hollow**	**3.94**	**269**	ePn	**Pn**	**21 32 09.3**	**+0.4**
ISCO	**Idaho Springs**	**4.04**	**185**	ePn	**Pn**	**21 32 10.3**	**0.0**
MOOW	**Moose Ponds**	**4.04**	**271**	ePn	**Pn**	**21 32 10.9**	**+0.7**
IMW	**Indian Meadow**	**4.17**	**273**	ePn	**Pn**	**21 32 11.6**	**-0.6**
TPAW	**Teton Pass**	**4.21**	**267**	ePn	**Pn**	**21 32 13.5**	**+0.9**
YMR	**Madison River**	**4.25**	**283**	ePn	**Pn**	**21 32 12.1**	**-1.1**
QLMT	**Earthquake Lak**	**4.60**	**285**	ePn	**Pn**	**21 32 18.7**	**+0.4**
DGMT	**Dagmar**	**4.70**	**8**	ePn	**Pn**	**21 32 20.2**	**+0.6**
BOZ	**Bozeman (W)**	**4.95**	**294**	ePn	**Pn**	**21 32 15.4**	**-7.7**
HRY	**Holter Researc**	**5.51**	**304**	ePn	**Pn**	**21 32 28.8**	**-2.3**
MCMT	**McKenzie Canyo**	**5.60**	**283**	ePn	**Pn**	**21 32 29.5**	**-2.8**
PV01	**Paradox Valley**	**6.24**	**205**	ePn	**Pn**	**21 32 40.5**	**-0.9**
CHMT	**Chamberlain Mo**	**6.47**	**301**	ePn	**Pn**	**21 32 44.3**	**-0.4**
ULM	**Lac du Bonnet**	**9.03**	**41**	Pn	**P**	**21 33 20.3**	**-0.1**
	1.6nm,0.3s,baz=234,slow=10,SNR=13						
ULM				Lg		21 35 51.0	
	0.1nm,0.3s,baz=149,slow=19,SNR=2.5						
WMOK	**Wichita Mounta**	**10.34**	**149**	Pn	**P**	**21 33 31.6**	**-6.8**
NVAR	**Mina Array Bea**	**11.27**	**246**	Pn	**P**	**21 33 49.7**	**-1.4**
	0.1nm,0.3s,baz=45,slow=12,SNR=2.6						
YKA	**Yellowknife Ar**	**19.50**	**347**	P	**P**	**21 35 36.4**	**-0.5**
	0.1nm,0.3s,baz=152,slow=14,SNR=8.2						
ARCES	**ARCESS Array B**	**61.31**	**18**	P	**P**	**21 41 23.5**	**-1.3**
	3.2nm,0.9s,mb4.4,baz=326,slow=6.5,SNR=2.7						

IDC 25 22:07:37.5±7.3,**28.26S**×**64.35E,mb3.7**/2,**mb1 3.9**/2, **mb1mx3.5**/16,**Error ellipse: s-maj=389.0km s-min=55.2km az=35.0,Indian Ocean Triple Junction**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	**Alice Springs**	**61.93**	**103**	P	P	22 17 59.9	-1.8
	0.7nm,0.6s,baz=249,slow=6.4,SNR=12						
WRA	**Warramunga Arr**	**63.66**	**99**	P	P	22 18 10.4	-2.8
	0.3nm,0.5s,baz=247,slow=6.0,SNR=5.1						
YKA	**Yellowknife Ar**	**145.75**	**359**	PKPbc	PKPbc	22 27 17.0	-1.0
	0.1nm,0.4s,baz=347,slow=3.5,SNR=4.4						

SYO **25** 22:20:46.5,5.99S×127.64E,h348^{km},MB4.0
NEIC **25** 22:20:49.7±1.8,6.09S×127.63E,h386^{km}±23^{km},mb4.1/11, Error ellipse: s-maj=22.1km s-min=11.9km az=51.0
IDC **25** 22:20:50.6±4.9,6.08S×127.68E,h399^{km}±64^{km},mb3.5/6, mb1 3.8/9,mb1mx3.6/16,Error ellipse: s-maj=32.3km s-min=18.2km az=47.0
ISC 25 22:20:47.1±1.4,**6.04S**±0.09×**127.6E**±0.1,**h372**^{km}±16^{km}, **n31**,σ**0**^{s}**86**/32,**mb4.0**/16,**1C,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KAKA	**Kakadu**	**8.14**	**145**	eP	**P**	**22 22 45.6**	**+1.5**
	59nm,0.6s						
FITZ	**Fitzroy Crossi**	**12.14**	**189**	eP	**P**	**22 23 31.5**	**0.0**
	6.5nm,0.6s						
WRAB	**Tennant Creek**	**15.29**	**155**	eP	**P**	**22 24 04.7**	**-1.7**
	40nm,0.5s						
WRA	**Warramunga Arr**	**15.29**	**155**	P	**P**	**22 24 04.8**	**-1.6**
	7.0nm,0.3s,baz=333,slow=11,SNR=151						
WB2	**Warramunga Arr**	**15.30**	**155**	eP	**P**	**22 24 04.8**	**-1.6**
ASPA	**Alice Springs**	**18.55**	**162**	eP	**P**	**22 24 39.8**	**+0.3**
ASPA				eS	**S**	**22 27 48.8**	**+1.5**
ASAR	**Alice Springs**	**18.55**	**162**	P	**P**	**22 24 39.9**	**+0.4**
	8.1nm,0.3s,baz=345,slow=11,SNR=240						
PMG	**Port Moresby**	**19.66**	**101**	P	**P**	**22 24 50.7**	**+0.2**
	1.5nm,0.3s,baz=300,slow=9.1,SNR=6.9						
PMG	**Port Moresby**	**19.66**	**101**	eP	**P**	**22 24 50.1**	**-0.4**
	17nm,0.8s						
CTA	**Charters Tower**	**22.88**	**129**	eP	**P**	**22 25 22.9**	**+1.7**
	2.6nm,0.5s,mb3.7						
CTA	**Charters Tower**	**22.88**	**129**	P	**P**	**22 25 21.7**	**+0.5**
	4.0nm,0.6s,mb3.8,baz=310,slow=7.8,SNR=11						
CTAO	**Charters Tower**	**22.88**	**129**	eP	**P**	**22 25 23.0**	**+1.8**
	4.4nm,0.7s,mb3.8						
STKA	**Stephens Creek**	**28.85**	**155**	eP	**P**	**22 26 13.8**	**-0.9**
	7.0nm,0.4s,mb4.2						
STKA	**Stephens Creek**	**28.85**	**155**	P	**P**	**22 26 13.9**	**-0.8**
	7.9nm,0.3s,mb4.3,baz=330,slow=8.5,SNR=86						
CMAR	**Chiang Mai Arr**	**37.30**	**311**	P	**P**	**22 27 27.9**	**+1.2**
	1.3nm,0.7s,mb3.3,baz=138,slow=6.9,SNR=9.6						
LSA	**Lhasa**	**49.87**	**317**	eP	**P**	**22 29 07.0**	**+0.8**
	4.6nm,0.6s,mb3.9						
GUN	**Gumba**	**52.54**	**312**	eP	**P**	**22 29 26.2**	**+0.3**
	16nm,0.5s,mb4.6						
PKI	**Pulchoki**	**52.70**	**311**	eP	**P**	**22 29 26.5**	**-0.6**
	5.6nm,0.5s,mb4.2						
KKN	**Kakani**	**52.92**	**312**	eP	**P**	**22 29 28.4**	**-0.3**
	7.2nm,0.6s,mb4.2						
DMN	**Daman**	**52.95**	**311**	eP	**P**	**22 29 28.8**	**-0.1**
	4.8nm,0.5s,mb4.1						
GKN	**Gorkha**	**53.51**	**311**	eP	**P**	**22 29 32.9**	**-0.1**
	16nm,0.4s,mb4.7						
KOLN	**Koldanda**	**54.16**	**311**	eP	**P**	**22 29 37.6**	**-0.1**
	11nm,0.6s,mb4.4						
ULN	**Ulaanbaatar**	**56.65**	**344**	eP	**P**	**22 29 55.4**	**+0.6**
	2.8nm,0.8s,mb3.6						
SONM	**Songino Array**	**56.80**	**343**	P	**P**	**22 29 56.2**	**+0.3**
	1.3nm,0.7s,mb3.4,baz=167,slow=7.8,SNR=10						
AAK	**Ala-Archa**	**68.28**	**321**	eP	**P**	**22 31 11.1**	**+0.4**
ZAL	**Zalesovo**	**69.69**	**335**	P	**P**	**22 31 17.9**	**-1.1**
	1.5nm,0.5s,mb4.0,baz=348,slow=3.6,SNR=7.0						
ZAL	**Zalesovo**	**69.69**	**335**	P	**P**	**22 31 17.9**	**-1.1**
BVAR	**Borovoye Array**	**75.99**	**328**	P	**P**	**22 31 55.1**	**-0.5**
	0.5nm,0.5s,mb3.5,baz=123,slow=10,SNR=10.0						
CHKZ	**Chkalovo**	**76.21**	**329**	eP	**P**	**22 31 56.9**	**+0.1**
	1.0nm,0.8s,mb3.6						
ARU	**Arti**	**83.64**	**329**	P	**P**	**22 32 35.3**	**-0.5**
	3.8nm,1.0s,mb4.2						
SYO	**Syowa Base**	**83.69**	**201**	⇑P	**P**	**22 32 36.1**	**+0.4**

LDG **25** 22:25:36.5±0.1,19.01S×167.08E,h10^{km},Mb5.0/4,Error ellipse: s-maj=15.1km s-min=3.2km az=94.0
IDC **25** 22:25:39.4±0.5,19.10S×167.67E,h35^{km}±3^{km},mb4.5/16, mb1 4.6/17,mb1mx4.6/19,MS4.1/12,Ms1 4.1/12, ms1mx4.0/19,Error ellipse: s-maj=17.7km s-min=12.1km az=152.0
NEIC **25** 22:25:39.7±0.2,19.08S×167.69E,mb5.1/33,Error ellipse: s-maj=9.8km s-min=6.7km az=150.0
HRVD **25** 22:25:39.7±0.5,19.17S×167.56E,h18^{km}±1^{km},MW5.0/53, Centroid moment Tensor Solution. LP body waves: s17,c18;Mantle waves: s53,c73; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.47±.26; $M_{\theta\theta}$-0.12±.17; $M_{\phi\phi}$2.59±.18; $M_{r\theta}$-2.28±.50; $M_{\theta\phi}$-0.78±.12; $M_{\phi r}$0.41±.33; Best double couple: $M_0$3.45×10^{16} NP1:ϕ_s9°,δ40°,λ-43°. NP2:ϕ_s134°,δ64°,λ-122°. Principal axes: T 3.03, Plg13°, Azm247°; N .83, Plg28°, Azm150°; P -3.86, Plg59°, Azm359°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.
SYO **25** 22:25:39.5,19.10S×167.76E,h35^{km},MB5.2
BJI **25** 22:25:42.2,18.43S×167.09E,h35^{km},mB5.1,mb4.9, Ms5.0,Msz4.4
ISC 25 22:25:37.8±0.2,**19.23S**±0.04×**167.61E**±0.06,**h35**^{km}, **h35**^{km}±.5^{km}**:pP-P,n168**,σ**0**^{s}**96**/88,**mb5.0**/46,**MS4.1**/16, **16C-5D,Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**3.04**	**201**	⇑eP	**P**	**22 26 23.6**	**-1.0**
DZM				eS	**S**	**22 26 59.4**	**-0.8**
DZM	**Mont Dzumac**	**3.04**	**201**	⇑eP	**P**	**22 26 23.6**	**-1.0**
DZM				eS	**S**	**22 26 59.4**	**-0.8**
NOUC	**Port Laguerre**	**3.11**	**203**	⇑eP	**P**	**22 26 25.1**	**-0.5**
NOUC				eS	**S**	**22 27 00.9**	**-1.2**
NOUC	**Port Laguerre**	**3.11**	**203**	⇑eP	**P**	**22 26 25.1**	**-0.5**
NOUC				eS	**S**	**22 27 00.9**	**-1.2**
CTA	**Charters Tower**	**20.13**	**264**	eP	**P**	**22 30 13.0**	**+1.3**
	62nm,0.9s						
CTA	**Charters Tower**	**20.13**	**264**	P	**P**	**22 30 12.5**	**+0.8**
	41nm,0.9s,baz=86,slow=12,SNR=29						
CTA				pP		22 30 21.9	
	92nm,1.0s,baz=79,slow=12,SNR=26						
CTA				LR	LR	22 36 39.2	
	comp=Z,681nm,21.8s,MS4.0,baz=72,slow=33						
CTAO	**Charters Tower**	**20.13**	**264**	eP	**P**	**22 30 12.7**	**+1.0**
	125nm,1.0s						
CTAO				e		22 30 22.6	
URZ	**Urewera**	**20.69**	**158**	P	**P**	**22 30 18.9**	**+1.5**
	5.3nm,0.5s,baz=56,slow=6.0,SNR=5.5						
URZ				LR	LR	22 36 54.2	
	comp=Z,204nm,20.9s,MS3.5,baz=96,slow=32						
PMG	**Port Moresby**	**22.07**	**293**	P	**P**	**22 30 33.3**	**+1.9**
	8.6nm,0.8s,mb4.2,baz=105,slow=9.6,SNR=3.1						
PMG				pP		22 30 42.2	
	40nm,1.1s,baz=105,slow=7.3,SNR=6.4						
PMG				LR	LR	22 37 13.8	
	comp=Z,297nm,18.2s,MS3.7,baz=132,slow=32						
PMG	**Port Moresby**	**22.07**	**293**	eP	**P**	**22 30 32.9**	**+1.5**
	78nm,1.1s,mb5.0						
PMG				e		22 30 42.4	
CNB	**Canberra Magne**	**22.74**	**221**	eP	**P**	**22 30 41.4**	**+3.4**
	99nm,1.0s,mb5.2						
RPZ	**Rata Peaks**	**24.59**	**174**	P	**P**	**22 30 57.5**	**+1.6**
	12nm,0.6s,mb4.6,baz=280,slow=3.0,SNR=6.0						
STKA	**Stephens Creek**	**26.56**	**237**	eP	**P**	**22 31 15.7**	**+1.1**
	50nm,1.1s,mb5.0						
STKA	**Stephens Creek**	**26.56**	**237**	P	**P**	**22 31 15.1**	**+0.6**
	25nm,1.3s,mb4.6,baz=76,slow=8.5,SNR=12						
STKA				pP	pP	22 31 25.6	+1.2
	72nm,1.1s,baz=62,slow=7.9,SNR=33						
STKA				LR	LR	22 40 51.9	
	comp=Z,294nm,22.0s,MS3.8,baz=25,slow=34						
TOO	**Toolangi**	**26.59**	**222**	eP	**P**	**22 31 22.2**	**+7.5**
	12nm,1.1s,mb4.3						
WB2	**Warramunga Arr**	**31.32**	**263**	eP	**P**	**22 32 01.8**	**+4.5**
WRAB	**Tennant Creek**	**31.32**	**263**	eP	**P**	**22 31 51.3**	**-6.0**
	28nm,1.2s,mb5.0						
WRA	**Warramunga Arr**	**31.33**	**263**	P	**P**	**22 31 56.2**	**-1.2**
	0.5nm,0.4s,baz=82,slow=6.0,SNR=6.9						
WRA				pP	pP	22 32 05.6	-1.8
	4.3nm,0.9s,baz=82,slow=6.2,SNR=16						
ASAR	**Alice Springs**	**31.64**	**256**	P	**P**	**22 31 59.1**	**-0.9**
	12nm,1.0s,mb4.7,baz=84,slow=8.1,SNR=47						
ASAR				pP	pP	22 32 09.4	-0.6
	58nm,1.1s,baz=84,slow=8.1,SNR=23						
ASAR				LR	LR	22 44 26.5	
	comp=Z,346nm,18.0s,MS4.1,baz=87,slow=36						
ASPA	**Alice Springs**	**31.64**	**256**	eP	**P**	**22 31 59.0**	**-1.1**
PPT	**Papeete**	**40.59**	**95**	eLR	LR	22 44 24.2	
	554nm,29.0s						
MBWA	**Marble Bar**	**44.85**	**259**	eP	**P**	**22 33 50.7**	**0.0**
	90nm,1.2s,mb5.5						
MBWA				e	pP	22 34 01.1	+0.1
KLBR	**Kellerberrin**	**46.33**	**244**	eP	**P**	**22 34 02.5**	**+0.1**
	34nm,0.9s,mb5.3						
NWAO	**Narrogin (SRO)**	**46.85**	**243**	pP	pP	22 34 16.2	-0.5
	56nm,0.9s,baz=90,slow=8.4,SNR=12						
NWAO	**Narrogin (SRO)**	**46.85**	**243**	P	**P**	**22 34 09.7**	**+3.2**
	73nm,1.1s,mb5.5						
NWAO				e		22 34 16.5	
MUN	**Mundaring**	**47.67**	**244**	eP	**P**	**22 34 23.0**	**+10**
	24nm,0.9s,mb5.2						
RKT	**Rikitea**	**53.40**	**105**	eLR	LR	22 50 21.0	
	224nm,31.2s						
YSS	**Yuzh-Sakhalins**	**69.58**	**342**	eP	**P**	**22 36 45.4**	**+0.1**
	74nm,1.2s,mb5.5						
YSS				e	pP	22 36 56.9	+0.9
QSPA	**South Pole Qui**	**70.83**	**180**	P	**P**	**22 36 52.0**	**-0.4**
	11nm,0.9s,mb4.8						
WHN	**Wuhan**	**71.21**	**313**	⇑P	**P**	**22 36 55.0**	**-0.5**
MDJ	**Mudanjiang**	**72.39**	**333**	P	**P**	**22 36 59.8**	**-2.4**
ENH	**Enshi**	**74.48**	**310**	eP	**P**	**22 37 14.2**	**-0.6**
	17nm,0.9s,mb5.0						
ENH				e	pP	22 37 25.0	-0.5

BJT	Baijiatuau	75.96	322	eP	P	22 37 23.1	0.0
	16nm,0.9s,mb4.9						
BJT				e	pP	22 37 34.1	+0.3
BJI	Beijing	75.97	322	eP	P	22 37 22.8	-0.3
BJI				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.9						
BJI				LR	LR		
	comp=Z,59nm,15.5s,MS4.0						
BJI	Beijing	75.97	322	eP	P	22 37 22.8	-0.3
	comp=Z,15nm,0.9s,mb4.9						
BJI				e	pP	22 37 33.9	+0.1
BJI				LR	LR		
	comp=Z,60nm,15.5s,MS4.0						
KMI	Kunming	76.97	303	eP	P	22 37 29.5	+0.4
KMI				AP	pP	22 37 41.0	+1.2
KMI				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.9						
KMI				LR	LR		
	comp=Z,54nm,23.8s,MS3.8						
KMI	Kunming	76.97	303	eP	P	22 37 29.5	+0.4
	comp=Z,16nm,1.0s,mb4.9						
KMI				pP	pP	22 37 41.0	+1.2
KMI				LR	LR		
	comp=Z,50nm,23.8s,MS3.8						
XAN	Xi’an	76.97	313	P	P	22 37 27.3	-1.7
XAN				AP	pP	22 37 38.5	-1.2
XAN				AMB	AMB		
	comp=Z,7.0nm,1.3s,mb4.4						
CM31	Chiang Mai Arr	77.10	295	eP	P	22 37 30.6	+0.7
	comp=Z,7.9nm,0.8s,mb4.7						
CM31				e	pP	22 37 41.2	+0.6
CMAR	Chiang Mai Arr	77.10	295	P	P	22 37 30.2	+0.3
	comp=Z,5.1nm,0.9s,mb4.5,baz=134,slow=4.4,SNR=30						
CMAR				pP	pP	22 37 41.6	+0.9
	comp=Z,4.2nm,0.9s,baz=129,slow=4.4,SNR=9.5						
MAW	Mawson	77.87	202	P	P	22 37 33.2	0.0
	comp=Z,3.5nm,1.0s,mb4.2,baz=98,slow=8.1,SNR=4.0						
MAW				pP	pP	22 37 45.2	+1.3
	comp=Z,12nm,1.0s,baz=136,slow=5.0,SNR=7.2						
MAW				LR	LR	23 05 18.0	
	comp=Z,93nm,20.7s,MS4.1,baz=243,slow=30						
MAW	Mawson	77.87	202	P	P	22 37 35.1	+1.9
	comp=Z,12nm,0.9s,mb4.8						
MAW				e	pP	22 37 45.0	+1.0
CD2	Chengdu	79.01	308	eP	P	22 37 40.3	+0.1
CD2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
HHC	Hu-ho-hao-te	79.22	320	eP	P	22 37 41.5	+0.4
HHC				AP	pP	22 37 52.0	+0.1
HHC				XP	sP	22 37 55.8	+0.1
HHC				PP	PP	22 40 41.5	-1.0
HHC				S	S	22 47 36.3	-0.9
HHC				SKS	SKS	22 47 48.8	-0.4
HHC				XS		22 47 53.3	
HHC				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.0						
HHC				AMB	AMB		
	comp=Z,124nm,5.6s						
HHC				LR	LR		
	comp=N,260nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=E,293nm,21.4s,MS4.8						
HHC				LR	LR		
	comp=Z,154nm,17.8s,MS4.4						
HIA	Hailar	80.33	330	eP	P	22 37 46.6	-0.3
	comp=Z,24nm,1.2s,mb5.0						
HIA				e	pP	22 37 57.7	0.0
LZH	Lanzhou	81.58	313	P	P	22 37 54.5	+0.7
LZH				AP	pP	22 38 05.0	+0.4
LZH				XP	sP	22 38 13.0	+4.6
LZH				AMB	AMB		
	comp=Z,29nm,1.5s,mb5.0						
LZH	Lanzhou	81.58	313	P	P	22 37 54.5	+0.7
	comp=Z,29nm,1.5s,mb5.0						
LZH				pP	pP	22 38 05.0	+0.4
LZH				sP	sP	22 38 13.0	+4.6
SYO	Syowa Base	84.51	197	⇓P	P	22 38 08.4	+0.4
SYO	Syowa Base	84.51	197	⇑PcP	PcP	22 38 11.3	-0.7
SYO	Syowa Base	84.51	197	⇓pP	pP	22 38 19.3	+0.4
RSO	Redoubt South	85.62	18	eP	P	22 38 12.3	-1.3
ULN	Ulaanbaatar	85.94	324	eP	P	22 38 16.0	+0.5
	comp=Z,36nm,0.9s,mb5.6						
ULN				e	pP	22 38 27.1	+0.7
ULN				e		22 38 34.5	
SHL	Shillong	85.99	299	eP	P	22 38 18.0	+1.7
GTA	Gaotai	86.01	314	eP	P	22 38 17.0	+1.0
GTA				AP	pP	22 38 24.8	-2.2
GTA				XP	sP	22 38 27.8	-2.8
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.6						
GTA				AMB	AMB		
	comp=Z,53nm,5.0s						
GTA				LR	LR		
	comp=N,157nm,14.1s,MS4.7						
GTA				LR	LR		
	comp=E,103nm,12.9s,MS4.7						
GTA				LR	LR		
	comp=Z,130nm,16.3s,MS4.4						
SONM	Songino Array	86.29	324	P	P	22 38 17.6	+0.3
	comp=Z,13nm,0.9s,mb5.1,baz=149,slow=5.1,SNR=59						
SONM				pP	pP	22 38 28.6	+0.5
	comp=Z,15nm,0.9s,baz=146,slow=4.5,SNR=22						
BILL	Bilibino	87.02	359	eP	P	22 38 20.1	-0.2
	comp=Z,31nm,1.2s,mb5.4						
BILL				e	pP	22 38 31.1	-0.2
OHCM	Honcut	88.10	47	eP	P	22 38 25.9	-0.3
OHCM				e	pP	22 38 36.6	-0.6
LSA	Lhasa	88.22	302	eP	P	22 38 27.5	+0.5
	comp=Z,5.9nm,1.1s,mb4.7						
CMB	Columbia Colle	88.30	49	eP	P	22 38 26.7	-0.4
	comp=Z,20nm,0.9s,mb5.3						
CMB				e	pP	22 38 37.9	-0.3
YBH	Yreka Blue Hor	88.36	45	P	P	22 38 28.0	+0.7
	comp=Z,16nm,0.9s,mb5.2,baz=186,slow=1.1,SNR=19						
YBH				pP	pP	22 38 38.9	+0.5
	comp=Z,11nm,1.0s,baz=20,slow=3.9,SNR=6.5						
HUMO	Hull Mountain	88.61	44	eP	P	22 38 28.9	+0.4
	comp=Z,27nm,1.0s,mb5.5						
HUMO				e	pP	22 38 39.5	0.0
LTIM	Timbered Crate	88.93	46	P	P	22 38 30.6	+0.5
SNAA	Sanae	89.10	183		P	22 38 30.4	+0.2
SNAA	Sanae	89.10	183	⇑i	pP	22 38 41.0	-0.2
SNAA	Sanae	89.10	183	eP	P	22 38 30.3	0.0
	comp=Z,14nm,0.9s,mb5.3						
SNAA				e	pP	22 38 41.4	+0.2
MTUM	Tungsten Hills	89.31	50	eP	P	22 38 32.3	+0.2
MTUM				e	pP	22 38 43.5	+0.5
VNA3	Neumayer Olymp	89.75	181	⇑i	P	22 38 37.0	+3.7
VNA3	Neumayer Olymp	89.75	181	⇑i	pP	22 38 47.7	+3.4
TLY	Talaya	89.88	326	eP	P	22 38 34.6	+0.2
	comp=Z,9.1nm,0.8s,mb5.2						
IMA	Indian Mountai	89.89	15	eP	P	22 38 34.5	+0.4
IMA				e	pP	22 38 45.5	+0.5
NVAR	Mina Array Bea	89.95	49	P	P	22 38 34.8	-0.2
	comp=Z,9.9nm,0.9s,mb5.1,baz=230,slow=9.0,SNR=57						
NVAR				pP	pP	22 38 45.8	-0.2
	comp=Z,6.2nm,0.8s,baz=229,slow=8.4,SNR=15						
NVAR				LR	LR	23 13 10.6	
	comp=Z,74nm,18.4s,MS4.2,baz=305,slow=32						
VNA2	Neumayer--Watz	90.02	182	⇑i	P	22 38 38.7	+4.1
VNA2	Neumayer--Watz	90.02	182	⇑i	pP	22 38 49.2	+3.6
MOD	Modoc	90.05	45	eP	P	22 38 35.4	0.0
	comp=Z,39nm,1.2s,mb5.6						
MOD				e	pP	22 38 46.6	+0.2
VNA1	Neumayer--Stat	90.32	181	⇑i	P	22 38 40.2	+4.2
VNA1	Neumayer--Stat	90.32	181	⇑i	pP	22 38 51.5	+4.5
COLA	College	90.48	17	eP	P	22 38 34.8	-2.1
	comp=Z,12nm,0.9s,mb5.2						
ILAR	Eielson Array	90.68	18	P	P	22 38 35.6	-2.2
	comp=Z,6.3nm,0.9s,mb5.0,baz=238,slow=4.8,SNR=51						
ILAR				pP	pP	22 38 47.0	-1.8
	comp=Z,4.1nm,0.8s,baz=239,slow=5.0,SNR=9.2						
ILAR				LR	LR	23 15 31.0	
	comp=Z,82nm,18.7s,MS4.2,baz=182,slow=33						
VLL	Laurance Lake	90.74	42	P	P	22 38 39.2	+0.7
TPNV	Topopah Spring	90.83	51	eP	P	22 38 39.1	-0.1
	comp=Z,16nm,1.0s,mb5.3						
TPNV				e	pP	22 38 49.6	-0.7
VIPM	Ingram Point	90.98	43	P	P	22 38 39.9	+0.2
NEN	Nelson	91.37	53	eP	P	22 38 41.6	-0.2
NEN				e	pP	22 38 51.7	-1.0
BMN	Battle Mountai	91.53	48	eP	P	22 38 42.4	0.0
	comp=Z,23nm,1.1s,mb5.4						
BMN				e	pP	22 38 53.1	-0.3
NAC	Naches	91.83	41	P	P	22 38 43.7	+0.2
EBG	Ellensburg	92.07	41	P	P	22 38 45.0	+0.3
DAWY	Dawson	92.52	21	eP	P	22 38 45.2	-1.1
DLBC	Dease Lake	92.74	28	LR	LR	23 13 10.9	
	comp=Z,179nm,19.3s,MS4.5,baz=20,slow=31						
HWUT	Hardware Ranch	95.94	48	eP	P	22 39 00.5	-1.9
	comp=Z,2.1nm,0.4s,mb4.9						
PV10	Paradox Valley	96.68	52	eP	P	22 39 07.5	+1.6
PV10				e	pP	22 39 18.8	+1.9
INK	Inuvik	97.02	19	P	P	22 39 05.6	-1.1
	comp=Z,6.3nm,1.2s,mb4.9,baz=247,slow=8.2,SNR=4.2						
INK				LR	LR	23 19 28.1	
	comp=Z,101nm,18.7s,MS4.3,baz=217,slow=33						
ANMO	Albuquerque	97.56	56	P	P	22 39 09.3	-0.6
	comp=Z,1.6nm,1.1s,mb4.5,baz=273,slow=4.3,SNR=3.1						
ANMO	Albuquerque	97.56	56	P	P	22 39 09.3	-0.6
PDAR	Pinedale Array	97.73	48	P	P	22 39 10.4	-0.1
	comp=Z,0.8nm,1.0s,mb4.2,baz=183,slow=4.3,SNR=5.5						
PDAR				LR	LR	23 17 20.6	
	comp=Z,109nm,18.8s,MS4.4,baz=259,slow=32						
TXAR	Lajitas Array	98.11	62	P	P	22 39 12.9	+0.4
	comp=Z,0.7nm,0.8s,mb4.3,baz=224,slow=5.2,SNR=9.1						
TXAR				LR	LR	23 14 20.2	
	comp=Z,112nm,19.6s,MS4.4,baz=305,slow=30						
YKA	Yellowknife Ar	101.36	28	P	P	22 39 26.4	0.0
	comp=Z,1.9nm,0.6s,baz=254,slow=4.7,SNR=50						
YKA				pP		22 39 37.6	
	comp=Z,1.3nm,0.7s,baz=255,slow=4.7,SNR=9.8						
YKA	Yellowknife Ar	101.36	28	P	P	22 39 26.4	0.0
YKA				pP		22 39 37.6	
ARCES	ARCESS Array B	124.66	345	PKP	PKPdf	22 44 34.4	+1.0
	comp=Z,4.9nm,0.9s,baz=37,slow=1.7,SNR=7.3						
AKASG	Malin Array Be	134.58	324	PKP	PKPdf	22 44 53.2	+0.5
	comp=Z,0.4nm,0.4s,baz=40,slow=2.2,SNR=6.8						
AKASG				pPKP		22 45 04.3	
	comp=Z,1.1nm,0.6s,baz=52,slow=1.7,SNR=3.5						
NOA	NORSAR Array B	135.02	344	PP	PP	22 47 29.0	-3.3
	comp=Z,1.1nm,0.8s,baz=42,slow=5.3,SNR=3.5						
KHC	Kasperske Hory	143.59	331	ePKP	PKPdf	22 45 08.0	-0.8
GERES	GERESS Array B	143.74	331	PKP	PKPdf	22 45 08.5	-0.6
	comp=Z,2.8nm,0.9s,SNR=16						
MOA	Molln	144.17	329	⇑iP	PKPbc	22 45 10.5	+1.2
GRA1	Grafenberg Arr	144.21	334	ePKP	PKPdf	22 45 09.7	-0.2
GRF	Grafenberg Arr	144.21	334	ePKP	PKPdf	22 45 09.7	-0.2
LEGS	Legarje	144.90	326	i PKP	PKPdf	22 45 12.4	+1.1
CRES	Cresnjev	144.91	325	i PKP	PKPdf	22 45 12.2	+0.9
OBKA	Obir	144.94	327	⇑iP	PKPdf	22 45 12.4	+1.1
KBA	Koelnbreinsper	145.16	329	⇓iP	PKPdf	22 45 09.8	-1.9
LJU	Ljubljana	145.26	326	i PKP	PKPdf	22 45 13.1	+1.2
LJU				i		22 45 24.3	
TOD	Tromm	145.26	336	PKP	PKPdf	22 45 13.5	+1.7
ABH	Alteburg	145.51	337	PKP	PKPdf	22 45 14.4	+2.2
DLF	Lyons Farm	145.69	354	eP	PKPdf	22 45 11.0	-1.4
DCN	Croghan	145.72	355	eP	PKPdf	22 45 13.0	+0.6
STU	Stuttgart	145.77	334	eP	PKPdf	22 45 15.1	+2.4
STU				e		22 45 25.8	
KTD	Kalmit	145.77	336	PKP	PKPdf	22 45 14.4	+1.8
WATA	Walderalm	145.82	331	⇑iP	PKPdf	22 45 14.6	+1.8
RUP	Ruppelstein	145.84	337	PKP	PKPdf	22 45 14.6	+1.9
WTTA	Wattenberg	145.84	330	⇑iP	PKPdf	22 45 14.4	+1.6
MOTA	Moosalm	146.03	331	⇓iP	PKPdf	22 45 15.5	+2.4
SQTA	Sankt Quirin	146.07	331	⇓iP	PKPdf	22 45 14.6	+1.4
LANF	Langenberg	146.15	336	PKP	PKPdf	22 45 16.1	+2.8
WLF	Walferdange	146.19	338	eP	PKPdf	22 45 16.6	+3.2
WLF				e		22 45 27.6	
GIVF	Givet	146.27	340	ePKP1	PKPbc	22 45 16.0	+1.4
	comp=Z,90nm,1.2s						
STR	Strasbourg	146.49	336	PKP	PKPdf	22 45 17.5	+3.6
BAIF	Baives	146.50	341	ePKP1	PKPbc	22 45 16.8	+1.6
	comp=Z,56nm,1.2s						
DAVA	Damuels	146.62	332	⇑iP	PKPdf	22 45 18.0	+3.8
WLS	Welschbruch	146.79	336	PKP	PKPdf	22 45 17.2	+2.8
CDF	Champ du Feu	146.82	336	ePKP1	PKPbc	22 45 17.6	+1.6
	comp=Z,72nm,0.9s						
FELD	Feldberg	146.96	335	PKP	PKPdf	22 45 16.3	+1.6
ECH	Echery	147.02	336	PKP	PKPdf	22 45 18.0	+3.2
MOF	Molkenrain	147.33	335	PKP	PKPdf	22 45 17.7	+2.4
THEF	They Montfort	147.46	337	PKP	PKPdf	22 45 16.5	+1.0
HINF	Hinteralfeld	147.47	336	ePKP1	PKPdf	22 45 19.2	+3.7
	comp=Z,16nm,0.9s						
HAU	Haudompre	147.51	336	ePKP1	PKPdf	22 45 19.5	+3.9
	comp=Z,44nm,1.0s						
MEZF	Maizieres J’vi	147.56	338	ePKP1	PKPdf	22 45 20.2	+4.5
	comp=Z,89nm,1.0s						
LOMF	Lomont	147.86	335	PKP	PKPdf	22 45 18.4	+2.2
OG01	Vacheresse	148.74	334	PKP	PKPdf	22 45 22.3	+4.7
CABF	La Chapelle	148.75	335	ePKP1	PKPdf	22 45 23.3	+5.7
	comp=Z,59nm,1.0s						
FLN	La Foliniere	149.00	345	ePKP1	PKPdf	22 45 23.1	+5.1
	comp=Z,129nm,1.4s						
LDF	La Druitiere	149.07	344	ePKP1	PKPdf	22 45 23.2	+5.1
SSF	Saint Saulge	149.34	338	ePKP1	PKPdf	22 45 24.4	+5.8
	comp=Z,75nm,1.1s						
LPL	La Plagne	149.37	333	ePKP1	PKPdf	22 45 25.0	+6.3
	comp=Z,24nm,1.0s						
LPG	La Plagne	149.38	333	ePKP1	PKPdf	22 45 24.9	+6.2
	comp=Z,49nm,1.1s						
GRR	Gorron	149.44	345	ePKP1	PKPdf	22 45 24.5	+5.8
	comp=Z,87nm,1.2s						
HYF	Humbligny	149.45	340	ePKP1	PKPdf	22 45 25.1	+6.4
SMF	Signal de Mont	149.58	338	ePKP1	PKPdf	22 45 24.8	+5.8
BNI	Bardonecchia	149.76	333	ePKPbc	PKPdf	22 45 26.1	+6.8
SGMF	Saint Gilles	149.97	347	ePKP1	PKPdf	22 45 25.6	+6.1
	comp=Z,36nm,0.9s						
MBDF	Montbardon	149.98	332	ePKP1	PKPdf	22 45 25.8	+6.1
	comp=Z,15nm,1.1s						
BGF	Bois d’Agland	150.00	339	ePKP1	PKPdf	22 45 25.8	+6.2
	comp=Z,46nm,1.1s						
ROSF	Rostrenen	150.03	348	ePKP1	PKPdf	22 45 25.4	+5.8
	comp=Z,152nm,1.4s						
ORIF	Oris-en-Rattie	150.21	333	ePKP1	PKPdf	22 45 26.7	+6.7
	comp=Z,18nm,0.7s						
PLDF	La Plantade	150.23	337	PKP	PKPdf	22 45 26.1	+6.1
AGO	Saint Agoulin	150.34	338	PKP	PKPdf	22 45 27.5	+7.3
SBF	Sospel	150.34	330	ePKP1	PKPdf	22 45 26.5	+6.3
QUIF	Quistinic	150.41	347	ePKP1	PKPdf	22 45 26.4	+6.2
TCF	Toulx Ste Croi	150.45	339	ePKP1	PKPdf	22 45 27.1	+6.8
	comp=Z,52nm,1.0s						
PGF	Pioggiola	150.54	327	ePKP1	PKPdf	22 45 27.2	+6.6
	comp=Z,61nm,0.8s						
PYM	Petit Puy Mans	150.64	338	PKP	PKPdf	22 45 24.9	+4.3
VIVF	Saint-Julien-l	150.76	335	ePKP1	PKPdf	22 45 27.8	+7.0
	comp=Z,34nm,1.0s						
MFF	Saint Martin d	150.90	343	ePKP1	PKPdf	22 45 27.9	+6.9
	comp=Z,260nm,1.7s						
LBL	Lubilhac	151.00	337	PKP	PKPdf	22 45 28.7	+7.5
SMRF	Simiane la Rot	151.09	333	ePKP1	PKPdf	22 45 29.0	+7.6
	comp=Z,61nm,1.1s						
LMR	La Mourre	151.18	331	ePKP1	PKPdf	22 45 28.4	+6.9
	comp=Z,62nm,1.1s						
RJF	Les Rejaudoux	151.55	339	ePKP1	PKPdf	22 45 29.7	+7.7
LASF	Ste Croix	151.73	335	ePKP1	PKPdf	22 45 30.2	+7.9
	comp=Z,24nm,0.8s						
LFF	La Frestale	152.13	340	ePKP1	PKPdf	22 45 30.9	+8.0
	comp=Z,66nm,1.1s						
MTLF	Montolieu	153.00	336	ePKP1	PKPdf	22 45 32.7	+8.6

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*MEX **25** 22:48:08.2±1.0, 14.23N×93.17W, h21^{km}±127^{km}, MD4.3*
*IDC **25** 22:48:12.9±6.2, 14.85N×92.51W, h59^{km}±51^{km}, mb3.9/8, mb1 4.0/10, mb1mx3.7/23, ML3.7/1, Error ellipse: s-maj=90.1km s-min=15.9km az=38.0*
*NEIC **25** 22:48:15.2±1.4, 14.73N×92.55W, h89^{km}±10^{km}, mb3.9/14, MD4.3(MEX), Error ellipse: s-maj=20.6km s-min=6.0km az=223.0*
ISC 25 22:48:05.1±0.8, **14.17N**±0.06×**93.06W**±0.05, **h33**^{km}±8^{km}, **n57**, σ1^{s}**23**/61, **mb4.1**/14, **1C**, **Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAT	Jato	1.39	84	eP	P	22 48 29.0	+0.7
JAT				AML	AML	22 48 49.5	
	comp=N,12µm,0.6s						
TP2	Tecpan 2	2.07	73	eP	P	22 48 38.5	+0.4
TP2				AML	AML	22 49 09.7	
	comp=N,11µm,0.5s						
FUG	Fuego 3	2.17	82	eP	P	22 48 39.1	-0.4
CCIG	Comitan	2.28	23	eP	P	22 48 42.9	+1.8
CCIG				i S	S	22 49 08.0	-0.3
CCIG	Comitan	2.28	23	i P	P	22 48 42.4	+1.3
CCIG				i S	S	22 49 08.0	-0.3
IXG	Ixpaco	2.53	90	eP	P	22 48 44.4	-0.2
IXG				AML	AML	22 49 20.7	
	comp=N,9µm,0.5s						
SCX	San Cristobal	2.59	9	i P	P	22 48 47.0	+1.6
SCX				i S	S	22 49 17.0	+1.0
NBG	Las Nubes	2.67	81	eP	P	22 48 47.5	+0.9
NBG				AML	AML	22 49 25.7	
	comp=N,4µm,0.5s						
RBDL	Robledal	3.28	91	⇑eP	P	22 48 55.1	-0.2
RTR	El Retiro	3.33	94	eP	P	22 48 55.6	-0.4
SBLS	San Blas	3.36	95	eP	P	22 48 56.0	-0.4
SNJE	San Jose	3.37	95	eP	P	22 48 56.2	-0.4
CMIG	Matias Romero	3.39	329	eP	P	22 48 55.6	-1.4
CMIG				eS	S	22 49 33.6	-2.9
BOQS	Boqueron	3.70	96	eP	P	22 49 01.7	+0.4
LFRS	El Faro	3.92	97	eP	P	22 49 04.3	-0.2
LFRS				eS	S	22 49 48.2	-1.9
LCBS	La Ceiba	4.00	97	eP	P	22 49 06.0	+0.4
SNVI	San Vicente	4.14	97	eP	P	22 49 07.2	-0.4
VHO	Vista Hermosa	4.56	310	eP	P	22 49 14.0	+0.4
VHO				eS	S	22 50 05.4	-0.8
CNCH	Conchagua	5.16	99	eP	P	22 49 21.8	-0.2
PPM	Popocatepetl	7.22	313	i S	S	22 51 10.2	-2.5
TEIG	Tepich	7.56	37	ePn	P	22 49 52.4	-3.3
	comp=N,29nm,0.4s						
JTS	JuntasAbangare	8.81	115	ePn	P	22 50 24.5	+11
	comp=N,20nm,0.9s						
JCT	Junction City	17.38	340	P	P	22 52 12.3	+5.6
	comp=N,3.1nm,0.5s						
LTX	Lajitas	18.00	329	eP	P	22 52 17.3	+2.9
	comp=N,5.5nm,1.0s						
TXAR	Lajitas Array	18.00	329	P	P	22 52 16.7	+2.2
	comp=N,0.1nm,0.3s,baz=148,slow=13,SNR=16						
TXAR	Lajitas Array	18.00	329	P	P	22 52 16.7	+2.2
OTAV	Otavalo	20.02	133	P	P	22 52 41.8	+3.8
	comp=N,6.9nm,1.5s						
MIAR	Mount Ida	20.29	359	eP	P	22 52 38.7	-2.1
	comp=N,9.4nm,0.8s						
ROSC	El Rosal	20.65	115	P	P	22 52 45.9	+1.3
	comp=N,2.3nm,0.4s,baz=105,slow=16,SNR=3.8						
MNTX	Cornudas Mount	20.78	329	eP	P	22 52 45.6	-0.2
	comp=N,4.1nm,1.0s						
WMOK	Wichita Mounta	21.12	347	eP	P	22 52 44.9	-4.4
	comp=N,2.4nm,0.7s,mb3.6						
AMTX	Amarillo	22.04	341	eP	P	22 52 58.0	-0.5
	comp=N,35nm,0.6s,mb5.0						
SDV	Santo Domingo	22.59	101	P	P	22 53 04.9	+0.7
	comp=N,1.8nm,0.6s,mb3.7,baz=332,slow=8.7,SNR=5.5						
SDV	Santo Domingo	22.59	101	eP	P	22 53 04.3	+0.2
	comp=N,3.9nm,0.8s,mb3.9						
ANMO	Albuquerque	23.96	332	P	P	22 53 18.6	+1.2
	comp=N,1.7nm,0.6s,mb3.6,baz=159,slow=12,SNR=13						
ANMO	Albuquerque	23.96	332	eP	P	22 53 18.7	+1.4
	comp=N,1.9nm,0.6s,mb3.7						
KSU1	Kansas State U	25.03	353	eP	P	22 53 26.2	-1.5
SDCO	Great Sand Dun	25.95	337	eP	P	22 53 36.9	+0.6
	comp=N,4.5nm,0.7s,mb4.1						
PV01	Paradox Valley	27.55	333	eP	P	22 53 52.5	+1.5
PV10	Paradox Valley	27.95	333	eP	P	22 53 57.4	+2.7
PCRV	Puerto La Cruz	28.06	95	P	P	22 53 55.5	-0.4
	comp=N,15nm,0.9s,mb4.6,baz=239,slow=6.4,SNR=3.3						
BBSR	BB Station	31.59	50	P	P	22 54 28.7	+1.6
	comp=N,51nm,1.0s						
PDAR	Pinedale Array	31.85	337	P	P	22 54 29.3	+0.1
	comp=N,0.9nm,0.7s,mb3.7,baz=130,slow=9.7,SNR=7.7						
NVAR	Mina Array Bea	32.90	322	P	P	22 54 40.2	+1.8
	comp=N,2.8nm,0.8s,mb4.2,baz=140,slow=7.9,SNR=26						
SNOW	Snow King Moun	32.90	336	eP	P	22 54 39.0	+0.5
HLID	Hailey	34.54	332	eP	P	22 54 53.3	+0.8
	comp=N,1.4nm,0.9s,mb3.9						
MCMT	McKenzie Canyo	34.88	335	eP	P	22 54 56.7	+1.4
WALA	Waterton Lakes	38.79	338	P	P	22 55 24.6	-3.7
	comp=N,5.6nm,1.0s,mb4.2						
LVC	Limon Verde	43.55	147	P	pP	22 56 20.0	+2.4
FCC	Fort Churchill	44.52	359	P	P	22 56 08.0	-7.1
YKA	Yellowknife Ar	50.63	347	P	P	22 57 01.5	-1.3
	comp=N,2.9nm,0.7s,mb4.3,baz=152,slow=7.4,SNR=54						
YKA				PcP	PcP	22 58 21.2	+1.0
	comp=N,0.3nm,0.6s,baz=154,slow=3.5,SNR=5.6						
YKA	Yellowknife Ar	50.63	347	P	P	22 57 01.5	-1.3
YKA				PcP	PcP	22 58 21.2	+1.0
INK	Inuvik	59.99	344	P	P	22 58 09.5	-1.0
	comp=N,2.2nm,0.7s,mb4.3,baz=119,slow=8.1,SNR=11						
INK	Inuvik	59.99	344	eP	P	22 58 09.2	-1.2
	comp=N,2.7nm,0.8s,mb4.3						
RES	Resolute Bay	60.52	359	eP	P	22 58 11.3	-2.7
	comp=N,3.2nm,0.8s,mb4.5						
ILAR	Eielson Array	62.28	337	P	P	22 58 25.0	-0.9
	comp=N,1.0nm,0.8s,mb4.0,baz=158,slow=4.9,SNR=12						
ILAR				PcP	PcP	22 59 07.0	+1.7
	comp=N,0.3nm,0.6s,baz=111,slow=1.9,SNR=4.6						
CMAR	Chiang Mai Arr	145.49	340	PKPbc	PKPbc	23 07 42.3	+1.0
	comp=N,0.9nm,0.4s,baz=338,slow=3.5,SNR=9.3						

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*IDC **25** 22:54:14.9±1.2, 8.23S×124.85E, mb4.0/5, mb1 4.2/7, mb1mx4.1/14, ML3.7/2, MS3.3/3, Ms1 3.4/3, ms1mx2.9/17, Error ellipse: s-maj=87.6km s-min=20.4km az=54.0*
*NEIC **25** 22:54:21.0±1.7, 8.29S×125.05E, h53^{km}±18^{km}, mb4.5/6, Error ellipse: s-maj=16.7km s-min=11.9km az=56.0*
ISC 25 22:54:19.9±2.2, **8.35S**±0.09×**125.1E**±0.1, **h66**^{km}±23^{km}, **n20**, σ1^{s}**34**/26, **mb4.1**/10, **Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	8.35	122	eP	P	22 56 20.8	+0.2
	13nm,0.4s						
KAKA				eS	S	22 57 55.5	+1.1
FITZ	Fitzroy Crossi	9.70	177	eP	P	22 56 39.2	0.0
	12nm,0.6s						
FITZ				eS	S	22 58 20.5	-7.1
WRA	Warramunga Arr	14.57	143	Pn	P	22 57 40.3	-3.8
	0.6nm,0.3s,baz=316,slow=13,SNR=44						
WRA				Sn	S	23 00 19.5	-4.8
	0.3nm,0.3s,baz=315,slow=23,SNR=8.6						
WRAB	Tennant Creek	14.57	143	eP	P	22 57 40.1	-3.9
	32nm,1.0s						
WRAB				eS	S	23 00 18.7	-5.6
WB2	Warramunga Arr	14.58	143	eP	P	22 57 40.9	-3.3
WB2				eS	S	23 00 17.4	-7.1
ASPA	Alice Springs	17.39	152	eP	P	22 58 21.4	+1.6
ASPA				eS	S	23 01 28.3	-0.8
ASAR	Alice Springs	17.39	152	P	P	22 58 20.7	+0.9
	0.2nm,0.3s,baz=327,slow=10,SNR=24						
ASAR				LR	LR	23 05 52.6	
	comp=Z,66nm,19.1s,baz=211,slow=40						
PMG	Port Moresby	21.79	94	P	P	22 59 03.7	-4.4
CTA	Charters Tower	23.53	122	P	P	22 59 30.9	+5.8
	2.4nm,0.2s,mb4.1,baz=302,slow=12,SNR=3.3						
CTA				LR	LR	23 09 47.7	
	comp=Z,67nm,19.4s,baz=228,slow=39						
CTAO	Charters Tower	23.53	122	eP	P	22 59 28.5	+3.3
	10nm,0.9s,mb4.2						
STKA	Stephens Creek	27.97	149	P	P	23 00 09.8	+3.1
	1.1nm,0.5s,mb3.7,baz=326,slow=13,SNR=2.6						
CMAR	Chiang Mai Arr	37.11	316	P	P	23 01 26.2	+0.1
	0.8nm,0.4s,mb4.0,baz=147,slow=7.5,SNR=6.8						
CMAR				LR	LR	23 17 02.8	
	comp=Z,74nm,19.8s,baz=301,slow=37						
MAJO	Matsushiro	46.32	15	eP	P	23 02 40.9	-0.3
	12nm,1.0s,mb4.6						
PALK	Pallekele	46.93	288	P	P	23 02 46.1	-0.2
	7.7nm,1.0s,mb4.4						
LSA	Lhasa	50.00	321	eP	P	23 03 10.6	+0.7
	4.6nm,0.8s,mb4.5						
SONM	Songino Array	58.35	345	P	P	23 04 11.0	+0.3
	0.8nm,0.8s,mb3.8,baz=158,slow=6.7,SNR=3.7						
SDNR	Sundarnagar	60.74	313	eP	P	23 04 34.8	+7.4
ZAL	Zalesovo	70.75	336	P	P	23 05 29.8	-1.2
	1.1nm,0.9s,mb3.7,baz=310,slow=3.3,SNR=4.9						
CHKZ	Chkalovo	76.95	330	eP	P	23 06 06.6	-0.4
	1.9nm,1.0s,mb3.8						
SNAA	Sanae	93.19	194	eP	P	23 07 29.6	+1.8
	1.7nm,0.9s,mb4.4						

MAN 25 23:00:33.3, 12.14N×123.96E, h40^{km}, mb4.4, ML3.3, MS3.1, 1D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OCLP	Ormoc	1.26	150	eP	P	23 00 54.8	+0.1
OCLP				eS	S	23 01 11.4	+0.7
RCP	Roxas	1.32	244	⇓eP	P	23 00 56.2	+0.5
RCP				eS	S	23 01 14.2	+1.8
PLP	Palo	1.40	134	eP	P	23 00 57.0	+0.2
PLP				i S	S	23 01 15.9	+1.7
BESP	Borongan	1.54	110	eP	P	23 00 58.9	+0.1
LLP	Lapu-Lapu	1.82	180	eP	P	23 01 01.6	-1.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LLP				eS	S	23 01 28.5	+3.8
MSLP	Maasin	2.18	156	eP	P	23 01 09.0	+1.0
MSLP				eS	S	23 01 26.7	-7.3

BJI ***25*** *23:24:57.1, 0.75N×128.00E, h122^{km}, mB5.0, mb5.0*
IDC ***25*** *23:25:04.3±2.0, 1.32N×127.33E, h118^{km}±17^{km}, mb4.2/15, mb1 4.3/15, mb1mx4.2/19, MS3.3/1, Ms1 3.5/1, ms1mx2.9/19, Error ellipse: s-maj=25.9km s-min=10.7km az=69.0*
NEIC ***25*** *23:25:04.7±2.5, 1.31N×127.40E, h122^{km}±25^{km}, mb4.8/29, Error ellipse: s-maj=13.8km s-min=6.6km az=77.0*
SYO ***25*** *23:25:07.9, 1.31N×127.42E, h158^{km}, MB4.7*
ISC 25 23:25:02.8±0.8**, 1.33N**±0.04×**127.37E**±0.08**, h116**^{km}±8^{km}**, n81, σ1^{s}06**/89**, mb4.8**/45**, 1C-5D, Halmahera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	Mati	5.69	349	eP	Px	23 26 40.9	
MATI				eS	S	23 27 30.5	-0.3
KCP	Kidapawan	6.09	338	⇓eP	P	23 26 34.0	+2.5
KCP				i S	S	23 27 41.0	+0.6
BUKP	Musuan	6.90	341	eP	P	23 26 43.1	+0.3
BUKP				eS	S	23 27 59.4	-0.9
CGP	Cagayan de Oro	7.57	339	eP	P	23 26 59.7	+8.0
CGP				eS	S	23 28 21.7	+5.2
PAGZ	Pagadian	7.60	329	eP	P	23 26 49.8	-2.5
BUTP	Butuan	7.79	347	eP	P	23 26 55.8	+0.9
BUTP				eS	S	23 28 25.8	+3.9
IPIL	Ipil	8.00	323	eP	P	23 26 56.0	-1.6
IPIL				eS	S	23 28 19.6	-7.5
KAKA	Kakadu	14.83	160	eP	P	23 28 26.0	-1.8
	31nm,0.8s						
FITZ	Fitzroy Crossi	19.38	185	eP	P	23 29 20.7	-1.3
	23nm,0.9s						
WRAB	Tennant Creek	22.21	162	eP	P	23 29 50.6	+0.1
	90nm,0.8s,mb5.2						
WRA	Warramunga Arr	22.21	162	P	P	23 29 50.8	+0.2
	38nm,0.6s,mb4.9,baz=340,slow=11,SNR=162						
WRA				ScP		23 37 10.0	
	2.7nm,0.9s,baz=341,slow=3.1,SNR=8.8						
WB2	Warramunga Arr	22.22	162	eP	P	23 29 50.8	+0.2
WB2				eS	S	23 33 45.3	+2.8
PMG	Port Moresby	22.41	119	P	P	23 29 54.4	+1.9
	8.8nm,0.6s,mb4.3,baz=321,slow=3.6,SNR=4.0						
PMG	Port Moresby	22.41	119	eP	P	23 29 53.6	+1.1
	17nm,0.9s,mb4.4						
MBWA	Marble Bar	23.56	198	eP	P	23 30 04.3	+0.6
	34nm,1.2s,mb4.5						
QIZ	Qiongzhong	24.59	317	P	P	23 30 14.3	+0.7
JOW	Kunigami	25.38	2	P	P	23 30 21.5	+0.5
	13nm,0.5s,mb4.6,baz=154,slow=13,SNR=3.8						
ASAR	Alice Springs	25.64	166	P	P	23 30 22.9	-0.5
	5.6nm,0.6s,mb4.2,baz=347,slow=7.5,SNR=88						
ASAR				ScP		23 37 18.8	
	2.3nm,0.9s,baz=353,slow=2.0,SNR=10						
ASPA	Alice Springs	25.64	166	eP	P	23 30 22.4	-1.0
ASPA				eS	S	23 34 52.3	+11
CTA	Charters Tower	28.21	140	P	P	23 30 47.6	+0.7
	1.9nm,0.5s,mb3.9,baz=315,slow=8.7,SNR=3.1						
WHN	Wuhan	31.57	338	P	P	23 31 17.5	+0.9
CMAR	Chiang Mai Arr	32.67	303	P	P	23 31 25.9	-0.4
	7.1nm,1.0s,mb4.5,baz=123,slow=7.3,SNR=34						
CMAR				PcP	PcP	23 34 10.2	+0.8
	0.8nm,0.4s,baz=153,slow=1.8,SNR=5.4						
CMAR				ScP		23 37 42.8	
	2.1nm,0.9s,baz=151,slow=2.9,SNR=13						
CMAR				LR	LR	23 43 40.6	
	comp=Z,57nm,20.8s,baz=175,slow=34						
ENH	Enshi	33.42	331	eP	P	23 31 32.5	-0.1
	49nm,0.9s,mb5.3						
KMI	Kunming	33.54	317	eP	P	23 31 35.3	+1.7
KMI				AMB	AMB		
	comp=Z,27nm,1.3s,mb4.9						
KMI				LR	LR		
	comp=N,176nm,20.1s						
KMI				LR	LR		
	comp=E,105nm,21.1s						
KMI				LR	LR		
	comp=Z,105nm,19.0s						
KMI	Kunming	33.54	317	eP	P	23 31 35.3	+1.7
	comp=Z,27nm,1.3s,mb4.9						
KMI				LR	LR		
	comp=Z,110nm,19.0s						
KLBR	Kellerberrin	33.98	195	eP	P	23 31 37.2	-0.2
	comp=Z,30nm,1.2s,mb5.0						
MUN	Mundaring	34.77	197	eP	P	23 31 43.7	-0.3
	comp=Z,4.3nm,0.5s,mb4.5						
NWAO	Narrogin (SRO)	35.39	195	P	P	23 31 48.8	-0.5
	comp=Z,7.5nm,0.5s,mb4.7,baz=2.5,slow=9.6,SNR=15						
NWAO	Narrogin (SRO)	35.39	195	eP	P	23 31 48.7	-0.5
	comp=Z,27nm,1.2s,mb5.0						
STKA	Stephens Creek	35.67	159	eP	P	23 31 51.3	-0.4
	comp=Z,26nm,0.7s,mb5.3						
STKA	Stephens Creek	35.67	159	P	P	23 31 51.5	-0.1
	comp=Z,30nm,0.8s,mb5.3,baz=332,slow=8.5,SNR=76						
MAJO	Matsushiro	36.45	15	eP	P	23 31 56.1	-2.1
	comp=Z,8.4nm,0.8s,mb4.7						
XAN	Xi’an	36.84	334	P	P	23 32 01.5	0.0
XAN				AMB	AMB		
	comp=Z,71nm,1.0s,mb5.5						
BJT	Baijiatuau	39.84	347	eP	P	23 32 26.1	-0.3
	comp=Z,24nm,0.7s,mb5.1						
BJT				e		23 32 59.4	
BJI	Beijing	39.86	347	eP	P	23 32 26.5	0.0
BJI				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.1						
BJI	Beijing	39.86	347	eP	P	23 32 26.5	0.0
	comp=Z,28nm,0.8s,mb5.1						
LZH	Lanzhou	40.89	330	⇓P	P	23 32 36.5	+1.5
LZH				AMB	AMB		
	comp=Z,80nm,1.0s,mb5.5						
LZH	Lanzhou	40.89	330	⇓P	P	23 32 36.5	+1.5
	comp=Z,80nm,1.0s,mb5.5						
LZH				pP	pP	23 32 51.0	-11
SHL	Shillong	41.83	308	⇓eP	P	23 32 43.5	+0.6
HHC	Hu-ho-hao-te	41.87	342	eP	P	23 32 43.8	+0.8
HHC				PP	PP	23 34 26.8	+2.2
HHC				PCP	PcP	23 34 35.0	-2.4
HHC				S	S	23 38 49.3	-2.5
HHC				SCS	ScS	23 42 24.0	-7.3
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.7						
HHC				AMB	AMB		
	comp=Z,84nm,5.0s						
TOO	Toolangi	42.18	158	eP	P	23 32 47.3	+1.6
	comp=Z,6.8nm,1.5s,mb4.2						
MDJ	Mudanjiang	43.15	2	P	P	23 32 52.8	-0.7
MDJ				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,93nm,4.1s						
MDJ	Mudanjiang	43.15	2	eP	P	23 32 53.8	+0.3
	comp=Z,25nm,1.0s,mb4.9						
LSA	Lhasa	44.51	313	P	P	23 33 07.5	+2.9
LSA	Lhasa	44.51	313	eP	P	23 33 06.5	+1.9
	comp=Z,20nm,1.0s,mb4.8						
GTA	Gaotai	45.48	330	⇓P	P	23 33 13.0	+0.8
GTA				AMB	AMB		
	comp=Z,24nm,1.0s,mb4.9						
GUN	Gumba	47.67	308	eP	P	23 33 30.2	+0.7
	comp=Z,92nm,0.9s,mb5.6						
PKI	Pulchoki	47.89	307	eP	P	23 33 31.1	-0.2
KKN	Kakani	48.09	307	eP	P	23 33 32.8	0.0
	comp=Z,68nm,1.1s,mb5.4						
DMN	Daman	48.15	307	eP	P	23 33 33.6	+0.3
	comp=Z,71nm,1.0s,mb5.4						
HIA	Hailar	48.21	353	eP	P	23 33 33.6	+0.2
	comp=Z,4.5nm,0.8s,mb4.3						
GKN	Gorkha	48.70	307	eP	P	23 33 37.4	-0.1
KOLN	Koldanda	49.43	306	eP	P	23 33 43.8	+0.7
	comp=Z,154nm,0.9s,mb5.9						
ULN	Ulaanbaatar	49.59	342	eP	P	23 33 44.2	+0.2
	comp=Z,22nm,1.0s,mb5.0						
SONM	Songino Array	49.77	342	P	P	23 33 45.3	-0.1
	comp=Z,5.4nm,0.8s,mb4.5,baz=156,slow=8.3,SNR=26						
HYB	Hyderabad	50.55	291	eP	P	23 33 51.0	-0.8
	comp=Z,100nm,1.0s,mb5.8						
HYB	Hyderabad	50.55	291	i P	P	23 33 51.0	-0.8
	comp=Z,100nm,1.0s,mb5.8						
TLY	Talaya	54.00	342	P	P	23 34 13.8	-3.2
	comp=Z,8.3nm,1.0s,mb4.7						
DDI	Dehra Dun	54.89	307	eP	P	23 34 23.6	-0.2
WMQ	Urumqi	55.05	326	P	P	23 34 25.5	+0.7
WMQ				AMB	AMB		
	comp=Z,44nm,0.8s,mb5.5						
THN	Thein Dam	57.53	308	eP	P	23 34 41.2	-1.4
MA2	Magadan	60.87	13	eP	P	23 35 04.8	-0.5
	comp=Z,12nm,0.9s,mb4.9						
KZA	Kyzart	61.81	318	P	P	23 35 13.0	+1.2
	SNR=7.5						
KBK	Karagaybulak	62.27	319	P	P	23 35 15.3	+0.5
	SNR=5.4						
UCH	Uchtor	62.37	318	P	P	23 35 16.9	+1.4
	SNR=13						
AAK	Ala-Archa	62.56	318	eP	P	23 35 15.7	-1.1
	comp=Z,7.8nm,0.9s,mb4.6						
AML	Almayashu	62.88	318	P	P	23 35 19.6	+0.8
	SNR=9.0						
ZAL	Zalesovo	63.01	333	P	P	23 35 17.6	-2.0
	comp=Z,2.0nm,0.5s,mb4.3,baz=352,slow=7.9,SNR=18						
ZAL				PcP	PcP	23 35 54.5	-1.6
	comp=Z,1.4nm,0.5s,baz=327,slow=2.1,SNR=3.8						
ZAL	Zalesovo	63.01	333	P	P	23 35 17.6	-2.0
ZAL				PcP	PcP	23 35 54.5	-1.6
EKS2	Erkin-Say	63.05	318	P	P	23 35 20.4	+0.4
	SNR=11						
BRVK	Borovoye	69.74	327	eP	P	23 36 01.1	-1.0
	comp=Z,24nm,1.0s,mb5.0						
CHKZ	Chkalovo	69.84	328	eP	P	23 36 01.4	-1.4
	comp=Z,11nm,1.0s,mb4.7						
ARU	Arti	77.30	328	eP	P	23 36 44.3	-1.6
	comp=Z,11nm,0.9s,mb4.6						
VNDA	Vanda	80.98	173	P	P	23 37 04.7	-0.7
	comp=Z,2.1nm,0.6s,mb4.2,baz=310,slow=6.1,SNR=10						
VNDA	Vanda	80.98	173	eP	P	23 37 05.0	-0.5
	comp=Z,3.3nm,0.7s,mb4.3						
KIV	Kislovodsk	85.25	314	eP	P	23 37 26.1	-1.7
	comp=Z,8.0nm,1.1s,mb4.6						
ILAR	Eielson Array	86.99	25	P	P	23 37 36.0	+0.3
	comp=Z,0.4nm,0.8s,baz=246,slow=5.2,SNR=8.0						
KMBO	Kilima Mbogo	90.14	269	P	P	23 37 53.4	+1.5
	comp=Z,1.5nm,1.0s,mb4.1,baz=118,slow=4.5,SNR=3.7						
SYO	Syowa Base	90.43	201	⇑P	P	23 37 53.5	+1.6
BRTR	Keskin Array B	92.04	310	P	P	23 37 59.3	-0.8
	comp=Z,1.3nm,1.0s,mb4.1,baz=124,slow=4.5,SNR=5.2						
BRTR				PP	PP	23 41 41.4	-2.1
	comp=Z,1.4nm,1.1s,baz=127,slow=6.2,SNR=4.4						
ARCES	ARCESS Array B	92.91	340	P	P	23 38 02.5	-1.0
	comp=Z,4.4nm,0.8s,mb4.8,baz=45,slow=6.9,SNR=5.9						

TIR ***25*** *23:31:50.3, 41.04N×20.11E, h19^{km}, Ml2.9*
PDG ***25*** *23:31:52.1±0.1, 41.12N×20.20E, h0^{km}*
NEIC ***25*** *23:31:52.1, 41.12N×20.20E, h0^{km}, MD3.4(ATH), MD3.0(PDG), After PDG.*
ATH ***25*** *23:31:52.3, 41.12N×20.02E, h5^{km}, MD3.4/4*
CSEM ***25*** *23:31:52.9±0.1, 41.21N×20.20E, h0^{km}, ML3.0, Error ellipse: s-maj=2.2km s-min=1.2km az=41.0*
THE ***25*** *23:31:53.8, 41.20N×20.33E, h10^{km}, ML3.3*
ISC 25 23:31:52.7±0.3**, 41.12N**±0.02×**20.23E**±0.03**, h10**^{km}**, n39, σ1^{s}29**/69**, 6C-9D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.35	310	i Pg	Pg	23 31 58.9	-1.1
TIR				i Sg	Sg	23 32 05.6	+0.7
OHR	Ohrid	0.43	91	i Pg	Pg	23 32 01.3	-0.2
OHR				i Sg	Sg	23 32 08.6	+1.2
QSH	Qafa e Shtames	0.47	329	i Pg	Pg	23 32 01.0	-1.2
QSH				i Sg	Sg	23 32 13.8	+5.3
PRZA	Preza	0.52	306	i pg?	Pg	23 32 04.0	+0.7
LACI	Lac	0.64	323	i Pg	Pg	23 32 04.1	-1.6
LACI				i Sg	Sg	23 32 14.1	-0.3
LACI	Lac	0.64	323	i Pg	Pg	23 32 04.1	-1.6
LACI				i Sg	Sg	23 32 13.8	-0.6
KBN	Korca	0.66	139	i Pg	Pg	23 32 04.6	-1.3
KBN				i Sg	Sg	23 32 15.9	+1.2
BIA	Bitola	0.84	97	⇑iPg	Pg	23 32 08.9	-0.6
BIA				i		23 32 13.1	
BIA				⇑iSg	Sg	23 32 21.5	+0.8
BIA	Bitola	0.84	97	⇑iSg	Sg	23 32 21.5	+0.8
FNA	Florina	0.93	111	ePg	Pg	23 32 09.8	-1.7
FNA				eSg	Sg	23 32 24.1	+0.1
PUK	Puka	0.95	345	i Pg	Pg	23 32 10.5	-1.3
PUK				i Sg	Sg	23 32 25.5	+0.9
PUK	Puka	0.95	345	i Sg	Sg	23 32 25.5	+0.9
LSK	Leskovik	1.01	164	i Pg	Pg	23 32 09.4	-3.6
LSK				i Sg	Sg	23 32 24.8	-1.8
ULC	Ulcinj	1.11	319	⇓iPg	Pg	23 32 12.5	-2.5
ULC				eSg	Sg	23 32 29.8	-0.2
SKO	Skopje	1.25	47	i Pg	Pg	23 32 16.3	-1.3
SKO				i		23 32 17.5	
SKO				⇓iSg	Sg	23 32 33.8	-0.5
SKO				Lg		23 32 37.0	
	comp=Z,0.1nm,0.6s						
SKO	Skopje	1.25	47	i Pg	Pg	23 32 16.3	-1.3
SKO				⇓iSg	Sg	23 32 33.8	-0.5
BCI	Bajram Curri	1.25	355	i Pg	Pg	23 32 15.3	-2.4
BCI				i Sg	Sg	23 32 36.0	+1.6
KZN	Kozani	1.43	124	ePG	Pg	23 32 21.5	+0.2
KEK	Kerkira	1.45	193	ePG	Pg	23 32 18.5	-3.1
PVY	Plav	1.48	353	⇓iPg	Pg	23 32 19.3	-3.1
PVY				eSg	Sg	23 32 42.5	+0.3
TTG	Podgorica	1.49	331	⇓iPg	Pg	23 32 19.4	-3.2
TTG				eSg	Sg	23 32 42.8	+0.3
JAN	Janina	1.54	162	ePB	Pb	23 32 23.0	+2.1
BUM	Brajici-Budva	1.54	320	⇑iPg	Pg	23 32 20.5	-3.1
BUM				eSg	Sg	23 32 44.8	+0.6
IGT	Igoumenitsa	1.59	177	ePb	Pb	23 32 22.7	+0.9
IGT				eSb	Sb	23 32 47.2	+5.3
GRG	Griva	1.65	95	ePb	Pb	23 32 22.3	-0.6
IVA	Berane	1.77	352	⇑iPn	Pn	23 32 24.8	+1.2
IVA				eSn	Sn	23 32 51.2	+4.9
HCY	Herceg Novi	1.85	316	⇓iPn	Pn	23 32 25.7	+0.9
HCY				eSn	Sn	23 32 52.6	+4.1
NKY	Niksic	1.92	332	⇓iPn	Pn	23 32 26.6	+0.7
NKY				eSn	Sn	23 32 54.7	+4.4
LIT	Litokhoron	2.00	120	ePb	Pb	23 32 27.0	-1.8
LIT				eSb	Sb	23 32 54.6	+0.8
KNT	Kendrikon	2.02	88	ePb	Pb	23 32 27.3	-1.8
KNT				eSb	Sb	23 32 53.4	-0.8
BRY	Bratogost	2.17	325	⇓iPn	Pn	23 32 30.7	+1.2
BRY				eSn	Sn	23 33 00.7	+4.0
PLE	Pljevlja	2.29	345	⇓iPn	Pn	23 32 32.2	+1.0
PLE				eSn	Sn	23 33 03.4	+3.7
UPM	Unac-Piva	2.30	335	⇑iPn	Pn	23 32 32.0	+0.7
UPM				eSn	Sn	23 33 03.6	+3.7
SOH	Sokhos	2.39	96	ePn	Pn	23 32 33.1	+0.5
SOH				eSn	Sn	23 33 03.2	+1.0
EVR	Evrytania	2.52	151	ePN	Pn	23 32 38.5	+4.1
SRS	Serrai	2.54	89	ePn	Pn	23 32 34.6	-0.2
SRS				eSn	Sn	23 33 05.8	-0.3
AGG	Agios Georgios	2.65	142	ePn	Pn	23 32 38.2	+2.0
AGG				eSn	Sn	23 33 10.4	+1.6
AGG	Agios Georgios	2.65	142	ePn	Pn	23 32 38.2	+1.9
AGG				eSn	Sn	23 33 10.4	+1.7
XOR	Xorichti	2.87	127	ePn	Pn	23 32 40.3	+0.9

IDC 25 23:43:36.2±8.0**, 48.63S**×**162.73E, mb4.1**/3**, mb1 4.4**/3**, mb1mx3.9**/8**, Error ellipse: s-maj=581.0km s-min=107.2km az=49.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	33.74	307	P	P	23 50 19.1	-2.3
	2.4nm,0.8s,baz=147,slow=9.0,SNR=19						
WRA	Warramunga Arr	36.60	311	P	P	23 50 44.2	-1.7
	4.3nm,0.9s,baz=146,slow=8.2,SNR=20						
CMAR	Chiang Mai Arr	87.55	302	P	P	23 56 26.1	-1.3
	0.5nm,0.6s,baz=151,slow=3.4,SNR=5.2						

IDC ***25*** *23:51:10.6±1.3, 18.90N×81.24W, mb3.4/4, mb1 4.0/5, mb1mx3.6/19, ML4.6/1, MS3.7/13, Ms1 3.7/13, ms1mx3.5/19, Error ellipse: s-maj=48.5km s-min=29.8km az=43.0*
JSN ***25*** *23:51:11.0±1.1, 19.09N×81.06W, MD4.6*
NEIC ***25*** *23:51:14.0±0.8, 18.73N×81.24W, h30^{km}, mb4.0/7, Error ellipse: s-maj=21.5km s-min=11.4km az=61.0*
ISC 25 23:51:10.9±2.5**, 18.75N**±0.08×**81.13W**±0.05**, h21**^{km}±22^{km}**, n37, σ0^{s}99**/29**, mb3.8**/7**, MS3.7**/11**, 5C-1D, North of Honduras**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEJ	Negril	2.70	100	⇑eP	Pn	23 51 54.2	0.0
MCJ	Malvern	3.37	104	⇓eP	Pn	23 52 05.0	+1.3
MCJ				eS	Sn	23 52 44.5	+1.0
CVJ	Coleyville	3.45	98	⇑eP	Pn	23 52 04.5	-0.3
CVJ				eS	Sn	23 52 44.9	-0.7
STH	Stony Hill	4.16	99	⇑eP	Pn	23 52 14.8	-0.1
STH				i S	Sn	23 53 02.7	-0.7
HOJ	Hope	4.23	99	⇑eP	Pn	23 52 15.6	-0.2
GWJ	Greenwich	4.24	98	⇑eP	Pn	23 52 15.9	-0.1
TEIG	Tepich	6.90	283	ePn	Pn	23 52 48.6	-5.0
	35nm,0.3s						
TEIG				e		23 52 56.9	
TEIG				eSn	Sn	23 53 58.2	-14
JTS	JuntasAbangare	9.19	204	ePn	P	23 53 25.8	+0.4
DWPF	Disney	9.32	358	ePn	P	23 53 34.6	+7.3
SDV	Santo Domingo	14.14	133	Pn	P	23 54 33.0	+0.6
	2.8nm,0.3s,baz=4.2,slow=18,SNR=16						
SDV				LR	LR	00 00 08.1	
	comp=Z,309nm,19.8s,baz=351,slow=38						
SDV	Santo Domingo	14.14	133	eP	P	23 54 31.0	-1.4
	8.0nm,0.6s						
SDV				LR	LR	00 00 08.1	
OXF	Oxford	17.34	336	P	P	23 55 14.9	+1.4
	14nm,1.0s						
HKT	Hockley	17.41	313	eP	P	23 55 12.4	-2.0
	6.3nm,1.0s						
PCRV	Puerto La Cruz	18.09	116	LR	LR	00 03 30.4	
	comp=Z,220nm,18.3s,baz=158,slow=40						
WVT	Waverly	18.30	342	eP	P	23 55 25.2	-0.1
	9.3nm,1.2s						
HALT	Halls	18.57	339	P	P	23 55 20.3	-8.4
OTAV	Otavalo	18.58	172	P	P	23 55 28.5	-0.5
	11nm,1.5s						
JCT	Junction City	20.57	308	P	P	23 55 55.8	+4.7
	7.8nm,1.1s						
WMOK	Wichita Mounta	22.35	319	eP	P	23 56 08.3	-0.8
	16nm,1.4s,mb4.3						
LTX	Lajitas	23.08	301	P	P	23 56 18.6	+2.3
	11nm,1.3s,mb4.1						
TXAR	Lajitas Array	23.08	301	P	P	23 56 16.2	-0.2
	0.9nm,1.0s,mb3.2,baz=120,slow=9.8,SNR=10						
TXAR				LR	LR	00 07 54.6	
	comp=Z,88nm,20.2s,MS3.2,baz=345,slow=44						
TXAR	Lajitas Array	23.08	301	P	P	23 56 16.2	-0.2
TXAR				LR	LR	00 07 54.6	
SADO	Sadowa	26.00	3	LR	LR	00 06 47.8	
	comp=Z,191nm,18.1s,MS3.7,baz=230,slow=36						
ANMO	Albuquerque	27.65	311	LR	LR	00 09 21.3	
	comp=Z,104nm,18.8s,MS3.4,slow=40						
ULM	Lac du Bonnet	33.56	343	LR	LR	00 11 16.5	
	comp=Z,140nm,18.4s,MS3.7,baz=213,slow=36						
PDAR	Pinedale Array	33.92	321	P	P	23 57 54.1	-0.6
	1.1nm,0.8s,mb3.8,baz=124,slow=9.1,SNR=7.4						
LPAZ	La Paz	37.09	159	LR	LR	00 15 44.3	
	comp=Z,61nm,19.2s,MS3.4,baz=276,slow=40						
SCHQ	Schefferville	37.64	14	LR	LR	00 13 53.7	
	comp=Z,205nm,19.9s,MS3.9,baz=170,slow=36						
NVAR	Mina Array Bea	37.74	309	P	P	23 58 27.4	+0.2
	0.2nm,0.6s,mb3.0,baz=96,slow=9.1,SNR=2.6						
NVAR				LR	LR	00 16 00.7	
	comp=Z,54nm,19.4s,MS3.4,baz=180,slow=40						
BDFB	Brasilia	47.23	134	LR	LR	00 20 22.5	
	comp=Z,64nm,20.8s,MS3.6,baz=192,slow=37						
YKA	Yellowknife Ar	49.46	340	LR	LR	00 23 41.7	
	comp=Z,94nm,18.5s,MS3.8,baz=200,slow=40						
ILAR	Eielson Array	62.91	334	P	P	00 01 36.3	-1.4
	0.6nm,0.9s,mb3.7,baz=109,slow=4.3,SNR=9.2						
NOA	NORSAR Array B	74.92	30	LR	LR	00 32 53.4	
	comp=Z,133nm,18.4s,MS4.3,baz=285,slow=33						
ARCES	ARCESS Array B	78.25	20	P	P	00 03 12.3	+1.9
	8.5nm,1.1s,mb4.6,slow=2.7,SNR=4.2						
FINES	FINESS Array B	81.64	28	LR	LR	00 36 31.5	
	comp=Z,193nm,19.1s,MS4.5,baz=285,slow=33						
WRA	Warramunga Arr	146.55	262	PKPbc	PKPbc	00 10 53.7	+2.2
	1.3nm,0.8s,baz=84,slow=3.2,SNR=10.0						
ASAR	Alice Springs	147.03	255	PKPbc	PKPdf	00 10 55.9	+0.8
	0.9nm,0.8s,baz=99,slow=3.8,SNR=8.1						

TAP ***26*** *00:02:12.9, 24.83N×122.27E, h7^{km}, ML3.3*
JMA 26 00:02:14.2±0.2**, 24.78N**×**122.44E, M2.8, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.61	121	P	Pg	00 02 26.4	+0.1
YOJ				S	Sg	00 02 35.0	+0.5
IRIF	Iriomote-Funau	1.26	110	P	Pb	00 02 38.1	-0.4
IRIF				eS	Sb	00 02 54.3	-0.7
HATJ	Hateruma jima	1.44	120	P	Pn	00 02 41.4	-0.2
HATJ				eS	Sb	00 02 59.6	-0.7
JIJ	Ishigaki jima	1.60	105	P	Pn	00 02 44.0	+0.1
JIJ				eS	Sb	00 03 04.7	-0.5

CSEM ***26*** *00:36:12.5±0.1, 67.20N×20.84E, h2^{km}, ML2.5, Error ellipse: s-maj=2.6km s-min=1.6km az=113.0, Suspected Mining explosion.*
BER ***26*** *00:36:14.9±4.6, 67.20N×20.65E, ML1.6, Suspected explosion*
UPP 26 00:36:12.9, 67.19N×**20.69E, h0**^{km}**, ML2.5, Suspected Mining explosion., Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUNU	Dundret	0.08	214	P	Pg	00 36 14.5	-0.1
MASU	Masugnsbyn	0.57	62	P	Pg	00 36 23.6	-0.8
ERTU	Ertsjaerv	0.87	136	P	Pg	00 36 28.6	-1.7
NIKU	Nikkaluokta	0.93	318	P	Pg	00 36 29.9	-1.6
PAJU	Pajala	0.96	99	P	Pb	00 36 30.5	-1.6
SJUU	Sjulsmark	1.73	167	P	Pn	00 36 43.8	-0.6
LILU	Lilltraesk	1.94	190	P	Pn	00 36 47.4	-0.1
KTK1	Kautokeino	2.06	26	eP	Pn	00 36 51.1	+1.9
KTK1				eSg	Sg	00 37 18.2	-3.4
KTK1				AML	AML	00 37 21.5	
	comp=Z,11nm,0.5s						
KTK1	Kautokeino	2.06	26	eSg	Sg	00 37 18.2	-3.4
	comp=Z,11nm,0.5s,SNR=90						
TRO	Tromso	2.54	346	eSg	Sg	00 37 31.6	-5.8
TRO				AML	AML	00 37 33.3	
	comp=Z,4.7nm,0.4s						
MOR8	Moi Rana	2.69	250	eS	Sn	00 37 25.8	-6.0
MOR8				eSg	Sg	00 37 31.9	-11
MOR8				AML	AML	00 37 34.5	
	comp=Z,8.5nm,0.5s						
LOF	Lofoten	2.89	292	eSg	Sg	00 37 47.1	-2.0
NSS	Namsos	4.47	237	eSg	Sg	00 38 32.8	-8.8

IDC ***26*** *00:50:28.9±21.0, 42.39N×30.96W, mb3.4/4, mb1 3.9/4, mb1mx3.4/22, Error ellipse: s-maj=493.0km s-min=79.2km az=132.0*
ISC 26 00:50:17.3±1.1**, 41.2N**±0.3×**29.3W**±0.5**, h10**^{km}**, n8, σ0^{s}40**/8**, mb3.5**/4**, Azores Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASBA	Santa Barbara	2.87	148	eP	Pn	00 51 04.0	0.0
	94nm,0.2s						
PPAD	Pico dos Padre	2.91	148	eS	Pn	00 51 04.8	+0.3
	31nm,0.2s						
PVNV	Vila Nova	2.91	146	eS	Pn	00 51 04.5	0.0
	39nm,0.3s						
PFAV	Pico das Favas	2.98	145	eS	Pn	00 51 05.3	-0.3
	33nm,0.2s						
PDAR	Pinedale Array	57.49	301	P	P	01 00 08.2	-0.6
	0.6nm,1.0s,mb3.6,baz=90,slow=4.4,SNR=4.1						
TXAR	Lajitas Array	60.21	284	P	P	01 00 28.5	+0.7
	0.5nm,0.8s,mb3.6,baz=74,slow=7.4,SNR=4.9						
ILAR	Eielson Array	63.73	335	P	P	01 00 51.1	+0.3
	0.4nm,0.9s,mb3.5,baz=40,slow=6.7,SNR=4.1						
NVAR	Mina Array Bea	65.43	300	P	P	01 01 01.9	-0.4
	0.4nm,0.8s,mb3.5,baz=72,slow=4.7,SNR=3.5						

IDC ***26*** *00:58:48.9±0.3, 3.33N×95.78E, mb5.7/34, mb1 5.8/35, mb1mx5.8/35, ML5.0/1, MS8.3/10, Ms1 8.3/10, ms1mx7.7/24, Error ellipse: s-maj=12.9km s-min=6.2km az=44.0*
HRVD ***26*** *00:58:50.0±0.3, 3.09N×94.26E, h29^{km}±1^{km}, MW9.0/73, Centroid moment Tensor Solution.Mantle waves: s73,c202; Half duration: 95^{s}0 Moment tensor: Scale 10^{22} Nm; M_{rr}1.04±.01; $M_{\theta\theta}$-0.43±.01; $M_{\phi\phi}$-0.61±.01; $M_{r\theta}$2.98±.16; $M_{\theta\phi}$0.43; $M_{\phi r}$-2.40±.16; Best double couple:*

$M_0 3.95\times10^{22}$ NP1:ϕ_s329°,δ8°,λ110°. NP2:ϕ_s129°,δ83°, λ87°. Principal axes: T 4.01, Plg52°, Azm36°; N -.12, Plg3°, Azm130°; P -3.89, Plg38°, Azm222°; nsta1 refers to body waves. nsta2 refers to mantle waves, cutoff=300s.

DJA ***26*** *00:58:51.4, 2.96N×95.61E, h20^{km}, mb6.8/4 Error ellipse: s-maj=54.4km s-min=8.9km az=90.0*

BJI ***26*** *00:58:51.1, 3.15N×95.79E, h40^{km}, mB7.5, mb6.8, Ms8.9, Msz8.8*

MOS ***26*** *00:58:52.8±1.4, 3.42N×95.96E, h33^{km}, mb7.1/75, MS8.7/61, Error ellipse: s-maj=6.9km s-min=3.2km az=128.2*

NEIC ***26*** *00:58:53.5±0.1, 3.30N×95.98E, h30^{km}, mb7.0/134, ME8.5, MS8.8/122, MW8.2, Error ellipse: s-maj=5.9km s-min=3.5km az=29.0, Moment Tensor Solution. s31 Moment tensor: Scale 10^{21}Nm; M_{rr}0.91; $M_{\theta\theta}$-0.89; $M_{\phi\phi}$-0.02; $M_{r\theta}$1.78; $M_{\theta\phi}$0.47; $M_{\phi r}$-1.55; Best double couple: $M_0 2.6\times10^{21}$ NP1:ϕ_s274°,δ13°,λ55°. NP2:ϕ_s130°, δ79°,λ98°. Principal axes: T 2.53, Plg55°, Azm50°; N .09, Plg8°, Azm308°; P -2.61, Plg34°, Azm213°; Energy computed from CMT mechanism.*

NEIC This is the fourth largest earthquake in the world since 1900 and is the largest since the 1964 Prince William Sound, Alaska earthquake. In total, more than 283,100 people were killed, 14,100 are still listed as missing and 1,126,900 were displaced by the earthquake and subsequent tsunami in 10 countries in South Asia and East Africa. The earthquake was felt [IX] at Banda Aceh, [VIII] at Meulaboh and [IV] at Medan, Sumatra and [III-V] in parts of Bangladesh, India, Malaysia, Maldives, Myanmar, Singapore, Sri Lanka and Thailand. The tsunami caused more casualties than any other in recorded history and was recorded nearly world-wide on tide gauges in the Indian, Pacific and Atlantic Oceans. Seiches were observed in India and the United States. Subsidence and landslides were observed in Sumatra. A mud volcano near Baratang, Andaman Islands became active on December 28 and gas emissions were reported in Arakan, Myanmar. A detailed summary of this event is given at the end of this publication.

SYO ***26*** *00:58:53.2, 3.32N×95.85E, h30^{km}, MB6.3, MS8.8*

ISC 26 00:58:52.0±0.1**, 3.41N**±0.03×**95.90E**±0.02**, h26^{km}, h26^{km}**±1.0^{km}**:pP-P, n1545, σ1^{s}33**/1103**, mb6.8**/197**, MS8.7**/149**, 219C-147D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BSI	**Banda Aceh**	**2.16**	**344**	*e*Pn	**Pn**	**00 59 30.0**	**+2.9**
TSI	**Tuntungan**	**2.66**	**88**	*e*Pn	**Pn**	**00 59 36.3**	**+2.0**
PSI	**Prapat**	**3.10**	**103**	*e*Pn	**Pn**	**00 59 42.3**	**+1.8**
HUTI	**Huta Ginjang**	**3.25**	**109**	*e*Pn	**Pn**	**00 59 46.6**	**+3.9**
PPI	**Padang Panjang**	**5.91**	**130**	*e*Pn	**Pn**	**01 00 20.0**	**-0.3**
SNG	**Songkhla**	**6.00**	**51**	P	**Pn**	**01 00 24.0**	**+2.4**
	2µm,1.0s						
PBA	**Port Blair**	**8.77**	**339**	*e*P	**P**	**01 00 52.0**	**-8.3**
PENI	**Pendagan**	**12.86**	**134**	⇑*e*P	**P**	**01 01 49.2**	**-6.9**
PENI				pmax	pmax		
	comp=Z,1µm,0.5s						
PENI	**Pendagan**	**12.86**	**134**	⇑*e*P	**P**	**01 01 49.2**	**-6.9**
	comp=Z,1µm,0.5s						
PENI	**Pendagan**	**12.86**	**134**	⇑*i*P	**P**	**01 01 49.9**	**-6.2**
	comp=Z,4µm,0.4s						
NST	**Nakhon Sawan**	**12.88**	**19**	P	**P**	**01 01 57.8**	**+1.5**
PULI	**Pulasari**	**13.97**	**134**	⇑*e*P	**P**	**01 02 04.7**	**-6.2**
	comp=Z,5µm,0.4s						
PULI	**Pulasari**	**13.97**	**134**	⇓*i*P	**P**	**01 02 05.3**	**-5.6**
UBT	**Ubonrachathani**	**14.80**	**37**	P	**P**	**01 02 22.5**	**+0.8**
CM31	**Chiang Mai Arr**	**15.25**	**11**	⇑*e*P	**P**	**01 02 28.6**	**+1.1**
	comp=Z,4µm,0.6s						
CMAR	**Chiang Mai Arr**	**15.25**	**11**	Pn	**P**	**01 02 27.9**	**+0.4**
	comp=Z,2.1nm,0.3s,baz=202,slow=12,SNR=86						
CMAR				Sn	**S**	**01 05 16.1**	**0.0**
	comp=Z,120nm,0.3s,baz=229,slow=13,SNR=4.4						
COCO	**West Island**	**15.53**	**177**	⇓*e*P	**P**	**01 02 23.7**	**-7.5**
	comp=Z,14µm,1.2s						
CHG	**Chiang Mai**	**15.59**	**11**	⇑P	**P**	**01 02 33.3**	**+1.3**
	comp=Z,150nm,1.1s						
CHTO	**Chiang Mai**	**15.59**	**11**	Pn	**P**	**01 02 32.8**	**+0.7**
PALK	**Pallekele**	**15.61**	**285**	⇓*e*P	**P**	**01 02 29.0**	**-3.3**
	comp=Z,4µm,0.8s						
CHRT	**Chiangrai**	**16.79**	**13**	⇑P	**P**	**01 02 49.0**	**+1.7**
	comp=Z,3µm,1.3s						
MDRS	**Chennai**	**18.21**	**303**	⇑*i*P	**P**	**01 03 06.2**	**+1.1**
MDRS				*i*		01 03 36.5	
	comp=Z,7µm,1.5s						
MDRS				*e*		01 03 37.0	
MDRS				*e*S	**S**	**01 06 31.7**	**+7.5**
MDRS				*e*		01 06 54.0	
MDRS				*e*		01 12 34.5	
	comp=Z,23400µm,18.7s						
VIS	**Vishakhapatnam**	**18.82**	**320**	⇑*i*P	**P**	**01 03 12.1**	**-0.3**
VIS				*i*		01 03 40.4	
	comp=Z,7µm,1.6s						
VIS				*e*S	**S**	**01 06 47.6**	**+10**
VIS				*e*		01 12 22.2	
	comp=Z,26400µm,20.3s						
BWNR	**Bhubaneshwar**	**19.45**	**330**	*e*P	**P**	**01 03 09.0**	**-11**
BWNR				*e*S	**S**	**01 06 58.0**	**+5.7**
	comp=Z,19200µm,19.6s						
TRD	**Trivandrum**	**19.50**	**286**	⇓*i*P	**P**	**01 03 19.6**	**-0.9**
TRD				*i*		01 03 47.6	
	comp=Z,7µm,1.6s						
TRD				*e*S	**S**	**01 07 00.5**	**+7.1**
TRD				*e*		01 11 27.5	
	comp=Z,23800µm,19.5s						
KOD	**Kodaikanal**	**19.51**	**291**	⇓*i*P	**P**	**01 03 19.7**	**-0.8**
KOD				*e*		01 03 26.0	
KOD				*e*S	**S**	**01 07 03.1**	**+10**
CAL	**Calcutta**	**20.38**	**340**	*e*P	**P**	**01 03 31.1**	**+1.3**
CAL				*e*		01 03 36.6	
CAL				*e*S	**S**	**01 07 22.2**	**+11**
CAL				*e*		01 15 20.4	
	comp=Z,41400µm,19.5s						
QIZ	**Qiongzhong**	**20.66**	**40**	P	**P**	**01 03 32.5**	**-0.1**
QIZ				S	**S**	**01 07 19.3**	**+2.1**
QIZ				SS	SS	01 07 50.0	+1.7
QIZ				LR	LR		
	comp=N,5185µm,22.6s,MS8.0						
QIZ				LR	LR		
	comp=E,4630µm,17.9s,MS8.0						
QIZ				LR	LR		
	comp=Z,5006µm,23.1s						
QIZ	**Qiongzhong**	**20.66**	**40**	⇑*i*P	**P**	**01 03 32.6**	**0.0**
	comp=Z,7µm,1.0s						
QIZ				LR	LR		
	comp=Z,3105µm,21.0s,MS7.7						
AGT	**Agartala**	**20.84**	**348**	⇓*i*P	**P**	**01 03 32.0**	**-2.5**
AGT				*i*		01 04 20.0	
IMP	**Imphal**	**21.33**	**355**	*e*P	**P**	**01 03 38.0**	**-1.5**
IMP				*e*		01 14 16.3	
SRDI	**Scrawed**	**21.69**	**123**	⇑*e*P	**P**	**01 03 42.2**	**-0.9**
SRDI				pmax	pmax		
	comp=Z,3µm,1.0s,mb6.6						
SRDI	**Scrawed**	**21.69**	**123**	⇑*e*P	**P**	**01 03 42.2**	**-0.9**
	comp=Z,3µm,1.0s,mb6.6						
SRDI	**Scrawed**	**21.69**	**123**	*e*P	**P**	**01 03 44.7**	**+1.6**
KELI	**Kelakatan**	**21.85**	**122**	⇑*e*P	**P**	**01 03 46.8**	**+2.1**
	comp=Z,2µm,1.2s,mb6.4						
HYB	**Hyderabad**	**21.98**	**310**	⇑*e*P	**P**	**01 03 46.0**	**-0.1**
HYB				*e*S	**S**	**01 07 49.5**	**+7.3**
HYB	**Hyderabad**	**21.98**	**310**	⇑*i*P	**P**	**01 03 46.0**	**-0.1**
HYB				*e*S	**S**	**01 07 49.5**	**+7.3**
SHL	**Shillong**	**22.36**	**350**	*e*	**P**	**01 03 46.2**	**-3.6**
SHL				⇑*i*P		01 03 47.1	
SHL				*e*S	**S**	**01 07 58.3**	**+9.2**
SHL				*e*		01 08 11.6	
BATP	**Bataraza**	**22.41**	**75**	*e*P		01 04 01.4	
BOK	**Bokaro**	**22.45**	**335**	⇑*i*P	**P**	**01 03 49.3**	**-1.4**
BOK				*i*		01 04 05.1	
	comp=Z,7µm,1.0s						
BOK				*e*S	**S**	**01 08 02.7**	**+12**
BOK				*e*		01 14 04.4	
	comp=Z,23800µm,24.7s						
KMI	**Kunming**	**22.57**	**16**	*e*P	**P**	**01 03 53.5**	**+1.6**
KMI				PP	PP	01 04 23.8	+3.7
KMI				S	**S**	**01 07 59.8**	**+6.9**
KMI				SS	SS	01 08 44.5	+9.3
KMI				AMB	AMB		
	comp=Z,5µm,1.7s,mb6.7						
MNGI	**Mangalore**	**22.89**	**296**	*e*	**P**	**01 03 56.8**	**+1.6**
MNGI				*e*P		01 03 56.8	
MNGI				*e*S	**S**	**01 08 07.8**	**+9.0**
MNGI				*e*		01 14 04.0	
	comp=Z,24700µm,18.5s						
BLSP	**Bilaspur**	**22.91**	**325**	⇑*i*P	**P**	**01 03 56.7**	**+1.4**
BLSP				*i*		01 04 32.1	
	comp=Z,28µm,1.6s						
BLSP				*e*		01 08 06.3	
BLSP				*e*S	**S**	**01 08 13.1**	**+14**
BLSP				*e*		01 15 42.1	
	comp=Z,27000µm,18.6s						
RATI	**Rata**	**22.99**	**122**	⇓*e*P	**P**	**01 03 54.9**	**-1.2**
	comp=Z,2µm,1.8s,mb6.2						
RATI	**Rata**	**22.99**	**122**	⇑*i*P	**P**	**01 03 55.7**	**-0.4**
	comp=Z,4µm,0.7s,mb6.6						
SHBG	**Sahibganj**	**23.08**	**341**	*e*P	**P**	**01 04 00.0**	**+3.1**
KEDI	**Kedomdong**	**23.37**	**120**	⇑*e*P	**P**	**01 03 56.3**	**-3.5**
KEDI				pmax	pmax		
	comp=Z,838nm,1.0s,mb6.1						
KEDI	**Kedomdong**	**23.37**	**120**	⇑*e*P	**P**	**01 03 56.3**	**-3.5**
	comp=Z,838nm,1.0s,mb6.1						
KEDI	**Kedomdong**	**23.37**	**120**	*e*P	**P**	**01 04 00.5**	**+0.7**
	comp=Z,4µm,1.4s,mb6.3						
PPR	**Puerto Princes**	**23.53**	**73**	⇑*e*P	**P**	**01 04 03.8**	**+2.4**
LKP	**Lekhapani**	**23.79**	**0**	*e*P	**P**	**01 04 02.0**	**-1.8**
LKP				*e*		01 04 12.0	
NGP	**Nagpur**	**24.07**	**318**	⇑*i*P	**P**	**01 04 07.8**	**+1.2**
NGP				*e*		01 04 14.9	
NGP				*e*S	**S**	**01 08 23.8**	**+4.4**
NGP				*e*		01 08 34.5	
SLGI	**Shiliguri**	**24.24**	**344**	*e*P	**P**	**01 04 10.5**	**+2.3**
TANI	**Tanete Lipujan**	**24.43**	**106**	⇑*e*P	**P**	**01 04 09.4**	**-0.8**
ENPP	**El Nido**	**24.57**	**70**	*e*P	**P**	**01 04 12.7**	**+1.3**
GTK	**Gangtok**	**24.79**	**344**	*e*P	**P**	**01 04 10.0**	**-3.5**
GOA	**Goa**	**24.83**	**300**	⇑*i*P	**P**	**01 04 20.3**	**+6.3**
GOA				*i*		01 04 20.9	
	comp=Z,5µm,1.1s						
GOA				*e*S	**S**	**01 08 42.6**	**+10**
GOA				*i*		01 08 53.3	
MKS	**Makassar**	**25.06**	**110**	*e*P	**P**	**01 04 16.0**	**-0.2**
GYA	**Guiyang**	**25.13**	**23**	⇑*i*P	**P**	**01 04 17.0**	**+0.3**
GYA				PP	PP	01 04 53.8	-1.1
GYA				S	**S**	**01 08 43.5**	**+6.3**
GYA				AMB	AMB		
	comp=Z,5µm,1.0s,mb7.0						
AKL	**Akola**	**25.17**	**315**	⇑*i*P	**P**	**01 04 20.1**	**+2.9**
AKL				*e*S	**S**	**01 08 47.0**	**+9.1**
AKL				*i*		01 09 01.1	
KAD	**Karad**	**25.39**	**304**	⇑*i*P	**P**	**01 04 19.7**	**+0.5**
KAD				*e*		01 04 21.0	
KAD				*i*		01 04 53.8	
	comp=Z,4µm,1.4s						
KAD				*e*S	**S**	**01 08 50.2**	**+8.6**
KAD				*e*		01 10 08.8	
KAD				*e*		01 16 50.6	
	comp=Z,12nm,18.8s						
ALBI	**Allahabad**	**25.65**	**329**	*i* P	**P**	**01 04 21.5**	**-0.1**
DGAR	**Diego Garcia**	**25.75**	**245**	⇓*e*P	**P**	**01 04 18.8**	**-3.9**
	comp=Z,24µm,1.4s,mb7.5						
DGAR				LR	LR		
	comp=Z,3754µm,22.0s,MS7.9						
HKC	**Hong Kong**	**25.82**	**42**	⇑*i*P	**P**	**01 04 24.0**	**+0.8**
GZH	**Guangzhou**	**25.84**	**39**	P	**P**	**01 04 28.3**	**+4.9**
CUYO	**Cuyo Island**	**25.98**	**72**	*e*P	**P**	**01 04 25.4**	**+0.6**
PKI	**Pulchoki**	**26.03**	**338**	*e*P	**P**	**01 04 21.8**	**-3.3**
PKI	**Pulchoki**	**26.03**	**338**	*e*P	**P**	**01 04 22.3**	**-2.8**
	comp=Z,43µm,1.7s,mb7.7						
LUBP	**Lubang**	**26.13**	**65**	*e*P	**P**	**01 04 28.4**	**+2.2**
LUBP	**Lubang**	**26.13**	**65**	*e*P	**P**	**01 04 27.7**	**+1.5**
GUN	**Gumba**	**26.17**	**340**	*e*P	**P**	**01 04 23.2**	**-3.2**
	comp=Z,2µm,0.8s,mb6.7						
GUN	**Gumba**	**26.17**	**340**	*e*P	**P**	**01 04 23.8**	**-2.6**
DMN	**Daman**	**26.18**	**338**	*e*P	**P**	**01 04 23.7**	**-2.8**
KKN	**Kakani**	**26.28**	**338**	*e*P	**P**	**01 04 24.7**	**-2.7**
KKN	**Kakani**	**26.28**	**338**	*e*P	**P**	**01 04 24.8**	**-2.6**
	comp=Z,17µm,0.9s,mb7.6						
POO	**Poona**	**26.30**	**306**	⇑*i*P	**P**	**01 04 28.1**	**+0.5**
POO				*i*		01 04 53.9	
	comp=Z,3µm,1.7s						
POO				*e*S	**S**	**01 09 03.1**	**+6.5**
POO				*e*		01 17 48.9	
	comp=Z,14nm,20.5s						
SJMP	**San Jose**	**26.52**	**69**	*e*P	**P**	**01 04 30.5**	**+0.7**
LSA	**Lhasa**	**26.53**	**351**	P	**P**	**01 04 32.0**	**+2.3**
LSA	**Lhasa**	**26.53**	**351**	⇑*i*P	**P**	**01 04 29.6**	**-0.1**
LSA				pmax	pmax		
	comp=Z,8µm,0.7s,mb7.3						
LSA				MLR	MLR		
	comp=Z,2632µm,20.0s,MS7.8						
LSA	**Lhasa**	**26.53**	**351**	⇑*i*P	**P**	**01 04 29.6**	**-0.1**
	comp=Z,8µm,0.7s,mb7.3						
LSA				LR	LR		
	comp=Z,2632µm,20.0s,MS7.8						
BHPL	**Bhopal**	**26.61**	**319**	⇑*i*P	**P**	**01 04 30.6**	**+0.1**
BHPL				*i*		01 04 32.2	
BHPL				*i*		01 05 17.1	
	comp=Z,9µm,1.3s						
BHPL				*i*		01 06 14.0	
BHPL				*e*S	**S**	**01 09 07.5**	**+5.7**
BHPL				*i* SCP		01 11 31.0	
BHPL				*e*		01 18 13.5	
	comp=Z,31nm,17.5s						
SCZP	**Santa Cruz**	**26.63**	**61**	*e*P	**P**	**01 04 35.6**	**+4.9**
GKN	**Gorkha**	**26.71**	**337**	*e*P	**P**	**01 04 28.3**	**-3.1**
GKN	**Gorkha**	**26.71**	**337**	*e*P	**P**	**01 04 28.3**	**-3.1**
	comp=Z,33µm,1.0s,mb7.8						
BOLP	**Bolinao**	**26.89**	**60**	*e*P	pP	01 04 40.6	-0.2
IPIL	**Ipil**	**26.89**	**80**	*e*P	**P**	**01 04 35.7**	**+2.6**
TGY	**Tagaytay City**	**26.89**	**65**	⇓*e*P	pP	01 04 40.6	-0.2
	comp=Z,1942µm,1.1s						
TGY	**Tagaytay City**	**26.89**	**65**	P	**P**	**01 04 31.4**	**-1.8**
	comp=Z,151nm,0.5s,mb5.8,baz=244,slow=22,SNR=3.5						
TGY				S		01 09 39.4	
	comp=Z,6µm,0.7s,baz=177,slow=12,SNR=2.0						
KOLN	**Koldanda**	**26.92**	**335**	*e*P	**P**	**01 04 30.3**	**-3.0**
	comp=Z,18µm,0.8s,mb7.6						
KOLN	**Koldanda**	**26.92**	**335**	*e*P	**P**	**01 04 30.3**	**-3.0**
QVPH	**Quezon City--P**	**27.20**	**64**	⇓*e*P	**P**	**01 04 33.0**	**-2.9**
BOM	**Bombay**	**27.32**	**306**	*e*P	**P**	**01 04 36.5**	**-0.5**
BOM				*e*	pP	01 04 45.5	+0.8
BOM				*e*		01 08 46.6	
BOM				*e*S	**S**	**01 09 25.8**	**+13**
BOM				*e*		01 18 35.5	
	comp=Z,11600µm,19.1s						
OTRP	**Odiongan**	**27.33**	**70**	*e*P	**P**	**01 04 36.5**	**-0.6**
GUIM	**Jordan**	**27.42**	**73**	*e*P	**P**	**01 04 41.9**	**+3.9**
KALP	**Kalibo**	**27.44**	**71**	⇑*e*P	pP	01 04 47.1	+1.3
LQP	**Lukban**	**27.44**	**66**	⇑*e*P	**P**	**01 04 37.9**	**-0.3**
BCPH	**Baguio City Da**	**27.47**	**60**	⇓*e*P	**P**	**01 04 39.3**	**+0.9**
BOAC	**Boac**	**27.50**	**67**	*e*P	**P**	**01 04 40.2**	**+1.5**
JHNI	**Jhansi**	**27.56**	**324**	⇑*i*P	**P**	**01 04 36.0**	**-3.1**
JHNI				*e*		01 04 48.0	
PCPH	**Palayan**	**27.58**	**62**	⇓*e*P	**P**	**01 04 39.2**	**-0.2**
PAGZ	**Pagadian**	**27.69**	**80**	*e*P	**P**	**01 04 41.5**	**+1.0**
SNPH	**Sibulan**	**27.78**	**76**	*e*P	pP	01 04 47.5	-1.4
RCP	**Roxas**	**27.80**	**72**	⇑*e*P	**P**	**01 04 40.7**	**-0.7**
POLP	**Polilio Island**	**28.02**	**65**	*e*P	**P**	**01 04 46.4**	**+2.9**
BALP	**Baler**	**28.08**	**62**	*e*P	**P**	**01 04 43.8**	**-0.1**
ABRA	**Dolores**	**28.14**	**58**	*e*P	pP	01 04 55.4	+3.3
GQP	**Guinayangan**	**28.20**	**67**	⇓*e*P	pP	01 04 52.1	-0.5
AUQP	**San Andres**	**28.23**	**68**	*e*P	**P**	**01 04 40.5**	**-4.8**
CD2	**Chengdu**	**28.34**	**14**	P	**P**	**01 04 45.0**	**-1.1**
CD2				S	**S**	**01 09 33.0**	**+3.4**
CD2				AMB	AMB		
	comp=Z,8µm,0.7s,mb7.5						
TBP	**Tagbilaran**	**28.45**	**76**	*e*P	**P**	**01 04 46.3**	**-1.0**
LLP	**Lapu-Lapu**	**28.68**	**75**	*e*P	**P**	**01 04 48.5**	**-0.8**
APYP	**Conner**	**28.68**	**58**	*e*P	**P**	**01 04 46.7**	**-2.7**
CAUP	**Cauayan**	**28.78**	**60**	*e*P	**P**	**01 04 51.4**	**+1.1**
CGP	**Cagayan de Oro**	**29.06**	**79**	*e*P	**P**	**01 04 51.9**	**-0.9**
CVP	**Callao Caves**	**29.11**	**59**	*e*P	**P**	**01 04 52.0**	**-1.2**
AGRA	**Agra**	**29.25**	**326**	*e*P	**P**	**01 04 56.1**	**+1.6**
KCP	**Kidapawan**	**29.28**	**82**	⇓*e*P	pP	01 05 06.4	+4.0
BUKP	**Musuan**	**29.35**	**80**	*e*P	**P**	**01 04 55.7**	**+0.3**
PALP	**Palanan**	**29.36**	**61**	*e*P	pP	01 05 02.2	-0.9
BHV	**Bhavnagar**	**29.41**	**310**	*e*P	**P**	**01 04 57.0**	**+1.2**
OCLP	**Ormoc**	**29.45**	**74**	*e*P	pP	01 05 02.2	-1.7
MSLP	**Maasin**	**29.50**	**75**	*e*P	**P**	**01 04 58.2**	**+1.5**
SGCP	**Mt. Cagua**	**29.54**	**58**	*e*P	sP	01 05 12.1	+4.0
ENH	**Enshi**	**29.65**	**24**	P	**P**	**01 04 56.2**	**-1.7**
ENH	**Enshi**	**29.65**	**24**	⇑*i*P	**P**	**01 04 56.2**	**-1.7**
	comp=Z,5µm,1.3s,mb7.1						
ENH				LR	LR		
	comp=Z,2815µm,20.0s,MS7.9						
PVCP	**Virac**	**29.68**	**68**	*e*P	**P**	**01 04 59.7**	**+1.4**
DAV	**Davao City (W)**	**29.77**	**82**	P	**P**	**01 05 00.0**	**+0.8**
PLP	**Palo**	**29.83**	**73**	*e*P	**P**	**01 05 00.9**	**+1.2**
CNP	**Catarman**	**29.85**	**71**	*e*P	**P**	**01 05 01.8**	**+1.9**
PTH	**Pithoragarh**	**29.95**	**332**	*e*P	**P**	**01 05 01.4**	**+0.7**
PTH				*e*S	**S**	**01 10 03.4**	**+8.0**
BUTP	**Butuan**	**30.04**	**78**	*e*P	**P**	**01 05 01.5**	**-0.1**
SCPH	**Surigao**	**30.05**	**76**	*e*P	**P**	**01 05 05.4**	**+3.8**
BESP	**Borongan**	**30.37**	**73**	*e*P	**P**	**01 05 09.2**	**+4.7**
MATI	**Mati**	**30.43**	**82**	*e*P	**P**	**01 05 06.8**	**+1.8**
BBP	**Basco**	**30.52**	**54**	*e*P	**P**	**01 05 07.9**	**+2.2**
QZH	**Quanzhou**	**30.59**	**43**	⇑*i*P	**P**	**01 05 04.8**	**-1.5**
QZH				AMB	AMB		
	comp=Z,5µm,1.5s,mb7.1						
KALG	**Kalgarh**	**30.63**	**330**	*e*	**P**	**01 04 56.2**	**-10**
BIPH	**Bislig**	**30.66**	**80**	*e*P	**P**	**01 05 07.9**	**+0.8**
AJM	**Ajmer**	**30.68**	**320**	⇑*i*P	**P**	**01 05 05.5**	**-1.5**
AJM				*i*		01 05 48.0	
	comp=Z,5µm,1.7s						
AJM				*e*S	**S**	**01 10 18.9**	**+12**
AJM				*e*		01 20 35.6	
	comp=Z,31000µm,19.1s						
AYAN	**Aya Nagar**	**30.68**	**326**	*e*P	**P**	**01 05 05.4**	**-1.6**
NDI	**New Delhi**	**30.78**	**327**	*i*	**P**	**01 05 05.0**	**-3.0**
NDI				⇑*i*P		01 05 06.5	
NDI				*e*		01 09 26.0	
NDI				*e*S	**S**	**01 10 13.0**	**+4.5**
NDI				*e*		01 20 33.3	
	comp=Z,23300µm,20.2s						
BHGR	**Bahadurgarh**	**30.94**	**326**	*e*P	**P**	**01 05 08.8**	**-0.5**
KHET	**Khetri**	**31.12**	**324**	*e*P	**P**	**01 05 10.7**	**-0.3**
DDI	**Dehra Dun**	**31.64**	**330**	*e*P	**P**	**01 05 14.4**	**-1.1**
DDI				*e*		01 09 30.4	
KKR	**Kurukshetra**	**32.00**	**328**	*e*P	**P**	**01 05 18.9**	**+0.3**
WHN	**Wuhan**	**32.13**	**31**	⇑*i*P	**P**	**01 05 20.0**	**+0.2**
WHN				LR	LR		
	comp=N,10000µm,15.5s						
WHN				LR	LR		
	comp=E,10000µm,15.0s						
WHN				LR	LR		
	comp=Z,10000µm,22.8s						
BHJ	**Bhuj**	**32.15**	**310**	⇑*i*P	**P**	**01 05 20.1**	**+0.1**
BHJ				*e*		01 05 20.9	
	comp=Z,14900µm,21.0s						
BHJ				*i*		01 05 53.3	
	comp=Z,2µm,1.9s						
BHJ				*e*		01 10 42.8	
BHJ				*e*S	**S**	**01 10 44.6**	**+15**
BHJ				*e*		01 21 05.7	
	comp=Z,14400µm,20.1s						
KLP	**Kalpa**	**32.54**	**331**	*e*P	**P**	**01 05 22.6**	**-0.7**
TATO	**Taipei**	**32.65**	**47**	*e*P	**P**	**01 05 22.6**	**-1.7**
	comp=Z,9µm,1.4s,mb7.5						
TATO				LR	LR		
	comp=Z,10644µm,20.0s,MS8.5						
SMLA	**Simla**	**32.74**	**329**	⇑*i*P	**P**	**01 05 37.5**	**+12**
SMLA				*e*		01 05 37.6	
SMLA				*e*S	**S**	**01 10 56.1**	**+17**
XAN	**Xi’an**	**32.80**	**20**	P	**P**	**01 05 24.0**	**-1.6**
XAN				AP	pP	01 05 34.0	+0.7
XAN				AMB	AMB		
	comp=Z,853nm,0.7s,mb6.8						
AAI	**Ambon**	**33.03**	**102**	*e*P	**P**	**01 05 27.0**	**-0.8**
SDNR	**Sundarnagar**	**33.14**	**330**	*e*P	**P**	**01 05 28.6**	**0.0**
LZH	**Lanzhou**	**33.33**	**12**	⇑P	**P**	**01 05 29.3**	**-0.9**
LZH				PP	PP	01 06 40.8	-1.3
LZH				S	**S**	**01 10 48.0**	**-0.1**
LZH				SS	SS	01 12 49.3	-1.8
LZH				AMB	AMB		
	comp=Z,8µm,1.2s,mb7.5						
LZH				AMB	AMB		
	comp=Z,56µm,4.2s						
JASL	**Jaisalmer**	**33.45**	**317**	*e*P	**P**	**01 05 26.8**	**-4.5**
MBWA	**Marble Bar**	**33.79**	**137**	⇑*e*P	**P**	**01 05 31.0**	**-3.3**
	comp=Z,2µm,1.0s,mb6.9						
MBWA				LR	LR		
	comp=Z,3174µm,22.0s,MS8.0						
PONG	**Pong**	**34.02**	**329**	*e*P	**P**	**01 05 39.0**	**+2.8**
PONG				*e*		01 12 43.0	
THN	**Thein Dam**	**34.52**	**329**	*e*P	**P**	**01 05 38.3**	**-2.2**
	comp=Z,632nm,0.6s,mb6.7						
THN				*e*		01 10 56.9	
NJ2	**Nanjing**	**35.73**	**35**	*e*P	**P**	**01 05 50.3**	**-0.5**
NJ2				AP	pP	01 06 00.3	+1.7
NJ2				XP	sP	01 06 04.5	+2.6
NJ2				PP	PP	01 07 11.5	-0.4
NJ2				S	**S**	**01 11 24.0**	**-1.4**
NJ2				XS		01 11 40.0	
NJ2				AMB	AMB		
	comp=Z,1µm,0.5s,mb7.1						
NJ2				LR	LR		
	comp=N,8546µm,22.0s,MS8.7						
NJ2				LR	LR		
	comp=E,10000µm,19.9s,MS8.7						
NJ2				LR	LR		
	comp=Z,7549µm,15.8s,MS8.6						
GTA	**Gaotai**	**36.01**	**5**	⇑*i*P	**P**	**01 05 52.0**	**-1.1**
GTA				AP	pP	01 06 01.3	+0.5
GTA				XP	sP	01 06 05.5	+1.4
GTA				PP	PP	01 07 14.8	-0.4
GTA				PPP	PPP	01 07 36.8	+1.6
GTA				PCP	PcP	01 08 19.5	-0.1
GTA				S	**S**	**01 11 27.3**	**-2.3**
GTA				SCS	ScS	01 16 04.0	-2.9
GTA				AMB	AMB		
	comp=Z,34µm,9.5s						
GTA				LR	LR		
	comp=E,5337µm,23.9s						
SSE	**Sheshan**	**36.42**	**38**	⇑P	**P**	**01 05 56.8**	**+0.2**
SSE				S	**S**	**01 11 34.8**	**-1.2**
SSE				AMB	AMB		
	comp=Z,136µm,11.2s						
SSE				LR	LR		
	comp=E,7133µm,19.3s						
TIA	**Tai’an**	**38.06**	**28**	⇑P	**P**	**01 06 09.8**	**-0.6**
TIA				LR	LR		
	comp=N,8196µm,18.0s,MS8.8						
TIA				LR	LR		
	comp=E,9999µm,18.0s,MS8.8						
JOW	**Kunigami**	**38.75**	**50**	P	**P**	**01 06 15.7**	**-0.5**
	comp=E,191nm,0.8s,mb5.9,baz=266,slow=8.4,SNR=29						
JOW				S	**S**	**01 12 25.9**	**+14**
	comp=E,1µm,0.9s,baz=111,slow=11,SNR=1.6						
BTO	**Baotou**	**39.16**	**17**	*e*P	**P**	**01 06 20.3**	**+0.8**
BTO				AMB	AMB		
	comp=Z,7µm,2.4s,mb7.0						
HHC	**Hu-ho-hao-te**	**39.85**	**19**	*e*P	**P**	**01 06 25.3**	**0.0**
HHC				AP	pP	01 06 35.0	+1.9
HHC				XP	sP	01 06 39.0	+2.7
HHC				PP	PP	01 08 01.8	+1.1
HHC				PCP	PcP	01 08 31.3	-0.1
HHC				SCP		01 12 15.8	
HHC				PCS		01 12 20.5	
HHC				S	**S**	**01 12 27.8**	**-0.2**
HHC				XS		01 12 44.3	
HHC				SS	SS	01 15 16.5	-1.7
HHC				SCS	ScS	01 16 27.8	-1.0
HHC				AMB	AMB		
	comp=Z,34µm,3.8s						
HHC				LR	LR		
	comp=N,9198µm,26.8s						
KSH	**Kashi**	**40.23**	**336**	⇑*i*P	**P**	**01 06 29.0**	**+0.6**
KSH				PP	PP	01 08 06.0	+1.4
KSH				PCP	PcP	01 08 34.0	+1.3
KSH				S	**S**	**01 12 36.3**	**+2.6**
KSH				SS	SS	01 15 29.5	+3.0
KSH				AMB	AMB		
	comp=Z,6µm,2.4s,mb6.9						
KSH				LR	LR		
	comp=N,7896µm,15.4s						
BJT	**Baijiatuau**	**40.80**	**24**	⇑*i*P	**P**	**01 06 33.8**	**+0.7**
	comp=N,10µm,1.1s,mb7.4						
BJT				LR	LR		
	comp=Z,15635µm,20.0s,MS8.9						
BJI	**Beijing**	**40.82**	**24**	P	**P**	**01 06 34.3**	**+1.1**
WMQ	**Urumqi**	**40.89**	**351**	⇑*i*P	**P**	**01 06 35.0**	**+1.2**
WMQ				AP	pP	01 06 40.0	-1.6
WMQ				PP	PP	01 08 13.0	+1.9
WMQ				PCP	PcP	01 08 35.5	+0.8
WMQ				S	**S**	**01 12 46.5**	**+3.1**
WMQ				AMB	AMB		

	comp=Z,291µm,10.4s						
NWAO	Narrogin (SRO)	41.41	152	P	P	01 06 37.1	-1.0
	comp=Z,238nm,1.1s,baz=324,slow=10,SNR=22						
NWAO				S	S	01 13 06.6	+15
	comp=Z,1µm,0.9s,baz=352,slow=5.1,SNR=1.8						
NWAO	Narrogin (SRO)	41.41	152	eP	P	01 06 35.9	-2.2
NWAO				pmax	pmax		
	comp=Z,3µm,1.3s						
NWAO				MLR	MLR		
	comp=Z,2919µm,22.0s						
NWAO	Narrogin (SRO)	41.41	152	eP	P	01 06 35.9	-2.2
	comp=Z,3µm,1.3s,mb6.7						
NWAO				LR	LR		
	comp=Z,2919µm,22.0s,MS8.1						
DL2	Dalian	42.38	30	⇑iP	P	01 06 46.0	-0.1
DL2				S	S	01 13 06.5	+0.9
DL2				AMB	AMB		
	comp=Z,2µm,0.7s,mb6.8						
DL2				AMB	AMB		
	comp=Z,112µm,11.0s						
DL2				LR	LR		
	comp=N,7802µm,18.8s,MS8.7						
DL2				LR	LR		
	comp=E,6668µm,21.4s,MS8.7						
DL2				LR	LR		
	comp=Z,5680µm,19.0s,MS8.5						
ULHL	Ulahol	42.47	338	P	P	01 06 47.0	+0.2
	SNR=56						
KZA	Kyzart	42.70	337	P	P	01 06 48.6	-0.1
	SNR=116						
AAA	Alma-Ata	43.12	340	i P	P	01 06 52.0	0.0
AAA	Alma-Ata	43.12	340	eP	P	01 06 51.6	-0.4
UCH	Uchtor	43.12	337	P	P	01 06 52.9	+0.8
	SNR=227						
TKM2	Tokmak 2	43.29	338	P	P	01 06 53.8	+0.3
	SNR=205						
KBK	Karagaybulak	43.31	337	P	P	01 06 54.5	+0.8
	SNR=352						
AML	Almayashu	43.37	336	P	P	01 06 54.9	+0.8
	SNR=202						
AAK	Ala-Archa	43.47	337	P	P	01 06 55.5	+0.7
	SNR=105						
AAK	Ala-Archa	43.47	337	c iP	P	01 06 54.8	-0.1
AAK				pmax	pmax		
	comp=Z,1µm,2.2s,mb6.3						
AAK	Ala-Archa	43.47	337	⇑eP	P	01 06 54.4	-0.5
	comp=Z,8µm,1.2s,mb7.3						
AAK				LR	LR		
	comp=Z,2857µm,20.0s,MS8.2						
FRU	Bishkek	43.59	337	αeP	P	01 06 56.0	+0.1
FRU				i		01 07 12.0	
FRU				i	PcP	01 08 42.0	-1.7
FRU				e	S	01 13 19.0	-4.1
CHMS	Chumysh	43.68	337	P	P	01 06 56.5	-0.1
	SNR=128						
EKS2	Erkin-Say	43.77	336	P	P	01 06 58.0	+0.6
	SNR=97						
USP	Ospenovka	44.00	337	P	P	01 06 59.2	0.0
	SNR=364						
INCN	Inchon	44.08	36	⇑eP	P	01 06 58.6	-1.3
	comp=Z,4µm,1.1s,mb7.1						
INCN				LR	LR		
	comp=Z,19007µm,19.0s,MS9.0						
WRA	Warramunga Arr	44.31	123	P	P	01 06 59.1	-2.9
	comp=Z,152nm,0.6s,mb5.9,baz=299,slow=9.2,SNR=250						
WRA				S	S	01 13 42.8	+8.9
	comp=Z,1µm,0.7s,baz=305,slow=8.6,SNR=3.3						
WRAB	Tennant Creek	44.32	123	c iP	P	01 06 59.8	-2.3
WRAB	Tennant Creek	44.32	123	eP	P	01 06 58.9	-3.1
	comp=Z,4µm,0.7s,mb7.3						
WRAB				LR	LR		
	comp=Z,1137µm,21.0s,MS7.8						
TAS	Tashkent	44.67	331	eP	P	01 07 01.0	-3.7
KS15	Wonju Array Si	44.79	37	⇑eP	P	01 07 04.8	-0.9
MKAR	Makanchi Array	44.80	347	i P	P	01 07 04.6	-1.0
MKAR				pmax	pmax		
	comp=Z,3µm,0.8s						
MKAR	Makanchi Array	44.80	347	i P	P	01 07 04.7	-0.9
YOMI	Yo Moklole	45.04	97	⇑eP	P	01 07 03.3	-4.7
YOMI	Yo Moklole	45.04	97	⇓iP	P	01 07 05.3	-2.7
	comp=Z,4µm,0.8s,mb7.0						
SONM	Songino Array	45.17	10	P	P	01 07 07.9	-0.7
	comp=Z,189nm,1.0s,mb5.9,baz=194,slow=9.0,SNR=149						
SONM				PP	PP	01 08 52.0	-2.9
	comp=Z,2µm,0.8s,baz=191,slow=8.7,SNR=4.1						
SONM				S	S	01 14 02.5	+17
	comp=Z,865nm,0.9s,baz=207,slow=6.4,SNR=2.3						
ULN	Ulaanbaatar	45.31	11	⇑iP	P	01 07 09.1	-0.6
	comp=Z,2µm,0.8s,mb6.9						
ULN				LR	LR		
	comp=Z,12556µm,22.0s,MS8.8						
SNY	Shenyang	45.57	29	⇑iP	P	01 07 11.0	-0.8
SNY				AP	pP	01 07 20.0	+0.3
SNY				XP	sP	01 07 24.5	+1.6
SNY				AMB	AMB		
	comp=Z,640nm,1.9s,mb6.2						
ASAR	Alice Springs	45.76	128	P	P	01 07 10.8	-2.8
	comp=Z,54nm,0.7s,baz=300,slow=7.8,SNR=81						
ASAR				PP	PP	01 08 46.6	-15
	comp=Z,943nm,0.8s,baz=297,slow=6.8,SNR=6.8						
ASAR				S	S	01 14 01.0	+6.3
	comp=Z,1µm,0.8s,baz=312,slow=7.9,SNR=3.0						
ZAK	Zakamensk	47.22	6	eP	P	01 07 24.5	-0.2
ZAK				e		01 08 55.8	
ZAK				e		01 14 10.7	
CN2	Changchun	47.97	29	⇑P	P	01 07 30.0	-0.7
CN2				eS	S	01 14 28.0	+2.3
CN2				AMB	AMB		
	comp=Z,218µm,14.0s						
CN2				LR	LR		
	comp=E,9005µm,18.0s						
MOY	Mondy	48.28	4	eP	P	01 07 32.6	-0.4
TLY	Talaya	48.54	6	P	P	01 07 35.0	0.0
	comp=E,2µm,0.7s,mb7.3,SNR=56						
TLY	Talaya	48.54	6	eP	P	01 07 34.4	-0.6
TLY				e		01 09 03.3	
TLY				e	PP	01 09 22.1	-5.4
TLY				eS	S	01 14 31.5	-2.2
TLY				eSS	ScS	01 17 25.7	+2.7
TLY				pmax	pmax		
	comp=Z,3µm,1.1s,mb7.2						
TLY	Talaya	48.54	6	⇑iP	P	01 07 34.5	-0.5
	comp=Z,2µm,0.9s,mb7.0						
TLY				LR	LR		
	comp=Z,3584µm,21.0s,MS8.3						
VAN	Vannovskaya	48.71	320	eP	P	01 07 37.8	+1.3
IRK	Irkutsk	49.16	7	⇑iP	P	01 07 38.7	-1.1
IRK				e		01 09 00.5	
GUMO	Guam	49.38	75	P	P	01 07 42.6	+0.7
GUMO				pmax	pmax		
	comp=Z,400nm,1.0s,mb6.4						
GUMO	Guam	49.38	75	eP	P	01 07 38.8	-3.1
	comp=Z,2µm,1.0s,mb7.0						
GUMO				LR	LR		
	comp=Z,4400µm,21.0s,MS8.4						
HASS	Wahat al Ahsa’	49.39	301	P	P	01 07 41.9	+0.1
HIA	Hailar	50.00	20	P	P	01 07 45.7	-0.5
HIA	Hailar	50.00	20	⇑eP	P	01 07 45.5	-0.7
	comp=Z,5µm,1.2s,mb7.4						
HIA				LR	LR		
	comp=Z,27710µm,19.0s,MS9.3						
MDJ	Mudanjiang	50.61	31	P	P	01 07 50.3	-0.7
MDJ				PCP	PcP	01 09 06.0	-2.6
MDJ				PP	PP	01 09 43.0	-4.7
MDJ				S	S	01 15 07.5	+4.9
MDJ				SS	SS	01 18 39.5	+5.2
MDJ				AMB	AMB		
	comp=Z,347nm,1.9s,mb6.0						
MDJ				AMB	AMB		
	comp=Z,373µm,19.6s						
MDJ				LR	LR		
	comp=Z,7804µm,21.6s,MS8.7						
MDJ	Mudanjiang	50.61	31	⇑eP	P	01 07 50.6	-0.4
	comp=Z,3µm,1.0s,mb7.1						
MDJ				LR	LR		
	comp=Z,8518µm,20.0s,MS8.8						
VLA	Vladivostok	50.83	34	⇓iP	P	01 07 51.0	-1.6
MAJO	Matsushiro	50.98	44	⇑eP	P	01 07 51.7	-2.2
MAJO				pmax	pmax		
	comp=Z,775nm,0.9s,mb6.6						
MAJO				MLR	MLR		
	comp=Z,9243µm,20.0s,MS8.8						
MAJO	Matsushiro	50.98	44	⇑eP	P	01 07 51.7	-2.2
	comp=Z,774nm,0.9s,mb6.6						
MAJO				LR	LR		
	comp=Z,9243µm,20.0s,MS8.8						
MAT	Matsushiro	50.98	44	P	P	01 07 51.6	-2.3
MAT				S	S	01 14 56.0	-12
MAT	Matsushiro	50.98	44	eP	P	01 07 52.0	-1.9
MAT				pmax	pmax		
	comp=Z,361nm,1.5s,mb6.1						
LBOS		51.04	285	⇓eP	P	01 07 55.8	+1.2
LBOS				i S	S	01 15 15.3	+6.4
ADEN	Aden	51.17	284	⇑eP	P	01 07 55.6	0.0
ZAL	Zalesovo	51.18	352	P	P	01 07 53.8	-1.3
	comp=Z,210nm,0.6s,mb6.3,baz=305,slow=6.1,SNR=442						
ZAL				LR	LR	01 34 48.2	
	comp=Z,496µm,19.8s,MS7.5,baz=120,slow=42						
DHBB	Dhamar BB	51.95	286	⇑eP	P	01 08 01.6	0.0
DHBB				AMb	AMB	01 08 11.9	
	comp=Z,27µm,1.9s,mb7.8						
QRN	Al-Qurain	52.05	304	eP	P	01 08 01.8	-0.3
QRN				AMb	AMB	01 09 13.0	
	comp=Z,7µm,1.2s,mb7.4						
UDYN	Al ‘Udayn	52.29	285	⇑eP	P	01 08 04.8	+0.8
RDF	Al-Radifah	52.41	304	eP	P	01 08 04.8	0.0
RDF				AMb	AMB	01 09 25.3	
	comp=Z,12µm,0.8s,mb7.9						
UMR	Umm Al-Rimmam	52.49	305	eP	P	01 08 04.8	-0.6
UMR				AMb	AMB	01 08 47.8	
	comp=Z,5µm,1.0s,mb7.4						
PMG	Port Moresby	52.64	104	P	P	01 08 04.4	-2.3
	comp=Z,254nm,0.8s,mb6.2,baz=337,slow=3.9,SNR=43						
PMG	Port Moresby	52.64	104	⇑eP	P	01 08 04.2	-2.5
PMG				pmax	pmax		
	comp=Z,2µm,0.9s						
PMG				MLR	MLR		
	comp=Z,1804µm,22.0s						
PMG	Port Moresby	52.64	104	⇑eP	P	01 08 04.2	-2.5
	comp=Z,2µm,0.9s,mb7.0						
PMG				LR	LR		
	comp=Z,1804µm,22.0s,MS8.1						
MZLS	Mizel	52.98	298	P	P	01 08 08.8	-0.3
RST	Umm Al-Ruwaisa	53.06	305	eP	P	01 08 09.1	-0.6
RST				AMb	AMB	01 09 22.8	
	comp=Z,5µm,1.1s,mb7.3						
TATS	Tathlith	53.58	292	P	P	01 08 13.8	+0.3
TATS				S	S	01 15 49.9	+6.5
BVAR	Borovoye Array	53.75	341	P	P	01 08 12.6	-1.7
	comp=Z,162nm,0.6s,mb6.2,baz=141,slow=8.9,SNR=365						
BVAR				S	S	01 15 51.1	+5.7
	comp=Z,223nm,0.8s,baz=166,slow=12,SNR=1.7						
BRVK	Borovoye	53.81	341	⇑eP	P	01 08 13.3	-1.5
BRVK				pmax	pmax		
	comp=Z,4µm,1.0s,mb7.3						
BRVK				MLR	MLR		
	comp=Z,2973µm,22.0s,MS8.3						
BRVK	Borovoye	53.81	341	⇑eP	P	01 08 13.3	-1.5
	comp=Z,4µm,1.0s,mb7.3						
BRVK				LR	LR		
	comp=Z,2973µm,22.0s,MS8.3						
CHKZ	Chkalovo	54.23	342	i P	P	01 08 16.9	-0.9
CHKZ				pmax	pmax		
	comp=Z,4µm,0.9s,mb7.4						
FRSS	Farasan al Kab	54.41	288	P	P	01 08 21.0	+1.3
CTA	Charters Tower	54.66	117	P	P	01 08 19.1	-2.3
	comp=Z,164nm,0.9s,mb6.1,baz=294,slow=8.4,SNR=67						
CTA				S	S	01 16 03.3	+5.3
	comp=Z,670nm,0.8s,baz=344,slow=5.6,SNR=1.5						
CTAO	Charters Tower	54.66	117	P	P	01 08 19.1	-2.4
CTAO	Charters Tower	54.66	117	PcS		01 16 14.4	
CTAO	Charters Tower	54.66	117	P	P	01 08 19.2	-2.3
CTAO				pmax	pmax		
	comp=Z,680nm,1.3s,mb6.5						
CTAO	Charters Tower	54.66	117	⇑eP	P	01 08 18.8	-2.7
	comp=Z,2µm,0.9s,mb7.0						
CTAO				LR	LR		
	comp=Z,3288µm,20.0s,MS8.4						
NAMS	An Nimas	54.69	291	P	P	01 08 22.2	+0.5
AFFS	‘Afif	54.91	297	P	P	01 08 22.7	-0.6
ARSS	Ar Rass	55.18	299	P	P	01 08 24.4	-0.8
BLJS	Baljurashi	55.38	292	P	P	01 08 27.0	+0.3
STKA	Stephens Creek	55.80	133	P	P	01 08 26.4	-3.2
	comp=Z,62nm,1.1s,baz=310,slow=7.5,SNR=16						
STKA				S	S	01 16 20.5	+7.3
	comp=Z,518nm,0.7s,baz=10,slow=15,SNR=1.7						
STKA	Stephens Creek	55.80	133	⇑eP	P	01 08 25.9	-3.7
BOD	Bodaibo	56.10	12	eP	P	01 08 30.2	-1.2
HILS	Ha’il	56.81	301	P	P	01 08 36.1	-0.9
FURI	Furi	57.11	278	P	P	01 08 39.5	+0.3
CLNS	Chul’man	58.04	18	eP	P	01 08 44.9	-0.3
CLNS				e*PP	pP	01 08 56.2	+3.0
CLNS				e	PP	01 10 48.6	-6.9
CLNS				eS	S	01 16 40.9	-1.6
CLNS				e		01 18 21.7	
CLNS				eSS	SS	01 20 36.3	+0.9
CLNS				pmax	pmax		
	comp=Z,391nm,0.8s,mb6.5						
CLNS				pmax	pmax		
	comp=N,269nm,0.9s						
CLNS				pmax	pmax		
	comp=E,174nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,1µm,1.0s,mb7.0						
CLNS				pmax	pmax		
	comp=N,2µm,0.7s						
CLNS				pmax	pmax		
	comp=E,1µm,0.9s						
CLNS				smax			
	comp=N,178µm,19.1s						
CLNS				smax			
	comp=Z,275µm,14.8s						
CLNS				smax			
	comp=E,159µm,13.6s						
MAK	Makhachkala	58.22	320	d iP	P	01 08 45.0	-1.6
MAK				pmax	pmax		
	comp=Z,105µm,12.0s						
MAK				pmax	pmax		
	comp=N,25µm,20.0s						
MAK				pmax	pmax		
	comp=E,65µm,20.0s						
MAK				pmax	pmax		
	comp=N,1µm,2.0s						
MAK				pmax	pmax		
	comp=E,4µm,2.0s						
MAK				pmax	pmax		
	comp=Z,4µm,2.0s,mb7.1						
MAK				MLR	MLR		
	comp=Z,4502µm,17.0s,MS8.7						
MAK				MLR	MLR		
	comp=N,2843µm,15.0s,MS8.6						
MAK				MLR	MLR		
	comp=E,1955µm,15.0s,MS8.6						
MAK	Makhachkala	58.22	320	eP	P	01 08 46.0	-0.6
HKR	Hakkari	58.50	313	P	P	01 08 52.7	+4.0
HKR	Hakkari	58.50	313	P	P	01 08 52.7	+4.1
KBRS	Khaybar	58.63	298	P	P	01 08 49.6	-0.2
KMBO	Kilima Mbogo	58.79	267	P	P	01 08 49.2	-1.8
	comp=E,62nm,1.0s,baz=56,slow=8.7,SNR=63						
KMBO				S	S	01 16 55.8	+2.9
	comp=E,197nm,1.0s,baz=35,slow=14,SNR=1.9						
KMBO	Kilima Mbogo	58.79	267	P	P	01 08 49.4	-1.7
KMBO	Kilima Mbogo	58.79	267	⇓iP	P	01 08 49.2	-1.8
KMBO				pmax	pmax		
	comp=Z,454nm,1.0s						
KMBO				MLR	MLR		
	comp=Z,8824µm,22.0s						
KMBO	Kilima Mbogo	58.79	267	⇓iP	P	01 08 49.2	-1.8
	comp=Z,454nm,1.0s,mb6.5						
KMBO				eS	tx	01 17 37.0	
KMBO				LR	LR		
	comp=Z,8824µm,22.0s,MS8.8						
GNI	Garni	58.81	316	P	P	01 08 49.3	-1.5
GNI	Garni	58.81	316	P	P	01 08 49.1	-1.7
	comp=Z,30nm,0.9s,baz=243,slow=2.9,SNR=24						
GNI				S	S	01 17 05.0	+12
	comp=Z,1µm,1.0s,baz=301,slow=7.7,SNR=1.3						
GNI				LR	LR	01 38 29.4	
	comp=Z,3438µm,20.8s,baz=288,slow=40						
VANT	Van	59.09	313	P	sP	01 09 01.5	-2.3
TVAN	Van	59.11	314	i P	pP	01 08 59.6	-1.4
YSS	Yuzh-Sakhalins	59.29	36	α iP	P	01 08 52.0	-2.0
YSS				i *SP	sP	01 09 07.0	+1.9
YSS				i		01 11 12.0	
YSS				i PS	S	01 17 04.0	+5.2
YSS				pmax	pmax		
	comp=N,4µm,10.0s						
YSS				pmax	pmax		
	comp=E,5µm,10.0s						
YSS				pmax	pmax		
	comp=Z,15µm,10.0s						
YSS	Yuzh-Sakhalins	59.29	36	⇑eP	P	01 08 52.8	-1.2
	comp=Z,883nm,1.0s,mb6.8						
YSS				LR	LR		
	comp=Z,8684µm,21.0s,MS8.9						
YNBS	Yanbu‘ al Bahr	59.47	296	P	P	01 08 55.9	+0.3
TI2	Plekhanov	59.48	317	α iP	P	01 08 53.2	-2.2
TI2				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.9						
YUK	Yuzh-Kuril’sk	59.73	40	⇑iP	P	01 08 54.5	-2.6
YUK				i S	S	01 17 18.0	+13
YUK				pmax	pmax		
	comp=Z,235µm,18.0s						
YUK				pmax	pmax		
	comp=E,89µm,17.0s						
KARS	Kars	60.15	316	P	pP	01 09 05.5	-2.7
SVE	Sverdlovsk	60.17	339	⇑iP	P	01 08 57.0	-2.9
SVE				pmax	pmax		
	comp=Z,60nm,2.0s						
SVE				pmax	pmax		
	comp=Z,16µm,6.5s						
UMJS	Umm Lajj	60.25	297	P	P	01 09 01.3	+0.4
BTMT	Batman	60.39	313	P	pP	01 09 07.8	-2.0
BEST	Besiri	60.44	312	i P	P	01 09 03.5	+1.4
ZEI	Tsey	60.49	318	⇑iP	P	01 09 00.7	-1.6
ZEI				i		01 09 11.8	
ZEI				i		01 11 14.3	
ZEI				eS	S	01 17 15.3	+0.9
ZEI				e		01 21 15.1	
ZEI				pmax	pmax		
	comp=Z,8µm,7.0s						
ZEI				pmax	pmax		
	comp=N,3µm,12.0s						
ZEI				pmax	pmax		
	comp=E,4µm,10.0s						
ZEI				pmax	pmax		
	comp=Z,162nm,1.1s,mb6.0						
ZEI				MLR	MLR		
	comp=Z,151µm,16.0s						
ARU	Arti	60.65	337	⇑iP	P	01 09 01.1	-2.1
ARU				e		01 09 41.5	
ARU				i S	S	01 17 15.5	-0.7
ARU				i		01 18 46.7	
ARU				eSSS	SSS	01 23 48.1	-3.8
ARU				pmax	pmax		
	comp=Z,2µm,1.4s,mb7.1						
ARU				MLR	MLR		
	comp=N,6807µm,21.0s,MS8.9						
ARU				MLR	MLR		
	comp=Z,7591µm,21.0s,MS8.8						
ARU				MLR	MLR		
	comp=E,6126µm,22.0s,MS8.9						
ARU	Arti	60.65	337	eP	P	01 09 00.9	-2.3
	comp=E,6µm,1.2s,mb7.6						
ARU				LR	LR		
	comp=Z,2161µm,21.0s,MS8.3						
VRT	Varto	60.70	314	P	P	01 09 03.2	-0.6
VRT	Varto	60.70	314	P	P	01 09 03.3	-0.5
ERZM	Erzurum	61.10	314	i P	P	01 09 05.4	-1.1
EZM	Erzurum	61.10	314	P	P	01 09 08.0	+1.5
DIY	Diyarbakir	61.22	312	P	P	01 09 07.7	+0.4
DIY	Diyarbakir	61.22	312	P	P	01 09 07.8	+0.4
BINT	Bingol	61.36	313	P	P	01 09 08.7	+0.4
BCA	Borcka	61.50	316	P	P	01 09 07.7	-1.5
BCA	Borcka	61.50	316	P	P	01 09 07.8	-1.4
TBKS	Tabuk	61.52	300	P	P	01 09 09.7	+0.2
KIV	Kislovodsk	61.80	319	P	P	01 09 09.2	-1.9
	comp=Z,2µm,1.4s,mb7.0,SNR=87						
KIV	Kislovodsk	61.80	319	eP	P	01 09 09.2	-1.9
KIV				e		01 09 47.6	
KIV				eS	S	01 17 31.2	+0.3
KIV				eSS	SS	01 21 38.9	+4.3
KIV				eSSS	SSS	01 24 08.2	-7.4
KIV				pmax	pmax		
	comp=N,137nm,1.2s						
KIV				pmax	pmax		
	comp=E,216nm,1.2s						
KIV				pmax	pmax		
	comp=Z,424nm,1.2s,mb6.5						
KIV				pmax	pmax		
	comp=Z,7µm,3.2s						
KIV	Kislovodsk	61.80	319	⇑eP	P	01 09 08.9	-2.2
	comp=Z,3µm,1.0s,mb7.3						
KIV				LR	LR		
	comp=Z,1301µm,20.0s,MS8.1						
GOF	Gofitskoye	62.04	320	⇓iP	P	01 09 10.5	-2.3
GOF				eS	S	01 17 32.5	-1.5
GOF				pmax	pmax		
	comp=Z,1µm,2.8s,mb6.6						
GOF				pmax	pmax		
	comp=Z,22µm,9.0s						
URFA	Urfa	62.12	311	P	P	01 09 12.5	-0.9
ASF	Jabal al Asfar	62.14	305	P	P	01 09 12.5	-1.1
	comp=Z,33nm,0.8s,baz=332,slow=3.4,SNR=35						
ASF				S	S	01 17 42.0	+6.5
	comp=Z,383nm,1.2s,baz=7.1,slow=21,SNR=1.6						
EZC	Erzincan	62.16	314	P	P	01 09 16.1	+2.5
EZC	Erzincan	62.16	314	P	P	01 09 16.2	+2.6
PTK	Pertek	62.17	313	P	P	01 09 12.6	-1.1
JMQS	Jabal Moqyreh	62.24	301	P	P	01 09 14.6	+0.3
AYUS	‘Aynunah	62.62	300	P	P	01 09 17.5	+0.6
GUMT	Gumushane	62.65	314	P	P	01 09 16.1	-0.8
GUMT	Gumushane	62.65	314	P	P	01 09 16.2	-0.7
MALT	Malatya	62.69	312	⇑eP	P	01 09 15.9	-1.3
MALT				pmax	pmax		
	comp=Z,2µm,1.2s,mb7.2						
MALT	Malatya	62.69	312	⇑eP	P	01 09 15.9	-1.3
	comp=Z,2µm,1.2s,mb7.2						
MYA	Malataya	62.70	312	P	P	01 09 17.2	0.0
MYA	Malataya	62.70	312	P	P	01 09 17.3	+0.1
BDAS	Al Bad‘	62.81	300	P	P	01 09 18.7	+0.6
JMOS	Jabal al Moall	62.95	301	P	P	01 09 19.6	+0.5
DUSS	Damascus Unive	62.98	306	i P	P	01 09 19.4	+0.2
DUSS				i P		01 09 19.9	
DUSS				i P		01 09 20.4	
DUSS				e		01 09 21.9	
	baz=105,slow=2.9						
DUSS				eS	S	01 17 39.8	-6.1
ALWS	Ilw as Safayha	63.02	301	P	P	01 09 20.0	+0.6
MKRJ	Makawir	63.03	304	P	P	01 09 19.2	-0.3
GZT	Gaziantep	63.05	310	i P	P	01 09 19.7	+0.2
HAQS	Haql	63.09	301	P	P	01 09 20.4	+0.5
AQBJ	Aqaba	63.12	302	P	P	01 09 20.2	+0.1
EIL	Elat	63.19	302	P	P	01 09 19.4	-1.1
	comp=Z,64nm,0.7s,mb5.9,baz=126,slow=7.2,SNR=55						
EIL				S	S	01 17 51.7	+3.0
	comp=Z,232nm,0.8s,baz=251,slow=26,SNR=1.7						
EIL				LR	LR	01 39 07.9	
	comp=Z,8655µm,19.1s,MS8.9,baz=316,slow=38						
EIL	Elat	63.19	302	P	P	01 09 20.6	0.0
MZDA	Masada	63.20	303	P	P	01 09 20.9	+0.3
DRGI	Dragot	63.24	304	P	P	01 09 21.2	+0.3
MBH	Mount Berech	63.25	302	P	P	01 09 20.6	-0.4
GAZ	Gaziantep	63.26	310	P	P	01 09 22.5	+1.6
GAZ	Gaziantep	63.26	310	P	P	01 09 22.5	+1.6
PRNI	Paran	63.29	302	P	P	01 09 21.5	+0.3
KSDI	Kefar Szold	63.41	306	P	P	01 09 21.9	-0.1
MMLI	Mount Malkishu	63.42	305	P	P	01 09 22.5	+0.5
BHL	Bhannes	63.59	306	eP	P	01 09 22.1	-1.1
MASH	Mash‘abbe Sade	63.62	303	P	P	01 09 23.7	+0.2
SOC	Sochi	63.62	318	i P	P	01 09 20.3	-3.0
SOC				i		01 09 56.4	
SOC				i S	S	01 17 54.4	+0.5
SOC				i SS	SS	01 22 03.3	+0.1
SOC				pmax	pmax		
	comp=Z,2µm,1.0s,mb7.0						
SOC				pmax	pmax		
	comp=N,574nm,1.5s						
SOC				pmax	pmax		
	comp=E,793nm,1.4s						
SOC				MLR	MLR		
	comp=N,3887µm,22.0s,MS8.7						
SOC				MLR	MLR		
	comp=Z,5118µm,22.0s,MS8.7						
SOC				MLR	MLR		
	comp=E,4413µm,23.0s,MS8.7						
KAHT	Ahir Dag	63.65	311	i P	pP	01 09 33.2	+1.4
YAK	Yakutsk	63.68	17	c iP	P	01 09 21.2	-2.1
YAK				e		01 09 35.5	
YAK				e		01 11 48.2	
YAK				pmax	pmax		
	comp=E,182nm,1.0s						
YAK				pmax	pmax		
	comp=Z,886nm,1.0s,mb6.8						
YAK				pmax	pmax		

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           comp=N,311nm,1.1s
YAK                                pmax    pmax
           comp=Z,3µm,1.1s,mb7.2
YAK                                pmax    pmax
           comp=N,1µm,1.0s
YAK                                pmax    pmax
           comp=E,1µm,1.3s
YAK                                MLR     MLR
           comp=N,261µm,13.0s,MS7.8
YAK                                MLR     MLR
           comp=Z,214µm,13.0s,MS7.5
YAK                                MLR     MLR
           comp=E,285µm,12.0s,MS7.8
SLTI   Sal'it            63.69 304  P      P       01 09 24.4 +0.5
RTMM   Retamin           63.71 303  P      P       01 09 24.3 +0.2
HNTI   Hanita            63.77 305  P      P       01 09 25.0 +0.5
HTY    Hatay             63.79 309  P      P       01 09 23.0 -1.5
COBT   Iskenderun        63.81 309 i P     P       01 09 24.5 -0.1
OFRI   'Ofer             63.82 305  P      P       01 09 24.4 -0.4
HAF    Haifa             63.82 305  P      P       01 09 24.6 -0.2
KZIT   Kziot             63.92 303  P      P       01 09 25.2 -0.3
SVST   Sivas             64.25 313 i P     P       01 09 28.4 +0.9
CEYT   Ceyhan            64.33 310  P      P       01 09 30.1 +2.0
CEYT   Ceyhan            64.33 310  P      P       01 09 30.2 +2.1
TOKT   Tokat             64.71 313  P      P       01 09 27.9 -2.6
TOKT   Tokat             64.71 313  P      P       01 09 27.9 -2.5
BNN    Bunyan            64.78 312  P      P       01 09 31.2 +0.2
BNN    Bunyan            64.78 312  P      P       01 09 31.3 +0.3
PHNC   Paralimni         65.16 307  P      P       01 09 38.8 +5.4
MBAR   Mbarara           65.25 268⇓eP      P       01 09 31.6 -2.8
MBAR                                pmax   pmax
           comp=Z,650nm,1.6s,mb6.4
MBAR   Mbarara           65.25 268⇓iP      P       01 09 31.5 -2.9
           comp=Z,1µm,1.4s,mb6.8
MBAR                                LR     LR
           comp=Z,1645µm,22.0s,MS8.2
KVT    Kavak             65.31 314  P      P       01 09 33.1 -1.2
YOZ    Yozgat            65.41 312  P      P       01 09 35.2 +0.3
YOZ    Yozgat            65.41 312  P      P       01 09 35.2 +0.3
NIG    Nigde             65.51 311  P      P       01 09 35.7 +0.1
NIG    Nigde             65.51 311  P      P       01 09 35.8 +0.2
ANN    Anapa             65.59 318c iP     P       01 09 33.3 -2.7
ANN                                i *PP   pP      01 09 49.1 +4.9
ANN                                i S     S       01 18 18.5 +0.3
ANN                                i               01 19 19.0
ANN    Anapa             65.59 318⇑iP      P       01 09 33.0 -3.0
CSS    Prodhromos        65.71 307  P      P       01 09 35.7 -1.2
           comp=Z,55nm,1.2s
IKL    Isikli            65.73 308  P      P       01 09 41.8 +4.7
MAMC   Mammari           65.84 307 ⇑P      P       01 09 38.7 +0.9
MAMC   Mammari           65.84 307⇑iP      P       01 09 38.7 +0.9
CTKT   Corum             66.08 313 i P     P       01 09 39.9 +0.6
LEF    Lefka             66.09 307  P      P       01 09 42.5 +3.1
BOYT   Boyabat           66.24 314 i P     P       01 09 38.9 -1.3
ALFC   Alevga            66.33 307 ⇑P      P       01 09 40.3 -0.6
           comp=Z,48nm,0.7s
ALFC   Alevga            66.33 307⇑iP      P       01 09 40.3 -0.6
BYBT   Boyabat           66.35 314  P      P       01 09 41.0 +0.1
PPCY   Paphos            66.48 307  P      P       01 09 42.6 +0.7
AKMC   Akamas            66.52 307  P      P       01 09 42.0 -0.1
KAMT   Kaman             66.52 312  P      P       01 09 40.0 -2.1
BRTR   Keskin Array B    66.67 312  P      P       01 09 39.9 -3.1
           comp=Z,37nm,0.8s,baz=130,slow=6.7,SNR=63
BRTR                                PKP2ab         01 38 32.8
           comp=Z,12nm,1.1s,baz=135,slow=2.0,SNR=3.0
TOS    Tosya             66.76 313  P      P       01 09 43.0 -0.5
HDMB   Hadim             66.84 309  P      P       01 09 40.8 -3.4
PECR   Pechory           66.86 332 eP      P       01 09 42.0 -1.9
PECR                                pmax   pmax
           comp=N,6µm,9.0s
PECR                                pmax   pmax
           comp=E,8µm,9.0s
CANT   Cankiri           66.93 313  P      P       01 09 43.6 -1.0
BZK    Bozkurt           67.04 314  P      P       01 09 45.9 +0.5
KONT   Konya--Tatoy      67.18 310  P      P       01 09 44.7 -1.6
ANTO   Ankara            67.34 312  P      P       01 09 45.5 -1.8
BALT   Daday             67.36 314 i P     P       01 09 45.6 -1.7
LOD    Lodumlu           67.37 312  P      P       01 09 43.6 -3.8
KIZT   Kizilcal          67.77 311  P      P       01 09 49.3 -0.7
SAFT   Safranbolu        67.78 313  P      P       01 09 49.2 -0.8
SIM    Simferopol'       67.87 318c iP     P       01 09 48.6 -1.9
SIM                                i S     S       01 18 53.0 +7.3
SIM    Simferopol'       67.87 318⇑iP      P       01 09 48.4 -2.1
SGKT   Sivrigoynuk       68.07 313 i P     P       01 09 51.7 -0.1
ANTB   Antalya           68.26 308  P      P       01 09 55.9 +2.9
BCK    Bucak             68.43 309  P      P       01 09 52.6 -1.6
ISP    Isparta           68.58 309  P      P       01 09 52.4 -2.7
ISP    Isparta           68.58 309  P      P       01 09 54.1 -0.9
ISP                                 pmax   pmax
           comp=Z,310nm,1.3s,mb6.1
ISP    Isparta           68.58 309  P      P       01 09 55.4 +0.4
MDU    Mudurnu           68.66 312  P      P       01 09 53.1 -2.4
ESKT   Eskisehir         68.70 311  P      P       01 09 54.3 -1.5
ESKT   Eskisehir         68.70 311 i P     P       01 09 56.2 +0.4
ELL    Elmali            68.81 308  P      P       01 09 57.2 +0.7
SKR    Severo-Kuril's    68.83  36⇑iP      P       01 09 52.0 -4.4
SKR                                i       PcP     01 10 17.5 -3.3
SKR                                i       PP      01 12 25.0 -5.7
SKR                                i S     tx      01 19 37.0
SKR                                 pmax   pmax
           comp=N,18µm,4.0s
SKR                                 pmax   pmax
           comp=E,47µm,4.0s
SKR                                 pmax   pmax
           comp=Z,83µm,4.0s
SKR                                 pmax   pmax
           comp=N,3µm,1.0s
SKR                                 pmax   pmax
           comp=E,2µm,1.0s
SKR                                 pmax   pmax
           comp=Z,9µm,1.0s,mb7.7
SKR                                 pmax   pmax
           comp=N,113µm,20.0s
SKR                                 pmax   pmax
           comp=E,176µm,20.0s
SKR                                 pmax   pmax
           comp=Z,370µm,20.0s
KSL    Kastellorizon     68.95 307 eP      P       01 09 56.5 -0.8
ALT    Altintas          69.16 311  P      P       01 09 58.7 +0.2
GPA    Golpazari         69.29 312  P      P       01 09 59.3 -0.1
FETY   Fethiye           69.44 308  P      P       01 09 58.2 -2.1
KHL    Karahalli         69.44 310  P      P       01 10 02.7 +2.3
LSZ    Lusaka            69.52 252⇓eP      P       01 09 58.3 -2.8
LSZ                                 pmax   pmax
           comp=Z,569nm,1.5s,mb6.3
LSZ                                 MLR    MLR
           comp=Z,5953µm,21.0s,MS8.8
LSZ    Lusaka            69.52 252⇓eP      P       01 09 58.3 -2.8
           comp=Z,569nm,1.5s,mb6.3
LSZ                                 LR     LR
           comp=Z,5953µm,21.0s,MS8.8
DENT   Denizli           69.70 309  P      P       01 10 03.2 +1.3
MOS    Moscow            69.78 329α iP     P       01 10 00.7 -1.4
MOS                                e               01 10 22.1
MOS                                ePPP    PPP     01 14 22.0 +4.1
MOS                                i S     S       01 19 11.1 +2.9
MOS                                e               01 20 01.9
MOS                                 pmax   pmax
           comp=N,4µm,3.8s
MOS                                 pmax   pmax
           comp=Z,16µm,3.8s
MOS                                 pmax   pmax
           comp=E,8µm,4.2s
MOS                                 pmax   pmax
           comp=E,550nm,1.6s
MOS                                 pmax   pmax
           comp=Z,2µm,1.6s,mb6.9
MOS                                 pmax   pmax
           comp=N,407nm,1.7s
MOS                                 smax
           comp=N,517µm,13.0s
DALT   Dalyan (Mudla)    69.82 308  P      P       01 10 01.8 -0.8
MIR    Mirnyy            69.83 181deP      P       01 10 01.0 -1.2
MIR                                 pmax   pmax
           comp=Z,31µm,6.0s
HRT    Hereke            69.89 312  P      P       01 10 01.5 -1.5
MA2    Magadan           69.92  26 eP      P       01 10 01.6 -1.3
MA2                                eS      S       01 19 08.4 -1.4
MA2                                 pmax   pmax
           comp=N,500nm,1.3s
MA2                                 pmax   pmax
           comp=E,500nm,1.3s
MA2                                 pmax   pmax
           comp=Z,2µm,1.3s,mb6.9
MA2    Magadan           69.92  26⇑eP      P       01 10 01.7 -1.2
           comp=Z,963nm,1.4s,mb6.5
MA2                                 LR     LR
           comp=Z,4235µm,20.0s,MS8.7
YLV    Yalova            70.05 312  P      P       01 10 01.8 -2.1
OBN    Obninsk           70.07 328α iP     P       01 10 02.0 -1.8
OBN                                i               01 10 17.9
OBN                                e       PcP     01 10 25.5 -0.4
OBN                                i       PP      01 12 37.1 -3.6
OBN                                ePPP    PPP     01 14 14.9 -5.9
OBN                                eS      S       01 19 15.1 +3.5
OBN                                i       SKS     01 19 59.2 -7.4
OBN                                eSS     SS      01 23 40.9 -1.9
OBN                                 pmax   pmax
           comp=Z,1µm,2.0s,mb6.6
OBN                                 pmax   pmax
           comp=Z,1µm,1.9s,mb6.6
OBN                                 MLR    MLR
           comp=Z,9524µm,23.0s,MS9.0
OBN    Obninsk           70.07 328⇑eP      P       01 10 01.7 -2.2
           comp=Z,1µm,1.4s,mb6.7
OBN                                 LR     LR
           comp=Z,2313µm,22.0s,MS8.4
ARG    Arkhangelos       70.11 307 eP      P       01 10 02.6 -1.9
ARG    Arkhangelos       70.11 307  P      P       01 10 04.7 +0.2
ORLT   Orhaneli          70.29 311  P      P       01 10 04.9 -0.6
BADT   Buyukada          70.30 312  P      P       01 10 04.3 -1.2
CASY   Casey             70.33 174⇓eP      P       01 10 01.3 -3.9
           comp=Z,17µm,1.5s,mb7.7
CASY                                LR     LR
           comp=Z,3996µm,20.0s,MS8.7
ISK    Istanbul-Kandi    70.39 312  P      P       01 10 04.3 -1.8
DST    Dursunbey         70.40 311  P      P       01 10 08.8 +2.7
MLSB   Milas             70.59 308  P      pP      01 10 13.3 -2.2
KAP    Karpathos         70.76 306 eP      P       01 10 07.3 -1.1
AKS    Akhisar           70.87 310  P      P       01 10 09.2 +0.2
BALB   Balikesir         70.97 311  P      P       01 10 08.0 -1.6
BNT    Bandirma          71.09 312  P      P       01 10 09.9 -0.4
EDC    Edincik           71.13 311  P      P       01 10 15.6 +5.0
PET    Petropavlovsk     71.14  35c iP     P       01 10 08.1 -2.3
PET                                e               01 12 48.9
PET                                eS      S       01 19 17.5 -6.7
PET                                eSS     SS      01 23 57.1 -2.8
PET                                 pmax   pmax
           comp=Z,2µm,1.2s,mb7.0
PET                                 pmax   pmax
           comp=N,547nm,0.9s
PET                                 pmax   pmax
           comp=E,526nm,0.8s
PET                                 pmax   pmax
           comp=N,96µm,21.2s
PET                                 pmax   pmax
           comp=Z,386µm,24.6s
PET                                 pmax   pmax
           comp=E,149µm,21.1s
PET                                 pmax   pmax
           comp=N,72µm,16.7s
PET                                 pmax   pmax
           comp=E,90µm,14.6s
PET                                 pmax   pmax
           comp=Z,239µm,20.4s
PET                                 pmax   pmax
           comp=Z,395µm,24.8s
PET                                 pmax   pmax
           comp=Z,211µm,20.8s
PET                                 MLR    MLR
           comp=Z,8428µm,21.0s,MS9.0
PET                                 MLR    MLR
           comp=Z,5954µm,20.0s
PET    Petropavlovsk     71.14  35⇑eP      P       01 10 08.1 -2.3
           comp=Z,275nm,0.9s,mb6.2
PET                                 LR     LR
           comp=Z,7186µm,20.0s,MS8.9
IZM    Izmir             71.20 309  P      P       01 10 11.4 +0.4
TIXI   Tiksi             71.25  10 i P     P       01 10 08.7 -2.1
TIXI                                pmax   pmax
           comp=E,132nm,1.1s
TIXI                                pmax   pmax
           comp=Z,1µm,1.1s,mb6.7
TIXI                                pmax   pmax
           comp=N,370nm,1.9s
TIXI                                MLR    MLR
           comp=N,6160µm,19.0s
TIXI   Tiksi             71.25  10  Pu             01 10 09.9
TIXI                                LR     LR
           comp=Z,14187µm,21.0s,MS9.2
MRMT   Marmara Adasi     71.38 312  P      P       01 10 09.2 -2.9
SMG    Samos             71.40 309 eP      P       01 10 10.3 -2.0
PSN    Preselentsi       71.62 315 i P     P       01 10 13.0 -0.4
NPS    Neapolis          71.97 306 eP      P       01 10 14.3 -1.4
KIS    Kishinev          71.99 318α iP     P       01 10 13.5 -2.1
KIS                                i S     S       01 19 30.0 -4.0
KIS                                 pmax   pmax
           comp=Z,500nm,2.0s,mb6.1
KIS                                 pmax   pmax
           comp=Z,9µm,6.0s
KIS                                 smax
           comp=N,620µm,23.0s
KIS                                 smax
           comp=E,165µm,19.0s
KIS    Kishinev          71.99 318⇑iP      P       01 10 13.0 -2.6
CFR    Carcaliu          72.00 316⇓iP      P       01 10 15.3 -0.4
PRD    Provadia          72.07 314 i P     P       01 10 10.0 -6.1
PRK    Paraskevi         72.12 310 eP      P       01 10 14.7 -1.8
EDRB   Edirne            72.26 313  P      P       01 10 15.9 -1.4
SANT   Santorini         72.27 307⇑eP      P       01 10 14.6 -2.8
           comp=E,642nm,1.3s,mb6.4
APE    Apeiranthos       72.32 308  P      P       01 10 15.6 -2.1
APE    Apeiranthos       72.32 308 eP      P       01 10 15.2 -2.5
APE    Apeiranthos       72.32 308c iP     P       01 10 15.1 -2.6
JMB    Yambol            72.50 313 i P     P       01 10 19.0 +0.2
IDI    Anoyia            72.56 306  P      P       01 10 17.3 -1.9
           comp=E,76nm,0.6s,mb5.8,baz=100,slow=7.2,SNR=44
IDI                                 S      S       01 19 41.6 +0.9
           comp=E,167nm,0.8s,baz=49,slow=19,SNR=2.0
ALN    Alexandroupoli    72.59 312 eP      P       01 10 20.7 +1.4
AKASG  Malin Array Be    72.72 322  P      P       01 10 17.4 -2.4
           comp=E,62nm,0.6s,baz=86,slow=4.6,SNR=78
AKASG                               S      S       01 19 45.2 +2.9
           comp=E,73nm,0.8s,baz=97,slow=7.5,SNR=2.7
BRD    Bordesti          72.85 317⇑iP      P       01 10 22.2 +1.5
RDO    Rodhopi           73.02 312 eP      P       01 10 19.5 -2.3
LIA    Limnos Island     73.06 311 eP      P       01 10 19.9 -2.2
ISR    Istrita           73.09 316⇓iP      P       01 10 23.9 +1.8
VRI    Vrincioaia        73.12 317 ⇑P      P       01 10 21.4 -0.9
SZH    Strazhica         73.13 314 i P     P       01 10 22.0 -0.4
VAM    Vamos             73.13 306 eP      P       01 10 21.4 -1.2
LOS    Limnos            73.14 311 eP      P       01 10 26.9 +4.3
GVD    Gavdhos           73.15 305⇑eP      P       01 10 20.4 -2.3
           comp=E,2µm,1.0s,mb7.1
DIM    Dimitrovgrad      73.19 313 i P     P       01 10 20.0 -2.8
KDZ    Kurdzhali         73.20 312 i P     P       01 10 22.0 -0.8
DZM    Mont Dzumac       73.36 114 eP      P       01 10 21.3 -2.8
PVL    Pavlikeni         73.55 314 i P     P       01 10 25.0 +0.1
MLR    Muntele Rosu      73.58 316  P      P       01 10 23.9 -1.0
           comp=E,68nm,0.8s,baz=40,slow=0.8,SNR=42
MLR                                 S      S       01 19 54.3 +2.2
           comp=E,299nm,1.0s,baz=319,slow=11,SNR=1.3
MLR                                 LR     LR      01 50 04.6
           comp=E,3148µm,18.8s,baz=246,slow=42
LBTB   Lobatse           73.72 243  P      P       01 10 23.6 -2.6
LBTB                                P              01 10 23.7
LBTB                                P              01 10 23.7
LBTB                                S      S       01 19 54.5 +0.5
LBTB   Lobatse           73.72 243⇓eP      P       01 10 23.6 -2.6
LBTB                                pmax   pmax
           comp=Z,6µm,1.4s,mb7.4
LBTB                                MLR    MLR
           comp=Z,3104µm,20.0s,MS8.6
LBTB   Lobatse           73.72 243⇓eP      P       01 10 23.6 -2.6
           comp=Z,6µm,1.4s,mb7.3
LBTB                                LR     LR
           comp=Z,3104µm,20.0s,MS8.6
RZN    Rozhen            73.72 312 i P     P       01 10 23.0 -2.9
PTL    Penteli           73.78 309 eP      P       01 10 25.5 -0.8
PLD    Plovdiv           73.80 313 i P     P       01 10 26.0 -0.3
ATH    Athens Observa    73.88 308 eP      P       01 10 24.0 -2.9
NAIG   Nisos Aigina      74.03 308 eP      P       01 10 25.7 -2.0
OUR    Ouranopolis       74.04 311 eP      pP      01 10 34.6 -1.4
MTUR   Matau             74.13 316⇑iP      pP      01 10 34.3 -2.1
KYTH   Kithira           74.19 307 eP      P       01 10 26.0 -2.7
PAIG   Paliouri          74.21 310 eP      P       01 10 30.6 +1.9
VLI    Veliai            74.32 307 eP      P       01 10 25.7 -3.8
MMB    Musomiste         74.43 312 i P     P       01 10 27.0 -3.0
PLG    Polygyros         74.45 311 eP      P       01 10 27.7 -2.4
SRS    Serrai            74.46 312 eP      P       01 10 29.9 -0.2
NEO    Neokhori          74.46 310 eP      P       01 10 26.4 -3.8
XOR    Xorichti          74.49 310 eP      pP      01 10 36.8 -1.8
LKR    Lokris            74.54 309 eP      P       01 10 27.3 -3.4
MAW    Mawson            74.57 193  P      P       01 10 27.3 -3.0
           comp=Z,21nm,0.8s,baz=43,slow=6.8,SNR=8.2
MAW                                 S      S       01 20 11.7 +9.0
           comp=Z,244nm,0.9s,baz=296,slow=17,SNR=1.2
MAW                                 LR     LR      01 37 51.2
           comp=Z,2221µm,21.2s,baz=31,slow=32
MAW    Mawson            74.57 193⇓eP      P       01 10 28.4 -1.8
MAW                                 pmax   pmax
           comp=Z,2µm,1.4s
MAW                                 MLR    MLR
           comp=Z,3015µm,19.0s
MAW    Mawson            74.57 193⇓eP      P       01 10 28.4 -1.8
           comp=Z,2µm,1.4s,mb6.8
MAW                                 LR     LR
           comp=Z,3015µm,19.0s,MS8.6
SOH    Sokhos            74.59 311 eP      P       01 10 32.6 +1.6
MNK    Minsk             74.60 326⇑eP      P       01 10 26.0 -4.7
MNK                                e               01 13 16.0
MNK                                eS      S       01 20 00.0 -3.3
MNK                                ePS     PS      01 20 31.0  -11
MNK                                 pmax   pmax
           comp=Z,1µm,1.1s,mb6.8
MNK                                 MLR    MLR
           comp=Z,678µm,18.0s,MS8.0
BOSA   Boshof            74.77 239  P      P       01 10 29.3 -2.9
BOSA                                P              01 10 29.4
BOSA                                S      S       01 20 07.6 +1.9
BOSA   Boshof            74.77 239  P      P       01 10 29.9 -2.3
BOSA   Boshof            74.77 239⇓eP      P       01 10 29.2 -3.0
           comp=Z,838nm,1.4s,mb6.5
BOSA                                LR     LR
           comp=Z,2783µm,20.0s,MS8.6
THE    Thessaloniki      74.85 311 eP      P       01 10 31.1 -1.4
PUL    Pulkovo           74.94 331c iP     P       01 10 31.3 -1.2
PUL                                eS      S       01 20 14.8 +7.8
PUL                                 pmax   pmax
           comp=Z,3µm,0.8s,mb7.3
PUL                                 pmax   pmax
           comp=N,3µm,1.5s
PUL                                 pmax   pmax
           comp=E,5µm,1.9s
PUL                                 smax
           comp=N,387µm,12.8s
PUL                                 smax
           comp=E,205µm,10.5s
PUL    Pulkovo           74.94 331⇑iP      P       01 10 31.3 -1.2
KKB    Krupnik           74.95 312 i P     P       01 10 30.0 -3.0
VTS    Vitosha           74.98 313 i P     P       01 10 30.0 -3.1
KNT    Kendrikon         74.98 312 eP      P       01 10 35.2 +2.0
AGG    Agios Georgios    75.11 309 eP      P       01 10 34.1 +0.2
LIT    Litokhoron        75.14 310 eP      P       01 10 34.6 +0.5
ITM    Ithomi            75.19 307 eP      P       01 10 31.9 -2.5
VAY    Valandovo         75.25 312 i P     P       01 10 32.2 -2.5
VAY                                i S     S       01 20 16.6 +5.8
VAY    Valandovo         75.25 312⇑iP      P       01 10 31.7 -3.0
VAY                                i PPP   Px      01 15 35.3
VAY                                i S     S       01 20 17.8 +7.0
VAY                                i SS    Sx      01 24 28.1
GRG    Griva             75.33 311 eP      P       01 10 36.6 +1.4
IDID   Didziasalis       75.43 326 eP      P       01 10 34.4 -1.1
IDID                               epP     pP      01 10 42.0 -1.6
EVR    Evrytania         75.50 309 eP      P       01 10 33.7 -2.5
RLS    Riolos of Patr    75.66 308 eP      P       01 10 35.3 -1.8
KZN    Kozani            75.71 311 eP      P       01 10 34.2 -3.2
IIGN   Ignalina          75.73 326 eP      P       01 10 36.0 -1.1
IIGN                                AMPb   AMB     01 11 56.6
           comp=Z,2µm,1.1s,mb6.9
LVV    L'vov             75.74 321 i P     P       01 10 43.0 +5.7
IZAR   Zarasai           75.82 327 eP      P       01 10 36.4 -1.2
IZAR                               epP     pP      01 10 43.7 -2.1
IZAR                                AMPb   AMB     01 11 56.9
           comp=Z,1µm,1.1s,mb6.7
ISAL   Salakas           75.84 327 eP      P       01 10 36.5 -1.2
ISAL                               epP     pP      01 10 44.3 -1.7
ISAL                                AMPb   AMB     01 11 57.0
           comp=Z,1µm,1.1s,mb6.7
MEV    Metsovon          76.05 310 eP      P       01 10 41.4 +2.0
FNA    Florina           76.07 311 eP      P       01 10 44.2 +4.8
BOLS   Boljevac          76.08 314 eP      P       01 10 38.6 -0.7
BIA    Bitola            76.14 311 i P     P       01 10 44.5 +4.7
BIA                                i               01 10 55.9
BIA                                i               01 11 02.5
SKO    Skopje            76.18 312 i P     P       01 10 38.3 -1.7
           comp=Z,190nm,0.8s,mb6.1
SKO                                i               01 10 44.3
SKO                                i               01 10 54.3
SKO                                i S     S       01 20 27.7 +6.7
SKO    Skopje            76.18 312 i P     P       01 10 38.3 -1.7
SKO                                i               01 10 44.3
SKO                                i               01 10 54.3
           comp=Z,0.2nm,0.8s
SKO                               ⇓iS      S       01 20 27.7 +6.7
SKO                                 Lm             01 50 30.0
           comp=E,2µm,16.5s
SKO                                 Lm             01 50 30.0
           comp=N,2µm,16.5s
VSU    Vasula            76.30 330⇑iP      P       01 10 38.9 -1.4
LVZ    Lovozero          76.32 340c iP     P       01 10 38.7 -1.6
LVZ                                e               01 20 54.1
LVZ                                 pmax   pmax
           comp=Z,2µm,1.1s,mb7.0
LVZ                                 pmax   pmax
           comp=N,385nm,0.9s
LVZ                                 pmax   pmax
           comp=E,714nm,1.0s
LVZ                                 MLR    MLR
           comp=N,8878µm,22.0s
LVZ    Lovozero          76.32 340⇑iP      P       01 10 39.2 -1.1
JAN    Janina            76.33 310 eP      P       01 10 38.8 -2.1
VLS    Valsamata         76.36 308 eP      P       01 10 39.4 -1.7
KBN    Korca             76.49 311 ep      pP      01 10 51.2 +1.2
OHR    Ohrid             76.55 311 i P     P       01 10 42.2 +0.1
OHR                                i               01 10 56.3
OHR                                i S     S       01 20 23.9 -1.1
OHR                                i               01 20 55.5
OHR    Ohrid             76.55 311 i P     P       01 10 42.2 +0.1
OHR                                i               01 10 46.1
OHR                                i               01 10 56.3
OHR                                i               01 11 11.2
OHR                                i S     S       01 20 23.9 -1.1
OHR                                i               01 20 55.5
OHR    Ohrid             76.55 311 i P     P       01 10 42.2 +0.1
OHR                                i               01 10 46.1
OHR                                i               01 10 56.3
OHR                                i               01 11 11.2
OHR                                i S     S       01 20 31.5 +6.5
OHR                                i               01 20 55.5
KWP    Kalwaria          76.55 320 eP      P       01 10 40.9 -1.0
KWP                                e*PP    pP      01 10 47.9 -2.2
KWP                                e               01 10 57.9
KWP                                eSS             01 20 44.7
KWP                                e       ScS     01 20 53.0 +0.4
KWP    Kalwaria          76.55 320 eP      P       01 10 40.9 -1.0
KWP                                epP     pP      01 10 47.9 -2.2
KWP                                ePcP    PcP     01 10 57.9 +4.2
KWP                                eS      S       01 20 36.0  +11
KWP                                esS             01 20 44.7
KWP                                eSKS    SKS     01 20 53.0 -1.4
KWP                                eSKS    SKS     01 20 54.3 -0.1
KWP                                 MLR    MLR     01 40 44.8
           comp=N,6108µm,37.2s,MS8.6
LSK    Leskovik          76.58 310 ep      pP      01 10 48.0 -2.5
DRV    Dumont d'Urvil    76.63 163  S      SKS     01 20 50.0 -4.6
UZH    Uzhgorod          76.64 319 eP      P       01 10 41.0 -1.4
UZH    Uzhgorod          76.64 319 ePr     P       01 10 41.0 -1.4
SVIS   Svilajnac         76.67 315⇑iP      P       01 10 42.3 -0.4
KOLS   Kolonicke sedl    76.70 319 eP      P       01 10 42.6 -0.1
KOLS                               epP     pP      01 10 50.8 -0.2
KOLS                               e               01 10 59.1
IGT    Igoumenitsa       76.71 310 eP      P       01 10 42.5 -0.5
GRUS   Gruza             76.97 314⇑iP      P       01 10 44.1 -0.2
SUW    Suwalki           77.13 325 eP      P       01 10 50.2 +5.2
SUW                                e       PcP     01 10 57.7 +1.6
SUW                                e               01 13 37.1
SUW                                e               01 20 59.0
SUW                                e               01 21 02.9
SUW    Suwalki           77.13 325⇑eP      P       01 10 43.2 -1.8
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	comp=N,1µm,1.0s,mb6.8						
SUW				*e*PcP	PcP	01 10 57.7	+1.6
SUW				*e*PP	PP	01 13 37.1	-3.2
SUW				*e*S	S	01 20 41.9	+11
SUW				*e*SKS	SKS	01 20 59.0	+0.5
SUW				*e*ScS	ScS	01 21 02.9	+5.8
SUW	**Suwalki**	**77.13**	**325**	*e*P	**P**	**01 10 50.2**	**+5.2**
SUW				*e*PcP	PcP	01 10 57.7	+1.6
SUW				*e*PP	PP	01 13 37.1	-3.2
SUW				*e*S	S	01 20 41.9	+11
SUW				*e*SKS	SKS	01 20 59.0	+0.5
SUW				*e*ScS	ScS	01 21 02.9	+5.8
SUW				LME		01 41 19.9	
	comp=N,4717µm,35.7s						
SUW				MLR	MLR	01 41 43.8	
	comp=N,5410µm,33.5s,MS8.6						
SUW				LMN		01 42 53.9	
	comp=N,6800µm,30.1s						
KEK	**Kerkira**	**77.14**	**310**	*e*P	**P**	**01 10 43.7**	**-1.7**
CRVS	**Cervenica-Dubn**	**77.22**	**319**	P	**P**	**01 10 47.4**	**+1.8**
CRVS	**Cervenica-Dubn**	**77.22**	**319**	*e*P	**P**	**01 10 46.6**	**+1.0**
CRVS				*e*		01 11 04.3	
CRVS				*e*pS		01 20 45.6	
QSH	**Qafa e Shtames**	**77.27**	**312**	*e*p	**P**	**01 10 51.0**	**+5.0**
TIR	**Tirane**	**77.28**	**311**	*e*p	pP	01 10 57.0	+2.7
BEO	**Belgrade**	**77.29**	**315**	⇑*i*P	**P**	**01 10 45.8**	**-0.2**
PUK	**Puka**	**77.34**	**312**	*e*p	pP	01 10 54.4	-0.3
PVY	**Plav**	**77.34**	**313**	⇓*i*P	**P**	**01 10 46.8**	**+0.3**
PRZA	**Preza**	**77.43**	**312**	*e*p	pP	01 10 58.0	+2.8
IVA	**Berane**	**77.43**	**313**	⇓*i*P	**P**	**01 10 48.3**	**+1.3**
FINES	**FINESS Array B**	**77.45**	**332**	P	**P**	**01 10 45.3**	**-1.3**
	comp=N,82nm,0.6s,mb5.9,baz=104,slow=6.5,SNR=169						
FINES				S	S	01 20 41.4	+7.0
	comp=N,131nm,0.9s,baz=130,slow=11,SNR=2.0						
FINES				LR	LR	01 48 54.2	
	comp=N,2313µm,20.2s,MS8.5,baz=114,slow=39						
DIVS	**Divcibare**	**77.52**	**314**	⇑*i*P	**P**	**01 10 47.0**	**-0.4**
KAF	**Kangasniemi**	**77.54**	**333**	*e*p	**P**	**01 10 46.1**	**-1.0**
	baz=102,slow=5.2						
NVSS	**Nova Varos 2**	**77.66**	**314**	⇑*i*P	**P**	**01 10 48.3**	**+0.2**
KECS	**Kecovo**	**77.80**	**319**	P	**P**	**01 10 49.9**	**+1.1**
KECS	**Kecovo**	**77.80**	**319**	*e*P	**P**	**01 10 48.9**	**+0.1**
KECS				*e*	pP	01 10 55.8	-1.2
KECS				*e*sP	sP	01 11 03.9	+4.1
ULC	**Ulcinj**	**77.80**	**312**	⇓*i*P	**P**	**01 10 49.2**	**+0.3**
TTG	**Podgorica**	**77.85**	**313**	⇓*i*P	**P**	**01 10 48.5**	**-0.7**
PLE	**Pljevlja**	**77.86**	**313**	⇓*i*P	**P**	**01 10 50.9**	**+1.7**
PKSN	**Nyarlorinc**	**77.98**	**317**	*e*P	**P**	**01 10 52.6**	**+2.8**
WAR	**Warsaw**	**78.07**	**323**	*e*P	**P**	**01 10 49.0**	**-1.2**
WAR				*e*pP	pP	01 10 56.9	-1.6
WAR				*e*PcP	PcP	01 11 03.5	+3.3
WAR				*e*PP	PP	01 13 46.9	-1.8
WAR				*e*S	S	01 20 50.8	+10
WAR				*e*sS		01 20 59.1	
WAR				*e*SKS	SKS	01 21 05.7	+0.4
WAR				*e*ScS	ScS	01 21 17.0	+12
WAR				MLR	MLR	01 42 50.6	
	comp=N,4947µm,32.5s,MS8.6						
NKY	**Niksic**	**78.08**	**313**	⇓*i*P	**P**	**01 10 50.4**	**-0.1**
BUM	**Brajici-Budva**	**78.10**	**312**	⇓*i*P	**P**	**01 10 51.4**	**+0.8**
PSZ	**Piszkesteto**	**78.11**	**318**	*e*P	**P**	**01 10 50.1**	**-0.4**
UPM	**Unac-Piva**	**78.19**	**313**	⇓*i*P	**P**	**01 10 50.8**	**-0.2**
HCY	**Herceg Novi**	**78.41**	**312**	⇓*i*P	**P**	**01 10 51.9**	**-0.4**
BRY	**Bratogost**	**78.42**	**313**	⇓*i*P	**P**	**01 10 51.9**	**-0.4**
LCI	**Lecce**	**78.49**	**310**	*e*P	**P**	**01 10 53.3**	**+0.5**
OJC	**Ojcow**	**78.50**	**320**	*e*P	**P**	**01 10 52.7**	**+0.1**
OJC				*e*S	S	01 20 40.5	-5.4
OJC				MLR	MLR	01 51 31.5	
	comp=N,2693µm,21.0s,MS8.6						
BUD	**Budapest**	**78.63**	**318**	*e*P	**P**	**01 10 53.9**	**+0.5**
PKSM	**Moragy**	**78.73**	**316**	⇑*e*P	**P**	**01 10 52.8**	**-1.2**
LIKS	**Likavka**	**78.78**	**319**	*e*P	**P**	**01 10 55.8**	**+1.6**
LIKS				*e*		01 11 00.9	
LIKS				*e*sP	sP	01 11 08.0	+2.8
VYHS	**Vyhne**	**78.88**	**319**	*e*P	**P**	**01 10 54.0**	**-0.8**
VYHS				*e*	pP	01 11 01.3	-1.7
VYHS				*e*		01 11 10.5	
VYHS				*e*		01 12 04.9	
VYHS				*e*pS		01 21 01.6	
RHK3	**Tenkes**	**78.96**	**316**	*e*P	**P**	**01 10 55.6**	**+0.3**
STON	**Ston**	**79.04**	**313**	*e*P	**P**	**01 10 56.7**	**+1.0**
PKSG		**79.04**	**317**	⇓*e*P	**P**	**01 10 56.3**	**+0.6**
SRO2	**Moca**	**79.09**	**318**	*e*P	**P**	**01 10 58.4**	**+2.5**
SRO	**Srobarova**	**79.15**	**318**	*e*P	**P**	**01 10 56.1**	**-0.1**
SRO				*e*	pP	01 11 03.6	-0.9
SRO				*e*		01 11 12.3	
KOLL	**Kolacno**	**79.18**	**319**	P	**P**	**01 10 57.5**	**+1.1**
KOLL	**Kolacno**	**79.18**	**319**	*e*P	**P**	**01 10 55.6**	**-0.8**
KOLL				*e*	pP	01 11 03.5	-1.2
KOLL				*e*		01 11 11.6	
BRT	**Bari-Castellan**	**79.23**	**311**	*e*P	**P**	**01 10 57.3**	**+0.5**
SUR	**Sutherland**	**79.29**	**236**	⇓*e*P	**P**	**01 10 56.0**	**-1.3**
	comp=N,2µm,1.2s,mb7.0						
SUR				LR	LR		
	comp=Z,861µm,21.0s,MS8.1						
TIP	**Timpagrande**	**79.44**	**309**	⇑*e*P	**P**	**01 10 57.0**	**-1.0**
LTRZ	**Laterza**	**79.50**	**311**	*e*P	**P**	**01 10 58.9**	**+0.6**
OKC	**Ostrava-Krasne**	**79.50**	**320**	⇑*e*P	**P**	**01 10 57.2**	**-0.9**
OKC				*e*x	x	01 11 12.5	
OKC				*e*S	S	01 21 05.7	+9.2
OKC				AMS	AMS	01 55 50.0	
	comp=Z,1498µm,16.5s						
RAC	**Raciborz**	**79.50**	**320**	*e*P	**P**	**01 10 57.9**	**-0.2**
RAC				*e*PcP	PcP	01 11 05.5	-0.9
RAC				*e*S	S	01 20 47.8	-8.7
RAC				*e*SKSac		01 21 12.0	
RAC				LME		01 42 32.3	
	comp=Z,5800µm,32.1s						
RAC				LMN		01 51 05.2	
	comp=Z,5200µm,23.7s						
RAC				MLR	MLR	01 52 56.4	
	comp=Z,2600µm,22.1s,MS8.5						
RAC				MLR	MLR	01 56 01.4	
	comp=Z,2900µm,19.3s						
BILL	**Bilibino**	**79.58**	**21**	*c* *i*P	**P**	**01 10 56.4**	**-1.7**
BILL				pmax	pmax		
	comp=Z,312nm,1.9s,mb5.9						
BILL	**Bilibino**	**79.58**	**21**	⇑*e*P	**P**	**01 10 56.2**	**-1.9**
	comp=Z,479nm,1.2s,mb6.3						
BILL				LR	LR		
	comp=Z,14099µm,19.0s,MS9.3						
FX1	**Attu Island--F**	**79.61**	**37**	⇑*e*P	**P**	**01 10 57.4**	**-1.2**
GRI	**Girifalco**	**79.67**	**309**	*e*P	**P**	**01 11 00.3**	**+1.0**
JAVC	**Velka Javorina**	**79.70**	**319**	P	**P**	**01 10 59.3**	**+0.1**
MSZ	**Milford Sound**	**79.73**	**136**	*e*P	**P**	**01 11 00.4**	**+1.0**
ORI	**Oriolo Calabro**	**79.74**	**310**	*e*P	**P**	**01 11 00.0**	**+0.4**
SMOL	**Smolenice**	**79.82**	**319**	*e*P	**P**	**01 11 00.7**	**+0.9**
SMOL				*e*sP	sP	01 11 15.7	+4.8
MORC	**Moravsky Berou**	**79.89**	**320**	P	**P**	**01 10 59.4**	**-0.8**
MORC				pmax	pmax		
	comp=Z,210nm,1.4s,mb5.9						
MORC	**Moravsky Berou**	**79.89**	**320**	⇑*e*P	**P**	**01 10 59.5**	**-0.7**
	comp=Z,5µm,1.6s,mb7.2						
SOI	**Samo**	**79.91**	**308**	*e*P	pP	01 11 06.8	-2.0
ZST	**Bratislava**	**80.00**	**318**	*e*P	**P**	**01 11 00.2**	**-0.6**
ZST				*e*	pP	01 11 07.8	-1.3
ZST				*e*		01 11 15.9	
ZST				*e*S	S	01 21 07.2	+5.5
ZST	**Bratislava**	**80.00**	**318**	P	**P**	**01 11 00.3**	**-0.5**
ZST	**Bratislava**	**80.00**	**318**	*e*P	**P**	**01 11 00.2**	**-0.6**
ZST				*e*	pP	01 11 07.8	-1.3
ZST				*e*sP	sP	01 11 15.9	+4.1
ZST				*e*		01 12 11.4	
ZST				*e*PP	PP	01 13 53.7	-11
ZST				*e*S	S	01 21 07.2	+5.5
ARCES	**ARCESS Array B**	**80.03**	**340**	P	**P**	**01 10 59.9**	**-0.7**
	comp=Z,42nm,0.5s,baz=93,slow=5.3,SNR=100						
ARCES				S	S	01 21 10.9	+9.4
	comp=Z,57nm,0.7s,baz=79,slow=4.6,SNR=1.8						
ARCES				LR	LR	01 50 44.8	
	comp=Z,1107µm,19.6s,baz=129,slow=39						
ARE0	**ARCESS Array S**	**80.03**	**340**	⇑*e*P	**P**	**01 10 59.8**	**-0.8**
JCZ	**Jackson Bay**	**80.15**	**136**	P	**P**	**01 11 02.9**	**+1.2**
SMY	**Shemya**	**80.15**	**37**	*e*P	**P**	**01 11 02.0**	**+0.5**
SMY				pmax	pmax		
	comp=Z,480nm,1.0s,mb6.4						
SMY	**Shemya**	**80.15**	**37**	*e*P	**P**	**01 11 04.5**	**+3.0**
	comp=Z,623nm,1.1s,mb6.5						
SMY				LR	LR		
	comp=Z,2077µm,18.0s,MS8.5						
SCLL	**Scilla**	**80.19**	**308**	*e*P	pP	01 11 08.2	-2.1
FGMS	**Monte Sant'Ang**	**80.23**	**312**	*e*P	PcP	01 11 07.4	-2.4
SISC	**Sisak**	**80.23**	**315**	*i* P	**P**	**01 11 01.4**	**-0.7**
SOP	**Sopron**	**80.31**	**318**	P	**P**	**01 11 03.6**	**+1.1**
SOP	**Sopron**	**80.31**	**318**	⇑*e*PcP	PcP	01 11 10.6	+0.7
MGR	**Morigerati**	**80.43**	**310**	*e*P	**P**	**01 11 04.5**	**+1.2**
VRAC	**Vranov**	**80.45**	**319**	P	**P**	**01 11 02.7**	**-0.5**
	comp=Z,11nm,0.7s,baz=89,slow=6.6,SNR=20						
GKP	**Gorka Klasztor**	**80.50**	**323**	P	**P**	**01 11 05.4**	**+2.1**
GKP				*e*PcP	PcP	01 11 15.8	+5.2
GKP				*e*S	S	01 21 15.9	+9.1
GKP				*e*SS		01 21 20.4	
GKP				*e*SKS	SKS	01 21 25.2	+2.6
GKP				LR	LR		
	comp=Z,5960µm,32.8s,MS8.7						
GKP	**Gorka Klasztor**	**80.50**	**323**	*e*P	**P**	**01 11 08.8**	**+5.5**
GKP				*e*PcP	PcP	01 11 15.8	+5.2
GKP				*e*S	S	01 21 15.9	+9.1
GKP				*e*sS		01 21 20.4	
GKP				*e*SKS	SKS	01 21 25.2	+2.6
GKP				MLR	MLR	01 44 52.8	
	comp=Z,5960µm,32.8s,MS8.7						
RGNG	**Rignano Grg**	**80.50**	**312**	*e*P	**P**	**01 11 03.7**	**0.0**
AGST	**Augusta-Monte**	**80.52**	**307**	*e*P	**P**	**01 11 04.1**	**+0.3**
FG4	**Candela**	**80.52**	**311**	*e*P	**P**	**01 11 04.7**	**+1.0**
VKA	**Vienna**	**80.53**	**318**	⇑*i*P	**P**	**01 11 02.7**	**-0.9**
KRUC	**Moravsky**	**80.55**	**319**	P	**P**	**01 11 03.8**	**+0.1**
SGO	**Sicignano**	**80.64**	**310**	*e*P	**P**	**01 11 05.5**	**+1.1**
KTK1	**Kautokeino**	**80.66**	**340**	*e*P	**P**	**01 11 03.8**	**-0.1**
KTK1				AMb	AMB	01 11 48.9	
	comp=Z,5µm,1.4s,mb7.2						
FG5	**Orsara di Pugl**	**80.72**	**311**	P	**P**	**01 11 05.8**	**+1.0**
DPC	**Dobruska-Polom**	**80.73**	**320**	⇑*e*P	**P**	**01 11 04.4**	**-0.2**
DPC				*e*		01 11 19.6	
DPC				MLR	MLR		
	comp=Z,3487µm,19.6s,MS8.7						
DPC	**Dobruska-Polom**	**80.73**	**320**	⇑*e*P	**P**	**01 11 04.4**	**-0.2**
DPC				*e*x	x	01 11 19.6	
DPC				*e*S	S	01 21 24.5	+15
DPC				AMS	AMS	01 55 10.0	
	comp=Z,3487µm,19.6s						
PZI	**Palazzolo**	**80.73**	**307**	*e*P	**P**	**01 11 14.2**	**+9.3**
KSP	**Ksiaz**	**80.80**	**321**	⇑*e*P	**P**	**01 11 04.3**	**-0.7**
KSP				*e*	pP	01 11 11.3	-2.0
KSP				*e*		01 11 19.1	
KSP				*e*S	S	01 21 14.0	+4.0
KSP				*e*		01 21 23.3	
KSP				MLR	MLR		
	comp=Z,7641µm,23.3s,MS9.0						
KSP	**Ksiaz**	**80.80**	**321**	⇑*e*P	**P**	**01 11 04.3**	**-0.7**
KSP				*e*pP	pP	01 11 06.4	-6.9
KSP				*e*	pP	01 11 11.3	-2.0
KSP				*e*		01 11 19.1	
KSP				*e*S	S	01 21 14.0	+4.0
KSP				*e*SKS	SKS	01 21 23.3	-1.5
KSP				LR	LR		
	comp=Z,7641µm,23.3s,MS9.0						
KSP	**Ksiaz**	**80.80**	**321**	*e*P	**P**	**01 11 04.7**	**-0.3**
KSP				*e*pP	pP	01 11 11.9	-1.4
KSP				*e*PcP	PcP	01 11 18.6	+6.6
KSP				*e*SKS	SKS	01 21 25.1	+0.3
KSP				*e*ScS	ScS	01 21 33.3	+6.2
KSP				MLR	MLR	01 43 02.5	
	comp=Z,7113µm,35.1s,MS8.8						
KSP				LMN		01 43 07.8	
	comp=Z,5983µm,36.4s						
KSP				LME		01 43 11.7	
	comp=Z,7589µm,35.7s						
SLNA	**Salina**	**80.90**	**308**	*e*P	pP	01 11 13.4	-0.7
UPC	**Upice**	**80.94**	**320**	⇑*e*P	**P**	**01 11 05.4**	**-0.3**
UPC				*e*x	x	01 11 20.1	
UPC				*e*S	S	01 21 26.4	+15
ARSA	**Arzberg**	**80.97**	**317**	⇓*i*P	**P**	**01 11 05.9**	**-0.1**
	comp=Z,95nm,1.1s						
ARSA				*i*		01 11 22.9	
	comp=Z,1µm,1.4s						
LEGS	**Legarje**	**81.01**	**316**	*e*P	**P**	**01 11 05.4**	**-0.8**
BOJS	**Bojanci**	**81.02**	**315**	*e*P	**P**	**01 11 05.3**	**-1.0**
BOJS				*e*PcP	PcP	01 11 12.8	-0.3
BOJS				*e*S	S	01 21 25.2	+13
VAE	**Valguarnera**	**81.18**	**307**	P	**P**	**01 11 07.6**	**+0.4**
	comp=Z,34nm,0.8s,baz=114,slow=10.0,SNR=3.4						
VAE				LR	LR	01 47 47.0	
	comp=Z,1188µm,20.3s,baz=5.5,slow=36						
PERS	**Pernice**	**81.20**	**317**	*e*P	**P**	**01 11 06.6**	**-0.6**
PERS				*e*	pP	01 11 13.9	-1.6
TUZ	**Tuapeka**	**81.21**	**137**	P	**P**	**01 11 06.1**	**-1.2**
TUZ	**Tuapeka**	**81.21**	**137**	P	**P**	**01 11 06.2**	**-1.1**
LBZ	**Lake Benmore**	**81.22**	**136**	P	**P**	**01 11 05.3**	**-2.0**
LBZ	**Lake Benmore**	**81.22**	**136**	*e*P	**P**	**01 11 05.7**	**-1.6**
NVLJ	**Novalja**	**81.22**	**314**	*i* P	**P**	**01 11 05.4**	**-1.9**
OVO	**Vesuviano**	**81.35**	**311**	*e*P	sP	01 11 18.3	-0.8
SGG	**Gregorio Mates**	**81.39**	**311**	*e*P	**P**	**01 11 13.2**	**+4.9**
CII	**Carovilli**	**81.47**	**312**	*e*P	**P**	**01 11 07.8**	**-0.8**
	comp=Z,2µm,1.1s,mb6.9						
CSLB	**Castelbuono**	**81.48**	**308**	*e*P	pP	01 11 15.1	-2.0
LJU	**Ljubljana**	**81.56**	**316**	*e*P	**P**	**01 11 08.3**	**-0.8**
LJU				*e*PcP	PcP	01 11 16.0	+0.6
LJU				*e*		01 11 23.1	
LJU				*e*S	S	01 21 23.4	+5.4
LJU				*e*SS	SS	01 26 33.5	-4.9
OBKA	**Obir**	**81.58**	**316**	⇓*i*P	**P**	**01 11 10.6**	**+1.4**
	comp=Z,114nm,1.6s						
OBKA				*i*		01 11 26.1	
	comp=Z,2µm,1.6s						
RPZ	**Rata Peaks**	**81.68**	**135**	P	**P**	**01 11 08.9**	**-0.9**
	comp=Z,72nm,0.6s,mb5.8,baz=263,slow=4.2,SNR=30						
RPZ				S	S	01 21 27.3	+8.1
	comp=Z,251nm,1.0s,baz=78,slow=11,SNR=1.7						
RPZ	**Rata Peaks**	**81.68**	**135**	*e*P	**P**	**01 11 08.7**	**-1.0**
RPZ	**Rata Peaks**	**81.68**	**135**	*e*P	**P**	**01 11 08.1**	**-1.6**
RFI	**Roccamonfina**	**81.68**	**311**	*e*P	**P**	**01 11 10.7**	**+0.9**
MSC	**Monte Massico**	**81.69**	**311**	*e*P	**P**	**01 11 10.0**	**+0.2**
ODZ	**Otahua Downs**	**81.69**	**136**	P	pP	01 11 19.5	+1.4
SYO	**Syowa Base**	**81.70**	**198**	⇓P	**P**	**01 11 09.8**	**+0.5**
SYO	**Syowa Base**	**81.70**	**198**	⇑PcP	PcP	01 11 15.2	-0.4
SYO	**Syowa Base**	**81.70**	**198**	⇑pP	pP	01 11 18.0	+0.4
INTR	**Introdacqua**	**81.78**	**312**	*e*P	**P**	**01 11 07.1**	**-3.2**
SDI	**San Donato**	**81.83**	**311**	*e*P	**P**	**01 11 10.3**	**-0.3**
PRU	**Pruhonice**	**81.84**	**320**	⇑*e*P	**P**	**01 11 09.7**	**-0.7**
PRU				*e*		01 11 24.2	
PRU				pmax	pmax		
	comp=Z,405nm,2.2s,mb6.0						
PRU				MLR	MLR		
	comp=Z,3623µm,21.9s,MS8.7						
PRU	**Pruhonice**	**81.84**	**320**	⇑*e*P	**P**	**01 11 09.7**	**-0.7**
	comp=Z,405nm,2.2s,mb6.0						
PRU				*e*x	x	01 11 24.2	
PRU				*e*S	S	01 21 36.2	+16
PRU				AMS	AMS	01 53 10.0	
	comp=Z,3623µm,21.9s						
PVCC	**Panska Ves**	**81.86**	**320**	*e*P	**P**	**01 11 11.7**	**+1.2**
PVCC				*e*		01 11 25.3	
PVCC				MLR	MLR		
	comp=Z,2484µm,15.7s,MS8.7						
PVCC	**Panska Ves**	**81.86**	**320**	⇑*e*P	**P**	**01 11 11.7**	**+1.2**
PVCC				*e*x	x	01 11 25.3	
PVCC				*e*S	S	01 21 31.0	+10
PVCC				AMS	AMS	02 00 00.0	
	comp=Z,2484µm,15.7s						
MOA	**Molln**	**81.86**	**318**	⇓*i*P	**P**	**01 11 10.1**	**-0.5**
	comp=Z,67nm,1.6s						
MOA				*i*		01 11 27.0	
	comp=Z,2µm,1.6s						
PRA	**Prague**	**81.92**	**320**	⇑P	**P**	**01 11 10.0**	**-0.8**
PRA				S	S	01 21 35.0	+14
PRA				AMS	AMS	01 43 30.0	
OUZ	**Omahuta**	**81.94**	**126**	*e*P	pP	01 11 20.1	+0.5
VOY	**Vojsko**	**82.00**	**316**	*e*P	**P**	**01 11 10.0**	**-1.4**
BSD	**Bornholm Skovb**	**82.05**	**325**	*i* P	**P**	**01 11 09.8**	**-1.6**
BSD				pmax	pmax		
	comp=Z,2µm,1.1s,mb6.9						
BSD	**Bornholm Skovb**	**82.05**	**325**	*i* P	**P**	**01 11 09.8**	**-1.6**
	comp=Z,2µm,1.1s,mb6.9						
BSD				*i* S	S	01 21 34.4	+12
BSD	**Bornholm Skovb**	**82.05**	**325**	*i* S	S	01 21 34.4	+12
	comp=Z,3243µm,18.0s						
TRI	**Trieste**	**82.08**	**316**	*e*P	**P**	**01 11 11.9**	**+0.2**
PTQR	**Pietraquaria**	**82.15**	**312**	*e*P	**P**	**01 11 13.0**	**+0.8**
AQU	**L'Aquila**	**82.17**	**312**	⇑*e*P	**P**	**01 11 11.2**	**-1.1**
AQU				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.6						
AQU	**L'Aquila**	**82.17**	**312**	*e*P	**P**	**01 11 13.2**	**+0.9**
DRE	**Drenchia**	**82.19**	**316**	⇓*e*P	**P**	**01 11 12.0**	**-0.3**
USI	**Ustica**	**82.20**	**308**	*e*P	sP	01 11 26.7	+3.1
LSR	**Lussari**	**82.28**	**316**	⇓*i*P	**P**	**01 11 13.0**	**+0.2**
ROBS	**Robic**	**82.28**	**316**	*e*P	**P**	**01 11 11.9**	**-0.9**
ROBS				*e*	pP	01 11 19.0	-2.1
BRG	**Berggiesshubel**	**82.29**	**321**	*i* P	**P**	**01 11 14.2**	**+1.5**
BRG				*i*		01 11 20.1	
BRG				*i*		01 11 29.4	
BRG				*i* S	S	01 21 28.0	+2.7
BRG				pmax	pmax		
	comp=Z,479nm,1.6s,mb6.2						
BRG				MLR	MLR		
	comp=Z,4456µm,19.9s,MS8.8						
BRG	**Berggiesshubel**	**82.29**	**321**	*i* P	**P**	**01 11 14.2**	**+1.5**
	comp=Z,479nm,1.6s,mb6.2						
BRG				*i*		01 11 20.1	
BRG				*i*		01 11 29.4	
BRG				*i*		01 12 21.1	
BRG				*i*		01 12 48.1	
BRG				*i* S	S	01 21 28.0	+2.7
BRG				LR	LR		
	comp=Z,4456µm,19.9s,MS8.8						
TRO	**Tromso**	**82.29**	**340**	*e*P	**P**	**01 11 11.0**	**-1.4**
TRO				AMS	AMS	01 53 53.7	
	comp=Z,5951µm,18.3s,MS9.0						
GEC2	**GERESS Array S**	**82.31**	**319**	*e*P	**P**	**01 11 12.3**	**-0.6**
GEC2				pmax	pmax		
	comp=Z,3µm,1.4s,mb7.1						
GEC2				MLR	MLR		
	comp=Z,2204µm,21.2s,MS8.5						
GEC2	**GERESS Array S**	**82.31**	**319**	*e*P	**P**	**01 11 12.3**	**-0.6**
	comp=Z,3µm,1.4s,mb7.1						
GEC2				*e*S	S	01 21 40.5	+15
GEC2				LR	LR		
	comp=Z,2204µm,21.2s,MS8.5						
GERES	**GERESS Array B**	**82.31**	**319**	P	**P**	**01 11 12.2**	**-0.6**
	comp=Z,48nm,0.7s,baz=100,slow=4.9,SNR=46						
GERES				S	S	01 21 28.2	+2.7
	comp=Z,22nm,0.8s,baz=112,slow=5.3,SNR=1.8						
CING	**Cingoli**	**82.36**	**313**	*e*P	**P**	**01 11 17.8**	**+4.5**
COLI	**Coloredo**	**82.37**	**316**	⇓*e*P	**P**	**01 11 13.0**	**-0.2**
PTCC	**Patocco-Chiusa**	**82.40**	**316**	*e*P	**P**	**01 11 12.6**	**-0.8**
NRCA	**Norcia**	**82.40**	**313**	*e*P	**P**	**01 11 14.2**	**+0.7**
KHC	**Kasperske Hory**	**82.41**	**319**	⇑*e*P	**P**	**01 11 11.3**	**-2.1**
KHC				*e*x	x	01 11 23.2	
KHC				*e*S	S	01 21 28.2	+1.7
KHC				AMS	AMS	01 56 10.0	
	comp=Z,2548µm,18.4s						
KBA	**Koelnbreinsper**	**82.44**	**317**	⇓*i*P	**P**	**01 11 12.8**	**-0.8**
	comp=Z,78nm,1.8s						
KBA				*i*		01 11 29.8	
	comp=Z,852nm,1.2s						
CERT	**Cerreto**	**82.46**	**312**	*e*P	sP	01 11 23.8	-1.1
BAD	**Bernadia**	**82.47**	**316**	⇓*e*P	**P**	**01 11 14.0**	**+0.2**
GMNA	**Gemona**	**82.47**	**316**	*e*P	**P**	**01 11 14.5**	**+0.7**
RUE	**Ruedersdorf**	**82.50**	**322**	⇑*e*P	**P**	**01 11 13.2**	**-0.6**
	comp=Z,495nm,1.0s,mb6.5						
SNTG	**Esanatoglia**	**82.55**	**313**	*e*P	**P**	**01 11 14.3**	**+0.1**
PLRO	**Paularo**	**82.55**	**316**	⇑*e*P	**P**	**01 11 16.0**	**+1.8**
BUA	**Buia**	**82.55**	**316**	⇓*e*P	**P**	**01 11 14.0**	**-0.2**
TLI	**Talmassons**	**82.55**	**316**	⇑*e*P	**P**	**01 11 15.0**	**+0.8**
ARV	**Arcevia**	**82.55**	**313**	*e*P	**P**	**01 11 14.3**	**0.0**
THZ	**Tophouse**	**82.60**	**133**	P	**P**	**01 11 13.2**	**-1.4**
THZ	**Tophouse**	**82.60**	**133**	*e*P	**P**	**01 11 12.9**	**-1.7**
ERC	**Erice**	**82.64**	**308**	*e*P	**P**	**01 11 17.4**	**+2.6**
MPRI	**Monte Prat**	**82.64**	**316**	⇑*e*P	**P**	**01 11 13.0**	**-1.7**
PESA	**Pesaro**	**82.65**	**314**	P	**P**	**01 11 16.1**	**+1.4**
ZOU	**Zoufplan**	**82.67**	**316**	⇓*e*P	**P**	**01 11 15.0**	**+0.2**
FSSB	**Fossombrone**	**82.68**	**313**	*e*P	**P**	**01 11 14.7**	**-0.2**
MA9	**Marino**	**82.70**	**312**	P	**P**	**01 11 16.5**	**+1.4**
MA9				*e*P		01 11 21.4	
MNS	**Montasola**	**82.70**	**312**	*e*P	**P**	**01 11 15.1**	**0.0**
FVI	**Forni Avoltri**	**82.80**	**316**	*e*P	**P**	**01 11 14.4**	**-1.1**
MURB	**Monte Urbino**	**82.85**	**313**	*e*P	sP	01 11 25.3	-1.6
NNZ	**Nelson**	**82.85**	**132**	P	**P**	**01 11 20.2**	**+4.3**
WET	**Wettzell**	**82.86**	**319**	*e*P	**P**	**01 11 14.9**	**-0.9**
WET				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.8						
WET	**Wettzell**	**82.86**	**319**	*e*P	**P**	**01 11 14.9**	**-0.9**
	comp=Z,1µm,1.3s,mb6.8						
WET				*e*S	S	01 21 47.5	+16
CLL	**Collm**	**82.91**	**321**	*e*P	**P**	**01 11 16.0**	**+0.1**
CLL				*i*		01 11 29.2	
CLL				pmax	pmax		
	comp=Z,1µm,1.5s,mb6.8						
CLL				MLR	MLR		
	comp=Z,3487µm,19.1s,MS8.8						
CLL	**Collm**	**82.91**	**321**	*e*P	**P**	**01 11 16.0**	**+0.1**
	comp=Z,1µm,1.5s,mb6.8						
CLL				*i*		01 11 29.2	
CLL				*e*S	S	01 21 45.0	+13
CLL				LR	LR		
	comp=Z,3487µm,19.1s,MS8.8						
CLL	**Collm**	**82.91**	**321**	P	**P**	**01 11 16.0**	**+0.1**
CLL				*i*	pP	01 11 22.6	-1.7
CLL				*i*		01 11 29.2	
CLL				*i*		01 11 49.4	
CLL				*i*		01 12 27.1	
CLL				*i*		01 12 47.3	
CLL				*e*PP	PP	01 14 41.0	+13
CLL				*i*		01 15 18.6	
CLL				*i*		01 16 04.8	
CLL				*e*		01 16 31.0	
CLL				*i*		01 17 46.0	
CLL				*i*		01 18 13.1	
CLL				*e*S	S	01 21 45.0	+13
CLL				*e*PS	PS	01 22 40.0	+13
CLL				*e*		01 23 32.0	
CLL				*e*		01 24 07.0	
RGN	**Rugen**	**82.92**	**324**	*e*P	**P**	**01 11 13.4**	**-2.6**
	comp=Z,3µm,1.4s,mb7.2						
RSM	**Repubblica di**	**82.93**	**314**	*e*P	**P**	**01 11 17.8**	**+1.6**
HFS	**Hagfors**	**83.17**	**330**	P	**P**	**01 11 15.8**	**-1.3**
	comp=Z,49nm,0.7s,baz=124,slow=5.3,SNR=46						
HFS				S	S	01 21 37.6	+3.6
	comp=Z,58nm,0.6s,baz=98,slow=10,SNR=1.5						
BJO	**Bjornoya**	**83.19**	**345**	*e*P	**P**	**01 11 21.5**	**+4.5**
BJO				*e*		01 21 49.6	
BJO				*e*SS	SS	01 26 49.4	-13
BJO				AMS	AMS	01 55 02.0	
	comp=Z,2959µm,18.8s,MS8.7						
TOLF	**Tolfa**	**83.20**	**312**	*e*P	pP	01 11 26.5	+0.5
NKC	**Novy Kostel**	**83.20**	**320**	⇑*e*P	**P**	**01 11 16.9**	**-0.6**
NKC				*e*x	x	01 11 31.0	
NKC				*e*S	S	01 21 45.2	+11
NKC				AMS	AMS	01 54 10.0	
	comp=Z,3588µm,21.1s						
BJO1	**Bjornoya**	**83.24**	**345**	*e*P	**P**	**01 11 21.5**	**+4.3**
BJO1				LR	LR		
	comp=Z,296µm,18.8s,MS7.7						
MOR8	**Moi Rana**	**83.44**	**336**	*e*P	**P**	**01 11 18.4**	**0.0**
MOR8				AMb	AMB	01 12 01.8	
	comp=Z,3µm,1.3s,mb7.2						
PGD	**Poggio Sodo**	**83.45**	**314**	P	**P**	**01 11 19.2**	**+0.3**
HIZ	**Hauiti**	**83.49**	**129**	*e*P	**P**	**01 11 20.4**	**+1.2**
COP	**Copenhagen**	**83.51**	**326**	*i* P	pP	01 11 26.1	-1.2
COP				*i*		01 22 59.3	
COP				pmax	pmax		
	comp=Z,770nm,0.9s,mb6.8						
COP				MLR	MLR		
	comp=Z,2402µm,22.0s,MS8.5						
COP	**Copenhagen**	**83.51**	**326**	*i* P	pP	01 11 26.1	-1.2
	comp=Z,770nm,0.9s						
COP				*i* S	S	01 21 53.1	+16
COP				*i*		01 22 59.3	
COP				LR	LR		
	comp=Z,2402µm,22.0s,MS8.5						
COP	**Copenhagen**	**83.51**	**326**	*i* S	S	01 21 53.1	+16
COP				*i*		01 22 59.3	
	comp=Z,2402µm,22.0s						
BRES	**Bressanone**	**83.53**	**316**	P	**P**	**01 11 17.8**	**-1.4**
CTI	**Castel Tesino**	**83.57**	**316**	*e*P	**P**	**01 11 20.4**	**+0.9**
VMG	**Vicchio**	**83.58**	**314**	*e*P	**P**	**01 11 20.8**	**+1.2**
WTTA	**Wattenberg**	**83.61**	**317**	⇑*i*P	**P**	**01 11 18.4**	**-1.3**
	comp=Z,88nm,0.8s,mb5.9						
WTTA				*i*		01 11 35.8	
	comp=Z,1µm,1.3s						
WTTA	**Wattenberg**	**83.61**	**317**	⇑*i*P	**P**	**01 11 18.4**	**-1.3**
WTTA				*i*		01 11 35.8	
WTTA				pmax	pmax		
	comp=Z,88nm,0.8s,mb5.9						
WATA	**Walderalm**	**83.66**	**317**	⇓*i*P	**P**	**01 11 18.6**	**-1.3**
	comp=Z,4.8nm,0.7s						
WATA				*i*	pP	01 11 26.6	-1.6
	comp=Z,96nm,0.7s						

WATA				*i*		01 11 35.2	
	comp=Z,1µm,1.3s						
SEI	**Scarperia**	**83.72**	**314**	*e*P	**P**	**01 11 22.6**	**+2.3**
MOX	**Moxa**	**83.75**	**320**	*e*P	**P**	**01 11 20.3**	**0.0**
MOX	**Moxa**	**83.75**	**320**	*i* P	**P**	**01 11 20.3**	**0.0**
MOX				*i*		01 11 34.0	
MOX				S	S	01 21 45.0	+5.0
MOX				L		01 57 47.0	
MAON	**Monte Argentar**	**83.85**	**312**	*e*P	sP	01 11 34.7	+2.6
FUR	**Furstenfeldbru**	**83.89**	**318**	*e*P	**P**	**01 11 20.0**	**-1.0**
FUR				pmax	pmax		
	comp=Z,2µm,1.5s,mb7.0						
FUR	**Furstenfeldbru**	**83.89**	**318**	*e*P	**P**	**01 11 20.0**	**-1.0**
	comp=Z,2µm,1.5s,mb7.0						
SQTA	**Sankt Quirin**	**83.90**	**317**	⇓*i*P	**P**	**01 11 20.0**	**-1.1**
	comp=Z,12nm,0.6s						
SQTA				*i*		01 11 23.5	
	comp=Z,61nm,0.6s						
SQTA				*i*		01 11 36.3	
	comp=Z,463nm,0.8s						
SQTA	**Sankt Quirin**	**83.90**	**317**	⇓*i*P	**P**	**01 11 20.0**	**-1.1**
SQTA				*i*		01 11 36.3	
GRA1	**Grafenberg Arr**	**83.97**	**319**	*e*P	**P**	**01 11 21.2**	**-0.2**
	comp=Z,2µm,1.2s,mb7.1						
GRA1				*e*S	S	01 21 58.6	+16
GRA1				LR	LR		
	comp=Z,3111µm,19.2s,MS8.7						
GRF	**Grafenberg Arr**	**83.97**	**319**	*e*P	**P**	**01 11 21.2**	**-0.2**
GRF				pmax	pmax		
	comp=Z,2µm,1.2s,mb7.1						
GRF				MLR	MLR		
	comp=Z,3111µm,19.2s,MS8.7						
GRF	**Grafenberg Arr**	**83.97**	**319**	*e*P	**P**	**01 11 21.2**	**-0.2**
GRF				pmax	pmax		
	comp=Z,2µm,1.2s,mb7.1						
GRF				MLR	MLR		
	comp=Z,3111µm,19.2s,MS8.7						
GRF	**Grafenberg Arr**	**83.97**	**319**	*e*P	**P**	**01 11 21.2**	**-0.2**
	comp=Z,2µm,1.2s,mb7.1						
GRF				*e*S	S	01 21 58.6	+16
GRF				LR	LR		
	comp=Z,3111µm,19.2s,MS8.7						
MOTA	**Moosalm**	**83.98**	**317**	⇓*i*P	**P**	**01 11 20.4**	**-1.1**
	comp=Z,5.0nm,0.9s						
MOTA				*i*		01 11 37.9	
	comp=Z,622nm,1.2s						
LOF	**Lofoten**	**84.00**	**338**	*e*P	**P**	**01 11 23.8**	**+2.7**
LOF				AMb	AMB	01 11 58.0	
	comp=Z,2µm,0.9s,mb7.3						
ZCCA	**Zocca**	**84.00**	**314**	*e*P	**P**	**01 11 24.1**	**+2.4**
STOK	**Stokkvaagen**	**84.03**	**336**	*e*P	**P**	**01 11 22.3**	**+1.0**
FWVZ	**Far West T-bar**	**84.15**	**130**	*e*P	**P**	**01 11 27.0**	**+4.4**
WNVZ	**Wahianoa**	**84.19**	**130**	P	pP	01 11 34.4	+3.2
BDI	**Bagni Di Lucca**	**84.27**	**314**	*e*P	**P**	**01 11 22.2**	**-0.9**
GSCL	**Gusciola**	**84.28**	**314**	*e*P	**P**	**01 11 22.6**	**-0.5**
PII	**Pisa**	**84.31**	**313**	*e*P	**P**	**01 11 22.7**	**-0.6**
NSS	**Namsos**	**84.32**	**334**	*e*P	**P**	**01 11 20.2**	**-2.7**
NSS				*e*		01 21 49.9	
NSS				AMS	AMS	01 56 30.2	
	comp=Z,4030µm,16.8s,MS8.9						
SAL	**Salo**	**84.34**	**315**	*e*P	**P**	**01 11 25.8**	**+2.4**
MAIM		**84.34**	**314**	P	pP	01 11 29.5	-2.3
ERBM	**Eremo**	**84.40**	**314**	*e*P	**P**	**01 11 24.0**	**+0.3**
MTW	**Mount Morrison**	**84.42**	**132**	P	pP	01 11 34.5	+2.3
VLC	**Villacollemand**	**84.42**	**314**	*e*P	**P**	**01 11 22.7**	**-1.1**
	comp=Z,1µm,1.0s,mb7.0						
NB2	**NORSAR Subarra**	**84.45**	**331**	P	**P**	**01 11 22.5**	**-1.1**
	comp=Z,2µm,1.4s,mb7.1,baz=93,slow=5.0						
NB2	**NORSAR Subarra**	**84.45**	**331**	P	**P**	**01 11 22.5**	**-1.1**
	baz=93,slow=5.1						
NB2	**NORSAR Subarra**	**84.45**	**331**	P	**P**	**01 11 22.5**	**-1.1**
NB2				pmax	pmax		
	comp=Z,2µm,1.4s,mb7.1						
NOA	**NORSAR Array B**	**84.45**	**331**	P	**P**	**01 11 22.6**	**-1.0**
	comp=Z,20nm,0.7s,baz=96,slow=4.9,SNR=44						
NOA				S	S	01 21 52.4	+5.6
	comp=Z,60nm,0.9s,baz=93,slow=7.8,SNR=2.0						
NOA				LR	LR	01 54 39.2	
	comp=Z,4114µm,21.3s,MS8.8,baz=105,slow=40						
BRMO	**Bormio**	**84.46**	**316**	*e*P	**P**	**01 11 23.6**	**-0.3**
TGRZ	**Tauranga**	**84.46**	**128**	P	pP	01 11 30.9	-1.7
VALM		**84.52**	**314**	P	pP	01 11 30.8	-1.9
HSP	**Hornsund**	**84.52**	**347**	*e*P	**P**	**01 11 25.5**	**+1.9**
FUORN	**Ofenpass**	**84.54**	**316**	⇑*e*P	**P**	**01 11 23.9**	**-0.4**
CLZ	**Clausthal**	**84.57**	**322**	*e*P	**P**	**01 11 22.8**	**-1.6**
	comp=Z,2µm,1.4s,mb7.0						
CLZ				*e*S	S	01 22 02.1	+14
VINC	**Vinca**	**84.59**	**314**	P	pP	01 11 30.5	-2.5
NAO01	**NORSAR Array S**	**84.60**	**331**	*e*P	**P**	**01 11 22.5**	**-1.8**
	comp=Z,686nm,0.9s,mb6.8						
NAO01				LR	LR		
	comp=Z,6709µm,22.0s,MS9.0						
HDH	**Heidenheim**	**84.61**	**318**	⇓P	**P**	**01 11 23.7**	**-0.9**
OSL	**Oslo**	**84.64**	**330**	*e*P	**P**	**01 11 26.6**	**+2.1**
OSL				AMb	AMB	01 13 09.9	
	comp=Z,5µm,1.4s,mb7.5						
BACM		**84.65**	**314**	P	pP	01 11 31.9	-1.4
GRAM		**84.65**	**314**	P	pP	01 11 31.6	-1.7
BSEG	**Bad Segeberg**	**84.66**	**324**	*e*P	**P**	**01 11 23.6**	**-1.1**
BSEG				*e*S	S	01 22 03.1	+14
BERNI	**Berninapass**	**84.70**	**316**	⇑*e*P	**P**	**01 11 24.6**	**-0.6**
DAVOX	**Davos**	**84.81**	**316**	P	**P**	**01 11 25.1**	**-0.5**
	comp=Z,104nm,0.6s,mb6.1,baz=121,slow=5.1,SNR=65						
DAVOX				S	S	01 21 51.8	+1.2
	comp=Z,108nm,0.8s,baz=88,slow=17,SNR=2.1						
DAVOX	**Davos**	**84.81**	**316**	⇑*e*P	**P**	**01 11 25.1**	**-0.6**
CODM		**84.81**	**314**	P	pP	01 11 32.5	-1.6
DAVA	**Damuels**	**84.81**	**317**	⇑*i*P	**P**	**01 11 25.3**	**-0.4**
	comp=Z,16nm,1.2s						
DAVA				*i*		01 11 42.5	
	comp=Z,2µm,1.3s						
TRON	**Trondheim**	**84.94**	**333**	*e*P	**P**	**01 11 29.2**	**+3.3**
SIND	**Sindeldorf**	**85.01**	**319**	⇓P	**P**	**01 11 26.4**	**-0.2**
VDL	**Val di Lei**	**85.08**	**316**	⇑P	**P**	**01 11 26.6**	**-0.5**
VDL	**Val di Lei**	**85.08**	**316**	⇑*e*P	**P**	**01 11 26.4**	**-0.7**
BOB	**Bobbio (Coli)**	**85.10**	**314**	*e*P	**P**	**01 11 28.7**	**+1.5**
PLONS	**Plons**	**85.15**	**317**	⇑*e*P	**P**	**01 11 26.4**	**-1.0**
VSL	**Villasalto**	**85.16**	**309**	*e*P	**P**	**01 11 25.6**	**-2.0**
	comp=Z,196nm,1.1s,mb6.2						
BUCH	**Bad Urach**	**85.17**	**318**	⇑P	**P**	**01 11 28.7**	**+1.2**
URZ	**Urewera**	**85.20**	**129**	P	**P**	**01 11 23.3**	**-4.6**
	comp=Z,20nm,0.4s,baz=270,slow=2.3,SNR=19						
URZ				S	S	01 21 48.5	-6.2
	comp=Z,86nm,0.7s,baz=12,slow=5.1,SNR=1.6						
KONO	**Kongsberg**	**85.20**	**329**	*e*P	Px	01 12 28.8	
KONO				AMb	AMB	01 13 05.4	
	comp=Z,4µm,1.6s,mb7.3						
KONO				AMS	AMS	01 55 48.8	
	comp=Z,4387µm,16.8s,MS8.9						
KONO	**Kongsberg**	**85.20**	**329**	PFAKE		01 11 40.0	+13
KONO				LR	LR		
	comp=Z,3308µm,20.0s,MS8.7						
STU	**Stuttgart**	**85.28**	**318**	⇑*e*P	**P**	**01 11 26.7**	**-1.3**
STU				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.8						
STU	**Stuttgart**	**85.28**	**318**	⇑*e*P	**P**	**01 11 26.7**	**-1.3**
	comp=Z,70nm,0.8s,mb5.8						
GUT	**Gutenstein**	**85.33**	**318**	⇓P	**P**	**01 11 27.6**	**-0.7**
MUD	**Monsted U’grnd**	**85.36**	**326**	*i* P	pP	01 11 36.3	-0.3
MUD				*i* S	S	01 22 03.1	+7.3
MUD				pmax	pmax		
	comp=Z,2µm,1.1s,mb7.1						
MUD	**Monsted U’grnd**	**85.36**	**326**	*i* P	pP	01 11 36.3	-0.3
	comp=Z,2µm,1.1s						
MUD				*i* S	S	01 22 03.1	+7.3
MUD	**Monsted U’grnd**	**85.36**	**326**	*i* P	pP	01 11 36.3	-0.3
	comp=Z,2µm,1.1s						
MUGIO	**Muggio**	**85.38**	**316**	⇑*e*P	**P**	**01 11 28.8**	**+0.2**
LLS	**Linth-Limmern**	**85.40**	**317**	⇑P	**P**	**01 11 28.4**	**-0.2**
LLS	**Linth-Limmern**	**85.40**	**317**	⇑*e*P	**P**	**01 11 27.3**	**-1.3**
WEIN	**Weingarten**	**85.42**	**317**	⇑*e*P	**P**	**01 11 26.9**	**-1.8**
PGF	**Pioggiola**	**85.43**	**312**	⇓*i*P	**P**	**01 11 29.4**	**+0.5**
	comp=Z,3µm,1.5s,mb6.9						
GENL	**Genova Univers**	**85.44**	**314**	P	pP	01 11 35.5	-1.8
KIWB	**Kanaga Island**	**85.45**	**38**	*e*P	**P**	**01 11 27.4**	**-1.4**
WILA	**Wila**	**85.47**	**317**	⇓P	**P**	**01 11 29.8**	**+0.8**
WILA	**Wila**	**85.47**	**317**	⇑*e*P	**P**	**01 11 28.2**	**-0.8**
STEIN	**Stein am Rhein**	**85.50**	**317**	⇑*e*P	**P**	**01 11 28.2**	**-0.9**
DOMB	**Dombas**	**85.52**	**332**	*e*P	**P**	**01 11 28.5**	**-0.4**
DOMB				AMb	AMB	01 11 52.2	
	comp=Z,2µm,1.5s,mb7.1						
MIDW	**Midway**	**85.52**	**62**	P	**P**	**01 11 29.7**	**0.0**
	comp=Z,1µm,1.5s,mb7.0						
MIDW				LR	LR		
	comp=Z,1756µm,22.0s,MS8.4						
TOD	**Tromm**	**85.54**	**319**	⇓P	**P**	**01 11 31.0**	**+1.7**
TOD	**Tromm**	**85.54**	**319**	*e*P	**P**	**01 11 31.3**	**+2.0**
LBG	**Lerchenberg**	**85.55**	**318**	⇑P	**P**	**01 11 30.5**	**+1.2**
SPAK	**Spaichingen**	**85.55**	**318**	⇑P	**P**	**01 11 29.1**	**-0.3**
VAI	**Varese**	**85.57**	**316**	*e*P	**P**	**01 11 29.4**	**-0.1**
SWS	**Schriesheim**	**85.61**	**319**	⇓P	**P**	**01 11 32.1**	**+2.5**
TRULL	**Truellikon**	**85.62**	**317**	⇑*e*P	**P**	**01 11 28.2**	**-1.5**
MUO	**Muotathal**	**85.66**	**317**	⇓P	**P**	**01 11 30.2**	**+0.3**
MUO	**Muotathal**	**85.66**	**317**	⇑*e*P	**P**	**01 11 29.0**	**-0.9**
ZUR	**Zurich**	**85.69**	**317**	⇓P	**P**	**01 11 30.9**	**+0.8**
ZUR	**Zurich**	**85.69**	**317**	⇑*e*P	**P**	**01 11 29.0**	**-1.1**
PCP	**Pian Castagno**	**85.74**	**314**	P	pP	01 11 37.4	-1.4
SLE	**Schleitheim**	**85.75**	**317**	⇓P	**P**	**01 11 30.8**	**+0.4**
SLE	**Schleitheim**	**85.75**	**317**	⇑*e*P	**P**	**01 11 30.0**	**-0.4**
BNALP	**Bannalp**	**85.80**	**317**	⇑*e*P	**P**	**01 11 29.6**	**-1.1**
BFO	**Black Forest**	**85.86**	**318**	*e*P	**P**	**01 11 29.7**	**-1.2**
BFO				pmax	pmax		
	comp=Z,616nm,1.1s,mb6.8						
BFO	**Black Forest**	**85.86**	**318**	*e*P	**P**	**01 11 29.7**	**-1.2**
	comp=Z,616nm,1.1s,mb6.8						
BFO				*e*S	S	01 22 15.3	+15
FIN	**Finale Ligure**	**85.99**	**314**	*e*P	**P**	**01 11 30.8**	**-0.8**
HASLI	**Hasliberg**	**85.99**	**316**	⇑*e*P	**P**	**01 11 30.8**	**-0.8**
SULZ	**Sulz-Cheisache**	**86.01**	**317**	⇓P	**P**	**01 11 32.2**	**+0.5**
SULZ	**Sulz-Cheisache**	**86.01**	**317**	⇑*e*P	**P**	**01 11 31.0**	**-0.7**
KTD	**Kalmit**	**86.01**	**319**	*e*P	**P**	**01 11 33.7**	**+2.1**
FELD	**Feldberg**	**86.08**	**318**	⇑P	**P**	**01 11 32.9**	**+0.9**
MCGN	**Macugnaga**	**86.12**	**316**	*e*P	**P**	**01 11 33.1**	**+0.8**
GSTR	**Great Sitkin T**	**86.12**	**38**	*e*P	**P**	**01 11 32.0**	**-0.1**
ORX	**Oropa**	**86.13**	**315**	P	pP	01 11 38.2	-2.5
ORO	**Oropa**	**86.13**	**315**	*e*P	**P**	**01 11 31.7**	**-0.6**
MMK	**Mattmark**	**86.13**	**316**	⇓P	**P**	**01 11 33.1**	**+0.8**
MMK	**Mattmark**	**86.13**	**316**	⇑*e*P	**P**	**01 11 31.6**	**-0.7**
KIZ	**Kirchzarten**	**86.14**	**318**	⇑P	**P**	**01 11 33.4**	**+1.1**
LANF	**Langenberg**	**86.20**	**319**	*e*P	**P**	**01 11 34.4**	**+1.9**
IMI	**Imperia**	**86.22**	**314**	*e*P	**P**	**01 11 34.9**	**+2.1**
ROB	**Roburent**	**86.23**	**314**	P	pP	01 11 38.4	-2.8
STR	**Strasbourg**	**86.23**	**318**	*e*P	**P**	**01 11 33.7**	**+1.0**
STR	**Strasbourg**	**86.23**	**318**	*e*P	**P**	**01 11 35.1**	**+2.4**
MOL	**Molde**	**86.23**	**332**	*e*P	**P**	**01 11 34.6**	**+2.2**
MOL				AMb	AMB	01 12 15.3	
	comp=Z,5µm,1.8s,mb7.4						
TRAV		**86.29**	**315**	P	pP	01 11 39.5	-1.9
BALST	**Balsthal**	**86.30**	**317**	⇑*e*P	**P**	**01 11 32.7**	**-0.4**
MONE	**Monesi**	**86.32**	**314**	P	pP	01 11 39.8	-1.8
LIBD	**Limburg**	**86.34**	**318**	*e*P	**P**	**01 11 35.5**	**+2.2**
ABH	**Alteburg**	**86.35**	**320**	⇑P	**P**	**01 11 35.1**	**+1.8**
NEGI	**Negi**	**86.36**	**314**	P	pP	01 11 39.1	-2.7
WIMIS	**Wimmis**	**86.36**	**316**	⇑*e*P	**P**	**01 11 32.6**	**-0.8**
LKBD	**Leukerbad**	**86.36**	**316**	⇓P	**P**	**01 11 33.2**	**-0.2**
LKBD	**Leukerbad**	**86.36**	**316**	⇑*e*P	**P**	**01 11 32.6**	**-0.8**
BBS	**Basel-Blauen**	**86.42**	**317**	⇑P	**P**	**01 11 34.5**	**+0.8**
BBS	**Basel-Blauen**	**86.42**	**317**	*e*P	**P**	**01 11 35.1**	**+1.4**
SNART	**Snartemo**	**86.43**	**328**	*e*P	**P**	**01 11 36.6**	**+3.1**
SNART				AMb	AMB	01 13 00.4	
	comp=Z,26µm,1.4s						
SAOF	**Saorge**	**86.46**	**314**	*e*P	**P**	**01 11 34.9**	**+0.9**
SAOF	**Saorge**	**86.46**	**314**	*e*P	**P**	**01 11 37.7**	**+3.7**
WLS	**Welschbruch**	**86.51**	**318**	*e*P	**P**	**01 11 34.8**	**+0.7**
WLS	**Welschbruch**	**86.51**	**318**	*e*P	**P**	**01 11 35.3**	**+1.2**
DIX	**Grande Dixence**	**86.52**	**316**	⇑P	**P**	**01 11 34.0**	**-0.2**
DIX	**Grande Dixence**	**86.52**	**316**	⇑*e*P	**P**	**01 11 33.7**	**-0.5**
SBF	**Sospel**	**86.55**	**314**	⇓*i*P	**P**	**01 11 34.5**	**+0.1**
	comp=Z,2µm,1.0s,mb7.1						
SBF	**Sospel**	**86.55**	**314**	⇓*i*P	**P**	**01 11 34.5**	**+0.1**
SBF				pmax	pmax		
	comp=Z,1µm,1.0s,mb7.1						
ENR	**Entracque**	**86.55**	**314**	P	**P**	**01 11 40.2**	**+5.8**
AUTN	**L’Aution**	**86.55**	**314**	*e*P	**P**	**01 11 35.4**	**+1.0**
AUTN	**L’Aution**	**86.55**	**314**	*e*P	**P**	**01 11 36.3**	**+1.9**
CDF	**Champ du Feu**	**86.56**	**318**	⇓*i*P	**P**	**01 11 34.5**	**+0.2**
	comp=Z,3µm,1.7s,mb6.9						
CDF	**Champ du Feu**	**86.56**	**318**	⇓*i*P	**P**	**01 11 34.5**	**+0.2**
CDF				pmax	pmax		
	comp=Z,1µm,1.7s,mb6.9						
SENIN	**Lac Senin**	**86.59**	**316**	⇑*e*P	**P**	**01 11 33.9**	**-0.6**
REVF	**Revere**	**86.60**	**313**	*e*P	**P**	**01 11 37.3**	**+2.6**
REVF	**Revere**	**86.60**	**313**	*e*P	**P**	**01 11 38.0**	**+3.3**
BOURR	**Bourrignon**	**86.61**	**317**	⇑*e*P	**P**	**01 11 33.7**	**-0.9**
STV	**Sta Anna Valdi**	**86.62**	**314**	P	pP	01 11 41.5	-1.6
ECH	**Echery**	**86.64**	**318**	*e*P	**P**	**01 11 35.6**	**+0.9**
ECH	**Echery**	**86.64**	**318**	*e*P	**P**	**01 11 36.5**	**+1.8**
RSP	**Reno Superiore**	**86.65**	**315**	P	pP	01 11 41.4	-1.8
BHB	**Bricherasio**	**86.65**	**315**	P	pP	01 11 41.3	-2.0
MOF	**Molkenrain**	**86.67**	**318**	*e*P	**P**	**01 11 35.8**	**+0.9**
MOF	**Molkenrain**	**86.67**	**318**	*e*P	**P**	**01 11 37.0**	**+2.1**
DOI	**San Damiano**	**86.67**	**314**	*e*P	**P**	**01 11 34.2**	**-0.8**
RUP	**Ruppelstein**	**86.67**	**319**	P	**P**	**01 11 37.2**	**+2.4**
RUP	**Ruppelstein**	**86.67**	**319**	*e*P	**P**	**01 11 36.3**	**+1.5**
TOUF	**Mont Tournerai**	**86.68**	**314**	*e*P	**P**	**01 11 36.3**	**+1.2**
TOUF	**Mont Tournerai**	**86.68**	**314**	*e*P	**P**	**01 11 38.2**	**+3.1**
ODD1	**Odda**	**86.71**	**330**	*e*P	**P**	**01 11 34.0**	**-0.8**
ODD1				AMb	AMB	01 12 13.4	
	comp=Z,3µm,2.2s,mb7.1						
LSD	**Ceresole Reale**	**86.71**	**315**	P	pP	01 11 42.3	-1.2
GRYON	**Gryon**	**86.72**	**316**	⇑*e*P	**P**	**01 11 34.3**	**-0.9**
MVIF	**Mont Vial**	**86.75**	**314**	*e*P	**P**	**01 11 36.6**	**+1.2**
MVIF	**Mont Vial**	**86.75**	**314**	*e*P	**P**	**01 11 37.7**	**+2.3**
PZZ	**Prazzo**	**86.78**	**314**	P	pP	01 11 41.4	-2.5
WTSB	**Winterswijk**	**86.78**	**322**	*e*P	pP	01 11 41.6	-2.1
	comp=Z,480nm,3.4s						
FENE	**Fenestrelle**	**86.79**	**315**	P	pP	01 11 42.3	-1.6
BLS5	**Blasjo**	**86.80**	**329**	*e*P	**P**	**01 11 38.1**	**+2.8**
BLS5				AMb	AMB	01 12 17.0	
	comp=Z,2µm,0.9s,mb7.3						
TORNY	**Torny**	**86.81**	**317**	⇑*e*P	**P**	**01 11 34.6**	**-1.0**
SALAN	**Lac Salanfe**	**86.82**	**316**	⇑*e*P	**P**	**01 11 34.7**	**-1.0**
AIGLE	**Aigle**	**86.83**	**316**	⇑*e*P	**P**	**01 11 35.4**	**-0.3**
WIT	**Witteveen**	**86.84**	**323**	*e*P	pP	01 11 43.3	-0.6
HINF	**Hinteralfeld**	**86.86**	**318**	⇓*i*P	**P**	**01 11 35.9**	**+0.1**
	comp=Z,2µm,1.6s,mb6.7						
HINF	**Hinteralfeld**	**86.86**	**318**	⇓*i*P	**P**	**01 11 35.9**	**+0.1**
HINF				pmax	pmax		
	comp=Z,794nm,1.6s,mb6.7						
EMV	**Vieux Emosson**	**86.87**	**316**	⇑P	**P**	**01 11 35.5**	**-0.4**
LOMF	**Lomont**	**86.89**	**317**	*e*P	**P**	**01 11 36.7**	**+0.7**
HYA	**Hoyanger**	**86.90**	**331**	*e*P	**P**	**01 11 36.8**	**+1.2**
HYA				*e*pP	pP	01 11 45.4	+1.3
HYA				AMb	AMB	01 12 00.9	
	comp=Z,2µm,1.8s,mb7.1						
RRL	**Cesana Torines**	**86.99**	**315**	P	pP	01 11 44.0	-0.9
LPG	**La Plagne**	**86.99**	**315**	⇓*i*P	**P**	**01 11 37.2**	**+0.7**
	comp=Z,2µm,0.9s,mb7.1						
LPG	**La Plagne**	**86.99**	**315**	⇓*i*P	**P**	**01 11 37.2**	**+0.7**
LPG				pmax	pmax		
	comp=Z,1µm,0.9s,mb7.1						
MBDF	**Montbardon**	**87.00**	**314**	⇓*i*P	**P**	**01 11 38.0**	**+1.4**
	comp=Z,958nm,1.0s,mb6.7						
MBDF	**Montbardon**	**87.00**	**314**	⇓*i*P	**P**	**01 11 38.0**	**+1.4**
MBDF				pmax	pmax		
	comp=Z,479nm,1.0s,mb6.7						
LPL	**La Plagne**	**87.01**	**315**	⇓*i*P	**P**	**01 11 37.3**	**+0.7**
	comp=Z,2µm,1.1s,mb7.0						
LPL	**La Plagne**	**87.01**	**315**	⇓*i*P	**P**	**01 11 37.3**	**+0.7**
LPL				pmax	pmax		
	comp=Z,1µm,1.1s,mb7.0						
BNI	**Bardonecchia**	**87.06**	**315**	⇑*e*P	**P**	**01 11 35.9**	**-1.0**
BNI				pmax	pmax		
	comp=Z,107nm,0.9s,mb6.1						
BNI	**Bardonecchia**	**87.06**	**315**	⇑*e*P	**P**	**01 11 35.9**	**-1.0**
	comp=Z,107nm,0.9s,mb6.1						
FRF	**La Foret Royal**	**87.13**	**313**	⇓*i*P	**P**	**01 11 38.0**	**+0.8**
	comp=Z,3µm,1.3s,mb7.1						
FRF	**La Foret Royal**	**87.13**	**313**	⇓*i*P	**P**	**01 11 38.0**	**+0.8**
FRF				pmax	pmax		
	comp=Z,2µm,1.3s,mb7.1						
BRANT	**Les Verrieres**	**87.14**	**317**	⇑*e*P	**P**	**01 11 36.7**	**-0.5**
HAU	**Haudompre**	**87.19**	**318**	⇓*i*P	**P**	**01 11 37.4**	**0.0**
	comp=Z,2µm,1.0s,mb6.9						
HAU				*e*R			
	comp=Z,2533µm,22.5s						
HAU	**Haudompre**	**87.19**	**318**	⇓*i*P	**P**	**01 11 37.4**	**0.0**
HAU				pmax	pmax		
	comp=Z,761nm,1.0s,mb6.9						
HAU				MLR	MLR		
	comp=Z,2533µm,22.5s,MS8.6						
STAV	**Stavanger**	**87.20**	**329**	*e*P	**P**	**01 11 38.8**	**+1.5**
STAV				AMb	AMB	01 12 16.4	
	comp=Z,2µm,1.5s,mb7.1						
LMR	**La Mourre**	**87.24**	**313**	⇓*i*P	**P**	**01 11 38.5**	**+0.7**
	comp=Z,2µm,1.4s,mb6.9						
LMR	**La Mourre**	**87.24**	**313**	⇓*i*P	**P**	**01 11 38.5**	**+0.7**
LMR				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.9						
WLF	**Walferdange**	**87.26**	**319**	*e*P	**P**	**01 11 37.7**	**0.0**
WLF				pmax	pmax		
	comp=Z,4µm,1.6s,mb7.4						
WLF	**Walferdange**	**87.26**	**319**	*e*P	**P**	**01 11 37.7**	**-0.1**
	comp=Z,4µm,1.6s,mb7.4						
RUND	**Rundenannen**	**87.32**	**330**	*e*P	**P**	**01 11 40.6**	**+2.8**
RUND				AMb	AMB	01 12 44.3	
	comp=Z,4µm,1.3s,mb7.5						
HGN	**Heimansgroeve**	**87.36**	**321**	*e*P	pP	01 11 44.4	-2.1
	comp=Z,312nm,1.9s						
HGN	**Heimansgroeve**	**87.36**	**321**	*e*S	S	01 22 22.1	+7.0
HGN				*e*x	x	01 24 39.5	
EGD	**Espegrend**	**87.40**	**330**	*e*P	pP	01 11 47.0	+0.5
ASK	**Askoy**	**87.41**	**330**	*e*P	pP	01 11 48.0	+1.5
CABF	**La Chapelle**	**87.42**	**316**	⇓*i*P	**P**	**01 11 39.3**	**+0.8**
	comp=Z,2µm,1.0s,mb6.9						
CABF	**La Chapelle**	**87.42**	**316**	⇓*i*P	**P**	**01 11 39.3**	**+0.8**
CABF				pmax	pmax		
	comp=Z,850nm,1.0s,mb6.9						
THEF	**They Montfort**	**87.42**	**318**	*e*P	**P**	**01 11 39.3**	**+0.8**
FOO	**Floro**	**87.43**	**331**	*e*P	**P**	**01 11 38.0**	**-0.3**
FOO				AMb	AMB	01 12 02.0	
	comp=Z,2µm,2.0s,mb7.1						
GDM	**Grand’Maison**	**87.45**	**315**	*e*P	**P**	**01 11 39.4**	**+0.7**
GDM	**Grand’Maison**	**87.45**	**315**	*e*P	**P**	**01 11 41.8**	**+3.1**
ORIF	**Oris-en-Rattie**	**87.63**	**315**	⇓*i*P	**P**	**01 11 40.3**	**+0.7**
	comp=Z,2µm,1.2s,mb6.9						
ORIF				*e*R			
	comp=Z,1591µm,22.5s						
GRN	**Grenoble**	**87.71**	**315**	*e*P	**P**	**01 11 42.7**	**+2.7**
RFYF	**Reffroy**	**87.75**	**318**	*e*P	**P**	**01 11 40.7**	**+0.6**
	comp=Z,687nm,1.3s,mb6.4,baz=119						
SMRF	**Simiane la Rot**	**87.89**	**314**	⇓*i*P	**P**	**01 11 42.1**	**+1.2**
	comp=Z,3µm,1.6s,mb7.0						
MEZF	**Maizieres J’vi**	**88.03**	**318**	⇓*i*P	**P**	**01 11 42.1**	**+0.7**
	comp=Z,920nm,1.1s,mb6.6,baz=92						
SFTF	**Sexfontaines**	**88.06**	**318**	*e*P	**P**	**01 11 42.2**	**+0.6**
	comp=Z,1µm,0.8s,mb6.9,baz=102						
GIVF	**Givet**	**88.10**	**320**	⇓*i*P	**P**	**01 11 42.3**	**+0.6**
	comp=Z,5µm,1.8s,mb7.1						
GIVF	**Givet**	**88.10**	**320**	⇓*i*P	**P**	**01 11 42.3**	**+0.6**
GIVF				pmax	pmax		
	comp=Z,2µm,1.8s,mb7.1						
VNDA	**Vanda**	**88.24**	**169**	P	**P**	**01 11 41.8**	**0.0**
	comp=Z,6.2nm,0.7s,baz=303,slow=6.2,SNR=21						
VNDA				S	S	01 22 07.5	-15
	comp=Z,115nm,1.1s,baz=268,slow=10,SNR=1.8						
VNDA				LR	LR	01 46 57.7	
	comp=Z,1914µm,20.4s,MS8.5,baz=295,slow=33						
VNDA	**Vanda**	**88.24**	**169**	*e*P	**P**	**01 11 40.8**	**-1.1**
	comp=Z,28nm,0.5s,mb5.8						
RAO	**Raoul Island**	**88.32**	**119**	PFAKE		01 11 50.0	+6.7
RAO				LR	LR		
	comp=Z,1606µm,21.0s,MS8.4						
VIVF	**Saint-Julien-l**	**88.49**	**315**	⇓*i*P	**P**	**01 11 44.4**	**+0.7**
	comp=Z,3µm,1.5s,mb7.0						
VIVF	**Saint-Julien-l**	**88.49**	**315**	⇓*i*P	**P**	**01 11 44.4**	**+0.7**
VIVF				pmax	pmax		
	comp=Z,1µm,1.5s,mb7.0						
BAIF	**Baives**	**88.50**	**320**	⇓*i*P	**P**	**01 11 44.6**	**+1.0**
	comp=Z,4µm,1.5s,mb7.2						
BAIF	**Baives**	**88.50**	**320**	⇓*i*P	**P**	**01 11 44.6**	**+1.0**
BAIF				pmax	pmax		
	comp=Z,2µm,1.5s,mb7.2						
SMF	**Signal de Mont**	**88.96**	**316**	⇓*i*P	**P**	**01 11 46.2**	**+0.3**
	comp=Z,1µm,1.1s,mb6.9						
SMF	**Signal de Mont**	**88.96**	**316**	⇓*i*P	**P**	**01 11 46.2**	**+0.3**
SMF				pmax	pmax		
	comp=Z,702nm,1.1s,mb6.9						
LASF	**Ste Croix**	**89.12**	**314**	⇓*i*P	**P**	**01 11 47.7**	**+0.9**
	comp=Z,2µm,1.5s,mb7.0						
COLF	**Collangettes**	**89.14**	**315**	*e*P	**P**	**01 11 47.8**	**+1.0**
PLDF	**La Plantade**	**89.16**	**316**	*e*P	**P**	**01 11 49.1**	**+2.2**
PLDF	**La Plantade**	**89.16**	**316**	*e*P	**P**	**01 11 49.7**	**+2.8**
SSF	**Saint Saulge**	**89.16**	**317**	⇓*i*P	**P**	**01 11 47.6**	**+0.7**
	comp=Z,5µm,1.8s,mb7.2						
SSF	**Saint Saulge**	**89.16**	**317**	⇓*i*P	**P**	**01 11 47.6**	**+0.7**
SSF				pmax	pmax		
	comp=Z,2µm,1.8s,mb7.2						
SBA	**Scott Base**	**89.34**	**168**	*e*P	**P**	**01 11 46.8**	**-0.3**
	comp=Z,13nm,0.8s						
SBA				LR	LR		
	comp=Z,1430µm,21.0s,MS8.4						
LBL	**Lubilhac**	**89.47**	**315**	*e*P	**P**	**01 11 50.7**	**+2.3**
LBL	**Lubilhac**	**89.47**	**315**	*e*P	**P**	**01 11 51.4**	**+3.0**
AGO	**Saint Agoulin**	**89.49**	**316**	*e*P	**P**	**01 11 50.6**	**+2.1**
AGO	**Saint Agoulin**	**89.49**	**316**	*e*P	**P**	**01 11 51.4**	**+2.9**
PYM	**Petit Puy Mans**	**89.60**	**316**	*e*P	**P**	**01 11 50.4**	**+1.4**
BGF	**Bois d’Agland**	**89.65**	**316**	⇓*i*P	**P**	**01 11 50.2**	**+1.0**
	comp=Z,4µm,1.5s,mb7.3						
BGF	**Bois d’Agland**	**89.65**	**316**	⇓*i*P	**P**	**01 11 50.2**	**+1.0**
BGF				pmax	pmax		
	comp=Z,2µm,1.5s,mb7.2						
HYF	**Humbligny**	**89.74**	**317**	⇓*i*P	**P**	**01 11 50.6**	**+1.0**
MENF	**Mencas**	**89.78**	**320**	*e*P	**P**	**01 11 51.0**	**+1.3**
MENF	**Mencas**	**89.78**	**320**	*e*P	**P**	**01 11 50.3**	**+0.6**
EJON	**La Jonquera**	**89.95**	**312**	P	**P**	**01 11 56.1**	**+5.4**
EJON	**La Jonquera**	**89.95**	**312**	P	sP	01 12 03.9	+2.2
	SNR=8.3						
SJAF	**Saint Jean de**	**89.95**	**312**	*e*P	**P**	**01 11 51.4**	**+0.7**
SJAF	**Saint Jean de**	**89.95**	**312**	*e*P	**P**	**01 11 51.8**	**+1.1**
TCF	**Toulx Ste Croi**	**90.11**	**316**	⇓*i*P	**P**	**01 11 52.3**	**+1.0**
	comp=Z,3µm,1.6s,mb7.0						
TCF	**Toulx Ste Croi**	**90.11**	**316**	⇓*i*P	**P**	**01 11 52.3**	**+1.0**
TCF				pmax	pmax		
	comp=Z,1µm,1.6s,mb7.0						
AEU	**East Anglia Un**	**90.15**	**323**	*e*P	pP	01 11 58.6	-1.2
ABA1	**Baconsthorpe**	**90.18**	**323**	*e*P	**P**	**01 11 55.3**	**+3.8**
FILF	**Fillols**	**90.18**	**312**	*e*P	**P**	**01 11 53.7**	**+1.9**
AWH	**Whinburgh**	**90.32**	**323**	*e*P	**P**	**01 11 55.0**	**+2.9**
CAF	**Calviac**	**90.33**	**315**	⇓*i*P	**P**	**01 11 53.6**	**+1.2**
	comp=Z,2µm,1.4s,mb6.9						
CAF	**Calviac**	**90.33**	**315**	⇓*i*P	**P**	**01 11 53.6**	**+1.2**
CAF				pmax	pmax		
	comp=Z,889nm,1.4s,mb6.9						
TFO1	**Folkestone**	**90.36**	**321**	*e*P	pP	01 11 59.4	-1.3
MTLF	**Montolieu**	**90.36**	**313**	⇓*i*P	**P**	**01 11 53.4**	**+0.8**
	comp=Z,3µm,1.5s,mb7.0						
MTLF	**Montolieu**	**90.36**	**313**	⇓*i*P	**P**	**01 11 53.4**	**+0.8**
MTLF				pmax	pmax		
	comp=Z,1µm,1.5s,mb7.0						
TCR	**Colchester**	**90.43**	**322**	*e*P	**P**	**01 11 55.5**	**+2.9**
NIKO	**Nikolski**	**90.46**	**37**	*e*P	**P**	**01 11 53.3**	**+0.5**
VALF	**Valcebollere**	**90.59**	**312**	*e*P	**P**	**01 11 55.4**	**+1.7**
VALF	**Valcebollere**	**90.59**	**312**	*e*P	**P**	**01 11 57.4**	**+3.7**
LRW	**Lerwick**	**90.59**	**330**	*e*P	**P**	**01 11 52.1**	**-1.1**
LRW				*e*P		01 11 53.5	
LRW				*e*P	pP	01 11 58.6	-3.0
LRW				*e*S	S	01 22 41.2	-3.4
LRW				AMS	AMS	01 56 43.7	
	comp=N,2057µm,23.3s,MS8.6						
LRW				AMS	AMS	02 00 38.1	
	comp=E,1485µm,20.1s,MS8.6						
LRW	**Lerwick**	**90.59**	**330**	P	**P**	**01 11 53.5**	**+0.3**
LRW	**Lerwick**	**90.59**	**330**	P	pP	01 11 58.6	-3.0
LRW	**Lerwick**	**90.59**	**330**	S	S	01 22 41.2	-3.4
SAN1	**Sandwick**	**90.64**	**330**	*e*P	pP	01 12 01.2	-0.6
RJF	**Les Rejaudoux**	**90.69**	**315**	⇓*i*P	**P**	**01 11 55.3**	**+1.3**
	comp=E,2µm,1.5s,mb7.0						
RJF				*e*R			
	comp=E,2104µm,23.0s						
RJF	**Les Rejaudoux**	**90.69**	**315**	⇓*i*P	**P**	**01 11 55.3**	**+1.3**
RJF				pmax	pmax		
	comp=Z,1µm,1.5s,mb7.0						
RJF				MLR	MLR		
	comp=Z,2104µm,23.0s,MS8.5						
WAL1	**Walls**	**90.80**	**330**	*e*P	pP	01 11 59.7	-2.8
TSA1	**Sevenoaks**	**90.96**	**321**	*e*P	**P**	**01 11 59.0**	**+3.9**
LMK	**Market Rasen**	**91.00**	**324**	*e*P	**P**	**01 11 58.8**	**+3.6**
LWH	**Whinny Nab**	**91.09**	**324**	*e*P	pP	01 12 02.7	-1.3
SALF	**Salau**	**91.17**	**313**	*e*P	**P**	**01 11 57.9**	**+1.6**
SALF	**Salau**	**91.17**	**313**	*e*P	**P**	**01 11 58.2**	**+1.9**
MLS	**Moulis**	**91.22**	**313**	*e*P	**P**	**01 11 57.1**	**+0.6**
MLS	**Moulis**	**91.22**	**313**	*e*P	**P**	**01 11 57.7**	**+1.2**
NVL	**N’lazarevskaya**	**91.24**	**199**	⇑*e*P	**P**	**01 11 58.0**	**+2.0**
NVL				*e*S	S	01 22 41.0	-9.1
NVL				pmax	pmax		
	comp=Z,29µm,6.0s						
NVL				MLR	MLR		
	comp=Z,1429µm,17.0s,MS8.5						
LFF	**La Frestale**	**91.27**	**315**	⇓*i*P	**P**	**01 11 58.1**	**+1.4**
	comp=Z,2µm,1.3s,mb7.1						
LFF	**La Frestale**	**91.27**	**315**	⇓*i*P	**P**	**01 11 58.1**	**+1.4**

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LFF                                     pmax      pmax
        comp=Z,1µm,1.3s,mb7.1
MAIT    Maitri             91.27 199   eP        pP         01 12 05.6 +1.1
MAIT                                   eS        S          01 22 50.4  0.0
EPOB    Poblet             91.39 311    P        sP         01 12 10.2 +1.8
EPOB    Poblet             91.39 311    P        pP         01 12 04.0 -1.7
        comp=Z,88µm,12.2s,SNR=24
EIBI    Ibiza              91.42 309    P        P          01 12 00.7 +3.2
EIBI    Ibiza              91.42 309    P        sP         01 12 11.3 +2.7
        comp=Z,129µm,14.5s,SNR=8.8
JNW     Jan Mayen West     91.43 342   eP        pP         01 12 07.0 +1.8
OST     Stronsay           91.44 329   eP        P          01 12 00.5 +3.4
LDF     La Druitiere       91.45 319⇓ iP        P          01 11 58.2 +0.8
        comp=Z,6µm,1.6s,mb7.3
LDF     La Druitiere       91.45 319⇓ iP        P          01 11 58.2 +0.8
LDF                                     pmax      pmax
        comp=Z,3µm,1.6s,mb7.4
JMIC    Jan Mayen          91.47 341    P        P          01 11 57.7 +0.7
        comp=Z,90nm,0.5s,mb6.4,baz=138,slow=10,SNR=2.7
JMIC                                    S        S          01 23 01.9  +10
        comp=Z,87nm,0.7s,baz=153,slow=11,SNR=1.9
JMIC    Jan Mayen          91.47 341   eP        pP         01 12 06.7 +1.3
JMIC                                    AMS       AMS       01 56 43.3
        comp=Z,1638µm,18.5s,MS8.5
LCP     Cassop             91.50 325   eP        P          01 12 01.0 +3.5
SKP1    Kophill            91.50 322   eP        P          01 11 58.9 +1.3
FLN     La Foliniere       91.67 319⇓ iP        P          01 11 59.1 +0.7
        comp=Z,3µm,1.3s,mb7.2
FLN                                    eR
        comp=Z,3078µm,21.8s
FLN     La Foliniere       91.67 319⇓ iP        P          01 11 59.1 +0.7
FLN                                     pmax      pmax
        comp=Z,2µm,1.3s,mb7.2
FLN                                     MLR       MLR
        comp=Z,3078µm,21.8s,MS8.7
LDU     Leeds Universi     91.68 324   eP        pP         01 12 05.4 -1.3
MFF     Saint Martin d     91.70 317⇓ iP        P          01 11 59.5 +0.9
        comp=Z,3µm,1.3s,mb7.2
MFF     Saint Martin d     91.70 317⇓ iP        P          01 11 59.5 +0.9
MFF                                     pmax      pmax
        comp=Z,2µm,1.3s,mb7.2
KBI1    Birley Grange      91.74 323   eP        P          01 11 57.5 -1.1
UNV     Unalaska Valle     91.75  36   eP        P          01 11 59.4 +0.7
        comp=Z,1µm,0.8s,mb7.3
UNV                                     LR        LR
        comp=Z,11298µm,21.0s,MS9.3
EPF     Esparros           91.76 313⇓ iP        P          01 11 59.5 +0.5
        comp=Z,600nm,1.4s,mb6.4
EPF     Esparros           91.76 313⇓ iP        P          01 11 59.5 +0.5
EPF                                     pmax      pmax
        comp=Z,300nm,1.4s,mb6.4
EDR     Drumtochty         91.77 327   eP        pP         01 12 06.3 -0.8
RESF    Ens                91.79 313   eP        P          01 12 01.0 +1.9
OBR     Brabster           91.83 329   eP        pP         01 12 06.9 -0.4
EBR     Ebro Roquetas      91.89 311   eP        P          01 11 59.5 -0.1
LHO     Holmfirth          91.89 324   eP        P          01 12 01.4 +2.0
MATF    Mathat             91.89 316   eP        P          01 12 02.1 +2.6
EBIE    Bielsa             91.94 313    P        pP         01 12 09.0 +0.7
        comp=Z,5µm,3.5s
EBIE    Bielsa             91.94 313    P        sP         01 12 14.3 +3.4
        comp=Z,5µm,3.5s,SNR=11
LABF    Labassere          91.95 313   eP        P          01 12 01.3 +1.4
LABF    Labassere          91.95 313   eP        P          01 12 02.5 +2.6
KWE     Weaver Farm        91.96 323   eP        P          01 11 58.9 -0.7
GRR     Gorron             91.96 319⇓ iP        P          01 12 00.7 +0.9
        comp=Z,4µm,1.6s,mb7.2
GRR     Gorron             91.96 319⇓ iP        P          01 12 00.7 +0.9
GRR                                     pmax      pmax
        comp=Z,2µm,1.6s,mb7.2
ESY     Stoneypath         91.97 326   eP        P          01 12 01.2 +1.6
ERTA    Horta de San J     91.99 311    P        P          01 12 03.7 +3.6
ERTA    Horta de San J     91.99 311    P        sP         01 12 14.1 +2.9
        comp=Z,103µm,13.2s,SNR=14
VIEF    Viey               92.01 313   eP        P          01 12 01.9 +1.7
VIEF    Viey               92.01 313   eP        P          01 12 04.5 +4.3
MCD     Coleburn Disti     92.05 328   eP        pP         01 12 07.6 -0.7
LCHF    La Chataignera     92.10 317   eP        P          01 12 01.7 +1.2
SWN1    Swindon            92.15 322   eP        pP         01 12 07.0 -1.9
ORE     Reay               92.15 329   eP        pP         01 12 08.5 -0.3
BTA     Talkin             92.17 325   eP        P          01 12 03.7 +3.1
DAG     Danmarks Havn      92.18 348⇑ iP        P          01 12 00.2  0.0
DAG                                     pmax      pmax
        comp=Z,68nm,0.7s,mb6.1
DAG     Danmarks Havn      92.18 348⇑ iP        P          01 12 00.2  0.0
        comp=Z,68nm,0.7s,mb6.1
EBL     Broad Law          92.23 326   eP        P          01 12 05.4 +4.6
EDI     Edinburgh          92.29 326   eP        P          01 12 00.2 -0.9
EDI                                    eS        S          01 22 48.0  -12
EDI                                     AMS       AMS       01 58 14.9
        comp=N,2969µm,19.4s,MS8.9
EDI                                     AMS       AMS       01 58 28.2
        comp=E,3091µm,22.4s,MS8.9
REYF    Montagne du Re     92.29 313   eP        P          01 12 02.9 +1.5
EKR10   Eskdalemuir Ar     92.31 326   eP        P          01 12 03.2 +1.9
BDL     Dobcross Hall      92.33 325   eP        pP         01 12 08.7 -1.0
EKR8    Eskdalemuir Ar     92.33 326   eP        P          01 12 03.1 +1.8
EKR7    Eskdalemuir Ar     92.34 326   eP        P          01 12 03.1 +1.8
EKB10   Eskdalemuir Ar     92.34 326   eP        P          01 12 03.9 +2.5
EKR6    Eskdalemuir Ar     92.34 326   eP        P          01 12 03.1 +1.8
EKB9    Eskdalemuir Ar     92.35 326   eP        P          01 12 03.9 +2.5
EKR5    Eskdalemuir Ar     92.35 326   eP        P          01 12 03.2 +1.8
EKB8    Eskdalemuir Ar     92.35 326   eP        P          01 12 03.8 +2.4
EKR4    Eskdalemuir Ar     92.36 326   eP        P          01 12 03.3 +1.8
EKB5    Eskdalemuir Ar     92.36 326   eP        P          01 12 03.8 +2.3
EKA     Eskdalemuir Ar     92.37 326    P        P          01 12 01.8 +0.3
        comp=E,18nm,0.6s,baz=98,slow=5.2,SNR=26
EKB4    Eskdalemuir Ar     92.37 326   eP        P          01 12 03.9 +2.4
EKR2    Eskdalemuir Ar     92.37 326   eP        P          01 12 03.4 +1.9
EKB3    Eskdalemuir Ar     92.37 326   eP        P          01 12 04.0 +2.5
EKB2    Eskdalemuir Ar     92.38 326   eP        P          01 12 03.9 +2.4
EKR1    Eskdalemuir Ar     92.38 326   eP        P          01 12 03.5 +2.0
EKB1    Eskdalemuir Ar     92.38 326   eP        P          01 12 03.8 +2.2
ESK     Eskdalemuir        92.40 326   eP        P          01 12 03.4 +1.7
ESK     Eskdalemuir        92.40 326   eP        P          01 12 02.5 +0.9
ESK                                     pmax      pmax
        comp=Z,2µm,1.4s,mb7.3
ESK                                     MLR       MLR
        comp=Z,541µm,20.0s,MS8.0
ESK     Eskdalemuir        92.40 326   eP        P          01 12 02.5 +0.8
        comp=Z,2µm,1.4s,mb7.3
ESK                                     LR        LR
        comp=Z,541µm,20.0s,MS8.0
ETSF    Etsaut             92.43 313⇓ iP        P          01 12 03.3 +1.2
        comp=Z,2µm,1.3s,mb6.9
ETSF    Etsaut             92.43 313⇓ iP        P          01 12 03.3 +1.2
ETSF                                    pmax      pmax
        comp=Z,866nm,1.3s,mb6.9
BHH     Howats Hill        92.44 325   eP        P          01 12 05.0 +3.1
EAU     Auchinoon          92.44 326   eP        pP         01 12 08.7 -1.5
SWK     Warminster         92.48 321   eP        pP         01 12 12.5 +2.1
MVH1    Achvaich           92.48 328   eP        pP         01 12 10.4 +0.1
ESAC    San Caprasio       92.51 312    P        sP         01 12 17.4 +3.9
ESAC    San Caprasio       92.51 312    P        sP         01 12 16.1 +2.6
        comp=Z,4µm,4.5s,SNR=12
HAE     Alders End         92.53 322   eP        P          01 12 05.1 +2.8
JQE     Queens East        92.63 319   eP        pP         01 12 09.0 -2.2
LMI     Millom             92.63 325   eP        P          01 12 04.9 +2.2
JLP     Les Platons        92.66 319   eP        P          01 12 08.0 +5.0
JRS     Jersey             92.66 319   eP        pP         01 12 10.2 -1.2
MDO     Dochfour           92.66 328   eP        pP         01 12 12.0 +0.9
LRYF    La Roche-sur-Y     92.66 317   eP        P          01 12 04.6 +1.5
EBEN    Beniarda           92.67 309    P        pP         01 12 11.8 +0.2
EBEN    Beniarda           92.67 309    P        sP         01 12 17.1 +2.8
        comp=Z,39µm,14.3s,SNR=5.9
EMOS    Mosqueruela        92.67 311    P        pP         01 12 10.2 -1.4
        comp=Z,6µm,3.7s
EMOS    Mosqueruela        92.67 311    P        sP         01 12 18.3 +4.0
        comp=Z,6µm,3.7s,SNR=14
BWH     Wardlaw            92.67 326   eP        P          01 12 04.9 +2.0
LARF    Larrau             92.73 313   eP        P          01 12 05.2 +1.7
LARF    Larrau             92.73 313   eP        P          01 12 04.6 +1.1
JVM     Valle D.L. Mar     92.73 319   eP        pP         01 12 10.5 -1.2
HGH     Gray Hill          92.75 322   eP        P          01 12 05.3 +1.9
PCOU    Corrie             92.78 326   eP        P          01 12 05.3 +2.0
MCH1    Michaelchurch      92.81 322   eP        P          01 12 07.3 +3.7
MCH1                                   eP                   01 12 09.8
MCH1                                   eP                   01 12 11.7
MCH1                                   eS        S          01 22 58.9 -5.5
MCH1    Michaelchurch      92.81 322    P        pP         01 12 09.8 -2.2
MCH1    Michaelchurch      92.81 322    P        pP         01 12 11.7 -0.2
MCH1    Michaelchurch      92.81 322    S        S          01 22 58.9 -5.5
SSP1    Stoney Pound       92.81 323   eP        P          01 12 05.3 +1.7
EAB     Aberfoyle          92.88 327   eP        P          01 12 06.1 +2.3
POB1    Observatory        92.99 326   eP        pP         01 12 11.9 -0.8
AFI     Afiamalu           93.06 104    P        P          01 12 06.8 +1.2
AFI                                     pmax      pmax
        comp=Z,620nm,1.1s,mb7.0
AFI                                     MLR       MLR
        comp=Z,699µm,21.0s,MS8.1
AFI     Afiamalu           93.06 104    P        P          01 12 06.8 +1.2
        comp=Z,620nm,1.1s,mb7.0
AFI                                     LR        LR
        comp=Z,699µm,21.0s,MS8.1
EALK    Alkurruntz         93.08 313    P        pP         01 12 11.9 -1.5
        comp=Z,4µm,3.2s
EALK    Alkurruntz         93.08 313    P        sP         01 12 18.9 +2.8
        comp=Z,4µm,3.2s,SNR=8.2
SGMF    Saint Gilles       93.10 319⇓ iP        P          01 12 05.9 +0.8
        comp=Z,2µm,1.5s,mb7.0
SGMF    Saint Gilles       93.10 319⇓ iP        P          01 12 05.9 +0.8
SGMF                                    pmax      pmax
        comp=Z,976nm,1.5s,mb7.0
WPM1    Penmaenmawr        93.15 324   eP        P          01 12 07.6 +2.5
GIM     North Isle of      93.29 325   eP        pP         01 12 12.9 -1.2
GAL1    Galloway           93.33 325   eP        pP         01 12 14.7 +0.4
QSPA    South Pole Qui     93.34 180    P        P          01 12 07.0 +1.5
        comp=Z,782nm,1.3s,mb7.0
WME     Myndd Eilian       93.36 324   eP        sP         01 12 20.4 +3.3
CART    Cartagena          93.41 308   eP        P          01 12 04.7 -2.0
        comp=Z,112nm,1.3s,mb6.1
WLF1    Llynfaes           93.43 324   eP        sP         01 12 18.2 +0.8
HEX     Exmoor             93.46 321   eP        P          01 12 10.3 +3.7
YRC     Rhoscolyn          93.54 324   eP        sP         01 12 21.2 +3.3
HSA     Swansea            93.56 322   eP        pP         01 12 16.9 +1.5
QUIF    Quistinic          93.56 318⇓ iP        P          01 12 07.6 +0.4
        comp=Z,2µm,1.5s,mb7.0
QUIF    Quistinic          93.56 318⇓ iP        P          01 12 07.6 +0.4
QUIF                                    pmax      pmax
        comp=Z,905nm,1.5s,mb7.0
EMUR    La Murta           93.56 308    P        pP         01 12 14.6 -1.3
EMUR    La Murta           93.56 308    P        sP         01 12 20.2 +1.8
        comp=Z,163µm,20.3s,SNR=5.8
ROSF    Rostrenen          93.56 319⇓ iP        P          01 12 08.1 +0.9
        comp=Z,2µm,1.6s,mb7.0
ROSF    Rostrenen          93.56 319⇓ iP        P          01 12 08.1 +0.9
ROSF                                    pmax      pmax
        comp=Z,983nm,1.6s,mb7.0
DCO     Combe Farm         93.63 321   eP        P          01 12 08.8 +1.4
DYA     Yadsworthy         93.64 321   eP        P          01 12 10.2 +2.8
HTL     Hartland           93.89 321   eP        P          01 12 13.4 +4.7
HTL                                    eS        S          01 23 15.9 +2.1
HTL                                     AMS       AMS       01 59 10.9
        comp=N,1491µm,21.4s,MS8.6
HTL                                     AMS       AMS       02 03 55.9
        comp=E,1320µm,20.8s,MS8.6
HTL     Hartland           93.89 321    S        S          01 23 15.9 +2.1
HPE     Pembroke           93.90 322   eP        sP         01 12 20.4 +0.7
SBD     Saint Breward      94.10 321   eP        P          01 12 06.2 -3.4
GMM     Mts of Mourne      94.16 325   eP        P          01 12 12.5 +2.8
ENIJ    Nijar              94.44 307    P        pP         01 12 19.6 -0.2
ENIJ                                    pmax      pmax
        comp=Z,9µm,3.0s
ENIJ    Nijar              94.44 307    P        pP         01 12 19.6 -0.2
        comp=Z,9µm,3.0s
EVIA    Vianos             94.44 309    P        pP         01 12 19.9 +0.1
EVIA                                    pmax      pmax
        comp=Z,664nm,1.7s,mb6.8
EVIA    Vianos             94.44 309    P        pP         01 12 19.9  0.0
        comp=Z,664nm,1.7s
ELAN    Lanestosa          94.47 314    P        pP         01 12 20.2 +0.4
        comp=Z,55µm,16.3s,SNR=8.4
DSB     Dublin             94.61 324   eP        P          01 12 13.6 +1.7
        comp=Z,274nm,1.4s,mb6.5
DLF     Lyons Farm         94.69 324   eP        pP         01 12 22.6 +2.0
DLF     Lyons Farm         94.69 324   eP        P          01 12 13.0 +0.8
DLF                                    eP        pP         01 12 22.6 +2.0
DMUB    Kingscourt         94.78 325   eP        sP         01 12 25.1 +1.4
DMUB    Kingscourt         94.78 325   eP        P          01 12 15.2 +2.6
DMUB                                   eP        pP         01 12 25.1 +4.1
EBER    Berja              94.99 307    P        sP         01 12 26.7 +1.6
        comp=Z,2µm,2.9s,SNR=8.4
EQES    Quesada            95.00 308    P        sP         01 12 26.4 +1.3
        comp=Z,91µm,14.2s,SNR=9.0
IMA     Indian Mountai     95.05  23   eP        P          01 12 13.9 +0.3
IMA                                     pmax      pmax
        comp=Z,261nm,1.4s,mb6.5
IMA     Indian Mountai     95.05  23   eP        P          01 12 13.9 +0.3
        comp=Z,261nm,1.4s,mb6.5
DCN     Croghan            95.11 324   eP        sP         01 12 25.0 -0.2
DCN     Croghan            95.11 324   eP        P          01 12 15.2 +1.0
DCN                                    eP        pP         01 12 25.0 +2.5
EMEL    Melilla            95.26 306    P        pP         01 12 24.8 +1.2
        comp=Z,8µm,3.2s,SNR=4.0
GUD     Guadarrama         95.41 311    P        P          01 12 17.9 +2.1
        comp=Z,29nm,1.0s
ESDC    Sonseca Array      95.42 310    P        P          01 12 17.4 +1.5
        comp=Z,6.9nm,0.7s,baz=59,slow=4.2,SNR=24
ESDC                                    S        S          01 23 22.1 -4.9
        comp=Z,32nm,1.0s,baz=68,slow=5.8,SNR=2.2
ESDC    Sonseca Array      95.42 310    P        P          01 12 17.4 +1.5
ESDC                                    P                   01 12 22.5
ESDC                                    S        S          01 23 22.1 -4.9
ESDC    Sonseca Array      95.42 310    P        pP         01 12 22.5 -1.8
        comp=Z,7.0nm,0.8s,baz=66,slow=3.9,SNR=30
ESLA    Sonseca Array      95.42 310   eP        P          01 12 17.2 +1.3
        comp=Z,17nm,1.2s
ESLA                                    LR        LR
        comp=Z,7692µm,20.0s,MS9.2
EBAN    Banos Encina       95.51 309    P        pP         01 12 22.1 -2.7
EBAN                                    pmax      pmax
        comp=Z,4µm,2.7s,mb7.4
EBAN    Banos Encina       95.51 309    P        pP         01 12 22.1 -2.7
        comp=Z,4µm,2.7s
ERON    Agron              95.70 308    P        pP         01 12 23.5 -2.2
        comp=Z,22nm,0.7s
EARI    Arriondas          95.74 314    P        pP         01 12 26.9 +1.3
EARI    Arriondas          95.74 314    P        sP         01 12 31.4 +3.0
        comp=Z,123µm,19.2s,SNR=4.4
SCO     Scoresbysund       95.80 343   i P       sP         01 12 32.4 +4.4
        comp=Z,60nm,1.0s
SCO     Scoresbysund       95.80 343   i S       S          01 23 33.4 +3.8
ELOJ    Sierra Loja        95.95 308    P        pP         01 12 26.5 -0.4
        comp=Z,7.9nm,0.6s
SNAA    Sanae              95.97 198⇑ iP        P          01 12 22.8 +5.1
SNAA    Sanae              95.97 198   e         pP         01 12 25.9 -0.2
SNAA    Sanae              95.97 198   e         sP         01 12 27.7 -1.1
SNAA    Sanae              95.97 198    P        P          01 12 18.6 +0.9
        comp=Z,9.8nm,1.3s,baz=106,slow=3.6,SNR=12
SNAA                                    S        SKS        01 22 54.5 -4.2
        comp=Z,61nm,1.4s,baz=90,slow=11,SNR=2.3
SNAA    Sanae              95.97 198⇓ eP        P          01 12 17.9 +0.2
SNAA                                   e         pP         01 12 27.7 +1.6
SNAA                                   e                    01 16 13.7
SNAA                                    pmax      pmax
        comp=Z,239nm,1.2s
SNAA    Sanae              95.97 198⇓ eP        P          01 12 17.9 +0.1
        comp=Z,239nm,1.2s,mb6.5
SNAA                                 ⇑ iP                   01 12 22.8
SNAA                                   e         pP         01 12 25.9 -0.2
SNAA                                   e         pP         01 12 27.7 +1.6
SNAA                                   e                    01 16 13.7
SNAA                                   e                    01 16 52.1
ELUQ    Luque              95.98 308    P        P          01 12 23.2 +4.6
ELUQ                                    pmax      pmax
        comp=Z,3µm,2.8s,mb7.3
ELUQ    Luque              95.98 308    P        P          01 12 23.2 +4.7
        comp=Z,3µm,2.8s,mb7.3
EADA    Adamuz             96.13 309    P        pP         01 12 24.8 -2.8
EADA    Adamuz             96.13 309    P        sP         01 12 32.8 +2.5
        comp=Z,90µm,15.4s,SNR=14
EMIJ    Mijas              96.53 307    P        pP         01 12 28.0 -1.5
        comp=Z,13µm,5.9s,SNR=5.6
ECAL    Calabor            97.10 313    P        pP         01 12 30.3 -1.6
ECAL    Calabor            97.10 313    P        sP         01 12 36.1 +1.6
        comp=Z,81µm,16.5s,SNR=5.2
EPON    Pontenova          97.13 314    P        pP         01 12 31.7 -0.2
EPON    Pontenova          97.13 314    P        sP         01 12 37.6 +3.0
        comp=Z,27µm,12.9s
PBRG    Braganca           97.13 313   eP        sP         01 12 38.0 +3.3
VAL     Valentia           97.20 323   eS        S          01 23 59.1  +17
VAL     Valentia           97.20 323⇓ eP        sP         01 12 39.4 +4.7
VAL                                    eS        S          01 23 59.1  +17
ERUA    La Rua             97.31 313    P        pP         01 12 33.9 +1.1
ERUA                                    pmax      pmax
        comp=Z,679nm,2.0s,mb6.7
ERUA    La Rua             97.31 313    P        pP         01 12 33.9 +1.1
        comp=Z,679nm,2.0s
ESPR    Espera             97.34 308    P        pP         01 12 33.5 +0.4
ESPR    Espera             97.34 308    P        sP         01 12 38.1 +2.3
        comp=Z,124µm,19.7s,SNR=6.1
RSO     Redoubt South      97.39  28   eP        P          01 12 23.6 -0.8
SPU     Mount Spurr        97.46  27   eP        P          01 12 23.9 -0.7
VNA2    Neumayer--Watz     97.55 199   e         pP         01 12 31.5 -1.7
VNA2    Neumayer--Watz     97.55 199   e         pP         01 12 32.7 -0.5
VNA2    Neumayer--Watz     97.55 199   e         S          01 23 44.8 +0.4
VNA2    Neumayer--Watz     97.55 199⇑ iP        P          01 12 28.6 +3.8
VNA2                                   e                    01 12 31.5
VNA2                                   e                    01 12 32.7
VNA2                                   e                    01 16 19.5
VNA2                                   e                    01 16 58.3
COLA    College            97.76  23    Pdiff    P          01 12 25.3 -0.6
COLA    College            97.76  23⇑ eP        P          01 12 24.7 -1.2
COLA                                    pmax      pmax
        comp=Z,542nm,1.0s,mb7.0
COLA                                    MLR       MLR
        comp=Z,5128µm,20.0s,MS9.0
COLA    College            97.76  23⇑ eP        P          01 12 24.6 -1.2
        comp=Z,542nm,1.0s,mb7.0
COLA                                    LR        LR
        comp=Z,5128µm,20.0s,MS9.0
EMIN    Mina Concepcio     97.83 309    P        pP         01 12 35.0 -0.3
EMIN    Mina Concepcio     97.83 309    P        sP         01 12 40.3 +2.4
        comp=Z,112µm,19.8s,SNR=8.6
VNA1    Neumayer--Stat     97.88 199   e         pP         01 12 32.3 -2.5
VNA1    Neumayer--Stat     97.88 199   e         pP         01 12 33.6 -1.2
VNA1    Neumayer--Stat     97.88 199⇑ iP        P          01 12 29.4 +3.1
VNA1                                   e                    01 12 32.3
VNA1                                   e                    01 12 33.6
VNA1                                   e                    01 16 20.6
VNA1                                   e                    01 16 58.5
EBAD    Badajoz            97.91 310    P        P          01 12 31.1 +3.9
EBAD    Badajoz            97.91 310    P        sP         01 12 40.7 +2.5
        comp=Z,125µm,20.7s,SNR=6.7
PVRL    Vila Real          97.95 312   eP        sP         01 12 41.2 +2.8
MTE     Manteigas          98.00 311   eP        P          01 12 29.7 +2.1
MTE                                    eS        S          01 23 53.3 +4.5
MTE                                    eLQ                  01 40 39.9
MTE                                    eLR       LR         01 48 37.3
        comp=Z,1642µm,20.0s
MTE     Manteigas          98.00 311⇑ eP        P          01 12 27.5 -0.1
        comp=Z,56nm,0.9s,mb6.1
PCBR    Castelo Branco     98.06 311   eP        sP         01 12 37.9 -1.0
ELOB    Lobios             98.08 313    P        sP         01 12 38.6 -0.3
ELOB    Lobios             98.08 313    P        sP         01 12 41.9 +2.9
        comp=Z,101µm,20.4s,SNR=4.8
ILAR    Eielson Array      98.18  23    P        P          01 12 26.6 -1.1
        comp=Z,3.0nm,0.7s,baz=289,slow=3.6,SNR=26
ILAR                                    PP        PP        01 16 20.6 -9.5
        comp=Z,71nm,0.9s,baz=281,slow=5.0,SNR=3.6
ILAR                                    S         SKS       01 23 03.4 -7.0
        comp=Z,76nm,0.8s,baz=291,slow=7.7,SNR=2.3
BORG    Borgarnes          98.19 337    P        P          01 12 27.9 +0.1
        comp=Z,484nm,1.1s,mb6.9
PVIS    Viseu              98.19 312   eP        sP         01 12 38.7 -0.8
VNA3    Neumayer Olymp     98.20 198   e         P          01 12 33.3 +5.5
VNA3    Neumayer Olymp     98.20 198   e         pP         01 12 34.8 -1.4
VNA3    Neumayer Olymp     98.20 198   e         S          01 23 47.1 -2.7
VNA3    Neumayer Olymp     98.20 198⇑ iP        P          01 12 30.5 +2.7
VNA3                                   e                    01 12 33.3
VNA3                                   e                    01 12 34.8
VNA3                                   e                    01 16 21.4
VNA3                                   e                    01 17 01.1
STS     Santiago           98.22 314    P        pP         01 12 37.3 +0.4
STS                                     pmax      pmax
        comp=Z,225nm,1.6s,mb6.5
STS     Santiago           98.22 314    P        pP         01 12 37.3 +0.4
        comp=Z,225nm,1.6s
FIB     Fire Island        98.31  27   eP        P          01 12 29.9 +1.5
FIB                                     MLR       MLR
        comp=Z,2388µm,22.0s,MS8.6
KDAK    Kodiak Island      98.41  30   eP        P          01 12 28.7 -0.3
        comp=Z,592nm,1.0s,mb7.1
KDAK                                    LR        LR
        comp=Z,947µm,20.0s,MS8.3
EZAM    Zamans             98.48 313    P        pP         01 12 37.5 -0.6
EZAM                                    pmax      pmax
        comp=Z,1µm,3.6s
EZAM    Zamans             98.48 313    P        pP         01 12 37.5 -0.7
        comp=Z,1µm,3.6s
EGRO    El Granado         98.50 309    P        pP         01 12 35.9 -2.4
EGRO    El Granado         98.50 309    P        sP         01 12 44.2 +3.2
        comp=Z,87µm,16.3s,SNR=7.9
PALC    Alcoutim           98.51 308   eP        sP         01 12 43.9 +2.9
EMAZ    Mazaricos          98.51 314    P        pP         01 12 38.0 -0.2
EMAZ    Mazaricos          98.51 314    P        sP         01 12 42.9 +2.0
        comp=Z,79µm,18.0s,SNR=4.8
SLKM    Skilak Lake        98.54  27   eP        P          01 12 28.2 -1.3
PMR     Palmer             98.60  26   eP        P          01 12 29.4 -0.4
PMR                                     pmax      pmax
        comp=Z,121nm,1.4s,mb6.2
PMR                                     MLR       MLR
        comp=Z,5120µm,23.0s,MS9.0
PMR     Palmer             98.60  26   eP        P          01 12 29.4 -0.4
        comp=Z,121nm,1.4s,mb6.2
PMR                                     LR        LR
        comp=Z,5120µm,23.0s,MS9.0
PBEJ    Beja               98.70 309   eP        sP         01 12 44.7 +2.8
EVO     Evora              98.72 310⇓ iP        P          01 12 32.9 +2.0
        comp=Z,476nm,1.8s,mb6.4
EVO                                    eR
        comp=Z,2447µm,22.5s
SUMG    Summit             98.85 347   eP        P          01 12 28.7 -2.0
        comp=Z,578nm,1.2s,mb7.0
THY     Trims Highway      99.23  24   eP        P          01 12 32.5 -0.1
PTEO    Sao Teotonio       99.47 309   eP        sP         01 12 48.0 +2.7
LIS     Lisbon             99.55 310   ePP       PP         01 16 34.5 -6.4
LIS                                    eSS       SS         01 30 55.5 -1.4
LIS                                     AMS       AMS       02 02 07.5
        comp=Z,167µm,17.3s,MS7.6
LIS     Lisbon             99.55 310   ePP       PP         01 16 34.5 -6.4
LIS                                    eSS       SS         01 30 55.5 -1.4
        comp=Z,167µm,17.3s
DIV     Divide            100.27  26⇑ ePdif     P          01 12 37.1 -0.3
        comp=Z,558nm,1.4s
DIV                                     LR        LR
        comp=Z,13802µm,21.0s,MS9.4
DBIC    Dimbokro          100.27 277    P        P          01 12 38.9 +0.4
        comp=Z,4.4nm,1.0s,baz=63,slow=9.0,SNR=3.6
DBIC                                    PP        PP        01 16 45.1 -2.1
        comp=Z,145nm,0.9s,baz=76,slow=7.6,SNR=2.2
DBIC                                    S         SKS       01 23 33.0  +11
        comp=Z,53nm,0.8s,baz=74,slow=12,SNR=2.2
DBIC    Dimbokro          100.27 277   eP        P          01 12 36.7 -1.8
DBIC                                    pmax      pmax
        comp=Z,398nm,1.3s
DBIC                                    MLR       MLR
        comp=Z,2131µm,20.0s
DBIC    Dimbokro          100.27 277   eP        P          01 12 36.7 -1.8
        comp=Z,398nm,1.3s
DBIC                                    LR        LR
        comp=Z,2131µm,20.0s,MS8.7
EYAK    Cordova Ski Ar    100.54  26   ePdif     P          01 12 38.8 +0.2
INK     Inuvik            100.75  17    P        P          01 12 41.1 +1.7
        comp=Z,20nm,1.1s,baz=302,slow=5.0,SNR=29
INK                                     PP        PP        01 16 49.5 -0.3
        comp=Z,739nm,1.3s,baz=325,slow=1.5,SNR=1.5
INK     Inuvik            100.75  17   eP        P          01 12 37.5 -1.9
INK                                                         01 16 49.5
INK                                     pmax      pmax
        comp=Z,792nm,1.3s
INK     Inuvik            100.75  17   ePdif     P          01 12 37.5 -1.9
        comp=Z,792nm,1.3s
INK                                     PP        PP        01 16 49.5 -0.3
DAWY    Dawson            101.35  22   eP        P          01 12 40.2 -2.0
RES     Resolute Bay      101.75   3   eP        P          01 12 43.5 -0.3
RES                                     pmax      pmax
        comp=Z,483nm,1.0s
RES     Resolute Bay      101.75   3   eP        P          01 12 43.5 -0.3
        comp=Z,483nm,1.0s
RAR     Rarotonga         104.58 111    PFAKE               01 13 10.0  +13
RAR                                     LR        LR
        comp=Z,828µm,22.0s,MS8.2
EFAM    Famara            105.18 301    P        Pdif       01 13 14.3  +14
        SNR=7.9
TRIS    Tristan da Cun    106.56 232    PFAKE               01 17 30.0
TRIS                                    LR        LR
        comp=Z,1282µm,19.0s,MS8.5
SIT     Sitka             106.98  26    PFAKE               01 17 30.0
SIT                                     LR        LR
        comp=Z,5189µm,21.0s,MS9.1
EOSO    Osorio            107.16 301    P        Pdif       01 13 22.7  +14
        SNR=7.9
DLBC    Dease Lake        108.36  23    Pdiff    Pdif       01 13 14.5 +1.4
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          comp=Z,1.7nm,0.9s,baz=84,slow=9.8,SNR=2.0
DLBC                                  PP        PP        01 17 46.2  -0.6
          comp=Z,62nm,1.1s,baz=293,slow=7.7,SNR=3.4
DLBC  Dease Lake        108.36  23  ePdif     Pdif      01 13 13.8 +0.7
EHIG  Higuera           108.96 302   P        Pdif      01 13 32.2  +16
          SNR=7.9
YKW3  Yellowknife Ar    110.24  15   Pdif     Pdif      01 13 22.4 +1.0
YKA   Yellowknife Ar    110.30  15   Pdiff    Pdif      01 13 21.9 +0.2
          comp=Z,0.6nm,0.6s,baz=322,slow=5.9,SNR=13
YKA                                  PP       PP        01 17 54.5  -6.6
          comp=Z,26nm,0.9s,baz=328,slow=3.8,SNR=4.2
YKA                                  SP       SP        01 27 32.0  +10
          comp=Z,21nm,0.9s,baz=330,slow=5.0,SNR=2.4
YKA                                  PKPPKP             01 36 52.2
          comp=Z,22nm,0.8s,baz=149,slow=3.5,SNR=4.1
YKA   Yellowknife Ar    110.30  15   Pdif     Pdif      01 13 21.9 +0.2
YKA                                  PP       PP        01 17 54.5  -6.6
YKA                                  SP       SP        01 27 32.0  +10
YKA                                  P'P'               01 36 52.2
PFAD  Fenais da Ajud    111.94 313  ePP       PP        01 18 41.0  +28
FRA1  Furnas            112.00 313  ePP       PP        01 18 41.5  +28
FRB   Frobisher Bay     112.01 353   Pdiff    Pdif      01 13 34.5 +5.4
          comp=Z,4.3nm,0.8s,baz=87,slow=5.1,SNR=3.2
FRB                                  PKiKP              01 17 26.2
          comp=Z,41nm,0.9s,baz=329,slow=2.6,SNR=3.3
FRB                                  PP       PP        01 18 03.3   -10
          comp=Z,144nm,1.2s,baz=28,slow=6.5,SNR=3.7
PCNG  Congro            112.02 313  ePP       PP        01 18 44.7  +31
MESC  Monte Escuro      112.05 313  ePP       PP        01 18 35.6  +22
PMAT  Coroa da Mata     112.05 313  ePP       PP        01 18 36.8  +23
VIF   Vila Franca       112.06 313  ePP       PP        01 18 37.4  +23
PSMN  Pico do Norte,    112.07 312  ePP       PP        01 18 38.3  +24
LFA   Lagoa do Fogo     112.08 313  ePP       PP        01 18 31.4  +17
PVER  Pico Vermelho     112.09 313  ePP       PP        01 18 41.4  +27
PRCH  Ribeira Ch        112.09 313  ePP       PP        01 18 32.4  +18
CML   Cha da Macela     112.13 313  ePP       PP        01 18 43.9  +29
FAC   Faja de Cima      112.20 313  ePP       PP        01 18 45.3  +30
PDA   Ponta Delgada     112.22 313  eP        Pdif      01 13 51.0  +20
PDA   Ponta Delgada     112.22 313  ePP       PP        01 19 00.0  +45
SET4  Mosteiros         112.27 313  ePP       PP        01 18 48.7  +33
SET2  Ginetes           112.29 313  ePP       PP        01 18 48.6  +33
PFAV  Pico das Favas    112.85 315  ePP       PP        01 18 34.5  +14
PVNV  Vila Nova         112.88 315  ePP       PP        01 18 34.7  +14
RIB2  Ribeirinha        112.93 315  ePP       PP        01 18 34.3  +13
PBIS  Biscoitos         112.95 315  ePP       PP        01 18 28.2 +7.1
ADH   Angra Heroismo    112.98 315  i P       Pdif      01 13 50.0  +16
ADH   Angra Heroismo    112.98 315  ePP       PP        01 18 26.4 +5.0
PPAD  Pico dos Padre    113.00 315  ePP       PP        01 18 33.9  +12
ASBA  Santa Barbara     113.02 315  ePP       PP        01 18 34.0  +12
BBB   Bella Bella       113.29  28   Pdiff    Pdif      01 13 38.0 +3.0
          comp=Z,16nm,1.1s,baz=31,slow=9.1,SNR=1.7
BBB                                  PKiKP              01 17 30.6
          comp=Z,42nm,0.9s,baz=262,slow=4.0,SNR=4.0
BBB                                  PP       PP        01 18 12.9   -10
          comp=Z,46nm,0.8s,baz=356,slow=4.7,SNR=3.7
ROSA  Rosais            113.67 315  ePP       PP        01 18 40.4  +14
PICO  Pico              113.89 315  ePP       PP        01 18 52.4  +25
CALA  Caldeira          114.05 315  ePP       PP        01 18 34.8 +5.9
PAE   Paea              114.38 108  ePKiKP              01 17 29.7
          comp=Z,787nm,1.4s
PPT   Papeete           114.39 108   PP       PP        01 18 17.3   -14
          comp=Z,23nm,0.5s,baz=302,slow=1.5,SNR=2.8
PPT   Papeete           114.39 108  ePKiKP              01 17 29.8
          comp=Z,230nm,1.3s
TIAR  Tiarei            114.61 108  ePKiKP              01 17 30.2
          comp=Z,983nm,1.2s
TVO   Taravao           114.68 108  ePKiKP              01 17 30.4
          comp=Z,288nm,1.1s
MEH   Mehetia           115.80 108  ePKiKP              01 17 32.5
          comp=Z,243nm,1.1s
PMOR  Pomariorio Ree    116.18 105  ePKiKP              01 17 33.2
          comp=Z,365nm,1.0s
PMSA  Palmer Station    117.08 189   PFAKE              01 17 50.0  +11
PMSA                                 LR       LR
          comp=Z,1339µm,22.0s,MS8.5
FCC   Fort Churchill    117.51   6   P        Pdif      01 13 55.3 +1.9
FCC                                 e                   01 17 35.7
OCWA  Octopus Mounta    118.15  30   Pdifu    Pdif      01 14 02.6 +6.1
OCWA                                 LR       LR
          comp=Z,2876µm,21.0s,MS8.9
EDM   Edmonton          118.46  20  ePKIKP    PKPdf     01 17 37.8  -4.4
SCHQ  Schefferville     120.22 349   Pdiff    Pdif      01 14 06.8 +1.4
          comp=Z,2.4nm,0.9s,baz=139,slow=15,SNR=2.0
SCHQ                                 PKP      PKPdf     01 17 43.4  -2.3
          comp=Z,12nm,0.7s,baz=31,slow=6.0,SNR=2.8
SCHQ                                 PP       PP        01 19 10.7 +0.1
          comp=Z,147nm,0.8s,baz=48,slow=4.5,SNR=3.7
SCHQ  Schefferville     120.22 349   Pdif     Pdif      01 14 06.8 +1.4
SCHQ                                 PKPdf    PKPdf     01 17 43.9  -1.7
COR   Corvallis         120.76  32  ePKIKP    PKPdf     01 17 43.3  -3.7
NEW   Newport           121.02  25  ePKIKP    PKPdf     01 17 45.5  -1.9
WALA  Waterton Lakes    121.68  23   PKPdf    PKPdf     01 17 43.8  -4.8
HUMO  Hull Mountain     122.28  33  ePKPdf    PKPdf     01 17 46.0  -3.9
HUMO                                 LR       LR
          comp=Z,1950µm,22.0s,MS8.7
KHMM  Horse Mountain    122.99  35  ePKPdf    PKPdf     01 17 46.4  -4.9
YBH   Yreka Blue Hor    123.00  34   Pdiff    Pdif      01 14 19.8 +1.8
          comp=Z,2.1nm,0.9s,baz=95,slow=4.6,SNR=2.0
YBH                                  PKP      PKPdf     01 17 48.6  -2.7
          comp=Z,10nm,0.8s,baz=35,slow=4.1,SNR=3.6
YBH                                  PP       PP        01 19 39.0 +8.5
          comp=Z,129nm,1.0s,baz=325,slow=12,SNR=2.4
YBH                                  SP       SP        01 29 41.5  +22
          comp=Z,21nm,0.8s,baz=159,slow=7.5,SNR=2.4
YBH   Yreka Blue Hor    123.00  34   P        Pdif      01 14 19.8 +1.8
YBH                                 e                   01 17 48.5
MSO   Missoula          123.47  24  ePKPdf    PKPdf     01 17 47.8  -4.4
MSO                                  LR       LR
          comp=Z,2475µm,22.0s,MS8.8
BMO   Blue Mountains    123.54  28  ePKIKP    PKPdf     01 17 48.4  -3.9
WDC   Whiskeytown Da    123.86  35  ePKIKP    PKPdf     01 17 49.3  -3.8
WDC                                  MLR      MLR
          comp=Z,2628µm,22.0s,MS8.8
MOD   Modoc             124.19  32  ePKPdf    PKPdf     01 17 47.3  -6.4
MOD                                  LR       LR
          comp=Z,2082µm,20.0s,MS8.8
HRY   Holter Researc    124.41  23  ePKPdf    PKPdf     01 17 50.1  -3.8
HOPS  Hopland           124.59  37  ePKPdf    PKPdf     01 17 51.2  -3.4
HOPS                                 LR       LR
          comp=Z,2478µm,22.0s,MS8.8
NSHM  Saint Helena R    125.18  37  ePKPdf    PKPdf     01 17 52.9  -2.8
OHCM  Honcut            125.30  35  ePKPdf    PKPdf     01 17 51.6  -4.3
BOZ   Bozeman (W)       125.37  23  ePKIKP    PKPdf     01 17 53.1  -2.8
DGMT  Dagmar            125.43  16   PKPdf    PKPdf     01 17 52.5  -3.4
DGMT                                 LR       LR
          comp=Z,6499µm,20.0s,MS9.3
MCMT  McKenzie Canyo    125.54  25  ePKPdf    PKPdf     01 17 53.7  -2.5
ULM   Lac du Bonnet     125.59   9   Pdiff    Pdif      01 14 43.8  +15
          comp=Z,1.5nm,0.8s,baz=177,slow=11,SNR=2.0
ULM                                  PKP      PKPdf     01 17 53.4  -2.7
          comp=Z,24nm,0.7s,baz=17,slow=3.2,SNR=7.6
ULM                                  PP       PP        01 19 49.0 +1.6
          comp=Z,267nm,0.9s,baz=322,slow=3.0,SNR=2.9
ULM                                  SP       SP        01 30 02.1  +21
          comp=Z,16nm,0.7s,baz=199,slow=8.6,SNR=1.5
ULM   Lac du Bonnet     125.59   9   Pdif     Pdif      01 14 43.8  +15
ULM                                 ePKPdf    PKPdf     01 17 50.3  -5.9
ULM                                  PKP      PKPdf     01 17 53.4  -2.7
ULM                                  PP       PP        01 19 49.0 +1.6
ULM                                  SP       SP        01 30 02.1  +21
ULM                                  LR       LR
          comp=Z,6079µm,21.0s,MS9.2
HLID  Hailey            125.86  27  ePKPdf    PKPdf     01 17 53.6  -3.3
SAC   San Andreas       125.90  37  ePKIKP    PKPdf     01 17 52.0  -5.1
GCMT  Greycliff         126.00  22  ePKPdf    PKPdf     01 17 54.6  -2.4
QLMT  Earthquake Lak    126.12  24  ePKPdf    PKPdf     01 17 55.2  -2.0
PAHR  Pah Rah Range     126.23  34  ePKPdf    PKPdf     01 17 55.1  -2.6
WCN   Washoe City       126.30  34  ePKIKP    PKPdf     01 17 55.0  -2.8
LAO   LASA Array        126.42  19  ePKPdf    PKPdf     01 17 53.5  -4.3
LAO                                  LR       LR
          comp=Z,4883µm,22.0s,MS9.1
YMR   Madison River     126.44  24  ePKPdf    PKPdf     01 17 54.2  -3.7
YNR   Norris Junctio    126.52  23  ePKPdf    PKPdf     01 17 54.5  -3.5
YFT   Old Faithful      126.67  24  ePKPdf    PKPdf     01 17 54.6  -3.7
LKWY  Lake              126.75  23  ePKIKP    PKPdf     01 17 55.9  -2.6
LKWY                                 MLR      MLR
          comp=Z,5573µm,20.0s,MS9.2
CMB   Columbia Colle    126.81  36  ePKIKP    PKPdf     01 17 56.3  -2.5
CMB                                  MLR      MLR
          comp=Z,1686µm,22.0s,MS8.7
BMN   Battle Mountai    126.87  31   PKIKP    PKPdf     01 17 56.0  -2.8
BMN                                  MLR      MLR
          comp=Z,1721µm,21.0s,MS8.7
RKT   Rikitea           127.09 116  ePKiKP              01 17 54.6
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          comp=Z,470nm,1.2s
IMW   Indian Meadow     127.09  24   PKPdf    PKPdf     01 17 56.0  -3.1
EFI   East Falkland     127.21 200   PKIKP    PKPdf     01 17 54.0  -5.2
EFI                                  MLR      MLR
          comp=Z,306µm,20.0s,MS8.0
TPAW  Teton Pass        127.42  24  ePKPdf    PKPdf     01 17 56.5  -3.3
LOHW  Long Hollow       127.46  24  ePKPdf    PKPdf     01 17 56.5  -3.4
WUWY  Wally Ulrich      127.47  24  ePKPdf    PKPdf     01 17 56.4  -3.6
LRV   Little Rabbit     127.50  38   PKPdf    PKPdf     01 17 56.4  -3.8
SNOW  Snow King Moun    127.52  24  ePKPdf    PKPdf     01 17 55.4  -4.7
REDW  Red Top Meadow    127.57  24  ePKPdf    PKPdf     01 17 57.7  -2.4
ELK   Elko              127.64  30  ePKIKP    PKPdf     01 17 56.3  -4.1
ELK                                  MLR      MLR
          comp=Z,2783µm,21.0s
NVAR  Mina Array Bea    127.72  34   Pdiff    Pdif      01 14 47.9 +9.0
          comp=Z,0.3nm,0.3s,baz=258,slow=15,SNR=2.2
NVAR                                 PKP      PKPdf     01 17 58.6  -2.0
          comp=Z,29nm,0.8s,baz=297,slow=2.6,SNR=9.3
NVAR                                 PP       PP        01 20 02.9 +1.2
          comp=Z,186nm,0.9s,baz=243,slow=2.0,SNR=2.5
MNV   Mina              127.80  34  ePKIKP    PKPdf     01 17 57.2  -3.6
MNV                                  MLR      MLR
          comp=Z,2393µm,21.0s,MS8.8
OMM   Old Mammoth Mi    127.90  35  ePKPdf    PKPdf     01 17 57.5  -3.5
AHID  Auburn Hatcher    127.95  25  ePKPdf    PKPdf     01 17 56.8  -4.2
AHID                                 LR       LR
          comp=Z,3776µm,22.0s,MS9.0
HVU   Hansel Valley     128.01  27  ePKIKP    PKPdf     01 17 55.0  -6.1
PQI   Presque Isle      128.15 346   Pdifu    Pdif      01 14 46.3 +5.7
PQI                                  LR       LR
          comp=Z,9140µm,20.0s,MS9.5
MTUM  Tungsten Hills    128.33  35  ePKPdf    PKPdf     01 17 58.3  -3.5
EYMN  Ely               128.45   6  ePKPdf    PKPdf     01 17 57.4  -4.3
EYMN                                 LR       LR
          comp=Z,3610µm,22.0s,MS9.0
SPUT  South Promonto    128.53  27  ePKPdf    PKPdf     01 17 58.8  -3.3
BGU   Big Grassy Mou    128.57  28  ePKPdf    PKPdf     01 17 58.5  -3.7
TPH   Tonopah           128.57  33  ePKIKP    PKPdf     01 17 56.8  -5.5
TPH                                  MLR      MLR
          comp=Z,2048µm,22.0s,MS8.8
BW06  Boulder Array     128.59  24  ePKPdf    PKPdf     01 17 56.9  -5.2
BW06                                 LR       LR
          comp=Z,4849µm,22.0s,MS9.1
PDAR  Pinedale Array    128.59  24   Pdiff    Pdif      01 14 49.5 +6.9
          comp=Z,0.3nm,0.9s,baz=141,slow=9.5,SNR=2.5
PDAR                                 PKP      PKPdf     01 17 57.1  -5.0
          comp=Z,23nm,1.1s,baz=326,slow=0.8,SNR=9.8
PDAR                                 PP       PP        01 20 05.8  -1.8
          comp=Z,105nm,0.8s,baz=180,slow=3.0,SNR=2.5
HWUT  Hardware Ranch    128.69  26  ePKPdf    PKPdf     01 17 58.9  -3.5
HWUT                                 LR       LR
          comp=Z,6890µm,22.0s,MS9.3
NOQ   North Oquirrh     129.21  27  ePKPdf    PKPdf     01 17 58.2  -5.2
TRCR  Troy Canyon       129.26  32  ePKPdf    PKPdf     01 18 00.7  -2.8
CTU   Camp Tracy        129.34  27  ePKPdf    PKPdf     01 17 57.8  -5.8
DAC   Darwin (Calif)    129.63  35  ePKIKP    PKPdf     01 18 01.1  -3.2
DAC                                  MLR      MLR
          comp=Z,1729µm,22.0s,MS8.7
NLU   North Lily Min    129.78  28  ePKPdf    PKPdf     01 18 00.4  -4.1
DAU   Daniels Canyon    129.79  27  ePKIKP    PKPdf     01 18 02.1  -2.4
EMMW  East Machias      129.83 345  ePKPdf    PKPdf     01 17 59.3  -5.2
TPNV  Topopah Spring    129.92  34  ePKIKP    PKPdf     01 18 02.1  -2.8
MPU   Maple Canyon      129.94  28  ePKPdf    PKPdf     01 18 00.1  -4.7
RWWY  Rawlins           130.43  23  ePKPdf    PKPdf     01 17 59.9  -5.8
WVL   Waterville        130.52 346  ePKPdf    PKPdf     01 18 01.5  -4.3
WVL                                  LR       LR
          comp=Z,13266µm,22.0s,MS9.6
TMUT  Trail Mountain    130.71  28  ePKPdf    PKPdf     01 18 02.7  -3.6
ARUT  Antelope Range    130.79  31  ePKIKP    PKPdf     01 18 02.6  -3.9
MVU   Marysvale         130.86  29  ePKPdf    PKPdf     01 18 03.3  -3.2
MVU                                  LR       LR
          comp=Z,2827µm,21.0s,MS8.9
MSU   Marysvale         130.87  29  ePKIKP    PKPdf     01 18 03.3  -3.3
FRNY  Flat Rock         131.06 350  ePKPdf    PKPdf     01 18 02.5  -4.3
MSNY  Massena           131.10 351  ePKPdf    PKPdf     01 18 03.3  -3.6
SRU   San Rafael        131.17  27  ePKIKP    PKPdf     01 18 04.1  -3.1
PHWY  Pilot Hill        131.42  21  ePKPdf    PKPdf     01 18 04.1  -3.5
PTN   Potsdam (NY)      131.54 351  ePKIKP    PKPdf     01 18 04.1  -3.6
NEN   Nelson            131.64  34  ePKPdf    PKPdf     01 18 05.5  -2.7
MIV   Mineville/With    131.78 350  ePKPdf    PKPdf     01 18 03.0  -5.2
MDV   Middlebury        131.79 349  ePKPdf    PKPdf     01 18 03.8  -4.4
HNH   Hanover           131.91 348  ePKPdf    PKPdf     01 18 05.1  -3.3
RCBR  Riachuelo         131.91 265  ePKPdf    PKPdf     01 18 05.1  -4.1
FFD   Franklin Falls    132.00 348  ePKPdf    PKPdf     01 18 04.6  -4.0
NCB   Newcomb           132.00 350  ePKPdf    PKPdf     01 18 05.0  -3.6
NCB                                  LR       LR
          comp=Z,4046µm,22.0s,MS9.1
PFO   Pinyon Flat Ob    132.16  37  ePKHKP              01 17 54.6
PFO                                 e                   01 18 04.2
ACCN  Adirondack Com    132.48 350  ePKPdf    PKPdf     01 18 05.8  -3.8
ISCO  Idaho Springs     132.67  23  ePKIKP    PKPdf     01 18 06.2  -3.8
ISCO                                 MLR      MLR
          comp=Z,3733µm,22.0s,MS9.1
HRV   Harvard--Oak R    132.90 347  ePKIKP    PKPdf     01 18 06.7  -3.7
HRV                                  MLR      MLR
          comp=Z,2158µm,19.0s,MS8.9
WES   Weston            132.97 347  ePKIKP    PKPdf     01 18 06.5  -4.0
WES                                  MLR      MLR
          comp=Z,1877µm,21.0s,MS8.8
JFWS  Jewell Farm       133.55   6  ePKIKP    PKPdf     01 18 06.6  -4.9
JFWS                                 MLR      MLR
          comp=Z,5591µm,22.0s,MS9.2
GENY  Geneseo           133.69 354  ePKPdf    PKPdf     01 18 08.7  -3.1
BINY  Binghamton        134.01 352  ePKPdf    PKPdf     01 18 07.4  -4.9
BINY                                 LR       LR
          comp=Z,2044µm,20.0s,MS8.8
SDCO  Great Sand Dun    134.49  24   PKPpre             01 17 43.2
AAM   Ann Arbor         134.50 360  ePKIKP    PKPdf     01 18 10.3  -3.0
AAM                                  MLR      MLR
          comp=Z,5814µm,22.0s,MS9.3
ERPA  Erie              134.53 356  ePKPdf    PKPdf     01 18 09.8  -3.6
ERPA                                 LR       LR
          comp=Z,3076µm,21.0s,MS9.0
PAL   Palisades         134.82 349  ePKIKP    PKPdf     01 18 09.0  -5.0
SSPA  Standing Stone    135.80 353  ePKPdf    PKPdf     01 18 11.7  -4.1
SSPA                                 LR       LR
          comp=Z,733µm,22.0s,MS8.4
KSU1  Kansas State U    136.15  14  ePKPdf    PKPdf     01 18 13.3  -3.1
TUC   Tucson            136.37  33   Pdiff    Pdif      01 15 23.0 +5.9
TUC                                  PKSbc              01 21 08.8
TUC   Tucson            136.37  33  ePKIKP    PKPdf     01 18 12.4  -4.6
TUC                                  MLR      MLR
          comp=Z,1644µm,22.0s,MS8.7
ANMO  Albuquerque       136.44  27   Pdiff    Pdif      01 15 18.8 +1.4
          comp=Z,0.2nm,0.4s,baz=206,slow=16,SNR=1.9
ANMO                                 PKP      PKPdf     01 18 14.7  -2.4
          comp=Z,26nm,1.0s,baz=285,slow=2.3,SNR=9.1
ANMO                                 PP       PP        01 21 11.6  +14
          comp=Z,298nm,1.2s,baz=190,slow=2.6,SNR=1.8
ANMO  Albuquerque       136.44  27  ePKIKP    PKPdf     01 18 13.6  -3.4
ANMO                                 MLR      MLR
          comp=Z,2795µm,22.0s
ACSO  Alum Creek Sta    136.56 359  ePKPdf    PKPdf     01 18 13.2  -3.9
ACSO                                 LR       LR
          comp=Z,4603µm,22.0s,MS9.2
COYC  Coyhaique         136.71 192  eP        PKPdf     01 18 25.6 +8.4
SDMD  Soldier's Deli    136.87 352  ePKPdf    PKPdf     01 18 14.2  -3.5
MCWV  Mont Chateau      136.96 355  ePKPdf    PKPdf     01 18 14.3  -3.5
MCWV                                 LR       LR
          comp=Z,3730µm,21.0s,MS9.1
BLO   Bloomington       137.57   3   PKHKP              01 18 01.4
BLO                                                     01 18 12.4
BLO   Bloomington       137.57   3   PKPpre             01 18 01.4
SLM   Saint Louis       137.78   7  ePKIKP    PKPdf     01 18 15.2  -4.2
CBN   Corbin            138.13 352  ePKPdf    PKPdf     01 18 16.5  -3.6
CBN                                  LR       LR
          comp=Z,4071µm,21.0s,MS9.1
CCM   Cathedral Cave    138.21   8  ePKIKP    PKPdf     01 18 16.4  -3.9
FVM   French Village    138.40   8  ePKHKP              01 18 07.5
AMTX  Amarillo          138.48  22  ePKPdf    PKPdf     01 18 17.7  -3.1
AMTX                                 LR       LR
          comp=Z,5080µm,21.0s,MS9.2
USIN  University of     138.70   4  ePKPpre             01 18 01.8
FWV   Forest Hill       139.10 356  ePKPdf    PKPdf     01 18 18.2  -3.6
PWV   Princeton         139.36 356  ePKPdf    PKPdf     01 18 19.6  -2.8
BLA   Blacksburg        139.44 355   PKIKP    PKPdf     01 18 20.8  -1.7
BLA   Blacksburg        139.44 355  ePKPdf    PKPdf     01 18 19.2  -3.3
BLA                                  LR       LR
          comp=Z,3254µm,21.0s,MS9.1
ELN   Prospectdale      139.45 356  ePKPdf    PKPdf     01 18 18.3  -4.2
WMOK  Wichita Mounta    139.62  19  ePKHKP              01 18 11.1
MNTX  Cornudas Mount    139.64  29  ePKPdf    PKPdf     01 18 18.4  -4.5
MNTX                                 LR       LR
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          comp=Z,2874µm,21.0s,MS9.0
BBSR  BB Station        139.93 334   PKPdf    PKPdf     01 18 20.4  -3.1
BBSR                                 LR       LR
          comp=Z,2279µm,22.0s,MS8.9
TRQA  Tornquist         140.03 208  ePKPpre             01 18 08.8
TRQA                                 LR       LR
          comp=Z,2131µm,19.0s,MS8.9
PVMO  Portageville      140.04   7   PKPdf    PKPdf     01 18 20.1  -3.5
UTMT  University of     140.20   6  ePKPpre             01 18 19.0
GLAT  Glass             140.23   7  ePKPdf    PKPdf     01 18 18.8  -5.2
LPA   La Plata          140.36 215ceePKP      PKPdf     01 18 18.0  -6.2
LPA                                 epPKP               01 18 28.0
LPA                                 ePP       tx        01 18 37.0
LPA                                 eSKP                01 21 51.0
WVT   Waverly           140.51   5  ePKHKP              01 18 13.1
HALT  Halls             140.58   7  ePKPpre             01 18 14.9
HBAR  Harrisburg        140.75   8  ePKPdf    PKPdf     01 18 20.9  -4.1
MIAR  Mount Ida         141.21  13  ePKHKP              01 18 16.5
MIAR                                 MLR      MLR
          comp=Z,4910µm,21.0s,MS9.2
UALR  University of     141.23  11  ePKPpre             01 18 15.2
MET   Memphis--Engin    141.28   8   PKPdf    PKPdf     01 18 22.7  -3.2
CPCT  Cooper Cave       141.34   1  ePKPdf    PKPdf     01 18 22.0  -4.0
SWET  Sewanee           141.54   2  ePKPpre             01 18 17.9
OXF   Oxford            141.95   7   PKIKP    PKPdf     01 18 20.0  -7.1
OXF   Oxford            141.95   7  ePKPpre             01 18 18.8
OXF                                  LR       LR
          comp=Z,3735µm,20.0s,MS9.1
JSC   Jenkinsville      142.41 356   PKIKP    PKPdf     01 18 21.3  -6.6
JSC   Jenkinsville      142.41 356  ePKPdf    PKPdf     01 18 23.8  -4.1
LTX   Lajitas           142.42  29  ePKIKP    PKPdf     01 18 20.3  -7.7
LTX                                  MLR      MLR
          comp=Z,3425µm,22.0s,MS9.1
TXAR  Lajitas Array     142.42  29   PKhKP              01 18 21.5
          comp=Z,3.9nm,0.5s,baz=246,slow=1.3,SNR=25
TXAR  Lajitas Array     142.42  29   PKP      PKPdf     01 18 21.5  -6.5
BAO   Brasilia Array    142.46 249   PKP      PKPdf     01 18 23.0  -5.4
BAO                                 e                   01 18 41.4
BAO                                 e                   01 18 53.1
BAO                                 e                   01 19 11.0
BAO                                 e                   01 19 46.2
BDFB  Brasilia          142.47 249   Pdiff    Pdif      01 15 54.5  +10
          comp=Z,1.0nm,0.9s,baz=148,slow=13,SNR=1.8
BDFB                                 PKP      PKPdf     01 18 22.8  -5.6
          comp=Z,15nm,0.8s,baz=87,slow=2.5,SNR=13
BDFB                                 PP       PP        01 22 10.3  +35
          comp=Z,294nm,0.9s,baz=101,slow=5.2,SNR=1.5
BDFB  Brasilia          142.47 249   PKP      PKPdf     01 18 22.8  -5.6
BDFB                                 PP       PP        01 22 10.3  +35
JCT   Junction City     143.11  23  ePKIKP    PKPdf     01 18 21.6  -7.6
JCT                                  MLR      MLR
          comp=Z,3100µm,22.0s,MS9.0
COW   Cow Castle Cre    143.26 355  ePKPdf    PKPdf     01 18 26.2  -3.1
GOGA  Godfrey           143.37 359  ePKIKP    PKPdf     01 18 23.2  -6.3
GOGA                                 MLR      MLR
          comp=Z,3928µm,21.0s,MS9.2
NHSC  New Hope          143.49 354  ePKPpre             01 18 22.3
NHSC                                 LR       LR
          comp=Z,3915µm,22.0s,MS9.1
NATX  Nacogdoches       143.61  15  ePKPpre             01 18 22.9
NATX                                 LR       LR
          comp=Z,5046µm,22.0s,MS9.2
LRAL  Lakeview Retre    143.65   4  ePKPpre             01 18 22.9
LRAL                                 LR       LR
          comp=Z,3222µm,21.0s,MS9.1
HBF   Harts Bluff       143.68 355  ePKIKP    PKPdf     01 18 25.7  -4.3
RGRS  Roger Stewart     143.69 354  ePKPpre             01 18 22.9
HKT   Hockley           144.98  18  ePKIKP    PKPdf     01 18 27.2  -5.2
HKT                                  MLR      MLR
          comp=Z,1074µm,22.0s,MS8.6
HKT   Hockley           144.98  18   PKPdf    PKPdf     01 18 26.9  -5.5
CCHI  Chillan           145.16 197  eP        PKPbc     01 18 28.0  -0.2
CCHI  Chillan           145.16 197  eP        PKPbc     01 18 27.3  -0.8
CPUP  Villa Florida     145.68 226   PKPbc    PKPbc     01 18 28.6  -1.2
          comp=Z,0.0nm,0.6s,baz=89,slow=15,SNR=2.1
MAIG  Mazatlaan         145.75  38  eP        PKPbc     01 18 31.2 +1.1
RPN   Rapa Nui          146.26 137  ePKPdf    PKPdf     01 18 30.9  -3.8
RPN                                  LR       LR
          comp=Z,147µm,19.0s,MS7.8
NICH  Los Niches        146.38 199  eP        PKPbc     01 18 30.6  -0.6
LMEL  Las Melosas       147.06 202  eP        PKPdf     01 18 28.3  -7.6
LMEL  Las Melosas       147.06 202  eP        PKPdf     01 18 36.2 +0.3
MDZ   Mendoza           147.39 204   PKP      PKPdf     01 18 40.6 +4.2
MDZ                                 i                   01 20 32.6
MDZ                                  PP       tx        01 24 39.4
MDZ                                  PPP      tx        01 29 37.0
MDZ                                  SKKS               01 31 08.5
MDZ                                  SKSP               01 35 20.6
MDZ                                  PPS      tx        01 38 47.4
FCH   Farellones        147.56 202  eP        PKPdf     01 18 34.6  -2.1
CLCH  Cerro Calan       147.59 201  eP        PKPdf     01 18 35.9  -0.9
PEL   Peldehue          147.87 201  eP        PKPdf     01 18 38.1 +0.9
DWPF  Disney            148.56 355  ePKPbc    PKPdf     01 18 37.4  -1.1
DWPF                                 LR       LR
          comp=Z,1002µm,20.0s,MS8.6
CJM   Chamela           149.30  41  i P       PKPdf     01 18 37.4  -2.5
SFJM  Santa Fe          149.84  37  i P       PKPdf     01 18 42.8 +2.1
DEG   La Desirade       149.95 311  eP        PKPdf     01 18 38.4  -2.6
CGX   Ciudad Guzman     150.15  39  eP        PKPdf     01 18 54.4  +13
SEG   Port Louis        150.23 312  eP        PKPdf     01 18 41.4   0.0
MGG   Marie-Galante     150.39 311  eP        PKPdf     01 18 44.1 +2.5
COLM  Colima            150.41  40  i P       PKPdf     01 18 43.5 +1.9
TLL   Tololo Astrono    150.56 204   PKIKP    PKPdf     01 18 41.1  -0.4
TLL   Tololo Astrono    150.56 204  eP        PKPdf     01 18 43.0 +1.5
BBL   Barber's Block    150.75 311  eP        PKPdf     01 18 45.6 +3.5
CRM   Caravelle         150.79 309  eP        PKPdf     01 18 44.6 +2.4
MVM   Montagne Vaucl    150.89 308  eP        PKPdf     01 18 45.3 +2.9
FDF   Fort de France    150.98 309⇓eP         PKPdf     01 18 41.7  -0.8
BIM   Bigot             151.05 308  eP        PKPdf     01 18 41.9  -0.7
MOIG  Morelia           151.56  36  i P       PKPdf     01 18 45.4 +2.1
SJG   San Juan          152.24 321   Pdiff    tx        01 16 36.5
          comp=Z,1.6nm,0.3s,baz=238,slow=22,SNR=2.1
SJG                                  PKP      PKPdf     01 18 42.0  -2.3
          comp=Z,11nm,0.7s,baz=65,slow=6.3,SNR=4.9
SJG                                  PKPbc    PKPdf     01 18 47.2 +2.9
          comp=Z,42nm,0.7s,baz=68,slow=6.2,SNR=20
SJG   San Juan          152.24 321   PKPdf    PKPdf     01 18 39.4  -5.0
SJG                                  SS       SS        01 42 04.2 +8.5
SJG   San Juan          152.24 321  ePKIKP    PKPdf     01 18 40.2  -4.1
SJG                                 e                   01 18 46.8
SJG                                  MLR      MLR
          comp=Z,1541µm,20.0s
IIJ   Jocotitlan        152.34  33  eP        PKPdf     01 18 43.8  -0.7
IIC   Rita Coyotepec    152.57  32  eP        PKPdf     01 18 40.1  -4.6
MDVM  Presa Madin       152.76  33  eP        PKPdf     01 18 48.2 +3.2
PTVM  Pico Tres Padr    152.79  32  eP        PKPdf     01 18 50.2 +5.1
UNM   Universidad Na    152.97  33  i PKIKP   PKPdf     01 18 37.9  -7.4
ZIIG  Zihuatanejo       152.99  39  i P       PKPdf     01 18 38.3  -7.0
IIO   Organos           153.00  32  eP        PKPdf     01 18 40.9  -4.4
IIZ   Mezontepec        153.05  33  eP        PKPdf     01 18 42.5  -2.9
CHVM  Chichinautzin     153.18  33  eP        PKPdf     01 18 50.2 +4.6
YAIG  Yautepec          153.41  33  eP        PKPdf     01 18 46.0 +0.1
PPM   Popocatepetl      153.48  32  ePKIKP    PKPdf     01 18 44.2  -1.8
PLIG  Platanillo        153.55  34  i P       PKPdf     01 18 41.6  -4.5
IIB   San Bernardino    153.71  32  eP        PKPdf     01 18 50.8 +4.4
LVIG  Laguna Verde      154.02  27  eP        PKPdf     01 18 33.0   -14
CAIG  El Cayaco         154.15  38  i P       PKPdf     01 18 41.3  -5.7
IISM  Ciudad Serdan     154.19  30  eP        PKPdf     01 18 54.4 +7.4
ACX   Acapulco          154.50  37  eP        PKPdf     01 18 44.0  -3.5
EVV   El Vigia          155.61  27  eP        PKPdf     01 18 54.4 +5.6
LVC   Limon Verde       155.90 216   PKP      PKPdf     01 18 46.6  -2.5
          comp=Z,5.5nm,0.9s,baz=58,slow=3.7,SNR=6.5
LVC                                  PKPbc    PKPdf     01 18 57.6 +8.4
          comp=Z,22nm,0.8s,baz=177,slow=4.4,SNR=12
LVC                                  PP       PP        01 22 56.3 +3.8
          comp=Z,217nm,1.0s,baz=84,slow=4.7,SNR=1.9
LVC   Limon Verde       155.90 216  ePKPdf    PKPdf     01 18 45.8  -3.4
LVC                                  LR       LR
          comp=Z,1589µm,21.0s,MS8.8
PNIG  Pinotepa          155.93  35  i P       PKPdf     01 18 44.4  -4.9
OXX   Oaxaca            156.12  31  eP        PKPdf     01 18 50.8 +1.2
VHO   Vista Hermosa     156.13  31  i P       PKPdf     01 18 46.6  -2.9
TEIG  Tepich            156.15  10  ePKPdf    PKPdf     01 18 46.2  -3.3
PCRV  Puerto La Cruz    156.38 305   Pdiff    tx        01 17 03.6
          comp=Z,13nm,1.2s,baz=141,slow=19,SNR=1.6
PCRV                                 PKP      PKPdf     01 18 45.5  -4.5
          comp=Z,15nm,1.2s,baz=228,slow=11,SNR=3.2
PCRV                                 PKPbc    PKPdf     01 18 56.4 +6.4
          comp=Z,18nm,1.1s,baz=135,slow=11,SNR=6.4
PCRV                                 PP       PP        01 23 04.5 +9.3
          comp=Z,458nm,0.8s,baz=133,slow=13,SNR=2.5
PCRV  Puerto La Cruz    156.38 305   PKP      PKPdf     01 18 45.5  -4.5
PCRV                                 PKPbc    PKPdf     01 18 56.4 +6.4
```

PCRV				PP	PP	01 23 04.5	+9.3
GWJ	Greenwich	157.45	341	⇑*e*P	PKPdf	01 19 00.8	+9.5
STH	Stony Hill	157.47	342	⇑*e*P	PKPdf	01 19 01.3	+10
HUIG	Huatulco	157.54	32	*i* P	PKPdf	01 18 38.8	-13
CVJ	Coleyville	157.55	343	⇓*e*P	PKPdf	01 18 56.0	+4.5
NEJ	Negril	157.74	345	⇓*e*P	PKPdf	01 18 57.5	+5.7
MCJ	Malvern	157.88	344	⇑*e*P	PKPdf	01 19 01.2	+9.2
SCX	San Cristobal	158.28	23	*e*P	PKPdf	01 19 03.1	+11
LPAZ	La Paz	159.75	230	Pdiff	tx	01 17 15.7	
	comp=Z,0.4nm,0.5s,baz=351,slow=2.9,SNR=2.1						
LPAZ				PKP	PKPdf	01 18 50.1	-4.0
	comp=Z,6.6nm,0.7s,baz=31,slow=1.9,SNR=26						
LPAZ	La Paz	159.75	230	PKPdf	PKPdf	01 18 50.2	-3.9
LPAZ				PKPdf	PKPdf	01 18 50.4	-3.8
LPAZ	La Paz	159.75	230	*e*PKIKP	PKPdf	01 18 50.5	-3.6
LPAZ				MLR	MLR		
	comp=Z,2520µm,21.0s						
SDV	Santo Domingo	161.85	312	Pdiff	tx	01 17 23.5	
	comp=Z,1.0nm,0.4s,baz=352,slow=8.6,SNR=1.9						
SDV				PKP	PKPdf	01 18 53.4	-3.0
	comp=Z,13nm,0.9s,baz=351,slow=0.7,SNR=11						
SDV				PP	PP	01 23 44.3	+20
	comp=Z,316nm,0.8s,baz=2.6,slow=5.8,SNR=2.1						
SDV	Santo Domingo	161.85	312	*e*PKPdf	PKPdf	01 18 53.2	-3.2
SDV				LR	LR		
	comp=Z,2655µm,22.0s						
ARE	Arequipa	162.06	223	*e*P	PKPdf	01 19 04.0	+7.5
ARE				*e*		01 19 08.0	
ARE				*e*		01 19 24.0	
MGAN	Managua	164.40	8	*e*P	PKPdf	01 18 58.2	-0.6
TRTC	Tortuguero	166.10	358	*e*P	PKPdf	01 18 57.8	-2.7
JTS	JuntasAbangare	166.36	4	*e*PKIKP	PKPdf	01 18 57.7	-3.0
JTS				MLR	MLR		
	comp=Z,591µm,20.0s						
VPS2	Volcan Poas 2	166.49	1	*e*P	PKPdf	01 18 58.6	-2.1
CGA2	Cerro Gallo 2	166.66	2	*e*P	PKPdf	01 18 58.4	-2.5
PRS1	Puriscal	166.69	1	*e*P	PKPdf	01 18 59.9	-1.0
ICR	Volcan Irazu	166.69	359	*e*P	PKPdf	01 18 59.5	-1.4
SJS	Escuela Geolog	166.74	360	*e*P	PKPdf	01 18 58.8	-2.1
JCR	Jicaral	166.79	4	*e*P	PKPdf	01 18 59.2	-1.7
LAJ	Bijagual	166.81	0	*e*P	PKPdf	01 19 00.4	-0.6
URSC	Urasca	166.84	359	*e*P	PKPdf	01 18 59.1	-1.9
LCR2	La Lucha 2	166.93	360	*e*P	PKPdf	01 18 59.2	-1.8
BUS	Buena Vista	167.11	358	*e*P	PKPdf	01 19 00.1	-1.1
ROSC	El Rosal	167.24	310	PKP	PKPdf	01 18 59.2	-2.1
	comp=Z,14nm,0.8s,baz=310,slow=3.1,SNR=17						
ROSC				PP	PP	01 24 14.4	+22
	comp=Z,211nm,1.0s,baz=90,slow=15,SNR=2.2						
ACR	Cerro Adams	167.98	356	*e*P	PKPdf	01 18 58.9	-2.8
NNA	Nana	168.85	220	*e*PKPdf	PKPdf	01 18 58.7	-3.5
NNA				LR	LR		
	comp=Z,281µm,21.0s						
PAYG	Puerto Ayora	173.25	66	*e*PKPdf	PKPdf	01 19 00.0	-4.7
PAYG				LR	LR		
	comp=Z,1627µm,22.0s						
OTAV	Otavalo	173.29	303	⇑*e*PKPdf	PKPdf	01 19 00.3	-4.4
OTAV				*e*PKPab	PKPab	01 20 32.9	+2.9
OTAV				LR	LR		
	comp=Z,2250µm,21.0s						

IDC ***26*** *01:03:12.4±1.9, 44.96N×25.52E, mb1 3.5/5, mb1mx3.4/21, ML3.2/6, Error ellipse: s-maj=23.5km s-min=9.8km az=147.0*

BUC ***26*** *01:03:18.7±1.2, 45.41N×25.40E, h0*^{km}*±10*^{km}*, MD3.5/4, Error ellipse: s-maj=12.6km s-min=6.3km az=340.0*

NEIC ***26*** *01:03:19.1±1.0, 45.46N×25.36E, h2*^{km}*±11*^{km}*, Error ellipse: s-maj=8.6km s-min=7.5km az=167.0*

CSEM ***26*** *01:03:20.6±0.1, 45.25N×25.36E, h15*^{km}*, MD3.5/4, Error ellipse: s-maj=3.3km s-min=2.8km az=125.0*

ISC 26 01:03:18.3±0.5**, 45.42N**±0.03×**25.29E**±0.03**, h8**^{km}±4^{km}**, n57, σ1**^{s}**25**/80**, 8C-14D, Romania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNX	Sinaia	0.17	111	⇑*i*P	Pg	01 03 20.5	-1.5
SNX				*i* S	Sg	01 03 22.9	-1.6
SNX	Sinaia	0.17	111	⇑*i*P	Pg	01 03 20.5	-1.5
SNX				*i* S	Sg	01 03 22.9	-1.6
MTUR	Matau	0.25	221	⇓*i*P	Pg	01 03 24.8	+1.3
MTUR				*i* S	Sg	01 03 30.2	+3.2
MTUR	Matau	0.25	221	⇓*i*P	Pg	01 03 24.8	+1.3
MTUR				*i* S	Sg	01 03 30.2	+3.2
MLR	Muntele Rosu	0.47	81	Pg	Pg	01 03 26.0	-1.7
	138nm,0.3s,baz=244,slow=3.3,SNR=1196						
MLR				Lg		01 03 32.9	
	212nm,0.3s,baz=256,slow=24,SNR=52						
MLR	Muntele Rosu	0.47	81	⇑*i*P	Pg	01 03 26.4	-1.3
MLR				*i* S	Sg	01 03 32.6	-1.4
MLR	Muntele Rosu	0.47	81	⇑*i*P	Pg	01 03 26.5	-1.2
MLR				*i* S	Sg	01 03 32.6	-1.4
ISR	Istrita	0.93	108	⇓*i*P	Pb	01 03 37.6	+1.4
ISR				*i* S	Sb	01 03 50.0	+1.5
ISR	Istrita	0.93	108	⇓*i*P	Pb	01 03 37.6	+1.4
ISR				*i* S	Sb	01 03 50.0	+1.5
VRI	Vrincioaia	1.10	65	⇓*i*P	Pb	01 03 39.1	0.0
VRI				*i* S	Sg	01 03 56.9	+1.8
VRI	Vrincioaia	1.10	65	⇓*i*P	Pb	01 03 39.2	0.0
VRI				*i* S	Sg	01 03 56.9	+1.8
VRI	Vrincioaia	1.10	65	*i* S	Sg	01 03 56.9	+1.8
BUC1	Bucharest	1.19	154	⇑*i*P	Pb	01 03 41.6	+0.9
BUC1				*i* S	Sg	01 03 59.6	+1.6
BUC1	Bucharest	1.19	154	⇑*i*P	Pb	01 03 41.6	+1.0
BUC1				*i* S	Sg	01 03 59.6	+1.6
BRD	Bordesti	1.23	83	⇑*i*P	Pg	01 03 43.5	+0.6
BRD				*i* S	Sg	01 04 00.7	+1.4
BRD	Bordesti	1.23	83	⇑*i*P	Pg	01 03 43.5	+0.6
BRD				*i* S	Sg	01 04 00.7	+1.4
CRAR	CRAIOVA	1.52	225	S	Sg	01 04 13.2	+4.2
ZIMR		1.76	178	⇓*i*P	Pg	01 03 53.4	0.0
ZIMR				*i* S	Sg	01 04 17.7	+0.8
ZIMR		1.76	178	⇓*i*P	Pg	01 03 53.4	-0.1
ZIMR				S	Sg	01 04 17.7	+0.8
CFR	Carcaliu	2.02	96	⇓*i*P	Pn	01 03 52.5	-0.5
CFR				*i* S	Sn	01 04 20.6	+1.9
CFR	Carcaliu	2.02	96	⇓*i*P	Pn	01 03 52.5	-0.5
CFR				*i* S	Sn	01 04 20.6	+1.9
SZH	Strazhica	2.20	168	*i* P	Pg	01 04 01.0	-1.2
PVL	Pavlikeni	2.20	179	*e*P	Pg	01 04 01.0	-1.2
TIRR	Tirgusor	2.41	112	⇓*i*P	Pn	01 03 59.3	+0.6
TIRR				*i* S	Sg	01 04 32.6	-6.1
TIRR	Tirgusor	2.41	112	⇓*i*P	Pn	01 03 59.3	+0.6
TIRR				*i* S	Sg	01 04 32.7	-6.0
BZS	Buzias	2.59	276	⇓*i*P	Pn	01 04 04.7	+3.5
BZS				*i* S	Sn	01 04 38.5	+5.3
BZS	Buzias	2.59	276	⇓*i*P	Pn	01 04 04.7	+3.5
BZS				*i* S	Sn	01 04 38.5	+5.3
PRD	Provadia	2.68	145	*e*P	Pn	01 04 01.0	-1.5
VTS	Vitosha	3.20	209	*i* P	Pn	01 04 10.0	+0.1
VTS	Vitosha	3.20	209	P	Pn	01 04 10.6	+0.8
VTS	Vitosha	3.20	209	P	Pn	01 04 10.6	+0.7
RZN	Rozhen	3.75	187	*i* P	Pn	01 04 17.0	-0.7
KDZ	Kurdzhali	3.77	179	*i* P	Pn	01 04 17.0	-0.9
KKB	Krupnik	3.89	205	*i* P	Pn	01 04 20.0	+0.3
MMB	Musomiste	3.99	197	*i* P	Pn	01 04 21.5	+0.4
KOLS	Kolonicke sedl	4.08	331	*i* PN	Pn	01 04 23.7	+1.4
CRVS	Cervenica-Dubn	4.36	325	*i* PN	Pn	01 04 27.0	+0.7
CRVS				*e*sP		01 34 06.8	
PSZ	Piszkesteto	4.48	306	*e*Pn	Pn	01 04 27.9	-0.2
PSZ	Piszkesteto	4.48	306	*e*Pn	Pn	01 04 27.9	-0.2
KECS	Kecovo	4.50	315	*e*PN	Pn	01 04 28.6	+0.3
ALN	Alexandroupoli	4.55	173	*e*P	Pn	01 04 28.4	-0.7
KWP	Kalwaria	4.57	338	*e*Pn	Pn	01 04 29.8	+0.5
KWP	Kalwaria	4.57	338	*e*Pn	Pn	01 04 29.8	+0.5
KNT	Kendrikon	4.60	203	*e*P	Pn	01 04 29.6	-0.1
KNT	Kendrikon	4.60	203	*e*P	Pn	01 04 29.6	-0.1
SOH	Sokhos	4.81	198	*e*P	Pn	01 04 32.6	0.0
OUR	Ouranopolis	5.17	191	*e*P	Pn	01 04 37.0	-0.8
VYHS	Vyhne	5.39	307	*e*PN	Pn	01 04 41.6	+0.7
PAIG	Paliouri	5.61	193	*e*P	Pn	01 04 42.6	-1.4
AKASG	Malin Array Be	5.91	25	Pn	Pn	01 04 44.6	-3.6
	2.1nm,0.3s,baz=204,slow=12,SNR=15						
AKASG				Pg	Pg	01 05 05.2	-11
	1.0nm,0.3s,baz=212,slow=17,SNR=7.4						
AKASG				Lg		01 06 26.7	
	0.9nm,0.3s,baz=207,slow=30,SNR=3.6						
XOR	Xorichti	6.24	195	*e*P	Pn	01 04 51.5	-1.4
XOR	Xorichti	6.24	195	*e*P	Pn	01 04 51.5	-1.5
AGG	Agios Georgios	6.76	200	*e*P	Pn	01 04 59.2	-1.0
VRAC	Vranov	7.07	307	Pn	Pn	01 05 04.9	+0.2
	0.2nm,0.3s,baz=101,slow=16,SNR=3.3						
GERES	GERESS Array B	8.61	298	Pn	P	01 05 24.2	-1.9
	0.0nm,0.3s,baz=180,slow=16,SNR=2.6						
FINES	FINESS Array B	16.07	1	Pn	P	01 06 58.0	-7.7
	0.1nm,0.3s,baz=207,slow=13,SNR=3.4						
NOA	NORSAR Array B	17.71	337	P	P	01 07 24.3	-2.2
	0.1nm,0.3s,baz=136,slow=11,SNR=2.8						

IDC 26 01:06:10.9±1.5**, 9.84N**×**94.11E, mb6.6**/4**, mb1 7.0**/5**, mb1mx6.5**/18**, ML7.1**/1**, MS8.6**/3**, Ms1 8.6**/3**, ms1mx7.2**/28**, Error ellipse: s-maj=54.8km s-min=32.5km az=40.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.76	28	Pn	P	01 08 33.0	-2.7
	534nm,0.3s,baz=236,slow=16,SNR=5.3						
TGY	Tagaytay City	26.57	78	LR	LR	01 21 51.7	
	comp=Z,5655µm,18.5s,baz=92,slow=35						
WRA	Warramunga Arr	49.44	127	P	P	01 15 03.0	-2.0
	824nm,0.7s,baz=307,slow=8.5,SNR=2.8						
BRTR	Keskin Array B	61.14	310	P	P	01 16 28.3	-1.2
	543nm,0.8s,baz=116,slow=7.8,SNR=3.4						
AKASG	Malin Array Be	66.61	321	P	P	01 17 02.1	-3.1
	694nm,1.0s,baz=84,slow=4.8,SNR=3.0						
GERES	GERESS Array B	76.36	318	P	P	01 18 02.3	-1.4
	574nm,0.8s,baz=101,slow=5.0,SNR=2.8						
ILAR	Eielson Array	92.94	22	LR	LR	02 02 38.1	
	comp=Z,3814µm,21.9s,baz=325,slow=36						
INK	Inuvik	95.12	16	LR	LR	02 07 00.8	
	comp=Z,3170µm,19.3s,baz=295,slow=38						

IDC ***26*** *01:17:04.9±1.2, 4.81N×94.12E, mb5.4/8, mb1 5.4/9, mb1mx5.2/21, ML5.4/1, Error ellipse: s-maj=46.8km s-min=22.8km az=47.0*

NEIC ***26*** *01:17:10.3±0.7, 4.94N×94.27E, h30*^{km}*, mb5.5/6, Error ellipse: s-maj=21.0km s-min=14.7km az=67.0*

ISC 26 01:17:09.0±0.6**, 4.92N**±0.10×**94.51E**±0.07**, h30**^{km}**, n24, σ1**^{s}**39**/25**, mb5.4**/14**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.14	17	Pn	P	01 20 30.8	+1.2
	6.2nm,0.3s,baz=235,slow=15,SNR=6.4						
KOD	Kodaikanal	17.70	288	*e*P	P	01 21 14.5	-0.6
KOD				*e*S	S	01 24 30.0	+1.1
SHL	Shillong	20.68	353	*e*P	P	01 21 50.6	+1.2
SHL				*e*		01 22 01.4	
	comp=Z,1µm,1.5s						
MNGI	Mangalore	21.00	294	*e*P	P	01 21 50.4	-2.3
GOA	Goa	22.88	299	*e*P	P	01 22 13.7	+2.2
POO	Poona	24.29	306	*e*P	P	01 22 25.6	+0.4
LSA	Lhasa	24.85	353	P	P	01 22 27.4	-3.1
	comp=Z,159nm,0.6s,mb5.7						
BOM	Bombay	25.32	305	*e*P	P	01 22 37.3	+2.2
AJM	Ajmer	28.64	321	*e*P	P	01 23 07.8	+2.5
SONM	Songino Array	43.96	12	P	P	01 25 15.6	+0.4
	comp=Z,30nm,0.8s,mb5.1,baz=198,slow=9.1,SNR=4.7						
ULN	Ulaanbaatar	44.12	12	*e*P	P	01 25 17.5	+1.0
	comp=Z,9.0nm,0.6s,mb4.7						
WRAB	Tennant Creek	46.30	124	*e*P	P	01 25 35.4	+1.1
	comp=Z,134nm,0.6s,mb6.0						
ASAR	Alice Springs	47.78	128	P	P	01 25 46.5	+0.6
	comp=Z,35nm,0.9s,mb5.4,baz=301,slow=5.7,SNR=4.2						
HIA	Hailar	49.10	22	P	P	01 25 55.3	-0.4
	comp=Z,9.2nm,0.5s,mb5.1						
ZAL	Zalesovo	49.51	352	P	P	01 25 57.2	-1.6
	comp=Z,38nm,1.0s,mb5.4,baz=302,slow=4.9,SNR=5.9						
BRVK	Borovoye	51.95	342	*e*P	P	01 26 17.3	-0.1
	comp=Z,17nm,0.5s,mb5.2						
PMG	Port Moresby	54.36	105	P	P	01 26 36.1	+0.3
	comp=Z,47nm,1.0s,mb5.4,baz=304,slow=23,SNR=5.0						
PMG	Port Moresby	54.36	105	P	P	01 26 36.1	+0.3
LBTB	Lobatse	73.18	242	*e*P	P	01 28 39.6	+0.1
	comp=Z,176nm,1.3s,mb5.8						
FINES	FINESS Array B	75.48	333	P	P	01 28 49.6	-2.4
	comp=Z,59nm,1.1s,mb5.4,baz=96,slow=6.0,SNR=6.1						
KAF	Kangasniemi	75.57	333	*e*p	P	01 28 50.5	-2.0
GERES	GERESS Array B	80.27	319	P	P	01 29 18.1	-0.5
	comp=Z,18nm,0.7s,mb5.1,baz=84,slow=4.3,SNR=5.1						
HFS	Hagfors	81.18	330	P	P	01 29 21.2	-2.0
	comp=Z,17nm,0.7s,mb5.1,baz=108,slow=4.8,SNR=5.4						
DAVOX	Davos	82.76	316	P	P	01 29 30.6	-1.0
	comp=Z,63nm,1.1s,mb5.6,baz=76,slow=8.1,SNR=3.2						

IDC 26 01:18:46.1±12.0**, 3.95N**×**94.22E, mb5.3**/6**, mb1 5.6**/6**, mb1mx5.2**/19**, Error ellipse: s-maj=296.0km s-min=48.6km az=145.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	44.96	12	P	P	01 27 03.2	-1.6
	27nm,0.7s,baz=207,slow=13,SNR=2.7						
ZAL	Zalesovo	50.43	353	P	P	01 27 45.1	-2.2
	30nm,0.5s,baz=276,slow=5.5,SNR=6.3						
BRTR	Keskin Array B	65.07	312	P	P	01 29 27.3	-3.5
	18nm,0.8s,baz=118,slow=7.0,SNR=3.6						
IDI	Anoyia	70.89	306	P	P	01 30 06.9	-0.3
	74nm,1.1s,baz=78,slow=7.5,SNR=3.8						
MLR	Muntele Rosu	72.04	317	P	P	01 30 13.9	-0.1
	102nm,0.9s,baz=69,slow=7.4,SNR=3.4						
GERES	GERESS Array B	80.80	319	P	P	01 30 59.9	-3.2
	9.7nm,0.7s,baz=90,slow=4.9,SNR=2.5						

IDC ***26*** *01:21:16.0±0.4, 6.47N×93.44E, mb5.5/27, mb1 5.6/27, mb1mx5.5/31, Error ellipse: s-maj=20.0km s-min=11.6km az=41.0*

MOS ***26*** *01:21:19.5±1.8, 6.46N×93.43E, h33*^{km}*, mb5.9/14, Error ellipse: s-maj=13.6km s-min=10.5km az=110.0*

BJI ***26*** *01:21:19.6, 6.18N×93.20E, h39*^{km}*, mB6.5, mb6.1*

NEIC ***26*** *01:21:20.7±0.2, 6.34N×93.36E, h30*^{km}*, mb6.1/49, Error ellipse: s-maj=7.9km s-min=5.9km az=33.0*

SYO ***26*** *01:21:21.0, 6.35N×93.41E, h30*^{km}*, MB6.0*

ISC 26 01:21:19.1±0.3**, 6.33N**±0.05×**93.39E**±0.04**, h30**^{km}**, (h31**^{km}±1.9^{km}**:pP-P), n204, σ1**^{s}**07**/164**, mb5.9**/85**, 2C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.22	24	Pn	P	01 24 31.1	+3.7
VIS	Vishakhapatnam	15.00	320	*e*P	P	01 24 50.8	-0.1
TRD	Trivandrum	16.44	279	*e*P	P	01 25 06.0	-3.5
BOK	Bokaro	18.81	338	*e*P	P	01 25 38.1	-0.8
BOK				*e*		01 25 42.8	
	comp=Z,2µm,1.6s						
BOK				*e*S	S	01 29 14.2	+10
SHL	Shillong	19.19	356	*e*P	P	01 25 43.3	-0.1
SHL				*e*		01 25 52.9	
	comp=Z,865nm,1.9s						
MNGI	Mangalore	19.44	291	*e*P	P	01 25 43.6	-2.7
QIZ	Qiongzhong	20.39	50	P	P	01 25 57.5	+1.0
QIZ	Qiongzhong	20.39	50	*e*P	P	01 25 57.9	+1.4
QIZ				*e*		01 26 09.5	
KMI	Kunming	20.72	25	*e*P	P	01 26 01.8	+2.0
KMI				AMB	AMB		
	comp=Z,1µm,1.2s						
GOA	Goa	21.25	297	*e*P	P	01 26 03.1	-2.0
AKL	Akola	21.36	314	*e*P	P	01 26 05.2	-1.1
POO	Poona	22.58	304	*e*P	P	01 26 16.8	-1.9
POO				*e*		01 26 20.6	
	comp=Z,5µm,1.8s						
BHPL	Bhopal	22.79	319	*e*P	P	01 26 21.2	+0.6
LSA	Lhasa	23.35	355	*e*P	P	01 26 29.0	+3.0
	comp=Z,420nm,0.7s,mb6.0						
BOM	Bombay	23.62	304	*e*P	P	01 26 27.1	-1.6
GYA	Guiyang	23.68	31	⇑*i*P	P	01 26 31.5	+2.2
NDI	New Delhi	27.00	327	*e*P	P	01 27 00.1	-0.4
TGY	Tagaytay City	28.16	72	P	P	01 27 11.5	+0.3
	comp=Z,255nm,0.5s,mb6.1						
TGY	Tagaytay City	28.16	72	P	P	01 27 11.5	+0.3
TGY				pmax	pmax		
	comp=Z,255nm,0.5s						
QZH	Quanzhou	30.41	50	P	P	01 27 31.3	0.0
QZH				AMB	AMB		
	comp=Z,260nm,1.0s,mb5.9						
NJ2	Nanjing	34.92	40	*e*P	P	01 28 16.5	+6.0
NJ2				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.5						
MBWA	Marble Bar	37.61	137	*e*P	P	01 28 31.9	-1.3
	comp=Z,41nm,0.5s,mb5.4						
WMQ	Urumqi	37.68	353	⇑P	P	01 28 35.0	+1.4
WMQ				PP	PP	01 30 03.5	+0.8
WMQ				PPP	PPP	01 30 25.0	+0.9
WMQ				S	S	01 34 23.8	+2.5
WMQ				AMB	AMB		
	comp=Z,414nm,1.0s,mb6.1						
HHC	Hu-ho-hao-te	38.02	23	*e*P	P	01 28 37.8	+1.3
HHC				AP	pP	01 28 47.8	+2.3
HHC				XP	sP	01 28 51.8	+2.6
HHC				AMB	AMB		
	comp=Z,455nm,0.9s,mb6.2						
BJT	Baijiatuau	39.29	28	*e*P	P	01 28 48.6	+1.5
	comp=Z,185nm,0.6s,mb6.0						
AAK	Ala-Archa	39.84	338	*e*P	P	01 28 52.4	+0.8
	comp=Z,23nm,0.6s,mb5.1						
DL2	Dalian	41.26	34	P	P	01 29 05.5	+2.2
DL2				AMB	AMB		
	comp=Z,280nm,0.8s,mb5.9						
SONM	Songino Array	42.83	13	P	P	01 29 14.1	-2.0
	comp=Z,31nm,0.7s,mb5.2,baz=194,slow=7.4,SNR=4.9						
ULN	Ulaanbaatar	43.00	13	P	P	01 29 17.9	+0.4
KS15	Wonju Array Si	44.08	40	*e*P	P	01 29 25.0	-1.5
NWAO	Narrogin (SRO)	45.13	151	P	P	01 29 34.4	-0.6
	comp=Z,24nm,0.6s,mb5.2,baz=340,slow=10,SNR=3.8						
NWAO	Narrogin (SRO)	45.13	151	P	P	01 29 34.4	-0.6
NWAO				pmax	pmax		
	comp=Z,24nm,0.6s						
NWAO	Narrogin (SRO)	45.13	151	*e*P	P	01 29 30.4	-4.6
	comp=Z,16nm,0.6s,mb5.0						
CN2	Changchun	46.73	32	*e*P	P	01 29 47.8	+0.4
CN2				AMB	AMB		
	comp=Z,570nm,0.6s,mb6.7						
ZAL	Zalesovo	47.98	353	P	P	01 29 56.8	-0.4
	comp=Z,88nm,0.8s,mb5.9,baz=286,slow=7.4,SNR=11						
WRAB	Tennant Creek	48.00	124	*e*P	P	01 29 57.3	-0.4
	comp=Z,234nm,0.6s,mb6.4						
NVS	Novosibirsk	49.06	352	*e*P	P	01 30 05.2	-0.2
NVS				pmax	pmax		
	comp=Z,2µm,2.0s,mb6.8						
MZLS	Mizel	49.44	296	P	P	01 30 10.1	+1.4
MDJ	Mudanjiang	49.50	34	*e*P	P	01 30 09.7	+0.7
	comp=Z,561nm,1.2s,mb6.5						
ASAR	Alice Springs	49.52	128	P	P	01 30 08.8	-0.6
	comp=Z,131nm,0.6s,mb6.2,baz=300,slow=7.3,SNR=30						
BVAR	Borovoye Array	50.22	342	P	P	01 30 13.4	-0.9
	comp=Z,62nm,0.7s,mb5.7,baz=143,slow=7.4,SNR=9.7						
BRVK	Borovoye	50.28	342	*e*P	P	01 30 14.5	-0.3
	comp=Z,43nm,0.6s,mb5.7						
MAT	Matsushiro	50.75	47	P	P	01 30 18.4	-0.2
MAT	Matsushiro	50.75	47	*e*P	P	01 30 18.0	-0.6
FRSS	Farasan al Kab	51.16	286	P	P	01 30 24.1	+2.1
AFFS	‘Afif	51.39	296	P	P	01 30 25.8	+2.2
ARSS	Ar Rass	51.60	298	P	P	01 30 25.9	+0.7
HILS	Ha’il	53.20	300	P	P	01 30 38.8	+1.7
BOD	Bodaibo	53.82	13	*e*P	P	01 30 39.6	-1.6
GNI	Garni	55.00	315	P	P	01 30 47.3	-2.9
	comp=Z,50nm,1.1s,mb5.5,baz=317,slow=5.8,SNR=2.7						
GNI	Garni	55.00	315	P	P	01 30 47.3	-2.9
GNI				pmax	pmax		
	comp=Z,50nm,1.1s						
PMG	Port Moresby	55.81	106	P	P	01 30 55.5	-0.9
	comp=Z,128nm,0.7s,mb6.1,baz=296,slow=5.3,SNR=15						
PMG	Port Moresby	55.81	106	P	P	01 30 55.5	-0.9
PMG				pmax	pmax		
	comp=Z,128nm,0.7s						
KMBO	Kilima Mbogo	56.53	264	P	P	01 31 02.7	+1.1
	comp=Z,43nm,0.8s,mb5.5,baz=189,slow=1.9,SNR=9.3						
KMBO	Kilima Mbogo	56.53	264	P	P	01 31 02.7	+1.1
KMBO				pmax	pmax		
	comp=Z,43nm,0.9s						
KMBO	Kilima Mbogo	56.53	264	P	P	01 31 02.7	+1.1
UMJS	Umm Lajj	56.72	296	P	P	01 31 04.6	+1.9
ARU	Arti	57.02	338	*e*P	P	01 31 03.8	-0.8
	comp=Z,46nm,0.7s,mb5.6						
ASAJ	Asahikawa	57.06	41	P	P	01 31 02.9	-2.1
	comp=Z,22nm,0.8s,mb5.2,baz=315,slow=2.9,SNR=3.1						
ASAJ	Asahikawa	57.06	41	P	P	01 31 02.9	-2.1
ASAJ				pmax	pmax		
	comp=Z,22nm,0.8s						
TBKS	Tabuk	57.91	299	P	P	01 31 12.9	+1.8
CTA	Charters Tower	58.22	118	P	P	01 31 11.7	-1.7
	comp=Z,97nm,1.1s,mb5.7,baz=293,slow=8.8,SNR=6.4						
CTA	Charters Tower	58.22	118	P	P	01 31 11.7	-1.7
CTA				pmax	pmax		
	comp=Z,97nm,1.2s						
CTAO	Charters Tower	58.22	118	*e*P	P	01 31 12.3	-1.0
	comp=Z,183nm,1.2s,mb6.0						
ASF	Jabal al Asfar	58.45	304	P	P	01 31 15.5	+0.7
	comp=Z,43nm,1.1s,mb5.4,baz=336,slow=9.7,SNR=11						
AYUS	‘Aynunah	59.02	299	P	P	01 31 19.6	+0.7
YUK	Yuzh-Kuril’sk	59.16	42	P	P	01 31 14.5	-5.2
BDAS	Al Bad‘	59.21	299	P	P	01 31 21.3	+1.1
JMOS	Jabal al Moall	59.33	300	P	P	01 31 22.0	+1.0
ALWS	Ilw as Safayha	59.40	300	P	P	01 31 22.1	+0.6
HAQS	Haql	59.47	300	P	P	01 31 22.0	+0.1
EIL	Elat	59.56	301	P	P	01 31 21.6	-1.0
	comp=Z,102nm,1.2s,mb5.7,baz=91,slow=3.6,SNR=8.9						
EIL	Elat	59.56	301	*e*P	P	01 31 23.2	+0.7
	comp=Z,9.1nm,0.5s,mb5.1						
STKA	Stephens Creek	59.59	133	P	P	01 31 22.4	-0.4
	comp=Z,88nm,0.8s,mb5.9						
BRTR	Keskin Array B	62.88	312	P	P	01 31 43.5	-1.4
	comp=Z,18nm,0.7s,mb5.3,baz=137,slow=5.6,SNR=6.5						
BRTR	Keskin Array B	62.88	312	P	P	01 31 43.5	-1.4
BRTR				pmax	pmax		
	comp=Z,18nm,0.7s						
ISP	Isparta	64.81	309	*e*P	pP	01 32 05.6	-1.4
ISP				pmax	pmax		
	comp=Z,750nm,1.6s,mb6.5						
ISP	Isparta	64.81	309	P	P	01 31 57.5	-0.1
ISP				*e*	pP	01 32 05.2	-1.7
MOS	Moscow	66.02	329	*e*P	pP	01 32 11.0	-3.3
MOS				pmax	pmax		
	comp=Z,932nm,1.7s,mb6.5						
OBN	Obninsk	66.29	328	*e*P	pP	01 32 14.3	-1.8
OBN				pmax	pmax		
	comp=Z,659nm,1.7s,mb6.4						
SKR	Severo-Kuril’s	68.02	38	*e*P	P	01 32 09.5	-8.3
MA2	Magadan	68.47	27	*e*P	P	01 32 20.0	-0.4
MA2				*e*		01 32 31.9	
MA2				pmax	pmax		
	comp=Z,560nm,1.2s,mb6.5						
MA2	Magadan	68.47	27	*e*P	P	01 32 20.0	-0.5
	comp=Z,558nm,1.2s,mb6.5						
MA2				*e*		01 32 31.9	
SANT	Santorini	68.53	307	*e*P	P	01 32 20.4	-0.9
	comp=Z,410nm,1.2s,mb6.2						
SANT				*e*	pP	01 32 28.6	-1.9
IDI	Anoyia	68.84	305	P	P	01 32 22.6	-0.5
	comp=Z,45nm,0.7s,mb5.5,baz=89,slow=8.9,SNR=4.8						
AKASG	Malin Array Be	68.91	322	P	P	01 32 20.6	-2.7
	comp=Z,15nm,0.5s,mb5.2,baz=83,slow=4.8,SNR=13						
AKASG	Malin Array Be	68.91	322	P	P	01 32 20.6	-2.7
AKASG				pmax	pmax		
	comp=Z,15nm,0.5s						
GVD	Gavdhos	69.44	305	P	P	01 32 28.3	+1.4
	comp=Z,371nm,1.4s,mb6.1						
MLR	Muntele Rosu	69.76	316	P	P	01 32 27.3	-1.2
	comp=Z,985nm,1.6s,mb6.5,baz=110,slow=6.0,SNR=5.4						
MLR	Muntele Rosu	69.76	316	P	P	01 32 27.3	-1.3
MLR				pmax	pmax		
	comp=Z,985nm,1.7s						
LBTB	Lobatse	72.86	242	*e*P	P	01 32 48.1	+0.5
LBTB				*e*	pP	01 32 59.4	+2.4
LBTB				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
LBTB	Lobatse	72.86	242	*e*P	P	01 32 48.1	+0.5
	comp=Z,113nm,1.1s,mb5.7						
LBTB				*e*	pP	01 32 59.4	+2.3
SUW	Suwalki	73.33	325	P	pP	01 32 58.3	-0.9
SUW	Suwalki	73.33	325	*e*P	P	01 32 48.6	-1.1
	comp=Z,398nm,1.0s,mb6.3						
FINES	FINESS Array B	73.73	332	P	P	01 32 50.9	-1.1
	comp=Z,72nm,0.7s,mb5.7,baz=104,slow=7.9,SNR=14						
FINES	FINESS Array B	73.73	332	P	P	01 32 50.9	-1.0
FINES				pmax	pmax		
	comp=Z,72nm,0.7s						
KAF	Kangasniemi	73.83	333	*e*p	P	01 32 51.8	-0.7
	comp=Z,55nm,0.6s,mb5.7,baz=105,slow=5.5						
KAF	Kangasniemi	73.83	333	*e*P	P	01 32 51.8	-0.7
KAF				pmax	pmax		
	comp=Z,55nm,0.6s,mb5.7						
BOSA	Boshof	74.14	238	*e*P	P	01 32 55.7	+0.7
BOSA				pmax	pmax		

	comp=Z,220nm,1.2s,mb6.0						
BOSA	**Boshof**	74.14	238	*e*P	**P**	**01 32 55.7**	**+0.7**
	comp=Z,222nm,1.3s,mb5.9						
PSZ	**Piszkesteto**	74.28	318	P	**P**	**01 32 53.2**	**-2.2**
SRO	**Srobarova**	75.32	318	*e*P	pP	01 33 10.7	-0.2
OKC	**Ostrava-Krasne**	75.68	320	*e*P	pP	01 33 12.5	-0.4
OKC	**Ostrava-Krasne**	75.68	320	*e*pP	pP	01 33 12.5	-0.4
MORC	**Moravsky Berou**	76.06	320	*e*P	**P**	**01 33 05.7**	**+0.1**
MORC				*e*	pP	01 33 15.5	+0.4
MORC				pmax	pmax		
	comp=Z,480nm,1.6s,mb6.2						
MORC	**Moravsky Berou**	76.06	320	*e*P	**P**	**01 33 05.7**	**+0.1**
	comp=Z,476nm,1.6s,mb6.2						
MORC				*e*	pP	01 33 15.5	+0.4
ZST	**Bratislava**	76.17	318	*e*P	pP	01 33 14.5	-1.2
ARCES	**ARCESS Array B**	76.46	340	P	**P**	**01 33 07.1**	**-0.3**
	comp=Z,64nm,0.6s,mb5.7,baz=92,slow=5.2,SNR=14						
ARCES	**ARCESS Array B**	76.46	340	P	**P**	**01 33 07.1**	**-0.4**
ARCES				pmax	pmax		
	comp=Z,64nm,0.6s						
VRAC	**Vranov**	76.63	319	P	**P**	**01 33 08.4**	**-0.4**
	comp=Z,6.9nm,0.5s,mb4.9,baz=41,slow=13,SNR=2.4						
VRAC	**Vranov**	76.63	319	P	**P**	**01 33 08.4**	**-0.4**
VRAC				pmax	pmax		
	comp=Z,7.0nm,0.5s						
MAW	**Mawson**	76.88	192	P	**P**	**01 33 11.3**	**+1.5**
	comp=Z,22nm,0.6s,mb5.2,baz=11,slow=3.5,SNR=3.3						
MAW	**Mawson**	76.88	192	P	**P**	**01 33 11.3**	**+1.5**
MAW				pmax	pmax		
	comp=Z,22nm,0.6s						
MAW	**Mawson**	76.88	192	*e*P	**P**	**01 33 10.8**	**+1.0**
	comp=Z,119nm,1.3s,mb5.7						
DPC	**Dobruska-Polom**	76.91	320	*e*P	pP	01 33 20.1	+0.3
DPC	**Dobruska-Polom**	76.91	320	*e*pP	pP	01 33 20.1	+0.3
UPC	**Upice**	77.12	320	*e*P	pP	01 33 20.6	-0.4
UPC	**Upice**	77.12	320	*e*pP	pP	01 33 20.6	-0.4
BILL	**Bilibino**	77.79	22	*e*P	**P**	**01 33 14.4**	**-0.4**
BILL				*e*		01 33 26.3	
BILL				pmax	pmax		
	comp=Z,430nm,1.3s,mb6.2						
BILL	**Bilibino**	77.79	22	*e*P	**P**	**01 33 14.4**	**-0.4**
	comp=Z,433nm,1.4s,mb6.2						
BILL				*e*		01 33 26.3	
PRU	**Pruhonice**	78.02	320	*e*P	pP	01 33 25.1	-0.8
PRU	**Pruhonice**	78.02	320	*e*pP	pP	01 33 25.1	-0.8
AQU	**L'Aquila**	78.38	312	*e*P	**P**	**01 33 26.2**	**+7.7**
GERES	**GERESS Array B**	78.48	318	P	**P**	**01 33 19.4**	**+0.4**
	comp=Z,41nm,0.8s,mb5.4,baz=82,slow=6.9,SNR=12						
GERES	**GERESS Array B**	78.48	318	P	**P**	**01 33 19.4**	**+0.4**
GERES				pmax	pmax		
	comp=Z,41nm,0.8s						
KHC	**Kasperske Hory**	78.58	319	*e*P	pP	01 33 29.5	+0.4
KHC	**Kasperske Hory**	78.58	319	*e*pP	pP	01 33 29.5	+0.4
RUE	**Ruedersdorf**	78.69	322	*e*P	**P**	**01 33 20.2**	**+0.2**
	comp=Z,376nm,1.4s,mb6.1						
RUE				*e*	pP	01 33 30.7	+1.2
SUR	**Sutherland**	78.85	235	*e*P	**P**	**01 33 23.6**	**+2.2**
	comp=Z,242nm,1.3s,mb6.0						
NKC	**Novy Kostel**	79.38	320	*e*P	pP	01 33 34.1	+0.7
NKC	**Novy Kostel**	79.38	320	*e*pP	pP	01 33 34.1	+0.7
HFS	**Hagfors**	79.41	330	P	**P**	**01 33 20.1**	**-3.8**
	comp=Z,20nm,0.6s,mb5.2,baz=104,slow=6.1,SNR=7.4						
HFS	**Hagfors**	79.41	330	P	**P**	**01 33 20.1**	**-3.7**
HFS				pmax	pmax		
	comp=Z,20nm,0.6s						
GRF	**Grafenberg Arr**	80.15	319	*e*P	**P**	**01 33 38.2**	**+10**
GRF				pmax	pmax		
	comp=Z,521nm,1.6s,mb6.2						
NB2	**NORSAR Subarra**	80.71	331	P	**P**	**01 33 29.5**	**-1.2**
	comp=Z,368nm,1.7s,mb6.0,baz=94,slow=5.8						
NB2	**NORSAR Subarra**	80.71	331	P	**P**	**01 33 29.5**	**-1.2**
	baz=94,slow=5.9						
NOA	**NORSAR Array B**	80.71	331	P	**P**	**01 33 29.7**	**-1.0**
	comp=Z,21nm,0.8s,mb5.1,baz=94,slow=5.5,SNR=7.3						
NOA	**NORSAR Array B**	80.71	331	P	**P**	**01 33 29.7**	**-1.0**
NOA				pmax	pmax		
	comp=Z,21nm,0.8s						
DAVOX	**Davos**	80.99	316	P	**P**	**01 33 32.7**	**+0.2**
	comp=Z,41nm,0.6s,mb5.5,baz=142,slow=4.3,SNR=8.9						
DAVOX	**Davos**	80.99	316	P	**P**	**01 33 32.7**	**+0.2**
STU	**Stuttgart**	81.46	318	P	pP	01 33 45.3	+0.8
PGF	**Pioggiola**	81.63	312	*e*P	**P**	**01 33 35.8**	**-0.2**
	comp=Z,382nm,1.3s,mb5.8						
CDF	**Champ du Feu**	82.73	318	*e*P	**P**	**01 33 41.1**	**-0.5**
	comp=Z,613nm,1.7s,mb6.1						
SBF	**Sospel**	82.75	313	*e*P	**P**	**01 33 42.2**	**+0.5**
	comp=Z,187nm,0.8s,mb5.9						
HINF	**Hinteralfeld**	83.03	317	*e*P	**P**	**01 33 42.4**	**-0.7**
LPG	**La Plagne**	83.18	315	*e*P	**P**	**01 33 44.1**	**+0.2**
	comp=Z,201nm,1.0s,mb5.8						
LPL	**La Plagne**	83.19	315	*e*P	**P**	**01 33 44.2**	**+0.2**
MBDF	**Montbardon**	83.19	314	*e*P	**P**	**01 33 44.7**	**+0.7**
	comp=Z,363nm,1.6s,mb5.9						
FRF	**La Foret Royal**	83.33	313	*e*P	**P**	**01 33 45.0**	**+0.3**
	comp=Z,1µm,1.8s,mb6.4						
HAU	**Haudompre**	83.37	318	*e*P	**P**	**01 33 44.3**	**-0.5**
	comp=Z,337nm,1.2s,mb5.9						
LMR	**La Mourre**	83.44	313	*e*P	**P**	**01 33 45.2**	**-0.1**
	comp=Z,766nm,1.7s,mb6.2						
CABF	**La Chapelle**	83.60	316	*e*P	**P**	**01 33 46.3**	**+0.2**
	comp=Z,498nm,1.3s,mb6.2						
SYO	**Syowa Base**	83.72	197	⇓P	**P**	**01 33 48.5**	**+2.4**
SYO	**Syowa Base**	83.72	197	⇓pP	pP	01 33 56.9	+1.2
ORIF	**Oris-en-Rattie**	83.82	314	*e*P	**P**	**01 33 47.4**	**+0.2**
SMRF	**Simiane la Rot**	84.09	314	*e*P	**P**	**01 33 49.1**	**+0.5**
	comp=Z,906nm,1.8s,mb6.3						
MEZF	**Maizieres J'vi**	84.21	318	*e*P	**P**	**01 33 48.9**	**-0.2**
GIVF	**Givet**	84.28	320	*e*P	**P**	**01 33 49.3**	**-0.1**
	comp=Z,509nm,1.8s,mb6.0						
BAIF	**Baives**	84.68	320	*e*P	**P**	**01 33 51.3**	**-0.1**
	comp=Z,601nm,1.6s,mb6.2						
VIVF	**Saint-Julien-l**	84.68	314	*e*P	**P**	**01 33 51.4**	**-0.1**
	comp=Z,674nm,1.7s,mb6.2						
SMF	**Signal de Mont**	85.14	316	*e*P	**P**	**01 33 53.4**	**-0.4**
	comp=Z,232nm,1.1s,mb5.9						
LASF	**Ste Croix**	85.32	314	*e*P	**P**	**01 33 55.1**	**+0.4**
	comp=Z,1µm,1.9s,mb6.4						
SSF	**Saint Saulge**	85.34	317	*e*P	**P**	**01 33 54.0**	**-0.8**
	comp=Z,829nm,1.8s,mb6.3						
BGF	**Bois d'Agland**	85.83	316	*e*P	**P**	**01 33 57.3**	**+0.1**
	comp=Z,894nm,1.8s,mb6.4						
HYF	**Humbligny**	85.92	317	*e*P	**P**	**01 33 57.8**	**+0.2**
TCF	**Toulx Ste Croi**	86.30	316	*e*P	**P**	**01 33 59.6**	**+0.1**
	comp=Z,497nm,1.7s,mb6.2						
CAF	**Calviac**	86.52	315	*e*P	**P**	**01 34 01.0**	**+0.3**
	comp=Z,278nm,1.6s,mb5.9						
MTLF	**Montolieu**	86.56	313	*e*P	**P**	**01 34 01.0**	**+0.1**
	comp=Z,248nm,1.2s,mb6.0						
RJF	**Les Rejaudoux**	86.87	315	*e*P	**P**	**01 34 02.8**	**+0.4**
LFF	**La Frestale**	87.46	315	*e*P	**P**	**01 34 05.6**	**+0.4**
	comp=Z,704nm,1.7s,mb6.3						
LDF	**La Druitiere**	87.63	318	*e*P	**P**	**01 34 05.8**	**-0.1**
	comp=Z,734nm,1.8s,mb6.3						
FLN	**La Foliniere**	87.84	319	*e*P	**P**	**01 34 06.7**	**-0.3**
	comp=Z,384nm,1.5s,mb6.1						
MFF	**Saint Martin d**	87.88	316	*e*P	**P**	**01 34 07.0**	**-0.2**
	comp=Z,719nm,1.8s,mb6.3						
GRR	**Gorron**	88.14	318	*e*P	**P**	**01 34 07.4**	**-1.0**
	comp=Z,291nm,1.5s,mb6.0						
EKA	**Eskdalemuir Ar**	88.57	325	P	**P**	**01 34 10.4**	**+0.2**
	comp=Z,35nm,0.8s,mb5.8,baz=92,slow=5.4,SNR=18						
EKA	**Eskdalemuir Ar**	88.57	325	P	**P**	**01 34 10.5**	**+0.2**
EKA				pmax	pmax		
	comp=Z,35nm,0.8s						
ESK	**Eskdalemuir**	88.60	325	*e*P	**P**	**01 34 10.5**	**+0.1**
ESK				*e*		01 34 22.5	
ESK				pmax	pmax		
	comp=Z,74nm,0.9s,mb6.0						
ESK	**Eskdalemuir**	88.60	325	*e*P	**P**	**01 34 10.5**	**+0.1**
	comp=Z,74nm,0.9s,mb6.0						
ESK				*e*		01 34 22.5	
SGMF	**Saint Gilles**	89.28	318	*e*P	**P**	**01 34 13.7**	**-0.1**
	comp=Z,804nm,1.6s,mb6.5						
NIKO	**Nikolski**	89.65	37	P	**P**	**01 34 11.4**	**-4.1**
NIKO				*e*		01 34 26.2	
QUIF	**Quistinic**	89.74	318	*e*P	**P**	**01 34 15.6**	**-0.4**
ESDC	**Sonseca Array**	91.64	310	P	**P**	**01 34 24.8**	**-0.2**
	comp=Z,6.3nm,0.6s,mb5.1,baz=60,slow=4.7,SNR=8.0						
YKA	**Yellowknife Ar**	108.09	13	PP	PP	01 40 09.3	-1.8
	comp=Z,16nm,1.1s,baz=334,slow=6.9,SNR=4.3						
YKA				PKKPbc		01 50 56.0	
	comp=Z,1.2nm,0.6s,baz=149,slow=3.7,SNR=7.6						
YKA				PKKPab		01 51 10.7	
	comp=Z,3.3nm,0.9s,baz=150,slow=4.7,SNR=9.4						
SCHQ	**Schefferville**	116.87	347	PKP	PKPdf	01 40 01.0	-4.9
	comp=Z,11nm,0.7s,baz=111,slow=7.9,SNR=4.2						
ULM	**Lac du Bonnet**	123.08	7	PKP	PKPdf	01 40 15.1	-2.9
	comp=Z,35nm,0.6s,baz=12,slow=2.4,SNR=8.3						
NVAR	**Mina Array Bea**	126.62	31	PKP	PKPdf	01 40 22.8	-2.4
	comp=Z,16nm,0.7s,baz=291,slow=2.9,SNR=7.7						
PDAR	**Pinedale Array**	126.87	21	PKP	PKPdf	01 40 22.2	-3.4
	comp=Z,26nm,0.9s,baz=55,slow=1.5,SNR=5.2						
USHA	**Ushuaia**	129.47	194	PKP	PKPdf	01 40 27.4	-2.8
	comp=Z,7.5nm,0.6s,baz=327,slow=8.4,SNR=7.0						
LTX	**Lajitas**	140.93	24	*e*PKIKP	PKPdf	01 40 50.2	-2.1
LTX	**Lajitas**	140.93	24	*e*PKPdf	PKPdf	01 40 49.8	-2.5
TXAR	**Lajitas Array**	140.93	24	PKhKP		01 40 42.7	
	comp=Z,2.6nm,0.7s,baz=252,slow=1.8,SNR=2.6						
TXAR				PKP	PKPdf	01 40 50.2	-2.0
	comp=Z,5.5nm,0.6s,baz=252,slow=0.6,SNR=8.5						
TXAR				PP	PP	01 43 48.8	-3.1
	comp=Z,6.1nm,0.8s,slow=5.4,SNR=4.2						
TXAR	**Lajitas Array**	140.93	24	PKP	PKPdf	01 40 50.2	-2.0
TXAR				PP	PP	01 43 48.8	-3.1
BDFB	**Brasilia**	141.06	253	PKhKP		01 40 42.0	
	comp=Z,4.9nm,0.6s,baz=135,slow=4.3,SNR=3.5						
BDFB	**Brasilia**	141.06	253	PKHKP		01 40 42.0	
BDFB				pmax	pmax		
	comp=Z,5.0nm,0.6s						
JCT	**Junction City**	141.28	18	PKIKP	PKPdf	01 40 50.1	-2.7
JCT	**Junction City**	141.28	18	PKPdf	PKPdf	01 40 49.7	-3.1
SJG	**San Juan**	148.42	321	PKPbc	PKPdf	01 41 03.9	-1.3
	comp=Z,46nm,0.7s,baz=19,slow=4.7,SNR=4.8						
SJG	**San Juan**	148.42	321	*e*PKP2	PKPab	01 41 04.4	-4.7
SJG	**San Juan**	148.42	321	*e*PKPbc	PKPdf	01 41 04.9	-0.3
RPN	**Rapa Nui**	150.08	136	*e*PKPbc	PKPdf	01 41 10.2	+2.6
PCRV	**Puerto La Cruz**	152.66	307	PKP	PKPdf	01 41 06.1	-5.7
	comp=Z,36nm,1.0s,baz=98,slow=24,SNR=3.7						
PCRV				PKPbc	PKPdf	01 41 14.8	+3.0
	comp=Z,42nm,0.7s,baz=155,slow=5.3,SNR=8.1						
TEIG	**Tepich**	153.56	4	*e*PKPbc	PKPdf	01 41 16.5	+3.6
TEIG				*e*PKPab	PKPab	01 41 28.5	-2.0
LVC	**Limon Verde**	156.47	225	PKPab	PKPab	01 41 43.8	+1.1
	comp=Z,12nm,0.6s,baz=135,slow=1.4,SNR=5.1						
ROSC	**El Rosal**	163.46	312	PKP	PKPdf	01 41 21.5	-3.3
	comp=Z,18nm,0.7s,baz=89,slow=6.2,SNR=3.3						

IDC ***26*** *01:22:21.2±0.7, 7.62N×94.06E, mb5.5/22, mb1 5.6/23, mb1mx5.5/29, ML4.8/1, Error ellipse: s-maj=31.0km s-min=19.8km az=54.0*

NEIC ***26*** *01:22:25.6±0.3, 7.42N×93.99E, h30^{km}, mb6.0/45, Error ellipse: s-maj=9.4km s-min=7.2km az=82.0*

MOS ***26*** *01:22:31.5±1.1, 8.45N×93.08E, h33^{km}, mb5.8/11, Error ellipse: s-maj=26.6km s-min=12.9km az=117.3*

ISC 26 01:22:23.7±0.3,**7.37N**±0.05×**94.00E**±0.06,**h30**^{km},**n141**, σ**1**^{s}**03**/110,**mb5.8**/68,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	12.02	23	*e*P	**P**	**01 25 15.4**	**-0.8**
CMAR	**Chiang Mai Arr**	12.02	23	Pn	**P**	**01 25 15.5**	**-0.7**
	1.6nm,0.3s,baz=231,slow=18,SNR=2.1						
CMAR	**Chiang Mai Arr**	12.02	23	P	**P**	**01 25 15.5**	**-0.7**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
VIS	**Vishakhapatnam**	14.63	316	*e*P	**P**	**01 25 51.6**	**+0.9**
VIS				*e*S	**S**	**01 28 35.0**	**+2.4**
MDRS	**Chennai**	14.66	294	*e*P	**P**	**01 25 48.8**	**-2.5**
TRD	**Trivandrum**	16.91	275	*e*P	**P**	**01 26 18.9**	**-1.2**
BOK	**Bokaro**	18.09	335	*e*P	**P**	**01 26 33.4**	**-1.4**
SHL	**Shillong**	18.20	354	*e*P	**P**	**01 26 32.6**	**-3.5**
SHL				*e*		01 26 37.1	
	comp=Z,648nm,0.7s						
SHL				*e*S	**S**	**01 29 57.6**	**+2.5**
COCO	**West Island**	19.64	172	P	**P**	**01 26 52.1**	**-1.0**
MNGI	**Mangalore**	19.66	288	*e*P	**P**	**01 26 50.1**	**-3.3**
LSA	**Lhasa**	22.37	353	P	**P**	**01 27 23.2**	**+2.3**
	comp=Z,2µm,1.2s,mb6.3						
BHPL	**Bhopal**	22.42	317	*e*P	**P**	**01 27 19.7**	**-1.7**
BHPL				*e*		01 27 20.5	
	comp=Z,3µm,1.7s						
POO	**Poona**	22.52	301	*e*P	**P**	**01 27 21.6**	**-1.0**
AAK	**Ala-Archa**	39.11	337	*e*P	**P**	**01 29 51.5**	**+1.3**
	comp=Z,118nm,0.7s,mb5.7						
SONM	**Songino Array**	41.68	13	P	**P**	**01 30 10.3**	**-1.0**
	comp=Z,25nm,0.9s,mb4.8,baz=187,slow=6.0,SNR=1.9						
NWAO	**Narrogin (SRO)**	45.77	152	P	**P**	**01 30 47.1**	**+2.5**
	comp=Z,106nm,0.9s,mb5.8,baz=323,slow=9.5,SNR=4.7						
ZAL	**Zalesovo**	47.02	353	P	**P**	**01 30 52.8**	**-1.4**
	comp=Z,44nm,0.6s,mb5.5,baz=109,slow=4.3,SNR=1.7						
ZAL	**Zalesovo**	47.02	353	P	**P**	**01 30 52.8**	**-1.4**
ZAL				pmax	pmax		
	comp=Z,44nm,0.6s						
HIA	**Hailar**	47.04	23	P	**P**	**01 30 55.1**	**+0.8**
	comp=Z,20nm,0.6s,mb5.2						
WRAB	**Tennant Creek**	48.09	125	P	**P**	**01 30 59.6**	**-3.4**
	comp=Z,81nm,0.6s,mb5.9						
WRAB				*e*	pP	01 31 09.8	-2.4
BVAR	**Borovoye Array**	49.42	341	P	**P**	**01 31 11.3**	**-1.5**
	comp=Z,62nm,0.8s,mb5.7,baz=136,slow=8.1,SNR=9.1						
BRVK	**Borovoye**	49.48	341	*e*P	**P**	**01 31 12.5**	**-0.8**
	comp=Z,38nm,0.6s,mb5.6						
ASAR	**Alice Springs**	49.70	130	P	**P**	**01 31 15.3**	**-0.1**
	comp=Z,62nm,0.9s,mb5.6,baz=307,slow=7.9,SNR=2.5						
GNI	**Garni**	54.68	315	P	**P**	**01 31 53.6**	**+1.1**
	comp=Z,44nm,0.7s,mb5.6						
PMG	**Port Moresby**	55.52	107	P	**P**	**01 32 02.4**	**+3.5**
	comp=Z,98nm,0.8s,mb5.9,baz=296,slow=9.0,SNR=3.6						
PMG	**Port Moresby**	55.52	107	P	**P**	**01 31 57.8**	**-1.1**
	comp=Z,94nm,0.7s,mb5.9						
ARU	**Arti**	56.29	337	*e*P	**P**	**01 32 03.7**	**-0.2**
KMBO	**Kilima Mbogo**	57.23	264	P	**P**	**01 32 11.5**	**+0.4**
	comp=Z,49nm,0.9s,mb5.5,baz=66,slow=7.6,SNR=8.9						
KMBO	**Kilima Mbogo**	57.23	264	*e*P	**P**	**01 32 13.1**	**+1.9**
KIV	**Kislovodsk**	57.59	318	*e*P	**P**	**01 32 12.9**	**-0.4**
KIV				pmax	pmax		
	comp=N,65nm,1.1s						
KIV				pmax	pmax		
	comp=E,59nm,1.1s						
KIV				pmax	pmax		
	comp=Z,159nm,1.1s,mb6.0						
KIV	**Kislovodsk**	57.59	318	*e*P	**P**	**01 32 12.7**	**-0.6**
ASF	**Jabal al Asfar**	58.37	303	P	**P**	**01 32 19.7**	**+0.8**
	comp=Z,30nm,1.0s,mb5.3,baz=107,slow=19,SNR=2.1						
EIL	**Elat**	59.55	300	P	**P**	**01 32 25.9**	**-1.2**
	comp=Z,57nm,1.0s,mb5.5,baz=63,slow=4.5,SNR=2.9						
EIL	**Elat**	59.55	300	*e*P	**P**	**01 32 28.0**	**+0.9**
BRTR	**Keskin Array B**	62.65	311	P	**P**	**01 32 43.9**	**-4.1**
	comp=Z,32nm,1.0s,mb5.4,baz=90,slow=5.8,SNR=2.4						
BRTR	**Keskin Array B**	62.65	311	P	**P**	**01 32 43.9**	**-4.0**
BRTR				pmax	pmax		
	comp=Z,32nm,1.0s						
MOS	**Moscow**	65.43	329	*e*P	**P**	**01 33 05.2**	**-0.7**
OBN	**Obninsk**	65.73	328	*e*P	**P**	**01 33 06.7**	**-1.0**
OBN				pmax	pmax		
	comp=Z,154nm,1.0s,mb6.0						
OBN	**Obninsk**	65.73	328	*e*P	**P**	**01 33 06.4**	**-1.3**
	comp=Z,1µm,1.7s,mb6.7						
OBN				*e*	pP	01 33 14.3	-2.8
SANT	**Santorini**	68.40	306	P	**P**	**01 33 24.3**	**-0.7**
	comp=Z,90nm,0.6s,mb6.0						
AKASG	**Malin Array Be**	68.46	322	P	**P**	**01 33 22.8**	**-2.4**
	comp=Z,34nm,0.9s,mb5.4,baz=89,slow=4.6,SNR=4.4						
AKASG	**Malin Array Be**	68.46	322	P	**P**	**01 33 22.8**	**-2.3**
AKASG				pmax	pmax		
	comp=Z,34nm,0.9s						
IDI	**Anoyia**	68.74	305	P	**P**	**01 33 26.5**	**-0.6**
	comp=Z,43nm,0.7s,mb5.5,baz=78,slow=11,SNR=2.8						
LSZ	**Lusaka**	68.97	251	P	**P**	**01 33 32.4**	**+3.6**
	comp=Z,19nm,0.5s,mb5.3						
LSZ				*e*		01 33 38.1	
MLR	**Muntele Rosu**	69.43	316	P	**P**	**01 33 29.5**	**-1.7**
	comp=Z,63nm,0.8s,mb5.6,baz=94,slow=4.3,SNR=3.2						
MLR	**Muntele Rosu**	69.43	316	P	**P**	**01 33 29.5**	**-1.7**
MLR				pmax	pmax		
	comp=Z,63nm,0.9s						
KOLS	**Kolonicke sedl**	72.49	319	*e*P	pP	01 33 58.2	-0.8
KOLS	**Kolonicke sedl**	72.49	319	*e*pP	pP	01 33 58.2	-0.8
FINES	**FINESS Array B**	73.09	332	P	**P**	**01 33 52.4**	**-0.4**
	comp=Z,61nm,0.9s,mb5.5,baz=112,slow=6.8,SNR=7.8						
FINES	**FINESS Array B**	73.09	332	P	**P**	**01 33 52.4**	**-0.4**
FINES				pmax	pmax		
	comp=Z,61nm,0.9s						
KAF	**Kangasniemi**	73.17	333	*e*p	**P**	**01 33 53.7**	**+0.4**
KECS	**Kecovo**	73.59	318	*e*P	pP	01 34 01.8	-3.7
KECS	**Kecovo**	73.59	318	*e*	pP	01 34 01.8	-3.7
KECS				*e*		01 42 45.1	
LBTB	**Lobatse**	73.88	241	P	**P**	**01 34 00.9**	**+2.8**
	comp=Z,236nm,1.2s,mb6.0						
VYHS	**Vyhne**	74.68	318	*e*P	pP	01 34 09.2	-2.6
VYHS	**Vyhne**	74.68	318	*e*	pP	01 34 09.2	-2.6
SRO2	**Moca**	74.90	317	*e*P	pP	01 34 11.9	-1.2
SRO2	**Moca**	74.90	317	*e*	pP	01 34 11.9	-1.2
SRO	**Srobarova**	74.96	317	*e*P	pP	01 34 11.8	-1.6
KOLL	**Kolacno**	74.98	318	*e*P	pP	01 34 11.1	-2.4
KOLL	**Kolacno**	74.98	318	*e*	pP	01 34 11.1	-2.4
BOSA	**Boshof**	75.20	238	*e*P	**P**	**01 34 05.3**	**-0.5**
	comp=Z,171nm,1.1s,mb5.9						
OKC	**Ostrava-Krasne**	75.28	320	*e*P	**P**	**01 34 10.1**	**+4.4**
OKC	**Ostrava-Krasne**	75.28	320	*e*pP	pP	01 34 10.1	-5.1
SMOL	**Smolenice**	75.62	318	*e*P	pP	01 34 15.3	-1.9
SMOL	**Smolenice**	75.62	318	*e*	pP	01 34 15.3	-1.9
ARCES	**ARCESS Array B**	75.69	340	P	**P**	**01 34 07.4**	**-0.3**
	comp=Z,37nm,0.9s,mb5.3,baz=100,slow=5.5,SNR=3.2						
ARCES	**ARCESS Array B**	75.69	340	P	**P**	**01 34 07.4**	**-0.3**
ARCES				pmax	pmax		
	comp=Z,37nm,0.9s						
ZST	**Bratislava**	75.81	318	*e*P	**P**	**01 34 15.0**	**+6.2**
VRAC	**Vranov**	76.23	319	P	**P**	**01 34 11.0**	**-0.2**
	comp=Z,13nm,1.0s,mb4.8,baz=64,slow=7.3,SNR=1.7						
VRAC	**Vranov**	76.23	319	P	**P**	**01 34 11.0**	**-0.2**
VRAC				pmax	pmax		
	comp=Z,13nm,1.0s						
DPC	**Dobruska-Polom**	76.50	320	*e*P	pP	01 34 24.9	+2.8
DPC	**Dobruska-Polom**	76.50	320	*e*pP	pP	01 34 24.9	+2.8
UPC	**Upice**	76.71	320	*e*P	pP	01 34 25.7	+2.4
UPC	**Upice**	76.71	320	*e*pP	pP	01 34 25.7	+2.4
PRU	**Pruhonice**	77.61	319	*e*P	pP	01 34 27.0	-1.3
PRU	**Pruhonice**	77.61	319	*e*pP	pP	01 34 27.0	-1.3
MAW	**Mawson**	78.02	192	P	**P**	**01 34 22.4**	**+1.7**
BRG	**Berggiesshubel**	78.05	320	*i* P	pP	01 34 33.6	+2.9
BRG				pmax	pmax		
	comp=Z,490nm,1.7s,mb6.2						
GERES	**GERESS Array B**	78.10	318	P	**P**	**01 34 22.0**	**+0.5**
	comp=Z,36nm,0.8s,mb5.3,baz=95,slow=5.4,SNR=4.4						
GERES	**GERESS Array B**	78.10	318	P	**P**	**01 34 22.0**	**+0.5**
GERES				pmax	pmax		
	comp=Z,36nm,0.8s						
KHC	**Kasperske Hory**	78.20	319	*e*P	pP	01 34 29.7	-1.8
KHC	**Kasperske Hory**	78.20	319	*e*pP	pP	01 34 29.7	-1.8
RUE	**Ruedersdorf**	78.23	322	*e*P	**P**	**01 34 22.2**	**+0.1**
	comp=Z,678nm,1.5s,mb6.4						
CLL	**Collm**	78.66	321	*e*P	pP	01 34 32.0	-2.0
CLL	**Collm**	78.66	321	*e**PP	pP	01 34 32.0	-2.0
HFS	**Hagfors**	78.82	330	P	**P**	**01 34 25.2**	**0.0**
	comp=Z,38nm,0.5s,mb5.6,baz=103,slow=3.5,SNR=15						
HFS	**Hagfors**	78.82	330	P	**P**	**01 34 25.2**	**0.0**
HFS				pmax	pmax		
	comp=Z,39nm,0.5s						
COP	**Copenhagen**	79.20	325	*e*P	**P**	**01 34 27.8**	**+0.4**
COP				*i*		01 34 39.7	
COP	**Copenhagen**	79.20	325	*i* P	**P**	**01 34 27.8**	**+0.4**
COP				*i*		01 34 39.7	
SUR	**Sutherland**	79.93	235	*e*P	**P**	**01 34 30.7**	**-1.1**
	comp=Z,205nm,1.1s,mb6.0						
NB2	**NORSAR Subarra**	80.10	331	P	**P**	**01 34 31.0**	**-1.1**
	comp=Z,105nm,0.8s,mb5.8,baz=93,slow=5.8						
NB2	**NORSAR Subarra**	80.10	331	P	**P**	**01 34 31.0**	**-1.1**
	baz=93,slow=5.9						
NOA	**NORSAR Array B**	80.10	331	P	**P**	**01 34 31.2**	**-0.9**
	comp=Z,28nm,0.9s,mb5.2,baz=101,slow=5.6,SNR=4.8						
NOA	**NORSAR Array B**	80.10	331	P	**P**	**01 34 31.2**	**-0.9**
NOA				pmax	pmax		
	comp=Z,28nm,0.9s						
NOA	**NORSAR Array B**	80.10	331	P	**P**	**01 34 31.2**	**-0.9**
NAO01	**NORSAR Array S**	80.25	330	*e*P	**P**	**01 34 32.7**	**-0.2**
	comp=Z,107nm,0.9s,mb5.8						
DAVOX	**Davos**	80.65	316	P	**P**	**01 34 34.9**	**-0.4**
	comp=Z,39nm,0.6s,mb5.5,baz=147,slow=21,SNR=3.3						
DRV	**Dumont d'Urvil**	80.94	163	R		01 35 00.0	
PGF	**Pioggiola**	81.39	312	*e*P	**P**	**01 34 39.2**	**-0.1**
	comp=Z,495nm,1.4s,mb6.0						
CDF	**Champ du Feu**	82.37	318	*e*P	**P**	**01 34 44.1**	**-0.1**
	comp=Z,211nm,1.3s,mb5.6						
SBF	**Sospel**	82.47	313	*e*P	**P**	**01 34 45.0**	**+0.1**
	comp=Z,321nm,0.9s,mb5.9						
HINF	**Hinteralfeld**	82.68	317	*e*P	**P**	**01 34 45.9**	**0.0**
LPG	**La Plagne**	82.87	315	*e*P	**P**	**01 34 47.6**	**+0.7**
	comp=Z,320nm,1.0s,mb6.0						
LPL	**La Plagne**	82.88	315	*e*P	**P**	**01 34 47.5**	**+0.5**
	comp=Z,336nm,0.9s,mb6.1						
MBDF	**Montbardon**	82.90	314	*e*P	**P**	**01 34 46.8**	**-0.3**
HAU	**Haudompre**	83.01	317	*e*P	**P**	**01 34 47.4**	**-0.2**
	comp=Z,394nm,1.1s,mb6.0						
FRF	**La Foret Royal**	83.06	313	*e*P	**P**	**01 34 48.4**	**+0.5**
	comp=Z,641nm,1.4s,mb6.2						
LMR	**La Mourre**	83.17	313	*e*P	**P**	**01 34 49.0**	**+0.5**
	comp=Z,355nm,1.3s,mb5.9						
CABF	**La Chapelle**	83.27	316	*e*P	**P**	**01 34 49.3**	**+0.4**
	comp=Z,293nm,1.1s,mb5.9						
ORIF	**Oris-en-Rattie**	83.52	314	*e*P	**P**	**01 34 50.7**	**+0.4**
	comp=Z,102nm,0.9s,mb5.6						
SMRF	**Simiane la Rot**	83.81	313	*e*P	**P**	**01 34 52.5**	**+0.7**
	comp=Z,568nm,1.5s,mb6.2						
MEZF	**Maizieres J'vi**	83.84	318	*e*P	**P**	**01 34 51.9**	**+0.1**
	comp=Z,307nm,1.1s,mb6.0						
GIVF	**Givet**	83.87	320	*e*P	**P**	**01 34 52.1**	**+0.1**
	comp=Z,254nm,1.3s,mb5.9						
BAIF	**Baives**	84.27	320	*e*P	**P**	**01 34 54.4**	**+0.4**
	comp=Z,449nm,1.3s,mb6.1						
VIVF	**Saint-Julien-l**	84.38	314	*e*P	**P**	**01 34 54.9**	**+0.3**
	comp=Z,419nm,1.4s,mb6.1						
SMF	**Signal de Mont**	84.81	316	*e*P	**P**	**01 34 56.6**	**-0.1**
	comp=Z,465nm,1.4s,mb6.1						
SSF	**Saint Saulge**	85.00	317	*e*P	**P**	**01 34 57.8**	**+0.2**
	comp=Z,420nm,1.5s,mb6.0						
LASF	**Ste Croix**	85.03	314	*e*P	**P**	**01 34 58.6**	**+0.7**
	comp=Z,410nm,1.4s,mb6.1						
BGF	**Bois d'Agland**	85.50	316	*e*P	**P**	**01 35 00.5**	**+0.3**
	comp=Z,536nm,1.4s,mb6.2						
TCF	**Toulx Ste Croi**	85.96	316	*e*P	**P**	**01 35 03.2**	**+0.7**
	comp=Z,135nm,1.1s,mb5.8						
CAF	**Calviac**	86.22	315	*e*P	**P**	**01 35 04.4**	**+0.6**
	comp=Z,338nm,1.4s,mb6.1						
MTLF	**Montolieu**	86.29	313	*e*P	**P**	**01 35 04.7**	**+0.5**
RJF	**Les Rejaudoux**	86.56	315	*e*P	**P**	**01 35 06.1**	**+0.6**
	comp=Z,496nm,1.5s,mb6.2						
LFF	**La Frestale**	87.15	315	*e*P	**P**	**01 35 09.1**	**+0.8**
	comp=Z,282nm,1.3s,mb6.0						
LDF	**La Druitiere**	87.25	318	*e*P	**P**	**01 35 08.9**	**+0.2**
	comp=Z,663nm,1.7s,mb6.3						
FLN	**La Foliniere**	87.46	319	*e*P	**P**	**01 35 08.8**	**-0.9**
	comp=Z,228nm,1.1s,mb6.0						
MFF	**Saint Martin d**	87.54	317	*e*P	**P**	**01 35 10.4**	**+0.2**
	comp=Z,462nm,1.5s,mb6.2						
EKA	**Eskdalemuir Ar**	88.05	325	P	**P**	**01 35 12.5**	**+0.1**
	comp=Z,40nm,0.9s,mb5.7,baz=92,slow=5.9,SNR=6.1						
ETSF	**Etsaut**	88.36	313	*e*P	**P**	**01 35 14.0**	**-0.2**
	comp=Z,80nm,0.7s,mb5.7						
SGMF	**Saint Gilles**	88.90	318	*e*P	**P**	**01 35 16.1**	**-0.6**
	comp=Z,300nm,1.4s,mb6.1						
ROSF	**Rostrenen**	89.36	319	*e*P	**P**	**01 35 19.1**	**+0.3**
	comp=Z,281nm,1.3s,mb6.2						
ESDC	**Sonseca Array**	91.43	310	P	**P**	**01 35 29.3**	**+0.7**
	comp=Z,17nm,0.9s,mb5.4,baz=56,slow=4.0,SNR=3.3						
COLA	**College**	94.85	22	P	**P**	**01 35 45.4**	**+1.7**
	comp=Z,16nm,0.7s,mb5.6						
NVAR	**Mina Array Bea**	125.42	31	PKP	PKPdf	01 41 22.4	-5.1
	comp=Z,6.6nm,0.8s,baz=348,slow=0.8,SNR=3.6						
PDAR	**Pinedale Array**	125.68	21	PKP	PKPdf	01 41 24.2	-3.7
	comp=Z,7.4nm,0.8s,baz=135,slow=2.6,SNR=2.8						
ANMO	**Albuquerque**	133.68	23	PKP	PKPdf	01 41 39.6	-3.7
	comp=Z,7.9nm,1.0s,baz=356,slow=1.2,SNR=2.0						
TXAR	**Lajitas Array**	139.74	24	PKP	PKPdf	01 41 49.2	-5.4
	comp=Z,5.8nm,0.8s,slow=0.9,SNR=4.0						
TXAR	**Lajitas Array**	139.74	24	PKP	PKPdf	01 41 49.2	-5.4
HKT	**Hockley**	141.71	14	PKPdf	PKPdf	01 41 54.8	-3.4
RPN	**Rapa Nui**	150.40	134	PKPdf	PKPdf	01 42 11.6	-1.1
RPN				*e*PKPbc	PKPdf	01 42 17.5	+4.8

IDC ***26*** *01:25:43.3±0.6, 5.43N×94.19E, mb5.5/25, mb1 5.5/26, mb1mx5.5/31, ML4.7/1, MS7.1/1, Ms1 7.3/1, ms1mx5.3/29, Error ellipse: s-maj=22.5km s-min=14.0km az=16.0*

CSEM ***26*** *01:25:44.1, 5.06N×95.06E, h33^{km}, mb6.3*

MOS ***26*** *01:25:47.2±1.0, 5.52N×94.38E, h33^{km}, mb6.0/16, Error ellipse: s-maj=15.4km s-min=8.2km az=125.8*

BJI ***26*** *01:25:47.6, 5.47N×94.23E, h31^{km}, mB5.8, mb6.1, Ms7.2, Msz7.1*

NEIC ***26*** *01:25:48.8±0.3, 5.50N×94.21E, h30^{km}, mb6.1/24, Error ellipse: s-maj=11.4km s-min=6.9km az=26.0*

SYO ***26*** *01:25:48.9, 5.57N×94.12E, h30^{km}, MB5.7*

ISC 26 01:25:47.0±0.4,**5.46N**±0.07×**94.28E**±0.05,**h30**^{km},

(h32^{km}±3.6^{km}:pP-P),n150,σ1^{s}08/125,**mb5.8**/61,**MS6.3**/1,
3C,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.69**	**19**	Pn	**P**	**01 29 05.2**	**+3.5**
	1.1nm,0.3s,baz=219,slow=13,SNR=3.4						
CMAR				LR	LR	01 34 23.4	
	comp=Z,835µm,19.1s,baz=244,slow=38						
CMAR	**Chiang Mai Arr**	**13.69**	**19**	P	**P**	**01 29 05.2**	**+3.5**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,835µm,19.1s						
MDRS	**Chennai**	**15.77**	**300**	*e*P	**P**	**01 29 31.5**	**+2.6**
VIS	**Vishakhapatnam**	**16.22**	**320**	*e*P	**P**	**01 29 36.2**	**+1.6**
BOK	**Bokaro**	**19.94**	**337**	*e*P	**P**	**01 30 19.1**	**-0.6**
BOK				*e*		01 30 21.5	
	comp=Z,1µm,1.8s						
SHL	**Shillong**	**20.12**	**354**	*e*P	**P**	**01 30 18.3**	**-3.2**
SHL				*e*		01 30 25.7	
	comp=Z,1µm,1.3s						
QIZ	**Qiongzhong**	**20.30**	**47**	*e*P	**P**	**01 30 24.4**	**+1.1**
	comp=Z,549nm,1.2s						
BLSP	**Bilaspur**	**20.31**	**326**	*e*P	**P**	**01 30 25.7**	**+2.2**
BLSP				*e*		01 30 28.0	
	comp=Z,1µm,1.6s						
MNGI	**Mangalore**	**20.58**	**293**	*e*P	**P**	**01 30 29.4**	**+3.0**
MNGI				*e*		01 30 34.0	
	comp=Z,1µm,1.2s						
KMI	**Kunming**	**21.16**	**22**	*e*P	**P**	**01 30 33.8**	**+1.6**
KMI				AMB	AMB		
	comp=Z,677nm,1.8s,mb5.7						
GOA	**Goa**	**22.43**	**298**	*e*P	**P**	**01 30 44.0**	**-0.9**
GOA				*e*		01 30 52.9	
	comp=Z,515nm,1.3s						
GYA	**Guiyang**	**24.00**	**28**	⇑*i*P	**P**	**01 31 02.3**	**+2.1**
GYA				AP		01 31 07.8	
GYA				XP		01 31 09.5	
GYA				AMB	AMB		
	comp=Z,1µm,1.3s,mb6.1						
GYA				AMB	AMB		
	comp=Z,2µm,6.2s						
GYA				LR	LR		
	comp=N,63µm,18.2s,MS6.3						
GYA				LR	LR		
	comp=E,82µm,17.8s,MS6.3						
GYA				LR	LR		
	comp=Z,79µm,19.8s,MS6.2						
TGY	**Tagaytay City**	**27.61**	**70**	P	**P**	**01 31 34.3**	**+0.2**
	comp=Z,382nm,0.5s,mb6.3						
TGY	**Tagaytay City**	**27.61**	**70**	P	**P**	**01 31 34.3**	**+0.2**
TGY				pmax	pmax		
	comp=Z,382nm,0.5s						
NDI	**New Delhi**	**28.20**	**327**	*e*P	**P**	**01 31 39.6**	**+0.4**
ENH	**Enshi**	**28.54**	**28**	*e*P	**P**	**01 31 41.1**	**-1.2**
	comp=Z,124nm,0.8s,mb5.7						
BHJ	**Bhuj**	**29.61**	**309**	*e*P	**P**	**01 31 48.6**	**-3.4**
GTA	**Gaotai**	**34.16**	**8**	P	**P**	**01 32 31.8**	**0.0**
GTA				AP	pP	01 32 41.3	+0.6
GTA				XP	sP	01 32 44.8	+0.3
GTA				AMB	AMB		
	comp=Z,477nm,1.2s,mb6.3						
NJ2	**Nanjing**	**35.04**	**38**	*e*P	**P**	**01 32 40.0**	**+0.6**
NJ2				AMB	AMB		
	comp=Z,120nm,0.7s,mb5.9						
TIA	**Tai'an**	**37.10**	**31**	P	**P**	**01 32 56.0**	**-0.7**
TIA				AMB	AMB		
	comp=Z,152nm,1.0s,mb5.8						
HHC	**Hu-ho-hao-te**	**38.49**	**21**	*e*P	**P**	**01 33 09.0**	**+0.7**
HHC				AP	pP	01 33 19.0	+1.7
HHC				XP	sP	01 33 23.0	+2.0
HHC				PP	PP	01 34 45.8	+5.7
HHC				SCS	ScS	01 43 12.5	-2.2
HHC				AMB	AMB		
	comp=Z,439nm,1.1s,mb6.1						
WMQ	**Urumqi**	**38.64**	**352**	P	**P**	**01 33 10.5**	**+0.9**
WMQ				AP	pP	01 33 15.0	-3.5
WMQ				AMB	AMB		
	comp=Z,34nm,1.0s,mb5.0						
JOW	**Kunigami**	**38.74**	**53**	P	**P**	**01 33 11.3**	**+0.7**
	comp=Z,236nm,1.0s,mb5.9,baz=249,slow=8.1,SNR=8.8						
AAK	**Ala-Archa**	**40.97**	**338**	*i* P	**P**	**01 33 30.4**	**+1.6**
DL2	**Dalian**	**41.49**	**33**	P	**P**	**01 33 34.5**	**+1.4**
DL2				AMB	AMB		
	comp=Z,350nm,1.1s,mb5.9						
SONM	**Songino Array**	**43.47**	**12**	P	**P**	**01 33 49.1**	**-0.1**
	comp=Z,199nm,0.9s,mb5.8,baz=195,slow=6.6,SNR=17						
ZAK	**Zakamensk**	**45.40**	**8**	*e*P	**P**	**01 34 04.5**	**-0.2**
ZAK				*e*		01 40 38.5	
WRAB	**Tennant Creek**	**46.79**	**124**	*e*P	**P**	**01 34 16.4**	**+0.3**
	comp=Z,124nm,0.6s,mb6.0						
ASAR	**Alice Springs**	**48.29**	**128**	P	**P**	**01 34 27.9**	**0.0**
	comp=Z,37nm,0.7s,mb5.5,baz=299,slow=7.3,SNR=6.8						
ZAL	**Zalesovo**	**48.94**	**353**	P	**P**	**01 34 31.8**	**-0.7**
	comp=Z,1µm,1.3s,mb6.7,baz=304,slow=6.3,SNR=20						
CBIJ	**Chichi jima**	**50.37**	**59**	P	**P**	**01 34 41.3**	**-2.5**
	comp=Z,137nm,0.5s,mb6.3,baz=285,slow=5.1,SNR=11						
BVAR	**Borovoye Array**	**51.30**	**342**	P	**P**	**01 34 49.8**	**-0.7**
	comp=Z,101nm,0.8s,mb5.8,baz=135,slow=8.4,SNR=10						
PMG	**Port Moresby**	**54.73**	**105**	P	**P**	**01 35 15.4**	**-1.0**
	comp=Z,84nm,0.7s,mb5.9,baz=336,slow=3.2,SNR=8.0						
PMG	**Port Moresby**	**54.73**	**105**	P	**P**	**01 35 15.4**	**-1.0**
PMG				pmax	pmax		
	comp=Z,84nm,0.7s						
GNI	**Garni**	**56.23**	**315**	P	**P**	**01 35 24.8**	**-2.1**
	comp=Z,19nm,0.7s,mb5.2,baz=135,slow=14,SNR=2.3						
GNI	**Garni**	**56.23**	**315**	P	**P**	**01 35 24.8**	**-2.1**
GNI				pmax	pmax		
	comp=Z,19nm,0.7s						
CTAO	**Charters Tower**	**57.03**	**118**	P	**P**	**01 35 35.2**	**+2.2**
	comp=Z,4.5nm,0.6s,mb4.7						
ASAJ	**Asahikawa**	**57.15**	**40**	P	**P**	**01 35 32.8**	**-0.7**
	comp=Z,41nm,0.9s,mb5.4,baz=241,slow=15,SNR=3.2						
ASAJ	**Asahikawa**	**57.15**	**40**	P	**P**	**01 35 32.8**	**-0.7**
ASAJ				pmax	pmax		
	comp=Z,41nm,0.9s						
KMBO	**Kilima Mbogo**	**57.33**	**265**	P	**P**	**01 35 34.8**	**-0.4**
	comp=Z,21nm,1.1s,mb5.1,baz=42,slow=19,SNR=3.6						
KMBO	**Kilima Mbogo**	**57.33**	**265**	P	**P**	**01 35 34.8**	**-0.4**
KMBO				pmax	pmax		
	comp=Z,21nm,1.1s						
YSS	**Yuzh-Sakhalins**	**58.60**	**37**	⇑*i*P	**P**	**01 35 41.8**	**-1.8**
KIV	**Kislovodsk**	**59.20**	**319**	*e*P	**P**	**01 35 45.7**	**-2.1**
KIV				pmax	pmax		
	comp=E,66nm,1.2s						
KIV				pmax	pmax		
	comp=Z,124nm,1.2s,mb5.8						
YUK	**Yuzh-Kuril'sk**	**59.22**	**41**	P	**P**	**01 35 46.0**	**-2.0**
ASF	**Jabal al Asfar**	**59.66**	**304**	P	**P**	**01 35 49.9**	**-1.2**
	comp=Z,33nm,1.1s,mb5.3,baz=79,slow=10,SNR=3.6						
SOC	**Sochi**	**61.03**	**317**	*e*P	sP	01 36 13.4	+0.4
BRTR	**Keskin Array B**	**64.11**	**312**	P	**P**	**01 36 19.6**	**-1.4**
	comp=Z,11nm,0.7s,mb5.0,baz=131,slow=5.8,SNR=5.5						
BRTR	**Keskin Array B**	**64.11**	**312**	P	**P**	**01 36 19.6**	**-1.3**
BRTR				pmax	pmax		
	comp=Z,11nm,0.7s						
MOS	**Moscow**	**67.20**	**329**	*e*P	**P**	**01 36 39.3**	**-1.2**
MOS				*e*		01 39 09.8	
MOS				pmax	pmax		
	comp=Z,581nm,1.7s,mb6.3						
OBN	**Obninsk**	**67.48**	**328**	*e*P	**P**	**01 36 38.9**	**-3.4**
OBN				pmax	pmax		
	comp=Z,204nm,1.3s,mb6.0						
SKR	**Severo-Kuril's**	**68.17**	**37**	*e*P	**P**	**01 36 42.9**	**-3.7**
IDI	**Anoyia**	**70.06**	**305**	P	**P**	**01 36 56.9**	**-1.6**
	comp=Z,154nm,1.3s,mb5.8,baz=80,slow=9.2,SNR=5.4						
AKASG	**Malin Array Be**	**70.13**	**322**	P	**P**	**01 36 56.0**	**-2.6**
	comp=Z,22nm,0.6s,mb5.2,baz=82,slow=4.5,SNR=7.6						
AKASG	**Malin Array Be**	**70.13**	**322**	P	**P**	**01 36 56.0**	**-2.6**
AKASG				pmax	pmax		
	comp=Z,22nm,0.6s						
MLR	**Muntele Rosu**	**70.99**	**316**	P	**P**	**01 37 02.9**	**-1.1**
	comp=Z,102nm,1.0s,mb5.7,baz=57,slow=3.6,SNR=5.8						
MLR	**Muntele Rosu**	**70.99**	**316**	P	**P**	**01 37 02.9**	**-1.1**
MLR				pmax	pmax		
	comp=Z,102nm,1.0s						
KOLS	**Kolonicke sedl**	**74.11**	**319**	*e*P	**P**	**01 37 22.4**	**+0.1**
FINES	**FINESS Array B**	**74.90**	**332**	P	**P**	**01 37 25.0**	**-1.6**
	comp=Z,27nm,0.5s,mb5.4,baz=96,slow=5.0,SNR=9.2						
FINES	**FINESS Array B**	**74.90**	**332**	P	**P**	**01 37 25.0**	**-1.6**
FINES				pmax	pmax		
	comp=Z,27nm,0.5s						
KAF	**Kangasniemi**	**74.99**	**333**	*e*p	**P**	**01 37 26.3**	**-0.8**
	baz=104,slow=5.3						
KECS	**Kecovo**	**75.20**	**319**	*i* P	**P**	**01 37 28.5**	**-0.1**
VYHS	**Vyhne**	**76.29**	**318**	*e*P	**P**	**01 37 34.8**	**0.0**
SRO2	**Moca**	**76.49**	**318**	*e*P	**P**	**01 37 36.5**	**+0.6**
SRO2				*e*	pP	01 37 47.8	+2.4
SRO	**Srobarova**	**76.55**	**318**	*i* P	**P**	**01 37 37.0**	**+0.7**
SRO				*e*		01 37 49.9	
KOLL	**Kolacno**	**76.59**	**319**	*e*P	**P**	**01 37 36.3**	**-0.1**
OKC	**Ostrava-Krasne**	**76.91**	**320**	*e*P	**P**	**01 37 37.3**	**-0.9**
SMOL	**Smolenice**	**77.22**	**318**	*e*P	**P**	**01 37 39.0**	**-1.0**
ZST	**Bratislava**	**77.40**	**318**	*e*P	**P**	**01 37 41.6**	**+0.6**
ZST				*e*sP	sP	01 37 53.8	+0.1
ARCES	**ARCESS Array B**	**77.57**	**340**	P	**P**	**01 37 41.3**	**-0.2**
	comp=Z,21nm,0.7s,mb5.2,baz=100,slow=5.9,SNR=4.6						
ARCES	**ARCESS Array B**	**77.57**	**340**	P	**P**	**01 37 41.3**	**-0.2**
ARCES				pmax	pmax		
	comp=Z,21nm,0.7s						
VRAC	**Vranov**	**77.85**	**319**	P	**P**	**01 37 43.6**	**+0.1**
	comp=Z,17nm,0.8s,mb5.0,baz=108,slow=6.1,SNR=4.1						
VRAC	**Vranov**	**77.85**	**319**	P	**P**	**01 37 43.6**	**+0.2**
VRAC				pmax	pmax		
	comp=Z,17nm,0.8s						
DPC	**Dobruska-Polom**	**78.13**	**320**	*e*P	**P**	**01 37 45.4**	**+0.5**
KSP	**Ksiaz**	**78.20**	**321**	*e*P	**P**	**01 37 45.7**	**+0.4**
UPC	**Upice**	**78.35**	**320**	*e*P	**P**	**01 37 47.3**	**+1.2**
BOJS	**Bojanci**	**78.44**	**315**	*e*P	**P**	**01 37 47.0**	**+0.2**
VAE	**Valguarnera**	**78.66**	**307**	P	**P**	**01 37 48.5**	**+0.4**
	comp=Z,40nm,0.9s,mb5.3,baz=61,slow=10,SNR=2.8						
LJU	**Ljubljana**	**78.98**	**316**	*i* P	**P**	**01 37 50.3**	**+0.6**
PRU	**Pruhonice**	**79.24**	**320**	*e*P	**P**	**01 37 51.3**	**+0.3**
PVCC	**Panska Ves**	**79.27**	**320**	*e*P	**P**	**01 37 52.0**	**+0.9**
BSD	**Bornholm Skovb**	**79.46**	**325**	*i* P	**P**	**01 37 51.6**	**-0.5**
BSD				*i*		01 38 04.8	
BRG	**Berggiesshubel**	**79.69**	**321**	*i* P	**P**	**01 37 54.9**	**+1.5**
BRG				pmax	pmax		
	comp=Z,264nm,1.4s,mb6.0						
BRG	**Berggiesshubel**	**79.69**	**321**	*i* P	**P**	**01 37 54.9**	**+1.5**
	comp=Z,264nm,1.4s,mb6.0						
ROBS	**Robic**	**79.70**	**316**	*e*P	**P**	**01 37 53.6**	**+0.1**
GEC2	**GERESS Array S**	**79.71**	**319**	*e*P	**P**	**01 37 54.1**	**+0.5**
GEC2				pmax	pmax		
	comp=Z,297nm,1.2s,mb6.1						
GEC2	**GERESS Array S**	**79.71**	**319**	*e*P	**P**	**01 37 54.1**	**+0.5**
	comp=Z,297nm,1.2s,mb6.1						
GERES	**GERESS Array B**	**79.71**	**319**	P	**P**	**01 37 54.0**	**+0.4**
	comp=Z,103nm,1.0s,mb5.7,baz=90,slow=4.0,SNR=15						
GERES	**GERESS Array B**	**79.71**	**319**	P	**P**	**01 37 54.0**	**+0.4**
GERES				pmax	pmax		
	comp=Z,103nm,1.0s						
KHC	**Kasperske Hory**	**79.81**	**319**	*e*P	**P**	**01 37 54.2**	**+0.1**
WET	**Wettzell**	**80.27**	**319**	*e*P	**P**	**01 37 57.2**	**+0.6**
WET				pmax	pmax		
	comp=Z,182nm,1.2s,mb5.9						
WET	**Wettzell**	**80.27**	**319**	*e*P	**P**	**01 37 57.2**	**+0.6**
	comp=Z,182nm,1.2s,mb5.9						
CLL	**Collm**	**80.31**	**321**	*i* P	**P**	**01 37 57.1**	**+0.4**
CLL				pmax	pmax		
	comp=Z,212nm,1.3s,mb5.9						
CLL	**Collm**	**80.31**	**321**	*i* P	**P**	**01 37 57.1**	**+0.4**
	comp=Z,212nm,1.3s,mb5.9						
CLL	**Collm**	**80.31**	**321**	P	**P**	**01 37 57.1**	**+0.4**
	comp=Z,logA/T=2.2,mb5.9						
HFS	**Hagfors**	**80.60**	**330**	P	**P**	**01 37 56.9**	**-1.2**
	comp=Z,38nm,0.6s,mb5.5,baz=104,slow=6.1,SNR=11						
HFS	**Hagfors**	**80.60**	**330**	P	**P**	**01 37 56.9**	**-1.2**
HFS				pmax	pmax		
	comp=Z,38nm,0.6s						
NKC	**Novy Kostel**	**80.60**	**320**	*e*P	**P**	**01 37 58.6**	**+0.3**
FUR	**Furstenfeldbru**	**81.29**	**318**	*e*P	**P**	**01 38 02.0**	**0.0**
FUR				pmax	pmax		
	comp=Z,367nm,1.7s,mb6.0						
FUR	**Furstenfeldbru**	**81.29**	**318**	*e*P	**P**	**01 38 02.0**	**0.0**
	comp=Z,367nm,1.7s,mb6.0						
GRA1	**Grafenberg Arr**	**81.37**	**319**	*e*P	**P**	**01 38 03.4**	**+1.1**
	comp=Z,334nm,1.3s,mb6.1						
GRF	**Grafenberg Arr**	**81.37**	**319**	*e*P	**P**	**01 38 03.4**	**+1.1**
GRF				pmax	pmax		
	comp=Z,334nm,1.3s,mb6.1						
GRF	**Grafenberg Arr**	**81.37**	**319**	*e*P	**P**	**01 38 03.4**	**+1.1**
	comp=Z,334nm,1.3s,mb6.1						
NOA	**NORSAR Array B**	**81.89**	**331**	P	**P**	**01 38 02.7**	**-2.1**
	comp=Z,13nm,0.8s,mb4.9,baz=96,slow=5.1,SNR=3.3						
NOA	**NORSAR Array B**	**81.89**	**331**	P	**P**	**01 38 02.7**	**-2.1**
NOA				pmax	pmax		
	comp=Z,13nm,0.8s						
CLZ	**Clausthal**	**81.97**	**321**	*e*P	**P**	**01 38 06.1**	**+0.7**
	comp=Z,217nm,1.2s,mb6.0						
BSEG	**Bad Segeberg**	**82.06**	**324**	*e*P	**P**	**01 38 06.3**	**+0.5**
BSEG				pmax	pmax		
	comp=Z,256nm,1.1s,mb6.1						
DAVOX	**Davos**	**82.22**	**316**	P	**P**	**01 38 07.4**	**+0.6**
	comp=Z,85nm,0.6s,mb5.8,baz=142,slow=3.2,SNR=17						
PGF	**Pioggiola**	**82.86**	**312**	*e*P	**P**	**01 38 10.8**	**+0.5**
	comp=Z,526nm,1.6s,mb6.0						
SYO	**Syowa Base**	**83.16**	**197**	⇑PcP	PcP	01 38 16.6	+0.4
SBF	**Sospel**	**83.98**	**313**	*e*P	**P**	**01 38 16.4**	**+0.5**
	comp=Z,292nm,1.1s,mb6.0						
LPL	**La Plagne**	**84.42**	**315**	*e*P	**P**	**01 38 19.0**	**+0.9**
	comp=Z,317nm,1.1s,mb6.1						
FRF	**La Foret Royal**	**84.56**	**313**	*e*P	**P**	**01 38 18.7**	**-0.2**
	comp=Z,277nm,1.1s,mb6.0						
HAU	**Haudompre**	**84.60**	**318**	*e*P	**P**	**01 38 18.2**	**-0.7**
	comp=Z,315nm,1.1s,mb6.0						
CABF	**La Chapelle**	**84.83**	**316**	*e*P	**P**	**01 38 20.2**	**+0.1**
GIVF	**Givet**	**85.50**	**320**	*e*P	**P**	**01 38 23.2**	**-0.2**
	comp=Z,117nm,1.1s,mb5.7						
BAIF	**Baives**	**85.90**	**320**	*e*P	**P**	**01 38 25.3**	**-0.1**
	comp=Z,256nm,1.1s,mb6.1						
SMF	**Signal de Mont**	**86.37**	**316**	*e*P	**P**	**01 38 27.6**	**-0.2**
	comp=Z,295nm,1.2s,mb6.1						
SSF	**Saint Saulge**	**86.57**	**317**	*e*P	**P**	**01 38 28.6**	**-0.2**
	comp=Z,308nm,1.5s,mb6.0						
TCF	**Toulx Ste Croi**	**87.53**	**316**	*e*P	**P**	**01 38 33.4**	**0.0**
	comp=Z,174nm,1.4s,mb5.8						
LDF	**La Druitiere**	**88.86**	**319**	*e*P	**P**	**01 38 39.0**	**-0.7**
	comp=Z,133nm,1.0s,mb5.9						
EKA	**Eskdalemuir Ar**	**89.77**	**325**	P	**P**	**01 38 44.5**	**+0.7**
	comp=Z,24nm,0.6s,mb5.7,baz=90,slow=5.3,SNR=16						
EKA	**Eskdalemuir Ar**	**89.77**	**325**	P	**P**	**01 38 44.6**	**+0.7**
EKA				pmax	pmax		
	comp=Z,24nm,0.6s						
SGMF	**Saint Gilles**	**90.51**	**318**	*e*P	**P**	**01 38 47.6**	**+0.1**
	comp=Z,331nm,1.3s,mb6.2						
SBA	**Scott Base**	**91.66**	**168**	*e*P	**P**	**01 38 54.9**	**+2.8**
	comp=Z,4.5nm,0.6s,mb5.0						
ESDC	**Sonseca Array**	**92.87**	**310**	P	**P**	**01 38 59.1**	**+0.6**
	comp=Z,6.7nm,0.7s,mb5.2,baz=67,slow=3.9,SNR=5.8						
ILAR	**Eielson Array**	**96.91**	**22**	P	**P**	**01 39 15.7**	**-0.7**
	comp=Z,6.2nm,0.5s,mb5.3,baz=292,slow=4.6,SNR=14						
ILAR	**Eielson Array**	**96.91**	**22**	P	**P**	**01 39 15.7**	**-0.7**
ILAR				pmax	pmax		
	comp=Z,6.0nm,0.5s						
ULM	**Lac du Bonnet**	**123.82**	**8**	PKP	PKPdf	01 44 43.5	-4.0
	comp=Z,22nm,1.0s,baz=11,slow=2.3,SNR=4.4						
YFT	**Old Faithful**	**125.42**	**22**	P	PKPdf	01 44 45.2	-5.5
LOHW	**Long Hollow**	**126.22**	**22**	*e*PKPdf	PKPdf	01 44 49.0	-3.2
SNOW	**Snow King Moun**	**126.30**	**22**	*e*PKPdf	PKPdf	01 44 49.9	-2.4
REDW	**Red Top Meadow**	**126.34**	**23**	*e*PKPdf	PKPdf	01 44 49.9	-2.6
ELK	**Elko**	**126.63**	**28**	*e*PKPdf	PKPdf	01 44 50.2	-2.8
NVAR	**Mina Array Bea**	**126.89**	**32**	PKP	PKPdf	01 44 50.9	-2.7
	comp=Z,8.0nm,0.7s,baz=281,slow=4.1,SNR=11						
NVAR	**Mina Array Bea**	**126.89**	**32**	PKP	PKPdf	01 44 50.9	-2.7
HVU	**Hansel Valley**	**126.89**	**25**	*e*PKPdf	PKPdf	01 44 49.1	-4.5
MNV	**Mina**	**126.97**	**32**	*e*PKPdf	PKPdf	01 44 51.2	-2.5
PDAR	**Pinedale Array**	**127.34**	**22**	PKP	PKPdf	01 44 50.5	-3.9
	comp=Z,20nm,1.1s,baz=5.2,slow=0.8,SNR=6.6						
BGU	**Big Grassy Mou**	**127.48**	**26**	PKPdf	PKPdf	01 44 50.8	-4.0
USHA	**Ushuaia**	**128.84**	**193**	PKP	PKPdf	01 44 51.7	-5.2
	comp=Z,48nm,1.1s,baz=68,slow=0.9,SNR=7.4						
RWWY	**Rawlins**	**129.13**	**21**	PKPdf	PKPdf	01 44 54.0	-3.9
ANMO	**Albuquerque**	**135.30**	**24**	PKP	PKPdf	01 45 07.2	-2.5
	comp=Z,12nm,0.9s,baz=108,slow=0.5,SNR=5.7						
TXAR	**Lajitas Array**	**141.34**	**26**	PKP	PKPdf	01 45 15.7	-5.2
	comp=Z,13nm,0.8s,baz=199,slow=0.6,SNR=3.7						
DWPF	**Disney**	**146.37**	**353**	*e*PKPdf	PKPdf	01 45 27.3	-2.2
SJG	**San Juan**	**149.64**	**321**	PKPbc	PKPdf	01 45 34.8	-0.3
	comp=Z,32nm,0.6s,baz=56,slow=7.7,SNR=7.0						
SJG	**San Juan**	**149.64**	**321**	PKP2	PKPab	01 45 34.8	-7.2
SJG				pmax	pmax		
	comp=Z,32nm,0.6s						
SJG	**San Juan**	**149.64**	**321**	*e*P	PKPdf	01 45 27.5	-7.6
SJG				*e*PKPdf	PKPdf	01 45 32.5	-2.6
SJG				PKPbc	PKPdf	01 45 34.8	-0.3
SJG				*e*		01 45 36.5	
PCRV	**Puerto La Cruz**	**153.88**	**306**	PKP	PKPdf	01 45 37.2	-4.2
	comp=Z,29nm,1.2s,baz=90,slow=5.1,SNR=2.6						
PCRV				PKPbc	PKPdf	01 45 44.1	+2.7
	comp=Z,13nm,0.6s,baz=287,slow=4.3,SNR=6.5						
SDV	**Santo Domingo**	**159.28**	**313**	*e*PKP	PKPdf	01 45 44.3	-4.1
ROSC	**El Rosal**	**164.69**	**312**	PKP	PKPdf	01 45 51.0	-2.9
	comp=Z,44nm,1.2s,baz=95,slow=2.2,SNR=4.5						

IDC ***26*** *01:29:47.2±0.5,20.96N×97.61E,mb5.4/26,mb1 5.5/27,*
mb1mx5.5/31,ML5.7/1,Error ellipse: s-maj=19.7km
s-min=10.8km az=50.0
MOS ***26*** *01:29:50.6±1.4,20.84N×97.53E,h33^{km},mb5.7/18,Error*
ellipse: s-maj=19.8km s-min=9.8km az=118.3
NEIC ***26*** *01:29:52.9±1.3,20.91N×97.71E,h38^{km}±12^{km},mb5.8/22,*
Error ellipse: s-maj=11.8km s-min=7.8km az=52.0
BJI ***26*** *01:29:53.3,21.05N×97.72E,h38^{km},mb5.6*
ISC 26 01:29:50.9±0.3,**20.89N**±0.05×**97.67E**±0.06,**h33^{km},n107,**
σ1^{s}30/99,**mb5.5**/49,**Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHG	**Chiang Mai**	**2.39**	**150**	PG	**P**	**01 30 27.2**	**-1.3**
CHG				SG	**S**	**01 31 00.5**	**+3.6**
CMAR	**Chiang Mai Arr**	**2.70**	**153**	Pn	**P**	**01 30 32.3**	**-0.7**
	356nm,0.3s,baz=335,slow=15,SNR=144						
CMAR				Pg	**P**	**01 30 37.9**	**+5.0**
	1µm,0.3s,baz=331,slow=17,SNR=78						
CMAR				Sn	**Sn**	**01 31 10.2**	**+5.2**
	1µm,0.3s,baz=317,slow=16,SNR=6.1						
CMAR	**Chiang Mai Arr**	**2.70**	**153**	P	**P**	**01 30 32.3**	**-0.7**
CMAR						01 31 10.2	
CMAR				pmax	pmax		
	comp=Z,356nm,0.3s						
LSA	**Lhasa**	**10.57**	**327**	*e*P	**P**	**01 32 23.9**	**+0.7**
GTA	**Gaotai**	**18.55**	**5**	P	**P**	**01 34 09.3**	**+2.2**
GTA				AP		01 34 19.0	
GTA				XP		01 34 23.0	
GTA				AMB	AMB		
	comp=Z,369nm,1.3s						
QZH	**Quanzhou**	**19.68**	**74**	P	**P**	**01 34 20.8**	**+0.6**
QZH				AMB	AMB		
	comp=Z,220nm,1.1s						
AJM	**Ajmer**	**21.80**	**289**	*e*	**P**	**01 34 44.6**	**+2.6**
NJ2	**Nanjing**	**21.94**	**55**	*e*P	**P**	**01 34 43.8**	**+0.5**
NJ2				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.8						
TIA	**Tai'an**	**22.85**	**44**	P	**P**	**01 34 51.0**	**-1.4**
TIA				AMB	AMB		
	comp=Z,106nm,0.8s,mb5.3						
HHC	**Hu-ho-hao-te**	**23.14**	**28**	*e*P	**P**	**01 34 56.3**	**+1.1**
HHC				AP		01 35 06.0	
HHC				XP		01 35 10.0	
HHC				AMB	AMB		
	comp=Z,234nm,1.0s,mb5.6						
TGY	**Tagaytay City**	**23.18**	**103**	P	**P**	**01 34 56.7**	**+0.9**
	comp=Z,109nm,0.4s,mb5.6,baz=10,slow=4.5,SNR=2.1						
TGY	**Tagaytay City**	**23.18**	**103**	P	**P**	**01 34 56.7**	**+0.9**
TGY				pmax	pmax		
	comp=Z,109nm,0.4s						
WMQ	**Urumqi**	**24.33**	**342**	P	**P**	**01 35 09.5**	**+2.8**
WMQ				AP		01 35 14.0	
KSH	**Kashi**	**26.27**	**320**	*e*P	**P**	**01 35 27.0**	**+1.9**
SONM	**Songino Array**	**27.79**	**13**	P	**P**	**01 35 36.5**	**-2.5**
	comp=Z,11nm,0.6s,mb4.7,baz=207,slow=6.4,SNR=4.7						
AAK	**Ala-Archa**	**29.12**	**323**	P	**P**	**01 35 46.3**	**-4.6**
	comp=Z,14nm,0.6s,mb4.9						
ZAK	**Zakamensk**	**29.76**	**7**	*e*P	**P**	**01 35 57.4**	**+0.9**
ZAL	**Zalesovo**	**34.43**	**347**	P	**P**	**01 36 36.5**	**-0.8**
	comp=Z,289nm,1.2s,mb6.1,baz=325,slow=7.3,SNR=9.3						
ZAL	**Zalesovo**	**34.43**	**347**	P	**P**	**01 36 36.5**	**-0.8**
ZAL				pmax	pmax		
	comp=Z,289nm,1.2s						
NVS	**Novosibirsk**	**35.61**	**346**	*i* P	**P**	**01 36 47.5**	**+0.1**
BVAR	**Borovoye Array**	**38.33**	**333**	P	**P**	**01 37 09.2**	**-1.0**
	comp=Z,61nm,0.7s,mb5.5,baz=141,slow=9.5,SNR=9.1						
BRVK	**Borovoye**	**38.40**	**333**	*e*P	**P**	**01 37 10.3**	**-0.5**
	comp=Z,113nm,0.7s,mb5.7						
MAT	**Matsushiro**	**38.51**	**57**	P	**P**	**01 37 11.0**	**-0.9**
CHKZ	**Chkalovo**	**38.71**	**334**	*e*P	**P**	**01 37 13.0**	**-0.3**
	comp=Z,797nm,1.6s,mb6.2						
ASAJ	**Asahikawa**	**43.72**	**47**	P	**P**	**01 37 55.5**	**+0.8**
	comp=Z,70nm,0.9s,mb5.4,baz=108,slow=3.7,SNR=5.9						
ASAJ	**Asahikawa**	**43.72**	**47**	P	**P**	**01 37 55.6**	**+0.9**
ASAJ				pmax	pmax		
	comp=Z,70nm,0.9s						
MBWA	**Marble Bar**	**47.02**	**151**	*e*P	**P**	**01 38 21.1**	**-0.2**
	comp=Z,135nm,0.9s,mb5.9						
KIV	**Kislovodsk**	**50.75**	**310**	*e*P	**P**	**01 38 53.3**	**+3.5**
KIV				pmax	pmax		
	comp=N,29nm,1.0s						
KIV				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.6						
KIV	**Kislovodsk**	**50.75**	**310**	*e*P	**P**	**01 38 50.4**	**+0.6**
	comp=Z,34nm,0.7s,mb5.4						
MA2	**Magadan**	**53.78**	**30**	*e*P	**P**	**01 39 11.6**	**-0.6**
	comp=Z,89nm,0.8s,mb5.8						
WRAB	**Tennant Creek**	**54.17**	**136**	P	**P**	**01 39 10.7**	**-4.9**
	comp=Z,71nm,0.7s,mb5.7						
ASF	**Jabal al Asfar**	**54.90**	**295**	P	**P**	**01 39 20.9**	**0.0**
	comp=Z,42nm,0.8s,mb5.5,baz=293,slow=4.0,SNR=9.2						
ASAR	**Alice Springs**	**56.63**	**140**	P	**P**	**01 39 32.5**	**-0.8**
	comp=Z,40nm,0.6s,mb5.6,baz=320,slow=7.0,SNR=8.4						
OBN	**Obninsk**	**56.65**	**323**	*i* P	**P**	**01 39 27.6**	**-5.5**
OBN				pmax	pmax		
	comp=Z,419nm,1.5s,mb6.2						
NWAO	**Narrogin (SRO)**	**56.68**	**160**	P	**P**	**01 39 33.8**	**+0.1**
	comp=Z,128nm,0.8s,mb6.0,baz=332,slow=7.8,SNR=6.3						
NWAO	**Narrogin (SRO)**	**56.68**	**160**	P	**P**	**01 39 33.8**	**+0.1**
NWAO				pmax	pmax		
	comp=Z,128nm,0.8s						
NWAO	**Narrogin (SRO)**	**56.68**	**160**	*e*P	**P**	**01 39 33.5**	**-0.2**
	comp=Z,116nm,0.9s,mb5.9						
EIL	**Elat**	**56.80**	**292**	P	**P**	**01 39 34.4**	**-0.1**
	comp=Z,72nm,0.8s,mb5.8,baz=245,slow=0.6,SNR=12						
EIL	**Elat**	**56.80**	**292**	*e*P	**P**	**01 39 35.0**	**+0.4**
	comp=Z,45nm,0.7s,mb5.6						
PMG	**Port Moresby**	**57.19**	**117**	P	**P**	**01 39 36.7**	**-0.8**
	comp=Z,176nm,0.8s,mb6.1,baz=338,slow=4.0,SNR=17						
PMG	**Port Moresby**	**57.19**	**117**	P	**P**	**01 39 36.7**	**-0.8**
PMG				pmax	pmax		
	comp=Z,176nm,0.8s						
PMG	**Port Moresby**	**57.19**	**117**	*e*P	**P**	**01 39 37.1**	**-0.5**
	comp=Z,198nm,0.9s,mb6.1						
BRTR	**Keskin Array B**	**57.22**	**304**	P	**P**	**01 39 34.7**	**-2.7**
	comp=Z,31nm,1.2s,mb5.2,baz=207,slow=3.2,SNR=2.9						
BRTR	**Keskin Array B**	**57.22**	**304**	P	**P**	**01 39 34.7**	**-2.7**
BRTR				pmax	pmax		
	comp=Z,31nm,1.2s						
AKASG	**Malin Array Be**	**60.53**	**317**	P	**P**	**01 39 58.9**	**-1.3**
	comp=Z,15nm,0.5s,mb5.4,baz=75,slow=5.7,SNR=12						
AKASG	**Malin Array Be**	**60.53**	**317**	P	**P**	**01 39 58.9**	**-1.3**
AKASG				pmax	pmax		
	comp=Z,15nm,0.5s						
MLR	**Muntele Rosu**	**62.73**	**311**	P	**P**	**01 40 14.9**	**-0.2**
	comp=Z,80nm,0.8s,mb5.9,baz=13,slow=6.7,SNR=8.9						
KMBO	**Kilima Mbogo**	**62.96**	**257**	P	**P**	**01 40 16.2**	**-0.9**
	comp=Z,170nm,1.4s,mb6.0,baz=63,slow=14,SNR=3.1						
KMBO	**Kilima Mbogo**	**62.96**	**257**	P	**P**	**01 40 16.2**	**-0.9**
KMBO				pmax	pmax		
	comp=Z,170nm,1.4s						
KAF	**Kangasniemi**	**63.04**	**330**	*e*p	**P**	**01 40 18.0**	**+1.1**
FINES	**FINESS Array B**	**63.08**	**329**	P	**P**	**01 40 15.2**	**-2.0**
	comp=Z,35nm,0.6s,mb5.6,baz=104,slow=7.9,SNR=8.2						
FINES	**FINESS Array B**	**63.08**	**329**	P	**P**	**01 40 15.2**	**-2.0**
FINES				pmax	pmax		
	comp=Z,35nm,0.6s						
ARCES	**ARCESS Array B**	**64.37**	**338**	P	**P**	**01 40 25.2**	**-0.2**
	comp=Z,32nm,0.8s,mb5.4,baz=79,slow=6.2,SNR=6.3						
ARCES	**ARCESS Array B**	**64.37**	**338**	P	**P**	**01 40 25.2**	**-0.2**
ARCES				pmax	pmax		
	comp=Z,32nm,0.8s						
FX1	**Attu Island--F**	**64.92**	**40**	*e*P	**P**	**01 40 28.3**	**-0.9**
KECS	**Kecovo**	**66.26**	**315**	*e*P	**P**	**01 40 40.5**	**+2.6**
VRAC	**Vranov**	**68.72**	**316**	P	**P**	**01 40 50.8**	**-2.5**
	comp=Z,15nm,0.7s,mb5.1,baz=81,slow=7.7,SNR=2.4						
VRAC	**Vranov**	**68.72**	**316**	P	**P**	**01 40 50.8**	**-2.5**
VRAC				pmax	pmax		
	comp=Z,15nm,0.7s						
HFS	**Hagfors**	**69.15**	**328**	P	**P**	**01 40 53.7**	**-2.0**
	comp=Z,44nm,0.7s,mb5.5,baz=90,slow=7.2,SNR=6.4						
HFS	**Hagfors**	**69.15**	**328**	P	**P**	**01 40 53.7**	**-2.0**
HFS				pmax	pmax		
	comp=Z,44nm,0.7s						
PRU	**Pruhonice**	**69.94**	**317**	*e*P	**P**	**01 41 02.7**	**+1.9**
BRG	**Berggiesshubel**	**70.19**	**318**	*e*P	**P**	**01 41 05.3**	**+3.1**
BRG				pmax	pmax		
	comp=Z,114nm,1.5s,mb5.6						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRG	Berggiesshubel	70.19	318	*e*P	P	01 41 05.3	+3.1
	comp=Z,114nm,1.4s,mb5.6						
NB2	NORSAR Subarra	70.26	329	P	P	01 41 00.3	-2.2
	comp=Z,162nm,1.2s,mb5.8,baz=91,slow=4.8						
NB2	NORSAR Subarra	70.26	329	P	P	01 41 00.3	-2.2
	baz=91,slow=5.1						
NOA	NORSAR Array B	70.26	329	P	P	01 41 00.7	-1.8
	comp=Z,44nm,0.7s,mb5.5,baz=84,slow=6.1,SNR=30						
NOA	NORSAR Array B	70.26	329	P	P	01 41 00.7	-1.8
NOA				pmax	pmax		
	comp=Z,45nm,0.7s						
NAO01	NORSAR Array S	70.44	329	*e*P	P	01 41 01.4	-2.2
	comp=Z,32nm,0.6s,mb5.4						
GERES	GERESS Array B	70.67	316	P	P	01 41 03.3	-1.9
	comp=Z,14nm,0.7s,mb5.0,baz=65,slow=6.3,SNR=10						
GERES	GERESS Array B	70.67	316	P	P	01 41 03.3	-1.9
GERES				pmax	pmax		
	comp=Z,15nm,0.7s						
KHC	Kasperske Hory	70.70	316	*e*P	P	01 41 06.2	+0.8
CLL	Collm	70.70	319	*e*P	P	01 41 07.0	+1.6
CLL	Collm	70.70	319	P	P	01 41 05.0	-0.4
DAVOX	Davos	73.61	314	P	P	01 41 20.8	-1.9
	comp=Z,36nm,1.0s,mb5.2,baz=90,slow=3.0,SNR=5.3						
WLF	Walferdange	75.33	318	*e*P	P	01 41 33.5	+1.0
	comp=Z,93nm,1.0s,mb5.7						
LPG	La Plagne	76.03	314	*e*P	P	01 41 38.6	+1.9
	comp=Z,394nm,1.5s,mb5.8						
LSZ	Lusaka	77.09	248	*e*P	P	01 41 44.4	+1.1
	comp=Z,18nm,0.5s,mb5.3						
EKA	Eskdalemuir Ar	79.02	325	P	P	01 41 52.5	-0.6
	comp=Z,19nm,0.6s,mb5.2,baz=70,slow=6.2,SNR=20						
EKA	Eskdalemuir Ar	79.02	325	P	P	01 41 52.5	-0.6
EKA				pmax	pmax		
	comp=Z,19nm,0.6s						
ESK	Eskdalemuir	79.05	325	*e*P	P	01 41 51.5	-1.7
	comp=Z,26nm,0.6s,mb5.3						
COLA	College	81.08	23	*e*P	P	01 42 05.6	+1.7
	comp=Z,3.1nm,0.5s,mb4.5						
ILAR	Eielson Array	81.48	23	P	P	01 42 06.2	+0.1
	comp=Z,3.9nm,0.6s,mb4.5,baz=286,slow=4.3,SNR=8.1						
ILAR	Eielson Array	81.48	23	P	P	01 42 06.2	+0.2
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SUMG	Summit	82.25	348	*e*P	P	01 42 09.1	-0.8
	comp=Z,167nm,1.1s,mb5.9						
KDAK	Kodiak Island	82.53	31	*e*P	P	01 42 12.3	+0.8
	comp=Z,79nm,1.4s,mb5.5						
LBTB	Lobatse	83.57	240	P	P	01 42 18.4	+0.8
	comp=Z,116nm,1.1s,mb5.9						
INK	Inuvik	83.62	17	P	P	01 42 17.1	+0.3
	comp=Z,70nm,1.1s,mb5.7,baz=342,slow=4.1,SNR=16						
INK	Inuvik	83.62	17	P	P	01 42 17.2	+0.4
INK				pmax	pmax		
	comp=Z,70nm,1.1s						
INK	Inuvik	83.62	17	*e*P	P	01 42 16.9	+0.1
RES	Resolute Bay	84.31	3	*e*P	P	01 42 20.7	+0.4
	comp=Z,119nm,0.9s,mb6.0						
DAWY	Dawson	84.56	22	*e*P	P	01 42 22.1	+0.5
ESDC	Sonseca Array	85.42	311	P	P	01 42 27.3	+0.7
	comp=Z,5.0nm,0.7s,mb4.8,baz=44,slow=5.6,SNR=12						
BOSA	Boshof	85.44	237	*e*P	P	01 42 27.8	+0.9
	comp=Z,114nm,1.2s,mb5.9						
YKA	Yellowknife Ar	93.05	14	P	P	01 43 02.4	+0.3
	comp=Z,14nm,1.0s,mb5.3,baz=329,slow=4.4,SNR=8.9						
YKA	Yellowknife Ar	93.05	14	P	P	01 43 02.4	+0.3
YKA				pmax	pmax		
	comp=Z,14nm,1.0s						
YKA	Yellowknife Ar	93.05	14	P	P	01 43 02.4	+0.3
ANMO	Albuquerque	119.92	23	PKP	PKPdf	01 48 39.8	+1.2
	comp=Z,15nm,1.1s,baz=315,slow=2.7,SNR=5.2						
TXAR	Lajitas Array	126.00	23	PKP	PKPdf	01 48 51.8	+1.4
	comp=Z,5.3nm,0.7s,baz=63,slow=0.4,SNR=7.3						
JCT	Junction City	126.23	19	*e*PKPdf	PKPdf	01 48 51.7	+0.9
USHA	Ushuaia	144.52	194	PKP	PKPdf	01 49 24.7	+1.1
	comp=Z,20nm,0.7s,baz=113,slow=6.9,SNR=12						
PCRV	Puerto La Cruz	144.57	329	PKP	PKPdf	01 49 26.2	+1.2
	comp=Z,17nm,0.7s,baz=282,slow=3.9,SNR=5.9						
BAO	Brasilia Array	147.02	273	PKP	PKPdf	01 49 33.6	+4.5
BAO				*e*		02 08 22.7	
BDFB	Brasilia	147.04	273	PKPbc	PKPdf	01 49 31.7	+2.5
	comp=Z,47nm,0.9s,baz=67,slow=2.9,SNR=13						
BDFB	Brasilia	147.04	273	PKP2	PKPab	01 49 31.7	-3.1
BDFB				pmax	pmax		
	comp=Z,47nm,0.9s						
SDV	Santo Domingo	148.26	338	PKPbc	PKPdf	01 49 33.9	+2.7
	comp=Z,127nm,0.8s,baz=156,slow=0.2,SNR=32						
ROSC	El Rosal	153.24	342	PKPbc	PKPdf	01 49 48.2	+10
	comp=Z,35nm,0.8s,baz=150,slow=5.5,SNR=11						
LPAZ	La Paz	165.79	286	*e*PKPdf	PKPdf	01 49 55.5	+2.5

*IDC **26** 01:30:11.2±0.7, 8.90N×93.61E, mb5.4/21, mb1 5.4/21, mb1mx5.4/26, Error ellipse: s-maj=23.2km s-min=20.1km az=34.0*

*NEIC **26** 01:30:15.7±0.5, 8.83N×93.71E, h30^{km}, mb5.5/9, Error ellipse: s-maj=18.4km s-min=12.2km az=69.0*

ISC 26 01:30:14.2±0.6, **8.8N**±0.1×**93.62E**±0.09, **h30^{km}, n64,** σ**1^{s}03**/52, **mb5.4**/27, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIS	Vishakhapatnam	13.35	312	*e*P	P	01 33 15.0	-9.3
MDRS	Chennai	13.79	289	*e*P	P	01 33 21.4	-8.9
KGD	Kothagudem	15.31	306	*e*P	P	01 33 43.9	-6.3
KOD	Kodaikanal	15.99	276	*e*P	P	01 33 58.3	-0.7
BOK	Bokaro	16.61	334	*e*P	P	01 33 54.1	-13
BOK				*e*		01 34 13.3	
	comp=Z,576nm,1.1s						
SHL	Shillong	16.72	355	*e*P	P	01 33 54.5	-14
BLSP	Bilaspur	17.22	321	*e*P	P	01 34 04.8	-10
MNGI	Mangalore	18.90	284	*e*P	P	01 34 26.6	-8.6
MNGI				*e*		01 34 48.2	
	comp=Z,651nm,1.5s						
GOA	Goa	20.44	291	*e*P	P	01 34 52.0	-0.1
LSA	Lhasa	20.88	354	*e*P	P	01 34 56.5	0.0
	comp=Z,180nm,0.5s						
BHPL	Bhopal	21.12	315	*e*P	P	01 34 51.0	-8.0
POO	Poona	21.47	299	*e*P	P	01 34 53.8	-8.8
POO				*e*		01 34 55.7	
	comp=Z,813nm,1.2s						
BOM	Bombay	22.52	299	*e*P	P	01 35 02.6	-11
NDI	New Delhi	25.06	324	*e*P	P	01 35 29.6	-8.1
NDI				*e*		01 35 32.8	
	comp=Z,652nm,1.7s						
SONM	Songino Array	40.34	13	P	P	01 37 51.0	+0.2
	comp=Z,18nm,1.0s,mb4.8,baz=197,slow=8.8,SNR=3.2						
SONM				PcP	PcP	01 39 54.2	-0.3
	comp=Z,12nm,0.6s,baz=204,slow=3.6,SNR=5.2						
ZAL	Zalesovo	45.53	353	P	P	01 38 31.1	-1.8
	comp=Z,55nm,0.8s,mb5.6,baz=304,slow=5.1,SNR=5.4						
NWAO	Narrogin (SRO)	47.23	153	P	P	01 38 47.0	+0.4
	comp=Z,134nm,1.1s,mb5.8,baz=315,slow=8.9,SNR=7.7						
NWAO	Narrogin (SRO)	47.23	153	*e*P	P	01 38 45.4	-1.3
	comp=Z,58nm,0.8s,mb5.6						
BVAR	Borovoye Array	47.92	341	P	P	01 38 51.4	-0.4
	comp=Z,34nm,0.8s,mb5.4,baz=141,slow=8.5,SNR=8.5						
BRVK	Borovoye	47.98	341	*e*P	P	01 38 52.4	+0.1
	comp=Z,14nm,0.5s,mb5.2						
CHKZ	Chkalovo	48.40	342	*e*P	P	01 38 55.7	+0.2
	comp=Z,54nm,0.3s,mb6.0						
CBIJ	Chichi jima	49.29	62	P	P	01 39 01.9	-0.9
	comp=Z,166nm,1.0s,mb6.0,baz=64,slow=24,SNR=2.7						
GNI	Garni	53.40	314	P	P	01 39 33.9	+0.3
	comp=Z,41nm,0.8s,mb5.4,baz=66,slow=14,SNR=3.0						
KIV	Kislovodsk	56.26	318	*e*P	P	01 39 54.5	+0.1
	comp=Z,34nm,0.6s,mb5.5						
KMBO	Kilima Mbogo	57.03	263	P	P	01 39 58.5	-1.7
	comp=Z,5.3nm,0.7s,mb4.7,baz=32,slow=12,SNR=3.5						
EIL	Elat	58.51	299	P	P	01 40 09.7	-0.7
	comp=Z,50nm,0.9s,mb5.5,baz=98,slow=5.0,SNR=2.7						
BRTR	Keskin Array B	61.41	310	P	P	01 40 28.1	-2.1
	comp=Z,24nm,0.8s,mb5.4,baz=128,slow=6.0,SNR=6.5						
BRTR				PcP	PcP	01 41 09.3	-2.5
	comp=Z,21nm,0.9s,baz=124,slow=5.4,SNR=2.3						
AKASG	Malin Array Be	67.08	321	P	P	01 41 05.0	-2.1
	comp=Z,8.4nm,0.6s,mb5.0,baz=108,slow=3.3,SNR=4.2						
FINES	FINESS Array B	71.62	332	P	P	01 41 34.4	-0.4
	comp=Z,23nm,0.6s,mb5.3,baz=93,slow=6.1,SNR=7.2						
KAF	Kangasniemi	71.70	333	*e*p	P	01 41 36.6	+1.4
KOLL	Kolacno	73.65	318	*e*P	P	01 41 47.3	+0.4
ARCES	ARCESS Array B	74.19	340	P	P	01 41 50.0	+0.4
	comp=Z,35nm,0.7s,mb5.4,baz=101,slow=6.3,SNR=6.5						
ZST	Bratislava	74.48	318	*e*P	P	01 41 52.6	+0.9
DPC	Dobruska-Polom	75.14	320	*e*P	P	01 41 57.0	+1.5
KSP	Ksiaz	75.20	320	*e*P	P	01 41 57.1	+1.3
PRU	Pruhonice	76.27	319	*e*P	P	01 42 02.8	+1.0
GERES	GERESS Array B	76.77	318	P	P	01 42 03.9	-0.8
	comp=Z,30nm,0.8s,mb5.3,baz=80,slow=5.8,SNR=5.7						
KHC	Kasperske Hory	76.86	318	*e*P	P	01 42 05.7	+0.5
HFS	Hagfors	77.37	330	P	P	01 42 06.4	-1.4
	comp=Z,24nm,0.7s,mb5.2,baz=94,slow=5.9,SNR=5.9						
NB2	NORSAR Subarra	78.64	331	P	P	01 42 13.9	-0.9
	comp=Z,9.9nm,0.6s,mb4.9,baz=98,slow=5.0						
NB2	NORSAR Subarra	78.64	331	P	P	01 42 13.9	-0.9
	baz=98,slow=5.1						
NOA	NORSAR Array B	78.64	331	P	P	01 42 13.8	-1.0
	comp=Z,18nm,0.8s,mb5.1,baz=91,slow=5.7,SNR=3.9						
NOA	NORSAR Array B	78.64	331	P	P	01 42 13.8	-1.0
DAVOX	Davos	79.34	316	P	P	01 42 20.1	+1.2
	comp=Z,14nm,0.4s,mb5.2,baz=129,slow=7.1,SNR=5.6						
HAU	Haudompre	81.68	317	*e*P	P	01 42 31.5	+0.3
	comp=Z,134nm,1.0s,mb5.5						
EKA	Eskdalemuir Ar	86.64	325	P	P	01 42 57.4	+1.3
	comp=Z,38nm,0.9s,mb5.6,baz=96,slow=5.3,SNR=8.8						
ESDC	Sonseca Array	90.21	310	P	P	01 43 15.0	+1.5
	comp=Z,8.7nm,0.6s,mb5.3,baz=58,slow=4.5,SNR=16						
COLA	College	93.64	22	P	P	01 43 29.6	+1.0
	comp=Z,6.3nm,0.6s,mb5.2						
ILAR	Eielson Array	94.05	22	P	P	01 43 30.4	-0.1
	comp=Z,15nm,0.7s,mb5.5,baz=313,slow=4.9,SNR=7.5						
SBA	Scott Base	95.07	168	*e*P	P	01 43 35.3	+0.2
	comp=Z,1.9nm,0.6s,mb4.7						
INK	Inuvik	96.21	16	P	P	01 43 39.1	-1.3
	comp=Z,17nm,0.8s,mb5.5,baz=353,slow=7.3,SNR=3.0						
DBIC	Dimbokro	97.30	278	P	P	01 43 48.0	+1.5
	comp=Z,22nm,1.0s,mb5.5,baz=88,slow=7.1,SNR=4.2						
YKA	Yellowknife Ar	105.61	13	PP	Pdif	01 44 31.1	+8.7
	comp=Z,3.4nm,0.9s,baz=336,slow=7.8,SNR=4.2						
YKA	Yellowknife Ar	105.61	13	PKKPbc		02 00 00.3	
	comp=Z,0.6nm,0.5s,baz=153,slow=3.3,SNR=6.8						
NVAR	Mina Array Bea	124.36	30	PKP	PKPdf	01 49 12.2	-3.8
	comp=Z,3.5nm,0.6s,baz=303,slow=2.3,SNR=5.6						
PDAR	Pinedale Array	124.45	21	PKP	PKPdf	01 49 11.8	-4.3
	comp=Z,4.5nm,0.7s,baz=126,slow=2.7,SNR=5.1						
SADO	Sadowa	126.25	354	PKP	PKPdf	01 49 14.7	-4.7
	comp=Z,3.7nm,0.6s,baz=329,slow=7.8,SNR=5.1						
BDFB	Brasilia	141.95	256	PKP	PKPdf	01 49 48.0	-1.4
	comp=Z,22nm,0.8s,baz=298,slow=6.0,SNR=5.4						
SJG	San Juan	146.59	323	PKPbc	PKPbc	01 49 55.2	+1.6
	comp=Z,26nm,0.6s,baz=46,slow=7.0,SNR=7.9						
SJG	San Juan	146.59	323	PKPbc	PKPbc	01 49 55.2	+1.6
SJG				*e*		01 49 55.3	
RPN	Rapa Nui	151.68	133	*e*PKPbc	PKPdf	01 50 07.3	+2.1
LPAZ	La Paz	160.72	246	PKP	PKPdf	01 50 15.3	-1.7
	comp=Z,13nm,1.1s,baz=25,slow=8.3,SNR=3.8						
LPAZ	La Paz	160.72	246	PKP	PKPdf	01 50 15.3	-1.7
OTAV	Otavalo	168.01	318	PKPdf	PKPdf	01 50 23.5	-0.2

*IDC **26** 01:33:18.3±0.8, 7.74N×93.68E, mb5.0/15, mb1 5.1/15, mb1mx5.1/21, Error ellipse: s-maj=36.9km s-min=23.1km az=47.0*

*NEIC **26** 01:33:22.4±0.4, 7.76N×93.71E, mb5.5/9, Error ellipse: s-maj=22.2km s-min=11.7km az=49.0*

*BJI **26** 01:33:22.3, 7.80N×93.70E, h25^{km}, mb6.0*

ISC 26 01:33:21.6±0.8, **7.8N**±0.2×**93.7E**±0.1, **h33^{km}, (h32^{km}**±.9^{km}**:pP-P), n50,** σ**1^{s}00**/30, **mb5.3**/24, **2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	21.98	354	P	P	01 38 18.6	+4.2
	562nm,1.3s,mb5.8						
GTA	Gaotai	32.00	9	P	P	01 39 52.3	+5.2
GTA				AP	pP	01 40 01.3	+4.6
GTA				AMB	AMB		
	comp=Z,246nm,0.9s,mb6.0						
HHC	Hu-ho-hao-te	36.59	23	*e*P	P	01 40 31.5	+5.0
HHC				AP	pP	01 40 41.3	+5.1
HHC				XP	sP	01 40 45.0	+4.5
HHC				AMB	AMB		
	comp=Z,282nm,1.0s,mb6.0						
SONM	Songino Array	41.37	13	P	P	01 41 06.3	+0.1
	comp=Z,22nm,1.0s,mb4.8,baz=207,slow=2.8,SNR=2.8						
SONM				PcP	PcP	01 43 05.9	+1.2
	comp=Z,18nm,0.8s,baz=225,slow=2.0,SNR=2.3						
KS15	Wonju Array Si	42.79	41	*e*P	P	01 41 16.9	-1.1
NWAO	Narrogin (SRO)	46.22	152	*e*P	P	01 41 39.7	-5.9
	comp=Z,7.8nm,0.5s,mb4.9						
ZAL	Zalesovo	46.62	353	P	P	01 41 48.5	+0.1
	comp=Z,18nm,0.7s,mb5.1,baz=226,slow=10,SNR=2.5						
ZAL	Zalesovo	46.62	353	P	P	01 41 48.5	+0.1
WRAB	Tennant Creek	48.51	125	P	P	01 42 05.9	+2.2
	comp=Z,41nm,0.5s,mb5.7						
WRAB				*e*	pP	01 42 15.5	+2.0
BVAR	Borovoye Array	48.98	341	P	P	01 42 06.8	-0.1
	comp=Z,19nm,0.8s,mb5.2,baz=156,slow=5.6,SNR=3.1						
BRVK	Borovoye	49.05	341	P	P	01 42 08.6	+1.3
	comp=Z,11nm,0.6s,mb5.1						
CHKZ	Chkalovo	49.47	342	*e*P	P	01 42 11.2	+0.6
	comp=Z,594nm,1.4s,mb6.4						
ASAR	Alice Springs	50.14	130	P	P	01 42 15.3	-0.8
	comp=Z,33nm,0.9s,mb5.4,baz=303,slow=8.1,SNR=4.8						
KIV	Kislovodsk	57.15	318	*e*	P	01 43 07.9	+0.3
BRTR	Keskin Array B	62.21	311	P	P	01 43 40.3	-2.1
	comp=Z,24nm,1.1s,mb5.2,baz=146,slow=5.4,SNR=3.6						
AKASG	Malin Array Be	68.01	322	P	P	01 44 16.6	-3.0
	comp=Z,3.9nm,0.7s,mb4.5,baz=83,slow=5.0,SNR=2.3						
IDI	Anoyia	68.32	305	P	P	01 44 22.2	+0.4
	comp=Z,186nm,1.2s,mb6.0,baz=70,slow=7.3,SNR=3.8						
FINES	FINESS Array B	72.64	332	P	P	01 44 47.4	-0.1
	comp=Z,21nm,0.7s,mb5.2,baz=111,slow=8.6,SNR=4.0						
KAF	Kangasniemi	72.72	333	*e*p	P	01 44 48.1	+0.2
	baz=104,slow=5.6						
ARCES	ARCESS Array B	75.25	340	P	P	01 45 01.5	-1.0
	comp=Z,8.2nm,0.9s,mb4.6,baz=100,slow=5.5,SNR=2.2						
GERES	GERESS Array B	77.66	318	P	P	01 45 15.7	-0.8
	comp=Z,9.8nm,0.8s,mb4.8,baz=90,slow=3.9,SNR=2.9						
HFS	Hagfors	78.37	330	P	P	01 45 20.5	+0.3
	comp=Z,33nm,0.5s,mb5.5,baz=112,slow=8.0,SNR=4.9						
NB2	NORSAR Subarra	79.65	331	P	P	01 45 27.3	+0.2
	comp=Z,40nm,0.8s,mb5.4,baz=92,slow=6.2						
NB2	NORSAR Subarra	79.65	331	P	P	01 45 27.3	+0.2
	baz=92,slow=6.2						
NOA	NORSAR Array B	79.65	331	P	P	01 45 27.6	+0.5
	comp=Z,7.0nm,0.7s,mb4.7,baz=99,slow=4.9,SNR=6.9						
NAO01	NORSAR Array S	79.80	330	*e*P	P	01 45 27.8	-0.1
	comp=Z,45nm,0.8s,mb5.5						
NAO01				*e*		01 45 34.4	
LPL	La Plagne	82.44	315	*e*P	P	01 45 49.8	+7.7
	comp=Z,102nm,0.8s,mb5.5						
EKA	Eskdalemuir Ar	87.60	325	P	P	01 46 08.9	+1.4
	comp=Z,32nm,0.9s,mb5.5,baz=80,slow=5.1,SNR=4.8						
ESDC	Sonseca Array	91.00	310	P	P	01 46 24.7	+0.7
	comp=Z,2.9nm,0.6s,mb4.8,baz=63,slow=3.9,SNR=5.3						
ILAR	Eielson Array	95.01	22	P	P	01 46 41.6	-0.2
	comp=Z,7.0nm,1.1s,mb5.0,baz=294,slow=3.8,SNR=2.7						
ULM	Lac du Bonnet	121.64	7	PKP	PKPdf	01 52 15.6	+3.5
	comp=Z,13nm,0.7s,baz=346,slow=3.0,SNR=8.4						
EYMN	Ely	124.36	4	*e*PKPdf	PKPdf	01 52 17.7	+0.2
SNOW	Snow King Moun	124.39	21	*e*PKPdf	PKPdf	01 52 21.2	+3.5
REDW	Red Top Meadow	124.44	22	*e*PKPdf	PKPdf	01 52 21.1	+3.3
NVAR	Mina Array Bea	125.23	31	PKP	PKPdf	01 52 21.7	+2.2
	comp=Z,1.9nm,0.7s,baz=288,slow=2.9,SNR=3.0						
NVAR	Mina Array Bea	125.23	31	PKP	PKPdf	01 52 21.7	+2.2
BW06	Boulder Array	125.43	21	PKPdf	PKPdf	01 52 20.7	+1.0
PDAR	Pinedale Array	125.43	21	PKP	PKPdf	01 52 20.6	+1.0
	comp=Z,2.2nm,0.9s,baz=124,slow=3.3,SNR=2.7						
SADO	Sadowa	127.34	354	PKP	PKPdf	01 52 24.9	+1.5
	comp=Z,6.5nm,1.0s,baz=342,slow=3.2,SNR=1.8						
ANMO	Albuquerque	133.44	23	PKP	PKPdf	01 52 37.0	+1.8
	comp=Z,3.5nm,1.1s,baz=27,slow=2.3,SNR=2.3						
WVT	Waverly	136.33	2	*e*PKPdf	PKPdf	01 52 42.5	+2.0
MIAR	Mount Ida	137.37	9	*e*PKPdf	PKPdf	01 52 45.9	+3.4
TXAR	Lajitas Array	139.50	24	PKP	PKPdf	01 52 48.2	+1.7
	comp=Z,2.4nm,0.8s,baz=135,slow=1.3,SNR=3.6						
TXAR	Lajitas Array	139.50	24	PKP	PKPdf	01 52 48.2	+1.7
FDF	Fort de France	146.55	312⇓	*e*P	PKPdf	01 53 08.3	+9.2
BIM	Bigot	146.63	311⇓	*e*P	PKPdf	01 53 08.8	+10
SJG	San Juan	147.53	322	PKPbc	PKPdf	01 53 06.1	+5.4
	comp=Z,5.8nm,0.5s,baz=94,slow=13,SNR=2.6						
SJG	San Juan	147.53	322	PKPbc	PKPdf	01 53 06.1	+5.4
SJG				PKPab	PKPab	01 53 06.8	-0.7
RPN	Rapa Nui	150.84	134	*e*PKPbc	PKPdf	01 53 12.8	+7.1
PCRV	Puerto La Cruz	152.06	309	PKPbc	PKPdf	01 53 16.0	+8.2
	comp=Z,9.6nm,0.7s,baz=332,slow=2.3,SNR=3.6						

IDC 26 01:34:30.8±5.2, **11.32N**×**92.37E, mb5.0**/8, **mb1 5.2**/8, **mb1mx4.9**/19, **Error ellipse: s-maj=132.0km s-min=56.1km az=161.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	38.26	15	P	P	01 41 52.9	-1.5
	13nm,0.8s,baz=213,slow=8.1,SNR=4.6						
FINES	FINESS Array B	68.87	332	P	P	01 45 37.2	-2.0
	121nm,1.4s,baz=116,slow=8.0,SNR=2.1						
ARCES	ARCESS Array B	71.45	340	P	P	01 45 52.5	-2.2
	8.6nm,0.5s,baz=98,slow=6.4,SNR=5.3						
GERES	GERESS Array B	74.12	318	P	P	01 46 09.3	-1.4
	7.3nm,0.7s,baz=98,slow=6.9,SNR=2.1						
HFS	Hagfors	74.62	329	P	P	01 46 11.9	-1.5
	22nm,0.8s,baz=112,slow=7.8,SNR=2.4						
NB2	NORSAR Subarra	75.89	330	P	P	01 46 18.7	-2.0
	8.6nm,0.6s,baz=95,slow=5.0						
NB2	NORSAR Subarra	75.89	330	P	P	01 46 18.7	-2.0
	baz=95,slow=5.1						
NOA	NORSAR Array B	75.89	330	P	P	01 46 18.7	-2.0
	7.6nm,0.7s,baz=97,slow=5.5,SNR=2.6						
EKA	Eskdalemuir Ar	83.92	325	P	P	01 47 03.1	-0.7
	8.9nm,0.9s,baz=91,slow=5.8,SNR=3.0						
ILAR	Eielson Array	92.22	22	P	P	01 47 42.2	-1.2
	2.8nm,0.6s,baz=284,slow=5.5,SNR=6.6						

*IDC **26** 01:35:47.9±1.3, 10.69N×91.65E, mb4.9/6, mb1 5.1/7, mb1mx4.8/19, Error ellipse: s-maj=46.1km s-min=29.4km az=62.0*

ISC 26 01:35:50.8±1.2, **10.7N**±0.2×**91.8E**±0.2, **h33^{km}, n8,** σ**0^{s}92**/7, **mb4.9**/6, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.39	41	Pn	P	01 38 20.8	+0.2
	baz=222,slow=19,SNR=1.6						
ZAL	Zalesovo	43.48	354	P	P	01 43 51.8	-0.7
	15nm,0.5s,mb5.0,baz=314,slow=5.2,SNR=5.4						
BVAR	Borovoye Array	45.58	342	P	P	01 44 08.4	-1.1
	15nm,0.6s,mb5.1,baz=146,slow=11,SNR=3.5						
ASAR	Alice Springs	53.53	130	P	P	01 45 10.6	-0.2
	11nm,0.9s,mb4.8,baz=308,slow=7.0,SNR=2.3						
FINES	FINESS Array B	69.12	332	P	P	01 46 57.2	+1.7
	11nm,0.9s,mb4.8,baz=110,slow=8.1,SNR=3.9						
ARCES	ARCESS Array B	71.82	340	P	P	01 47 12.7	+1.0
	5.9nm,0.6s,mb4.7,baz=98,slow=6.5,SNR=5.1						
GERES	GERESS Array B	74.16	318	P	P	01 47 25.1	-0.7
	12nm,0.9s,mb4.8,baz=90,slow=5.3,SNR=3.5						
CPUP	Villa Florida	146.93	238	PKPbc	PKPbc	01 55 33.0	+2.8
	0.0nm,0.3s,baz=110,slow=12,SNR=1.6						

*IDC **26** 01:36:38.7±1.0, 6.45N×94.69E, mb5.0/11, mb1 5.1/12, mb1mx4.9/21, ML5.9/1, Error ellipse: s-maj=33.4km s-min=19.7km az=42.0*

ISC 26 01:36:42.2±0.8, **6.6N**±0.1×**94.9E**±0.1, **h33^{km}, n13,** σ**1^{s}20**/12, **mb5.0**/11, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.40	18	Pn	P	01 39 38.1	-1.2
	20nm,0.3s,baz=0.2,slow=22,SNR=8.0						
SONM	Songino Array	42.21	12	P	P	01 44 36.8	+3.0
	21nm,1.0s,mb4.7,baz=211,slow=7.1,SNR=2.4						
WRA	Warramunga Arr	46.96	125	P	P	01 45 13.0	+0.8
	34nm,0.8s,mb5.3,baz=304,slow=8.9,SNR=4.9						
ZAL	Zalesovo	47.86	352	P	P	01 45 19.5	+0.7
	18nm,0.7s,mb5.2,baz=283,slow=9.7,SNR=3.4						
ASAR	Alice Springs	48.58	130	P	P	01 45 23.9	-0.9
	12nm,0.6s,mb5.1,baz=303,slow=7.4,SNR=5.5						
CBIJ	Chichi jima	49.27	60	P	P	01 45 30.2	+0.1
	88nm,0.7s,mb5.9,baz=297,slow=20,SNR=4.5						
BVAR	Borovoye Array	50.38	341	P	P	01 45 37.9	-0.4
	14nm,0.9s,mb5.0,baz=153,slow=6.4,SNR=2.4						
BRTR	Keskin Array B	63.78	311	P	P	01 47 13.9	+0.4
	7.8nm,0.8s,mb4.8,baz=138,slow=6.0,SNR=5.3						
AKASG	Malin Array Be	69.56	322	P	P	01 47 51.7	+1.9
	2.5nm,0.5s,mb4.4,baz=82,slow=4.8,SNR=5.5						
IDI	Anoyia	69.86	305	P	P	01 47 50.3	-1.6
	35nm,1.0s,mb5.3,baz=244,slow=1.2,SNR=6.6						
FINES	FINESS Array B	74.13	332	P	P	01 48 21.2	+4.4
	6.0nm,0.5s,mb4.8,baz=95,slow=6.1,SNR=5.6						
GERES	GERESS Array B	79.22	318	P	P	01 48 44.7	-1.1
	4.1nm,0.7s,mb4.5,baz=73,slow=5.3,SNR=3.4						
TXAR	Lajitas Array	140.03	26	PKhKP		01 55 54.9	
	4.0nm,0.9s,baz=243,slow=2.0,SNR=4.2						

*IDC **26** 01:38:27.3±1.4, 5.03N×93.53E, mb4.8/8, mb1 5.0/9, mb1mx4.7/19, Error ellipse: s-maj=64.8km s-min=21.7km az=53.0*

ISC 26 01:38:30.2±1.0, **4.9N**±0.1×**93.5E**±0.2, **h33^{km}, n9,** σ**0^{s}71**/9, **mb4.7**/8, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.48	21	Pn	P	01 41 55.8	+0.9
	baz=208,slow=14,SNR=2.0						
SONM	Songino Array	44.17	13	P	P	01 46 37.1	-0.6
	15nm,0.8s,mb4.8,baz=192,slow=6.5,SNR=3.7						
WRA	Warramunga Arr	47.18	123	P	P	01 47 01.5	-0.5
	8.2nm,0.6s,mb4.8,baz=306,slow=9.1,SNR=2.2						
ASAR	Alice Springs	48.62	128	P	P	01 47 13.6	+0.5
	10nm,0.6s,mb5.0,baz=304,slow=8.2,SNR=4.0						
ZAL	Zalesovo	49.37	353	P	P	01 47 17.2	-1.3
	10nm,0.5s,mb5.2,baz=282,slow=2.3,SNR=3.7						
BVAR	Borovoye Array	51.56	342	P	P	01 47 35.1	-0.1
	4.0nm,0.5s,mb4.7,baz=134,slow=9.1,SNR=5.2						
FINES	FINESS Array B	74.99	333	P	P	01 50 09.7	-0.2
	5.1nm,0.5s,mb4.7,baz=97,slow=6.5,SNR=3.9						
GERES	GERESS Array B	79.56	319	P	P	01 50 36.6	+1.0
	4.9nm,0.7s,mb4.5,baz=101,slow=5.0,SNR=3.2						
NOA	NORSAR Array B	81.95	331	P	P	01 50 48.3	+0.3
	2.0nm,0.7s,mb4.2,baz=97,slow=5.5,SNR=2.7						

*IDC **26** 01:38:44.5±0.7, 13.13N×93.38E, mb4.7/14, mb1 4.9/15, mb1mx4.8/21, ML5.2/1, Error ellipse: s-maj=28.5km s-min=18.3km az=46.0*

ISC 26 01:38:48.2±0.7, **13.2N**±0.1×**93.5E**±0.1, **h33^{km}, n21,** σ**0^{s}42**/15, **mb4.7**/14, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.40	44	Pn	Pn	01 40 36.1	-0.6
	10nm,0.3s,baz=235,slow=15,SNR=10.0						
SONM	Songino Array	36.17	15	P	P	01 45 50.0	+0.6
	8.5nm,0.8s,mb4.7,baz=195,slow=9.2,SNR=4.2						
ZAL	Zalesovo	41.23	352	P	P	01 46 31.4	-0.1
	11nm,0.6s,mb4.7,baz=325,slow=7.7,SNR=3.0						
ASAJ	Asahikawa	51.92	44	P	P	01 47 56.1	+0.3
	17nm,0.7s,mb5.1,baz=274,slow=9.8,SNR=4.2						
WRA	Warramunga Arr	51.94	129	P	P	01 47 56.1	-0.3
	11nm,0.6s,mb5.0,baz=306,slow=8.6,SNR=4.2						
ASAR	Alice Springs	53.87	133	P	P	01 48 10.8	+0.1
	10.0nm,0.4s,mb5.1,baz=313,slow=6.9,SNR=9.5						
BRTR	Keskin Array B	58.58	309	P	P	01 48 43.3	-0.9
	3.8nm,0.6s,mb4.6,baz=130,slow=6.9,SNR=4.5						
FINES	FINESS Array B	67.76	331	P	P	01 49 44.0	-0.4
	24nm,1.2s,mb5.1,baz=101,slow=7.1,SNR=4.3						
ARCES	ARCESS Array B	70.09	340	P	P	01 49 58.8	+0.2
	5.9nm,0.7s,mb4.7,baz=90,slow=7.2,SNR=3.6						
GERES	GERESS Array B	73.50	317	P	P	01 50 19.4	+0.1
	6.7nm,0.6s,mb4.7,baz=90,slow=6.1,SNR=7.4						
NOA	NORSAR Array B	74.83	330	P	P	01 50 26.4	-0.3
	2.5nm,0.6s,mb4.3,baz=90,slow=5.7,SNR=3.3						
EKA	Eskdalemuir Ar	83.02	325	P	P	01 51 12.1	+0.6
	3.9nm,0.7s,mb4.5,baz=84,slow=5.8,SNR=3.7						
ESDC	Sonseca Array	87.34	310	P	P	01 51 33.5	+0.3
	0.6nm,0.6s,mb4.0,baz=62,slow=4.1,SNR=3.4						
ILAR	Eielson Array	90.07	22	P	P	01 51 45.6	0.0
	3.7nm,0.7s,mb4.8,baz=306,slow=4.8,SNR=6.7						
INK	Inuvik	92.08	16	P	P	01 51 55.3	+0.4
	5.5nm,0.7s,mb5.0,baz=329,slow=3.9,SNR=6.9						
PDAR	Pinedale Array	120.43	20	PKP	PKPdf	01 57 37.8	+1.2
	1.5nm,0.6s,baz=73,slow=2.7,SNR=9.0						
NVAR	Mina Array Bea	120.64	29	PKP	PKPdf	01 57 37.1	0.0
	2.6nm,0.6s,baz=308,slow=2.3,SNR=6.1						
ANMO	Albuquerque	128.51	21	PKP	PKPdf	01 57 55.5	+3.1
	2.6nm,0.7s,baz=341,slow=3.2,SNR=5.7						
TXAR	Lajitas Array	134.59	21	PKP	PKPdf	01 58 07.0	+2.9
	2.0nm,0.5s,baz=151,slow=0.3,SNR=8.4						
PCRV	Puerto La Cruz	148.23	316	PKPbc	PKPdf	01 58 32.5	+4.1
	8.7nm,0.5s,baz=358,slow=4.1,SNR=5.2						
SDV	Santo Domingo	153.00	324	PKPbc	PKPdf	01 58 44.5	+8.8
	5.1nm,0.7s,baz=151,slow=4.8,SNR=4.5						

IDC 26 01:39:28.3±4.3**, 5.93N×93.78E, mb5.1**/2**, mb1 5.4**/2**, mb1mx4.5**/16**, Error ellipse: s-maj=334.0km s-min=43.0km az=49.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	47.46	124	P	P	01 48 05.3	-1.9
	40nm,0.7s,baz=302,slow=9.2,SNR=6.9						
ASAR	Alice Springs	48.98	128	P	P	01 48 16.9	-2.0
	3.7nm,0.4s,baz=305,slow=6.9,SNR=4.9						
NVAR	Mina Array Bea	126.76	31	PKP	PKPdf	01 58 34.9	-1.3
	1.8nm,0.5s,baz=286,slow=3.1,SNR=4.4						
PDAR	Pinedale Array	127.09	21	PKP	PKPdf	01 58 34.2	-2.5
	2.5nm,0.7s,baz=86,slow=1.3,SNR=4.3						
TXAR	Lajitas Array	141.13	25	PKP	PKPdf	01 59 03.1	-0.3
	2.7nm,0.7s,baz=334,slow=0.4,SNR=6.2						

IDC 26 01:39:54.6±1.2**, 10.93N×92.87E, mb4.9**/4**, mb1 5.0**/4**, mb1mx4.6**/18**, Error ellipse: s-maj=85.2km s-min=28.0km az=58.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	45.71	341	P	P	01 48 16.8	-2.3
	8.3nm,0.6s,baz=143,slow=7.2,SNR=2.8						
ASAR	Alice Springs	52.84	131	P	P	01 49 12.4	-2.2
	43nm,0.9s,baz=308,slow=7.5,SNR=7.4						
FINES	FINESS Array B	69.44	332	P	P	01 51 04.5	-1.9
	5.3nm,0.6s,baz=101,slow=7.1,SNR=2.9						
ARCES	ARCESS Array B	71.98	340	P	P	01 51 20.1	-1.6
	5.8nm,0.6s,baz=99,slow=6.3,SNR=5.5						

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*IDC **26** 01:40:02.2±0.5, 5.82N×93.14E, mb5.3/27, mb1 5.3/28, mb1mx5.3/31, ML5.2/1, Error ellipse: s-maj=19.5km s-min=13.1km az=27.0*
*MOS **26** 01:40:05.9±0.7, 5.90N×93.23E, h33^{km}, mb5.5/18, Error ellipse: s-maj=14.4km s-min=7.9km az=123.5*
*BJI **26** 01:40:06.3, 5.54N×93.00E, h47^{km}, mb5.5*
*NEIC **26** 01:40:07.1±0.3, 5.84N×93.15E, h30^{km}, mb5.3/6, Error ellipse: s-maj=11.3km s-min=8.1km az=215.0*
*SYO **26** 01:40:07.4, 5.77N×93.04E, h30^{km}, MB5.3*
ISC 26 01:40:05.4±0.4**, 5.85N**±0.07×**93.24E**±0.05**, h30^{km}, n153, σ0^{s}93**/128**, mb5.3**/37**, 2C-3D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.71	23	Pn	P	01 43 19.5	-0.9
	3.5nm,0.3s,baz=214,slow=12,SNR=4.3						
CMAR	Chiang Mai Arr	13.71	23	P	P	01 43 19.5	-0.9
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MDRS	Chennai	14.68	300	*e*	S	01 46 01.8	-14
VIS	Vishakhapatnam	15.27	321	*e*S	S	01 46 18.6	-11
KOD	Kodaikanal	16.21	287	*e*P	P	01 43 55.8	+2.8
TRD	Trivandrum	16.37	280	*e*	S	01 46 41.9	-13
CAL	Calcutta	17.26	345	*e*P	P	01 44 05.5	-0.6
MNGI	Mangalore	19.48	293	*e*	P	01 44 40.2	+7.1
SHL	Shillong	19.65	356	*e*P	P	01 44 34.2	-0.7
SHL				*e*		01 44 35.4	
QIZ	Qiongzhong	20.81	50	P	P	01 44 50.8	+3.7
KMI	Kunming	21.22	24	*e*P	P	01 44 54.0	+2.8
KMI				AMB	AMB		
	comp=Z,241nm,1.1s,mb5.4						
SLGI	Shiliguri	21.24	348	*e*	P	01 44 56.4	+5.0
AKL	Akola	21.59	315	*e*P	P	01 44 56.3	+1.4
AKL				*e*		01 44 59.4	
	comp=Z,376nm,1.7s						
BOM	Bombay	23.76	305	*e*P	P	01 45 20.2	+3.8
LSA	Lhasa	23.81	355	*e*P	P	01 45 19.9	+3.1
	comp=Z,5µm,2.4s,mb6.5						
GYA	Guiyang	24.17	31	⇑*i*P	P	01 45 23.8	+3.5
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
PTH	Pithoragarh	26.59	334	*e*P	P	01 45 43.4	+0.3
PTH				*e*		01 48 21.2	
NDI	New Delhi	27.32	328	*e*P	P	01 45 50.5	+0.7
TGY	Tagaytay City	28.45	71	P	P	01 46 01.8	+1.7
	comp=Z,127nm,0.4s,mb5.9,baz=101,slow=23,SNR=2.3						
TGY	Tagaytay City	28.45	71	P	P	01 46 01.8	+1.7
TGY				pmax	pmax		
	comp=Z,127nm,0.4s						
HHC	Hu-ho-hao-te	38.52	23	*e*P	P	01 47 29.5	+2.5
HHC				AP	pP	01 47 39.3	+3.3
HHC				XP	sP	01 47 43.5	+3.8
HHC				PP	PP	01 49 05.8	+6.9
HHC				PCP	PcP	01 49 36.0	-3.9
HHC				S	S	01 53 32.3	+12
HHC				XS		01 53 47.0	
HHC				SCS	ScS	01 57 33.0	-0.3
HHC				AMB	AMB		
	comp=Z,149nm,1.3s,mb5.6						
JOW	Kunigami	39.34	54	P	P	01 47 34.5	+0.5
	comp=Z,42nm,0.9s,mb5.2,baz=219,slow=6.5,SNR=3.0						
AAK	Ala-Archa	40.22	338	*e*P	P	01 47 41.5	+0.4
SONM	Songino Array	43.32	13	P	P	01 48 07.3	+0.8
	comp=Z,49nm,0.8s,mb5.3,baz=195,slow=8.2,SNR=10						
SONM				PcP	PcP	01 49 54.7	-0.7
	comp=Z,11nm,0.9s,baz=199,slow=3.9,SNR=3.2						
ZAK	Zakamensk	45.17	9	*e*P	P	01 48 20.6	-0.8
HASS	Wahat al Ahsa’	45.88	300	P	P	01 48 28.1	+0.8
WRA	Warramunga Arr	47.85	123	P	P	01 48 42.7	-0.2
	comp=Z,50nm,0.7s,mb5.6,baz=302,slow=9.0,SNR=5.3						
WRA	Warramunga Arr	47.85	123	P	P	01 48 42.7	-0.2
WRA				pmax	pmax		
	comp=Z,50nm,0.7s						
WRAB	Tennant Creek	47.86	123	P	P	01 48 43.1	+0.1
	comp=Z,52nm,0.6s,mb5.7						
ZAL	Zalesovo	48.43	353	P	P	01 48 46.5	-0.4
	comp=Z,47nm,0.8s,mb5.6,baz=307,slow=6.8,SNR=12						
ZAL	Zalesovo	48.43	353	P	P	01 48 46.6	-0.3
ZAL				pmax	pmax		
	comp=Z,47nm,0.8s						
KAMS	Al Khamasin	49.33	292	P	P	01 48 54.4	+0.1
ASAR	Alice Springs	49.34	128	P	P	01 48 52.9	-1.4
	comp=Z,12nm,0.8s,mb5.0,baz=301,slow=7.1,SNR=3.1						
MZLS	Mizel	49.52	297	P	P	01 48 56.1	+0.4
TATS	Tathlith	50.23	290	P	P	01 49 00.5	-0.7
BVAR	Borovoye Array	50.62	342	P	P	01 49 01.8	-2.0
	comp=Z,37nm,0.8s,mb5.4,baz=143,slow=7.4,SNR=9.6						
BVAR				PcP	PcP	01 50 21.2	0.0
	comp=Z,11nm,0.8s,baz=153,slow=6.4,SNR=2.4						
MAT	Matsushiro	51.18	47	P	P	01 49 08.6	+0.4
MAT	Matsushiro	51.18	47	*e*P	P	01 49 09.0	+0.8
NAMS	An Nimas	51.36	290	P	P	01 49 10.2	+0.4
AFFS	‘Afif	51.46	296	P	P	01 49 11.1	+0.6
ARSS	Ar Rass	51.69	298	P	P	01 49 12.1	-0.1
BLJS	Baljurashi	52.03	291	P	P	01 49 15.6	+0.8
HILS	Ha’il	53.30	300	P	P	01 49 25.1	+0.8
BOD	Bodaibo	54.31	14	*e*P	P	01 49 30.5	-0.7
GNI	Garni	55.23	316	P	P	01 49 37.5	-0.7
	comp=Z,19nm,0.6s,mb5.3,baz=169,slow=20,SNR=5.6						
GNI	Garni	55.23	316	P	P	01 49 37.5	-0.7
GNI				pmax	pmax		
	comp=Z,19nm,0.6s						
GNI	Garni	55.23	316	*e*P	P	01 49 38.0	-0.2
	comp=Z,13nm,0.6s,mb5.2						
PMG	Port Moresby	55.82	105	P	P	01 49 42.2	-0.6
	comp=Z,29nm,0.9s,mb5.3,baz=238,slow=9.3,SNR=2.7						
PMG	Port Moresby	55.82	105	P	P	01 49 42.2	-0.6
PMG				pmax	pmax		
	comp=Z,29nm,0.9s						
KMBO	Kilima Mbogo	56.33	265	P	P	01 49 46.0	-0.5
	comp=Z,12nm,0.9s,mb5.0,baz=211,slow=8.5,SNR=3.6						
KMBO	Kilima Mbogo	56.33	265	P	P	01 49 46.0	-0.5
KMBO				pmax	pmax		
	comp=Z,12nm,0.9s						
KMBO	Kilima Mbogo	56.33	265	P	P	01 49 46.0	-0.5
UMJS	Umm Lajj	56.79	296	P	P	01 49 50.4	+0.7
ARU	Arti	57.41	338	*e*P	P	01 49 52.6	-0.9
	comp=Z,42nm,0.9s,mb5.5						
ASAJ	Asahikawa	57.52	40	P	P	01 49 54.7	+0.2
	comp=Z,28nm,1.1s,mb5.2,baz=5.5,slow=11,SNR=4.1						
ASAJ	Asahikawa	57.52	40	P	P	01 49 54.7	+0.2
ASAJ				pmax	pmax		
	comp=Z,28nm,1.1s						
TBKS	Tabuk	58.02	300	P	P	01 49 59.0	+0.8
KIV	Kislovodsk	58.23	319	*e*P	P	01 49 52.3	-7.2
KIV				pmax	pmax		
	comp=N,28nm,1.0s						
KIV				pmax	pmax		
	comp=E,46nm,1.0s						
KIV				pmax	pmax		
	comp=Z,83nm,1.0s,mb5.7						
KIV	Kislovodsk	58.23	319	*e*P	P	01 49 58.6	-0.8
ASF	Jabal al Asfar	58.59	304	P	P	01 50 01.9	-0.2
	comp=Z,52nm,1.1s,mb5.5,baz=144,slow=15,SNR=8.0						
JMQS	Jabal Moqyreh	58.73	300	P	P	01 50 03.8	+0.7
AYUS	‘Aynunah	59.12	299	P	P	01 50 06.1	+0.2
JMOS	Jabal al Moall	59.44	300	P	P	01 50 08.2	+0.1
ALWS	Ilw as Safayha	59.51	301	P	P	01 50 08.3	-0.3
HAQS	Haql	59.57	300	P	P	01 50 09.1	+0.1
EIL	Elat	59.67	301	P	P	01 50 09.6	-0.1
	comp=Z,34nm,0.9s,mb5.4,baz=44,slow=4.4,SNR=6.9						
BRTR	Keskin Array B	63.09	312	P	P	01 50 31.1	-1.4
	comp=Z,28nm,0.9s,mb5.4,baz=126,slow=6.9,SNR=12						
BRTR	Keskin Array B	63.09	312	P	P	01 50 31.2	-1.3
BRTR				pmax	pmax		
	comp=Z,29nm,0.9s						
OBN	Obninsk	66.62	328	⇑*i*P	P	01 50 54.3	-0.9
OBN				pmax	pmax		
	comp=Z,82nm,1.0s,mb5.7						
TIRR	Tirgusor	68.06	316	P	P	01 51 03.5	-1.0
HARR	Harsova	68.45	316	P	P	01 51 04.8	-2.1
IDI	Anoyia	69.00	305	P	P	01 51 09.6	-0.8
	comp=Z,41nm,0.9s,mb5.4,baz=95,slow=7.4,SNR=5.4						
AKASG	Malin Array Be	69.19	322	P	P	01 51 08.8	-2.5
	comp=Z,24nm,0.7s,mb5.2,baz=87,slow=4.8,SNR=18						
AKASG	Malin Array Be	69.19	322	P	P	01 51 08.8	-2.5
AKASG				pmax	pmax		
	comp=Z,24nm,0.7s						
VRI	Vrincioaia	69.55	317	P	P	01 51 13.9	+0.3
BUC1	Bucharest	69.70	315	P	P	01 51 14.6	0.0
MLR	Muntele Rosu	70.00	316	P	P	01 51 16.0	-0.3
	comp=Z,70nm,0.9s,mb5.6,baz=139,slow=1.8,SNR=9.8						
MLR	Muntele Rosu	70.00	316	P	P	01 51 16.0	-0.4
MLR				pmax	pmax		
	comp=Z,70nm,0.9s						
MLR	Muntele Rosu	70.00	316	P	P	01 51 16.9	+0.5
KWP	Kalwaria	73.00	320	*e*P	P	01 51 34.3	+0.1
KOLS	Kolonicke sedl	73.14	319	*e*P	P	01 51 35.1	0.0
SUW	Suwalki	73.62	325	*e*P	P	01 51 36.8	-1.0
FINES	FINESS Array B	74.08	333	P	P	01 51 39.1	-1.1
	comp=Z,32nm,0.7s,mb5.3,baz=104,slow=7.9,SNR=15						
FINES	FINESS Array B	74.08	333	P	P	01 51 39.2	-1.1
FINES				pmax	pmax		
	comp=Z,32nm,0.7s						
KAF	Kangasniemi	74.18	333	*e*p	P	01 51 39.6	-1.3
	baz=106,slow=5.5						
KECS	Kecovo	74.23	319	*i* P	P	01 51 41.4	0.0
KECS				*e*		01 51 48.3	
WAR	Warsaw	74.54	323	*e*P	P	01 51 43.0	-0.1
VYHS	Vyhne	75.32	319	*e*P	P	01 51 47.4	-0.3
SRO2	Moca	75.51	318	*e*P	P	01 51 49.1	+0.2
SRO	Srobarova	75.57	318	*e*P	P	01 51 50.1	+0.9
KOLL	Kolacno	75.61	319	*i* P	P	01 51 49.5	+0.1
OKC	Ostrava-Krasne	75.95	320	*e*P	P	01 51 51.3	0.0
SMOL	Smolenice	76.25	318	*e*P	P	01 51 52.9	-0.1
SMOL				*e*pP	pP	01 52 03.1	+0.6
MAW	Mawson	76.38	192	P	P	01 51 53.8	+0.4
	comp=Z,8.7nm,0.6s,mb4.8,baz=37,slow=8.4,SNR=4.1						
MAW	Mawson	76.38	192	P	P	01 51 53.8	+0.4
MAW				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ZST	Bratislava	76.43	318	*i* P	P	01 51 54.2	+0.2
ARCES	ARCESS Array B	76.86	340	P	P	01 51 55.8	-0.2
	comp=Z,29nm,0.8s,mb5.2,baz=108,slow=7.7,SNR=11						
ARCES	ARCESS Array B	76.86	340	P	P	01 51 55.8	-0.2
ARCES				pmax	pmax		
	comp=Z,29nm,0.8s						
GKP	Gorka Klasztor	76.97	323	*e*P	P	01 51 56.5	-0.4
DPC	Dobruska-Polom	77.18	320	*e*P	P	01 51 58.7	+0.6
KSP	Ksiaz	77.25	321	*e*P	P	01 51 59.1	+0.6
UPC	Upice	77.39	320	*e*P	P	01 51 59.1	-0.2
PRU	Pruhonice	78.28	320	*e*P	P	01 52 03.1	-1.1
PVCC	Panska Ves	78.31	320	*e*P	P	01 52 04.6	+0.3
GERES	GERESS Array B	78.74	319	P	P	01 52 07.0	+0.3
	comp=Z,35nm,0.8s,mb5.3,baz=90,slow=5.3,SNR=18						
GERES	GERESS Array B	78.74	319	P	P	01 52 07.0	+0.3
GERES				pmax	pmax		
	comp=Z,35nm,0.8s						
KHC	Kasperske Hory	78.84	319	*e*P	P	01 52 07.3	0.0
CLL	Collm	79.36	321	*i* P	P	01 52 10.3	+0.2
CLL	Collm	79.36	321	P	P	01 52 10.3	+0.2
NKC	Novy Kostel	79.64	320	*e*P	P	01 52 12.2	+0.6
HFS	Hagfors	79.75	330	P	P	01 52 11.7	-0.3
	comp=Z,11nm,0.6s,mb5.0,baz=108,slow=4.6,SNR=4.7						
HFS	Hagfors	79.75	330	P	P	01 52 11.7	-0.3
HFS				pmax	pmax		
	comp=Z,11nm,0.6s						
NB2	NORSAR Subarra	81.05	331	P	P	01 52 16.3	-2.5
	comp=Z,12nm,0.8s,mb4.9,baz=94,slow=5.3						
NB2	NORSAR Subarra	81.05	331	P	P	01 52 16.3	-2.5
	baz=94,slow=5.6						
NOA	NORSAR Array B	81.05	331	P	P	01 52 16.4	-2.5
	comp=Z,12nm,0.8s,mb4.8,baz=94,slow=5.5,SNR=8.3						
NOA	NORSAR Array B	81.05	331	P	P	01 52 16.4	-2.5
NOA				pmax	pmax		
	comp=Z,12nm,0.8s						
NAO01	NORSAR Array S	81.20	331	*e*P	P	01 52 18.7	-0.9
	comp=Z,13nm,0.8s,mb4.9						
DAVOX	Davos	81.22	316	P	P	01 52 20.6	+0.5
	comp=Z,56nm,0.9s,mb5.5,baz=102,slow=4.4,SNR=12						
MUD	Monsted U’grnd	81.88	326	*i* P	P	01 52 22.6	-0.7
SYO	Syowa Base	83.22	197	⇓P	P	01 52 30.7	+0.7
SYO	Syowa Base	83.22	197	⇓PcP	PcP	01 52 36.2	+1.3
SYO	Syowa Base	83.22	197	⇓pP	pP	01 52 43.0	+3.4
LPL	La Plagne	83.42	315	*e*P	P	01 52 31.6	+0.1
	comp=Z,153nm,1.2s,mb5.6						
EBR	Ebro Roquetas	88.30	311	*e*	P	01 52 58.0	+2.3
EKA	Eskdalemuir Ar	88.87	325	P	P	01 52 58.5	+0.4
	comp=Z,12nm,0.7s,mb5.3,baz=98,slow=4.5,SNR=9.0						
EKA	Eskdalemuir Ar	88.87	325	P	P	01 52 58.5	+0.4
EKA				pmax	pmax		
	comp=Z,12nm,0.7s						
ESDC	Sonseca Array	91.83	310	P	P	01 53 12.7	+0.5
	comp=Z,4.4nm,0.7s,mb4.9,baz=60,slow=4.0,SNR=9.3						
ILAR	Eielson Array	96.94	22	P	P	01 53 33.6	-1.3
	comp=Z,1.8nm,0.8s,mb4.5,baz=284,slow=5.5,SNR=3.4						
ILAR	Eielson Array	96.94	22	P	P	01 53 33.7	-1.3
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA	Yellowknife Ar	108.59	13	PKKPab		02 09 53.0	
	comp=Z,1.4nm,0.7s,baz=145,slow=3.7,SNR=6.6						
ULM	Lac du Bonnet	123.57	7	PKP	PKPdf	01 59 01.9	-3.4
	comp=Z,5.8nm,0.6s,baz=3.8,slow=3.7,SNR=6.3						
YFT	Old Faithful	125.44	21	*e*PKPdf	PKPdf	01 59 08.1	-1.0
SNOW	Snow King Moun	126.33	22	*e*PKPdf	PKPdf	01 59 08.8	-2.0
REDW	Red Top Meadow	126.38	22	*e*PKPdf	PKPdf	01 59 08.5	-2.4
ELK	Elko	126.77	27	*e*PKPdf	PKPdf	01 59 09.6	-2.2
NVAR	Mina Array Bea	127.10	31	PKP	PKPdf	01 59 10.2	-2.3
	comp=Z,3.7nm,0.7s,baz=278,slow=3.0,SNR=5.2						
BW06	Boulder Array	127.36	21	*e*PKPdf	PKPdf	01 59 09.9	-3.0
PDAR	Pinedale Array	127.36	21	PKP	PKPdf	01 59 09.7	-3.2
	comp=Z,11nm,1.1s,SNR=7.8						
RWWY	Rawlins	129.13	20	PKPdf	PKPdf	01 59 13.6	-2.7
SADO	Sadowa	129.15	353	PKP	PKPdf	01 59 11.8	-4.5
	comp=Z,10nm,1.1s,baz=322,slow=5.5,SNR=3.2						
MVU	Marysvale	129.94	26	PKPdf	PKPdf	01 59 16.4	-1.5
ANMO	Albuquerque	135.37	23	PKP	PKPdf	01 59 25.1	-3.1
	comp=Z,7.3nm,0.9s,baz=319,slow=3.2,SNR=4.9						
MIAR	Mount Ida	139.31	9	PKP	PKPdf	01 59 28.1	-7.3
TXAR	Lajitas Array	141.43	24	PKP	PKPdf	01 59 38.2	-1.2
	comp=Z,3.6nm,0.8s,baz=29,slow=0.5,SNR=6.3						
CPUP	Villa Florida	145.31	231	PKPbc	PKPbc	01 59 42.0	+0.4
	comp=Z,0.0nm,0.4s,baz=246,slow=11,SNR=1.5						
CPUP	Villa Florida	145.31	231	PKPbc	PKPbc	01 59 42.0	+0.4
SJG	San Juan	148.69	320	PKPbc	PKPdf	01 59 49.9	-2.1
	comp=Z,18nm,0.7s,baz=53,slow=2.8,SNR=5.3						
SJG	San Juan	148.69	320	PKIKP	PKPdf	01 59 49.9	-2.1
SJG				pmax	pmax		
	comp=Z,18nm,0.7s						
SJG	San Juan	148.69	320	PKPbc	PKPdf	01 59 49.9	-2.1
PCRV	Puerto La Cruz	152.82	306	PKPbc	PKPdf	01 59 59.9	+1.6
	comp=Z,8.0nm,0.6s,baz=63,slow=2.0,SNR=3.5						
LPAZ	La Paz	159.00	239	PKP	PKPdf	02 00 04.5	-1.9
	comp=Z,11nm,1.2s,baz=73,slow=5.5,SNR=4.2						
LPAZ	La Paz	159.00	239	PKIKP	PKPdf	02 00 04.6	-1.8
LPAZ				pmax	pmax		
	comp=Z,11nm,1.2s						
ROSC	El Rosal	163.66	310	PKP	PKPdf	02 00 08.7	-2.6
	comp=Z,5.2nm,0.7s,baz=108,slow=19,SNR=4.0						

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*IDC **26** 01:43:08.5±1.1, 10.10N×93.03E, mb4.9/13, mb1 5.0/14, mb1mx4.8/21, ML4.9/1, Error ellipse: s-maj=33.5km s-min=24.8km az=35.0*
ISC 26 01:43:12.3±0.9**, 10.2N**±0.2×**93.2E**±0.1**, h33^{km}, n18, σ1^{s}20**/18**, mb4.8**/14**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.88	33	Pn	P	01 45 34.2	-1.1
	3.0nm,0.3s,baz=227,slow=12,SNR=3.8						
SONM	Songino Array	39.10	14	P	P	01 50 38.2	+0.1
	23nm,0.8s,mb5.0,baz=192,slow=8.4,SNR=5.7						
BVAR	Borovoye Array	46.49	341	P	P	01 51 37.3	-0.7
	9.2nm,0.7s,mb4.8,baz=166,slow=5.9,SNR=3.5						
WRA	Warramunga Arr	50.37	127	P	P	01 52 08.3	-0.3
	7.5nm,0.4s,mb5.1,baz=301,slow=9.9,SNR=9.5						
BRTR	Keskin Array B	60.22	310	P	P	01 53 17.5	-2.2
	6.1nm,0.8s,mb4.7,baz=122,slow=6.8,SNR=4.8						
IDI	Anoyia	66.50	304	P	P	01 53 59.1	-2.0
	32nm,1.2s,mb5.2,baz=53,slow=4.4,SNR=3.2						
MLR	Muntele Rosu	66.87	315	P	P	01 54 03.8	+0.6
	26nm,0.8s,mb5.3,baz=128,slow=14,SNR=4.4						
FINES	FINESS Array B	70.22	332	P	P	01 54 23.1	-0.6
	11nm,0.7s,mb4.9,baz=124,slow=6.9,SNR=5.3						
ARCES	ARCESS Array B	72.76	340	P	P	01 54 38.5	-0.3
	9.5nm,0.8s,mb4.8,baz=90,slow=4.5,SNR=3.0						
ZST	Bratislava	73.20	317	*e*	P	01 54 42.8	+1.0
GERES	GERESS Array B	75.48	318	P	P	01 54 55.8	+0.9
	10nm,0.8s,mb4.8,baz=81,slow=6.5,SNR=6.7						
CLL	Collm	75.98	320	P	P	01 54 59.0	+1.3
NB2	NORSAR Subarra	77.25	330	P	P	01 55 06.8	+2.1
	3.8nm,0.7s,mb4.4,baz=97,slow=5.0						
NOA	NORSAR Array B	77.25	330	P	P	01 55 05.9	+1.1
	6.5nm,0.8s,mb4.6,baz=94,slow=5.6,SNR=4.1						
LPG	La Plagne	80.33	315	*e*P	P	01 55 22.8	+1.0
	38nm,0.8s,mb5.1						
ESDC	Sonseca Array	89.02	310	P	P	01 56 05.6	+0.1
	0.3nm,0.3s,mb4.0,baz=58,slow=3.9,SNR=4.7						
ILAR	Eielson Array	92.92	22	P	P	01 56 24.6	+1.7
	3.3nm,1.0s,mb4.7,baz=284,slow=3.7,SNR=4.4						
DBIC	Dimbokro	96.72	278	P	P	01 56 39.0	-2.4
	2.5nm,0.6s,mb4.8,baz=359,slow=11,SNR=3.4						

IDC 26 01:45:13.7±9.8**, 4.92N×93.81E, mb4.6**/5**, mb1 4.7**/5**, mb1mx4.3**/19**, Error ellipse: s-maj=239.0km s-min=93.3km az=138.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	51.68	342	P	P	01 54 22.4	-2.0
	5.5nm,0.7s,baz=143,slow=7.4,SNR=3.6						
BRTR	Keskin Array B	64.13	312	P	P	01 55 49.8	-2.5
	3.2nm,0.7s,baz=132,slow=5.4,SNR=4.6						
IDI	Anoyia	70.00	306	P	P	01 56 27.8	-1.6
	4.4nm,0.6s,baz=36,slow=6.8,SNR=5.0						
ARCES	ARCESS Array B	77.92	340	P	P	01 57 13.1	-1.7
	71nm,1.5s,baz=93,slow=5.0,SNR=4.1						
GERES	GERESS Array B	79.81	319	P	P	01 57 24.4	-1.0
	1.8nm,0.7s,baz=101,slow=5.0,SNR=3.0						

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*IDC **26** 01:45:43.5±0.9, 5.40N×93.38E, mb4.8/12, mb1 4.9/12, mb1mx4.6/21, Error ellipse: s-maj=40.5km s-min=19.3km az=44.0*
ISC 26 01:45:46.8±0.8**, 5.4N**±0.2×**93.4E**±0.2**, h33^{km}, n15, σ0^{s}43**/12**, mb4.8**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.73	13	P	P	01 53 50.3	-0.4
	8.7nm,0.7s,mb4.6,baz=188,slow=8.5,SNR=4.4						
WRA	Warramunga Arr	47.48	123	P	P	01 54 20.3	-0.6
	20nm,0.7s,mb5.2,baz=302,slow=9.2,SNR=5.3						
ZAL	Zalesovo	48.90	353	P	P	01 54 32.2	+0.8
	10nm,0.4s,mb5.2,baz=268,slow=3.8,SNR=5.6						
ASAR	Alice Springs	48.95	128	P	P	01 54 32.8	+0.6
	11nm,1.0s,mb4.8,baz=304,slow=7.5,SNR=3.2						
BVAR	Borovoye Array	51.09	342	P	P	01 54 47.8	-0.4
	14nm,0.9s,mb4.9,baz=153,slow=9.9,SNR=4.3						
EIL	Elat	60.03	301	P	P	01 55 53.1	0.0
	8.1nm,0.9s,mb4.8,baz=1.3,slow=35,SNR=2.8						
BRTR	Keskin Array B	63.49	312	P	P	01 56 16.1	-0.1
	2.8nm,0.7s,mb4.5,baz=135,slow=4.7,SNR=5.1						
IDI	Anoyia	69.38	306	P	P	01 56 53.2	-0.3
	6.6nm,0.5s,mb4.8,baz=70,slow=8.6,SNR=3.9						
FINES	FINESS Array B	74.55	333	P	P	01 57 23.9	+0.1
	4.6nm,0.4s,mb4.7,baz=100,slow=5.0,SNR=10.0						
ARCES	ARCESS Array B	77.33	340	P	P	01 57 39.5	-0.1
	5.8nm,0.7s,mb4.6,baz=100,slow=5.5,SNR=4.2						
GERES	GERESS Array B	79.17	319	P	P	01 57 50.0	-0.1
	6.9nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=6.3						
HFS	Hagfors	80.21	330	P	P	01 57 56.0	+0.6
	2.5nm,0.5s,mb4.4,baz=93,slow=4.8,SNR=5.2						
NVAR	Mina Array Bea	127.41	31	PKP	PKPdf	02 04 49.4	+0.4
	2.2nm,0.8s,baz=316,slow=2.0,SNR=4.3						
BDFB	Brasilia	140.78	252	PKP	PKPdf	02 05 16.9	+2.5
	4.2nm,0.8s,baz=94,slow=3.5,SNR=3.4						
TXAR	Lajitas Array	141.78	24	PKhKP		02 05 11.3	
	3.0nm,0.8s,baz=228,slow=0.8,SNR=3.0						

IDC 26 01:46:41.9±8.9**, 6.36N×94.51E, mb4.6**/6**, mb1 4.7**/7**, mb1mx4.4**/20**, ML5.1**/1**, Error ellipse: s-maj=223.0km s-min=56.1km az=140.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.78	19	Pn	P	01 49 45.9	-1.9
	3.6nm,0.3s,baz=211,slow=10,SNR=2.6						
BRTR	Keskin Array B	63.69	311	P	P	01 57 15.1	-2.5
	2.2nm,0.7s,baz=132,slow=7.2,SNR=2.8						
IDI	Anoyia	69.73	305	P	P	01 57 54.5	-1.5
	5.5nm,0.6s,baz=72,slow=8.3,SNR=2.3						
FINES	FINESS Array B	74.22	332	P	P	01 58 20.0	-2.1
	7.9nm,0.8s,baz=104,slow=7.9,SNR=5.2						
KAF	Kangasniemi	74.30	333	*e*p	P	01 58 21.0	-1.6
	baz=103,slow=5.6						
GERES	GERESS Array B	79.19	318	P	P	01 58 50.6	+0.2
	2.5nm,0.8s,baz=117,slow=4.4,SNR=2.7						
HFS	Hagfors	79.94	330	P	P	01 58 53.0	-1.1
	5.3nm,0.7s,baz=102,slow=5.8,SNR=5.6						
NB2	NORSAR Subarra	81.22	331	P	P	01 59 00.4	-0.5
	11nm,0.7s,baz=96,slow=5.0						
NB2	NORSAR Subarra	81.22	331	P	P	01 59 00.4	-0.5
	baz=96,slow=5.1						
NOA	NORSAR Array B	81.22	331	P	P	01 58 58.1	-2.7
	1.5nm,0.8s,baz=105,slow=4.9,SNR=4.5						

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*IDC **26** 01:47:55.9±1.6, 4.35N×92.48E, mb4.7/7, mb1 4.8/7, mb1mx4.5/18, Error ellipse: s-maj=66.2km s-min=30.9km az=45.0*
ISC 26 01:47:58.1±0.9**, 4.1N**±0.2×**92.3E**±0.3**, h33^{km}, n8, σ1^{s}07**/8**, mb4.5**/7**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	45.27	13	P	P	01 56 12.6	-1.8
	7.2nm,0.7s,mb4.6,baz=195,slow=9.2,SNR=4.3						
WRA	Warramunga Arr	47.65	122	P	P	01 56 34.5	+1.0
	11nm,0.8s,mb4.9,baz=303,slow=9.1,SNR=4.8						
FINES	FINESS Array B	75.26	333	P	P	01 59 39.0	-0.2
	2.9nm,0.7s,mb4.3,baz=90,slow=3.8,SNR=4.0						
ARCES	ARCESS Array B	78.25	341	P	P	01 59 55.7	-0.2
	7.1nm,0.8s,mb4.6,baz=101,slow=5.7,SNR=3.8						
GERES	GERESS Array B	79.48	319	P	P	02 00 03.2	+0.2
	3.0nm,0.7s,mb4.4,baz=90,slow=4.0,SNR=4.1						
HFS	Hagfors	80.85	330	P	P	02 00 11.3	+1.1
	6.9nm,0.8s,mb4.6,baz=124,slow=5.3,SNR=4.6						
SYO	Syowa Base	81.25	197	⇑P	P	02 00 10.5	-1.5
NOA	NORSAR Array B	82.17	331	P	P	02 00 18.2	+1.3
	1.9nm,0.8s,mb4.1,baz=98,slow=5.2,SNR=3.0						

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*MOS **26** 01:48:48.3±0.9, 5.47N×94.52E, h33^{km}, mb5.9/35, Error ellipse: s-maj=10.3km s-min=6.0km az=117.4*
*SYO **26** 01:48:49.6, 5.42N×94.44E, h31^{km}, MB5.8*
*BJI **26** 01:48:50.2, 5.32N×94.42E, h58^{km}, mB6.2, mb5.9, Ms7.1, Msz6.9*
*IDC **26** 01:48:51.8±0.5, 5.47N×94.52E, h51^{km}±4^{km}, mb5.1/31, mb1 5.1/31, mb1mx5.1/33, Error ellipse: s-maj=13.9km s-min=8.6km az=39.0*
*NEIC **26** 01:48:52.1±0.1, 5.43N×94.47E, mb5.7/54, Error ellipse:*

s-maj=5.7km s-min=3.9km az=219.0

ISC 26 01:48:49.8±0.2**, 5.39N**±0.04×**94.48E**±0.03**, h48**^{km}**,**
h48^{km}±2.1^{km}**:pP-P, n349, σ1**^{s}**01**/289**, mb5.7**/109**, 19C-3D,**
Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.70	18	*e*P	P	01 52 08.5	+5.1
	356nm,0.6s						
CMAR	Chiang Mai Arr	13.70	18	P	P	01 52 07.6	+4.2
	48nm,0.3s,baz=207,slow=14,SNR=65						
CMAR	Chiang Mai Arr	13.70	18	P	P	01 52 07.6	+4.2
CMAR				pmax	pmax		
	comp=Z,48nm,0.3s						
MDRS	Chennai	15.98	299	*e*P	P	01 52 23.8	-9.2
MDRS				*e*S	S	01 55 22.9	-5.6
VIS	Vishakhapatnam	16.40	319	*e*P	P	01 52 35.0	-3.4
VIS				*e*		01 52 35.9	
	comp=Z,865nm,1.7s						
VIS				*e*S	S	01 55 36.0	-2.3
TRD	Trivandrum	17.67	281	*e*P	P	01 52 53.7	-0.5
TRD				*e*P		01 52 54.0	
HYB	Hyderabad	19.64	309	*e*P	P	01 53 23.0	+5.6
BOK	Bokaro	20.08	336	*e*P	P	01 53 16.4	-5.7
BOK				*e*		01 53 22.9	
	comp=Z,824nm,1.1s						
QIZ	Qiongzhong	20.20	47	P	P	01 53 25.0	+1.7
QIZ	Qiongzhong	20.20	47	*e*P	P	01 53 24.3	+1.0
	comp=Z,1μm,1.6s						
BLSP	Bilaspur	20.48	325	*e*P	P	01 53 22.0	-4.3
BLSP				*e*		01 53 30.1	
	comp=Z,1μm,1.6s						
KMI	Kunming	21.16	21	*e*P	P	01 53 35.3	+2.1
KMI				AMB	AMB		
	comp=Z,393nm,1.4s,mb5.5						
PKI	Pulchoki	23.69	340	*e*P	P	01 53 58.0	-0.1
	comp=Z,297nm,0.6s,mb5.9						
DMN	Daman	23.83	339	*e*P	P	01 53 59.5	0.0
	comp=Z,847nm,1.1s,mb6.1						
GUN	Gumba	23.84	341	*e*P	P	01 53 59.4	-0.2
	comp=Z,653nm,0.7s,mb6.2						
KKN	Kakani	23.93	340	*e*P	P	01 54 01.1	+0.6
	comp=Z,596nm,0.9s,mb6.0						
GYA	Guiyang	23.96	28	⇑*i*P	P	01 54 02.8	+2.0
GYA				AMB	AMB		
	comp=Z,85nm,0.8s,mb5.2						
SRDI	Scrawed	23.96	125	⇑*i*P	P	01 54 03.3	+2.4
	comp=Z,113nm,0.3s,mb5.8						
POO	Poona	24.00	305	*e*	Px	01 54 35.4	
POO				*e*S	S	01 58 14.2	+2.3
KELI	Kelakatan	24.10	124	⇑*i*P	P	01 54 04.4	+2.1
	comp=Z,139nm,0.4s,mb5.7						
BHPL	Bhopal	24.20	319	*e*P	P	01 54 04.1	+1.0
BHPL				*e*		01 54 05.4	
GKN	Gorkha	24.36	338	*e*P	P	01 54 04.8	+0.2
	comp=Z,615nm,0.6s,mb6.2						
LSA	Lhasa	24.38	353	*e*P	P	01 54 06.1	+1.2
LSA				pmax	pmax		
	comp=Z,340nm,0.6s,mb6.0						
LSA	Lhasa	24.38	353	*e*P	P	01 54 06.1	+1.2
	comp=Z,342nm,0.6s,mb6.0						
KOLN	Koldanda	24.54	336	*e*P	P	01 54 07.2	+0.7
	comp=Z,3μm,1.4s,mb6.6						
RATI	Rata	25.24	124	⇑*i*P	P	01 54 12.8	-0.5
	comp=Z,501nm,0.5s,mb6.3						
DGAR	Diego Garcia	25.40	240	*i* P	P	01 54 15.5	+0.8
KEDI	Kedomdong	25.60	122	⇓*i*P	P	01 54 15.0	-1.7
	comp=Z,168nm,0.7s,mb5.7						
TGY	Tagaytay City	27.44	70	P	P	01 54 33.4	-0.2
	comp=Z,392nm,0.6s,mb6.1,baz=243,slow=3.1,SNR=11						
TGY	Tagaytay City	27.44	70	P	P	01 54 33.4	-0.2
TGY				pmax	pmax		
	comp=Z,392nm,0.6s						
PTH	Pithoragarh	27.55	332	*e*	P	01 54 37.2	+2.7
PTH				*e*		01 57 41.9	
AJM	Ajmer	28.26	320	*e*P	P	01 54 40.8	-0.1
ENH	Enshi	28.50	28	*e*P	P	01 54 41.6	-1.4
	comp=Z,274nm,1.0s,mb5.9						
QZH	Quanzhou	30.21	47	P	P	01 54 59.0	+0.7
QZH				AMB	AMB		
	comp=Z,230nm,1.0s,mb5.9						
XAN	Xi'an	31.50	23	P	P	01 55 08.3	-1.2
XAN				AMB	AMB		
	comp=Z,498nm,0.8s,mb6.4						
LZH	Lanzhou	31.73	15	*e*P	P	01 55 10.8	-0.8
LZH				PP	PP	01 56 16.8	-0.9
LZH				AMB	AMB		
	comp=Z,249nm,1.2s,mb5.9						
GTA	Gaotai	34.20	7	P	P	01 55 32.3	-0.7
GTA				PP	PP	01 56 45.3	-3.4
GTA				PPP	PPP	01 57 02.0	-4.8
GTA				PCP	PcP	01 58 09.8	+0.7
GTA				AMB	AMB		
	comp=Z,251nm,1.0s,mb6.1						
NJ2	Nanjing	34.97	38	*e*P	P	01 55 40.3	+0.7
NJ2				AP	pP	01 55 50.0	-2.3
NJ2				PP	PP	01 56 58.5	-0.2
NJ2				S	S	02 01 09.0	+1.8
NJ2				AMB	AMB		
	comp=Z,620nm,0.6s,mb6.7						
NJ2				AMB	AMB		
	comp=Z,1μm,5.4s						
NJ2				LR	LR		
	comp=N,42μm,15.4s						
NJ2				LR	LR		
	comp=E,53μm,16.0s						
NJ2				LR	LR		
	comp=Z,62μm,15.1s						
SSE	Sheshan	35.81	41	P	P	01 55 48.3	+1.6
SSE				AMB	AMB		
	comp=Z,135nm,1.0s,mb5.8						
MBWA	Marble Bar	36.19	138	*e*P	P	01 55 50.3	+0.2
	comp=Z,32nm,1.0s,mb5.2						
TIA	Tai'an	37.05	31	P	P	01 55 56.8	-0.4
TIA				AMB	AMB		
	comp=Z,143nm,1.0s,mb5.8						
KSH	Kashi	37.86	336	*e*P	P	01 56 05.5	+1.6
KSH				*e*SCP		02 02 00.0	
KSH				*e*PCS		02 02 01.0	
KSH				*e*XS		02 02 11.0	
KSH				*e*SCS	ScS	02 06 11.8	+1.9
KSH				AMB	AMB		
	comp=Z,10μm,6.4s						
KSH				LR	LR		
	comp=N,249μm,13.9s						
KSH				LR	LR		
	comp=E,548μm,21.1s						
HHC	Hu-ho-hao-te	38.48	21	*e*P	P	01 56 10.5	+1.5
HHC				AP	pP	01 56 20.3	-1.5
HHC				PP	PP	01 57 43.8	+2.6
HHC				PCP	PcP	01 58 22.3	+0.4
HHC				S	S	02 02 09.3	+8.5
HHC				SS	SS	02 04 46.3	+3.4
HHC				AMB	AMB		
	comp=Z,251nm,1.2s,mb5.8						
JOW	Kunigami	38.62	53	P	P	01 56 10.8	+0.5
	comp=Z,83nm,0.5s,mb5.7,baz=228,slow=6.4,SNR=15						
WMQ	Urumqi	38.73	352	⇑P	P	01 56 12.5	+1.4
WMQ				PP	PP	01 57 45.0	+0.9
WMQ				S	S	02 02 08.5	+3.9
WMQ				AMB	AMB		
	comp=Z,37nm,0.7s,mb5.2						
WMQ				LR	LR		
	comp=N,435μm,25.0s						
WMQ				LR	LR		
	comp=E,514μm,21.6s						
WMQ				LR	LR		
	comp=Z,389μm,19.2s						
BJT	Baijiatuau	39.62	26	*e*P	P	01 56 19.5	+1.0
BJT				pmax	pmax		
	comp=Z,400nm,1.2s						
BJT	Baijiatuau	39.62	26	*e*P	P	01 56 19.5	+1.0
	comp=Z,404nm,1.3s,mb6.0						
ULHL	Ulahol	40.12	339	P	P	01 56 23.7	+1.0
	SNR=6.7						
KZA	Kyzart	40.34	338	P	P	01 56 15.7	-8.7
	SNR=7.5						
UCH	Uchtor	40.75	337	P	P	01 56 29.1	+1.3
	SNR=6.2						
TKM2	Tokmak 2	40.94	339	P	P	01 56 30.3	+0.9
	SNR=6.5						
KBK	Karagaybulak	40.95	338	P	P	01 56 30.7	+1.2
	SNR=17						
AML	Almayashu	40.99	336	P	P	01 56 30.8	+0.9
	SNR=19						
AAK	Ala-Archa	41.10	337	*i* P	P	01 56 31.1	+0.4
AAK				pmax	pmax		
	comp=Z,105nm,1.6s,mb5.2						
AAK	Ala-Archa	41.10	337	*e*P	P	01 56 31.2	+0.5
	comp=Z,268nm,1.4s,mb5.7						
CHMS	Chumysh	41.32	338	P	P	01 56 33.3	+0.8
	SNR=6.9						
EKS2	Erkin-Say	41.41	337	P	P	01 56 33.9	+0.7
	SNR=5.5						
DL2	Dalian	41.44	33	P	P	01 56 35.0	+1.5
DL2				AMB	AMB		
	comp=Z,200nm,0.9s,mb5.8						
USP	Ospenovka	41.65	338	P	P	01 56 35.6	+0.4
	SNR=7.8						
MK02	Makanchi Array	42.54	348	P	P	01 56 42.7	+0.2
MK02				pmax	pmax		
	comp=Z,186nm,0.6s,mb6.0						
INCN	Inchon	43.35	38	P	P	01 56 48.5	-0.8
SONM	Songino Array	43.50	12	P	P	01 56 49.8	-0.5
	comp=Z,79nm,0.8s,mb5.5,baz=194,slow=8.3,SNR=27						
SONM				PcP	PcP	01 58 38.0	-0.2
	comp=Z,35nm,0.8s,baz=191,slow=3.5,SNR=11						
ULN	Ulaanbaatar	43.66	12	*i* P	P	01 56 51.3	-0.4
ULN	Ulaanbaatar	43.66	12	*e*P	P	01 56 50.9	-0.7
	comp=Z,74nm,0.7s,mb5.5						
NWAO	Narrogin (SRO)	43.81	152	P	P	01 56 54.0	+1.0
	comp=Z,15nm,0.6s,mb4.9,baz=326,slow=15,SNR=2.8						
NWAO	Narrogin (SRO)	43.81	152	P	P	01 56 54.0	+1.0
NWAO				pmax	pmax		
	comp=Z,15nm,0.6s						
KS15	Wonju Array Si	44.10	39	*e*P	P	01 56 54.6	-0.7
ZAK	Zakamensk	45.44	8	⇑*i*P	P	01 57 05.3	-0.5
ZAK				*e*		01 58 44.5	
WRA	Warramunga Arr	46.58	124	P	P	01 57 14.7	-0.5
	comp=Z,96nm,0.7s,mb5.9,baz=303,slow=9.1,SNR=20						
WRA				pP	pP	01 57 27.9	-0.2
	comp=Z,111nm,0.8s,baz=302,slow=9.2,SNR=10						
WRA	Warramunga Arr	46.58	124	P	P	01 57 14.7	-0.5
WRA				*PP	pP	01 57 27.9	-0.2
WRA				pmax	pmax		
	comp=Z,96nm,0.7s						
WRAB	Tennant Creek	46.58	124	*i* P	P	01 57 15.4	+0.1
WRAB	Tennant Creek	46.58	124	*e*P	P	01 57 14.6	-0.6
	comp=Z,2μm,1.6s,mb6.7						
WRAB				*e*	pP	01 57 27.6	-0.6
TLY	Talaya	46.76	8	P	P	01 57 17.7	+1.5
	comp=Z,436nm,0.9s,mb6.4,SNR=10						
TLY	Talaya	46.76	8	*e*P	P	01 57 16.7	+0.5
TLY				pmax	pmax		
	comp=Z,97nm,1.0s,mb5.7						
TLY	Talaya	46.76	8	*e*P	P	01 57 16.3	+0.1
	comp=Z,198nm,1.6s,mb5.8						
CN2	Changchun	46.95	31	*e*P	P	01 57 19.3	+1.4
HASS	Wahat al Ahsa'	47.18	300	P	P	01 57 21.1	+1.2
ASAR	Alice Springs	48.09	129	P	P	01 57 26.6	-0.4
	comp=Z,21nm,0.5s,mb5.4,baz=302,slow=8.1,SNR=18						
ASAR				pP	pP	01 57 40.8	+0.7
	comp=Z,81nm,0.9s,baz=304,slow=8.2,SNR=9.7						
HIA	Hailar	48.67	22	P	P	01 57 30.5	-0.7
HIA	Hailar	48.67	22	*e*P	P	01 57 30.2	-1.0
ZAL	Zalesovo	49.03	352	P	P	01 57 33.3	-0.6
	comp=Z,117nm,0.6s,mb6.1,baz=304,slow=5.6,SNR=54						
ZAL	Zalesovo	49.03	352	P	P	01 57 33.3	-0.6
ZAL				pmax	pmax		
	comp=Z,117nm,0.6s						
RYDS	Riyadh	49.59	297	P	P	01 57 40.3	+1.7
MDJ	Mudanjiang	49.68	33	P	P	01 57 39.8	+0.8
MDJ				AMB	AMB		
	comp=Z,135nm,1.5s,mb5.8						
MDJ	Mudanjiang	49.68	33	*e*P	P	01 57 39.2	+0.1
	comp=Z,315nm,1.5s,mb6.1						
QRN	Al-Qurain	49.78	303	*e*P	P	01 57 41.1	+1.1
NVS	Novosibirsk	50.13	352	*i* P	P	01 57 40.8	-1.5
NVS				*e*S	S	02 04 49.0	-0.1
NVS				*e*		02 07 30.3	
NVS				pmax	pmax		
	comp=Z,209nm,0.9s,mb6.2						
NVS				pmax	pmax		
	comp=E,82nm,0.6s						
NVS				pmax	pmax		
	comp=N,112nm,0.8s						
NVS				smax			
	comp=E,94nm,1.5s						
NVS				smax			
	comp=N,227nm,1.7s						
RDF	Al-Radifah	50.14	303	*e*P	P	01 57 43.4	+0.7
UMR	Umm Al-Rimmam	50.20	304	*e*P	P	01 57 43.4	+0.2
UMR				AMb	AMB	01 57 52.5	
	comp=Z,57nm,0.7s,mb5.7						
CBIJ	Chichi jima	50.23	59	P	P	01 57 41.8	-1.7
	comp=Z,198nm,0.4s,mb6.5,baz=252,slow=3.0,SNR=20						
MAJO	Matsushiro	50.59	46	*e*P	P	01 57 45.6	-0.6
MAT	Matsushiro	50.59	46	P	P	01 57 45.7	-0.4
MAT	Matsushiro	50.59	46	*e*P	P	01 57 46.0	-0.1
KAMS	Al Khamasin	50.65	292	P	P	01 57 48.0	+1.3
RST	Umm Al-Ruwaisa	50.78	304	*e*P	P	01 57 47.4	-0.3
RST				AMb	AMB	01 58 06.6	
	comp=Z,253nm,1.3s,mb6.0						
MZLS	Mizel	50.82	297	P	P	01 57 48.8	+0.8
BVAR	Borovoye Array	51.43	342	P	P	01 57 51.2	-1.0
	comp=Z,85nm,0.6s,mb5.8,baz=144,slow=12,SNR=54						
BVAR				pP	pP	01 58 06.1	+0.8
	comp=Z,67nm,0.6s,baz=135,slow=6.3,SNR=11						
BRVK	Borovoye	51.49	342	*e*P	P	01 57 52.1	-0.6
BRVK				pmax	pmax		
	comp=Z,77nm,0.6s,mb5.8						
BRVK	Borovoye	51.49	342	*e*P	P	01 57 51.6	-1.1
	comp=Z,77nm,0.6s,mb5.8						
CHKZ	Chkalovo	51.92	342	*i* P	P	01 57 55.4	-0.5
CHKZ				pmax	pmax		
	comp=Z,191nm,0.7s,mb6.1						
CHKZ	Chkalovo	51.92	342	*e*P	P	01 57 54.3	-1.6
	comp=Z,252nm,0.7s,mb6.3						
FRSS	Farasan al Kab	52.47	287	P	P	01 58 02.1	+1.7
AFFS	'Afif	52.77	296	P	P	01 58 03.3	+0.7
ARSS	Ar Rass	52.99	298	P	P	01 58 04.3	0.0
BOD	Bodaibo	54.47	13	*e*P	P	01 58 12.4	-2.3
PMG	Port Moresby	54.51	105	P	P	01 58 14.7	-0.9
	comp=Z,42nm,0.6s,mb5.7,baz=284,slow=1.3,SNR=10						
PMG				pP	pP	01 58 28.8	-0.1
	comp=Z,82nm,0.6s,baz=169,slow=2.0,SNR=9.1						
PMG	Port Moresby	54.51	105	*e*P	P	01 58 14.4	-1.2
PMG				pmax	pmax		
	comp=Z,54nm,0.8s						
PMG	Port Moresby	54.51	105	*e*P	P	01 58 14.4	-1.3
	comp=Z,54nm,0.8s,mb5.6						
HILS	Ha'il	54.60	300	P	P	01 58 17.1	+1.0
GNI	Garni	56.42	315	P	P	01 58 28.4	-0.6
	comp=Z,23nm,0.7s,mb5.3,baz=167,slow=14,SNR=7.2						
GNI	Garni	56.42	315	*e*P	P	01 58 28.7	-0.3
GNI				pmax	pmax		
	comp=Z,6μm,3.2s						
GNI	Garni	56.42	315	*e*P	P	01 58 28.6	-0.4
	comp=Z,6μm,3.3s						
CTA	Charters Tower	56.83	118	P	P	01 58 30.9	-1.3
	comp=Z,26nm,0.7s,mb5.4,baz=295,slow=7.9,SNR=14						
CTA	Charters Tower	56.83	118	P	P	01 58 31.0	-1.2
CTA				pmax	pmax		
	comp=Z,26nm,0.7s						
CTAO	Charters Tower	56.83	118	*e*P	P	01 58 31.6	-0.6
ASAJ	Asahikawa	57.07	40	P	P	01 58 32.4	-1.3
	comp=Z,30nm,0.9s,mb5.3,baz=259,slow=13,SNR=6.9						
ASAJ	Asahikawa	57.07	40	P	P	01 58 32.4	-1.3
ASAJ				pmax	pmax		
	comp=Z,30nm,0.9s						
YNBS	Yanbu' al Bahr	57.34	295	P	P	01 58 36.5	+0.7
KMBO	Kilima Mbogo	57.52	265	P	P	01 58 38.5	+1.2
	comp=Z,8.9nm,0.8s,mb4.8,baz=52,slow=10.0,SNR=9.2						
KMBO	Kilima Mbogo	57.52	265	P	P	01 58 38.5	+1.3
KMBO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
UMJS	Umm Lajj	58.10	296	P	P	01 58 42.3	+1.1
ARU	Arti	58.29	337	⇓*i*P	P	01 58 40.5	-1.5
ARU				*e*		01 59 30.8	
ARU				*e*		02 00 47.9	
ARU				*e*S	S	02 06 41.7	+2.8
ARU				pmax	pmax		
	comp=Z,179nm,1.3s,mb5.9						
ARU	Arti	58.29	337	*e*P	P	01 58 40.2	-1.8
	comp=Z,159nm,1.1s,mb6.0						
YSS	Yuzh-Sakhalins	58.53	37	*e*P	P	01 58 43.9	+0.1
YSS	Yuzh-Sakhalins	58.53	37	*e*P	P	01 58 44.4	+0.5
	comp=Z,240nm,1.2s,mb6.1						
TBKS	Tabuk	59.31	300	D		01 58 50.3	
KIV	Kislovodsk	59.38	319	P	P	01 58 49.4	-0.4
	comp=Z,524nm,0.7s,mb6.7,SNR=8.0						
KIV	Kislovodsk	59.38	319	*i* P	P	01 58 49.3	-0.5
KIV				pmax	pmax		
	comp=Z,326nm,2.1s,mb6.0						
ASF	Jabal al Asfar	59.86	304	P	P	01 58 53.3	+0.1
	comp=Z,6.9nm,0.6s,mb4.9,baz=350,slow=9.8,SNR=13						
JMQS	Jabal Moqyreh	60.02	300	P	P	01 58 54.8	+0.4
AYUS	'Aynunah	60.42	299	P	P	01 58 57.7	+0.6
BDAS	Al Bad'	60.60	300	P	P	01 58 58.5	+0.2
ALWS	Ilw as Safayha	60.80	301	P	P	01 58 60.0	+0.3
HAQS	Haql	60.87	300	P	P	01 59 00.6	+0.4
EIL	Elat	60.96	301	P	P	01 59 00.2	-0.5
	comp=Z,15nm,0.6s,mb5.3,baz=81,slow=17,SNR=14						
SOC	Sochi	61.21	317	*e*P	P	01 58 58.0	-4.3
ANN	Anapa	63.19	318	*e*P	pP	01 59 30.5	+1.6
CSS	Prodhromos	63.40	306	*e*P	P	01 59 16.6	-0.3
	comp=Z,128nm,1.3s,mb5.9						
BRTR	Keskin Array B	64.31	312	P	P	01 59 21.1	-1.8
	comp=Z,28nm,0.7s,mb5.4,baz=138,slow=7.2,SNR=32						
BRTR				pP	pP	01 59 35.9	-0.5
	comp=Z,25nm,0.8s,baz=127,slow=6.4,SNR=8.3						
BRTR	Keskin Array B	64.31	312	P	P	01 59 21.1	-1.8
BRTR				*PP	pP	01 59 35.9	-0.5
BRTR				pmax	pmax		
	comp=Z,28nm,0.7s						
BRTR	Keskin Array B	64.31	312	P	P	01 59 21.1	-1.8
BRTR				pP	pP	01 59 35.9	-0.5
ISP	Isparta	66.24	309	P	P	01 59 35.2	-0.1
ISP	Isparta	66.24	309	*e*P	P	01 59 34.8	-0.5
MOS	Moscow	67.36	329	*e*P	P	01 59 40.2	-1.8
MOS				*e*	pP	01 59 54.7	-1.0
MOS				*e*S	S	02 08 28.3	-4.3
MOS				pmax	pmax		
	comp=Z,568nm,1.4s,mb6.4						
OBN	Obninsk	67.65	328	*i* P	P	01 59 42.9	-0.9
OBN				*i*	pP	01 59 57.3	-0.2
OBN				*i*		02 00 10.4	
OBN				*e*		02 02 13.9	
OBN				pmax	pmax		
	comp=Z,350nm,1.4s,mb6.2						
SKR	Severo-Kuril's	68.10	37	*e*P	P	01 59 41.7	-5.0
MA2	Magadan	68.80	27	*i* P	P	01 59 51.0	+0.1
MA2				pmax	pmax		
	comp=Z,266nm,2.3s,mb5.8						
TIXI	Tiksi	69.58	11	*e*P	P	01 59 53.8	-1.8
TIXI				pmax	pmax		
	comp=Z,420nm,1.5s,mb6.2						
TIXI				pmax	pmax		
	comp=N,51nm,1.3s						
TIXI				pmax	pmax		
	comp=E,22nm,0.7s						
TIXI	Tiksi	69.58	11	*i* P	P	01 59 54.9	-0.7
ALN	Alexandroupoli	70.23	311	*e*P	P	01 59 59.1	-0.9
IDI	Anoyia	70.26	305	P	P	01 59 59.6	-0.7
	comp=E,41nm,0.6s,mb5.6,baz=74,slow=6.0,SNR=21						
AKASG	Malin Array Be	70.30	322	P	P	01 59 58.1	-2.2
	comp=E,33nm,0.6s,mb5.5,baz=83,slow=4.8,SNR=67						
AKASG	Malin Array Be	70.30	322	P	P	01 59 58.1	-2.2
AKASG				pmax	pmax		
	comp=Z,33nm,0.6s						
PET	Petropavlovsk	70.34	35	⇓*i*P	P	01 59 59.7	-0.7
PET				pmax	pmax		
	comp=Z,33nm,0.6s,mb5.4						
PET				pmax	pmax		
	comp=N,18nm,0.8s						
PET	Petropavlovsk	70.34	35	*i* P	P	01 59 59.8	-0.6
MLR	Muntele Rosu	71.18	316	P	P	02 00 05.6	-0.1
	comp=N,50nm,0.7s,mb5.6,baz=162,slow=2.2,SNR=27						
MLR	Muntele Rosu	71.18	316	P	P	02 00 05.6	-0.1
MLR				pmax	pmax		
	comp=Z,50nm,0.7s						
MLR	Muntele Rosu	71.18	316	P	P	02 00 05.6	-0.1
AOS	Alonnisos	71.59	309	*e*P	P	02 00 07.1	-1.1
OUR	Ouranopolis	71.69	311	*e*P	P	02 00 06.9	-1.9
PAIG	Paliouri	71.85	310	*e*P	P	02 00 07.8	-2.0
SRS	Serrai	72.09	311	*e*P	P	02 00 09.6	-1.5
PUL	Pulkovo	72.54	331	*e*P	P	02 00 13.3	-0.1
PUL				pmax	pmax		
	comp=Z,95nm,0.6s,mb5.9						
PUL				pmax	pmax		
	comp=N,46nm,0.8s						
KNT	Kendrikon	72.62	311	*e*P	P	02 00 13.1	-1.2
AGG	Agios Georgios	72.77	309	*e*P	P	02 00 13.0	-2.2
LIT	Litokhoron	72.78	310	*e*P	P	02 00 13.6	-1.7
GRG	Griva	72.96	311	*e*P	P	02 00 14.8	-1.6
LBTB	Lobatse	73.37	242	*e*P	P	02 00 19.6	+0.5
LBTB				pmax	pmax		
	comp=Z,81nm,1.3s,mb5.5						
LBTB	Lobatse	73.37	242	*e*P	P	02 00 19.6	+0.5
	comp=Z,81nm,1.3s,mb5.5						
MEV	Metsovon	73.71	310	*e*P	P	02 00 19.7	-1.1
FNA	Florina	73.71	311	*e*P	P	02 00 18.9	-1.9
LKD	Levkas	74.03	309	*e*P	P	02 00 19.7	-3.0
KWP	Kalwaria	74.13	320	*e*P	P	02 00 22.8	-0.2
KOLS	Kolonicke sedl	74.29	319	*e*P	P	02 00 23.9	0.0
KOLS				*e*	pP	02 00 34.1	-3.6
IGT	Igoumenitsa	74.37	309	*e*P	P	02 00 22.9	-1.7
BOSA	Boshof	74.58	239	*e*P	P	02 00 25.9	-0.1
BOSA				pmax	pmax		
	comp=Z,110nm,1.3s,mb5.6						
BOSA	Boshof	74.58	239	*e*P	P	02 00 25.9	-0.2
	comp=Z,107nm,1.4s,mb5.6						
SUW	Suwalki	74.71	325	*e*P	P	02 00 25.1	-1.1
CRVS	Cervenica-Dubn	74.81	319	*e*P	P	02 00 27.3	+0.4
FINES	FINESS Array B	75.05	332	P	P	02 00 26.9	-1.2
	comp=Z,9.2nm,0.5s,mb5.0,baz=95,slow=6.1,SNR=15						
FINES	FINESS Array B	75.05	332	P	P	02 00 26.9	-1.2
FINES				pmax	pmax		
	comp=Z,9.0nm,0.5s						
KAF	Kangasniemi	75.14	333	*e*p	P	02 00 27.6	-1.0
	comp=Z,14nm,0.6s,mb5.1,baz=105,slow=5.4						
KAF	Kangasniemi	75.14	333	*e*P	P	02 00 27.6	-1.0
KAF				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.1						
KECS	Kecovo	75.39	319	*e*P	P	02 00 29.9	-0.3
KECS				*e*pP	pP	02 00 44.7	+0.7
OJC	Ojcow	76.08	320	*e*P	P	02 00 33.8	-0.4
MAW	Mawson	76.19	192	P	P	02 00 34.2	-0.3
	comp=Z,7.8nm,0.7s,mb4.8,baz=51,slow=7.3,SNR=8.6						
MAW	Mawson	76.19	192	*e*P	P	02 00 35.5	+1.1
MAW				pmax	pmax		
	comp=Z,110nm,1.6s						
MAW	Mawson	76.19	192	*e*P	P	02 00 35.5	+1.1
	comp=Z,106nm,1.6s,mb5.5						
VYHS	Vyhne	76.47	318	*i* P	P	02 00 36.1	-0.3
VYHS				*e*pP	pP	02 00 50.2	0.0
SRO2	Moca	76.68	318	*e*P	P	02 00 37.8	+0.2
SRO	Srobarova	76.74	318	*e*P	P	02 00 38.6	+0.7
KOLL	Kolacno	76.77	319	*e*P	P	02 00 37.9	-0.2
KOLL				*e*pP	pP	02 00 52.2	+0.3
OKC	Ostrava-Krasne	77.09	320	*e*P	P	02 00 39.8	-0.1
RAC	Raciborz	77.09	320	*e*P	P	02 00 40.6	+0.7
SMOL	Smolenice	77.41	318	*i* P	P	02 00 41.8	+0.1
SMOL				*e*	pP	02 00 53.7	-1.8
ARCES	ARCESS Array B	77.70	340	P	P	02 00 43.0	+0.1
	comp=Z,15nm,0.5s,mb5.2,baz=91,slow=5.4,SNR=32						
ARCES				pP	pP	02 00 56.9	+0.2
	comp=Z,16nm,0.6s,baz=107,slow=6.8,SNR=4.1						
ARCES	ARCESS Array B	77.70	340	P	P	02 00 43.0	+0.1
ARCES				*PP	pP	02 00 56.9	+0.2
ARCES				pmax	pmax		
	comp=Z,15nm,0.5s						
ARCES	ARCESS Array B	77.70	340	P	P	02 00 43.0	+0.1
ARCES				pP	pP	02 00 56.9	+0.2
GKP	Gorka Klasztor	78.07	323	*e*P	P	02 00 45.4	+0.2
DPC	Dobruska-Polom	78.31	320	*e*P	P	02 00 47.1	+0.5
KTK1	Kautokeino	78.32	340	*e*P	P	02 00 46.7	+0.4
KTK1				AMb	AMB	02 00 53.1	
	comp=Z,150nm,1.8s,mb5.6						
KTK1	Kautokeino	78.32	340	*e*P	P	02 00 46.7	+0.4
	comp=Z,150nm,1.8s,mb5.6						
KSP	Ksiaz	78.38	321	*e*P	P	02 00 47.1	+0.1
KSP	Ksiaz	78.38	321	*e*P	P	02 00 47.8	+0.8
UPC	Upice	78.53	320	*e*P	P	02 00 48.1	+0.3
ARSA	Arzberg	78.57	317	⇑*i*P	P	02 00 48.9	+0.8
	comp=Z,154nm,1.5s,mb5.7						
BOJS	Bojanci	78.63	315	*e*P	P	02 00 47.9	-0.5
FX1	Attu Island--F	78.89	37	*e*P	P	02 00 48.9	-0.8
LJU	Ljubljana	79.17	316	*e*P	P	02 00 51.4	0.0
OBKA	Obir	79.18	316	⇑*i*P	P	02 00 52.1	+0.7
	comp=Z,118nm,1.4s,mb5.6						
PRU	Pruhonice	79.42	320	*e*P	P	02 00 52.6	-0.1
PVCC	Panska Ves	79.45	320	*e*P	P	02 00 53.0	+0.2
MOA	Molln	79.46	318	⇑*i*P	P	02 00 53.1	+0.2
	comp=Z,81nm,1.8s,mb5.3						

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BRG   Berggiesshubel    79.87 321  eP      P        02 00 56.4 +1.3
BRG                                 pmax    pmax
      comp=Z,184nm,1.1s,mb5.9
BRG   Berggiesshubel    79.87 321  eP      P        02 00 56.4 +1.3
      comp=Z,184nm,1.1s,mb5.9
ROBS  Robic             79.88 316  eP      P        02 00 54.5 -0.7
GEC2  GERESS Array S    79.89 319  eP      P        02 00 56.1 +0.9
GEC2                                pmax    pmax
      comp=Z,77nm,0.8s,mb5.7
GEC2  GERESS Array S    79.89 319  eP      P        02 00 56.1 +0.9
      comp=Z,77nm,0.8s,mb5.7
GERES GERESS Array B    79.89 319   P      P        02 00 55.6 +0.3
      comp=Z,66nm,0.7s,mb5.7,baz=116,slow=5.4,SNR=67
GERES GERESS Array B    79.89 319   P      P        02 00 55.6 +0.4
GERES                               pmax    pmax
      comp=Z,66nm,0.7s
TRO   Tromso            79.95 340  eP      P        02 00 52.9 -2.3
KHC   Kasperske Hory    79.99 319  eP      P        02 00 55.8  0.0
KBA   Koelnbreinsper    80.04 317⇑iP      P        02 00 56.1  0.0
      comp=Z,56nm,1.2s,mb5.4
RUE   Ruedersdorf       80.08 322  eP      P        02 00 55.9 -0.2
WET   Wettzell          80.45 319  eP      P        02 00 58.9 +0.7
WET                                 pmax    pmax
      comp=Z,38nm,0.8s,mb5.4
WET   Wettzell          80.45 319  eP      P        02 00 58.9 +0.7
      comp=Z,38nm,0.8s,mb5.4
CLL   Collm             80.49 321  i P     P        02 00 58.7 +0.4
CLL                                e       pP       02 01 08.0 -4.2
CLL   Collm             80.49 321   P      P        02 00 58.7 +0.4
CLL                                e*PP    pP       02 01 08.0 -4.2
CLL                                e*SP    sP       02 01 14.0 -3.5
HFS   Hagfors           80.76 330   P      P        02 00 58.9 -0.7
      comp=Z,9.4nm,0.5s,mb5.0,baz=104,slow=6.1,SNR=14
HFS   Hagfors           80.76 330   P      P        02 00 58.9 -0.7
HFS                                 pmax    pmax
      comp=Z,9.0nm,0.5s
NKC   Novy Kostel       80.78 320  eP      P        02 01 00.7 +0.8
MOR8  Moi Rana          81.07 336  eP      P        02 01 00.2 -0.9
MOR8                               epP     pP       02 01 15.9 +0.9
WTTA  Wattenberg        81.21 317⇑iP      P        02 01 01.9 -0.3
      comp=Z,49nm,0.6s,mb5.6
WATA  Walderalm         81.25 317⇑iP      P        02 01 01.5 -1.0
      comp=Z,34nm,0.6s,mb5.5
MOX   Moxa              81.33 320  eP      P        02 01 03.2 +0.4
MOX   Moxa              81.33 320  i P     P        02 01 03.2 +0.4
FUR   Furstenfeldbru    81.48 318  eP      P        02 01 03.8 +0.2
FUR                                 pmax    pmax
      comp=Z,38nm,0.7s,mb5.4
FUR   Furstenfeldbru    81.48 318  eP      P        02 01 03.8 +0.2
      comp=Z,38nm,0.7s,mb5.4
SQTA  Sankt Quirin      81.50 317⇑iP      P        02 01 03.2 -0.6
      comp=Z,76nm,0.6s,mb5.8
GRA1  Grafenberg Arr    81.55 319  eP      P        02 01 05.2 +1.2
      comp=Z,56nm,0.8s,mb5.5
GRF   Grafenberg Arr    81.55 319  eP      P        02 01 05.2 +1.2
GRF                                 pmax    pmax
      comp=Z,56nm,0.8s,mb5.5
GRF   Grafenberg Arr    81.55 319  eP      P        02 01 05.2 +1.2
      comp=Z,56nm,0.8s,mb5.5
MOTA  Moosalm           81.58 317⇑iP      P        02 01 03.6 -0.5
      comp=Z,40nm,0.7s,mb5.5
LOF   Lofoten           81.64 338  eP      P        02 01 06.5 +2.4
NB2   NORSAR Subarra    82.05 331   P      P        02 01 05.6 -0.7
      comp=Z,369nm,2.0s,mb6.0,baz=93,slow=5.8
NB2   NORSAR Subarra    82.05 331   P      P        02 01 05.6 -0.7
      baz=93,slow=5.9
NOA   NORSAR Array B    82.05 331   P      P        02 01 06.0 -0.3
      comp=Z,7.1nm,0.8s,mb4.7,baz=95,slow=5.5,SNR=6.1
NOA   NORSAR Array B    82.05 331   P      P        02 01 06.0 -0.3
NOA                                 pmax    pmax
      comp=Z,7.0nm,0.8s
NOA   NORSAR Array B    82.05 331   P      P        02 01 06.0 -0.3
CLZ   Clausthal         82.15 321  eP      P        02 01 07.7 +0.7
      comp=Z,35nm,0.7s,mb5.4
BSEG  Bad Segeberg      82.23 324  eP      P        02 01 08.3 +0.9
BSEG                                pmax    pmax
      comp=Z,60nm,0.9s,mb5.5
DAVA  Damuels           82.41 317⇑iP      P        02 01 08.6 +0.2
      comp=Z,125nm,1.4s,mb5.7
KONO  Kongsberg         82.79 329  eP      P        02 01 08.5 -1.6
KONO                                pmax    pmax
      comp=Z,3µm,1.1s
PGF   Pioggiola         83.06 312  eP      P        02 01 11.7 -0.1
      comp=Z,115nm,1.0s,mb5.6
SYO   Syowa Base        83.15 197  ⇑P      P        02 01 13.9 +2.1
SYO   Syowa Base        83.15 197  ⇑PcP    PcP      02 01 16.8 +0.1
SYO   Syowa Base        83.15 197  ⇑pP     pP       02 01 23.3 -2.4
BFO   Black Forest      83.45 318  eP      P        02 01 13.9 +0.2
BFO                                 pmax    pmax
      comp=Z,28nm,0.7s,mb5.4
BFO   Black Forest      83.45 318  eP      P        02 01 13.9 +0.2
      comp=Z,28nm,0.7s,mb5.4
MOL   Molde             83.83 332  eP      P        02 01 17.0 +1.7
CDF   Champ du Feu      84.15 318  eP      P        02 01 16.6 -0.7
      comp=Z,72nm,0.8s,mb5.5
SBF   Sospel            84.17 313  eP      P        02 01 17.2 -0.3
      comp=Z,113nm,0.6s,mb5.8
LPL   La Plagne         84.61 315  eP      P        02 01 20.0 +0.3
      comp=Z,149nm,0.8s,mb5.8
HAU   Haudompre         84.78 318  eP      P        02 01 20.0 -0.4
      comp=Z,150nm,0.7s,mb5.9
VIVF  Saint-Julien-l    86.10 315  eP      P        02 01 27.0  0.0
      comp=Z,71nm,0.9s,mb5.6
SSF   Saint Saulge      86.76 317  eP      P        02 01 30.0 -0.2
      comp=Z,71nm,0.9s,mb5.6
URZ   Urewera           87.53 129   P      P        02 01 33.3 -0.9
      comp=Z,14nm,0.6s,mb5.4,baz=196,slow=1.8,SNR=11
RJF   Les Rejaudoux     88.29 315  eP      P        02 01 37.6  0.0
      comp=Z,67nm,0.9s,mb5.6
LDF   La Druitiere      89.04 319  eP      P        02 01 41.0 -0.1
      comp=Z,67nm,0.8s,mb5.7
EBR   Ebro Roquetas     89.53 311  eP      P        02 01 44.0 +0.4
NIKO  Nikolski          89.74  37  eP      P        02 01 43.8 -0.5
VNDA  Vanda             90.45 168   P      P        02 01 47.7 +0.6
      comp=Z,5.3nm,0.9s,mb4.9,baz=329,slow=2.1,SNR=2.8
VNDA  Vanda             90.45 168   P      P        02 01 47.7 +0.6
VNDA                                pmax    pmax
      comp=Z,5.0nm,0.9s
VNDA  Vanda             90.45 168   P      P        02 01 48.0 +0.9
SBA   Scott Base        91.55 168   P      P        02 01 51.7 -0.5
ESDC  Sonseca Array     93.07 310   P      P        02 02 00.9 +0.9
      comp=Z,4.4nm,0.6s,mb5.1,baz=60,slow=4.0,SNR=22
ESDC                                pP      pP      02 02 15.9 +1.7
      comp=Z,7.8nm,0.7s,baz=58,slow=4.1,SNR=7.6
ILAR  Eielson Array     96.90  22   P      P        02 02 16.8 -0.1
      comp=Z,4.4nm,0.6s,mb5.1,baz=314,slow=4.3,SNR=14
ILAR  Eielson Array     96.90  22   P      P        02 02 16.8  0.0
ILAR                                pmax    pmax
      comp=Z,4.0nm,0.6s
FIB   Fire Island       97.18  26  eP      P        02 02 19.1 +0.9
SNAA  Sanae             97.40 198   P      P        02 02 19.7 +0.7
      comp=Z,4.1nm,1.4s,mb4.7,baz=19,slow=21,SNR=2.6
SNAA  Sanae             97.40 198   P      P        02 02 19.7 +0.7
SNAA                                pmax    pmax
      comp=Z,4.0nm,1.4s
INK   Inuvik            99.27  16   P      P        02 02 27.8 +0.4
      comp=Z,12nm,0.7s,mb5.5,baz=161,slow=30,SNR=18
INK   Inuvik            99.27  16   P      P        02 02 27.8 +0.3
INK                                 pmax    pmax
      comp=Z,12nm,0.7s
INK   Inuvik            99.27  16  eP      P        02 02 27.7 +0.2
      comp=Z,13nm,0.7s,mb5.6
VNA1  Neumayer--Stat    99.28 199⇑iP      P        02 02 24.8 -2.7
RES   Resolute Bay      99.85   3  eP      P        02 02 31.3 +1.3
      comp=Z,16nm,0.7s,mb5.5
RAR   Rarotonga        106.60 110   Pdiff   Pdif    02 02 59.9 -1.2
      comp=Z,8.9nm,0.3s,baz=134,slow=9.9,SNR=4.2
RAR   Rarotonga        106.60 110   P       Pdif    02 02 59.9 -1.3
RAR                                 pmax    pmax
      comp=Z,9.0nm,0.3s
YKA   Yellowknife Ar   108.74  14   Pdiff   Pdif    02 03 10.3 +0.8
      comp=Z,1.4nm,0.6s,baz=330,slow=4.5,SNR=10
YKA   Yellowknife Ar   108.74  14   P       Pdif    02 03 10.3 +0.7
YKA                                 pmax    pmax
      comp=Z,1.0nm,0.6s
SCHQ  Schefferville    118.00 348   PKP     PKPdf   02 07 32.0 +0.7
      comp=Z,3.1nm,0.6s,baz=340,slow=3.7,SNR=7.2
MSO   Missoula         122.23  23  ePKPdf   PKPdf   02 07 40.4 +0.6
MOD   Modoc            123.25  31  ePKPdf   PKPdf   02 07 43.6 +1.7
ULM   Lac du Bonnet    123.86   8   PKP     PKPdf   02 07 44.6 +1.7
      comp=Z,10nm,0.6s,baz=4.8,slow=1.4,SNR=17
ULM   Lac du Bonnet    123.86   8  ePKPdf   PKPdf   02 07 44.2 +1.3
NSHM  Saint Helena R   124.41  35  ePKPdf   PKPdf   02 07 46.4 +2.2
HLID  Hailey           124.72  25  ePKPdf   PKPdf   02 07 46.5 +1.8
YMR   Madison River    125.18  22  ePKPdf   PKPdf   02 07 48.1 +2.6
YNR   Norris Junctio   125.24  22  ePKPdf   PKPdf   02 07 49.1 +3.4
YFT   Old Faithful     125.41  22  ePKPdf   PKPdf   02 07 49.9 +3.9
WCN   Washoe City      125.43  32   PKIKP   PKPdf   02 07 49.2 +3.0
WCN   Washoe City      125.43  32   PKPdf   PKPdf   02 07 48.8 +2.6
CMB   Columbia Colle   126.00  34  ePKIKP   PKPdf   02 07 57.7  +10
TPAW  Teton Pass       126.18  23  ePKPdf   PKPdf   02 07 50.3 +2.8
LOHW  Long Hollow      126.21  22  ePKPdf   PKPdf   02 07 49.0 +1.4
WUWY  Wally Ulrich     126.22  23  ePKPdf   PKPdf   02 07 50.1 +2.5
SNOW  Snow King Moun   126.28  23  ePKPdf   PKPdf   02 07 50.6 +2.9
REDW  Red Top Meadow   126.33  23  ePKPdf   PKPdf   02 07 50.2 +2.4
ELK   Elko             126.60  28   P       Pdif    02 04 35.5 +6.7
NVAR  Mina Array Bea   126.84  32   PKP     PKPdf   02 07 51.4 +2.4
      comp=Z,10nm,0.7s,baz=312,slow=1.9,SNR=23
HVU   Hansel Valley    126.87  25   PKIKP   PKPdf   02 07 51.9 +3.0
HVU   Hansel Valley    126.87  25  ePKPdf   PKPdf   02 07 50.7 +1.8
BW06  Boulder Array    127.33  22  ePKPdf   PKPdf   02 07 51.8 +2.0
PDAR  Pinedale Array   127.33  22   PKP     PKPdf   02 07 51.0 +1.2
      comp=Z,17nm,1.0s,baz=128,slow=2.2,SNR=17
BGU   Big Grassy Mou   127.46  26  ePKPdf   PKPdf   02 07 53.0 +2.9
NOQ   North Oquirrh    128.08  26  ePKPdf   PKPdf   02 07 54.0 +2.7
NLU   North Lily Min   128.67  26  ePKPdf   PKPdf   02 07 54.5 +2.1
USHA  Ushuaia          128.81 193   PKP     PKPdf   02 07 53.3 +1.0
      comp=Z,3.9nm,0.8s,baz=300,slow=5.7,SNR=3.2
RWWY  Rawlins          129.13  21  ePKPdf   PKPdf   02 07 54.8 +1.5
MDV   Middlebury       129.59 348   PKPdf   PKPdf   02 07 55.5 +1.4
TMUT  Trail Mountain   129.59  26  ePKPdf   PKPdf   02 07 57.3 +3.1
SADO  Sadowa           129.74 354   PKP     PKPdf   02 07 55.1 +0.7
      comp=Z,8.5nm,0.6s,baz=313,slow=4.6,SNR=19
MSU   Marysvale        129.80  27   PKIKP   PKPdf   02 07 59.6 +5.0
MSU   Marysvale        129.80  27  ePKPdf   PKPdf   02 07 57.6 +3.0
SRU   San Rafael       130.04  25  ePKPdf   PKPdf   02 07 57.8 +2.7
PHWY  Pilot Hill       130.07  20  ePKPdf   PKPdf   02 07 56.4 +1.3
NEN   Nelson           130.75  32  ePKPdf   PKPdf   02 07 59.1 +2.5
PV10  Paradox Valley   131.28  25  ePKPdf   PKPdf   02 07 59.7 +2.2
PV01  Paradox Valley   131.68  24  ePKPdf   PKPdf   02 08 01.2 +3.0
ANMO  Albuquerque      135.28  25   PKP     PKPdf   02 08 07.0 +1.9
      comp=Z,10nm,0.7s,baz=262,slow=0.3,SNR=13
ANMO  Albuquerque      135.28  25   PKIKP   PKPdf   02 08 08.6 +3.6
ANMO  Albuquerque      135.28  25  ePKPdf   PKPdf   02 08 08.0 +3.0
WMOK  Wichita Mounta   138.17  16   PFAKE           02 08 20.0  +10
WMOK                                LR      LR
      comp=Z,3875µm,21.0s
CPCT  Cooper Cave      139.36 359  ePKPdf   PKPdf   02 08 12.7 +0.2
MIAR  Mount Ida        139.56  10   PKHKP           02 08 05.9
MIAR  Mount Ida        139.56  10  ePKPpre          02 08 05.0
LTX   Lajitas          141.32  26   PKIKP   PKPdf   02 08 18.5 +2.3
LTX   Lajitas          141.32  26  ePKPpre          02 08 12.3
TXAR  Lajitas Array    141.32  26   PKhKP           02 08 10.6
      comp=Z,4.6nm,0.6s,baz=353,slow=0.4,SNR=16
TXAR                                PKP     PKPdf   02 08 16.1  0.0
      comp=Z,7.9nm,0.6s,baz=46,slow=1.2,SNR=17
SJG   San Juan         149.82 321   PKPbc   PKPdf   02 08 36.7 +5.9
      comp=Z,27nm,0.6s,baz=44,slow=2.9,SNR=8.0
SJG   San Juan         149.82 321   PKP2    PKPdf   02 08 36.7 +5.9
SJG                                 pmax    pmax
      comp=Z,27nm,0.6s
PCRV  Puerto La Cruz   154.08 307   PKPbc   PKPdf   02 08 45.5 +8.4
      comp=Z,15nm,0.5s,baz=233,slow=3.7,SNR=9.9
TEIG  Tepich           154.40   6  ePKPab   PKPab   02 09 01.9 -0.6
LVC   Limon Verde      156.54 222   PKPab   PKPab   02 09 13.4 +1.8
      comp=Z,10nm,1.0s,baz=88,slow=5.4,SNR=4.1
SDV   Santo Domingo    159.47 314   PKP     PKPdf   02 08 45.9 +2.0
      comp=Z,10nm,1.0s,baz=199,slow=3.6,SNR=4.5
SDV                                 PKPab   PKPab   02 09 23.8 -0.6
      comp=Z,5.9nm,0.5s,baz=148,slow=2.7,SNR=4.2
LPAZ  La Paz           159.80 236   PKP     PKPdf   02 08 47.1 +2.9
      comp=Z,2.3nm,0.3s,baz=181,slow=3.3,SNR=5.0
LPAZ                                PKPab   PKPab   02 09 26.9 +1.2
      comp=Z,18nm,1.2s,baz=130,slow=8.7,SNR=3.2
LPAZ  La Paz           159.80 236   PKIKP   PKPdf   02 08 47.1 +2.9
LPAZ                                pmax    pmax
      comp=Z,2.0nm,0.3s
LPAZ                                pmax    pmax
      comp=Z,18nm,1.2s
LPAZ  La Paz           159.80 236  ePKPdf   PKPdf   02 08 47.7 +3.5
ROSC  El Rosal         164.88 312   PKP     PKPdf   02 08 51.9 +2.5
      comp=Z,7.1nm,0.7s,baz=99,slow=6.4,SNR=5.2
```

IDC ***26*** *01:50:52.4±0.9, 2.60N×93.78E, $h15^{km}\pm3^{km}$, mb4.9/14, mb1 5.0/15, mb1mx4.8/24, Error ellipse: s-maj=25.1km s-min=19.5km az=30.0*

MOS ***26*** *01:50:52.8±1.0, 2.57N×93.86E, $h33^{km}$, mb5.2/10, Error ellipse: s-maj=29.3km s-min=15.8km az=94.5*

ISC 26 01:50:50.8±0.7**, 2.6N**±0.1×**93.9E**±0.1**, $h17^{km}$, $h17^{km}\pm1.5^{km}$:pP-P, n38,** σ**1ˢ02**/28**, mb5.0**/17**, Off west coast of northern Sumatera**

```
Code  Station Name       Δ°  AZ°    Phase ID          Time     Res
                                   Op      ISC      h  m  s   ISC
CMAR  Chiang Mai Arr    16.55  17   Pn     P        01 54 43.9  0.0
      baz=213,slow=11,SNR=4.5
WRA   Warramunga Arr    45.60 121   P      P        01 59 11.2 -1.1
      24nm,0.6s,mb5.3,baz=304,slow=8.5,SNR=6.3
WRA   Warramunga Arr    45.60 121   P      P        01 59 11.2 -1.1
WRA                                 pmax    pmax
      comp=Z,24nm,0.6s
SONM  Songino Array     46.37  12   P      P        01 59 17.0 -1.0
      comp=Z,19nm,0.8s,mb5.1,baz=202,slow=7.7,SNR=3.5
TLY   Talaya            49.62   8  eP      P        01 59 44.5 +1.2
TLY                                 pmax    pmax
      comp=Z,26nm,0.8s,mb5.3
CBIJ  Chichi jima       52.24  57   P      P        02 00 04.7 +1.1
      comp=Z,56nm,0.5s,mb5.8,baz=288,slow=20,SNR=4.2
BVAR  Borovoye Array    53.90 343   P      P        02 00 14.7 -0.8
      comp=Z,19nm,0.7s,mb5.1,baz=157,slow=11,SNR=3.6
BOD   Bodaibo           57.34  13  eP      P        02 00 38.4 -1.9
ASAJ  Asahikawa         59.64  39   P      P        02 00 57.6 +1.1
      comp=Z,15nm,0.7s,mb5.1,baz=210,slow=20,SNR=3.7
ASAJ  Asahikawa         59.64  39   P      P        02 00 57.6 +1.1
ASAJ                                pmax    pmax
      comp=Z,15nm,0.7s
ARU   Arti              60.65 338  eP      P        02 01 03.6 +0.4
ASF   Jabal al Asfar    60.94 306   P      P        02 01 05.5  0.0
      comp=Z,3.9nm,1.0s,mb4.5,baz=82,slow=15,SNR=2.6
EIL   Elat              61.89 302   P      P        02 01 12.0 -0.1
      comp=Z,7.2nm,0.7s,mb4.9,baz=153,slow=11,SNR=2.3
BRTR  Keskin Array B    65.72 313   P      P        02 01 35.9 -1.1
      comp=Z,6.8nm,0.8s,mb4.7,baz=126,slow=7.1,SNR=3.1
BRTR  Keskin Array B    65.72 313   P      P        02 01 35.9 -1.1
BRTR                                pmax    pmax
      comp=Z,7.0nm,0.9s
OBN   Obninsk           69.71 329  eP      P        02 02 05.2 +3.5
OBN                                 pmax    pmax
      comp=Z,15nm,0.6s,mb5.1
MAW   Mawson            73.33 192   P      P        02 02 23.5 +0.3
      comp=Z,6.1nm,0.8s,mb4.6,baz=20,slow=3.0,SNR=3.6
MAW   Mawson            73.33 192   P      P        02 02 23.5 +0.4
MAW                                 pmax    pmax
      comp=Z,6.0nm,0.8s
KOLS  Kolonicke sedl    76.01 320  e       pP       02 02 40.6 -3.7
KECS  Kecovo            77.08 319  e       pP       02 02 51.3 +1.0
FINES FINESS Array B    77.25 333   P      P        02 02 44.8 -0.8
      comp=Z,5.3nm,0.8s,mb4.5,baz=112,slow=7.5,SNR=2.5
FINES                               pP      pP      02 02 49.9 -1.1
      comp=Z,16nm,0.8s,baz=101,slow=9.7,SNR=6.1
FINES FINESS Array B    77.25 333   P      P        02 02 44.8 -0.8
FINES                               *PP     pP      02 02 49.9 -1.1
FINES                               pmax    pmax
      comp=Z,5.0nm,0.8s
KAF   Kangasniemi       77.36 334  ep      P        02 02 49.6 +3.4
      baz=105,slow=5.2
KOLL  Kolacno           78.46 319  e       pP       02 02 59.0 +1.1
SMOL  Smolenice         79.09 319  e       pP       02 02 58.1 -3.3
ARCES ARCESS Array B    80.12 341   P      P        02 03 00.1 -1.1
      comp=Z,5.9nm,0.7s,mb4.6,baz=81,slow=16,SNR=3.4
ARCES                               pP      pP      02 03 06.2 -0.4
      comp=Z,33nm,1.0s,baz=124,slow=4.4,SNR=7.2
ARCES ARCESS Array B    80.12 341   P      P        02 03 00.1 -1.0
ARCES                               *PP     pP      02 03 06.2 -0.3
ARCES                               pmax    pmax
      comp=Z,6.0nm,0.7s
GERES GERESS Array B    81.58 319   P      P        02 03 09.2  0.0
      comp=Z,15nm,1.1s,mb4.8,baz=117,slow=3.0,SNR=3.8
GERES                               pP      pP      02 03 15.7 +1.1
      comp=Z,18nm,0.8s,baz=90,slow=5.3,SNR=8.6
GERES GERESS Array B    81.58 319   P      P        02 03 09.2  0.0
GERES                               *PP     pP      02 03 15.7 +1.1
GERES                               pmax    pmax
      comp=Z,15nm,1.1s
HFS   Hagfors           82.87 330   P      P        02 03 16.2 +0.6
      comp=Z,46nm,1.3s,mb5.3,baz=98,slow=10,SNR=3.1
HFS                                 pP      pP      02 03 20.7 -0.4
      comp=Z,17nm,0.9s,baz=104,slow=6.1,SNR=4.6
NB2   NORSAR Subarra    84.18 331   P      pP       02 03 27.0 -0.8
      comp=Z,28nm,1.1s,baz=92,slow=5.6
NB2   NORSAR Subarra    84.18 331   P      pP       02 03 27.0 -0.8
      baz=92,slow=5.6
NOA   NORSAR Array B    84.18 331   P      P        02 03 22.5 +0.2
      comp=Z,2.3nm,0.8s,mb4.4,baz=214,slow=22,SNR=2.7
NOA                                 pP      pP      02 03 27.4 -0.4
      comp=Z,12nm,0.9s,baz=94,slow=5.3,SNR=7.1
LPG   La Plagne         86.14 315  eP      P        02 03 34.0 +1.5
      comp=Z,45nm,1.0s,mb5.3
NVAR  Mina Array Bea   129.54  33   PKP     PKPdf   02 10 02.5 -0.9
      comp=Z,2.0nm,0.8s,slow=0.9,SNR=2.5
PDAR  Pinedale Array   130.16  23   pPKP            02 10 08.0
      comp=Z,4.0nm,0.9s,slow=1.5,SNR=4.2
ANMO  Albuquerque      138.08  25   pPKP            02 10 24.3
      comp=Z,7.2nm,0.9s,baz=199,slow=1.0,SNR=5.7
TXAR  Lajitas Array    144.10  27   PKP     PKPdf   02 10 28.4 -1.7
      comp=Z,1.3nm,0.7s,baz=188,slow=0.5,SNR=2.6
```

IDC ***26*** *01:52:10.8±0.8, 7.71N×93.54E, mb4.9/13, mb1 5.0/13, mb1mx4.9/19, Error ellipse: s-maj=37.0km s-min=18.3km az=52.0*

ISC 26 01:52:14.0±0.6**, 7.6N**±0.1×**93.4E**±0.1**, $h33^{km}$, n21,** σ**0ˢ98**/20**, mb4.9**/13**, Nicobar Islands region**

```
Code  Station Name       Δ°  AZ°    Phase ID          Time     Res
                                   Op      ISC      h  m  s   ISC
PALK  Pallekele         12.57 269  eP      P        01 55 11.1 -2.3
SONM  Songino Array     41.62  13   P      P        01 59 59.8 -1.0
      14nm,1.0s,mb4.5,baz=195,slow=8.6,SNR=2.1
ZAL   Zalesovo          46.75 353   P      P        02 00 40.8 -1.0
      20nm,0.8s,mb5.1,baz=293,slow=4.0,SNR=3.7
WRA   Warramunga Arr    48.71 125   P      P        02 00 57.6  0.0
      29nm,0.7s,mb5.4,baz=303,slow=9.1,SNR=4.8
MAT   Matsushiro        49.92  48   P      pP       02 01 19.7 +3.0
ASAR  Alice Springs     50.31 129   P      P        02 01 09.5 -0.4
      33nm,0.7s,mb5.5,baz=304,slow=7.0,SNR=8.7
EIL   Elat              58.91 300   P      P        02 02 13.8 +1.2
      6.4nm,0.8s,mb4.7,baz=282,slow=29,SNR=1.8
BRTR  Keskin Array B    62.05 311   P      P        02 02 33.3 -0.4
      5.5nm,0.7s,mb4.8,baz=126,slow=8.5,SNR=3.5
AKASG Malin Array Be    67.92 322   P      P        02 03 11.9 +0.4
      12nm,1.1s,mb4.8,baz=89,slow=4.6,SNR=3.2
IDI   Anoyia            68.11 305   P      P        02 03 14.2 +1.2
      12nm,0.6s,mb5.1
FINES FINESS Array B    72.62 332   P      P        02 03 39.8  0.0
      11nm,0.7s,mb4.9,baz=120,slow=11,SNR=3.4
KAF   Kangasniemi       72.71 333  ep      P        02 03 45.2 +4.9
ARCES ARCESS Array B    75.29 340   P      P        02 03 54.1 -1.1
      7.7nm,0.7s,mb4.7,baz=108,slow=5.7,SNR=2.4
TRO   Tromso            77.54 340  eP      P        02 04 08.8 +0.8
MAW   Mawson            78.09 191   P      P        02 04 11.2 +0.2
      13nm,1.1s,mb4.8,baz=167,slow=3.7,SNR=4.0
HFS   Hagfors           78.33 330   P      P        02 04 12.5 +0.1
      5.8nm,0.5s,mb4.8,baz=90,slow=4.3,SNR=5.7
NB2   NORSAR Subarra    79.62 331   P      P        02 04 18.9 -0.5
      86nm,1.2s,mb5.6,baz=93,slow=5.8
NB2   NORSAR Subarra    79.62 331   P      P        02 04 18.9 -0.5
      baz=93,slow=5.9
NOA   NORSAR Array B    79.62 331   P      P        02 04 18.1 -1.3
      5.1nm,0.6s,mb4.6,baz=92,slow=5.6,SNR=6.2
DOMB  Dombas            80.69 332  eP      P        02 04 25.6 +0.5
MOL   Molde             81.40 332  eP      P        02 04 31.0 +2.1
```

BJI ***26*** *01:52:40.0, 10.40N×92.10E, $h12^{km}$, mb5.5*

IDC ***26*** *01:52:41.1±0.5, 10.32N×92.07E, mb5.0/23, mb1 5.1/23, mb1mx5.0/27, Error ellipse: s-maj=18.8km s-min=11.6km az=40.0*

NEIC ***26*** *01:52:43.0±6.8, 10.38N×92.12E, $h12^{km}\pm41^{km}$, mb5.2/12, Error ellipse: s-maj=11.0km s-min=7.7km az=223.0*

ISC 26 01:52:44.3±0.3**, 10.37N**±0.07×**92.16E**±0.07**, $h33^{km}$, ($h33^{km}\pm1.7^{km}$:pP-P), n57,** σ**0ˢ97**/45**, mb5.2**/35**, Andaman Islands region**

```
Code  Station Name       Δ°  AZ°    Phase ID          Time     Res
                                   Op      ISC      h  m  s   ISC
LSA   Lhasa             19.25 357  eP      P        01 57 07.8 -0.9
      135nm,0.8s
PTH   Pithoragarh       22.10 331  e       P        01 57 42.0 +3.6
PTH                                e                01 57 42.0
ENH   Enshi             25.54  37  eP      P        01 58 11.5 -0.4
      164nm,0.7s,mb5.7
TGY   Tagaytay City     28.36  80   P      P        01 58 38.0 +0.2
      151nm,0.6s,mb5.8,baz=166,slow=12,SNR=2.3
NJ2   Nanjing           32.76  45  eP      P        01 59 13.0 -3.6
AAK   Ala-Archa         35.65 337  eP      P        01 59 38.5 -2.8
      7.7nm,0.6s,mb4.8
AAK                                e                01 59 43.8
JOW   Kunigami          37.77  59   P      P        02 00 00.4 +1.2
      21nm,0.3s,mb5.3,baz=272,slow=16,SNR=11
SONM  Songino Array     39.22  15   P      P        02 00 12.9 +1.9
      15nm,0.7s,mb4.8,baz=205,slow=7.7,SNR=5.0
INCN  Inchon            41.09  43   P      P        02 00 25.2 -1.5
      26nm,0.6s,mb5.0
INCN                               e                02 00 37.3
TLY   Talaya            42.24  11   P      P        02 00 39.5 +3.5
      8.6nm,0.7s,mb4.5
TLY                                e       pP       02 00 48.6 +2.7
CN2   Changchun         44.04  35  eP      P        02 00 50.5 -0.2
BVAR  Borovoye Array    46.01 342   P      P        02 01 07.0 +0.6
      7.2nm,0.6s,mb4.8,baz=144,slow=12,SNR=2.4
NWAO  Narrogin (SRO)    49.26 152   P      P        02 01 32.1 +0.2
      28nm,0.7s,mb5.4,baz=318,slow=11,SNR=4.4
WRA   Warramunga Arr    51.30 126   P      P        02 01 47.2 -0.5
      42nm,0.5s,mb5.6,baz=306,slow=8.5,SNR=26
WRAB  Tennant Creek     51.30 126  eP      P        02 01 47.0 -0.7
      322nm,1.3s,mb6.1
WRAB                               e       pP       02 01 57.1 -0.5
GNI   Garni             51.30 314   P      P        02 01 48.5 +1.0
      20nm,0.7s,mb5.2,baz=51,slow=6.2,SNR=3.4
ASAR  Alice Springs     53.01 130   P      P        02 02 00.2 -0.2
      20nm,0.6s,mb5.2,baz=304,slow=6.9,SNR=11
KIV   Kislovodsk        54.16 317  eP      P        02 02 08.0 -0.8
      204nm,1.1s,mb6.0
ASAJ  Asahikawa         54.87  43   P      P        02 02 14.3 +0.4
      16nm,0.7s,mb5.2,baz=278,slow=11,SNR=1.6
KMBO  Kilima Mbogo      55.80 262   P      P        02 02 20.2 -0.8
      14nm,1.0s,mb5.0,baz=60,slow=14,SNR=3.8
EIL   Elat              56.51 299   P      P        02 02 24.2 -1.6
      11nm,0.5s,mb5.1,baz=145,slow=6.1,SNR=2.7
PMG   Port Moresby      58.14 108   P      P        02 02 37.6 -0.1
      11nm,0.6s,mb5.1,baz=294,slow=12,SNR=1.8
PMG   Port Moresby      58.14 108  eP      P        02 02 37.5 -0.1
      11nm,0.6s,mb5.0
BRTR  Keskin Array B    59.33 310   P      P        02 02 46.0 +0.5
      4.3nm,0.7s,mb4.6,baz=131,slow=6.8,SNR=3.5
CTA   Charters Tower    61.23 120   P      P        02 02 58.4 -0.4
      21nm,1.1s,mb5.2,baz=275,slow=8.5,SNR=5.0
CTA   Charters Tower    61.23 120   P      P        02 02 58.4 -0.4
STKA  Stephens Creek    63.24 134   P      P        02 03 12.4 +0.4
      28nm,0.7s,mb5.5,baz=305,slow=6.5,SNR=4.6
AKASG Malin Array Be    64.99 321   P      P        02 03 22.6 -0.7
      9.6nm,0.7s,mb5.0,baz=82,slow=4.8,SNR=7.4
MLR   Muntele Rosu      66.03 315   P      P        02 03 29.8 -0.1
      18nm,0.8s,mb5.2,baz=192,slow=5.3,SNR=3.7
LSZ   Lusaka            68.30 249  eP      P        02 03 44.2 -0.5
      5.7nm,0.7s,mb4.7
FINES FINESS Array B    69.60 332   P      P        02 03 51.0 -0.9
      17nm,0.7s,mb5.1,baz=98,slow=6.7,SNR=7.8
ARCES ARCESS Array B    72.27 340   P      P        02 04 08.4 +0.6
      22nm,0.7s,mb5.2,baz=90,slow=6.1,SNR=6.4
LBTB  Lobatse           73.75 240  eP      P        02 04 16.7 -0.8
      16nm,0.7s,mb5.1
TRO   Tromso            74.52 340  eP      P        02 04 20.2 -0.8
CLL   Collm             75.20 320  eP      P        02 04 26.0 +0.7
CLL   Collm             75.20 320   P      P        02 04 26.0 +0.7
CLL                                e*PP    pP       02 04 37.0 +1.4
HFS   Hagfors           75.32 330   P      P        02 04 25.8  0.0
      30nm,0.6s,mb5.4,baz=117,slow=6.6,SNR=11
NOA   NORSAR Array B    76.61 330   P      P        02 04 33.0 -0.1
      7.9nm,0.6s,mb4.8,baz=94,slow=5.7,SNR=6.0
NOA   NORSAR Array B    76.61 330   P      P        02 04 33.0 -0.1
LPL   La Plagne         79.49 315  eP      P        02 04 50.7 +1.3
      163nm,1.0s,mb5.6
SUR   Sutherland        80.16 234  eP      P        02 04 55.2 +2.0
      13nm,0.6s,mb5.0
MAW   Mawson            80.58 191   P      P        02 04 55.3 +0.6
      6.7nm,0.8s,mb4.7,baz=359,slow=9.1,SNR=2.8
ESDC  Sonseca Array     88.12 310   P      P        02 05 34.2 +1.0
      4.1nm,0.6s,mb4.8,baz=70,slow=4.4,SNR=10
ILAR  Eielson Array     93.17  22   P      P        02 05 55.8 -0.3
      4.6nm,0.7s,mb5.0,baz=291,slow=3.9,SNR=7.4
INK   Inuvik            95.13  15   P      P        02 06 05.9 +0.9
      94nm,1.6s,mb6.0,baz=178,slow=28,SNR=3.7
PDAR  Pinedale Array   123.51  19   PKP     PKPdf   02 11 40.1 +1.4
```

	2.9nm,0.8s,baz=72,slow=2.9,SNR=6.4						
NVAR	**Mina Array Bea**	**123.73**	**29**	PKP	PKPdf	02 11 42.4	+3.1
	4.1nm,0.7s,baz=327,slow=1.7,SNR=7.5						
MNV	**Mina**	**123.80**	**28**	*e*PKPdf	PKPdf	02 11 42.8	+3.3
MTUM	**Tungsten Hills**	**124.46**	**30**	*e*PKPdf	PKPdf	02 11 44.0	+3.3
MVU	**Marysvale**	**126.32**	**24**	PKPdf	PKPdf	02 11 46.9	+2.6
MSU	**Marysvale**	**126.32**	**24**	PKPdf	PKPdf	02 11 48.1	+3.8
TXAR	**Lajitas Array**	**137.67**	**21**	PKP	PKPdf	02 12 06.9	+1.0
	3.1nm,0.8s,baz=122,slow=1.7,SNR=4.2						
SJG	**San Juan**	**144.51**	**323**	PKP	PKPdf	02 12 18.8	+0.6
	26nm,0.7s,baz=46,slow=5.7,SNR=6.5						
SJG	**San Juan**	**144.51**	**323**	PKP	PKPdf	02 12 18.8	+0.5
SJG				*e*PKPdf	PKPdf	02 12 19.8	+1.5
PCRV	**Puerto La Cruz**	**149.19**	**311**	PKPbc	PKPdf	02 12 31.4	+5.2
	15nm,0.5s,baz=321,slow=3.7,SNR=6.1						
SDV	**Santo Domingo**	**154.32**	**318**	PKP	PKPdf	02 12 35.4	+1.6
	6.8nm,0.7s,baz=315,slow=5.8,SNR=2.6						
SDV				PKPab	PKPab	02 12 57.1	-1.4
	6.6nm,0.7s,baz=22,slow=3.3,SNR=3.3						
LVC	**Limon Verde**	**158.18**	**234**	PKPab	PKPab	02 13 14.4	-0.4
	3.6nm,0.6s,baz=39,slow=1.5,SNR=6.0						

IDC 26 01:55:37.8±1.2**, 11.54N**×**92.36E, h40**^{km}±6^{km}**, mb4.5**/11**, mb1 4.6**/11**, mb1mx4.4**/19**, Error ellipse: s-maj=39.4km s-min=23.2km az=36.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**38.05**	**15**	P	P	02 02 52.2	-1.9
	10.0nm,0.6s,baz=206,slow=8.5,SNR=5.3						
BVAR	**Borovoye Array**	**44.98**	**341**	P	P	02 03 49.1	-1.8
	11nm,0.6s,baz=144,slow=10,SNR=6.4						
WRA	**Warramunga Arr**	**51.83**	**127**	P	P	02 04 41.2	-3.2
	8.2nm,0.6s,baz=303,slow=9.0,SNR=5.6						
ASAJ	**Asahikawa**	**53.89**	**43**	P	P	02 04 57.9	-1.6
	5.4nm,0.4s,baz=273,slow=18,SNR=3.5						
BRTR	**Keskin Array B**	**58.74**	**310**	P	P	02 05 31.9	-2.3
	3.9nm,0.8s,baz=118,slow=6.6,SNR=4.5						
BRTR				pP	pP	02 05 44.6	-1.2
	4.2nm,0.7s,baz=117,slow=5.7,SNR=4.0						
AKASG	**Malin Array Be**	**64.22**	**321**	P	P	02 06 07.3	-3.6
	8.7nm,0.7s,baz=80,slow=5.3,SNR=6.4						
AKASG				pP	pP	02 06 20.8	-1.9
	3.3nm,0.6s,baz=86,slow=5.0,SNR=3.8						
FINES	**FINESS Array B**	**68.67**	**332**	P	P	02 06 36.2	-2.7
	18nm,0.9s,baz=101,slow=9.7,SNR=4.5						
FINES				pP	pP	02 06 48.8	-2.1
	5.2nm,0.5s,baz=110,slow=8.7,SNR=3.0						
KAF	**Kangasniemi**	**68.75**	**333**	*e*p	P	02 06 37.0	-2.4
KAF	**Kangasniemi**	**68.75**	**333**	*e*p	P	02 06 37.2	-2.2
ARCES	**ARCESS Array B**	**71.25**	**340**	P	P	02 06 52.9	-1.7
	8.5nm,0.7s,baz=90,slow=7.3,SNR=4.2						
GERES	**GERESS Array B**	**73.95**	**318**	P	P	02 07 09.7	-1.1
	4.9nm,0.6s,baz=84,slow=5.9,SNR=6.2						
NOA	**NORSAR Array B**	**75.70**	**330**	P	P	02 07 19.1	-1.5
	1.8nm,0.8s,baz=96,slow=5.9,SNR=2.3						
NOA				pP	pP	02 07 30.3	-2.3
	2.4nm,0.6s,baz=92,slow=5.7,SNR=3.1						
LPL	**La Plagne**	**78.83**	**314**	*e*P	P	02 07 37.3	-1.1
	36nm,0.8s						
ILAR	**Eielson Array**	**92.02**	**22**	P	P	02 08 40.8	-2.7
	5.6nm,0.7s,baz=305,slow=4.3,SNR=8.3						
ILAR				pP	pP	02 08 51.0	-4.9
	2.8nm,0.8s,baz=295,slow=3.3,SNR=4.4						
NVAR	**Mina Array Bea**	**122.62**	**28**	PKP	PKPdf	02 14 31.8	+2.0
	1.8nm,0.7s,baz=222,slow=28,SNR=5.0						
TXAR	**Lajitas Array**	**136.52**	**21**	PKP	PKPdf	02 14 57.6	+1.2
	3.5nm,1.1s,baz=85,slow=0.4,SNR=3.7						

IDC 26 01:55:55.8±1.3**, 2.28N**×**94.91E, mb4.7**/5**, mb1 4.9**/6**, mb1mx4.5**/18**, ML5.3**/1**, Error ellipse: s-maj=73.2km s-min=23.2km az=46.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**16.56**	**14**	Pn	P	01 59 47.4	-3.7
	3.7nm,0.3s,baz=216,slow=12,SNR=7.8						
WRA	**Warramunga Arr**	**44.54**	**122**	P	P	02 04 09.1	-2.4
	68nm,1.2s,baz=302,slow=8.9,SNR=5.9						
ASAR	**Alice Springs**	**45.87**	**127**	P	P	02 04 20.5	-1.4
	9.8nm,0.8s,baz=297,slow=8.1,SNR=4.1						
BRTR	**Keskin Array B**	**66.70**	**313**	P	P	02 06 47.5	-3.5
	3.0nm,0.7s,baz=126,slow=7.3,SNR=4.6						
FINES	**FINESS Array B**	**78.00**	**333**	P	P	02 07 56.5	-1.0
	3.2nm,0.7s,baz=76,slow=5.7,SNR=2.6						
ARCES	**ARCESS Array B**	**80.76**	**341**	P	P	02 08 12.2	-0.1
	2.6nm,0.5s,baz=94,slow=6.0,SNR=4.6						

*IDC **26** 01:59:06.4±1.1, 3.17N×94.53E, mb4.6/10, mb1 4.8/10, mb1mx4.7/18, Error ellipse: s-maj=58.4km s-min=21.3km az=43.0*

ISC 26 01:59:06.1±0.9**, 2.6N**±0.3×**94.9E**±0.2**, h33**^{km}**, n14,** σ1^{s}**14**/12**, mb4.6**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**44.72**	**122**	P	pP	02 07 25.7	-2.5
	11nm,1.0s,baz=305,slow=8.5,SNR=4.7						
WRA	**Warramunga Arr**	**44.72**	**122**	P	**P**	**02 07 17.9**	**-0.4**
	3.8nm,0.6s,mb4.4,baz=307,slow=8.5,SNR=3.3						
ASAR	**Alice Springs**	**46.06**	**127**	P	pP	02 07 38.0	-0.9
	6.5nm,0.7s,baz=308,slow=6.8,SNR=4.7						
ASAR	**Alice Springs**	**46.06**	**127**	P	**P**	**02 07 29.1**	**+0.1**
	3.9nm,0.7s,mb4.5,baz=300,slow=6.9,SNR=4.2						
SONM	**Songino Array**	**46.14**	**11**	P	**P**	**02 07 28.6**	**-0.7**
	9.5nm,0.6s,mb4.9,baz=201,slow=6.1,SNR=4.6						
ZAL	**Zalesovo**	**51.84**	**352**	P	**P**	**02 08 06.6**	**-6.5**
	7.1nm,0.4s,mb4.9,baz=267,slow=8.2,SNR=2.5						
BVAR	**Borovoye Array**	**54.20**	**342**	P	**P**	**02 08 25.5**	**-5.1**
	4.8nm,0.5s,mb4.7,baz=141,slow=9.5,SNR=3.7						
ASF	**Jabal al Asfar**	**61.79**	**305**	P	**P**	**02 09 24.1**	**-0.1**
	2.8nm,0.7s,mb4.5,baz=160,slow=2.9,SNR=3.4						
BRTR	**Keskin Array B**	**66.48**	**312**	P	**P**	**02 09 52.7**	**-2.0**
	3.5nm,0.6s,mb4.6,baz=132,slow=7.0,SNR=3.9						
AKASG	**Malin Array Be**	**72.76**	**323**	P	**P**	**02 10 31.4**	**-1.5**
	2.3nm,0.5s,mb4.4,baz=83,slow=4.9,SNR=6.0						
FINES	**FINESS Array B**	**77.71**	**333**	P	**P**	**02 11 01.1**	**0.0**
	17nm,0.9s,mb5.0,baz=108,slow=5.4,SNR=11						
ARCES	**ARCESS Array B**	**80.46**	**340**	P	**P**	**02 11 17.3**	**+1.4**
	4.8nm,0.4s,mb4.8,baz=98,slow=6.6,SNR=13						
GERES	**GERESS Array B**	**82.26**	**319**	P	**P**	**02 11 27.2**	**+1.6**
	3.8nm,0.7s,mb4.4,baz=104,slow=5.5,SNR=3.7						
NOA	**NORSAR Array B**	**84.68**	**331**	P	**P**	**02 11 39.1**	**+1.5**
	3.1nm,0.7s,mb4.5,baz=101,slow=5.1,SNR=3.2						

*IDC **26** 01:59:09.3±0.5, 8.44N×92.43E, mb4.9/29, mb1 4.9/29, mb1mx4.9/30, Error ellipse: s-maj=18.9km s-min=10.8km az=36.0*

*NEIC **26** 01:59:14.0±0.2, 8.39N×92.45E, h30^{km}, mb5.3/22, Error ellipse: s-maj=7.5km s-min=5.9km az=221.0*

*BJI **26** 01:59:13.8, 8.22N×92.25E, h46^{km}, mb5.1*

ISC 26 01:59:12.2±0.3**, 8.32N**±0.05×**92.48E**±0.04**, h30**^{km}**, n121,** σ1^{s}**03**/112**, mb5.0**/46**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.88**	**31**	P	**P**	**02 01 59.8**	**-3.0**
VIS	**Vishakhapatnam**	**12.91**	**317**	*e*P	**P**	**02 02 12.9**	**-3.6**
	comp=Z,255nm,0.9s						
MDRS	**Chennai**	**12.91**	**292**	*e*P	**P**	**02 02 13.9**	**-2.6**
KOD	**Kodaikanal**	**14.93**	**278**	*e*P	**P**	**02 02 42.5**	**-0.8**
TRD	**Trivandrum**	**15.35**	**272**	*e*P	**P**	**02 02 49.5**	**+0.8**
TRD				*e*		02 05 30.5	
SHL	**Shillong**	**17.16**	**358**	*e*P	**P**	**02 03 14.6**	**+2.9**
MNGI	**Mangalore**	**17.94**	**286**	*e*P	**P**	**02 03 20.8**	**-0.6**
AKL	**Akola**	**19.36**	**311**	*e*P	**P**	**02 03 40.3**	**+1.9**
AKL				*e*		02 03 41.0	
	comp=Z,1μm,1.6s						
QIZ	**Qiongzhong**	**19.93**	**56**	P	**P**	**02 03 46.0**	**+1.1**
QIZ	**Qiongzhong**	**19.93**	**56**	*e*P	**P**	**02 03 45.6**	**+0.7**
	comp=Z,33nm,0.6s						
POO	**Poona**	**20.74**	**301**	*e*P	**P**	**02 03 53.8**	**+0.5**
LSA	**Lhasa**	**21.31**	**357**	*e*P	**P**	**02 03 55.4**	**-3.5**
	comp=Z,373nm,1.4s,mb5.5						
GYA	**Guiyang**	**22.52**	**35**	⇑*i*P	**P**	**02 04 12.5**	**+1.4**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
CD2	**Chengdu**	**24.82**	**24**	P	**P**	**02 04 34.0**	**+0.5**
NDI	**New Delhi**	**24.84**	**327**	*e*P	**P**	**02 04 34.3**	**+0.7**
ENH	**Enshi**	**27.03**	**34**	*e*P	**P**	**02 04 53.3**	**-0.7**
TGY	**Tagaytay City**	**28.49**	**76**	P	**P**	**02 05 07.2**	**-0.1**
	comp=Z,94nm,0.3s,mb5.9,baz=245,slow=16,SNR=1.8						
GTA	**Gaotai**	**31.65**	**11**	P	**P**	**02 05 35.5**	**+0.3**
GTA				AP	pP	02 05 43.5	-0.5
GTA				XP	sP	02 05 48.3	+0.4
GTA				AMB	AMB		
	comp=Z,33nm,0.8s,mb5.2						
NJ2	**Nanjing**	**34.03**	**42**	*e*P	**P**	**02 05 57.3**	**+1.4**
KBK	**Karagaybulak**	**37.52**	**339**	P	**P**	**02 06 26.7**	**+1.4**
	SNR=7.0						
AML	**Almayashu**	**37.53**	**337**	P	**P**	**02 06 27.3**	**+1.8**
	SNR=9.0						
AAK	**Ala-Archa**	**37.66**	**338**	P	**P**	**02 06 28.6**	**+2.0**
	SNR=6.8						
AAK	**Ala-Archa**	**37.66**	**338**	P	**P**	**02 06 26.2**	**-0.4**
	comp=Z,120nm,1.2s,mb5.5						
EKS2	**Erkin-Say**	**37.95**	**337**	P	**P**	**02 06 30.4**	**+1.4**
	SNR=5.7						
USP	**Ospenovka**	**38.21**	**339**	P	**P**	**02 06 32.1**	**+0.9**
	SNR=9.2						
JOW	**Kunigami**	**38.58**	**57**	P	**P**	**02 06 34.4**	**-0.1**
	comp=Z,20nm,0.7s,mb5.0,baz=266,slow=24,SNR=5.7						
MBWA	**Marble Bar**	**39.69**	**138**	P	**P**	**02 06 44.6**	**+0.8**
	comp=Z,64nm,1.1s,mb5.3						
SONM	**Songino Array**	**41.12**	**14**	P	**P**	**02 06 54.3**	**-0.8**
	comp=Z,10nm,0.8s,mb4.5,baz=195,slow=7.1,SNR=6.5						
HASS	**Wahat al Ahsa’**	**44.04**	**298**	P	**P**	**02 07 20.3**	**+1.0**
ZAL	**Zalesovo**	**45.91**	**354**	P	**P**	**02 07 33.5**	**-0.4**
	comp=Z,5.2nm,0.9s,mb4.5,baz=282,slow=11,SNR=3.4						
ZAL	**Zalesovo**	**45.91**	**354**	P	**P**	**02 07 33.5**	**-0.4**
RYDS	**Riyadh**	**46.51**	**295**	P	**P**	**02 07 40.8**	**+1.7**
HIA	**Hailar**	**46.78**	**24**	*e*P	**P**	**02 07 41.3**	**+0.4**
	comp=Z,73nm,1.3s,mb5.5						
NWAO	**Narrogin (SRO)**	**47.31**	**151**	P	**P**	**02 07 46.8**	**+1.4**
	comp=Z,9.5nm,0.4s,mb5.1,baz=337,slow=7.7,SNR=2.2						
KAMS	**Al Khamasin**	**47.75**	**290**	P	**P**	**02 07 49.0**	**+0.1**
MZLS	**Mizel**	**47.76**	**295**	P	**P**	**02 07 49.9**	**+0.9**
BVAR	**Borovoye Array**	**48.05**	**342**	P	**P**	**02 07 49.2**	**-1.6**
	comp=Z,5.0nm,0.5s,mb4.8,baz=145,slow=10.0,SNR=12						
CHKZ	**Chkalovo**	**48.55**	**343**	*e*P	**P**	**02 07 54.4**	**-0.2**
TATS	**Tathlith**	**48.69**	**289**	P	**P**	**02 07 56.6**	**+0.4**
AFFS	**‘Afif**	**49.73**	**294**	P	**P**	**02 08 05.3**	**+1.2**
WRA	**Warramunga Arr**	**49.86**	**125**	P	**P**	**02 08 04.8**	**-0.5**
	comp=Z,29nm,0.5s,mb5.6,baz=301,slow=9.1,SNR=14						
WRAB	**Tennant Creek**	**49.87**	**125**	*e*P	**P**	**02 08 04.8**	**-0.4**
	comp=Z,105nm,0.8s,mb5.9						
ARSS	**Ar Rass**	**49.87**	**297**	P	**P**	**02 08 05.7**	**+0.5**
MAT	**Matsushiro**	**50.10**	**49**	P	**P**	**02 08 07.0**	**+0.2**
MAT	**Matsushiro**	**50.10**	**49**	*e*P	**P**	**02 08 07.0**	**+0.2**
HILS	**Ha’il**	**51.44**	**298**	P	**P**	**02 08 18.4**	**+1.3**
ASAR	**Alice Springs**	**51.47**	**129**	P	**P**	**02 08 16.4**	**-1.0**
	comp=Z,13nm,0.6s,mb5.0,baz=300,slow=8.0,SNR=11						
GNI	**Garni**	**52.95**	**315**	P	**P**	**02 08 27.4**	**-0.9**
	comp=Z,9.6nm,0.8s,mb4.8,baz=85,slow=2.6,SNR=4.5						
GNI	**Garni**	**52.95**	**315**	P	**P**	**02 08 29.1**	**+0.8**
	comp=Z,69nm,1.2s,mb5.5						
KBRS	**Khaybar**	**53.38**	**296**	P	**P**	**02 08 33.2**	**+1.6**
ARU	**Arti**	**54.85**	**338**	*e*P	**P**	**02 08 41.4**	**-0.6**
	comp=Z,134nm,1.5s,mb5.8						
ARU				*e*	pP	02 08 50.3	-0.9
KMBO	**Kilima Mbogo**	**55.84**	**263**	P	**P**	**02 08 50.1**	**+0.4**
	comp=Z,9.2nm,0.8s,mb4.9,baz=54,slow=10,SNR=11						
ASAJ	**Asahikawa**	**56.17**	**42**	P	**P**	**02 08 51.9**	**+0.2**
	comp=Z,6.7nm,0.8s,mb4.7,baz=214,slow=18,SNR=2.8						
ASF	**Jabal al Asfar**	**56.59**	**303**	P	**P**	**02 08 53.7**	**-1.2**
	comp=Z,12nm,1.1s,mb4.9,baz=7.6,slow=3.6,SNR=5.2						
PMG	**Port Moresby**	**57.24**	**107**	P	**P**	**02 08 59.3**	**-0.4**
	comp=Z,12nm,0.7s,mb5.1,baz=297,slow=4.3,SNR=4.1						
PMG	**Port Moresby**	**57.24**	**107**	*e*P	**P**	**02 08 59.5**	**-0.2**
	comp=Z,78nm,1.3s,mb5.6						
EIL	**Elat**	**57.77**	**300**	P	**P**	**02 09 03.0**	**-0.4**
	comp=Z,27nm,0.9s,mb5.2,baz=100,slow=5.8,SNR=11						
EIL	**Elat**	**57.77**	**300**	*e*P	**P**	**02 09 03.5**	**+0.2**
	comp=Z,68nm,1.4s,mb5.5						
CTA	**Charters Tower**	**59.96**	**119**	P	**P**	**02 09 18.9**	**+0.3**
	comp=Z,5.3nm,0.8s,mb4.6,baz=288,slow=3.7,SNR=5.3						
CTA	**Charters Tower**	**59.96**	**119**	P	**P**	**02 09 18.9**	**+0.3**
BRTR	**Keskin Array B**	**60.89**	**311**	P	**P**	**02 09 21.9**	**-2.8**
	comp=Z,6.1nm,0.8s,mb4.8,baz=139,slow=7.1,SNR=8.2						
STKA	**Stephens Creek**	**61.61**	**133**	P	**P**	**02 09 29.6**	**0.0**
	comp=Z,7.6nm,0.6s,mb5.0,baz=307,slow=7.3,SNR=6.0						
STKA	**Stephens Creek**	**61.61**	**133**	*e*P	**P**	**02 09 29.9**	**+0.2**
OBN	**Obninsk**	**64.13**	**328**	P	**P**	**02 09 44.4**	**-1.6**
AKASG	**Malin Array Be**	**66.79**	**322**	P	**P**	**02 10 00.3**	**-2.8**
	comp=Z,3.9nm,0.7s,mb4.6,baz=87,slow=4.7,SNR=6.5						
IDI	**Anoyia**	**66.96**	**305**	P	**P**	**02 10 03.3**	**-1.3**
	comp=Z,8.6nm,0.5s,mb5.0,baz=85,slow=6.7,SNR=5.7						
MLR	**Muntele Rosu**	**67.70**	**316**	P	**P**	**02 10 08.7**	**-0.4**
	comp=Z,33nm,1.0s,mb5.3,baz=60,slow=2.0,SNR=6.1						
LSZ	**Lusaka**	**67.87**	**250**	*e*P	**P**	**02 10 11.0**	**+0.5**
	comp=Z,2.9nm,0.5s,mb4.6						
KWP	**Kalwaria**	**70.63**	**320**	*e*P	**P**	**02 10 26.7**	**-0.2**
KOLS	**Kolonicke sedl**	**70.79**	**319**	*e*P	**P**	**02 10 27.8**	**-0.1**
SUW	**Suwalki**	**71.18**	**324**	*e*P	**P**	**02 10 28.8**	**-1.4**
FINES	**FINESS Array B**	**71.55**	**332**	P	**P**	**02 10 30.7**	**-1.6**
	comp=Z,11nm,0.9s,mb4.8,baz=104,slow=7.9,SNR=7.6						
KAF	**Kangasniemi**	**71.65**	**333**	*e*p	**P**	**02 10 31.2**	**-1.7**
VYHS	**Vyhne**	**72.98**	**318**	*e*P	**P**	**02 10 40.0**	**-1.0**
LBTB	**Lobatse**	**73.01**	**241**	*e*P	**P**	**02 10 42.3**	**+0.6**
	comp=Z,27nm,0.9s,mb5.2						
KOLL	**Kolacno**	**73.27**	**318**	*e*P	**P**	**02 10 42.4**	**-0.3**
OKC	**Ostrava-Krasne**	**73.58**	**319**	*e*P	**P**	**02 10 44.2**	**-0.3**
ZST	**Bratislava**	**74.10**	**318**	*e*P	**P**	**02 10 46.7**	**-0.8**
ARCES	**ARCESS Array B**	**74.29**	**340**	P	**P**	**02 10 46.4**	**-1.8**
	comp=Z,11nm,0.7s,mb4.9,baz=95,slow=4.9,SNR=9.4						
BOSA	**Boshof**	**74.43**	**237**	*e*P	**P**	**02 10 50.7**	**+0.9**
DPC	**Dobruska-Polom**	**74.81**	**320**	*e*P	**P**	**02 10 51.5**	**0.0**
KSP	**Ksiaz**	**74.87**	**320**	*e*P	**P**	**02 10 51.5**	**-0.4**
KSP	**Ksiaz**	**74.87**	**320**	*e*P	**P**	**02 10 52.0**	**+0.1**
UPC	**Upice**	**75.02**	**320**	*e*P	**P**	**02 10 52.4**	**-0.4**
PRU	**Pruhonice**	**75.92**	**319**	*e*P	**P**	**02 10 57.7**	**-0.2**
PVCC	**Panska Ves**	**75.94**	**320**	*e*P	**P**	**02 10 58.1**	**+0.1**
GEC2	**GERESS Array S**	**76.40**	**318**	*e*P	**P**	**02 11 00.7**	**+0.1**
	comp=Z,15nm,0.9s,mb4.9						
GERES	**GERESS Array B**	**76.40**	**318**	P	**P**	**02 11 00.4**	**-0.2**
	comp=Z,11nm,0.8s,mb4.8,baz=95,slow=5.7,SNR=14						
KHC	**Kasperske Hory**	**76.49**	**318**	*e*P	**P**	**02 11 00.7**	**-0.5**
WET	**Wettzell**	**76.95**	**318**	*e*P	**P**	**02 11 03.9**	**+0.2**
	comp=Z,12nm,0.9s,mb4.8						
CLL	**Collm**	**76.97**	**321**	*i* P	**P**	**02 11 03.3**	**-0.5**
CLL	**Collm**	**76.97**	**321**	P	**P**	**02 11 03.3**	**-0.5**
MOX	**Moxa**	**77.82**	**320**	*i* P	**P**	**02 11 08.9**	**+0.4**
MOX	**Moxa**	**77.82**	**320**	*e*P	**P**	**02 11 08.9**	**+0.4**
FUR	**Furstenfeldbru**	**77.99**	**317**	*e*P	**P**	**02 11 09.1**	**-0.3**
	comp=Z,12nm,0.8s,mb4.9						
GRA1	**Grafenberg Arr**	**78.05**	**319**	*e*P	**P**	**02 11 10.5**	**+0.8**
	comp=Z,20nm,0.9s,mb5.0						
GRF	**Grafenberg Arr**	**78.05**	**319**	*e*P	**P**	**02 11 10.5**	**+0.8**
	comp=Z,20nm,0.9s,mb5.0						
NB2	**NORSAR Subarra**	**78.54**	**331**	P	**P**	**02 11 11.1**	**-1.1**
	comp=Z,42nm,1.2s,mb5.2,baz=92,slow=5.3						
NB2	**NORSAR Subarra**	**78.54**	**331**	P	**P**	**02 11 11.1**	**-1.1**
	baz=92,slow=5.3						
NOA	**NORSAR Array B**	**78.54**	**331**	P	**P**	**02 11 10.9**	**-1.3**
	comp=Z,8.3nm,0.9s,mb4.7,baz=94,slow=5.5,SNR=339						
CLZ	**Clausthal**	**78.63**	**321**	*e*P	**P**	**02 11 13.3**	**+0.4**
	comp=Z,10.0nm,0.9s,mb4.8						
MAW	**Mawson**	**78.64**	**191**	P	**P**	**02 11 10.8**	**-1.9**
	comp=Z,3.6nm,0.7s,mb4.4,baz=76,slow=8.3,SNR=6.4						
MAW	**Mawson**	**78.64**	**191**	*e*P	**P**	**02 11 10.8**	**-1.8**
	comp=Z,14nm,0.7s,mb5.0						
BSEG	**Bad Segeberg**	**78.71**	**323**	*e*P	**P**	**02 11 13.6**	**+0.3**
BFO	**Black Forest**	**79.96**	**318**	*e*P	**P**	**02 11 20.3**	**+0.2**
	comp=Z,11nm,1.0s,mb4.7						
LPL	**La Plagne**	**81.15**	**315**	*e*P	**P**	**02 11 26.8**	**+0.3**
	comp=Z,85nm,0.9s,mb5.4						
ESDC	**Sonseca Array**	**89.67**	**310**	P	**P**	**02 12 09.4**	**+0.3**
	comp=Z,5.0nm,0.9s,mb4.8,baz=64,slow=4.3,SNR=6.8						
URZ	**Urewera**	**90.91**	**128**	P	**P**	**02 12 15.1**	**+0.3**
	comp=Z,5.1nm,0.7s,mb5.0,baz=36,slow=10.0,SNR=2.6						
VNDA	**Vanda**	**93.70**	**168**	P	**P**	**02 12 25.4**	**-1.3**
	comp=Z,3.3nm,1.1s,mb4.7,baz=347,slow=2.7,SNR=2.5						
SPU	**Mount Spurr**	**94.62**	**26**	*e*P	**P**	**02 12 33.3**	**+2.0**
DBIC	**Dimbokro**	**96.25**	**278**	P	**P**	**02 12 40.8**	**+0.9**
	comp=Z,5.4nm,0.9s,mb5.0,baz=40,slow=6.0,SNR=3.6						
INK	**Inuvik**	**97.02**	**16**	P	**P**	**02 12 41.6**	**-0.4**
	comp=Z,2.0nm,0.5s,mb4.8,baz=211,slow=21,SNR=6.5						
PDAR	**Pinedale Array**	**125.33**	**20**	PKP	PKPdf	02 18 11.7	-4.1
	comp=Z,1.0nm,0.6s,baz=33,slow=1.2,SNR=3.5						
NVAR	**Mina Array Bea**	**125.37**	**30**	PKP	PKPdf	02 18 13.8	-2.2
	comp=Z,2.3nm,0.8s,baz=272,slow=3.1,SNR=5.1						
NVAR	**Mina Array Bea**	**125.37**	**30**	PKP	PKPdf	02 18 13.8	-2.2
TXAR	**Lajitas Array**	**139.47**	**22**	PKP	PKPdf	02 18 38.1	-4.6
	comp=Z,0.5nm,0.7s,baz=270,slow=1.8,SNR=2.6						
JCT	**Junction City**	**139.66**	**16**	PKPdf	PKPdf	02 18 41.0	-2.0
SJG	**San Juan**	**146.31**	**321**	PKPbc	PKPbc	02 18 52.8	+1.8
	baz=63,slow=2.3						
SJG	**San Juan**	**146.31**	**321**	PKPbc	PKPbc	02 18 52.8	+1.8
PCRV	**Puerto La Cruz**	**150.73**	**308**	PKPbc	PKPdf	02 19 02.7	+0.5
	comp=Z,7.9nm,0.7s,baz=132,slow=2.7,SNR=3.6						
PCRV				PKPab	PKPab	02 19 11.3	-0.6
	comp=Z,8.0nm,0.5s,baz=114,slow=0.6,SNR=3.3						
LPAZ	**La Paz**	**159.48**	**245**	PKPab	PKPab	02 19 49.0	0.0
	comp=Z,11nm,1.1s,baz=67,slow=5.4,SNR=7.0						

IDC 26 01:59:33.7±1.0**, 3.13N**×**95.05E, mb4.7**/10**, mb1 4.9**/10**, mb1mx4.7**/20**, Error ellipse: s-maj=44.6km s-min=19.4km az=45.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**44.87**	**122**	P	P	02 07 49.9	-2.1
	8.7nm,0.8s,baz=304,slow=9.0,SNR=3.3						
SONM	**Songino Array**	**45.60**	**11**	P	P	02 07 55.7	-1.8
	6.2nm,0.6s,baz=199,slow=8.8,SNR=2.5						
ASAR	**Alice Springs**	**46.26**	**127**	P	P	02 08 01.4	-1.6
	2.8nm,0.5s,baz=304,slow=7.4,SNR=2.8						
ZAL	**Zalesovo**	**51.34**	**352**	P	P	02 08 40.2	-1.8
	11nm,0.5s,baz=310,slow=4.3,SNR=5.2						
BVAR	**Borovoye Array**	**53.75**	**342**	P	P	02 08 57.3	-2.6
	14nm,0.7s,baz=141,slow=9.5,SNR=6.1						
EIL	**Elat**	**62.62**	**302**	P	P	02 10 00.2	-2.3
	10nm,0.7s,baz=110,slow=11,SNR=3.1						
IDI	**Anoyia**	**72.04**	**306**	P	P	02 11 00.3	-1.5
	20nm,0.7s,baz=63,slow=7.2,SNR=5.0						
AKASG	**Malin Array Be**	**72.43**	**323**	P	P	02 11 00.8	-3.1
	4.0nm,0.8s,baz=80,slow=4.6,SNR=3.4						
FINES	**FINESS Array B**	**77.31**	**333**	P	P	02 11 30.1	-1.5
	9.0nm,0.8s,baz=103,slow=6.2,SNR=4.0						
GERES	**GERESS Array B**	**81.96**	**319**	P	P	02 11 57.1	+0.3
	8.0nm,0.8s,baz=90,slow=5.3,SNR=4.5						

*BJI **26** 02:00:37.9, 6.98N×94.04E, h28^{km}, mb5.8*

*MOS **26** 02:00:39.2±1.1, 7.03N×94.76E, h33^{km}, mb5.9/36, Error ellipse: s-maj=12.8km s-min=6.1km az=117.6*

*NEIC **26** 02:00:40.0±0.2, 6.85N×94.67E, h30^{km}, mb6.0/93, Error ellipse: s-maj=7.9km s-min=5.9km az=214.0*

*CSEM **26** 02:00:41.7, 7.04N×94.24E, h33^{km}, mb6.1*

*IDC **26** 02:00:43.3±4.2, 7.15N×94.64E, h65^{km}±37^{km}, mb5.1/25, mb1 5.1/26, mb1mx5.1/26, Error ellipse: s-maj=20.2km s-min=10.6km az=54.0*

ISC 26 02:00:39.1±0.2**, 6.93N**±0.04×**94.58E**±0.03**, h29**^{km}**, h29**^{km}±.7^{km}**:pP-P, n498,** σ1^{s}**36**/421**, mb5.9**/150**, 24C-9D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**12.23**	**20**	*e*Pn	**P**	**02 03 31.1**	**-3.3**
	58nm,0.5s						
CMAR	**Chiang Mai Arr**	**12.23**	**20**	P	**P**	**02 03 31.5**	**-2.9**
	baz=222,slow=12,SNR=2.3						
PALK	**Pallekele**	**13.77**	**272**	*e*P	**P**	**02 03 54.2**	**-0.8**
	299nm,0.9s						
VIS	**Vishakhapatnam**	**15.35**	**315**	*e*S	**P**	**02 04 16.5**	**+0.9**
MDRS	**Chennai**	**15.37**	**295**	*e*S	**P**	**02 04 20.1**	**+4.1**
KOD	**Kodaikanal**	**17.23**	**282**	*e*P	**P**	**02 04 45.9**	**+6.3**
SHL	**Shillong**	**18.71**	**352**	*e*P	**P**	**02 04 52.8**	**-5.1**
SHL				*e*		02 05 06.1	
	comp=Z,984nm,1.6s						
HYB	**Hyderabad**	**18.80**	**305**	*e*P	**P**	**02 04 59.0**	**+0.1**
HYB	**Hyderabad**	**18.80**	**305**	*i* P	**P**	**02 04 59.0**	**+0.1**
QIZ	**Qiongzhong**	**19.11**	**50**	*e*P	**P**	**02 05 02.0**	**-0.6**
	comp=Z,1μm,1.6s						
COCO	**West Island**	**19.12**	**173**	P	**P**	**02 05 00.0**	**-2.8**
	comp=Z,1μm,1.0s						
KMI	**Kunming**	**19.71**	**22**	*e*P	**P**	**02 05 11.0**	**+1.6**
KMI				AMB	AMB		
	comp=Z,1μm,1.3s						
MNGI	**Mangalore**	**20.35**	**289**	*e*P	**P**	**02 05 17.9**	**+1.7**
MNGI				*e*		02 05 29.1	
	comp=Z,2μm,1.6s						
SLGI	**Shiliguri**	**20.52**	**344**	*e*	**P**	**02 05 16.0**	**-1.9**
SLGI				*e*		02 05 18.9	
	comp=Z,8.0nm,0.8s						
AKL	**Akola**	**21.84**	**311**	*e*P	**P**	**02 05 34.0**	**+2.8**
AKL				*e*		02 05 40.8	
	comp=Z,2μm,1.3s						
AKL				*e*S	**S**	**02 09 39.2**	**+13**
GOA	**Goa**	**22.04**	**294**	*e*P	**P**	**02 05 39.0**	**+5.6**
GOA				*e*		02 05 43.6	
	comp=Z,684nm,1.3s						
PKI	**Pulchoki**	**22.30**	**338**	*e*P	**P**	**02 05 34.9**	**-0.9**
	comp=Z,3μm,1.2s,mb6.5						
KAD	**Karad**	**22.42**	**299**	*e*	**P**	**02 05 38.8**	**+1.7**
KAD	**Karad**	**22.42**	**299**	*e*P	**P**	**02 05 38.6**	**+1.5**
KAD				*e*		02 05 42.6	
	comp=Z,789nm,1.7s						
GUN	**Gumba**	**22.44**	**339**	*e*P	**P**	**02 05 34.1**	**-3.1**
	comp=Z,3μm,1.1s,mb6.6						
DMN	**Daman**	**22.45**	**338**	*e*P	**P**	**02 05 36.3**	**-1.0**
	comp=Z,3μm,1.1s,mb6.6						
KKN	**Kakani**	**22.55**	**338**	*e*P	**P**	**02 05 35.8**	**-2.6**
	comp=Z,2μm,1.2s,mb6.5						
GYA	**Guiyang**	**22.58**	**29**	⇑*i*P	**P**	**02 05 38.5**	**-0.2**
LSA	**Lhasa**	**22.88**	**352**	P	**P**	**02 05 42.0**	**+0.3**
LSA	**Lhasa**	**22.88**	**352**	*e*P	**P**	**02 05 42.7**	**+1.1**
	comp=Z,192nm,0.8s,mb5.6						
GKN	**Gorkha**	**22.98**	**337**	*e*P	**P**	**02 05 38.7**	**-3.9**
	comp=Z,2μm,1.1s,mb6.5						
KOLN	**Koldanda**	**23.20**	**335**	*e*P	**P**	**02 05 42.1**	**-2.6**
	comp=Z,4μm,1.5s,mb6.6						
BOM	**Bombay**	**24.28**	**301**	*e*P	**P**	**02 06 00.4**	**+5.1**
BOM				*e*		02 06 06.9	
	comp=Z,1μm,2.3s						
SRDI	**Scrawed**	**24.79**	**128**	⇓*e*P	**P**	**02 06 00.9**	**+0.6**
	comp=Z,1μm,1.0s,mb6.3						
SRDI	**Scrawed**	**24.79**	**128**	*e*Pn		02 06 07.5	
	comp=Z,1μm,1.0s						
KELI	**Kelakatan**	**24.91**	**127**	⇓*e*P	**P**	**02 06 07.2**	**+5.7**
	comp=Z,2μm,1.1s,mb6.6						
KELI	**Kelakatan**	**24.91**	**127**	*e*Pn		02 06 09.5	
	comp=Z,2μm,1.1s						
CD2	**Chengdu**	**25.36**	**19**	⇓*i*P	**P**	**02 06 06.5**	**+0.9**
RATI	**Rata**	**26.04**	**126**	⇓*e*P	**P**	**02 06 17.7**	**+5.7**
	comp=Z,1μm,0.8s,mb6.5						
RATI	**Rata**	**26.04**	**126**	*e*Pn	pP	02 06 14.0	-6.3
	comp=Z,1μm,0.8s						
PTH	**Pithoragarh**	**26.26**	**331**	*e*P	**P**	**02 06 11.4**	**-2.5**
PTH				*e*		02 09 23.4	
KEDI	**Kedomdong**	**26.37**	**125**	⇑*e*P	**P**	**02 06 19.4**	**+4.3**
	comp=Z,529nm,1.3s,mb5.9						
KEDI	**Kedomdong**	**26.37**	**125**	*e*Pn	pP	02 06 19.0	-4.4
	comp=Z,1μm,1.3s						
ENH	**Enshi**	**27.12**	**29**	*e*P	**P**	**02 06 22.6**	**+0.7**
	comp=Z,682nm,1.3s,mb6.0						
NDI	**New Delhi**	**27.15**	**325**	*e*P	**P**	**02 06 22.7**	**+0.6**
PCPH	**Palayan**	**27.36**	**69**	⇓*e*P	**P**	**02 06 27.1**	**+3.0**
OTRP	**Odiongan**	**27.58**	**77**	*e*P	**P**	**02 06 31.9**	**+5.8**
GUIM	**Jordan**	**27.92**	**80**	*e*P	**P**	**02 06 30.7**	**+1.5**
DDI	**Dehra Dun**	**27.97**	**328**	*e*	pP	02 06 39.8	+1.9
DDI	**Dehra Dun**	**27.97**	**328**	*e*	pP	02 06 39.8	+1.9
DDI				*e*		02 06 39.8	
RCP	**Roxas**	**28.17**	**78**	⇓*e*P	**P**	**02 06 34.6**	**+3.2**
SNPH	**Sibulan**	**28.47**	**83**	*e*P	**P**	**02 06 35.0**	**+0.9**
TBP	**Tagbilaran**	**29.10**	**83**	*e*P	**P**	**02 06 42.4**	**+2.6**
QZH	**Quanzhou**	**29.13**	**49**	P	**P**	**02 06 41.5**	**+1.4**
QZH				AMB	AMB		
	comp=Z,870nm,1.9s,mb6.2						
WHN	**Wuhan**	**29.94**	**36**	P	**P**	**02 06 48.5**	**+1.3**
OCLP	**Ormoc**	**29.94**	**80**	*e*P	**P**	**02 06 48.4**	**+1.0**
XAN	**Xi’an**	**30.07**	**24**	P	**P**	**02 06 49.3**	**+1.0**
XAN				AP	pP	02 06 57.3	+0.6
XAN				AMB	AMB		
	comp=Z,208nm,1.0s,mb5.8						
MSLP	**Maasin**	**30.11**	**82**	*e*P	pP	02 07 01.3	+4.1
LZH	**Lanzhou**	**30.24**	**15**	*e*P	**P**	**02 06 50.3**	**+0.5**
LZH				AP	pP	02 06 53.3	-4.9
LZH				AMB	AMB		
	comp=Z,780nm,1.4s,mb6.2						
BUKP	**Musuan**	**30.25**	**86**	*e*P	**P**	**02 06 51.6**	**+1.5**
PONG	**Pong**	**30.36**	**328**	*e*	**P**	**02 06 41.0**	**-10**
BUTP	**Butuan**	**30.81**	**84**	*e*P	**P**	**02 06 55.8**	**+0.8**
GTA	**Gaotai**	**32.68**	**8**	P	**P**	**02 07 08.5**	**-2.7**
GTA				AP	pP	02 07 17.5	-2.1
GTA				XP	sP	02 07 20.8	-2.5
GTA				AMB	AMB		
	comp=Z,78nm,0.9s,mb5.6						

GTA				AMB	AMB		
	comp=Z,149µm,12.2s						
NJ2	**Nanjing**	33.72	39	*e*P	P	02 07 21.3	+1.0
NJ2				AMB	AMB		
	comp=Z,300nm,1.0s,mb6.2						
TIA	**Tai’an**	35.71	32	P	P	02 07 36.5	-0.8
TIA				AMB	AMB		
	comp=Z,63nm,1.0s,mb5.5						
KSH	**Kashi**	36.51	335	P	P	02 07 44.0	0.0
KSH				*e*AP	pP	02 07 48.0	-4.5
KSH				*e*XP	sP	02 07 51.3	-4.8
HHC	**Hu-ho-hao-te**	37.03	22	*e*P	P	02 07 49.5	+1.2
HHC				AP	pP	02 07 59.3	+2.5
HHC				XP	sP	02 08 03.3	+2.9
HHC				PP	PP	02 09 17.5	+2.4
HHC				AMB	AMB		
	comp=Z,167nm,0.9s,mb5.9						
HHC				AMB	AMB		
	comp=Z,420µm,12.3s						
WMQ	**Urumqi**	37.24	352	P	P	02 07 47.5	-2.6
WMQ				AP	pP	02 07 52.0	-6.6
WMQ				AMB	AMB		
	comp=Z,39nm,1.1s,mb5.2						
MBWA	**Marble Bar**	37.27	139	*e*P	P	02 07 48.6	-2.0
	comp=Z,1µm,1.6s,mb6.5						
MBWA				*e*	pP	02 07 58.4	-0.6
BJT	**Baijiatuau**	38.22	27	*e*P	P	02 07 58.3	-0.1
	comp=Z,1µm,1.3s,mb6.4						
AAK	**Ala-Archa**	39.74	337	*i* P	P	02 08 11.1	+0.1
AAK				pmax	pmax		
	comp=Z,234nm,1.8s,mb5.6						
AAK	**Ala-Archa**	39.74	337	*e*P	P	02 08 08.6	-2.4
	comp=Z,349nm,1.6s,mb5.8						
DL2	**Dalian**	40.11	33	P	P	02 08 14.3	+0.2
DL2				AMB	AMB		
	comp=Z,160nm,1.2s,mb5.6						
MK02	**Makanchi Array**	41.07	347	P	P	02 08 19.8	-2.1
MK02				pmax	pmax		
	comp=Z,586nm,1.4s,mb6.0						
SONM	**Songino Array**	41.99	12	P	P	02 08 27.8	-1.6
	comp=Z,109nm,1.1s,mb5.4,baz=198,slow=7.8,SNR=16						
SONM	**Songino Array**	41.99	12	P	P	02 08 27.8	-1.6
ULN	**Ulaanbaatar**	42.16	13	*i* P	P	02 08 31.6	+0.8
ZAK	**Zakamensk**	43.92	8	*e*P	P	02 08 46.0	+0.9
NWAO	**Narrogin (SRO)**	45.11	153	P	P	02 08 53.8	-1.2
	comp=Z,59nm,0.8s,mb5.5,baz=325,slow=9.2,SNR=10						
NWAO	**Narrogin (SRO)**	45.11	153	P	P	02 08 53.8	-1.2
NWAO				pmax	pmax		
	comp=Z,59nm,0.8s						
NWAO	**Narrogin (SRO)**	45.11	153	*e*P	P	02 08 53.7	-1.3
	comp=Z,692nm,1.6s,mb6.2						
TLY	**Talaya**	45.24	8	*e*P	P	02 08 55.2	-0.5
TLY				pmax	pmax		
	comp=Z,93nm,1.4s,mb5.4						
TLY	**Talaya**	45.24	8	*i* P	P	02 08 57.0	+1.3
MUKL	**Al Mukalla**	45.30	283⇑	*e*P	P	02 08 55.6	-1.1
CN2	**Changchun**	45.60	31	*e*P	P	02 09 00.5	+1.8
CN2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.7						
IRK	**Irkutsk**	45.88	8	*e*P	P	02 09 00.8	+0.1
IRK				*e*		02 10 30.6	
HASS	**Wahat al Ahsa’**	46.52	298	P	P	02 09 08.4	+2.2
HIA	**Hailar**	47.23	22	*e*P	P	02 09 12.7	+1.3
	comp=Z,87nm,0.8s,mb5.7						
WRA	**Warramunga Arr**	47.36	125	P	P	02 09 11.3	-1.7
	comp=Z,37nm,0.6s,mb5.5,baz=306,slow=9.1,SNR=8.8						
WRA	**Warramunga Arr**	47.36	125	P	P	02 09 11.3	-1.6
WRA				pmax	pmax		
	comp=Z,37nm,0.6s						
WRAB	**Tennant Creek**	47.37	125	*i* P	P	02 09 12.4	-0.6
ZAL	**Zalesovo**	47.54	352	P	P	02 09 11.8	-2.0
	comp=Z,142nm,1.1s,mb5.9,baz=290,slow=9.7,SNR=19						
ZAL	**Zalesovo**	47.54	352	P	P	02 09 11.8	-2.0
ZAL				pmax	pmax		
	comp=Z,142nm,1.1s						
MDJ	**Mudanjiang**	48.35	33	*e*P	P	02 09 20.1	-0.2
	comp=Z,343nm,1.2s,mb6.3						
NVS	**Novosibirsk**	48.64	351	*i* P	P	02 09 20.0	-2.4
NVS				*i* S	S	02 16 19.5	-2.0
NVS				pmax	pmax		
	comp=Z,258nm,1.1s,mb6.2						
NVS				pmax	pmax		
	comp=E,85nm,1.0s						
NVS				pmax	pmax		
	comp=N,182nm,1.1s						
NVS				smax			
	comp=N,140nm,1.6s						
NVS				smax			
	comp=E,280nm,1.6s						
ASAR	**Alice Springs**	48.98	130	P	P	02 09 23.8	-1.7
	comp=E,21nm,0.5s,mb5.4,baz=303,slow=7.3,SNR=10.0						
RYDS	**Riyadh**	48.99	296	P	P	02 09 27.2	+1.8
CBIJ	**Chichi jima**	49.39	60	P	P	02 09 25.2	-3.3
	comp=E,68nm,0.7s,mb5.8,baz=59,slow=15,SNR=2.7						
MAJO	**Matsushiro**	49.48	47	*e*P	P	02 09 29.9	+0.8
	comp=E,55nm,0.8s,mb5.6						
MAT	**Matsushiro**	49.48	47	P	P	02 09 30.3	+1.2
MAT	**Matsushiro**	49.48	47	*e*P	P	02 09 30.0	+0.9
TRBA	**At Turbah**	50.01	281⇓	*e*P	P	02 09 32.7	-0.7
BVAR	**Borovoye Array**	50.02	341	P	P	02 09 29.0	-4.0
	comp=E,113nm,0.9s,mb5.9,baz=141,slow=9.5,SNR=21						
BRVK	**Borovoye**	50.08	341	P	P	02 09 31.1	-2.4
BRVK				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.9						
BRVK	**Borovoye**	50.08	341	*i* P	P	02 09 32.2	-1.3
	comp=Z,34nm,1.2s,mb5.2						
KAMS	**Al Khamasin**	50.18	291	P	P	02 09 36.6	+1.9
MZLS	**Mizel**	50.23	295	P	P	02 09 36.9	+1.8
CHKZ	**Chkalovo**	50.50	342	*e*P	P	02 09 32.8	-3.9
TATS	**Tathlith**	51.11	289	P	P	02 09 43.8	+2.1
FRSS	**Farasan al Kab**	52.13	286	P	P	02 09 52.7	+3.2
AFFS	**‘Afif**	52.20	295	P	P	02 09 51.8	+1.9
NAMS	**An Nimas**	52.26	289	P	P	02 09 52.5	+2.0
ARSS	**Ar Rass**	52.36	297	P	P	02 09 52.5	+1.4
BLJS	**Baljurashi**	52.91	290	P	P	02 09 58.2	+3.0
BOD	**Bodaibo**	52.97	13	*e*P	P	02 09 52.4	-2.8
HILS	**Ha’il**	53.93	299	P	P	02 10 04.7	+2.1
PMG	**Port Moresby**	54.85	107	P	P	02 10 07.0	-2.6
	comp=Z,42nm,1.1s,mb5.4,baz=292,slow=5.4,SNR=2.4						
PMG	**Port Moresby**	54.85	107	P	P	02 10 07.0	-2.6
PMG				pmax	pmax		
	comp=Z,42nm,1.2s						
PMG	**Port Moresby**	54.85	107	*e*P	P	02 10 05.8	-3.8
	comp=Z,78nm,0.9s,mb5.7						
GNI	**Garni**	55.40	315	P	P	02 10 12.6	-0.7
	comp=Z,86nm,1.1s,mb5.7,baz=126,slow=3.3,SNR=9.1						
GNI	**Garni**	55.40	315	P	P	02 10 12.6	-0.7
GNI				pmax	pmax		
	comp=Z,86nm,1.1s						
KBRS	**Khaybar**	55.86	296	P	P	02 10 18.6	+1.8
YNBS	**Yanbu‘ al Bahr**	56.78	294	P	P	02 10 24.9	+1.5
ARU	**Arti**	56.92	337	*i* P	P	02 10 22.4	-1.6
ARU	**Arti**	56.92	337	*e*P	P	02 10 20.7	-3.3
	comp=Z,666nm,1.3s,mb6.5						
YSS	**Yuzh-Sakhalins**	57.27	37	*i* P	P	02 10 28.1	+1.6
YSS				pmax	pmax		
	comp=Z,152nm,1.5s,mb5.8						
CTA	**Charters Tower**	57.47	119	P	P	02 10 26.9	-1.4
	comp=Z,18nm,1.1s,mb5.0,baz=286,slow=7.7,SNR=3.2						
CTA	**Charters Tower**	57.47	119	P	P	02 10 27.0	-1.4
CTA				pmax	pmax		
	comp=Z,18nm,1.1s						
CTAO	**Charters Tower**	57.47	119	*e*P	P	02 10 25.9	-2.5
	comp=Z,298nm,1.4s,mb6.1						
ERZM	**Erzurum**	57.73	313	*i* P	P	02 10 29.6	-0.3
KMBO	**Kilima Mbogo**	57.75	264	P	P	02 10 30.2	-0.2
	comp=Z,127nm,1.0s,mb5.9,baz=54,slow=8.7,SNR=17						
KMBO	**Kilima Mbogo**	57.75	264	P	P	02 10 30.2	-0.2
KMBO				pmax	pmax		
	comp=Z,127nm,1.0s						
KMBO	**Kilima Mbogo**	57.75	264	*e*P	P	02 10 29.0	-1.4
	comp=Z,6µm,1.5s						
YUK	**Yuzh-Kuril’sk**	57.94	42	P	P	02 10 37.5	+6.2
KIV	**Kislovodsk**	58.31	318	*i* P	P	02 10 32.7	-1.1
KIV				pmax	pmax		
	comp=Z,106nm,1.2s,mb5.8						
GOF	**Gofitskoye**	58.52	319	*e*P	P	02 10 31.0	-4.4
ELZG	**Elazig**	59.04	311	*i* P	P	02 10 36.4	-2.6
ASF	**Jabal al Asfar**	59.09	303	P	P	02 10 39.7	+0.2
	comp=Z,37nm,1.0s,mb5.4,baz=327,slow=2.6,SNR=10						
STKA	**Stephens Creek**	59.14	134	P	P	02 10 37.7	-2.2
	comp=Z,44nm,0.8s,mb5.5,baz=309,slow=7.3,SNR=10						
STKA	**Stephens Creek**	59.14	134	*e*P	P	02 10 37.3	-2.6
MALT	**Malatya**	59.40	311	*e*P	P	02 10 38.1	-3.4
GZT	**Gaziantep**	59.79	309	*i* P	P	02 10 42.2	-2.1
SOC	**Sochi**	60.16	317	*e*P	P	02 10 43.3	-3.4
EIL	**Elat**	60.27	300	*e*P	P	02 10 45.6	-2.0
	comp=Z,26µm,3.8s						
COBT	**Iskenderun**	60.59	308	*i* P	P	02 10 45.0	-4.7
YAK	**Yakutsk**	60.75	18	*e*P	P	02 10 46.5	-4.0
YAK				pmax	pmax		
	comp=Z,96nm,0.8s,mb6.0						
YAK				pmax	pmax		
	comp=N,38nm,1.1s						
YAK				pmax	pmax		
	comp=E,64nm,1.3s						
ANN	**Anapa**	62.12	317	*e*P	P	02 10 51.5	-8.5
ANN				pmax	pmax		
	comp=Z,70nm,1.6s,mb5.5						
CSS	**Prodhromos**	62.57	306	*e*P	P	02 11 02.2	-0.9
	comp=Z,70nm,0.8s,mb5.8						
BOYT	**Boyabat**	62.87	313	*i* P	P	02 10 58.5	-6.5
BRTR	**Keskin Array B**	63.37	311	P	P	02 11 02.5	-5.8
	comp=Z,30nm,0.9s,mb5.4,baz=128,slow=5.6,SNR=8.2						
BRTR	**Keskin Array B**	63.37	311	P	P	02 11 02.5	-5.8
BRTR				pmax	pmax		
	comp=Z,30nm,0.9s						
BALT	**Daday**	64.00	313	*i* P	P	02 11 10.0	-2.5
MBAR	**Mbarara**	64.12	266	P	P	02 11 12.7	-1.1
	comp=Z,225nm,1.3s,mb6.0						
ISP	**Isparta**	65.36	308	*e*P	P	02 11 16.8	-4.6
	comp=Z,433nm,1.5s,mb6.3						
ESKT	**Eskisehir**	65.43	310	*i* P	P	02 11 19.3	-2.4
MOS	**Moscow**	66.11	329	*e*P	P	02 11 24.2	-1.6
MOS				*e*	pP	02 11 33.9	-0.8
MOS				*e*		02 11 50.2	
MOS				*e*S	S	02 20 13.4	+2.7
MOS				pmax	pmax		
	comp=Z,637nm,1.5s,mb6.4						
OBN	**Obninsk**	66.41	328	*i* P	P	02 11 25.9	-1.8
OBN				*i* *PP	pP	02 11 35.9	-0.7
OBN				*i*		02 11 53.8	
OBN				*e*		02 13 49.7	
OBN				*e*S	S	02 20 12.7	-1.6
OBN				pmax	pmax		
	comp=Z,482nm,1.8s,mb6.2						
SKR	**Severo-Kuril’s**	66.83	37	*e*P	P	02 11 26.6	-3.9
SKR				*e*	pP	02 11 35.4	-4.0
SKR				*e*		02 11 51.8	
SKR				pmax	pmax		
	comp=E,130nm,1.0s						
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
MA2	**Magadan**	67.40	27	*i* P	P	02 11 34.5	+0.6
MA2				pmax	pmax		
	comp=Z,88nm,0.7s,mb5.9						
MA2	**Magadan**	67.40	27	*e*P	P	02 11 31.6	-2.4
	comp=Z,159nm,0.9s,mb6.0						
BTOK	**Tokmak**	67.61	310	*i* P	P	02 11 34.9	-0.7
TIXI	**Tiksi**	68.07	11	*e*P	P	02 11 36.9	-1.1
TIXI				pmax	pmax		
	comp=Z,205nm,0.9s,mb6.2						
TIXI				pmax	pmax		
	comp=N,34nm,0.8s						
TIXI				pmax	pmax		
	comp=E,41nm,0.9s						
TIXI	**Tiksi**	68.07	11	*i* P	P	02 11 37.4	-0.6
TIRR	**Tirgusor**	68.23	315	P	P	02 11 38.2	-1.2
PET	**Petropavlovsk**	69.05	36	*e*P	P	02 11 49.1	+4.8
PET				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.3						
PET	**Petropavlovsk**	69.05	36	*i* P	P	02 11 47.2	+2.9
SANT	**Santorini**	69.12	306	*e*P	P	02 11 42.1	-3.0
	comp=Z,2µm,2.1s,mb6.6						
AKASG	**Malin Array Be**	69.16	322	P	P	02 11 39.1	-5.9
	comp=Z,16nm,0.6s,mb5.1,baz=88,slow=4.4,SNR=16						
AKASG				PKP2bc		02 39 58.5	
	comp=Z,1.4nm,0.7s,baz=266,slow=3.9,SNR=6.8						
AKASG	**Malin Array Be**	69.16	322	P	P	02 11 39.1	-5.9
AKASG				pmax	pmax		
	comp=Z,16nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ALN	**Alexandroupoli**	69.29	311	*e*P	P	02 11 41.3	-4.7
LSZ	**Lusaka**	69.36	251	*e*P	P	02 11 42.3	-4.6
	comp=Z,214nm,1.4s,mb5.9						
IDI	**Anoyia**	69.46	305	P	P	02 11 43.1	-4.1
	comp=Z,18nm,0.4s,mb5.3,baz=93,slow=8.4,SNR=8.3						
VRI	**Vrincioaia**	69.68	316	P	P	02 11 48.4	+0.1
LOS	**Limnos**	69.88	310	*e*P	P	02 11 48.4	-1.2
BUC1	**Bucharest**	69.88	315	P	P	02 11 50.7	+1.2
GVD	**Gavdhos**	70.07	304	*e*P	P	02 11 49.1	-1.8
	comp=Z,252nm,1.0s,mb6.1						
MLR	**Muntele Rosu**	70.15	316	P	P	02 11 47.6	-3.5
	comp=Z,91nm,1.0s,mb5.7,baz=40,slow=2.6,SNR=14						
MLR	**Muntele Rosu**	70.15	316	P	P	02 11 51.4	+0.3
SNX	**Sinaia**	70.42	316	P	P	02 11 56.3	+3.5
AOS	**Alonnisos**	70.70	309	*e*P	P	02 11 54.1	-0.5
OUR	**Ouranopolis**	70.77	310	*e*P	P	02 11 54.0	-1.0
PAIG	**Paliouri**	70.95	310	*e*P	P	02 11 54.3	-1.8
SRS	**Serrai**	71.16	311	*e*P	P	02 11 52.6	-4.8
PUL	**Pulkovo**	71.25	331⇑	*e*P	P	02 11 56.5	-1.0
PUL				pmax	pmax		
	comp=Z,319nm,0.8s,mb6.3						
PUL				pmax	pmax		
	comp=N,161nm,1.0s						
PUL				pmax	pmax		
	comp=E,357nm,1.7s						
THE	**Thessaloniki**	71.57	310	*e*P	P	02 11 58.0	-1.9
VTS	**Vitosha**	71.64	312	P	P	02 11 59.7	-0.5
KNT	**Kendrikon**	71.69	311	*e*P	P	02 11 59.7	-0.8
LIT	**Litokhoron**	71.87	310	*e*P	P	02 11 56.1	-5.6
AGG	**Agios Georgios**	71.88	309	*e*P	P	02 11 56.1	-5.7
GRG	**Griva**	72.04	311	*e*P	P	02 11 57.0	-5.6
LVZ	**Lovozero**	72.59	340	*i* P	P	02 12 06.0	+0.6
LVZ				pmax	pmax		
	comp=Z,85nm,1.0s,mb5.6						
LVZ	**Lovozero**	72.59	340	*i* P	P	02 12 06.1	+0.7
FNA	**Florina**	72.79	310	*e*P	P	02 12 01.8	-5.3
KWP	**Kalwaria**	73.03	320	*e*P	P	02 12 08.2	-0.1
KWP				*e*	pP	02 12 17.3	0.0
KWP				*e*		02 12 21.9	
KOLS	**Kolonicke sedl**	73.20	319	*i* P	P	02 12 10.0	+0.7
KOLS				*e*pP	pP	02 12 18.9	+0.6
IGT	**Igoumenitsa**	73.47	309	*e*P	P	02 12 06.2	-4.9
SUW	**Suwalki**	73.52	324	*e*P	P	02 12 10.1	-1.0
	comp=Z,18nm,1.0s,mb5.0						
SUW				*e*	pP	02 12 19.3	-0.8
SUW				*e*		02 12 24.1	
CRVS	**Cervenica-Dubn**	73.72	319	*e*P	P	02 12 16.7	+4.3
CRVS				*e*	pP	02 12 26.5	+5.2
CRVS	**Cervenica-Dubn**	73.72	319	*e*	P	02 12 16.7	+4.3
CRVS				*e*	pP	02 12 26.5	+5.2
FINES	**FINESS Array B**	73.75	332	P	P	02 12 08.5	-3.7
	comp=Z,53nm,0.8s,mb5.5,baz=104,slow=7.9,SNR=21						
FINES	**FINESS Array B**	73.75	332	P	P	02 12 08.5	-3.7
FINES				pmax	pmax		
	comp=Z,53nm,0.8s						
KAF	**Kangasniemi**	73.83	333	*e*p	P	02 12 10.0	-2.7
	baz=104,slow=5.5						
LBTB	**Lobatse**	74.17	242	*e*P	P	02 12 11.5	-3.9
	comp=Z,80nm,1.1s,mb5.6						
KECS	**Kecovo**	74.31	318	*e*P	P	02 12 15.3	-0.4
KECS				*e*pP	pP	02 12 24.1	-0.6
WAR	**Warsaw**	74.50	322	*e*P	P	02 12 17.1	+0.3
WAR				*e*	pP	02 12 25.3	-0.4
WAR				*e*		02 12 29.7	
PKSN	**Nyarlorinc**	74.53	317⇑	*e*P	P	02 12 17.3	+0.2
PSZ	**Piszkesteto**	74.63	318	*e*P	P	02 12 13.8	-3.8
	comp=Z,1µm,2.2s,mb6.4						
OJC	**Ojcow**	74.97	320	*e*P	P	02 12 19.0	-0.6
VYHS	**Vyhne**	75.40	318	*e*P	P	02 12 21.9	-0.1
VYHS				*e*pP	pP	02 12 30.2	-0.8
BOSA	**Boshof**	75.45	238	*e*P	P	02 12 20.4	-2.3
	comp=Z,151nm,1.3s,mb5.8						
SRO2	**Moca**	75.62	317	*e*P	P	02 12 22.9	-0.4
SRO2				*e*pP	pP	02 12 32.7	+0.4
SRO	**Srobarova**	75.68	317	*e*P	P	02 12 24.4	+0.8
RHK1	**Bakonya**	75.68	316	*e*P	P	02 12 24.4	+0.7
KOLL	**Kolacno**	75.69	318	*e*P	P	02 12 23.5	-0.2
KOLL				*e*pP	pP	02 12 33.0	+0.3
OKC	**Ostrava-Krasne**	75.99	320	*e*P	P	02 12 24.4	-0.9
OKC				*e*pP	pP	02 12 33.9	-0.5
ARCES	**ARCESS Array B**	76.30	340	P	P	02 12 23.7	-3.1
	comp=Z,111nm,1.0s,mb5.7,baz=90,slow=4.9,SNR=24						
ARCES	**ARCESS Array B**	76.30	340	P	P	02 12 23.7	-3.0
ARCES				pmax	pmax		
	comp=Z,111nm,1.0s						
ARE0	**ARCESS Array S**	76.30	340	P	P	02 12 25.0	-1.7
SMOL	**Smolenice**	76.33	318	*e*P	P	02 12 28.0	+0.7
SMOL				*e*	pP	02 12 36.7	+0.4
MORC	**Moravsky Berou**	76.37	319	*e*P	P	02 12 27.5	0.0
	comp=Z,280nm,1.4s,mb6.0						
GRI	**Girifalco**	76.47	308	*e*P	P	02 12 29.0	+0.7
ZST	**Bratislava**	76.52	318	*e*P	P	02 12 27.9	-0.5
ZST				*e*pP	pP	02 12 37.7	+0.3
BILL	**Bilibino**	76.81	22	*i* P	P	02 12 29.9	+0.3
BILL				pmax	pmax		
	comp=Z,91nm,1.6s,mb5.5						
BILL	**Bilibino**	76.81	22	*i* P	P	02 12 29.0	-0.6
GKP	**Gorka Klasztor**	76.91	323	*e*P	P	02 12 30.9	+0.5
GKP				*e*	pP	02 12 38.6	-0.9
GKP				*e*		02 12 44.2	
KTK1	**Kautokeino**	76.93	339	*e*P	P	02 12 28.0	-2.2
KTK1				AMb	AMB	02 12 40.8	
	comp=Z,325nm,1.3s,mb6.1						
DPC	**Dobruska-Polom**	77.20	320	*e*P	P	02 12 32.1	0.0
DPC				*e*pP	pP	02 12 41.5	+0.3
KSP	**Ksiaz**	77.26	320	*e*P	P	02 12 32.7	+0.3
KSP				*e*	pP	02 12 40.1	-1.4
KSP	**Ksiaz**	77.26	320	*e*P	P	02 12 33.1	+0.7
KSP				*e*	pP	02 12 41.0	-0.5
KSP				*e*		02 12 52.4	
UPC	**Upice**	77.42	320	*e*P	P	02 12 32.6	-0.7
UPC				*e*pP	pP	02 12 42.2	-0.1
ARSA	**Arzberg**	77.52	317⇑	*i*P	P	02 12 34.8	+0.9
ARSA	**Arzberg**	77.52	317⇑	*i*P	P	02 12 34.5	+0.6
	comp=Z,220nm,1.5s,mb5.9						
ARSA	**Arzberg**	77.52	317⇑	*i*P	P	02 12 34.5	+0.6
	comp=Z,220nm,1.5s,mb5.9						
FX1	**Attu Island--F**	77.62	37	*e*P	P	02 12 32.1	-2.3
MAW	**Mawson**	77.70	192	P	P	02 12 35.2	+0.7
	comp=Z,23nm,0.8s,mb5.2,baz=18,slow=7.5,SNR=11						
MAW	**Mawson**	77.70	192	P	P	02 12 35.2	+0.7
MAW				pmax	pmax		
	comp=Z,23nm,0.8s						
MAW	**Mawson**	77.70	192	*e*P	P	02 12 34.8	+0.3
	comp=Z,142nm,1.3s,mb5.7						
OBKA	**Obir**	78.15	316⇑	*i*P	P	02 12 37.6	+0.2
OBKA	**Obir**	78.15	316⇑	*i*P	P	02 12 35.5	-1.9
	comp=Z,119nm,1.3s,mb5.7						
OBKA	**Obir**	78.15	316⇑	*i*P	P	02 12 35.5	-1.9
	comp=Z,119nm,1.3s,mb5.7						
PRU	**Pruhonice**	78.32	320	*e*P	P	02 12 38.2	-0.1
PRU				*e*pP	pP	02 12 46.8	-0.5
PVCC	**Panska Ves**	78.33	320	*e*P	P	02 12 39.1	+0.8
PVCC				*e*pP	pP	02 12 47.2	-0.2
MOA	**Molln**	78.40	317⇑	*i*P	P	02 12 39.8	+1.1
MOA	**Molln**	78.40	317⇑	*i*P	P	02 12 39.0	+0.3
	comp=Z,127nm,1.0s,mb5.8						
MOA	**Molln**	78.40	317⇑	*i*P	P	02 12 39.0	+0.3
	comp=Z,127nm,1.0s,mb5.8						
BSD	**Bornholm Skovb**	78.44	325	*i* P	P	02 12 39.8	+1.0
TRO	**Tromso**	78.56	340	*e*P	P	02 12 34.8	-4.4
BRG	**Berggiesshubel**	78.75	320	*i* P	P	02 12 41.2	+0.6
BRG				pmax	pmax		
	comp=Z,193nm,1.4s,mb5.8						
BRG	**Berggiesshubel**	78.75	320	*i* P	P	02 12 41.2	+0.6
	comp=Z,193nm,1.4s,mb5.8						
GEC2	**GERESS Array S**	78.82	318	*e*P	P	02 12 40.8	-0.2
GEC2				pmax	pmax		
	comp=Z,108nm,1.0s,mb5.7						
GEC2	**GERESS Array S**	78.82	318	*e*P	P	02 12 40.8	-0.2
	comp=Z,108nm,1.0s,mb5.7						
GERES	**GERESS Array B**	78.82	318	P	P	02 12 39.0	-2.0
	comp=Z,29nm,0.8s,mb5.3,baz=90,slow=4.0,SNR=19						
GERES	**GERESS Array B**	78.82	318	P	P	02 12 39.0	-2.0
GERES				pmax	pmax		
	comp=Z,29nm,0.8s						
PTQR	**Pietraquaria**	78.85	311	*e*P	P	02 12 41.6	+0.2
AQU	**L’Aquila**	78.85	312	*e*P	P	02 12 41.0	-0.3
KHC	**Kasperske Hory**	78.91	319	*e*P	P	02 12 41.4	-0.1
KHC				*e*pP	pP	02 12 50.4	-0.2
RUE	**Ruedersdorf**	78.94	322	*e*P	P	02 12 41.7	+0.1
	comp=Z,419nm,1.1s,mb6.3						
PTCC	**Patocco-Chiusa**	78.97	316	*e*P	P	02 12 39.7	-2.2
KBA	**Koelnbreinsper**	79.00	317⇑	*i*P	P	02 12 42.3	+0.3
	comp=Z,124nm,1.1s,mb5.8						
KBA	**Koelnbreinsper**	79.00	317⇑	*i*P	P	02 12 42.3	+0.3
	comp=Z,124nm,1.1s,mb5.8						
GMNA	**Gemona**	79.05	316	*e*P	P	02 12 42.6	+0.3
NRCA	**Norcia**	79.07	312	*e*P	P	02 12 43.4	+0.8
SNTG	**Esanatoglia**	79.20	313	*e*P	P	02 12 43.4	+0.2
ARV	**Arcevia**	79.21	313	*e*P	P	02 12 43.7	+0.5
RGN	**Rugen**	79.32	324	P	P	02 12 43.2	-0.4
	comp=Z,375nm,1.3s,mb6.2						
FSSB	**Fossombrone**	79.33	313	*e*P	P	02 12 44.6	+0.7
CLL	**Collm**	79.36	321	*i* P	P	02 12 43.9	0.0
CLL				*i*	pP	02 12 53.7	+0.7
CLL	**Collm**	79.36	321	P	P	02 12 43.9	0.0
CLL				*i* *PP	pP	02 12 53.7	+0.7
CLL				*e**SP	sP	02 12 58.4	+2.3
WET	**Wettzell**	79.37	319	*e*P	P	02 12 43.7	-0.3
WET				pmax	pmax		
	comp=Z,67nm,0.9s,mb5.6						
WET	**Wettzell**	79.37	319	*e*P	P	02 12 43.7	-0.3
	comp=Z,67nm,0.9s,mb5.6						
FVI	**Forni Avoltri**	79.37	316	*e*P	P	02 12 44.6	+0.6
ERC	**Erice**	79.47	307	*e*P	P	02 12 48.9	+4.1
RSM	**Repubblica di**	79.57	313	*e*P	P	02 12 46.8	+1.6
NKC	**Novy Kostel**	79.68	320	*e*P	P	02 12 45.6	-0.1
MOR8	**Moi Rana**	79.71	336	*e*P	P	02 12 42.1	-3.5
MOR8				AMb	AMB	02 12 54.6	
	comp=Z,268nm,1.4s,mb6.0						
COP	**Copenhagen**	79.89	325	*e*P	P	02 12 48.6	+1.9
COP				pmax	pmax		
	comp=Z,170nm,0.8s,mb6.0						
COP	**Copenhagen**	79.89	325	*e*P	P	02 12 48.6	+1.9
	comp=Z,168nm,0.8s,mb6.0						
COP	**Copenhagen**	79.89	325	*i* P	P	02 12 48.6	+1.9
	comp=Z,168nm,0.8s,mb6.0						
SFI	**Santa Sofia**	80.00	313	*e*P	P	02 12 48.2	+0.7
PGD	**Poggio Sodo**	80.09	313	*e*P	P	02 12 48.0	-0.1
CTI	**Castel Tesino**	80.15	315	*e*P	P	02 12 48.3	+0.1
SUR	**Sutherland**	80.15	236	*e*P	P	02 12 48.1	-0.5
	comp=Z,230nm,1.1s,mb6.0						
WTTA	**Wattenberg**	80.16	317⇓	*i*P	P	02 12 45.7	-2.6
	comp=Z,24nm,1.1s,mb5.0						
WATA	**Walderalm**	80.20	317⇑	*i*P	P	02 12 48.9	+0.4
	comp=Z,71nm,0.7s,mb5.7						
MOX	**Moxa**	80.22	320	*e*P	P	02 12 49.3	+0.7
MOX	**Moxa**	80.22	320	*i* P	P	02 12 49.3	+0.7
VMG	**Vicchio**	80.22	313	*e*P	P	02 12 47.9	-0.8
LOF	**Lofoten**	80.27	338	*e*P	P	02 12 47.5	-1.0
LOF				AMb	AMB	02 12 59.8	
	comp=Z,282nm,1.8s,mb5.9						
SEI	**Scarperia**	80.36	313	*e*P	P	02 12 47.7	-1.7
FUR	**Furstenfeldbru**	80.41	318	*e*P	P	02 12 49.0	-0.6
FUR				pmax	pmax		
	comp=Z,163nm,1.1s,mb5.9						
FUR	**Furstenfeldbru**	80.41	318	*e*P	P	02 12 49.0	-0.6
	comp=Z,163nm,1.1s,mb5.9						
SQTA	**Sankt Quirin**	80.45	317⇓	*i*P	P	02 12 46.5	-3.4
	comp=Z,8.8nm,0.6s,mb4.9						
SQTA	**Sankt Quirin**	80.45	317⇑	*i*P	P	02 12 50.1	+0.2
	comp=Z,8.8nm,0.6s,mb4.9						
GRA1	**Grafenberg Arr**	80.46	319	*e*P	P	02 12 50.0	+0.1
	comp=Z,162nm,0.9s,mb6.0						
GRF	**Grafenberg Arr**	80.46	319	*e*P	P	02 12 50.0	+0.1
GRF				pmax	pmax		
	comp=Z,162nm,0.9s,mb6.0						
GRF	**Grafenberg Arr**	80.46	319	*e*P	P	02 12 50.0	+0.1
	comp=Z,162nm,0.9s,mb6.0						
MOTA	**Moosalm**	80.53	317⇑	*i*P	P	02 12 50.6	+0.3
	comp=Z,70nm,1.0s,mb5.5						
MOTA	**Moosalm**	80.53	317⇑	*i*P	P	02 12 50.6	+0.3
	comp=Z,70nm,1.0s,mb5.5						
NSS	**Namsos**	80.61	334	*e*P	P	02 12 49.2	-1.1
NSS				*e*pP	pP	02 12 58.6	-0.8
ZCCA	**Zocca**	80.63	314	*e*P	P	02 12 53.4	+2.6
NB2	**NORSAR Subarra**	80.76	331	P	P	02 12 47.6	-3.6
	comp=Z,148nm,1.1s,mb5.8,baz=92,slow=5.6						
NB2	**NORSAR Subarra**	80.76	331	P	P	02 12 47.6	-3.6
	baz=92,slow=5.9						
NOA	**NORSAR Array B**	80.76	331	P	P	02 12 47.4	-3.8
	comp=Z,50nm,0.9s,mb5.5,baz=93,slow=5.5,SNR=26						
NOA	**NORSAR Array B**	80.76	331	P	P	02 12 47.4	-3.8
NOA				pmax	pmax		
	comp=Z,50nm,0.9s						
BDI	**Bagni Di Lucca**	80.90	313	*e*P	P	02 12 53.0	+0.7
GSCL	**Gusciola**	80.91	314	*e*P	P	02 12 54.0	+1.6
NAO01	**NORSAR Array S**	80.92	330	P	P	02 12 51.6	-0.4
	comp=Z,65nm,0.9s,mb5.6						

SAL	Salo	80.93	315	eP	P	02 12 52.6	+0.2
OSL	Oslo	80.97	330	eP	P	02 12 53.6	+1.3
OSL				epP	pP	02 13 02.0	+0.6
OSL				AMb	AMB	02 13 02.7	
	comp=Z,415nm,1.2s,mb6.2						
MAIM		80.98	313	P	P	02 12 52.8	+0.1
CLZ	Clausthal	81.02	321	eP	P	02 12 52.5	-0.2
	comp=Z,142nm,1.0s,mb5.8						
ERBM	Eremo	81.03	314	eP	P	02 12 56.5	+3.6
BRMO	Bormio	81.03	316	eP	P	02 12 54.1	+1.1
BSEG	Bad Segeberg	81.06	323	eP	P	02 12 53.0	+0.1
BSEG				pmax	pmax		
	comp=Z,251nm,0.9s,mb6.2						
VALM		81.15	314	P	P	02 12 53.8	+0.2
BACM		81.28	314	P	P	02 12 55.3	+1.0
GRAM		81.28	314	P	P	02 12 55.3	+1.0
DAVA	Damuels	81.36	317	⇑iP	P	02 12 55.0	+0.4
DAVA	Damuels	81.36	317	⇑iP	P	02 12 55.3	+0.7
	comp=Z,176nm,1.2s,mb5.9						
DAVA	Damuels	81.36	317	⇑iP	P	02 12 55.3	+0.7
	comp=Z,176nm,1.2s,mb5.9						
CODM		81.43	314	P	P	02 12 55.6	+0.5
BOB	Bobbio (Coli)	81.71	314	eP	P	02 12 57.2	+0.7
MUD	Monsted U'grnd	81.73	326	i P	P	02 12 57.7	+1.3
STU	Stuttgart	81.79	318	eP	P	02 12 56.9	0.0
	comp=Z,116nm,1.1s,mb5.7						
DOMB	Dombas	81.82	332	eP	P	02 12 53.5	-3.2
DOMB				AMb	AMB	02 13 06.7	
	comp=Z,238nm,1.3s,mb6.0						
VSL	Villasalto	81.94	309	eP	P	02 12 58.5	+0.7
	comp=Z,8.9nm,0.6s,mb4.9						
TOD	Tromm	82.03	319	eP	P	02 12 58.7	+0.6
PGF	Pioggiola	82.11	312	eP	P	02 12 55.3	-3.3
	comp=Z,477nm,1.4s,mb5.9						
VAI	Varese	82.16	315	eP	P	02 12 58.7	-0.1
PCP	Pian Castagno	82.36	314	P	P	02 13 01.1	+1.2
BFO	Black Forest	82.38	318	eP	P	02 12 59.2	-0.7
BFO				pmax	pmax		
	comp=Z,79nm,0.9s,mb5.6						
BFO	Black Forest	82.38	318	eP	P	02 12 59.2	-0.7
	comp=Z,79nm,0.9s,mb5.6						
KTD	Kalmit	82.51	319	eP	P	02 13 02.2	+1.6
FELD	Feldberg	82.61	317	eP	P	02 13 00.7	-0.4
FIN	Finale Ligure	82.62	314	eP	P	02 13 01.9	+0.6
LANF	Langenberg	82.70	318	eP	P	02 13 02.6	+1.0
ORO	Oropa	82.72	315	eP	P	02 13 01.4	-0.4
ORX	Oropa	82.72	315	P	P	02 13 01.0	-0.8
STR	Strasbourg	82.75	318	eP	P	02 13 01.5	-0.3
ABH	Alteburg	82.84	319	eP	P	02 13 01.7	-0.6
ROB	Roburent	82.86	314	P	P	02 13 03.2	+0.7
IMI	Imperia	82.86	313	eP	P	02 13 03.5	+1.0
LIBD	Limburg	82.87	318	eP	P	02 13 01.9	-0.6
TRAV		82.89	315	P	P	02 13 02.2	-0.4
MONE	Monesi	82.95	314	P	P	02 13 03.6	+0.6
BBS	Basel-Blauen	82.97	317	eP	P	02 13 00.8	-2.2
NEGI	Negi	83.00	313	P	P	02 13 03.8	+0.5
WLS	Welschbruch	83.03	318	eP	P	02 13 02.2	-1.1
CDF	Champ du Feu	83.08	318	eP	P	02 13 00.2	-3.3
	comp=Z,190nm,1.0s,mb5.8						
SAOF	Saorge	83.10	313	eP	P	02 13 03.5	-0.2
BLS5	Blasjo	83.13	329	eP	P	02 13 02.1	-1.5
BLS5				AMb	AMB	02 13 15.2	
	comp=Z,233nm,1.1s,mb6.1						
RUP	Ruppelstein	83.16	319	eP	P	02 13 03.4	-0.5
MSZ	Milford Sound	83.17	136	P	P	02 13 03.1	-0.9
MSZ				pP	pP	02 13 13.0	-0.2
ECH	Echery	83.17	318	eP	P	02 13 04.7	+0.7
ENR	Entracque	83.18	314	P	P	02 13 05.2	+1.1
AUTN	L'Aution	83.19	313	eP	P	02 13 04.9	+0.7
MOF	Molkenrain	83.20	317	eP	P	02 13 03.3	-0.9
REVF	Revere	83.25	313	eP	P	02 13 04.2	-0.3
STV2	Anna di Valdie	83.25	314	P	P	02 13 04.3	-0.2
RSP	Reno Superiore	83.25	315	P	P	02 13 04.7	+0.3
STV	Sta Anna Valdi	83.25	314	P	P	02 13 05.4	+0.9
BHB	Bricherasio	83.26	314	P	P	02 13 03.8	-0.7
LSD	Ceresole Reale	83.31	315	P	P	02 13 05.5	+0.7
TOUF	Mont Tournerai	83.32	313	eP	P	02 13 07.2	+2.4
MVIF	Mont Vial	83.39	313	eP	P	02 13 06.3	+1.1
FENE	Fenestrelle	83.39	315	P	P	02 13 05.7	+0.5
PZZ	Prazzo	83.40	314	P	P	02 13 05.2	0.0
LOMF	Lomont	83.43	317	eP	P	02 13 03.8	-1.6
JCZ	Jackson Bay	83.57	136	pP	pP	02 13 15.3	0.0
RRL	Cesana Torines	83.60	314	P	P	02 13 06.9	+0.6
LPL	La Plagne	83.60	315	eP	P	02 13 03.6	-2.7
	comp=Z,530nm,1.0s,mb6.3						
SURF	Saint Ours	83.60	314	eP	P	02 13 06.2	-0.1
RUND	Rundenannen	83.64	330	eP	P	02 13 07.6	+1.5
RUND				AMb	AMB	02 13 16.9	
	comp=Z,343nm,1.3s,mb6.3						
BNI	Bardonecchia	83.67	315	eP	P	02 13 06.5	-0.1
	comp=Z,240nm,1.0s,mb6.3						
HAU	Haudompre	83.72	318	eP	P	02 13 03.4	-3.4
	comp=Z,478nm,1.0s,mb6.3						
FOO	Floro	83.74	331	eP	P	02 13 08.5	+2.0
FOO				AMb	AMB	02 13 10.4	
	comp=Z,172nm,1.9s,mb5.9						
FOO	Floro	83.74	331	eP	P	02 13 08.5	+2.0
	comp=Z,172nm,1.9s,mb5.9						
WLF	Walferdange	83.75	319	eP	P	02 13 05.7	-1.3
	comp=Z,169nm,1.2s,mb6.0						
LMR	La Mourre	83.89	313	eP	P	02 13 03.6	-4.2
	comp=Z,412nm,1.1s,mb6.2						
THEF	They Montfort	83.95	318	eP	P	02 13 07.3	-0.7
CABF	La Chapelle	83.98	316	eP	P	02 13 05.4	-2.8
	comp=Z,306nm,1.0s,mb6.1						
GDM	Grand'Maison	84.05	315	eP	P	02 13 09.5	+0.9
GRN	Grenoble	84.31	315	eP	P	02 13 11.4	+1.5
SYO	Syowa Base	84.63	197	⇑P	P	02 13 11.3	+0.4
TUZ	Tuapeka	84.68	137	pP	pP	02 13 21.0	+0.2
VIVF	Saint-Julien-l	85.10	314	eP	P	02 13 10.0	-3.8
	comp=Z,389nm,1.1s,mb6.1						
DSZ	Denniston Nort	85.14	133	P	P	02 13 12.9	-1.2
QRZ	Quartz Range	85.46	132	pP	pP	02 13 25.3	+0.4
SSF	Saint Saulge	85.71	317	eP	P	02 13 12.6	-4.2
	comp=Z,590nm,1.6s,mb6.3						
PLDF	La Plantade	85.74	316	eP	P	02 13 19.1	+2.1
THZ	Tophouse	85.94	133	P	P	02 13 16.4	-1.7
THZ				pP	pP	02 13 26.9	-0.4
AGO	Saint Agoulin	86.07	316	eP	P	02 13 21.0	+2.4
LBL	Lubilhac	86.07	315	eP	P	02 13 19.8	+1.1
PYM	Petit Puy Mans	86.19	315	eP	P	02 13 20.2	+1.0
EJON	La Jonquera	86.62	312	P	P	02 13 22.5	+1.1
	comp=Z,26nm,0.9s,mb5.5						
CAF	Calviac	86.94	315	eP	P	02 13 19.4	-3.5
	comp=Z,268nm,1.1s,mb6.1						
RJF	Les Rejaudoux	87.28	315	eP	P	02 13 21.0	-3.5
	comp=Z,373nm,1.1s,mb6.2						
EPOB	Poblet	88.09	311	P	P	02 13 29.6	+1.0
	comp=Z,57nm,0.8s,mb5.8						
URZ	Urewera	88.41	129	P	P	02 13 27.6	-2.6
	comp=Z,27nm,0.8s,mb5.5,baz=349,slow=2.8,SNR=5.8						
NIKO	Nikolski	88.47	37	P	P	02 13 32.5	+2.4
EBR	Ebro Roquetas	88.60	311	eP	P	02 13 33.0	+2.0
EBIE	Bielsa	88.61	313	P	P	02 13 32.4	+1.5
	comp=Z,22nm,0.8s,mb5.5						
ERTA	Horta de San J	88.70	311	P	P	02 13 32.9	+1.4
	comp=Z,62nm,1.1s,mb5.8						
ESK	Eskdalemuir	88.77	325	eP	P	02 13 29.0	-2.4
	comp=Z,228nm,1.2s,mb6.4						
ESAC	San Caprasio	89.19	312	P	P	02 13 36.0	+2.2
	comp=Z,63nm,0.8s,mb6.0						
EMOS	Mosqueruela	89.40	310	P	P	02 13 37.4	+2.7
	comp=Z,116nm,0.9s,mb6.2						
CART	Cartagena	90.22	308	eP	P	02 13 39.3	+0.6
	comp=Z,30nm,0.7s,mb5.7						
EMUR	La Murta	90.37	308	P	P	02 13 41.4	+2.0
	comp=Z,53nm,1.2s,mb5.8						
EVIA	Vianos	91.22	309	P	P	02 13 44.8	+1.6
	comp=Z,86nm,1.0s,mb6.0						
EQES	Quesada	91.81	308	P	P	02 13 48.5	+2.5
	comp=Z,41nm,0.9s,mb5.8						
EBER	Berja	91.82	307	P	P	02 13 48.0	+1.9
	comp=Z,85nm,1.0s,mb6.0						
VNDA	Vanda	91.92	168	P	P	02 13 45.4	-0.2
	comp=Z,6.3nm,0.8s,mb5.0,baz=312,slow=7.3,SNR=5.1						
VNDA	Vanda	91.92	168	P	P	02 13 45.4	-0.2
VNDA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
VNDA	Vanda	91.92	168	P	P	02 13 45.4	-0.2
GUD	Guadarrama	92.12	311	P	P	02 13 48.7	+1.4
	comp=Z,73nm,0.8s,mb6.1						
ESDC	Sonseca Array	92.15	310	P	P	02 13 45.5	-2.0
	comp=Z,32nm,0.9s,mb5.6,baz=53,slow=4.4,SNR=9.4						
ESDC	Sonseca Array	92.15	310	P	P	02 13 48.6	+1.1
ESLA	Sonseca Array	92.15	310	eP	P	02 13 45.5	-2.0
	comp=Z,52nm,1.2s,mb5.7						
EBAN	Banos Encina	92.30	309	P	P	02 13 49.0	+0.8
	comp=Z,38nm,0.9s,mb5.7						
EARI	Arriondas	92.37	314	P	P	02 13 52.6	+4.2
	comp=Z,47nm,1.0s,mb5.8						
ELOJ	Sierra Loja	92.77	308	P	P	02 13 53.7	+3.2
	comp=Z,2.8nm,0.2s,mb5.3						
EADA	Adamuz	92.91	309	P	P	02 13 51.9	+0.9
	comp=Z,41nm,1.0s,mb5.8						
SBA	Scott Base	93.02	168	eP	P	02 13 51.4	+0.7
	comp=Z,281nm,1.6s,mb6.4						
SBA				e	pP	02 14 01.0	+1.2
EMIJ	Mijas	93.37	307	P	P	02 13 54.2	+1.0
	comp=Z,24nm,0.8s,mb5.7						
ECAL	Calabor	93.76	313	P	P	02 13 56.8	+1.9
	comp=Z,69nm,1.2s,mb6.0						
ILAR	Eielson Array	95.45	22	PKKPbc		02 31 03.9	
	comp=Z,8.6nm,1.1s,baz=150,slow=1.4,SNR=4.5						
DIV	Divide	97.68	25	eP	P	02 14 14.4	+2.2
	comp=Z,152nm,1.3s,mb6.4						
INK	Inuvik	97.78	16	P	P	02 14 10.7	-1.8
	comp=Z,8.7nm,1.1s,mb5.2,baz=324,slow=4.2,SNR=2.8						
INK	Inuvik	97.78	16	P	P	02 14 10.7	-1.8
INK				pmax	pmax		
	comp=Z,9.0nm,1.1s						
INK	Inuvik	97.78	16	P	P	02 14 13.2	+0.7
	comp=Z,50nm,1.0s,mb6.0						
RES	Resolute Bay	98.32	3	eP	P	02 14 15.9	+1.0
	comp=Z,33nm,1.0s,mb5.8						
DBIC	Dimbokro	98.50	278	P	P	02 14 15.6	-1.5
	comp=Z,15nm,1.0s,mb5.5,baz=78,slow=2.9,SNR=5.4						
DBIC	Dimbokro	98.50	278	P	P	02 14 15.6	-1.4
DBIC				pmax	pmax		
	comp=Z,15nm,1.0s						
DBIC	Dimbokro	98.50	278	P	P	02 14 15.6	-1.5
DAWY	Dawson	98.58	21	eP	P	02 14 17.4	+1.1
YKA	Yellowknife Ar	107.24	14	PP	PP	02 19 19.4	-5.9
	comp=Z,3.6nm,0.8s,baz=336,slow=7.9,SNR=6.8						
YKA				PKKPbc		02 30 29.4	
	comp=Z,5.2nm,0.8s,baz=149,slow=2.6,SNR=7.1						
HUMO	Hull Mountain	120.03	31	ePKPdf	PKPdf	02 19 26.8	-5.6
ULM	Lac du Bonnet	122.34	8	PKP	PKPdf	02 19 31.1	-5.6
	comp=Z,15nm,0.7s,baz=9.9,slow=2.0,SNR=14						
ULM	Lac du Bonnet	122.34	8	ePKPdf	PKPdf	02 19 31.2	-5.5
DGMT	Dagmar	122.42	15	ePKPdf	PKPdf	02 19 35.0	-1.8
HOPS	Hopland	122.52	34	ePKPdf	PKPdf	02 19 31.8	-5.5
MCMT	McKenzie Canyo	122.88	23	ePKPdf	PKPdf	02 19 32.5	-5.3
NSHM	Saint Helena R	123.11	34	ePKPdf	PKPdf	02 19 33.2	-5.3
OHCM	Honcut	123.15	33	ePKPdf	PKPdf	02 19 31.8	-6.7
HLID	Hailey	123.30	25	ePKPdf	PKPdf	02 19 33.6	-5.1
LAO	LASA Array	123.51	17	ePKPdf	PKPdf	02 19 33.7	-5.4
YMR	Madison River	123.73	22	ePKPdf	PKPdf	02 19 35.0	-4.6
YNR	Norris Junctio	123.79	21	ePKPdf	PKPdf	02 19 38.8	-0.9
YFT	Old Faithful	123.96	22	ePKPdf	PKPdf	02 19 36.1	-3.9
LKWY	Lake	124.02	21	ePKPdf	PKPdf	02 19 36.8	-3.3
BMN	Battle Mountai	124.52	29	PKPdf	PKPdf	02 19 39.8	-1.4
CMB	Columbia Colle	124.68	33	ePKPdf	PKPdf	02 19 31.1	-11
LOHW	Long Hollow	124.77	22	ePKPdf	PKPdf	02 19 35.7	-5.9
WUWY	Wally Ulrich	124.78	22	ePKPdf	PKPdf	02 19 36.5	-5.2
SNOW	Snow King Moun	124.84	22	ePKPdf	PKPdf	02 19 36.5	-5.2
ELK	Elko	125.21	28	ePKPdf	PKPdf	02 19 37.6	-4.9
AHID	Auburn Hatcher	125.30	23	ePKPdf	PKPdf	02 19 37.5	-5.1
HVU	Hansel Valley	125.45	25	ePKPdf	PKPdf	02 19 37.4	-5.6
NVAR	Mina Array Bea	125.50	32	PKP	PKPdf	02 19 37.7	-5.4
	comp=Z,13nm,0.8s,baz=26,slow=1.1,SNR=15						
NVAR				PKKPbc		02 29 27.6	
	comp=Z,2.9nm,0.8s,baz=142,slow=3.9,SNR=6.6						
NVAR				PKKP	PKKP	02 29 59.4	+6.6
	comp=Z,3.1nm,1.1s,baz=180,slow=1.8,SNR=3.8						
MNV	Mina	125.58	31	ePKPdf	PKPdf	02 19 38.2	-5.1
BW06	Boulder Array	125.89	22	ePKPdf	PKPdf	02 19 37.5	-6.3
PDAR	Pinedale Array	125.89	22	PKP	PKPdf	02 19 37.8	-6.0
	comp=Z,9.1nm,0.8s,baz=85,slow=1.3,SNR=12						
PDAR				PKKPab		02 29 12.7	
	comp=Z,1.1nm,0.7s,baz=153,slow=2.0,SNR=4.6						
PDAR				PKKPbc		02 29 19.7	
	comp=Z,3.8nm,0.9s,baz=135,slow=6.7,SNR=8.2						
BGU	Big Grassy Mou	126.05	26	ePKPdf	PKPdf	02 19 37.1	-7.0
MTUM	Tungsten Hills	126.16	33	ePKPdf	PKPdf	02 19 39.5	-4.9
NOQ	North Oquirrh	126.66	25	ePKPdf	PKPdf	02 19 39.9	-5.4
WVL	Waterville	126.81	346	ePKPdf	PKPdf	02 19 43.0	-2.4
NLU	North Lily Min	127.26	26	ePKPdf	PKPdf	02 19 41.0	-5.4
MPU	Maple Canyon	127.40	25	ePKPdf	PKPdf	02 19 42.6	-4.2
RWWY	Rawlins	127.67	21	ePKPdf	PKPdf	02 19 41.4	-5.9
TPNV	Topopah Spring	127.68	31	ePKPdf	PKPdf	02 19 42.6	-4.8
MDV	Middlebury	128.12	349	ePKPdf	PKPdf	02 19 43.8	-4.3
TMUT	Trail Mountain	128.18	25	ePKPdf	PKPdf	02 19 43.7	-4.6
MVU	Marysvale	128.40	27	ePKPdf	PKPdf	02 19 44.7	-4.0
SRU	San Rafael	128.62	25	ePKPdf	PKPdf	02 19 46.6	-2.6
PV10	Paradox Valley	129.86	24	ePKPdf	PKPdf	02 19 47.3	-4.2
PV01	Paradox Valley	130.26	24	ePKPdf	PKPdf	02 19 50.2	-2.1
ERPA	Erie	130.94	355	ePKPdf	PKPdf	02 19 51.3	-2.1
AAM	Ann Arbor	130.99	358	PKPdf	PKPdf	02 19 50.0	-3.5
PAL	Palisades	131.14	348	PKPdf	PKPdf	02 19 50.5	-3.4
ALLY	Alegheny Colle	131.42	355	ePKPdf	PKPdf	02 19 52.2	-2.2
ACSO	Alum Creek Sta	133.03	357	PKPdf	PKPdf	02 19 51.4	-6.1
KSU1	Kansas State U	133.05	12	ePKPdf	PKPdf	02 19 51.0	-6.5
ANMO	Albuquerque	133.86	24	ePKPdf	PKPdf	02 19 54.9	-4.2
ELN	Prospectdale	135.86	355	ePKPdf	PKPdf	02 19 58.7	-4.1
CPCT	Cooper Cave	137.84	359	ePKPdf	PKPdf	02 19 59.9	-6.6
MIAR	Mount Ida	138.04	10	ePKPdf	PKPdf	02 20 01.9	-5.0
MYNC	Murphy	138.21	358	PKPdf	PKPdf	02 20 02.8	-4.3
JSC	Jenkinsville	138.83	355	ePKPdf	PKPdf	02 20 02.2	-6.1
LTX	Lajitas	139.90	25	ePKPpre		02 20 04.6	
TXAR	Lajitas Array	139.90	25	PKP	PKPdf	02 20 04.8	-5.5
	comp=Z,4.5nm,0.7s,baz=260,slow=0.5,SNR=8.9						
TXAR				PP	PP	02 23 00.9	-5.0
	comp=Z,3.2nm,0.9s,baz=315,slow=1.3,SNR=3.1						
JCT	Junction City	140.34	20	ePKPpre		02 20 02.9	
BAO	Brasilia Array	142.34	253	PKP	PKPdf	02 20 10.2	-4.9
SJG	San Juan	148.68	323	PKPbc	PKPdf	02 20 23.4	-2.3
	comp=Z,25nm,0.8s,baz=90,slow=2.0,SNR=2.7						
SJG	San Juan	148.68	323	PKIKP	PKPdf	02 20 23.4	-2.3
SJG				pmax	pmax		
	comp=Z,25nm,0.8s						
SJG	San Juan	148.68	323	PKPbc	PKPdf	02 20 23.4	-2.3
RPN	Rapa Nui	149.68	134	ePKPdf	PKPdf	02 20 25.2	-1.9
MDZ	Mendoza	149.93	209	eP	PKPdf	02 20 25.9	-1.4
MDZ				e		02 20 38.7	
TEIG	Tepich	152.87	6	ePKPbc	PKPdf	02 20 32.9	+0.9
PCRV	Puerto La Cruz	153.22	309	PKPbc	PKPdf	02 20 34.3	+1.7
	comp=Z,30nm,1.1s,baz=155,slow=1.4,SNR=3.7						
PCRV				PKPab	PKPab	02 20 45.7	-3.7
	comp=Z,22nm,0.4s,baz=354,slow=4.1,SNR=10.0						
LPAZ	La Paz	160.69	240	PKP	PKPdf	02 20 38.3	-3.6
	comp=Z,5.2nm,0.8s,baz=97,slow=5.6,SNR=2.8						
LPAZ	La Paz	160.69	240	PKIKP	PKPdf	02 20 38.3	-3.7
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.8s						
LPAZ	La Paz	160.69	240	PKPdf	PKPdf	02 20 40.3	-1.6
ROSC	El Rosal	163.89	316	PKP	PKPdf	02 20 40.2	-5.1
	comp=Z,6.3nm,0.8s,baz=283,slow=24,SNR=3.1						

IDC 26 02:06:28.6±1.1**,3.89N×94.23E,mb4.7**/9**,mb1 4.8**/9**, mb1mx4.5**/19**,Error ellipse: s-maj=58.2km s-min=19.1km az=49.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SONM	Songino Array	45.01	12	P	P	02 14 45.9	-1.8
	3.5nm,0.6s,baz=198,slow=9.7,SNR=4.1						
WRA	Warramunga Arr	45.97	123	P	P	02 14 54.1	-1.5
	19nm,0.6s,baz=300,slow=9.0,SNR=6.7						
ASAR	Alice Springs	47.37	127	P	P	02 15 04.7	-2.0
	7.6nm,0.6s,baz=298,slow=7.8,SNR=4.9						
BVAR	Borovoye Array	52.77	342	P	P	02 15 45.3	-2.3
	4.2nm,0.6s,baz=149,slow=8.4,SNR=3.5						
STKA	Stephens Creek	57.35	132	P	P	02 16 18.4	-2.8
	9.7nm,1.0s,baz=294,slow=10.0,SNR=2.9						
IDI	Anoyia	70.93	306	P	P	02 17 49.0	-1.0
	7.7nm,0.5s,baz=52,slow=6.8,SNR=5.8						
FINES	FINESS Array B	76.26	333	P	P	02 18 19.1	-1.5
	2.4nm,0.5s,baz=90,slow=4.4,SNR=3.4						
ARCES	ARCESS Array B	79.02	340	P	P	02 18 34.5	-1.2
	6.3nm,0.9s,baz=104,slow=7.4,SNR=5.1						
GERES	GERESS Array B	80.85	319	P	P	02 18 43.4	-2.5
	3.1nm,0.7s,baz=113,slow=5.3,SNR=4.9						

IDC ***26*** *02:08:19.8±0.9,3.50N×94.97E,h23^{km}±5^{km},mb4.5/14, mb1 4.7/15,mb1mx4.6/19,ML4.6/1,Error ellipse: s-maj=31.7km s-min=14.5km az=47.0*

ISC 26 02:08:18.2±0.6**,3.5N**±0.2×**95.0E**±0.2**,h26^{km}, h26^{km}**±1.4^{km}**:pP-P,n23,**σ**0^{s}93**/17**,mb4.7**/15**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.38	14	Pn	P	02 12 02.2	+6.9
	0.8nm,0.3s,baz=215,slow=12,SNR=7.6						
WRA	Warramunga Arr	45.11	123	P	P	02 16 34.9	+0.3
	24nm,1.0s,mb5.0,baz=300,slow=9.1,SNR=4.8						
WRA				pP	pP	02 16 41.8	-0.6
	26nm,0.8s,baz=300,slow=8.8,SNR=7.6						
SONM	Songino Array	45.26	11	P	P	02 16 34.3	-1.1
	6.0nm,0.6s,mb4.6,baz=195,slow=8.0,SNR=6.7						
SONM				pP	pP	02 16 42.3	-0.9
	4.2nm,0.5s,baz=192,slow=8.9,SNR=3.4						
ASAR	Alice Springs	46.53	127	P	P	02 16 46.0	+0.3
	5.8nm,0.7s,mb4.6,baz=298,slow=7.8,SNR=4.4						
ZAL	Zalesovo	50.98	352	P	P	02 17 18.7	-1.1
	7.0nm,0.7s,mb4.7,baz=304,slow=5.5,SNR=4.1						
MAT	Matsushiro	51.56	45	P	P	02 17 31.9	+7.4
BVAR	Borovoye Array	53.39	342	P	P	02 17 37.8	-0.1
	20nm,0.8s,mb5.1,baz=135,slow=8.4,SNR=7.8						
CTA	Charters Tower	55.50	117	P	P	02 17 53.7	0.0
	3.8nm,0.8s,mb4.5,baz=283,slow=9.7,SNR=2.7						
STKA	Stephens Creek	56.52	132	P	P	02 18 00.4	-0.5
	7.4nm,0.8s,mb4.8,baz=308,slow=8.0,SNR=4.1						
KMBO	Kilima Mbogo	57.89	266	P	P	02 18 09.8	-1.0
	5.6nm,0.9s,mb4.6,baz=51,slow=8.2,SNR=6.0						
AKASG	Malin Array Be	72.11	322	P	P	02 19 43.5	+1.1
	3.1nm,0.7s,mb4.4,baz=86,slow=4.7,SNR=5.6						
MLR	Muntele Rosu	72.90	317	P	P	02 19 47.5	+0.3
	9.7nm,0.8s,mb4.8,baz=61,slow=16,SNR=3.6						
FINES	FINESS Array B	76.97	333	P	P	02 20 12.0	+1.9
	2.8nm,0.5s,mb4.4,baz=107,slow=6.4,SNR=4.0						
ARCES	ARCESS Array B	79.66	340	P	P	02 20 25.8	+1.1
	8.1nm,1.0s,mb4.6,baz=91,slow=5.5,SNR=3.7						
GERES	GERESS Array B	81.65	319	P	P	02 20 34.9	-0.7
	4.1nm,0.9s,mb4.3,baz=119,slow=5.6,SNR=5.0						
GERES				pP	pP	02 20 44.0	+0.1
	5.5nm,0.7s,baz=95,slow=4.8,SNR=7.7						
HFS	Hagfors	82.65	330	P	P	02 20 40.0	-0.6
	9.4nm,1.0s,mb4.8,baz=117,slow=6.4,SNR=5.1						
NOA	NORSAR Array B	83.95	331	pP	pP	02 20 55.6	+0.1
	3.1nm,0.9s,baz=93,slow=5.6,SNR=2.8						
LPG	La Plagne	86.30	315	eP	P	02 21 05.9	+6.6
	20nm,0.8s,mb5.1						
EKA	Eskdalemuir Ar	91.79	326	sP	sP	02 21 35.9	-0.2
	3.2nm,0.7s,baz=103,slow=5.1,SNR=3.6						
ESDC	Sonseca Array	94.67	310	sP	sP	02 21 51.3	+1.6
	0.6nm,0.5s,baz=60,slow=5.2,SNR=3.0						
NVAR	Mina Array Bea	128.16	33	PKP	PKPdf	02 27 26.0	-1.6
	1.0nm,0.7s,baz=311,slow=1.9,SNR=3.7						
PDAR	Pinedale Array	128.89	23	PKP	PKPdf	02 27 25.4	-3.5
	1.5nm,1.0s,baz=90,slow=1.8,SNR=3.7						
TXAR	Lajitas Array	142.78	28	PKP	PKPdf	02 27 52.0	-2.8
	0.8nm,0.6s,baz=292,slow=0.8,SNR=4.3						

IDC ***26*** *02:10:49.1±0.9,5.17N×93.11E,mb4.7/14,mb1 4.8/14, mb1mx4.7/21,Error ellipse: s-maj=54.3km s-min=16.9km az=47.0*

ISC 26 02:10:52.1±0.7**,5.2N**±0.2×**93.1E**±0.2**,h33^{km},n16,** σ**0^{s}72**/16**,mb4.6**/15**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SONM	Songino Array	44.02	13	P	P	02 18 58.3	-0.1
	11nm,0.9s,mb4.6,baz=191,slow=6.3,SNR=5.2						
WRA	Warramunga Arr	47.58	123	P	P	02 19 26.6	-0.4
	23nm,0.7s,mb5.3,baz=301,slow=9.1,SNR=9.2						
WRA				pP	pP	02 19 35.3	-1.5
	17nm,0.8s,baz=301,slow=9.0,SNR=5.6						
ASAR	Alice Springs	49.01	127	P	P	02 19 38.1	+0.1
	4.9nm,0.6s,mb4.7,baz=304,slow=6.5,SNR=3.7						
BVAR	Borovoye Array	51.24	343	P	P	02 19 54.6	-0.1
	6.7nm,0.8s,mb4.6,baz=146,slow=5.2,SNR=3.6						
STKA	Stephens Creek	59.01	132	P	P	02 20 51.6	+0.3
	7.1nm,0.8s,mb4.8,baz=293,slow=7.3,SNR=4.1						
BRTR	Keskin Array B	63.46	312	P	P	02 21 21.1	-0.1
	4.1nm,0.8s,mb4.6,baz=118,slow=7.9,SNR=4.6						
AKASG	Malin Array Be	69.66	322	P	P	02 21 59.9	-0.4
	0.5nm,0.4s,mb3.8,baz=85,slow=4.7,SNR=4.0						
MLR	Muntele Rosu	70.42	317	P	P	02 22 06.1	+1.1
	9.1nm,0.7s,mb4.8,baz=212,slow=4.6,SNR=5.1						
FINES	FINESS Array B	74.64	333	P	P	02 22 29.6	-0.1
	6.4nm,0.6s,mb4.7,baz=121,slow=11,SNR=6.2						
KAF	Kangasniemi	74.74	333	ep	P	02 22 30.7	+0.4
	baz=105,slow=5.5						
ARCES	ARCESS Array B	77.47	341	P	P	02 22 46.3	+0.7
	11nm,0.9s,mb4.8,baz=102,slow=4.9,SNR=6.5						
GERES	GERESS Array B	79.18	319	P	P	02 22 55.3	-0.1
	7.7nm,0.8s,mb4.7,baz=90,slow=5.3,SNR=6.9						
HFS	Hagfors	80.29	330	P	P	02 23 01.5	+0.3
	3.9nm,0.7s,mb4.5,baz=117,slow=6.6,SNR=4.6						
NOA	NORSAR Array B	81.59	331	P	P	02 23 06.2	-1.8
	1.8nm,0.7s,mb4.1,baz=94,slow=5.5,SNR=2.8						
LPL	La Plagne	83.83	315	eP	P	02 23 18.5	-1.3
	28nm,0.9s,mb5.1						
EKA	Eskdalemuir Ar	89.37	325	P	P	02 23 47.7	+1.1
	1.3nm,0.5s,mb4.5,baz=98,slow=5.3,SNR=4.5						

IDC 26 02:12:18.0±9.0**,10.90N×92.82E,h62^{km}**±80^{km}**,mb4.2**/8**, mb1 4.4**/9**,mb1mx4.1**/21**,ML5.0**/1**,Error ellipse: s-maj=80.7km s-min=24.1km az=43.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.57	38	P	P	02 14 32.7	-2.8
	4.2nm,0.3s,baz=226,slow=13,SNR=4.2						
WRA	Warramunga Arr	51.09	127	P	P	02 21 14.7	-2.0
	4.4nm,1.0s,baz=302,slow=9.1,SNR=2.8						
EIL	Elat	56.82	298	P	P	02 21 55.4	-3.3
	6.4nm,0.8s,baz=63,slow=6.8,SNR=2.3						
BRTR	Keskin Array B	59.49	310	P	P	02 22 16.0	-1.1
	5.6nm,0.8s,baz=117,slow=6.4,SNR=5.6						
AKASG	Malin Array Be	64.99	321	P	P	02 22 52.6	-1.1
	1.2nm,0.4s,baz=85,slow=4.7,SNR=5.0						
MLR	Muntele Rosu	66.11	315	P	P	02 23 00.2	-0.7
	17nm,1.2s,baz=123,slow=10,SNR=3.1						
KAF	Kangasniemi	69.52	333	ep	P	02 23 25.6	+3.8
ARCES	ARCESS Array B	71.99	340	P	P	02 23 35.4	-1.2
	4.6nm,0.8s,baz=90,slow=5.4,SNR=2.6						
GERES	GERESS Array B	74.72	318	P	P	02 23 49.5	-3.4
	5.9nm,0.9s,baz=101,slow=5.0,SNR=3.6						
HFS	Hagfors	75.20	329	P	P	02 23 53.2	-2.2
	3.9nm,0.8s,baz=78,slow=5.4,SNR=5.3						

IDC 26 02:12:33.9±0.8**,11.63N×92.24E,h20^{km}**±4^{km}**,mb4.5**/10**, mb1 4.6**/11**,mb1mx4.3**/20**,ML4.8**/1**,Error ellipse: s-maj=41.8km s-min=15.0km az=55.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.38	43	Pn	P	02 14 50.0	-1.0
	2.7nm,0.3s,baz=235,slow=15,SNR=5.3						
SONM	Songino Array	37.99	16	P	P	02 19 50.2	-2.1
	7.2nm,0.6s,baz=207,slow=7.9,SNR=7.5						
BVAR	Borovoye Array	44.85	341	P	P	02 20 46.3	-2.1
	7.2nm,0.8s,baz=142,slow=13,SNR=5.3						
WRA	Warramunga Arr	51.98	127	P	P	02 21 41.5	-2.8
	13nm,0.7s,baz=300,slow=10,SNR=10						
ASAR	Alice Springs	53.77	131	P	P	02 21 54.7	-2.8
	3.3nm,0.5s,baz=308,slow=7.0,SNR=5.7						
ASAR				pP	pP	02 22 01.4	-2.3
	8.7nm,0.9s,baz=312,slow=7.7,SNR=4.0						
STKA	Stephens Creek	64.05	134	P	P	02 23 07.5	-1.4
	3.9nm,0.4s,baz=310,slow=4.1,SNR=8.3						
FINES	FINESS Array B	68.53	332	P	P	02 23 35.1	-1.8
	3.8nm,0.7s,baz=102,slow=6.5,SNR=4.1						
FINES				pP	pP	02 23 41.4	-1.9
	7.1nm,0.8s,baz=115,slow=7.3,SNR=3.2						
ARCES	ARCESS Array B	71.11	340	P	P	02 23 50.9	-1.7
	2.7nm,0.5s,baz=102,slow=6.3,SNR=7.3						
ARCES				pP	pP	02 23 57.4	-1.5
	3.3nm,0.5s,baz=83,slow=6.1,SNR=2.6						
GERES	GERESS Array B	73.80	318	pP	pP	02 24 14.0	-1.1
	1.2nm,0.5s,baz=89,slow=5.9,SNR=1.5						
HFS	Hagfors	74.28	329	P	P	02 24 09.9	-1.4
	3.9nm,0.6s,baz=117,slow=6.4,SNR=3.7						
HFS				pP	pP	02 24 16.3	-1.4
	6.0nm,0.5s,baz=104,slow=6.1,SNR=4.0						

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NB2   NORSAR Subarra  75.56 330  P       P        02 24 16.2 -2.4
      2.9nm,0.6s,baz=95,slow=5.0
NOA   NORSAR Array B  75.56 330  P       P        02 24 16.2 -2.4
      2.5nm,0.9s,baz=97,slow=5.5,SNR=3.9
NOA                              pP      pP       02 24 23.4 -1.6
      2.9nm,0.6s,baz=93,slow=5.7,SNR=3.8
EKA   Eskdalemuir Ar  83.58 325  pP      pP       02 25 07.6 -0.8
      1.8nm,0.6s,baz=106,slow=5.4,SNR=2.3
ILAR  Eielson Array   91.97  22  P       P        02 25 38.9 -3.1
      1.7nm,0.6s,baz=297,slow=4.3,SNR=5.1
NVAR  Mina Array Bea 122.60  28  PKP     PKPdf    02 31 29.5 -3.2
      1.2nm,0.9s,baz=259,slow=1.7,SNR=4.0
TXAR  Lajitas Array  136.48  20  PKP     PKPdf    02 31 54.9 -4.4
      0.8nm,0.7s,baz=270,slow=0.9,SNR=2.6
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*IDC **26** 02:14:04.4±10.0, 7.19N×93.18E, h64^{km}±94^{km}, mb4.3/16, mb1 4.5/16, mb1mx4.4/22, Error ellipse: s-maj=28.9km s-min=24.4km az=19.0*

ISC 26 02:13:59.0±0.9**, 7.2N**±0.2×**93.2E**±0.2**, h33^{km}, n22, σ0.^{s}69**/21**, mb4.6**/19**, Nicobar Islands region**

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Code  Station Name     Δ°   AZ°   Phase ID           Time     Res
                                  Op      ISC      h  m  s    ISC
SONM  Songino Array   42.09  13  P       P        02 21 49.8 +0.2
      4.6nm,0.9s,mb4.1,baz=199,slow=4.3,SNR=2.6
ZAL   Zalesovo        47.14 353  P       P        02 22 30.8 +0.8
      3.9nm,0.4s,mb4.7,baz=311,slow=5.8,SNR=3.3
WRA   Warramunga Arr  48.64 124  P       P        02 22 41.8 -0.3
      6.0nm,0.5s,mb4.9,baz=303,slow=8.7,SNR=3.8
KMBO  Kilima Mbogo    56.38 264  P       P        02 23 40.5 +0.5
      2.2nm,0.7s,mb4.3,baz=74,slow=11,SNR=7.5
ASF   Jabal al Asfar  57.80 304  P       P        02 23 49.2 -0.6
      3.8nm,0.7s,mb4.5,baz=50,slow=5.1,SNR=4.3
EIL   Elat            58.95 300  P       P        02 23 58.1 +0.3
      5.4nm,0.6s,mb4.7,baz=90,slow=7.7,SNR=6.2
BRTR  Keskin Array B  62.17 311  P       P        02 24 18.1 -1.5
      7.8nm,1.0s,mb4.8,baz=136,slow=6.7,SNR=8.1
AKASG Malin Array Be  68.12 322  P       P        02 24 56.3 -1.4
      1.6nm,0.6s,mb4.2,baz=82,slow=4.7,SNR=4.3
IDI   Anoyia          68.18 305  P       P        02 24 58.9 +0.4
      12nm,0.5s,mb5.2,baz=75,slow=8.9,SNR=9.4
MLR   Muntele Rosu    69.01 316  P       P        02 25 03.5 +0.2
      8.6nm,0.8s,mb4.7,baz=191,slow=17,SNR=3.8
FINES FINESS Array B  72.90 332  P       P        02 25 25.8 -0.7
      7.6nm,0.8s,mb4.7,baz=135,slow=8.1,SNR=5.5
KAF   Kangasniemi     72.99 333  ep      P        02 25 26.8 -0.2
      2.7nm,0.5s,mb4.4,baz=110,slow=5.7
ZST   Bratislava      75.42 318  e       P        02 25 41.7 +0.4
ARCES ARCESS Array B  75.62 340  P       P        02 25 42.2 +0.1
      3.1nm,0.5s,mb4.5,baz=106,slow=4.9,SNR=5.1
GERES GERESS Array B  77.72 318  P       P        02 25 54.8 +0.5
      6.0nm,0.8s,mb4.6,baz=102,slow=5.4,SNR=6.8
HFS   Hagfors         78.59 330  P       P        02 25 58.8 -0.1
      14nm,1.1s,mb4.8,baz=104,slow=3.2,SNR=5.4
NB2   NORSAR Subarra  79.89 331  P       P        02 26 05.5 -0.4
      1.9nm,0.6s,mb4.2,baz=96,slow=5.3
NOA   NORSAR Array B  79.89 331  P       P        02 26 05.1 -0.8
      2.5nm,0.7s,mb4.3,baz=93,slow=5.6,SNR=4.2
LPG   La Plagne       82.44 315  eP      P        02 26 15.3 -4.3
      27nm,0.9s,mb4.9
EKA   Eskdalemuir Ar  87.77 325  P       P        02 26 46.6 +0.8
      6.3nm,0.7s,mb5.0,baz=96,slow=5.7,SNR=8.7
ESDC  Sonseca Array   90.94 310  P       P        02 27 02.1 +0.9
      1.2nm,0.5s,mb4.5,baz=62,slow=4.1,SNR=8.6
PDAR  Pinedale Array 126.19  21  PKP     PKPdf    02 33 00.5 +1.8
      2.1nm,0.8s,slow=0.9,SNR=5.5
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*CSEM **26** 02:15:18.1, 6.20N×94.69E, h33^{km}, mb5.7*

*IDC **26** 02:15:18.9±0.5, 6.26N×93.49E, mb5.2/21, mb1 5.3/21, mb1mx5.2/26, Error ellipse: s-maj=27.2km s-min=14.4km az=44.0*

*NEIC **26** 02:15:23.6±0.2, 6.17N×93.47E, h30^{km}, mb5.6/16, Error ellipse: s-maj=14.3km s-min=7.1km az=224.0*

*BJI **26** 02:15:23.5, 6.20N×93.50E, h30^{km}, mb5.7*

ISC 26 02:15:20.3±0.3**, 6.11N**±0.08×**93.41E**±0.06**, h20^{km}, h20^{km}**±1.1^{km}**:pP-P, n190, σ0.^{s}88**/175**, mb5.3**/72**, 13C-4D, Nicobar Islands region**

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Code  Station Name     Δ°   AZ°   Phase ID           Time     Res
                                  Op      ISC      h  m  s    ISC
QIZ   Qiongzhong      20.52  50  P       P        02 20 00.0 -0.1
DGAR  Diego Garcia    24.85 238  P       P        02 20 52.4 +9.2
      507nm,0.4s,mb6.4
WHN   Wuhan           31.27  36  P       P        02 21 41.0 -0.2
WHN   Wuhan           31.27  36  P       P        02 21 41.0 -0.2
NJ2   Nanjing         35.08  39  eP      P        02 22 16.0 +1.7
NJ2                              AMB     AMB
      comp=Z,160nm,0.8s,mb6.0
NJ2   Nanjing         35.08  39  eP      P        02 22 16.0 +1.7
NJ2                              AMB     AMB
      comp=Z,160nm,0.8s,mb6.0
TIA   Tai'an          37.01  33  eP      P        02 22 30.5  0.0
TIA   Tai'an          37.01  33  eP      P        02 22 30.5  0.0
DL2   Dalian          41.42  34  P       P        02 23 08.0 +0.8
DL2                              AMB     AMB
      comp=Z,120nm,0.9s,mb5.5
DL2   Dalian          41.42  34  P       P        02 23 08.0 +0.8
DL2                              AMB     AMB
      comp=Z,120nm,0.9s,mb5.5
CN2   Changchun       46.90  32  eP      P        02 23 51.8 +0.6
CN2   Changchun       46.90  32  eP      P        02 23 51.8 +0.6
WRA   Warramunga Arr  47.86 124  P       P        02 23 58.8 -0.4
      comp=Z,15nm,0.9s,mb5.0,baz=302,slow=9.2,SNR=4.4
WRAB  Tennant Creek   47.87 124  eP      P        02 23 58.9 -0.3
      comp=Z,52nm,0.7s,mb5.7
HIA   Hailar          48.41  23  P       P        02 23 57.5 -5.6
      comp=Z,6.4nm,0.5s,mb4.9
ASAR  Alice Springs   49.37 128  P       P        02 24 11.2 +0.4
      comp=Z,11nm,0.8s,mb5.0,baz=307,slow=7.7,SNR=5.3
MZLS  Mizel           49.55 296  P       P        02 24 12.7 +0.6
TATS  Tathlith        50.29 290  P       P        02 24 17.8  0.0
AFFS  'Afif           51.49 296  P       P        02 24 27.7 +0.8
ARSS  Ar Rass         51.71 298  P       P        02 24 29.0 +0.4
HILS  Ha'il           53.31 300  P       P        02 24 42.0 +1.4
GNI   Garni           55.16 315  P       P        02 24 54.0 +0.1
      comp=Z,150nm,0.9s,mb6.0,baz=55,slow=1.0,SNR=35
KBRS  Khaybar         55.19 297  P       P        02 24 55.5 +1.2
PMG   Port Moresby    55.73 106  P       P        02 24 56.7 -1.7
      comp=Z,9.3nm,0.7s,mb5.0,baz=338,slow=5.4,SNR=3.2
KMBO  Kilima Mbogo    56.52 265  P       P        02 25 04.8 +0.7
      comp=Z,15nm,0.9s,mb5.0,baz=61,slow=11,SNR=14
KMBO  Kilima Mbogo    56.52 265  eP      P        02 25 04.4 +0.4
      comp=Z,2.9nm,0.6s,mb4.5
UMJS  Umm Lajj        56.83 296  P       P        02 25 07.2 +1.1
ERZM  Erzurum         57.45 314  i P     P        02 25 08.6 -1.7
TBKS  Tabuk           58.03 299  P       P        02 25 15.7 +1.2
KIV   Kislovodsk      58.14 319  P       P        02 25 14.5 -0.6
      comp=Z,1μm,1.1s,SNR=45
ASF   Jabal al Asfar  58.58 304  P       P        02 25 19.0 +0.8
      comp=Z,30nm,1.0s,mb5.3,baz=334,slow=5.1,SNR=14
JMQS  Jabal Moqyreh   58.74 300  P       P        02 25 20.2 +0.8
MALT  Malatya         59.06 311  eP      P        02 25 20.8 -0.7
      comp=Z,59nm,1.0s,mb5.6
BDAS  Al Bad'         59.32 299  P       P        02 25 24.2 +0.7
STKA  Stephens Creek  59.44 133  P       P        02 25 22.8 -1.5
ALWS  Ilw as Safayha  59.52 300  P       P        02 25 25.4 +0.6
EIL   Elat            59.68 301  P       P        02 25 26.1 +0.1
      comp=Z,33nm,0.9s,mb5.4,baz=47,slow=5.6,SNR=12
EIL   Elat            59.68 301  eP      P        02 25 26.3 +0.3
      comp=Z,71nm,1.2s,mb5.6
COBT  Iskenderun      60.19 309  i P     P        02 25 27.8 -1.6
BOYT  Boyabat         62.59 314  i P     P        02 25 44.1 -1.4
BRTR  Keskin Array B  63.03 312  P       P        02 25 46.9 -1.6
      comp=Z,25nm,0.8s,mb5.4,baz=125,slow=7.5,SNR=26
ELDT  Eldivan         63.40 312  i P     P        02 25 49.8 -1.0
BALT  Daday           63.71 314  i P     P        02 25 52.1 -0.8
SGKT  Sivrigoynuk     64.43 312  i P     P        02 25 55.6 -2.0
ISP   Isparta         64.96 309  eP      P        02 25 59.3 -1.9
      comp=Z,51nm,1.0s,mb5.5
ESKT  Eskisehir       65.07 311  i P     P        02 26 03.2 +1.5
HENT  Hendek          65.34 312  i P     P        02 25 58.5 -5.0
ULDT  Uludag          66.50 311  i P     P        02 26 09.0 -1.9
ALN   Alexandroupoli  68.95 311  eP      P        02 26 25.8 -0.6
IDI   Anoyia          68.98 305  P       P        02 26 26.2 -0.3
      comp=Z,33nm,0.7s,mb5.4,baz=87,slow=7.3,SNR=11
AKASG Malin Array Be  69.08 322  P       P        02 26 24.7 -2.2
      comp=Z,22nm,0.9s,mb5.1,baz=88,slow=4.5,SNR=16
AKASG Malin Array Be  69.08 322  P       P        02 26 24.7 -2.2
AKASG                            pmax    pmax
      comp=Z,22nm,0.9s
GVD   Gavdhos         69.57 305  eP      P        02 26 29.9 -0.3
      comp=Z,53nm,1.0s,mb5.4
MLR   Muntele Rosu    69.92 316  P       P        02 26 32.1  0.0
      comp=Z,45nm,0.9s,mb5.4,baz=49,slow=4.3,SNR=13
OUR   Ouranopolis     70.41 311  eP      P        02 26 33.0 -2.2
SRS   Serrai          70.82 311  eP      P        02 26 36.5 -1.2
SOH   Sokhos          70.95 311  eP      P        02 26 37.5 -1.0
THE   Thessaloniki    71.22 311  eP      P        02 26 38.5 -1.6
KNT   Kendrikon       71.35 311  eP      P        02 26 39.8 -1.1
AGG   Agios Georgios  71.49 309  eP      P        02 26 39.6 -2.1
LIT   Litokhoron      71.50 310  eP      P        02 26 40.3 -1.5
GRG   Griva           71.69 311  eP      P        02 26 41.2 -1.7
LBTB  Lobatse         72.77 242  eP      P        02 26 49.8 +0.1
      comp=Z,73nm,1.3s,mb5.5
KWP   Kalwaria        72.90 320  eP      P        02 26 49.6 -0.3
KWP                              e       pP       02 26 54.4 -1.9
KOLS  Kolonicke sedl  73.05 319  eP      P        02 26 51.0 +0.2
IGT   Igoumenitsa     73.09 309  eP      P        02 26 49.5 -1.8
SUW   Suwalki         73.50 325  eP      P        02 26 52.4 -1.0
SUW                              e                02 26 56.2
FINES FINESS Array B  73.92 333  P       P        02 26 54.9 -0.8
      comp=Z,25nm,0.7s,mb5.2,baz=104,slow=7.9,SNR=15
FINES FINESS Array B  73.92 333  P       P        02 26 54.9 -0.7
FINES                            pmax    pmax
      comp=Z,25nm,0.7s
BOSA  Boshof          74.04 238  eP      P        02 26 57.2 +0.2
      comp=Z,90nm,1.3s,mb5.5
KECS  Kecovo          74.14 319  eP      P        02 26 56.7 -0.5
OJC   Ojcow           74.85 320  eP      P        02 27 01.3  0.0
VYHS  Vyhne           75.23 318  eP      P        02 27 03.4 -0.1
RHK1  Bakonya         75.45 316⇑eP      P        02 27 04.2 -0.6
SRO   Srobarova       75.49 318  eP      P        02 27 05.8 +0.8
KOLL  Kolacno         75.53 319  eP      P        02 27 05.3 +0.1
OKC   Ostrava-Krasne  75.85 320  eP      P        02 27 07.2 +0.2
OKC                              epP     pP       02 27 13.1 -0.3
SMOL  Smolenice       76.16 318  eP      P        02 27 08.8  0.0
MORC  Moravsky Berou  76.23 320  eP      P        02 27 08.1 -1.1
ZST   Bratislava      76.34 318  eP      P        02 27 09.9 +0.1
ARCES ARCESS Array B  76.67 340  P       P        02 27 11.3 +0.1
      comp=Z,18nm,0.5s,mb5.3,baz=88,slow=3.5,SNR=28
ARCES ARCESS Array B  76.67 340  P       P        02 27 11.3 +0.1
MAW   Mawson          76.67 192  P       P        02 27 12.1 +0.8
      comp=Z,11nm,0.8s,mb4.9,baz=21,slow=7.9,SNR=8.1
VRAC  Vranov          76.80 319  P       P        02 27 12.2 -0.1
      comp=Z,5.5nm,0.9s,mb4.5,baz=100,slow=7.3,SNR=6.8
GKP   Gorka Klasztor  76.86 323  eP      P        02 27 12.2 -0.4
DPC   Dobruska-Polom  77.08 320  eP      P        02 27 14.6 +0.8
DPC                              epP     pP       02 27 20.7 +0.4
KSP   Ksiaz           77.15 321  eP      P        02 27 14.3 +0.1
KSP   Ksiaz           77.15 321  eP      P        02 27 14.5 +0.3
KSP                              e       pP       02 27 21.2 +0.5
KTK1  Kautokeino      77.28 340  eP      P        02 27 15.4 +0.8
KTK1                              AMb    AMB      02 27 28.3
      comp=Z,221nm,1.8s,mb5.8
KTK1  Kautokeino      77.28 340  eP      P        02 27 15.4 +0.8
      comp=Z,221nm,1.8s,mb5.8
UPC   Upice           77.29 320  eP      P        02 27 15.7 +0.7
UPC                              epP     pP       02 27 21.9 +0.4
ARSA  Arzberg         77.31 317⇑iP      P        02 27 15.8 +0.6
      comp=Z,42nm,1.1s,mb5.3
OBKA  Obir            77.92 316⇑iP      P        02 27 19.1 +0.5
OBKA  Obir            77.92 316⇑iP      P        02 27 19.3 +0.7
      comp=Z,34nm,1.0s,mb5.2
OBKA  Obir            77.92 316⇑iP      P        02 27 19.3 +0.7
      comp=Z,34nm,1.0s,mb5.2
PRU   Pruhonice       78.19 320  eP      P        02 27 20.4 +0.5
PRU                              epP     pP       02 27 26.1 -0.3
MOA   Molln           78.21 317⇑iP      P        02 27 20.3 +0.2
      comp=Z,19nm,1.1s,mb4.9
PVCC  Panska Ves      78.21 320  eP      P        02 27 20.7 +0.6
PVCC                             epP     pP       02 27 27.3 +0.8
GEC2  GERESS Array S  78.65 318  eP      P        02 27 23.0 +0.5
GEC2                              pmax   pmax
      comp=Z,44nm,1.0s,mb5.3
GEC2  GERESS Array S  78.65 318  eP      P        02 27 23.0 +0.5
      comp=Z,44nm,1.0s,mb5.3
GERES GERESS Array B  78.65 318  P       P        02 27 22.8 +0.3
      comp=Z,24nm,0.8s,mb5.2,baz=90,slow=5.3,SNR=22
PTCC  Patocco-Chiusa  78.74 316  eP      P        02 27 23.2 +0.2
KHC   Kasperske Hory  78.75 319  eP      P        02 27 23.0  0.0
KHC                              epP     pP       02 27 30.4 +0.9
KBA   Koelnbreinsper  78.78 317⇑iP      P        02 27 23.2 -0.1
      comp=Z,19nm,0.9s,mb5.0
KBA   Koelnbreinsper  78.78 317⇑iP      P        02 27 23.2 -0.1
      comp=Z,19nm,0.9s,mb5.0
GMNA  Gemona          78.82 316  eP      P        02 27 23.5  0.0
RUE   Ruedersdorf     78.86 322  eP      P        02 27 23.4 -0.2
      comp=Z,51nm,0.9s,mb5.5
TRO   Tromso          78.92 340  eP      P        02 27 22.2 -1.4
FSSB  Fossombrone     79.03 313  eP      P        02 27 25.4 +0.6
WET   Wettzell        79.21 319  eP      P        02 27 25.7 +0.1
WET                               pmax   pmax
      comp=Z,42nm,1.1s,mb5.3
WET   Wettzell        79.21 319  eP      P        02 27 25.7 +0.1
      comp=Z,42nm,1.1s,mb5.3
CLL   Collm           79.26 321  P       P        02 27 25.8  0.0
CLL   Collm           79.26 321  i P     P        02 27 25.8  0.0
HFS   Hagfors         79.60 330  P       P        02 27 27.5  0.0
      comp=Z,21nm,0.5s,mb5.3,baz=135,slow=8.4,SNR=7.2
HFS   Hagfors         79.60 330  P       P        02 27 27.5  0.0
HFS                               pmax   pmax
      comp=Z,21nm,0.5s
SFI   Santa Sofia     79.71 313  eP      P        02 27 29.5 +1.1
PGD   Poggio Sodo     79.80 313  eP      P        02 27 30.2 +1.3
VMG   Vicchio         79.93 313  eP      P        02 27 30.6 +1.0
WTTA  Wattenberg      79.96 317⇑iP      P        02 27 29.2 -0.4
WTTA  Wattenberg      79.96 317⇓iP      P        02 27 29.3 -0.3
      comp=Z,49nm,0.9s,mb5.4
WTTA  Wattenberg      79.96 317⇓iP      P        02 27 29.3 -0.3
      comp=Z,49nm,0.9s,mb5.4
MOR8  Moi Rana        79.98 336  eP      P        02 27 28.5 -0.8
MOR8                              AMb    AMB      02 27 45.1
      comp=Z,153nm,1.8s,mb5.6
MOR8  Moi Rana        79.98 336  eP      P        02 27 28.5 -0.8
      comp=Z,153nm,1.8s,mb5.6
WATA  Walderalm       80.00 317⇑iP      P        02 27 29.4 -0.5
WATA  Walderalm       80.00 317⇑iP      P        02 27 29.5 -0.4
      comp=Z,33nm,1.0s,mb5.2
WATA  Walderalm       80.00 317⇑iP      P        02 27 29.5 -0.4
      comp=Z,33nm,1.0s,mb5.2
SEI   Scarperia       80.07 314  eP      P        02 27 30.7 +0.4
MOX   Moxa            80.10 320  i P     P        02 27 30.8 +0.5
MOX   Moxa            80.10 320  eP      P        02 27 30.8 +0.5
FUR   Furstenfeldbru  80.23 318  eP      P        02 27 31.3 +0.2
FUR                               pmax   pmax
      comp=Z,41nm,1.0s,mb5.3
FUR   Furstenfeldbru  80.23 318  eP      P        02 27 31.3 +0.2
      comp=Z,41nm,1.0s,mb5.3
SQTA  Sankt Quirin    80.25 317⇓iP      P        02 27 31.0 -0.2
      comp=Z,33nm,0.8s,mb5.3
GRA1  Grafenberg Arr  80.31 319  eP      P        02 27 32.6 +1.1
      comp=Z,85nm,1.1s,mb5.6
GRF   Grafenberg Arr  80.31 319  eP      P        02 27 32.6 +1.1
GRF                               pmax   pmax
      comp=Z,85nm,1.1s,mb5.6
GRF   Grafenberg Arr  80.31 319  eP      P        02 27 32.6 +1.1
      comp=Z,85nm,1.1s,mb5.6
MOTA  Moosalm         80.32 317⇑iP      P        02 27 31.4 -0.2
      comp=Z,40nm,1.0s,mb5.3
MOTA                             i       pP       02 27 39.6 +1.5
      comp=Z,39nm,1.1s
LOF   Lofoten         80.58 338  eP      P        02 27 37.4 +4.8
LOF                               AMb    AMB      02 27 57.4
      comp=Z,176nm,1.4s,mb5.8
GSCL  Gusciola        80.63 314  eP      P        02 27 34.5 +1.2
ERBM  Eremo           80.75 314  eP      P        02 27 35.7 +1.7
NB2   NORSAR Subarra  80.90 331  P       P        02 27 33.5 -0.8
      comp=Z,54nm,0.8s,mb5.5,baz=92,slow=5.8
NB2   NORSAR Subarra  80.90 331  P       P        02 27 33.5 -0.8
      baz=92,slow=5.9
NOA   NORSAR Array B  80.90 331  P       P        02 27 34.0 -0.3
      comp=Z,16nm,1.0s,mb4.9,baz=99,slow=5.5,SNR=8.0
CLZ   Clausthal       80.92 321  eP      P        02 27 35.4 +0.8
      comp=Z,55nm,1.0s,mb5.4
BSEG  Bad Segeberg    81.02 324  eP      P        02 27 35.9 +0.8
BSEG                              pmax   pmax
      comp=Z,102nm,0.9s,mb5.8
NAO01 NORSAR Array S  81.05 331  eP      P        02 27 34.0 -1.1
      comp=Z,14nm,1.0s,mb4.9
OSL   Oslo            81.08 330  eP      P        02 27 35.8 +0.5
OSL                               AMb    AMB      02 27 50.8
      comp=Z,181nm,1.1s,mb5.9
DAVA  Damuels         81.15 317⇓iP      P        02 27 36.4 +0.4
      comp=Z,33nm,1.1s,mb5.2
PGF   Pioggiola       81.79 312  eP      P        02 27 39.2 -0.2
      comp=Z,33nm,0.8s,mb5.0
DOMB  Dombas          81.98 332  eP      P        02 27 40.2 +0.3
DOMB                              AMb    AMB      02 27 55.5
      comp=Z,111nm,1.2s,mb5.7
BFO   Black Forest    82.20 318  eP      P        02 27 41.5 +0.1
      comp=Z,20nm,1.0s,mb5.0
MOL   Molde           82.70 332  eP      P        02 27 46.2 +2.5
MOL                              epP     pP       02 27 51.4 +1.1
MOL                               AMb    AMB      02 28 01.4
      comp=Z,130nm,1.4s,mb5.8
SBF   Sospel          82.90 313  eP      P        02 27 45.1  0.0
      comp=Z,65nm,0.7s,mb5.5
BLS5  Blasjo          83.23 329  eP      P        02 27 47.8 +1.3
BLS5                             epP     pP       02 27 56.3 +3.3
BLS5                              AMb    AMB      02 28 04.4
      comp=Z,66nm,1.2s,mb5.5
LPG   La Plagne       83.34 315  eP      P        02 27 47.7 +0.4
      comp=Z,95nm,1.0s,mb5.5
MBDF  Montbardon      83.35 314  eP      P        02 27 46.9 -0.5
      comp=Z,37nm,0.9s,mb5.1
LPL   La Plagne       83.35 315  eP      P        02 27 47.7 +0.3
      comp=Z,75nm,0.8s,mb5.5
BNI   Bardonecchia    83.41 315  eP      P        02 27 47.7  0.0
      comp=Z,38nm,1.0s,mb5.4
FRF   La Foret Royal  83.48 313  eP      P        02 27 48.2 +0.1
HAU   Haudompre       83.53 318  eP      P        02 27 47.8 -0.5
      comp=Z,71nm,0.9s,mb5.5
CABF  La Chapelle     83.76 316  eP      P        02 27 49.6 +0.1
      comp=Z,48nm,0.9s,mb5.3
ORIF  Oris-en-Rattie  83.98 314  eP      P        02 27 50.4 -0.2
      comp=Z,18nm,0.7s,mb5.0
VIVF  Saint-Julien-l  84.84 314  eP      P        02 27 55.0 +0.1
      comp=Z,76nm,1.1s,mb5.5
SMF   Signal de Mont  85.31 316  eP      P        02 27 56.9 -0.3
      comp=Z,52nm,0.9s,mb5.4
LASF  Ste Croix       85.47 314  eP      P        02 27 58.4 +0.3
      comp=Z,59nm,1.1s,mb5.3
SSF   Saint Saulge    85.51 317  eP      P        02 27 58.3 +0.1
BGF   Bois d'Agland   86.00 316  eP      P        02 28 00.8 +0.1
      comp=Z,105nm,1.2s,mb5.6
CAF   Calviac         86.68 315  eP      P        02 28 04.4 +0.3
MTLF  Montolieu       86.72 313  eP      P        02 28 04.5 +0.2
      comp=Z,33nm,0.9s,mb5.3
LDF   La Druitiere    87.80 318  eP      P        02 28 09.3  0.0
      comp=Z,60nm,1.0s,mb5.5
EKA   Eskdalemuir Ar  88.75 325  P       P        02 28 14.4 +0.7
      comp=Z,16nm,0.7s,mb5.5,baz=101,slow=5.5,SNR=16
ESDC  Sonseca Array   91.79 310  P       P        02 28 29.3 +1.1
      comp=Z,7.7nm,0.7s,mb5.1,baz=59,slow=4.4,SNR=16
ESLA  Sonseca Array   91.79 310  eP      P        02 28 29.1 +0.9
      comp=Z,3.4nm,0.9s,mb4.7
DBIC  Dimbokro        97.46 278  P       P        02 28 55.7 +0.9
      comp=Z,5.4nm,1.2s,mb4.8,baz=272,slow=2.0,SNR=3.1
DBIC  Dimbokro        97.46 278  P       P        02 28 55.7 +0.9
RES   Resolute Bay    99.18   2  eP      P        02 29 02.9 +1.8
      comp=Z,4.7nm,0.9s,mb5.0
ULM   Lac du Bonnet  123.29   7  PKP     PKPdf    02 34 18.4 -1.8
      comp=Z,3.3nm,0.6s,baz=301,slow=4.0,SNR=3.8
NVAR  Mina Array Bea 126.79  31  PKP     PKPdf    02 34 26.0 -1.3
      comp=Z,3.1nm,0.9s,baz=305,slow=1.6,SNR=5.1
PDAR  Pinedale Array 127.06  21  PKP     PKPdf    02 34 25.6 -2.0
      comp=Z,3.6nm,0.8s,baz=35,slow=1.1,SNR=6.5
KSU1  Kansas State U 134.07  11  eP      PKPdf    02 34 39.7 -1.4
ANMO  Albuquerque    135.06  23  PKP     PKPdf    02 34 42.2 -0.9
      comp=Z,2.7nm,0.9s,baz=182,slow=3.1,SNR=3.9
ANMO  Albuquerque    135.06  23  PKP     PKPdf    02 34 42.2 -0.9
TXAR  Lajitas Array  141.12  24  PKP     PKPdf    02 34 52.6 -1.7
      comp=Z,0.5nm,0.5s,baz=316,slow=0.5,SNR=3.7
SJG   San Juan       148.59 320  PKPbc   PKPdf    02 35 08.1 +0.8
      comp=Z,22nm,0.9s,baz=3.0,slow=2.6,SNR=4.7
PCRV  Puerto La Cruz 152.80 306  PKPbc   PKPdf    02 35 17.1 +3.4
      comp=Z,7.7nm,0.6s,baz=227,slow=4.8,SNR=5.5
LVC   Limon Verde    156.33 224  PKPab   PKPab    02 35 45.3 +0.4
      comp=Z,13nm,1.2s,baz=289,slow=3.5,SNR=4.8
SDV   Santo Domingo  158.20 313  PKP     PKPdf    02 35 19.3 -1.7
      comp=Z,3.0nm,0.9s,baz=336,slow=13,SNR=4.6
SDV                              PKPab   PKPab    02 35 51.7 -1.5
      comp=Z,18nm,0.8s,baz=106,slow=3.2,SNR=5.0
LPAZ  La Paz         159.28 239  PKP     PKPdf    02 35 20.2 -2.0
      comp=Z,4.2nm,0.9s,baz=208,slow=2.7,SNR=4.2
LPAZ                             PKPab   PKPab    02 35 57.8 +0.1
      comp=Z,5.5nm,0.8s,baz=38,slow=9.2,SNR=4.8
LPAZ  La Paz         159.28 239  ePKPdf  PKPdf    02 35 19.8 -2.3
LPAZ                             PKP     PKPdf    02 35 20.2 -2.0
LPAZ                             PKPab   PKPab    02 35 57.8 +0.1
LPAZ  La Paz         159.28 239  ePKPab  PKPab    02 35 57.8 +0.1
ROSC  El Rosal       163.61 311  PKP     PKPdf    02 35 25.9 -0.8
      comp=Z,8.4nm,0.8s,baz=117,slow=5.9,SNR=6.9
```

NEIC 26 02:15:49.5±0.7**, 12.26N**×**92.28E, mb5.3**/35**, Error ellipse: s-maj=25.6km s-min=15.3km az=206.0, Andaman Islands region**

```
Code  Station Name     Δ°   AZ°   Phase ID           Time     Res
                                  Op      ISC      h  m  s    ISC
QIZ   Qiongzhong      18.20  66  eP      P        02 20 02.0 -0.9
      13nm,0.6s
MBWA  Marble Bar      42.78 141  P       P        02 23 46.2 -1.6
BRVK  Borovoye        44.34 341  P       P        02 23 56.9 -3.1
      1.2nm,0.3s
ARU   Arti            51.16 337  eP      P        02 24 52.6 -0.5
      1.9nm,0.4s
WRAB  Tennant Creek   52.33 127  i P     P        02 25 03.5 +1.0
WRAB  Tennant Creek   52.33 127  P       P        02 24 59.2 -3.3
MALT  Malatya         54.28 309  P       P        02 25 16.3 -0.3
      28nm,1.3s
CSS   Prodhromos      57.69 304  eP      P        02 25 36.8 -4.5
      29nm,0.9s
KIS   Kishinev        63.08 317  i P     P        02 26 17.0 -0.8
ZST   Bratislava      71.09 317  ePP     PP       02 29 44.9 -3.3
SUR   Sutherland      81.34 234  P       P        02 28 07.6 +1.1
      2.1nm,0.6s
SLKM  Skilak Lake     92.30  26  P       P        02 28 57.7 -1.5
DAWY  Dawson          94.42  20  P       P        02 29 10.5 +1.5
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*SYO **26** 02:15:56.8, 12.35N×92.54E, h8^{km}, MB5.7*

*MOS **26** 02:15:58.8±1.1, 12.31N×92.52E, h33^{km}, mb5.8/44, Error ellipse: s-maj=10.4km s-min=6.8km az=103.8*

*BJI **26** 02:15:58.0, 12.17N×92.50E, h34^{km}, mb5.6, Ms6.9, Msz6.6*

*IDC **26** 02:15:59.9±0.7, 12.30N×92.54E, h25^{km}±4^{km}, mb5.1/30, mb1 5.2/31, mb1mx5.2/32, ML4.9/1, Error ellipse: s-maj=14.6km s-min=10.4km az=45.0*

*NEIC **26** 02:15:59.8±0.2, 12.32N×92.50E, mb5.7/58, Error ellipse: s-maj=5.3km s-min=4.8km az=189.0*

ISC 26 02:15:57.6±0.2**, 12.30N**±0.03×**92.54E**±0.03**, h25^{km}, h25^{km}**±1.1^{km}**:pP-P, n306, σ1.^{s}00**/265**, mb5.5**/99**, 5C-6D, Andaman Islands region**

```
Code  Station Name     Δ°   AZ°   Phase ID           Time     Res
                                  Op      ISC      h  m  s    ISC
CM31  Chiang Mai Arr   8.69  44  eP      P        02 18 04.0 -0.8
      53nm,0.6s
CMAR  Chiang Mai Arr   8.69  44  Pn      P        02 18 04.6 -0.3
      3.7nm,0.3s,baz=239,slow=15,SNR=10
CMAR                             Sn      Sn       02 19 41.6 -1.5
      6.0nm,0.3s,baz=238,slow=29,SNR=4.5
VIS   Vishakhapatnam  10.40 302  eP      P        02 18 24.9 -3.6
VIS                              eS      S        02 20 12.0  -13
MDRS  Chennai         12.02 275  eP      P        02 18 48.3 -2.2
      comp=Z,668nm,1.0s
PALK  Pallekele       12.69 248  eP      P        02 18 58.0 -1.4
BOK   Bokaro          13.06 332  eP      P        02 19 01.9 -2.4
      comp=Z,401nm,1.3s
BLSP  Bilaspur        13.93 316  eP      P        02 19 13.6 -2.3
BLSP                             e                02 19 15.9
      comp=Z,696nm,1.0s
SLGI  Shiliguri       14.84 345  e       P        02 19 26.9 -0.9
TRD   Trivandrum      15.78 258  eP      P        02 19 46.7 +6.6
TRD                              e                02 19 49.5
      comp=Z,370nm,1.4s
TRD                              e                02 22 23.9
KMI   Kunming         15.99  36  eP      P        02 19 44.5 +1.8
KMI                               AP              02 19 47.0
KMI                               AMB    AMB
      comp=Z,286nm,1.0s
PKI   Pulchoki        16.59 337  eP      P        02 19 50.0 -0.4
      comp=Z,1μm,1.0s
GUN   Gumba           16.73 339  eP      P        02 19 51.4 -0.7
      comp=Z,2μm,1.3s
DMN   Daman           16.74 337  eP      P        02 19 52.4 +0.1
      comp=Z,910nm,0.8s
KKN   Kakani          16.84 337  eP      P        02 19 53.5  0.0
      comp=Z,568nm,0.9s
GKN   Gorkha          17.28 336  eP      P        02 19 58.9 -0.1
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	comp=Z,309nm,0.3s						
LSA	**Lhasa**	17.36	356	*e*P	P	02 20 00.3	+0.4
	comp=Z,3µm,2.3s						
KOLN	**Koldanda**	17.52	333	*e*P	P	02 20 01.0	-0.9
	comp=Z,459nm,0.7s						
QIZ	**Qiongzhong**	17.95	66	P	P	02 20 06.5	-0.8
QIZ				S	S	02 23 22.8	-1.2
QIZ				LR	LR		
	comp=E,266µm,17.6s						
QIZ				LR	LR		
	comp=Z,220µm,22.5s						
QIZ	**Qiongzhong**	17.95	66	*e*P	P	02 20 10.3	+2.9
	comp=Z,352nm,1.3s						
BHPL	**Bhopal**	18.02	309	*e*P	P	02 20 09.2	+0.9
BHPL				*e*		02 20 12.3	
	comp=Z,564nm,1.6s						
BHPL				*e*S	S	02 23 25.0	-0.7
KAD	**Karad**	18.43	288	*e*P	P	02 20 12.6	-0.7
KAD				*e*		02 20 19.4	
	comp=Z,417nm,1.8s						
POO	**Poona**	19.04	291	*e*P	P	02 20 20.6	-0.2
POO				*e*		02 20 23.3	
	comp=Z,275nm,1.2s						
GYA	**Guiyang**	19.36	41	⇑*i*P	P	02 20 25.5	+1.1
GYA				AP		02 20 29.5	
GYA				AMB	AMB		
	comp=Z,320nm,0.8s						
GYA				LR	LR		
	comp=N,72µm,24.5s						
GYA				LR	LR		
	comp=E,27µm,19.5s						
GYA				LR	LR		
	comp=Z,32µm,21.3s						
PTH	**Pithoragarh**	20.63	328	*e*P	P	02 20 38.1	+0.1
PTH				*e*		02 24 18.8	
CD2	**Chengdu**	21.22	28	⇓*i*P	P	02 20 44.5	+0.5
CD2				AMB	AMB		
	comp=Z,220nm,0.7s,mb5.6						
NDI	**New Delhi**	21.68	321	*e*P	P	02 20 47.5	-1.1
AJM	**Ajmer**	21.95	313	*e*P	P	02 20 52.4	+1.1
AJM				*e*		02 20 55.7	
	comp=Z,692nm,2.3s						
DDI	**Dehra Dun**	22.40	325	*e*	P	02 20 57.5	+1.8
ENH	**Enshi**	23.80	39	*e*P	P	02 21 09.2	-0.2
	comp=Z,259nm,0.8s,mb5.7						
BHJ	**Bhuj**	24.32	300	*e*P	P	02 21 17.5	+2.8
BHJ				*e*		02 21 34.6	
	comp=Z,275nm,0.8s						
COCO	**West Island**	24.70	170	P	P	02 21 18.8	+0.4
	comp=Z,1µm,1.4s,mb6.3						
PONG	**Pong**	24.81	325	*e*P	P	02 21 20.0	+0.7
PONG				*e*		02 27 53.0	
LZH	**Lanzhou**	25.78	21	*e*P	P	02 21 29.5	+1.1
LZH				PP	PP	02 22 08.0	-0.9
LZH				AMB	AMB		
	comp=Z,312nm,1.2s,mb5.7						
XAN	**Xi'an**	26.29	32	P	P	02 21 34.3	+1.2
XAN				AP	pP	02 21 42.3	+2.0
XAN				AMB	AMB		
	comp=Z,237nm,0.9s,mb5.7						
QZH	**Quanzhou**	27.64	59	P	P	02 21 45.0	-0.6
QZH				AMB	AMB		
	comp=Z,280nm,1.2s,mb5.8						
GTA	**Gaotai**	27.76	12	P	P	02 21 47.0	+0.5
GTA				AP	pP	02 21 54.5	+0.8
GTA				XP	sP	02 21 57.3	+0.3
GTA				S	S	02 26 22.0	-3.9
GTA				AMB	AMB		
	comp=Z,90nm,1.4s,mb5.2						
GTA				LR	LR		
	comp=N,204µm,18.6s						
GTA				LR	LR		
	comp=E,143µm,20.9s						
GTA				LR	LR		
	comp=Z,298µm,19.4s						
PCPH	**Palayan**	27.90	80	⇓*e*P	P	02 21 46.0	-1.9
KSH	**Kashi**	30.82	335	P	P	02 22 14.5	+0.7
KSH				*e*PP	PP	02 23 16.0	+0.7
KSH				*e*PPP	PPP	02 23 31.0	+0.9
KSH				*e*PCP	PcP	02 25 11.3	+0.6
KSH				*e*S	S	02 27 16.3	+1.6
KSH				*e*SCP		02 28 52.0	
KSH				*e*PCS		02 28 54.0	
KSH				*e*SS	SS	02 28 58.0	0.0
KSH				*e*SCS	ScS	02 32 47.8	+2.0
KSH				LR	LR		
	comp=N,165µm,14.5s						
KSH				LR	LR		
	comp=E,115µm,13.1s						
WMQ	**Urumqi**	31.68	353	⇑P	P	02 22 22.5	+1.1
WMQ				AP	pP	02 22 27.0	-1.7
WMQ				PP	PP	02 23 27.0	+0.5
WMQ				PPP	PPP	02 23 42.0	+0.5
WMQ				S	S	02 27 29.8	+1.7
WMQ				AMB	AMB		
	comp=Z,68nm,0.9s,mb5.5						
WMQ				LR	LR		
	comp=N,250µm,20.3s						
WMQ				LR	LR		
	comp=E,289µm,22.0s						
WMQ				LR	LR		
	comp=Z,247µm,23.1s						
SSE	**Sheshan**	32.38	50	*e*P	P	02 22 25.8	-1.8
SSE				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.1						
SSE	**Sheshan**	32.38	50	*e*P	P	02 22 25.8	-1.8
SSE				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.1						
HHC	**Hu-ho-hao-te**	32.98	27	*e*P	P	02 22 33.0	+0.3
HHC				AP	pP	02 22 40.3	+0.2
HHC				XP	sP	02 22 43.5	+0.2
HHC				PP	PP	02 23 42.5	-0.9
HHC				AMB	AMB		
	comp=Z,65nm,1.2s,mb5.4						
ULHL	**Ulahol**	33.03	338	P	P	02 22 34.1	+0.9
	SNR=10						
KZA	**Kyzart**	33.27	336	P	P	02 22 36.6	+1.3
	SNR=16						
UCH	**Uchtor**	33.69	336	P	P	02 22 40.2	+1.2
	SNR=9.0						
TKM2	**Tokmak 2**	33.86	337	P	P	02 22 40.5	+0.2
	SNR=14						
KBK	**Karagaybulak**	33.88	336	P	P	02 22 42.1	+1.5
	SNR=11						
AML	**Almayashu**	33.95	335	P	P	02 22 42.6	+1.5
	SNR=14						
AAK	**Ala-Archa**	34.04	336	P	P	02 22 43.4	+1.5
	SNR=22						
AAK	**Ala-Archa**	34.04	336	*e*P	P	02 22 41.6	-0.3
AAK				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.8						
AAK	**Ala-Archa**	34.04	336	*e*P	P	02 22 41.6	-0.4
	comp=Z,134nm,1.0s,mb5.8						
CHMS	**Chumysh**	34.25	337	P	P	02 22 43.9	+0.2
	SNR=26						
EKS2	**Erkin-Say**	34.35	335	P	P	02 22 46.2	+1.5
	SNR=17						
USP	**Ospenovka**	34.57	337	P	P	02 22 46.4	-0.1
	SNR=38						
BJT	**Baijiatuau**	34.59	33	*e*P	P	02 22 46.8	+0.1
MKAR	**Makanchi Array**	35.45	348	*i* P	P	02 22 53.8	-0.2
MKAR				pmax	pmax		
	comp=Z,296nm,1.1s						
JOW	**Kunigami**	36.49	61	P	P	02 23 04.5	+1.5
	comp=Z,42nm,0.4s,mb5.7,baz=281,slow=9.8,SNR=8.1						
SONM	**Songino Array**	37.27	15	P	P	02 23 10.2	+0.9
	comp=Z,34nm,0.9s,mb5.2,baz=196,slow=9.0,SNR=17						
SONM				pP	pP	02 23 16.7	0.0
	comp=Z,76nm,0.9s,baz=200,slow=4.3,SNR=15						
ULN	**Ulaanbaatar**	37.48	16	*e*P	P	02 23 10.8	-0.2
ULN				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.4						
ULN	**Ulaanbaatar**	37.48	16	*e*P	P	02 23 10.8	-0.2
	comp=Z,65nm,1.1s,mb5.4						
ZAK	**Zakamensk**	38.98	11	*e*P	P	02 23 24.3	+0.7
ZAK				*e*		02 25 29.1	
MOY	**Mondy**	39.85	8	*e*P	P	02 23 32.2	+1.4
TLY	**Talaya**	40.29	11	*e*P	P	02 23 36.3	+1.9
TLY				*e*	pP	02 23 43.5	+1.6
TLY				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.0						
TLY	**Talaya**	40.29	11	*i* P	P	02 23 35.5	+1.1
	comp=Z,5.6nm,1.1s						
KS15	**Wonju Array Si**	40.30	45	*e*P	P	02 23 33.6	-1.1
IRK	**Irkutsk**	40.94	11	*e*P	P	02 23 39.1	-0.7
ZAL	**Zalesovo**	41.98	353	P	P	02 23 48.1	-0.1
	comp=Z,30nm,0.8s,mb5.0,baz=297,slow=10,SNR=15						
ZAL				pP	pP	02 23 55.6	-0.1
	comp=Z,47nm,0.9s,baz=293,slow=11,SNR=10.0						
ZAL	**Zalesovo**	41.98	353	P	P	02 23 48.1	-0.1
ZAL				*PP	pP	02 23 55.6	-0.1
ZAL				pmax	pmax		
	comp=Z,30nm,0.8s						
MBWA	**Marble Bar**	42.66	141	*e*P	P	02 23 53.3	-0.9
	comp=Z,67nm,1.2s,mb5.2						
NVS	**Novosibirsk**	43.06	352	*i* P	P	02 23 53.1	-4.0
NVS				*e*S	S	02 30 17.5	-3.6
NVS				pmax	pmax		
	comp=Z,94nm,1.1s,mb5.4						
NVS				pmax	pmax		
	comp=N,115nm,1.6s						
NVS				smax			
	comp=E,29nm,1.1s						
NVS				smax			
	comp=N,135nm,1.7s						
BVAR	**Borovoye Array**	44.31	341	P	P	02 24 07.0	-0.2
	comp=N,72nm,1.0s,mb5.4,baz=143,slow=7.4,SNR=27						
BVAR				pP	pP	02 24 15.3	+0.6
	comp=N,110nm,1.0s,baz=141,slow=9.5,SNR=11						
BRVK	**Borovoye**	44.38	341	*e*P	P	02 24 07.4	-0.4
BRVK				pmax	pmax		
	comp=Z,130nm,1.1s,mb5.6						
BRVK	**Borovoye**	44.38	341	*e*P	P	02 24 07.4	-0.4
	comp=Z,129nm,1.1s,mb5.6						
CHKZ	**Chkalovo**	44.80	342	*e*P	P	02 24 11.0	-0.2
CHKZ				*e*	pP	02 24 19.7	+1.1
CHKZ				pmax	pmax		
	comp=Z,290nm,1.0s,mb6.1						
CHKZ	**Chkalovo**	44.80	342	*e*P	P	02 24 11.0	-0.2
	comp=Z,291nm,1.0s,mb6.1						
CHKZ				*e*	pP	02 24 19.7	+1.1
MDJ	**Mudanjiang**	45.15	37	P	P	02 24 15.0	+0.9
MDJ				AMB	AMB		
	comp=Z,71nm,1.6s,mb5.2						
MDJ	**Mudanjiang**	45.15	37	P	P	02 24 15.0	+0.9
MDJ				AMB	AMB		
	comp=Z,71nm,1.6s,mb5.2						
MAJO	**Matsushiro**	47.51	51	*e*P	P	02 24 32.4	-0.4
MAJO				pmax	pmax		
	comp=Z,510nm,1.8s,mb6.2						
MAJO	**Matsushiro**	47.51	51	*e*P	P	02 24 32.4	-0.5
	comp=Z,515nm,1.8s,mb6.3						
MAT	**Matsushiro**	47.51	51	P	P	02 24 30.4	-2.4
MAT	**Matsushiro**	47.51	51	*e*P	P	02 24 30.0	-2.8
BOD	**Bodaibo**	48.27	15	*e*P	P	02 24 37.5	-1.0
BOD				*e*	pP	02 24 45.7	-0.3
GNI	**Garni**	50.27	312	*e*P	P	02 24 52.3	-1.8
GNI				pmax	pmax		
	comp=Z,350nm,1.1s						
GNI	**Garni**	50.27	312	*e*P	P	02 24 52.3	-1.8
	comp=Z,346nm,1.1s,mb6.3						
NWAO	**Narrogin (SRO)**	50.78	153	P	P	02 24 57.8	-0.3
	comp=Z,26nm,0.6s,mb5.4,baz=324,slow=9.6,SNR=10						
NWAO	**Narrogin (SRO)**	50.78	153	P	P	02 24 57.8	-0.3
NWAO				pmax	pmax		
	comp=Z,26nm,0.6s						
NWAO	**Narrogin (SRO)**	50.78	153	*e*P	P	02 24 57.9	-0.2
	comp=Z,76nm,0.8s,mb5.7						
CLNS	**Chul'man**	50.90	22	*e*P	P	02 24 57.2	-1.5
CLNS				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.5						
CLNS				pmax	pmax		
	comp=N,26nm,0.8s						
CLNS				pmax	pmax		
	comp=E,31nm,1.0s						
ARU	**Arti**	51.22	337	⇓*i*P	P	02 25 00.6	-0.5
ARU				*e*		02 26 13.5	
ARU				*e*		02 26 52.9	
ARU				*e*S	S	02 32 21.9	+5.3
ARU				pmax	pmax		
	comp=Z,99nm,1.1s,mb5.7						
ARU	**Arti**	51.22	337	*e*P	P	02 24 60.0	-1.1
	comp=Z,167nm,1.1s,mb5.9						
WRA	**Warramunga Arr**	52.15	127	P	P	02 25 07.7	-0.9
	comp=Z,55nm,1.0s,mb5.4,baz=304,slow=8.8,SNR=8.6						
WRA				PcP	PcP	02 26 21.2	+0.9
	comp=Z,19nm,0.8s,baz=317,slow=3.0,SNR=5.5						
WRA	**Warramunga Arr**	52.15	127	P	P	02 25 07.7	-0.9
WRA						02 26 21.2	
WRA				pmax	pmax		
	comp=Z,55nm,1.0s						
WRAB	**Tennant Creek**	52.15	127	*e*P	P	02 25 07.8	-0.8
	comp=Z,112nm,0.9s,mb5.8						
KIV	**Kislovodsk**	53.02	316	*i* P	P	02 25 14.2	-0.6
KIV				pmax	pmax		
	comp=Z,244nm,0.9s,mb6.1						
KIV	**Kislovodsk**	53.02	316	*e*P	P	02 25 13.8	-1.0
	comp=Z,178nm,0.8s,mb6.0						
GOF	**Gofitskoye**	53.19	318	*e*P	P	02 25 16.0	0.0
ASAJ	**Asahikawa**	53.22	44	P	P	02 25 16.1	-0.1
	comp=Z,117nm,0.9s,mb5.8,baz=233,slow=5.1,SNR=12						
ASAJ	**Asahikawa**	53.22	44	P	P	02 25 16.1	-0.1
ASAJ				pmax	pmax		
	comp=Z,117nm,0.9s						
ASAR	**Alice Springs**	53.98	131	P	P	02 25 21.3	-0.8
	comp=Z,8.4nm,0.5s,mb4.9,baz=313,slow=6.4,SNR=9.1						
YSS	**Yuzh-Sakhalins**	54.36	40	*i* P	P	02 25 24.9	+0.3
YSS				pmax	pmax		
	comp=Z,185nm,1.6s,mb5.8						
YSS	**Yuzh-Sakhalins**	54.36	40	*i* P	P	02 25 24.0	-0.6
MALT	**Malatya**	54.45	308	*e*P	P	02 25 25.4	0.0
	comp=Z,70nm,1.1s,mb5.5						
ASF	**Jabal al Asfar**	54.55	301	P	P	02 25 26.2	0.0
	comp=Z,33nm,0.9s,mb5.3,baz=332,slow=2.5,SNR=12						
ASF	**Jabal al Asfar**	54.55	301	P	P	02 25 26.2	0.0
YUK	**Yuzh-Kuril'sk**	55.41	45	P	P	02 25 31.0	-1.3
EIL	**Elat**	55.93	298	P	P	02 25 36.0	-0.2
	comp=Z,39nm,1.1s,mb5.3,baz=201,slow=3.0,SNR=6.5						
EIL	**Elat**	55.93	298	*e*P	P	02 25 35.5	-0.8
	comp=Z,51nm,1.1s,mb5.5						
KMBO	**Kilima Mbogo**	56.47	260	P	P	02 25 41.1	+0.8
	comp=Z,19nm,0.8s,mb5.2,baz=56,slow=10,SNR=12						
KMBO	**Kilima Mbogo**	56.47	260	*e*P	P	02 25 41.1	+0.7
KMBO				pmax	pmax		
	comp=Z,48nm,1.1s						
KMBO	**Kilima Mbogo**	56.47	260	*e*P	P	02 25 41.1	+0.7
	comp=Z,48nm,1.1s,mb5.4						
CSS	**Prodhromos**	57.88	304	*e*P	P	02 25 49.8	-0.2
	comp=Z,137nm,1.3s,mb5.8						
BRTR	**Keskin Array B**	58.39	309	P	P	02 25 52.1	-1.4
	comp=Z,35nm,1.0s,mb5.3,baz=121,slow=7.2,SNR=22						
BRTR	**Keskin Array B**	58.39	309	P	P	02 25 52.2	-1.3
BRTR				pmax	pmax		
	comp=Z,35nm,1.0s						
BRTR	**Keskin Array B**	58.39	309	P	P	02 25 52.1	-1.4
PMG	**Port Moresby**	58.40	109	P	P	02 25 53.5	-0.4
	comp=Z,40nm,0.8s,mb5.5,baz=296,slow=6.8,SNR=5.2						
PMG	**Port Moresby**	58.40	109	P	P	02 25 53.5	-0.4
PMG				pmax	pmax		
	comp=Z,40nm,0.8s						
PMG	**Port Moresby**	58.40	109	*e*P	P	02 25 53.4	-0.5
	comp=Z,43nm,0.9s,mb5.5						
SIM	**Simferopol'**	59.17	315	*e*P	P	02 25 55.5	-3.4
SIM				pmax	pmax		
	comp=Z,34nm,0.8s,mb5.4						
MOS	**Moscow**	60.51	328	*e*P	P	02 26 06.9	-1.0
MOS				pmax	pmax		
	comp=Z,276nm,1.4s,mb6.2						
ISP	**Isparta**	60.51	307	*e*P	P	02 26 06.4	-1.8
ISP				pmax	pmax		
	comp=Z,7µm,3.8s						
OBN	**Obninsk**	60.82	327	*i* P	P	02 26 09.0	-1.0
OBN				*e*	pP	02 26 15.5	-2.3
OBN				*e*		02 26 50.6	
OBN				*e*		02 28 24.4	
OBN				pmax	pmax		
	comp=Z,238nm,1.4s,mb6.1						
OBN	**Obninsk**	60.82	327	*i* P	P	02 26 09.1	-0.9
CTA	**Charters Tower**	61.88	121	P	P	02 26 17.0	-0.7
	comp=Z,22nm,1.1s,mb5.2,baz=307,slow=9.1,SNR=2.2						
CTA	**Charters Tower**	61.88	121	P	P	02 26 17.0	-0.7
CTA				pmax	pmax		
	comp=Z,22nm,1.1s						
CTA	**Charters Tower**	61.88	121	P	P	02 26 17.0	-0.7
CTAO	**Charters Tower**	61.88	121	*e*P	P	02 26 16.8	-0.9
	comp=Z,131nm,1.6s,mb5.8						
MBAR	**Mbarara**	62.64	263	*e*P	P	02 26 23.0	+0.1
	comp=Z,33nm,0.9s,mb5.5						
TIXI	**Tiksi**	63.24	12	⇑*i*P	P	02 26 25.1	-0.9
TIXI				pmax	pmax		
	comp=Z,185nm,1.2s,mb6.1						
TIXI				pmax	pmax		
	comp=N,26nm,0.9s						
TIXI				pmax	pmax		
	comp=E,16nm,0.8s						
TIXI	**Tiksi**	63.24	12	*i* P	P	02 26 24.0	-2.0
MA2	**Magadan**	63.63	29	*e*P	P	02 26 28.1	-0.6
MA2				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.7						
MA2	**Magadan**	63.63	29	*e*P	P	02 26 28.1	-0.6
	comp=Z,72nm,1.0s,mb5.7						
STKA	**Stephens Creek**	64.30	135	P	P	02 26 33.4	-0.2
	comp=Z,4.2nm,0.3s,mb5.0,baz=313,slow=6.5,SNR=2.8						
STKA	**Stephens Creek**	64.30	135	*e*P	P	02 26 33.2	-0.4
MLR	**Muntele Rosu**	64.94	315	P	P	02 26 38.1	+0.6
	comp=Z,82nm,1.0s,mb5.7,baz=114,slow=1.1,SNR=14						
MLR	**Muntele Rosu**	64.94	315	P	P	02 26 38.1	+0.6
MLR				pmax	pmax		
	comp=Z,82nm,1.0s						
MLR	**Muntele Rosu**	64.94	315	P	P	02 26 38.0	+0.6
GVD	**Gavdhos**	65.44	303	P	P	02 26 39.5	-1.4
	comp=Z,76nm,1.1s,mb5.6						
PUL	**Pulkovo**	65.60	331	⇑*e*P	P	02 26 40.5	-1.0
PUL				pmax	pmax		
	comp=Z,129nm,1.1s,mb5.9						
PUL				pmax	pmax		
	comp=E,123nm,1.3s						
PET	**Petropavlovsk**	65.94	37	*e*P	P	02 26 44.4	+0.7
PET				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.4						
PET	**Petropavlovsk**	65.94	37	*i* P	P	02 26 44.4	+0.7
LVZ	**Lovozero**	66.89	340	⇓*e*P	P	02 26 49.2	-0.3
LVZ				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.6						
LVZ				pmax	pmax		
	comp=N,23nm,1.4s						
LVZ				pmax	pmax		
	comp=E,30nm,1.4s						
KWP	**Kalwaria**	67.67	319	*e*P	P	02 26 54.5	-0.3
	comp=E,155nm,1.2s,mb5.9						
KOLS	**Kolonicke sedl**	67.86	318	*e*	P	02 26 56.2	+0.2
KOLS	**Kolonicke sedl**	67.86	318	*e*P	P	02 26 56.2	+0.2
FINES	**FINESS Array B**	68.08	332	P	P	02 26 59.0	+1.8
	comp=E,24nm,0.7s,mb5.3,baz=101,slow=7.1,SNR=13						
FINES	**FINESS Array B**	68.08	332	P	P	02 26 59.0	+1.8
KAF	**Kangasniemi**	68.16	332	*e*p	P	02 26 55.8	-1.8
	baz=106,slow=5.5						
CRVS	**Cervenica-Dubn**	68.39	318	*e*P	P	02 26 59.3	0.0
KECS	**Kecovo**	69.00	317	*e*	P	02 27 02.5	-0.6
KECS	**Kecovo**	69.00	317	*e*P	P	02 27 02.5	-0.6
LSZ	**Lusaka**	69.34	248	*e*P	P	02 27 06.6	+1.0
	comp=E,156nm,1.3s,mb5.8						
VYHS	**Vyhne**	70.09	317	*e*	P	02 27 09.4	-0.3
VYHS	**Vyhne**	70.09	317	*e*P	P	02 27 09.4	-0.3
KOLL	**Kolacno**	70.38	317	*e*	P	02 27 12.1	+0.6
KOLL	**Kolacno**	70.38	317	*e*P	P	02 27 12.1	+0.6
SRO	**Srobarova**	70.40	316	*e*	P	02 27 12.2	+0.6
SRO	**Srobarova**	70.40	316	*e*P	P	02 27 12.2	+0.6
ARCES	**ARCESS Array B**	70.59	340	P	P	02 27 14.4	+2.0
	comp=E,18nm,0.5s,mb5.3,baz=82,slow=6.4,SNR=35						
ARCES				pP	pP	02 27 21.8	+1.5
	comp=E,65nm,0.9s,baz=90,slow=6.1,SNR=10						
ARCES	**ARCESS Array B**	70.59	340	P	P	02 27 14.4	+2.0
ARCES				*PP	pP	02 27 21.8	+1.6
ARCES				pmax	pmax		
	comp=Z,18nm,0.5s						
ARCES	**ARCESS Array B**	70.59	340	P	P	02 27 14.4	+2.0
ARE0	**ARCESS Array S**	70.59	340	*e*P	P	02 27 10.9	-1.6
MORC	**Moravsky Berou**	71.02	319	*e*P	P	02 27 15.4	0.0
	comp=Z,89nm,1.2s,mb5.6						
SMOL	**Smolenice**	71.03	317	*e*	P	02 27 13.8	-1.6
SMOL	**Smolenice**	71.03	317	*e*P	P	02 27 13.8	-1.6
ZST	**Bratislava**	71.23	317	*e*	P	02 27 16.9	+0.2
ZST	**Bratislava**	71.23	317	*e*P	P	02 27 16.9	+0.2
TIP	**Timpagrande**	71.35	307	*e*P	P	02 27 16.7	-0.8
GKP	**Gorka Klasztor**	71.44	322	*e*P	P	02 27 17.2	-0.7
GKP	**Gorka Klasztor**	71.44	322	*e*	P	02 27 17.2	-0.7
VRAC	**Vranov**	71.61	318	P	P	02 27 19.0	+0.1
	comp=Z,5.5nm,0.9s,mb4.5,baz=31,slow=4.5,SNR=5.0						
VRAC	**Vranov**	71.61	318	P	P	02 27 19.0	0.0
VRAC				pmax	pmax		
	comp=Z,6.0nm,0.9s						
VRAC	**Vranov**	71.61	318	P	P	02 27 19.0	+0.1
KSP	**Ksiaz**	71.88	320	*e*P	P	02 27 20.3	-0.2
ARSA	**Arzberg**	72.27	316	*i* P	P	02 27 23.1	+0.2
	comp=Z,42nm,1.1s,mb5.3						
ARSA	**Arzberg**	72.27	316	*i*	P	02 27 23.1	+0.2
	comp=Z,40nm,1.1s,mb5.3						
OBKA	**Obir**	72.93	315	*i* P	P	02 27 27.5	+0.7
	comp=Z,34nm,1.0s,mb5.2						
OBKA	**Obir**	72.93	315	*i*	P	02 27 27.5	+0.7
	comp=Z,70nm,1.4s,mb5.4						
BRG	**Berggiesshubel**	73.37	320	*e*P	P	02 27 29.5	+0.2
BRG				pmax	pmax		
	comp=Z,230nm,1.7s,mb5.8						
BRG	**Berggiesshubel**	73.37	320	*e*P	P	02 27 29.5	+0.2
	comp=Z,230nm,1.7s,mb5.8						
RUE	**Ruedersdorf**	73.50	321	*e*P	P	02 27 30.0	0.0
	comp=Z,238nm,1.2s,mb6.0						
GERES	**GERESS Array B**	73.50	317	P	P	02 27 30.3	+0.2
	comp=Z,36nm,0.9s,mb5.3,baz=86,slow=5.0,SNR=8.7						
GERES	**GERESS Array B**	73.50	317	P	P	02 27 30.3	+0.2
GERES				pmax	pmax		
	comp=Z,36nm,0.9s						
GERES	**GERESS Array B**	73.50	317	P	P	02 27 30.3	+0.2
HFS	**Hagfors**	73.86	329	P	P	02 27 31.8	-0.1
	comp=Z,21nm,0.5s,mb5.3,baz=108,slow=4.6,SNR=26						
HFS	**Hagfors**	73.86	329	P	P	02 27 31.8	-0.1
CLL	**Collm**	73.97	320	*i*	P	02 27 33.0	+0.3
CLL	**Collm**	73.97	320	*i* P	P	02 27 33.0	+0.3
CLL	**Collm**	73.97	320	*i* *PP	P	02 27 33.0	+0.3
CLL				*e*	Px	02 28 05.0	
SNTG	**Esanatoglia**	74.13	312	*e*P	P	02 27 32.1	-1.8
FX1	**Attu Island--F**	74.64	38	*e*P	P	02 27 36.0	-0.6
MOX	**Moxa**	74.84	319	*i* P	P	02 27 38.1	+0.3
MOX	**Moxa**	74.84	319	*e*P	P	02 27 38.1	+0.3
LBTB	**Lobatse**	75.03	240	*e*P	P	02 27 40.4	+1.0
LBTB				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.8						
LBTB	**Lobatse**	75.03	240	*e*P	P	02 27 40.4	+1.0
	comp=Z,65nm,0.6s,mb5.7						
NOA	**NORSAR Array B**	75.12	330	P	P	02 27 38.8	-0.4
	comp=Z,22nm,0.7s,mb5.2,baz=92,slow=5.7,SNR=18						
NOA	**NORSAR Array B**	75.12	330	P	P	02 27 38.8	-0.4
NOA				pmax	pmax		
	comp=Z,22nm,0.7s						
NOA	**NORSAR Array B**	75.12	330	P	P	02 27 38.8	-0.4
NAO01	**NORSAR Array S**	75.28	330	*e*P	P	02 27 39.5	-0.6
	comp=Z,27nm,0.7s,mb5.3						
NAO01				*e*	pP	02 27 49.0	+1.0
DAVA	**Damuels**	76.11	316	*i* P	P	02 27 45.2	+0.1
	comp=Z,33nm,1.1s,mb5.2						
DAVA	**Damuels**	76.11	316	*i*	P	02 27 45.2	+0.1
	comp=Z,117nm,1.3s,mb5.7						
MUD	**Monsted U'grnd**	76.19	325	*i* P	P	02 27 44.9	-0.4
BOSA	**Boshof**	76.64	236	*e*P	P	02 27 47.9	-0.6
BOSA				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
BOSA	**Boshof**	76.64	236	*e*P	P	02 27 47.9	-0.6
	comp=Z,76nm,0.8s,mb5.7						
VAI	**Varese**	76.96	315	*e*P	P	02 27 49.1	-0.8
FIN	**Finale Ligure**	77.49	313	*e*P	P	02 27 52.0	-0.9
BNI	**Bardonecchia**	78.50	314	*e*P	P	02 27 58.5	+0.1
	comp=Z,119nm,1.2s,mb5.7						
CASY	**Casey**	79.49	173	*e*P	P	02 28 04.5	+1.2
	comp=Z,204nm,1.6s,mb5.8						
SUR	**Sutherland**	81.58	234	*e*P	P	02 28 17.3	+2.2
	comp=Z,60nm,0.9s,mb5.5						
MAW	**Mawson**	82.54	191	P	P	02 28 20.5	+1.1
	comp=Z,23nm,0.8s,mb5.3,baz=358,slow=6.3,SNR=11						
MAW	**Mawson**	82.54	191	*e*P	P	02 28 19.0	-0.3
MAW				pmax	pmax		
	comp=Z,71nm,1.2s						
MAW	**Mawson**	82.54	191	*e*P	P	02 28 19.0	-0.3
	comp=Z,40nm,1.0s,mb5.4						
EPOB	**Poblet**	83.07	311	P	P	02 28 21.9	-0.7
	comp=Z,55nm,0.7s,mb5.7						
EKA	**Eskdalemuir Ar**	83.21	325	P	P	02 28 23.9	+0.8
	comp=Z,21nm,0.8s,mb5.2,baz=91,slow=5.7,SNR=11						
EKA	**Eskdalemuir Ar**	83.21	325	P	P	02 28 23.9	+0.9
EKA				pmax	pmax		
	comp=Z,21nm,0.8s						
EKA	**Eskdalemuir Ar**	83.21	325	P	P	02 28 23.9	+0.8
EBIE	**Bielsa**	83.52	312	P	P	02 28 25.2	+0.2
	comp=Z,21nm,1.0s,mb5.2						
EBR	**Ebro Roquetas**	83.60	310	*e*P	P	02 28 27.0	+1.6

ERTA	Horta de San J	83.70	310	P	P	02 28 25.7	-0.2
	comp=Z,39nm,0.9s,mb5.5						
ESAC	San Caprasio	84.15	311	P	P	02 28 29.1	+0.9
	comp=Z,52nm,0.7s,mb5.8						
EMOS	Mosqueruela	84.41	310	P	P	02 28 31.5	+1.9
	comp=Z,74nm,1.0s,mb5.8						
EMUR	La Murta	85.51	308	P	P	02 28 35.2	+0.2
ELAN	Lanestosa	85.98	313	P	pP	02 28 47.1	+1.9
	comp=Z,17nm,1.0s						
GUD	Guadarrama	87.09	311	P	P	02 28 43.6	+0.8
	comp=Z,18nm,0.8s,mb5.3						
ESDC	Sonseca Array	87.18	310	P	P	02 28 43.6	+0.4
	comp=Z,12nm,0.8s,mb5.2,baz=54,slow=4.4,SNR=12						
ESLA	Sonseca Array	87.18	310	P	P	02 28 43.6	+0.4
	comp=Z,6.8nm,1.0s,mb4.8						
EADA	Adamuz	88.00	308	P	P	02 28 46.3	-0.9
	comp=Z,42nm,1.0s,mb5.6						
IMA	Indian Mountai	88.14	22	P	P	02 28 46.3	-0.9
IMA				pmax	pmax		
	comp=Z,1µm,1.9s,mb6.8						
IMA	Indian Mountai	88.14	22	P	P	02 28 46.3	-0.8
	comp=Z,114nm,0.8s,mb6.2						
EMIJ	Mijas	88.54	307	P	P	02 28 49.2	-0.6
	comp=Z,15nm,0.7s,mb5.4						
BORG	Borgarnes	88.76	337	P	P	02 28 50.2	0.0
	comp=Z,20nm,1.0s,mb5.4,baz=270,slow=3.0,SNR=2.6						
SYO	Syowa Base	89.16	197	⇑P	P	02 28 53.2	+1.2
SYO	Syowa Base	89.16	197	⇓PcP	PcP	02 28 55.5	+1.8
SYO	Syowa Base	89.16	197	⇓pP	pP	02 28 58.3	-1.7
ESPR	Espera	89.31	307	P	P	02 28 52.0	-1.4
	comp=Z,18nm,0.9s,mb5.4						
SUMG	Summit	89.50	347	eP	P	02 28 54.4	+0.9
	comp=Z,35nm,1.0s,mb5.6						
EMIN	Mina Concepcio	89.70	309	P	P	02 28 55.0	-0.4
	comp=Z,23nm,1.0s,mb5.5						
EGRO	El Granado	90.39	308	P	P	02 28 58.8	+0.4
COLA	College	90.84	22	eP	P	02 29 02.2	+2.3
	comp=Z,28nm,1.3s,mb5.4						
SPU	Mount Spurr	91.03	26	eP	P	02 29 01.6	+0.8
RSO	Redoubt South	91.06	27	eP	P	02 29 02.0	+1.0
ILAR	Eielson Array	91.25	22	P	P	02 29 02.0	+0.2
	comp=Z,8.8nm,0.7s,mb5.2,baz=295,slow=4.4,SNR=30						
ILAR				PKKPbc		02 46 26.1	
	comp=Z,1.6nm,1.1s,baz=130,slow=1.7,SNR=9.4						
ILAR	Eielson Array	91.25	22	P	P	02 29 02.0	+0.2
ILAR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
PWA	Palmer West	91.72	25	eP	P	02 29 04.3	+0.3
	comp=Z,62nm,0.6s,mb6.1						
FIB	Fire Island	91.83	26	eP	P	02 29 05.4	+0.9
PMR	Palmer	92.06	25	eP	P	02 29 06.0	+0.5
	comp=Z,26nm,0.6s,mb5.7						
SLKM	Skilak Lake	92.14	26	eP	P	02 29 06.6	+0.6
SLKM	Skilak Lake	92.14	26	eP	P	02 29 06.6	+0.6
RES	Resolute Bay	93.06	2	eP	P	02 29 10.6	+0.7
RES				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.6						
RES	Resolute Bay	93.06	2	eP	P	02 29 10.6	+0.6
	comp=Z,23nm,1.0s,mb5.6						
INK	Inuvik	93.19	16	P	P	02 29 11.5	+0.9
	comp=Z,8.3nm,0.8s,mb5.2,baz=335,slow=6.0,SNR=10						
INK	Inuvik	93.19	16	P	P	02 29 11.5	+0.9
INK				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MENT	Mentasta	93.44	22	eP	P	02 29 13.9	+2.0
DIV	Divide	93.67	24	eP	P	02 29 14.5	+1.5
	comp=Z,44nm,0.9s,mb5.9						
DAWY	Dawson	94.29	20	eP	P	02 29 16.4	+0.6
DBIC	Dimbokro	95.77	278	P	P	02 29 24.0	+0.2
	comp=Z,4.2nm,0.9s,mb4.8,baz=81,slow=2.7,SNR=6.7						
DBIC	Dimbokro	95.77	278	P	P	02 29 24.0	+0.2
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
VNDA	Vanda	97.56	168	P	P	02 29 31.4	+1.0
	comp=Z,9.7nm,1.1s,mb5.3,baz=270,slow=5.1,SNR=7.3						
VNDA	Vanda	97.56	168	P	P	02 29 31.4	+1.0
VNDA				pmax	pmax		
	comp=Z,10.0nm,1.1s						
VNDA	Vanda	97.56	168	P	P	02 29 31.4	+1.0
YKA	Yellowknife Ar	102.49	13	P	Pdif	02 29 53.3	+0.4
	comp=Z,1.3nm,0.9s,baz=334,slow=7.9,SNR=4.2						
YKA				PP	PP	02 34 04.7	-3.7
	comp=Z,4.1nm,0.9s,baz=334,slow=7.7,SNR=5.2						
YKA				PKKPbc		02 45 54.1	
	comp=Z,3.4nm,1.0s,baz=148,slow=2.6,SNR=11						
YKA	Yellowknife Ar	102.49	13	P	Pdif	02 29 53.3	+0.4
YKA						02 34 04.7	
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
YKA	Yellowknife Ar	102.49	13	P	Pdif	02 29 53.4	+0.5
YKA				PP	PP	02 34 04.7	-3.8
YKA				PKKPbc		02 45 54.1	
SCHQ	Schefferville	110.89	347	PKKPbc		02 45 27.7	
	comp=Z,5.3nm,0.6s,baz=221,slow=2.0,SNR=15						
ULM	Lac du Bonnet	117.28	6	PKP	PKPdf	02 34 43.5	-2.1
	comp=Z,3.3nm,0.8s,baz=354,slow=6.8,SNR=3.3						
ULM				PKKPbc		02 45 06.5	
	comp=Z,5.5nm,0.8s,baz=175,slow=2.7,SNR=5.1						
ULM	Lac du Bonnet	117.28	6	PKP	PKPdf	02 34 43.5	-2.1
ULM				PKKPbc		02 45 06.5	
KHMM	Horse Mountain	117.36	30	P	PKPdf	02 34 42.7	-3.3
MOD	Modoc	118.17	27	ePKPdf	PKPdf	02 34 46.3	-1.2
NSHM	Saint Helena R	119.71	31	eP	PKPdf	02 34 48.4	-2.1
LOHW	Long Hollow	120.48	19	eP	PKPdf	02 34 49.9	-2.1
SNOW	Snow King Moun	120.56	20	eP	PKPdf	02 34 50.5	-1.6
REDW	Red Top Meadow	120.62	20	eP	PKPdf	02 34 49.9	-2.4
HVU	Hansel Valley	121.35	22	PKIKP	PKPdf	02 34 51.6	-2.1
HVU	Hansel Valley	121.35	22	eP	PKPdf	02 34 50.8	-2.9
PDAR	Pinedale Array	121.58	19	PKP	PKPdf	02 34 51.3	-2.8
	comp=Z,5.1nm,0.7s,baz=43,slow=1.6,SNR=8.2						
PDAR				PKKPbc		02 44 51.6	
	comp=Z,1.2nm,0.6s,baz=142,slow=5.6,SNR=6.9						
NVAR	Mina Array Bea	121.87	28	PKP	PKPdf	02 34 53.5	-1.2
	comp=Z,15nm,0.7s,baz=279,slow=3.3,SNR=24						
NVAR				PKKPbc		02 44 50.6	
	comp=Z,3.3nm,0.9s,baz=158,slow=4.0,SNR=6.4						
HWUT	Hardware Ranch	121.94	21	eP	PKPdf	02 34 52.0	-2.9
MNV	Mina	121.94	28	ePKIKP	PKPdf	02 34 51.8	-3.1
MNV	Mina	121.94	28	eP	PKPdf	02 34 53.0	-1.9
LRV	Little Rabbit	122.12	32	eP	PKPdf	02 34 54.7	-0.6
OMM	Old Mammoth Mi	122.20	29	ePKPdf	PKPdf	02 34 55.3	-0.1
MTUM	Tungsten Hills	122.61	29	eP	PKPdf	02 34 54.6	-1.6
NLU	North Lily Min	123.20	22	ePKPdf	PKPdf	02 34 55.0	-2.3
MPU	Maple Canyon	123.31	22	eP	PKPdf	02 34 54.9	-2.6
DAC	Darwin (Calif)	123.94	29	PKIKP	PKPdf	02 34 59.6	+0.7
TMUT	Trail Mountain	124.10	22	eP	PKPdf	02 34 56.6	-2.5
MSU	Marysvale	124.42	23	eP	PKPdf	02 34 58.2	-1.5
ISCO	Idaho Springs	125.48	17	PKIKP	PKPdf	02 35 01.7	-0.1
ISCO	Idaho Springs	125.48	17	eP	PKPdf	02 34 57.6	-4.2
PV10	Paradox Valley	125.69	21	eP	PKPdf	02 35 00.5	-1.7
KSU1	Kansas State U	128.16	9	eP	PKPdf	02 35 03.6	-3.3
ANMO	Albuquerque	129.67	20	PKP	PKPdf	02 35 08.4	-1.6
	comp=Z,13nm,0.8s,baz=110,slow=0.4,SNR=10						
CPCT	Cooper Cave	132.43	357	eP	PKPdf	02 35 13.4	-1.8
LTX	Lajitas	135.75	20	PKIKP	PKPdf	02 35 19.8	-1.7
LTX	Lajitas	135.75	20	eP	PKPdf	02 35 19.1	-2.4
TXAR	Lajitas Array	135.75	20	PKP	PKPdf	02 35 19.6	-1.9
	comp=Z,6.9nm,0.7s,baz=290,slow=0.8,SNR=14						
JCT	Junction City	135.84	15	PKIKP	PKPdf	02 35 20.5	-1.1
JCT	Junction City	135.84	15	eP	PKPdf	02 35 19.8	-1.8
BAO	Brasilia Array	141.59	260	PKP	PKPdf	02 35 28.0	-4.4
TRQA	Tornquist	145.73	217	eP	PKPbc	02 35 36.1	+1.0
TEIG	Tepich	147.67	1	ePKPab	PKPab	02 35 44.5	-0.7
PCRV	Puerto La Cruz	148.17	314	PKPbc	PKPdf	02 35 43.1	-0.6
	comp=Z,46nm,0.7s,baz=104,slow=1.7,SNR=12						
SDV	Santo Domingo	153.11	321	PKPbc	PKPdf	02 35 57.2	+6.0
	comp=Z,6.9nm,0.5s,baz=354,slow=4.2,SNR=5.8						
SDV				PKPab	PKPab	02 36 07.6	-0.4
	comp=Z,43nm,1.1s,baz=47,slow=4.2,SNR=8.1						
ROSC	El Rosal	158.53	322	PKP	PKPdf	02 35 58.4	0.0
	comp=Z,9.3nm,0.9s,baz=124,slow=2.9,SNR=3.4						
ROSC				PKPab	PKPab	02 36 31.1	0.0
	comp=Z,30nm,1.0s,baz=126,slow=5.6,SNR=6.5						
LVC	Limon Verde	159.57	237	PKPab	PKPab	02 36 36.2	+0.9
	comp=Z,15nm,1.0s,baz=141,slow=4.3,SNR=4.6						
LPAZ	La Paz	160.86	256	PKPab	PKPab	02 36 41.6	+0.6
	comp=Z,33nm,1.0s,baz=239,slow=5.9,SNR=9.7						
LPAZ	La Paz	160.86	256	PKPab	PKPab	02 36 41.6	+0.6

IDC 26 02:19:26.3±2.2**,7.70N**×**91.36E,mb4.9**/5**,mb1 5.1**/6**,**
mb1mx4.6/20**,ML4.6**/1**,Error ellipse: s-maj=57.1km**
s-min=41.3km az=158.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.99	34	Pn	P	02 22 33.4	-1.6
	0.9nm,0.3s,baz=226,slow=13,SNR=2.6						
SONM	Songino Array	41.99	15	P	P	02 27 17.5	-3.3
	20nm,0.8s,baz=195,slow=8.1,SNR=5.0						
BVAR	Borovoye Array	48.32	343	P	P	02 28 11.1	-0.2
	10nm,0.9s,baz=153,slow=6.4,SNR=2.3						
BRTR	Keskin Array B	60.47	311	P	P	02 29 38.9	-1.6
	6.9nm,0.8s,baz=117,slow=6.4,SNR=3.6						
MLR	Muntele Rosu	67.38	316	P	P	02 30 23.7	-1.9
	17nm,0.7s,baz=141,slow=1.0,SNR=4.1						
GERES	GERESS Array B	76.13	318	P	P	02 31 14.5	-3.3
	13nm,1.0s,baz=103,slow=4.1,SNR=5.1						
PDAR	Pinedale Array	126.28	19	PKP	PKPdf	02 38 31.4	-1.7
	2.4nm,0.7s,baz=55,slow=1.5,SNR=4.1						
NVAR	Mina Array Bea	126.45	29	PKP	PKPdf	02 38 32.8	-0.8
	3.3nm,0.7s,baz=315,slow=2.6,SNR=4.7						

IDC ***26*** *02:21:59.5±0.4, 8.91N×92.56E, mb5.3/32, mb1 5.4/33,*
mb1mx5.4/33, ML4.6/1, Error ellipse: s-maj=17.3km
s-min=10.3km az=46.0
BJI ***26*** *02:22:00.6, 8.86N×92.47E, h17^{km}, mb5.5, Ms6.7, Msz6.7*
NEIC ***26*** *02:22:01.8±0.1, 8.87N×92.47E, mb5.7/79, Error ellipse:*
s-maj=4.9km s-min=3.9km az=205.0
MOS ***26*** *02:22:02.8±0.8, 8.88N×92.52E, h33^{km}, mb5.8/51, Error*
ellipse: s-maj=9.4km s-min=5.6km az=117.7
SYO ***26*** *02:22:03.5, 8.87N×92.43E, h26^{km}, MB5.8*
ISC 26 02:22:00.0±0.2**, 8.81N**±0.04×**92.48E**±0.03**, h15^{km},**
h15^{km}±.9^{km}**:pP-P, n487,** σ**0^{s}98**/411**, mb5.6**/128**, 60C-4D,**
Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.46	33	eP	P	02 24 45.1	-1.3
	73nm,0.8s						
CMAR	Chiang Mai Arr	11.46	33	Pn	P	02 24 41.8	-4.6
	1.3nm,0.3s,baz=237,slow=15,SNR=3.7						
CMAR	Chiang Mai Arr	11.46	33	P	P	02 24 41.8	-4.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VIS	Vishakhapatnam	12.55	316	eP	P	02 24 58.7	-2.4
	comp=Z,2µm,1.2s						
VIS				e		02 27 14.3	
	comp=E,412nm,0.9s						
VIS				e	S	02 27 15.2	-6.4
	comp=N,410nm,0.9s						
MDRS	Chennai	12.73	290	eP	P	02 25 01.7	-1.8
	comp=Z,2µm,1.0s						
MDRS				e		02 27 19.9	
	comp=E,816nm,0.3s						
MDRS				e	S	02 27 20.1	-5.8
	comp=N,3µm,1.0s						
KOD	Kodaikanal	14.87	277	eP	P	02 25 30.0	-1.8
TRD	Trivandrum	15.35	270	eP	P	02 25 35.5	-2.5
TRD				eP		02 25 37.8	
BOK	Bokaro	16.18	338	eP	P	02 25 48.4	-0.3
BOK				e		02 25 59.2	
	comp=Z,632nm,1.2s						
BLSP	Bilaspur	16.56	324	eP	P	02 25 48.9	-4.6
BLSP				e		02 25 59.2	
	comp=Z,416nm,1.6s						
SHL	Shillong	16.68	358	eP	P	02 25 51.0	-3.9
MNGI	Mangalore	17.81	285	eP	P	02 26 10.2	+1.0
MNGI				e		02 26 14.6	
	comp=Z,787nm,0.9s						
KMI	Kunming	18.94	30	eP	P	02 26 24.5	+1.4
KMI				XP		02 26 28.3	
KMI				PP	PP	02 26 42.0	+2.3
KMI				AMB	AMB		
	comp=Z,215nm,0.9s						
AKL	Akola	19.04	310	eP	P	02 26 24.8	+0.5
GOA	Goa	19.40	292	e	P	02 26 34.3	+5.8
QIZ	Qiongzhong	19.66	57	P	P	02 26 32.5	+1.0
KAD	Karad	19.71	297	eP	P	02 26 31.0	-1.0
KAD				e		02 26 36.4	
	comp=Z,516nm,2.1s						
BHPL	Bhopal	20.35	317	eP	P	02 26 38.4	-0.4
BHPL				e		02 26 44.1	
	comp=Z,539nm,1.1s						
BHPL				e		02 27 00.6	
	comp=E,314nm,1.5s						
POO	Poona	20.50	300	eP	P	02 26 41.9	+1.6
POO				e		02 26 45.5	
	comp=Z,558nm,2.3s						
LSA	Lhasa	20.82	357	eP	P	02 26 44.1	+0.5
LSA				pmax	pmax		
	comp=Z,870nm,1.4s						
LSA	Lhasa	20.82	357	eP	P	02 26 44.0	+0.4
	comp=Z,874nm,1.4s						
BOM	Bombay	21.54	300	eP	P	02 26 52.2	+1.2
PTH	Pithoragarh	23.62	332	eP	P	02 27 13.2	+1.6
PTH				e		02 31 47.1	
CD2	Chengdu	24.38	24	⇑iP	P	02 27 19.3	+0.4
CD2				AMB	AMB		
	comp=Z,330nm,1.4s,mb5.6						
NDI	New Delhi	24.43	326	eP	P	02 27 19.5	0.0
DGAR	Diego Garcia	25.65	232	i P	P	02 27 32.9	+1.7
BHJ	Bhuj	26.16	306	eP	P	02 27 36.4	+0.6
ENH	Enshi	26.63	34	eP	P	02 27 39.4	-0.7
	comp=Z,228nm,1.1s,mb5.6						
LZH	Lanzhou	29.06	19	eP	P	02 28 02.0	-0.1
LZH				AP	pP	02 28 05.8	-0.6
LZH				XP	sP	02 28 08.5	+0.2
LZH				PP	PP	02 28 56.5	+0.2
LZH				AMB	AMB		
	comp=Z,382nm,1.4s,mb5.9						
QZH	Quanzhou	29.61	54	⇑iP	P	02 28 07.0	-0.1
QZH				AMB	AMB		
	comp=Z,200nm,1.3s,mb5.7						
WHN	Wuhan	29.75	40	⇑P	P	02 28 08.0	-0.3
SNPH	Sibulan	30.38	87	eP	P	02 28 15.0	+1.0
GTA	Gaotai	31.17	11	⇑iP	P	02 28 21.5	+0.7
GTA				AP	pP	02 28 25.5	+0.4
GTA				XP	sP	02 28 28.3	+1.3
GTA				PP	PP	02 29 21.3	-2.3
GTA				PPP	PPP	02 29 33.8	-4.8
GTA				S	S	02 33 18.3	-6.7
GTA				AMB	AMB		
	comp=Z,130nm,1.5s,mb5.5						
NJ2	Nanjing	33.67	43	eP	P	02 28 43.3	+0.6
NJ2				AMB	AMB		
	comp=Z,330nm,0.6s,mb6.4						
KSH	Kashi	33.96	337	P	P	02 28 46.5	+1.4
KSH				eAP	pP	02 28 50.8	+1.3
KSH				XP	sP	02 28 52.8	+1.5
KSH				ePP	PP	02 30 00.3	+1.4
KSH				ePPP	PPP	02 30 16.8	0.0
KSH				ePCP	PcP	02 31 23.5	+0.1
KSH				eS	S	02 34 10.0	+1.7
KSH				eXS		02 34 17.5	
KSH				eSCP		02 35 07.5	
KSH				ePCS		02 35 09.0	
KSH				eSS	SS	02 36 17.3	+1.8
SSE	Sheshan	34.73	46	eP	P	02 28 52.5	+0.6
SSE				AMB	AMB		
	comp=Z,32nm,1.0s,mb5.2						
WMQ	Urumqi	35.13	354	⇑P	P	02 28 55.8	+0.7
WMQ				AP	pP	02 29 00.3	+0.8
WMQ				XP	sP	02 29 02.8	+1.5
WMQ				PP	PP	02 30 14.3	+0.4
WMQ				PPP	PPP	02 30 32.3	+0.2
WMQ				S	S	02 34 26.8	+0.4
WMQ				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.3						
WMQ				LR	LR		
	comp=Z,169µm,20.5s						
HHC	Hu-ho-hao-te	36.13	25	eP	P	02 29 06.8	+3.2
HHC				AP	pP	02 29 13.8	+5.8
HHC				XP	sP	02 29 17.0	+7.1
HHC				PP	PP	02 30 31.0	+4.9
HHC				PCP	PcP	02 31 30.5	+0.8
HHC				S	S	02 34 46.8	+4.9
HHC				AMB	AMB		
	comp=Z,97nm,1.3s,mb5.6						
ULHL	Ulahol	36.24	339	P	P	02 29 05.5	+0.9
	SNR=6.2						
KZA	Kyzart	36.45	338	P	P	02 29 07.9	+1.7
	SNR=9.2						
UCH	Uchtor	36.85	338	P	P	02 29 11.9	+2.2
	SNR=6.7						
TKM2	Tokmak 2	37.06	339	P	P	02 29 12.7	+1.3
	SNR=13						
KBK	Karagaybulak	37.06	338	P	P	02 29 13.4	+2.0
	SNR=13						
AML	Almayashu	37.09	337	P	P	02 29 13.7	+2.0
	SNR=21						
AAK	Ala-Archa	37.21	338	P	P	02 29 14.5	+1.8
	SNR=15						
AAK	Ala-Archa	37.21	338	eP	P	02 29 13.1	+0.4
AAK				pmax	pmax		
	comp=Z,330nm,1.4s,mb6.0						
AAK	Ala-Archa	37.21	338	eP	P	02 29 13.1	+0.4
	comp=Z,334nm,1.4s,mb6.0						
CHMS	Chumysh	37.43	338	P	P	02 29 15.6	+1.1
	SNR=15						
EKS2	Erkin-Say	37.51	337	P	P	02 29 16.1	+0.9
	SNR=15						
BJT	Baijiatuau	37.58	30	eP	P	02 29 16.1	+0.3
BJT				pmax	pmax		
	comp=Z,1µm,2.1s						
BJT	Baijiatuau	37.58	30	eP	P	02 29 15.9	+0.1
	comp=Z,1µm,2.1s,mb6.2						
USP	Ospenovka	37.76	338	P	P	02 29 18.5	+1.3
	SNR=21						
DL2	Dalian	39.77	36	P	P	02 29 35.5	+1.4
DL2				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.4						
MBWA	Marble Bar	40.05	138	eP	P	02 29 35.7	-0.9
	comp=Z,186nm,1.2s,mb5.7						
SONM	Songino Array	40.64	14	P	P	02 29 41.2	0.0
	comp=Z,62nm,1.0s,mb5.2,baz=198,slow=7.8,SNR=14						
ULN	Ulaanbaatar	40.84	15	eP	P	02 29 43.1	+0.3
ULN				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.1						
ULN	Ulaanbaatar	40.84	15	eP	P	02 29 43.1	+0.3
	comp=Z,60nm,1.1s,mb5.1						
ZAK	Zakamensk	42.40	10	⇑iP	P	02 29 56.6	+1.0
KS15	Wonju Array Si	42.84	43	eP	P	02 29 59.3	-0.1
MOY	Mondy	43.30	8	eP	P	02 30 04.2	+1.3
TLY	Talaya	43.72	10	P	P	02 30 07.2	+0.9
	comp=Z,347nm,1.5s,mb5.9,SNR=15						
TLY	Talaya	43.72	10	eP	P	02 30 07.5	+1.2
TLY				pmax	pmax		
	comp=Z,142nm,1.5s,mb5.5						
TLY	Talaya	43.72	10	eP	P	02 30 07.5	+1.2
	comp=Z,197nm,1.6s,mb5.6						
HASS	Wahat al Ahsa’	43.81	297	P	P	02 30 08.7	+1.3
IRK	Irkutsk	44.37	10	eP	P	02 30 11.0	-0.6
CN2	Changchun	45.15	34	eP	P	02 30 22.3	+4.4
ZAL	Zalesovo	45.42	354	P	P	02 30 20.0	0.0
	comp=Z,19nm,0.8s,mb5.0,baz=289,slow=9.8,SNR=8.8						
ZAL	Zalesovo	45.42	354	P	P	02 30 20.0	0.0
ZAL				pmax	pmax		
	comp=Z,19nm,0.9s						
QRN	Al-Qurain	46.27	302	eP	P	02 30 28.4	+1.3
RYDS	Riyadh	46.30	295	P	P	02 30 29.5	+2.1
HIA	Hailar	46.33	25	eP	P	02 30 28.0	+0.8
	comp=Z,208nm,1.4s,mb5.9						
RDF	Al-Radifah	46.63	302	eP	P	02 30 31.1	+1.2
RDF				AMb	AMB	02 30 32.4	
	comp=Z,280nm,0.9s,mb6.2						
UMR	Umm Al-Rimmam	46.67	302	eP	P	02 30 31.2	+1.0
UMR				AMb	AMB	02 30 32.6	
	comp=Z,189nm,1.0s,mb6.0						
RST	Umm Al-Ruwaisa	47.26	302	eP	P	02 30 35.5	+0.7
RST				AMb	AMB	02 30 37.0	
	comp=Z,327nm,0.9s,mb6.2						
MZLS	Mizel	47.56	294	P	P	02 30 38.8	+1.5
BVAR	Borovoye Array	47.59	342	P	P	02 30 36.7	-0.4
	comp=Z,19nm,0.8s,mb5.2,baz=143,slow=7.4,SNR=14						
BVAR				PP	PP	02 32 29.3	+1.2
	comp=Z,8.4nm,0.6s,baz=144,slow=10.0,SNR=4.6						
BRVK	Borovoye	47.65	342	eP	P	02 30 37.2	-0.3
	comp=Z,690nm,2.1s,mb6.3						
NWAO	Narrogin (SRO)	47.74	152	P	P	02 30 38.6	0.0
	comp=Z,23nm,0.6s,mb5.4,baz=324,slow=10.0,SNR=7.0						
NWAO	Narrogin (SRO)	47.74	152	eP	P	02 30 38.4	-0.2
NWAO				pmax	pmax		
	comp=Z,150nm,1.1s						
NWAO	Narrogin (SRO)	47.74	152	eP	P	02 30 38.4	-0.2
	comp=Z,150nm,1.1s,mb5.9						
MDJ	Mudanjiang	47.98	35	P	P	02 30 40.0	-0.3
MDJ				AMB	AMB		
	comp=Z,42nm,1.4s,mb5.3						
CHKZ	Chkalovo	48.09	343	eP	P	02 30 41.0	0.0
CHKZ				pmax	pmax		
	comp=Z,250nm,1.2s,mb6.1						
CHKZ	Chkalovo	48.09	343	eP	P	02 30 40.5	-0.5
	comp=Z,254nm,1.3s,mb6.1						
TATS	Tathlith	48.54	288	P	P	02 30 45.8	+0.9
AFFS	‘Afif	49.53	294	P	P	02 30 54.2	+1.6
FRSS	Farasan al Kab	49.63	284	P	P	02 30 55.5	+2.1
ARSS	Ar Rass	49.66	296	P	P	02 30 54.5	+1.0
NAMS	An Nimas	49.70	288	P	P	02 30 56.1	+2.2
MAJO	Matsushiro	49.77	49	eP	P	02 30 53.8	-0.5
MAJO				pmax	pmax		
	comp=Z,370nm,1.6s,mb6.2						
MAJO	Matsushiro	49.77	49	eP	P	02 30 53.8	-0.5
	comp=Z,366nm,1.6s,mb6.2						
MAT	Matsushiro	49.77	49	P	P	02 30 53.9	-0.4
MAT	Matsushiro	49.77	49	eP	P	02 30 54.0	-0.3
WRA	Warramunga Arr	50.14	125	P	P	02 30 56.0	-1.3
	comp=Z,58nm,0.7s,mb5.7,baz=306,slow=8.7,SNR=16						
WRA	Warramunga Arr	50.14	125	P	P	02 30 56.0	-1.3
WRA				pmax	pmax		
	comp=Z,58nm,0.7s						
WRAB	Tennant Creek	50.15	125	i P	P	02 30 56.3	-1.0
BLJS	Baljurashi	50.33	288	P	P	02 31 00.7	+2.0
HILS	Ha’il	51.21	298	P	P	02 31 07.1	+1.8
BOD	Bodaibo	51.64	15	eP	P	02 31 06.9	-1.3
ASAR	Alice Springs	51.77	129	P	P	02 31 07.9	-1.8
	comp=Z,45nm,0.8s,mb5.4,baz=313,slow=7.7,SNR=16						
GNI	Garni	52.61	314	P	P	02 31 16.6	+0.9
	comp=Z,42nm,1.0s,mb5.3,baz=74,slow=2.4,SNR=19						
GNI	Garni	52.61	314	eP	P	02 31 16.0	+0.3
GNI				pmax	pmax		
	comp=Z,350nm,1.3s						
GNI	Garni	52.61	314	eP	P	02 31 16.0	+0.3
	comp=Z,347nm,1.4s,mb6.1						
KBRS	Khaybar	53.17	296	P	P	02 31 21.7	+1.6
YNBS	Yanbu‘ al Bahr	54.12	294	P	P	02 31 28.2	+1.2
ARU	Arti	54.40	338	⇓iP	P	02 31 28.5	-0.1
ARU				e		02 32 29.3	
ARU				e		02 33 28.0	
ARU				eS	S	02 39 07.9	+3.2
ARU				pmax	pmax		
	comp=Z,231nm,1.2s,mb6.0						
ARU	Arti	54.40	338	eP	P	02 31 27.7	-0.9
	comp=Z,540nm,1.5s,mb6.3						
UMJS	Umm Lajj	54.84	295	P	P	02 31 34.3	+2.0
KIV	Kislovodsk	55.52	318	P	P	02 31 36.6	-0.4
	comp=Z,658nm,0.9s,mb6.7,SNR=22						
KIV	Kislovodsk	55.52	318	eP	P	02 31 32.9	-4.1
KIV				pmax	pmax		
	comp=N,8.0nm,1.0s						
KIV				pmax	pmax		
	comp=E,66nm,1.0s						
KIV				pmax	pmax		
	comp=Z,117nm,1.0s,mb5.9						
KIV	Kislovodsk	55.52	318	eP	P	02 31 36.5	-0.5
	comp=Z,145nm,1.1s,mb5.9						
GOF	Gofitskoye	55.75	319	eP	P	02 31 34.0	-4.6
GOF				pmax	pmax		
	comp=Z,150nm,1.2s,mb5.9						
ASAJ	Asahikawa	55.81	42	P	P	02 31 39.1	0.0
	comp=Z,26nm,0.8s,mb5.3,baz=228,slow=11,SNR=11						
ASAJ	Asahikawa	55.81	42	P	P	02 31 39.1	0.0
ASAJ				pmax	pmax		
	comp=Z,27nm,0.8s						
KMBO	Kilima Mbogo	55.90	263	P	P	02 31 41.7	+1.5
	comp=Z,22nm,0.9s,mb5.2,baz=58,slow=9.3,SNR=26						
KMBO	Kilima Mbogo	55.90	263	eP	P	02 31 39.9	-0.2
KMBO	Kilima Mbogo	55.90	263	eP	P	02 31 41.3	+1.2
ASF	Jabal al Asfar	56.33	303	P	P	02 31 43.3	+0.3
	comp=Z,17nm,0.9s,mb5.1,baz=340,slow=0.9,SNR=10						
YSS	Yuzh-Sakhalins	57.08	39	i P	P	02 31 47.9	-0.2
YSS				pmax	pmax		
	comp=Z,146nm,2.2s,mb5.6						
YSS	Yuzh-Sakhalins	57.08	39	i P	P	02 31 47.0	-1.1
PMG	Port Moresby	57.38	107	P	P	02 31 50.1	-0.6
	comp=Z,36nm,0.8s,mb5.4,baz=296,slow=5.7,SNR=7.2						
PMG	Port Moresby	57.38	107	P	P	02 31 50.1	-0.6

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PMG                                pmax   pmax
      comp=Z,36nm,0.8s
EIL   Elat              57.53 300  P      P      02 31 52.3 +0.7
      comp=Z,60nm,0.9s,mb5.6,baz=87,slow=5.0,SNR=24
EIL   Elat              57.53 300 eP      P      02 31 51.9 +0.3
      comp=Z,118nm,1.1s,mb5.8
YUK   Yuzh-Kuril'sk     57.96  43 eP      P      02 31 52.6 -1.7
ANN   Anapa             59.34 317 eP      P      02 32 07.8 +3.9
ANN                                pmax   pmax
      comp=Z,302nm,2.3s,mb5.9
CSS   Prodhromos        59.79 305 eP      P      02 32 06.5 -0.7
CTA   Charters Tower    60.20 119  P      P      02 32 09.5 -0.7
      comp=Z,47nm,1.1s,mb5.4,baz=293,slow=9.4,SNR=7.5
CTA   Charters Tower    60.20 119  P      P      02 32 09.5 -0.7
CTA                                pmax   pmax
      comp=Z,47nm,1.1s
CTAO  Charters Tower    60.20 119 eP      P      02 32 09.2 -1.0
CTAO                               pmax   pmax
      comp=Z,200nm,1.4s,mb6.0
CTAO  Charters Tower    60.20 119 eP      P      02 32 09.2 -1.0
      comp=Z,200nm,1.4s,mb6.0
BRTR  Keskin Array B    60.58 311  P      P      02 32 11.0 -1.5
      comp=Z,27nm,0.9s,mb5.4,baz=127,slow=6.2,SNR=30
BRTR  Keskin Array B    60.58 311  P      P      02 32 11.0 -1.5
BRTR                               pmax   pmax
      comp=Z,27nm,0.9s
SIM   Simferopol'       61.62 317 eP      P      02 32 19.0 -0.5
SIM                                pmax   pmax
      comp=Z,75nm,0.9s,mb5.8
STKA  Stephens Creek    61.94 133  P      P      02 32 21.1 -0.8
      comp=Z,25nm,0.8s,mb5.4,baz=305,slow=5.1,SNR=7.9
STKA  Stephens Creek    61.94 133 eP      P      02 32 20.1 -1.8
MBAR  Mbarara           62.20 265 eP      P      02 32 24.0 +0.1
MBAR                               pmax   pmax
      comp=Z,68nm,1.2s,mb5.7
MBAR  Mbarara           62.20 265 eP      P      02 32 24.0 +0.1
      comp=Z,68nm,1.3s,mb5.6
ISP   Isparta           62.57 308 eP      P      02 32 24.2 -1.7
      comp=Z,289nm,1.6s,mb6.2
MOS   Moscow            63.43 329 eP      P      02 32 29.7 -1.7
MOS                               e              02 36 17.6
MOS                                pmax   pmax
      comp=Z,276nm,1.5s,mb6.2
OBN   Obninsk           63.72 328 i P     P      02 32 32.2 -1.1
OBN                               i              02 33 08.3
OBN                               e              02 34 51.9
OBN                                S      S      02 41 04.9 -0.7
OBN                                pmax   pmax
      comp=Z,367nm,2.3s,mb6.0
OBN                                MLR    MLR
      comp=Z,105µm,18.0s
OBN   Obninsk           63.72 328 eP      P      02 32 31.8 -1.5
      comp=Z,162nm,1.2s,mb5.9
TIRR  Tirgusor          65.43 315  P      P      02 32 43.9 -0.7
AKASG Malin Array Be    66.40 322  P      P      02 32 48.6 -2.1
      comp=Z,22nm,0.8s,mb5.2,baz=89,slow=4.4,SNR=28
AKASG                              PP     PP     02 35 19.3 +0.2
      comp=Z,0.7nm,0.5s,baz=94,slow=6.5,SNR=4.7
AKASG Malin Array Be    66.40 322  P      P      02 32 48.6 -2.1
AKASG                                            02 35 19.3
AKASG                              pmax   pmax
      comp=Z,22nm,0.8s
AKASG                              pmax   pmax
      comp=Z,1.0nm,0.5s
ALN   Alexandroupoli    66.50 311 eP      P      02 32 50.2 -1.3
IAS   Iasi              66.61 318  P      P      02 32 50.7 -1.4
TIXI  Tiksi             66.65  12 eP      P      02 32 51.1 -0.9
TIXI                               pmax   pmax
      comp=Z,302nm,1.3s,mb6.2
TIXI                               pmax   pmax
      comp=N,38nm,0.9s
TIXI                               pmax   pmax
      comp=E,25nm,0.8s
TIXI  Tiksi             66.65  12 i P     P      02 32 51.0 -1.0
IDI   Anoyia            66.69 305  P      P      02 32 52.3 -0.5
      comp=E,34nm,0.9s,mb5.4,baz=101,slow=7.2,SNR=12
MA2   Magadan           66.71  28 eP      P      02 32 51.6 -0.9
MA2                                pmax   pmax
      comp=Z,110nm,1.4s,mb5.7
MA2   Magadan           66.71  28 eP      P      02 32 51.6 -0.9
      comp=Z,108nm,1.4s,mb5.7
VRI   Vrincioaia        66.89 316  P      P      02 32 53.7 -0.2
BUC1  Bucharest         67.09 314  P      P      02 32 55.1 -0.1
MLR   Muntele Rosu      67.36 316  P      P      02 32 56.5 -0.3
      comp=Z,91nm,0.9s,mb5.8,baz=82,slow=2.1,SNR=26
MLR   Muntele Rosu      67.36 316  P      P      02 32 56.5 -0.4
MLR                                pmax   pmax
      comp=Z,91nm,0.9s
MLR   Muntele Rosu      67.36 316  P      P      02 32 56.7 -0.1
AOS   Alonnisos         67.91 309 eP      P      02 32 59.3 -1.2
LSZ   Lusaka            68.04 250 eP      P      02 33 03.8 +2.2
LSZ                                pmax   pmax
      comp=Z,4µm,3.9s
LSZ   Lusaka            68.04 250 eP      P      02 33 02.1 +0.5
      comp=Z,72nm,1.4s,mb5.5
PAIG  Paliouri          68.15 309 eP      P      02 33 00.9 -1.0
SRS   Serrai            68.36 311 eP      P      02 32 58.5 -4.7
XOR   Xorichti          68.46 309 eP      P      02 33 02.5 -1.4
SOH   Sokhos            68.51 310 eP      P      02 33 03.2 -1.0
PUL   Pulkovo           68.61 331⇓eP      P      02 33 03.9 -0.5
PUL                                pmax   pmax
      comp=E,105nm,1.0s
PUL                                pmax   pmax
      comp=Z,137nm,1.0s,mb5.8
PET   Petropavlovsk     68.75  36 i P     P      02 33 04.8 -0.6
PET                                pmax   pmax
      comp=Z,26nm,1.1s,mb5.1
PET   Petropavlovsk     68.75  36 i P     P      02 33 04.9 -0.5
THE   Thessaloniki      68.78 310 eP      P      02 33 03.9 -2.0
KNT   Kendrikon         68.89 311 eP      P      02 33 04.5 -2.0
LIT   Litokhoron        69.08 310 eP      P      02 33 04.5 -3.2
AGG   Agios Georgios    69.09 308 eP      P      02 33 05.3 -2.5
GRG   Griva             69.24 310 eP      P      02 33 05.7 -2.9
FNA   Florina           70.00 310 eP      P      02 33 10.9 -2.3
MEV   Metsovon          70.01 309 eP      P      02 33 12.4 -1.0
LVZ   Lovozero          70.12 340⇓eP      P      02 33 12.8 -0.8
LVZ                                pmax   pmax
      comp=Z,50nm,1.1s,mb5.4
KWP   Kalwaria          70.26 320 eP      P      02 33 14.5 -0.2
LKD   Levkas            70.37 308 eP      P      02 33 10.6 -5.0
KOLS  Kolonicke sedl    70.42 319 i P     P      02 33 15.5 -0.2
KOLS                              e              02 33 38.1
IGT   Igoumenitsa       70.68 309 eP      P      02 33 15.4 -2.0
SUW   Suwalki           70.79 324 eP      P      02 33 16.3 -1.6
SUW                               e       pP     02 33 20.4 -2.1
CRVS  Cervenica-Dubn    70.94 319 eP      P      02 33 20.6 +1.7
BEO   Belgrade          71.09 314⇑iP      P      02 33 19.1 -0.8
FINES FINESS Array B    71.12 332  P      P      02 33 18.8 -0.9
      comp=Z,35nm,0.8s,mb5.3,baz=104,slow=7.9,SNR=20
FINES FINESS Array B    71.12 332  P      P      02 33 18.8 -0.9
FINES                              pmax   pmax
      comp=Z,35nm,0.8s
KAF   Kangasniemi       71.21 333 ep      P      02 33 18.9 -1.4
      baz=106,slow=5.7
KECS  Kecovo            71.53 318 i P     P      02 33 21.8 -0.6
PKSN  Nyarlorinc        71.74 316⇑iP      P      02 33 23.3 -0.4
WAR   Warsaw            71.74 322 eP      P      02 33 22.9 -0.7
WAR                               e       pP     02 33 27.6 -0.7
PSZ   Piszkesteto       71.84 318 eP      P      02 33 23.5 -0.8
PSZ   Piszkesteto       71.84 318  P      P      02 33 23.8 -0.6
OJC   Ojcow             72.20 320 eP      P      02 33 25.8 -0.6
VYHS  Vyhne             72.62 318 i P     P      02 33 28.2 -0.7
SRO2  Moca              72.83 317 eP      P      02 33 29.6 -0.6
SRO   Srobarova         72.89 317 i P     P      02 33 30.7 +0.2
RHK1  Bakonya           72.89 315⇑eP      P      02 33 29.5 -1.1
OKC   Ostrava-Krasne    73.21 319 eP      P      02 33 31.9 -0.5
OKC                               epP     pP     02 33 36.8 -0.2
LBTB  Lobatse           73.25 241 eP      P      02 33 34.2 +1.1
LBTB                               pmax   pmax
      comp=Z,72nm,1.3s,mb5.4
LBTB  Lobatse           73.25 241 eP      P      02 33 33.9 +0.7
      comp=Z,72nm,1.3s,mb5.4
SMOL  Smolenice         73.55 318 eP      P      02 33 34.0 -0.3
MORC  Moravsky Berou    73.60 319 eP      P      02 33 33.8 -0.8
GRI   Girifalco         73.68 308 eP      P      02 33 35.9 +0.6
ZST   Bratislava        73.74 318 i P     P      02 33 35.2 -0.2
ZST                               e              02 33 58.7
ARCES ARCESS Array B    73.83 340  P      P      02 33 35.4 -0.2
      comp=Z,24nm,0.8s,mb5.2,baz=100,slow=7.4,SNR=13
ARCES ARCESS Array B    73.83 340  P      P      02 33 35.4 -0.2
ARCES                              pmax   pmax
      comp=Z,24nm,0.8s
ARCES ARCESS Array B    73.83 340  P      P      02 33 35.4 -0.2
GKP   Gorka Klasztor    74.16 323 eP      P      02 33 37.1 -0.7
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GKP                               e       pP     02 33 40.2 -2.2
VRAC  Vranov            74.17 319  P      P      02 33 37.6 -0.3
      comp=Z,12nm,0.8s,mb4.9,baz=111,slow=8.8,SNR=12
VRAC  Vranov            74.17 319  P      P      02 33 37.6 -0.3
VRAC                               pmax   pmax
      comp=Z,12nm,0.8s
SCLL  Scilla            74.22 307 eP      P      02 33 38.4  0.0
DPC   Dobruska-Polom    74.43 320 eP      P      02 33 39.7 +0.3
KSP   Ksiaz             74.50 320⇑eP      P      02 33 39.7 -0.1
KSP                               e       pP     02 33 44.5 +0.1
KSP   Ksiaz             74.50 320 eP      P      02 33 39.8  0.0
KSP                               e       pP     02 33 44.7 +0.3
UPC   Upice             74.64 320 eP      P      02 33 40.8 +0.2
BOSA  Boshof            74.69 237  P      P      02 33 42.1 +0.7
BOSA                               pmax   pmax
      comp=Z,160nm,1.5s,mb5.7
BOSA  Boshof            74.69 237 eP      P      02 33 42.0 +0.6
      comp=Z,156nm,1.5s,mb5.7
BOJS  Bojanci           74.82 315 eP      P      02 33 41.1 -0.6
LJU   Ljubljana         75.35 315 eP      P      02 33 44.8  0.0
OBKA  Obir              75.36 316⇑iP      P      02 33 44.9 +0.1
      comp=Z,87nm,1.4s,mb5.5
PRU   Pruhonice         75.55 319 eP      P      02 33 45.8  0.0
PVCC  Panska Ves        75.56 320 eP      P      02 33 46.0 +0.1
PVCC                              epP     pP     02 33 50.8 +0.2
MOA   Molln             75.61 317⇑iP      P      02 33 45.8 -0.5
      comp=Z,47nm,1.1s,mb5.3
BILL  Bilibino          75.83  22 i P     P      02 33 46.8 -0.3
BILL                               pmax   pmax
      comp=Z,72nm,2.2s,mb5.2
BILL  Bilibino          75.83  22 eP      P      02 33 46.5 -0.6
BRG   Berggiesshubel    75.98 320 i P     P      02 33 48.2 -0.1
BRG                                pmax   pmax
      comp=Z,109nm,1.2s,mb5.7
BRG   Berggiesshubel    75.98 320 i P     P      02 33 48.2 -0.1
      comp=Z,109nm,1.2s,mb5.7
GEC2  GERESS Array S    76.04 318 eP      P      02 33 48.7 +0.1
GEC2                               pmax   pmax
      comp=Z,44nm,0.9s,mb5.4
GEC2  GERESS Array S    76.04 318 eP      P      02 33 48.7 +0.1
      comp=Z,44nm,0.9s,mb5.4
GERES GERESS Array B    76.04 318  P      P      02 33 48.5 -0.1
      comp=Z,36nm,0.8s,mb5.3,baz=90,slow=5.3,SNR=33
GERES GERESS Array B    76.04 318  P      P      02 33 48.5 -0.1
GERES                              pmax   pmax
      comp=Z,36nm,0.9s
ROBS  Robic             76.07 315 eP      P      02 33 48.3 -0.6
TRO   Tromso            76.08 340 eP      P      02 33 46.8 -1.7
KHC   Kasperske Hory    76.13 318 eP      P      02 33 48.9 -0.3
PTCC  Patocco-Chiusa    76.18 316 eP      P      02 33 48.4 -1.1
RUE   Ruedersdorf       76.18 322 eP      P      02 33 49.0 -0.3
KBA   Koelnbreinsper    76.21 316⇑iP      P      02 33 49.1 -0.5
      comp=Z,49nm,1.3s,mb5.3
GMNA  Gemona            76.26 315 eP      P      02 33 49.1 -0.8
ARV   Arcevia           76.41 313 eP      P      02 33 50.4 -0.5
FSSB  Fossombrone       76.53 313 eP      P      02 33 51.3 -0.2
WET   Wettzell          76.59 318 eP      P      02 33 51.9 +0.2
WET                                pmax   pmax
      comp=Z,32nm,0.9s,mb5.2
WET   Wettzell          76.59 318 eP      P      02 33 51.9 +0.2
      comp=Z,32nm,0.9s,mb5.2
CLL   Collm             76.60 321 i P     P      02 33 51.3 -0.4
CLL                               i       pP     02 33 55.9 -0.5
CLL                                pmax   pmax
      comp=Z,96nm,1.3s,mb5.6
CLL   Collm             76.60 321 i P     P      02 33 51.3 -0.4
      comp=Z,96nm,1.3s,mb5.6
CLL                               i       pP     02 33 55.9 -0.5
CLL   Collm             76.60 321  P      P      02 33 51.3 -0.4
      comp=Z,logA/T=1.9,mb5.6
CLL                               i *PP   pP     02 33 55.9 -0.5
CLL                               i              02 34 16.4
HFS   Hagfors           76.82 330  P      P      02 33 52.2 -0.6
      comp=Z,21nm,0.6s,mb5.2,baz=108,slow=4.7,SNR=16
HFS   Hagfors           76.82 330  P      P      02 33 52.2 -0.6
HFS                                pmax   pmax
      comp=Z,21nm,0.6s
NKC   Novy Kostel       76.91 320 eP      P      02 33 53.4 -0.1
MOR8  Moi Rana          77.16 336⇑iP      P      02 33 53.5 -1.0
MOR8                               AMb    AMB    02 33 59.7
      comp=Z,157nm,1.6s,mb5.7
MOR8  Moi Rana          77.16 336⇑iP      P      02 33 53.5 -1.0
      comp=Z,157nm,1.6s,mb5.7
SFI   Santa Sofia       77.21 313 eP      P      02 33 56.1 +0.8
PGD   Poggio Sodo       77.30 313 eP      P      02 33 56.4 +0.6
CTI   Castel Tesino     77.36 315 eP      P      02 33 56.2 +0.1
WTTA  Wattenberg        77.38 316⇑iP      P      02 33 55.6 -0.5
      comp=Z,97nm,1.0s,mb5.7
WATA  Walderalm         77.42 317⇑iP      P      02 33 55.6 -0.8
      comp=Z,76nm,1.2s,mb5.5
VMG   Vicchio           77.42 313 eP      P      02 33 56.9 +0.4
MOX   Moxa              77.45 320 i P     P      02 33 56.3 -0.2
MOX                                pP     Px     02 34 20.0
MOX   Moxa              77.45 320 eP      P      02 33 56.3 -0.2
MOX                               e              02 34 20.1
SEI   Scarperia         77.56 313 eP      P      02 33 57.2  0.0
FUR   Furstenfeldbru    77.63 317 eP      P      02 33 57.2 -0.3
FUR                                pmax   pmax
      comp=Z,36nm,0.9s,mb5.3
FUR   Furstenfeldbru    77.63 317 eP      P      02 33 57.2 -0.3
      comp=Z,36nm,0.9s,mb5.3
SQTA  Sankt Quirin      77.67 316⇑iP      P      02 33 57.1 -0.6
      comp=Z,67nm,0.9s,mb5.6
GRA1  Grafenberg Arr    77.69 319 eP      P      02 33 58.5 +0.7
      comp=Z,50nm,0.9s,mb5.4
GRF   Grafenberg Arr    77.69 319 eP      P      02 33 58.5 +0.7
GRF                                pmax   pmax
      comp=Z,50nm,0.9s,mb5.4
GRF   Grafenberg Arr    77.69 319 eP      P      02 33 58.5 +0.7
      comp=Z,50nm,0.9s,mb5.4
MOTA  Moosalm           77.74 317⇑iP      P      02 33 57.5 -0.6
      comp=Z,65nm,1.0s,mb5.5
LOF   Lofoten           77.75 338 eP      P      02 33 58.8 +1.0
ZCCA  Zocca             77.83 313 eP      P      02 33 59.1 +0.4
NSS   Namsos            78.02 334 eP      P      02 33 58.0 -1.3
GSCL  Gusciola          78.11 313 eP      P      02 34 00.9 +0.7
NB2   NORSAR Subarra    78.11 331  P      P      02 33 58.9 -1.0
      comp=Z,56nm,0.9s,mb5.5,baz=97,slow=5.0
NB2   NORSAR Subarra    78.11 331  P      P      02 33 58.9 -1.0
      baz=97,slow=5.3
NOA   NORSAR Array B    78.11 331  P      P      02 33 59.0 -0.8
      comp=Z,24nm,0.8s,mb5.2,baz=94,slow=5.6,SNR=27
NOA   NORSAR Array B    78.11 331  P      P      02 33 59.1 -0.8
NOA                                pmax   pmax
      comp=Z,24nm,0.8s
MAIM                    78.19 313  P      P      02 33 59.1 -1.6
ERBM  Eremo             78.23 314 eP      P      02 34 01.7 +0.7
BRMO  Bormio            78.24 316 eP      P      02 34 01.3 +0.4
CLZ   Clausthal         78.25 321 eP      P      02 34 01.1 +0.2
      comp=Z,30nm,0.8s,mb5.3
OSL   Oslo              78.30 329 eP      P      02 34 00.3 -0.6
FUORN Ofenpass          78.31 316⇑iP      P      02 34 01.5 +0.2
BSEG  Bad Segeberg      78.32 323 eP      P      02 34 01.7 +0.5
BSEG                               pmax   pmax
      comp=Z,46nm,0.9s,mb5.4
VALM                    78.35 313  P      P      02 34 00.7 -0.9
GRAM                    78.48 314  P      P      02 34 01.5 -0.8
BERNI Berninapass       78.48 316⇑iP      P      02 34 02.6 +0.4
DAVA  Damuels           78.57 316⇑iP      P      02 34 02.8 +0.1
      comp=Z,129nm,1.0s,mb5.8
DAVOX Davos             78.58 316  P      P      02 34 03.0 +0.3
      comp=Z,53nm,0.9s,mb5.5,baz=102,slow=5.3,SNR=21
DAVOX Davos             78.58 316⇑iP      P      02 34 02.9 +0.2
PLONS Plons             78.92 316⇑iP      P      02 34 04.6  0.0
STU   Stuttgart         79.01 318  P      P      02 34 04.8 -0.3
MUD   Monsted U'grnd    79.02 326 i P     P      02 34 05.2 +0.3
MAW   Mawson            79.12 191  P      P      02 34 06.7 +1.4
      comp=Z,17nm,0.8s,mb5.0,baz=11,slow=7.2,SNR=8.8
MAW   Mawson            79.12 191  P      P      02 34 06.7 +1.4
MAW                                pmax   pmax
      comp=Z,17nm,0.8s
MAW   Mawson            79.12 191 eP      P      02 34 06.7 +1.4
      comp=Z,76nm,1.3s,mb5.5
LLS   Linth-Limmern     79.17 316⇑iP      P      02 34 05.5 -0.5
MUGIO Muggio            79.17 315⇑iP      P      02 34 06.3 +0.3
DOMB  Dombas            79.19 332⇑iP      P      02 34 05.4 -0.3
DOMB                               AMb    AMB    02 34 11.4
      comp=Z,118nm,1.8s,mb5.5
DOMB  Dombas            79.19 332⇑iP      P      02 34 05.4 -0.3
      comp=Z,118nm,1.8s,mb5.5
WILA  Wila              79.23 317⇑iP      P      02 34 06.7 +0.4
STEIN Stein am Rhein    79.25 317⇑iP      P      02 34 06.9 +0.5
PGF   Pioggiola         79.31 312 eP      P      02 34 05.7 -1.2
      comp=Z,342nm,1.5s,mb5.8
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VAI   Varese            79.37 315 eP      P      02 34 06.0 -1.1
TRULL Truellikon        79.38 317⇑iP      P      02 34 06.5 -0.6
FUSIO Fusio             79.42 316⇑iP      P      02 34 07.3 -0.1
MUO   Muotathal         79.43 316⇑iP      P      02 34 06.9 -0.5
ZUR   Zurich            79.45 317⇑iP      P      02 34 07.2 -0.3
SLE   Schleitheim       79.50 317⇑iP      P      02 34 07.7 -0.1
SUR   Sutherland        79.51 235 eP      P      02 34 10.2 +2.0
      comp=Z,180nm,1.4s,mb5.8
PCP   Pian Castagno     79.57 314  P      P      02 34 06.6 -1.6
BNALP Bannalp           79.57 316⇑iP      P      02 34 08.2  0.0
BFO   Black Forest      79.60 318 eP      P      02 34 08.0 -0.3
BFO                                pmax   pmax
      comp=Z,25nm,1.0s,mb5.1
BFO   Black Forest      79.60 318 eP      P      02 34 08.0 -0.3
      comp=Z,25nm,1.0s,mb5.1
SULZ  Sulz-Cheisache    79.77 317⇑iP      P      02 34 08.9 -0.3
HASLI Hasliberg         79.77 316⇑iP      P      02 34 09.2  0.0
FIN   Finale Ligure     79.82 313 eP      P      02 34 09.3 -0.2
MOL   Molde             79.90 332⇑iP      P      02 34 11.3 +1.7
MOL                                AMb    AMB    02 34 17.4
      comp=Z,178nm,1.3s,mb5.8
MOL   Molde             79.90 332⇑iP      P      02 34 11.3 +1.7
      comp=Z,178nm,1.3s,mb5.8
MCGN  Macugnaga         79.91 315 eP      P      02 34 10.9 +0.9
ORX   Oropa             79.92 315  P      P      02 34 08.8 -1.3
BALST Balsthal          80.06 317⇑iP      P      02 34 10.5 -0.3
ROB   Roburent          80.06 313  P      P      02 34 10.6 -0.2
IMI   Imperia           80.06 313  P      P      02 34 10.6 -0.3
TRAV                    80.09 315  P      P      02 34 09.3 -1.7
WIMIS Wimmis            80.13 316⇑iP      P      02 34 11.2  0.0
LKBD  Leukerbad         80.14 316⇑iP      P      02 34 11.5 +0.3
MONE  Monesi            80.15 313  P      P      02 34 11.3 -0.1
NEGI  Negi              80.20 313  P      P      02 34 10.6 -1.0
CDF   Champ du Feu      80.30 318 eP      P      02 34 11.7 -0.3
      comp=Z,185nm,1.4s,mb5.5
DIX   Grande Dixence    80.31 315⇑iP      P      02 34 12.8 +0.7
SENIN Lac Senin         80.37 316⇑iP      P      02 34 12.9 +0.5
ENR   Entracque         80.39 313  P      P      02 34 13.0 +0.4
STV   Sta Anna Valdi    80.45 313  P      P      02 34 12.9 -0.1
RSP   Reno Superiore    80.46 314  P      P      02 34 12.3 -0.6
BHB   Bricherasio       80.47 314  P      P      02 34 11.1 -1.9
GRYON Gryon             80.50 315⇑iP      P      02 34 13.4 +0.2
LSD   Ceresole Reale    80.51 315  P      P      02 34 13.5 +0.3
TORNY Torny             80.58 316⇑iP      P      02 34 13.8 +0.2
FENE  Fenestrelle       80.60 314  P      P      02 34 12.7 -1.0
PZZ   Prazzo            80.60 314  P      P      02 34 13.0 -0.7
SALAN Lac Salanfe       80.61 315⇑iP      P      02 34 14.5 +0.8
AIGLE Aigle             80.61 316⇑iP      P      02 34 13.8 +0.1
EMV   Vieux Emosson     80.66 315⇑iP      P      02 34 14.4 +0.4
LPG   La Plagne         80.80 315 eP      P      02 34 15.3 +0.6
      comp=Z,214nm,0.9s,mb5.8
RRL   Cesana Torines    80.80 314  P      P      02 34 14.4 -0.3
LPL   La Plagne         80.81 315 eP      P      02 34 15.2 +0.4
      comp=Z,324nm,1.0s,mb5.9
BNI   Bardonecchia      80.87 314 eP      P      02 34 15.5 +0.4
HAU   Haudompre         80.94 317 eP      P      02 34 15.0 -0.4
      comp=Z,206nm,1.1s,mb5.7
LMR   La Mourre         81.10 313 eP      P      02 34 16.2 -0.1
      comp=Z,276nm,1.4s,mb5.7
VIVF  Saint-Julien-l    82.31 314 eP      P      02 34 22.2 -0.4
      comp=Z,184nm,1.2s,mb5.6
SMF   Signal de Mont    82.73 316 eP      P      02 34 24.4 -0.4
      comp=Z,246nm,1.3s,mb5.8
SSF   Saint Saulge      82.92 316 eP      P      02 34 25.2 -0.6
      comp=Z,237nm,1.5s,mb5.7
CAF   Calviac           84.14 314 eP      P      02 34 31.7 -0.4
      comp=Z,87nm,1.2s,mb5.5
RJF   Les Rejaudoux     84.48 315 eP      P      02 34 33.6 -0.2
      comp=Z,271nm,1.5s,mb5.9
EPOB  Poblet            85.30 311  P      P      02 34 38.9 +1.0
      comp=Z,32nm,0.7s,mb5.6
FLN   La Foliniere      85.39 318 eP      P      02 34 37.8 -0.4
      comp=Z,110nm,1.1s,mb5.6
KBI1  Birley Grange     85.40 323⇑eP      P      02 34 34.4 -3.7
KWE   Weaver Farm       85.63 323⇑eP      P      02 34 35.9 -3.4
EBR   Ebro Roquetas     85.81 310 eP      P      02 34 39.0 -1.5
EBIE  Bielsa            85.81 312  P      P      02 34 40.3 -0.1
      comp=Z,13nm,0.8s,mb5.2
SYO   Syowa Base        85.81 197 ⇑P      P      02 34 41.7 +1.9
SYO   Syowa Base        85.81 197 ⇓PcP    PcP    02 34 46.1 +2.9
SYO   Syowa Base        85.81 197 ⇑pP     pP     02 34 48.3 +3.7
SYO   Syowa Base        85.81 197 ⇑sP     sP     02 34 54.1 +8.0
EKA   Eskdalemuir Ar    86.02 325  P      P      02 34 41.5 +0.4
      comp=Z,29nm,0.8s,mb5.5,baz=96,slow=5.5,SNR=22
EKA   Eskdalemuir Ar    86.02 325  P      P      02 34 41.6 +0.4
EKA                                pmax   pmax
      comp=Z,29nm,0.8s
ESK   Eskdalemuir       86.05 325⇑eP      P      02 34 41.3  0.0
EMOS  Mosqueruela       86.60 310  P      P      02 34 45.1 +0.7
      comp=Z,44nm,0.9s,mb5.7
ANM   Nome              87.28  25 eP      P      02 34 48.8 +1.7
EVIA  Vianos            88.43 309  P      P      02 34 52.5 -0.7
      comp=Z,29nm,1.0s,mb5.5
EQES  Quesada           89.02 308  P      P      02 34 55.6 -0.5
      comp=Z,15nm,0.7s,mb5.4
EBER  Berja             89.03 307  P      P      02 34 56.5 +0.3
      comp=Z,70nm,1.0s,mb6.0
GUD   Guadarrama        89.32 311  P      P      02 34 57.8 +0.3
      comp=Z,30nm,1.0s,mb5.6
ESDC  Sonseca Array     89.36 310  P      P      02 34 58.3 +0.6
      comp=Z,7.7nm,0.6s,mb5.2,baz=59,slow=4.4,SNR=22
EBAN  Banos Encina      89.50 308  P      P      02 34 57.9 -0.5
      comp=Z,15nm,0.8s,mb5.4
EADA  Adamuz            90.12 309  P      P      02 35 01.6 +0.4
      comp=Z,30nm,1.0s,mb5.6
EMIJ  Mijas             90.58 307  P      P      02 35 02.1 -1.3
      comp=Z,28nm,0.7s,mb5.7
ESPR  Espera            91.37 307  P      P      02 35 07.5 +0.5
      comp=Z,22nm,0.8s,mb5.5
IMA   Indian Mountai    91.38  22  P      P      02 35 08.9 +2.5
IMA                                pmax   pmax
      comp=Z,470nm,1.3s,mb6.7
IMA   Indian Mountai    91.38  22 eP      P      02 35 07.8 +1.4
      comp=Z,466nm,1.3s,mb6.7
EMIN  Mina Concepcio    91.82 308  P      P      02 35 09.1  0.0
      comp=Z,19nm,0.8s,mb5.5
PVRL  Vila Real         91.83 312 eP      P      02 35 10.6 +1.6
      comp=Z,69nm,1.5s,mb5.8
MTE   Manteigas         91.90 311 eP      P      02 35 11.0 +1.6
      comp=Z,140nm,1.9s,mb6.0
PCBR  Castelo Branco    91.97 311 eP      P      02 35 10.8 +1.1
      comp=Z,70nm,1.5s,mb5.8
PVIS  Viseu             92.08 312 eP      P      02 35 11.7 +1.5
      comp=Z,129nm,1.4s,mb6.1
PBEJ  Beja              92.68 309 eP      P      02 35 14.3 +1.3
SUMG  Summit            92.87 347 eP      P      02 35 14.2 +1.1
COLA  College           94.09  22 eP      P      02 35 18.9 +0.1
COLA                               pmax   pmax
      comp=Z,49nm,1.7s,mb5.7
COLA  College           94.09  22 eP      P      02 35 18.9 +0.1
      comp=Z,49nm,1.7s,mb5.7
VNDA  Vanda             94.17 168  P      P      02 35 20.2 +1.2
      comp=Z,5.9nm,0.9s,mb5.0,baz=267,slow=20,SNR=3.2
VNDA  Vanda             94.17 168  P      P      02 35 20.2 +1.2
VNDA                               pmax   pmax
      comp=Z,6.0nm,0.9s
SPU   Mount Spurr       94.18  26 eP      P      02 35 20.0 +0.6
RSO   Redoubt South     94.19  27 eP      P      02 35 20.4 +1.0
ILAR  Eielson Array     94.50  22  P      P      02 35 20.7  0.0
      comp=Z,6.6nm,0.7s,mb5.2,baz=302,slow=4.4,SNR=18
ILAR  Eielson Array     94.50  22  P      P      02 35 20.7  0.0
ILAR                               pmax   pmax
      comp=Z,7.0nm,0.7s
PWA   Palmer West       94.89  25 eP      P      02 35 23.1 +0.5
      comp=Z,61nm,0.9s,mb6.0
PMR   Palmer            95.23  25 eP      P      02 35 24.0 -0.2
      comp=Z,46nm,1.4s,mb5.7
SBA   Scott Base        95.28 168  P      P      02 35 25.8 +1.7
SBA   Scott Base        95.28 168  P      P      02 35 26.2 +2.1
SLKM  Skilak Lake       95.29  26  P      P      02 35 25.1 +0.7
SLKM  Skilak Lake       95.29  26 eP      P      02 35 24.9 +0.5
KDAK  Kodiak Island     95.44  29 eP      P      02 35 26.0 +0.8
      comp=Z,108nm,1.3s,mb6.1
DBIC  Dimbokro          96.19 278  P      P      02 35 31.1 +1.5
      comp=Z,26nm,1.0s,mb5.6,baz=71,slow=5.7,SNR=15
DBIC  Dimbokro          96.19 278  P      P      02 35 31.2 +1.5
DBIC                               pmax   pmax
      comp=Z,26nm,1.0s
DBIC  Dimbokro          96.19 278 eP      P      02 35 30.9 +1.3
      comp=Z,150nm,1.7s,mb6.2
RES   Resolute Bay      96.54   2 eP      P      02 35 30.9 +1.0
RES                                pmax   pmax
      comp=Z,39nm,1.0s,mb5.8
RES   Resolute Bay      96.54   2 eP      P      02 35 30.6 +0.7
      comp=Z,39nm,1.0s,mb5.8
```

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INK   Inuvik             96.55  16 P       P        02 35 30.8 +0.8
      comp=Z,22nm,0.8s,mb5.6,baz=332,slow=4.8,SNR=25
INK   Inuvik             96.55  16 eP      P        02 35 30.2 +0.2
INK                                pmax    pmax
      comp=Z,55nm,1.1s
INK   Inuvik             96.55  16 eP      P        02 35 30.2 +0.1
      comp=Z,55nm,1.1s,mb5.9
MENT  Mentasta           96.67  22 eP      P        02 35 32.2 +1.5
DAWY  Dawson             97.57  20 eP      P        02 35 35.4 +0.7
YKA   Yellowknife Ar    105.89  13 Pdiff   Pdif     02 36 14.1 +2.1
      comp=Z,2.4nm,1.0s,baz=328,slow=4.2,SNR=4.6
YKA                                PP      PP       02 40 31.3 -6.6
      comp=Z,1.1nm,0.8s,baz=340,slow=6.9,SNR=5.0
YKA                                PKKPbc           02 51 46.8
      comp=Z,0.8nm,0.7s,baz=150,slow=3.6,SNR=6.7
YKA   Yellowknife Ar    105.89  13 P       Pdif     02 36 14.1 +2.1
YKA                                                 02 40 31.3
YKA                                pmax    pmax
      comp=Z,2.0nm,1.0s
YKA                                pmax    pmax
      comp=Z,1.0nm,0.8s
YKA                                pmax    pmax
      comp=Z,1.0nm,0.7s
YKA   Yellowknife Ar    105.89  13 Pdif    Pdif     02 36 14.1 +2.1
YKA                                PP      PP       02 40 31.3 -6.5
YKA                                PKKPbc           02 51 46.8
MSO   Missoula          119.81  21 ePKPdf  PKPdf    02 40 51.3 -2.2
ULM   Lac du Bonnet     120.74   6 PKP     PKPdf    02 40 53.1 -2.3
      comp=Z,5.1nm,0.9s,baz=265,slow=4.9,SNR=5.0
ULM                                PKKPbc           02 51 02.0
      comp=Z,3.1nm,0.6s,baz=155,slow=3.3,SNR=5.1
ULM   Lac du Bonnet     120.74   6 ePKPdf  PKPdf    02 40 53.5 -1.9
MOD   Modoc             121.27  28 ePKPdf  PKPdf    02 40 55.2 -1.4
HLID  Hailey            122.43  23 ePKPdf  PKPdf    02 40 57.4 -1.3
YMR   Madison River     122.71  20 ePKPdf  PKPdf    02 40 58.8 -0.4
YNR   Norris Junctio    122.77  19 ePKPdf  PKPdf    02 40 57.3 -2.1
YFT   Old Faithful      122.95  20 ePKPdf  PKPdf    02 41 00.2 +0.5
WCN   Washoe City       123.55  30 PKIKP   PKPdf    02 41 00.7 -0.4
WCN   Washoe City       123.55  30 ePKPdf  PKPdf    02 40 57.7 -3.3
MOOW  Moose Ponds       123.60  20 ePKPdf  PKPdf    02 40 59.8 -1.3
TPAW  Teton Pass        123.76  20 ePKPdf  PKPdf    02 40 60.0 -1.4
LOHW  Long Hollow       123.77  20 ePKPdf  PKPdf    02 41 00.0 -1.4
WUWY  Wally Ulrich      123.79  20 ePKPdf  PKPdf    02 40 59.8 -1.6
SNOW  Snow King Moun    123.85  20 ePKPdf  PKPdf    02 41 00.6 -0.9
BMN   Battle Mountai    123.85  27 PKIKP   PKPdf    02 41 06.1 +4.4
BMN   Battle Mountai    123.85  27 ePKPdf  PKPdf    02 41 00.1 -1.6
REDW  Red Top Meadow    123.91  20 ePKPdf  PKPdf    02 41 00.5 -1.2
CMB   Columbia Colle    124.21  31 PKIKP   PKPdf    02 41 06.7 +4.3
CMB   Columbia Colle    124.21  31 ePKPdf  PKPdf    02 40 59.9 -2.5
AHID  Auburn Hatcher    124.34  21 PKPdf   PKPdf    02 40 59.6 -2.9
ELK   Elko              124.46  25 PKIKP   PKPdf    02 41 03.4 +0.6
ELK   Elko              124.46  25 ePKPdf  PKPdf    02 41 01.8 -1.1
HVU   Hansel Valley     124.58  23 PKIKP   PKPdf    02 41 02.0 -1.1
HVU   Hansel Valley     124.58  23 ePKPdf  PKPdf    02 41 00.8 -2.3
BW06  Boulder Array     124.87  20 ePKPdf  PKPdf    02 41 01.2 -2.4
PDAR  Pinedale Array    124.87  20 PKP     PKPdf    02 41 01.9 -1.7
      comp=Z,6.5nm,0.9s,baz=43,slow=0.9,SNR=16
NVAR  Mina Array Bea    124.94  29 PKP     PKPdf    02 41 02.5 -1.3
      comp=Z,6.3nm,0.7s,baz=5.0,slow=1.2,SNR=21
MNV   Mina              125.01  29 ePKIKP  PKPdf    02 41 03.5 -0.5
MNV   Mina              125.01  29 ePKPdf  PKPdf    02 41 02.5 -1.5
SPUT  South Promonto    125.11  23 ePKPdf  PKPdf    02 41 02.1 -2.0
HWUT  Hardware Ranch    125.19  22 ePKPdf  PKPdf    02 41 02.4 -1.9
BGU   Big Grassy Mou    125.22  24 ePKPdf  PKPdf    02 41 02.9 -1.5
MTUM  Tungsten Hills    125.66  30 ePKPdf  PKPdf    02 41 04.3 -0.9
TPH   Tonopah           125.74  29 PKIKP   PKPdf    02 41 09.4 +4.0
TPH   Tonopah           125.74  29 ePKPdf  PKPdf    02 41 04.3 -1.1
NOQ   North Oquirrh     125.81  23 ePKPdf  PKPdf    02 41 04.0 -1.4
NLU   North Lily Min    126.42  23 ePKPdf  PKPdf    02 41 05.0 -1.5
RWWY  Rawlins           126.60  18 ePKPdf  PKPdf    02 41 05.0 -1.9
TPNV  Topopah Spring    127.11  29 PKIKP   PKPdf    02 41 09.0 +1.0
TPNV  Topopah Spring    127.11  29 ePKPdf  PKPdf    02 41 06.7 -1.2
TMUT  Trail Mountain    127.33  23 ePKPdf  PKPdf    02 41 07.3 -1.0
PHWY  Pilot Hill        127.48  17 ePKPdf  PKPdf    02 41 06.2 -2.4
MVU   Marysvale         127.61  24 ePKPdf  PKPdf    02 41 08.2 -0.7
SRU   San Rafael        127.75  23 PKIKP   PKPdf    02 41 09.6 +0.4
SRU   San Rafael        127.75  23 ePKPdf  PKPdf    02 41 07.1 -2.1
ISCO  Idaho Springs     128.81  18 PKIKP   PKPdf    02 41 13.6 +2.3
PV10  Paradox Valley    128.95  22 ePKPdf  PKPdf    02 41 09.1 -2.5
ACSO  Alum Creek Sta    131.03 355 ePKPdf  PKPdf    02 41 12.7 -2.7
KSU1  Kansas State U    131.59   9 ePKPdf  PKPdf    02 41 13.8 -2.8
USHA  Ushuaia           131.64 195 PKP     PKPdf    02 41 16.1 -0.1
      comp=Z,5.6nm,0.8s,baz=12,slow=5.6,SNR=2.9
ANMO  Albuquerque       132.94  21 PKP     PKPdf    02 41 18.6 -0.6
      comp=Z,10.0nm,1.0s,baz=200,slow=2.7,SNR=5.7
ANMO  Albuquerque       132.94  21 PKIKP   PKPdf    02 41 19.2  0.0
ANMO  Albuquerque       132.94  21 ePKPdf  PKPdf    02 41 18.1 -1.2
MIAR  Mount Ida         136.50   7 PKIKP   PKPdf    02 41 25.4 -0.3
MIAR  Mount Ida         136.50   7 ePKPdf  PKPdf    02 41 23.8 -1.9
GOGA  Godfrey           137.84 355 PKIKP   PKPdf    02 41 31.4 +3.1
GOGA  Godfrey           137.84 355 ePKPdf  PKPdf    02 41 30.4 +2.1
TXAR  Lajitas Array     139.01  22 PKP     PKPdf    02 41 29.7 -0.8
      comp=Z,2.8nm,0.7s,baz=183,slow=0.5,SNR=7.7
JCT   Junction City     139.20  16 ePKIKP  PKPdf    02 41 28.3 -2.5
JCT   Junction City     139.20  16 ePKPdf  PKPdf    02 41 27.8 -3.0
BAO   Brasilia Array    140.82 256 PKP     PKPdf    02 41 26.7 -7.5
BAO                                i                02 41 33.2
BAO                                i                02 41 38.0
BDFB  Brasilia          140.84 256 PKP     PKPdf    02 41 33.5 -0.7
      comp=Z,20nm,0.7s,baz=41,slow=0.7,SNR=8.1
BDFB  Brasilia          140.84 256 PKIKP   PKPdf    02 41 33.5 -0.7
BDFB                               pmax    pmax
      comp=Z,20nm,0.7s
CRM   Caravelle         144.73 311⇑eP      PKPbc    02 41 37.2 -0.1
MVM   Montagne Vaucl    144.84 311⇑eP      PKPbc    02 41 37.4 -0.3
FDF   Fort de France    144.91 312⇑eP      PKPbc    02 41 38.5 +0.7
BIM   Bigot             144.99 311⇑eP      PKPbc    02 41 38.8 +0.7
COLM  Colima            147.94  30 eP      PKPdf    02 41 47.3 +1.1
MOIG  Morelia           148.66  25 eP      PKPdf    02 41 50.2 +2.8
PPM   Popocatepetl      150.22  22 eP      PKPdf    02 41 41.7 -8.2
PCRV  Puerto La Cruz    150.42 309 PKPbc   PKPdf    02 41 51.9 +1.5
      comp=Z,65nm,0.9s,baz=38,slow=2.3,SNR=16
MDZ   Mendoza           150.47 213 eP      PKPdf    02 41 54.7 +4.8
TEIG  Tepich            151.14   1 ePKPbc  PKPdf    02 41 55.6 +4.4
RPN   Rapa Nui          152.48 134 PKPdf   PKPdf    02 41 48.6 -4.4
SDV   Santo Domingo     155.67 316 PKPab   PKPab    02 42 22.3 -0.6
      comp=Z,26nm,0.8s,baz=37,slow=4.0,SNR=7.5
LVC   Limon Verde       157.47 230 PKP     PKPdf    02 42 00.2 +0.3
      comp=Z,12nm,1.1s,baz=116,slow=1.5,SNR=3.7
LVC                                PKPab   PKPab    02 42 30.9 +0.4
      comp=Z,15nm,0.8s,baz=139,slow=2.8,SNR=7.8
ROSC  El Rosal          161.10 315 PKP     PKPdf    02 42 04.0 -0.3
      comp=Z,7.6nm,0.8s,baz=125,slow=7.1,SNR=3.3
ROSC                               PKPab   PKPab    02 42 46.6 +0.3
      comp=Z,7.1nm,0.7s,baz=101,slow=5.0,SNR=4.1
```

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*IDC **26** 02:25:04.0±1.2, 6.07N×92.91E, mb4.7/9, mb1 4.8/9, mb1mx4.6/19, Error ellipse: s-maj=59.7km s-min=22.7km az=53.0*

ISC 26 02:25:07.8±1.0**, 6.2N**±0.2×**93.0E**±0.3**, h33^{km}, n13, σ0^{s}97**/11**, mb4.7**/9**, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time     Res
                                   Op      ISC         h  m  s    ISC
SONM  Songino Array      43.08  13 P       P        02 33 06.5 +0.1
      10nm,0.9s,mb4.6,baz=196,slow=8.9,SNR=3.4
ZAL   Zalesovo           48.10 354 P       P        02 33 47.6 +1.4
      10nm,0.8s,mb4.9,baz=301,slow=9.4,SNR=5.2
WRA   Warramunga Arr     48.23 124 P       P        02 33 47.4 -0.4
      21nm,1.0s,mb5.1,baz=303,slow=9.2,SNR=3.7
ASAR  Alice Springs      49.73 128 P       P        02 33 59.5 +0.3
      9.2nm,0.9s,mb4.8,baz=304,slow=7.6,SNR=3.0
BVAR  Borovoye Array     50.25 342 P       P        02 34 00.9 -1.9
      7.0nm,0.7s,mb4.8,baz=146,slow=10,SNR=4.2
FINES FINESS Array B     73.69 333 P       P        02 36 39.9 +0.1
      6.2nm,0.7s,mb4.7,baz=117,slow=8.5,SNR=3.9
KAF   Kangasniemi        73.79 333 ep      P        02 36 39.1 -1.3
KAF   Kangasniemi        73.79 333 ep      P        02 36 39.5 -0.9
GERES GERESS Array B     78.34 318 P       P        02 37 07.2 +0.7
      4.0nm,0.7s,mb4.4,baz=101,slow=5.0,SNR=4.1
HFS   Hagfors            79.36 330 P       P        02 37 13.1 +1.3
      6.7nm,0.8s,mb4.6,baz=115,slow=5.3,SNR=5.4
NOA   NORSAR Array B     80.66 331 P       P        02 37 18.2 -0.6
      2.0nm,0.9s,mb4.0,baz=86,slow=6.5,SNR=3.1
NVAR  Mina Array Bea    126.97  31 PKP     PKPdf    02 44 09.5 +0.4
      2.0nm,0.6s,baz=315,slow=2.6,SNR=4.4
PDAR  Pinedale Array    127.17  21 PKP     PKPdf    02 44 08.9 -0.5
      2.0nm,0.8s,baz=27,slow=2.0,SNR=3.8
```

IDC 26 02:26:04.1±3.1**, 12.00N**×**92.52E, mb4.6**/10**, mb1 4.8**/10**, mb1mx4.5**/21**, MS5.9**/1**, Ms1 6.1**/1**, ms1mx4.5**/30**, Error ellipse: s-maj=112.0km s-min=50.1km az=18.0, Andaman Islands region**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time     Res
                                   Op      ISC         h  m  s    ISC
CMAR  Chiang Mai Arr      8.92  43 LR      LR       02 32 08.0
      comp=Z,85μm,21.0s,baz=30,slow=41
AKASG Malin Array Be     63.96 321 P       P        02 36 38.2 -3.1
      2.9nm,0.5s,baz=84,slow=4.8,SNR=4.7
MLR   Muntele Rosu       65.14 315 P       P        02 36 47.7 -1.4
      12nm,0.8s,baz=120,slow=3.9,SNR=4.3
FINES FINESS Array B     68.35 332 P       P        02 37 07.3 -1.9
      22nm,1.0s,baz=118,slow=8.1,SNR=9.5
ARCES ARCESS Array B     70.87 340 P       P        02 37 23.3 -1.2
      7.3nm,0.8s,baz=100,slow=7.1,SNR=5.6
VRAC  Vranov             71.83 318 P       P        02 37 28.1 -2.5
      2.5nm,0.5s,baz=100,slow=11,SNR=4.3
GERES GERESS Array B     73.72 318 P       P        02 37 40.0 -1.7
      4.1nm,0.5s,baz=90,slow=5.8,SNR=8.2
HFS   Hagfors            74.12 329 P       P        02 37 42.2 -1.6
      4.6nm,0.7s,baz=101,slow=7.3,SNR=2.2
NOA   NORSAR Array B     75.38 330 P       P        02 37 50.2 -0.9
      1.6nm,0.9s,baz=98,slow=7.8,SNR=2.5
DAVOX Davos              76.34 315 P       P        02 37 55.1 -1.7
      6.5nm,0.7s,baz=153,slow=6.8,SNR=4.2
ILAR  Eielson Array      91.54  22 P       P        02 39 11.2 -2.3
      2.0nm,0.9s,baz=301,slow=5.5,SNR=4.9
NVAR  Mina Array Bea    122.15  28 PKP     PKPdf    02 45 02.0 -1.1
      0.8nm,0.6s,baz=315,slow=2.6,SNR=3.6
```

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*IDC **26** 02:26:45.3±0.8, 5.19N×94.65E, mb4.6/19, mb1 4.7/20, mb1mx4.6/26, ML5.3/1, Error ellipse: s-maj=26.3km s-min=17.5km az=31.0*

ISC 26 02:26:49.2±0.6**, 5.3N**±0.1×**94.7E**±0.1**, h33^{km}, n27, σ0^{s}97**/27**, mb4.6**/19**, Northern Sumatera**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time     Res
                                   Op      ISC         h  m  s    ISC
CMAR  Chiang Mai Arr     13.73  17 Pn      P        02 30 02.2 -1.8
      5.1nm,0.3s,baz=162,slow=28,SNR=9.9
JOW   Kunigami           38.51  53 P       P        02 34 10.9 +0.6
      8.3nm,0.4s,mb4.8,baz=171,slow=11,SNR=2.3
SONM  Songino Array      43.56  11 P       P        02 34 52.3 +0.6
      8.1nm,0.8s,mb4.5,baz=194,slow=7.1,SNR=4.3
WRA   Warramunga Arr     46.34 124 P       P        02 35 12.6 -1.7
      4.3nm,0.4s,mb4.7,baz=301,slow=10.0,SNR=5.5
ASAR  Alice Springs      47.86 129 P       P        02 35 25.6 -0.6
      3.5nm,0.8s,mb4.4,baz=303,slow=6.4,SNR=3.2
ZAL   Zalesovo           49.17 352 P       P        02 35 36.4 +0.5
      6.7nm,0.6s,mb4.8,baz=305,slow=5.7,SNR=7.1
BVAR  Borovoye Array     51.60 341 P       P        02 35 54.5 +0.1
      7.2nm,0.7s,mb4.7,baz=149,slow=8.4,SNR=5.8
PMG   Port Moresby       54.27 105 P       P        02 36 17.0 +2.1
      7.2nm,0.6s,mb4.8,baz=346,slow=6.9,SNR=3.3
KMBO  Kilima Mbogo       57.73 265 P       P        02 36 39.2 -0.5
      3.9nm,0.8s,mb4.5,baz=54,slow=8.9,SNR=3.6
ASF   Jabal al Asfar     60.10 304 P       P        02 36 55.7 -0.3
      4.5nm,0.9s,mb4.5,baz=321,slow=6.5,SNR=3.2
EIL   Elat               61.21 301 P       P        02 37 02.9 -0.5
      6.5nm,0.8s,mb4.8,baz=114,slow=5.4,SNR=4.2
BRTR  Keskin Array B     64.54 312 P       P        02 37 23.5 -1.9
      6.8nm,0.6s,mb4.8,baz=143,slow=7.1,SNR=9.6
AKASG Malin Array Be     70.52 322 P       P        02 38 00.3 -2.3
      5.3nm,0.7s,mb4.6,baz=86,slow=4.6,SNR=8.8
MLR   Muntele Rosu       71.41 316 P       P        02 38 08.5 +0.4
      17nm,0.8s,mb5.0,baz=127,slow=3.3,SNR=5.2
KOLS  Kolonicke sedl     74.51 319 e       P        02 38 27.8 +1.5
FINES FINESS Array B     75.24 332 P       P        02 38 30.1 -0.2
      2.6nm,0.4s,mb4.5,baz=111,slow=6.5,SNR=7.8
KAF   Kangasniemi        75.33 333 ep      P        02 38 30.5 -0.3
      baz=104,slow=5.4
OJC   Ojcow              76.30 320 eP      P        02 38 36.9 +0.4
VYHS  Vyhne              76.70 318 e       P        02 38 38.8  0.0
ZST   Bratislava         77.81 318 e       P        02 38 45.9 +0.9
ARCES ARCESS Array B     77.87 340 P       P        02 38 44.1 -0.8
      3.3nm,0.9s,mb4.2,baz=98,slow=6.4,SNR=2.5
GERES GERESS Array B     80.12 319 P       P        02 38 57.9 +0.4
      8.5nm,0.8s,mb4.7,baz=90,slow=5.3,SNR=9.0
CLL   Collm              80.71 321 P       P        02 39 01.4 +0.8
CLL                                i                02 39 14.2
HFS   Hagfors            80.96 330 P       P        02 39 02.0 +0.2
      3.9nm,0.5s,mb4.6,baz=140,slow=4.3,SNR=6.8
MOX   Moxa               81.55 320 i P     P        02 39 05.8 +0.7
NOA   NORSAR Array B     82.24 331 P       P        02 39 08.9 +0.4
      1.1nm,0.9s,mb3.8,baz=185,slow=12,SNR=2.5
DAVOX Davos              82.63 316 P       P        02 39 11.6 +0.9
      9.5nm,0.6s,mb5.0,baz=123,slow=5.1,SNR=9.0
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*IDC **26** 02:28:04.6±0.9, 3.85N×93.29E, h26^{km}±4^{km}, mb4.4/10, mb1 4.5/11, mb1mx4.4/21, ML5.0/1, Error ellipse: s-maj=29.8km s-min=18.7km az=46.0*

ISC 26 02:28:02.4±0.8**, 3.7N**±0.1×**93.3E**±0.1**, h27^{km}, h27^{km}**±1.1^{km}**:pP-P, n12, σ0^{s}55**/11**, mb4.6**/10**, Off west coast of northern Sumatera**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time     Res
                                   Op      ISC         h  m  s    ISC
CMAR  Chiang Mai Arr     15.62  20 Pn      P        02 31 43.6 +1.0
      2.2nm,0.3s,baz=214,slow=14,SNR=5.0
SONM  Songino Array      45.34  12 P       P        02 36 19.5 -0.6
      5.2nm,0.7s,mb4.5,baz=203,slow=7.7,SNR=2.3
SONM                               pP      pP       02 36 27.4 -0.9
      18nm,0.8s,baz=192,slow=8.2,SNR=9.7
WRA   Warramunga Arr     46.66 122 pP      pP       02 36 39.8 +0.7
      8.6nm,0.6s,baz=300,slow=10.0,SNR=2.0
ZAL   Zalesovo           50.52 353 P       P        02 36 59.9 -0.4
      6.1nm,0.5s,mb4.8,baz=286,slow=5.0,SNR=3.2
ZAL                                pP      pP       02 37 08.0 -0.7
      7.1nm,0.5s,baz=313,slow=4.3,SNR=3.8
BVAR  Borovoye Array     52.64 343 P       P        02 37 15.3 -1.1
      3.9nm,0.6s,mb4.5,baz=135,slow=10,SNR=2.4
BVAR                               pP      pP       02 37 23.6 -1.2
      9.2nm,0.8s,baz=135,slow=8.4,SNR=4.8
KMBO  Kilima Mbogo       56.25 266 P       P        02 37 43.4 +0.2
      2.0nm,0.9s,mb4.2,baz=61,slow=9.5,SNR=2.1
CTA   Charters Tower     57.10 117 P       P        02 37 48.9 -0.3
      4.3nm,0.8s,mb4.5,baz=283,slow=11,SNR=2.8
CTA                                pP      pP       02 37 59.1 +1.4
      7.0nm,0.9s,baz=300,slow=10,SNR=3.4
STKA  Stephens Creek     57.93 131 P       P        02 37 55.1 +0.2
      4.4nm,0.6s,mb4.7,baz=310,slow=12,SNR=3.9
BRTR  Keskin Array B     64.55 312 P       P        02 38 39.3 -0.3
      2.6nm,0.7s,mb4.3,baz=127,slow=7.2,SNR=2.7
IDI   Anoyia             70.28 306 P       P        02 39 16.3 +0.7
      5.3nm,0.5s,mb4.7,baz=74,slow=7.4,SNR=3.5
GERES GERESS Array B     80.36 319 P       P        02 40 13.0 +0.2
      4.0nm,0.6s,mb4.5,baz=108,slow=4.4,SNR=5.2
GERES                              pP      pP       02 40 21.3 -0.2
      4.1nm,0.8s,baz=112,slow=5.3,SNR=2.9
DAVOX Davos              82.80 317 P       P        02 40 26.0 +0.4
      6.0nm,0.5s,mb4.9,baz=147,slow=5.1,SNR=3.9
DAVOX                              pP      pP       02 40 34.3  0.0
      10nm,0.7s,baz=109,slow=8.8,SNR=3.8
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*IDC **26** 02:30:26.3±0.6, 6.73N×93.06E, mb4.8/24, mb1 4.9/25, mb1mx4.8/29, ML5.6/1, Error ellipse: s-maj=26.1km s-min=13.0km az=37.0*

*BJI **26** 02:30:27.8, 6.60N×92.88E, h23^{km}, mb5.2*

*NEIC **26** 02:30:28.9±5.3, 6.72N×93.08E, h15^{km}±32^{km}, mb5.1/9, Error ellipse: s-maj=11.2km s-min=7.2km az=222.0*

ISC 26 02:30:27.9±0.4**, 6.62N**±0.07×**93.06E**±0.07**, h22^{km}, h22^{km}**±4.7^{km}**:pP-P, n63, σ0^{s}99**/58**, mb4.9**/37**, 1C-1D, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time     Res
                                   Op      ISC         h  m  s    ISC
CM31  Chiang Mai Arr     13.09  25 Pn      P        02 33 32.8 -2.6
      33nm,0.4s
CM31                               epPn             02 33 40.7
CMAR  Chiang Mai Arr     13.09  25 Pn      P        02 33 38.7 +3.3
      9.1nm,0.3s,baz=231,slow=14,SNR=14
KMI   Kunming            20.60  26 eP      P        02 35 09.5 +1.1
KMI                                AMB     AMB
      comp=Z,53nm,1.0s
VLK   Valmikinagar       22.36 338 i       P        02 35 20.0 -6.2
VLK                                i                02 35 35.0
GYA   Guiyang            23.61  32⇑iP      P        02 35 39.8 +1.4
GYA                                AMB     AMB
      comp=Z,20nm,1.0s,mb4.5
CD2   Chengdu            26.17  21⇓iP      P        02 36 02.8  0.0
CD2                                AMB     AMB
      comp=Z,110nm,0.4s,mb5.7
XAN   Xi'an              30.99  26 P       P        02 36 44.8 -1.3
XAN                                AP      pP       02 36 54.0 +1.5
XAN                                AMB     AMB
      comp=Z,88nm,0.7s,mb5.7
GTA   Gaotai             33.21  10 P       P        02 37 05.8 +0.3
GTA                                AP      pP       02 37 10.0 -2.0
GTA                                XP      sP       02 37 13.0 -1.8
GTA                                AMB     AMB
      comp=Z,23nm,1.7s,mb4.8
KSH   Kashi              36.19 337 P       P        02 37 32.3 +1.3
KSH                                eAP     pP       02 37 36.0 -1.5
KSH                                eXP     sP       02 37 39.5 -0.8
HHC   Hu-ho-hao-te       37.89  23 eP      P        02 37 45.8 +0.5
HHC                                AP      pP       02 37 54.5 +2.7
HHC                                XP      sP       02 37 59.0 +4.5
HHC                                AMB     AMB
      comp=Z,22nm,0.8s,mb4.9
KZA   Kyzart             38.69 339 P       P        02 37 50.7 -1.3
      SNR=6.4
UCH   Uchtor             39.09 338 P       P        02 37 56.7 +1.3
      SNR=8.7
BJT   Baijiatuau         39.19  28 eP      P        02 37 57.1 +0.8
      comp=Z,24nm,0.5s,mb5.2
KBK   Karagaybulak       39.30 339 P       P        02 37 58.3 +1.2
      SNR=12
AML   Almayashu          39.32 337 P       P        02 37 58.5 +1.3
      SNR=19
AAK   Ala-Archa          39.45 338 P       P        02 37 59.9 +1.5
      SNR=8.5
AAK   Ala-Archa          39.45 338 eP      P        02 37 58.3 -0.1
      comp=Z,44nm,1.1s,mb5.1
CHMS  Chumysh            39.67 339 P       P        02 38 01.4 +1.2
      SNR=5.7
EKS2  Erkin-Say          39.74 338 P       P        02 38 01.9 +1.1
      SNR=10
USP   Ospenovka          40.00 339 P       P        02 38 03.3 +0.4
      SNR=13
SONM  Songino Array      42.62  13 P       P        02 38 23.7 -0.7
      comp=Z,4.3nm,0.8s,mb4.2,baz=195,slow=8.4,SNR=5.5
ZAL   Zalesovo           47.66 353 P       P        02 39 03.9 -0.7
      comp=Z,12nm,0.4s,mb5.3,baz=305,slow=6.0,SNR=13
WRA   Warramunga Arr     48.43 124 P       P        02 39 11.0  0.0
      comp=Z,5.8nm,0.4s,mb5.0,baz=305,slow=8.7,SNR=13
WRAB  Tennant Creek      48.43 124 eP      P        02 39 12.2 +1.2
      comp=Z,9.6nm,0.5s,mb5.1
BVAR  Borovoye Array     49.84 342 P       P        02 39 20.5 -0.9
      comp=Z,4.9nm,0.7s,mb4.7,baz=135,slow=8.4,SNR=4.7
ASAR  Alice Springs      49.95 128 P       P        02 39 22.5 -0.2
      comp=Z,3.5nm,0.5s,mb4.7,baz=303,slow=7.7,SNR=11
ASAR                               PcP     PcP      02 40 43.5 +0.5
      comp=Z,5.3nm,0.6s,baz=311,slow=3.1,SNR=5.6
CHKZ  Chkalovo           50.34 343 eP      P        02 39 24.6 -0.6
      comp=Z,24nm,0.9s,mb5.2
CBIJ  Chichi jima        50.84  60 P       P        02 39 28.7 -0.7
      comp=Z,68nm,0.7s,mb5.7,baz=97,slow=7.5,SNR=3.7
GNI   Garni              54.56 315 P       P        02 39 56.5 -0.4
      comp=Z,19nm,1.0s,mb5.1,baz=188,slow=5.7,SNR=6.2
GNI   Garni              54.56 315 eP      P        02 39 57.0 +0.1
PMG   Port Moresby       56.20 106 P       P        02 40 09.1 -0.1
      comp=Z,17nm,0.8s,mb5.1,slow=6.1,SNR=5.0
KMBO  Kilima Mbogo       56.23 264 P       P        02 40 10.7 +1.3
      comp=Z,1.8nm,0.9s,mb4.1,baz=59,slow=9.5,SNR=3.5
KIV   Kislovodsk         57.54 319 eP      P        02 40 18.0 -0.3
      comp=Z,9.5nm,0.5s,mb5.1
ASF   Jabal al Asfar     58.01 304 P       P        02 40 21.9 +0.1
      comp=Z,10.0nm,0.9s,mb4.8,baz=66,slow=8.8,SNR=5.8
EIL   Elat               59.13 301 P       P        02 40 29.8 +0.2
      comp=Z,12nm,0.9s,mb4.9,baz=43,slow=8.5,SNR=5.2
STKA  Stephens Creek     60.03 133 P       P        02 40 34.7 -1.1
      comp=Z,3.7nm,0.6s,mb4.6,baz=349,slow=8.0,SNR=3.7
STKA  Stephens Creek     60.03 133 P       P        02 40 34.7 -1.1
CSS   Prodhromos         61.54 306 eP      P        02 40 46.4 +0.4
      comp=Z,86nm,1.6s,mb5.6
BRTR  Keskin Array B     62.44 312 P       P        02 40 49.6 -2.4
      comp=Z,4.3nm,0.6s,mb4.8,baz=145,slow=6.6,SNR=11
IDI   Anoyia             68.41 305 P       P        02 41 30.3 -0.2
      comp=Z,4.9nm,0.6s,mb4.7,baz=103,slow=7.1,SNR=5.0
AKASG Malin Array Be     68.48 322 P       P        02 41 28.1 -2.5
      comp=Z,4.2nm,0.8s,mb4.5,baz=88,slow=4.9,SNR=8.4
MLR   Muntele Rosu       69.32 316 P       P        02 41 34.5 -1.4
      comp=Z,36nm,1.2s,mb5.2,baz=354,slow=3.0,SNR=5.6
KOLS  Kolonicke sedl     72.44 319 eP      P        02 41 55.0 +0.3
LBTB  Lobatse            72.70 241 eP      P        02 41 57.0 +0.3
FINES FINESS Array B     73.32 333 P       P        02 41 58.5 -1.1
      comp=Z,9.7nm,0.9s,mb4.7,baz=104,slow=7.9,SNR=6.5
KAF   Kangasniemi        73.42 333 ep      P        02 41 59.3 -0.8
      baz=105,slow=5.6
BOSA  Boshof             74.01 238 eP      P        02 42 05.5 +1.2
MORC  Moravsky Berou     75.63 320 eP      P        02 42 12.4 -0.8
      comp=Z,6.0nm,0.9s,mb4.5
ZST   Bratislava         75.74 318 eP      P        02 42 13.8  0.0
ARCES ARCESS Array B     76.08 340 P       P        02 42 15.2 -0.2
      comp=Z,11nm,1.0s,mb4.7,baz=111,slow=5.3,SNR=7.7
GERES GERESS Array B     78.05 318 P       P        02 42 26.6  0.0
      comp=Z,14nm,1.1s,mb4.8,baz=97,slow=4.9,SNR=6.5
RUE   Ruedersdorf        78.25 322 eP      P        02 42 27.0 -0.7
      comp=Z,12nm,0.4s,mb5.2
HFS   Hagfors            79.00 330 P       P        02 42 31.0 -0.6
      comp=Z,35nm,1.2s,mb5.1,baz=153,slow=6.6,SNR=4.5
NOA   NORSAR Array B     80.30 331 P       P        02 42 38.1 -0.5
      comp=Z,2.8nm,0.8s,mb4.2,baz=95,slow=5.4,SNR=3.8
DAVOX Davos              80.55 316 P       P        02 42 40.4 +0.1
      comp=Z,6.8nm,0.6s,mb4.8,baz=150,slow=3.1,SNR=3.9
ILAR  Eielson Array      96.31  22 P       P        02 43 57.4 +1.5
      comp=Z,0.4nm,0.6s,mb4.1,baz=286,slow=5.0,SNR=4.3
INK   Inuvik             98.49  16 P       P        02 44 05.8 +0.3
      comp=Z,8.5nm,1.4s,mb5.1,baz=336,slow=5.0,SNR=4.5
INK   Inuvik             98.49  16 eP      P        02 44 05.0 -0.6
      comp=Z,5.3nm,1.2s,mb5.0
ULM   Lac du Bonnet     122.84   7 PKP     PKPdf    02 49 24.4 -2.5
      comp=Z,2.4nm,0.7s,baz=126,slow=2.1,SNR=3.8
NVAR  Mina Array Bea    126.54  31 PKP     PKPdf    02 49 33.0 -1.4
      comp=Z,2.0nm,0.9s,baz=309,slow=2.0,SNR=4.9
PDAR  Pinedale Array    126.72  21 PKP     PKPdf    02 49 32.1 -2.4
      comp=Z,2.2nm,0.7s,baz=135,slow=0.3,SNR=8.0
ANMO  Albuquerque       134.74  23 PKP     PKPdf    02 49 48.8 -1.3
      comp=Z,2.9nm,0.9s,baz=170,slow=1.1,SNR=4.5
TXAR  Lajitas Array     140.80  23 PKP     PKPdf    02 49 59.2 -2.2
      comp=Z,0.8nm,0.5s,baz=53,slow=0.7,SNR=9.4
```

IDC 26 02:32:20.0±6.7**, 7.23N**×**92.62E, h69^{km}**±59^{km}**, mb4.4**/19**, mb1 4.6**/20**, mb1mx4.5**/27**, Error ellipse: s-maj=40.2km s-min=13.2km az=44.0, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°    Phase ID           Time     Res
                                   Op      ISC         h  m  s    ISC
CMAR  Chiang Mai Arr     12.75  28 P       P        02 35 18.1 -2.0
      baz=230,slow=14,SNR=5.2
SONM  Songino Array      42.13  14 P       P        02 40 05.7 -1.3
      6.7nm,0.7s,baz=191,slow=6.3,SNR=5.6
ZAL   Zalesovo           47.00 354 P       P        02 40 44.5 -1.5
      17nm,1.0s,baz=315,slow=5.0,SNR=3.1
BVAR  Borovoye Array     49.13 342 P       P        02 41 00.8 -1.7
      5.8nm,0.8s,baz=146,slow=16,SNR=2.5
WRA   Warramunga Arr     49.13 124 P       P        02 41 00.5 -2.5
      24nm,0.7s,baz=306,slow=8.7,SNR=6.9
ASAR  Alice Springs      50.68 129 P       P        02 41 13.1 -1.8
      21nm,0.8s,baz=307,slow=7.9,SNR=4.0
PMG   Port Moresby       56.79 106 P       P        02 41 57.0 -2.9
      19nm,0.7s,baz=323,slow=6.5,SNR=6.0
EIL   Elat               58.44 300 P       P        02 42 07.9 -3.3
      6.3nm,0.7s,baz=127,slow=5.1,SNR=3.9
CTA   Charters Tower     59.32 118 P       P        02 42 15.0 -2.4
      9.3nm,1.1s,baz=289,slow=8.2,SNR=3.7
STKA  Stephens Creek     60.77 133 P       P        02 42 25.8 -1.4
      9.1nm,0.8s,baz=298,slow=6.9,SNR=4.6
BRTR  Keskin Array B     61.71 311 P       P        02 42 31.7 -1.7
      2.1nm,0.8s,baz=126,slow=6.9,SNR=3.8
IDI   Anoyia             67.70 305 P       P        02 43 11.6 -0.7
      9.0nm,0.8s,baz=95,slow=7.5,SNR=4.1
AKASG Malin Array Be     67.73 322 P       P        02 43 10.6 -1.5
      5.9nm,0.9s,baz=88,slow=4.5,SNR=6.1
MLR   Muntele Rosu       68.58 316 P       P        02 43 15.8 -1.7
      16nm,0.8s,baz=138,slow=5.0,SNR=6.9
FINES FINESS Array B     72.58 332 P       P        02 43 39.5 -1.8
      9.6nm,0.8s,baz=101,slow=9.7,SNR=7.7
KAF   Kangasniemi        72.68 333 ep      P        02 43 39.9 -2.0
      baz=105,slow=5.4
VRAC  Vranov             75.44 319 P       P        02 43 55.6 -2.6
      1.2nm,0.4s,baz=128,slow=3.9,SNR=3.8
GERES GERESS Array B     77.30 318 P       P        02 44 05.0 -3.7
      5.8nm,0.9s,baz=90,slow=4.0,SNR=5.5
NB2   NORSAR Subarra     79.55 331 P       P        02 44 18.8 -2.0
      2.6nm,0.8s,baz=95,slow=5.3
NOA   NORSAR Array B     79.55 331 P       P        02 44 18.4 -2.3
      4.9nm,0.8s,baz=94,slow=5.5,SNR=5.3
DAVOX Davos              79.81 316 P       P        02 44 21.1 -1.3
      7.4nm,0.7s,baz=143,slow=20,SNR=5.0
```

INK	**Inuvik**	**98.02**	**16**	P	P	02 45 48.4	-1.0
	3.0nm,1.0s,baz=326,slow=4.7,SNR=3.8						

IDC 26 02:32:24.8±1.2, 7.81N×93.43E, mb4.8/13, mb1 4.9/14, mb1mx4.7/24, ML4.6/1, Error ellipse: s-maj=89.7km s-min=26.6km az=39.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.86**	**26**	Pn	P	02 35 28.5	+10
	1.1nm,0.3s,baz=225,slow=13,SNR=6.3						
ASAR	**Alice Springs**	**50.42**	**129**	P	P	02 41 24.4	-2.1
	8.1nm,0.7s,baz=304,slow=7.5,SNR=4.9						
GNI	**Garni**	**53.97**	**315**	P	P	02 41 51.4	-1.4
	16nm,0.9s,baz=320,slow=1.6,SNR=4.7						
ASF	**Jabal al Asfar**	**57.66**	**303**	P	P	02 42 17.9	-1.6
	12nm,0.8s,baz=13,slow=2.1,SNR=7.8						
EIL	**Elat**	**58.84**	**300**	P	P	02 42 25.5	-2.3
	19nm,0.8s,baz=218,slow=2.1,SNR=9.2						
BRTR	**Keskin Array B**	**61.93**	**311**	P	P	02 42 45.9	-3.0
	11nm,1.0s,baz=121,slow=7.2,SNR=8.5						
AKASG	**Malin Array Be**	**67.76**	**322**	P	P	02 43 23.5	-3.0
	5.3nm,1.0s,baz=90,slow=4.8,SNR=4.0						
IDI	**Anoyia**	**68.02**	**305**	P	P	02 43 26.0	-2.4
	21nm,0.7s,baz=96,slow=7.2,SNR=7.9						
MLR	**Muntele Rosu**	**68.72**	**316**	P	P	02 43 31.7	-0.8
	23nm,1.1s,baz=62,slow=2.8,SNR=4.4						
FINES	**FINESS Array B**	**72.44**	**332**	P	P	02 43 53.0	-1.8
	6.6nm,0.7s,baz=117,slow=8.5,SNR=5.3						
GERES	**GERESS Array B**	**77.40**	**318**	P	P	02 44 21.7	-1.7
	2.3nm,0.5s,baz=98,slow=5.5,SNR=4.2						
NOA	**NORSAR Array B**	**79.44**	**331**	P	P	02 44 33.2	-1.1
	3.7nm,0.7s,baz=95,slow=5.4,SNR=5.6						
DAVOX	**Davos**	**79.94**	**316**	P	P	02 44 36.1	-1.2
	14nm,0.8s,baz=131,slow=11,SNR=4.9						
ESDC	**Sonseca Array**	**90.72**	**310**	P	P	02 45 30.4	-0.8
	1.4nm,0.6s,baz=59,slow=4.4,SNR=6.0						

IDC 26 02:34:12.7±7.2, 5.29N×93.54E, mb4.4/9, mb1 4.5/10, mb1mx4.3/20, ML5.1/1, Error ellipse: s-maj=182.0km s-min=46.2km az=139.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.11**	**21**	Pn	P	02 37 34.0	-2.2
	2.6nm,0.3s,baz=225,slow=14,SNR=4.2						
SONM	**Songino Array**	**43.79**	**13**	P	P	02 42 20.7	-1.2
	5.3nm,0.8s,baz=199,slow=6.8,SNR=3.5						
ZAL	**Zalesovo**	**49.02**	**353**	P	P	02 43 00.8	-2.3
	5.7nm,0.7s,baz=316,slow=6.8,SNR=4.1						
BVAR	**Borovoye Array**	**51.24**	**342**	P	P	02 43 17.6	-2.5
	3.4nm,0.7s,baz=153,slow=6.4,SNR=2.5						
BRTR	**Keskin Array B**	**63.68**	**312**	P	P	02 44 47.1	-1.2
	1.9nm,0.8s,baz=127,slow=7.2,SNR=2.7						
FINES	**FINESS Array B**	**74.71**	**333**	P	P	02 45 53.8	-2.0
	3.0nm,0.8s,baz=101,slow=7.1,SNR=3.2						
ARCES	**ARCESS Array B**	**77.48**	**340**	P	P	02 46 09.7	-1.7
	1.0nm,0.4s,baz=90,slow=6.2,SNR=4.9						
GERES	**GERESS Array B**	**79.35**	**319**	P	P	02 46 20.2	-1.8
	3.0nm,0.8s,baz=90,slow=5.3,SNR=3.8						
NOA	**NORSAR Array B**	**81.68**	**331**	P	P	02 46 33.2	-0.8
	1.0nm,0.7s,baz=97,slow=5.6,SNR=2.7						
DAVOX	**Davos**	**81.83**	**316**	P	P	02 46 34.0	-1.1
	6.2nm,0.6s,baz=113,slow=4.5,SNR=5.3						

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*BJI **26** 02:34:50.6, 3.80N×94.08E, h42^{km}, mb5.5, Ms6.9, Msz6.6*
*MOS **26** 02:34:51.0±0.9, 4.11N×94.24E, h33^{km}, mb5.7/45, Error ellipse: s-maj=10.9km s-min=5.7km az=119.7*
*IDC **26** 02:34:52.5±0.6, 4.05N×94.22E, h31^{km}±4^{km}, mb5.2/32, mb1 5.2/32, mb1mx5.2/32, Error ellipse: s-maj=16.2km s-min=9.5km az=46.0*
*SYO **26** 02:34:52.2, 4.02N×94.12E, h30^{km}, MB5.7*
*NEIC **26** 02:34:52.1±0.1, 3.99N×94.14E, h30^{km}, mb5.7/61, Error ellipse: s-maj=6.0km s-min=3.9km az=223.0*
ISC 26 02:34:50.1±0.2, 3.97N±0.04×94.22E±0.03, h28^{km}, h28^{km}±1.6^{km}:pP-P, n481, σ0^{s}93/397, mb5.6/111, 25C-13D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COCO	**West Island**	**16.26**	**171**	*e*P	**P**	**02 38 37.9**	**-0.5**
MDRS	**Chennai**	**16.50**	**304**	*e*P	**P**	**02 38 40.2**	**-1.2**
MDRS				*e*		02 38 50.9	
	comp=Z,671nm,1.2s						
MDRS				*e*S	**S**	**02 41 46.7**	**+3.8**
VIS	**Vishakhapatnam**	**17.34**	**323**	*i*	**P**	**02 38 41.5**	**-10**
VIS				*e*	**S**	**02 42 12.6**	**+11**
TRD	**Trivandrum**	**17.73**	**286**	*e*P	**P**	**02 38 57.1**	**+0.2**
TRD				*e*		02 41 57.9	
	comp=Z,349nm,1.3s						
MNGI	**Mangalore**	**21.13**	**296**	*e*P	**P**	**02 39 34.2**	**-1.1**
BOK	**Bokaro**	**21.29**	**339**	*e*P	**P**	**02 39 37.7**	**+0.9**
QIZ	**Qiongzhong**	**21.38**	**44**	P	**P**	**02 39 39.5**	**+1.8**
BLSP	**Bilaspur**	**21.52**	**328**	*e*P	**P**	**02 39 38.7**	**-0.4**
KMI	**Kunming**	**22.57**	**20**	P	**P**	**02 39 51.5**	**+1.8**
KMI				AMB	AMB		
	comp=Z,423nm,0.9s,mb5.9						
GOA	**Goa**	**23.10**	**301**	*e*P	**P**	**02 39 58.7**	**+3.8**
GOA				*e*		02 40 04.4	
	comp=Z,427nm,1.3s						
GOA	**Goa**	**23.10**	**301**	*e*		02 40 02.1	
GOA				*e*		02 40 04.5	
	comp=Z,500nm,1.7s						
AKL	**Akola**	**23.60**	**316**	*e*P	**P**	**02 40 00.9**	**+1.2**
AKL				*e*		02 40 27.0	
	comp=Z,517nm,1.2s						
KAD	**Karad**	**23.69**	**305**	*e*P	**P**	**02 40 01.8**	**+1.1**
POO	**Poona**	**24.62**	**308**	*e*P	**P**	**02 40 10.4**	**+0.8**
BHPL	**Bhopal**	**25.11**	**321**	*e*P	**P**	**02 40 15.2**	**+0.9**
BHPL				*e*		02 40 17.9	
	comp=Z,339nm,1.4s						
GYA	**Guiyang**	**25.34**	**27**	P	**P**	**02 40 17.5**	**+1.1**
GYA				AP	pP	02 40 22.5	-2.2
GYA				PP	PP	02 40 54.5	-0.9
GYA				AMB	AMB		
	comp=Z,210nm,1.1s,mb5.6						
GYA				LR	LR		
	comp=N,68µm,20.1s						
GYA				LR	LR		
	comp=E,54µm,16.4s						
GYA				LR	LR		
	comp=Z,64µm,14.8s						
CD2	**Chengdu**	**28.27**	**18**	P	**P**	**02 40 42.3**	**-0.9**
PCPH	**Palayan**	**28.84**	**65**	⇓*e*P	**P**	**02 40 47.6**	**-0.8**
AJM	**Ajmer**	**29.19**	**322**	*e*P	**P**	**02 40 52.1**	**+0.6**
AJM				*e*		02 40 55.4	
	comp=Z,176nm,1.7s						
ENH	**Enshi**	**29.88**	**27**	*e*P	**P**	**02 40 56.4**	**-1.3**
	comp=Z,52nm,0.7s,mb5.4						
BHJ	**Bhuj**	**30.51**	**311**	*e*P	**P**	**02 41 00.9**	**-2.4**
BHJ				*e*		02 41 02.4	
	comp=Z,233nm,1.7s						
WHN	**Wuhan**	**32.56**	**33**	⇓P	**P**	**02 41 21.5**	**+0.3**
LZH	**Lanzhou**	**33.17**	**14**	*e*P	**P**	**02 41 25.8**	**-0.7**
LZH				PP	PP	02 42 38.8	+0.9
LZH				AMB	AMB		
	comp=Z,169nm,1.2s,mb5.8						
MBWA	**Marble Bar**	**35.34**	**136**	*e*P	**P**	**02 41 45.5**	**+0.2**
	comp=Z,94nm,1.2s,mb5.6						
GTA	**Gaotai**	**35.64**	**7**	⇓*i*P	**P**	**02 41 47.5**	**-0.2**
GTA				AP	pP	02 41 56.5	+0.3
GTA				XP	sP	02 42 00.3	+0.5
GTA				AMB	AMB		
	comp=Z,138nm,0.9s,mb5.9						
GTA				LR	LR		
	comp=N,115µm,22.8s						
GTA				LR	LR		
	comp=E,124µm,17.1s						
GTA				LR	LR		
	comp=Z,210µm,20.2s						
NJ2	**Nanjing**	**36.26**	**37**	*e*P	**P**	**02 41 53.3**	**+0.3**
NJ2				AMB	AMB		
	comp=Z,500nm,0.6s,mb6.6						
SSE	**Sheshan**	**37.05**	**40**	*e*P	**P**	**02 42 00.3**	**+0.6**
SSE				AMB	AMB		
	comp=Z,38nm,0.7s,mb5.3						
KSH	**Kashi**	**39.06**	**337**	*e*P	**P**	**02 42 16.8**	**+0.4**
KSH				*e*PP	PP	02 43 49.3	-0.7
KSH				*e*PCP	PcP	02 44 28.8	+2.2
KSH				*e*S	**S**	**02 48 11.3**	**-2.2**
KSH				*e*PCS		02 48 13.3	
KSH				AMB	AMB		
	comp=Z,9µm,2.9s						
JOW	**Kunigami**	**39.70**	**52**	P	**P**	**02 42 23.0**	**+1.1**
	comp=Z,9.0nm,0.5s,mb4.8,baz=266,slow=6.2,SNR=4.4						
HHC	**Hu-ho-hao-te**	**39.90**	**21**	*e*P	**P**	**02 42 24.5**	**+1.1**
HHC				AP	pP	02 42 33.8	+1.9
HHC				XP	sP	02 42 38.0	+2.6
HHC				PP	PP	02 43 55.0	-3.8
HHC				S	**S**	**02 48 26.5**	**+0.3**
HHC				AMB	AMB		
	comp=Z,71nm,1.0s,mb5.3						
WMQ	**Urumqi**	**40.10**	**353**	⇓P	**P**	**02 42 26.3**	**+1.3**
WMQ				AP	pP	02 42 30.8	-2.7
WMQ				PP	PP	02 44 02.5	+1.6
WMQ				S	**S**	**02 48 31.3**	**+2.1**
WMQ				AMB	AMB		
	comp=Z,129nm,1.3s,mb5.5						
WMQ				LR	LR		
	comp=N,92µm,22.0s						
WMQ				LR	LR		
	comp=E,179µm,27.8s						
WMQ				LR	LR		
	comp=Z,124µm,31.2s						
BJT	**Baijiatuau**	**41.01**	**26**	*e*P	**P**	**02 42 33.4**	**+1.0**
BJT				pmax	pmax		
	comp=Z,92nm,1.0s						
BJT	**Baijiatuau**	**41.01**	**26**	*e*P	**P**	**02 42 33.4**	**+0.9**
	comp=Z,92nm,1.0s,mb5.4						
BJI	**Beijing**	**41.03**	**26**	P	**P**	**02 42 33.8**	**+1.2**
BJI				AMB	AMB		
	comp=Z,172nm,0.9s,mb5.7						
ULHL	**Ulahol**	**41.35**	**340**	P	**P**	**02 42 36.2**	**+1.0**
	SNR=12						
KZA	**Kyzart**	**41.56**	**339**	P	**P**	**02 42 38.3**	**+1.3**
	SNR=12						
UCH	**Uchtor**	**41.96**	**338**	P	**P**	**02 42 41.6**	**+1.4**
	SNR=28						
KBK	**Karagaybulak**	**42.17**	**339**	P	**P**	**02 42 43.6**	**+1.6**
	SNR=33						
TKM2	**Tokmak 2**	**42.17**	**340**	P	**P**	**02 42 42.9**	**+0.9**
	SNR=22						
AML	**Almayashu**	**42.19**	**337**	P	**P**	**02 42 44.2**	**+2.0**
	SNR=8.3						
AAK	**Ala-Archa**	**42.31**	**338**	P	**P**	**02 42 45.0**	**+1.8**
	SNR=21						
AAK	**Ala-Archa**	**42.31**	**338**	*i* P	**P**	**02 42 41.4**	**-1.8**
AAK				pmax	pmax		
	comp=Z,117nm,1.2s,mb5.4						
AAK	**Ala-Archa**	**42.31**	**338**	*e*P	**P**	**02 42 43.4**	**+0.2**
AAK				pmax	pmax		
	comp=Z,120nm,0.9s,mb5.5						
AAK	**Ala-Archa**	**42.31**	**338**	*e*P	**P**	**02 42 43.4**	**+0.2**
	comp=Z,115nm,0.9s,mb5.5						
CHMS	**Chumysh**	**42.54**	**339**	P	**P**	**02 42 45.4**	**+0.4**
	SNR=19						
EKS2	**Erkin-Say**	**42.61**	**338**	P	**P**	**02 42 46.9**	**+1.3**
	SNR=25						
NWAO	**Narrogin (SRO)**	**42.69**	**151**	P	**P**	**02 42 47.0**	**+0.5**
	comp=Z,19nm,0.6s,mb5.0,baz=308,slow=11,SNR=7.3						
NWAO	**Narrogin (SRO)**	**42.69**	**151**	P	**P**	**02 42 47.0**	**+0.6**
NWAO				pmax	pmax		
	comp=Z,19nm,0.6s						
NWAO	**Narrogin (SRO)**	**42.69**	**151**	*e*P	**P**	**02 42 46.4**	**0.0**
DL2	**Dalian**	**42.78**	**32**	P	**P**	**02 42 47.8**	**+0.8**
DL2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
USP	**Ospenovka**	**42.86**	**339**	P	**P**	**02 42 48.3**	**+0.7**
	SNR=48						
MK02	**Makanchi Array**	**43.87**	**348**	P	**P**	**02 42 56.2**	**+0.4**
MK02				pmax	pmax		
	comp=Z,150nm,0.7s,mb5.8						
MK02	**Makanchi Array**	**43.87**	**348**	P	**P**	**02 42 56.2**	**+0.4**
MK02				pmax	pmax		
	comp=Z,150nm,0.7s,mb5.8						
SONM	**Songino Array**	**44.94**	**12**	P	**P**	**02 43 04.5**	**0.0**
	comp=Z,76nm,0.8s,mb5.5,baz=191,slow=8.1,SNR=42						
ULN	**Ulaanbaatar**	**45.10**	**12**	P	**P**	**02 43 05.5**	**-0.2**
ULN				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.2						
ULN	**Ulaanbaatar**	**45.10**	**12**	*e*P	**P**	**02 43 05.2**	**-0.5**
	comp=Z,30nm,0.8s,mb5.2						
KS15	**Wonju Array Si**	**45.37**	**38**	*e*P	**P**	**02 43 08.2**	**+0.2**
WRA	**Warramunga Arr**	**46.02**	**123**	P	**P**	**02 43 13.5**	**+0.2**
	comp=Z,75nm,0.7s,mb5.7,baz=301,slow=9.0,SNR=23						
WRA				pP	pP	02 43 23.3	+1.4
	comp=Z,124nm,0.9s,baz=302,slow=8.9,SNR=16						
WRA	**Warramunga Arr**	**46.02**	**123**	P	**P**	**02 43 13.5**	**+0.1**
WRA				*PP	pP	02 43 23.3	+1.4
WRA				pmax	pmax		
	comp=Z,75nm,0.7s						
WRAB	**Tennant Creek**	**46.03**	**123**	*e*P	**P**	**02 43 13.0**	**-0.4**
WRAB				pmax	pmax		
	comp=Z,290nm,1.0s,mb6.2						
WRAB	**Tennant Creek**	**46.03**	**123**	*e*P	**P**	**02 43 13.0**	**-0.4**
	comp=Z,286nm,1.0s,mb6.2						
ZAK	**Zakamensk**	**46.88**	**8**	*e*P	**P**	**02 43 19.2**	**-0.5**
ZAK				*e*		02 53 12.7	
ASAR	**Alice Springs**	**47.43**	**127**	P	**P**	**02 43 24.6**	**+0.1**
	comp=Z,34nm,0.7s,mb5.4,baz=297,slow=7.9,SNR=21						
ASAR				pP	pP	02 43 33.9	+0.8
	comp=Z,37nm,0.6s,baz=303,slow=7.8,SNR=12						
ASAR				PcP	PcP	02 44 55.0	-0.1
	comp=Z,19nm,0.7s,baz=307,slow=3.4,SNR=7.9						
ASAR				pPcP		02 45 03.9	
	comp=Z,14nm,0.8s,baz=310,slow=3.5,SNR=4.6						
HASS	**Wahat al Ahsa’**	**47.66**	**301**	P	**P**	**02 43 26.8**	**+0.6**
TLY	**Talaya**	**48.20**	**8**	P	**P**	**02 43 30.4**	**+0.4**
	comp=Z,750nm,0.8s,mb6.8,SNR=18						
TLY	**Talaya**	**48.20**	**8**	*i* P	**P**	**02 43 30.4**	**+0.4**
TLY				pmax	pmax		
	comp=Z,108nm,0.9s,mb5.9						
TLY	**Talaya**	**48.20**	**8**	*e*P	**P**	**02 43 30.6**	**+0.6**
	comp=Z,87nm,0.8s,mb5.8						
CN2	**Changchun**	**48.31**	**30**	*e*P	**P**	**02 43 32.5**	**+1.5**
IRK	**Irkutsk**	**48.83**	**8**	*e*P	**P**	**02 43 34.4**	**-0.5**
IRK				*e*	pP	02 43 41.6	-2.0
IRK				*e*		02 46 21.3	
IRK	**Irkutsk**	**48.83**	**8**	*e*P	**P**	**02 43 34.4**	**-0.5**
IRK				*e*	pP	02 43 41.6	-2.0
RYDS	**Riyadh**	**50.01**	**298**	P	**P**	**02 43 45.8**	**+1.4**
QRN	**Al-Qurain**	**50.34**	**304**	*e*P	**P**	**02 43 48.0**	**+1.1**
ZAL	**Zalesovo**	**50.40**	**353**	P	**P**	**02 43 46.8**	**-0.1**
	comp=Z,52nm,1.0s,mb5.5,baz=297,slow=6.1,SNR=19						
ZAL	**Zalesovo**	**50.40**	**353**	P	**P**	**02 43 46.8**	**-0.1**
ZAL				pmax	pmax		
	comp=Z,52nm,1.0s						
RDF	**Al-Radifah**	**50.71**	**305**	*e*P	**P**	**02 43 50.4**	**+0.8**
UMR	**Umm Al-Rimmam**	**50.79**	**305**	*e*P	**P**	**02 43 51.1**	**+0.8**
MDJ	**Mudanjiang**	**51.02**	**32**	P	**P**	**02 43 52.0**	**+0.3**
MDJ				AMB	AMB		
	comp=Z,25nm,1.4s,mb5.0						
MZLS	**Mizel**	**51.23**	**298**	P	**P**	**02 43 54.2**	**+0.6**
RST	**Umm Al-Ruwaisa**	**51.36**	**305**	*e*P	**P**	**02 43 55.1**	**+0.5**
NVS	**Novosibirsk**	**51.49**	**352**	*i* P	**P**	**02 43 53.9**	**-1.3**
NVS				pmax	pmax		
	comp=Z,115nm,1.0s,mb5.8						
FRSS	**Farasan al Kab**	**52.64**	**288**	P	**P**	**02 44 05.6**	**+1.3**
BVA0	**Borovoye Array**	**52.69**	**342**	P	**P**	**02 44 03.0**	**-1.3**
BVA0				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
BVAR	**Borovoye Array**	**52.69**	**342**	P	**P**	**02 44 03.5**	**-0.8**
	comp=Z,83nm,0.8s,mb5.7,baz=143,slow=7.4,SNR=42						
BRVK	**Borovoye**	**52.76**	**342**	*e*P	**P**	**02 44 03.9**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,210nm,1.0s,mb6.0						
BRVK	**Borovoye**	**52.76**	**342**	*e*P	**P**	**02 44 03.9**	**-0.8**
	comp=Z,210nm,1.0s,mb6.0						
NAMS	**An Nimas**	**52.92**	**291**	P	**P**	**02 44 07.5**	**+1.0**
AFFS	**‘Afif**	**53.16**	**297**	P	**P**	**02 44 08.6**	**+0.5**
CHKZ	**Chkalovo**	**53.19**	**343**	*e*P	**P**	**02 44 07.6**	**-0.3**
CHKZ				pmax	pmax		
	comp=Z,350nm,1.0s,mb6.2						
CHKZ	**Chkalovo**	**53.19**	**343**	*e*P	**P**	**02 44 07.5**	**-0.4**
	comp=Z,348nm,1.1s,mb6.2						
ARSS	**Ar Rass**	**53.44**	**299**	P	**P**	**02 44 10.1**	**-0.1**
BLJS	**Baljurashi**	**53.61**	**292**	P	**P**	**02 44 12.7**	**+1.3**
PMG	**Port Moresby**	**54.41**	**104**	P	**P**	**02 44 17.5**	**+0.1**
	comp=Z,29nm,0.8s,mb5.3,baz=305,slow=3.4,SNR=7.9						
PMG	**Port Moresby**	**54.41**	**104**	P	**P**	**02 44 17.5**	**+0.1**
PMG				pmax	pmax		
	comp=Z,29nm,0.8s						
HILS	**Ha’il**	**55.08**	**301**	P	**P**	**02 44 23.2**	**+1.0**
BOD	**Bodaibo**	**55.91**	**13**	*e*P	**P**	**02 44 26.2**	**-1.5**
BOD				*e*		02 44 42.9	
CTA	**Charters Tower**	**56.41**	**117**	P	**P**	**02 44 31.7**	**-0.1**
	comp=Z,22nm,0.8s,mb5.2,baz=294,slow=8.2,SNR=12						
CTA				pP	pP	02 44 41.2	+0.7
	comp=Z,35nm,1.1s,baz=288,slow=8.2,SNR=9.7						
CTA	**Charters Tower**	**56.41**	**117**	P	**P**	**02 44 31.7**	**-0.1**
CTA				*PP	pP	02 44 41.2	+0.7
CTA				pmax	pmax		
	comp=Z,22nm,0.9s						
CTA	**Charters Tower**	**56.41**	**117**	P	**P**	**02 44 31.7**	**-0.1**
CTA				pP	pP	02 44 41.2	+0.7
CTAO	**Charters Tower**	**56.41**	**117**	*e*P	**P**	**02 44 31.8**	**0.0**
CTAO				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.5						
CTAO	**Charters Tower**	**56.41**	**117**	*e*P	**P**	**02 44 32.0**	**+0.2**
	comp=Z,63nm,1.3s,mb5.5						
KBRS	**Khaybar**	**56.89**	**298**	P	**P**	**02 44 36.0**	**+0.7**
KMBO	**Kilima Mbogo**	**57.15**	**266**	P	**P**	**02 44 37.7**	**+0.4**
	comp=Z,47nm,1.0s,mb5.5,baz=62,slow=9.3,SNR=42						
KMBO	**Kilima Mbogo**	**57.15**	**266**	P	**P**	**02 44 37.7**	**+0.5**
KMBO				pmax	pmax		
	comp=Z,47nm,1.0s						
KMBO	**Kilima Mbogo**	**57.15**	**266**	*e*P	**P**	**02 44 37.5**	**+0.3**
	comp=Z,48nm,1.0s,mb5.5						
GNI	**Garni**	**57.24**	**316**	P	**P**	**02 44 37.3**	**-0.2**
	comp=Z,31nm,0.8s,mb5.4,baz=267,slow=3.9,SNR=12						
GNI	**Garni**	**57.24**	**316**	*e*P	**P**	**02 44 37.8**	**+0.3**
GNI				pmax	pmax		
	comp=Z,76nm,1.1s						
GNI	**Garni**	**57.24**	**316**	*e*P	**P**	**02 44 37.2**	**-0.3**
	comp=Z,76nm,1.1s,mb5.6						
STKA	**Stephens Creek**	**57.41**	**132**	P	**P**	**02 44 38.4**	**-0.4**
	comp=Z,12nm,0.8s,mb5.0,baz=305,slow=7.6,SNR=5.7						
STKA				pP	pP	02 44 48.3	+0.7
	comp=Z,23nm,0.9s,baz=313,slow=8.8,SNR=8.7						
STKA	**Stephens Creek**	**57.41**	**132**	*e*P	**P**	**02 44 36.3**	**-2.5**
YNBS	**Yanbu‘ al Bahr**	**57.72**	**296**	P	**P**	**02 44 41.6**	**+0.5**
CLNS	**Chul’man**	**58.06**	**19**	*e*P	**P**	**02 44 41.1**	**-1.9**
CLNS				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.5						
CLNS				pmax	pmax		
	comp=N,21nm,0.8s						
CLNS				pmax	pmax		
	comp=E,20nm,0.8s						
ASAJ	**Asahikawa**	**58.34**	**39**	P	**P**	**02 44 45.1**	**0.0**
	comp=E,6.5nm,0.5s,mb5.0,baz=238,slow=14,SNR=4.6						
ASAJ	**Asahikawa**	**58.34**	**39**	P	**P**	**02 44 45.1**	**0.0**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.5s						
UMJS	**Umm Lajj**	**58.50**	**297**	P	**P**	**02 44 47.7**	**+1.2**
ARU	**Arti**	**59.50**	**338**	⇑*i*P	**P**	**02 44 51.9**	**-1.1**
ARU				*e*		02 45 32.7	
ARU				*e*		02 47 00.3	
ARU				*e*S	**S**	**02 53 01.5**	**+2.6**
ARU				pmax	pmax		
	comp=Z,152nm,1.2s,mb5.9						
ARU	**Arti**	**59.50**	**338**	*e*P	**P**	**02 44 51.3**	**-1.7**
	comp=Z,140nm,1.4s,mb5.8						
TBKS	**Tabuk**	**59.79**	**300**	P	**P**	**02 44 56.5**	**+1.1**
YSS	**Yuzh-Sakhalins**	**59.83**	**36**	⇑*i*P	**P**	**02 44 53.1**	**-2.3**
YSS				pmax	pmax		
	comp=Z,310nm,1.0s,mb6.3						
YSS	**Yuzh-Sakhalins**	**59.83**	**36**	*i* P	**P**	**02 44 54.9**	**-0.5**
KIV	**Kislovodsk**	**60.28**	**319**	*i* P	**P**	**02 44 57.1**	**-1.4**
KIV				pmax	pmax		
	comp=Z,167nm,1.3s,mb5.9						
KIV	**Kislovodsk**	**60.28**	**319**	*e*P	**P**	**02 44 57.6**	**-0.9**
	comp=Z,192nm,1.0s,mb6.1						
ASF	**Jabal al Asfar**	**60.44**	**305**	P	**P**	**02 45 00.7**	**+0.8**
	comp=Z,51nm,1.0s,mb5.5,baz=350,slow=3.2,SNR=29						
JMQS	**Jabal Moqyreh**	**60.51**	**301**	P	**P**	**02 45 00.9**	**+0.6**
ELZG	**Elazig**	**60.72**	**312**	*i* P	**P**	**02 45 00.9**	**-0.7**
AYUS	**‘Aynunah**	**60.88**	**300**	P	**P**	**02 45 03.2**	**+0.3**
BDAS	**Al Bad‘**	**61.08**	**300**	P	**P**	**02 45 04.5**	**+0.3**
JMOS	**Jabal al Moall**	**61.23**	**301**	P	**P**	**02 45 05.5**	**+0.3**
ALWS	**Ilw as Safayha**	**61.30**	**301**	P	**P**	**02 45 05.9**	**+0.2**
MKRJ	**Makawir**	**61.32**	**304**	P	**P**	**02 45 06.3**	**+0.5**
HAQS	**Haql**	**61.36**	**301**	P	**P**	**02 45 06.3**	**+0.3**
AQBJ	**Aqaba**	**61.40**	**302**	P	**P**	**02 45 06.6**	**+0.3**
EIL	**Elat**	**61.47**	**302**	P	**P**	**02 45 07.1**	**+0.2**
	comp=Z,76nm,0.9s,mb5.8,baz=108,slow=5.2,SNR=36						
EIL	**Elat**	**61.47**	**302**	*e*P	**P**	**02 45 07.0**	**+0.2**
	comp=Z,137nm,1.0s,mb6.0						
MZDA	**Masada**	**61.49**	**304**	P	**P**	**02 45 07.7**	**+0.7**
MBH	**Mount Berech**	**61.53**	**302**	P	**P**	**02 45 07.7**	**+0.5**
DRGI	**Dragot**	**61.54**	**304**	P	**P**	**02 45 07.8**	**+0.5**
PRNI	**Paran**	**61.58**	**302**	P	**P**	**02 45 08.0**	**+0.5**
MMLI	**Mount Malkishu**	**61.72**	**305**	P	**P**	**02 45 09.3**	**+0.8**
MASH	**Mash‘abbe Sade**	**61.91**	**303**	P	**P**	**02 45 10.0**	**+0.2**
SLTI	**Sal’it**	**61.98**	**304**	P	**P**	**02 45 10.9**	**+0.6**
RTMM	**Retamin**	**62.00**	**303**	P	**P**	**02 45 10.6**	**+0.2**
KAHT	**Ahir Dag**	**62.02**	**311**	*i* P	**P**	**02 45 10.5**	**+0.1**
HNTI	**Hanita**	**62.08**	**305**	P	**P**	**02 45 11.7**	**+0.8**
OFRI	**‘Ofer**	**62.12**	**305**	P	**P**	**02 45 11.7**	**+0.5**
HAF	**Haifa**	**62.13**	**305**	P	**P**	**02 45 11.7**	**+0.5**
COBT	**Iskenderun**	**62.15**	**309**	*i* P	**P**	**02 45 10.6**	**-0.8**
KZIT	**Kziot**	**62.21**	**303**	P	**P**	**02 45 12.0**	**+0.2**
YAK	**Yakutsk**	**63.66**	**18**	*e*P	**P**	**02 45 17.2**	**-3.7**
YAK				pmax	pmax		
	comp=Z,93nm,1.0s,mb5.8						
YAK				pmax	pmax		
	comp=N,36nm,1.1s						
YAK				pmax	pmax		
	comp=E,26nm,1.2s						
AVNT	**Avonos**	**63.88**	**311**	*i* P	**P**	**02 45 21.1**	**-1.7**
CSS	**Prodhromos**	**64.03**	**307**	*e*P	**P**	**02 45 23.1**	**-0.7**
	comp=E,225nm,1.3s,mb6.0						
ANN	**Anapa**	**64.06**	**319**	*e*P	**P**	**02 45 17.9**	**-5.9**
ANN				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.6						
CTKT	**Corum**	**64.48**	**313**	*i* P	**P**	**02 45 25.9**	**-0.8**
BOYT	**Boyabat**	**64.64**	**314**	*i* P	**P**	**02 45 26.9**	**-0.8**
BRTR	**Keskin Array B**	**65.06**	**312**	P	**P**	**02 45 29.0**	**-1.4**
	comp=Z,44nm,0.9s,mb5.5,baz=121,slow=7.2,SNR=48						
BRTR	**Keskin Array B**	**65.06**	**312**	P	**P**	**02 45 29.0**	**-1.4**
BRTR				pmax	pmax		
	comp=Z,44nm,0.9s						
BALT	**Daday**	**65.76**	**314**	*i* P	**P**	**02 45 34.5**	**-0.4**
SIM	**Simferopol’**	**66.32**	**318**	*e*P	**P**	**02 45 37.0**	**-1.4**
SIM				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.8						
SGKT	**Sivrigoynuk**	**66.46**	**313**	*i* P	**P**	**02 45 38.3**	**-1.0**
ISP	**Isparta**	**66.93**	**310**	*e*P	**P**	**02 45 41.2**	**-1.2**
	comp=Z,332nm,1.0s,mb6.3						
LSZ	**Lusaka**	**68.09**	**252**	P	**P**	**02 45 51.5**	**+1.5**
LSZ	**Lusaka**	**68.09**	**252**	*e*P	**P**	**02 45 50.1**	**+0.1**
MOS	**Moscow**	**68.44**	**329**	*e*P	**P**	**02 45 50.4**	**-1.2**
MOS				*e*		02 46 17.6	
MOS				pmax	pmax		
	comp=Z,378nm,1.4s,mb6.2						
OBN	**Obninsk**	**68.71**	**329**	*i* P	**P**	**02 45 51.6**	**-1.6**
OBN				pmax	pmax		
	comp=Z,312nm,1.6s,mb6.0						
OBN	**Obninsk**	**68.71**	**329**	*e*P	**P**	**02 45 51.4**	**-1.8**
	comp=Z,312nm,1.5s,mb6.0						
SKR	**Severo-Kuril’s**	**69.39**	**37**	*e*P	**P**	**02 45 52.5**	**-5.0**
SKR				*e*	pP	02 46 02.5	-3.8
SKR				*e*		02 46 09.4	
SKR				pmax	pmax		
	comp=N,70nm,0.8s						
SKR				pmax	pmax		
	comp=Z,220nm,0.8s,mb6.1						
SKR				pmax	pmax		
	comp=E,130nm,1.0s						
MA2	**Magadan**	**70.18**	**27**	*e*P	**P**	**02 46 01.6**	**-0.5**
MA2				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.5						
MA2	**Magadan**	**70.18**	**27**	*e*P	**P**	**02 46 01.4**	**-0.7**
	comp=Z,39nm,0.7s,mb5.5						
PRD	**Provadia**	**70.48**	**315**	*i* P	**P**	**02 46 03.0**	**-1.2**
SANT	**Santorini**	**70.59**	**307**	*e*P	**P**	**02 46 03.4**	**-1.7**
IDI	**Anoyia**	**70.87**	**306**	P	**P**	**02 46 06.8**	**0.0**
	comp=Z,90nm,0.7s,mb5.8,baz=94,slow=7.2,SNR=41						
JMB	**Yambol**	**70.90**	**314**	*i* P	**P**	**02 46 06.0**	**-0.8**
ALN	**Alexandroupoli**	**70.97**	**312**	*e*P	**P**	**02 46 06.6**	**-0.6**
TIXI	**Tiksi**	**71.02**	**11**	⇑*i*P	**P**	**02 46 06.3**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,193nm,1.9s,mb5.7						
TIXI	**Tiksi**	**71.02**	**11**	*i* P	**P**	**02 46 05.7**	**-1.4**
AKASG	**Malin Array Be**	**71.26**	**323**	P	**P**	**02 46 06.8**	**-2.0**
	comp=Z,16nm,0.8s,mb5.0,baz=88,slow=4.3,SNR=27						
AKASG	**Malin Array Be**	**71.26**	**323**	P	**P**	**02 46 06.9**	**-1.9**
AKASG				pmax	pmax		
	comp=Z,16nm,0.8s						
GVD	**Gavdhos**	**71.45**	**305**	*e*P	**P**	**02 46 09.7**	**-0.6**
	comp=Z,216nm,1.1s,mb6.0						

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KDZ   Kurdzhali          71.58 313  i P      P        02 46 10.0 -0.9
PET   Petropavlovsk      71.65  35  eP       P        02 46 10.0 -1.1
PET                                 pmax     pmax
      comp=Z,95nm,0.8s,mb5.8
PVL   Pavlikeni          71.96 314  i P      P        02 46 13.0 -0.2
MLR   Muntele Rosu       72.02 317   P       P        02 46 13.3 -0.1
      comp=Z,74nm,1.0s,mb5.6,baz=90,slow=2.0,SNR=21
MLR   Muntele Rosu       72.02 317   P       P        02 46 13.3 -0.2
MLR                                 pmax     pmax
      comp=Z,74nm,1.0s
AOS   Alonnisos          72.29 310  eP       P        02 46 12.9 -2.3
OUR   Ouranopolis        72.41 311  eP       P        02 46 15.0 -0.9
LBTB  Lobatse            72.48 242  eP       P        02 46 16.8 +0.3
LBTB                                pmax     pmax
      comp=Z,69nm,1.2s,mb5.5
LBTB  Lobatse            72.48 242  eP       P        02 46 16.4 -0.2
      comp=Z,69nm,1.2s,mb5.5
PAIG  Paliouri           72.57 311  eP       P        02 46 16.0 -0.9
PGB   Panagyurishte      72.67 313  i P      P        02 46 16.0 -1.4
MMB   Musomiste          72.82 312  i P      P        02 46 16.0 -2.3
SRS   Serrai             72.83 312  eP       P        02 46 17.1 -1.3
XOR   Xorichti           72.85 310  eP       P        02 46 16.4 -2.2
SOH   Sokhos             72.96 311  eP       P        02 46 17.1 -2.0
THE   Thessaloniki       73.22 311  eP       P        02 46 17.7 -3.0
KKB   Krupnik            73.34 312  i P      P        02 46 20.0 -1.3
KNT   Kendrikon          73.36 312  eP       P        02 46 18.6 -2.8
VTS   Vitosha            73.37 313  i P      P        02 46 20.0 -1.5
AGG   Agios Georgios     73.46 309  eP       P        02 46 19.9 -2.2
LIT   Litokhoron         73.50 311  eP       P        02 46 20.1 -2.2
BOSA  Boshof             73.61 239  eP       P        02 46 23.0 -0.2
BOSA                                pmax     pmax
      comp=Z,72nm,1.1s,mb5.5
BOSA  Boshof             73.61 239  eP       P        02 46 22.5 -0.7
      comp=Z,72nm,1.1s,mb5.5
PUL   Pulkovo            73.65 332⇑eP       P        02 46 22.1 -0.7
PUL                                 pmax     pmax
      comp=Z,155nm,0.9s,mb5.9
PUL                                 pmax     pmax
      comp=N,47nm,0.8s
PUL                                 pmax     pmax
      comp=E,181nm,0.9s
GRG   Griva              73.70 311  eP       P        02 46 21.1 -2.3
FNA   Florina            74.44 311  eP       P        02 46 25.0 -2.7
MAW   Mawson             74.75 192   P       P        02 46 30.5 +1.5
      comp=E,18nm,0.9s,mb5.0,baz=0.3,slow=7.0,SNR=9.7
MAW   Mawson             74.75 192   P       P        02 46 30.8 +1.8
MAW                                 e                 02 46 37.6
MAW   Mawson             74.75 192  eP       P        02 46 30.4 +1.4
      comp=E,22nm,0.8s,mb5.1
KWP   Kalwaria           75.05 320  eP       P        02 46 30.8 -0.3
IGT   Igoumenitsa        75.06 310  eP       P        02 46 28.4 -3.0
KOLS  Kolonicke sedl     75.19 320  i P      P        02 46 32.2 +0.3
KOLS                                epP      pP       02 46 42.3 +1.5
LVZ   Lovozero           75.23 340⇑eP       P        02 46 30.0 -1.7
LVZ                                 pmax     pmax
      comp=Z,53nm,0.9s,mb5.5
SUW   Suwalki            75.71 325  eP       P        02 46 33.7 -1.0
SUW                                 pmax     pmax
      comp=Z,370nm,1.1s,mb6.2
SUW   Suwalki            75.71 325  eP       P        02 46 33.9 -0.8
CRVS  Cervenica-Dubn     75.71 319  eP       P        02 46 35.8 +1.0
CRVS                                e                 02 46 38.0
FINES FINESS Array B     76.18 333   P       P        02 46 36.5 -0.8
      comp=Z,42nm,0.8s,mb5.4,baz=104,slow=7.9,SNR=30
FINES FINESS Array B     76.18 333   P       P        02 46 36.5 -0.8
FINES                               pmax     pmax
      comp=Z,42nm,0.8s
KECS  Kecovo             76.27 319  i P      P        02 46 37.9 -0.1
KAF   Kangasniemi        76.28 333  ep       P        02 46 37.2 -0.6
PKSN  Nyarlorinc         76.43 317⇑iP       P        02 46 39.2 +0.2
PSZ   Piszkesteto        76.57 318   P       P        02 46 40.8 +1.1
PSZ                                 pmax     pmax
      comp=Z,99nm,1.3s,mb5.6
PSZ   Piszkesteto        76.57 318  eP       P        02 46 39.2 -0.5
      comp=Z,30nm,0.9s,mb5.2
WAR   Warsaw             76.61 323  eP       P        02 46 39.6 -0.2
OJC   Ojcow              77.00 321  eP       P        02 46 42.0 -0.1
VYHS  Vyhne              77.36 319  i P      P        02 46 43.9 -0.2
VYHS                                e                 02 47 00.6
RHK1  Bakonya            77.55 316⇑eP       P        02 46 44.8 -0.4
SRO2  Moca               77.55 318  eP       P        02 46 45.4 +0.3
SRO   Srobarova          77.61 318  eP       P        02 46 45.8 +0.3
OKC   Ostrava-Krasne     78.00 320  eP       P        02 46 47.7 +0.2
SUR   Sutherland         78.20 236  eP       P        02 46 50.2 +1.2
SMOL  Smolenice          78.29 319  eP       P        02 46 49.5 +0.3
SMOL                                epP      pP       02 46 58.7 +0.5
MORC  Moravsky Berou     78.38 320  eP       P        02 46 49.9 +0.2
ZST   Bratislava         78.46 318  i P      P        02 46 50.5 +0.4
VRAC  Vranov             78.93 319   P       P        02 46 52.3 -0.4
      comp=Z,9.8nm,0.9s,mb4.8,baz=91,slow=6.6,SNR=11
VRAC  Vranov             78.93 319   P       P        02 46 52.3 -0.4
VRAC                                pmax     pmax
      comp=Z,10.0nm,0.9s
ARCES ARCESS Array B     78.94 340   P       P        02 46 52.5 +0.1
      comp=Z,46nm,0.9s,mb5.4,baz=117,slow=5.4,SNR=29
ARCES ARCESS Array B     78.94 340   P       P        02 46 52.5 +0.1
ARCES                               pmax     pmax
      comp=Z,46nm,0.9s
ARE0  ARCESS Array S     78.94 340  eP       P        02 46 52.5 +0.2
GKP   Gorka Klasztor     79.05 323  eP       P        02 46 52.4 -0.8
DPC   Dobruska-Polom     79.23 320  eP       P        02 46 54.9 +0.6
KSP   Ksiaz              79.31 321⇓eP       P        02 46 55.1 +0.4
KSP                                 e                 02 47 31.4
KSP   Ksiaz              79.31 321  eP       P        02 46 55.1 +0.4
ARSA  Arzberg            79.42 317⇑iP       P        02 46 55.6 +0.2
      comp=Z,142nm,1.4s,mb5.7
ARSA  Arzberg            79.42 317⇑iP       P        02 46 55.6 +0.2
      comp=Z,142nm,1.4s,mb5.7
UPC   Upice              79.45 321  eP       P        02 46 55.7 +0.2
KTK1  Kautokeino         79.56 340  eP       P        02 46 56.4 +0.7
KTK1                                AMb      AMB      02 46 58.1
      comp=Z,123nm,1.1s,mb5.8
KTK1  Kautokeino         79.56 340  eP       P        02 46 56.4 +0.7
      comp=Z,123nm,1.1s,mb5.8
BILL  Bilibino           79.67  21   P       P        02 46 56.7 +0.4
BILL                                pmax     pmax
      comp=Z,380nm,2.0s,mb6.0
BILL  Bilibino           79.67  21  eP       P        02 46 56.0 -0.3
      comp=Z,378nm,2.0s,mb6.0
OBKA  Obir               80.02 316⇑iP       P        02 46 59.0 +0.4
      comp=Z,103nm,1.4s,mb5.6
OBKA  Obir               80.02 316⇑iP       P        02 46 59.0 +0.4
      comp=Z,103nm,1.4s,mb5.6
FX1   Attu Island--F     80.18  37  eP       P        02 46 59.6 +0.3
MOA   Molln              80.32 318⇑iP       P        02 47 00.0 -0.2
      comp=Z,57nm,1.4s,mb5.3
MOA   Molln              80.32 318⇑iP       P        02 47 00.0 -0.2
      comp=Z,57nm,1.4s,mb5.3
PRU   Pruhonice          80.33 320  eP       P        02 47 00.0 -0.2
PVCC  Panska Ves         80.36 320  eP       P        02 47 00.8 +0.4
PTQR  Pietraquaria       80.53 312  eP       P        02 47 01.5 +0.1
AQU   L'Aquila           80.55 312   P       pP       02 47 13.2 +2.6
AQU   L'Aquila           80.55 312  eP       P        02 47 01.2 -0.3
GEC2  GERESS Array S     80.78 319  eP       P        02 47 03.1 +0.5
GEC2                                pmax     pmax
      comp=Z,60nm,0.9s,mb5.5
GEC2  GERESS Array S     80.78 319  eP       P        02 47 03.1 +0.5
      comp=Z,60nm,0.9s,mb5.5
GERES GERESS Array B     80.78 319   P       P        02 47 03.0 +0.4
      comp=Z,51nm,0.9s,mb5.5,baz=90,slow=5.3,SNR=52
GERES GERESS Array B     80.78 319   P       P        02 47 03.0 +0.4
GERES                               pmax     pmax
      comp=Z,51nm,0.9s
BRG   Berggiesshubel     80.79 321  i P      P        02 47 03.2 +0.6
BRG                                 pmax     pmax
      comp=Z,89nm,1.1s,mb5.6
BRG   Berggiesshubel     80.79 321  i P      P        02 47 03.2 +0.6
      comp=Z,89nm,1.1s,mb5.6
PTCC  Patocco-Chiusa     80.83 316  eP       P        02 47 02.6 -0.3
KHC   Kasperske Hory     80.88 319  eP       P        02 47 03.0 -0.1
KBA   Koelnbreinsper     80.89 317⇑iP       P        02 47 03.0 -0.2
      comp=Z,63nm,1.5s,mb5.3
KBA   Koelnbreinsper     80.89 317⇑iP       P        02 47 03.0 -0.2
      comp=Z,63nm,1.5s,mb5.3
GMNA  Gemona             80.91 316  eP       P        02 47 03.4  0.0
SNTG  Esanatoglia        80.94 313  eP       P        02 47 02.9 -0.6
ARV   Arcevia            80.95 313  eP       P        02 47 03.7 +0.1
RUE   Ruedersdorf        81.04 322  eP       P        02 47 04.2 +0.3
      comp=Z,240nm,1.3s,mb6.0
FSSB  Fossombrone        81.08 313  eP       P        02 47 04.7 +0.4
FVI   Forni Avoltri      81.24 316  eP       P        02 47 04.9 -0.2
WET   Wettzell           81.34 319  eP       P        02 47 06.1 +0.6
WET                                 pmax     pmax
      comp=Z,32nm,1.0s,mb5.2
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WET   Wettzell           81.34 319  eP       P        02 47 06.1 +0.6
      comp=Z,32nm,1.0s,mb5.2
CLL   Collm              81.42 321⇓iP       P        02 47 05.8 -0.1
CLL                                 pmax     pmax
      comp=Z,62nm,1.1s,mb5.5
CLL   Collm              81.42 321⇓iP       P        02 47 05.8 -0.1
      comp=Z,62nm,1.1s,mb5.5
CLL   Collm              81.42 321 ⇓P       P        02 47 05.8 -0.1
      comp=Z,logA/T=1.8,mb5.5
NKC   Novy Kostel        81.69 320  eP       P        02 47 07.7 +0.4
SYO   Syowa Base         81.72 197 ⇑P       P        02 47 08.8 +1.7
SYO   Syowa Base         81.72 197 ⇓PcP     PcP      02 47 10.6 -2.7
SYO   Syowa Base         81.72 197 ⇑pP      pP       02 47 18.7 +2.5
SFI   Santa Sofia        81.76 314  eP       P        02 47 08.9 +1.1
HFS   Hagfors            81.85 330   P       P        02 47 08.0 +0.1
      comp=Z,42nm,0.9s,mb5.4,baz=124,slow=5.3,SNR=19
HFS   Hagfors            81.85 330   P       P        02 47 08.0 +0.1
HFS                                 pmax     pmax
      comp=Z,42nm,0.9s
PGD   Poggio Sodo        81.85 314  eP       P        02 47 09.1 +0.8
VMG   Vicchio            81.98 314  eP       P        02 47 09.9 +1.0
CTI   Castel Tesino      82.00 316  eP       P        02 47 09.6 +0.6
WTTA  Wattenberg         82.06 317⇑iP       P        02 47 09.0 -0.3
      comp=Z,127nm,1.3s,mb5.7
WTTA  Wattenberg         82.06 317⇑iP       P        02 47 09.0 -0.3
      comp=Z,127nm,1.3s,mb5.7
WATA  Walderalm          82.11 317⇓iP       P        02 47 08.9 -0.6
      comp=Z,48nm,0.9s,mb5.4
WATA  Walderalm          82.11 317⇓iP       P        02 47 08.9 -0.6
      comp=Z,48nm,0.9s,mb5.4
SEI   Scarperia          82.12 314  eP       P        02 47 09.7  0.0
MOX   Moxa               82.25 320  eP       P        02 47 10.4 +0.2
MOX   Moxa               82.25 320  i P      P        02 47 10.4 +0.2
MOR8  Moi Rana           82.25 336⇓iP       P        02 47 09.2 -0.7
MOR8                                AMb      AMB      02 47 10.8
      comp=Z,116nm,1.3s,mb5.6
MOR8  Moi Rana           82.25 336⇓iP       P        02 47 09.2 -0.7
      comp=Z,116nm,1.3s,mb5.7
FUR   Furstenfeldbru     82.35 318  eP       P        02 47 10.8  0.0
FUR                                 pmax     pmax
      comp=Z,31nm,0.9s,mb5.2
FUR   Furstenfeldbru     82.35 318  eP       P        02 47 10.8  0.0
      comp=Z,31nm,0.9s,mb5.2
SQTA  Sankt Quirin       82.35 317⇑iP       P        02 47 10.6 -0.2
      comp=Z,48nm,0.8s,mb5.5
SQTA  Sankt Quirin       82.35 317⇑iP       P        02 47 10.6 -0.2
      comp=Z,48nm,0.8s,mb5.5
ZCCA  Zocca              82.41 314  eP       P        02 47 12.7 +1.5
MOTA  Moosalm            82.43 317⇑iP       P        02 47 10.8 -0.4
      comp=Z,70nm,1.1s,mb5.5
MOTA  Moosalm            82.43 317⇑iP       P        02 47 10.8 -0.4
      comp=Z,70nm,1.1s,mb5.5
GRA1  Grafenberg Arr     82.45 319  eP       P        02 47 12.5 +1.2
      comp=Z,47nm,0.9s,mb5.4
GRF   Grafenberg Arr     82.45 319  eP       P        02 47 12.5 +1.2
GRF                                 pmax     pmax
      comp=Z,47nm,0.9s,mb5.4
GRF   Grafenberg Arr     82.45 319  eP       P        02 47 12.5 +1.2
      comp=Z,47nm,0.9s,mb5.4
GSCL  Gusciola           82.68 314  eP       P        02 47 13.5 +0.9
LOF   Lofoten            82.86 338  eP       P        02 47 14.9 +1.9
LOF                                 AMb      AMB      02 47 22.1
      comp=Z,198nm,1.6s,mb5.9
LOF   Lofoten            82.86 338  eP       P        02 47 14.9 +1.9
      comp=Z,198nm,1.6s,mb5.9
BRMO  Bormio             82.90 316  eP       P        02 47 13.5 -0.1
GRAM                     83.06 314   P       P        02 47 15.2 +0.7
CLZ   Clausthal          83.09 322  eP       P        02 47 15.0 +0.5
      comp=Z,30nm,0.9s,mb5.3
NB2   NORSAR Subarra     83.15 331   P       P        02 47 13.9 -0.8
      comp=Z,54nm,1.0s,mb5.5,baz=97,slow=5.0
NB2   NORSAR Subarra     83.15 331   P       P        02 47 13.9 -0.8
      baz=97,slow=5.3
NOA   NORSAR Array B     83.15 331   P       P        02 47 14.0 -0.6
      comp=Z,25nm,0.9s,mb5.2,baz=94,slow=5.4,SNR=24
NOA   NORSAR Array B     83.15 331   P       P        02 47 14.0 -0.7
NOA                                 pmax     pmax
      comp=Z,25nm,0.9s
NOA   NORSAR Array B     83.15 331   P       P        02 47 14.0 -0.7
BSEG  Bad Segeberg       83.21 324  eP       P        02 47 15.9 +0.8
BSEG                                pmax     pmax
      comp=Z,44nm,0.9s,mb5.5
CODM                     83.21 314   P       P        02 47 15.4  0.0
DAVOX Davos              83.25 316   P       P        02 47 16.2 +0.7
      comp=Z,76nm,0.8s,mb5.8,baz=117,slow=5.5,SNR=33
DAVA  Damuels            83.26 317⇑iP       P        02 47 15.8 +0.3
      comp=Z,124nm,1.2s,mb5.8
DAVA  Damuels            83.26 317⇑iP       P        02 47 15.8 +0.3
      comp=Z,124nm,1.2s,mb5.8
OSL   Oslo               83.32 330  eP       P        02 47 14.8 -0.8
VSL   Villasalto         83.51 309  eP       P        02 47 17.1 +0.1
      comp=Z,99nm,1.1s,mb5.9
STU   Stuttgart          83.75 318   P       P        02 47 18.1 +0.1
STU                                 pmax     pmax
      comp=Z,14nm,0.3s,mb5.6
STU   Stuttgart          83.75 318  eP       P        02 47 17.8 -0.2
      comp=Z,14nm,0.3s,mb5.6
PGF   Pioggiola          83.81 312  eP       P        02 47 18.0 -0.5
      comp=Z,399nm,1.5s,mb6.0
MUD   Monsted U'grnd     83.97 326  eP       P        02 47 19.7 +0.8
MUD   Monsted U'grnd     83.97 326  i P      P        02 47 19.7 +0.8
SPAK  Spaichingen        84.01 318  eP       P        02 47 19.5 +0.2
TOD   Tromm              84.02 319  eP       P        02 47 19.6 +0.2
PCP   Pian Castagno      84.15 314   P       P        02 47 20.4 +0.3
DOMB  Dombas             84.24 332  eP       P        02 47 20.4 +0.3
DOMB                                AMb      AMB      02 47 23.5
      comp=Z,60nm,2.1s,mb5.4
DOMB  Dombas             84.24 332  eP       P        02 47 20.4 +0.3
      comp=Z,60nm,2.1s,mb5.4
BFO   Black Forest       84.32 318  eP       P        02 47 21.0 +0.1
BFO                                 pmax     pmax
      comp=Z,17nm,0.9s,mb5.2
BFO   Black Forest       84.32 318  eP       P        02 47 21.0 +0.1
      comp=Z,17nm,0.9s,mb5.2
FIN   Finale Ligure      84.39 314  eP       P        02 47 21.3  0.0
KTD   Kalmit             84.49 319  eP       P        02 47 22.1 +0.4
FELD  Feldberg           84.54 318  eP       P        02 47 22.4 +0.4
ORX   Oropa              84.55 315   P       P        02 47 20.8 -1.3
IMI   Imperia            84.62 314   P       P        02 47 22.9 +0.3
ROB   Roburent           84.63 314   P       P        02 47 22.3 -0.2
LANF  Langenberg         84.67 319  eP       P        02 47 22.4 -0.2
STR   Strasbourg         84.70 318  eP       P        02 47 23.1 +0.3
LIBD  Limburg            84.81 318  eP       P        02 47 23.7 +0.4
LIBD  Limburg            84.81 318  eP       P        02 47 23.8 +0.5
ABH   Alteburg           84.84 320  eP       P        02 47 23.3 -0.1
SAOF  Saorge             84.86 314  eP       P        02 47 24.0 +0.3
BBS   Basel-Blauen       84.87 317  eP       P        02 47 23.8 +0.1
SBF   Sospel             84.95 314  eP       P        02 47 24.1  0.0
      comp=Z,293nm,1.2s,mb6.0
AUTN  L'Aution           84.95 314  eP       P        02 47 26.2 +2.0
ENR   Entracque          84.96 314   P       P        02 47 23.8 -0.4
MOL   Molde              84.96 332  eP       P        02 47 25.3 +1.6
MOL                                 epP      pP       02 47 33.4 +0.5
MOL                                 esP      sP       02 47 37.0 +1.2
WLS   Welschbruch        84.97 318  eP       P        02 47 23.1 -1.0
REVF  Revere             85.00 313  eP       P        02 47 25.4 +1.0
CDF   Champ du Feu       85.02 318  eP       P        02 47 23.5 -0.9
      comp=Z,149nm,1.6s,mb5.6
STV   Sta Anna Valdi     85.03 314   P       P        02 47 23.4 -1.1
BHB   Bricherasio        85.06 315   P       P        02 47 23.5 -1.2
RSP   Reno Superiore     85.06 315   P       P        02 47 23.0 -1.7
TOUF  Mont Tournerai     85.08 314  eP       P        02 47 26.5 +1.7
ECH   Echery             85.10 318  eP       P        02 47 25.0 +0.2
MOF   Molkenrain         85.12 318  eP       P        02 47 23.4 -1.5
LSD   Ceresole Reale     85.13 315   P       P        02 47 24.6 -0.4
MVIF  Mont Vial          85.16 314  eP       P        02 47 26.5 +1.3
PZZ   Prazzo             85.18 314   P       P        02 47 23.9 -1.4
FENE  Fenestrelle        85.20 315   P       P        02 47 24.5 -0.9
LOMF  Lomont             85.33 317  eP       P        02 47 26.2 +0.2
RRL   Cesana Torines     85.40 315   P       P        02 47 25.9 -0.4
LPG   La Plagne          85.42 315  eP       P        02 47 26.5 +0.1
      comp=Z,118nm,1.0s,mb5.7
MBDF  Montbardon         85.42 314  eP       P        02 47 25.8 -0.6
      comp=Z,181nm,1.6s,mb5.7
HAU   Haudompre          85.65 318  eP       P        02 47 27.1 -0.4
      comp=Z,160nm,1.2s,mb5.8
THEF  They Montfort      85.89 318  eP       P        02 47 27.4 -1.3
URZ   Urewera            86.86 129   P       P        02 47 33.3 -0.4
      comp=Z,33nm,0.9s,mb5.6,baz=305,slow=1.0,SNR=13
SMF   Signal de Mont     87.40 316  eP       P        02 47 35.6 -0.5
      comp=Z,108nm,1.1s,mb5.7
PLDF  La Plantade        87.59 316  eP       P        02 47 38.1 +1.0
SSF   Saint Saulge       87.61 317  eP       P        02 47 37.0 -0.1
      comp=Z,154nm,1.4s,mb5.7
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LBL   Lubilhac           87.89 315  eP       P        02 47 40.7 +2.2
AGO   Saint Agoulin      87.92 316  eP       P        02 47 38.3 -0.4
PYM   Petit Puy Mans     88.03 316  eP       P        02 47 38.3 -0.9
VNDA  Vanda              89.11 168   P       P        02 47 44.4 +0.6
      comp=Z,6.4nm,0.9s,mb4.9,baz=288,slow=2.4,SNR=5.6
VNDA  Vanda              89.11 168   P       P        02 47 44.4 +0.7
VNDA                                pmax     pmax
      comp=Z,6.0nm,0.9s
LFF   La Frestale        89.69 315  eP       P        02 47 47.1  0.0
      comp=Z,116nm,1.2s,mb5.8
LDF   La Druitiere       89.92 319  eP       P        02 47 48.1  0.0
      comp=Z,139nm,1.1s,mb5.9
EBR   Ebro Roquetas      90.25 311  eP       P        02 47 51.0 +1.2
ESK   Eskdalemuir        90.99 325   P       P        02 47 53.9 +1.1
ESK   Eskdalemuir        90.99 325  eP       P        02 47 53.6 +0.8
ESDC  Sonseca Array      93.77 310   P       P        02 48 06.7 +0.7
      comp=Z,7.2nm,0.7s,mb5.2,baz=61,slow=4.2,SNR=18
IMA   Indian Mountai     95.18  22  eP       P        02 48 12.6 +0.7
SNAA  Sanae              95.97 198   P       P        02 48 16.1 +0.7
      comp=Z,0.8nm,0.9s,baz=156,slow=11,SNR=3.1
SNAA  Sanae              95.97 198   P       P        02 48 16.1 +0.7
SNAA                                pmax     pmax
      comp=Z,1.0nm,0.9s
ILAR  Eielson Array      98.31  22   P       P        02 48 25.6 -0.4
      comp=Z,1.2nm,0.9s,baz=294,slow=3.7,SNR=6.7
ILAR  Eielson Array      98.31  22   P       P        02 48 25.6 -0.4
ILAR                                pmax     pmax
      comp=Z,1.0nm,0.9s
DBIC  Dimbokro           98.53 277   P       P        02 48 27.9 -0.4
      comp=Z,11nm,1.1s,mb5.3,baz=59,slow=6.1,SNR=4.2
DBIC  Dimbokro           98.53 277   P       P        02 48 27.9 -0.3
DBIC                                pmax     pmax
      comp=Z,11nm,1.2s
INK   Inuvik            100.70  16   P       P        02 48 36.6 -0.2
      comp=Z,2.8nm,1.1s,baz=338,slow=8.0,SNR=4.7
INK   Inuvik            100.70  16   P       P        02 48 36.7 -0.1
INK                                 pmax     pmax
      comp=Z,3.0nm,1.1s
YKA   Yellowknife Ar    110.18  14   PKiKP             02 53 20.3
      comp=Z,1.4nm,0.9s,baz=316,slow=3.4,SNR=4.0
YKA                                  PP      PP       02 53 52.8 -5.0
      comp=Z,3.0nm,0.9s,baz=332,slow=7.6,SNR=4.7
YKA                                  PKKPab            03 04 32.6
      comp=Z,1.0nm,0.8s,baz=142,slow=4.0,SNR=7.6
YKA                                  PKKP    PKKP     03 04 43.0 +11
      comp=Z,0.5nm,0.7s,baz=150,slow=4.7,SNR=5.4
YKA   Yellowknife Ar    110.18  14  i PKIKP  PKPdf    02 53 20.3 -3.4
YKA                                                   02 53 52.8
YKA                                                   03 04 32.6
YKA                                 pmax     pmax
      comp=Z,1.0nm,0.9s
YKA                                 pmax     pmax
      comp=Z,3.0nm,0.9s
YKA                                 pmax     pmax
      comp=Z,1.0nm,0.8s
YKA                                 pmax     pmax
      comp=Z,1.0nm,0.7s
YKA   Yellowknife Ar    110.18  14   PKPdf   PKPdf    02 53 20.3 -3.5
YKA                                  PP      PP       02 53 52.9 -5.0
YKA                                  PKKPab            03 04 32.6
YKA                                  PKKP    PKKP     03 04 43.0 +11
FCC   Fort Churchill    117.11   5   PKIKP   PKPdf    02 53 33.9 -3.5
FCC   Fort Churchill    117.11   5  ePKPdf   PKPdf    02 53 32.3 -5.0
SCHQ  Schefferville     119.33 348   PKP     PKPdf    02 53 38.0 -3.7
      comp=Z,3.9nm,0.9s,baz=351,slow=8.1,SNR=5.2
HUMO  Hull Mountain     122.72  32  ePKPdf   PKPdf    02 53 46.5 -2.1
MSO   Missoula          123.64  23  ePKPdf   PKPdf    02 53 46.5 -3.9
MOD   Modoc             124.60  31  ePKPdf   PKPdf    02 53 49.9 -2.5
ULM   Lac du Bonnet     125.30   8   PKP     PKPdf    02 53 50.6 -2.8
      comp=Z,10nm,0.7s,baz=3.7,slow=2.9,SNR=14
NSHM  Saint Helena R    125.72  35  ePKPdf   PKPdf    02 53 52.0 -2.7
OHCM  Honcut            125.80  34  ePKPdf   PKPdf    02 53 51.3 -3.4
HLID  Hailey            126.11  26  ePKPdf   PKPdf    02 53 53.1 -2.1
YMR   Madison River     126.59  22  ePKPdf   PKPdf    02 53 52.6 -3.5
YFT   Old Faithful      126.82  22  ePKPdf   PKPdf    02 53 56.0 -0.5
BMN   Battle Mountai    127.25  30   PKIKP   PKPdf    02 53 56.2 -1.3
BMN   Battle Mountai    127.25  30  ePKPdf   PKPdf    02 53 55.5 -2.0
CMB   Columbia Colle    127.32  34   PKIKP   PKPdf    02 53 55.0 -2.7
CMB                                 e                 02 54 10.2
CMB   Columbia Colle    127.32  34  ePKPdf   PKPdf    02 53 54.8 -2.9
MOOW  Moose Ponds       127.45  23  ePKPdf   PKPdf    02 53 55.3 -2.5
TPAW  Teton Pass        127.59  23  ePKPdf   PKPdf    02 53 55.9 -2.2
LOHW  Long Hollow       127.62  23  ePKPdf   PKPdf    02 53 55.7 -2.4
WUWY  Wally Ulrich      127.63  23  ePKPdf   PKPdf    02 53 55.9 -2.3
SNOW  Snow King Moun    127.69  23  ePKPdf   PKPdf    02 53 56.4 -1.9
REDW  Red Top Meadow    127.74  23  ePKPdf   PKPdf    02 53 56.1 -2.3
ELK   Elko              127.97  28   PKIKP   PKPdf    02 53 57.0 -1.9
ELK   Elko              127.97  28  ePKPdf   PKPdf    02 53 56.7 -2.2
LRV   Little Rabbit     128.07  36  ePKPdf   PKPdf    02 53 58.0 -1.3
AHID  Auburn Hatcher    128.14  24  ePKPdf   PKPdf    02 53 56.2 -3.0
NVAR  Mina Array Bea    128.18  32   PKP     PKPdf    02 53 56.5 -2.9
      comp=Z,33nm,1.3s,baz=273,slow=4.0,SNR=16
MNV   Mina              128.26  32   PKIKP   PKPdf    02 53 57.8 -1.7
MNV   Mina              128.26  32  ePKPdf   PKPdf    02 53 57.5 -2.0
HVU   Hansel Valley     128.26  26   PKIKP   PKPdf    02 53 57.8 -1.6
HVU   Hansel Valley     128.26  26  ePKPdf   PKPdf    02 53 56.3 -3.2
BW06  Boulder Array     128.74  22  ePKPdf   PKPdf    02 53 57.1 -3.3
PDAR  Pinedale Array    128.74  22   PKP     PKPdf    02 53 57.4 -3.0
      comp=Z,11nm,1.0s,slow=1.5,SNR=22
MTUM  Tungsten Hills    128.82  34  ePKPdf   PKPdf    02 53 58.6 -2.0
BGU   Big Grassy Mou    128.84  26  ePKPdf   PKPdf    02 53 58.1 -2.4
HWUT  Hardware Ranch    128.92  25  ePKPdf   PKPdf    02 53 58.0 -2.7
NLU   North Lily Min    130.06  26  ePKPdf   PKPdf    02 54 01.1 -1.8
MPU   Maple Canyon      130.20  26  ePKPdf   PKPdf    02 54 01.2 -2.0
TPNV  Topopah Spring    130.37  32   PKIKP   PKPdf    02 54 02.3 -1.3
TPNV  Topopah Spring    130.37  32  ePKPdf   PKPdf    02 54 01.9 -1.6
RWWY  Rawlins           130.54  21  ePKPdf   PKPdf    02 54 00.7 -3.1
MDV   Middlebury        130.92 348  ePKPdf   PKPdf    02 54 01.1 -3.3
TMUT  Trail Mountain    130.98  26  ePKPdf   PKPdf    02 54 02.6 -2.1
SADO  Sadowa            131.12 354   PKP     PKPdf    02 54 01.2 -3.5
      comp=Z,7.0nm,0.8s,baz=329,slow=12,SNR=6.2
MVU   Marysvale         131.17  28  ePKPdf   PKPdf    02 54 02.6 -2.4
MSU   Marysvale         131.18  28   PKHKP             02 53 36.2
MSU   Marysvale         131.18  28  ePKPdf   PKPdf    02 54 03.7 -1.4
SRU   San Rafael        131.43  26   PKIKP   PKPdf    02 54 04.0 -1.5
SRU   San Rafael        131.43  26  ePKPdf   PKPdf    02 54 02.9 -2.6
PHWY  Pilot Hill        131.50  20  ePKPdf   PKPdf    02 54 02.4 -3.2
PV10  Paradox Valley    132.68  25  ePKPdf   PKPdf    02 54 05.0 -3.0
ACSO  Alum Creek Sta    135.94 357  ePKPdf   PKPdf    02 54 10.0 -3.9
KSU1  Kansas State U    135.99  12  ePKPdf   PKPdf    02 54 08.9 -5.1
ANMO  Albuquerque       136.68  25   PKP     PKPdf    02 54 13.6 -1.7
      comp=Z,16nm,1.1s,baz=204,slow=0.9,SNR=13
ANMO  Albuquerque       136.68  25   PKIKP   PKPdf    02 54 15.5 +0.2
ANMO  Albuquerque       136.68  25  ePKPdf   PKPdf    02 54 13.5 -1.8
ELN   Prospectdale      138.75 354  ePKPdf   PKPdf    02 54 15.8 -3.3
WMOK  Wichita Mounta    139.60  17   PKHKP             02 54 08.3
WMOK  Wichita Mounta    139.60  17  ePKPpre            02 54 07.7
MIAR  Mount Ida         140.99  10   PKHKP             02 54 13.8
MIAR  Mount Ida         140.99  10  ePKPpre            02 54 13.7
BAO   Brasilia Array    141.08 250   PKP     PKPdf    02 54 14.0  -10
BAO                                 i                 02 54 21.2
BDFB  Brasilia          141.10 250   PKP     PKPdf    02 54 21.3 -2.7
      comp=Z,18nm,1.0s,baz=120,slow=2.2,SNR=13
BDFB  Brasilia          141.10 250   PKIKP   PKPdf    02 54 21.3 -2.7
BDFB                                pmax     pmax
      comp=Z,18nm,1.0s
LTX   Lajitas           142.70  26   PKIKP   PKPdf    02 54 24.7 -1.7
LTX   Lajitas           142.70  26  ePKPpre            02 54 18.5
TXAR  Lajitas Array     142.70  26   PKhKP             02 54 19.4
      comp=Z,1.9nm,0.6s,baz=352,slow=0.2,SNR=17
JCT   Junction City     143.22  20   PKIKP   PKPdf    02 54 20.4 -6.8
JCT   Junction City     143.22  20  ePKPpre            02 54 20.1
MDZ   Mendoza           147.16 207  eP       PKPdf    02 54 33.9  0.0
RPN   Rapa Nui          147.81 138  ePKPbc   PKPdf    02 54 36.2 +1.1
SJG   San Juan          150.74 319   PKPbc   PKPdf    02 54 42.2 +2.3
      comp=Z,48nm,0.8s,baz=44,slow=4.7,SNR=13
SJG   San Juan          150.74 319   PKIKP   PKPdf    02 54 42.2 +2.2
SJG                                 pmax     pmax
      comp=Z,48nm,0.8s
PCRV  Puerto La Cruz    154.68 304   PKPbc   PKPdf    02 54 50.0 +4.3
      comp=Z,7.4nm,0.7s,baz=238,slow=4.0,SNR=5.3
LVC   Limon Verde       155.29 220   PKP     PKPdf    02 54 43.4 -2.9
      comp=Z,7.0nm,1.0s,baz=260,slow=3.2,SNR=5.0
LVC                                  PKPab   PKPab    02 55 10.3 +1.4
      comp=Z,11nm,0.7s,baz=127,slow=2.9,SNR=7.6
TEIG  Tepich            155.83   6  ePKPab   PKPab    02 55 09.5 -1.8
LPAZ  La Paz            158.77 234   PKP     PKPdf    02 54 49.2 -1.7
      comp=Z,10.0nm,1.0s,baz=34,slow=3.6,SNR=8.4
LPAZ                                 PKPab   PKPab    02 55 24.4 +0.4
      comp=Z,7.8nm,0.9s,baz=93,slow=6.4,SNR=6.5
LPAZ  La Paz            158.77 234   PKIKP   PKPdf    02 54 49.2 -1.7
LPAZ                                                  02 55 24.5
LPAZ                                pmax     pmax
```

	comp=Z,10.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,8.0nm,0.9s						
LPAZ	La Paz	158.77	234	*e*PKPdf	PKPdf	02 54 49.5	-1.4
SDV	Santo Domingo	160.22	310	PKP	PKPdf	02 54 49.6	-3.0
	comp=Z,4.4nm,0.8s,baz=132,slow=1.8,SNR=3.8						
SDV				PKPab	PKPab	02 55 30.1	-0.3
	comp=Z,22nm,0.8s,baz=79,slow=2.8,SNR=14						
ROSC	El Rosal	165.59	307	PKP	PKPdf	02 54 55.7	-2.2
	comp=Z,11nm,0.8s,baz=145,slow=1.3,SNR=9.1						
ROSC				PKPab	PKPab	02 55 54.0	+0.2
	comp=Z,14nm,1.0s,baz=79,slow=4.5,SNR=3.2						

*IDC **26** 02:36:04.2±0.3, 12.15N×92.88E, mb5.6/31, mb1 5.7/32, mb1mx5.6/33, ML6.2/1, Error ellipse: s-maj=16.8km s-min=9.6km az=46.0*

*BJI **26** 02:36:07.3, 12.21N×92.52E, h53^{km}, mB7.1, mb5.8, Ms6.7, Msz6.7*

*MOS **26** 02:36:08.4±1.4, 12.28N×92.93E, h33^{km}, mb6.0/41, Error ellipse: s-maj=10.0km s-min=5.8km az=118.8*

*SYO **26** 02:36:09.4, 12.19N×92.95E, h33^{km}, MB5.8*

*NEIC **26** 02:36:10.1±1.0, 12.18N×92.94E, h38^{km}±8^{km}, mb5.8/68, Error ellipse: s-maj=6.4km s-min=3.9km az=220.0*

ISC 26 02:36:07.4±0.2**, 12.16N**±0.03×**92.95E**±0.03**, h32**^{km}**, h32**^{km}±1.8^{km}**:pP-P, n420,** σ**1**^{s}**03**/293**, mb5.8**/120**, 10C-3D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	8.52	42	*e*P	P	02 38 12.6	+0.9
	753nm,0.6s						
CMAR	Chiang Mai Arr	8.52	42	Pn	P	02 38 12.2	+0.5
	70nm,0.3s,baz=235,slow=16,SNR=35						
CMAR	Chiang Mai Arr	8.52	42	P	P	02 38 12.2	+0.6
CMAR				pmax	pmax		
	comp=Z,70nm,0.3s						
VIS	Vishakhapatnam	10.82	302	*e*P	P	02 38 40.5	-2.9
VIS				*e*S	rx	02 40 29.4	
VIS				*e*	S	02 40 34.4	-10
	comp=N,5µm,1.5s						
VIS				*e*		02 40 34.9	
	comp=E,3µm,0.9s						
MDRS	Chennai	12.43	276	*e*P	P	02 39 03.8	-1.4
MDRS				*e*S	rx	02 41 07.2	
MDRS				*e*	S	02 41 17.9	-5.6
	comp=E,1µm,0.3s						
MDRS				*e*		02 41 17.9	
	comp=N,2µm,0.2s						
VJD	Vijayawada	12.68	291	*i* S	S	02 41 14.0	-16
SHL	Shillong	13.38	356	*e*P	P	02 39 14.0	-3.6
SHL				*e*		02 39 18.7	
	comp=Z,345nm,0.7s						
BOK	Bokaro	13.38	331	*e*P	P	02 39 15.9	-1.7
	comp=Z,888nm,1.4s						
BLSP	Bilaspur	14.32	315	*e*P	P	02 39 28.2	-1.9
SLGI	Shiliguri	15.08	344	*e*	P	02 39 41.8	+1.7
SLGI				*e*	S	02 42 26.9	+0.2
TRD	Trivandrum	16.14	259	*e*P	P	02 39 54.3	+0.5
PKI	Pulchoki	16.89	336	*e*P	P	02 40 04.3	+1.2
	comp=Z,819nm,0.8s						
GUN	Gumba	17.02	338	*e*P	P	02 40 07.4	+2.7
	comp=Z,996nm,0.8s						
DMN	Daman	17.04	336	*e*P	P	02 40 06.4	+1.4
	comp=Z,1µm,0.7s						
KKN	Kakani	17.13	336	*e*P	P	02 40 06.9	+0.7
	comp=Z,756nm,0.9s						
AKL	Akola	17.48	301	*e*	P	02 40 03.7	-6.8
LSA	Lhasa	17.54	355	P	P	02 40 08.0	-3.2
LSA	Lhasa	17.54	355	*e*P	P	02 40 11.7	+0.5
	comp=Z,337nm,0.6s						
GKN	Gorkha	17.58	335	*e*P	P	02 40 12.6	+0.8
	comp=Z,615nm,0.6s						
QIZ	Qiongzhong	17.64	65	P	P	02 40 14.5	+2.0
MNGI	Mangalore	17.71	274	*e*P	P	02 40 12.8	-0.7
KOLN	Koldanda	17.83	332	*e*P	P	02 40 16.3	+1.4
	comp=Z,1µm,1.1s						
BHPL	Bhopal	18.43	309	*e*P	P	02 40 22.1	-0.3
POO	Poona	19.47	291	*e*P	P	02 40 31.2	-3.5
PTH	Pithoragarh	20.97	328	*e*P	P	02 40 47.8	-2.5
CD2	Chengdu	21.17	27	⇑*i*P	P	02 40 51.8	-0.5
NDI	New Delhi	22.04	321	*e*	P	02 40 53.1	-8.0
NDI				*e*		02 41 07.2	
	comp=Z,254nm,0.9s						
AJM	Ajmer	22.35	312	*e*P	P	02 41 01.9	-2.3
AJM				*e*		02 41 16.8	
	comp=Z,696nm,1.4s						
DDI	Dehra Dun	22.75	325	*e*	P	02 41 10.8	+2.7
ENH	Enshi	23.66	38	*e*P	P	02 41 16.7	-0.3
	comp=Z,1µm,0.6s,mb6.6						
SMLA	Simla	23.86	325	⇑*i*		02 41 34.6	
COCO	West Island	24.49	171	*e*P	P	02 41 26.0	+0.7
	comp=Z,456nm,1.2s,mb5.8						
DLH	Dalhousie	25.59	325	*e*P	P	02 41 36.0	+0.5
LZH	Lanzhou	25.78	21	*e*P	P	02 41 38.0	+0.8
LZH				PP	PP	02 42 19.5	+1.8
LZH				AMB	AMB		
	comp=Z,316nm,1.2s,mb5.7						
TGY	Tagaytay City	27.32	83	P	P	02 41 52.5	+1.0
	comp=Z,144nm,0.3s,mb6.0,baz=158,slow=2.5,SNR=3.4						
TGY	Tagaytay City	27.32	83	P	P	02 41 52.5	+1.0
TGY				pmax	pmax		
	comp=Z,144nm,0.3s						
QZH	Quanzhou	27.37	59	⇑*i*P	P	02 41 52.0	+0.1
QZH				AMB	AMB		
	comp=Z,190nm,1.0s,mb5.6						
SRDI	Scrawed	29.39	133	⇑*e*P	P	02 42 09.6	-0.7
	comp=Z,114nm,0.3s,mb6.1						
KELI	Kelakatan	29.46	132	⇑*e*P	P	02 42 11.4	+0.5
	comp=Z,55nm,0.3s,mb5.8						
RATI	Rata	30.56	132	⇑*e*P	P	02 42 19.5	-1.1
	comp=Z,561nm,0.3s						
KEDI	Kedomdong	30.83	131	⇑*e*P	P	02 42 21.2	-1.8
	comp=Z,611nm,0.7s,mb6.5						
NJ2	Nanjing	30.97	46	*e*P	P	02 42 22.0	-2.0
NJ2				AMB	AMB		
	comp=Z,110nm,0.7s,mb5.8						
BTO	Baotou	32.07	25	P	P	02 42 32.8	-0.9
SSE	Sheshan	32.16	50	*e*P	P	02 42 35.0	+0.5
SSE				AMB	AMB		
	comp=Z,126nm,0.8s,mb5.8						
TIA	Tai'an	32.38	38	P	P	02 42 35.5	-0.8
TIA				AMB	AMB		
	comp=Z,123nm,1.0s,mb5.7						
AAK	Ala-Archa	34.34	336	*i* P	P	02 42 52.8	-0.5
BJT	Baijiatuau	34.50	32	*e*P	P	02 42 55.5	+0.8
BJT				pmax	pmax		
	comp=Z,200nm,0.6s						
BJT	Baijiatuau	34.50	32	*e*P	P	02 42 55.5	+0.8
	comp=Z,200nm,0.6s,mb6.2						
BJI	Beijing	34.52	32	P	P	02 42 54.8	-0.1
BJI				AMB	AMB		
	comp=Z,363nm,0.9s,mb6.3						
JOW	Kunigami	36.21	61	P	P	02 43 11.4	+2.1
	comp=Z,58nm,0.6s,mb5.7,baz=256,slow=7.8,SNR=23						
JOW				PcP	PcP	02 45 36.1	+1.6
	comp=Z,39nm,0.7s,baz=137,slow=1.1,SNR=4.1						
DL2	Dalian	36.85	39	P	P	02 43 14.5	-0.1
DL2				AMB	AMB		
	comp=Z,260nm,1.0s,mb6.0						
SONM	Songino Array	37.31	15	P	P	02 43 18.9	+0.6
	comp=Z,144nm,0.8s,mb5.9,baz=203,slow=9.4,SNR=19						
SONM				PcP	PcP	02 45 38.3	+0.6
	comp=Z,31nm,0.7s,baz=180,slow=3.7,SNR=5.5						
ULN	Ulaanbaatar	37.51	16	*e*P	P	02 43 20.7	+0.7
ZAK	Zakamensk	39.05	10	*e*P	P	02 43 32.8	-0.1
ZAK	Zakamensk	39.05	10	*e*	P	02 43 32.8	-0.1
INCN	Inchon	39.28	44	*e*P	P	02 43 34.3	-0.7
	comp=Z,98nm,0.5s,mb5.8						
MOY	Mondy	39.94	8	*e*P	P	02 43 40.8	+0.5
MOY	Mondy	39.94	8	*e*P	P	02 43 40.8	+0.5
KS15	Wonju Array Si	40.12	45	*e*P	P	02 43 41.7	-0.2
TLY	Talaya	40.36	10	*e*P	P	02 43 45.0	+1.2
	comp=Z,183nm,0.9s,mb5.8						
CN2	Changchun	42.14	35	*e*P	P	02 44 00.0	+1.5
ZAL	Zalesovo	42.18	353	P	P	02 43 58.8	+0.1
	comp=Z,82nm,0.8s,mb5.4,baz=296,slow=8.3,SNR=17						
ZAL	Zalesovo	42.18	353	P	P	02 43 58.8	+0.2
ZAL				pmax	pmax		
	comp=Z,82nm,0.8s						
MBWA	Marble Bar	42.29	141	*e*P	P	02 43 58.7	-1.3
	comp=Z,114nm,1.0s,mb5.5						
BVAR	Borovoye Array	44.59	341	P	P	02 44 17.9	-0.3
	comp=Z,181nm,1.0s,mb5.9,baz=141,slow=9.2,SNR=14						
BRVK	Borovoye	44.65	341	*e*P	P	02 44 18.9	+0.2
MDJ	Mudanjiang	45.02	37	*e*P	P	02 44 22.0	+0.1
	comp=Z,111nm,1.0s,mb5.6						
CHKZ	Chkalovo	45.07	341	*e*P	P	02 44 20.3	-1.7
MAT	Matsushiro	47.28	51	PCP	PcP	02 46 09.4	-1.5
NWAO	Narrogin (SRO)	50.47	153	P	P	02 45 03.7	-0.8
	comp=Z,511nm,1.0s,mb6.5,baz=319,slow=8.5,SNR=40						
NWAO	Narrogin (SRO)	50.47	153	P	P	02 45 03.7	-0.8
NWAO				pmax	pmax		
	comp=Z,511nm,1.0s						
NWAO	Narrogin (SRO)	50.47	153	*e*P	P	02 45 03.7	-0.8
	comp=Z,294nm,0.9s,mb6.3						
GNI	Garni	50.66	312	P	P	02 45 04.6	-1.2
	comp=Z,156nm,1.0s,mb5.9,baz=157,slow=5.4,SNR=16						
GNI	Garni	50.66	312	P	P	02 45 04.6	-1.2
GNI				pmax	pmax		
	comp=Z,156nm,1.0s						
CLNS	Chul'man	50.89	22	*e*P	P	02 45 03.5	-3.8
CLNS				pmax	pmax		
	comp=Z,384nm,0.9s,mb6.3						
CLNS				pmax	pmax		
	comp=N,211nm,1.1s						
CLNS				pmax	pmax		
	comp=E,189nm,1.0s						
ARU	Arti	51.52	336	⇓*i*P	P	02 45 09.8	-2.3
ARU				*e*S	S	02 52 29.3	+0.5
ARU				pmax	pmax		
	comp=Z,146nm,1.3s,mb5.8						
ARU	Arti	51.52	336	*i* P	P	02 45 10.1	-2.0
WRA	Warramunga Arr	51.74	128	P	P	02 45 13.1	-1.2
	comp=Z,61nm,0.5s,mb5.8,baz=301,slow=10.0,SNR=32						
WRA				PcP	PcP	02 46 27.3	0.0
	comp=Z,44nm,0.8s,baz=314,slow=3.7,SNR=7.6						
WRA	Warramunga Arr	51.74	128	P	P	02 45 13.1	-1.2
WRA						02 46 27.3	
WRA				pmax	pmax		
	comp=Z,61nm,0.5s						
WRA				pmax	pmax		
	comp=Z,44nm,0.8s						
WRAB	Tennant Creek	51.74	128	*e*P	P	02 45 13.2	-1.1
WRAB				pmax	pmax		
	comp=Z,150nm,0.5s,mb6.2						
WRAB	Tennant Creek	51.74	128	*e*P	P	02 45 13.0	-1.3
	comp=Z,149nm,0.5s,mb6.2						
ZEI	Tsey	52.16	315	*e*P	P	02 45 18.6	+1.4
ZEI				pmax	pmax		
	comp=Z,79nm,0.9s,mb5.6						
ASAJ	Asahikawa	53.04	43	P	P	02 45 24.1	+0.4
	comp=Z,162nm,0.9s,mb6.0,baz=242,slow=11,SNR=22						
ASAJ	Asahikawa	53.04	43	P	P	02 45 24.2	+0.5
ASAJ				pmax	pmax		
	comp=Z,162nm,0.9s						
KIV	Kislovodsk	53.41	316	P	P	02 45 27.2	+0.8
	comp=Z,1µm,1.0s,mb6.8,SNR=9.9						
KIV	Kislovodsk	53.41	316	*e*P	P	02 45 27.0	+0.6
KIV				pmax	pmax		
	comp=N,144nm,1.4s						
KIV				pmax	pmax		
	comp=E,90nm,1.4s						
KIV				pmax	pmax		
	comp=Z,270nm,1.4s,mb6.0						
KIV	Kislovodsk	53.41	316	*i* P	P	02 45 27.1	+0.7
GOF	Gofitskoye	53.57	318	*e*P	P	02 45 27.0	-0.6
GOF				pmax	pmax		
	comp=Z,180nm,1.4s,mb5.8						
ASAR	Alice Springs	53.58	132	P	P	02 45 26.8	-1.2
	comp=Z,46nm,0.5s,mb5.6,baz=311,slow=7.0,SNR=38						
ASAR				PcP	PcP	02 46 33.9	-0.4
	comp=Z,35nm,0.8s,baz=317,slow=3.9,SNR=6.7						
YSS	Yuzh-Sakhalins	54.21	40	*i* P	P	02 45 31.5	-0.7
YSS				pmax	pmax		
	comp=Z,528nm,1.5s,mb6.2						
YSS	Yuzh-Sakhalins	54.21	40	*e*P	P	02 45 31.7	-0.6
	comp=Z,296nm,0.8s,mb6.3						
ASF	Jabal al Asfar	54.97	301	P	P	02 45 38.8	+0.7
	comp=Z,39nm,1.1s,mb5.4,baz=252,slow=3.2,SNR=5.8						
YUK	Yuzh-Kuril'sk	55.23	44	*e*P	P	02 45 38.0	-1.8
SOC	Sochi	55.32	315	*e*P	P	02 45 37.1	-3.3
ANN	Anapa	57.24	316	*e*P	P	02 45 56.9	+2.7
ANN				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.5						
PMG	Port Moresby	57.97	109	P	P	02 45 59.2	-0.4
	comp=Z,58nm,0.8s,mb5.7,baz=348,slow=5.9,SNR=10						
PMG	Port Moresby	57.97	109	P	P	02 45 59.2	-0.4
PMG				pmax	pmax		
	comp=Z,58nm,0.8s						
BRTR	Keskin Array B	58.80	309	P	P	02 46 03.3	-1.8
	comp=Z,24nm,0.7s,mb5.3,baz=122,slow=5.9,SNR=12						
BRTR	Keskin Array B	58.80	309	P	P	02 46 03.3	-1.8
BRTR				pmax	pmax		
	comp=Z,24nm,0.7s						
SIM	Simferopol'	59.56	315	*e*P	P	02 46 11.0	+0.7
SIM				pmax	pmax		
	comp=Z,158nm,1.1s,mb6.0						
ISP	Isparta	60.92	307	*e*P	P	02 46 17.4	-2.3
OBN	Obninsk	61.16	327	*i* P	P	02 46 20.8	-0.3
OBN				*i* *PP	pP	02 46 27.8	-3.4
OBN				pmax	pmax		
	comp=Z,242nm,1.2s,mb6.2						
CTA	Charters Tower	61.46	121	P	P	02 46 22.3	-1.3
	comp=Z,26nm,1.0s,mb5.3,baz=283,slow=5.6,SNR=4.1						
CTA				PcP	PcP	02 47 05.7	+0.6
	comp=Z,42nm,0.9s,baz=306,slow=5.2,SNR=8.3						
CTA	Charters Tower	61.46	121	P	P	02 46 22.3	-1.3
CTA						02 47 05.7	
CTA				pmax	pmax		
	comp=Z,26nm,1.0s						
CTA				pmax	pmax		
	comp=Z,42nm,0.9s						
CTA	Charters Tower	61.46	121	P	P	02 46 22.3	-1.3
CTA				PcP	PcP	02 47 05.7	+0.6
CTAO	Charters Tower	61.46	121	*e*P	P	02 46 23.1	-0.5
CTAO	Charters Tower	61.46	121	*e*P	P	02 46 22.7	-0.9
	comp=Z,39nm,1.2s,mb5.4						
TIXI	Tiksi	63.30	12	*e*P	P	02 46 34.1	-1.0
TIXI				pmax	pmax		
	comp=Z,372nm,0.9s,mb6.5						
TIXI				pmax	pmax		
	comp=N,59nm,0.8s						
TIXI				pmax	pmax		
	comp=E,50nm,0.9s						
TIXI				pmax	pmax		
	comp=Z,802nm,1.3s,mb6.7						
TIXI	Tiksi	63.30	12	*i* P	P	02 46 33.6	-1.5
MA2	Magadan	63.57	29	*e*P	P	02 46 35.8	-1.2
KIS	Kishinev	63.61	317	*i* P	P	02 46 36.0	-1.5
SKR	Severo-Kuril's	63.75	39	*e*P	P	02 46 33.0	-5.4
SKR				pmax	pmax		
	comp=N,180nm,1.0s						
SKR				pmax	pmax		
	comp=Z,270nm,1.0s,mb6.2						
SKR				pmax	pmax		
	comp=E,640nm,1.4s						
STKA	Stephens Creek	63.91	135	P	P	02 46 39.1	-0.7
	comp=E,28nm,0.7s,mb5.4,baz=302,slow=7.0,SNR=11						
STKA	Stephens Creek	63.91	135	*e*P	P	02 46 38.4	-1.3
AKASG	Malin Array Be	64.11	321	P	P	02 46 39.3	-1.4
	comp=E,49nm,0.9s,mb5.5,baz=86,slow=4.4,SNR=18						
AKASG	Malin Array Be	64.11	321	P	P	02 46 39.3	-1.4
AKASG				pmax	pmax		
	comp=Z,49nm,0.9s						
IDI	Anoyia	65.22	303	P	P	02 46 47.7	-0.5
	comp=Z,52nm,0.9s,mb5.5,baz=145,slow=8.3,SNR=4.8						
MLR	Muntele Rosu	65.33	315	P	P	02 46 48.6	-0.1
	comp=Z,212nm,1.1s,mb6.1,baz=52,slow=4.2,SNR=12						
MLR	Muntele Rosu	65.33	315	P	P	02 46 48.6	-0.1
MLR				pmax	pmax		
	comp=Z,212nm,1.1s						
PET	Petropavlovsk	65.81	37	*e*P	P	02 46 50.3	-1.3
PET				pmax	pmax		
	comp=Z,120nm,1.3s,mb5.8						
PET	Petropavlovsk	65.81	37	*e*P	P	02 46 49.8	-1.8
	comp=Z,82nm,0.8s,mb5.8						
PUL	Pulkovo	65.93	331	⇓*e*P	P	02 46 52.1	-0.2
PUL				pmax	pmax		
	comp=Z,249nm,1.0s,mb6.2						
PUL				pmax	pmax		
	comp=E,313nm,1.1s						
IDID	Didziasalis	66.60	325	*e*P	P	02 46 56.3	-0.3
IDID				AMPb	AMB	02 46 59.1	
	comp=Z,81nm,1.2s,mb5.6						
IIGN	Ignalina	66.90	325	*e*P	P	02 46 58.2	-0.3
IIGN				AMPb	AMB	02 47 01.1	
	comp=Z,80nm,1.2s,mb5.6						
IZAR	Zarasai	66.97	326	*e*P	P	02 46 58.5	-0.5
IZAR				AMPb	AMB	02 47 01.4	
	comp=Z,84nm,1.2s,mb5.6						
ISAL	Salakas	67.00	325	*e*P	P	02 46 58.8	-0.5
ISAL				AMPb	AMB	02 47 01.7	
	comp=Z,72nm,1.3s,mb5.5						
LVZ	Lovozero	67.16	340	⇑*e*P	P	02 46 58.3	-1.7
LVZ				pmax	pmax		
	comp=Z,101nm,1.0s,mb5.8						
LVZ				pmax	pmax		
	comp=E,36nm,1.3s						
KWP	Kalwaria	68.05	319	*e*P	P	02 47 06.3	+0.4
KWP				*e*	pP	02 47 17.1	+1.2
KOLS	Kolonicke sedl	68.25	318	*e*P	P	02 47 06.7	-0.4
SUW	Suwalki	68.38	323	*e*P	P	02 47 07.6	-0.3
FINES	FINESS Array B	68.41	332	P	P	02 47 07.2	-0.7
	comp=E,69nm,0.9s,mb5.7,baz=106,slow=6.4,SNR=17						
FINES	FINESS Array B	68.41	332	P	P	02 47 07.2	-0.7
FINES				pmax	pmax		
	comp=Z,69nm,0.9s						
KAF	Kangasniemi	68.47	332	*e*p	P	02 47 07.7	-0.6
	baz=102,slow=5.8						
CRVS	Cervenica-Dubn	68.77	318	*e*P	P	02 47 10.8	+0.4
CRVS				*e*		02 47 32.9	
KECS	Kecovo	69.38	317	*e*P	P	02 47 13.8	-0.3
WAR	Warsaw	69.42	321	*e*P	P	02 47 14.4	+0.1
OJC	Ojcow	69.98	319	*e*P	P	02 47 17.9	+0.2
VYHS	Vyhne	70.47	317	*e*P	P	02 47 20.1	-0.7
SRO2	Moca	70.72	316	*e*P	P	02 47 23.1	+0.8
SRO	Srobarova	70.78	317	*e*P	P	02 47 22.9	+0.2
SRO				*e*	pP	02 47 32.5	-0.3
ARCES	ARCESS Array B	70.87	340	P	P	02 47 22.5	-0.4
	comp=Z,38nm,0.8s,mb5.4,baz=98,slow=5.9,SNR=17						
ARCES	ARCESS Array B	70.87	340	P	P	02 47 22.5	-0.4
ARCES				pmax	pmax		
	comp=Z,38nm,0.8s						
ARE0	ARCESS Array S	70.87	340	*e*P	P	02 47 21.4	-1.4
OKC	Ostrava-Krasne	71.01	319	*e*P	P	02 47 23.9	-0.1
MORC	Moravsky Berou	71.40	319	*e*P	P	02 47 20.2	-6.2
MORC				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.7						
MORC	Moravsky Berou	71.40	319	*e*P	P	02 47 26.2	-0.2
	comp=Z,110nm,1.3s,mb5.6						
SMOL	Smolenice	71.41	317	*e*P	P	02 47 25.2	-1.3
SMOL				*e*	pP	02 47 33.5	-3.0
KTK1	Kautokeino	71.50	339	*e*P	P	02 47 27.2	+0.5
ZST	Bratislava	71.61	317	*e*P	P	02 47 26.9	-0.8
GKP	Gorka Klasztor	71.81	322	*e*P	P	02 47 28.9	+0.1
VRAC	Vranov	71.99	318	P	P	02 47 29.7	-0.2
	comp=Z,12nm,0.8s,mb4.9,baz=92,slow=8.7,SNR=7.4						
VRAC	Vranov	71.99	318	P	P	02 47 29.7	-0.2
VRAC				pmax	pmax		
	comp=Z,12nm,0.8s						
DPC	Dobruska-Polom	72.21	319	*e*P	P	02 47 32.2	+1.0
KSP	Ksiaz	72.25	320	*e*P	P	02 47 32.4	+1.0
UPC	Upice	72.42	319	*e*P	P	02 47 32.6	+0.2
BILL	Bilibino	72.58	22	*i* P	P	02 47 31.5	-1.5
BILL				pmax	pmax		
	comp=Z,160nm,1.1s,mb5.9						
BILL	Bilibino	72.58	22	*e*P	P	02 47 32.2	-0.8
TRO	Tromso	73.13	339	*e*P	P	02 47 34.2	-2.1
TRO				*e*pP	pP	02 47 46.0	-0.4
PVCC	Panska Ves	73.34	319	*e*P	P	02 47 38.4	+0.6
PRU	Pruhonice	73.34	319	*e*P	P	02 47 38.1	+0.2
BRG	Berggiesshubel	73.74	320	*i* P	P	02 47 40.4	+0.3
BRG				pmax	pmax		
	comp=Z,1.0nm,1.3s						
BRG	Berggiesshubel	73.74	320	*i* P	P	02 47 40.4	+0.3
	comp=Z,1.3nm,1.3s						
RUE	Ruedersdorf	73.87	321	*e*P	P	02 47 40.7	-0.1
GERES	GERESS Array B	73.89	318	P	P	02 47 40.4	-0.6
	comp=Z,47nm,0.9s,mb5.4,baz=91,slow=5.2,SNR=19						
GERES	GERESS Array B	73.89	318	P	P	02 47 40.4	-0.6
GERES				pmax	pmax		
	comp=Z,47nm,0.9s						
KHC	Kasperske Hory	73.97	318	*e*P	P	02 47 41.4	-0.1
RGN	Rugen	74.18	323	*e*P	P	02 47 43.2	+0.6
HFS	Hagfors	74.19	329	P	P	02 47 42.0	-0.6
	comp=Z,34nm,0.5s,mb5.5,baz=113,slow=4.6,SNR=43						
HFS	Hagfors	74.19	329	P	P	02 47 42.0	-0.6
HFS				pmax	pmax		
	comp=Z,35nm,0.5s						
MOR8	Moi Rana	74.32	336	*e*P	P	02 47 42.0	-1.2
CLL	Collm	74.34	320	*i* P	P	02 47 43.4	-0.2
CLL				*e*	pP	02 47 54.0	+0.3
CLL				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.6						
CLL	Collm	74.34	320	*i* P	P	02 47 43.4	-0.2
	comp=Z,87nm,1.2s,mb5.6						
CLL				*e*	pP	02 47 54.0	+0.3
CLL	Collm	74.34	320	P	P	02 47 43.4	-0.2
	comp=Z,logA/T=1.9,mb5.6						
CLL				*e**PP	pP	02 47 54.0	+0.3
CLL				*e**SP	sP	02 47 59.0	+1.8
WET	Wettzell	74.43	318	*e*P	P	02 47 44.6	+0.5
FX1	Attu Island--F	74.50	38	*e*P	P	02 47 43.6	-0.9
NKC	Novy Kostel	74.69	319	*e*P	P	02 47 46.2	+0.5
LOF	Lofoten	74.85	338	*e*P	P	02 47 47.5	+1.2
LOF				AMb	AMB	02 47 49.6	
	comp=Z,214nm,1.3s,mb5.9						
LOF				*e*pP	pP	02 47 58.1	+1.7
LOF	Lofoten	74.85	338	*e*P	P	02 47 47.5	+1.2
	comp=Z,214nm,1.3s,mb5.9						
SMY	Shemya	75.07	38	P	P	02 47 47.5	-0.3
SMY				pmax	pmax		
	comp=Z,730nm,1.0s,mb6.6						
SMY	Shemya	75.07	38	*e*P	P	02 47 47.4	-0.4
	comp=Z,344nm,0.5s,mb6.5						
MOX	Moxa	75.22	319	*e*P	P	02 47 49.1	+0.4
MOX	Moxa	75.22	319	*i* P	P	02 47 49.1	+0.4
NSS	Namsos	75.23	334	*e*P	P	02 47 47.5	-1.0
LBTB	Lobatse	75.31	240	*e*P	P	02 47 45.1	-4.6
LBTB				pmax	pmax		
	comp=Z,61nm,1.1s,mb5.4						
LBTB	Lobatse	75.31	240	*e*P	P	02 47 51.0	+1.3
NB2	NORSAR Subarra	75.45	330	P	P	02 47 48.4	-1.4
	comp=Z,101nm,1.0s,mb5.7,baz=92,slow=5.8						
NB2	NORSAR Subarra	75.45	330	P	P	02 47 48.4	-1.4
	baz=92,slow=5.9						
NOA	NORSAR Array B	75.45	330	P	P	02 47 48.9	-0.9
	comp=Z,136nm,1.1s,mb5.8,baz=92,slow=5.6,SNR=22						
NOA	NORSAR Array B	75.45	330	P	P	02 47 48.9	-0.9
NOA				pmax	pmax		
	comp=Z,136nm,1.2s						
GRA1	Grafenberg Arr	75.50	318	*e*P	P	02 47 50.3	0.0
	comp=Z,30nm,0.8s,mb5.3						
GRF	Grafenberg Arr	75.50	318	*e*P	P	02 47 50.3	0.0
GRF				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
GRF	Grafenberg Arr	75.50	318	*e*P	P	02 47 50.3	0.0
	comp=Z,30nm,0.8s,mb5.3						
FUR	Furstenfeldbru	75.51	317	*e*P	P	02 47 50.7	+0.3
NAO01	NORSAR Array S	75.61	330	*e*P	P	02 47 50.1	-0.6
	comp=Z,80nm,1.0s,mb5.6						
OSL	Oslo	75.68	329	*e*P	P	02 47 50.9	-0.2
OSL				AMb	AMB	02 47 52.9	
	comp=Z,72nm,1.3s,mb5.5						
OSL	Oslo	75.68	329	*e*P	P	02 47 50.9	-0.2
	comp=Z,72nm,1.3s,mb5.5						
BSEG	Bad Segeberg	75.94	323	*e*P	P	02 47 53.7	+1.0
CLZ	Clausthal	75.97	321	*e*P	P	02 47 53.3	+0.4
	comp=Z,119nm,1.1s,mb5.7						
DOMB	Dombas	76.49	331	*e*P	P	02 47 55.4	-0.3
DOMB				AMb	AMB	02 47 57.6	
	comp=Z,140nm,1.2s,mb5.8						
DOMB				*e*pP	pP	02 48 07.1	+1.2
DOMB	Dombas	76.49	331	*e*P	P	02 47 55.4	-0.3
	comp=Z,140nm,1.3s,mb5.7						
MUD	Monsted U'grnd	76.53	325	*i* P	P	02 48 00.2	+4.2
BOSA	Boshof	76.90	237	P	P	02 47 53.1	-5.5
BOSA				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
BOSA	Boshof	76.90	237	*e*P	P	02 47 59.3	+0.7
MOL	Molde	77.19	332	*e*P	P	02 48 01.2	+1.7
MOL				AMb	AMB	02 48 03.6	
	comp=Z,223nm,1.2s,mb6.0						
MOL	Molde	77.19	332	*e*P	P	02 48 01.2	+1.7
	comp=Z,223nm,1.2s,mb6.0						
VAI	Varese	77.35	315	*e*P	P	02 47 58.6	-2.2
VSL	Villasalto	77.45	308	*e*P	P	02 47 59.8	-1.7
PGF	Pioggiola	77.46	311	*e*P	P	02 48 01.1	-0.3
	comp=Z,174nm,1.4s,mb5.5						
BFO	Black Forest	77.47	317	*e*P	P	02 48 01.4	0.0
BFO				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
BFO	Black Forest	77.47	317	*e*P	P	02 48 01.4	0.0

	comp=Z,30nm,1.1s,mb5.1						
PCP	Pian Castagno	77.62	313	P	P	02 48 02.7	+0.4
BLS5	Blasjo	77.86	329	eP	P	02 48 04.5	+1.3
BLS5				AMb	AMB	02 48 06.6	
	comp=Z,94nm,1.1s,mb5.6						
BLS5	Blasjo	77.86	329	eP	P	02 48 04.5	+1.3
	comp=Z,94nm,1.1s,mb5.6						
FIN	Finale Ligure	77.89	313	P	P	02 48 04.2	+0.5
ORX	Oropa	77.92	314	P	P	02 48 03.3	-0.6
ROB	Roburent	78.12	313	P	P	02 48 04.9	-0.2
IMI	Imperia	78.15	313	P	P	02 48 06.3	+1.2
CDF	Champ du Feu	78.16	317	eP	P	02 48 04.1	-1.1
	comp=Z,65nm,1.1s,mb5.2						
MONE	Monesi	78.23	313	P	P	02 48 07.0	+1.4
RSP	Reno Superiore	78.48	314	P	P	02 48 06.8	-0.2
BHB	Bricherasio	78.50	314	P	P	02 48 05.4	-1.7
LSD	Ceresole Reale	78.52	314	P	P	02 48 07.8	+0.7
STV	Sta Anna Valdi	78.52	313	P	P	02 48 07.8	+0.6
FENE	Fenestrelle	78.62	314	P	P	02 48 07.4	-0.4
PZZ	Prazzo	78.65	313	P	P	02 48 07.6	-0.4
LPL	La Plagne	78.81	314	eP	P	02 48 09.2	+0.4
	comp=Z,474nm,1.2s,mb6.0						
RRL	Cesana Torines	78.83	314	P	P	02 48 09.6	+0.6
BNI	Bardonecchia	78.89	314	eP	P	02 48 08.9	-0.4
	comp=Z,113nm,1.0s,mb5.8						
FRF	La Foret Royal	79.08	312	eP	P	02 48 10.2	-0.1
	comp=Z,219nm,1.2s,mb5.7						
CASY	Casey	79.29	173	eP	P	02 48 11.3	+0.4
	comp=Z,78nm,0.9s,mb5.6						
GIVF	Givet	79.59	319	eP	P	02 48 11.9	-1.0
	comp=Z,109nm,1.2s,mb5.4						
VIVF	Saint-Julien-l	80.33	314	eP	P	02 48 16.9	-0.1
	comp=Z,295nm,1.3s,mb5.8						
SSF	Saint Saulge	80.84	316	eP	P	02 48 19.5	-0.1
	comp=Z,166nm,1.3s,mb5.5						
BGF	Bois d'Agland	81.36	316	eP	P	02 48 22.4	0.0
	comp=Z,229nm,1.3s,mb5.6						
SUR	Sutherland	81.82	234	eP	P	02 48 27.0	+1.9
	comp=Z,43nm,0.9s,mb5.4						
CAF	Calviac	82.16	314	eP	P	02 48 27.0	+0.5
	comp=Z,212nm,1.4s,mb5.6						
MAW	Mawson	82.47	191	P	P	02 48 29.4	+1.7
	comp=Z,70nm,0.8s,mb5.7,baz=15,slow=7.4,SNR=25						
MAW	Mawson	82.47	191	P	P	02 48 29.4	+1.7
MAW				pmax	pmax		
	comp=Z,70nm,0.8s						
MAW	Mawson	82.47	191	eP	P	02 48 29.3	+1.6
	comp=Z,85nm,0.8s,mb5.7						
RJF	Les Rejaudoux	82.48	315	eP	P	02 48 28.7	+0.5
	comp=Z,168nm,1.1s,mb5.6						
FLN	La Foliniere	83.22	318	eP	P	02 48 31.9	0.0
	comp=Z,182nm,1.2s,mb5.7						
EPOB	Poblet	83.47	311	P	P	02 48 33.8	+0.3
	comp=Z,66nm,0.9s,mb5.7						
ESK	Eskdalemuir	83.59	325	eP	P	02 48 34.0	+0.4
	comp=Z,75nm,1.1s,mb5.7						
EBIE	Bielsa	83.92	312	P	P	02 48 36.2	+0.6
	comp=Z,28nm,0.9s,mb5.4						
EBR	Ebro Roquetas	84.01	310	eP	P	02 48 37.0	+0.8
ERTA	Horta de San J	84.10	310	P	P	02 48 36.6	-0.1
	comp=Z,140nm,1.2s,mb6.0						
ESAC	San Caprasio	84.55	311	P	P	02 48 40.3	+1.4
	comp=Z,80nm,1.0s,mb5.8						
EMOS	Mosqueruela	84.82	310	P	P	02 48 40.0	-0.2
	comp=Z,158nm,1.2s,mb6.0						
NIKO	Nikolski	85.28	37	eP	P	02 48 41.4	-0.8
DMUB	Kingscourt	86.01	324	eP	P	02 48 49.0	+3.2
DCN	Croghan	86.37	324	eP	P	02 48 49.0	+1.4
EQES	Quesada	87.34	308	P	P	02 48 55.2	+2.5
	comp=Z,17nm,0.8s,mb5.3						
EBER	Berja	87.40	307	P	P	02 48 55.3	+2.2
	comp=Z,89nm,1.2s,mb5.9						
GUD	Guadarrama	87.50	311	P	P	02 48 54.9	+1.4
	comp=Z,54nm,1.0s,mb5.7						
ESDC	Sonseca Array	87.58	310	P	P	02 48 54.2	+0.4
	comp=Z,9.9nm,0.7s,mb5.2,baz=61,slow=4.4,SNR=26						
EBAN	Banos Encina	87.80	308	P	P	02 48 55.1	+0.1
	comp=Z,17nm,0.7s,mb5.4						
IMA	Indian Mountai	88.12	22	eP	P	02 48 57.1	+1.3
	comp=Z,106nm,0.9s,mb6.1						
JCZ	Jackson Bay	88.41	136	P	P	02 49 00.1	+2.4
EADA	Adamuz	88.41	309	P	P	02 48 58.2	+0.4
	comp=Z,68nm,1.1s,mb5.8						
EMIJ	Mijas	88.95	307	P	P	02 49 00.1	-0.4
	comp=Z,40nm,0.9s,mb5.8						
ECAL	Calabor	89.05	313	P	P	02 49 00.3	-0.5
	comp=Z,72nm,1.2s,mb5.9						
SYO	Syowa Base	89.13	197	⇑P	P	02 49 02.3	+1.7
SYO	Syowa Base	89.13	197	⇑PcP	PcP	02 49 02.9	+0.7
SYO	Syowa Base	89.13	197	⇓pP	pP	02 49 13.9	+3.0
EAZ	Earnscleugh	89.14	137	P	P	02 49 02.3	+1.1
TUZ	Tuapeka	89.58	137	P	P	02 49 04.6	+1.4
ESPR	Espera	89.72	308	P	P	02 49 04.4	+0.3
	comp=Z,73nm,1.2s,mb5.9						
DSZ	Denniston Nort	89.84	133	P	P	02 49 04.8	+0.2
ELOB	Lobios	90.02	313	P	P	02 49 05.9	+0.6
	comp=Z,145nm,1.3s,mb6.2						
MTE	Manteigas	90.06	311	eP	P	02 49 07.0	+1.4
	comp=Z,88nm,1.1s,mb6.0						
STS	Santiago	90.08	314	P	P	02 49 05.8	+0.2
	comp=Z,31nm,0.7s,mb5.7						
EBAD	Badajoz	90.11	310	P	P	02 49 05.8	-0.1
	comp=Z,59nm,1.2s,mb5.8						
EMIN	Mina Concepcio	90.11	309	P	P	02 49 07.0	+1.1
	comp=Z,24nm,0.8s,mb5.6						
EMAZ	Mazaricos	90.36	314	P	P	02 49 07.8	+0.8
	comp=Z,158nm,1.2s,mb6.2						
EGRO	El Granado	90.80	309	P	P	02 49 08.7	-0.4
COLA	College	90.83	22	eP	P	02 49 08.1	-0.4
COLA				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.9						
COLA	College	90.83	22	eP	P	02 49 08.1	-0.4
	comp=Z,58nm,1.0s,mb5.9						
RSO	Redoubt South	91.01	27	eP	P	02 49 09.7	+0.2
ILAR	Eielson Array	91.23	22	P	P	02 49 09.8	-0.6
	comp=Z,48nm,0.7s,mb5.9,baz=310,slow=2.5,SNR=84						
ILAR	Eielson Array	91.23	22	P	P	02 49 09.8	-0.6
ILAR				pmax	pmax		
	comp=Z,48nm,0.7s						
KHZ	Kahutara	91.27	133	P	P	02 49 11.1	0.0
PWA	Palmer West	91.68	25	eP	P	02 49 12.9	+0.4
	comp=Z,589nm,0.9s						
PMR	Palmer	92.02	25	eP	P	02 49 14.7	+0.6
	comp=Z,159nm,0.8s,mb6.4						
KDAK	Kodiak Island	92.31	29	eP	P	02 49 16.2	+0.7
	comp=Z,517nm,1.3s,mb6.7						
URZ	Urewera	92.90	128	P	P	02 49 18.0	-0.8
	comp=Z,39nm,0.7s,mb5.9,baz=282,slow=2.8,SNR=9.7						
INK	Inuvik	93.22	16	P	P	02 49 19.9	+0.4
	comp=Z,61nm,0.8s,mb6.1,baz=314,slow=4.9,SNR=60						
INK	Inuvik	93.22	16	P	P	02 49 19.9	+0.4
INK				pmax	pmax		
	comp=Z,61nm,0.8s						
INK	Inuvik	93.22	16	eP	P	02 49 19.6	+0.2
DBIC	Dimbokro	96.19	278	P	P	02 49 35.4	+1.0
	comp=Z,5.3nm,0.8s,mb5.0,baz=87,slow=2.2,SNR=4.0						
DBIC	Dimbokro	96.19	278	P	P	02 49 35.4	+1.0
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.8s						
DBIC	Dimbokro	96.19	278	eP	P	02 49 34.7	+0.3
VNDA	Vanda	97.33	168	P	P	02 49 40.5	+2.4
	comp=Z,11nm,1.2s,mb5.2,baz=300,slow=8.3,SNR=6.2						
VNDA	Vanda	97.33	168	P	P	02 49 40.5	+2.4
VNDA				pmax	pmax		
	comp=Z,11nm,1.2s						
DLBC	Dease Lake	101.44	21	P	P	02 49 58.1	+1.0
	comp=Z,12nm,1.1s,baz=318,slow=7.7,SNR=4.9						
YKA	Yellowknife Ar	102.55	13	P	Pdif	02 50 01.7	-0.1
	comp=Z,5.4nm,0.8s,baz=328,slow=4.6,SNR=24						
YKA				PP	PP	02 54 09.6	-8.0
	comp=Z,11nm,0.9s,baz=335,slow=8.0,SNR=11						
YKA				PKKPbc		03 06 01.7	
	comp=Z,1.4nm,0.8s,baz=152,slow=3.3,SNR=7.4						
YKA				PKKPab		03 06 23.3	
	comp=Z,3.2nm,0.7s,baz=149,slow=4.5,SNR=14						
YKA	Yellowknife Ar	102.55	13	P	Pdif	02 50 01.7	-0.1
YKA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,11nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SNAA	Sanae	103.28	199	Pdiff	Pdif	02 50 10.0	+5.2
	comp=Z,0.6nm,0.8s,baz=270,slow=5.1,SNR=4.0						
SNAA				PKKPbc		03 05 59.5	
	comp=Z,2.5nm,0.9s,baz=258,slow=2.5,SNR=9.1						
SNAA	Sanae	103.28	199	P	Pdif	02 50 10.0	+5.2
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
SNAA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
FCC	Fort Churchill	109.10	4	ePKiKP		02 54 33.9	
EDM	Edmonton	111.10	17	ePKIKP	PKPdf	02 54 41.3	-1.5
EDM	Edmonton	111.10	17	ePKiKP		02 54 40.8	
HUMO	Hull Mountain	116.34	29	ePKPdf	PKPdf	02 54 50.6	-2.7
MSO	Missoula	116.53	20	ePKPdf	PKPdf	02 54 49.5	-4.1
KHMM	Horse Mountain	117.28	31	ePKPdf	PKPdf	02 54 52.8	-2.3
ULM	Lac du Bonnet	117.38	6	PKP	PKPdf	02 54 52.0	-3.1
	comp=Z,24nm,1.1s,baz=350,slow=2.9,SNR=8.9						
ULM				PKKPbc		03 05 15.6	
	comp=Z,10nm,0.8s,baz=160,slow=2.4,SNR=6.7						
ULM	Lac du Bonnet	117.38	6	PKP	PKPdf	02 54 52.0	-3.1
ULM				PKKPbc		03 05 15.6	
WDC	Whiskeytown Da	118.09	30	PKIKP	PKPdf	02 54 54.9	-1.8
WDC	Whiskeytown Da	118.09	30	ePKPdf	PKPdf	02 54 54.6	-2.1
MOD	Modoc	118.12	28	ePKPdf	PKPdf	02 54 53.9	-2.8
HLID	Hailey	119.19	23	ePKPdf	PKPdf	02 54 56.0	-2.8
YMR	Madison River	119.42	19	ePKPdf	PKPdf	02 54 56.9	-2.3
OHCM	Honcut	119.56	30	ePKPdf	PKPdf	02 54 56.2	-3.5
NSHM	Saint Helena R	119.62	32	ePKPdf	PKPdf	02 54 56.7	-3.1
YFT	Old Faithful	119.66	19	ePKPdf	PKPdf	02 54 58.1	-1.6
EYMN	Ely	120.04	3	ePKPdf	PKPdf	02 54 55.9	-4.4
IMW	Indian Meadow	120.12	20	ePKPdf	PKPdf	02 54 57.6	-3.0
MOOW	Moose Ponds	120.31	20	ePKPdf	PKPdf	02 54 57.8	-3.1
WCN	Washoe City	120.43	29	PKIKP	PKPdf	02 54 59.0	-2.3
WCN	Washoe City	120.43	29	ePKPdf	PKPdf	02 54 57.7	-3.6
TPAW	Teton Pass	120.48	20	ePKPdf	PKPdf	02 54 58.1	-3.2
LOHW	Long Hollow	120.48	20	ePKPdf	PKPdf	02 54 58.1	-3.3
WUWY	Wally Ulrich	120.50	20	ePKPdf	PKPdf	02 54 58.5	-2.9
SNOW	Snow King Moun	120.57	20	ePKPdf	PKPdf	02 54 58.9	-2.6
REDW	Red Top Meadow	120.62	20	ePKPdf	PKPdf	02 54 58.6	-3.0
BMN	Battle Mountai	120.67	26	ePKIKP	PKPdf	02 54 59.4	-2.4
BMN	Battle Mountai	120.67	26	ePKPdf	PKPdf	02 54 59.0	-2.8
BMN	Battle Mountai	120.67	26	ePKPdf	PP	02 56 30.6	+2.1
CMB	Columbia Colle	121.11	30	ePKIKP	PKPdf	02 55 00.9	-1.8
CMB	Columbia Colle	121.11	30	ePKPdf	PKPdf	02 54 59.1	-3.6
ELK	Elko	121.25	25	PKIKP	PKPdf	02 55 02.4	-0.5
ELK	Elko	121.25	25	ePKPdf	PKPdf	02 55 00.1	-2.8
ELK	Elko	121.25	25	ePKPdf	PP	02 56 32.9	+0.3
HVU	Hansel Valley	121.33	22	ePKIKP	PKPdf	02 55 00.5	-2.5
HVU	Hansel Valley	121.33	22	ePKPdf	PKPdf	02 54 59.2	-3.9
SAO	San Andreas Ge	121.55	32	PKIKP	PKPdf	02 55 00.7	-2.9
SAO	San Andreas Ge	121.55	32	ePKPdf	PKPdf	02 55 00.2	-3.4
BW06	Boulder Array	121.58	19	ePKPdf	PKPdf	02 54 59.5	-4.0
PDAR	Pinedale Array	121.58	19	PKP	PKPdf	02 54 59.5	-3.9
	comp=Z,21nm,1.0s,baz=108,slow=1.4,SNR=13						
PDAR				PP	PP	02 56 30.4	-4.4
	comp=Z,9.7nm,1.0s,baz=6.1,slow=2.5,SNR=5.1						
PDAR				PKKPbc		03 04 59.6	
	comp=Z,3.3nm,0.6s,baz=142,slow=5.7,SNR=13						
NVAR	Mina Array Bea	121.81	29	PKP	PKPdf	02 55 01.5	-2.5
	comp=Z,34nm,0.8s,baz=348,slow=1.6,SNR=35						
NVAR				PKKPab		03 04 58.4	
	comp=Z,4.9nm,1.1s,baz=175,slow=4.0,SNR=5.5						
MNV	Mina	121.88	29	ePKIKP	PKPdf	02 55 01.4	-2.7
MNV	Mina	121.88	29	ePKPdf	PKPdf	02 55 01.1	-3.0
HWUT	Hardware Ranch	121.93	22	ePKPdf	PKPdf	02 55 00.5	-3.7
BGU	Big Grassy Mou	121.98	23	ePKPdf	PKPdf	02 55 01.1	-3.1
LRV	Little Rabbit	122.03	32	ePKPdf	PKPdf	02 55 01.9	-2.6
MTUM	Tungsten Hills	122.54	30	ePKPdf	PKPdf	02 55 03.0	-2.5
NOQ	North Oquirrh	122.56	22	ePKPdf	PKPdf	02 55 02.1	-3.2
TPH	Tonopah	122.59	28	PKIKP	PKPdf	02 55 03.1	-2.4
TPH	Tonopah	122.59	28	ePKPdf	PKPdf	02 55 02.6	-2.9
MIV	Mineville/With	122.70	348	ePKPdf	PKPdf	02 55 01.5	-4.0
MDV	Middlebury	122.71	348	ePKPdf	PKPdf	02 55 00.5	-5.1
HNH	Hanover	122.80	347	ePKPdf	PKPdf	02 55 01.9	-3.9
SADO	Sadowa	122.89	353	PKP	PKPdf	02 55 01.6	-4.3
	comp=Z,14nm,0.7s,baz=353,slow=5.0,SNR=13						
NLU	North Lily Min	123.18	23	ePKPdf	PKPdf	02 55 03.3	-3.3
RWWY	Rawlins	123.29	18	ePKPdf	PKPdf	02 55 03.0	-3.8
MPU	Maple Canyon	123.29	22	ePKPdf	PKPdf	02 55 05.2	-1.6
DAC	Darwin (Calif)	123.87	30	PKIKP	PKPdf	02 55 06.5	-1.6
DAC	Darwin (Calif)	123.87	30	ePKPdf	PKPdf	02 55 06.1	-2.0
TPNV	Topopah Spring	123.96	28	ePKIKP	PKPdf	02 55 05.7	-2.5
TPNV	Topopah Spring	123.96	28	ePKPdf	PKPdf	02 55 04.9	-3.3
TMUT	Trail Mountain	124.08	23	ePKPdf	PKPdf	02 55 05.4	-3.0
PHWY	Pilot Hill	124.16	17	ePKPdf	PKPdf	02 55 04.5	-4.0
MVU	Marysvale	124.38	24	ePKPdf	PKPdf	02 55 06.9	-2.1
MSU	Marysvale	124.39	24	ePKIKP	PKPdf	02 55 07.3	-1.7
MSU	Marysvale	124.39	24	ePKPdf	PKPdf	02 55 06.8	-2.2
SRU	San Rafael	124.50	22	ePKIKP	PKPdf	02 55 06.7	-2.5
SRU	San Rafael	124.50	22	ePKPdf	PKPdf	02 55 06.3	-2.9
GENY	Geneseo	124.70	352	ePKPdf	PKPdf	02 55 04.8	-4.8
ISCO	Idaho Springs	125.50	18	ePKPdf	PKPdf	02 55 08.0	-3.1
PV10	Paradox Valley	125.69	21	ePKPdf	PKPdf	02 55 08.9	-2.7
PV10	Paradox Valley	125.69	21	ePKPdf	PP	02 56 58.9	-3.8
PV01	Paradox Valley	126.07	21	ePKPdf	PKPdf	02 55 09.6	-2.7
RW3	Ridgway	126.27	20	PKIKP	PKPdf	02 55 10.4	-2.2
RW3	Ridgway	126.27	20	ePKPdf	PKPdf	02 55 10.0	-2.6
ACSO	Alum Creek Sta	127.75	356	ePKPdf	PKPdf	02 55 11.3	-4.2
SDMD	Soldier's Deli	127.83	350	ePKPdf	PKPdf	02 55 12.0	-3.6
KSU1	Kansas State U	128.24	9	ePKPdf	PKPdf	02 55 12.3	-4.1
ANMO	Albuquerque	129.67	21	PKP	PKPdf	02 55 16.1	-3.2
	comp=Z,74nm,1.3s,baz=49,slow=0.6,SNR=9.4						
ANMO	Albuquerque	129.67	21	ePKIKP	PKPdf	02 55 17.0	-2.3
ANMO	Albuquerque	129.67	21	ePKPdf	PKPdf	02 55 16.8	-2.5
UTMT	University of	131.74	2	ePKPdf	PKPdf	02 55 20.2	-3.0
WMOK	Wichita Mounta	132.06	13	ePKIKP	PKPdf	02 55 21.7	-2.1
WMOK	Wichita Mounta	132.06	13	ePKPdf	PKPdf	02 55 18.4	-5.4
HBAR	Harrisburg	132.43	4	ePKPdf	PKPdf	02 55 21.6	-3.0
CPCT	Cooper Cave	132.60	357	ePKPdf	PKPdf	02 55 21.5	-3.3
MIAR	Mount Ida	133.15	7	ePKIKP	PKPdf	02 55 24.2	-1.7
MIAR	Mount Ida	133.15	7	ePKPdf	PKPdf	02 55 24.0	-1.9
USHA	Ushuaia	134.98	195	PKP	PKPdf	02 55 26.7	-2.0
	comp=Z,12nm,0.9s,baz=21,slow=2.1,SNR=8.7						
LTX	Lajitas	135.74	21	ePKIKP	PKPdf	02 55 28.0	-2.8
LTX	Lajitas	135.74	21	ePKPdf	PKPdf	02 55 27.1	-3.7
TXAR	Lajitas Array	135.74	21	PKP	PKPdf	02 55 27.3	-3.5
	comp=Z,28nm,1.1s,baz=341,slow=0.4,SNR=12						
TXAR	Lajitas Array	135.74	21	PKP	PKPdf	02 55 27.3	-3.5
JCT	Junction City	135.87	16	ePKIKP	PKPdf	02 55 27.9	-3.1
JCT	Junction City	135.87	16	ePKPdf	PKPdf	02 55 27.2	-3.8
BAO	Brasilia Array	141.96	260	PKP	PKPdf	02 55 34.8	-7.7
BDFB	Brasilia	141.99	260	PKP	PKPdf	02 55 36.4	-6.1
	comp=Z,12nm,0.9s,baz=109,slow=4.4,SNR=4.3						
BDFB	Brasilia	141.99	260	PKIKP	PKPdf	02 55 36.4	-6.1
BDFB				pmax	pmax		
	comp=Z,12nm,0.9s						
SJG	San Juan	143.53	325	PKP	PKPdf	02 55 39.2	-5.8
	comp=Z,19nm,0.8s,baz=309,slow=1.4,SNR=2.4						
SJG	San Juan	143.53	325	PKIKP	PKPdf	02 55 39.2	-5.8
SJG				pmax	pmax		
	comp=Z,19nm,0.8s						
SFJM	Santa Fe	143.95	26	eP	PKPbc	02 55 41.5	+2.0
TRQA	Tornquist	145.86	217	ePKPdf	PKPdf	02 55 45.5	-3.0
IIJ	Jocotitlan	145.94	22	eP	PKPbc	02 55 47.0	+2.2
IIC	Rita Coyotepec	146.08	21	eP	PKPbc	02 55 47.0	+1.9
PTVM	Pico Tres Padr	146.29	21	eP	PKPbc	02 55 46.3	+0.6
MDVM	Presa Madin	146.29	21	eP	PKPbc	02 55 47.8	+2.2
IIO	Organos	146.42	20	eP	PKPbc	02 55 47.8	+1.9
IIZ	Mezontepec	146.62	21	eP	PKPbc	02 55 46.3	-0.1
CHVM	Chichinautzin	146.74	21	eP	PKPbc	02 55 46.3	-0.4
PPM	Popocatepetl	146.94	20	eP	PKPbc	02 55 50.6	+3.4
IISM	Ciudad Serdan	147.42	18	eP	PKPdf	02 55 51.1	-0.6
TEIG	Tepich	147.80	2	ePKPbc	PKPdf	02 55 51.9	-0.4
ACX	Acapulco	148.48	24	eP	PKPdf	02 55 51.5	-1.9
ACX				eP		02 55 51.8	
EVV	El Vigia	148.50	15	eP	PKPdf	02 55 52.7	-0.7
PCRV	Puerto La Cruz	148.57	314	PKPbc	PKPdf	02 55 52.4	-1.2
	comp=Z,24nm,0.7s,baz=360,slow=3.2,SNR=13						
OXX	Oaxaca	149.42	18	eP	PKPdf	02 55 57.2	+2.3
SDV	Santo Domingo	153.48	321	PKP	PKPdf	02 55 57.5	-3.6
	comp=Z,36nm,1.2s,baz=309,slow=6.1,SNR=3.8						
SDV				PKPab	PKPab	02 56 18.3	+0.1
	comp=Z,30nm,0.8s,baz=32,slow=7.0,SNR=6.3						
ROSC	El Rosal	158.89	322	PKP	PKPdf	02 56 06.3	-1.9
	comp=Z,30nm,1.0s,baz=67,slow=1.3,SNR=7.5						
ROSC				PKPab	PKPab	02 56 41.5	+0.2
	comp=Z,59nm,1.1s,baz=264,slow=4.1,SNR=6.9						
LVC	Limon Verde	159.83	237	PKP	PKPdf	02 56 06.7	-2.2
	comp=Z,6.9nm,0.7s,baz=22,slow=2.8,SNR=28						
LVC				PKPab	PKPab	02 56 46.5	+1.4
	comp=Z,4.0nm,0.4s,baz=199,slow=3.8,SNR=3.1						
LPAZ	La Paz	161.21	255	PKP	PKPdf	02 56 08.2	-2.2
	comp=Z,17nm,1.1s,baz=45,slow=1.3,SNR=3.7						
LPAZ				PKPab	PKPab	02 56 51.7	+0.6
	comp=Z,62nm,1.2s,baz=93,slow=8.8,SNR=6.8						
LPAZ	La Paz	161.21	255	PKIKP	PKPdf	02 56 08.3	-2.2
LPAZ						02 56 51.7	
LPAZ				pmax	pmax		
	comp=Z,17nm,1.1s						
LPAZ				pmax	pmax		
	comp=Z,62nm,1.3s						
LPAZ	La Paz	161.21	255	PKP	PKPdf	02 56 08.2	-2.2
LPAZ				PKPab	PKPab	02 56 51.7	+0.6

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*NEIC **26** 02:38:09.3±0.3, 8.49N×92.35E, mb5.6/23, Error ellipse: s-maj=8.8km s-min=8.4km az=126.0*

*IDC **26** 02:38:10.3±1.8, 8.69N×92.26E, h31^{km}±4^{km}, mb5.1/18, mb1 5.3/19, mb1mx5.1/24, Error ellipse: s-maj=46.9km s-min=28.5km az=154.0*

*BJI **26** 02:38:16.2, 9.44N×92.10E, h33^{km}, mb5.8*

ISC 26 02:38:07.1±0.5**, 8.37N**±0.06×**92.36E**±0.06**, h32^{km}, h32^{km}**±1.5^{km}**:pP-P, n143,** σ0.93/136**, mb5.4**/42**, 3D,**

Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.89	32	P	P	02 40 49.8	-7.8
CMAR	Chiang Mai Arr	11.89	32	Pn	P	02 40 59.0	+1.4
	baz=233,slow=15,SNR=2.4						
CAL	Calcutta	14.61	345	eP	P	02 41 33.5	-0.2
KOD	Kodaikanal	14.82	278	eP	P	02 41 36.8	+0.4
KOD				e		02 41 41.5	
KOD				e		02 44 01.7	
SHL	Shillong	17.10	359	eP	P	02 42 12.2	+6.5
SHL				e		02 42 13.2	
	comp=Z,515nm,0.8s						
SHL				eS	S	02 45 23.6	+10
MNGI	Mangalore	17.82	286	eP	P	02 42 15.7	+1.1
MNGI				e		02 42 18.2	
	comp=Z,424nm,1.2s						
AKL	Akola	19.24	311	eP	P	02 42 28.9	-2.9
AKL				e		02 42 34.9	
	comp=Z,270nm,1.7s						
AKL				e		02 45 53.0	
KMI	Kunming	19.38	29	P	P	02 42 35.0	+1.7
KMI				AMB	AMB		
	comp=Z,134nm,1.5s						
GOA	Goa	19.46	293	e	P	02 42 25.2	-9.1
PKI	Pulchoki	20.20	342	eP	P	02 42 41.9	-0.3
	comp=Z,2µm,0.8s						
DMN	Daman	20.33	341	eP	P	02 42 43.0	-0.5
	comp=Z,2µm,0.8s						
GUN	Gumba	20.38	343	eP	P	02 42 44.2	+0.2
	comp=Z,2µm,0.8s						
KKN	Kakani	20.44	342	eP	P	02 42 44.2	-0.5
	comp=Z,1µm,0.7s						
GKN	Gorkha	20.84	340	eP	P	02 42 48.9	0.0
	comp=Z,1µm,0.8s						
KOLN	Koldanda	21.00	338	eP	P	02 42 50.5	+0.1
	comp=Z,1µm,0.6s						
LSA	Lhasa	21.25	357	P	P	02 42 49.5	-3.4
LSA	Lhasa	21.25	357	eP	P	02 42 53.2	+0.3
	comp=Z,938nm,1.4s,mb5.9						
BOM	Bombay	21.66	301	eP	P	02 42 58.1	+0.9
BOM				e		02 42 59.6	
	comp=Z,2µm,1.7s						
NDI	New Delhi	24.73	327	eP	P	02 43 28.2	+1.0
NDI				e		02 43 30.6	
	comp=Z,616nm,0.9s						
NDI				eS	S	02 47 52.8	+8.5
ENH	Enshi	27.05	34	P	P	02 43 46.2	-2.5
	comp=Z,15nm,0.5s,mb4.8						
GTA	Gaotai	31.62	11	⇓P	P	02 44 30.0	+0.5
GTA				AP	pP	02 44 37.5	-1.4
GTA				XP	sP	02 44 42.0	-1.0
GTA				AMB	AMB		
	comp=Z,198nm,1.0s,mb5.9						
KSH	Kashi	34.31	337	P	P	02 44 53.0	+0.1
KSH				eAP	pP	02 44 57.8	-4.6
WMQ	Urumqi	35.54	354	P	P	02 45 04.3	+0.9
WMQ				AP	pP	02 45 08.8	-4.1
KZA	Kyzart	36.81	339	P	P	02 45 15.3	+1.3
	SNR=7.0						
UCH	Uchtor	37.21	338	P	P	02 45 19.2	+1.7
	SNR=7.5						
KBK	Karagaybulak	37.42	339	P	P	02 45 20.7	+1.4
	SNR=5.3						
TKM2	Tokmak 2	37.43	340	P	P	02 45 21.5	+2.2
	SNR=6.4						
AML	Almayashu	37.44	337	P	P	02 45 20.8	+1.4
	SNR=8.6						
AAK	Ala-Archa	37.57	338	P	P	02 45 21.9	+1.5
	SNR=8.6						
AAK	Ala-Archa	37.57	338	eP	P	02 45 20.8	+0.3
CHMS	Chumysh	37.79	339	P	P	02 45 23.4	+1.1
	SNR=13						
EKS2	Erkin-Say	37.86	337	P	P	02 45 24.2	+1.3
	SNR=9.0						
BJT	Baijiatuau	38.01	30	P	P	02 45 26.0	+1.8
	comp=Z,54nm,0.9s,mb5.3						
USP	Ospenovka	38.12	339	P	P	02 45 25.9	+0.9
	SNR=5.2						
SONM	Songino Array	41.09	14	P	P	02 45 49.7	0.0
	comp=Z,65nm,0.9s,mb5.3,baz=200,slow=7.3,SNR=6.0						
ZAL	Zalesovo	45.84	354	P	P	02 46 27.5	-0.5
	comp=Z,90nm,1.1s,mb5.6,baz=292,slow=11,SNR=9.7						
ZAL	Zalesovo	45.84	354	P	P	02 46 27.5	-0.5
QRN	Al-Qurain	46.41	302	eP	P	02 46 33.7	+0.9
UMR	Umm Al-Rimmam	46.81	303	eP	P	02 46 36.7	+0.7
UMR				AMb	AMB	02 46 38.4	
	comp=Z,191nm,0.9s,mb6.0						
RST	Umm Al-Ruwaisa	47.40	303	eP	P	02 46 41.1	+0.4
RST				AMb	AMB	02 46 42.8	
	comp=Z,334nm,0.9s,mb6.3						
NWAO	Narrogin (SRO)	47.41	151	eP	P	02 46 46.4	+5.6
	comp=Z,15nm,0.7s,mb5.0						
BVAR	Borovoye Array	47.97	342	P	P	02 46 44.1	-0.7
	comp=Z,60nm,1.0s,mb5.6,baz=143,slow=7.4,SNR=5.6						
BRVK	Borovoye	48.03	342	eP	P	02 46 44.3	-0.9
	comp=Z,90nm,1.1s,mb5.7						
CHKZ	Chkalovo	48.47	343	eP	P	02 46 48.0	-0.6
	comp=Z,214nm,1.1s,mb6.1						
WRA	Warramunga Arr	49.99	125	P	P	02 47 00.8	0.0
	comp=Z,7.7nm,0.3s,mb5.2,baz=300,slow=10.0,SNR=10.0						
WRAB	Tennant Creek	49.99	125	P	P	02 47 00.8	0.0
	comp=Z,16nm,0.3s,mb5.5						
GNI	Garni	52.83	315	P	P	02 47 22.4	+0.3
	comp=Z,72nm,1.0s,mb5.6,baz=144,slow=6.7,SNR=3.9						
ARU	Arti	54.75	338	eP	P	02 47 34.7	-1.2
KMBO	Kilima Mbogo	55.73	263	sP	sP	02 47 57.5	+0.3
	comp=Z,16nm,1.1s,baz=51,slow=5.2,SNR=4.9						
KMBO	Kilima Mbogo	55.73	263	eP	P	02 47 44.8	+1.2
	comp=Z,1.5nm,0.6s						
KIV	Kislovodsk	55.77	318	eP	P	02 47 42.4	-1.1
	comp=Z,132nm,1.2s,mb5.8						
ASF	Jabal al Asfar	56.47	303	P	P	02 47 49.2	+0.5
	comp=Z,29nm,1.0s,mb5.3,baz=331,slow=3.2,SNR=5.1						
MALT	Malatya	56.80	311	eP	P	02 47 50.2	-0.8
	comp=Z,69nm,1.3s,mb5.5						
MKRJ	Makawir	57.40	302	P	P	02 47 55.7	+0.4
AQBJ	Aqaba	57.58	300	P	P	02 47 57.0	+0.5
MZDA	Masada	57.58	302	P	P	02 47 57.3	+0.7
DRGI	Dragot	57.61	302	P	P	02 47 57.3	+0.5
EIL	Elat	57.65	300	P	P	02 47 57.5	+0.4
	comp=Z,51nm,0.8s,mb5.6,baz=96,slow=3.1,SNR=9.8						
EIL	Elat	57.65	300	eP	P	02 47 57.1	0.0
	comp=Z,119nm,1.1s,mb5.8						
MBH	Mount Berech	57.70	300	P	P	02 47 58.1	+0.7
PRNI	Paran	57.72	301	P	P	02 47 58.2	+0.7
MMLI	Mount Malkishu	57.75	303	P	P	02 47 58.4	+0.7
MASH	Mash'abbe Sade	58.02	301	P	P	02 48 00.0	+0.4
SLTI	Sal'it	58.03	303	P	P	02 48 00.1	+0.5
OFRI	'Ofer	58.15	303	P	P	02 48 01.0	+0.5
KZIT	Kziot	58.33	301	P	P	02 48 02.2	+0.4
BRTR	Keskin Array B	60.77	311	P	P	02 48 16.5	-2.0
	comp=Z,19nm,0.8s,mb5.3,baz=121,slow=7.2,SNR=4.2						
MBAR	Mbarara	62.05	265	P	P	02 48 27.9	+0.3
	comp=Z,1.3nm,0.5s,mb4.3						
ISP	Isparta	62.75	308	eP	P	02 48 30.5	-1.3
AKASG	Malin Array Be	66.67	322	P	P	02 48 54.2	-2.8
	comp=Z,21nm,0.9s,mb5.2,baz=90,slow=4.8,SNR=4.4						
IDI	Anoyia	66.84	305	P	P	02 48 58.0	-0.4
	comp=Z,28nm,0.8s,mb5.3,baz=98,slow=9.4,SNR=4.2						
MLR	Muntele Rosu	67.59	316	P	P	02 49 02.5	-0.5
	comp=Z,63nm,1.0s,mb5.6,baz=77,slow=4.5,SNR=3.8						
LSZ	Lusaka	67.78	250	eP	P	02 49 04.9	+0.3
	comp=Z,1.7nm,0.4s,mb4.4						
KWP	Kalwaria	70.51	320	eP	P	02 49 19.0	-1.8

KOLS	Kolonicke sedl	70.67	319	eP	P	02 49 21.6	-0.2
SUW	Suwalki	71.07	324	eP	P	02 49 22.6	-1.5
CRVS	Cervenica-Dubn	71.20	319	eP	P	02 49 26.0	+1.0
FINES	FINESS Array B	71.45	332	P	P	02 49 25.0	-1.3
	comp=Z,30nm,0.9s,mb5.2,baz=112,slow=10,SNR=5.1						
KAF	Kangasniemi	71.55	333	ep	P	02 49 24.9	-2.0
	baz=106,slow=5.6						
KECS	Kecovo	71.77	318	eP	P	02 49 27.7	-0.8
PSZ	Piszkesteto	72.09	318	eP	P	02 49 29.6	-0.8
VYHS	Vyhne	72.86	318	eP	P	02 49 32.8	-2.1
LBTB	Lobatse	72.94	241	eP	P	02 49 37.4	+1.5
	comp=Z,3.3nm,0.4s,mb4.6						
SRO2	Moca	73.07	317	eP	P	02 49 35.7	-0.5
SRO	Srobarova	73.13	317	eP	P	02 49 36.2	-0.3
OKC	Ostrava-Krasne	73.47	319	eP	P	02 49 37.8	-0.6
SMOL	Smolenice	73.80	318	eP	P	02 49 39.6	-0.7
MORC	Moravsky Berou	73.85	319	eP	P	02 49 39.7	-1.0
ZST	Bratislava	73.98	318	eP	P	02 49 40.8	-0.6
ARCES	ARCESS Array B	74.20	340	P	P	02 49 41.2	-1.1
	comp=Z,36nm,0.8s,mb5.4,baz=100,slow=7.4,SNR=8.9						
ARCES	ARCESS Array B	74.20	340	P	P	02 49 41.2	-1.1
ARE0	ARCESS Array S	74.20	340	eP	P	02 49 42.1	-0.2
BOSA	Boshof	74.36	237	P	P	02 49 44.8	+0.7
	comp=Z,19nm,1.1s,mb4.9						
DPC	Dobruska-Polom	74.69	320	eP	P	02 49 45.7	+0.2
DPC				epP	pP	02 49 56.4	+0.8
KSP	Ksiaz	74.76	320	⇓eP	P	02 49 45.7	-0.2
KSP				e	pP	02 49 56.4	+0.5
UPC	Upice	74.90	320	eP	P	02 49 46.9	+0.2
PRU	Pruhonice	75.80	319	eP	P	02 49 51.7	-0.2
PRU				epP	pP	02 50 01.7	-0.2
PVCC	Panska Ves	75.82	320	eP	P	02 49 51.5	-0.5
PVCC				epP	pP	02 50 03.0	+0.9
BRG	Berggiesshubel	76.25	320	i P	P	02 49 53.9	-0.4
	comp=Z,139nm,1.6s,mb5.6						
BRG				i	pP	02 50 05.3	+0.9
GEC2	GERESS Array S	76.28	318	eP	P	02 49 54.6	0.0
GERES	GERESS Array B	76.28	318	P	P	02 49 54.4	-0.2
	comp=Z,29nm,0.8s,mb5.3,baz=90,slow=5.3,SNR=7.4						
GERES				pP	pP	02 50 04.3	-0.3
	comp=Z,15nm,0.8s,baz=90,slow=5.3,SNR=4.5						
KHC	Kasperske Hory	76.38	318	eP	P	02 49 54.8	-0.3
KHC				epP	pP	02 50 03.7	-1.5
RUE	Ruedersdorf	76.45	322	eP	P	02 49 54.2	-1.3
	comp=Z,111nm,0.9s,mb5.8						
RUE				e	pP	02 50 05.9	+0.3
WET	Wettzell	76.84	318	eP	P	02 49 57.5	-0.2
CLL	Collm	76.86	321	i P	P	02 49 57.4	-0.4
	comp=Z,45nm,1.1s,mb5.3						
CLL	Collm	76.86	321	P	P	02 49 57.4	-0.4
	comp=Z,logA/T=1.6,mb5.3						
CLL				e*PP	pP	02 50 08.0	+0.1
CLL				i *SP	sP	02 50 13.5	+2.2
NKC	Novy Kostel	77.16	320	eP	P	02 49 59.2	-0.3
NKC				epP	pP	02 50 10.3	+0.7
SFI	Santa Sofia	77.42	313	eP	P	02 50 00.0	-1.0
PGD	Poggio Sodo	77.51	313	eP	P	02 50 02.3	+0.7
CTI	Castel Tesino	77.58	315	eP	P	02 50 01.5	-0.3
VMG	Vicchio	77.64	313	eP	P	02 50 02.2	0.0
MOX	Moxa	77.71	320	i P	P	02 50 02.2	-0.3
MOX	Moxa	77.71	320	eP	P	02 50 02.2	-0.3
SEI	Scarperia	77.77	313	eP	P	02 50 01.0	-2.0
FUR	Furstenfeldbru	77.87	317	eP	P	02 50 03.0	-0.4
GRA1	Grafenberg Arr	77.94	319	eP	P	02 50 04.4	+0.7
	comp=Z,65nm,1.0s,mb5.5						
GRF	Grafenberg Arr	77.94	319	eP	P	02 50 04.4	+0.7
	comp=Z,65nm,1.0s,mb5.5						
NB2	NORSAR Subarra	78.43	331	P	P	02 50 05.2	-1.0
	comp=Z,60nm,1.1s,mb5.4,baz=96,slow=5.3						
NB2	NORSAR Subarra	78.43	331	P	P	02 50 05.2	-1.0
	baz=96,slow=5.3						
NOA	NORSAR Array B	78.43	331	P	P	02 50 05.2	-1.1
	comp=Z,19nm,0.9s,mb5.0,baz=94,slow=5.5,SNR=4.9						
NOA				pP	pP	02 50 14.9	-1.4
	comp=Z,8.6nm,0.9s,baz=94,slow=5.5,SNR=3.3						
ERBM	Eremo	78.45	314	eP	P	02 50 06.6	-0.1
BRMO	Bormio	78.47	316	eP	P	02 50 06.2	-0.5
CLZ	Clausthal	78.52	321	eP	P	02 50 07.0	+0.1
	comp=Z,32nm,0.9s,mb5.2						
BSEG	Bad Segeberg	78.60	323	eP	P	02 50 07.6	+0.3
STU	Stuttgart	79.26	318	eP	P	02 50 10.9	-0.1
VAI	Varese	79.59	315	eP	P	02 50 11.8	-1.1
BFO	Black Forest	79.84	318	eP	P	02 50 13.9	-0.2
	comp=Z,25nm,0.9s,mb5.1						
FIN	Finale Ligure	80.04	313	eP	P	02 50 15.4	+0.1
LPG	La Plagne	81.02	315	⇓iP	P	02 50 20.8	+0.3
	comp=Z,188nm,0.9s,mb5.7						
ESDC	Sonseca Array	89.55	310	P	P	02 51 03.7	+0.7
	comp=Z,20nm,1.1s,mb5.4,baz=57,slow=4.6,SNR=6.9						
DBIC	Dimbokro	96.13	278	P	P	02 51 35.2	+1.3
	comp=Z,5.6nm,0.8s,mb5.0,baz=62,slow=5.6,SNR=3.4						
DBIC				sP	sP	02 51 49.2	+1.7
	comp=Z,8.3nm,0.8s,baz=50,slow=5.7,SNR=4.6						
DBIC	Dimbokro	96.13	278	P	P	02 51 35.2	+1.3
DBIC				e		02 51 49.0	
DBIC				sP	sP	02 51 49.2	+1.7
RES	Resolute Bay	96.97	2	eP	P	02 51 37.7	+1.4
	comp=Z,36nm,0.9s,mb5.8						
INK	Inuvik	97.00	16	P	P	02 51 37.4	+0.8
	comp=Z,8.4nm,0.8s,mb5.2,baz=252,slow=8.6,SNR=3.7						
INK				sP	sP	02 51 51.7	+1.6
	comp=Z,22nm,1.0s,baz=318,slow=3.3,SNR=5.6						
INK	Inuvik	97.00	16	eP	P	02 51 36.4	-0.2
INK				e		02 51 50.8	
INK				sP	sP	02 51 51.7	+1.6
YKA	Yellowknife Ar	106.34	13	PP	PP	02 56 40.1	-5.7
	comp=Z,2.5nm,1.0s,baz=332,slow=7.5,SNR=3.8						
MOD	Modoc	121.71	28	eP		02 57 15.8	
HLID	Hailey	122.88	23	ePKPdf	PKPdf	02 57 03.4	-2.4
HLID				e		02 57 17.7	
PDAR	Pinedale Array	125.32	20	pPKP		02 57 20.8	
	comp=Z,7.5nm,0.9s,baz=62,slow=1.4,SNR=4.0						
NVAR	Mina Array Bea	125.37	29	PKP	PKPdf	02 57 08.6	-2.2
	comp=Z,8.4nm,1.1s,baz=220,slow=26,SNR=4.1						
NVAR				pPKP		02 57 21.2	
	comp=Z,13nm,0.8s,baz=324,slow=1.0,SNR=7.4						
PHWY	Pilot Hill	127.92	17	eP	PKPdf	02 57 25.6	+10
MVU	Marysvale	128.05	24	eP	PKPdf	02 57 26.9	+11
TXAR	Lajitas Array	139.46	22	pPKP		02 57 47.1	
	comp=Z,2.6nm,0.8s,baz=207,slow=2.0,SNR=3.1						

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*IDC **26** 02:40:31.6±1.1, 9.01N×93.28E, mb4.6/10, mb1 4.8/10, mb1mx4.6/19, Error ellipse: s-maj=93.0km s-min=20.5km az=46.0*

ISC 26 02:40:34.7±1.0**, 8.9N**±0.4×**93.3E**±0.4**, h33^{km}, n13, σ0^{s}.85**/13**, mb4.6**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PONG	Pong	28.00	327	e	P	02 46 26.0	+1.2
DLH	Dalhousie	28.45	328	e	P	02 46 25.0	-3.8
THN	Thein Dam	28.50	328	e	P	02 46 30.2	+0.9
BVAR	Borovoye Array	47.73	341	P	P	02 49 09.9	-0.4
	1.9nm,0.4s,mb4.5,baz=143,slow=9.2,SNR=4.4						
WRA	Warramunga Arr	49.55	126	P	P	02 49 24.3	-0.5
	6.4nm,0.7s,mb4.8,baz=300,slow=9.7,SNR=4.1						
ASAR	Alice Springs	51.23	130	P	P	02 49 38.4	+0.8
	4.4nm,0.4s,mb4.7,baz=307,slow=6.7,SNR=6.5						
BRTR	Keskin Array B	61.11	311	P	P	02 50 47.4	-0.8
	4.9nm,0.6s,mb4.8,baz=90,slow=5.8,SNR=7.1						
AKASG	Malin Array Be	66.81	322	P	P	02 51 23.7	-1.5
	37nm,1.3s,mb5.2,baz=101,slow=6.1,SNR=4.3						
MLR	Muntele Rosu	67.84	315	P	P	02 51 32.7	+1.0
	5.7nm,0.7s,mb4.7,baz=267,slow=4.3,SNR=3.4						
FINES	FINESS Array B	71.39	332	P	P	02 51 52.9	-0.3
	1.8nm,0.6s,mb4.2,baz=112,slow=7.5,SNR=3.2						
ARCES	ARCESS Array B	74.00	340	P	P	02 52 08.3	-0.1
	4.0nm,0.7s,mb4.5,baz=100,slow=5.5,SNR=4.6						
GERES	GERESS Array B	76.49	318	P	P	02 52 23.5	+0.5
	3.1nm,0.7s,mb4.4,baz=90,slow=5.9,SNR=3.8						
NOA	NORSAR Array B	78.41	331	P	P	02 52 32.8	-0.6
	4.3nm,0.9s,mb4.4,baz=96,slow=5.6,SNR=3.3						

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*IDC **26** 02:40:55.1±0.6, 7.47N×92.45E, mb5.1/22, mb1 5.2/23, mb1mx5.1/27, ML5.5/1, Error ellipse: s-maj=23.8km s-min=12.4km az=37.0*

*MOS **26** 02:40:58.2±1.1, 7.50N×92.51E, h33^{km}, mb5.3/15, Error ellipse: s-maj=17.5km s-min=8.2km az=124.1*

*BJI **26** 02:40:58.3, 7.61N×92.39E, h24^{km}, mb5.3*

*NEIC **26** 02:40:59.9±0.3, 7.48N×92.43E, h30^{km}, mb5.4/22, Error ellipse: s-maj=7.7km s-min=6.1km az=199.0*

ISC 26 02:40:57.7±0.4**, 7.46N**±0.06×**92.43E**±0.05**, h30^{km}, n138, σ1^{s}.08**/120**, mb5.2**/47**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.64	29	eP	P	02 43 56.4	-2.0
	54nm,0.3s						
CMAR	Chiang Mai Arr	12.64	29	Pn	P	02 43 58.0	-0.4
	9.1nm,0.3s,baz=228,slow=14,SNR=7.6						
CMAR	Chiang Mai Arr	12.64	29	P	P	02 43 58.0	-0.4
CMAR				pmax	pmax		
	comp=Z,9.0nm,0.3s						
KOD	Kodaikanal	15.04	282	eP	P	02 44 32.0	+2.0
SHL	Shillong	18.02	358	eP	P	02 45 04.3	-3.5
SHL				e		02 45 09.6	
	comp=Z,189nm,1.1s						
MNGI	Mangalore	18.16	289	eP	P	02 45 08.7	-0.9
MNGI				e		02 45 15.6	
	comp=Z,374nm,1.3s						
GOA	Goa	19.89	295	eP	P	02 45 35.0	+5.2
AKL	Akola	19.89	313	eP	P	02 45 27.9	-2.0
AKL				e		02 45 33.4	
	comp=Z,376nm,1.3s						
KMI	Kunming	20.14	28	eP	P	02 45 33.0	+0.6
KMI				AMB	AMB		
	comp=Z,147nm,1.1s						
QIZ	Qiongzhong	20.46	54	P	P	02 45 36.3	+0.6
QIZ	Qiongzhong	20.46	54	eP	P	02 45 36.6	+0.9
	comp=Z,500nm,1.6s						
LSA	Lhasa	22.16	357	P	P	02 45 55.5	+2.7
LSA	Lhasa	22.16	357	eP	P	02 45 55.3	+2.4
	comp=Z,108nm,1.0s,mb5.2						
BOM	Bombay	22.19	303	eP	P	02 45 58.5	+5.2
GYA	Guiyang	23.25	34	⇑iP	P	02 46 06.5	+2.9
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.8						
NDI	New Delhi	25.53	328	eP	P	02 46 23.6	-2.0
NDI				e		02 46 27.1	
	comp=Z,946nm,2.0s						
CD2	Chengdu	25.63	23	P	P	02 46 27.3	+0.8
ENH	Enshi	27.77	33	eP	P	02 46 45.1	-1.0
	comp=Z,25nm,0.6s,mb5.0						
GTA	Gaotai	32.50	11	P	P	02 47 28.8	+0.8
GTA				AP	pP	02 47 34.3	-2.5
GTA				XP	sP	02 47 36.5	-4.2
GTA				AMB	AMB		
	comp=Z,118nm,1.0s,mb5.7						
NJ2	Nanjing	34.70	42	eP	P	02 47 48.3	+1.2
AAK	Ala-Archa	38.44	339	eP	P	02 48 19.3	+0.7
	comp=Z,71nm,1.1s,mb5.3						
JOW	Kunigami	39.09	56	P	P	02 48 24.9	+0.7
	comp=Z,46nm,1.0s,mb5.2,baz=274,slow=22,SNR=3.8						
DL2	Dalian	40.88	36	P	P	02 48 40.0	+1.2
DL2				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.1						
SONM	Songino Array	41.96	14	P	P	02 48 48.7	+1.1
	comp=Z,28nm,1.1s,mb4.8,baz=194,slow=7.7,SNR=6.8						
ULN	Ulaanbaatar	42.15	15	P	P	02 48 49.5	+0.4
	comp=Z,2.1nm,0.5s,mb4.0						
ZAK	Zakamensk	43.73	10	eP	P	02 49 03.0	+1.0
ZAL	Zalesovo	46.75	354	P	P	02 49 26.4	+0.4
	comp=Z,12nm,1.0s,mb4.8,baz=299,slow=12,SNR=3.9						
ZAL	Zalesovo	46.75	354	P	P	02 49 26.4	+0.4
ZAL				pmax	pmax		
	comp=Z,12nm,1.0s						
ZAL	Zalesovo	46.75	354	P	P	02 49 26.4	+0.4
HIA	Hailar	47.58	24	eP	P	02 49 30.8	-1.8
	comp=Z,28nm,1.0s,mb5.2						
NVS	Novosibirsk	47.82	353	eP	P	02 49 32.9	-1.5
BVAR	Borovoye Array	48.85	342	P	P	02 49 42.1	-0.3
	comp=Z,24nm,0.8s,mb5.3,baz=153,slow=6.6,SNR=7.9						
BRVK	Borovoye	48.91	342	eP	P	02 49 42.2	-0.7
	comp=Z,55nm,1.0s,mb5.5						
MDJ	Mudanjiang	49.11	35	eP	P	02 49 44.4	-0.2
	comp=Z,57nm,1.3s,mb5.4						
CHKZ	Chkalovo	49.35	343	eP	P	02 49 45.4	-0.8
	comp=Z,87nm,1.0s,mb5.7						
WRA	Warramunga Arr	49.42	124	P	P	02 49 46.2	-1.0
	comp=Z,35nm,0.8s,mb5.4,baz=304,slow=8.8,SNR=8.3						
WRA	Warramunga Arr	49.42	124	P	P	02 49 46.2	-1.0
WRA				pmax	pmax		
	comp=Z,35nm,0.8s						
WRAB	Tennant Creek	49.42	124	eP	P	02 49 46.4	-0.9
	comp=Z,77nm,0.9s,mb5.7						
MAJO	Matsushiro	50.70	48	eP	P	02 49 56.6	-0.2
	comp=Z,16nm,0.7s,mb5.1						
ASAR	Alice Springs	50.97	129	P	P	02 49 58.6	-0.4
	comp=Z,30nm,0.8s,mb5.3,baz=306,slow=7.2,SNR=11						
BOD	Bodaibo	52.96	14	eP	P	02 50 03.9	-10
GNI	Garni	53.52	315	P	P	02 50 18.7	+0.8
	comp=Z,44nm,1.0s,mb5.3,baz=110,slow=2.2,SNR=6.5						
GNI	Garni	53.52	315	P	P	02 50 18.7	+0.8
GNI				pmax	pmax		
	comp=Z,44nm,1.0s						
GNI	Garni	53.52	315	P	P	02 50 16.8	-1.1
	comp=Z,60nm,1.0s,mb5.5						
ZEI	Tsey	55.19	318	eP	P	02 50 28.6	-1.5
ZEI				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
ARU	Arti	55.62	338	eP	P	02 50 33.2	+0.2
ARU	Arti	55.62	338	eP	P	02 50 32.6	-0.4
	comp=Z,81nm,1.1s,mb5.7						
KMBO	Kilima Mbogo	55.69	264	P	P	02 50 35.5	+1.4
	comp=Z,10nm,1.1s,mb4.8,baz=44,slow=7.7,SNR=5.4						
KMBO	Kilima Mbogo	55.69	264	P	P	02 50 35.5	+1.4
KMBO				pmax	pmax		
	comp=Z,10.0nm,1.1s						
KMBO	Kilima Mbogo	55.69	264	P	P	02 50 35.5	+1.4
KIV	Kislovodsk	56.49	319	eP	P	02 50 38.0	-1.5
KIV				pmax	pmax		
	comp=N,50nm,1.2s						
KIV				pmax	pmax		
	comp=E,45nm,1.2s						
KIV				pmax	pmax		
	comp=Z,83nm,1.2s,mb5.6						
KIV	Kislovodsk	56.49	319	eP	P	02 50 38.5	-1.0
	comp=Z,90nm,1.1s,mb5.7						
ASF	Jabal al Asfar	57.02	304	P	P	02 50 45.0	+1.5
	comp=Z,16nm,1.0s,mb5.0,baz=344,slow=1.4,SNR=4.7						
PMG	Port Moresby	57.04	106	P	P	02 50 43.0	-0.8
	comp=Z,34nm,1.1s,mb5.3,baz=340,slow=3.9,SNR=5.6						
PMG	Port Moresby	57.04	106	P	P	02 50 43.0	-0.8
PMG				pmax	pmax		
	comp=Z,34nm,1.1s						
PMG	Port Moresby	57.04	106	eP	P	02 50 43.9	+0.1
	comp=Z,17nm,0.7s,mb5.2						
MALT	Malatya	57.44	311	eP	P	02 50 45.4	-0.9
	comp=Z,28nm,1.2s,mb5.2						
EIL	Elat	58.16	300	P	P	02 50 52.5	+1.0
	comp=Z,23nm,0.8s,mb5.2,baz=89,slow=7.7,SNR=6.3						
CTA	Charters Tower	59.60	118	P	P	02 51 01.7	+0.2
	comp=Z,10nm,0.8s,mb4.9,baz=250,slow=11,SNR=5.2						
CTA	Charters Tower	59.60	118	P	P	02 51 01.7	+0.2
CTA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
STKA	Stephens Creek	61.06	133	P	P	02 51 10.7	-0.7
	comp=Z,11nm,0.6s,mb5.1,baz=316,slow=6.3,SNR=5.7						
STKA	Stephens Creek	61.06	133	eP	P	02 51 10.5	-0.9
BRTR	Keskin Array B	61.42	311	P	P	02 51 12.6	-1.1
	comp=Z,18nm,1.1s,mb5.1,baz=138,slow=7.5,SNR=7.8						
BRTR	Keskin Array B	61.42	311	P	P	02 51 12.6	-1.1
BRTR				pmax	pmax		
	comp=Z,19nm,1.1s						
MBAR	Mbarara	62.03	265	P	P	02 51 18.4	+0.2
	comp=Z,32nm,1.3s,mb5.3						
ISP	Isparta	63.36	309	eP	P	02 51 26.5	-0.1
OBN	Obninsk	64.83	328	eP	P	02 51 34.7	-1.3
OBN				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.5						
OBN	Obninsk	64.83	328	eP	P	02 51 34.1	-1.8
SANT	Santorini	67.09	306	eP	P	02 51 49.6	-1.2
ALN	Alexandroupoli	67.34	311	eP	P	02 51 51.5	-0.8
IDI	Anoyia	67.41	305	P	P	02 51 53.1	+0.2
	comp=Z,28nm,0.7s,mb5.4,baz=84,slow=5.1,SNR=11						
AKASG	Malin Array Be	67.43	322	P	P	02 51 50.9	-1.7
	comp=Z,7.8nm,0.8s,mb4.8,baz=91,slow=4.5,SNR=6.1						
AKASG	Malin Array Be	67.43	322	P	P	02 51 50.9	-1.7
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MA2	Magadan	67.92	28	eP	P	02 51 55.3	-0.3
	comp=Z,86nm,1.3s,mb5.6						
MLR	Muntele Rosu	68.28	316	P	P	02 51 58.7	+0.6
	comp=Z,77nm,1.1s,mb5.7,baz=61,slow=6.4,SNR=8.8						
MLR	Muntele Rosu	68.28	316	P	P	02 51 58.7	+0.6
MLR				pmax	pmax		
	comp=Z,77nm,1.1s						
PAIG	Paliouri	68.97	310	eP	P	02 52 02.0	-0.4
SRS	Serrai	69.20	311	eP	P	02 52 03.0	-0.9
LIT	Litokhoron	69.90	310	eP	P	02 52 07.0	-1.1
GRG	Griva	70.08	311	eP	P	02 52 07.7	-1.5
KWP	Kalwaria	71.25	320	eP	P	02 52 15.8	-0.3
KOLS	Kolonicke sedl	71.40	319	eP	P	02 52 18.2	+1.2
IGT	Igoumenitsa	71.48	309	eP	P	02 52 16.4	-1.3
SUW	Suwalki	71.85	324	eP	P	02 52 18.4	-1.2
CRVS	Cervenica-Dubn	71.92	319	eP	P	02 52 22.8	+2.6
FINES	FINESS Array B	72.29	332	P	P	02 52 21.3	-0.8
	comp=Z,15nm,0.8s,mb5.0,baz=110,slow=7.6,SNR=7.1						
FINES	FINESS Array B	72.29	332	P	P	02 52 21.3	-0.8
FINES				pmax	pmax		
	comp=Z,15nm,0.8s						
KAF	Kangasniemi	72.39	333	eP	P	02 52 21.9	-0.8
KECS	Kecovo	72.49	318	eP	P	02 52 22.5	-1.1
PSZ	Piszkesteto	72.80	318	eP	P	02 52 24.7	-0.7
VYHS	Vyhne	73.58	318	eP	P	02 52 29.6	-0.3
SRO2	Moca	73.78	318	eP	P	02 52 32.6	+1.5
SRO	Srobarova	73.84	318	eP	P	02 52 33.3	+1.8
OKC	Ostrava-Krasne	74.20	320	eP	P	02 52 33.7	+0.2
MORC	Moravsky Berou	74.58	320	eP	P	02 52 36.5	+0.8
ZST	Bratislava	74.70	318	eP	P	02 52 36.7	+0.3
ARCES	ARCESS Array B	75.08	340	P	P	02 52 37.2	-1.0
	comp=Z,15nm,0.9s,mb4.9,baz=72,slow=3.8,SNR=5.7						
ARCES	ARCESS Array B	75.08	340	P	P	02 52 37.2	-1.0
ARCES				pmax	pmax		
	comp=Z,15nm,0.9s						
ARCES	ARCESS Array B	75.08	340	P	P	02 52 37.2	-1.0
DPC	Dobruska-Polom	75.43	320	eP	P	02 52 41.3	+0.8
KSP	Ksiaz	75.50	321	eP	P	02 52 40.7	-0.2
KSP	Ksiaz	75.50	321	eP	P	02 52 41.8	+0.9
UPC	Upice	75.64	320	eP	P	02 52 43.7	+1.9
PRU	Pruhonice	76.53	320	eP	P	02 52 47.6	+0.8
PVCC	Panska Ves	76.56	320	eP	P	02 52 48.3	+1.4
BRG	Berggiesshubel	76.98	320	i P	P	02 52 49.7	+0.4
BRG				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.3						
BRG	Berggiesshubel	76.98	320	i P	P	02 52 49.7	+0.4
	comp=Z,40nm,1.1s,mb5.3						
GERES	GERESS Array B	77.00	318	P	P	02 52 50.0	+0.6
	comp=Z,12nm,0.8s,mb4.9,baz=90,slow=5.3,SNR=9.9						
GERES	GERESS Array B	77.00	318	P	P	02 52 50.0	+0.6
GERES				pmax	pmax		
	comp=Z,12nm,0.8s						
KHC	Kasperske Hory	77.10	319	eP	P	02 52 50.3	+0.3
RUE	Ruedersdorf	77.21	322	eP	P	02 52 50.6	+0.1
	comp=Z,93nm,1.2s,mb5.6						
CLL	Collm	77.61	321	i P	P	02 52 54.3	+1.6
CLL				i		02 53 23.8	
CLL	Collm	77.61	321	P	P	02 52 54.3	+1.6
CLL				i		02 53 23.8	
NKC	Novy Kostel	77.90	320	eP	P	02 52 54.9	+0.6
NOA	NORSAR Array B	79.26	331	P	P	02 53 01.1	-0.5
	comp=Z,3.1nm,1.0s,mb4.2,baz=141,slow=4.2,SNR=3.4						
NOA	NORSAR Array B	79.26	331	P	P	02 53 01.1	-0.4
NOA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
LPL	La Plagne	81.72	315	eP	P	02 53 15.8	+0.9
	comp=Z,138nm,1.0s,mb5.5						
ESDC	Sonseca Array	90.18	310	P	P	02 53 57.5	+0.7
	comp=Z,9.5nm,0.9s,mb5.1,baz=63,slow=4.8,SNR=10						
ESLA	Sonseca Array	90.18	310	P	P	02 53 57.9	+1.1
	comp=Z,11nm,1.2s,mb5.0						
INK	Inuvik	97.86	16	eP	P	02 54 32.0	+0.8
	comp=Z,16nm,1.1s,mb5.5						
YKA	Yellowknife Ar	107.21	13	PP	PP	02 59 37.2	-6.2
	comp=Z,3.4nm,0.9s,baz=334,slow=7.8,SNR=7.3						
MSO	Missoula	121.09	21	ePKPdf	PKPdf	02 59 49.4	-3.5
MOD	Modoc	122.48	29	ePKPdf	PKPdf	02 59 53.4	-2.2
LOHW	Long Hollow	125.05	20	ePKPdf	PKPdf	02 59 58.4	-2.3
WUWY	Wally Ulrich	125.06	20	ePKPdf	PKPdf	02 59 58.4	-2.3
SNOW	Snow King Moun	125.13	21	ePKPdf	PKPdf	02 59 58.8	-2.0
REDW	Red Top Meadow	125.18	21	ePKPdf	PKPdf	02 59 58.8	-2.1
HVU	Hansel Valley	125.84	23	ePKPdf	PKPdf	02 59 59.7	-2.5
NVAR	Mina Array Bea	126.14	30	PKP	PKPdf	03 00 01.0	-1.9
	comp=Z,5.8nm,0.8s,baz=296,slow=2.3,SNR=10						
BW06	Boulder Array	126.15	20	ePKPdf	PKPdf	02 59 59.4	-3.3
PDAR	Pinedale Array	126.15	20	PKP	PKPdf	03 00 00.1	-2.6
	comp=Z,6.2nm,1.0s,SNR=5.8						
HWUT	Hardware Ranch	126.45	22	ePKPdf	PKPdf	03 00 00.5	-2.8
MVU	Marysvale	128.85	25	ePKPdf	PKPdf	03 00 06.5	-1.6
ANMO	Albuquerque	134.20	22	PKP	PKPdf	03 00 16.9	-1.4
	comp=Z,6.9nm,1.1s,baz=323,slow=2.1,SNR=4.2						
ANMO	Albuquerque	134.20	22	PKP	PKPdf	03 00 16.9	-1.4
WMOK	Wichita Mounta	136.72	14	ePKPpre		02 57 16.6	
TXAR	Lajitas Array	140.28	22	PKP	PKPdf	03 00 28.5	-1.1
	comp=Z,2.6nm,0.6s,baz=94,slow=0.1,SNR=8.9						
PCRV	Puerto La Cruz	151.21	307	PKPbc	PKPdf	03 00 50.8	+2.5
	comp=Z,13nm,0.7s,baz=71,slow=3.8,SNR=5.7						

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*IDC **26** 02:43:00.3±0.7, 9.14N×93.98E, mb4.8/13, mb1 4.9/13, mb1mx4.8/19, Error ellipse: s-maj=34.1km s-min=19.6km az=78.0*

*NEIC **26** 02:43:05.3±0.3, 9.22N×94.01E, h30^{km}, mb4.9/19, Error ellipse: s-maj=11.6km s-min=8.0km az=84.0*

ISC 26 02:43:03.4±0.4**, 9.21N**±0.07×**94.0E**±0.1**, h30^{km}, n57, σ0^{s}.96**/41**, mb4.8**/26**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	20.56	353	P	P	02 47 41.9	-0.5
	72nm,1.0s						
COCO	West Island	21.45	172	P	P	02 47 54.1	+2.5
	514nm,1.4s,mb5.7						
ENH	Enshi	25.46	33	eP	P	02 48 29.6	-1.1
	6.2nm,0.5s,mb4.4						
DGAR	Diego Garcia	27.08	233	eP	P	02 48 45.2	-0.6
ZAL	Zalesovo	45.21	352	P	P	02 51 20.8	+1.2
	10.0nm,0.4s,mb5.0,baz=297,slow=7.5,SNR=4.0						
NWAO	Narrogin (SRO)	47.40	153	P	P	02 51 34.6	-2.5
	19nm,0.8s,mb5.1,baz=322,slow=8.5,SNR=3.6						
NWAO	Narrogin (SRO)	47.40	153	eP	P	02 51 34.7	-2.5
	11nm,0.6s,mb5.0						
BVAR	Borovoye Array	47.69	341	P	P	02 51 39.2	+0.1
	12nm,0.9s,mb4.9,baz=138,slow=8.7,SNR=4.4						
BRVK	Borovoye	47.75	341	eP	P	02 51 39.7	0.0
	7.7nm,0.7s,mb4.8						
GNI	Garni	53.41	314	eP	P	02 52 23.7	+0.9
	2.7nm,0.6s,mb4.3						
KIV	Kislovodsk	56.24	317	eP	P	02 52 42.9	-0.5
KMBO	Kilima Mbogo	57.44	263	P	P	02 52 52.8	+0.5
	6.3nm,0.9s,mb4.7,baz=53,slow=11,SNR=4.5						
KMBO	Kilima Mbogo	57.44	263	eP	P	02 52 53.5	+1.2
	8.7nm,1.0s,mb4.7						
EIL	Elat	58.65	299	eP	P	02 52 58.9	-1.7
	1.2nm,0.5s,mb4.2						
CTAO	Charters Tower	59.09	120	eP	P	02 53 02.7	-1.1
	13nm,0.9s,mb5.0						
BRTR	Keskin Array B	61.46	310	P	P	02 53 17.9	-1.7
	5.4nm,0.9s,mb4.7,baz=129,slow=7.9,SNR=3.7						
AKASG	Malin Array Be	67.03	321	P	P	02 53 53.8	-2.0
	1.6nm,0.5s,mb4.3,baz=80,slow=5.2,SNR=4.5						
LSZ	Lusaka	69.58	250	eP	P	02 54 12.4	+0.1
	3.2nm,0.5s,mb4.5						
FINES	FINESS Array B	71.47	332	P	P	02 54 22.5	-0.5
	9.6nm,0.7s,mb4.8,baz=111,slow=7.2,SNR=7.5						
FINES	FINESS Array B	71.47	332	P	P	02 54 22.5	-0.5
ARCES	ARCESS Array B	73.97	340	P	P	02 54 38.2	+0.7
	7.6nm,0.6s,mb4.8,baz=103,slow=6.4,SNR=6.8						
ARCES	ARCESS Array B	73.97	340	P	P	02 54 38.2	+0.7
MORC	Moravsky Berou	74.28	319	eP	P	02 54 40.0	+0.3
ZST	Bratislava	74.46	317	eP	P	02 54 40.6	-0.1
LBTB	Lobatse	74.76	241	eP	P	02 54 42.9	-0.1
BOSA	Boshof	76.17	238	eP	P	02 54 50.9	-0.1
	31nm,1.0s,mb5.2						
BRG	Berggiesshubel	76.64	320	i P	P	02 54 53.4	+0.3
	35nm,1.7s,mb5.0						
GERES	GERESS Array B	76.74	318	P	P	02 54 54.1	+0.4
	7.0nm,0.8s,mb4.6,baz=88,slow=5.7,SNR=4.6						
CLL	Collm	77.24	321	e*PP	pP	02 55 07.0	+1.1
CLL				e*SP	sP	02 55 13.0	+3.8
NB2	NORSAR Subarra	78.50	330	P	P	02 55 02.8	-0.4
	5.1nm,0.7s,mb4.6,baz=96,slow=5.0						
NOA	NORSAR Array B	78.50	330	P	P	02 55 02.8	-0.3
	7.1nm,0.7s,mb4.7,baz=92,slow=5.6,SNR=7.0						
MAW	Mawson	79.81	192	P	P	02 55 09.6	-0.6
	14nm,0.8s,mb5.0,baz=359,slow=7.4,SNR=7.7						
MAW	Mawson	79.81	192	eP	P	02 55 09.2	-0.9
	19nm,0.8s,mb5.1						
SUR	Sutherland	80.97	235	eP	P	02 55 18.3	+1.2
LPG	La Plagne	81.58	315	eP	P	02 55 20.2	+0.3
	38nm,0.9s,mb5.0						
SYO	Syowa Base	86.63	197	⇓P	P	02 55 45.0	0.0

ESDC	Sonseca Array	90.25	310	P	P	02 56 03.4	+0.5
	2.5nm,0.6s,mb4.7,baz=61,slow=3.9,SNR=6.4						
SPU	Mount Spurr	93.16	26	*e*P	P	02 56 16.8	+1.0
SPU				*e*		02 56 23.7	
ILAR	Eielson Array	93.57	22	P	P	02 56 17.8	+0.3
	2.7nm,0.7s,mb4.8,baz=305,slow=3.9,SNR=5.4						
SBA	Scott Base	95.36	168	P	P	02 56 25.9	+0.3
	2.0nm,0.7s,mb4.7						
INK	Inuvik	95.75	16	*e*P	P	02 56 28.6	+1.0
	23nm,1.2s,mb5.5						
RES	Resolute Bay	96.08	2	*e*P	P	02 56 30.3	+1.4
	11nm,0.9s,mb5.3						
SNAA	Sanae	100.84	199	Pdif	P	02 56 49.9	-0.6
	0.4nm,0.4s						
SNOW	Snow King Moun	122.94	21	*e*PKPdf	PKPdf	03 01 59.6	-2.7
REDW	Red Top Meadow	123.00	21	*e*PKPdf	PKPdf	03 01 59.1	-3.2
NVAR	Mina Array Bea	123.85	30	PKP	PKPdf	03 02 01.9	-2.3
	4.2nm,0.7s,baz=326,slow=1.5,SNR=7.0						
MNV	Mina	123.92	30	*e*PKPdf	PKPdf	03 02 01.5	-2.8
PDAR	Pinedale Array	123.98	21	PKP	PKPdf	03 02 00.7	-3.6
	2.8nm,0.7s,baz=60,slow=1.8,SNR=5.3						
ANMO	Albuquerque	132.00	23	PKP	PKPdf	03 02 18.2	-1.8
	1.9nm,0.7s,baz=306,slow=3.4,SNR=4.3						
TXAR	Lajitas Array	138.07	23	PKP	PKPdf	03 02 29.6	-1.8
	2.3nm,0.8s,baz=258,slow=0.9,SNR=7.1						
BDFB	Brasilia	142.40	256	PKP	PKPdf	03 02 36.2	-3.2
	3.9nm,0.6s,baz=267,slow=4.4,SNR=4.2						
SJG	San Juan	146.51	324	PKPbc	PKPbc	03 02 44.4	+1.8
	17nm,0.9s,baz=319,slow=2.7,SNR=3.2						
SJG	San Juan	146.51	324	PKPbc	PKPbc	03 02 44.4	+1.7
PCRV	Puerto La Cruz	151.31	312	PKPbc	PKPdf	03 02 55.0	+0.9
	9.2nm,0.6s,baz=147,slow=1.5,SNR=3.6						
SDV	Santo Domingo	156.39	319	PKPab	PKPab	03 03 26.8	-0.1
	13nm,0.9s,baz=69,slow=3.7,SNR=7.3						
LVC	Limon Verde	158.87	229	PKPab	PKPab	03 03 37.8	+0.4
	13nm,0.9s,baz=93,slow=2.9,SNR=6.8						
LPAZ	La Paz	161.21	246	PKP	PKPdf	03 03 04.9	-1.8
	4.1nm,1.0s,baz=207,slow=2.3,SNR=2.2						
LPAZ				PKPab	PKPab	03 03 47.2	-0.4
	7.5nm,0.8s,baz=117,slow=5.9,SNR=6.9						

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*JMA **26** 02:43:30.7±0.1, 37.13N×141.06E, h54^{km}±1^{km}, M3.7 JMA Felt II J1.*

ISC 26 02:43:29.8±1.2**, 37.12N**±0.05×**141.2E**±0.1**, h47**^{km}±8^{km}**, n13,** σ**0**^{s}**65**/21**, 2C-6D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.33	266	⇑P	P	02 43 39.5	+0.5
ONAJ				S	S	02 43 45.7	+0.2
JFK	Kawauchi	0.36	312	⇓P	P	02 43 39.9	+0.6
JFK				S	S	02 43 46.3	+0.3
JHO	Hitachi	0.73	225	⇑P	P	02 43 43.6	-0.2
JHO				S	S	02 43 52.6	-1.5
JFT	Otama	0.80	300	⇓P	P	02 43 45.1	+0.2
JFT				S	S	02 43 55.4	-0.5
JMM	Marumori	0.81	336	P	P	02 43 45.2	+0.2
JMM				S	S	02 43 56.0	-0.2
JFY	Yanaizu	1.23	284	⇓P	P	02 43 50.3	-0.7
JFY				S	S	02 44 02.9	-3.9
JOU	Okura	1.31	341	⇓P	P	02 43 52.1	-0.1
JIO	Ouri	1.33	5	⇓P	P	02 43 52.6	+0.1
JIO				*e*S	S	02 44 08.8	-0.5
JYS	Shirataka	1.42	321	⇓P	P	02 43 53.6	-0.1
MAJO	Matsushiro	2.48	257	P	P	02 44 09.9	+1.2
MAJO	Matsushiro	2.48	257	*e*P	P	02 44 08.9	+0.2
MAT	Matsushiro	2.48	257	P	P	02 44 09.0	+0.3
MAT				S	S	02 44 38.8	+0.9
MAT	Matsushiro	2.48	257	*e*S	S	02 44 39.0	+1.1

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*IDC **26** 02:44:46.4±1.1, 7.04N×93.99E, mb4.6/11, mb1 4.8/11, mb1mx4.6/19, Error ellipse: s-maj=53.7km s-min=20.5km az=47.0*

ISC 26 02:44:49.8±0.9**, 7.0N**±0.2×**94.1E**±0.2**, h33**^{km}**, n13,** σ**1**^{s}**18**/13**, mb4.6**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.99	12	P	P	02 52 40.3	+0.8
	4.1nm,0.6s,mb4.3,baz=203,slow=5.1,SNR=6.5						
WRA	Warramunga Arr	47.84	125	P	P	02 53 27.1	+0.3
	4.1nm,0.5s,mb4.7,baz=304,slow=8.4,SNR=7.4						
ASAR	Alice Springs	49.44	129	P	P	02 53 38.4	-0.7
	9.6nm,1.0s,mb4.8,baz=301,slow=7.8,SNR=4.4						
BVAR	Borovoye Array	49.75	341	P	P	02 53 39.1	-1.9
	4.7nm,0.8s,mb4.6,baz=135,slow=6.1,SNR=3.8						
AKASG	Malin Array Be	68.76	322	P	P	02 55 51.1	-1.4
	5.5nm,0.9s,mb4.5,baz=84,slow=5.0,SNR=6.3						
MLR	Muntele Rosu	69.72	316	P	P	02 55 57.5	-1.0
	11nm,0.8s,mb4.8,baz=166,slow=8.3,SNR=4.6						
FINES	FINESS Array B	73.41	332	P	P	02 56 19.6	-0.7
	5.3nm,0.8s,mb4.5,baz=120,slow=9.6,SNR=5.3						
ARCES	ARCESS Array B	76.02	340	P	P	02 56 35.0	-0.2
	2.9nm,0.5s,mb4.4,baz=101,slow=6.7,SNR=5.3						
GERES	GERESS Array B	78.40	318	P	P	02 56 50.3	+1.5
	11nm,1.1s,mb4.7,baz=89,slow=5.2,SNR=5.7						
CLL	Collm	78.96	321	P	P	02 56 54.0	+2.1
NB2	NORSAR Subarra	80.42	331	P	P	02 57 01.0	+1.5
	3.2nm,0.7s,mb4.4,baz=97,slow=5.0						
NOA	NORSAR Array B	80.42	331	P	P	02 57 01.1	+1.6
	5.1nm,0.8s,mb4.5,baz=93,slow=5.7,SNR=6.7						
ILAR	Eielson Array	95.54	22	P	P	02 58 12.4	-0.1
	1.4nm,0.9s,mb4.4,baz=306,slow=6.7,SNR=4.9						

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*IDC **26** 02:45:13.0±0.4, 8.52N×92.61E, mb5.0/28, mb1 5.1/29, mb1mx5.0/30, Error ellipse: s-maj=18.6km s-min=11.1km az=44.0*

*BJI **26** 02:45:16.2, 8.70N×92.54E, h18^{km}, mb5.4*

*NEIC **26** 02:45:17.6±0.2, 8.46N×92.61E, h30^{km}, mb5.2/36, Error ellipse: s-maj=5.7km s-min=4.6km az=225.0*

ISC 26 02:45:14.9±0.3**, 8.41N**±0.05×**92.60E**±0.05**, h24**^{km}**, h24**^{km}±2.0^{km}**: pP-P, n138,** σ**0**^{s}**93**/115**, mb5.1**/61**, 1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.73	31	Pn	P	02 48 03.0	-1.0
	baz=219,slow=13,SNR=3.1						
KMI	Kunming	19.23	29	*e*P	P	02 49 41.5	+1.2
KMI				AP		02 49 49.0	
KMI				AMB	AMB		
	comp=Z,79nm,1.2s						
QIZ	Qiongzhong	19.78	56	P	P	02 49 46.5	-0.1
LSA	Lhasa	21.22	357	P	P	02 49 58.8	-2.6
LSA	Lhasa	21.22	357	*e*P	P	02 50 02.3	+0.9
	comp=Z,94nm,0.6s,mb5.3						
GYA	Guiyang	22.37	35	⇑*i*P	P	02 50 14.0	+1.1
GYA				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.0						
CD2	Chengdu	24.69	23	⇓*i*P	P	02 50 37.0	+1.4
CD2				AMB	AMB		
	comp=Z,170nm,0.8s,mb5.6						
ENH	Enshi	26.89	34	*e*P	P	02 50 55.3	-0.7
	comp=Z,68nm,0.7s,mb5.3						
GTA	Gaotai	31.54	11	P	P	02 51 37.8	+0.2
GTA				AP	pP	02 51 43.5	-1.2
GTA				XP	sP	02 51 46.8	-1.0
GTA				AMB	AMB		
	comp=Z,62nm,1.0s,mb5.4						
TIA	Tai'an	35.57	35	*e*P	P	02 52 12.5	0.0
HHC	Hu-ho-hao-te	36.44	25	*e*P	P	02 52 20.0	+0.2
HHC				AP	pP	02 52 28.0	+1.1
HHC				XP	sP	02 52 33.5	+3.5
HHC				AMB	AMB		
	comp=Z,56nm,0.8s,mb5.5						
UCH	Uchtor	37.26	338	P	P	02 52 28.1	+1.4
	SNR=8.4						
KBK	Karagaybulak	37.47	338	P	P	02 52 30.1	+1.7
	SNR=8.8						
TKM2	Tokmak 2	37.47	339	P	P	02 52 25.8	-2.6
	SNR=5.4						
AML	Almayashu	37.49	337	P	P	02 52 30.7	+2.1
	SNR=7.4						
AAK	Ala-Archa	37.62	338	P	P	02 52 31.5	+1.9
	SNR=6.9						
AAK	Ala-Archa	37.62	338	*e*P	P	02 52 30.3	+0.6
	comp=Z,52nm,0.9s,mb5.3						
CHMS	Chumysh	37.84	339	P	P	02 52 32.5	+0.9
	SNR=8.3						
BJT	Baijiatuau	37.86	30	*e*P	P	02 52 32.5	+0.8
EKS2	Erkin-Say	37.91	337	P	P	02 52 34.0	+1.9
	SNR=7.1						
USP	Ospenovka	38.16	338	P	P	02 52 35.3	+1.1
	SNR=9.8						
JOW	Kunigami	38.43	57	P	P	02 52 37.0	+0.4
	comp=Z,28nm,0.5s,mb5.2,baz=359,slow=7.2,SNR=3.9						
MBWA	Marble Bar	39.68	138	*e*P	P	02 52 47.6	+0.5
	comp=Z,39nm,1.1s,mb5.0						
DL2	Dalian	40.02	36	P	P	02 52 51.3	+1.6
DL2				AMB	AMB		
	comp=Z,70nm,0.9s,mb5.4						
SONM	Songino Array	40.99	14	P	P	02 52 58.0	+0.4
	comp=Z,16nm,0.8s,mb4.7,baz=200,slow=7.3,SNR=6.6						
ULN	Ulaanbaatar	41.19	15	*e*P	P	02 52 59.1	-0.1
KS15	Wonju Array Si	43.05	42	*e*P	P	02 53 05.2	-9.4
TLY	Talaya	44.08	10	*e*P	P	02 53 23.7	+0.8
	comp=Z,19nm,1.0s,mb4.8						
CN2	Changchun	45.41	33	*e*P	P	02 53 37.0	+3.4
ZAL	Zalesovo	45.83	354	P	P	02 53 35.8	-0.9
	comp=Z,6.5nm,0.8s,mb4.6,baz=281,slow=6.1,SNR=3.6						
HIA	Hailar	46.64	24	*e*P	P	02 53 43.3	0.0
	comp=Z,41nm,1.0s,mb5.3						
NWAO	Narrogin (SRO)	47.34	152	P	P	02 53 49.5	+0.5
	comp=Z,30nm,1.1s,mb5.1,baz=360,slow=4.3,SNR=3.6						
NWAO	Narrogin (SRO)	47.34	152	*e*P	P	02 53 49.0	0.0
	comp=Z,7.5nm,0.6s,mb4.8						
BVAR	Borovoye Array	48.00	342	P	P	02 53 53.3	-0.6
	comp=Z,27nm,1.1s,mb5.2,baz=135,slow=8.4,SNR=5.0						
BRVK	Borovoye	48.06	342	*e*P	P	02 53 53.1	-1.2
	comp=Z,18nm,0.8s,mb5.2						
CHKZ	Chkalovo	48.49	343	*e*P	P	02 53 57.1	-0.6
	comp=Z,55nm,0.9s,mb5.6						
WRA	Warramunga Arr	49.82	125	P	P	02 54 07.8	-0.6
	comp=Z,32nm,0.8s,mb5.4,baz=304,slow=8.9,SNR=11						
WRAB	Tennant Creek	49.82	125	*e*P	P	02 54 07.2	-1.2
	comp=Z,91nm,0.9s,mb5.8						
MAJO	Matsushiro	49.94	49	*e*P	P	02 54 09.3	+0.1
	comp=Z,14nm,0.7s,mb5.1						
MAT	Matsushiro	49.94	49	P	P	02 54 09.4	+0.3
MAT	Matsushiro	49.94	49	*e*P	P	02 54 09.0	-0.1
ASAR	Alice Springs	51.44	129	P	P	02 54 19.6	-1.1
	comp=Z,13nm,0.7s,mb5.0,baz=304,slow=6.8,SNR=9.3						
ASAR				PcP	PcP	02 55 35.5	+0.5
	comp=Z,11nm,0.6s,baz=306,slow=3.6,SNR=8.4						
GNI	Garni	52.97	315	*e*P	P	02 54 33.4	+1.5
	comp=Z,22nm,0.8s,mb5.1						
ARU	Arti	54.80	338	*e*P	P	02 54 44.4	-0.8
	comp=Z,89nm,1.2s,mb5.7						
KIV	Kislovodsk	55.90	318	*e*P	P	02 54 52.5	-0.7
	comp=Z,30nm,0.9s,mb5.3						
KMBO	Kilima Mbogo	55.97	263	P	P	02 54 55.2	+1.1
	comp=Z,5.8nm,0.8s,mb4.7,baz=3.3,slow=6.7,SNR=7.2						
KMBO	Kilima Mbogo	55.97	263	*e*P	P	02 54 55.7	+1.5
	comp=Z,6.2nm,0.8s,mb4.7						
ASAJ	Asahikawa	56.02	42	P	P	02 54 53.8	-0.3
	comp=Z,14nm,0.5s,mb5.2,baz=202,slow=11,SNR=5.6						
ASF	Jabal al Asfar	56.64	303	P	P	02 54 59.3	+0.5
	comp=Z,7.8nm,1.1s,mb4.7,baz=301,slow=8.7,SNR=4.3						
MALT	Malatya	56.95	310	*e*P	P	02 55 00.3	-0.6
	comp=Z,13nm,1.1s,mb4.9						
PMG	Port Moresby	57.15	107	P	P	02 55 02.5	-0.1
	comp=Z,38nm,0.8s,mb5.5,baz=323,slow=4.0,SNR=9.0						
PMG	Port Moresby	57.15	107	*e*P	P	02 55 02.7	+0.1
	comp=Z,57nm,1.0s,mb5.6						
YSS	Yuzh-Sakhalins	57.31	39	*e*P	P	02 55 03.1	-0.2
	comp=Z,28nm,0.7s,mb5.4						
EIL	Elat	57.83	300	P	P	02 55 07.5	+0.3
	comp=Z,8.5nm,0.9s,mb4.8,baz=117,slow=9.5,SNR=4.4						
EIL	Elat	57.83	300	*e*P	P	02 55 07.3	+0.1
	comp=Z,26nm,1.1s,mb5.2						
CTA	Charters Tower	59.91	119	P	P	02 55 20.9	-0.8
	comp=Z,14nm,0.9s,mb5.0,baz=268,slow=7.1,SNR=5.4						
CTAO	Charters Tower	59.91	119	*e*P	P	02 55 20.9	-0.8
	comp=Z,27nm,1.1s,mb5.2						
CSS	Prodhromos	60.12	305	*e*P	P	02 55 22.9	-0.1
	comp=Z,2.0nm,0.5s,mb4.4						
BRTR	Keskin Array B	60.92	311	P	P	02 55 26.4	-1.9
	comp=Z,7.8nm,0.8s,mb4.9,baz=127,slow=6.2,SNR=6.8						
STKA	Stephens Creek	61.59	133	P	P	02 55 32.6	-0.4
	comp=Z,9.1nm,0.8s,mb4.9,baz=308,slow=7.4,SNR=9.5						
STKA	Stephens Creek	61.59	133	*e*P	P	02 55 33.0	0.0
MBAR	Mbarara	62.28	265	P	P	02 55 39.3	+1.3
	comp=Z,1.2nm,0.6s,mb4.2						
AKASG	Malin Array Be	66.78	322	P	P	02 56 04.5	-2.1
	comp=Z,3.9nm,0.6s,mb4.6,baz=86,slow=4.7,SNR=8.3						
MLR	Muntele Rosu	67.72	316	P	P	02 56 11.9	-0.7
	comp=Z,20nm,0.8s,mb5.2,baz=113,slow=4.7,SNR=7.6						
LSZ	Lusaka	68.01	250	*e*P	P	02 56 15.6	+0.6
	comp=Z,14nm,1.1s,mb4.9						
KOLS	Kolonicke sedl	70.79	319	*e*P	P	02 56 30.9	-0.6
SUW	Suwalki	71.18	324	*e*P	P	02 56 31.9	-1.8
	comp=Z,70nm,1.0s,mb5.5						
CRVS	Cervenica-Dubn	71.32	319	*e*P	P	02 56 36.4	+1.8
FINES	FINESS Array B	71.52	332	P	P	02 56 34.6	-1.0
	comp=Z,20nm,0.8s,mb5.1,baz=117,slow=8.5,SNR=11						
KAF	Kangasniemi	71.62	333	*e*p	P	02 56 35.4	-0.8
	baz=99,slow=5.7						
KECS	Kecovo	71.90	318	*e*P	P	02 56 37.6	-0.5
VYHS	Vyhne	72.99	318	*e*P	P	02 56 43.6	-1.0
LBTB	Lobatse	73.16	241	*e*P	P	02 56 46.7	+0.6
OKC	Ostrava-Krasne	73.59	319	*e*P	P	02 56 47.5	-0.5
SMOL	Smolenice	73.92	318	*e*P	P	02 56 44.9	-5.1
ARCES	ARCESS Array B	74.24	340	P	P	02 56 50.4	-1.1
	comp=Z,7.1nm,0.6s,mb4.8,baz=100,slow=7.4,SNR=6.1						
BOSA	Boshof	74.58	237	*e*P	P	02 56 53.6	-0.6
DPC	Dobruska-Polom	74.81	320	*e*P	P	02 56 55.0	-0.1
KSP	Ksiaz	74.87	320	*e*P	P	02 56 55.3	-0.2
KSP				*e*		02 56 57.5	
KSP				*e*	pP	02 57 03.3	+0.3
UPC	Upice	75.02	320	*e*P	P	02 56 56.4	+0.1
PRU	Pruhonice	75.92	319	*e*P	P	02 57 01.1	-0.4
PVCC	Panska Ves	75.94	320	*e*P	P	02 57 01.7	+0.1
BILL	Bilibino	76.16	22	*e*P	P	02 57 02.1	-0.3
	comp=Z,5.8nm,0.7s,mb4.6						
BRG	Berggiesshubel	76.36	320	*i* P	P	02 57 03.4	-0.5
	comp=Z,19nm,1.0s,mb5.0						
GEC2	GERESS Array S	76.41	318	*e*P	P	02 57 04.3	+0.1
GERES	GERESS Array B	76.41	318	P	P	02 57 03.9	-0.4
	comp=Z,15nm,0.8s,mb5.0,baz=90,slow=5.3,SNR=15						
KHC	Kasperske Hory	76.50	318	*e*P	P	02 57 04.4	-0.3
RUE	Ruedersdorf	76.56	322	*e*P	P	02 57 04.8	-0.2
WET	Wettzell	76.96	318	*e*P	P	02 57 07.3	0.0
CLL	Collm	76.98	321	*e*P	P	02 57 07.0	-0.3
CLL	Collm	76.98	321	P	P	02 57 07.0	-0.3
MOX	Moxa	77.83	320	*i* P	P	02 57 11.6	-0.4
MOX	Moxa	77.83	320	*e*P	P	02 57 11.6	-0.4
FUR	Furstenfeldbru	78.00	317	*e*P	P	02 57 12.6	-0.4
GRA1	Grafenberg Arr	78.06	319	*e*P	P	02 57 13.6	+0.3
	comp=Z,12nm,0.7s,mb4.9						
GRF	Grafenberg Arr	78.06	319	*e*P	P	02 57 13.6	+0.3
	comp=Z,12nm,0.7s,mb4.9						
NOA	NORSAR Array B	78.51	331	P	P	02 57 14.7	-0.9
	comp=Z,11nm,0.8s,mb4.8,baz=94,slow=5.6,SNR=11						
CLZ	Clausthal	78.63	321	*e*P	P	02 57 16.0	-0.4
	comp=Z,12nm,0.8s,mb4.9						
BSEG	Bad Segeberg	78.71	323	*e*P	P	02 57 16.8	0.0
MAW	Mawson	78.76	191	P	P	02 57 18.2	+1.4
	comp=Z,5.4nm,0.7s,mb4.6,baz=30,slow=9.2,SNR=4.4						
MAW	Mawson	78.76	191	*e*P	P	02 57 18.7	+1.9
	comp=Z,15nm,0.9s,mb4.9						
MAW				*e*		02 57 29.5	
SUR	Sutherland	79.38	235	*e*P	P	02 57 22.9	+1.9
	comp=Z,19nm,0.8s,mb5.1						
BFO	Black Forest	79.97	318	*e*P	P	02 57 23.4	-0.3
	comp=Z,8.0nm,0.9s,mb4.7						
LPL	La Plagne	81.17	315	*e*P	P	02 57 30.3	+0.1
	comp=Z,56nm,0.7s,mb5.3						
BNI	Bardonecchia	81.23	314	*e*P	P	02 57 30.2	-0.3
	comp=Z,30nm,1.0s,mb5.2						
RPZ	Rata Peaks	87.51	135	P	P	02 58 03.1	+0.9
	comp=Z,30nm,0.8s,mb5.6,baz=91,slow=2.2,SNR=9.9						
ESDC	Sonseca Array	89.70	310	P	P	02 58 12.9	+0.2
	comp=Z,2.8nm,0.6s,mb4.8,baz=63,slow=3.9,SNR=7.7						
URZ	Urewera	90.87	128	P	P	02 58 18.0	-0.2
	comp=Z,11nm,0.8s,mb5.2,baz=274,slow=1.7,SNR=4.2						
ILAR	Eielson Array	94.82	22	P	P	02 58 35.4	-0.3
	comp=Z,4.4nm,0.7s,mb5.0,baz=297,slow=4.1,SNR=10						
DBIC	Dimbokro	96.36	278	P	P	02 58 44.5	+0.6
	comp=Z,4.9nm,0.8s,mb5.0,baz=74,slow=3.3,SNR=4.0						
DBIC	Dimbokro	96.36	278	P	P	02 58 44.5	+0.6
INK	Inuvik	96.89	16	P	P	02 58 45.8	+0.7
	comp=Z,15nm,1.0s,mb5.4,baz=321,slow=3.6,SNR=11						
INK	Inuvik	96.89	16	*e*P	P	02 58 45.6	+0.5
	comp=Z,23nm,1.1s,mb5.5						
RES	Resolute Bay	96.92	2	*e*P	P	02 58 46.0	+0.9
	comp=Z,7.9nm,0.8s,mb5.2						
DAWY	Dawson	97.90	20	*e*P	P	02 58 47.7	-1.9
YKA	Yellowknife Ar	106.25	13	PP	PP	03 03 47.9	-6.1
	comp=Z,2.0nm,0.8s,baz=335,slow=8.0,SNR=10						
MOOW	Moose Ponds	123.93	20	*e*PKPdf	PKPdf	03 04 13.7	-2.4
WUWY	Wally Ulrich	124.11	20	*e*PKPdf	PKPdf	03 04 14.4	-2.0
SNOW	Snow King Moun	124.18	20	*e*PKPdf	PKPdf	03 04 14.4	-2.1
SNOW				*e*		03 04 20.0	
REDW	Red Top Meadow	124.23	21	PKPdf	PKPdf	03 04 14.7	-2.0
BW06	Boulder Array	125.20	20	*e*PKPdf	PKPdf	03 04 15.6	-2.9
BW06				*e*		03 04 21.0	
PDAR	Pinedale Array	125.20	20	PKP	PKPdf	03 04 15.9	-2.7
	comp=Z,3.9nm,0.8s,baz=79,slow=0.6,SNR=11						
NVAR	Mina Array Bea	125.23	30	PKP	PKPdf	03 04 16.8	-1.9
	comp=Z,5.4nm,0.8s,baz=336,slow=1.3,SNR=14						
MNV	Mina	125.30	29	*e*PKPdf	PKPdf	03 04 17.2	-1.6
HWUT	Hardware Ranch	125.51	22	*e*PKPdf	PKPdf	03 04 16.5	-2.7
NLU	North Lily Min	126.73	24	*e*P	PKPdf	03 04 18.5	-3.0
MVU	Marysvale	127.92	25	*e*PKPdf	PKPdf	03 04 22.7	-1.2
MVU				*e*		03 04 28.5	
ANMO	Albuquerque	133.26	22	PKP	PKPdf	03 04 32.6	-1.5
	comp=Z,3.6nm,0.8s,baz=302,slow=1.7,SNR=7.8						
TXAR	Lajitas Array	139.33	22	PKP	PKPdf	03 04 42.8	-2.6
	comp=Z,1.0nm,0.7s,baz=155,slow=0.7,SNR=6.6						
JCT	Junction City	139.54	17	*e*PKPpre		03 04 35.0	
BDFB	Brasilia	140.86	256	PKP	PKPdf	03 04 46.2	-2.4
	comp=Z,6.1nm,0.9s,baz=219,slow=1.1,SNR=4.4						
SJG	San Juan	146.31	322	PKPbc	PKPbc	03 04 55.6	+1.0
	comp=Z,9.8nm,0.7s,baz=56,slow=3.3,SNR=5.0						
SJG	San Juan	146.31	322	PKPbc	PKPbc	03 04 55.6	+1.0
PCRV	Puerto La Cruz	150.76	309	PKPbc	PKPdf	03 05 07.1	+1.9
	comp=Z,9.5nm,0.7s,baz=202,slow=4.1,SNR=5.3						
PCRV				PKPab	PKPab	03 05 15.0	-0.6
	comp=Z,11nm,0.6s,baz=330,slow=2.9,SNR=3.7						
SDV	Santo Domingo	156.03	315	PKPab	PKPab	03 05 37.1	-0.8
	comp=Z,9.0nm,0.9s,baz=39,slow=2.1,SNR=5.0						
LVC	Limon Verde	157.31	229	PKPab	PKPab	03 05 44.6	+1.5
	comp=Z,8.3nm,0.8s,baz=59,slow=0.7,SNR=5.5						
LPAZ	La Paz	159.62	246	PKP	PKPdf	03 05 15.2	-1.7
	comp=Z,3.5nm,0.8s,baz=115,slow=0.7,SNR=3.6						
LPAZ				PKPab	PKPab	03 05 53.6	+0.4
	comp=Z,5.1nm,0.8s,baz=229,slow=5.9,SNR=4.9						
LPAZ	La Paz	159.62	246	*e*PKPdf	PKPdf	03 05 15.8	-1.2

IDC 26 02:46:18.6±1.5**, 6.99N**×**94.06E, mb4.6**/7**, mb1 4.7**/7**, mb1mx4.5**/18**, Error ellipse: s-maj=112.0km s-min=28.7km az=48.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	49.42	129	P	P	02 55 10.6	-1.9
	16nm,0.8s,baz=304,slow=7.2,SNR=5.0						
BVAR	Borovoye Array	49.80	341	P	P	02 55 13.5	-1.5
	8.3nm,0.8s,baz=149,slow=8.4,SNR=3.9						
BRTR	Keskin Array B	62.95	311	P	P	02 56 46.9	-2.5
	1.6nm,0.7s,baz=123,slow=5.8,SNR=1.8						
FINES	FINESS Array B	73.45	332	P	P	02 57 52.6	-1.8
	3.5nm,0.7s,baz=106,slow=5.2,SNR=5.9						
KAF	Kangasniemi	73.54	333	*e*p	P	02 57 52.4	-2.5
ARCES	ARCESS Array B	76.07	340	P	P	02 58 07.5	-1.9
	3.8nm,0.6s,baz=105,slow=6.6,SNR=8.3						
GERES	GERESS Array B	78.43	318	P	P	02 58 22.3	-0.5
	3.3nm,0.8s,baz=118,slow=4.3,SNR=7.0						
NOA	NORSAR Array B	80.46	331	P	P	02 58 31.4	-2.1
	4.6nm,0.8s,baz=92,slow=5.7,SNR=3.5						

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*BJI **26** 02:46:11.4, 3.22N×93.27E, h30^{km}, mb5.4*

*IDC **26** 02:46:16.0±0.5, 4.20N×93.55E, mb4.9/21, mb1 5.0/22, mb1mx4.9/27, Error ellipse: s-maj=21.0km s-min=13.2km az=46.0*

*NEIC **26** 02:46:20.7±0.2, 4.24N×93.61E, h30^{km}, mb5.7/14, Error ellipse: s-maj=8.5km s-min=6.6km az=52.0*

*ORF **26** 02:46:22.1, 4.43N×93.53E, h30^{km}, mb5.6*

ISC 26 02:46:18.7±0.3**, 4.17N**±0.06×**93.56E**±0.05**, h30**^{km}**, n97,** σ**1**^{s}**08**/82**, mb5.2**/42**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.14	20	P	P	02 49 49.6	-2.9
	108nm,0.9s						
CMAR	Chiang Mai Arr	15.14	20	Pn	P	02 49 51.0	-1.5
	baz=214,slow=13,SNR=3.6						
KOD	Kodaikanal	17.06	292	*e*P	P	02 50 16.1	-0.8
KOD				*e*S	S	02 53 27.9	+3.8
SHL	Shillong	21.34	356	*e*P	P	02 51 02.1	-3.6
SHL				*e*		02 51 10.3	
	comp=Z,245nm,1.4s						
QIZ	Qiongzhong	21.70	46	P	P	02 51 10.0	+0.6
GOA	Goa	22.44	301	*e*P	P	02 51 15.2	-1.5
GOA				*e*		02 51 32.2	
	comp=Z,467nm,2.1s						
KMI	Kunming	22.62	22	*e*P	P	02 51 21.3	+2.6
KMI				AMB	AMB		
	comp=Z,156nm,1.3s,mb5.3						
AKL	Akola	23.00	317	*e*P	P	02 51 28.6	+6.3
GYA	Guiyang	25.47	28	⇑*i*P	P	02 51 48.3	+2.2
GYA				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.7						
LSA	Lhasa	25.49	355	P	P	02 51 48.3	+2.0
LSA	Lhasa	25.49	355	*e*P	P	02 51 47.7	+1.4
	comp=Z,325nm,1.1s,mb5.8						
ENH	Enshi	30.01	28	*e*P	P	02 52 22.2	-5.0
	comp=Z,188nm,1.3s,mb5.7						
GTA	Gaotai	35.53	8	P	P	02 53 14.3	-0.9
GTA				XP	sP	02 53 24.5	-3.5
GTA				S	S	02 58 48.8	+0.7
GTA				AMB	AMB		
	comp=Z,42nm,2.2s,mb5.0						
MBWA	Marble Bar	35.94	135	*e*P	P	02 53 18.3	-0.6
	comp=Z,84nm,1.3s,mb5.5						
WMQ	Urumqi	39.83	353	P	P	02 53 53.0	+1.8
WMQ				AP	pP	02 53 57.5	-2.7
WMQ				XP	sP	02 54 00.0	-3.9
WMQ				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.6						
HHC	Hu-ho-hao-te	39.95	21	*e*P	P	02 53 53.0	+0.8
HHC				AP	pP	02 54 03.0	+1.8
HHC				XP	sP	02 54 07.3	+2.4
HHC				AMB	AMB		
	comp=Z,64nm,1.1s,mb5.3						
BJT	Baijiatuau	41.12	27	*e*P	P	02 54 02.5	+0.7
AAK	Ala-Archa	41.89	339	*e*P	P	02 54 08.4	+0.2
	comp=Z,231nm,1.7s,mb5.5						
DL2	Dalian	42.96	33	P	P	02 54 18.8	+1.8
DL2				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.2						
NWAO	Narrogin (SRO)	43.18	150	P	P	02 54 18.5	-0.4
	comp=Z,27nm,1.0s,mb4.9,baz=297,slow=7.1,SNR=3.0						
INCN	Inchon	44.88	38	*e*P	P	02 54 26.5	-6.0
	comp=Z,68nm,0.8s,mb5.5						
SONM	Songino Array	44.88	12	P	P	02 54 31.9	-0.5
	comp=Z,47nm,1.1s,mb5.2,baz=198,slow=7.8,SNR=7.3						
WRA	Warramunga Arr	46.68	122	P	P	02 54 46.6	-0.4
	comp=Z,43nm,0.8s,mb5.4,baz=300,slow=8.9,SNR=12						
WRAB	Tennant Creek	46.69	122	*e*P	P	02 54 46.8	-0.3
	comp=Z,236nm,1.4s,mb5.9						
ASAR	Alice Springs	48.07	127	P	P	02 54 57.4	-0.5
	comp=Z,12nm,0.8s,mb5.0,baz=309,slow=7.2,SNR=4.1						
ASAR				PcP	PcP	02 56 26.1	+0.4
	comp=Z,8.8nm,0.8s,baz=306,slow=3.0,SNR=5.7						
QRN	Al-Qurain	49.69	305	*e*P	P	02 55 10.1	-0.2
RDF	Al-Radifah	50.06	305	*e*P	P	02 55 13.7	+0.6
RDF				AMb	AMB	02 55 18.0	
	comp=Z,196nm,1.2s,mb6.0						
ZAL	Zalesovo	50.13	353	P	P	02 55 12.8	-0.4
	comp=Z,46nm,1.1s,mb5.4,baz=296,slow=7.3,SNR=8.6						
UMR	Umm Al-Rimmam	50.15	305	*e*P	P	02 55 14.4	+0.7
UMR				AMb	AMB	02 55 20.8	
	comp=Z,198nm,1.3s,mb6.0						
RST	Umm Al-Ruwaisa	50.71	305	*e*P	P	02 55 18.5	+0.4
RST				AMb	AMB	02 55 24.9	
	comp=Z,248nm,1.6s,mb5.9						
MDJ	Mudanjiang	51.20	33	*e*P	P	02 55 21.4	-0.2
BVAR	Borovoye Array	52.31	343	P	P	02 55 28.9	-0.9
	comp=Z,16nm,0.7s,mb5.0,baz=143,slow=7.4,SNR=8.0						
BRVK	Borovoye	52.37	342	*e*P	P	02 55 29.0	-1.3
KMBO	Kilima Mbogo	56.51	266	P	P	02 56 01.3	+0.2
	comp=Z,9.3nm,1.1s,mb4.7,baz=77,slow=8.6,SNR=7.9						
GNI	Garni	56.65	316	P	P	02 56 01.4	-0.3
	comp=Z,15nm,0.9s,mb5.0,baz=52,slow=3.7,SNR=5.4						
CTA	Charters Tower	57.08	117	P	P	02 56 04.3	-0.8
	comp=Z,20nm,0.9s,mb5.2,baz=289,slow=8.7,SNR=6.9						
CTAO	Charters Tower	57.08	117	*e*P	P	02 56 04.0	-1.0

	comp=Z,70nm,1.3s,mb5.5						
ASAJ	**Asahikawa**	**58.60**	**40**	P	**P**	**02 56 15.4**	**0.0**
	comp=Z,21nm,0.9s,mb5.2,baz=259,slow=11,SNR=2.7						
ARU	**Arti**	**59.07**	**338**	*e*P	**P**	**02 56 15.5**	**-3.0**
	comp=Z,146nm,1.6s,mb5.8						
KIV	**Kislovodsk**	**59.70**	**320**	*e*P	**P**	**02 56 21.9**	**-1.2**
ASF	**Jabal al Asfar**	**59.79**	**305**	P	**P**	**02 56 24.0**	**+0.2**
	comp=Z,5.8nm,0.8s,mb4.6,baz=281,slow=1.1,SNR=8.0						
YSS	**Yuzh-Sakhalins**	**60.06**	**37**	*e*P	**P**	**02 56 26.5**	**+1.1**
MALT	**Malatya**	**60.45**	**312**	*e*P	**P**	**02 56 27.1**	**-1.1**
	comp=Z,83nm,1.3s,mb5.6						
EIL	**Elat**	**60.81**	**302**	P	**P**	**02 56 30.6**	**-0.2**
	comp=Z,60nm,1.3s,mb5.6,baz=52,slow=11,SNR=9.1						
CSS	**Prodhromos**	**63.39**	**307**	*e*P	**P**	**02 56 46.6**	**-1.3**
	comp=Z,101nm,1.5s,mb5.7						
BRTR	**Keskin Array B**	**64.44**	**312**	P	**P**	**02 56 53.0**	**-1.8**
	comp=Z,13nm,0.8s,mb5.0,baz=135,slow=7.0,SNR=11						
ISP	**Isparta**	**66.30**	**310**	*e*P	**P**	**02 57 05.6**	**-1.2**
LSZ	**Lusaka**	**67.53**	**252**	*e*P	**P**	**02 57 16.2**	**+1.3**
OBN	**Obninsk**	**68.20**	**329**	*e*P	**P**	**02 57 17.5**	**-1.0**
SANT	**Santorini**	**69.95**	**307**	*e*P	**P**	**02 57 28.4**	**-1.2**
IDI	**Anoyia**	**70.22**	**306**	P	**P**	**02 57 31.0**	**-0.2**
	comp=Z,46nm,1.2s,mb5.3,baz=87,slow=6.8,SNR=9.1						
MA2	**Magadan**	**70.30**	**27**	*e*P	**P**	**02 57 29.9**	**-1.4**
AKASG	**Malin Array Be**	**70.70**	**323**	P	**P**	**02 57 31.8**	**-2.1**
	comp=Z,8.3nm,1.1s,mb4.6,baz=92,slow=4.3,SNR=9.3						
MLR	**Muntele Rosu**	**71.43**	**317**	P	**P**	**02 57 39.1**	**+0.8**
	comp=Z,24nm,0.9s,mb5.1,baz=151,slow=3.8,SNR=7.1						
LBTB	**Lobatse**	**71.99**	**242**	*e*P	**P**	**02 57 42.9**	**+0.8**
	comp=Z,51nm,1.1s,mb5.4						
BOSA	**Boshof**	**73.16**	**239**	*e*P	**P**	**02 57 48.8**	**-0.1**
KOLS	**Kolonicke sedl**	**74.61**	**320**	*e*PP	PP	03 00 56.7	+11
MAW	**Mawson**	**74.81**	**192**	P	**P**	**02 57 58.8**	**+1.0**
	comp=Z,9.0nm,0.8s,mb4.7,baz=297,slow=7.0,SNR=5.0						
CRVS	**Cervenica-Dubn**	**75.13**	**319**	*e*	pP	02 58 04.5	-4.9
SUW	**Suwalki**	**75.17**	**325**	*e*P	**P**	**02 58 00.4**	**+0.3**
PSZ	**Piszkesteto**	**75.99**	**318**	*e*P	**P**	**02 58 05.5**	**+0.6**
VYHS	**Vyhne**	**76.78**	**319**	*e*P	**P**	**02 58 10.0**	**+0.7**
OKC	**Ostrava-Krasne**	**77.43**	**320**	*e*P	**P**	**02 58 12.9**	**+0.1**
SMOL	**Smolenice**	**77.71**	**319**	*e*	pP	02 58 19.7	-4.2
MORC	**Moravsky Berou**	**77.81**	**320**	*e*P	**P**	**02 58 15.7**	**+0.8**
ZST	**Bratislava**	**77.88**	**318**	*e*P	**P**	**02 58 16.0**	**+0.6**
ZST				*e*PP	PP	03 01 14.4	+1.1
ARCES	**ARCESS Array B**	**78.54**	**341**	P	**P**	**02 58 18.9**	**+0.4**
	comp=Z,14nm,1.0s,mb4.9,baz=112,slow=6.5,SNR=4.9						
DPC	**Dobruska-Polom**	**78.66**	**320**	*e*P	**P**	**02 58 19.8**	**+0.2**
KSP	**Ksiaz**	**78.74**	**321**	*e*P	**P**	**02 58 19.7**	**-0.3**
UPC	**Upice**	**78.88**	**321**	*e*P	**P**	**02 58 22.1**	**+1.3**
PRU	**Pruhonice**	**79.76**	**320**	*e*P	**P**	**02 58 26.6**	**+1.0**
PVCC	**Panska Ves**	**79.80**	**320**	*e*P	**P**	**02 58 25.8**	**+0.1**
AQU	**L'Aquila**	**79.93**	**312**	*e*P	**P**	**02 58 27.1**	**+0.5**
	comp=Z,76nm,1.3s,mb5.5						
GERES	**GERESS Array B**	**80.20**	**319**	P	**P**	**02 58 28.5**	**+0.6**
	comp=Z,11nm,0.9s,mb4.8,baz=90,slow=5.3,SNR=9.2						
BRG	**Berggiesshubel**	**80.23**	**321**	*i* P	**P**	**02 58 27.9**	**-0.1**
	comp=Z,383nm,2.7s,mb5.8						
BRG				*i*		02 58 31.1	
KHC	**Kasperske Hory**	**80.30**	**319**	*e*P	**P**	**02 58 31.6**	**+3.1**
RUE	**Ruedersdorf**	**80.48**	**322**	*e*P	**P**	**02 58 30.3**	**+0.9**
CLL	**Collm**	**80.86**	**321**	*e*P	**P**	**02 58 32.0**	**+0.6**
CLL	**Collm**	**80.86**	**321**	P	**P**	**02 58 32.0**	**+0.6**
NKC	**Novy Kostel**	**81.12**	**320**	*e*P	**P**	**02 58 32.6**	**-0.2**
NOA	**NORSAR Array B**	**82.66**	**331**	P	**P**	**02 58 38.0**	**-2.6**
	comp=Z,3.0nm,0.8s,mb4.3,baz=100,slow=3.4,SNR=2.9						
NOA	**NORSAR Array B**	**82.66**	**331**	P	**P**	**02 58 38.0**	**-2.6**
ESDC	**Sonseca Array**	**93.14**	**310**	P	**P**	**02 59 32.7**	**+1.1**
	comp=Z,1.2nm,0.5s,mb4.5,baz=63,slow=4.1,SNR=5.0						
YKA	**Yellowknife Ar**	**110.14**	**13**	PP	PP	03 05 18.3	-7.7
	comp=Z,3.7nm,1.1s,baz=330,slow=7.5,SNR=5.7						
YNR	**Norris Junctio**	**126.71**	**21**	PKPdf	PKPdf	03 05 23.3	-1.6
YFT	**Old Faithful**	**126.88**	**22**	*e*PKPdf	PKPdf	03 05 25.2	+0.1
NVAR	**Mina Array Bea**	**128.36**	**32**	PKP	PKPdf	03 05 26.0	-2.2
	comp=Z,1.9nm,0.7s,baz=270,slow=2.7,SNR=3.7						
MNV	**Mina**	**128.44**	**32**	*e*PKPdf	PKPdf	03 05 26.3	-2.2
PDAR	**Pinedale Array**	**128.80**	**22**	PKP	PKPdf	03 05 26.7	-2.3
	comp=Z,6.8nm,1.1s,SNR=3.8						
NLU	**North Lily Min**	**130.17**	**26**	*e*PKPdf	PKPdf	03 05 29.4	-2.3
ANMO	**Albuquerque**	**136.77**	**24**	PKP	PKPdf	03 05 41.8	-2.3
	comp=Z,8.0nm,1.1s,baz=281,slow=2.7,SNR=3.7						
ANMO	**Albuquerque**	**136.77**	**24**	*e*PKPdf	PKPdf	03 05 42.8	-1.3
LTX	**Lajitas**	**142.81**	**25**	PKPpre		03 05 49.6	
TXAR	**Lajitas Array**	**142.81**	**25**	PKP	PKPdf	03 05 50.8	-4.4
	comp=Z,10nm,1.2s,baz=133,slow=0.4,SNR=3.6						
JCT	**Junction City**	**143.25**	**19**	*e*PKPpre		03 05 49.9	
LPAZ	**La Paz**	**158.36**	**235**	PKPab	PKPab	03 06 50.7	0.0
	comp=Z,5.9nm,0.9s,baz=84,slow=4.4,SNR=10						
SDV	**Santo Domingo**	**159.59**	**309**	PKPab	PKPab	03 06 55.2	-0.8
	comp=Z,6.4nm,0.8s,baz=38,slow=3.4,SNR=3.2						

WEL 26 02:47:17.0±0.3**,39.75S**×**174.35E,h127**^{km}±2^{km}**,ML3.7**/6**,**
7C-1D,Error ellipse: s-maj=1.6km s-min=1.0km az=90.0,
North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DFE	**Dawson Falls**	**0.46**	**336**	PN	P	02 47 35.3	-0.4
RAEZ	**Rainy Point**	**0.46**	**4**	PN	P	02 47 35.3	-0.3
WAZ	**Wanganui**	**0.49**	**91**	PN	P	02 47 35.9	+0.1
WAZ				SN	S	02 47 50.2	+0.2
NEZ	**North Egmont**	**0.51**	**338**	PN	P	02 47 35.5	-0.4
NRZ	**Ngariki Road**	**0.52**	**322**	PN	P	02 47 35.8	-0.1
NWEZ	**Newall Road**	**0.60**	**322**	PN	P	02 47 36.3	-0.1
PKE	**Pukeiti**	**0.62**	**333**	PN	P	02 47 36.1	-0.5
VRZ	**Vera Road**	**0.70**	**27**	PN	P	02 47 36.5	-0.7
VRZ				SN	S	02 47 51.1	-1.4
DRZ	**Dome Shelter**	**1.05**	**64**	PN	P	02 47 40.9	+0.5
FWVZ	**Far West T-bar**	**1.05**	**63**	PN	P	02 47 40.0	-0.4
WNVZ	**Wahianoa**	**1.05**	**67**	PN	P	02 47 39.9	-0.5
WPVZ	**Whakapapa**	**1.07**	**60**	PN	P	02 47 40.3	-0.3
CNZ	**Chateau**	**1.08**	**60**	PN	P	02 47 40.1	-0.5
TUVZ	**Tukino**	**1.12**	**65**	PN	P	02 47 40.8	-0.3
NGZ	**Ngauruhoe**	**1.12**	**60**	PN	P	02 47 40.4	-0.7
MOVZ	**Moawhango**	**1.14**	**73**	⇓PN	P	02 47 40.5	-0.8
WTVZ	**West Tongariro**	**1.15**	**57**	PN	P	02 47 40.8	-0.5
OTVZ	**Oturere**	**1.17**	**61**	PN	P	02 47 41.4	-0.3
MGZ	**Maungaku**	**1.19**	**52**	PN	P	02 47 41.3	-0.5
KIW	**Kapiti Island**	**1.19**	**159**	PN	P	02 47 41.5	-0.4
KIW				SN	S	02 47 57.6	-3.1
TSZ	**Takapari Road**	**1.28**	**105**	PN	P	02 47 42.2	-0.6
HIZ	**Hauiti**	**1.29**	**18**	PN	P	02 47 42.4	-0.6
HIZ				SN	S	02 48 00.7	-1.9
KATZ	**Kakaramea**	**1.30**	**54**	PN	P	02 47 42.3	-0.7
MRZ	**Mangatainoka R**	**1.31**	**135**	PN	P	02 47 42.8	-0.4
RATZ	**Rangitukua**	**1.41**	**52**	PN	P	02 47 44.1	-0.2
CAW	**Cannon Point**	**1.47**	**158**	⇑PN	P	02 47 44.6	-0.3
MRW	**Makara Radio**	**1.51**	**170**	⇑PN	P	02 47 45.1	-0.2
WEL	**Wellington**	**1.57**	**168**	PN	P	02 47 45.6	-0.5
NNZ	**Nelson**	**1.65**	**206**	⇑PN	P	02 47 46.5	-0.4
MTW	**Mount Morrison**	**1.66**	**148**	⇑PN	P	02 47 46.5	-0.7
BHW	**Baring Head**	**1.71**	**167**	*i* PN	P	02 47 47.1	-0.6
TUWZ	**Tuamarina**	**1.71**	**190**	PN	P	02 47 46.9	-0.8
BFZ	**Birch Farm**	**1.73**	**123**	PN	P	02 47 47.2	-0.8
BKZ	**Black Stump Fm**	**1.76**	**71**	PN	P	02 47 47.1	-1.2
QRZ	**Quartz Range**	**1.76**	**232**	PN	P	02 47 47.4	-0.9
MSWZ	**Moikau Station**	**1.80**	**158**	⇑PN	P	02 47 48.3	-0.5
PAWZ	**Paruwai Farm**	**1.83**	**154**	⇑PN	P	02 47 48.5	-0.6
PWZ	**Pawanui**	**1.96**	**99**	PN	P	02 47 49.9	-0.7
BSWZ	**Blackbirch Sta**	**2.00**	**190**	PN	P	02 47 50.7	-0.4
THZ	**Tophouse**	**2.29**	**208**	PN	P	02 47 54.0	-1.0
KNZ	**Kokohu**	**2.68**	**75**	PN	P	02 47 58.1	-1.9
KHZ	**Kahutara**	**2.74**	**193**	⇑PN	P	02 47 59.7	-1.1
DSZ	**Denniston Nort**	**2.78**	**223**	PN	P	02 47 59.9	-1.5
MWZ	**Matawai**	**2.85**	**61**	PN	P	02 47 60.0	-2.4
PUZ	**Puketiti**	**3.48**	**63**	*e*PN	P	02 48 07.7	-3.0
MXZ	**Matakaoa Point**	**3.79**	**56**	*e*PN	P	02 48 11.9	-3.0
MQZ	**McQueen's Vall**	**4.16**	**197**	*e*PN	P	02 48 15.7	-4.1

IDC 26 02:49:17.7±8.0**,4.57N**×**93.23E,mb4.6**/9**,mb1 4.8**/10**,**
mb1mx4.5/21**,Error ellipse: s-maj=191.0km**
s-min=43.8km az=145.0,Off west coast of northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.89**	**22**	Pn	P	02 52 53.0	+1.4
	baz=233,slow=14,SNR=2.5						
SONM	**Songino Array**	**44.57**	**13**	P	P	02 57 31.6	-1.6
	6.4nm,1.0s,baz=206,slow=7.2,SNR=3.5						
ZAL	**Zalesovo**	**49.70**	**353**	P	P	02 58 11.4	-1.9
	3.8nm,0.7s,baz=280,slow=11,SNR=3.6						
BVAR	**Borovoye Array**	**51.83**	**343**	P	P	02 58 27.6	-2.0
	6.7nm,0.7s,baz=149,slow=8.6,SNR=4.5						
BRTR	**Keskin Array B**	**63.93**	**312**	P	P	02 59 52.8	-2.2
	6.4nm,0.7s,baz=125,slow=7.8,SNR=9.3						
IDI	**Anoyia**	**69.73**	**306**	P	P	03 00 30.6	-1.1
	7.0nm,0.8s,baz=109,slow=9.4,SNR=5.6						
AKASG	**Malin Array Be**	**70.19**	**323**	P	P	03 00 30.9	-3.4
	0.6nm,0.5s,baz=88,slow=4.9,SNR=4.0						
MLR	**Muntele Rosu**	**70.91**	**317**	P	P	03 00 37.3	-1.5
	18nm,0.9s,baz=152,slow=4.2,SNR=7.0						
ARCES	**ARCESS Array B**	**78.06**	**341**	P	P	03 01 17.5	-2.0
	6.0nm,1.0s,baz=101,slow=6.5,SNR=5.1						
GERES	**GERESS Array B**	**79.68**	**319**	P	P	03 01 27.9	-0.9
	3.8nm,0.8s,baz=101,slow=5.0,SNR=4.9						

IDC 26 02:49:47.4±1.6**,4.41N**×**93.84E,mb4.6**/6**,mb1 4.8**/6**,**
mb1mx4.3/18**,Error ellipse: s-maj=59.6km**
s-min=28.6km az=49.0,Off west coast of northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**44.59**	**12**	P	P	02 58 00.8	-2.2
	9.2nm,0.8s,baz=186,slow=8.0,SNR=5.2						
WRA	**Warramunga Arr**	**46.58**	**123**	P	P	02 58 17.4	-1.8
	11nm,0.6s,baz=300,slow=8.9,SNR=5.7						
ZAL	**Zalesovo**	**49.92**	**353**	P	P	02 58 43.5	-1.3
	5.0nm,0.5s,baz=314,slow=5.6,SNR=4.2						
BVAR	**Borovoye Array**	**52.16**	**342**	P	P	02 58 59.4	-2.4
	6.9nm,0.7s,baz=135,slow=8.4,SNR=5.0						
BRTR	**Keskin Array B**	**64.48**	**312**	P	P	03 00 25.8	-2.4
	1.7nm,0.6s,baz=119,slow=8.5,SNR=3.1						
GERES	**GERESS Array B**	**80.20**	**319**	P	P	03 02 00.1	-1.1
	3.6nm,0.8s,baz=104,slow=5.5,SNR=3.7						

IDC ***26*** *02:50:54.3±0.8,7.55N×93.91E,mb4.5/13,mb1 4.7/14,*
mb1mx4.6/19,ML4.7/1,Error ellipse: s-maj=47.3km
s-min=17.3km az=47.0
ISC 26 02:50:57.5±0.6**,7.41N**±0.09×**93.9E**±0.1**,h33**^{km}**,n23,**
σ**0**^{s}.**77**/23**,mb4.5**/15**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.04**	**24**	Pn	**P**	**02 53 50.7**	**+0.9**
	1.3nm,0.3s,baz=214,slow=14,SNR=6.2						
CHG	**Chiang Mai**	**12.36**	**23**	PG	**P**	**02 53 53.9**	**-0.2**
GUN	**Gumba**	**21.76**	**341**	*e*P	**P**	**02 55 47.7**	**-0.5**
	2μm,1.2s						
KKN	**Kakani**	**21.85**	**339**	*e*P	**P**	**02 55 50.2**	**+1.1**
GKN	**Gorkha**	**22.28**	**338**	*e*P	**P**	**02 55 52.5**	**-0.9**
	2μm,1.0s						
KOLN	**Koldanda**	**22.47**	**336**	*e*P	**P**	**02 55 56.5**	**+1.2**
	4μm,1.3s						
THN	**Thein Dam**	**30.09**	**328**	*e*	**P**	**02 57 09.6**	**+3.3**
SONM	**Songino Array**	**41.67**	**13**	P	**P**	**02 58 43.8**	**-0.8**
	6.2nm,1.0s,mb4.2,baz=207,slow=6.4,SNR=3.8						
ZAL	**Zalesovo**	**46.97**	**353**	P	**P**	**02 59 25.9**	**-1.2**
	8.7nm,0.3s,mb5.1,baz=310,slow=5.0,SNR=4.4						
WRA	**Warramunga Arr**	**48.20**	**125**	P	**P**	**02 59 37.1**	**-0.1**
	5.0nm,0.5s,mb4.8,baz=304,slow=8.7,SNR=6.5						
WRA				pP	pP	02 59 43.2	-3.9
	5.9nm,0.6s,baz=305,slow=8.5,SNR=6.4						
ASAR	**Alice Springs**	**49.81**	**129**	P	**P**	**02 59 49.6**	**0.0**
	3.3nm,0.5s,mb4.7,baz=302,slow=7.1,SNR=7.3						
ASAR				pP	pP	02 59 55.2	-4.3
	5.9nm,0.5s,baz=301,slow=7.8,SNR=8.0						
STKA	**Stephens Creek**	**59.97**	**133**	P	**P**	**03 01 03.9**	**+0.5**
	3.1nm,0.7s,mb4.5,baz=16,slow=11,SNR=4.6						
BRTR	**Keskin Array B**	**62.54**	**311**	P	**P**	**03 01 20.3**	**-0.3**
	4.5nm,1.0s,mb4.5,baz=130,slow=7.6,SNR=4.4						
IDI	**Anoyia**	**68.62**	**305**	P	**P**	**03 01 59.6**	**-0.1**
	5.1nm,0.7s,mb4.6,baz=61,slow=8.1,SNR=4.2						
MLR	**Muntele Rosu**	**69.33**	**316**	P	**P**	**03 02 03.4**	**-0.4**
	10nm,1.0s,mb4.7,baz=91,slow=9.4,SNR=2.2						
FINES	**FINESS Array B**	**73.00**	**332**	P	**P**	**03 02 24.5**	**-1.1**
	4.2nm,0.6s,mb4.5,baz=112,slow=8.3,SNR=7.5						
KAF	**Kangasniemi**	**73.09**	**333**	*e*p	**P**	**03 02 26.7**	**+0.6**
ARCES	**ARCESS Array B**	**75.62**	**340**	P	**P**	**03 02 40.1**	**-0.5**
	3.6nm,0.9s,mb4.3,baz=98,slow=6.4,SNR=3.5						
GERES	**GERESS Array B**	**78.00**	**318**	P	**P**	**03 02 54.6**	**+0.2**
	4.6nm,0.9s,mb4.4,baz=90,slow=5.3,SNR=5.4						
MAW	**Mawson**	**78.03**	**192**	sP	**P**	**03 03 03.1**	**+9.0**
	5.5nm,0.7s,mb4.6,baz=28,slow=7.3,SNR=5.9						
NOA	**NORSAR Array B**	**80.01**	**331**	P	**P**	**03 03 04.8**	**-0.2**
	1.1nm,0.8s,mb3.8,baz=85,slow=7.2,SNR=3.4						
LPL	**La Plagne**	**82.78**	**315**	*e*P	**P**	**03 03 20.8**	**+1.0**
	28nm,0.9s,mb5.0						
ESDC	**Sonseca Array**	**91.32**	**310**	P	**P**	**03 04 01.5**	**0.0**
	1.4nm,0.7s,mb4.4,baz=68,slow=4.2,SNR=5.4						

JMA 26 02:51:19.0±0.1**,31.76N**×**129.17E,h13**^{km}±1^{km}**,M4.3,3D,**
Kyushu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	**Shimokoshiki**	**0.47**	**100**	⇓P	Pb	02 51 28.2	-0.5
JSJ				S	Sg	02 51 34.6	-0.6
JFU	**Fukue jima 2**	**0.96**	**338**	P	Pb	02 51 37.1	+0.1
JFU				S	Sb	02 51 50.9	+1.5
NGSJ	**Nagasakinomoza**	**1.02**	**31**	P	Pb	02 51 38.2	+0.2
NGSJ				S	Sb	02 51 51.2	+0.1
JHD	**Hondo**	**1.08**	**49**	P	Pb	02 51 38.9	-0.2
JHD				S	Sb	02 51 53.6	+0.7
JSU	**Suzuyama**	**1.12**	**103**	⇓P	Pb	02 51 39.8	0.0
JSU				S	Sb	02 51 55.2	+1.0
JZO	**Okuchi**	**1.27**	**72**	P	Pb	02 51 41.8	-0.5
JZO				*e*S	Sb	02 52 00.0	+1.6
JIU2	**Izumi 2**	**1.60**	**60**	P	Pn	02 51 46.8	-0.4
JIU2				S	Sn	02 52 09.8	+2.0
JTZ	**Takazaki**	**1.64**	**85**	⇓P	Pn	02 51 47.3	-0.5
JTN	**Tanegashima 3**	**1.90**	**125**	P	Pn	02 51 51.0	-0.5

ORF ***26*** *02:51:22.6,3.43N×94.15E,h30*^{km}*,mb5.7*
IDC ***26*** *02:51:57.0±0.4,12.50N×92.48E,mb5.4/33,mb1 5.4/34,*
mb1mx5.4/34,ML4.7/1,Error ellipse: s-maj=15.2km
s-min=9.6km az=42.0
BJI ***26*** *02:52:00.0,12.47N×92.48E,h35*^{km}*,mb5.8,Ms6.6,*
Msz6.4
MOS ***26*** *02:52:01.2±1.7,12.55N×92.56E,h33*^{km}*,mb6.0/49,Error*
ellipse: s-maj=8.2km s-min=5.2km az=117.5
SYO ***26*** *02:52:01.5,12.50N×92.54E,h30*^{km}*,MB5.8*
NEIC ***26*** *02:52:01.8±0.2,12.50N×92.60E,h30*^{km}*,mb5.8/94,Error*
ellipse: s-maj=7.0km s-min=5.2km az=203.0
ISC 26 02:51:58.6±0.2**,12.48N**±0.04×**92.51E**±0.02**,h21**^{km}**,**
h21^{km}±2.4^{km}**:pP-P,n524,**σ**1**^{s}.**32**/437**,mb5.7**/151**,MS6.4**/5**,**
16C-12D,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**8.59**	**45**	*e*P	**P**	**02 54 00.3**	**-4.6**
	224nm,1.0s						
CMAR	**Chiang Mai Arr**	**8.59**	**45**	Pn	**P**	**02 54 04.2**	**-0.7**
	2.4nm,0.3s,baz=233,slow=14,SNR=10						
CMAR	**Chiang Mai Arr**	**8.59**	**45**	P	**P**	**02 54 04.2**	**-0.7**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
VIS	**Vishakhapatnam**	**10.28**	**302**	*e*P	**P**	**02 54 23.6**	**-4.7**
VIS				*e*S	Sx	02 56 06.9	
MDRS	**Chennai**	**11.97**	**274**	*e*P	**P**	**02 54 46.5**	**-4.8**
MDRS				*e*S	Sx	02 56 46.2	
PALK	**Pallekele**	**12.72**	**247**	*e*P	**P**	**02 54 58.2**	**-3.2**
BOK	**Bokaro**	**12.89**	**332**	*e*P	**P**	**02 54 57.4**	**-6.1**
	comp=Z,254nm,0.6s						
BOK				*e*		02 57 14.1	
SHL	**Shillong**	**13.04**	**358**	*e*	**P**	**02 55 06.8**	**+1.3**
BLSP	**Bilaspur**	**13.79**	**316**	*e*	**P**	**02 55 11.2**	**-4.2**
BLSP				*e*		02 55 15.9	
	comp=Z,724nm,1.7s						
HYB	**Hyderabad**	**14.35**	**292**	*i* P	**P**	**02 55 27.0**	**+4.2**
HYB				*e*S	Sx	02 57 40.0	
KOD	**Kodaikanal**	**14.91**	**263**	*e*P	**P**	**02 55 28.6**	**-1.7**
TRD	**Trivandrum**	**15.79**	**257**	*e*P	**P**	**02 55 40.2**	**-1.4**
KMI	**Kunming**	**15.87**	**36**	*e*P	**P**	**02 55 45.0**	**+2.4**
KMI				AP		02 55 48.0	
KMI				PP	PP	02 55 58.0	+2.6
KMI				AMB	AMB		
	comp=Z,844nm,1.4s						
PKI	**Pulchoki**	**16.42**	**337**	*e*P	**P**	**02 55 49.2**	**-0.4**
	comp=Z,2μm,1.1s						
DMN	**Daman**	**16.57**	**336**	*e*P	**P**	**02 55 50.8**	**-0.8**
	comp=Z,2μm,0.9s						
AKL	**Akola**	**16.94**	**301**	*e*	**P**	**02 55 57.5**	**+1.3**
LSA	**Lhasa**	**17.18**	**356**	P	**P**	**02 55 57.3**	**-1.9**
LSA				AMB	AMB		
	comp=Z,290nm,2.2s						
LSA	**Lhasa**	**17.18**	**356**	*e*P	**P**	**02 56 00.0**	**+0.8**
	comp=Z,739nm,1.3s						
MNGI	**Mangalore**	**17.26**	**273**	*e*P	**P**	**02 55 58.1**	**-2.2**
BHPL	**Bhopal**	**17.89**	**309**	*e*P	**P**	**02 56 07.2**	**-0.9**
QIZ	**Qiongzhong**	**17.91**	**66**	P	**P**	**02 56 09.0**	**+0.7**
QIZ				*e*S	**S**	**02 59 23.5**	**-1.2**
KAD	**Karad**	**18.34**	**287**	*e*P	**P**	**02 56 11.2**	**-2.6**
KAD				*e*		02 56 15.6	
	comp=Z,519nm,1.4s						
KAD				*e*		02 59 19.1	
POO	**Poona**	**18.95**	**291**	*e*P	**P**	**02 56 19.0**	**-2.1**
POO				*e*		02 56 35.6	
	comp=Z,679nm,1.2s						
GYA	**Guiyang**	**19.25**	**42**	⇑*i*P	**P**	**02 56 24.8**	**+0.2**
GYA				AP		02 56 29.0	
GYA				AMB	AMB		
	comp=Z,640nm,2.6s						
GYA				LR	LR		
	comp=N,46μm,18.4s						
GYA				LR	LR		
	comp=E,65μm,17.6s						
GYA				LR	LR		
	comp=Z,59μm,15.8s						
MNCY	**Minicoy**	**19.60**	**260**	⇓*i*	**P**	**02 56 35.0**	**+6.3**
MNCY				*i*		03 01 27.0	
BOM	**Bombay**	**20.00**	**291**	*e*	**P**	**02 56 32.8**	**-0.1**
BOM				*e*		02 56 35.7	
	comp=Z,2μm,1.2s						
CD2	**Chengdu**	**21.09**	**28**	P	**P**	**02 56 43.5**	**-0.6**
CD2				AMB	AMB		
	comp=Z,2μm,1.0s,mb6.3						
BHV	**Bhavnagar**	**21.51**	**298**	*e*P	**P**	**02 56 48.0**	**-0.5**
AJM	**Ajmer**	**21.82**	**312**	*e*	**P**	**02 56 46.2**	**-5.3**
DDI	**Dehra Dun**	**22.24**	**325**	*e*	**P**	**02 56 57.8**	**+2.1**
DDI				*e*		03 00 55.0	
SMLA	**Simla**	**23.34**	**325**	⇑*i*	**P**	**02 57 21.0**	**+14**
SMLA				*i*		03 01 34.8	
ENH	**Enshi**	**23.68**	**39**	*e*P	**P**	**02 57 09.7**	**-0.2**
	comp=Z,2μm,1.3s,mb6.5						
PONG	**Pong**	**24.65**	**324**	*e*	**P**	**02 57 30.0**	**+11**
PONG				*e*		03 03 00.0	
COCO	**West Island**	**24.88**	**170**	*e*P	**P**	**02 57 22.0**	**+0.4**
	comp=Z,1μm,1.3s,mb6.2						
DLH	**Dalhousie**	**25.08**	**325**	*e*	**P**	**02 57 25.0**	**+1.6**
DLH				*e*		02 58 00.0	
XAN	**Xi'an**	**26.16**	**32**	P	**P**	**02 57 32.0**	**-1.4**
XAN				AMB	AMB		
	comp=Z,299nm,1.0s,mb5.8						
WHN	**Wuhan**	**27.04**	**45**	⇑*i*P	**P**	**02 57 41.0**	**-0.6**
QZH	**Quanzhou**	**27.58**	**60**	⇑*i*P	**P**	**02 57 46.5**	**-0.1**
QZH				AMB	AMB		
	comp=Z,1μm,1.4s,mb6.3						
GTA	**Gaotai**	**27.60**	**12**	⇑*i*P	**P**	**02 57 47.0**	**+0.5**
GTA				PP	PP	02 58 34.8	-0.2
GTA				S	**S**	**03 02 23.5**	**-1.7**
GTA				AMB	AMB		
	comp=Z,143nm,1.8s,mb5.3						
GTA				LR	LR		
	comp=N,36μm,17.1s,MS6.1						
GTA				LR	LR		
	comp=E,30μm,19.0s,MS6.1						
GTA				LR	LR		
	comp=Z,104μm,19.8s,MS6.4						
TGY	**Tagaytay City**	**27.71**	**83**	P	**P**	**02 57 50.8**	**+3.0**
	comp=Z,374nm,1.0s,mb6.0,baz=172,slow=9.1,SNR=6.5						
TGY	**Tagaytay City**	**27.71**	**83**	P	**P**	**02 57 50.8**	**+3.0**
TGY				pmax	pmax		
	comp=Z,374nm,1.0s						
PCPH	**Palayan**	**27.90**	**80**	⇓*e*P	**P**	**02 57 51.3**	**+1.8**
KSH	**Kashi**	**30.65**	**334**	*e*P	**P**	**02 58 16.0**	**+2.1**
KSH				*e*AP	pP	02 58 20.5	+0.5
KSH				*e*XP	sP	02 58 23.0	+0.2
KSH				*e*PP	PP	02 59 17.5	+2.9
KSH				*e*PCP	PcP	03 01 13.0	+1.0
KSH				*e*S	**S**	**03 03 18.8**	**+4.9**
KSH				*e*XS		03 03 24.5	
KSH				*e*SCP		03 04 54.0	
KSH				*e*PCS		03 04 55.0	
KSH				*e*SCS	ScS	03 08 48.8	+1.7
KSH				LR	LR		
	comp=N,89μm,14.8s,MS6.8						
KSH				LR	LR		
	comp=E,139μm,16.8s,MS6.8						
NJ2	**Nanjing**	**31.07**	**47**	*e*P	**P**	**02 58 16.3**	**-1.3**
NJ2				PP	PP	02 59 17.8	-2.3
NJ2				S	**S**	**03 03 16.0**	**-4.5**
NJ2				AMB	AMB		
	comp=Z,820nm,0.5s,mb6.8						
NJ2				LR	LR		
	comp=N,12μm,16.4s,MS6.1						
NJ2				LR	LR		
	comp=E,34μm,17.4s,MS6.1						
NJ2				LR	LR		
	comp=Z,22μm,15.2s,MS5.9						
WMQ	**Urumqi**	**31.51**	**353**	⇑P	**P**	**02 58 23.0**	**+1.6**
WMQ				AP	pP	02 58 27.5	-0.1
WMQ				XP	sP	02 58 30.0	-0.3
WMQ				PP	PP	02 59 27.0	+1.2
WMQ				PPP	PPP	02 59 42.0	+1.2
WMQ				S	**S**	**03 03 29.0**	**+1.7**
WMQ				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.6						
WMQ				LR	LR		
	comp=N,148μm,28.0s,MS6.5						
WMQ				LR	LR		
	comp=E,20μm,24.1s,MS6.5						
WMQ				LR	LR		
	comp=Z,155μm,26.8s,MS6.5						
SSE	**Sheshan**	**32.29**	**50**	P	**P**	**02 58 28.5**	**+0.1**
SSE				AMB	AMB		
	comp=Z,212nm,2.3s,mb5.6						
TIA	**Tai'an**	**32.40**	**39**	*e*P	**P**	**02 58 28.5**	**-0.8**
TIA				AMB	AMB		
	comp=Z,173nm,1.0s,mb5.8						
HHC	**Hu-ho-hao-te**	**32.84**	**27**	*e*P	**P**	**02 58 33.0**	**-0.1**
HHC				AP	pP	02 58 40.3	+1.0
HHC				XP	sP	02 58 43.3	+1.3
HHC				PP	PP	02 59 43.0	-0.1
HHC				PCP	PcP	03 01 16.5	-1.3
HHC				S	**S**	**03 03 47.0**	**-1.2**
HHC				SCP		03 04 59.3	
HHC				SS	SS	03 05 47.5	+0.2
HHC				AMB	AMB		
	comp=Z,132nm,1.4s,mb5.7						
HHC				LR	LR		
	comp=N,106μm,19.8s,MS6.6						
HHC				LR	LR		
	comp=E,55μm,19.8s,MS6.6						
HHC				LR	LR		
	comp=Z,106μm,23.0s,MS6.5						
AAK	**Ala-Archa**	**33.87**	**336**	*i* P	**P**	**02 58 43.8**	**+1.8**
AAK				pmax	pmax		
	comp=Z,91nm,1.2s,mb5.6						
AAK	**Ala-Archa**	**33.87**	**336**	*e*P	**P**	**02 58 43.5**	**+1.5**
	comp=Z,70nm,1.4s,mb5.4						
BJT	**Baijiatuau**	**34.46**	**33**	*e*P	**P**	**02 58 47.3**	**+0.2**
	comp=Z,347nm,0.8s,mb6.3						
BJI	**Beijing**	**34.48**	**33**	P	**P**	**02 58 47.5**	**+0.2**
BJI				AMB	AMB		
	comp=Z,471nm,0.7s,mb6.5						
MK02	**Makanchi Array**	**35.25**	**348**	P	**P**	**02 58 50.8**	**-3.0**
MK02				pmax	pmax		
	comp=Z,123nm,1.0s,mb5.8						
JOW	**Kunigami**	**36.44**	**62**	P	**P**	**02 59 04.5**	**+0.5**
	comp=Z,64nm,0.8s,mb5.6,baz=299,slow=9.7,SNR=7.1						
DL2	**Dalian**	**36.87**	**39**	P	**P**	**02 59 08.3**	**+0.7**
DL2				AMB	AMB		
	comp=Z,170nm,1.5s,mb5.7						
SONM	**Songino Array**	**37.11**	**16**	P	**P**	**02 59 09.9**	**+0.4**
	comp=Z,129nm,0.9s,mb5.8,baz=198,slow=7.8,SNR=36						
ULN	**Ulaanbaatar**	**37.32**	**16**	*e*P	**P**	**02 59 10.5**	**-0.7**
ULN				pmax	pmax		
	comp=Z,190nm,1.2s,mb5.8						
ULN	**Ulaanbaatar**	**37.32**	**16**	*e*P	**P**	**02 59 10.5**	**-0.7**
	comp=Z,187nm,1.3s,mb5.8						
ZAK	**Zakamensk**	**38.82**	**11**	⇓*e*P	**P**	**02 59 23.5**	**-0.3**
ZAK				*e*		03 01 37.0	
INCN	**Inchon**	**39.35**	**45**	*e*P	**P**	**02 59 27.2**	**-1.2**
	comp=Z,416nm,1.4s,mb6.0						
TLY	**Talaya**	**40.13**	**11**	P	**P**	**02 59 35.1**	**+0.5**

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       comp=Z,473nm,2.0s,mb5.9,SNR=20
TLY    Talaya            40.13  11  eP      P       02 59 35.9 +1.3
TLY                                  pmax   pmax
       comp=Z,221nm,1.6s,mb5.6
TLY    Talaya            40.13  11  eP      P       02 59 35.5 +0.9
       comp=Z,329nm,1.7s,mb5.8
KS15   Wonju Array Si    40.20  46  eP      P       02 59 35.2 -0.1
IRK    Irkutsk           40.78  11  eP      P       02 59 41.3 +1.3
IRK                                 e               03 01 15.3
IRK                                 e               03 05 51.6
ZAL    Zalesovo          41.81 353   P      P       02 59 47.8 -0.6
       comp=Z,27nm,0.8s,mb4.9,baz=290,slow=7.4,SNR=10
ZAL    Zalesovo          41.81 353   P      P       02 59 47.8 -0.6
ZAL                                  pmax   pmax
       comp=Z,27nm,0.8s
HASS   Wahat al Ahsa'    42.27 294   P      P       02 59 52.6  0.0
MBWA   Marble Bar        42.81 141  eP      P       02 59 55.4 -1.7
       comp=Z,153nm,1.2s,mb5.6
NVS    Novosibirsk       42.89 352  eP      P       02 59 52.5 -4.7
NVS                                 i S     S       03 06 19.6 -0.8
BVA0   Borovoye Array    44.14 341   P      P       03 00 06.2 -1.2
BVA0                                 pmax   pmax
       comp=Z,20nm,1.3s,mb4.7
BVAR   Borovoye Array    44.14 341   P      P       03 00 06.8 -0.7
       comp=Z,12nm,0.5s,mb4.8,baz=149,slow=7.6,SNR=8.8
BRVK   Borovoye          44.20 341  eP      P       03 00 07.4 -0.5
BRVK                                 pmax   pmax
       comp=Z,56nm,0.9s,mb5.3
BRVK   Borovoye          44.20 341  eP      P       03 00 06.7 -1.2
       comp=Z,56nm,0.9s,mb5.3
QRN    Al-Qurain         44.48 298  eP      P       03 00 10.4 -0.1
UMR    Umm Al-Rimmam     44.82 299  eP      P       03 00 15.1 +1.9
UMR                                  AMb    AMB     03 00 22.1
       comp=Z,132nm,1.1s,mb5.7
RDF    Al-Radifah        44.83 299  eP      P       03 00 13.4  0.0
RDF                                  AMb    AMB     03 00 27.4
       comp=Z,352nm,1.1s,mb6.1
MDJ    Mudanjiang        45.03  37   P      P       03 00 14.5 -0.2
MDJ                                  AMB    AMB
       comp=Z,55nm,2.0s,mb5.0
MDJ    Mudanjiang        45.03  37  eP      P       03 00 14.5 -0.2
       comp=Z,481nm,1.8s,mb6.0
RST    Umm Al-Ruwaisa    45.42 299  eP      P       03 00 17.5 -0.6
RST                                  AMb    AMB     03 00 36.1
       comp=Z,247nm,0.9s,mb6.0
MAJO   Matsushiro        47.42  52   P      P       03 00 34.2 +0.5
MAJO                                 pmax   pmax
       comp=Z,3µm,2.3s
MAJO   Matsushiro        47.42  52  eP      P       03 00 33.9 +0.1
       comp=Z,3µm,2.3s
MAT    Matsushiro        47.42  52   P      P       03 00 33.2 -0.5
MAT    Matsushiro        47.42  52  eP      P       03 00 33.0 -0.7
DJNS   Zahran al Janu    47.46 283   P      P       03 00 34.7 +0.4
TATS   Tathlith          47.52 285   P      P       03 00 34.2 -0.5
BOD    Bodaibo           48.11  15  eP      P       03 00 37.7 -1.1
ARSS   Ar Rass           48.14 294   P      P       03 00 38.8 -0.7
AFFS   'Afif             48.17 291   P      P       03 00 40.0 +0.3
CBIJ   Chichi jima       48.65  65   P      P       03 00 42.1 -1.3
       comp=Z,179nm,1.0s,mb6.0,baz=160,slow=3.3,SNR=4.8
NAMS   An Nimas          48.72 285   P      P       03 00 45.3 +1.3
FRSS   Farasan al Kab    48.85 281   P      P       03 00 46.0 +1.0
BLJS   Baljurashi        49.29 286   P      P       03 00 49.4 +1.0
HILS   Ha'il             49.60 295   P      P       03 00 50.9 +0.2
GNI    Garni             50.13 312   P      P       03 00 55.5 +0.9
       comp=Z,114nm,0.9s,mb5.9,baz=327,slow=1.9,SNR=16
GNI    Garni             50.13 312  i P     P       03 00 55.7 +1.1
GNI                                  pmax   pmax
       comp=Z,248nm,1.2s
GNI    Garni             50.13 312  eP      P       03 00 55.3 +0.7
       comp=Z,1µm,1.7s,mb6.6
TVAN   Van               50.60 310  i P     P       03 00 53.7 -4.5
CLNS   Chul'man          50.76  22  eP      P       03 00 56.2 -2.9
CLNS                                 pmax   pmax
       comp=Z,307nm,1.1s,mb6.2
CLNS                                 pmax   pmax
       comp=N,163nm,1.0s
CLNS                                 pmax   pmax
       comp=E,157nm,1.1s
NWAO   Narrogin (SRO)    50.95 153   P      P       03 01 00.1 -0.8
       comp=E,176nm,0.9s,mb6.0,baz=320,slow=8.7,SNR=19
NWAO   Narrogin (SRO)    50.95 153  eP      P       03 00 59.5 -1.4
NWAO                                 pmax   pmax
       comp=Z,380nm,1.2s
NWAO   Narrogin (SRO)    50.95 153  eP      P       03 00 59.5 -1.4
       comp=Z,380nm,1.2s,mb6.2
ARU    Arti              51.05 336  i P     P       03 01 03.3 +1.9
ARU                                  pmax   pmax
       comp=Z,121nm,1.4s,mb5.6
ARU    Arti              51.05 336  eP      P       03 01 00.7 -0.7
       comp=Z,103nm,1.1s,mb5.7
ZEI    Tsey              51.63 315  eP      P       03 01 05.9  0.0
ZEI                                  pmax   pmax
       comp=Z,136nm,1.4s,mb5.7
KBRS   Khaybar           51.70 293   P      P       03 01 07.0 +0.3
BEST   Besiri            52.04 309  i P     P       03 01 10.0 +0.8
WRA    Warramunga Arr    52.28 128   P      P       03 01 10.2 -1.0
       comp=Z,144nm,0.8s,mb6.0,baz=306,slow=8.1,SNR=5713
WRA                                  PcP    PcP     03 02 22.6 +0.2
       comp=Z,32nm,0.9s,baz=318,slow=3.1,SNR=7.7
WRA    Warramunga Arr    52.28 128   P      P       03 01 10.2 -0.9
WRA                                                 03 02 22.6
WRA                                  pmax   pmax
       comp=Z,144nm,0.8s
WRA                                  pmax   pmax
       comp=Z,32nm,0.9s
WRAB   Tennant Creek     52.28 127   P      P       03 01 10.0 -1.2
WRAB                                 pmax   pmax
       comp=Z,520nm,1.2s,mb6.3
WRAB   Tennant Creek     52.28 127  eP      P       03 01 09.9 -1.2
       comp=Z,253nm,0.9s,mb6.2
YNBS   Yanbu' al Bahr    52.76 291   P      P       03 01 14.3 -0.4
KIV    Kislovodsk        52.87 316   P      P       03 01 15.7 +0.4
       comp=Z,838nm,0.9s,mb6.7,SNR=25
KIV    Kislovodsk        52.87 316  i P     P       03 01 15.7 +0.4
KIV                                  pmax   pmax
       comp=Z,148nm,1.1s,mb5.8
KIV    Kislovodsk        52.87 316  eP      P       03 01 14.8 -0.4
       comp=Z,270nm,1.1s,mb6.1
GOF    Gofitskoye        53.04 318⇓iP       P       03 01 18.5 +2.0
GOF                                  pmax   pmax
       comp=Z,90nm,1.4s,mb5.5
ASAJ   Asahikawa         53.11  44   P      P       03 01 17.2 +0.1
       comp=Z,98nm,1.0s,mb5.7,baz=256,slow=13,SNR=13
ASAJ   Asahikawa         53.11  44   P      P       03 01 17.2 +0.1
ASAJ                                 pmax   pmax
       comp=Z,98nm,1.0s
UMJS   Umm Lajj          53.42 292   P      P       03 01 19.5 -0.1
ELZG   Elazig            53.94 309  i P     P       03 01 20.5 -2.6
ASAR   Alice Springs     54.12 132   P      P       03 01 23.6 -1.1
       comp=Z,66nm,0.8s,mb5.6,baz=306,slow=6.9,SNR=20
YSS    Yuzh-Sakhalins    54.25  40  i P     P       03 01 25.0 -0.3
YSS                                  pmax   pmax
       comp=Z,111nm,1.0s,mb5.8
YSS    Yuzh-Sakhalins    54.25  40  eP      P       03 01 24.8 -0.5
       comp=Z,380nm,1.1s,mb6.2
TBKS   Tabuk             54.31 296   P      P       03 01 25.5 -0.5
MALT   Malatya           54.32 308  eP      P       03 01 25.0 -1.0
       comp=Z,86nm,1.2s,mb5.5
ASF    Jabal al Asfar    54.44 301   P      P       03 01 26.1 -0.9
       comp=Z,15nm,0.9s,mb4.9,baz=22,slow=5.4,SNR=5.8
GZT    Gaziantep         54.78 307  i P     P       03 01 25.3 -4.1
SOC    Sochi             54.78 315  eP      P       03 01 28.2 -1.1
SOC                                  pmax   pmax
       comp=Z,189nm,1.4s,mb5.9
SOC                                  pmax   pmax
       comp=N,75nm,1.7s
SOC                                  pmax   pmax
       comp=E,101nm,1.5s
JMQS   Jabal Moqyreh     54.95 297   P      P       03 01 30.1 -0.7
YUK    Yuzh-Kuril'sk     55.31  45  eP      P       03 01 31.4 -1.8
AYUS   'Aynunah          55.43 296   P      P       03 01 33.7 -0.6
BDAS   Al Bad'           55.59 296   P      P       03 01 34.6 -0.8
JMOS   Jabal al Moall    55.64 297   P      P       03 01 35.4 -0.4
COBT   Iskenderun        55.65 306  i P     P       03 01 33.0 -2.7
ALWS   Ilw as Safayha    55.69 297   P      P       03 01 35.4 -0.8
HAQS   Haql              55.79 297   P      P       03 01 35.8 -1.1
EIL    Elat              55.82 297   P      P       03 01 36.1 -0.9
       comp=E,23nm,1.0s,mb5.2,baz=100,slow=5.2,SNR=6.7
EIL    Elat              55.82 297  eP      P       03 01 38.2 +1.2
YAK    Yakutsk           56.21  20  eP      P       03 01 36.5 -2.8
YAK                                  pmax   pmax
       comp=Z,118nm,0.9s,mb5.9
YAK                                  pmax   pmax
       comp=N,65nm,1.2s
YAK                                  pmax   pmax
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       comp=E,64nm,1.2s
KMBO   Kilima Mbogo      56.47 260   P      P       03 01 40.7 -1.2
       comp=E,6.1nm,0.9s,baz=69,slow=7.7,SNR=11
KMBO   Kilima Mbogo      56.47 260  eP      P       03 01 41.6 -0.3
KMBO                                 pmax   pmax
       comp=Z,230nm,2.2s
KMBO   Kilima Mbogo      56.47 260  eP      P       03 01 41.6 -0.3
       comp=Z,234nm,2.2s,mb5.8
ANN    Anapa             56.71 316  eP      P       03 01 41.5 -1.7
ANN                                  pmax   pmax
       comp=Z,30nm,0.9s,mb5.3
AVNT   Avonos            57.16 308  i P     P       03 01 43.5 -3.0
CSS    Prodhromos        57.76 303  eP      P       03 01 49.1 -1.6
       comp=Z,151nm,1.5s,mb5.8
BRTR   Keskin Array B    58.26 309   P      P       03 01 51.7 -2.5
       comp=Z,16nm,0.8s,mb5.1,baz=121,slow=7.3,SNR=13
BRTR   Keskin Array B    58.26 309   P      P       03 01 51.7 -2.5
BRTR                                 pmax   pmax
       comp=Z,16nm,0.8s
PMG    Port Moresby      58.49 109   P      P       03 01 56.1  0.0
       comp=Z,167nm,0.8s,mb6.1,baz=310,slow=4.4,SNR=19
PMG    Port Moresby      58.49 109   P      P       03 01 56.1  0.0
PMG                                  pmax   pmax
       comp=Z,167nm,0.8s
PMG    Port Moresby      58.49 109  eP      P       03 01 55.4 -0.7
BALT   Daday             58.79 311  i P     P       03 01 56.0 -1.9
SIM    Simferopol'       59.03 315  eP      P       03 01 59.0 -0.5
SIM                                  pmax   pmax
       comp=Z,116nm,1.0s,mb5.9
SGKT   Sivrigoynuk       59.60 310  i P     P       03 02 00.8 -2.8
MOS    Moscow            60.34 328  eP      P       03 02 10.7 +2.3
MOS                                  pmax   pmax
       comp=Z,288nm,1.4s,mb6.1
ESKT   Eskisehir         60.35 308  i P     P       03 02 03.6 -5.0
ISP    Isparta           60.38 306   P      P       03 02 07.8 -1.1
ISP                                  pmax   pmax
       comp=Z,160nm,1.2s,mb5.9
ISP    Isparta           60.38 306  eP      P       03 02 06.6 -2.3
OBN    Obninsk           60.66 327  i P     P       03 02 12.5 +2.0
OBN    Obninsk           60.66 327  eP      P       03 02 11.6 +1.0
       comp=Z,313nm,1.4s,mb6.2
CTA    Charters Tower    61.99 121   P      P       03 02 19.8 -0.3
       comp=Z,187nm,1.2s,mb6.1,baz=300,slow=7.7,SNR=20
CTA    Charters Tower    61.99 121   P      P       03 02 19.8 -0.3
CTA                                  pmax   pmax
       comp=Z,187nm,1.2s
CTA    Charters Tower    61.99 121   P      P       03 02 19.8 -0.3
CTAO   Charters Tower    61.99 121   P      P       03 02 19.7 -0.4
CTAO                                 pmax   pmax
       comp=Z,330nm,1.3s,mb6.3
CTAO   Charters Tower    61.99 121  eP      P       03 02 19.5 -0.5
       comp=Z,329nm,1.4s,mb6.3
MBAR   Mbarara           62.63 263  i P     P       03 02 23.8 -0.6
KIS    Kishinev          63.08 317  i P     P       03 02 25.0 -1.8
TIXI   Tiksi             63.08  12⇑iP       P       03 02 24.0 -2.5
TIXI                                 pmax   pmax
       comp=Z,319nm,0.9s,mb6.5
TIXI                                 pmax   pmax
       comp=N,106nm,1.6s
TIXI                                 pmax   pmax
       comp=E,118nm,1.7s
TIXI   Tiksi             63.08  12  i P     P       03 02 25.2 -1.3
MA2    Magadan           63.50  29  i P     P       03 02 28.0 -1.4
MA2                                  pmax   pmax
       comp=Z,187nm,1.2s,mb6.1
MA2    Magadan           63.50  29  eP      P       03 02 28.1 -1.4
       comp=Z,178nm,0.9s,mb6.2
AKASG  Malin Array Be    63.58 321   P      P       03 02 28.1 -2.0
       comp=Z,20nm,0.7s,mb5.2,baz=81,slow=5.4,SNR=19
AKASG  Malin Array Be    63.58 321   P      P       03 02 28.1 -2.0
AKASG                                pmax   pmax
       comp=Z,20nm,0.7s
SKR    Severo-Kuril's    63.78  39  eP      P       03 02 26.0 -5.4
SKR                                  pmax   pmax
       comp=N,70nm,0.8s
SKR                                  pmax   pmax
       comp=Z,120nm,0.8s,mb6.0
SKR                                  pmax   pmax
       comp=E,130nm,1.0s
ALN    Alexandroupoli    64.17 309  eP      P       03 02 32.4 -1.8
SANT   Santorini         64.27 304   P      P       03 02 35.5 +0.6
       comp=E,108nm,1.1s,mb5.8
STKA   Stephens Creek    64.44 135   P      P       03 02 35.6 -0.5
       comp=E,71nm,0.8s,mb5.7,baz=306,slow=7.5,SNR=17
STKA   Stephens Creek    64.44 135  eP      P       03 02 35.3 -0.8
IDI    Anoyia            64.68 303   P      P       03 02 38.8 +1.2
       comp=E,46nm,1.1s,mb5.4,baz=86,slow=7.6,SNR=5.7
MLR    Muntele Rosu      64.80 314   P      P       03 02 37.7 -0.5
       comp=E,80nm,0.9s,mb5.7,baz=81,slow=7.1,SNR=17
MLR    Muntele Rosu      64.80 314   P      P       03 02 37.7 -0.4
MLR                                  pmax   pmax
       comp=Z,80nm,0.9s
PUL    Pulkovo           65.43 331⇑eP       P       03 02 43.6 +1.6
PUL                                  pmax   pmax
       comp=Z,201nm,1.0s,mb6.1
PUL                                  pmax   pmax
       comp=E,298nm,1.2s
OUR    Ouranopolis       65.69 309  eP      P       03 02 42.1 -1.8
PET    Petropavlovsk     65.82  37  eP      P       03 02 44.1 -0.5
PET                                  pmax   pmax
       comp=Z,55nm,1.0s,mb5.5
PET    Petropavlovsk     65.82  37  i P     P       03 02 44.4 -0.2
PAIG   Paliouri          65.89 308  eP      P       03 02 43.5 -1.7
SRS    Serrai            66.04 310  eP      P       03 02 45.7 -0.5
IDID   Didziasalis       66.09 325  eP      P       03 02 44.9 -1.3
IDID                                 AMPb   AMB     03 02 56.5
       comp=Z,66nm,1.1s,mb5.6
SOH    Sokhos            66.20 309  eP      P       03 02 47.8 +0.6
XOR    Xorichti          66.23 308  eP      P       03 02 46.3 -1.1
IIGN   Ignalina          66.39 325  eP      P       03 02 46.9 -1.2
IZAR   Zarasai           66.46 326  eP      P       03 02 47.5 -1.1
IZAR                                 AMPb   AMB     03 02 58.2
       comp=Z,50nm,1.1s,mb5.5
THE    Thessaloniki      66.48 309  eP      P       03 02 46.6 -2.5
ISAL   Salakas           66.49 325  eP      P       03 02 45.5 -3.3
ISAL                                 AMPb   AMB     03 02 59.0
       comp=Z,42nm,1.2s,mb5.4
KNT    Kendrikon         66.57 310  eP      P       03 02 47.5 -2.1
LVZ    Lovozero          66.71 340⇑eP       P       03 02 51.0 +1.0
LVZ                                  pmax   pmax
       comp=Z,82nm,1.0s,mb5.7
LVZ                                  pmax   pmax
       comp=N,25nm,1.3s
LVZ                                  pmax   pmax
       comp=E,39nm,1.5s
LIT    Litokhoron        66.81 308  eP      P       03 02 48.6 -2.6
AGG    Agios Georgios    66.88 307  eP      P       03 02 46.6 -5.1
GRG    Griva             66.93 309  eP      P       03 02 49.7 -2.2
BOLS   Boljevac          67.45 312⇓iP       P       03 02 53.5 -1.6
KWP    Kalwaria          67.52 319  eP      P       03 02 57.3 +1.8
KWP                                 e               03 03 05.9
KWP                                 e               03 03 15.8
FNA    Florina           67.69 309  eP      P       03 02 50.2 -6.5
KOLS   Kolonicke sedl    67.72 318  eP      P       03 02 58.5 +1.8
KOLS                                e               03 03 14.6
SUW    Suwalki           67.86 323  eP      P       03 02 56.1 -1.5
       comp=E,332nm,1.1s,mb6.3
SUW    Suwalki           67.86 323  eP      P       03 02 59.5 +2.0
FINES  FINESS Array B    67.92 332   P      P       03 02 56.5 -1.3
       comp=E,15nm,0.6s,mb5.2,baz=117,slow=8.5,SNR=7.3
FINES  FINESS Array B    67.92 332   P      P       03 02 56.5 -1.3
FINES                                pmax   pmax
       comp=Z,15nm,0.6s
KAF    Kangasniemi       67.99 332  ep      P       03 02 59.0 +0.8
CRVS   Cervenica-Dubn    68.25 318  eP      P       03 03 03.6 +3.6
CRVS                                epP     PP      03 05 32.1 -0.6
GRUS   Gruza             68.35 312⇑iP       P       03 02 56.1 -4.7
IGT    Igoumenitsa       68.45 308  eP      P       03 02 59.4 -2.0
KECS   Kecovo            68.85 317  eP      P       03 03 04.8 +1.0
KECS                                e       pP      03 03 12.0 +1.7
DIVS   Divcibare         68.88 313⇓iP       P       03 03 02.7 -1.4
WAR    Warsaw            68.90 321  eP      P       03 03 12.3 +8.3
NIE    Niedzica          69.05 318  eP      P       03 03 03.5 -1.5
PKSN   Nyarlorinc        69.14 316  eP      P       03 03 07.5 +1.9
PSZ    Piszkesteto       69.20 317  eP      P       03 03 05.7 -0.2
PSZ                                  pmax   pmax
       comp=Z,1µm,2.5s,mb6.3
PSZ    Piszkesteto       69.20 317  eP      P       03 03 05.2 -0.7
       comp=Z,1µm,2.5s,mb6.4
LSZ    Lusaka            69.37 248   P      P       03 03 07.8 +0.3
LSZ                                  pmax   pmax
       comp=Z,2µm,2.6s,mb6.5
LSZ    Lusaka            69.37 248  eP      P       03 03 07.3 -0.2
       comp=Z,2µm,2.6s,mb6.5
OJC    Ojcow             69.45 319  eP      P       03 03 06.9 -0.5
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VYHS   Vyhne             69.94 317  eP      P       03 03 10.5 +0.1
SRO2   Moca              70.19 316  eP      P       03 03 12.1 +0.1
KOLL   Kolacno           70.24 317  e       PcP     03 03 32.6 -1.5
SRO    Srobarova         70.25 316  eP      P       03 03 12.2 -0.1
RHK1   Bakonya           70.33 315  eP      P       03 03 14.5 +1.6
ARCES  ARCESS Array B    70.42 340   P      P       03 03 12.2 -0.8
       comp=Z,23nm,0.7s,mb5.2,baz=104,slow=5.0,SNR=12
ARCES  ARCESS Array B    70.42 340   P      P       03 03 12.2 -0.8
ARCES                                pmax   pmax
       comp=Z,23nm,0.7s
OKC    Ostrava-Krasne    70.48 319  eP      P       03 03 12.9 -0.8
MORC   Moravsky Berou    70.87 318  eP      P       03 03 15.6 -0.5
MORC                                 pmax   pmax
       comp=Z,140nm,1.2s,mb5.8
MORC   Moravsky Berou    70.87 318  eP      P       03 03 15.6 -0.5
       comp=Z,141nm,1.2s,mb5.8
SMOL   Smolenice         70.88 317  eP      P       03 03 14.4 -1.7
SMOL                                e       pP      03 03 21.0 -1.7
ZST    Bratislava        71.08 317  eP      P       03 03 17.1 -0.3
TIP    Timpagrande       71.22 307   P      P       03 03 17.5 -0.8
GKP    Gorka Klasztor    71.29 322  eP      P       03 03 21.2 +2.7
GRI    Girifalco         71.49 307  eP      P       03 03 16.6 -3.4
DPC    Dobruska-Polom    71.69 319  eP      P       03 03 24.2 +3.2
KSP    Ksiaz             71.73 320  eP      P       03 03 19.4 -1.8
KSP                                 epP     pP      03 03 22.6 -5.1
KSP    Ksiaz             71.73 320  eP      P       03 03 24.3 +3.1
KSP                                 e       pP      03 03 31.7 +4.0
UPC    Upice             71.89 319  eP      P       03 03 25.2 +3.0
ARSA   Arzberg           72.12 316⇑iP       P       03 03 23.6  0.0
       comp=Z,68nm,1.6s,mb5.3
BILL   Bilibino          72.45  22  i P     P       03 03 24.7 -0.5
BILL                                 pmax   pmax
       comp=Z,37nm,0.9s,mb5.3
BILL   Bilibino          72.45  22  eP      P       03 03 24.1 -1.1
       comp=Z,2µm,2.6s,mb6.6
TRO    Tromso            72.68 339  eP      P       03 03 24.7 -1.8
OBKA   Obir              72.78 315⇓iP       P       03 03 27.8 +0.2
PVCC   Panska Ves        72.81 319  eP      P       03 03 30.2 +2.6
PRU    Pruhonice         72.82 319  eP      P       03 03 28.6 +0.9
       comp=Z,714nm,2.9s,mb6.1
MOA    Molln             72.98 316⇑iP       P       03 03 29.2 +0.5
       comp=Z,67nm,1.2s,mb5.5
BRG    Berggiesshubel    73.22 320  i P     P       03 03 29.9 -0.1
BRG                                  pmax   pmax
       comp=Z,154nm,1.3s,mb5.8
BRG    Berggiesshubel    73.22 320  i P     P       03 03 29.9 -0.1
       comp=Z,154nm,1.3s,mb5.8
BRG                                 i               03 03 33.2
RUE    Ruedersdorf       73.34 321  eP      P       03 03 30.1 -0.6
       comp=Z,231nm,1.1s,mb6.0
GEC2   GERESS Array S    73.36 317  eP      P       03 03 32.8 +2.0
GERES  GERESS Array B    73.36 317   P      P       03 03 30.5 -0.3
       comp=Z,22nm,1.0s,mb5.0,baz=93,slow=4.6,SNR=12
GERES  GERESS Array B    73.36 317   P      P       03 03 30.5 -0.3
GERES                                pmax   pmax
       comp=Z,22nm,1.0s
KHC    Kasperske Hory    73.44 318  eP      P       03 03 30.3 -1.0
KBA    Koelnbreinsper    73.61 316⇑iP       P       03 03 31.1 -1.2
       comp=Z,66nm,1.2s,mb5.4
PTCC   Patocco-Chiusa    73.61 315  eP      P       03 03 31.6 -0.7
GMNA   Gemona            73.69 315  eP      P       03 03 32.4 -0.5
PTQR   Pietraquaria      73.70 310  eP      P       03 03 34.5 +1.5
CLL    Collm             73.81 320  i P     P       03 03 36.1 +2.7
CLL                                  pmax   pmax
       comp=Z,134nm,1.3s,mb5.7
CLL    Collm             73.81 320  i P     P       03 03 36.1 +2.7
       comp=Z,134nm,1.3s,mb5.7
CLL                                 e               03 04 02.0
CLL    Collm             73.81 320   P      P       03 03 36.1 +2.7
       comp=Z,logA/T=2.0,mb5.7
CLL                                 e               03 04 02.0
MOR8   Moi Rana          73.85 336  eP      P       03 03 32.7 -0.6
MOR8                                 AMb    AMB     03 03 41.0
       comp=Z,154nm,1.7s,mb5.7
MOR8   Moi Rana          73.85 336  eP      P       03 03 32.7 -0.6
       comp=Z,154nm,1.7s,mb5.7
WET    Wettzell          73.90 318  eP      P       03 03 36.0 +2.0
ARV    Arcevia           73.98 312  eP      P       03 03 33.7 -0.9
SNTG   Esanatoglia       73.99 312  eP      P       03 03 33.4 -1.2
FVI    Forni Avoltri     74.00 315  eP      P       03 03 37.5 +2.9
NKC    Novy Kostel       74.17 319  eP      P       03 03 34.7 -0.8
LOF    Lofoten           74.39 338  eP      P       03 03 37.5 +1.0
LOF                                  AMb    AMB     03 03 40.0
       comp=Z,158nm,1.5s,mb5.7
LOF                                 epP     pP      03 03 46.4 +3.4
LOF    Lofoten           74.39 338  eP      P       03 03 37.5 +1.0
       comp=Z,158nm,1.5s,mb5.7
FX1    Attu Island--F    74.52  38  eP      P       03 03 37.0 -0.5
MOX    Moxa              74.69 319  eP      P       03 03 41.3 +2.7
MOX    Moxa              74.69 319  i P     P       03 03 41.3 +2.7
SFI    Santa Sofia       74.76 312  eP      P       03 03 40.2 +1.1
WTTA   Wattenberg        74.77 316⇑iP       P       03 03 37.3 -1.8
       comp=Z,98nm,1.2s,mb5.6
CTI    Castel Tesino     74.80 315  eP      P       03 03 39.0 -0.3
WATA   Walderalm         74.81 316⇓iP       P       03 03 38.0 -1.3
       comp=Z,212nm,1.9s,mb5.8
PGD    Poggio Sodo       74.85 312  eP      P       03 03 42.7 +3.1
NB2    NORSAR Subarra    74.96 330   P      P       03 03 38.1 -1.8
       comp=Z,128nm,1.4s,mb5.7,baz=91,slow=5.8
NB2    NORSAR Subarra    74.96 330   P      P       03 03 38.1 -1.8
       baz=91,slow=5.9
NOA    NORSAR Array B    74.96 330   P      P       03 03 38.8 -1.1
       comp=Z,14nm,0.9s,mb4.9,baz=96,slow=5.7,SNR=6.6
NOA    NORSAR Array B    74.96 330   P      P       03 03 38.8 -1.1
NOA                                  pmax   pmax
       comp=Z,15nm,0.9s
GRA1   Grafenberg Arr    74.97 318  eP      P       03 03 42.6 +2.4
       comp=Z,56nm,1.0s,mb5.5
GRF    Grafenberg Arr    74.97 318  eP      P       03 03 42.6 +2.4
GRF                                  pmax   pmax
       comp=Z,56nm,1.0s,mb5.5
GRF    Grafenberg Arr    74.97 318  eP      P       03 03 42.6 +2.4
       comp=Z,56nm,1.0s,mb5.5
VMG    Vicchio           74.97 312  eP      P       03 03 41.3 +1.0
FUR    Furstenfeldbru    74.98 317  eP      P       03 03 41.8 +1.5
SQTA   Sankt Quirin      75.06 316⇓iP       P       03 03 42.0 +1.2
       comp=Z,93nm,1.3s,mb5.5
LBTB   Lobatse           75.09 240  eP      P       03 03 41.8 +0.4
LBTB                                 pmax   pmax
       comp=Z,130nm,1.4s,mb5.7
LBTB   Lobatse           75.09 240  eP      P       03 03 41.4  0.0
       comp=Z,127nm,1.5s,mb5.6
SMY    Shemya            75.09  39  eP      P       03 03 40.5 -0.3
SMY                                  pmax   pmax
       comp=Z,130nm,0.7s,mb6.0
SMY    Shemya            75.09  39  eP      P       03 03 40.5 -0.3
       comp=Z,128nm,0.7s,mb6.0
SEI    Scarperia         75.10 313  eP      P       03 03 42.0 +1.0
NAO01  NORSAR Array S    75.12 330  eP      P       03 03 39.6 -1.1
       comp=Z,45nm,1.1s,mb5.3
MOTA   Moosalm           75.13 316⇓iP       P       03 03 41.8 +0.7
       comp=Z,33nm,1.1s,mb5.2
BSEG   Bad Segeberg      75.43 323  eP      P       03 03 45.3 +2.6
CLZ    Clausthal         75.45 321  eP      P       03 03 45.1 +2.2
       comp=Z,62nm,0.9s,mb5.5
GSCL   Gusciola          75.64 313  eP      P       03 03 44.6 +0.5
BDI    Bagni Di Lucca    75.65 313  eP      P       03 03 42.1 -2.1
BRMO   Bormio            75.67 315  eP      P       03 03 43.9 -0.4
ERBM   Eremo             75.76 313  eP      P       03 03 49.3 +4.5
DAVA   Damuels           75.96 316⇑iP       P       03 03 44.7 -1.2
       comp=Z,141nm,1.1s,mb5.8
DOMB   Dombas            76.00 331  eP      P       03 03 45.6 -0.2
DOMB                                 AMb    AMB     03 03 54.1
       comp=Z,105nm,1.6s,mb5.5
DOMB   Dombas            76.00 331  eP      P       03 03 45.6 -0.2
       comp=Z,105nm,1.6s,mb5.5
MUD    Monsted U'grnd    76.03 325  i P     P       03 03 50.8 +4.8
MUD                                  pmax   pmax
       comp=Z,120nm,1.1s,mb5.7
MUD    Monsted U'grnd    76.03 325  i P     P       03 03 50.8 +4.8
       comp=Z,123nm,1.1s,mb5.8
STU    Stuttgart         76.34 317   P      P       03 03 50.1 +2.1
STU                                  pmax   pmax
       comp=Z,37nm,0.9s,mb5.3
STU    Stuttgart         76.34 317  eP      P       03 03 49.7 +1.8
       comp=Z,37nm,0.9s,mb5.3
TOD    Tromm             76.54 318  eP      P       03 03 50.9 +1.8
MOL    Molde             76.70 332  eP      P       03 03 51.5 +1.8
MOL                                  AMb    AMB     03 04 00.2
       comp=Z,124nm,1.5s,mb5.6
MOL    Molde             76.70 332  eP      P       03 03 51.5 +1.8
       comp=Z,124nm,1.5s,mb5.6
BOSA   Boshof            76.71 236  eP      P       03 03 51.2 +0.7
BOSA                                 pmax   pmax
       comp=Z,190nm,1.4s,mb5.8
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BOSA	Boshof	76.71	236	eP	P	03 03 50.8	+0.3
	comp=Z,191nm,1.4s,mb5.8						
VAI	Varese	76.82	314	eP	P	03 03 52.7	+2.0
PGF	Pioggiola	76.92	311	eP	P	03 03 54.0	+2.6
	comp=Z,317nm,1.5s,mb5.7						
BFO	Black Forest	76.94	317	eP	P	03 03 53.0	+1.7
BFO				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.1						
BFO	Black Forest	76.94	317	eP	P	03 03 53.0	+1.7
	comp=Z,29nm,1.1s,mb5.1						
KTD	Kalmit	77.03	318	eP	P	03 03 53.0	+1.2
PCP	Pian Castagno	77.08	313	P	P	03 03 50.0	-2.2
FELD	Feldberg	77.19	317	eP	P	03 03 54.0	+1.3
LANF	Langenberg	77.24	318	eP	P	03 03 53.7	+0.7
STR	Strasbourg	77.29	317	eP	P	03 03 54.4	+1.1
ABH	Alteburg	77.34	319	eP	P	03 03 55.0	+1.5
FIN	Finale Ligure	77.35	313	P	P	03 03 50.9	-2.8
MCGN	Macugnaga	77.36	315	eP	P	03 03 58.0	+4.3
ORX	Oropa	77.39	314	P	P	03 03 53.9	0.0
WLS	Welschbruch	77.58	317	eP	P	03 03 56.8	+1.9
ROB	Roburent	77.59	313	P	P	03 03 52.2	-2.8
WTSB	Winterswijk	77.65	321	eP	P	03 03 57.6	+2.4
	comp=Z,87nm,1.7s,mb5.4						
WIT	Witteveen	77.67	322	eP	P	03 03 58.6	+3.3
	comp=Z,168nm,1.7s,mb5.7						
RUP	Ruppelstein	77.67	319	eP	P	03 03 55.2	-0.1
MONE	Monesi	77.69	313	P	P	03 03 52.4	-3.1
ECH	Echery	77.73	317	eP	P	03 03 56.3	+0.6
MOF	Molkenrain	77.78	317	eP	P	03 03 56.3	+0.4
SAOF	Saorge	77.84	313	eP	P	03 04 00.0	+3.6
ENR	Entracque	77.92	313	P	P	03 03 54.6	-2.2
AUTN	L'Aution	77.93	313	eP	P	03 04 00.0	+3.1
RSP	Reno Superiore	77.94	314	P	P	03 03 55.8	-1.1
BHB	Bricherasio	77.97	314	P	P	03 03 54.5	-2.6
HINF	Hinteralfeld	77.97	317	eP	P	03 03 58.0	+1.0
	comp=Z,104nm,1.4s,mb5.3						
LSD	Ceresole Reale	77.98	314	P	P	03 03 57.0	-0.1
STV	Sta Anna Valdi	77.98	313	P	P	03 03 54.9	-2.3
LOMF	Lomont	78.03	316	eP	P	03 03 58.0	+0.7
TOUF	Mont Tournerai	78.06	313	eP	P	03 04 00.6	+3.0
FENE	Fenestrelle	78.09	314	P	P	03 03 57.4	-0.3
PZZ	Prazzo	78.12	313	P	P	03 03 56.2	-1.6
MVIF	Mont Vial	78.14	313	eP	P	03 03 59.8	+1.8
LPL	La Plagne	78.27	314	eP	P	03 03 59.0	+0.3
	comp=Z,400nm,1.0s,mb6.0						
HGN	Heimansgroeve	78.30	320	eP	P	03 04 02.5	+3.8
RRL	Cesana Torines	78.30	314	P	P	03 03 58.1	-0.8
SURF	Saint Ours	78.32	313	eP	P	03 04 00.8	+1.8
MBDF	Montbardon	78.33	313	eP	P	03 04 01.2	+2.2
	comp=Z,230nm,1.2s,mb5.7						
BNI	Bardonecchia	78.36	314	eP	P	03 04 00.0	+0.8
BNI				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
BNI	Bardonecchia	78.36	314	eP	P	03 04 00.0	+0.8
	comp=Z,116nm,1.0s,mb5.8						
THEF	They Montfort	78.51	317	eP	P	03 04 00.2	+0.2
FRF	La Foret Royal	78.54	312	eP	P	03 04 01.3	+1.1
	comp=Z,369nm,1.4s,mb5.8						
GDM	Grand'Maison	78.74	314	eP	P	03 04 03.4	+2.1
NOUC	Port Laguerre	80.07	115	⇑eP	P	03 04 10.0	+1.0
SMF	Signal de Mont	80.14	316	eP	P	03 04 09.8	+1.0
	comp=Z,314nm,1.4s,mb5.8						
DZM	Mont Dzumac	80.18	115	eP	P	03 04 11.3	+1.7
SSF	Saint Saulge	80.31	316	eP	P	03 04 10.9	+1.2
	comp=Z,286nm,1.4s,mb5.7						
PLDF	La Plantade	80.38	315	eP	P	03 04 10.3	+0.2
KIWB	Kanaga Island	80.52	39	eP	P	03 04 09.1	-1.7
AGO	Saint Agoulin	80.71	315	eP	P	03 04 10.6	-1.3
LBL	Lubilhac	80.75	314	eP	P	03 04 11.4	-0.7
WAL1	Walls	81.31	330	eP	P	03 04 20.0	+5.3
CAF	Calviac	81.62	314	eP	P	03 04 18.3	+1.6
	comp=Z,244nm,1.3s,mb5.7						
SUR	Sutherland	81.65	234	eP	P	03 04 18.3	+1.2
	comp=Z,132nm,1.1s,mb5.8						
LMK	Market Rasen	81.77	323	eP	P	03 04 16.0	-1.2
VALF	Valcebollere	82.07	312	eP	P	03 04 19.1	+0.1
KBI1	Birley Grange	82.51	323	eP	P	03 04 17.4	-3.7
LHO	Holmfirth	82.65	323	eP	P	03 04 22.8	+1.0
FLN	La Foliniere	82.69	318	eP	P	03 04 24.0	+1.9
	comp=Z,209nm,1.2s,mb5.8						
MAW	Mawson	82.70	191	P	P	03 04 23.3	+1.5
	comp=Z,6.6nm,0.7s,mb4.8,baz=340,slow=7.0,SNR=6.5						
MAW	Mawson	82.70	191	P	P	03 04 23.6	+1.8
MAW				pmax	pmax		
	comp=Z,37nm,1.0s						
MAW	Mawson	82.70	191	eP	P	03 04 24.0	+2.2
	comp=Z,37nm,1.1s,mb5.3						
KWE	Weaver Farm	82.75	323	eP	P	03 04 18.9	-3.5
EPOB	Poblet	82.94	311	P	P	03 04 26.8	+3.2
	comp=Z,86nm,1.1s,mb5.7						
EDI	Edinburgh	82.94	326	eP	P	03 04 24.2	+0.9
ESK	Eskdalemuir	83.08	325	eP	P	03 04 24.0	0.0
ESK	Eskdalemuir	83.08	325	eP	P	03 04 24.2	+0.2
ESK				pmax	pmax		
	comp=Z,82nm,1.2s,mb5.6						
ESK	Eskdalemuir	83.08	325	eP	P	03 04 24.2	+0.3
	comp=Z,82nm,1.3s,mb5.6						
EAU	Auchinoon	83.10	326	eP	P	03 04 24.1	0.0
RESF	Ens	83.22	312	eP	P	03 04 24.6	-0.4
EBIE	Bielsa	83.38	312	P	P	03 04 30.8	+5.0
	comp=Z,36nm,1.1s,mb5.3						
EBR	Ebro Roquetas	83.47	310	eP	P	03 04 27.7	+1.4
ERTA	Horta de San J	83.56	310	P	P	03 04 28.8	+1.9
	comp=Z,85nm,1.2s,mb5.8						
ESAC	San Caprasio	84.01	311	P	P	03 04 28.6	-0.5
	comp=Z,107nm,0.8s,mb6.0						
EMOS	Mosqueruela	84.28	310	P	P	03 04 32.2	+1.8
	comp=Z,66nm,0.9s,mb5.8						
CART	Cartagena	85.24	307	P	P	03 04 34.6	-0.7
	comp=Z,102nm,1.0s,mb5.9						
EMUR	La Murta	85.38	308	P	P	03 04 39.6	+3.6
	comp=Z,36nm,0.9s,mb5.5						
EVIA	Vianos	86.18	309	P	P	03 04 42.9	+2.9
	comp=Z,42nm,0.9s,mb5.7						
SCO	Scoresbysund	86.20	342	iP	P	03 04 39.4	+0.1
EQES	Quesada	86.80	308	P	sP	03 04 51.1	-0.8
	comp=Z,8.3nm,0.8s						
EBER	Berja	86.86	307	P	P	03 04 54.3	+11
	comp=Z,32nm,0.9s,mb5.6						
GUD	Guadarrama	86.96	311	P	P	03 04 43.8	+0.1
	comp=Z,28nm,1.0s,mb5.5						
ESDC	Sonseca Array	87.05	310	P	P	03 04 44.5	+0.3
	comp=Z,17nm,0.9s,mb5.2,baz=64,slow=4.3,SNR=10						
ESLA	Sonseca Array	87.05	310	eP	P	03 04 44.4	+0.2
	comp=Z,16nm,1.2s,mb5.1						
EBAN	Banos Encina	87.27	308	P	P	03 04 45.3	0.0
	comp=Z,32nm,1.0s,mb5.5						
EADA	Adamuz	87.87	308	P	P	03 04 50.9	+2.7
	comp=Z,42nm,1.0s,mb5.6						
IMA	Indian Mountai	87.99	22	eP	P	03 04 49.1	+1.1
	comp=Z,115nm,1.7s,mb5.8						
EMIJ	Mijas	88.41	307	P	sP	03 04 58.0	-1.7
	comp=Z,43nm,1.0s						
BORG	Borgarnes	88.59	337	P	P	03 04 52.1	+1.1
	comp=Z,31nm,1.0s,mb5.6,baz=84,slow=10,SNR=2.8						
ESPR	Espera	89.18	307	P	pP	03 04 59.7	-1.5
	comp=Z,36nm,0.9s						
SYO	Syowa Base	89.31	197	⇑P	P	03 04 55.8	+1.5
SYO	Syowa Base	89.31	197	⇓pP	pP	03 05 06.1	+5.0
SUMG	Summit	89.33	347	eP	P	03 04 54.7	+0.3
	comp=Z,108nm,1.3s,mb6.0						
MTE	Manteigas	89.52	311	eP	P	03 04 57.1	+1.1
EBAD	Badajoz	89.57	310	P	P	03 04 59.3	+3.1
	comp=Z,21nm,0.9s,mb5.5						
EMIN	Mina Concepcio	89.57	309	P	P	03 04 59.4	+3.1
	comp=Z,29nm,0.9s,mb5.6						
EGRO	El Granado	90.26	308	P	P	03 05 03.4	+3.9
RPZ	Rata Peaks	90.41	135	P	P	03 05 00.7	+0.6
	comp=Z,30nm,0.8s,mb5.7,baz=316,slow=3.9,SNR=6.4						
COLA	College	90.70	22	P	P	03 05 01.2	+0.4
COLA				pmax	pmax		
	comp=Z,1µm,2.9s,mb6.7						
COLA	College	90.70	22	eP	P	03 05 01.0	+0.1
	comp=Z,50nm,1.4s,mb5.7						
SPU	Mount Spurr	90.89	26	eP	P	03 05 02.2	+0.4
RSO	Redoubt South	90.92	27	eP	P	03 05 02.7	+0.7
ILAR	Eielson Array	91.10	22	P	P	03 05 02.0	-0.7
	comp=Z,13nm,0.8s,mb5.3,baz=299,slow=4.0,SNR=33						
ILAR	Eielson Array	91.10	22	P	P	03 05 02.0	-0.7
ILAR				pmax	pmax		
	comp=Z,13nm,0.8s						
SLKM	Skilak Lake	92.00	26	P	P	03 05 07.4	+0.5
SLKM	Skilak Lake	92.00	26	eP	P	03 05 07.2	+0.2
KDAK	Kodiak Island	92.24	29	eP	P	03 05 08.6	+0.5
	comp=Z,247nm,1.4s,mb6.3						
RES	Resolute Bay	92.89	2	P	P	03 05 11.4	+0.6
RES				pmax	pmax		
	comp=Z,59nm,1.3s,mb5.9						
RES	Resolute Bay	92.89	2	ePdif	P	03 05 10.8	0.0
	comp=Z,56nm,1.3s,mb5.8						
INK	Inuvik	93.03	16	P	P	03 05 11.6	0.0
	comp=Z,48nm,1.2s,mb5.8,baz=321,slow=5.2,SNR=15						
INK	Inuvik	93.03	16	P	P	03 05 11.6	+0.1
INK				pmax	pmax		
	comp=Z,48nm,1.2s						
INK	Inuvik	93.03	16	eP	P	03 05 11.5	0.0
	comp=Z,199nm,1.5s,mb6.3						
URZ	Urewera	93.44	128	P	P	03 05 13.9	-0.3
	comp=Z,48nm,0.8s,mb6.0,baz=26,slow=1.6,SNR=12						
DIV	Divide	93.53	24	eP	P	03 05 15.1	+1.2
	comp=Z,105nm,0.9s,mb6.3						
EYAK	Cordova Ski Ar	93.86	25	eP	P	03 05 15.2	-0.3
DAWY	Dawson	94.14	20	eP	P	03 05 17.7	+1.0
DBIC	Dimbokro	95.71	278	P	P	03 05 25.2	+0.1
	comp=Z,10nm,1.2s,mb5.1,baz=43,slow=3.4,SNR=4.2						
DBIC	Dimbokro	95.71	278	P	P	03 05 26.2	+1.1
DBIC				pmax	pmax		
	comp=Z,52nm,1.4s						
DBIC	Dimbokro	95.71	278	eP	P	03 05 25.3	+0.2
	comp=Z,52nm,1.5s,mb5.7						
VNDA	Vanda	97.73	168	P	P	03 05 32.5	-0.3
	comp=Z,7.2nm,1.1s,mb5.1,baz=322,slow=5.5,SNR=6.1						
VNDA	Vanda	97.73	168	P	P	03 05 32.5	-0.3
VNDA				pmax	pmax		
	comp=Z,7.0nm,1.1s						
YKA	Yellowknife Ar	102.33	13	P	Pdif	03 05 53.7	-0.1
	comp=Z,1.4nm,0.8s,baz=333,slow=4.0,SNR=8.0						
YKA				PP	PP	03 10 03.7	-5.1
	comp=Z,4.5nm,0.9s,baz=334,slow=7.9,SNR=8.5						
YKA	Yellowknife Ar	102.33	13	P	Pdif	03 05 53.7	-0.1
YKA						03 10 03.7	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
YKA	Yellowknife Ar	102.33	13	P	Pdif	03 05 53.7	-0.1
YKA				PP	PP	03 10 03.7	-5.1
SNAA	Sanae	103.44	199	⇓iP	Pdif	03 05 59.1	+0.5
SNAA				e		03 06 17.5	
VNA3	Neumayer Olymp	105.65	199	e	Pdif	03 06 13.6	+5.3
VNA3	Neumayer Olymp	105.65	199	e	Pdif	03 06 13.6	+5.3
WALA	Waterton Lakes	114.44	19	ePdif	Pdif	03 06 46.7	-0.8
MSO	Missoula	116.38	20	ePdif	Pdif	03 06 56.5	+0.4
MSO				ePKiKP		03 10 41.2	
BMO	Blue Mountains	116.87	23	P	Pdif	03 07 05.7	+7.5
BMO				e		03 10 46.9	
BMO	Blue Mountains	116.87	23	ePdif	Pdif	03 07 00.7	+2.4
BMO				ePKiKP		03 10 46.5	
ULM	Lac du Bonnet	117.11	6	PKP	PKPdf	03 10 44.1	-2.4
	comp=Z,1.3nm,0.5s,baz=328,slow=7.1,SNR=2.3						
MOD	Modoc	118.03	27	ePKPdf	PKPdf	03 10 47.2	-1.3
HLID	Hailey	119.06	22	ePKPdf	PKPdf	03 10 48.0	-2.5
NSHM	Saint Helena R	119.58	31	ePKPdf	PKPdf	03 10 48.9	-2.6
IMW	Indian Meadow	119.97	19	ePKPdf	PKPdf	03 10 51.0	-1.2
MOOW	Moose Ponds	120.16	19	ePKPdf	PKPdf	03 10 51.1	-1.5
TPAW	Teton Pass	120.32	20	ePKPdf	PKPdf	03 10 51.4	-1.5
LOHW	Long Hollow	120.33	19	ePKPdf	PKPdf	03 10 50.3	-2.6
WUWY	Wally Ulrich	120.35	19	ePKPdf	PKPdf	03 10 48.9	-4.1
SNOW	Snow King Moun	120.41	19	ePKPdf	PKPdf	03 10 51.8	-1.3
REDW	Red Top Meadow	120.47	20	ePKPdf	PKPdf	03 10 50.9	-2.3
BMN	Battle Mountai	120.58	26	PKIKP	PKPdf	03 10 52.5	-1.0
BMN	Battle Mountai	120.58	26	ePKPdf	PKPdf	03 10 50.9	-2.6
CMB	Columbia Colle	121.06	30	PKIKP	PKPdf	03 10 52.5	-2.0
CMB	Columbia Colle	121.06	30	ePKPdf	PKPdf	03 10 51.7	-2.8
ELK	Elko	121.14	24	ePKIKP	PKPdf	03 10 52.9	-1.7
ELK	Elko	121.14	24	ePKPdf	PKPdf	03 10 51.7	-2.9
HVU	Hansel Valley	121.20	22	PKIKP	PKPdf	03 10 53.1	-1.6
HVU	Hansel Valley	121.20	22	ePKPdf	PKPdf	03 10 52.8	-1.9
BW06	Boulder Array	121.42	19	ePKPdf	PKPdf	03 10 51.5	-3.6
PDAR	Pinedale Array	121.42	19	PKP	PKPdf	03 10 52.1	-3.0
	comp=Z,3.4nm,0.8s,baz=90,slow=1.5,SNR=8.6						
SPUT	South Promonto	121.73	22	ePKPdf	PKPdf	03 10 53.8	-1.9
NVAR	Mina Array Bea	121.73	28	PKP	PKPdf	03 10 53.9	-1.9
	comp=Z,9.8nm,0.7s,baz=346,slow=1.1,SNR=21						
HWUT	Hardware Ranch	121.79	21	ePKPdf	PKPdf	03 10 52.5	-3.3
MNV	Mina	121.80	28	ePKIKP	PKPdf	03 10 53.9	-2.0
MNV	Mina	121.80	28	ePKPdf	PKPdf	03 10 53.7	-2.2
BGU	Big Grassy Mou	121.85	23	ePKPdf	PKPdf	03 10 52.9	-3.1
LRV	Little Rabbit	121.99	32	ePKPdf	PKPdf	03 10 54.0	-2.3
OMM	Old Mammoth Mi	122.06	29	ePKPdf	PKPdf	03 10 55.6	-0.9
MTUM	Tungsten Hills	122.48	29	ePKPdf	PKPdf	03 10 52.1	-5.1
TPH	Tonopah	122.52	28	PKIKP	PKPdf	03 10 57.2	0.0
TPH	Tonopah	122.52	28	ePKPdf	PKPdf	03 10 56.1	-1.1
DAU	Daniels Canyon	122.95	22	PKIKP	PKPdf	03 10 59.6	+1.6
DAU	Daniels Canyon	122.95	22	ePKPdf	PKPdf	03 10 55.8	-2.2
NLU	North Lily Min	123.05	22	ePKPdf	PKPdf	03 10 55.6	-2.6
RWWY	Rawlins	123.12	18	ePKPdf	PKPdf	03 10 56.4	-1.9
WES	Weston	123.42	346	PKIKP	PKPdf	03 11 05.0	+6.1
TPNV	Topopah Spring	123.88	28	PKIKP	PKPdf	03 10 58.6	-1.4
TPNV	Topopah Spring	123.88	28	ePKPdf	PKPdf	03 10 57.5	-2.5
PHWY	Pilot Hill	123.98	16	ePKPdf	PKPdf	03 10 56.8	-3.3
MVU	Marysvale	124.27	23	ePKPdf	PKPdf	03 10 59.0	-1.7
MSU	Marysvale	124.27	23	PKIKP	PKPdf	03 11 00.3	-0.4
MSU	Marysvale	124.27	23	ePKPdf	PKPdf	03 10 59.0	-1.7
SRU	San Rafael	124.36	22	ePKIKP	PKPdf	03 10 59.2	-1.7
SRU	San Rafael	124.36	22	ePKPdf	PKPdf	03 10 57.9	-3.0
ARUT	Antelope Range	124.39	25	PKIKP	PKPdf	03 10 59.4	-1.6
ARUT	Antelope Range	124.39	25	ePKPdf	PKPdf	03 10 58.5	-2.4
ISCO	Idaho Springs	125.33	17	ePKPdf	PKPdf	03 11 00.8	-2.0
PV10	Paradox Valley	125.54	21	ePKPdf	PKPdf	03 11 01.1	-2.1
ACSO	Alum Creek Sta	127.40	356	ePKPdf	PKPdf	03 11 05.7	-1.0
KSU1	Kansas State U	127.99	9	ePKPdf	PKPdf	03 11 04.0	-3.9
ANMO	Albuquerque	129.52	20	PKP	PKPdf	03 11 09.4	-1.5
	comp=Z,10nm,1.0s,baz=82,slow=0.1,SNR=6.1						
ANMO	Albuquerque	129.52	20	ePKPdf	PKPdf	03 11 09.2	-1.8
UTMT	University of	131.43	1	ePKPdf	PKPdf	03 11 14.5	0.0
WVT	Waverly	131.66	0	ePKPdf	PKPdf	03 11 12.7	-2.3
CPCT	Cooper Cave	132.25	357	ePKPdf	PKPdf	03 11 12.4	-3.7
MIAR	Mount Ida	132.88	7	PKIKP	PKPdf	03 11 15.3	-2.0
MIAR	Mount Ida	132.88	7	ePKPdf	PKPdf	03 11 14.6	-2.7
LTX	Lajitas	135.60	20	PKIKP	PKPdf	03 11 22.4	-0.1
LTX	Lajitas	135.60	20	ePKPdf	PKPdf	03 11 20.5	-2.0
TXAR	Lajitas Array	135.60	20	PKP	PKPdf	03 11 21.1	-1.4
	comp=Z,4.0nm,0.8s,baz=140,slow=0.4,SNR=8.3						
JCT	Junction City	135.68	15	ePKIKP	PKPdf	03 11 22.2	-0.4
JCT	Junction City	135.68	15	ePKPdf	PKPdf	03 11 20.2	-2.4
BAO	Brasilia Array	141.59	261	PKP	PKPdf	03 11 27.2	-6.5
BDFB	Brasilia	141.61	261	PKhKP		03 11 27.6	
	comp=Z,3.5nm,0.7s,baz=112,slow=6.5,SNR=4.0						
BDFB	Brasilia	141.61	261	PKIKP	PKPdf	03 11 27.6	-6.1
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.7s						
SJG	San Juan	143.02	325	PKP	PKPdf	03 11 34.4	-1.7
	comp=Z,9.3nm,0.8s,baz=24,slow=2.4,SNR=3.8						
SJG	San Juan	143.02	325	PKIKP	PKPdf	03 11 34.4	-1.7
SJG				pmax	pmax		
	comp=Z,9.0nm,0.8s						
SJG	San Juan	143.02	325	PKP	PKPdf	03 11 34.4	-1.7
CJM	Chamela	143.83	29	eP	PKPbc	03 11 24.3	-7.9
MOIG	Morelia	145.32	23	eP	PKPbc	03 11 37.4	+1.0
TRQA	Tornquist	145.85	217	ePKPdf	PKPdf	03 11 39.9	-0.6
PCRV	Puerto La Cruz	148.03	314	PKPbc	PKPdf	03 11 44.5	-0.2
	comp=Z,36nm,0.8s,baz=104,slow=1.6,SNR=11						
SDV	Santo Domingo	152.96	321	PKPbc	PKPdf	03 11 56.4	+4.2
	comp=Z,27nm,1.1s,baz=299,slow=2.4,SNR=7.6						
SDV				PKPab	PKPab	03 12 07.6	-1.4
	comp=Z,27nm,0.9s,baz=284,slow=4.3,SNR=10						
ROSC	El Rosal	158.37	322	PKPbc	PKPdf	03 12 05.8	+6.3
	comp=Z,4.6nm,0.5s,baz=186,slow=5.5,SNR=5.1						
ROSC				PKPab	PKPab	03 12 33.5	+1.4
	comp=Z,23nm,1.0s,baz=251,slow=4.7,SNR=5.9						
LVC	Limon Verde	159.64	238	PKPbc	PKPdf	03 12 10.0	+9.4
	comp=Z,6.9nm,1.0s,baz=103,slow=3.8,SNR=4.2						
LVC				PKPab	PKPab	03 12 38.4	+1.1
	comp=Z,8.9nm,0.8s,baz=310,slow=4.3,SNR=6.4						
LPAZ	La Paz	160.87	256	PKP	PKPdf	03 12 00.6	-1.4
	comp=Z,2.1nm,0.3s,baz=62,slow=2.6,SNR=6.7						
LPAZ				PKPab	PKPab	03 12 44.5	+1.8
	comp=Z,17nm,1.1s,baz=72,slow=7.5,SNR=5.9						
LPAZ	La Paz	160.87	256	PKIKP	PKPdf	03 12 00.6	-1.4
LPAZ						03 12 44.5	
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.3s						
LPAZ				pmax	pmax		
	comp=Z,17nm,1.1s						
LPAZ	La Paz	160.87	256	ePKPdf	PKPdf	03 12 00.3	-1.7

IDC ***26*** *02:53:09.9±0.8, 0.37N×97.10E, mb5.0/13, mb1 5.2/14, mb1mx5.0/21, ML5.0/1, Error ellipse: s-maj=42.7km s-min=18.1km az=42.0*

NEIC ***26*** *02:53:13.0±0.7, 0.06N×97.04E, h30^{km}, mb5.4/12, Error ellipse: s-maj=28.6km s-min=15.3km az=224.0*

ISC 26 02:53:11.6±0.6**, 0.33N**±0.10×**97.0E**±0.1**, h30^{km}, n49,** σ1^{s}**38**/47**, mb5.1**/23**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COCO	West Island	12.44	181	P	P	02 56 01.3	-8.4
PALK	Pallekele	17.64	293	eP	P	02 57 11.9	-5.1
	1µm,1.0s						
CM31	Chiang Mai Arr	18.12	6	eP	P	02 57 23.7	+0.6
	164nm,0.8s						
CMAR	Chiang Mai Arr	18.12	6	P	P	02 57 22.1	-1.0
	2.0nm,0.3s,baz=211,slow=11,SNR=7.5						
MDRS	Chennai	20.86	308	eP	P	02 57 45.9	-8.0
MDRS				e		02 57 47.1	
	comp=Z,804nm,1.4s						
TRD	Trivandrum	21.54	293	eP	P	02 57 52.1	-8.6
TRD				e		02 58 02.3	
	comp=Z,240nm,1.1s						
VIS	Vishakhapatnam	21.89	323	eP	P	02 57 58.5	-5.6
VIS				e		02 58 00.0	
MNGI	Mangalore	25.29	301	eP	P	02 58 33.1	-4.2
SHL	Shillong	25.57	349	eP	P	02 58 33.8	-6.1
AKL	Akola	28.12	317	eP	P	02 58 57.3	-6.0
LSA	Lhasa	29.73	350	eP	P	02 59 09.3	-8.4
WRA	Warramunga Arr	41.77	121	P	P	03 00 59.8	-0.6
	comp=Z,14nm,0.8s,mb4.6,baz=302,slow=9.0,SNR=5.7						
WRAB	Tennant Creek	41.78	121	eP	P	03 00 59.9	-0.5
	comp=Z,21nm,0.8s,mb4.8						
ASAR	Alice Springs	43.05	126	P	P	03 01 11.6	+0.7
	comp=Z,14nm,0.8s,mb4.8,baz=309,slow=7.6,SNR=24						
AAK	Ala-Archa	46.71	337	eP	P	03 01 38.3	-1.5
	comp=Z,3.8nm,0.5s,mb4.6						
ULN	Ulaanbaatar	48.15	9	P	P	03 01 45.9	-5.2
	comp=Z,2.8nm,0.4s,mb4.7						
TLY	Talaya	51.48	5	eP	P	03 02 19.9	+3.4
	comp=Z,37nm,0.8s,mb5.4						
MAT	Matsushiro	52.48	42	P	P	03 02 24.3	0.0
MAT	Matsushiro	52.48	42	eP	P	03 02 24.0	-0.3
ZAL	Zalesovo	54.37	351	P	P	03 02 39.1	+1.2
	comp=Z,25nm,0.5s,mb5.4,baz=300,slow=5.1,SNR=13						
QRN	Al-Qurain	54.68	306	eP	P	03 02 39.3	-1.3
UMR	Umm Al-Rimmam	55.15	306	eP	P	03 02 42.6	-1.4
UMR				AMb	AMB	03 02 44.2	
	comp=Z,122nm,0.5s,mb6.2						
RST	Umm Al-Ruwaisa	55.71	306	eP	P	03 02 46.4	-1.7
BVAR	Borovoye Array	57.00	341	P	P	03 02 55.6	-1.3
	comp=Z,21nm,0.6s,mb5.3,baz=145,slow=8.8,SNR=13						
BRVK	Borovoye	57.06	341	eP	P	03 02 56.0	-1.4
	comp=Z,32nm,0.8s,mb5.4						
CHKZ	Chkalovo	57.48	342	eP	P	03 02 59.6	-0.7
	comp=Z,101nm,1.1s,mb5.8						
ARU	Arti	63.90	337	eP	P	03 03 43.4	-0.5
	comp=Z,22nm,0.7s,mb5.3						
ASF	Jabal al Asfar	64.79	306	P	P	03 03 50.7	+0.6
	comp=Z,10nm,0.8s,mb4.9,baz=340,slow=7.4,SNR=4.5						
EIL	Elat	65.73	303	P	P	03 03 56.5	+0.4
	comp=Z,11nm,0.8s,mb5.0,baz=288,slow=5.8,SNR=4.6						
EIL	Elat	65.73	303	eP	P	03 03 57.8	+1.6
	comp=Z,26nm,1.0s,mb5.2						
CSS	Prodhromos	68.42	308	eP	P	03 04 14.1	+1.0
BRTR	Keskin Array B	69.53	313	P	P	03 04 20.2	+0.4
	comp=Z,6.9nm,0.7s,mb4.7,baz=132,slow=4.3,SNR=9.6						
MAW	Mawson	71.82	193	eP	P	03 04 29.2	-4.0
SANT	Santorini	74.98	308	P	P	03 04 54.7	+2.4
	comp=Z,24nm,0.6s,mb5.3						
IDI	Anoyia	75.23	306	P	P	03 04 57.0	+3.2
	comp=Z,35nm,0.8s,mb5.4,baz=86,slow=9.3,SNR=11						
AKASG	Malin Array Be	75.81	323	P	P	03 04 57.9	+1.2
	comp=Z,8.9nm,0.6s,mb4.8,baz=82,slow=4.7,SNR=10						
MLR	Muntele Rosu	76.55	317	P	P	03 05 04.1	+3.1
	comp=Z,17nm,0.7s,mb5.1,baz=48,slow=7.4,SNR=5.2						
KOLS	Kolonicke sedl	79.73	320	eP	P	03 05 22.5	+4.1
SUW	Suwalki	80.25	325	eP	P	03 05 23.7	+2.7
FINES	FINESS Array B	80.67	333	P	P	03 05 23.9	+0.8
	comp=Z,6.7nm,0.5s,mb4.8,baz=112,slow=7.5,SNR=4.5						
KAF	Kangasniemi	80.76	333	ep	P	03 05 28.1	+4.6
KECS	Kecovo	80.81	319	eP	P	03 05 29.5	+5.4
VYHS	Vyhne	81.90	319	eP	P	03 05 34.1	+4.3
ZST	Bratislava	83.00	318	eP	P	03 05 41.1	+5.6
ARCES	ARCESS Array B	83.28	340	P	P	03 05 40.0	+3.5
	comp=Z,13nm,0.9s,mb5.0,baz=113,slow=6.9,SNR=3.6						
AQU	L'Aquila	85.02	312	P	P	03 05 45.3	-0.5
	comp=Z,70nm,1.1s,mb5.7						
GERES	GERESS Array B	85.32	319	P	P	03 05 49.6	+2.4
	comp=Z,6.1nm,0.8s,mb4.8,baz=90,slow=4.9,SNR=2.2						
NSHM	Saint Helena R	126.94	39	ePKPdf	PKPdf	03 12 13.9	-4.4
ELK	Elko	129.73	32	PKPdf	PKPdf	03 12 16.8	-6.9

IDC ***26*** *02:56:36.0±0.5, 8.72N×92.40E, mb4.8/22, mb1 4.9/22, mb1mx4.8/28, Error ellipse: s-maj=29.0km s-min=12.3km az=43.0*

NEIC ***26*** *02:56:40.4±0.3, 8.61N×92.29E, h30^{km}, mb4.9/13, Error ellipse: s-maj=9.9km s-min=6.5km az=221.0*

ISC 26 02:56:38.4±0.3**, 8.59N**±0.07×**92.30E**±0.07**, h30^{km}, n54,** σ1^{s}**00**/46**, mb4.8**/31**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	11.57	264	eP	P	02 59 22.7	-2.1
GOA	Goa	19.32	293	e	S	03 04 38.5	+3.5
	comp=Z,710nm,1.8s						
LSA	Lhasa	21.03	357	P	P	03 01 23.0	+0.8
ENH	Enshi	26.90	34	P	P	03 02 16.3	-2.6
AAK	Ala-Archa	37.35	338	eP	P	03 03 50.1	+0.1
MBWA	Marble Bar	40.00	138	eP	P	03 04 13.0	+0.5
	comp=Z,14nm,0.9s,mb4.7						
SONM	Songino Array	40.90	15	P	P	03 04 19.7	+0.2
	comp=Z,41nm,1.2s,mb4.9,baz=197,slow=7.7,SNR=5.8						
TLY	Talaya	43.96	10	eP	P	03 04 45.4	+0.9
	comp=Z,9.9nm,0.9s,mb4.5						
NWAO	Narrogin (SRO)	47.63	151	P	P	03 05 15.2	+1.2
	comp=Z,12nm,0.6s,mb5.2,baz=327,slow=5.8,SNR=5.4						
NWAO	Narrogin (SRO)	47.63	151	eP	P	03 05 14.7	+0.8
	comp=Z,10nm,0.7s,mb5.0						
BVAR	Borovoye Array	47.74	342	P	P	03 05 14.3	-0.2
	comp=Z,9.2nm,0.8s,mb4.9,baz=141,slow=9.5,SNR=3.6						
BRVK	Borovoye	47.80	342	P	P	03 05 14.9	-0.1
MAJO	Matsushiro	50.05	49	eP	P	03 05 32.8	+0.3
	comp=Z,10nm,0.9s,mb4.9						
WRA	Warramunga Arr	50.16	125	P	P	03 05 32.6	-1.0
	comp=Z,9.4nm,0.6s,mb5.0,baz=308,slow=8.5,SNR=8.3						
WRAB	Tennant Creek	50.16	125	eP	P	03 05 32.5	-1.1
	comp=Z,21nm,0.6s,mb5.3						
ASAR	Alice Springs	51.77	129	P	P	03 05 44.9	-0.9
	comp=Z,9.1nm,0.7s,mb4.8,baz=304,slow=7.8,SNR=5.0						
ASAR				PcP	PcP	03 06 58.8	0.0
	comp=Z,6.0nm,1.0s,baz=311,slow=4.2,SNR=4.1						
GNI	Garni	52.64	315	P	P	03 05 52.7	+0.6
	comp=Z,12nm,0.8s,mb4.9,baz=127,slow=14,SNR=3.9						
KIV	Kislovodsk	55.57	318	eP	P	03 06 11.1	-2.4
KMBO	Kilima Mbogo	55.70	263	P	P	03 06 16.6	+1.7
	comp=Z,2.3nm,0.7s,mb4.3,baz=46,slow=10,SNR=3.6						
KMBO	Kilima Mbogo	55.70	263	P	P	03 06 13.2	-1.7
	comp=Z,0.6nm,0.5s,mb3.9						
ASF	Jabal al Asfar	56.30	303	P	P	03 06 19.7	+0.7
	comp=Z,7.4nm,1.1s,mb4.6,baz=0.2,slow=13,SNR=3.0						
MALT	Malatya	56.62	310	P	P	03 06 20.5	-0.6
	comp=Z,7.9nm,1.0s,mb4.7						
PMG	Port Moresby	57.48	107	P	P	03 06 27.7	+0.1
	comp=Z,9.3nm,0.6s,mb5.0,baz=312,slow=10.0,SNR=3.5						
PMG	Port Moresby	57.48	107	P	P	03 06 27.7	+0.1
EIL	Elat	57.49	300	P	P	03 06 28.4	+0.9
	comp=Z,11nm,0.7s,mb5.0,baz=168,slow=3.0,SNR=5.8						
EIL	Elat	57.49	300	eP	P	03 06 27.8	+0.3
	comp=Z,12nm,0.8s,mb5.0						
CTA	Charters Tower	60.24	119	P	P	03 06 46.7	0.0
	comp=Z,4.2nm,1.0s,mb4.4,baz=325,slow=6.4,SNR=4.0						
CTA	Charters Tower	60.24	119	P	P	03 06 46.7	0.0
CTAO	Charters Tower	60.24	119	eP	P	03 06 46.7	+0.1
	comp=Z,8.7nm,0.7s,mb4.9						
BRTR	Keskin Array B	60.59	311	P	P	03 06 47.2	-1.5
	comp=Z,15nm,1.1s,mb5.0,baz=122,slow=7.3,SNR=5.0						
STKA	Stephens Creek	61.92	133	P	P	03 06 57.8	-0.1
	comp=Z,6.2nm,0.7s,mb4.9,baz=326,slow=6.8,SNR=3.9						
IDI	Anoyia	66.67	305	P	P	03 07 28.6	-0.2
	comp=Z,7.7nm,1.1s,mb4.7,baz=107,slow=11,SNR=2.5						
MLR	Muntele Rosu	67.39	316	P	P	03 07 33.3	+0.1
	comp=Z,7.9nm,0.8s,mb4.8,baz=56,slow=7.3,SNR=3.7						

LSZ	Lusaka	67.80	250	eP	P	03 07 37.4	+1.1
	comp=Z,1.3nm,0.4s,mb4.3						
FINES	FINESS Array B	71.23	332	P	P	03 07 55.7	-0.8
	comp=Z,5.0nm,0.8s,mb4.5,baz=104,slow=5.7,SNR=4.3						
FINES	FINESS Array B	71.23	332	P	P	03 07 55.7	-0.8
LBTB	Lobatse	73.00	241	eP	P	03 08 07.5	-0.2
	comp=Z,17nm,1.1s,mb4.9						
LBTB				e	pP	03 08 15.3	-1.8
ARCES	ARCESS Array B	73.98	340	P	P	03 08 12.6	0.0
	comp=Z,11nm,0.7s,mb4.9,baz=90,slow=6.1,SNR=6.0						
GERES	GERESS Array B	76.08	318	P	P	03 08 25.0	0.0
	comp=Z,6.3nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=4.6						
NOA	NORSAR Array B	78.22	331	P	P	03 08 35.8	-0.8
	comp=Z,3.2nm,0.7s,mb4.3,baz=96,slow=5.1,SNR=3.3						
MAW	Mawson	78.87	191	eP	P	03 08 31.1	-9.0
	comp=Z,4.0nm,0.4s,mb4.7						
LPL	La Plagne	80.84	315	eP	P	03 08 51.7	+0.7
	comp=Z,72nm,1.1s,mb5.2						
RPZ	Rata Peaks	87.84	135	P	P	03 09 28.2	+1.9
	comp=Z,25nm,0.7s,mb5.5,baz=146,slow=3.3,SNR=7.1						
ESDC	Sonseca Array	89.37	310	P	P	03 09 34.4	+0.7
	comp=Z,1.6nm,0.6s,mb4.5,baz=67,slow=4.0,SNR=6.9						
URZ	Urewera	91.20	128	P	P	03 09 42.5	+0.2
	comp=Z,6.4nm,0.7s,mb5.1,baz=18,slow=5.9,SNR=3.8						
RES	Resolute Bay	96.76	2	eP	P	03 10 08.5	+1.6
YKA	Yellowknife Ar	106.14	13	PP	PP	03 15 09.1	-6.6
	comp=Z,1.6nm,0.9s,baz=334,slow=7.9,SNR=4.1						
PDAR	Pinedale Array	125.13	20	PKP	PKPdf	03 15 38.5	-3.0
	comp=Z,2.6nm,0.9s,baz=50,slow=0.7,SNR=5.8						
NVAR	Mina Array Bea	125.22	29	PKP	PKPdf	03 15 40.2	-1.6
	comp=Z,2.8nm,0.8s,baz=322,slow=1.4,SNR=5.3						
NVAR	Mina Array Bea	125.22	29	PKP	PKPdf	03 15 40.2	-1.6
ANMO	Albuquerque	133.20	21	PKP	PKPdf	03 15 56.0	-1.2
	comp=Z,3.3nm,0.9s,baz=13,slow=4.4,SNR=2.8						
TXAR	Lajitas Array	139.28	22	PKP	PKPdf	03 16 06.2	-2.3
	comp=Z,0.6nm,0.5s,baz=318,slow=0.1,SNR=5.3						
LPAZ	La Paz	159.43	246	PKP	PKPdf	03 16 38.7	-1.1
	comp=Z,1.7nm,0.2s,baz=135,slow=3.9,SNR=15						
LPAZ				PKPab	PKPab	03 17 16.5	+1.6
	comp=Z,2.5nm,0.2s,baz=170,slow=1.9,SNR=4.7						
LPAZ	La Paz	159.43	246	PKP	PKPdf	03 16 38.7	-1.1
LPAZ				PKPab	PKPab	03 17 16.5	+1.6

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*IDC **26** 02:59:09.8±0.3, 3.23N×94.36E, mb5.3/32, mb1 5.3/33, mb1mx5.3/33, ML5.5/1, Error ellipse: s-maj=15.5km s-min=10.0km az=46.0*

*BJI **26** 02:59:12.7, 3.22N×94.38E, h29^{km}, mB6.3, mb5.3, Ms6.7, Msz6.5*

*MOS **26** 02:59:13.6±1.2, 3.36N×94.33E, h33^{km}, mb5.9/55, Error ellipse: s-maj=9.1km s-min=5.3km az=113.7*

*NEIC **26** 02:59:14.4±0.1, 3.18N×94.38E, h30^{km}, mb5.7/70, Error ellipse: s-maj=6.1km s-min=3.7km az=222.0*

*SYO **26** 02:59:14.5, 3.21N×94.32E, h30^{km}, MB5.8*

*DJA **26** 03:00:19.7±3.4, 0.94N×98.59E, h289^{km}±11^{km}, mb5.1/1, Error ellipse: s-maj=162.4km s-min=13.2km az=78.0*

ISC 26 02:59:11.0±0.2**, 3.19N**±0.03×**94.42E**±0.03**, h20**^{km}**, h20**^{km}±1.9^{km}**:pP-P, n484,** σ1^{s}05/395**, mb5.6**/132**, MS6.5**/5**, 18C-12D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PSI	Prapat	4.53	96	eP	Sn	03 01 04.3	-8.6
PENI	Pendagan	13.82	129	eP	P	03 02 26.0	-2.4
	240nm,0.5s						
PENI	Pendagan	13.82	129	eP	P	03 02 25.9	-2.5
PULI	Pulasari	14.93	129	eP	P	03 02 44.4	+1.4
COCO	West Island	15.46	171	P	P	03 02 48.8	-1.2
	511nm,1.2s						
COCO				e		03 03 02.4	
CM31	Chiang Mai Arr	15.81	16	eP	P	03 02 55.4	+1.0
	342nm,0.8s						
CMAR	Chiang Mai Arr	15.81	16	Pn	P	03 02 54.2	-0.2
	6.7nm,0.3s,baz=213,slow=13,SNR=30						
CMAR	Chiang Mai Arr	15.81	16	P	P	03 02 54.2	-0.2
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.3s						
PACI	Pancar Gunung	15.81	128	eP	P	03 02 51.9	-2.5
MDRS	Chennai	17.11	306	eP	P	03 03 10.4	-0.4
MDRS				e		03 03 24.6	
	comp=Z,765nm,1.7s						
MDRS				eS	S	03 06 18.6	-0.6
VIS	Vishakhapatnam	18.08	324	eP	P	03 03 22.0	-1.0
VIS				e		03 03 32.6	
	comp=Z,1µm,2.5s						
TRD	Trivandrum	18.15	288	eP	P	03 03 25.5	+1.6
TRD				e		03 03 32.8	
	comp=Z,604nm,2.0s						
HYB	Hyderabad	21.03	313	eP	P	03 04 00.0	+3.8
HYB	Hyderabad	21.03	313	i P	P	03 04 00.0	+3.8
MNGI	Mangalore	21.67	298	eP	P	03 04 06.1	+3.5
MNGI				e		03 04 10.7	
	comp=Z,573nm,1.5s						
QIZ	Qiongzhong	21.80	43	P	P	03 04 04.0	0.0
QIZ				eS	S	03 07 59.0	0.0
BOK	Bokaro	22.08	339	eP	P	03 04 06.6	-0.1
BOK				e		03 04 13.8	
	comp=Z,1µm,1.2s						
BLSP	Bilaspur	22.29	329	eP	P	03 04 06.0	-2.7
BLSP				e		03 04 19.7	
	comp=Z,694nm,1.6s						
SHL	Shillong	22.38	354	eP	P	03 04 07.4	-2.3
SHL				e		03 04 20.4	
	comp=Z,527nm,2.2s						
SRDI	Scrawed	22.83	121	eP	P	03 04 14.5	+0.2
KMI	Kunming	23.23	19	eP	P	03 04 20.5	+2.4
KMI				PP	PP	03 04 53.5	+4.4
KMI				AMB	AMB		
	comp=Z,254nm,2.0s,mb5.3						
BATP	Bataraza	23.90	75	eP	P	03 04 24.2	-0.6
RATI	Rata	24.15	119	eP	P	03 04 25.7	-1.4
KAD	Karad	24.32	307	e	P	03 04 22.1	-6.6
KEDI	Kedomdong	24.55	118	⇓iP	P	03 04 30.4	-0.6
PPR	Puerto Princes	25.01	74	⇑eP	P	03 04 36.1	+0.7
POO	Poona	25.26	309	e	P	03 04 30.8	-6.9
POO				e	pP	03 04 38.2	-5.3
	comp=Z,143nm,1.2s						
POO				e		03 09 05.8	
PKI	Pulchoki	25.73	341	eP	P	03 04 42.8	+0.7
	comp=Z,237nm,0.7s,mb5.8						
TANI	Tanete Lipujan	25.80	105	eP	P	03 04 44.2	+1.3
	comp=Z,222nm,0.8s,mb5.4						
BHPL	Bhopal	25.84	322	eP	P	03 04 43.6	+0.4
BHPL				e	pP	03 04 50.9	+1.8
	comp=E,296nm,1.9s						
DMN	Daman	25.86	341	eP	P	03 04 43.9	+0.6
	comp=E,1µm,1.3s,mb6.2						
GUN	Gumba	25.90	342	eP	P	03 04 44.7	+1.0
	comp=E,738nm,0.7s,mb6.3						
GYA	Guiyang	25.95	26	⇓iP	P	03 04 44.8	+0.7
GYA				AP	pP	03 04 49.0	-1.0
GYA				XP	sP	03 04 52.0	-0.6
GYA				PP	PP	03 05 27.8	+2.6
GYA				S	S	03 09 16.0	+5.0
GYA				AMB	AMB		
	comp=Z,120nm,1.4s,mb5.2						
GYA				AMB	AMB		
	comp=Z,1µm,4.2s						
GYA				LR	LR		
	comp=N,55µm,18.6s,MS6.3						
GYA				LR	LR		
	comp=E,45µm,16.0s,MS6.3						
GYA				LR	LR		
	comp=Z,55µm,14.2s,MS6.2						
KKN	Kakani	25.97	341	eP	P	03 04 44.7	+0.4
	comp=Z,448nm,1.0s,mb6.0						
ENPP	El Nido	26.04	71	eP	P	03 04 37.3	-7.8
GKN	Gorkha	26.38	340	eP	P	03 04 48.3	+0.2
	comp=Z,527nm,0.9s,mb6.1						
KOLN	Koldanda	26.54	338	eP	P	03 04 49.5	0.0
	comp=Z,720nm,1.2s,mb6.1						
LSA	Lhasa	26.55	354	P	P	03 04 50.5	+0.9
LSA	Lhasa	26.55	354	eP	P	03 04 52.5	+2.9
LSA				pmax	pmax		
	comp=Z,330nm,0.7s,mb6.0						
LSA	Lhasa	26.55	354	eP	P	03 04 52.2	+2.6
	comp=Z,334nm,0.6s,mb6.0						
TGY	Tagaytay City	28.33	66	P	P	03 05 09.6	+3.6
	comp=Z,96nm,0.3s,mb5.8,baz=281,slow=5.2,SNR=2.4						
TGY	Tagaytay City	28.33	66	P	P	03 05 09.6	+3.7
TGY				pmax	pmax		
	comp=Z,96nm,0.3s						
OTRP	Odiongan	28.80	70	eP	P	03 05 06.2	-3.9
CD2	Chengdu	28.95	17	P	P	03 05 12.0	+0.6
PAGZ	Pagadian	29.19	80	eP	P	03 05 13.8	+0.1
SNPH	Sibulan	29.27	77	eP	P	03 05 14.5	0.0
PTH	Pithoragarh	29.48	334	e	P	03 05 17.0	+0.8
LLP	Lapu-Lapu	30.16	75	eP	P	03 05 23.2	+0.8
NDI	New Delhi	30.18	329	eP	P	03 05 20.4	-2.1
NDI				e		03 05 28.8	
	comp=Z,224nm,2.3s						
ENH	Enshi	30.48	26	eP	P	03 05 24.9	-0.1
	comp=Z,28nm,0.8s,mb5.0						
BUKP	Musuan	30.84	80	eP	P	03 05 28.4	0.0
MSLP	Maasin	30.99	76	eP	P	03 05 33.2	+3.5
CNP	Catarman	31.32	71	eP	P	03 05 30.0	-2.6
WHN	Wuhan	33.10	33	⇓P	P	03 05 48.5	+0.6
LZH	Lanzhou	33.88	14	eP	P	03 05 53.5	-1.2
LZH				AMB	AMB		
	comp=Z,169nm,1.3s,mb5.8						
DLH	Dalhousie	33.95	331	e	P	03 05 54.0	-1.3
MBWA	Marble Bar	34.65	135	eP	P	03 06 01.5	0.0
	comp=Z,283nm,1.8s,mb5.9						
GTA	Gaotai	36.39	7	⇑iP	P	03 06 15.5	-0.5
GTA				AP	pP	03 06 25.3	+3.3
GTA				XP	sP	03 06 30.0	+5.5
GTA				PP	PP	03 07 37.5	-2.3
GTA				S	S	03 11 51.5	-4.2
GTA				SS	SS	03 14 16.5	-4.5
GTA				AMB	AMB		
	comp=Z,160nm,0.9s,mb6.0						
GTA				LR	LR		
	comp=N,59µm,22.4s,MS6.5						
GTA				LR	LR		
	comp=E,69µm,25.5s,MS6.5						
GTA				LR	LR		
	comp=Z,140µm,22.8s,MS6.7						
NJ2	Nanjing	36.76	36	eP	P	03 06 19.8	+0.5
NJ2				AP	pP	03 06 31.3	+6.0
NJ2				XP	sP	03 06 34.8	+7.0
NJ2				PP	PP	03 07 48.5	+3.8
NJ2				S	S	03 12 03.0	+1.5
NJ2				XS		03 12 20.0	
NJ2				AMB	AMB		
	comp=Z,2µm,5.4s						
NJ2				LR	LR		
	comp=N,22µm,18.4s,MS6.2						
NJ2				LR	LR		
	comp=E,22µm,17.0s,MS6.2						
NJ2				LR	LR		
	comp=Z,32µm,15.2s,MS6.2						
SSE	Sheshan	37.52	39	eP	P	03 06 26.0	+0.4
SSE				AMB	AMB		
	comp=Z,42nm,1.0s,mb5.1						
SSE				AMB	AMB		
	comp=Z,8µm,7.9s						
TIA	Tai'an	38.98	30	eP	P	03 06 37.5	-0.3
KSH	Kashi	39.85	338	eP	P	03 06 46.0	+0.9
KSH				eAP	pP	03 06 50.0	-1.1
KSH				ePP	PP	03 08 21.8	+1.2
KSH				ePPP	PPP	03 08 46.0	+0.2
KSH				ePCP	PcP	03 08 51.5	+0.1
KSH				eSCP		03 12 38.3	
KSH				ePCS		03 12 40.5	
KSH				eS	S	03 12 49.8	+1.5
KSH				eXS		03 12 59.0	
KSH				eSS	SS	03 15 39.0	+0.7
KSH				eSCS	ScS	03 16 51.0	+1.6
KSH				AMB	AMB		
	comp=Z,5µm,4.5s						
KSH				LR	LR		
	comp=N,34µm,13.2s,MS6.7						
KSH				LR	LR		
	comp=E,56µm,13.5s,MS6.7						
JOW	Kunigami	40.03	51	P	P	03 06 48.5	+1.8
	comp=E,31nm,0.5s,mb5.3,baz=208,slow=8.7,SNR=11						
HHC	Hu-ho-hao-te	40.55	20	eP	P	03 06 51.5	+0.7
HHC				AP	pP	03 07 01.3	+4.5
HHC				XP	sP	03 07 05.5	+6.2
HHC				PP	PP	03 08 26.3	-1.4
HHC				AMB	AMB		
	comp=Z,68nm,1.5s,mb5.1						
HHC				LR	LR		
	comp=Z,107µm,20.8s,MS6.7						
WMQ	Urumqi	40.90	353	⇑P	P	03 06 56.0	+2.4
WMQ				AP	pP	03 07 00.5	+0.9
WMQ				XP	sP	03 07 03.0	+0.9
WMQ				PP	PP	03 08 34.0	+2.9
WMQ				PPP	PPP	03 09 02.5	+2.2
WMQ				S	S	03 13 07.0	+3.2
WMQ				AMB	AMB		
	comp=Z,117nm,1.0s,mb5.5						
WMQ				LR	LR		
	comp=N,47µm,24.6s						
WMQ				LR	LR		
	comp=E,187µm,31.6s						
WMQ				LR	LR		
	comp=Z,109µm,29.8s						
BJT	Baijiatuau	41.62	25	eP	P	03 07 02.2	+2.6
BJT				pmax	pmax		
	comp=Z,550nm,1.8s						
BJT	Baijiatuau	41.62	25	eP	P	03 07 00.9	+1.3
	comp=Z,551nm,1.8s,mb5.9						
NWAO	Narrogin (SRO)	41.91	151	P	P	03 07 02.9	+0.8
	comp=Z,34nm,0.9s,mb5.0,baz=329,slow=8.5,SNR=8.9						
NWAO	Narrogin (SRO)	41.91	151	P	P	03 07 02.9	+0.8
NWAO				pmax	pmax		
	comp=Z,34nm,0.9s						
NWAO	Narrogin (SRO)	41.91	151	eP	P	03 07 02.5	+0.4
	comp=Z,171nm,1.7s,mb5.4						
ULHL	Ulahol	42.15	340	P	P	03 07 04.6	+0.7
	SNR=5.6						
KZA	Kyzart	42.35	339	P	P	03 07 07.2	+1.6
	SNR=6.9						
UCH	Uchtor	42.75	338	P	P	03 07 09.9	+1.1
	SNR=10						
KBK	Karagaybulak	42.97	339	P	P	03 07 11.8	+1.2
	SNR=22						
TKM2	Tokmak 2	42.97	340	P	P	03 07 11.3	+0.6
	SNR=9.7						
AML	Almayashu	42.98	337	P	P	03 07 11.7	+1.0
	SNR=24						
AAK	Ala-Archa	43.11	338	i P	P	03 07 10.8	-1.0
AAK				pmax	pmax		
	comp=Z,350nm,2.3s,mb5.7						
AAK	Ala-Archa	43.11	338	eP	P	03 07 11.3	-0.4
	comp=Z,239nm,1.4s,mb5.7						
DL2	Dalian	43.33	31	P	P	03 07 15.8	+2.2
DL2				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.1						
CHMS	Chumysh	43.34	339	P	P	03 07 13.2	-0.3
	SNR=7.6						
EKS2	Erkin-Say	43.40	338	P	P	03 07 14.3	+0.2
	SNR=9.8						
USP	Ospenovka	43.66	339	P	P	03 07 16.6	+0.4
	SNR=26						
MKAR	Makanchi Array	44.70	348	eP	P	03 07 24.4	-0.2
MKAR				pmax	pmax		
	comp=Z,18nm,0.5s						
WRA	Warramunga Arr	45.44	122	P	P	03 07 31.0	+0.2
	comp=Z,72nm,0.8s,mb5.5,baz=302,slow=8.9,SNR=27						
WRA	Warramunga Arr	45.44	122	P	P	03 07 31.0	+0.2
WRA				pmax	pmax		
	comp=Z,72nm,0.9s						
WRAB	Tennant Creek	45.44	122	eP	P	03 07 31.7	+0.9
WRAB				pmax	pmax		
	comp=Z,490nm,1.3s,mb6.2						
WRAB	Tennant Creek	45.44	122	eP	P	03 07 30.9	+0.1
	comp=Z,436nm,1.2s,mb6.2						
SONM	Songino Array	45.66	11	P	P	03 07 31.8	-0.4
	comp=Z,31nm,0.7s,mb5.3,baz=191,slow=7.9,SNR=21						
SONM				PcP	PcP	03 09 11.4	+0.7
	comp=Z,14nm,0.6s,baz=190,slow=3.6,SNR=8.1						
ULN	Ulaanbaatar	45.82	12	eP	P	03 07 35.5	+2.0
ULN				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
ULN	Ulaanbaatar	45.82	12	eP	P	03 07 32.9	-0.6
	comp=Z,32nm,0.9s,mb5.2						
YOMI	Yo Moklole	46.48	97	⇑iP	P	03 07 36.0	-3.2
ASAR	Alice Springs	46.80	127	P	P	03 07 41.7	+0.2
	comp=Z,58nm,0.9s,mb5.5,baz=296,slow=7.3,SNR=26						
ASAR				PcP	PcP	03 09 15.6	+0.5
	comp=Z,15nm,0.7s,baz=300,slow=3.4,SNR=4.3						
ZAK	Zakamensk	47.62	8	⇓iP	P	03 07 47.0	-0.6
ZAK				e		03 09 15.4	
HASS	Wahat al Ahsa'	48.23	301	P	P	03 07 53.7	+1.0
MOY	Mondy	48.62	5	eP	P	03 07 55.5	+0.1
CN2	Changchun	48.88	30	eP	P	03 07 59.3	+1.8
CN2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.4						
TLY	Talaya	48.94	8	P	P	03 07 58.7	+0.9
	comp=Z,701nm,0.8s,mb6.7,SNR=30						
TLY	Talaya	48.94	8	eP	P	03 07 58.1	+0.3
TLY				e	pP	03 08 04.8	+0.9
TLY				pmax	pmax		
	comp=Z,93nm,0.8s,mb5.9						
TLY	Talaya	48.94	8	eP	P	03 07 58.0	+0.2
	comp=Z,98nm,0.8s,mb5.9						
IRK	Irkutsk	49.57	8	eP	P	03 08 01.0	-1.7
IRK				e		03 15 19.8	
QRN	Al-Qurain	50.95	305	eP	P	03 08 13.6	0.0
ZAL	Zalesovo	51.20	353	P	P	03 08 14.3	-0.7
	comp=Z,38nm,0.5s,mb5.6,baz=304,slow=5.5,SNR=48						
ZAL	Zalesovo	51.20	353	P	P	03 08 14.3	-0.8
ZAL				pmax	pmax		
	comp=Z,39nm,0.5s						
ZAL	Zalesovo	51.20	353	P	P	03 08 14.3	-0.7
RDF	Al-Radifah	51.32	305	eP	P	03 08 17.1	+0.8
RDF				AMb	AMB	03 08 23.3	
	comp=Z,593nm,1.2s,mb6.4						
UMR	Umm Al-Rimmam	51.41	306	eP	P	03 08 17.7	+0.6
UMR				AMb	AMB	03 08 23.9	
	comp=Z,346nm,1.0s,mb6.2						
CBIJ	Chichi jima	51.44	58	P	P	03 08 17.6	+0.3
	comp=Z,54nm,0.7s,mb5.6,baz=277,slow=10,SNR=3.5						
MDJ	Mudanjiang	51.57	32	P	P	03 08 18.5	+0.5
MDJ				AMB	AMB		
	comp=Z,48nm,2.1s,mb5.1						
MDJ	Mudanjiang	51.57	32	eP	P	03 08 18.3	+0.3
	comp=Z,79nm,1.4s,mb5.5						
MZLS	Mizel	51.77	298	P	P	03 08 20.4	+0.5
JHJ	Hachijo jima 2	51.77	49	P	P	03 08 19.9	+0.2
	comp=Z,165nm,0.8s,mb6.0,baz=249,slow=14,SNR=2.6						
RST	Umm Al-Ruwaisa	51.98	305	eP	P	03 08 21.4	+0.1
RST				AMb	AMB	03 08 27.9	
	comp=Z,357nm,1.3s,mb6.1						
MAJO	Matsushiro	52.18	45	eP	P	03 08 24.2	+1.5
MAJO				pmax	pmax		
	comp=Z,170nm,1.5s,mb5.8						
MAJO	Matsushiro	52.18	45	eP	P	03 08 22.4	-0.4
	comp=Z,173nm,1.5s,mb5.8						
MAT	Matsushiro	52.18	45	P	P	03 08 21.9	-0.8
MAT	Matsushiro	52.18	45	eP	P	03 08 22.0	-0.7
TATS	Tathlith	52.28	292	P	P	03 08 24.1	+0.4
NVS	Novosibirsk	52.29	352	i P	P	03 08 21.5	-1.8
NVS				eS	S	03 15 52.8	+6.9
NVS				pmax	pmax		
	comp=N,86nm,1.2s						
NVS				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.6						
NVS				smax			
	comp=N,180nm,2.2s						
NVS				smax			
	comp=E,85nm,2.2s						
BVA0	Borovoye Array	53.49	342	P	P	03 08 31.2	-1.1
BVA0				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
BVAR	Borovoye Array	53.49	342	P	P	03 08 31.2	-1.1
	comp=Z,61nm,0.7s,mb5.6,baz=146,slow=8.3,SNR=49						
BRVK	Borovoye	53.56	342	eP	P	03 08 32.2	-0.5
BRVK				pmax	pmax		
	comp=Z,79nm,0.9s,mb5.6						
BRVK	Borovoye	53.56	342	eP	P	03 08 31.6	-1.1
	comp=Z,80nm,0.8s,mb5.7						
AFFS	'Afif	53.70	297	P	P	03 08 34.9	+0.7
CHKZ	Chkalovo	53.99	343	P	P	03 08 35.1	-0.8
CHKZ				pmax	pmax		
	comp=Z,431nm,1.5s,mb6.2						
PMG	Port Moresby	54.02	104	P	P	03 08 36.6	0.0
	comp=Z,40nm,0.8s,mb5.4,baz=281,slow=9.1,SNR=5.6						
PMG	Port Moresby	54.02	104	P	P	03 08 36.6	0.0
PMG				pmax	pmax		
	comp=Z,40nm,0.8s						
PMG	Port Moresby	54.02	104	P	P	03 08 36.6	0.0
BLJS	Baljurashi	54.09	292	P	P	03 08 38.7	+1.6
HILS	Ha'il	55.65	301	P	P	03 08 49.3	+0.8
CTA	Charters Tower	55.87	117	P	P	03 08 50.1	0.0
	comp=Z,21nm,0.8s,mb5.2,baz=287,slow=8.6,SNR=15						
CTA	Charters Tower	55.87	117	P	P	03 08 50.1	0.0
CTA				pmax	pmax		
	comp=Z,21nm,0.8s						
CTAO	Charters Tower	55.87	117	eP	P	03 08 52.4	+2.3
CTAO				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.8						
CTAO	Charters Tower	55.87	117	eP	P	03 08 49.8	-0.3
	comp=Z,105nm,1.3s,mb5.7						
BOD	Bodaibo	56.63	12	eP	P	03 08 53.4	-1.6
STKA	Stephens Creek	56.74	132	P	P	03 08 56.3	+0.1
	comp=Z,16nm,0.8s,mb5.1,baz=300,slow=7.4,SNR=8.0						
STKA	Stephens Creek	56.74	132	eP	P	03 08 55.6	-0.5
KMBO	Kilima Mbogo	57.30	267	P	P	03 09 00.9	+0.5
	comp=Z,21nm,0.9s,mb5.2,baz=63,slow=8.5,SNR=13						
KMBO	Kilima Mbogo	57.30	267	P	P	03 09 00.9	+0.5
KMBO				pmax	pmax		
	comp=Z,21nm,0.9s						
KMBO	Kilima Mbogo	57.30	267	eP	P	03 09 01.1	+0.7
	comp=Z,223nm,1.8s,mb5.9						
KBRS	Khaybar	57.44	299	P	P	03 09 02.4	+1.2
GNI	Garni	57.95	316	P	P	03 09 04.1	-0.4
	comp=Z,18nm,0.7s,mb5.2,baz=11,slow=6.2,SNR=9.4						
GNI	Garni	57.95	316	i P	P	03 09 01.7	-2.8
GNI				pmax	pmax		
	comp=Z,81nm,1.4s						
GNI	Garni	57.95	316	eP	P	03 09 03.7	-0.8
	comp=Z,125nm,1.3s,mb5.8						
YNBS	Yanbu' al Bahr	58.24	297	P	P	03 09 08.2	+1.4
CLNS	Chul'man	58.73	19	eP	P	03 09 07.5	-2.3
CLNS				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.6						
CLNS				pmax	pmax		
	comp=N,36nm,1.0s						
CLNS				pmax	pmax		
	comp=E,37nm,1.1s						
ASAJ	Asahikawa	58.81	39	P	P	03 09 10.6	0.0
	comp=E,51nm,0.8s,mb5.6,baz=257,slow=14,SNR=14						
ASAJ	Asahikawa	58.81	39	P	P	03 09 10.6	+0.1
ASAJ				pmax	pmax		
	comp=Z,51nm,0.8s						
ZEI	Tsey	59.68	319	eP	P	03 09 16.4	-0.2
ZEI				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.5						
ARU	Arti	60.30	338	⇑iP	P	03 09 18.0	-2.6
ARU				e		03 09 59.7	
ARU				ePPP	PPP	03 12 56.8	-5.4
ARU				eS	S	03 17 27.3	-4.7
ARU				e		03 19 04.1	
ARU				pmax	pmax		
	comp=Z,173nm,1.1s,mb6.0						
ARU	Arti	60.30	338	eP	P	03 09 18.8	-1.8
	comp=Z,131nm,1.0s,mb5.9						
YSS	Yuzh-Sakhalins	60.33	36	i P	P	03 09 21.1	+0.1
YSS				pmax	pmax		
	comp=Z,143nm,1.1s,mb5.9						
YSS	Yuzh-Sakhalins	60.33	36	eP	P	03 09 21.0	0.0
	comp=Z,204nm,1.0s,mb6.1						
YUK	Yuzh-Kuril'sk	60.85	40	eP	P	03 09 23.0	-1.5
KIV	Kislovodsk	61.00	320	eP	P	03 09 24.8	-0.7
KIV				pmax	pmax		
	comp=Z,127nm,1.4s,mb5.9						
KIV				pmax	pmax		
	comp=N,28nm,0.9s						
KIV				pmax	pmax		
	comp=E,66nm,1.4s						
KIV	Kislovodsk	61.00	320	eP	P	03 09 24.2	-1.3
	comp=E,168nm,1.3s,mb6.0						
JMQS	Jabal Moqyreh	61.08	301	P	P	03 09 26.9	+0.6
GOF	Gofitskoye	61.27	321	⇓iP	P	03 09 26.0	-1.4
GOF				pmax	pmax		
	comp=Z,250nm,1.8s,mb6.0						
AYUS	'Aynunah	61.45	300	P	P	03 09 29.4	+0.5
BDAS	Al Bad'	61.65	301	P	P	03 09 30.8	+0.6
JMOS	Jabal al Moall	61.80	301	P	P	03 09 31.9	+0.6
ALWS	Ilw as Safayha	61.87	302	P	P	03 09 32.3	+0.6
MKRJ	Makawir	61.92	304	P	P	03 09 32.8	+0.8
AQBJ	Aqaba	61.98	302	P	P	03 09 32.5	+0.1
EIL	Elat	62.05	302	P	P	03 09 32.8	-0.1
	comp=Z,43nm,0.8s,mb5.6,baz=81,slow=6.1,SNR=12						
EIL	Elat	62.05	302	P	P	03 09 33.0	+0.1
EIL	Elat	62.05	302	eP	P	03 09 33.3	+0.4
	comp=Z,117nm,1.2s,mb5.9						
MBH	Mount Berech	62.11	302	P	P	03 09 33.6	+0.3
DRGI	Dragot	62.14	304	P	P	03 09 33.7	+0.3
PRNI	Paran	62.16	303	P	P	03 09 33.9	+0.3
MASH	Mash'abbe Sade	62.50	303	P	P	03 09 35.9	+0.1

RTMM	Retamin	62.59	303	P	P	03 09 37.8	+1.3
HNTI	Hanita	62.70	306	P	P	03 09 37.8	+0.7
OFRI	‘Ofer	62.73	305	P	P	03 09 37.7	+0.4
HAF	Haifa	62.74	305	P	P	03 09 37.8	+0.4
SOC	Sochi	62.79	318	*e*P	P	03 09 35.5	-2.1
SOC				pmax	pmax		
	comp=Z,113nm,1.1s,mb5.9						
SOC				pmax	pmax		
	comp=N,7.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,24nm,0.8s						
KZIT	Kziot	62.80	303	P	P	03 09 38.0	+0.2
YAK	Yakutsk	64.34	18	*e*P	P	03 09 44.9	-2.5
YAK				pmax	pmax		
	comp=Z,69nm,1.0s,mb5.6						
YAK				pmax	pmax		
	comp=N,30nm,1.1s						
YAK				pmax	pmax		
	comp=E,30nm,1.2s						
CSS	Prodhromos	64.66	307	*e*P	P	03 09 49.2	-0.8
	comp=E,184nm,1.3s,mb6.0						
BRTR	Keskin Array B	65.73	312	P	P	03 09 55.8	-1.0
	comp=E,12nm,0.8s,mb5.0,baz=134,slow=6.8,SNR=21						
BRTR	Keskin Array B	65.73	312	P	P	03 09 55.8	-1.0
BRTR				pmax	pmax		
	comp=Z,12nm,0.8s						
SIM	Simferopol’	67.03	318	*e*P	P	03 10 04.5	-0.6
SIM				pmax	pmax		
	comp=Z,68nm,0.8s,mb5.7						
ISP	Isparta	67.58	310	*e*P	P	03 10 08.5	-0.1
ISP				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.8						
ISP	Isparta	67.58	310	*e*P	P	03 10 07.0	-1.6
	comp=Z,150nm,1.4s,mb5.8						
LSZ	Lusaka	68.04	252	*e*P	P	03 10 11.5	-0.3
MOS	Moscow	69.22	330	*e*P	P	03 10 17.4	-1.1
MOS				*e*		03 12 58.1	
MOS				pmax	pmax		
	comp=Z,360nm,1.6s,mb6.0						
OBN	Obninsk	69.48	329	*i* P	P	03 10 17.0	-3.1
OBN				*i*	pP	03 10 24.3	-2.0
OBN				pmax	pmax		
	comp=Z,199nm,1.8s,mb5.7						
OBN	Obninsk	69.48	329	*e*P	P	03 10 18.4	-1.7
	comp=Z,265nm,1.4s,mb6.0						
SKR	Severo-Kuril’s	69.89	37	*e*P	P	03 10 19.5	-3.2
SKR				*e*	pP	03 10 25.5	-3.4
SKR				pmax	pmax		
	comp=Z,80nm,0.5s,mb5.9						
MA2	Magadan	70.78	27	*i* P	P	03 10 27.5	-0.4
MA2				pmax	pmax		
	comp=Z,250nm,1.9s,mb5.8						
MA2	Magadan	70.78	27	*e*P	P	03 10 27.6	-0.4
	comp=Z,270nm,1.5s,mb6.0						
KIS	Kishinev	71.18	319	*i* P	P	03 10 29.0	-1.6
SANT	Santorini	71.22	307	*e*P	P	03 10 29.7	-1.3
	comp=Z,114nm,1.0s,mb5.8						
APE	Apeiranthos	71.29	308	P	P	03 10 30.0	-1.4
IDI	Anoyia	71.49	306	P	P	03 10 33.0	+0.3
	comp=Z,80nm,0.8s,mb5.7,baz=82,slow=8.2,SNR=44						
ALN	Alexandroupoli	71.64	312	*e*P	P	03 10 32.5	-1.0
TIXI	Tiksi	71.75	11	*e*P	P	03 10 32.2	-1.4
TIXI				pmax	pmax		
	comp=Z,188nm,1.4s,mb5.8						
TIXI				pmax	pmax		
	comp=N,30nm,1.3s						
TIXI				pmax	pmax		
	comp=E,40nm,1.5s						
AKASG	Malin Array Be	72.00	323	P	P	03 10 33.9	-1.5
	comp=E,12nm,0.6s,mb5.0,baz=85,slow=4.6,SNR=46						
AKASG	Malin Array Be	72.00	323	P	P	03 10 33.9	-1.5
AKASG				pmax	pmax		
	comp=Z,12nm,0.6s						
GVD	Gavdhos	72.07	306	*e*P	P	03 10 35.5	-0.6
	comp=Z,133nm,1.0s,mb5.8						
LOS	Limnos	72.17	311	*e*P	P	03 10 33.6	-3.0
PET	Petropavlovsk	72.17	35	*e*P	P	03 10 35.2	-1.2
PET				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.4						
KDZ	Kurdzhali	72.26	313	*i* P	P	03 10 36.0	-1.1
VRI	Vrincioaia	72.28	317	P	P	03 10 38.1	+1.0
LBTB	Lobatse	72.30	243	*e*P	P	03 10 38.2	+0.6
LBTB				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.4						
LBTB	Lobatse	72.30	243	*e*P	P	03 10 37.6	0.0
	comp=Z,47nm,1.0s,mb5.4						
MLR	Muntele Rosu	72.72	317	P	P	03 10 39.6	-0.2
	comp=Z,44nm,0.7s,mb5.5,baz=104,slow=2.7,SNR=30						
MLR	Muntele Rosu	72.72	317	P	P	03 10 39.6	-0.2
MLR				pmax	pmax		
	comp=Z,44nm,0.7s						
MLR	Muntele Rosu	72.72	317	P	P	03 10 40.2	+0.4
RZN	Rozhen	72.78	313	*i* P	P	03 10 39.0	-1.2
SNX	Sinaia	72.99	317	P	P	03 10 43.5	+2.1
OUR	Ouranopolis	73.07	311	*e*P	P	03 10 40.7	-1.2
PAIG	Paliouri	73.23	311	*e*P	P	03 10 41.5	-1.4
BOSA	Boshof	73.38	239	*e*P	P	03 10 44.1	+0.1
BOSA				pmax	pmax		
	comp=Z,210nm,1.8s,mb5.8						
BOSA	Boshof	73.38	239	*e*P	P	03 10 43.4	-0.6
	comp=Z,212nm,1.8s,mb5.8						
MMB	Musomiste	73.49	312	*i* P	P	03 10 42.0	-2.4
XOR	Xorichti	73.50	310	*e*P	P	03 10 41.4	-3.1
SRS	Serrai	73.50	312	*e*P	P	03 10 42.8	-1.7
SOH	Sokhos	73.63	312	*e*P	P	03 10 43.6	-1.5
THE	Thessaloniki	73.89	311	*e*P	P	03 10 44.9	-1.8
KKB	Krupnik	74.01	313	*i* P	P	03 10 45.0	-2.4
KNT	Kendrikon	74.03	312	*e*P	P	03 10 45.4	-2.1
MAW	Mawson	74.03	192	P	P	03 10 48.3	+1.3
	comp=Z,24nm,0.9s,mb5.1,baz=45,slow=9.4,SNR=8.6						
MAW	Mawson	74.03	192	*e*P	P	03 10 48.8	+1.8
MAW				pmax	pmax		
	comp=Z,220nm,1.7s						
MAW	Mawson	74.03	192	*e*P	P	03 10 48.1	+1.2
	comp=Z,219nm,1.8s,mb5.8						
VTS	Vitosha	74.05	313	*i* P	P	03 10 46.0	-1.6
VTS	Vitosha	74.05	313	P	P	03 10 46.8	-0.8
AGG	Agios Georgios	74.11	310	*e*P	P	03 10 46.3	-1.6
LIT	Litokhoron	74.16	311	*e*P	P	03 10 46.3	-1.9
GRG	Griva	74.36	312	*e*P	P	03 10 47.8	-1.6
PUL	Pulkovo	74.43	332	⇓*e*P	P	03 10 49.1	-0.3
PUL				pmax	pmax		
	comp=Z,108nm,0.8s,mb5.8						
PUL				pmax	pmax		
	comp=N,77nm,0.7s						
PUL				pmax	pmax		
	comp=E,107nm,1.4s						
IDID	Didziasalis	74.81	327	*e*P	P	03 10 50.5	-1.1
IDID				AMPb	AMB	03 10 57.7	
	comp=Z,43nm,1.2s,mb5.3						
MEV	Metsovon	75.06	310	*e*P	P	03 10 53.2	-0.3
IIGN	Ignalina	75.10	327	*e*P	P	03 10 52.3	-1.0
IIGN				AMPb	AMB	03 10 59.4	
	comp=Z,48nm,1.3s,mb5.3						
FNA	Florina	75.10	311	*e*P	P	03 10 51.5	-2.3
BOLS	Boljevac	75.17	314	⇓*i*P	P	03 10 53.3	-0.8
IZAR	Zarasai	75.20	327	*e*P	P	03 10 52.8	-1.1
IZAR				AMPb	AMB	03 10 59.3	
	comp=Z,33nm,1.1s,mb5.2						
ISAL	Salakas	75.21	327	*e*P	P	03 10 53.2	-0.8
ISAL				AMPb	AMB	03 10 60.0	
	comp=Z,36nm,1.0s,mb5.2						
SKO	Skopje	75.24	312	*i* P	P	03 10 54.5	0.0
LKD	Levkas	75.36	309	*e*P	P	03 10 53.2	-2.0
IGT	Igoumenitsa	75.72	310	*e*P	P	03 10 55.4	-1.8
KWP	Kalwaria	75.78	320	*e*P	P	03 10 57.3	-0.1
KWP				*e*		03 11 01.4	
KOLS	Kolonicke sedl	75.91	320	*e*P	P	03 10 58.5	+0.4
LVZ	Lovozero	76.03	340	⇓*e*P	P	03 10 59.6	+1.2
LVZ				pmax	pmax		
	comp=E,10.0nm,0.8s						
LVZ				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.4						
GRUS	Gruza	76.07	314	⇑*i*P	P	03 10 53.3	-5.9
APA	Apatity	76.31	340	⇓*i*P	P	03 10 58.8	-1.2
APA				pmax	pmax		
	comp=Z,78nm,1.0s,mb5.6						
CRVS	Cervenica-Dubn	76.43	320	*e*P	P	03 11 03.4	+2.3
SUW	Suwalki	76.46	325	*e*P	P	03 11 00.0	-1.1
SUW				pmax	pmax		
	comp=Z,320nm,1.0s,mb6.2						
SUW	Suwalki	76.46	325	*e*P	P	03 11 00.2	-0.9
SUW				*e*	pP	03 11 05.1	-2.3
DIVS	Divcibare	76.62	314	⇑*i*P	P	03 11 01.6	-0.6
FINES	FINESS Array B	76.97	333	P	P	03 11 03.3	-0.5
	comp=Z,32nm,0.9s,mb5.2,baz=99,slow=6.5,SNR=35						
FINES	FINESS Array B	76.97	333	P	P	03 11 03.3	-0.5
FINES				pmax	pmax		
	comp=Z,32nm,0.9s						
KECS	Kecovo	76.99	319	*e*P	P	03 11 03.9	-0.3
KAF	Kangasniemi	77.07	333	*e*p	P	03 11 03.9	-0.4
	comp=Z,24nm,0.6s,mb5.3,baz=105,slow=5.3						
KAF	Kangasniemi	77.07	333	*e*P	P	03 11 03.9	-0.4
KAF				pmax	pmax		
	comp=Z,24nm,0.6s,mb5.3						
PKSN	Nyarlorinc	77.14	317	⇑*e*P	P	03 11 06.2	+1.2
NIE	Niedzica	77.27	320	*e*P	P	03 11 05.9	+0.2
PSZ	Piszkesteto	77.28	318	*e*P	P	03 11 06.0	+0.2
PSZ				pmax	pmax		
	comp=Z,120nm,1.3s,mb5.7						
PSZ	Piszkesteto	77.28	318	*e*P	P	03 11 05.5	-0.4
	comp=Z,115nm,1.4s,mb5.6						
WAR	Warsaw	77.35	323	*e*P	P	03 11 10.5	+4.4
WAR				*e*		03 11 12.4	
OJC	Ojcow	77.73	321	*e*P	P	03 11 08.1	-0.1
SUR	Sutherland	77.94	236	*e*P	P	03 11 10.8	+1.0
	comp=Z,180nm,1.7s,mb5.7						
VYHS	Vyhne	78.08	319	*e*P	P	03 11 09.8	-0.3
RHK1	Bakonya	78.25	316	⇑*e*P	P	03 11 11.7	+0.6
SRO	Srobarova	78.32	318	*e*P	P	03 11 12.4	+0.9
KOLL	Kolacno	78.37	319	*e*P	P	03 11 11.7	-0.1
TIP	Timpagrande	78.43	309	*e*P	P	03 11 13.5	+1.2
OKC	Ostrava-Krasne	78.72	320	*e*P	P	03 11 13.7	0.0
RAC	Raciborz	78.73	320	*e*P	P	03 11 13.8	+0.1
SMOL	Smolenice	79.00	319	*e*P	P	03 11 15.6	+0.3
MORC	Moravsky Berou	79.10	320	*e*P	P	03 11 17.7	+1.9
MORC				pmax	pmax		
	comp=Z,890nm,2.4s,mb6.3						
ZST	Bratislava	79.18	318	*e*P	P	03 11 16.5	+0.3
MGR	Morigerati	79.44	310	*e*P	P	03 11 17.7	-0.1
SGO	Sicignano	79.66	310	*e*P	P	03 11 14.4	-4.6
ARCES	ARCESS Array B	79.74	341	P	P	03 11 19.3	+0.4
	comp=Z,30nm,0.6s,mb5.4,baz=86,slow=5.7,SNR=34						
ARCES	ARCESS Array B	79.74	341	P	P	03 11 19.3	+0.5
ARCES				pmax	pmax		
	comp=Z,30nm,0.6s						
ARCES	ARCESS Array B	79.74	341	P	P	03 11 19.3	+0.4
GKP	Gorka Klasztor	79.79	323	*e*P	P	03 11 19.3	-0.1
GKP				*e*	pP	03 11 24.2	-1.6
DPC	Dobruska-Polom	79.96	320	*e*P	P	03 11 20.9	+0.5
KSP	Ksiaz	80.04	321	*e*P	P	03 11 20.4	-0.4
KSP				*e*pP	pP	03 11 25.6	-1.6
KSP	Ksiaz	80.04	321	*e*P	P	03 11 21.4	+0.6
KSP				*e*	pP	03 11 26.4	-0.8
ARSA	Arzberg	80.13	317	⇑*i*P	P	03 11 21.7	+0.4
	comp=Z,93nm,1.9s,mb5.4						
UPC	Upice	80.17	321	*e*P	P	03 11 21.6	+0.1
BILL	Bilibino	80.32	21	*i* P	P	03 11 21.6	-0.3
BILL				pmax	pmax		
	comp=Z,79nm,2.0s,mb5.3						
BILL	Bilibino	80.32	21	*e*P	P	03 11 21.5	-0.5
	comp=Z,41nm,1.0s,mb5.3						
SGG	Gregorio Mates	80.42	311	*e*P	P	03 11 25.6	+2.6
FX1	Attu Island--F	80.67	37	*e*P	P	03 11 25.1	+1.0
MSC	Monte Massico	80.72	311	*e*P	P	03 11 25.4	+0.8
OBKA	Obir	80.72	316	⇑*i*P	P	03 11 25.0	+0.5
	comp=Z,81nm,1.6s,mb5.4						
SDI	San Donato	80.87	312	*e*P	P	03 11 25.9	+0.5
MOA	Molln	81.03	318	⇑*i*P	P	03 11 25.8	-0.3
	comp=Z,37nm,1.0s,mb5.3						
SYO	Syowa Base	81.04	197	⇑P	P	03 11 26.6	+0.9
SYO	Syowa Base	81.04	197	⇓PcP	PcP	03 11 33.8	+1.2
SYO	Syowa Base	81.04	197	⇓sP	sP	03 11 40.6	+6.4
PRU	Pruhonice	81.06	320	*e*P	P	03 11 25.7	-0.5
PVCC	Panska Ves	81.09	321	*e*P	P	03 11 26.6	+0.2
TRI	Trieste	81.20	316	*e*P	P	03 11 27.0	0.0
PTQR	Pietraquaria	81.20	312	*e*P	P	03 11 28.1	+1.0
AQU	L’Aquila	81.22	312	*e*P	P	03 11 28.2	+1.0
AQU				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.8						
AQU	L’Aquila	81.22	312	*e*P	P	03 11 27.9	+0.7
NRCA	Norcia	81.46	313	*e*P	P	03 11 28.4	-0.1
GEC2	GERESS Array S	81.50	319	*e*P	P	03 11 28.9	+0.4
GEC2				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.5						
GEC2	GERESS Array S	81.50	319	*e*P	P	03 11 28.9	+0.4
	comp=Z,51nm,0.9s,mb5.5						
GERES	GERESS Array B	81.50	319	P	P	03 11 28.8	+0.3
	comp=Z,80nm,1.1s,mb5.5,baz=114,slow=4.7,SNR=37						
GERES	GERESS Array B	81.50	319	P	P	03 11 28.8	+0.3
GERES				pmax	pmax		
	comp=Z,80nm,1.2s						
BRG	Berggiesshubel	81.52	321	*i* P	P	03 11 28.8	+0.2
BRG				*i*	pP	03 11 33.9	-1.1
BRG				pmax	pmax		
	comp=Z,71nm,1.2s,mb5.5						
BRG	Berggiesshubel	81.52	321	*i* P	P	03 11 28.8	+0.2
	comp=Z,71nm,1.1s,mb5.5						
BRG				*i*	pP	03 11 33.9	-1.1
PTCC	Patocco-Chiusa	81.54	316	*e*P	P	03 11 29.2	+0.4
KBA	Koelnbreinsper	81.59	317	⇑*i*P	P	03 11 28.6	-0.4
	comp=Z,49nm,1.4s,mb5.2						
KHC	Kasperske Hory	81.60	319	*e*P	P	03 11 28.9	-0.1
GMNA	Gemona	81.61	316	*e*P	P	03 11 28.9	-0.2
ERC	Erice	81.61	308	*e*P	P	03 11 30.5	+1.2
SNTG	Esanatoglia	81.61	313	*e*P	P	03 11 29.0	-0.3
ARV	Arcevia	81.63	313	*e*P	P	03 11 29.9	+0.6
MNS	Montasola	81.75	312	*e*P	P	03 11 30.3	+0.4
FSSB	Fossombrone	81.76	314	*e*P	P	03 11 29.8	-0.1
RUE	Ruedersdorf	81.78	322	*e*P	P	03 11 29.9	0.0
	comp=Z,226nm,1.4s,mb5.9						
FVI	Forni Avoltri	81.94	316	*e*P	P	03 11 30.9	0.0
TRO	Tromso	81.99	340	*e*P	P	03 11 29.4	-1.3
RSM	Repubblica di	82.01	314	*e*P	P	03 11 32.1	+0.8
WET	Wettzell	82.06	319	*e*P	P	03 11 31.8	+0.4
WET				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
WET	Wettzell	82.06	319	*e*P	P	03 11 31.8	+0.4
	comp=Z,28nm,1.0s,mb5.2						
CLL	Collm	82.15	321	*i* P	P	03 11 31.4	-0.4
CLL	Collm	82.15	321	P	P	03 11 31.4	-0.4
NKC	Novy Kostel	82.42	320	*e*P	P	03 11 33.4	+0.1
SFI	Santa Sofia	82.44	314	*e*P	P	03 11 34.4	+0.9
PGD	Poggio Sodo	82.53	314	*e*P	P	03 11 35.6	+1.7
RPZ	Rata Peaks	82.57	135	P	P	03 11 34.7	+0.5
	comp=Z,30nm,0.7s,mb5.5,baz=241,slow=3.4,SNR=14						
VMG	Vicchio	82.67	314	*e*P	P	03 11 36.4	+1.7
CTI	Castel Tesino	82.69	316	*e*P	P	03 11 35.5	+0.7
WTTA	Wattenberg	82.77	317	⇑*i*P	P	03 11 34.8	-0.3
	comp=Z,82nm,1.0s,mb5.7						
SEI	Scarperia	82.81	314	*e*P	P	03 11 36.5	+1.1
WATA	Walderalm	82.81	317	⇑*i*P	P	03 11 34.9	-0.5
	comp=Z,31nm,0.8s,mb5.4						
MOX	Moxa	82.98	320	*e*P	P	03 11 37.0	+0.8
MOX	Moxa	82.98	320	*i* P	P	03 11 37.0	+0.8
MOR8	Moi Rana	83.05	336	*e*P	P	03 11 35.8	-0.4
MOR8				AMb	AMB	03 11 38.2	
	comp=Z,115nm,1.4s,mb5.7						
MOR8				*e*sP	sP	03 11 48.3	+3.6
MOR8	Moi Rana	83.05	336	*e*P	P	03 11 35.8	-0.4
	comp=Z,115nm,1.4s,mb5.7						
SQTA	Sankt Quirin	83.06	317	⇓*i*P	P	03 11 36.3	-0.3
	comp=Z,24nm,0.6s,mb5.4						
ZCCA	Zocca	83.09	314	*e*P	P	03 11 39.5	+2.7
MOTA	Moosalm	83.13	317	⇑*i*P	P	03 11 36.5	-0.5
	comp=Z,31nm,0.9s,mb5.3						
GRA1	Grafenberg Arr	83.18	319	*e*P	P	03 11 37.8	+0.6
	comp=Z,42nm,1.0s,mb5.4						
GRF	Grafenberg Arr	83.18	319	*e*P	P	03 11 37.8	+0.6
GRF				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.4						
GRF	Grafenberg Arr	83.18	319	*e*P	P	03 11 37.8	+0.6
	comp=Z,42nm,1.0s,mb5.4						
BRMO	Bormio	83.60	316	*e*P	P	03 11 39.5	+0.1
LOF	Lofoten	83.65	338	*e*P	P	03 11 42.2	+3.0
LOF				AMb	AMB	03 11 50.0	
	comp=Z,158nm,1.6s,mb5.9						
LOF	Lofoten	83.65	338	*e*P	P	03 11 42.2	+3.0
	comp=Z,158nm,1.6s,mb5.9						
CLZ	Clausthal	83.82	322	*e*P	P	03 11 40.9	+0.4
	comp=Z,25nm,0.9s,mb5.3						
NSS	Namsos	83.89	334	*e*P	P	03 11 39.6	-0.9
NB2	NORSAR Subarra	83.93	331	P	P	03 11 40.1	-0.7
	comp=Z,92nm,1.4s,mb5.7,baz=91,slow=5.0						
NB2	NORSAR Subarra	83.93	331	P	P	03 11 40.1	-0.7
	baz=91,slow=5.3						
NOA	NORSAR Array B	83.93	331	P	P	03 11 40.6	-0.2
	comp=Z,15nm,0.9s,mb5.1,baz=95,slow=5.4,SNR=16						
NOA	NORSAR Array B	83.93	331	P	P	03 11 40.6	-0.2
NOA				pmax	pmax		
	comp=Z,15nm,0.9s						
BSEG	Bad Segeberg	83.96	324	*e*P	P	03 11 41.6	+0.5
BSEG				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.4						
DAVA	Damuels	83.96	317	⇑*i*P	P	03 11 41.6	+0.3
	comp=Z,66nm,0.9s,mb5.8						
NAO01	NORSAR Array S	84.07	331	*e*P	P	03 11 41.1	-0.4
	comp=Z,22nm,0.9s,mb5.3						
OSL	Oslo	84.09	330	*e*P	P	03 11 41.8	+0.2
VSL	Villasalto	84.16	309	*e*P	P	03 11 42.0	-0.5
	comp=Z,72nm,1.1s,mb5.7						
STU	Stuttgart	84.47	319	*e*P	P	03 11 44.2	+0.4
STU				pmax	pmax		
	comp=Z,290nm,2.1s,mb6.0						
STU	Stuttgart	84.47	319	*e*P	P	03 11 43.7	0.0
	comp=Z,293nm,2.1s,mb6.0						
PGF	Pioggiola	84.48	312	*e*P	P	03 11 44.1	+0.1
	comp=Z,154nm,1.3s,mb5.7						
VAI	Varese	84.70	316	*e*P	P	03 11 46.2	+1.2
MUD	Monsted U’grnd	84.73	326	*e*P	P	03 11 45.7	+0.8
MUD	Monsted U’grnd	84.73	326	*i* P	P	03 11 45.7	+0.8
BFO	Black Forest	85.03	318	*e*P	P	03 11 46.0	-0.6
BFO				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
BFO	Black Forest	85.03	318	*e*P	P	03 11 46.0	-0.6
	comp=Z,12nm,0.8s,mb5.1						
FIN	Finale Ligure	85.08	314	*e*P	P	03 11 47.5	+0.6
CDF	Champ du Feu	85.74	318	*e*P	P	03 11 49.8	-0.3
	comp=Z,118nm,1.7s,mb5.5						
MOL	Molde	85.74	332	*e*P	P	03 11 52.5	+2.7
MOL				AMb	AMB	03 11 54.8	
	comp=Z,140nm,1.3s,mb6.0						
MOL	Molde	85.74	332	*e*P	P	03 11 52.5	+2.7
	comp=Z,140nm,1.3s,mb6.0						
LPG	La Plagne	86.11	315	*e*P	P	03 11 52.3	+0.3
	comp=Z,67nm,0.9s,mb5.6						
FRF	La Foret Royal	86.21	313	*e*P	P	03 11 52.9	+0.3
	comp=Z,40nm,0.6s,mb5.5						
URZ	Urewera	86.22	129	P	P	03 11 52.9	+0.1
	comp=Z,79nm,1.0s,mb5.9,baz=26,slow=3.5,SNR=12						
BLS5	Blasjo	86.24	329	*e*P	P	03 11 54.6	+2.2
BLS5				AMb	AMB	03 12 01.2	
	comp=Z,62nm,1.7s,mb5.6						
BLS5	Blasjo	86.24	329	*e*P	P	03 11 54.6	+2.2
	comp=Z,62nm,1.7s,mb5.6						
HAU	Haudompre	86.36	318	*e*P	P	03 11 52.7	-0.5
	comp=Z,90nm,1.2s,mb5.6						
SMF	Signal de Mont	88.10	316	*e*P	P	03 12 01.6	-0.1
	comp=Z,100nm,1.3s,mb5.6						
VNDA	Vanda	88.31	168	P	P	03 12 02.6	+0.6
	comp=Z,12nm,0.8s,mb5.1,baz=293,slow=8.0,SNR=13						
VNDA	Vanda	88.31	168	P	P	03 12 02.7	+0.7
VNDA				pmax	pmax		
	comp=Z,12nm,0.9s						
MTLF	Montolieu	89.44	313	*e*P	P	03 12 08.1	0.0
	comp=Z,30nm,0.8s,mb5.4						
FLN	La Foliniere	90.86	319	*e*P	P	03 12 14.4	-0.2
	comp=Z,19nm,0.6s,mb5.3						
EBR	Ebro Roquetas	90.91	311	*e*P	P	03 12 16.0	+1.0
ESDC	Sonseca Array	94.43	310	P	P	03 12 31.7	+0.5
	comp=Z,3.0nm,0.6s,mb4.9,baz=61,slow=3.9,SNR=14						
SNAA	Sanae	95.30	198	P	P	03 12 30.3	-4.2
IMA	Indian Mountai	95.83	22	*e*P	P	03 12 40.0	+3.0
IMA				pmax	pmax		
	comp=Z,260nm,1.7s,mb6.4						
IMA	Indian Mountai	95.83	22	*e*P	P	03 12 38.3	+1.3
	comp=Z,262nm,1.7s,mb6.4						
DBIC	Dimbokro	98.83	277	P	P	03 12 52.1	+0.3
	comp=Z,1.8nm,0.8s,mb4.7,baz=93,slow=5.8,SNR=4.9						
DBIC	Dimbokro	98.83	277	P	P	03 12 52.1	+0.3
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ILAR	Eielson Array	98.95	22	P	P	03 12 51.7	+0.6
	comp=Z,1.3nm,0.7s,mb4.6,baz=291,slow=4.7,SNR=8.5						
ILAR				PKKPbc		03 29 20.9	
	comp=Z,4.3nm,1.1s,baz=181,slow=1.7,SNR=5.0						
ILAR	Eielson Array	98.95	22	P	P	03 12 51.7	+0.6
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,4.0nm,1.2s						
INK	Inuvik	101.39	16	P	P	03 13 03.9	+1.8
	comp=Z,2.6nm,1.0s,baz=312,slow=5.9,SNR=4.0						
INK	Inuvik	101.39	16	P	P	03 13 03.9	+1.8
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
RES	Resolute Bay	102.04	3	*e*P	Pdif	03 13 06.7	+1.7
RES	Resolute Bay	102.04	3	*e*Pdif	Pdif	03 13 06.0	+1.0
	comp=Z,18nm,0.9s						
YKA	Yellowknife Ar	110.88	14	PKiKP		03 17 44.3	
	comp=Z,1.2nm,0.6s,baz=334,slow=2.4,SNR=18						
YKA				PKKPbc		03 28 44.6	
	comp=Z,1.7nm,1.0s,baz=153,slow=3.5,SNR=6.1						
YKA	Yellowknife Ar	110.88	14	*i* PKIKP	PKPdf	03 17 44.3	-2.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
YKA	Yellowknife Ar	110.88	14	PKPdf	PKPdf	03 17 44.3	-2.3
YKA				PKKPbc		03 28 44.6	
FCC	Fort Churchill	117.87	5	*e*PKPdf	PKPdf	03 17 56.3	-3.9
EDM	Edmonton	119.15	19	PKIKP	PKPdf	03 18 00.5	-2.4
EDM	Edmonton	119.15	19	*e*PKPdf	PKPdf	03 18 00.2	-2.7
SCHQ	Schefferville	120.13	348	PKP	PKPdf	03 18 02.7	-2.0
	comp=Z,9.3nm,1.2s,baz=333,slow=4.5,SNR=5.1						
WALA	Waterton Lakes	122.45	22	*e*PKPdf	PKPdf	03 18 08.5	-0.8
MSO	Missoula	124.27	23	*e*PKPdf	PKPdf	03 18 09.8	-3.2
BMO	Blue Mountains	124.42	27	*e*PKIKP	PKPdf	03 18 11.8	-1.5
BMO	Blue Mountains	124.42	27	*e*PKPdf	PKPdf	03 18 10.8	-2.6
MOD	Modoc	125.16	31	*e*PKPdf	PKPdf	03 18 12.8	-2.0
HRY	Holter Researc	125.18	22	PKPdf	PKPdf	03 18 14.5	-0.3
HOPS	Hopland	125.64	36	*e*PKPdf	PKPdf	03 18 14.4	-1.5
ULM	Lac du Bonnet	126.04	8	PKP	PKPdf	03 18 14.5	-1.8
	comp=Z,8.8nm,0.7s,baz=1.6,slow=1.7,SNR=11						
NSHM	Saint Helena R	126.23	36	*e*PKPdf	PKPdf	03 18 15.0	-2.0
OHCM	Honcut	126.33	34	*e*PKPdf	PKPdf	03 18 14.8	-2.3
HLID	Hailey	126.72	26	*e*PKPdf	PKPdf	03 18 16.0	-1.7
YFT	Old Faithful	127.46	23	*e*PKPdf	PKPdf	03 18 19.4	+0.2
BMN	Battle Mountai	127.82	30	PKIKP	PKPdf	03 18 20.6	+0.6
BMN	Battle Mountai	127.82	30	*e*PKPdf	PKPdf	03 18 19.3	-0.8
CMB	Columbia Colle	127.84	35	PKIKP	PKPdf	03 18 18.7	-1.5
CMB	Columbia Colle	127.84	35	*e*PKPdf	PKPdf	03 18 18.2	-1.9
IMW	Indian Meadow	127.89	23	*e*PKPdf	PKPdf	03 18 19.1	-1.0
MOOW	Moose Ponds	128.09	23	*e*PKPdf	PKPdf	03 18 18.7	-1.8
SAO	San Andreas Ge	128.09	37	PKIKP	PKPdf	03 18 25.9	+5.2
TPAW	Teton Pass	128.22	23	*e*PKPdf	PKPdf	03 18 19.0	-1.7
LOHW	Long Hollow	128.26	23	*e*PKPdf	PKPdf	03 18 18.5	-2.3
WUWY	Wally Ulrich	128.26	23	*e*PKPdf	PKPdf	03 18 19.6	-1.2
SNOW	Snow King Moun	128.32	23	*e*PKPdf	PKPdf	03 18 20.1	-0.8
REDW	Red Top Meadow	128.37	23	*e*PKPdf	PKPdf	03 18 19.9	-1.1
ELK	Elko	128.56	29	PKIKP	PKPdf	03 18 21.7	+0.2
ELK	Elko	128.56	29	*e*PKPdf	PKPdf	03 18 19.7	-1.7
LRV	Little Rabbit	128.57	37	*e*PKPdf	PKPdf	03 18 19.9	-1.7
NVAR	Mina Array Bea	128.72	33	PKP	PKPdf	03 18 20.3	-1.5
	comp=Z,5.5nm,0.6s,baz=36,slow=1.9,SNR=20						
MNV	Mina	128.80	33	PKIKP	PKPdf	03 18 20.6	-1.4
MNV	Mina	128.80	33	*e*PKPdf	PKPdf	03 18 20.8	-1.2
HVU	Hansel Valley	128.87	26	PKIKP	PKPdf	03 18 21.8	-0.2
HVU	Hansel Valley	128.87	26	*e*PKPdf	PKPdf	03 18 20.3	-1.7
MTUM	Tungsten Hills	129.35	34	*e*PKPdf	PKPdf	03 18 21.5	-1.6
BW06	Boulder Array	129.38	23	*e*PKPdf	PKPdf	03 18 19.8	-3.2
PDAR	Pinedale Array	129.38	23	PKP	PKPdf	03 18 20.9	-2.1
	comp=Z,5.1nm,0.6s,baz=120,slow=1.8,SNR=18						
SPUT	South Promonto	129.40	26	*e*PKPdf	PKPdf	03 18 20.4	-2.7
BGU	Big Grassy Mou	129.45	27	*e*PKPdf	PKPdf	03 18 20.5	-2.6
HWUT	Hardware Ranch	129.53	25	*e*PKPdf	PKPdf	03 18 20.9	-2.4
TPH	Tonopah	129.56	32	PKIKP	PKPdf	03 18 23.8	+0.4
TPH	Tonopah	129.56	32	*e*PKPdf	PKPdf	03 18 22.1	-1.4
NLU	North Lily Min	130.66	27	*e*PKPdf	PKPdf	03 18 23.1	-2.4
DAC	Darwin (Calif)	130.66	34	P	Pdif	03 15 11.5	-0.3
DAC	Darwin (Calif)	130.66	34	*e*PKPdf	PKPdf	03 18 25.4	-0.2
TPNV	Topopah Spring	130.92	33	PKIKP	PKPdf	03 18 25.4	-0.6
TPNV	Topopah Spring	130.92	33	*e*PKPdf	PKPdf	03 18 25.3	-0.7
RWWY	Rawlins	131.19	22	*e*PKPdf	PKPdf	03 18 24.9	-1.5
MVU	Marysvale	131.76	28	*e*PKPdf	PKPdf	03 18 26.4	-1.3
MSU	Marysvale	131.77	28	PKIKP	PKPdf	03 18 25.9	-1.7
MSU	Marysvale	131.77	28	*e*PKPdf	PKPdf	03 18 25.7	-1.9
PHWY	Pilot Hill	132.16	20	*e*PKPdf	PKPdf	03 18 24.1	-4.2
NEN	Nelson	132.64	33	*e*PKPdf	PKPdf	03 18 27.8	-1.6
PFO	Pinyon Flat Ob	133.22	36	PKIKP	PKPdf	03 18 35.9	+5.4
PFO	Pinyon Flat Ob	133.22	36	*e*PKPdf	PKPdf	03 18 25.2	-5.3
PV10	Paradox Valley	133.30	25	*e*PKPdf	PKPdf	03 18 29.5	-0.9

ISCO	Idaho Springs	133.43	21	*e*PKIKP	PKPdf	03 18 29.8	-0.9
ISCO	Idaho Springs	133.43	21	*e*PKPdf	PKPdf	03 18 29.3	-1.3
PV01	Paradox Valley	133.70	25	*e*PKPdf	PKPdf	03 18 27.6	-3.6
ACSO	Alum Creek Sta	136.73	357	*e*PKPdf	PKPdf	03 18 36.3	-0.3
ANMO	Albuquerque	137.29	26	PKhKP		03 18 24.8	
	comp=Z,1.5nm,0.9s,baz=67,slow=6.7,SNR=3.2						
ANMO				PKP	PKPdf	03 18 36.0	-1.9
	comp=Z,3.3nm,0.8s,baz=304,slow=1.2,SNR=6.6						
ANMO	Albuquerque	137.29	26	*e*PKIKP	PKPdf	03 18 38.9	+1.0
ANMO	Albuquerque	137.29	26	PKP		03 18 24.8	
ANMO				*e*PKPdf	PKPdf	03 18 36.1	-1.8
CCM	Cathedral Cave	138.63	7	*e*PKIKP	PKPdf	03 18 44.0	+3.7
CCM	Cathedral Cave	138.63	7	*e*PKPpre		03 18 30.6	
WMOK	Wichita Mounta	140.29	17	*e*PKIKP	PKPdf	03 18 35.6	-7.8
WMOK	Wichita Mounta	140.29	17	*e*PKPpre		03 18 31.9	
BDFB	Brasilia	141.01	249	PKhKP		03 18 36.2	
	comp=Z,2.8nm,0.9s,baz=135,slow=1.4,SNR=3.7						
BDFB	Brasilia	141.01	249	*i* PKHKP		03 18 36.2	
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.9s						
UALR	University of	141.71	9	*e*PKPpre		03 18 38.9	
LTX	Lajitas	143.31	27	*e*PKIKP	PKPdf	03 18 45.3	-3.5
LTX	Lajitas	143.31	27	*e*PKPdf	PKPdf	03 18 46.0	-2.8
TXAR	Lajitas Array	143.31	27	PKhKP		03 18 43.8	
	comp=Z,3.0nm,0.5s,baz=264,slow=0.5,SNR=27						
HKT	Hockley	145.62	16	PKIKP	PKPdf	03 18 53.0	+0.2
HKT	Hockley	145.62	16	*e*PKPdf	PKPdf	03 18 49.9	-2.9
RPN	Rapa Nui	147.09	139	*e*PKPbc	PKPdf	03 18 56.2	+0.7
SJG	San Juan	151.46	319	PKPbc	PKPdf	03 19 05.2	+2.8
	comp=Z,7.7nm,0.7s,baz=34,slow=3.6,SNR=3.8						
SJG	San Juan	151.46	319	PKIKP	PKPdf	03 19 05.2	+2.7
SJG				pmax	pmax		
	comp=Z,8.0nm,0.7s						
SJG	San Juan	151.46	319	*e*PKPdf	PKPdf	03 19 02.5	0.0
LVC	Limon Verde	154.82	219	PKP	PKPdf	03 19 07.0	0.0
	comp=Z,4.4nm,0.8s,baz=73,slow=5.8,SNR=3.5						
LVC				PKPbc	PKPdf	03 19 13.4	+6.4
	comp=Z,7.1nm,0.8s,baz=250,slow=4.8,SNR=5.7						
LVC	Limon Verde	154.82	219	*e*PKPdf	PKPdf	03 19 06.8	-0.2
LPAZ	La Paz	158.46	232	PKP	PKPdf	03 19 11.2	-0.8
	comp=Z,5.7nm,0.8s,baz=173,slow=2.3,SNR=6.0						
LPAZ				PKPab	PKPab	03 19 45.4	+0.4
	comp=Z,17nm,0.9s,baz=90,slow=2.2,SNR=9.3						
LPAZ	La Paz	158.46	232	PKIKP	PKPdf	03 19 11.2	-0.8
LPAZ						03 19 45.4	
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,17nm,0.9s						
LPAZ	La Paz	158.46	232	*e*PKPdf	PKPdf	03 19 10.8	-1.1
SDV	Santo Domingo	160.87	309	PKP	PKPdf	03 19 12.7	-2.0
	comp=Z,2.8nm,0.7s,baz=298,slow=4.6,SNR=3.1						
SDV				PKPab	PKPab	03 19 54.8	-0.7
	comp=Z,14nm,0.8s,baz=39,slow=6.0,SNR=6.5						
ROSC	El Rosal	166.21	305	PKP	PKPdf	03 19 18.0	-1.9
	comp=Z,7.1nm,0.8s,baz=100,slow=22,SNR=5.4						
OTAV	Otavalo	172.10	295	*e*PKPdf	PKPdf	03 19 23.0	-0.5

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*CSEM **26** 03:02:34.0, 8.34N×92.93E, h33^{km}, mb5.6*
*IDC **26** 03:02:34.2±0.5, 8.67N×92.32E, mb5.1/24, mb1 5.2/25, mb1mx5.2/27, ML4.7/1, Error ellipse: s-maj=20.3km s-min=13.2km az=47.0*
*NEIC **26** 03:02:38.1±0.3, 8.62N×92.33E, h30^{km}, mb5.5/28, Error ellipse: s-maj=9.9km s-min=7.8km az=52.0*
ISC 26 03:02:36.1±0.3, **8.69N**±0.06×**92.49E**±0.06, **h30^{km}, n171,** σ**1^{s}08**/150, **mb5.2**/52, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.56	32	P	P	03 05 16.0	-6.3
CMAR	Chiang Mai Arr	11.56	32	Pn	P	03 05 20.8	-1.5
	1.4nm,0.3s,baz=230,slow=14,SNR=4.6						
CMAR				Sn	S	03 07 22.4	-8.9
	baz=183,slow=30,SNR=4.6						
CAL	Calcutta	14.34	344	*e*	P	03 06 06.3	+6.9
SHL	Shillong	16.80	358	*e*P	P	03 06 26.3	-4.7
SHL				*e*		03 06 31.8	
	comp=Z,157nm,1.4s						
AKL	Akola	19.13	310	*e*P	P	03 06 54.7	-5.0
AKL				*e*		03 07 02.1	
	comp=Z,228nm,1.6s						
GOA	Goa	19.46	292	*e*P	P	03 07 02.6	-0.8
LSA	Lhasa	20.94	357	*e*P	P	03 07 20.2	+1.2
NDI	New Delhi	24.54	326	*e*P	P	03 07 48.9	-5.7
NDI				*e*		03 07 58.1	
	comp=Z,243nm,1.0s						
ENH	Enshi	26.72	34	*e*P	P	03 08 12.4	-2.5
	comp=Z,23nm,0.6s,mb4.9						
ENH				*e*	pP	03 08 20.4	-3.4
SONM	Songino Array	40.76	14	P	P	03 10 17.8	+1.7
	comp=Z,12nm,0.8s,mb4.6,baz=192,slow=8.6,SNR=3.8						
SONM				PcP	PcP	03 12 20.5	+2.8
	comp=Z,12nm,1.0s,baz=180,slow=4.9,SNR=4.4						
ULN	Ulaanbaatar	40.95	15	P	P	03 10 20.9	+3.2
	comp=Z,4.9nm,0.6s,mb4.3						
HASS	Wahat al Ahsa’	43.88	297	P	P	03 10 42.1	+0.2
ZAL	Zalesovo	45.55	354	P	P	03 10 56.3	+1.4
	comp=Z,13nm,0.9s,mb4.8,baz=293,slow=5.9,SNR=4.6						
RYDS	Riyadh	46.37	295	P	P	03 11 03.1	+1.2
MZLS	Mizel	47.62	295	P	P	03 11 12.4	+0.6
NWAO	Narrogin (SRO)	47.62	152	P	P	03 11 14.1	+2.4
	comp=Z,17nm,0.7s,mb5.2,baz=319,slow=8.8,SNR=5.2						
NWAO	Narrogin (SRO)	47.62	152	P	P	03 11 14.1	+2.4
BRVK	Borovoye	47.77	342	*e*P	P	03 11 12.9	+0.4
	comp=Z,3.4nm,0.5s,mb4.6						
CHKZ	Chkalovo	48.20	343	*e*P	P	03 11 14.7	-1.1
	comp=Z,40nm,1.0s,mb5.4						
TATS	Tathlith	48.59	288	P	P	03 11 19.0	-0.3
AFFS	‘Afif	49.59	294	P	P	03 11 28.0	+1.0
FRSS	Farasan al Kab	49.68	285	P	P	03 11 28.0	+0.3
NAMS	An Nimas	49.75	288	P	P	03 11 29.2	+1.0
WRAB	Tennant Creek	50.06	125	P	P	03 11 29.3	-1.3
	comp=Z,14nm,0.5s,mb5.3						
WRAB				*e*		03 11 35.9	
BLJS	Baljurashi	50.38	289	P	P	03 11 34.0	+1.0
HILS	Ha’il	51.28	298	P	P	03 11 40.7	+0.9
ASAR	Alice Springs	51.69	129	P	P	03 11 44.1	+1.2
	comp=Z,11nm,0.7s,mb4.9,baz=306,slow=7.2,SNR=4.9						
GNI	Garni	52.70	315	P	P	03 11 51.2	+0.9
	comp=Z,14nm,0.7s,mb5.0,baz=168,slow=6.3,SNR=3.8						
GNI	Garni	52.70	315	*e*P	P	03 11 49.9	-0.5
YNBS	Yanbu‘ al Bahr	54.18	294	P	P	03 12 01.8	+0.4
ARU	Arti	54.51	338	*e*P	P	03 12 04.4	+1.0
UMJS	Umm Lajj	54.91	295	P	P	03 12 07.5	+0.8
KIV	Kislovodsk	55.62	318	*e*P	P	03 12 11.7	+0.1
KMBO	Kilima Mbogo	55.90	263	P	P	03 12 13.4	-0.7
	comp=Z,17nm,0.8s,mb5.1,baz=57,slow=9.8,SNR=12						
KMBO	Kilima Mbogo	55.90	263	*e*P	P	03 12 12.8	-1.2
TBKS	Tabuk	56.00	298	P	P	03 12 16.0	+1.4
ASF	Jabal al Asfar	56.41	303	P	P	03 12 18.1	+0.6
	comp=Z,32nm,1.2s,mb5.2,baz=334,slow=2.4,SNR=5.9						
JMQS	Jabal Moqyreh	56.69	299	P	P	03 12 20.2	+0.7
MALT	Malatya	56.70	310	*e*P	P	03 12 19.1	-0.4
	comp=Z,30nm,1.0s,mb5.3						
AYUS	‘Aynunah	57.11	298	P	P	03 12 23.3	+0.7
BDAS	Al Bad‘	57.29	298	P	P	03 12 24.4	+0.5
PMG	Port Moresby	57.33	107	P	P	03 12 24.0	-0.3
	comp=Z,23nm,0.8s,mb5.3,baz=7.5,slow=6.8,SNR=5.0						
JMOS	Jabal al Moall	57.40	299	P	P	03 12 25.0	+0.5
ALWS	Ilw as Safayha	57.45	299	P	P	03 12 25.2	+0.2
HAQS	Haql	57.53	299	P	P	03 12 26.0	+0.5
EIL	Elat	57.61	300	P	P	03 12 26.1	+0.1
	comp=Z,31nm,0.9s,mb5.3,baz=66,slow=7.4,SNR=7.0						
EIL	Elat	57.61	300	*e*P	P	03 12 26.0	0.0
CSS	Prodhromos	59.88	305	*e*P	P	03 12 41.0	-0.7
CTAO	Charters Tower	60.13	119	P	P	03 12 40.3	-3.3
	comp=Z,1.8nm,0.5s,mb4.4						
BRTR	Keskin Array B	60.66	311	P	P	03 12 45.5	-1.5
	comp=Z,20nm,0.8s,mb5.3,baz=123,slow=7.7,SNR=12						
STKA	Stephens Creek	61.85	133	P	P	03 12 56.1	+1.0
	comp=Z,20nm,0.9s,mb5.2,baz=302,slow=9.9,SNR=5.1						
STKA	Stephens Creek	61.85	133	*e*P	P	03 12 53.2	-1.9
MBAR	Mbarara	62.20	265	*e*P	P	03 12 55.6	-2.1
	comp=Z,69nm,1.5s,mb5.6						
ISP	Isparta	62.66	308	*e*P	P	03 12 59.9	-0.6
OBN	Obninsk	63.83	328	*e*P	P	03 13 07.3	-0.6
AKASG	Malin Array Be	66.51	322	P	P	03 13 23.6	-1.6
	comp=Z,19nm,0.8s,mb5.2,baz=90,slow=4.8,SNR=10						
IDI	Anoyia	66.77	305	P	P	03 13 26.8	-0.4
	comp=Z,37nm,0.7s,mb5.5,baz=84,slow=7.2,SNR=8.2						
GVD	Gavdhos	67.38	304	*e*P	P	03 13 30.2	-0.9
MLR	Muntele Rosu	67.45	316	P	P	03 13 31.7	+0.4
	comp=Z,59nm,0.9s,mb5.6,baz=183,slow=2.0,SNR=11						
MLR	Muntele Rosu	67.45	316	P	P	03 13 31.7	+0.3
LSZ	Lusaka	68.01	250	*e*P	P	03 13 32.5	-2.7
	comp=Z,12nm,0.9s,mb4.9						
SRS	Serrai	68.45	311	*e*P	P	03 13 27.3	-10
LIT	Litokhoron	69.17	310	*e*P	P	03 13 32.2	-10
AGG	Agios Georgios	69.18	308	*e*P	P	03 13 38.6	-3.6
GRG	Griva	69.33	310	*e*P	P	03 13 33.7	-9.3
FNA	Florina	70.08	310	*e*P	P	03 13 45.7	-1.9
KWP	Kalwaria	70.36	320	*e*P	P	03 13 49.2	+0.1
KOLS	Kolonicke sedl	70.52	319	*e*P	P	03 13 50.2	0.0
SUW	Suwalki	70.89	324	*e*P	P	03 13 51.5	-0.9
CRVS	Cervenica-Dubn	71.05	319	*e*P	P	03 13 55.4	+2.0
FINES	FINESS Array B	71.23	332	P	P	03 13 53.8	-0.5
	comp=Z,13nm,0.9s,mb4.9,baz=79,slow=9.7,SNR=5.8						
KAF	Kangasniemi	71.33	333	*e*p	P	03 13 53.2	-1.6
DIVS	Divcibare	71.44	314	*e*P	P	03 13 50.9	-5.0
KECS	Kecovo	71.62	318	*e*P	P	03 13 55.5	-1.3
OJC	Ojcow	72.31	320	*e*P	P	03 14 00.9	0.0
VYHS	Vyhne	72.72	318	*e*P	P	03 14 02.0	-1.3
SRO2	Moca	72.93	317	*e*P	P	03 14 04.6	0.0
SRO	Srobarova	72.99	317	*e*P	P	03 14 05.3	+0.4
LBTB	Lobatse	73.21	241	*e*P	P	03 14 05.5	-1.2
OKC	Ostrava-Krasne	73.31	319	*e*P	P	03 14 06.8	0.0
SMOL	Smolenice	73.65	318	*e*P	P	03 14 08.7	-0.1
ZST	Bratislava	73.84	318	*e*P	P	03 14 09.7	-0.1
ARCES	ARCESS Array B	73.95	340	P	P	03 14 11.0	+0.9
	comp=Z,12nm,1.0s,mb4.8,baz=111,slow=4.7,SNR=4.8						
GKP	Gorka Klasztor	74.27	323	*e*P	P	03 14 12.3	+0.1
DPC	Dobruska-Polom	74.54	320	*e*P	P	03 14 14.9	+1.1
KSP	Ksiaz	74.60	320	*e*P	P	03 14 06.5	-7.7
KSP				*e*	pP	03 14 15.0	-8.6
KSP	Ksiaz	74.60	320	*e*P	P	03 14 15.3	+1.1
BOSA	Boshof	74.64	237	*e*P	P	03 14 14.0	-0.9
	comp=Z,13nm,0.6s,mb5.0						
UPC	Upice	74.75	320	*e*P	P	03 14 15.8	+0.7
PRU	Pruhonice	75.65	319	*e*P	P	03 14 20.8	+0.5
PVCC	Panska Ves	75.67	320	*e*P	P	03 14 21.2	+0.9
BRG	Berggiesshubel	76.09	320	*i* P	P	03 14 22.4	-0.3
	comp=Z,67nm,1.1s,mb5.5						
GEC2	GERESS Array S	76.14	318	*e*P	P	03 14 23.6	+0.6
GERES	GERESS Array B	76.14	318	P	P	03 14 23.6	+0.6
	comp=Z,30nm,0.8s,mb5.3,baz=90,slow=5.3,SNR=14						
KHC	Kasperske Hory	76.23	318	*e*P	P	03 14 23.6	+0.1
RUE	Ruedersdorf	76.28	322	*e*P	P	03 14 24.4	+0.6
WET	Wettzell	76.69	318	*e*P	P	03 14 27.0	+0.9
CLL	Collm	76.70	321	*i* P	P	03 14 26.7	+0.6
	comp=Z,74nm,1.3s,mb5.5						
CLL	Collm	76.70	321	P	P	03 14 26.7	+0.6
	comp=Z,logA/T=1.8,mb5.5						
NKC	Novy Kostel	77.01	320	*e*P	P	03 14 28.9	+1.0
MOX	Moxa	77.55	320	*i* P	P	03 14 31.6	+0.7
MOX	Moxa	77.55	320	*e*P	P	03 14 31.6	+0.7
FUR	Furstenfeldbru	77.73	317	*e*P	P	03 14 32.2	+0.3
GRA1	Grafenberg Arr	77.79	319	*e*P	P	03 14 33.6	+1.4
	comp=Z,139nm,1.2s,mb5.8						
GRF	Grafenberg Arr	77.79	319	*e*P	P	03 14 33.6	+1.4
	comp=Z,139nm,1.2s,mb5.8						
NB2	NORSAR Subarra	78.22	331	P	P	03 14 34.7	+0.4
	comp=Z,6.2nm,0.9s,mb4.5,baz=96,slow=5.3						
NOA	NORSAR Array B	78.22	331	P	P	03 14 34.9	+0.6
	comp=Z,14nm,1.0s,mb4.9,baz=94,slow=5.6,SNR=5.7						
NOA	NORSAR Array B	78.22	331	P	P	03 14 34.9	+0.6
MAIM		78.28	313	P	P	03 14 34.3	-0.7
CLZ	Clausthal	78.36	321	*e*P	P	03 14 36.2	+0.9
	comp=Z,54nm,1.0s,mb5.4						
NAO01	NORSAR Array S	78.37	330	*e*P	P	03 14 36.1	+1.0
BSEG	Bad Segeberg	78.43	323	*e*P	P	03 14 36.5	+0.9
BACM		78.58	313	P	P	03 14 36.8	+0.2
GRAM		78.58	314	P	P	03 14 36.5	-0.1
CODM		78.73	314	P	P	03 14 37.5	0.0
MAW	Mawson	79.00	191	P	P	03 14 39.4	+0.9
	comp=Z,3.7nm,0.7s,mb4.5,baz=331,slow=8.3,SNR=4.2						
STU	Stuttgart	79.11	318	*e*P	P	03 14 39.0	-0.5
PGF	Pioggiola	79.40	312	*e*P	P	03 14 39.0	-2.2
	comp=Z,228nm,1.5s,mb5.6						
SUR	Sutherland	79.46	235	*e*P	P	03 14 42.1	+0.5
PCP	Pian Castagno	79.66	314	P	P	03 14 41.7	-0.8
BFO	Black Forest	79.70	318	*e*P	P	03 14 43.2	+0.6
	comp=Z,32nm,1.0s,mb5.2						
FIN	Finale Ligure	79.92	313	P	P	03 14 44.2	+0.3
ORX	Oropa	80.02	315	P	P	03 14 43.1	-1.3
ROB	Roburent	80.16	313	P	P	03 14 45.4	+0.2
CDF	Champ du Feu	80.40	318	*e*P	P	03 14 45.4	-0.9
	comp=Z,50nm,1.0s,mb5.1						
ENR	Entracque	80.48	313	P	P	03 14 47.6	+0.7
STV	Sta Anna Valdi	80.55	313	P	P	03 14 48.7	+1.4
RSP	Reno Superiore	80.55	314	P	P	03 14 47.4	+0.1
BHB	Bricherasio	80.56	314	P	P	03 14 45.9	-1.4
LSD	Ceresole Reale	80.61	315	P	P	03 14 47.9	+0.4
PZZ	Prazzo	80.69	314	P	P	03 14 48.2	+0.1
LPG	La Plagne	80.89	315	*e*P	P	03 14 47.3	-1.7
	comp=Z,165nm,1.0s,mb5.6						
RRL	Cesana Torines	80.90	314	P	P	03 14 49.1	0.0
MBDF	Montbardon	80.92	314	*e*P	P	03 14 47.3	-1.9
	comp=Z,86nm,1.0s,mb5.3						
BNI	Bardonecchia	80.97	314	*e*P	P	03 14 48.6	-0.8
	comp=Z,116nm,1.1s,mb5.7						
HAU	Haudompre	81.03	317	*e*P	P	03 14 48.3	-1.4
	comp=Z,131nm,1.0s,mb5.5						
VIVF	Saint-Julien-l	82.40	314	*e*P	P	03 14 54.9	-2.0
	comp=Z,111nm,1.0s,mb5.4						
SMF	Signal de Mont	82.83	316	*e*P	P	03 14 57.2	-1.9
	comp=Z,145nm,1.2s,mb5.6						
SSF	Saint Saulge	83.02	316	*e*P	P	03 14 58.3	-1.8
	comp=Z,126nm,1.5s,mb5.4						
CAF	Calviac	84.24	314	*e*P	P	03 15 04.8	-1.5
	comp=Z,54nm,1.1s,mb5.3						
LDF	La Druitiere	85.28	318	*e*P	P	03 15 10.1	-1.3
	comp=Z,103nm,1.1s,mb5.6						
SYO	Syowa Base	85.70	197	SH		03 15 45.7	
RPZ	Rata Peaks	87.78	135	P	P	03 15 24.9	+1.1
	comp=Z,32nm,0.8s,mb5.6,baz=30,slow=6.5,SNR=5.8						
ESDC	Sonseca Array	89.45	310	P	P	03 15 33.0	+1.2
	comp=Z,7.8nm,0.7s,mb5.1,baz=60,slow=4.7,SNR=16						
ESLA	Sonseca Array	89.45	310	*e*P	P	03 15 32.6	+0.8
	comp=Z,5.3nm,1.0s,mb4.8						
ILAR	Eielson Array	94.60	22	P	P	03 15 57.6	+2.7
	comp=Z,3.1nm,0.8s,mb4.8,baz=303,slow=3.8,SNR=9.3						
DBIC	Dimbokro	96.22	278	P	P	03 16 04.7	+1.1
	comp=Z,14nm,0.7s,mb5.5,baz=78,slow=5.7,SNR=17						
DBIC	Dimbokro	96.22	278	*e*P	P	03 16 04.4	+0.8
RES	Resolute Bay	96.66	2	*e*P	P	03 16 02.5	-1.7
	comp=Z,20nm,1.0s,mb5.5						
INK	Inuvik	96.66	16	P	P	03 16 07.0	+2.6
	comp=Z,22nm,1.2s,mb5.5,baz=305,slow=5.6,SNR=4.0						
MOD	Modoc	121.37	28	*e*PKPdf	PKPdf	03 21 27.6	-4.4
HLID	Hailey	122.54	23	*e*PKPdf	PKPdf	03 21 32.4	-1.8
LOHW	Long Hollow	123.88	20	PKPdf	PKPdf	03 21 30.8	-6.0
SNOW	Snow King Moun	123.96	20	*e*PKPdf	PKPdf	03 21 32.9	-4.1
REDW	Red Top Meadow	124.01	20	*e*PKPdf	PKPdf	03 21 35.6	-1.5
PDAR	Pinedale Array	124.98	20	PKP	PKPdf	03 21 36.9	-2.1
	comp=Z,7.5nm,1.0s,baz=327,slow=1.2,SNR=6.4						
NVAR	Mina Array Bea	125.04	29	PKP	PKPdf	03 21 38.8	-0.5
	comp=Z,7.8nm,1.0s,baz=295,slow=1.7,SNR=7.4						
MNV	Mina	125.11	29	*e*PKPdf	PKPdf	03 21 36.1	-3.2
HWUT	Hardware Ranch	125.29	22	PKPdf	PKPdf	03 21 38.3	-1.3
MVU	Marysvale	127.71	24	*e*PKPdf	PKPdf	03 21 43.1	-1.3
MSU	Marysvale	127.72	24	*e*PKPdf	PKPdf	03 21 42.4	-2.0
KSU1	Kansas State U	131.71	9	*e*PKPdf	PKPdf	03 21 49.4	-2.5
TXAR	Lajitas Array	139.12	22	PKP	PKPdf	03 22 04.3	-1.6
	comp=Z,3.7nm,0.8s,baz=297,slow=2.8,SNR=4.0						
SJG	San Juan	146.03	322	PKPbc	PKPbc	03 22 15.9	+1.7
	comp=Z,11nm,0.6s,baz=37,slow=2.5,SNR=5.8						
PCRV	Puerto La Cruz	150.51	309	PKPbc	PKPdf	03 22 27.7	+2.0
	comp=Z,16nm,0.7s,baz=127,slow=3.5,SNR=8.1						
RPN	Rapa Nui	152.38	134	*e*PKPdf	PKPdf	03 22 23.4	-4.6
SDV	Santo Domingo	155.76	316	PKPab	PKPab	03 22 57.1	+0.1
	comp=Z,13nm,0.9s,baz=74,slow=1.3,SNR=5.7						
LVC	Limon Verde	157.41	230	PKPab	PKPab	03 23 04.2	+0.5
	comp=Z,13nm,0.8s,baz=66,slow=1.6,SNR=8.8						
LVC	Limon Verde	157.41	230	*e*PKPab	PKPab	03 23 03.6	-0.2
LPAZ	La Paz	159.64	246	PKPab	PKPab	03 23 12.8	-0.8
	comp=Z,18nm,1.0s,baz=109,slow=5.7,SNR=9.4						
LPAZ	La Paz	159.64	246	*e*PKPab	PKPab	03 23 13.2	-0.3

IDC 26 03:05:42.8±1.6, **2.02N**×**94.92E, mb4.8**/9, **mb1 5.0**/10, **mb1mx4.7**/18, **ML5.0**/1, **Error ellipse: s-maj=100.0km s-min=21.7km az=49.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.81	13	Pn	P	03 09 33.5	-7.8
	2.2nm,0.3s,baz=219,slow=11,SNR=4.7						
WRA	Warramunga Arr	44.40	121	P	P	03 13 55.2	-2.1
	9.5nm,0.5s,baz=299,slow=9.1,SNR=5.0						
ASAR	Alice Springs	45.71	126	P	P	03 14 06.3	-1.4
	5.8nm,0.6s,baz=297,slow=7.3,SNR=7.1						
ZAL	Zalesovo	52.42	352	P	P	03 14 56.8	-2.4
	10nm,0.4s,baz=280,slow=5.0,SNR=7.9						
BVAR	Borovoye Array	54.76	342	P	P	03 15 15.0	-1.4
	8.3nm,0.6s,baz=136,slow=9.5,SNR=6.7						
BRTR	Keskin Array B	66.88	313	P	P	03 16 31.5	-7.6
	4.4nm,0.8s,baz=121,slow=7.2,SNR=4.4						
AKASG	Malin Array Be	73.23	323	P	P	03 17 11.2	-6.4
	1.9nm,0.7s,baz=90,slow=4.4,SNR=6.4						
FINES	FINESS Array B	78.23	333	P	P	03 17 40.9	-4.8
	15nm,1.1s,baz=103,slow=6.4,SNR=3.9						
ARCES	ARCESS Array B	81.01	341	P	P	03 17 57.6	-2.9
	8.7nm,0.9s,baz=79,slow=6.2,SNR=4.0						
GERES	GERESS Array B	82.70	319	P	P	03 18 08.9	-0.8
	10nm,0.9s,baz=90,slow=5.3,SNR=7.7						
NOA	NORSAR Array B	85.19	331	P	P	03 18 21.0	-1.1
	3.8nm,0.9s,baz=94,slow=5.7,SNR=3.4						

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*BJI **26** 03:06:11.3, 8.25N×92.60E, h23^{km}, mb5.0*
*NEIC **26** 03:06:13.1±0.2, 8.19N×92.46E, mb5.1/20, Error ellipse: s-maj=8.6km s-min=5.9km az=53.0*
*IDC **26** 03:06:17.4±4.0, 8.25N×92.45E, h62^{km}±35^{km}, mb4.7/28, mb1 4.7/29, mb1mx4.7/30, ML5.0/1, Error ellipse: s-maj=17.0km s-min=10.3km az=45.0*
ISC 26 03:06:11.1±0.3, **8.14N**±0.05×**92.40E**±0.06, **h27^{km}, h27^{km}**±.6^{km}**:pP-P, n108,** σ**0^{s}97**/82, **mb5.0**/51, **1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.07	31	*e*P	P	03 09 06.9	+2.4
	37nm,0.6s						
CM31				*e*		03 09 14.7	
CMAR	Chiang Mai Arr	12.07	31	P	P	03 09 07.0	+2.5
	2.8nm,0.3s,baz=233,slow=15,SNR=14						
LSA	Lhasa	21.48	357	*e*P	P	03 11 00.6	+0.7
	61nm,0.6s,mb5.1						
GYA	Guiyang	22.70	35	P	P	03 11 08.3	-3.9
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
CD2	Chengdu	25.02	24	P	P	03 11 35.5	+0.9
CD2				AMB	AMB		
	comp=Z,90nm,0.6s,mb5.5						
ENH	Enshi	27.22	34	*e*P	P	03 11 53.4	-1.6
	comp=Z,27nm,0.6s,mb5.0						
GTA	Gaotai	31.84	11	P	P	03 12 35.8	-0.3
GTA				AP	pP	03 12 44.8	+0.8
GTA				XP	sP	03 12 48.8	+1.3
GTA				AMB	AMB		
	comp=Z,43nm,0.9s,mb5.3						
NJ2	Nanjing	34.21	42	*e*P	P	03 12 58.3	+1.5
HHC	Hu-ho-hao-te	36.77	25	*e*P	P	03 13 18.3	-0.1
HHC				AP	pP	03 13 24.8	-1.6
HHC				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.2						
AAK	Ala-Archa	37.80	338	*e*P	P	03 13 27.4	+0.3
	comp=Z,26nm,1.0s,mb4.9						
BJT	Baijiatuau	38.19	30	*e*P	P	03 13 30.9	+0.5
	comp=Z,26nm,0.8s,mb5.0						
MBWA	Marble Bar	39.60	138	*e*P	P	03 13 42.0	-0.3
	comp=Z,16nm,0.9s,mb4.7						
SONM	Songino Array	41.31	14	P	P	03 13 56.5	+0.4
	comp=Z,20nm,0.9s,mb4.7,baz=198,slow=8.6,SNR=11						
ULN	Ulaanbaatar	41.50	15	*e*P	P	03 13 57.7	+0.1
	comp=Z,7.8nm,0.5s,mb4.6						
CN2	Changchun	45.74	33	*e*P	P	03 14 30.5	-1.6
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
ZAL	Zalesovo	46.08	354	P	P	03 14 34.8	+0.2
	comp=Z,5.2nm,0.8s,mb4.5,baz=277,slow=7.3,SNR=3.4						
NWAO	Narrogin (SRO)	47.19	151	P	P	03 14 42.0	-1.7
	comp=Z,21nm,1.1s,mb5.0						
BVAR	Borovoye Array	48.20	342	P	P	03 14 50.8	-0.5
	comp=Z,22nm,1.0s,mb5.1,baz=143,slow=7.4,SNR=9.2						
BRVK	Borovoye	48.26	342	*e*P	P	03 14 51.4	-0.4
	comp=Z,33nm,1.1s,mb5.3						
CHKZ	Chkalovo	48.70	343	*e*P	P	03 14 54.9	-0.3
	comp=Z,72nm,1.1s,mb5.6						
WRA	Warramunga Arr	49.82	125	P	P	03 15 03.2	-1.0
	comp=Z,13nm,0.5s,mb5.3,baz=302,slow=9.0,SNR=12						
WRAB	Tennant Creek	49.83	125	*e*P	P	03 15 03.2	-1.1
	comp=Z,31nm,0.5s,mb5.6						
MAT	Matsushiro	50.27	49	P	P	03 15 07.5	+0.1
MAT	Matsushiro	50.27	49	*e*P	P	03 15 08.0	+0.6
ASAR	Alice Springs	51.41	129	P	P	03 15 15.2	-1.1
	comp=Z,12nm,0.7s,mb4.9,baz=303,slow=7.7,SNR=9.3						
ASAR				PcP	PcP	03 16 30.4	-0.4
	comp=Z,10.0nm,0.7s,baz=311,slow=3.4,SNR=7.5						
GNI	Garni	53.02	315	P	P	03 15 28.3	+0.1
	comp=Z,17nm,1.0s,mb4.9,baz=304,slow=12,SNR=3.2						
GNI	Garni	53.02	315	*e*P	P	03 15 27.9	-0.3
ARU	Arti	54.98	338	*e*P	P	03 15 41.8	-0.5
	comp=Z,55nm,0.9s,mb5.6						
KMBO	Kilima Mbogo	55.74	263	P	P	03 15 49.0	+0.6
	comp=Z,11nm,0.7s,mb5.0,baz=59,slow=11,SNR=25						
KMBO	Kilima Mbogo	55.74	263	*e*P	P	03 15 49.5	+1.1
KIV	Kislovodsk	55.97	318	*e*P	P	03 15 49.4	-0.3
	comp=Z,28nm,1.0s,mb5.2						
ASAJ	Asahikawa	56.35	42	P	P	03 15 52.9	+0.5
	comp=Z,8.2nm,0.7s,mb4.9,baz=252,slow=16,SNR=3.4						
ASF	Jabal al Asfar	56.63	303	P	P	03 15 54.8	+0.2
	comp=Z,5.5nm,0.7s,mb4.7,baz=310,slow=7.0,SNR=5.5						
PMG	Port Moresby	57.26	107	P	P	03 15 59.0	-0.3
	comp=Z,13nm,0.6s,mb5.1,baz=252,slow=4.1,SNR=6.6						
EIL	Elat	57.80	300	*e*P	P	03 16 03.4	+0.6
CTA	Charters Tower	59.94	119	P	P	03 16 17.5	-0.3
	comp=Z,6.3nm,0.8s,mb4.7,baz=300,slow=8.4,SNR=3.5						
BRTR	Keskin Array B	60.95	311	P	P	03 16 22.7	-1.8
	comp=Z,5.6nm,0.8s,mb4.7,baz=133,slow=6.3,SNR=6.8						
BRTR	Keskin Array B	60.95	311	P	P	03 16 22.7	-1.8
STKA	Stephens Creek	61.54	133	P	P	03 16 28.2	-0.3
	comp=Z,12nm,0.6s,mb5.2,baz=317,slow=7.0,SNR=11						
STKA	Stephens Creek	61.54	133	*e*P	P	03 16 27.8	-0.7
ISP	Isparta	62.92	308	*e*P	P	03 16 36.4	-1.2
	comp=Z,12nm,0.8s,mb5.1						
AKASG	Malin Array Be	66.88	322	P	P	03 17 01.0	-2.1
	comp=Z,6.2nm,0.8s,mb4.7,baz=84,slow=4.8,SNR=9.0						
IDI	Anoyia	67.00	305	P	P	03 17 03.8	-0.4
	comp=Z,10nm,0.7s,mb5.0,baz=96,slow=8.2,SNR=7.3						
LSZ	Lusaka	67.74	250	*e*P	P	03 17 09.8	+0.7
	comp=Z,11nm,0.7s,mb5.0						
MLR	Muntele Rosu	67.78	316	P	P	03 17 09.0	+0.1
	comp=Z,16nm,0.8s,mb5.1,baz=156,slow=5.0,SNR=8.7						
SUW	Suwalki	71.29	324	*e*P	P	03 17 28.1	-2.1
SUW				*e*	pP	03 17 36.8	-1.7
FINES	FINESS Array B	71.68	332	P	P	03 17 31.4	-1.0
	comp=Z,40nm,1.2s,mb5.2,baz=85,slow=5.4,SNR=16						
FINES	FINESS Array B	71.68	332	P	P	03 17 31.4	-1.0
KAF	Kangasniemi	71.78	333	*e*p	P	03 17 31.5	-1.5
	comp=Z,6.4nm,0.5s,mb4.8,baz=106,slow=5.7						
LBTB	Lobatse	72.86	241	*e*P	P	03 17 40.9	+0.7
OKC	Ostrava-Krasne	73.67	320	*e*P	P	03 17 43.9	-0.5
OKC				*e*pP	pP	03 17 52.8	0.0
BOSA	Boshof	74.27	237	*e*P	P	03 17 48.4	+0.1
ARCES	ARCESS Array B	74.44	340	P	P	03 17 48.3	-0.1
	comp=Z,14nm,0.6s,mb5.1,baz=96,slow=5.2,SNR=21						
ARCES	ARCESS Array B	74.44	340	P	P	03 17 48.3	-0.1
DPC	Dobruska-Polom	74.90	320	*e*P	P	03 17 51.7	+0.3
DPC				*e*pP	pP	03 18 00.0	+0.1
KSP	Ksiaz	74.96	320	*e*P	P	03 17 51.4	-0.4
KSP				*e*	pP	03 18 00.1	-0.1
UPC	Upice	75.11	320	*e*P	P	03 17 52.7	0.0
UPC				*e*pP	pP	03 18 00.9	-0.2
PRU	Pruhonice	76.01	319	*e*P	P	03 17 57.8	0.0
PRU				*e*pP	pP	03 18 06.1	-0.1
BRG	Berggiesshubel	76.45	320	*i* P	P	03 18 00.4	+0.2
	comp=Z,28nm,1.3s,mb5.0						
BRG				*i*		03 18 21.1	
GERES	GERESS Array B	76.48	318	P	P	03 18 00.5	0.0
	comp=Z,20nm,1.1s,mb5.0,baz=95,slow=5.7,SNR=13						
GERES	GERESS Array B	76.48	318	P	P	03 18 00.5	0.0
KHC	Kasperske Hory	76.58	319	*e*P	P	03 18 00.8	-0.2
KHC				*e*pP	pP	03 18 09.4	-0.1
RUE	Ruedersdorf	76.66	322	*e*P	P	03 18 01.1	-0.3
	comp=Z,40nm,1.1s,mb5.3						
CLL	Collm	77.07	321	*e*P	P	03 18 04.0	+0.3
CLL				*e*	pP	03 18 12.0	-0.1
CLL	Collm	77.07	321	P	P	03 18 04.0	+0.3
CLL				*e**PP	pP	03 18 12.0	-0.1
CLL				*e*		03 18 24.0	

NKC	Novy Kostel	77.37	320	eP	P	03 18 05.8	+0.5
NKC				epP	pP	03 18 14.3	+0.5
FX1	Attu Island--F	77.98	38	P	P	03 18 08.0	-0.6
	comp=Z,22nm,0.4s,mb5.4,baz=100,slow=2.3,SNR=8.5						
MAW	Mawson	78.45	191	P	P	03 18 13.0	+2.0
	comp=Z,9.8nm,0.6s,mb4.9,baz=14,slow=5.0,SNR=15						
MAW	Mawson	78.45	191	eP	P	03 18 12.7	+1.8
	comp=Z,12nm,0.6s,mb5.0						
NB2	NORSAR Subarra	78.66	331	P	P	03 18 10.9	-1.3
	comp=Z,5.3nm,0.9s,mb4.5,baz=98,slow=5.0						
NOA	NORSAR Array B	78.66	331	P	P	03 18 11.5	-0.7
	comp=Z,6.1nm,0.8s,mb4.6,baz=94,slow=5.5,SNR=8.5						
NOA	NORSAR Array B	78.66	331	P	P	03 18 11.5	-0.7
SUR	Sutherland	79.07	235	eP	P	03 18 17.6	+2.5
LPG	La Plagne	81.21	315	eP	P	03 18 26.5	+0.3
	comp=Z,43nm,0.8s,mb5.1						
SYO	Syowa Base	85.16	197	⇑P	P	03 18 47.5	+1.7
RPZ	Rata Peaks	87.45	135	P	P	03 18 59.1	+1.3
	comp=Z,34nm,0.8s,mb5.6,baz=55,slow=2.8,SNR=9.3						
ESDC	Sonseca Array	89.73	310	P	P	03 19 09.4	+0.7
	comp=Z,2.8nm,0.5s,mb4.8,baz=56,slow=3.8,SNR=15						
URZ	Urewera	90.85	128	P	P	03 19 14.1	+0.2
	comp=Z,4.9nm,0.5s,mb5.1,baz=227,slow=4.1,SNR=4.3						
ILAR	Eielson Array	95.14	22	P	P	03 19 34.2	+1.3
	comp=Z,1.5nm,1.0s,mb4.4,baz=308,slow=4.9,SNR=5.9						
DBIC	Dimbokro	96.20	278	P	P	03 19 40.6	+1.6
	comp=Z,9.6nm,0.8s,mb5.3,baz=59,slow=4.2,SNR=12						
DBIC	Dimbokro	96.20	278	eP	P	03 19 40.9	+1.8
INK	Inuvik	97.21	16	P	P	03 19 43.0	+0.8
	comp=Z,6.9nm,1.0s,mb5.0,baz=321,slow=4.2,SNR=8.7						
YKA	Yellowknife Ar	106.56	13	PP	PP	03 24 45.5	-6.9
	comp=Z,1.3nm,0.9s,baz=329,slow=7.1,SNR=4.8						
RAR	Rarotonga	109.47	110	Pdiff	Pdif	03 20 39.4	+1.5
	comp=Z,8.6nm,0.5s,baz=57,slow=8.7,SNR=3.1						
ULM	Lac du Bonnet	121.41	6	PKP	PKPdf	03 25 03.7	-3.4
	comp=Z,3.6nm,0.6s,baz=22,slow=2.7,SNR=5.5						
HLID	Hailey	123.08	23	ePKPdf	PKPdf	03 25 05.7	-4.8
LOHW	Long Hollow	124.42	20	ePKPdf	PKPdf	03 25 10.8	-2.2
REDW	Red Top Meadow	124.56	20	ePKPdf	PKPdf	03 25 10.2	-3.2
PDAR	Pinedale Array	125.52	20	PKP	PKPdf	03 25 09.6	-5.7
	comp=Z,3.0nm,0.7s,baz=120,slow=1.1,SNR=11						
PDAR	Pinedale Array	125.52	20	PKP	PKPdf	03 25 09.6	-5.7
NVAR	Mina Array Bea	125.56	30	PKP	PKPdf	03 25 13.8	-1.6
	comp=Z,6.2nm,0.7s,baz=324,slow=0.9,SNR=17						
MNV	Mina	125.63	29	ePKPdf	PKPdf	03 25 13.7	-1.9
MVU	Marysvale	128.25	25	ePKPdf	PKPdf	03 25 19.1	-1.5
ANMO	Albuquerque	133.58	22	PKP	PKPdf	03 25 28.1	-2.7
	comp=Z,3.0nm,0.7s,baz=351,slow=0.6,SNR=8.2						
ANMO	Albuquerque	133.58	22	ePKPdf	PKPdf	03 25 27.9	-2.9
TXAR	Lajitas Array	139.66	22	PKhKP		03 25 35.2	
	comp=Z,2.0nm,1.0s,baz=29,slow=0.6,SNR=4.6						
TXAR				PKP	PKPdf	03 25 40.4	-1.7
	comp=Z,2.8nm,0.8s,baz=192,slow=0.6,SNR=17						
TXAR	Lajitas Array	139.66	22	PKP	PKPdf	03 25 35.2	-6.9
TXAR				PKP	PKPdf	03 25 40.4	-1.7
BAO	Brasilia Array	140.59	255	PKP		03 25 30.8	
BDFB	Brasilia	140.61	255	PKP	PKPdf	03 25 42.4	-1.8
	comp=Z,3.1nm,0.7s,baz=141,slow=1.7,SNR=5.2						
SJG	San Juan	146.40	321	PKPbc	PKPbc	03 25 51.7	+1.1
	comp=Z,12nm,0.5s,baz=87,slow=5.9,SNR=8.4						
SJG	San Juan	146.40	321	ePKPdf	PKPdf	03 25 52.2	-2.0
PCRV	Puerto La Cruz	150.78	308	PKPbc	PKPdf	03 26 01.6	+0.3
	comp=Z,13nm,0.6s,baz=14,slow=9.0,SNR=8.4						
RPN	Rapa Nui	152.06	135	ePKPbc	PKPdf	03 26 07.7	+4.8
SDV	Santo Domingo	156.09	315	PKPab	PKPab	03 26 33.1	-0.8
	comp=Z,7.1nm,1.0s,baz=23,slow=1.8,SNR=4.1						
LVC	Limon Verde	156.98	229	PKPab	PKPab	03 26 39.0	+1.5
	comp=Z,9.9nm,0.6s,baz=109,slow=1.1,SNR=13						
LPAZ	La Paz	159.34	245	PKPab	PKPab	03 26 48.7	+0.9
	comp=Z,7.9nm,0.6s,baz=132,slow=3.5,SNR=13						
LPAZ	La Paz	159.34	245	ePKPab	PKPab	03 26 48.4	+0.6
ROSC	El Rosal	161.51	314	PKP	PKPdf	03 26 13.7	-1.4
	comp=Z,5.5nm,0.9s,baz=100,slow=23,SNR=3.9						
ROSC				PKPab	PKPab	03 26 57.2	-0.1
	comp=Z,12nm,1.2s,baz=90,slow=20,SNR=3.5						

IDC 26 03:06:46.2±4.9**, 10.18N**×**92.11E, h57**^{km}±43^{km}**, mb4.4**/17**, mb1 4.6**/18**, mb1mx4.6**/22**, ML5.0**/1**, Error ellipse: s-maj=26.1km s-min=17.4km az=39.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.56	38	P	P	03 09 16.2	-1.1
	3.1nm,0.3s,baz=232,slow=15,SNR=5.8						
SONM	Songino Array	39.42	15	P	P	03 14 10.0	-2.1
	12nm,0.6s,baz=205,slow=8.1,SNR=9.8						
ZAL	Zalesovo	44.03	354	P	P	03 14 47.8	-2.0
	4.6nm,0.8s,baz=317,slow=2.6,SNR=3.5						
BVAR	Borovoye Array	46.18	342	P	P	03 15 05.2	-1.7
	6.7nm,0.6s,baz=139,slow=10,SNR=10						
WRA	Warramunga Arr	51.23	126	P	P	03 15 44.3	-2.2
	5.5nm,0.6s,baz=304,slow=8.7,SNR=5.2						
ASAR	Alice Springs	52.93	130	P	P	03 15 56.9	-2.3
	7.6nm,0.8s,baz=307,slow=7.1,SNR=4.6						
ASAJ	Asahikawa	55.05	43	P	P	03 16 11.5	-2.9
	8.4nm,0.6s,baz=278,slow=27,SNR=5.8						
KMBO	Kilima Mbogo	55.72	262	P	P	03 16 16.0	-3.7
	4.6nm,0.9s,baz=54,slow=10,SNR=4.3						
BRTR	Keskin Array B	59.41	310	P	P	03 16 44.4	-0.9
	4.7nm,0.9s,baz=138,slow=6.6,SNR=6.0						
AKASG	Malin Array Be	65.11	321	P	P	03 17 20.3	-2.8
	4.4nm,0.6s,baz=83,slow=4.8,SNR=8.8						
MLR	Muntele Rosu	66.13	315	P	P	03 17 29.1	-0.6
	21nm,1.0s,baz=122,slow=3.1,SNR=5.4						
FINES	FINESS Array B	69.75	332	P	P	03 17 49.5	-2.5
	6.9nm,0.6s,baz=106,slow=6.6,SNR=11						
ARCES	ARCESS Array B	72.43	340	P	P	03 18 05.8	-2.1
	8.3nm,0.5s,baz=96,slow=6.5,SNR=14						
GERES	GERESS Array B	74.78	318	P	P	03 18 21.1	-0.9
	9.2nm,0.7s,baz=83,slow=6.9,SNR=8.6						
NOA	NORSAR Array B	76.75	330	P	P	03 18 30.9	-2.0
	3.2nm,1.1s,baz=107,slow=3.5,SNR=6.9						
ESDC	Sonseca Array	88.20	310	P	P	03 19 31.3	-1.2
	0.4nm,0.4s,baz=55,slow=5.0,SNR=5.2						
ILAR	Eielson Array	93.36	22	P	P	03 19 53.8	-2.1
	1.6nm,0.6s,baz=287,slow=3.8,SNR=7.1						
INK	Inuvik	95.33	15	P	P	03 20 03.1	-1.7
	3.4nm,0.6s,baz=312,slow=3.6,SNR=5.2						
PDAR	Pinedale Array	123.71	19	PKP	PKPdf	03 25 38.3	+0.4
	2.2nm,0.9s,baz=54,slow=1.5,SNR=4.5						
NVAR	Mina Array Bea	123.93	29	PKP	PKPdf	03 25 40.3	+1.8
	3.0nm,0.7s,baz=299,slow=1.7,SNR=6.0						
TXAR	Lajitas Array	137.87	21	PKP	PKPdf	03 26 07.0	+1.9
	0.7nm,0.5s,baz=206,slow=0.4,SNR=4.0						
BDFB	Brasilia	140.80	258	PKP	PKPdf	03 26 11.2	+0.5
	4.8nm,0.8s,baz=100,slow=6.0,SNR=4.5						

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*MOS **26** 03:08:42.8±0.8, 13.78N×93.08E, h33^{km}, mb6.1/52, Error ellipse: s-maj=9.5km s-min=4.9km az=121.8*

*BJI **26** 03:08:42.0, 13.70N×93.00E, h30^{km}, mB6.4, mb5.4, Ms6.4, Msz6.4*

*IDC **26** 03:08:44.4±0.4, 13.75N×93.08E, h29^{km}±2^{km}, mb5.4/28, mb1 5.5/29, mb1mx5.4/31, ML5.1/1, MS6.9/1, Ms1 6.9/1, ms1mx4.7/31, Error ellipse: s-maj=14.7km s-min=8.3km az=44.0*

*SYO **26** 03:08:44.5, 13.75N×93.08E, h30^{km}, MB5.9*

*NEIC **26** 03:08:44.2±0.1, 13.75N×93.01E, h30^{km}, mb5.9/97, Error ellipse: s-maj=5.5km s-min=3.6km az=207.0*

ISC 26 03:08:42.3±0.2**, 13.75N**±0.04×**93.04E**±0.02**, h30**^{km}**, h30**^{km}±1.0^{km}**:pP-P, n613,** σ**0**$\overset{s}{.}$**93**/571**, mb5.8**/165**, MS6.6**/7**, 33C-90D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.35	50	eP	Pn	03 10 29.9	-0.6
	109nm,0.6s						
CMAR	Chiang Mai Arr	7.35	50	Pn	Pn	03 10 29.6	-0.9
	7.6nm,0.3s,baz=239,slow=16,SNR=17						
CMAR				Sn	Sn	03 11 47.8	-6.0
	6.9nm,0.3s,baz=233,slow=21,SNR=4.3						
CMAR	Chiang Mai Arr	7.35	50	P	Pn	03 10 29.7	-0.9
CMAR						03 11 47.8	
CMAR				pmax	pmax		
	comp=Z,8.0nm,0.3s						
VIS	Vishakhapatnam	10.15	294	eP	P	03 11 07.0	-2.5
VIS				eS	S	03 12 49.8	-14
IMP	Imphal	11.01	4	⇑iP	P	03 11 18.0	-3.1
BOK	Bokaro	12.07	327	e	P	03 11 29.5	-6.0
MDRS	Chennai	12.47	268	e	P	03 11 44.1	+3.3
MDRS				eS	S	03 13 44.6	-15
BLSP	Bilaspur	13.31	310	eP	P	03 11 50.2	-1.7
	comp=Z,539nm,1.2s						
HYB	Hyderabad	14.43	287	eP	P	03 12 12.0	+5.2
HYB	Hyderabad	14.43	287	i P	P	03 12 12.0	+5.2
PKI	Pulchoki	15.49	334	eP	P	03 12 19.1	-1.5
	comp=Z,1µm,1.0s						
GUN	Gumba	15.60	336	eP	P	03 12 22.9	+1.0
	comp=Z,649nm,0.8s						
DMN	Daman	15.66	333	eP	P	03 12 20.5	-2.2
	comp=Z,690nm,0.8s						
KKN	Kakani	15.74	334	eP	P	03 12 21.9	-1.8
	comp=Z,955nm,1.0s						
LSA	Lhasa	15.97	354	eP	P	03 12 27.1	+0.3
	comp=Z,580nm,1.2s						
GKN	Gorkha	16.20	332	eP	P	03 12 26.9	-2.8
	comp=Z,1µm,1.1s						
KOLN	Koldanda	16.50	329	eP	P	03 12 31.6	-1.8
	comp=Z,2µm,1.1s						
TRD	Trivandrum	16.61	253	e	P	03 12 37.9	+2.9
TRD				e		03 12 41.6	
	comp=Z,903nm,1.8s						
TRD				e		03 15 47.9	
QIZ	Qiongzhong	16.95	70	P	P	03 12 40.0	+0.9
QIZ				S	S	03 15 46.5	+1.3
BHPL	Bhopal	17.55	305	eP	P	03 12 44.3	-2.4
BHPL				e		03 12 48.6	
	comp=Z,585nm,1.8s						
JHNI	Jhansi	17.94	313	e	P	03 12 42.0	-9.5
JHNI				e		03 15 52.0	
GYA	Guiyang	17.97	43	⇑iP	P	03 12 52.5	+0.7
GYA				AP		03 12 56.5	
GYA				XP		03 12 59.5	
GYA				AMB	AMB		
	comp=Z,160nm,1.3s						
GYA				LR	LR		
	comp=N,44µm,16.4s						
GYA				LR	LR		
	comp=E,52µm,16.8s						
GYA				LR	LR		
	comp=Z,40µm,17.2s						
KAD	Karad	18.51	283	e	P	03 12 54.0	-4.6
POO	Poona	19.04	287	eP	P	03 13 04.0	-0.9
POO				e		03 13 07.8	
	comp=Z,764nm,1.5s						
PTH	Pithoragarh	19.71	325	eP	P	03 13 13.0	+0.6
PTH				e		03 16 32.0	
CD2	Chengdu	19.73	28	P	P	03 13 12.0	-0.6
MNCY	Minicoy	20.38	257	⇓i	P	03 13 09.0	-11
MNCY				i		03 15 00.0	
AJM	Ajmer	21.39	309	eP	P	03 13 29.9	+0.1
AJM				e		03 13 32.0	
	comp=Z,1µm,1.2s						
DDI	Dehra Dun	21.53	322	eP	P	03 13 32.5	+1.3
DDI				e		03 17 14.0	
ENH	Enshi	22.38	40	eP	P	03 13 39.2	-0.5
	comp=Z,215nm,0.9s,mb5.6						
SMLA	Simla	22.64	322	⇓i	P	03 13 57.0	+15
	comp=Z,439nm,0.9s,mb5.9						
SDNR	Sundarnagar	23.02	323	eP	P	03 13 48.5	+2.4
PONG	Pong	23.95	322	eP	P	03 13 55.0	-0.1
PONG				e		03 19 17.0	
BHJ	Bhuj	24.08	297	eP	P	03 13 55.2	-1.3
LZH	Lanzhou	24.27	22	eP	P	03 13 59.8	+1.6
LZH				AP		03 14 03.0	
LZH				PP	PP	03 14 35.5	+2.1
LZH				AMB	AMB		
	comp=Z,389nm,1.2s,mb5.7						
THN	Thein Dam	24.43	322	eP	P	03 14 00.0	+0.2
XAN	Xi'an	24.81	33	P	P	03 14 03.0	-0.4
XAN				AP		03 14 17.3	
XAN				AMB	AMB		
	comp=Z,210nm,0.8s,mb5.7						
WHN	Wuhan	25.79	46	⇓P	P	03 14 12.3	-0.3
GTA	Gaotai	26.25	12	P	P	03 14 18.0	+1.2
GTA				AP	pP	03 14 26.5	+1.0
GTA				XP	sP	03 14 30.0	+0.5
GTA				PP	PP	03 14 55.5	-3.9
GTA				PPP	PPP	03 15 07.0	-4.4
GTA				PCP	PcP	03 17 45.0	+1.6
GTA				S	S	03 18 40.3	-4.9
GTA				SCP		03 21 24.0	
GTA				SCS	ScS	03 25 11.3	+3.0
GTA				AMB	AMB		
	comp=Z,133nm,1.3s,mb5.3						
GTA				LR	LR		
	comp=N,62µm,22.4s,MS6.2						
GTA				LR	LR		
	comp=E,54µm,25.1s,MS6.2						
GTA				LR	LR		
	comp=Z,99µm,35.7s						
QZH	Quanzhou	26.50	61	⇓iP	P	03 14 19.8	+0.5
QZH				AMB	AMB		
	comp=Z,370nm,1.0s,mb5.9						
TGY	Tagaytay City	27.07	86	P	P	03 14 25.1	+0.6
	comp=Z,213nm,0.5s,mb5.9,baz=350,slow=1.4,SNR=5.9						
TGY	Tagaytay City	27.07	86	P	P	03 14 25.1	+0.6
TGY				pmax	pmax		
	comp=Z,213nm,0.5s						
KSH	Kashi	29.75	333	P	P	03 14 49.5	+1.0
KSH				eAP	pP	03 14 53.5	-3.8
KSH				ePP	PP	03 15 45.5	-0.1
KSH				ePCP	PcP	03 17 53.0	+1.0
KSH				eS	S	03 19 43.8	+2.3
KSH				eSS	SS	03 21 16.5	-0.6
KSH				eSCP		03 21 34.3	
KSH				ePCS		03 21 35.8	
KSH				eSCS	ScS	03 25 27.8	+3.7
KSH				AMB	AMB		
	comp=Z,7µm,4.0s						
KSH				LR	LR		
	comp=N,53µm,13.9s,MS6.5						
KSH				LR	LR		
	comp=E,50µm,13.4s,MS6.5						
NJ2	Nanjing	29.83	48	eP	P	03 14 49.8	+0.5
NJ2				AP	pP	03 14 59.8	+1.7
NJ2				XP	sP	03 15 03.5	+1.5
NJ2				PP	PP	03 15 48.3	+1.6
NJ2				S	S	03 19 45.0	+2.2
NJ2				XS		03 20 01.0	
NJ2				AMB	AMB		
	comp=Z,2µm,5.6s						
NJ2				LR	LR		
	comp=N,52µm,17.2s,MS6.3						
NJ2				LR	LR		
	comp=E,21µm,16.8s,MS6.3						
NJ2				LR	LR		
	comp=Z,52µm,15.8s,MS6.3						
WMQ	Urumqi	30.32	352	⇑P	P	03 14 54.5	+1.0
WMQ				AP	pP	03 14 59.0	-3.3
WMQ				XP	sP	03 15 01.5	-4.7
WMQ				PP	PP	03 15 53.3	+0.3
WMQ				PPP	PPP	03 16 07.5	+0.2
WMQ				eS	S	03 19 52.5	+2.0
WMQ				AMB	AMB		
	comp=Z,20µm,9.9s						
WMQ				LR	LR		
	comp=N,82µm,23.6s,MS6.5						
WMQ				LR	LR		
	comp=E,99µm,27.6s,MS6.5						
WMQ				LR	LR		
	comp=Z,175µm,25.0s,MS6.6						
SRDI	Scrawed	30.43	135	⇓eP	P	03 14 52.8	-2.0
	comp=Z,79nm,1.1s,mb5.3						
KELI	Kelakatan	30.49	134	⇑iP	P	03 14 55.4	+0.1
	comp=Z,136nm,1.1s,mb5.6						
SSE	Sheshan	31.09	52	eP	P	03 14 59.0	-1.4
SSE				AMB	AMB		
	comp=Z,76nm,1.2s,mb5.4						
TIA	Tai'an	31.09	40	eP	P	03 14 59.5	-0.9
HHC	Hu-ho-hao-te	31.48	27	eP	P	03 15 04.5	+0.8
HHC				AP	pP	03 15 13.8	+1.2
HHC				XP	sP	03 15 17.5	+1.1
HHC				PP	PP	03 16 06.0	-2.1
HHC				AMB	AMB		
	comp=Z,86nm,1.2s,mb5.5						
HHC				LR	LR		
	comp=N,63µm,16.6s,MS6.6						
HHC				LR	LR		
	comp=E,93µm,16.7s,MS6.6						
HHC				LR	LR		
	comp=Z,169µm,23.8s						
KEDI	Kedomdong	31.82	133	⇑iP	P	03 15 04.7	-2.3
	comp=Z,164nm,1.1s,mb5.8						
ULHL	Ulahol	31.91	336	P	P	03 15 08.5	+1.0
	SNR=7.2						
KZA	Kyzart	32.17	335	P	P	03 15 11.2	+1.4
	SNR=16						
UCH	Uchtor	32.60	334	P	P	03 15 15.0	+1.4
	SNR=7.5						
TKM2	Tokmak 2	32.73	336	P	P	03 15 15.2	+0.5
	SNR=9.7						
KBK	Karagaybulak	32.78	335	P	P	03 15 16.4	+1.3
	SNR=6.9						
AML	Almayashu	32.88	333	P	P	03 15 17.1	+1.2
	SNR=19						
AAK	Ala-Archa	32.95	334	P	P	03 15 17.8	+1.3
	SNR=18						
AAK	Ala-Archa	32.95	334	i P	P	03 15 16.8	+0.3
AAK				pmax	pmax		
	comp=Z,353nm,2.0s,mb6.0						
AAK	Ala-Archa	32.95	334	eP	P	03 15 16.8	+0.3
	comp=Z,401nm,1.5s,mb6.1						
BJT	Baijiatuau	33.12	34	eP	P	03 15 17.7	-0.3
	comp=Z,94nm,1.3s,mb5.6						
CHMS	Chumysh	33.14	335	P	P	03 15 18.6	+0.4
	SNR=25						
EKS2	Erkin-Say	33.27	334	P	P	03 15 20.6	+1.2
	SNR=16						
USP	Ospenovka	33.47	335	P	P	03 15 21.6	+0.5
	SNR=24						
MKAR	Makanchi Array	34.16	347	i P	P	03 15 26.9	-0.1
MKAR				pmax	pmax		
	comp=Z,205nm,1.0s						
DL2	Dalian	35.56	40	P	P	03 15 40.0	+0.9
DL2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
SONM	Songino Array	35.76	15	P	P	03 15 41.5	+0.9
	comp=Z,67nm,1.1s,mb5.5,baz=203,slow=9.4,SNR=27						
SONM				pP	pP	03 15 49.1	-0.4
	comp=Z,60nm,0.9s,baz=203,slow=9.4,SNR=17						
ULN	Ulaanbaatar	35.96	16	eP	P	03 15 42.9	+0.6
ULN				pmax	pmax		
	comp=Z,140nm,1.3s,mb5.7						
ULN	Ulaanbaatar	35.96	16	eP	P	03 15 42.9	+0.5
	comp=Z,139nm,1.4s,mb5.7						
ZAK	Zakamensk	37.48	11	⇓eP	P	03 15 56.0	+0.9
TLY	Talaya	38.79	11	eP	P	03 16 07.9	+1.8
TLY				e		03 16 24.2	
TLY				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.1						
TLY	Talaya	38.79	11	eP	P	03 16 07.8	+1.7
	comp=Z,92nm,1.4s,mb5.3						
KS15	Wonju Array Si	38.95	46	eP	P	03 16 07.4	-0.2
ZAL	Zalesovo	40.62	353	P	P	03 16 21.3	+0.1
	comp=Z,39nm,0.8s,mb5.1,baz=301,slow=10.0,SNR=24						
ZAL	Zalesovo	40.62	353	P	P	03 16 21.3	+0.1
ZAL				pmax	pmax		
	comp=Z,39nm,0.8s						
ZAL	Zalesovo	40.62	353	P	P	03 16 21.3	+0.1
CN2	Changchun	40.81	36	eP	P	03 16 23.5	+0.7
CN2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.1						
NVS	Novosibirsk	41.71	351	i P	P	03 16 28.8	-1.3
NVS				ePPP	PP	03 18 12.2	+2.6
NVS				eS	S	03 22 37.1	-7.8
NVS				pmax	pmax		
	comp=Z,100nm,1.2s,mb5.3						
NVS				pmax	pmax		
	comp=E,61nm,1.3s						
NVS				pmax	pmax		
	comp=N,137nm,1.7s						
NVS				smax			
	comp=E,121nm,1.9s						
HASS	Wahat al Ahsa'	42.26	292	P	P	03 16 36.1	+1.1
BVA0	Borovoye Array	43.13	340	P	P	03 16 40.3	-1.4
BVA0				pmax	pmax		
	comp=Z,14nm,1.1s						
BVAR	Borovoye Array	43.13	340	P	P	03 16 41.4	-0.3
	comp=Z,48nm,0.9s,mb5.2,baz=143,slow=7.4,SNR=21						
BRVK	Borovoye	43.19	340	eP	P	03 16 42.3	+0.1
MBWA	Marble Bar	43.48	142	eP	P	03 16 43.1	-1.9
	comp=Z,158nm,1.3s,mb5.6						
CHKZ	Chkalovo	43.60	341	P	P	03 16 45.5	0.0
CHKZ				pmax	pmax		
	comp=Z,262nm,1.1s,mb5.9						
CHKZ	Chkalovo	43.60	341	eP	P	03 16 45.8	+0.2
	comp=Z,258nm,1.1s,mb5.9						
QRN	Al-Qurain	44.36	297	eP	P	03 16 53.0	+1.0
QRN	Al-Qurain	44.36	297	eP	P	03 16 52.9	+0.9
QRN				AMb	AMB	03 16 53.9	
	comp=Z,341nm,0.8s,mb6.1						
UMR	Umm Al-Rimmam	44.67	298	eP	P	03 16 55.5	+0.9
UMR				AMb	AMB	03 16 57.2	
	comp=Z,156nm,1.1s,mb5.8						
UMR	Umm Al-Rimmam	44.67	298	eP	P	03 16 55.5	+0.9
UMR				AMb	AMB	03 16 57.1	
	comp=Z,158nm,1.0s,mb5.8						
RDF	Al-Radifah	44.70	297	eP	P	03 16 55.5	+0.7
RDF				AMb	AMB	03 16 57.5	
	comp=Z,387nm,0.9s,mb6.2						
RDF	Al-Radifah	44.70	297	eP	P	03 16 55.6	+0.8
RDF				AMb	AMB	03 16 57.5	
	comp=Z,390nm,1.1s,mb6.2						
RYDS	Riyadh	44.92	290	P	P	03 16 57.8	+1.2
RST	Umm Al-Ruwaisa	45.28	298	eP	P	03 16 59.9	+0.5
RST				AMb	AMB	03 17 01.8	
	comp=Z,305nm,1.0s,mb6.1						
RST	Umm Al-Ruwaisa	45.28	298	eP	P	03 16 59.9	+0.5
RST				AMb	AMB	03 17 01.7	
	comp=Z,302nm,0.8s,mb6.2						
BDHA	Al Bayda'	46.03	276	⇓eP	P	03 17 08.0	+2.5
MZLS	Mizel	46.21	290	P	P	03 17 07.7	+0.9
MAT	Matsushiro	46.23	52	P	P	03 17 06.9	+0.1
MAT	Matsushiro	46.23	52	eP	P	03 17 07.0	+0.2
BOD	Bodaibo	46.76	15	eP	P	03 17 10.1	-0.6
BOD				e		03 17 16.9	
TRBA	At Turbah	47.52	275	⇓eP	P	03 17 19.5	+2.3
TATS	Tathlith	47.71	284	P	P	03 17 19.8	+1.0
AFFS	'Afif	48.22	290	P	P	03 17 23.2	+0.6
NAMS	An Nimas	48.92	284	P	P	03 17 30.2	+2.1
CLNS	Chul'man	49.39	22	eP	P	03 17 30.0	-1.2
CLNS				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.7						
CLNS				pmax	pmax		
	comp=N,39nm,0.9s						
CLNS				pmax	pmax		
	comp=E,37nm,1.0s						
BLJS	Baljurashi	49.47	284	P	P	03 17 34.1	+1.8
HILS	Ha'il	49.55	294	P	P	03 17 33.6	+0.8
GNI	Garni	49.67	311	P	P	03 17 35.6	+2.0
	comp=E,336nm,1.0s,mb6.3,baz=354,slow=1.1,SNR=76						
GNI	Garni	49.67	311	i P	P	03 17 35.3	+1.7
GNI				pmax	pmax		
	comp=Z,1µm,2.0s						
GNI	Garni	49.67	311	eP	P	03 17 35.7	+2.0
	comp=Z,794nm,1.2s,mb6.6						
ARU	Arti	50.11	336	⇓iP	P	03 17 36.4	-0.3
ARU				e		03 19 29.9	
ARU				ePPP	PPP	03 20 21.8	-7.3
ARU				eS	S	03 24 48.3	+3.4
ARU				pmax	pmax		
	comp=Z,218nm,1.2s,mb6.1						
ARU	Arti	50.11	336	eP	P	03 17 36.2	-0.5
	comp=Z,239nm,1.2s,mb6.1						
ZEI	Tsey	51.11	314	eP	P	03 17 45.9	+1.4
ZEI				pmax	pmax		
	comp=Z,231nm,1.4s,mb5.9						
KBRS	Khaybar	51.70	292	P	P	03 17 50.0	+0.8
ASAJ	Asahikawa	51.84	44	P	P	03 17 50.5	+0.4
	comp=Z,81nm,1.2s,mb5.5,baz=262,slow=8.9,SNR=6.8						
ASAJ	Asahikawa	51.84	44	P	P	03 17 50.5	+0.5
ASAJ				pmax	pmax		
	comp=Z,81nm,1.2s						
NWAO	Narrogin (SRO)	51.85	154	P	P	03 17 49.6	-0.6
	comp=Z,71nm,0.9s,mb5.6,baz=326,slow=8.3,SNR=11						
NWAO	Narrogin (SRO)	51.85	154	P	P	03 17 49.7	-0.5
NWAO				pmax	pmax		
	comp=Z,71nm,0.9s						
NWAO	Narrogin (SRO)	51.85	154	eP	P	03 17 47.9	-2.4
	comp=Z,327nm,1.7s,mb6.0						
KIV	Kislovodsk	52.33	315	P	P	03 17 54.8	+1.1
	comp=Z,2µm,0.9s,SNR=65						
KIV	Kislovodsk	52.33	315	eP	P	03 17 54.2	+0.5
KIV				pmax	pmax		
	comp=N,283nm,1.1s						
KIV				pmax	pmax		
	comp=Z,503nm,1.1s,mb6.4						
KIV	Kislovodsk	52.33	315	eP	P	03 17 54.1	+0.4
	comp=Z,209nm,0.9s,mb6.1						
GOF	Gofitskoye	52.47	317	⇑iP	P	03 17 55.0	+0.3
GOF				pmax	pmax		
	comp=Z,350nm,1.4s,mb6.1						

WRA	**Warramunga Arr**	**52.64**	**129**	P	**P**	**03 17 54.9**	**-1.5**
	comp=Z,113nm,0.8s,mb5.8,baz=308,slow=8.2,SNR=43						
WRA				pP	pP	03 18 04.0	-1.5
	comp=Z,86nm,0.9s,baz=309,slow=7.7,SNR=6.0						
WRA				PcP	PcP	03 19 07.1	+1.0
	comp=Z,14nm,1.0s,baz=297,slow=8.5,SNR=6.3						
WRA	**Warramunga Arr**	**52.64**	**129**	P	**P**	**03 17 54.9**	**-1.5**
WRA				*PP	pP	03 18 04.0	-1.5
WRA						03 19 07.1	
WRA				pmax	pmax		
	comp=Z,113nm,0.9s						
WRA				pmax	pmax		
	comp=Z,86nm,0.9s						
WRA				pmax	pmax		
	comp=Z,14nm,1.0s						
WRAB	**Tennant Creek**	**52.65**	**129**	*i* P	**P**	**03 17 55.5**	**-0.9**
WRAB	**Tennant Creek**	**52.65**	**129**	*e*P	**P**	**03 17 54.5**	**-1.9**
	comp=Z,206nm,0.9s,mb6.1						
WRAB				*e*	pP	03 18 04.1	-1.5
YNBS	**Yanbu‘ al Bahr**	**52.81**	**290**	P	**P**	**03 17 57.8**	**+0.3**
YSS	**Yuzh-Sakhalins**	**52.95**	**41**	*i* P	**P**	**03 17 58.7**	**+0.4**
YSS				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.4						
YSS	**Yuzh-Sakhalins**	**52.95**	**41**	*e*P	**P**	**03 17 58.2**	**-0.1**
	comp=Z,50nm,0.8s,mb5.5						
UMJS	**Umm Lajj**	**53.44**	**291**	P	**P**	**03 18 03.8**	**+1.6**
TBKS	**Tabuk**	**54.24**	**295**	P	**P**	**03 18 09.0**	**+1.0**
ASF	**Jabal al Asfar**	**54.25**	**300**	P	**P**	**03 18 08.4**	**+0.4**
	comp=Z,56nm,1.0s,mb5.4,baz=332,slow=4.0,SNR=30						
SOC	**Sochi**	**54.27**	**314**	*e*P	**P**	**03 18 07.5**	**-0.5**
SOC				pmax	pmax		
	comp=Z,332nm,1.5s,mb6.0						
SOC				pmax	pmax		
	comp=N,82nm,1.3s						
SOC				pmax	pmax		
	comp=E,89nm,1.7s						
ASAR	**Alice Springs**	**54.58**	**133**	P	**P**	**03 18 09.2**	**-1.4**
	comp=E,99nm,1.0s,mb5.8,baz=312,slow=7.1,SNR=43						
ASAR				pP	pP	03 18 18.9	-0.8
	comp=E,84nm,0.8s,baz=310,slow=7.1,SNR=17						
ASAR				PcP	PcP	03 19 14.2	+0.9
	comp=E,14nm,0.8s,baz=315,slow=3.7,SNR=4.0						
JMQS	**Jabal Moqyreh**	**54.86**	**296**	P	**P**	**03 18 12.8**	**+0.2**
MKRJ	**Makawir**	**55.26**	**299**	P	**P**	**03 18 15.6**	**+0.1**
AYUS	**‘Aynunah**	**55.37**	**295**	P	**P**	**03 18 16.6**	**+0.3**
DRGI	**Dragot**	**55.47**	**299**	P	**P**	**03 18 17.2**	**+0.2**
MZDA	**Masada**	**55.48**	**299**	P	**P**	**03 18 17.3**	**+0.3**
BDAS	**Al Bad‘**	**55.52**	**295**	P	**P**	**03 18 17.5**	**+0.1**
MMLI	**Mount Malkishu**	**55.52**	**300**	P	**P**	**03 18 17.9**	**+0.5**
ALWS	**Ilw as Safayha**	**55.60**	**296**	P	**P**	**03 18 17.9**	**0.0**
AQBJ	**Aqaba**	**55.63**	**297**	P	**P**	**03 18 18.0**	**-0.2**
HAQS	**Haql**	**55.70**	**296**	P	**P**	**03 18 18.6**	**-0.1**
PRNI	**Paran**	**55.71**	**297**	P	**P**	**03 18 18.8**	**+0.1**
EIL	**Elat**	**55.72**	**297**	LR	LR	03 43 54.6	
	comp=E,113µm,18.8s,MS7.0,baz=263,slow=38						
EIL	**Elat**	**55.72**	**297**	P	**P**	**03 18 18.6**	**-0.2**
EIL	**Elat**	**55.72**	**297**	*e*P	**P**	**03 18 18.6**	**-0.1**
	comp=E,255nm,1.3s,mb6.1						
MBH	**Mount Berech**	**55.76**	**297**	P	**P**	**03 18 19.0**	**0.0**
HNTI	**Hanita**	**55.79**	**301**	P	**P**	**03 18 19.5**	**+0.2**
SLTI	**Sal’it**	**55.83**	**300**	P	**P**	**03 18 19.9**	**+0.4**
HAF	**Haifa**	**55.89**	**300**	P	**P**	**03 18 20.4**	**+0.4**
OFRI	**‘Ofer**	**55.91**	**300**	P	**P**	**03 18 20.4**	**+0.3**
MASH	**Mash‘abbe Sade**	**55.95**	**298**	P	**P**	**03 18 20.4**	**0.0**
KZIT	**Kziot**	**56.27**	**298**	P	**P**	**03 18 22.7**	**0.0**
PHNC	**Paralimni**	**56.94**	**303**	P	**P**	**03 18 27.0**	**-0.5**
KMBO	**Kilima Mbogo**	**57.21**	**260**	P	**P**	**03 18 31.1**	**+1.4**
	comp=E,23nm,1.0s,mb5.2,baz=56,slow=9.1,SNR=22						
KMBO				PcP	PcP	03 19 24.5	+0.8
	comp=E,11nm,0.9s,baz=81,slow=5.8,SNR=4.5						
KMBO	**Kilima Mbogo**	**57.21**	**260**	P	**P**	**03 18 31.1**	**+1.4**
KMBO						03 19 24.5	
KMBO				pmax	pmax		
	comp=Z,23nm,1.0s						
KMBO				pmax	pmax		
	comp=Z,11nm,0.9s						
CSS	**Prodhromos**	**57.51**	**303**	P	**P**	**03 18 31.2**	**-0.3**
	comp=Z,3.3nm,1.1s						
CSS	**Prodhromos**	**57.51**	**303**	*e*P	**P**	**03 18 31.3**	**-0.1**
MAMC	**Mammari**	**57.62**	**303**	⇓P	**P**	**03 18 31.7**	**-0.6**
MAMC	**Mammari**	**57.62**	**303**	⇓*e*P	**P**	**03 18 31.7**	**-0.6**
BRTR	**Keskin Array B**	**57.88**	**308**	P	**P**	**03 18 33.2**	**-0.8**
	comp=Z,144nm,0.9s,mb6.0,baz=121,slow=6.6,SNR=127						
BRTR	**Keskin Array B**	**57.88**	**308**	P	**P**	**03 18 33.2**	**-0.8**
BRTR				pmax	pmax		
	comp=Z,145nm,0.9s						
ALFC	**Alevga**	**58.12**	**303**	⇓P	**P**	**03 18 34.8**	**-1.0**
	comp=Z,4.3nm,0.8s						
ALFC	**Alevga**	**58.12**	**303**	⇓*i*P	**P**	**03 18 34.8**	**-1.0**
PPCY	**Paphos**	**58.30**	**303**	⇓P	**P**	**03 18 35.8**	**-1.2**
PPCY	**Paphos**	**58.30**	**303**	⇓*e*P	**P**	**03 18 35.8**	**-1.2**
AKMC	**Akamas**	**58.33**	**303**	⇓P	**P**	**03 18 36.0**	**-1.2**
AKMC	**Akamas**	**58.33**	**303**	⇓*i*P	**P**	**03 18 36.0**	**-1.2**
PMG	**Port Moresby**	**58.42**	**110**	P	**P**	**03 18 37.8**	**-0.3**
	comp=Z,115nm,1.0s,mb5.9,baz=331,slow=4.2,SNR=17						
PMG	**Port Moresby**	**58.42**	**110**	P	**P**	**03 18 37.8**	**-0.3**
PMG				pmax	pmax		
	comp=Z,115nm,1.0s						
SIM	**Simferopol’**	**58.51**	**314**	*d i*P	**P**	**03 18 38.0**	**-0.3**
MOS	**Moscow**	**59.56**	**327**	⇓*i*P	**P**	**03 18 44.3**	**-1.2**
MOS				pmax	pmax		
	comp=Z,494nm,1.4s,mb6.3						
OBN	**Obninsk**	**59.89**	**326**	*i* P	**P**	**03 18 47.2**	**-0.6**
OBN				*e*		03 19 33.8	
OBN				*e*		03 20 57.5	
OBN				S	**S**	**03 26 58.7**	**+2.8**
OBN				pmax	pmax		
	comp=Z,661nm,2.1s,mb6.3						
OBN				MLR	MLR		
	comp=Z,84µm,19.0s,MS6.9						
OBN	**Obninsk**	**59.89**	**326**	*e*P	**P**	**03 18 47.1**	**-0.7**
	comp=Z,429nm,1.3s,mb6.3						
ISP	**Isparta**	**60.06**	**306**	*e*P	**P**	**03 18 49.6**	**+0.4**
ISP				pmax	pmax		
	comp=Z,320nm,1.5s,mb6.1						
ISP	**Isparta**	**60.06**	**306**	*e*P	**P**	**03 18 48.3**	**-0.8**
	comp=Z,317nm,1.5s,mb6.1						
TIXI	**Tiksi**	**61.74**	**12**	⇑*i*P	**P**	**03 18 59.1**	**-1.0**
TIXI				pmax	pmax		
	comp=N,35nm,1.4s						
TIXI				pmax	pmax		
	comp=Z,189nm,1.4s,mb6.0						
TIXI				pmax	pmax		
	comp=E,43nm,1.5s						
TIXI	**Tiksi**	**61.74**	**12**	*i* P	**P**	**03 18 59.0**	**-1.1**
MA2	**Magadan**	**62.14**	**29**	*i* P	**P**	**03 19 02.9**	**0.0**
MA2				pmax	pmax		
	comp=Z,57nm,1.8s,mb5.4						
MA2	**Magadan**	**62.14**	**29**	*e*P	**P**	**03 19 02.0**	**-0.9**
	comp=Z,35nm,0.9s,mb5.5						
CTA	**Charters Tower**	**62.20**	**122**	P	**P**	**03 19 03.4**	**-0.5**
	comp=Z,41nm,1.0s,mb5.5,baz=306,slow=8.8,SNR=18						
CTA	**Charters Tower**	**62.20**	**122**	P	**P**	**03 19 03.4**	**-0.5**
CTA				pmax	pmax		
	comp=Z,41nm,1.0s						
CTA	**Charters Tower**	**62.20**	**122**	P	**P**	**03 19 03.4**	**-0.5**
CTAO	**Charters Tower**	**62.20**	**122**	*e*P	**P**	**03 19 03.1**	**-0.8**
	comp=Z,152nm,1.4s,mb5.9						
CTAO	**Charters Tower**	**62.20**	**122**	*e*P	**P**	**03 19 12.6**	**+8.7**
TIRR	**Tirgusor**	**62.42**	**313**	P	**P**	**03 19 04.7**	**-0.4**
KIS	**Kishinev**	**62.53**	**316**	⇑*i*P	**P**	**03 19 05.0**	**-0.7**
KIS				pmax	pmax		
	comp=Z,400nm,1.0s,mb6.5						
AKASG	**Malin Array Be**	**62.94**	**320**	P	**P**	**03 19 06.9**	**-1.4**
	comp=Z,90nm,0.9s,mb5.9,baz=87,slow=4.4,SNR=82						
AKASG				PcP	PcP	03 19 45.4	-0.6
	comp=Z,16nm,0.8s,baz=90,slow=3.8,SNR=4.1						
AKASG	**Malin Array Be**	**62.94**	**320**	P	**P**	**03 19 06.9**	**-1.4**
AKASG						03 19 45.4	
AKASG				pmax	pmax		
	comp=Z,90nm,0.9s						
AKASG				pmax	pmax		
	comp=Z,17nm,0.8s						
MBAR	**Mbarara**	**63.31**	**262**	*i* P	**P**	**03 19 12.6**	**+1.3**
IAS	**Iasi**	**63.40**	**316**	P	**P**	**03 19 10.8**	**-0.6**
ALN	**Alexandroupoli**	**63.78**	**309**	*e*P	**P**	**03 19 13.5**	**-0.6**
VRI	**Vrincioaia**	**63.79**	**315**	P	**P**	**03 19 14.6**	**+0.5**
APE	**Apeiranthos**	**63.96**	**305**	P	**P**	**03 19 14.1**	**-1.3**
SANT	**Santorini**	**63.99**	**304**	*e*P	**P**	**03 19 13.8**	**-1.7**
	comp=Z,457nm,1.2s,mb6.4						
BUC1	**Bucharest**	**64.11**	**313**	P	**P**	**03 19 17.0**	**+0.9**
MLR	**Muntele Rosu**	**64.29**	**314**	P	**P**	**03 19 17.8**	**+0.5**
	comp=Z,313nm,1.0s,mb6.3,baz=81,slow=2.3,SNR=74						
MLR				PcP	PcP	03 19 52.0	+0.4
	comp=Z,41nm,0.9s,baz=170,slow=6.2,SNR=3.4						
MLR	**Muntele Rosu**	**64.29**	**314**	P	**P**	**03 19 17.8**	**+0.5**
MLR						03 19 52.0	
MLR				pmax	pmax		
	comp=Z,313nm,1.0s						
MLR				pmax	pmax		
	comp=Z,41nm,0.9s						
MLR	**Muntele Rosu**	**64.29**	**314**	P	**P**	**03 19 18.0**	**+0.7**
KDZ	**Kurdzhali**	**64.31**	**310**	*i* P	**P**	**03 19 17.0**	**-0.5**
IDI	**Anoyia**	**64.43**	**303**	P	**P**	**03 19 18.1**	**-0.3**
	comp=Z,99nm,0.9s,mb5.9,baz=104,slow=7.2,SNR=19						
LOS	**Limnos**	**64.45**	**308**	*e*P	**P**	**03 19 18.0**	**-0.5**
PET	**Petropavlovsk**	**64.50**	**38**	*e*P	**P**	**03 19 17.1**	**-1.4**
PET				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.5						
SNX	**Sinaia**	**64.58**	**314**	P	**P**	**03 19 15.3**	**-3.8**
PUL	**Pulkovo**	**64.60**	**330**	⇑*e*P	**P**	**03 19 18.0**	**-1.0**
PUL				pmax	pmax		
	comp=Z,327nm,0.9s,mb6.4						
PUL				pmax	pmax		
	comp=E,309nm,1.0s						
RZN	**Rozhen**	**64.83**	**310**	*i* P	**P**	**03 19 20.0**	**-0.9**
STKA	**Stephens Creek**	**64.97**	**135**	P	**P**	**03 19 21.2**	**-0.8**
	comp=E,36nm,0.9s,mb5.4,baz=311,slow=7.0,SNR=14						
STKA				pP	pP	03 19 30.2	-1.0
	comp=E,28nm,0.7s,baz=310,slow=10,SNR=5.3						
STKA	**Stephens Creek**	**64.97**	**135**	*e*P	**P**	**03 19 21.1**	**-0.9**
GVD	**Gavdhos**	**65.08**	**302**	*e*P	**P**	**03 19 21.2**	**-1.5**
	comp=E,259nm,1.2s,mb6.1						
PGB	**Panagyurishte**	**65.30**	**311**	*i* P	**P**	**03 19 23.0**	**-0.9**
AOS	**Alonnisos**	**65.34**	**307**	*e*P	**P**	**03 19 23.2**	**-1.0**
IDID	**Didziasalis**	**65.36**	**325**	*i* P	**P**	**03 19 23.5**	**-0.5**
IDID				AMPb	AMB	03 19 25.6	
	comp=Z,96nm,1.1s,mb5.7						
PAIG	**Paliouri**	**65.53**	**308**	*e*P	**P**	**03 19 24.7**	**-0.7**
MMB	**Musomiste**	**65.57**	**310**	*i* P	**P**	**03 19 24.0**	**-1.6**
SRS	**Serrai**	**65.65**	**309**	*e*P	**P**	**03 19 24.8**	**-1.3**
IIGN	**Ignalina**	**65.65**	**325**	*i* P	**P**	**03 19 25.5**	**-0.4**
IIGN				AMPb	AMB	03 19 27.6	
	comp=Z,92nm,1.2s,mb5.7						
LVZ	**Lovozero**	**65.71**	**339**	⇓*e*P	**P**	**03 19 25.0**	**-1.1**
LVZ				pmax	pmax		
	comp=Z,117nm,1.0s,mb5.9						
LVZ				pmax	pmax		
	comp=E,45nm,1.3s						
IZAR	**Zarasai**	**65.72**	**325**	*i* P	**P**	**03 19 25.8**	**-0.5**
IZAR				AMPb	AMB	03 19 27.9	
	comp=Z,85nm,1.1s,mb5.7						
ISAL	**Salakas**	**65.75**	**325**	*i* P	**P**	**03 19 26.0**	**-0.6**
ISAL				AMPb	AMB	03 19 28.2	
	comp=Z,76nm,1.2s,mb5.6						
SOH	**Sokhos**	**65.81**	**309**	*e*P	**P**	**03 19 25.9**	**-1.3**
XOR	**Xorichti**	**65.88**	**307**	*e*P	**P**	**03 19 26.1**	**-1.6**
VTS	**Vitosha**	**66.01**	**311**	*i* P	**P**	**03 19 28.0**	**-0.4**
VTS	**Vitosha**	**66.01**	**311**	P	**P**	**03 19 28.2**	**-0.2**
APA	**Apatity**	**66.01**	**339**	⇑*i*P	**P**	**03 19 25.3**	**-2.7**
APA				*e*		03 19 55.3	
APA				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.9						
KKB	**Krupnik**	**66.06**	**310**	*i* P	**P**	**03 19 27.0**	**-1.8**
THE	**Thessaloniki**	**66.10**	**308**	*e*P	**P**	**03 19 27.8**	**-1.2**
KNT	**Kendrikon**	**66.17**	**309**	*e*P	**P**	**03 19 28.3**	**-1.2**
LIT	**Litokhoron**	**66.44**	**308**	*e*P	**P**	**03 19 29.6**	**-1.6**
GRG	**Griva**	**66.54**	**309**	*e*P	**P**	**03 19 30.6**	**-1.2**
AGG	**Agios Georgios**	**66.54**	**307**	*e*P	**P**	**03 19 29.5**	**-2.4**
KWP	**Kalwaria**	**66.92**	**318**	*e*P	**P**	**03 19 33.8**	**-0.3**
KWP				pmax	pmax		
	comp=Z,440nm,1.1s,mb6.4						
KWP	**Kalwaria**	**66.92**	**318**	*e*P	**P**	**03 19 34.3**	**+0.2**
BOLS	**Boljevac**	**66.99**	**312**	⇓*i*P	**P**	**03 19 34.0**	**-0.7**
FINES	**FINESS Array B**	**67.06**	**331**	P	**P**	**03 19 33.9**	**-0.9**
	comp=Z,87nm,0.8s,mb5.8,baz=104,slow=7.9,SNR=58						
FINES				pP	pP	03 19 44.1	0.0
	comp=Z,22nm,0.9s,baz=90,slow=7.6,SNR=5.2						
FINES	**FINESS Array B**	**67.06**	**331**	P	**P**	**03 19 33.9**	**-0.9**
FINES				*PP	pP	03 19 44.1	0.0
FINES				pmax	pmax		
	comp=Z,87nm,0.8s						
FINES				pmax	pmax		
	comp=Z,23nm,0.9s						
FINES	**FINESS Array B**	**67.06**	**331**	P	**P**	**03 19 33.9**	**-0.9**
FINES				pP	pP	03 19 44.1	0.0
KAF	**Kangasniemi**	**67.12**	**332**	*e*p	**P**	**03 19 34.6**	**-0.5**
	baz=102,slow=6.1						
KOLS	**Kolonicke sedl**	**67.14**	**317**	*i* P	**P**	**03 19 35.7**	**+0.2**
KOLS				*e*		03 19 49.0	
KOLS				*e*		03 19 58.5	
SUW	**Suwalki**	**67.17**	**323**	*e*P	**P**	**03 19 34.7**	**-0.9**
SUW				pmax	pmax		
	comp=Z,1µm,1.2s,mb6.8						
SUW	**Suwalki**	**67.17**	**323**	*e*P	**P**	**03 19 34.9**	**-0.7**
SKO	**Skopje**	**67.29**	**310**	⇓*i*P	**P**	**03 19 35.3**	**-1.3**
	comp=Z,0.1nm,0.9s						
FNA	**Florina**	**67.31**	**309**	*e*P	**P**	**03 19 35.1**	**-1.7**
BIA	**Bitola**	**67.36**	**309**	⇓*i*P	**P**	**03 19 36.3**	**-0.7**
MEV	**Metsovon**	**67.41**	**308**	*e*P	**P**	**03 19 36.2**	**-1.2**
CRVS	**Cervenica-Dubn**	**67.67**	**317**	*i* P	**P**	**03 19 39.6**	**+0.8**
GRUS	**Gruza**	**67.89**	**312**	⇑*i*P	**P**	**03 19 39.9**	**-0.5**
IGT	**Igoumenitsa**	**68.10**	**307**	*e*P	**P**	**03 19 39.8**	**-1.9**
WAR	**Warsaw**	**68.25**	**321**	*e*P	**P**	**03 19 42.6**	**+0.2**
KECS	**Kecovo**	**68.28**	**317**	*i* P	**P**	**03 19 42.9**	**+0.2**
KECS				*e*	pP	03 19 53.7	+1.7
PVY	**Plav**	**68.40**	**311**	⇑*i*P	**P**	**03 19 41.7**	**-1.8**
DIVS	**Divcibare**	**68.42**	**312**	⇑*i*P	**P**	**03 19 42.2**	**-1.4**
QSH	**Qafa e Shtames**	**68.43**	**309**	*i* p	**P**	**03 19 43.0**	**-0.8**
NIE	**Niedzica**	**68.46**	**318**	*i* P	**P**	**03 19 44.3**	**+0.5**
IVA	**Berane**	**68.46**	**311**	⇑*i*P	**P**	**03 19 42.5**	**-1.4**
PKSN	**Nyarlorinc**	**68.61**	**315**	⇑*i*P	**P**	**03 19 45.4**	**+0.7**
PSZ	**Piszkesteto**	**68.64**	**316**	*e*P	**P**	**03 19 44.7**	**-0.2**
PSZ				pmax	pmax		
	comp=Z,150nm,1.0s,mb5.9						
PSZ	**Piszkesteto**	**68.64**	**316**	*e*P	**P**	**03 19 44.7**	**-0.2**
	comp=Z,148nm,1.0s,mb5.9						
PLE	**Pljevlja**	**68.83**	**311**	⇑*i*P	**P**	**03 19 46.4**	**+0.1**
OJC	**Ojcow**	**68.84**	**319**	*e*P	**P**	**03 19 46.0**	**-0.1**
TTG	**Podgorica**	**68.92**	**310**	⇑*i*P	**P**	**03 19 45.8**	**-0.9**
ULC	**Ulcinj**	**68.93**	**310**	⇑*i*P	**P**	**03 19 45.8**	**-1.0**
NKY	**Niksic**	**69.12**	**311**	⇑*i*P	**P**	**03 19 47.2**	**-0.8**
UPM	**Unac-Piva**	**69.19**	**311**	⇑*i*P	**P**	**03 19 48.5**	**+0.1**
BUM	**Brajici-Budva**	**69.19**	**310**	⇑*i*P	**P**	**03 19 46.7**	**-1.7**
VYHS	**Vyhne**	**69.38**	**317**	*i* P	**P**	**03 19 49.4**	**0.0**
ARCES	**ARCESS Array B**	**69.41**	**340**	P	**P**	**03 19 48.9**	**-0.5**
	comp=Z,38nm,0.7s,mb5.5,baz=90,slow=6.1,SNR=28						
ARCES				pP	pP	03 19 59.8	+1.1
	comp=Z,19nm,0.7s,baz=90,slow=6.1,SNR=7.5						
ARCES	**ARCESS Array B**	**69.41**	**340**	P	**P**	**03 19 48.9**	**-0.4**
ARCES				*PP	pP	03 19 59.8	+1.2
ARCES				pmax	pmax		
	comp=Z,38nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,19nm,0.7s						
BRY	**Bratogost**	**69.45**	**311**	⇑*i*P	**P**	**03 19 49.2**	**-0.8**
HCY	**Herceg Novi**	**69.49**	**310**	⇑*i*P	**P**	**03 19 48.3**	**-1.9**
SRO2	**Moca**	**69.64**	**316**	*i* P	**P**	**03 19 51.6**	**+0.5**
KOLL	**Kolacno**	**69.67**	**317**	*i* P	**P**	**03 19 51.3**	**+0.1**
KOLL				*e*		03 20 09.2	
SRO	**Srobarova**	**69.70**	**316**	*e*P	**P**	**03 19 51.7**	**+0.3**
RHK1	**Bakonya**	**69.82**	**314**	⇑*e*P	**P**	**03 19 52.1**	**-0.1**
RAC	**Raciborz**	**69.87**	**319**	*e*P	**P**	**03 19 52.8**	**+0.4**
OKC	**Ostrava-Krasne**	**69.89**	**318**	*e*P	**P**	**03 19 52.6**	**+0.1**
MORC	**Moravsky Berou**	**70.28**	**318**	*e*P	**P**	**03 19 54.7**	**-0.2**
MORC				pmax	pmax		
	comp=Z,230nm,1.0s,mb6.1						
SMOL	**Smolenice**	**70.31**	**317**	*e*P	**P**	**03 19 55.2**	**+0.1**
SMOL				*e*pP	pP	03 20 06.3	+1.8
LSZ	**Lusaka**	**70.33**	**248**	*e*P	**P**	**03 19 57.0**	**+1.3**
	comp=Z,39nm,0.8s,mb5.4						
ZST	**Bratislava**	**70.52**	**316**	*e*P	**P**	**03 19 56.4**	**0.0**
GKP	**Gorka Klasztor**	**70.62**	**322**	*e*P	**P**	**03 19 57.0**	**+0.1**
TIP	**Timpagrande**	**70.88**	**307**	*e*P	**P**	**03 19 58.8**	**0.0**
DPC	**Dobruska-Polom**	**71.08**	**319**	*e*P	**P**	**03 20 00.4**	**+0.7**
DPC				*e*pP	pP	03 20 08.4	-0.7
BILL	**Bilibino**	**71.08**	**22**	*i* P	**P**	**03 19 58.6**	**-0.9**
BILL				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.2						
KSP	**Ksiaz**	**71.11**	**319**	*e*P	**P**	**03 20 00.0**	**+0.1**
KSP	**Ksiaz**	**71.11**	**319**	*e*P	**P**	**03 20 00.3**	**+0.4**
GRI	**Girifalco**	**71.15**	**307**	*e*P	**P**	**03 20 00.4**	**0.0**
UPC	**Upice**	**71.28**	**319**	*e*P	**P**	**03 20 01.3**	**+0.3**
ARSA	**Arzberg**	**71.58**	**315**	⇓*i*P	**P**	**03 20 03.1**	**+0.2**
	comp=Z,82nm,1.0s,mb5.6						
TRO	**Tromso**	**71.68**	**339**	*e*P	**P**	**03 20 01.4**	**-1.7**
SCLL	**Scilla**	**71.74**	**306**	*e*P	**P**	**03 20 04.1**	**+0.2**
MTTG	**Motta San Giov**	**71.77**	**306**	*e*P	**P**	**03 20 04.2**	**+0.1**
BSD	**Bornholm Skovb**	**72.06**	**324**	*i* P	**P**	**03 20 03.3**	**-2.2**
BSD				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.8						
BSD	**Bornholm Skovb**	**72.06**	**324**	*i* P	**P**	**03 20 03.3**	**-2.2**
	comp=Z,153nm,1.1s,mb5.8						
PVCC	**Panska Ves**	**72.20**	**319**	*e*P	**P**	**03 20 06.9**	**+0.4**
PRU	**Pruhonice**	**72.22**	**318**	*e*P	**P**	**03 20 06.8**	**+0.2**
PRU				*e*pP	pP	03 20 16.9	+0.9
OBKA	**Obir**	**72.27**	**315**	⇑*i*P	**P**	**03 20 07.2**	**+0.3**
	comp=Z,226nm,1.1s,mb6.0						
MOA	**Molln**	**72.43**	**316**	⇑*i*P	**P**	**03 20 07.6**	**-0.2**
	comp=Z,48nm,1.0s,mb5.4						
BRG	**Berggiesshubel**	**72.60**	**319**	*i* P	**P**	**03 20 08.9**	**+0.1**
BRG				*i*	pP	03 20 16.4	-1.8
BRG				pmax	pmax		
	comp=Z,210nm,1.0s,mb6.0						
BRG	**Berggiesshubel**	**72.60**	**319**	*i* P	**P**	**03 20 08.9**	**+0.1**
	comp=Z,210nm,1.0s,mb6.0						
BRG				*i*	pP	03 20 16.4	-1.8
RUE	**Ruedersdorf**	**72.69**	**321**	*e*P	**P**	**03 20 09.3**	**0.0**
	comp=Z,339nm,0.8s,mb6.3						
GEC2	**GERESS Array S**	**72.78**	**317**	*e*P	**P**	**03 20 10.2**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,260nm,1.0s,mb6.1						
GEC2	**GERESS Array S**	**72.78**	**317**	*e*P	**P**	**03 20 10.2**	**+0.3**
	comp=Z,260nm,1.0s,mb6.1						
GERES	**GERESS Array B**	**72.78**	**317**	P	**P**	**03 20 10.0**	**+0.1**
	comp=Z,132nm,0.8s,mb5.9,baz=90,slow=5.3,SNR=130						
GERES				pP	pP	03 20 19.5	+0.1
	comp=Z,33nm,0.8s,baz=90,slow=6.7,SNR=7.4						
GERES	**GERESS Array B**	**72.78**	**317**	P	**P**	**03 20 10.0**	**+0.1**
GERES				*PP	pP	03 20 19.5	+0.2
GERES				pmax	pmax		
	comp=Z,132nm,0.8s						
GERES				pmax	pmax		
	comp=Z,33nm,0.8s						
TRI	**Trieste**	**72.84**	**314**	*e*P	**P**	**03 20 09.4**	**-0.9**
KHC	**Kasperske Hory**	**72.86**	**317**	*e*P	**P**	**03 20 10.4**	**0.0**
KHC				*e*pP	pP	03 20 21.6	+1.9
MOR8	**Moi Rana**	**72.92**	**335**	⇓*i*P	**P**	**03 20 09.2**	**-1.1**
MOR8				AMb	AMB	03 20 10.8	
	comp=Z,177nm,1.0s,mb6.0						
MOR8	**Moi Rana**	**72.92**	**335**	⇓*i*P	**P**	**03 20 09.2**	**-1.1**
	comp=Z,177nm,1.0s,mb6.0						
KBA	**Koelnbreinsper**	**73.08**	**315**	⇑*i*P	**P**	**03 20 11.4**	**-0.3**
	comp=Z,101nm,1.1s,mb5.7						
PTCC	**Patocco-Chiusa**	**73.09**	**315**	*e*P	**P**	**03 20 11.6**	**-0.2**
GMNA	**Gemona**	**73.18**	**315**	*e*P	**P**	**03 20 12.2**	**-0.1**
CLL	**Collm**	**73.18**	**320**	⇓*i*P	**P**	**03 20 12.2**	**0.0**
CLL				*e*	pP	03 20 22.0	+0.4
CLL				pmax	pmax		
	comp=Z,193nm,1.2s,mb5.9						
CLL	**Collm**	**73.18**	**320**	⇓*i*P	**P**	**03 20 12.2**	**0.0**
	comp=Z,193nm,1.2s,mb5.9						
CLL				*e*	pP	03 20 22.0	+0.4
CLL	**Collm**	**73.18**	**320**	⇓P	**P**	**03 20 12.2**	**0.0**
	comp=Z,logA/T=2.2,mb5.9						
CLL				*e**PP	pP	03 20 22.0	+0.4
FX1	**Attu Island--F**	**73.21**	**39**	P	**P**	**03 20 13.5**	**+1.2**
	comp=Z,96nm,1.0s,mb5.7,baz=330,slow=0.8,SNR=8.9						
FX1	**Attu Island--F**	**73.21**	**39**	P	**P**	**03 20 13.5**	**+1.2**
FX1				pmax	pmax		
	comp=Z,96nm,1.0s						
AQU	**L’Aquila**	**73.26**	**310**	*e*P	**P**	**03 20 12.6**	**-0.3**
AQU	**L’Aquila**	**73.26**	**310**	*e*P	**P**	**03 20 12.3**	**-0.6**
PTQR	**Pietraquaria**	**73.28**	**310**	*e*P	**P**	**03 20 11.9**	**-1.1**
WET	**Wettzell**	**73.32**	**318**	*e*P	**P**	**03 20 13.3**	**+0.3**
WET				pmax	pmax		
	comp=Z,219nm,1.1s,mb6.0						
WET	**Wettzell**	**73.32**	**318**	*e*P	**P**	**03 20 13.3**	**+0.3**
	comp=Z,219nm,1.1s,mb6.0						
LOF	**Lofoten**	**73.43**	**337**	*e*P	**P**	**03 20 14.2**	**+0.9**
LOF				AMb	AMB	03 20 16.0	
	comp=Z,199nm,1.5s,mb5.8						
LOF				*e*pP	pP	03 20 21.5	-1.2
LOF	**Lofoten**	**73.43**	**337**	*e*P	**P**	**03 20 14.2**	**+0.9**
	comp=Z,199nm,1.5s,mb5.8						
NRCA	**Norcia**	**73.44**	**311**	*e*P	**P**	**03 20 12.8**	**-1.1**
COP	**Copenhagen**	**73.48**	**324**	*i* P	**P**	**03 20 14.6**	**+0.8**
COP				pmax	pmax		
	comp=Z,95nm,0.9s,mb5.7						
COP	**Copenhagen**	**73.48**	**324**	*i* P	**P**	**03 20 14.6**	**+0.8**
	comp=Z,95nm,0.9s,mb5.7						
COP				*i*		03 20 37.6	
FVI	**Forni Avoltri**	**73.48**	**315**	*e*P	**P**	**03 20 13.3**	**-0.7**
ARV	**Arcevia**	**73.53**	**312**	*e*P	**P**	**03 20 14.1**	**-0.3**
SNTG	**Esanatoglia**	**73.55**	**311**	*e*P	**P**	**03 20 13.9**	**-0.6**
NKC	**Novy Kostel**	**73.56**	**319**	*e*P	**P**	**03 20 14.9**	**+0.5**
FSSB	**Fossombrone**	**73.64**	**312**	*e*P	**P**	**03 20 14.8**	**-0.3**
NSS	**Namsos**	**73.86**	**334**	*e*P	**P**	**03 20 14.2**	**-1.6**
MOX	**Moxa**	**74.08**	**319**	*e*P	**P**	**03 20 17.6**	**+0.2**
MOX	**Moxa**	**74.08**	**319**	*i* P	**P**	**03 20 17.6**	**+0.2**
NB2	**NORSAR Subarra**	**74.13**	**330**	P	**P**	**03 20 16.7**	**-0.8**
	comp=Z,108nm,0.8s,mb5.8,baz=90,slow=5.8						
NB2	**NORSAR Subarra**	**74.13**	**330**	P	**P**	**03 20 16.7**	**-0.8**
	baz=90,slow=5.9						
NOA	**NORSAR Array B**	**74.13**	**330**	P	**P**	**03 20 16.8**	**-0.7**
	comp=Z,49nm,0.8s,mb5.5,baz=90,slow=6.1,SNR=66						
NOA				PP	PP	03 23 03.9	-0.9
	comp=Z,7.0nm,0.9s,baz=92,slow=8.5,SNR=3.6						
NOA	**NORSAR Array B**	**74.13**	**330**	P	**P**	**03 20 16.8**	**-0.7**
NOA						03 23 03.9	
NOA				pmax	pmax		
	comp=Z,49nm,0.8s						
NOA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
WTTA	**Wattenberg**	**74.23**	**316**	⇑*i*P	**P**	**03 20 17.7**	**-0.7**
	comp=Z,175nm,0.9s,mb6.0						
WATA	**Walderalm**	**74.27**	**316**	⇑*i*P	**P**	**03 20 17.7**	**-0.9**
	comp=Z,85nm,0.9s,mb5.7						
NAO01	**NORSAR Array S**	**74.29**	**330**	*e*P	**P**	**03 20 18.1**	**-0.4**
	comp=Z,99nm,0.9s,mb5.7						
CTI	**Castel Tesino**	**74.29**	**314**	*e*P	**P**	**03 20 18.9**	**+0.1**
SFI	**Santa Sofia**	**74.30**	**312**	*e*P	**P**	**03 20 19.8**	**+1.0**
OSL	**Oslo**	**74.37**	**329**	*e*P	**P**	**03 20 18.9**	**0.0**
OSL				AMb	AMB	03 20 21.3	
	comp=Z,74nm,1.2s,mb5.5						
OSL	**Oslo**	**74.37**	**329**	*e*P	**P**	**03 20 18.9**	**0.0**
	comp=Z,74nm,1.2s,mb5.5						
GRA1	**Grafenberg Arr**	**74.38**	**318**	*e*P	**P**	**03 20 20.0**	**+0.8**
	comp=Z,292nm,1.1s,mb6.1						
GRF	**Grafenberg Arr**	**74.38**	**318**	*e*P	**P**	**03 20 20.0**	**+0.8**
GRF				pmax	pmax		
	comp=Z,292nm,1.1s,mb6.1						
GRF	**Grafenberg Arr**	**74.38**	**318**	*e*P	**P**	**03 20 20.0**	**+0.8**
	comp=Z,292nm,1.1s,mb6.1						
PGD	**Poggio Sodo**	**74.39**	**312**	*e*P	**P**	**03 20 20.1**	**+0.8**
FUR	**Furstenfeldbru**	**74.42**	**317**	*e*P	**P**	**03 20 19.3**	**-0.2**
FUR				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.0						
FUR	**Furstenfeldbru**	**74.42**	**317**	*e*P	**P**	**03 20 19.3**	**-0.2**
	comp=Z,190nm,1.0s,mb6.0						
VMG	**Vicchio**	**74.51**	**312**	*e*P	**P**	**03 20 21.1**	**+1.1**
SQTA	**Sankt Quirin**	**74.52**	**316**	⇓*i*P	**P**	**03 20 19.2**	**-0.9**
	comp=Z,116nm,0.8s,mb5.9						
MOTA	**Moosalm**	**74.59**	**316**	⇑*i*P	**P**	**03 20 19.6**	**-0.8**
	comp=Z,131nm,1.0s,mb5.8						
SEI	**Scarperia**	**74.64**	**312**	*e*P	**P**	**03 20 21.5**	**+0.7**
CSNT	**Castellina Chi**	**74.73**	**312**	*e*P	**P**	**03 20 19.9**	**-1.5**
BSEG	**Bad Segeberg**	**74.74**	**323**	*e*P	**P**	**03 20 21.7**	**+0.5**
BSEG				pmax	pmax		
	comp=Z,344nm,1.0s,mb6.2						
CLZ	**Clausthal**	**74.81**	**320**	*e*P	**P**	**03 20 22.1**	**+0.5**
	comp=Z,262nm,1.1s,mb6.1						
ZCCA	**Zocca**	**74.89**	**313**	*e*P	**P**	**03 20 23.9**	**+1.6**
HDH	**Heidenheim**	**75.11**	**317**	⇓*e*P	**P**	**03 20 23.1**	**-0.3**
BRMO	**Bormio**	**75.15**	**315**	*e*P	**P**	**03 20 23.6**	**-0.1**
DOMB	**Dombas**	**75.15**	**331**	⇓*i*P	**P**	**03 20 23.1**	**-0.3**
DOMB				AMb	AMB	03 20 24.7	
	comp=Z,156nm,1.1s,mb5.8						
DOMB				*e*pP	pP	03 20 31.9	-0.9
DOMB				*e*sP	sP	03 20 35.8	-0.3
DOMB	**Dombas**	**75.15**	**331**	⇓*i*P	**P**	**03 20 23.1**	**-0.3**
	comp=Z,156nm,1.1s,mb5.8						
GSCL	**Gusciola**	**75.17**	**313**	*e*P	**P**	**03 20 24.7**	**+0.9**
BDI	**Bagni Di Lucca**	**75.18**	**312**	*e*P	**P**	**03 20 23.3**	**-0.6**
FUORN	**Ofenpass**	**75.21**	**315**	⇓*i*P	**P**	**03 20 24.3**	**+0.2**
UBR	**Uberruh**	**75.24**	**316**	⇓*e*P	**P**	**03 20 23.9**	**-0.3**
PII	**Pisa**	**75.27**	**312**	*e*P	**P**	**03 20 22.0**	**-2.4**
MAIM		**75.27**	**312**	P	**P**	**03 20 23.7**	**-0.8**
ERBM	**Eremo**	**75.29**	**313**	*e*P	**P**	**03 20 25.7**	**+1.1**
MUD	**Monsted U’grnd**	**75.29**	**325**	*i* P	**P**	**03 20 25.2**	**+0.9**
MUD				pmax	pmax		
	comp=Z,160nm,0.9s,mb6.0						
MUD	**Monsted U’grnd**	**75.29**	**325**	*i* P	**P**	**03 20 25.2**	**+0.9**

	comp=Z,156nm,0.9s,mb5.9						
BERNI	Berninapass	75.39	315	⇓iP	P	03 20 25.5	+0.4
DAVA	Damuels	75.42	316	⇑iP	P	03 20 24.9	-0.3
	comp=Z,217nm,0.8s,mb6.1						
SIND	Sindeldorf	75.45	318	⇓eP	P	03 20 25.6	+0.3
DAVOX	Davos	75.46	315	⇓iP	P	03 20 25.7	+0.2
GRAM		75.53	313	P	P	03 20 26.6	+0.7
BACM		75.54	313	P	P	03 20 25.0	-1.0
BUCH	Bad Urach	75.68	317	⇓eP	P	03 20 26.6	-0.1
CODM		75.69	313	P	P	03 20 26.6	-0.2
STU	Stuttgart	75.76	317	eP	P	03 20 27.6	+0.5
STU				pmax	pmax		
	comp=Z,99nm,1.0s,mb5.7						
STU	Stuttgart	75.76	317	eP	P	03 20 27.6	+0.5
	comp=Z,99nm,1.1s,mb5.7						
VDL	Val di Lei	75.77	315	⇓iP	P	03 20 27.5	+0.3
PLONS	Plons	75.78	315	⇓iP	P	03 20 27.2	-0.1
MOL	Molde	75.84	332	⇓iP	P	03 20 29.4	+2.1
MOL				AMb	AMB	03 20 30.9	
	comp=Z,218nm,1.4s,mb5.9						
MOL	Molde	75.84	332	⇓iP	P	03 20 29.4	+2.1
	comp=Z,218nm,1.4s,mb5.9						
GUT	Gutenstein	75.87	317	⇓eP	P	03 20 27.5	-0.3
BOB	Bobbio (Coli)	75.94	313	eP	P	03 20 29.2	+0.9
TOD	Tromm	75.95	318	⇓eP	P	03 20 28.3	+0.1
TOD	Tromm	75.95	318	eP	P	03 20 28.2	0.0
WEIN	Weingarten	76.01	316	⇓iP	P	03 20 28.1	-0.4
SWS	Schriesheim	76.03	318	⇓eP	P	03 20 28.6	0.0
LBG	Lerchenberg	76.03	317	⇓eP	P	03 20 28.6	-0.1
LLS	Linth-Limmern	76.05	315	⇓iP	P	03 20 28.7	-0.1
WILA	Wila	76.07	316	⇓iP	P	03 20 28.6	-0.3
STEIN	Stein am Rhein	76.07	316	⇓iP	P	03 20 28.4	-0.5
SPAK	Spaichingen	76.09	317	⇓eP	P	03 20 29.1	+0.1
MUGIO	Muggio	76.12	314	⇓iP	P	03 20 29.1	-0.1
LBTB	Lobatse	76.18	240	eP	P	03 20 31.3	+1.3
	comp=Z,156nm,1.0s,mb5.9						
TRULL	Truellikon	76.20	316	⇓iP	P	03 20 29.2	-0.4
MUO	Muotathal	76.30	315	⇓iP	P	03 20 30.1	-0.1
ZUR	Zurich	76.30	316	⇓iP	P	03 20 29.9	-0.3
VAI	Varese	76.31	314	eP	P	03 20 29.6	-0.7
SLE	Schleitheim	76.32	316	⇓iP	P	03 20 29.9	-0.4
FUSIO	Fusio	76.33	315	⇓iP	P	03 20 30.7	+0.3
BFO	Black Forest	76.37	317	eP	P	03 20 30.4	-0.2
BFO				pmax	pmax		
	comp=Z,102nm,1.3s,mb5.6						
BFO	Black Forest	76.37	317	eP	P	03 20 30.4	-0.2
	comp=Z,102nm,1.3s,mb5.6						
KTD	Kalmit	76.44	318	eP	P	03 20 31.3	+0.3
KTD	Kalmit	76.44	318	eP	P	03 20 31.0	0.0
BNALP	Bannalp	76.45	315	⇓iP	P	03 20 30.9	-0.1
PGF	Pioggiola	76.49	311	⇓iP	P	03 20 31.0	-0.4
	comp=Z,451nm,1.4s,mb5.9						
VSL	Villasalto	76.55	308	eP	P	03 20 31.9	+0.1
SULZ	Sulz-Cheisache	76.59	316	⇓iP	P	03 20 31.6	-0.2
PCP	Pian Castagno	76.61	313	P	P	03 20 31.7	-0.3
FELD	Feldberg	76.64	316	⇓eP	P	03 20 32.1	0.0
HASLI	Hasliberg	76.65	315	⇓iP	P	03 20 32.3	+0.1
LANF	Langenberg	76.66	318	eP	P	03 20 32.3	+0.1
KIZ	Kirchzarten	76.68	317	⇓eP	P	03 20 32.2	-0.1
STR	Strasbourg	76.72	317	eP	P	03 20 33.1	+0.6
ABH	Alteburg	76.74	319	⇓eP	P	03 20 33.1	+0.5
MCGN	Macugnaga	76.84	314	eP	P	03 20 33.1	-0.2
LIBD	Limburg	76.88	317	eP	P	03 20 34.0	+0.6
LIBD	Limburg	76.88	317	eP	P	03 20 33.5	+0.1
FIN	Finale Ligure	76.88	313	eP	P	03 20 33.5	0.0
ORX	Oropa	76.88	314	P	P	03 20 32.7	-0.8
ORO	Oropa	76.89	314	eP	P	03 20 32.5	-0.9
BALST	Balsthal	76.90	316	⇓iP	P	03 20 33.4	-0.1
WIT	Witteveen	77.00	322	eP	P	03 20 35.0	+1.0
	comp=Z,795nm,1.2s,mb6.5						
WTSB	Winterswijk	77.00	321	eP	P	03 20 34.4	+0.4
	comp=Z,184nm,0.7s,mb6.1						
BBS	Basel-Blauen	77.01	316	⇓eP	P	03 20 34.0	-0.2
BBS	Basel-Blauen	77.01	316	eP	P	03 20 33.1	-1.1
WLS	Welschbruch	77.01	317	eP	P	03 20 34.0	-0.1
WIMIS	Wimmis	77.02	315	⇓iP	P	03 20 34.3	+0.1
LKBD	Leukerbad	77.05	315	⇓iP	P	03 20 34.7	+0.3
CDF	Champ du Feu	77.06	317	⇓iP	P	03 20 34.0	-0.4
	comp=Z,211nm,1.1s,mb5.7						
RUP	Ruppelstein	77.07	318	⇓eP	P	03 20 35.1	+0.7
RUP	Ruppelstein	77.07	318	eP	P	03 20 34.8	+0.4
ROB	Roburent	77.11	313	P	P	03 20 35.0	+0.2
IMI	Imperia	77.14	312	eP	P	03 20 35.0	0.0
ECH	Echery	77.16	317	eP	P	03 20 33.7	-1.3
BOURR	Bourrignon	77.21	316	⇓iP	P	03 20 35.3	+0.1
MOF	Molkenrain	77.22	316	eP	P	03 20 34.7	-0.6
MONE	Monesi	77.22	313	P	P	03 20 35.2	-0.1
DIX	Grande Dixence	77.23	315	⇓iP	P	03 20 36.1	+0.7
SENIN	Lac Senin	77.28	315	⇓iP	P	03 20 36.3	+0.7
NEGI	Negi	77.28	312	P	P	03 20 35.2	-0.5
SAOF	Saorge	77.37	312	eP	P	03 20 36.8	+0.6
GRYON	Gryon	77.42	315	⇓iP	P	03 20 36.9	+0.5
ENR	Entracque	77.44	313	P	P	03 20 36.0	-0.6
RSP	Reno Superiore	77.45	314	P	P	03 20 35.4	-1.2
TORNY	Torny	77.46	315	⇓iP	P	03 20 37.0	+0.3
AUTN	L'Aution	77.47	313	eP	P	03 20 37.6	+0.9
BHB	Bricherasio	77.48	313	P	P	03 20 35.5	-1.3
LSD	Ceresole Reale	77.48	314	P	P	03 20 37.2	+0.4
LOMF	Lomont	77.48	316	eP	P	03 20 36.3	-0.5
STV	Sta Anna Valdi	77.51	313	P	P	03 20 35.6	-1.3
AIGLE	Aigle	77.52	315	⇓iP	P	03 20 37.1	+0.1
SALAN	Lac Salanfe	77.53	315	⇓iP	P	03 20 37.5	+0.5
DOI	San Damiano	77.53	313	eP	P	03 20 35.6	-1.5
REVF	Revere	77.54	312	eP	P	03 20 35.8	-1.4
EMV	Vieux Emosson	77.59	315	⇓iP	P	03 20 37.9	+0.5
TOUF	Mont Tournerai	77.59	313	eP	P	03 20 38.2	+0.8
FENE	Fenestrelle	77.60	314	P	P	03 20 36.9	-0.6
PZZ	Prazzo	77.64	313	P	P	03 20 36.8	-0.9
HGN	Heimansgroeve	77.67	320	eP	P	03 20 37.6	-0.1
	comp=Z,143nm,1.9s,mb5.6						
MVIF	Mont Vial	77.67	312	eP	P	03 20 36.2	-1.7
LPG	La Plagne	77.76	314	⇓iP	P	03 20 38.9	+0.6
	comp=Z,586nm,0.9s,mb6.2						
BRANT	Les Verrieres	77.77	316	⇓iP	P	03 20 38.6	+0.2
RRL	Cesana Torines	77.81	314	P	P	03 20 38.2	-0.4
MBDF	Montbardon	77.84	313	⇓iP	P	03 20 38.5	-0.3
	comp=Z,246nm,0.9s,mb5.8						
SURF	Saint Ours	77.84	313	eP	P	03 20 39.2	+0.4
BOSA	Boshof	77.85	236	eP	P	03 20 40.2	+1.1
	comp=Z,134nm,1.0s,mb5.8						
BNI	Bardonecchia	77.86	314	eP	P	03 20 38.9	0.0
BNI				pmax	pmax		
	comp=Z,160nm,0.9s,mb6.0						
BNI	Bardonecchia	77.86	314	eP	P	03 20 38.7	-0.2
	comp=Z,164nm,0.9s,mb6.0						
THEF	They Montfort	77.94	317	eP	P	03 20 38.9	-0.4
GIMEL	Gimel	77.97	315	⇓iP	P	03 20 39.9	+0.5
GDM	Grand'Maison	78.24	314	eP	P	03 20 41.4	+0.4
GRN	Grenoble	78.50	314	eP	P	03 20 43.3	+0.9
BAIF	Baives	78.86	319	⇓iP	P	03 20 44.5	+0.2
	comp=Z,398nm,1.1s,mb6.0						
SSF	Saint Saulge	79.77	316	⇓iP	P	03 20 49.0	-0.2
	comp=Z,401nm,1.3s,mb5.9						
PLDF	La Plantade	79.86	315	eP	P	03 20 51.0	+1.2
AGO	Saint Agoulin	80.19	315	eP	P	03 20 52.9	+1.4
LBL	Lubilhac	80.24	314	eP	P	03 20 53.6	+1.8
BGF	Bois d'Agland	80.30	316	⇓iP	P	03 20 51.9	-0.2
	comp=Z,297nm,1.2s,mb5.8						
PYM	Petit Puy Mans	80.32	315	eP	P	03 20 54.1	+1.9
WAL1	Walls	80.49	330	eP	P	03 20 53.3	+0.5
EJON	La Jonquera	80.98	311	P	P	03 20 55.3	-0.5
	comp=Z,44nm,0.9s,mb5.4						
LMK	Market Rasen	81.08	323	eP	P	03 20 56.5	+0.4
MTLF	Montolieu	81.30	312	⇓iP	P	03 20 57.8	+0.4
	comp=Z,393nm,1.1s,mb5.9						
RJF	Les Rejaudoux	81.43	314	⇓iP	P	03 20 58.4	+0.3
	comp=Z,362nm,1.1s,mb5.9						
LCP	Cassop	81.49	324	eP	P	03 20 58.8	+0.6
EDR	Drumtochty	81.63	327	eP	P	03 20 59.0	+0.1
KBI1	Birley Grange	81.83	323	eP	P	03 20 57.6	-2.4
ESY	Stoneypath	81.88	326	eP	P	03 21 00.7	+0.6
ESY				AMb	AMB	03 21 03.4	
	comp=Z,150nm,1.4s,mb5.7						
LDF	La Druitiere	81.90	318	⇓iP	P	03 21 00.5	+0.1
	comp=Z,243nm,0.9s,mb5.8						
LHO	Holmfirth	81.96	323	eP	P	03 21 01.4	+0.8
KWE	Weaver Farm	82.06	323	eP	P	03 20 59.1	-2.0
EBL	Broad Law	82.15	325	eP	P	03 21 01.9	+0.3
EDI	Edinburgh	82.19	326	eP	P	03 21 02.4	+0.6
EDI				AMb	AMB	03 21 05.0	
	comp=Z,147nm,1.2s,mb5.8						
ESK	Eskdalemuir	82.34	325	eP	P	03 21 03.0	+0.4
ESK				AMb	AMB	03 21 05.9	
	comp=Z,127nm,1.4s,mb5.7						
EAU	Auchinoon	82.36	326	eP	P	03 21 03.4	+0.7
EAU				AMb	AMB	03 21 05.6	
	comp=Z,313nm,1.2s,mb6.1						
EPOB	Poblet	82.51	311	P	P	03 21 03.8	0.0
	comp=Z,129nm,0.8s,mb6.0						
EAB	Aberfoyle	82.76	326	eP	P	03 21 05.7	+0.9
EAB				AMb	AMB	03 21 07.7	
	comp=Z,163nm,1.4s,mb5.9						
SUR	Sutherland	82.81	234	eP	P	03 21 08.5	+3.0
EBIE	Bielsa	82.92	312	P	P	03 21 06.1	+0.2
	comp=Z,32nm,0.8s,mb5.4						
EBR	Ebro Roquetas	83.05	310	eP	P	03 21 07.3	+0.7
ERTA	Horta de San J	83.14	310	P	P	03 21 07.3	+0.2
	comp=Z,80nm,0.9s,mb5.8						
ESAC	San Caprasio	83.57	311	P	P	03 21 09.3	+0.1
	comp=Z,114nm,0.8s,mb6.1						
EMOS	Mosqueruela	83.87	310	P	P	03 21 11.5	+0.7
	comp=Z,162nm,1.0s,mb6.1						
EBEN	Beniarda	84.05	308	P	P	03 21 12.7	+0.9
	comp=Z,48nm,0.9s,mb5.6						
DLF	Lyons Farm	84.73	324	⇑iP	P	03 21 16.1	+1.3
EMUR	La Murta	85.02	308	P	P	03 21 16.5	-0.1
	comp=Z,26nm,0.9s,mb5.3						
DCN	Croghan	85.15	324	⇑iP	P	03 21 18.6	+1.7
SCO	Scoresbysund	85.16	342	i P	P	03 21 17.6	+1.1
EVIA	Vianos	85.80	309	P	P	03 21 21.1	+0.6
	comp=Z,50nm,0.9s,mb5.8						
EQES	Quesada	86.44	308	P	P	03 21 23.9	+0.2
	comp=Z,19nm,0.9s,mb5.3						
GUD	Guadarrama	86.53	311	P	P	03 21 24.6	+0.5
	comp=Z,65nm,0.8s,mb5.9						
IMA	Indian Mountai	86.62	22	eP	P	03 21 25.4	+1.6
	comp=Z,92nm,2.1s,mb5.6						
ESDC	Sonseca Array	86.64	310	P	P	03 21 25.6	+1.0
	comp=Z,43nm,0.9s,mb5.7,baz=56,slow=4.8,SNR=55						
ESDC				pP	pP	03 21 34.4	+0.2
	comp=Z,4.6nm,0.6s,baz=61,slow=4.1,SNR=5.9						
ESDC	Sonseca Array	86.64	310	P	P	03 21 25.6	+1.0
	comp=Z,32nm,0.8s,mb5.6						
EBAN	Banos Encina	86.89	308	P	P	03 21 25.8	-0.1
	comp=Z,39nm,1.0s,mb5.6						
EADA	Adamuz	87.49	309	P	P	03 21 28.7	0.0
	comp=Z,52nm,1.0s,mb5.7						
BORG	Borgarnes	87.63	337	P	P	03 21 29.9	+1.1
	comp=Z,22nm,0.9s,mb5.4,baz=83,slow=5.0,SNR=3.9						
ECAL	Calabor	88.05	313	P	P	03 21 31.5	+0.2
	comp=Z,17nm,1.0s,mb5.2						
EMIJ	Mijas	88.07	307	P	P	03 21 30.0	-1.6
	comp=Z,39nm,0.9s,mb5.6						
PBRG	Braganca	88.09	313	eP	P	03 21 32.9	+1.4
ESPR	Espera	88.83	308	P	P	03 21 34.7	-0.5
	comp=Z,27nm,0.9s,mb5.6						
PVRL	Vila Real	88.94	312	eP	P	03 21 37.0	+1.4
	comp=Z,90nm,1.6s,mb5.8						
ELOB	Lobios	89.01	313	P	P	03 21 35.3	-0.7
	comp=Z,53nm,0.9s,mb5.9						
STS	Santiago	89.05	314	P	P	03 21 36.6	+0.4
	comp=Z,47nm,1.0s,mb5.8						
MTE	Manteigas	89.08	311	eP	P	03 21 38.1	+1.8
	comp=Z,177nm,1.6s,mb6.1						
EBAD	Badajoz	89.17	310	P	P	03 21 37.1	+0.3
	comp=Z,25nm,0.9s,mb5.5						
PCBR	Castelo Branco	89.19	311	eP	P	03 21 38.2	+1.3
	comp=Z,160nm,1.6s,mb6.1						
EMIN	Mina Concepcio	89.20	309	P	P	03 21 37.1	+0.2
	comp=Z,35nm,1.0s,mb5.6						
PVIS	Viseu	89.24	312	eP	P	03 21 38.6	+1.5
	comp=Z,110nm,1.7s,mb5.9						
EMAZ	Mazaricos	89.33	314	P	P	03 21 37.6	+0.2
	comp=Z,88nm,1.0s,mb6.0						
SPU	Mount Spurr	89.53	26	eP	P	03 21 38.9	+1.0
RSO	Redoubt South	89.56	27	eP	P	03 21 38.3	+0.3
ILAR	Eielson Array	89.73	22	P	P	03 21 38.5	-0.3
	comp=Z,8.2nm,0.8s,mb5.1,baz=303,slow=3.8,SNR=22						
ILAR				pP	pP	03 21 49.0	+0.6
	comp=Z,18nm,0.8s,baz=300,slow=4.1,SNR=21						
ILAR				PP	PP	03 25 12.6	-0.8
	comp=Z,3.2nm,0.8s,baz=308,slow=7.0,SNR=5.8						
ILAR	Eielson Array	89.73	22	P	P	03 21 38.5	-0.3
ILAR				*PP	pP	03 21 49.0	+0.6
ILAR						03 25 12.6	
ILAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,18nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
EGRO	El Granado	89.88	309	P	P	03 21 40.0	-0.1
PALC	Alcoutim	89.89	309	eP	P	03 21 41.4	+1.2
	comp=Z,148nm,1.6s,mb6.1						
PBEJ	Beja	90.02	309	eP	P	03 21 42.5	+1.7
	comp=Z,114nm,1.7s,mb5.9						
SLKM	Skilak Lake	90.64	26	P	P	03 21 44.1	+1.0
SLKM	Skilak Lake	90.64	26	eP	P	03 21 44.0	+0.9
SYO	Syowa Base	90.67	197	⇓P	P	03 21 44.9	+1.9
PTEO	Sao Teotonio	90.82	309	eP	P	03 21 46.2	+1.7
	comp=Z,224nm,1.2s,mb6.4						
KDAK	Kodiak Island	90.89	29	eP	P	03 21 44.7	+0.5
	comp=Z,84nm,1.3s,mb5.9						
RES	Resolute Bay	91.61	2	eP	P	03 21 48.6	+1.3
RES				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.5						
RES	Resolute Bay	91.61	2	eP	P	03 21 48.4	+1.1
	comp=Z,24nm,0.9s,mb5.5						
INK	Inuvik	91.67	16	P	P	03 21 48.6	+0.9
	comp=Z,21nm,1.0s,mb5.4,baz=346,slow=4.7,SNR=16						
INK				pP	pP	03 21 57.5	+0.2
	comp=Z,29nm,0.9s,baz=285,slow=6.1,SNR=13						
INK	Inuvik	91.67	16	P	P	03 21 48.6	+0.9
INK				*PP	pP	03 21 57.5	+0.2
INK				pmax	pmax		
	comp=Z,21nm,1.0s						
INK				pmax	pmax		
	comp=Z,29nm,1.0s						
INK	Inuvik	91.67	16	eP	P	03 21 48.7	+1.1
	comp=Z,50nm,1.2s,mb5.7						
DIV	Divide	92.16	25	eP	P	03 21 52.1	+2.1
	comp=Z,107nm,1.3s,mb6.0						
DAWY	Dawson	92.78	20	eP	P	03 21 54.2	+1.4
URZ	Urewera	93.81	128	P	P	03 21 57.7	-0.5
	comp=Z,21nm,1.0s,mb5.5,baz=284,slow=4.1,SNR=6.2						
URZ				pP	pP	03 22 08.5	+0.7
	comp=Z,21nm,1.0s,baz=334,slow=7.1,SNR=5.7						
DBIC	Dimbokro	96.05	278	P	P	03 22 10.2	+1.1
	comp=Z,25nm,1.1s,mb5.5,baz=81,slow=5.8,SNR=11						
DBIC	Dimbokro	96.05	278	P	P	03 22 10.2	+1.1
DBIC				pmax	pmax		
	comp=Z,25nm,1.2s						
DBIC	Dimbokro	96.05	278	eP	P	03 22 10.3	+1.3
YKA	Yellowknife Ar	100.98	13	P	P	03 22 29.9	-0.2
	comp=Z,1.7nm,0.8s,baz=151,slow=2.5,SNR=4.5						
YKA				pP		03 22 39.9	
	comp=Z,4.5nm,1.1s,baz=331,slow=4.7,SNR=7.4						
YKA	Yellowknife Ar	100.98	13	P	P	03 22 29.9	-0.3
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
YKA	Yellowknife Ar	100.98	13	P	P	03 22 29.9	-0.2
YKA				pP		03 22 39.9	
MSO	Missoula	115.02	20	ePKiKP	PKPdf	03 27 22.6	-3.1
MOD	Modoc	116.67	27	ePKPdf	PKPdf	03 27 27.3	-1.8
HLID	Hailey	117.69	22	ePKPdf	PKPdf	03 27 29.0	-2.0
LOHW	Long Hollow	118.96	19	ePKPdf	PKPdf	03 27 31.6	-1.9
REDW	Red Top Meadow	119.11	20	ePKPdf	PKPdf	03 27 31.6	-2.1
CMB	Columbia Colle	119.70	30	PKIKP	PKPdf	03 27 42.1	+7.1
CMB	Columbia Colle	119.70	30	ePKPdf	PKPdf	03 27 32.5	-2.5
ELK	Elko	119.78	25	PKIKP	PKPdf	03 27 34.5	-0.6
ELK	Elko	119.78	25	ePKPdf	PKPdf	03 27 33.4	-1.7
PDAR	Pinedale Array	120.06	19	PKP	PKPdf	03 27 32.6	-3.0
	comp=Z,3.6nm,0.7s,baz=89,slow=0.7,SNR=11						
PDAR				pP		03 27 42.0	
	comp=Z,5.3nm,0.9s,baz=96,slow=2.3,SNR=8.8						
NVAR	Mina Array Bea	120.37	28	PKP	PKPdf	03 27 34.6	-1.7
	comp=Z,7.2nm,0.8s,baz=338,slow=1.6,SNR=15						
NVAR				pP		03 27 44.0	
	comp=Z,22nm,1.2s,baz=78,slow=1.2,SNR=6.4						
HWUT	Hardware Ranch	120.42	21	ePKPdf	PKPdf	03 27 33.8	-2.6
MNV	Mina	120.44	28	PKIKP	PKPdf	03 27 34.9	-1.6
MNV	Mina	120.44	28	ePKPdf	PKPdf	03 27 34.8	-1.7
BGU	Big Grassy Mou	120.48	23	ePKPdf	PKPdf	03 27 34.2	-2.3
NLU	North Lily Min	121.69	23	ePKPdf	PKPdf	03 27 36.7	-2.1
RWWY	Rawlins	121.76	18	ePKPdf	PKPdf	03 27 35.0	-4.0
TPNV	Topopah Spring	122.52	28	ePKIKP	PKPdf	03 27 38.7	-1.8
TPNV	Topopah Spring	122.52	28	ePKPdf	PKPdf	03 27 38.0	-2.5
PHWY	Pilot Hill	122.62	16	ePKPdf	PKPdf	03 27 37.6	-3.0
MVU	Marysvale	122.90	23	ePKPdf	PKPdf	03 27 40.1	-1.0
MSU	Marysvale	122.91	23	PKIKP	PKPdf	03 27 40.7	-0.5
MSU	Marysvale	122.91	23	ePKPdf	PKPdf	03 27 40.2	-1.0
AAM	Ann Arbor	124.15	357	PKIKP	PKPdf	03 27 44.4	+0.8
PV10	Paradox Valley	124.18	21	ePKPdf	PKPdf	03 27 41.7	-2.1
NEN	Nelson	124.23	27	ePKPdf	PKPdf	03 27 42.3	-1.6
PV01	Paradox Valley	124.56	21	ePKPdf	PKPdf	03 27 42.2	-2.3
PFO	Pinyon Flat Ob	125.15	30	ePKPdf	PKPdf	03 27 44.1	-1.7
SSPA	Standing Stone	125.25	352	ePKPdf	PKPdf	03 27 41.9	-3.9
KSU1	Kansas State U	126.66	9	ePKPdf	PKPdf	03 27 44.9	-3.5
BLO	Bloomington	127.36	360	ePKPdf	PKPdf	03 27 45.5	-4.4
ANMO	Albuquerque	128.15	20	PKP	PKPdf	03 27 49.9	-1.6
	comp=Z,11nm,0.9s,baz=298,slow=0.9,SNR=20						
ANMO				pP		03 27 59.0	
	comp=Z,16nm,1.0s,baz=230,slow=0.9,SNR=12						
ANMO	Albuquerque	128.15	20	ePKIKP	PKPdf	03 27 49.8	-1.7
ANMO	Albuquerque	128.15	20	ePKPdf	PKPdf	03 27 49.6	-1.9
ELN	Prospectdale	128.97	354	ePKPdf	PKPdf	03 27 49.4	-3.6
UALR	University of	131.48	6	ePKPdf	PKPdf	03 27 55.4	-2.4
TXAR	Lajitas Array	134.23	21	PKP	PKPdf	03 28 01.4	-1.8
	comp=Z,4.2nm,0.8s,baz=187,slow=1.0,SNR=12						
BDFB	Brasilia	142.32	262	PKhKP		03 28 11.2	
	comp=Z,10nm,0.9s,baz=152,slow=3.7,SNR=8.7						
TRQA	Tornquist	147.17	218	ePKPdf	PKPdf	03 28 24.4	-1.4
PCRV	Puerto La Cruz	147.51	316	PKPbc	PKPdf	03 28 24.8	-2.3
	comp=Z,34nm,0.7s,baz=354,slow=5.6,SNR=9.2						
PCRV				PKPab	PKPab	03 28 30.3	+1.5
	comp=Z,15nm,0.8s,baz=359,slow=10,SNR=7.6						
SDV	Santo Domingo	152.29	323	PKP	PKPdf	03 28 31.6	-2.9
	comp=Z,16nm,1.1s,baz=76,slow=2.8,SNR=5.1						
SDV				PKPbc	PKPdf	03 28 38.5	+4.0
	comp=Z,30nm,1.0s,baz=57,slow=1.5,SNR=16						
SDV				PKPab	PKPab	03 28 48.2	-0.3
	comp=Z,62nm,0.8s,baz=0.7,slow=4.7,SNR=17						
SDV	Santo Domingo	152.29	323	ePKPdf	PKPdf	03 28 31.4	-3.1
ROSC	El Rosal	157.67	325	PKP	PKPdf	03 28 40.0	-1.8
	comp=Z,14nm,0.9s,baz=120,slow=3.9,SNR=10						
ROSC				PKPab	PKPab	03 29 12.3	+0.9
	comp=Z,49nm,0.9s,baz=102,slow=2.9,SNR=16						
LVC	Limon Verde	160.74	240	PKPab	PKPab	03 29 25.6	+1.3
	comp=Z,20nm,1.0s,baz=92,slow=5.4,SNR=8.7						
LPAZ	La Paz	161.64	260	PKP	PKPdf	03 28 44.6	-1.4
	comp=Z,5.5nm,1.0s,baz=64,slow=7.5,SNR=4.6						
LPAZ	La Paz	161.64	260	PKIKP	PKPdf	03 28 44.6	-1.4
LPAZ				pmax	pmax		
	comp=Z,6.0nm,1.0s						
LPAZ	La Paz	161.64	260	ePKPdf	PKPdf	03 28 44.6	-1.5
LPAZ	La Paz	161.64	260	ePKPdf	PKPab	03 29 29.1	+0.7
OTAV	Otavalo	163.75	328	PKPdf	PKPdf	03 28 46.8	-1.5

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*IDC **26** 03:09:32.4±7.9, 4.43N×93.31E, mb5.0/7, mb1 5.1/7, mb1mx4.8/18, Error ellipse: s-maj=189.0km s-min=57.3km az=144.0*

*NEIC **26** 03:09:34.1±1.1, 4.05N×93.53E, h30^{km}, mb5.4/6, Error ellipse: s-maj=31.0km s-min=23.0km az=113.0*

ISC 26 03:09:34.3±0.8**, 4.5N**±0.1×**93.5E**±0.2**, h25^{km}, h25^{km}**±.5^{km}**:pP-P, n20,** $\sigma 0^{s}$**86**/18**, mb5.2**/13**, 2D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	25.18	355	eP	P	03 15 01.7	+2.1
	102nm,0.7s,mb5.5						
LSA				e	pP	03 15 09.0	+2.1
RATI	Rata	25.58	121	⇓iP	P	03 15 02.8	-0.7
	123nm,0.3s,mb5.9						
BJT	Baijiatuau	40.87	27	eP	P	03 17 31.0	+15
SONM	Songino Array	44.59	12	P	P	03 17 47.1	+0.8
	14nm,0.8s,mb4.9,baz=192,slow=8.9,SNR=3.6						
ULN	Ulaanbaatar	44.76	13	eP	P	03 17 47.7	-0.1
	22nm,0.8s,mb5.0						
ULN				e	pP	03 17 55.3	+0.1
ZAL	Zalesovo	49.82	353	P	P	03 18 27.5	+0.3
	11nm,0.5s,mb5.1,baz=290,slow=4.3,SNR=4.4						
ZAL	Zalesovo	49.82	353	P	P	03 18 27.5	+0.3
HIA	Hailar	49.88	22	eP	P	03 18 27.9	+0.1
	28nm,0.9s,mb5.3						
HIA				e	pP	03 18 35.6	+0.3
BVAR	Borovoye Array	52.00	342	P	P	03 18 42.7	-1.2
	19nm,0.7s,mb5.1,baz=135,slow=6.3,SNR=6.6						
BRVK	Borovoye	52.06	342	eP	P	03 18 42.7	-1.6
	69nm,1.3s,mb5.4						
BRVK				e	pP	03 18 50.4	-1.4
CHKZ	Chkalovo	52.50	343	eP	P	03 18 46.8	-0.8
	36nm,0.7s,mb5.4						
CHKZ				e	pP	03 18 53.7	-1.4
BRTR	Keskin Array B	64.19	312	P	P	03 20 09.1	-0.4
	9.9nm,0.8s,mb4.9,baz=117,slow=4.8,SNR=5.5						
KOLS	Kolonicke sedl	74.35	320	eP	P	03 21 12.4	+0.6
FINES	FINESS Array B	75.41	333	P	P	03 21 16.9	-0.8
	12nm,0.9s,mb4.8,baz=75,slow=4.8,SNR=3.9						
VYHS	Vyhne	76.51	319	epP	pP	03 21 31.8	-0.2
ZST	Bratislava	77.62	318	eP	P	03 21 30.7	+0.4
ARCES	ARCESS Array B	78.23	341	P	P	03 21 33.8	+0.6
	9.1nm,0.7s,mb4.8,baz=97,slow=5.7,SNR=5.5						
GERES	GERESS Array B	79.94	319	P	P	03 21 43.0	0.0
	8.9nm,0.8s,mb4.8,baz=100,slow=6.0,SNR=3.0						
SYO	Syowa Base	82.00	197	⇓P	P	03 21 54.3	+1.0
MSO	Missoula	123.44	22	ePKPdf	PKPdf	03 28 30.1	-4.3

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*NEIC **26** 03:14:13.8±0.2, 7.44N×94.26E, h30^{km}, mb5.4/46, Error ellipse: s-maj=8.3km s-min=7.4km az=222.0*

*BJI **26** 03:14:13.3, 7.07N×94.16E, h51^{km}, mb5.3, Ms6.3, Msz6.1*

*SYO **26** 03:14:13.4, 7.40N×94.25E, h30^{km}, MB5.4*

*IDC **26** 03:14:22.0±4.3, 7.87N×94.21E, h84^{km}±37^{km}, mb4.6/28, mb1 4.6/29, mb1mx4.6/29, Error ellipse: s-maj=20.3km s-min=14.3km az=38.0*

ISC 26 03:14:12.5±0.3**, 7.39N**±0.05×**94.23E**±0.05**, h30^{km}, n193,** $\sigma 1^{s}$**31**/158**, mb5.2**/75**, MS6.4**/2**, 7C-6D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.92	22	P	P	03 17 00.4	-3.1
CMAR	Chiang Mai Arr	11.92	22	P	P	03 17 01.5	-2.0
	7.4nm,0.3s,baz=228,slow=11,SNR=5.1						
VIS	Vishakhapatnam	14.78	315	eP	P	03 17 43.8	+2.4
MDRS	Chennai	14.87	293	eP	P	03 17 48.0	+5.4
MDRS				e		03 20 51.8	
KOD	Kodaikanal	16.80	281	eP	P	03 18 15.8	+8.4
KOD				eS	Sx	03 21 34.6	
BOK	Bokaro	18.17	335	eP	P	03 18 21.3	-3.2
BOK				e		03 18 31.7	
	comp=Z,284nm,2.2s						
SHL	Shillong	18.21	353	eP	P	03 18 20.8	-4.2
SHL				e		03 18 34.5	
	comp=Z,228nm,1.5s						
SHL				eS	S	03 21 45.3	+1.3
HYB	Hyderabad	18.25	305	eP	P	03 18 30.0	+4.5
HYB	Hyderabad	18.25	305	i P	P	03 18 30.0	+4.5
BLSP	Bilaspur	18.73	323	eP	P	03 18 28.2	-3.0
BLSP				e		03 18 38.9	
	comp=Z,509nm,1.6s						
QIZ	Qiongzhong	19.08	51	P	P	03 18 34.5	-1.0
QIZ	Qiongzhong	19.08	51	eP	P	03 18 34.4	-1.1
	comp=Z,90nm,1.0s						
KMI	Kunming	19.42	24	eP	P	03 18 42.0	+2.6
KMI				AP		03 18 52.3	
KMI				AMB	AMB		
	comp=Z,156nm,1.4s						
GOA	Goa	21.54	294	e	P	03 19 14.6	+13
PKI	Pulchoki	21.74	338	eP	P	03 19 06.7	+3.2
	comp=Z,1µm,1.3s,mb6.1						
GUN	Gumba	21.89	340	eP	P	03 19 08.0	+3.1
	comp=Z,547nm,0.7s,mb6.1						
DMN	Daman	21.89	338	eP	P	03 19 06.0	+1.0
	comp=Z,1µm,1.3s,mb6.1						
KAD	Karad	21.90	299	eP	P	03 19 04.8	-0.3
KAD				e		03 19 17.5	
	comp=Z,285nm,1.3s						
KKN	Kakani	21.99	338	eP	P	03 19 09.7	+3.7
	comp=Z,613nm,1.1s,mb6.0						
GYA	Guiyang	22.35	31	⇑iP	P	03 19 12.8	+3.2
GYA				PP	PP	03 19 36.5	-0.4
GYA				S	S	03 23 04.0	-4.5
GYA				AMB	AMB		
	comp=Z,150nm,1.2s,mb5.3						
GYA				LR	LR		
	comp=N,42µm,15.4s,MS6.1						

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GYA                                 LR      LR
       comp=E,38µm,14.2s,MS6.1
GYA                                 LR      LR
       comp=Z,35µm,16.0s,MS5.9
LSA    Lhasa              22.38 353 P       P        03 19 14.5 +4.7
LSA    Lhasa              22.38 353 eP      P        03 19 12.9 +3.1
GKN    Gorkha             22.42 337 eP      P        03 19 14.0 +3.7
       comp=Z,1µm,1.3s,mb6.1
BHPL   Bhopal             22.56 316 eP      P        03 19 15.6 +3.8
BHPL                                e                03 19 23.7
       comp=Z,288nm,1.4s
KOLN   Koldanda           22.63 335 eP      P        03 19 15.9 +3.5
       comp=Z,918nm,1.2s,mb6.1
ENH    Enshi              26.89  30 eP      P        03 19 49.3 -3.6
       comp=Z,112nm,1.0s,mb5.3
WHN    Wuhan              29.77  37 ⇓P      P        03 20 19.5 +0.6
HHC    Hu-ho-hao-te       36.73  22 eP      P        03 21 21.5 +2.5
HHC                                 AP      pP       03 21 31.3 +3.4
HHC                                 XP      sP       03 21 35.3 +3.6
HHC                                 PP      PP       03 22 49.5 +5.1
HHC                                 PCP     PcP      03 23 44.0 +2.5
HHC                                 S       S        03 27 03.5 +3.4
HHC                                 SS      SS       03 29 32.8 +4.6
HHC                                 SCS     ScS      03 31 31.5 +1.3
HHC                                 AMB     AMB
       comp=Z,34nm,0.7s,mb5.3
HHC                                 LR      LR
       comp=N,74µm,19.6s,MS6.6
HHC                                 LR      LR
       comp=E,59µm,17.5s,MS6.6
HHC                                 LR      LR
       comp=Z,187µm,21.8s,MS6.8
WMQ    Urumqi             36.73 352 eP      P        03 21 21.8 +2.8
MBWA   Marble Bar         37.84 139 eP      P        03 21 29.1 +0.5
       comp=Z,68nm,1.2s,mb5.2
BJT    Baijiatuau         37.97  28 eP      P        03 21 30.7 +1.3
BJI    Beijing            37.99  28 P       P        03 21 31.8 +2.2
AAK    Ala-Archa          39.18 337 eP      P        03 21 38.4 -1.1
       comp=Z,38nm,1.0s,mb5.1
DL2    Dalian             39.92  34 P       P        03 21 47.3 +1.6
DL2                                 AMB     AMB
       comp=Z,60nm,1.2s,mb5.2
SONM   Songino Array      41.61  12 P       P        03 21 53.4 -6.1
       comp=Z,19nm,1.0s,mb4.7,baz=194,slow=5.1,SNR=10
ULN    Ulaanbaatar        41.78  13 eP      P        03 21 53.2 -7.7
       comp=Z,2µm,3.3s
NWAO   Narrogin (SRO)     45.68 153 P       P        03 22 33.5 +0.9
       comp=Z,28nm,0.7s,mb5.3,baz=322,slow=7.8,SNR=8.0
NWAO   Narrogin (SRO)     45.68 153 eP      P        03 22 31.1 -1.6
       comp=Z,22nm,0.8s,mb5.1
HASS   Wahat al Ahsa’     46.00 298 P       P        03 22 42.3 +7.0
HIA    Hailar             46.93  23 eP      P        03 22 41.0 -1.3
       comp=Z,20nm,0.8s,mb5.1
ZAL    Zalesovo           47.03 352 P       P        03 22 42.8 -0.3
       comp=Z,5.5nm,0.4s,mb4.8,baz=71,slow=13,SNR=3.2
WRA    Warramunga Arr     47.91 125 P       P        03 22 50.6 +0.2
       comp=Z,18nm,0.7s,mb5.2,baz=305,slow=9.0,SNR=6.0
WRAB   Tennant Creek      47.92 125 eP      P        03 22 50.5 +0.1
       comp=Z,110nm,1.4s,mb5.7
MDJ    Mudanjiang         48.16  34 eP      P        03 22 52.6 +0.6
       comp=Z,132nm,1.5s,mb5.8
MAJO   Matsushiro         49.42  47 eP      P        03 23 02.0 +0.2
       comp=Z,13nm,0.8s,mb5.0
MAT    Matsushiro         49.42  47 P       P        03 23 02.2 +0.4
MAT    Matsushiro         49.42  47 eP      P        03 23 02.0 +0.2
BVAR   Borovoye Array     49.47 341 P       P        03 23 01.1 -0.9
       comp=Z,29nm,0.8s,mb5.3,baz=135,slow=8.4,SNR=14
BRVK   Borovoye           49.53 341 eP      P        03 23 01.1 -1.4
       comp=Z,69nm,1.1s,mb5.6
ASAR   Alice Springs      49.54 130 P       P        03 23 03.9 +1.0
       comp=Z,25nm,0.9s,mb5.2,baz=309,slow=7.4,SNR=9.4
MZLS   Mizel              49.73 295 P       P        03 23 07.7 +3.4
AFFS   ‘Afif              51.69 295 P       P        03 23 20.9 +1.6
HILS   Ha’il              53.41 299 P       P        03 23 35.2 +3.1
GNI    Garni              54.83 315 P       P        03 23 40.5 -1.9
       comp=Z,4.7nm,0.7s,mb4.6,baz=162,slow=11,SNR=3.4
GNI    Garni              54.83 315 eP      P        03 23 41.6 -0.7
       comp=Z,88nm,1.4s,mb5.6
PMG    Port Moresby       55.31 107 P       P        03 23 49.3 +3.2
       comp=Z,15nm,0.7s,mb5.2,baz=252,slow=12,SNR=4.0
PMG    Port Moresby       55.31 107 P       P        03 23 49.3 +3.2
ASAJ   Asahikawa          55.72  41 P       P        03 23 47.2 -1.5
       comp=Z,9.6nm,0.8s,mb4.9,baz=298,slow=10,SNR=2.3
ARU    Arti               56.37 337 eP      P        03 23 52.0 -1.2
       comp=Z,90nm,1.2s,mb5.7
YSS    Yuzh-Sakhalins     57.11  38 P       P        03 23 58.1 -0.5
       comp=Z,2µm,2.6s
KMBO   Kilima Mbogo       57.46 264 P       P        03 24 03.0 +1.5
       comp=Z,19nm,0.9s,mb5.1,baz=56,slow=10,SNR=18
KMBO   Kilima Mbogo       57.46 264 eP      P        03 24 02.8 +1.3
       comp=Z,107nm,1.1s,mb5.8
KIV    Kislovodsk         57.73 318 P       P        03 24 01.8 -1.2
       comp=Z,20nm,0.7s,mb5.2
CTA    Charters Tower     58.00 119 P       P        03 24 08.7 +3.5
       comp=Z,5.8nm,0.8s,mb4.7,baz=337,slow=4.9,SNR=3.4
CTAO   Charters Tower     58.00 119 P       P        03 24 06.0 +0.8
TBKS   Tabuk              58.13 299 P       P        03 24 05.3 -0.7
ASF    Jabal al Asfar     58.55 303 P       P        03 24 08.7 -0.2
       comp=Z,6.7nm,1.0s,mb4.6,baz=353,slow=13,SNR=4.4
JMQS   Jabal Moqyreh      58.81 299 P       P        03 24 11.8 +1.0
BDAS   Al Bad‘            59.42 299 P       P        03 24 14.6 -0.4
JMOS   Jabal al Moall     59.52 299 P       P        03 24 15.3 -0.5
ALWS   Ilw as Safayha     59.59 300 P       P        03 24 16.7 +0.5
HAQS   Haql               59.66 299 P       P        03 24 17.0 +0.4
STKA   Stephens Creek     59.71 134 P       P        03 24 16.9 -0.1
       comp=Z,20nm,0.8s,mb5.2,baz=316,slow=6.4,SNR=6.0
STKA   Stephens Creek     59.71 134 eP      P        03 24 14.2 -2.8
EIL    Elat               59.74 300 P       P        03 24 17.2  0.0
       comp=Z,8.2nm,0.7s,mb4.9,baz=343,slow=8.2,SNR=5.7
EIL    Elat               59.74 300 eP      P        03 24 17.3 +0.1
       comp=Z,83nm,1.4s,mb5.6
CSS    Prodhromos         62.02 306 eP      P        03 24 32.8 +0.1
BRTR   Keskin Array B     62.81 311 P       P        03 24 35.5 -2.3
       comp=Z,7.9nm,0.9s,mb4.8,baz=126,slow=7.2,SNR=7.7
MBAR   Mbarara            63.81 266 eP      P        03 24 45.0 +0.2
       comp=Z,92nm,1.4s,mb5.6
MA2    Magadan            67.15  27 eP      P        03 25 04.4 -1.1
       comp=Z,43nm,0.9s,mb5.5
AKASG  Malin Array Be     68.58 322 P       P        03 25 12.6 -2.1
       comp=Z,4.0nm,0.7s,mb4.5,baz=88,slow=4.3,SNR=8.3
IDI    Anoyia             68.91 305 P       P        03 25 16.5 -0.5
       comp=Z,16nm,0.6s,mb5.1,baz=81,slow=6.5,SNR=6.9
LSZ    Lusaka             69.19 251 eP      P        03 25 18.7 -0.3
       comp=Z,56nm,1.1s,mb5.4
BOLS   Boljevac           72.13 314 eP      P        03 25 38.0 +1.7
KWP    Kalwaria           72.45 320 eP      P        03 25 37.5 -0.6
       comp=Z,44nm,1.2s,mb5.3
KOLS   Kolonicke sedl     72.62 319 eP      P        03 25 40.5 +1.4
SUW    Suwalki            72.94 324 eP      P        03 25 39.4 -1.6
       comp=Z,79nm,1.0s,mb5.6
CRVS   Cervenica-Dubn     73.15 319 e       pP       03 25 47.3 -4.3
FINES  FINESS Array B     73.17 332 P       P        03 25 41.1 -1.0
       comp=Z,11nm,0.6s,mb4.9,baz=102,slow=6.3,SNR=15
KAF    Kangasniemi        73.26 333 ep      P        03 25 41.7 -0.9
       baz=104,slow=5.6
LBTB   Lobatse            74.09 241 eP      P        03 25 48.0 -0.2
       comp=Z,66nm,1.4s,mb5.4
VYHS   Vyhne              74.82 318 eP      P        03 25 55.9 +4.0
BOSA   Boshof             75.40 238 eP      P        03 25 54.1 -1.5
       comp=Z,90nm,1.4s,mb5.5
OKC    Ostrava-Krasne     75.41 320 eP      P        03 25 54.7 -0.6
ARCES  ARCESS Array B     75.75 340 P       P        03 25 56.8  0.0
       comp=Z,7.2nm,0.7s,mb4.7,baz=102,slow=6.8,SNR=7.8
MORC   Moravsky Berou     75.80 319 eP      P        03 25 56.7 -0.8
       comp=Z,53nm,1.4s,mb5.3
ZST    Bratislava         75.95 318 eP      P        03 25 58.2 -0.1
KTK1   Kautokeino         76.37 339 eP      P        03 26 00.7 +0.3
KTK1                                AMb     AMB      03 26 13.0
       comp=Z,97nm,1.3s,mb5.6
KTK1   Kautokeino         76.37 339 eP      P        03 26 00.7 +0.3
       comp=Z,97nm,1.3s,mb5.6
BILL   Bilibino           76.50  22 eP      P        03 25 59.9 -1.2
DPC    Dobruska-Polom     76.63 320 eP      P        03 26 06.6 +4.5
KSP    Ksiaz              76.69 320 eP      P        03 26 02.0 -0.4
UPC    Upice              76.84 320 eP      P        03 26 04.3 +1.0
ARSA   Arzberg            76.94 317 ⇑iP     P        03 26 09.1 +5.1
       comp=Z,29nm,1.4s,mb5.0
OBKA   Obir               77.58 316 ⇓iP     P        03 26 13.0 +5.5
       comp=Z,45nm,1.3s,mb5.2
PRU    Pruhonice          77.75 319 eP      P        03 26 13.1 +4.8
MOA    Molln              77.83 317 ⇑iP     P        03 26 04.5 -4.3
       comp=Z,13nm,1.7s,mb4.6
TRO    Tromso             78.00 340 eP      P        03 26 07.9 -1.5
MAW    Mawson             78.08 192 P       P        03 26 14.2 +4.4
       comp=Z,9.6nm,0.7s,mb4.8,baz=36,slow=5.8,SNR=8.7
MAW    Mawson             78.08 192 eP      P        03 26 07.2 -2.6
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       comp=Z,83nm,1.5s,mb5.4
BRG    Berggiesshubel     78.18 320 eP      P        03 26 12.1 +1.5
       comp=Z,60nm,1.8s,mb5.2
BRG                                 i                03 26 16.0
GERES  GERESS Array B     78.24 318 P       P        03 26 11.0  0.0
       comp=Z,7.7nm,0.8s,mb4.7,baz=86,slow=5.6,SNR=11
KHC    Kasperske Hory     78.33 319 eP      P        03 26 11.5 -0.1
RUE    Ruedersdorf        78.36 322 eP      P        03 26 11.3 -0.3
       comp=Z,19nm,0.7s,mb5.1
PTCC   Patocco-Chiusa     78.40 316 eP      P        03 26 11.4 -0.5
KBA    Koelnbreinsper     78.42 316 ⇓iP     P        03 26 13.0 +0.9
       comp=Z,20nm,1.2s,mb4.9
CLL    Collm              78.79 321 eP      pP       03 26 19.0 -4.5
CLL    Collm              78.79 321 e*PP    pP       03 26 19.0 -4.5
FVI    Forni Avoltri      78.80 316 eP      P        03 26 14.1 -0.1
NKC    Novy Kostel        79.10 320 eP      P        03 26 20.6 +4.9
MOR8   Moi Rana           79.15 336 eP      P        03 26 14.1 -1.6
MOR8                                AMb     AMB      03 26 28.2
       comp=Z,68nm,1.6s,mb5.3
MOR8   Moi Rana           79.15 336 eP      P        03 26 14.1 -1.6
       comp=Z,68nm,1.6s,mb5.3
SFI    Santa Sofia        79.44 313 eP      P        03 26 18.0 +0.3
CTI    Castel Tesino      79.58 315 eP      P        03 26 18.6 +0.2
WTTA   Wattenberg         79.59 317 ⇓iP     P        03 26 17.1 -1.3
       comp=Z,33nm,1.1s,mb5.2
WATA   Walderalm          79.63 317 ⇑iP     P        03 26 17.5 -1.2
       comp=Z,12nm,0.8s,mb4.9
MOX    Moxa               79.64 320 i P     P        03 26 27.6 +8.9
MOX    Moxa               79.64 320 eP      P        03 26 27.6 +8.9
VMG    Vicchio            79.65 313 eP      P        03 26 19.9 +1.0
LOF    Lofoten            79.71 338 eP      P        03 26 20.5 +1.8
SEI    Scarperia          79.79 313 eP      P        03 26 19.9 +0.3
SQTA   Sankt Quirin       79.88 317 ⇑iP     P        03 26 19.1 -0.9
       comp=Z,6.7nm,0.6s,mb4.8
MOTA   Moosalm            79.95 317 ⇑iP     P        03 26 19.2 -1.2
       comp=Z,9.2nm,0.9s,mb4.7
NSS    Namsos             80.04 334 eP      P        03 26 19.2 -1.3
NSS                                 epP     pP       03 26 29.9 -0.2
NSS    Namsos             80.04 334 eP      P        03 26 18.4 -2.0
SUR    Sutherland         80.13 235 P       P        03 26 21.0 -0.7
NB2    NORSAR Subarra     80.19 331 P       P        03 26 20.5 -0.9
       comp=Z,4.6nm,0.7s,mb4.5,baz=95,slow=5.0
NB2    NORSAR Subarra     80.19 331 P       P        03 26 20.5 -0.9
       baz=95,slow=5.3
NOA    NORSAR Array B     80.19 331 P       P        03 26 20.5 -0.9
       comp=Z,6.0nm,0.7s,mb4.6,baz=93,slow=5.6,SNR=9.5
NAO01  NORSAR Array S     80.34 330 eP      P        03 26 20.1 -2.1
       comp=Z,14nm,0.8s,mb5.0
BRMO   Bormio             80.46 316 eP      P        03 26 22.7 -0.4
DAVA   Damuels            80.79 317 ⇓iP     P        03 26 26.2 +1.4
       comp=Z,42nm,1.1s,mb5.3
STU    Stuttgart          81.22 318 eP      P        03 26 28.2 +1.2
       comp=Z,648nm,2.8s,mb6.1
MOL    Molde              81.96 332 eP      P        03 26 32.8 +2.2
MOL                                 AMb     AMB      03 26 46.3
       comp=Z,90nm,1.5s,mb5.5
MOL    Molde              81.96 332 eP      P        03 26 32.8 +2.2
       comp=Z,90nm,1.5s,mb5.5
LPL    La Plagne          83.03 315 eP      P        03 26 35.5 -1.0
       comp=Z,60nm,0.8s,mb5.4
BNI    Bardonecchia       83.10 314 eP      P        03 26 39.2 +2.3
       comp=Z,836nm,2.7s,mb6.3
SYO    Syowa Base         84.97 197 ⇓P      P        03 26 46.8 +1.0
SYO    Syowa Base         84.97 197 ⇑PcP    PcP      03 26 51.2 +1.7
URZ    Urewera            88.97 129 P       P        03 27 07.7 +1.7
       comp=Z,23nm,1.2s,mb5.4,baz=96,slow=4.3,SNR=5.7
ESDC   Sonseca Array      91.59 310 P       P        03 27 18.7 +0.6
       comp=Z,6.6nm,0.9s,mb5.0,baz=64,slow=4.1,SNR=8.4
IMA    Indian Mountai     92.03  22 eP      P        03 27 20.1 +0.6
       comp=Z,74nm,0.8s,mb6.1
VNDA   Vanda              92.44 168 P       P        03 27 25.6 +4.4
       comp=Z,3.1nm,0.8s,mb4.7,baz=354,slow=1.1,SNR=5.1
SPU    Mount Spurr        94.67  26 P       P        03 27 31.3 -0.5
ILAR   Eielson Array      95.16  22 P       P        03 27 32.4 -1.5
       comp=Z,1.5nm,0.8s,mb4.5,baz=311,slow=3.7,SNR=4.1
INK    Inuvik             97.43  16 P       P        03 27 43.4 -0.8
       comp=Z,8.4nm,1.2s,mb5.1,baz=228,slow=4.4,SNR=5.4
INK    Inuvik             97.43  16 eP      P        03 27 41.8 -2.3
       comp=Z,30nm,1.4s,mb5.5
RES    Resolute Bay       97.88   2 eP      P        03 27 46.1 +0.1
       comp=Z,5.6nm,0.8s,mb5.2
DBIC   Dimbokro           98.09 278 P       P        03 27 49.3 +0.9
       comp=Z,4.5nm,1.1s,mb4.9,baz=280,slow=15,SNR=3.7
ULM    Lac du Bonnet     121.93   8 PKP     PKPdf    03 33 05.0 -4.2
       comp=Z,7.0nm,1.2s,baz=359,slow=4.7,SNR=3.7
HLID   Hailey            123.02  25 ePKPdf  PKPdf    03 33 07.3 -4.2
MOOW   Moose Ponds       124.30  22 ePKPdf  PKPdf    03 33 09.0 -4.9
TPAW   Teton Pass        124.44  22 ePKPdf  PKPdf    03 33 10.2 -4.1
LOHW   Long Hollow       124.47  22 ePKPdf  PKPdf    03 33 08.8 -5.5
SNOW   Snow King Moun    124.54  22 ePKPdf  PKPdf    03 33 09.0 -5.5
REDW   Red Top Meadow    124.59  22 ePKPdf  PKPdf    03 33 09.7 -4.9
EYMN   Ely               124.67   5 ePKPdf  PKPdf    03 33 10.0 -4.6
ELK    Elko              124.96  27 ePKPdf  PKPdf    03 33 09.9 -5.5
NVAR   Mina Array Bea    125.28  31 PKP     PKPdf    03 33 13.0 -3.0
       comp=Z,1.0nm,0.3s,baz=224,slow=24,SNR=16
NVAR   Mina Array Bea    125.28  31 PKP     PKPdf    03 33 13.0 -3.0
LRV    Little Rabbit     125.29  35 ePKPdf  PKPdf    03 33 11.3 -4.8
MNV    Mina              125.36  31 ePKPdf  PKPdf    03 33 12.0 -4.2
PDAR   Pinedale Array    125.58  21 PKP     PKPdf    03 33 11.4 -5.1
       comp=Z,2.4nm,0.9s,baz=40,slow=1.4,SNR=7.7
BGU    Big Grassy Mou    125.78  25 ePKPdf  PKPdf    03 33 13.2 -3.8
HWUT   Hardware Ranch    125.81  24 ePKPdf  PKPdf    03 33 12.6 -4.4
MTUM   Tungsten Hills    125.96  32 ePKPdf  PKPdf    03 33 13.1 -4.3
NLU    North Lily Min    126.99  25 ePKPdf  PKPdf    03 33 14.1 -5.1
RWWY   Rawlins           127.36  20 PKPdf   PKPdf    03 33 13.8 -6.1
KSU1   Kansas State U    132.66  11 ePKPdf  PKPdf    03 33 25.8 -4.3
ANMO   Albuquerque       133.57  24 PKP     PKPdf    03 33 27.6 -4.3
       comp=Z,2.2nm,0.8s,baz=37,slow=2.2,SNR=5.4
ANMO   Albuquerque       133.57  24 ePKPdf  PKPdf    03 33 28.1 -3.8
TXAR   Lajitas Array     139.63  24 PKP     PKPdf    03 33 39.7 -3.5
       comp=Z,1.7nm,0.8s,baz=299,slow=0.3,SNR=9.3
BAO    Brasilia Array    142.14 254 PKP     PKPdf    03 33 47.0 -1.0
BDFB   Brasilia          142.16 254 PKP     PKPdf    03 33 46.7 -1.3
       comp=Z,5.1nm,0.9s,baz=208,slow=1.7,SNR=3.9
SJG    San Juan          148.10 323 PKPbc   PKPdf    03 34 01.4 +3.3
       comp=Z,16nm,0.7s,baz=112,slow=7.0,SNR=4.3
SJG    San Juan          148.10 323 PKPbc   PKPdf    03 34 01.4 +3.3
MDZ    Mendoza           150.17 209 eP      PKPdf    03 33 58.9 -2.1
PCRV   Puerto La Cruz    152.66 309 PKPbc   PKPdf    03 34 10.1 +4.9
       comp=Z,6.7nm,0.6s,baz=358,slow=14,SNR=4.4
SDV    Santo Domingo     157.88 317 PKPab   PKPab    03 34 42.9 +0.5
       comp=Z,8.3nm,0.8s,baz=44,slow=4.6,SNR=5.4
LPAZ   La Paz            160.62 241 PKP     PKPdf    03 34 16.4 +1.2
       comp=Z,2.1nm,0.9s,baz=116,slow=7.2,SNR=2.2
LPAZ   La Paz            160.62 241 PKP     PKPdf    03 34 16.4 +1.2
LPAZ                                ePKP    PKPdf    03 34 23.0 +7.8
ROSC   El Rosal          163.31 316 PKP     PKPdf    03 34 18.8 +0.8
       comp=Z,5.7nm,1.0s,baz=88,slow=23,SNR=2.6
OTAV   Otavalo           169.48 316 PKPdf   PKPdf    03 34 21.1 -1.7
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*IDC **26** 03:17:47.4±0.4, 7.39N×93.02E, mb4.9/30, mb1 4.9/31, mb1mx4.9/31, Error ellipse: s-maj=16.8km s-min=11.3km az=36.0*

*NEIC **26** 03:17:52.4±0.2, 7.21N×92.92E, h30^{km}, mb5.6/32, Error ellipse: s-maj=10.1km s-min=7.4km az=220.0*

*BJI **26** 03:17:52.1, 7.31N×92.96E, h24^{km}, mb5.1, Ms6.3, Msz6.6*

*SYO **26** 03:17:52.7, 7.16N×92.85E, h30^{km}, MB5.8*

ISC 26 03:17:51.5±1.7**, 7.17N**±0.05×**92.97E**±0.04**, h39**^{km}±14^{km}**, h13**^{km}±6.9^{km}**:pP-P, n166,** σ1^{s}**33**/133**, mb5.3**/59**, 2C-7D, Nicobar Islands region**

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Code   Station Name       Δ°    AZ°   Phase ID       Time      Res
                                    Op      ISC      h  m  s   ISC
CM31   Chiang Mai Arr     12.64  27 eP      P        03 20 46.0 -5.5
       77nm,0.8s
CMAR   Chiang Mai Arr     12.64  27 Pn      P        03 20 45.8 -5.8
       baz=76,slow=40,SNR=3.6
MDRS   Chennai            13.83 296 eP      P        03 21 08.3 +1.0
MDRS                                e                03 21 12.3
       comp=Z,463nm,1.8s
VIS    Vishakhapatnam     14.09 319 eP      P        03 21 05.4 -5.3
KOD    Kodaikanal         15.62 282 eP      P        03 21 39.2 +8.4
BOK    Bokaro             17.88 338 eP      P        03 21 57.9 -1.1
BOK                                 e                03 22 03.2
       comp=Z,225nm,1.3s
BLSP   Bilaspur           18.18 326 eP      P        03 22 01.3 -1.6
SHL    Shillong           18.32 357 eP      P        03 22 02.1 -2.6
SHL                                 e                03 22 11.2
       comp=Z,157nm,2.1s
KMI    Kunming            20.15  27 eP      P        03 22 27.3 +2.0
KMI                                 AP               03 22 30.0
KMI                                 AMB     AMB
       comp=Z,112nm,1.5s
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QIZ    Qiongzhong         20.20  53 P       P        03 22 27.3 +1.5
QIZ                                 eS      S        03 26 07.0 +1.6
QIZ                                 AMB     AMB
       comp=Z,117nm,1.5s
AKL    Akola              20.48 313 eP      P        03 22 30.3 +1.5
AKL                                 eS      S        03 26 15.7 +4.7
GOA    Goa                20.50 295 eP      P        03 22 31.3 +2.3
KAD    Karad              20.92 301 eP      P        03 22 31.0 -2.3
BHPL   Bhopal             21.88 319 eP      P        03 22 45.9 +3.0
BHPL                                e                03 22 55.9
       comp=Z,139nm,1.5s
LSA    Lhasa              22.48 356 P       P        03 22 51.3 +2.5
LSA    Lhasa              22.48 356 eP      P        03 22 51.5 +2.7
       comp=Z,54nm,0.8s,mb5.0
PTH    Pithoragarh        25.30 333 e       P        03 23 18.0 +1.8
CD2    Chengdu            25.69  22 P       P        03 23 20.3 +0.4
CD2                                 AMB     AMB
       comp=Z,150nm,1.1s,mb5.4
ENH    Enshi              27.72  32 eP      P        03 23 39.0 +0.4
       comp=Z,172nm,1.4s,mb5.5
TGY    Tagaytay City      28.32  74 P       P        03 23 41.9 -2.2
       comp=Z,99nm,0.3s,mb5.8,baz=117,slow=4.8,SNR=2.3
TBP    Tagbilaran         30.65  83 eP      P        03 24 09.9 +5.1
WHN    Wuhan              30.70  38 ⇓P      P        03 24 06.0 +0.9
GTA    Gaotai             32.69  10 P       P        03 24 22.0 -0.4
GTA                                 AP      pP       03 24 28.0 -5.3
GTA                                 XP      sP       03 24 31.8 -6.5
GTA                                 AMB     AMB
       comp=Z,25nm,1.2s,mb5.0
NJ2    Nanjing            34.56  41 eP      P        03 24 38.3 -0.3
KSH    Kashi              35.65 337 eP      P        03 24 53.8 +5.9
KSH                                 eAP     pP       03 24 57.3 -1.5
KSH                                 eXP     sP       03 25 00.3 -3.5
TIA    Tai’an             36.37  34 eP      P        03 24 53.0 -1.0
HHC    Hu-ho-hao-te       37.42  23 eP      P        03 25 07.5 +4.8
HHC                                 AP      pP       03 25 17.0 +3.3
HHC                                 XP      sP       03 25 21.0 +2.4
HHC                                 PP      PP       03 26 36.5 +5.4
HHC                                 PCP     PcP      03 27 23.0 +1.6
HHC                                 S       S        03 30 46.3 -1.6
HHC                                 PCS              03 31 11.5
HHC                                 AMB     AMB
       comp=Z,52nm,1.5s,mb5.1
HHC                                 LR      LR
       comp=N,76µm,20.2s
HHC                                 LR      LR
       comp=E,96µm,23.8s
HHC                                 LR      LR
       comp=Z,163µm,23.8s
UCH    Uchtor             38.55 338 P       P        03 25 13.5 +1.4
       SNR=8.1
BJT    Baijiatuau         38.75  29 eP      P        03 25 15.4 +1.5
       comp=Z,2µm,2.6s,mb6.3
KBK    Karagaybulak       38.76 339 P       P        03 25 15.2 +1.3
       SNR=8.2
AML    Almayashu          38.78 337 P       P        03 25 15.5 +1.4
       SNR=9.7
JOW    Kunigami           38.81  55 P       P        03 25 12.5 -2.0
       comp=Z,10nm,0.8s,mb4.6,baz=13,slow=29,SNR=2.9
AAK    Ala-Archa          38.90 338 P       P        03 25 16.8 +1.7
       SNR=7.6
AAK    Ala-Archa          38.90 338 eP      P        03 25 15.1  0.0
       comp=Z,314nm,1.6s,mb5.8
CHMS   Chumysh            39.13 339 P       P        03 25 18.0 +1.0
       SNR=5.3
EKS2   Erkin-Say          39.20 337 P       P        03 25 19.5 +1.9
       SNR=6.5
USP    Ospenovka          39.45 339 P       P        03 25 20.9 +1.2
       SNR=8.3
DL2    Dalian             40.81  35 P       P        03 25 36.3 +5.4
DL2                                 AMB     AMB
       comp=Z,50nm,1.2s,mb5.0
SONM   Songino Array      42.11  13 P       P        03 25 40.6 -0.9
       comp=Z,3.6nm,0.7s,baz=198,slow=8.4,SNR=3.1
NWAO   Narrogin (SRO)     46.07 151 P       P        03 26 14.0 +0.3
       comp=Z,42nm,1.1s,mb5.3,baz=339,slow=5.9,SNR=3.4
NWAO   Narrogin (SRO)     46.07 151 eP      P        03 26 13.2 -0.5
CN2    Changchun          46.24  33 eP      P        03 26 15.5 +0.6
CN2                                 AMB     AMB
       comp=Z,70nm,1.5s,mb5.4
HIA    Hailar             47.62  24 eP      P        03 26 25.9 +0.2
       comp=Z,38nm,1.1s,mb5.3
WRA    Warramunga Arr     48.81 124 P       P        03 26 34.1 -1.2
       comp=Z,30nm,0.8s,mb5.4,baz=310,slow=8.2,SNR=8.8
WRAB   Tennant Creek      48.81 124 eP      P        03 26 34.0 -1.3
       comp=Z,696nm,1.6s
MDJ    Mudanjiang         49.04  34 eP      P        03 26 37.4 +0.7
       comp=Z,330nm,1.8s,mb6.1
BVAR   Borovoye Array     49.29 342 P       P        03 26 35.8 -2.8
       comp=Z,7.0nm,0.8s,mb4.8,baz=135,slow=10,SNR=6.2
BRVK   Borovoye           49.35 342 P       P        03 26 37.8 -1.2
CHKZ   Chkalovo           49.79 343 eP      P        03 26 42.0 -0.4
       comp=Z,40nm,0.9s,mb5.5
ASAR   Alice Springs      50.37 129 P       P        03 26 46.5 -0.7
       comp=Z,29nm,0.8s,mb5.3,baz=308,slow=7.1,SNR=9.7
MAT    Matsushiro         50.49  48 P       P        03 26 54.6 +6.6
MAT    Matsushiro         50.49  48 eP      P        03 26 55.0 +7.0
CBIJ   Chichi jima        50.65  61 P       P        03 26 47.1 -2.2
       comp=Z,59nm,0.8s,mb5.5,baz=296,slow=23,SNR=2.4
GNI    Garni              54.10 315 P       P        03 27 14.6 -0.4
       comp=Z,19nm,0.9s,mb5.0,baz=347,slow=12,SNR=2.6
GNI    Garni              54.10 315 eP      P        03 27 15.3 +0.3
       comp=Z,152nm,1.4s,mb5.7
ARU    Arti               56.09 338 eP      P        03 27 28.0 -1.1
       comp=Z,376nm,1.8s,mb6.1
KMBO   Kilima Mbogo       56.19 264 P       P        03 27 30.4  0.0
       comp=Z,1.8nm,1.0s,baz=35,slow=6.7,SNR=3.6
KMBO   Kilima Mbogo       56.19 264 P       P        03 27 30.4  0.0
PMG    Port Moresby       56.44 106 P       P        03 27 31.7 -0.5
       comp=Z,17nm,0.9s,mb5.1,baz=285,slow=6.1,SNR=4.2
ASAJ   Asahikawa          56.70  41 P       P        03 27 33.1 -0.6
       comp=Z,8.3nm,0.8s,mb4.8,baz=172,slow=33,SNR=2.2
KIV    Kislovodsk         57.07 319 eP      P        03 27 34.1 -2.1
       comp=Z,73nm,1.3s,mb5.5
ASF    Jabal al Asfar     57.63 304 P       P        03 27 39.8 -0.6
       comp=Z,4.6nm,0.8s,mb4.5,baz=330,slow=21,SNR=3.1
YSS    Yuzh-Sakhalins     58.05  38 eP      P        03 27 43.8 +0.7
       comp=Z,110nm,1.4s,mb5.7
EIL    Elat               58.77 300 P       P        03 27 47.9 -0.5
       comp=Z,8.7nm,0.8s,mb4.9,baz=2.8,slow=4.4,SNR=3.6
EIL    Elat               58.77 300 eP      P        03 27 48.5 +0.1
       comp=Z,75nm,1.4s,mb5.5
CTA    Charters Tower     58.98 118 P       P        03 27 49.6 -0.4
       comp=Z,24nm,1.1s,mb5.1,baz=292,slow=8.9,SNR=4.6
CTAO   Charters Tower     58.98 118 eP      P        03 27 49.7 -0.3
       comp=Z,166nm,1.5s,mb5.8
STKA   Stephens Creek     60.47 133 P       P        03 28 00.1 +0.1
       comp=Z,58nm,1.1s,mb5.5,baz=314,slow=7.6,SNR=10
STKA   Stephens Creek     60.47 133 eP      P        03 27 59.9 -0.2
CSS    Prodhromos         61.14 306 eP      P        03 28 02.9 -1.7
       comp=Z,149nm,1.7s,mb5.8
BRTR   Keskin Array B     62.01 311 P       P        03 28 08.1 -2.2
       comp=Z,4.5nm,0.9s,mb4.6,baz=128,slow=7.4,SNR=5.4
LSZ    Lusaka             67.94 250 P       P        03 28 48.0 -1.0
AKASG  Malin Array Be     67.99 322 P       P        03 28 46.1 -2.6
       comp=Z,1.8nm,0.6s,mb4.3,baz=93,slow=5.1,SNR=4.9
IDI    Anoyia             68.02 305 P       P        03 28 48.6 -0.6
       comp=Z,25nm,0.8s,mb5.3,baz=89,slow=7.6,SNR=9.0
GVD    Gavdhos            68.62 305 eP      P        03 28 55.1 +2.2
       comp=Z,142nm,1.4s,mb5.7
KWP    Kalwaria           71.82 320 P       P        03 29 11.3 -0.7
KOLS   Kolonicke sedl     71.97 319 e       P        03 29 18.4 +5.4
SUW    Suwalki            72.40 324 eP      P        03 29 14.2 -1.2
       comp=Z,109nm,1.2s,mb5.7
CRVS   Cervenica-Dubn     72.49 319 eP      P        03 29 14.8 -1.3
FINES  FINESS Array B     72.79 332 P       P        03 29 13.1 -4.5
       comp=Z,5.7nm,0.8s,mb4.6,baz=101,slow=9.7,SNR=3.9
KAF    Kangasniemi        72.89 333 ep      P        03 29 14.0 -4.2
LBTB   Lobatse            72.89 241 eP      P        03 29 18.8 -0.2
       comp=Z,185nm,1.8s,mb5.7
PSZ    Piszkesteto        73.38 318 eP      P        03 29 24.1 +2.7
VYHS   Vyhne              74.16 318 eP      P        03 29 21.9 -4.0
BOSA   Boshof             74.23 238 eP      P        03 29 26.0 -0.7
       comp=Z,124nm,1.6s,mb5.6
SRO    Srobarova          74.42 318 e       P        03 29 31.4 +4.0
OKC    Ostrava-Krasne     74.77 320 eP      P        03 29 28.9 -0.5
MORC   Moravsky Berou     75.15 320 P       P        03 29 29.9 -1.7
ZST    Bratislava         75.27 318 eP      P        03 29 32.3  0.0
ARCES  ARCESS Array B     75.53 340 P       P        03 29 31.1 -2.3
       comp=Z,39nm,1.3s,mb5.2,baz=76,slow=5.0,SNR=4.9
DPC    Dobruska-Polom     76.00 320 eP      P        03 29 36.2 -0.2
KSP    Ksiaz              76.06 321 eP      P        03 29 37.0 +0.2
UPC    Upice              76.21 320 eP      P        03 29 41.0 +3.4
OBKA   Obir               76.87 316 ⇓iP     P        03 29 41.8 +0.4
       comp=Z,60nm,1.4s,mb5.3
PRU    Pruhonice          77.11 320 eP      P        03 29 42.5 -0.2
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PVCC  Panska Ves         77.13 320  eP       P        03 29 43.1 +0.3
MOA   Molln              77.14 317⇓iP       P        03 29 42.6  -0.3
      comp=Z,39nm,1.5s,mb5.1
BRG   Berggiesshubel     77.55 320  eP       P        03 29 45.4 +0.3
      comp=Z,90nm,1.6s,mb5.5
GERES GERESS Array B     77.58 318   P       P        03 29 43.4  -1.9
      comp=Z,6.1nm,0.8s,mb4.6,baz=85,slow=4.9,SNR=6.1
MAW   Mawson             77.62 191   P       P        03 29 46.4 +1.2
      comp=Z,8.4nm,1.0s,mb4.6,baz=37,slow=5.6,SNR=4.1
MAW   Mawson             77.62 191  eP       P        03 29 46.4 +1.2
      comp=Z,42nm,1.3s,mb5.2
KHC   Kasperske Hory     77.67 319  eP       P        03 29 46.8 +0.9
PTCC  Patocco-Chiusa     77.69 316  eP       P        03 29 44.7  -1.2
KBA   Koelnbreinsper     77.72 317⇓iP       P        03 29 49.1 +2.9
      comp=Z,26nm,1.5s,mb5.0
RUE   Ruedersdorf        77.77 322  eP       P        03 29 44.0  -2.3
      comp=Z,105nm,1.4s,mb5.6
CLL   Collm              78.17 321  eP       P        03 29 48.0  -0.5
CLL                                 e                 03 29 53.0
CLL                                 e                 03 30 04.0
CLL   Collm              78.17 321   P       P        03 29 48.0  -0.5
CLL                                 e*PP     pP       03 29 53.0  -7.3
CLL                                 e                 03 30 04.0
NKC   Novy Kostel        78.47 320  eP       P        03 29 54.9 +4.7
SFI   Santa Sofia        78.68 313  eP       P        03 29 51.8 +0.4
CTI   Castel Tesino      78.86 315  eP       P        03 29 51.5  -0.9
WTTA  Wattenberg         78.90 317⇓iP       P        03 29 52.2  -0.4
      comp=Z,62nm,1.4s,mb5.3
VMG   Vicchio            78.90 313  eP       P        03 29 53.7 +1.0
SUR   Sutherland         78.98 235  eP       P        03 29 54.8 +1.4
      comp=Z,37nm,1.1s,mb5.2
SQTA  Sankt Quirin       79.19 317⇓iP       P        03 29 53.2  -1.0
      comp=Z,20nm,0.8s,mb5.1
NB2   NORSAR Subarra     79.77 331   P       P        03 29 52.6  -4.5
      comp=Z,2.2nm,0.7s,mb4.2,baz=97,slow=5.0
NOA   NORSAR Array B     79.77 331   P       P        03 29 52.9  -4.2
      comp=Z,3.1nm,0.7s,mb4.3,baz=92,slow=5.7,SNR=4.3
DAVA  Damuels            80.09 317⇑iP       P        03 29 59.6 +0.5
      comp=Z,68nm,1.4s,mb5.4
LPL   La Plagne          82.30 315  eP       P        03 30 09.8  -0.9
      comp=Z,276nm,1.8s,mb5.6
SYO   Syowa Base         84.40 197 ⇓P       P        03 30 23.8 +3.0
SYO   Syowa Base         84.40 197 ⇑PcP     PcP      03 30 27.1 +2.3
RPZ   Rata Peaks         86.38 135   P       P        03 30 34.4 +3.3
      comp=Z,52nm,1.0s,mb5.7,baz=112,slow=3.8,SNR=9.4
URZ   Urewera            89.81 128   P       P        03 30 49.4 +1.7
      comp=Z,31nm,1.2s,mb5.5,baz=296,slow=5.1,SNR=4.7
ESDC  Sonseca Array      90.78 310   P       P        03 30 53.1 +0.9
      comp=Z,24nm,1.3s,mb5.4,baz=61,slow=2.8,SNR=4.3
VNDA  Vanda              92.48 168   P       P        03 31 01.1 +1.9
      comp=Z,2.5nm,0.9s,mb4.5,baz=324,slow=7.0,SNR=3.8
IMA   Indian Mountai     92.71  22  eP       P        03 31 02.5 +2.0
      comp=Z,442nm,1.6s
SPU   Mount Spurr        95.43  26  eP       P        03 31 13.6 +0.7
ILAR  Eielson Array      95.83  22   P       P        03 31 13.9  -0.8
      comp=Z,2.6nm,1.0s,mb4.6,baz=290,slow=6.1,SNR=4.1
DBIC  Dimbokro           96.89 278   P       P        03 31 22.1 +1.4
      comp=Z,5.1nm,1.0s,mb4.9,baz=80,slow=6.6,SNR=3.7
INK   Inuvik             97.98  16   P       P        03 31 25.4 +0.9
      comp=Z,23nm,1.3s,mb5.5,baz=319,slow=4.9,SNR=4.0
INK   Inuvik             97.98  16  eP       P        03 31 24.7 +0.3
      comp=Z,43nm,1.5s,mb5.8
DAWY  Dawson             98.92  21  eP       P        03 31 30.2 +1.5
ULM   Lac du Bonnet     122.30   7   PKP     PKPdf    03 36 44.5 +1.9
      comp=Z,1.9nm,0.6s,baz=327,slow=4.6,SNR=3.4
HLID  Hailey            123.74  24  ePKPdf   PKPdf    03 36 48.7 +3.0
MOOW  Moose Ponds       124.96  21  ePKPdf   PKPdf    03 36 51.0 +3.0
LOHW  Long Hollow       125.13  21  ePKPdf   PKPdf    03 36 50.9 +2.6
SNOW  Snow King Moun    125.20  21  ePKPdf   PKPdf    03 36 51.2 +2.8
REDW  Red Top Meadow    125.26  21  ePKPdf   PKPdf    03 36 51.5 +2.9
ELK   Elko              125.72  26  ePKPdf   PKPdf    03 36 53.2 +3.7
NVAR  Mina Array Bea    126.11  30   PKP     PKPdf    03 36 52.6 +2.3
      comp=Z,5.5nm,1.0s,baz=355,slow=1.5,SNR=8.3
LRV   Little Rabbit     126.18  34  ePKPdf   PKPdf    03 36 54.6 +4.1
MNV   Mina              126.19  30  ePKPdf   PKPdf    03 36 53.0 +2.5
PDAR  Pinedale Array    126.23  20   PKP     PKPdf    03 36 51.6 +1.1
      comp=Z,12nm,1.1s,SNR=9.4
HWUT  Hardware Ranch    126.51  23  ePKPdf   PKPdf    03 36 53.7 +2.6
MTUM  Tungsten Hills    126.80  31  ePKPdf   PKPdf    03 36 55.4 +3.7
TRCR  Troy Canyon       127.50  28  ePKPdf   PKPdf    03 36 56.5 +3.5
NLU   North Lily Min    127.72  24  ePKPdf   PKPdf    03 36 55.8 +2.4
RWWY  Rawlins           127.98  19  ePKPdf   PKPdf    03 36 59.6 +5.7
MVU   Marysvale         128.88  25  ePKPdf   PKPdf    03 37 00.2 +4.5
PHWY  Pilot Hill        128.89  18   PKPdf   PKPdf    03 36 58.2 +2.6
MSU   Marysvale         128.89  25  ePKPdf   PKPdf    03 37 00.2 +4.5
NEN   Nelson            130.01  30  ePKPdf   PKPdf    03 37 01.8 +3.9
ANMO  Albuquerque       134.27  22   PKP     PKPdf    03 37 10.6 +4.6
      comp=Z,1.9nm,0.8s,baz=284,slow=3.2,SNR=4.4
ANMO  Albuquerque       134.27  22  ePKPdf   PKPdf    03 37 08.8 +2.8
TUC   Tucson            134.68  29   PKPdf   PKPdf    03 37 11.7 +4.9
TXAR  Lajitas Array     140.33  23   PKhKP            03 37 14.3
      comp=Z,1.1nm,0.7s,baz=348,slow=0.8,SNR=3.5
TXAR                                 PKP     PKPdf    03 37 19.1 +1.9
      comp=Z,1.9nm,0.6s,baz=21,slow=0.7,SNR=8.4
HKT   Hockley           142.14  12   PKPpre           03 37 18.5
SJG   San Juan          147.51 321   PKPbc   PKPdf    03 37 32.1 +2.2
      comp=Z,7.9nm,0.7s,baz=165,slow=3.5,SNR=3.4
SJG   San Juan          147.51 321   PKPbc   PKPdf    03 37 32.1 +2.2
RPN   Rapa Nui          150.98 136  ePKPbc   PKPdf    03 37 44.3 +9.2
PCRV  Puerto La Cruz    151.82 307   PKPbc   PKPdf    03 37 39.1 +2.4
      comp=Z,7.9nm,0.8s,baz=346,slow=12,SNR=2.1
LVC   Limon Verde       156.76 227   PKPab   PKPab    03 38 15.5 +0.3
      comp=Z,3.8nm,0.8s,baz=249,slow=3.6,SNR=3.2
LVC   Limon Verde       156.76 227  ePKPab   PKPab    03 38 16.2 +1.0
SDV   Santo Domingo     157.17 314   PKP     PKPdf    03 37 46.0 +2.0
      comp=Z,2.7nm,0.9s,baz=268,slow=11,SNR=2.4
SDV                                  PKPab   PKPab    03 38 22.3 +5.1
      comp=Z,4.1nm,0.9s,baz=256,slow=12,SNR=3.9
LPAZ  La Paz            159.41 242   PKP     PKPdf    03 37 49.5 +2.9
      comp=Z,7.3nm,1.3s,baz=352,slow=6.5,SNR=3.1
LPAZ                                 PKPab   PKPab    03 38 28.2 +1.4
      comp=Z,25nm,1.4s,baz=131,slow=3.9,SNR=5.7
LPAZ  La Paz            159.41 242  ePKPdf   PKPdf    03 37 48.4 +1.8
ROSC  El Rosal          162.59 313   PKP     PKPdf    03 37 52.6 +2.6
      comp=Z,6.4nm,1.1s,baz=101,slow=21,SNR=2.5
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MOS ***26*** *03:19:11.6±1.2, 3.58N×94.24E, h33km, mb5.4/17, Error ellipse: s-maj=16.5km s-min=7.8km az=116.0*

BJI ***26*** *03:19:12.0, 3.46N×93.89E, h36km, mB5.8, mb5.4, Ms6.5, Msz6.4*

NEIC ***26*** *03:19:13.1±0.2, 3.55N×94.29E, h30km, mb5.5/30, Error ellipse: s-maj=7.8km s-min=5.9km az=56.0*

IDC ***26*** *03:19:15.4±6.0, 3.63N×94.33E, h50km±53km, mb4.7/23, mb1 4.8/24, mb1mx4.8/27, ML5.5/1, Error ellipse: s-maj=22.9km s-min=11.6km az=44.0*

SYO ***26*** *03:19:15.1, 3.72N×93.82E, h30km, MB5.6*

ISC 26 03:19:12.0±0.3**, 3.53N**±0.05×**94.26E**±0.05**, h34km, h34km**±4.1km**:pP-P, n187, σ1§12**/160**, mb5.3**/63**, MS6.4**/3**, 9C-8D, Off west coast of northern Sumatera**

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Code  Station Name        Δ°   AZ°    Phase ID            Time     Res
                                    Op       ISC      h  m  s    ISC
CM31  Chiang Mai Arr     15.53  17  eP       P        03 22 50.3 +0.1
      94nm,0.5s
CMAR  Chiang Mai Arr     15.53  17   P       P        03 22 51.7 +1.5
      6.8nm,0.3s,baz=213,slow=11,SNR=15
CMAR  Chiang Mai Arr     15.53  17   P       P        03 22 51.7 +1.5
CMAR                                 pmax    pmax
      comp=Z,7.0nm,0.3s
COCO  West Island        15.82 171   P       P        03 22 58.3 +4.3
      comp=Z,628nm,1.3s
MDRS  Chennai            16.79 305  eP       P        03 23 06.2   0.0
VIS   Vishakhapatnam     17.72 324  eP       P        03 23 18.4 +0.6
VIS                                 e                 03 23 28.7
      comp=Z,361nm,1.9s
BOK   Bokaro             21.71 339  eP       P        03 24 02.6 +0.4
BOK                                 e                 03 24 09.5
      comp=Z,565nm,1.4s
BLSP  Bilaspur           21.92 329  eP       P        03 24 05.6 +1.4
BLSP                                e                 03 24 11.4
      comp=Z,541nm,1.4s
KMI   Kunming            22.97  20  eP       P        03 24 17.8 +3.1
KMI                                  AMB     AMB
      comp=Z,181nm,1.3s,mb5.3
KAD   Karad              23.99 306  eP       P        03 24 26.0 +1.4
BHPL  Bhopal             25.48 322  eP       P        03 24 37.8  -1.1
BHPL                                e        pP       03 24 45.5  -3.0
      comp=Z,521nm,1.5s
GYA   Guiyang            25.71  26⇑iP       P        03 24 42.3 +1.2
GYA                                  AMB     AMB
      comp=Z,190nm,1.2s,mb5.5
GYA                                  AMB     AMB
      comp=Z,970nm,3.8s
GYA                                  LR      LR
      comp=N,35µm,15.8s,MS6.2
GYA                                  LR      LR
      comp=E,40µm,16.0s,MS6.2
GYA                                  LR      LR
      comp=Z,40µm,16.5s,MS6.0
LSA   Lhasa              26.20 354   P       P        03 24 47.5 +1.9
LSA   Lhasa              26.20 354  eP       P        03 24 47.1 +1.6
      comp=Z,614nm,1.3s,mb6.0
ENH   Enshi              30.25  27  eP       P        03 25 18.6  -3.4
QZH   Quanzhou           31.65  45⇑iP       P        03 25 39.0 +4.5
QZH                                  AMB     AMB
      comp=Z,170nm,1.0s,mb5.8
WHN   Wuhan              32.90  33 ⇑P       P        03 25 47.3 +2.0
XAN   Xi’an              33.29  23   P       P        03 25 52.3 +3.6
XAN                                  AMB     AMB
      comp=Z,157nm,1.1s,mb5.8
MBWA  Marble Bar         35.00 136  eP       P        03 26 02.7  -0.8
GTA   Gaotai             36.07   7   P       P        03 26 11.8  -0.6
GTA                                  PP      PP       03 27 33.5  -1.5
GTA                                  AMB     AMB
      comp=Z,60nm,1.0s,mb5.5
GTA                                  LR      LR
      comp=N,71µm,20.9s,MS6.5
GTA                                  LR      LR
      comp=E,57µm,18.2s,MS6.5
GTA                                  LR      LR
      comp=Z,87µm,29.7s
NJ2   Nanjing            36.59  36  eP       P        03 26 18.3 +1.5
NJ2                                  AMB     AMB
      comp=Z,110nm,0.7s,mb5.8
JOW   Kunigami           39.94  51   P       P        03 26 43.1  -1.8
      comp=Z,11nm,0.6s,mb4.8,baz=240,slow=17,SNR=2.8
HHC   Hu-ho-hao-te       40.30  20  eP       P        03 26 49.5 +1.8
HHC                                  AP      pP       03 26 58.3 +0.6
HHC                                  XP      sP       03 27 03.8 +1.8
HHC                                  AMB     AMB
      comp=Z,37nm,0.9s,mb5.1
HHC                                  LR      LR
      comp=N,63µm,15.5s,MS6.7
HHC                                  LR      LR
      comp=E,50µm,17.8s,MS6.7
HHC                                  LR      LR
      comp=Z,174µm,23.8s
WMQ   Urumqi             40.55 353  eP       P        03 26 47.0  -2.7
BJT   Baijiatuau         41.38  26  eP       P        03 26 56.9 +0.2
      comp=Z,70nm,1.1s,mb5.2
NWAO  Narrogin (SRO)     42.28 151   P       P        03 27 07.5 +3.3
      comp=Z,11nm,0.6s,mb4.7
AAK   Ala-Archa          42.74 338   P       P        03 27 08.3 +0.5
DL2   Dalian             43.13  32   P       P        03 27 15.8 +4.8
DL2                                  AMB     AMB
      comp=Z,30nm,1.1s,mb4.9
MKAR  Makanchi Array     44.34 348   P       P        03 27 20.8 +0.2
MKAR                                 pmax    pmax
      comp=Z,11nm,0.5s
SONM  Songino Array      45.36  11   P       P        03 27 28.5  -0.4
      comp=Z,9.5nm,0.8s,mb4.7,baz=190,slow=7.7,SNR=6.0
ULN   Ulaanbaatar        45.53  12  eP       P        03 27 29.2  -1.0
      comp=Z,61nm,1.4s,mb5.3
WRA   Warramunga Arr     45.75 122   P       P        03 27 32.4 +0.1
      comp=Z,101nm,0.9s,mb5.7,baz=299,slow=8.9,SNR=11
WRA   Warramunga Arr     45.75 122   P       P        03 27 32.4 +0.1
WRA                                  pmax    pmax
      comp=Z,101nm,1.0s
WRAB  Tennant Creek      45.76 122  eP       P        03 27 32.0  -0.4
ASAR  Alice Springs      47.13 127   P       P        03 27 43.3 +0.2
      comp=Z,19nm,0.7s,mb5.2,baz=299,slow=7.3,SNR=4.1
ZAK   Zakamensk          47.31   8  eP       P        03 27 43.2  -1.0
MOY   Mondy              48.31   6  eP       P        03 27 51.5  -0.4
TLY   Talaya             48.63   8  eP       P        03 27 55.0 +0.6
TLY                                 e                 03 28 00.3
TLY                                  pmax    pmax
      comp=Z,36nm,0.9s,mb5.4
TLY   Talaya             48.63   8  eP       P        03 27 54.7 +0.3
      comp=Z,46nm,0.8s,mb5.6
IRK   Irkutsk            49.26   8  eP       P        03 27 59.6 +0.3
IRK                                 e        pP       03 28 11.9 +2.5
HIA   Hailar             50.48  21  eP       P        03 28 07.9  -0.7
RDF   Al-Radifah         51.00 305  eP       P        03 28 14.1 +1.2
RDF                                  AMb     AMB      03 28 21.4
      comp=Z,370nm,1.1s,mb6.2
UMR   Umm Al-Rimmam      51.09 306  eP       P        03 28 14.8 +1.3
UMR                                  AMb     AMB      03 28 15.6
      comp=Z,116nm,0.7s,mb5.9
RST   Umm Al-Ruwaisa     51.65 305  eP       P        03 28 18.3 +0.5
RST                                  AMb     AMB      03 28 26.0
      comp=Z,219nm,1.2s,mb6.0
BVAR  Borovoye Array     53.13 342   P       P        03 28 27.5  -1.0
      comp=Z,13nm,0.6s,mb5.0,baz=145,slow=10.0,SNR=12
BRVK  Borovoye           53.19 342  eP       P        03 28 27.2  -1.7
CHKZ  Chkalovo           53.62 343  eP       P        03 28 31.6  -0.6
      comp=Z,140nm,1.4s,mb5.7
CTA   Charters Tower     56.16 117   P       P        03 28 50.2  -0.9
      comp=Z,38nm,0.9s,mb5.4,baz=282,slow=9.3,SNR=3.4
CTA   Charters Tower     56.16 117   P       P        03 28 50.2  -0.9
CTA                                  pmax    pmax
      comp=Z,38nm,1.0s
CTA   Charters Tower     56.16 117   P       P        03 28 50.2  -0.9
CTAO  Charters Tower     56.16 117  eP       P        03 28 49.6  -1.5
BOD   Bodaibo            56.33  13  eP       P        03 28 48.9  -2.9
STKA  Stephens Creek     57.08 132   P       P        03 28 56.4  -1.2
      comp=Z,35nm,0.9s,mb5.4,baz=295,slow=6.7,SNR=3.8
STKA  Stephens Creek     57.08 132   P       P        03 28 55.6  -2.0
KMBO  Kilima Mbogo       57.17 266   P       P        03 28 57.8  -0.6
      comp=Z,4.4nm,0.7s,mb4.6,baz=81,slow=9.7,SNR=3.9
KMBO  Kilima Mbogo       57.17 266   P       P        03 28 57.8  -0.6
KMBO                                 pmax    pmax
      comp=Z,4.0nm,0.7s
KMBO  Kilima Mbogo       57.17 266  eP       P        03 28 58.8 +0.4
      comp=Z,40nm,1.2s,mb5.3
GNI   Garni              57.59 316   P       P        03 29 00.3  -0.7
      comp=Z,10nm,0.7s,mb5.0,baz=354,slow=0.6,SNR=2.7
GNI   Garni              57.59 316   P       P        03 29 00.3  -0.7
GNI                                  pmax    pmax
      comp=Z,10.0nm,0.7s
GNI   Garni              57.59 316  eP       P        03 29 00.3  -0.8
      comp=Z,9.4nm,0.6s,mb5.0
ZEI   Tsey               59.32 319  eP       P        03 29 11.6  -1.5
ZEI                                 i *PP    pP       03 29 19.2  -4.2
ZEI                                 i                 03 31 28.2
ZEI                                  pmax    pmax
      comp=Z,16nm,0.9s,mb5.0
ARU   Arti               59.93 338  eP       P        03 29 15.4  -1.6
ARU   Arti               59.93 338  eP       P        03 29 15.2  -1.8
YSS   Yuzh-Sakhalins     60.16  36⇑iP       P        03 29 22.0 +3.3
YSS                                 e        pP       03 29 34.8 +5.7
YSS                                  pmax    pmax
      comp=Z,90nm,1.0s,mb5.8
YSS   Yuzh-Sakhalins     60.16  36  eP       P        03 29 21.5 +2.8
KIV   Kislovodsk         60.64 320  eP       P        03 29 18.9  -3.2
KIV                                  pmax    pmax
      comp=E,26nm,1.0s
KIV                                  pmax    pmax
      comp=Z,46nm,1.0s,mb5.6
KIV   Kislovodsk         60.64 320   P       P        03 29 18.2  -3.9
ASF   Jabal al Asfar     60.73 305   P       P        03 29 22.6  -0.3
      comp=Z,8.7nm,0.9s,mb4.9,baz=19,slow=4.2,SNR=4.2
MALT  Malatya            61.40 312  eP       P        03 29 27.1  -0.2
      comp=Z,38nm,1.0s,mb5.5
EIL   Elat               61.74 302   P       P        03 29 29.4  -0.2
      comp=Z,7.9nm,0.8s,mb4.9,baz=128,slow=8.8,SNR=3.0
EIL   Elat               61.74 302  eP       P        03 29 29.9 +0.3
YAK   Yakutsk            64.06  18  eP       P        03 29 41.9  -2.6
YAK                                  pmax    pmax
      comp=N,55nm,1.1s
YAK                                  pmax    pmax
      comp=E,37nm,1.1s
YAK                                  pmax    pmax
      comp=Z,128nm,1.1s,mb5.9
CSS   Prodhromos         64.33 307  eP       P        03 29 46.5  -0.2
BRTR  Keskin Array B     65.38 312   P       P        03 29 52.5  -0.9
      comp=Z,7.5nm,0.8s,mb4.8,baz=121,slow=7.2,SNR=3.6
BRTR  Keskin Array B     65.38 312   P       P        03 29 52.6  -0.9
BRTR                                 pmax    pmax
      comp=Z,8.0nm,0.9s
LSZ   Lusaka             67.99 252   P       P        03 30 10.5 +0.2
      comp=Z,2.0nm,0.6s,mb4.3
MOS   Moscow             68.85 330  eP       P        03 30 12.7  -2.3
OBN   Obninsk            69.11 329⇑iP       P        03 30 15.1  -1.5
OBN                                 i                 03 30 21.6
OBN                                  pmax    pmax
      comp=Z,42nm,1.3s,mb5.2
OBN   Obninsk            69.11 329  eP       P        03 30 14.5  -2.1
      comp=Z,141nm,1.5s,mb5.7
KIS   Kishinev           70.82 319  eP       P        03 30 25.0  -2.2
SANT  Santorini          70.89 307   P       P        03 30 24.4  -3.4
      comp=Z,85nm,1.0s,mb5.6
IDI   Anoyia             71.17 306   P       P        03 30 29.1  -0.4
      comp=Z,42nm,0.9s,mb5.3,baz=106,slow=6.2,SNR=4.4
AKASG Malin Array Be     71.64 323   P       P        03 30 30.4  -1.6
      comp=Z,4.6nm,0.7s,mb4.5,baz=83,slow=4.7,SNR=4.8
AKASG Malin Array Be     71.64 323   P       P        03 30 30.4  -1.6
AKASG                                pmax    pmax
      comp=Z,5.0nm,0.7s
LBTB  Lobatse            72.31 243  eP       P        03 30 36.0  -0.5
      comp=Z,65nm,1.0s,mb5.5
BOSA  Boshof             73.42 239  eP       P        03 30 42.0  -1.1
KWP   Kalwaria           75.42 320  eP       P        03 30 54.6 +0.5
KOLS  Kolonicke sedl     75.55 320  eP       P        03 30 54.9   0.0
APA   Apatity            75.94 340⇑iP       P        03 31 01.5 +4.8
APA                                  pmax    pmax
      comp=Z,65nm,1.0s,mb5.5
CRVS  Cervenica-Dubn     76.07 320  eP       pP       03 31 05.0  -3.5
SUW   Suwalki            76.09 325  eP       P        03 30 57.1  -0.8
DIVS  Divcibare          76.27 314⇓iP       P        03 30 58.4  -0.7
FINES FINESS Array B     76.60 333   P       P        03 30 60.0  -0.6
      comp=Z,13nm,0.7s,mb5.0,baz=104,slow=7.9,SNR=7.7
FINES FINESS Array B     76.60 333   P       P        03 31 00.0  -0.6
FINES                                pmax    pmax
      comp=Z,13nm,0.7s
FINES FINESS Array B     76.60 333   P       P        03 30 60.0  -0.6
KECS  Kecovo             76.64 319  eP       P        03 30 59.4  -1.7
KECS                                e                 03 31 18.1
KAF   Kangasniemi        76.70 333  ep       P        03 31 00.4  -0.8
      baz=105,slow=5.3
PSZ   Piszkesteto        76.93 318  eP       P        03 31 02.2  -0.6
      comp=Z,1µm,3.0s
VYHS  Vyhne              77.72 319  eP       P        03 31 07.1   0.0
SRO2  Moca               77.91 318  eP       pP       03 31 15.0  -3.8
SRO2  Moca               77.91 318  e        pP       03 31 15.0  -3.8
SRO   Srobarova          77.97 318  eP       P        03 31 11.7 +3.2
SUR   Sutherland         77.99 236  eP       P        03 31 09.3 +0.3
      comp=Z,50nm,1.1s,mb5.4
KOLL  Kolacno            78.02 319  eP       P        03 31 09.4 +0.6
KOLL                                e                 03 31 15.3
KOLL                                epP      pP       03 31 20.9 +1.5
OKC   Ostrava-Krasne     78.37 320  eP       P        03 31 10.9 +0.2
SMOL  Smolenice          78.65 319  eP       P        03 31 11.6  -0.6
MORC  Moravsky Berou     78.75 320  eP       P        03 31 13.1 +0.4
ZST   Bratislava         78.82 318  eP       P        03 31 13.6 +0.4
ZST                                 e                 03 31 34.4
ARCES ARCESS Array B     79.37 341   P       P        03 31 16.0 +0.2
      comp=Z,11nm,0.7s,mb4.9,baz=104,slow=5.0,SNR=6.2
ARCES ARCESS Array B     79.37 341   P       P        03 31 16.0 +0.2
ARCES                                pmax    pmax
      comp=Z,11nm,0.7s
DPC   Dobruska-Polom     79.60 320  eP       P        03 31 17.7 +0.3
KSP   Ksiaz              79.68 321  eP       P        03 31 18.2 +0.4
KSP   Ksiaz              79.68 321  eP       P        03 31 18.5 +0.7
ARSA  Arzberg            79.77 317⇑iP       P        03 31 19.6 +1.2
      comp=Z,92nm,1.4s,mb5.5
UPC   Upice              79.82 321  eP       P        03 31 19.1 +0.6
OBKA  Obir               80.37 316⇑iP       P        03 31 24.3 +2.7
      comp=Z,62nm,1.2s,mb5.4
PRU   Pruhonice          80.70 320  eP       P        03 31 23.6 +0.4
PVCC  Panska Ves         80.73 320  eP       P        03 31 23.9 +0.5
PTQR  Pietraquaria       80.86 312  eP       P        03 31 24.1  -0.2
AQU   L’Aquila           80.88 312  eP       P        03 31 24.7 +0.3
NRCA  Norcia             81.12 313  eP       P        03 31 27.4 +1.8
GERES GERESS Array B     81.14 319   P       P        03 31 26.1 +0.5
      comp=Z,13nm,0.7s,mb5.0,baz=109,slow=5.3,SNR=10
GERES GERESS Array B     81.14 319   P       P        03 31 26.1 +0.5
GERES                                pmax    pmax
      comp=Z,13nm,0.7s
BRG   Berggiesshubel     81.16 321  i P      P        03 31 26.2 +0.5
BRG                                  pmax    pmax
      comp=Z,53nm,1.3s,mb5.3
BRG   Berggiesshubel     81.16 321  i P      P        03 31 26.2 +0.5
      comp=Z,53nm,1.3s,mb5.3
PTCC  Patocco-Chiusa     81.19 316  eP       P        03 31 25.0  -0.9
KBA   Koelnbreinsper     81.24 317⇑iP       P        03 31 30.1 +3.9
      comp=Z,28nm,1.1s,mb5.1
KHC   Kasperske Hory     81.25 319  eP       P        03 31 26.0  -0.1
SNTG  Esanatoglia        81.27 313  eP       P        03 31 28.8 +2.4
ARV   Arcevia            81.28 313  eP       P        03 31 26.9 +0.4
SYO   Syowa Base         81.31 197 ⇓P       P        03 31 29.9 +3.8
SYO   Syowa Base         81.31 197 ⇓pP      pP       03 31 39.2 +2.4
MNS   Montasola          81.41 312  eP       P        03 31 26.3  -0.9
RUE   Ruedersdorf        81.41 322  eP       P        03 31 27.1 +0.2
      comp=Z,85nm,1.1s,mb5.6
FSSB  Fossombrone        81.42 313  eP       P        03 31 27.2 +0.1
CLL   Collm              81.79 321  eP       P        03 31 29.0 +0.1
CLL                                  pmax    pmax
      comp=Z,32nm,1.2s,mb5.1
CLL   Collm              81.79 321  eP       P        03 31 29.0 +0.1
      comp=Z,32nm,1.2s,mb5.1
CLL   Collm              81.79 321   P       P        03 31 29.0 +0.1
      comp=Z,logA/T=1.4,mb5.1
NKC   Novy Kostel        82.06 320  eP       P        03 31 32.2 +1.8
SFI   Santa Sofia        82.10 314  eP       P        03 31 30.9 +0.3
VMG   Vicchio            82.32 314  eP       P        03 31 32.8 +1.0
CTI   Castel Tesino      82.34 316  eP       P        03 31 32.4 +0.6
WATA  Walderalm          82.46 317⇓iP       P        03 31 32.1  -0.4
      comp=Z,41nm,1.1s,mb5.3
MOX   Moxa               82.62 320  eP       P        03 31 34.3 +1.1
MOX   Moxa               82.62 320  i P      P        03 31 34.3 +1.1
SQTA  Sankt Quirin       82.70 317⇓iP       P        03 31 33.7   0.0
      comp=Z,72nm,1.3s,mb5.5
SQTA  Sankt Quirin       82.70 317⇓iP       P        03 31 33.7   0.0
      comp=Z,15nm,0.6s,mb5.2
MOTA  Moosalm            82.78 317⇓iP       P        03 31 34.0  -0.1
      comp=Z,42nm,1.1s,mb5.4
RPZ   Rata Peaks         82.92 135   P       P        03 31 34.7  -0.2
      comp=Z,58nm,0.9s,mb5.6,baz=38,slow=2.3,SNR=7.3
NB2   NORSAR Subarra     83.56 331   P       P        03 31 37.1  -0.6
      comp=Z,29nm,1.0s,mb5.4,baz=92,slow=5.0
NB2   NORSAR Subarra     83.56 331   P       P        03 31 37.1  -0.6
      baz=92,slow=5.3
NOA   NORSAR Array B     83.56 331   P       P        03 31 37.1  -0.6
      comp=Z,5.8nm,0.8s,mb4.7,baz=98,slow=5.3,SNR=5.6
NOA   NORSAR Array B     83.56 331   P       P        03 31 37.1  -0.6
NOA                                  pmax    pmax
      comp=Z,6.0nm,0.8s
DAVA  Damuels            83.61 317⇓iP       P        03 31 36.8  -1.5
      comp=Z,92nm,1.2s,mb5.8
MUD   Monsted U’grnd     84.36 326  eP       P        03 31 42.0 +0.1
MUD   Monsted U’grnd     84.36 326  i P      P        03 31 42.0 +0.1
FIN   Finale Ligure      84.73 314  eP       P        03 31 43.8  -0.3
LPG   La Plagne          85.76 315  eP       P        03 31 49.3 +0.2
      comp=Z,88nm,1.2s,mb5.6
URZ   Urewera            86.55 129   P       P        03 31 53.5 +0.3
      comp=Z,43nm,1.0s,mb5.7,baz=334,slow=2.2,SNR=8.8
VNDA  Vanda              88.67 168   P       P        03 32 02.6 +0.1
      comp=Z,5.6nm,0.8s,mb4.9,baz=298,slow=3.0,SNR=3.5
SBA   Scott Base         89.78 168  eP       P        03 32 10.7 +2.9
      comp=Z,74nm,1.1s,mb5.9
ESDC  Sonseca Array      94.09 310   P       P        03 32 29.0 +0.5
      comp=Z,1.7nm,0.6s,mb4.7,baz=58,slow=4.2,SNR=5.9
SNAA  Sanae              95.56 198   P       P        03 32 36.4 +2.0
      comp=Z,1.5nm,1.0s,mb4.4,baz=125,slow=8.0,SNR=2.2
SNAA  Sanae              95.56 198   P       P        03 32 36.4 +2.0
SNAA                                 pmax    pmax
      comp=Z,2.0nm,1.0s
RES   Resolute Bay      101.71   2  eP       P        03 33 03.3 +1.0
      comp=Z,27nm,1.4s
HLID  Hailey            126.49  26   PKPdf   PKPdf    03 38 16.1 +4.1
LOHW  Long Hollow       128.01  23   PKPdf   PKPdf    03 38 15.2 +0.3
SNOW  Snow King Moun    128.08  23  ePKPdf   PKPdf    03 38 17.6 +2.5
ELK   Elko              128.34  28  ePKPdf   PKPdf    03 38 18.3 +2.6
NVAR  Mina Array Bea    128.53  33   PKP     PKPdf    03 38 18.4 +2.3
      comp=Z,2.2nm,0.8s,baz=302,slow=1.4,SNR=2.6
MNV   Mina              128.61  33  ePKPdf   PKPdf    03 38 17.8 +1.5
PDAR  Pinedale Array    129.13  23   PKP     PKPdf    03 38 18.5 +1.3
      comp=Z,1.7nm,0.9s,baz=92,slow=2.5,SNR=2.2
NLU   North Lily Min    130.43  27  ePKPdf   PKPdf    03 38 21.6 +1.9
ANMO  Albuquerque       137.06  25   PKP     PKPdf    03 38 37.1 +4.9
      comp=Z,11nm,1.0s,baz=275,slow=2.3,SNR=5.5
ANMO  Albuquerque       137.06  25  ePKPdf   PKPdf    03 38 33.8 +1.6
ANMO                                 PKP     PKPdf    03 38 37.1 +4.9
TXAR  Lajitas Array     143.08  27   PKP     PKPdf    03 38 42.0  -1.1
      comp=Z,7.8nm,1.2s,baz=209,slow=0.2,SNR=3.3
HKT   Hockley           145.34  16  ePKPdf   PKPdf    03 38 49.3 +2.3
RPN   Rapa Nui          147.45 138  ePKPdf   PKPdf    03 38 54.5 +3.9
SJG   San Juan          151.10 319   PKPbc   PKPdf    03 39 03.5 +7.0
      comp=Z,7.1nm,0.6s,baz=79,slow=10,SNR=2.8
SJG   San Juan          151.10 319   PKIKP   PKPdf    03 39 03.5 +6.9
SJG                                  pmax    pmax
      comp=Z,7.0nm,0.6s
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LVC	**Limon Verde**	**154.98**	**219**	PKPab	PKPab	03 39 33.4	+4.8
	comp=Z,16nm,1.0s,baz=99,slow=2.0,SNR=5.5						
LVC	**Limon Verde**	**154.98**	**219**	*e*PKPab	PKPab	03 39 29.3	+0.7
LPAZ	**La Paz**	**158.54**	**233**	PKPab	PKPab	03 39 45.4	+1.3
	comp=Z,21nm,1.0s,baz=129,slow=4.1,SNR=8.9						
LPAZ	**La Paz**	**158.54**	**233**	PKP2	PKPab	03 39 45.4	+1.3
LPAZ				pmax	pmax		
	comp=Z,21nm,1.0s						
LPAZ	**La Paz**	**158.54**	**233**	*e*PKPab	PKPab	03 39 44.4	+0.2
SDV	**Santo Domingo**	**160.54**	**309**	PKPab	PKPab	03 39 50.6	-2.2
	comp=Z,4.9nm,0.8s,baz=14,slow=4.2,SNR=2.8						
ROSC	**El Rosal**	**165.88**	**306**	PKP	PKPdf	03 39 16.3	+2.0
	comp=Z,2.4nm,0.6s,baz=99,slow=16,SNR=3.6						

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*BJI **26** 03:22:51.1,5.18N×94.50E,h20^{km},mb5.2*
*IDC **26** 03:22:54.3±0.7,5.84N×95.02E,mb4.8/19,mb1 4.9/20, mb1mx4.8/24,ML5.4/1,Error ellipse: s-maj=28.5km s-min=16.7km az=53.0*
*NEIC **26** 03:22:57.5±0.5,5.82N×95.09E,mb5.4/11,Error ellipse: s-maj=15.1km s-min=11.6km az=69.0*
ISC 26 03:22:56.0±0.5,5.74N±0.07×95.14E±0.08,h21^{km}, h21^{km}±1.9^{km}:pP-P,n69,σ1^{s}45/64,mb5.0/34,1D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**13.17**	**16**	*e*P	**P**	**03 26 03.7**	**-0.9**
CMAR	**Chiang Mai Arr**	**13.17**	**16**	Pn	**P**	**03 26 02.6**	**-2.0**
	6.3nm,0.3s,baz=208,slow=14,SNR=8.4						
KMI	**Kunming**	**20.60**	**20**	*e*P	**P**	**03 27 42.0**	**+5.4**
KMI				AMB	AMB		
	comp=Z,105nm,1.0s						
LSA	**Lhasa**	**24.13**	**351**	*e*P	**P**	**03 28 11.1**	**-0.6**
CD2	**Chengdu**	**26.31**	**17**	P	**P**	**03 28 35.3**	**+3.0**
CD2				AMB	AMB		
	comp=Z,150nm,0.9s,mb5.5						
GTA	**Gaotai**	**33.78**	**7**	P	**P**	**03 29 36.0**	**-2.7**
GTA				AMB	AMB		
	comp=Z,19nm,1.2s,mb4.9						
NJ2	**Nanjing**	**34.30**	**37**	*e*P	**P**	**03 29 50.3**	**+7.1**
KSH	**Kashi**	**37.81**	**336**	*e*P	**P**	**03 30 14.3**	**+1.4**
KSH				*e*AP	pP	03 30 18.3	-0.8
KSH				*e*XP	sP	03 30 21.0	-0.7
HHC	**Hu-ho-hao-te**	**37.93**	**20**	*e*P	**P**	**03 30 13.5**	**-0.3**
HHC				AP	pP	03 30 23.0	+3.0
HHC				XP	sP	03 30 27.3	+4.7
HHC				PP	PP	03 31 48.3	+4.6
HHC				AMB	AMB		
	comp=Z,27nm,1.0s,mb4.9						
BJT	**Baijiatuau**	**39.02**	**26**	P	**P**	**03 30 21.1**	**-1.9**
	comp=Z,60nm,1.0s,mb5.3						
ULHL	**Ulahol**	**40.04**	**338**	P	**P**	**03 30 33.2**	**+1.8**
	SNR=7.9						
KZA	**Kyzart**	**40.28**	**337**	P	**P**	**03 30 34.0**	**+0.6**
	SNR=7.9						
UCH	**Uchtor**	**40.70**	**336**	P	**P**	**03 30 39.2**	**+2.4**
	SNR=7.3						
DL2	**Dalian**	**40.80**	**32**	P	**P**	**03 30 39.0**	**+1.3**
DL2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.1						
KBK	**Karagaybulak**	**40.89**	**337**	P	**P**	**03 30 39.7**	**+1.4**
	SNR=8.2						
AML	**Almayashu**	**40.95**	**335**	P	**P**	**03 30 41.4**	**+2.5**
	SNR=8.3						
AAK	**Ala-Archa**	**41.05**	**337**	P	**P**	**03 30 41.5**	**+1.8**
	SNR=8.9						
AAK	**Ala-Archa**	**41.05**	**337**	*e*P	**P**	**03 30 39.5**	**-0.2**
	comp=Z,76nm,1.0s,mb5.3						
CHMS	**Chumysh**	**41.25**	**337**	P	**P**	**03 30 43.0**	**+1.6**
	SNR=8.6						
EKS2	**Erkin-Say**	**41.35**	**336**	P	**P**	**03 30 43.4**	**+1.2**
	SNR=6.1						
USP	**Ospenovka**	**41.58**	**337**	P	**P**	**03 30 45.8**	**+1.8**
	SNR=8.7						
SONM	**Songino Array**	**43.03**	**11**	P	**P**	**03 30 55.5**	**-0.4**
	comp=Z,38nm,0.8s,mb5.2,baz=196,slow=7.7,SNR=14						
ULN	**Ulaanbaatar**	**43.19**	**12**	*e*P	**P**	**03 30 56.3**	**-0.9**
ULN				*e*pP	pP	03 31 00.1	-3.3
WRA	**Warramunga Arr**	**46.23**	**125**	P	**P**	**03 31 23.7**	**+1.8**
	comp=Z,26nm,0.7s,mb5.3,baz=302,slow=9.0,SNR=9.6						
WRAB	**Tennant Creek**	**46.23**	**125**	*e*P	**P**	**03 31 22.7**	**+0.8**
WRAB				*e*pP	pP	03 31 30.7	+2.5
CN2	**Changchun**	**46.33**	**30**	⇓P	**P**	**03 31 23.0**	**+0.6**
CN2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
ASAR	**Alice Springs**	**47.80**	**129**	P	**P**	**03 31 34.4**	**+0.1**
	comp=Z,7.0nm,0.8s,mb4.8,baz=303,slow=7.2,SNR=5.7						
HIA	**Hailar**	**48.11**	**21**	*e*P	**P**	**03 31 37.6**	**+1.3**
	comp=Z,23nm,0.7s,mb5.3						
ZAL	**Zalesovo**	**48.78**	**352**	P	**P**	**03 31 39.3**	**-2.1**
	comp=Z,18nm,0.8s,mb5.1,baz=278,slow=7.4,SNR=8.7						
MDJ	**Mudanjiang**	**49.04**	**32**	*e*P	**P**	**03 31 41.8**	**-1.7**
	comp=Z,45nm,1.1s,mb5.4						
MDJ				*e*pP	pP	03 31 48.0	-1.9
BVAR	**Borovoye Array**	**51.32**	**341**	P	**P**	**03 31 56.8**	**-4.0**
	comp=Z,5.0nm,0.7s,mb4.6,baz=141,slow=9.5,SNR=4.0						
BRVK	**Borovoye**	**51.38**	**341**	*e*P	**P**	**03 31 57.1**	**-4.2**
	comp=Z,34nm,1.0s,mb5.2						
BRVK				*e*pP	pP	03 32 03.2	-4.4
CHKZ	**Chkalovo**	**51.80**	**342**	*e*P	**P**	**03 32 00.7**	**-3.8**
	comp=Z,85nm,1.0s,mb5.6						
CHKZ				*e*pP	pP	03 32 06.4	-4.4
GNI	**Garni**	**56.63**	**315**	P	**P**	**03 32 35.4**	**-4.7**
	comp=Z,12nm,1.1s,mb4.9,baz=283,slow=12,SNR=2.6						
STKA	**Stephens Creek**	**57.92**	**133**	P	**P**	**03 32 46.5**	**-2.9**
	comp=Z,3.4nm,0.5s,mb4.6,baz=340,slow=8.2,SNR=4.8						
STKA	**Stephens Creek**	**57.92**	**133**	*e*P	**P**	**03 32 48.3**	**-1.1**
STKA				*e*pP	pP	03 32 55.1	-0.6
KMBO	**Kilima Mbogo**	**58.21**	**265**	P	**P**	**03 32 46.2**	**-5.4**
	comp=Z,3.3nm,0.8s,mb4.4,baz=51,slow=9.5,SNR=4.2						
KMBO	**Kilima Mbogo**	**58.21**	**265**	P	**P**	**03 32 46.2**	**-5.4**
ARU	**Arti**	**58.23**	**337**	*e*P	**P**	**03 32 51.8**	**+0.6**
	comp=Z,33nm,0.9s,mb5.4						
KIV	**Kislovodsk**	**59.56**	**318**	*e*P	**P**	**03 33 00.6**	**+0.1**
ASF	**Jabal al Asfar**	**60.22**	**304**	P	**P**	**03 33 03.5**	**-1.7**
	comp=Z,3.1nm,0.6s,mb4.5,baz=346,slow=7.3,SNR=4.1						
EIL	**Elat**	**61.35**	**301**	P	**P**	**03 33 11.8**	**-1.2**
	comp=Z,17nm,1.0s,mb5.1,baz=293,slow=5.1,SNR=4.1						
EIL	**Elat**	**61.35**	**301**	*e*P	**P**	**03 33 12.3**	**-0.7**
	comp=Z,24nm,1.0s,mb5.3						
BRTR	**Keskin Array B**	**64.57**	**311**	P	**P**	**03 33 32.1**	**-2.1**
	comp=Z,14nm,0.9s,mb5.0,baz=127,slow=6.2,SNR=8.6						
AKASG	**Malin Array Be**	**70.44**	**322**	P	**P**	**03 34 07.8**	**-3.0**
	comp=Z,10nm,0.7s,mb4.8,baz=81,slow=4.9,SNR=11						
IDI	**Anoyia**	**70.60**	**305**	P	**P**	**03 34 11.5**	**-0.6**
	comp=Z,17nm,0.8s,mb5.0,baz=93,slow=7.9,SNR=5.9						
LBTB	**Lobatse**	**74.11**	**242**	*e*P	**P**	**03 34 30.7**	**-2.5**
	comp=Z,94nm,2.0s,mb5.4						
LBTB				*e*pP	pP	03 34 37.6	-2.0
KWP	**Kalwaria**	**74.29**	**320**	*e*P	**P**	**03 34 31.9**	**-1.8**
KOLS	**Kolonicke sedl**	**74.46**	**319**	*e*	**P**	**03 34 27.4**	**-7.2**
KOLS				*e*		03 34 38.4	
SUW	**Suwalki**	**74.81**	**324**	*e*P	**P**	**03 34 28.7**	**-7.9**
	comp=Z,66nm,0.9s,mb5.6						
FINES	**FINESS Array B**	**75.05**	**332**	P	**P**	**03 34 37.4**	**-0.4**
	comp=Z,9.8nm,0.5s,mb5.0,baz=105,slow=6.5,SNR=11						
FINES	**FINESS Array B**	**75.05**	**332**	P	**P**	**03 34 37.4**	**-0.4**
PSZ	**Piszkesteto**	**75.88**	**318**	*e*P	**P**	**03 34 41.9**	**-1.0**
	comp=Z,14nm,0.9s,mb4.9						
MAW	**Mawson**	**76.67**	**192**	P	**P**	**03 34 47.3**	**+0.5**
	comp=Z,2.5nm,0.6s,mb4.3,baz=94,slow=14,SNR=3.7						
OKC	**Ostrava-Krasne**	**77.25**	**320**	*e*P	**P**	**03 34 52.4**	**+2.0**
ARCES	**ARCESS Array B**	**77.60**	**340**	P	**P**	**03 34 52.1**	**+0.2**
	comp=Z,7.1nm,0.5s,mb4.9,baz=91,slow=5.6,SNR=17						
MORC	**Moravsky Berou**	**77.63**	**320**	*e*P	**P**	**03 34 54.4**	**+1.8**
ZST	**Bratislava**	**77.77**	**318**	*e*	**P**	**03 34 45.9**	**-7.4**
ZST				*e*		03 34 57.5	
DPC	**Dobruska-Polom**	**78.47**	**320**	*e*P	**P**	**03 34 58.9**	**+1.8**
GERES	**GERESS Array B**	**80.07**	**318**	P	**P**	**03 35 05.7**	**-0.2**
	comp=Z,7.9nm,0.7s,mb4.7,baz=108,slow=3.7,SNR=6.5						
KHC	**Kasperske Hory**	**80.17**	**319**	*e*P	**P**	**03 35 05.1**	**-1.2**
RUE	**Ruedersdorf**	**80.21**	**322**	P	**P**	**03 35 05.7**	**-0.8**
NOA	**NORSAR Array B**	**82.07**	**331**	P	**P**	**03 35 16.1**	**+0.1**
	comp=Z,7.6nm,0.8s,mb4.7,baz=92,slow=5.6,SNR=6.7						
DAVOX	**Davos**	**82.61**	**316**	P	**P**	**03 35 20.2**	**+1.1**
	comp=Z,8.8nm,0.5s,mb5.0,baz=134,slow=16,SNR=5.3						
NVAR	**Mina Array Bea**	**126.20**	**32**	PKP	PKPdf	03 41 59.1	-2.7
	comp=Z,1.4nm,1.0s,baz=216,slow=20,SNR=3.5						
PDAR	**Pinedale Array**	**126.76**	**23**	PKP	PKPdf	03 41 58.5	-4.2
	comp=Z,2.0nm,0.9s,baz=270,slow=1.5,SNR=4.2						
PDAR	**Pinedale Array**	**126.76**	**23**	PKP	PKPdf	03 41 58.5	-4.2
ANMO	**Albuquerque**	**134.69**	**25**	PKP	PKPdf	03 42 14.5	-3.6
	comp=Z,3.5nm,0.9s,baz=202,slow=1.7,SNR=5.2						
ANMO	**Albuquerque**	**134.69**	**25**	PKP	PKPdf	03 42 14.5	-3.6

IDC 26 03:23:49.5±0.9,5.32N×94.39E,mb4.8/12,mb1 4.8/13, mb1mx4.6/22,ML5.4/1,Error ellipse: s-maj=28.2km s-min=21.9km az=44.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.79**	**18**	Pn	P	03 27 14.6	+5.7
	5.4nm,0.3s,baz=207,slow=14,SNR=8.6						
JOW	**Kunigami**	**38.74**	**53**	P	P	03 31 15.5	-1.9
	12nm,0.4s,baz=260,slow=6.1,SNR=5.0						
SONM	**Songino Array**	**43.59**	**12**	P	P	03 31 55.9	-1.2
	6.4nm,0.7s,baz=192,slow=9.0,SNR=6.5						
WRA	**Warramunga Arr**	**46.61**	**124**	P	P	03 32 20.1	-1.4
	12nm,0.7s,baz=306,slow=8.4,SNR=4.9						
ZAL	**Zalesovo**	**49.10**	**353**	P	P	03 32 39.2	-1.3
	14nm,0.4s,baz=291,slow=5.2,SNR=8.5						
CBIJ	**Chichi jima**	**50.35**	**59**	P	P	03 32 47.8	-2.8
	28nm,0.5s,baz=213,slow=22,SNR=3.3						
BVAR	**Borovoye Array**	**51.47**	**342**	P	P	03 32 57.3	-1.4
	13nm,1.0s,baz=139,slow=9.1,SNR=8.2						
AKASG	**Malin Array Be**	**70.31**	**322**	P	P	03 35 03.5	-3.3
	2.9nm,0.5s,baz=79,slow=4.8,SNR=7.5						
FINES	**FINESS Array B**	**75.08**	**332**	P	P	03 35 32.6	-2.2
	1.7nm,0.5s,baz=101,slow=7.1,SNR=2.1						
MAW	**Mawson**	**76.10**	**192**	P	P	03 35 39.0	-1.5
	6.4nm,0.9s,baz=5.3,slow=4.7,SNR=3.7						
ARCES	**ARCESS Array B**	**77.74**	**340**	P	P	03 35 48.1	-1.5
	2.7nm,0.6s,baz=97,slow=7.3,SNR=2.9						
GERES	**GERESS Array B**	**79.89**	**319**	P	P	03 36 01.1	-0.7
	5.7nm,0.7s,baz=122,slow=5.4,SNR=8.5						
DAVOX	**Davos**	**82.40**	**316**	P	P	03 36 13.8	-1.1
	9.5nm,0.5s,baz=184,slow=20,SNR=7.2						
PDAR	**Pinedale Array**	**127.43**	**22**	PKhKP		03 42 49.8	
	0.6nm,0.7s,baz=137,slow=4.8,SNR=4.0						
TXAR	**Lajitas Array**	**141.42**	**26**	PKhKP		03 43 16.9	
	0.6nm,0.4s,baz=230,slow=0.4,SNR=7.1						

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*IDC **26** 03:24:51.0±0.3,4.46N×94.12E,mb5.6/33,mb1 5.5/34, mb1mx5.5/34,ML4.8/1,Error ellipse: s-maj=14.3km s-min=9.7km az=41.0*
*BJI **26** 03:24:53.3,4.38N×94.11E,h32^{km},mB5.9,mb5.6,Ms6.3, Msz6.2*
*MOS **26** 03:24:54.2±0.8,4.53N×94.17E,h33^{km},mb6.0/34,Error ellipse: s-maj=11.7km s-min=6.4km az=118.6*
*NEIC **26** 03:24:54.9±1.6,4.47N×94.07E,h26^{km}±10^{km},mb5.8/72, Error ellipse: s-maj=5.1km s-min=3.6km az=218.0*
*SYO **26** 03:24:54.8,4.49N×94.06E,h26^{km},MB5.7*
*CSEM **26** 03:24:55.6,4.76N×94.11E,h33^{km},mb5.9*
ISC 26 03:24:53.2±0.2,4.47N±0.04×94.15E±0.03,h26^{km}, h26^{km}±2.0^{km}:pP-P,n450,σ0^{s}93/393,mb5.7/126,MS6.3/4, 33C-33D,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**13.66**	**282**	*e*P	**P**	**03 28 05.7**	**-2.2**
CM31	**Chiang Mai Arr**	**14.67**	**18**	*e*P	**P**	**03 28 21.3**	**+0.1**
	244nm,0.9s						
CMAR	**Chiang Mai Arr**	**14.67**	**18**	Pn	**P**	**03 28 21.6**	**+0.5**
	1.3nm,0.3s,baz=229,slow=14,SNR=7.0						
CMAR	**Chiang Mai Arr**	**14.67**	**18**	P	**P**	**03 28 21.7**	**+0.5**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MDRS	**Chennai**	**16.17**	**303**	*e*P	**P**	**03 28 36.2**	**-4.4**
MDRS				*e*		03 28 46.9	
	comp=Z,866nm,2.0s						
COCO	**West Island**	**16.76**	**171**	*e*P	**P**	**03 28 49.2**	**+1.1**
	comp=Z,1µm,1.2s						
VIS	**Vishakhapatnam**	**16.90**	**322**	*e*P	**P**	**03 28 43.4**	**-6.3**
VIS				*e*		03 28 49.6	
	comp=Z,274nm,1.1s						
HYB	**Hyderabad**	**19.98**	**311**	*e*P	**P**	**03 29 26.5**	**-0.2**
HYB	**Hyderabad**	**19.98**	**311**	*i* P	**P**	**03 29 26.5**	**-0.2**
BOK	**Bokaro**	**20.80**	**338**	*e*P	**P**	**03 29 34.8**	**-0.4**
BOK				*e*		03 29 39.7	
	comp=Z,638nm,1.2s						
MNGI	**Mangalore**	**20.86**	**295**	*e*P	**P**	**03 29 31.9**	**-4.0**
MNGI				*e*		03 29 41.2	
	comp=Z,689nm,1.4s						
BLSP	**Bilaspur**	**21.07**	**328**	*e*P	**P**	**03 29 36.0**	**-1.9**
BLSP				*e*		03 29 48.4	
	comp=Z,432nm,1.5s						
QIZ	**Qiongzhong**	**21.08**	**45**	P	**P**	**03 29 38.0**	**0.0**
QIZ				*e*S	**S**	**03 33 23.3**	**-3.1**
SHL	**Shillong**	**21.09**	**354**	*e*P	**P**	**03 29 35.5**	**-2.7**
SHL				*e*		03 29 43.2	
	comp=Z,236nm,1.1s						
MNCY	**Minicoy**	**21.32**	**281**	*e*	**P**	**03 29 42.0**	**+1.5**
MNCY				*e*		03 30 56.0	
KMI	**Kunming**	**22.14**	**21**	*e*P	**P**	**03 29 52.3**	**+3.7**
KMI				AP		03 29 57.0	
KMI				AMB	AMB		
	comp=Z,240nm,1.0s,mb5.6						
GOA	**Goa**	**22.79**	**300**	*e*		03 30 02.0	
GOA				*e*		03 30 05.0	
	comp=Z,783nm,1.5s						
AKL	**Akola**	**23.19**	**316**	*e*P	**P**	**03 30 00.7**	**+1.5**
AKL				*e*		03 30 05.3	
	comp=Z,384nm,1.5s						
BHPL	**Bhopal**	**24.68**	**321**	*e*P	**P**	**03 30 14.7**	**+1.1**
BHPL				*e*		03 30 17.0	
	comp=Z,301nm,0.9s						
GYA	**Guiyang**	**24.93**	**27**	⇑*i*P	**P**	**03 30 16.8**	**+0.8**
GYA				AP		03 30 20.8	
GYA				XP		03 30 24.0	
GYA				PP	PP	03 30 52.0	-1.4
GYA				S	**S**	**03 34 38.5**	**+3.6**
GYA				AMB	AMB		
	comp=Z,360nm,0.9s,mb5.9						
GYA				AMB	AMB		
	comp=Z,2µm,6.2s						
GYA				LR	LR		
	comp=N,40µm,16.0s,MS6.1						
GYA				LR	LR		
	comp=E,40µm,18.4s,MS6.1						
GYA				LR	LR		
	comp=Z,50µm,17.2s,MS6.1						
LSA	**Lhasa**	**25.26**	**354**	P	**P**	**03 30 15.8**	**-3.2**
LSA	**Lhasa**	**25.26**	**354**	*e*P	**P**	**03 30 18.0**	**-1.0**
	comp=Z,250nm,0.7s,mb5.8						
CD2	**Chengdu**	**27.82**	**18**	⇑*i*P	**P**	**03 30 42.3**	**-0.2**
CD2				AMB	AMB		
	comp=Z,230nm,0.9s,mb5.8						
TGY	**Tagaytay City**	**28.09**	**68**	P	**P**	**03 30 45.8**	**+0.8**
	comp=Z,199nm,0.3s,mb6.2,baz=240,slow=7.3,SNR=6.2						
TGY	**Tagaytay City**	**28.09**	**68**	P	**P**	**03 30 45.8**	**+0.7**
TGY				pmax	pmax		
	comp=Z,199nm,0.3s						
PCPH	**Palayan**	**28.69**	**65**	⇓*e*P	**P**	**03 30 51.3**	**+0.7**
PCPH	**Palayan**	**28.69**	**65**	⇓*e*P	**P**	**03 30 50.2**	**-0.4**
AJM	**Ajmer**	**28.76**	**322**	*e*P	**P**	**03 30 50.9**	**-0.2**
AJM				*e*		03 30 55.0	
	comp=Z,176nm,1.6s						
NDI	**New Delhi**	**28.96**	**328**	*e*P	**P**	**03 30 49.8**	**-3.1**
NDI				*e*		03 30 53.8	
	comp=Z,164nm,1.3s						
ENH	**Enshi**	**29.47**	**28**	*e*P	**P**	**03 30 56.4**	**-1.0**
	comp=Z,122nm,0.8s,mb5.7						
BHJ	**Bhuj**	**30.14**	**311**	*e*P	**P**	**03 30 59.0**	**-4.4**
BHJ				*e*		03 31 02.1	
	comp=Z,115nm,1.4s						
QZH	**Quanzhou**	**31.08**	**47**	⇑*i*P	**P**	**03 31 12.8**	**+1.0**
QZH				AMB	AMB		
	comp=Z,200nm,0.8s,mb6.0						
WHN	**Wuhan**	**32.18**	**34**	⇑*i*P	**P**	**03 31 22.0**	**+0.7**
LZH	**Lanzhou**	**32.71**	**15**	*e*P	**P**	**03 31 25.8**	**-0.1**
LZH				AMB	AMB		
	comp=Z,95nm,1.1s,mb5.6						
GTA	**Gaotai**	**35.16**	**8**	P	**P**	**03 31 47.0**	**0.0**
GTA				AP	pP	03 31 55.8	+1.0
GTA				XP	sP	03 31 58.5	+0.4
GTA				AMB	AMB		
	comp=Z,123nm,0.8s,mb5.9						
GTA				LR	LR		
	comp=N,47µm,22.4s,MS6.3						
GTA				LR	LR		
	comp=E,27µm,19.8s,MS6.3						
GTA				LR	LR		
	comp=Z,155µm,25.1s						
MBWA	**Marble Bar**	**35.75**	**136**	*e*P	**P**	**03 31 51.3**	**-0.9**
	comp=Z,100nm,1.0s,mb5.7						
NJ2	**Nanjing**	**35.91**	**37**	*e*P	**P**	**03 31 54.0**	**+0.6**
NJ2				XS		03 37 49.0	
NJ2				AMB	AMB		
	comp=Z,660nm,0.8s,mb6.6						
NJ2				AMB	AMB		
	comp=Z,1µm,5.0s						
NJ2				LR	LR		
	comp=N,31µm,16.2s,MS6.4						
NJ2				LR	LR		
	comp=E,42µm,16.8s,MS6.4						
NJ2				LR	LR		
	comp=Z,53µm,15.8s,MS6.4						
TIA	**Tai'an**	**38.02**	**31**	*e*P	**P**	**03 32 11.3**	**+0.2**
TIA				AMB	AMB		
	comp=Z,57nm,1.2s,mb5.2						
KSH	**Kashi**	**38.58**	**337**	*e*P	**P**	**03 32 16.5**	**+0.7**
KSH				*e*AP	pP	03 32 20.5	-3.1
KSH				*e*PP	PP	03 33 51.5	+3.7
KSH				AMB	AMB		
	comp=Z,2µm,3.1s						
JOW	**Kunigami**	**39.45**	**52**	P	**P**	**03 32 24.4**	**+1.2**
	comp=Z,42nm,0.5s,mb5.4,baz=244,slow=9.7,SNR=17						
HHC	**Hu-ho-hao-te**	**39.46**	**21**	*e*P	**P**	**03 32 23.8**	**+0.7**
HHC				AP	pP	03 32 33.0	+2.0
HHC				XP	sP	03 32 35.0	+0.8
HHC				PP	PP	03 33 58.5	+0.9
HHC				PCP	PcP	03 34 32.0	+0.7
HHC				S	**S**	**03 38 23.8**	**+0.6**
HHC				XS		03 38 35.5	
HHC				SS	SS	03 41 09.0	-1.7
HHC				LR	LR		
	comp=N,43µm,23.8s,MS6.5						
HHC				LR	LR		
	comp=E,72µm,19.0s,MS6.5						
WMQ	**Urumqi**	**39.60**	**353**	*e*P	**P**	**03 32 25.0**	**+0.7**
WMQ				AP	pP	03 32 29.5	-2.6
BJT	**Baijiatuau**	**40.59**	**26**	*e*P	**P**	**03 32 34.0**	**+1.6**
	comp=E,143nm,1.0s,mb5.6						
ULHL	**Ulahol**	**40.86**	**340**	P	**P**	**03 32 36.6**	**+2.0**
	SNR=11						
KZA	**Kyzart**	**41.07**	**338**	P	**P**	**03 32 38.0**	**+1.7**
	SNR=5.9						
UCH	**Uchtor**	**41.47**	**338**	P	**P**	**03 32 42.2**	**+2.5**
	SNR=14						
TKM2	**Tokmak 2**	**41.68**	**339**	P	**P**	**03 32 43.1**	**+1.7**
	SNR=6.3						
KBK	**Karagaybulak**	**41.69**	**339**	P	**P**	**03 32 42.6**	**+1.2**
	SNR=11						
AML	**Almayashu**	**41.70**	**337**	P	**P**	**03 32 43.9**	**+2.3**
	SNR=6.1						
AAK	**Ala-Archa**	**41.83**	**338**	P	**P**	**03 32 44.6**	**+2.0**
	SNR=9.8						
AAK	**Ala-Archa**	**41.83**	**338**	*e*P	**P**	**03 32 43.0**	**+0.4**
	comp=E,70nm,0.9s,mb5.3						
CHMS	**Chumysh**	**42.05**	**339**	P	**P**	**03 32 45.5**	**+1.1**
	SNR=8.3						
EKS2	**Erkin-Say**	**42.12**	**337**	P	**P**	**03 32 47.5**	**+2.4**
	SNR=11						
USP	**Ospenovka**	**42.38**	**339**	P	**P**	**03 32 48.7**	**+1.6**
	SNR=5.7						
DL2	**Dalian**	**42.39**	**32**	P	**P**	**03 32 48.3**	**+1.0**
DL2				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.5						
NWAO	**Narrogin (SRO)**	**43.16**	**151**	P	**P**	**03 32 53.2**	**-0.4**
	comp=Z,43nm,0.8s,mb5.2,baz=309,slow=9.4,SNR=9.7						
NWAO	**Narrogin (SRO)**	**43.16**	**151**	P	**P**	**03 32 53.2**	**-0.4**
NWAO				pmax	pmax		
	comp=Z,43nm,0.8s						
NWAO	**Narrogin (SRO)**	**43.16**	**151**	*e*P	**P**	**03 32 52.9**	**-0.7**
	comp=Z,36nm,1.1s,mb5.0						
SONM	**Songino Array**	**44.47**	**12**	P	**P**	**03 33 04.3**	**+0.3**
	comp=Z,56nm,0.8s,mb5.3,baz=196,slow=7.1,SNR=16						
ULN	**Ulaanbaatar**	**44.64**	**12**	*e*P	**P**	**03 33 05.4**	**0.0**
	comp=Z,41nm,1.0s,mb5.2						
KS15	**Wonju Array Si**	**45.03**	**39**	*e*P	**P**	**03 33 08.6**	**-0.1**
SNY	**Shenyang**	**45.54**	**31**	⇑P	**P**	**03 33 12.8**	**+0.1**
SNY				AMB	AMB		
	comp=Z,100nm,0.9s,mb5.8						
WRA	**Warramunga Arr**	**46.35**	**123**	P	**P**	**03 33 19.3**	**0.0**
	comp=Z,249nm,0.7s,mb6.2,baz=300,slow=9.0,SNR=52						
WRA	**Warramunga Arr**	**46.35**	**123**	P	**P**	**03 33 19.3**	**0.0**
WRA				pmax	pmax		
	comp=Z,249nm,0.7s						
WRAB	**Tennant Creek**	**46.35**	**123**	*e*P	**P**	**03 33 19.4**	**+0.1**
	comp=Z,448nm,0.8s,mb6.5						
ZAK	**Zakamensk**	**46.40**	**8**	*e*P	**P**	**03 33 19.3**	**0.0**
HASS	**Wahat al Ahsa'**	**47.35**	**300**	P	**P**	**03 33 28.3**	**+1.1**
MOY	**Mondy**	**47.39**	**6**	*e*P	**P**	**03 33 27.6**	**+0.5**
TLY	**Talaya**	**47.72**	**8**	P	**P**	**03 33 31.0**	**+1.3**
	comp=Z,346nm,1.0s,mb6.3,SNR=12						
TLY	**Talaya**	**47.72**	**8**	*e*P	**P**	**03 33 30.8**	**+1.1**
TLY				*e*	pP	03 33 39.0	+1.3
TLY				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.6						
TLY	**Talaya**	**47.72**	**8**	*e*P	**P**	**03 33 30.9**	**+1.2**
	comp=Z,51nm,0.9s,mb5.6						
ASAR	**Alice Springs**	**47.79**	**128**	P	**P**	**03 33 30.2**	**-0.5**
	comp=Z,89nm,0.7s,mb5.9,baz=303,slow=7.6,SNR=27						
ASAR				PcP	PcP	03 34 59.4	-0.3
	comp=Z,35nm,0.9s,baz=300,slow=3.3,SNR=9.5						
CN2	**Changchun**	**47.92**	**30**	⇑P	**P**	**03 33 31.3**	**-0.1**
CN2				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.6						
HIA	**Hailar**	**49.65**	**22**	*e*P	**P**	**03 33 44.6**	**0.0**
	comp=Z,84nm,1.1s,mb5.7						
RYDS	**Riyadh**	**49.72**	**298**	P	**P**	**03 33 47.2**	**+1.7**
QRN	**Al-Qurain**	**50.01**	**304**	*e*P	**P**	**03 33 48.5**	**+0.8**
RDF	**Al-Radifah**	**50.38**	**304**	*e*P	**P**	**03 33 51.2**	**+0.7**
RDF				AMb	AMB	03 33 53.2	
	comp=Z,751nm,1.1s,mb6.6						
UMR	**Umm Al-Rimmam**	**50.45**	**305**	*e*P	**P**	**03 33 52.1**	**+1.1**
UMR				AMb	AMB	03 33 53.6	
	comp=Z,319nm,0.8s,mb6.4						
MDJ	**Mudanjiang**	**50.64**	**32**	*e*P	**P**	**03 33 52.7**	**+0.5**
	comp=Z,67nm,1.0s,mb5.5						
GUMO	**Guam**	**50.81**	**76**	P	**P**	**03 33 55.2**	**+1.2**
MZLS	**Mizel**	**50.94**	**297**	P	**P**	**03 33 55.6**	**+0.8**
NVS	**Novosibirsk**	**50.99**	**352**	*i* P	**P**	**03 33 53.5**	**-1.3**
NVS				*i* S	**S**	**03 41 04.2**	**-4.6**
NVS				pmax	pmax		
	comp=E,51nm,1.2s						
NVS				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.8						
NVS				pmax	pmax		
	comp=N,103nm,1.3s						
NVS				smax			
	comp=N,192nm,1.9s						
NVS				smax			
	comp=E,305nm,2.0s						
CBIJ	**Chichi jima**	**51.00**	**59**	P	**P**	**03 33 54.1**	**-1.1**
	comp=E,94nm,0.6s,mb5.9,baz=236,slow=8.3,SNR=6.6						
RST	**Umm Al-Ruwaisa**	**51.02**	**305**	*e*P	**P**	**03 33 55.5**	**+0.1**
RST				AMb	AMB	03 33 57.8	
	comp=Z,531nm,1.2s,mb6.3						
MAT	**Matsushiro**	**51.48**	**46**	P	**P**	**03 33 57.2**	**-1.5**
MAT	**Matsushiro**	**51.48**	**46**	*e*P	**P**	**03 33 57.0**	**-1.7**
TATS	**Tathlith**	**51.56**	**291**	P	**P**	**03 33 59.5**	**-0.1**
BVAR	**Borovoye Array**	**52.20**	**342**	P	**P**	**03 34 04.2**	**+0.2**
	comp=Z,179nm,1.0s,mb6.0,baz=143,slow=7.4,SNR=32						
BRVK	**Borovoye**	**52.26**	**342**	*e*P	**P**	**03 34 03.2**	**-1.3**
	comp=Z,2µm,2.8s,mb6.6						
NAMS	**An Nimas**	**52.68**	**291**	P	**P**	**03 34 09.3**	**+1.2**
CHKZ	**Chkalovo**	**52.70**	**343**	*e*P	**P**	**03 34 07.2**	**-0.5**
	comp=Z,440nm,1.0s,mb6.3						
AFFS	**'Afif**	**52.88**	**297**	P	**P**	**03 34 10.3**	**+0.8**
BLJS	**Baljurashi**	**53.36**	**291**	P	**P**	**03 34 13.8**	**+0.7**
PMG	**Port Moresby**	**54.60**	**105**	P	**P**	**03 34 21.7**	**-0.4**
	comp=Z,64nm,0.8s,mb5.7,baz=351,slow=2.3,SNR=18						
PMG	**Port Moresby**	**54.60**	**105**	P	**P**	**03 34 21.7**	**-0.5**
PMG				pmax	pmax		
	comp=Z,64nm,0.8s						
HILS	**Ha'il**	**54.77**	**300**	P	**P**	**03 34 24.5**	**+1.2**
BOD	**Bodaibo**	**55.44**	**13**	*e*P	**P**	**03 34 26.1**	**-1.7**
CTA	**Charters Tower**	**56.69**	**117**	P	**P**	**03 34 37.3**	**0.0**
	comp=Z,94nm,0.8s,mb5.9,baz=291,slow=8.3,SNR=43						
CTA	**Charters Tower**	**56.69**	**117**	P	**P**	**03 34 37.3**	**0.0**
CTA				pmax	pmax		
	comp=Z,94nm,0.8s						
CTAO	**Charters Tower**	**56.69**	**117**	*e*P	**P**	**03 34 36.8**	**-0.4**
	comp=Z,6µm,3.5s						
GNI	**Garni**	**56.84**	**316**	P	**P**	**03 34 37.9**	**-0.2**
	comp=Z,27nm,1.0s,mb5.2,baz=32,slow=1.3,SNR=7.3						
GNI	**Garni**	**56.84**	**316**	P	**P**	**03 34 37.9**	**-0.2**
GNI				pmax	pmax		
	comp=Z,27nm,1.0s						
GNI	**Garni**	**56.84**	**316**	*e*P	**P**	**03 34 35.8**	**-2.3**
	comp=Z,53nm,1.1s,mb5.5						
KMBO	**Kilima Mbogo**	**57.12**	**266**	P	**P**	**03 34 40.3**	**-0.1**

	comp=Z,53nm,0.9s,mb5.6,baz=66,slow=8.2,SNR=30						
KMBO	Kilima Mbogo	57.12	266	P	P	03 34 40.3	-0.1
KMBO				pmax	pmax		
	comp=Z,53nm,0.9s						
KMBO	Kilima Mbogo	57.12	266	eP	P	03 34 40.5	+0.1
YNBS	Yanbu‘ al Bahr	57.44	296	P	P	03 34 43.1	+0.5
STKA	Stephens Creek	57.79	132	P	P	03 34 44.1	-0.8
	comp=Z,60nm,0.9s,mb5.6,baz=308,slow=5.8,SNR=20						
STKA	Stephens Creek	57.79	132	eP	P	03 34 43.6	-1.2
ASAJ	Asahikawa	58.00	39	P	P	03 34 46.1	0.0
	comp=Z,9.1nm,0.7s,mb4.9,baz=278,slow=5.8,SNR=4.4						
ASAJ	Asahikawa	58.00	39	P	P	03 34 46.1	0.0
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
UMJS	Umm Lajj	58.21	297	P	P	03 34 49.4	+1.5
ZEI	Tsey	58.55	318	eP	P	03 34 49.2	-0.8
ZEI				i *PP	pP	03 34 59.3	+1.2
ZEI				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
ARU	Arti	59.02	338	⇓iP	P	03 34 51.3	-1.8
ARU				e		03 44 31.0	
ARU				pmax	pmax		
	comp=Z,149nm,1.1s,mb5.9						
ARU	Arti	59.02	338	eP	P	03 34 51.2	-1.9
	comp=Z,149nm,1.1s,mb5.9						
YSS	Yuzh-Sakhalins	59.47	37	eP	P	03 34 55.0	-1.4
YSS				e		03 35 08.0	
YSS				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.8						
YSS	Yuzh-Sakhalins	59.47	37	eP	P	03 34 56.2	-0.1
TBKS	Tabuk	59.48	300	P	P	03 34 58.0	+1.3
KIV	Kislovodsk	59.86	319	P	P	03 34 57.9	-1.2
	comp=Z,407nm,1.1s,mb6.4,SNR=9.1						
KIV	Kislovodsk	59.86	319	eP	P	03 34 57.5	-1.6
KIV				pmax	pmax		
	comp=Z,88nm,1.1s,mb5.7						
KIV	Kislovodsk	59.86	319	eP	P	03 34 58.1	-1.0
	comp=Z,81nm,1.2s,mb5.6						
YUK	Yuzh-Kuril’sk	60.06	41	eP	sP	03 35 09.1	-2.4
ASF	Jabal al Asfar	60.11	305	P	P	03 35 01.2	+0.2
	comp=Z,32nm,0.9s,mb5.3,baz=335,slow=2.8,SNR=15						
JMQS	Jabal Moqyreh	60.20	301	P	P	03 35 02.3	+0.7
AYUS	‘Aynunah	60.58	300	P	P	03 35 04.8	+0.6
BDAS	Al Bad‘	60.77	300	P	P	03 35 05.5	0.0
JMOS	Jabal al Moall	60.91	301	P	P	03 35 06.9	+0.5
ALWS	Ilw as Safayha	60.98	301	P	P	03 35 06.8	-0.1
MKRJ	Makawir	60.99	304	P	P	03 35 07.8	+0.9
HAQS	Haql	61.05	301	P	P	03 35 07.4	+0.1
AQBJ	Aqaba	61.08	301	P	P	03 35 08.0	+0.4
EIL	Elat	61.15	301	P	P	03 35 08.0	-0.1
	comp=Z,74nm,0.8s,mb5.9,baz=86,slow=3.7,SNR=31						
EIL	Elat	61.15	301	P	P	03 35 08.6	+0.5
EIL	Elat	61.15	301	eP	P	03 35 08.4	+0.4
	comp=Z,26nm,0.8s,mb5.4						
DRGI	Dragot	61.21	304	P	P	03 35 09.2	+0.8
MBH	Mount Berech	61.21	302	P	P	03 35 09.2	+0.7
MMLI	Mount Malkishu	61.38	305	P	P	03 35 10.5	+0.9
MASH	Mash‘abbe Sade	61.58	303	P	P	03 35 11.5	+0.5
SLTI	Sal’it	61.65	304	P	P	03 35 12.1	+0.7
HNTI	Hanita	61.74	305	P	P	03 35 13.0	+1.0
OFRI	‘Ofer	61.78	305	P	P	03 35 13.0	+0.7
HAF	Haifa	61.79	305	P	P	03 35 12.9	+0.5
KZIT	Kziot	61.88	303	P	P	03 35 13.3	+0.3
YAK	Yakutsk	63.21	18	eP	P	03 35 18.6	-2.7
YAK				pmax	pmax		
	comp=Z,126nm,0.9s,mb6.0						
YAK				pmax	pmax		
	comp=N,54nm,1.2s						
YAK				pmax	pmax		
	comp=E,40nm,1.4s						
MBAR	Mbarara	63.55	267	eP	P	03 35 23.5	-0.9
	comp=E,90nm,1.3s,mb5.6						
CSS	Prodhromos	63.68	307	eP	P	03 35 24.1	-0.7
	comp=E,168nm,1.3s,mb5.9						
BRTR	Keskin Array B	64.67	312	P	P	03 35 30.1	-1.2
	comp=E,39nm,0.9s,mb5.5,baz=121,slow=7.2,SNR=27						
BRTR	Keskin Array B	64.67	312	P	P	03 35 30.1	-1.2
BRTR				pmax	pmax		
	comp=Z,39nm,0.9s						
SIM	Simferopol’	65.91	318	eP	P	03 35 38.8	-0.4
SIM				pmax	pmax		
	comp=Z,79nm,1.0s,mb5.7						
ISP	Isparta	66.56	309	eP	P	03 35 42.1	-1.4
	comp=Z,86nm,1.0s,mb5.7						
MOS	Moscow	67.98	329	⇓iP	P	03 35 51.0	-1.1
MOS				pmax	pmax		
	comp=Z,475nm,1.4s,mb6.3						
LSZ	Lusaka	68.18	252	eP	P	03 35 53.7	-0.3
	comp=Z,123nm,1.4s,mb5.7						
OBN	Obninsk	68.26	329	⇑iP	P	03 35 52.7	-1.1
OBN				pmax	pmax		
	comp=Z,148nm,1.0s,mb6.0						
OBN	Obninsk	68.26	329	eP	P	03 35 52.3	-1.5
	comp=Z,650nm,2.0s,mb6.3						
SKR	Severo-Kuril’s	69.04	37	eP	P	03 35 53.9	-4.8
SKR				pmax	pmax		
	comp=Z,140nm,0.8s,mb5.9						
SKR				pmax	pmax		
	comp=E,180nm,1.0s						
MA2	Magadan	69.77	27	eP	P	03 36 02.4	-0.6
MA2				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.6						
KIS	Kishinev	70.05	319	⇑iP	P	03 36 04.0	-0.9
KIS				pmax	pmax		
	comp=Z,400nm,1.0s,mb6.3						
SANT	Santorini	70.24	307	eP	P	03 36 04.6	-1.7
	comp=Z,235nm,1.1s,mb6.0						
IDI	Anoyia	70.53	306	P	P	03 36 08.4	+0.3
	comp=Z,99nm,0.7s,mb5.9,baz=95,slow=6.9,SNR=28						
ALN	Alexandroupoli	70.59	312	eP	P	03 36 07.7	-0.6
AKASG	Malin Array Be	70.83	322	P	P	03 36 08.2	-1.5
	comp=Z,16nm,0.6s,mb5.1,baz=88,slow=4.5,SNR=18						
AKASG	Malin Array Be	70.83	322	P	P	03 36 08.2	-1.4
AKASG				pmax	pmax		
	comp=Z,16nm,0.6s						
GVD	Gavdhos	71.11	305	eP	P	03 36 09.4	-2.3
	comp=Z,192nm,1.0s,mb6.0						
PET	Petropavlovsk	71.28	35	eP	P	03 36 11.5	-0.8
PET				pmax	pmax		
	comp=Z,121nm,0.8s,mb5.9						
AOS	Alonnisos	71.92	310	eP	P	03 36 14.8	-1.6
OUR	Ouranopolis	72.03	311	eP	P	03 36 15.7	-1.4
PAIG	Paliouri	72.19	310	eP	P	03 36 15.3	-2.7
SRS	Serrai	72.45	312	eP	P	03 36 17.6	-1.9
SOH	Sokhos	72.58	311	eP	P	03 36 18.1	-2.2
LBTB	Lobatse	72.65	242	eP	P	03 36 20.2	-0.9
	comp=Z,148nm,1.3s,mb5.8						
THE	Thessaloniki	72.85	311	eP	P	03 36 20.3	-1.6
KNT	Kendrikon	72.98	312	eP	P	03 36 21.5	-1.1
AGG	Agios Georgios	73.09	309	eP	P	03 36 21.0	-2.4
LIT	Litokhoron	73.12	310	eP	P	03 36 21.0	-2.5
GRG	Griva	73.32	311	eP	P	03 36 22.7	-1.9
IDID	Didziasalis	73.59	327	eP	P	03 36 25.2	-0.7
IDID				AMPb	AMB	03 36 27.3	
	comp=Z,53nm,1.1s,mb5.4						
BOSA	Boshof	73.81	239	eP	P	03 36 27.0	-0.7
	comp=Z,150nm,1.3s,mb5.8						
IIGN	Ignalina	73.89	327	eP	P	03 36 27.0	-0.6
IIGN				AMPb	AMB	03 36 29.1	
	comp=Z,61nm,1.2s,mb5.4						
IZAR	Zarasai	73.99	327	eP	P	03 36 27.5	-0.7
IZAR				AMPb	AMB	03 36 29.6	
	comp=Z,43nm,1.2s,mb5.2						
ISAL	Salakas	74.00	327	eP	P	03 36 27.5	-0.8
ISAL				AMPb	AMB	03 36 29.7	
	comp=Z,43nm,1.1s,mb5.3						
FNA	Florina	74.06	311	eP	P	03 36 26.1	-2.9
BOLS	Boljevac	74.09	314	⇓iP	P	03 36 27.7	-1.4
KWP	Kalwaria	74.62	320	eP	P	03 36 31.8	-0.2
KOLS	Kolonicke sedl	74.77	319	eP	P	03 36 33.4	+0.5
GRUS	Gruza	74.99	314	⇑iP	P	03 36 33.3	-0.9
APA	Apatity	75.02	340	⇑iP	P	03 36 33.0	-1.0
APA				pmax	pmax		
	comp=Z,140nm,1.0s,mb5.8						
MAW	Mawson	75.22	192	P	P	03 36 35.9	+0.8
	comp=Z,14nm,0.6s,mb5.1,baz=20,slow=6.9,SNR=8.6						
MAW	Mawson	75.22	192	P	P	03 36 35.9	+0.8
MAW				pmax	pmax		
	comp=Z,14nm,0.6s						
MAW	Mawson	75.22	192	eP	P	03 36 35.5	+0.4
	comp=Z,13nm,0.6s,mb5.0						
SUW	Suwalki	75.27	325	eP	P	03 36 34.8	-0.8
CRVS	Cervenica-Dubn	75.29	319	eP	P	03 36 35.4	-0.5
DZM	Mont Dzumac	75.39	114	eP	P	03 36 37.7	+0.7
DIVS	Divcibare	75.54	314	⇑iP	P	03 36 36.1	-1.2
FINES	FINESS Array B	75.71	333	P	P	03 36 37.4	-0.7
	comp=Z,60nm,0.7s,mb5.7,baz=104,slow=7.9,SNR=34						
FINES	FINESS Array B	75.71	333	P	P	03 36 37.4	-0.6
FINES				pmax	pmax		
	comp=Z,60nm,0.7s						
KAF	Kangasniemi	75.81	333	ep	P	03 36 37.1	-1.5
	baz=105,slow=5.3						
KECS	Kecovo	75.86	319	i P	P	03 36 39.3	+0.2
PKSN	Nyarlorinc	76.02	317	⇑iP	P	03 36 40.3	+0.2
NIE	Niedzica	76.12	320	eP	P	03 36 40.8	+0.2
PSZ	Piszkesteto	76.16	318	eP	P	03 36 40.0	-0.8
	comp=Z,39nm,0.9s,mb5.3						
WAR	Warsaw	76.17	323	eP	P	03 36 40.8	0.0
OJC	Ojcow	76.58	321	eP	P	03 36 42.9	-0.2
VYHS	Vyhne	76.94	319	i P	P	03 36 44.9	-0.3
SRO2	Moca	77.14	318	eP	P	03 36 46.4	+0.1
RHK1	Bakonya	77.14	316	⇑eP	P	03 36 45.9	-0.4
SRO	Srobarova	77.20	318	eP	P	03 36 47.1	+0.5
SRO				epP	pP	03 36 55.4	+0.5
KOLL	Kolacno	77.24	319	i P	P	03 36 47.0	+0.2
OKC	Ostrava-Krasne	77.58	320	eP	P	03 36 48.6	-0.1
RAC	Raciborz	77.58	320	eP	P	03 36 49.1	+0.4
GRI	Girifalco	77.65	309	eP	P	03 36 49.9	+0.6
SMOL	Smolenice	77.87	319	eP	P	03 36 50.4	+0.1
SMOL				e	pP	03 36 57.9	-0.7
MORC	Moravsky Berou	77.96	320	eP	P	03 36 50.7	0.0
	comp=Z,198nm,2.0s,mb5.7						
ZST	Bratislava	78.05	318	eP	P	03 36 51.5	+0.2
SUR	Sutherland	78.42	236	eP	P	03 36 54.9	+1.2
	comp=Z,244nm,1.3s,mb6.0						
ARCES	ARCESS Array B	78.45	340	P	P	03 36 53.4	+0.3
	comp=Z,141nm,1.1s,mb5.8,baz=104,slow=5.0,SNR=30						
ARCES	ARCESS Array B	78.45	340	P	P	03 36 53.4	+0.3
ARCES				pmax	pmax		
	comp=Z,141nm,1.1s						
GKP	Gorka Klasztor	78.61	323	eP	P	03 36 54.3	+0.1
DPC	Dobruska-Polom	78.81	320	eP	P	03 36 56.0	+0.6
KSP	Ksiaz	78.88	321	eP	P	03 36 55.9	+0.1
KSP				epP	pP	03 37 03.3	-0.8
KSP	Ksiaz	78.88	321	eP	P	03 36 56.4	+0.6
ARSA	Arzberg	79.01	317	⇑iP	P	03 36 57.0	+0.4
	comp=Z,131nm,1.0s,mb5.8						
ARSA	Arzberg	79.01	317	⇑iP	P	03 36 57.0	+0.4
	comp=Z,131nm,1.0s,mb5.8						
UPC	Upice	79.02	320	eP	P	03 36 57.0	+0.4
BILL	Bilibino	79.23	21	eP	P	03 36 57.2	-0.1
	comp=Z,127nm,1.5s,mb5.6						
OBKA	Obir	79.61	316	⇑iP	P	03 36 59.2	-0.7
	comp=Z,116nm,1.4s,mb5.6						
OBKA	Obir	79.61	316	⇑iP	P	03 36 59.2	-0.7
	comp=Z,116nm,1.4s,mb5.6						
FX1	Attu Island--F	79.82	37	P	P	03 37 01.0	+0.2
	comp=Z,95nm,0.5s,mb6.0,baz=68,slow=1.5,SNR=27						
FX1	Attu Island--F	79.82	37	P	P	03 37 01.0	+0.2
FX1				pmax	pmax		
	comp=Z,95nm,0.5s						
FX1	Attu Island--F	79.82	37	eP	P	03 37 00.3	-0.5
PRU	Pruhonice	79.91	320	eP	P	03 37 01.5	+0.1
MOA	Molln	79.91	318	⇑iP	P	03 37 00.8	-0.6
	comp=Z,53nm,1.1s,mb5.4						
MOA	Molln	79.91	318	⇑iP	P	03 37 00.8	-0.6
	comp=Z,53nm,1.1s,mb5.4						
PVCC	Panska Ves	79.94	320	eP	P	03 37 01.9	+0.4
AQU	L’Aquila	80.17	312	eP	P	03 37 03.3	+0.4
BSD	Bornholm Skovb	80.19	325	i P	P	03 37 01.8	-1.0
BSD				pmax	pmax		
	comp=Z,120nm,0.8s,mb5.9						
BSD	Bornholm Skovb	80.19	325	i P	P	03 37 01.8	-1.0
	comp=Z,115nm,0.8s,mb5.9						
GEC2	GERESS Array S	80.36	319	eP	P	03 37 04.2	+0.4
GEC2				pmax	pmax		
	comp=Z,195nm,1.1s,mb6.0						
GEC2	GERESS Array S	80.36	319	eP	P	03 37 04.2	+0.4
	comp=Z,195nm,1.1s,mb6.0						
GERES	GERESS Array B	80.36	319	P	P	03 37 04.1	+0.3
	comp=Z,68nm,0.8s,mb5.6,baz=90,slow=5.3,SNR=41						
GERES	GERESS Array B	80.36	319	P	P	03 37 04.1	+0.3
GERES				pmax	pmax		
	comp=Z,68nm,0.8s						
BRG	Berggiesshubel	80.37	321	i P	P	03 37 04.1	+0.3
BRG				i	pP	03 37 13.2	+1.1
BRG				pmax	pmax		
	comp=Z,104nm,1.1s,mb5.7						
BRG	Berggiesshubel	80.37	321	i P	P	03 37 04.1	+0.3
	comp=Z,104nm,1.1s,mb5.7						
BRG				i	pP	03 37 13.2	+1.1
BRG				e		03 39 29.2	
NRCA	Norcia	80.40	313	eP	P	03 37 04.2	+0.1
PTCC	Patocco-Chiusa	80.43	316	eP	P	03 37 04.4	+0.1
KHC	Kasperske Hory	80.47	319	eP	P	03 37 04.0	-0.3
KBA	Koelnbreinsper	80.48	317	⇑iP	P	03 37 04.5	0.0
	comp=Z,69nm,1.4s,mb5.4						
KBA	Koelnbreinsper	80.48	317	⇑iP	P	03 37 04.5	0.0
	comp=Z,69nm,1.4s,mb5.4						
GMNA	Gemona	80.50	316	eP	P	03 37 04.9	+0.3
SNTG	Esanatoglia	80.55	313	eP	P	03 37 05.2	+0.2
ARV	Arcevia	80.56	313	eP	P	03 37 05.5	+0.5
RUE	Ruedersdorf	80.61	322	eP	P	03 37 05.0	0.0
	comp=Z,216nm,1.0s,mb6.0						
FSSB	Fossombrone	80.69	313	eP	P	03 37 06.3	+0.7
TRO	Tromso	80.70	340	eP	P	03 37 02.9	-2.3
FVI	Forni Avoltri	80.84	316	eP	P	03 37 06.6	+0.2
WET	Wettzell	80.92	319	eP	P	03 37 07.1	+0.3
WET				pmax	pmax		
	comp=Z,124nm,1.3s,mb5.7						
WET	Wettzell	80.92	319	eP	P	03 37 07.1	+0.3
	comp=Z,124nm,1.3s,mb5.7						
RSM	Repubblica di	80.94	314	eP	P	03 37 08.1	+1.1
CLL	Collm	80.99	321	⇓iP	P	03 37 07.0	-0.1
CLL				e	pP	03 37 17.0	+1.6
CLL				e		03 37 23.0	
CLL				pmax	pmax		
	comp=Z,81nm,1.1s,mb5.6						
CLL	Collm	80.99	321	⇓iP	P	03 37 07.0	-0.1
	comp=Z,81nm,1.1s,mb5.6						
CLL				e	pP	03 37 17.0	+1.6
CLL				e		03 37 23.0	
CLL	Collm	80.99	321	⇓P	P	03 37 07.0	-0.1
	comp=Z,logA/T=1.9,mb5.6						
CLL				e*PP	pP	03 37 17.0	+1.6
CLL				e*SP	sP	03 37 23.0	+4.8
NKC	Novy Kostel	81.27	320	eP	P	03 37 08.9	+0.3
SFI	Santa Sofia	81.37	314	eP	P	03 37 10.6	+1.3
PGD	Poggio Sodo	81.46	314	eP	P	03 37 11.1	+1.4
VMG	Vicchio	81.59	314	eP	P	03 37 12.2	+1.8
CTI	Castel Tesino	81.59	316	eP	P	03 37 10.6	+0.3
WTTA	Wattenberg	81.65	317	⇑iP	P	03 37 10.2	-0.4
	comp=Z,157nm,1.0s,mb5.9						
WTTA	Wattenberg	81.65	317	⇑iP	P	03 37 10.2	-0.4
	comp=Z,157nm,1.0s,mb5.9						
COP	Copenhagen	81.66	325	i P	P	03 37 11.5	+1.1
COP				pmax	pmax		
	comp=Z,73nm,1.1s,mb5.5						
COP	Copenhagen	81.66	325	i P	P	03 37 11.5	+1.1
	comp=Z,73nm,1.1s,mb5.5						
WATA	Walderalm	81.70	317	⇑iP	P	03 37 10.6	-0.2
	comp=Z,76nm,1.0s,mb5.6						
WATA	Walderalm	81.70	317	⇑iP	P	03 37 10.6	-0.2
	comp=Z,76nm,1.0s,mb5.6						
SEI	Scarperia	81.73	314	eP	P	03 37 12.2	+1.1
MOR8	Moi Rana	81.77	336	eP	P	03 37 09.9	-1.0
MOR8				AMb	AMB	03 37 11.9	
	comp=Z,196nm,1.0s,mb6.0						
MOR8	Moi Rana	81.77	336	eP	P	03 37 09.9	-1.0
	comp=Z,196nm,1.0s,mb6.0						
MOX	Moxa	81.83	320	eP	P	03 37 11.9	+0.5
MOX	Moxa	81.83	320	i P	P	03 37 11.9	+0.5
FUR	Furstenfeldbru	81.93	318	eP	P	03 37 11.9	-0.1
FUR				pmax	pmax		
	comp=Z,138nm,1.2s,mb5.8						
FUR	Furstenfeldbru	81.93	318	eP	P	03 37 11.9	-0.1
	comp=Z,138nm,1.2s,mb5.8						
SQTA	Sankt Quirin	81.94	317	⇑iP	P	03 37 12.1	0.0
	comp=Z,55nm,0.7s,mb5.6						
SQTA	Sankt Quirin	81.94	317	⇑iP	P	03 37 12.1	0.0
	comp=Z,55nm,0.7s,mb5.6						
ZCCA	Zocca	82.01	314	eP	P	03 37 14.5	+2.0
MOTA	Moosalm	82.02	317	⇑iP	P	03 37 12.4	-0.1
	comp=Z,87nm,1.0s,mb5.6						
MOTA	Moosalm	82.02	317	⇑iP	P	03 37 12.4	-0.1
	comp=Z,87nm,1.0s,mb5.6						
GRA1	Grafenberg Arr	82.03	319	eP	P	03 37 13.3	+0.8
	comp=Z,164nm,1.0s,mb5.9						
GRF	Grafenberg Arr	82.03	319	eP	P	03 37 13.3	+0.8
GRF				pmax	pmax		
	comp=Z,164nm,1.0s,mb5.9						
GRF	Grafenberg Arr	82.03	319	eP	P	03 37 13.3	+0.8
	comp=Z,164nm,1.0s,mb5.9						
SYO	Syowa Base	82.17	197	⇑P	P	03 37 13.8	+0.9
SYO	Syowa Base	82.17	197	⇑pP	pP	03 37 24.1	+2.9
SYO	Syowa Base	82.17	197	⇓PP	PP	03 40 22.8	-0.5
GSCL	Gusciola	82.29	314	eP	P	03 37 15.4	+1.4
MAIM		82.35	314	P	P	03 37 13.7	-0.6
BRMO	Bormio	82.49	316	eP	P	03 37 15.8	+0.8
NSS	Namsos	82.62	334	eP	P	03 37 14.0	-1.3
CLZ	Clausthal	82.66	322	eP	P	03 37 16.0	+0.3
	comp=Z,106nm,0.9s,mb5.9						
HDH	Heidenheim	82.66	318	⇓eP	P	03 37 15.4	-0.4
GRAM		82.67	314	P	P	03 37 16.1	+0.1
NB2	NORSAR Subarra	82.69	331	P	P	03 37 15.2	-0.5
	comp=Z,83nm,0.9s,mb5.8,baz=94,slow=5.6						
NB2	NORSAR Subarra	82.69	331	P	P	03 37 15.2	-0.5
	baz=94,slow=5.6						
NOA	NORSAR Array B	82.69	331	P	P	03 37 15.2	-0.5
	comp=Z,42nm,0.9s,mb5.5,baz=94,slow=5.4,SNR=30						
NOA	NORSAR Array B	82.69	331	P	P	03 37 15.2	-0.5
NOA				pmax	pmax		
	comp=Z,42nm,0.9s						
UBR	Uberruh	82.70	317	⇓eP	P	03 37 15.8	-0.3
BSEG	Bad Segeberg	82.78	324	eP	P	03 37 16.8	+0.5
BSEG				pmax	pmax		
	comp=Z,154nm,1.0s,mb6.0						
DAVOX	Davos	82.84	316	P	P	03 37 17.4	+0.6
	comp=Z,168nm,0.9s,mb6.0,baz=100,slow=2.6,SNR=34						
DAVA	Damuels	82.85	317	⇑iP	P	03 37 17.2	+0.4
	comp=Z,157nm,1.0s,mb6.0						
DAVA	Damuels	82.85	317	⇑iP	P	03 37 17.2	+0.4
	comp=Z,157nm,1.0s,mb6.0						
SIND	Sindeldorf	83.08	319	⇓eP	P	03 37 18.1	+0.2
BUCH	Bad Urach	83.23	318	⇓eP	P	03 37 18.8	+0.1
GUT	Gutenstein	83.38	318	⇓eP	P	03 37 19.5	0.0
MUD	Monsted U’grnd	83.52	326	i P	P	03 37 21.0	+0.9
MUD				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.9						
MUD	Monsted U’grnd	83.52	326	i P	P	03 37 21.0	+0.9
	comp=Z,103nm,1.0s,mb5.9						
LBG	Lerchenberg	83.60	318	⇓eP	P	03 37 20.4	-0.3
VAI	Varese	83.60	316	eP	P	03 37 20.3	-0.4
SPAK	Spaichingen	83.60	318	⇓eP	P	03 37 20.7	0.0
TOD	Tromm	83.60	319	⇓eP	P	03 37 20.6	0.0
TOD	Tromm	83.60	319	eP	P	03 37 20.7	+0.1
RPZ	Rata Peaks	83.66	135	P	P	03 37 21.3	+0.2
	comp=Z,36nm,0.8s,mb5.5,baz=199,slow=2.8,SNR=9.9						
SWS	Schriesheim	83.67	319	⇓eP	P	03 37 21.0	0.0
PCP	Pian Castagno	83.76	314	P	P	03 37 21.6	0.0
BFO	Black Forest	83.91	318	eP	P	03 37 22.0	-0.2
BFO				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.8						
BFO	Black Forest	83.91	318	eP	P	03 37 22.0	-0.2
	comp=Z,70nm,1.0s,mb5.8						
FIN	Finale Ligure	84.00	314	eP	P	03 37 22.9	+0.2
KTD	Kalmit	84.07	319	eP	P	03 37 23.1	+0.1
KTD	Kalmit	84.07	319	eP	P	03 37 23.3	+0.3
FELD	Feldberg	84.12	318	⇓eP	P	03 37 23.3	0.0
ORX	Oropa	84.15	315	P	P	03 37 22.2	-1.3
KIZ	Kirchzarten	84.18	318	⇓eP	P	03 37 23.5	-0.1
IMI	Imperia	84.23	314	eP	P	03 37 24.3	+0.4
ROB	Roburent	84.24	314	P	P	03 37 24.2	+0.2
LANF	Langenberg	84.25	319	eP	P	03 37 23.8	-0.2
STR	Strasbourg	84.28	318	eP	P	03 37 23.3	-0.8
MONE	Monesi	84.33	314	P	P	03 37 24.8	+0.4
NEGI	Negi	84.37	313	P	P	03 37 24.5	-0.2
LIBD	Limburg	84.39	318	eP	P	03 37 24.4	-0.3
LIBD	Limburg	84.39	318	eP	P	03 37 25.0	+0.3
ABH	Alteburg	84.42	320	⇓eP	P	03 37 25.1	+0.3
ABH	Alteburg	84.42	320	eP	P	03 37 25.2	+0.4
BBS	Basel-Blauen	84.46	317	⇓eP	P	03 37 24.8	-0.2
BBS	Basel-Blauen	84.46	317	eP	P	03 37 24.9	-0.1
SAOF	Saorge	84.47	314	eP	P	03 37 22.8	-2.4
MOL	Molde	84.49	332	eP	P	03 37 27.4	+2.6
MOL				AMb	AMB	03 37 29.1	
	comp=Z,170nm,1.6s,mb5.9						
MOL	Molde	84.49	332	eP	P	03 37 27.4	+2.6
	comp=Z,170nm,1.6s,mb5.9						
WLS	Welschbruch	84.56	318	eP	P	03 37 24.3	-1.2
SBF	Sospel	84.56	313	⇓iP	P	03 37 25.1	-0.5
	comp=Z,271nm,1.1s,mb6.0						
AUTN	L’Aution	84.56	314	eP	P	03 37 24.6	-1.0
ENR	Entracque	84.57	314	P	P	03 37 25.2	-0.5
CDF	Champ du Feu	84.61	318	⇓iP	P	03 37 25.3	-0.4
	comp=Z,91nm,1.1s,mb5.5						
REVF	Revere	84.61	313	eP	P	03 37 25.7	-0.2
STV	Sta Anna Valdi	84.64	314	P	P	03 37 25.2	-0.8
RSP	Reno Superiore	84.67	315	P	P	03 37 24.7	-1.4
BHB	Bricherasio	84.67	314	P	P	03 37 24.8	-1.3
ECH	Echery	84.69	318	eP	P	03 37 26.2	+0.1
TOUF	Mont Tournerai	84.69	314	eP	P	03 37 27.1	+0.8
MOF	Molkenrain	84.71	318	eP	P	03 37 26.4	+0.1
LSD	Ceresole Reale	84.73	315	P	P	03 37 26.6	+0.2
RUP	Ruppelstein	84.74	319	⇓eP	P	03 37 26.7	+0.4
RUP	Ruppelstein	84.74	319	eP	P	03 37 26.3	0.0
MVIF	Mont Vial	84.77	314	eP	P	03 37 27.3	+0.7
PZZ	Prazzo	84.79	314	P	P	03 37 25.9	-0.9
FENE	Fenestrelle	84.81	315	P	P	03 37 26.2	-0.6
WTSB	Winterswijk	84.88	322	eP	P	03 37 27.2	+0.3
	comp=Z,108nm,0.8s,mb6.0						
LOMF	Lomont	84.93	317	eP	P	03 37 26.9	-0.4
WIT	Witteveen	84.95	322	eP	P	03 37 27.9	+0.6
	comp=Z,448nm,0.9s,mb6.6						
RRL	Cesana Torines	85.01	315	P	P	03 37 27.9	+0.1
MBDF	Montbardon	85.02	314	⇓iP	P	03 37 27.2	-0.7
	comp=Z,80nm,1.0s,mb5.5						
LPL	La Plagne	85.03	315	⇓iP	P	03 37 28.2	+0.3
	comp=Z,293nm,1.1s,mb6.0						
HAU	Haudompre	85.24	318	⇓iP	P	03 37 28.5	-0.4
	comp=Z,197nm,1.0s,mb5.9						
HGN	Heimansgroeve	85.44	320	eP	P	03 37 29.6	-0.2
	comp=Z,44nm,1.1s,mb5.5						
THEF	They Montfort	85.47	318	eP	P	03 37 29.5	-0.6
FOO	Floro	85.67	331	eP	P	03 37 30.9	+0.1
FOO				AMb	AMB	03 37 45.0	
	comp=Z,100nm,1.7s,mb5.8						
FOO	Floro	85.67	331	eP	P	03 37 30.9	+0.1
	comp=Z,100nm,1.7s,mb5.8						
GIVF	Givet	86.17	320	⇓iP	P	03 37 33.4	-0.1
	comp=Z,92nm,1.1s,mb5.6						
PLDF	La Plantade	87.19	316	eP	P	03 37 38.3	-0.2
SSF	Saint Saulge	87.20	317	⇓iP	P	03 37 38.5	-0.1
	comp=Z,118nm,1.2s,mb5.7						
URZ	Urewera	87.22	129	P	P	03 37 38.6	-0.3
	comp=Z,58nm,0.9s,mb5.8,baz=312,slow=1.0,SNR=20						
LBL	Lubilhac	87.50	315	eP	P	03 37 41.2	+1.1
AGO	Saint Agoulin	87.52	316	eP	P	03 37 38.6	-1.6
PYM	Petit Puy Mans	87.63	316	eP	P	03 37 36.5	-4.2
LDF	La Druitiere	89.51	319	⇓iP	P	03 37 49.6	0.0
	comp=Z,173nm,1.1s,mb6.0						
VNDA	Vanda	89.61	168	P	P	03 37 48.9	-0.6
	comp=Z,12nm,1.0s,mb5.2,baz=318,slow=5.2,SNR=5.4						
VNDA	Vanda	89.61	168	P	P	03 37 48.9	-0.6
VNDA				pmax	pmax		
	comp=Z,12nm,1.0s						
VNDA	Vanda	89.61	168	eP	P	03 37 49.5	+0.1
	comp=Z,32nm,1.3s,mb5.5						
EBR	Ebro Roquetas	89.88	311	eP	P	03 37 52.5	+1.0
ETSF	Etsaut	90.44	313	⇓iP	P	03 37 54.1	+0.1
	comp=Z,64nm,0.9s,mb5.7						
SBA	Scott Base	90.72	168	eP	P	03 37 55.7	+1.2
	comp=Z,46nm,1.1s,mb5.7						
ESDC	Sonseca Array	93.40	310	P	P	03 38 08.7	+0.9
	comp=Z,15nm,0.9s,mb5.4,baz=64,slow=4.2,SNR=19						
SNAA	Sanae	96.42	198	P	P	03 38 21.7	+0.8
	comp=Z,1.8nm,0.8s,baz=37,slow=3.2,SNR=7.1						
SNAA				PP	PP	03 42 12.3	-4.9
	comp=Z,2.4nm,1.2s,baz=140,slow=2.5,SNR=3.2						
SNAA	Sanae	96.42	198	P	P	03 38 21.7	+0.9
SNAA						03 42 12.3	
SNAA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
SNAA				pmax	pmax		
	comp=Z,2.0nm,1.3s						
SNAA	Sanae	96.42	198	eP	P	03 38 21.8	+1.0
	comp=Z,20nm,1.3s,mb5.4						
ILAR	Eielson Array	97.88	22	P	P	03 38 28.5	+1.0
	comp=Z,3.3nm,1.2s,mb4.8,baz=292,slow=4.9,SNR=4.4						
ILAR	Eielson Array	97.88	22	P	P	03 38 28.5	+1.0
ILAR				pmax	pmax		
	comp=Z,3.0nm,1.2s						

DBIC	Dimbokro	98.40	277	P	P	03 38 32.2	+1.2
	comp=Z,5.9nm,0.8s,mb5.2,baz=67,slow=6.4,SNR=6.1						
DBIC	Dimbokro	98.40	277	P	P	03 38 32.3	+1.2
DBIC				pmax	pmax		
	comp=Z,6.0nm,0.8s						
DBIC	Dimbokro	98.40	277	*e*P	P	03 38 31.8	+0.7
	comp=Z,16nm,1.2s,mb5.4						
RES	Resolute Bay	100.78	2	*e*Pdif	P	03 38 41.3	+0.8
	comp=Z,13nm,0.9s						
EDM	Edmonton	118.03	18	*e*PKPdf	PKPdf	03 43 38.7	-3.8
SCHQ	Schefferville	118.83	348	PKP	PKPdf	03 43 41.5	-2.6
	comp=Z,3.7nm,0.5s,baz=204,slow=3.9,SNR=9.4						
SCHQ	Schefferville	118.83	348	PKP	PKPdf	03 43 41.5	-2.6
WTV	Waterville	120.04	26	P	PKPdf	03 43 43.5	-3.0
TBM	Table Mountain	120.16	27	P	PKPdf	03 43 44.3	-2.5
NEW	Newport	120.79	24	*e*PKPdf	PKPdf	03 43 44.5	-3.5
WRD	Warden	121.08	26	P	PKPdf	03 43 46.0	-2.6
PRW	Prosser	121.29	27	P	PKPdf	03 43 46.9	-2.1
HRY	Holter Researc	124.10	21	*e*PKPdf	PKPdf	03 43 51.5	-2.9
ULM	Lac du Bonnet	124.82	8	PKP	PKPdf	03 43 53.3	-2.5
	comp=Z,20nm,0.7s,baz=346,slow=2.3,SNR=26						
ULM				PP	PP	03 45 37.1	-6.1
	comp=Z,8.8nm,0.9s,baz=344,slow=7.4,SNR=4.3						
NSHM	Saint Helena R	125.35	35	*e*PKPdf	PKPdf	03 43 55.0	-2.2
HLID	Hailey	125.69	25	*e*PKPdf	PKPdf	03 43 55.1	-2.5
IMW	Indian Meadow	126.82	23	*e*PKPdf	PKPdf	03 43 57.2	-2.5
SAO	San Andreas Ge	127.22	36	*e*PKPdf	PKPdf	03 43 58.1	-2.6
ELK	Elko	127.57	28	*e*PKPdf	PKPdf	03 43 59.3	-2.0
LRV	Little Rabbit	127.71	36	*e*PKPdf	PKPdf	03 43 58.7	-3.1
NVAR	Mina Array Bea	127.80	32	PKP	PKPdf	03 44 00.4	-1.5
	comp=Z,22nm,0.9s,baz=280,slow=2.4,SNR=36						
USHA	Ushuaia	127.84	193	PKP	PKPdf	03 43 58.3	-3.1
	comp=Z,28nm,1.1s,baz=179,slow=2.5,SNR=5.5						
MNV	Mina	127.88	32	*e*PKPdf	PKPdf	03 44 00.1	-1.9
PDAR	Pinedale Array	128.31	22	PKP	PKPdf	03 44 00.1	-2.6
	comp=Z,20nm,0.9s,baz=55,slow=0.8,SNR=38						
MTUM	Tungsten Hills	128.44	33	*e*PKPdf	PKPdf	03 44 01.4	-1.7
HWUT	Hardware Ranch	128.50	25	*e*P	PKPdf	03 44 00.7	-2.5
TPH	Tonopah	128.63	32	*e*PKPdf	PKPdf	03 44 01.5	-2.0
DAU	Daniels Canyon	129.62	25	*e*PKPdf	PKPdf	03 44 03.6	-1.7
DAC	Darwin (Calif)	129.76	34	*e*PKPdf	PKPdf	03 44 03.7	-2.0
MDV	Middlebury	130.42	348	*e*PKPdf	PKPdf	03 44 03.5	-3.2
MVU	Marysvale	130.76	27	*e*PKPdf	PKPdf	03 44 05.7	-1.8
MSU	Marysvale	130.77	27	*e*PKPdf	PKPdf	03 44 06.0	-1.6
PV10	Paradox Valley	132.26	25	*e*PKPdf	PKPdf	03 44 07.7	-2.7
PFO	Pinyon Flat Ob	132.34	35	PKPdf	PKPdf	03 44 07.7	-3.0
GENY	Geneseo	132.43	352	*e*PKPdf	PKPdf	03 44 07.0	-3.6
ANMO	Albuquerque	136.26	25	PKP	PKPdf	03 44 16.4	-1.4
	comp=Z,26nm,0.9s,baz=240,slow=1.2,SNR=27						
ANMO	Albuquerque	136.26	25	*e*PKPdf	PKPdf	03 44 15.6	-2.2
PWV	Princeton	138.17	354	*e*PKPdf	PKPdf	03 44 18.3	-3.0
TRQA	Tornquist	140.10	210	*e*PKPpre		03 44 12.8	
BAO	Brasilia Array	141.18	251	PKP	PKPdf	03 44 18.1	-9.2
BAO				*i*		03 44 25.1	
BDFB	Brasilia	141.20	251	PKhKP		03 44 18.0	
	comp=Z,13nm,1.0s,baz=153,slow=4.8,SNR=6.4						
BDFB				PKP	PKPdf	03 44 25.2	-2.1
	comp=Z,28nm,0.9s,baz=122,slow=0.8,SNR=16						
BDFB	Brasilia	141.20	251	PKHKP		03 44 18.0	
BDFB						03 44 25.2	
BDFB				pmax	pmax		
	comp=Z,13nm,1.0s						
BDFB				pmax	pmax		
	comp=Z,28nm,0.9s						
TXAR	Lajitas Array	142.29	26	PKhKP		03 44 21.4	
	comp=Z,2.3nm,0.6s,baz=227,slow=1.1,SNR=13						
TXAR				PP	PP	03 47 34.8	0.0
	comp=Z,4.2nm,0.9s,baz=34,slow=4.5,SNR=5.0						
HKT	Hockley	144.47	15	*e*PKPdf	PKPdf	03 44 27.4	-5.2
FCH	Farellones	147.83	205	⇓*i*P	PKPdf	03 44 38.6	+0.4
CLCH	Cerro Calan	147.87	205	*e*P	PKPdf	03 44 38.2	0.0
CMCH	Combarbala	149.98	206	*e*P	PKPdf	03 44 43.9	+2.1
SJG	San Juan	150.32	320	PKP	PKPdf	03 44 39.3	-3.3
	comp=Z,14nm,0.7s,baz=327,slow=5.5,SNR=3.1						
SJG				PKPbc	PKPdf	03 44 44.7	+2.2
	comp=Z,55nm,0.9s,baz=73,slow=2.5,SNR=10						
SJG	San Juan	150.32	320	PKIKP	PKPdf	03 44 39.3	-3.3
SJG						03 44 44.7	
SJG				pmax	pmax		
	comp=Z,14nm,0.7s						
SJG				pmax	pmax		
	comp=Z,55nm,0.9s						
SJG	San Juan	150.32	320	PKP	PKPdf	03 44 39.3	-3.3
SJG				PKPbc	PKPdf	03 44 44.7	+2.2
TLL	Tololo Astrono	150.75	207	*i* P	PKPdf	03 44 45.2	+2.3
LVC	Limon Verde	155.63	221	PKP	PKPdf	03 44 48.7	-1.1
	comp=Z,12nm,0.9s,baz=262,slow=2.9,SNR=7.2						
LVC				PKPab	PKPab	03 45 14.3	+0.5
	comp=Z,46nm,0.9s,baz=114,slow=2.5,SNR=20						
LVC	Limon Verde	155.63	221	*e*PKPdf	PKPdf	03 44 47.8	-2.1
LVC				*e*		03 44 57.1	
LVC				*e*PKPab	PKPab	03 45 13.9	+0.1
LPAZ	La Paz	159.01	235	PKP	PKPdf	03 44 52.8	-1.6
	comp=Z,20nm,1.0s,baz=61,slow=4.5,SNR=16						
LPAZ				PKPab	PKPab	03 45 29.0	+0.5
	comp=Z,32nm,0.8s,baz=93,slow=5.5,SNR=18						
LPAZ	La Paz	159.01	235	PKIKP	PKPdf	03 44 52.8	-1.6
LPAZ				pmax	pmax		
	comp=Z,21nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,32nm,0.8s						
LPAZ	La Paz	159.01	235	*e*PKPdf	PKPdf	03 44 52.8	-1.6
LPAZ				*e*PKPab	PKPab	03 45 28.8	+0.2
SDV	Santo Domingo	159.85	311	PKP	PKPdf	03 44 52.8	-2.7
	comp=Z,16nm,1.0s,baz=124,slow=1.3,SNR=7.7						
SDV				PKPab	PKPab	03 45 31.6	-0.7
	comp=Z,21nm,0.9s,baz=86,slow=2.8,SNR=9.3						
SDV	Santo Domingo	159.85	311	*e*PKPdf	PKPdf	03 44 52.2	-3.2
ROSC	El Rosal	165.23	309	PKP	PKPdf	03 44 59.2	-1.7
	comp=Z,36nm,0.9s,baz=123,slow=2.7,SNR=23						
ROSC				PKPab	PKPab	03 45 56.0	+0.4
	comp=Z,16nm,1.0s,baz=88,slow=6.9,SNR=4.4						
NNA	Nana	168.37	229	*e*PKPdf	PKPdf	03 44 59.7	-3.3

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*IDC **26** 03:26:41.2±1.0, 4.81N×96.35E, mb5.0/8, mb1 5.1/9, mb1mx4.8/16, ML5.4/1, Error ellipse: s-maj=51.0km s-min=18.6km az=54.0*

*NEIC **26** 03:26:45.8±0.6, 4.91N×96.41E, h30^{km}, mb5.3/5, Error ellipse: s-maj=18.8km s-min=11.4km az=73.0*

*BJI **26** 03:26:47.7, 4.90N×96.40E, h30^{km}, mb5.6*

ISC 26 03:26:43.4±4.4, **4.93N**±0.10×**96.53E**±0.08, **h23**^{km}±31^{km}, **n29**, σ**1^{s}30**/29, **mb5.1**/14, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.65	10	*e*P	P	03 29 57.4	-0.9
CMAR	Chiang Mai Arr	13.65	10	Pn	P	03 29 57.1	-1.2
	5.5nm,0.3s,baz=225,slow=15,SNR=5.6						
MDRS	Chennai	17.99	298	*e*P	P	03 30 51.9	-2.1
MDRS				*e*		03 30 52.6	
	comp=Z,213nm,1.4s						
VIS	Vishakhapatnam	18.13	316	*e*P	P	03 30 58.1	+2.4
VIS				*e*		03 30 59.2	
	comp=Z,127nm,0.3s						
KOD	Kodaikanal	19.61	287	*e*P	P	03 31 13.7	+0.3
KMI	Kunming	20.95	16	*e*P	P	03 31 33.0	+5.7
KMI				AMB	AMB		
	comp=Z,117nm,0.8s						
SHL	Shillong	21.00	348	*e*P	P	03 31 27.6	-0.2
BOK	Bokaro	21.38	332	*e*P	P	03 31 36.8	+5.1
MNGI	Mangalore	22.86	292	*e*P	P	03 31 47.6	+1.0
MNGI				*e*		03 31 55.4	
	comp=Z,154nm,1.5s						
AKL	Akola	24.61	311	*e*P	P	03 32 05.7	+2.2
POO	Poona	25.95	303	*e*P	P	03 32 19.8	+3.5
POO				*e*		03 32 23.5	
	comp=Z,76nm,1.2s						
CD2	Chengdu	26.73	14	P	P	03 32 26.8	+3.5
CD2				AMB	AMB		
	comp=Z,180nm,0.6s,mb5.8						
ENH	Enshi	28.02	24	P	P	03 32 35.6	+0.6
	comp=Z,54nm,0.9s,mb5.2						
NDI	New Delhi	29.90	324	*e*P	P	03 32 51.6	-0.4
SONM	Songino Array	43.58	10	P	P	03 34 47.8	+0.3
	comp=Z,34nm,0.9s,mb5.1,baz=199,slow=9.9,SNR=15						
ULN	Ulaanbaatar	43.72	10	*e*P	P	03 34 48.6	-0.1
	comp=Z,36nm,0.8s,mb5.2						
WRA	Warramunga Arr	44.63	125	P	P	03 34 57.2	+0.8
	comp=Z,41nm,0.5s,mb5.5,baz=306,slow=8.4,SNR=11						
WRAB	Tennant Creek	44.64	125	*e*P	P	03 34 57.2	+0.7
	comp=Z,102nm,0.5s,mb5.9						
ASAR	Alice Springs	46.22	130	P	P	03 35 09.8	+0.9
	comp=Z,38nm,0.6s,mb5.5,baz=306,slow=6.3,SNR=8.5						
STKA	Stephens Creek	56.37	134	P	P	03 36 23.1	-2.3
	comp=Z,14nm,0.5s,mb5.2,baz=300,slow=9.9,SNR=8.4						
KMBO	Kilima Mbogo	59.52	266	P	P	03 36 45.7	-2.2
	comp=Z,7.4nm,0.8s,mb4.8						
KOLS	Kolonicke sedl	75.97	319	*e*P	P	03 38 29.8	-0.7
FINES	FINESS Array B	76.41	332	P	P	03 38 33.3	+0.7
	comp=Z,11nm,0.9s,mb4.8,baz=117,slow=6.2,SNR=6.0						
VYHS	Vyhne	78.17	318	*e*P	P	03 38 41.3	-1.4
ZST	Bratislava	79.30	318	*e*P	P	03 38 48.3	-0.5
GERES	GERESS Array B	81.59	319	P	P	03 39 01.3	+0.3
	comp=Z,7.6nm,0.8s,mb4.7,baz=100,slow=6.0,SNR=4.0						
NOA	NORSAR Array B	83.45	331	P	P	03 39 11.6	+1.3
	comp=Z,2.7nm,0.8s,mb4.3,baz=98,slow=5.2,SNR=2.6						
LPG	La Plagne	86.37	315	*e*P	P	03 39 29.3	+4.0
	comp=Z,39nm,0.9s,mb5.3						
ESDC	Sonseca Array	94.92	310	P	P	03 40 03.5	-2.0
	comp=Z,0.6nm,0.5s,mb4.3,baz=62,slow=4.1,SNR=4.3						

IDC 26 03:27:18.6±0.7, **4.84N**×**94.98E**, **h51**^{km}±5^{km}, **mb4.8**/14, **mb1 4.9**/15, **mb1mx4.7**/21, **Error ellipse: s-maj=20.7km s-min=13.7km az=52.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.08	16	P	P	03 30 38.3	+1.3
	baz=206,slow=21,SNR=2.6						
JOW	Kunigami	38.57	52	P	P	03 34 37.2	-1.0
	53nm,0.6s,baz=248,slow=7.8,SNR=7.3						
SONM	Songino Array	43.95	11	P	P	03 35 20.8	-1.5
	22nm,0.8s,baz=191,slow=6.3,SNR=3.8						
WRA	Warramunga Arr	45.86	124	P	P	03 35 35.9	-2.1
	23nm,0.6s,baz=301,slow=9.7,SNR=5.0						
WRA				pP	pP	03 35 49.7	-1.9
	104nm,0.8s,baz=302,slow=9.2,SNR=7.3						
ASAR	Alice Springs	47.36	128	P	P	03 35 47.4	-2.3
	13nm,0.7s,baz=300,slow=7.7,SNR=6.5						
ASAR				pP	pP	03 36 01.1	-2.3
	24nm,0.6s,baz=305,slow=7.2,SNR=3.4						
BVAR	Borovoye Array	52.11	341	P	P	03 36 24.1	-1.6
	19nm,0.8s,baz=142,slow=10,SNR=5.5						
BVAR				pP	pP	03 36 36.8	-2.8
	31nm,0.8s,baz=127,slow=7.4,SNR=5.3						
KMBO	Kilima Mbogo	57.97	266	P	P	03 37 07.3	-1.4
	24nm,0.8s,baz=62,slow=11,SNR=12						
BRTR	Keskin Array B	65.05	312	P	P	03 37 53.0	-3.0
	12nm,0.7s,baz=135,slow=6.7,SNR=6.9						
BRTR				PP	PP	03 40 16.1	-5.4
	3.8nm,0.7s,baz=126,slow=6.9,SNR=4.2						
IDI	Anoyia	70.99	306	P	P	03 38 31.2	-1.9
	14nm,0.6s,baz=86,slow=5.0,SNR=3.2						
AKASG	Malin Array Be	71.04	322	P	P	03 38 29.9	-3.2
	10nm,0.8s,baz=90,slow=4.4,SNR=6.5						
KOLS	Kolonicke sedl	75.03	319	*e*	P	03 38 55.7	-0.8
MAW	Mawson	75.75	192	P	P	03 38 58.5	-1.8
	22nm,0.6s,baz=76,slow=5.8,SNR=22						
FINES	FINESS Array B	75.77	332	P	P	03 38 58.3	-2.2
	12nm,0.9s,baz=90,slow=8.3,SNR=3.3						
FINES				pP	pP	03 39 13.3	-1.8
	10.0nm,0.5s,baz=104,slow=7.9,SNR=4.7						
KECS	Kecovo	76.13	319	*e*	P	03 39 01.4	-1.4
VYHS	Vyhne	77.22	319	*e*	P	03 39 06.5	-2.4
ZST	Bratislava	78.33	318	*e*	P	03 39 13.6	-1.5
ARCES	ARCESS Array B	78.39	340	P	P	03 39 13.4	-1.5
	7.4nm,0.6s,baz=88,slow=3.9,SNR=3.5						
GERES	GERESS Array B	80.64	319	P	P	03 39 26.9	-0.6
	20nm,1.0s,baz=90,slow=5.3,SNR=4.9						
DAVOX	Davos	83.14	316	P	P	03 39 39.8	-0.8
	10nm,0.6s,baz=124,slow=8.2,SNR=4.0						
DAVOX				pP	pP	03 39 55.2	-0.2
	25nm,0.9s,baz=122,slow=7.1,SNR=3.1						
NVAR	Mina Array Bea	127.05	33	PKP	PKPdf	03 46 17.7	0.0
	3.9nm,0.9s,baz=349,slow=2.2,SNR=3.6						
LVC	Limon Verde	156.44	220	PKPab	PKPab	03 47 37.6	-1.9
	8.3nm,0.7s,baz=153,slow=0.9,SNR=6.5						
LPAZ	La Paz	159.89	234	PKPab	PKPab	03 47 52.7	-1.7
	6.5nm,0.8s,baz=116,slow=4.1,SNR=5.3						

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*IDC **26** 03:29:35.4±2.8, 53.66N×163.60W, mb4.4/8, mb1 4.5/11, mb1mx4.3/25, ML3.9/3, Error ellipse: s-maj=69.8km s-min=16.9km az=162.0*

*NEIC **26** 03:29:40.5, 53.51N×163.58W, h35^{km}, ML4.1(AEIC), After AEIC.*

ISC 26 03:29:37.0±1.1, **53.37N**±0.09×**163.38W**±0.08, **h34**^{km}±9^{km}, **n37**, σ**0^{s}88**/41, **mb4.5**/7, **Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WESS	West Dahl Sout	1.36	325	P	P	03 29 59.8	-0.1
WESS				S	S	03 30 13.1	-4.0
WESN	West Dahl Nort	1.40	330	P	P	03 30 00.4	0.0
WFAR	Faris Peak	1.43	325	P	P	03 30 00.7	-0.2
SSLN	Shishaldin Nor	1.49	346	P	P	03 30 02.4	+0.7
FALS	False Pass	1.49	359	P	P	03 30 01.5	-0.2
WTUG	Tugumak	1.59	339	P	P	03 30 03.3	+0.1
AKA	Akutan	1.61	299	P	P	03 30 03.1	-0.4
AKA				S	S	03 30 22.7	-0.5
AHB	Akutan Harbor	1.63	298	P	P	03 30 04.0	+0.4
DT1	Dutton Round H	1.86	20	P	P	03 30 06.9	-0.1
BALA	Baldy Mountain	1.86	11	P	P	03 30 08.4	+1.4
DTNA	Dutton South F	1.90	20	P	P	03 30 07.7	+0.1
UNV	Unalaska Valle	1.92	286	P	P	03 30 07.9	0.0
UNV				S	S	03 30 30.4	-0.6
MTBL	Makushin Table	2.05	288	P	P	03 30 10.3	+0.5
MSW	Makushin Switc	2.10	286	P	P	03 30 10.6	+0.2
PN7A	Pavlof North-7	2.22	21	P	P	03 30 13.3	+1.2
NIKO	Nikolski	3.32	265	P	P	03 30 28.5	+0.7
NIKO				S	S	03 31 05.8	-0.8
ANPB	Aniakchak Plen	4.52	38	P	P	03 30 44.7	-0.2
ANPK	Aniakchak Peak	4.61	39	P	P	03 30 45.4	-0.7
ATKA	Atka Island	6.66	264	P	P	03 31 15.1	0.0
KDAK	Kodiak Island	7.55	50	P	P	03 31 24.9	-2.6
GSMY	Great Sitkin M	7.81	265	P	P	03 31 30.8	-0.3
KIWB	Kanaga Island	8.52	265	P	P	03 31 40.6	-0.3
FX1	Attu Island--F	14.08	277	Pn	P	03 32 56.8	+1.0
	2.8nm,0.3s,baz=92,slow=18,SNR=9.4						
ILAR	Eielson Array	14.17	30	Pn	P	03 32 52.8	-4.2
	0.2nm,0.3s,baz=228,slow=12,SNR=9.7						
DAWY	Dawson	16.31	40	*e*P	P	03 33 28.4	+3.7
DLBC	Dease Lake	19.24	61	P	P	03 33 59.8	-1.1
	0.1nm,0.3s,baz=266,slow=19,SNR=3.0						
INK	Inuvik	20.55	32	P	P	03 34 12.0	-2.8
	4.0nm,0.6s,baz=238,slow=10,SNR=11						
INK	Inuvik	20.55	32	*e*P	P	03 34 11.8	-3.0
YKA	Yellowknife Ar	26.82	51	P	P	03 35 16.8	+1.2
	1.6nm,0.4s,mb3.9,baz=270,slow=9.1,SNR=34						
YKA	Yellowknife Ar	26.82	51	P	P	03 35 16.8	+1.2
SONM	Songino Array	53.84	303	P	P	03 38 58.5	+0.1
	10.0nm,0.9s,mb4.7,baz=41,slow=7.8,SNR=6.5						
BVAR	Borovoye Array	64.91	327	P	P	03 40 14.8	+0.3
	15nm,0.8s,mb5.0,baz=79,slow=7.6,SNR=5.3						
NOA	NORSAR Array B	65.86	3	P	P	03 40 20.6	+0.1
	5.3nm,0.9s,mb4.6,baz=357,slow=6.4,SNR=5.9						
AKASG	Malin Array Be	75.76	352	P	P	03 41 20.4	+0.1
	4.3nm,0.5s,mb4.6,baz=9.5,slow=5.3,SNR=15						
MORC	Moravsky Berou	77.23	359	P	P	03 41 27.0	-1.7
GERES	GERESS Array B	78.13	2	P	P	03 41 34.0	+0.4
	1.9nm,0.7s,mb4.1,baz=18,slow=3.1,SNR=4.8						
BRTR	Keskin Array B	86.12	347	P	P	03 42 16.9	+1.7
	3.6nm,0.8s,mb4.7,baz=358,slow=2.6,SNR=4.9						

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*IDC **26** 03:29:57.6±0.6, 4.77N×94.09E, mb4.8/13, mb1 4.9/13, mb1mx4.7/21, Error ellipse: s-maj=27.4km s-min=17.0km az=42.0*

*NEIC **26** 03:30:01.4±0.3, 4.64N×94.00E, mb5.2/7, Error ellipse: s-maj=12.2km s-min=8.5km az=55.0*

ISC 26 03:30:00.6±0.4, **4.69N**±0.07×**94.07E**±0.08, **h33**^{km}, **n44**, σ**1^{s}02**/37, **mb5.0**/20, **1C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	14.49	19	P	P	03 33 27.8	+2.4
	20nm,0.6s						
VIS	Vishakhapatnam	16.68	322	*e*P	P	03 33 54.0	+0.4
VIS				*e*		03 34 16.3	
	comp=Z,164nm,1.2s						
MNGI	Mangalore	20.70	295	*e*P	P	03 34 43.1	+2.4
MNGI				*e*		03 34 45.0	
	comp=Z,188nm,1.8s						
SHL	Shillong	20.87	354	*e*P	P	03 34 39.1	-3.3
GOA	Goa	22.61	300	*e*	P	03 34 59.6	-0.4
	comp=Z,247nm,1.8s,mb5.3						
AKL	Akola	22.98	315	*e*P	P	03 35 02.5	-1.1
AKL				*e*		03 35 08.7	
	comp=Z,163nm,1.1s						
LSA	Lhasa	25.03	354	*e*P	P	03 35 25.7	+2.3
	comp=Z,50nm,0.6s,mb5.2						
NWAO	Narrogin (SRO)	43.38	151	*e*P	P	03 38 01.3	-0.6
SONM	Songino Array	44.27	12	P	P	03 38 08.9	0.0
	comp=Z,7.7nm,0.7s,mb4.5,baz=199,slow=9.4,SNR=4.0						
ULN	Ulaanbaatar	44.44	12	*e*P	P	03 38 10.3	0.0
	comp=Z,5.5nm,0.7s,mb4.4						
WRA	Warramunga Arr	46.53	123	P	P	03 38 27.5	+0.2
	comp=Z,17nm,0.6s,mb5.2,baz=300,slow=9.0,SNR=5.4						
WRAB	Tennant Creek	46.54	123	*e*P	P	03 38 27.4	+0.2
	comp=Z,67nm,0.8s,mb5.6						
WRAB				*e*		03 38 34.7	
ASAR	Alice Springs	47.98	128	P	P	03 38 38.6	0.0
	comp=Z,10nm,0.8s,mb4.9,baz=299,slow=7.3,SNR=4.5						
BVAR	Borovoye Array	51.97	342	P	P	03 39 08.1	-0.5
	comp=Z,44nm,1.1s,mb5.3,baz=135,slow=8.4,SNR=5.8						
PMG	Port Moresby	54.73	105	P	P	03 39 27.7	-1.9
	comp=Z,9.0nm,0.8s,mb4.9,baz=220,slow=7.5,SNR=3.4						
CTA	Charters Tower	56.86	118	P	P	03 39 45.7	+0.8
	comp=Z,9.7nm,0.8s,mb4.9,baz=286,slow=7.7,SNR=3.9						
CTA	Charters Tower	56.86	118	P	P	03 39 45.7	+0.8
CTAO	Charters Tower	56.86	118	*e*P	P	03 39 45.2	+0.3
CTAO				*e*		03 39 52.8	
KMBO	Kilima Mbogo	57.05	266	P	P	03 39 46.9	+0.5
	comp=Z,13nm,0.9s,mb5.0,baz=66,slow=11,SNR=9.1						
KMBO	Kilima Mbogo	57.05	266	*e*P	P	03 39 47.1	+0.7
KIV	Kislovodsk	59.64	319	*e*P	P	03 40 03.1	-1.0
MALT	Malatya	60.49	312	P	P	03 40 09.5	-0.4
	comp=Z,23nm,1.5s,mb5.0						
EIL	Elat	60.98	301	P	P	03 40 13.6	+0.3
	comp=Z,15nm,0.8s,mb5.2,baz=113,slow=13,SNR=5.5						
EIL	Elat	60.98	301	*e*P	P	03 40 12.4	-0.9
CSS	Prodhromos	63.48	307	*e*P	P	03 40 30.3	+0.3
	comp=Z,35nm,1.4s,mb5.3						
LSZ	Lusaka	68.17	252	*e*P	P	03 40 59.8	-0.5
LBTB	Lobatse	72.68	242	*e*P	P	03 41 27.6	+0.1
	comp=Z,30nm,1.1s,mb5.1						
LBTB				*e*		03 41 35.9	
KOLS	Kolonicke sedl	74.55	319	*e*sP	sP	03 41 48.7	-3.3
SUW	Suwalki	75.04	325	*e*P	P	03 41 39.5	-1.2
MAW	Mawson	75.42	192	P	P	03 41 42.7	+0.1
	comp=Z,3.2nm,0.8s,mb4.3,baz=297,slow=3.4,SNR=3.7						
MAW	Mawson	75.42	192	*e*P	P	03 41 43.8	+1.3
	comp=Z,5.6nm,0.6s,mb4.7						
FINES	FINESS Array B	75.49	333	P	P	03 41 42.2	-0.8
	comp=Z,9.4nm,0.8s,mb4.8,baz=104,slow=7.9,SNR=4.0						
ZST	Bratislava	77.84	318	*e*P	P	03 41 56.8	+0.2
ARCES	ARCESS Array B	78.22	340	P	P	03 41 58.5	+0.2
	comp=Z,14nm,1.0s,mb4.8,baz=117,slow=5.4,SNR=4.2						
CLL	Collm	80.78	321	P	P	03 42 13.0	+0.6
SYO	Syowa Base	82.36	197	⇓P	P	03 42 22.2	+1.9
SYO	Syowa Base	82.36	197	⇑P	pP	03 42 31.5	+0.8
NOA	NORSAR Array B	82.46	331	P	P	03 42 19.8	-1.2
	comp=Z,6.0nm,0.9s,mb4.5,baz=94,slow=5.4,SNR=3.3						
DAVOX	Davos	82.63	316	P	P	03 42 21.7	-0.4
	comp=Z,6.6nm,0.7s,mb4.8,baz=109,slow=6.5,SNR=3.6						
NVAR	Mina Array Bea	127.66	32	PKP	PKPdf	03 49 06.7	+3.4
	comp=Z,3.7nm,0.8s,baz=260,slow=2.2,SNR=6.2						
PDAR	Pinedale Array	128.14	22	PKP	PKPdf	03 49 06.7	+2.6
	comp=Z,2.4nm,0.9s,baz=90,slow=1.5,SNR=3.9						
LPAZ	La Paz	159.07	235	PKPab	PKPab	03 50 36.1	+1.0
	comp=Z,7.6nm,0.8s,baz=100,slow=4.4,SNR=7.9						
LPAZ	La Paz	159.07	235	*e*PKPdf	PKPdf	03 49 58.5	+2.3
LPAZ				PKPab	PKPab	03 50 36.1	+1.0
ROSC	El Rosal	165.03	309	PKP	PKPdf	03 50 05.8	+3.5
	comp=Z,2.2nm,0.7s,baz=284,slow=23,SNR=4.2						

BJI 26 03:31:53.3, 26.01N×100.53E, h11^{km}, ML4.0, Yunnan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	Kunming	2.18	113	*e*PG	Pg	03 32 31.3	-5.6
KMI				SG	Sg	03 32 58.0	-8.0
KMI				Smax			
	comp=N,1µm,0.5s						
KMI				Smax			
	comp=E,743nm,0.6s						

IDC 26 03:32:10.3±1.6, **4.67N**×**93.22E**, **mb4.6**/6, **mb1 4.7**/7, **mb1mx4.3**/18, **ML5.1**/1, **Error ellipse: s-maj=66.9km s-min=22.4km az=56.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.80	22	Pn	P	03 35 43.1	+0.2
	2.9nm,0.3s,baz=218,slow=12,SNR=4.8						
SONM	Songino Array	44.47	13	P	P	03 40 21.9	-3.1
	7.8nm,0.8s,baz=205,slow=6.2,SNR=4.7						
WRA	Warramunga Arr	47.24	123	P	P	03 40 46.0	-1.3
	11nm,0.7s,baz=301,slow=9.0,SNR=5.2						
ASAR	Alice Springs	48.65	127	P	P	03 40 56.0	-2.2
	4.4nm,0.6s,baz=301,slow=7.9,SNR=4.8						
BVAR	Borovoye Array	51.73	343	P	P	03 41 20.4	-1.0
	3.9nm,0.7s,baz=139,slow=12,SNR=4.3						
FINES	FINESS Array B	75.11	333	P	P	03 43 53.7	-2.0
	2.8nm,0.6s,baz=104,slow=7.9,SNR=4.2						
KAF	Kangasniemi	75.22	333	*e*p	P	03 43 54.6	-1.7
	baz=105,slow=5.4						
ARCES	ARCESS Array B	77.95	341	P	P	03 44 09.6	-1.9
	3.5nm,0.7s,baz=31,slow=5.3,SNR=3.7						

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*IDC **26** 03:33:55.1±1.2, 9.50N×91.51E, mb4.3/6, mb1 4.6/6, mb1mx4.2/16, Error ellipse: s-maj=56.1km s-min=23.4km az=50.0*

ISC 26 03:33:58.5±0.9, **9.5N**±0.2×**91.6E**±0.2, **h33**^{km}, **n7**, σ**0^{s}56**/7, **mb4.3**/6, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJD	Vijayawada	12.74	304	*i* P	P	03 37 00.0	-0.1
SONM	Songino Array	40.21	15	P	P	03 41 33.4	-0.1
	7.7nm,1.0s,mb4.4,baz=199,slow=10,SNR=3.3						
WRA	Warramunga Arr	51.25	125	P	P	03 43 00.8	-0.7
	3.5nm,0.5s,mb4.5,baz=302,slow=9.8,SNR=6.1						
ASAR	Alice Springs	52.88	129	P	P	03 43 14.4	+0.7
	2.7nm,0.5s,mb4.4,baz=308,slow=6.9,SNR=6.7						
GERES	GERESS Array B	74.95	318	P	P	03 45 38.8	+0.7
	2.5nm,0.7s,mb4.2,baz=82,slow=5.1,SNR=3.9						
NOA	NORSAR Array B	77.09	331	P	P	03 45 50.3	+0.3
	2.3nm,0.9s,mb4.1,baz=97,slow=5.2,SNR=2.9						
ESDC	Sonseca Array	88.25	310	P	P	03 46 47.1	-0.8
	0.7nm,0.6s,mb4.1,baz=72,slow=3.9,SNR=4.4						

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*IDC **26** 03:34:27.7±0.8, 8.78N×91.72E, mb4.6/11, mb1 4.7/11, mb1mx4.5/20, Error ellipse: s-maj=46.3km s-min=17.1km az=52.0*

ISC 26 03:34:31.0±0.6, **8.8N**±0.2×**91.8E**±0.2, **h33**^{km}, **n15**, σ**0^{s}96**/13, **mb4.5**/12, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VJD	Vijayawada	13.31	306	*i* S	P	03 37 40.0	-0.2
SONM	Songino Array	40.85	15	P	P	03 42 12.9	+1.5
	4.0nm,0.8s,mb4.1,baz=191,slow=7.3,SNR=3.0						
NWAO	Narrogin (SRO)	48.03	151	P	P	03 43 11.0	+1.7
	18nm,0.8s,mb5.2,baz=313,slow=10.0,SNR=3.9						
WRA	Warramunga Arr	50.68	125	P	P	03 43 29.2	-0.5
	3.3nm,0.4s,mb4.6,baz=303,slow=8.8,SNR=8.5						
ASAR	Alice Springs	52.28	129	P	P	03 43 41.2	-0.5
	3.2nm,0.8s,mb4.3,baz=306,slow=6.6,SNR=4.7						
STKA	Stephens Creek	62.41	133	P	P	03 44 52.4	-0.9
	5.7nm,0.5s,mb5.0,baz=294,slow=5.1,SNR=6.7						
KAF	Kangasniemi	70.94	333	*e*p	P	03 45 45.4	-1.4
	2.5nm,0.5s,mb4.4,baz=105,slow=5.8						
GERES	GERESS Array B	75.61	318	P	P	03 46 14.7	+0.4
	2.6nm,0.7s,mb4.3,baz=90,slow=4.0,SNR=4.4						
HFS	Hagfors	76.51	330	P	P	03 46 18.6	-0.6
	2.3nm,0.5s,mb4.4,baz=101,slow=7.6,SNR=4.4						
NOA	NORSAR Array B	77.81	331	P	P	03 46 25.7	-0.9
	1.9nm,0.7s,mb4.2,baz=101,slow=5.4,SNR=3.0						
DAVOX	Davos	78.13	316	P	P	03 46 28.9	+0.4
	5.0nm,0.8s,mb4.5,baz=124,slow=11,SNR=3.2						
ESDC	Sonseca Array	88.86	310	P	P	03 47 24.9	+1.5
	0.4nm,0.4s,mb4.1,baz=66,slow=3.8,SNR=7.2						
INK	Inuvik	96.76	15	P	P	03 47 58.9	-0.2
	3.0nm,0.6s,mb4.9,baz=333,slow=4.8,SNR=11						
PDAR	Pinedale Array	125.13	19	PKP	PKPdf	03 53 29.9	+1.4

	0.9nm,0.6s,baz=91,slow=2.6,SNR=5.4						
NVAR	Mina Array Bea	125.30	29	PKP	PKPdf	03 53 32.2	+3.2
	2.4nm,0.7s,baz=285,slow=2.2,SNR=8.5						

IDC 26 03:35:30.2±2.0**, 5.53N**×**93.30E, mb4.4**/5**, mb1 4.6**/5**, mb1mx4.1**/17**, Error ellipse: s-maj=96.4km s-min=23.8km az=57.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	43.62	13	P	P	03 43 36.4	-1.6
	4.4nm,0.7s,baz=194,slow=8.6,SNR=4.3						
WRA	Warramunga Arr	47.63	123	P	P	03 44 08.4	-2.0
	14nm,0.7s,baz=302,slow=9.0,SNR=7.3						
ASAR	Alice Springs	49.10	128	P	P	03 44 19.5	-2.2
	2.9nm,0.5s,baz=299,slow=8.1,SNR=3.4						
BVAR	Borovoye Array	50.94	342	P	P	03 44 33.2	-2.2
	2.5nm,0.6s,baz=149,slow=8.4,SNR=3.0						
ARCES	ARCESS Array B	77.18	340	P	P	03 47 25.1	-2.1
	0.9nm,0.4s,baz=99,slow=5.6,SNR=5.8						
NVAR	Mina Array Bea	127.34	31	PKP	PKPdf	03 54 38.5	-0.7
	1.5nm,0.8s,baz=285,slow=3.9,SNR=4.4						
TXAR	Lajitas Array	141.69	24	PKP	PKPdf	03 55 07.4	+1.1
	0.9nm,0.7s,baz=230,slow=0.7,SNR=5.6						

IDC 26 03:35:51.5±9.0**, 5.49N**×**94.66E, mb4.5**/8**, mb1 4.6**/9**, mb1mx4.3**/20**, Error ellipse: s-maj=221.0km s-min=54.0km az=141.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.55	18	Pn	P	03 39 04.5	-3.1
	baz=227,slow=14,SNR=4.4						
EIL	Elat	61.06	301	P	P	03 46 08.5	-1.3
	5.9nm,0.6s,baz=75,slow=19,SNR=4.2						
BRTR	Keskin Array B	64.37	312	P	P	03 46 29.5	-2.2
	1.3nm,0.5s,baz=133,slow=4.8,SNR=5.6						
AKASG	Malin Array Be	70.33	322	P	P	03 47 06.7	-2.3
	5.1nm,0.7s,baz=81,slow=4.5,SNR=12						
IDI	Anoyia	70.35	305	P	P	03 47 07.0	-2.4
	5.5nm,0.6s,baz=66,slow=6.2,SNR=6.3						
FINES	FINESS Array B	75.04	332	P	P	03 47 35.1	-1.5
	15nm,1.2s,baz=106,slow=7.0,SNR=5.3						
ARCES	ARCESS Array B	77.67	340	P	P	03 47 50.7	-0.5
	2.3nm,0.6s,baz=72,slow=3.8,SNR=4.2						
GERES	GERESS Array B	79.94	319	P	P	03 48 02.5	-1.4
	2.3nm,0.7s,baz=104,slow=5.5,SNR=4.8						
DAVOX	Davos	82.45	316	P	P	03 48 15.5	-1.7
	3.9nm,0.5s,baz=116,slow=8.8,SNR=3.7						

IDC 26 03:36:17.4±1.3**, 6.44N**×**93.34E, mb4.5**/10**, mb1 4.6**/11**, mb1mx4.4**/20**, Error ellipse: s-maj=56.4km s-min=28.9km az=39.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.14	24	Pn	P	03 39 24.3	-3.8
	baz=209,slow=12,SNR=4.4						
WRA	Warramunga Arr	48.10	124	P	P	03 44 59.2	-2.1
	7.4nm,0.7s,baz=302,slow=9.0,SNR=4.4						
BRTR	Keskin Array B	62.77	312	P	P	03 46 44.6	-2.4
	3.0nm,0.9s,baz=131,slow=6.4,SNR=4.9						
IDI	Anoyia	68.73	305	P	P	03 47 23.3	-2.1
	8.4nm,0.7s,baz=93,slow=8.2,SNR=4.2						
AKASG	Malin Array Be	68.78	322	P	P	03 47 23.1	-2.4
	0.7nm,0.6s,baz=88,slow=4.5,SNR=4.2						
FINES	FINESS Array B	73.61	332	P	P	03 47 52.9	-1.3
	4.1nm,0.7s,baz=114,slow=5.7,SNR=5.5						
ARCES	ARCESS Array B	76.34	340	P	P	03 48 09.3	-0.4
	3.1nm,0.5s,baz=93,slow=5.9,SNR=4.4						
GERES	GERESS Array B	78.36	318	P	P	03 48 20.2	-1.2
	5.0nm,0.7s,baz=104,slow=5.5,SNR=9.4						
HFS	Hagfors	79.29	330	P	P	03 48 24.7	-1.5
	2.5nm,0.6s,baz=112,slow=8.0,SNR=5.2						
NOA	NORSAR Array B	80.58	331	P	P	03 48 31.1	-2.0
	2.9nm,1.0s,baz=93,slow=5.7,SNR=3.7						
DAVOX	Davos	80.87	316	P	P	03 48 34.1	-0.9
	5.6nm,0.7s,baz=114,slow=7.2,SNR=5.3						

IDC 26 03:37:57.9±14.0**, 4.84N**×**95.52E, mb4.4**/6**, mb1 4.5**/6**, mb1mx4.1**/17**, Error ellipse: s-maj=360.0km s-min=62.9km az=148.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	43.84	11	P	P	03 46 05.7	-1.7
	3.2nm,0.8s,baz=196,slow=8.0,SNR=3.9						
BRTR	Keskin Array B	65.44	312	P	P	03 48 43.3	-1.7
	2.6nm,0.8s,baz=121,slow=7.2,SNR=6.4						
FINES	FINESS Array B	76.02	332	P	P	03 49 46.3	-2.2
	2.6nm,0.9s,baz=99,slow=8.2,SNR=3.4						
ARCES	ARCESS Array B	78.57	340	P	P	03 50 01.6	-0.9
	1.7nm,0.5s,baz=98,slow=6.4,SNR=6.6						
GERES	GERESS Array B	80.99	319	P	P	03 50 14.3	-1.7
	3.8nm,0.8s,baz=90,slow=5.3,SNR=6.9						
HFS	Hagfors	81.75	330	P	P	03 50 18.5	-1.1
	2.6nm,0.7s,baz=100,slow=9.0,SNR=4.3						

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*IDC **26** 03:38:44.8±8.5, 5.00N×93.83E, h35^{km}±67^{km}, mb4.4/17, mb1 4.5/18, mb1mx4.4/23, ML4.4/1, Error ellipse: s-maj=25.2km s-min=13.5km az=46.0*

ISC 26 03:38:42.6±0.5**, 4.93N**±0.10×**93.81E**±0.10**, h33**^{km}**, n26,** σ**0^{s}79**/21**, mb4.6**/17**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.35	20	Pn	P	03 42 06.3	+0.8
	0.6nm,0.3s,baz=220,slow=13,SNR=3.4						
JOW	Kunigami	39.44	53	P	P	03 46 12.2	+0.8
	10nm,0.6s,mb4.8,baz=181,slow=12,SNR=3.5						
SONM	Songino Array	44.09	12	P	P	03 46 49.3	-0.1
	5.3nm,0.7s,mb4.4,baz=199,slow=8.1,SNR=6.5						
WRA	Warramunga Arr	46.88	123	P	P	03 47 11.8	-0.1
	38nm,0.7s,mb5.5,baz=301,slow=9.1,SNR=18						
ASAR	Alice Springs	48.34	128	P	P	03 47 22.7	-0.6
	13nm,0.9s,mb5.0,baz=303,slow=7.3						
BVAR	Borovoye Array	51.66	342	P	P	03 47 47.3	-1.0
	3.8nm,0.6s,mb4.5,baz=133,slow=12,SNR=7.0						
PMG	Port Moresby	55.04	105	P	P	03 48 13.6	-0.2
	3.9nm,0.5s,mb4.7,baz=142,slow=3.8,SNR=3.1						
KMBO	Kilima Mbogo	56.82	265	P	P	03 48 27.5	+0.9
	4.6nm,0.9s,mb4.5,baz=54,slow=12,SNR=10						
CTA	Charters Tower	57.20	118	P	P	03 48 29.0	-0.2
	8.8nm,0.9s,mb4.8,baz=302,slow=8.0,SNR=6.2						
STKA	Stephens Creek	58.35	132	P	P	03 48 36.7	-0.5
	7.7nm,0.8s,mb4.8,baz=318,slow=6.6,SNR=5.8						
BRTR	Keskin Array B	64.11	312	P	P	03 49 14.8	-1.2
	3.4nm,1.0s,mb4.3,baz=128,slow=6.1,SNR=4.5						
IDI	Anoyia	69.98	306	P	P	03 49 53.3	+0.3
	6.6nm,0.5s,mb4.8,baz=76,slow=7.2,SNR=7.6						
AKASG	Malin Array Be	70.26	322	P	P	03 49 53.7	-0.7
	1.3nm,0.7s,mb4.0,baz=91,slow=3.9,SNR=4.2						
KOLS	Kolonicke sedl	74.20	319	*e*	P	03 50 18.4	+0.6
FINES	FINESS Array B	75.15	333	P	P	03 50 22.6	-0.5
	3.6nm,0.7s,mb4.4,baz=102,slow=6.2,SNR=5.5						
MAW	Mawson	75.60	192	P	P	03 50 26.7	+1.2
	6.3nm,0.7s,mb4.7,baz=1.5,slow=10,SNR=4.9						
VYHS	Vyhne	76.37	319	*e*	P	03 50 28.5	-1.8
ZST	Bratislava	77.48	318	*e*	P	03 50 37.0	+0.4
ARCES	ARCESS Array B	77.91	340	P	P	03 50 38.9	+0.4
	2.6nm,0.8s,mb4.2,baz=100,slow=5.5,SNR=3.9						
GERES	GERESS Array B	79.80	319	P	P	03 50 49.0	-0.2
	2.9nm,0.9s,mb4.2,baz=90,slow=5.3,SNR=4.1						
DAVOX	Davos	82.27	316	P	P	03 51 03.7	+1.4
	3.7nm,0.6s,mb4.5,baz=119,slow=8.7,SNR=4.3						
PDAR	Pinedale Array	128.01	22	PKP	PKPdf	03 57 47.7	+2.0
	0.9nm,0.8s,baz=114,slow=0.9,SNR=3.1						
ANMO	Albuquerque	135.98	24	PKP	PKPdf	03 58 03.9	+3.0
	2.7nm,1.1s,baz=207,slow=2.4,SNR=5.0						
TXAR	Lajitas Array	142.02	25	PKP	PKPdf	03 58 14.9	+2.9
	1.2nm,0.8s,baz=200,slow=1.0,SNR=4.9						
LPAZ	La Paz	158.99	236	PKP	PKPdf	03 58 40.9	+2.9
	2.5nm,0.8s,baz=153,slow=2.8,SNR=6.2						
ROSC	El Rosal	164.68	309	PKP	PKPdf	03 58 46.5	+2.6
	1.1nm,0.5s,baz=96,slow=20,SNR=4.4						

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*IDC **26** 03:39:11.8±0.8, 6.78N×91.31E, mb4.6/10, mb1 4.8/11, mb1mx4.6/21, ML4.9/1, Error ellipse: s-maj=40.0km s-min=16.6km az=46.0*

ISC 26 03:39:17.4±0.7**, 7.0N**±0.1×**91.9E**±0.1**, h33**^{km}**, n20,** σ**1^{s}37**/19**, mb4.6**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.33	30	Pn	P	03 42 28.6	+1.7
	1.8nm,0.3s,baz=230,slow=14,SNR=17						
SONM	Songino Array	42.57	14	P	P	03 47 11.2	-0.7
	16nm,1.0s,mb4.7,baz=198,slow=7.8,SNR=5.4						
BVAR	Borovoye Array	49.18	343	P	P	03 48 02.1	-2.1
	7.4nm,0.7s,mb4.8,baz=153,slow=6.6,SNR=6.4						
WRA	Warramunga Arr	49.57	123	P	P	03 48 08.0	+0.3
	11nm,0.7s,mb5.0,baz=303,slow=8.3,SNR=6.2						
ASAR	Alice Springs	51.06	128	P	P	03 48 18.1	-0.9
	6.3nm,0.9s,mb4.5,baz=300,slow=7.3,SNR=4.3						
MAT	Matsushiro	51.42	48	P	P	03 48 13.2	-8.3
TBKS	Tabuk	56.32	299	P	P	03 49 01.9	+4.2
JMQS	Jabal Moqyreh	57.03	300	P	P	03 49 06.6	+3.9
AYUS	‘Aynunah	57.42	299	P	P	03 49 07.2	+1.6
BDAS	Al Bad‘	57.61	299	P	P	03 49 11.4	+4.5
HAQS	Haql	57.87	300	P	P	03 49 10.8	+2.0
CTA	Charters Tower	59.81	118	P	P	03 49 22.5	+0.2
	6.7nm,0.9s,mb4.7,baz=290,slow=10,SNR=2.7						
STKA	Stephens Creek	61.10	132	P	P	03 49 31.1	+0.2
	4.9nm,0.9s,mb4.6,baz=305,slow=8.3,SNR=3.2						
BRTR	Keskin Array B	61.37	312	P	P	03 49 26.6	-5.9
	3.4nm,0.9s,mb4.5,baz=121,slow=6.5,SNR=5.1						
IDI	Anoyia	67.28	305	P	P	03 50 05.8	-5.3
	3.5nm,0.5s,mb4.7,baz=288,slow=9.7,SNR=3.2						
AKASG	Malin Array Be	67.51	322	P	P	03 50 10.0	-2.3
	1.9nm,0.7s,mb4.2,baz=91,slow=3.9,SNR=5.1						
GERES	GERESS Array B	77.04	318	P	P	03 51 04.6	-4.3
	2.6nm,0.7s,mb4.3,baz=92,slow=5.2,SNR=4.6						
CLL	Collm	77.67	321	P	P	03 51 19.0	+6.6
INK	Inuvik	98.48	16	P	P	03 52 53.1	-0.2
	5.0nm,1.2s,mb4.9,baz=317,slow=4.8,SNR=3.0						
PDAR	Pinedale Array	126.80	20	PKP	PKPdf	03 58 19.8	+1.6
	2.6nm,1.0s,baz=315,slow=2.6,SNR=5.2						

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*BJI **26** 03:40:13.6, 5.26N×94.14E, h44^{km}, mb5.7, Ms6.5, Msz6.5*
*CSEM **26** 03:40:14.3, 5.91N×94.90E, h33^{km}, mb5.6*
*MOS **26** 03:40:14.9±0.8, 5.70N×94.41E, h33^{km}, mb5.7/32, Error ellipse: s-maj=11.8km s-min=6.4km az=117.4*
*NEIC **26** 03:40:15.6±0.2, 5.53N×94.33E, h30^{km}, mb5.6/59, Error ellipse: s-maj=6.1km s-min=4.3km az=216.0*
*IDC **26** 03:40:17.9±0.6, 5.61N×94.38E, h44^{km}±5^{km}, mb5.1/33, mb1 5.1/34, mb1mx5.1/34, ML6.1/1, Error ellipse: s-maj=14.2km s-min=9.0km az=38.0*

ISC 26 03:40:15.5±0.2**, 5.50N**±0.05×**94.33E**±0.04**, h42**^{km}**, h42**^{km}±1.8^{km}**:pP-P, n336,** σ**0^{s}90**/311**, mb5.5**/114**, MS6.2**/4**, 45C-7D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.65	19	*e*P	P	03 43 23.9	-4.9
CMAR	Chiang Mai Arr	13.65	19	P	P	03 43 24.3	-4.5
	30nm,0.3s,baz=37,slow=26,SNR=19						
CMAR	Chiang Mai Arr	13.65	19	P	P	03 43 24.3	-4.5
CMAR				pmax	pmax		
	comp=Z,30nm,0.3s						
KOD	Kodaikanal	17.35	287	*e*P	P	03 44 19.2	+2.9
SHL	Shillong	20.10	354	*e*P	P	03 44 44.2	-4.2
SHL				*e*		03 49 02.4	
QIZ	Qiongzhong	20.24	47	P	P	03 44 51.3	+1.3
QIZ				AP		03 45 05.5	
QIZ				AMB	AMB		
	comp=Z,223nm,1.1s						
MNGI	Mangalore	20.62	292	*e*P	P	03 44 55.1	+1.2
MNGI				*e*S	S	03 48 42.6	+5.6
KMI	Kunming	21.12	22	*e*P	P	03 45 00.8	+1.8
KMI				XP		03 45 12.8	
KMI				AMB	AMB		
	comp=Z,163nm,1.3s,mb5.2						
GOA	Goa	22.45	298	*e*		03 45 32.7	
AKL	Akola	22.61	314	*e*P	P	03 45 13.9	-0.1
AKL				*e*		03 45 21.4	
	comp=Z,209nm,1.4s						
AKL				*e*S	S	03 49 20.9	+6.8
PKI	Pulchoki	23.54	340	*e*P	P	03 45 22.4	-0.5
	comp=Z,156nm,0.7s,mb5.6						
DMN	Daman	23.68	339	*e*P	P	03 45 24.5	+0.2
	comp=Z,422nm,1.0s,mb5.8						
GUN	Gumba	23.70	341	*e*P	P	03 45 24.3	-0.2
	comp=Z,509nm,0.8s,mb6.0						
KKN	Kakani	23.79	340	*e*P	P	03 45 25.1	-0.2
	comp=Z,353nm,0.7s,mb5.9						
GYA	Guiyang	23.94	28	⇑*i*P	P	03 45 28.5	+1.6
GYA				PP	PP	03 46 06.5	+4.9
GYA				S	S	03 49 48.5	+11
GYA				AMB	AMB		
	comp=Z,690nm,0.7s,mb6.2						
GYA				LR	LR		
	comp=N,25µm,16.0s,MS6.0						
GYA				LR	LR		
	comp=E,35µm,17.2s,MS6.0						
GYA				LR	LR		
	comp=Z,22µm,15.2s,MS5.8						
GKN	Gorkha	24.21	339	*e*P	P	03 45 30.0	+0.6
	comp=Z,416nm,0.6s,mb6.0						
LSA	Lhasa	24.26	353	P	P	03 45 25.5	-4.5
LSA	Lhasa	24.26	353	*e*P	P	03 45 31.6	+1.7
	comp=Z,139nm,0.8s,mb5.4						
KOLN	Koldanda	24.39	336	*e*P	P	03 45 32.0	+0.8
	comp=Z,654nm,1.0s,mb6.0						
BOM	Bombay	24.85	304	*e*P	P	03 45 33.5	-2.2
BOM				*e*		03 45 36.4	
	comp=Z,108nm,1.3s						
CD2	Chengdu	26.79	18	⇑*i*P	P	03 45 53.3	-0.4
CD2				AMB	AMB		
	comp=Z,160nm,0.6s,mb5.7						
PTH	Pithoragarh	27.39	332	*e*P	P	03 45 59.8	+0.5
PTH				*e*		03 48 39.2	
TGY	Tagaytay City	27.55	70	P	P	03 46 01.0	+0.1
	comp=Z,1µm,1.1s,mb6.5,baz=264,slow=4.5,SNR=12						
NDI	New Delhi	28.20	327	*e*P	P	03 46 05.0	-1.6
NDI				*e*		03 46 06.5	
	comp=Z,73nm,1.2s						
ENH	Enshi	28.48	28	*e*P	P	03 46 08.0	-1.1
	comp=Z,83nm,0.6s,mb5.5						
SNPH	Sibulan	28.91	81	*e*P	P	03 46 14.0	+1.0
QZH	Quanzhou	30.26	48	⇑*i*P	P	03 46 25.5	+0.6
QZH				AMB	AMB		
	comp=Z,160nm,0.8s,mb5.8						
WHN	Wuhan	31.24	35	⇑*i*P	P	03 46 34.0	+0.5
XAN	Xi’an	31.46	24	P	P	03 46 34.5	-1.0
XAN				AP	pP	03 46 45.3	-1.7
XAN				AMB	AMB		
	comp=Z,202nm,0.9s,mb6.0						
LZH	Lanzhou	31.68	15	*e*P	P	03 46 36.8	-0.5
LZH				AMB	AMB		
	comp=Z,100nm,1.2s,mb5.5						
GTA	Gaotai	34.12	8	P	P	03 46 58.0	-0.5
GTA				PP	PP	03 48 18.5	+4.8
GTA				S	S	03 52 31.0	+10
GTA				AMB	AMB		
	comp=Z,98nm,1.0s,mb5.7						
GTA				LR	LR		
	comp=N,52µm,20.9s,MS6.4						
GTA				LR	LR		
	comp=E,52µm,22.0s,MS6.4						
GTA				LR	LR		
	comp=Z,93µm,19.8s,MS6.5						
NJ2	Nanjing	34.98	38	*e*P	P	03 47 06.5	+0.5
NJ2				AP	pP	03 47 16.5	-1.1
NJ2				XP	sP	03 47 20.3	-2.7
NJ2				AMB	AMB		
	comp=Z,880nm,0.7s,mb6.8						
NJ2				LR	LR		
	comp=N,11µm,18.0s,MS6.1						
NJ2				LR	LR		
	comp=E,31µm,17.2s,MS6.1						
NJ2				LR	LR		
	comp=Z,22µm,15.8s,MS6.0						
SSE	Sheshan	35.83	41	P	P	03 47 14.5	+1.3
SSE				AMB	AMB		
	comp=Z,81nm,0.7s,mb5.8						
MBWA	Marble Bar	36.37	138	*e*P	P	03 47 16.8	-1.0
	comp=Z,36nm,1.4s,mb5.1						
KSH	Kashi	37.71	337	*e*P	P	03 47 27.0	-1.9
KSH				*e*PCP	PcP	03 49 46.0	+0.1
HHC	Hu-ho-hao-te	38.44	21	*e*P	P	03 47 35.8	+0.8
HHC				AP	pP	03 47 45.5	-1.2
HHC				XP	sP	03 47 49.5	-2.5
HHC				XS		03 53 44.8	
HHC				AMB	AMB		
	comp=Z,183nm,0.8s,mb5.9						
HHC				LR	LR		
	comp=N,64µm,21.4s,MS6.6						
HHC				LR	LR		
	comp=E,59µm,17.8s,MS6.6						
HHC				LR	LR		
	comp=Z,88µm,16.7s,MS6.7						
WMQ	Urumqi	38.62	352	*e*P	P	03 47 37.0	+0.6
JOW	Kunigami	38.68	53	P	P	03 47 38.1	+1.1
	comp=Z,97nm,0.5s,mb5.8,baz=248,slow=8.4,SNR=23						
BJT	Baijiatuau	39.60	27	*e*P	P	03 47 46.0	+1.4
	comp=Z,272nm,1.4s,mb5.8						
TKM2	Tokmak 2	40.80	339	P	P	03 47 55.1	+0.7
	SNR=5.5						
KBK	Karagaybulak	40.80	338	P	P	03 47 55.8	+1.2
	SNR=11						
AML	Almayashu	40.84	336	P	P	03 47 56.1	+1.3
	SNR=5.4						
AAK	Ala-Archa	40.95	338	*e*P	P	03 47 56.3	+0.5
	comp=Z,36nm,0.8s,mb5.0						
CHMS	Chumysh	41.17	338	P	P	03 48 00.2	+2.6
	SNR=5.9						
EKS2	Erkin-Say	41.26	337	P	P	03 47 59.4	+1.1
	SNR=7.9						
DL2	Dalian	41.44	33	P	P	03 48 01.0	+1.2
DL2				AMB	AMB		
	comp=Z,130nm,0.8s,mb5.6						
USP	Ospenovka	41.50	338	P	P	03 48 00.8	+0.5
	SNR=8.1						
MKAR	Makanchi Array	42.44	348	P	P	03 48 08.2	+0.3
MKAR				pmax	pmax		
	comp=Z,83nm,0.6s						
SONM	Songino Array	43.43	12	P	P	03 48 15.9	-0.1
	comp=Z,84nm,1.0s,mb5.4,baz=198,slow=7.8,SNR=39						
SONM				PcP	PcP	03 50 04.2	-0.1
	comp=Z,17nm,0.7s,baz=197,slow=3.7,SNR=6.6						
SONM				pPcP		03 50 18.4	
	comp=Z,20nm,0.7s,baz=194,slow=3.7,SNR=6.2						
ULN	Ulaanbaatar	43.60	12	*e*P	P	03 48 16.8	-0.6
NWAO	Narrogin (SRO)	43.97	152	*e*P	P	03 48 21.2	+0.7
	comp=Z,29nm,1.1s,mb4.9						
KS15	Wonju Array Si	44.12	39	*e*P	P	03 48 22.6	+0.9
SNY	Shenyang	44.57	31	⇑P	P	03 48 25.0	-0.3
SNY				AMB	AMB		
	comp=Z,210nm,0.9s,mb6.0						
ZAK	Zakamensk	45.36	8	⇓*e*P	P	03 48 31.0	-0.5
ZAK				*e*		03 50 09.5	
TLY	Talaya	46.68	8	P	P	03 48 42.3	+0.4
	comp=Z,229nm,0.9s,mb6.1,SNR=9.0						
TLY	Talaya	46.68	8	*e*P	P	03 48 42.3	+0.4
TLY				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
TLY	Talaya	46.68	8	*e*P	P	03 48 42.1	+0.2
	comp=Z,91nm,1.6s,mb5.5						
WRA	Warramunga Arr	46.76	124	P	P	03 48 42.9	-0.1
	comp=Z,106nm,0.7s,mb5.9,baz=302,slow=9.4,SNR=35						
WRA				pP	pP	03 48 56.3	+1.5
	comp=Z,207nm,1.0s,baz=303,slow=9.1,SNR=12						
WRA	Warramunga Arr	46.76	124	P	P	03 48 42.9	0.0
WRA				*PP	pP	03 48 56.3	+1.5
WRA				pmax	pmax		
	comp=Z,106nm,0.7s						
WRA				pmax	pmax		
	comp=Z,207nm,1.0s						
WRA	Warramunga Arr	46.76	124	P	P	03 48 42.9	-0.1
WRA				pP	pP	03 48 56.3	+1.5
WRAB	Tennant Creek	46.76	124	*e*P	P	03 48 42.1	-0.9
	comp=Z,225nm,0.8s,mb6.2						
IRK	Irkutsk	47.32	8	*e*P	P	03 48 46.5	-0.4
IRK				*e*		03 58 59.5	
ASAR	Alice Springs	48.27	128	P	P	03 48 54.8	0.0
	comp=Z,56nm,0.6s,mb5.8,baz=304,slow=7.6,SNR=37						
ASAR				pP	pP	03 49 08.3	+1.6
	comp=Z,76nm,0.9s,baz=310,slow=6.8,SNR=8.6						
ZAL	Zalesovo	48.91	353	P	P	03 48 58.9	-0.4
	comp=Z,98nm,0.4s,mb6.2,baz=308,slow=5.4,SNR=55						
ZAL	Zalesovo	48.91	353	P	P	03 48 58.9	-0.4
ZAL				pmax	pmax		
	comp=Z,99nm,0.4s						
NVS	Novosibirsk	50.01	352	*i* P	P	03 49 06.5	-1.2
NVS				pmax	pmax		
	comp=N,83nm,0.8s						
NVS				pmax	pmax		
	comp=E,38nm,0.8s						
NVS				pmax	pmax		
	comp=Z,109nm,0.8s,mb5.9						
CBIJ	Chichi jima	50.31	59	P	P	03 49 08.7	-1.8
	comp=Z,171nm,0.6s,mb6.2,baz=167,slow=0.9,SNR=13						
MAT	Matsushiro	50.63	46	P	P	03 49 11.8	-0.9
MAT	Matsushiro	50.63	46	*e*P	P	03 49 12.0	-0.7
BVAR	Borovoye Array	51.29	342	P	P	03 49 16.7	-0.7
	comp=Z,72nm,0.8s,mb5.7,baz=141,slow=9.5,SNR=34						
BRVK	Borovoye	51.35	342	*e*P	P	03 49 16.9	-1.0
	comp=Z,65nm,0.7s,mb5.7						
BLJS	Baljurashi	53.17	291	P	P	03 49 32.5	+0.6
PMG	Port Moresby	54.69	106	P	P	03 49 42.7	-0.5
	comp=Z,70nm,0.7s,mb5.8,baz=314,slow=4.1,SNR=22						
PMG	Port Moresby	54.69	106	P	P	03 49 42.7	-0.5
PMG				pmax	pmax		
	comp=Z,71nm,0.7s						
GNI	Garni	56.24	315	P	P	03 49 55.4	+1.4
	comp=Z,10.0nm,0.6s,mb5.0,baz=160,slow=17,SNR=7.5						
GNI	Garni	56.24	315	P	P	03 49 55.4	+1.4
GNI				pmax	pmax		
	comp=Z,10.0nm,0.6s						
GNI	Garni	56.24	315	*e*P	P	03 49 53.1	-0.9
	comp=Z,29nm,0.9s,mb5.3						
KBRS	Khaybar	56.29	297	P	P	03 49 55.5	+0.9
CTA	Charters Tower	57.01	118	P	P	03 49 59.0	-0.8
	comp=Z,22nm,0.8s,mb5.2,baz=291,slow=9.4,SNR=12						
CTA	Charters Tower	57.01	118	P	P	03 49 59.0	-0.8
CTA				pmax	pmax		
	comp=Z,22nm,0.8s						
CTAO	Charters Tower	57.01	118	*e*P	P	03 49 58.7	-1.1
	comp=Z,54nm,1.0s,mb5.5						
ASAJ	Asahikawa	57.09	40	P	P	03 50 00.2	+0.1
	comp=Z,25nm,0.9s,mb5.2,baz=257,slow=16,SNR=9.1						
ASAJ	Asahikawa	57.09	40	P	P	03 50 00.3	+0.2
ASAJ				pmax	pmax		
	comp=Z,25nm,0.9s						
KMBO	Kilima Mbogo	57.38	265	P	P	03 50 03.6	+1.1
	comp=Z,13nm,1.1s,mb4.8,baz=54,slow=10,SNR=7.0						
KMBO	Kilima Mbogo	57.38	265	P	P	03 50 03.6	+1.0
KMBO				pmax	pmax		
	comp=Z,13nm,1.1s						
KMBO	Kilima Mbogo	57.38	265	*e*P	P	03 50 00.3	-2.3
	comp=Z,28nm,1.1s,mb5.2						
ZEI	Tsey	57.91	318	*i* P	P	03 50 05.2	-0.6
ZEI				*i* *PP	pP	03 50 15.2	-2.9
ZEI				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
UMJS	Umm Lajj	57.92	296	P	P	03 50 07.7	+1.5
ARU	Arti	58.14	338	*e*P	P	03 50 05.4	-1.9
ARU	Arti	58.14	338	*e*P	P	03 50 05.9	-1.4
	comp=Z,112nm,1.1s,mb5.8						
STKA	Stephens Creek	58.35	133	P	P	03 50 08.6	-0.4
	comp=Z,28nm,0.7s,mb5.4,baz=304,slow=7.1,SNR=22						
STKA	Stephens Creek	58.35	133	*e*P	P	03 50 08.3	-0.8
STKA				*e*		03 50 16.2	
YSS	Yuzh-Sakhalins	58.54	37	⇑*e*P	P	03 50 09.0	-1.2
YSS				*e*	pP	03 50 21.8	-0.6
YSS				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.8						
YSS	Yuzh-Sakhalins	58.54	37	*e*P	P	03 50 10.1	-0.2
	comp=Z,134nm,1.1s,mb5.9						
YSS				*e*	pP	03 50 21.8	-0.6
KIV	Kislovodsk	59.21	319	P	P	03 50 13.0	-1.9
	comp=Z,317nm,0.7s,mb6.5,SNR=9.2						
KIV	Kislovodsk	59.21	319	*e*P	P	03 50 12.9	-2.0
KIV				pmax	pmax		
	comp=N,30nm,1.0s						
KIV				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.5						
KIV	Kislovodsk	59.21	319	*e*P	P	03 50 13.1	-1.8
	comp=Z,37nm,0.7s,mb5.5						
GOF	Gofitskoye	59.45	320	⇓*i*P	P	03 50 14.5	-2.0
GOF				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.3						
MALT	Malatya	60.15	311	*e*P	P	03 50 20.6	-0.9
	comp=Z,1µm,3.8s						
EIL	Elat	60.78	301	P	P	03 50 26.2	+0.3
	comp=Z,9.0nm,0.6s,mb5.1,baz=75,slow=4.0,SNR=8.0						
EIL	Elat	60.78	301	*e*P	P	03 50 26.2	+0.3
	comp=Z,10nm,0.6s,mb5.1						
CSS	Prodhromos	63.22	306	*e*P	P	03 50 41.7	-0.4

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      comp=Z,104nm,1.2s,mb5.8
BRTR  Keskin Array B      64.13 312   P      P        03 50 46.6  -1.4
      comp=Z,16nm,0.6s,mb5.2,baz=140,slow=6.3,SNR=27
BRTR  Keskin Array B      64.13 312   P      P        03 50 46.6  -1.4
BRTR                                  pmax   pmax
      comp=Z,16nm,0.6s
ISP   Isparta             66.06 309  eP      P        03 50 59.6  -0.9
      comp=Z,33nm,0.6s,mb5.5
MOS   Moscow              67.20 329⇑iP      P        03 51 06.4  -0.9
MOS                                   pmax   pmax
      comp=Z,145nm,0.8s,mb6.1
OBN   Obninsk             67.48 328  eP      P        03 51 07.9  -1.2
OBN                                  i                03 51 26.2
OBN                                  e                03 53 32.4
OBN                                   pmax   pmax
      comp=Z,65nm,1.0s,mb5.6
SKR   Severo-Kuril's      68.11  37  eP      P        03 51 09.0  -4.1
SKR                                  e       pP       03 51 21.5  -4.1
SKR                                   pmax   pmax
      comp=Z,120nm,0.8s,mb6.0
LSZ   Lusaka              68.67 251  eP      P        03 51 17.7  +0.5
      comp=Z,9.2nm,0.7s,mb4.8
KIS   Kishinev            69.41 318  eP      P        03 51 20.0  -1.2
SANT  Santorini           69.77 307  eP      P        03 51 22.3  -1.4
      comp=Z,28nm,0.5s,mb5.4
ALN   Alexandroupoli      70.05 311  eP      P        03 51 24.4  -0.8
IDI   Anoyia              70.08 305   P      P        03 51 25.5   0.0
      comp=Z,34nm,0.6s,mb5.5,baz=90,slow=7.0,SNR=24
AKASG Malin Array Be      70.13 322   P      P        03 51 23.8  -1.8
      comp=Z,30nm,0.8s,mb5.3,baz=84,slow=4.7,SNR=36
AKASG Malin Array Be      70.13 322   P      P        03 51 23.8  -1.7
AKASG                                 pmax   pmax
      comp=Z,31nm,0.8s
PET   Petropavlovsk       70.34  35  eP      P        03 51 25.7  -1.1
PET                                   pmax   pmax
      comp=Z,64nm,1.0s,mb5.5
MLR   Muntele Rosu        71.00 316   P      P        03 51 31.2  +0.2
      comp=Z,45nm,1.0s,mb5.4,baz=127,slow=2.8,SNR=4.9
MLR   Muntele Rosu        71.00 316   P      P        03 51 31.2  +0.3
MLR                                   pmax   pmax
      comp=Z,45nm,1.0s
PAIG  Paliouri            71.67 310  eP      P        03 51 34.3  -0.7
SRS   Serrai              71.92 311  eP      P        03 51 35.3  -1.1
MNK   Minsk               72.01 326  eP      P        03 51 33.0  -3.8
SOH   Sokhos              72.05 311  eP      P        03 51 36.2  -1.0
THE   Thessaloniki        72.32 311  eP      P        03 51 37.4  -1.4
KNT   Kendrikon           72.44 311  eP      P        03 51 38.5  -1.0
AGG   Agios Georgios      72.59 309  eP      P        03 51 38.3  -2.3
LIT   Litokhoron          72.60 310  eP      P        03 51 39.1  -1.5
GRG   Griva               72.78 311  eP      P        03 51 36.4  -5.2
LBTB  Lobatse             73.29 242  eP      P        03 51 41.5  -3.4
      comp=Z,9.1nm,0.8s,mb4.8
LBTB                                 e                03 51 45.9
BOLS  Boljevac            73.51 314⇑iP      P        03 51 44.9  -0.9
FNA   Florina             73.53 311  eP      P        03 51 41.6  -4.5
KWP   Kalwaria            73.96 320  eP      P        03 51 48.2  -0.1
KOLS  Kolonicke sedl      74.11 319  eP      P        03 51 49.4  +0.2
APA   Apatity             74.13 340⇑iP      P        03 51 47.7  -1.3
APA                                  i       pP       03 52 01.3  -0.2
APA                                   pmax   pmax
      comp=Z,27nm,1.0s,mb5.1
IGT   Igoumenitsa         74.19 309  eP      P        03 51 48.0  -1.8
GRUS  Gruza               74.41 314⇓iP      P        03 51 50.5  -0.6
BOSA  Boshof              74.50 238  eP      P        03 51 48.2  -3.7
      comp=Z,9.1nm,0.8s,mb4.8
BOSA                                 e                03 51 52.6
SUW   Suwalki             74.54 325  eP      P        03 51 50.6  -1.0
      comp=Z,7.7nm,0.9s,mb4.6
CRVS  Cervenica-Dubn      74.64 319  i P     P        03 51 52.9  +0.6
FINES FINESS Array B      74.89 332   P      P        03 51 52.8  -0.7
      comp=Z,27nm,0.6s,mb5.3,baz=106,slow=5.6,SNR=44
FINES FINESS Array B      74.89 332   P      P        03 51 52.8  -0.7
FINES                                 pmax   pmax
      comp=Z,27nm,0.6s
DIVS  Divcibare           74.96 314⇓iP      P        03 51 53.0  -1.3
KAF   Kangasniemi         74.98 333  ep      P        03 51 53.7  -0.3
      baz=105,slow=5.5
KECS  Kecovo              75.21 319  eP      P        03 51 55.4  -0.2
KECS                                 e       pP       03 52 08.7  +0.6
NIE   Niedzica            75.46 320  i P     P        03 51 57.4  +0.4
PSZ   Piszkesteto         75.52 318  eP      P        03 51 57.0  -0.3
      comp=Z,134nm,1.8s,mb5.6
OJC   Ojcow               75.91 320  eP      P        03 51 59.5   0.0
MAW   Mawson              76.26 192   P      P        03 52 03.5  +2.3
      comp=Z,4.8nm,0.6s,mb4.6,baz=31,slow=7.1,SNR=6.2
MAW   Mawson              76.26 192   P      P        03 52 03.5  +2.3
MAW                                   pmax   pmax
      comp=Z,5.0nm,0.6s
VYHS  Vyhne               76.30 318  eP      P        03 52 01.7  -0.1
VYHS                                 e       pP       03 52 14.3  -0.1
SRO2  Moca                76.50 318  eP      P        03 52 03.1  +0.2
RHK1  Bakonya             76.53 316⇓eP      P        03 52 02.7  -0.5
SRO   Srobarova           76.56 318  eP      P        03 52 03.9  +0.6
OKC   Ostrava-Krasne      76.91 320⇑iP      P        03 52 05.3  +0.1
RAC   Raciborz            76.92 320  eP      P        03 52 06.0  +0.8
SMOL  Smolenice           77.23 318  eP      P        03 52 07.0   0.0
MORC  Moravsky Berou      77.30 320  eP      P        03 52 07.4   0.0
      comp=Z,74nm,1.1s,mb5.5
ZST   Bratislava          77.41 318  eP      P        03 52 08.4  +0.3
ZST   Bratislava          77.41 318  esP     sP       03 52 21.2  -4.2
ARCES ARCESS Array B      77.56 340   P      P        03 52 08.3  -0.1
      comp=Z,5.6nm,0.5s,mb4.8,baz=90,slow=6.2,SNR=15
ARCES ARCESS Array B      77.56 340   P      P        03 52 08.3  -0.1
ARCES                                 pmax   pmax
      comp=Z,6.0nm,0.5s
GKP   Gorka Klasztor      77.90 323  eP      P        03 52 10.3  -0.3
KTK1  Kautokeino          78.17 340  eP      P        03 52 12.4  +0.6
KSP   Ksiaz               78.21 321⇑eP      P        03 52 12.8  +0.5
KSP                                  e       pP       03 52 23.8  -1.2
KSP   Ksiaz               78.21 321  eP      P        03 52 12.9  +0.6
BILL  Bilibino            78.22  21  eP      P        03 52 11.6  -0.5
      comp=Z,50nm,1.2s,mb5.3
UPC   Upice               78.35 320⇑eP      P        03 52 13.7  +0.6
ARSA  Arzberg             78.39 317⇑iP      P        03 52 14.0  +0.6
      comp=Z,86nm,1.4s,mb5.5
ARSA  Arzberg             78.39 317⇑iP      P        03 52 14.0  +0.6
      comp=Z,86nm,1.4s,mb5.5
FX1   Attu Island--F      78.90  37   P      P        03 52 15.8  -0.3
      comp=Z,86nm,0.9s,mb5.7,baz=209,slow=1.5,SNR=16
FX1   Attu Island--F      78.90  37   P      P        03 52 15.8  -0.3
FX1                                   pmax   pmax
      comp=Z,86nm,0.9s
OBKA  Obir                79.00 316⇑iP      P        03 52 17.2  +0.4
      comp=Z,74nm,1.6s,mb5.4
OBKA  Obir                79.00 316⇑iP      P        03 52 17.2  +0.4
      comp=Z,74nm,1.6s,mb5.4
SUR   Sutherland          79.15 236  eP      P        03 52 14.2  -3.7
      comp=Z,87nm,1.4s,mb5.5
PRU   Pruhonice           79.25 320⇑eP      P        03 52 18.3  +0.2
      comp=Z,72nm,1.2s,mb5.5
PVCC  Panska Ves          79.27 320⇑eP      P        03 52 18.6  +0.4
MOA   Molln               79.28 318⇑iP      P        03 52 18.1  -0.2
      comp=Z,37nm,1.4s,mb5.1
MOA   Molln               79.28 318⇑iP      P        03 52 18.1  -0.2
      comp=Z,37nm,1.4s,mb5.1
BSD   Bornholm Skovb      79.46 325  i P     P        03 52 17.8  -1.3
BSD                                   pmax   pmax
      comp=Z,48nm,0.5s,mb5.7
BSD   Bornholm Skovb      79.46 325  i P     P        03 52 17.8  -1.3
      comp=Z,48nm,0.5s,mb5.7
AQU   L'Aquila            79.62 312  eP      P        03 52 19.7  -0.6
      comp=Z,90nm,1.4s,mb5.5
BRG   Berggiesshubel      79.69 321  i P     P        03 52 21.6  +1.1
BRG                                   pmax   pmax
      comp=Z,52nm,0.8s,mb5.5
BRG   Berggiesshubel      79.69 321  i P     P        03 52 21.6  +1.1
      comp=Z,52nm,0.8s,mb5.5
GEC2  GERESS Array S      79.72 319  eP      P        03 52 21.3  +0.7
GERES GERESS Array B      79.72 319   P      P        03 52 21.1  +0.4
      comp=Z,52nm,0.7s,mb5.6,baz=90,slow=4.9,SNR=55
GERES GERESS Array B      79.72 319   P      P        03 52 21.1  +0.5
GERES                                 pmax   pmax
      comp=Z,52nm,0.7s
TRO   Tromso              79.81 340  eP      P        03 52 18.9  -1.8
KHC   Kasperske Hory      79.82 319  eP      P        03 52 21.3  +0.1
PTCC  Patocco-Chiusa      79.82 316  eP      P        03 52 20.8  -0.5
KBA   Koelnbreinsper      79.86 317⇑iP      P        03 52 21.3  -0.2
      comp=Z,42nm,1.1s,mb5.3
KBA   Koelnbreinsper      79.86 317⇑iP      P        03 52 21.3  -0.2
      comp=Z,42nm,1.1s,mb5.3
GMNA  Gemona              79.90 316  eP      P        03 52 21.8  +0.1
RUE   Ruedersdorf         79.91 322  eP      P        03 52 21.8  +0.2
      comp=Z,145nm,0.7s,mb6.0
SNTG  Esanatoglia         79.99 313  eP      P        03 52 22.3  +0.1
ARV   Arcevia             80.00 313  eP      P        03 52 22.6  +0.4
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FSSB  Fossombrone         80.12 313  eP      P        03 52 23.0   0.0
FVI   Forni Avoltri       80.23 316  eP      P        03 52 23.2  -0.2
WET   Wettzell            80.28 319  eP      P        03 52 24.1  +0.5
CLL   Collm               80.31 321⇑iP      P        03 52 23.6  -0.2
CLL                                  e       pP       03 52 38.0  +1.6
CLL                                   pmax   pmax
      comp=Z,44nm,1.0s,mb5.3
CLL   Collm               80.31 321⇑iP      P        03 52 23.6  -0.2
      comp=Z,44nm,1.0s,mb5.3
CLL                                  e       pP       03 52 38.0  +1.6
CLL   Collm               80.31 321 ⇑P      P        03 52 23.6  -0.2
      comp=Z,logA/T=1.6,mb5.3
CLL                                  e*SP    sP       03 52 38.0  -3.1
RSM   Repubblica di       80.37 313  eP      P        03 52 25.0  +0.8
HFS   Hagfors             80.59 330   P      P        03 52 24.7  -0.4
      comp=Z,13nm,0.5s,mb5.2,baz=104,slow=6.1,SNR=37
HFS   Hagfors             80.59 330   P      P        03 52 24.7  -0.4
HFS                                   pmax   pmax
      comp=Z,13nm,0.5s
NKC   Novy Kostel         80.61 320  eP      P        03 52 25.4   0.0
SFI   Santa Sofia         80.80 313  eP      P        03 52 27.8  +1.3
PGD   Poggio Sodo         80.89 313  eP      P        03 52 28.6  +1.6
CTI   Castel Tesino       80.99 316  eP      P        03 52 28.1  +0.6
VMG   Vicchio             81.02 314  eP      P        03 52 28.8  +1.2
WTTA  Wattenberg          81.03 317⇑iP      P        03 52 27.5  -0.2
      comp=Z,64nm,0.7s,mb5.7
WTTA  Wattenberg          81.03 317⇑iP      P        03 52 27.5  -0.2
      comp=Z,64nm,0.7s,mb5.7
WATA  Walderalm           81.08 317⇑iP      P        03 52 27.5  -0.4
      comp=Z,22nm,0.6s,mb5.3
WATA  Walderalm           81.08 317⇑iP      P        03 52 27.5  -0.4
      comp=Z,22nm,0.6s,mb5.3
MOX   Moxa                81.16 320  eP      P        03 52 28.5  +0.3
MOX   Moxa                81.16 320  i P     P        03 52 28.5  +0.3
SEI   Scarperia           81.16 314  eP      P        03 52 29.1  +0.7
FUR   Furstenfeldbru      81.30 318  eP      P        03 52 29.1  +0.1
SQTA  Sankt Quirin        81.32 317⇑iP      P        03 52 29.0  -0.2
      comp=Z,55nm,0.6s,mb5.7
SQTA  Sankt Quirin        81.32 317⇑iP      P        03 52 29.0  -0.2
      comp=Z,55nm,0.6s,mb5.7
GRA1  Grafenberg Arr      81.38 319  eP      P        03 52 30.3  +0.9
      comp=Z,99nm,0.9s,mb5.7
GRF   Grafenberg Arr      81.38 319  eP      P        03 52 30.3  +0.9
GRF                                   pmax   pmax
      comp=Z,99nm,0.9s,mb5.7
GRF   Grafenberg Arr      81.38 319  eP      P        03 52 30.3  +0.9
      comp=Z,99nm,0.9s,mb5.7
MOTA  Moosalm             81.40 317⇑iP      P        03 52 29.3  -0.3
      comp=Z,31nm,0.7s,mb5.3
MOTA  Moosalm             81.40 317⇑iP      P        03 52 29.3  -0.3
      comp=Z,31nm,0.7s,mb5.3
ZCCA  Zocca               81.44 314  eP      P        03 52 31.7  +1.9
GSCL  Gusciola            81.72 314  eP      P        03 52 32.5  +1.3
MAIM                      81.78 313   P      P        03 52 30.8  -0.8
BRMO  Bormio              81.89 316  eP      P        03 52 32.8  +0.7
NB2   NORSAR Subarra      81.89 331   P      P        03 52 26.5  -5.3
      comp=Z,16nm,0.8s,mb5.0,baz=94,slow=5.8
NB2   NORSAR Subarra      81.89 331   P      P        03 52 26.5  -5.3
      baz=94,slow=5.9
NOA   NORSAR Array B      81.89 331   P      P        03 52 31.1  -0.7
      comp=Z,9.6nm,0.7s,mb4.8,baz=94,slow=5.4,SNR=16
NOA                                   pP     pP       03 52 44.5   0.0
      comp=Z,8.5nm,0.9s,baz=94,slow=5.5,SNR=5.5
NOA   NORSAR Array B      81.89 331   P      P        03 52 31.1  -0.7
NOA                                   *PP    pP       03 52 44.5   0.0
NOA                                   pmax   pmax
      comp=Z,10.0nm,0.7s
NOA                                   pmax   pmax
      comp=Z,9.0nm,0.9s
CLZ   Clausthal           81.98 321  eP      P        03 52 33.0  +0.5
      comp=Z,67nm,0.8s,mb5.6
NAO01 NORSAR Array S      82.03 331  eP      P        03 52 31.8  -0.7
      comp=Z,13nm,0.9s,mb4.8
BSEG  Bad Segeberg        82.06 324  eP      P        03 52 33.5  +0.6
BACM                      82.08 314   P      P        03 52 33.7  +0.5
DAVOX Davos               82.23 316   P      P        03 52 34.7  +0.8
      comp=Z,88nm,0.6s,mb5.9,baz=123,slow=5.9,SNR=76
DAVA  Damuels             82.23 317⇑iP      P        03 52 34.3  +0.4
      comp=Z,71nm,1.2s,mb5.5
DAVA  Damuels             82.23 317⇑iP      P        03 52 34.3  +0.4
      comp=Z,71nm,1.2s,mb5.5
CODM                      82.25 314   P      P        03 52 34.1  +0.1
MUD   Monsted U'grnd      82.78 326  i P     P        03 52 35.9  -0.6
MUD                                   pmax   pmax
      comp=Z,50nm,1.2s,mb5.4
MUD   Monsted U'grnd      82.78 326  i P     P        03 52 35.9  -0.6
      comp=Z,50nm,1.2s,mb5.4
PGF   Pioggiola           82.88 312⇑iP      P        03 52 37.7  +0.4
      comp=Z,78nm,1.0s,mb5.4
TOD   Tromm               82.95 319  eP      P        03 52 37.4  -0.1
VAI   Varese              83.00 315  eP      P        03 52 37.1  -0.7
PCP   Pian Castagno       83.18 314   P      P        03 52 39.2  +0.4
BFO   Black Forest        83.27 318  eP      P        03 52 39.2  +0.1
BFO                                   pmax   pmax
      comp=Z,38nm,0.8s,mb5.5
BFO   Black Forest        83.27 318  eP      P        03 52 39.2  +0.1
      comp=Z,38nm,0.8s,mb5.5
KTD   Kalmit              83.42 319  eP      P        03 52 40.2  +0.3
FIN   Finale Ligure       83.42 314  eP      P        03 52 40.2  +0.2
FELD  Feldberg            83.50 317  eP      P        03 52 39.8  -0.5
MCGN  Macugnaga           83.54 316  eP      P        03 52 41.8  +1.2
ORX   Oropa               83.56 315   P      P        03 52 39.9  -0.8
LANF  Langenberg          83.61 319  eP      P        03 52 41.0  +0.1
STR   Strasbourg          83.64 318  eP      P        03 52 40.9  -0.1
IMI   Imperia             83.66 313   P      P        03 52 42.0  +0.8
ROB   Roburent            83.67 314   P      P        03 52 41.5  +0.2
MOL   Molde               83.67 332  eP      P        03 52 43.0  +2.2
LIBD  Limburg             83.76 318  eP      P        03 52 41.7   0.0
ABH   Alteburg            83.76 319  eP      P        03 52 42.3  +0.7
SAOF  Saorge              83.90 314  eP      P        03 52 41.6  -0.9
WLS   Welschbruch         83.92 318  eP      P        03 52 42.4  -0.1
CDF   Champ du Feu        83.97 318⇑iP      P        03 52 42.7   0.0
      comp=Z,43nm,0.8s,mb5.3
ENR   Entracque           83.99 314   P      P        03 52 43.9  +1.0
SBF   Sospel              83.99 313⇑iP      P        03 52 43.3  +0.4
      comp=Z,106nm,0.7s,mb5.8
REVF  Revere              84.05 313  eP      P        03 52 42.3  -0.9
ECH   Echery              84.06 318  eP      P        03 52 42.1  -1.1
RSP   Reno Superiore      84.08 315   P      P        03 52 42.9  -0.5
RUP   Ruppelstein         84.08 319  eP      P        03 52 42.8  -0.4
MOF   Molkenrain          84.08 317  eP      P        03 52 43.1  -0.2
BHB   Bricherasio         84.08 314   P      P        03 52 42.2  -1.2
TOUF  Mont Tournerai      84.12 314  eP      P        03 52 44.2  +0.6
LSD   Ceresole Reale      84.14 315   P      P        03 52 44.2  +0.6
MVIF  Mont Vial           84.19 313  eP      P        03 52 43.2  -0.8
PZZ   Prazzo              84.21 314   P      P        03 52 42.9  -1.1
FENE  Fenestrelle         84.22 315   P      P        03 52 44.0  -0.1
BLS5  Blasjo              84.22 329  eP      P        03 52 45.2  +1.5
RPZ   Rata Peaks          84.25 135   P      P        03 52 44.9  +0.7
      comp=Z,5.6nm,0.4s,mb5.1,baz=231,slow=9.8,SNR=2.6
LOMF  Lomont              84.31 317  eP      P        03 52 43.6  -0.8
RRL   Cesana Torines      84.42 315   P      P        03 52 44.9  -0.1
LPL   La Plagne           84.44 315⇑iP      P        03 52 45.8  +0.7
      comp=Z,117nm,0.8s,mb5.8
HAU   Haudompre           84.61 318⇑iP      P        03 52 46.0  +0.1
      comp=Z,121nm,0.7s,mb5.8
KIWB  Kanaga Island       84.80  39  eP      P        03 52 46.0  -0.8
THEF  They Montfort       84.84 318  eP      P        03 52 47.1   0.0
VIVF  Saint-Julien-l      85.92 315⇑iP      P        03 52 53.0  +0.5
      comp=Z,59nm,0.9s,mb5.5
SMF   Signal de Mont      86.38 316⇑iP      P        03 52 54.9  +0.2
      comp=Z,91nm,0.9s,mb5.7
SSF   Saint Saulge        86.58 317⇑iP      P        03 52 56.0  +0.3
      comp=Z,40nm,0.8s,mb5.4
PLDF  La Plantade         86.59 316  eP      P        03 52 56.5  +0.8
LBL   Lubilhac            86.91 315  eP      P        03 52 58.9  +1.6
AGO   Saint Agoulin       86.92 316  eP      P        03 52 58.9  +1.6
PYM   Petit Puy Mans      87.03 315  eP      P        03 52 58.9  +1.0
URZ   Urewera             87.72 129   P      P        03 53 00.8  -0.6
      comp=Z,27nm,0.9s,mb5.5,baz=77,slow=1.8,SNR=9.7
MTLF  Montolieu           87.81 313⇑iP      P        03 53 02.3  +0.6
      comp=Z,84nm,1.2s,mb5.6
RJF   Les Rejaudoux       88.11 315⇑iP      P        03 53 04.2  +1.1
      comp=Z,107nm,1.1s,mb5.7
VNDA  Vanda               90.58 168   P      P        03 53 14.8  +0.8
      comp=Z,3.1nm,0.8s,mb4.7,baz=334,slow=5.2,SNR=5.0
VNDA  Vanda               90.58 168   P      P        03 53 14.8  +0.7
VNDA                                  pmax   pmax
      comp=Z,3.0nm,0.8s
VNDA  Vanda               90.58 168   P      P        03 53 14.8  +0.8
DLF   Lyons Farm          92.09 324⇓iP      P        03 53 22.7  +1.1
DCN   Croghan             92.52 324⇓iP      P        03 53 24.7  +1.2
ESDC  Sonseca Array       92.89 310   P      P        03 53 26.5  +0.9
      comp=Z,4.2nm,0.6s,mb5.0,baz=64,slow=4.0,SNR=23
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ESDC                                  pP     pP       03 53 39.6  +1.1
      comp=Z,5.3nm,0.7s,baz=57,slow=4.5,SNR=8.5
IMA   Indian Mountai      93.74  22  eP      P        03 53 27.6  -1.1
      comp=Z,141nm,0.7s,mb6.5
ILAR  Eielson Array       96.86  22   P      P        03 53 41.5  -1.5
      comp=Z,4.0nm,0.5s,mb5.1,baz=293,slow=3.7,SNR=50
ILAR  Eielson Array       96.86  22   P      P        03 53 41.6  -1.4
ILAR                                  pmax   pmax
      comp=Z,4.0nm,0.5s
SLKM  Skilak Lake         97.41  27  eP      P        03 53 45.1  -0.5
DBIC  Dimbokro            98.45 278   P      P        03 53 52.9  +1.5
      comp=Z,2.4nm,0.8s,mb4.8,baz=62,slow=14,SNR=4.6
DBIC  Dimbokro            98.45 278   P      P        03 53 52.9  +1.5
DBIC                                  pmax   pmax
      comp=Z,2.0nm,0.8s
INK   Inuvik              99.21  16   P      P        03 53 53.7  +0.1
      comp=Z,6.8nm,0.8s,mb5.2,baz=322,slow=4.2,SNR=18
INK   Inuvik              99.21  16   P      P        03 53 53.7  +0.1
INK                                   pmax   pmax
      comp=Z,7.0nm,0.8s
INK   Inuvik              99.21  16   P      P        03 53 53.7  +0.1
DAWY  Dawson             100.00  21  ePdif   P        03 53 57.2   0.0
DLBC  Dease Lake         107.07  23   Pdiff  Pdif     03 54 28.6  -0.1
      comp=Z,5.4nm,1.0s,baz=109,slow=23,SNR=1.6
YKA   Yellowknife Ar     108.68  14   Pdiff  Pdif     03 54 37.1  +1.4
      comp=Z,2.5nm,0.8s,baz=143,slow=4.1,SNR=14
YKA                                   PKiKP           03 58 40.9
      comp=Z,0.7nm,0.8s,baz=342,slow=2.1,SNR=5.3
YKA                                   PP     PP       03 59 00.9   -10
      comp=Z,2.3nm,0.7s,baz=334,slow=7.9,SNR=8.5
YKA   Yellowknife Ar     108.68  14   P      Pdif     03 54 37.1  +1.4
YKA                                   pmax   pmax
      comp=Z,3.0nm,0.8s
YKA                                   pmax   pmax
      comp=Z,1.0nm,0.8s
YKA                                   pmax   pmax
      comp=Z,2.0nm,0.7s
SCHQ  Schefferville      117.87 348   PKP    PKPdf    03 58 59.9  +2.4
      comp=Z,2.0nm,0.6s,baz=116,slow=2.0,SNR=9.9
ULM   Lac du Bonnet      123.78   8   PKP    PKPdf    03 59 11.2  +2.1
      comp=Z,8.4nm,0.6s,baz=325,slow=1.4,SNR=15
ULM                                   pPKP            03 59 23.3
      comp=Z,9.1nm,0.7s,baz=6.7,slow=1.4,SNR=7.9
PDAR  Pinedale Array     127.29  22   PKP    PKPdf    03 59 18.1  +1.9
      comp=Z,7.8nm,0.7s,baz=220,slow=1.1,SNR=14
PDAR                                  pPKP            03 59 32.2
      comp=Z,12nm,1.0s,slow=1.5,SNR=6.0
MDV   Middlebury         129.46 348  ePKPdf  PKPdf    03 59 22.1  +1.9
SADO  Sadowa             129.62 354   PKP    PKPdf    03 59 22.4  +1.9
      comp=Z,12nm,0.7s,baz=335,slow=2.1,SNR=11
ANMO  Albuquerque        135.25  24   PKP    PKPdf    03 59 34.1  +2.7
      comp=Z,9.9nm,0.8s,baz=130,slow=1.0,SNR=17
ANMO  Albuquerque        135.25  24  ePKPdf  PKPdf    03 59 33.8  +2.4
PWV   Princeton          137.17 355  ePKPdf  PKPdf    03 59 36.1  +1.3
TXAR  Lajitas Array      141.29  26   PKhKP           03 59 38.4
      comp=Z,2.1nm,0.6s,baz=188,slow=1.5,SNR=10
TXAR                                  PKP    PKPdf    03 59 44.8  +2.3
      comp=Z,5.5nm,0.6s,baz=70,slow=0.4,SNR=13
BAO   Brasilia Array     141.68 252   PKP    PKPdf    03 59 41.2  -2.3
BDFB  Brasilia           141.70 252   PKP    PKPdf    03 59 46.0  +2.5
      comp=Z,4.4nm,0.8s,baz=62,slow=0.9,SNR=4.1
BDFB  Brasilia           141.70 252   PKIKP  PKPdf    03 59 46.0  +2.4
BDFB                                  pmax   pmax
      comp=Z,4.0nm,0.8s
HKT   Hockley            143.43  15   PKPdf  PKPdf    03 59 46.2   0.0
SJG   San Juan           149.65 321   PKPbc  PKPdf    04 00 02.6  +5.8
      comp=Z,30nm,0.7s,baz=94,slow=2.1,SNR=5.9
SJG   San Juan           149.65 321   PKP2   PKPdf    04 00 02.6  +5.7
SJG                                   pmax   pmax
      comp=Z,30nm,0.7s
SJG   San Juan           149.65 321   PKPbc  PKPdf    04 00 02.6  +5.8
PCRV  Puerto La Cruz     153.90 307   PKPbc  PKPdf    04 00 13.0   +10
      comp=Z,11nm,0.7s,baz=240,slow=1.9,SNR=9.3
PCRV                                  PKPab  PKPab    04 00 27.0  +0.1
      comp=Z,12nm,0.5s,baz=22,slow=1.6,SNR=6.9
LVC   Limon Verde        156.51 222   PKPab  PKPab    04 00 36.7  -1.1
      comp=Z,5.1nm,0.8s,baz=170,slow=1.8,SNR=5.6
SDV   Santo Domingo      159.29 314   PKP    PKPdf    04 00 12.5  +2.3
      comp=Z,7.0nm,0.9s,baz=265,slow=4.1,SNR=6.3
SDV                                   PKPab  PKPab    04 00 49.6  -0.4
      comp=Z,16nm,1.1s,baz=62,slow=3.7,SNR=5.7
SDV   Santo Domingo      159.29 314  ePKPdf  PKPdf    04 00 12.2  +2.0
LPAZ  La Paz             159.73 237   PKP    PKPdf    04 00 13.3  +2.8
      comp=Z,3.5nm,0.8s,baz=193,slow=2.3,SNR=5.3
LPAZ                                  PKPab  PKPab    04 00 54.8  +3.0
      comp=Z,4.7nm,0.8s,baz=143,slow=2.4,SNR=5.7
LPAZ  La Paz             159.73 237   PKIKP  PKPdf    04 00 13.4  +2.8
LPAZ                                  pmax   pmax
      comp=Z,4.0nm,0.8s
LPAZ                                  pmax   pmax
      comp=Z,5.0nm,0.8s
LPAZ  La Paz             159.73 237  ePKPdf  PKPdf    04 00 12.8  +2.3
ROSC  El Rosal           164.71 312   PKP    PKPdf    04 00 19.0  +3.3
      comp=Z,15nm,0.8s,baz=122,slow=3.1,SNR=20
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*BJI **26** 03:43:58.9, 12.86N×92.23E, h22km, mb5.2*

*NEIC **26** 03:44:08.3±0.3, 13.47N×92.74E, mb5.2/20, Error ellipse: s-maj=7.4km s-min=7.2km az=63.0*

*IDC **26** 03:44:11.4±4.2, 13.50N×92.76E, h43km±39km, mb4.7/23, mb1 4.8/24, mb1mx4.7/29, ML4.2/1, Error ellipse: s-maj=20.1km s-min=12.0km az=49.0*

ISC 26 03:44:06.8±0.3**, 13.49N**±0.05×**92.73E**±0.04**, h25km, h25km**±1.9km**:pP-P, n76, σ0.s99**/74**, mb5.0**/43**, 1C, Andaman Islands region**

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Code  Station Name         Δ°   AZ°    Phase ID         Time      Res
                                     Op      ISC      h  m  s    ISC
CM31  Chiang Mai Arr       7.75  50   P      Pn       03 46 00.3  -0.7
      102nm,0.9s
CMAR  Chiang Mai Arr       7.75  50   P      Pn       03 46 00.8  -0.3
      0.9nm,0.3s,baz=239,slow=14,SNR=7.4
CMAR                                  S      Sn       03 47 24.6  -4.3
      3.0nm,0.3s,baz=239,slow=27,SNR=11
KMI   Kunming             14.93  38  eP      P        03 47 45.5  +7.2
KMI                                   AMB    AMB
      comp=Z,107nm,1.1s
LSA   Lhasa               16.20 355   P      P        03 47 55.5  +0.9
LSA   Lhasa               16.20 355  eP      P        03 47 58.2  +3.6
      comp=Z,56nm,0.8s
AKL   Akola               16.64 298  eP      P        03 47 58.3  -1.9
AKL                                  e                03 48 05.8
      comp=Z,229nm,0.9s
AKL                                  e                03 50 45.2
MNGI  Mangalore           17.44 270  eP      P        03 48 12.2  +1.9
MNGI                                 e                03 48 13.6
      comp=Z,164nm,1.3s
MNGI                                 eS      S        03 51 20.8  -1.0
GYA   Guiyang             18.36  43⇑iP      P        03 48 21.8   0.0
GYA                                   AMB    AMB
      comp=Z,40nm,1.0s
GOA   Goa                 18.41 279  e       P        03 48 27.1  +4.7
GOA                                  eS      S        03 51 42.4  -1.4
CD2   Chengdu             20.10  29   P      P        03 48 41.0  -0.7
CD2                                   AMB    AMB
      comp=Z,150nm,1.0s
NDI   New Delhi           20.89 319  eP      P        03 48 47.6  -2.4
NDI                                  e                03 49 07.6
      comp=Z,76nm,1.1s
NDI                                  eS      S        03 52 31.3  -5.5
ENH   Enshi               22.77  40  eP      P        03 49 08.0  -0.8
      comp=Z,206nm,1.0s,mb5.5
SDNR  Sundarnagar         23.04 324  eP      P        03 49 12.5  +1.1
THN   Thein Dam           24.45 323  eP      P        03 49 24.8  -0.3
LZH   Lanzhou             24.62  22  eP      P        03 49 27.5  +0.8
LZH                                   AP              03 49 31.5
LZH                                   XP              03 49 33.3
LZH                                   PP     PP       03 50 05.3  +2.2
LZH                                   AMB    AMB
      comp=Z,182nm,1.2s,mb5.5
GTA   Gaotai              26.57  12   P      P        03 49 45.0  +0.1
GTA                                   AP     pP       03 49 53.0  +1.0
GTA                                   XP     sP       03 49 55.8  +0.5
GTA                                   AMB    AMB
      comp=Z,44nm,1.2s,mb4.9
NJ2   Nanjing             30.23  48  eP      P        03 50 18.3  +0.4
HHC   Hu-ho-hao-te        31.85  28  eP      P        03 50 32.0  -0.1
HHC                                   AP     pP       03 50 41.8  +2.4
HHC                                   XP     sP       03 50 44.5  +2.0
HHC                                   AMB    AMB
      comp=Z,47nm,1.1s,mb5.2
BJT   Baijiatuau          33.51  34  eP      P        03 50 46.9  +0.3
      comp=Z,33nm,0.8s,mb5.3
JOW   Kunigami            35.78  63   P      P        03 51 07.6  +1.4
      comp=Z,39nm,0.6s,mb5.5,baz=264,slow=9.3,SNR=12
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SONM	Songino Array	36.09	16	P	P	03 51 09.1	+0.5
	comp=Z,21nm,0.9s,mb5.0,baz=203,slow=9.4,SNR=6.5						
ULN	Ulaanbaatar	36.29	16	*e*P	P	03 51 10.1	-0.2
	comp=Z,23nm,1.1s,mb5.0						
KS15	Wonju Array Si	39.35	46	*e*P	P	03 51 36.1	0.0
HIA	Hailar	42.03	26	*e*P	P	03 51 57.7	-0.2
	comp=Z,13nm,0.8s,mb4.6						
BVAR	Borovoye Array	43.27	340	P	P	03 52 11.8	+3.8
	comp=Z,14nm,1.1s,mb4.6,baz=146,slow=10,SNR=3.8						
MBWA	Marble Bar	43.46	142	*e*P	P	03 52 08.5	-1.5
CHKZ	Chkalovo	43.74	341	*e*P	P	03 52 11.2	-0.7
	comp=Z,32nm,0.8s,mb5.1						
CHKZ				*e*	pP	03 52 18.5	-0.7
MAT	Matsushiro	46.63	52	P	P	03 52 34.6	-0.5
MAT	Matsushiro	46.63	52	*e*P	P	03 52 35.0	-0.1
GNI	Garni	49.62	312	P	P	03 52 59.4	+1.1
	comp=Z,12nm,0.8s,mb5.0,baz=77,slow=6.5,SNR=4.1						
NWAO	Narrogin (SRO)	51.75	154	P	P	03 53 14.2	-0.5
	comp=Z,36nm,0.7s,mb5.4,baz=317,slow=7.4,SNR=10						
NWAO				PP	PP	03 55 12.8	-0.3
	comp=Z,25nm,0.9s,baz=312,slow=7.3,SNR=4.1						
NWAO	Narrogin (SRO)	51.75	154	P	P	03 53 14.2	-0.5
NWAO				PP	PP	03 55 12.8	-0.3
ASAJ	Asahikawa	52.24	44	P	P	03 53 18.0	-0.2
	comp=Z,16nm,0.7s,mb5.0,baz=212,slow=6.7,SNR=4.7						
KIV	Kislovodsk	52.30	316	*e*P	P	03 53 17.3	-1.4
	comp=Z,34nm,1.0s,mb5.2						
WRA	Warramunga Arr	52.72	128	P	P	03 53 21.5	-0.6
	comp=Z,33nm,0.8s,mb5.3,baz=301,slow=10,SNR=25						
WRAB	Tennant Creek	52.73	128	*e*P	P	03 53 20.7	-1.4
	comp=Z,56nm,0.6s,mb5.7						
WRAB				*e*	pP	03 53 27.9	-1.8
YSS	Yuzh-Sakhalins	53.35	41	*e*P	P	03 53 26.1	-0.4
	comp=Z,40nm,1.0s,mb5.3						
ASAR	Alice Springs	54.63	132	P	P	03 53 35.6	-0.5
	comp=Z,14nm,0.7s,mb5.1,baz=309,slow=6.6,SNR=15						
KMBO	Kilima Mbogo	56.86	260	P	P	03 53 53.0	+0.7
	comp=Z,1.7nm,0.6s,mb4.2,baz=52,slow=11,SNR=4.4						
KMBO	Kilima Mbogo	56.86	260	*e*P	P	03 53 53.1	+0.7
	comp=Z,0.7nm,0.6s,mb3.9						
BRTR	Keskin Array B	57.80	309	P	P	03 53 56.9	-1.7
	comp=Z,6.2nm,0.8s,mb4.7,baz=122,slow=7.4,SNR=5.6						
PMG	Port Moresby	58.62	110	P	P	03 54 05.2	+0.6
	comp=Z,64nm,0.9s,mb5.7,baz=320,slow=5.8,SNR=16						
CTA	Charters Tower	62.33	121	P	P	03 54 29.7	-0.2
	comp=Z,28nm,1.0s,mb5.3,baz=302,slow=9.5,SNR=11						
CTAO	Charters Tower	62.33	121	*e*P	P	03 54 29.6	-0.3
	comp=Z,44nm,1.0s,mb5.5						
MLR	Muntele Rosu	64.25	314	P	P	03 54 43.9	+1.6
	comp=Z,20nm,1.1s,mb5.1,baz=9.8,slow=5.1,SNR=4.6						
STKA	Stephens Creek	65.00	135	P	P	03 54 47.0	-0.3
	comp=Z,14nm,0.9s,mb5.0,baz=322,slow=8.1,SNR=7.1						
FINES	FINESS Array B	67.14	331	P	P	03 55 03.7	+3.2
	comp=Z,6.3nm,0.8s,mb4.7,baz=106,slow=10,SNR=3.9						
FINES	FINESS Array B	67.14	331	P	P	03 55 03.7	+3.2
CRVS	Cervenica-Dubn	67.65	317	*e*P	P	03 55 06.1	+2.2
LSZ	Lusaka	69.94	248	*e*P	P	03 55 18.7	+0.1
LSZ				*e*	pP	03 55 25.4	-0.9
MORC	Moravsky Berou	70.26	318	*e*P	P	03 55 19.5	-0.5
	comp=Z,20nm,1.4s,mb4.9						
ZST	Bratislava	70.50	317	*e*	pP	03 55 26.8	-2.3
BRG	Berggiesshubel	72.59	319	*e*P	P	03 55 34.2	+0.2
	comp=Z,10nm,1.0s,mb4.7						
RUE	Ruedersdorf	72.70	321	P	P	03 55 34.1	-0.5
	comp=Z,49nm,1.3s,mb5.3						
GERES	GERESS Array B	72.77	317	P	P	03 55 35.1	0.0
	comp=Z,4.1nm,0.9s,mb4.4,baz=88,slow=6.1,SNR=6.0						
HFS	Hagfors	72.95	329	P	P	03 55 37.1	+1.3
	comp=Z,9.2nm,0.8s,mb4.7,baz=82,slow=10,SNR=4.5						
CLL	Collm	73.18	320	*e*P	P	03 55 44.0	+6.6
	comp=Z,39nm,1.7s,mb5.1						
CLL				*e*		03 55 55.0	
CLL	Collm	73.18	320	*e**PP	pP	03 55 44.0	-1.1
CLL				*e*		03 55 55.0	
FX1	Attu Island--F	73.60	39	P	P	03 55 39.4	-0.4
	comp=Z,32nm,0.7s,mb5.3,baz=116,slow=2.9,SNR=4.2						
NB2	NORSAR Subarra	74.20	330	P	P	03 55 41.6	-1.5
	comp=Z,21nm,1.2s,mb5.0,baz=91,slow=5.8						
NB2	NORSAR Subarra	74.20	330	P	P	03 55 41.6	-1.5
	baz=91,slow=5.9						
NOA	NORSAR Array B	74.20	330	P	P	03 55 42.1	-1.0
	comp=Z,2.5nm,0.7s,mb4.2,baz=96,slow=6.1,SNR=4.6						
LBTB	Lobatse	75.79	240	*e*P	P	03 55 53.5	+0.5
	comp=Z,11nm,0.8s,mb4.8						
LBTB				*e*	pP	03 55 59.6	-1.2
BOSA	Boshof	77.45	236	*e*P	P	03 56 02.8	+0.6
	comp=Z,13nm,0.8s,mb4.9						
LPG	La Plagne	77.72	314	*e*P	P	03 56 03.4	+0.1
	comp=Z,38nm,0.8s,mb5.1						
SUR	Sutherland	82.42	234	*e*P	P	03 56 30.7	+2.0
	comp=Z,13nm,0.8s,mb4.9						
MAW	Mawson	83.73	191	P	P	03 56 36.1	+1.5
	comp=Z,4.1nm,0.5s,mb4.9,baz=109,slow=18,SNR=6.6						
IMA	Indian Mountai	86.98	22	*e*P	P	03 56 52.1	+1.3
	comp=Z,46nm,0.9s,mb5.7						
SPU	Mount Spurr	89.89	26	*e*P	P	03 57 05.1	+0.3
ILAR	Eielson Array	90.09	22	P	P	03 57 05.3	-0.4
	comp=Z,3.0nm,0.8s,mb4.7,baz=299,slow=4.0,SNR=11						
INK	Inuvik	92.00	16	P	P	03 57 14.9	+0.5
	comp=Z,8.6nm,1.0s,mb5.0,baz=328,slow=5.5,SNR=7.6						
URZ	Urewera	93.89	128	P	P	03 57 23.5	-0.3
	comp=Z,7.5nm,0.9s,mb5.1,baz=343,slow=7.6,SNR=2.7						
YKA	Yellowknife Ar	101.30	13	P	P	03 57 56.9	0.0
	comp=Z,1.4nm,1.0s,baz=337,slow=5.8,SNR=6.1						
YKA				PP	PP	04 02 03.8	-5.1
	comp=Z,1.4nm,0.9s,baz=335,slow=8.0,SNR=4.2						
PCRV	Puerto La Cruz	147.48	315	PKPbc	PKPdf	04 03 53.0	+1.2
	comp=Z,12nm,0.7s,baz=304,slow=1.8,SNR=7.2						
SDV	Santo Domingo	152.31	322	PKPbc	PKPdf	04 04 03.0	+3.8
	comp=Z,6.8nm,0.9s,baz=184,slow=4.0,SNR=3.5						
SDV	Santo Domingo	152.31	322	*e*PKPbc	PKPdf	04 04 02.6	+3.3

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*IDC **26** 03:45:06.9±2.6, 2.63N×95.43E, mb4.5/11, mb1 4.6/12, mb1mx4.5/22, Error ellipse: s-maj=69.2km s-min=42.1km az=135.0*

ISC 26 03:45:14.0±4.7**, 3.1N**±0.6×**95.0E**±0.6**, h33^{km}, n13, σ0^{s}88**/12**, mb4.5**/11**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.74	14	Pn	P	03 48 56.1	+1.1
	baz=198,slow=11,SNR=3.8						
SONM	Songino Array	45.63	11	P	P	03 53 32.0	-1.2
	9.6nm,0.8s,mb4.8,baz=190,slow=8.9,SNR=6.3						
ZAL	Zalesovo	51.36	352	P	P	03 54 17.0	-0.4
	23nm,0.9s,mb5.1,baz=304,slow=5.9,SNR=22						
BVAR	Borovoye Array	53.76	342	P	P	03 54 35.2	-0.2
	7.9nm,0.6s,mb4.8,baz=135,slow=8.4,SNR=7.0						
BRTR	Keskin Array B	66.22	312	P	P	03 55 59.9	-1.1
	0.7nm,0.6s,mb3.9,baz=112,slow=7.8,SNR=2.0						
IDI	Anoyia	72.02	306	P	P	03 56 37.7	+1.1
	4.0nm,0.5s,mb4.6,baz=94,slow=13,SNR=5.9						
AKASG	Malin Array Be	72.43	323	P	P	03 56 37.5	-1.3
	2.6nm,0.7s,mb4.3,baz=86,slow=4.8,SNR=5.1						
FINES	FINESS Array B	77.31	333	P	P	03 57 06.6	-0.2
	2.8nm,0.6s,mb4.4,baz=112,slow=5.8,SNR=4.8						
ARCES	ARCESS Array B	80.02	340	P	P	03 57 21.4	-0.1
	1.2nm,0.6s,mb4.0,baz=90,slow=3.6,SNR=4.2						
GERES	GERESS Array B	81.95	319	P	P	03 57 33.2	+1.2
	1.9nm,0.9s,mb4.0,baz=112,slow=5.3,SNR=3.7						
HFS	Hagfors	82.99	330	P	P	03 57 37.3	+0.3
	3.9nm,0.8s,mb4.5,baz=101,slow=7.3,SNR=5.4						
DAVOX	Davos	84.42	317	P	P	03 57 45.5	+0.9
	3.3nm,0.6s,mb4.6,baz=157,slow=9.5,SNR=5.5						
PDAR	Pinedale Array	129.23	23	PKP	PKPdf	04 04 17.8	-1.7
	0.6nm,0.7s,baz=342,slow=2.9,SNR=6.4						

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*BJI **26** 03:46:39.6, 6.73N×93.08E, h50^{km}, mb5.3*

*IDC **26** 03:46:41.9±0.6, 6.78N×93.36E, h44^{km}±6^{km}, mb4.7/30, mb1 4.8/31, mb1mx4.8/33, ML5.2/1, Error ellipse: s-maj=17.5km s-min=10.4km az=39.0*

*NEIC **26** 03:46:42.0±0.2, 6.72N×93.33E, mb5.0/25, Error ellipse: s-maj=7.1km s-min=4.7km az=46.0*

ISC 26 03:46:39.2±0.3**, 6.67N**±0.05×**93.32E**±0.05**, h38^{km}, h38^{km}**±3.4^{km}**:pP-P, n111, σ0^{s}83**/98**, mb5.0**/58**, 2C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	12.54	273	*e*P	P	03 49 31.9	-6.1
CM31	Chiang Mai Arr	12.93	25	P	P	03 49 44.5	+1.3
CMAR	Chiang Mai Arr	12.93	25	P	P	03 49 46.8	+3.6
	3.7nm,0.3s,baz=220,slow=13,SNR=36						
KMI	Kunming	20.44	25	*e*P	P	03 51 17.0	+0.9
KMI				XP		03 51 28.5	
KMI				AMB	AMB		
	comp=Z,71nm,1.3s						
LSA	Lhasa	23.00	355	*e*P	P	03 51 41.5	-0.2
	comp=Z,57nm,0.8s,mb5.0						
GYA	Guiyang	23.43	31	⇑*i*P	P	03 51 47.0	+1.1
GYA				AMB	AMB		
	comp=Z,90nm,0.7s,mb5.3						
CD2	Chengdu	26.02	21	⇓*i*P	P	03 52 10.0	-0.8
CD2				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.3						
TGY	Tagaytay City	28.13	73	P	P	03 52 30.9	+0.8
	comp=Z,112nm,0.3s,mb5.9,baz=259,slow=8.5,SNR=3.4						
LZH	Lanzhou	30.82	17	*e*P	P	03 52 52.8	-1.1
LZH				AMB	AMB		
	comp=Z,92nm,1.4s,mb5.4						
GTA	Gaotai	33.11	9	P	P	03 53 13.5	-0.4
GTA				AMB	AMB		
	comp=Z,42nm,0.8s,mb5.4						
NJ2	Nanjing	34.71	40	*e*P	P	03 53 28.3	+0.6
NJ2				AP	pP	03 53 38.3	-0.1
NJ2				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.9						
WMQ	Urumqi	37.33	353	*e*P	P	03 53 49.0	-0.8
HHC	Hu-ho-hao-te	37.73	23	⇑P	P	03 53 53.8	+0.6
HHC				AP	pP	03 54 03.0	-0.9
HHC				XP	sP	03 54 08.0	-0.7
HHC				AMB	AMB		
	comp=Z,44nm,0.9s,mb5.2						
MBWA	Marble Bar	37.91	137	*e*P	P	03 53 54.2	-0.6
	comp=Z,4.3nm,0.4s,mb4.5						
JOW	Kunigami	38.80	55	P	P	03 54 03.4	+1.2
	comp=Z,84nm,1.2s,mb5.3,baz=202,slow=6.1,SNR=5.8						
KBK	Karagaybulak	39.34	338	P	P	03 54 07.8	+1.2
	SNR=5.7						
AML	Almayashu	39.37	337	P	P	03 54 08.0	+1.3
	SNR=12						
AAK	Ala-Archa	39.49	338	*e*P	P	03 54 07.9	+0.1
	comp=Z,26nm,1.0s,mb4.9						
CHMS	Chumysh	39.71	339	P	P	03 54 10.2	+0.5
	SNR=5.8						
EKS2	Erkin-Say	39.79	337	P	P	03 54 11.3	+1.0
	SNR=5.5						
USP	Ospenovka	40.04	339	P	P	03 54 12.7	+0.4
	SNR=8.3						
SONM	Songino Array	42.51	13	P	P	03 54 32.2	-0.4
	comp=Z,12nm,0.7s,mb4.8,baz=194,slow=8.5,SNR=10.0						
SONM				PcP	PcP	03 56 25.5	0.0
	comp=Z,6.8nm,0.9s,baz=199,slow=3.2,SNR=5.2						
ULN	Ulaanbaatar	42.69	14	*e*P	P	03 54 33.2	-0.9
NWAO	Narrogin (SRO)	45.47	151	*e*P	P	03 54 57.0	+0.3
	comp=Z,2.2nm,0.4s,mb4.3						
CN2	Changchun	46.47	32	*e*P	P	03 55 05.0	+0.5
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
ZAL	Zalesovo	47.63	353	P	P	03 55 13.6	+0.1
	comp=Z,62nm,0.9s,mb5.6,baz=286,slow=6.7,SNR=36						
WRA	Warramunga Arr	48.25	124	P	P	03 55 18.3	-0.4
	comp=Z,20nm,0.5s,mb5.4,baz=306,slow=8.3,SNR=22						
WRA				pP	pP	03 55 30.3	+0.7
	comp=Z,21nm,0.8s,baz=304,slow=9.2,SNR=6.7						
WRAB	Tennant Creek	48.25	124	*e*P	P	03 55 18.3	-0.5
	comp=Z,42nm,0.6s,mb5.6						
ASAR	Alice Springs	49.79	129	P	P	03 55 30.1	-0.5
	comp=Z,13nm,0.7s,mb5.1,baz=303,slow=8.0,SNR=16						
ASAR				pP	pP	03 55 43.8	+2.3
	comp=Z,4.9nm,1.0s,baz=88,slow=10.0,SNR=4.8						
BVAR	Borovoye Array	49.87	342	P	P	03 55 29.7	-1.1
	comp=Z,13nm,0.8s,mb5.0,baz=143,slow=7.4,SNR=7.8						
BVAR				PcP	PcP	03 56 47.8	-3.3
	comp=Z,5.9nm,0.7s,baz=146,slow=5.3,SNR=5.2						
BRVK	Borovoye	49.93	342	*e*P	P	03 55 29.6	-1.6
	comp=Z,14nm,0.9s,mb5.0						
CHKZ	Chkalovo	50.36	343	*e*P	P	03 55 33.7	-0.8
	comp=Z,38nm,0.9s,mb5.4						
MAT	Matsushiro	50.56	47	P	P	03 55 35.7	-0.6
MAT	Matsushiro	50.56	47	*e*P	P	03 55 36.0	-0.3
GNI	Garni	54.70	315	P	P	03 56 07.5	+0.4
	comp=Z,9.1nm,0.8s,mb4.9,baz=351,slow=8.1,SNR=3.1						
PMG	Port Moresby	55.97	106	P	P	03 56 15.8	-0.8
	comp=Z,21nm,0.5s,mb5.4,baz=33,slow=1.0,SNR=9.5						
PMG				pP	pP	03 56 27.7	0.0
	comp=Z,26nm,0.6s,baz=320,slow=3.9,SNR=7.9						
KMBO	Kilima Mbogo	56.49	264	P	P	03 56 22.0	+1.6
	comp=Z,4.3nm,1.0s,mb4.4,baz=47,slow=10,SNR=5.4						
KMBO	Kilima Mbogo	56.49	264	P	P	03 56 21.7	+1.4
	comp=Z,8.0nm,1.1s,mb4.7						
ARU	Arti	56.68	338	*e*P	P	03 56 19.7	-1.4
	comp=Z,204nm,2.2s,mb5.8						
ASAJ	Asahikawa	56.85	41	P	P	03 56 21.9	-0.7
	comp=Z,16nm,1.0s,mb5.0,baz=283,slow=30,SNR=3.8						
KIV	Kislovodsk	57.67	319	*e*P	P	03 56 26.8	-1.5
	comp=Z,35nm,1.2s,mb5.3						
KIV				*e*	pP	03 56 35.8	-3.7
ASF	Jabal al Asfar	58.19	304	P	P	03 56 32.9	+0.8
	comp=Z,12nm,0.9s,mb4.9,baz=332,slow=3.9,SNR=9.9						
CTA	Charters Tower	58.44	118	P	P	03 56 33.2	-0.8
	comp=Z,13nm,1.0s,mb4.9,baz=295,slow=8.6,SNR=4.3						
CTAO	Charters Tower	58.44	118	*e*P	P	03 56 33.4	-0.6
	comp=Z,18nm,1.0s,mb5.1						
CTAO				*e*	pP	03 56 42.8	-2.4
EIL	Elat	59.32	300	P	P	03 56 40.9	+0.9
	comp=Z,11nm,0.9s,mb4.9,baz=175,slow=3.1,SNR=4.8						
EIL	Elat	59.32	300	*e*P	P	03 56 40.3	+0.3
	comp=Z,25nm,1.2s,mb5.1						
STKA	Stephens Creek	59.88	133	P	P	03 56 43.4	-0.4
	comp=Z,5.4nm,0.7s,mb4.7,baz=300,slow=6.9,SNR=6.0						
STKA				pP	pP	03 56 57.7	+2.7
	comp=Z,13nm,0.8s,baz=289,slow=6.6,SNR=6.9						
STKA	Stephens Creek	59.88	133	P	P	03 56 43.4	-0.4
STKA				pP	pP	03 56 57.7	+2.7
BRTR	Keskin Array B	62.60	311	P	P	03 57 00.5	-1.6
	comp=Z,11nm,0.9s,mb5.0,baz=122,slow=7.6,SNR=12						
BRTR				PP	PP	03 59 07.5	-14
	comp=Z,1.4nm,0.6s,baz=152,slow=7.6,SNR=4.1						
LSZ	Lusaka	68.10	251	*e*P	P	03 57 38.6	+0.7
	comp=Z,6.1nm,0.8s,mb4.7						
IDI	Anoyia	68.58	305	P	P	03 57 40.6	+0.1
	comp=Z,26nm,0.7s,mb5.3,baz=92,slow=7.1,SNR=18						
AKASG	Malin Array Be	68.59	322	P	P	03 57 38.1	-2.1
	comp=Z,12nm,0.9s,mb4.8,baz=88,slow=4.7,SNR=11						
AKASG				PP	PP	04 00 01.9	-12
	comp=Z,1.2nm,0.7s,baz=83,slow=4.7,SNR=4.3						
MLR	Muntele Rosu	69.46	316	P	P	03 57 45.4	-0.4
	comp=Z,29nm,0.9s,mb5.2,baz=67,slow=3.3,SNR=7.9						
KWP	Kalwaria	72.42	320	*e*P	P	03 58 02.8	-0.6
KOLS	Kolonicke sedl	72.57	319	*e*P	P	03 58 04.4	0.0
LBTB	Lobatse	72.96	241	*e*P	P	03 58 08.2	+1.0
	comp=Z,9.7nm,0.9s,mb4.7						
SUW	Suwalki	73.00	325	*e*P	P	03 58 05.4	-1.4
CRVS	Cervenica-Dubn	73.09	319	*e*P	P	03 58 10.3	+2.8
FINES	FINESS Array B	73.39	332	P	P	03 58 08.2	-0.7
	comp=Z,21nm,0.7s,mb5.2,baz=104,slow=7.9,SNR=21						
KAF	Kangasniemi	73.48	333	*e*p	P	03 58 08.8	-0.7
	baz=105,slow=5.6						
OJC	Ojcow	74.37	320	*e*P	P	03 58 14.4	-0.4
VYHS	Vyhne	74.76	318	*e*P	P	03 58 16.8	-0.3
MORC	Moravsky Berou	75.75	320	*e*P	P	03 58 21.9	-0.9
	comp=Z,22nm,1.2s,mb5.0						
ZST	Bratislava	75.87	318	*e*P	P	03 58 23.6	+0.1
ARCES	ARCESS Array B	76.11	340	P	P	03 58 24.4	-0.1
	comp=Z,20nm,1.0s,mb5.0,baz=100,slow=7.4,SNR=10						
KSP	Ksiaz	76.67	321	⇓*e*P	P	03 58 28.2	+0.2
KSP				*e*	pP	03 58 38.7	-0.7
KSP	Ksiaz	76.67	321	*e*P	P	03 58 28.4	+0.4
MAW	Mawson	77.20	191	P	P	03 58 30.9	+0.2
	comp=Z,6.4nm,0.8s,mb4.6,baz=319,slow=4.2,SNR=4.1						
BILL	Bilibino	77.50	22	*e*P	P	03 58 32.0	-0.3
	comp=Z,4.6nm,0.5s,mb4.7						
PRU	Pruhonice	77.71	320	*e*P	P	03 58 33.9	+0.1
BRG	Berggiesshubel	78.15	320	*i* P	P	03 58 36.5	+0.3
	comp=Z,26nm,1.1s,mb5.1						
GEC2	GERESS Array S	78.18	318	*e*P	P	03 58 36.8	+0.4
GERES	GERESS Array B	78.18	318	P	P	03 58 36.6	+0.2
	comp=Z,13nm,0.8s,mb4.9,baz=90,slow=5.3,SNR=20						
KHC	Kasperske Hory	78.28	319	*e*P	P	03 58 36.5	-0.4
WET	Wettzell	78.73	319	*e*P	P	03 58 39.9	+0.4
CLL	Collm	78.77	321	*i* P	P	03 58 39.6	0.0
	comp=Z,13nm,1.1s,mb4.8						
CLL	Collm	78.77	321	P	P	03 58 39.6	0.0
	comp=Z,logA/T=1.1,mb4.8						
HFS	Hagfors	79.08	330	P	P	03 58 40.5	-0.6
	comp=Z,9.1nm,0.7s,mb4.8,baz=104,slow=6.1,SNR=7.2						
HFS	Hagfors	79.08	330	P	P	03 58 40.5	-0.6
MOX	Moxa	79.62	320	*i* P	P	03 58 44.5	+0.3
MOX	Moxa	79.62	320	*e*P	P	03 58 44.5	+0.3
FUR	Furstenfeldbru	79.76	318	*e*P	P	03 58 44.8	-0.3
GRA1	Grafenberg Arr	79.84	319	*e*P	P	03 58 46.5	+1.1
	comp=Z,17nm,0.9s,mb5.0						
GRF	Grafenberg Arr	79.84	319	*e*P	P	03 58 46.5	+1.1
	comp=Z,17nm,0.9s,mb5.0						
NB2	NORSAR Subarra	80.37	331	P	P	03 58 47.2	-0.9
	comp=Z,16nm,0.9s,mb4.9,baz=97,slow=5.0						
NB2	NORSAR Subarra	80.37	331	P	P	03 58 47.2	-0.9
	baz=97,slow=5.3						
NOA	NORSAR Array B	80.37	331	P	P	03 58 47.1	-1.0
	comp=Z,8.3nm,0.8s,mb4.7,baz=94,slow=5.5,SNR=12						
CLZ	Clausthal	80.43	321	*e*P	P	03 58 48.9	+0.3
	comp=Z,13nm,0.9s,mb4.9						
BSEG	Bad Segeberg	80.52	323	*e*P	P	03 58 49.4	+0.4
DAVOX	Davos	80.69	316	P	P	03 58 50.5	+0.5
	comp=Z,16nm,0.8s,mb5.0,baz=125,slow=6.3,SNR=12						
BFO	Black Forest	81.73	318	*e*P	P	03 58 55.2	-0.2
	comp=Z,6.0nm,0.9s,mb4.5						
LPL	La Plagne	82.90	315	*e*P	P	03 59 01.8	+0.3
	comp=Z,54nm,1.1s,mb5.2						
RPZ	Rata Peaks	85.78	135	P	P	03 59 17.4	+1.4
	comp=Z,7.3nm,0.6s,mb5.1,baz=15,slow=7.4,SNR=2.6						
ESDC	Sonseca Array	91.36	310	P	P	03 59 43.3	+0.6
	comp=Z,4.5nm,0.7s,mb4.9,baz=63,slow=4.3,SNR=11						
BORG	Borgarnes	94.21	337	P	P	03 59 54.9	-0.2
	comp=Z,46nm,1.1s,mb5.8,baz=44,slow=7.5,SNR=2.8						
ILAR	Eielson Array	96.16	22	P	P	04 00 05.1	+1.1
	comp=Z,0.2nm,0.4s,mb3.9,baz=307,slow=4.3,SNR=5.6						
INK	Inuvik	98.36	16	P	P	04 00 13.7	-0.2
	comp=Z,2.6nm,0.9s,mb4.7,baz=78,slow=2.3,SNR=4.8						
RES	Resolute Bay	98.63	2	*e*P	P	04 00 16.0	+1.0
	comp=Z,10nm,0.9s,mb5.4						
YKA	Yellowknife Ar	107.77	13	PP	PP	04 05 24.7	-3.1
	comp=Z,0.3nm,0.6s,baz=335,slow=7.6,SNR=4.7						
BBB	Bella Bella	111.56	26	PP	PP	04 05 52.7	-3.0
	comp=Z,9.8nm,0.9s,baz=199,slow=9.4,SNR=14						
ULM	Lac du Bonnet	122.75	7	PKP	PKPdf	04 05 33.9	+2.5
	comp=Z,1.2nm,0.6s,baz=320,slow=3.6,SNR=5.6						
NVAR	Mina Array Bea	126.36	31	PKP	PKPdf	04 05 41.6	+3.0
	comp=Z,2.6nm,0.8s,baz=308,slow=1.2,SNR=3.8						
PDAR	Pinedale Array	126.57	21	PKP	PKPdf	04 05 40.1	+1.1
	comp=Z,3.6nm,0.9s,baz=52,slow=1.7,SNR=12						
PDAR				pPKP		04 05 54.2	
	comp=Z,2.3nm,0.9s,baz=202,slow=0.6,SNR=6.1						
PDAR				PP	PP	04 07 36.2	-3.2
	comp=Z,1.3nm,1.0s,baz=27,slow=3.3,SNR=3.9						
MVU	Marysvale	129.17	26	*e*PKPdf	PKPdf	04 05 47.1	+3.0
ANMO	Albuquerque	134.59	23	PKP	PKPdf	04 05 56.3	+1.9
	comp=Z,2.8nm,0.8s,baz=146,slow=1.0,SNR=6.7						
TXAR	Lajitas Array	140.65	24	PKP	PKPdf	04 06 08.0	+2.3
	comp=Z,1.6nm,1.1s,baz=276,slow=0.8,SNR=3.5						
LVC	Limon Verde	156.67	225	PKPab	PKPab	04 07 04.8	+2.2
	comp=Z,6.8nm,0.7s,baz=174,slow=2.6,SNR=7.5						
SDV	Santo Domingo	157.76	314	PKP	PKPdf	04 06 34.5	+1.9
	comp=Z,6.4nm,0.9s,baz=123,slow=0.5,SNR=3.6						
LPAZ	La Paz	159.48	241	PKP	PKPdf	04 06 37.2	+2.7
	comp=Z,3.6nm,0.9s,baz=352,slow=4.0,SNR=5.3						
LPAZ	La Paz	159.48	241	*e*PKPdf	PKPdf	04 06 36.9	+2.4
LPAZ				PKP	PKPdf	04 06 37.2	+2.7
ROSC	El Rosal	163.17	313	PKP	PKPdf	04 06 41.3	+3.0
	comp=Z,4.0nm,0.9s,baz=276,slow=23,SNR=4.2						

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*BJI **26** 03:50:19.6, 5.21N×94.21E, h69^{km}, mB5.6, mb5.3, Ms6.5, Msz6.0*

*CSEM **26** 03:50:20.1, 6.03N×94.44E, h33^{km}, mb5.6*

*IDC **26** 03:50:22.1±0.4, 5.53N×94.26E, h48^{km}±3^{km}, mb4.9/31, mb1 4.9/32, mb1mx4.9/33, Error ellipse: s-maj=15.0km s-min=8.5km az=37.0*

*NEIC **26** 03:50:22.2±0.2, 5.51N×94.25E, mb5.3/53, Error ellipse: s-maj=6.1km s-min=4.3km az=217.0*

ISC 26 03:50:19.9±1.3**, 5.49N**±0.04×**94.25E**±0.04**, h45^{km}**±11^{km}**, h49^{km}**±1.0^{km}**:pP-P, n246, σ0^{s}97**/233**, mb5.2**/94**, MS6.0**/2**, 28C-8D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	13.58	278	P	P	03 53 32.1	-0.1
CM31	Chiang Mai Arr	13.67	19	*e*P	P	03 53 38.8	+5.4
	46nm,0.5s						
CMAR	Chiang Mai Arr	13.67	19	P	P	03 53 35.7	+2.3
	6.3nm,0.3s,baz=209,slow=14,SNR=15						
MDRS	Chennai	15.73	300	*e*P	P	03 53 58.4	-1.7
MDRS				*e*		03 54 06.4	
	comp=Z,321nm,1.5s						
VIS	Vishakhapatnam	16.18	320	*e*P	P	03 54 04.7	-1.0
VIS				*e*		03 54 10.3	
	comp=Z,214nm,1.6s						
TRD	Trivandrum	17.42	281	*e*P	P	03 54 21.8	+0.3
TRD				*e*		03 54 26.7	
	comp=Z,143nm,1.9s						
COCO	West Island	17.75	172	P	P	03 54 27.9	+2.3
	comp=Z,314nm,1.3s						
BOK	Bokaro	19.90	337	*e*P	P	03 54 50.4	-0.1
BOK				*e*		03 55 04.8	
	comp=Z,242nm,1.6s						
SHL	Shillong	20.09	354	*e*P	P	03 54 50.5	-2.0
BLSP	Bilaspur	20.27	326	*e*P	P	03 54 55.1	+0.6
BLSP				*e*		03 54 57.6	
	comp=Z,332nm,1.9s						
QIZ	Qiongzhong	20.30	47	P	P	03 54 55.0	+0.3
MNGI	Mangalore	20.54	292	*e*P	P	03 54 54.5	-2.8
MNGI				*e*		03 54 59.4	
	comp=Z,257nm,1.3s						
KMI	Kunming	21.15	22	*e*P	P	03 55 05.3	+1.9
KMI				AMB	AMB		
	comp=Z,78nm,1.5s,mb4.8						
GOA	Goa	22.38	298	*e*	P	03 55 25.5	+10
	comp=Z,498nm,0.0s						
AKL	Akola	22.55	314	*e*P	P	03 55 16.1	-1.4
AKL				*e*		03 55 24.0	
	comp=Z,230nm,1.4s						
KAD	Karad	22.88	303	*e*P	P	03 55 22.8	+2.1
KAD				*e*		03 55 24.4	
	comp=Z,170nm,1.0s						
PKI	Pulchoki	23.51	340	*e*P	P	03 55 27.3	+0.5
	comp=Z,124nm,0.6s,mb5.5						
DMN	Daman	23.65	339	*e*P	P	03 55 28.6	+0.5
	comp=Z,141nm,0.6s,mb5.6						
GUN	Gumba	23.67	341	*e*P	P	03 55 28.4	+0.1
	comp=Z,172nm,0.6s,mb5.7						
POO	Poona	23.75	305	*e*P	P	03 55 27.7	-1.5
POO				*e*		03 55 33.3	
	comp=Z,160nm,1.6s						
KKN	Kakani	23.76	340	*e*P	P	03 55 29.2	0.0
	comp=Z,320nm,1.1s,mb5.7						
BHPL	Bhopal	23.97	319	*e*P	P	03 55 32.0	+0.7
BHPL				*e*		03 55 34.1	
	comp=Z,149nm,0.7s						
GYA	Guiyang	23.98	28	⇑*i*P	P	03 55 32.5	+1.2
GYA				PP	PP	03 56 06.5	+0.1
GYA				S	S	03 59 45.5	+3.4
GYA				AMB	AMB		
	comp=Z,230nm,1.0s,mb5.6						
GYA				AMB	AMB		
	comp=Z,1µm,4.2s						
GYA				LR	LR		
	comp=N,23µm,15.4s,MS6.0						
GYA				LR	LR		
	comp=E,28µm,16.0s,MS6.0						
GYA				LR	LR		
	comp=Z,34µm,17.2s,MS5.9						
GKN	Gorkha	24.18	339	*e*P	P	03 55 33.8	+0.5
	comp=Z,320nm,0.6s,mb5.9						
SRDI	Scrawed	24.21	125	⇑*i*P	P	03 55 32.9	-0.8
	comp=Z,70nm,1.0s,mb5.0						
LSA	Lhasa	24.25	353	*e*P	P	03 55 35.9	+1.9
	comp=Z,78nm,0.6s,mb5.3						
KELI	Kelakatan	24.35	124	⇑*e*P	P	03 55 35.7	+0.6
	comp=Z,73nm,1.0s,mb5.1						
KOLN	Koldanda	24.36	337	*e*P	P	03 55 36.0	+1.0
	comp=Z,224nm,0.6s,mb5.8						
BOM	Bombay	24.79	304	*e*P	P	03 55 43.0	+3.8
BOM				*e*		03 55 46.4	
	comp=Z,154nm,2.1s						
RATI	Rata	25.49	124	⇓*i*P	P	03 55 42.0	-3.9
	comp=Z,329nm,1.1s,mb5.8						
KEDI	Kedomdong	25.85	122	⇑*i*P	P	03 55 47.2	-2.1
	comp=Z,102nm,1.0s,mb5.3						
CD2	Chengdu	26.82	18	P	P	03 55 57.8	-0.3
PTH	Pithoragarh	27.36	333	*e*P	P	03 56 02.1	-1.0
TGY	Tagaytay City	27.62	70	P	P	03 56 06.5	+0.9
	comp=Z,227nm,0.5s,mb6.1,baz=202,slow=4.8,SNR=7.8						
NDI	New Delhi	28.15	327	*e*P	P	03 56 09.4	-0.9

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NDI                                   e                03 56 13.9
      comp=Z,68nm,1.4s
ENH   Enshi              28.52  28  eP       P         03 56 12.0 -1.5
      comp=Z,25nm,0.5s,mb5.2
WHN   Wuhan              31.28  35 ⇑P       P         03 56 38.3 +0.3
LZH   Lanzhou            31.70  15  eP       P         03 56 41.0 -0.6
LZH                                  AMB      AMB
      comp=Z,110nm,1.4s,mb5.5
GTA   Gaotai             34.14   8  P        P         03 57 02.3 -0.4
GTA                                  AMB      AMB
      comp=Z,32nm,1.0s,mb5.2
NJ2   Nanjing            35.03  38  eP       P         03 57 11.0 +0.5
NJ2                                  PP       PP        03 58 28.5 -1.3
NJ2                                  S        S         04 02 36.0 -2.7
NJ2                                  AMB      AMB
      comp=Z,510nm,6.6s
NJ2                                  LR       LR
      comp=N,41µm,16.0s,MS6.4
NJ2                                  LR       LR
      comp=E,31µm,16.6s,MS6.4
NJ2                                  LR       LR
      comp=Z,20µm,15.8s,MS6.0
SSE   Sheshan            35.88  42  eP       P         03 57 13.8 -3.9
SSE                                  AMB      AMB
      comp=Z,24nm,0.7s,mb5.2
HHC   Hu-ho-hao-te       38.47  21  eP       P         03 57 40.0 +0.7
HHC                                  AMB      AMB
      comp=Z,57nm,1.2s,mb5.2
WMQ   Urumqi             38.61 352  eP       P         03 57 40.8 +0.4
JOW   Kunigami           38.75  53  P        P         03 57 42.8 +1.0
      comp=Z,54nm,0.8s,mb5.3,baz=246,slow=9.0,SNR=10.0
BJT   Baijiatuau         39.63  27  eP       P         03 57 50.0 +1.1
      comp=Z,220nm,1.4s,mb5.7
TKM2  Tokmak 2           40.77 339  P        P         03 57 59.1 +0.8
      SNR=7.7
AAK   Ala-Archa          40.93 338  eP       P         03 58 00.2 +0.6
      comp=Z,38nm,1.2s,mb4.9
DL2   Dalian             41.48  33  P        P         03 58 05.0 +0.8
DL2                                  AMB      AMB
      comp=Z,60nm,1.0s,mb5.2
SONM  Songino Array      43.45  12  P        P         03 58 19.9 -0.4
      comp=Z,23nm,0.9s,mb4.9,baz=196,slow=7.7,SNR=26
SONM                                 pP       pP        03 58 31.9 -0.7
      comp=Z,24nm,0.9s,baz=198,slow=7.8,SNR=9.5
ULN   Ulaanbaatar        43.62  12  eP       P         03 58 20.8 -0.8
      comp=Z,20nm,1.1s,mb4.8
KS15  Wonju Array Si     44.17  39  eP       P         03 58 26.4 +0.1
WRA   Warramunga Arr     46.82 124  P        P         03 58 47.0 -0.5
      comp=Z,61nm,0.7s,mb5.6,baz=302,slow=9.1,SNR=51
WRA                                  pP       pP        03 59 00.7 +0.8
      comp=Z,54nm,1.0s,baz=303,slow=9.1,SNR=9.2
WRAB  Tennant Creek      46.83 124  eP       P         03 58 47.0 -0.5
      comp=Z,127nm,1.0s,mb5.8
HASS  Wahat al Ahsa'     46.93 300  P        P         03 58 49.4 +1.1
ASAR  Alice Springs      48.33 128  P        P         03 58 58.6 -0.7
      comp=Z,33nm,0.8s,mb5.4,baz=307,slow=7.6,SNR=30
ZAL   Zalesovo           48.91 353  P        P         03 59 03.3  0.0
      comp=Z,34nm,1.0s,mb5.3,baz=302,slow=5.4,SNR=26
ZAL                                  pP       pP        03 59 15.0 -0.7
      comp=Z,22nm,0.8s,baz=281,slow=7.9,SNR=8.8
RYDS  Riyadh             49.34 297  P        P         03 59 08.7 +1.7
MZLS  Mizel              50.57 297  P        P         03 59 17.5 +1.0
MAT   Matsushiro         50.69  46  P        P         03 59 16.1 -1.1
MAT   Matsushiro         50.69  46  eP       P         03 59 16.0 -1.2
BVAR  Borovoye Array     51.27 342  P        P         03 59 20.7 -0.7
      comp=Z,20nm,0.6s,mb5.2,baz=141,slow=9.5,SNR=31
BRVK  Borovoye           51.33 342  eP       P         03 59 21.1 -0.7
      comp=Z,38nm,0.9s,mb5.3
PMG   Port Moresby       54.76 105  P        P         03 59 46.9 -0.9
      comp=Z,44nm,0.9s,mb5.5,baz=311,slow=4.3,SNR=10
PMG                                  pP       pP        04 00 01.5 +1.0
      comp=Z,39nm,1.0s,baz=313,slow=5.0,SNR=5.7
PMG   Port Moresby       54.76 105  P        P         03 59 46.9 -0.9
PMG                                  pP       pP        04 00 01.5 +1.0
GNI   Garni              56.18 315  P        P         03 59 56.7 -1.0
      comp=Z,18nm,0.8s,mb5.1,baz=326,slow=5.3,SNR=5.8
GNI                                  pP       pP        04 00 11.0 +0.5
      comp=Z,15nm,0.7s,baz=4.8,slow=11,SNR=6.8
KBRS  Khaybar            56.22 297  P        P         04 00 00.9 +2.7
CTA   Charters Tower     57.08 118  P        P         04 00 03.3 -1.1
      comp=Z,16nm,0.9s,mb5.0,baz=292,slow=8.2,SNR=9.2
CTA                                  pP       pP        04 00 17.2 +0.1
      comp=Z,14nm,1.0s,baz=310,slow=9.0,SNR=4.6
CTAO  Charters Tower     57.08 118  eP       P         04 00 03.0 -1.3
      comp=Z,45nm,1.3s,mb5.3
YNBS  Yanbu‘ al Bahr     57.09 295  P        P         04 00 05.2 +0.7
ASAJ  Asahikawa          57.14  40  P        P         04 00 04.5  0.0
      comp=Z,7.6nm,0.6s,mb4.9,baz=290,slow=9.7,SNR=4.3
KMBO  Kilima Mbogo       57.30 265  P        P         04 00 06.8 +0.8
      comp=Z,19nm,0.8s,mb5.2,baz=58,slow=10.0,SNR=27
KMBO  Kilima Mbogo       57.30 265  eP       P         04 00 07.2 +1.2
UMJS  Umm Lajj           57.85 296  P        P         04 00 11.1 +1.3
ARU   Arti               58.11 338  eP       P         04 00 09.3 -1.8
      comp=Z,18nm,0.9s,mb5.1
STKA  Stephens Creek     58.41 133  P        P         04 00 12.7 -0.9
      comp=Z,15nm,0.7s,mb5.1,baz=311,slow=6.5,SNR=12
YSS   Yuzh-Sakhalins     58.59  37  eP       P         04 00 14.2 -0.4
      comp=Z,110nm,1.4s,mb5.7
TBKS  Tabuk              59.06 300  P        P         04 00 19.4 +1.3
KIV   Kislovodsk         59.16 319  eP       P         04 00 17.4 -1.1
      comp=Z,29nm,0.9s,mb5.3
ASF   Jabal al Asfar     59.62 304  P        P         04 00 22.4 +0.5
      comp=Z,11nm,0.8s,mb4.9,baz=339,slow=5.1,SNR=10
JMQS  Jabal Moqyreh      59.77 300  P        P         04 00 23.8 +0.8
AYUS  ‘Aynunah           60.17 299  P        P         04 00 26.3 +0.5
BDAS  Al Bad‘            60.36 300  P        P         04 00 27.5 +0.5
JMOS  Jabal al Moall     60.48 300  P        P         04 00 28.3 +0.4
ALWS  Ilw as Safayha     60.55 301  P        P         04 00 28.7 +0.3
HAQS  Haql               60.62 300  P        P         04 00 29.2 +0.4
EIL   Elat               60.72 301  P        P         04 00 29.8 +0.3
      comp=Z,18nm,0.8s,mb5.2,baz=91,slow=5.4,SNR=12
EIL                                  pP       pP        04 00 43.4 +1.1
      comp=Z,16nm,1.1s,baz=60,slow=13,SNR=4.0
EIL   Elat               60.72 301  eP       P         04 00 28.3 -1.2
EIL                                  pP       pP        04 00 43.4 +1.1
MEST  Erdemli            62.89 308  i P      P         04 00 43.5 -0.5
AVNT  Avonos             62.91 311  i P      P         04 00 42.9 -1.2
CSS   Prodhromos         63.15 306  eP       P         04 00 45.2 -0.6
      comp=Z,118nm,1.5s,mb5.8
CTKT  Corum              63.47 313  i P      P         04 00 46.1 -1.6
BRTR  Keskin Array B     64.07 312  P        P         04 00 50.4 -1.3
      comp=Z,18nm,0.7s,mb5.2,baz=127,slow=7.5,SNR=37
BRTR                                 pP       pP        04 01 03.6 -1.0
      comp=Z,8.2nm,0.7s,baz=130,slow=6.1,SNR=7.8
ELDT  Eldivan            64.43 312  i P      P         04 00 53.1 -0.9
BALT  Daday              64.74 314  i P      P         04 00 59.7 +3.7
ISP   Isparta            66.00 309  eP       P         04 01 02.9 -1.2
      comp=Z,72nm,1.1s,mb5.6
AYDN  Tasoluk            68.01 308  i P      P         04 01 16.7 -0.1
BTOK  Tokmak             68.29 311  i P      P         04 01 17.4 -1.1
LSZ   Lusaka             68.60 251  eP       P         04 01 21.0 +0.2
      comp=Z,32nm,1.3s,mb5.1
KDAG  Bornova            68.62 309  i P      P         04 01 20.2 -0.3
CFR   Carcaliu           69.37 316⇓iP       P         04 01 24.1 -0.9
CFR   Carcaliu           69.37 316⇓iP       P         04 01 24.1 -1.0
ALN   Alexandroupoli     69.99 311  eP       P         04 01 28.3 -0.6
IDI   Anoyia             70.02 305  P        P         04 01 29.3 +0.1
      comp=Z,28nm,0.7s,mb5.3,baz=91,slow=7.2,SNR=28
AKASG Malin Array Be     70.08 322  P        P         04 01 27.6 -1.8
      comp=Z,12nm,0.6s,mb5.0,baz=85,slow=4.7,SNR=56
AKASG                                pP       pP        04 01 42.7 +0.3
      comp=Z,5.2nm,0.6s,baz=86,slow=4.8,SNR=6.8
ISR   Istrita            70.46 316⇑eP       P         04 01 32.7 +1.0
ISR   Istrita            70.46 316⇑eP       P         04 01 32.7 +1.0
VRI   Vrincioaia         70.49 317⇑iP       P         04 01 32.0 +0.1
VRI   Vrincioaia         70.49 317⇑iP       P         04 01 32.0 +0.1
MLR   Muntele Rosu       70.95 316  P        P         04 01 34.6  0.0
      comp=Z,42nm,1.0s,mb5.3,baz=128,slow=1.4,SNR=22
RZN   Rozhen             71.11 312  i P      P         04 01 35.0 -0.7
PAIG  Paliouri           71.61 310  eP       P         04 01 37.7 -1.0
MMB   Musomiste          71.83 312  i P      P         04 01 38.0 -2.0
SRS   Serrai             71.86 311  eP       P         04 01 38.7 -1.4
SOH   Sokhos             71.99 311  eP       P         04 01 39.8 -1.2
KKB   Krupnik            72.35 312  i P      P         04 01 42.0 -1.0
VTS   Vitosha            72.37 313  i P      P         04 01 42.5 -0.6
AGG   Agios Georgios     72.53 309  eP       P         04 01 42.1 -2.1
LIT   Litokhoron         72.54 310  eP       P         04 01 42.6 -1.7
GRG   Griva              72.72 311  eP       P         04 01 43.9 -1.4
LBTB  Lobatse            73.22 242  eP       P         04 01 49.0 +0.5
BOLS  Boljevac           73.46 314⇓iP       P         04 01 48.5 -1.1
FNA   Florina            73.47 311  eP       P         04 01 47.9 -1.9
SKO   Skopje             73.58 312  i P      P         04 01 48.5 -1.8
KWP   Kalwaria           73.91 320  eP       P         04 01 52.2 +0.1
KOLS  Kolonicke sedl     74.06 319  i P      P         04 01 53.6 +0.6
IGT   Igoumenitsa        74.12 309  eP       P         04 01 52.0 -1.6
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GRUS  Gruza              74.36 314  eP       P         04 01 50.5 -4.4
BOSA  Boshof             74.43 238  eP       P         04 01 55.9 +0.4
      comp=Z,88nm,1.5s,mb5.5
SUW   Suwalki            74.49 325  eP       P         04 01 54.5 -0.9
CRVS  Cervenica-Dubn     74.58 319  eP       P         04 01 56.7 +0.7
FINES FINESS Array B     74.86 332  P        P         04 01 56.6 -0.7
      comp=Z,13nm,0.5s,mb5.1,baz=101,slow=5.7,SNR=52
DIVS  Divcibare          74.90 314⇑iP       P         04 01 56.0 -1.9
KAF   Kangasniemi        74.95 333  ep       P         04 01 57.4 -0.4
      comp=Z,13nm,0.5s,mb5.1,baz=104,slow=5.4
KECS  Kecovo             75.16 319  eP       P         04 01 59.3  0.0
PSZ   Piszkesteto        75.47 318  eP       P         04 02 00.5 -0.6
      comp=Z,7.9nm,0.8s,mb4.7
OJC   Ojcow              75.86 320  eP       P         04 02 03.4 +0.1
MAW   Mawson             76.24 192  P        P         04 02 06.3 +1.2
      comp=Z,7.4nm,0.2s,mb5.2,baz=5.3,slow=4.5,SNR=15
VYHS  Vyhne              76.25 318  i P      P         04 02 05.5  0.0
RHK1  Bakonya            76.48 316⇓eP       P         04 02 06.2 -0.7
OKC   Ostrava-Krasne     76.86 320  eP       P         04 02 09.2 +0.2
KEV   Kevo               77.10 341  ep       P         04 02 09.5 -0.5
      comp=Z,3.7nm,0.6s,mb4.5
MORC  Moravsky Berou     77.25 320  eP       P         04 02 11.4 +0.2
      comp=Z,44nm,0.5s,mb5.6
ZST   Bratislava         77.36 318  i P      P         04 02 12.3 +0.5
ZST                                 epP      pP        04 02 26.3 +1.3
ARCES ARCESS Array B     77.53 340  P        P         04 02 12.0 -0.3
      comp=Z,4.9nm,0.6s,mb4.6,baz=92,slow=5.2,SNR=14
ARCES                                pP       pP        04 02 26.9 +1.4
      comp=Z,8.1nm,0.6s,baz=101,slow=6.2,SNR=7.6
ARCES ARCESS Array B     77.53 340  P        P         04 02 12.0 -0.3
ARCES                                pP       pP        04 02 26.9 +1.4
GKP   Gorka Klasztor     77.86 323  eP       P         04 02 14.3 -0.1
DPC   Dobruska-Polom     78.09 320  eP       P         04 02 16.5 +0.7
KTK1  Kautokeino         78.15 340  eP       P         04 02 16.2 +0.5
KTK1                                epP      pP        04 02 30.3 +1.4
KSP   Ksiaz              78.16 321⇓eP       P         04 02 16.8 +0.7
KSP   Ksiaz              78.16 321  eP       P         04 02 16.7 +0.6
BILL  Bilibino           78.25  21  eP       P         04 02 15.4 -0.8
      comp=Z,11nm,0.9s,mb4.8
UPC   Upice              78.30 320  eP       P         04 02 17.4 +0.5
ARSA  Arzberg            78.34 317⇑iP       P         04 02 17.6 +0.4
      comp=Z,48nm,1.3s,mb5.3
ARSA  Arzberg            78.34 317⇑iP       P         04 02 17.6 +0.4
      comp=Z,48nm,1.3s,mb5.3
OBKA  Obir               78.95 316⇑iP       P         04 02 21.3 +0.7
      comp=Z,35nm,1.2s,mb5.2
OBKA  Obir               78.95 316⇑iP       P         04 02 21.3 +0.7
      comp=Z,35nm,1.2s,mb5.2
SUR   Sutherland         79.08 236  eP       P         04 02 23.2 +1.6
      comp=Z,125nm,1.6s,mb5.6
PRU   Pruhonice          79.20 320  eP       P         04 02 22.2 +0.3
PVCC  Panska Ves         79.22 320  eP       P         04 02 22.5 +0.5
MOA   Molln              79.23 318⇑iP       P         04 02 21.8 -0.3
      comp=Z,22nm,1.3s,mb4.9
MOA   Molln              79.23 318⇑iP       P         04 02 21.8 -0.3
      comp=Z,22nm,1.3s,mb4.9
PTQR  Pietraquaria       79.55 312  eP       P         04 02 22.1 -1.9
AQU   L’Aquila           79.56 312  eP       P         04 02 23.6 -0.4
      comp=Z,22nm,0.8s,mb5.1
BRG   Berggiesshubel     79.64 321  i P      P         04 02 24.8 +0.6
      comp=Z,25nm,0.9s,mb5.2
BRG                                 i                  04 02 27.6
BRG                                 i        pP        04 02 39.9 +2.4
GEC2  GERESS Array S     79.67 319  eP       P         04 02 24.9 +0.5
      comp=Z,44nm,0.9s,mb5.4
GERES GERESS Array B     79.67 319  P        P         04 02 24.9 +0.5
      comp=Z,29nm,0.8s,mb5.3,baz=90,slow=5.3,SNR=70
GERES                                pP       pP        04 02 39.0 +1.3
      comp=Z,10nm,0.7s,baz=90,slow=5.3,SNR=6.9
KHC   Kasperske Hory     79.77 319  eP       P         04 02 25.1 +0.2
PTCC  Patocco-Chiusa     79.77 316  eP       P         04 02 25.2 +0.2
KBA   Koelnbreinsper     79.81 317⇑iP       P         04 02 25.3 +0.1
      comp=Z,22nm,1.2s,mb5.0
KBA   Koelnbreinsper     79.81 317⇑iP       P         04 02 25.3 +0.1
      comp=Z,22nm,1.2s,mb5.0
GMNA  Gemona             79.84 316  eP       P         04 02 25.5 +0.1
SNTG  Esanatoglia        79.93 313  eP       P         04 02 26.1 +0.1
ARV   Arcevia            79.94 313  eP       P         04 02 26.4 +0.4
FSSB  Fossombrone        80.07 313  eP       P         04 02 27.2 +0.5
FVI   Forni Avoltri      80.17 316  eP       P         04 02 27.4 +0.2
WET   Wettzell           80.23 319  eP       P         04 02 27.7 +0.3
CLL   Collm              80.27 321⇓iP       P         04 02 27.6  0.0
      comp=Z,22nm,1.0s,mb5.0
CLL   Collm              80.27 321 ⇓P       P         04 02 27.6  0.0
      comp=Z,logA/T=1.3,mb5.0
RSM   Repubblica di      80.31 313  eP       P         04 02 28.9 +0.9
HFS   Hagfors            80.56 330  P        P         04 02 28.6 -0.3
      comp=Z,8.4nm,0.5s,mb5.0,baz=108,slow=4.7,SNR=28
HFS                                  pP       pP        04 02 42.6 +0.4
      comp=Z,4.2nm,0.5s,baz=124,slow=5.3,SNR=6.4
HFS   Hagfors            80.56 330  P        P         04 02 28.6 -0.3
HFS                                  pP       pP        04 02 42.6 +0.4
NKC   Novy Kostel        80.56 320  eP       P         04 02 29.7 +0.6
SFI   Santa Sofia        80.75 313  eP       P         04 02 31.4 +1.2
PGD   Poggio Sodo        80.84 313  eP       P         04 02 32.5 +1.8
CTI   Castel Tesino      80.94 316  eP       P         04 02 31.6 +0.4
VMG   Vicchio            80.97 314  eP       P         04 02 32.5 +1.1
WTTA  Wattenberg         80.98 317⇑iP       P         04 02 31.2 -0.2
      comp=Z,33nm,0.7s,mb5.4
WTTA  Wattenberg         80.98 317⇑iP       P         04 02 31.2 -0.2
      comp=Z,33nm,0.7s,mb5.4
WATA  Walderalm          81.02 317⇑iP       P         04 02 31.0 -0.7
      comp=Z,15nm,0.6s,mb5.1
WATA  Walderalm          81.02 317⇑iP       P         04 02 31.0 -0.7
      comp=Z,15nm,0.6s,mb5.1
SEI   Scarperia          81.10 314  eP       P         04 02 33.3 +1.2
MOX   Moxa               81.11 320  i P      P         04 02 32.1 +0.1
MOX   Moxa               81.11 320  eP       P         04 02 32.1 +0.1
FUR   Furstenfeldbru     81.25 318  eP       P         04 02 32.9 +0.1
SQTA  Sankt Quirin       81.27 317⇑iP       P         04 02 32.8 -0.2
      comp=Z,25nm,0.6s,mb5.3
SQTA  Sankt Quirin       81.27 317⇑iP       P         04 02 32.8 -0.2
      comp=Z,25nm,0.6s,mb5.3
GRA1  Grafenberg Arr     81.33 319  eP       P         04 02 34.1 +0.9
GRF   Grafenberg Arr     81.33 319  eP       P         04 02 34.1 +0.9
MOTA  Moosalm            81.34 317⇑iP       P         04 02 33.0 -0.3
      comp=Z,24nm,0.7s,mb5.2
MOTA  Moosalm            81.34 317⇑iP       P         04 02 33.0 -0.3
      comp=Z,24nm,0.7s,mb5.2
BRMO  Bormio             81.83 316  eP       P         04 02 36.5 +0.6
NB2   NORSAR Subarra     81.85 331  P        P         04 02 34.3 -1.4
      comp=Z,9.8nm,1.1s,mb4.7,baz=94,slow=5.8
NB2   NORSAR Subarra     81.85 331  P        P         04 02 34.3 -1.4
      baz=94,slow=5.9
NOA   NORSAR Array B     81.85 331  P        P         04 02 35.4 -0.2
      comp=Z,2.9nm,0.6s,mb4.4,baz=95,slow=5.6,SNR=8.2
NOA                                  pP       pP        04 02 49.1 +0.1
      comp=Z,10nm,1.3s,baz=98,slow=4.2,SNR=3.6
NOA   NORSAR Array B     81.85 331  P        P         04 02 35.4 -0.2
NOA                                  pP       pP        04 02 49.1 +0.1
CLZ   Clausthal          81.93 321  eP       P         04 02 36.8 +0.5
      comp=Z,28nm,0.8s,mb5.2
BSEG  Bad Segeberg       82.02 324  eP       P         04 02 37.5 +0.8
DAVOX Davos              82.17 316  P        P         04 02 38.5 +0.9
      comp=Z,51nm,0.6s,mb5.6,baz=121,slow=5.8,SNR=89
DAVA  Damuels            82.18 317⇑iP       P         04 02 38.1 +0.5
      comp=Z,46nm,1.3s,mb5.2
DAVA  Damuels            82.18 317⇑iP       P         04 02 38.1 +0.5
      comp=Z,46nm,1.3s,mb5.2
BFO   Black Forest       83.22 318  eP       P         04 02 42.9  0.0
      comp=Z,21nm,0.8s,mb5.2
MCGN  Macugnaga          83.49 316  eP       P         04 02 45.5 +1.1
MOL   Molde              83.64 332  eP       P         04 02 46.5 +1.8
MOL                                  AMb      AMB       04 02 51.1
      comp=Z,64nm,1.6s,mb5.5
MOL                                 epP      pP        04 02 58.9 +0.8
MOL   Molde              83.64 332  eP       P         04 02 46.5 +1.8
      comp=Z,64nm,1.6s,mb5.5
CDF   Champ du Feu       83.92 318  eP       P         04 02 46.3 -0.2
      comp=Z,20nm,0.7s,mb5.0
SBF   Sospel             83.94 313  eP       P         04 02 46.9 +0.2
      comp=Z,106nm,0.7s,mb5.8
BLS5  Blasjo             84.19 329  eP       P         04 02 49.1 +1.6
BLS5                                 AMb      AMB       04 02 56.8
      comp=Z,50nm,2.0s,mb5.3
BLS5  Blasjo             84.19 329  eP       P         04 02 49.1 +1.6
      comp=Z,50nm,2.0s,mb5.3
LPG   La Plagne          84.37 315  eP       P         04 02 49.2 +0.4
      comp=Z,53nm,0.7s,mb5.5
MBDF  Montbardon         84.38 314  eP       P         04 02 48.3 -0.6
      comp=Z,26nm,0.7s,mb5.2
FRF   La Foret Royal     84.52 313  eP       P         04 02 50.0 +0.4
      comp=Z,52nm,0.6s,mb5.5
HAU   Haudompre          84.55 318  eP       P         04 02 49.6 -0.1
      comp=Z,68nm,0.8s,mb5.5
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SSF   Saint Saulge       86.53 317  eP       P         04 02 59.4  0.0
      comp=Z,21nm,0.9s,mb5.0
URZ   Urewera            87.78 129  P        P         04 03 04.8 -0.9
      comp=Z,12nm,0.8s,mb5.2,baz=104,slow=4.4,SNR=6.9
RJF   Les Rejaudoux      88.06 315  eP       P         04 03 07.7 +0.8
      comp=Z,26nm,0.8s,mb5.2
EKA   Eskdalemuir Ar     89.73 325  P        P         04 03 15.3 +0.8
      comp=Z,9.6nm,0.5s,mb5.4,baz=97,slow=5.2,SNR=33
EKA                                  pP       pP        04 03 29.0 +0.9
      comp=Z,5.3nm,0.7s,baz=96,slow=5.6,SNR=4.4
QUIF  Quistinic          90.92 318  eP       P         04 03 20.0 -0.3
      comp=Z,38nm,0.9s,mb5.4
ESDC  Sonseca Array      92.83 310  P        P         04 03 30.5 +1.1
      comp=Z,4.0nm,0.6s,mb5.0,baz=62,slow=4.0,SNR=22
ESDC                                 pP       pP        04 03 44.5 +1.6
      comp=Z,2.7nm,0.7s,baz=53,slow=3.7,SNR=7.1
ILAR  Eielson Array      96.89  22  P        P         04 03 49.2 +2.0
      comp=Z,1.3nm,0.5s,mb4.6,baz=306,slow=3.9,SNR=18
DBIC  Dimbokro           98.37 278  P        P         04 03 56.1 +1.1
      comp=Z,2.7nm,0.8s,mb4.8,baz=118,slow=15,SNR=5.2
INK   Inuvik             99.23  16  P        P         04 03 58.9 +1.1
      comp=Z,1.9nm,0.7s,mb4.7,baz=309,slow=6.0,SNR=5.6
ULM   Lac du Bonnet     123.79   8  PKP      PKPdf     04 09 17.6 +4.4
      comp=Z,2.5nm,0.8s,baz=294,slow=2.2,SNR=3.2
ELK   Elko              126.62  28  eP       PKPdf     04 09 21.4 +2.5
NVAR  Mina Array Bea    126.88  32  PKP      PKPdf     04 09 22.2 +2.8
      comp=Z,3.4nm,1.1s,baz=269,slow=4.2,SNR=7.2
NVAR                                 pPKP               04 09 36.0
      comp=Z,2.6nm,0.8s,baz=308,slow=1.9,SNR=6.4
MNV   Mina              126.96  32  ePKPdf   PKPdf     04 09 20.9 +1.3
PDAR  Pinedale Array    127.33  22  PKP      PKPdf     04 09 21.7 +1.5
      comp=Z,6.0nm,1.2s,SNR=7.9
PDAR                                 pPKP               04 09 36.7
      comp=Z,3.3nm,0.8s,baz=71,slow=2.1,SNR=7.8
MSU   Marysvale         129.82  27  eP       PKPdf     04 09 28.8 +3.7
PV10  Paradox Valley    131.29  24  PKPdf    PKPdf     04 09 30.4 +2.5
ANMO  Albuquerque       135.29  24  PKP      PKPdf     04 09 39.0 +3.6
      comp=Z,2.0nm,0.9s,baz=245,slow=5.1,SNR=4.1
ANMO                                 pPKP               04 09 52.0
      comp=Z,3.2nm,0.8s,baz=256,slow=1.7,SNR=6.8
TXAR  Lajitas Array     141.33  25  PKP      PKPdf     04 09 50.1 +3.5
      comp=Z,0.5nm,0.4s,baz=285,slow=0.1,SNR=7.9
BAO   Brasilia Array    141.61 252  PKP      PKPdf     04 09 51.2 +3.8
BDFB  Brasilia          141.63 252  PKP      PKPdf     04 09 52.6 +5.1
      comp=Z,3.8nm,0.8s,baz=23,slow=2.5,SNR=4.2
SJG   San Juan          149.60 321  PKPbc    PKPdf     04 10 07.0 +6.2
      comp=Z,13nm,0.7s,baz=28,slow=3.4,SNR=6.1
SDV   Santo Domingo     159.24 313  PKPab    PKPab     04 10 53.4 -0.4
      comp=Z,5.3nm,0.9s,baz=259,slow=7.3,SNR=4.3
LPAZ  La Paz            159.67 237  PKPab    PKPab     04 10 55.2 -0.3
      comp=Z,4.9nm,0.8s,baz=91,slow=5.6,SNR=7.8
ROSC  El Rosal          164.65 312  PKP      PKPdf     04 10 22.1 +2.4
      comp=Z,5.1nm,0.8s,baz=1.2,slow=1.9,SNR=6.0
ROSC                                 PKPab    PKPab     04 11 15.6 -1.7
      comp=Z,11nm,0.9s,baz=96,slow=6.2,SNR=4.7
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*BJI **26** 03:51:11.0, 5.36N×94.82E, h16km, mB6.0, mb5.8, Ms6.5, Msz6.4*
*MOS **26** 03:51:12.8±0.9, 5.46N×94.76E, h33km, mb5.8/26, Error ellipse: s-maj=16.4km s-min=7.5km az=122.4*
*NEIC **26** 03:51:12.4±0.2, 5.05N×94.77E, h30km, mb5.7/60, Error ellipse: s-maj=7.3km s-min=4.6km az=202.0*
*IDC **26** 03:51:15.2±0.5, 5.08N×94.79E, h52km±3km, mb5.1/26, mb1 5.2/27, mb1mx5.1/31, Error ellipse: s-maj=19.6km s-min=9.4km az=34.0*
ISC 26 03:51:13.4±0.3, **5.06N**±0.06×**94.81E**±0.04, **h52**km, **h52**km±1.4km**:pP-P, n239,** σ**0.87**/233, **mb5.6**/97, **MS6.2**/2, **40C-1D, Northern Sumatera**

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Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                     Op       ISC        h  m  s    ISC
CM31  Chiang Mai Arr     13.91  17  P        P         03 54 37.5 +7.9
      299nm,0.8s
CMAR  Chiang Mai Arr     13.91  17  P        P         03 54 36.2 +6.6
      6.5nm,0.3s,baz=211,slow=11,SNR=11
CMAR  Chiang Mai Arr     13.91  17  P        P         03 54 36.2 +6.6
CMAR                                 pmax     pmax
      comp=Z,7.0nm,0.3s
MDRS  Chennai            16.43 300  eP       P         03 54 58.1 -4.0
MDRS                                e                  03 55 13.5
      comp=Z,161nm,0.8s
TRD   Trivandrum         18.05 282  eP       P         03 55 20.4 -2.0
BOK   Bokaro             20.51 336  eP       P         03 55 50.7 +0.8
BOK                                 e                  03 55 54.6
      comp=Z,524nm,0.9s
SHL   Shillong           20.58 352  eP       P         03 55 44.9 -5.7
BLSP  Bilaspur           20.94 325  eP       P         03 55 52.7 -1.5
BLSP                                e                  03 55 56.5
      comp=Z,324nm,0.8s
KAD   Karad              23.58 303  eP       P         03 56 16.3 -4.1
KAD                                 e                  03 56 35.3
      comp=Z,168nm,1.0s
GYA   Guiyang            24.10  27⇑iP       P         03 56 27.0 +1.6
GYA                                  AP                 03 56 31.5
GYA                                  XP                 03 56 34.8
GYA                                  PP       PP        03 56 56.3 -4.9
GYA                                  S        S         04 00 33.5 -3.0
GYA                                  AMB      AMB
      comp=Z,560nm,0.7s,mb6.1
GYA                                  AMB      AMB
      comp=Z,1µm,4.2s
GYA                                  LR       LR
      comp=N,28µm,16.2s,MS6.0
GYA                                  LR       LR
      comp=E,34µm,15.4s,MS6.0
GYA                                  LR       LR
      comp=Z,29µm,16.4s,MS5.8
POO   Poona              24.46 305  eP       P         03 56 27.2 -1.8
BHPL  Bhopal             24.66 319  eP       P         03 56 29.0 -1.8
BHPL                                e                  03 56 45.6
      comp=Z,200nm,1.6s
LSA   Lhasa              24.75 352  eP       P         03 56 32.8 +1.2
      comp=Z,294nm,0.6s,mb6.0
TGY   Tagaytay City      27.25  69  P        P         03 56 56.5 +1.4
      comp=Z,1µm,1.1s,mb6.4,baz=245,slow=5.4,SNR=7.2
ENH   Enshi              28.64  27  eP       P         03 57 06.2 -1.3
      comp=Z,145nm,0.7s,mb5.8
AJM   Ajmer              28.72 320  eP       P         03 57 01.6 -6.6
WHN   Wuhan              31.32  34⇑iP       P         03 57 31.5 +0.3
THN   Thein Dam          32.56 329  e        P         03 57 40.2 -1.8
      comp=Z,37nm,0.4s,mb5.7
GTA   Gaotai             34.49   7⇑iP       P         03 57 58.0 -0.6
GTA                                  PP       PP        03 59 15.8  0.0
GTA                                  S        S         04 03 29.0 +6.5
GTA                                  AMB      AMB
      comp=Z,163nm,0.9s,mb6.0
GTA                                  LR       LR
      comp=N,67µm,18.2s,MS6.5
GTA                                  LR       LR
      comp=E,68µm,19.8s,MS6.5
GTA                                  LR       LR
      comp=Z,94µm,20.5s,MS6.5
NJ2   Nanjing            35.03  37  eP       P         03 58 03.5 +0.2
KSH   Kashi              38.29 336  eP       P         03 58 31.3 +0.7
KSH                                 eAP      pP        03 58 35.5 -8.8
KSH                                 eXP      sP        03 58 38.5  -12
KSH                                 ePCP     PcP       04 00 41.5 -2.9
KSH                                  AMB      AMB
      comp=Z,3µm,5.9s
JOW   Kunigami           38.56  52  P        P         03 58 34.1 +1.2
      comp=Z,72nm,0.6s,mb5.6,baz=239,slow=7.4,SNR=9.5
HHC   Hu-ho-hao-te       38.67  20  eP       P         03 58 34.8 +1.0
HHC                                  AP       pP        03 58 44.3 -3.2
HHC                                  XP       sP        03 58 47.5 -6.3
HHC                                  PP       PP        04 00 10.0 +3.4
HHC                                  AMB      AMB
      comp=Z,85nm,0.9s,mb5.5
WMQ   Urumqi             39.11 352  eP       P         03 58 37.0 -0.3
BJT   Baijiatuau         39.77  26  eP       P         03 58 44.0 +1.1
      comp=Z,240nm,0.7s,mb6.0
ULHL  Ulahol             40.55 339  P        P         03 58 50.5 +1.2
      SNR=7.1
UCH   Uchtor             41.18 337  P        P         03 58 55.9 +1.3
      SNR=5.2
KBK   Karagaybulak       41.38 338  P        P         03 58 57.9 +1.7
      SNR=7.8
AML   Almayashu          41.43 336  P        P         03 58 57.9 +1.4
      SNR=12
AAK   Ala-Archa          41.53 337  P        P         03 58 59.8 +2.3
      SNR=5.2
AAK   Ala-Archa          41.53 337  eP       P         03 58 57.6 +0.1
      comp=Z,76nm,0.9s,mb5.3
DL2   Dalian             41.54  32  P        P         03 58 59.0 +1.4
DL2                                  AMB      AMB
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      comp=Z,160nm,0.8s,mb5.7
CHMS  Chumysh            41.75 338   P        P         03 59 00.1 +0.9
      SNR=5.4
EKS2  Erkin-Say          41.84 337   P        P         03 59 01.1 +1.1
      SNR=5.8
USP   Ospenovka          42.07 338   P        P         03 59 02.7 +0.8
      SNR=8.4
SONM  Songino Array      43.76  11   P        P         03 59 15.1 -0.4
      comp=Z,147nm,1.1s,mb5.6,baz=190,slow=8.6,SNR=21
SONM                                 pP       pP        03 59 28.1 -1.3
      comp=Z,20nm,0.8s,baz=198,slow=7.8,SNR=3.7
ULN   Ulaanbaatar        43.92  12  eP        P         03 59 16.1 -0.8
      comp=Z,49nm,0.6s,mb5.4
KS15  Wonju Array Si     44.15  39  eP        P         03 59 18.8 -0.1
ZAK   Zakamensk          45.72   8  eP        P         03 59 30.5 -0.7
WRA   Warramunga Arr     46.12 124   P        P         03 59 34.5 -0.3
      comp=Z,152nm,0.8s,mb6.0,baz=303,slow=9.1,SNR=16
WRA                                  pP       pP        03 59 47.7 -1.0
      comp=Z,48nm,0.8s,baz=305,slow=8.8,SNR=3.5
WRA   Warramunga Arr     46.12 124   P        P         03 59 34.5 -0.3
WRA                                  *PP      pP        03 59 47.7 -1.0
WRA                                  pmax     pmax
      comp=Z,152nm,0.8s
WRA                                  pmax     pmax
      comp=Z,48nm,0.8s
WRAB  Tennant Creek      46.13 124  eP        P         03 59 34.6 -0.3
      comp=Z,175nm,0.7s,mb6.1
TLY   Talaya             47.04   8  eP        P         03 59 41.8 +0.2
TLY                                  pmax     pmax
      comp=Z,54nm,0.8s,mb5.5
TLY   Talaya             47.04   8  eP        P         03 59 41.2 -0.4
      comp=Z,64nm,0.8s,mb5.6
ASAR  Alice Springs      47.63 129   P        P         03 59 46.5 -0.1
      comp=Z,35nm,0.7s,mb5.5,baz=305,slow=7.3,SNR=6.4
HIA   Hailar             48.85  22  eP        P         03 59 54.9 -0.9
      comp=Z,64nm,0.6s,mb5.8
ZAL   Zalesovo           49.40 352   P        P         03 59 59.5 -0.4
      comp=Z,88nm,0.6s,mb6.0,baz=305,slow=6.0,SNR=19
ZAL                                  pP       pP        04 00 13.1 -0.8
      comp=Z,70nm,1.1s,baz=301,slow=8.1,SNR=4.8
ZAL   Zalesovo           49.40 352   P        P         03 59 59.6 -0.3
ZAL                                  *PP      pP        04 00 13.1 -0.8
ZAL                                  pmax     pmax
      comp=Z,88nm,0.6s
ZAL                                  pmax     pmax
      comp=Z,70nm,1.1s
NVS   Novosibirsk        50.51 351  i P       P         04 00 06.4 -2.0
MAT   Matsushiro         50.59  46   P        P         04 00 08.5 -0.8
MAT   Matsushiro         50.59  46  eP        P         04 00 09.0 -0.2
BRVK  Borovoye           51.91 341  eP        P         04 00 18.2 -0.8
      comp=Z,137nm,0.8s,mb5.9
CHKZ  Chkalovo           52.34 342  eP        P         04 00 21.8 -0.4
      comp=Z,352nm,0.7s,mb6.4
PMG   Port Moresby       54.11 105   P        P         04 00 35.1 -0.7
      comp=Z,72nm,1.1s,mb5.5,baz=214,slow=0.4,SNR=5.2
PMG   Port Moresby       54.11 105   P        P         04 00 35.1 -0.7
PMG                                  pmax     pmax
      comp=Z,72nm,1.1s
PMG   Port Moresby       54.11 105   P        P         04 00 35.1 -0.7
CTA   Charters Tower     56.38 118   P        P         04 00 51.3 -0.9
      comp=Z,34nm,0.9s,mb5.4,baz=290,slow=8.7,SNR=8.2
CTA                                  pP       pP        04 01 06.8 +0.3
      comp=Z,15nm,0.8s,baz=294,slow=9.2,SNR=3.3
CTA   Charters Tower     56.38 118   P        P         04 00 51.3 -0.9
CTA                                  *PP      pP        04 01 06.8 +0.3
CTA                                  pmax     pmax
      comp=Z,34nm,0.9s
CTA                                  pmax     pmax
      comp=Z,15nm,0.8s
CTAO  Charters Tower     56.38 118  eP        P         04 00 51.0 -1.1
      comp=Z,55nm,0.9s,mb5.6
GNI   Garni              56.88 315   P        P         04 00 55.3 -0.2
      comp=Z,39nm,0.9s,mb5.5,baz=291,slow=8.5,SNR=5.1
GNI   Garni              56.88 315   P        P         04 00 55.3 -0.2
GNI                                  pmax     pmax
      comp=Z,39nm,0.9s
ASAJ  Asahikawa          57.12  39   P        P         04 00 56.8 -0.3
      comp=Z,38nm,0.8s,mb5.5,baz=248,slow=11,SNR=8.8
ASAJ  Asahikawa          57.12  39   P        P         04 00 56.8 -0.3
ASAJ                                 pmax     pmax
      comp=Z,38nm,0.8s
STKA  Stephens Creek     57.70 133   P        P         04 01 00.5 -1.0
      comp=Z,29nm,0.9s,mb5.3,baz=294,slow=8.2,SNR=5.9
ZEI   Tsey               58.55 318  eP        P         04 01 05.7 -1.4
YSS   Yuzh-Sakhalins     58.60  37⇑iP        P         04 01 06.3 -1.1
YSS                                 e         pP        04 01 19.0 -2.8
YSS                                  pmax     pmax
      comp=Z,70nm,0.8s,mb5.7
KIV   Kislovodsk         59.85 319  eP        P         04 01 13.8 -2.3
KIV                                  pmax     pmax
      comp=Z,104nm,1.2s,mb5.7
KIV                                  pmax     pmax
      comp=N,20nm,0.8s
KIV                                  pmax     pmax
      comp=E,48nm,1.2s
GOF   Gofitskoye         60.09 320  i P       P         04 01 16.0 -1.8
GOF                                  pmax     pmax
      comp=Z,70nm,1.2s,mb5.6
ASF   Jabal al Asfar     60.32 304   P        P         04 01 19.8 +0.3
      comp=Z,19nm,0.9s,mb5.1,baz=358,slow=2.8,SNR=4.0
ASF                                  pP       pP        04 01 33.9 +0.1
      comp=Z,30nm,1.0s,baz=359,slow=6.7,SNR=4.3
MALT  Malatya            60.80 311  eP        P         04 01 21.9 -0.8
      comp=Z,37nm,1.1s,mb5.4
EIL   Elat               61.41 301   P        P         04 01 27.1 +0.2
      comp=Z,22nm,0.9s,mb5.3,baz=122,slow=12,SNR=5.1
EIL                                  pP       pP        04 01 41.7 +0.3
      comp=Z,35nm,1.1s,baz=54,slow=5.5,SNR=4.2
EIL   Elat               61.41 301  eP        P         04 01 26.9  0.0
      comp=Z,37nm,1.0s,mb5.5
EIL                                  pP       pP        04 01 41.7 +0.3
SOC   Sochi              61.68 317  eP        P         04 01 26.5 -2.0
SOC                                  pmax     pmax
      comp=Z,58nm,0.7s,mb5.8
SOC                                  pmax     pmax
      comp=N,18nm,0.9s
SOC                                  pmax     pmax
      comp=E,14nm,1.0s
BRTR  Keskin Array B     64.77 312   P        P         04 01 47.7 -1.3
      comp=E,27nm,0.7s,mb5.4,baz=143,slow=6.2,SNR=13
BRTR  Keskin Array B     64.77 312   P        P         04 01 47.7 -1.3
BRTR                                 pmax     pmax
      comp=Z,27nm,0.7s
MOS   Moscow             67.81 329  eP        P         04 02 06.7 -1.3
OBN   Obninsk            68.10 328⇑iP        P         04 02 08.6 -1.2
OBN                                  pmax     pmax
      comp=Z,54nm,1.1s,mb5.5
SKR   Severo-Kuril’s     68.17  37  eP        P         04 02 06.6 -3.7
SKR                                  pmax     pmax
      comp=Z,120nm,0.8s,mb6.0
KIS   Kishinev           70.04 318  eP        P         04 02 20.0 -1.9
CFR   Carcaliu           70.07 316   S        P         04 02 21.3 -0.8
SANT  Santorini          70.41 307  eP        P         04 02 23.0 -1.3
      comp=Z,88nm,0.8s,mb5.7
PET   Petropavlovsk      70.42  35⇓iP        P         04 02 23.1 -1.0
PET                                  pmax     pmax
      comp=Z,79nm,0.7s,mb5.8
IDI   Anoyia             70.72 306   P        P         04 02 26.4 +0.2
      comp=Z,47nm,0.8s,mb5.5,baz=94,slow=7.4,SNR=7.4
IDI                                  pP       pP        04 02 40.3 -0.7
      comp=Z,55nm,0.8s,baz=81,slow=6.4,SNR=6.6
AKASG Malin Array Be     70.76 322   P        P         04 02 24.4 -1.8
      comp=Z,23nm,0.6s,mb5.3,baz=85,slow=4.7,SNR=18
AKASG                                pP       pP        04 02 39.3 -1.6
      comp=Z,6.8nm,0.7s,baz=84,slow=4.5,SNR=5.5
AKASG Malin Array Be     70.76 322   P        P         04 02 24.4 -1.8
AKASG                                *PP      pP        04 02 39.3 -1.6
AKASG                                pmax     pmax
      comp=Z,23nm,0.6s
AKASG                                pmax     pmax
      comp=Z,7.0nm,0.7s
ISR   Istrita            71.15 316   S        P         04 02 29.2 +0.6
VRI   Vrincioaia         71.19 317   S        P         04 02 29.1 +0.3
MLR   Muntele Rosu       71.64 316   P        P         04 02 31.6  0.0
      comp=Z,77nm,0.8s,mb5.7,baz=154,slow=1.6,SNR=13
MLR                                  pP       pP        04 02 46.1 -0.2
      comp=Z,35nm,0.8s,baz=58,slow=14,SNR=4.1
MLR   Muntele Rosu       71.64 316   P        P         04 02 31.6  0.0
MLR                                  *PP      pP        04 02 46.1 -0.2
MLR                                  pmax     pmax
      comp=Z,77nm,0.9s
MLR                                  pmax     pmax
      comp=Z,35nm,0.8s
LBTB  Lobatse            73.51 242  eP        P         04 02 43.6 +0.6
      comp=Z,18nm,0.7s,mb5.1
KWP   Kalwaria           74.60 320  eP        P         04 02 48.6 -0.2
      comp=Z,182nm,1.0s,mb6.0
KWP   Kalwaria           74.60 320  eP        P         04 02 48.8  0.0
APA   Apatity            74.70 340⇑iP        P         04 02 46.8 -2.2
APA                                 i         pP        04 03 03.1 -0.8
APA                                  pmax     pmax
      comp=Z,78nm,1.0s,mb5.6
KOLS  Kolonicke sedl     74.75 319  eP        P         04 02 50.1 +0.4
KOLS                                e         pP        04 03 06.6 +2.1
SUW   Suwalki            75.17 325  eP        P         04 02 51.2 -0.8
CRVS  Cervenica-Dubn     75.27 319  eP        P         04 02 54.0 +1.3
FINES FINESS Array B     75.49 332   P        P         04 02 53.2 -0.5
      comp=Z,13nm,0.7s,mb5.0,baz=97,slow=7.1,SNR=5.8
FINES                                pP       pP        04 03 07.8 -0.7
      comp=Z,20nm,0.7s,baz=98,slow=7.1,SNR=7.3
FINES FINESS Array B     75.49 332   P        P         04 02 53.2 -0.5
FINES                                *PP      pP        04 03 07.8 -0.7
FINES                                pmax     pmax
      comp=Z,13nm,0.7s
FINES                                pmax     pmax
      comp=Z,20nm,0.7s
FINES FINESS Array B     75.49 332   P        P         04 02 53.2 -0.5
FINES                                pP       pP        04 03 07.8 -0.7
KECS  Kecovo             75.85 319  eP        P         04 02 56.1 +0.1
KECS                                esP       sP        04 03 08.0 -8.5
PKSN  Nyarlorinc         76.04 317⇑iP        P         04 02 57.1  0.0
NIE   Niedzica           76.10 320  eP        P         04 02 57.9 +0.5
OJC   Ojcow              76.55 320  eP        P         04 03 00.0 +0.1
LIKS  Likavka            76.83 319  eP        P         04 03 01.3 -0.3
VYHS  Vyhne              76.94 319  eP        P         04 03 02.0 -0.2
VYHS                                esP       sP        04 03 16.0 -6.8
SRO   Srobarova          77.20 318  eP        P         04 03 04.3 +0.6
SRO                                 esP       sP        04 03 18.7 -5.6
KOLL  Kolacno            77.23 319  eP        P         04 03 03.7 -0.1
KOLL                                e         pP        04 03 20.3 +1.6
OKC   Ostrava-Krasne     77.55 320  eP        P         04 03 05.7 +0.2
RAC   Raciborz           77.55 320  eP        P         04 03 06.2 +0.7
SMOL  Smolenice          77.87 318  eP        P         04 03 07.4 +0.1
SMOL                                esP       sP        04 03 20.7 -7.2
ZST   Bratislava         78.05 318  eP        P         04 03 08.6 +0.3
ZST                                 e         pP        04 03 23.5 +0.3
ARCES ARCESS Array B     78.12 340   P        P         04 03 08.1 -0.2
      comp=Z,25nm,0.6s,mb5.3,baz=90,slow=6.1,SNR=9.6
ARCES                                pP       pP        04 03 23.0 -0.2
      comp=Z,26nm,0.6s,baz=90,slow=3.6,SNR=7.6
ARCES ARCESS Array B     78.12 340   P        P         04 03 08.1 -0.2
ARCES                                *PP      pP        04 03 23.0 -0.2
ARCES                                pmax     pmax
      comp=Z,25nm,0.6s
ARCES                                pmax     pmax
      comp=Z,26nm,0.6s
BILL  Bilibino           78.44  21  eP        P         04 03 09.5 -0.6
      comp=Z,35nm,0.8s,mb5.3
GKP   Gorka Klasztor     78.53 323  eP        P         04 03 09.7 -1.1
KTK1  Kautokeino         78.74 340  eP        P         04 03 12.3 +0.6
KTK1                                 AMb      AMB       04 03 14.2
      comp=Z,83nm,1.2s,mb5.5
KTK1  Kautokeino         78.74 340  eP        P         04 03 12.3 +0.6
      comp=Z,83nm,1.2s,mb5.5
DPC   Dobruska-Polom     78.78 320  eP        P         04 03 12.9 +0.6
KSP   Ksiaz              78.84 321⇑eP        P         04 03 13.0 +0.4
KSP   Ksiaz              78.84 321  eP        P         04 03 13.0 +0.4
FX1   Attu Island--F     78.95  37  eP        P         04 03 12.0 -1.2
UPC   Upice              78.99 320  eP        P         04 03 13.7 +0.3
UPC                                 ex        x         04 03 34.8
PRU   Pruhonice          79.89 320  eP        P         04 03 18.5 +0.2
PVCC  Panska Ves         79.91 320  eP        P         04 03 18.9 +0.5
PTQR  Pietraquaria       80.25 312  eP        P         04 03 20.4  0.0
BRG   Berggiesshubel     80.33 321  i P       P         04 03 21.0 +0.4
BRG                                 i         pP        04 03 31.7 -3.9
BRG                                  pmax     pmax
      comp=Z,47nm,0.9s,mb5.4
BRG   Berggiesshubel     80.33 321  i P       P         04 03 21.0 +0.4
      comp=Z,47nm,0.9s,mb5.4
BRG                                 i         pP        04 03 31.7 -3.9
GEC2  GERESS Array S     80.36 319  eP        P         04 03 21.2 +0.4
GERES GERESS Array B     80.36 319   P        P         04 03 21.5 +0.7
      comp=Z,76nm,0.7s,mb5.7,baz=90,slow=5.3,SNR=27
GERES                                pP       pP        04 03 36.6 +0.8
      comp=Z,32nm,0.9s,baz=106,slow=5.1,SNR=4.0
GERES GERESS Array B     80.36 319   P        P         04 03 21.5 +0.7
GERES                                *PP      pP        04 03 36.6 +0.8
GERES                                pmax     pmax
      comp=Z,76nm,0.7s
GERES                                pmax     pmax
      comp=Z,32nm,0.9s
TRO   Tromso             80.38 340  eP        P         04 03 18.8 -1.7
TRO                                 esP       sP        04 03 33.7 -7.5
KHC   Kasperske Hory     80.46 319  eP        P         04 03 21.4 +0.1
KHC                                 ex        x         04 03 37.8
PTCC  Patocco-Chiusa     80.47 316  eP        P         04 03 21.9 +0.4
NRCA  Norcia             80.49 312  eP        P         04 03 21.6 -0.1
GMNA  Gemona             80.54 316  eP        P         04 03 22.0 +0.1
SNTG  Esanatoglia        80.63 313  eP        P         04 03 22.2 -0.2
ARV   Arcevia            80.64 313  eP        P         04 03 22.8 +0.4
FSSB  Fossombrone        80.77 313  eP        P         04 03 23.2 +0.1
FVI   Forni Avoltri      80.87 316  eP        P         04 03 22.5 -1.1
WET   Wettzell           80.92 319  eP        P         04 03 24.1 +0.3
CLL   Collm              80.95 321⇑iP        P         04 03 23.7 -0.2
CLL                                 e                   04 03 32.0
CLL                                  pmax     pmax
      comp=Z,45nm,1.0s,mb5.3
CLL   Collm              80.95 321⇑iP        P         04 03 23.7 -0.2
      comp=Z,45nm,1.0s,mb5.3
CLL                                 e                   04 03 32.0
CLL                                 e                   04 03 47.0
CLL   Collm              80.95 321 ⇑P        P         04 03 23.7 -0.2
      comp=Z,logA/T=1.7,mb5.4
CLL                                 e*PP      pP        04 03 32.0 -6.9
CLL                                 e                   04 03 47.0
HFS   Hagfors            81.21 330   P        P         04 03 24.6 -0.5
      comp=Z,14nm,0.7s,mb5.0,baz=86,slow=4.8,SNR=6.2
HFS                                  pP       pP        04 03 40.2 +0.2
      comp=Z,21nm,0.8s,baz=119,slow=5.8,SNR=5.5
HFS   Hagfors            81.21 330   P        P         04 03 24.6 -0.5
HFS                                  *PP      pP        04 03 40.2 +0.2
HFS                                  pmax     pmax
      comp=Z,14nm,0.7s
HFS                                  pmax     pmax
      comp=Z,21nm,0.8s
NKC   Novy Kostel        81.25 320  eP        P         04 03 25.7 +0.2
SFI   Santa Sofia        81.44 313  eP        P         04 03 27.6 +0.9
MOR8  Moi Rana           81.50 336  eP        P         04 03 25.8 -0.7
MOR8                                 AMb      AMB       04 03 27.6
      comp=Z,48nm,1.6s,mb5.2
MOR8  Moi Rana           81.50 336  eP        P         04 03 25.8 -0.7
      comp=Z,48nm,1.6s,mb5.2
PGD   Poggio Sodo        81.53 313  eP        P         04 03 28.5 +1.3
CTI   Castel Tesino      81.63 316  eP        P         04 03 28.0 +0.4
MOX   Moxa               81.79 320  eP        P         04 03 28.6 +0.3
MOX   Moxa               81.79 320  i P       P         04 03 28.6 +0.3
SEI   Scarperia          81.80 314  eP        P         04 03 28.9 +0.4
FUR   Furstenfeldbru     81.94 318  eP        P         04 03 29.0 -0.1
GRA1  Grafenberg Arr     82.02 319  eP        P         04 03 30.2 +0.7
      comp=Z,105nm,1.0s,mb5.7
GRF   Grafenberg Arr     82.02 319  eP        P         04 03 30.2 +0.7
GRF                                  pmax     pmax
      comp=Z,105nm,1.0s,mb5.7
GRF   Grafenberg Arr     82.02 319  eP        P         04 03 30.2 +0.7
      comp=Z,105nm,1.0s,mb5.7
LOF   Lofoten            82.07 338⇑iP        P         04 03 30.6 +1.2
NSS   Namsos             82.38 334  eP        P         04 03 29.8 -1.3
NB2   NORSAR Subarra     82.49 331   P        P         04 03 30.7 -1.0
      comp=Z,20nm,0.8s,mb5.1,baz=95,slow=5.0
NB2   NORSAR Subarra     82.49 331   P        P         04 03 30.7 -1.0
      baz=95,slow=5.1
NOA   NORSAR Array B     82.49 331   P        P         04 03 31.0 -0.7
      comp=Z,11nm,0.8s,mb4.8,baz=95,slow=4.9,SNR=8.8
NOA                                  pP       pP        04 03 46.6 -0.1
      comp=Z,9.3nm,0.8s,baz=94,slow=5.5,SNR=4.7
NOA   NORSAR Array B     82.49 331   P        P         04 03 31.0 -0.7
NOA                                  *PP      pP        04 03 46.6 -0.1
NOA                                  pmax     pmax
      comp=Z,11nm,0.9s
NOA                                  pmax     pmax
      comp=Z,9.0nm,0.8s
CLZ   Clausthal          82.61 321  eP        P         04 03 32.7 +0.2
      comp=Z,75nm,1.1s,mb5.6
BSEG  Bad Segeberg       82.69 324  eP        P         04 03 33.4 +0.5
BACM                     82.73 314   P        P         04 03 33.1 -0.1
GRAM                     82.73 314   P        P         04 03 34.1 +0.8
DAVOX Davos              82.87 316   P        P         04 03 34.7 +0.8
      comp=Z,117nm,0.7s,mb6.0,baz=123,slow=5.5,SNR=17
CODM                     82.89 314   P        P         04 03 34.2 +0.1
MUD   Monsted U’grnd     83.40 326  i P       P         04 03 37.0 +0.6
PGF   Pioggiola          83.52 312⇑iP        P         04 03 37.7 +0.3
      comp=Z,128nm,1.3s,mb5.6
PCP   Pian Castagno      83.82 314   P        P         04 03 39.5 +0.7
BFO   Black Forest       83.91 318  eP        P         04 03 39.0 -0.2
BFO                                  pmax     pmax
      comp=Z,58nm,0.9s,mb5.7
BFO   Black Forest       83.91 318  eP        P         04 03 39.0 -0.2
      comp=Z,58nm,0.9s,mb5.7
FIN   Finale Ligure      84.07 314  eP        P         04 03 40.1 +0.1
ORX   Oropa              84.20 315   P        P         04 03 39.8 -0.9
MOL   Molde              84.28 332⇑iP        P         04 03 42.4 +1.7
MOL                                  AMb      AMB       04 03 46.1
      comp=Z,84nm,1.8s,mb5.6
MOL   Molde              84.28 332⇑iP        P         04 03 42.4 +1.7
      comp=Z,84nm,1.8s,mb5.6
IMI   Imperia            84.31 314   P        P         04 03 42.3 +1.1
ROB   Roburent           84.31 314   P        P         04 03 41.0 -0.3
CDF   Champ du Feu       84.61 318⇑iP        P         04 03 42.6 -0.1
      comp=Z,47nm,0.9s,mb5.3
ENR   Entracque          84.63 314   P        P         04 03 43.0 +0.1
SBF   Sospel             84.64 313⇑iP        P         04 03 43.3 +0.4
      comp=Z,134nm,0.9s,mb5.8
STV   Sta Anna Valdi     84.70 314   P        P         04 03 43.3  0.0
RSP   Reno Superiore     84.72 315   P        P         04 03 42.0 -1.3
BHB   Bricherasio        84.73 314   P        P         04 03 42.0 -1.3
LSD   Ceresole Reale     84.78 315   P        P         04 03 42.7 -0.9
BLS5  Blasjo             84.84 329  eP        P         04 03 45.1 +1.6
BLS5                                 AMb      AMB       04 03 46.7
      comp=Z,33nm,2.4s,mb5.0
BLS5  Blasjo             84.84 329  eP        P         04 03 45.1 +1.6
      comp=Z,33nm,2.4s,mb5.0
PZZ   Prazzo             84.85 314   P        P         04 03 43.0 -1.0
FENE  Fenestrelle        84.86 315   P        P         04 03 43.8 -0.2
HINF  Hinteralfeld       84.91 317⇑iP        P         04 03 44.7 +0.5
      comp=Z,7.4nm,0.5s,mb4.8
RRL   Cesana Torines     85.06 315   P        P         04 03 44.2 -0.8
LPG   La Plagne          85.06 315⇑iP        P         04 03 45.7 +0.7
      comp=Z,127nm,0.9s,mb5.8
LPL   La Plagne          85.08 315⇑iP        P         04 03 45.7 +0.6
      comp=Z,170nm,0.9s,mb5.9
MBDF  Montbardon         85.08 314  eP        P         04 03 45.0 -0.1
      comp=Z,78nm,1.4s,mb5.4
FRF   La Foret Royal     85.22 313⇑iP        P         04 03 46.3 +0.5
      comp=Z,174nm,1.1s,mb5.8
HAU   Haudompre          85.25 318⇑iP        P         04 03 45.5 -0.3
      comp=Z,149nm,0.9s,mb5.8
LMR   La Mourre          85.33 313⇑iP        P         04 03 46.7 +0.3
      comp=Z,68nm,1.0s,mb5.4
CABF  La Chapelle        85.48 316⇑iP        P         04 03 47.6 +0.6
      comp=Z,168nm,1.1s,mb5.8
ORIF  Oris-en-Rattie     85.71 315⇑iP        P         04 03 48.9 +0.7
      comp=Z,27nm,0.7s,mb5.3
SMRF  Simiane la Rot     85.97 314  eP        P         04 03 49.8 +0.3
      comp=Z,33nm,0.9s,mb5.3
MEZF  Maizieres J’vi     86.09 318⇑iP        P         04 03 50.3 +0.4
      comp=Z,46nm,0.9s,mb5.4
GIVF  Givet              86.15 320  eP        P         04 03 50.5 +0.3
      comp=Z,50nm,1.0s,mb5.4
BAIF  Baives             86.55 320⇑iP        P         04 03 52.8 +0.6
      comp=Z,101nm,0.9s,mb5.7
VIVF  Saint-Julien-l     86.57 315⇑iP        P         04 03 52.9 +0.5
      comp=Z,71nm,1.0s,mb5.5
SMF   Signal de Mont     87.03 316⇑iP        P         04 03 54.6  0.0
      comp=Z,129nm,0.9s,mb5.8
URZ   Urewera            87.07 129   pP       pP        04 04 10.8 +0.6
      comp=Z,24nm,1.0s,baz=315,slow=6.1,SNR=3.5
LASF  Ste Croix          87.20 314  eP        P         04 03 56.2 +0.7
      comp=Z,158nm,1.5s,mb5.7
SSF   Saint Saulge       87.22 317⇑iP        P         04 03 55.8 +0.3
      comp=Z,42nm,0.9s,mb5.3
BGF   Bois d’Agland      87.72 316⇑iP        P         04 03 58.5 +0.6
      comp=Z,129nm,1.1s,mb5.8
HYF   Humbligny          87.80 317  eP        P         04 03 59.1 +0.8
TCF   Toulx Ste Croi     88.18 316  eP        P         04 04 00.7 +0.6
      comp=Z,58nm,1.2s,mb5.4
CAF   Calviac            88.41 315⇑iP        P         04 04 02.0 +0.7
      comp=Z,110nm,1.3s,mb5.6
MTLF  Montolieu          88.45 313⇑iP        P         04 04 01.8 +0.3
      comp=Z,89nm,1.2s,mb5.6
RJF   Les Rejaudoux      88.76 315⇑iP        P         04 04 03.8 +0.9
      comp=Z,75nm,1.1s,mb5.6
LFF   La Frestale        89.34 315  eP        P         04 04 06.7 +1.0
LDF   La Druitiere       89.50 319⇑iP        P         04 04 06.7 +0.3
      comp=Z,117nm,0.9s,mb5.9
FLN   La Foliniere       89.72 319⇑iP        P         04 04 07.8 +0.4
      comp=Z,139nm,0.9s,mb6.0
MFF   Saint Martin d     89.76 317⇑iP        P         04 04 08.1 +0.5
      comp=Z,104nm,1.0s,mb5.8
GRR   Gorron             90.02 318⇑iP        P         04 04 09.5 +0.7
      comp=Z,216nm,1.3s,mb6.0
EKA   Eskdalemuir Ar     90.40 326   P        P         04 04 11.0 +0.6
      comp=Z,28nm,0.8s,mb5.6,baz=100,slow=5.4,SNR=15
EKA                                  pP       pP        04 04 27.1 +1.4
      comp=Z,6.9nm,0.7s,baz=88,slow=5.0,SNR=4.6
EKA   Eskdalemuir Ar     90.40 326   P        P         04 04 11.0 +0.6
EKA                                  *PP      pP        04 04 27.1 +1.4
EKA                                  pmax     pmax
      comp=Z,28nm,0.8s
EKA                                  pmax     pmax
      comp=Z,7.0nm,0.7s
ETSF  Etsaut             90.52 313  eP        P         04 04 12.2 +0.9
      comp=Z,76nm,1.1s,mb5.6
SGMF  Saint Gilles       91.16 318⇑iP        P         04 04 14.7 +0.6
      comp=Z,88nm,1.1s,mb5.7
QUIF  Quistinic          91.61 318⇑iP        P         04 04 16.5 +0.3
      comp=Z,29nm,0.7s,mb5.4
ROSF  Rostrenen          91.62 319  eP        P         04 04 16.8 +0.6
      comp=Z,46nm,0.8s,mb5.6
ESDC  Sonseca Array      93.53 310   P        P         04 04 25.9 +0.7
      comp=Z,2.6nm,0.6s,mb4.8,baz=61,slow=4.2,SNR=6.7
ESDC                                 pP       pP        04 04 41.8 +1.3
      comp=Z,2.3nm,0.6s,baz=62,slow=4.2,SNR=7.6
ILAR  Eielson Array      97.08  22   P        P         04 04 39.5 -1.3
      comp=Z,2.0nm,0.7s,mb4.6,baz=296,slow=4.1,SNR=7.2
INK   Inuvik             99.49  16   P        P         04 04 51.9 +0.3
      comp=Z,5.6nm,0.7s,mb5.2,baz=315,slow=3.6,SNR=6.4
INK                                  pP       pP        04 05 07.8 +0.9
      comp=Z,3.0nm,0.7s,baz=351,slow=2.1,SNR=3.9
INK   Inuvik             99.49  16   P        P         04 04 51.9 +0.3
INK                                  pP       pP        04 05 07.8 +0.9
ULM   Lac du Bonnet     124.14   8   PKP      PKPdf     04 10 08.2 +1.7
      comp=Z,22nm,1.1s,baz=329,slow=1.1,SNR=8.7
ULM                                  pPKP               04 10 24.9
      comp=Z,5.1nm,0.8s,baz=13,slow=3.0,SNR=4.2
GCMT  Greycliff         124.87  21  ePKP      PKPdf     04 10 09.4 +1.4
NVAR  Mina Array Bea    126.94  32   PKP      PKPdf     04 10 14.9 +2.6
      comp=Z,7.4nm,0.8s,baz=3.8,slow=0.7,SNR=11
NVAR                                 pPKP               04 10 30.3
      comp=Z,4.5nm,0.8s,baz=70,slow=1.1,SNR=5.2
PDAR  Pinedale Array    127.51  23   PKP      PKPdf     04 10 14.3 +1.1
      comp=Z,6.9nm,0.8s,baz=65,slow=1.5,SNR=11
PDAR                                 pPKP               04 10 30.2
      comp=Z,2.8nm,0.8s,baz=76,slow=6.1,SNR=6.1
ANMO  Albuquerque       135.44  25   PKP      PKPdf     04 10 31.0 +2.6
      comp=Z,7.9nm,0.8s,baz=204,slow=1.7,SNR=9.7
TXAR  Lajitas Array     141.47  26   PKP      PKPdf     04 10 43.8 +4.3
      comp=Z,6.9nm,0.8s,baz=70,slow=0.7,SNR=9.4
SDV   Santo Domingo     159.94 314   PKP      PKPdf     04 11 09.4 +1.9
      comp=Z,25nm,1.3s,baz=176,slow=3.0,SNR=4.7
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*IDC **26** 03:54:40.3±0.5, 6.64N×93.04E, mb4.8/23, mb1 4.9/24, mb1mx4.8/26, Error ellipse: s-maj=25.5km s-min=13.6km az=44.0*

*NEIC **26** 03:54:44.8±0.4, 6.48N×92.89E, $h30^{km}$, mb5.1/11, Error ellipse: s-maj=13.4km s-min=10.2km az=51.0*

*BJI **26** 03:54:44.1, 6.51N×93.46E, $h13^{km}$, mb5.3*

ISC 26 03:54:42.8±0.4, **6.50N**±0.07×**92.92E**±0.07, **$h30^{km}$, n49, $\sigma 1^{s}15$**/42, **mb4.9**/33, **Nicobar Islands region**

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Code  Station Name        Δ°   AZ°    Phase ID           Time      Res
                                     Op       ISC       h  m  s    ISC
CMAR  Chiang Mai Arr     13.25  26   Pn       P         03 57 54.2 +2.6
      baz=230,slow=13,SNR=4.2
QIZ   Qiongzhong         20.64  51   P        P         03 59 23.5 +0.7
KMI   Kunming            20.77  26  eP        P         03 59 23.8 -0.2
KMI                                  AP                 03 59 28.3
KMI                                  AMB      AMB
      comp=Z,74nm,0.8s
NJ2   Nanjing            35.09  40  eP        P         04 01 35.3 -0.3
NJ2                                  AMB      AMB
      comp=Z,70nm,0.5s,mb5.8
JOW   Kunigami           39.23  55   P        P         04 02 12.0 +1.6
      comp=Z,30nm,0.7s,mb5.1,baz=266,slow=14,SNR=6.0
AAK   Ala-Archa          39.50 338  eP        P         04 02 12.0 -0.6
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	comp=Z,29nm,1.0s,mb5.0						
SONM	Songino Array	42.76	13	P	P	04 02 39.9	+0.6
	comp=Z,4.2nm,0.6s,mb4.3,baz=195,slow=9.1,SNR=2.9						
ULN	Ulaanbaatar	42.95	14	eP	P	04 02 43.1	+2.3
	comp=Z,5.7nm,0.8s,mb4.3						
ZAL	Zalesovo	47.75	354	P	P	04 03 18.9	-0.1
	comp=Z,8.5nm,0.4s,mb5.1,baz=298,slow=6.2,SNR=5.7						
WRA	Warramunga Arr	48.48	124	P	P	04 03 24.7	-0.4
	comp=Z,9.3nm,0.6s,mb5.0,baz=304,slow=8.7,SNR=9.3						
WRAB	Tennant Creek	48.48	124	eP	P	04 03 25.9	+0.7
	comp=Z,57nm,0.9s,mb5.6						
BVAR	Borovoye Array	49.91	342	P	P	04 03 35.1	-0.6
	comp=Z,6.8nm,0.8s,mb4.7,baz=130,slow=12,SNR=3.2						
ASAR	Alice Springs	49.99	128	P	P	04 03 36.5	-0.3
	comp=Z,6.2nm,0.6s,mb4.8,baz=303,slow=7.7,SNR=5.3						
CHKZ	Chkalovo	50.41	343	eP	P	04 03 38.8	-0.7
	comp=Z,18nm,0.8s,mb5.2						
KMBO	Kilima Mbogo	56.08	264	P	P	04 04 23.9	+1.9
	comp=Z,11nm,0.9s,mb4.9,baz=56,slow=10,SNR=11						
KMBO	Kilima Mbogo	56.08	264	eP	P	04 04 23.8	+1.8
	comp=Z,12nm,0.9s,mb4.9						
PMG	Port Moresby	56.30	106	P	P	04 04 22.9	-0.8
	comp=Z,18nm,0.7s,mb5.2,baz=303,slow=4.6,SNR=7.6						
PMG	Port Moresby	56.30	106	eP	P	04 04 22.4	-1.3
	comp=Z,22nm,0.8s,mb5.2						
PMG				e	pP	04 04 32.8	-0.1
KIV	Kislovodsk	57.53	319	eP	P	04 04 30.9	-1.1
	comp=Z,22nm,1.0s,mb5.1						
CTA	Charters Tower	58.71	118	P	P	04 04 40.1	-0.4
	comp=Z,2.3nm,0.7s,mb4.3,baz=330,slow=14,SNR=3.8						
EIL	Elat	59.07	301	P	P	04 04 43.7	+0.8
	comp=Z,19nm,0.9s,mb5.1,baz=70,slow=1.1,SNR=5.7						
EIL	Elat	59.07	301	eP	P	04 04 43.5	+0.6
	comp=Z,22nm,0.9s,mb5.2						
EIL				e		04 04 50.0	
STKA	Stephens Creek	60.06	132	P	P	04 04 48.3	-1.4
	comp=Z,7.6nm,0.7s,mb4.8,baz=326,slow=5.4,SNR=5.1						
BRTR	Keskin Array B	62.42	312	P	P	04 05 04.3	-1.2
	comp=Z,4.8nm,0.7s,mb4.7,baz=124,slow=7.0,SNR=4.1						
LSZ	Lusaka	67.67	251	eP	P	04 05 40.7	+0.8
	comp=Z,13nm,1.3s,mb4.8						
IDI	Anoyia	68.36	305	P	P	04 05 44.1	+0.2
	comp=Z,14nm,0.8s,mb5.0,baz=75,slow=7.6,SNR=3.6						
AKASG	Malin Array Be	68.48	322	P	P	04 05 42.0	-2.4
	comp=Z,3.7nm,0.7s,mb4.6,baz=86,slow=4.8,SNR=4.1						
MLR	Muntele Rosu	69.31	316	P	P	04 05 49.2	-0.4
	comp=Z,12nm,0.8s,mb4.9,baz=96,slow=18,SNR=3.1						
LBTB	Lobatse	72.53	241	P	P	04 06 10.6	+1.2
	comp=Z,12nm,0.8s,mb4.9						
FINES	FINESS Array B	73.36	333	P	P	04 06 12.3	-1.2
	comp=Z,7.2nm,0.7s,mb4.7,baz=104,slow=7.9,SNR=4.2						
FINES	FINESS Array B	73.36	333	P	P	04 06 12.3	-1.2
ARCES	ARCESS Array B	76.14	340	P	P	04 06 27.9	-1.5
	comp=Z,6.3nm,0.7s,mb4.7,baz=83,slow=7.3,SNR=3.6						
MAW	Mawson	76.96	191	P	P	04 06 36.6	+2.7
	comp=Z,6.5nm,0.8s,mb4.6,baz=10,slow=6.5,SNR=4.9						
GERES	GERESS Array B	78.04	318	P	P	04 06 40.7	+0.4
	comp=Z,4.6nm,0.7s,mb4.5,baz=84,slow=6.0,SNR=4.5						
LPL	La Plagne	82.74	315	eP	P	04 07 06.1	+0.8
	comp=Z,38nm,0.9s,mb5.1						
EKA	Eskdalemuir Ar	88.16	325	P	P	04 07 32.4	+0.3
	comp=Z,3.4nm,0.6s,mb4.8,baz=100,slow=5.4,SNR=7.1						
ESDC	Sonseca Array	91.17	310	P	P	04 07 47.4	+0.9
	comp=Z,3.0nm,0.7s,mb4.8,baz=61,slow=3.8,SNR=9.8						
ESLA	Sonseca Array	91.17	310	eP	P	04 07 47.4	+0.9
	comp=Z,0.2nm,0.5s						
VNDA	Vanda	91.84	168	P	P	04 07 47.7	-1.0
	comp=Z,2.2nm,0.9s,mb4.5,baz=48,slow=4.4,SNR=3.3						
VNDA	Vanda	91.84	168	P	P	04 07 47.7	-1.1
BORG	Borgarnes	94.21	337	P	P	04 07 58.4	-1.5
	comp=Z,45nm,1.1s,mb5.8,baz=305,slow=2.9,SNR=3.7						
ILAR	Eielson Array	96.46	22	P	P	04 08 07.0	-3.3
	comp=Z,1.5nm,0.9s,mb4.4,baz=293,slow=5.4,SNR=4.1						
YKA	Yellowknife Ar	108.03	13	Pdiff	Pdif	04 09 04.0	+2.3
	comp=Z,0.6nm,0.8s,baz=334,slow=7.2,SNR=4.2						
YKA	Yellowknife Ar	108.03	13	Pdif	Pdif	04 09 04.0	+2.3
NVAR	Mina Array Bea	126.71	31	PKP	PKPdf	04 13 47.4	-1.7
	comp=Z,2.4nm,0.7s,baz=318,slow=1.3,SNR=5.4						
PDAR	Pinedale Array	126.87	21	PKP	PKPdf	04 13 46.5	-2.7
	comp=Z,1.7nm,0.7s,baz=56,slow=1.4,SNR=4.9						
ANMO	Albuquerque	134.90	23	PKhKP		04 13 57.5	
	comp=Z,3.4nm,0.7s,baz=353,slow=4.3,SNR=7.5						
TXAR	Lajitas Array	140.96	23	PKhKP		04 14 01.4	
	comp=Z,5.4nm,1.1s,baz=346,slow=5.2,SNR=4.8						
TXAR				PKP	PKPdf	04 14 13.8	-2.3
	comp=Z,1.8nm,0.7s,baz=64,slow=1.5,SNR=6.7						
PCRV	Puerto La Cruz	152.18	306	PKPbc	PKPdf	04 14 36.8	+1.9
	comp=Z,5.1nm,0.5s,baz=349,slow=4.1,SNR=6.5						

*CSEM **26** 03:55:48.9±0.8, 45.71N×26.68E, h133^{km}±7^{km}, MD3.6/3, Error ellipse: s-maj=6.0km s-min=4.7km az=134.0, After BUC*

BUC 26 03:55:48.9±0.8**, 45.71N×26.68E, h133**^{km}±7^{km}**, MD3.6**/3**, 6C-4D, Error ellipse: s-maj=6.0km s-min=4.7km az=134.0, Romania**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VRI	Vrincioaia	0.16	11	⇑iP	P	03 56 07.1	0.0
VRI				iS	S	03 56 20.5	-0.5
BRD	Bordesti	0.29	123	⇓iP	P	03 56 08.8	+1.4
BRD				iS	S	03 56 24.2	+2.6
MLR	Muntele Rosu	0.56	247	iS	S	03 56 23.7	-0.3
MLR	Muntele Rosu	0.56	247	⇑iP	P	03 56 09.0	+0.2
MLR				iS	S	03 56 23.7	-0.3
ISR	Istrita	0.60	190	⇑iP	P	03 56 09.7	+0.7
ISR				iS	S	03 56 25.7	+1.3
SNX	Sinaia	0.90	247	⇓iP	P	03 56 11.9	+0.7
SNX				iS	S	03 56 28.1	-0.2
CFR	Carcaliu	1.15	117	⇑iP	P	03 56 14.1	+0.3
CFR				iS	S	03 56 31.7	-1.0
BUC	Bucharest	1.36	198	iS	S	03 56 37.3	+0.4
BUC1	Bucharest	1.44	199	⇓iP	P	03 56 16.8	-0.1
BUC1				iS	S	03 56 37.3	-1.1
TLCR		1.59	109	⇑iP	P	03 56 18.5	-0.1
TLCR				S	S	03 56 40.0	-1.3
IAS	Iasi	1.60	22	⇓iP	P	03 56 18.5	-0.2
IAS				iS	S	03 56 40.6	-0.9
TIRR	Tirgusor	1.75	135	⇑iP	P	03 56 20.4	-0.1
TIRR				S	S	03 56 42.3	-2.3
ZIMR		2.26	205	S	S	03 56 52.8	-2.8

NEIC 26 03:56:28.3, 37.96N×118.66W, h8^{km}**, ML3.9**(REN)**, After REN., California-Nevada border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OMM	Old Mammoth Mi	0.43	218	eP	Pg	03 56 36.7	-0.4
MTUM	Tungsten Hills	0.61	173	eP	Pg	03 56 39.9	-0.7
MNV	Mina	0.62	40	eP	Pg	03 56 39.8	-1.0
TPH	Tonopah	1.14	84	eP	Pb	03 56 49.5	-0.5
TPH				eS	Sb	03 57 04.7	0.0
CMB	Columbia Colle	1.36	274	eP	Pb	03 56 52.7	-1.0
WCN	Washoe City	1.59	328	eP	Pn	03 56 57.0	0.0
PAHR	Pah Rah Range	1.83	342	eP	Pn	03 57 01.0	+0.6
DAC	Darwin (Calif)	1.88	153	eP	Pn	03 57 01.4	+0.2
TPNV	Topopah Spring	2.17	117	ePn	Pn	03 57 05.1	-0.2
LRV	Little Rabbit	2.43	232	ePn	Pn	03 57 09.6	+0.7
TRCR	Troy Canyon	2.46	80	ePn	Pn	03 57 10.8	+1.4
SAO	San Andreas Ge	2.52	243	ePn	Pn	03 57 10.2	0.0
OHCM	Honcut	2.60	303	ePn	Pn	03 57 10.6	-0.8
OHCM				ePg	Pg	03 57 13.5	-6.8
BMN	Battle Mountai	2.71	24	ePn	Pn	03 57 11.7	-1.3
SAC	San Andreas	3.00	264	ePn	Pn	03 57 16.9	-0.3
NSHM	Saint Helena R	3.16	281	ePn	Pn	03 57 18.8	-0.6
ELK	Elko	3.84	43	ePn	Pn	03 57 27.3	-1.8
ARUT	Antelope Range	4.13	91	ePn	Pn	03 57 31.8	-1.5
PFO	Pinyon Flat Ob	4.70	157	ePn	Pn	03 57 40.3	-0.9
YBH	Yreka Blue Hor	4.89	322	ePn	Pn	03 57 40.5	-3.5
MVU	Marysvale	5.11	82	Pn	Pn	03 57 45.8	-1.2
MSU	Marysvale	5.13	82	ePn	Pn	03 57 43.9	-3.5
DAU	Daniels Canyon	6.25	65	Pn	Pn	03 58 00.1	-3.1
HWUT	Hardware Ranch	6.57	54	Pn	Pn	03 58 06.1	-1.5

*BJI **26** 04:00:36.8, 4.80N×93.80E, h16^{km}, mb5.3, Ms6.2, Msz6.1*
*IDC **26** 04:00:40.3±0.5, 4.75N×93.77E, mb4.9/22, mb1 4.9/23, mb1mx4.9/25, ML5.3/1, Error ellipse: s-maj=20.8km s-min=12.9km az=43.0*
*NEIC **26** 04:00:42.8±0.2, 4.76N×93.79E, mb5.2/47, Error ellipse: s-maj=8.3km s-min=5.6km az=46.0*
NEIC Possibly two events about 8 seconds apart.
*ORF **26** 04:00:43.6, 4.83N×94.31E, h30^{km}, mb6.0*

ISC 26 04:00:41.3±0.3**, 4.83N**±0.06×**93.86E**±0.05**, h18**^{km}**, h18**^{km}±1.0^{km}**:pP-P, n257,** σ0^{s}**91**/228**, mb5.2**/74**, 28C-4D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.43	20	Pn	P	04 04 05.8	-1.2
	4.4nm,0.3s,baz=226,slow=13,SNR=16						
CMAR	Chiang Mai Arr	14.43	20	Pn	P	04 04 05.8	-1.2
MNGI	Mangalore	20.45	294	eP	P	04 05 21.9	+1.1
MNGI				e		04 05 24.5	
	comp=Z,249nm,1.6s						
PKI	Pulchoki	24.01	341	eP	P	04 05 51.7	-4.6
	comp=Z,362nm,0.8s,mb5.9						
DMN	Daman	24.14	341	eP	P	04 05 53.2	-4.4
	comp=Z,167nm,0.5s,mb5.7						
GUN	Gumba	24.18	343	eP	P	04 05 52.7	-5.2
	comp=Z,360nm,0.8s,mb5.8						
KKN	Kakani	24.26	341	eP	P	04 05 53.7	-5.0
	comp=Z,338nm,0.9s,mb5.8						
GKN	Gorkha	24.66	340	eP	P	04 05 58.4	-4.2
	comp=Z,815nm,1.1s,mb6.2						
KOLN	Koldanda	24.82	338	eP	P	04 05 59.8	-4.3
	comp=Z,506nm,0.8s,mb6.1						
LSA	Lhasa	24.87	354	P	P	04 05 59.0	-5.6
LSA	Lhasa	24.87	354	eP	P	04 05 58.2	-6.4
	comp=Z,23nm,0.9s,mb4.7						
NJ2	Nanjing	35.80	38	eP	P	04 07 42.3	+0.5
NJ2				AMB	AMB		
	comp=Z,110nm,0.6s,mb6.0						
MBWA	Marble Bar	36.20	136	P	P	04 07 44.7	-0.6
	comp=Z,36nm,1.1s,mb5.2						
KZA	Kyzart	40.64	339	P	P	04 08 21.4	-0.7
	SNR=11						
UCH	Uchtor	41.04	338	P	P	04 08 24.0	-1.3
	SNR=31						
KBK	Karagaybulak	41.25	339	P	P	04 08 26.3	-0.8
	SNR=11						
TKM2	Tokmak 2	41.25	340	P	P	04 08 25.7	-1.4
	SNR=14						
AML	Almayashu	41.27	337	P	P	04 08 27.4	+0.1
	SNR=14						
AAK	Ala-Archa	41.40	338	P	P	04 08 28.0	-0.3
	SNR=24						
CHMS	Chumysh	41.62	339	P	P	04 08 28.9	-1.3
	SNR=14						
EKS2	Erkin-Say	41.69	338	P	P	04 08 30.5	-0.2
	SNR=22						
USP	Ospenovka	41.94	339	P	P	04 08 31.2	-1.7
	SNR=28						
DL2	Dalian	42.25	33	P	P	04 08 35.5	+0.1
DL2				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.8						
NWAO	Narrogin (SRO)	43.60	151	P	pP	04 08 53.4	+1.6
	comp=Z,4.7nm,0.6s						
SONM	Songino Array	44.18	12	P	P	04 08 53.5	+2.5
	comp=Z,22nm,0.8s,mb5.0,baz=197,slow=8.2,SNR=20						
SONM	Songino Array	44.18	12	P	P	04 08 53.5	+2.5
ULN	Ulaanbaatar	44.35	13	eP	P	04 08 48.3	-4.0
	comp=Z,8.5nm,0.9s,mb4.5						
SNY	Shenyang	45.39	31	⇑P	P	04 08 59.5	-1.2
SNY				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.3						
WRA	Warramunga Arr	46.78	123	P	P	04 09 12.2	+0.2
	comp=Z,7.1nm,0.6s,mb4.8,baz=300,slow=9.0,SNR=12						
WRA	Warramunga Arr	46.78	123	P	pP	04 09 19.1	+1.7
	comp=Z,35nm,0.6s,baz=300,slow=9.0,SNR=23						
WRA	Warramunga Arr	46.78	123	P	P	04 09 12.2	+0.2
WRA				P	pP	04 09 19.1	+1.7
WRAB	Tennant Creek	46.79	123	eP	P	04 09 11.9	-0.1
	comp=Z,21nm,0.8s,mb5.1						
WRAB				e	pP	04 09 18.8	+1.4
HASS	Wahat al Ahsa’	46.92	300	P	P	04 09 13.9	+0.8
CN2	Changchun	47.76	31	eP	P	04 09 18.5	-1.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.0						
ASAR	Alice Springs	48.23	128	P	P	04 09 21.9	-1.4
	comp=Z,4.2nm,0.9s,mb4.5,baz=301,slow=7.5,SNR=8.0						
ASAR	Alice Springs	48.23	128	P	pP	04 09 30.1	+1.3
	comp=Z,12nm,0.8s,baz=304,slow=7.6,SNR=16						
ASAR	Alice Springs	48.23	128	P	P	04 09 21.9	-1.4
ASAR				P	pP	04 09 30.1	+1.3
QRN	Al-Qurain	49.57	304	eP	P	04 09 34.9	+1.2
QRN				AMb	AMB	04 09 35.6	
	comp=Z,252nm,0.7s						
UMR	Umm Al-Rimmam	50.02	305	eP	P	04 09 38.0	+1.0
UMR				AMb	AMB	04 09 39.6	
	comp=Z,117nm,0.8s,mb6.0						
KAMS	Al Khamasin	50.28	292	P	P	04 09 38.1	-1.1
MIB	Mutribah	50.41	305	eP	P	04 09 40.5	+0.5
MIB				AMb	AMB	04 09 42.4	
	comp=Z,340nm,0.8s						
MZLS	Mizel	50.52	297	P	P	04 09 41.5	+0.5
RST	Umm Al-Ruwaisa	50.59	305	eP	P	04 09 42.1	+0.7
RST				AMb	AMB	04 09 42.9	
	comp=Z,189nm,0.7s,mb6.1						
TATS	Tathlith	51.17	291	P	P	04 09 45.8	-0.1
BRVK	Borovoye	51.84	342	eP	P	04 09 48.7	-1.9
CHKZ	Chkalovo	52.27	343	eP	P	04 09 52.3	-1.5
	comp=Z,84nm,0.8s,mb5.7						
ARSS	Ar Rass	52.72	299	P	P	04 09 57.4	-0.1
BLJS	Baljurashi	52.97	291	P	P	04 10 00.3	+0.8
HILS	Ha’il	54.34	300	P	P	04 10 10.5	+1.0
KBRS	Khaybar	56.18	298	P	P	04 10 23.5	+0.7
GNI	Garni	56.39	316	P	P	04 10 23.9	-0.2
	comp=Z,16nm,0.8s,mb5.1,baz=317,slow=2.0,SNR=13						
GNI	Garni	56.39	316	eP	P	04 10 23.7	-0.5
	comp=Z,39nm,1.1s,mb5.3						
KMBO	Kilima Mbogo	56.86	266	P	P	04 10 27.6	-0.4
	comp=Z,8.4nm,0.9s,mb4.8,baz=58,slow=10,SNR=25						
KMBO	Kilima Mbogo	56.86	266	eP	P	04 10 27.5	-0.4
	comp=Z,11nm,0.9s,mb4.9						
YNBS	Yanbu‘ al Bahr	57.03	296	P	P	04 10 29.5	+0.6
CTA	Charters Tower	57.11	118	P	P	04 10 29.7	+0.1
	comp=Z,6.0nm,0.9s,mb4.6,baz=280,slow=6.5,SNR=6.1						
CTA	Charters Tower	57.11	118	P	P	04 10 29.7	+0.1
CTAO	Charters Tower	57.11	118	eP	P	04 10 29.4	-0.1
	comp=Z,7.6nm,0.9s,mb4.7						
UMJS	Umm Lajj	57.80	297	P	P	04 10 35.4	+1.1
ASAJ	Asahikawa	57.90	40	P	P	04 10 35.2	+0.4
	comp=Z,19nm,0.9s,mb5.1,baz=262,slow=9.3,SNR=4.0						
STKA	Stephens Creek	58.24	132	P	P	04 10 38.1	+0.7
	comp=Z,2.0nm,0.6s,mb4.4,baz=326,slow=8.7,SNR=3.7						
STKA	Stephens Creek	58.24	132	P	P	04 10 38.9	+1.5
ERZM	Erzurum	58.66	314	iP	P	04 10 39.8	-0.4
TBKS	Tabuk	59.06	300	P	P	04 10 44.3	+1.2
KIV	Kislovodsk	59.40	319	P	P	04 10 45.1	-0.2
	comp=Z,336nm,1.0s,SNR=16						
KIV	Kislovodsk	59.40	319	eP	P	04 10 43.7	-1.6
	comp=Z,61nm,1.0s,mb5.6						
JMQS	Jabal Moqyreh	59.77	301	P	P	04 10 48.7	+0.6
ELZG	Elazig	59.89	312	iP	P	04 10 48.8	+0.1
AYUS	‘Aynunah	60.16	300	P	P	04 10 51.5	+0.9
MALT	Malatya	60.24	312	eP	P	04 10 50.9	-0.3
	comp=Z,20nm,0.9s,mb5.2						
BDAS	Al Bad‘	60.35	300	P	P	04 10 52.7	+0.7
JMOS	Jabal al Moall	60.49	301	P	P	04 10 53.3	+0.4
ALWS	Ilw as Safayha	60.55	301	P	P	04 10 53.8	+0.4
MKRJ	Makawir	60.56	304	P	P	04 10 53.2	-0.2
GZT	Gaziantep	60.59	310	iP	P	04 10 53.0	-0.5
HAQS	Haql	60.62	301	P	P	04 10 54.2	+0.4
AQBJ	Aqaba	60.65	301	P	P	04 10 54.2	+0.2
EIL	Elat	60.73	301	P	P	04 10 54.9	+0.4
	comp=Z,45nm,0.8s,mb5.6,baz=72,slow=3.5,SNR=33						
EIL	Elat	60.73	301	eP	P	04 10 54.7	+0.2
	comp=Z,53nm,0.9s,mb5.7						
MZDA	Masada	60.73	303	P	P	04 10 54.6	0.0
DRGI	Dragot	60.77	304	P	P	04 10 54.8	0.0
MBH	Mount Berech	60.78	301	P	P	04 10 55.3	+0.4
MMLI	Mount Malkishu	60.95	304	P	P	04 10 56.0	0.0
KAHT	Ahir Dag	61.20	311	iP	P	04 10 58.0	+0.4
RTMM	Retamin	61.24	303	P	P	04 10 58.7	+0.7
COBT	Iskenderun	61.34	309	iP	P	04 10 59.3	+0.7
HAF	Haifa	61.35	305	P	P	04 10 58.2	-0.5
KZIT	Kziot	61.45	303	P	P	04 10 59.5	+0.1
MEST	Erdemli	63.00	309	iP	P	04 11 08.9	-0.7
AVNT	Avonos	63.05	311	iP	P	04 11 09.7	-0.3
CSS	Prodhromos	63.24	307	eP	P	04 11 10.4	-0.9
	comp=Z,87nm,1.3s,mb5.7						
MBAR	Mbarara	63.28	267	eP	P	04 11 10.5	-1.3
	comp=Z,18nm,1.2s,mb5.1						
CTKT	Corum	63.64	313	iP	P	04 11 14.3	+0.4
BOYT	Boyabat	63.80	314	iP	P	04 11 13.4	-1.5
BRTR	Keskin Array B	64.22	312	P	P	04 11 16.8	-1.0
	comp=Z,20nm,0.7s,mb5.3,baz=126,slow=7.5,SNR=91						
ELDT	Eldivan	64.59	313	iP	P	04 11 19.5	-0.6
ISP	Isparta	66.12	309	eP	P	04 11 29.0	-0.9
	comp=Z,69nm,1.1s,mb5.6						
ESKT	Eskisehir	66.25	311	iP	P	04 11 29.2	-1.6
HENT	Hendek	66.53	313	iP	P	04 11 29.5	-3.1
LSZ	Lusaka	68.02	252	eP	P	04 11 39.9	-2.5
	comp=Z,9.9nm,1.1s,mb4.8						
AYDN	Tasoluk	68.12	309	iP	P	04 11 42.2	-0.4
BTOK	Tokmak	68.42	311	iP	P	04 11 44.0	-0.5
KDAG	Bornova	68.73	309	iP	P	04 11 45.2	-1.3
TIRR	Tirgusor	69.22	316	P	P	04 11 49.1	-0.2
CFR	Carcaliu	69.58	317	⇑iP	P	04 11 51.1	-0.4
CFR	Carcaliu	69.58	317	⇑iP	P	04 11 51.2	-0.3
SANT	Santorini	69.80	307	eP	P	04 11 51.9	-1.0
	comp=Z,66nm,1.0s,mb5.5						
IDI	Anoyia	70.09	306	P	P	04 11 55.1	+0.3
	comp=Z,43nm,0.8s,mb5.4,baz=96,slow=6.6,SNR=27						
IDI	Anoyia	70.09	306	P	P	04 11 55.1	+0.3
ALN	Alexandroupoli	70.14	312	eP	P	04 11 52.4	-2.6
AKASG	Malin Array Be	70.37	322	P	P	04 11 54.7	-1.5
	comp=Z,8.6nm,0.8s,mb4.8,baz=90,slow=4.3,SNR=30						
GVD	Gavdhos	70.68	305	eP	P	04 11 57.9	-0.5
	comp=Z,87nm,1.3s,mb5.5						
VRI	Vrincioaia	70.71	317	⇓eP	P	04 11 58.6	+0.2
VRI	Vrincioaia	70.71	317	⇓eP	P	04 11 58.6	+0.2
MLR	Muntele Rosu	71.16	316	P	P	04 12 01.2	+0.1
	comp=Z,51nm,0.9s,mb5.5,baz=108,slow=1.6,SNR=40						
MLR	Muntele Rosu	71.16	316	P	P	04 12 01.3	+0.2
PAIG	Paliouri	71.75	310	eP	pP	04 12 10.7	+0.5
SRS	Serrai	72.01	312	eP	P	04 12 05.2	-1.0
SOH	Sokhos	72.14	311	eP	P	04 12 06.3	-0.8
KNT	Kendrikon	72.53	312	eP	P	04 12 08.4	-1.0
VTS	Vitosha	72.53	313	P	P	04 12 08.8	-0.6
LBTB	Lobatse	72.56	242	eP	P	04 12 08.2	-1.7
	comp=Z,12nm,1.0s,mb4.8						
AGG	Agios Georgios	72.64	309	eP	P	04 12 08.0	-2.1
LIT	Litokhoron	72.68	310	eP	P	04 12 08.8	-1.4
GRG	Griva	72.87	311	eP	P	04 12 09.9	-1.5
FNA	Florina	73.61	311	eP	P	04 12 14.3	-1.5
BOSA	Boshof	73.75	239	eP	P	04 12 14.8	-2.0
	comp=Z,21nm,1.3s,mb4.9						
KWP	Kalwaria	74.17	320	eP	P	04 12 18.6	-0.2
IGT	Igoumenitsa	74.25	310	eP	P	04 12 17.2	-2.2
KOLS	Kolonicke sedl	74.31	319	eP	P	04 12 20.5	+0.9
SUW	Suwalki	74.81	325	eP	P	04 12 21.8	-0.6
SUW				e	pP	04 12 26.3	-1.6
CRVS	Cervenica-Dubn	74.83	319	eP	P	04 12 24.1	+1.5
DIVS	Divcibare	75.08	314	⇑iP	P	04 12 23.4	-0.7
FINES	FINESS Array B	75.27	333	P	P	04 12 24.6	-0.2
	comp=Z,11nm,0.6s,mb5.0,baz=113,slow=5.0,SNR=34						
KAF	Kangasniemi	75.37	333	ep	P	04 12 25.4	0.0
	baz=106,slow=5.3						
MAW	Mawson	75.51	192	P	P	04 12 25.3	-0.8
	comp=Z,4.2nm,0.8s,mb4.4,baz=307,slow=5.1,SNR=5.3						
MAW	Mawson	75.51	192	eP	P	04 12 26.1	0.0
	comp=Z,9.4nm,1.0s,mb4.7						
NIE	Niedzica	75.67	320	eP	P	04 12 28.2	+0.8
PSZ	Piszkesteto	75.70	318	eP	P	04 12 27.7	+0.1
	comp=Z,13nm,0.8s,mb4.9						
OJC	Ojcow	76.12	320	eP	P	04 12 29.9	-0.1
VYHS	Vyhne	76.49	319	eP	P	04 12 31.9	-0.1
VYHS				epP	pP	04 12 37.8	+0.2
RHK1	Bakonya	76.69	316	⇑eP	P	04 12 32.8	-0.4
SRO	Srobarova	76.74	318	epP	pP	04 12 40.3	+1.3
OKC	Ostrava-Krasne	77.12	320	eP	P	04 12 35.8	+0.3
OKC				epP	pP	04 12 40.8	-0.3
SMOL	Smolenice	77.42	319	epP	pP	04 12 43.6	+0.9
ZST	Bratislava	77.60	318	eP	P	04 12 38.8	+0.6
ZST				epP	pP	04 12 43.6	-0.1
KEV	Kevo	77.60	341	ep	P	04 12 38.1	+0.3
ARCES	ARCESS Array B	78.03	340	P	P	04 12 40.6	+0.5
	comp=Z,10nm,0.6s,mb4.9,baz=103,slow=6.3,SNR=17						
DPC	Dobruska-Polom	78.35	320	eP	P	04 12 43.1	+0.8
DPC				epP	pP	04 12 48.4	+0.6
SUR	Sutherland	78.39	236	eP	P	04 12 42.6	-0.2
	comp=Z,42nm,1.4s,mb5.2						
KSP	Ksiaz	78.43	321	⇓eP	P	04 12 43.2	+0.5
KSP				epP	pP	04 12 47.9	-0.3
KSP	Ksiaz	78.43	321	eP	P	04 12 43.4	+0.7
KSP				e	pP	04 12 48.8	+0.6
ARSA	Arzberg	78.56	317	⇑iP	P	04 12 44.3	+0.8
	comp=Z,40nm,1.3s,mb5.2						
ARSA	Arzberg	78.56	317	⇑iP	P	04 12 44.4	+0.9
	comp=Z,40nm,1.3s,mb5.2						
ARSA	Arzberg	78.56	317	⇑iP	P	04 12 44.4	+0.9
	comp=Z,40nm,1.3s,mb5.2						
UPC	Upice	78.57	320	eP	P	04 12 44.3	+0.8
UPC				epP	pP	04 12 49.8	+0.8
KTK1	Kautokeino	78.64	340	eP	P	04 12 45.0	+1.5
KTK1				epP	pP	04 12 49.2	+0.2
KTK1				AMb	AMB	04 12 53.1	
	comp=Z,101nm,1.4s,mb5.5						
KTK1	Kautokeino	78.64	340	eP	P	04 12 45.0	+1.5
	comp=Z,101nm,1.4s,mb5.6						
BILL	Bilibino	79.01	21	eP	P	04 12 46.6	+1.1
	comp=Z,19nm,0.7s,mb5.1						
OBKA	Obir	79.16	316	⇑iP	P	04 12 47.7	+0.9
	comp=Z,19nm,1.6s,mb4.8						
PRU	Pruhonice	79.45	320	eP	P	04 12 49.0	+0.7
PRU				epP	pP	04 12 54.1	+0.2
MOA	Molln	79.46	318	⇑iP	P	04 12 48.6	+0.2
	comp=Z,31nm,1.1s,mb5.1						
MOA	Molln	79.46	318	⇑iP	P	04 12 48.8	+0.4
	comp=Z,31nm,1.1s,mb5.1						
MOA	Molln	79.46	318	⇑iP	P	04 12 48.8	+0.4
	comp=Z,31nm,1.1s,mb5.1						
PVCC	Panska Ves	79.48	320	eP	P	04 12 49.1	+0.6
PTQR	Pietraquaria	79.70	312	eP	pP	04 12 54.5	-0.9
AQU	L’Aquila	79.72	312	eP	P	04 12 49.3	-0.6
	comp=Z,23nm,1.0s,mb5.1						
GEC2	GERESS Array S	79.91	319	eP	P	04 12 51.6	+0.8
GERES	GERESS Array B	79.91	319	P	P	04 12 51.7	+0.9
	comp=Z,12nm,0.9s,mb4.8,baz=90,slow=5.3,SNR=48						
GERES	GERESS Array B	79.91	319	P	P	04 12 51.7	+0.9
BRG	Berggiesshubel	79.91	321	iP	P	04 12 51.7	+1.0
	comp=Z,46nm,1.7s,mb5.1						
PTCC	Patocco-Chiusa	79.98	316	eP	P	04 12 51.5	+0.3
KHC	Kasperske Hory	80.01	319	eP	P	04 12 50.4	-0.9
KBA	Koelnbreinsper	80.03	317	⇑iP	P	04 12 51.7	+0.3
	comp=Z,39nm,1.1s,mb5.2						
GMNA	Gemona	80.05	316	eP	P	04 12 52.0	+0.4
ARV	Arcevia	80.11	313	eP	P	04 12 52.2	+0.2
RUE	Ruedersdorf	80.15	322	eP	P	04 12 52.4	+0.4
	comp=Z,62nm,1.4s,mb5.3						
FSSB	Fossombrone	80.24	313	eP	P	04 12 52.8	+0.1
TRO	Tromso	80.27	340	eP	P	04 12 51.7	-0.6
FVI	Forni Avoltri	80.38	316	eP	P	04 12 53.8	+0.4
WET	Wettzell	80.47	319	eP	P	04 12 54.5	+0.7
CLL	Collm	80.54	321	⇑iP	P	04 12 54.4	+0.3
CLL				i	pP	04 12 59.7	0.0
CLL	Collm	80.54	321	⇑P	P	04 12 54.4	+0.3
CLL	Collm	80.54	321	P	pP	04 12 59.7	0.0
	comp=Z,logA/T=1.3						
NKC	Novy Kostel	80.82	320	eP	P	04 12 56.3	+0.7
NKC				epP	pP	04 13 01.6	+0.4
SFI	Santa Sofia	80.92	314	eP	P	04 12 57.6	+1.3
HFS	Hagfors	80.94	330	P	P	04 12 56.4	+0.4
	comp=Z,9.6nm,0.6s,mb4.9,baz=135,slow=4.2,SNR=7.9						
PGD	Poggio Sodo	81.01	314	eP	P	04 12 58.6	+1.9
CTI	Castel Tesino	81.14	316	eP	P	04 12 57.4	+0.1
VMG	Vicchio	81.14	314	eP	P	04 12 59.0	+1.6
WTTA	Wattenberg	81.20	317	⇑iP	P	04 12 57.4	-0.2
	comp=Z,43nm,0.8s,mb5.4						
WTTA	Wattenberg	81.20	317	⇑iP	P	04 12 57.9	+0.3
	comp=Z,19nm,0.8s,mb5.1						
WTTA	Wattenberg	81.20	317	⇑iP	P	04 12 57.9	+0.3
	comp=Z,19nm,0.8s,mb5.1						
WATA	Walderalm	81.24	317	⇑iP	P	04 12 57.9	0.0
	comp=Z,21nm,0.8s,mb5.1						
WATA	Walderalm	81.24	317	⇑iP	P	04 12 57.7	-0.2
	comp=Z,12nm,0.9s,mb4.8						
WATA	Walderalm	81.24	317	⇑iP	P	04 12 57.7	-0.2
	comp=Z,12nm,0.9s,mb4.8						
SEI	Scarperia	81.28	314	eP	P	04 12 59.0	+0.9
MOR8	Moi Rana	81.33	336	eP	P	04 12 58.0	+0.1
MOR8				AMb	AMB	04 13 06.7	
	comp=Z,63nm,1.5s,mb5.3						
MOR8	Moi Rana	81.33	336	eP	P	04 12 58.0	+0.1
	comp=Z,63nm,1.5s,mb5.3						
MOX	Moxa	81.37	320	iP	P	04 12 59.1	+0.6
MOX	Moxa	81.37	320	eP	P	04 12 59.1	+0.6
FUR	Furstenfeldbru	81.48	318	eP	P	04 12 59.5	+0.4

SQTA	Sankt Quirin	81.49	317	⇓iP	P	04 12 59.2	+0.1
	comp=Z,26nm,0.6s,mb5.3						
SQTA	Sankt Quirin	81.49	317	⇑iP	P	04 12 59.3	+0.2
	comp=Z,12nm,0.7s,mb4.9						
SQTA	Sankt Quirin	81.49	317	⇑iP	P	04 12 59.3	+0.2
	comp=Z,12nm,0.7s,mb4.9						
MOTA	Moosalm	81.56	317	⇑iP	P	04 12 59.6	+0.1
	comp=Z,73nm,1.3s,mb5.5						
MOTA	Moosalm	81.56	317	⇑iP	P	04 12 59.6	+0.1
	comp=Z,6.4nm,0.8s,mb4.6						
GRA1	Grafenberg Arr	81.58	319	eP	P	04 13 00.5	+0.9
	comp=Z,34nm,0.9s,mb5.3						
GRF	Grafenberg Arr	81.58	319	eP	P	04 13 00.5	+0.9
	comp=Z,34nm,0.9s,mb5.3						
LOF	Lofoten	81.94	338	eP	P	04 13 03.9	+2.8
BRMO	Bormio	82.04	316	eP	P	04 13 03.0	+1.0
NSS	Namsos	82.18	334	eP	P	04 13 01.8	-0.6
CLZ	Clausthal	82.20	322	eP	P	04 13 03.4	+0.6
	comp=Z,18nm,0.8s,mb5.0						
NB2	NORSAR Subarra	82.24	331	P	P	04 13 02.0	-0.7
	comp=Z,0.9nm,0.6s,baz=94,slow=6.2						
NB2	NORSAR Subarra	82.24	331	P	P	04 13 02.0	-0.7
	baz=94,slow=6.5						
NOA	NORSAR Array B	82.24	331	P	P	04 13 02.5	-0.3
	comp=Z,6.4nm,1.0s,mb4.5,baz=99,slow=5.8,SNR=12						
BSEG	Bad Segeberg	82.32	324	eP	P	04 13 04.1	+0.8
NAO01	NORSAR Array S	82.38	331	eP	P	04 13 02.4	-1.1
	comp=Z,16nm,1.1s,mb4.8						
DAVOX	Davos	82.39	316	P	P	04 13 04.7	+0.9
	comp=Z,21nm,0.7s,mb5.2,baz=111,slow=5.6,SNR=31						
DAVA	Damuels	82.40	317	⇑iP	P	04 13 04.6	+0.8
DAVA	Damuels	82.40	317	⇑iP	P	04 13 04.9	+1.1
	comp=Z,20nm,1.0s,mb5.0						
DAVA	Damuels	82.40	317	⇑iP	P	04 13 04.9	+1.1
	comp=Z,20nm,1.0s,mb5.0						
VAI	Varese	83.15	315	eP	P	04 13 07.4	-0.4
BFO	Black Forest	83.45	318	eP	P	04 13 09.4	+0.1
	comp=Z,14nm,0.8s,mb5.0						
MOL	Molde	84.05	332	eP	P	04 13 14.6	+2.7
MOL				AMb	AMB	04 13 21.1	
	comp=Z,104nm,1.5s,mb5.7						
MOL	Molde	84.05	332	eP	P	04 13 14.6	+2.7
	comp=Z,104nm,1.5s,mb5.7						
LPL	La Plagne	84.58	315	eP	P	04 13 15.4	+0.3
	comp=Z,137nm,1.0s,mb5.7						
EKA	Eskdalemuir Ar	90.06	325	P	P	04 13 42.0	+0.7
	comp=Z,7.0nm,0.7s,mb5.1,baz=95,slow=5.5,SNR=12						
DAG	Danmarks Havn	90.38	348	eP	P	04 13 43.0	+0.6
DAG	Danmarks Havn	90.38	348	i P	P	04 13 43.0	+0.6
ESDC	Sonseca Array	92.96	310	P	P	04 13 56.1	+1.0
	comp=Z,2.3nm,0.7s,mb4.7,baz=60,slow=4.8,SNR=8.0						
IMA	Indian Mountai	94.53	22	eP	P	04 14 03.8	+2.1
RSO	Redoubt South	97.09	27	P	P	04 14 14.2	+0.7
SPU	Mount Spurr	97.12	26	eP	P	04 14 13.6	0.0
ILAR	Eielson Array	97.66	22	P	P	04 14 15.9	0.0
	comp=Z,0.5nm,0.8s,mb4.1,baz=283,slow=3.8,SNR=3.0						
DBIC	Dimbokro	98.07	277	eP	P	04 14 19.5	+0.5
	comp=Z,4.6nm,1.0s,mb5.0						
YKA	Yellowknife Ar	109.44	14	PP	PP	04 19 43.8	-1.7
	comp=Z,1.1nm,0.9s,baz=338,slow=7.1,SNR=4.4						
SCHQ	Schefferville	118.42	347	PP	PP	04 20 48.2	-1.4
	comp=Z,11nm,0.9s,baz=21,slow=9.5,SNR=6.5						
ULM	Lac du Bonnet	124.50	8	PKP	PKPdf	04 19 42.2	-1.6
	comp=Z,4.8nm,0.7s,baz=3.3,slow=2.2,SNR=8.9						
GCMT	Greycliff	125.42	20	ePKP	PKPdf	04 19 44.2	-1.5
ELK	Elko	127.39	28	ePKPdf	PKPdf	04 19 48.4	-1.2
NVAR	Mina Array Bea	127.65	32	PKP	PKPdf	04 19 49.2	-1.0
	comp=Z,2.2nm,0.7s,baz=275,slow=2.4,SNR=8.2						
MNV	Mina	127.73	32	ePKPdf	PKPdf	04 19 49.8	-0.5
PDAR	Pinedale Array	128.09	22	PKP	PKPdf	04 19 49.4	-1.6
	comp=Z,3.7nm,0.9s,baz=68,slow=0.9,SNR=21						
SADO	Sadowa	130.23	353	PKP	PKPdf	04 19 52.1	-2.8
	comp=Z,5.6nm,0.7s,baz=360,slow=5.2,SNR=3.6						
PV10	Paradox Valley	132.06	24	ePKPdf	PKPdf	04 19 57.6	-1.0
ANMO	Albuquerque	136.05	24	PKP	PKPdf	04 20 02.7	-3.4
	comp=Z,4.2nm,0.8s,baz=223,slow=1.7,SNR=11						
BDFB	Brasilia	141.04	251	PKP	PKPdf	04 20 12.8	-2.9
	comp=Z,3.7nm,0.8s,baz=109,slow=4.1,SNR=4.7						
TXAR	Lajitas Array	142.09	25	PKhKP		04 20 11.1	
	comp=Z,2.7nm,0.8s,baz=315,slow=0.3,SNR=7.5						
HKT	Hockley	144.20	14	ePKPdf	PKPdf	04 20 16.5	-4.2
LVC	Limon Verde	155.71	222	PKPab	PKPab	04 21 03.1	-0.5
	comp=Z,4.6nm,0.9s,baz=198,slow=3.3,SNR=6.9						
LVC	Limon Verde	155.71	222	PKPab	PKPab	04 21 03.1	-0.5
LPAZ	La Paz	158.97	236	PKP	PKPdf	04 20 39.7	-3.3
	comp=Z,2.0nm,0.8s,baz=33,slow=4.2,SNR=4.7						
LPAZ				PKPab	PKPab	04 21 16.6	-1.3
	comp=Z,7.7nm,0.9s,baz=124,slow=3.6,SNR=8.2						
LPAZ	La Paz	158.97	236	ePKPdf	PKPdf	04 20 40.2	-2.8
SDV	Santo Domingo	159.40	311	PKPdf	PKPdf	04 20 41.0	-2.5
ROSC	El Rosal	164.78	309	PKP	PKPdf	04 20 47.0	-2.0
	comp=Z,5.5nm,0.9s,baz=92,slow=13,SNR=5.6						
ROSC				PKPab	PKPab	04 21 43.5	+0.3
	comp=Z,6.2nm,0.8s,baz=252,slow=5.7,SNR=2.9						
OTAV	Otavalo	170.82	303	ePKPdf	PKPdf	04 20 50.5	-2.7

IDC 26 04:00:50.1±1.2**, 4.63N×94.04E, mb4.9**/8**, mb1 5.0**/9**, mb1mx4.8**/20**, ML4.8**/1**, Error ellipse: s-maj=32.5km s-min=22.7km az=85.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.56	19	P	P	04 04 16.1	-3.5
	1.6nm,0.3s,baz=222,slow=12,SNR=8.6						
CMAR	Chiang Mai Arr	14.56	19	P	P	04 04 16.1	-3.4
BOK	Bokaro	20.62	338	e	P	04 05 26.4	-7.4
	comp=Z,316nm,1.4s						
TGY	Tagaytay City	28.13	69	P	P	04 06 45.6	-0.5
	comp=Z,205nm,0.6s,baz=190,slow=6.1,SNR=4.3						
MBWA	Marble Bar	35.94	136	e	P	04 07 51.7	-2.8
NWAO	Narrogin (SRO)	43.34	151	P	P	04 08 54.4	-1.5
	comp=Z,6.8nm,0.6s,baz=299,slow=7.8,SNR=6.4						
SONM	Songino Array	44.34	12	P	P	04 09 02.1	-1.7
	comp=Z,17nm,0.8s,baz=198,slow=7.6,SNR=7.0						
SONM	Songino Array	44.34	12	P	P	04 09 02.1	-1.7
PMG	Port Moresby	54.74	105	P	P	04 10 22.3	-1.9
	comp=Z,7.3nm,0.7s,baz=298,slow=4.9,SNR=4.1						
PMG	Port Moresby	54.74	105	eP	P	04 10 21.0	-3.1
	comp=Z,9.6nm,0.7s						
PMG				P		04 10 22.3	
CTA	Charters Tower	56.86	117	P	P	04 10 37.1	-2.2
	comp=Z,24nm,1.0s,baz=285,slow=9.9,SNR=11						
CTA	Charters Tower	56.86	117	P	P	04 10 37.1	-2.2
CTAO	Charters Tower	56.86	117	e	P	04 10 36.6	-2.7
STKA	Stephens Creek	57.98	132	P	P	04 10 44.7	-2.4
	comp=Z,6.2nm,0.6s,baz=294,slow=6.1,SNR=7.7						
STKA	Stephens Creek	57.98	132	P	P	04 10 44.7	-2.4
MBAR	Mbarara	63.45	267	e	P	04 11 20.2	-4.3
LSZ	Lusaka	68.12	252	eP	P	04 11 52.0	-2.6
LBTB	Lobatse	72.63	242	e	P	04 12 15.9	-6.0
BOSA	Boshof	73.80	239	e	P	04 12 23.8	-5.0
MAW	Mawson	75.35	192	P	P	04 12 36.0	-0.9
	comp=Z,8.8nm,0.8s,baz=16,slow=8.0,SNR=8.2						
MAW	Mawson	75.35	192	e	P	04 12 34.1	-2.8
MAW				P		04 12 36.0	
SUR	Sutherland	78.42	236	e	P	04 12 51.6	-3.1
BILL	Bilibino	79.13	21	e	P	04 12 55.6	-2.3
CLL	Collm	80.80	321	e*PP	PcP	04 13 11.0	-3.3
RSO	Redoubt South	97.18	27	e	P	04 14 22.5	-3.1
BAO	Brasilia Array	141.13	251	PKP	PKPdf	04 20 22.0	-3.5
LPAZ	La Paz	159.01	235	PKP	PKPdf	04 20 50.0	-2.8
	comp=Z,2.0nm,0.8s,baz=44,slow=4.0,SNR=5.6						
LPAZ	La Paz	159.01	235	e	PKPdf	04 20 49.3	-3.4
LPAZ				PKP	PKPdf	04 20 50.0	-2.8
ROSC	El Rosal	165.04	309	PKP	PKPdf	04 20 57.2	-1.8
	comp=Z,7.7nm,0.9s,baz=117,slow=4.5,SNR=5.0						

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*BJI **26** 04:00:56.3, 6.51N×93.91E, h46^{km}, mb5.2*

*NEIC **26** 04:00:58.4±0.2, 6.79N×94.08E, mb5.5/35, Error ellipse: s-maj=7.6km s-min=6.9km az=79.0*

*IDC **26** 04:01:03.7±2.9, 6.97N×94.24E, h74^{km}±24^{km}, mb4.9/29, mb1 5.0/30, mb1mx4.9/31, Error ellipse: s-maj=16.4km s-min=8.8km az=41.0*

ISC 26 04:00:56.4±0.3**, 6.82N**±0.04×**94.09E**±0.05**, h28^{km}, h28^{km}**±1.5^{km}**:pP-P, n133,** σ**1^{s}.15**/115**, mb5.3**/60**, MS5.9**/1**, 4C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.50	22	eP	P	04 03 57.9	+2.5
CMAR	Chiang Mai Arr	12.50	22	P	P	04 03 57.5	+2.1
	4.7nm,0.3s,baz=214,slow=14,SNR=8.4						
CMAR	Chiang Mai Arr	12.50	22	P	P	04 03 57.5	+2.1
MDRS	Chennai	14.97	296	eP	P	04 04 28.8	+0.6
MDRS				e		04 04 36.7	
	comp=Z,170nm,0.7s						
VIS	Vishakhapatnam	15.09	317	eP	P	04 04 29.1	-0.6
VIS				e		04 04 30.4	
	comp=Z,302nm,0.8s						
BOK	Bokaro	18.63	336	eP	P	04 05 11.4	-2.8
SHL	Shillong	18.76	354	eP	P	04 05 14.1	-1.8
COCO	West Island	19.08	172	P	P	04 05 17.4	-2.3
	comp=Z,272nm,1.2s						
BLSP	Bilaspur	19.10	324	eP	P	04 05 16.8	-3.0
BLSP				eS	S	04 09 00.5	+12
QIZ	Qiongzhong	19.55	50	P	P	04 05 26.3	+1.2
QIZ	Qiongzhong	19.55	50	eP	P	04 05 26.2	+1.2
	comp=Z,244nm,1.1s						
QIZ				e		04 05 34.4	
KMI	Kunming	20.00	24	eP	P	04 05 32.0	+2.1
KMI				AMB	AMB		
	comp=Z,97nm,1.1s						
AKL	Akola	21.54	312	eP	P	04 05 47.0	+1.3
AKL				e		04 05 60.0	
	comp=Z,244nm,1.3s						
GOA	Goa	21.65	295	eP	P	04 05 43.3	-3.5
GOA				e		04 05 57.6	
	comp=Z,278nm,1.2s						
KAD	Karad	22.05	300	eP	P	04 05 46.6	-4.3
KAD				eS	S	04 09 57.5	+10
BHPL	Bhopal	22.88	317	eP	P	04 05 59.4	+0.3
BHPL				e		04 06 06.7	
	comp=Z,235nm,1.2s						
GYA	Guiyang	22.91	30	⇑iP	P	04 06 00.5	+1.1
GYA				AP		04 06 05.0	
GYA				XP		04 06 07.3	
GYA				PP	PP	04 06 33.0	+3.9
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.0						
GYA				LR	LR		
	comp=N,29µm,16.2s,MS6.0						
GYA				LR	LR		
	comp=E,30µm,15.8s,MS6.0						
GYA				LR	LR		
	comp=Z,25µm,16.0s,MS5.8						
LSA	Lhasa	22.93	353	eP	P	04 06 01.2	+1.7
	comp=Z,153nm,0.7s,mb5.5						
LSA				e		04 06 09.0	
CD2	Chengdu	25.62	20	P	P	04 06 25.0	-0.4
CD2				AMB	AMB		
	comp=Z,160nm,0.9s,mb5.5						
AJM	Ajmer	26.93	319	eP	P	04 06 35.6	-1.9
AJM				e		04 06 40.3	
	comp=Z,128nm,1.5s						
NDI	New Delhi	26.96	326	eP	P	04 06 36.0	-1.8
ENH	Enshi	27.45	30	eP	P	04 06 40.6	-1.6
	comp=Z,61nm,0.8s,mb5.2						
WHN	Wuhan	30.31	36	eP	P	04 07 09.5	+1.6
LZH	Lanzhou	30.47	16	eP	P	04 07 08.0	-1.2
LZH				AMB	AMB		
	comp=Z,123nm,1.2s,mb5.5						
BUTP	Butuan	31.30	84	eP	P	04 07 20.2	+3.4
GTA	Gaotai	32.86	8	P	P	04 07 29.0	-1.1
GTA				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
KSH	Kashi	36.41	336	eP	P	04 08 05.0	+4.5
KSH				eAP	pP	04 08 09.8	+1.0
KSH				eXP	sP	04 08 12.5	+0.2
WMQ	Urumqi	37.28	352	⇑P	P	04 08 07.5	-0.3
WMQ				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
HHC	Hu-ho-hao-te	37.31	22	eP	P	04 08 08.5	+0.4
HHC				AP	pP	04 08 17.5	+1.1
HHC				XP	sP	04 08 21.0	+1.1
HHC				S	S	04 14 07.8	+14
HHC				AMB	AMB		
	comp=Z,97nm,1.0s,mb5.6						
JOW	Kunigami	38.10	54	P	P	04 08 15.1	+0.2
	comp=Z,13nm,0.6s,mb4.8,baz=190,slow=10,SNR=3.7						
BJT	Baijiatuau	38.54	28	eP	P	04 08 18.2	-0.2
	comp=Z,98nm,1.2s,mb5.4						
AAK	Ala-Archa	39.65	337	eP	P	04 08 26.6	-1.0
	comp=Z,100nm,1.0s,mb5.5						
SONM	Songino Array	42.20	12	P	P	04 08 47.4	-1.1
	comp=Z,13nm,0.7s,mb4.6,baz=198,slow=7.8,SNR=20						
SONM	Songino Array	42.20	12	P	P	04 08 47.4	-1.1
ULN	Ulaanbaatar	42.37	13	P	P	04 08 51.1	+1.2
	comp=Z,25nm,1.1s,mb4.8						
NWAO	Narrogin (SRO)	45.24	152	P	P	04 09 13.6	+0.2
	comp=Z,27nm,0.7s,mb5.2,baz=324,slow=9.5,SNR=8.9						
NWAO	Narrogin (SRO)	45.24	152	eP	P	04 09 13.0	-0.4
	comp=Z,53nm,0.8s,mb5.4						
NWAO				i pP	pP	04 09 22.5	+0.7
TLY	Talaya	45.41	8	eP	P	04 09 14.1	-0.4
	comp=Z,24nm,0.9s,mb5.0						
HIA	Hailar	47.51	23	eP	P	04 09 30.3	-0.8
	comp=Z,42nm,0.8s,mb5.5						
WRA	Warramunga Arr	47.70	125	P	P	04 09 31.9	-1.1
	comp=Z,35nm,0.6s,mb5.6,baz=306,slow=8.5,SNR=38						
WRA				S	S	04 16 23.6	-2.7
	comp=Z,9.5nm,0.9s,baz=301,slow=15,SNR=5.9						
WRAB	Tennant Creek	47.71	125	eP	P	04 09 32.2	-0.8
	comp=Z,140nm,0.8s,mb6.0						
WRAB				epP	pP	04 09 40.5	-1.0
ASAR	Alice Springs	49.29	129	P	P	04 09 44.5	-0.7
	comp=Z,30nm,0.5s,mb5.5,baz=309,slow=7.5,SNR=16						
MAJO	Matsushiro	49.91	47	eP	P	04 09 49.9	+0.1
	comp=Z,16nm,0.8s,mb5.1						
MAT	Matsushiro	49.91	47	P	P	04 09 50.8	+1.0
MAT	Matsushiro	49.91	47	eP	P	04 09 51.0	+1.2
BVAR	Borovoye Array	49.97	342	P	P	04 09 48.6	-1.4
	comp=Z,64nm,0.9s,mb5.7,baz=143,slow=7.4,SNR=38						
BRVK	Borovoye	50.03	341	P	P	04 09 51.3	+0.8
	comp=Z,60nm,0.9s,mb5.6						
CHKZ	Chkalovo	50.45	342	P	P	04 09 54.6	+0.9
	comp=Z,205nm,0.9s,mb6.2						
GNI	Garni	55.13	315	P	P	04 10 28.8	0.0
	comp=Z,20nm,0.8s,mb5.2,baz=145,slow=9.0,SNR=10						
GNI	Garni	55.13	315	P	P	04 10 29.2	+0.4
	comp=Z,51nm,1.0s,mb5.5						
PMG	Port Moresby	55.28	106	P	P	04 10 29.1	-1.1
	comp=Z,20nm,0.6s,mb5.3,slow=2.0,SNR=9.5						
PMG	Port Moresby	55.28	106	eP	P	04 10 29.6	-0.6
	comp=Z,48nm,0.9s,mb5.5						
PMG				e	pP	04 10 38.0	-0.7
ARU	Arti	56.84	337	eP	P	04 10 38.8	-2.0
	comp=Z,103nm,0.9s,mb5.9						
KMBO	Kilima Mbogo	57.26	264	P	P	04 10 45.7	+1.4
	comp=Z,52nm,1.1s,mb5.5,baz=54,slow=8.8,SNR=27						
KMBO	Kilima Mbogo	57.26	264	eP	P	04 10 45.6	+1.2
	comp=Z,44nm,1.1s,mb5.4						
YSS	Yuzh-Sakhalins	57.64	38	eP	P	04 10 46.0	-0.7
	comp=Z,76nm,1.0s,mb5.7						
YSS				epP	pP	04 10 54.9	-0.3
CTA	Charters Tower	57.85	119	P	P	04 10 48.5	+0.1
	comp=Z,12nm,0.9s,mb4.9,baz=312,slow=8.4,SNR=4.1						
CTAO	Charters Tower	57.85	119	eP	P	04 10 47.7	-0.7
	comp=Z,42nm,1.4s,mb5.3						
CTAO				e	pP	04 10 56.7	-0.3
ASF	Jabal al Asfar	58.75	304	P	P	04 10 55.3	+0.8
	comp=Z,23nm,1.0s,mb5.2,baz=4.7,slow=1.3,SNR=11						
STKA	Stephens Creek	59.42	133	P	P	04 10 58.3	-0.9
	comp=Z,21nm,0.8s,mb5.2,baz=311,slow=5.9,SNR=17						
EIL	Elat	59.90	300	P	P	04 11 02.4	-0.2
	comp=Z,29nm,0.8s,mb5.4,baz=103,slow=7.2,SNR=9.6						
EIL	Elat	59.90	300	eP	P	04 11 02.9	+0.4
	comp=Z,52nm,1.1s,mb5.5						
EIL	Elat	59.90	300	P	P	04 11 02.4	-0.2
BRTR	Keskin Array B	63.08	311	P	P	04 11 22.9	-0.8
	comp=Z,19nm,0.9s,mb5.2,baz=127,slow=7.2,SNR=18						
BRTR	Keskin Array B	63.08	311	P	P	04 11 22.9	-0.8
MBAR	Mbarara	63.63	266	eP	P	04 11 28.3	+0.4
	comp=Z,75nm,1.1s,mb5.6						
ISP	Isparta	65.05	309	eP	P	04 11 35.6	-1.1
	comp=Z,100nm,1.4s,mb5.7						
LSZ	Lusaka	68.87	251	eP	P	04 12 02.2	+1.0
	comp=Z,63nm,1.1s,mb5.5						
AKASG	Malin Array Be	68.94	322	P	P	04 11 59.3	-1.8
	comp=Z,8.1nm,0.7s,mb4.8,baz=78,slow=4.8,SNR=17						
IDI	Anoyia	69.12	305	P	P	04 12 02.0	-0.5
	comp=Z,53nm,0.6s,mb5.6,baz=96,slow=7.3,SNR=26						
IDI	Anoyia	69.12	305	P	P	04 12 02.0	-0.5
ISR	Istrita	69.40	316	⇑iP	P	04 12 04.4	+0.4
ISR	Istrita	69.40	316	⇑iP	P	04 12 04.4	+0.4
GVD	Gavdhos	69.73	305	eP	P	04 12 05.8	-0.4
	comp=Z,113nm,1.1s,mb5.7						
MLR	Muntele Rosu	69.89	316	P	P	04 12 07.1	+0.2
	comp=Z,47nm,0.9s,mb5.4,baz=86,slow=3.4,SNR=14						
MLR	Muntele Rosu	69.89	316	P	P	04 12 07.1	+0.2
FINES	FINESS Array B	73.61	332	P	P	04 12 29.2	+0.3
	comp=Z,19nm,0.8s,mb5.1,baz=104,slow=5.7,SNR=37						
FINES	FINESS Array B	73.61	332	P	P	04 12 29.2	+0.3
LBTB	Lobatse	73.69	242	eP	P	04 12 31.5	+1.4
	comp=Z,80nm,1.0s,mb5.6						
PSZ	Piszkesteto	74.38	318	P	P	04 12 33.5	-0.1
	comp=Z,30nm,1.1s,mb5.1						
BOSA	Boshof	74.98	238	eP	P	04 12 38.7	+1.2
	comp=Z,100nm,1.0s,mb5.7						
MAW	Mawson	77.50	192	P	P	04 12 53.2	+2.4
	comp=Z,15nm,0.7s,mb5.0,baz=31,slow=7.9,SNR=7.1						
MAW	Mawson	77.50	192	eP	P	04 12 53.8	+3.0
	comp=Z,108nm,1.3s,mb5.6						
MAW				epP	pP	04 13 02.9	+3.3
BRG	Berggiesshubel	78.52	320	i	P	04 12 57.3	+0.5
AQU	L’Aquila	78.56	312	eP	P	04 12 57.2	+0.1
	comp=Z,43nm,1.0s,mb5.3						
GERES	GERESS Array B	78.57	318	P	P	04 12 57.7	+0.6
	comp=Z,23nm,0.7s,mb5.2,baz=91,slow=5.1,SNR=51						
GERES	GERESS Array B	78.57	318	P	P	04 12 57.7	+0.6
KHC	Kasperske Hory	78.67	319	epP	pP	04 12 56.6	-10
RUE	Ruedersdorf	78.72	322	eP	P	04 12 57.5	-0.3
	comp=Z,62nm,1.0s,mb5.5						
SNTG	Esanatoglia	78.92	313	eP	P	04 12 58.6	-0.5
HFS	Hagfors	79.33	330	P	P	04 13 00.4	-0.6
	comp=Z,15nm,0.6s,mb5.1,baz=104,slow=5.9,SNR=30						
HFS	Hagfors	79.33	330	P	P	04 13 00.4	-0.6
SUR	Sutherland	79.69	235	eP	P	04 13 06.0	+2.4
	comp=Z,100nm,1.0s,mb5.7						
NOA	NORSAR Array B	80.62	331	P	P	04 13 07.5	-0.4
	comp=Z,8.1nm,0.8s,mb4.7,baz=94,slow=5.5,SNR=12						
NOA	NORSAR Array B	80.62	331	P	P	04 13 07.5	-0.4
NAO01	NORSAR Array S	80.77	330	eP	P	04 13 07.5	-1.1
	comp=Z,33nm,1.3s,mb5.1						
DAVOX	Davos	81.11	316	P	P	04 13 11.6	+0.8
	comp=Z,26nm,0.5s,mb5.4,baz=126,slow=8.0,SNR=30						
DAVOX	Davos	81.11	316	P	P	04 13 11.6	+0.8
FIN	Finale Ligure	82.34	314	eP	P	04 13 17.2	0.0
MCGN	Macugnaga	82.44	315	eP	P	04 13 17.8	+0.1
EKA	Eskdalemuir Ar	88.55	325	P	P	04 13 49.0	+1.1
	comp=Z,9.7nm,0.6s,mb5.3,baz=95,slow=5.2,SNR=18						
EKA	Eskdalemuir Ar	88.55	325	P	P	04 13 49.0	+1.1
ESDC	Sonseca Array	91.85	310	P	P	04 14 04.6	+1.0
	comp=Z,26nm,1.0s,mb5.5,baz=64,slow=4.0,SNR=30						
ESDC	Sonseca Array	91.85	310	P	P	04 14 04.6	+1.0
VNDA	Vanda	91.91	168	P	P	04 14 04.3	+1.3
	comp=Z,2.6nm,0.7s,mb4.7,baz=6.7,slow=3.3,SNR=5.4						
SPU	Mount Spurr	95.25	26	eP	P	04 14 18.3	-0.3
ILAR	Eielson Array	95.74	22	P	P	04 14 20.8	0.0
	comp=Z,2.0nm,0.7s,mb4.7,baz=302,slow=4.5,SNR=11						
ILAR	Eielson Array	95.74	22	P	P	04 14 20.8	0.0
KDAK	Kodiak Island	96.38	30	P	P	04 14 25.3	+1.4
	comp=Z,1.9nm,0.6s,mb4.7						
INK	Inuvik	98.02	16	P	P	04 14 30.2	-0.8
	comp=Z,20nm,1.2s,mb5.5,baz=322,slow=3.1,SNR=15						
DBIC	Dimbokro	98.03	278	P	P	04 14 33.9	+1.5
	comp=Z,8.0nm,0.8s,mb5.3,baz=55,slow=6.7,SNR=6.3						
DBIC	Dimbokro	98.03	278	eP	P	04 14 33.3	+0.9
	comp=Z,23nm,1.2s,mb5.6						
YKA	Yellowknife Ar	107.46	14	Pdiff	Pdif	04 15 12.8	-0.3
	comp=Z,0.3nm,0.8s,baz=329,slow=4.8,SNR=4.0						
YKA				PKKPbc		04 30 37.9	
	comp=Z,0.7nm,0.7s,baz=144,slow=3.8,SNR=5.5						
ULM	Lac du Bonnet	122.51	8	PKP	PKPdf	04 19 50.5	-3.9
	comp=Z,4.2nm,0.7s,baz=58,slow=2.8,SNR=2.9						
ULM	Lac du Bonnet	122.51	8	PKP	PKPdf	04 19 50.5	-3.9
ELK	Elko	125.53	27	ePKPdf	PKPdf	04 19 57.5	-3.0
NVAR	Mina Array Bea	125.84	31	PKP	PKPdf	04 19 58.7	-2.5
	comp=Z,4.0nm,0.8s,baz=289,slow=0.2,SNR=8.8						
NVAR	Mina Array Bea	125.84	31	PKP	PKPdf	04 19 58.7	-2.5
MNV	Mina	125.92	31	PKPdf	PKPdf	04 19 57.1	-4.2
PDAR	Pinedale Array	126.16	21	PKP	PKPdf	04 19 57.8	-3.8
	comp=Z,4.6nm,0.9s,SNR=12						
PDAR	Pinedale Array	126.16	21	PKP	PKPdf	04 19 57.8	-3.8
SADO	Sadowa	128.29	354	PKP	PKPdf	04 20 02.0	-3.7
	comp=Z,9.0nm,0.9s,baz=360,slow=4.3,SNR=3.6						
PV10	Paradox Valley	130.16	24	ePKPdf	PKPdf	04 20 06.7	-2.8
SJG	San Juan	148.47	322	PKPbc	PKPdf	04 20 42.6	-0.1
	comp=Z,16nm,0.6s,baz=99,slow=9.4,SNR=8.7						
SJG	San Juan	148.47	322	PKPbc	PKPdf	04 20 42.6	-0.1
PCRV	Puerto La Cruz	152.91	308	PKPbc	PKPdf	04 20 52.9	+3.3
	comp=Z,19nm,0.7s,baz=7.5,slow=3.4,SNR=12						
LVC	Limon Verde	157.31	224	PKPab	PKPab	04 21 25.6	+1.6
	comp=Z,18nm,0.8s,baz=144,slow=3.0,SNR=6.9						
LVC	Limon Verde	157.31	224	PKPab	PKPab	04 21 25.6	+1.6
SDV	Santo Domingo	158.20	315	PKPab	PKPab	04 21 27.0	-1.0
	comp=Z,19nm,1.0s,baz=78,slow=5.1,SNR=8.7						
SDV	Santo Domingo	158.20	315	ePKPab	PKPab	04 21 27.3	-0.8
LPAZ	La Paz	160.22	240	PKPab	PKPab	04 21 36.2	-0.4
	comp=Z,9.3nm,0.9s,baz=86,slow=9.0,SNR=5.4						
LPAZ	La Paz	160.22	240	ePKPdf	PKPdf	04 20 57.3	-1.5
LPAZ				ePKPab	PKPab	04 21 36.7	0.0
OTAV	Otavalo	169.77	313	ePKPdf	PKPdf	04 21 04.6	-2.4
OTAV				ePKPab	PKPab	04 22 19.1	+0.6

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*IDC **26** 04:02:08.4±0.9, 3.19N×95.92E, mb5.0/14, mb1 5.1/15, mb1mx4.9/23, ML5.0/1, Error ellipse: s-maj=45.8km s-min=20.9km az=52.0*

*BJI **26** 04:02:09.4, 3.00N×95.96E, h29^{km}, mb5.5*

*NEIC **26** 04:02:12.5±0.5, 3.04N×95.89E, h30^{km}, mb5.4/13, Error ellipse: s-maj=15.8km s-min=11.1km az=64.0*

ISC 26 04:02:11.0±0.5**, 3.19N**±0.09×**96.02E**±0.08**, h29^{km}, h29^{km}**±2.0^{km}**:pP-P, n58,** σ**1^{s}.09**/55**, mb5.3**/34**, 3C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.44	10	eP	P	04 05 53.0	+4.2
CMAR	Chiang Mai Arr	15.44	10	Pn	P	04 05 53.2	+4.3
	2.0nm,0.3s,baz=197,slow=11,SNR=11						
QIZ	Qiongzhong	20.75	40	P	P	04 06 53.5	+1.2
CD2	Chengdu	28.53	14	⇑iP	P	04 08 05.3	-1.2
CD2				AMB	AMB		
	comp=Z,130nm,0.7s,mb5.8						
ENH	Enshi	29.80	24	eP	P	04 08 17.5	-0.5
	comp=Z,39nm,0.6s,mb5.3						
MBWA	Marble Bar	33.54	137	P	P	04 08 50.0	-0.8
	comp=Z,16nm,0.6s,mb5.1						
GTA	Gaotai	36.22	5	P	P	04 09 13.3	-0.2
GTA				AP	pP	04 09 22.8	+0.8
GTA				XP	sP	04 09 26.5	+0.9
GTA				AMB	AMB		
	comp=Z,31nm,0.8s,mb5.3						
HHC	Hu-ho-hao-te	40.03	18	eP	P	04 09 47.5	+2.2
HHC				AP	pP	04 09 55.3	+1.4
HHC				XP	sP	04 09 57.5	0.0
HHC				AMB	AMB		
	comp=Z,62nm,0.9s,mb5.3						
BJT	Baijiatuau	40.95	24	eP	P	04 09 54.7	+1.7
	comp=Z,63nm,0.7s,mb5.3						
NWAO	Narrogin (SRO)	41.15	152	P	P	04 09 55.1	+0.5
	comp=Z,48nm,0.9s,mb5.1,baz=318,slow=7.4,SNR=4.2						
DL2	Dalian	42.52	30	P	P	04 10 05.5	-0.3
DL2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.3						
ULHL	Ulahol	42.72	338	P	P	04 10 08.2	+0.8
	SNR=5.8						
AAK	Ala-Archa	43.72	337	eP	P	04 10 15.9	+0.4
	comp=Z,38nm,0.6s,mb5.3						
KS15	Wonju Array Si	44.90	37	eP	P	04 10 25.3	+0.1
SONM	Songino Array	45.37	10	P	P	04 10 28.9	+0.2
	comp=Z,42nm,0.9s,mb5.3,baz=188,slow=8.6,SNR=16						
ULN	Ulaanbaatar	45.51	10	eP	P	04 10 28.9	-0.9
	comp=Z,24nm,0.6s,mb5.3						
SNY	Shenyang	45.71	29	⇑P	P	04 10 31.3	-0.2
SNY				AMB	AMB		
	comp=Z,120nm,0.7s,mb5.9						
CN2	Changchun	48.10	29	⇑P	P	04 10 49.5	-0.8
CN2				AMB	AMB		
	comp=Z,70nm,0.7s,mb5.8						
TLY	Talaya	48.75	6	eP	P	04 10 54.9	-0.2
	comp=Z,30nm,0.7s,mb5.4						
HIA	Hailar	50.17	20	P	P	04 11 01.9	-4.2
	comp=Z,24nm,0.6s,mb5.4						
MDJ	Mudanjiang	50.74	31	P	P	04 11 11.8	+1.2
MDJ				AMB	AMB		
	comp=Z,39nm,0.9s,mb5.3						
MAJO	Matsushiro	51.06	44	eP	P	04 11 10.8	-2.3
	comp=Z,18nm,0.8s,mb5.0						
BVAR	Borovoye Array	54.00	341	P	P	04 11 33.9	-0.8
	comp=Z,29nm,0.6s,mb5.4,baz=143,slow=7.4,SNR=8.8						
BRVK	Borovoye	54.06	341	eP	P	04 11 33.6	-1.6
	comp=Z,44nm,0.6s,mb5.6						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	54.45	117	P	P	04 11 38.5	0.0
	comp=Z,12nm,0.8s,mb4.9,baz=285,slow=9.1,SNR=3.6						
CTAO	Charters Tower	54.45	117	eP	P	04 11 38.4	-0.2
	comp=Z,14nm,0.8s,mb4.9						
CHKZ	Chkalovo	54.48	342	eP	P	04 11 37.1	-1.2
	comp=Z,57nm,0.6s,mb5.7						
CHKZ				e		04 11 48.4	
GNI	Garni	59.05	316	P	P	04 12 12.1	+1.0
	comp=Z,16nm,0.7s,mb5.2,baz=7.8,slow=16,SNR=2.3						
KIV	Kislovodsk	62.04	319	eP	pP	04 12 40.4	+0.1
KIV				pmax	pmax		
	comp=N,22nm,1.2s						
KIV				pmax	pmax		
	comp=E,15nm,1.2s						
KIV				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.4						
KIV	Kislovodsk	62.04	319	eP	P	04 12 30.0	-1.5
BRTR	Keskin Array B	66.91	312	P	P	04 13 01.9	-1.3
	comp=Z,6.2nm,0.7s,mb4.7,baz=136,slow=6.6,SNR=6.4						
AKASG	Malin Array Be	72.97	322	P	P	04 13 38.4	-1.5
	comp=Z,12nm,0.5s,mb5.0,baz=84,slow=4.7,SNR=24						
MLR	Muntele Rosu	73.82	316	P	P	04 13 44.8	-0.1
	comp=Z,8.6nm,0.7s,mb4.8,baz=186,slow=10,SNR=4.7						
KOLS	Kolonicke sedl	76.95	319	eP	P	04 14 03.9	+1.2
CRVS	Cervenica-Dubn	77.47	319	eP	P	04 14 08.2	+2.6
TIR	Tirane	77.51	312	ep	P	04 14 15.2	+9.2
FINES	FINESS Array B	77.70	332	P	P	04 14 06.3	-0.2
	comp=Z,19nm,0.6s,mb5.2,baz=101,slow=7.3,SNR=12						
KAF	Kangasniemi	77.79	333	ep	P	04 14 06.8	-0.3
KECS	Kecovo	78.04	319	eP	P	04 14 07.2	-1.5
PSZ	Piszkesteto	78.35	318	⇓eP	P	04 14 10.7	+0.3
PSZ				i		04 14 39.4	
PSZ	Piszkesteto	78.35	318	⇓eP	P	04 14 10.7	+0.3
PSZ				i		04 14 39.2	
ZST	Bratislava	80.24	318	eP	P	04 14 20.9	+0.2
ARCES	ARCESS Array B	80.28	340	P	P	04 14 20.7	+0.2
	comp=Z,12nm,0.7s,mb5.0,baz=95,slow=5.6,SNR=16						
KTK1	Kautokeino	80.91	340	eP	P	04 14 24.8	+1.0
KTK1				AMb	AMB	04 14 26.2	
	comp=Z,47nm,1.1s,mb5.3						
KTK1				epP	pP	04 14 32.9	0.0
KTK1	Kautokeino	80.91	340	eP	P	04 14 24.8	+1.0
	comp=Z,47nm,1.1s,mb5.3						
TRO	Tromso	82.54	340	eP	P	04 14 31.4	-0.8
TRO				ePP	PP	04 17 38.8	-4.9
GERES	GERESS Array B	82.55	319	P	P	04 14 33.5	+0.8
	comp=Z,3.6nm,0.5s,mb4.6,baz=100,slow=4.7,SNR=6.1						
HFS	Hagfors	83.42	330	P	P	04 14 36.5	-0.5
	comp=Z,4.0nm,0.5s,mb4.7,baz=108,slow=4.6,SNR=3.9						
MOR8	Moi Rana	83.69	336	eP	P	04 14 37.7	-0.5
LOF	Lofoten	84.25	338	eP	P	04 14 43.6	+2.7
LOF				AMb	AMB	04 14 44.3	
	comp=Z,150nm,1.6s,mb5.9						
LOF	Lofoten	84.25	338	eP	P	04 14 43.6	+2.7
	comp=Z,150nm,1.6s,mb5.9						
NSS	Namsos	84.58	334	eP	P	04 14 41.4	-1.3
NSS				epP	pP	04 14 52.7	+0.9
NOA	NORSAR Array B	84.71	331	P	P	04 14 43.9	+0.5
	comp=Z,4.8nm,0.8s,mb4.7,baz=95,slow=5.3,SNR=4.0						
DOMB	Dombas	85.77	332	eP	P	04 14 49.5	+0.8
MOL	Molde	86.49	332	eP	P	04 14 54.3	+2.0
MOL				epP	pP	04 15 02.3	+0.9
EKA	Eskdalemuir Ar	92.62	326	P	P	04 15 22.3	+1.1
	comp=Z,9.3nm,1.0s,mb5.2,baz=93,slow=5.0,SNR=4.3						
ULM	Lac du Bonnet	125.80	9	PKP	PKPdf	04 21 12.2	-3.1
	comp=Z,3.7nm,0.8s,baz=331,slow=4.9,SNR=3.3						
BAO	Brasilia Array	142.48	248	PKP	PKPdf	04 21 42.2	-5.1

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*ORF **26** 04:02:53.3, 5.68N×95.87E, h30^{km}, mb5.8*
*MOS **26** 04:02:53.7±0.8, 5.31N×94.76E, h33^{km}, mb5.9/34, Error ellipse: s-maj=14.2km s-min=6.5km az=122.6*
*BJI **26** 04:02:53.3, 4.98N×94.72E, h48^{km}, mB6.0, mb5.8, Ms6.5, Msz6.5*
*IDC **26** 04:02:55.9±0.5, 5.02N×94.76E, h48^{km}±3^{km}, mb5.3/30, mb1 5.3/31, mb1mx5.3/33, Error ellipse: s-maj=16.0km s-min=8.9km az=34.0*
*NEIC **26** 04:02:55.7±0.2, 4.98N×94.72E, mb5.8/68, Error ellipse: s-maj=5.7km s-min=4.4km az=206.0*
ISC 26 04:02:54.1±0.2**, 5.02N**±0.04×**94.80E**±0.03**, h48^{km}, (h43^{km}**±1.7^{km}**:pP-P), n435, σ0^{s}91**/386**, mb5.7**/119**, MS6.3**/2**, 57C-8D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.96	17	P	P	04 06 10.8	-0.4
	402nm,0.8s						
CMAR	Chiang Mai Arr	13.96	17	P	P	04 06 14.6	+3.3
	8.9nm,0.3s,baz=210,slow=12,SNR=16						
CMAR	Chiang Mai Arr	13.96	17	P	P	04 06 14.6	+3.4
CMAR				pmax	pmax		
	comp=Z,9.0nm,0.3s						
PALK	Pallekele	14.19	280	P	P	04 06 19.3	+5.0
	comp=Z,141nm,0.6s						
MDRS	Chennai	16.44	300	eP	P	04 06 45.0	+1.9
MDRS				e		04 07 07.4	
	comp=Z,595nm,1.2s						
VIS	Vishakhapatnam	16.89	319	eP	P	04 06 47.5	-1.2
VIS				e		04 07 09.9	
	comp=Z,641nm,1.1s						
COCO	West Island	17.21	173	P	P	04 06 46.7	-6.1
	comp=Z,792nm,1.5s						
QIZ	Qiongzhong	20.23	45	P	P	04 07 29.5	+1.4
QIZ	Qiongzhong	20.23	45	eP	P	04 07 29.0	+0.9
	comp=Z,384nm,1.4s						
BOK	Bokaro	20.55	336	eP	P	04 07 31.6	+0.3
SHL	Shillong	20.62	353	eP	P	04 07 31.6	-0.4
SHL				e		04 07 35.4	
	comp=Z,230nm,0.9s						
BLSP	Bilaspur	20.97	325	eP	P	04 07 35.9	+0.3
BLSP				e		04 07 37.3	
	comp=Z,687nm,1.1s						
MNGI	Mangalore	21.23	293	eP	P	04 07 39.6	+1.3
MNGI				e		04 07 47.0	
	comp=Z,348nm,1.4s						
KMI	Kunming	21.40	20	eP	P	04 07 41.5	+1.6
KMI				XP		04 07 52.0	
KMI				AMB	AMB		
	comp=Z,160nm,1.1s,mb5.3						
GOA	Goa	23.09	298	e		04 08 06.7	
GOA				e		04 08 22.7	
	comp=Z,124nm,1.5s						
BATP	Bataraza	23.14	79	eP	P	04 07 58.0	+0.7
AKL	Akola	23.27	314	eP	P	04 08 01.1	+2.6
AKL				e		04 08 05.8	
	comp=Z,316nm,1.4s						
KAD	Karad	23.59	303	eP	P	04 08 06.0	+4.4
KAD				e		04 08 18.7	
	comp=Z,99nm,1.4s						
GYA	Guiyang	24.15	27	⇑iP	P	04 08 08.3	+1.3
GYA				AMB	AMB		
	comp=Z,870nm,0.8s,mb6.2						
PPR	Puerto Princes	24.20	77	⇓eP	P	04 08 08.1	+0.6
POO	Poona	24.47	305	eP		04 08 20.2	
BHPL	Bhopal	24.68	319	eP	P	04 08 11.7	-0.6
LSA	Lhasa	24.79	352	P	P	04 08 12.5	-0.7
LSA	Lhasa	24.79	352	eP	P	04 08 14.3	+1.1
	comp=Z,338nm,0.6s,mb6.0						
ENPP	El Nido	25.13	74	eP	P	04 08 16.3	-0.3
LUBP	Lubang	26.54	69	eP	P	04 08 30.4	+0.7
SCZP	Santa Cruz	26.88	65	eP	P	04 08 33.4	+0.6
SJMP	San Jose	27.03	72	eP	P	04 08 34.9	+0.7
CD2	Chengdu	27.10	17	⇑iP	P	04 08 33.5	-1.2
CD2				AMB	AMB		
	comp=Z,310nm,1.1s,mb5.8						
TGY	Tagaytay City	27.29	69	i P	P	04 08 39.0	+2.5
TGY	Tagaytay City	27.29	69	P	P	04 08 37.5	+1.0
	comp=Z,872nm,0.8s,mb6.3,baz=223,slow=2.9,SNR=16						
TGY	Tagaytay City	27.29	69	P	P	04 08 37.5	+1.0
TGY				pmax	pmax		
	comp=Z,872nm,0.8s						
QVPH	Quezon City--P	27.56	68	⇓eP	P	04 08 35.0	-4.0
LQP	Lukban	27.85	69	⇑iP	P	04 08 42.2	+0.6
OTRP	Odiongan	27.86	73	eP	P	04 08 40.3	-1.5
PCPH	Palayan	27.88	66	⇑eP	P	04 08 41.2	-0.7
BOAC	Boac	27.96	71	eP	P	04 08 41.4	-1.2
GUIM	Jordan	28.08	77	eP	P	04 08 46.8	+3.1
BALP	Baler	28.38	66	eP	P	04 08 47.1	+0.8
RCP	Roxas	28.39	75	⇓eP	P	04 08 47.5	+1.0
POLP	Polilio Island	28.39	68	eP	P	04 08 47.1	+0.6
ENH	Enshi	28.69	27	eP	P	04 08 47.5	-1.5
	comp=Z,138nm,0.6s,mb5.9						
AUQP	San Andres	28.71	71	eP	P	04 08 50.5	+1.2
APYP	Conner	28.84	62	eP	P	04 08 49.5	-1.0
NDI	New Delhi	28.85	327	eP	P	04 08 49.5	-0.9
NDI				e		04 08 50.7	
	comp=Z,124nm,1.3s						
CAUP	Cauayan	29.01	64	eP	P	04 08 52.6	+0.7
PVCP	Virac	30.17	72	eP	P	04 09 10.7	+8.4
QZH	Quanzhou	30.24	47	⇑iP	P	04 09 00.0	-2.9
QZH				AMB	AMB		
	comp=Z,150nm,0.8s,mb5.8						
WHN	Wuhan	31.37	34	⇑iP	P	04 09 13.0	+0.2
LZH	Lanzhou	32.02	14	eP	P	04 09 17.3	-1.1
LZH				AMB	AMB		
	comp=Z,184nm,1.0s,mb5.9						
GTA	Gaotai	34.54	7	⇑iP	P	04 09 39.5	-0.6
GTA				AP	pP	04 09 52.5	-0.4
GTA				XP	sP	04 09 58.0	-0.9
GTA				PPP	PPP	04 11 19.5	+4.0
GTA				PCP	PcP	04 12 14.5	+0.1
GTA				SCS	ScS	04 19 57.5	+1.6
GTA				AMB	AMB		
	comp=Z,250nm,0.9s,mb6.1						
GTA				AMB	AMB		
	comp=Z,18μm,11.0s						
GTA				LR	LR		
	comp=N,68μm,20.9s,MS6.4						
GTA				LR	LR		
	comp=E,32μm,20.9s,MS6.4						
GTA				LR	LR		
	comp=Z,123μm,27.8s						
NJ2	Nanjing	35.08	37	eP	P	04 09 45.3	+0.4
NJ2				AMB	AMB		
	comp=Z,440nm,0.5s,mb6.6						
NJ2				AMB	AMB		
	comp=Z,1μm,6.2s						
NJ2				LR	LR		
	comp=N,41μm,18.2s,MS6.3						
NJ2				LR	LR		
	comp=E,22μm,17.0s,MS6.3						
NJ2				LR	LR		
	comp=Z,32μm,16.0s,MS6.2						
MBWA	Marble Bar	35.71	138	eP	P	04 09 46.4	-3.9
	comp=Z,50nm,1.0s,mb5.4						
TIA	Tai'an	37.22	31	eP	P	04 10 02.8	0.0
TIA				AMB	AMB		
	comp=Z,123nm,0.9s,mb5.7						
KSH	Kashi	38.33	336	eP	P	04 10 12.3	+0.2
KSH				ePP	PP	04 11 46.0	+2.3
KSH				ePCP	PcP	04 12 25.5	-0.3
KSH				AMB	AMB		
	comp=Z,1μm,5.7s						
JOW	Kunigami	38.60	52	P	P	04 10 15.4	+0.9
	comp=Z,125nm,0.7s,mb5.8,baz=255,slow=8.0,SNR=16						
HHC	Hu-ho-hao-te	38.72	20	eP	P	04 10 16.0	+0.7
HHC				AP	pP	04 10 25.0	-3.2
HHC				XP	sP	04 10 28.8	-5.2
HHC				PP	PP	04 11 53.5	+5.2
HHC				AMB	AMB		
	comp=Z,176nm,1.1s,mb5.7						
WMQ	Urumqi	39.15	352	⇑P	P	04 10 18.5	-0.4
BJT	Baijiatuau	39.82	26	eP	P	04 10 25.7	+1.2
	comp=Z,301nm,0.8s,mb6.1						
BJI	Beijing	39.84	26	P	P	04 10 26.0	+1.4
BJI				AMB	AMB		
	comp=Z,490nm,0.9s,mb6.2						
ULHL	Ulahol	40.59	339	P	P	04 10 31.7	+0.9
	SNR=8.3						
KZA	Kyzart	40.81	338	P	P	04 10 33.8	+1.2
	SNR=5.6						
UCH	Uchtor	41.22	337	P	P	04 10 37.5	+1.5
	SNR=7.6						
TKM2	Tokmak 2	41.41	339	P	P	04 10 38.5	+0.9
	SNR=5.1						
KBK	Karagaybulak	41.42	338	P	P	04 10 39.3	+1.6
	SNR=7.8						
AML	Almayashu	41.46	336	P	P	04 10 39.5	+1.5
	SNR=9.5						
AAK	Ala-Archa	41.57	337	P	P	04 10 40.6	+1.7
	SNR=6.3						
AAK	Ala-Archa	41.57	337	eP	P	04 10 39.3	+0.4
	comp=Z,124nm,0.9s,mb5.5						
DL2	Dalian	41.59	32	P	P	04 10 40.0	+0.9
DL2				AMB	AMB		
	comp=Z,210nm,0.8s,mb5.8						
CHMS	Chumysh	41.79	338	P	P	04 10 41.1	+0.4
	SNR=6.9						
EKS2	Erkin-Say	41.88	337	P	P	04 10 42.5	+1.1
	SNR=7.9						
USP	Ospenovka	42.11	338	P	P	04 10 44.0	+0.6
	SNR=9.0						
INCN	Inchon	43.46	38	eP	P	04 10 53.8	-0.7
	comp=Z,171nm,0.9s,mb5.8						
SONM	Songino Array	43.81	11	P	P	04 10 56.7	-0.5
	comp=Z,113nm,0.8s,mb5.6,baz=190,slow=8.3,SNR=20						
SONM				pP	pP	04 11 09.6	-0.5
	comp=Z,77nm,1.1s,baz=195,slow=8.9,SNR=4.0						
SONM				PcP	PcP	04 12 43.4	-0.1
	comp=Z,40nm,0.6s,baz=192,slow=3.6,SNR=12						
SONM				pPcP		04 12 57.6	
	comp=Z,30nm,0.8s,baz=198,slow=3.9,SNR=4.0						
SONM				ScP		04 16 30.4	
	comp=Z,7.1nm,1.0s,baz=194,slow=5.1,SNR=4.7						
ULN	Ulaanbaatar	43.97	12	eP	P	04 10 57.4	-1.0
	comp=Z,54nm,0.6s,mb5.5						
KS15	Wonju Array Si	44.20	39	eP	P	04 11 00.1	-0.4
SNY	Shenyang	44.74	31	⇑P	P	04 11 04.3	-0.4
SNY				AMB	AMB		
	comp=Z,130nm,1.2s,mb5.6						
ZAK	Zakamensk	45.77	8	eP	P	04 11 11.8	-1.0
ZAK				e	pP	04 11 21.4	-4.4
ZAK				e		04 12 44.9	
ZAK				e		04 13 05.0	
WRA	Warramunga Arr	46.11	124	P	P	04 11 16.0	+0.2
	comp=Z,212nm,0.8s,mb6.2,baz=302,slow=8.8,SNR=24						
WRA				pP	pP	04 11 27.6	-1.2
	comp=Z,80nm,0.8s,baz=304,slow=9.1,SNR=4.5						
WRA				S	S	04 17 56.0	-1.4
	comp=Z,10.0nm,1.2s,baz=293,slow=16,SNR=4.7						
WRA	Warramunga Arr	46.11	124	P	P	04 11 16.0	+0.1
WRA				*PP	pP	04 11 27.6	-1.3
WRA				S	S	04 17 56.0	-1.4
WRA				pmax	pmax		
	comp=Z,212nm,0.8s						
WRA				pmax	pmax		
	comp=Z,80nm,0.8s						
WRAB	Tennant Creek	46.11	124	eP	P	04 11 16.0	+0.1
	comp=Z,462nm,0.9s,mb6.4						
MOY	Mondy	46.78	5	eP	P	04 11 20.5	-0.2
TLY	Talaya	47.09	8	eP	P	04 11 22.5	-0.6
TLY				e		04 11 41.0	
TLY				pmax	pmax		
	comp=Z,83nm,0.8s,mb5.7						
TLY	Talaya	47.09	8	eP	P	04 11 23.2	+0.1
	comp=Z,70nm,0.8s,mb5.6						
CN2	Changchun	47.12	30	⇑P	P	04 11 23.3	-0.2
CN2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.6						
ASAR	Alice Springs	47.62	128	P	P	04 11 27.8	+0.1
	comp=Z,62nm,0.7s,mb5.7,baz=298,slow=7.9,SNR=11						
ASAR				pP	pP	04 11 41.5	+0.9
	comp=Z,42nm,0.8s,baz=302,slow=7.3,SNR=4.3						
ASAR				PcP	PcP	04 12 57.1	-0.1
	comp=Z,20nm,0.8s,baz=305,slow=4.2,SNR=4.0						
ASAR				ScP		04 16 46.5	
	comp=Z,6.8nm,0.8s,baz=289,slow=5.1,SNR=4.3						
CBIJ	Chichi jima	50.16	59	P	P	04 11 46.3	-1.0
	comp=Z,150nm,0.7s,mb6.2,baz=181,slow=4.1,SNR=9.8						
NVS	Novosibirsk	50.55	351	i P	P	04 11 48.1	-1.7
NVS				i	pP	04 12 01.3	-1.7
NVS				pmax	pmax		
	comp=Z,116nm,0.8s,mb5.9						
NVS				pmax	pmax		
	comp=N,77nm,0.6s						
NVS				pmax	pmax		
	comp=E,47nm,0.6s						
MAJO	Matsushiro	50.63	46	eP	P	04 11 50.8	0.0
	comp=E,56nm,0.8s,mb5.5						
MAT	Matsushiro	50.63	46	P	P	04 11 49.7	-1.0
MAT	Matsushiro	50.63	46	eP	P	04 11 50.0	-0.7
BVAR	Borovoye Array	51.89	342	P	P	04 11 59.3	-0.7
	comp=E,160nm,0.8s,mb6.0,baz=135,slow=8.4,SNR=23						
BVAR				pP	pP	04 12 12.9	-0.2
	comp=E,91nm,0.8s,baz=141,slow=9.5,SNR=6.8						
BVAR				PcP	PcP	04 13 11.8	-0.6
	comp=E,23nm,0.7s,baz=153,slow=6.4,SNR=1.7						
BRVK	Borovoye	51.95	341	eP	P	04 11 59.4	-1.0
	comp=E,144nm,0.8s,mb6.0						
CHKZ	Chkalovo	52.38	342	⇑iP	P	04 12 03.2	-0.4
	comp=E,390nm,0.7s,mb6.5						
CHKZ				e	pP	04 12 16.2	-0.5
PMG	Port Moresby	54.11	105	P	P	04 12 16.5	-0.5
	comp=E,69nm,0.9s,mb5.6,baz=277,slow=4.3,SNR=7.1						
PMG	Port Moresby	54.11	105	P	P	04 12 16.5	-0.5
PMG				pmax	pmax		
	comp=Z,69nm,0.9s						
BOD	Bodaibo	54.77	12	eP	P	04 12 17.6	-3.6
CTA	Charters Tower	56.37	118	P	P	04 12 32.9	-0.4
	comp=Z,58nm,0.9s,mb5.6,baz=293,slow=8.3,SNR=12						
CTA	Charters Tower	56.37	118	P	P	04 12 32.9	-0.4
CTA				pmax	pmax		
	comp=Z,58nm,0.9s						
CTAO	Charters Tower	56.37	118	eP	P	04 12 32.7	-0.6
	comp=Z,74nm,1.0s,mb5.7						
GNI	Garni	56.90	315	P	P	04 12 36.8	-0.1
	comp=Z,82nm,0.9s,mb5.7,baz=11,slow=22,SNR=8.4						
GNI	Garni	56.90	315	P	P	04 12 36.8	0.0
GNI				pmax	pmax		
	comp=Z,82nm,0.9s						
GNI	Garni	56.90	315	eP	P	04 12 36.2	-0.6
	comp=Z,133nm,1.0s,mb5.9						
ASAJ	Asahikawa	57.16	39	P	P	04 12 38.5	-0.1
	comp=Z,97nm,1.0s,mb5.8,baz=271,slow=14,SNR=11						
ASAJ	Asahikawa	57.16	39	P	P	04 12 38.5	-0.1
ASAJ				pmax	pmax		
	comp=Z,97nm,1.0s						
TI2	Plekhanov	57.56	317	i P	P	04 12 41.6	+0.2
STKA	Stephens Creek	57.69	133	P	P	04 12 42.0	-0.5
	comp=Z,35nm,0.8s,mb5.4,baz=308,slow=6.1,SNR=7.5						
KMBO	Kilima Mbogo	57.80	266	P	P	04 12 44.0	+0.5
	comp=Z,12nm,0.9s,mb4.9,baz=62,slow=7.6,SNR=3.7						
KMBO	Kilima Mbogo	57.80	266	P	P	04 12 44.0	+0.5
KMBO				pmax	pmax		
	comp=Z,12nm,0.9s						
ZEI	Tsey	58.57	318	eP	P	04 12 48.1	-0.4
ZEI				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.7						
YSS	Yuzh-Sakhalins	58.65	37	⇑iP	P	04 12 48.0	-1.0
YSS				e	pP	04 13 00.0	-2.4
YSS				pmax	pmax		
	comp=Z,170nm,1.1s,mb6.0						
YSS	Yuzh-Sakhalins	58.65	37	eP	P	04 12 48.3	-0.6
	comp=Z,336nm,1.4s,mb6.2						
ARU	Arti	58.76	337	eP	P	04 12 48.1	-1.5
ARU				e	pP	04 13 02.1	-0.9
YUK	Yuzh-Kuril'sk	59.22	41	eP	P	04 12 50.6	-2.4
KIV	Kislovodsk	59.87	319	eP	P	04 12 56.0	-1.5
	comp=Z,143nm,1.0s,mb6.0						
GOF	Gofitskoye	60.11	320	⇓iP	P	04 12 56.5	-2.6
GOF				pmax	pmax		
	comp=Z,140nm,1.3s,mb5.8						
ASF	Jabal al Asfar	60.33	304	P	P	04 13 01.4	+0.6
	comp=Z,37nm,1.2s,mb5.3,baz=28,slow=2.4,SNR=7.6						
EIL	Elat	61.42	301	P	P	04 13 08.4	+0.2
	comp=Z,77nm,1.2s,mb5.7,baz=94,slow=3.2,SNR=6.9						
EIL	Elat	61.42	301	eP	P	04 13 08.3	+0.1
	comp=Z,54nm,1.0s,mb5.6						
SOC	Sochi	61.70	317	eP	P	04 13 05.9	-3.9
SOC				pmax	pmax		
	comp=Z,164nm,1.1s,mb6.1						
SOC				pmax	pmax		
	comp=N,33nm,1.2s						
SOC				pmax	pmax		
	comp=E,19nm,0.8s						
PHNC	Paralimni	63.32	307	P	P	04 13 18.6	-2.2
CSS	Prodhromos	63.87	307	eP	P	04 13 23.9	-0.5
	comp=E,241nm,1.2s,mb6.1						
MAMC	Mammari	64.01	307	P	P	04 13 25.4	+0.1
ALFC	Alevga	64.50	307	P	P	04 13 27.8	-0.7
	comp=E,3.0nm,0.7s						
PPCY	Paphos	64.64	306	P	P	04 13 28.1	-1.3
AKMC	Akamas	64.69	306	P	P	04 13 28.5	-1.2
BRTR	Keskin Array B	64.79	312	P	P	04 13 29.1	-1.2
	comp=E,53nm,0.8s,mb5.6,baz=140,slow=6.8,SNR=33						
BRTR				pP	pP	04 13 43.0	-0.9
	comp=E,25nm,0.8s,baz=127,slow=6.2,SNR=4.6						
BRTR	Keskin Array B	64.79	312	P	P	04 13 29.2	-1.1
BRTR				*PP	pP	04 13 43.0	-0.9
BRTR				pmax	pmax		
	comp=Z,53nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,25nm,0.8s						
SIM	Simferopol'	65.95	317	eP	P	04 13 37.0	-0.6
SIM				pmax	pmax		
	comp=Z,94nm,1.1s,mb5.7						
ISP	Isparta	66.72	309	eP	P	04 13 41.8	-0.8
	comp=Z,57nm,0.6s,mb5.8						
MOS	Moscow	67.85	329	eP	P	04 13 48.3	-1.1
MOS				e	pP	04 14 00.1	-3.0
MOS				pmax	pmax		
	comp=Z,508nm,1.8s,mb6.2						
OBN	Obninsk	68.13	328	⇓iP	P	04 13 50.4	-0.8
OBN				pmax	pmax		
	comp=Z,111nm,1.0s,mb5.8						
SKR	Severo-Kuril's	68.21	37	eP	P	04 13 47.5	-4.3
SKR				pmax	pmax		
	comp=Z,190nm,0.8s,mb6.2						
LSZ	Lusaka	68.96	252	eP	P	04 13 57.6	+0.6
	comp=Z,74nm,1.3s,mb5.5						
KIS	Kishinev	70.07	318	eP	P	04 14 02.0	-1.2
KIS				e	pP	04 14 17.0	0.0
SANT	Santorini	70.43	307	eP	P	04 14 04.3	-1.3
	comp=Z,192nm,1.1s,mb5.9						
PET	Petropavlovsk	70.47	35	⇓iP	P	04 14 04.6	-0.9
PET				pmax	pmax		
	comp=Z,122nm,0.8s,mb5.9						
IDI	Anoyia	70.73	306	P	P	04 14 07.5	+0.1
	comp=Z,86nm,1.0s,mb5.6,baz=100,slow=7.0,SNR=11						
IDI				pP	pP	04 14 20.2	-1.1
	comp=Z,83nm,0.7s,baz=106,slow=5.2,SNR=9.2						
AKASG	Malin Array Be	70.79	322	P	P	04 14 05.9	-1.6
	comp=Z,33nm,0.5s,mb5.5,baz=81,slow=4.6,SNR=26						
AKASG				pP	pP	04 14 20.1	-1.2
	comp=Z,14nm,0.6s,baz=87,slow=4.2,SNR=3.6						
AKASG	Malin Array Be	70.79	322	P	P	04 14 05.9	-1.6
AKASG				*PP	pP	04 14 20.1	-1.2
AKASG				pmax	pmax		
	comp=Z,33nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,14nm,0.6s						
KDZ	Kurdzhali	71.31	312	i P	P	04 14 10.0	-0.8
GVD	Gavdhos	71.33	305	eP	P	04 14 10.7	-0.4
	comp=Z,204nm,1.1s,mb6.0						
GVD				e	pP	04 14 19.5	-5.3
MLR	Muntele Rosu	71.67	316	P	P	04 14 13.0	+0.2
	comp=Z,108nm,0.8s,mb5.8,baz=124,slow=1.5,SNR=19						
MLR	Muntele Rosu	71.67	316	P	P	04 14 13.0	+0.1
MLR				pmax	pmax		
	comp=Z,108nm,0.8s						
RZN	Rozhen	71.83	312	i P	P	04 14 13.0	-0.9
PGB	Panagyurishte	72.38	313	i P	P	04 14 16.0	-1.2
MMB	Musomiste	72.55	312	i P	P	04 14 16.0	-2.2
VTS	Vitosha	73.09	313	i P	pP	04 14 42.0	+6.8
LBTB	Lobatse	73.47	242	eP	P	04 14 21.1	-2.9
	comp=Z,35nm,1.0s,mb5.2						
IDID	Didziasalis	73.50	326	eP	P	04 14 33.4	+10
IIGN	Ignalina	73.79	326	eP	P	04 14 33.3	+8.1
IZAR	Zarasai	73.88	327	eP	P	04 14 34.5	+8.7
ISAL	Salakas	73.90	327	eP	P	04 14 34.6	+8.8
BOLS	Boljevac	74.17	314	⇑iP	P	04 14 26.7	-1.0
SKO	Skopje	74.30	312	i P	P	04 14 27.0	-1.4
KWP	Kalwaria	74.62	320	eP	P	04 14 30.3	+0.2
BOSA	Boshof	74.64	239	eP	P	04 14 27.1	-3.7
	comp=Z,64nm,1.3s,mb5.4						
APA	Apatity	74.74	340	⇓iP	P	04 14 29.7	-0.8
APA				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
KOLS	Kolonicke sedl	74.78	319	i P	P	04 14 31.5	+0.5
KOLS				e		04 14 35.1	
DZM	Mont Dzumac	75.02	114	eP	P	04 14 34.3	+1.3
DZM	Mont Dzumac	75.02	114	eP	P	04 14 34.3	+1.3
SUW	Suwalki	75.19	325	eP	P	04 14 32.2	-1.1
CRVS	Cervenica-Dubn	75.30	319	eP	P	04 14 35.0	+1.0
CRVS				e		04 14 37.7	
FINES	FINESS Array B	75.53	332	P	P	04 14 34.4	-0.7
	comp=Z,24nm,0.8s,mb5.2,baz=99,slow=6.4,SNR=11						
FINES	FINESS Array B	75.53	332	P	P	04 14 34.4	-0.7
FINES				pmax	pmax		
	comp=Z,24nm,0.8s						
KAF	Kangasniemi	75.62	333	ep	P	04 14 35.3	-0.3
	comp=Z,25nm,0.6s,mb5.3,baz=104,slow=5.4						
KAF	Kangasniemi	75.62	333	eP	P	04 14 35.3	-0.3
KAF				pmax	pmax		

	comp=Z,25nm,0.6s,mb5.3						
DIVS	Divcibare	75.62	314	⇓iP	P	04 14 35.4	-0.6
KECS	Kecovo	75.87	319	i P	P	04 14 37.6	+0.3
KECS				e	pP	04 14 47.0	-4.2
MAW	Mawson	75.89	192	eP	P	04 14 37.7	+0.7
	comp=Z,11nm,0.8s,mb4.8						
PKSN	Nyarlorinc	76.06	317	⇑iP	P	04 14 38.5	+0.1
NIE	Niedzica	76.12	320	i P	P	04 14 39.3	+0.6
PSZ	Piszkesteto	76.18	318	eP	P	04 14 39.1	0.0
	comp=Z,333nm,1.5s,mb6.0						
OJC	Ojcow	76.57	320	eP	P	04 14 41.4	+0.1
VYHS	Vyhne	76.96	319	eP	P	04 14 43.5	0.0
SRO2	Moca	77.17	318	eP	P	04 14 45.2	+0.5
SRO2				e	pP	04 14 59.5	+1.0
RHK1	Bakonya	77.20	316	i	P	04 14 44.3	-0.6
SRO	Srobarova	77.23	318	eP	P	04 14 46.1	+1.1
SRO				e	pP	04 14 58.9	0.0
KOLL	Kolacno	77.26	319	eP	P	04 14 45.3	+0.1
KOLL				e	pP	04 15 02.4	+3.4
OKC	Ostrava-Krasne	77.58	320	eP	P	04 14 47.3	+0.4
RAC	Raciborz	77.58	320	eP	P	04 14 47.6	+0.7
KEV	Kevo	77.73	341	ep	P	04 14 46.6	-0.7
SMOL	Smolenice	77.89	318	eP	P	04 14 48.9	+0.3
SMOL				epP	pP	04 15 01.3	-1.2
MORC	Moravsky Berou	77.96	320	eP	P	04 14 49.4	+0.4
	comp=Z,145nm,1.0s,mb5.9						
ZST	Bratislava	78.08	318	eP	P	04 14 50.0	+0.4
ZST				epP	pP	04 15 03.6	0.0
ARCES	ARCESS Array B	78.16	340	P	P	04 14 49.6	-0.1
	comp=Z,47nm,0.7s,mb5.5,baz=90,slow=6.1,SNR=16						
ARCES				pP	pP	04 15 04.5	+0.9
	comp=Z,53nm,0.7s,baz=90,slow=4.9,SNR=8.0						
ARCES				sP	sP	04 15 09.2	+0.4
	comp=Z,39nm,0.7s,baz=91,slow=5.0,SNR=4.6						
ARCES	ARCESS Array B	78.16	340	P	P	04 14 49.6	-0.1
ARCES				*PP	pP	04 15 04.5	+0.9
ARCES				pmax	pmax		
	comp=Z,47nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,53nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,39nm,0.7s						
BILL	Bilibino	78.49	21	eP	P	04 14 50.8	-0.7
	comp=Z,43nm,1.0s,mb5.3						
GKP	Gorka Klasztor	78.56	323	eP	P	04 14 52.0	-0.2
KTK1	Kautokeino	78.78	340	eP	P	04 14 53.6	+0.5
KTK1				AMb	AMB	04 14 55.7	
	comp=Z,158nm,1.1s,mb5.8						
KTK1	Kautokeino	78.78	340	eP	P	04 14 53.6	+0.5
	comp=Z,158nm,1.1s,mb5.9						
DPC	Dobruska-Polom	78.80	320	eP	P	04 14 54.2	+0.6
DPC				epP	pP	04 15 03.4	-4.1
KSP	Ksiaz	78.87	321	⇑eP	P	04 14 54.4	+0.4
KSP				e	pP	04 15 04.2	-3.7
KSP	Ksiaz	78.87	321	eP	P	04 14 54.6	+0.6
FX1	Attu Island--F	79.00	37	eP	P	04 14 54.2	-0.4
UPC	Upice	79.01	320	eP	P	04 14 55.5	+0.7
ARSA	Arzberg	79.05	317	⇑iP	P	04 14 55.6	+0.6
	comp=Z,196nm,1.2s,mb5.9						
ARSA	Arzberg	79.05	317	⇑iP	P	04 14 55.6	+0.6
	comp=Z,196nm,1.2s,mb5.9						
SUR	Sutherland	79.26	236	eP	P	04 14 54.6	-2.0
	comp=Z,33nm,0.7s,mb5.4						
OBKA	Obir	79.67	316	⇑iP	P	04 14 59.0	+0.6
	comp=Z,153nm,1.2s,mb5.8						
OBKA	Obir	79.67	316	⇑iP	P	04 14 59.2	+0.8
	comp=Z,153nm,1.2s,mb5.8						
OBKA	Obir	79.67	316	⇑iP	P	04 14 59.2	+0.8
	comp=Z,153nm,1.2s,mb5.8						
PRU	Pruhonice	79.91	320	eP	P	04 14 59.9	+0.3
PRU				epP	pP	04 15 07.8	-5.8
PVCC	Panska Ves	79.93	320	eP	P	04 15 00.3	+0.6
MOA	Molln	79.94	318	⇑iP	P	04 15 00.0	+0.2
	comp=Z,89nm,1.3s,mb5.5						
MOA	Molln	79.94	318	⇑iP	P	04 15 00.0	+0.2
	comp=Z,89nm,1.3s,mb5.5						
TRI	Trieste	80.17	315	eP	P	04 15 00.6	-0.5
PTQR	Pietraquaria	80.27	312	eP	P	04 15 01.3	-0.4
AQU	L’Aquila	80.28	312	eP	P	04 15 01.5	-0.2
BRG	Berggiesshubel	80.36	321	⇑iP	P	04 15 02.6	+0.6
BRG				i	pP	04 15 11.9	-4.0
BRG				pmax	pmax		
	comp=Z,98nm,1.0s,mb5.7						
BRG	Berggiesshubel	80.36	321	⇑iP	P	04 15 02.6	+0.6
	comp=Z,98nm,1.0s,mb5.7						
BRG				i	pP	04 15 11.9	-4.0
GEC2	GERESS Array S	80.38	319	eP	P	04 15 02.8	+0.6
GEC2				pmax	pmax		
	comp=Z,256nm,1.0s,mb6.1						
GEC2	GERESS Array S	80.38	319	eP	P	04 15 02.8	+0.6
	comp=Z,256nm,1.0s,mb6.1						
GERES	GERESS Array B	80.38	319	P	P	04 15 02.7	+0.6
	comp=Z,104nm,0.7s,mb5.9,baz=90,slow=5.3,SNR=49						
GERES				pP	pP	04 15 16.8	+0.7
	comp=Z,50nm,0.9s,baz=101,slow=3.9,SNR=4.9						
GERES	GERESS Array B	80.38	319	P	P	04 15 02.7	+0.5
GERES				*PP	pP	04 15 16.8	+0.7
GERES				pmax	pmax		
	comp=Z,104nm,0.7s						
GERES				pmax	pmax		
	comp=Z,50nm,0.9s						
TRO	Tromso	80.42	340	eP	P	04 15 00.3	-1.6
TRO				ePP	PP	04 18 05.3	-1.6
KHC	Kasperske Hory	80.48	319	eP	P	04 15 02.9	+0.2
KHC				epP	pP	04 15 11.1	-5.5
PTCC	Patocco-Chiusa	80.49	316	eP	P	04 15 02.6	-0.1
NRCA	Norcia	80.51	312	eP	P	04 15 02.8	-0.2
KBA	Koelnbreinsper	80.53	317	⇑iP	P	04 15 02.9	-0.1
	comp=Z,107nm,1.1s,mb5.7						
KBA	Koelnbreinsper	80.53	317	⇑iP	P	04 15 02.9	-0.1
	comp=Z,103nm,1.2s,mb5.6						
GMNA	Gemona	80.56	316	eP	P	04 15 02.5	-0.7
RUE	Ruedersdorf	80.57	322	eP	P	04 15 01.9	-1.2
	comp=Z,233nm,1.1s,mb6.0						
SNTG	Esanatoglia	80.65	313	eP	P	04 15 03.3	-0.4
ARV	Arcevia	80.66	313	eP	P	04 15 03.9	+0.1
FSSB	Fossombrone	80.79	313	eP	P	04 15 03.5	-0.9
MNS	Montasola	80.82	312	eP	P	04 15 04.1	-0.5
FVI	Forni Avoltri	80.89	316	eP	P	04 15 04.7	-0.2
WET	Wettzell	80.94	319	eP	P	04 15 05.6	+0.5
CLL	Collm	80.97	321	⇑iP	P	04 15 05.2	0.0
CLL				e		04 15 14.0	
CLL				pmax	pmax		
	comp=Z,92nm,1.1s,mb5.6						
CLL	Collm	80.97	321	⇑iP	P	04 15 05.2	0.0
	comp=Z,92nm,1.1s,mb5.6						
CLL				e		04 15 14.0	
CLL	Collm	80.97	321	⇑P	P	04 15 05.2	0.0
	comp=Z,logA/T=1.9,mb5.6						
CLL				e*PP	pP	04 15 15.0	-4.2
CLL				e*SP	sP	04 15 21.0	-3.5
RSM	Repubblica di	81.03	314	eP	P	04 15 05.4	-0.3
HFS	Hagfors	81.24	330	P	P	04 15 06.1	-0.3
	comp=Z,19nm,0.6s,mb5.2,baz=117,slow=6.6,SNR=8.4						
HFS	Hagfors	81.24	330	P	P	04 15 06.1	-0.3
HFS				pmax	pmax		
	comp=Z,19nm,0.6s						
NKC	Novy Kostel	81.27	320	eP	P	04 15 07.2	+0.4
NKC				epP	pP	04 15 16.3	-4.5
SFI	Santa Sofia	81.47	313	eP	P	04 15 09.0	+1.0
MOR8	Moi Rana	81.54	336	eP	P	04 15 07.2	-0.6
MOR8				AMb	AMB	04 15 09.3	
	comp=Z,112nm,1.4s,mb5.6						
MOR8				epP	pP	04 15 21.3	-0.6
MOR8	Moi Rana	81.54	336	eP	P	04 15 07.2	-0.6
	comp=Z,112nm,1.4s,mb5.6						
PGD	Poggio Sodo	81.56	313	eP	P	04 15 10.0	+1.6
CTI	Castel Tesino	81.66	316	eP	P	04 15 09.4	+0.5
VMG	Vicchio	81.69	314	eP	P	04 15 09.7	+0.5
WTTA	Wattenberg	81.70	317	⇑iP	P	04 15 09.1	0.0
	comp=Z,159nm,0.9s,mb6.0						
WTTA	Wattenberg	81.70	317	⇑iP	P	04 15 09.1	0.0
	comp=Z,159nm,0.9s,mb6.0						
WATA	Walderalm	81.74	317	⇑iP	P	04 15 09.3	0.0
	comp=Z,54nm,0.6s,mb5.7						
WATA	Walderalm	81.74	317	⇑iP	P	04 15 09.2	-0.1
	comp=Z,192nm,1.2s,mb5.9						
WATA	Walderalm	81.74	317	⇑iP	P	04 15 09.2	-0.1
	comp=Z,192nm,1.2s,mb5.9						
MOX	Moxa	81.82	320	eP	P	04 15 10.0	+0.3
MOX	Moxa	81.82	320	i P	P	04 15 10.0	+0.3
SEI	Scarperia	81.82	314	eP	P	04 15 10.5	+0.6
FUR	Furstenfeldbru	81.96	318	eP	P	04 15 10.6	+0.1
	comp=Z,99nm,0.9s,mb5.7						
SQTA	Sankt Quirin	81.99	317	⇑iP	P	04 15 10.7	+0.1
	comp=Z,94nm,0.6s,mb5.9						
SQTA	Sankt Quirin	81.99	317	⇑iP	P	04 15 10.7	+0.1
	comp=Z,94nm,0.6s,mb5.9						
GRA1	Grafenberg Arr	82.04	319	eP	P	04 15 11.8	+1.0
	comp=Z,234nm,1.2s,mb6.0						
GRF	Grafenberg Arr	82.04	319	eP	P	04 15 11.8	+1.0
GRF				pmax	pmax		
	comp=Z,234nm,1.2s,mb6.0						
GRF	Grafenberg Arr	82.04	319	eP	P	04 15 11.8	+1.0
	comp=Z,234nm,1.2s,mb6.0						
MOTA	Moosalm	82.06	317	⇑iP	P	04 15 11.0	0.0
	comp=Z,106nm,0.8s,mb5.8						
MOTA	Moosalm	82.06	317	⇑iP	P	04 15 10.7	-0.3
	comp=Z,106nm,0.8s,mb5.8						
MOTA	Moosalm	82.06	317	⇑iP	P	04 15 10.7	-0.3
	comp=Z,106nm,0.8s,mb5.8						
ZCCA	Zocca	82.10	314	eP	P	04 15 13.1	+1.8
LOF	Lofoten	82.11	338	eP	P	04 15 12.2	+1.4
LOF				AMb	AMB	04 15 17.9	
	comp=Z,132nm,1.7s,mb5.6						
LOF				epP	pP	04 15 25.1	+0.3
LOF	Lofoten	82.11	338	eP	P	04 15 12.2	+1.4
	comp=Z,132nm,1.7s,mb5.6						
GSCL	Gusciola	82.38	314	eP	P	04 15 13.6	+0.9
NSS	Namsos	82.41	334	eP	P	04 15 11.2	-1.3
NSS				epP	pP	04 15 26.0	-0.4
MAIM		82.44	313	P	P	04 15 12.4	-0.6
ERBM	Eremo	82.50	314	eP	P	04 15 14.6	+1.3
NB2	NORSAR Subarra	82.53	331	P	P	04 15 12.2	-0.9
	comp=Z,39nm,1.0s,mb5.4,baz=92,slow=5.3						
NB2	NORSAR Subarra	82.53	331	P	P	04 15 12.2	-0.9
	baz=92,slow=5.3						
NOA	NORSAR Array B	82.53	331	P	P	04 15 12.8	-0.3
	comp=Z,17nm,0.8s,mb5.1,baz=94,slow=5.4,SNR=11						
NOA				PP	PP	04 18 26.1	+1.5
	comp=Z,2.3nm,0.7s,baz=93,slow=8.0,SNR=3.8						
NOA	NORSAR Array B	82.53	331	P	P	04 15 12.8	-0.3
NOA						04 18 26.1	
NOA				pmax	pmax		
	comp=Z,17nm,0.8s						
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BRMO	Bormio	82.55	316	eP	P	04 15 13.9	+0.4
CLZ	Clausthal	82.64	321	eP	P	04 15 14.3	+0.5
	comp=Z,168nm,1.2s,mb6.0						
NAO01	NORSAR Array S	82.68	331	eP	P	04 15 11.1	-2.8
	comp=Z,27nm,0.9s,mb5.3						
HDH	Heidenheim	82.69	318	⇑eP	P	04 15 13.8	-0.3
BSEG	Bad Segeberg	82.72	324	eP	P	04 15 15.0	+0.8
BSEG				pmax	pmax		
	comp=Z,197nm,1.1s,mb6.0						
BSEG	Bad Segeberg	82.72	324	eP	P	04 15 14.9	+0.7
UBR	Uberruh	82.74	317	⇑eP	P	04 15 14.5	+0.1
BACM		82.75	314	P	P	04 15 15.7	+1.1
GRAM		82.75	314	P	P	04 15 15.5	+0.9
DAVA	Damuels	82.89	317	⇑iP	P	04 15 16.0	+0.8
	comp=Z,160nm,0.9s,mb6.0						
DAVA	Damuels	82.89	317	⇑iP	P	04 15 16.0	+0.8
	comp=Z,160nm,0.9s,mb6.0						
CODM		82.91	314	P	P	04 15 15.6	+0.2
SIND	Sindeldorf	83.09	319	⇑eP	P	04 15 16.5	+0.3
BOB	Bobbio (Coli)	83.19	314	eP	P	04 15 17.4	+0.6
BUCH	Bad Urach	83.25	318	⇑eP	P	04 15 17.1	+0.1
STU	Stuttgart	83.36	318	eP	P	04 15 17.6	+0.1
	comp=Z,19nm,0.6s,mb5.3						
GUT	Gutenstein	83.41	318	⇑eP	P	04 15 18.0	+0.2
MUD	Monsted U’grnd	83.43	326	eP	P	04 15 17.3	-0.4
MUD				pmax	pmax		
	comp=Z,53nm,0.9s,mb5.6						
MUD	Monsted U’grnd	83.43	326	eP	P	04 15 17.3	-0.4
	comp=Z,53nm,0.9s,mb5.6						
MUD	Monsted U’grnd	83.43	326	i P	P	04 15 17.3	-0.4
	comp=Z,53nm,0.9s,mb5.6						
RPZ	Rata Peaks	83.58	135	P	P	04 15 20.3	+1.5
	comp=Z,20nm,0.7s,mb5.4,baz=6.0,slow=2.3,SNR=4.8						
DOMB	Dombas	83.60	332	eP	P	04 15 18.3	-0.2
DOMB				AMb	AMB	04 15 20.5	
	comp=Z,56nm,1.3s,mb5.5						
DOMB				epP	pP	04 15 32.7	+0.2
DOMB	Dombas	83.60	332	eP	P	04 15 18.3	-0.2
	comp=Z,56nm,1.3s,mb5.5						
TOD	Tromm	83.61	319	⇑eP	P	04 15 19.2	+0.4
TOD	Tromm	83.61	319	eP	P	04 15 19.1	+0.3
LBG	Lerchenberg	83.62	318	⇑eP	P	04 15 19.1	+0.2
SPAK	Spaichingen	83.63	318	⇑eP	P	04 15 19.3	+0.3
VAI	Varese	83.66	315	eP	P	04 15 18.5	-0.7
SWS	Schriesheim	83.68	319	⇑eP	P	04 15 19.4	+0.2
PCP	Pian Castagno	83.84	314	P	P	04 15 19.6	-0.5
BFO	Black Forest	83.94	318	eP	P	04 15 20.4	-0.1
BFO				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.8						
BFO	Black Forest	83.94	318	eP	P	04 15 20.8	+0.3
	comp=Z,82nm,1.1s,mb5.8						
KTD	Kalmit	84.08	319	eP	P	04 15 21.7	+0.5
KTD	Kalmit	84.08	319	eP	P	04 15 21.4	+0.2
FIN	Finale Ligure	84.09	314	eP	P	04 15 20.8	-0.6
FELD	Feldberg	84.16	317	⇑eP	P	04 15 21.8	+0.2
MCGN	Macugnaga	84.21	316	eP	P	04 15 21.9	0.0
KIZ	Kirchzarten	84.22	318	⇑eP	P	04 15 21.8	-0.1
ORO	Oropa	84.22	315	eP	P	04 15 21.4	-0.6
ORX	Oropa	84.22	315	P	P	04 15 20.6	-1.4
LANF	Langenberg	84.27	319	eP	P	04 15 22.4	+0.2
STR	Strasbourg	84.31	318	eP	P	04 15 22.6	+0.2
STR	Strasbourg	84.31	318	eP	P	04 15 23.3	+0.9
MOL	Molde	84.31	332	eP	P	04 15 23.9	+1.9
MOL				AMb	AMB	04 15 26.5	
	comp=Z,77nm,0.8s,mb5.9						
MOL	Molde	84.31	332	eP	P	04 15 23.9	+1.9
	comp=Z,77nm,0.8s,mb5.9						
IMI	Imperia	84.33	314	eP	P	04 15 22.4	-0.2
ROB	Roburent	84.33	314	P	P	04 15 23.0	+0.4
MONE	Monesi	84.42	314	P	P	04 15 23.1	+0.1
ABH	Alteburg	84.42	320	⇑eP	P	04 15 23.6	+0.7
ABH	Alteburg	84.42	320	eP	P	04 15 23.3	+0.4
LIBD	Limburg	84.42	318	⇑eP	P	04 15 23.5	+0.5
LIBD	Limburg	84.42	318	eP	P	04 15 23.4	+0.4
NEGI	Negi	84.46	313	P	P	04 15 23.5	+0.3
BBS	Basel-Blauen	84.50	317	⇑eP	P	04 15 23.4	0.0
SAOF	Saorge	84.56	314	eP	P	04 15 23.9	+0.1
SAOF	Saorge	84.56	314	eP	P	04 15 24.0	+0.2
WLS	Welschbruch	84.58	318	eP	P	04 15 21.9	-1.9
WLS	Welschbruch	84.58	318	eP	P	04 15 23.8	0.0
ENR	Entracque	84.65	314	P	P	04 15 23.5	-0.7
AUTN	L’Aution	84.66	314	eP	P	04 15 24.4	+0.2
AUTN	L’Aution	84.66	314	eP	P	04 15 23.6	-0.6
REVF	Revere	84.71	313	eP	P	04 15 23.5	-1.0
ECH	Echery	84.72	318	eP	P	04 15 25.0	+0.6
ECH	Echery	84.72	318	eP	P	04 15 24.3	-0.1
STV	Sta Anna Valdi	84.72	314	P	P	04 15 24.7	+0.1
RSP	Reno Superiore	84.74	315	P	P	04 15 23.3	-1.3
RUP	Ruppelstein	84.74	319	⇑eP	P	04 15 25.2	+0.7
RUP	Ruppelstein	84.74	319	eP	P	04 15 24.7	+0.2
BHB	Bricherasio	84.75	314	P	P	04 15 22.9	-1.7
MOF	Molkenrain	84.75	317	eP	P	04 15 24.3	-0.3
TOUF	Mont Tournerai	84.78	314	eP	P	04 15 25.5	+0.6
LSD	Ceresole Reale	84.80	315	P	P	04 15 25.3	+0.3
WTSB	Winterswijk	84.85	322	⇑iP	P	04 15 25.5	+0.5
	comp=Z,129nm,1.1s,mb6.0						
MVIF	Mont Vial	84.86	314	eP	P	04 15 26.5	+1.3
MVIF	Mont Vial	84.86	314	eP	P	04 15 23.9	-1.3
BLS5	Blasjo	84.87	329	eP	P	04 15 26.7	+1.8
BLS5				AMb	AMB	04 15 28.7	
	comp=Z,53nm,1.6s,mb5.4						
BLS5				epP	pP	04 15 39.3	+0.3
BLS5	Blasjo	84.87	329	eP	P	04 15 26.7	+1.8
	comp=Z,53nm,1.6s,mb5.4						
PZZ	Prazzo	84.87	314	P	P	04 15 24.1	-1.2
FENE	Fenestrelle	84.88	315	P	P	04 15 25.3	-0.1
KIWB	Kanaga Island	84.89	38	eP	P	04 15 24.6	-0.6
WIT	Witteveen	84.91	322	eP	P	04 15 26.3	+1.1
	comp=Z,360nm,1.4s,mb6.3						
LOMF	Lomont	84.97	317	eP	P	04 15 25.2	-0.5
LOMF	Lomont	84.97	317	eP	P	04 15 25.7	0.0
RRL	Cesana Torines	85.08	315	P	P	04 15 26.1	-0.2
LPL	La Plagne	85.10	315	eP	P	04 15 26.9	+0.5
	comp=Z,374nm,1.1s,mb6.1						
BNI	Bardonecchia	85.16	315	eP	P	04 15 26.6	-0.1
	comp=Z,84nm,1.0s,mb5.8						
HGN	Heimansgroeve	85.43	320	eP	P	04 15 28.2	+0.3
	comp=Z,47nm,1.5s,mb5.4						
THEF	They Montfort	85.50	318	eP	P	04 15 27.3	-1.0
THEF	They Montfort	85.50	318	eP	P	04 15 27.9	-0.4
URZ	Urewera	87.06	129	P	P	04 15 35.7	-0.4
	comp=Z,24nm,0.9s,mb5.5,baz=338,slow=0.9,SNR=6.0						
PLDF	La Plantade	87.25	316	eP	P	04 15 38.3	+1.4
LBL	Lubilhac	87.57	315	eP	P	04 15 40.2	+1.7
AGO	Saint Agoulin	87.58	316	eP	P	04 15 39.2	+0.7
AGO	Saint Agoulin	87.58	316	eP	P	04 15 38.1	-0.4
PYM	Petit Puy Mans	87.69	316	eP	P	04 15 41.0	+2.0
PYM	Petit Puy Mans	87.69	316	eP	P	04 15 39.8	+0.8
EBR	Ebro Roquetas	90.01	311	eP	P	04 15 50.7	+0.6
VNDA	Vanda	90.02	168	eP	P	04 15 47.6	-1.7
	comp=Z,22nm,1.2s,mb5.4						
EBIE	Bielsa	90.05	313	P	P	04 15 48.8	-1.5
	comp=Z,23nm,1.0s,mb5.5						
ERTA	Horta de San J	90.11	311	P	P	04 15 51.6	+1.0
	comp=Z,23nm,0.8s,mb5.6						
DAG	Danmarks Havn	90.39	348	i	P	04 15 50.6	-0.5
DAG	Danmarks Havn	90.39	348	i	P	04 15 50.6	-0.5
EKA	Eskdalemuir Ar	90.43	326	P	P	04 15 52.5	+0.8
	comp=Z,30nm,0.6s,mb5.8,baz=93,slow=5.4,SNR=35						
EKA	Eskdalemuir Ar	90.43	326	P	P	04 15 52.5	+0.8
EKA				pmax	pmax		
	comp=Z,30nm,0.6s						
EMOS	Mosqueruela	90.79	310	P	P	04 15 55.0	+1.2
	comp=Z,252nm,1.4s,mb6.4						
SBA	Scott Base	91.12	168	eP	P	04 15 54.0	-0.6
	comp=Z,56nm,1.2s,mb5.8						
EQES	Quesada	93.15	308	P	P	04 16 05.2	+0.4
	comp=Z,40nm,1.2s,mb5.7						
GUD	Guadarrama	93.53	311	P	P	04 16 08.0	+1.6
	comp=Z,9.3nm,0.6s,mb5.4						
ESDC	Sonseca Array	93.55	310	P	P	04 16 07.4	+0.9
	comp=Z,4.4nm,0.6s,mb5.1,baz=63,slow=4.1,SNR=19						
ESDC				pP	pP	04 16 21.3	+0.5
	comp=Z,9.4nm,0.7s,baz=59,slow=4.3,SNR=9.7						
EBAN	Banos Encina	93.65	309	P	P	04 16 07.7	+0.7
ILAR	Eielson Array	97.13	22	P	P	04 16 21.1	-1.1
	comp=Z,3.8nm,0.7s,mb4.9,baz=282,slow=3.9,SNR=11						
ILAR				PP	PP	04 20 14.9	-6.3
	comp=Z,2.8nm,0.9s,baz=298,slow=6.2,SNR=4.1						
ILAR	Eielson Array	97.13	22	P	P	04 16 21.1	-1.1
ILAR						04 20 15.0	
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SNAA	Sanae	97.14	198	PKKPbc		04 33 01.3	
	comp=Z,1.2nm,0.7s,baz=240,slow=2.7,SNR=6.6						
SNAA	Sanae	97.14	198	P	P	04 16 24.8	+2.7
DBIC	Dimbokro	98.97	278	P	P	04 16 32.9	+1.2
	comp=Z,2.1nm,0.7s,mb4.8,baz=104,slow=9.7,SNR=3.2						
DBIC	Dimbokro	98.97	278	P	P	04 16 32.9	+1.2
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.7s						
INK	Inuvik	99.54	16	P	P	04 16 32.8	-0.2
	comp=Z,7.8nm,0.7s,mb5.3,baz=301,slow=4.8,SNR=12						
INK	Inuvik	99.54	16	P	P	04 16 32.8	-0.2
INK				pmax	pmax		
	comp=Z,8.0nm,0.7s						
DAWY	Dawson	100.27	21	ePdif	P	04 16 36.4	-0.1
YKA	Yellowknife Ar	109.03	14	Pdiff	Pdif	04 17 16.9	+1.7
	comp=Z,1.4nm,0.9s,baz=332,slow=5.2,SNR=7.0						
YKA				PKiKP		04 21 19.0	
	comp=Z,0.6nm,0.6s,baz=1.8,slow=2.2,SNR=8.6						
YKA				PKKPbc		04 32 28.2	
	comp=Z,1.6nm,1.0s,baz=144,slow=3.2,SNR=4.6						
YKA	Yellowknife Ar	109.03	14	P	Pdif	04 17 16.9	+1.7
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
YKA	Yellowknife Ar	109.03	14	Pdif	Pdif	04 17 16.9	+1.7
YKA				PKPdf		04 21 19.1	
YKA				PKKPbc		04 32 28.2	
SCHQ	Schefferville	118.44	348	PKP	PKPdf	04 21 38.1	+1.6
	comp=Z,5.9nm,0.6s,baz=276,slow=1.3,SNR=18						
MXC	Moxie City	119.96	27	P	PKPdf	04 21 41.5	+1.8
OD2	Odessa Site #2	120.05	26	P	PKPdf	04 21 41.2	+1.4
WRD	Warden	120.31	26	P	PKPdf	04 21 42.2	+1.8
GBL	Gable Mountain	120.32	27	P	PKPdf	04 21 42.5	+2.0
PRW	Prosser	120.52	27	P	PKPdf	04 21 43.2	+2.4
REDWA	Red Mountain	120.56	27	P	PKPdf	04 21 43.2	+2.3
VIPM	Ingram Point	121.35	29	P	PKPdf	04 21 44.7	+2.2
LTIM	Timbered Crate	123.32	32	P	PKPdf	04 21 48.5	+2.1
LBCM	Butte Creek Ri	123.63	33	P	PKPdf	04 21 49.0	+2.0
ULM	Lac du Bonnet	124.19	8	PKP	PKPdf	04 21 49.8	+2.0
	comp=Z,15nm,0.7s,baz=348,slow=2.3,SNR=12						
GCMT	Greycliff	124.92	21	ePKP	PKPdf	04 21 50.9	+1.5
ELK	Elko	126.79	28	ePKPdf	PKPdf	04 21 55.1	+2.0
LRV	Little Rabbit	126.89	36	ePKPdf	PKPdf	04 21 56.2	+2.8
NVAR	Mina Array Bea	126.99	32	PKP	PKPdf	04 21 55.4	+1.8
	comp=Z,11nm,0.8s,baz=49,slow=1.2,SNR=16						
MNV	Mina	127.07	32	ePKPdf	PKPdf	04 21 56.2	+2.5
PDAR	Pinedale Array	127.56	23	PKP	PKPdf	04 21 56.3	+1.8
	comp=Z,40nm,1.2s,baz=113,slow=2.6,SNR=20						
PDAR				pPKP		04 22 10.9	
	comp=Z,5.2nm,0.8s,baz=77,slow=1.4,SNR=3.6						
PDAR				sPKP		04 22 16.1	
	comp=Z,11nm,1.0s,baz=90,slow=3.1,SNR=5.0						
MTUM	Tungsten Hills	127.63	34	ePKPdf	PKPdf	04 21 57.5	+2.7
DAU	Daniels Canyon	128.85	26	ePKPdf	PKPdf	04 21 59.2	+2.1
MSU	Marysvale	129.99	28	ePKPdf	PKPdf	04 22 02.5	+3.2
SADO	Sadowa	130.14	354	PKP	PKPdf	04 22 00.5	+1.1
	comp=Z,9.4nm,0.5s,baz=336,slow=1.7,SNR=21						
NEN	Nelson	130.91	32	ePKPdf	PKPdf	04 22 03.6	+2.5
PV10	Paradox Valley	131.49	25	ePKPdf	PKPdf	04 22 05.7	+3.5
PV01	Paradox Valley	131.90	25	ePKPdf	PKPdf	04 22 06.0	+3.0
RW3	Ridgway	132.16	24	PKPdf	PKPdf	04 22 06.0	+2.6
ANMO	Albuquerque	135.49	25	PKP	PKPdf	04 22 12.0	+2.3
	comp=Z,16nm,0.9s,baz=245,slow=1.0,SNR=15						
ANMO				SKPbc		04 25 38.6	
	comp=Z,6.9nm,0.8s,baz=323,slow=3.6,SNR=11						
TXAR	Lajitas Array	141.52	26	PKhKP		04 22 19.1	
	comp=Z,4.3nm,0.6s,baz=254,slow=0.8,SNR=10						
TXAR				SKPbc		04 25 55.4	
	comp=Z,5.8nm,0.8s,baz=281,slow=1.7,SNR=5.6						
TXAR	Lajitas Array	141.52	26	PKP	PKPdf	04 22 19.1	-1.7
TXAR				SKPbc		04 25 55.4	
BAO	Brasilia Array	141.97	251	PKP	PKPdf	04 22 25.0	+3.0
BDFB	Brasilia	141.99	251	PKP	PKPdf	04 22 24.7	+2.8
	comp=Z,9.3nm,0.8s,baz=62,slow=4.0,SNR=4.6						
BDFB	Brasilia	141.99	251	PKIKP	PKPdf	04 22 24.7	+2.7
BDFB				pmax	pmax		
	comp=Z,9.0nm,0.8s						
HKT	Hockley	143.77	16	ePKPdf	PKPdf	04 22 25.1	+0.4
SJG	San Juan	150.31	321	PKPbc	PKPdf	04 22 42.6	+6.8
	comp=Z,37nm,0.5s,baz=34,slow=3.3,SNR=19						
SJG	San Juan	150.31	321	PKIKP	PKPdf	04 22 42.6	+6.8
SJG				pmax	pmax		
	comp=Z,37nm,0.5s						
SJG	San Juan	150.31	321	ePKPbc	PKPdf	04 22 42.5	+6.7
PCRV	Puerto La Cruz	154.55	306	PKPbc	PKPdf	04 22 50.5	+8.5
	comp=Z,12nm,0.5s,baz=320,slow=1.8,SNR=9.2						
LPAZ	La Paz	159.85	235	PKP	PKPdf	04 22 49.1	+0.5
	comp=Z,6.3nm,0.7s,baz=176,slow=4.6,SNR=4.5						
LPAZ				PKPab	PKPab	04 23 28.6	-1.6
	comp=Z,7.3nm,0.6s,baz=91,slow=4.5,SNR=7.1						
LPAZ	La Paz	159.85	235	PKIKP	PKPdf	04 22 49.1	+0.5
LPAZ						04 23 28.6	
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.6s						
LPAZ	La Paz	159.85	235	ePKPdf	PKPdf	04 22 49.0	+0.5
SDV	Santo Domingo	159.96	314	PKP	PKPdf	04 22 50.2	+1.4
	comp=Z,27nm,1.3s,baz=87,slow=3.7,SNR=4.7						
SDV				PKPab	PKPab	04 23 30.5	-0.3
	comp=Z,9.2nm,0.7s,baz=338,slow=1.4,SNR=6.3						
SDV	Santo Domingo	159.96	314	ePKPdf	PKPdf	04 22 50.5	+1.7
ROSC	El Rosal	165.37	312	PKP	PKPdf	04 22 56.6	+2.4
	comp=Z,24nm,1.0s,baz=142,slow=3.0,SNR=9.6						
ROSC				PKPab	PKPab	04 23 54.9	+0.6
	comp=Z,8.7nm,0.6s,baz=132,slow=12,SNR=4.7						
OTAV	Otavalo	171.47	308	ePKPdf	PKPdf	04 23 01.0	+2.8

IDC 26 04:05:32.4±1.1, 2.50N×95.57E, mb4.9/9, mb1 5.0/10, mb1mx4.7/20, ML4.7/1, Error ellipse: s-maj=53.0km s-min=18.4km az=58.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.20	12	Pn	P	04 09 23.0	-0.2

	1.0nm,0.3s,baz=196,slow=11,SNR=5.4						
NWAO	Narrogin (SRO)	40.76	152	P	P	04 13 16.3	-0.7
	14nm,0.7s,baz=318,slow=7.0,SNR=3.6						
WRA	Warramunga Arr	44.10	122	P	P	04 13 43.6	-0.8
	16nm,1.0s,baz=301,slow=9.1,SNR=4.1						
SONM	Songino Array	46.12	10	P	P	04 13 58.5	-1.7
	15nm,0.6s,baz=190,slow=9.6,SNR=7.7						
BVAR	Borovoye Array	54.51	342	P	P	04 15 02.9	-1.2
	6.4nm,0.5s,baz=169,slow=15,SNR=5.3						
CTA	Charters Tower	54.53	117	P	P	04 15 01.1	-3.7
	16nm,0.8s,baz=281,slow=7.8,SNR=3.6						
STKA	Stephens Creek	55.43	132	P	P	04 15 08.6	-2.6
	14nm,0.7s,baz=297,slow=7.2,SNR=3.6						
ARCES	ARCESS Array B	80.77	340	P	P	04 17 46.2	-2.7
	28nm,1.0s,baz=98,slow=7.0,SNR=5.7						
GERES	GERESS Array B	82.77	319	P	P	04 17 58.7	-1.0
	2.5nm,0.8s,baz=114,slow=7.5,SNR=5.1						
HFS	Hagfors	83.79	330	P	P	04 18 03.3	-1.4
	5.2nm,0.6s,baz=90,slow=5.8,SNR=6.0						

IDC 26 04:05:59.0±1.0**, 6.26N**×**92.48E, mb4.7**/7**, mb1 4.8**/7**, mb1mx4.5**/17**, Error ellipse: s-maj=54.3km s-min=23.3km az=32.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	48.72	123	P	P	04 14 45.7	-1.9
	13nm,0.7s,baz=302,slow=8.9,SNR=5.3						
ASAR	Alice Springs	50.19	128	P	P	04 14 57.5	-1.5
	19nm,0.8s,baz=299,slow=7.5,SNR=5.4						
KMBO	Kilima Mbogo	55.61	264	P	P	04 15 37.7	-1.8
	5.9nm,0.8s,baz=45,slow=10,SNR=3.6						
PMG	Port Moresby	56.67	105	P	P	04 15 44.3	-2.7
	16nm,0.7s,baz=284,slow=7.4,SNR=3.6						
STKA	Stephens Creek	60.22	132	P	P	04 16 08.8	-2.7
	7.0nm,0.6s,baz=299,slow=6.6,SNR=6.8						
AKASG	Malin Array Be	68.40	322	P	P	04 17 02.2	-2.6
	2.4nm,0.8s,baz=74,slow=6.7,SNR=3.6						
CLL	Collm	78.56	321	P	pP	04 18 14.0	+10
	logA/T=1.2						
ILAR	Eielson Array	96.85	22	P	P	04 19 32.4	-0.5
	1.0nm,1.0s,baz=301,slow=6.0,SNR=2.9						

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*BJI **26** 04:09:07.2, 8.04N×93.36E, h46^{km}, mb5.0*

*NEIC **26** 04:09:08.4±0.5, 8.16N×93.82E, h30^{km}, mb4.9/6, Error ellipse: s-maj=13.4km s-min=11.2km az=91.0*

*IDC **26** 04:09:10.5±5.0, 8.20N×93.87E, h50^{km}±44^{km}, mb4.4/18, mb1 4.6/18, mb1mx4.5/23, ML5.2/1, Error ellipse: s-maj=27.9km s-min=13.7km az=49.0*

ISC 26 04:09:06.4±0.5**, 8.14N**±0.07×**93.79E**±0.08**, h30**^{km}**, n43, σ1^{s}13**/39**, mb4.8**/25**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.41	26	ePn	P	04 11 51.6	+1.0
	118nm,0.7s						
CMAR	Chiang Mai Arr	11.41	26	P	P	04 11 51.4	+0.8
	5.1nm,0.3s,baz=213,slow=15,SNR=26						
KMI	Kunming	18.92	26	eP	P	04 13 30.5	+3.0
KMI				AMB	AMB		
	comp=Z,55nm,1.2s						
LSA	Lhasa	21.59	354	P	P	04 13 53.8	-2.1
LSA	Lhasa	21.59	354	eP	P	04 13 55.4	-0.5
	comp=Z,90nm,0.6s,mb5.4						
GTA	Gaotai	31.60	9	P	P	04 15 28.8	-0.1
GTA				AMB	AMB		
	comp=Z,34nm,0.9s,mb5.2						
NJ2	Nanjing	33.29	41	eP	P	04 15 45.3	+1.6
HHC	Hu-ho-hao-te	36.21	23	eP	P	04 16 11.0	+2.5
HHC				AP	pP	04 16 20.3	+2.8
HHC				XP	sP	04 16 23.5	+2.2
HHC				PP	PP	04 17 39.0	+7.4
HHC				AMB	AMB		
	comp=Z,19nm,1.1s,mb4.9						
SONM	Songino Array	40.98	13	P	P	04 16 47.6	-0.6
	comp=Z,12nm,0.9s,mb4.5,baz=192,slow=8.7,SNR=4.5						
ULN	Ulaanbaatar	41.16	14	P	P	04 16 48.4	-1.3
	comp=Z,8.4nm,0.7s,mb4.5						
ZAL	Zalesovo	46.24	353	P	P	04 17 29.8	-0.8
	comp=Z,37nm,0.5s,mb5.5,baz=318,slow=7.6,SNR=27						
NWAO	Narrogin (SRO)	46.54	153	P	P	04 17 33.1	-0.2
	comp=Z,16nm,0.6s,mb5.1,baz=322,slow=4.7,SNR=7.5						
BVAR	Borovoye Array	48.63	341	P	P	04 17 48.6	-0.8
	comp=Z,3.8nm,0.5s,mb4.7,baz=149,slow=9.0,SNR=6.7						
BRVK	Borovoye	48.69	341	eP	P	04 17 49.2	-0.6
WRA	Warramunga Arr	48.69	126	P	P	04 17 48.5	-1.8
	comp=Z,10nm,0.8s,mb4.9,baz=303,slow=9.1,SNR=5.2						
ASAR	Alice Springs	50.35	130	P	P	04 18 01.6	-1.4
	comp=Z,9.5nm,0.7s,mb5.0,baz=306,slow=7.2,SNR=6.9						
PMG	Port Moresby	55.94	107	P	P	04 18 44.9	+0.3
	comp=Z,17nm,0.8s,mb5.1,baz=318,slow=4.8,SNR=5.0						
KMBO	Kilima Mbogo	57.11	263	P	P	04 18 54.5	+1.5
	comp=Z,2.2nm,0.6s,mb4.3,baz=56,slow=8.2,SNR=4.8						
KMBO	Kilima Mbogo	57.11	263	eP	P	04 18 56.2	+3.1
EIL	Elat	59.00	300	P	P	04 19 06.1	+0.1
	comp=Z,2.9nm,0.5s,mb4.5,baz=100,slow=11,SNR=2.7						
EIL	Elat	59.00	300	eP	P	04 19 06.4	+0.4
EIL				epP	pP	04 19 14.3	-1.0
BRTR	Keskin Array B	61.99	311	P	P	04 19 24.8	-1.5
	comp=Z,2.6nm,0.6s,mb4.5,baz=128,slow=6.1,SNR=4.7						
AKASG	Malin Array Be	67.73	322	P	P	04 20 01.5	-1.8
	comp=Z,2.3nm,0.7s,mb4.3,baz=84,slow=4.9,SNR=4.6						
IDI	Anoyia	68.13	305	P	P	04 20 05.5	-0.5
	comp=Z,5.7nm,0.6s,mb4.8,baz=75,slow=8.3,SNR=3.8						
MLR	Muntele Rosu	68.74	316	P	P	04 20 09.3	-0.3
	comp=Z,11nm,1.1s,mb4.7,baz=115,slow=2.2,SNR=3.8						
LSZ	Lusaka	69.03	250	eP	P	04 20 12.8	+0.9
FINES	FINESS Array B	72.32	332	P	P	04 20 29.8	-1.2
	comp=Z,4.3nm,0.5s,mb4.7,baz=89,slow=6.0,SNR=8.1						
FINES	FINESS Array B	72.32	332	P	P	04 20 29.8	-1.2
KAF	Kangasniemi	72.40	333	ep	P	04 20 30.8	-0.7
	comp=Z,5.1nm,0.5s,mb4.7,baz=104,slow=5.7						
LBTB	Lobatse	74.07	241	eP	P	04 20 43.7	+1.8
ARCES	ARCESS Array B	74.90	340	P	P	04 20 45.8	0.0
	comp=Z,3.2nm,0.6s,mb4.5,baz=90,slow=6.1,SNR=4.0						
BOSA	Boshof	75.43	238	eP	P	04 20 51.1	+1.3
	comp=Z,12nm,1.0s,mb4.8						
GERES	GERESS Array B	77.40	318	P	P	04 21 00.9	+0.6
	comp=Z,3.5nm,0.8s,mb4.3,baz=89,slow=6.1,SNR=6.1						
CLL	Collm	77.94	321	P	P	04 21 04.0	+0.8
NB2	NORSAR Subarra	79.33	331	P	P	04 21 10.3	-0.4
	comp=Z,6.3nm,0.6s,mb4.7,baz=97,slow=5.0						
NOA	NORSAR Array B	79.33	331	P	P	04 21 10.5	-0.1
	comp=Z,5.7nm,0.6s,mb4.7,baz=92,slow=5.7,SNR=12						
NOA	NORSAR Array B	79.33	331	P	P	04 21 10.5	-0.1
LPL	La Plagne	82.20	315	eP	P	04 21 26.4	+0.3
	comp=Z,31nm,0.8s,mb5.0						
ESDC	Sonseca Array	90.78	310	P	P	04 22 09.3	+1.0
	comp=Z,1.9nm,0.7s,mb4.6,baz=64,slow=3.9,SNR=7.9						
YKA	Yellowknife Ar	106.25	13	PP	PP	04 27 36.9	-7.7
	comp=Z,1.1nm,0.7s,baz=333,slow=7.8,SNR=6.7						
NVAR	Mina Array Bea	124.87	31	PKP	PKPdf	04 28 07.5	-1.7
	comp=Z,0.7nm,0.6s,baz=288,slow=2.9,SNR=3.3						
PDAR	Pinedale Array	125.04	21	PKP	PKPdf	04 28 06.2	-3.2
	comp=Z,1.0nm,0.8s,slow=1.8,SNR=4.2						
TXAR	Lajitas Array	139.12	24	PKP	PKPdf	04 28 35.1	-1.1
	comp=Z,0.5nm,0.6s,baz=350,slow=0.8,SNR=3.7						

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*IDC **26** 04:10:07.5±0.4, 5.53N×92.88E, mb5.4/25, mb1 5.4/26, mb1mx5.4/27, ML5.0/1, Error ellipse: s-maj=17.3km s-min=9.0km az=40.0*

*MOS **26** 04:10:10.8±0.9, 5.60N×92.95E, h33^{km}, mb5.6/27, Error ellipse: s-maj=12.8km s-min=6.7km az=120.8*

*BJI **26** 04:10:10.8, 5.48N×92.95E, h37^{km}, mB6.3, mb5.4, Ms6.3, Msz6.5*

*NEIC **26** 04:10:12.7±0.9, 5.48N×92.92E, h36^{km}±8^{km}, mb5.4/52, Error ellipse: s-maj=6.2km s-min=4.6km az=210.0*

*SYO **26** 04:10:12.4, 5.51N×92.92E, h34^{km}, MB5.4*

*CSEM **26** 04:10:13.0, 5.80N×92.75E, h33^{km}, mb5.7*

ISC 26 04:10:09.5±1.8**, 5.46N**±0.04×**92.94E**±0.04**, h27**^{km}±12^{km}**, h28**^{km}±1.9^{km}**:pP-P, n292, σ0^{s}92**/268**, mb5.4**/90**, MS6.2**/3**, 26C-18D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	12.29	279	eP	P	04 13 05.2	-0.7
CM31	Chiang Mai Arr	14.19	24	eP	P	04 13 31.2	+0.1
	107nm,0.8s						
CMAR	Chiang Mai Arr	14.19	24	Pn	P	04 13 31.3	+0.2
	2.2nm,0.3s,baz=218,slow=14,SNR=9.6						
CMAR	Chiang Mai Arr	14.19	24	P	P	04 13 31.3	+0.2
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
AGT	Agartala	18.39	355	⇓iP	P	04 14 25.0	+0.4
AGT				i		04 15 04.0	
MNGI	Mangalore	19.36	294	eP	P	04 14 36.3	+0.2
MNGI				e		04 14 39.9	
	comp=Z,168nm,0.9s						
SHL	Shillong	20.02	357	eP	P	04 14 40.8	-2.5
SHL				e		04 15 02.6	
	comp=Z,538nm,1.9s						
GOA	Goa	21.25	299	e	P	04 15 05.6	+10
GOA				e		04 15 11.0	
	comp=Z,281nm,1.8s						
QIZ	Qiongzhong	21.30	49	P	P	04 14 57.0	+0.5
QIZ				AP		04 15 06.5	
QIZ				S	S	04 18 50.5	+3.8
QIZ				AMB	AMB		
	comp=Z,169nm,0.9s,mb5.4						
AKL	Akola	21.65	316	eP	P	04 14 59.8	-0.2
AKL				e		04 15 08.5	
	comp=Z,242nm,1.0s						
KMI	Kunming	21.70	25	eP	P	04 15 04.0	+3.5
KMI				XP		04 15 11.5	
KMI				AMB	AMB		
	comp=Z,152nm,0.9s,mb5.4						
BOM	Bombay	23.74	306	eP	P	04 15 21.9	+1.2
LSA	Lhasa	24.17	356	P	P	04 15 27.0	+2.2
LSA	Lhasa	24.17	356	eP	P	04 15 26.9	+2.1
	comp=Z,55nm,0.7s,mb5.1						
GYA	Guiyang	24.66	31	⇑iP	P	04 15 30.5	+0.9
GYA				AP		04 15 34.8	
GYA				PP	PP	04 16 01.5	-4.6
GYA				S	S	04 19 47.8	+1.3
GYA				AMB	AMB		
	comp=Z,200nm,0.8s,mb5.7						
GYA				LR	LR		
	comp=N,13µm,15.4s,MS6.0						
GYA				LR	LR		
	comp=E,32µm,16.0s,MS6.0						
GYA				LR	LR		
	comp=Z,32µm,15.4s,MS5.9						
CD2	Chengdu	27.29	21	⇓iP	P	04 15 53.3	-0.6
CD2				AMB	AMB		
	comp=Z,200nm,0.9s,mb5.7						
NDI	New Delhi	27.49	329	eP	P	04 15 54.8	-1.0
NDI				e		04 15 59.6	
	comp=Z,127nm,1.5s						
TGY	Tagaytay City	28.87	71	P	P	04 16 09.5	+1.1
	comp=Z,135nm,0.5s,mb5.9,baz=270,slow=10,SNR=4.0						
TGY	Tagaytay City	28.87	71	P	P	04 16 09.5	+1.1
TGY				pmax	pmax		
	comp=Z,135nm,0.5s						
ENH	Enshi	29.20	30	eP	P	04 16 09.1	-2.2
	comp=Z,50nm,0.8s,mb5.3						
WHN	Wuhan	32.07	36	⇓P	P	04 16 37.0	+0.4
WHN				AP	pP	04 16 45.8	+1.2
LZH	Lanzhou	32.09	17	eP	P	04 16 36.3	-0.4
LZH				AMB	AMB		
	comp=Z,112nm,1.0s,mb5.7						
GTA	Gaotai	34.37	9	⇓iP	P	04 16 56.5	+0.1
GTA				AP	pP	04 17 06.0	+1.5
GTA				XP	sP	04 17 10.0	+2.1
GTA				PP	PP	04 18 15.0	+2.8
GTA				PPP	PPP	04 18 34.0	+3.8
GTA				AMB	AMB		
	comp=Z,55nm,0.7s,mb5.6						
NJ2	Nanjing	35.88	39	eP	P	04 17 10.0	+0.6
NJ2				AP	pP	04 17 20.5	+3.0
NJ2				XP	sP	04 17 23.5	+2.6
NJ2				PP	PP	04 18 33.3	+2.3
NJ2				S	S	04 22 46.0	+1.1
NJ2				AMB	AMB		
	comp=Z,1µm,5.6s						
NJ2				LR	LR		
	comp=N,11µm,17.2s,MS6.0						
NJ2				LR	LR		
	comp=E,24µm,18.0s,MS6.0						
NJ2				LR	LR		
	comp=Z,23µm,15.6s,MS6.0						
KSH	Kashi	37.21	338	eP	P	04 17 20.8	+0.3
MBWA	Marble Bar	37.29	136	eP	P	04 17 21.3	-0.1
	comp=Z,31nm,1.0s,mb5.1						
HHC	Hu-ho-hao-te	38.99	23	eP	P	04 17 36.3	+0.8
HHC				AP	pP	04 17 45.8	+2.2
HHC				XP	sP	04 17 50.0	+3.0
HHC				PP	PP	04 19 10.3	+1.4
HHC				PCP	PcP	04 19 46.5	+0.5
HHC				SCP		04 23 30.0	
HHC				S	S	04 23 32.5	+0.3
HHC				XS		04 23 48.0	
HHC				SS	SS	04 26 17.3	+0.7
HHC				AMB	AMB		
	comp=Z,81nm,0.8s,mb5.5						
HHC				AMB	AMB		
	comp=Z,11µm,8.0s						
HHC				LR	LR		
	comp=N,172µm,22.6s,MS6.9						
HHC				LR	LR		
	comp=E,86µm,21.4s,MS6.9						
HHC				LR	LR		
	comp=Z,137µm,26.2s,MS6.7						
ULHL	Ulahol	39.53	340	P	P	04 17 40.2	+0.3
	SNR=7.1						
JOW	Kunigami	39.82	54	P	P	04 17 43.5	+1.0
	comp=Z,20nm,0.7s,mb5.0,baz=219,slow=6.9,SNR=3.8						
UCH	Uchtor	40.11	339	P	P	04 17 46.1	+1.4
	SNR=11						
BJT	Baijiatuau	40.26	28	eP	P	04 17 47.0	+1.1
	comp=Z,58nm,1.0s,mb5.3						
AML	Almayashu	40.33	338	P	P	04 17 48.0	+1.5
	SNR=16						
KBK	Karagaybulak	40.33	339	P	P	04 17 48.1	+1.6
	SNR=8.1						
AAK	Ala-Archa	40.47	339	P	P	04 17 48.6	+1.0
	SNR=9.2						
CHMS	Chumysh	40.70	339	P	P	04 17 50.0	+0.4
	SNR=5.9						
EKS2	Erkin-Say	40.76	338	P	P	04 17 51.3	+1.3
	SNR=13						
USP	Ospenovka	41.03	339	P	P	04 17 51.7	-0.5
	SNR=22						
SONM	Songino Array	43.77	13	P	P	04 18 14.9	+0.3
	comp=Z,34nm,0.7s,mb5.2,baz=196,slow=7.0,SNR=19						
SONM				PcP	PcP	04 20 02.0	+0.4
	comp=Z,21nm,0.8s,baz=196,slow=3.7,SNR=11						
ULN	Ulaanbaatar	43.95	14	eP	P	04 18 16.0	0.0
	comp=Z,24nm,0.8s,mb5.0						
NWAO	Narrogin (SRO)	44.60	150	eP	P	04 18 21.8	+0.3
	comp=Z,12nm,0.7s,mb4.8						
SNY	Shenyang	45.34	32	⇑P	P	04 18 27.0	-0.3
SNY				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.3						
ZAK	Zakamensk	45.61	9	eP	P	04 18 29.3	0.0
HASS	Wahat al Ahsa’	45.81	300	P	P	04 18 32.7	+1.5
TLY	Talaya	46.92	9	P	P	04 18 40.7	+1.1
	comp=Z,191nm,0.9s,mb6.0,SNR=12						
TLY	Talaya	46.92	9	eP	P	04 18 38.8	-0.9
	comp=Z,32nm,0.9s,mb5.3						
CN2	Changchun	47.70	32	⇑P	P	04 18 46.0	+0.1
CN2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.6						
WRA	Warramunga Arr	47.90	123	P	P	04 18 47.0	-0.8
	comp=Z,65nm,0.8s,mb5.7,baz=302,slow=8.7,SNR=18						
WRA				S	S	04 25 48.6	+6.3
	comp=Z,1.8nm,0.9s,baz=292,slow=18,SNR=3.5						
WRA	Warramunga Arr	47.90	123	P	P	04 18 47.0	-0.8
WRA				S	S	04 25 48.6	+6.3
WRA				pmax	pmax		
	comp=Z,65nm,0.8s						
WRAB	Tennant Creek	47.90	123	eP	P	04 18 47.0	-0.8
	comp=Z,86nm,0.7s,mb5.9						
RYDS	Riyadh	48.19	298	P	P	04 18 51.9	+1.9
ZAL	Zalesovo	48.78	354	P	P	04 18 54.2	+0.1
	comp=Z,43nm,0.5s,mb5.8,baz=308,slow=4.9,SNR=25						
ZAL	Zalesovo	48.78	354	P	P	04 18 54.2	+0.1
ZAL				pmax	pmax		
	comp=Z,43nm,0.5s						
ZAL	Zalesovo	48.78	354	P	P	04 18 54.2	+0.1
UMR	Umm Al-Rimmam	48.90	305	eP	P	04 18 56.5	+1.1
UMR				AMb	AMB	04 18 59.3	
	comp=Z,122nm,1.1s,mb5.8						
KAMS	Al Khamasin	49.20	292	P	P	04 18 58.9	+1.2
MIB	Mutribah	49.30	305	eP	P	04 18 59.2	+0.8
MIB				AMb	AMB	04 19 01.0	
	comp=Z,237nm,1.0s,mb6.2						
ASAR	Alice Springs	49.34	128	P	P	04 18 58.0	-0.9
	comp=Z,29nm,1.1s,mb5.2,baz=303,slow=7.0,SNR=8.2						
ASAR				PcP	PcP	04 20 22.1	+0.5
	comp=Z,12nm,1.0s,baz=295,slow=4.3,SNR=4.6						
ASAR				S	S	04 26 12.6	+10
	comp=Z,2.5nm,0.8s,baz=298,slow=13,SNR=4.2						
MZLS	Mizel	49.42	297	P	P	04 19 00.8	+1.3
RST	Umm Al-Ruwaisa	49.47	304	eP	P	04 19 00.6	+0.8
RST				AMb	AMB	04 19 02.6	
	comp=Z,170nm,1.1s,mb6.0						
NVS	Novosibirsk	49.86	353	i P	P	04 19 00.7	-1.7
NVS				pmax	pmax		
	comp=Z,76nm,0.9s,mb5.7						
NVS				pmax	pmax		
	comp=E,19nm,0.8s						
NVS				pmax	pmax		
	comp=N,39nm,0.8s						
MDJ	Mudanjiang	50.47	34	eP	P	04 19 09.3	+2.1
	comp=N,23nm,0.9s,mb5.2						
BVAR	Borovoye Array	50.90	343	P	P	04 19 09.5	-0.8
	comp=N,31nm,0.8s,mb5.3,baz=143,slow=7.4,SNR=17						
BRVK	Borovoye	50.96	343	eP	P	04 19 09.9	-0.9
	comp=N,45nm,0.9s,mb5.4						
ARSS	Ar Rass	51.61	299	P	P	04 19 16.6	+0.5
MAT	Matsushiro	51.66	47	P	P	04 19 16.2	-0.2
MAT	Matsushiro	51.66	47	eP	P	04 19 16.0	-0.4
BLJS	Baljurashi	51.88	291	P	P	04 19 20.0	+1.7
HILS	Ha’il	53.23	300	P	P	04 19 29.8	+1.5
BOD	Bodaibo	54.76	14	eP	P	04 19 37.9	-1.1
KBRS	Khaybar	55.07	298	P	P	04 19 43.0	+1.2
YNBS	Yanbu‘ al Bahr	55.92	296	P	P	04 19 48.7	+0.8
KMBO	Kilima Mbogo	56.00	265	P	P	04 19 49.7	+1.1
	comp=N,24nm,1.0s,mb5.2,baz=47,slow=8.4,SNR=12						
KMBO	Kilima Mbogo	56.00	265	P	P	04 19 49.7	+1.1
KMBO				pmax	pmax		
	comp=Z,25nm,1.0s						
KMBO	Kilima Mbogo	56.00	265	eP	P	04 19 49.9	+1.3
	comp=Z,43nm,1.1s,mb5.4						
PMG	Port Moresby	56.01	105	P	P	04 19 48.9	+0.2
	comp=Z,29nm,1.0s,mb5.3,baz=21,slow=5.4,SNR=4.8						
PMG	Port Moresby	56.01	105	P	P	04 19 48.9	+0.2
PMG				pmax	pmax		
	comp=Z,29nm,1.0s						
UMJS	Umm Lajj	56.69	297	P	P	04 19 54.9	+1.4
ZEI	Tsey	57.01	318	eP	P	04 19 55.3	-0.2
ZEI				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
ERZM	Erzurum	57.57	314	i P	P	04 19 58.0	-1.4
ARU	Arti	57.65	338	eP	P	04 19 58.4	-1.4
ARU	Arti	57.65	338	eP	P	04 19 58.4	-1.4
	comp=Z,54nm,0.9s,mb5.6						
TBKS	Tabuk	57.95	300	P	P	04 20 04.1	+1.9
CTA	Charters Tower	58.22	118	P	P	04 20 03.5	-0.7
	comp=Z,23nm,1.0s,mb5.2,baz=296,slow=9.0,SNR=9.2						
CTA	Charters Tower	58.22	118	P	P	04 20 03.5	-0.7
CTA				pmax	pmax		
	comp=Z,23nm,1.0s						
CTAO	Charters Tower	58.22	118	eP	P	04 20 03.1	-1.1
	comp=Z,37nm,1.0s,mb5.4						
KIV	Kislovodsk	58.33	319	P	P	04 20 04.1	-0.6
	comp=Z,335nm,1.3s,mb6.2,SNR=7.1						
KIV	Kislovodsk	58.33	319	eP	P	04 20 03.2	-1.5
KIV				pmax	pmax		
	comp=N,38nm,1.1s						
KIV				pmax	pmax		
	comp=E,34nm,1.1s						
KIV				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.6						
KIV	Kislovodsk	58.33	319	eP	P	04 20 03.4	-1.3
	comp=Z,77nm,1.1s,mb5.7						
GOF	Gofitskoye	58.59	321	eP	P	04 20 04.0	-2.5
GOF				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.3						
JMQS	Jabal Moqyreh	58.66	300	P	P	04 20 08.0	+0.8
ELZG	Elazig	58.79	312	i P	P	04 20 07.8	-0.1
AYUS	‘Aynunah	59.05	300	P	P	04 20 11.0	+1.1
MALT	Malatya	59.14	312	eP	P	04 20 10.3	-0.1
	comp=Z,35nm,1.1s,mb5.3						
BDAS	Al Bad‘	59.24	300	P	P	04 20 11.9	+0.7
STKA	Stephens Creek	59.35	132	P	P	04 20 11.7	-0.2
	comp=Z,27nm,0.7s,mb5.4,baz=305,slow=7.2,SNR=15						
STKA	Stephens Creek	59.35	132	eP	P	04 20 11.1	-0.9
YSS	Yuzh-Sakhalins	59.41	37	eP	P	04 20 11.0	-1.2
YSS	Yuzh-Sakhalins	59.41	37	eP	P	04 20 11.5	-0.6
	comp=Z,50nm,1.0s,mb5.5						
ALWS	Ilw as Safayha	59.44	301	P	P	04 20 13.2	+0.6
GZT	Gaziantep	59.48	310	i P	P	04 20 11.2	-1.5
HAQS	Haql	59.51	300	P	P	04 20 13.9	+0.8
EIL	Elat	59.61	301	P	P	04 20 14.4	+0.6
	comp=Z,59nm,1.0s,mb5.6,baz=99,slow=4.1,SNR=15						
EIL	Elat	59.61	301	eP	P	04 20 14.2	+0.4
	comp=Z,79nm,1.0s,mb5.7						
KAHT	Ahir Dag	60.09	311	i P	P	04 20 16.8	-0.1
SOC	Sochi	60.13	318	eP	P	04 20 14.7	-2.4
SOC				pmax	pmax		
	comp=N,15nm,0.9s						
SOC				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.3						
SOC				pmax	pmax		
	comp=E,22nm,1.3s						
COBT	Iskenderun	60.23	309	i P	P	04 20 18.4	+0.5
MEST	Erdemli	61.88	309	i P	P	04 20 27.3	-1.9
AVNT	Avonos	61.95	311	i P	P	04 20 28.8	-0.8
CSS	Prodhromos	62.12	307	eP	P	04 20 30.5	-0.3
	comp=E,100nm,1.1s,mb5.9						
MBAR	Mbarara	62.40	266	eP	P	04 20 32.5	-0.4
	comp=E,45nm,1.3s,mb5.4						
CTKT	Corum	62.54	313	i P	P	04 20 32.2	-1.2
BOYT	Boyabat	62.70	314	i P	P	04 20 33.8	-0.7
BRTR	Keskin Array B	63.12	312	P	P	04 20 36.2	-1.0
	comp=E,37nm,1.0s,mb5.5,baz=127,slow=6.2,SNR=20						
BRTR	Keskin Array B	63.12	312	P	P	04 20 36.3	-1.0
BRTR				pmax	pmax		
	comp=Z,37nm,1.0s						
ELDT	Eldivan	63.49	313	i P	P	04 20 38.9	-0.8
BALT	Daday	63.82	314	i P	P	04 20 41.2	-0.7
SGKT	Sivrigoynuk	64.52	313	i P	P	04 20 45.7	-0.8
ISP	Isparta	65.01	309	eP	P	04 20 48.2	-1.5
	comp=Z,92nm,0.9s,mb5.8						
ESKT	Eskisehir	65.14	311	i P	P	04 20 49.1	-1.5
HENT	Hendek	65.43	313	i P	P	04 20 51.1	-1.3
DNZL	Cakiroluk	66.10	309	i P	P	04 20 56.7	0.0
MOS	Moscow	66.53	330	eP	P	04 20 57.6	-1.5
MOS				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
ULDT	Uludag	66.57	311	i P	P	04 20 59.0	-0.7
MANT	Manisa	66.65	310	i P	P	04 20 59.0	-1.2
OBN	Obninsk	66.79	329	⇑iP	P	04 20 59.7	-1.1
OBN				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.5						
AYDN	Tasoluk	67.00	309	i P	P	04 21 01.6	-0.8
BTOK	Tokmak	67.32	311	i P	P	04 21 04.0	-0.4
LSZ	Lusaka	67.35	251	eP	P	04 21 05.4	+0.4
	comp=Z,58nm,1.2s,mb5.5						
KDAG	Bornova	67.62	309	i P	P	04 21 05.8	-0.6
AYVA	Ayvalik	68.24	310	i P	P	04 21 07.4	-2.8
CFR	Carcaliu	68.50	317	⇑iP	P	04 21 11.1	-0.6
CFR	Carcaliu	68.50	317	⇑iP	P	04 21 11.1	-0.6
KIS	Kishinev	68.51	319	eP	P	04 21 11.0	-0.8
SANT	Santorini	68.68	307	eP	P	04 21 11.7	-1.3
	comp=Z,82nm,1.0s,mb5.6						
BOZC	Bozcaada	68.83	311	i P	P	04 21 13.3	-0.5
IDI	Anoyia	68.97	306	P	P	04 21 15.1	+0.3
	comp=Z,68nm,0.7s,mb5.7,baz=101,slow=7.5,SNR=22						
SKR	Severo-Kuril’s	68.98	37	eP	P	04 21 04.5	-10
AKASG	Malin Array Be	69.31	322	P	P	04 21 14.7	-1.9
	comp=Z,17nm,0.8s,mb5.0,baz=87,slow=4.4,SNR=14						
AKASG	Malin Array Be	69.31	322	P	P	04 21 14.7	-1.9
AKASG				pmax	pmax		
	comp=Z,17nm,0.9s						
MA2	Magadan	69.44	27	eP	P	04 21 17.0	-0.3
MA2				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
GVD	Gavdhos	69.56	305	eP	P	04 21 18.1	-0.3
	comp=Z,115nm,1.0s,mb5.8						
ISR	Istrita	69.58	316	⇑P	P	04 21 19.4	+1.1
ISR	Istrita	69.58	316	⇑P	P	04 21 19.4	+1.1
VRI	Vrincioaia	69.62	317	⇑P	P	04 21 18.5	-0.1
VRI	Vrincioaia	69.62	317	⇑P	P	04 21 18.5	-0.1
MLR	Muntele Rosu	70.07	316	P	P	04 21 21.4	0.0
	comp=Z,95nm,1.0s,mb5.7,baz=97,slow=2.0,SNR=27						
MLR	Muntele Rosu	70.07	316	P	P	04 21 21.4	+0.1
MLR				pmax	pmax		
	comp=Z,95nm,1.0s						
LBTB	Lobatse	72.05	242	eP	P	04 21 33.8	+0.2
	comp=Z,30nm,1.1s,mb5.1						

BOLS	Boljevac	72.54	314	⇓*i*P	P	04 21 35.1	-1.1
KWP	Kalwaria	73.10	320	*e*P	P	04 21 39.0	-0.4
KOLS	Kolonicke sedl	73.24	319	*i* P	P	04 21 40.6	+0.4
BOSA	Boshof	73.30	238	*e*P	P	04 21 40.5	-0.5
	comp=Z,12nm,0.9s,mb4.8						
GRUS	Gruza	73.44	314	⇑*i*P	P	04 21 40.9	-0.6
CRVS	Cervenica-Dubn	73.76	319	*e*P	P	04 21 46.2	+3.0
CRVS	Cervenica-Dubn	73.76	319	*e*	P	04 21 46.2	+3.0
SUW	Suwalki	73.77	325	*e*P	P	04 21 42.3	-0.9
DIVS	Divcibare	73.99	314	*e*P	P	04 21 42.6	-2.1
FINES	FINESS Array B	74.29	333	P	P	04 21 45.1	-0.9
	comp=Z,32nm,0.9s,mb5.2,baz=104,slow=7.9,SNR=16						
FINES	FINESS Array B	74.29	333	P	P	04 21 45.1	-0.9
FINES				pmax	pmax		
	comp=Z,32nm,0.9s						
KECS	Kecovo	74.32	319	*e*P	P	04 21 45.9	-0.6
KAF	Kangasniemi	74.39	333	*e*p	P	04 21 46.1	-0.5
	baz=106,slow=5.5						
PKSN	Nyarlorinc	74.48	317	⇑*i*P	P	04 21 47.9	+0.4
NIE	Niedzica	74.59	320	*e*P	P	04 21 48.3	+0.3
OJC	Ojcow	75.06	320	*e*P	P	04 21 50.5	-0.2
VYHS	Vyhne	75.41	319	*i* P	P	04 21 52.1	-0.7
SRO2	Moca	75.60	318	*e*P	P	04 21 54.0	+0.1
RHK1	Bakonya	75.60	316	⇑*e*P	P	04 21 53.4	-0.5
SRO	Srobarova	75.66	318	*e*P	P	04 21 54.4	+0.2
KOLL	Kolacno	75.70	319	*i* P	P	04 21 54.0	-0.5
KOLL				*e*	pP	04 22 01.2	-1.8
MAW	Mawson	75.94	191	P	P	04 21 55.9	+0.5
	comp=Z,16nm,1.1s,mb4.9,baz=14,slow=7.9,SNR=6.2						
MAW	Mawson	75.94	191	P	P	04 21 55.9	+0.5
MAW				pmax	pmax		
	comp=Z,16nm,1.1s						
MAW	Mawson	75.94	191	*e*P	P	04 21 56.3	+0.9
	comp=Z,19nm,0.8s,mb5.1						
OKC	Ostrava-Krasne	76.05	320	*e*P	P	04 21 56.2	-0.2
SMOL	Smolenice	76.34	319	*e*P	P	04 21 57.8	-0.2
ZST	Bratislava	76.51	318	*i* P	P	04 21 59.4	+0.4
KEV	Kevo	76.71	341	*e*p	P	04 21 59.0	-0.7
GKP	Gorka Klasztor	77.10	323	*e*P	P	04 22 01.2	-1.0
ARCES	ARCESS Array B	77.12	341	P	P	04 22 02.0	+0.1
	comp=Z,27nm,0.8s,mb5.2,baz=104,slow=5.0,SNR=18						
ARCES	ARCESS Array B	77.12	341	P	P	04 22 02.1	+0.1
ARCES				pmax	pmax		
	comp=Z,27nm,0.8s						
DPC	Dobruska-Polom	77.28	320	*e*P	P	04 22 03.6	+0.4
KSP	Ksiaz	77.36	321	*e*P	P	04 22 03.6	0.0
KSP				*e*	pP	04 22 11.5	-0.7
KSP	Ksiaz	77.36	321	*e*P	P	04 22 03.8	+0.2
ARSA	Arzberg	77.47	317	⇑*i*P	P	04 22 04.7	+0.4
	comp=Z,49nm,1.1s,mb5.3						
ARSA	Arzberg	77.47	317	⇓*i*P	P	04 22 04.9	+0.6
	comp=Z,42nm,0.9s,mb5.4						
ARSA	Arzberg	77.47	317	⇓*i*P	P	04 22 04.9	+0.6
	comp=Z,42nm,0.9s,mb5.4						
UPC	Upice	77.50	320	*e*P	P	04 22 04.6	+0.2
OBKA	Obir	78.07	316	⇓*i*P	P	04 22 08.1	+0.5
	comp=Z,48nm,1.4s,mb5.2						
MOA	Molln	78.37	318	⇓*i*P	P	04 22 09.3	0.0
	comp=Z,21nm,1.0s,mb5.0						
PRU	Pruhonice	78.38	320	*e*P	P	04 22 09.3	0.0
PVCC	Panska Ves	78.41	320	*e*P	P	04 22 09.8	+0.4
BILL	Bilibino	78.76	22	*e*P	P	04 22 10.8	-0.1
	comp=Z,16nm,0.9s,mb5.0						
GEC2	GERESS Array S	78.83	319	*e*P	P	04 22 12.4	+0.6
GERES	GERESS Array B	78.83	319	P	P	04 22 12.2	+0.5
	comp=Z,69nm,1.0s,mb5.5,baz=90,slow=5.3,SNR=35						
GERES	GERESS Array B	78.83	319	P	P	04 22 12.2	+0.4
GERES				pmax	pmax		
	comp=Z,69nm,1.0s						
BRG	Berggiesshubel	78.84	321	*i* P	P	04 22 12.6	+0.8
BRG				*i*	pP	04 22 20.7	+0.3
BRG				*i*		04 22 25.1	
BRG				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.2						
BRG	Berggiesshubel	78.84	321	*i* P	P	04 22 12.6	+0.8
	comp=Z,33nm,1.1s,mb5.2						
BRG				*i*	pP	04 22 20.7	+0.3
BRG				*i*		04 22 25.1	
PTCC	Patocco-Chiusa	78.89	316	*e*P	P	04 22 12.4	+0.3
KHC	Kasperske Hory	78.93	319	*e*P	P	04 22 11.9	-0.4
KBA	Koelnbreinsper	78.94	317	⇑*i*P	P	04 22 12.5	+0.1
	comp=Z,37nm,1.1s,mb5.2						
GMNA	Gemona	78.96	316	*e*P	P	04 22 12.8	+0.3
ARV	Arcevia	79.01	313	*e*P	P	04 22 13.2	+0.3
FSSB	Fossombrone	79.14	313	*e*P	P	04 22 13.9	+0.3
FVI	Forni Avoltri	79.29	316	*e*P	P	04 22 14.3	-0.1
WET	Wettzell	79.39	319	*e*P	P	04 22 15.1	+0.3
CLL	Collm	79.47	321	⇓*i*P	P	04 22 14.9	-0.3
CLL				*i*	pP	04 22 22.3	-1.5
CLL				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.3						
CLL	Collm	79.47	321	⇓*i*P	P	04 22 14.9	-0.3
	comp=Z,44nm,1.2s,mb5.3						
CLL				*i*	pP	04 22 22.3	-1.5
CLL	Collm	79.47	321	⇓P	P	04 22 14.9	-0.3
	comp=Z,logA/T=1.6,mb5.3						
CLL				*i* *PP	pP	04 22 22.3	-1.5
NKC	Novy Kostel	79.74	320	*e*P	P	04 22 17.2	+0.5
SFI	Santa Sofia	79.82	313	*e*P	P	04 22 18.5	+1.2
PGD	Poggio Sodo	79.91	313	*e*P	P	04 22 19.1	+1.4
VMG	Vicchio	80.04	314	*e*P	P	04 22 19.8	+1.3
CTI	Castel Tesino	80.05	316	*e*P	P	04 22 18.7	+0.3
WTTA	Wattenberg	80.11	317	⇑*i*P	P	04 22 18.7	0.0
	comp=Z,82nm,1.0s,mb5.6						
WTTA	Wattenberg	80.11	317	⇑*i*P	P	04 22 18.7	0.0
	comp=Z,82nm,1.0s,mb5.6						
WATA	Walderalm	80.16	317	⇑*i*P	P	04 22 18.9	-0.1
	comp=Z,33nm,0.9s,mb5.3						
WATA	Walderalm	80.16	317	⇑*i*P	P	04 22 18.9	-0.1
	comp=Z,34nm,0.9s,mb5.3						
SEI	Scarperia	80.18	314	*e*P	P	04 22 19.8	+0.6
MOX	Moxa	80.30	320	*e*P	P	04 22 19.9	+0.2
MOX	Moxa	80.30	320	*i* P	P	04 22 19.9	+0.2
FUR	Furstenfeldbru	80.40	318	*e*P	P	04 22 20.2	0.0
SQTA	Sankt Quirin	80.40	317	⇑*i*P	P	04 22 20.1	-0.2
	comp=Z,44nm,0.8s,mb5.4						
SQTA	Sankt Quirin	80.40	317	⇑*i*P	P	04 22 20.1	-0.2
	comp=Z,33nm,0.7s,mb5.4						
MOTA	Moosalm	80.48	317	⇑*i*P	P	04 22 20.6	-0.1
	comp=Z,51nm,0.8s,mb5.5						
MOTA	Moosalm	80.48	317	⇑*i*P	P	04 22 20.1	-0.6
	comp=Z,55nm,0.9s,mb5.5						
MOTA	Moosalm	80.48	317	⇑*i*P	P	04 22 20.1	-0.6
	comp=Z,55nm,0.9s,mb5.5						
GRA1	Grafenberg Arr	80.50	319	*e*P	P	04 22 22.0	+1.3
	comp=Z,87nm,1.1s,mb5.6						
GRF	Grafenberg Arr	80.50	319	*e*P	P	04 22 22.0	+1.3
GRF				pmax	pmax		
	comp=Z,87nm,1.1s,mb5.6						
GRF	Grafenberg Arr	80.50	319	*e*P	P	04 22 22.0	+1.3
	comp=Z,87nm,1.1s,mb5.6						
GSCL	Gusciola	80.74	314	*e*P	P	04 22 23.6	+1.5
BRMO	Bormio	80.95	316	*e*P	P	04 22 23.9	+0.7
CLZ	Clausthal	81.14	321	*e*P	P	04 22 24.5	+0.4
	comp=Z,65nm,1.2s,mb5.4						
NB2	NORSAR Subarra	81.24	331	P	P	04 22 23.7	-0.7
	comp=Z,32nm,1.0s,mb5.2,baz=96,slow=5.3						
NB2	NORSAR Subarra	81.24	331	P	P	04 22 23.7	-0.7
	baz=96,slow=5.3						
NOA	NORSAR Array B	81.24	331	P	P	04 22 23.9	-0.4
	comp=Z,18nm,0.9s,mb5.0,baz=94,slow=5.5,SNR=8.5						
NOA	NORSAR Array B	81.24	331	P	P	04 22 24.0	-0.4
NOA				pmax	pmax		
	comp=Z,18nm,0.9s						
BSEG	Bad Segeberg	81.27	324	*e*P	P	04 22 24.8	+0.1
DAVOX	Davos	81.30	316	P	P	04 22 25.8	+0.8
	comp=Z,55nm,0.8s,mb5.6,baz=123,slow=5.9,SNR=21						
DAVA	Damuels	81.31	317	⇓*i*P	P	04 22 24.4	-0.6
	comp=Z,76nm,1.0s,mb5.6						
DAVA	Damuels	81.31	317	⇓*i*P	P	04 22 24.4	-0.6
	comp=Z,56nm,1.1s,mb5.4						
PGF	Pioggiola	81.88	312	*e*P	P	04 22 27.5	-0.6
	comp=Z,65nm,0.9s,mb5.2						
MUD	Monsted U'grnd	82.03	326	*e*P	P	04 22 28.0	-0.6
MUD	Monsted U'grnd	82.03	326	*i* P	P	04 22 28.0	-0.6
BFO	Black Forest	82.37	318	*e*P	P	04 22 30.3	-0.2
BFO				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
BFO	Black Forest	82.37	318	*e*P	P	04 22 30.3	-0.2
	comp=Z,24nm,1.2s,mb5.0						
SYO	Syowa Base	82.76	197	⇑P	P	04 22 33.3	+1.2
SYO	Syowa Base	82.76	197	⇑PcP	PcP	04 22 35.4	-2.1
SYO	Syowa Base	82.76	197	⇓pP	pP	04 22 43.9	+3.1
CDF	Champ du Feu	83.07	318	*e*P	P	04 22 33.6	-0.6
	comp=Z,22nm,1.0s,mb4.8						
MBDF	Montbardon	83.47	314	*e*P	P	04 22 35.8	-0.5
	comp=Z,48nm,1.0s,mb5.2						
LPL	La Plagne	83.48	315	*e*P	P	04 22 36.1	-0.2
	comp=Z,142nm,1.0s,mb5.6						
FRF	La Foret Royal	83.59	313	*e*P	P	04 22 36.2	-0.7
	comp=Z,174nm,1.2s,mb5.8						
HAU	Haudompre	83.70	318	*e*P	P	04 22 36.5	-0.9
	comp=Z,69nm,1.0s,mb5.4						
BAIF	Baives	85.04	320	*e*P	P	04 22 43.4	-0.7
	comp=Z,113nm,1.4s,mb5.5						
CAF	Calviac	86.81	315	*e*P	P	04 22 52.4	-0.5
	comp=Z,78nm,1.4s,mb5.4						
MTLF	Montolieu	86.82	313	*e*P	P	04 22 52.5	-0.5
	comp=Z,61nm,1.2s,mb5.4						
URZ	Urewera	88.78	128	P	P	04 23 02.0	-0.6
	comp=Z,21nm,1.0s,mb5.4,baz=308,slow=3.8,SNR=4.8						
ESDC	Sonseca Array	91.85	310	P	P	04 23 18.0	+1.2
	comp=Z,5.9nm,0.8s,mb5.0,baz=65,slow=4.1,SNR=9.5						
SPU	Mount Spurr	96.97	26	*e*P	P	04 23 40.6	+0.9
SNAA	Sanae	96.97	198	⇓*i*	P	04 23 43.1	+3.6
SNAA	Sanae	96.97	198	P	P	04 23 42.4	+2.9
	comp=Z,1.1nm,1.0s,baz=90,slow=5.1,SNR=3.5						
SNAA	Sanae	96.97	198	P	P	04 23 42.4	+2.9
SNAA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
DBIC	Dimbokro	97.08	277	P	P	04 23 42.9	+1.5
	comp=Z,5.8nm,1.0s,mb5.0,baz=80,slow=3.0,SNR=3.7						
DBIC	Dimbokro	97.08	277	P	P	04 23 42.9	+1.6
DBIC				pmax	pmax		
	comp=Z,6.0nm,1.0s						
ILAR	Eielson Array	97.42	22	PP	PP	04 27 38.0	-3.6
	comp=Z,1.3nm,1.0s,baz=277,slow=6.4,SNR=4.1						
VNA1	Neumayer--Stat	98.83	199	⇓*i*	pP	04 24 01.4	+4.7
VNA3	Neumayer Olymp	99.19	199	⇓*i*	pP	04 24 02.3	+4.0
YKA	Yellowknife Ar	109.04	13	PKiKP		04 28 40.2	
	comp=Z,0.6nm,0.9s,baz=320,slow=4.8,SNR=3.5						
YKA				PP	PP	04 29 05.5	-4.0
	comp=Z,2.1nm,0.9s,baz=337,slow=8.0,SNR=6.3						
YKA	Yellowknife Ar	109.04	13	PKPdf		04 28 40.2	
YKA				PP	PP	04 29 05.5	-4.0
ULM	Lac du Bonnet	124.00	7	PKP	PKPdf	04 29 08.0	-2.5
	comp=Z,11nm,0.9s,baz=327,slow=1.9,SNR=10						
ULM				PP	PP	04 30 51.0	-3.5
	comp=Z,9.7nm,1.1s,baz=24,slow=7.9,SNR=3.7						
ELK	Elko	127.25	27	*e*PKPdf	PKPdf	04 29 14.6	-2.4
NVAR	Mina Array Bea	127.59	31	PKP	PKPdf	04 29 15.3	-2.4
	comp=Z,4.6nm,0.9s,baz=45,slow=1.1,SNR=9.9						
MNV	Mina	127.67	31	*e*PKPdf	PKPdf	04 29 15.5	-2.4
PDAR	Pinedale Array	127.84	21	PKP	PKPdf	04 29 15.1	-3.0
	comp=Z,7.3nm,0.9s,baz=12,slow=1.3,SNR=14						
TRCR	Troy Canyon	129.00	29	PKPdf	PKPdf	04 29 18.4	-2.1
ISCO	Idaho Springs	131.83	19	*e*PKPdf	PKPdf	04 29 25.6	-0.2
SDCO	Great Sand Dun	133.72	20	*e*PKPdf	PKPdf	04 29 26.8	-2.5
ANMO	Albuquerque	135.85	23	PKP	PKPdf	04 29 31.6	-1.8
	comp=Z,11nm,1.0s,baz=209,slow=1.5,SNR=11						
BAO	Brasilia Array	140.35	252	PKP	PKPdf	04 29 38.4	-3.7
BDFB	Brasilia	140.37	252	PKP	PKPdf	04 29 38.3	-3.8
	comp=Z,7.3nm,1.0s,baz=200,slow=5.0,SNR=4.3						
BDFB	Brasilia	140.37	252	PKIKP	PKPdf	04 29 38.3	-3.8
BDFB				pmax	pmax		
	comp=Z,7.0nm,1.0s						
TXAR	Lajitas Array	141.90	24	PKhKP		04 29 36.8	
	comp=Z,0.7nm,0.5s,baz=297,slow=2.0,SNR=3.6						
TXAR				PKP	PKPdf	04 29 41.9	-2.6
	comp=Z,6.1nm,1.0s,baz=33,slow=0.8,SNR=8.7						
JCT	Junction City	142.24	18	*e*PKPpre		04 29 36.1	
HKT	Hockley	143.80	13	*e*PKPpre		04 29 42.2	
SJG	San Juan	148.79	319	PKPbc	PKPdf	04 29 56.3	-0.2
	comp=Z,20nm,1.0s,baz=336,slow=3.4,SNR=3.7						
SJG	San Juan	148.79	319	PKP2	PKPab	04 29 56.3	-5.2
SJG				pmax	pmax		
	comp=Z,20nm,1.0s						
SJG	San Juan	148.79	319	PKPbc	PKPdf	04 29 56.3	-0.2
LVC	Limon Verde	155.54	224	PKP	PKPdf	04 30 04.4	-1.7
	comp=Z,2.3nm,0.6s,baz=243,slow=4.0,SNR=3.3						
LVC				PKPab	PKPab	04 30 30.5	+0.8
	comp=Z,20nm,1.0s,baz=118,slow=3.0,SNR=7.8						
SDV	Santo Domingo	158.29	311	PKPab	PKPab	04 30 40.9	-0.8
	comp=Z,6.4nm,0.8s,baz=17,slow=5.6,SNR=3.7						
LPAZ	La Paz	158.54	238	PKP	PKPdf	04 30 07.9	-2.3
	comp=Z,9.5nm,1.2s,baz=45,slow=6.5,SNR=4.0						
LPAZ				PKPab	PKPab	04 30 41.6	-1.1
	comp=Z,6.6nm,0.8s,baz=116,slow=4.7,SNR=6.7						
LPAZ	La Paz	158.54	238	PKIKP	PKPdf	04 30 07.9	-2.3
LPAZ						04 30 41.7	
LPAZ				pmax	pmax		
	comp=Z,10.0nm,1.2s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LPAZ	La Paz	158.54	238	PKPdf	PKPdf	04 30 07.6	-2.5
LPAZ				*e*PKPab	PKPab	04 30 42.0	-0.7
ROSC	El Rosal	163.67	309	PKP	PKPdf	04 30 12.4	-3.2
	comp=Z,8.5nm,1.0s,baz=172,slow=3.2,SNR=5.1						
ROSC				PKPab	PKPab	04 31 03.6	-1.5
	comp=Z,11nm,0.9s,baz=135,slow=21,SNR=4.7						

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*BJI **26** 04:12:34.9, 6.30N×92.80E, h18^{km}, mb5.2*
*IDC **26** 04:12:35.1±0.6, 6.33N×93.16E, mb4.9/13, mb1 5.0/14, mb1mx4.8/22, Error ellipse: s-maj=41.4km s-min=15.5km az=45.0*
*NEIC **26** 04:12:35.6±7.8, 6.44N×93.23E, h3^{km}±47^{km}, mb4.8/10, Error ellipse: s-maj=19.2km s-min=9.5km az=50.0*
ISC 26 04:12:38.1±0.4**, 6.23N**±0.08×**93.06E**±0.07**, h33^{km}, n46, σ1^{s}07**/36**, mb4.9**/24**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	12.32	276	P	P	04 15 32.4	-1.8
CM31	Chiang Mai Arr	13.44	25	P	P	04 15 43.6	-5.5
	44nm,0.8s						
CMAR	Chiang Mai Arr	13.44	25	Pn	P	04 15 50.0	+1.0
	baz=222,slow=12,SNR=2.5						
QIZ	Qiongzhong	20.71	51	P	P	04 17 19.0	+0.7
KMI	Kunming	20.95	25	*e*P	P	04 17 20.0	-0.8
KMI				AMB	AMB		
	comp=Z,38nm,1.3s						
LSA	Lhasa	23.42	356	*e*P	P	04 17 46.6	+1.3
	comp=Z,38nm,0.5s,mb5.1						
NJ2	Nanjing	35.22	40	*e*P	P	04 19 31.3	-0.2
NJ2				AMB	AMB		
	comp=Z,230nm,0.8s,mb6.2						
ZAL	Zalesovo	48.04	353	P	P	04 21 16.4	+0.2
	comp=Z,18nm,0.6s,mb5.3,baz=302,slow=8.2,SNR=5.3						
WRA	Warramunga Arr	48.21	124	P	P	04 21 17.7	-0.3
	comp=Z,16nm,0.8s,mb5.1,baz=305,slow=8.5,SNR=7.7						
WRAB	Tennant Creek	48.22	124	*e*P	P	04 21 16.9	-1.2
	comp=Z,28nm,0.8s,mb5.3						
ASAR	Alice Springs	49.72	128	P	P	04 21 29.4	-0.1
	comp=Z,11nm,0.8s,mb5.0,baz=303,slow=8.2,SNR=5.4						
BVAR	Borovoye Array	50.21	342	P	P	04 21 32.4	-0.5
	comp=Z,7.6nm,0.8s,mb4.8,baz=162,slow=4.6,SNR=3.5						
BRVK	Borovoye	50.27	342	*e*P	P	04 21 29.6	-3.8
	comp=Z,4.4nm,0.6s,mb4.7						
GNI	Garni	54.83	316	P	P	04 22 06.0	-1.6
	comp=Z,2.7nm,0.5s,mb4.5						
KIV	Kislovodsk	57.83	319	*e*P	P	04 22 26.3	-2.6
	comp=Z,6.2nm,0.4s,mb5.0						
CTA	Charters Tower	58.46	118	P	P	04 22 32.5	-1.2
	comp=Z,9.9nm,1.0s,mb4.8,baz=289,slow=7.9,SNR=4.5						
CTA	Charters Tower	58.46	118	P	P	04 22 32.5	-1.2
CTAO	Charters Tower	58.46	118	*e*P	P	04 22 33.2	-0.4
	comp=Z,17nm,1.1s,mb5.0						
BRTR	Keskin Array B	62.70	312	P	P	04 23 01.9	-0.4
	comp=Z,8.7nm,0.8s,mb5.0,baz=139,slow=6.4,SNR=6.0						
LSZ	Lusaka	67.71	251	*e*P	P	04 23 36.7	+1.8
	comp=Z,0.6nm,0.3s,mb4.1						
IDI	Anoyia	68.63	305	P	P	04 23 40.2	-0.1
	comp=Z,18nm,0.8s,mb5.0,baz=85,slow=9.6,SNR=7.7						
AKASG	Malin Array Be	68.78	322	P	P	04 23 39.8	-1.2
	comp=Z,3.9nm,0.7s,mb4.5,baz=92,slow=4.2,SNR=4.7						
LBTB	Lobatse	72.52	241	*e*P	P	04 24 06.1	+2.1
	comp=Z,4.5nm,0.7s,mb4.5						
FINES	FINESS Array B	73.66	333	P	P	04 24 09.6	-0.5
	comp=Z,9.4nm,0.8s,mb4.8,baz=129,slow=12,SNR=4.9						
FINES	FINESS Array B	73.66	333	P	P	04 24 09.6	-0.5
KAF	Kangasniemi	73.77	333	*e*p	P	04 24 10.3	-0.3
VYHS	Vyhne	74.92	318	*e*P	P	04 24 16.9	-0.7
ZST	Bratislava	76.03	318	*e*P	P	04 24 24.3	+0.4
ARCES	ARCESS Array B	76.45	340	P	P	04 24 26.0	+0.1
	comp=Z,9.3nm,0.8s,mb4.7,baz=97,slow=6.1,SNR=5.9						
MAW	Mawson	76.71	191	*e*P	P	04 24 31.1	+3.6
	comp=Z,2.0nm,0.6s,mb4.2						
GERES	GERESS Array B	78.34	318	P	P	04 24 37.8	+0.9
	comp=Z,7.6nm,0.8s,mb4.7,baz=99,slow=4.7,SNR=6.0						
CLL	Collm	78.95	321	P	P	04 24 41.0	+0.8
DAVOX	Davos	80.83	316	P	P	04 24 51.8	+1.5
	comp=Z,15nm,0.7s,mb5.0,baz=117,slow=7.5,SNR=7.7						
LPL	La Plagne	83.03	315	*e*P	P	04 25 02.6	+0.9
	comp=Z,35nm,0.8s,mb5.1						
URZ	Urewera	89.16	128	P	P	04 25 31.8	-0.2
	comp=Z,13nm,0.9s,mb5.2,baz=49,slow=3.2,SNR=4.1						
ESDC	Sonseca Array	91.45	310	P	P	04 25 43.5	+0.8
	comp=Z,1.9nm,0.5s,mb4.7,baz=63,slow=4.0,SNR=9.2						
ULM	Lac du Bonnet	123.22	7	PKP	PKPdf	04 31 34.0	+2.2
	comp=Z,3.6nm,0.6s,baz=338,slow=3.9,SNR=4.2						
NVAR	Mina Array Bea	126.88	31	PKP	PKPdf	04 31 41.3	+2.0
	comp=Z,1.6nm,0.6s,baz=296,slow=2.2,SNR=4.5						
PDAR	Pinedale Array	127.08	21	PKP	PKPdf	04 31 41.8	+2.3
	comp=Z,3.1nm,0.8s,baz=36,slow=1.8,SNR=4.7						
ANMO	Albuquerque	135.10	23	PKP	PKPdf	04 31 58.1	+3.2
	comp=Z,3.3nm,0.8s,baz=168,slow=1.7,SNR=5.3						
BDFB	Brasilia	140.72	253	PKP	PKPdf	04 32 09.8	+4.1
	comp=Z,2.6nm,0.8s,baz=62,slow=7.2,SNR=3.2						
TXAR	Lajitas Array	141.16	24	PKhKP		04 32 05.8	
	comp=Z,1.0nm,0.7s,baz=31,slow=1.2,SNR=5.7						
TXAR				PKP	PKPdf	04 32 10.1	+4.0
	comp=Z,1.1nm,0.5s,baz=214,slow=0.4,SNR=12						
PCRV	Puerto La Cruz	152.45	306	PKPbc	PKPdf	04 32 32.9	+7.9
	comp=Z,7.5nm,0.5s,baz=250,slow=2.8,SNR=7.1						
LVC	Limon Verde	156.17	225	PKPab	PKPab	04 33 02.3	+2.3
	comp=Z,3.4nm,0.7s,baz=56,slow=6.7,SNR=5.1						
LPAZ	La Paz	159.04	240	PKP	PKPdf	04 32 36.7	+3.1
	comp=Z,1.8nm,0.7s,baz=256,slow=4.2,SNR=3.1						
LPAZ	La Paz	159.04	240	PKP	PKPdf	04 32 36.7	+3.1

JMA 26 04:12:56.5±0.1**, 31.76N**×**129.13E, h15^{km}**±1^{km}**, M3.5, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	Shimokoshiki	0.51	99	P	Pb	04 13 06.3	-0.2
JSJ				S	Sb	04 13 12.9	-0.5
JFU	Fukue jima 2	0.95	340	P	Pb	04 13 14.1	0.0
JFU				S	Sb	04 13 27.5	+1.2
NGSJ	Nagasakinomoza	1.04	33	P	Pb	04 13 16.0	+0.3
NGSJ				S	Sb	04 13 30.3	+1.4
JHD	Hondo	1.11	50	P	Pb	04 13 16.8	0.0
JHD				S	Sb	04 13 32.0	+1.2
JSU	Suzuyama	1.16	102	P	Pb	04 13 17.7	0.0
JSU				S	Sb	04 13 33.3	+1.0
JZO	Okuchi	1.30	73	P	Pb	04 13 20.1	-0.1
JZO				S	Sb	04 13 37.2	+0.6
JTZ	Takazaki	1.67	85	P	Pn	04 13 25.3	-0.2

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*IDC **26** 04:13:53.0±0.8, 5.96N×94.76E, mb4.7/14, mb1 4.9/15, mb1mx4.7/22, ML5.0/1, Error ellipse: s-maj=41.9km s-min=17.0km az=47.0*
ISC 26 04:13:56.4±0.6**, 6.0N**±0.1×**94.9E**±0.1**, h33^{km}, n18, σ0^{s}66**/18**, mb4.7**/14**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.96	17	Pn	P	04 17 00.6	-0.3
	2.4nm,0.3s,baz=209,slow=14,SNR=4.6						
SONM	Songino Array	42.79	11	P	P	04 21 52.8	+0.1
	8.6nm,0.8s,mb4.5,baz=194,slow=7.6,SNR=4.3						
WRA	Warramunga Arr	46.59	125	P	P	04 22 23.5	0.0
	13nm,0.8s,mb4.9,baz=305,slow=9.2,SNR=4.9						
ASAR	Alice Springs	48.17	129	P	P	04 22 35.8	0.0
	18nm,0.8s,mb5.2,baz=308,slow=7.5,SNR=8.1						
BVAR	Borovoye Array	50.96	341	P	P	04 22 56.8	0.0
	7.9nm,0.8s,mb4.7,baz=153,slow=6.6,SNR=4.2						
STKA	Stephens Creek	58.30	133	P	P	04 23 50.3	-0.3
	11nm,0.9s,mb4.9,baz=304,slow=9.7,SNR=4.3						
BRTR	Keskin Array B	64.20	311	P	P	04 24 29.2	-1.2
	6.7nm,0.8s,mb4.7,baz=122,slow=7.1,SNR=6.5						
AKASG	Malin Array Be	70.06	322	P	P	04 25 05.7	-1.3
	5.7nm,0.8s,mb4.5,baz=92,slow=4.3,SNR=6.8						
IDI	Anoyia	70.24	305	P	P	04 25 07.9	-0.5
	11nm,0.9s,mb4.8,baz=106,slow=5.6,SNR=3.6						
MLR	Muntele Rosu	71.01	316	P	P	04 25 13.1	+0.2
	7.9nm,0.7s,mb4.7,baz=78,slow=3.9,SNR=3.6						
FINES	FINESS Array B	74.68	332	P	P	04 25 33.9	-0.3
	5.9nm,0.7s,mb4.6,baz=101,slow=9.7,SNR=5.1						
KAF	Kangasniemi	74.76	333	*e*p	P	04 25 35.0	+0.3
OJC	Ojcow	75.86	320	*e*P	P	04 25 41.4	+0.2
ARCES	ARCESS Array B	77.24	340	P	P	04 25 49.9	+1.2
	2.9nm,0.7s,mb4.3,baz=90,slow=6.1,SNR=5.0						
GERES	GERESS Array B	79.69	318	P	P	04 26 03.4	+0.9
	5.5nm,0.8s,mb4.5,baz=90,slow=5.3,SNR=5.8						
NB2	NORSAR Subarra	81.69	331	P	P	04 26 12.5	-0.3
	1.9nm,0.8s,mb4.1,baz=96,slow=5.0						
NOA	NORSAR Array B	81.69	331	P	P	04 26 12.8	+0.1
	2.2nm,0.8s,mb4.2,baz=93,slow=5.6,SNR=4.3						
DAVOX	Davos	82.23	316	P	P	04 26 17.0	+1.2
	9.9nm,0.8s,mb4.8,baz=93,slow=9.1,SNR=4.5						

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*IDC **26** 04:17:51.6±0.4, 8.96N×93.67E, mb5.0/30, mb1 5.1/31, mb1mx5.1/31, ML5.4/1, Error ellipse: s-maj=18.1km s-min=10.9km az=40.0*
*BJI **26** 04:17:55.8, 8.76N×93.47E, h46^{km}, mb5.3*
*CSEM **26** 04:17:56.7, 8.05N×92.57E, h33^{km}, mb5.6*
*NEIC **26** 04:17:56.8±0.2, 8.96N×93.72E, h30^{km}, mb5.3/60, Error ellipse: s-maj=6.6km s-min=5.6km az=211.0*
ISC 26 04:17:55.5±1.2**, 8.90N**±0.04×**93.74E**±0.03**, h34^{km}**±10^{km}**, h35^{km}**±4.3^{km}**:pP-P, n260, σ1^{s}00**/235**, mb5.2**/97**, 20C-5D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.76	27	*e*P	P	04 20 29.8	-0.6
	55nm,0.6s						
CMAR	Chiang Mai Arr	10.76	27	Pn	P	04 20 29.9	-0.5
	8.5nm,0.3s,baz=212,slow=15,SNR=40						
PALK	Pallekele	13.01	264	P	P	04 21 01.4	+0.7
VIS	Vishakhapatnam	13.39	312	*e*P	P	04 21 06.5	+0.8
VIS				*e*		04 21 27.7	
	comp=Z,570nm,1.0s						
MDRS	Chennai	13.88	289	*e*P	P	04 21 12.9	+0.7
MDRS				*e*	S	04 23 45.6	-0.5
TRD	Trivandrum	16.59	270	*e*P	P	04 21 39.5	-7.8
TRD				*e*	S	04 24 49.9	+0.2
SHL	Shillong	16.67	354	*e*P	P	04 21 49.2	+1.0
HYB	Hyderabad	17.03	301	*e*P		04 21 59.0	
HYB	Hyderabad	17.03	301	*i* P		04 21 59.0	
BLSP	Bilaspur	17.25	321	*e*P	P	04 21 55.9	+0.4
BLSP				*e*		04 22 02.0	
	comp=Z,367nm,1.8s						
BLSP				*e*	S	04 25 05.3	+0.8
KMI	Kunming	18.27	27	*e*P	P	04 22 12.0	+3.7
KMI				AP		04 22 18.0	
KMI				AMB	AMB		
	comp=Z,228nm,1.3s						
QIZ	Qiongzhong	18.57	55	P	P	04 22 12.3	+0.2
MNGI	Mangalore	19.00	284	*e*P	P	04 22 15.2	-2.0
ALBI	Allahabad	19.88	327	⇑*e*		04 22 30.5	
PKI	Pulchoki	20.17	338	*e*P	P	04 22 29.7	-0.2
	comp=Z,507nm,0.8s						
GUN	Gumba	20.31	340	*e*P	P	04 22 30.7	-0.7
	comp=Z,891nm,0.7s						
DMN	Daman	20.32	337	*e*P	P	04 22 31.2	-0.3
	comp=Z,444nm,0.7s						
KKN	Kakani	20.41	338	*e*P	P	04 22 32.1	-0.4
	comp=Z,425nm,0.6s						
GOA	Goa	20.53	291	*e*		04 22 42.8	
KAD	Karad	20.78	296	*e*P	P	04 22 35.5	-0.9
KAD				*e*		04 22 48.3	
	comp=Z,592nm,1.8s						
KAD				*e*	S	04 26 13.4	-8.1
LSA	Lhasa	20.83	354	P	P	04 22 35.5	-1.3
LSA	Lhasa	20.83	354	*e*P	P	04 22 35.0	-1.8
	comp=Z,348nm,0.8s						
GKN	Gorkha	20.85	337	*e*P	P	04 22 36.9	-0.1
	comp=Z,867nm,0.6s						
KOLN	Koldanda	21.07	334	*e*P	P	04 22 39.8	+0.6
	comp=Z,489nm,0.7s,mb5.9						
BHPL	Bhopal	21.16	314	*e*P	P	04 22 39.9	-0.3
BHPL				*e*		04 22 54.6	
	comp=Z,296nm,1.2s						
BHPL				*e*	S	04 26 24.2	-4.4
COCO	West Island	21.18	172	P	P	04 22 41.8	+1.4
	comp=Z,520nm,1.1s,mb5.8						
POO	Poona	21.54	298	*e*P	P	04 22 41.7	-2.3
POO				*e*		04 22 50.4	
	comp=Z,186nm,1.2s						
POO				*e*	S	04 26 26.1	-10

CD2	Chengdu	23.81	22	⇓iP	P	04 23 09.3	+3.0
CD2				AMB	AMB		
	comp=Z,360nm,1.3s,mb5.6						
NDI	New Delhi	25.07	324	eP	P	04 23 18.5	-0.2
AJM	Ajmer	25.17	316	eP	P	04 23 16.7	-2.8
AJM				e	pP	04 23 26.7	-2.3
	comp=Z,76nm,1.2s						
AJM				e	S	04 27 30.3	-9.4
ENH	Enshi	25.86	33	eP	P	04 23 24.1	-2.0
	comp=Z,620nm,1.8s,mb5.8						
BHJ	Bhuj	27.12	305	eP	P	04 23 36.9	-0.8
BHJ				e	pP	04 23 45.6	-1.7
	comp=Z,145nm,1.9s						
BHJ				e	S	04 28 06.4	-5.5
QZH	Quanzhou	28.55	53	eP	P	04 23 50.5	0.0
QZH				AMB	AMB		
	comp=Z,70nm,0.7s,mb5.5						
LZH	Lanzhou	28.58	17	eP	P	04 23 50.8	+0.1
LZH				AMB	AMB		
	comp=Z,150nm,1.2s,mb5.6						
WHN	Wuhan	28.88	39	⇑iP	P	04 23 56.5	+3.1
GTA	Gaotai	30.86	9	P	P	04 24 09.8	-1.2
GTA				AP	pP	04 24 22.0	+1.3
GTA				XP	sP	04 24 26.0	+0.8
GTA				AMB	AMB		
	comp=Z,32nm,0.6s,mb5.3						
NJ2	Nanjing	32.76	42	eP	P	04 24 31.0	+3.3
KSH	Kashi	34.38	335	eP	P	04 24 41.5	-0.1
WMQ	Urumqi	35.18	352	P	P	04 24 49.0	+0.6
WMQ				AMB	AMB		
	comp=Z,42nm,0.7s,mb5.5						
HHC	Hu-ho-hao-te	35.53	24	eP	P	04 24 52.0	+0.6
HHC				AP	pP	04 25 01.5	+0.2
HHC				XP	sP	04 25 05.3	-0.4
HHC				AMB	AMB		
	comp=Z,27nm,0.6s,mb5.3						
ULHL	Ulahol	36.61	338	P	P	04 24 59.3	-1.2
	SNR=5.8						
KZA	Kyzart	36.84	337	P	P	04 25 03.3	+0.9
	SNR=12						
BJT	Baijiatuau	36.88	29	eP	P	04 25 03.1	+0.3
	comp=Z,35nm,0.8s,mb5.2						
JOW	Kunigami	37.22	57	P	P	04 25 06.0	+0.2
	comp=Z,12nm,0.7s,mb4.8,baz=243,slow=14,SNR=2.6						
UCH	Uchtor	37.26	336	P	P	04 25 07.2	+1.2
	SNR=28						
TKM2	Tokmak 2	37.43	338	P	P	04 25 07.8	+0.4
	SNR=23						
KBK	Karagaybulak	37.45	337	P	P	04 25 09.0	+1.4
	SNR=16						
AML	Almayashu	37.51	335	P	P	04 25 09.6	+1.5
	SNR=46						
AAK	Ala-Archa	37.61	337	P	P	04 25 11.2	+2.3
	SNR=25						
CHMS	Chumysh	37.82	337	P	P	04 25 11.2	+0.5
	SNR=38						
EKS2	Erkin-Say	37.92	336	P	P	04 25 12.8	+1.4
	SNR=21						
USP	Ospenovka	38.14	337	P	P	04 25 13.8	+0.4
	SNR=7.2						
DL2	Dalian	38.96	35	P	P	04 25 21.0	+0.8
DL2				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.2						
SONM	Songino Array	40.26	13	P	P	04 25 30.2	-0.7
	comp=Z,18nm,1.2s,mb4.7,baz=193,slow=9.2,SNR=10						
ULN	Ulaanbaatar	40.44	14	eP	P	04 25 31.3	-1.1
	comp=Z,22nm,1.0s,mb4.8						
KS15	Wonju Array Si	41.93	42	eP	P	04 25 45.2	+0.4
SNY	Shenyang	42.03	34	⇑P	P	04 25 46.5	+0.9
SNY				AMB	AMB		
	comp=Z,100nm,2.3s,mb5.0						
TLY	Talaya	43.42	9	eP	P	04 25 54.8	-2.0
CN2	Changchun	44.38	33	eP	P	04 26 04.8	+0.2
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
HASS	Wahat al Ahsa’	44.88	297	P	P	04 26 12.0	+3.1
ZAL	Zalesovo	45.48	353	P	P	04 26 11.7	-1.6
	comp=Z,46nm,0.6s,mb5.5,baz=308,slow=6.1,SNR=41						
HIA	Hailar	45.74	24	eP	P	04 26 14.8	-0.6
NWAO	Narrogin (SRO)	47.24	153	P	P	04 26 24.1	-3.4
	comp=Z,38nm,0.8s,mb5.4,baz=8.1,slow=8.8,SNR=8.4						
NWAO	Narrogin (SRO)	47.24	153	eP	P	04 26 24.2	-3.3
	comp=Z,79nm,1.3s,mb5.5						
QRN	Al-Qurain	47.29	301	eP	P	04 26 29.8	+1.8
QRN				AMb	AMB	04 26 38.9	
	comp=Z,227nm,1.0s,mb6.0						
UMR	Umm Al-Rimmam	47.68	302	eP	P	04 26 31.2	+0.2
UMR				AMb	AMB	04 26 39.8	
	comp=Z,129nm,0.9s,mb6.0						
BVAR	Borovoye Array	47.89	341	P	P	04 26 31.5	-0.9
	comp=Z,17nm,0.7s,mb5.2,baz=141,slow=10.0,SNR=24						
BRVK	Borovoye	47.96	341	eP	P	04 26 31.8	-1.0
	comp=Z,15nm,0.6s,mb5.2						
MIB	Mutribah	48.06	302	eP	P	04 26 33.2	-0.8
MIB				AMb	AMB	04 26 42.4	
	comp=Z,224nm,1.1s,mb6.1						
RST	Umm Al-Ruwaisa	48.27	302	eP	P	04 26 35.0	-0.6
RST				AMb	AMB	04 26 44.2	
	comp=Z,222nm,0.9s,mb6.2						
MZLS	Mizel	48.66	294	P	P	04 26 41.3	+2.7
KAMS	Al Khamasin	48.73	289	P	P	04 26 39.5	+0.3
MAT	Matsushiro	48.77	49	P	P	04 26 39.7	+0.3
MAT	Matsushiro	48.77	49	eP	P	04 26 40.0	+0.6
WRA	Warramunga Arr	49.18	126	P	P	04 26 42.4	-0.3
	comp=Z,8.7nm,0.6s,mb5.0,baz=304,slow=8.7,SNR=16						
WRAB	Tennant Creek	49.18	126	eP	P	04 26 42.5	-0.2
	comp=Z,14nm,0.6s,mb5.2						
ARSS	Ar Rass	50.73	296	P	P	04 26 56.1	+1.6
ASAR	Alice Springs	50.88	130	P	P	04 26 55.0	-0.7
	comp=Z,11nm,0.8s,mb4.8,baz=301,slow=6.9,SNR=9.1						
BLJS	Baljurashi	51.49	288	P	P	04 27 05.2	+4.9
HILS	Ha’il	52.27	298	P	P	04 27 06.7	+0.6
GNI	Garni	53.44	314	P	P	04 27 13.7	-0.9
	comp=Z,9.2nm,0.8s,mb4.8,baz=10,slow=11,SNR=2.5						
GNI	Garni	53.44	314	eP	P	04 27 15.3	+0.7
	comp=Z,91nm,1.3s,mb5.5						
ARU	Arti	54.79	337	eP	P	04 27 22.9	-1.4
	comp=Z,20nm,0.8s,mb5.2						
ASAJ	Asahikawa	54.91	42	P	P	04 27 26.1	+0.7
	comp=Z,8.2nm,0.6s,mb4.9,baz=264,slow=16,SNR=6.2						
YNBS	Yanbu‘ al Bahr	55.23	293	P	P	04 27 30.3	+2.4
UMJS	Umm Lajj	55.94	294	P	P	04 27 36.2	+3.2
PMG	Port Moresby	56.21	108	P	P	04 27 35.6	+0.5
	comp=Z,55nm,0.8s,mb5.7,baz=316,slow=2.6,SNR=20						
PMG	Port Moresby	56.21	108	P	P	04 27 35.6	+0.5
YSS	Yuzh-Sakhalins	56.22	38	eP	P	04 27 34.8	+0.1
KIV	Kislovodsk	56.30	318	P	P	04 27 35.8	+0.5
	comp=Z,281nm,0.8s,mb6.3,SNR=12						
KIV	Kislovodsk	56.30	318	eP	P	04 27 34.3	-1.0
	comp=Z,36nm,0.8s,mb5.5						
KMBO	Kilima Mbogo	57.15	263	P	P	04 27 41.9	0.0
	comp=Z,10nm,0.8s,mb4.9,baz=52,slow=12,SNR=14						
ASF	Jabal al Asfar	57.33	302	P	P	04 27 42.5	-0.4
	comp=Z,7.3nm,0.8s,mb4.8,baz=108,slow=9.6,SNR=6.0						
MALT	Malatya	57.50	310	eP	P	04 27 43.0	-1.0
	comp=Z,15nm,1.0s,mb5.0						
JMQS	Jabal Moqyreh	57.67	298	P	P	04 27 45.0	-0.3
BDAS	Al Bad‘	58.28	298	P	P	04 27 49.4	-0.2
JMOS	Jabal al Moall	58.37	299	P	P	04 27 50.0	-0.2
ALWS	Ilw as Safayha	58.43	299	P	P	04 27 50.5	-0.1
HAQS	Haql	58.51	299	P	P	04 27 52.3	+1.1
EIL	Elat	58.58	299	P	P	04 27 51.0	-0.7
	comp=Z,14nm,0.6s,mb5.2,baz=65,slow=10,SNR=9.0						
EIL	Elat	58.58	299	eP	P	04 27 50.6	-1.1
	comp=Z,19nm,0.8s,mb5.2						
CTA	Charters Tower	59.16	120	P	P	04 27 53.9	-1.9
	comp=Z,19nm,0.9s,mb5.1,baz=285,slow=8.2,SNR=16						
CTA	Charters Tower	59.16	120	P	P	04 27 53.9	-1.9
CTAO	Charters Tower	59.16	120	eP	P	04 27 56.7	+1.0
	comp=Z,6µm,3.3s						
CSS	Prodhromos	60.76	305	eP	P	04 28 06.1	-0.5
	comp=Z,16nm,0.9s,mb5.2						
STKA	Stephens Creek	61.10	134	P	P	04 28 08.1	-0.8
	comp=Z,11nm,1.0s,mb5.0,baz=294,slow=5.4,SNR=7.6						
STKA	Stephens Creek	61.10	134	eP	P	04 28 08.5	-0.5
BRTR	Keskin Array B	61.46	310	P	P	04 28 08.2	-3.1
	comp=Z,12nm,0.7s,mb5.1,baz=125,slow=6.1,SNR=35						
MBAR	Mbarara	63.45	265	eP	P	04 28 24.5	-0.3
	comp=Z,48nm,1.4s,mb5.4						
ISP	Isparta	63.50	308	eP	P	04 28 22.9	-1.9
	comp=Z,17nm,0.8s,mb5.2						
CFR	Carcaliu	66.59	315	⇑iP	P	04 28 43.9	-0.7
CFR	Carcaliu	66.59	315	⇑iP	P	04 28 43.9	-0.7
AKASG	Malin Array Be	67.11	321	P	P	04 28 44.8	-3.0
	comp=Z,28nm,1.1s,mb5.2,baz=86,slow=4.6,SNR=14						
IDI	Anoyia	67.66	304	P	P	04 28 49.5	-2.0
	comp=Z,17nm,0.6s,mb5.2,baz=89,slow=8.4,SNR=22						
ISR	Istrita	67.68	315	⇑iP	P	04 28 53.6	+2.1
VRI	Vrincioaia	67.69	316	⇑iP	P	04 28 51.6	+0.1
VRI	Vrincioaia	67.69	316	⇑iP	P	04 28 51.7	+0.2
MLR	Muntele Rosu	68.16	315	P	P	04 28 53.5	-1.0
	comp=Z,20nm,0.9s,mb5.2,baz=118,slow=1.8,SNR=12						
LSZ	Lusaka	69.24	250	eP	P	04 29 00.8	-0.8
	comp=Z,19nm,1.0s,mb5.0						
BOLS	Boljevac	70.75	313	⇑iP	P	04 29 09.7	-0.7
KWP	Kalwaria	71.00	319	P	P	04 29 11.7	0.0
	comp=Z,139nm,1.9s,mb5.6						
KOLS	Kolonicke sedl	71.17	319	eP	P	04 29 12.1	-0.8
FINES	FINESS Array B	71.62	332	P	P	04 29 14.2	-1.1
	comp=Z,11nm,0.6s,mb5.0,baz=106,slow=7.2,SNR=18						
GRUS	Gruza	71.65	313	⇑iP	P	04 29 15.0	-0.8
CRVS	Cervenica-Dubn	71.70	319	eP	P	04 29 17.8	+1.8
KAF	Kangasniemi	71.70	333	ep	P	04 29 14.7	-1.1
	comp=Z,6.6nm,0.5s,mb4.8						
DIVS	Divcibare	72.19	313	⇑iP	P	04 29 18.3	-0.7
NIE	Niedzica	72.51	319	eP	P	04 29 21.5	+0.7
PSZ	Piszkesteto	72.62	317	eP	P	04 29 20.8	-0.6
	comp=Z,58nm,1.6s,mb5.3						
OJC	Ojcow	72.94	320	eP	P	04 29 23.0	-0.3
VYHS	Vyhne	73.38	318	i P	P	04 29 25.5	-0.5
KEV	Kevo	73.74	341	ep	P	04 29 26.8	-0.8
	comp=Z,19nm,0.6s,mb5.2						
OKC	Ostrava-Krasne	73.96	319	eP	P	04 29 29.3	0.0
ARCES	ARCESS Array B	74.17	340	P	P	04 29 29.1	-1.0
	comp=Z,14nm,0.7s,mb5.0,baz=89,slow=6.3,SNR=25						
SMOL	Smolenice	74.32	318	eP	P	04 29 30.5	-0.9
LBTB	Lobatse	74.39	241	eP	P	04 29 32.9	+0.6
	comp=Z,25nm,0.8s,mb5.2						
ZST	Bratislava	74.51	318	eP	P	04 29 32.1	-0.4
KTK1	Kautokeino	74.80	339	eP	P	04 29 34.7	+0.9
KTK1				AMb	AMB	04 29 40.5	
	comp=Z,74nm,1.3s,mb5.5						
KTK1	Kautokeino	74.80	339	eP	P	04 29 34.7	+0.9
	comp=Z,74nm,1.3s,mb5.5						
DPC	Dobruska-Polom	75.17	320	eP	P	04 29 36.2	-0.1
KSP	Ksiaz	75.22	320	eP	P	04 29 36.7	+0.1
UPC	Upice	75.38	320	eP	P	04 29 38.2	+0.7
ARSA	Arzberg	75.52	316	⇓iP	P	04 29 39.5	+1.1
	comp=Z,26nm,1.0s,mb5.1						
OBKA	Obir	76.16	316	⇑iP	P	04 29 43.8	+1.8
	comp=Z,23nm,0.9s,mb5.1						
PRU	Pruhonice	76.29	319	eP	P	04 29 42.4	-0.3
PVCC	Panska Ves	76.30	320	eP	pP	04 29 49.9	-3.3
PVCC	Panska Ves	76.30	320	epP	pP	04 29 49.9	-3.3
MOA	Molln	76.39	317	⇑iP	P	04 29 43.5	+0.2
	comp=Z,35nm,1.6s,mb5.0						
TRO	Tromso	76.43	340	eP	P	04 29 41.3	-1.8
TRO				AMb	AMB	04 29 50.4	
	comp=Z,100nm,1.7s,mb5.5						
TRO	Tromso	76.43	340	eP	P	04 29 41.3	-1.8
	comp=Z,100nm,1.7s,mb5.5						
BRG	Berggiesshubel	76.71	320	i P	P	04 29 45.5	+0.4
	comp=Z,45nm,1.4s,mb5.2						
BRG				i		04 29 51.4	
GEC2	GERESS Array S	76.80	318	eP	P	04 29 45.7	+0.1
GERES	GERESS Array B	76.80	318	P	P	04 29 44.4	-1.2
	comp=Z,15nm,0.8s,mb5.0,baz=85,slow=6.1,SNR=29						
RUE	Ruedersdorf	76.88	322	eP	P	04 29 44.9	-1.0
	comp=Z,40nm,0.7s,mb5.5						
KHC	Kasperske Hory	76.89	318	eP	P	04 29 46.0	-0.1
PTCC	Patocco-Chiusa	76.99	316	eP	P	04 29 46.1	-0.6
KBA	Koelnbreinsper	77.00	316	⇑iP	P	04 29 47.9	+1.1
	comp=Z,19nm,1.0s,mb5.0						
GMNA	Gemona	77.07	315	eP	P	04 29 47.1	0.0
ARV	Arcevia	77.27	313	eP	P	04 29 48.9	+0.6
CLL	Collm	77.32	321	i P	P	04 29 48.6	+0.1
	comp=Z,31nm,1.3s,mb5.1						
CLL				e		04 30 06.0	
CLL	Collm	77.32	321	P	P	04 29 48.6	+0.1
	comp=Z,logA/T=1.4,mb5.1						
CLL				e*PP	pP	04 29 53.0	-6.0
CLL				e	sP	04 30 06.0	+3.3
WET	Wettzell	77.35	318	eP	P	04 29 48.0	-0.7
FVI	Forni Avoltri	77.38	316	eP	P	04 29 49.0	0.0
MOR8	Moi Rana	77.58	336	eP	P	04 29 49.0	-0.6
MOR8				AMb	AMB	04 29 56.3	
	comp=Z,86nm,1.7s,mb5.4						
MOR8	Moi Rana	77.58	336	eP	P	04 29 49.0	-0.6
	comp=Z,86nm,1.7s,mb5.4						
NKC	Novy Kostel	77.65	319	eP	P	04 29 51.2	+0.9
SFI	Santa Sofia	78.06	313	eP	P	04 29 55.6	+2.9
LOF	Lofoten	78.14	338	eP	P	04 29 53.6	+1.0
LOF				AMb	AMB	04 29 55.3	
	comp=Z,138nm,1.5s,mb5.7						
LOF	Lofoten	78.14	338	eP	P	04 29 53.6	+1.0
	comp=Z,138nm,1.5s,mb5.7						
PGD	Poggio Sodo	78.15	313	eP	P	04 29 54.0	+0.9
CTI	Castel Tesino	78.17	315	eP	P	04 29 53.3	0.0
WTTA	Wattenberg	78.17	316	⇑iP	P	04 29 52.5	-0.7
	comp=Z,23nm,0.7s,mb5.2						
WTTA	Wattenberg	78.17	316	⇓iP	P	04 29 52.9	-0.3
	comp=Z,23nm,0.7s,mb5.2						
WTTA	Wattenberg	78.17	316	⇓iP	P	04 29 52.9	-0.3
	comp=Z,23nm,0.7s,mb5.2						
MOX	Moxa	78.19	320	i P	P	04 29 54.9	+1.7
MOX	Moxa	78.19	320	eP	P	04 29 54.9	+1.7
VMG	Vicchio	78.27	313	eP	P	04 29 54.9	+1.1
FUR	Furstenfeldbru	78.41	317	eP	P	04 29 54.1	-0.4
SEI	Scarperia	78.41	313	eP	P	04 29 55.6	+1.1
GRA1	Grafenberg Arr	78.44	319	eP	P	04 29 55.7	+1.1
	comp=Z,17nm,0.8s,mb5.0						
GRF	Grafenberg Arr	78.44	319	eP	P	04 29 55.7	+1.1
	comp=Z,17nm,0.8s,mb5.0						
SQTA	Sankt Quirin	78.46	316	⇑iP	P	04 29 53.6	-1.2
SQTA	Sankt Quirin	78.46	316	⇑iP	P	04 29 54.8	0.0
	comp=Z,21nm,0.8s,mb5.1						
SQTA	Sankt Quirin	78.46	316	⇑iP	P	04 29 54.8	0.0
	comp=Z,21nm,0.8s,mb5.1						
NSS	Namsos	78.48	334	eP	P	04 29 52.0	-2.6
NSS	Namsos	78.48	334	eP	P	04 29 52.0	-2.5
MOTA	Moosalm	78.53	317	⇑iP	P	04 29 55.0	-0.2
	comp=Z,19nm,0.9s,mb5.0						
MOTA	Moosalm	78.53	317	⇑iP	P	04 29 55.0	-0.2
	comp=Z,13nm,0.8s,mb4.9						
NB2	NORSAR Subarra	78.65	331	P	P	04 29 54.5	-1.0
	comp=Z,14nm,0.7s,mb5.0,baz=95,slow=5.0						
NB2	NORSAR Subarra	78.65	331	P	P	04 29 54.5	-1.0
	baz=95,slow=5.3						
NOA	NORSAR Array B	78.65	331	P	P	04 29 53.4	-2.2
	comp=Z,11nm,0.6s,mb5.0,baz=92,slow=5.7,SNR=22						
NAO01	NORSAR Array S	78.80	330	eP	P	04 29 54.9	-1.4
	comp=Z,17nm,0.8s,mb5.0						
GSCL	Gusciola	78.95	313	eP	P	04 29 58.6	+1.0
CLZ	Clausthal	78.97	321	eP	P	04 29 57.8	+0.3
	comp=Z,21nm,0.7s,mb5.2						
BSEG	Bad Segeberg	78.99	323	eP	P	04 29 58.4	+0.8
BRMO	Bormio	79.05	316	eP	P	04 29 58.6	+0.6
DAVA	Damuels	79.36	316	⇓iP	P	04 29 59.9	+0.1
	comp=Z,42nm,0.9s,mb5.4						
DAVOX	Davos	79.38	316	P	P	04 29 58.6	-1.2
	comp=Z,15nm,0.7s,mb5.0,baz=121,slow=10.0,SNR=13						
MAW	Mawson	79.45	192	P	P	04 29 59.1	-0.7
	comp=Z,6.5nm,0.8s,mb4.6,baz=45,slow=7.1,SNR=5.9						
MAW	Mawson	79.45	192	eP	P	04 29 59.5	-0.3
	comp=Z,13nm,0.7s,mb5.0						
MUD	Monsted U’grnd	79.64	326	i P	P	04 30 01.5	+0.5
	comp=Z,66nm,0.9s,mb5.6						
DOMB	Dombas	79.70	332	eP	P	04 30 01.2	-0.1
DOMB				AMb	AMB	04 30 08.5	
	comp=Z,53nm,1.4s,mb5.3						
DOMB	Dombas	79.70	332	eP	P	04 30 01.2	-0.1
	comp=Z,53nm,1.4s,mb5.3						
STU	Stuttgart	79.78	318	eP	P	04 30 02.1	+0.1
	comp=Z,26nm,0.9s,mb5.2						
PGF	Pioggiola	80.18	312	eP	P	04 30 04.0	-0.3
VAI	Varese	80.18	315	eP	P	04 30 04.1	-0.1
BFO	Black Forest	80.37	318	eP	P	04 30 05.4	+0.3
	comp=Z,7.0nm,0.9s,mb4.6						
CDF	Champ du Feu	81.07	318	eP	P	04 30 08.7	-0.1
	comp=Z,18nm,0.8s,mb4.8						
SBF	Sospel	81.24	313	eP	P	04 30 10.1	+0.3
	comp=Z,90nm,0.9s,mb5.4						
LPL	La Plagne	81.63	315	eP	P	04 30 12.2	+0.4
	comp=Z,81nm,0.8s,mb5.4						
HAU	Haudompre	81.71	317	eP	P	04 30 12.1	-0.1
	comp=Z,42nm,0.7s,mb5.2						
SMF	Signal de Mont	83.53	316	eP	P	04 30 20.9	-0.6
	comp=Z,31nm,0.7s,mb5.2						
SSF	Saint Saulge	83.72	317	eP	P	04 30 22.4	-0.1
	comp=Z,25nm,0.7s,mb5.1						
MTLF	Montolieu	85.07	313	eP	P	04 30 29.5	+0.2
	comp=Z,22nm,0.8s,mb5.0						
LDF	La Druitiere	85.94	318	eP	P	04 30 33.7	+0.2
	comp=Z,33nm,0.7s,mb5.3						
ANM	Nome	86.67	25	eP	P	04 30 36.7	0.0
ETSF	Etsaut	87.14	313	eP	P	04 30 40.6	+1.1
	comp=Z,24nm,0.8s,mb5.2						
ESDC	Sonseca Array	90.25	310	P	P	04 30 55.2	+0.8
	comp=Z,7.7nm,0.8s,mb5.1,baz=59,slow=4.3,SNR=15						
IMA	Indian Mountai	90.83	22	eP	P	04 30 56.9	+0.5
	comp=Z,20nm,0.8s,mb5.5						
COLA	College	93.54	22	eP	P	04 31 09.3	+0.4
	comp=Z,118nm,2.1s,mb6.0						
RSO	Redoubt South	93.54	27	P	P	04 31 07.3	-1.8
SPU	Mount Spurr	93.55	26	eP	P	04 31 09.0	0.0
ILAR	Eielson Array	93.95	22	P	P	04 31 09.8	-0.9
	comp=Z,5.8nm,0.7s,mb5.1,baz=298,slow=3.8,SNR=30						
ILAR				PKKPbc		04 48 18.9	
	comp=Z,1.2nm,0.8s,baz=82,slow=2.6,SNR=4.2						
VNDA	Vanda	94.01	168	P	P	04 31 09.5	-1.3
	comp=Z,1.3nm,0.8s,mb4.4,baz=224,slow=3.5,SNR=2.2						
VNDA	Vanda	94.01	168	eP	P	04 31 12.2	+1.4
PWA	Palmer West	94.27	25	eP	P	04 31 13.2	+0.9
	comp=Z,38nm,0.6s,mb6.0						
PMR	Palmer	94.62	25	eP	P	04 31 14.7	+0.8
	comp=Z,37nm,1.0s,mb5.8						
SLKM	Skilak Lake	94.65	26	eP	P	04 31 14.1	0.0
MENT	Mentasta	96.11	23	eP	P	04 31 22.9	+2.3
INK	Inuvik	96.12	16	P	P	04 31 20.3	-0.3
	comp=Z,56nm,1.3s,mb5.8,baz=341,slow=4.7,SNR=16						
INK	Inuvik	96.12	16	P	P	04 31 20.3	-0.3
DAWY	Dawson	97.04	21	eP	P	04 31 25.3	+0.4
DBIC	Dimbokro	97.41	278	P	P	04 31 28.1	+0.3
	comp=Z,5.0nm,0.9s,mb5.0,baz=90,slow=7.8,SNR=3.9						
YKA	Yellowknife Ar	105.52	13	Pdiff	Pdif	04 32 05.1	+2.3
	comp=Z,0.9nm,0.8s,baz=327,slow=4.0,SNR=5.6						
YKA				PKKPbc		04 47 40.8	
	comp=Z,0.7nm,0.6s,baz=156,slow=2.9,SNR=7.9						
YKA	Yellowknife Ar	105.52	13	Pdif	Pdif	04 32 05.1	+2.3
YKA				PKKPbc		04 47 40.9	
ULM	Lac du Bonnet	120.50	7	PKP	PKPdf	04 36 45.5	+1.6
	comp=Z,3.8nm,0.7s,baz=23,slow=3.6,SNR=2.5						
ULM				PKKPbc		04 46 56.5	
	comp=Z,1.3nm,0.4s,baz=165,slow=3.1,SNR=3.6						
ULM	Lac du Bonnet	120.50	7	PKP	PKPdf	04 36 45.5	+1.6
ULM				PKKPbc		04 46 56.5	
ELK	Elko	123.84	26	ePKPdf	PKPdf	04 36 53.0	+2.4
NVAR	Mina Array Bea	124.24	30	PKP	PKPdf	04 36 53.4	+2.0
	comp=Z,4.4nm,0.7s,baz=349,slow=1.2,SNR=12						
MNV	Mina	124.31	30	ePKPdf	PKPdf	04 36 53.6	+2.1
PDAR	Pinedale Array	124.36	21	PKP	PKPdf	04 36 52.4	+0.9
	comp=Z,5.0nm,0.8s,baz=76,slow=0.8,SNR=18						
PDAR				PKKPbc		04 46 46.3	
	comp=Z,1.4nm,1.0s,baz=135,slow=7.7,SNR=3.9						
TPNV	Topopah Spring	126.41	30	ePKPdf	PKPdf	04 36 57.8	+2.1
MSU	Marysvale	127.01	25	ePKPdf	PKPdf	04 36 60.0	+3.2
PV10	Paradox Valley	128.39	23	ePKPdf	PKPdf	04 37 01.1	+1.6
ANMO	Albuquerque	132.38	23	PKP	PKPdf	04 37 10.6	+3.5
	comp=Z,3.7nm,0.8s,baz=344,slow=1.8,SNR=15						
TXAR	Lajitas Array	138.45	23	PKhKP		04 37 13.5	
	comp=Z,0.8nm,0.8s,baz=331,slow=0.6,SNR=6.5						
BAO	Brasilia Array	142.06	256	PKP	PKPdf	04 37 22.2	-3.0
BAO				e		04 37 29.1	
BDFB	Brasilia	142.08	256	PKP	PKPdf	04 37 26.2	+0.9
	comp=Z,8.7nm,0.7s,baz=194,slow=4.6,SNR=9.3						
SJG	San Juan	146.61	324	PKPbc	PKPbc	04 37 36.1	+1.7
	comp=Z,12nm,0.5s,baz=149,slow=4.0,SNR=8.6						
SJG	San Juan	146.61	324	ePKPdf	PKPdf	04 37 35.9	+2.9
TEIG	Tepich	150.99	4	PKPbc	PKPab	04 37 49.2	-6.3
MDZ	Mendoza	151.21	212	eP	PKPab	04 37 51.9	-4.2
PCRV	Puerto La Cruz	151.32	311	PKPbc	PKPdf	04 37 46.9	+6.3
	comp=Z,8.9nm,0.5s,baz=108,slow=3.5,SNR=2.4						
FCH	Farellones	151.57	209	eP	PKPdf	04 37 48.3	+7.8
CLCH	Cerro Calan	151.63	209	eP	PKPdf	04 37 49.2	+8.7
SDV	Santo Domingo	156.45	318	PKPbc	PKPdf	04 37 55.1	+7.4
	comp=Z,5.2nm,1.0s,baz=287,slow=7.2,SNR=4.2						
SDV				PKPab	PKPab	04 38 18.8	0.0
	comp=Z,19nm,0.7s,baz=317,slow=4.2,SNR=9.1						
LPAZ	La Paz	160.85	246	PKP	PKPdf	04 37 55.2	+2.4
	comp=Z,2.8nm,0.8s,baz=198,slow=4.8,SNR=8.3						
LPAZ				PKPab	PKPab	04 38 39.2	+1.6
	comp=Z,6.3nm,0.8s,baz=213,slow=11,SNR=7.7						
LPAZ	La Paz	160.85	246	ePKPdf	PKPdf	04 37 55.5	+2.7
LPAZ				ePKPab	PKPab	04 38 39.3	+1.7
ROSC	El Rosal	161.88	319	PKP	PKPdf	04 37 57.0	+3.1
	comp=Z,5.9nm,0.9s,baz=82,slow=22,SNR=4.1						
ROSC				PKPab	PKPab	04 38 43.1	+0.8
	comp=Z,10nm,0.8s,baz=73,slow=12,SNR=5.9						
OTAV	Otavalo	168.04	319	ePKPdf	PKPdf	04 38 05.0	+5.7

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*IDC **26** 04:19:28.1±8.7, 4.96N×92.32E, h43^{km}±82^{km}, mb4.5/9, mb1 4.6/10, mb1mx4.4/19, ML4.9/1, Error ellipse: s-maj=38.4km s-min=21.6km az=49.0*

ISC 26 04:19:26.3±6.3, **4.9N**±0.2×**92.3E**±0.2, **h44**^{km}±55^{km}, **n11**, σ**0^{s}66**/11, **mb4.7**/9, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.91	25	P	P	04 22 56.1	+0.2
	1.7nm,0.3s,baz=217,slow=11,SNR=4.4						
SONM	Songino Array	44.41	14	P	P	04 27 33.5	-1.0
	6.9nm,0.9s,mb4.4,baz=210,slow=8.2,SNR=2.5						
WRA	Warramunga Arr	48.13	122	P	P	04 28 04.2	0.0
	12nm,0.8s,mb4.9,baz=302,slow=9.1,SNR=5.6						
ZAL	Zalesovo	49.23	354	P	P	04 28 12.2	-0.1
	13nm,0.4s,mb5.3,baz=304,slow=4.9,SNR=5.5						
ASAR	Alice Springs	49.51	127	P	P	04 28 15.2	+0.3
	5.5nm,0.8s,mb4.7,baz=305,slow=5.0,SNR=4.4						
KMBO	Kilima Mbogo	55.35	265	P	P	04 28 57.6	-1.0
	9.7nm,0.9s,mb4.8,baz=65,slow=8.6,SNR=4.0						
BRTR	Keskin Array B	63.02	312	P	P	04 29 52.0	+0.8
	6.1nm,0.8s,mb4.8,baz=127,slow=6.8,SNR=3.0						
ARCES	ARCESS Array B	77.41	341	P	P	04 31 17.4	-0.7
	1.9nm,0.5s,mb4.3,baz=98,slow=6.4,SNR=3.5						
GERES	GERESS Array B	78.81	319	P	P	04 31 27.1	+0.8
	4.4nm,0.8s,mb4.5,baz=112,slow=5.3,SNR=2.2						
CLL	Collm	79.49	321	e	P	04 31 25.0	-4.9
DAVOX	Davos	81.25	316	P	P	04 31 40.1	+0.7
	7.3nm,0.5s,mb4.9,baz=180,slow=5.1,SNR=4.3						

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*DUSS **26** 04:21:24.1±0.4, 7.19N×94.33E, h15^{km}*

*MOS **26** 04:21:26.9±0.9, 6.86N×92.92E, h33^{km}, mb6.4/57, MS7.3/33, Error ellipse: s-maj=9.0km s-min=4.7km az=119.9*

*BJI **26** 04:21:27.9, 6.94N×92.80E, h40^{km}, mB7.1, mb6.0, Ms7.7, Msz7.5*

*IDC **26** 04:21:29.6±2.5, 6.92N×92.97E, h38^{km}±20^{km}, mb5.3/33, mb1 5.3/34, mb1mx5.3/34, ML5.4/1, MS7.3/26, Ms1 7.3/26, ms1mx7.1/31, Error ellipse: s-maj=14.6km s-min=8.4km az=35.0*

*SYO **26** 04:21:29.7, 6.89N×92.94E, h40^{km}, MB6.1, MS7.5*

*NEIC **26** 04:21:29.8±0.9, 6.91N×92.96E, h39^{km}±7^{km}, mb6.1/113, MS7.5/130, Error ellipse: s-maj=5.5km s-min=3.6km az=207.0*

*HRVD **26** 04:21:29.8±0.3, 6.61N×92.79E, h14^{km}±1^{km}, MW7.2/79, Centroid moment Tensor Solution. LP body waves: s21,c22;Mantle waves: s79,c161; Half duration: 11^{s}4 Moment tensor: Scale 10^{19}Nm; M$_{rr}$5.26±.36; M$_{\theta\theta}$-0.84±.19; M$_{\phi\phi}$-4.41±.23; M$_{r\theta}$3.95±.65; M$_{\theta\phi}$2.10±.11; M$_{\phi r}$-2.91±.49; Best double couple: M$_{0}$7.23×10^{19} NP1: φ$_{s}$351°, δ27°, λ121°. NP2: φ$_{s}$137°, δ67°, λ75°. Principal axes: T 7.46, Plg65°, Azm21°; N -.46, Plg14°, Azm143°; P -6.99, Plg20°, Azm238°; nsta1 refers to body waves, cutoff=50s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 04:21:26.9±0.1, **6.85N**±0.03×**92.93E**±0.02, **h32**^{km}, **h32**^{km}±1.6^{km}**:pP-P, n1020,** σ**1^{s}09**/847, **mb6.0**/183, **MS7.4**/196, **148C-45D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	12.14	273	P	P	04 24 19.6	-1.3
	1µm,1.4s						
CM31	Chiang Mai Arr	12.94	26	ePn	P	04 24 31.7	+0.3
	524nm,0.8s						
CMAR	Chiang Mai Arr	12.94	26	Pn	P	04 24 30.4	-1.1
	6.6nm,0.3s,baz=229,slow=12,SNR=43						
CMAR				LR	LR	04 29 58.0	
	comp=Z,1270µm,18.1s,baz=210,slow=40						
CMAR	Chiang Mai Arr	12.94	26	P	P	04 24 30.4	-1.1
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.3s						

CMAR				MLR	MLR		
	comp=Z,270µm,18.1s						
MDRS	Chennai	13.94	297⇑	*e*P	P	04 24 45.3	+0.6
MDRS				*e*		04 27 01.1	
MDRS				*e*		04 27 01.1	
MDRS				*e*	S	04 27 04.0	-15
MDRS				*e*		04 29 52.3	
	comp=Z,801µm,19.8s						
VIS	Vishakhapatnam	14.30	320⇑	*e*P	P	04 24 49.0	-0.6
VIS				*i*		04 24 56.8	
VIS				AMb	AMB	04 25 04.0	
	comp=Z,5µm,1.6s						
VIS				*e*S	S	04 27 30.0	+2.1
VIS				*i*		04 27 51.8	
VIS	Vishakhapatnam	14.30	320	*e*	AMS	04 32 09.0	
	comp=Z,949µm,17.9s						
TRD	Trivandrum	15.92	277⇓	*e*P	P	04 25 11.3	+0.8
TRD				*e*	S	04 28 14.0	+8.2
TRD				*e*		04 31 10.5	
	comp=Z,1584µm,19.9s						
CAL	Calcutta	16.22	345⇑	*e*P	P	04 25 14.3	0.0
CAL				AMb	AMB	04 25 46.2	
	comp=Z,4µm,1.5s						
CAL				*e*	S	04 28 28.7	+16
CAL	Calcutta	16.22	345	*e*	AMS	04 36 46.6	
	comp=Z,992µm,19.5s						
AGT	Agartala	17.02	355⇑	*i*P	P	04 25 25.0	+0.7
AGT				*i*		04 27 52.0	
HYB	Hyderabad	17.53	308	*e*P	P	04 25 34.0	+3.2
HYB				*e*S	S	04 28 40.0	-2.8
HYB	Hyderabad	17.53	308	*i* P	P	04 25 34.0	+3.2
HYB				*e*S	S	04 28 40.0	-2.8
BOK	Bokaro	18.16	339⇑	*e*	P	04 25 41.4	+2.8
BOK				*e*	S	04 29 03.4	+6.4
BLSP	Bilaspur	18.43	327⇑	*e*P	P	04 25 39.0	-2.9
SHL	Shillong	18.64	357⇑	*e*P	P	04 25 44.2	-0.3
SHL				*e*S	S	04 29 14.9	+7.0
SHL	Shillong	18.64	357	*e*	AMS	04 38 32.1	
	comp=Z,1045µm,21.6s						
MNGI	Mangalore	18.83	290	*i* P	P	04 25 47.6	+0.8
MNGI				*e*S	S	04 29 19.0	+6.8
MNGI				*e*		04 32 47.6	
	comp=Z,1224µm,21.1s						
COCO	West Island	19.30	168	*e*P	P	04 25 52.2	-0.1
	comp=Z,2µm,1.3s						
NGP	Nagpur	19.56	318⇓	*e*P	P	04 25 56.5	+1.3
NGP				*e*	S	04 29 38.4	+10
MNCY	Minicoy	19.78	275⇑	*i*	P	04 26 03.0	+5.4
MNCY				*i*		04 32 13.0	
SLGI	Shiliguri	20.21	348	*e*P	P	04 26 03.4	+1.3
QIZ	Qiongzhong	20.43	52⇑	*i*P	P	04 26 05.0	+0.6
QIZ				XP		04 26 18.5	
QIZ				*e*S	S	04 29 48.0	+1.6
QIZ				LR	LR		
	comp=N,1152µm,14.5s						
QIZ				LR	LR		
	comp=Z,897µm,11.9s,MS7.3						
QIZ	Qiongzhong	20.43	52	*e*P	P	04 26 05.1	+0.7
	comp=Z,5µm,1.4s						
KMI	Kunming	20.45	26	*e*P	P	04 26 06.0	+1.4
KMI				PP	PP	04 26 29.5	+3.9
KMI				PPP	PPP	04 26 39.0	+4.4
KMI				LR	LR		
	comp=N,1350µm,16.5s,MS7.5						
KMI				LR	LR		
	comp=E,1120µm,16.0s,MS7.5						
KMI				LR	LR		
	comp=Z,719µm,15.7s,MS7.1						
LKP	Lekhapani	20.59	8	*e*P	P	04 26 05.0	-1.1
LKP				*e*		04 26 11.5	
GOA	Goa	20.60	296⇑	*e*P	P	04 26 08.1	+1.8
GOA				*e*		04 30 04.0	
GOA				*e*	tx	04 30 53.7	
AKL	Akola	20.68	313	*i* P	P	04 26 07.6	+0.6
AKL	Akola	20.68	313	*e*	AMS	04 37 48.6	
	comp=Z,821µm,17.4s,MS7.2						
KAD	Karad	21.05	301⇑	*e*P	P	04 26 11.6	+0.8
KAD				*e*S	S	04 30 04.5	+5.9
PKI	Pulchoki	21.81	342	*e*P	P	04 26 19.2	+0.8
POO	Poona	21.91	304	*e*P	P	04 26 19.0	-0.4
POO				*e*S	S	04 30 20.3	+5.7
POO	Poona	21.91	304	*e*	AMS	04 34 45.6	
	comp=Z,642µm,15.4s,MS7.2						
DMN	Daman	21.95	341	*e*P	P	04 26 20.3	+0.6
GUN	Gumba	21.99	343	*e*P	P	04 26 21.0	+0.8
KKN	Kakani	22.06	342	*e*P	P	04 26 21.4	+0.5
BHPL	Bhopal	22.10	319	*e*P	P	04 26 21.1	-0.2
BHPL				*e*S	S	04 30 24.8	+6.8
BHPL	Bhopal	22.10	319	*e*	AMS	04 36 38.4	
	comp=Z,1063µm,18.6s,MS7.3						
GKN	Gorkha	22.46	340	*e*P	P	04 26 25.5	+0.6
KOLN	Koldanda	22.61	338	*e*P	P	04 26 26.8	+0.3
	comp=Z,7µm,1.6s,mb6.8						
LSA	Lhasa	22.80	356	P	P	04 26 25.0	-3.2
LSA				S	S	04 30 35.0	+4.4
LSA				LR	LR		
	comp=N,300µm,34.0s,MS7.1						
LSA				LR	LR		
	comp=E,1000µm,29.0s,MS7.1						
LSA				LR	LR		
	comp=Z,600µm,29.8s,MS6.9						
LSA	Lhasa	22.80	356	*e*P	P	04 26 27.8	-0.5
	comp=Z,2µm,0.6s,mb6.6						
BOM	Bombay	22.95	303⇓	*e*P	P	04 26 31.1	+1.3
BOM				*e*		04 26 36.7	
BOM				*e*	S	04 30 54.2	+21
GYA	Guiyang	23.48	32⇑	*i*P	P	04 26 36.0	+1.1
GYA				AP		04 26 40.3	
GYA				AMB	AMB		
	comp=Z,9µm,1.4s,mb7.0						
GYA				LR	LR		
	comp=N,1062µm,15.0s,MS7.7						
GYA				LR	LR		
	comp=E,1372µm,14.0s,MS7.7						
GYA				LR	LR		
	comp=Z,1569µm,18.0s,MS7.5						
AGRA	Agra	24.77	327	*e*P	P	04 26 47.9	+0.5
DGAR	Diego Garcia	24.86	236	P	P	04 26 53.4	+5.0
DGAR				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.3						
DGAR	Diego Garcia	24.86	236	*e*P	P	04 26 50.1	+1.7
	comp=Z,1µm,1.4s,mb6.3						
DGAR				LR	LR		
	comp=Z,317µm,21.0s,MS6.8						
BHV	Bhavnagar	24.95	309	*e*P	P	04 26 51.5	+2.3
GZH	Guangzhou	25.43	48	P	P	04 26 58.8	+5.2
GZH				S	S	04 31 25.0	+9.2
GZH				LR	LR		
	comp=N,1595µm,16.8s,MS7.7						
GZH				LR	LR		
	comp=E,871µm,16.2s,MS7.7						
GZH				LR	LR		
	comp=Z,1180µm,17.1s,MS7.5						
PTH	Pithoragarh	25.57	334	*e*P	P	04 26 56.0	+1.1
PTH				*e*S	S	04 31 27.0	+9.0
PPR	Puerto Princes	25.69	82⇑	*e*P	P	04 26 47.6	-8.5
CD2	Chengdu	26.00	22	P	P	04 26 58.5	-0.4
CD2				S	S	04 31 22.5	-2.8
CD2				AMB	AMB		
	comp=Z,800nm,1.1s,mb6.2						
CD2				LR	LR		
	comp=N,860µm,16.8s						
CD2				LR	LR		
	comp=Z,832µm,12.0s,MS7.5						
SRDI	Scrawed	26.05	125⇓	*e*P	P	04 26 59.5	-0.1
	comp=Z,929nm,1.0s,mb6.3						
AJM	Ajmer	26.16	320⇑	*e*P	P	04 27 01.0	+0.5
AJM				*e*S	S	04 31 33.2	+5.2
AJM	Ajmer	26.16	320	*e*	AMS	04 39 11.8	
	comp=Z,845µm,19.3s,MS7.3						
KELI	Kelakatan	26.19	124⇑	*e*P	P	04 27 05.5	+4.7
	comp=Z,771nm,1.0s,mb6.2						
AYAN	Aya Nagar	26.20	327	*e*P	P	04 27 00.7	-0.1
KALG	Kalgarh	26.20	331	*e*	P	04 26 49.9	-11
NDI	New Delhi	26.31	328	*e*P	P	04 27 02.3	+0.5
NDI				*e*S	S	04 31 33.2	+2.7
NDI	New Delhi	26.31	328	*e*	AMS	04 41 12.2	
	comp=Z,758µm,17.7s,MS7.3						
ENPP	El Nido	26.51	79	*e*P	pP	04 27 14.1	+1.1
KHET	Khetri	26.62	325⇓	*e*P	P	04 27 05.2	+0.6
DDI	Dehra Dun	27.21	331	*e*P	P	04 27 09.1	-1.0
DDI				*e*		04 32 35.3	
RATI	Rata	27.33	124⇑	*e*P	P	04 27 11.7	+0.5
KEDI	Kedomdong	27.68	123⇓	*e*P	P	04 27 12.4	-2.0
	comp=Z,392nm,1.7s,mb5.8						
BHJ	Bhuj	27.70	309⇑	*e*P	P	04 27 15.3	+0.8
BHJ				*e*S	S	04 31 59.5	+6.6
BHJ	Bhuj	27.70	309	*e*	AMS	04 39 30.7	
	comp=Z,439µm,18.6s,MS7.1						
LUBP	Lubang	27.71	74	*e*P	P	04 27 13.6	-1.1
SCZP	Santa Cruz	27.87	69	*e*P	P	04 27 17.9	+1.7
CUYO	Cuyo Island	28.03	80	*e*P	P	04 27 16.4	-1.1
BOLP	Bolinao	28.04	68	*e*P	P	04 27 17.1	-0.5
KLP	Kalpa	28.14	333⇑	*e*P	P	04 27 19.1	+0.8
SMLA	Simla	28.31	331⇑	*e*	sP	04 27 33.8	+0.4
SJMP	San Jose	28.33	76	*e*P	P	04 27 19.4	-0.8
TGY	Tagaytay City	28.44	73	*e*P	P	04 27 23.0	+1.7
TGY	Tagaytay City	28.44	73	P	P	04 27 22.4	+1.1
	comp=Z,576nm,0.7s,mb6.3,baz=319,slow=5.5,SNR=11						
TGY				LR	LR	04 38 30.1	
	comp=Z,859µm,19.4s,MS7.4,baz=87,slow=36						
TGY	Tagaytay City	28.44	73	P	P	04 27 22.4	+1.1
TGY				pmax	pmax		
	comp=Z,576nm,0.7s						
TGY				MLR	MLR		
	comp=Z,859µm,19.4s						
BCPH	Baguio City Da	28.66	68⇑	*i*P	P	04 27 23.7	+0.5
QVPH	Quezon City--P	28.68	72⇑	*e*P	P	04 27 19.8	-3.5
SDNR	Sundarnagar	28.71	331	*e*P	P	04 27 24.5	+0.9
BHK	Bhakra	28.91	330	*e*	P	04 27 29.4	+4.0
BHK				*e*		04 33 15.0	
PCPH	Palayan	28.92	70⇓	*e*P	P	04 27 25.0	-0.6
JASL	Jaisalmer	28.94	316	*e*	P	04 27 19.3	-6.3
LQP	Lukban	29.02	73	*e*P	P	04 27 26.5	0.0
ABRA	Dolores	29.15	66	*e*P	P	04 27 28.9	+1.3
OTRP	Odiongan	29.18	77	*e*P	P	04 27 26.0	-2.0
BOAC	Boac	29.19	75	*e*P	P	04 27 27.6	-0.4
IPIL	Ipil	29.41	86	*e*P	P	04 27 30.6	+0.6
BALP	Baler	29.41	70	*e*P	P	04 27 30.1	+0.1
POLP	Polilio Island	29.52	72	*e*P	P	04 27 31.7	+0.6
GUIM	Jordan	29.54	81	*e*P	P	04 27 32.3	+1.1
PONG	Pong	29.58	330	*e*P	P	04 27 33.0	+1.6
APYP	Conner	29.69	66	*e*P	P	04 27 32.2	-0.3
RCP	Roxas	29.79	79⇑	*e*P	P	04 27 34.1	+0.7
CAUP	Cauayan	29.96	68	*e*P	P	04 27 35.1	+0.2
DLH	Dalhousie	30.05	331	*e*P	P	04 27 35.0	-0.6
DLH				*e*		04 28 30.0	
THN	Thein Dam	30.09	330	*e*P	P	04 27 34.8	-1.1
SNPH	Sibulan	30.10	83	*e*P	P	04 27 34.0	-2.2
CVP	Callao Caves	30.17	66	*e*P	P	04 27 37.0	+0.2
QZH	Quanzhou	30.44	51⇑	*i*P	P	04 27 39.5	+0.5
QZH				S	S	04 32 33.0	-3.7
QZH				AMB	AMB		
	comp=Z,2µm,1.8s,mb6.5						
QZH				LR	LR		
	comp=N,3084µm,15.9s,MS8.1						
QZH				LR	LR		
	comp=E,1369µm,16.4s,MS8.1						
QZH				LR	LR		
	comp=Z,2496µm,13.4s,MS8.0						
TBP	Tagbilaran	30.73	83	*e*P	P	04 27 42.0	+0.3
LZH	Lanzhou	30.77	17	*e*P	P	04 27 41.0	-0.9
LZH				PP	PP	04 28 42.0	-1.3
LZH				S	S	04 32 44.0	+2.2
LZH				SS	SS	04 34 25.0	-0.1
LZH				AMB	AMB		
	comp=Z,2µm,1.5s,mb6.6						
LZH				AMB	AMB		
	comp=Z,5µm,4.2s						
LZH				LR	LR		
	comp=E,898µm,16.6s						
LZH				LR	LR		
	comp=Z,1358µm,19.4s,MS7.6						
XAN	Xi’an	30.84	27	P	P	04 27 40.8	-1.7
XAN				AP	pP	04 27 51.0	-0.8
XAN				PP	PP	04 28 47.3	+3.2
XAN				AMB	AMB		
	comp=Z,528nm,0.7s,mb6.5						
XAN				LR	LR		
	comp=N,459µm,16.5s,MS7.5						
XAN				LR	LR		
	comp=E,833µm,16.5s,MS7.5						
XAN				LR	LR		
	comp=Z,1184µm,19.1s,MS7.6						
LLP	Lapu-Lapu	30.87	81	*e*P	P	04 27 34.3	-8.6
WHN	Wuhan	30.98	38⇑	*i*P	P	04 27 43.0	-0.7
WHN				S	S	04 32 49.0	+3.9
WHN				LR	LR		
	comp=N,772µm,13.0s,MS7.8						
WHN				LR	LR		
	comp=E,1176µm,14.2s,MS7.8						
WHN				LR	LR		
	comp=Z,1369µm,12.8s,MS7.8						
BBP	Basco	31.21	61	*e*P	P	04 27 45.8	-0.1
PVCP	Virac	31.43	75	*e*P	P	04 27 48.0	+0.2
OCLP	Ormoc	31.56	80	*e*P	P	04 27 52.8	+3.8
MSLP	Maasin	31.74	82	*e*P	P	04 27 51.2	+0.7
CNP	Catarman	31.76	77	*e*P	P	04 27 52.9	+2.1
BUKP	Musuan	31.88	86	*e*P	P	04 27 48.4	-3.4
KCP	Kidapawan	31.92	88⇓	*e*P	P	04 27 55.8	+3.6
SCPH	Surigao	32.34	83	*e*P	P	04 27 55.6	-0.2
DAV	Davao City (W)	32.40	88	*e*P	P	04 27 58.0	+1.6
TATO	Taipei	32.72	53	PFAKE		04 28 10.0	+11
TATO				LR	LR		
	comp=Z,566µm,20.0s,MS7.3						
GTA	Gaotai	33.01	10⇑	*i*P	P	04 28 01.0	-0.4
GTA				AP	pP	04 28 07.5	-3.3
GTA				XP	sP	04 28 11.5	-3.4
GTA				PP	PP	04 29 06.0	-6.3
GTA				S	S	04 33 11.3	-5.4
GTA				AMB	AMB		
	comp=Z,123nm,2.0s,mb5.5						
GTA				AMB	AMB		
	comp=Z,59µm,11.5s						
GTA				LR	LR		
	comp=N,308µm,19.0s,MS7.2						
GTA				LR	LR		
	comp=E,329µm,19.4s,MS7.2						
GTA				LR	LR		
	comp=Z,440µm,19.8s,MS7.2						
MATI	Mati	33.08	88	*e*P	P	04 28 03.0	+0.7
NJ2	Nanjing	34.83	41	*e*P	P	04 28 17.5	+0.3
NJ2				AP	pP	04 28 27.5	+0.9
NJ2				XP	sP	04 28 31.0	+0.4
NJ2				PP	PP	04 29 35.5	+0.5
NJ2				S	S	04 33 44.0	-0.9
NJ2				XS		04 34 00.0	
NJ2				AMB	AMB		
	comp=Z,15µm,5.0s						
NJ2				LR	LR		
	comp=N,915µm,15.4s,MS7.8						
NJ2				LR	LR		
	comp=E,967µm,16.8s,MS7.8						
NJ2				LR	LR		
	comp=Z,1109µm,15.8s,MS7.7						
SSE	Sheshan	35.79	44	*e*P	P	04 28 26.0	+0.6
SSE				S	S	04 34 03.8	+3.9
SSE				AMB	AMB		
	comp=Z,139nm,1.6s,mb5.6						
SSE				AMB	AMB		
	comp=Z,62µm,10.2s						
SSE				LR	LR		
	comp=N,697µm,16.4s,MS7.6						
SSE				LR	LR		
	comp=E,361µm,16.4s,MS7.6						
SSE				LR	LR		
	comp=Z,815µm,14.2s,MS7.6						
KSH	Kashi	35.93	337	P	P	04 28 27.8	+1.3
KSH				PP	PP	04 29 47.0	-1.4
KSH				PPP	PPP	04 30 08.3	+0.1
KSH				*e*PCP	PcP	04 30 54.3	+1.1
KSH				S	S	04 34 03.8	+1.9
KSH				SCP		04 34 39.0	
KSH				PCS		04 34 41.5	
KSH				SS	SS	04 36 24.0	-0.7
KSH				SCS	ScS	04 38 42.5	+2.8
KSH				AMB	AMB		
	comp=Z,3µm,2.8s,mb6.7						
KSH				LR	LR		
	comp=N,288µm,16.3s,MS7.4						
KSH				LR	LR		
	comp=E,515µm,17.9s,MS7.4						
TIA	Tai’an	36.66	34	⇑P	P	04 28 32.8	+0.1
TIA				AMB	AMB		
	comp=Z,285nm,1.2s,mb6.0						
TIA				LR	LR		
	comp=N,389µm,15.0s,MS7.4						
TIA				LR	LR		
	comp=E,313µm,15.0s,MS7.4						
BTO	Baotou	36.93	22	*e*P	P	04 28 33.8	-1.1
BTO				AMB	AMB		
	comp=Z,275nm,1.9s,mb5.8						
BTO				LR	LR		
	comp=N,155µm,13.2s,MS7.5						
BTO				LR	LR		
	comp=E,438µm,11.8s,MS7.5						
WMQ	Urumqi	37.11	354	⇑P	P	04 28 37.0	+0.6
WMQ				AP	pP	04 28 41.5	-4.3
WMQ				PP	PP	04 30 03.5	0.0
WMQ				*e*S	S	04 34 22.0	+2.0
WMQ				AMB	AMB		
	comp=Z,149nm,1.5s,mb5.6						
WMQ				AMB	AMB		
	comp=Z,32µm,8.9s						
WMQ				LR	LR		
	comp=N,327µm,30.8s,MS7.5						
WMQ				LR	LR		
	comp=E,1067µm,30.1s,MS7.5						
WMQ				LR	LR		
	comp=Z,474µm,30.8s,MS7.1						
HHC	Hu-ho-hao-te	37.73	23	*e*P	P	04 28 40.8	-0.8
HHC				AP	pP	04 28 50.3	-0.7
HHC				XP	sP	04 28 54.3	-0.7
HHC				AMB	AMB		
	comp=Z,875nm,1.3s,mb6.3						
HHC				LR	LR		
	comp=N,772µm,14.3s,MS7.8						
HHC				LR	LR		
	comp=E,702µm,15.5s,MS7.8						
HHC				LR	LR		
	comp=Z,724µm,17.8s,MS7.5						
ULHL	Ulahol	38.23	340	P	P	04 28 46.5	+0.7
	SNR=12						
MBWA	Marble Bar	38.30	137	*e*P	P	04 28 45.7	-0.9
	comp=Z,265nm,1.6s,mb5.7						
MBWA				LR	LR		
	comp=Z,527µm,21.0s,MS7.3						
KZA	Kyzart	38.43	339	P	P	04 28 48.5	+1.0
	SNR=20						
UCH	Uchtor	38.83	338	P	P	04 28 52.3	+1.4
	SNR=36						
AAA	Alma-Ata	38.91	341*c*	*i*P	P	04 28 52.0	+0.5
AAA				MLR	MLR		
	comp=Z,360µm,18.0s,MS7.2						
JOW	Kunigami	39.02	55	P	P	04 28 53.8	+1.2
	comp=Z,270nm,0.7s,mb6.1,baz=239,slow=7.0						
JOW				LR	LR	04 46 19.1	
	comp=Z,474µm,20.4s,MS7.3,baz=231,slow=38						
KBK	Karagaybulak	39.04	339	P	P	04 28 54.1	+1.5
	SNR=20						
TKM2	Tokmak 2	39.05	340	P	P	04 28 53.4	+0.7
	SNR=20						
BJT	Baijiatuau	39.05	29	*e*P	P	04 28 53.2	+0.5
	comp=Z,292nm,0.8s,mb6.1						
AML	Almayashu	39.06	337	P	P	04 28 54.3	+1.6
	SNR=55						
BJI	Beijing	39.07	29	P	P	04 28 53.8	+0.9
BJI				AMB	AMB		
	comp=Z,376nm,1.6s,mb5.9						
BJI				LR	LR		
	comp=N,588µm,16.3s,MS7.6						
BJI				LR	LR		
	comp=E,593µm,17.2s,MS7.6						
BJI				LR	LR		
	comp=Z,365µm,28.1s						
AAK	Ala-Archa	39.19	338	P	P	04 28 55.2	+1.4
	SNR=33						
AAK	Ala-Archa	39.19	338	*i* P	P	04 28 54.6	+0.8
AAK				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.5						
AAK				MLR	MLR		
	comp=Z,624µm,21.0s,MS7.4						
CHMS	Chumysh	39.41	339	P	P	04 28 56.2	+0.5
	SNR=30						
EKS2	Erkin-Say	39.48	338	P	P	04 28 57.7	+1.5
	SNR=27						
USP	Ospenovka	39.74	339	P	P	04 28 59.1	+0.8
	SNR=38						
MKAR	Makanchi Array	40.84	349	*i* P	P	04 29 07.0	-0.4
MKAR				pmax	pmax		
	comp=Z,355nm,1.4s						
MKAR	Makanchi Array	40.84	349	*i* P	P	04 29 07.1	-0.3
DL2	Dalian	41.09	35	P	P	04 29 10.5	+1.0
DL2				S	S	04 35 27.3	+7.3
DL2				AMB	AMB		
	comp=Z,280nm,1.3s,mb5.7						
DL2				LR	LR		
	comp=E,261µm,15.3s						
DL2				LR	LR		
	comp=Z,231µm,17.3s,MS7.1						
SONM	Songino Array	42.43	13	P	P	04 29 19.4	-1.0
	comp=Z,29nm,0.5s,mb5.1,baz=196,slow=5.5,SNR=15						
SONM				PcP	PcP	04 31 15.3	+1.6
	comp=Z,27nm,0.7s,baz=215,slow=2.8,SNR=5.2						
ULN	Ulaanbaatar	42.61	14	*e*P	P	04 29 21.2	-0.7
	comp=Z,53nm,0.8s,mb5.3						
ULN				LR	LR		
	comp=Z,858µm,20.0s,MS7.6						
INCN	Inchon	43.20	40	*e*P	P	04 29 26.2	-0.6
	comp=Z,474nm,1.4s,mb6.0						
INCN				LR	LR		
	comp=Z,542µm,22.0s,MS7.4						
KS15	Wonju Array Si	43.99	41	*e*P	P	04 29 32.8	-0.4
SNY	Shenyang	44.18	33	⇑P	P	04 29 34.5	-0.2
SNY				AMB	AMB		
	comp=Z,340nm,1.6s,mb5.8						
SNY				LR	LR		
	comp=N,537µm,15.4s,MS7.6						
SNY				LR	LR		
	comp=E,266µm,15.5s,MS7.6						
SNY				LR	LR		
	comp=Z,408µm,14.6s,MS7.5						
ZAK	Zakamensk	44.25	9⇑	*i*P	P	04 29 35.4	+0.2
HASS	Wahat al Ahsa’	45.13	299	P	P	04 29 47.2	+4.6
TLY	Talaya	45.56	9	P	P	04 29 46.4	+0.8
	comp=Z,500nm,1.3s,mb6.3,SNR=25						
TLY	Talaya	45.56	9	*e*P	P	04 29 46.4	+0.8
TLY				*e*		04 31 30.3	
TLY				*e*S	S	04 36 38.2	+13
TLY				pmax	pmax		
	comp=Z,325nm,2.0s,mb5.9						
TLY	Talaya	45.56	9	*e*P	P	04 29 45.5	-0.1
	comp=Z,704nm,2.0s,mb6.2						
TLY				LR	LR		
	comp=Z,74µm,20.0s,MS6.6						
NWAO	Narrogin (SRO)	45.81	151	P	P	04 29 47.5	-0.3
	comp=Z,171nm,1.0s,mb5.9,baz=315,slow=9.1,SNR=10.0						
NWAO				LR	LR	04 49 28.6	
	comp=Z,3µm,19.3s,MS5.2,baz=343,slow=37						
NWAO	Narrogin (SRO)	45.81	151	P	P	04 29 47.5	-0.3
NWAO				pmax	pmax		
	comp=Z,171nm,1.0s						
NWAO				MLR	MLR		
	comp=Z,3µm,19.3s						
NWAO	Narrogin (SRO)	45.81	151	*e*P	P	04 29 47.5	-0.4
	comp=Z,275nm,1.3s,mb6.0						
NWAO				LR	LR		
	comp=Z,389µm,21.0s,MS7.3						
IRK	Irkutsk	46.21	10	*e*P	P	04 29 51.2	+0.5
IRK				*e*	pP	04 30 01.3	+1.0
CN2	Changchun	46.53	32	⇑P	P	04 29 53.5	+0.1
CN2				*e*S	S	04 36 41.5	+2.5
CN2				*e*SS	SS	04 40 00.0	+2.6
CN2				AMB	AMB		
	comp=Z,100nm,0.8s,mb5.8						
CN2				AMB	AMB		
	comp=Z,54µm,12.0s						
CN2				LR	LR		
	comp=N,309µm,16.0s,MS7.6						
CN2				LR	LR		
	comp=E,385µm,16.0s,MS7.6						
CN2				LR	LR		
	comp=Z,332µm,19.0s,MS7.3						
ZAL	Zalesovo	47.41	353	P	P	04 29 60.0	-0.3
	comp=Z,39nm,0.7s,mb5.5,baz=296,slow=9.1,SNR=15						
ZAL	Zalesovo	47.41	353	*i* P	P	04 30 00.6	+0.4
ZAL				pmax	pmax		
	comp=Z,39nm,0.7s						
QRN	Al-Qurain	47.70	303	*e*P	P	04 30 02.7	-0.1
QRN				AMb	AMB	04 30 17.1	
	comp=Z,777nm,1.7s,mb6.5						
HIA	Hailar	47.93	23	*e*P	P	04 30 04.0	-0.4
	comp=Z,1µm,1.6s,mb6.7						
UMR	Umm Al-Rimmam	48.12	304	*e*P	P	04 30 07.1	+1.0
UMR				AMb	AMB	04 30 15.5	

	comp=Z,414nm,1.1s,mb6.4						
NVS	**Novosibirsk**	**48.49**	**353**	*i* P	**P**	**04 30 07.2**	**-1.4**
NVS				*e*S	**S**	**04 37 05.8**	**-0.7**
NVS				pmax	pmax		
	comp=N,383nm,2.0s						
NVS				pmax	pmax		
	comp=Z,988nm,2.0s,mb6.5						
NVS				pmax	pmax		
	comp=E,443nm,1.7s						
NVS				smax			
	comp=E,420nm,2.2s						
NVS				smax			
	comp=N,170nm,2.0s						
MIB	**Mutribah**	**48.51**	**304**	*e*P	**P**	**04 30 08.9**	**-0.2**
MIB				AMb	AMB	04 30 21.2	
	comp=Z,881nm,1.1s,mb6.7						
WRA	**Warramunga Arr**	**48.66**	**124**	P	**P**	**04 30 08.6**	**-1.7**
	comp=Z,60nm,0.8s,mb5.7,baz=305,slow=8.1,SNR=35						
WRA				S	**S**	**04 37 10.5**	**+1.1**
	comp=Z,37nm,1.1s,baz=300,slow=15,SNR=13						
WRA	**Warramunga Arr**	**48.66**	**124**	P	**P**	**04 30 08.6**	**-1.8**
WRA				S	**S**	**04 37 10.5**	**+1.1**
WRA				pmax	pmax		
	comp=Z,60nm,0.8s						
WRAB	**Tennant Creek**	**48.67**	**124**	*e*P	**P**	**04 30 09.8**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,230nm,0.8s,mb6.3						
WRAB	**Tennant Creek**	**48.67**	**124**	*e*P	**P**	**04 30 09.4**	**-1.0**
	comp=Z,232nm,0.8s,mb6.3						
WRAB				LR	LR		
	comp=Z,268µm,20.0s,MS7.2						
KAMS	**Al Khamasin**	**48.68**	**291**	P	**P**	**04 30 12.1**	**+1.5**
RST	**Umm Al-Ruwaisa**	**48.70**	**304**	*e*P	**P**	**04 30 10.5**	**0.0**
RST				AMb	AMB	04 30 19.9	
	comp=Z,555nm,1.3s,mb6.4						
MDJ	**Mudanjiang**	**49.33**	**34**	P	**P**	**04 30 14.8**	**-0.4**
MDJ				PCP	PcP	04 31 37.0	-0.8
MDJ				PP	PP	04 32 05.5	-4.0
MDJ				SCP		04 35 29.5	
MDJ				S	**S**	**04 37 20.5**	**+2.2**
MDJ				SCS	ScS	04 40 00.8	-0.8
MDJ				AMB	AMB		
	comp=Z,266nm,1.8s,mb6.0						
MDJ				LR	LR		
	comp=N,468µm,16.1s,MS7.7						
MDJ				LR	LR		
	comp=E,429µm,15.5s,MS7.7						
MDJ				LR	LR		
	comp=Z,406µm,11.8s,MS7.7						
MDJ	**Mudanjiang**	**49.33**	**34**	*e*P	**P**	**04 30 15.3**	**+0.1**
	comp=Z,420nm,1.3s,mb6.3						
BVA0	**Borovoye Array**	**49.58**	**342**	P	**P**	**04 30 16.1**	**-0.9**
BVA0				pmax	pmax		
	comp=Z,39nm,1.4s,mb5.2						
BVAR	**Borovoye Array**	**49.58**	**342**	P	**P**	**04 30 15.8**	**-1.2**
	comp=Z,55nm,0.8s,mb5.7,baz=138,slow=13,SNR=18						
TATS	**Tathlith**	**49.60**	**290**	P	**P**	**04 30 20.1**	**+2.5**
BRVK	**Borovoye**	**49.64**	**342**	P	**P**	**04 30 18.7**	**+1.2**
BRVK				pmax	pmax		
	comp=Z,260nm,1.3s,mb6.1						
BRVK	**Borovoye**	**49.64**	**342**	*e*P	**P**	**04 30 16.4**	**-1.1**
	comp=Z,263nm,1.3s,mb6.1						
BRVK				LR	LR		
	comp=Z,61µm,20.0s,MS6.6						
CHKZ	**Chkalovo**	**50.08**	**343**	*e*P	**P**	**04 30 20.3**	**-0.6**
	comp=Z,391nm,1.1s,mb6.3						
ASAR	**Alice Springs**	**50.20**	**129**	P	**P**	**04 30 21.2**	**-0.9**
	comp=Z,86nm,0.9s,mb5.8,baz=304,slow=4.3,SNR=18						
ASAR				PcP	PcP	04 31 41.8	+0.6
	comp=Z,48nm,0.6s,baz=314,slow=3.8,SNR=7.6						
ASAR				S	**S**	**04 37 32.1**	**+1.4**
	comp=Z,17nm,0.9s,baz=295,slow=13,SNR=5.5						
ASAR				LR	LR	04 52 57.4	
	comp=Z,267µm,21.2s,MS7.2,baz=301,slow=38						
JHJ	**Hachijo jima 2**	**50.63**	**52**	LR	LR	04 50 41.1	
	comp=Z,266µm,21.8s,MS7.2,baz=243,slow=35						
MAJO	**Matsushiro**	**50.73**	**48**	PFAKE		04 30 40.0	+14
MAJO				LR	LR		
	comp=Z,211µm,19.0s,MS7.2						
MAT	**Matsushiro**	**50.73**	**48**	P	**P**	**04 30 25.5**	**-0.5**
MAT				S	**S**	**04 37 49.6**	**+12**
MAT	**Matsushiro**	**50.73**	**48**	*e*P	**P**	**04 30 26.0**	**0.0**
	comp=Z,2µm,2.5s,mb6.6						
MAT				*e*S	**S**	**04 37 50.0**	**+12**
CBIJ	**Chichi jima**	**50.84**	**61**	P	**P**	**04 30 25.9**	**-1.1**
	comp=Z,317nm,0.7s,mb6.4,baz=271,slow=2.9,SNR=18						
CBIJ				LR	LR	04 52 43.2	
	comp=Z,140µm,20.3s,MS7.0,baz=228,slow=37						
ARSS	**Ar Rass**	**50.95**	**298**	P	**P**	**04 30 30.6**	**+2.8**
BLJS	**Baljurashi**	**51.40**	**290**	P	**P**	**04 30 32.9**	**+1.6**
GUMO	**Guam**	**51.47**	**78**	*e*P	**P**	**04 30 30.8**	**-1.1**
	comp=Z,775nm,1.4s,mb6.4						
GUMO				LR	LR		
	comp=Z,144µm,21.0s,MS7.0						
HILS	**Ha'il**	**52.54**	**299**	P	**P**	**04 30 41.3**	**+1.4**
BOD	**Bodaibo**	**53.42**	**14**	*e*P	**P**	**04 30 44.4**	**-1.5**
MAK	**Makhachkala**	**53.70**	**320**	*e*P	**P**	**04 30 48.0**	**-0.2**
MAK				*i* S	**S**	**04 38 28.0**	**+10**
MAK				pmax	pmax		
	comp=Z,858nm,2.0s,mb6.3						
GNI	**Garni**	**54.30**	**315**	P	**P**	**04 30 53.0**	**+0.4**
	comp=Z,36nm,0.9s,mb5.3,baz=172,slow=4.9,SNR=14						
GNI	**Garni**	**54.30**	**315**	*i* P	**P**	**04 30 52.4**	**-0.2**
GNI				pmax	pmax		
	comp=Z,902nm,1.6s						
GNI				MLR	MLR		
	comp=Z,116µm,18.0s						
GNI	**Garni**	**54.30**	**315**	*e*P	**P**	**04 30 52.4**	**-0.2**
	comp=Z,9µm,2.5s						
GNI				LR	LR		
	comp=Z,127µm,20.0s						
KBRS	**Khaybar**	**54.44**	**297**	P	**P**	**04 30 55.0**	**+1.2**
TVAN	**Van**	**54.62**	**313**	*i* P	**P**	**04 30 55.9**	**+0.9**
YNBS	**Yanbu' al Bahr**	**55.33**	**295**	P	**P**	**04 31 01.1**	**+0.7**
CLNS	**Chul'man**	**55.81**	**21**	*e*P	**P**	**04 31 03.5**	**+0.1**
CLNS				e*PP	pP	04 31 09.5	-3.6
CLNS				*e*		04 32 06.6	
CLNS				*e*S	**S**	**04 38 40.1**	**-6.4**
CLNS				*e*		04 40 47.3	
CLNS				*e*SS	SS	04 42 32.7	+0.6
CLNS				pmax	pmax		
	comp=Z,430nm,1.6s,mb6.2						
CLNS				pmax	pmax		
	comp=N,165nm,0.9s						
CLNS				pmax	pmax		
	comp=E,105nm,0.9s						
CLNS				smax			
	comp=E,6µm,15.1s						
CLNS				smax			
	comp=Z,32µm,15.1s						
CLNS				smax			
	comp=N,81µm,19.4s						
CLNS				MLR	MLR		
	comp=Z,385µm,16.0s,MS7.6						
CLNS				MLR	MLR		
	comp=N,304µm,15.0s						
CLNS				MLR	MLR		
	comp=E,547µm,21.0s						
BTMT	**Batman**	**55.90**	**312**	P	**P**	**04 31 03.2**	**-1.1**
BEST	**Besiri**	**55.96**	**312**	*i* P	**P**	**04 31 03.1**	**-1.6**
ZEI	**Tsey**	**55.98**	**318**	*e*P	**P**	**04 31 04.8**	**0.0**
ZEI				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.7						
UMJS	**Umm Lajj**	**56.08**	**296**	P	**P**	**04 31 07.3**	**+1.5**
KMBO	**Kilima Mbogo**	**56.12**	**264**	P	**P**	**04 31 07.2**	**+1.1**
	comp=Z,12nm,0.7s,mb5.1,baz=65,slow=9.4,SNR=17						
KMBO				LR	LR	04 50 58.2	
	comp=Z,592µm,21.4s,MS7.7,baz=75,slow=32						
KMBO	**Kilima Mbogo**	**56.12**	**264**	*e*P	**P**	**04 31 07.0**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,510nm,1.8s						
KMBO	**Kilima Mbogo**	**56.12**	**264**	*e*P	**P**	**04 31 06.7**	**+0.5**
	comp=Z,507nm,1.8s,mb6.2						
KMBO				LR	LR		
	comp=Z,618µm,22.0s,MS7.7						
VRT	**Varto**	**56.20**	**313**	P	**P**	**04 31 06.0**	**-0.4**
ARU	**Arti**	**56.37**	**338**	⇑*i*P	**P**	**04 31 06.3**	**-1.1**
ARU				*e*		04 31 59.9	
ARU				*i*		04 33 10.2	
ARU				*i* S	**S**	**04 38 56.9**	**+2.9**
ARU				*i*		04 40 57.0	
ARU				*i* SS	SS	04 42 39.6	-1.9
ARU				*e*SSS	SSS	04 44 48.5	-3.2
ARU				pmax	pmax		
	comp=Z,619nm,1.5s,mb6.4						
ARU				MLR	MLR		
	comp=Z,328µm,20.5s,MS7.4						
ARU				MLR	MLR		
	comp=N,114µm,21.0s,MS7.4						
ARU				MLR	MLR		
	comp=E,313µm,19.0s,MS7.4						
ARU	**Arti**	**56.37**	**338**	*e*P	**P**	**04 31 06.0**	**-1.4**
	comp=E,6µm,2.5s						
ARU				LR	LR		
	comp=Z,83µm,20.0s						
PMG	**Port Moresby**	**56.39**	**106**	P	**P**	**04 31 07.0**	**-1.1**
	comp=Z,124nm,0.7s,mb6.0,baz=25,slow=1.5,SNR=14						
PMG	**Port Moresby**	**56.39**	**106**	*e*P	**P**	**04 31 06.8**	**-1.4**
	comp=Z,279nm,0.9s,mb6.3						
PMG				LR	LR		
	comp=Z,320µm,19.0s,MS7.4						
ERZM	**Erzurum**	**56.60**	**314**	*i* P	**P**	**04 31 08.9**	**-0.4**
EZM	**Erzurum**	**56.60**	**314**	P	**P**	**04 31 09.8**	**+0.5**
DIY	**Diyarbakir**	**56.74**	**311**	P	**P**	**04 31 09.9**	**-0.4**
BINT	**Bingol**	**56.88**	**312**	P	**P**	**04 31 10.4**	**-0.9**
ASAJ	**Asahikawa**	**56.97**	**41**	P	**P**	**04 31 11.8**	**-0.1**
	comp=Z,545nm,1.5s,mb6.4,baz=250,slow=11,SNR=12						
ASAJ				LR	LR	05 00 03.9	
	comp=Z,214µm,19.0s,MS7.3,baz=78,slow=41						
BCA	**Borcka**	**56.99**	**316**	P	**P**	**04 31 10.4**	**-1.7**
TBKS	**Tabuk**	**57.26**	**299**	P	**P**	**04 31 15.7**	**+1.6**
KIV	**Kislovodsk**	**57.28**	**319**	P	**P**	**04 31 13.2**	**-0.9**
	comp=Z,2µm,1.4s,mb6.9,SNR=19						
KIV	**Kislovodsk**	**57.28**	**319**	c *i*P	**P**	**04 31 13.1**	**-1.0**
KIV				*e*		04 32 06.7	
KIV				*e*		04 33 18.2	
KIV				*i* S	**S**	**04 39 09.9**	**+3.8**
KIV				pmax	pmax		
	comp=N,275nm,1.5s						
KIV				pmax	pmax		
	comp=E,374nm,1.5s						
KIV				pmax	pmax		
	comp=Z,538nm,1.5s,mb6.3						
KIV				smax			
	comp=N,58µm,24.4s						
KIV				smax			
	comp=E,11µm,12.2s						
KIV				MLR	MLR		
	comp=E,121µm,26.0s						
KIV				MLR	MLR		
	comp=Z,190µm,26.0s,MS7.1						
KIV				MLR	MLR		
	comp=N,95µm,17.0s						
KIV	**Kislovodsk**	**57.28**	**319**	*e*P	**P**	**04 31 12.8**	**-1.3**
	comp=N,584nm,1.2s,mb6.5						
GOF	**Gofitskoye**	**57.53**	**320**	⇓*i*P	**P**	**04 31 14.0**	**-1.8**
GOF				*e*S	**S**	**04 39 14.0**	**+4.7**
GOF				pmax	pmax		
	comp=Z,400nm,2.0s,mb6.1						
EZC	**Erzincan**	**57.66**	**313**	P	**P**	**04 31 18.8**	**+2.0**
ASF	**Jabal al Asfar**	**57.78**	**304**	P	**P**	**04 31 17.9**	**+0.2**
	comp=Z,33nm,0.9s,mb5.4,baz=347,slow=4.6,SNR=18						
ASF				LR	LR	04 59 18.4	
	comp=Z,170µm,18.6s,MS7.2,baz=185,slow=39						
ELZG	**Elazig**	**57.86**	**311**	*i* P	**P**	**04 31 17.1**	**-1.1**
JMQS	**Jabal Moqyreh**	**57.96**	**300**	P	**P**	**04 31 20.1**	**+1.0**
GUMT	**Gumushane**	**58.15**	**314**	P	**P**	**04 31 19.5**	**-0.7**
MALT	**Malatya**	**58.22**	**311**	*e*P	**P**	**04 31 19.3**	**-1.4**
	comp=Z,441nm,1.6s,mb6.2						
MYA	**Malataya**	**58.23**	**311**	P	**P**	**04 31 21.0**	**+0.2**
YSS	**Yuzh-Sakhalins**	**58.32**	**38**	⇑*i*P	**P**	**04 31 20.2**	**-1.1**
YSS				*e*	pP	04 31 30.0	-1.1
YSS				pmax	pmax		
	comp=Z,280nm,1.2s,mb6.2						
YSS	**Yuzh-Sakhalins**	**58.32**	**38**	*e*P	**P**	**04 31 19.3**	**-2.0**
	comp=Z,1µm,1.6s,mb6.6						
YSS				LR	LR		
	comp=Z,213µm,21.0s,MS7.2						
AYUS	**'Aynunah**	**58.37**	**299**	P	**P**	**04 31 22.8**	**+1.0**
BDAS	**Al Bad'**	**58.55**	**299**	P	**P**	**04 31 23.9**	**+0.7**
DUSS	**Damascus Unive**	**58.59**	**305**	*i* P	**P**	**04 31 27.1**	**+3.7**
DUSS				*i* P		04 31 27.7	
DUSS				*i* P		04 31 28.0	
DUSS				*e*	pP	04 31 30.7	-2.5
	baz=102,slow=12						
DUSS				*e*S	Sx	04 39 37.2	
GZT	**Gaziantep**	**58.59**	**310**	*i* P	**P**	**04 31 22.1**	**-1.1**
JMOS	**Jabal al Moall**	**58.67**	**300**	P	**P**	**04 31 24.7**	**+0.7**
MKRJ	**Makawir**	**58.69**	**303**	P	**P**	**04 31 25.1**	**+1.0**
ALWS	**Ilw as Safayha**	**58.74**	**300**	P	**P**	**04 31 25.1**	**+0.7**
GAZ	**Gaziantep**	**58.80**	**310**	P	**P**	**04 31 24.6**	**-0.2**
HAQS	**Haql**	**58.81**	**300**	P	**P**	**04 31 25.7**	**+0.7**
AQBJ	**Aqaba**	**58.83**	**301**	P	**P**	**04 31 25.7**	**+0.6**
CTA	**Charters Tower**	**58.87**	**118**	P	**P**	**04 31 24.7**	**-0.8**
	comp=Z,197nm,1.2s,mb6.0,baz=291,slow=9.4,SNR=19						
CTA				LR	LR	04 59 10.0	
	comp=Z,509µm,21.4s,MS7.6,baz=289,slow=38						
CTA	**Charters Tower**	**58.87**	**118**	P	**P**	**04 31 24.7**	**-0.8**
CTA				pmax	pmax		
	comp=Z,197nm,1.2s						
CTA				MLR	MLR		
	comp=Z,509µm,21.4s						
CTAO	**Charters Tower**	**58.87**	**118**	P	**P**	**04 31 25.1**	**-0.4**
CTAO				pmax	pmax		
	comp=Z,510nm,1.3s,mb6.4						
CTAO	**Charters Tower**	**58.87**	**118**	*e*P	**P**	**04 31 23.8**	**-1.6**
	comp=Z,514nm,1.4s,mb6.4						
CTAO				LR	LR		
	comp=Z,491µm,21.0s,MS7.6						
MZDA	**Masada**	**58.87**	**302**	P	**P**	**04 31 26.2**	**+0.9**
MZDA	**Masada**	**58.87**	**302**	⇑P	**P**	**04 31 26.2**	**+0.9**
DRGI	**Dragot**	**58.90**	**303**	P	**P**	**04 31 26.4**	**+0.8**
DRGI	**Dragot**	**58.90**	**303**	⇑P	**P**	**04 31 26.4**	**+0.8**
EIL	**Elat**	**58.90**	**300**	P	**P**	**04 31 26.1**	**+0.5**
	comp=Z,89nm,0.7s,mb5.9,baz=85,slow=5.0,SNR=20						
EIL				LR	LR	04 57 59.5	
	comp=Z,279µm,19.1s,MS7.4,baz=197,slow=37						
EIL	**Elat**	**58.90**	**300**	P	**P**	**04 31 26.2**	**+0.6**
EIL	**Elat**	**58.90**	**300**	*e*P	**P**	**04 31 25.9**	**+0.3**
	comp=Z,210nm,0.8s,mb6.2						
MBH	**Mount Berech**	**58.95**	**301**	P	**P**	**04 31 26.8**	**+0.8**
MBH	**Mount Berech**	**58.95**	**301**	⇑P	**P**	**04 31 26.8**	**+0.8**
KSDI	**Kefar Szold**	**59.02**	**305**	P	**P**	**04 31 27.2**	**+0.8**
MMLI	**Mount Malkishu**	**59.05**	**304**	P	**P**	**04 31 27.8**	**+1.2**
MMLI	**Mount Malkishu**	**59.05**	**304**	⇑P	**P**	**04 31 27.8**	**+1.2**
YUK	**Yuzh-Kuril'sk**	**59.09**	**42**	*e*P	**P**	**04 31 20.0**	**-6.7**
SOC	**Sochi**	**59.11**	**317**	*e*P	**P**	**04 31 24.9**	**-1.9**
SOC				pmax	pmax		
	comp=E,106nm,1.2s						
SOC				pmax	pmax		
	comp=Z,266nm,1.2s,mb6.2						
SOC				pmax	pmax		
	comp=N,73nm,1.1s						
SLTI	**Sal'it**	**59.33**	**303**	P	**P**	**04 31 29.3**	**+0.8**
SLTI	**Sal'it**	**59.33**	**303**	⇑P	**P**	**04 31 29.3**	**+0.8**
HTY	**Hatay**	**59.35**	**308**	P	**P**	**04 31 27.4**	**-1.2**
COBT	**Iskenderun**	**59.36**	**309**	*i* P	**P**	**04 31 29.2**	**+0.5**
RTMM	**Retamin**	**59.38**	**302**	P	**P**	**04 31 29.5**	**+0.6**
HNTI	**Hanita**	**59.40**	**304**	P	**P**	**04 31 30.0**	**+1.0**
HNTI	**Hanita**	**59.40**	**304**	⇑P	**P**	**04 31 30.0**	**+1.0**
OFRI	**'Ofer**	**59.45**	**304**	P	**P**	**04 31 30.2**	**+0.8**
OFRI	**'Ofer**	**59.45**	**304**	⇑P	**P**	**04 31 30.2**	**+0.8**
HAF	**Haifa**	**59.45**	**304**	P	**P**	**04 31 31.2**	**+1.8**
KZIT	**Kziot**	**59.60**	**302**	P	**P**	**04 31 31.0**	**+0.6**
KZIT	**Kziot**	**59.60**	**302**	⇑P	**P**	**04 31 31.0**	**+0.6**
SVST	**Sivas**	**59.76**	**312**	*i* P	**P**	**04 31 31.5**	**+0.1**
CEYT	**Ceyhan**	**59.88**	**309**	P	**P**	**04 31 30.1**	**-2.2**
TOKT	**Tokat**	**60.23**	**313**	P	**P**	**04 31 33.0**	**-1.5**
STKA	**Stephens Creek**	**60.28**	**133**	P	**P**	**04 31 34.4**	**-0.7**
	comp=N,63nm,0.9s,mb5.7,baz=304,slow=5.8,SNR=18						
STKA				LR	LR	05 00 11.3	
	comp=N,447µm,21.5s,MS7.6,baz=301,slow=38						
STKA	**Stephens Creek**	**60.28**	**133**	*e*P	**P**	**04 31 33.9**	**-1.1**
BNN	**Bunyan**	**60.31**	**311**	P	**P**	**04 31 34.0**	**-1.1**
PHNC	**Paralimni**	**60.75**	**306**	⇑P	**P**	**04 31 40.0**	**+1.8**
	comp=N,6.9nm,1.4s						
PHNC	**Paralimni**	**60.75**	**306**	⇑*i*P	**P**	**04 31 40.0**	**+1.8**
MEST	**Erdemli**	**61.02**	**308**	*i* P	**P**	**04 31 38.5**	**-1.6**
AVNT	**Avonos**	**61.04**	**311**	*i* P	**P**	**04 31 38.3**	**-1.7**
NIG	**Nigde**	**61.05**	**310**	P	**P**	**04 31 39.4**	**-0.8**
ANN	**Anapa**	**61.08**	**318**	c *i*P	**P**	**04 31 44.5**	**+4.2**
ANN				*e*S	Sx	04 40 23.4	
ANN				MLR	MLR		
	comp=Z,211µm,25.0s,MS7.2						
ANN				MLR	MLR		
	comp=N,181µm,22.0s,MS7.3						
ANN				MLR	MLR		
	comp=E,196µm,22.0s,MS7.3						
CSS	**Prodhromos**	**61.30**	**306**	*e*P	**P**	**04 31 40.8**	**-1.1**
	comp=E,682nm,1.4s,mb6.6						
IKL	**Isikli**	**61.30**	**308**	P	**P**	**04 31 39.2**	**-2.8**
MAMC	**Mammari**	**61.44**	**306**	⇑P	**P**	**04 31 43.1**	**+0.3**
MAMC	**Mammari**	**61.44**	**306**	⇑*i*P	**P**	**04 31 43.1**	**+0.3**
CTKT	**Corum**	**61.59**	**313**	*i* P	**P**	**04 31 42.7**	**-1.1**
LEF	**Lefka**	**61.69**	**306**	P	**P**	**04 31 44.0**	**-0.5**
BOYT	**Boyabat**	**61.74**	**314**	*i* P	**P**	**04 31 43.5**	**-1.4**
BYBT	**Boyabat**	**61.85**	**314**	P	**P**	**04 31 43.3**	**-2.3**
ALFC	**Alevga**	**61.93**	**306**	⇑P	**P**	**04 31 45.5**	**-0.7**
	comp=E,7.0nm,1.1s						
ALFC	**Alevga**	**61.93**	**306**	⇑*i*P	**P**	**04 31 45.5**	**-0.7**
KAMT	**Kaman**	**62.05**	**311**	P	**P**	**04 31 45.4**	**-1.5**
PPCY	**Paphos**	**62.08**	**306**	P	**P**	**04 31 45.3**	**-1.9**
AKMC	**Akamas**	**62.12**	**306**	⇑P	**P**	**04 31 46.7**	**-0.7**
AKMC	**Akamas**	**62.12**	**306**	⇑*i*P	**P**	**04 31 46.7**	**-0.7**
BR131	**Keskin Array S**	**62.20**	**311**	PFAKE		04 32 00.0	+12
BR131				LR	LR		
	comp=Z,148µm,19.0s,MS7.2						
BRTR	**Keskin Array B**	**62.20**	**311**	P	**P**	**04 31 45.7**	**-2.2**
	comp=Z,38nm,0.7s,mb5.6,baz=136,slow=8.1,SNR=22						
BRTR	**Keskin Array B**	**62.20**	**311**	P	**P**	**04 31 45.7**	**-2.2**
BRTR				pmax	pmax		
	comp=Z,38nm,0.7s						
TOS	**Tosya**	**62.27**	**313**	P	**P**	**04 31 46.8**	**-1.6**
CANT	**Cankiri**	**62.45**	**312**	P	**P**	**04 31 48.3**	**-1.2**
MBAR	**Mbarara**	**62.49**	**266**	PFAKE		04 32 00.0	+10
MBAR				LR	LR		
	comp=Z,193µm,22.0s,MS7.2						
BZK	**Bozkurt**	**62.54**	**314**	P	**P**	**04 31 48.4**	**-1.7**
ELDT	**Eldivan**	**62.55**	**312**	*i* P	**P**	**04 31 49.0**	**-1.3**
KONT	**Konya--Tatoy**	**62.73**	**309**	P	**P**	**04 31 50.9**	**-0.5**
BALT	**Daday**	**62.87**	**313**	*i* P	**P**	**04 31 51.5**	**-0.8**
LOD	**Lodumlu**	**62.89**	**311**	P	**P**	**04 31 50.7**	**-1.8**
SAFT	**Safranbolu**	**63.29**	**313**	P	**P**	**04 31 53.7**	**-1.4**
KIZT	**Kizilcal**	**63.31**	**310**	P	**P**	**04 31 53.0**	**-2.3**
SIM	**Simferopol'**	**63.35**	**317**	*c*P	**P**	**04 31 54.4**	**-1.1**
SIM				S	**S**	**04 40 28.0**	**+4.0**
SIM				pmax	pmax		
	comp=Z,1µm,2.2s,mb6.7						
SIM	**Simferopol'**	**63.35**	**317**	*e*Pu	**P**	**04 31 54.4**	**-1.1**
SGKT	**Sivrigoynuk**	**63.59**	**312**	*i* P	**P**	**04 31 49.1**	**-8.0**
BCK	**Bucak**	**63.99**	**308**	P	**P**	**04 31 58.0**	**-1.8**
ISP	**Isparta**	**64.13**	**309**	*e*P	**P**	**04 31 59.7**	**-1.1**
ISP				pmax	pmax		
	comp=Z,2µm,2.0s,mb6.9						
ISP	**Isparta**	**64.13**	**309**	*e*P	**P**	**04 31 59.3**	**-1.4**
	comp=Z,2µm,2.0s,mb6.9						
MDU	**Mudurnu**	**64.18**	**312**	P	**P**	**04 31 59.7**	**-1.4**
ESKT	**Eskisehir**	**64.24**	**311**	P	**P**	**04 31 59.8**	**-1.6**
ESKT	**Eskisehir**	**64.24**	**311**	*i* P	**P**	**04 31 59.8**	**-1.6**
ELL	**Elmali**	**64.39**	**307**	P	**P**	**04 32 01.8**	**-0.6**
HENT	**Hendek**	**64.50**	**312**	*i* P	**P**	**04 32 01.5**	**-1.6**
ALT	**Altintas**	**64.69**	**310**	P	**P**	**04 32 02.4**	**-2.0**
KHL	**Karahalli**	**64.99**	**309**	P	**P**	**04 32 05.3**	**-1.1**
DNZL	**Cakiroluk**	**65.24**	**308**	*i* P	**P**	**04 32 06.1**	**-1.8**
DENT	**Denizli**	**65.26**	**308**	P	**P**	**04 32 07.0**	**-1.0**
MOS	**Moscow**	**65.34**	**329**	α*i*P	**P**	**04 32 06.7**	**-1.5**
MOS				*e*		04 32 39.6	
MOS				*e*		04 34 30.3	
MOS				*e*S	S	04 40 49.6	+1.3
MOS				pmax	pmax		
	comp=Z,824nm,1.7s,mb6.5						
MOS				smax			
	comp=N,40µm,17.8s						
MOS				smax			
	comp=E,18µm,15.0s						
MOS				MLR	MLR		
	comp=Z,313µm,24.4s,MS7.4						
MOS				MLR	MLR		
	comp=N,396µm,22.2s,MS7.8						
MOS				MLR	MLR		
	comp=E,523µm,24.0s,MS7.8						
HRT	**Hereke**	**65.41**	**312**	P	**P**	**04 32 06.5**	**-2.4**
OBN	**Obninsk**	**65.61**	**328**	⇑*i*P	**P**	**04 32 08.4**	**-1.6**
OBN				i *PP	pP	04 32 18.8	-1.1
OBN				*e*		04 32 38.4	
OBN				*e*		04 34 33.0	
OBN				*e*S	S	04 40 53.1	+1.4
OBN				*e*SS	SS	04 45 03.0	-4.3
OBN				pmax	pmax		
	comp=Z,730nm,1.8s,mb6.4						
OBN				MLR	MLR		
	comp=Z,262µm,21.0s,MS7.4						
OBN	**Obninsk**	**65.61**	**328**	*e*P	**P**	**04 32 08.1**	**-1.9**
	comp=Z,958nm,1.6s,mb6.6						
OBN				LR	LR		
	comp=Z,62µm,20.0s,MS6.8						
ULDT	**Uludag**	**65.66**	**311**	*i* P	**P**	**04 32 09.4**	**-1.1**
MANT	**Manisa**	**65.77**	**309**	*i* P	**P**	**04 32 11.0**	**-0.3**
ORLT	**Orhaneli**	**65.82**	**311**	P	**P**	**04 32 09.8**	**-1.8**
AYDN	**Tasoluk**	**66.14**	**308**	*i* P	**P**	**04 32 13.0**	**-0.7**
BDRM	**Kayabasi**	**66.39**	**307**	*i* P	**P**	**04 32 13.8**	**-1.5**
AKS	**Akhisar**	**66.42**	**309**	P	**P**	**04 32 14.3**	**-1.1**
BTOK	**Tokmak**	**66.42**	**310**	*i* P	**P**	**04 32 14.2**	**-1.2**
BNT	**Bandirma**	**66.61**	**311**	P	**P**	**04 32 15.8**	**-0.9**
KDAG	**Bornova**	**66.75**	**309**	*i* P	**P**	**04 32 17.2**	**-0.3**
IZM	**Izmir**	**66.75**	**309**	P	**P**	**04 32 16.8**	**-0.8**
PSN	**Preselentsi**	**67.12**	**315**	*e*P	**P**	**04 32 19.0**	**-0.8**
TIRR	**Tirgusor**	**67.14**	**315**	P	**P**	**04 32 19.3**	**-0.6**
SART	**Tekirdag**	**67.23**	**311**	*i* P	**P**	**04 32 19.3**	**-1.3**
AYVA	**Ayvalik**	**67.35**	**310**	*i* P	**P**	**04 32 20.7**	**-0.7**
KIS	**Kishinev**	**67.48**	**318**	⇑*i*P	**P**	**04 32 20.0**	**-2.0**
KIS				*i* S	S	04 41 19.0	+4.6
KIS				pmax	pmax		
	comp=Z,600nm,2.0s,mb6.3						
CFR	**Carcaliu**	**67.49**	**316**	⇑*i*P	**P**	**04 32 20.8**	**-1.3**
CFR	**Carcaliu**	**67.49**	**316**	⇑*i*P	**P**	**04 32 20.8**	**-1.3**
PRD	**Provadia**	**67.57**	**314**	P	**P**	**04 32 22.0**	**-0.7**
LSZ	**Lusaka**	**67.80**	**251**	P	**P**	**04 32 24.4**	**-0.1**
	comp=Z,608nm,1.9s,mb6.3						
LSZ				LR	LR		
	comp=Z,898µm,19.0s,MS8.0						
SANT	**Santorini**	**67.86**	**306**	*e*P	**P**	**04 32 22.6**	**-1.9**
	comp=Z,752nm,1.3s,mb6.6						
SKR	**Severo-Kuril's**	**67.89**	**38**	*e*P	**P**	**04 32 21.0**	**-3.5**
SKR				*e*		04 32 35.9	
SKR				*e*		04 41 26.0	
SKR				pmax	pmax		
	comp=N,640nm,1.4s						
SKR				pmax	pmax		
	comp=E,900nm,1.4s						
SKR				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.8						
SKR				MLR	MLR		
	comp=E,60µm,18.0s						
SKR				MLR	MLR		
	comp=Z,186µm,18.0s,MS7.3						
APE	**Apeiranthos**	**67.90**	**307**	P	**P**	**04 32 26.5**	**+1.7**
JMB	**Yambol**	**68.01**	**313**	P	**P**	**04 32 25.0**	**-0.4**
ALN	**Alexandroupoli**	**68.12**	**311**	*e*P	**P**	**04 32 25.2**	**-0.9**
IDI	**Anoyia**	**68.17**	**305**	P	**P**	**04 32 26.1**	**-0.4**
	comp=Z,112nm,0.6s,mb6.0,baz=69,slow=5.7,SNR=23						
AKASG	**Malin Array Be**	**68.22**	**322**	P	**P**	**04 32 24.4**	**-2.2**
	comp=Z,22nm,0.9s,mb5.2,baz=86,slow=4.5,SNR=18						
AKASG				PP	PP	04 35 02.2	+3.1
	comp=Z,21nm,1.1s,baz=102,slow=7.9,SNR=5.0						
AKASG	**Malin Array Be**	**68.22**	**322**	P	**P**	**04 32 24.4**	**-2.2**
AKASG						04 35 02.2	
AKASG				pmax	pmax		
	comp=Z,22nm,0.9s						
AKASG				pmax	pmax		
	comp=Z,21nm,1.1s						
MA2	**Magadan**	**68.22**	**28**	*i* P	**P**	**04 32 26.6**	**+0.1**
MA2				pmax	pmax		
	comp=Z,757nm,1.7s,mb6.5						
MA2				MLR	MLR		
	comp=Z,215µm,20.0s,MS7.4						
MA2	**Magadan**	**68.22**	**28**	⇑*e*P	**P**	**04 32 25.8**	**-0.7**
	comp=Z,718nm,1.4s,mb6.5						
MA2				LR	LR		
	comp=Z,206µm,19.0s,MS7.4						
BRD	**Bordesti**	**68.34**	**316**	⇓*i*P	**P**	**04 32 29.2**	**+1.7**
BRD	**Bordesti**	**68.34**	**316**	⇓*i*P	**P**	**04 32 29.2**	**+1.8**
TIXI	**Tiksi**	**68.47**	**12**	*i* P	**P**	**04 32 27.2**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.7						
TIXI				MLR	MLR		
	comp=Z,194µm,16.0s,MS7.4						
ISR	**Istrita**	**68.58**	**316**	⇓*i*P	**P**	**04 32 29.6**	**+0.7**
ISR	**Istrita**	**68.58**	**316**	⇓*i*P	**P**	**04 32 29.6**	**+0.7**
VRI	**Vrincioaia**	**68.61**	**317**	⇑*i*P	**P**	**04 32 28.7**	**-0.4**
VRI	**Vrincioaia**	**68.61**	**317**	⇑*i*P	**P**	**04 32 28.7**	**-0.4**
SZH	**Strazhica**	**68.64**	**314**	*e*P	**P**	**04 32 28.5**	**-0.8**
DIM	**Dimitrovgrad**	**68.70**	**312**	P	**P**	**04 32 29.0**	**-0.7**

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KDZ    Kurdzhali        68.72 312   P      P      04 32 29.0 -0.8
GVD    Gavdhos          68.77 305  eP      P      04 32 29.5 -0.8
       comp=Z,816nm,1.5s,mb6.4
BUC1   Bucharest        68.78 315   P      P      04 32 30.1  0.0
PVL    Pavlikeni        69.06 314   P      P      04 32 32.0 +0.1
MLR    Muntele Rosu     69.07 316   P      P      04 32 31.8 -0.2
       comp=Z,133nm,1.2s,mb5.8,baz=57,slow=2.9,SNR=21
MLR    Muntele Rosu     69.07 316   P      P      04 32 31.8 -0.1
MLR                                 pmax   pmax
       comp=Z,133nm,1.2s
MLR    Muntele Rosu     69.07 316   P      P      04 32 31.9 -0.1
RZN    Rozhen           69.24 312   P      P      04 32 32.0 -1.0
PLD    Plovdiv          69.32 312   P      P      04 32 32.8 -0.7
SNX    Sinaia           69.34 316   P      P      04 32 34.2 +0.7
AOS    Alonnisos        69.48 309  eP      P      04 32 33.6 -1.0
OUR    Ouranopolis      69.58 310  eP      P      04 32 34.2 -0.9
PAIG   Paliouri         69.75 310  eP      P      04 32 35.5 -0.7
PGB    Panagyurishte    69.78 313   P      P      04 32 35.5 -0.8
MMB    Musomiste        69.95 312   P      P      04 32 36.0 -1.4
SRS    Serrai           69.98 311  eP      P      04 32 36.3 -1.3
XOR    Xorichti         70.04 309  eP      P      04 32 35.0 -3.0
PET    Petropavlovsk    70.06  36  eP      P      04 32 36.0 -1.8
PET                                eS      S      04 41 39.6 -5.4
PET                                 pmax   pmax
       comp=Z,177nm,1.6s,mb5.7
PET                                 pmax   pmax
       comp=Z,26µm,17.6s
PET                                 MLR    MLR
       comp=Z,170µm,18.0s,MS7.3
PET    Petropavlovsk    70.06  36  eP      P      04 32 35.8 -2.1
       comp=Z,259nm,1.3s,mb6.0
PET                                 LR     LR
       comp=Z,171µm,21.0s,MS7.3
MNK    Minsk            70.12 326  eP      P      04 32 34.0 -4.2
MNK                                 MLR    MLR
       comp=Z,274µm,18.0s,MS7.5
SOH    Sokhos           70.12 311  eP      P      04 32 37.3 -1.1
SEY    Seymchan         70.36  25  eP      P      04 32 38.9 -0.5
SEY                                               04 32 59.4
SEY                                e              04 35 11.5
SEY                                eS      S      04 41 49.5 +1.2
SEY                                               04 42 25.6
SEY                                eSS     SS     04 46 13.8 -6.9
SEY                                 pmax   pmax
       comp=E,300nm,1.4s
SEY                                 pmax   pmax
       comp=Z,800nm,1.4s,mb6.5
SEY                                 pmax   pmax
       comp=N,70nm,0.9s
SEY                                 MLR    MLR
       comp=Z,2542µm,20.0s,MS8.5
SEY                                 MLR    MLR
       comp=N,559µm,21.0s,MS8.2
SEY                                 MLR    MLR
       comp=E,1547µm,23.0s,MS8.2
THE    Thessaloniki     70.39 311  eP      P      04 32 38.4 -1.6
KKB    Krupnik          70.47 312   P      P      04 32 39.0 -1.5
VTS    Vitosha          70.49 313   P      P      04 32 40.0 -0.6
VTS    Vitosha          70.49 313   P      P      04 32 40.1 -0.6
KNT    Kendrikon        70.51 311  eP      P      04 32 39.6 -1.1
PUL    Pulkovo          70.53 332⇓eP      P      04 32 40.1 -0.5
PUL                                eS      S      04 41 57.8 +7.4
PUL                                eSS     SS     04 46 17.2 -6.4
PUL                                eSSS    SSS    04 49 32.2 +3.0
PUL                                 smax
       comp=N,26µm,15.0s
PUL                                 MLR    MLR
       comp=Z,266µm,23.0s,MS7.4
AGG    Agios Georgios   70.66 309  eP      P      04 32 39.2 -2.5
LIT    Litokhoron       70.67 310  eP      P      04 32 40.2 -1.6
GRG    Griva            70.85 311  eP      P      04 32 41.5 -1.4
IDID   Didziasalis      70.96 326  eP      P      04 32 42.1 -1.1
IDID                                AMPb   AMB    04 32 57.2
       comp=Z,98nm,1.2s,mb5.6
IIGN   Ignalina         71.25 326  eP      P      04 32 43.9 -1.1
IIGN                                AMPb   AMB    04 33 00.9
       comp=Z,99nm,1.4s,mb5.5
IZAR   Zarasai          71.34 327  eP      P      04 32 44.4 -1.2
IZAR                                AMPb   AMB    04 33 00.5
       comp=Z,90nm,1.7s,mb5.4
ISAL   Salakas          71.36 327  eP      P      04 32 44.2 -1.5
ISAL                                AMPb   AMB    04 32 59.0
       comp=Z,76nm,1.5s,mb5.4
BOLS   Boljevac         71.58 314⇑iP      P      04 32 46.2 -1.0
MEV    Metsovon         71.60 310  eP      P      04 32 45.6 -1.8
FNA    Florina          71.60 311  eP      P      04 32 45.4 -2.0
BIA    Bitola           71.67 311  i P     P      04 32 47.5 -0.3
BIA                                i              04 32 53.0
SKO    Skopje           71.70 312  i P     P      04 32 46.3 -1.7
       comp=Z,150nm,1.1s,mb5.8
SKO                                i              04 32 52.6
SKO                                i       pP     04 32 56.6 -1.3
SKO    Skopje           71.70 312  i P     P      04 32 46.3 -1.7
SKO                                i              04 32 52.6
SKO                                i       pP     04 32 56.6 -1.3
       comp=Z,0.2nm,1.1s
KWP    Kalwaria         72.04 320  eP      P      04 32 49.4 -0.4
KWP                                e              04 35 36.2
KWP                                 MLR    MLR    05 06 39.7
       comp=Z,140µm,25.0s,MS7.1
OHR    Ohrid            72.08 311⇑iP      P      04 32 48.2 -2.0
LVZ    Lovozero         72.11 340⇓eP      P      04 32 49.1 -0.9
LVZ                                eS      S      04 42 12.0 +3.5
LVZ                                e              04 43 01.3
LVZ                                 pmax   pmax
       comp=Z,234nm,1.6s,mb5.9
LVZ                                 pmax   pmax
       comp=N,12nm,0.9s
LVZ                                 pmax   pmax
       comp=E,38nm,1.1s
LVZ                                 MLR    MLR
       comp=Z,352µm,19.0s,MS7.7
LVZ                                 MLR    MLR
       comp=N,227µm,20.0s,MS7.6
LVZ                                 MLR    MLR
       comp=E,221µm,20.0s,MS7.6
LVZ    Lovozero         72.11 340  i P     P      04 32 49.4 -0.6
SVIS   Svilajnac        72.17 314⇑iP      P      04 32 49.8 -0.9
KOLS   Kolonicke sedl   72.19 319   P      P      04 32 51.6 +0.9
KOLS   Kolonicke sedl   72.19 319  eP      P      04 32 50.9 +0.2
KOLS                               e              04 32 57.3
IGT    Igoumenitsa      72.26 309  eP      P      04 32 50.9 -0.4
APA    Apatity          72.39 340⇓iP      P      04 32 50.3 -1.3
APA                                e              04 32 55.3
APA                                 pmax   pmax
       comp=Z,150nm,1.5s,mb5.7
APA                                 MLR    MLR
       comp=Z,670µm,21.0s,MS7.9
WAKE   Wake Island      72.44  72   PFAKE         04 33 00.0 +7.3
WAKE                                LR     LR
       comp=Z,98µm,21.0s,MS7.1
GRUS   Gruza            72.48 314⇓iP      P      04 32 51.8 -0.7
SUW    Suwalki          72.64 325  eP      P      04 32 51.9 -1.4
SUW                                 MLR    MLR    05 08 24.2
       comp=Z,242µm,22.6s,MS7.4
LBTB   Lobatse          72.70 241   PFAKE         04 33 10.0  +16
LBTB                                LR     LR
       comp=Z,723µm,21.0s,MS7.9
CRVS   Cervenica-Dubn   72.71 319  eP      P      04 32 56.7 +2.9
BEO    Belgrade         72.78 315⇑iP      P      04 32 54.0 -0.3
QSH    Qafa e Shtames   72.79 311  ep      P      04 32 54.0 -0.5
TIR    Tirane           72.80 311  ep      P      04 32 52.0 -2.5
PVY    Plav             72.86 312⇓iP      P      04 32 54.3 -0.6
IVA    Berane           72.94 313⇓iP      P      04 32 55.6 +0.2
DIVS   Divcibare        73.02 314⇓iP      P      04 32 54.1 -1.7
FINES  FINESS Array B   73.06 332   P      P      04 32 54.0 -1.6
       comp=Z,62nm,0.6s,mb5.7,baz=107,slow=6.7,SNR=25
FINES                               LR     LR     05 08 23.5
       comp=Z,166µm,20.5s,MS7.3,baz=282,slow=38
FINES  FINESS Array B   73.06 332   P      P      04 32 54.0 -1.6
FINES                               pmax   pmax
       comp=Z,62nm,0.6s
FINES                               MLR    MLR
       comp=Z,166µm,20.5s
KAF    Kangasniemi      73.16 333  ep      P      04 32 55.8 -0.4
       baz=105,slow=5.6
KECS   Kecovo           73.28 319  i P     P      04 32 56.5 -0.7
KECS                               e              04 33 01.7
ULC    Ulcinj           73.32 312⇓iP      P      04 32 56.0 -1.6
PLE    Pljevlja         73.36 313⇓iP      P      04 32 57.4 -0.3
TTG    Podgorica        73.36 312⇓iP      P      04 32 56.1 -1.7
PKSN   Nyarlorinc       73.47 317⇓eP      P      04 32 58.5 +0.2
NIE    Niedzica         73.54 319  i P     P      04 32 58.4 -0.2
WAR    Warsaw           73.56 322  eP      P      04 32 59.1 +0.4
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WAR                                 MLR    MLR    05 08 56.3
       comp=Z,146µm,25.0s,MS7.2
PSZ    Piszkesteto      73.59 318  eP      P      04 32 58.1 -0.9
PSZ                                 pmax   pmax
       comp=Z,2µm,2.3s,mb6.5
PSZ    Piszkesteto      73.59 318  eP      P      04 32 59.2 +0.2
NKY    Niksic           73.60 313⇓iP      P      04 32 57.0 -2.2
BUM    Brajici-Budva    73.62 312⇓iP      P      04 32 57.9 -1.4
UPM    Unac-Piva        73.70 313⇓iP      P      04 32 58.1 -1.6
HCY    Herceg Novi      73.93 312⇓iP      P      04 33 00.5 -0.5
BRY    Bratogost        73.94 313⇓iP      P      04 32 59.6 -1.5
OJC    Ojcow            73.99 320  eP      P      04 33 00.8 -0.4
OJC                                ePcP    PcP    04 33 15.9 -0.7
OJC                                eS      S      04 42 38.9 +9.0
OJC                                 MLR    MLR    05 10 18.6
       comp=Z,146µm,22.6s,MS7.2
BOSA   Boshof           74.03 238   P      P      04 33 02.7 +0.8
BOSA                                pmax   pmax
       comp=Z,120nm,1.0s,mb5.8
BOSA   Boshof           74.03 238  eP      P      04 33 01.2 -0.7
       comp=Z,120nm,1.0s,mb5.8
BOSA                                LR     LR
       comp=Z,317µm,20.0s,MS7.6
LCI    Lecce            74.03 310  eP      P      04 33 04.5 +2.9
CASY   Casey            74.06 173  eP      P      04 33 01.5 +0.2
       comp=Z,244nm,1.4s,mb5.9
CASY                                LR     LR
       comp=Z,247µm,20.0s,MS7.5
BUD    Budapest         74.12 317⇑eP      P      04 33 01.3 -0.7
PKSM   Moragy           74.22 316   P      P      04 33 02.2 -0.5
VYHS   Vyhne            74.37 318   P      P      04 33 03.4 -0.1
VYHS   Vyhne            74.37 318  eP      P      04 33 02.9 -0.6
VYHS                               e              04 33 09.1
SRO2   Moca             74.57 318  eP      P      04 33 04.4 -0.3
SRO2                               e              04 33 10.3
RHK1   Bakonya          74.60 316  eP      P      04 33 04.0 -0.9
SRO    Srobarova        74.63 318  eP      P      04 33 04.8 -0.2
SRO                                e              04 33 11.0
KOLL   Kolacno          74.67 318   P      P      04 33 06.8 +1.6
KOLL   Kolacno          74.67 318  eP      P      04 33 04.7 -0.5
KOLL                               e              04 33 11.3
OKC    Ostrava-Krasne   74.99 320⇑iP      P      04 33 06.8 -0.2
OKC                                 AMS    AMS    05 12 20.0
RAC    Raciborz         74.99 320  eP      P      04 33 07.4 +0.4
TIP    Timpagrande      74.99 309  eP      P      04 33 07.5 +0.2
LTRZ   Laterza          75.03 310  eP      P      04 33 06.5 -1.0
JAVC   Velka Javorina   75.18 319   P      P      04 33 09.4 +1.2
GRI    Girifalco        75.24 308  eP      P      04 33 09.2 +0.5
ORI    Oriolo Calabro   75.28 310  eP      P      04 33 09.6 +0.7
SMOL   Smolenice        75.30 318  eP      P      04 33 07.9 -0.9
MORC   Moravsky Berou   75.37 320   P      P      04 33 11.4 +2.2
MORC                                pmax   pmax
       comp=Z,540nm,1.6s,mb6.2
MORC   Moravsky Berou   75.37 320  eP      P      04 33 08.8 -0.4
       comp=Z,536nm,1.6s,mb6.2
KEV    Kevo             75.40 341  ep      P      04 33 08.9 -0.1
       comp=Z,37nm,0.6s,mb5.5
KEV    Kevo             75.40 341  eP      P      04 33 08.9 -0.1
KEV                                 pmax   pmax
       comp=Z,37nm,0.6s,mb5.5
SOI    Samo             75.48 307  eP      P      04 33 11.6 +1.5
ZST    Bratislava       75.48 318  i P     P      04 33 09.8 -0.1
ZST                                e              04 33 16.0
ZST    Bratislava       75.48 318   P      P      04 33 10.6 +0.7
SISC   Sisak            75.73 315  i P     P      04 33 10.8 -0.6
SCLL   Scilla           75.76 308  eP      P      04 33 13.1 +1.4
SOP    Sopron           75.80 317⇑eP      P      04 33 11.3 -0.4
ARCES  ARCESS Array B   75.82 340   P      P      04 33 10.5 -0.9
       comp=Z,62nm,0.7s,mb5.7,baz=99,slow=4.9,SNR=17
ARCES                               LR     LR     05 10 22.9
       comp=Z,443µm,21.8s,MS7.7,baz=115,slow=39
ARCES  ARCESS Array B   75.82 340   P      P      04 33 10.5 -0.9
ARCES                               pmax   pmax
       comp=Z,62nm,0.7s
ARCES                               MLR    MLR
       comp=Z,443µm,21.8s
ARE0   ARCESS Array S   75.82 340  eP      P      04 33 10.7 -0.7
VRAC   Vranov           75.94 319   LR     LR     05 09 58.0
       comp=Z,106µm,21.2s,MS7.1,baz=88,slow=38
VRAC   Vranov           75.94 319   P      P      04 33 12.9 +0.5
GKP    Gorka Klasztor   75.99 323  eP      P      04 33 12.0 -0.7
GKP                                 MLR    MLR    05 10 53.3
       comp=Z,332µm,22.8s,MS7.6
RGNG   Rignano Grg      76.03 311  eP      P      04 33 15.1 +2.0
DPC    Dobruska-Polom   76.22 320  eP      P      04 33 14.4 +0.4
DPC                                eS      S      04 43 02.4 +7.8
DPC                                 AMS    AMS    05 11 30.0
       comp=Z,128µm,20.6s
GCIS   Gornji Cirnik    76.28 315  eP      P      04 33 14.4 -0.1
KSP    Ksiaz            76.29 321⇑eP      P      04 33 14.5 +0.1
KSP                                epP     pP     04 33 17.9 -6.5
KSP                                eS      S      04 43 00.0 +4.6
KSP                                 LR     LR
       comp=Z,247µm,26.2s,MS7.4
KSP    Ksiaz            76.29 321  eP      P      04 33 14.6 +0.2
KSP                                 MLR    MLR    05 11 41.3
       comp=Z,216µm,22.5s,MS7.4
KTK1   Kautokeino       76.43 340  eP      P      04 33 15.3 +0.5
UPC    Upice            76.43 320⇑iP      P      04 33 15.3 +0.1
ARSA   Arzberg          76.46 317⇑iP      P      04 33 15.5 +0.1
       comp=Z,362nm,1.6s,mb6.0
ARSA   Arzberg          76.46 317⇑iP      P      04 33 15.5 +0.1
       comp=Z,362nm,1.6s,mb6.0
CIGN   Sant'Elia a Pi   76.54 311   P      P      04 33 16.7 +0.7
PERS   Pernice          76.69 316  eP      P      04 33 16.7  0.0
LJU    Ljubljana        77.06 316  eP      P      04 33 18.9 +0.1
OBKA   Obir             77.07 316⇑iP      P      04 33 18.9 +0.1
       comp=Z,321nm,1.6s,mb6.0
OBKA   Obir             77.07 316⇑iP      P      04 33 18.9 +0.1
       comp=Z,321nm,1.6s,mb6.0
MAW    Mawson           77.29 191   P      P      04 33 20.7 +1.1
       comp=Z,47nm,0.9s,mb5.4,baz=44,slow=7.7,SNR=24
MAW                                 LR     LR     05 03 03.0
       comp=Z,256µm,18.6s,MS7.6,baz=26,slow=32
MAW    Mawson           77.29 191   P      P      04 33 22.6 +3.0
MAW                                 pmax   pmax
       comp=Z,180nm,1.3s
MAW    Mawson           77.29 191  eP      P      04 33 20.9 +1.2
       comp=Z,184nm,1.4s,mb5.8
MAW                                 LR     LR
       comp=Z,332µm,19.0s,MS7.7
PRU    Pruhonice        77.33 320⇑iP      P      04 33 19.5 -0.7
       comp=Z,568nm,1.8s,mb6.2
PRU                                eS      S      04 43 10.7 +4.0
PRU                                 AMS    AMS    05 15 10.0
       comp=Z,92µm,20.7s
NOUC   Port Laguerre    77.34 114  eP      P      04 33 21.1 +0.3
NOUC   Port Laguerre    77.34 114  eP      P      04 33 21.1 +0.3
PVCC   Panska Ves       77.35 320⇑eP      P      04 33 20.5 +0.2
PVCC                               eS      S      04 43 14.4 +7.5
PVCC                                AMS    AMS    05 11 50.0
       comp=Z,119µm,20.0s
MOA    Molln            77.35 317⇑iP      P      04 33 20.1 -0.3
       comp=Z,161nm,2.1s,mb5.6
MOA    Molln            77.35 317⇑iP      P      04 33 20.1 -0.3
       comp=Z,161nm,2.1s,mb5.6
SDI    San Donato       77.36 311  eP      P      04 33 20.6 +0.1
PRA    Prague           77.40 320 ⇑P      P      04 33 22.0 +1.4
PRA                                 AMS    AMS    05 35 30.0
DZM    Mont Dzumac      77.46 114⇑eP      P      04 33 22.3 +0.8
BILL   Bilibino         77.48  22  i P     P      04 33 21.0 +0.3
BILL                                pmax   pmax
       comp=Z,363nm,1.5s,mb6.1
BILL                                MLR    MLR
       comp=Z,351µm,17.0s,MS7.8
BILL   Bilibino         77.48  22  eP      P      04 33 20.1 -0.5
       comp=Z,800nm,1.8s,mb6.3
BILL                                LR     LR
       comp=Z,270µm,19.0s,MS7.6
BSD    Bornholm Skovb   77.56 325  eP      P      04 33 22.7 +1.3
BSD                                 pmax   pmax
       comp=Z,120nm,0.9s,mb5.8
BSD    Bornholm Skovb   77.56 325  eP      P      04 33 22.7 +1.3
       comp=Z,118nm,0.9s,mb5.8
BSD    Bornholm Skovb   77.56 325  i P     P      04 33 22.7 +1.3
       comp=Z,118nm,0.9s,mb5.8
TRI    Trieste          77.57 315  eP      P      04 33 21.4 -0.2
VENT   Ventotene        77.62 310   P      P      04 33 24.0 +2.0
PTQR   Pietraquaria     77.68 311  eP      P      04 33 22.4 +0.1
AQU    L'Aquila         77.69 312   P      P      04 33 22.2 -0.1
AQU                                 pmax   pmax
       comp=Z,180nm,1.2s,mb5.9
AQU    L'Aquila         77.69 312  eP      P      04 33 22.7 +0.4
BRG    Berggiesshubel   77.77 320  i P     P      04 33 23.0 +0.4
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BRG                                i              04 33 28.1
BRG                                i       pP     04 33 34.4 +1.8
BRG                                i S     S      04 43 23.0  +12
BRG                                 pmax   pmax
       comp=Z,594nm,1.8s,mb6.2
BRG                                 MLR    MLR
       comp=N,275µm,24.1s,MS7.5
BRG                                 MLR    MLR
       comp=E,102µm,24.1s,MS7.5
BRG                                 MLR    MLR
       comp=Z,20µm,24.1s,MS6.4
BRG    Berggiesshubel   77.77 320  i P     P      04 33 23.0 +0.4
       comp=Z,594nm,1.8s,mb6.2
BRG                                i              04 33 28.1
BRG                                i       pP     04 33 34.4 +1.8
BRG                                i              04 36 28.5
BRG                                i S     S      04 43 23.0  +12
BRG                                 LR     LR
       comp=Z,20µm,24.1s,MS6.4
GEC2   GERESS Array S   77.79 318  eP      P      04 33 22.8 +0.1
GEC2                                pmax   pmax
       comp=Z,400nm,1.4s,mb6.2
GEC2   GERESS Array S   77.79 318  eP      P      04 33 22.8 +0.1
       comp=Z,400nm,1.4s,mb6.2
GERES  GERESS Array B   77.79 318   P      P      04 33 22.4 -0.4
       comp=Z,39nm,0.7s,mb5.5,baz=95,slow=3.9,SNR=28
GERES  GERESS Array B   77.79 318   P      P      04 33 22.4 -0.3
GERES                               pmax   pmax
       comp=Z,39nm,0.7s
KHC    Kasperske Hory   77.89 319⇑iP      P      04 33 23.0 -0.3
KHC                                eS      S      04 43 16.8 +4.0
KHC                                 AMS    AMS    05 12 20.0
       comp=Z,134µm,21.7s
PTCC   Patocco-Chiusa   77.89 316  eP      P      04 33 22.3 -1.0
NRCA   Norcia           77.92 312  eP      P      04 33 23.3 -0.3
KBA    Koelnbreinsper   77.93 317⇑iP      P      04 33 24.0 +0.5
       comp=Z,138nm,1.4s,mb5.7
KBA    Koelnbreinsper   77.93 317⇑iP      P      04 33 24.0 +0.5
       comp=Z,138nm,1.4s,mb5.7
GMNA   Gemona           77.97 316  eP      P      04 33 23.1 -0.6
RUE    Ruedersdorf      78.00 322  eP      P      04 33 23.7 -0.1
       comp=Z,1µm,1.8s,mb6.5
SNTG   Esanatoglia      78.06 313  eP      P      04 33 24.4  0.0
ARV    Arcevia          78.06 313  eP      P      04 33 24.5 +0.1
TRO    Tromso           78.07 340  eP      P      04 33 22.3 -1.6
TRO                                eP             04 33 22.3
TRO                                eS      S      04 43 17.8 +3.5
TRO                                 AMS    AMS    05 12 06.5
       comp=Z,239µm,16.4s,MS7.6
PESA   Pesaro           78.15 313   P      P      04 33 25.9 +1.1
FSSB   Fossombrone      78.19 313  eP      P      04 33 25.4 +0.4
MNS    Montasola        78.22 312  eP      P      04 33 23.7 -1.6
FVI    Forni Avoltri    78.30 316  eP      P      04 33 24.6 -1.0
WET    Wettzell         78.35 319  eP      P      04 33 26.0 +0.2
WET                                 pmax   pmax
       comp=Z,726nm,1.9s,mb6.3
WET    Wettzell         78.35 319  eP      P      04 33 26.0 +0.2
       comp=Z,726nm,1.9s,mb6.3
CLL    Collm            78.39 321⇑iP      P      04 33 25.7 -0.3
CLL                                e       pP     04 33 37.0 +0.9
CLL                                eS      S      04 43 12.0 -6.1
CLL                                 pmax   pmax
       comp=Z,433nm,1.8s,mb6.1
CLL                                 MLR    MLR
       comp=Z,151µm,18.8s,MS7.3
CLL    Collm            78.39 321⇑iP      P      04 33 25.7 -0.3
       comp=Z,433nm,1.8s,mb6.1
CLL                                e       pP     04 33 37.0 +0.9
CLL                                eS      S      04 43 12.0 -6.1
CLL                                 LR     LR
       comp=Z,151µm,18.8s,MS7.3
CLL    Collm            78.39 321 ⇑P      P      04 33 25.7 -0.3
       comp=Z,logA/T=2.4,mb6.1
CLL                                e*PP    pP     04 33 37.0 +0.9
CLL                                eS      S      04 43 12.0 -6.1
CLL                                ePS     PS     04 44 01.0 -3.2
RSM    Repubblica di    78.43 313  eP      P      04 33 26.9 +0.6
FX1    Attu Island--F   78.68  38  eP      P      04 33 28.1 +0.6
NKC    Novy Kostel      78.69 320⇑eP      P      04 33 27.8 +0.2
NKC                                ex      x      04 43 31.6
NKC                                 AMS    AMS    05 14 20.0
       comp=Z,131µm,19.9s
SEST   Monte Rota       78.69 316   P      P      04 33 27.6 -0.1
BRSN   Barisano         78.71 314  eP      P      04 33 28.9 +1.0
SUR    Sutherland       78.77 235  eP      P      04 33 29.7 +1.2
       comp=Z,141nm,1.0s,mb5.8
SUR                                 LR     LR
       comp=Z,72µm,22.0s,MS7.0
SFI    Santa Sofia      78.87 313  eP      P      04 33 29.8 +1.0
PGD    Poggio Sodo      78.96 313  eP      P      04 33 29.8 +0.5
BRES   Bressanone       79.02 316   P      P      04 33 30.1 +0.6
COP    Copenhagen       79.02 325  i P     P      04 33 34.1 +4.7
COP                                 pmax   pmax
       comp=Z,63nm,0.9s,mb5.5
COP    Copenhagen       79.02 325  i P     P      04 33 34.1 +4.7
       comp=Z,63nm,0.9s,mb5.5
CTI    Castel Tesino    79.06 315  eP      P      04 33 29.6 -0.1
VMG    Vicchio          79.09 313  eP      P      04 33 31.1 +1.2
WTTA   Wattenberg       79.10 317⇑iP      P      04 33 29.6 -0.4
       comp=Z,255nm,1.3s,mb6.0
WTTA   Wattenberg       79.10 317⇑iP      P      04 33 29.6 -0.4
       comp=Z,255nm,1.3s,mb6.0
BJO    Bjornoya         79.12 345   AMS    AMS    05 11 19.2
       comp=Z,111µm,23.5s,MS7.1
MOR8   Moi Rana         79.12 336  eP      P      04 33 29.2 -0.5
MOR8                               epP     pP     04 33 39.3 -0.4
MOR8   Moi Rana         79.12 336  eP      P      04 33 27.7 -2.0
WATA   Walderalm        79.15 317⇑iP      P      04 33 29.6 -0.6
       comp=Z,47nm,0.7s,mb5.5
WATA   Walderalm        79.15 317⇑iP      P      04 33 29.6 -0.6
       comp=Z,47nm,0.7s,mb5.5
SEI    Scarperia        79.23 313  eP      P      04 33 31.5 +0.8
MOX    Moxa             79.24 320  eP      P      04 33 30.8 +0.2
MOX    Moxa             79.24 320  i P     P      04 33 30.8 +0.2
SMY    Shemya           79.24  38   PFAKE         04 33 40.0 +9.4
SMY                                 LR     LR
       comp=Z,108µm,20.0s,MS7.2
CSNT   Castellina Chi   79.27 313  eP      P      04 33 29.4 -1.5
FUR    Furstenfeldbru   79.37 318  eP      P      04 33 31.1 -0.3
FUR                                 pmax   pmax
       comp=Z,930nm,1.8s,mb6.4
FUR    Furstenfeldbru   79.37 318  eP      P      04 33 31.1 -0.3
       comp=Z,930nm,1.8s,mb6.4
SQTA   Sankt Quirin     79.39 317⇑iP      P      04 33 31.2 -0.3
       comp=Z,138nm,1.2s,mb5.8
SQTA   Sankt Quirin     79.39 317⇑iP      P      04 33 31.2 -0.3
       comp=Z,138nm,1.2s,mb5.8
RAVA   Ravarino         79.41 314   P      P      04 33 33.0 +1.3
GRA1   Grafenberg Arr   79.45 319  eP      P      04 33 31.8  0.0
       comp=Z,1µm,1.9s,mb6.5
GRF    Grafenberg Arr   79.45 319  eP      P      04 33 31.8  0.0
GRF                                 pmax   pmax
       comp=Z,1µm,1.9s,mb6.5
GRF    Grafenberg Arr   79.45 319  eP      P      04 33 31.8  0.0
       comp=Z,1µm,1.9s,mb6.5
MOTA   Moosalm          79.47 317⇑iP      P      04 33 31.5 -0.4
       comp=Z,105nm,1.0s,mb5.7
MOTA   Moosalm          79.47 317⇑iP      P      04 33 31.5 -0.4
       comp=Z,105nm,1.0s,mb5.7
ZCCA   Zocca            79.50 314  eP      P      04 33 34.2 +2.0
LOF    Lofoten          79.73 338  eP      P      04 33 35.0 +2.0
LOF                                 AMb    AMB    04 33 52.2
       comp=Z,547nm,1.6s,mb6.2
LOF    Lofoten          79.73 338  eP      P      04 33 35.0 +2.0
       comp=Z,547nm,1.6s,mb6.2
BDI    Bagni Di Lucca   79.77 313  eP      P      04 33 32.9 -0.7
GSCL   Gusciola         79.78 314  eP      P      04 33 34.6 +0.9
PII    Pisa             79.82 313  eP      P      04 33 33.6 -0.3
ERBM   Eremo            79.91 314  eP      P      04 33 36.6 +2.2
VLC    Villacollemand   79.93 314  eP      P      04 33 33.6 -0.9
       comp=Z,277nm,1.4s,mb6.0
BRMO   Bormio           79.95 316  eP      P      04 33 34.5 -0.1
NSS    Namsos           79.97 334  eP      P      04 33 30.7 -3.6
NSS                                eP             04 33 32.6
NSS                                 AMb    AMB    04 33 50.7
       comp=Z,489nm,1.4s,mb6.2
NSS                                 AMS    AMS    05 19 10.8
       comp=Z,170µm,17.7s,MS7.4
NSS    Namsos           79.97 334  eP      P      04 33 30.7 -3.6
       comp=Z,489nm,1.4s,mb6.2
FUORN  Ofenpass         80.03 316⇑iP      P      04 33 35.6 +0.6
NB2    NORSAR Subarra   80.03 331   P      P      04 33 33.7 -1.0
       comp=Z,458nm,1.7s,mb6.1,baz=95,slow=5.0
NB2    NORSAR Subarra   80.03 331   P      P      04 33 33.7 -1.0
       baz=95,slow=5.1
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NOA   NORSAR Array B   80.03 331  P      P       04 33 33.3  -1.4
        comp=Z,24nm,0.7s,mb5.2,baz=94,slow=5.6,SNR=18
NOA                               PP     PP      04 36 47.2 +9.0
        comp=Z,20nm,1.1s,baz=89,slow=8.3,SNR=3.7
NOA                               LR     LR      05 14 14.7
        comp=Z,192µm,21.6s,MS7.4,baz=105,slow=40
NOA   NORSAR Array B   80.03 331  P      P       04 33 33.3  -1.4
NOA                               PP     PP      04 36 47.2 +9.0
NOA                               LR     LR      05 14 14.8
CLZ   Clausthal        80.06 321  eP     P       04 33 34.9  -0.1
        comp=Z,544nm,1.8s,mb6.2
HDH   Heidenheim       80.09 318 ⇑P      P       04 33 35.9 +0.6
UBR   Uberruh          80.15 317 ⇑P      P       04 33 35.9 +0.3
BACM                   80.15 314  P      P       04 33 34.7  -1.0
BSEG  Bad Segeberg     80.16 323  eP     P       04 33 35.4  -0.1
BSEG                              pmax   pmax
        comp=Z,516nm,1.5s,mb6.2
NAO01 NORSAR Array S   80.18 331  eP     P       04 33 34.9  -0.6
        comp=Z,219nm,1.5s,mb5.9
NAO01                             LR     LR
        comp=Z,19µm,22.0s,MS6.4
BERNI Berninapass      80.19 316⇑iP      P       04 33 36.6 +0.7
OSL   Oslo             80.21 330  eP     P       04 33 35.7 +0.1
DAVOX Davos            80.30 316  P      P       04 33 36.7 +0.3
        comp=Z,82nm,0.7s,mb5.8,baz=130,slow=3.2,SNR=18
DAVOX Davos            80.30 316⇑iP      P       04 33 36.9 +0.5
DAVA  Damuels          80.30 317⇑iP      P       04 33 36.6 +0.2
        comp=Z,330nm,1.4s,mb6.1
DAVA  Damuels          80.30 317⇑iP      P       04 33 36.6 +0.2
        comp=Z,330nm,1.4s,mb6.1
CODM                   80.31 314  P      P       04 33 35.6  -0.9
SIND  Sindeldorf       80.50 319 ⇑P      P       04 33 38.7 +1.3
VDL   Val di Lei       80.58 316 ⇑P      P       04 33 38.4 +0.5
VDL   Val di Lei       80.58 316⇑iP      P       04 33 38.3 +0.4
BOB   Bobbio (Coli)    80.60 314  eP     P       04 33 39.4 +1.4
PLONS Plons            80.64 316⇑iP      P       04 33 38.5 +0.3
BUCH  Bad Urach        80.66 318 ⇑P      P       04 33 39.5 +1.2
VSL   Villasalto       80.72 309  eP     P       04 33 38.9 +0.1
        comp=Z,380nm,1.6s,mb6.1
KONO  Kongsberg        80.76 329  PFAKE          04 33 50.0  +11
KONO                              LR     LR
        comp=Z,207µm,21.0s,MS7.5
STU   Stuttgart        80.77 318  eP     P       04 33 38.7  -0.1
STU                               pmax   pmax
        comp=Z,360nm,1.6s,mb6.0
STU   Stuttgart        80.77 318  eP     P       04 33 38.0  -0.8
        comp=Z,356nm,1.6s,mb6.0
GUT   Gutenstein       80.82 318 ⇑P      P       04 33 39.9 +0.8
MUGIO Muggio           80.88 315⇑iP      P       04 33 39.9 +0.4
MUD   Monsted U'grnd   80.89 326  i P    P       04 33 41.8 +2.5
MUD                               pmax   pmax
        comp=Z,170nm,1.1s,mb5.9
MUD   Monsted U'grnd   80.89 326  i P    P       04 33 41.8 +2.5
        comp=Z,166nm,1.1s,mb5.9
LLS   Linth-Limmern    80.89 316 ⇑P      P       04 33 39.9 +0.4
LLS   Linth-Limmern    80.89 316⇑iP      P       04 33 39.7 +0.2
WEIN  Weingarten       80.91 317⇑iP      P       04 33 38.7  -0.9
PGF   Pioggiola        80.95 312  eP     P       04 33 40.0 +0.1
        comp=Z,1µm,1.9s,mb6.3
WILA  Wila             80.96 317 ⇑P      P       04 33 40.0 +0.1
WILA  Wila             80.96 317⇑iP      P       04 33 39.9  0.0
STEIN Stein am Rhein   80.98 317⇑iP      P       04 33 40.2 +0.2
TOD   Tromm            81.02 319  P      P       04 33 41.7 +1.5
TOD   Tromm            81.02 319  eP     P       04 33 40.5 +0.3
LBG   Lerchenberg      81.03 318 ⇑P      P       04 33 41.4 +1.2
SPAK  Spaichingen      81.04 318 ⇑P      P       04 33 41.7 +1.4
VAI   Varese           81.07 315  eP     P       04 33 39.7  -0.8
TRULL Truellikon       81.11 317⇑iP      P       04 33 40.3  -0.4
DOMB  Dombas           81.12 332  eP     P       04 33 38.8  -1.6
FUSIO Fusio            81.14 316⇑iP      P       04 33 40.9 +0.1
MUO   Muotathal        81.15 316 ⇑P      P       04 33 41.5 +0.6
MUO   Muotathal        81.15 316⇑iP      P       04 33 40.9  0.0
ZUR   Zurich           81.18 317 ⇑P      P       04 33 41.3 +0.2
ZUR   Zurich           81.18 317⇑iP      P       04 33 41.2 +0.1
SLE   Schleitheim      81.24 317 ⇓P      P       04 33 42.1 +0.8
SLE   Schleitheim      81.24 317⇑iP      P       04 33 41.5 +0.2
PCP   Pian Castagno    81.24 314  P      P       04 33 41.6 +0.2
BNALP Bannalp          81.29 316⇑iP      P       04 33 41.9 +0.3
BFO   Black Forest     81.34 318  eP     P       04 33 41.4  -0.5
BFO                               pmax   pmax
        comp=Z,228nm,1.5s,mb5.9
BFO   Black Forest     81.34 318  eP     P       04 33 41.4  -0.5
        comp=Z,228nm,1.5s,mb5.9
HASLI Hasliberg        81.48 316⇑iP      P       04 33 42.9 +0.3
FIN   Finale Ligure    81.49 314  eP     P       04 33 40.5  -2.2
KTD   Kalmit           81.50 319  eP     P       04 33 43.7 +1.1
SULZ  Sulz-Cheisache   81.50 317⇑iP      P       04 33 42.6  -0.1
FELD  Feldberg         81.57 317 ⇓P      P       04 33 43.8 +0.8
MCGN  Macugnaga        81.61 315  eP     P       04 33 44.8 +1.4
ORX   Oropa            81.62 315  P      P       04 33 42.3  -1.1
KIZ   Kirchzarten      81.62 317 ⇓P      P       04 33 44.0 +0.7
ORO   Oropa            81.62 315  eP     P       04 33 41.9  -1.5
MMK   Mattmark         81.62 315 ⇑P      P       04 33 43.9 +0.5
MMK   Mattmark         81.62 315⇑iP      P       04 33 43.7 +0.3
LANF  Langenberg       81.68 318  eP     P       04 33 43.8 +0.2
STR   Strasbourg       81.72 318  eP     P       04 33 45.9 +2.1
IMI   Imperia          81.73 313  eP     P       04 33 45.6 +1.6
ROB   Roburent         81.73 314  P      P       04 33 44.1 +0.1
BALST Balsthal         81.78 317⇑iP      P       04 33 45.0 +0.8
MONE  Monesi           81.82 313  P      P       04 33 45.1 +0.7
LIBD  Limburg          81.83 318  eP     P       04 33 44.7 +0.3
ABH   Alteburg         81.84 319 ⇑P      P       04 33 45.8 +1.4
ABH   Alteburg         81.84 319  eP     P       04 33 44.9 +0.5
MOL   Molde            81.84 332  eP     P       04 33 45.1 +1.0
MOL                               epP    pP      04 33 56.5 +2.2
MOL                               AMb    AMB     04 34 03.9
        comp=Z,512nm,1.8s,mb6.2
MOL   Molde            81.84 332  eP     P       04 33 45.1 +1.0
        comp=Z,512nm,1.8s,mb6.2
WIMIS Wimmis           81.85 316⇑iP      P       04 33 45.0 +0.5
LKBD  Leukerbad        81.85 316 ⇑P      P       04 33 45.2 +0.7
LKBD  Leukerbad        81.85 316⇑iP      P       04 33 45.0 +0.5
BBS   Basel-Blauen     81.91 317 ⇓P      P       04 33 47.0 +2.2
BBS   Basel-Blauen     81.91 317  eP     P       04 33 44.4  -0.4
SAOF  Saorge           81.97 313  eP     P       04 33 46.0 +0.8
WLS   Welschbruch      81.99 318  eP     P       04 33 45.2  0.0
DIX   Grande Dixence   82.01 316 ⇑P      P       04 33 46.4 +1.0
DIX   Grande Dixence   82.01 316⇑iP      P       04 33 45.8 +0.4
CDF   Champ du Feu     82.04 318  eP     P       04 33 45.4  -0.1
        comp=Z,664nm,1.8s,mb6.0
ENR   Entracque        82.06 314  P      P       04 33 47.8 +2.1
AUTN  L'Aution         82.06 313  eP     P       04 33 47.6 +1.9
SENIN Lac Senin        82.08 316⇑iP      P       04 33 46.5 +0.8
BOURR Bourrignon       82.10 317⇑iP      P       04 33 46.4 +0.6
REVF  Revere           82.11 313  eP     P       04 33 46.5 +0.5
STV   Sta Anna Valdi   82.13 314  P      P       04 33 47.4 +1.4
ECH   Echery           82.13 318  eP     P       04 33 45.9  0.0
RSP   Reno Superiore   82.14 315  P      P       04 33 46.5 +0.4
BHB   Bricherasio      82.15 314  P      P       04 33 46.6 +0.5
MOF   Molkenrain       82.15 317  eP     P       04 33 46.2 +0.1
RUP   Ruppelstein      82.16 319 ⇓P      P       04 33 51.8 +5.7
RUP   Ruppelstein      82.16 319  eP     P       04 33 46.3 +0.2
DOI   San Damiano      82.17 314  eP     P       04 33 44.4  -1.9
TOUF  Mont Tournerai   82.19 313  eP     P       04 33 46.9 +0.6
LSD   Ceresole Reale   82.21 315  P      P       04 33 47.1 +0.7
GRYON Gryon            82.21 316⇑iP      P       04 33 46.9 +0.5
MVIF  Mont Vial        82.26 313  eP     P       04 33 49.1 +2.4
WTSB  Winterswijk      82.27 321  eP     P       04 33 46.9 +0.3
        comp=Z,186nm,2.3s,mb5.6
PZZ   Prazzo           82.28 314  P      P       04 33 47.2 +0.5
FENE  Fenestrelle      82.29 314  P      P       04 33 47.4 +0.6
TORNY Torny            82.30 316⇑iP      P       04 33 47.3 +0.4
SALAN Lac Salanfe      82.31 316⇑iP      P       04 33 47.4 +0.5
AIGLE Aigle            82.32 316⇑iP      P       04 33 47.4 +0.4
WIT   Witteveen        82.33 322  eP     P       04 33 45.5  -1.5
        comp=Z,321nm,2.9s,mb5.8
HINF  Hinteralfeld     82.34 317  eP     P       04 33 46.7  -0.4
        comp=Z,433nm,1.8s,mb5.8
BLS5  Blasjo           82.36 329  eP     P       04 33 47.8 +0.9
BLS5                              epP    pP      04 33 58.7 +1.7
EMV   Vieux Emosson    82.37 316 ⇑P      P       04 33 48.1 +0.9
EMV   Vieux Emosson    82.37 316⇑iP      P       04 33 47.9 +0.7
LOMF  Lomont           82.38 317  eP     P       04 33 47.3 +0.1
SURF  Saint Ours       82.48 314  eP     P       04 33 48.7 +0.8
RRL   Cesana Torines   82.49 314  P      P       04 33 48.3 +0.4
LPG   La Plagne        82.49 315  eP     P       04 33 48.4 +0.5
        comp=Z,2µm,1.7s,mb6.4
MBDF  Montbardon       82.50 314  eP     P       04 33 47.5  -0.5
        comp=Z,871nm,1.7s,mb6.2
BNI   Bardonecchia     82.56 314  P      P       04 33 48.1  -0.1
BNI                               pmax   pmax
        comp=Z,150nm,1.1s,mb5.9
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BNI   Bardonecchia     82.56 314  eP     P       04 33 47.6  -0.7
        comp=Z,152nm,1.1s,mb5.9
BRANT Les Verrieres    82.63 316⇑iP      P       04 33 49.0 +0.4
WLF   Walferdange      82.75 319  P      P       04 33 49.8 +0.7
WLF                               pmax   pmax
        comp=Z,520nm,1.6s,mb6.3
WLF   Walferdange      82.75 319  eP     P       04 33 49.2  0.0
        comp=Z,516nm,1.6s,mb6.3
HGN   Heimansgroeve    82.85 320  eP     P       04 33 50.0 +0.4
        comp=Z,49nm,1.9s,mb5.2
RUND  Rundenannen      82.89 330  eP     P       04 33 49.8 +0.1
THEF  They Montfort    82.91 318  eP     P       04 33 50.2 +0.2
GDM   Grand'Maison     82.95 315  eP     P       04 33 50.8 +0.5
GIVF  Givet            83.59 320  eP     P       04 33 53.8 +0.4
        comp=Z,552nm,1.7s,mb6.1
SYO   Syowa Base       84.08 197 ⇓P      P       04 33 56.8 +1.3
SYO   Syowa Base       84.08 197 ⇓PcP    PcP     04 34 01.7 +2.0
SYO   Syowa Base       84.08 197 ⇓pP     pP      04 34 10.4 +4.7
SYO   Syowa Base       84.08 197 ⇓sP     sP      04 34 15.0 +6.1
MSZ   Milford Sound    84.23 136  P      P       04 33 58.5 +1.6
KIWB  Kanaga Island    84.62  39  eP     P       04 33 58.1  -0.5
SSF   Saint Saulge     84.65 317  eP     P       04 33 59.1 +0.2
        comp=Z,762nm,1.7s,mb6.2
PLDF  La Plantade      84.65 316  eP     P       04 34 00.5 +1.6
LBL   Lubilhac         84.97 315  eP     P       04 34 01.9 +1.4
AGO   Saint Agoulin    84.99 316  eP     P       04 34 02.2 +1.6
PYM   Petit Puy Mans   85.10 315  eP     P       04 33 58.2  -2.9
EJON  La Jonquera      85.47 312  P      P       04 34 06.6 +3.6
        comp=Z,27nm,1.0s,mb5.3
AEU   East Anglia Un   85.64 322  eP     P       04 34 01.8  -1.9
AWH   Whinburgh        85.82 322  eP     P       04 33 58.8  -5.7
CAF   Calviac          85.83 315  eP     P       04 34 04.6  -0.2
        comp=Z,559nm,1.6s,mb6.2
TFO1  Folkestone       85.85 321  eP     P       04 34 10.6 +5.8
MTLF  Montolieu        85.87 313  eP     P       04 34 04.3  -0.8
        comp=Z,912nm,1.8s,mb6.4
VALF  Valcebollere     86.11 312  eP     P       04 34 10.2 +3.9
LRW   Lerwick          86.16 330  eP     P       04 33 59.5  -6.6
RPZ   Rata Peaks       86.18 135  LR     LR      05 13 04.0
        comp=Z,391µm,21.8s,MS7.8,baz=278,slow=36
DSZ   Denniston Nort   86.28 133  P      P       04 34 07.8 +0.7
OUZ   Omahuta          86.34 126  eP     P       04 34 11.8 +4.2
WAL1  Walls            86.37 330  eP     P       04 34 07.9 +0.8
TSA1  Sevenoaks        86.45 321  eP     P       04 34 08.1 +0.3
LMK   Market Rasen     86.49 323  eP     P       04 34 07.6  -0.2
MIDW  Midway           86.54  62  PFAKE          04 34 20.0  +11
MIDW                              LR     LR
        comp=Z,71µm,21.0s,MS7.0
QRZ   Quartz Range     86.62 132  eP     P       04 34 12.0 +3.2
MLS   Moulis           86.73 313  eP     P       04 34 13.1 +3.8
EPOB  Poblet           86.92 311  P      P       04 34 10.5 +0.2
        comp=Z,28nm,1.0s,mb5.4
SKP1  Kophill          87.00 322  eP     P       04 34 09.3  -1.1
LCP   Cassop           87.01 325  eP     P       04 34 11.0 +0.7
THZ   Tophouse         87.09 132  P      P       04 34 10.8  -0.3
LDU   Leeds Universi   87.18 324  eP     P       04 34 04.9  -6.3
KBI1  Birley Grange    87.23 323  eP     P       04 34 08.7  -2.7
JMIC  Jan Mayen        87.29 341  LR     LR      05 16 04.2
        comp=Z,153µm,21.8s,MS7.4,baz=238,slow=38
JMIC  Jan Mayen        87.29 341  eS     S       04 44 45.9  -1.5
JMIC                              AMb    AMB     05 16 29.9
        comp=Z,111µm,21.5s
RESF  Ens              87.30 313  eP     P       04 34 13.1 +1.0
OBR   Brabster         87.38 329  eP     P       04 34 10.4  -1.7
LHO   Holmfirth        87.39 323  eP     P       04 34 12.4 +0.2
OHO   Hoy              87.39 329  eP     P       04 34 12.8 +0.7
EBR   Ebro Roquetas    87.42 311  eP     P       04 34 14.5 +1.8
KWE   Weaver Farm      87.45 323  eP     P       04 34 10.1  -2.4
EBIE  Bielsa           87.46 313  P      P       04 34 14.8 +2.0
        comp=Z,18nm,1.3s,mb5.1
ESY   Stoneypath       87.49 326  eP     P       04 34 13.2 +0.6
ERTA  Horta de San J   87.52 311  P      P       04 34 13.6 +0.4
        comp=Z,37nm,1.3s,mb5.5
SWN1  Swindon          87.64 321  eP     P       04 34 13.4  0.0
EBL   Broad Law        87.75 326  eP     P       04 34 14.3 +0.4
EDI   Edinburgh        87.81 326  eP     P       04 34 15.2 +1.1
EKR10 Eskdalemuir Ar   87.83 325  eP     P       04 34 13.0  -1.2
EKB10 Eskdalemuir Ar   87.86 325  eP     P       04 34 14.6 +0.2
EKB9  Eskdalemuir Ar   87.86 325  eP     P       04 34 14.8 +0.4
EKR5  Eskdalemuir Ar   87.86 325  eP     P       04 34 13.7  -0.7
ESK   Eskdalemuir      87.91 325  eP     P       04 34 17.0 +2.4
ESK   Eskdalemuir      87.91 325  PFAKE          04 34 30.0  +15
ESK                               LR     LR
        comp=Z,34µm,21.0s,MS6.7
EAU   Auchinoon        87.96 326  eP     P       04 34 15.2 +0.4
HAE   Alders End       88.02 322  eP     P       04 34 15.1  -0.1
ESAC  San Caprasio     88.03 312  P      P       04 34 21.1 +5.5
        comp=Z,63nm,0.8s,mb5.9
JRS   Jersey           88.15 319  eP     P       04 34 17.8 +1.9
HLM1  Long Mynd        88.15 323  eP     P       04 34 15.7  -0.2
EMOS  Mosqueruela      88.20 310  P      P       04 34 14.9  -1.6
        comp=Z,24nm,1.1s,mb5.3
DAG   Danmarks Havn    88.22 348⇓iP      P       04 34 15.6  -0.1
DAG                               pmax   pmax
        comp=Z,24nm,0.7s,mb5.5
DAG   Danmarks Havn    88.22 348⇓iP      P       04 34 15.6  -0.1
        comp=Z,24nm,0.7s,mb5.5
HGH   Gray Hill        88.24 322  eP     P       04 34 16.6 +0.2
PCOU  Corrie           88.30 326  eP     P       04 34 14.8  -1.7
SSP1  Stoney Pound     88.31 322  eP     P       04 34 17.1 +0.4
EAB   Aberfoyle        88.40 326  eP     P       04 34 17.2 +0.2
GAL1  Galloway         88.84 325  eP     P       04 34 19.1  0.0
ANM   Nome             88.86  25  eP     P       04 34 20.7 +1.7
CART  Cartagena        88.98 308  eP     P       04 34 25.4 +5.2
        comp=Z,282nm,1.6s,mb6.3
EMUR  La Murta         89.13 308  P      P       04 34 22.4 +1.5
        comp=Z,38nm,1.4s,mb5.5
HTL   Hartland         89.38 321  eP     P       04 34 23.6 +1.8
URZ   Urewera          89.64 128  P      P       04 34 23.1  -0.2
        comp=Z,76nm,1.1s,mb5.9,baz=340,slow=3.0,SNR=12
URZ                               LR     LR      05 15 30.1
        comp=Z,270µm,21.4s,MS7.6,baz=285,slow=36
MWZ   Matawai          89.98 128  P      P       04 34 24.8  -0.1
EVIA  Vianos           90.00 309  P      P       04 34 27.1 +2.1
        comp=Z,37nm,1.1s,mb5.6
ENIJ  Nijar            90.02 307  P      P       04 34 27.4 +2.2
        comp=Z,28nm,0.8s,mb5.6
DLF   Lyons Farm       90.19 324  eP     P       04 34 28.6 +3.1
EBER  Berja            90.57 307  P      P       04 34 29.9 +2.2
        comp=Z,66nm,1.6s,mb5.7
EQES  Quesada          90.57 308  P      P       04 34 28.2 +0.6
        comp=Z,33nm,1.5s,mb5.4
DCN   Croghan          90.62 324  eP     P       04 34 30.9 +3.4
UNV   Unalaska Valle   90.72  36  PFAKE          04 34 40.0  +12
UNV                               LR     LR
        comp=Z,277µm,20.0s,MS7.7
GUD   Guadarrama       90.94 311  P      P       04 34 31.8 +2.6
        comp=Z,24nm,0.9s,mb5.5
ESDC  Sonseca Array    90.96 310  P      P       04 34 30.2 +0.8
        comp=Z,18nm,0.8s,mb5.5,baz=62,slow=4.0,SNR=17
ESDC                              PP     PP      04 38 15.0 +6.9
        comp=Z,14nm,1.1s,baz=71,slow=6.3,SNR=4.2
ESDC  Sonseca Array    90.96 310  P      P       04 34 30.1 +0.8
        comp=Z,189nm,1.4s,mb6.2
ESLA  Sonseca Array    90.96 310  PFAKE          04 34 40.0  +11
ESLA                              LR     LR
        comp=Z,462µm,21.0s,MS7.9
EBAN  Banos Encina     91.07 308  P      P       04 34 31.1 +1.2
        comp=Z,152nm,1.5s,mb6.1
ERON  Agron            91.28 307  P      P       04 34 35.2 +4.3
        comp=Z,16nm,0.9s,mb5.4
ELUQ  Luque            91.55 308  P      P       04 34 36.1 +3.9
        comp=Z,16nm,0.8s,mb5.4
SCO   Scoresbysund     91.66 342  i P    P       04 34 31.2  -0.7
EADA  Adamuz           91.69 309  P      P       04 34 34.4 +1.7
        comp=Z,97nm,1.3s,mb6.0
EMIJ  Mijas            92.12 307  P      P       04 34 36.5 +1.7
        comp=Z,22nm,1.0s,mb5.5
VNDA  Vanda            92.17 168  P      P       04 34 37.3 +3.2
        comp=Z,20nm,1.1s,mb5.4,baz=327,slow=5.8,SNR=7.9
VNDA                              LR     LR      05 12 32.6
        comp=Z,241µm,19.8s,MS7.7,baz=295,slow=33
RAO   Raoul Island     92.56 119  PFAKE          04 34 50.0  +13
RAO                               LR     LR
        comp=Z,191µm,22.0s,MS7.5
ECAL  Calabor          92.61 313  P      P       04 34 44.4 +7.5
        comp=Z,43nm,1.8s,mb5.6
VAL   Valentia         92.70 323  eS     S       04 45 49.0  +12
ESPR  Espera           92.92 307  P      P       04 34 39.8 +1.3
        comp=Z,29nm,1.2s,mb5.6
IMA   Indian Mountai   93.02  22  eP     P       04 34 40.0 +1.8
IMA                               pmax   pmax
        comp=Z,1µm,1.3s,mb7.1
IMA   Indian Mountai   93.02  22  eP     P       04 34 39.6 +1.4
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        comp=Z,100nm,1.1s,mb6.2
SBA   Scott Base       93.28 168  PFAKE          04 34 50.0  +11
SBA                               LR     LR
        comp=Z,149µm,19.0s,MS7.5
EMIN  Mina Concepcio   93.39 308  P      P       04 34 44.2 +3.6
        comp=Z,21nm,1.3s,mb5.4
EBAD  Badajoz          93.45 310  P      P       04 34 45.8 +4.9
        comp=Z,17nm,1.2s,mb5.3
BORG  Borgarnes        93.90 337  PFAKE          04 34 50.0 +7.7
BORG                              LR     LR
        comp=Z,39µm,21.0s,MS6.8
EGRO  El Granado       94.06 308  P      P       04 34 46.5 +2.8
        comp=Z,38nm,2.1s,mb5.5
SUMG  Summit           94.87 347  eP     P       04 34 48.0 +1.3
        comp=Z,2µm,2.6s,mb7.0
RSO   Redoubt South    95.72  27  eP     P       04 34 51.0 +0.3
COLA  College          95.73  22  i P    P       04 34 52.4 +1.7
COLA                              LR     LR
        comp=Z,133µm,21.0s,MS7.4
ILAR  Eielson Array    96.14  22  P      P       04 34 51.0  -1.6
        comp=Z,7.5nm,0.7s,mb5.2,baz=300,slow=2.9,SNR=25
ILAR                              PP     PP      04 38 39.4  -8.6
        comp=Z,6.9nm,0.9s,baz=301,slow=8.1,SNR=4.5
ILAR                              PKKPbc         04 51 43.3
        comp=Z,1.6nm,0.7s,baz=156,slow=2.1,SNR=9.7
ILAR                              LR     LR      05 23 29.2
        comp=Z,166µm,18.7s,MS7.5,baz=137,slow=39
FIB   Fire Island      96.56  26  PFAKE          04 35 10.0  +15
FIB                               LR     LR
        comp=Z,83µm,21.0s,MS7.2
AFI   Afiamalu         96.73 103  PFAKE          04 35 10.0  +14
AFI                               LR     LR
        comp=Z,65µm,21.0s,MS7.1
PMR   Palmer           96.80  25  eP     P       04 34 56.1 +0.5
        comp=Z,131nm,1.4s,mb6.2
SLKM  Skilak Lake      96.83  26  eP     P       04 34 57.1 +1.3
SLKM  Skilak Lake      96.83  26  eP     P       04 34 56.1 +0.3
DBIC  Dimbokro         96.89 278  P      P       04 34 57.8 +0.7
        comp=Z,24nm,1.1s,mb5.6,baz=69,slow=5.6,SNR=11
DBIC                              LR     LR      05 19 35.5
        comp=Z,193µm,18.9s,MS7.6,baz=68,slow=36
DBIC  Dimbokro         96.89 278  P      P       04 34 57.8 +0.6
DBIC                              pmax   pmax
        comp=Z,24nm,1.1s
DBIC                              MLR    MLR
        comp=Z,193µm,18.9s
KDAK  Kodiak Island    96.92  29  eP     P       04 34 57.0 +0.8
        comp=Z,211nm,1.6s,mb6.3
KDAK                              LR     LR
        comp=Z,37µm,21.0s,MS6.8
SNAA  Sanae            98.28 199⇓i       P       04 35 06.8 +4.7
SNAA  Sanae            98.28 199  P      P       04 35 03.7 +1.6
        comp=Z,1.6nm,0.9s,baz=96,slow=2.3,SNR=9.7
SNAA                              LR     LR      05 15 32.3
        comp=Z,60µm,18.9s,baz=101,slow=33
INK   Inuvik           98.30  16  P      P       04 35 02.9 +0.6
        comp=Z,44nm,1.1s,mb5.9,baz=319,slow=4.9,SNR=23
INK                               PKKPbc         04 51 39.5
        comp=Z,2.9nm,0.9s,baz=104,slow=7.0,SNR=3.9
INK                               LR     LR      05 26 10.1
        comp=Z,152µm,19.2s,MS7.5,baz=312,slow=40
DIV   Divide           98.44  25  PFAKE          04 35 10.0 +7.0
DIV                               LR     LR
        comp=Z,474µm,20.0s,MS8.0
DAWY  Dawson           99.24  21  eP     P       04 35 07.2 +0.7
VNA2  Neumayer--Watz   99.81 199⇓i       P       04 35 16.4 +7.4
VNA1  Neumayer--Stat  100.13 199⇑i       P       04 35 16.8 +6.3
VNA3  Neumayer Olymp  100.49 199⇑i       P       04 35 18.6 +6.4
KIP   Kipapa          105.01  66  PFAKE          04 35 50.0  +17
KIP                               LR     LR
        comp=Z,48µm,20.0s,MS7.0
SIT   Sitka           105.19  25  PFAKE          04 40 00.0
SIT                               LR     LR
        comp=Z,216µm,20.0s,MS7.7
TRIS  Tristan da Cun  106.26 234  PFAKE          04 40 00.0
TRIS                              LR     LR
        comp=Z,107µm,21.0s,MS7.4
YKA   Yellowknife Ar  107.69  13  Pdiff  Pdif    04 35 44.5 +0.5
        comp=Z,1.4nm,0.8s,baz=328,slow=4.2,SNR=10
YKA                               PKiKP          04 39 55.2
        comp=Z,2.0nm,0.9s,baz=333,slow=3.1,SNR=6.0
YKA                               PP     PP      04 40 10.6  -5.2
        comp=Z,5.6nm,0.7s,baz=336,slow=8.1,SNR=14
YKA                               PKKPbc         04 51 08.7
        comp=Z,1.9nm,0.8s,baz=154,slow=3.6,SNR=17
YKA   Yellowknife Ar  107.69  13  P      Pdif    04 35 44.5 +0.5
YKA                                              04 40 10.6
YKA                               pmax   pmax
        comp=Z,6.0nm,0.7s
YKA   Yellowknife Ar  107.69  13  Pdif   Pdif    04 35 44.5 +0.4
YKA                               PKPdf          04 39 55.2
YKA                               PP     PP      04 40 10.6  -5.2
YKA                               PKKPbc         04 51 08.7
FRB   Frobisher Bay   108.22 351  PKKPbc         04 51 09.2
        comp=Z,4.2nm,0.9s,baz=42,slow=8.5,SNR=3.6
RAR   Rarotonga       108.54 110  PFAKE          04 40 10.0
RAR                               LR     LR
        comp=Z,92µm,22.0s,MS7.3
EDM   Edmonton        116.15  17  PKIKP  PKPdf   04 40 09.1  -3.2
EDM   Edmonton        116.15  17  ePKPdf PKPdf   04 40 08.9  -3.3
SCHQ  Schefferville   116.26 347  PKP    PKPdf   04 40 10.5  -1.9
        comp=Z,39nm,1.4s,baz=32,slow=5.4,SNR=4.8
SCHQ                              PP     PP      04 41 16.1  -1.8
        comp=Z,20nm,1.1s,baz=32,slow=8.7,SNR=5.0
SCHQ                              PKKPbc         04 50 39.8
        comp=Z,4.1nm,0.8s,baz=195,slow=8.7,SNR=5.5
SCHQ  Schefferville   116.26 347  PKP    PKPdf   04 40 10.5  -1.9
SCHQ                              PP     PP      04 41 16.1  -1.8
SCHQ                              PKKPbc         04 50 39.8
SCHQ                              LR     LR
        comp=Z,180µm,22.0s,MS7.6
VDB   Vedder Mountai  116.49  25  P      PKPdf   04 40 09.9  -3.2
OCWA  Octopus Mounta  116.55  27  PFAKE          04 40 20.0 +6.8
OCWA                              LR     LR
        comp=Z,95µm,20.0s,MS7.4
TBI   Tubuai          118.01 113  ePS    PS      04 51 30.1  +18
TBI                               eLQ            05 11 18.8
TBI                               eLR    LR      05 16 43.4
        comp=Z,188µm,22.0s
PPT   Papeete         118.22 106  ePS    PS      04 51 23.1 +9.2
PPT                               eSS    SS      04 57 50.7 +8.9
PPT                               eLQ            05 11 30.8
PPT                               eLR    LR      05 16 26.2
        comp=Z,179µm,23.2s
NEW   Newport         119.09  23  PFAKE          04 40 30.0  +12
NEW                               LR     LR
        comp=Z,195µm,20.0s,MS7.7
MXC   Moxie City      119.16  26  P      PKPdf   04 40 16.0  -2.2
COR   Corvallis       119.31  29  PFAKE          04 40 30.0  +11
COR                               LR     LR
        comp=Z,18µm,20.0s,MS6.7
WRD   Warden          119.47  25  P      PKPdf   04 40 16.4  -2.4
PRW   Prosser         119.71  26  P      PKPdf   04 40 17.0  -2.3
PMSA  Palmer Station  119.91 191  PFAKE          04 40 30.0  +11
PMSA                              LR     LR
        comp=Z,124µm,20.0s,MS7.5
VIPM  Ingram Point    120.62  27  P      PKPdf   04 40 19.0  -2.2
HUMO  Hull Mountain   120.93  30  PFAKE          04 40 30.0 +8.2
HUMO                              LR     LR
        comp=Z,83µm,22.0s,MS7.3
MSO   Missoula        121.47  21  ePKPdf PKPdf   04 40 19.3  -3.5
MSO                               LR     LR
        comp=Z,87µm,19.0s,MS7.4
YBH   Yreka Blue Hor  121.70  31  PFAKE          04 40 30.0 +6.7
YBH                               LR     LR
        comp=Z,86µm,21.0s,MS7.4
BMO   Blue Mountains  121.80  25  PKIKP  PKPdf   04 40 19.6  -3.8
BMO   Blue Mountains  121.80  25  ePKPdf PKPdf   04 40 19.3  -4.1
BMO                               LR     LR
        comp=Z,127µm,21.0s,MS7.5
HRY   Holter Researc  122.31  20  ePKPdf PKPdf   04 40 21.4  -3.0
ULM   Lac du Bonnet   122.63   7  PKP    PKPdf   04 40 22.6  -2.3
        comp=Z,10.0nm,0.8s,baz=342,slow=2.4,SNR=12
ULM                               PP     PP      04 41 59.4  -2.2
        comp=Z,12nm,0.7s,baz=337,slow=7.4,SNR=3.7
ULM                               PKKPbc         04 50 19.4
        comp=Z,5.5nm,0.8s,baz=337,slow=2.8,SNR=7.3
ULM   Lac du Bonnet   122.63   7  PKP    PKPdf   04 40 22.6  -2.3
ULM                               PP     PP      04 41 59.4  -2.2
ULM                               PKKPbc         04 50 19.4
ULM                               LR     LR
        comp=Z,200µm,21.0s,MS7.8
WDC   Whiskeytown Da  122.63  32  PFAKE          04 40 30.0 +4.9
WDC                               LR     LR
        comp=Z,88µm,20.0s,MS7.4
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LTIM	Timbered Crate	122.73	30	P	PKPdf	04 40 22.7	-2.6
MOD	Modoc	122.77	29	PFAKE		04 40 30.0	+4.7
MOD				LR	LR		
	comp=Z,102µm,21.0s,MS7.5						
DGMT	Dagmar	122.90	13	PFAKE		04 40 30.0	+4.6
DGMT				LR	LR		
	comp=Z,166µm,20.0s,MS7.7						
LBCM	Butte Creek Ri	123.05	31	P	PKPdf	04 40 22.9	-3.0
BOZ	Bozeman (W)	123.31	20	PFAKE		04 40 30.0	+3.7
BOZ				LR	LR		
	comp=Z,186µm,21.0s,MS7.7						
HOPS	Hopland	123.49	33	PFAKE		04 40 30.0	+3.2
HOPS				LR	LR		
	comp=Z,77µm,21.0s,MS7.3						
LAO	LASA Array	124.04	16	ePKPdf	PKPdf	04 40 24.0	-3.8
LAO				LR	LR		
	comp=Z,132µm,20.0s,MS7.6						
HLID	Hailey	124.05	24	PFAKE		04 40 40.0	+12
HLID				LR	LR		
	comp=Z,137µm,21.0s,MS7.6						
NSHM	Saint Helena R	124.08	33	ePKPdf	PKPdf	04 40 25.5	-2.5
PQI	Presque Isle	124.09	344	PFAKE		04 40 40.0	+12
PQI				LR	LR		
	comp=Z,440µm,22.0s,MS8.1						
OHCM	Honcut	124.09	32	ePKPdf	PKPdf	04 40 23.1	-4.9
LKWY	Lake	124.68	20	PFAKE		04 40 40.0	+11
LKWY				LR	LR		
	comp=Z,233µm,20.0s,MS7.8						
EYMN	Ely	125.31	4	PFAKE		04 40 40.0	+10
EYMN				LR	LR		
	comp=Z,110µm,20.0s,MS7.5						
BMN	Battle Mountai	125.37	28	PFAKE		04 40 40.0	+10
BMN				LR	LR		
	comp=Z,96µm,20.0s,MS7.5						
SNOW	Snow King Moun	125.52	21	ePKPdf	PKPdf	04 40 27.1	-3.6
REDW	Red Top Meadow	125.57	21	ePKPdf	PKPdf	04 40 27.7	-3.0
CMB	Columbia Colle	125.63	32	PFAKE		04 40 40.0	+9.0
CMB				LR	LR		
	comp=Z,101µm,22.0s,MS7.5						
SAO	San Andreas Ge	125.98	34	ePKPdf	PKPdf	04 40 27.0	-4.8
SAO				LR	LR		
	comp=Z,67µm,20.0s,MS7.3						
AHID	Auburn Hatcher	126.00	22	PFAKE		04 40 40.0	+8.4
AHID				LR	LR		
	comp=Z,120µm,20.0s,MS7.6						
ELK	Elko	126.02	26	PFAKE		04 40 40.0	+8.3
ELK				LR	LR		
	comp=Z,78µm,19.0s,MS7.4						
NVAR	Mina Array Bea	126.41	30	PKP	PKPdf	04 40 29.5	-3.0
	comp=Z,17nm,0.7s,baz=276,slow=4.5,SNR=22						
LRV	Little Rabbit	126.47	34	ePKPdf	PKPdf	04 40 30.7	-1.9
WVL	Waterville	126.47	345	PFAKE		04 40 40.0	+7.6
WVL				LR	LR		
	comp=Z,338µm,21.0s,MS8.0						
MNV	Mina	126.48	30	ePKPdf	PKPdf	04 40 28.3	-4.3
MNV				ePKPdf	PKPdf	04 40 28.4	-4.2
MNV				LR	LR		
	comp=Z,102µm,20.0s,MS7.5						
BW06	Boulder Array	126.55	21	PFAKE		04 40 40.0	+7.4
BW06				LR	LR		
	comp=Z,108µm,20.0s,MS7.5						
PDAR	Pinedale Array	126.55	21	PKP	PKPdf	04 40 29.6	-3.1
	comp=Z,28nm,1.0s,SNR=34						
PDAR				PKKPbc		04 50 02.3	
	comp=Z,1.9nm,0.6s,baz=132,slow=5.1,SNR=9.1						
HWUT	Hardware Ranch	126.82	23	PFAKE		04 40 40.0	+6.8
HWUT				LR	LR		
	comp=Z,119µm,20.0s,MS7.6						
MTUM	Tungsten Hills	127.10	31	ePKPdf	PKPdf	04 40 30.9	-3.0
TPH	Tonopah	127.22	30	PFAKE		04 40 40.0	+5.9
TPH				LR	LR		
	comp=Z,71µm,19.0s,MS7.4						
MDV	Middlebury	127.86	347	ePKPdf	PKPdf	04 40 31.7	-3.5
MIV	Mineville/With	127.86	348	ePKPdf	PKPdf	04 40 30.9	-4.3
HNH	Hanover	127.93	346	ePKPdf	PKPdf	04 40 31.7	-3.7
DAU	Daniels Canyon	127.96	23	PKIKP	PKPdf	04 40 33.3	-2.2
DAU	Daniels Canyon	127.96	23	ePKPdf	PKPdf	04 40 32.5	-3.0
FFD	Franklin Falls	128.01	346	ePKPdf	PKPdf	04 40 32.7	-2.8
NCB	Newcomb	128.10	348	PFAKE		04 40 40.0	+4.3
NCB				LR	LR		
	comp=Z,111µm,20.0s,MS7.5						
RWWY	Rawlins	128.30	19	ePKPdf	PKPdf	04 40 31.5	-4.6
DAC	Darwin (Calif)	128.42	32	PFAKE		04 40 40.0	+3.5
DAC				LR	LR		
	comp=Z,69µm,21.0s,MS7.3						
TPNV	Topopah Spring	128.58	30	PFAKE		04 40 40.0	+3.2
TPNV				LR	LR		
	comp=Z,89µm,22.0s,MS7.4						
HRV	Harvard--Oak R	128.89	345	PFAKE		04 40 50.0	+13
HRV				LR	LR		
	comp=Z,73µm,19.0s,MS7.4						
WES	Weston	128.94	345	PFAKE		04 40 50.0	+13
WES				LR	LR		
	comp=Z,106µm,19.0s,MS7.5						
RCBR	Riachuelo	129.16	268	PFAKE		04 40 50.0	+12
RCBR				LR	LR		
	comp=Z,266µm,20.0s,MS7.9						
MVU	Marysvale	129.19	25	PFAKE		04 40 50.0	+12
MVU				LR	LR		
	comp=Z,98µm,21.0s,MS7.5						
MSU	Marysvale	129.19	25	ePKPdf	PKPdf	04 40 35.5	-2.3
ARUT	Antelope Range	129.24	27	PKIKP	PKPdf	04 40 36.1	-1.9
ARUT	Antelope Range	129.24	27	ePKPdf	PKPdf	04 40 35.4	-2.6
EFI	East Falkland	129.30	203	PFAKE		04 40 50.0	+12
EFI				LR	LR		
	comp=Z,27µm,19.0s,MS7.0						
GENY	Geneseo	129.91	351	ePKPdf	PKPdf	04 40 32.8	-6.3
BINY	Binghamton	130.15	349	PFAKE		04 40 50.0	+10
BINY				LR	LR		
	comp=Z,128µm,22.0s,MS7.6						
NEN	Nelson	130.30	30	ePKPdf	PKPdf	04 40 36.8	-3.3
JFWS	Jewell Farm	130.39	3	PFAKE		04 40 50.0	+10
JFWS				LR	LR		
	comp=Z,98µm,22.0s,MS7.5						
ISCO	Idaho Springs	130.52	19	PFAKE		04 40 50.0	+10
ISCO				LR	LR		
	comp=Z,133µm,21.0s,MS7.6						
PV10	Paradox Valley	130.58	23	ePKPdf	PKPdf	04 40 37.0	-3.5
ERPA	Erie	130.85	353	PFAKE		04 40 50.0	+9.1
ERPA				LR	LR		
	comp=Z,184µm,22.0s,MS7.7						
PV01	Paradox Valley	130.97	23	ePKPdf	PKPdf	04 40 33.9	-7.4
AAM	Ann Arbor	130.99	357	PFAKE		04 40 50.0	+8.8
AAM				LR	LR		
	comp=Z,136µm,21.0s,MS7.6						
PFO	Pinyon Flat Ob	131.06	33	PFAKE		04 40 50.0	+8.4
PFO				LR	LR		
	comp=Z,21µm,20.0s,MS6.8						
RW3	Ridgway	131.20	22	PKIKP	PKPdf	04 40 43.3	+1.6
RW3	Ridgway	131.20	22	ePKPdf	PKPdf	04 40 39.3	-2.4
RKT	Rikitea	131.23	115	eSS	SS	05 00 40.7	+15
RKT				eLQ		05 16 50.2	
RKT				eLR	LR	05 22 20.5	
	comp=Z,116µm,24.5s						
SSPA	Standing Stone	132.00	351	PFAKE		04 40 50.0	+6.8
SSPA				LR	LR		
	comp=Z,43µm,22.0s,MS7.1						
SDCO	Great Sand Dun	132.42	20	PFAKE		04 40 50.0	+5.9
SDCO				LR	LR		
	comp=Z,158µm,22.0s,MS7.7						
ACSO	Alum Creek Sta	133.01	356	PFAKE		04 40 50.0	+4.9
ACSO				LR	LR		
	comp=Z,147µm,22.0s,MS7.7						
MCWV	Mont Chateau	133.25	352	PFAKE		04 40 50.0	+4.5
MCWV				LR	LR		
	comp=Z,159µm,22.0s,MS7.7						
BLO	Bloomington	134.21	359	PKIKP	PKPdf	04 40 45.9	-1.4
BLO	Bloomington	134.21	359	ePKPdf	PKPdf	04 40 43.3	-4.1
CBN	Corbin	134.28	349	PFAKE		04 41 00.0	+13
CBN				LR	LR		
	comp=Z,150µm,22.0s,MS7.7						
ANMO	Albuquerque	134.58	23	PKhKP		04 40 34.6	
	comp=Z,4.5nm,0.9s,baz=300,slow=0.8,SNR=6.7						
ANMO				PKP	PKPdf	04 40 45.4	-2.8
	comp=Z,7.1nm,0.8s,baz=291,slow=2.7,SNR=5.2						
ANMO	Albuquerque	134.58	23	PKP		04 40 34.6	
ANMO				PKP	PKPdf	04 40 45.4	-2.8
ANMO				LR	LR		
	comp=Z,125µm,21.0s,MS7.6						
SLM	Saint Louis	134.66	3	PKIKP	PKPdf	04 40 46.5	-1.7
SLM	Saint Louis	134.66	3	ePKPdf	PKPdf	04 40 44.5	-3.7
TUC	Tucson	134.98	29	PFAKE		04 41 00.0	+11
TUC				LR	LR		
	comp=Z,55µm,20.0s,MS7.3						
CCM	Cathedral Cave	135.16	5	PFAKE		04 41 00.0	+11
CCM				LR	LR		
	comp=Z,30µm,22.0s,MS7.0						
FVM	French Village	135.29	4	PKIKP	PKPdf	04 40 37.6	-12
FVM	French Village	135.29	4	ePKPpre		04 40 33.7	
FWV	Forest Hill	135.42	353	PKPdf	PKPdf	04 40 47.4	-2.2
BBSR	BB Station	135.56	333	PFAKE		04 41 00.0	+10
BBSR				LR	LR		
	comp=Z,72µm,20.0s,MS7.4						
PWV	Princeton	135.69	353	ePKPdf	PKPdf	04 40 46.0	-4.1
BLA	Blacksburg	135.74	352	PFAKE		04 41 00.0	+10
BLA				LR	LR		
	comp=Z,139µm,20.0s,MS7.7						
ELN	Prospectdale	135.76	353	ePKPdf	PKPdf	04 40 46.9	-3.3
AMTX	Amarillo	136.26	17	PFAKE		04 41 00.0	+8.8
AMTX				LR	LR		
	comp=Z,160µm,20.0s,MS7.8						
WMOK	Wichita Mounta	137.19	14	PFAKE		04 41 00.0	+7.1
WMOK				LR	LR		
	comp=Z,111µm,21.0s,MS7.6						
WVT	Waverly	137.25	1	PFAKE		04 41 00.0	+7.0
WVT				LR	LR		
	comp=Z,142µm,22.0s,MS7.7						
HALT	Halls	137.42	3	ePKPpre		04 40 41.2	
HBAR	Harrisburg	137.69	4	PKPpre		04 40 44.4	
MNTX	Cornudas Mount	137.87	24	PFAKE		04 41 00.0	+5.7
MNTX				LR	LR		
	comp=Z,135µm,22.0s,MS7.6						
UALR	University of	138.31	7	ePKPpre		04 40 41.6	
MIAR	Mount Ida	138.38	8	PFAKE		04 41 00.0	+4.9
MIAR				LR	LR		
	comp=Z,164µm,21.0s,MS7.8						
JSC	Jenkinsville	138.73	353	PKIKP	PKPdf	04 40 55.6	-0.2
JSC	Jenkinsville	138.73	353	PKPdf	PKPdf	04 40 53.2	-2.6
OXF	Oxford	138.81	3	PFAKE		04 41 00.0	+4.1
OXF				LR	LR		
	comp=Z,166µm,22.0s,MS7.7						
NHSC	New Hope	139.73	351	PFAKE		04 41 10.0	+12
NHSC				LR	LR		
	comp=Z,159µm,22.0s,MS7.7						
GOGA	Godfrey	139.82	355	PFAKE		04 41 10.0	+12
GOGA				LR	LR		
	comp=Z,108µm,21.0s,MS7.6						
HBF	Harts Bluff	139.93	351	PKIKP	PKPdf	04 41 03.8	+5.8
LRAL	Lakeview Retre	140.34	360	PFAKE		04 41 10.0	+11
LRAL				LR	LR		
	comp=Z,176µm,21.0s,MS7.8						
LTX	Lajitas	140.64	23	PFAKE		04 41 10.0	+11
LTX				LR	LR		
	comp=Z,114µm,21.0s,MS7.6						
TXAR	Lajitas Array	140.64	23	PKhKP		04 40 53.6	
	comp=Z,74nm,1.3s,baz=251,slow=0.3,SNR=14						
TXAR				PP	PP	04 43 57.9	+0.2
	comp=Z,5.9nm,0.8s,baz=27,slow=6.0,SNR=4.0						
BAO	Brasilia Array	140.75	254	eP		04 40 52.5	
BAO				e		04 41 00.3	
BAO				i		04 41 05.8	
BAO				i		04 41 30.8	
BDFB	Brasilia	140.77	254	PKP	PKPdf	04 40 59.6	-0.3
	comp=Z,24nm,0.9s,baz=62,slow=1.0,SNR=9.4						
BDFB	Brasilia	140.77	254	PKIKP	PKPdf	04 40 59.7	-0.3
BDFB				pmax	pmax		
	comp=Z,24nm,0.9s						
JCT	Junction City	140.93	18	ePKPpre		04 40 50.4	
JCT				LR	LR		
	comp=Z,155µm,21.0s,MS7.7						
NATX	Nacogdoches	140.93	10	PFAKE		04 41 10.0	+10
NATX				LR	LR		
	comp=Z,223µm,21.0s,MS7.9						
TRQA	Tornquist	141.50	213	PFAKE		04 41 10.0	+9.4
TRQA				LR	LR		
	comp=Z,240µm,20.0s,MS8.0						
HKT	Hockley	142.46	13	ePKPpre		04 40 54.0	
HKT				ePKPdf	PKPdf	04 40 59.6	-2.9
HKT				LR	LR		
	comp=Z,39µm,21.0s,MS7.1						
DWPF	Disney	144.83	351	ePKPdf	PKPdf	04 41 03.1	-3.6
DWPF				LR	LR		
	comp=Z,29µm,21.0s,MS7.0						
CRM	Caravelle	146.34	310	eP	PKPbc	04 41 07.7	+2.2
BIM	Bigot	146.60	310⇑	eP	PKPbc	04 41 07.9	+1.8
SJG	San Juan	147.73	321	PKPbc	PKPdf	04 41 11.3	-0.5
	comp=Z,49nm,0.8s,baz=76,slow=2.3,SNR=12						
SJG	San Juan	147.73	321	PKP2	PKPab	04 41 11.3	-2.5
SJG				pmax	pmax		
	comp=Z,49nm,0.8s						
SJG	San Juan	147.73	321	ePKPbc	PKPdf	04 41 11.0	-0.8
SJG				LR	LR		
	comp=Z,169µm,22.0s,MS7.8						
CJM	Chamela	148.40	34	eP	PKPdf	04 41 11.8	-1.1
NICH	Los Niches	148.41	205	eP	PKPdf	04 41 13.2	+0.7
MDZ	Mendoza	149.05	211	eP	PKPdf	04 41 17.9	+4.4
COLM	Colima	149.39	32	eP	PKPdf	04 41 17.9	+3.4
FCH	Farellones	149.40	208⇑	iP	PKPdf	04 41 13.5	-0.6
CLCH	Cerro Calan	149.46	208	i P	PKPdf	04 41 12.0	-2.2
MOIG	Morelia	150.20	28	eP		04 41 05.7	
RPN	Rapa Nui	150.77	136	ePKPdf	PKPdf	04 41 13.8	-2.6
RPN				ePKPbc	PKPdf	04 41 20.2	+3.8
RPN				LR	LR		
	comp=Z,11µm,21.0s,MS6.6						
UNM	Universidad Na	151.38	24	eP	PKPdf	04 41 15.0	-2.5
PPM	Popocatepetl	151.84	24	eP	PKPdf	04 41 16.3	-1.9
ZIIG	Zihuatanejo	151.85	30	i P	PKPdf	04 41 15.6	-2.6
YAIG	Yautepec	151.85	25	eP	PKPdf	04 41 17.2	-1.0
PCRV	Puerto La Cruz	151.98	307	PKPbc	PKPdf	04 41 21.1	+2.6
	comp=Z,75nm,0.7s,baz=64,slow=2.5,SNR=19						
PLIG	Platanillo	152.08	26	eP	PKPdf	04 41 15.8	-2.8
CAIG	El Cayaco	152.91	29	eP	PKPdf	04 41 17.7	-2.0
TEIG	Tepich	153.07	3	ePKPbc	PKPdf	04 41 23.5	+3.6
TEIG				LR	LR		
	comp=Z,46µm,21.0s,MS7.3						
GWJ	Greenwich	153.22	338⇓	eP	PKPdf	04 41 23.1	+3.0
STH	Stony Hill	153.25	338⇓	eP	PKPdf	04 41 18.4	-1.8
CVJ	Coleyville	153.37	339⇓	eP	PKPdf	04 41 18.3	-2.0
NEJ	Negril	153.61	341⇑	eP	PKPdf	04 41 18.0	-2.7
VHO	Vista Hermosa	154.39	22	eP	PKPdf	04 41 19.6	-2.1
PNIG	Pinotepa	154.45	25	eP	PKPdf	04 41 17.9	-4.0
LVC	Limon Verde	156.51	226	PKP	PKPdf	04 41 23.1	-1.4
	comp=Z,5.1nm,0.9s,baz=153,slow=3.8,SNR=9.5						
LVC	Limon Verde	156.51	226	ePKPdf	PKPdf	04 41 21.7	-2.8
LVC				LR	LR		
	comp=Z,92µm,20.0s,MS7.6						
SDV	Santo Domingo	157.36	313	PKP	PKPdf	04 41 22.4	-3.4
	comp=Z,16nm,0.8s,baz=303,slow=0.2,SNR=11						
SDV	Santo Domingo	157.36	313	PKP	PKPdf	04 41 22.4	-3.4
SDV				LR	LR		
	comp=Z,115µm,20.0s,MS7.7						
LPAZ	La Paz	159.23	242	PKP	PKPdf	04 41 25.7	-2.4
	comp=Z,13nm,0.8s,baz=116,slow=1.8,SNR=8.8						
LPAZ	La Paz	159.23	242	PKPdf	PKPdf	04 41 26.0	-2.1
LPAZ	La Paz	159.23	242	PKP	PKPdf	04 41 25.7	-2.4
LPAZ				LR	LR		
	comp=Z,159µm,21.0s,MS7.8						
ARE	Arequipa	162.01	237	eP	PKPdf	04 41 29.0	-1.9
ROSC	El Rosal	162.77	312	PKP	PKPdf	04 41 29.6	-2.2
	comp=Z,18nm,0.9s,baz=104,slow=1.6,SNR=10						
JTS	JuntasAbangare	162.85	353	PFAKE		04 41 40.0	+8.2
JTS				LR	LR		
	comp=Z,23µm,19.0s						
NNA	Nana	168.69	242	PFAKE		04 41 40.0	+3.4
NNA				LR	LR		
	comp=Z,27µm,21.0s						
OTAV	Otavalo	168.89	309	ePKPdf	PKPdf	04 41 33.8	-3.0
PAYG	Puerto Ayora	173.08	28	PFAKE		04 41 50.0	+11
PAYG				LR	LR		
	comp=Z,79µm,21.0s						

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*IDC **26** 04:25:58.6±0.9, 7.78N×93.94E, mb5.0/15, mb1 5.2/16, mb1mx5.1/23, ML4.8/1, Error ellipse: s-maj=27.8km s-min=22.0km az=16.0*

*NEIC **26** 04:26:03.6±0.6, 7.89N×93.99E, h30^{km}, mb5.2/18, Error ellipse: s-maj=16.7km s-min=12.7km az=130.0*

ISC 26 04:26:04.2±0.9**, 8.2N**±0.1×**93.7E**±0.1**, h30^{km}, n63, σ1^{s}08**/56**, mb5.1**/30**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.45	26	Pn	P	04 28 48.2	-0.7
	1.8nm,0.3s,baz=210,slow=14,SNR=2.9						
SHL	Shillong	17.40	355	eP	P	04 30 08.2	+1.6
SHL				e		04 30 14.2	
	comp=Z,179nm,1.7s						
MNGI	Mangalore	19.12	286	eP	P	04 30 27.4	-0.3
LATR	Latur	19.50	303	eP	P	04 30 30.6	-1.4
AKL	Akola	20.36	310	eP	P	04 30 40.5	-0.6
GOA	Goa	20.73	292	eP	P	04 30 46.0	+1.0
LSA	Lhasa	21.56	354	P	P	04 30 57.9	+4.5
	comp=Z,127nm,0.7s,mb5.5						
BOM	Bombay	22.88	300	eP	P	04 31 04.9	-1.7
NDI	New Delhi	25.63	325	eP	P	04 31 36.0	+3.0
AAK	Ala-Archa	38.26	337	eP	P	04 33 23.7	+0.1
	comp=Z,34nm,0.9s,mb5.1						
SONM	Songino Array	40.99	13	P	P	04 33 45.2	-0.9
	comp=Z,9.4nm,0.8s,mb4.5,baz=198,slow=9.1,SNR=3.2						
SONM				PcP	PcP	04 35 45.0	-1.4
	comp=Z,5.1nm,0.6s,baz=198,slow=2.9,SNR=6.9						
ZAL	Zalesovo	46.21	353	P	P	04 34 28.8	+0.6
	comp=Z,39nm,0.9s,mb5.3,baz=290,slow=8.5,SNR=6.2						
HIA	Hailar	46.45	23	eP	P	04 34 30.0	-0.2
	comp=Z,57nm,1.0s,mb5.5						
BVAR	Borovoye Array	48.57	341	P	P	04 34 47.0	+0.3
	comp=Z,17nm,0.9s,mb5.1,baz=158,slow=7.8,SNR=3.3						
BVAR				PcP	PcP	04 36 12.1	-0.4
	comp=Z,2.6nm,0.5s,baz=170,slow=2.2,SNR=4.3						
BRVK	Borovoye	48.63	341	eP	P	04 34 44.7	-2.5
	comp=Z,37nm,1.0s,mb5.4						
CHKZ	Chkalovo	49.06	342	eP	P	04 34 49.5	-1.1
	comp=Z,76nm,0.8s,mb5.8						
PMG	Port Moresby	56.07	107	P	P	04 35 36.9	-6.4
	comp=Z,16nm,0.7s,mb5.1,baz=270,slow=5.7,SNR=3.2						
KMBO	Kilima Mbogo	56.98	263	P	P	04 35 49.2	-0.7
	comp=Z,22nm,1.1s,mb5.1,baz=56,slow=10,SNR=5.9						
KMBO	Kilima Mbogo	56.98	263	P	P	04 35 49.2	-0.7
ASF	Jabal al Asfar	57.67	303	P	P	04 35 55.1	+0.7
	comp=Z,7.9nm,0.8s,mb4.8,baz=313,slow=3.6,SNR=3.4						
EIL	Elat	58.87	300	eP	P	04 36 02.4	-0.6
	comp=Z,15nm,0.7s,mb5.1						
BRTR	Keskin Array B	61.89	311	P	P	04 36 21.9	-1.5
	comp=Z,9.2nm,0.7s,mb5.0,baz=143,slow=6.7,SNR=10						
MBAR	Mbarara	63.31	265	eP	P	04 36 33.4	+0.2
	comp=Z,40nm,1.3s,mb5.4						
AKASG	Malin Array Be	67.64	322	P	P	04 36 58.1	-2.4
	comp=Z,4.9nm,0.7s,mb4.7,baz=78,slow=5.0,SNR=8.4						
IDI	Anoyia	68.02	305	P	P	04 37 02.7	-0.4
	comp=Z,15nm,0.5s,mb5.3,baz=89,slow=8.0,SNR=8.6						
MLR	Muntele Rosu	68.64	316	P	P	04 37 07.6	+0.8
	comp=Z,25nm,1.0s,mb5.1,baz=63,slow=6.8,SNR=4.8						
LSZ	Lusaka	68.92	250	eP	P	04 37 09.7	+0.7
	comp=Z,18nm,1.0s,mb5.0						
FINES	FINESS Array B	72.24	332	P	P	04 37 27.8	-0.5
	comp=Z,31nm,0.8s,mb5.3,baz=104,slow=7.9,SNR=10						
KAF	Kangasniemi	72.33	333	ep	P	04 37 28.4	-0.4
	baz=104,slow=5.6						
OJC	Ojcow	73.45	320	eP	P	04 37 35.8	+0.1
KEV	Kevo	74.41	341	ep	P	04 37 39.6	-1.2
ARCES	ARCESS Array B	74.84	340	P	P	04 37 43.6	+0.3
	comp=Z,8.1nm,0.5s,mb4.9,baz=93,slow=7.3,SNR=14						
MORC	Moravsky Berou	74.85	319	eP	P	04 37 43.7	-0.1
	comp=Z,35nm,1.0s,mb5.2						
ZST	Bratislava	75.01	318	eP	P	04 37 44.9	+0.2
BOSA	Boshof	75.33	238	eP	P	04 37 45.8	-1.2
	comp=Z,9.2nm,0.6s,mb4.9						
DPC	Dobruska-Polom	75.69	320	eP	P	04 37 49.1	+0.6
PRU	Pruhonice	76.80	319	eP	P	04 37 55.4	+0.6
TRO	Tromso	77.10	340	eP	P	04 37 53.1	-3.0
GEC2	GERESS Array S	77.30	318	eP	P	04 37 58.9	+1.3
	comp=Z,18nm,0.8s,mb5.0						
GERES	GERESS Array B	77.30	318	P	P	04 37 57.8	+0.2
	comp=Z,14nm,0.7s,mb5.0,baz=93,slow=4.2,SNR=13						
KHC	Kasperske Hory	77.39	318	eP	P	04 37 58.5	+0.4
CLL	Collm	77.84	321	P	P	04 38 01.0	+0.5
WET	Wettzell	77.85	318	eP	P	04 38 01.8	+1.2
	comp=Z,10.0nm,0.8s,mb4.8						
MOR8	Moi Rana	78.23	336	eP	P	04 38 02.0	-0.3
MOX	Moxa	78.70	320	eP	P	04 38 06.0	+0.8
GRA1	Grafenberg Arr	78.94	319	eP	P	04 38 07.9	+1.3
	comp=Z,16nm,0.9s,mb5.0						
GRF	Grafenberg Arr	78.94	319	eP	P	04 38 07.9	+1.3
	comp=Z,16nm,0.9s,mb5.0						
NB2	NORSAR Subarra	79.25	331	P	P	04 38 07.0	-1.0
	comp=Z,22nm,0.7s,mb5.2,baz=97,slow=5.0						
NB2	NORSAR Subarra	79.25	331	P	P	04 38 07.0	-1.0
	baz=96,slow=5.1						
NOA	NORSAR Array B	79.25	331	P	P	04 38 07.7	-0.3
	comp=Z,16nm,0.6s,mb5.1,baz=93,slow=5.5,SNR=12						
NAO01	NORSAR Array S	79.41	330	eP	P	04 38 07.5	-1.3
	comp=Z,32nm,0.7s,mb5.4						
CLZ	Clausthal	79.50	321	eP	P	04 38 10.4	+0.9
	comp=Z,14nm,0.8s,mb4.9						
BSEG	Bad Segeberg	79.54	323	eP	P	04 38 11.0	+1.3
MOL	Molde	81.03	332	eP	P	04 38 19.7	+2.2
LPL	La Plagne	82.10	315	eP	P	04 38 23.8	+0.4
	comp=Z,105nm,1.1s,mb5.4						
ESDC	Sonseca Array	90.67	310	P	P	04 39 06.7	+1.1
	comp=Z,11nm,0.9s,mb5.2,baz=64,slow=4.1,SNR=12						
ULM	Lac du Bonnet	121.25	7	PKP	PKPdf	04 44 54.6	-5.0
	comp=Z,5.3nm,0.7s,baz=335,slow=3.6,SNR=4.5						
NVAR	Mina Array Bea	124.92	30	PKP	PKPdf	04 45 03.0	-4.1
	comp=Z,4.0nm,0.7s,baz=313,slow=1.4,SNR=5.5						
PDAR	Pinedale Array	125.07	21	PKP	PKPdf	04 45 01.9	-5.4
	comp=Z,5.1nm,0.8s,baz=48,slow=1.2,SNR=5.9						
SJG	San Juan	147.16	323	PKPbc	PKPdf	04 45 45.9	-2.4
	comp=Z,18nm,0.5s,baz=50,slow=6.5,SNR=13						
SJG	San Juan	147.16	323	PKPbc	PKPdf	04 45 45.9	-2.4
PCRV	Puerto La Cruz	151.74	310	PKPbc	PKPdf	04 45 55.2	-0.4
	comp=Z,15nm,0.5s,baz=26,slow=3.8,SNR=17						
ARE	Arequipa	163.32	239	eP	PKPdf	04 46 03.0	-6.6

CASC 26 04:27:36.9±2.1**, 13.23N×89.70W, h32^{km}±5^{km}, MD4.1, ML3.7, 4C-12D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	San Blas	0.61	7⇓	eP	Pb	04 27 49.5	+0.3
SNET	Serv Nac Est T	0.64	45⇑	eP	Pb	04 27 49.8	+0.1
SNET				eS	Sb	04 27 59.3	+0.8
SNET				i		04 28 00.9	
	comp=Z,4µm,0.3s						
SNJE	San Jose	0.64	8⇓	iP	Pb	04 27 49.8	+0.1
SNJE				eS	Sb	04 27 58.7	+0.2
BOQS	Boqueron	0.65	39⇓	iP	Pb	04 27 50.1	+0.3
BOQS				eS	Sb	04 27 59.9	+1.3
RTR	El Retiro	0.67	4⇓	eP	Pb	04 27 50.3	+0.2
LFRS	El Faro	0.73	58⇓	iP	Pn	04 27 51.1	0.0
LFU	La Fuente	0.77	48⇓	eP	Pn	04 27 51.8	+0.2
LBRS	Las Brisas	0.81	51⇓	eP	Pn	04 27 52.5	+0.3
LBRS				eS	Sb	04 28 05.3	+2.1
LCBS	La Ceiba	0.82	59⇓	eP	Pn	04 27 52.3	0.0
LCBS				eS	Sn	04 28 03.8	+0.5
RBDL	Robledal	0.88	1⇑	eP	Pn	04 27 53.2	0.0
RBDL				eS	Sn	04 28 06.0	+1.1
SNVI	San Vicente	0.92	65⇓	eP	Pn	04 27 53.8	0.0
SNVI				eS	Sn	04 28 06.9	+1.0
MTO2	Montecristo 2	1.21	16⇑	eP	Pn	04 27 57.6	-0.3
MTO2				eS	Sn	04 28 13.9	+0.6
BLLM	Bellamira	1.44	81⇓	eP	Pn	04 28 01.1	0.0
BLLM				eS	Sn	04 28 20.5	+1.4
CAHU	Cacacuatique	1.54	69⇓	eP	Pn	04 28 02.5	-0.2
CAHU				eS	Sn	04 28 22.7	+1.0
CNCH	Conchagua	1.82	88⇑	eP	Pn	04 28 06.1	-0.5
CNCH				eS	Sn	04 28 29.7	+1.0
LEON	Leon	2.85	106	eP	Pn	04 28 21.7	+0.3
LEON				eS	Sn	04 28 52.9	-2.2
TEL3	Telica 3	2.86	103	eP	Pn	04 28 20.9	-0.5
TEL3				eS	Sn	04 28 55.4	+0.2
MIRN	Miramar	3.02	105⇓	eP	Pn	04 28 23.7	0.0
MIRN				eS	Sn	04 28 58.1	-1.0
COPN	Copaltepe	3.21	109	eP	Pn	04 28 26.2	-0.1
COPN				eS	Sn	04 29 00.9	-3.0
APYN	Apoyeque	3.41	106	eP	Pn	04 28 28.6	-0.7
XAVN	Gruta Xavier	3.46	108	eP	Pn	04 28 26.8	-3.2
MGAN	Managua	3.54	107	eS	Sn	04 29 09.4	-2.9
	comp=E,198nm,0.7s						

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*IDC **26** 04:29:54.2±1.0, 5.13N×93.46E, mb4.3/9, mb1 4.5/9, mb1mx4.3/17, Error ellipse: s-maj=53.4km s-min=20.1km az=48.0*

ISC 26 04:29:57.3±0.9**, 5.1N**±0.2×**93.5E**±0.3**, h33^{km}, n12, σ0^{s}64**/11**, mb4.3**/9**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GOA	Goa	21.91	300	e	P	04 34 43.8	-5.8
	comp=Z,500µm,17.3s						
BOM	Bombay	24.39	306⇓	e	P	04 35 20.2	+6.2

	comp=Z,636μm,22.7s						
SONM	Songino Array	43.97	13	P	P	04 38 03.0	-0.2
	comp=Z,0.8nm,0.4s,mb3.8,baz=196,slow=8.7,SNR=4.9						
WRA	Warramunga Arr	47.24	123	P	P	04 38 29.6	0.0
	comp=Z,13nm,0.6s,mb5.1,baz=301,slow=9.2,SNR=13						
ZAL	Zalesovo	49.18	353	P	P	04 38 44.4	+0.2
	comp=Z,4.2nm,0.5s,mb4.7,baz=310,slow=3.4,SNR=4.0						
STKA	Stephens Creek	58.70	132	P	P	04 39 54.3	-0.1
	comp=Z,3.0nm,0.8s,mb4.4,baz=349,slow=4.0,SNR=5.1						
BRTR	Keskin Array B	63.76	312	P	P	04 40 28.0	-0.5
	comp=Z,1.5nm,0.8s,mb4.1,baz=128,slow=5.4,SNR=3.4						
AKASG	Malin Array Be	69.92	322	P	P	04 41 06.0	-1.2
	comp=Z,0.6nm,0.4s,mb3.8,baz=84,slow=4.6,SNR=4.8						
FINES	FINESS Array B	74.84	333	P	P	04 41 36.1	0.0
	comp=Z,6.8nm,1.1s,mb4.5,baz=98,slow=7.8,SNR=3.5						
ARCES	ARCESS Array B	77.63	340	P	P	04 41 52.0	+0.3
	comp=Z,2.4nm,0.7s,mb4.2,baz=97,slow=5.8,SNR=10						
GERES	GERESS Array B	79.45	319	P	P	04 42 03.6	+1.4
	comp=Z,1.1nm,0.7s,mb3.9,baz=100,slow=6.0,SNR=3.7						
TXAR	Lajitas Array	141.98	25	PKP	PKPdf	04 49 30.0	+3.3
	comp=Z,0.3nm,0.4s,baz=324,slow=0.4,SNR=6.5						

*IDC **26** 04:30:52.0±5.1,10.55N×92.23E,h53^{km}±43^{km},mb4.6/19, mb1 4.7/20,mb1mx4.6/26,ML4.8/1,Error ellipse: s-maj=29.4km s-min=11.8km az=55.0*

ISC 26 04:30:48.1±0.5**,10.54N**±0.09×**92.3E**±0.1**,h33**^{km}**,n31, σ0^{s}69**/24**,mb4.8**/20**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.16	38	P	P	04 33 15.6	+0.8
	2.1nm,0.3s,baz=232,slow=14,SNR=11						
SONM	Songino Array	39.02	15	P	P	04 38 14.1	+0.9
	23nm,1.0s,mb4.9,baz=196,slow=9.0,SNR=11						
ZAL	Zalesovo	43.69	354	P	P	04 38 51.1	-0.5
	7.8nm,0.7s,mb4.6,baz=294,slow=11,SNR=5.8						
BVAR	Borovoye Array	45.90	342	P	P	04 39 08.8	-0.5
	6.4nm,0.8s,mb4.6,baz=127,slow=7.4,SNR=3.5						
MAT	Matsushiro	48.79	50	P	P	04 39 31.6	-0.5
NWAO	Narrogin (SRO)	49.34	152	P	P	04 39 36.8	+0.4
	42nm,1.0s,mb5.4,baz=324,slow=8.7,SNR=6.7						
WRA	Warramunga Arr	51.28	126	P	P	04 39 51.0	-0.4
	36nm,0.5s,mb5.6,baz=306,slow=8.4,SNR=80						
ASAR	Alice Springs	53.01	130	P	P	04 40 04.0	-0.3
	56nm,0.6s,mb5.6,baz=303,slow=7.1,SNR=78						
ASAR				S	S	04 47 25.6	-4.6
	3.6nm,1.0s,baz=297,slow=12,SNR=4.4						
ASAJ	Asahikawa	54.65	43	P	P	04 40 15.3	-0.7
	19nm,0.7s,mb5.2,baz=254,slow=7.1,SNR=11						
PMG	Port Moresby	58.06	108	P	P	04 40 40.0	-0.9
	32nm,0.7s,mb5.4,baz=325,slow=3.4,SNR=10						
CTA	Charters Tower	61.20	120	P	P	04 41 03.0	+0.6
	18nm,1.0s,mb5.2,baz=294,slow=6.9,SNR=8.6						
STKA	Stephens Creek	63.25	134	P	P	04 41 16.4	+0.4
	32nm,1.0s,mb5.4,baz=313,slow=6.6,SNR=17						
AKASG	Malin Array Be	64.95	321	P	P	04 41 24.8	-1.9
	2.2nm,0.7s,mb4.3,baz=82,slow=5.1,SNR=4.1						
ARCES	ARCESS Array B	72.16	340	P	P	04 42 11.3	+0.4
	9.7nm,0.7s,mb4.8,baz=90,slow=6.1,SNR=8.6						
ARCES				PP	PP	04 44 51.4	-1.8
	1.9nm,0.4s,baz=101,slow=7.1,SNR=7.4						
GERES	GERESS Array B	74.64	318	P	P	04 42 25.9	0.0
	1.9nm,0.9s,mb4.0,baz=90,slow=5.3,SNR=4.4						
HFS	Hagfors	75.25	330	P	P	04 42 29.6	+0.5
	3.9nm,0.6s,mb4.5,baz=90,slow=4.3,SNR=4.7						
NB2	NORSAR Subarra	76.53	330	P	P	04 42 35.8	-0.6
	1.8nm,0.7s,mb4.1,baz=95,slow=5.3						
NOA	NORSAR Array B	76.53	330	P	P	04 42 35.7	-0.7
	3.6nm,0.9s,mb4.3,baz=93,slow=5.7,SNR=4.9						
LPL	La Plagne	79.47	315	*e*P	P	04 42 53.2	+0.2
	20nm,0.8s,mb4.8						
EKA	Eskdalemuir Ar	84.51	325	P	P	04 43 19.9	+1.0
	5.6nm,0.8s,mb4.8,baz=90,slow=5.0,SNR=6.4						
ESDC	Sonseca Array	88.12	310	P	P	04 43 37.9	+1.0
	1.0nm,0.7s,mb4.2,baz=74,slow=4.3,SNR=4.3						
ILAR	Eielson Array	92.96	22	P	P	04 43 58.9	0.0
	3.1nm,0.7s,mb4.9,baz=310,slow=5.0,SNR=14						
INK	Inuvik	94.93	16	P	P	04 44 07.7	-0.2
	1.8nm,0.6s,mb4.7,baz=19,slow=3.0,SNR=8.9						
YKA	Yellowknife Ar	104.25	13	PP	PP	04 49 04.2	-6.6
	0.7nm,0.8s,baz=330,slow=6.8,SNR=4.7						
PDAR	Pinedale Array	123.30	19	PKP	PKPdf	04 49 43.7	+1.6
	0.8nm,0.8s,SNR=3.4						
PDAR				PP	PP	04 51 24.3	-3.1
	4.1nm,1.1s,slow=3.0,SNR=4.9						
NVAR	Mina Array Bea	123.52	29	PKP	PKPdf	04 49 44.9	+2.2
	6.3nm,1.1s,baz=336,slow=0.9,SNR=8.6						
SADO	Sadowa	124.41	353	PKP	PKPdf	04 49 44.2	0.0
	15nm,1.2s,baz=5.5,slow=5.7,SNR=3.1						
SJG	San Juan	144.46	323	PKP	PKPdf	04 50 20.6	-1.4
	12nm,0.9s,baz=51,slow=6.5,SNR=4.1						
PCRV	Puerto La Cruz	149.18	311	PKPbc	PKPdf	04 50 35.1	+5.2
	9.6nm,0.9s,baz=45,slow=1.4,SNR=4.0						
LPAZ	La Paz	160.14	251	PKPab	PKPab	04 51 24.8	-2.4
	4.1nm,0.8s,baz=118,slow=2.2,SNR=4.1						
LPAZ	La Paz	160.14	251	PKPab	PKPdf	04 51 24.8	+40

*BJI **26** 04:31:28.1,6.74N×93.55E,h42^{km},mb5.2*

*IDC **26** 04:31:29.2±1.0,7.08N×93.18E,h34^{km}±4^{km},mb4.7/20, mb1 4.8/21,mb1mx4.7/28,ML5.0/1,Error ellipse: s-maj=26.6km s-min=22.2km az=33.0*

*NEIC **26** 04:31:29.1±0.4,6.99N×93.18E,mb5.0/15,Error ellipse: s-maj=11.3km s-min=9.0km az=202.0*

ISC 26 04:31:27.2±0.6**,7.0N**±0.1×**93.18E**±0.10**,h38**^{km}**, h38**^{km}±1.6^{km}**:pP-P,n58,σ0^{s}78**/52**,mb4.9**/31**,1C,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.74	26	*e*P	P	04 34 34.9	+6.3
CMAR	Chiang Mai Arr	12.74	26	Pn	P	04 34 35.4	+6.8
	2.4nm,0.3s,baz=230,slow=14,SNR=12						
BJT	Baijiatuau	38.84	29	*e*P	P	04 38 51.1	+0.7
	31nm,0.6s,mb5.2						
SONM	Songino Array	42.27	13	P	P	04 39 19.0	+0.3
	1.8nm,0.5s,mb4.0,baz=192,slow=9.5,SNR=5.1						
ULN	Ulaanbaatar	42.45	14	*e*P	P	04 39 19.6	-0.5
	5.7nm,0.7s,mb4.3						
CN2	Changchun	46.31	32	⇑P	P	04 39 52.3	+1.0
CN2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.4						
ZAL	Zalesovo	47.34	353	P	P	04 39 60.0	+0.8
	comp=Z,12nm,0.4s,mb5.2,baz=310,slow=5.2,SNR=12						
ZAL	Zalesovo	47.34	353	P	P	04 39 60.0	+0.8
BVAR	Borovoye Array	49.56	342	P	P	04 40 16.0	-0.4
	comp=Z,5.8nm,0.8s,mb4.7,baz=140,slow=12,SNR=3.7						
BRVK	Borovoye	49.62	342	*e*P	P	04 40 16.5	-0.4
	comp=Z,6.3nm,0.6s,mb4.8						
GNI	Garni	54.40	315	P	P	04 40 53.1	+0.1
	comp=Z,41nm,1.2s,mb5.2,baz=242,slow=10,SNR=3.6						
GNI	Garni	54.40	315	P	P	04 40 52.9	0.0
	comp=Z,40nm,1.2s,mb5.2						
PMG	Port Moresby	56.18	106	*e*P	P	04 41 05.2	-0.9
	comp=Z,17nm,0.7s,mb5.2						
KMBO	Kilima Mbogo	56.38	264	P	P	04 41 08.9	+1.3
	comp=Z,1.1nm,0.7s,mb4.0,baz=42,slow=8.3,SNR=4.2						
KMBO	Kilima Mbogo	56.38	264	*e*P	P	04 41 08.3	+0.7
	comp=Z,14nm,1.3s,mb4.8						
KIV	Kislovodsk	57.37	319	*e*P	P	04 41 12.4	-1.9
	comp=Z,25nm,0.9s,mb5.2						
CTA	Charters Tower	58.70	118	P	P	04 41 23.3	-0.5
	comp=Z,7.7nm,0.8s,mb4.8,baz=282,slow=11,SNR=3.9						
EIL	Elat	59.06	300	P	P	04 41 26.5	+0.2
	comp=Z,9.4nm,0.7s,mb4.9,baz=313,slow=4.0,SNR=5.5						
BRTR	Keskin Array B	62.31	311	P	P	04 41 46.9	-1.3
	comp=Z,7.8nm,0.7s,mb5.0,baz=123,slow=7.4,SNR=12						
BRTR				pP	pP	04 41 58.1	-1.3
	comp=Z,3.3nm,0.7s,baz=131,slow=8.9,SNR=4.1						
LSZ	Lusaka	68.07	251	P	P	04 42 25.9	+0.3
	comp=Z,4.0nm,0.8s,mb4.5						
AKASG	Malin Array Be	68.28	322	P	P	04 42 24.5	-1.9
	comp=Z,6.5nm,0.8s,mb4.7,baz=88,slow=4.6,SNR=6.2						
IDI	Anoyia	68.31	305	P	P	04 42 27.0	+0.2
	comp=Z,35nm,0.7s,mb5.5,baz=80,slow=7.3,SNR=20						
MLR	Muntele Rosu	69.16	316	P	P	04 42 32.4	+0.5
	comp=Z,16nm,0.7s,mb5.0,baz=183,slow=9.7,SNR=7.0						
CRVS	Cervenica-Dubn	72.79	319	*e*P	P	04 42 52.2	-1.5
FINES	FINESS Array B	73.08	332	P	P	04 42 54.5	-0.6
	comp=Z,17nm,0.7s,mb5.1,baz=117,slow=8.5,SNR=14						
FINES				pP	pP	04 43 05.5	-1.1
	comp=Z,5.2nm,0.7s,baz=108,slow=4.4,SNR=3.3						
KAF	Kangasniemi	73.17	333	*e*P	P	04 42 55.3	-0.4
	comp=Z,16nm,0.8s,mb5.0						
OJC	Ojcow	74.06	320	*e*P	P	04 43 01.2	+0.1
KEV	Kevo	75.38	341	*e*P	P	04 43 08.3	-0.1
ZST	Bratislava	75.57	318	*e*P	P	04 43 09.9	0.0
ARCES	ARCESS Array B	75.81	340	P	P	04 43 10.8	0.0
	comp=Z,15nm,0.9s,mb4.9,baz=99,slow=5.2,SNR=15						
KSP	Ksiaz	76.36	321	*e*P	P	04 43 14.7	+0.4
GEC2	GERESS Array S	77.88	318	*e*P	P	04 43 23.4	+0.6
	comp=Z,13nm,0.8s,mb4.9						
GERES	GERESS Array B	77.88	318	P	P	04 43 23.3	+0.5
	comp=Z,8.4nm,0.7s,mb4.8,baz=90,slow=5.3,SNR=13						
GERES				pP	pP	04 43 34.2	-0.1
	comp=Z,8.2nm,1.1s,baz=82,slow=6.9,SNR=4.0						
TRO	Tromso	78.05	340	*e*P	P	04 43 19.2	-4.2
WET	Wettzell	78.43	319	*e*P	P	04 43 26.4	+0.6
CLL	Collm	78.47	321	*e*P	P	04 43 24.0	-2.0
CLL				*e*	pP	04 43 37.0	-0.5
CLL	Collm	78.47	321	P	P	04 43 25.0	-1.0
CLL				*e**SP	sP	04 43 37.0	-4.6
HFS	Hagfors	78.77	330	P	P	04 43 27.3	-0.2
	comp=Z,10.0nm,0.7s,mb4.8,baz=104,slow=6.1,SNR=7.3						
HFS				pP	pP	04 43 38.2	-0.7
	comp=Z,3.7nm,0.6s,baz=117,slow=9.7,SNR=2.4						
HFS				sP	sP	04 43 42.7	-0.4
	comp=Z,3.7nm,0.6s,baz=146,slow=5.2,SNR=2.0						
MOX	Moxa	79.31	320	*i* P	P	04 43 31.0	+0.4
MOX	Moxa	79.31	320	*e*P	P	04 43 31.0	+0.4
FUR	Furstenfeldbru	79.46	318	*e*P	P	04 43 31.6	+0.1
GRA1	Grafenberg Arr	79.53	319	*e*P	P	04 43 32.8	+0.9
	comp=Z,14nm,0.8s,mb4.9						
GRF	Grafenberg Arr	79.53	319	*e*P	P	04 43 32.8	+0.9
	comp=Z,14nm,0.8s,mb4.9						
NB2	NORSAR Subarra	80.06	331	P	P	04 43 33.7	-0.7
	comp=Z,3.7nm,0.7s,mb4.4,baz=98,slow=5.3						
NOA	NORSAR Array B	80.06	331	P	P	04 43 34.0	-0.5
	comp=Z,5.7nm,0.8s,mb4.6,baz=94,slow=5.5,SNR=7.2						
CLZ	Clausthal	80.13	321	*e*P	P	04 43 35.5	+0.5
	comp=Z,17nm,1.1s,mb4.9						
BSEG	Bad Segeberg	80.22	323	*e*P	P	04 43 35.8	+0.4
DAVOX	Davos	80.39	316	P	P	04 43 37.2	+0.8
	comp=Z,21nm,0.9s,mb5.1,baz=117,slow=7.0,SNR=10						
BFO	Black Forest	81.43	318	*e*P	P	04 43 41.9	0.0
	comp=Z,9.0nm,1.0s,mb4.7						
EKA	Eskdalemuir Ar	87.93	325	P	P	04 44 15.2	+0.9
	comp=Z,11nm,0.7s,mb5.2,baz=100,slow=5.5,SNR=16						
ESDC	Sonseca Array	91.08	310	P	P	04 44 30.5	+1.0
	comp=Z,2.3nm,0.6s,mb4.7,baz=63,slow=4.1,SNR=9.3						
INK	Inuvik	98.13	16	P	P	04 45 01.7	+0.8
	comp=Z,2.4nm,0.7s,mb4.8,baz=317,slow=8.3,SNR=4.3						
NVAR	Mina Array Bea	126.19	31	PKP	PKPdf	04 50 29.1	+2.7
	comp=Z,2.3nm,0.8s,baz=66,slow=1.3,SNR=4.8						
PDAR	Pinedale Array	126.36	21	PKP	PKPdf	04 50 28.4	+1.9
	comp=Z,4.2nm,0.8s,baz=54,slow=1.4,SNR=9.3						
ANMO	Albuquerque	134.38	23	PKP	PKPdf	04 50 45.6	+3.5
	comp=Z,4.1nm,0.9s,baz=328,slow=0.9,SNR=9.0						
TXAR	Lajitas Array	140.44	23	PKP	PKPdf	04 50 56.1	+2.9
	comp=Z,1.0nm,0.6s,baz=95,slow=0.8,SNR=4.0						
LVC	Limon Verde	156.76	226	PKPab	PKPab	04 51 52.3	+1.2
	comp=Z,6.8nm,0.8s,baz=253,slow=1.2,SNR=5.6						
LPAZ	La Paz	159.50	241	*e*PKPdf	PKPdf	04 51 25.2	+2.6

*IDC **26** 04:32:10.2±0.6,3.14N×95.10E,h27^{km}±3^{km},mb4.7/17, mb1 4.8/18,mb1mx4.8/22,ML5.4/1,Error ellipse: s-maj=20.5km s-min=13.3km az=52.0*

ISC 26 04:32:08.0±0.6**,3.1N**±0.1×**95.3E**±0.1**,h29**^{km}**, h29**^{km}±.8^{km}**:pP-P,n37,σ0^{s}82**/26**,mb4.9**/18**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.73	13	Pn	P	04 35 52.1	+2.6
	4.9nm,0.3s,baz=202,slow=11,SNR=37						
JOW	Kunigami	39.47	50	P	P	04 39 36.1	-1.7
	24nm,0.6s,mb5.1,baz=254,slow=11,SNR=4.7						
WRA	Warramunga Arr	44.66	122	P	P	04 40 21.1	+0.7
	28nm,0.8s,mb5.2,baz=304,slow=9.0,SNR=8.4						
WRA				S	S	04 47 01.5	+7.2
	6.3nm,0.9s,baz=301,slow=16,SNR=6.4						
SONM	Songino Array	45.63	10	P	P	04 40 27.2	-0.6
	25nm,0.6s,mb5.3,baz=187,slow=9.4,SNR=22						
SONM				pP	pP	04 40 35.8	-0.6
	18nm,0.8s,baz=194,slow=6.8,SNR=5.5						
ZAL	Zalesovo	51.44	352	P	P	04 41 12.2	-0.5
	32nm,0.5s,mb5.5,baz=303,slow=5.1,SNR=15						
UMR	Umm Al-Rimmam	52.17	306	*e*P	pP	04 41 28.4	+1.1
UMR				AMb	AMB	04 41 29.2	
	comp=Z,183nm,0.7s						
MIB	Mutribah	52.56	306	*e*P	pP	04 41 31.0	+0.7
MIB				AMb	AMB	04 41 31.9	
	comp=Z,305nm,0.7s						
RST	Umm Al-Ruwaisa	52.73	305	*e*P	pP	04 41 32.3	+0.7
RST				AMb	AMB	04 41 33.2	
	comp=Z,113nm,0.8s						
BVAR	Borovoye Array	53.88	342	P	P	04 41 29.8	-1.0
	comp=Z,8.2nm,0.8s,mb4.7,baz=146,slow=8.3,SNR=6.3						
KMBO	Kilima Mbogo	58.13	267	P	P	04 42 01.4	-0.6
	comp=Z,12nm,1.0s,mb4.9,baz=68,slow=9.7,SNR=10						
EIL	Elat	62.83	302	P	P	04 42 33.8	0.0
	comp=Z,3.2nm,0.5s,mb4.7,baz=82,slow=14,SNR=2.0						
EIL				pP	pP	04 42 43.2	+0.5
	comp=Z,11nm,0.8s,baz=7.9,slow=9.1,SNR=4.1						
BRTR	Keskin Array B	66.44	312	P	P	04 42 57.2	+0.1
	comp=Z,1.8nm,0.9s,mb4.1,baz=137,slow=4.4,SNR=2.5						
AKASG	Malin Array Be	72.61	322	P	P	04 43 33.4	-1.4
	comp=Z,2.8nm,0.6s,mb4.3,baz=81,slow=4.4,SNR=4.6						
MAW	Mawson	74.08	192	P	P	04 43 43.2	+0.2
	comp=Z,23nm,1.0s,mb5.1,baz=7.0,slow=7.2,SNR=14						
KOLS	Kolonicke sedl	76.56	320	*e*	P	04 43 59.0	+1.5
KOLS				*e*	pP	04 44 09.6	+3.1
CRVS	Cervenica-Dubn	77.08	319	*e*	pP	04 44 18.7	+9.3
FINES	FINESS Array B	77.47	333	P	P	04 44 01.9	-0.3
	comp=Z,5.1nm,0.7s,mb4.6,baz=105,slow=6.1,SNR=4.7						
VYHS	Vyhne	78.73	319	*e*	P	04 44 09.7	+0.3
VYHS				*e*		04 44 15.9	
ZST	Bratislava	79.83	318	*e*	P	04 44 15.6	+0.2
ZST				*e*	pP	04 44 24.8	+0.2
ARCES	ARCESS Array B	80.15	340	P	P	04 44 17.6	+0.8
	comp=Z,3.8nm,0.6s,mb4.5,baz=99,slow=6.4,SNR=12						
ARCES				pP	pP	04 44 26.1	+0.2
	comp=Z,7.6nm,0.5s,baz=98,slow=4.7,SNR=6.4						
SYO	Syowa Base	81.17	198	SH		04 44 22.5	
GERES	GERESS Array B	82.15	319	P	P	04 44 28.0	+0.4
	comp=Z,9.1nm,0.9s,mb4.7,baz=90,slow=5.3,SNR=7.8						
GERES				pP	pP	04 44 36.9	+0.1
	comp=Z,4.1nm,0.6s,baz=116,slow=4.8,SNR=4.3						
CLL	Collm	82.78	321	P	P	04 44 31.0	+0.2
CLL				*e*		04 44 45.0	
HFS	Hagfors	83.16	330	P	P	04 44 32.6	0.0
	comp=Z,7.3nm,0.6s,mb4.9,baz=124,slow=5.3,SNR=9.8						
HFS				pP	pP	04 44 40.8	-1.0
	comp=Z,16nm,1.0s,baz=113,slow=11,SNR=3.8						
NB2	NORSAR Subarra	84.45	331	P	P	04 44 38.7	-0.4
	comp=Z,18nm,1.1s,mb5.1,baz=94,slow=5.6						
NB2	NORSAR Subarra	84.45	331	P	P	04 44 38.7	-0.4
	baz=94,slow=5.9						
NOA	NORSAR Array B	84.45	331	P	P	04 44 38.8	-0.3
	comp=Z,2.1nm,0.8s,mb4.3,baz=100,slow=6.2,SNR=3.4						
NOA				pP	pP	04 44 47.9	-0.4
	comp=Z,7.4nm,1.0s,baz=95,slow=5.3,SNR=5.2						
DAVOX	Davos	84.62	317	P	P	04 44 40.1	-0.1
	comp=Z,16nm,0.8s,mb5.2,baz=110,slow=9.0,SNR=7.7						
LPL	La Plagne	86.81	315	*e*P	P	04 44 51.6	+0.5
	comp=Z,63nm,1.1s,mb5.4						
VNDA	Vanda	88.02	168	P	P	04 44 56.2	0.0
	comp=Z,5.0nm,1.0s,mb4.7,baz=321,slow=6.3,SNR=3.9						
ILAR	Eielson Array	98.75	23	PP	PP	04 49 48.3	-1.3
	comp=Z,0.8nm,0.8s,baz=299,slow=6.0,SNR=3.2						
YKA	Yellowknife Ar	110.81	14	PKKPbc		05 01 36.6	
	comp=Z,0.7nm,0.8s,baz=154,slow=3.0,SNR=7.5						
ULM	Lac du Bonnet	126.05	9	PKP	PKPdf	04 51 09.3	-3.4
	comp=Z,3.9nm,0.8s,baz=1.3,slow=3.2,SNR=3.2						
ULM				pPKP		04 51 18.7	
	comp=Z,5.8nm,0.9s,baz=12,slow=3.3,SNR=3.0						
NVAR	Mina Array Bea	128.38	34	PKP	PKPdf	04 51 15.0	-2.7
	comp=Z,0.7nm,0.6s,baz=200,slow=1.2,SNR=3.6						
NVAR				pPKP		04 51 23.9	
	comp=Z,4.3nm,0.9s,baz=280,slow=1.5,SNR=5.0						
TXAR	Lajitas Array	143.04	28	PKP	PKPdf	04 51 41.8	-3.0
	comp=Z,0.8nm,0.6s,baz=159,slow=0.6,SNR=3.0						
LVC	Limon Verde	155.23	217	PKPab	PKPab	04 52 26.7	+0.2
	comp=Z,13nm,1.0s,baz=117,slow=4.5,SNR=5.9						
LPAZ	La Paz	159.03	230	PKPab	PKPab	04 52 42.7	-0.3
	comp=Z,2.0nm,0.7s,baz=129,slow=5.1,SNR=4.5						

*IDC **26** 04:33:27.0±1.1,5.27N×94.29E,mb4.6/10,mb1 4.7/10, mb1mx4.5/21,Error ellipse: s-maj=46.4km s-min=25.6km az=45.0*

ISC 26 04:33:30.6±1.1**,5.4N**±0.2×**94.4E**±0.2**,h33**^{km}**,n11, σ0^{s}73**/10**,mb4.6**/10**,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	43.56	12	P	P	04 41 33.3	+0.1
	4.6nm,0.7s,mb4.3,baz=192,slow=9.1,SNR=3.9						
SONM				PcP	PcP	04 43 20.5	-0.5
	2.8nm,0.5s,baz=196,slow=4.0,SNR=3.4						
WRA	Warramunga Arr	46.63	124	P	P	04 41 57.7	-0.2
	8.5nm,0.8s,mb4.7,baz=306,slow=8.7,SNR=3.6						
ZAL	Zalesovo	49.06	353	P	P	04 42 16.7	+0.2
	9.3nm,0.6s,mb5.0,baz=292,slow=6.9,SNR=7.0						
BVAR	Borovoye Array	51.44	342	P	P	04 42 34.3	-0.4
	5.0nm,0.6s,mb4.6,baz=147,slow=11,SNR=3.3						
BRTR	Keskin Array B	64.27	312	P	P	04 44 04.4	-0.7
	4.2nm,0.7s,mb4.6,baz=119,slow=7.9,SNR=3.3						
AKASG	Malin Array Be	70.28	322	P	P	04 44 41.1	-1.5
	1.7nm,0.4s,mb4.3,baz=80,slow=4.7,SNR=4.8						
GERES	GERESS Array B	79.87	319	P	P	04 45 38.6	+0.9
	4.3nm,0.7s,mb4.5,baz=118,slow=5.6,SNR=5.9						
HFS	Hagfors	80.75	330	P	P	04 45 42.0	-0.1
	4.7nm,0.8s,mb4.5,baz=104,slow=5.9,SNR=2.3						
DAVOX	Davos	82.37	316	P	P	04 45 51.8	+1.0
	7.9nm,0.5s,mb4.9,baz=201,slow=8.6,SNR=5.8						
EKA	Eskdalemuir Ar	89.93	325	P	P	04 46 28.4	+0.8
	2.0nm,0.6s,mb4.6,baz=98,slow=5.9,SNR=5.1						
PCRV	Puerto La Cruz	154.03	306	PKPbc	PKPdf	04 53 29.2	+10
	25nm,1.2s,baz=350,slow=4.8,SNR=3.1						

*IDC **26** 04:34:39.2±9.1,8.37N×94.14E,h59^{km}±82^{km},mb4.4/19, mb1 4.5/19,mb1mx4.4/24,Error ellipse: s-maj=27.0km s-min=16.1km az=51.0*

ISC 26 04:34:34.3±0.5**,8.3N**±0.1×**94.1E**±0.1**,h33**^{km}**,n34, σ0^{s}85**/28**,mb4.7**/20**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	40.73	13	P	P	04 42 15.2	+1.6
	3.6nm,0.8s,mb4.1,baz=198,slow=5.1,SNR=3.1						
ZAL	Zalesovo	46.10	352	P	P	04 42 56.7	-0.4
	12nm,0.5s,mb5.1,baz=297,slow=8.2,SNR=4.0						
NWAO	Narrogin (SRO)	46.54	153	P	P	04 43 01.3	+0.5
	38nm,1.0s,mb5.3,baz=304,slow=9.8,SNR=7.2						
WRA	Warramunga Arr	48.52	126	P	P	04 43 15.3	-1.2
	3.5nm,0.7s,mb4.5,baz=306,slow=8.6,SNR=2.6						
MAT	Matsushiro	48.86	48	PCP	PcP	04 44 44.1	+0.7
ASAR	Alice Springs	50.20	130	P	P	04 43 28.8	-0.5
	5.0nm,0.9s,mb4.5,baz=311,slow=7.0,SNR=3.5						
PMG	Port Moresby	55.66	107	P	P	04 44 10.4	+0.4
	12nm,0.9s,mb4.9,baz=290,slow=7.2,SNR=2.8						
KMBO	Kilima Mbogo	57.48	263	P	P	04 44 24.9	+1.9
	19nm,1.2s,mb5.0,baz=42,slow=8.6,SNR=8.5						
BRTR	Keskin Array B	62.14	311	P	P	04 44 52.8	-1.9
	2.3nm,0.6s,mb4.5,baz=128,slow=7.1,SNR=2.9						
AKASG	Malin Array Be	67.81	322	P	P	04 45 28.9	-2.1
	2.4nm,0.6s,mb4.4,baz=80,slow=4.6,SNR=3.7						
IDI	Anoyia	68.32	305	P	P	04 45 33.9	-0.6
	7.2nm,0.8s,mb4.8,baz=101,slow=10,SNR=3.5						
FINES	FINESS Array B	72.32	332	P	P	04 45 57.7	-0.6
	5.4nm,0.7s,mb4.6,baz=101,slow=7.1,SNR=4.2						
CRVS	Cervenica-Dubn	72.40	319	*e*	pP	04 46 16.8	+7.6
OKC	Ostrava-Krasne	74.65	319	*e*P	P	04 46 11.7	-0.5
ARCES	ARCESS Array B	74.85	340	P	P	04 46 13.1	+0.2
	4.0nm,0.6s,mb4.5,baz=80,slow=5.5,SNR=4.1						
ZST	Bratislava	75.20	318	*e*	P	04 46 14.8	-0.6
ZST				*e*		04 46 41.2	
DPC	Dobruska-Polom	75.87	320	*e*P	P	04 46 19.6	+0.5
UPC	Upice	76.08	320	*e*P	P	04 46 20.4	+0.1
PRU	Pruhonice	76.99	319	*e*P	P	04 46 25.5	0.0
GERES	GERESS Array B	77.50	318	P	P	04 46 28.3	0.0
	4.4nm,0.7s,mb4.5,baz=90,slow=6.1,SNR=5.9						
KHC	Kasperske Hory	77.58	318	*e*P	P	04 46 28.9	+0.1
CLL	Collm	78.02	321	P	P	04 46 32.0	+0.9
HFS	Hagfors	78.07	330	P	P	04 46 30.7	-0.6
	8.9nm,0.7s,mb4.8,baz=117,slow=6.6,SNR=5.0						
NB2	NORSAR Subarra	79.34	331	P	P	04 46 38.0	-0.2
	2.4nm,0.7s,mb4.2,baz=97,slow=5.0						
NOA	NORSAR Array B	79.34	331	P	P	04 46 38.1	-0.1
	3.3nm,0.7s,mb4.3,baz=94,slow=5.7,SNR=4.3						
DAVOX	Davos	80.07	316	P	P	04 46 42.1	-0.3
	6.8nm,0.7s,mb4.7,baz=180,slow=5.1,SNR=3.3						
LPL	La Plagne	82.32	315	*e*P	P	04 46 54.8	+0.6
	26nm,0.7s,mb4.9						
EKA	Eskdalemuir Ar	87.36	325	P	P	04 47 20.0	+0.9
	4.7nm,0.7s,mb4.8,baz=84,slow=5.5,SNR=6.2						
ESDC	Sonseca Array	90.93	310	P	P	04 47 37.1	+0.7
	1.7nm,0.5s,mb4.6,baz=62,slow=3.9,SNR=8.7						
INK	Inuvik	96.56	16	P	P	04 48 02.0	+0.6
	5.8nm,1.1s,mb4.9,baz=323,slow=4.3,SNR=4.4						
NVAR	Mina Array Bea	124.53	31	PKP	PKPdf	04 53 34.1	+3.3
	1.2nm,0.7s,baz=270,slow=1.8,SNR=3.7						
PDAR	Pinedale Array	124.75	21	PKhKP		04 53 29.5	
	1.9nm,0.9s,SNR=2.7						
PCRV	Puerto La Cruz	152.00	311	PKPbc	PKPdf	04 54 28.1	+7.6
	10nm,0.7s,baz=346,slow=6.5,SNR=6.0						
SDV	Santo Domingo	157.15	318	PKPab	PKPab	04 54 59.9	-0.7
	5.2nm,1.1s,baz=277,slow=3.8,SNR=3.9						

*IDC **26** 04:36:26.7±1.0,6.62N×93.04E,mb4.3/9,mb1 4.4/9, mb1mx4.2/19,Error ellipse: s-maj=53.5km s-min=21.2km az=45.0*

ISC 26 04:36:30.1±0.9**,6.6N**±0.2×**93.1E**±0.3**,h33**^{km}**,n10,σ0^{s}79**/9**, mb4.2**/9**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	42.61	13	P	P	04 44 24.9	0.0
	4.6nm,1.2s,mb4.1,baz=178,slow=7.2,SNR=2.8						
WRA	Warramunga Arr	48.40	124	P	P	04 45 10.3	-1.0
	9.2nm,0.7s,mb4.9,baz=302,slow=9.1,SNR=6.9						
ASAR	Alice Springs	49.92	128	P	P	04 45 23.9	+0.8
	2.6nm,0.9s,mb4.3,baz=309,slow=3.5,SNR=3.9						
BRTR	Keskin Array B	62.47	311	P	P	04 46 51.3	-1.4
	1.2nm,0.8s,mb4.1,baz=124,slow=8.4,SNR=2.7						
FINES	FINESS Array B	73.34	332	P	P	04 47 59.4	-0.7
	1.8nm,0.6s,mb4.2,baz=106,slow=10,SNR=2.9						
ARCES	ARCESS Array B	76.09	340	P	P	04 48 16.0	+0.2
	1.8nm,0.7s,mb4.1,baz=90,slow=7.2,SNR=4.9						
GERES	GERESS Array B	78.07	318	P	P	04 48 27.8	+0.5
	1.4nm,0.7s,mb4.0,baz=101,slow=5.0,SNR=5.8						
HFS	Hagfors	79.02	330	P	P	04 48 32.7	+0.5
	2.2nm,0.8s,mb4.2,baz=135,slow=4.1,SNR=2.2						
DAVOX	Davos	80.58	316	P	P	04 48 41.9	+1.0
	3.6nm,0.8s,mb4.3,baz=196,slow=11,SNR=5.4						
TXAR	Lajitas Array	140.78	23	PKP	PKPdf	04 55 59.4	+2.0
	0.4nm,0.5s,baz=11,slow=4.6,SNR=2.3						

*IDC **26** 04:37:46.5±1.1,11.67N×92.85E,mb4.4/8,mb1 4.5/9, mb1mx4.2/21,ML4.5/1,Error ellipse: s-maj=39.4km s-min=25.9km az=51.0*

ISC 26 04:37:50.0±1.1**,11.7N**±0.2×**93.0E**±0.2**,h33**^{km}**,n12, σ0^{s}54**/9**,mb4.4**/8**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.82	40	Pn	P	04 39 57.8	-0.4
	1.5nm,0.3s,baz=228,slow=15,SNR=3.8						
SONM	Songino Array	37.71	15	P	P	04 45 04.8	+0.6
	2.4nm,0.3s,mb4.3,baz=200,slow=7.9,SNR=15						
BVAR	Borovoye Array	44.99	341	P	P	04 46 04.5	+0.5
	1.7nm,0.4s,mb4.2,baz=140,slow=9.7,SNR=4.3						
WRA	Warramunga Arr	51.46	127	P	P	04 46 54.6	0.0
	2.1nm,0.7s,mb4.2,baz=304,slow=8.6,SNR=5.1						
FINES	FINESS Array B	68.79	332	P	P	04 48 51.8	-0.9
	3.5nm,0.7s,mb4.4,baz=114,slow=8.3,SNR=4.3						
GERES	GERESS Array B	74.22	318	P	P	04 49 25.6	+0.2
	1.7nm,0.8s,mb4.0,baz=90,slow=4.9,SNR=3.3						
HFS	Hagfors	74.57	329	P	P	04 49 26.7	-0.5
	18nm,1.1s,mb4.9,baz=108,slow=4.7,SNR=4.2						
ILAR	Eielson Array	91.61	22	P	P	04 50 54.4	-0.3
	1.2nm,0.6s,mb4.4,baz=274,slow=5.2,SNR=14						
INK	Inuvik	93.62	16	P	P	04 51 04.7	+0.9
	1.4nm,0.5s,mb4.6,baz=290,slow=6.4,SNR=7.2						
PDAR	Pinedale Array	121.97	19	PKP	PKPdf	04 56 43.3	+1.9
	0.9nm,0.9s,baz=45,slow=1.3,SNR=3.7						
NVAR	Mina Array Bea	122.16	29	PKP	PKPdf	04 56 44.6	+2.7
	0.9nm,0.6s,baz=293,slow=2.5,SNR=5.7						
TXAR	Lajitas Array	136.13	21	PKP	PKPdf	04 57 11.7	+2.9
	0.4nm,0.5s,baz=332,slow=1.0,SNR=4.8						

*IDC **26** 04:39:44.7±0.9,8.48N×92.37E,mb4.3/12,mb1 4.4/12, mb1mx4.2/20,Error ellipse: s-maj=54.1km s-min=17.2km*

az=52.0

ISC 26 04:39:48.0±0.9**, 8.5N**±0.2×**92.4E**±0.3**, h33^{km}, n13, σ0^{s}46**/12**, mb4.2**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.98	14	P	P	04 47 29.6	+0.2
	2.3nm,0.9s,mb3.8,baz=187,slow=7.6,SNR=3.7						
BVAR	Borovoye Array	47.90	342	P	P	04 48 24.5	-0.5
	2.4nm,0.8s,mb4.3,baz=140,slow=11,SNR=4.0						
WRA	Warramunga Arr	49.98	125	P	P	04 48 41.5	+0.1
	1.7nm,0.4s,mb4.4,baz=301,slow=9.6,SNR=6.9						
ASAR	Alice Springs	51.59	129	P	P	04 48 53.5	-0.1
	2.4nm,0.5s,mb4.4,baz=304,slow=7.9,SNR=6.8						
STKA	Stephens Creek	61.73	133	P	P	04 50 05.6	-0.2
	4.5nm,1.1s,mb4.5,baz=297,slow=13,SNR=2.7						
FINES	FINESS Array B	71.41	332	P	P	04 51 05.7	-0.9
	2.4nm,0.7s,mb4.3,baz=90,slow=6.8,SNR=4.5						
ARCES	ARCESS Array B	74.14	340	P	P	04 51 22.9	+0.3
	2.5nm,0.7s,mb4.3,baz=146,slow=4.4,SNR=5.2						
GERES	GERESS Array B	76.27	318	P	P	04 51 35.6	+0.4
	1.2nm,0.7s,mb3.9,baz=90,slow=4.9,SNR=3.5						
HFS	Hagfors	77.10	330	P	P	04 51 39.4	-0.3
	2.9nm,0.7s,mb4.3,baz=117,slow=6.6,SNR=6.0						
NOA	NORSAR Array B	78.39	331	P	P	04 51 46.6	-0.2
	0.9nm,0.6s,mb3.9,baz=102,slow=5.3,SNR=3.5						
EKA	Eskdalemuir Ar	86.28	325	P	P	04 52 28.6	+1.0
	2.0nm,0.7s,mb4.5,baz=108,slow=5.3,SNR=4.6						
ILAR	Eielson Array	94.83	22	P	P	04 53 07.7	+0.3
	1.5nm,1.1s,mb4.3,baz=292,slow=4.1,SNR=4.5						
TXAR	Lajitas Array	139.34	22	PKP	PKPdf	04 59 16.8	+4.2
	0.2nm,0.4s,baz=42,slow=0.3,SNR=4.8						

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*IDC **26** 04:40:05.7±0.4, 9.14N×93.84E, mb4.8/27, mb1 4.9/28, mb1mx4.9/30, ML4.8/1, Error ellipse: s-maj=20.3km s-min=11.2km az=51.0*

*BJI **26** 04:40:10.4, 8.83N×93.88E, h65^{km}, mb5.2*

*NEIC **26** 04:40:11.5±2.4, 9.12N×93.84E, h38^{km}±21^{km}, mb5.2/27, Error ellipse: s-maj=9.7km s-min=5.7km az=47.0*

ISC 26 04:40:09.2±0.3**, 9.11N**±0.05×**93.89E**±0.05**, h33^{km}, n115, σ0^{s}82**/95**, mb5.0**/59**, 8C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.51	27	Pn	P	04 42 40.8	+0.1
	2.3nm,0.3s,baz=212,slow=15,SNR=6.7						
SHL	Shillong	16.48	354	*e*P	P	04 44 01.2	+1.7
SHL				*e*		04 44 18.0	
	comp=Z,72nm,1.2s						
KMI	Kunming	18.02	27	*e*P	P	04 44 23.0	+4.2
KMI				AMB	AMB		
	comp=Z,93nm,1.5s						
MNGI	Mangalore	19.10	283	*e*P	P	04 44 33.5	+1.5
AKL	Akola	19.95	307	*e*P	P	04 44 44.8	+3.5
AKL				*e*		04 44 50.7	
	comp=Z,290nm,2.2s						
GOA	Goa	20.60	290	*e*P	P	04 44 50.4	+2.2
GOA				*e*		04 45 02.3	
	comp=Z,172nm,1.9s						
LSA	Lhasa	20.64	353	*e*P	P	04 44 48.4	-0.2
	comp=Z,71nm,0.6s						
GYA	Guiyang	21.08	33	⇑*i*P	P	04 44 54.0	+1.0
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
BOM	Bombay	22.62	298	*e*P	P	04 45 09.2	+0.6
CD2	Chengdu	23.56	22	P	P	04 45 18.8	+1.2
NDI	New Delhi	25.00	323	*e*P	P	04 45 31.5	-0.1
NDI				*e*		04 45 44.1	
	comp=Z,108nm,1.2s						
ENH	Enshi	25.61	33	*e*P	P	04 45 36.9	-0.4
	comp=Z,128nm,1.2s,mb5.3						
LZH	Lanzhou	28.34	17	*e*P	P	04 46 02.5	+0.2
LZH				AMB	AMB		
	comp=Z,53nm,1.3s,mb5.0						
GTA	Gaotai	30.63	9	P	P	04 46 27.3	+4.6
GTA				AMB	AMB		
	comp=Z,93nm,0.8s,mb5.7						
KSH	Kashi	34.25	335	*e*P	P	04 46 54.3	+0.1
KSH				*e*PP	PP	04 48 15.0	+5.4
BJT	Baijiatuau	36.62	29	*e*P	P	04 47 15.8	+1.5
	comp=Z,70nm,0.9s,mb5.5						
AAK	Ala-Archa	37.48	336	*e*P	P	04 47 21.1	-0.5
	comp=Z,55nm,1.0s,mb5.3						
SONM	Songino Array	40.02	13	P	P	04 47 42.8	+0.2
	comp=Z,7.2nm,1.0s,mb4.4,baz=187,slow=8.8,SNR=5.8						
SONM				PcP	PcP	04 49 48.1	+0.2
	comp=Z,6.5nm,0.7s,baz=200,slow=3.5,SNR=7.0						
ULN	Ulaanbaatar	40.20	14	*e*P	P	04 47 44.0	-0.1
	comp=Z,12nm,0.7s,mb4.7						
CN2	Changchun	44.13	33	⇓P	P	04 48 16.5	+0.2
CN2				AMB	AMB		
	comp=Z,40nm,1.3s,mb5.0						
ZAL	Zalesovo	45.30	352	P	P	04 48 25.4	-0.2
	comp=Z,7.1nm,0.7s,mb4.6,baz=298,slow=8.3,SNR=9.5						
HIA	Hailar	45.49	24	*e*P	P	04 48 27.6	+0.4
	comp=Z,44nm,0.8s,mb5.3						
MDJ	Mudanjiang	46.93	35	*e*P	P	04 48 39.5	+1.0
	comp=Z,35nm,1.0s,mb5.2						
NWAO	Narrogin (SRO)	47.35	153	P	P	04 48 40.5	-1.6
	comp=Z,15nm,0.9s,mb4.9,baz=345,slow=9.3,SNR=4.7						
RDF	Al-Radifah	47.67	301	*e*P	P	04 48 45.6	+0.9
BVAR	Borovoye Array	47.75	341	P	P	04 48 44.0	-0.9
	comp=Z,4.1nm,0.6s,mb4.7,baz=135,slow=8.4,SNR=7.7						
BRVK	Borovoye	47.81	341	*e*P	P	04 48 44.5	-0.9
	comp=Z,11nm,0.7s,mb5.0						
MIB	Mutribah	48.08	302	*e*P	P	04 48 48.4	+0.5
MIB				AMb	AMB	04 48 56.0	
	comp=Z,82nm,0.9s,mb5.8						
CHKZ	Chkalovo	48.23	342	*e*P	P	04 48 47.0	-1.7
	comp=Z,23nm,0.7s,mb5.3						
RST	Umm Al-Ruwaisa	48.29	302	*e*P	P	04 48 49.9	+0.5
RST				AMb	AMB	04 48 52.5	
	comp=Z,70nm,0.6s,mb5.9						
WRA	Warramunga Arr	49.18	126	P	P	04 48 55.9	-0.6
	comp=Z,6.8nm,0.7s,mb4.8,baz=302,slow=8.9,SNR=5.5						
WRAB	Tennant Creek	49.18	126	*e*P	P	04 48 57.5	+1.0
	comp=Z,20nm,0.7s,mb5.3						
ASAR	Alice Springs	50.90	131	P	P	04 49 08.5	-1.0
	comp=Z,7.9nm,1.0s,mb4.6,baz=304,slow=7.2,SNR=7.3						
ASAR				PcP	PcP	04 50 25.4	-0.5
	comp=Z,5.2nm,0.8s,baz=309,slow=3.9,SNR=5.5						
GNI	Garni	53.41	314	P	P	04 49 27.4	-0.6
	comp=Z,10nm,0.8s,mb4.8,baz=6.5,slow=12,SNR=5.2						
ASAJ	Asahikawa	54.65	42	P	P	04 49 38.2	+1.0
	comp=Z,16nm,0.9s,mb5.1,baz=279,slow=18,SNR=4.1						
ARU	Arti	54.66	337	*e*P	P	04 49 36.0	-1.1
	comp=Z,22nm,0.8s,mb5.2						
YSS	Yuzh-Sakhalins	55.97	39	*e*P	P	04 49 46.4	-0.2
	comp=Z,128nm,1.2s,mb5.8						
PMG	Port Moresby	56.13	108	P	P	04 49 48.5	+0.2
	comp=Z,16nm,1.0s,mb5.0,baz=304,slow=9.5,SNR=4.1						
KIV	Kislovodsk	56.24	317	*e*P	P	04 49 48.2	-0.5
	comp=Z,34nm,0.9s,mb5.4						
KMBO	Kilima Mbogo	57.32	263	P	P	04 49 57.7	+0.9
	comp=Z,5.0nm,0.9s,mb4.5,baz=41,slow=7.2,SNR=3.0						
KMBO	Kilima Mbogo	57.32	263	P	P	04 49 57.7	+0.9
MALT	Malatya	57.48	310	*e*P	P	04 49 56.9	-0.7
	comp=Z,6.9nm,0.9s,mb4.7						
EIL	Elat	58.61	299	P	P	04 50 05.0	-0.5
	comp=Z,5.7nm,0.8s,mb4.6,baz=64,slow=6.9,SNR=3.7						
EIL	Elat	58.61	299	*e*P	P	04 50 05.3	-0.2
	comp=Z,18nm,0.9s,mb5.1						
CTA	Charters Tower	59.13	120	P	P	04 50 08.7	-0.6
	comp=Z,29nm,1.2s,mb5.2,baz=317,slow=8.5,SNR=6.2						
CTAO	Charters Tower	59.13	120	*e*P	P	04 50 09.1	-0.2
	comp=Z,78nm,1.4s,mb5.5						
STKA	Stephens Creek	61.13	134	P	P	04 50 22.6	-0.3
	comp=Z,9.9nm,0.9s,mb4.9,baz=286,slow=7.6,SNR=6.3						
BRTR	Keskin Array B	61.44	310	P	P	04 50 23.1	-1.7
	comp=Z,3.9nm,0.7s,mb4.7,baz=124,slow=7.1,SNR=8.1						
AKASG	Malin Array Be	67.04	321	P	P	04 50 59.0	-2.0
	comp=Z,8.0nm,0.9s,mb4.7,baz=86,slow=4.6,SNR=9.7						
KOLS	Kolonicke sedl	71.12	319	*e*P	P	04 51 26.0	-0.3
FINES	FINESS Array B	71.51	332	P	P	04 51 27.4	-1.0
	comp=Z,7.9nm,0.7s,mb4.8,baz=100,slow=6.2,SNR=15						
CRVS	Cervenica-Dubn	71.64	318	*e*P	P	04 51 31.1	+1.7
OJC	Ojcow	72.88	320	*e*P	P	04 51 36.3	-0.4
VYHS	Vyhne	73.33	318	*e*P	P	04 51 38.7	-0.7
OKC	Ostrava-Krasne	73.90	319	*e*P	P	04 51 42.5	-0.2
OKC				*e*x	x	04 52 08.3	
ARCES	ARCESS Array B	74.03	340	P	P	04 51 43.3	+0.3
	comp=Z,13nm,0.7s,mb5.0,baz=94,slow=5.7,SNR=14						
SMOL	Smolenice	74.26	318	*e*P	P	04 51 45.0	+0.2
ZST	Bratislava	74.46	317	*i* P	P	04 51 45.9	0.0
ZST				*e*		04 51 52.1	
LBTB	Lobatse	74.62	241	*e*P	P	04 51 48.7	+1.3
	comp=Z,13nm,0.7s,mb5.0						
VRAC	Vranov	74.87	319	P	P	04 51 47.1	-1.2
	comp=Z,2.8nm,0.6s,mb4.4,baz=157,slow=4.6,SNR=6.3						
DPC	Dobruska-Polom	75.11	320	*e*P	P	04 51 49.5	-0.2
UPC	Upice	75.32	320	*e*P	P	04 51 50.8	-0.1
UPC				*e*pP	pP	04 52 03.6	+2.4
ARSA	Arzberg	75.47	316	⇑*i*P	P	04 51 51.0	-0.8
	comp=Z,8.4nm,1.0s,mb4.6						
PRU	Pruhonice	76.23	319	*e*P	P	04 51 56.3	+0.2
MOA	Molln	76.35	317	⇑*i*P	P	04 51 56.6	-0.2
	comp=Z,10.0nm,1.0s,mb4.7						
BRG	Berggiesshubel	76.65	320	*e*P	P	04 51 58.7	+0.3
	comp=Z,35nm,1.6s,mb5.0						
GEC2	GERESS Array S	76.75	318	*e*P	P	04 51 59.3	+0.3
	comp=Z,17nm,1.0s,mb4.9						
GERES	GERESS Array B	76.75	318	P	P	04 51 59.2	+0.2
	comp=Z,29nm,1.2s,mb5.1,baz=90,slow=5.3,SNR=19						
KHC	Kasperske Hory	76.83	318	*e*P	P	04 51 58.9	-0.6
CLL	Collm	77.25	321	P	P	04 52 01.3	-0.5
HFS	Hagfors	77.27	330	P	P	04 52 01.4	-0.3
	comp=Z,13nm,0.6s,mb5.0,baz=96,slow=4.4,SNR=31						
WET	Wettzell	77.30	318	*e*P	P	04 52 02.1	0.0
WTTA	Wattenberg	78.12	316	⇑*i*P	P	04 52 06.3	-0.4
	comp=Z,22nm,1.1s,mb5.0						
MOX	Moxa	78.12	320	*i* P	P	04 52 06.7	+0.1
WATA	Walderalm	78.16	316	⇑*i*P	P	04 52 06.2	-0.7
	comp=Z,9.8nm,0.8s,mb4.8						
FUR	Furstenfeldbru	78.36	317	*e*P	P	04 52 07.8	-0.1
GRA1	Grafenberg Arr	78.38	319	*e*P	P	04 52 08.8	+0.8
	comp=Z,21nm,1.0s,mb5.0						
SQTA	Sankt Quirin	78.41	316	⇑*i*P	P	04 52 07.8	-0.5
	comp=Z,8.0nm,0.8s,mb4.7						
MOTA	Moosalm	78.48	316	⇑*i*P	P	04 52 08.2	-0.5
	comp=Z,14nm,0.9s,mb4.9						
NB2	NORSAR Subarra	78.54	330	P	P	04 52 07.9	-0.8
	comp=Z,33nm,1.2s,mb5.1,baz=96,slow=5.0						
NB2	NORSAR Subarra	78.54	330	P	P	04 52 07.9	-0.8
	baz=96,slow=5.3						
NOA	NORSAR Array B	78.54	330	P	P	04 52 07.9	-0.8
	comp=Z,11nm,0.9s,mb4.8,baz=92,slow=5.6,SNR=15						
CLZ	Clausthal	78.90	321	*e*P	P	04 52 11.3	+0.5
	comp=Z,128nm,2.2s,mb5.5						
BSEG	Bad Segeberg	78.92	323	*e*P	P	04 52 11.5	+0.6
DAVA	Damuels	79.32	316	⇑*i*P	P	04 52 13.4	+0.2
	comp=Z,19nm,0.9s,mb5.0						
DAVOX	Davos	79.33	316	P	P	04 52 12.5	-0.8
	comp=Z,12nm,0.9s,mb4.8,baz=93,slow=7.4,SNR=9.7						
MAW	Mawson	79.69	192	P	P	04 52 15.7	+0.9
	comp=Z,14nm,0.7s,mb5.0,baz=17,slow=5.8,SNR=15						
BFO	Black Forest	80.32	318	*e*P	P	04 52 18.2	-0.4
	comp=Z,25nm,1.3s,mb5.0						
LPL	La Plagne	81.59	315	*e*P	P	04 52 24.9	-0.4
	comp=Z,58nm,0.9s,mb5.2						
SYO	Syowa Base	86.51	197	⇓P	P	04 52 51.4	+1.9
SYO	Syowa Base	86.51	197	⇓P	pP	04 53 03.8	+3.8
EKA	Eskdalemuir Ar	86.57	325	P	P	04 52 51.0	+0.9
	comp=Z,11nm,0.7s,mb5.2,baz=94,slow=5.6,SNR=16						
ESDC	Sonseca Array	90.24	310	P	P	04 53 08.2	+0.2
	comp=Z,1.5nm,0.5s,mb4.5,baz=60,slow=4.2,SNR=8.8						
ILAR	Eielson Array	93.70	22	P	P	04 53 23.0	-0.4
	comp=Z,3.2nm,0.8s,mb4.8,baz=300,slow=4.2,SNR=12						
ILAR				PP	PP	04 57 10.3	-1.2
	comp=Z,0.9nm,1.0s,baz=314,slow=6.6,SNR=4.3						
INK	Inuvik	95.88	16	P	P	04 53 33.6	+0.4
	comp=Z,7.4nm,0.8s,mb5.2,baz=324,slow=5.5,SNR=11						
INK	Inuvik	95.88	16	*e*P	P	04 53 33.3	+0.1
	comp=Z,16nm,1.1s,mb5.4						
YKA	Yellowknife Ar	105.29	13	Pdiff	Pdif	04 54 17.2	+1.7
	comp=Z,0.6nm,0.9s,baz=336,slow=3.8,SNR=3.8						
YKA				PP	PP	04 58 40.0	0.0
	comp=Z,0.5nm,0.9s,baz=336,slow=7.6,SNR=4.2						
YKA				PKKPbc		05 09 54.7	
	comp=Z,0.2nm,0.6s,baz=150,slow=3.5,SNR=4.9						
YKA	Yellowknife Ar	105.29	13	Pdif	Pdif	04 54 17.2	+1.7
YKA				PP	PP	04 58 40.0	0.0
YKA				PKKPbc		05 09 54.7	
PPT	Papeete	117.91	105	PKP	PKPdf	04 58 55.7	+2.5
	comp=Z,39nm,0.5s,baz=139,slow=9.8,SNR=3.7						
ULM	Lac du Bonnet	120.28	7	PKP	PKPdf	04 58 58.9	+1.7
	comp=Z,1.8nm,0.7s,baz=30,slow=5.0,SNR=3.5						
ELK	Elko	123.58	26	*e*PKP	PKPdf	04 59 06.3	+2.5
NVAR	Mina Array Bea	123.99	30	PKP	PKPdf	04 59 07.5	+2.8
	comp=Z,3.2nm,0.8s,baz=359,slow=1.7,SNR=13						
MNV	Mina	124.06	30	*e*PKP	PKPdf	04 59 07.2	+2.4
PDAR	Pinedale Array	124.11	21	PKP	PKPdf	04 59 06.3	+1.6
	comp=Z,4.0nm,0.8s,baz=90,slow=1.5,SNR=12						
TRCR	Troy Canyon	125.36	28	*e*PKP	PKPdf	04 59 09.9	+2.6
ANMO	Albuquerque	132.14	23	PKP	PKPdf	04 59 22.9	+2.5
	comp=Z,1.6nm,0.7s,baz=269,slow=0.5,SNR=6.6						
TXAR	Lajitas Array	138.20	23	PKP	PKPdf	04 59 32.5	+0.8
	comp=Z,2.0nm,0.8s,baz=186,slow=0.4,SNR=9.3						
BAO	Brasilia Array	142.25	256	PKP	PKPdf	04 59 38.6	-0.7
BDFB	Brasilia	142.27	256	PKP	PKPdf	04 59 39.1	-0.2
	comp=Z,3.3nm,0.7s,baz=20,slow=2.3,SNR=4.4						
SJG	San Juan	146.53	324	PKPbc	PKPbc	04 59 49.9	+2.0
	comp=Z,6.5nm,0.6s,baz=63,slow=6.8,SNR=4.8						
PCRV	Puerto La Cruz	151.30	311	PKPbc	PKPdf	05 00 00.9	+6.6
	comp=Z,14nm,0.8s,baz=42,slow=11,SNR=7.7						
SDV	Santo Domingo	156.40	319	PKP	PKPdf	05 00 04.0	+2.7
	comp=Z,6.6nm,1.1s,baz=265,slow=5.7,SNR=3.4						
SDV				PKPab	PKPab	05 00 31.8	-0.5
	comp=Z,7.9nm,0.7s,baz=54,slow=3.3,SNR=10						
LVC	Limon Verde	158.73	229	PKPab	PKPab	05 00 42.9	+0.8
	comp=Z,5.6nm,0.7s,baz=122,slow=2.6,SNR=4.5						
LPAZ	La Paz	161.08	246	PKP	PKPdf	05 00 10.7	+3.9
	comp=Z,2.1nm,0.9s,baz=22,slow=6.2,SNR=3.9						
LPAZ				PKPab	PKPab	05 00 52.0	-0.3
	comp=Z,4.4nm,0.7s,baz=58,slow=1.2,SNR=6.2						
ROSC	El Rosal	161.82	319	PKP	PKPdf	05 00 10.2	+2.6
	comp=Z,2.9nm,0.7s,baz=348,slow=9.0,SNR=5.6						
ROSC				PKPab	PKPab	05 00 55.7	0.0
	comp=Z,5.6nm,0.8s,baz=93,slow=14,SNR=5.1						

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*IDC **26** 04:41:43.7±0.8, 13.27N×93.20E, h25^{km}±4^{km}, mb4.3/11, mb1 4.5/12, mb1mx4.3/19, ML4.4/1, Error ellipse: s-maj=32.4km s-min=16.4km az=45.0*

ISC 26 04:41:42.0±0.7**, 13.4N**±0.1×**93.31E**±0.09**, h27^{km}, h27^{km}**±1.4^{km}**:pP-P, n19, σ1^{s}05**/14**, mb4.5**/12**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.40	46	Pn	Pn	04 43 32.8	+1.8
	1.5nm,0.3s,baz=237,slow=15,SNR=4.5						
CMAR				Sn	Sn	04 44 53.5	-1.5
	5.0nm,0.3s,baz=240,slow=28,SNR=6.7						
SONM	Songino Array	36.03	15	P	P	04 48 44.6	+1.7
	7.1nm,1.0s,mb4.6,baz=198,slow=7.8,SNR=3.6						
WRA	Warramunga Arr	52.22	129	P	P	04 50 53.5	+0.3
	4.9nm,0.8s,mb4.5,baz=302,slow=9.3,SNR=5.3						
ASAR	Alice Springs	54.15	133	P	P	04 51 06.3	-1.0
	2.5nm,0.5s,mb4.4,baz=307,slow=7.1,SNR=8.6						
ASAR				pP	pP	04 51 13.5	-2.3
	6.1nm,0.4s,baz=312,slow=7.2,SNR=6.6						
BRTR	Keskin Array B	58.30	309	P	P	04 51 35.1	-1.8
	4.6nm,0.7s,mb4.6,baz=131,slow=7.6,SNR=4.5						
FINES	FINESS Array B	67.49	331	P	P	04 52 36.5	-1.0
	2.5nm,0.5s,mb4.5,baz=112,slow=7.5,SNR=3.0						
ARCES	ARCESS Array B	69.83	340	P	P	04 52 51.7	-0.2
	3.5nm,0.8s,mb4.4,baz=97,slow=7.3,SNR=2.5						
GERES	GERESS Array B	73.22	317	P	P	04 53 12.1	-0.4
	10.0nm,1.0s,mb4.7,baz=87,slow=5.8,SNR=4.7						
GERES				pP	pP	04 53 21.9	+0.8
	4.5nm,0.8s,baz=90,slow=5.3,SNR=3.1						
HFS	Hagfors	73.32	329	P	P	04 53 12.9	0.0
	5.3nm,0.6s,mb4.6,baz=127,slow=7.2,SNR=3.3						
HFS				pP	pP	04 53 21.4	0.0
	6.3nm,0.7s,baz=180,slow=1.5,SNR=3.5						
NOA	NORSAR Array B	74.56	330	P	P	04 53 19.6	-0.4
	1.7nm,0.7s,mb4.1,baz=96,slow=5.6,SNR=2.5						
LPG	La Plagne	78.19	314	*e*P	P	04 53 41.4	+0.7
	24nm,0.8s,mb4.9						
ESDC	Sonseca Array	87.06	310	P	P	04 54 27.6	+1.0
	0.3nm,0.6s,mb3.7,baz=45,slow=4.4,SNR=4.3						
ESDC				pP	pP	04 54 36.5	+1.0
	2.7nm,0.9s,baz=60,slow=4.4,SNR=3.9						
ILAR	Eielson Array	89.97	22	P	P	04 54 40.8	+0.9
	1.5nm,0.7s,mb4.4,baz=305,slow=4.4,SNR=4.9						
NVAR	Mina Array Bea	120.56	29	PKP	PKPdf	05 00 35.3	-1.2
	1.2nm,0.6s,baz=319,slow=0.8,SNR=4.4						
ANMO	Albuquerque	128.39	21	PKP	PKPdf	05 00 51.0	-0.8
	1.0nm,0.8s,baz=308,slow=2.5,SNR=3.5						
TXAR	Lajitas Array	134.47	21	PKP	PKPdf	05 01 01.9	-1.5
	0.6nm,0.7s,baz=182,slow=0.6,SNR=6.0						
SDV	Santo Domingo	152.72	323	PKPbc	PKPdf	05 01 40.4	+5.5
	3.1nm,0.7s,baz=31,slow=6.6,SNR=2.6						
SDV				PKPab	PKPab	05 01 50.9	+0.5
	2.6nm,0.7s,baz=24,slow=6.9,SNR=4.2						
ROSC	El Rosal	158.11	325	PKPab	PKPab	05 02 15.4	+2.1
	2.6nm,0.7s,baz=239,slow=5.9,SNR=2.9						
LPAZ	La Paz	161.83	259	PKPab	PKPab	05 02 30.5	+1.2
	1.4nm,0.7s,baz=321,slow=6.5,SNR=2.6						

IDC 26 04:42:04.6±1.4**, 7.34N**×**93.87E, mb4.4**/8**, mb1 4.6**/8**, mb1mx4.3**/18**, Error ellipse: s-maj=99.6km s-min=20.9km az=49.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	Zalesovo	47.04	353	P	P	04 50 37.0	-2.6
	5.8nm,0.5s,baz=326,slow=5.2,SNR=5.3						
WRA	Warramunga Arr	48.17	125	P	P	04 50 46.8	-2.1
	3.2nm,0.5s,baz=305,slow=8.4,SNR=5.5						
ASAR	Alice Springs	49.78	129	P	P	04 50 59.4	-2.0
	1.1nm,0.5s,baz=306,slow=8.0,SNR=5.4						
FINES	FINESS Array B	73.05	332	P	P	04 53 35.1	-3.0
	8.2nm,1.1s,baz=101,slow=7.1,SNR=3.0						
ARCES	ARCESS Array B	75.67	340	P	P	04 53 53.0	-0.1
	2.2nm,0.7s,baz=90,slow=7.2,SNR=2.9						
GERES	GERESS Array B	78.04	318	P	P	04 54 05.2	-1.5
	3.1nm,0.8s,baz=80,slow=6.0,SNR=3.0						
HFS	Hagfors	78.78	330	P	P	04 54 09.3	-1.3
	3.0nm,0.5s,baz=100,slow=8.8,SNR=4.4						
NOA	NORSAR Array B	80.06	331	P	P	04 54 16.3	-1.1
	1.4nm,0.7s,baz=97,slow=5.4,SNR=3.4						

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*IDC **26** 04:44:31.2±0.8, 5.53N×93.34E, mb4.3/11, mb1 4.4/11, mb1mx4.2/21, Error ellipse: s-maj=54.0km s-min=17.3km az=47.0*

ISC 26 04:44:34.4±0.8**, 5.6N**±0.2×**93.5E**±0.2**, h33^{km}, n15, σ0^{s}48**/11**, mb4.3**/11**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.57	13	P	P	04 52 37.2	+0.2
	0.9nm,0.6s,mb3.7,baz=191,slow=7.9,SNR=3.5						
WRA	Warramunga Arr	47.52	123	P	P	04 53 08.9	+0.2
	6.0nm,0.6s,mb4.8,baz=302,slow=9.1,SNR=5.0						
ASAR	Alice Springs	49.00	128	P	P	04 53 20.1	-0.1
	2.2nm,0.6s,mb4.3,baz=303,slow=7.1,SNR=4.3						
BVAR	Borovoye Array	50.97	342	P	P	04 53 34.4	-0.5
	3.0nm,0.7s,mb4.3,baz=146,slow=11,SNR=3.9						
STKA	Stephens Creek	59.03	132	P	P	04 54 33.5	-0.2
	3.8nm,0.9s,mb4.4,baz=330,slow=2.4,SNR=3.3						
IDI	Anoyia	69.33	306	P	P	04 55 41.1	+0.2
	1.7nm,0.6s,mb4.2,baz=90,slow=4.0,SNR=2.5						
FINES	FINESS Array B	74.44	333	P	P	04 56 10.6	-0.2
	2.5nm,0.8s,mb4.2,baz=106,slow=5.6,SNR=7.2						
ARCES	ARCESS Array B	77.21	340	P	P	04 56 26.9	+0.4
	1.0nm,0.4s,mb4.1,baz=103,slow=6.6,SNR=9.0						
GERES	GERESS Array B	79.10	319	P	P	04 56 36.4	-0.8
	4.1nm,1.0s,mb4.3,baz=87,slow=5.8,SNR=5.6						
HFS	Hagfors	80.11	330	P	P	04 56 42.1	-0.3
	1.6nm,0.6s,mb4.1,baz=121,slow=8.6,SNR=4.2						
DAVOX	Davos	81.58	316	P	P	04 56 51.5	+1.1
	3.6nm,0.7s,mb4.4,baz=49,slow=5.7,SNR=5.7						
NVAR	Mina Array Bea	127.25	31	PKP	PKPdf	05 03 40.3	+4.1
	0.7nm,0.7s,baz=275,slow=1.7,SNR=3.9						
PDAR	Pinedale Array	127.57	21	PKP	PKPdf	05 03 39.2	+2.5
	1.0nm,0.9s,baz=315,slow=2.1,SNR=3.8						
ANMO	Albuquerque	135.56	24	PKP	PKPdf	05 03 55.4	+3.5
	0.2nm,0.3s,baz=241,slow=2.1,SNR=3.6						
TXAR	Lajitas Array	141.61	24	PKhKP		05 03 58.9	
	0.2nm,0.5s,baz=317,slow=0.6,SNR=3.6						
TXAR				PKP	PKPdf	05 04 06.5	+3.4
	0.2nm,0.4s,baz=354,slow=0.5,SNR=5.1						

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*IDC **26** 04:46:19.5±0.6, 8.75N×93.69E, mb5.0/29, mb1 5.0/30, mb1mx5.0/31, ML5.8/1, Error ellipse: s-maj=22.7km s-min=16.4km az=66.0*

*BJI **26** 04:46:22.4, 8.28N×93.36E, h53^{km}, mb5.0*

*MOS **26** 04:46:23.3±0.9, 8.73N×93.58E, h33^{km}, mb5.4/31, Error ellipse: s-maj=13.0km s-min=6.1km az=119.1*

*NEIC **26** 04:46:23.4±0.3, 8.53N×93.88E, mb5.4/43, Error ellipse: s-maj=9.5km s-min=7.8km az=219.0*

ISC 26 04:46:23.5±0.4**, 8.74N**±0.06×**93.60E**±0.05**, h32^{km}, h32^{km}**±.4^{km}**:pP-P, n300, σ1^{s}12**/275**, mb5.2**/78**, 23C-6D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.96	28	*e*P	P	04 49 01.5	+0.1
	62nm,0.4s						
CMAR	Chiang Mai Arr	10.96	28	Pn	P	04 49 02.2	+0.9
	20nm,0.3s,baz=212,slow=15,SNR=59						
CMAR	Chiang Mai Arr	10.96	28	P	P	04 49 02.3	+0.9
CMAR				pmax	pmax		
	comp=Z,20nm,0.3s						
SHL	Shillong	16.81	355	*e*P	P	04 50 19.9	+1.6
SHL				*e*		04 50 34.4	
	comp=Z,193nm,0.9s						
HYB	Hyderabad	17.00	302	*e*P	P	04 50 28.0	+7.4
HYB	Hyderabad	17.00	302	*i* P	P	04 50 28.0	+7.4
KMI	Kunming	18.47	27	*e*P	P	04 50 42.3	+3.3
KMI				AMB	AMB		
	comp=Z,105nm,0.9s						
QIZ	Qiongzhong	18.77	55	P	P	04 50 44.3	+1.7
MNGI	Mangalore	18.91	284	*e*P	P	04 50 48.3	+4.1
MNGI				*e*		04 50 59.1	
	comp=Z,270nm,1.4s						
AKL	Akola	19.94	308	*e*P	P	04 51 01.2	+5.3
AKL				*e*		04 51 05.4	
	comp=Z,339nm,1.4s						
PKI	Pulchoki	20.27	339	*e*P	P	04 50 59.4	+0.2
	comp=Z,863nm,1.0s						
DMN	Daman	20.41	338	*e*P	P	04 51 00.7	0.0
	comp=Z,475nm,1.0s						
GUN	Gumba	20.41	340	*e*P	P	04 51 00.6	-0.1
	comp=Z,755nm,0.8s						
GOA	Goa	20.46	291	*e*P	P	04 51 10.0	+8.7
GOA				*e*		04 51 13.5	
	comp=Z,167nm,1.9s						
KKN	Kakani	20.51	339	*e*P	P	04 51 01.0	-0.7
	comp=Z,458nm,0.7s						
GKN	Gorkha	20.94	337	*e*P	P	04 51 06.3	+0.1
	comp=Z,879nm,0.9s						
LSA	Lhasa	20.98	354	*e*P	P	04 51 05.9	-0.6
	comp=Z,174nm,1.0s						
KOLN	Koldanda	21.15	335	*e*P	P	04 51 08.8	+0.5
	comp=Z,685nm,0.9s,mb6.0						
GYA	Guiyang	21.54	33	⇑*i*P	P	04 51 14.8	+2.6
GYA				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.1						
CD2	Chengdu	24.00	22	P	P	04 51 37.0	+0.5
NDI	New Delhi	25.12	324	*e*P	P	04 51 48.2	+0.9
NDI				*e*		04 52 02.5	
	comp=Z,395nm,1.7s						
ENH	Enshi	26.07	33	*e*P	P	04 51 54.3	-1.7
	comp=Z,51nm,1.1s,mb5.0						
DGAR	Diego Garcia	26.49	233	*e*P	pP	04 52 15.6	+6.0
QZH	Quanzhou	28.75	53	P	P	04 52 21.8	+1.3
QZH				AMB	AMB		
	comp=Z,120nm,1.0s,mb5.6						
LZH	Lanzhou	28.77	17	*e*P	P	04 52 22.3	+1.7
LZH				AMB	AMB		
	comp=Z,31nm,1.0s,mb5.0						
GTA	Gaotai	31.04	9	P	P	04 52 41.5	+0.8
GTA				AP	pP	04 52 51.0	+0.8
GTA				AMB	AMB		
	comp=Z,67nm,1.1s,mb5.4						
KSH	Kashi	34.47	336	*e*P	P	04 53 11.0	+0.4
KSH				*e*PP	PP	04 54 32.8	+6.0
KSH				*e*PCP	PcP	04 55 38.5	-7.0
WMQ	Urumqi	35.32	353	*e*P	P	04 53 14.0	-3.8
HHC	Hu-ho-hao-te	35.73	24	*e*P	P	04 53 22.0	+0.7
HHC				AP	pP	04 53 31.5	+0.6
HHC				AMB	AMB		
	comp=Z,15nm,0.6s,mb5.1						
KZA	Kyzart	36.93	337	P	P	04 53 32.5	+1.1
	SNR=19						
BJT	Baijiatuau	37.08	29	P	P	04 53 33.6	+0.9
UCH	Uchtor	37.35	336	P	P	04 53 35.6	+0.7
	SNR=17						
TKM2	Tokmak 2	37.53	338	P	P	04 53 36.8	+0.4
	SNR=12						
KBK	Karagaybulak	37.54	337	P	P	04 53 38.1	+1.6

	SNR=5.8						
AML	Almayashu	37.60	335	P	P	04 53 37.9	+0.9
	SNR=32						
AAK	Ala-Archa	37.70	337	P	P	04 53 39.1	+1.2
	SNR=22						
AAK	Ala-Archa	37.70	337	eP	P	04 53 38.1	+0.2
	comp=Z,67nm,0.9s,mb5.4						
CHMS	Chumysh	37.91	337	P	P	04 53 39.6	0.0
	SNR=25						
EKS2	Erkin-Say	38.01	336	P	P	04 53 41.8	+1.3
	SNR=7.3						
USP	Ospenovka	38.24	337	P	P	04 53 42.4	0.0
	SNR=28						
MKAR	Makanchi Array	39.13	348	i P	P	04 53 48.8	-1.0
MKAR				pmax	pmax		
	comp=Z,24nm,0.9s						
MBWA	Marble Bar	39.27	140	P	P	04 53 43.8	-7.4
	comp=Z,2.3nm,0.4s,mb4.3						
SONM	Songino Array	40.44	13	P	P	04 53 59.5	-1.1
	comp=Z,4.6nm,0.8s,mb4.3,baz=202,slow=6.7,SNR=9.7						
SONM				PcP	PcP	04 56 03.1	-0.5
	comp=Z,2.8nm,0.6s,baz=199,slow=4.1,SNR=6.0						
ULN	Ulaanbaatar	40.62	14	eP	P	04 54 01.3	-0.8
	comp=Z,3.3nm,0.5s,mb4.2						
ZAK	Zakamensk	42.28	9	eP	P	04 54 16.6	+0.9
MOY	Mondy	43.22	7	eP	P	04 54 24.8	+1.5
ZAL	Zalesovo	45.62	353	P	P	04 54 42.1	-0.5
	comp=Z,22nm,0.8s,mb5.1,baz=293,slow=8.6,SNR=26						
ZAL	Zalesovo	45.62	353	P	P	04 54 42.1	-0.5
ZAL				pmax	pmax		
	comp=Z,22nm,0.8s						
NVS	Novosibirsk	46.71	352	eP	P	04 54 48.2	-3.0
NVS				e		05 01 40.5	
NVS				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.5						
NVS				pmax	pmax		
	comp=N,58nm,1.2s						
NVS				pmax	pmax		
	comp=E,18nm,1.2s						
NWAO	Narrogin (SRO)	47.16	153	P	P	04 54 53.5	-1.6
	comp=E,93nm,1.0s,mb5.7,baz=312,slow=8.5,SNR=16						
NWAO	Narrogin (SRO)	47.16	153	P	P	04 54 53.5	-1.6
NWAO				pmax	pmax		
	comp=Z,93nm,1.0s						
NWAO	Narrogin (SRO)	47.16	153	P	P	04 54 53.5	-1.6
BVA0	Borovoye Array	48.00	341	P	P	04 54 59.9	-1.5
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
BVAR	Borovoye Array	48.00	341	P	P	04 55 00.2	-1.2
	comp=Z,44nm,1.2s,mb5.4,baz=141,slow=9.5,SNR=16						
BVAR				PcP	PcP	04 56 29.0	-0.4
	comp=Z,6.8nm,0.6s,baz=166,slow=2.9,SNR=4.6						
BRVK	Borovoye	48.06	341	eP	P	04 55 00.4	-1.4
	comp=Z,23nm,0.8s,mb5.3						
CHKZ	Chkalovo	48.49	342	eP	P	04 55 03.8	-1.3
	comp=Z,45nm,0.7s,mb5.6						
MZLS	Mizel	48.60	294	P	P	04 55 08.7	+2.3
KAMS	Al Khamasin	48.66	289	P	P	04 55 10.1	+3.3
MAT	Matsushiro	48.98	49	P	P	04 55 10.1	+1.0
MAT	Matsushiro	48.98	49	P	P	04 55 10.0	+0.9
WRA	Warramunga Arr	49.20	126	P	P	04 55 01.9	-9.1
	comp=Z,6.3nm,0.8s,mb4.7,baz=303,slow=9.0,SNR=8.2						
WRA	Warramunga Arr	49.20	126	P	P	04 55 01.9	-9.1
WRA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
WRAB	Tennant Creek	49.20	126	eP	P	04 55 03.6	-7.5
	comp=Z,19nm,0.6s,mb5.3						
TATS	Tathlith	49.62	288	P	P	04 55 16.9	+2.6
ARSS	Ar Rass	50.68	296	P	P	04 55 24.2	+1.9
NAMS	An Nimas	50.78	288	D		04 55 28.1	
ASAR	Alice Springs	50.88	130	P	P	04 55 15.0	-8.8
	comp=Z,8.9nm,0.7s,mb4.8,baz=305,slow=7.4,SNR=14						
ASAR				PcP	PcP	04 56 36.0	-4.3
	comp=Z,5.7nm,0.8s,baz=313,slow=4.7,SNR=4.3						
BLJS	Baljurashi	51.41	288	P	P	04 55 31.1	+3.2
BOD	Bodaibo	51.43	14	eP	P	04 55 25.4	-2.2
BOD				e		04 55 33.1	
HILS	Ha’il	52.23	298	P	P	04 55 36.0	+2.0
GNI	Garni	53.45	314	P	P	04 55 43.6	+0.7
	comp=Z,9.8nm,0.6s,mb4.9,baz=327,slow=4.9,SNR=9.4						
GNI	Garni	53.45	314	P	P	04 55 43.6	+0.7
GNI				pmax	pmax		
	comp=Z,10.0nm,0.6s						
GNI	Garni	53.45	314	eP	P	04 55 42.9	0.0
	comp=Z,35nm,0.8s,mb5.3						
KBRS	Khaybar	54.20	295	P	P	04 55 50.8	+2.2
ARU	Arti	54.89	337	eP	P	04 55 51.2	-2.0
ARU	Arti	54.89	337	eP	P	04 55 51.9	-1.3
	comp=Z,26nm,0.8s,mb5.3						
ZEI	Tsey	55.04	317	eP	P	04 55 54.8	+0.2
ZEI				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.3						
ASAJ	Asahikawa	55.12	42	P	P	04 55 55.8	+0.7
	comp=Z,19nm,1.1s,mb5.0,baz=269,slow=8.3,SNR=3.6						
ASAJ	Asahikawa	55.12	42	P	P	04 55 55.8	+0.7
ASAJ				pmax	pmax		
	comp=Z,19nm,1.1s						
YNBS	Yanbu‘ al Bahr	55.17	294	P	P	04 55 57.8	+2.1
ERZM	Erzurum	55.79	313	i P	P	04 55 59.5	-0.5
UMJS	Umm Lajj	55.88	294	P	P	04 56 03.1	+2.3
PMG	Port Moresby	56.30	107	P	P	04 55 56.9	-7.1
	comp=Z,17nm,0.7s,mb5.2,baz=336,slow=12,SNR=1.9						
PMG	Port Moresby	56.30	107	P	P	04 55 56.9	-7.0
PMG				pmax	pmax		
	comp=Z,17nm,0.7s						
KIV	Kislovodsk	56.32	318	P	P	04 56 03.3	-0.4
	comp=Z,235nm,0.7s,SNR=11						
KIV	Kislovodsk	56.32	318	eP	P	04 56 02.4	-1.3
KIV				pmax	pmax		
	comp=N,9.0nm,0.9s						
KIV				pmax	pmax		
	comp=E,17nm,0.9s						
KIV				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.4						
KIV	Kislovodsk	56.32	318	eP	P	04 56 03.3	-0.4
	comp=Z,90nm,1.3s,mb5.6						
YSS	Yuzh-Sakhalins	56.43	38	eP	P	04 56 03.6	-0.9
GOF	Gofitskoye	56.53	319	⇑iP	pP	04 56 15.0	-0.1
GOF				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.3						
TBKS	Tabuk	56.95	298	P	P	04 56 10.2	+1.8
KMBO	Kilima Mbogo	57.00	263	P	P	04 56 06.9	-2.1
	comp=Z,4.7nm,1.1s,mb4.4,baz=70,slow=9.9,SNR=3.9						
KMBO	Kilima Mbogo	57.00	263	P	P	04 56 06.9	-2.1
KMBO				pmax	pmax		
	comp=Z,5.0nm,1.1s						
KMBO	Kilima Mbogo	57.00	263	eP	P	04 56 05.8	-3.2
	comp=Z,57nm,1.4s,mb5.4						
ELZG	Elazig	57.13	310	i P	P	04 56 09.6	0.0
ASF	Jabal al Asfar	57.30	303	P	P	04 56 11.2	+0.3
	comp=Z,10nm,0.6s,mb5.0,baz=325,slow=4.3,SNR=14						
MALT	Malatya	57.50	310	eP	P	04 56 11.7	-0.5
	comp=Z,16nm,0.9s,mb5.0						
JMQS	Jabal Moqyreh	57.62	299	P	P	04 56 14.6	+1.4
GZT	Gaziantep	57.91	309	i P	P	04 56 14.0	-1.0
AYUS	‘Aynunah	58.06	298	P	P	04 56 18.0	+1.8
SOC	Sochi	58.19	316	eP	P	04 56 15.5	-1.4
SOC				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
SOC				pmax	pmax		
	comp=N,7.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,12nm,0.9s						
BDAS	Al Bad‘	58.24	298	P	P	04 56 18.7	+1.2
JMOS	Jabal al Moall	58.33	299	P	P	04 56 19.5	+1.4
ALWS	Ilw as Safayha	58.39	299	P	P	04 56 19.9	+1.4
HAQS	Haql	58.47	299	P	P	04 56 20.2	+1.1
KAHT	Ahir Dag	58.51	309	i P	P	04 56 18.8	-0.5
EIL	Elat	58.54	299	P	P	04 56 19.6	0.0
	comp=E,11nm,0.6s,mb5.1,baz=2.0,slow=2.6,SNR=10						
EIL	Elat	58.54	299	eP	P	04 56 18.5	-1.1
	comp=E,21nm,0.6s,mb5.3						
COBT	Iskenderun	58.73	307	i P	P	04 56 20.7	-0.1
CTA	Charters Tower	59.20	120	P	P	04 56 18.1	-6.2
	comp=E,6.2nm,0.9s,mb4.6,baz=298,slow=7.9,SNR=5.6						
CTA	Charters Tower	59.20	120	P	P	04 56 18.1	-6.2
CTA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
CTAO	Charters Tower	59.20	120	eP	P	04 56 18.6	-5.7
	comp=Z,157nm,1.9s,mb5.7						
CSS	Prodhromos	60.74	305	eP	P	04 56 33.9	-0.8
CTKT	Corum	60.82	312	i P	P	04 56 42.7	+7.6
BOYT	Boyabat	60.94	313	i P	P	04 56 35.4	-0.5
BOYT	Boyabat	60.94	313	i P	P	04 56 35.4	-0.5
BRTR	Keskin Array B	61.46	311	P	P	04 56 37.8	-1.7
	comp=Z,23nm,0.7s,mb5.4,baz=129,slow=6.3,SNR=45						
BRTR	Keskin Array B	61.46	311	P	P	04 56 37.8	-1.7
BRTR				pmax	pmax		
	comp=Z,23nm,0.7s						
ELDT	Eldivan	61.80	311	i P	P	04 56 41.3	-0.5
ELDT	Eldivan	61.80	311	i P	P	04 56 49.0	+7.3
BALT	Daday	62.07	312	i P	P	04 56 42.5	-1.0
BALT	Daday	62.07	312	i P	P	04 56 42.5	-1.0
SGKT	Sivrigoynuk	62.83	311	i P	P	04 56 46.5	-2.0
ISP	Isparta	63.49	308	eP	P	04 56 51.5	-1.4
	comp=Z,22nm,0.9s,mb5.3						
ESKT	Eskisehir	63.53	310	i P	P	04 56 52.2	-1.0
HENT	Hendek	63.74	311	i P	P	04 56 51.1	-3.5
OBN	Obninsk	64.36	328	eP	P	04 56 57.2	-1.2
OBN				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.3						
DNZL	Cakiroluk	64.61	308	i P	P	04 56 59.8	-0.5
ULDT	Uludag	64.94	310	i P	P	04 57 00.4	-2.0
PSN	Preselentsi	66.28	314	eP	P	04 57 10.0	-1.0
KIS	Kishinev	66.53	318	eP	P	04 57 13.0	+0.5
CFR	Carcaliu	66.61	315	⇑iP	P	04 57 11.7	-1.3
CFR	Carcaliu	66.61	315	⇑iP	P	04 57 11.7	-1.3
PRD	Provadia	66.75	313	P	P	04 57 13.0	-1.0
AKASG	Malin Array Be	67.15	322	P	P	04 57 14.4	-2.0
	comp=Z,11nm,0.6s,mb5.0,baz=86,slow=4.6,SNR=32						
AKASG	Malin Array Be	67.15	322	P	P	04 57 14.4	-2.0
AKASG				pmax	pmax		
	comp=Z,11nm,0.6s						
SANT	Santorini	67.28	306	eP	P	04 57 16.9	-0.6
	comp=Z,26nm,0.6s,mb5.5						
ALN	Alexandroupoli	67.38	311	eP	P	04 57 15.1	-3.0
IDI	Anoyia	67.64	304	P	P	04 57 19.4	-0.3
	comp=Z,31nm,0.6s,mb5.5,baz=89,slow=7.9,SNR=30						
ISR	Istrita	67.70	315	⇑iP	P	04 57 21.9	+1.9
ISR	Istrita	67.70	315	⇑iP	P	04 57 21.9	+1.9
VRI	Vrincioaia	67.71	316	P	P	04 57 20.1	+0.1
VRI	Vrincioaia	67.71	316	⇑iP	P	04 57 19.7	-0.3
VRI	Vrincioaia	67.71	316	⇑iP	P	04 57 19.7	-0.3
KDZ	Kurdzhali	67.96	311	P	P	04 57 20.5	-1.1
MLR	Muntele Rosu	68.18	316	P	P	04 57 23.1	+0.2
PVL	Pavlikeni	68.25	313	eP	P	04 57 23.8	+0.4
SNX	Sinaia	68.46	315	P	P	04 57 24.6	-0.1
RZN	Rozhen	68.48	311	P	P	04 57 24.0	-0.9
PAIG	Paliouri	69.05	309	eP	P	04 57 27.3	-1.1
LSZ	Lusaka	69.06	250	eP	P	04 57 30.5	+1.7
	comp=Z,16nm,0.5s,mb5.2						
MMB	Musomiste	69.21	311	P	P	04 57 29.0	-0.3
SRS	Serrai	69.25	311	eP	P	04 57 27.8	-1.8
XOR	Xorichti	69.37	309	eP	P	04 57 28.8	-1.6
VTS	Vitosha	69.71	312	P	P	04 57 31.0	-1.4
VTS	Vitosha	69.71	312	P	P	04 57 31.8	-0.6
KKB	Krupnik	69.72	311	P	P	04 57 31.0	-1.5
LIT	Litokhoron	69.98	309	eP	P	04 57 32.5	-1.6
AGG	Agios Georgios	70.00	308	eP	P	04 57 30.5	-3.7
GRG	Griva	70.13	310	eP	P	04 57 33.4	-1.6
BOLS	Boljevac	70.76	313	⇓iP	P	04 57 37.7	-1.1
APA	Apatity	70.85	339	⇑iP	P	04 57 37.7	-1.2
APA				pmax	pmax		
	comp=Z,96nm,1.4s,mb5.5						
FNA	Florina	70.89	310	eP	P	04 57 37.5	-2.1
KOLS	Kolonicke sedl	71.20	319	eP	P	04 57 41.5	+0.1
IGT	Igoumenitsa	71.59	309	eP	P	04 57 42.6	-1.2
GRUS	Gruza	71.66	313	⇑iP	P	04 57 43.5	-0.7
FINES	FINESS Array B	71.70	332	P	P	04 57 42.9	-1.2
	comp=Z,15nm,0.8s,mb5.0,baz=113,slow=6.4,SNR=16						
FINES	FINESS Array B	71.70	332	P	P	04 57 42.9	-1.2
FINES				pmax	pmax		
	comp=Z,15nm,0.8s						
CRVS	Cervenica-Dubn	71.73	319	eP	P	04 57 45.5	+1.0
KAF	Kangasniemi	71.78	333	ep	P	04 57 44.2	-0.4
	comp=Z,28nm,1.1s,mb5.1						
KAF	Kangasniemi	71.78	333	eP	P	04 57 44.2	-0.4
KAF				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
DIVS	Divcibare	72.20	313	eP	P	04 57 44.5	-2.9
KECS	Kecovo	72.32	318	eP	P	04 57 48.1	+0.1
NIE	Niedzica	72.54	319	eP	P	04 57 49.6	+0.3
PSZ	Piszkesteto	72.65	317	P	P	04 57 49.7	-0.3
OJC	Ojcow	72.97	320	eP	P	04 57 51.7	-0.1
VYHS	Vyhne	73.41	318	eP	P	04 57 53.8	-0.6
VYHS				epP	pP	04 58 04.0	-0.6
KEV	Kevo	73.84	341	ep	P	04 57 55.9	-0.6
	comp=Z,40nm,1.1s,mb5.3						
KEV	Kevo	73.84	341	eP	P	04 57 55.9	-0.6
KEV				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
OKC	Ostrava-Krasne	73.99	319	eP	P	04 57 57.8	+0.1
OKC				epP	pP	04 58 08.0	+0.1
LBTB	Lobatse	74.19	241	eP	P	04 58 01.3	+1.8
	comp=Z,28nm,0.6s,mb5.4						
LBTB				e	pP	04 58 10.8	+1.2
ARCES	ARCESS Array B	74.27	340	P	P	04 57 58.0	-1.0
	comp=Z,12nm,0.7s,mb4.9,baz=85,slow=6.2,SNR=16						
ARCES	ARCESS Array B	74.27	340	P	P	04 57 58.1	-0.9
ARCES				pmax	pmax		
	comp=Z,12nm,0.7s						
SMOL	Smolenice	74.34	318	eP	P	04 57 59.7	-0.1
SMOL				epP	pP	04 58 09.9	-0.1
ZST	Bratislava	74.54	318	i P	P	04 58 00.9	-0.1
ZST				epP	pP	04 58 11.4	+0.3
KTK1	Kautokeino	74.90	339	eP	P	04 58 03.4	+0.8
VRAC	Vranov	74.95	319	P	P	04 58 02.4	-0.9
	comp=Z,5.5nm,0.7s,mb4.6,baz=89,slow=8.5,SNR=11						
VRAC	Vranov	74.95	319	P	P	04 58 02.4	-0.9
VRAC				pmax	pmax		
	comp=Z,6.0nm,0.7s						
DPC	Dobruska-Polom	75.20	320	eP	P	04 58 04.8	0.0
DPC				epP	pP	04 58 15.2	+0.3
KSP	Ksiaz	75.26	320	⇑eP	P	04 58 05.1	0.0
KSP				e	pP	04 58 14.7	-0.5
UPC	Upice	75.41	320	eP	P	04 58 06.2	+0.3
UPC				epP	pP	04 58 16.4	+0.3
ARSA	Arzberg	75.54	316	⇑iP	P	04 58 07.3	+0.5
	comp=Z,45nm,1.9s,mb5.1						
ARSA	Arzberg	75.54	316	⇑iP	P	04 58 07.3	+0.5
	comp=Z,24nm,1.0s,mb5.1						
BOSA	Boshof	75.60	238	eP	P	04 58 08.8	+1.3
	comp=Z,21nm,0.7s,mb5.2						
PRU	Pruhonice	76.32	319	eP	P	04 58 10.9	-0.2
PRU				epP	pP	04 58 21.3	0.0
PVCC	Panska Ves	76.33	320	eP	P	04 58 11.7	+0.6
PVCC				epP	pP	04 58 21.2	-0.1
TRO	Tromso	76.53	340	eP	P	04 58 10.1	-1.8
TRO				epP	pP	04 58 21.7	-0.4
BRG	Berggiesshubel	76.75	320	i P	P	04 58 14.0	+0.6
BRG				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
BRG	Berggiesshubel	76.75	320	i P	P	04 58 14.0	+0.6
	comp=Z,26nm,1.1s,mb5.1						
GEC2	GERESS Array S	76.83	318	eP	P	04 58 14.0	+0.1
GEC2				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.2						
GEC2	GERESS Array S	76.83	318	eP	P	04 58 14.0	+0.1
	comp=Z,37nm,1.1s,mb5.2						
GERES	GERESS Array B	76.83	318	P	P	04 58 14.2	+0.3
	comp=Z,13nm,0.7s,mb5.0,baz=88,slow=4.6,SNR=35						
GERES	GERESS Array B	76.83	318	P	P	04 58 14.2	+0.3
GERES				pmax	pmax		
	comp=Z,13nm,0.7s						
KHC	Kasperske Hory	76.92	318	eP	P	04 58 14.4	0.0
KHC				epP	pP	04 58 24.0	-0.6
RUE	Ruedersdorf	76.92	322	eP	P	04 58 14.0	-0.4
	comp=Z,49nm,0.7s,mb5.5						
PTCC	Patocco-Chiusa	77.00	316	eP	P	04 58 14.6	-0.4
ARV	Arcevia	77.27	313	eP	P	04 58 17.6	+1.1
CLL	Collm	77.36	321	⇓iP	P	04 58 16.8	0.0
CLL				i	pP	04 58 26.6	-0.4
CLL				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
CLL	Collm	77.36	321	⇓iP	P	04 58 16.8	0.0
	comp=Z,25nm,1.2s,mb5.0						
CLL				i	pP	04 58 26.6	-0.4
CLL	Collm	77.36	321	⇓P	P	04 58 16.8	0.0
	comp=Z,logA/T=1.3,mb5.0						
CLL				i *PP	pP	04 58 26.6	-0.4
WET	Wettzell	77.38	318	eP	P	04 58 17.1	+0.1
FVI	Forni Avoltri	77.40	316	eP	P	04 58 19.0	+1.8
HFS	Hagfors	77.44	330	P	P	04 58 16.7	-0.4
	comp=Z,10nm,0.5s,mb5.0,baz=117,slow=6.6,SNR=52						
HFS	Hagfors	77.44	330	P	P	04 58 16.7	-0.4
HFS				pmax	pmax		
	comp=Z,10.0nm,0.5s						
MOR8	Moi Rana	77.67	336	eP	P	04 58 17.6	-0.7
MOR8				AMb	AMB	04 58 21.2	
	comp=Z,59nm,1.7s,mb5.2						
MOR8	Moi Rana	77.67	336	eP	P	04 58 17.6	-0.7
	comp=Z,59nm,1.7s,mb5.2						
NKC	Novy Kostel	77.68	319	eP	P	04 58 18.9	+0.3
NKC				epP	pP	04 58 28.8	0.0
SFI	Santa Sofia	78.06	313	eP	P	04 58 22.1	+1.2
PGD	Poggio Sodo	78.16	313	eP	P	04 58 21.6	+0.2
CTI	Castel Tesino	78.19	315	eP	P	04 58 21.9	+0.5
WTTA	Wattenberg	78.19	316	⇓iP	P	04 58 21.2	-0.3
	comp=Z,64nm,1.2s,mb5.4						
WTTA	Wattenberg	78.19	316	⇓iP	P	04 58 21.2	-0.3
	comp=Z,64nm,1.2s,mb5.4						
MOX	Moxa	78.22	320	i P	P	04 58 21.9	+0.3
MOX				pP	pP	04 58 33.0	+1.2
MOX	Moxa	78.22	320	eP	P	04 58 21.9	+0.3
MOX				epP	pP	04 58 33.2	+1.4
WATA	Walderalm	78.23	317	⇑iP	P	04 58 21.2	-0.5
	comp=Z,15nm,0.7s,mb5.0						
WATA	Walderalm	78.23	317	⇑iP	P	04 58 21.2	-0.5
	comp=Z,15nm,0.7s,mb5.0						
LOF	Lofoten	78.23	338	eP	P	04 58 23.2	+1.9
LOF				AMb	AMB	04 58 31.6	
	comp=Z,123nm,1.8s,mb5.5						
LOF	Lofoten	78.23	338	eP	P	04 58 23.2	+1.9
	comp=Z,123nm,1.8s,mb5.5						
VMG	Vicchio	78.28	313	eP	P	04 58 23.3	+1.3
SEI	Scarperia	78.42	313	eP	P	04 58 24.1	+1.3
FUR	Furstenfeldbru	78.43	317	eP	P	04 58 22.2	-0.6
GRA1	Grafenberg Arr	78.47	319	eP	P	04 58 24.0	+1.1
	comp=Z,51nm,1.2s,mb5.3						
GRA1				epP	pP	04 58 34.1	+0.9
GRF	Grafenberg Arr	78.47	319	eP	P	04 58 24.0	+1.1
GRF				e*PP	pP	04 58 34.1	+0.9
GRF				pmax	pmax		
	comp=Z,51nm,1.2s,mb5.3						
GRF	Grafenberg Arr	78.47	319	eP	P	04 58 24.0	+1.1
	comp=Z,51nm,1.2s,mb5.3						
GRF				epP	pP	04 58 34.1	+0.9
SQTA	Sankt Quirin	78.48	316	⇑iP	P	04 58 22.6	-0.5
	comp=Z,44nm,1.1s,mb5.3						
SQTA	Sankt Quirin	78.48	316	⇑iP	P	04 58 22.6	-0.5
	comp=Z,44nm,1.1s,mb5.3						
MOTA	Moosalm	78.55	317	⇑iP	P	04 58 22.8	-0.7
	comp=Z,28nm,0.9s,mb5.2						
MOTA	Moosalm	78.55	317	⇑iP	P	04 58 22.8	-0.7
	comp=Z,28nm,0.9s,mb5.2						
NSS	Namsos	78.56	334	eP	P	04 58 22.1	-1.0
ZCCA	Zocca	78.68	313	eP	P	04 58 26.1	+1.9
NB2	NORSAR Subarra	78.72	331	P	P	04 58 23.3	-0.8
	comp=Z,16nm,0.6s,mb5.1,baz=95,slow=5.0						
NB2	NORSAR Subarra	78.72	331	P	P	04 58 23.3	-0.8
	baz=95,slow=5.3						
NOA	NORSAR Array B	78.72	331	P	P	04 58 23.1	-0.9
	comp=Z,13nm,0.6s,mb5.0,baz=95,slow=5.1,SNR=36						
NOA	NORSAR Array B	78.72	331	P	P	04 58 23.2	-0.9
NOA				pmax	pmax		
	comp=Z,13nm,0.6s						
CLZ	Clausthal	79.00	321	eP	P	04 58 25.9	0.0
	comp=Z,30nm,1.0s,mb5.2						
BSEG	Bad Segeberg	79.04	323	eP	P	04 58 26.2	+0.2
BRMO	Bormio	79.06	316	eP	P	04 58 26.7	+0.4
MAW	Mawson	79.27	191	P	P	04 58 27.1	+0.1
	comp=Z,30nm,1.3s,mb5.1,baz=39,slow=7.9,SNR=7.2						
MAW	Mawson	79.27	191	P	P	04 58 27.1	+0.1
MAW				pmax	pmax		
	comp=Z,30nm,1.3s						
MAW	Mawson	79.27	191	P	P	04 58 24.8	-2.2
DAVA	Damuels	79.39	316	⇑iP	P	04 58 28.2	+0.2
	comp=Z,58nm,1.1s,mb5.4						
DAVA	Damuels	79.39	316	⇑iP	P	04 58 28.2	+0.2
	comp=Z,58nm,1.1s,mb5.4						
DAVOX	Davos	79.40	316	P	P	04 58 28.4	+0.3
	comp=Z,13nm,0.6s,mb5.0,baz=109,slow=7.7,SNR=20						
MUD	Monsted U’grnd	79.69	326	i P	P	04 58 29.6	+0.1
	comp=Z,35nm,0.6s,mb5.5						
DOMB	Dombas	79.77	332	eP	P	04 58 29.6	-0.2
DOMB				AMb	AMB	04 58 33.3	
	comp=Z,55nm,1.5s,mb5.3						
DOMB				epP	pP	04 58 39.9	-0.2
DOMB	Dombas	79.77	332	eP	P	04 58 29.6	-0.2
	comp=Z,55nm,1.5s,mb5.3						
VAI	Varese	80.20	315	eP	P	04 58 31.4	-1.1
BFO	Black Forest	80.40	318	eP	P	04 58 33.6	+0.2
BFO				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
BFO	Black Forest	80.40	318	eP	P	04 58 33.6	+0.2
	comp=Z,30nm,1.3s,mb5.1						
MOL	Molde	80.48	332	eP	P	04 58 35.6	+2.0
MOL				AMb	AMB	04 58 39.3	
	comp=Z,76nm,1.7s,mb5.3						
MOL	Molde	80.48	332	eP	P	04 58 35.6	+2.0
	comp=Z,76nm,1.7s,mb5.3						
MCGN	Macugnaga	80.74	315	eP	P	04 58 36.5	+1.2
BLS5	Blasjo	81.09	329	eP	P	04 58 37.4	+0.6
BLS5				AMb	AMB	04 58 41.4	
	comp=Z,42nm,1.4s,mb5.2						
BLS5				epP	pP	04 58 48.0	+0.9
BLS5	Blasjo	81.09	329	eP	P	04 58 37.4	+0.6
	comp=Z,42nm,1.4s,mb5.2						
RUND	Rundenannen	81.59	330	eP	P	04 58 39.6	+0.2
LPL	La Plagne	81.64	315	eP	P	04 58 40.6	+0.6
	comp=Z,118nm,0.8s,mb5.6						
DLF	Lyons Farm	89.06	324	⇑iP	P	04 59 18.1	+1.4
DCN	Croghan	89.48	324	⇑iP	P	04 59 19.5	+0.8
ESDC	Sonseca Array	90.25	310	P	P	04 59 23.0	+0.4
	comp=Z,18nm,1.1s,mb5.3,baz=59,slow=4.3,SNR=15						
IMA	Indian Mountai	91.02	22	eP	P	04 59 26.0	+0.5
	comp=Z,56nm,0.8s,mb5.9						
SPU	Mount Spurr	93.75	26	eP	P	04 59 37.7	-0.5
ILAR	Eielson Array	94.14	22	P	P	04 59 38.9	-1.1
	comp=Z,1.8nm,0.6s,mb4.7,baz=288,slow=4.8,SNR=24						
ILAR	Eielson Array	94.14	22	P	P	04 59 38.9	-1.0
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SLKM	Skilak Lake	94.85	26	eP	P	04 59 42.5	-0.7
INK	Inuvik	96.31	16	P	P	04 59 49.5	-0.3
	comp=Z,4.9nm,0.8s,mb5.0,baz=344,slow=2.7,SNR=12						
INK	Inuvik	96.31	16	P	P	04 59 49.5	-0.3
INK				pmax	pmax		
	comp=Z,5.0nm,0.8s						
DAWY	Dawson	97.24	21	eP	P	04 59 54.1	+0.1
DBIC	Dimbokro	97.30	278	P	P	04 59 55.3	-0.2
	comp=Z,5.3nm,1.0s,mb4.9,baz=123,slow=6.7,SNR=7.5						
DBIC	Dimbokro	97.30	278	P	P	04 59 55.3	-0.2
DBIC				pmax	pmax		
	comp=Z,5.0nm,1.0s						
YKA	Yellowknife Ar	105.71	13	Pdiff	Pdif	05 00 35.3	+3.5
	comp=Z,0.2nm,0.6s,baz=333,slow=5.2,SNR=3.8						
YKA				PP	PP	05 04 52.9	-4.5
	comp=Z,0.7nm,1.0s,baz=334,slow=7.6,SNR=4.5						
YKA				PKKPbc		05 16 12.6	
	comp=Z,0.7nm,0.8s,baz=147,slow=3.8,SNR=4.1						
YKA	Yellowknife Ar	105.71	13	P	Pdif	05 00 35.3	+3.5
YKA						05 04 52.9	
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	105.71	13	Pdif	Pdif	05 00 35.3	+3.5
YKA				PP	PP	05 04 52.9	-4.5
YKA				PKKPbc		05 16 12.6	
ULM	Lac du Bonnet	120.68	7	PKP	PKPdf	05 05 13.8	-3.9
	comp=Z,2.5nm,0.6s,baz=28,slow=3.8,SNR=5.4						
ELK	Elko	124.04	26	ePKPdf	PKPdf	05 05 19.6	-4.8
NVAR	Mina Array Bea	124.44	30	PKP	PKPdf	05 05 21.9	-3.3
	comp=Z,4.6nm,1.1s,baz=272,slow=3.4,SNR=11						
MNV	Mina	124.52	30	PKPdf	PKPdf	05 05 20.9	-4.5
PDAR	Pinedale Array	124.55	21	PKP	PKPdf	05 05 21.3	-4.1
	comp=Z,3.0nm,0.9s,baz=77,slow=1.5,SNR=14						
HWUT	Hardware Ranch	124.82	23	ePKPdf	PKPdf	05 05 21.4	-4.6
NEN	Nelson	128.34	30	ePKPdf	PKPdf	05 05 29.6	-3.3
ANMO	Albuquerque	132.58	23	PKP	PKPdf	05 05 36.8	-4.2
	comp=Z,2.6nm,0.7s,baz=9.9,slow=1.1,SNR=9.9						
TXAR	Lajitas Array	138.65	23	PKhKP		05 05 39.8	
	comp=Z,0.3nm,0.5s,baz=145,slow=1.0,SNR=7.1						
TXAR				PKP	PKPdf	05 05 48.3	-4.0
	comp=Z,1.5nm,0.6s,baz=259,slow=0.6,SNR=12						
BAO	Brasilia Array	141.89	256	PKP	PKPdf	05 05 47.1	-11
BDFB	Brasilia	141.91	256	PKhKP		05 05 49.8	
	comp=Z,2.5nm,0.6s,baz=121,slow=6.0,SNR=8.1						
BDFB				PKP	PKPdf	05 05 54.3	-4.2
	comp=Z,9.7nm,0.9s,baz=66,slow=5.5,SNR=8.5						
BDFB	Brasilia	141.91	256	i PKIKP	PKPdf	05 05 49.8	-8.7
BDFB						05 05 54.3	
BDFB				pmax	pmax		

	comp=Z,3.0nm,0.6s						
BDFB				pmax	pmax		
	comp=Z,10.0nm,0.9s						
PCRV	**Puerto La Cruz**	**151.32**	**310**	PKPbc	PKPdf	05 06 15.5	+1.4
	comp=Z,12nm,0.5s,baz=270,slow=2.9,SNR=15						
PCRV				PKPab	PKPab	05 06 23.7	-1.6
	comp=Z,21nm,0.5s,baz=345,slow=5.7,SNR=5.9						
SDV	**Santo Domingo**	**156.48**	**318**	PKP	PKPdf	05 06 17.1	-4.0
	comp=Z,5.5nm,1.0s,baz=316,slow=5.6,SNR=4.9						
SDV				PKPab	PKPab	05 06 47.0	0.0
	comp=Z,17nm,0.7s,baz=89,slow=3.1,SNR=12						
SDV	**Santo Domingo**	**156.48**	**318**	*e*PKPdf	PKPdf	05 06 17.5	-3.7
LPAZ	**La Paz**	**160.67**	**245**	PKP	PKPdf	05 06 21.9	-4.2
	comp=Z,3.5nm,0.8s,baz=218,slow=6.6,SNR=2.2						
LPAZ				PKPab	PKPab	05 07 04.6	-0.4
	comp=Z,5.0nm,0.7s,baz=43,slow=3.7,SNR=4.9						
LPAZ	**La Paz**	**160.67**	**245**	PKIKP	PKPdf	05 06 21.9	-4.2
LPAZ						05 07 04.6	
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LPAZ	**La Paz**	**160.67**	**245**	*e*PKPdf	PKPdf	05 06 24.4	-1.7
LPAZ				*e*PKPab	PKPab	05 07 04.7	-0.2
ROSC	**El Rosal**	**161.91**	**318**	PKP	PKPdf	05 06 23.7	-3.7
	comp=Z,12nm,1.0s,baz=109,slow=9.4,SNR=9.6						
ROSC				PKPab	PKPab	05 07 12.6	+2.1
	comp=Z,5.3nm,0.7s,baz=122,slow=20,SNR=6.1						

IDC 26 04:48:16.3±5.9**, 7.52N**×**93.18E, mb4.8**/3**, mb1 5.0**/3**, mb1mx4.3**/17**, Error ellipse: s-maj=281.0km s-min=106.7km az=50.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.84**	**125**	P	P	04 57 04.2	-1.7
	18nm,0.9s,baz=303,slow=9.0,SNR=4.6						
ASAR	**Alice Springs**	**50.43**	**129**	P	P	04 57 16.6	-1.4
	11nm,0.8s,baz=308,slow=7.4,SNR=5.0						
STKA	**Stephens Creek**	**60.56**	**133**	P	P	04 58 27.9	-3.3
	6.4nm,0.7s,baz=331,slow=7.3,SNR=3.1						
TXAR	**Lajitas Array**	**139.93**	**23**	PKP	PKPdf	05 07 47.0	-2.1
	0.5nm,0.5s,baz=208,slow=0.3,SNR=3.5						

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*MOS **26** 04:48:55.4±0.8, 8.90N×93.76E, h33^{km}, mb5.1/17, Error ellipse: s-maj=20.0km s-min=9.9km az=124.0*

*IDC **26** 04:48:56.7±0.7, 8.94N×93.72E, h26^{km}±3^{km}, mb4.6/18, mb1 4.7/19, mb1mx4.7/25, ML5.6/1, Error ellipse: s-maj=24.2km s-min=17.7km az=46.0*

*NEIC **26** 04:48:56.5±0.3, 8.87N×93.75E, mb5.2/16, Error ellipse: s-maj=8.8km s-min=6.9km az=117.0*

*BJI **26** 04:48:56.8, 8.81N×93.59E, h41^{km}, mb4.8*

ISC 26 04:48:54.8±4.9**, 8.90N**±0.09×**93.8E**±0.1**, h28**^{km}±34^{km}**, h27**^{km}±.6^{km}**:pP-P, n98,** σ**0**^{s}**74**/86**, mb5.0**/37**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**10.74**	**27**	*e*P	**P**	**04 51 29.8**	**-0.3**
CMAR	**Chiang Mai Arr**	**10.74**	**27**	Pn	**P**	**04 51 30.3**	**+0.2**
	13nm,0.3s,baz=213,slow=15,SNR=15						
CMAR	**Chiang Mai Arr**	**10.74**	**27**	P	**P**	**04 51 30.3**	**+0.3**
CMAR				pmax	pmax		
	comp=Z,13nm,0.3s						
LSA	**Lhasa**	**20.84**	**354**	*e*P	**P**	**04 53 37.7**	**+0.7**
	comp=Z,69nm,0.8s						
GYA	**Guiyang**	**21.31**	**33**	P	**P**	**04 53 45.0**	**+3.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.2						
LZH	**Lanzhou**	**28.57**	**17**	*e*P	**P**	**04 54 51.8**	**+1.1**
LZH				PP	PP	04 55 41.5	-1.5
LZH				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.9						
GTA	**Gaotai**	**30.85**	**9**	P	**P**	**04 55 11.0**	**0.0**
GTA				AMB	AMB		
	comp=Z,46nm,1.1s,mb5.2						
AAK	**Ala-Archa**	**37.63**	**336**	*e*P	**P**	**04 56 09.5**	**+0.3**
	comp=Z,24nm,0.8s,mb5.0						
AAK				*e*	pP	04 56 16.7	-0.7
SONM	**Songino Array**	**40.24**	**13**	PcP	PcP	04 58 35.7	+0.6
	comp=Z,3.5nm,0.6s,baz=210,slow=3.7,SNR=3.2						
ULN	**Ulaanbaatar**	**40.42**	**14**	*e*P	**P**	**04 56 31.2**	**-1.1**
ZAL	**Zalesovo**	**45.49**	**353**	P	**P**	**04 57 14.2**	**+0.7**
	comp=Z,8.4nm,0.6s,mb4.8,baz=286,slow=11,SNR=4.5						
NWAO	**Narrogin (SRO)**	**47.21**	**153**	P	**P**	**04 57 26.3**	**-1.1**
	comp=Z,29nm,0.9s,mb5.2,baz=290,slow=6.5,SNR=4.0						
NWAO	**Narrogin (SRO)**	**47.21**	**153**	P	**P**	**04 57 26.3**	**-1.1**
NWAO				pmax	pmax		
	comp=Z,29nm,0.9s						
NWAO	**Narrogin (SRO)**	**47.21**	**153**	P	**P**	**04 57 26.3**	**-1.2**
RDF	**Al-Radifah**	**47.70**	**301**	*e*P	**P**	**04 57 32.4**	**+1.2**
RDF				AMb	AMB	04 57 42.2	
	comp=Z,129nm,0.8s,mb6.0						
BVAR	**Borovoye Array**	**47.91**	**341**	P	**P**	**04 57 31.9**	**-0.7**
	comp=Z,6.5nm,0.6s,mb4.9,baz=147,slow=10,SNR=4.1						
BRVK	**Borovoye**	**47.97**	**341**	*e*P	**P**	**04 57 32.5**	**-0.6**
	comp=Z,8.1nm,0.6s,mb4.9						
MIB	**Mutribah**	**48.11**	**302**	*e*P	**P**	**04 57 34.6**	**+0.1**
MIB				AMb	AMB	04 57 36.3	
	comp=Z,90nm,0.8s,mb5.8						
RST	**Umm Al-Ruwaisa**	**48.31**	**302**	*e*P	**P**	**04 57 35.2**	**-0.8**
RST				AMb	AMB	04 57 37.2	
	comp=Z,91nm,0.6s,mb6.0						
CHKZ	**Chkalovo**	**48.40**	**342**	*e*P	**P**	**04 57 35.5**	**-0.8**
	comp=Z,20nm,0.7s,mb5.2						
PMG	**Port Moresby**	**56.17**	**108**	P	**P**	**04 58 35.1**	**+0.2**
	comp=Z,14nm,0.8s,mb5.0,baz=65,slow=2.1,SNR=4.5						
PMG	**Port Moresby**	**56.17**	**108**	P	**P**	**04 58 35.1**	**+0.1**
PMG				pmax	pmax		
	comp=Z,14nm,0.8s						
PMG	**Port Moresby**	**56.17**	**108**	*e*P	**P**	**04 58 33.6**	**-1.3**
KIV	**Kislovodsk**	**56.33**	**318**	*e*P	**P**	**04 58 33.7**	**-2.0**
KIV				pmax	pmax		
	comp=N,12nm,1.2s						
KIV				pmax	pmax		
	comp=E,32nm,1.2s						
KIV				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.3						
KIV	**Kislovodsk**	**56.33**	**318**	*e*P	**P**	**04 58 34.9**	**-0.9**
	comp=Z,21nm,0.8s,mb5.2						
KMBO	**Kilima Mbogo**	**57.20**	**263**	P	**P**	**04 58 43.5**	**+1.1**
	comp=Z,5.6nm,0.8s,mb4.6,baz=52,slow=8.5,SNR=4.5						
KMBO	**Kilima Mbogo**	**57.20**	**263**	P	**P**	**04 58 43.5**	**+1.1**
KMBO				pmax	pmax		
	comp=Z,6.0nm,0.9s						
KMBO	**Kilima Mbogo**	**57.20**	**263**	*e*P	**P**	**04 58 42.3**	**-0.1**
EIL	**Elat**	**58.62**	**299**	*e*P	**P**	**04 58 51.9**	**-0.2**
	comp=Z,28nm,1.0s,mb5.2						
BRTR	**Keskin Array B**	**61.50**	**310**	P	**P**	**04 59 09.8**	**-1.8**
	comp=Z,8.8nm,0.8s,mb4.9,baz=120,slow=7.7,SNR=6.1						
BRTR				pP	pP	04 59 19.1	-1.2
	comp=Z,15nm,1.0s,baz=124,slow=7.8,SNR=7.6						
BRTR	**Keskin Array B**	**61.50**	**310**	P	**P**	**04 59 09.9**	**-1.8**
BRTR				*PP	pP	04 59 19.2	-1.1
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,15nm,1.0s						
OBN	**Obninsk**	**64.33**	**328**⇑	*i*P	**P**	**04 59 29.2**	**-1.0**
OBN				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
AKASG	**Malin Array Be**	**67.14**	**321**	P	**P**	**04 59 46.6**	**-1.7**
	comp=Z,3.7nm,0.7s,mb4.5,baz=90,slow=5.2,SNR=5.8						
AKASG				pP	pP	04 59 55.5	-1.4
	comp=Z,5.9nm,0.7s,baz=88,slow=4.2,SNR=5.6						
AKASG	**Malin Array Be**	**67.14**	**321**	P	**P**	**04 59 46.6**	**-1.7**
AKASG				*PP	pP	04 59 55.5	-1.4
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.7s						
IDI	**Anoyia**	**67.70**	**304**	P	**P**	**04 59 51.6**	**-0.5**
	comp=Z,10nm,0.8s,mb4.9,baz=127,slow=5.1,SNR=3.9						
IDI				pP	pP	05 00 00.3	-0.4
	comp=Z,20nm,0.9s,baz=96,slow=9.2,SNR=5.5						
LSZ	**Lusaka**	**69.29**	**250**	*e*P	**P**	**05 00 03.0**	**+0.8**
KOLS	**Kolonicke sedl**	**71.21**	**319**	*e*P	**P**	**05 00 13.9**	**+0.5**
FINES	**FINESS Array B**	**71.65**	**332**	P	**P**	**05 00 15.2**	**-0.6**
	comp=Z,6.1nm,0.8s,mb4.6,baz=106,slow=5.3,SNR=5.1						
FINES	**FINESS Array B**	**71.65**	**332**	P	**P**	**05 00 15.2**	**-0.6**
FINES				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CRVS	**Cervenica-Dubn**	**71.73**	**319**	*e*P	**P**	**05 00 18.4**	**+1.9**
OJC	**Ojcow**	**72.97**	**320**	*e*P	**P**	**05 00 23.2**	**-0.6**
VYHS	**Vyhne**	**73.42**	**318**	*e*P	**P**	**05 00 25.9**	**-0.5**
OKC	**Ostrava-Krasne**	**73.99**	**319**	*e*P	**P**	**05 00 29.3**	**-0.4**
OKC				*e*pP	pP	05 00 37.8	-0.6
ARCES	**ARCESS Array B**	**74.19**	**340**	P	**P**	**05 00 30.1**	**-0.4**
	comp=Z,12nm,1.1s,mb4.8,baz=90,slow=1.2,SNR=5.3						
ARCES	**ARCESS Array B**	**74.19**	**340**	P	**P**	**05 00 30.1**	**-0.4**
ARCES				pmax	pmax		
	comp=Z,12nm,1.1s						
LBTB	**Lobatse**	**74.43**	**241**	*e*P	**P**	**05 00 33.3**	**+0.5**
	comp=Z,31nm,1.0s,mb5.2						
LBTB				*e*	pP	05 00 41.6	+0.1
ZST	**Bratislava**	**74.55**	**318**	*e*P	**P**	**05 00 33.2**	**+0.2**
VRAC	**Vranov**	**74.96**	**319**	P	**P**	**05 00 35.0**	**-0.3**
	comp=Z,3.5nm,0.9s,mb4.3,baz=100,slow=7.6,SNR=3.6						
VRAC	**Vranov**	**74.96**	**319**	P	**P**	**05 00 35.0**	**-0.3**
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.9s						
DPC	**Dobruska-Polom**	**75.20**	**320**	*e*P	**P**	**05 00 36.7**	**0.0**
KSP	**Ksiaz**	**75.26**	**320**	*e*P	**P**	**05 00 37.2**	**+0.2**
KSP				*e*	pP	05 00 45.3	-0.4
UPC	**Upice**	**75.41**	**320**	*e*P	**P**	**05 00 38.2**	**+0.3**
BOSA	**Boshof**	**75.84**	**238**	*e*P	**P**	**05 00 41.1**	**+0.3**
BOSA				*e*	pP	05 00 49.2	-0.3
PRU	**Pruhonice**	**76.33**	**319**	*e*P	**P**	**05 00 43.3**	**+0.2**
PRU				*e*pP	pP	05 00 50.7	-1.1
BRG	**Berggiesshubel**	**76.75**	**320**	*i* P	**P**	**05 00 45.3**	**-0.1**
BRG				pmax	pmax		
	comp=Z,44nm,1.5s,mb5.2						
BRG	**Berggiesshubel**	**76.75**	**320**	*i* P	**P**	**05 00 45.3**	**-0.1**
	comp=Z,44nm,1.5s,mb5.2						
GEC2	**GERESS Array S**	**76.83**	**318**	*e*P	**P**	**05 00 46.2**	**+0.2**
GEC2				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
GEC2	**GERESS Array S**	**76.83**	**318**	*e*P	**P**	**05 00 46.2**	**+0.2**
	comp=Z,32nm,1.3s,mb5.1						
GERES	**GERESS Array B**	**76.83**	**318**	P	**P**	**05 00 46.3**	**+0.4**
	comp=Z,5.8nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=6.4						
GERES				pP	pP	05 00 54.1	-0.6
	comp=Z,6.2nm,0.7s,baz=90,slow=5.3,SNR=5.6						
GERES	**GERESS Array B**	**76.83**	**318**	P	**P**	**05 00 46.3**	**+0.3**
GERES				*PP	pP	05 00 54.1	-0.6
GERES				pmax	pmax		
	comp=Z,6.0nm,0.8s						
GERES				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KHC	**Kasperske Hory**	**76.92**	**318**	*e*P	**P**	**05 00 46.6**	**+0.2**
KHC				*e*pP	pP	05 00 54.6	-0.6
CLL	**Collm**	**77.35**	**321**	*e*P	**P**	**05 00 48.0**	**-0.8**
CLL				*e*	pP	05 00 57.0	-0.5
CLL	**Collm**	**77.35**	**321**	P	**P**	**05 00 48.0**	**-0.8**
CLL				*e**PP	pP	05 00 57.0	-0.5
CLL				*e*		05 01 24.0	
WET	**Wettzell**	**77.38**	**318**	*e*P	**P**	**05 00 49.3**	**+0.3**
HFS	**Hagfors**	**77.40**	**330**	P	**P**	**05 00 49.0**	**+0.1**
	comp=Z,7.0nm,0.6s,mb4.8,baz=104,slow=6.1,SNR=6.1						
HFS				pP	pP	05 00 57.8	+0.2
	comp=Z,11nm,0.8s,baz=146,slow=5.3,SNR=4.2						
HFS	**Hagfors**	**77.40**	**330**	P	**P**	**05 00 49.0**	**+0.2**
HFS				*PP	pP	05 00 57.8	+0.2
HFS				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HFS				pmax	pmax		
	comp=Z,11nm,0.8s						
NKC	**Novy Kostel**	**77.68**	**319**	*e*P	**P**	**05 00 50.9**	**+0.3**
MOX	**Moxa**	**78.22**	**320**	*e*P	**P**	**05 00 54.0**	**+0.5**
FUR	**Furstenfeldbru**	**78.44**	**317**	*e*P	**P**	**05 00 54.8**	**0.0**
GRA1	**Grafenberg Arr**	**78.47**	**319**	*e*P	**P**	**05 00 54.8**	**-0.1**
	comp=Z,53nm,1.3s,mb5.3						
GRA1				*e*pP	pP	05 01 04.3	+0.6
GRF	**Grafenberg Arr**	**78.47**	**319**	*e*P	**P**	**05 00 54.8**	**-0.1**
GRF				*e**PP	pP	05 01 04.3	+0.6
GRF				pmax	pmax		
	comp=Z,53nm,1.3s,mb5.3						
GRF	**Grafenberg Arr**	**78.47**	**319**	*e*P	**P**	**05 00 54.8**	**-0.1**
	comp=Z,53nm,1.3s,mb5.3						
GRF				*e*pP	pP	05 01 04.3	+0.6
NB2	**NORSAR Subarra**	**78.67**	**331**	P	**P**	**05 00 55.3**	**-0.5**
	comp=Z,7.3nm,0.7s,mb4.7,baz=95,slow=5.0						
NOA	**NORSAR Array B**	**78.67**	**331**	P	**P**	**05 00 55.5**	**-0.3**
	comp=Z,6.0nm,0.8s,mb4.6,baz=95,slow=5.2,SNR=5.5						
NOA				pP	pP	05 01 04.5	-0.1
	comp=Z,3.9nm,0.7s,baz=113,slow=5.0,SNR=6.9						
NOA	**NORSAR Array B**	**78.67**	**331**	P	**P**	**05 00 55.5**	**-0.3**
NOA				*PP	pP	05 01 04.5	-0.1
NOA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NOA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CLZ	**Clausthal**	**79.00**	**321**	*e*P	**P**	**05 00 58.0**	**+0.2**
	comp=Z,57nm,1.5s,mb5.3						
BSEG	**Bad Segeberg**	**79.03**	**323**	*e*P	**P**	**05 00 58.5**	**+0.6**
DAVOX	**Davos**	**79.41**	**316**	P	**P**	**05 01 01.4**	**+1.2**
	comp=Z,5.6nm,0.6s,mb4.7,baz=200,slow=2.6,SNR=3.4						
BFO	**Black Forest**	**80.41**	**318**	*e*P	**P**	**05 01 05.7**	**+0.3**
BFO				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
BFO	**Black Forest**	**80.41**	**318**	*e*P	**P**	**05 01 05.7**	**+0.3**
	comp=Z,18nm,1.2s,mb4.9						
LPL	**La Plagne**	**81.66**	**315**	*e*P	**P**	**05 01 12.2**	**+0.1**
	comp=Z,50nm,0.8s,mb5.2						
ESDC	**Sonseca Array**	**90.29**	**310**	P	**P**	**05 01 55.6**	**+0.8**
	comp=Z,6.6nm,1.0s,mb4.9,baz=63,slow=5.0,SNR=6.0						
ESLA	**Sonseca Array**	**90.29**	**310**	*e*P	**P**	**05 01 54.8**	**0.0**
	comp=Z,13nm,1.3s,mb5.1						
ILAR	**Eielson Array**	**93.93**	**22**	P	**P**	**05 02 11.2**	**+0.3**
	comp=Z,1.2nm,0.7s,mb4.5,baz=289,slow=4.7,SNR=4.7						
ILAR	**Eielson Array**	**93.93**	**22**	P	**P**	**05 02 11.2**	**+0.3**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	**Inuvik**	**96.11**	**16**	P	**P**	**05 02 21.4**	**+0.5**
	comp=Z,7.5nm,1.3s,mb5.0,baz=276,slow=5.3,SNR=5.0						
INK	**Inuvik**	**96.11**	**16**	P	**P**	**05 02 21.4**	**+0.5**
INK				pmax	pmax		
	comp=Z,8.0nm,1.3s						
ULM	**Lac du Bonnet**	**120.50**	**7**	PKP	PKPdf	05 07 46.5	-2.4
	comp=Z,2.0nm,0.6s,baz=319,slow=6.2,SNR=3.4						
NVAR	**Mina Array Bea**	**124.22**	**30**	PKP	PKPdf	05 07 54.6	-1.8
	comp=Z,1.8nm,0.8s,baz=270,slow=0.9,SNR=3.0						
NVAR				pPKP		05 08 03.6	
	comp=Z,2.9nm,0.7s,baz=301,slow=1.8,SNR=6.2						
PDAR	**Pinedale Array**	**124.34**	**21**	PKP	PKPdf	05 07 53.4	-3.2
	comp=Z,1.5nm,0.7s,baz=14,slow=0.8,SNR=3.6						
PDAR				pPKP		05 08 02.2	
	comp=Z,2.6nm,0.7s,baz=11,slow=0.5,SNR=5.6						
TXAR	**Lajitas Array**	**138.43**	**23**	PKP	PKPdf	05 08 22.5	-1.0
	comp=Z,0.7nm,0.7s,SNR=3.5						
TXAR	**Lajitas Array**	**138.43**	**23**	PKP	PKPdf	05 08 22.5	-1.0
BAO	**Brasilia Array**	**142.10**	**256**	PKP	PKPdf	05 08 20.4	-10
SDV	**Santo Domingo**	**156.49**	**318**	PKPab	PKPab	05 09 18.9	-0.2
	comp=Z,8.7nm,0.9s,baz=28,slow=3.7,SNR=3.7						
LVC	**Limon Verde**	**158.52**	**229**	PKPab	PKPab	05 09 28.3	+0.7
	comp=Z,4.4nm,0.6s,baz=120,slow=2.1,SNR=5.8						
LPAZ	**La Paz**	**160.90**	**246**	PKPab	PKPab	05 09 37.5	-0.5
	comp=Z,2.7nm,0.8s,baz=59,slow=5.5,SNR=3.1						
LPAZ	**La Paz**	**160.90**	**246**	PKP2	PKPab	05 09 37.5	-0.5
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LPAZ	**La Paz**	**160.90**	**246**	*e*PKPab	PKPab	05 09 36.6	-1.4

JMA 26 04:49:02.8±0.1**, 31.76N**×**129.18E, h11**^{km}±1^{km}**, M3.6, Kyushu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JSJ	**Shimokoshiki**	**0.46**	**100**	P	Pg	04 49 11.8	-0.5
JSJ				S	Sg	04 49 17.9	-0.7
JFU	**Fukue jima 2**	**0.96**	**338**	P	Pb	04 49 20.9	-0.2
JFU				S	Sb	04 49 34.3	+0.7
NGSJ	**Nagasakinomoza**	**1.02**	**31**	P	Pb	04 49 22.0	+0.1
NGSJ				S	Sb	04 49 35.5	+0.4
JHD	**Hondo**	**1.07**	**49**	P	Pb	04 49 22.7	-0.2
JHD				S	Sb	04 49 37.0	+0.2
JSU	**Suzuyama**	**1.12**	**103**	P	Pb	04 49 23.5	-0.2
JSU				S	Sb	04 49 38.5	+0.5
JZO	**Okuchi**	**1.26**	**72**	P	Pb	04 49 25.4	-0.8
JZO				S	Sb	04 49 43.3	+1.0

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*IDC **26** 04:50:24.7±1.0, 4.33N×93.69E, mb4.5/11, mb1 4.7/12, mb1mx4.4/21, ML4.7/1, Error ellipse: s-maj=45.4km s-min=19.8km az=46.0*

ISC 26 04:50:28.1±0.9**, 4.4N**±0.2×**93.8E**±0.2**, h33**^{km}**, n12,** σ**0**^{s}**64**/12**, mb4.5**/11**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.88**	**19**	Pn	**P**	**04 54 04.0**	**+6.0**
	1.1nm,0.3s,baz=214,slow=12,SNR=4.6						
SONM	**Songino Array**	**44.64**	**12**	P	**P**	**04 58 39.5**	**+0.3**
	7.3nm,0.7s,mb4.6,baz=196,slow=8.2,SNR=6.1						
WRA	**Warramunga Arr**	**46.61**	**123**	P	**P**	**04 58 54.1**	**-1.2**
	6.0nm,0.6s,mb4.7,baz=301,slow=9.3,SNR=5.8						
ASAR	**Alice Springs**	**48.03**	**127**	P	**P**	**04 59 07.5**	**+1.1**
	3.6nm,0.6s,mb4.6,baz=299,slow=7.6,SNR=4.4						
ZAL	**Zalesovo**	**49.95**	**353**	P	**P**	**04 59 21.1**	**+0.3**
	6.9nm,0.4s,mb5.0,baz=315,slow=4.6,SNR=7.1						
BVAR	**Borovoye Array**	**52.18**	**342**	P	**P**	**04 59 37.4**	**-0.2**
	2.1nm,0.6s,mb4.3,baz=130,slow=11,SNR=4.4						
BRTR	**Keskin Array B**	**64.46**	**312**	P	**P**	**05 01 03.1**	**-0.6**
	3.4nm,0.9s,mb4.4,baz=140,slow=4.9,SNR=5.3						
IDI	**Anoyia**	**70.28**	**306**	P	**P**	**05 01 40.7**	**+0.3**
	7.4nm,0.8s,mb4.6,baz=97,slow=12,SNR=3.5						
FINES	**FINESS Array B**	**75.62**	**333**	P	**P**	**05 02 10.5**	**-0.8**
	4.4nm,0.9s,mb4.4,baz=97,slow=5.9,SNR=5.3						
ARCES	**ARCESS Array B**	**78.42**	**341**	P	**P**	**05 02 26.8**	**0.0**
	2.4nm,0.6s,mb4.3,baz=97,slow=6.3,SNR=6.3						
GERES	**GERESS Array B**	**80.19**	**319**	P	**P**	**05 02 37.2**	**+0.4**
	1.5nm,0.8s,mb4.0,baz=90,slow=6.9,SNR=3.8						
DAVOX	**Davos**	**82.65**	**316**	P	**P**	**05 02 50.2**	**+0.5**
	5.4nm,0.9s,mb4.6,baz=176,slow=10,SNR=5.1						

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*IDC **26** 04:53:04.9±0.6, 8.33N×93.04E, mb4.4/17, mb1 4.6/18, mb1mx4.5/22, ML4.6/1, Error ellipse: s-maj=33.9km s-min=15.8km az=46.0*

*BJI **26** 04:53:06.5, 8.40N×93.08E, h17^{km}, mb5.2*

*NEIC **26** 04:53:09.1±0.4, 8.19N×92.93E, h30^{km}, mb4.9/11, Error ellipse: s-maj=12.7km s-min=10.1km az=54.0*

ISC 26 04:53:07.6±0.5**, 8.19N**±0.08×**92.99E**±0.08**, h33**^{km}**, n52,** σ**0**^{s}**94**/41**, mb4.7**/31**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.73**	**29**	*e*P	**P**	**04 55 56.4**	**+0.7**
	17nm,0.7s						
CMAR	**Chiang Mai Arr**	**11.73**	**29**	Pn	**P**	**04 55 56.5**	**+0.9**
	1.2nm,0.3s,baz=218,slow=14,SNR=11						
LSA	**Lhasa**	**21.46**	**356**	*e*P	**P**	**04 57 56.9**	**+1.6**
	63nm,1.0s,mb4.9						
GYA	**Guiyang**	**22.33**	**34**	P	**P**	**04 58 05.3**	**+1.4**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
CD2	**Chengdu**	**24.74**	**23**	P	**P**	**04 58 26.5**	**-1.0**
ENH	**Enshi**	**26.85**	**33**	*e*P	**P**	**04 58 45.1**	**-2.1**
	comp=Z,95nm,1.1s,mb5.2						
GTA	**Gaotai**	**31.68**	**10**	P	**P**	**04 59 29.5**	**-0.8**
GTA				AP	pP	04 59 33.3	-6.6
GTA				AMB	AMB		
	comp=Z,109nm,0.8s,mb5.7						
BJT	**Baijiatuau**	**37.86**	**30**	*e*P	**P**	**05 00 23.2**	**+0.1**
	comp=Z,20nm,0.6s,mb5.0						
AAK	**Ala-Archa**	**37.97**	**338**	*e*P	**P**	**05 00 24.2**	**+0.2**
DL2	**Dalian**	**39.96**	**36**	P	**P**	**05 00 41.3**	**+0.7**
DL2				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.3						
SONM	**Songino Array**	**41.11**	**14**	P	**P**	**05 00 49.8**	**-0.2**
	comp=Z,9.3nm,0.9s,mb4.4,baz=200,slow=8.3,SNR=11						
SONM				PP	PP	05 02 24.3	-3.5
	comp=Z,3.5nm,0.7s,baz=201,slow=11,SNR=3.5						
CN2	**Changchun**	**45.38**	**33**	*e*P	**P**	**05 01 24.8**	**+0.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
ZAL	**Zalesovo**	**46.09**	**353**	PcP	PcP	05 03 06.3	-0.2
	comp=Z,3.6nm,0.8s,baz=288,slow=6.3,SNR=3.7						
BVAR	**Borovoye Array**	**48.33**	**342**	P	**P**	**05 01 45.6**	**-2.2**
	comp=Z,1.5nm,0.5s,mb4.3,baz=136,slow=9.4,SNR=6.0						
BVAR				PcP	PcP	05 03 15.7	+1.2
	comp=Z,2.6nm,0.6s,baz=135,slow=4.2,SNR=3.9						
BRVK	**Borovoye**	**48.39**	**342**	*e*P	**P**	**05 01 47.0**	**-1.2**
CHKZ	**Chkalovo**	**48.82**	**342**	*e*P	**P**	**05 01 49.8**	**-1.8**
	comp=Z,8.2nm,0.6s,mb4.9						
WRA	**Warramunga Arr**	**49.38**	**125**	P	**P**	**05 01 55.1**	**-1.2**
	comp=Z,2.5nm,0.6s,mb4.4,baz=303,slow=8.9,SNR=3.4						
WRAB	**Tennant Creek**	**49.38**	**125**	*e*P	**P**	**05 01 56.4**	**0.0**
	comp=Z,8.1nm,0.6s,mb4.9						
ASAR	**Alice Springs**	**50.99**	**129**	P	**P**	**05 02 08.3**	**-0.3**
	comp=Z,2.6nm,0.8s,mb4.2,baz=304,slow=7.0,SNR=4.2						
ASAR				PcP	PcP	05 03 25.2	+0.6
	comp=Z,1.9nm,0.7s,baz=311,slow=2.8,SNR=4.5						
KIV	**Kislovodsk**	**56.32**	**318**	*e*P	**P**	**05 02 47.3**	**-0.3**
	comp=Z,9.2nm,0.8s,mb4.9						
STKA	**Stephens Creek**	**61.15**	**133**	P	**P**	**05 03 21.9**	**+0.5**
	comp=Z,4.8nm,0.8s,mb4.7,baz=303,slow=9.7,SNR=4.5						
BRTR	**Keskin Array B**	**61.36**	**311**	P	**P**	**05 03 22.2**	**-0.5**
	comp=Z,5.5nm,0.8s,mb4.7,baz=122,slow=7.3,SNR=12						
AKASG	**Malin Array Be**	**67.20**	**322**	P	**P**	**05 03 59.1**	**-1.4**
	comp=Z,3.2nm,0.7s,mb4.5,baz=85,slow=5.0,SNR=6.8						
IDI	**Anoyia**	**67.45**	**305**	P	**P**	**05 04 02.9**	**+0.6**
	comp=Z,5.4nm,0.7s,mb4.7,baz=88,slow=8.9,SNR=4.2						
FINES	**FINESS Array B**	**71.90**	**332**	P	**P**	**05 04 28.6**	**-0.4**
	comp=Z,3.3nm,0.7s,mb4.4,baz=90,slow=5.7,SNR=4.5						
PSZ	**Piszkesteto**	**72.64**	**318**	*e*P	**P**	**05 04 33.6**	**-0.1**
	comp=Z,3.9nm,0.7s,mb4.5						
LBTB	**Lobatse**	**73.40**	**241**	*e*P	**P**	**05 04 42.2**	**+3.5**
	comp=Z,26nm,1.5s,mb4.9						
VYHS	**Vyhne**	**73.41**	**318**	*e*P	**P**	**05 04 37.9**	**-0.4**
MORC	**Moravsky Berou**	**74.39**	**319**	*e*P	**P**	**05 04 43.9**	**0.0**
	comp=Z,4.7nm,0.9s,mb4.4						
ZST	**Bratislava**	**74.53**	**318**	*e*P	**P**	**05 04 45.3**	**+0.5**
ARCES	**ARCESS Array B**	**74.58**	**340**	P	**P**	**05 04 44.5**	**-0.1**
	comp=Z,1.5nm,0.4s,mb4.2,baz=98,slow=5.0,SNR=8.3						
GERES	**GERESS Array B**	**76.83**	**318**	P	**P**	**05 04 58.7**	**+0.8**
	comp=Z,3.0nm,0.7s,mb4.3,baz=79,slow=6.7,SNR=8.9						
KHC	**Kasperske Hory**	**76.92**	**318**	*e*P	**P**	**05 04 58.0**	**-0.4**
HFS	**Hagfors**	**77.61**	**330**	P	**P**	**05 05 03.3**	**+1.3**
	comp=Z,5.0nm,0.8s,mb4.5,baz=90,slow=5.9,SNR=5.3						
NB2	**NORSAR Subarra**	**78.89**	**331**	P	**P**	**05 05 08.8**	**-0.2**
	comp=Z,1.6nm,0.6s,mb4.1,baz=97,slow=4.8						
NOA	**NORSAR Array B**	**78.89**	**331**	P	**P**	**05 05 08.6**	**-0.5**
	comp=Z,1.7nm,0.6s,mb4.2,baz=96,slow=5.0,SNR=5.3						
DAVOX	**Davos**	**79.37**	**316**	P	**P**	**05 05 13.2**	**+1.3**
	comp=Z,3.8nm,0.6s,mb4.5,baz=337,slow=21,SNR=4.1						
LPL	**La Plagne**	**81.60**	**315**	*e*P	**P**	**05 05 24.6**	**+0.8**
	comp=Z,32nm,1.0s,mb4.9						
ESDC	**Sonseca Array**	**90.14**	**310**	P	**P**	**05 06 07.1**	**+1.2**
	comp=Z,1.0nm,0.7s,mb4.2,baz=62,slow=3.9,SNR=4.4						
ILAR	**Eielson Array**	**94.88**	**22**	P	**P**	**05 06 27.5**	**+0.4**
	comp=Z,0.8nm,0.6s,mb4.3,baz=304,slow=4.2,SNR=10						
INK	**Inuvik**	**97.00**	**16**	P	**P**	**05 06 37.2**	**+0.4**
	comp=Z,1.8nm,0.7s,mb4.6,baz=325,slow=2.8,SNR=7.3						
INK	**Inuvik**	**97.00**	**16**	P	**P**	**05 06 37.2**	**+0.4**
YKA	**Yellowknife Ar**	**106.38**	**13**	PP	PP	05 11 39.7	-6.6
	comp=Z,0.3nm,0.7s,baz=334,slow=8.0,SNR=5.1						
ULM	**Lac du Bonnet**	**121.29**	**7**	PKP	PKPdf	05 12 00.3	+2.8
	comp=Z,4.3nm,0.7s,baz=344,slow=3.0,SNR=8.0						
ULM	**Lac du Bonnet**	**121.29**	**7**	PKP	PKPdf	05 12 00.3	+2.8
NVAR	**Mina Array Bea**	**125.22**	**30**	PKP	PKPdf	05 12 09.2	+3.8
	comp=Z,1.0nm,0.6s,baz=281,slow=3.1,SNR=5.2						
PDAR	**Pinedale Array**	**125.27**	**20**	PKP	PKPdf	05 12 08.0	+2.6
	comp=Z,2.2nm,0.7s,baz=53,slow=1.1,SNR=14						
ANMO	**Albuquerque**	**133.32**	**22**	PKP	PKPdf	05 12 25.0	+4.0
	comp=Z,2.1nm,0.7s,baz=204,slow=1.2,SNR=5.9						
TXAR	**Lajitas Array**	**139.39**	**23**	PKP	PKPdf	05 12 36.3	+4.0
	comp=Z,0.7nm,0.5s,baz=282,slow=0.2,SNR=8.8						
TXAR				SKPbc		05 16 13.3	
	comp=Z,1.2nm,1.0s,baz=315,slow=3.5,SNR=4.1						
TXAR	**Lajitas Array**	**139.39**	**23**	PKP	PKPdf	05 12 36.3	+4.0
TXAR				SKPbc		05 16 13.3	
SDV	**Santo Domingo**	**156.46**	**316**	PKPab	PKPab	05 13 30.4	-0.5
	comp=Z,3.1nm,0.9s,baz=8.9,slow=8.7,SNR=3.6						
LPAZ	**La Paz**	**159.89**	**245**	PKPab	PKPab	05 13 47.5	+1.9
	comp=Z,1.0nm,0.7s,baz=67,slow=7.4,SNR=4.1						

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*IDC **26** 04:56:19.1±0.9, 5.25N×93.32E, mb4.4/12, mb1 4.5/12, mb1mx4.3/20, Error ellipse: s-maj=47.1km s-min=18.0km az=49.0*

ISC 26 04:56:22.4±0.7**, 5.3N**±0.2×**93.4E**±0.2**, h33**^{km}**, n18,** σ**0**^{s}**58**/17**, mb4.4**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYB	**Hyderabad**	**18.90**	**311**	*i* P	**P**	**05 00 35.0**	**-8.0**
SONM	**Songino Array**	**43.83**	**13**	P	**P**	**05 04 27.4**	**+0.3**
	4.8nm,0.6s,mb4.4,baz=196,slow=7.9,SNR=8.1						
WRA	**Warramunga Arr**	**47.40**	**123**	P	**P**	**05 04 55.8**	**0.0**
	10nm,0.8s,mb4.8,baz=302,slow=9.1,SNR=9.5						

ASAR	Alice Springs	48.85	128	P	P	05 05 07.0	-0.1
	1.2nm,0.6s,mb4.1,baz=304,slow=7.5,SNR=3.5						
ZAL	Zalesovo	49.01	353	P	P	05 05 08.1	+0.1
	3.3nm,0.5s,mb4.6,baz=302,slow=6.1,SNR=4.9						
BVAR	Borovoye Array	51.21	342	P	P	05 05 24.0	-0.7
	4.7nm,0.9s,mb4.4,baz=140,slow=12,SNR=5.5						
STKA	Stephens Creek	58.87	132	P	P	05 06 20.7	0.0
	3.1nm,0.8s,mb4.4,baz=292,slow=5.4,SNR=3.0						
BRTR	Keskin Array B	63.59	312	P	P	05 06 51.4	-1.2
	1.6nm,0.7s,mb4.1,baz=121,slow=6.9,SNR=4.3						
BALT	Daday	64.29	314	*i* P	P	05 07 01.9	+5.0
SGKT	Sivrigoynuk	64.99	312	*i* P	P	05 07 02.6	+1.1
ULDT	Uludag	67.05	311	*i* P	P	05 07 21.5	+6.9
KDAG	Bornova	68.11	309	*i* P	P	05 07 29.7	+8.4
IDI	Anoyia	69.47	306	P	P	05 07 29.7	-0.1
	2.8nm,0.5s,mb4.4,baz=104,slow=10.0,SNR=4.1						
FINES	FINESS Array B	74.66	333	P	P	05 07 59.6	-0.5
	3.1nm,0.7s,mb4.4,baz=89,slow=4.5,SNR=5.9						
ARCES	ARCESS Array B	77.45	340	P	P	05 08 16.1	+0.3
	5.0nm,1.0s,mb4.4,baz=90,slow=6.1,SNR=6.4						
GERES	GERESS Array B	79.28	319	P	P	05 08 27.2	+0.9
	1.7nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=5.0						
HFS	Hagfors	80.32	330	P	P	05 08 31.5	-0.2
	2.7nm,0.6s,mb4.3,baz=104,slow=6.1,SNR=5.0						
ULM	Lac du Bonnet	124.11	7	PKP	PKPdf	05 15 19.2	+1.3
	2.1nm,0.8s,baz=102,slow=1.4,SNR=3.4						

*IDC **26** 04:57:13.4±8.0, 8.88N×93.87E, h33^{km}±59^{km}, mb4.3/18, mb1 4.4/19, mb1mx4.4/24, ML4.3/1, Error ellipse: s-maj=26.2km s-min=19.2km az=58.0*

ISC 26 04:57:11.7±0.6**, 8.9N**±0.1×**94.0E**±0.1**, h33^{km}, n30,** σ**0^{s}89**/22**, mb4.5**/19**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.65	26	Pn	P	04 59 43.8	-1.4
	0.6nm,0.3s,baz=217,slow=14,SNR=4.4						
PTH	Pithoragarh	24.25	330	*e*	P	05 02 29.1	+2.2
SONM	Songino Array	40.20	13	P	P	05 04 47.8	+1.2
	3.6nm,1.0s,mb4.1,baz=196,slow=9.0,SNR=4.1						
ZAL	Zalesovo	45.51	352	P	P	05 05 30.4	+0.6
	10.0nm,0.5s,mb5.0,baz=296,slow=7.5,SNR=13						
NWAO	Narrogin (SRO)	47.13	153	P	P	05 05 43.4	+0.5
	12nm,0.8s,mb4.9,baz=315,slow=2.3,SNR=3.2						
BVAR	Borovoye Array	47.97	341	P	P	05 05 49.0	-0.2
	3.3nm,0.7s,mb4.5,baz=141,slow=11,SNR=6.9						
WRA	Warramunga Arr	49.00	126	P	P	05 05 57.2	-0.3
	2.5nm,0.7s,mb4.3,baz=304,slow=8.7,SNR=2.4						
KMBO	Kilima Mbogo	57.37	263	P	P	05 06 59.0	-0.6
	1.4nm,1.0s,mb4.0,baz=44,slow=11,SNR=5.7						
BRTR	Keskin Array B	61.63	310	P	P	05 07 27.1	-1.5
	3.2nm,0.8s,mb4.5,baz=127,slow=6.2,SNR=7.2						
AKASG	Malin Array Be	67.25	321	P	P	05 08 02.9	-2.0
	2.2nm,0.6s,mb4.4,baz=84,slow=5.0,SNR=7.4						
IDI	Anoyia	67.85	304	P	P	05 08 08.4	-0.6
	7.6nm,0.8s,mb4.8,baz=76,slow=2.6,SNR=3.6						
FINES	FINESS Array B	71.73	332	P	P	05 08 31.9	-0.2
	3.2nm,0.5s,mb4.5,baz=96,slow=6.0,SNR=8.2						
ARCES	ARCESS Array B	74.25	340	P	P	05 08 47.1	+0.3
	7.0nm,0.8s,mb4.7,baz=90,slow=6.1,SNR=7.1						
VRAC	Vranov	75.07	319	P	P	05 08 51.9	-0.1
	1.8nm,0.8s,mb4.1,baz=98,slow=5.1,SNR=4.4						
GERES	GERESS Array B	76.95	318	P	P	05 09 03.2	+0.4
	4.8nm,0.7s,mb4.5,baz=85,slow=5.3,SNR=16						
HFS	Hagfors	77.49	330	P	P	05 09 05.6	+0.1
	4.2nm,0.4s,mb4.7,baz=90,slow=5.9,SNR=19						
NB2	NORSAR Subarra	78.76	331	P	P	05 09 12.0	-0.4
	2.8nm,0.6s,mb4.4,baz=96,slow=4.8						
NOA	NORSAR Array B	78.76	331	P	P	05 09 12.2	-0.2
	3.7nm,0.7s,mb4.4,baz=92,slow=5.7,SNR=8.2						
LPL	La Plagne	81.79	315	⇑*i*P	P	05 09 29.7	+0.8
	40nm,0.8s,mb5.1						
ESDC	Sonseca Array	90.43	310	P	P	05 10 12.5	+1.0
	2.5nm,0.7s,mb4.6,baz=59,slow=4.3,SNR=8.7						
ILAR	Eielson Array	93.86	22	P	P	05 10 26.6	0.0
	1.4nm,0.8s,mb4.5,baz=304,slow=4.8,SNR=10.0						
INK	Inuvik	96.06	16	P	P	05 10 36.8	+0.3
	5.2nm,0.9s,mb4.9,baz=316,slow=4.0,SNR=10						
NVAR	Mina Array Bea	124.13	30	PKP	PKPdf	05 16 09.9	+2.5
	1.7nm,1.0s,baz=264,slow=5.0,SNR=4.2						
PDAR	Pinedale Array	124.27	21	PKP	PKPdf	05 16 09.2	+1.6
	0.6nm,1.0s,slow=3.0,SNR=4.0						
TXAR	Lajitas Array	138.36	23	PKP	PKPdf	05 16 38.0	+3.4
	0.4nm,0.8s,baz=253,slow=0.5,SNR=3.7						
BDFB	Brasilia	142.30	256	PKP	PKPdf	05 16 43.0	+1.1
	3.2nm,0.8s,baz=162,slow=4.7,SNR=4.1						
PCRV	Puerto La Cruz	151.49	311	PKPbc	PKPdf	05 17 03.3	+6.2
	9.6nm,0.9s,baz=338,slow=3.9,SNR=6.4						
SDV	Santo Domingo	156.60	319	PKPab	PKPab	05 17 35.3	-0.4
	3.0nm,0.9s,baz=7.7,slow=5.3,SNR=3.8						
LPAZ	La Paz	161.06	245	PKPab	PKPab	05 17 54.4	-0.4
	1.9nm,0.8s,baz=99,slow=5.8,SNR=4.8						
ROSC	El Rosal	162.03	319	PKPab	PKPab	05 18 00.4	+1.3
	8.0nm,1.1s,baz=275,slow=23,SNR=4.3						

*BJI **26** 04:58:03.3, 10.56N×92.18E, h60^{km}, mB5.6, mb5.3*
*NEIC **26** 04:58:04.0±0.2, 11.07N×92.00E, mb5.3/30, Error ellipse: s-maj=6.6km s-min=5.6km az=207.0*
*IDC **26** 04:58:05.9±4.0, 11.09N×91.99E, h42^{km}±36^{km}, mb4.6/27, mb1 4.7/28, mb1mx4.7/29, ML4.5/1, Error ellipse: s-maj=16.8km s-min=10.3km az=43.0*

ISC 26 04:58:02.1±0.3**, 11.05N**±0.05×**92.05E**±0.04**, h29^{km}, h29^{km}**±.7^{km}**:pP-P, n144,** σ**1^{s}05**/129**, mb5.1**/57**, 11C-3D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	9.94	41	*e*P	P	05 00 25.8	-0.4
	15nm,0.5s						
CMAR	Chiang Mai Arr	9.94	41	P	P	05 00 25.2	-1.1
	1.3nm,0.3s,baz=236,slow=15,SNR=6.2						
MDRS	Chennai	11.71	281	*e*	P	05 00 48.0	-2.5
MDRS				*e*		05 02 33.0	
PALK	Pallekele	11.81	252	P	P	05 00 51.7	-0.1
	34nm,0.5s						
KMI	Kunming	17.29	34	*e*P	P	05 02 04.0	+0.8
KMI				AMB	AMB		
	comp=Z,137nm,1.1s						
KAD	Karad	18.39	292	*e*	P	05 02 17.2	+0.2
LSA	Lhasa	18.58	358	P	P	05 02 27.8	+8.6
LSA	Lhasa	18.58	358	*e*P	P	05 02 20.3	+1.2
	comp=Z,76nm,0.8s						
GYA	Guiyang	20.62	40	⇑*i*P	P	05 02 40.8	-1.1
GYA				AMB	AMB		
	comp=Z,140nm,1.1s						
GYA				AMB	AMB		
	comp=Z,2µm,5.0s						
CD2	Chengdu	22.55	27	P	P	05 03 01.5	+0.1
CD2				AMB	AMB		
	comp=Z,460nm,0.9s,mb5.9						
DDI	Dehra Dun	23.17	328	*e*	P	05 03 10.0	+2.6
ENH	Enshi	25.08	38	*e*P	P	05 03 25.4	-0.5
	comp=Z,204nm,0.6s,mb5.8						
LZH	Lanzhou	27.12	21	*e*P	P	05 03 45.5	+0.8
LZH				AMB	AMB		
	comp=Z,130nm,1.2s,mb5.3						
WHN	Wuhan	28.38	44	P	P	05 03 55.8	-0.3
KSH	Kashi	31.75	336	*e*P	P	05 04 27.0	+1.0
NJ2	Nanjing	32.37	46	*e*P	P	05 04 31.3	-0.2
WMQ	Urumqi	32.87	354	P	P	05 04 36.5	+0.8
WMQ				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.7						
HHC	Hu-ho-hao-te	34.31	27	*e*P	P	05 04 48.3	+0.1
HHC				AMB	AMB		
	comp=Z,21nm,1.0s,mb5.0						
AML	Almayashu	34.88	336	P	P	05 04 54.9	+1.8
	SNR=7.8						
AAK	Ala-Archa	34.99	337	P	P	05 04 55.8	+1.8
	SNR=5.9						
AAK	Ala-Archa	34.99	337	*e*P	P	05 04 54.3	+0.3
	comp=Z,85nm,1.4s,mb5.5						
CHMS	Chumysh	35.21	338	P	P	05 04 56.7	+0.8
	SNR=5.8						
EKS2	Erkin-Say	35.29	336	P	P	05 04 58.3	+1.7
	SNR=5.3						
USP	Ospenovka	35.53	338	P	P	05 04 59.6	+1.0
	SNR=8.1						
BJT	Baijiatuau	35.90	32	*e*P	P	05 05 02.6	+0.8
	comp=Z,58nm,0.8s,mb5.6						
JOW	Kunigami	37.53	60	P	P	05 05 17.8	+2.2
	comp=Z,18nm,0.8s,mb4.8,baz=155,slow=8.8,SNR=5.2						
SONM	Songino Array	38.60	16	P	P	05 05 25.4	+1.0
	comp=Z,6.9nm,0.9s,mb4.4,baz=194,slow=5.1,SNR=10						
ULN	Ulaanbaatar	38.81	16	*e*P	P	05 05 24.1	-2.0
	comp=Z,21nm,0.9s,mb4.9						
TLY	Talaya	41.61	11	P	P	05 05 51.6	+2.5
	comp=Z,44nm,1.3s,mb4.9						
MBWA	Marble Bar	42.00	140	*e*P	P	05 05 51.5	-1.3
	comp=Z,133nm,1.4s,mb5.4						
ZAL	Zalesovo	43.17	354	P	P	05 06 01.8	-0.1
	comp=Z,7.1nm,0.8s,mb4.4,baz=295,slow=7.9,SNR=5.9						
CN2	Changchun	43.55	35	*e*P	P	05 06 05.5	+0.3
CN2				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.1						
BVAR	Borovoye Array	45.34	342	P	P	05 06 19.6	+0.1
	comp=Z,7.1nm,0.5s,mb4.7,baz=140,slow=9.8,SNR=14						
BRVK	Borovoye	45.40	342	*e*P	P	05 06 19.5	-0.4
	comp=Z,69nm,1.5s,mb5.3						
MZLS	Mizel	46.28	293	P	P	05 06 28.6	+1.4
KAMS	Al Khamasin	46.48	287	P	P	05 06 29.5	+0.6
TATS	Tathlith	47.47	286	P	P	05 06 37.7	+1.0
NAMS	An Nimas	48.65	286	P	P	05 06 48.3	+2.4
MAT	Matsushiro	48.67	51	P	P	05 06 45.2	-0.6
MAT	Matsushiro	48.67	51	*e*P	P	05 06 45.0	-0.8
BLJS	Baljurashi	49.25	287	D	P	05 06 52.7	+2.2
HILS	Ha’il	49.81	297	D	P	05 06 55.9	+1.2
NWAO	Narrogin (SRO)	49.90	152	P	P	05 06 55.3	0.0
	comp=Z,24nm,0.8s,mb5.3,baz=317,slow=6.6,SNR=6.9						
GNI	Garni	50.76	313	P	P	05 07 02.5	+0.8
	comp=Z,46nm,0.9s,mb5.4,baz=48,slow=1.0,SNR=25						
GNI	Garni	50.76	313	*e*P	P	05 07 02.7	+0.9
	comp=Z,158nm,1.3s,mb5.8						
WRA	Warramunga Arr	51.78	126	P	P	05 07 09.3	-0.5
	comp=Z,12nm,0.5s,mb5.1,baz=300,slow=10,SNR=37						
WRAB	Tennant Creek	51.79	126	*e*P	P	05 07 09.1	-0.7
	comp=Z,41nm,0.6s,mb5.5						
WRAB				*e*		05 07 15.9	
ARU	Arti	52.18	337	*e*P	P	05 07 11.7	-0.5
	comp=Z,50nm,1.3s,mb5.3						
ERZM	Erzurum	53.12	312	*i* P	P	05 07 20.5	+1.0
ASAR	Alice Springs	53.53	130	P	P	05 07 22.4	-0.4
	comp=Z,11nm,0.6s,mb5.0,baz=304,slow=6.4,SNR=22						
UMJS	Umm Lajj	53.55	293	P	P	05 07 25.0	+2.1
KIV	Kislovodsk	53.60	317	P	P	05 07 23.4	+0.5
	comp=Z,461nm,0.9s,SNR=16						
KIV	Kislovodsk	53.60	317	*e*P	P	05 07 22.4	-0.6
	comp=Z,56nm,0.9s,mb5.5						
ASAJ	Asahikawa	54.45	43	P	P	05 07 30.6	+1.4
	comp=Z,7.1nm,0.5s,mb4.8,baz=257,slow=12,SNR=5.5						
ELZG	Elazig	54.48	310	*i* P	P	05 07 28.6	-0.9
TBKS	Tabuk	54.53	297	P	P	05 07 31.5	+1.5
JMQS	Jabal Moqyreh	55.19	297	P	P	05 07 35.6	+0.8
GZT	Gaziantep	55.28	308	*i* P	P	05 07 35.1	-0.3
YSS	Yuzh-Sakhalins	55.63	40	*e*P	P	05 07 37.3	-0.5
	comp=Z,81nm,1.4s,mb5.6						
AYUS	‘Aynunah	55.65	297	P	P	05 07 38.9	+0.7
KMBO	Kilima Mbogo	55.79	261	P	P	05 07 40.7	+1.3
	comp=Z,7.9nm,1.0s,mb4.7,baz=49,slow=8.7,SNR=12						
KMBO	Kilima Mbogo	55.79	261	P	P	05 07 40.7	+1.3
BDAS	Al Bad‘	55.82	297	P	P	05 07 39.9	+0.5
JMOS	Jabal al Moall	55.89	298	P	P	05 07 40.3	+0.4
ALWS	Ilw as Safayha	55.95	298	P	P	05 07 40.7	+0.4
HAQS	Haql	56.04	298	P	P	05 07 41.3	+0.4
EIL	Elat	56.09	298	P	P	05 07 41.2	-0.1
	comp=Z,20nm,0.8s,mb5.2,baz=119,slow=6.0,SNR=11						
EIL	Elat	56.09	298	*e*P	P	05 07 41.1	-0.2
	comp=Z,4.6nm,0.5s,mb4.8						
COBT	Iskenderun	56.12	307	*i* P	P	05 07 41.6	+0.1
CSS	Prodhromos	58.17	304	*e*P	P	05 07 54.5	-1.5
BOYT	Boyabat	58.26	312	*i* P	P	05 07 55.8	-0.7
PMG	Port Moresby	58.46	108	P	P	05 07 58.5	+0.2
	comp=Z,35nm,0.8s,mb5.5,baz=260,slow=4.1,SNR=9.4						
BRTR	Keskin Array B	58.81	310	P	P	05 07 58.9	-1.5
	comp=Z,11nm,0.8s,mb4.9,baz=121,slow=7.2,SNR=18						
ELDT	Eldivan	59.13	311	*i* P	P	05 07 59.6	-3.0
ISP	Isparta	60.87	307	*e*P	P	05 08 12.6	-2.0
	comp=Z,78nm,1.4s,mb5.7						
OBN	Obninsk	61.61	327	*e*P	P	05 08 18.3	-1.0
	comp=Z,220nm,1.6s,mb6.0						
CTA	Charters Tower	61.66	120	P	P	05 08 20.1	-0.1
	comp=Z,25nm,1.1s,mb5.2,baz=292,slow=6.5,SNR=8.4						
CTAO	Charters Tower	61.66	120	*e*P	P	05 08 19.6	-0.5
	comp=Z,126nm,1.3s,mb5.9						
STKA	Stephens Creek	63.78	134	P	P	05 08 35.3	+1.2
	comp=Z,10nm,0.7s,mb4.9,baz=303,slow=7.3,SNR=9.8						
AKASG	Malin Array Be	64.40	321	P	P	05 08 36.0	-1.8
	comp=Z,7.4nm,0.8s,mb4.8,baz=94,slow=4.3,SNR=19						
IDI	Anoyia	65.08	304	P	P	05 08 40.8	-1.7
	comp=Z,14nm,1.0s,mb4.9,baz=86,slow=8.0,SNR=7.5						
RZN	Rozhen	65.82	311	*e*P	P	05 08 46.0	-1.1
MMB	Musomiste	66.55	311	*e*P	P	05 08 50.0	-1.8
VTS	Vitosha	67.04	312	*e*P	P	05 08 54.0	-0.9
KKB	Krupnik	67.06	311	*e*P	P	05 08 53.5	-1.5
BOLS	Boljevac	68.08	313	⇑*i*P	P	05 09 00.3	-1.1
LSZ	Lusaka	68.43	249	*e*P	P	05 09 05.3	+1.3
SUW	Suwalki	68.74	324	*e*P	P	05 09 04.1	-1.2
	comp=Z,98nm,1.2s,mb5.6						
SUW				*e*	pP	05 09 12.9	-1.5
FINES	FINESS Array B	68.96	332	P	P	05 09 06.0	-0.5
	comp=Z,15nm,0.9s,mb4.9,baz=101,slow=7.0,SNR=9.4						
GRUS	Gruza	68.98	313	⇓*i*P	P	05 09 04.9	-2.0
DIVS	Divcibare	69.52	313	⇓*i*P	P	05 09 07.6	-2.7
VYHS	Vyhne	70.68	318	*e*P	P	05 09 16.6	-0.7
OKC	Ostrava-Krasne	71.25	319	*e*P	P	05 09 20.4	-0.3
OKC				*e*pP	pP	05 09 29.7	-0.1
ARCES	ARCESS Array B	71.60	340	P	P	05 09 22.8	+0.4
	comp=Z,7.0nm,0.8s,mb4.7,baz=76,slow=5.0,SNR=7.9						
ARE0	ARCESS Array S	71.60	340	*e*P	P	05 09 22.5	+0.1
ZST	Bratislava	71.81	317	*e*P	P	05 09 23.8	-0.3
DPC	Dobruska-Polom	72.47	319	*e*P	P	05 09 28.0	+0.1
DPC				*e*pP	pP	05 09 36.3	-0.7
KSP	Ksiaz	72.52	320	*e*P	P	05 09 26.7	-1.5
KSP				*e*	pP	05 09 36.7	-0.6
UPC	Upice	72.67	320	*e*P	P	05 09 29.3	+0.2
ARSA	Arzberg	72.83	316	⇑*i*P	P	05 09 28.3	-1.8
	comp=Z,26nm,1.5s,mb4.9						
OBKA	Obir	73.47	315	⇑*i*P	P	05 09 33.9	0.0
	comp=Z,30nm,1.2s,mb5.1						
PRU	Pruhonice	73.59	319	*e*P	P	05 09 33.7	-0.8
PRU				*e*pP	pP	05 09 43.0	-0.6
PVCC	Panska Ves	73.59	319	*e*P	P	05 09 34.1	-0.4
PVCC				*e*pP	pP	05 09 43.6	0.0
MOA	Molln	73.70	317	⇓*i*P	P	05 09 35.2	0.0
	comp=Z,15nm,1.3s,mb4.8						
BRG	Berggiesshubel	74.01	320	*e*P	P	05 09 37.1	+0.2
	comp=Z,20nm,1.1s,mb5.0						
GERES	GERESS Array B	74.10	318	P	P	05 09 37.4	-0.1
	comp=Z,7.0nm,0.9s,mb4.6,baz=90,slow=5.3,SNR=9.2						
KHC	Kasperske Hory	74.19	318	*e*P	P	05 09 37.7	-0.3
KBA	Koelnbreinsper	74.31	316	⇑*i*P	P	05 09 39.2	+0.5
	comp=Z,9.9nm,1.0s,mb4.7						
CLL	Collm	74.61	320	⇑*i*P	P	05 09 40.2	-0.2
	comp=Z,42nm,1.6s,mb5.1						
CLL				*e*	pP	05 09 49.0	-0.5
CLL	Collm	74.61	320	⇑P	P	05 09 40.2	-0.2
	comp=Z,logA/T=1.4,mb5.1						
CLL				*e**PP	pP	05 09 49.0	-0.5
NKC	Novy Kostel	74.94	319	*e*P	P	05 09 42.3	0.0
WTTA	Wattenberg	75.47	316	⇑*i*P	P	05 09 44.8	-0.6
	comp=Z,23nm,1.3s,mb4.9						
MOX	Moxa	75.48	320	*e*P	P	05 09 44.0	-1.4
WATA	Walderalm	75.52	316	⇑*i*P	P	05 09 44.6	-1.0
	comp=Z,0.3nm,0.3s						
BOSA	Boshof	75.55	237	*e*P	P	05 09 47.1	+0.9
	comp=Z,65nm,1.1s,mb5.5						
MOTA	Moosalm	75.84	316	⇑*i*P	P	05 09 46.6	-0.9
	comp=Z,9.4nm,1.1s,mb4.6						
FX1	Attu Island--F	75.92	38	P	P	05 09 47.6	-0.2
	comp=Z,48nm,0.9s,mb5.4,baz=177,slow=8.8,SNR=8.4						
NB2	NORSAR Subarra	75.97	330	P	P	05 09 47.1	-0.8
	comp=Z,27nm,1.4s,mb5.0,baz=94,slow=5.8						
NB2	NORSAR Subarra	75.97	330	P	P	05 09 47.1	-0.8
	baz=94,slow=5.9						
NOA	NORSAR Array B	75.97	330	P	P	05 09 47.5	-0.4
	comp=Z,5.2nm,0.8s,mb4.5,baz=93,slow=5.8,SNR=6.9						
DAVA	Damuels	76.67	316	⇑*i*P	P	05 09 52.2	0.0
	comp=Z,35nm,1.4s,mb5.1						
LPL	La Plagne	78.94	314	*e*P	P	05 10 04.7	0.0
	comp=Z,36nm,0.9s,mb5.0						
MAW	Mawson	81.22	191	P	P	05 10 18.0	+1.6
	comp=Z,7.4nm,0.8s,mb4.7,baz=21,slow=6.5,SNR=6.5						
ESDC	Sonseca Array	87.61	310	P	P	05 10 49.4	+0.3
	comp=Z,1.8nm,0.8s,mb4.4,baz=52,slow=4.6,SNR=6.4						
SPU	Mount Spurr	92.36	26	*e*P	P	05 11 11.8	+1.0
ILAR	Eielson Array	92.59	22	P	P	05 11 11.8	0.0
	comp=Z,3.1nm,0.7s,mb4.9,baz=294,slow=3.8,SNR=26						
INK	Inuvik	94.52	15	P	P	05 11 21.7	+1.1
	comp=Z,2.0nm,0.5s,mb4.8,baz=355,slow=6.6,SNR=4.6						
DBIC	Dimbokro	95.46	278	P	P	05 11 26.9	+0.6
	comp=Z,3.4nm,0.9s,mb4.8,baz=92,slow=7.3,SNR=3.9						
DAWY	Dawson	95.63	20	*e*P	P	05 11 26.4	+0.6
ELK	Elko	122.62	24	*e*PKPdf	PKPdf	05 16 58.1	-2.3
PDAR	Pinedale Array	122.91	19	PKP	PKPdf	05 16 57.7	-3.2
	comp=Z,1.0nm,0.6s,baz=89,slow=1.6,SNR=7.3						
PDAR				PKKPbc		05 26 49.0	
	comp=Z,0.7nm,0.7s,baz=135,slow=3.4,SNR=5.5						
NVAR	Mina Array Bea	123.20	28	PKP	PKPdf	05 17 00.2	-1.4
	comp=Z,2.1nm,0.5s,baz=293,slow=2.8,SNR=15						
NVAR	Mina Array Bea	123.20	28	PKP	PKPdf	05 17 00.2	-1.4
MNV	Mina	123.27	28	*e*PKPdf	PKPdf	05 16 59.3	-2.5
MSU	Marysvale	125.75	23	*e*PKPdf	PKPdf	05 17 05.0	-1.6
TXAR	Lajitas Array	137.09	20	PKP	PKPdf	05 17 24.2	-4.0
	comp=Z,0.9nm,0.6s,baz=181,slow=0.5,SNR=12						
TXAR	Lajitas Array	137.09	20	PKP	PKPdf	05 17 24.2	-4.0
BAO	Brasilia Array	140.89	259	PKP	PKPdf	05 17 32.4	-3.1
BDFB	Brasilia	140.91	259	PKP	PKPdf	05 17 33.5	-2.1
	comp=Z,2.9nm,0.7s,baz=157,slow=1.3,SNR=4.6						
PCRV	Puerto La Cruz	148.66	311	PKPbc	PKPdf	05 17 47.4	-1.3
	comp=Z,8.5nm,0.6s,baz=257,slow=13,SNR=6.8						
SDV	Santo Domingo	153.75	318	PKPbc	PKPdf	05 18 01.1	+4.8
	comp=Z,6.4nm,0.9s,baz=175,slow=3.6,SNR=4.0						
LVC	Limon Verde	158.48	235	PKPab	PKPab	05 18 35.2	+0.7
	comp=Z,19nm,1.3s,baz=100,slow=3.5,SNR=3.3						
ROSC	El Rosal	159.18	319	PKPab	PKPab	05 18 38.4	+0.6
	comp=Z,19nm,1.1s,baz=270,slow=1.2,SNR=7.9						
LPAZ	La Paz	160.05	253	PKPab	PKPab	05 18 41.0	-0.4
	comp=Z,8.6nm,1.1s,baz=16,slow=4.8,SNR=9.6						

*NEIC **26** 04:59:15.4±0.6, 8.97N×93.43E, mb5.2/13, Error ellipse: s-maj=16.8km s-min=13.5km az=85.0*
*IDC **26** 04:59:16.1±0.9, 8.76N×94.02E, mb4.9/14, mb1 5.0/14, mb1mx5.0/21, Error ellipse: s-maj=41.1km s-min=20.2km az=74.0*

ISC 26 04:59:13.2±0.7**, 8.95N**±0.09×**93.6E**±0.1**, h26^{km}, h26^{km}**±.8^{km}**:pP-P, n75,** σ**1^{s}08**/53**, mb4.9**/23**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	Pulchoki	20.09	338	*e*P	P	05 03 49.1	+1.2
	1µm,1.2s						
GUN	Gumba	20.23	340	*e*P	P	05 03 50.4	+1.0
	1µm,1.2s						
DMN	Daman	20.23	338	*e*P	P	05 03 50.1	+0.7
	1µm,1.5s						
KKN	Kakani	20.33	338	*e*P	P	05 03 51.2	+0.7
	337nm,0.9s						
GKN	Gorkha	20.77	337	*e*P	P	05 03 56.2	+1.3
LSA	Lhasa	20.77	354	*e*P	P	05 03 55.4	+0.4
	316nm,0.9s						
LSA				*e*		05 04 03.0	
KOLN	Koldanda	20.98	334	*e*P	P	05 03 58.0	+0.9
	772nm,0.9s						
AAK	Ala-Archa	37.53	337	*e*P	P	05 06 26.7	-0.3
AAK				*e*pP	pP	05 06 34.8	+0.2
SONM	Songino Array	40.23	13	P	pP	05 06 55.9	-1.3
	7.0nm,0.7s,baz=189,slow=9.7,SNR=3.4						
SONM	Songino Array	40.23	13	P	P	05 06 47.9	-1.6
	4.3nm,0.6s,mb4.3,baz=189,slow=8.3,SNR=4.7						
SONM	Songino Array	40.23	13	P	pP	05 06 55.9	-1.3
ULN	Ulaanbaatar	40.41	14	*e*P	P	05 06 49.6	-1.4
	9.1nm,0.8s,mb4.6						
ZAL	Zalesovo	45.42	353	P	pP	05 07 37.8	-1.5
	54nm,1.0s,baz=301,slow=8.6,SNR=12						
ZAL	Zalesovo	45.42	353	P	P	05 07 25.9	-5.8
	8.7nm,0.8s,mb4.6,baz=287,slow=9.0,SNR=3.6						
HIA	Hailar	45.74	24	P	P	05 07 36.8	+2.6
NWAO	Narrogin (SRO)	47.32	153	P	P	05 07 48.0	+1.0
	113nm,1.0s,mb5.8,baz=326,slow=8.7,SNR=7.5						
RDF	Al-Radifah	47.54	301	*e*P	P	05 07 50.7	+1.9
BVAR	Borovoye Array	47.82	341	P	pP	05 07 58.0	-0.4
	7.0nm,0.6s,baz=136,slow=10,SNR=8.0						
BRVK	Borovoye	47.88	341	*e*P	P	05 07 52.6	+1.5
	12nm,0.5s,mb5.2						
BRVK				*e*pP	pP	05 07 58.6	-0.2
MIB	Mutribah	47.96	302	*e*P	P	05 07 52.1	+0.1
WRAB	Tennant Creek	49.29	126	*e*P	P	05 07 56.3	-6.1
GNI	Garni	53.34	314	P	P	05 08 33.1	+0.4
	49nm,1.1s,mb5.3						
ARU	Arti	54.71	337	P	P	05 08 41.9	-0.7
ARU				*e*pP	pP	05 08 49.4	-1.0
KIV	Kislovodsk	56.19	318	*e*P	P	05 08 53.0	-0.5
YSS	Yuzh-Sakhalins	56.25	39	P	P	05 08 54.8	+1.0
	77nm,1.2s,mb5.6						
YSS					pP	05 08 59.7	-2.0
KMBO	Kilima Mbogo	57.06	263	P	P	05 09 02.8	+2.7
	7.5nm,0.7s,mb4.8,baz=47,slow=9.9,SNR=6.7						
BRTR	Keskin Array B	61.36	310	P	pP	05 09 36.0	-1.5
	12nm,0.9s,baz=127,slow=6.9,SNR=4.0						
BRTR	Keskin Array B	61.36	310	P	P	05 09 27.0	-2.5
	8.2nm,0.8s,mb4.9,baz=117,slow=7.3,SNR=6.1						
BRTR	Keskin Array B	61.36	310	P	P	05 09 27.0	-2.5
BRTR				P	pP	05 09 36.0	-1.5
AKASG	Malin Array Be	67.01	321	P	pP	05 10 12.1	-2.1
	4.0nm,0.5s,baz=82,slow=4.9,SNR=6.8						
AKASG	Malin Array Be	67.01	321	P	P	05 10 03.5	-2.6
	11nm,0.9s,mb4.9,baz=87,slow=4.5,SNR=6.7						
IDI	Anoyia	67.55	304	P	pP	05 10 17.5	-0.4
	12nm,0.6s,baz=84,slow=6.1,SNR=6.5						
IDI	Anoyia	67.55	304	P	P	05 10 08.4	-1.5
	7.7nm,0.7s,mb4.8,baz=52,slow=8.7,SNR=3.2						
IDI	Anoyia	67.55	304	P	P	05 10 08.4	-1.5
IDI				P	pP	05 10 17.5	-0.4
KOLS	Kolonicke sedl	71.07	319	*e*P	P	05 10 31.9	+0.6
FINES	FINESS Array B	71.53	332	P	pP	05 10 40.4	-1.4
	10nm,0.6s,baz=93,slow=5.5,SNR=11						
FINES	FINESS Array B	71.53	332	P	P	05 10 32.5	-1.3
	9.3nm,0.6s,mb4.9,baz=98,slow=5.4,SNR=4.4						
FINES	FINESS Array B	71.53	332	P	P	05 10 32.5	-1.3
FINES				P	pP	05 10 40.4	-1.4
CRVS	Cervenica-Dubn	71.60	319	*e*sP	sP	05 10 44.0	-1.3
KECS	Kecovo	72.19	318	*e*pP	pP	05 10 45.7	-0.3
PSZ	Piszkesteto	72.52	317	*e*P	P	05 10 39.2	-0.7
	6.7nm,0.7s,mb4.7						
VYHS	Vyhne	73.28	318	*e*	P	05 10 49.8	+5.4
OKC	Ostrava-Krasne	73.86	319	*e*P	P	05 10 46.9	-0.8
OKC				*e*pP	pP	05 10 55.6	-0.1
ARCES	ARCESS Array B	74.09	340	P	pP	05 10 55.9	-0.8
	9.0nm,0.7s,baz=101,slow=6.3,SNR=8.4						
MORC	Moravsky Berou	74.24	319	*e*P	P	05 10 49.8	-0.1
	17nm,0.9s,mb5.0						
ZST	Bratislava	74.41	318	*e*	P	05 10 54.8	+3.9
VRAC	Vranov	74.82	319	P	pP	05 11 00.9	-0.5
	3.7nm,0.6s,baz=131,slow=6.8,SNR=6.7						
VRAC	Vranov	74.82	319	P	P	05 10 52.5	-0.8
	3.7nm,0.7s,mb4.4,baz=92,slow=7.3,SNR=5.6						
VRAC	Vranov	74.82	319	P	P	05 10 52.5	-0.8
VRAC				P	pP	05 11 00.9	-0.5
DPC	Dobruska-Polom	75.07	320	*e*P	P	05 10 54.8	+0.1
DPC				*e*pP	pP	05 11 03.1	+0.4
KSP	Ksiaz	75.12	320	*e*P	P	05 10 54.7	-0.3
KSP				*e*		05 10 58.6	
KSP				*e*	pP	05 11 02.9	-0.1
UPC	Upice	75.28	320	*e*P	P	05 10 55.9	0.0
BOSA	Boshof	75.74	237	*e*P	P	05 10 59.8	+0.9
	16nm,1.1s,mb4.9						
BOSA				*e*pP	pP	05 11 07.2	+0.2
BRG	Berggiesshubel	76.61	320	P	P	05 11 03.7	+0.3
	56nm,1.8s,mb5.2						
GERES	GERESS Array B	76.70	318	P	pP	05 11 12.0	-0.1
	8.1nm,0.6s,baz=85,slow=6.4,SNR=16						
GERES	GERESS Array B	76.70	318	P	P	05 11 03.0	-0.9
	12nm,0.8s,mb4.9,baz=90,slow=5.3,SNR=8.2						
GERES	GERESS Array B	76.70	318	P	P	05 11 03.0	-0.9
GERES				P	pP	05 11 12.0	-0.1
RUE	Ruedersdorf	76.78	322	*e*P	P	05 11 04.1	-0.2
	46nm,0.6s,mb5.6						
RUE				*e*pP	pP	05 11 12.6	+0.2
KHC	Kasperske Hory	76.79	318	*e*P	P	05 11 03.9	-0.5
KHC				*e*pP	pP	05 11 12.0	-0.5
CLL	Collm	77.22	321	P	P	05 11 06.0	-0.8
NB2	NORSAR Subarra	78.56	331	P	pP	05 11 21.1	-0.9
	1.5nm,0.6s,baz=95,slow=5.8						
NOA	NORSAR Array B	78.56	331	P	pP	05 11 21.3	-0.7
	9.2nm,0.6s,baz=92,slow=5.7,SNR=10						
NOA	NORSAR Array B	78.56	331	P	P	05 11 12.5	-1.4
	4.6nm,0.8s,mb4.5,baz=93,slow=5.6,SNR=3.7						
NOA	NORSAR Array B	78.56	331	P	P	05 11 12.5	-1.4
NOA				P	pP	05 11 21.3	-0.7
NAO01	NORSAR Array S	78.71	330	*e*P	P	05 11 14.7	0.0
	10nm,0.7s,mb4.9						
NAO01				*e*pP	pP	05 11 22.1	-0.8
MAW	Mawson	79.48	192	P	pP	05 11 24.6	-2.4

	8.8nm,0.7s,baz=51,slow=5.9,SNR=4.6						
LPL	La Plagne	81.53	315	eP	P	05 11 30.1	0.0
	46nm,0.6s,mb5.3						
ESDC	Sonseca Array	90.15	310	P	pP	05 12 21.3	+0.2
	2.4nm,0.5s,baz=63,slow=4.0,SNR=4.5						
ESDC	Sonseca Array	90.15	310	P	P	05 12 13.0	+0.1
	2.4nm,0.8s,mb4.6,baz=57,slow=4.2,SNR=3.8						
ESDC	Sonseca Array	90.15	310	P	P	05 12 13.0	+0.1
ESDC				P	pP	05 12 21.3	+0.2
PDAR	Pinedale Array	124.35	21	PKP	PKPdf	05 18 16.9	+1.8
	2.0nm,0.8s,baz=45,slow=1.1,SNR=4.2						
BAO	Brasilia Array	141.97	256	PKP		05 18 38.6	
BDFB	Brasilia	141.99	256	PKhKP	PKPdf	05 18 45.7	-3.1
	6.7nm,1.1s,baz=153,slow=4.8,SNR=3.3						
SDV	Santo Domingo	156.35	318	PKPbc	PKPdf	05 19 22.2	+11
	9.6nm,0.9s,baz=9.3,slow=6.1,SNR=4.0						
LPAZ	La Paz	160.78	246	PKPab	PKPab	05 20 02.0	+5.7
	5.1nm,1.0s,baz=191,slow=4.8,SNR=5.0						

IDC 26 04:59:23.9±1.6**, 4.11N×93.50E, mb4.9**/7**, mb1 5.1**/8**, mb1mx4.8**/19**, ML4.6**/1**, Error ellipse: s-maj=65.9km s-min=21.7km az=57.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.22	20	Pn	P	05 03 01.9	-0.2
	0.8nm,0.3s,baz=214,slow=10,SNR=5.6						
SONM	Songino Array	44.95	12	P	P	05 07 40.2	-2.3
	3.9nm,0.7s,baz=191,slow=7.2,SNR=3.4						
WRA	Warramunga Arr	46.70	122	P	P	05 07 54.5	-2.2
	29nm,0.6s,baz=300,slow=9.1,SNR=7.0						
ASAR	Alice Springs	48.09	127	P	P	05 08 06.2	-1.4
	8.7nm,0.5s,baz=298,slow=8.0,SNR=4.4						
ZAL	Zalesovo	50.18	353	P	P	05 08 21.1	-2.2
	7.1nm,0.6s,baz=282,slow=3.3,SNR=2.3						
BVAR	Borovoye Array	52.35	343	P	P	05 08 37.8	-1.8
	14nm,0.6s,baz=144,slow=8.4,SNR=6.2						
FINES	FINESS Array B	75.73	333	P	P	05 11 11.2	-1.7
	5.9nm,0.5s,baz=100,slow=7.4,SNR=4.5						
ARCES	ARCESS Array B	78.58	341	P	P	05 11 26.9	-1.7
	69nm,1.3s,baz=90,slow=6.1,SNR=4.3						

BJI ***26*** *05:01:08.7, 8.89N×92.29E, h49^{km}, mB5.7, mb5.6, Ms6.4, Msz6.3*
NEIC ***26*** *05:01:10.6±0.2, 9.30N×92.21E, h30^{km}, mb5.3/16, Error ellipse: s-maj=7.0km s-min=6.0km az=68.0*
IDC ***26*** *05:01:13.7±4.7, 9.38N×92.31E, h55^{km}±41^{km}, mb4.7/22, mb1 4.7/23, mb1mx4.7/25, ML5.0/1, Error ellipse: s-maj=19.2km s-min=12.2km az=56.0*
ISC 26 05:01:08.6±0.3**, 9.29N**±0.05×**92.21E**±0.04**, h30^{km}, n90, σ0^{s}91**/78**, mb5.2**/46**, MS6.2**/2**, 5C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.21	35	eP	P	05 03 50.6	+0.5
	82nm,0.8s						
CMAR	Chiang Mai Arr	11.21	35	P	P	05 03 50.5	+0.4
	2.9nm,0.3s,baz=234,slow=15,SNR=8.0						
CMAR	Chiang Mai Arr	11.21	35	P	P	05 03 50.5	+0.4
MDRS	Chennai	12.32	289	e	P	05 04 03.0	-2.1
SHL	Shillong	16.19	359	eP	P	05 04 58.9	+3.1
MNGI	Mangalore	17.44	284	e	P	05 05 08.4	-3.2
	comp=Z,291nm,1.9s						
MNGI				eP		05 05 11.8	
AKL	Akola	18.53	309	eP	P	05 05 24.3	-0.8
AKL				e		05 05 37.8	
	comp=Z,376nm,1.4s						
GOA	Goa	18.98	291	eP	P	05 05 28.3	-2.2
QIZ	Qiongzhong	19.63	59	P	P	05 05 38.0	+0.1
LSA	Lhasa	20.33	357	eP	P	05 05 45.0	-0.3
BOM	Bombay	21.08	299	eP	P	05 05 53.8	+0.8
GYA	Guiyang	21.89	37	⇑iP	P	05 06 01.3	+0.2
GYA				PP	PP	05 06 29.8	+3.1
GYA				AMB	AMB		
	comp=Z,140nm,1.1s,mb5.3						
GYA				AMB	AMB		
	comp=Z,2μm,4.9s						
GYA				LR	LR		
	comp=N,35μm,16.4s,MS6.1						
GYA				LR	LR		
	comp=E,46μm,15.4s,MS6.1						
GYA				LR	LR		
	comp=Z,51μm,15.9s,MS6.0						
NDI	New Delhi	23.89	326	eP	P	05 06 22.1	+1.3
NDI				e		05 06 38.5	
	comp=Z,184nm,1.3s						
CD2	Chengdu	24.05	25	P	P	05 06 22.5	+0.1
CD2				AMB	AMB		
	comp=Z,210nm,0.6s,mb5.7						
ENH	Enshi	26.39	35	eP	P	05 06 43.4	-1.0
	comp=Z,129nm,0.8s,mb5.5						
TGY	Tagaytay City	28.52	78	P	P	05 07 04.5	+0.6
	comp=Z,298nm,0.6s,mb6.2,baz=212,slow=1.3,SNR=6.8						
PCPH	Palayan	28.87	75	⇓eP	P	05 07 06.0	-1.0
QZH	Quanzhou	29.54	55	⇑iP	P	05 07 12.8	-0.2
QZH				AMB	AMB		
	comp=Z,190nm,0.7s,mb5.9						
WHN	Wuhan	29.56	41	P	P	05 07 12.5	-0.6
GTA	Gaotai	30.76	12	P	P	05 07 24.8	+1.2
GTA				AMB	AMB		
	comp=Z,88nm,0.9s,mb5.6						
GTA				LR	LR		
	comp=N,47μm,16.7s,MS6.3						
GTA				LR	LR		
	comp=E,41μm,16.4s,MS6.3						
GTA				LR	LR		
	comp=Z,68μm,14.4s,MS6.5						
NJ2	Nanjing	33.50	44	eP	P	05 07 47.3	-0.4
TIA	Tai'an	35.08	36	⇓P	P	05 08 01.3	0.0
TIA				AMB	AMB		
	comp=Z,42nm,1.1s,mb5.3						
AAK	Ala-Archa	36.67	338	eP	P	05 08 15.4	+0.8
	comp=Z,52nm,1.1s,mb5.3						
BJT	Baijiatuau	37.30	31	eP	P	05 08 20.2	+0.3
	comp=Z,201nm,1.1s,mb5.9						
BJI	Beijing	37.32	31	P	P	05 08 20.5	+0.4
BJI				AMB	AMB		
	comp=Z,141nm,0.7s,mb5.9						
JOW	Kunigami	38.28	58	P	P	05 08 28.8	+0.5
	comp=Z,76nm,0.8s,mb5.5,baz=263,slow=8.6						
DL2	Dalian	39.54	37	P	P	05 08 39.5	+0.8
DL2				AMB	AMB		
	comp=Z,80nm,0.8s,mb5.5						
SONM	Songino Array	40.25	15	P	P	05 08 44.9	+0.4
	comp=Z,25nm,0.9s,mb4.9,baz=204,slow=8.1,SNR=6.7						
ULN	Ulaanbaatar	40.45	15	eP	P	05 08 45.7	-0.4
MBWA	Marble Bar	40.58	138	eP	P	05 08 47.3	-0.1
SNY	Shenyang	42.57	35	⇑P	P	05 09 03.3	-0.3
SNY				AMB	AMB		
	comp=Z,140nm,0.6s,mb5.9						
KS15	Wonju Array Si	42.67	43	eP	P	05 09 04.3	-0.2
TLY	Talaya	43.29	10	eP	P	05 09 11.0	+1.7
TLY				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.2						
CN2	Changchun	44.90	34	⇑P	P	05 09 22.3	-0.1
CN2				AMB	AMB		
	comp=Z,200nm,0.8s,mb6.0						
HIA	Hailar	46.01	25	eP	P	05 09 31.9	+0.7
	comp=Z,29nm,0.7s,mb5.3						
BVAR	Borovoye Array	47.05	342	P	P	05 09 39.4	+0.1
	comp=Z,7.0nm,0.8s,mb4.7,baz=153,slow=9.7,SNR=2.8						
BRVK	Borovoye	47.12	342	P	P	05 09 38.7	-1.2
	comp=Z,12nm,0.9s,mb4.8						
CHKZ	Chkalovo	47.55	343	eP	P	05 09 43.6	+0.3
	comp=Z,9.9nm,0.4s,mb5.2						
NWAO	Narrogin (SRO)	48.28	152	P	P	05 09 50.0	+0.8
	comp=Z,31nm,0.7s,mb5.5,baz=327,slow=9.2,SNR=6.7						
MAT	Matsushiro	49.66	49	P	P	05 09 59.3	-0.5
MAT	Matsushiro	49.66	49	eP	P	05 09 59.0	-0.8
CBIJ	Chichi jima	50.31	63	P	P	05 10 02.6	-2.3
	baz=253,slow=11						
WRA	Warramunga Arr	50.63	125	P	P	05 10 06.4	-1.0
	comp=Z,37nm,0.5s,mb5.6,baz=305,slow=8.7,SNR=18						
WRAB	Tennant Creek	50.63	125	eP	P	05 10 06.5	-0.9
	comp=Z,78nm,0.5s,mb5.9						
BOD	Bodaibo	51.25	15	eP	P	05 10 11.1	-0.5
ASAR	Alice Springs	52.28	130	P	P	05 10 18.6	-1.3
	comp=Z,20nm,0.6s,mb5.2,baz=304,slow=6.9,SNR=11						
ASAR				PcP	PcP	05 11 32.1	+1.2
	comp=Z,9.0nm,0.9s,baz=305,slow=3.0,SNR=4.6						
ARU	Arti	53.86	338	eP	P	05 10 31.3	+0.3
	comp=Z,18nm,0.9s,mb5.0						
KIV	Kislovodsk	55.00	318	eP	P	05 10 38.6	-1.1
ASAJ	Asahikawa	55.63	42	P	P	05 10 43.5	-0.7
	comp=Z,19nm,0.7s,mb5.2,baz=126,slow=16,SNR=5.5						
EIL	Elat	57.07	299	eP	P	05 10 55.1	+0.4
	comp=Z,22nm,1.4s,mb5.0						
PMG	Port Moresby	57.77	107	P	P	05 10 59.1	-0.7
	comp=Z,14nm,0.6s,mb5.2,baz=333,slow=5.2,SNR=6.7						
PMG	Port Moresby	57.77	107	P	P	05 10 59.1	-0.7
BRTR	Keskin Array B	60.07	311	P	P	05 11 15.4	0.0
	comp=Z,3.4nm,1.0s,mb4.3,baz=116,slow=7.9,SNR=2.5						
CTA	Charters Tower	60.66	119	P	P	05 11 19.3	-0.4
	comp=Z,36nm,1.0s,mb5.5,baz=292,slow=9.3,SNR=8.5						
CTAO	Charters Tower	60.66	119	eP	P	05 11 19.3	-0.4
	comp=Z,64nm,1.1s,mb5.7						
STKA	Stephens Creek	62.46	133	P	P	05 11 31.1	-0.5
	comp=Z,13nm,0.5s,mb5.3,baz=312,slow=7.0,SNR=6.1						
AKASG	Malin Array Be	65.87	322	P	P	05 11 53.5	-0.1
	comp=Z,0.6nm,0.4s,baz=85,slow=4.9,SNR=2.5						
LSZ	Lusaka	67.96	249	eP	P	05 12 08.6	+1.2
	comp=Z,6.3nm,0.5s,mb4.9						
SUW	Suwalki	70.25	324	P	P	05 12 20.1	-0.8
	comp=Z,42nm,1.1s,mb5.3						
FINES	FINESS Array B	70.58	332	P	P	05 12 21.9	-0.9
	comp=Z,7.4nm,0.8s,mb4.6,baz=90,slow=5.6,SNR=3.0						
LBTB	Lobatse	73.26	240	eP	P	05 12 40.6	+1.1
	comp=Z,29nm,0.9s,mb5.2						
ARCES	ARCESS Array B	73.30	340	P	P	05 12 38.5	-0.3
	comp=Z,12nm,1.0s,mb4.8,baz=104,slow=7.4,SNR=3.8						
GERES	GERESS Array B	75.51	318	P	P	05 12 51.7	-0.2
	comp=Z,2.6nm,0.7s,mb4.3,baz=80,slow=6.0,SNR=2.5						
FX1	Attu Island--F	77.20	38	P	P	05 13 00.8	-0.5
	comp=Z,32nm,0.6s,mb5.4,baz=306,slow=2.9,SNR=7.1						
NOA	NORSAR Array B	77.57	331	P	P	05 13 03.4	+0.2
	comp=Z,1.3nm,0.8s,baz=85,slow=6.6,SNR=2.3						
MAW	Mawson	79.54	191	P	P	05 13 15.2	+1.3
	comp=Z,8.2nm,0.8s,mb4.7,baz=35,slow=5.7,SNR=5.4						
MAW	Mawson	79.54	191	eP	P	05 13 15.8	+1.9
	comp=Z,3.4nm,0.6s,mb4.5						
LPL	La Plagne	80.29	315	eP	P	05 13 18.6	+0.3
	comp=Z,76nm,1.0s,mb5.3						
SYO	Syowa Base	86.20	197	⇑P	P	05 13 49.6	+1.6
ESDC	Sonseca Array	88.85	310	P	P	05 14 02.3	+0.8
	comp=Z,0.7nm,0.5s,mb4.2,baz=61,slow=4.1,SNR=4.2						
ESLA	Sonseca Array	88.85	310	P	P	05 13 59.8	-1.8
	comp=Z,0.1nm,0.5s						
SUMG	Summit	92.34	347	eP	P	05 14 18.2	+1.3
	comp=Z,7.3nm,0.9s,mb5.0						
RSO	Redoubt South	93.88	27	eP	P	05 14 25.4	+1.1
ILAR	Eielson Array	94.15	22	P	P	05 14 24.9	-0.5
	comp=Z,2.8nm,0.7s,mb4.8,baz=300,slow=4.1,SNR=7.0						
ILAR				PP	PP	05 18 11.3	-3.5
	comp=Z,1.1nm,0.8s,baz=300,slow=7.3,SNR=4.0						
VNDA	Vanda	94.69	168	P	P	05 14 29.1	+1.5
	comp=Z,2.6nm,0.8s,mb4.7,baz=354,slow=8.7,SNR=2.8						
DBIC	Dimbokro	95.86	278	P	P	05 14 35.4	+0.9
	comp=Z,2.1nm,0.8s,mb4.6,baz=67,slow=18,SNR=3.5						
INK	Inuvik	96.16	16	P	P	05 14 34.8	+0.3
	comp=Z,8.8nm,0.9s,mb5.2,baz=333,slow=4.9,SNR=8.1						
DAWY	Dawson	97.21	20	eP	P	05 14 39.8	+0.5
YKA	Yellowknife Ar	105.48	13	PP	PP	05 19 35.4	-5.8
	comp=Z,2.9nm,0.9s,baz=334,slow=7.8,SNR=8.5						
PDAR	Pinedale Array	124.51	19	PKP	PKPdf	05 20 07.2	-3.4
	comp=Z,5.1nm,1.1s,baz=144,slow=0.5,SNR=5.5						
NVAR	Mina Array Bea	124.65	29	PKP	PKPdf	05 20 07.9	-3.0
	comp=Z,3.3nm,0.7s,baz=332,slow=1.3,SNR=6.3						
ANMO	Albuquerque	132.59	21	PKP	PKPdf	05 20 24.3	-2.0
	comp=Z,1.8nm,0.8s						
TXAR	Lajitas Array	138.66	21	PKP	PKPdf	05 20 34.5	-3.0
	comp=Z,2.3nm,0.7s,baz=48,slow=0.4,SNR=7.8						
BDFB	Brasilia	140.70	257	PKP	PKPdf	05 20 39.0	-2.7
	comp=Z,1.5nm,0.6s,baz=328,slow=19,SNR=2.8						
CPUP	Villa Florida	146.54	236	PKPbc	PKPbc	05 20 50.1	+2.4
	comp=Z,0.0nm,0.4s,baz=222,slow=19,SNR=2.2						
PCRV	Puerto La Cruz	149.92	309	PKPbc	PKPdf	05 20 57.6	+0.3
	comp=Z,5.0nm,0.5s,baz=35,slow=2.6,SNR=4.0						
LVC	Limon Verde	157.57	232	PKPab	PKPab	05 21 37.8	+0.8
	comp=Z,6.1nm,0.8s,baz=120,slow=3.6,SNR=4.5						
LVC	Limon Verde	157.57	232	ePKPab	PKPab	05 21 38.2	+1.3
LPAZ	La Paz	159.62	248	PKPab	PKPab	05 21 47.0	+1.1
LPAZ	La Paz	159.62	248	ePKPdf	PKPdf	05 21 03.6	-6.7

IDC ***26*** *05:01:16.9±0.5, 9.41N×92.13E, mb5.0/21, mb1 5.1/22, mb1mx5.0/25, ML5.0/1, MS6.1/1, Ms1 6.3/1, ms1mx4.5/32, Error ellipse: s-maj=22.0km s-min=14.0km az=53.0*
MOS ***26*** *05:01:20.4±1.5, 9.53N×92.25E, h33^{km}, mb5.3/17, Error ellipse: s-maj=20.3km s-min=10.8km az=116.3*
NEIC ***26*** *05:01:21.4±0.3, 9.46N×92.18E, h30^{km}, mb5.4/21, Error ellipse: s-maj=9.1km s-min=8.1km az=49.0*
BJI ***26*** *05:01:21.3, 9.50N×92.20E, h30^{km}, mb5.3*
ISC 26 05:01:18.2±3.2**, 9.47N**±0.07×**92.23E**±0.06**, h21^{km}**±22^{km}**, n108, σ1^{s}20**/98**, mb5.2**/43**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.06	35	eP	P	05 03 58.3	-0.2
CMAR	Chiang Mai Arr	11.06	35	Pn	P	05 03 58.8	+0.3
	3.3nm,0.3s,baz=232,slow=14,SNR=13						
CMAR				LR	LR	05 08 30.8	
	comp=Z,106μm,19.6s,baz=155,slow=39						
CMAR	Chiang Mai Arr	11.06	35	P	P	05 03 58.8	+0.3
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,106μm,19.6s						
CMAR	Chiang Mai Arr	11.06	35	Pn	P	05 03 58.8	+0.3
CAL	Calcutta	13.52	344	eP	P	05 04 34.7	+3.1
HYB	Hyderabad	15.46	302	eP	P	05 05 02.0	+5.0
HYB	Hyderabad	15.46	302	i P	P	05 05 02.0	+5.0
SHL	Shillong	16.01	359	eP	P	05 05 07.4	+3.3
MNGI	Mangalore	17.41	283	e	P	05 05 16.5	-5.3
	comp=Z,445nm,1.0s						
MNGI				eP		05 05 18.8	
LATR	Latur	17.60	302	eP	P	05 05 25.2	+1.0
AKL	Akola	18.43	309	eP	P	05 05 33.7	-0.7
GOA	Goa	18.93	290	eP	P	05 05 40.1	-0.4
LSA	Lhasa	20.15	357	eP	P	05 05 53.0	-1.1
	comp=Z,203nm,0.6s						
BOM	Bombay	21.00	299	eP	P	05 06 03.2	+0.2
BOM				e		05 06 05.5	
	comp=Z,360nm,1.3s						
PTH	Pithoragarh	22.93	332	e		05 06 25.5	
NDI	New Delhi	23.75	326	eP	P	05 06 32.9	+2.7
ENH	Enshi	26.23	36	P	P	05 06 52.0	-1.8
LZH	Lanzhou	28.53	20	eP	P	05 07 13.5	-1.1
LZH				AMB	AMB		
	comp=Z,170nm,1.3s,mb5.6						
KSH	Kashi	33.26	337	eP	P	05 07 56.8	+0.5
HHC	Hu-ho-hao-te	35.64	26	eP	P	05 08 16.0	-0.8
HHC				AP	pP	05 08 25.3	+2.1
HHC				AMB	AMB		
	comp=Z,37nm,1.0s,mb5.3						
AAK	Ala-Archa	36.51	338	eP	P	05 08 25.0	+0.9
	comp=Z,81nm,1.2s,mb5.4						
BJT	Baijiatuau	37.14	31	eP	P	05 08 29.4	0.0
	comp=Z,58nm,0.7s,mb5.5						
DL2	Dalian	39.39	37	P	P	05 08 48.5	+0.2
DL2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.3						
SONM	Songino Array	40.07	15	P	P	05 08 55.6	+1.8
	comp=Z,48nm,0.8s,mb5.2,baz=199,slow=7.6,SNR=10						
ULN	Ulaanbaatar	40.27	15	eP	P	05 08 56.0	+0.6
	comp=Z,38nm,0.9s,mb5.1						
ZAK	Zakamensk	41.80	11	eP	P	05 09 03.1	-4.9
ZAK				e		05 10 45.4	
KS15	Wonju Array Si	42.53	43	eP	P	05 09 15.6	+1.4
ZAL	Zalesovo	44.75	354	P	P	05 09 31.2	-0.7
	comp=Z,15nm,0.4s,mb5.2,baz=286,slow=7.0,SNR=8.4						
ZAL	Zalesovo	44.75	354	P	P	05 09 31.3	-0.6
ZAL				pmax	pmax		
	comp=Z,15nm,0.4s						
NVS	Novosibirsk	45.81	353	i P	P	05 09 38.8	-1.6
HIA	Hailar	45.84	25	eP	P	05 09 40.0	-0.6
	comp=Z,41nm,0.8s,mb5.4						
BVAR	Borovoye Array	46.89	342	P	P	05 09 48.4	-0.5
	comp=Z,31nm,1.0s,mb5.2,baz=144,slow=8.5,SNR=6.9						
BVAR	Borovoye Array	46.89	342	P	P	05 09 48.4	-0.5
BRVK	Borovoye	46.95	342	eP	P	05 09 48.1	-1.2
	comp=Z,37nm,0.9s,mb5.3						
CHKZ	Chkalovo	47.39	343	eP	P	05 09 51.9	-0.9
	comp=Z,56nm,0.7s,mb5.6						
NWAO	Narrogin (SRO)	48.43	152	P	P	05 10 01.1	-0.1
	comp=Z,34nm,0.7s,mb5.5,baz=318,slow=5.7,SNR=5.2						
NWAO	Narrogin (SRO)	48.43	152	P	P	05 10 01.1	-0.1
NWAO				pmax	pmax		
	comp=Z,34nm,0.7s						
WRA	Warramunga Arr	50.72	125	P	P	05 10 18.8	-0.2
	comp=Z,21nm,0.7s,mb5.2,baz=305,slow=8.5,SNR=4.7						
WRAB	Tennant Creek	50.73	125	eP	P	05 10 18.7	-0.3
	comp=Z,37nm,0.6s,mb5.5						
BOD	Bodaibo	51.07	15	e	P	05 10 19.0	-2.1
GNI	Garni	51.97	314	P	P	05 10 28.6	+0.4
	comp=Z,25nm,0.8s,mb5.2,baz=337,slow=16,SNR=4.6						
GNI	Garni	51.97	314	P	P	05 10 28.6	+0.4
GNI				pmax	pmax		
	comp=Z,25nm,0.8s						
GNI	Garni	51.97	314	P	P	05 10 28.6	+0.4
GNI				P		05 10 28.9	
ZEI	Tsey	53.59	317	eP	P	05 10 42.5	+2.3
ZEI				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
ARU	Arti	53.70	338	eP	P	05 10 38.2	-2.5
ARU	Arti	53.70	338	eP	P	05 10 40.0	-0.7
	comp=Z,36nm,0.8s,mb5.3						
KIV	Kislovodsk	54.87	318	eP	P	05 10 50.6	+1.0
KIV				pmax	pmax		
	comp=N,21nm,1.0s						
KIV				pmax	pmax		
	comp=E,21nm,1.0s						
KIV				pmax	pmax		
	comp=Z,59nm,1.0s,mb5.6						
KIV	Kislovodsk	54.87	318	eP	P	05 10 49.9	+0.3
	comp=Z,48nm,0.8s,mb5.6						
ASF	Jabal al Asfar	55.77	302	P	P	05 10 55.8	-0.4
	comp=Z,10nm,0.8s,mb4.9,baz=336,slow=4.0,SNR=6.7						
MALT	Malatya	55.99	310	eP	P	05 10 56.1	-1.6
	comp=Z,17nm,1.0s,mb5.0						
EIL	Elat	57.00	299	P	P	05 11 04.4	-0.7
	comp=Z,19nm,0.7s,mb5.2,baz=6.1,slow=8.5,SNR=6.4						
EIL	Elat	57.00	299	eP	P	05 11 04.2	-0.9
	comp=Z,19nm,0.8s,mb5.2						
EIL				P		05 11 04.4	
CSS	Prodhromos	59.21	305	eP	P	05 11 19.6	-0.9
	comp=Z,41nm,1.3s,mb5.3						
BRTR	Keskin Array B	59.96	311	P	P	05 11 23.7	-1.9
	comp=Z,11nm,0.8s,mb5.0,baz=124,slow=7.2,SNR=5.7						
BRTR	Keskin Array B	59.96	311	P	P	05 11 23.7	-1.9
BRTR				pmax	pmax		
	comp=Z,11nm,0.8s						
BRTR	Keskin Array B	59.96	311	P	P	05 11 23.7	-1.9
CTA	Charters Tower	60.73	119	P	P	05 11 30.8	-0.3
	comp=Z,14nm,0.7s,mb5.2,baz=293,slow=9.1,SNR=5.9						
CTA	Charters Tower	60.73	119	P	P	05 11 30.8	-0.3
CTA				pmax	pmax		
	comp=Z,14nm,0.7s						
CTA	Charters Tower	60.73	119	P	P	05 11 30.8	-0.3
CTAO	Charters Tower	60.73	119	eP	P	05 11 30.6	-0.6
	comp=Z,14nm,0.6s,mb5.3						
ISP	Isparta	61.97	308	eP	P	05 11 36.6	-2.6
	comp=Z,152nm,1.8s,mb5.8						
STKA	Stephens Creek	62.57	133	P	P	05 11 43.7	+0.3
	comp=Z,7.7nm,0.5s,mb5.0,baz=323,slow=7.0,SNR=3.0						
STKA	Stephens Creek	62.57	133	P	P	05 11 43.7	+0.3
OBN	Obninsk	63.03	328	eP	P	05 11 43.9	-2.1
OBN				e		05 12 02.4	
OBN				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
AKASG	Malin Array Be	65.74	322	P	P	05 12 02.8	-0.9
	comp=Z,4.3nm,0.6s,mb4.6,baz=88,slow=4.7,SNR=4.3						
AKASG	Malin Array Be	65.74	322	P	P	05 12 02.8	-0.9
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
IDI	Anoyia	66.11	304	P	P	05 12 07.4	+1.0
	comp=Z,10nm,0.5s,mb5.1,baz=87,slow=5.0,SNR=5.6						
SUW	Suwalki	70.11	324	eP	P	05 12 30.1	-0.9
	comp=Z,61nm,0.9s,mb5.5						
FINES	FINESS Array B	70.43	332	P	P	05 12 33.6	+0.9
	comp=Z,8.2nm,0.7s,mb4.8,baz=125,slow=7.5,SNR=6.6						
FINES	FINESS Array B	70.43	332	P	P	05 12 33.6	+0.8
FINES				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ARCES	ARCESS Array B	73.13	340	P	P	05 12 49.7	+0.9
	comp=Z,19nm,0.9s,mb5.0,baz=89,slow=5.1,SNR=11						
LBTB	Lobatse	73.36	240	eP	P	05 12 50.4	-0.6
	comp=Z,26nm,1.0s,mb5.1						
DPC	Dobruska-Polom	73.77	320	eP	P	05 12 51.8	-1.0
PRU	Pruhonice	74.89	319	eP	P	05 13 00.8	+1.5
BRG	Berggiesshubel	75.32	320	eP	P	05 13 01.6	-0.2
BRG				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.1						
BRG	Berggiesshubel	75.32	320	eP	P	05 13 01.6	-0.2
	comp=Z,35nm,1.5s,mb5.1						
GERES	GERESS Array B	75.38	318	P	P	05 13 03.4	+1.2
	comp=Z,10nm,0.9s,mb4.8,baz=90,slow=5.3,SNR=5.4						
GERES	GERESS Array B	75.38	318	P	P	05 13 03.4	+1.2
GERES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KHC	Kasperske Hory	75.48	318	eP	P	05 13 05.1	+2.4
CLL	Collm	75.94	321	eP	P	05 13 06.0	+0.8
CLL	Collm	75.94	321	P	P	05 13 06.0	+0.8
NB2	NORSAR Subarra	77.42	330	P	P	05 13 11.7	-1.6
	comp=Z,6.5nm,0.8s,mb4.6,baz=93,slow=5.8						
NOA	NORSAR Array B	77.42	330	P	P	05 13 13.8	+0.5
	comp=Z,1.0nm,0.6s,baz=104,slow=7.7,SNR=4.2						
NOA	NORSAR Array B	77.42	330	P	P	05 13 13.9	+0.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MAW	Mawson	79.71	191	P	P	05 13 26.3	+0.5
	comp=Z,8.0nm,0.8s,mb4.7,baz=2.8,slow=4.2,SNR=3.7						
MAW	Mawson	79.71	191	P	P	05 13 26.3	+0.6
MAW				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MAW	Mawson	79.71	191	eP	P	05 13 25.6	-0.1
	comp=Z,2.6nm,0.6s,mb4.3						
ESDC	Sonseca Array	88.75	310	P	P	05 14 11.3	-0.7
	comp=Z,1.7nm,0.6s,mb4.5,baz=61,slow=3.8,SNR=5.3						
ESDC	Sonseca Array	88.75	310	P	P	05 14 11.3	-0.7
ESLA	Sonseca Array	88.75	310	eP	P	05 14 11.6	-0.4
	comp=Z,0.2nm,0.5s						
SUMG	Summit	92.17	347	eP	P	05 14 28.9	+1.8
	comp=Z,14nm,1.1s,mb5.2						
ILAR	Eielson Array	93.98	22	P	P	05 14 38.2	+2.6
	comp=Z,3.7nm,0.7s,mb4.9,baz=299,slow=4.1,SNR=6.8						
ILAR	Eielson Array	93.98	22	P	P	05 14 38.2	+2.6
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
DBIC	Dimbokro	95.85	278	P	P	05 14 46.7	+1.3
	comp=Z,4.5nm,0.8s,mb5.0,baz=39,slow=6.2,SNR=4.6						
DBIC	Dimbokro	95.85	278	P	P	05 14 46.7	+1.3
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.8s						
DBIC	Dimbokro	95.85	278	P	P	05 14 46.7	+1.3
INK	Inuvik	95.98	16	P	P	05 14 47.1	+2.4
	comp=Z,11nm,1.0s,mb5.2,baz=162,slow=4.0,SNR=5.4						
INK	Inuvik	95.98	16	P	P	05 14 47.1	+2.4
INK				pmax	pmax		
	comp=Z,11nm,1.0s						
DAWY	Dawson	97.04	20	eP	P	05 14 50.2	+0.6
EDM	Edmonton	113.86	16	eP	Pdif	05 16 03.8	-0.6
ULM	Lac du Bonnet	120.11	6	PKP	PKPdf	05 20 09.2	-2.8
	comp=Z,2.6nm,0.7s,baz=13,slow=3.7,SNR=3.7						
PDAR	Pinedale Array	124.34	19	PKP	PKPdf	05 20 17.6	-2.8
	comp=Z,2.2nm,0.6s,baz=86,slow=3.6,SNR=6.7						
NVAR	Mina Array Bea	124.49	29	PKP	PKPdf	05 20 19.1	-1.7
	comp=Z,3.6nm,0.7s,baz=286,slow=3.2,SNR=6.6						
PCRV	Puerto La Cruz	149.82	310	PKPbc	PKPdf	05 21 07.4	+0.1
	comp=Z,13nm,0.5s,baz=68,slow=5.7,SNR=7.0						
SDV	Santo Domingo	155.02	316	PKPab	PKPab	05 21 35.5	-1.8
	comp=Z,5.7nm,0.7s,baz=283,slow=2.3,SNR=3.9						
LVC	Limon Verde	157.69	232	PKPab	PKPab	05 21 49.4	+0.8
	comp=Z,8.6nm,0.8s,baz=70,slow=1.4,SNR=4.8						
LPAZ	La Paz	159.70	249	PKPab	PKPab	05 21 57.6	+0.3
LPAZ	La Paz	159.70	249	PKPdf	PKPdf	05 21 20.0	-0.5

IDC ***26*** *05:02:05.3±1.3, 20.65S×68.76W, h113^{km}±14^{km}, mb3.8/7, mb1 3.9/8, mb1mx3.8/15, Error ellipse: s-maj=20.9km s-min=15.0km az=87.0*
NEIC ***26*** *05:02:05.7, 20.70S×69.51W, h90^{km}, After GUC.*
NEIC Felt [II] at Huara and Pozo Almonte.
GUC ***26*** *05:02:05.7±0.3, 20.70S×69.51W, h90^{km}, ML3.9*
ISC 26 05:02:02.8±0.7**, 20.69S**±0.05×**68.98W**±0.10**, h111^{km}**±9^{km}**, n15, σ1^{s}44**/20**, mb3.9**/6**, 1C, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.92	178	P	P	05 02 38.4	+3.1
	54nm,0.3s,baz=12,slow=9.5,SNR=359						
LVC				S	S	05 03 03.7	+4.2
	133nm,0.3s,baz=203,slow=20,SNR=20						

```
LVC   Limon Verde         1.92 178⇑iP     P       05 02 38.5 +3.2
LVC                               i S     S       05 03 03.8 +4.2
LVC                                AMP            05 03 10.4
      comp=E,1µm,0.5s
ANCH  Antofagasta         3.26 204 i P    P       05 02 54.3 +0.9
ANCH                               i S    S       05 03 30.0 -1.6
CPN1  Cerro Paranal       4.13 198 eP     P       05 03 06.0 +0.8
CPN1                               i S    S       05 03 51.7 -1.2
LPAZ  La Paz              4.45  11  P     P       05 03 11.4 +2.0
      comp=E,4.9nm,0.3s,baz=194,slow=5.9,SNR=88
ARE   Arequipa            4.83 330 eP     P       05 03 14.0 -0.6
ARE                                eS     S       05 04 08.0 -1.8
CPUP  Villa Florida      12.07 120  P     P       05 04 50.6 -1.6
      comp=E,0.0nm,0.3s,baz=114,slow=12,SNR=1.5
BDFB  Brasilia           20.54  79  P     P       05 06 32.5 -2.0
      comp=E,4.5nm,0.4s,baz=234,slow=7.0,SNR=8.4
TXAR  Lajitas Array      59.93 325  P     P       05 11 59.3 -0.4
      comp=E,0.6nm,0.7s,mb3.7,baz=158,slow=4.9,SNR=4.1
SNAA  Sanae              63.07 161  P     P       05 12 20.6 +0.3
      comp=E,0.8nm,0.7s,mb3.7,baz=273,slow=7.3,SNR=9.1
DBIC  Dimbokro           68.57  74  P     P       05 12 55.1 -1.1
      comp=E,10.0nm,0.8s,mb4.7,baz=231,slow=6.5,SNR=13
ULM   Lac du Bonnet      74.52 342  P     P       05 13 31.6 +0.6
      comp=E,2.1nm,0.6s,mb4.0,baz=159,slow=8.4,SNR=3.7
NVAR  Mina Array Bea     74.81 322  P     P       05 13 34.4 +1.6
      comp=E,0.6nm,0.8s,mb3.4,baz=135,slow=6.4,SNR=2.5
YKA   Yellowknife Ar     90.40 341  P     P       05 14 53.7 +1.3
      comp=E,0.9nm,0.7s,mb4.0,baz=135,slow=4.6,SNR=19
YKA                                 pP    pP      05 15 21.8 +0.1
      comp=E,0.7nm,0.7s,baz=134,slow=4.7,SNR=11
YKA   Yellowknife Ar     90.40 341  P     P       05 14 53.7 +1.3
YKA                                 pP    pP      05 15 21.8 +0.1
```

IDC ***26*** *05:04:15.5±7.1, 8.25N×91.55E, mb4.4/9, mb1 4.5/10, mb1mx4.3/20, ML4.6/1, Error ellipse: s-maj=170.0km s-min=40.1km az=147.0*

ISC 26 05:04:20.2±5.0**, 8.5N**±0.7×**91.5E**±0.4**, h33^{km}, n12, σ1^{s}03**/12**, mb4.3**/10**, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°  Phase ID           Time     Res
                                    Op    ISC       h  m  s     ISC
CMAR  Chiang Mai Arr     12.24  35  Pn    P       05 07 15.0 -0.1
      1.0nm,0.3s,baz=217,slow=14,SNR=3.4
SONM  Songino Array      41.17  15  P     P       05 12 02.2 -0.9
      1.8nm,0.6s,mb3.9,baz=207,slow=6.4,SNR=2.9
ZAL   Zalesovo           45.62 354  P     P       05 12 40.1 +0.9
      2.7nm,0.6s,mb4.3,baz=212,slow=9.5,SNR=2.8
BVAR  Borovoye Array     47.59 343  P     P       05 12 54.0 -0.7
      5.3nm,1.1s,mb4.5,baz=164,slow=10,SNR=1.9
BRTR  Keskin Array B     60.06 311  P     P       05 14 25.6 -0.9
      3.8nm,1.0s,mb4.4,baz=124,slow=7.4,SNR=3.6
FINES FINESS Array B     70.95 332  P     P       05 15 36.9 +0.8
      3.8nm,0.7s,mb4.5,baz=105,slow=6.2,SNR=7.6
KAF   Kangasniemi        71.06 333 ep     P       05 15 38.5 +1.8
      2.2nm,0.4s,mb4.4
ZST   Bratislava         73.33 318 e      P       05 15 47.8 -2.6
ARCES ARCESS Array B     73.80 340  P     P       05 15 53.6 +0.8
      6.3nm,0.7s,mb4.7,baz=100,slow=6.3,SNR=11
GERES GERESS Array B     75.63 318  P     P       05 16 04.3 +0.6
      3.8nm,0.8s,mb4.4,baz=90,slow=5.3,SNR=4.7
NOA   NORSAR Array B     77.91 331  P     P       05 16 16.1 -0.2
      1.3nm,0.8s,mb3.9,baz=86,slow=7.4,SNR=2.7
DAVOX Davos              78.14 316  P     P       05 16 17.6 -0.2
      2.1nm,0.4s,mb4.4,baz=102,slow=9.3,SNR=5.9
```

IDC 26 05:05:30.8±9.0**, 3.68N**×**97.65E, mb4.3**/7**, mb1 4.4**/7**, mb1mx4.1**/18**, Error ellipse: s-maj=227.0km s-min=74.3km az=131.0, Northern Sumatera**

```
Code  Station Name        Δ°   AZ°  Phase ID           Time     Res
                                    Op    ISC       h  m  s     ISC
ZAL   Zalesovo           51.20 350  P     P       05 14 36.9 -1.0
      3.2nm,0.7s,baz=306,slow=4.6,SNR=3.3
BVAR  Borovoye Array     54.08 340  P     P       05 14 55.9 -3.5
      3.4nm,0.7s,baz=135,slow=10,SNR=3.9
BRTR  Keskin Array B     67.80 312  P     P       05 16 31.8 -1.1
      2.6nm,1.1s,baz=132,slow=6.2,SNR=3.2
IDI   Anoyia             73.82 306  P     P       05 17 07.2 -2.2
      3.4nm,0.6s,baz=270,slow=20,SNR=2.6
FINES FINESS Array B     78.03 332  P     P       05 17 30.2 -2.3
      6.2nm,1.1s,baz=101,slow=7.1,SNR=3.5
ZST   Bratislava         80.97 318 e      P       05 17 49.9 +1.2
GERES GERESS Array B     83.26 319  P     P       05 18 00.1 -0.5
      0.4nm,0.6s,baz=101,slow=5.0,SNR=3.2
NB2   NORSAR Subarra     85.08 331  P     P       05 18 08.4 -1.1
      4.7nm,1.0s,baz=92,slow=5.8
NOA   NORSAR Array B     85.08 331  P     P       05 18 08.5 -1.0
      0.8nm,0.9s,baz=71,slow=5.2,SNR=2.7
```

IDC 26 05:07:21.8±2.1**, 9.84N**×**92.74E, mb4.3**/5**, mb1 4.5**/5**, mb1mx4.0**/18**, Error ellipse: s-maj=94.6km s-min=23.1km az=64.0, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°  Phase ID           Time     Res
                                    Op    ISC       h  m  s     ISC
SONM  Songino Array      39.59  14  P     P       05 14 54.8 -1.8
      1.7nm,0.7s,baz=201,slow=7.0,SNR=2.9
BVAR  Borovoye Array     46.70 342  P     P       05 15 50.4 -3.7
      2.5nm,0.6s,baz=135,slow=6.3,SNR=3.7
WRA   Warramunga Arr     50.52 126  P     P       05 16 22.7 -1.6
      12nm,0.7s,baz=302,slow=9.0,SNR=10.0
ASAR  Alice Springs      52.23 130  P     P       05 16 33.2 -4.0
      1.9nm,0.6s,baz=301,slow=7.1,SNR=3.8
STKA  Stephens Creek     62.45 134  P     P       05 17 47.7 -1.8
      3.9nm,0.8s,baz=309,slow=6.5,SNR=3.2
PDAR  Pinedale Array    123.82  20  PKP   PKPdf   05 26 24.7 +0.7
      0.5nm,0.8s,baz=180,slow=0.9,SNR=3.0
```

IDC 26 05:07:39.0±1.0**, 9.85N**×**92.87E, mb4.4**/12**, mb1 4.6**/12**, mb1mx4.4**/19**, Error ellipse: s-maj=62.4km s-min=19.4km az=48.0, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°  Phase ID           Time     Res
                                    Op    ISC       h  m  s     ISC
ZAL   Zalesovo           44.45 353  P     P       05 15 51.5 -2.0
      6.0nm,0.5s,baz=289,slow=7.9,SNR=6.5
BVAR  Borovoye Array     46.73 342  P     P       05 16 10.3 -1.3
      2.5nm,0.6s,baz=136,slow=8.6,SNR=3.6
WRA   Warramunga Arr     50.43 126  P     P       05 16 38.6 -2.1
      6.7nm,0.6s,baz=304,slow=8.8,SNR=6.8
ASAR  Alice Springs      52.14 130  P     P       05 16 51.8 -2.0
      5.4nm,0.7s,baz=309,slow=7.2,SNR=6.5
BRTR  Keskin Array B     60.20 310  P     P       05 17 49.2 -2.1
      2.9nm,0.8s,baz=120,slow=7.9,SNR=6.1
AKASG Malin Array Be     65.84 321  P     P       05 18 26.0 -2.5
      0.8nm,0.6s,baz=85,slow=4.8,SNR=5.6
FINES FINESS Array B     70.39 332  P     P       05 18 55.0 -1.6
      2.3nm,0.6s,baz=96,slow=6.1,SNR=5.0
ARCES ARCESS Array B     73.00 340  P     P       05 19 09.9 -2.2
      4.0nm,0.8s,baz=101,slow=6.2,SNR=6.1
PRU   Pruhonice          75.02 319 eP     P       05 19 22.9 -1.3
GERES GERESS Array B     75.53 318  P     P       05 19 26.1 -1.1
      3.4nm,0.7s,baz=80,slow=6.4,SNR=10
KHC   Kasperske Hory     75.62 318 eP     P       05 19 26.0 -1.7
NB2   NORSAR Subarra     77.41 330  P     P       05 19 35.4 -2.0
      1.3nm,0.5s,baz=97,slow=5.0
NOA   NORSAR Array B     77.41 330  P     P       05 19 35.4 -2.1
      2.0nm,0.6s,baz=92,slow=5.7,SNR=5.4
DAVOX Davos              78.11 316  P     P       05 19 41.0 -0.6
      3.4nm,0.5s,baz=120,slow=7.7,SNR=6.4
ESDC  Sonseca Array      88.99 310  P     P       05 20 35.4 -2.0
      0.8nm,0.6s,baz=64,slow=4.4,SNR=4.3
```

IDC ***26*** *05:08:00.2±0.4, 9.10N×92.49E, mb4.9/27, mb1 4.9/27, mb1mx4.9/29, Error ellipse: s-maj=21.4km s-min=11.0km az=48.0*

BJI ***26*** *05:08:03.5, 9.37N×92.53E, h11^{km}, mb5.4*

NEIC ***26*** *05:08:04.8±0.2, 9.03N×92.46E, h30^{km}, mb5.0/18, Error ellipse: s-maj=7.9km s-min=4.9km az=45.0*

ISC 26 05:08:03.5±0.3**, 9.00N**±0.07×**92.44E**±0.06**, h34^{km}, h34^{km}**±.8^{km}**:pP-P, n131, σ0^{s}75**/82**, mb5.0**/47**, 4C-3D, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°  Phase ID           Time     Res
                                    Op    ISC       h  m  s     ISC
LSA   Lhasa              20.63 357  P     P       05 12 42.8 +0.1
LSA   Lhasa              20.63 357 eP     P       05 12 42.5 -0.2
      66nm,0.8s
GYA   Guiyang            21.99  36⇑iP     P       05 12 53.0 -3.4
GYA                                 AMB   AMB
      comp=Z,60nm,1.0s,mb5.0
CD2   Chengdu            24.22  24⇓iP     P       05 13 19.0 +0.7
CD2                                 AMB   AMB
      comp=Z,170nm,1.0s,mb5.4
ENH   Enshi              26.49  35 eP     P       05 13 38.9 -0.9
      comp=Z,60nm,0.8s,mb5.2
LZH   Lanzhou            28.90  19 eP     P       05 14 01.5  0.0
LZH                                 AP    pP      05 14 04.5 -6.7
LZH                                 XP    sP      05 14 06.3 -9.3
LZH                                 AMB   AMB
      comp=Z,200nm,1.5s,mb5.6
GTA   Gaotai             30.99  11  P     P       05 14 21.0 +0.9
GTA                                 AP    pP      05 14 31.3 +1.4
GTA                                 AMB   AMB
      comp=Z,96nm,1.3s,mb5.5
NJ2   Nanjing            33.55  43 eP     P       05 14 43.3 +0.8
HHC   Hu-ho-hao-te       35.98  25 eP     P       05 15 03.3 +0.2
HHC                                 AP    pP      05 15 13.0  0.0
HHC                                 XP    sP      05 15 17.0 -0.4
HHC                                 AMB   AMB
      comp=Z,73nm,0.7s,mb5.7
BJT   Baijiatuau         37.44  31 eP     P       05 15 15.7 +0.3
      comp=Z,50nm,1.0s,mb5.3
SONM  Songino Array      40.47  14  P     P       05 15 40.0 -0.6
      comp=Z,32nm,0.8s,mb5.1,baz=199,slow=7.8,SNR=31
SONM  Songino Array      40.47  14  P     pP      05 15 49.7 -0.8
      comp=Z,12nm,0.7s,baz=190,slow=7.5,SNR=8.4
ULN   Ulaanbaatar        40.66  15 eP     P       05 15 42.1 -0.1
      comp=Z,29nm,0.9s,mb4.9
ZAL   Zalesovo           45.23 354  P     P       05 16 19.5 +0.2
      comp=Z,9.9nm,0.5s,mb4.9,baz=296,slow=5.9,SNR=9.8
ZAL   Zalesovo           45.23 354  P     pP      05 16 29.8 +0.4
      comp=Z,4.7nm,0.7s,baz=243,slow=4.9,SNR=3.1
BVAR  Borovoye Array     47.40 342  P     P       05 16 36.0 -0.4
      comp=Z,11nm,0.9s,mb4.8,baz=153,slow=6.6,SNR=8.6
BVAR  Borovoye Array     47.40 342  P     pP      05 16 46.0 -0.4
      comp=Z,3.2nm,0.5s,baz=152,slow=14,SNR=3.7
NWAO  Narrogin (SRO)     47.92 152  P     P       05 16 41.0 +0.3
      comp=Z,12nm,0.8s,mb5.0,baz=334,slow=9.8,SNR=3.6
MAT   Matsushiro         49.68  49  P     P       05 16 54.3  0.0
MAT   Matsushiro         49.68  49 eP     P       05 16 54.0 -0.3
WRA   Warramunga Arr     50.28 125  P     P       05 16 58.3 -0.8
      comp=Z,14nm,0.7s,mb5.1,baz=306,slow=8.8,SNR=10
WRA   Warramunga Arr     50.28 125  P     pP      05 17 09.8 +0.7
      comp=Z,6.0nm,0.8s,baz=300,slow=9.9,SNR=4.8
ASAR  Alice Springs      51.92 130  P     P       05 17 10.7 -0.8
      comp=Z,9.1nm,0.8s,mb4.8,baz=311,slow=7.4,SNR=7.6
ASAR  Alice Springs      51.92 130  P     pP      05 17 20.8 -0.7
      comp=Z,7.0nm,0.8s,baz=302,slow=7.1,SNR=4.4
GNI   Garni              52.45 314  P     P       05 17 16.2 +1.1
      comp=Z,19nm,1.1s,mb4.9,baz=305,slow=21,SNR=3.4
GNI   Garni              52.45 314  P     pP      05 17 26.7 +1.4
      comp=Z,8.9nm,0.7s,baz=229,slow=12,SNR=5.3
KIV   Kislovodsk         55.36 318 eP     P       05 17 36.4 -0.1
      comp=Z,10nm,0.6s,mb5.0
ASAJ  Asahikawa          55.69  42  P     P       05 17 38.9  0.0
      comp=Z,10.0nm,0.7s,mb4.9,baz=252,slow=19,SNR=3.3
ASAJ  Asahikawa          55.69  42  P     pP      05 17 49.4 +0.2
      comp=Z,18nm,1.0s,baz=277,slow=23,SNR=3.8
KMBO  Kilima Mbogo       55.89 263  P     pP      05 17 52.9 +1.9
      comp=Z,1.9nm,0.8s,baz=57,slow=13,SNR=5.5
ASF   Jabal al Asfar     56.20 303  P     pP      05 17 53.4 +0.4
      comp=Z,3.8nm,0.9s,baz=204,slow=3.9,SNR=2.5
EIL   Elat               57.41 299  P     P       05 17 52.2 +0.7
      comp=Z,8.9nm,1.0s,mb4.8,baz=346,slow=7.9,SNR=3.2
EIL   Elat               57.41 299  P     pP      05 18 01.1 -0.7
      comp=Z,3.9nm,0.6s,baz=341,slow=15,SNR=3.1
EIL   Elat               57.41 299  P     P       05 17 52.2 +0.7
PMG   Port Moresby       57.47 107  P     P       05 17 51.2 -0.8
      comp=Z,12nm,0.7s,mb5.1,baz=267,slow=1.5,SNR=5.9
PMG   Port Moresby       57.47 107  P     pP      05 18 01.2 -1.1
      comp=Z,11nm,0.6s,baz=273,slow=5.8,SNR=3.2
CTA   Charters Tower     60.32 119  P     P       05 18 11.4 -0.3
      comp=Z,12nm,0.8s,mb5.0,baz=309,slow=8.5,SNR=10
CTA   Charters Tower     60.32 119  P     pP      05 18 21.9 -0.1
      comp=Z,7.6nm,1.0s,baz=302,slow=9.2,SNR=3.9
BRTR  Keskin Array B     60.43 311  P     P       05 18 10.7 -1.5
      comp=Z,6.5nm,0.7s,mb4.8,baz=121,slow=7.2,SNR=13
BRTR  Keskin Array B     60.43 311  P     pP      05 18 20.6 -1.9
      comp=Z,5.7nm,0.8s,baz=139,slow=6.5,SNR=7.3
STKA  Stephens Creek     62.09 133  P     P       05 18 23.3 -0.2
      comp=Z,5.4nm,0.6s,mb4.8,baz=306,slow=8.4,SNR=7.0
STKA  Stephens Creek     62.09 133  P     pP      05 18 33.8 -0.1
      comp=Z,6.5nm,0.8s,baz=309,slow=7.3,SNR=4.6
ISP   Isparta            62.43 308 eP     P       05 18 24.6 -1.0
      comp=Z,7.2nm,0.4s,mb5.2
AKASG Malin Array Be     66.24 322  P     P       05 18 48.4 -1.9
      comp=Z,2.1nm,0.5s,mb4.5,baz=88,slow=4.6,SNR=12
AKASG Malin Array Be     66.24 322  P     pP      05 18 58.9 -1.9
      comp=Z,2.4nm,0.6s,baz=79,slow=4.9,SNR=8.3
IDI   Anoyia             66.55 304  P     P       05 18 51.8 -0.7
      comp=Z,6.3nm,0.8s,mb4.7,baz=88,slow=10,SNR=3.0
IDI   Anoyia             66.55 304  P     pP      05 19 02.3 -0.7
      comp=Z,8.5nm,0.8s,baz=290,slow=13,SNR=4.3
MMB   Musomiste          68.18 311 eP     P       05 19 01.0 -1.6
KKB   Krupnik            68.69 311 eP     P       05 19 04.0 -1.8
VTS   Vitosha            68.69 312 eP     P       05 19 05.0 -0.8
KWP   Kalwaria           70.09 320 eP     P       05 19 14.0 -0.2
SUW   Suwalki            70.62 324 eP     P       05 19 16.5 -0.8
CRVS  Cervenica-Dubn     70.78 319 eP     P       05 19 20.4 +2.0
FINES FINESS Array B     70.94 332  P     P       05 19 18.3 -0.9
      comp=Z,8.6nm,0.7s,mb4.8,baz=104,slow=7.9,SNR=8.2
FINES FINESS Array B     70.94 332  P     pP      05 19 28.0 -1.7
      comp=Z,4.7nm,0.6s,baz=109,slow=6.9,SNR=5.3
OJC   Ojcow              72.04 320 eP     P       05 19 26.0 +0.1
VYHS  Vyhne              72.45 318 eP     P       05 19 27.7 -0.7
VYHS                               e      pP      05 19 38.1 -0.8
OKC   Ostrava-Krasne     73.05 319 eP     P       05 19 31.6 -0.4
OKC                                epP    pP      05 19 42.3 -0.1
ZST   Bratislava         73.58 318 eP     P       05 19 34.6 -0.5
ZST                                e      pP      05 19 45.6 +0.1
ARCES ARCESS Array B     73.65 340  P     P       05 19 34.6 -0.4
      comp=Z,11nm,0.9s,mb4.8,baz=98,slow=8.6,SNR=7.9
ARCES ARCESS Array B     73.65 340  P     pP      05 19 43.9 -1.7
      comp=Z,1.9nm,0.5s,baz=91,slow=5.1,SNR=4.8
DPC   Dobruska-Polom     74.27 320 eP     P       05 19 39.6 +0.6
DPC                                epP    pP      05 19 50.3 +0.8
KSP   Ksiaz              74.33 320 eP     P       05 19 39.3 -0.1
KSP                                e      pP      05 19 50.2 +0.4
KSP   Ksiaz              74.33 320 eP     P       05 19 39.8 +0.4
KSP                                e      pP      05 19 50.0 +0.2
UPC   Upice              74.48 320 eP     P       05 19 40.7 +0.5
UPC                                epP    pP      05 19 51.2 +0.5
ARSA  Arzberg            74.57 316⇑iP     P       05 19 41.4 +0.6
      comp=Z,13nm,1.0s,mb4.8
OBKA  Obir               75.20 316⇑iP     P       05 19 44.7 +0.2
      comp=Z,28nm,1.3s,mb5.0
PRU   Pruhonice          75.39 319 eP     P       05 19 45.3 -0.2
PRU                                epP    pP      05 19 56.1 +0.1
BRG   Berggiesshubel     75.82 320 eP     P       05 19 48.6 +0.7
      comp=Z,17nm,1.1s,mb4.9
BRG                                e      pP      05 19 58.9 +0.5
GEC2  GERESS Array S     75.87 318 eP     P       05 19 48.6 +0.3
      comp=Z,11nm,0.9s,mb4.8
GERES GERESS Array B     75.87 318  P     P       05 19 48.7 +0.4
      comp=Z,11nm,0.8s,mb4.8,baz=90,slow=5.3,SNR=15
GERES GERESS Array B     75.87 318  P     pP      05 19 57.5 -1.2
      comp=Z,4.4nm,0.5s,baz=94,slow=6.3,SNR=14
KHC   Kasperske Hory     75.97 318 eP     P       05 19 49.0 +0.2
KHC                                epP    pP      05 19 58.0 -1.3
KBA   Koelnbreinsper     76.05 316⇓iP     P       05 19 49.8 +0.5
      comp=Z,12nm,1.2s,mb4.7
WET   Wettzell           76.43 318 eP     P       05 19 51.8 +0.4
CLL   Collm              76.43 321 i P    P       05 19 51.3 -0.1
CLL                                e      pP      05 20 01.0 -0.9
CLL   Collm              76.43 321  P     P       05 19 51.3 -0.1
CLL                                e*PP   pP      05 20 01.0 -0.9
NKC   Novy Kostel        76.74 319 eP     P       05 19 53.8 +0.6
WTTA  Wattenberg         77.22 316⇑iP     P       05 19 55.7 -0.2
      comp=Z,14nm,0.7s,mb5.0
MOX   Moxa               77.29 320 i P    P       05 19 56.8 +0.6
MOX   Moxa               77.29 320 eP     P       05 19 56.8 +0.6
FUR   Furstenfeldbru     77.47 317 eP     P       05 19 57.4 +0.1
GRA1  Grafenberg Arr     77.52 319 eP     P       05 19 58.3 +0.7
      comp=Z,14nm,0.9s,mb4.9
GRA1                               epP    pP      05 20 08.7 +0.6
GRF   Grafenberg Arr     77.52 319 eP     P       05 19 58.3 +0.7
      comp=Z,14nm,0.9s,mb4.9
GRF                                epP    pP      05 20 08.7 +0.6
NOA   NORSAR Array B     77.93 331  P     P       05 19 59.2 -0.4
      comp=Z,5.3nm,0.7s,mb4.6,baz=94,slow=5.6,SNR=7.2
NOA   NORSAR Array B     77.93 331  P     pP      05 20 08.8 -1.2
      comp=Z,2.9nm,0.7s,baz=94,slow=5.6,SNR=3.4
NOA   NORSAR Array B     77.93 331  P     P       05 19 59.2 -0.4
CLZ   Clausthal          78.09 321 eP     P       05 20 01.0 +0.4
      comp=Z,11nm,0.8s,mb4.8
BSEG  Bad Segeberg       78.15 323 eP     P       05 20 01.2 +0.3
DAVOX Davos              78.42 316  P     P       05 20 02.7 +0.2
      comp=Z,8.6nm,0.6s,mb4.9,baz=124,slow=7.8,SNR=10
DAVOX Davos              78.42 316  P     pP      05 20 12.5 -0.6
      comp=Z,9.1nm,0.5s,baz=137,slow=3.4,SNR=10
MAW   Mawson             79.30 191  P     P       05 20 08.0 +1.1
      comp=Z,4.4nm,0.7s,mb4.5,baz=13,slow=8.7,SNR=4.8
BFO   Black Forest       79.44 318 eP     P       05 20 08.3 +0.2
      comp=Z,6.0nm,0.9s,mb4.5
LPL   La Plagne          80.65 315⇓iP     P       05 20 15.0 +0.4
      comp=Z,80nm,0.9s,mb5.4
RPZ   Rata Peaks         88.03 135  P     P       05 20 53.2 +1.5
      comp=Z,35nm,0.9s,mb5.6,baz=322,slow=0.5,SNR=8.1
ESDC  Sonseca Array      89.21 310  P     P       05 20 58.2 +0.7
      comp=Z,1.7nm,0.6s,mb4.6,baz=65,slow=3.8,SNR=7.5
ESDC  Sonseca Array      89.21 310  P     pP      05 21 08.4 +0.2
      comp=Z,1.4nm,0.5s,baz=69,slow=4.0,SNR=10
IMA   Indian Mountai     91.22  22 eP     P       05 21 07.6 +1.4
      comp=Z,16nm,1.1s,mb5.3
IMA                                e      pP      05 21 19.7 +2.7
URZ   Urewera            91.35 128  P     P       05 21 07.0 -0.5
      comp=Z,11nm,0.9s,mb5.2,baz=326,slow=5.2,SNR=8.0
SPU   Mount Spurr        94.02  26 eP     P       05 21 20.2 +1.1
ILAR  Eielson Array      94.34  22  P     P       05 21 20.7 +0.3
      comp=Z,5.2nm,0.8s,mb5.0,baz=300,slow=4.2,SNR=17
DBIC  Dimbokro           96.13 278  P     P       05 21 29.6 -0.2
      comp=Z,4.8nm,0.8s,mb5.0,baz=103,slow=7.4,SNR=4.9
INK   Inuvik             96.38  16  P     P       05 21 29.0 -0.6
      comp=Z,12nm,0.9s,mb5.3,baz=348,slow=4.6,SNR=16
INK   Inuvik             96.38  16  P     P       05 21 29.0 -0.7
ULM   Lac du Bonnet     120.56   6  PKP   PKPdf   05 26 53.5 +1.6
      comp=Z,2.6nm,0.9s,baz=92,slow=4.7,SNR=3.4
ULM   Lac du Bonnet     120.56   6  PKP   PKPdf   05 26 53.5 +1.6
ELK   Elko              124.31  25 ePKP   PKPdf   05 27 02.3 +2.9
PDAR  Pinedale Array    124.71  20  PKP   PKPdf   05 27 01.4 +1.2
      comp=Z,1.9nm,0.7s,baz=78,slow=1.0,SNR=9.4
PDAR  Pinedale Array    124.71  20  PKP           05 27 13.0
      comp=Z,1.9nm,0.9s,baz=45,slow=2.1,SNR=5.8
NVAR  Mina Array Bea    124.80  29  PKP   PKPdf   05 27 02.7 +2.2
      comp=Z,3.9nm,0.8s,baz=343,slow=0.7,SNR=14
NVAR  Mina Array Bea    124.80  29  PKP           05 27 13.5
      comp=Z,2.2nm,0.8s,baz=254,slow=4.9,SNR=6.6
NVAR  Mina Array Bea    124.80  29  PKP   PKPdf   05 27 02.7 +2.2
MNV   Mina              124.86  29 ePKP   PKPdf   05 27 03.6 +3.1
ANMO  Albuquerque       132.78  21  PKP   PKPdf   05 27 19.1 +3.3
      comp=Z,1.9nm,0.9s,baz=193,slow=4.9,SNR=5.2
ANMO  Albuquerque       132.78  21  PKP           05 27 29.2
      comp=Z,0.9nm,0.6s,baz=192,slow=1.5,SNR=3.8
TXAR  Lajitas Array     138.85  22  PKP   PKPdf   05 27 29.9 +2.8
      comp=Z,0.8nm,0.5s,baz=220,slow=0.6,SNR=7.5
TXAR  Lajitas Array     138.85  22  PKP           05 27 40.8
      comp=Z,1.8nm,0.9s,baz=356,slow=1.2,SNR=4.9
BAO   Brasilia Array    140.83 256  PKP   PKPdf   05 27 30.5 -0.6
BDFB  Brasilia          140.85 256  PKP   PKPdf   05 27 34.1 +3.0
      comp=Z,2.7nm,0.7s,baz=172,slow=7.6,SNR=4.4
BDFB  Brasilia          140.85 256  PKP           05 27 44.5
      comp=Z,2.2nm,0.7s,baz=125,slow=4.3,SNR=3.7
SJG   San Juan          145.76 322  PKPbc PKPbc   05 27 41.5 +1.1
      comp=Z,5.1nm,0.5s,baz=337,slow=13,SNR=3.7
CPUP  Villa Florida     146.57 235  PKPbc PKPbc   05 27 44.4 +2.4
      comp=Z,0.0nm,0.3s,baz=124,slow=14,SNR=2.0
CPUP  Villa Florida     146.57 235  PKPbc         05 27 55.5
      comp=Z,0.0nm,0.3s,baz=46,slow=15,SNR=1.6
PCRV  Puerto La Cruz    150.28 309  PKPbc PKPdf   05 27 53.6 +6.6
      comp=Z,12nm,0.8s,baz=354,slow=8.4,SNR=6.0
PCRV  Puerto La Cruz    150.28 309  PKPbc         05 28 02.3
      comp=Z,10nm,0.6s,baz=336,slow=8.1,SNR=6.7
SDV   Santo Domingo     155.51 316  PKP   PKPdf   05 27 57.9 +3.6
      comp=Z,3.6nm,0.9s,baz=345,slow=3.4,SNR=3.9
SDV                                 PKPab PKPab   05 28 22.2 -0.5
      comp=Z,9.4nm,0.8s,baz=48,slow=3.7,SNR=4.8
LVC   Limon Verde       157.56 231  PKPab PKPab   05 28 33.2 +2.0
      comp=Z,1.8nm,0.7s,baz=125,slow=2.5,SNR=7.5
LPAZ  La Paz            159.72 247  PKP   PKPdf   05 28 02.9 +3.4
      comp=Z,1.5nm,0.8s,baz=35,slow=3.2,SNR=3.5
LPAZ  La Paz            159.72 247  PKPab         05 28 52.5
      comp=Z,2.2nm,0.8s,baz=64,slow=14,SNR=5.0
LPAZ  La Paz            159.72 247  PKP   PKPdf   05 28 02.9 +3.4
ROSC  El Rosal          160.94 316  PKP   PKPdf   05 28 04.5 +3.6
      comp=Z,2.5nm,0.8s,baz=105,slow=23,SNR=4.2
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IDC ***26*** *05:09:32.3±0.4, 9.19N×93.91E, h24^{km}±2^{km}, mb4.7/28, mb1 4.7/29, mb1mx4.7/29, Error ellipse: s-maj=16.8km s-min=10.1km az=48.0*

NEIC ***26*** *05:09:32.5±0.2, 9.16N×93.89E, mb5.2/24, Error ellipse: s-maj=10.7km s-min=6.6km az=48.0*

BJI ***26*** *05:09:32.5, 9.20N×93.90E, h26^{km}, mb5.1*

ISC 26 05:09:30.5±0.3**, 9.13N**±0.06×**93.87E**±0.06**, h27^{km}, h27^{km}**±.3^{km}**:pP-P, n118, σ0^{s}97**/93**, mb4.9**/52**, 4C-2D, Nicobar Islands region**

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Code  Station Name        Δ°   AZ°  Phase ID           Time     Res
                                    Op    ISC       h  m  s     ISC
CMAR  Chiang Mai Arr     10.50  27  Pn    P       05 12 02.9 +0.2
      baz=211,slow=15,SNR=2.1
LSA   Lhasa              20.62 353  P     P       05 14 10.8 +0.2
CD2   Chengdu            23.55  22⇑iP     P       05 14 41.3 +1.5
CD2                                 AMB   AMB
      comp=Z,130nm,1.8s,mb5.1
GTA   Gaotai             30.62   9  P     P       05 15 51.0 +6.2
GTA                                 AMB   AMB
      comp=Z,42nm,1.3s,mb5.1
HHC   Hu-ho-hao-te       35.28  24 eP     P       05 16 26.5 +1.2
HHC                                 AMB   AMB
      comp=Z,33nm,1.1s,mb5.2
BJT   Baijiatuau         36.62  29 eP     P       05 16 36.0 -0.7
      comp=Z,61nm,1.3s,mb5.3
AAK   Ala-Archa          37.45 336 eP     P       05 16 41.8 -1.7
      comp=Z,52nm,1.0s,mb5.3
AAK                                e              05 16 52.1
SONM  Songino Array      40.01  13  P     P       05 17 06.1 +1.2
      comp=Z,5.2nm,1.0s,mb4.2,baz=195,slow=9.4,SNR=2.4
SONM                                pP    pP      05 17 13.9 +1.1
      comp=Z,7.2nm,0.8s,baz=207,slow=8.3,SNR=5.2
SONM                                PcP   PcP     05 19 10.3 +0.1
      comp=Z,3.7nm,0.5s,baz=207,slow=4.0,SNR=8.3
SONM                                pPcP          05 19 18.8
      comp=Z,7.2nm,0.6s,baz=198,slow=4.0,SNR=8.5
CN2   Changchun          44.12  33 eP     P       05 17 39.0 +0.4
CN2                                 AMB   AMB
      comp=Z,10.0nm,0.8s,mb4.6
ZAL   Zalesovo           45.27 352  P     P       05 17 47.9 +0.2
      comp=Z,8.8nm,0.5s,mb4.9,baz=308,slow=7.9,SNR=9.7
ZAL                                 pP    pP      05 17 55.4 -0.3
      comp=Z,25nm,0.8s,baz=297,slow=7.9,SNR=15
ZAL   Zalesovo           45.27 352  P     P       05 17 47.9 +0.2
ZAL                                 pP    pP      05 17 55.4 -0.3
NWAO  Narrogin (SRO)     47.38 153  P     P       05 18 03.6 -1.0
      comp=Z,13nm,0.6s,mb5.1,baz=320,slow=8.6,SNR=7.6
BVAR  Borovoye Array     47.72 341  P     P       05 18 06.0 -1.0
      comp=Z,8.8nm,0.8s,mb4.8,baz=139,slow=8.8,SNR=6.8
BVAR                                pP    pP      05 18 14.2 -0.9
      comp=Z,6.0nm,0.6s,baz=143,slow=7.4,SNR=3.8
BRVK  Borovoye           47.78 341 eP     P       05 18 06.6 -0.9
      comp=Z,89nm,1.7s,mb5.5
WRA   Warramunga Arr     49.21 126  P     P       05 18 17.8 -1.2
      comp=Z,17nm,1.1s,mb5.0,baz=306,slow=8.0,SNR=8.3
WRA                                 PcP   PcP     05 19 41.6 -0.5
      comp=Z,3.9nm,0.8s,baz=317,slow=3.0,SNR=6.7
WRAB  Tennant Creek      49.22 126 eP     P       05 18 17.6 -1.4
      comp=Z,36nm,0.9s,mb5.4
ASAR  Alice Springs      50.93 131  P     P       05 18 33.0 +0.9
      comp=Z,7.0nm,1.1s,mb4.5,baz=309,slow=5.4,SNR=4.3
ASAR                                PcP   PcP     05 19 48.6 +0.3
      comp=Z,9.5nm,1.2s,baz=315,slow=4.2,SNR=5.3
ASAR                                pPcP          05 19 56.0
      comp=Z,1.8nm,0.6s,baz=311,slow=4.3,SNR=4.2
GNI   Garni              53.37 314  P     P       05 18 50.5 +0.4
      comp=Z,3.3nm,0.5s,mb4.6,baz=211,slow=7.4,SNR=2.6
ARU   Arti               54.63 337 eP     P       05 18 57.6 -1.6
      comp=Z,8.5nm,0.8s,mb4.8
ARU                                e      pP      05 19 06.7 -0.7
PMG   Port Moresby       56.16 108  P     P       05 19 11.3 +0.5
      comp=Z,21nm,0.9s,mb5.2,baz=106,slow=2.7,SNR=4.1
KIV   Kislovodsk         56.21 317 eP     P       05 19 10.0 -0.8
      comp=Z,38nm,0.9s,mb5.4
KMBO  Kilima Mbogo       57.30 263  P     P       05 19 21.1 +2.2
      comp=Z,3.5nm,0.9s,mb4.4,baz=53,slow=12,SNR=5.6
ASF   Jabal al Asfar     57.31 302  P     P       05 19 20.2 +1.4
      comp=Z,4.0nm,0.9s,mb4.5,baz=94,slow=6.6,SNR=2.8
MALT  Malatya            57.45 310 eP     P       05 19 19.5 -0.2
      comp=Z,18nm,1.2s,mb5.0
EIL   Elat               58.58 299  P     P       05 19 28.7 +1.0
      comp=Z,5.7nm,0.8s,mb4.7,baz=91,slow=4.6,SNR=3.0
EIL   Elat               58.58 299  P     P       05 19 28.7 +1.0
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Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	Charters Tower	59.16	120	P	P	05 19 31.4	-0.5
	comp=Z,39nm,1.2s,mb5.3,baz=306,slow=7.1,SNR=10						
CTAO	Charters Tower	59.16	120	eP	P	05 19 30.6	-1.3
	comp=Z,128nm,1.5s,mb5.7						
STKA	Stephens Creek	61.17	134	P	P	05 19 45.4	-0.1
	comp=Z,7.0nm,1.0s,mb4.8,baz=322,slow=7.6,SNR=3.6						
BRTR	Keskin Array B	61.41	310	P	P	05 19 45.5	-1.5
	comp=Z,4.0nm,0.6s,mb4.7,baz=128,slow=5.4,SNR=8.3						
BRTR				pP	pP	05 19 53.8	-1.6
	comp=Z,8.3nm,0.8s,baz=123,slow=7.6,SNR=9.5						
ISP	Isparta	63.46	308	eP	P	05 19 59.3	-1.3
	comp=Z,72nm,1.6s,mb5.5						
AKASG	Malin Array Be	67.01	321	P	P	05 20 21.6	-1.7
	comp=Z,1.6nm,0.4s,mb4.4,baz=84,slow=5.3,SNR=6.4						
AKASG				pP	pP	05 20 29.9	-1.8
	comp=Z,8.3nm,0.7s,baz=87,slow=4.7,SNR=6.0						
IDI	Anoyia	67.64	304	P	P	05 20 26.7	-0.8
	comp=Z,13nm,1.1s,mb4.9,baz=80,slow=7.7,SNR=5.0						
IDI				pP	pP	05 20 35.1	-0.9
	comp=Z,6.2nm,0.6s,baz=144,slow=11,SNR=4.1						
RZN	Rozhen	68.43	311	eP	pP	05 20 40.0	-0.7
MMB	Musomiste	69.15	311	eP	P	05 20 35.0	-1.9
VTS	Vitosha	69.65	312	eP	P	05 20 39.0	-0.9
KKB	Krupnik	69.66	311	eP	P	05 20 38.0	-2.0
KOLS	Kolonicke sedl	71.09	319	eP	P	05 20 48.1	-0.4
KOLS				epP	pP	05 20 58.0	+1.1
FINES	FINESS Array B	71.48	332	P	P	05 20 50.0	-0.6
	comp=Z,6.5nm,0.5s,mb4.8,baz=100,slow=6.8,SNR=15						
FINES				pP	pP	05 20 58.5	-0.5
	comp=Z,17nm,0.6s,baz=104,slow=7.9,SNR=16						
KAF	Kangasniemi	71.56	333	ep	pP	05 20 58.7	-0.8
	comp=Z,17nm,0.8s						
KAF	Kangasniemi	71.56	333	eP	P	05 20 50.6	-0.5
	comp=Z,3.6nm,0.4s,mb4.7						
KAF				eP	pP	05 20 58.7	-0.8
CRVS	Cervenica-Dubn	71.61	318	e	PcP	05 21 08.0	-3.0
KECS	Kecovo	72.21	318	epP	pP	05 21 03.2	-0.4
OJC	Ojcow	72.85	320	eP	P	05 20 58.7	-0.3
VYHS	Vyhne	73.30	318	eP	P	05 21 01.2	-0.4
VYHS				epP	pP	05 21 09.6	-0.4
SRO2	Moca	73.53	317	epP	pP	05 21 10.3	-1.1
KEV	Kevo	73.57	341	ep	pP	05 21 11.4	+0.2
	comp=Z,35nm,0.7s						
KEV	Kevo	73.57	341	eP	P	05 21 02.9	+0.1
	comp=Z,1.3nm,0.4s,mb4.2						
KEV				eP	pP	05 21 11.4	+0.2
OKC	Ostrava-Krasne	73.87	319	eP	P	05 21 05.1	+0.2
OKC				epP	pP	05 21 13.3	0.0
ARCES	ARCESS Array B	74.00	340	P	P	05 21 05.7	+0.4
	comp=Z,7.7nm,0.7s,mb4.8,baz=100,slow=6.9,SNR=14						
ARCES				pP	pP	05 21 14.2	+0.5
	comp=Z,18nm,0.6s,baz=90,slow=6.1,SNR=45						
ARE0	ARCESS Array S	74.00	340	eP	P	05 21 05.1	-0.2
ZST	Bratislava	74.43	317	eP	P	05 21 08.1	-0.1
ZST				epP	pP	05 21 16.9	+0.3
KTK1	Kautokeino	74.63	339	eP	P	05 21 10.1	+1.2
KTK1				epP	pP	05 21 18.0	+0.7
DPC	Dobruska-Polom	75.08	320	eP	P	05 21 12.5	+0.6
DPC				epP	pP	05 21 20.6	+0.3
KSP	Ksiaz	75.13	320	eP	P	05 21 12.4	+0.2
KSP				e	pP	05 21 20.8	+0.2
UPC	Upice	75.29	320	eP	P	05 21 13.1	0.0
ARSA	Arzberg	75.44	316	⇑iP	P	05 21 15.7	+1.6
	comp=Z,20nm,1.2s,mb4.9						
PRU	Pruhonice	76.20	319	eP	P	05 21 18.5	+0.2
PRU				epP	pP	05 21 26.7	0.0
PVCC	Panska Ves	76.21	320	eP	P	05 21 17.5	-0.8
PVCC				epP	pP	05 21 26.9	+0.2
TRO	Tromso	76.26	340	eP	P	05 21 17.4	-0.9
TRO				epP	pP	05 21 25.6	-1.1
FX1	Attu Island--F	76.32	38	P	P	05 21 18.4	-0.5
	comp=Z,18nm,0.7s,mb5.1,baz=95,slow=14,SNR=2.3						
BRG	Berggiesshubel	76.62	320	eP	P	05 21 21.1	+0.5
	comp=Z,18nm,1.0s,mb5.0						
BRG				e	pP	05 21 29.4	+0.4
GEC2	GERESS Array S	76.72	318	eP	P	05 21 21.8	+0.6
	comp=Z,17nm,0.8s,mb5.0						
GERES	GERESS Array B	76.72	318	P	P	05 21 21.3	+0.1
	comp=Z,5.1nm,0.6s,mb4.6,baz=87,slow=6.4,SNR=13						
GERES				pP	pP	05 21 29.3	-0.3
	comp=Z,15nm,0.7s,baz=90,slow=4.9,SNR=18						
KHC	Kasperske Hory	76.80	318	eP	P	05 21 21.6	-0.1
KHC				epP	pP	05 21 30.2	+0.1
CLL	Collm	77.22	321	eP	P	05 21 24.0	0.0
	comp=Z,7.0nm,0.9s,mb4.6						
CLL				e	pP	05 21 31.0	-1.4
CLL	Collm	77.22	321	P	P	05 21 24.0	0.0
	comp=Z,logA/T=0.9,mb4.6						
CLL				e*PP	pP	05 21 31.0	-1.4
CLL				e*SP	sP	05 21 35.0	-0.3
WET	Wettzell	77.26	318	eP	P	05 21 24.9	+0.7
MOR8	Moi Rana	77.43	336	eP	P	05 21 24.0	-0.8
MOR8				epP	pP	05 21 32.7	-0.5
NKC	Novy Kostel	77.56	319	eP	P	05 21 25.8	0.0
NKC				epP	pP	05 21 34.8	+0.5
LOF	Lofoten	77.97	338	eP	P	05 21 29.8	+2.0
LOF				epP	pP	05 21 38.3	+2.1
MOX	Moxa	78.09	320	i P	P	05 21 29.9	+1.2
MOX	Moxa	78.09	320	eP	P	05 21 29.9	+1.2
WATA	Walderalm	78.13	316	⇑iP	P	05 21 28.5	-0.5
FUR	Furstenfeldbru	78.33	317	eP	P	05 21 30.2	+0.1
NSS	Namsos	78.33	334	eP	P	05 21 28.3	-1.5
NSS				epP	pP	05 21 37.1	-1.1
GRA1	Grafenberg Arr	78.35	319	eP	P	05 21 30.9	+0.7
	comp=Z,18nm,0.8s,mb5.0						
GRA1				epP	pP	05 21 39.5	+0.9
GRF	Grafenberg Arr	78.35	319	eP	P	05 21 30.9	+0.7
	comp=Z,18nm,0.8s,mb5.0						
GRF				epP	pP	05 21 39.5	+0.9
SQTA	Sankt Quirin	78.38	316	⇓iP	P	05 21 30.6	+0.2
	comp=Z,11nm,0.8s,mb4.8						
MOTA	Moosalm	78.45	316	⇑iP	P	05 21 28.7	-2.1
	comp=Z,2.1nm,0.7s,mb4.2						
NB2	NORSAR Subarra	78.51	330	P	P	05 21 30.1	-0.7
	comp=Z,18nm,0.7s,mb5.1,baz=95,slow=5.0						
NB2	NORSAR Subarra	78.51	330	P	P	05 21 30.1	-0.7
	baz=95,slow=5.1						
NOA	NORSAR Array B	78.51	330	P	P	05 21 29.8	-1.0
	comp=Z,4.2nm,0.6s,mb4.6,baz=92,slow=5.7,SNR=12						
NOA				pP	pP	05 21 38.6	-0.6
	comp=Z,14nm,0.8s,baz=96,slow=5.3,SNR=20						
CLZ	Clausthal	78.87	321	eP	P	05 21 33.4	+0.4
	comp=Z,18nm,0.7s,mb5.1						
BSEG	Bad Segeberg	78.89	323	eP	P	05 21 33.9	+0.9
DAVA	Damuels	79.29	316	⇓iP	P	05 21 36.2	+0.9
	comp=Z,39nm,1.1s,mb5.2						
DAVOX	Davos	79.30	316	P	P	05 21 35.9	+0.5
	comp=Z,8.1nm,0.6s,mb4.8,baz=93,slow=7.4,SNR=6.5						
DAVOX				pP	pP	05 21 44.4	+0.5
	comp=Z,13nm,0.6s,baz=106,slow=7.6,SNR=3.8						
MUD	Monsted U’grnd	79.52	326	eP	pP	05 21 44.5	-0.4
MUD	Monsted U’grnd	79.52	326	i P	pP	05 21 44.5	-0.4
MAW	Mawson	79.70	192	P	P	05 21 38.0	+0.9
	comp=Z,14nm,0.6s,mb5.0,baz=34,slow=5.8,SNR=29						
MOL	Molde	80.27	332	eP	P	05 21 43.3	+3.0
BFO	Black Forest	80.29	318	eP	P	05 21 41.0	+0.3
	comp=Z,7.0nm,0.9s,mb4.6						
BLS5	Blasjo	80.89	329	eP	P	05 21 44.1	+0.5
BLS5	Blasjo	80.89	329	eP	P	05 21 39.8	-3.8
LPL	La Plagne	81.56	315	eP	P	05 21 48.3	+0.9
	comp=Z,80nm,0.8s,mb5.4						
ESDC	Sonseca Array	90.20	310	P	P	05 22 31.3	+1.0
	comp=Z,1.0nm,0.4s,mb4.5,baz=61,slow=4.4,SNR=10.0						
ESDC				pP	pP	05 22 39.9	+1.0
	comp=Z,6.0nm,0.9s,baz=54,slow=3.9,SNR=8.2						
ILAR	Eielson Array	93.69	22	P	P	05 22 46.3	+0.6
	comp=Z,1.1nm,0.7s,mb4.4,baz=307,slow=4.5,SNR=3.4						
ILAR				pP	pP	05 22 53.8	-0.5
	comp=Z,2.6nm,0.7s,baz=299,slow=4.1,SNR=7.3						
VNDA	Vanda	94.21	168	P	P	05 22 48.4	+0.5
	comp=Z,3.5nm,1.1s,mb4.7,baz=289,slow=4.6,SNR=3.6						
INK	Inuvik	95.87	16	P	P	05 22 56.2	+0.5
	comp=Z,10nm,1.2s,mb5.1,baz=313,slow=7.1,SNR=4.2						
INK				pP	pP	05 23 04.3	+0.1
	comp=Z,6.3nm,0.7s,baz=344,slow=4.2,SNR=11						
DAWY	Dawson	96.79	21	eP	P	05 22 59.5	-0.4
DBIC	Dimbokro	97.50	278	P	P	05 23 06.1	+1.8
	comp=Z,9.9nm,1.3s,mb5.2,baz=196,slow=19,SNR=4.4						
YKA	Yellowknife Ar	105.27	13	PKiKP		05 27 52.5	
	comp=Z,0.3nm,0.6s,baz=155,slow=3.4,SNR=7.3						
YKA				pPKiKP		05 27 59.2	
	comp=Z,0.4nm,0.6s,baz=156,slow=3.2,SNR=7.7						
YKA	Yellowknife Ar	105.27	13	PKPdf		05 27 52.5	
NVAR	Mina Array Bea	123.98	30	PKP	PKPdf	05 28 29.6	-2.2
	comp=Z,2.2nm,0.6s,baz=285,slow=3.2,SNR=8.2						
NVAR				pPKP		05 28 37.8	
	comp=Z,4.9nm,0.9s,baz=318,slow=2.2,SNR=7.7						
PDAR	Pinedale Array	124.10	21	PKP	PKPdf	05 28 28.7	-3.2
	comp=Z,88nm,1.6s,SNR=10.0						
PDAR				pPKP		05 28 37.4	
	comp=Z,5.0nm,1.0s,slow=1.5,SNR=7.7						
ANMO	Albuquerque	132.13	23	PKP	PKPdf	05 28 46.2	-1.3
	comp=Z,1.4nm,0.6s,baz=267,slow=3.9,SNR=3.8						
ANMO				pPKP		05 28 53.4	
	comp=Z,2.4nm,0.7s,baz=282,slow=2.1,SNR=5.5						
ANMO	Albuquerque	132.13	23	PKP	PKPdf	05 28 46.2	-1.3
ANMO				pPKP		05 28 53.4	
TXAR	Lajitas Array	138.19	23	PKP	PKPdf	05 28 56.3	-2.6
	comp=Z,1.2nm,0.5s,baz=274,slow=0.4,SNR=9.3						
TXAR				pPKP		05 29 04.4	
	comp=Z,1.9nm,0.6s,baz=178,slow=0.5,SNR=8.5						
BAO	Brasilia Array	142.23	256	PKP	PKPdf	05 29 00.5	-5.9
BDFB	Brasilia	142.25	256	PKP	PKPdf	05 29 03.9	-2.6
	comp=Z,7.1nm,1.2s,baz=212,slow=3.7,SNR=4.4						
SJG	San Juan	146.50	324	PKPbc	PKPbc	05 29 12.5	+2.2
	comp=Z,5.9nm,0.6s,baz=139,slow=0.3,SNR=5.0						
SJG	San Juan	146.50	324	PKPbc	PKPbc	05 29 12.5	+2.2
CPUP	Villa Florida	147.79	234	PKPbc	PKPdf	05 29 16.9	+1.3
	comp=Z,0.0nm,0.3s,baz=326,slow=9.8,SNR=2.3						
PCRV	Puerto La Cruz	151.27	311	PKPbc	PKPdf	05 29 23.3	+1.9
	comp=Z,12nm,1.0s,baz=302,slow=1.9,SNR=5.9						
PCRV				pPKPbc		05 29 31.7	
	comp=Z,10nm,0.6s,baz=10,slow=7.8,SNR=2.8						
SDV	Santo Domingo	156.37	319	PKPab	PKPab	05 29 53.8	-0.7
	comp=Z,5.1nm,0.6s,baz=7.0,slow=5.4,SNR=6.4						
LVC	Limon Verde	158.72	229	PKPab	PKPab	05 30 05.1	+0.7
	comp=Z,8.4nm,0.7s,baz=156,slow=1.5,SNR=6.8						
LPAZ	La Paz	161.06	246	PKP	PKPdf	05 29 32.5	-1.4
	comp=Z,10nm,1.3s,baz=78,slow=3.1,SNR=3.5						
LPAZ				PKPab	PKPab	05 30 15.8	+1.1
	comp=Z,4.2nm,0.7s,baz=246,slow=7.8,SNR=5.7						
ROSC	El Rosal	161.79	319	PKP	PKPdf	05 29 33.1	-1.6
	comp=Z,2.0nm,0.4s,baz=67,slow=21,SNR=3.9						

IDC 26 05:11:02.8±1.0, 4.55N×88.48E, mb4.4/5, mb1 4.6/5, mb1mx4.2/18, Error ellipse: s-maj=82.1km s-min=22.0km az=46.0, North Indian Ocean

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BVAR	Borovoye Array	50.57	346	P	P	05 20 01.6	-3.6
	2.8nm,0.6s,baz=150,slow=12,SNR=3.1						
WRA	Warramunga Arr	51.21	120	P	P	05 20 08.7	-1.8
	8.2nm,0.7s,baz=304,slow=8.9,SNR=5.2						
ASAR	Alice Springs	52.41	124	P	P	05 20 18.0	-1.5
	3.2nm,0.8s,baz=308,slow=7.0,SNR=4.5						
BRTR	Keskin Array B	60.47	314	P	P	05 21 15.0	-1.9
	2.3nm,0.8s,baz=131,slow=8.0,SNR=2.2						
STKA	Stephens Creek	62.12	130	P	P	05 21 24.8	-3.4
	4.1nm,0.8s,baz=281,slow=3.5,SNR=2.5						
ULM	Lac du Bonnet	125.30	3	PKP	PKPdf	05 30 05.7	-2.0
	1.5nm,0.6s,baz=214,slow=3.6,SNR=3.7						
USHA	Ushuaia	126.50	196	PKP	PKPdf	05 30 07.1	-2.6
	6.5nm,0.9s,baz=125,slow=8.5,SNR=2.6						
PDAR	Pinedale Array	130.15	17	PKP	PKPdf	05 30 17.7	+0.5
	1.3nm,0.9s,baz=77,slow=0.9,SNR=3.7						
NVAR	Mina Array Bea	130.56	28	PKP	PKPdf	05 30 16.0	-2.1
	0.9nm,0.8s,baz=61,slow=1.1,SNR=3.2						

NDI 26 05:11:43.8±3.2, 29.68N×80.72E, h10^{km}, ML4.4, 1D, Nepal-India border region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PTH	Pithoragarh	0.46	253	eP	Pg	05 11 51.1	-2.0
PTH				eS	Sg	05 11 58.4	-1.0
LGTI	Lohaghat	0.47	241	eP	Pg	05 11 55.0	+1.6
LGTI				eS	Sg	05 12 05.5	+5.6
DDI	Dehra Dun	2.40	286	eP	Pn	05 12 24.8	+1.0
DDI				e		05 14 57.4	
SMLA	Simla	3.39	296	⇓i	Pn	05 12 46.7	+8.8
SMLA				i		05 13 36.2	
	2µm,0.2s						

IDC 26 05:12:28.5±0.5, 8.54N×92.22E, mb4.6/24, mb1 4.7/25, mb1mx4.7/27, ML4.9/1, Error ellipse: s-maj=20.7km s-min=13.3km az=38.0

BJI 26 05:12:33.1, 8.26N×92.15E, h59^{km}, mb4.9

NEIC 26 05:12:34.1±5.4, 8.46N×92.28E, h36^{km}±48^{km}, mb5.1/17, Error ellipse: s-maj=17.4km s-min=8.6km az=222.0

ISC 26 05:12:31.7±0.4, 8.34N±0.07×92.20E±0.06, h33^{km}, n89, σ1^{s}19/78, mb4.9/45, 5C-2D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.01	32	ePn	P	05 15 23.7	+0.2
	24nm,0.6s						
CMAR	Chiang Mai Arr	12.01	32	Pn	P	05 15 24.2	+0.8
	2.0nm,0.3s,baz=232,slow=14,SNR=9.3						
KMI	Kunming	19.49	30	eP	P	05 17 00.0	+1.2
KMI				AMB	AMB		
	comp=Z,47nm,0.8s						
QIZ	Qiongzhong	20.15	56	P	P	05 17 06.3	+0.3
PKI	Pulchoki	20.18	342	eP	P	05 17 10.7	+4.4
	comp=Z,160nm,0.5s						
DMN	Daman	20.31	342	eP	P	05 17 13.1	+5.4
	comp=Z,209nm,0.7s						
GUN	Gumba	20.37	344	eP	P	05 17 11.3	+3.1
	comp=Z,219nm,0.8s						
KKN	Kakani	20.43	342	eP	P	05 17 13.6	+4.7
	comp=Z,103nm,0.6s						
GKN	Gorkha	20.83	341	eP	P	05 17 18.2	+5.2
	comp=Z,177nm,0.4s						
KOLN	Koldanda	20.97	338	eP	P	05 17 20.9	+6.4
	comp=Z,115nm,0.5s						
LSA	Lhasa	21.28	357	P	P	05 17 19.8	+2.2
LSA	Lhasa	21.28	357	eP	P	05 17 17.4	-0.1
	comp=Z,93nm,0.8s,mb5.2						
GYA	Guiyang	22.66	36	⇑iP	P	05 17 32.8	+1.4
GYA				AMB	AMB		
	comp=Z,50nm,1.0s,mb4.9						
CD2	Chengdu	24.92	24	P	P	05 17 53.3	-0.1
CD2				AMB	AMB		
	comp=Z,110nm,0.7s,mb5.5						
ENH	Enshi	27.17	34	eP	P	05 18 12.3	-2.0
	comp=Z,41nm,0.9s,mb5.0						
LZH	Lanzhou	29.60	19	eP	P	05 18 36.3	+0.3
LZH				AMB	AMB		
	comp=Z,70nm,1.2s,mb5.3						
WHN	Wuhan	30.28	40	⇓P	P	05 18 43.0	+0.8
GTA	Gaotai	31.69	11	P	P	05 18 52.3	-2.2
GTA				AMB	AMB		
	comp=Z,64nm,0.9s,mb5.5						
NJ2	Nanjing	34.20	43	eP	P	05 19 16.3	-0.1
AAK	Ala-Archa	37.55	338	eP	P	05 19 44.3	-0.3
	comp=Z,24nm,0.9s,mb4.9						
BJT	Baijiatuau	38.12	30	eP	P	05 19 49.6	+0.1
	comp=Z,5.4nm,0.4s,mb4.6						
BJT				epP	pP	05 19 58.0	-1.2
JOW	Kunigami	38.80	57	P	P	05 19 54.9	-0.3
	comp=Z,17nm,0.5s,mb5.0,baz=251,slow=9.0,SNR=8.2						
SONM	Songino Array	41.17	15	P	P	05 20 13.4	-1.3
	comp=Z,10.0nm,0.8s,mb4.5,baz=194,slow=8.2,SNR=9.1						
ULN	Ulaanbaatar	41.36	15	eP	P	05 20 15.8	-0.4
	comp=Z,19nm,1.0s,mb4.7						
ZAL	Zalesovo	45.86	354	P	P	05 20 50.7	-1.9
	comp=Z,5.5nm,0.8s,mb4.5,baz=242,slow=2.8,SNR=5.5						
BVAR	Borovoye Array	47.95	342	P	P	05 21 08.5	-0.5
	comp=Z,5.6nm,0.9s,mb4.6,baz=140,slow=12,SNR=3.9						
WRA	Warramunga Arr	50.09	125	P	P	05 21 24.9	-1.0
	comp=Z,4.3nm,0.5s,mb4.8,baz=301,slow=9.3,SNR=9.1						
WRAB	Tennant Creek	50.10	125	eP	P	05 21 26.6	+0.6
	comp=Z,13nm,0.5s,mb5.2						
MAT	Matsushiro	50.29	49	P	P	05 21 36.8	+10
ASAR	Alice Springs	51.69	129	P	P	05 21 37.6	-0.3
	comp=Z,9.2nm,0.6s,mb4.9,baz=304,slow=6.8,SNR=11						
ARU	Arti	54.73	338	eP	P	05 21 58.6	-1.5
	comp=Z,56nm,1.2s,mb5.5						
KMBO	Kilima Mbogo	55.57	263	P	P	05 22 07.5	+0.7
	comp=Z,2.2nm,0.8s,mb4.2,baz=118,slow=15,SNR=3.7						
KIV	Kislovodsk	55.69	318	eP	P	05 22 06.8	-0.4
	comp=Z,20nm,0.8s,mb5.2						
MALT	Malatya	56.70	311	eP	P	05 22 14.4	-0.2
	comp=Z,20nm,1.2s,mb5.0						
PMG	Port Moresby	57.50	107	P	P	05 22 19.9	-0.6
	comp=Z,7.9nm,0.8s,mb4.8,baz=341,slow=5.7,SNR=3.2						
PMG	Port Moresby	57.50	107	P	P	05 22 19.9	-0.6
EIL	Elat	57.53	300	P	P	05 22 19.8	-0.8
	comp=Z,4.3nm,0.6s,mb4.7,baz=3.3,slow=18,SNR=3.0						
EIL	Elat	57.53	300	eP	P	05 22 20.6	0.0
CTA	Charters Tower	60.21	119	P	P	05 22 39.5	+0.2
	comp=Z,7.4nm,1.1s,mb4.6,baz=280,slow=8.9,SNR=2.6						
BRTR	Keskin Array B	60.68	311	P	P	05 22 39.6	-2.6
	comp=Z,7.9nm,1.0s,mb4.8,baz=139,slow=7.4,SNR=7.0						
STKA	Stephens Creek	61.82	133	P	P	05 22 50.3	+0.3
	comp=Z,5.7nm,0.7s,mb4.8,baz=311,slow=8.8,SNR=5.6						
ISP	Isparta	62.65	308	eP	P	05 22 55.0	-0.5
	comp=Z,73nm,1.7s,mb5.5						
AKASG	Malin Array Be	66.61	322	P	P	05 23 18.1	-2.8
	comp=Z,4.0nm,0.7s,mb4.6,baz=85,slow=4.6,SNR=9.2						
IDI	Anoyia	66.73	305	P	P	05 23 20.3	-1.6
	comp=Z,12nm,0.8s,mb5.0,baz=102,slow=7.1,SNR=5.7						
KOLS	Kolonicke sedl	70.60	319	e	P	05 23 49.7	+4.1
CRVS	Cervenica-Dubn	71.12	319	e	pP	05 23 55.4	-3.7
FINES	FINESS Array B	71.41	332	P	P	05 23 48.8	-1.5
	comp=Z,6.1nm,0.8s,mb4.6,baz=129,slow=12,SNR=5.0						
OJC	Ojcow	72.39	320	eP	P	05 23 52.8	-3.5
VYHS	Vyhne	72.78	318	eP	P	05 23 57.4	-1.3
OKC	Ostrava-Krasne	73.39	319	eP	P	05 24 04.7	+2.4
ZST	Bratislava	73.90	318	eP	P	05 24 05.6	+0.3
ARCES	ARCESS Array B	74.19	340	P	P	05 24 05.0	-1.5
	comp=Z,3.1nm,0.7s,mb4.4,baz=168,slow=8.3,SNR=2.9						
DPC	Dobruska-Polom	74.62	320	eP	P	05 24 09.6	+0.2
KSP	Ksiaz	74.69	320	eP	P	05 24 09.8	+0.1
KSP				e		05 24 13.2	
UPC	Upice	74.83	320	eP	P	05 24 13.4	+2.8
ARSA	Arzberg	74.89	317	⇑iP	P	05 24 12.7	+1.7
	comp=Z,26nm,1.2s,mb5.0						
PRU	Pruhonice	75.73	319	eP	P	05 24 16.8	+1.1
BRG	Berggiesshubel	76.17	320	eP	P	05 24 22.1	+3.9
	comp=Z,44nm,1.9s,mb5.1						
BRG				e	pP	05 24 31.2	+2.6
GERES	GERESS Array B	76.20	318	P	P	05 24 17.8	-0.7
	comp=Z,7.5nm,0.8s,mb4.7,baz=91,slow=5.6,SNR=6.3						
KHC	Kasperske Hory	76.30	318	eP	P	05 24 19.0	0.0
CLL	Collm	76.79	321	P	P	05 24 25.8	+4.0
	comp=Z,30nm,1.3s,mb5.1						
CLL	Collm	76.79	321	⇑P	P	05 24 25.8	+4.0
	comp=Z,logA/T=1.4,mb5.1						
NKC	Novy Kostel	77.09	320	eP	P	05 24 27.6	+4.1
WTTA	Wattenberg	77.53	317	⇓iP	P	05 24 30.0	+4.0
	comp=Z,27nm,1.1s,mb5.1						
MOX	Moxa	77.64	320	eP	P	05 24 30.0	+3.5
SQTA	Sankt Quirin	77.82	316	⇑iP	P	05 24 28.3	+0.7
	comp=Z,11nm,0.8s,mb4.8						
FX1	Attu Island--F	77.95	38	P	P	05 24 29.3	+1.2
	comp=Z,13nm,0.7s,mb5.0,baz=39,slow=19,SNR=3.0						
NB2	NORSAR Subarra	78.39	331	P	P	05 24 29.7	-0.7
	comp=Z,18nm,1.1s,mb4.9,baz=94,slow=5.3						
NB2	NORSAR Subarra	78.39	331	P	P	05 24 29.7	-0.7
	baz=94,slow=5.6						
NOA	NORSAR Array B	78.39	331	P	P	05 24 29.9	-0.4
	comp=Z,1.1nm,0.6s,mb4.0,baz=101,slow=5.2,SNR=4.0						
DAVA	Damuels	78.73	317	⇑iP	P	05 24 34.4	+1.9
	comp=Z,39nm,1.1s,mb5.2						
DAVOX	Davos	78.73	316	P	P	05 24 32.7	+0.1
	comp=Z,8.3nm,0.7s,mb4.8,baz=112,slow=9.6,SNR=5.5						
DAVOX	Davos	78.73	316	P	P	05 24 32.7	+0.1
LPG	La Plagne	80.93	315	eP	P	05 24 44.7	+0.3
	comp=Z,33nm,0.8s,mb5.0						
ESDC	Sonseca Array	89.45	310	P	P	05 25 27.7	+0.8
	comp=Z,1.6nm,0.7s,mb4.5,baz=57,slow=4.5,SNR=5.0						
ILAR	Eielson Array	95.03	22	P	P	05 25 51.4	-0.7
	comp=Z,1.7nm,0.7s,mb4.6,baz=301,slow=4.2,SNR=10						
DBIC	Dimbokro	95.98	278	P	P	05 25 58.2	+0.8
	comp=Z,5.1nm,1.0s,mb4.9,baz=50,slow=9.2,SNR=6.0						
DBIC	Dimbokro	95.98	278	P	P	05 25 58.2	+0.8
INK	Inuvik	97.08	16	P	P	05 26 00.8	-0.4
	comp=Z,5.0nm,1.1s,mb4.9,baz=332,slow=5.9,SNR=6.3						
PDAR	Pinedale Array	125.41	20	PKP	PKPdf	05 31 31.2	+1.4
	comp=Z,1.3nm,0.8s,baz=87,slow=2.2,SNR=5.2						
NVAR	Mina Array Bea	125.48	29	PKP	PKPdf	05 31 33.0	+2.9
	comp=Z,1.4nm,0.7s,baz=38,slow=2.0,SNR=5.8						
USHA	Ushuaia	131.12	195	PKP	PKPdf	05 31 42.4	+2.0
	comp=Z,10nm,0.9s,baz=203,slow=1.9,SNR=3.3						
ANMO	Albuquerque	133.47	21	PKP	PKPdf	05 31 48.2	+2.8
	comp=Z,1.2nm,0.7s,baz=20,slow=4.8,SNR=2.6						
ANMO	Albuquerque	133.47	21	PKP	PKPdf	05 31 48.2	+2.8
TXAR	Lajitas Array	139.55	22	PKP	PKPdf	05 31 58.1	+1.5
	comp=Z,0.6nm,0.7s,baz=38,slow=1.3,SNR=3.1						
BDFB	Brasilia	140.47	256	PKP	PKPdf	05 32 03.0	+4.3
	comp=Z,2.8nm,0.9s,baz=61,slow=6.4,SNR=2.3						
CPUP	Villa Florida	145.99	234	PKPbc	PKPbc	05 32 12.4	+3.4
	comp=Z,0.0nm,0.5s,baz=275,slow=19,SNR=1.7						
LVC	Limon Verde	156.96	230	PKPab	PKPab	05 32 58.2	+1.3
	comp=Z,2.4nm,0.8s,baz=141,slow=1.4,SNR=3.0						
LPAZ	La Paz	159.24	246	PKPab	PKPab	05 33 09.3	+2.4
	comp=Z,2.2nm,0.7s,baz=84,slow=3.0,SNR=3.6						

IDC 26 05:13:42.5±0.7, 7.78N×93.84E, mb4.5/14, mb1 4.7/14, mb1mx4.6/20, Error ellipse: s-maj=34.1km s-min=18.8km az=60.0

ISC 26 05:13:46.0±0.6, 7.7N±0.1×93.9E±0.2, h33^{km}, n19, σ0^{s}84/15, mb4.5/14, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	41.38	13	P	P	05 21 31.4	+0.7
	9.2nm,0.9s,mb4.4,baz=190,slow=8.8,SNR=1.8						
ZAL	Zalesovo	46.67	353	P	P	05 22 12.7	-0.5
	3.8nm,0.5s,mb4.6,baz=314,slow=7.3,SNR=2.6						
WRA	Warramunga Arr	48.40	125	P	P	05 22 27.9	+0.7
	6.8nm,0.8s,mb4.7,baz=300,slow=9.0,SNR=2.9						
BVAR	Borovoye Array	49.05	341	P	P	05 22 33.4	+1.6
	7.5nm,0.9s,mb4.7,baz=166,slow=5.9,SNR=4.9						
ASAR	Alice Springs	50.03	130	P	P	05 22 38.8	-0.9
	4.9nm,0.7s,mb4.7,baz=298,slow=7.2,SNR=2.4						
BRTR	Keskin Array B	62.32	311	P	P	05 24 06.9	-0.6
	2.3nm,0.8s,mb4.4,baz=122,slow=6.6,SNR=3.3						
IDI	Anoyia	68.42	305	P	P	05 24 47.3	+0.4
	9.0nm,0.7s,mb4.9,baz=83,slow=9.7,SNR=3.5						
FINES	FINESS Array B	72.72	332	P	P	05 25 11.1	-1.3
	7.4nm,0.8s,mb4.7,baz=100,slow=5.3,SNR=4.1						
ARCES	ARCESS Array B	75.32	340	P	P	05 25 26.4	-0.9
	4.9nm,1.0s,mb4.4,baz=97,slow=7.3,SNR=2.6						
GERES	GERESS Array B	77.75	318	P	P	05 25 41.6	+0.1
	1.1nm,0.5s,mb4.0,baz=104,slow=4.0,SNR=3.7						
MAW	Mawson	78.32	192	P	P	05 25 44.6	+0.4
	4.9nm,0.7s,mb4.5,baz=49,slow=5.5,SNR=6.1						
NB2	NORSAR Subarra	79.73	331	P	P	05 25 50.9	-1.1
	4.1nm,0.7s,mb4.5,baz=96,slow=5.0						
NOA	NORSAR Array B	79.73	331	P	P	05 25 51.0	-1.0
	3.0nm,0.9s,mb4.2,baz=103,slow=5.1,SNR=3.6						
DAVOX	Davos	80.31	316	P	P	05 25 55.7	+0.4
	5.7nm,0.9s,mb4.5,baz=117,slow=4.7,SNR=2.1						
ESDC	Sonseca Array	91.10	310	P	P	05 26 49.8	+0.9
	2.5nm,1.0s,mb4.5,baz=80,slow=5.9,SNR=4.1						
PDAR	Pinedale Array	125.42	21	PKP	PKPdf	05 32 44.6	+0.6
	1.3nm,0.9s,baz=18,slow=2.9,SNR=3.0						
BDFB	Brasilia	141.88	255	PKhKP		05 33 12.7	
	2.8nm,0.7s,baz=144,slow=4.6,SNR=5.5						
CPUP	Villa Florida	146.94	232	PKPbc	PKPbc	05 33 27.1	+1.6
	0.0nm,0.3s,baz=62,slow=20,SNR=1.8						
LVC	Limon Verde	157.76	226	PKPab	PKPab	05 34 15.4	+0.7
	3.1nm,0.7s,baz=127,slow=0.7,SNR=3.5						

IDC 26 05:14:01.2±8.0, 7.66N×93.79E, mb4.6/8, mb1 4.8/8, mb1mx4.5/19, Error ellipse: s-maj=201.0km s-min=72.2km az=134.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ZAL	Zalesovo	46.71	353	P	P	05 22 31.9	-1.8
	6.9nm,0.5s,baz=326,slow=3.7,SNR=4.2						
BRTR	Keskin Array B	62.30	311	P	P	05 24 25.4	-2.4
	2.0nm,0.7s,baz=128,slow=7.3,SNR=4.6						
IDI	Anoyia	68.40	305	P	P	05 25 05.6	-1.6
	15nm,1.0s,baz=87,slow=5.3,SNR=5.2						
FINES	FINESS Array B	72.74	332	P	P	05 25 31.1	-1.8
	5.8nm,0.6s,baz=112,slow=6.0,SNR=3.7						
GERES	GERESS Array B	77.75	318	P	P	05 26 00.6	-1.2
	2.8nm,0.8s,baz=91,slow=6.1,SNR=4.6						
NOA	NORSAR Array B	79.74	331	P	P	05 26 10.8	-1.7
	3.9nm,0.7s,baz=94,slow=5.3,SNR=6.8						
DAVOX	Davos	80.30	316	P	P	05 26 14.4	-1.3
	14nm,1.2s,baz=3.7,slow=1.1,SNR=3.0						
ESDC	Sonseca Array	91.09	310	P	P	05 27 08.4	-1.0
	1.2nm,0.8s,baz=72,slow=3.6,SNR=4.3						

CSEM 26 05:16:03.3, 6.67N×93.24E, h33^{km}, mb5.8

BJI 26 05:16:04.0, 8.49N×93.58E, h22^{km}, mB5.7, mb5.4, Ms6.1, *Msz5.9*

IDC ***26*** *05:16:07.2±0.4,9.22N×93.92E,mb5.0/28,mb1 5.1/29,mb1mx5.1/29,ML5.5/1,Error ellipse: s-maj=19.2km s-min=11.8km az=55.0*

MOS ***26*** *05:16:10.7±1.1,9.27N×94.01E,h33*^{km}*,mb5.4/29,Error ellipse: s-maj=14.5km s-min=6.5km az=121.9*

NEIC ***26*** *05:16:11.0±0.2,9.32N×94.04E,mb5.4/51,Error ellipse: s-maj=8.5km s-min=5.9km az=223.0*

ISC 26 05:16:09.2±0.3**,9.07N**±0.05×**93.75E**±0.05**,h22**^{km}**,h22**^{km}±.8^{km}**:pP-P,n259,**σ1§**13**/215**,mb5.2**/81**,MS5.9**/2**,13C-7D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.61**	**28**	Pn	**P**	**05 18 38.0**	**-5.2**
	10nm,0.3s,baz=241,slow=17,SNR=11						
CMAR	**Chiang Mai Arr**	**10.61**	**28**	P	**P**	**05 18 38.0**	**-5.1**
CMAR				pmax	pmax		
	comp=Z,10.0nm,0.3s						
CAL	**Calcutta**	**14.37**	**339**	*e*P	**P**	**05 19 30.8**	**-2.8**
SHL	**Shillong**	**16.50**	**354**	*e*P	**P**	**05 19 59.1**	**-2.0**
SHL				*e*		05 19 59.9	
	comp=Z,140nm,0.9s						
KMI	**Kunming**	**18.11**	**27**	*e*P	**P**	**05 20 24.5**	**+3.1**
KMI				AP		05 20 30.3	
KMI				AMB	AMB		
	comp=Z,75nm,1.0s						
QIZ	**Qiongzhong**	**18.47**	**56**	P	**P**	**05 20 27.0**	**+1.2**
MNGI	**Mangalore**	**18.97**	**283**	*e*P	**P**	**05 20 36.7**	**+4.9**
MNGI				*e*		05 20 37.9	
	comp=Z,310nm,1.3s						
LATR	**Latur**	**19.09**	**301**	*e*P	**P**	**05 20 35.2**	**+2.0**
AKL	**Akola**	**19.86**	**307**	*e*P	**P**	**05 20 46.0**	**+4.1**
GOA	**Goa**	**20.48**	**290**	*e*P		05 20 59.4	
GYA	**Guiyang**	**21.19**	**34**	⇑*i*P	**P**	**05 20 55.8**	**+0.2**
GYA				AP		05 21 00.0	
GYA				XP		05 21 03.0	
GYA				S	**S**	**05 24 55.5**	**+10**
GYA				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.0						
GYA				AMB	AMB		
	comp=Z,1µm,6.1s						
GYA				LR	LR		
	comp=N,29µm,16.4s,MS5.9						
GYA				LR	LR		
	comp=E,35µm,17.0s,MS5.9						
GYA				LR	LR		
	comp=Z,28µm,16.0s,MS5.8						
CD2	**Chengdu**	**23.65**	**22**	⇑*i*P	**P**	**05 21 22.0**	**+2.0**
CD2				AMB	AMB		
	comp=Z,300nm,1.1s,mb5.6						
NDI	**New Delhi**	**24.95**	**324**	*e*P	**P**	**05 21 31.0**	**-1.6**
ENH	**Enshi**	**25.71**	**33**	*e*P	**P**	**05 21 33.6**	**-6.2**
	comp=Z,0.2nm,0.5s						
PONG	**Pong**	**28.13**	**327**	*e*	**P**	**05 21 53.0**	**-8.9**
LZH	**Lanzhou**	**28.42**	**17**	*e*P	**P**	**05 22 05.5**	**+1.0**
LZH				AMB	AMB		
	comp=Z,120nm,1.2s,mb5.4						
WHN	**Wuhan**	**28.74**	**39**	P	**P**	**05 22 08.3**	**+0.9**
NJ2	**Nanjing**	**32.63**	**42**	*e*P	**P**	**05 22 41.5**	**-0.3**
NJ2				AP	pP	05 22 51.0	+2.8
NJ2				XP	sP	05 22 54.3	+3.2
NJ2				AMB	AMB		
	comp=Z,930nm,5.8s						
NJ2				LR	LR		
	comp=N,11µm,17.2s,MS6.0						
NJ2				LR	LR		
	comp=E,21µm,16.6s,MS6.0						
NJ2				LR	LR		
	comp=Z,22µm,15.8s,MS6.0						
WMQ	**Urumqi**	**35.02**	**352**	P	**P**	**05 23 03.5**	**+1.2**
WMQ				AP	pP	05 23 08.0	-0.8
WMQ				XP	sP	05 23 10.5	-1.1
WMQ				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.9						
BJT	**Baijiatuau**	**36.73**	**29**	*e*P	**P**	**05 23 12.7**	**-4.1**
	comp=Z,52nm,0.8s,mb5.4						
BJI	**Beijing**	**36.75**	**29**	P	**P**	**05 23 17.8**	**+0.8**
BJI				AMB	AMB		
	comp=Z,82nm,1.2s,mb5.4						
AAK	**Ala-Archa**	**37.46**	**336**	*e*P	**P**	**05 23 21.8**	**-1.1**
	comp=Z,46nm,1.0s,mb5.3						
DL2	**Dalian**	**38.82**	**36**	P	**P**	**05 23 36.0**	**+1.6**
DL2				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.7						
MBWA	**Marble Bar**	**39.42**	**140**	*e*P	**P**	**05 23 38.4**	**-1.1**
SONM	**Songino Array**	**40.09**	**13**	P	**P**	**05 23 44.7**	**-0.1**
	comp=Z,17nm,1.1s,mb4.7,baz=207,slow=8.3,SNR=6.6						
SONM				PcP	PcP	05 25 49.0	-0.9
	comp=Z,5.5nm,0.8s,baz=208,slow=3.8,SNR=5.1						
ULN	**Ulaanbaatar**	**40.27**	**14**	*e*P	**P**	**05 23 37.1**	**-9.2**
	comp=Z,8.7nm,0.8s,mb4.5						
SNY	**Shenyang**	**41.89**	**34**	⇑P	**P**	**05 24 00.3**	**+0.6**
SNY				AMB	AMB		
	comp=Z,110nm,1.3s,mb5.3						
ZAK	**Zakamensk**	**41.93**	**9**	*e*P	**P**	**05 24 00.0**	**+0.1**
CN2	**Changchun**	**44.23**	**33**	⇑P	**P**	**05 24 19.0**	**+0.2**
CN2				AMB	AMB		
	comp=Z,70nm,0.9s,mb5.4						
ZAL	**Zalesovo**	**45.32**	**353**	P	**P**	**05 24 25.4**	**-1.8**
	comp=Z,11nm,0.5s,mb4.9,baz=294,slow=11,SNR=5.5						
ZAL	**Zalesovo**	**45.32**	**353**	P	**P**	**05 24 25.4**	**-1.9**
ZAL				pmax	pmax		
	comp=Z,11nm,0.5s						
ZAL	**Zalesovo**	**45.32**	**353**	P	**P**	**05 24 25.4**	**-1.9**
HIA	**Hailar**	**45.58**	**24**	*e*P	**P**	**05 24 24.9**	**-4.5**
	comp=Z,39nm,0.9s,mb5.3						
NVS	**Novosibirsk**	**46.41**	**352**	*e*P	**P**	**05 24 35.0**	**-0.9**
NVS				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=N,33nm,1.4s						
NVS				pmax	pmax		
	comp=E,37nm,1.4s						
MDJ	**Mudanjiang**	**47.05**	**35**	P	**P**	**05 24 42.0**	**+0.9**
MDJ				AMB	AMB		
	comp=Z,51nm,1.9s,mb5.1						
NWAO	**Narrogin (SRO)**	**47.38**	**153**	P	**P**	**05 24 42.8**	**-1.1**
	comp=Z,23nm,0.8s,mb5.2,baz=314,slow=9.4,SNR=4.2						
NWAO	**Narrogin (SRO)**	**47.38**	**153**	P	**P**	**05 24 42.8**	**-1.1**
NWAO				pmax	pmax		
	comp=Z,23nm,0.8s						
NWAO	**Narrogin (SRO)**	**47.38**	**153**	*e*P	**P**	**05 24 42.6**	**-1.3**
	comp=Z,55nm,1.2s,mb5.4						
BVAR	**Borovoye Array**	**47.74**	**341**	P	**P**	**05 24 46.2**	**-0.2**
	comp=Z,9.4nm,0.7s,mb5.0,baz=149,slow=8.6,SNR=5.4						
BRVK	**Borovoye**	**47.80**	**341**	*e*P	**P**	**05 24 46.7**	**-0.2**
CHKZ	**Chkalovo**	**48.22**	**342**	*e*P	**P**	**05 24 50.4**	**+0.3**
MAT	**Matsushiro**	**48.66**	**49**	P	**P**	**05 24 54.0**	**+0.2**
MAT	**Matsushiro**	**48.66**	**49**	*e*P	**P**	**05 24 54.0**	**+0.2**
WRA	**Warramunga Arr**	**49.27**	**126**	P	**P**	**05 24 57.2**	**-1.5**
	comp=Z,12nm,1.1s,mb4.8,baz=304,slow=8.3,SNR=6.2						
WRA	**Warramunga Arr**	**49.27**	**126**	P	**P**	**05 24 57.2**	**-1.5**
WRA				pmax	pmax		
	comp=Z,12nm,1.1s						
WRAB	**Tennant Creek**	**49.27**	**126**	*e*P	**P**	**05 24 58.4**	**-0.3**
	comp=Z,51nm,1.1s,mb5.5						
ASAR	**Alice Springs**	**50.98**	**130**	P	**P**	**05 25 10.1**	**-1.6**
	comp=Z,12nm,1.0s,mb4.8,baz=303,slow=6.8,SNR=7.0						
BOD	**Bodaibo**	**51.08**	**14**	*e*P	**P**	**05 25 05.7**	**-6.3**
GNI	**Garni**	**53.33**	**314**	P	**P**	**05 25 29.6**	**+0.4**
	comp=Z,21nm,0.6s,mb5.2,baz=9.1,slow=1.8,SNR=11						
GNI	**Garni**	**53.33**	**314**	P	**P**	**05 25 29.6**	**+0.4**
GNI				pmax	pmax		
	comp=Z,21nm,0.6s						
GNI	**Garni**	**53.33**	**314**	*e*P	**P**	**05 25 31.0**	**+1.8**
	comp=Z,106nm,1.2s,mb5.6						
ARU	**Arti**	**54.64**	**337**	*e*P	**P**	**05 25 32.8**	**-5.7**
ARU	**Arti**	**54.64**	**337**	*e*P	**P**	**05 25 32.5**	**-6.0**
	comp=Z,24nm,0.7s,mb5.3						
ASAJ	**Asahikawa**	**54.77**	**42**	P	**P**	**05 25 40.9**	**+1.1**
	comp=Z,26nm,0.9s,mb5.2,baz=179,slow=29,SNR=5.7						
ASAJ	**Asahikawa**	**54.77**	**42**	P	**P**	**05 25 40.9**	**+1.2**
ASAJ				pmax	pmax		
	comp=Z,26nm,0.9s						
BEST	**Besiri**	**55.13**	**310**	*i* P	**P**	**05 25 47.6**	**+5.2**
ERZM	**Erzurum**	**55.68**	**312**	*i* P	**P**	**05 25 49.6**	**+3.3**
YSS	**Yuzh-Sakhalins**	**56.09**	**39**	*e*P	**P**	**05 25 47.5**	**-1.6**
YSS				*e*		05 26 00.0	
YSS				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.9						
YSS	**Yuzh-Sakhalins**	**56.09**	**39**	P	**P**	**05 25 46.5**	**-2.7**
	comp=Z,116nm,1.1s,mb5.8						
KIV	**Kislovodsk**	**56.18**	**317**	P	**P**	**05 25 49.6**	**-0.2**
	comp=Z,794nm,0.8s,SNR=15						
KIV	**Kislovodsk**	**56.18**	**317**	*e*P	**P**	**05 25 50.4**	**+0.6**
KIV				pmax	pmax		
	comp=N,55nm,1.0s						
KIV				pmax	pmax		
	comp=E,45nm,1.0s						
KIV				pmax	pmax		
	comp=Z,135nm,1.0s,mb5.9						
KIV	**Kislovodsk**	**56.18**	**317**	*e*P	**P**	**05 25 47.9**	**-1.9**
	comp=Z,105nm,0.8s,mb5.9						
GOF	**Gofitskoye**	**56.38**	**319**	⇓*i*P	**P**	**05 25 53.0**	**+1.8**
GOF				pmax	pmax		
	comp=Z,80nm,1.5s,mb5.5						
ELZG	**Elazig**	**57.03**	**310**	*i* P	**P**	**05 25 54.8**	**-1.3**
KMBO	**Kilima Mbogo**	**57.18**	**263**	P	**P**	**05 25 59.5**	**+2.1**
	comp=Z,7.3nm,0.9s,mb4.7,baz=46,slow=8.4,SNR=7.5						
KMBO	**Kilima Mbogo**	**57.18**	**263**	P	**P**	**05 25 59.6**	**+2.2**
KMBO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KMBO	**Kilima Mbogo**	**57.18**	**263**	*e*P	**P**	**05 25 59.9**	**+2.4**
	comp=Z,11nm,0.9s,mb4.9						
ASF	**Jabal al Asfar**	**57.25**	**302**	P	**P**	**05 25 58.0**	**+0.4**
	comp=Z,5.4nm,0.8s,mb4.6,baz=219,slow=3.9,SNR=4.4						
MALT	**Malatya**	**57.40**	**310**	*e*P	**P**	**05 25 57.9**	**-0.8**
GZT	**Gaziantep**	**57.82**	**309**	*i* P	**P**	**05 26 00.5**	**-1.1**
SOC	**Sochi**	**58.05**	**316**	*e*P	**P**	**05 26 03.4**	**+0.3**
SOC				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.5						
SOC				pmax	pmax		
	comp=N,19nm,1.0s						
SOC				pmax	pmax		
	comp=E,11nm,0.7s						
KAHT	**Ahir Dag**	**58.42**	**309**	*i* P	**P**	**05 26 06.0**	**+0.2**
EIL	**Elat**	**58.50**	**299**	P	**P**	**05 26 06.2**	**-0.3**
	comp=E,9.5nm,0.9s,mb4.8,baz=76,slow=7.9,SNR=5.8						
EIL	**Elat**	**58.50**	**299**	*e*P	**P**	**05 26 06.1**	**-0.4**
EIL				*e*P		05 26 07.2	
COBT	**Iskenderun**	**58.64**	**307**	*i* P	**P**	**05 26 07.6**	**+0.2**
CTA	**Charters Tower**	**59.23**	**120**	P	**P**	**05 26 10.9**	**-0.7**
	comp=E,31nm,1.0s,mb5.3,baz=294,slow=8.2,SNR=6.1						
CTA	**Charters Tower**	**59.23**	**120**	P	**P**	**05 26 11.0**	**-0.6**
CTA				pmax	pmax		
	comp=Z,31nm,1.0s						
CTAO	**Charters Tower**	**59.23**	**120**	*e*P	**P**	**05 26 10.9**	**-0.7**
	comp=Z,57nm,1.2s,mb5.5						
AVNT	**Avonos**	**60.23**	**310**	*i* P	**P**	**05 26 17.9**	**-0.4**
BOYT	**Boyabat**	**60.82**	**313**	*i* P	**P**	**05 26 20.3**	**-1.9**
STKA	**Stephens Creek**	**61.21**	**134**	P	**P**	**05 26 22.3**	**-2.7**
	comp=Z,11nm,1.0s,mb5.0,baz=300,slow=7.1,SNR=4.2						
STKA	**Stephens Creek**	**61.21**	**134**	*e*P	**P**	**05 26 21.6**	**-3.4**
BRTR	**Keskin Array B**	**61.36**	**310**	P	**P**	**05 26 24.1**	**-1.9**
	comp=Z,6.9nm,0.8s,mb4.8,baz=127,slow=6.2,SNR=9.2						
BRTR	**Keskin Array B**	**61.36**	**310**	P	**P**	**05 26 24.1**	**-1.8**
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ELDT	**Eldivan**	**61.69**	**311**	*i* P	**P**	**05 26 26.3**	**-1.9**
BALT	**Daday**	**61.96**	**312**	*i* P	**P**	**05 26 28.4**	**-1.6**
SGKT	**Sivrigoynuk**	**62.73**	**311**	*i* P	**P**	**05 26 30.9**	**-4.2**
ISP	**Isparta**	**63.40**	**308**	*e*P	**P**	**05 26 39.3**	**-0.2**
	comp=Z,44nm,1.1s,mb5.5						
ISP				*e*	pP	05 26 46.4	0.0
OBN	**Obninsk**	**64.17**	**328**	*e*P	**P**	**05 26 43.2**	**-1.1**
OBN				*e*	pP	05 26 51.0	-0.2
OBN				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.2						
ULDT	**Uludag**	**64.84**	**310**	*i* P	**P**	**05 26 46.2**	**-2.8**
AYDN	**Tasoluk**	**65.43**	**307**	*i* P	**P**	**05 26 53.1**	**+0.3**
KDAG	**Bornova**	**66.01**	**308**	*i* P	**P**	**05 26 53.1**	**-3.4**
KIS	**Kishinev**	**66.38**	**317**	*e*P	**P**	**05 26 58.0**	**-0.7**
KIS				*e*		05 27 30.0	
CFR	**Carcaliu**	**66.47**	**315**	⇑*i*P	**P**	**05 27 04.9**	**+5.5**
CFR	**Carcaliu**	**66.47**	**315**	⇑*i*P	**P**	**05 27 04.9**	**+5.6**
AKASG	**Malin Array Be**	**66.98**	**321**	P	**P**	**05 26 59.9**	**-2.6**
	comp=Z,16nm,0.8s,mb5.1,baz=84,slow=4.7,SNR=11						
AKASG	**Malin Array Be**	**66.98**	**321**	P	**P**	**05 26 59.9**	**-2.6**
AKASG				pmax	pmax		
	comp=Z,16nm,0.8s						
ISR	**Istrita**	**67.57**	**315**	⇑*i*P	**P**	**05 27 13.0**	**+6.7**
ISR	**Istrita**	**67.57**	**315**	⇑*i*P	**P**	**05 27 13.0**	**+6.7**
IDI	**Anoyia**	**67.57**	**304**	P	**P**	**05 27 05.4**	**-1.1**
	comp=Z,10nm,0.8s,mb4.9,baz=87,slow=7.3,SNR=4.1						
VRI	**Vrincioaia**	**67.58**	**316**	⇓*i*P	**P**	**05 27 06.5**	**+0.2**
VRI	**Vrincioaia**	**67.58**	**316**	⇓*i*P	**P**	**05 27 06.5**	**+0.2**
RZN	**Rozhen**	**68.38**	**311**	*e*P	**P**	**05 27 11.0**	**-0.4**
MNK	**Minsk**	**68.76**	**325**	*e*P	**P**	**05 27 11.0**	**-2.5**
MMB	**Musomiste**	**69.10**	**311**	*e*P	**P**	**05 27 15.0**	**-0.9**
LSZ	**Lusaka**	**69.31**	**250**	*e*P	**P**	**05 27 19.4**	**+1.9**
	comp=Z,12nm,1.0s,mb4.8						
VTS	**Vitosha**	**69.60**	**312**	*e*P	**P**	**05 27 18.0**	**-0.9**
KKB	**Krupnik**	**69.61**	**311**	*e*P	**P**	**05 27 18.0**	**-1.0**
BOLS	**Boljevac**	**70.64**	**313**	⇑*i*P	**P**	**05 27 24.1**	**-1.1**
KWP	**Kalwaria**	**70.87**	**319**	*e*P	**P**	**05 27 26.4**	**-0.1**
KOLS	**Kolonicke sedl**	**71.05**	**319**	*i* P	**P**	**05 27 29.1**	**+1.5**
KOLS				*e*		05 27 33.6	
KOLS				*e*		05 28 03.0	
SUW	**Suwalki**	**71.31**	**324**	*e*P	**P**	**05 27 28.3**	**-0.8**
SUW				*e*		05 27 31.7	
FINES	**FINESS Array B**	**71.48**	**332**	P	**P**	**05 27 29.1**	**-0.9**
	comp=Z,27nm,0.7s,mb5.3,baz=117,slow=8.5,SNR=19						
FINES	**FINESS Array B**	**71.48**	**332**	P	**P**	**05 27 29.1**	**-0.9**
FINES				pmax	pmax		
	comp=Z,27nm,0.7s						
GRUS	**Gruza**	**71.54**	**313**	⇑*i*P	**P**	**05 27 36.0**	**+5.3**
KAF	**Kangasniemi**	**71.56**	**333**	*e*p	**P**	**05 27 30.0**	**-0.4**
	comp=Z,30nm,0.9s,mb5.2						
KAF	**Kangasniemi**	**71.56**	**333**	*e*P	**P**	**05 27 30.0**	**-0.4**
KAF				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
CRVS	**Cervenica-Dubn**	**71.58**	**319**	*e*P	**P**	**05 27 33.4**	**+2.6**
CRVS				*e*	pP	05 27 38.3	+0.6
KECS	**Kecovo**	**72.17**	**318**	*e*P	**P**	**05 27 35.6**	**+1.3**
KECS				*e*	pP	05 27 40.8	-0.4
NIE	**Niedzica**	**72.39**	**319**	*e*P	**P**	**05 27 36.8**	**+1.2**
PSZ	**Piszkesteto**	**72.50**	**317**	*e*P	**P**	**05 27 35.6**	**-0.7**
	comp=Z,51nm,1.0s,mb5.4						
PSZ				*e*pP	pP	05 27 43.2	0.0
OJC	**Ojcow**	**72.81**	**320**	*e*P	**P**	**05 27 37.5**	**-0.6**
VYHS	**Vyhne**	**73.26**	**318**	*i* P	**P**	**05 27 41.0**	**+0.2**
VYHS				*e*pP	pP	05 27 47.2	-0.4
SRO2	**Moca**	**73.50**	**317**	*e*pP	pP	05 27 49.6	+0.6
SRO	**Srobarova**	**73.55**	**317**	*e*P	pP	05 27 50.3	+1.0
SRO	**Srobarova**	**73.55**	**317**	*e*pP	pP	05 27 50.3	+1.0
OKC	**Ostrava-Krasne**	**73.84**	**319**	*e*P	**P**	**05 27 44.3**	**+0.3**
OKC				*e*pP	pP	05 27 50.2	-0.7
ARCES	**ARCESS Array B**	**74.02**	**340**	P	**P**	**05 27 44.0**	**-0.7**
	comp=Z,114nm,1.2s,mb5.7,baz=106,slow=8.8,SNR=17						
ARCES	**ARCESS Array B**	**74.02**	**340**	P	**P**	**05 27 44.0**	**-0.7**
ARCES				pmax	pmax		
	comp=Z,114nm,1.2s						
ARCES	**ARCESS Array B**	**74.02**	**340**	P	**P**	**05 27 44.0**	**-0.7**
SMOL	**Smolenice**	**74.20**	**318**	*e*P	**P**	**05 27 47.1**	**+0.9**
SMOL				*e*pP	pP	05 27 53.9	+0.8
ZST	**Bratislava**	**74.39**	**317**	*e*P	**P**	**05 27 46.3**	**-1.0**
ZST				*e*sP	sP	05 27 55.2	-1.4
LBTB	**Lobatse**	**74.48**	**241**	*e*P	**P**	**05 27 50.0**	**+1.7**
	comp=Z,23nm,1.0s,mb5.1						
LBTB				*e*		05 27 59.0	
KTK1	**Kautokeino**	**74.64**	**339**	*e*P	**P**	**05 27 48.9**	**+0.5**
GKP	**Gorka Klasztor**	**74.72**	**323**	*e*P	**P**	**05 27 48.6**	**-0.5**
GKP				*e*	pP	05 27 54.0	-2.0
DPC	**Dobruska-Polom**	**75.05**	**320**	*e*P	**P**	**05 27 51.5**	**+0.5**
DPC				*e*pP	pP	05 27 58.0	0.0
KSP	**Ksiaz**	**75.10**	**320**	*e*P	**P**	**05 27 51.1**	**-0.2**
KSP				*e*pP	pP	05 27 57.9	-0.3
KSP				*e*		05 28 07.3	
KSP	**Ksiaz**	**75.10**	**320**	*e*P	**P**	**05 27 51.9**	**+0.6**
KSP				*e*	pP	05 27 58.2	0.0
UPC	**Upice**	**75.26**	**320**	*e*P	**P**	**05 27 50.4**	**-1.8**
ARSA	**Arzberg**	**75.41**	**316**	⇓*i*P	**P**	**05 27 54.4**	**+1.2**
	comp=Z,22nm,1.5s,mb4.9						
PRU	**Pruhonice**	**76.17**	**319**	*e*P	**P**	**05 27 57.7**	**+0.3**
PRU				*e*pP	pP	05 28 05.0	+0.6
PVCC	**Panska Ves**	**76.18**	**320**	*e*P	**P**	**05 27 59.4**	**+1.9**
PVCC				*e*pP	pP	05 28 04.7	+0.3
TRO	**Tromso**	**76.28**	**340**	*e*P	**P**	**05 27 55.9**	**-1.7**
TRO				*e*pP	pP	05 28 04.1	-0.4
BRG	**Berggiesshubel**	**76.59**	**320**	*i* P	**P**	**05 28 00.6**	**+0.8**
BRG				*i*	pP	05 28 07.1	+0.4
BRG				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
BRG	**Berggiesshubel**	**76.59**	**320**	*i* P	**P**	**05 28 00.6**	**+0.8**
	comp=Z,40nm,0.8s,mb5.4						
BRG				*i*	pP	05 28 07.1	+0.4
GEC2	**GERESS Array S**	**76.68**	**318**	*e*P	**P**	**05 28 00.7**	**+0.4**
GEC2				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.4						
GEC2	**GERESS Array S**	**76.68**	**318**	*e*P	**P**	**05 28 00.7**	**+0.4**
	comp=Z,50nm,0.9s,mb5.4						
GERES	**GERESS Array B**	**76.68**	**318**	P	**P**	**05 28 00.5**	**+0.2**
	comp=Z,14nm,0.9s,mb4.9,baz=90,slow=5.3,SNR=13						
GERES	**GERESS Array B**	**76.68**	**318**	P	**P**	**05 28 00.5**	**+0.2**
GERES				pmax	pmax		
	comp=Z,14nm,0.9s						
RUE	**Ruedersdorf**	**76.75**	**322**	*e*P	**P**	**05 27 59.9**	**-0.8**
	comp=Z,114nm,0.9s,mb5.8						
RUE				*e*	pP	05 28 07.3	-0.2
KHC	**Kasperske Hory**	**76.77**	**318**	*e*P	**P**	**05 28 01.0**	**+0.2**
KHC				*e*pP	pP	05 28 08.0	+0.3
KBA	**Koelnbreinsper**	**76.89**	**316**	⇓*i*P	**P**	**05 28 02.3**	**+0.8**
	comp=Z,42nm,1.1s,mb5.3						
CLL	**Collm**	**77.19**	**321**	*e*P	**P**	**05 28 03.0**	**-0.1**
CLL				*i*	pP	05 28 10.1	0.0
CLL				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
CLL	**Collm**	**77.19**	**321**	*e*P	**P**	**05 28 03.0**	**-0.1**
	comp=Z,19nm,1.1s,mb4.9						
CLL				*i*	pP	05 28 10.1	0.0
CLL	**Collm**	**77.19**	**321**	P	**P**	**05 28 03.0**	**-0.1**
	comp=Z,logA/T=1.2,mb4.9						
CLL				i *PP	pP	05 28 10.1	0.0
WET	**Wettzell**	**77.23**	**318**	*e*P	**P**	**05 28 03.9**	**+0.5**
HFS	**Hagfors**	**77.23**	**330**	P	**P**	**05 28 01.9**	**-1.2**
	comp=Z,15nm,0.7s,mb5.0,baz=96,slow=4.7,SNR=18						
HFS	**Hagfors**	**77.23**	**330**	P	**P**	**05 28 01.9**	**-1.2**
HFS				pmax	pmax		
	comp=Z,15nm,0.7s						
MOR8	**Moi Rana**	**77.43**	**336**	*e*P	**P**	**05 28 03.3**	**-0.9**
NKC	**Novy Kostel**	**77.53**	**319**	*e*P	**P**	**05 28 05.5**	**+0.5**
NKC				*e*pP	pP	05 28 12.6	+0.7
LOF	**Lofoten**	**77.98**	**338**	*e*P	**P**	**05 28 08.8**	**+1.6**
PGD	**Poggio Sodo**	**78.04**	**313**	*e*P	**P**	**05 28 09.5**	**+1.6**
WTTA	**Wattenberg**	**78.05**	**316**	⇑*i*P	**P**	**05 28 07.3**	**-0.6**
	comp=Z,40nm,1.0s,mb5.3						
MOX	**Moxa**	**78.06**	**320**	*e*P	**P**	**05 28 08.8**	**+0.9**
MOX	**Moxa**	**78.06**	**320**	*i* P	**P**	**05 28 08.8**	**+0.9**
VMG	**Vicchio**	**78.17**	**313**	*e*P	**P**	**05 28 10.7**	**+2.1**
FUR	**Furstenfeldbru**	**78.29**	**317**	*e*P	**P**	**05 28 09.4**	**+0.2**
SEI	**Scarperia**	**78.30**	**313**	*e*P	**P**	**05 28 10.0**	**+0.7**
GRA1	**Grafenberg Arr**	**78.31**	**319**	*e*P	**P**	**05 28 10.1**	**+0.8**
	comp=Z,40nm,1.0s,mb5.3						
GRA1				*e*pP	pP	05 28 17.7	+1.4
GRF	**Grafenberg Arr**	**78.31**	**319**	*e*P	**P**	**05 28 10.1**	**+0.8**
GRF				e*PP	pP	05 28 17.7	+1.4
GRF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
GRF	**Grafenberg Arr**	**78.31**	**319**	*e*P	**P**	**05 28 10.1**	**+0.8**
	comp=Z,40nm,1.0s,mb5.3						
GRF				*e*pP	pP	05 28 17.7	+1.4
SQTA	**Sankt Quirin**	**78.34**	**316**	⇑*i*P	**P**	**05 28 09.2**	**-0.3**
	comp=Z,22nm,0.9s,mb5.1						
MOTA	**Moosalm**	**78.42**	**316**	⇑*i*P	**P**	**05 28 09.7**	**-0.2**
	comp=Z,25nm,1.1s,mb5.1						
NB2	**NORSAR Subarra**	**78.50**	**330**	P	**P**	**05 28 08.8**	**-1.3**
	comp=Z,19nm,0.7s,mb5.1,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**78.50**	**330**	P	**P**	**05 28 08.8**	**-1.3**
	baz=90,slow=5.9						
NOA	**NORSAR Array B**	**78.50**	**330**	P	**P**	**05 28 08.7**	**-1.4**
	comp=Z,22nm,1.0s,mb5.0,baz=93,slow=5.6,SNR=12						
NOA	**NORSAR Array B**	**78.50**	**330**	P	**P**	**05 28 08.7**	**-1.4**
NOA				pmax	pmax		
	comp=Z,22nm,1.0s						
NAO01	**NORSAR Array S**	**78.66**	**330**	*e*P	**P**	**05 28 09.7**	**-1.3**
	comp=Z,22nm,0.8s,mb5.1						
CLZ	**Clausthal**	**78.84**	**321**	*e*P	**P**	**05 28 12.7**	**+0.5**
	comp=Z,62nm,1.1s,mb5.5						
BSEG	**Bad Segeberg**	**78.86**	**323**	*e*P	**P**	**05 28 13.0**	**+0.8**
BRMO	**Bormio**	**78.93**	**316**	*e*P	**P**	**05 28 15.1**	**+2.4**
DAVOX	**Davos**	**79.26**	**316**	P	**P**	**05 28 15.1**	**+0.6**
	comp=Z,20nm,1.1s,mb5.0,baz=113,slow=4.7,SNR=5.4						
MUD	**Monsted U'grnd**	**79.51**	**326**	*i* P	**P**	**05 28 16.3**	**+0.6**
MUD				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.4						
MUD	**Monsted U'grnd**	**79.51**	**326**	*i* P	**P**	**05 28 16.3**	**+0.6**
	comp=Z,60nm,1.2s,mb5.4						
MAW	**Mawson**	**79.62**	**192**	P	**P**	**05 28 16.6**	**+0.5**
	comp=Z,19nm,0.8s,mb5.1,baz=327,slow=9.6,SNR=13						
MAW	**Mawson**	**79.62**	**192**	P	**P**	**05 28 16.6**	**+0.5**
MAW				pmax	pmax		
	comp=Z,19nm,0.8s						
MAW	**Mawson**	**79.62**	**192**	*e*P	**P**	**05 28 16.8**	**+0.7**
	comp=Z,20nm,0.8s,mb5.1						
VAI	**Varese**	**80.07**	**315**	*e*P	**P**	**05 28 18.8**	**-0.1**
PGF	**Pioggiola**	**80.08**	**312**	*e*P	**P**	**05 28 19.1**	**+0.1**
	comp=Z,87nm,1.2s,mb5.3						
BFO	**Black Forest**	**80.25**	**318**	*e*P	**P**	**05 28 20.4**	**+0.6**
BFO				pmax	pmax		
	comp=Z,74nm,1.7s,mb5.3						
BFO	**Black Forest**	**80.25**	**318**	*e*P	**P**	**05 28 20.4**	**+0.6**
	comp=Z,74nm,1.7s,mb5.3						
MOL	**Molde**	**80.26**	**332**	*e*P	**P**	**05 28 22.1**	**+2.5**
FIN	**Finale Ligure**	**80.56**	**313**	P	sP	05 28 31.9	+1.0
ROB	**Roburent**	**80.79**	**313**	P	sP	05 28 33.4	+1.3
IMI	**Imperia**	**80.81**	**313**	P	sP	05 28 33.6	+1.5
MONE	**Monesi**	**80.89**	**313**	P	sP	05 28 34.5	+1.9
CDF	**Champ du Feu**	**80.95**	**318**	*e*P	**P**	**05 28 23.3**	**-0.2**
	comp=Z,65nm,1.2s,mb5.1						
ENR	**Entracque**	**81.12**	**313**	P	sP	05 28 36.3	+2.5
RSP	**Reno Superiore**	**81.17**	**314**	P	sP	05 28 34.5	+0.4
BHB	**Bricherasio**	**81.19**	**314**	P	sP	05 28 33.9	-0.3
LSD	**Ceresole Reale**	**81.22**	**315**	P	sP	05 28 35.7	+1.4
FENE	**Fenestrelle**	**81.32**	**314**	P	sP	05 28 35.6	+0.7
PZZ	**Prazzo**	**81.33**	**314**	P	sP	05 28 34.6	-0.3
LPG	**La Plagne**	**81.50**	**315**	*e*P	**P**	**05 28 27.3**	**+0.8**
	comp=Z,135nm,0.8s,mb5.6						
RRL	**Cesana Torines**	**81.52**	**314**	P	sP	05 28 39.3	+3.4
MBDF	**Montbardon**	**81.55**	**314**	*e*P	**P**	**05 28 26.8**	**+0.1**
	comp=Z,99nm,1.0s,mb5.4						
HAU	**Haudompre**	**81.60**	**317**	*e*P	**P**	**05 28 26.7**	**-0.2**
	comp=Z,88nm,1.1s,mb5.3						
FRF	**La Foret Royal**	**81.73**	**313**	*e*P	**P**	**05 28 28.0**	**+0.3**
	comp=Z,139nm,1.0s,mb5.5						
BAIF	**Baives**	**82.83**	**319**	*e*P	**P**	**05 28 33.6**	**+0.4**
	comp=Z,75nm,1.1s,mb5.3						
VIVF	**Saint-Julien-l**	**83.03**	**314**	*e*P	**P**	**05 28 34.7**	**+0.3**
	comp=Z,68nm,1.3s,mb5.2						
SSF	**Saint Saulge**	**83.60**	**317**	*e*P	**P**	**05 28 37.3**	**0.0**
	comp=Z,29nm,0.8s,mb5.2						
CAF	**Calviac**	**84.86**	**315**	*e*P	**P**	**05 28 44.9**	**+1.2**
	comp=Z,27nm,0.8s,mb5.1						
RJF	**Les Rejaudoux**	**85.19**	**315**	*e*P	**P**	**05 28 45.4**	**+0.1**
	comp=Z,57nm,0.8s,mb5.4						
LDF	**La Druitiere**	**85.82**	**318**	*e*P	**P**	**05 28 48.5**	**+0.1**
	comp=Z,99nm,1.0s,mb5.7						
DAG	**Danmarks Havn**	**86.23**	**348**	⇓*i*P	**P**	**05 28 55.3**	**+5.5**
DAG				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb5.1						
DAG	**Danmarks Havn**	**86.23**	**348**	⇓*i*P	**P**	**05 28 55.3**	**+5.5**
	comp=Z,8.2nm,0.7s,mb5.1						
ESDC	**Sonseca Array**	**90.15**	**310**	P	**P**	**05 29 09.5**	**+0.1**
	comp=Z,14nm,1.1s,mb5.2,baz=63,slow=4.8,SNR=9.7						
ILAR	**Eielson Array**	**93.79**	**22**	P	**P**	**05 29 24.9**	**-0.6**
	comp=Z,3.5nm,0.7s,mb4.9,baz=300,slow=4.5,SNR=17						
ILAR	**Eielson Array**	**93.79**	**22**	P	**P**	**05 29 24.9**	**-0.6**
ILAR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
VNDA	**Vanda**	**94.17**	**168**	P	**P**	**05 29 29.4**	**+2.4**
	comp=Z,2.8nm,0.8s,mb4.7,baz=299,slow=5.6,SNR=3.9						
VNDA	**Vanda**	**94.17**	**168**	P	**P**	**05 29 29.4**	**+2.3**
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA	**Vanda**	**94.17**	**168**	P	**P**	**05 29 29.4**	**+2.4**
INK	**Inuvik**	**95.96**	**16**	P	**P**	**05 29 35.0**	**-0.4**
	comp=Z,14nm,1.0s,mb5.4,baz=337,slow=4.4,SNR=14						
INK	**Inuvik**	**95.96**	**16**	P	**P**	**05 29 35.1**	**-0.3**
INK				pmax	pmax		
	comp=Z,14nm,1.0s						
INK	**Inuvik**	**95.96**	**16**	*e*P	**P**	**05 29 35.1**	**-0.3**
	comp=Z,20nm,1.1s,mb5.5						
INK				*e*	pP	05 29 43.1	+0.7
RES	**Resolute Bay**	**96.23**	**2**	P	**P**	**05 29 36.2**	**-0.3**
	comp=Z,19nm,1.0s,mb5.5						
DAWY	**Dawson**	**96.88**	**21**	*e*P	**P**	**05 29 39.2**	**-0.5**
DAWY				*e*	pP	05 29 47.7	+1.0
DBIC	**Dimbokro**	**97.39**	**278**	P	**P**	**05 29 44.3**	**+1.1**
	comp=Z,4.2nm,0.9s,mb4.8,baz=190,slow=6.1,SNR=3.7						
DBIC	**Dimbokro**	**97.39**	**278**	P	**P**	**05 29 44.3**	**+1.1**
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.9s						
YKA	**Yellowknife Ar**	**105.36**	**13**	Pdiff	Pdif	05 30 16.4	-1.2

	comp=Z,0.9nm,1.0s,baz=326,slow=4.3,SNR=5.1						
YKA				PP	PP	05 34 36.7	-5.4
	comp=Z,0.6nm,0.8s,baz=338,slow=7.5,SNR=4.1						
YKA	**Yellowknife Ar**	**105.36**	**13**	P	Pdif	05 30 16.4	-1.2
YKA						05 34 36.7	
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	**105.36**	**13**	Pdif	Pdif	05 30 16.4	-1.2
YKA				PP	PP	05 34 36.7	-5.4
WALA	**Waterton Lakes**	**117.22**	**20**	*e*PKPdf	PKPdf	05 34 56.0	-1.3
ULM	**Lac du Bonnet**	**120.33**	**7**	PKP	PKPdf	05 35 00.7	-2.6
	comp=Z,1.9nm,0.8s,baz=2.9,slow=3.6,SNR=4.3						
BOZ	**Bozeman (W)**	**120.95**	**21**	PKPdf	PKPdf	05 35 01.3	-3.3
LAO	**LASA Array**	**121.70**	**16**	*e*PKPdf	PKPdf	05 35 04.0	-2.1
YMR	**Madison River**	**122.04**	**21**	*e*PKPdf	PKPdf	05 35 05.2	-1.5
ELK	**Elko**	**123.68**	**26**	*e*PKPdf	PKPdf	05 35 08.1	-2.0
NVAR	**Mina Array Bea**	**124.09**	**30**	PKP	PKPdf	05 35 08.8	-2.1
	comp=Z,7.0nm,0.9s,baz=259,slow=4.4,SNR=7.8						
MNV	**Mina**	**124.16**	**30**	*e*PKPdf	PKPdf	05 35 07.9	-3.2
PDAR	**Pinedale Array**	**124.19**	**21**	PKP	PKPdf	05 35 07.8	-3.1
	comp=Z,4.6nm,0.9s,baz=46,slow=0.9,SNR=12						
MVU	**Marysvale**	**126.84**	**25**	*e*PKPdf	PKPdf	05 35 14.1	-2.1
MSU	**Marysvale**	**126.85**	**25**	*e*PKPdf	PKPdf	05 35 15.0	-1.1
ANMO	**Albuquerque**	**132.23**	**23**	PKP	PKPdf	05 35 24.3	-2.3
	comp=Z,3.4nm,1.0s,baz=135,slow=2.9,SNR=7.2						
ANMO	**Albuquerque**	**132.23**	**23**	PKP	PKPdf	05 35 24.3	-2.4
TXAR	**Lajitas Array**	**138.29**	**23**	PKP	PKPdf	05 35 36.2	-1.8
	comp=Z,1.6nm,0.8s,baz=209,slow=0.5,SNR=8.0						
BAO	**Brasilia Array**	**142.10**	**256**	PKP	PKPdf	05 35 42.3	-2.9
BDFB	**Brasilia**	**142.13**	**256**	PKhKP		05 35 40.1	
	comp=Z,14nm,1.3s,baz=171,slow=2.2,SNR=4.0						
BDFB	**Brasilia**	**142.13**	**256**	*i* PKIKP	PKPdf	05 35 40.1	-5.1
BDFB				pmax	pmax		
	comp=Z,14nm,1.3s						
SJG	**San Juan**	**146.48**	**324**	PKPbc	PKPbc	05 35 50.6	+1.0
	comp=Z,11nm,0.8s,baz=38,slow=9.9,SNR=6.0						
SJG	**San Juan**	**146.48**	**324**	PKP2	PKPab	05 35 50.6	-2.2
SJG				pmax	pmax		
	comp=Z,11nm,0.8s						
CPUP	**Villa Florida**	**147.66**	**234**	PKPbc	PKPdf	05 35 52.5	-1.8
	comp=Z,0.0nm,0.3s,baz=256,slow=18,SNR=1.5						
PCRV	**Puerto La Cruz**	**151.22**	**311**	PKPbc	PKPdf	05 36 02.6	+2.3
	comp=Z,20nm,0.8s,baz=23,slow=8.0,SNR=6.3						
SDV	**Santo Domingo**	**156.33**	**318**	PKP	PKPdf	05 36 05.7	-1.6
	comp=Z,8.7nm,1.1s,baz=93,slow=4.5,SNR=4.7						
SDV				PKPab	PKPab	05 36 32.3	-1.4
	comp=Z,16nm,0.9s,baz=59,slow=3.8,SNR=10						
SDV	**Santo Domingo**	**156.33**	**318**	PKP	PKPdf	05 36 05.7	-1.6
SDV				PKPab	PKPab	05 36 32.4	-1.4
SDV				*e*PKPab	PKPab	05 36 33.8	0.0
LVC	**Limon Verde**	**158.60**	**229**	PKP	PKPdf	05 36 09.6	-0.4
	comp=Z,3.1nm,0.8s,baz=219,slow=0.8,SNR=4.0						
LVC				PKPab	PKPab	05 36 45.6	+2.3
	comp=Z,11nm,0.9s,baz=149,slow=0.6,SNR=7.9						
LPAZ	**La Paz**	**160.93**	**246**	PKP	PKPdf	05 36 12.6	-0.1
	comp=Z,1.8nm,0.8s,baz=29,slow=9.6,SNR=3.4						
LPAZ				PKPab	PKPab	05 36 54.8	+1.4
	comp=Z,6.7nm,0.8s,baz=117,slow=4.5,SNR=8.4						
LPAZ	**La Paz**	**160.93**	**246**	PKIKP	PKPdf	05 36 12.6	-0.1
LPAZ						05 36 54.8	
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ROSC	**El Rosal**	**161.76**	**319**	PKP	PKPdf	05 36 12.7	-1.0
	comp=Z,5.5nm,0.8s,baz=198,slow=9.6,SNR=7.3						
ROSC				PKPab	PKPab	05 36 58.0	+0.7
	comp=Z,3.8nm,0.7s,baz=86,slow=16,SNR=2.9						

IDC 26 05:17:38.3±2.7**, 2.74N×95.85E, mb4.8**/7**, mb1 4.9**/7**, mb1mx4.5**/18**, Error ellipse: s-maj=111.0km s-min=19.3km az=60.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**43.99**	**123**	P	P	05 25 47.7	-1.8
	14nm,0.8s,baz=302,slow=9.2,SNR=8.8						
ASAR	**Alice Springs**	**45.40**	**127**	P	P	05 25 59.0	-1.8
	3.7nm,0.6s,baz=299,slow=7.8,SNR=4.8						
SONM	**Songino Array**	**45.84**	**10**	P	P	05 26 02.2	-1.7
	18nm,0.9s,baz=191,slow=9.9,SNR=8.4						
ZAL	**Zalesovo**	**51.84**	**352**	P	P	05 26 48.1	-2.2
	7.5nm,0.6s,baz=309,slow=4.5,SNR=7.7						
BVAR	**Borovoye Array**	**54.37**	**341**	P	P	05 27 06.5	-2.5
	3.4nm,0.7s,baz=141,slow=9.2,SNR=2.8						
CTA	**Charters Tower**	**54.40**	**117**	P	P	05 27 08.0	-1.7
	14nm,0.7s,baz=298,slow=11,SNR=4.3						
STKA	**Stephens Creek**	**55.38**	**132**	P	P	05 27 13.9	-2.9
	10nm,0.8s,baz=291,slow=8.2,SNR=6.7						

IDC ***26*** *05:20:22.8±0.5, 12.15N×92.26E, mb4.8/27, mb1 4.8/28, mb1mx4.8/30, ML4.2/1, Error ellipse: s-maj=17.5km s-min=11.4km az=48.0*

BJI ***26*** *05:20:26.1, 12.19N×92.38E, h32^km, mb5.3, Ms6.0, Msz6.1*

NEIC ***26*** *05:20:27.9±4.4, 12.16N×92.40E, h32^km±30^km, mb5.3/16, Error ellipse: s-maj=10.8km s-min=7.5km az=223.0*

ISC 26 05:20:24.6±3.9**, 12.14N**±0.06×**92.43E**±0.05**, h15**^km±24^km**, n87,** σ**1§00**/81**, mb5.0**/51**, MS6.0**/2**, 2C-1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.89**	**44**	Pn	**P**	**05 22 33.4**	**-2.1**
	0.7nm,0.3s,baz=237,slow=15,SNR=5.6						
CMAR				Sn	**Sn**	**05 24 14.8**	**-1.4**
	0.3nm,0.3s,baz=237,slow=27,SNR=3.4						
KMI	**Kunming**	**16.18**	**36**	*e*P	**P**	**05 24 14.8**	**+1.6**
KMI				AMB	AMB		
	comp=Z,140nm,1.7s						
LSA	**Lhasa**	**17.52**	**356**	P	**P**	**05 24 24.5**	**-5.5**
CD2	**Chengdu**	**21.42**	**28**	P	**P**	**05 25 13.3**	**-0.9**
CD2				AMB	AMB		
	comp=Z,200nm,1.3s,mb5.3						
DDI	**Dehra Dun**	**22.47**	**326**	*e*P	**P**	**05 25 13.4**	**-11**
DDI				*e*		05 29 25.4	
ENH	**Enshi**	**24.00**	**39**	*e*P	**P**	**05 25 38.9**	**-0.7**
	comp=Z,231nm,1.1s,mb5.5						
THN	**Thein Dam**	**25.37**	**325**	*e*	**P**	**05 26 01.2**	**+8.4**
	comp=Z,17nm,0.6s,mb4.8						
THN				*e*		05 30 34.7	
LZH	**Lanzhou**	**25.98**	**21**	*e*P	**P**	**05 25 58.5**	**0.0**
LZH				AMB	AMB		
	comp=Z,162nm,1.2s,mb5.4						
QZH	**Quanzhou**	**27.82**	**59**	*e*P	**P**	**05 26 13.0**	**-2.5**
QZH				AMB	AMB		
	comp=Z,270nm,1.4s,mb5.7						
GTA	**Gaotai**	**27.94**	**12**	P	**P**	**05 26 16.3**	**-0.1**
GTA				AP	pP	05 26 26.8	+6.0
GTA				XP	sP	05 26 31.0	+8.2
GTA				AMB	AMB		
	comp=Z,111nm,1.2s,mb5.4						
GTA				LR	LR		
	comp=N,19µm,15.6s,MS5.9						
GTA				LR	LR		
	comp=E,19µm,18.6s,MS5.9						
GTA				LR	LR		
	comp=Z,34µm,12.5s						
HHC	**Hu-ho-hao-te**	**33.18**	**27**	*e*P	**P**	**05 27 02.0**	**-0.7**
HHC				AP	pP	05 27 11.5	+4.3
HHC				XP	sP	05 27 15.5	+6.4
HHC				S	**S**	**05 32 16.3**	**-4.3**
HHC				XS		05 32 30.5	
HHC				AMB	AMB		
	comp=Z,52nm,1.3s,mb5.3						
HHC				LR	LR		
	comp=N,18µm,14.3s,MS6.0						
HHC				LR	LR		
	comp=E,11µm,13.1s,MS6.0						
HHC				LR	LR		
	comp=Z,23µm,13.1s,MS6.1						
AAK	**Ala-Archa**	**34.15**	**336**	*e*P	**P**	**05 27 09.9**	**-1.3**
	comp=Z,29nm,1.1s,mb5.1						
BJT	**Baijiatuau**	**34.79**	**33**	*e*P	**P**	**05 27 16.2**	**-0.5**
	comp=Z,17nm,0.5s,mb5.2						
JOW	**Kunigami**	**36.67**	**61**	P	**P**	**05 27 33.5**	**+0.8**
	comp=Z,12nm,0.4s,mb5.1,baz=254,slow=4.4,SNR=7.8						
DL2	**Dalian**	**37.18**	**39**	P	**P**	**05 27 37.0**	**+0.1**
DL2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.1						
SONM	**Songino Array**	**37.46**	**16**	P	**P**	**05 27 38.6**	**-0.6**
	comp=Z,37nm,1.0s,mb5.2,baz=198,slow=7.8,SNR=23						
SONM				PcP	PcP	05 29 56.9	-1.2
	comp=Z,3.4nm,0.8s,baz=196,slow=5.8,SNR=3.0						
ULN	**Ulaanbaatar**	**37.66**	**16**	*e*P	**P**	**05 27 40.3**	**-0.6**
	comp=Z,53nm,1.3s,mb5.1						
SNY	**Shenyang**	**40.16**	**37**	⇑P	**P**	**05 28 01.0**	**-0.7**
SNY				AMB	AMB		
	comp=Z,90nm,1.8s,mb5.2						
TLY	**Talaya**	**40.47**	**11**	P	**P**	**05 28 05.6**	**+1.4**
	comp=Z,204nm,1.4s,mb5.7,SNR=8.1						
KS15	**Wonju Array Si**	**40.49**	**45**	*e*P	**P**	**05 28 04.3**	**-0.2**
ZAL	**Zalesovo**	**42.13**	**353**	P	**P**	**05 28 16.1**	**-1.7**
	comp=Z,15nm,1.0s,mb4.6,baz=303,slow=8.7,SNR=7.3						
CN2	**Changchun**	**42.46**	**36**	⇑P	**P**	**05 28 20.3**	**-0.3**
CN2				AMB	AMB		
	comp=Z,100nm,1.1s,mb5.4						
MBWA	**Marble Bar**	**42.59**	**141**	*e*P	**P**	**05 28 20.9**	**-1.1**
	comp=Z,41nm,0.7s,mb5.3						
BVAR	**Borovoye Array**	**44.44**	**341**	P	**P**	**05 28 34.5**	**-2.1**
	comp=Z,3.2nm,0.5s,mb4.3,baz=135,slow=9.0,SNR=5.2						
CHKZ	**Chkalovo**	**44.92**	**342**	*e*P	**P**	**05 28 39.0**	**-1.5**
	comp=Z,19nm,0.5s,mb5.2						
MAT	**Matsushiro**	**47.69**	**51**	P	**P**	**05 29 01.6**	**-1.0**
MAT	**Matsushiro**	**47.69**	**51**	*e*P	**P**	**05 29 02.0**	**-0.6**
GNI	**Garni**	**50.30**	**313**	P	**P**	**05 29 22.3**	**-0.3**
	comp=Z,13nm,0.8s,mb5.0,baz=45,slow=22,SNR=2.6						
GNI	**Garni**	**50.30**	**313**	P	**P**	**05 29 22.4**	**-0.3**
GNI				*e*P		05 29 23.3	
NWAO	**Narrogin (SRO)**	**50.69**	**153**	P	**P**	**05 29 24.5**	**-1.2**
	comp=Z,14nm,0.7s,mb5.0,baz=303,slow=11,SNR=6.5						
WRA	**Warramunga Arr**	**52.13**	**127**	P	**P**	**05 29 35.8**	**-1.0**
	comp=Z,21nm,0.4s,mb5.4,baz=301,slow=10.0,SNR=39						
WRA				PcP	PcP	05 30 47.7	-1.1
	comp=Z,2.8nm,0.6s,baz=319,slow=3.2,SNR=4.9						
KIV	**Kislovodsk**	**53.06**	**316**	*e*P	**P**	**05 29 43.7**	**+0.2**
	comp=Z,50nm,1.0s,mb5.4						
ASAJ	**Asahikawa**	**53.41**	**44**	P	**P**	**05 29 45.4**	**-0.7**
	comp=Z,52nm,1.2s,mb5.3,baz=242,slow=13,SNR=5.7						
ASAR	**Alice Springs**	**53.95**	**131**	P	**P**	**05 29 49.5**	**-0.7**
	comp=Z,14nm,0.5s,mb5.2,baz=306,slow=6.6,SNR=26						
YSS	**Yuzh-Sakhalins**	**54.56**	**40**	*e*P	**P**	**05 29 53.6**	**-0.8**
	comp=Z,107nm,1.1s,mb5.8						
EIL	**Elat**	**55.91**	**298**	P	**P**	**05 30 04.3**	**-0.1**
	comp=Z,10nm,1.1s,mb4.8,baz=84,slow=22,SNR=3.4						
KMBO	**Kilima Mbogo**	**56.34**	**260**	P	**P**	**05 30 06.0**	**-1.7**
	comp=Z,2.4nm,1.0s,mb4.2,baz=56,slow=14,SNR=4.0						
BRTR	**Keskin Array B**	**58.41**	**309**	P	**P**	**05 30 18.8**	**-3.2**
	comp=Z,6.1nm,0.9s,mb4.6,baz=121,slow=7.2,SNR=5.3						
PMG	**Port Moresby**	**58.45**	**109**	P	**P**	**05 30 22.5**	**-0.2**
	comp=Z,13nm,0.5s,mb5.2,baz=32,slow=1.3,SNR=7.1						
ISP	**Isparta**	**60.52**	**307**	*e*P	**P**	**05 30 36.6**	**0.0**
	comp=Z,31nm,1.3s,mb5.3						
CTA	**Charters Tower**	**61.89**	**121**	P	**P**	**05 30 45.5**	**-0.6**
	comp=Z,47nm,1.4s,mb5.4,baz=316,slow=8.4,SNR=5.9						
CTA	**Charters Tower**	**61.89**	**121**	P	**P**	**05 30 45.5**	**-0.7**
CTAO	**Charters Tower**	**61.89**	**121**	*e*P	**P**	**05 30 45.2**	**-0.9**
AKASG	**Malin Array Be**	**63.80**	**321**	P	**P**	**05 30 55.0**	**-3.3**
	comp=Z,0.9nm,0.3s,mb4.2,baz=80,slow=5.3,SNR=7.6						
STKA	**Stephens Creek**	**64.26**	**134**	P	**P**	**05 31 00.7**	**-1.0**
	comp=Z,14nm,0.5s,mb5.2,baz=312,slow=5.7,SNR=26						
MMB	**Musomiste**	**66.13**	**310**	*e*P	**P**	**05 31 15.0**	**+1.4**
VTS	**Vitosha**	**66.61**	**311**	*e*P	**P**	**05 31 18.0**	**+1.4**
KKB	**Krupnik**	**66.64**	**310**	*e*P	**P**	**05 31 15.0**	**-1.8**
KWP	**Kalwaria**	**67.72**	**319**	*e*P	**P**	**05 31 24.1**	**+0.5**
	comp=Z,39nm,1.1s,mb5.3						
FINES	**FINESS Array B**	**68.18**	**332**	P	**P**	**05 31 24.5**	**-1.7**
	comp=Z,2.6nm,0.6s,mb4.5,baz=115,slow=5.2,SNR=4.7						
CRVS	**Cervenica-Dubn**	**68.44**	**318**	*e*sP	sP	05 31 40.8	+6.4
LSZ	**Lusaka**	**69.18**	**248**	*e*P	**P**	**05 31 32.0**	**-1.1**
	comp=Z,32nm,1.2s,mb5.1						
LSZ				*e*		05 31 39.0	
VYHS	**Vyhne**	**70.14**	**317**	*e*P	**P**	**05 31 39.3**	**+0.9**
OKC	**Ostrava-Krasne**	**70.69**	**319**	*e*P	**P**	**05 31 46.7**	**+5.0**
ARCES	**ARCESS Array B**	**70.71**	**340**	P	**P**	**05 31 40.2**	**-1.4**
	comp=Z,4.1nm,0.7s,mb4.5,baz=101,slow=6.2,SNR=4.7						
ARCES	**ARCESS Array B**	**70.71**	**340**	P	**P**	**05 31 40.2**	**-1.4**
DPC	**Dobruska-Polom**	**71.89**	**319**	*e*P	**P**	**05 31 47.9**	**-1.1**
PVCC	**Panska Ves**	**73.02**	**319**	*e*P	**P**	**05 32 00.8**	**+5.2**
PRU	**Pruhonice**	**73.02**	**319**	*e*P	**P**	**05 31 59.8**	**+4.1**
BRG	**Berggiesshubel**	**73.42**	**320**	*e*P	**P**	**05 31 58.1**	**+0.1**
	comp=Z,68nm,2.0s,mb5.2						
BRG				*e*		05 31 59.0	
GERES	**GERESS Array B**	**73.55**	**318**	P	**P**	**05 31 56.8**	**-2.0**
	comp=Z,3.4nm,0.9s,mb4.2,baz=102,slow=6.0,SNR=5.8						
KHC	**Kasperske Hory**	**73.64**	**318**	*e*P	**P**	**05 32 00.3**	**+1.0**
HFS	**Hagfors**	**73.95**	**329**	P	**P**	**05 31 59.5**	**-1.3**
	comp=Z,4.3nm,0.4s,mb4.7,baz=104,slow=6.1,SNR=9.6						
CLL	**Collm**	**74.02**	**320**	P	**P**	**05 32 02.0**	**+0.5**
NKC	**Novy Kostel**	**74.37**	**319**	*e*P	**P**	**05 32 07.0**	**+3.5**
FX1	**Attu Island--F**	**74.84**	**38**	P	**P**	**05 32 06.0**	**-0.1**
	comp=Z,18nm,0.5s,mb5.3,baz=49,slow=1.9,SNR=2.7						
NB2	**NORSAR Subarra**	**75.22**	**330**	P	**P**	**05 32 06.1**	**-2.1**
	comp=Z,22nm,1.2s,mb5.0,baz=92,slow=5.8						
NB2	**NORSAR Subarra**	**75.22**	**330**	P	**P**	**05 32 06.1**	**-2.1**
	baz=92,slow=5.9						
NOA	**NORSAR Array B**	**75.22**	**330**	P	**P**	**05 32 06.0**	**-2.2**
	comp=Z,5.2nm,1.0s,mb4.4,baz=90,slow=5.8,SNR=4.3						
DAVOX	**Davos**	**76.18**	**315**	P	**P**	**05 32 12.5**	**-1.5**
	comp=Z,2.1nm,0.5s,mb4.4,baz=129,slow=6.5,SNR=3.9						
LPL	**La Plagne**	**78.45**	**314**	*e*P	**P**	**05 32 25.2**	**-1.3**
	comp=Z,78nm,1.1s,mb5.2						
MAW	**Mawson**	**82.35**	**191**	P	**P**	**05 32 47.2**	**+0.4**
	comp=Z,5.3nm,1.0s,mb4.4,baz=348,slow=6.2,SNR=3.0						
DAG	**Danmarks Havn**	**82.98**	**347**	⇓*i*P	**P**	**05 32 48.2**	**-1.7**
	comp=Z,19nm,1.2s,mb5.0						
ESDC	**Sonseca Array**	**87.20**	**310**	P	**P**	**05 33 11.7**	**-0.1**
	comp=Z,2.8nm,1.1s,mb4.4,baz=64,slow=4.5,SNR=3.5						
IMA	**Indian Mountai**	**88.33**	**22**	*e*P	**P**	**05 33 17.0**	**+0.4**
	comp=Z,276nm,1.8s						
SPU	**Mount Spurr**	**91.23**	**26**	*e*P	**P**	**05 33 30.2**	**0.0**
ILAR	**Eielson Array**	**91.44**	**22**	P	**P**	**05 33 30.4**	**-0.7**
	comp=Z,2.9nm,1.0s,mb4.6,baz=302,slow=5.4,SNR=8.2						
SLKM	**Skilak Lake**	**92.34**	**26**	*e*P	**P**	**05 33 34.7**	**-0.6**
INK	**Inuvik**	**93.38**	**16**	P	**P**	**05 33 39.1**	**-0.8**
	comp=Z,3.5nm,0.8s,mb4.9,baz=308,slow=7.4,SNR=8.6						
DAWY	**Dawson**	**94.49**	**20**	*e*P	**P**	**05 33 45.4**	**+0.3**
YKA	**Yellowknife Ar**	**102.68**	**12**	PP	PP	05 38 33.0	-5.5
	comp=Z,1.1nm,0.9s,baz=331,slow=7.3,SNR=4.1						
PDAR	**Pinedale Array**	**121.77**	**19**	PKP	PKPdf	05 39 19.1	-2.9
	comp=Z,0.4nm,0.4s,baz=108,slow=2.6,SNR=5.0						
NVAR	**Mina Array Bea**	**122.07**	**28**	PKP	PKPdf	05 39 20.6	-2.1
	comp=Z,0.7nm,0.4s,baz=290,slow=2.1,SNR=7.5						
TXAR	**Lajitas Array**	**135.94**	**20**	PKP	PKPdf	05 39 46.9	-2.5
	comp=Z,0.6nm,0.5s,baz=212,slow=0.4,SNR=9.1						
BDFB	**Brasilia**	**141.48**	**260**	PKP	PKPdf	05 39 56.7	-3.1
	comp=Z,2.0nm,0.5s,baz=177,slow=6.3,SNR=5.2						
PCRV	**Puerto La Cruz**	**148.21**	**313**	PKPbc	PKPdf	05 40 09.4	-1.9
	comp=Z,9.8nm,0.6s,baz=38,slow=2.1,SNR=9.3						
CPUP	**Villa Florida**	**148.25**	**239**	PKPbc	PKPdf	05 40 09.0	-2.1
	comp=Z,0.0nm,0.4s,baz=117,slow=8.2,SNR=2.7						

IDC ***26*** *05:21:33.5±2.2, 5.72S×152.42E, h51^km±19^km, mb4.7/16, mb1 4.9/18, mb1mx4.8/22, ML4.0/2, Error ellipse: s-maj=19.7km s-min=9.7km az=128.0*

NEIC ***26*** *05:21:35.2±1.9, 5.71S×152.39E, h67^km±17^km, mb5.3/9, Error ellipse: s-maj=12.7km s-min=10.6km az=86.0*

BJI ***26*** *05:21:35.1, 5.70S×152.40E, h66^km, mb5.2*

ISC 26 05:21:26.6±2.7**, 5.68S**±0.06×**152.48E**±0.07**, h8**^km±16^km**, n54,** σ**1§00**/45**, mb5.1**/24**, 1D, New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**6.45**	**235**	P	**Pn**	**05 23 04.8**	**+0.6**
	47nm,0.3s,baz=50,slow=7.0,SNR=97						
PMG				S	**Sn**	**05 24 17.5**	**-1.2**
	28nm,0.3s,baz=76,slow=20,SNR=7.3						
CTA	**Charters Tower**	**15.55**	**202**	P	**P**	**05 25 09.0**	**+1.0**
	0.2nm,0.3s,baz=30,slow=14,SNR=2.5						
CTAO	**Charters Tower**	**15.55**	**202**	*e*P	**P**	**05 25 12.3**	**+4.3**
	20nm,0.7s						
CTAO				*e*		05 25 26.8	
DZM	**Mont Dzumac**	**21.16**	**142**	*e*P	**P**	**05 26 14.9**	**+0.3**
DZM	**Mont Dzumac**	**21.16**	**142**	*e*P	**P**	**05 26 14.9**	**+0.3**
WRAB	**Tennant Creek**	**22.62**	**230**	*e*P	**P**	**05 26 30.3**	**+0.9**
	114nm,0.6s,mb5.5						
WRA	**Warramunga Arr**	**22.63**	**230**	P	**P**	**05 26 30.5**	**+1.0**
	18nm,0.5s,mb4.7,baz=56,slow=10,SNR=23						
WRA				S	**S**	**05 30 33.9**	**+1.3**
	21nm,1.2s,baz=53,slow=17,SNR=9.7						
ASAR	**Alice Springs**	**25.29**	**223**	P	**P**	**05 26 54.7**	**-0.6**
	9.7nm,0.5s,mb4.6,baz=59,slow=9.6,SNR=25						
ASAR				S	**S**	**05 31 19.2**	**+0.7**
	0.8nm,0.5s,baz=37,slow=18,SNR=2.8						
STKA	**Stephens Creek**	**27.98**	**200**	P	**P**	**05 27 19.9**	**-0.1**
	7.6nm,0.8s,mb4.4,baz=28,slow=9.3,SNR=5.4						
STKA	**Stephens Creek**	**27.98**	**200**	P	**P**	**05 27 19.9**	**-0.1**
URZ	**Urewera**	**39.40**	**149**	P	**P**	**05 28 58.3**	**-0.3**
	6.3nm,0.5s,mb4.6,baz=44,slow=8.1,SNR=5.2						
JOW	**Kunigami**	**39.92**	**325**	P	**P**	**05 29 03.1**	**0.0**
	34nm,0.6s,mb5.2						
WHN	**Wuhan**	**51.27**	**317**	*e*P	**P**	**05 30 31.8**	**-1.5**
CMAR	**Chiang Mai Arr**	**57.97**	**296**	P	**P**	**05 31 20.8**	**-1.6**
	2.0nm,0.6s,mb4.3,baz=129,slow=5.8,SNR=4.2						
FX1	**Attu Island--F**	**60.92**	**14**	P	**P**	**05 31 40.9**	**-1.3**
	67nm,0.7s,mb5.9,baz=154,slow=3.4,SNR=9.3						
VNDA	**Vanda**	**71.97**	**178**	P	**P**	**05 32 49.7**	**-2.6**
	4.3nm,0.9s,mb4.4,baz=317,slow=7.7,SNR=4.4						
VNDA	**Vanda**	**71.97**	**178**	P	**P**	**05 32 49.7**	**-2.6**
ANM	**Nome**	**76.70**	**17**	*e*P	**P**	**05 33 19.8**	**+0.1**
PMR	**Palmer**	**80.61**	**24**	*e*P	**P**	**05 33 40.3**	**-0.7**
	46nm,1.3s,mb5.2						
COLA	**College**	**82.78**	**22**	*e*P	**P**	**05 33 50.7**	**-1.6**
	58nm,0.9s,mb5.6						
ILAR	**Eielson Array**	**83.09**	**22**	P	**P**	**05 33 52.6**	**-1.3**
	32nm,0.9s,mb5.4,baz=247,slow=5.4,SNR=46						
QSPA	**South Pole Qui**	**84.29**	**180**	⇓*i*P	**P**	**05 33 59.3**	**-0.4**
	13nm,0.8s,mb5.1						
TKM2	**Tokmak 2**	**84.31**	**314**	P	**P**	**05 34 01.4**	**+0.8**
	SNR=7.3						
KZA	**Kyzart**	**84.37**	**313**	P	**P**	**05 34 02.6**	**+1.7**
	SNR=7.0						
MAW	**Mawson**	**84.64**	**203**	P	**P**	**05 33 60.0**	**-1.7**
	6.3nm,0.8s,mb4.8,baz=91,slow=10.0,SNR=4.0						
CHMS	**Chumysh**	**84.93**	**314**	P	**P**	**05 34 04.0**	**+0.3**
	SNR=10						
AAK	**Ala-Archa**	**85.04**	**314**	*e*P	**P**	**05 34 03.9**	**-0.4**
	33nm,0.8s,mb5.5						
USP	**Ospenovka**	**85.17**	**314**	P	**P**	**05 34 05.4**	**+0.6**
	SNR=8.5						
AML	**Almayashu**	**85.51**	**313**	P	**P**	**05 34 08.2**	**+1.6**
	SNR=11						
EKS2	**Erkin-Say**	**85.56**	**313**	P	**P**	**05 34 07.9**	**+1.1**
	SNR=7.0						
DLBC	**Dease Lake**	**88.29**	**31**	P	**P**	**05 34 20.6**	**+0.9**
	11nm,0.7s,mb5.2,baz=247,slow=5.9,SNR=14						
INK	**Inuvik**	**89.38**	**21**	P	**P**	**05 34 24.5**	**-0.2**
	16nm,1.0s,mb5.3,baz=239,slow=5.4,SNR=12						
INK	**Inuvik**	**89.38**	**21**	P	**P**	**05 34 24.5**	**-0.2**
BVAR	**Borovoye Array**	**89.75**	**323**	P	**P**	**05 34 25.5**	**-1.2**
	26nm,0.8s,mb5.6,baz=90,slow=4.4,SNR=11						
YBH	**Yreka Blue Hor**	**89.87**	**48**	P	**P**	**05 34 27.3**	**-0.3**
	6.5nm,1.0s,mb4.9,baz=188,slow=7.7,SNR=3.9						
MTUM	**Tungsten Hills**	**92.57**	**53**	*e*P	**P**	**05 34 40.1**	**-0.1**
NVAR	**Mina Array Bea**	**92.87**	**52**	P	**P**	**05 34 42.8**	**+1.2**
	5.4nm,0.8s,mb5.0,baz=252,slow=7.1,SNR=19						
MNV	**Mina**	**92.99**	**52**	*e*P	**P**	**05 34 43.2**	**+1.1**
	18nm,1.2s,mb5.4						
BMO	**Blue Mountains**	**94.11**	**45**	*e*P	**P**	**05 34 47.3**	**+0.3**
	16nm,1.1s,mb5.4						
ELK	**Elko**	**95.39**	**50**	*e*P	**P**	**05 34 53.2**	**+0.1**
	6.1nm,1.1s,mb4.9						
YKA	**Yellowknife Ar**	**96.34**	**28**	P	**P**	**05 34 58.4**	**+1.5**
	4.3nm,0.7s,mb5.0,baz=269,slow=4.8,SNR=47						
YKA				PKKP	PKKP	05 51 40.1	+1.4
	0.2nm,0.8s,baz=88,slow=2.9,SNR=4.2						
EDM	**Edmonton**	**97.01**	**37**	*e*P	**P**	**05 35 00.4**	**+0.3**
NB2	**NORSAR Subarra**	**117.62**	**340**	PKPdf	PKPdf	05 40 12.4	-3.5
	1.9nm,0.8s,baz=45,slow=1.9						
NOA	**NORSAR Array B**	**117.62**	**340**	PKP	PKPdf	05 40 13.5	-2.4
	0.9nm,0.6s,baz=47,slow=1.9,SNR=4.8						
BRG	**Berggiesshubel**	**123.27**	**330**	*e*P	PKPdf	05 40 25.0	-2.1
PRU	**Pruhonice**	**123.50**	**329**	*e*PKPdf	PKPdf	05 40 29.0	+1.4
KHC	**Kasperske Hory**	**124.52**	**328**	*e*PKPdf	PKPdf	05 40 27.0	-2.6
ROSC	**El Rosal**	**133.39**	**89**	PKP	PKPdf	05 40 46.1	-1.4
	6.5nm,0.6s,baz=146,slow=2.8,SNR=9.9						
LPAZ	**La Paz**	**134.28**	**119**	PKP	PKPdf	05 40 48.7	-0.3
	2.5nm,0.7s,baz=241,slow=2.4,SNR=5.1						
LPAZ	**La Paz**	**134.28**	**119**	PKP	PKPdf	05 40 48.7	-0.3
SDV	**Santo Domingo**	**137.13**	**83**	PKP	PKPdf	05 40 52.4	-1.9
	20nm,0.8s,baz=227,slow=3.7,SNR=3.7						
SJG	**San Juan**	**140.33**	**68**	PKP	PKPdf	05 40 58.2	-1.8
	10nm,0.6s,baz=32,slow=5.1,SNR=4.5						
BDFB	**Brasilia**	**150.66**	**136**	PKPbc	PKPdf	05 41 20.1	+2.5
	15nm,0.8s,baz=207,slow=2.1,SNR=13						
BAO	**Brasilia Array**	**150.68**	**137**	PKP	PKPdf	05 41 13.1	-4.5
BAO				*i*		05 41 21.4	
BAO				*e*		05 42 04.7	

BJI ***26*** *05:23:45.8, 3.30N×94.10E, h18^km, mb5.0*

IDC ***26*** *05:23:47.8±0.5, 3.46N×94.13E, mb4.7/28, mb1 4.8/29, mb1mx4.8/31, ML5.1/1, Error ellipse: s-maj=24.9km s-min=13.3km az=46.0*

NEIC ***26*** *05:23:50.8±0.4, 3.35N×94.09E, mb5.2/10, Error ellipse: s-maj=13.9km s-min=9.2km az=222.0*

ISC 26 05:23:49.5±0.4**, 3.51N**±0.08×**94.22E**±0.08**, h19**^km**, h19**^km±1.4^km**:pP-P, n77,** σ**1§15**/69**, mb4.8**/43**, 4D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.56**	**17**	Pn	**P**	**05 27 34.2**	**+4.5**
	2.6nm,0.3s,baz=213,slow=12,SNR=7.1						
KMI	**Kunming**	**23.00**	**20**	*e*P	**P**	**05 28 53.5**	**-1.0**
KMI				AMB	AMB		
	comp=Z,36nm,0.7s,mb4.9						
ENH	**Enshi**	**30.29**	**27**	*e*P	**P**	**05 30 01.3**	**-0.7**
	comp=Z,28nm,0.7s,mb5.1						
JOW	**Kunigami**	**39.98**	**51**	P	**P**	**05 31 29.6**	**+4.8**
	comp=Z,18nm,0.8s,mb4.9,baz=104,slow=22,SNR=3.4						
HHC	**Hu-ho-hao-te**	**40.33**	**20**	*e*P	**P**	**05 31 24.0**	**-3.6**
HHC				AP	pP	05 31 31.5	-1.8
HHC				XP	sP	05 31 37.3	+1.6
HHC				AMB	AMB		
	comp=Z,19nm,0.7s,mb4.9						
BJT	**Baijiatuau**	**41.42**	**26**	*e*P	**P**	**05 31 36.9**	**+0.3**
	comp=Z,26nm,0.8s,mb4.9						
BJT				*e*pP	pP	05 31 44.0	+1.7
NWAO	**Narrogin (SRO)**	**42.29**	**151**	P	**P**	**05 31 46.5**	**+2.7**
	comp=Z,9.7nm,0.8s,mb4.5,baz=295,slow=8.9,SNR=2.0						
SONM	**Songino Array**	**45.39**	**12**	P	**P**	**05 32 09.6**	**+0.9**
	comp=Z,10nm,0.8s,mb4.7,baz=194,slow=7.3,SNR=7.3						
ULN	**Ulaanbaatar**	**45.55**	**12**	*e*P	**P**	**05 32 11.1**	**+1.1**
	comp=Z,14nm,0.9s,mb4.9						
ULN				*e*	pP	05 32 15.9	+0.2
WRA	**Warramunga Arr**	**45.77**	**122**	P	**P**	**05 32 11.1**	**-1.0**
	comp=Z,18nm,0.8s,mb5.0,baz=299,slow=8.7,SNR=6.4						
WRAB	**Tennant Creek**	**45.78**	**122**	*e*P	**P**	**05 32 11.5**	**-0.7**
	comp=Z,42nm,0.9s,mb5.4						
WRAB				*e*pP	pP	05 32 16.1	-1.8
ASAR	**Alice Springs**	**47.15**	**127**	P	**P**	**05 32 21.9**	**-1.1**
	comp=Z,6.6nm,0.8s,mb4.6,baz=295,slow=8.1,SNR=7.0						
ZAL	**Zalesovo**	**50.86**	**353**	P	**P**	**05 32 51.0**	**-0.2**
	comp=Z,7.1nm,0.5s,mb4.9,baz=316,slow=5.2,SNR=9.4						
ZAL	**Zalesovo**	**50.86**	**353**	P	**P**	**05 32 51.0**	**-0.2**
BVAR	**Borovoye Array**	**53.13**	**342**	P	**P**	**05 33 07.3**	**-1.0**
	comp=Z,6.1nm,0.6s,mb4.7,baz=138,slow=9.3,SNR=12						
CTA	**Charters Tower**	**56.19**	**117**	P	**P**	**05 33 31.6**	**+0.6**
	comp=Z,9.9nm,0.9s,mb4.8,baz=298,slow=6.7,SNR=5.7						
CTAO	**Charters Tower**	**56.19**	**117**	*e*P	**P**	**05 33 31.5**	**+0.5**
	comp=Z,11nm,0.9s,mb4.9						
STKA	**Stephens Creek**	**57.10**	**132**	P	**P**	**05 33 36.1**	**-1.3**
	comp=Z,6.8nm,0.9s,mb4.7,baz=328,slow=7.4,SNR=3.4						
KMBO	**Kilima Mbogo**	**57.13**	**266**	P	**P**	**05 33 37.5**	**-0.3**
	comp=Z,3.9nm,1.1s,mb4.4,baz=54,slow=7.4,SNR=5.0						
KMBO	**Kilima Mbogo**	**57.13**	**266**	P	**P**	**05 33 36.7**	**-1.1**
	comp=Z,10.0nm,1.2s,mb4.7						
KMBO				*e*pP	pP	05 33 41.8	-1.9
GNI	**Garni**	**57.58**	**316**	P	**P**	**05 33 39.0**	**-1.7**
	comp=Z,4.7nm,0.7s,mb4.6,baz=227,slow=17,SNR=2.6						
ARU	**Arti**	**59.93**	**338**	*e*P	**P**	**05 33 55.6**	**-1.1**
	comp=Z,86nm,1.5s,mb5.6						
YSS	**Yuzh-Sakhalins**	**60.20**	**36**	*e*P	**P**	**05 33 58.7**	**0.0**
	comp=Z,19nm,0.8s,mb5.2						
YSS				*e*pP	pP	05 34 04.2	-0.4
ASF	**Jabal al Asfar**	**60.71**	**305**	P	**P**	**05 34 03.3**	**+0.9**
	comp=Z,4.7nm,0.8s,mb4.7,baz=327,slow=1.5,SNR=3.8						
ELZG	**Elazig**	**61.04**	**313**	*i* P	**P**	**05 34 01.9**	**-2.7**
GZT	**Gaziantep**	**61.71**	**311**	*i* P	**P**	**05 34 10.2**	**+1.1**
EIL	**Elat**	**61.72**	**302**	P	**P**	**05 34 06.0**	**-3.3**
	comp=Z,17nm,1.2s,mb5.0,baz=102,slow=9.3,SNR=2.0						
BOYT	**Boyabat**	**64.97**	**314**	*i* P	**P**	**05 34 24.3**	**-6.2**
BRTR	**Keskin Array B**	**65.37**	**312**	P	**P**	**05 34 29.8**	**-3.3**
	comp=Z,2.5nm,0.9s,mb4.2,baz=127,slow=6.2,SNR=5.4						
ELDT	**Eldivan**	**65.75**	**313**	*i* P	**P**	**05 34 33.6**	**-2.0**
SGKT	**Sivrigoynuk**	**66.77**	**313**	*i* P	**P**	**05 34 38.2**	**-3.9**
ISP	**Isparta**	**67.23**	**310**	*e*P	**P**	**05 34 44.5**	**-0.5**
	comp=Z,70nm,1.6s,mb5.4						
ISP				*e*pP	pP	05 34 50.6	-0.4
ESKT	**Eskisehir**	**67.38**	**311**	*i* P	**P**	**05 34 44.1**	**-1.9**

ULDT	Uludag	68.82	312	*i*P	P	05 34 53.7	-1.2
KDAG	Bornova	69.84	310	*i*P	P	05 35 01.5	+0.3
IDI	Anoyia comp=Z,8.0nm,0.7s,mb4.7,baz=128,slow=14,SNR=6.2	71.14	306	P	P	05 35 08.4	-0.8
AKASG	Malin Array Be comp=Z,1.3nm,0.5s,mb4.2,baz=76,slow=5.0,SNR=5.7	71.63	323	P	P	05 35 08.5	-3.3
MLR	Muntele Rosu comp=Z,21nm,1.1s,mb5.0,baz=133,slow=3.8,SNR=8.9	72.36	317	P	P	05 35 15.8	-0.5
MLR	Muntele Rosu	72.36	317	P	P	05 35 15.8	-0.5
KOLS	Kolonicke sedl	75.54	320	*e*P	P	05 35 35.6	+0.9
CRVS	Cervenica-Dubn	76.06	320	*e*P	P	05 35 40.7	+3.1
FINES	FINESS Array B comp=Z,26nm,1.3s,mb5.0,baz=93,slow=5.0,SNR=8.0	76.59	333	P	P	05 35 38.3	-2.0
VYHS	Vyhne	77.71	319	*e*P	P	05 35 47.1	+0.3
OKC	Ostrava-Krasne	78.36	320	*e*P	P	05 35 50.8	+0.5
ZST	Bratislava	78.81	318	*e*P	P	05 35 53.9	+1.0
VRAC	Vranov comp=Z,3.1nm,1.0s,mb4.2,baz=158,slow=7.4,SNR=3.1	79.28	319	P	P	05 35 55.8	+0.4
ARCES	ARCESS Array B comp=Z,5.3nm,0.8s,mb4.5,baz=82,slow=5.4,SNR=5.6	79.38	341	P	P	05 35 55.2	-0.3
ARCES	ARCESS Array B	79.38	341	P	P	05 35 55.2	-0.3
DPC	Dobruska-Polom	79.59	320	*e*P	P	05 35 57.8	+0.8
ARSA	Arzberg comp=Z,24nm,1.2s,mb5.0	79.76	317	⇓*i*P	P	05 35 59.2	+1.2
UPC	Upice	79.81	321	*e*P	P	05 35 59.9	+1.7
FX1	Attu Island--F comp=Z,16nm,0.7s,mb5.1,baz=187,slow=10,SNR=3.5	80.54	37	P	P	05 36 03.4	+1.4
PRU	Pruhonice	80.69	320	*e*P	P	05 36 03.6	+0.7
PVCC	Panska Ves	80.72	320	*e*P	P	05 36 03.4	+0.3
GERES	GERESS Array B comp=Z,5.7nm,0.8s,mb4.5,baz=90,slow=5.3,SNR=9.0	81.13	319	P	P	05 36 05.6	+0.4
KHC	Kasperske Hory	81.23	319	*e*P	P	05 36 08.8	+3.0
CLL	Collm	81.78	321	P	pP	05 36 14.0	-0.7
CLL				*e*		05 36 22.0	
CLL	Collm	81.78	321	*e**PP	pP	05 36 14.0	-0.7
CLL				*e*		05 36 22.0	
NKC	Novy Kostel	82.05	320	*e*P	P	05 36 11.1	+1.1
HFS	Hagfors comp=Z,4.0nm,0.5s,mb4.6,baz=104,slow=6.1,SNR=13	82.25	330	P	P	05 36 10.9	+0.1
SQTA	Sankt Quirin comp=Z,8.2nm,0.8s,mb4.8	82.69	317	⇓*i*P	P	05 36 13.8	+0.4
MOTA	Moosalm comp=Z,11nm,1.0s,mb4.8	82.77	317	⇓*i*P	P	05 36 14.0	+0.2
NB2	NORSAR Subarra comp=Z,4.1nm,0.6s,mb4.7,baz=98,slow=5.0	83.56	331	P	P	05 36 17.2	-0.3
NOA	NORSAR Array B comp=Z,2.8nm,0.8s,mb4.5,baz=95,slow=5.5,SNR=6.9	83.56	331	P	P	05 36 17.6	+0.1
DAVOX	Davos comp=Z,9.9nm,0.6s,mb5.1,baz=106,slow=9.0,SNR=6.7	83.58	317	P	P	05 36 18.4	+0.3
DAVA	Damuels comp=Z,33nm,1.1s,mb5.4	83.60	317	⇓*i*P	P	05 36 19.3	+1.2
LPL	La Plagne comp=Z,33nm,0.8s,mb5.3	85.76	315	*e*P	P	05 36 34.3	+5.3
URZ	Urewera comp=Z,8.3nm,0.8s,mb5.0,baz=304,slow=4.4,SNR=4.1	86.57	129	P	P	05 36 33.8	+0.6
VNDA	Vanda comp=Z,1.2nm,0.8s,mb4.3,baz=331,slow=12,SNR=2.7	88.66	168	P	P	05 36 42.3	0.0
ESDC	Sonseca Array comp=Z,1.0nm,0.8s,mb4.3,baz=60,slow=4.2,SNR=4.6	94.07	310	P	P	05 37 09.2	+1.0
ILAR	Eielson Array comp=Z,1.5nm,1.0s,mb4.5,baz=296,slow=5.4,SNR=3.9	98.73	22	P	P	05 37 28.9	+0.1
YKA	Yellowknife Ar comp=Z,0.7nm,0.8s,baz=334,slow=8.0,SNR=5.5	110.62	14	PP	PP	05 42 50.5	-11
PDAR	Pinedale Array comp=Z,1.7nm,1.2s,baz=14,slow=3.7,SNR=4.1	129.16	23	PKP	PKPdf	05 42 57.4	-3.7
TXAR	Lajitas Array comp=Z,0.5nm,0.8s,slow=0.9,SNR=4.2	143.11	27	PKP	PKPdf	05 43 21.9	-5.1
TXAR	Lajitas Array	143.11	27	PKP	PKPdf	05 43 21.9	-5.1
CPUP	Villa Florida comp=Z,0.0nm,0.3s,baz=313,slow=12,SNR=1.7	144.53	227	PKP	PKPdf	05 43 25.4	-4.2
LPAZ	La Paz comp=Z,0.8nm,0.6s,baz=273,slow=5.3,SNR=2.5	158.50	233	PKP	PKPdf	05 43 48.5	-2.1
LPAZ	comp=Z,2.1nm,0.7s,baz=24,slow=2.3,SNR=3.2			PKPab	PKPab	05 44 24.4	+0.5

IDC 26 05:24:17.2±0.7**, 8.48N**×**92.62E, mb4.7**/12**, mb1 4.7**/13**, mb1mx4.6**/23**, ML4.5**/1**, Error ellipse: s-maj=27.7km s-min=16.6km az=67.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 1.0nm,0.3s,baz=209,slow=11,SNR=5.0	11.67	31	Pn	P	05 27 03.6	-4.5
SONM	Songino Array 8.0nm,1.1s,baz=198,slow=12,SNR=6.0	40.93	14	P	P	05 32 01.1	-1.9
ZAL	Zalesovo 4.2nm,0.9s,baz=292,slow=9.2,SNR=3.6	45.77	354	P	P	05 32 40.3	-1.9
NWAO	Narrogin (SRO) 7.8nm,0.5s,baz=318,slow=8.7,SNR=6.8	47.38	152	P	P	05 32 53.0	-2.3
BVAR	Borovoye Array 3.4nm,0.6s,baz=144,slow=9.4,SNR=7.9	47.95	342	P	P	05 32 56.9	-2.5
WRA	Warramunga Arr 8.8nm,0.6s,baz=300,slow=9.7,SNR=6.8	49.84	125	P	P	05 33 11.8	-2.6
ASAR	Alice Springs 4.3nm,0.5s,baz=301,slow=8.0,SNR=5.2	51.46	129	P	P	05 33 24.1	-2.5
ASAJ	Asahikawa 15nm,0.9s,baz=280,slow=14,SNR=3.5	55.96	42	P	P	05 33 59.0	-0.7
PMG	Port Moresby 9.2nm,0.6s,baz=237,slow=3.7,SNR=5.9	57.15	107	P	P	05 34 06.5	-2.1
STKA	Stephens Creek 10.0nm,1.1s,baz=340,slow=8.5,SNR=2.7	61.61	133	P	P	05 34 36.6	-2.6
ESDC	Sonseca Array 0.9nm,0.6s,baz=61,slow=4.1,SNR=5.8	89.68	310	P	P	05 37 16.6	-2.2
ILAR	Eielson Array 1.3nm,0.6s,baz=288,slow=4.0,SNR=8.3	94.75	22	P	P	05 37 39.8	-1.7
INK	Inuvik 6.2nm,1.0s,baz=320,slow=7.1,SNR=6.8	96.83	16	P	P	05 37 49.1	-1.8
PDAR	Pinedale Array 1.6nm,0.9s,baz=180,slow=1.5,SNR=4.9	125.14	20	PKP	PKPdf	05 43 19.9	-2.0
NVAR	Mina Array Bea 2.7nm,0.8s,baz=46,slow=1.8,SNR=6.1	125.16	30	PKP	PKPdf	05 43 21.3	-0.9
TXAR	Lajitas Array 0.9nm,0.5s,baz=191,slow=1.1,SNR=9.0	139.27	22	PKP	PKPdf	05 43 48.2	-0.7
CPUP	Villa Florida 0.0nm,0.3s,baz=112,slow=13,SNR=1.6	146.41	234	PKPbc	PKPbc	05 44 02.2	+1.4
LPAZ	La Paz 4.5nm,1.1s,baz=102,slow=8.4,SNR=2.7	159.67	246	PKPab	PKPab	05 44 57.4	-2.2

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*IDC **26** 05:25:12.6±1.2, 9.55N×92.78E, mb4.4/11, mb1 4.5/11, mb1mx4.3/19, Error ellipse: s-maj=49.0km s-min=26.0km az=48.0*

ISC 26 05:25:15.9±1.1**, 9.6N**±0.2×**92.8E**±0.2**, h33^{km}, n11, σ0^{s}.99**/11**, mb4.3**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array 6.1nm,0.8s,mb4.4,baz=194,slow=7.4,SNR=4.2	39.84	14	P	P	05 32 49.1	+1.2
ZAL	Zalesovo 4.6nm,0.7s,mb4.4,baz=297,slow=14,SNR=3.3	44.73	353	P	P	05 33 27.6	-0.2
BVAR	Borovoye Array 10nm,0.9s,mb4.7,baz=129,slow=9.5,SNR=3.6	46.99	342	P	P	05 33 43.7	-2.0
WRA	Warramunga Arr 2.8nm,0.8s,mb4.3,baz=303,slow=9.1,SNR=2.0	50.29	126	P	P	05 34 11.3	-0.3
BRTR	Keskin Array B 2.4nm,0.6s,mb4.4,baz=134,slow=7.2,SNR=2.8	60.36	310	P	P	05 35 23.9	-0.4
FINES	FINESS Array B 2.7nm,0.5s,mb4.4,baz=103,slow=5.1,SNR=4.6	70.63	332	P	P	05 36 31.2	+1.4
ARCES	ARCESS Array B 1.9nm,0.8s,mb4.1,baz=100,slow=7.2,SNR=5.0	73.25	340	P	P	05 36 44.4	-0.9
GERES	GERESS Array B 1.3nm,0.5s,mb4.1,baz=72,slow=6.3,SNR=4.8	75.72	318	P	P	05 37 01.0	+1.1
HFS	Hagfors 1.9nm,0.5s,mb4.3,baz=90,slow=8.6,SNR=2.8	76.36	330	P	P	05 37 02.6	-0.7
NOA	NORSAR Array B 1.2nm,0.7s,mb4.0,baz=91,slow=5.7,SNR=2.5	77.64	330	P	P	05 37 10.2	-0.3
ESDC	Sonseca Array 0.5nm,0.4s,mb4.2,baz=60,slow=4.3,SNR=4.8	89.15	310	P	P	05 38 10.6	+0.9

IDC 26 05:28:19.4±0.4**, 6.27N**×**93.55E, mb4.5**/25**, mb1 4.5**/25**, mb1mx4.5**/27**, MS4.5**/1**, Ms1 4.7**/1**, ms1mx3.6**/31**, Error ellipse: s-maj=20.4km s-min=11.9km az=50.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr comp=Z,2µm,18.9s,baz=295,slow=35	13.21	23	LR	LR	05 36 07.0	
SONM	Songino Array 2.2nm,0.7s,baz=189,slow=8.9,SNR=7.3	42.85	13	P	P	05 36 15.1	-5.8
NWAO	Narrogin (SRO) 15nm,0.8s,baz=315,slow=10,SNR=2.7	45.01	151	P	P	05 36 37.2	-1.5
WRA	Warramunga Arr 24nm,1.0s,baz=304,slow=9.0,SNR=16	47.83	124	P	P	05 36 58.1	-3.1
ZAL	Zalesovo 4.7nm,0.5s,baz=276,slow=6.0,SNR=8.2	48.06	353	P	P	05 37 00.4	-2.0
ASAR	Alice Springs 21nm,0.9s,baz=305,slow=7.3,SNR=23	49.36	129	P	P	05 37 10.5	-2.4
BVAR	Borovoye Array 4.1nm,0.7s,baz=149,slow=8.4,SNR=8.5	50.32	342	P	P	05 37 18.2	-1.6
CBIJ	Chichi jima 63nm,0.5s,baz=126,slow=12,SNR=5.7	50.60	60	P	P	05 37 20.1	-2.2
PMG	Port Moresby 11nm,0.5s,baz=349,slow=5.2,SNR=6.6	55.64	106	P	P	05 37 57.5	-2.5
KMBO	Kilima Mbogo 1.0nm,0.8s,baz=61,slow=14,SNR=3.3	56.67	265	P	P	05 38 05.9	-1.5
ASAJ	Asahikawa 7.7nm,0.8s,baz=280,slow=28,SNR=3.0	57.01	40	P	P	05 38 07.8	-1.6
CTA	Charters Tower 12nm,1.0s,baz=282,slow=7.7,SNR=8.2	58.05	118	P	P	05 38 14.3	-2.7
STKA	Stephens Creek 5.5nm,0.5s,baz=316,slow=5.8,SNR=20	59.44	133	P	P	05 38 24.5	-2.0
BRTR	Keskin Array B 1.0nm,0.9s,baz=129,slow=8.6,SNR=3.5	63.04	312	P	P	05 38 47.9	-2.9
AKASG	Malin Array Be 0.5nm,0.4s,baz=83,slow=4.3,SNR=4.9	69.05	322	P	P	05 39 25.5	-3.5
MLR	Muntele Rosu 2.4nm,0.9s,baz=180,slow=3.0,SNR=2.1	69.91	316	P	P	05 39 31.7	-2.6
FINES	FINESS Array B 3.3nm,0.8s,baz=108,slow=6.0,SNR=7.6	73.85	332	P	P	05 39 55.1	-2.4
ARCES	ARCESS Array B 8.8nm,1.1s,baz=96,slow=5.7,SNR=10	76.57	340	P	P	05 40 10.8	-2.2
MAW	Mawson 4.1nm,0.3s,baz=152,slow=18,SNR=42	76.85	192	P	P	05 40 13.0	-1.6
GERES	GERESS Array B 2.3nm,0.9s,baz=79,slow=6.8,SNR=4.0	78.63	318	P	P	05 40 22.6	-2.2
CLL	Collm	79.23	321	*e*PKIKP	P	05 40 26.0	-2.0
HFS	Hagfors 2.3nm,0.8s,baz=108,slow=9.1,SNR=2.9	79.54	330	P	P	05 40 27.9	-1.6
NOA	NORSAR Array B 0.6nm,0.7s,baz=255,slow=18,SNR=2.5	80.83	331	P	P	05 40 36.6	+0.3
DAVOX	Davos 4.4nm,0.6s,baz=100,slow=8.3,SNR=9.1	81.14	316	P	P	05 40 38.4	+0.1
ILAR	Eielson Array 1.0nm,1.0s,baz=280,slow=5.5,SNR=2.7	96.45	22	P	P	05 41 51.2	-0.2
DBIC	Dimbokro 2.7nm,0.6s,baz=78,slow=4.8,SNR=6.0	97.57	278	P	P	05 41 56.0	-1.7
SNAA	Sanae 0.8nm,0.9s,baz=336,slow=4.7,SNR=3.3	97.92	199	P	P	05 41 57.6	-0.3
INK	Inuvik 0.4nm,0.5s,baz=266,slow=14,SNR=3.1	98.69	16	P	P	05 42 01.3	-0.2
ULM	Lac du Bonnet 2.1nm,0.8s,baz=342,slow=7.8,SNR=2.9	123.12	7	PKP	PKPdf	05 47 18.7	-1.2
NVAR	Mina Array Bea 1.6nm,1.0s,baz=167,slow=0.9,SNR=4.8	126.59	31	PKP	PKPdf	05 47 24.6	-2.3
PDAR	Pinedale Array 1.6nm,1.1s,SNR=5.3	126.87	21	PKP	PKPdf	05 47 25.0	-2.3
TXAR	Lajitas Array 1.1nm,0.9s,baz=70,slow=0.9,SNR=3.5	140.92	24	PKP	PKPdf	05 47 51.6	-2.5
BDFB	Brasilia 1.7nm,0.8s,baz=176,slow=19,SNR=1.9	141.19	253	PKP	PKPdf	05 47 52.8	-2.1
CPUP	Villa Florida 0.0nm,0.6s,baz=292,slow=9.5,SNR=1.8	145.81	231	PKPbc	PKPbc	05 48 01.1	-0.5
PCRV	Puerto La Cruz 7.6nm,0.9s,baz=193,slow=22,SNR=2.1	152.82	307	PKPbc	PKPdf	05 48 18.7	+4.8

IDC 26 05:28:29.0±0.5**, 6.14N**×**93.30E, mb4.6**/20**, mb1 4.7**/21**, mb1mx4.6**/26**, ML4.7**/1**, Error ellipse: s-maj=22.1km s-min=12.5km az=46.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 1.1nm,0.3s,baz=228,slow=14,SNR=21	13.42	24	Pn	P	05 31 40.2	-3.1
SONM	Songino Array 5.0nm,0.9s,baz=197,slow=8.1,SNR=4.6	43.02	13	P	P	05 36 31.8	-0.1
NWAO	Narrogin (SRO) 9.7nm,0.8s,baz=134,slow=10,SNR=3.2	45.02	151	P	P	05 36 45.1	-3.3
WRA	Warramunga Arr 26nm,0.8s,baz=302,slow=9.1,SNR=18	47.97	124	P	P	05 37 09.0	-2.8
ZAL	Zalesovo 12nm,0.7s,baz=308,slow=6.6,SNR=12	48.15	353	P	P	05 37 11.1	-1.6
CBIJ	Chichi jima 81nm,0.7s,baz=274,slow=22,SNR=4.1	50.87	60	P	P	05 37 32.0	-2.0
GNI	Garni 3.8nm,0.7s,baz=141,slow=5.8,SNR=2.3	55.06	315	P	P	05 38 04.1	-0.9
PMG	Port Moresby 5.1nm,0.5s,baz=220,slow=6.0,SNR=4.7	55.85	106	P	P	05 38 10.1	-1.0
KMBO	Kilima Mbogo 5.2nm,1.1s,baz=48,slow=10,SNR=7.2	56.41	265	P	P	05 38 15.0	-0.2
CTA	Charters Tower 3.8nm,0.8s,baz=292,slow=11,SNR=3.4	58.22	118	P	P	05 38 25.9	-1.9
STKA	Stephens Creek 5.5nm,0.5s,baz=299,slow=7.5,SNR=7.6	59.54	133	P	P	05 38 33.7	-3.1
BRTR	Keskin Array B 4.4nm,1.0s,baz=122,slow=7.2,SNR=7.0	62.93	312	P	P	05 38 56.3	-3.4
IDI	Anoyia 4.4nm,0.6s,baz=138,slow=7.3,SNR=4.0	68.87	305	P	P	05 39 35.6	-2.2
AKASG	Malin Array Be 1.3nm,0.6s,baz=86,slow=4.5,SNR=5.7	68.99	322	P	P	05 39 34.6	-3.7
MLR	Muntele Rosu 3.7nm,0.8s,baz=89,slow=4.7,SNR=3.4	69.83	316	P	P	05 39 42.9	-0.6
FINES	FINESS Array B 3.5nm,0.7s,baz=93,slow=7.1,SNR=6.6	73.85	333	P	P	05 40 04.5	-2.6
ARCES	ARCESS Array B 4.7nm,0.6s,baz=94,slow=5.8,SNR=7.4	76.60	340	P	P	05 40 21.1	-1.7
MAW	Mawson 4.7nm,0.8s,baz=7.3,slow=8.1,SNR=4.4	76.68	192	P	P	05 40 22.1	-1.2
GERES	GERESS Array B 1.4nm,0.5s,baz=79,slow=1.5,SNR=16	78.56	318	P	P	05 40 31.3	-2.6
FX1	Attu Island--F 16nm,0.6s,baz=109,slow=23,SNR=3.0	79.01	37	P	P	05 40 37.5	+1.1
HFS	Hagfors 2.8nm,0.5s,baz=100,slow=9.0,SNR=7.0	79.52	330	P	P	05 40 37.7	-1.3
NB2	NORSAR Subarra 15nm,1.7s,baz=93,slow=5.8	80.82	331	P	P	05 40 44.1	-1.8
NOA	NORSAR Array B 1.8nm,0.8s,baz=96,slow=5.4,SNR=2.7	80.82	331	P	P	05 40 44.4	-1.5
ULM	Lac du Bonnet 2.2nm,0.8s,baz=295,slow=1.3,SNR=4.0	123.28	7	PKP	PKPdf	05 47 27.9	-1.9
NVAR	Mina Array Bea 2.2nm,1.0s,baz=350,slow=2.1,SNR=5.9	126.82	31	PKP	PKPdf	05 47 36.5	-0.5
PDAR	Pinedale Array 2.4nm,0.9s,baz=356,slow=2.4,SNR=7.9	127.07	21	PKP	PKPdf	05 47 35.1	-2.2
TXAR	Lajitas Array 0.9nm,0.6s,baz=309,slow=0.2,SNR=6.2	141.13	24	PKP	PKPdf	05 48 03.0	-1.1
CPUP	Villa Florida 0.0nm,0.3s,baz=22,slow=10,SNR=1.8	145.54	231	PKPbc	PKPbc	05 48 10.2	-0.4
PCRV	Puerto La Cruz 9.5nm,0.8s,baz=96,slow=2.5,SNR=4.1	152.69	306	PKPbc	PKPdf	05 48 31.7	+8.4

IDC 26 05:28:47.6±0.8**, 6.22N**×**92.68E, mb4.6**/17**, mb1 4.7**/18**, mb1mx4.6**/25**, ML4.9**/1**, Error ellipse: s-maj=32.4km s-min=19.1km az=45.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 1.8nm,0.3s,baz=221,slow=14,SNR=5.6	13.61	26	Pn	P	05 32 00.1	-4.4
SONM	Songino Array 8.5nm,0.8s,baz=192,slow=8.5,SNR=4.4	43.09	14	P	P	05 36 49.9	-1.3
ZAL	Zalesovo 9.5nm,0.5s,baz=330,slow=7.6,SNR=6.5	48.00	354	P	P	05 37 27.9	-2.4
ASAR	Alice Springs 4.9nm,0.6s,baz=302,slow=7.5,SNR=3.8	50.01	128	P	P	05 37 45.5	-0.5
BVAR	Borovoye Array 6.3nm,0.7s,baz=149,slow=8.4,SNR=6.8	50.10	343	P	P	05 37 45.9	-0.5
GNI	Garni 3.4nm,0.5s,baz=340,slow=22,SNR=3.4	54.57	316	P	P	05 38 18.9	-1.1
CTA	Charters Tower 5.7nm,0.8s,baz=266,slow=12,SNR=2.8	58.79	118	P	P	05 38 48.0	-2.4
BRTR	Keskin Array B 1.5nm,0.7s,baz=118,slow=7.5,SNR=3.5	62.42	312	P	P	05 39 14.0	-1.0
IDI	Anoyia 5.7nm,0.6s,baz=100,slow=15,SNR=3.6	68.33	305	P	P	05 39 51.2	-1.9
AKASG	Malin Array Be 2.4nm,0.7s,baz=82,slow=4.6,SNR=4.0	68.56	322	P	P	05 39 52.6	-1.6
MLR	Muntele Rosu 3.9nm,0.8s,baz=218,slow=3.3,SNR=3.3	69.35	316	P	P	05 39 57.6	-1.6
FINES	FINESS Array B 3.4nm,0.6s,baz=110,slow=5.1,SNR=5.1	73.50	333	P	P	05 40 20.6	-3.1
ARCES	ARCESS Array B 8.0nm,0.9s,baz=97,slow=5.6,SNR=4.9	76.33	341	P	P	05 40 37.6	-2.2
GERES	GERESS Array B 4.3nm,0.8s,baz=88,slow=5.0,SNR=5.4	78.09	318	P	P	05 40 48.1	-1.9
HFS	Hagfors 2.4nm,0.5s,baz=117,slow=6.6,SNR=5.2	79.15	330	P	P	05 40 54.2	-1.4
NOA	NORSAR Array B 1.7nm,0.9s,baz=94,slow=5.7,SNR=3.2	80.45	331	P	P	05 40 59.9	-2.7
DAVOX	Davos 8.0nm,0.6s,baz=147,slow=5.8,SNR=6.6	80.57	316	P	P	05 41 02.3	-1.2
ESDC	Sonseca Array 6.2nm,1.1s,baz=34,slow=5.3,SNR=4.5	91.17	310	P	P	05 41 55.6	-0.4
INK	Inuvik 1.2nm,0.7s,baz=301,slow=6.2,SNR=4.6	98.97	16	P	P	05 42 29.2	-1.8
ULM	Lac du Bonnet 2.2nm,1.0s,baz=341,slow=3.1,SNR=4.5	123.27	7	PKP	PKPdf	05 47 43.9	-4.5
NVAR	Mina Array Bea 1.4nm,0.6s,baz=331,slow=2.4,SNR=7.3	127.07	30	PKP	PKPdf	05 47 51.5	-4.5
PDAR	Pinedale Array 1.2nm,0.7s,SNR=4.3	127.22	20	PKP	PKPdf	05 47 51.5	-4.8
TXAR	Lajitas Array 1.0nm,0.5s,baz=119,slow=0.4,SNR=7.4	141.31	23	PKP	PKPdf	05 48 19.3	-3.7
CPUP	Villa Florida 0.0nm,0.3s,baz=149,slow=19,SNR=1.5	145.11	232	PKPbc	PKPbc	05 48 24.9	-3.1

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*IDC **26** 05:30:15.8±0.7, 7.85N×92.10E, mb4.5/14, mb1 4.6/14, mb1mx4.4/22, Error ellipse: s-maj=25.9km s-min=19.4km az=63.0*

ISC 26 05:30:19.4±0.6**, 7.9N**±0.1×**92.1E**±0.2**, h33^{km}, n23, σ0^{s}.91**/15**, mb4.5**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array 5.0nm,0.7s,mb4.2,baz=193,slow=9.0,SNR=4.0	41.65	15	P	P	05 38 06.0	-0.3
BVAR	Borovoye Array 1.7nm,0.5s,mb4.3,baz=135,slow=15,SNR=1.8	48.36	343	P	P	05 39 00.0	+0.1
WRA	Warramunga Arr 3.2nm,1.0s,mb4.3,baz=303,slow=9.5,SNR=1.8	49.93	124	P	P	05 39 10.9	-1.5
GNI	Garni 5.3nm,0.8s,mb4.5,baz=119,slow=19,SNR=2.9	52.99	315	P	P	05 39 35.6	+0.4
KMBO	Kilima Mbogo 4.4nm,0.8s,mb4.5,baz=68,slow=10,SNR=6.6	55.40	263	P	P	05 39 53.2	0.0
BRTR	Keskin Array B 1.9nm,0.7s,mb4.3,baz=132,slow=6.8,SNR=2.3	60.90	311	P	P	05 40 29.7	-1.7
IDI	Anoyia 8.3nm,0.6s,mb4.9,baz=91,slow=11,SNR=4.2	66.90	305	P	P	05 41 09.8	-0.9
MLR	Muntele Rosu 7.3nm,0.9s,mb4.7,baz=177,slow=4.9,SNR=3.2	67.75	316	P	P	05 41 15.5	-0.4
GERES	GERESS Array B 5.8nm,1.0s,mb4.5,baz=90,slow=5.9,SNR=3.0	76.47	318	P	P	05 42 07.4	-0.3
MAW	Mawson 7.4nm,0.9s,mb4.6,baz=16,slow=7.9,SNR=5.6	78.13	191	P	P	05 42 16.3	-0.2
NB2	NORSAR Subarra 1.5nm,0.6s,baz=96,slow=5.0	78.74	331	P	sP	05 42 35.4	+1.4
DAVOX	Davos 4.9nm,0.7s,mb4.5,baz=135,slow=10.0,SNR=3.5	78.98	316	P	P	05 42 21.9	+0.3
LPG	La Plagne 14nm,0.8s,mb4.6	81.18	315	*e*P	P	05 42 33.6	+0.2
VNDA	Vanda 1.7nm,1.0s,mb4.4,baz=293,slow=2.7,SNR=3.1	93.34	168	P	P	05 43 32.8	+1.0
ILAR	Eielson Array 0.4nm,0.8s,mb3.9,baz=302,slow=4.7,SNR=2.7	95.51	22	P	P	05 43 43.9	+2.0
DBIC	Dimbokro 3.1nm,0.8s,mb4.8,baz=205,slow=1.2,SNR=2.7	95.92	278	P	P	05 43 46.2	+1.3
PDAR	Pinedale Array 0.9nm,0.7s,baz=180,slow=0.9,SNR=3.6	125.88	20	PKP	PKPdf	05 49 19.2	+0.8
NVAR	Mina Array Bea 1.0nm,0.5s,baz=301,slow=1.6,SNR=5.4	125.95	29	PKP	PKPdf	05 49 20.2	+1.6
ANMO	Albuquerque 0.6nm,0.7s,baz=234,slow=3.2,SNR=4.7	133.95	21	PKP	PKPdf	05 49 36.2	+2.1
TXAR	Lajitas Array 0.4nm,0.5s,baz=199,SNR=4.1	140.02	22	PKP	PKPdf	05 49 47.0	+1.8
CPUP	Villa Florida 0.0nm,0.3s,baz=203,slow=10,SNR=1.8	145.63	234	PKPbc	PKPbc	05 49 56.5	+0.7
LVC	Limon Verde 2.9nm,0.7s,baz=162,slow=1.4,SNR=4.5	156.57	229	PKPab	PKPab	05 50 43.2	+0.2
LPAZ	La Paz 1.9nm,0.6s,baz=107,slow=1.6,SNR=2.6	158.94	245	PKPab	PKPab	05 50 52.7	-0.6

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*IDC **26** 05:32:00.0±0.6, 8.61N×93.73E, mb4.2/21, mb1 4.3/22, mb1mx4.2/26, ML4.8/1, Error ellipse: s-maj=23.2km s-min=13.8km az=54.0*

ISC 26 05:32:03.3±0.5**, 8.61N**±0.09×**93.8E**±0.1**, h33^{km}, n25, σ0^{s}.88**/23**, mb4.1**/22**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 2.0nm,0.3s,baz=213,slow=15,SNR=8.0	10.98	26	Pn	P	05 34 40.9	-0.4
SONM	Songino Array 1.0nm,0.6s,mb3.6,baz=196,slow=8.1,SNR=2.8	40.52	13	P	P	05 39 42.0	+1.1
ZAL	Zalesovo 4.0nm,0.8s,mb4.4,baz=300,slow=9.2,SNR=3.2	45.78	353	P	P	05 40 22.2	-1.3
NWAO	Narrogin (SRO) 10.0nm,0.9s,mb4.8,baz=325,slow=10,SNR=5.2	46.94	153	P	P	05 40 32.6	-0.3
BVAR	Borovoye Array 2.3nm,0.7s,mb4.3,baz=216,slow=38,SNR=4.1	48.19	341	P	P	05 40 42.2	-0.3
WRA	Warramunga Arr 1.0nm,0.5s,mb4.1,baz=301,slow=9.9,SNR=3.8	48.95	126	P	P	05 40 48.0	-0.7
ASAR	Alice Springs 0.7nm,0.5s,mb3.9,baz=304,slow=7.6,SNR=2.6	50.63	130	P	P	05 41 00.6	-1.0
GNI	Garni 1.8nm,0.4s,mb4.3,baz=208,slow=11,SNR=2.6	53.70	314	P	P	05 41 25.9	+1.6
PMG	Port Moresby 6.2nm,0.9s,mb4.6,baz=348,slow=7.4,SNR=2.6	56.05	107	P	P	05 41 42.4	+0.6
KMBO	Kilima Mbogo 0.7nm,0.6s,mb3.9,baz=49,slow=18,SNR=1.9	57.19	263	P	P	05 41 50.5	+0.5
BRTR	Keskin Array B 1.6nm,0.7s,mb4.3,baz=144,slow=7.0,SNR=3.6	61.71	311	P	P	05 42 19.6	-1.1
AKASG	Malin Array Be 0.3nm,0.5s,mb3.6,baz=82,slow=5.1,SNR=3.4	67.38	322	P	P	05 42 55.9	-1.5
MLR	Muntele Rosu 3.2nm,0.8s,mb4.4,baz=324,slow=12,SNR=2.3	68.42	316	P	P	05 43 03.3	-0.7
FINES	FINESS Array B 1.1nm,0.5s,mb4.1,baz=114,slow=9.1,SNR=5.5	71.92	332	P	P	05 43 25.0	+0.1
KAF	Kangasniemi 0.7nm,0.4s,mb3.9	72.00	333	*e*p	P	05 43 25.7	+0.4
ARCES	ARCESS Array B 1.7nm,0.7s,mb4.1,baz=99,slow=7.1,SNR=6.3	74.47	340	P	P	05 43 40.5	+0.8
GERES	GERESS Array B 0.8nm,0.7s,mb3.8,baz=76,slow=5.5,SNR=3.2	77.07	318	P	P	05 43 55.3	+0.3
HFS	Hagfors 1.3nm,0.4s,mb4.2,baz=104,slow=6.1,SNR=7.4	77.66	330	P	P	05 43 57.6	-0.4
NOA	NORSAR Array B 0.8nm,0.7s,mb3.8,baz=91,slow=5.7,SNR=3.1	78.94	331	P	P	05 44 03.8	-1.2
MAW	Mawson 1.7nm,0.8s,mb4.0,baz=350,slow=3.0,SNR=2.3	79.18	192	P	P	05 44 07.1	+0.9
DAVOX	Davos 1.3nm,0.5s,mb4.1,baz=202,slow=7.3,SNR=3.6	79.64	316	P	P	05 44 09.1	0.0
ILAR	Eielson Array 0.5nm,0.7s,mb4.0,baz=290,slow=3.9,SNR=3.5	94.19	22	P	P	05 45 20.9	+1.2
INK	Inuvik 0.9nm,0.8s,mb4.3,baz=164,slow=0.8,SNR=2.3	96.38	16	P	P	05 45 30.9	+1.3
NVAR	Mina Array Bea 0.3nm,0.6s,baz=354,slow=5.3,SNR=2.6	124.45	30	PKP	PKPdf	05 51 03.3	+3.7
TXAR	Lajitas Array 0.5nm,0.8s,baz=42,slow=3.1,SNR=3.8	138.69	23	PKP	PKPdf	05 51 29.4	+2.7

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*IDC **26** 05:31:56.4±29.0, 20.95S×176.71W, h169^{km}±216^{km}, mb3.6/4, mb1 3.8/4, mb1mx3.6/14, Error ellipse: s-maj=282.0km s-min=51.4km az=139.0*

*NEIC **26** 05:32:16.3±4.7, 20.08S×177.72W, h320^{km}±53^{km}, mb4.1/1, Error ellipse: s-maj=61.5km s-min=16.3km az=168.0*

ISC 26 05:32:12.9±0.9**, 20.1S**±0.4×**177.7W**±0.1**, h300^{km}, n11, σ0^{s}.91**/7**, mb3.6**/5**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RAR	Rarotonga 91nm,0.5s	16.82	97	*e*P	P	05 35 52.5	+0.2
CTA	Charters Tower 5.6nm,0.8s,mb4.1,baz=87,slow=11,SNR=3.6	33.80	264	P	P	05 38 30.9	+1.8
CTA	Charters Tower	33.80	264	P	P	05 38 30.9	+1.8
ASAR	Alice Springs 1.9nm,0.8s,mb3.4,baz=98,slow=7.3,SNR=4.2	44.87	256	P	P	05 39 59.1	-0.7
WRA	Warramunga Arr 0.9nm,0.4s,mb3.3,baz=95,slow=8.1,SNR=4.9	44.92	262	P	P	05 40 00.5	+0.2
MBWA	Marble Bar 4.0nm,0.6s,mb4.0	58.20	257	P	P	05 41 37.0	-1.2
ILAR	Eielson Array 0.3nm,0.5s,mb3.4,baz=214,slow=5.6,SNR=9.9	87.90	13	P	P	05 44 29.1	-0.2
AKASG	Malin Array Be 4.7nm,0.4s,baz=40,slow=4.2,SNR=36	142.83	332	PKP	PKPdf	05 51 09.8	-0.6
BRTR	Keskin Array B 1.5nm,0.5s,baz=128,slow=3.6,SNR=5.6	146.80	313	PKPbc	PKPbc	05 51 20.9	+1.6
ASF	Jabal al Asfar 6.7nm,1.1s,baz=343,slow=23,SNR=3.5	146.85	298	PKPbc	PKPbc	05 51 23.0	+3.3
CLL	Collm	147.77	347	*e*PKP1	PKPdf	05 51 24.0	+5.3

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*IDC **26** 05:32:17.1±5.9, 9.14N×93.88E, h37^{km}±48^{km}, mb4.4/22,* *mb1 4.5/23, mb1mx4.4/28, ML4.8/1, Error ellipse: s-maj=24.7km s-min=12.7km az=52.0*

ISC 26 05:32:15.3±4.2, **9.1N**±0.1×**93.9E**±0.1, **h39**^{km}±36^{km}, **n41**, σ**0$\overset{s}{.}$82**/32, **mb4.6**/25, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 2.0nm,0.3s,baz=213,slow=15,SNR=10.0	10.50	27	Pn	P	05 34 46.7	+0.3
SONM	Songino Array 4.8nm,0.8s,mb4.3,baz=194,slow=8.1,SNR=5.2	40.02	13	P	P	05 39 47.8	-0.2
ZAL	Zalesovo 8.6nm,0.5s,mb4.9,baz=296,slow=5.6,SNR=6.6	45.30	352	P	P	05 40 31.2	+0.1
NWAO	Narrogin (SRO) 8.2nm,0.6s,mb4.8,baz=353,slow=9.2,SNR=4.5	47.34	153	P	P	05 40 47.9	+0.3
BVAR	Borovoye Array 11nm,1.1s,mb4.8,baz=143,slow=8.2,SNR=5.1	47.75	341	P	P	05 40 51.1	+0.6
WRA	Warramunga Arr 5.3nm,1.0s,mb4.5,baz=304,slow=8.7,SNR=4.9	49.16	126	P	P	05 41 00.7	-1.1
ASAR	Alice Springs 2.4nm,0.7s,mb4.2,baz=304,slow=7.0,SNR=3.6	50.88	131	P	P	05 41 13.0	-1.9
GNI	Garni 1.5nm,0.4s,mb4.3,baz=196,slow=18,SNR=3.1	53.42	314	P	P	05 41 34.5	+0.9
ASAJ	Asahikawa 6.1nm,0.6s,mb4.8,baz=170,slow=30,SNR=3.3	54.64	42	P	P	05 41 42.6	+0.1
PMG	Port Moresby 9.7nm,0.7s,mb5.0,baz=309,slow=7.7,SNR=4.3	56.12	108	P	P	05 41 54.6	+1.0
CTA	Charters Tower 3.4nm,0.9s,mb4.4,baz=311,slow=11,SNR=2.4	59.11	120	P	P	05 42 15.2	+0.6
BRTR	Keskin Array B 1.4nm,0.6s,mb4.3,baz=127,slow=7.2,SNR=4.1	61.46	310	P	P	05 42 28.6	-1.8
AKASG	Malin Array Be 1.5nm,0.5s,mb4.2,baz=88,slow=4.5,SNR=6.4	67.05	321	P	P	05 43 05.2	-1.5
MLR	Muntele Rosu 29nm,1.3s,mb5.1,baz=90,slow=3.5,SNR=5.6	68.14	315	P	P	05 43 13.8	+0.3
FINES	FINESS Array B 3.2nm,0.5s,mb4.5,baz=107,slow=7.2,SNR=14	71.52	332	P	P	05 43 33.0	-0.9
KAF	Kangasniemi 1.8nm,0.4s,mb4.3	71.59	333	ep	P	05 43 33.5	-0.8
KEV	Kevo 8.1nm,0.6s,mb4.8	73.60	341	ep	P	05 43 46.1	+0.1
OKC	Ostrava-Krasne	73.91	319	eP	P	05 43 48.5	+0.3
ARCES	ARCESS Array B 9.4nm,0.8s,mb4.8,baz=99,slow=7.0,SNR=15	74.03	340	P	P	05 43 49.0	+0.4
DPC	Dobruska-Polom	75.12	320	eP	P	05 43 55.8	+0.6
GERES	GERESS Array B 3.2nm,0.6s,mb4.4,baz=94,slow=5.8,SNR=8.4	76.76	318	P	P	05 44 04.5	0.0
KHC	Kasperske Hory	76.85	318	eP	P	05 44 05.2	+0.2
CLL	Collm	77.27	321	P	P	05 44 07.0	-0.3
HFS	Hagfors 6.3nm,0.3s,mb5.0,baz=98,slow=3.9,SNR=44	77.28	330	P	P	05 44 07.0	-0.3
MOX	Moxa	78.14	320	i P	P	05 44 12.5	+0.4
NB2	NORSAR Subarra 2.7nm,0.6s,mb4.3,baz=96,slow=5.0	78.55	330	P	P	05 44 13.5	-0.7
NOA	NORSAR Array B 5.0nm,0.8s,mb4.5,baz=92,slow=5.6,SNR=7.2	78.55	330	P	P	05 44 13.7	-0.5
DAVOX	Davos 7.1nm,0.9s,mb4.6,baz=123,slow=9.6,SNR=5.6	79.35	316	P	P	05 44 18.6	-0.2
MAW	Mawson 3.6nm,0.8s,mb4.4,baz=320,slow=12,SNR=4.6	79.69	192	P	P	05 44 23.4	+3.1
LPG	La Plagne 40nm,1.1s,mb5.0	81.59	315	eP	P	05 44 31.9	+1.1
ILAR	Eielson Array 2.1nm,0.7s,mb4.7,baz=305,slow=4.5,SNR=12	93.69	22	P	P	05 45 28.7	0.0
INK	Inuvik 5.6nm,0.8s,mb5.0,baz=318,slow=4.6,SNR=11	95.87	16	P	P	05 45 39.1	+0.5
NVAR	Mina Array Bea 2.1nm,0.8s,baz=48,slow=0.2,SNR=7.6	123.98	30	PKP	PKPdf	05 51 12.9	+2.9
PDAR	Pinedale Array 1.5nm,0.8s,baz=88,slow=1.0,SNR=6.5	124.10	21	PKP	PKPdf	05 51 12.1	+2.0
TXAR	Lajitas Array 0.7nm,0.7s,baz=198,slow=0.2,SNR=7.0	138.19	23	PKP	PKPdf	05 51 40.7	+3.6
BDFB	Brasilia 1.5nm,0.7s,baz=110,slow=7.8,SNR=3.3	142.29	256	PKP	PKPdf	05 51 48.5	+3.8
CPUP	Villa Florida 0.0nm,0.3s,baz=9.5,slow=20,SNR=1.6	147.81	234	PKPbc	PKPdf	05 51 59.9	+6.0
PCRV	Puerto La Cruz 6.5nm,0.7s,baz=202,slow=10,SNR=3.7	151.31	311	PKPbc	PKPdf	05 52 07.7	+8.0
SDV	Santo Domingo 3.7nm,0.8s,baz=81,slow=9.4,SNR=4.8	156.41	319	PKPab	PKPab	05 52 37.4	-0.3
LVC	Limon Verde 2.9nm,0.8s,baz=315,slow=1.3,SNR=1.9	158.74	229	PKPab	PKPab	05 52 49.1	+1.5
LPAZ	La Paz 0.9nm,0.5s,baz=257,slow=7.9,SNR=3.0	161.09	246	PKPab	PKPab	05 52 57.0	-0.7

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*IDC **26** 05:33:36.4±0.6, 5.67N×93.36E, mb4.5/18, mb1 4.6/18, mb1mx4.5/23, Error ellipse: s-maj=33.3km s-min=14.6km az=51.0*

ISC 26 05:33:39.7±0.5, **5.7N**±0.1×**93.5E**±0.2, **h33**^{km}, **n21**, σ**0$\overset{s}{.}$73**/19, **mb4.5**/18, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array 6.3nm,0.8s,mb4.4,baz=196,slow=8.7,SNR=4.7	43.42	13	P	P	05 41 40.8	-0.4
WRA	Warramunga Arr 30nm,0.7s,mb5.4,baz=302,slow=8.8,SNR=15	47.59	124	P	P	05 42 14.9	+0.3
ZAL	Zalesovo 4.5nm,0.5s,mb4.8,baz=315,slow=6.2,SNR=6.9	48.61	353	P	P	05 42 22.3	+0.2
ASAR	Alice Springs 5.3nm,0.8s,mb4.6,baz=299,slow=8.1,SNR=4.4	49.07	128	P	P	05 42 25.9	-0.2
BVAR	Borovoye Array 4.1nm,1.0s,mb4.3,baz=135,slow=8.2,SNR=3.4	50.84	342	P	P	05 42 38.6	-0.6
CTA	Charters Tower 6.8nm,0.9s,mb4.7,baz=252,slow=6.4,SNR=2.0	57.86	118	P	P	05 43 30.9	-0.1
STKA	Stephens Creek 9.8nm,0.8s,mb4.9,baz=306,slow=5.2,SNR=6.2	59.12	132	P	P	05 43 39.6	-0.1
BRTR	Keskin Array B 1.3nm,0.7s,mb4.2,baz=107,slow=5.0,SNR=2.2	63.35	312	P	P	05 44 07.7	-0.5
IDI	Anoyia 5.8nm,0.8s,mb4.5,baz=321,slow=12,SNR=2.4	69.27	305	P	P	05 44 43.8	-2.0
AKASG	Malin Array Be 0.4nm,0.4s,mb3.7,baz=90,slow=5.7,SNR=4.3	69.45	322	P	P	05 44 45.6	-1.0
MLR	Muntele Rosu 9.6nm,1.1s,mb4.7,baz=237,slow=3.7,SNR=3.1	70.26	316	P	P	05 44 52.4	+0.7
FINES	FINESS Array B 5.1nm,0.9s,mb4.4,baz=117,slow=6.2,SNR=3.1	74.32	333	P	P	05 45 15.1	-0.3
MAW	Mawson 4.1nm,0.7s,mb4.5,baz=5.1,slow=4.0,SNR=3.9	76.28	192	P	P	05 45 26.4	-0.2
ARCES	ARCESS Array B 2.6nm,0.7s,mb4.3,baz=90,slow=6.1,SNR=4.1	77.08	340	P	P	05 45 31.2	+0.2
GERES	GERESS Array B 3.6nm,0.7s,mb4.4,baz=90,slow=5.3,SNR=5.1	79.00	319	P	P	05 45 42.8	+0.8
KHC	Kasperske Hory	79.10	319	eP	P	05 45 43.5	+0.9
KHC				ex	x	05 45 47.0	
HFS	Hagfors 1.9nm,0.6s,mb4.2,baz=72,slow=9.4,SNR=3.7	79.99	330	P	P	05 45 48.3	+1.1
NOA	NORSAR Array B 1.3nm,0.7s,mb3.9,baz=97,slow=5.5,SNR=3.0	81.29	331	P	P	05 45 53.8	-0.2
DAVOX	Davos 8.8nm,0.7s,mb4.8,baz=131,slow=4.5,SNR=4.7	81.49	316	P	P	05 45 56.6	+1.2
TXAR	Lajitas Array 0.3nm,0.6s,baz=284,slow=1.8,SNR=2.9	141.47	24	PKhKP		05 53 06.2	
CPUP	Villa Florida 0.0nm,0.3s,baz=226,slow=20,SNR=1.4	145.39	230	PKPbc	PKPbc	05 53 16.3	+0.7

IDC 26 05:34:52.9±8.0, **12.52N**×**93.20E**, **h35**^{km}±62^{km}, **mb4.3**/12, **mb1 4.4**/13, **mb1mx4.3**/21, **ML4.6**/1, **Error ellipse: s-maj=38.6km s-min=16.6km az=52.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 2.2nm,0.3s,baz=237,slow=15,SNR=9.5	8.09	42	Pn	P	05 36 47.6	-3.2
WRA	Warramunga Arr 15nm,0.6s,baz=303,slow=9.2,SNR=10	51.77	128	P	P	05 43 58.0	-1.5
ASAR	Alice Springs 12nm,0.8s,baz=299,slow=7.1,SNR=9.2	53.64	132	P	P	05 44 10.2	-3.3
BRTR	Keskin Array B 2.6nm,0.8s,baz=116,slow=7.1,SNR=3.6	58.76	309	P	P	05 44 47.5	-2.4
STKA	Stephens Creek 3.7nm,0.6s,baz=291,slow=8.1,SNR=4.2	63.99	135	P	P	05 45 23.7	-1.7
FINES	FINESS Array B 1.5nm,0.5s,baz=105,slow=7.3,SNR=5.7	68.21	332	P	P	05 45 49.7	-2.0
ARCES	ARCESS Array B 3.0nm,0.7s,baz=104,slow=7.2,SNR=6.0	70.61	340	P	P	05 46 04.0	-2.3
GERES	GERESS Array B 2.9nm,0.8s,baz=89,slow=6.1,SNR=6.1	73.79	317	P	P	05 46 24.8	-0.7
HFS	Hagfors 1.8nm,0.4s,baz=135,slow=4.2,SNR=7.0	74.01	329	P	P	05 46 25.1	-1.4
FX1	Attu Island--F 15nm,0.6s,baz=298,slow=20,SNR=4.3	74.07	38	P	P	05 46 25.7	-1.3
NOA	NORSAR Array B 1.3nm,0.7s,baz=90,slow=5.7,SNR=2.6	75.26	330	P	P	05 46 32.3	-1.5
ILAR	Eielson Array 1.0nm,0.7s,baz=296,slow=4.6,SNR=8.9	90.81	22	P	P	05 47 51.8	-1.7
INK	Inuvik 0.9nm,0.4s,baz=310,slow=2.8,SNR=9.3	92.81	16	P	P	05 48 01.3	-1.4
CPUP	Villa Florida 0.0nm,0.3s,baz=118,slow=13,SNR=1.2	149.09	239	PKPbc	PKPdf	05 54 37.2	+3.2
ROSC	El Rosal 1.5nm,0.4s,baz=286,slow=22,SNR=4.4	158.75	324	PKPab	PKPab	05 55 22.8	-3.0

IDC 26 05:35:08.1±0.8, **2.97N**×**94.06E**, **mb4.9**/16, **mb1 4.9**/17, **mb1mx4.8**/24, **ML4.7**/1, **Error ellipse: s-maj=25.3km s-min=17.9km az=26.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 1.1nm,0.3s,baz=208,slow=12,SNR=8.7	16.12	17	Pn	P	05 38 55.5	-2.5
JOW	Kunigami 17nm,0.7s,baz=242,slow=12,SNR=3.3	40.45	51	P	P	05 42 47.8	-2.5
WRA	Warramunga Arr 9.5nm,0.8s,baz=305,slow=8.8,SNR=5.9	45.63	122	P	P	05 43 29.4	-3.1
SONM	Songino Array 6.1nm,0.5s,baz=198,slow=8.0,SNR=4.4	45.95	12	P	P	05 43 31.1	-3.5
ASAR	Alice Springs 2.3nm,0.6s,baz=305,slow=6.8,SNR=5.0	46.96	127	P	P	05 43 41.2	-1.7
ZAL	Zalesovo 16nm,0.5s,baz=322,slow=8.8,SNR=6.6	51.37	353	P	P	05 44 14.0	-2.6
CBIJ	Chichi jima 33nm,0.5s,baz=242,slow=21,SNR=2.7	51.86	58	P	P	05 44 19.6	-1.0
BVAR	Borovoye Array 44nm,1.0s,baz=149,slow=8.6,SNR=11	53.60	342	P	P	05 44 31.6	-1.6
KMBO	Kilima Mbogo 5.6nm,0.8s,baz=49,slow=9.5,SNR=8.6	56.93	267	P	P	05 44 54.5	-3.5
BRTR	Keskin Array B 4.8nm,0.7s,baz=118,slow=7.1,SNR=4.3	65.61	313	P	P	05 45 53.4	-2.9
AKASG	Malin Array Be 7.0nm,0.6s,baz=89,slow=4.3,SNR=4.5	71.96	323	P	P	05 46 33.1	-2.3
VRAC	Vranov 3.0nm,0.9s,baz=105,slow=7.9,SNR=4.1	79.59	319	P	P	05 47 19.0	+0.3
ARCES	ARCESS Array B 35nm,1.1s,baz=91,slow=5.0,SNR=9.2	79.83	341	P	P	05 47 17.7	-1.9
DPC	Dobruska-Polom	79.90	321	eP	P	05 47 21.7	+1.3
PRU	Pruhonice	80.99	320	eP	P	05 47 27.7	+1.5
GERES	GERESS Array B 7.7nm,0.8s,baz=129,slow=4.6,SNR=9.8	81.42	319	P	P	05 47 28.1	-0.4
HFS	Hagfors 9.9nm,0.6s,baz=108,slow=4.7,SNR=7.5	82.64	330	P	P	05 47 33.0	-1.5
DAVOX	Davos 17nm,0.6s,baz=60,slow=3.2,SNR=11	83.86	317	P	P	05 47 40.9	-0.2
NOA	NORSAR Array B 4.6nm,0.8s,baz=94,slow=5.4,SNR=6.4	83.95	331	P	P	05 47 39.8	-1.4
LPG	La Plagne 41nm,1.0s	86.01	315	eP	P	05 47 44.6	-7.3
NVAR	Mina Array Bea 1.0nm,0.7s,baz=296,slow=1.8,SNR=2.9	129.10	33	PKP	PKPdf	05 54 18.7	-2.0
PDAR	Pinedale Array 1.3nm,0.7s,baz=124,slow=3.4,SNR=3.1	129.72	23	PKP	PKPdf	05 54 22.1	+0.4
TXAR	Lajitas Array 1.6nm,0.8s,baz=270,slow=1.3,SNR=4.6	143.67	27	PKP	PKPdf	05 54 48.1	+0.5
CPUP	Villa Florida 0.0nm,0.3s,baz=180,slow=19,SNR=1.4	144.04	227	PKP	PKPdf	05 54 47.8	-0.5

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*IDC **26** 05:35:31.4±0.6, 10.69N×91.32E, mb4.7/22, mb1 4.8/23, mb1mx4.7/27, ML4.5/1, Error ellipse: s-maj=25.2km s-min=12.0km az=45.0*

ISC 26 05:35:34.5±0.5, **10.56N**±0.09×**91.3E**±0.1, **h33**^{km}, **n48**, σ**0$\overset{s}{.}$74**/47, **mb4.7**/23, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 1.0nm,0.3s,baz=232,slow=15,SNR=2.8	10.77	42	Pn	P	05 38 05.2	-4.3
PKI	Pulchoki 195nm,0.3s	17.82	343	eP	P	05 39 41.7	+0.1
DMN	Daman 814nm,0.7s	17.94	342	eP	P	05 39 43.3	+0.1
GUN	Gumba 532nm,0.8s	18.01	344	eP	P	05 39 44.0	0.0
KKN	Kakani 236nm,0.5s	18.06	342	eP	P	05 39 44.3	-0.4
GKN	Gorkha 639nm,0.6s	18.46	341	eP	P	05 39 49.7	0.0
KOLN	Koldanda 460nm,0.6s	18.60	338	eP	P	05 39 52.4	+0.9
NDI	New Delhi	22.36	326	eP	P	05 40 31.0	-0.2
NDI				eS	S	05 44 31.0	+1.0
KZA	Kyzart SNR=5.2	34.42	339	P	P	05 42 22.7	+1.7
TKM2	Tokmak 2 SNR=5.8	35.04	340	P	P	05 42 25.9	-0.4
AML	Almayashu SNR=8.1	35.04	337	P	P	05 42 27.9	+1.6
AAK	Ala-Archa SNR=7.0	35.17	338	P	P	05 42 27.9	+0.5
CHMS	Chumysh SNR=6.4	35.40	339	P	P	05 42 30.3	+1.0
EKS2	Erkin-Say SNR=8.6	35.47	337	P	P	05 42 31.1	+1.2
USP	Ospenovka SNR=12	35.73	339	P	P	05 42 32.6	+0.5
JOW	Kunigami 28nm,0.7s,mb5.1,baz=229,slow=14,SNR=4.9	38.38	60	P	P	05 42 54.1	-0.4
JOW	Kunigami	38.38	60	P	P	05 42 54.1	-0.4
SONM	Songino Array 19nm,0.8s,mb4.9,baz=199,slow=8.7,SNR=23	39.26	16	P	P	05 43 01.4	-0.3
ZAL	Zalesovo 5.5nm,0.5s,mb4.6,baz=277,slow=7.3,SNR=4.5	43.58	354	P	P	05 43 36.2	-0.9
BVAR	Borovoye Array 2.6nm,0.5s,mb4.4,baz=138,slow=9.6,SNR=5.7	45.59	342	P	P	05 43 52.1	-1.1
MAT	Matsushiro	49.52	51	P	P	05 44 29.6	+5.4
NWAO	Narrogin (SRO) 17nm,0.8s,mb5.2,baz=317,slow=4.0,SNR=6.2	49.80	151	P	P	05 44 27.3	+0.9
GNI	Garni 4.2nm,0.5s,mb4.7,baz=166,slow=19,SNR=6.6	50.59	314	P	P	05 44 32.5	+0.3
WRA	Warramunga Arr 60nm,0.6s,mb5.7,baz=307,slow=8.3,SNR=29	52.07	126	P	P	05 44 44.2	+0.5
ASAR	Alice Springs 16nm,0.5s,mb5.2,baz=303,slow=6.8,SNR=15	53.76	130	P	P	05 44 56.3	+0.1
BRTR	Keskin Array B 3.7nm,0.8s,mb4.5,baz=127,slow=6.2,SNR=6.2	58.59	310	P	P	05 45 29.8	-0.9
CTA	Charters Tower 26nm,0.8s,mb5.4,baz=295,slow=6.9,SNR=8.9	62.03	119	P	P	05 45 54.9	+0.5
STKA	Stephens Creek 26nm,0.9s,mb5.2,baz=309,slow=6.4,SNR=7.9	63.95	133	P	P	05 46 07.2	+0.2
AKASG	Malin Array Be 8.1nm,1.1s,mb4.7,baz=95,slow=4.3,SNR=9.3	64.34	321	P	P	05 46 07.8	-1.4
IDI	Anoyia 12nm,0.7s,mb5.0,baz=99,slow=6.8,SNR=7.1	64.77	304	P	P	05 46 11.1	-1.1
MLR	Muntele Rosu 35nm,1.2s,mb5.2,baz=54,slow=3.9,SNR=7.3	65.32	315	P	P	05 46 15.4	-0.3
KOLS	Kolonicke sedl	68.37	319	eP	P	05 46 35.4	+0.6
KOLS				e		05 46 59.0	
CRVS	Cervenica-Dubn	68.89	318	eP	P	05 46 42.7	+4.7
FINES	FINESS Array B 4.2nm,0.7s,mb4.5,baz=113,slow=7.3,SNR=5.9	69.06	332	P	P	05 46 37.9	-1.0
VYHS	Vyhne	70.57	318	eP	P	05 46 48.7	+0.4
VYHS				e	pP	05 47 00.2	+1.6
OKC	Ostrava-Krasne	71.16	319	eP	P	05 46 51.7	-0.1
ARCES	ARCESS Array B 2.2nm,0.5s,mb4.4,baz=105,slow=7.1,SNR=6.8	71.82	340	P	P	05 46 55.3	-0.1
VRAC	Vranov 1.5nm,0.7s,mb4.0,baz=252,slow=8.4,SNR=3.6	72.12	318	P	P	05 46 57.1	-0.4
GERES	GERESS Array B 0.6nm,0.5s,mb3.8,baz=103,slow=4.4,SNR=4.9	73.99	318	P	P	05 47 08.9	+0.4
CLL	Collm	74.54	320	P	P	05 47 11.0	-0.7
CLL				e*PP	pP	05 47 24.0	+2.0
HFS	Hagfors 2.6nm,0.5s,mb4.4,baz=104,slow=6.1,SNR=5.9	74.75	330	P	P	05 47 12.1	-0.6
NB2	NORSAR Subarra 1.6nm,0.6s,mb4.1,baz=97,slow=5.0	76.04	330	P	P	05 47 19.6	-0.5
NOA	NORSAR Array B 2.6nm,0.7s,mb4.3,baz=94,slow=5.6,SNR=5.3	76.04	330	P	P	05 47 19.9	-0.2
DAVOX	Davos 6.0nm,0.6s,mb4.7,baz=121,slow=5.9,SNR=5.3	76.54	316	P	P	05 47 23.4	+0.1
ESDC	Sonseca Array 1.4nm,0.6s,mb4.4,baz=64,slow=3.9,SNR=4.9	87.38	310	P	P	05 48 19.9	+0.1
ILAR	Eielson Array 0.3nm,0.6s,mb3.9,baz=323,slow=5.6,SNR=4.1	93.30	21	P	P	05 48 45.6	-1.2
NVAR	Mina Array Bea 2.1nm,0.8s,baz=297,slow=2.0,SNR=5.6	123.96	28	PKP	PKPdf	05 54 32.9	+2.9
TXAR	Lajitas Array 1.5nm,0.8s,baz=279,slow=2.4,SNR=6.8	137.78	20	PKP	PKPdf	05 54 56.2	-0.1

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*IDC **26** 05:35:44.5±0.5, 10.77N×91.32E, mb4.9/26, mb1 4.9/27, mb1mx4.9/30, ML5.2/1, Error ellipse: s-maj=21.1km s-min=11.8km az=42.0*

ISC 26 05:35:47.4±0.4, **10.76N**±0.10×**91.35E**±0.10, **h33**^{km}, **n31**, σ**0$\overset{s}{.}$88**/29, **mb4.9**/26, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 5.9nm,0.3s,baz=236,slow=18,SNR=10	10.61	43	Pn	P	05 38 16.8	-3.5
SONM	Songino Array 20nm,0.9s,mb4.8,baz=206,slow=8.0,SNR=5.5	39.06	16	P	P	05 43 13.4	+0.5
ZAL	Zalesovo 7.0nm,0.8s,mb4.5,baz=308,slow=4.6,SNR=3.5	43.38	354	P	P	05 43 48.3	-0.1
BVAR	Borovoye Array 4.6nm,0.7s,mb4.4,baz=139,slow=7.8,SNR=7.4	45.40	342	P	P	05 44 05.2	+0.5
NWAO	Narrogin (SRO) 49nm,0.7s,mb5.7,baz=310,slow=8.9,SNR=4.3	49.98	151	P	P	05 44 40.1	-0.5
CBIJ	Chichi jima 95nm,0.8s,mb5.9,baz=299,slow=22,SNR=3.2	50.41	64	P	P	05 44 44.4	+0.3
WRA	Warramunga Arr 21nm,0.6s,mb5.2,baz=306,slow=8.1,SNR=6.2	52.17	126	P	P	05 44 56.6	-0.7
ASAR	Alice Springs 26nm,0.8s,mb5.2,baz=309,slow=7.0,SNR=6.8	53.87	130	P	P	05 45 09.1	-0.9
ASF	Jabal al Asfar 15nm,1.1s,mb4.8,baz=52,slow=1.4,SNR=7.0	54.35	302	P	P	05 45 15.0	+1.6
EIL	Elat 9.1nm,0.6s,mb5.0,baz=155,slow=7.5,SNR=6.3	55.62	299	P	P	05 45 22.3	-0.3
BRTR	Keskin Array B 7.7nm,0.8s,mb4.8,baz=126,slow=6.7,SNR=8.4	58.47	310	P	P	05 45 42.0	-0.7
PMG	Port Moresby 15nm,0.8s,mb5.1,baz=328,slow=4.1,SNR=2.8	59.02	108	P	P	05 45 48.0	+1.1
CTA	Charters Tower 13nm,0.8s,mb5.1,baz=308,slow=11,SNR=4.1	62.12	120	P	P	05 46 08.2	+0.3
STKA	Stephens Creek 14nm,0.8s,mb5.1,baz=312,slow=6.4,SNR=3.9	64.08	133	P	P	05 46 20.6	-0.1
AKASG	Malin Array Be 12nm,0.8s,mb5.0,baz=84,slow=4.4,SNR=5.8	64.19	321	P	P	05 46 19.9	-1.1
IDI	Anoyia 26nm,0.7s,mb5.4,baz=104,slow=7.8,SNR=9.4	64.67	304	P	P	05 46 24.8	+0.3
MLR	Muntele Rosu 19nm,0.8s,mb5.2,baz=67,slow=5.3,SNR=4.7	65.19	315	P	P	05 46 28.7	+1.0
FINES	FINESS Array B 7.0nm,0.8s,mb4.7,baz=117,slow=8.5,SNR=5.4	68.88	332	P	P	05 46 51.0	+0.4
ZST	Bratislava	71.55	317	eP	P	05 47 06.4	-0.7
ZST				e		05 47 11.9	
ARCES	ARCESS Array B 6.2nm,0.8s,mb4.6,baz=90,slow=6.1,SNR=5.7	71.63	340	P	P	05 47 07.9	+0.7
GERES	GERESS Array B 7.4nm,1.0s,mb4.6,baz=90,slow=5.3,SNR=7.5	73.85	318	P	P	05 47 19.5	-1.1
KHC	Kasperske Hory	73.94	318	eP	P	05 47 18.9	-2.2
KHC				ex	x	05 47 28.0	
HFS	Hagfors 8.4nm,0.8s,mb4.7,baz=117,slow=6.6,SNR=4.7	74.58	330	P	P	05 47 24.0	-0.6
NOA	NORSAR Array B 3.1nm,0.7s,mb4.3,baz=93,slow=5.8,SNR=4.9	75.87	330	P	P	05 47 32.2	+0.2
FX1	Attu Island--F 27nm,0.6s,mb5.3,baz=69,slow=22,SNR=4.1	76.57	38	P	P	05 47 37.4	+1.3
MAW	Mawson 4.4nm,0.7s,mb4.5,baz=16,slow=7.2,SNR=4.5	80.81	191	P	P	05 47 59.9	+0.8
ILAR	Eielson Array 0.7nm,0.6s,mb4.3,baz=288,slow=4.3,SNR=5.4	93.10	21	P	P	05 48 58.0	-0.8
DBIC	Dimbokro 2.7nm,0.8s,mb4.7,baz=54,slow=8.1,SNR=4.2	94.82	278	P	P	05 49 08.4	+0.5
INK	Inuvik 1.5nm,0.6s,mb4.6,baz=291,slow=2.1,SNR=7.0	94.97	15	P	P	05 49 08.0	+0.6
NVAR	Mina Array Bea 1.1nm,0.7s,baz=342,slow=2.9,SNR=2.8	123.77	28	PKP	PKPdf	05 54 47.3	+4.9
TXAR	Lajitas Array 2.9nm,0.9s,baz=333,slow=5.6,SNR=5.4	137.59	20	PKP	PKPdf	05 55 10.2	+1.3

IDC 26 05:37:25.1±2.9, **5.21N**×**94.66E**, **mb4.3**/8, **mb1 4.4**/8, **mb1mx4.2**/19, **Error ellipse: s-maj=122.0km s-min=54.6km az=85.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LATR	Latur	22.02	308	eP	P	05 42 17.5	-5.5
BRTR	Keskin Array B 2.8nm,0.7s,baz=123,slow=6.6,SNR=5.5	64.56	312	P	P	05 48 04.7	-1.8
AKASG	Malin Array Be 1.2nm,0.4s,baz=86,slow=5.6,SNR=5.2	70.56	322	P	P	05 48 41.3	-2.6
FINES	FINESS Array B 5.2nm,1.0s,baz=104,slow=5.9,SNR=3.3	75.30	332	P	P	05 49 08.7	-2.9
ARCES	ARCESS Array B 1.6nm,0.7s,baz=104,slow=7.4,SNR=3.1	77.93	340	P	P	05 49 25.2	-1.0
GERES	GERESS Array B 2.7nm,0.7s,baz=100,slow=6.0,SNR=3.9	80.15	319	P	P	05 49 37.9	-0.8
HFS	Hagfors 2.3nm,0.6s,baz=104,slow=5.9,SNR=2.8	81.01	330	P	P	05 49 41.5	-1.5
NOA	NORSAR Array B 1.2nm,0.8s,baz=95,slow=5.4,SNR=2.6	82.29	331	P	P	05 49 48.7	-1.0
DAVOX	Davos 4.0nm,0.5s,baz=100,slow=11,SNR=5.4	82.66	316	P	P	05 49 51.3	-0.6
CPUP	Villa Florida 0.0nm,0.4s,baz=204,slow=10,SNR=2.0	145.98	229	PKPbc	PKPbc	05 57 06.5	-1.1

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*IDC **26** 05:38:43.2±0.6, 5.01N×93.58E, mb4.6/18, mb1 4.7/19, mb1mx4.5/25, ML5.0/1, Error ellipse: s-maj=23.4km s-min=17.7km az=57.0*

ISC 26 05:38:46.4±0.6, **5.0N**±0.1×**93.6E**±0.1, **h33**^{km}, **n23**, σ**0$\overset{s}{.}$59**/19, **mb4.5**/18, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr 2.0nm,0.3s,baz=203,slow=14,SNR=5.0	14.38	21	Pn	P	05 42 03.4	-6.4
SONM	Songino Array 3.9nm,0.7s,mb4.2,baz=190,slow=8.3,SNR=3.6	44.09	12	P	P	05 46 53.5	+0.3
SONM	 2.3nm,0.5s,baz=198,slow=5.1,SNR=4.7			PcP	PcP	05 48 38.5	-0.1
WRA	Warramunga Arr 4.6nm,0.6s,mb4.6,baz=302,slow=8.0,SNR=4.9	47.07	123	P	P	05 47 16.5	-0.7
ZAL	Zalesovo 4.0nm,0.5s,mb4.8,baz=277,slow=4.9,SNR=3.3	49.34	353	P	P	05 47 35.0	+0.6
BVAR	Borovoye Array 3.6nm,0.8s,mb4.4,baz=135,slow=10,SNR=4.2	51.56	342	P	P	05 47 50.8	-0.5
KMBO	Kilima Mbogo 2.4nm,0.9s,mb4.2,baz=78,slow=10,SNR=3.6	56.62	265	P	P	05 48 29.1	+0.1
CTA	Charters Tower 5.2nm,0.9s,mb4.6,baz=247,slow=6.7,SNR=3.3	57.40	118	P	P	05 48 34.0	-0.4
BRTR	Keskin Array B 1.7nm,0.8s,mb4.1,baz=135,slow=6.7,SNR=3.5	63.94	312	P	P	05 49 17.2	-1.5
IDI	Anoyia 11nm,0.7s,mb4.9,baz=86,slow=4.4,SNR=5.1	69.80	306	P	P	05 49 55.6	-0.1
MLR	Muntele Rosu 5.3nm,0.7s,mb4.6,baz=131,slow=4.4,SNR=3.5	70.88	316	P	P	05 50 02.1	0.0
FINES	FINESS Array B 2.8nm,0.6s,mb4.4,baz=117,slow=8.5,SNR=4.0	75.02	333	P	P	05 50 25.8	-0.3
MAW	Mawson 1.9nm,0.7s,mb4.1,baz=354,slow=9.2,SNR=3.8	75.60	192	P	P	05 50 30.1	+0.7
ARCES	ARCESS Array B 7.6nm,0.9s,mb4.6,baz=100,slow=6.1,SNR=12	77.80	340	P	P	05 50 41.8	+0.1
GERES	GERESS Array B 2.5nm,0.7s,mb4.3,baz=104,slow=5.5,SNR=5.7	79.63	319	P	P	05 50 52.4	+0.3
FX1	Attu Island--F 11nm,0.5s,mb5.0,baz=114,slow=20,SNR=2.3	79.75	37	P	P	05 50 53.6	+1.0
HFS	Hagfors 4.2nm,0.7s,mb4.5,baz=101,slow=7.6,SNR=4.4	80.69	330	P	P	05 50 57.1	-0.4
NOA	NORSAR Array B 2.0nm,0.7s,mb4.1,baz=95,slow=5.3,SNR=3.4	81.99	331	P	P	05 51 03.8	-0.5
DAVOX	Davos 9.9nm,0.5s,mb5.0,baz=131,slow=6.6,SNR=13	82.11	316	P	P	05 51 05.7	+0.5
DBIC	Dimbokro 1.1nm,0.7s,mb4.5,baz=48,slow=12,SNR=2.5	97.80	277	P	P	05 52 21.1	+0.6
PDAR	Pinedale Array 0.8nm,0.8s,baz=45,slow=4.2,SNR=4.0	128.04	22	PKP	PKPdf	05 57 51.5	+2.0
CPUP	Villa Florida 0.0nm,0.3s,baz=354,slow=19,SNR=1.6	145.04	230	PKPbc	PKPbc	05 58 22.1	+0.8
LVC	Limon Verde 1.6nm,0.6s,baz=239,slow=2.7,SNR=5.6	155.65	222	PKPab	PKPab	05 59 07.1	+1.1
LPAZ	La Paz 2.1nm,0.7s,baz=129,slow=3.8,SNR=5.9	158.85	236	PKPab	PKPab	05 59 20.2	+0.3

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*IDC **26** 05:41:15.2±0.7, 3.73N×96.20E, mb4.4/15, mb1 4.5/16, mb1mx4.4/22, Error ellipse: s-maj=29.5km s-min=17.4km az=58.0*

ISC 26 05:41:18.7±0.6, **3.8N**±0.1×**96.3E**±0.1, **h33**^{km}, **n17**, σ**0$\overset{s}{.}$78**/16, **mb4.3**/15, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.79	10	Pn	P	05 44 46.2	-1.2

	baz=231,slow=13,SNR=2.4						
WRA	**Warramunga Arr**	44.19	124	P	P	05 49 27.0	+0.3
	5.3nm,0.6s,mb4.5,baz=304,slow=8.9,SNR=5.2						
SONM	**Songino Array**	44.72	10	P	P	05 49 31.2	+0.7
	3.8nm,0.4s,mb4.5,baz=193,slow=9.2,SNR=11						
ASAR	**Alice Springs**	45.69	129	P	P	05 49 38.1	-0.5
	1.4nm,0.5s,mb4.2,baz=308,slow=7.2,SNR=3.5						
ZAL	**Zalesovo**	50.86	351	P	P	05 50 19.1	+0.8
	4.8nm,0.5s,mb4.7,baz=300,slow=4.3,SNR=5.8						
BVAR	**Borovoye Array**	53.52	341	P	P	05 50 38.6	+0.4
	3.3nm,0.5s,mb4.5,baz=145,slow=12,SNR=6.9						
BRTR	**Keskin Array B**	66.72	312	P	P	05 52 07.7	-1.1
	2.4nm,0.8s,mb4.3,baz=117,slow=7.2,SNR=5.9						
IDI	**Anoyia**	72.66	306	P	P	05 52 46.2	+0.9
	2.3nm,0.6s,mb4.3,baz=161,slow=12,SNR=2.7						
AKASG	**Malin Array Be**	72.67	322	P	P	05 52 43.9	-1.1
	0.4nm,0.3s,mb3.8,baz=89,slow=4.5,SNR=5.1						
MAW	**Mawson**	75.03	193	P	P	05 52 58.0	-0.4
	1.8nm,0.7s,mb4.1,baz=326,slow=8.7,SNR=3.4						
KOLS	**Kolonicke sedl**	76.67	319	*e*	pP	05 53 18.7	+0.2
FINES	**FINESS Array B**	77.29	332	P	P	05 53 10.2	-1.2
	2.2nm,0.7s,mb4.2,baz=88,slow=4.4,SNR=7.1						
FX1	**Attu Island--F**	79.05	37	P	P	05 53 21.7	+0.5
	17nm,0.6s,mb5.2,baz=273,slow=22,SNR=3.5						
ARCES	**ARCESS Array B**	79.80	340	P	P	05 53 25.2	+0.2
	2.3nm,0.7s,mb4.2,baz=100,slow=7.1,SNR=7.3						
GERES	**GERESS Array B**	82.28	319	P	P	05 53 38.6	+0.2
	0.8nm,0.6s,mb3.8,baz=104,slow=4.0,SNR=3.2						
HFS	**Hagfors**	83.04	330	P	P	05 53 43.0	+1.1
	2.3nm,0.7s,mb4.3,baz=90,slow=4.3,SNR=2.6						
DAVOX	**Davos**	84.80	316	P	P	05 53 51.7	+0.5
	3.4nm,0.8s,mb4.6,baz=160,slow=5.1,SNR=3.3						

BJI ***26*** *05:42:47.7, 5.32N×94.13E, h43^{km}, mb5.3*

MOS ***26*** *05:42:48.0±0.8, 5.55N×94.36E, h33^{km}, mb5.2/27, Error ellipse: s-maj=12.9km s-min=7.2km az=118.8*

NEIC ***26*** *05:42:49.3±0.2, 5.49N×94.29E, h30^{km}, mb5.1/29, Error ellipse: s-maj=7.1km s-min=4.9km az=215.0*

IDC ***26*** *05:42:51.2±3.8, 5.55N×94.32E, h45^{km}±35^{km}, mb4.7/30, mb1 4.7/31, mb1mx4.7/33, ML4.4/1, Error ellipse: s-maj=16.6km s-min=10.2km az=38.0*

ISC 26 05:42:47.7±3.4**, 5.46N**±0.07×**94.29E**±0.06**, h33**^{km}±29^{km}**, h39**^{km}±5.7^{km}**:pP-P, n160,** σ0^{s}**84**/142**, mb5.1**/72**, 10C-6D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	13.70	19	*e*P		05 46 06.6	
CMAR	**Chiang Mai Arr**	13.70	19	P	P	05 46 01.6	-0.4
	0.6nm,0.3s,baz=225,slow=14,SNR=3.8						
CMAR	**Chiang Mai Arr**	13.70	19	P	P	05 46 01.6	-0.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
QIZ	**Qiongzhong**	20.30	47	P	P	05 47 24.8	+1.3
KMI	**Kunming**	21.17	22	*e*P	P	05 47 34.8	+2.3
KMI				AMB	AMB		
	comp=Z,81nm,1.1s,mb5.0						
GYA	**Guiyang**	24.00	28	⇑*i*P	P	05 48 02.0	+1.6
GYA				AMB	AMB		
	comp=Z,330nm,0.7s,mb5.9						
LSA	**Lhasa**	24.30	353	P	P	05 48 01.5	-1.8
LSA	**Lhasa**	24.30	353	*e*P	P	05 48 04.8	+1.5
	comp=Z,236nm,1.0s,mb5.6						
CD2	**Chengdu**	26.84	18	P	P	05 48 27.0	-0.3
TGY	**Tagaytay City**	27.60	70	P	P	05 48 35.0	+0.7
	comp=Z,148nm,0.4s,mb6.0,baz=222,slow=3.6,SNR=6.8						
TGY	**Tagaytay City**	27.60	70	P	P	05 48 35.0	+0.6
TGY				pmax	pmax		
	comp=Z,148nm,0.4s						
ENH	**Enshi**	28.54	28	*e*P	P	05 48 42.1	-0.5
	comp=Z,62nm,0.7s,mb5.5						
LZH	**Lanzhou**	31.72	15	*e*P	P	05 49 10.5	-0.3
LZH				AMB	AMB		
	comp=Z,142nm,1.5s,mb5.6						
GTA	**Gaotai**	34.17	8	⇑*i*P	P	05 49 31.8	-0.2
GTA				AP	pP	05 49 41.3	-0.4
GTA				XP	sP	05 49 45.0	-1.0
GTA				AMB	AMB		
	comp=Z,54nm,0.9s,mb5.5						
NJ2	**Nanjing**	35.04	38	*e*P	P	05 49 40.5	+0.9
NJ2				AMB	AMB		
	comp=Z,190nm,0.6s,mb6.2						
HHC	**Hu-ho-hao-te**	38.49	21	*e*P	P	05 50 10.0	+1.5
HHC				AP	pP	05 50 19.5	+1.2
HHC				XP	sP	05 50 22.5	0.0
HHC				AMB	AMB		
	comp=Z,73nm,0.9s,mb5.4						
WMQ	**Urumqi**	38.65	352	P	P	05 50 11.5	+1.7
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.5						
JOW	**Kunigami**	38.74	53	P	P	05 50 12.4	+1.8
	comp=Z,48nm,0.7s,mb5.3,baz=237,slow=6.1,SNR=9.2						
BJT	**Baijiatuau**	39.65	27	*e*P	P	05 50 19.7	+1.6
	comp=Z,132nm,1.2s,mb5.5						
BJI	**Beijing**	39.67	27	P	P	05 50 19.8	+1.5
BJI				AMB	AMB		
	comp=Z,79nm,1.1s,mb5.4						
AAK	**Ala-Archa**	40.97	338	*e*P	P	05 50 29.6	+0.5
	comp=Z,18nm,0.8s,mb4.7						
DL2	**Dalian**	41.49	33	P	P	05 50 35.3	+1.9
DL2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.3						
MKAR	**Makanchi Array**	42.47	348	*i* P	P	05 50 41.7	+0.4
MKAR				pmax	pmax		
	comp=Z,30nm,0.7s						
SONM	**Songino Array**	43.48	12	P	P	05 50 48.9	-0.7
	comp=Z,38nm,0.8s,mb5.2,baz=198,slow=7.8,SNR=39						
SONM				PcP	PcP	05 52 36.9	-0.8
	comp=Z,2.7nm,0.5s,baz=194,slow=3.9,SNR=4.8						
ULN	**Ulaanbaatar**	43.65	12	*e*P	P	05 50 50.8	-0.2
	comp=Z,41nm,0.9s,mb5.2						
SNY	**Shenyang**	44.63	31	⇑P	P	05 50 59.0	+0.1
SNY				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
ZAK	**Zakamensk**	45.41	8	⇓*e*P	P	05 51 04.7	-0.3
ZAK				*e*		05 52 43.1	
TLY	**Talaya**	46.73	8	P	P	05 51 16.9	+1.6
	comp=Z,146nm,0.8s,mb6.0,SNR=9.5						
TLY	**Talaya**	46.73	8	*e*P	P	05 51 15.9	+0.6
TLY				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
WRA	**Warramunga Arr**	46.77	124	P	P	05 51 15.5	-0.7
	comp=Z,26nm,0.8s,mb5.2,baz=296,slow=12,SNR=27						
WRA	**Warramunga Arr**	46.77	124	P	P	05 51 15.5	-0.7
WRA				pmax	pmax		
	comp=Z,26nm,0.9s						
WRAB	**Tennant Creek**	46.78	124	*e*P	P	05 51 16.8	+0.6
	comp=Z,75nm,0.7s,mb5.7						
CN2	**Changchun**	47.00	31	*e*P	P	05 51 18.3	+0.7
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
ASAR	**Alice Springs**	48.28	128	P	P	05 51 28.3	+0.3
	comp=Z,13nm,0.6s,mb5.1,baz=306,slow=7.6,SNR=22						
ZAL	**Zalesovo**	48.95	353	P	P	05 51 32.4	-0.3
	comp=Z,31nm,0.7s,mb5.4,baz=300,slow=5.7,SNR=31						
NVS	**Novosibirsk**	50.04	352	*i* P	P	05 51 40.1	-1.0
NVS				*i* S	S	05 58 42.6	-5.9
NVS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.6						
NVS				pmax	pmax		
	comp=N,29nm,0.8s						
NVS				smax			
	comp=N,33nm,1.3s						
NVS				smax			
	comp=E,110nm,2.2s						
CBIJ	**Chichi jima**	50.37	59	P	P	05 51 43.6	-0.4
	comp=E,45nm,0.7s,mb5.6,baz=265,slow=18,SNR=3.1						
MAT	**Matsushiro**	50.69	46	P	P	05 51 43.2	-3.1
MAT	**Matsushiro**	50.69	46	*e*P	P	05 51 43.0	-3.3
BVA0	**Borovoye Array**	51.31	342	P	P	05 51 50.4	-0.3
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
BVAR	**Borovoye Array**	51.31	342	P	P	05 51 49.9	-0.8
	comp=Z,21nm,0.8s,mb5.1,baz=143,slow=7.4,SNR=24						
BOD	**Bodaibo**	54.46	13	*e*P	P	05 52 12.7	-1.4
PMG	**Port Moresby**	54.72	105	P	P	05 52 16.0	-0.6
	comp=Z,19nm,0.6s,mb5.3,baz=291,slow=4.3,SNR=8.6						
PMG	**Port Moresby**	54.72	105	P	P	05 52 16.0	-0.6
PMG				pmax	pmax		
	comp=Z,19nm,0.6s						
GNI	**Garni**	56.23	315	P	P	05 52 27.4	+0.2
	comp=Z,2.1nm,0.3s,mb4.6,baz=189,slow=15,SNR=3.5						
GNI	**Garni**	56.23	315	P	P	05 52 27.4	+0.2
GNI				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CTA	**Charters Tower**	57.02	118	P	P	05 52 32.5	-0.6
	comp=Z,11nm,1.0s,mb4.8,baz=281,slow=8.8,SNR=6.1						
CTA	**Charters Tower**	57.02	118	P	P	05 52 32.5	-0.6
CTA				pmax	pmax		
	comp=Z,11nm,1.0s						
CTAO	**Charters Tower**	57.02	118	*e*P	P	05 52 33.0	-0.1
	comp=Z,23nm,1.1s,mb5.1						
KMBO	**Kilima Mbogo**	57.34	265	P	P	05 52 36.5	+1.1
	comp=Z,15nm,1.0s,mb5.0,baz=59,slow=9.7,SNR=23						
KMBO	**Kilima Mbogo**	57.34	265	P	P	05 52 36.5	+1.1
KMBO				pmax	pmax		
	comp=Z,15nm,1.0s						
ARU	**Arti**	58.16	338	*e*P	P	05 52 39.1	-1.5
ARU	**Arti**	58.16	338	*e*P	P	05 52 39.3	-1.3
	comp=Z,28nm,1.0s,mb5.2						
STKA	**Stephens Creek**	58.35	133	P	P	05 52 42.0	-0.3
	comp=Z,8.7nm,0.8s,mb4.9,baz=314,slow=5.0,SNR=9.2						
STKA	**Stephens Creek**	58.35	133	P	P	05 52 42.0	-0.3
YSS	**Yuzh-Sakhalins**	58.60	37	*e*P	P	05 52 43.0	-0.8
YSS				*e*		05 52 56.0	
YSS				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.4						
YSS	**Yuzh-Sakhalins**	58.60	37	*e*P	P	05 52 42.7	-1.0
	comp=Z,89nm,1.2s,mb5.7						
YSS				*e*		05 52 56.4	
KIV	**Kislovodsk**	59.21	319	*e*P	P	05 52 46.8	-1.3
KIV				pmax	pmax		
	comp=N,10.0nm,1.2s						
KIV				pmax	pmax		
	comp=E,12nm,1.2s						
KIV				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.0						
KIV	**Kislovodsk**	59.21	319	P	P	05 52 46.0	-2.1
	comp=Z,15nm,0.8s,mb5.1						
ASF	**Jabal al Asfar**	59.67	304	P	P	05 52 52.5	+1.1
	comp=Z,5.0nm,0.8s,mb4.6,baz=305,slow=4.7,SNR=5.2						
EIL	**Elat**	60.77	301	P	P	05 52 59.4	+0.5
	comp=Z,5.4nm,0.6s,mb4.8,baz=58,slow=12,SNR=3.8						
EIL	**Elat**	60.77	301	P	P	05 52 59.4	+0.5
BRTR	**Keskin Array B**	64.12	312	P	P	05 53 20.1	-1.0
	comp=Z,1.8nm,0.5s,mb4.3,baz=124,slow=6.6,SNR=5.8						
BRTR	**Keskin Array B**	64.12	312	P	P	05 53 20.1	-1.0
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
OBN	**Obninsk**	67.49	328	⇓*i*P	P	05 53 41.8	-0.6
OBN				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.1						
SKR	**Severo-Kuril's**	68.17	37	*e*P	P	05 53 43.3	-3.4
LSZ	**Lusaka**	68.62	251	*e*P	P	05 53 50.8	+0.7
	comp=Z,19nm,1.0s,mb5.0						
MA2	**Magadan**	68.83	27	*e*P	P	05 53 50.5	-0.1
MA2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
IDI	**Anoyia**	70.07	305	P	P	05 53 58.5	-0.2
	comp=Z,7.9nm,0.6s,mb4.8,baz=96,slow=5.5,SNR=8.5						
AKASG	**Malin Array Be**	70.14	322	P	P	05 53 57.5	-1.3
	comp=Z,4.9nm,0.7s,mb4.6,baz=89,slow=4.3,SNR=12						
AKASG	**Malin Array Be**	70.14	322	P	P	05 53 57.5	-1.3
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MLR	**Muntele Rosu**	71.00	316	P	P	05 54 04.7	+0.6
	comp=Z,11nm,0.9s,mb4.8,baz=89,slow=3.4,SNR=7.3						
MLR	**Muntele Rosu**	71.00	316	P	P	05 54 04.7	+0.6
MLR				pmax	pmax		
	comp=Z,11nm,0.9s						
RZN	**Rozhen**	71.17	312	*e*P	P	05 54 05.0	-0.2
KKB	**Krupnik**	72.40	312	*e*P	P	05 54 12.0	-0.5
VTS	**Vitosha**	72.42	313	*e*P	P	05 54 12.0	-0.6
KOLS	**Kolonicke sedl**	74.11	319	*i* P	P	05 54 23.9	+1.5
KOLS				*e*		05 55 18.3	
CRVS	**Cervenica-Dubn**	74.64	319	*e*P	P	05 54 27.2	+1.7
CRVS				*e*		05 55 23.4	
FINES	**FINESS Array B**	74.91	332	P	P	05 54 26.0	-0.8
	comp=Z,6.9nm,0.4s,mb4.9,baz=105,slow=5.8,SNR=30						
FINES	**FINESS Array B**	74.91	332	P	P	05 54 26.0	-0.8
FINES				pmax	pmax		
	comp=Z,7.0nm,0.4s						
KAF	**Kangasniemi**	75.00	333	*e*p	P	05 54 27.3	0.0
	comp=Z,4.5nm,0.5s,mb4.7,baz=104,slow=5.4						
KAF	**Kangasniemi**	75.00	333	*e*P	P	05 54 27.3	0.0
KAF				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
OJC	**Ojcow**	75.91	320	*e*P	P	05 54 33.2	+0.4
MAW	**Mawson**	76.21	192	P	P	05 54 35.5	+1.4
	comp=Z,6.3nm,1.1s,mb4.5,baz=332,slow=8.6,SNR=3.4						
MAW	**Mawson**	76.21	192	P	P	05 54 35.5	+1.4
MAW				pmax	pmax		
	comp=Z,6.0nm,1.1s						
VYHS	**Vyhne**	76.30	318	*i* P	P	05 54 35.3	+0.3
VYHS				*e*		05 55 30.1	
OKC	**Ostrava-Krasne**	76.92	320	*e*P	P	05 54 39.1	+0.6
OKC				*e*pP	pP	05 54 53.7	+4.9
ZST	**Bratislava**	77.41	318	*e*P	P	05 54 41.7	+0.4
ZST				*e*		05 55 37.5	
ARCES	**ARCESS Array B**	77.58	340	P	P	05 54 41.7	-0.1
	comp=Z,5.6nm,0.8s,mb4.5,baz=95,slow=6.3,SNR=7.5						
ARCES	**ARCESS Array B**	77.58	340	P	P	05 54 41.7	-0.1
ARCES				pmax	pmax		
	comp=Z,6.0nm,0.8s						
VRAC	**Vranov**	77.86	319	P	P	05 54 43.5	-0.2
	comp=Z,3.7nm,0.9s,mb4.3,baz=104,slow=5.0,SNR=6.9						
VRAC	**Vranov**	77.86	319	P	P	05 54 43.5	-0.2
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.9s						
DPC	**Dobruska-Polom**	78.14	320	*e*P	P	05 54 46.0	+0.8
KSP	**Ksiaz**	78.21	321	⇑*e*P	P	05 54 46.6	+1.0
UPC	**Upice**	78.36	320	*e*P	P	05 54 47.3	+0.9
ARSA	**Arzberg**	78.39	317	⇑*i*P	P	05 54 47.6	+0.9
	comp=Z,19nm,1.2s,mb4.9						
FX1	**Attu Island--F**	78.96	37	P	P	05 54 49.4	-0.3
	comp=Z,48nm,0.7s,mb5.5,baz=335,slow=0.5,SNR=7.1						
FX1	**Attu Island--F**	78.96	37	P	P	05 54 49.4	-0.3
FX1				pmax	pmax		
	comp=Z,48nm,0.7s						
PRU	**Pruhonice**	79.25	320	*e*P	P	05 54 52.1	+0.8
MOA	**Molln**	79.28	318	⇓*i*P	P	05 54 51.7	+0.2
	comp=Z,11nm,1.2s,mb4.7						
BRG	**Berggiesshubel**	79.70	321	*e*P	P	05 54 54.0	+0.3
BRG				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
BRG	**Berggiesshubel**	79.70	321	*e*P	P	05 54 54.0	+0.3
	comp=Z,15nm,1.0s,mb4.9						
GEC2	**GERESS Array S**	79.72	319	*e*P	P	05 54 54.9	+1.0
GEC2				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
GEC2	**GERESS Array S**	79.72	319	*e*P	P	05 54 54.9	+1.0
	comp=Z,26nm,0.9s,mb5.2						
GERES	**GERESS Array B**	79.72	319	P	P	05 54 54.0	+0.1
	comp=Z,14nm,0.8s,mb5.0,baz=90,slow=5.3,SNR=32						
GERES	**GERESS Array B**	79.72	319	P	P	05 54 54.0	+0.1
GERES				pmax	pmax		
	comp=Z,14nm,0.8s						
KHC	**Kasperske Hory**	79.82	319	*e*P	P	05 54 54.4	0.0
KBA	**Koelnbreinsper**	79.86	317	⇑*i*P	P	05 54 55.9	+1.2
	comp=Z,17nm,1.2s,mb4.8						
RUE	**Ruedersdorf**	79.91	322	*e*P	P	05 54 55.2	+0.4
	comp=Z,34nm,0.6s,mb5.5						
WET	**Wettzell**	80.28	319	*e*P	P	05 54 57.8	+0.9
CLL	**Collm**	80.32	321	⇓*i*P	P	05 54 57.6	+0.6
CLL				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
CLL	**Collm**	80.32	321	⇓*i*P	P	05 54 57.6	+0.6
	comp=Z,19nm,1.2s,mb4.9						
CLL	**Collm**	80.32	321	⇓P	P	05 54 57.6	+0.6
	comp=Z,logA/T=1.2,mb4.9						
HFS	**Hagfors**	80.61	330	P	P	05 54 58.0	-0.4
	comp=Z,5.4nm,0.5s,mb4.7,baz=124,slow=5.3,SNR=18						
HFS	**Hagfors**	80.61	330	P	P	05 54 58.0	-0.4
HFS				pmax	pmax		
	comp=Z,5.0nm,0.5s						
NKC	**Novy Kostel**	80.61	320	*e*P	P	05 54 59.4	+0.8
WTTA	**Wattenberg**	81.03	317	⇑*i*P	P	05 55 01.2	+0.3
	comp=Z,24nm,1.2s,mb5.0						
WATA	**Walderalm**	81.08	317	⇑*i*P	P	05 55 01.1	0.0
	comp=Z,14nm,1.1s,mb4.8						
MOX	**Moxa**	81.16	320	*e*P	P	05 55 02.4	+0.9
MOX	**Moxa**	81.16	320	*i* P	P	05 55 02.4	+0.9
FUR	**Furstenfeldbru**	81.30	318	*e*P	P	05 55 02.7	+0.4
SQTA	**Sankt Quirin**	81.32	317	⇑*i*P	P	05 55 02.7	+0.3
	comp=Z,11nm,0.7s,mb4.9						
GRA1	**Grafenberg Arr**	81.38	319	*e*P	P	05 55 03.9	+1.2
	comp=Z,43nm,1.2s,mb5.2						
GRF	**Grafenberg Arr**	81.38	319	*e*P	P	05 55 03.9	+1.2
GRF				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.2						
GRF	**Grafenberg Arr**	81.38	319	*e*P	P	05 55 03.9	+1.2
	comp=Z,43nm,1.2s,mb5.2						
MOTA	**Moosalm**	81.40	317	⇑*i*P	P	05 55 03.0	+0.2
	comp=Z,9.6nm,0.8s,mb4.8						
NB2	**NORSAR Subarra**	81.90	331	P	P	05 55 04.8	-0.3
	comp=Z,1.9nm,0.6s,mb4.2,baz=98,slow=5.3						
NOA	**NORSAR Array B**	81.90	331	P	P	05 55 04.3	-0.8
	comp=Z,3.1nm,0.7s,mb4.3,baz=94,slow=5.5,SNR=6.3						
NOA	**NORSAR Array B**	81.90	331	P	P	05 55 04.3	-0.8
NOA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NOA	**NORSAR Array B**	81.90	331	P	P	05 55 04.3	-0.8
CLZ	**Clausthal**	81.98	321	*e*P	P	05 55 06.6	+0.9
	comp=Z,16nm,0.9s,mb5.0						
BSEG	**Bad Segeberg**	82.07	324	*e*P	P	05 55 07.1	+1.0
BFO	**Black Forest**	83.27	318	*e*P	P	05 55 12.9	+0.5
BFO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
BFO	**Black Forest**	83.27	318	*e*P	P	05 55 12.9	+0.5
	comp=Z,10.0nm,0.9s,mb4.8						
LPG	**La Plagne**	84.42	315	*e*P	P	05 55 19.0	+0.7
	comp=Z,43nm,1.1s,mb5.2						
URZ	**Urewera**	87.73	129	P	P	05 55 34.6	0.0
	comp=Z,7.3nm,0.8s,mb5.0,baz=178,slow=2.9,SNR=3.8						
ESDC	**Sonseca Array**	92.88	310	P	P	05 55 59.2	+0.5
	comp=Z,1.5nm,0.7s,mb4.5,baz=49,slow=3.6,SNR=5.2						
ILAR	**Eielson Array**	96.91	22	P	P	05 56 16.2	-0.3
	comp=Z,0.9nm,0.5s,mb4.5,baz=297,slow=3.4,SNR=22						
ILAR	**Eielson Array**	96.91	22	P	P	05 56 16.2	-0.3
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
INK	**Inuvik**	99.26	16	P	P	05 56 27.5	+0.5
	comp=Z,6.0nm,1.1s,mb5.0,baz=279,slow=6.6,SNR=3.9						
INK	**Inuvik**	99.26	16	P	P	05 56 27.5	+0.5
INK				pmax	pmax		
	comp=Z,6.0nm,1.1s						
INK	**Inuvik**	99.26	16	P	P	05 56 27.5	+0.5
YKA	**Yellowknife Ar**	108.73	14	PP	PP	06 01 31.3	-13
	comp=Z,0.9nm,0.8s,baz=333,slow=7.7,SNR=5.1						
SCHQ	**Schefferville**	117.90	348	PKP	PKPdf	06 01 32.5	+1.6
	comp=Z,1.6nm,0.7s,baz=58,slow=9.0,SNR=2.8						
SCHQ	**Schefferville**	117.90	348	PKP	PKPdf	06 01 32.5	+1.6
YBH	**Yreka Blue Hor**	122.17	32	PKP	PKPdf	06 01 42.8	+3.3
	comp=Z,3.0nm,1.0s,baz=151,slow=1.9,SNR=2.6						
YBH	**Yreka Blue Hor**	122.17	32	PKIKP	PKPdf	06 01 42.8	+3.3
YBH				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ULM	**Lac du Bonnet**	123.83	8	PKP	PKPdf	06 01 44.6	+2.1
	comp=Z,3.2nm,0.9s,baz=279,slow=0.6,SNR=6.3						
NVAR	**Mina Array Bea**	126.89	32	PKP	PKPdf	06 01 52.0	+3.2
	comp=Z,3.7nm,0.9s,baz=333,slow=1.6,SNR=14						
PDAR	**Pinedale Array**	127.35	22	PKP	PKPdf	06 01 51.5	+1.9
	comp=Z,3.7nm,0.9s,baz=25,slow=1.3,SNR=15						
ANMO	**Albuquerque**	135.31	24	PKP	PKPdf	06 02 07.1	+2.3
	comp=Z,2.6nm,0.7s,baz=254,slow=3.0,SNR=7.0						
TXAR	**Lajitas Array**	141.34	26	PKhKP		06 02 12.0	
	comp=Z,0.9nm,0.6s,baz=340,slow=1.0,SNR=6.0						
CPUP	**Villa Florida**	145.86	229	PKPbc	PKPbc	06 02 26.5	+1.8
	comp=Z,0.0nm,0.3s,baz=359,slow=15,SNR=1.9						
SJG	**San Juan**	149.65	321	PKPbc	PKPdf	06 02 36.8	+6.6
	comp=Z,6.8nm,0.7s,baz=48,slow=12,SNR=3.0						
SJG	**San Juan**	149.65	321	PKP2	PKPab	06 02 36.8	-5.4
SJG				pmax	pmax		
	comp=Z,7.0nm,0.7s						
PCRV	**Puerto La Cruz**	153.89	306	PKPbc	PKPdf	06 02 45.7	+9.2
	comp=Z,11nm,1.1s,baz=156,slow=16,SNR=3.0						
SDV	**Santo Domingo**	159.29	313	PKP	PKPdf	06 02 44.4	+0.9
	comp=Z,4.1nm,1.1s,baz=319,slow=5.9,SNR=3.6						
SDV				PKPab	PKPab	06 03 21.6	-1.6
	comp=Z,2.3nm,0.8s,baz=38,slow=4.7,SNR=3.1						
LPAZ	**La Paz**	159.68	237	PKPab	PKPab	06 03 25.7	+0.9
	comp=Z,2.9nm,0.8s,baz=88,slow=6.5,SNR=5.1						
LPAZ	**La Paz**	159.68	237	PKP2	PKPab	06 03 25.7	+0.9
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
ROSC	**El Rosal**	164.70	312	PKP	PKPdf	06 02 52.0	+3.0
	comp=Z,4.2nm,0.8s,baz=157,slow=3.2,SNR=5.9						

IDC ***26*** *05:43:57.3±0.7, 8.64N×93.79E, mb4.9/14, mb1 5.0/14, mb1mx4.8/24, Error ellipse: s-maj=33.3km s-min=15.1km az=53.0*

ISC 26 05:43:58.1±0.4**, 8.7N**±0.1×**93.6E**±0.1**, h33**^{km}**, n56,** σ1^{s}**50**/44**, mb5.0**/34**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTH	**Pithoragarh**	24.23	331	*e*P	P	05 49 14.2	+1.1
SONM	**Songino Array**	40.49	13	P	P	05 51 39.1	+3.7
	14nm,1.1s,mb4.6,baz=191,slow=6.3,SNR=3.9						
ZAL	**Zalesovo**	45.66	353	P	P	05 52 18.4	+1.0
	24nm,1.0s,mb5.1,baz=298,slow=9.6,SNR=6.4						
NWAO	**Narrogin (SRO)**	47.14	153	P	P	05 52 30.4	+1.1
	108nm,0.8s,mb5.8,baz=317,slow=9.3,SNR=22						
QRN	**Al-Qurain**	47.24	301	*e*P	P	05 52 31.2	+1.0
QRN				AMb	AMB	05 52 38.0	
	comp=Z,62nm,0.7s,mb5.7						
RDF	**Al-Radifah**	47.60	301	*e*P	P	05 52 33.0	-0.1
RDF				AMb	AMB	05 52 43.5	
	comp=Z,96nm,0.5s,mb6.1						
UMR	**Umm Al-Rimmam**	47.63	302	*e*P	P	05 52 33.1	-0.1
UMR				AMb	AMB	05 52 46.5	
	comp=Z,44nm,0.6s,mb5.6						
MIB	**Mutribah**	48.02	302	*e*P	P	05 52 35.2	-1.1
MIB				AMb	AMB	05 52 36.6	
	comp=Z,57nm,0.7s,mb5.8						
BVAR	**Borovoye Array**	48.03	341	P	P	05 52 37.2	+1.2
	comp=Z,9.5nm,0.7s,mb4.9,baz=129,slow=9.2,SNR=3.7						
RST	**Umm Al-Ruwaisa**	48.22	302	*e*P	P	05 52 37.5	-0.3
RST				AMb	AMB	05 52 42.4	
	comp=Z,74nm,0.7s,mb5.8						
WRA	**Warramunga Arr**	49.21	126	P	P	05 52 44.6	-0.9
	comp=Z,8.9nm,0.6s,mb5.0,baz=306,slow=8.5,SNR=2.7						
ASAR	**Alice Springs**	50.88	130	P	P	05 52 57.6	-0.7
	comp=Z,14nm,0.9s,mb4.9,baz=306,slow=7.2,SNR=5.9						
PMG	**Port Moresby**	56.33	107	P	P	05 53 39.1	+0.6
	comp=Z,13nm,0.6s,mb5.2,baz=291,slow=4.7,SNR=5.4						
KMBO	**Kilima Mbogo**	56.94	263	P	P	05 53 45.0	+2.0
	comp=Z,2.7nm,0.8s,mb4.4,baz=72,slow=11,SNR=3.2						
ASF	**Jabal al Asfar**	57.29	303	P	P	05 53 48.6	+3.3
	comp=Z,6.4nm,1.0s,mb4.6,baz=5.7,slow=4.3,SNR=2.8						
EIL	**Elat**	58.52	299	P	P	05 53 57.8	+4.0
	comp=Z,12nm,1.0s,mb4.9,baz=32,slow=9.5,SNR=3.5						
CTA	**Charters Tower**	59.21	120	P	P	05 53 59.3	+0.5
	comp=Z,14nm,1.0s,mb5.0,baz=310,slow=9.8,SNR=5.0						
STKA	**Stephens Creek**	61.09	134	P	P	05 54 11.0	-0.5
	comp=Z,7.9nm,0.9s,mb4.8,baz=296,slow=10,SNR=3.4						
BRTR	**Keskin Array B**	61.46	311	P	P	05 54 10.6	-3.2
	comp=Z,6.3nm,0.9s,mb4.8,baz=113,slow=6.5,SNR=4.7						
AKASG	**Malin Array Be**	67.15	322	P	P	05 54 46.9	-3.8
	comp=Z,13nm,1.0s,mb4.9,baz=82,slow=5.7,SNR=6.0						
IDI	**Anoyia**	67.63	305	P	P	05 54 51.3	-2.7
	comp=Z,8.9nm,0.7s,mb4.9,baz=17,slow=7.0,SNR=2.9						
MLR	**Muntele Rosu**	68.18	316	P	P	05 54 54.9	-2.3
	comp=Z,14nm,0.8s,mb5.0,baz=62,slow=7.8,SNR=4.7						
FINES	**FINESS Array B**	71.72	332	P	P	05 55 15.9	-2.6
	comp=Z,4.9nm,0.7s,mb4.5,baz=108,slow=6.0,SNR=2.3						
OKC	**Ostrava-Krasne**	73.99	319	*e*P	P	05 55 34.0	+1.9
ARCES	**ARCESS Array B**	74.30	340	P	P	05 55 31.8	-1.7
	comp=Z,12nm,0.8s,mb4.9,baz=76,slow=10.0,SNR=4.3						
VRAC	**Vranov**	74.96	319	P	P	05 55 36.0	-1.7
	comp=Z,5.0nm,0.8s,mb4.5,baz=76,slow=12,SNR=2.8						
DPC	**Dobruska-Polom**	75.21	320	*e*P	P	05 55 38.4	-0.7
UPC	**Upice**	75.42	320	*e*P	P	05 55 40.4	+0.1
PRU	**Pruhonice**	76.33	319	*e*P	P	05 55 46.9	+1.4
PVCC	**Panska Ves**	76.34	320	*e*P	P	05 55 47.2	+1.6
GERES	**GERESS Array B**	76.83	318	P	P	05 55 46.0	-2.4
	comp=Z,4.3nm,0.7s,mb4.5,baz=98,slow=6.1,SNR=5.2						
FX1	**Attu Island--F**	76.85	38	P	P	05 55 48.5	+0.1
	comp=Z,27nm,0.7s,mb5.3,baz=279,slow=16,SNR=2.5						
KHC	**Kasperske Hory**	76.92	318	*e*P	P	05 55 50.7	+1.8
CLL	**Collm**	77.36	321	⇓P	P	05 55 52.4	+1.1
	comp=Z,logA/T=1.1,mb4.8						
CLL				i *PP	pP	05 55 57.1	-4.6
HFS	**Hagfors**	77.46	330	P	P	05 55 48.9	-2.7
	comp=Z,7.8nm,0.8s,mb4.7,baz=72,slow=4.6,SNR=3.5						
NKC	**Novy Kostel**	77.69	320	*e*P	P	05 55 58.4	+5.3
NB2	**NORSAR Subarra**	78.73	331	P	P	05 55 55.4	-3.3
	comp=Z,16nm,0.9s,mb5.0,baz=92,slow=5.6						
NB2	**NORSAR Subarra**	78.73	331	P	P	05 55 55.4	-3.3
	baz=92,slow=5.6						
NOA	**NORSAR Array B**	78.73	331	P	P	05 55 55.6	-3.0
	comp=Z,7.3nm,0.9s,mb4.6,baz=97,slow=5.5,SNR=4.5						
LPL	**La Plagne**	81.64	315	*e*P	P	05 56 12.9	-1.6
	comp=Z,105nm,1.1s,mb5.4						
ESDC	**Sonseca Array**	90.25	310	P	P	05 56 58.6	+1.6
	comp=Z,6.2nm,0.8s,mb5.0,baz=67,slow=4.7,SNR=7.5						

VNDA	Vanda	93.85	168	P	P	05 57 16.8	+4.1
	comp=Z,2.2nm,0.8s,mb4.7,baz=304,slow=15,SNR=3.5						
ILAR	Eielson Array	94.20	22	P	P	05 57 19.1	+4.5
	comp=Z,2.3nm,0.8s,mb4.7,baz=302,slow=4.9,SNR=9.2						
INK	Inuvik	96.37	16	P	P	05 57 29.2	+4.9
	comp=Z,8.8nm,1.0s,mb5.2,baz=302,slow=4.4,SNR=7.6						
NVAR	Mina Array Bea	124.51	30	PKP	PKPdf	06 03 00.3	+5.7
	comp=Z,0.9nm,0.7s,baz=315,slow=1.3,SNR=2.5						
PDAR	Pinedale Array	124.61	21	PKP	PKPdf	06 02 59.5	+4.8
	comp=Z,1.3nm,0.7s,baz=144,slow=0.9,SNR=4.5						
ANMO	Albuquerque	132.64	22	PKP	PKPdf	06 03 16.6	+6.4
	comp=Z,0.8nm,0.5s,baz=107,slow=3.6,SNR=2.8						
TXAR	Lajitas Array	138.71	23	PKP	PKPdf	06 03 28.5	+7.0
	comp=Z,0.5nm,0.5s,baz=225,slow=1.3,SNR=2.7						
BDFB	Brasilia	141.85	256	PKhKP		06 03 30.4	
	comp=Z,2.1nm,0.7s,baz=134,slow=6.0,SNR=4.8						
SJG	San Juan	146.67	323	PKPbc	PKPbc	06 03 43.4	+6.2
	comp=Z,22nm,1.1s,baz=286,slow=4.1,SNR=2.5						
CPUP	Villa Florida	147.29	234	PKPbc	PKPdf	06 03 45.2	+8.6
	comp=Z,0.0nm,0.4s,baz=168,slow=17,SNR=1.6						
PCRV	Puerto La Cruz	151.32	310	PKPbc	PKPdf	06 03 52.1	+8.9
	comp=Z,8.6nm,0.8s,baz=116,slow=10,SNR=4.0						
SDV	Santo Domingo	156.48	318	PKPab	PKPab	06 04 22.5	+1.0
	comp=Z,15nm,1.2s,baz=173,slow=4.4,SNR=4.1						
LVC	Limon Verde	158.21	229	PKP	PKPdf	06 04 01.8	+9.4
	comp=Z,2.2nm,0.8s,baz=264,slow=4.3,SNR=3.8						
LVC				PKPab	PKPab	06 04 34.4	+5.7
	comp=Z,3.1nm,0.7s,baz=27,slow=1.8,SNR=4.0						
LPAZ	La Paz	160.60	245	PKPab	PKPab	06 04 46.3	+7.2
	comp=Z,5.0nm,0.9s,baz=56,slow=2.2,SNR=6.3						
ROSC	El Rosal	161.91	318	PKP	PKPdf	06 04 04.2	+7.6
	comp=Z,4.6nm,0.9s,baz=76,slow=21,SNR=3.1						

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*IDC **26** 05:45:54.0±0.6, 9.10N×93.69E, mb4.7/21, mb1 4.8/22, mb1mx4.7/29, ML4.5/1, Error ellipse: s-maj=31.3km s-min=13.5km az=47.0*

ISC 26 05:45:59.8±0.5**, 9.1N**±0.1×**93.8E**±0.1**, h53^{km}, h53^{km}**±1.5^{km}**:pP-P, n53,** σ**1^{s}15**/48**, mb4.7**/24**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.59	28	Pn	P	05 48 37.4	+5.7
	1.0nm,0.3s,baz=227,slow=14,SNR=3.5						
CMAR	Chiang Mai Arr	10.59	28	Pn		05 48 47.0	
	1.2nm,0.3s,baz=229,slow=14,SNR=6.1						
PTH	Pithoragarh	24.01	330	*e*S	P	05 51 02.3	-8.4
SDNR	Sundarnagar	27.25	327	*e*P	P	05 51 34.7	-6.4
SONM	Songino Array	40.08	13	P	P	05 53 30.4	-1.2
	2.9nm,0.6s,mb4.2,baz=201,slow=8.9,SNR=4.4						
ZAL	Zalesovo	45.32	353	P	P	05 54 13.2	-1.0
	5.5nm,0.8s,mb4.4,baz=277,slow=6.0,SNR=3.8						
NWAO	Narrogin (SRO)	47.37	153	P	P	05 54 30.1	-0.6
	7.1nm,0.6s,mb4.8,baz=158,slow=3.9,SNR=4.1						
BVAR	Borovoye Array	47.75	341	P	P	05 54 30.3	-3.0
	7.4nm,0.7s,mb4.8,baz=153,slow=9.9,SNR=5.1						
KAMS	Al Khamasin	48.72	289	P	P	05 54 39.9	-1.4
WRA	Warramunga Arr	49.25	126	P	P	05 54 45.6	+0.2
	3.4nm,0.8s,mb4.4,baz=306,slow=8.4,SNR=4.5						
ASAR	Alice Springs	50.96	130	P	P	05 54 57.7	-0.7
	3.9nm,0.8s,mb4.4,baz=304,slow=6.8,SNR=4.6						
BLJS	Baljurashi	51.47	288	P	P	05 55 03.5	+1.2
HILS	Ha'il	52.23	298	P	P	05 55 07.2	-0.7
GNI	Garni	53.35	314	P	P	05 55 13.2	-2.9
	52nm,1.0s,mb5.4,baz=343,slow=2.5,SNR=12						
UMJS	Umm Lajj	55.90	294	P	P	05 55 35.9	+1.0
TBKS	Tabuk	56.95	298	P	P	05 55 42.4	+0.1
ASF	Jabal al Asfar	57.27	302	P	P	05 55 43.1	-1.5
	10nm,0.8s,mb4.9,baz=57,slow=1.4,SNR=10						
JMQS	Jabal Moqyreh	57.62	298	P	P	05 55 47.0	-0.1
AYUS	'Aynunah	58.06	298	D		05 55 49.8	
JMOS	Jabal al Moall	58.32	299	P	P	05 55 51.6	-0.4
EIL	Elat	58.53	299	P	P	05 55 52.6	-0.8
	16nm,0.7s,mb5.2,baz=82,slow=1.6,SNR=7.1						
CTA	Charters Tower	59.21	120	P	P	05 55 58.6	+0.4
	3.3nm,0.8s,mb4.4,baz=279,slow=7.6,SNR=3.6						
BRTR	Keskin Array B	61.38	310	P	P	05 56 10.3	-2.5
	8.9nm,0.9s,mb4.9,baz=121,slow=7.2,SNR=7.7						
AKASG	Malin Array Be	67.00	321	P	P	05 56 46.9	-2.3
	10nm,0.9s,mb4.9,baz=80,slow=4.9,SNR=9.0						
IDI	Anoyia	67.60	304	P	P	05 56 52.5	-0.7
	3.9nm,0.6s,mb4.6,baz=94,slow=5.0,SNR=3.5						
MLR	Muntele Rosu	68.07	315	P	P	05 56 56.1	+0.2
	24nm,0.8s,mb5.3,baz=133,slow=3.7,SNR=8.0						
KOLS	Kolonicke sedl	71.07	319	*e*P	P	05 57 13.1	-1.2
FINES	FINESS Array B	71.49	332	P	P	05 57 16.6	+0.1
	12nm,0.8s,mb4.9,baz=101,slow=9.7,SNR=9.5						
KAF	Kangasniemi	71.57	333	*e*p	P	05 57 16.8	-0.2
	18nm,1.0s,mb5.0						
CRVS	Cervenica-Dubn	71.60	319	*e*P	P	05 57 20.1	+2.7
OJC	Ojcow	72.83	320	*e*P	P	05 57 25.2	+0.5
VYHS	Vyhne	73.28	318	*i* P	P	05 57 27.5	+0.1
VYHS				*e*	pP	05 57 41.6	-0.9
KEV	Kevo	73.59	341	*e*p	P	05 57 30.4	+1.6
OKC	Ostrava-Krasne	73.86	319	*e*P	P	05 57 30.5	-0.2
OKC				*e*pP	pP	05 57 46.1	+0.3
ARCES	ARCESS Array B	74.03	340	P	P	05 57 31.9	+0.6
	9.1nm,0.8s,mb4.8,baz=90,slow=6.1,SNR=6.1						
VRAC	Vranov	74.82	319	P	P	05 57 37.1	+0.8
	4.2nm,0.9s,mb4.4,baz=82,slow=8.7,SNR=3.3						
DPC	Dobruska-Polom	75.07	320	*e*P	P	05 57 36.8	-0.9
DPC				*e*pP	pP	05 57 52.9	+0.1
UPC	Upice	75.27	320	*e*P	P	05 57 39.7	+0.8
PRU	Pruhonice	76.19	319	*e*P	P	05 57 45.3	+1.2
PRU				*e*pP	pP	05 58 00.3	+1.0
PVCC	Panska Ves	76.20	320	*e*P	P	05 57 45.4	+1.3
GERES	GERESS Array B	76.70	318	P	P	05 57 47.9	+0.9
	4.6nm,0.8s,mb4.5,baz=90,slow=5.3,SNR=4.8						
KHC	Kasperske Hory	76.79	318	*e*P	P	05 57 47.2	-0.3
KHC				*e*pP	pP	05 58 03.2	+0.5
CLL	Collm	77.21	321	⇑P	P	05 57 51.0	+1.2
	logA/T=1.1,mb4.8						
HFS	Hagfors	77.25	330	P	P	05 57 51.0	+1.2
	15nm,0.9s,mb4.9,baz=104,slow=6.1,SNR=6.8						
NKC	Novy Kostel	77.54	319	*e*P	P	05 57 53.0	+1.3
NKC				*e*pP	pP	05 58 07.2	+0.3
NB2	NORSAR Subarra	78.52	330	P	P	05 57 57.8	+1.0
	4.0nm,0.7s,mb4.5,baz=96,slow=5.3						
NOA	NORSAR Array B	78.52	330	P	P	05 57 58.4	+1.6
	5.9nm,0.8s,mb4.6,baz=92,slow=5.9,SNR=7.6						
MUD	Monsted U'grnd	79.52	326	*i* P	P	05 58 05.3	+2.9
LPG	La Plagne	81.52	315	*e*P	P	05 58 04.3	-8.9
	48nm,0.9s,mb5.1						
INK	Inuvik	95.95	16	P	P	05 59 21.1	-0.6
	0.7nm,0.5s,mb4.3,baz=256,slow=8.3,SNR=3.7						
TXAR	Lajitas Array	138.28	23	PKP	PKPdf	06 05 21.6	+1.7
	1.1nm,0.7s,baz=326,slow=3.3,SNR=6.3						
SJG	San Juan	146.50	324	PKPbc	PKPbc	06 05 38.3	+2.3
	5.3nm,0.7s,baz=38,slow=8.4,SNR=2.7						
CPUP	Villa Florida	147.68	234	PKPbc	PKPdf	06 05 39.1	+2.8
	0.0nm,0.3s,baz=145,slow=5.3,SNR=1.7						

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*IDC **26** 05:46:12.4±0.5, 8.60N×92.43E, mb4.7/22, mb1 4.8/23, mb1mx4.7/28, ML4.6/1, Error ellipse: s-maj=28.0km s-min=13.1km az=43.0*

ISC 26 05:46:14.9±0.5**, 8.3N**±0.1×**92.3E**±0.1**, h33^{km}, n37,** σ**0^{s}96**/29**, mb4.7**/24**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBK	Karagaybulak	37.45	339	P	P	05 53 28.6	+1.5
	SNR=5.4						
AML	Almayashu	37.47	337	P	P	05 53 29.1	+1.9
	SNR=8.1						
AAK	Ala-Archa	37.60	338	P	P	05 53 30.1	+1.7
	SNR=5.4						
CHMS	Chumysh	37.82	339	P	P	05 53 30.6	+0.4
	SNR=6.0						
USP	Ospenovka	38.15	339	P	P	05 53 34.0	+1.1
	SNR=8.2						
ZAL	Zalesovo	45.88	354	P	P	05 54 34.4	-1.6
	6.0nm,0.8s,mb4.6,baz=266,slow=11,SNR=3.7						
NWAO	Narrogin (SRO)	47.39	151	P	P	05 54 53.9	+5.7
	7.7nm,0.5s,mb4.9,baz=332,slow=6.8,SNR=4.3						
BVAR	Borovoye Array	48.00	342	P	P	05 54 51.8	-0.8
	9.1nm,0.8s,mb4.9,baz=141,slow=9.5,SNR=4.0						
WRA	Warramunga Arr	49.99	125	P	P	05 55 08.2	-0.3
	5.3nm,0.4s,mb4.9,baz=302,slow=9.1,SNR=7.7						
ASAR	Alice Springs	51.59	129	P	P	05 55 20.6	+0.2
	14nm,1.1s,mb4.8,baz=304,slow=7.1,SNR=6.0						
GNI	Garni	52.84	315	P	P	05 55 28.4	-1.2
	20nm,0.8s,mb5.1,baz=18,slow=14,SNR=4.2						
KMBO	Kilima Mbogo	55.69	263	P	P	05 55 51.0	+0.1
	3.7nm,0.8s,mb4.5,baz=50,slow=9.1,SNR=4.3						
ASF	Jabal al Asfar	56.47	303	P	P	05 55 57.3	+1.0
	8.8nm,1.0s,mb4.7,baz=338,slow=6.8,SNR=3.1						
PMG	Port Moresby	57.38	107	P	P	05 56 03.6	+0.6
	21nm,1.1s,mb5.1,baz=357,slow=6.4,SNR=3.9						
EIL	Elat	57.64	300	P	P	05 56 05.6	+1.0
	14nm,0.8s,mb5.0,baz=85,slow=6.0,SNR=6.2						
CTA	Charters Tower	60.10	119	P	P	05 56 21.4	-0.4
	2.7nm,0.7s,mb4.4,baz=286,slow=9.0,SNR=3.4						
BRTR	Keskin Array B	60.78	311	P	P	05 56 25.4	-0.7
	8.8nm,1.1s,mb4.8,baz=108,slow=7.8,SNR=3.9						
STKA	Stephens Creek	61.72	133	P	P	05 56 33.3	+0.7
	10nm,0.9s,mb5.0,baz=312,slow=8.9,SNR=6.0						
AKASG	Malin Array Be	66.69	322	P	P	05 57 02.5	-2.2
	2.2nm,0.6s,mb4.4,baz=88,slow=4.7,SNR=5.3						
MLR	Muntele Rosu	67.60	316	P	P	05 57 11.0	+0.6
	12nm,0.8s,mb5.0,baz=233,slow=3.7,SNR=5.1						
FINES	FINESS Array B	71.48	332	P	P	05 57 33.0	-0.9
	7.1nm,0.6s,mb4.8,baz=98,slow=8.0,SNR=5.1						
KAF	Kangasniemi	71.57	333	*e*p	P	05 57 33.8	-0.7
	24nm,1.0s,mb5.1						
KEV	Kevo	73.82	341	*e*p	P	05 57 47.0	-0.6
	7.1nm,0.6s,mb4.8						
ARCES	ARCESS Array B	74.24	340	P	P	05 57 50.0	-0.1
	9.1nm,0.8s,mb4.8,baz=113,slow=5.9,SNR=7.2						
VRAC	Vranov	74.43	319	P	P	05 57 50.5	-1.0
	2.2nm,0.6s,mb4.3,baz=68,slow=9.2,SNR=2.8						
GERES	GERESS Array B	76.29	318	P	P	05 58 02.5	+0.3
	4.7nm,0.7s,mb4.5,baz=80,slow=6.6,SNR=6.7						
HFS	Hagfors	77.16	330	P	P	05 58 06.6	-0.3
	6.3nm,0.6s,mb4.7,baz=104,slow=6.1,SNR=4.9						
NOA	NORSAR Array B	78.46	331	P	P	05 58 13.3	-0.7
	5.3nm,0.9s,mb4.5,baz=98,slow=5.3,SNR=5.0						
ESDC	Sonseca Array	89.55	310	P	P	05 59 11.0	+0.4
	1.8nm,0.7s,mb4.5,baz=64,slow=3.8,SNR=4.8						
PDAR	Pinedale Array	125.37	20	PKP	PKPdf	06 05 16.3	+3.3
	3.1nm,1.0s,baz=54,slow=1.3,SNR=6.5						
NVAR	Mina Array Bea	125.43	29	PKP	PKPdf	06 05 17.6	+4.3
	3.3nm,0.7s,baz=283,slow=2.9,SNR=10						
TXAR	Lajitas Array	139.51	22	PKP	PKPdf	06 05 43.8	+3.9
	1.1nm,0.7s,baz=130,slow=0.8,SNR=4.5						
CPUP	Villa Florida	146.09	234	PKPbc	PKPbc	06 05 56.6	+4.0
	0.0nm,0.4s,baz=158,slow=18,SNR=1.7						
SJG	San Juan	146.21	321	PKPbc	PKPbc	06 05 55.1	+2.1
	9.5nm,0.7s,baz=10,slow=3.6,SNR=5.6						
LVC	Limon Verde	157.05	230	PKPab	PKPab	06 06 42.8	+2.2
	2.2nm,0.3s,baz=278,slow=20,SNR=20						
LPAZ	La Paz	159.35	246	PKPab	PKPab	06 06 52.7	+2.1
	1.9nm,0.6s,baz=70,slow=5.0,SNR=5.6						
ROSC	El Rosal	161.33	314	PKP	PKPdf	06 06 15.9	+3.0
	2.1nm,0.8s,baz=293,slow=22,SNR=2.3						
ROSC				PKPab	PKPab	06 06 58.6	-0.8
	4.0nm,0.9s,baz=251,slow=15,SNR=4.3						

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*IDC **26** 05:48:04.8±0.8, 5.62N×93.51E, mb4.6/16, mb1 4.7/16, mb1mx4.6/24, Error ellipse: s-maj=46.1km s-min=18.2km az=44.0*

ISC 26 05:48:08.2±0.7**, 5.6N**±0.2×**93.6E**±0.2**, h33^{km}, n19,** σ**0^{s}80**/18**, mb4.5**/16**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	47.48	124	P	P	05 56 42.0	-0.3
	3.2nm,0.7s,mb4.4,baz=299,slow=9.1,SNR=2.0						
ZAL	Zalesovo	48.68	353	P	P	05 56 51.1	0.0
	3.3nm,0.5s,mb4.6,baz=294,slow=6.0,SNR=3.4						
ASAR	Alice Springs	48.97	128	P	P	05 56 53.6	-0.1
	2.0nm,0.6s,mb4.3,baz=310,slow=8.0,SNR=2.3						
BVAR	Borovoye Array	50.92	342	P	P	05 57 06.6	-1.7
	3.9nm,0.8s,mb4.4,baz=146,slow=5.2,SNR=3.2						
ASF	Jabal al Asfar	58.96	304	P	P	05 58 06.7	-0.3
	3.5nm,0.8s,mb4.5,baz=209,slow=7.1,SNR=3.9						
EIL	Elat	60.05	301	P	P	05 58 14.0	-0.6
	7.1nm,0.8s,mb4.7,baz=30,slow=11,SNR=2.8						
BRTR	Keskin Array B	63.46	312	P	P	05 58 36.4	-0.9
	7.5nm,1.0s,mb4.8,baz=121,slow=7.2,SNR=4.2						
IDI	Anoyia	69.37	305	P	P	05 59 14.5	-0.4
	18nm,0.9s,mb5.0,baz=109,slow=7.0,SNR=5.0						
AKASG	Malin Array Be	69.55	322	P	P	05 59 14.5	-1.2
	4.7nm,0.8s,mb4.4,baz=88,slow=4.9,SNR=4.6						
MLR	Muntele Rosu	70.37	316	P	P	05 59 20.6	-0.2
	20nm,0.9s,mb5.0,baz=122,slow=2.0,SNR=4.8						
KOLS	Kolonicke sedl	73.50	319	*e*	P	05 59 41.1	+1.7
KOLS				*e*		05 59 48.5	
FINES	FINESS Array B	74.41	333	P	P	05 59 44.2	-0.2
	3.6nm,0.6s,mb4.5,baz=108,slow=6.5,SNR=5.5						
ZST	Bratislava	76.79	318	*e*	P	05 59 59.4	+1.1
ZST				*e*		06 00 05.4	
ARCES	ARCESS Array B	77.17	340	P	P	06 00 01.0	+1.0
	4.4nm,0.8s,mb4.5,baz=96,slow=6.0,SNR=5.7						
VRAC	Vranov	77.25	319	P	P	06 00 01.3	+0.4
	3.1nm,0.9s,mb4.2,baz=180,slow=5.7,SNR=3.2						
GERES	GERESS Array B	79.10	319	P	P	06 00 11.8	+0.7
	5.4nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=5.4						
HFS	Hagfors	80.09	330	P	P	06 00 16.5	+0.4
	4.6nm,0.7s,mb4.5,baz=108,slow=4.6,SNR=3.5						
NOA	NORSAR Array B	81.39	331	P	P	06 00 23.5	+0.5
	3.2nm,1.0s,mb4.2,baz=99,slow=5.6,SNR=2.8						
CPUP	Villa Florida	145.42	230	PKPbc	PKPbc	06 07 44.3	+0.2
	0.0nm,0.3s,baz=226,slow=9.3,SNR=1.7						

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*IDC **26** 05:48:41.6±0.8, 5.48N×93.52E, mb4.5/11, mb1 4.7/11, mb1mx4.5/18, Error ellipse: s-maj=48.4km s-min=17.9km az=53.0*

ISC 26 05:48:44.1±0.9**, 5.4N**±0.2×**93.5E**±0.3**, h33^{km}, n17,** σ**0^{s}82**/11**, mb4.5**/11**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.72	13	P	P	05 56 48.2	+0.3
	5.4nm,0.8s,mb4.3,baz=197,slow=7.0,SNR=3.3						
WRA	Warramunga Arr	47.39	123	P	P	05 57 18.1	+0.6
	23nm,0.6s,mb5.3,baz=302,slow=9.1,SNR=8.1						
ASAR	Alice Springs	48.86	128	P	P	05 57 27.6	-1.2
	10nm,0.8s,mb4.9,baz=308,slow=7.3,SNR=4.4						
ZAL	Zalesovo	48.92	353	P	P	05 57 29.0	+0.1
	4.7nm,0.7s,mb4.7,baz=294,slow=8.1,SNR=3.2						
BVAR	Borovoye Array	51.14	342	P	P	05 57 44.6	-1.3
	5.3nm,0.7s,mb4.6,baz=140,slow=9.2,SNR=4.8						
STKA	Stephens Creek	58.88	132	P	P	05 58 42.8	+0.3
	4.8nm,0.6s,mb4.7,baz=337,slow=8.6,SNR=3.9						
AKASG	Malin Array Be	69.71	322	P	P	05 59 51.3	-1.3
	1.1nm,0.5s,mb4.0,baz=86,slow=4.8,SNR=4.1						
FINES	FINESS Array B	74.61	333	P	P	06 00 21.5	0.0
	5.3nm,0.8s,mb4.5,baz=101,slow=9.7,SNR=4.0						
ARCES	ARCESS Array B	77.38	340	P	P	06 00 37.9	+0.8
	3.7nm,0.8s,mb4.4,baz=100,slow=5.5,SNR=3.3						
GERES	GERESS Array B	79.25	319	P	P	06 00 48.8	+1.0
	3.2nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=3.5						
NOA	NORSAR Array B	81.58	331	P	P	06 01 00.4	+0.5
	1.6nm,0.7s,mb4.1,baz=92,slow=5.8,SNR=2.5						
ULM	Lac du Bonnet	124.00	7	PKP	PKPdf	06 07 42.6	+3.3
	1.8nm,0.7s,baz=65,slow=5.6,SNR=3.1						
NVAR	Mina Array Bea	127.37	31	PKP	PKPdf	06 07 50.5	+4.3
	3.0nm,1.0s,baz=278,slow=2.8,SNR=4.4						
PDAR	Pinedale Array	127.70	21	PKP	PKPdf	06 07 50.2	+3.5
	2.5nm,1.0s,baz=39,slow=1.4,SNR=5.5						
ANMO	Albuquerque	135.69	24	PKP	PKPdf	06 08 05.8	+3.9
	2.1nm,0.8s,baz=209,slow=4.0,SNR=4.0						
TXAR	Lajitas Array	141.74	25	PKP	PKPdf	06 08 17.1	+4.0
	1.0nm,0.6s,baz=196,slow=1.2,SNR=4.3						
CPUP	Villa Florida	145.21	230	PKPbc	PKPbc	06 08 22.1	+2.6
	0.0nm,0.4s,baz=128,slow=19,SNR=2.1						

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*PGC **26** 05:48:53.6, 48.98N×129.66W, h10^{km}, MLSn4.1/1, West of Vancouver Island, British Columbia*

*NEIC **26** 05:48:54.0, 49.00N×129.68W, h10^{km}, mb4.5/7, ML4.1(PGC), After PGC.*

*IDC **26** 05:48:55.9±1.9, 49.14N×129.30W, mb4.3/2, mb1 4.3/10, mb1mx4.1/26, ML3.9/7, MS5.1/1, Ms1 5.1/1, ms1mx3.0/38, Error ellipse: s-maj=35.9km s-min=11.4km az=70.0*

ISC 26 05:48:53.0±0.4**, 49.07N**±0.02×**129.51W**±0.04**, h10^{km}, n96,** σ**1^{s}18**/121**, mb4.6**/5**, 2C-1D, Vancouver Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BPBC	Brooks Peninsu	1.57	46	Pn	Pn	05 49 21.1	0.0
BPBC				Sn	Sn	05 49 42.6	+1.0
	comp=Z,403nm,0.2s						
BPBC				Trac		05 49 47.6	
	comp=Z,403nm,0.2s						
EDB	Eliza Dome	1.75	62	Pn	Pn	05 49 23.2	-0.6
EDB				Sn	Sn	05 49 46.1	-0.2
EDB				Trac		05 50 00.1	
	comp=Z,241nm,0.6s						
HOLB	Holberg	1.81	29	Pn	Pn	05 49 24.6	+0.1
HOLB				Trac		05 49 58.2	
	comp=Z,944nm,0.7s						
ETB	Estevan Point	1.97	80	Pn	Pn	05 49 29.8	+2.8
MAYB	Maynard	2.02	48	Pn	Pn	05 49 27.7	+0.1
MAYB				Sn	Sn	05 49 52.5	-0.6
	comp=Z,129nm,0.4s						
MAYB				Trac		05 49 59.7	
	comp=Z,129nm,0.4s						
PHC	Port Hardy	2.12	39	Pn	Pn	05 49 29.8	+0.8
PHC				Sn	Sn	05 49 54.5	-1.1
PHC				Trac		05 50 04.9	
	comp=Z,486nm,0.7s						
WOSB	Woss	2.20	59	Pn	Pn	05 49 30.6	+0.4
WOSB				Sn	Sn	05 49 57.3	-0.4
	comp=Z,329nm,0.7s						
WOSB				Trac		05 50 04.5	
	comp=Z,329nm,0.7s						
GDR	Gold River	2.38	71	Pn	Pn	05 49 32.6	-0.2
GDR				Sn	Sn	05 50 01.8	-0.5
	comp=Z,237nm,0.7s						
GDR				Trac		05 50 18.6	
	comp=Z,237nm,0.7s						
NCRB	Newcastle Ridg	2.61	58	⇑Pn	Pn	05 49 36.7	+0.7
NCRB				Sn	Sn	05 50 06.3	-1.8
	comp=Z,255nm,0.8s						
NCRB				Trac		05 50 16.7	
	comp=Z,255nm,0.8s						
BTB	Buttle Lake	2.65	80	Pn	Pn	05 49 36.6	+0.1
BTB				Sn	Sn	05 50 09.3	+0.3
	comp=Z,181nm,0.5s						
BTB				Trac		05 50 11.6	
	comp=Z,181nm,0.5s						
OZB	Mount Ozzard	2.65	91	Pn	Pn	05 49 35.8	-0.8
OZB				Sn	Sn	05 50 07.3	-1.8
OZB				Trac		05 50 09.5	
	comp=Z,34nm,0.2s						
CBB	Campbell River	2.87	69	Pn	Pn	05 49 40.3	+0.6
CBB				Sn	Sn	05 50 14.7	0.0
CBB				Trac		05 50 18.9	
	comp=Z,144nm,0.7s						
MGB	Mount Grey	3.17	90	⇓Pn	Pn	05 49 43.2	-0.8
MGB				Sn	Sn	05 50 20.7	-1.7
	comp=Z,40nm,0.3s						
MGB				Trac		05 50 21.9	
	comp=Z,40nm,0.3s						
BBB	Bella Bella	3.24	15	Pn	Pn	05 49 45.3	+0.3
	12nm,0.3s,baz=211,slow=13,SNR=79						
BBB				Sn	Sn	05 50 22.9	-1.1
	7.8nm,0.3s,baz=264,slow=22,SNR=3.5						
BBB				LR	LR	05 50 49.7	
	comp=Z,27µm,18.9s,baz=110,slow=36						
BBB	Bella Bella	3.24	15	Pn	Pn	05 49 45.0	0.0
BBB	Bella Bella	3.24	15	Pn	Pn	05 49 45.3	+0.3
BBB				Sn	Sn	05 50 22.9	-1.1
BBB				LR	LR	05 50 49.7	
TXB	Texada	3.38	77	Pn	Pn	05 49 47.1	+0.2
TXB				Sn	Sn	05 50 27.9	+0.5
	comp=Z,221nm,0.7s						
TXB				Trac		05 50 35.3	
	comp=Z,221nm,0.7s						
NLLB	Nanaimo Lost L	3.63	86	Pn	Pn	05 49 51.0	+0.4
NLLB				Sn	Sn	05 50 34.7	+0.8
NLLB				Trac		05 50 38.4	
	comp=Z,81nm,0.6s						
SHB	Sechelt	3.73	80	Pn	Pn	05 49 52.2	+0.3
SHB				Trac		05 50 40.3	
	comp=Z,129nm,0.7s						
BNB	Barry Inlet	3.78	339	Pn	Pn	05 49 51.5	-1.2
LZB	Mount Lazard	3.79	95	Pn	Pn	05 49 52.3	-0.5
LZB				Sn	Sn	05 50 36.3	-1.6
LZB				Trac		05 50 37.5	
	comp=Z,30nm,0.9s						
GOBB	Galiano Island	3.95	90	Pn	Pn	05 49 56.0	+0.8
GOBB				Sn	Sn	05 50 42.6	+0.5
	comp=Z,80nm,0.9s						
GOBB				Trac		05 50 49.8	
	comp=Z,80nm,0.9s						
PGC	Sidney	4.03	94	Pn	Pn	05 49 55.9	-0.3
PGC				Sn	Sn	05 50 42.5	-1.4
PGC				Trac		05 50 48.6	
	comp=Z,82nm,0.8s						
PGC	Sidney	4.03	94	*e*P	Pn	05 49 55.1	-1.0
BIB	Bowen Island	4.08	83	Pn	Pn	05 49 56.9	0.0
BIB				Sn	Sn	05 50 43.9	-1.4
	comp=Z,184nm,1.0s						
BIB				Trac		05 50 53.9	
	comp=Z,184nm,1.0s						
WPB	Watts Point	4.16	80	Pn	Pn	05 49 58.4	+0.3
WPB				Sn	Sn	05 50 50.3	+3.0
	comp=Z,175nm,0.9s						
WPB				Trac		05 50 59.0	
	comp=Z,175nm,0.9s						
SNB	Saturna Island	4.19	92	Pn	Pn	05 49 58.8	+0.2
SNB				Sn	Sn	05 50 48.0	-0.2
SNB				Trac		05 50 52.5	
	comp=Z,56nm,0.7s						
WSLR	Whistler	4.42	74	Pn	Pn	05 50 03.6	+1.9
HNB	Haney	4.55	85	Pn	Pn	05 50 03.6	-0.1
HNB				Sn	Sn	05 50 57.9	+0.6
HNB				Trac		05 51 00.1	
	comp=Z,50nm,0.6s						
VDB	Vedder Mountai	4.87	88	Pn	Pn	05 50 08.0	-0.2
VDB				Sn	Sn	05 51 04.9	-0.5
	comp=Z,62nm,1.0s						
VDB				Trac		05 51 09.7	
	comp=Z,62nm,1.0s						
VDB	Vedder Mountai	4.87	88	P	Pn	05 50 07.8	-0.4
LLLB	Lillooet	5.17	70	Pn	Pn	05 50 13.4	+1.0
LLLB				Sn	Sn	05 51 15.9	+3.0
LLLB				Trac		05 51 19.7	
	comp=Z,62nm,0.8s						
RUBB	Prince Rupert	5.28	355	Pn	Pn	05 50 11.7	-2.2
HOPB	Hope	5.31	84	⇑Pn	Pn	05 50 14.4	0.0
HOPB				Sn	Sn	05 51 16.2	-0.2
HOPB				Trac		05 51 28.1	
	comp=Z,58nm,0.7s						
LON	Longmire	5.68	111	P	Pn	05 50 20.8	+1.3
RCM	Mount Rainier-	5.69	110	P	Pn	05 50 21.2	+1.5
TBM	Table Mountain	6.27	104	P	Pn	05 50 28.9	+1.0
NAC	Naches	6.29	109	P	Pn	05 50 30.1	+1.9
FSB	Fort Saint Jam	6.29	29	Pn	Pn	05 50 31.6	+3.4
EBG	Ellensburg	6.38	106	P	Pn	05 50 30.5	+1.0
PNT	Penticton	6.49	84	Pn	Pn	05 50 30.7	-0.3
PNT				Trac		05 52 02.0	
	comp=Z,30nm,1.1s						
OD2	Odessa Site #2	7.41	99	P	Pn	05 50 42.5	-1.4
SLEB	Sale Mountain	7.61	70	Pn	Pn	05 50 47.8	+1.0
MNB	Mounoet Dainar	7.74	62	Pn	Pn	05 50 49.3	+0.8
NEW	Newport	8.25	91	*e*P	P	05 50 53.8	-1.8
BMBC	Bull Mountain	8.30	30	Pn	P	05 50 57.7	+1.4
YBH	Yreka Blue Hor	8.76	144	Pn	P	05 51 05.7	+2.9
	0.2nm,0.3s,baz=341,slow=13,SNR=10						
DLBC	Dease Lake	9.39	358	Pn	P	05 51 12.2	+0.8
	0.4nm,0.3s,baz=176,slow=16,SNR=8.3						
DLBC	Dease Lake	9.39	358	P	P	05 51 12.6	+1.2
WALA	Waterton Lakes	10.24	84	P	P	05 51 23.2	+0.1
WALA				Trac		05 54 23.9	
	comp=Z,6.0nm,0.9s						
WALA	Waterton Lakes	10.24	84	*e*P	P	05 51 22.6	-0.5
FNBB	Fort Nelson	10.55	19	P	P	05 51 27.2	0.0
EDM	Edmonton	10.96	62	*e*P	P	05 51 32.1	-0.9
OHCM	Honcut	11.31	146	*e*P	P	05 51 35.5	-2.1
WHY	Whitehorse	12.01	347	P	P	05 51 48.6	+1.5
HRY	Holter Researc	12.10	95	*e*P	P	05 51 48.0	-0.4
BMN	Battle Mountai	12.28	130	P	P	05 51 46.4	-4.4
CMB	Columbia Colle	12.86	146	*e*P	P	05 51 57.7	-0.8
ELK	Elko	13.09	124	P	P	05 52 00.1	-1.5
NVAR	Mina Array Bea	13.36	139	Pn	P	05 52 07.5	+2.3
	baz=318,slow=11,SNR=3.5						
NVAR	Mina Array Bea	13.36	139	Pn	P	05 52 07.5	+2.3
MNV	Mina	13.42	138	*e*P	P	05 52 05.1	-0.9
SAO	San Andreas Ge	13.64	151	*e*P	P	05 52 05.4	-3.4
HVU	Hansel Valley	13.82	116	*e*P	P	05 52 10.0	-1.2
LRV	Little Rabbit	14.09	151	*e*P	P	05 52 12.4	-2.3
MTUM	Tungsten Hills	14.16	142	*e*P	P	05 52 13.6	-2.1
PDAR	Pinedale Array	15.23	107	Pn	P	05 52 33.1	+3.4
	0.2nm,0.3s,baz=310,slow=12,SNR=11						
TPNV	Topopah Spring	15.49	137	*e*P	P	05 52 33.4	+0.3
	57nm,1.4s						
YKA	Yellowknife Ar	15.79	26	Pn	P	05 52 35.6	-1.1

	0.4nm,0.3s,baz=214,slow=12,SNR=50						
YKW3	Yellowknife Ar	15.84	26	P	P	05 52 36.3	-1.1
YKW3				P		05 52 36.6	
YKW3				Trac		05 57 40.6	
	comp=Z,115nm,2.3s						
DAWY	Dawson	15.95	344	P	P	05 52 41.4	+2.6
DAWY	Dawson	15.95	344	*e*P	P	05 52 36.6	-2.2
ARUT	Antelope Range	16.20	128	P	P	05 52 42.9	+0.7
MVU	Marysvale	16.32	124	P	P	05 52 45.5	+1.8
	19nm,1.3s						
MSU	Marysvale	16.34	124	*e*P	P	05 52 45.5	+1.6
SLKM	Skilak Lake	16.45	322	*e*P	P	05 52 43.4	-1.9
NEN	Nelson	17.21	136	P	P	05 52 54.2	-0.7
SPU	Mount Spurr	17.58	322	*e*P	P	05 52 58.4	-1.0
PV10	Paradox Valley	18.20	118	*e*P	P	05 53 08.5	+1.2
ILAR	Eielson Array	18.26	336	P	P	05 53 09.4	+1.6
	0.0nm,0.3s,baz=150,slow=9.9,SNR=21						
PV01	Paradox Valley	18.63	118	*e*P	P	05 53 13.3	+0.6
RW3	Ridgway	19.07	116	*e*P	P	05 53 18.2	+0.2
INK	Inuvik	19.39	356	P	P	05 53 23.0	+1.5
	0.1nm,0.3s,baz=168,slow=12,SNR=16						
INK	Inuvik	19.39	356	P	P	05 53 23.1	+1.6
INK	Inuvik	19.39	356	P	P	05 53 23.0	+1.5
SDCO	Great Sand Dun	20.70	114	*e*P	P	05 53 36.2	+0.3
	28nm,1.3s						
IMA	Indian Mountai	21.16	332	P	P	05 53 38.7	-1.6
	64nm,1.2s,mb4.8						
ULM	Lac du Bonnet	21.71	74	P	P	05 53 47.4	+1.4
	45nm,0.8s,mb4.9,baz=284,slow=11,SNR=31						
ULM	Lac du Bonnet	21.71	74	P	P	05 53 48.8	+2.9
ANMO	Albuquerque	22.08	121	P	P	05 53 52.8	+3.0
	10nm,0.9s,mb4.2,baz=313,slow=9.1,SNR=15						
ANMO	Albuquerque	22.08	121	*e*P	P	05 53 49.1	-0.6
	11nm,1.0s,mb4.2						
FCC	Fort Churchill	22.75	51	P	P	05 53 58.2	+2.2
FCC	Fort Churchill	22.75	51	*e*P	P	05 53 56.5	+0.5
	55nm,1.3s,mb4.8						
MNTX	Cornudas Mount	25.11	125	*e*P	P	05 54 17.9	-1.3
WMOK	Wichita Mounta	26.77	111	*e*P	P	05 54 35.4	+0.8
	8.3nm,1.1s,mb4.2						
MIAR	Mount Ida	30.15	105	P	P	05 55 04.5	-0.7

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*IDC **26** 05:51:10.5±1.0, 13.35N×91.98E, mb4.4/15, mb1 4.5/16, mb1mx4.4/25, ML4.1/1, Error ellipse: s-maj=33.5km s-min=18.6km az=21.0*

ISC 26 05:51:13.9±1.1**, 13.4N**±0.2×**92.1E**±0.1**, h33**^{km}**, n24, σ1**^{s}**06**/19**, mb4.4**/16**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.25	52	Pn	P	05 53 12.4	-1.7
	0.6nm,0.3s,baz=232,slow=14,SNR=3.4						
SONM	Songino Array	36.30	16	P	P	05 58 17.4	+1.2
	4.4nm,0.9s,mb4.4,baz=201,slow=8.5,SNR=3.9						
BVAR	Borovoye Array	43.12	341	P	P	05 59 14.1	+1.4
	5.7nm,1.0s,mb4.3,baz=130,slow=11,SNR=4.0						
GNI	Garni	49.20	312	P	P	06 00 03.1	+2.1
	13nm,0.7s,mb5.1,baz=59,slow=5.0,SNR=6.4						
ASAJ	Asahikawa	52.70	44	P	P	06 00 27.1	-0.3
	8.2nm,0.7s,mb4.8,baz=151,slow=17,SNR=2.5						
ASF	Jabal al Asfar	53.62	300	P	P	06 00 33.5	-1.0
	6.2nm,1.1s,mb4.5,baz=309,slow=2.6,SNR=3.3						
BRTR	Keskin Array B	57.36	309	P	P	06 00 60.0	-1.4
	4.1nm,0.9s,mb4.4,baz=121,slow=7.2,SNR=4.4						
PMG	Port Moresby	59.17	110	P	P	06 01 14.9	+0.6
	34nm,0.4s,baz=52,slow=2.6,SNR=28						
AKASG	Malin Array Be	62.60	320	P	P	06 01 35.7	-1.4
	1.4nm,0.9s,mb4.1,baz=81,slow=4.3,SNR=4.5						
MLR	Muntele Rosu	63.85	314	P	P	06 01 45.7	+0.3
	7.5nm,0.9s,mb4.7,baz=165,slow=5.6,SNR=3.1						
FINES	FINESS Array B	66.90	331	P	P	06 02 04.3	-0.3
	3.1nm,0.8s,mb4.4,baz=90,slow=5.7,SNR=3.8						
ARCES	ARCESS Array B	69.39	340	P	P	06 02 21.3	+1.2
	5.2nm,1.0s,mb4.4,baz=30,slow=9.8,SNR=2.9						
VRAC	Vranov	70.50	318	P	P	06 02 26.6	-0.6
	1.1nm,0.6s,mb4.0,baz=134,slow=2.5,SNR=2.3						
GERES	GERESS Array B	72.39	317	P	P	06 02 38.3	-0.2
	2.2nm,0.8s,mb4.1,baz=72,slow=4.2,SNR=3.7						
HFS	Hagfors	72.68	329	P	P	06 02 40.2	+0.2
	4.6nm,0.8s,mb4.4,baz=90,slow=4.4,SNR=3.2						
NB2	NORSAR Subarra	73.94	330	P	P	06 02 46.1	-1.2
	6.3nm,1.0s,mb4.5,baz=91,slow=5.8						
NOA	NORSAR Array B	73.94	330	P	P	06 02 46.7	-0.7
	3.3nm,0.8s,mb4.3,baz=92,slow=5.7,SNR=5.1						
LPG	La Plagne	77.32	314	*e*P	P	06 03 06.7	-0.3
	27nm,1.1s,mb4.8						
ILAR	Eielson Array	90.36	22	P	P	06 04 13.9	+1.3
	0.9nm,0.6s,mb4.3,baz=294,slow=4.9,SNR=5.3						
PDAR	Pinedale Array	120.64	18	PKP	PKPdf	06 10 04.1	+1.4
	0.9nm,0.8s,baz=107,slow=2.5,SNR=4.4						
NVAR	Mina Array Bea	121.07	28	PKP	PKPdf	06 10 05.8	+2.1
	2.5nm,0.8s,baz=315,slow=2.1,SNR=8.0						
ANMO	Albuquerque	128.75	20	PKP	PKPdf	06 10 20.6	+2.1
	1.0nm,0.7s,baz=92,slow=8.8,SNR=2.2						
TXAR	Lajitas Array	134.84	20	PKP	PKPdf	06 10 32.8	+2.6
	0.6nm,0.6s,baz=56,slow=0.5,SNR=6.0						
USHA	Ushuaia	135.98	196	PKP	PKPdf	06 10 32.3	+0.8
	5.5nm,0.8s,baz=329,slow=15,SNR=2.4						

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*IDC **26** 05:51:35.6±0.4, 6.52N×93.43E, mb5.0/32, mb1 5.0/33, mb1mx5.0/34, ML4.4/1, Error ellipse: s-maj=16.2km s-min=10.4km az=49.0*

*CSEM **26** 05:51:39.7, 6.67N×93.62E, h33^{km}, mb5.6*

*BJI **26** 05:51:39.2, 6.20N×93.41E, h46^{km}, mB6.3, mb5.2, Ms6.0, Msz5.8*

*NEIC **26** 05:51:40.0±0.2, 6.45N×93.43E, mb5.2/42, Error ellipse: s-maj=6.5km s-min=4.6km az=224.0*

ISC 26 05:51:38.3±0.3**, 6.41N**±0.05×**93.45E**±0.04**, h29**^{km}**, h29**^{km}±.4^{km}**:pP-P, n189, σ0**^{s}**98**/166**, mb5.2**/86**, MS5.7**/1**, 6C-7D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	12.69	275	*e*P	P	05 54 35.3	-4.5
CM31	Chiang Mai Arr	13.12	24	P	P	05 54 45.3	-0.2
	42nm,0.6s						
CMAR	Chiang Mai Arr	13.12	24	Pn	P	05 54 43.6	-1.9
	0.6nm,0.3s,baz=210,slow=14,SNR=2.7						
CMAR	Chiang Mai Arr	13.12	24	Pn	P	05 54 43.6	-1.9
SHL	Shillong	19.11	356	*e*P	P	05 55 58.9	-2.9
MNGI	Mangalore	19.47	291	*e*P	P	05 56 00.2	-5.8
QIZ	Qiongzhong	20.30	50	P	P	05 56 16.3	+1.5
KMI	Kunming	20.62	25	*e*P	P	05 56 19.5	+1.3
KMI				AMB	AMB		
	comp=Z,79nm,1.1s						
GOA	Goa	21.26	297	*e*P	P	05 56 13.4	-11
AKL	Akola	21.35	313	*e*P	P	05 56 15.7	-10
PKI	Pulchoki	22.39	341	*e*P	P	05 56 41.8	+5.9
	comp=Z,82nm,0.3s,mb5.7						
DMN	Daman	22.52	340	*e*P	P	05 56 43.8	+6.4
	comp=Z,612nm,0.9s,mb6.0						
GUN	Gumba	22.56	342	*e*P	P	05 56 39.5	+1.8
KKN	Kakani	22.63	341	*e*P	P	05 56 42.5	+4.1
GKN	Gorkha	23.04	340	*e*P	P	05 56 47.0	+4.5
	comp=Z,174nm,0.3s,mb5.9						
KOLN	Koldanda	23.21	337	*e*P	P	05 56 52.8	+8.7
	comp=Z,277nm,0.7s,mb5.8						
LSA	Lhasa	23.27	355	P	P	05 56 47.0	+2.4
LSA	Lhasa	23.27	355	*e*P	P	05 56 46.5	+1.9
	comp=Z,59nm,0.8s,mb5.1						
GYA	Guiyang	23.58	31	⇑*i*P	P	05 56 49.3	+1.6
GYA				PP	PP	05 57 27.5	+7.2
GYA				S	S	06 01 04.8	+8.3
GYA				AMB	AMB		
	comp=Z,80nm,1.0s,mb5.1						
GYA				LR	LR		
	comp=N,15µm,16.8s,MS5.7						
GYA				LR	LR		
	comp=E,18µm,17.5s,MS5.7						
GYA				LR	LR		
	comp=Z,20µm,16.0s,MS5.7						
BOM	Bombay	23.61	304	*e*P	P	05 56 39.5	-8.6
CD2	Chengdu	26.22	20	P	P	05 57 12.3	-0.5
CD2				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.1						
NDI	New Delhi	26.95	327	*e*P	P	05 57 13.3	-6.3
RCP	Roxas	29.37	78	⇑*e*P	P	05 57 43.3	+1.8
TBP	Tagbilaran	30.28	82	*e*P	P	05 57 49.8	+0.2
WHN	Wuhan	31.01	37	P	P	05 57 56.5	+0.6
GTA	Gaotai	33.35	9	P	P	05 58 15.8	-0.4
GTA				AP	pP	05 58 24.3	-0.4
GTA				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.7						
NJ2	Nanjing	34.83	40	*e*P	P	05 58 29.0	0.0
WMQ	Urumqi	37.60	353	P	P	05 58 53.5	+1.2
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
MBWA	Marble Bar	37.63	137	*e*P	P	05 58 51.0	-1.8
	comp=Z,80nm,1.3s,mb5.3						
HHC	Hu-ho-hao-te	37.92	23	*e*P	P	05 58 56.0	+0.9
HHC				AP	pP	05 59 04.5	+0.8
HHC				XP	sP	05 59 08.5	+1.2
HHC				AMB	AMB		
	comp=Z,29nm,0.5s,mb5.3						
HHC				AMB	AMB		
	comp=Z,4µm,7.8s						
JOW	Kunigami	38.85	54	P	P	05 59 04.2	+1.2
	comp=Z,47nm,0.7s,mb5.3,baz=266,slow=12,SNR=12						
KZA	Kyzart	39.02	338	P	P	05 59 05.4	+1.1
	SNR=5.2						
BJI	Beijing	39.21	28	P	P	05 59 06.8	+0.9
BJI				AMB	AMB		
	comp=Z,52nm,0.7s,mb5.4						
UCH	Uchtor	39.42	338	P	P	05 59 08.7	+1.1
	SNR=12						
AML	Almayashu	39.66	337	P	P	05 59 10.7	+1.1
	SNR=24						
AAK	Ala-Archa	39.78	338	P	P	05 59 11.8	+1.2
	SNR=9.9						
AAK	Ala-Archa	39.78	338	*e*P	P	05 59 10.4	-0.2
	comp=Z,50nm,1.1s,mb5.2						
CHMS	Chumysh	40.00	339	P	P	05 59 12.6	+0.3
	SNR=6.6						
EKS2	Erkin-Say	40.08	337	P	P	05 59 14.2	+1.2
	SNR=9.4						
USP	Ospenovka	40.33	338	P	P	05 59 15.1	+0.1
	SNR=11						
DL2	Dalian	41.16	34	P	P	05 59 22.5	+0.6
DL2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.9						
SONM	Songino Array	42.73	13	P	P	05 59 33.9	-0.8
	comp=Z,7.2nm,0.7s,mb4.5,baz=195,slow=8.4,SNR=8.0						
SONM				PcP	PcP	06 01 26.9	+0.3
	comp=Z,5.8nm,0.6s,baz=195,slow=3.2,SNR=6.2						
ULN	Ulaanbaatar	42.91	13	*e*P	P	05 59 34.7	-1.5
SNY	Shenyang	44.27	33	⇑P	P	05 59 47.5	+0.2
SNY				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.2						
NWAO	Narrogin (SRO)	45.18	151	P	P	05 59 55.8	+1.0
	comp=Z,19nm,0.9s,mb4.9,baz=324,slow=13,SNR=6.8						
NWAO	Narrogin (SRO)	45.18	151	*e*P	P	05 59 55.5	+0.7
CN2	Changchun	46.62	32	⇑P	P	06 00 06.3	+0.3
CN2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.5						
ZAL	Zalesovo	47.90	353	P	P	06 00 15.5	-0.4
	comp=Z,41nm,0.8s,mb5.5,baz=306,slow=6.4,SNR=30						
WRA	Warramunga Arr	47.99	124	P	P	06 00 15.8	-1.3
	comp=Z,21nm,0.4s,mb5.6,baz=302,slow=9.1,SNR=50						
WRAB	Tennant Creek	48.00	124	*e*P	P	06 00 15.8	-1.3
	comp=Z,45nm,0.6s,mb5.7						
HIA	Hailar	48.13	23	*e*P	P	06 00 17.4	-0.3
	comp=Z,15nm,0.7s,mb5.1						
RDF	Al-Radifah	48.73	303	*e*P	P	06 00 23.8	+1.2
RDF				AMb	AMB	06 00 36.4	
	comp=Z,117nm,1.2s,mb5.8						
MIB	Mutribah	49.18	304	*e*P	P	06 00 26.2	+0.1
MIB				AMb	AMB	06 00 28.6	
	comp=Z,88nm,0.9s,mb5.8						
RST	Umm Al-Ruwaisa	49.36	304	*e*P	P	06 00 28.0	+0.4
RST				AMb	AMB	06 00 39.6	
	comp=Z,96nm,1.2s,mb5.7						
MDJ	Mudanjiang	49.40	34	P	P	06 00 27.8	+0.2
MDJ				AMB	AMB		
	comp=Z,25nm,1.3s,mb5.1						
MZLS	Mizel	49.45	296	P	P	06 00 29.2	+0.9
ASAR	Alice Springs	49.53	129	P	P	06 00 28.6	-0.2
	comp=Z,11nm,0.4s,mb5.2,baz=302,slow=7.2,SNR=42						
ASAR				PcP	PcP	06 01 51.0	+0.3
	comp=Z,5.5nm,0.6s,baz=297,slow=4.7,SNR=4.1						
BVAR	Borovoye Array	50.15	342	P	P	06 00 31.5	-1.7
	comp=Z,16nm,0.8s,mb5.1,baz=143,slow=7.4,SNR=17						
BVAR				PcP	PcP	06 01 52.0	-0.6
	comp=Z,6.8nm,0.6s,baz=190,slow=4.8,SNR=7.6						
BRVK	Borovoye	50.21	342	*e*P	P	06 00 32.4	-1.3
	comp=Z,22nm,0.9s,mb5.2						
TATS	Tathlith	50.23	290	P	P	06 00 35.0	+0.7
CBIJ	Chichi jima	50.61	60	P	P	06 00 36.6	-0.5
	comp=Z,44nm,0.4s,mb5.7,baz=319,slow=19,SNR=4.7						
CHKZ	Chkalovo	50.65	343	*e*P	P	06 00 35.6	-1.3
	comp=Z,42nm,0.9s,mb5.4						
MAT	Matsushiro	50.65	47	P	P	06 00 37.1	-0.1
MAT	Matsushiro	50.65	47	*e*P	P	06 00 37.0	-0.2
	comp=Z,23nm,1.0s,mb5.1						
ARSS	Ar Rass	51.60	298	P	P	06 00 45.5	+0.9
HILS	Ha’il	53.20	299	D		06 00 58.5	
GNI	Garni	54.97	315	P	P	06 01 09.1	-0.3
	comp=Z,17nm,0.9s,mb5.1,baz=2.3,slow=11,SNR=3.6						
GNI	Garni	54.97	315	*e*P	P	06 01 08.5	-0.9
	comp=Z,40nm,0.9s,mb5.5						
KBRS	Khaybar	55.09	297	P	P	06 01 12.1	+1.6
UMJS	Umm Lajj	56.73	296	P	P	06 01 24.4	+2.1
ASAJ	Asahikawa	56.96	41	P	P	06 01 24.1	+0.4
	comp=Z,7.9nm,0.7s,mb4.8,baz=263,slow=31,SNR=2.9						
ARU	Arti	56.97	338	*e*P	P	06 01 22.1	-1.4
	comp=Z,323nm,1.8s,mb6.0						
ARU				*e*	pP	06 01 30.8	-1.6
KIV	Kislovodsk	57.95	319	*e*P	P	06 01 29.0	-1.5
	comp=Z,51nm,1.1s,mb5.5						
KIV				*e*	pP	06 01 37.4	-2.1
CTA	Charters Tower	58.21	118	P	P	06 01 31.6	-1.1
	comp=Z,31nm,1.1s,mb5.2,baz=289,slow=8.2,SNR=12						
CTAO	Charters Tower	58.21	118	*e*P	P	06 01 32.0	-0.7
CTAO				*e*	pP	06 01 42.3	+0.7
ASF	Jabal al Asfar	58.45	304	P	P	06 01 34.9	+0.7
	comp=Z,13nm,1.1s,mb4.9,baz=290,slow=2.9,SNR=7.4						
JMQS	Jabal Moqyreh	58.62	300	P	P	06 01 36.8	+1.3
MALT	Malatya	58.89	311	*e*P	P	06 01 36.2	-1.0
BDAS	Al Bad‘	59.21	299	P	P	06 01 40.6	+1.0
EIL	Elat	59.56	301	P	P	06 01 41.6	-0.4
	comp=Z,16nm,1.0s,mb5.0,baz=102,slow=11,SNR=4.9						
EIL	Elat	59.56	301	*e*P	P	06 01 41.9	-0.1
	comp=Z,37nm,1.1s,mb5.3						
EIL				*e*	pP	06 01 50.6	-0.4
STKA	Stephens Creek	59.61	133	P	P	06 01 41.6	-0.7
	comp=Z,26nm,1.1s,mb5.2,baz=313,slow=6.4,SNR=15						
STKA	Stephens Creek	59.61	133	*e*P	P	06 01 41.6	-0.7
STKA				*e*	pP	06 01 51.5	+0.2
CSS	Prodhromos	61.97	306	*e*P	P	06 01 57.6	-0.7
	comp=Z,159nm,2.0s,mb5.8						
CSS				*e*	pP	06 02 06.4	-0.9
BRTR	Keskin Array B	62.87	311	P	P	06 02 02.2	-2.0
	comp=Z,9.7nm,0.8s,mb5.0,baz=122,slow=7.2,SNR=15						
ISP	Isparta	64.81	309	*e*P	P	06 02 14.4	-2.6
	comp=Z,86nm,1.4s,mb5.6						
LSZ	Lusaka	68.14	251	*e*P	P	06 02 38.8	+0.3
	comp=Z,30nm,1.3s,mb5.2						
LSZ				*e*	pP	06 02 47.5	0.0
IDI	Anoyia	68.84	305	P	P	06 02 41.6	-0.9
	comp=Z,22nm,0.7s,mb5.2,baz=88,slow=8.8,SNR=12						
AKASG	Malin Array Be	68.87	322	P	P	06 02 39.7	-2.8
	comp=Z,9.8nm,0.7s,mb4.8,baz=90,slow=4.4,SNR=18						
RZN	Rozhen	69.91	312	*e*P	P	06 02 48.0	-1.0
MMB	Musomiste	70.63	312	*e*P	P	06 02 52.0	-1.3
KKB	Krupnik	71.14	312	*e*P	P	06 02 55.0	-1.5
VTS	Vitosha	71.16	313	*e*P	P	06 02 55.0	-1.6
KOLS	Kolonicke sedl	72.85	319	*e*P	P	06 03 04.7	-1.8
KOLS				*e*pP	pP	06 03 15.4	-0.2
LBTB	Lobatse	72.94	242	*e*P	P	06 03 07.7	+0.1
	comp=Z,15nm,1.0s,mb4.9						
LBTB				*e*	pP	06 03 16.4	-0.2
CRVS	Cervenica-Dubn	73.37	319	*e*P	P	06 03 11.4	+1.8
CRVS				*e*sP	sP	06 03 23.1	+1.3
FINES	FINESS Array B	73.68	332	P	P	06 03 09.7	-1.4
	comp=Z,24nm,0.7s,mb5.2,baz=104,slow=7.9,SNR=25						
KAF	Kangasniemi	73.78	333	*e*p	P	06 03 11.0	-0.6
	comp=Z,20nm,0.8s,mb5.1						
OJC	Ojcow	74.65	320	*e*P	P	06 03 16.6	-0.3
VYHS	Vyhne	75.03	318	*e*P	P	06 03 18.8	-0.4
VYHS				*e*pP	pP	06 03 27.1	-1.2
OKC	Ostrava-Krasne	75.65	320	*e*P	P	06 03 22.4	-0.3
OKC				*e*pP	pP	06 03 31.2	-0.6
KEV	Kevo	75.98	341	*e*p	P	06 03 24.0	-0.2
	comp=Z,15nm,0.7s,mb5.0						
ZST	Bratislava	76.15	318	*e*P	P	06 03 24.7	-0.8
ZST				*e*pP	pP	06 03 34.2	-0.4
ARCES	ARCESS Array B	76.40	340	P	P	06 03 25.8	-0.8
	comp=Z,31nm,1.1s,mb5.2,baz=101,slow=6.2,SNR=12						
VRAC	Vranov	76.60	319	P	P	06 03 27.3	-0.7
	comp=Z,2.4nm,0.6s,mb4.3,baz=100,slow=4.1,SNR=5.6						
DPC	Dobruska-Polom	76.88	320	*e*P	P	06 03 30.0	+0.5
DPC				*e*pP	pP	06 03 38.8	+0.1
KSP	Ksiaz	76.95	321	⇑*e*P	P	06 03 29.9	0.0
KSP				*e*	pP	06 03 38.7	-0.3
MAW	Mawson	76.97	192	P	P	06 03 31.2	+1.5
	comp=Z,5.1nm,0.8s,mb4.5,baz=311,slow=7.4,SNR=4.7						
MAW	Mawson	76.97	192	*e*P	P	06 03 31.6	+1.8
UPC	Upice	77.09	320	*e*P	P	06 03 30.0	-0.7
UPC				*e*pP	pP	06 03 39.7	-0.1
ARSA	Arzberg	77.13	317	⇑*i*P	P	06 03 31.3	+0.3
	comp=Z,50nm,1.5s,mb5.2						
OBKA	Obir	77.74	316	⇓*i*P	P	06 03 35.3	+0.9
	comp=Z,34nm,1.5s,mb5.1						
PRU	Pruhonice	77.99	320	*e*P	P	06 03 35.6	-0.1
PRU				*e*pP	pP	06 03 44.6	-0.2
BRG	Berggiesshubel	78.43	321	*e*P	P	06 03 38.3	+0.2
	comp=Z,114nm,1.9s,mb5.5						
BRG				*e*	pP	06 03 47.3	+0.1
GEC2	GERESS Array S	78.46	318	*e*P	P	06 03 38.7	+0.4
	comp=Z,67nm,1.3s,mb5.4						
GERES	GERESS Array B	78.46	318	P	P	06 03 38.4	+0.2
	comp=Z,12nm,0.7s,mb4.9,baz=90,slow=5.3,SNR=22						
KHC	Kasperske Hory	78.56	319	*e*P	P	06 03 38.8	0.0
KHC				*e*pP	pP	06 03 47.5	-0.4
PTCC	Patocco-Chiusa	78.56	316	*e*P	P	06 03 38.4	-0.5
KBA	Koelnbreinsper	78.60	317	⇓*i*P	P	06 03 39.2	+0.1
	comp=Z,22nm,1.1s,mb5.0						
FX1	Attu Island--F	78.71	37	P	P	06 03 38.6	-0.9
	comp=Z,17nm,0.5s,mb5.2,baz=111,slow=19,SNR=7.3						
ARV	Arcevia	78.74	313	*e*P	P	06 03 40.0	+0.1
WET	Wettzell	79.01	319	*e*P	P	06 03 41.4	+0.1
CLL	Collm	79.06	321	*i* P	P	06 03 40.6	-0.9
	comp=Z,13nm,1.2s,mb4.7						
CLL				*i*	pP	06 03 49.7	-0.9
CLL	Collm	79.06	321	P	P	06 03 40.6	-0.9
	comp=Z,logA/T=1.0,mb4.7						
CLL				*i* *PP	pP	06 03 49.7	-0.9
NKC	Novy Kostel	79.35	320	*e*P	P	06 03 43.0	-0.1
NKC				*e*pP	pP	06 03 52.1	-0.2
HFS	Hagfors	79.37	330	P	P	06 03 42.5	-0.5
	comp=Z,9.2nm,0.8s,mb4.8,baz=124,slow=5.3,SNR=7.0						
SFI	Santa Sofia	79.54	313	*e*P	P	06 03 45.3	+1.0
PGD	Poggio Sodo	79.63	313	*e*P	P	06 03 45.7	+0.9
CTI	Castel Tesino	79.73	316	*e*P	P	06 03 45.7	+0.4
VMG	Vicchio	79.76	313	*e*P	P	06 03 46.8	+1.3
WTTA	Wattenberg	79.77	317	⇓*i*P	P	06 03 45.6	+0.2
	comp=Z,20nm,0.8s,mb5.1						
WATA	Walderalm	79.81	317	⇓*i*P	P	06 03 45.5	-0.2
	comp=Z,6.3nm,0.7s,mb4.7						
SEI	Scarperia	79.90	313	*e*P	P	06 03 47.0	+0.8
MOX	Moxa	79.90	320	*i* P	P	06 03 46.1	+0.1
MOX	Moxa	79.90	320	*e*P	P	06 03 46.1	+0.1
FUR	Furstenfeldbru	80.04	318	*e*P	P	06 03 47.3	+0.4
SQTA	Sankt Quirin	80.06	317	⇓*i*P	P	06 03 47.1	+0.1
	comp=Z,13nm,0.7s,mb5.0						
GRA1	Grafenberg Arr	80.12	319	*e*P	P	06 03 48.0	+0.8
	comp=Z,24nm,1.0s,mb5.1						
GRA1				*e*pP	pP	06 03 57.0	+0.6
GRF	Grafenberg Arr	80.12	319	*e*P	P	06 03 48.0	+0.8
	comp=Z,24nm,1.0s,mb5.1						
GRF				*e*pP	pP	06 03 57.0	+0.6
MOTA	Moosalm	80.13	317	⇓*i*P	P	06 03 47.0	-0.4
	comp=Z,12nm,0.8s,mb4.9						
NB2	NORSAR Subarra	80.66	331	P	P	06 03 49.0	-0.9
	comp=Z,24nm,1.1s,mb5.0,baz=92,slow=5.0						
NB2	NORSAR Subarra	80.66	331	P	P	06 03 49.0	-0.9
	baz=92,slow=5.3						
NOA	NORSAR Array B	80.66	331	P	P	06 03 48.7	-1.2
	comp=Z,7.2nm,0.8s,mb4.6,baz=94,slow=5.5,SNR=9.1						
NOA	NORSAR Array B	80.66	331	P	P	06 03 48.7	-1.2
CLZ	Clausthal	80.72	321	*e*P	P	06 03 50.6	+0.2
	comp=Z,76nm,1.5s,mb5.4						
BSEG	Bad Segeberg	80.81	324	*e*P	P	06 03 51.0	+0.2
BFO	Black Forest	82.01	318	*e*P	P	06 03 57.2	0.0
CDF	Champ du Feu	82.71	318	*e*P	P	06 04 00.9	+0.1
	comp=Z,5.5nm,0.7s,mb4.4						
LPL	La Plagne	83.17	315	*e*P	P	06 04 02.9	-0.4
	comp=Z,66nm,1.1s,mb5.3						
MBDF	Montbardon	83.17	314	*e*P	P	06 04 02.9	-0.4
	comp=Z,20nm,0.9s,mb4.9						
HAU	Haudompre	83.34	318	*e*P	P	06 04 04.1	0.0
	comp=Z,19nm,0.7s,mb4.9						
LMR	La Mourre	83.42	313	*e*P	P	06 04 03.7	-0.9
	comp=Z,125nm,1.4s,mb5.5						
BAIF	Baives	84.65	320	*e*P	P	06 04 10.9	+0.3
	comp=Z,16nm,0.8s,mb4.9						
SSF	Saint Saulge	85.32	317	*e*P	P	06 04 13.8	-0.3
	comp=Z,20nm,1.1s,mb4.9						
RPZ	Rata Peaks	85.51	135	P	P	06 04 15.8	+0.7
	comp=Z,8.6nm,0.8s,mb5.1,baz=139,slow=11,SNR=3.1						
BGF	Bois d’Agland	85.81	316	*e*P	P	06 04 16.3	-0.2
	comp=Z,43nm,1.1s,mb5.3						
CAF	Calviac	86.50	315	*e*P	P	06 04 20.1	+0.1
	comp=Z,65nm,1.4s,mb5.4						
LDF	La Druitiere	87.60	318	*e*P	P	06 04 25.1	-0.1
URZ	Urewera	88.97	129	P	P	06 04 31.9	-0.1
	comp=Z,9.1nm,0.9s,mb5.1,baz=286,slow=4.8,SNR=3.8						
ESDC	Sonseca Array	91.63	310	P	P	06 04 44.5	+0.2
	comp=Z,7.9nm,0.8s,mb5.1,baz=64,slow=4.0,SNR=22						
VNDA	Vanda	91.64	168	P	P	06 04 46.0	+2.4
	comp=Z,4.1nm,1.2s,mb4.6,baz=319,slow=5.1,SNR=3.1						
VNDA	Vanda	91.64	168	P	P	06 04 46.0	+2.4
ILAR	Eielson Array	96.35	22	P	P	06 05 04.2	-1.2
	comp=Z,0.7nm,0.5s,mb4.4,baz=303,slow=5.8,SNR=10						
DBIC	Dimbokro	97.46	278	P	P	06 05 13.0	+1.4
	comp=Z,1.7nm,0.7s,mb4.6,baz=115,slow=12,SNR=4.2						
INK	Inuvik	98.58	16	P	P	06 05 14.9	-0.4
	comp=Z,1.5nm,0.5s,mb4.8,baz=353,slow=4.0,SNR=7.1						
RES	Resolute Bay	98.88	2	*e*P	P	06 05 17.4	+0.8
	comp=Z,8.7nm,0.9s,mb5.3						
YKA	Yellowknife Ar	108.00	13	PP	PP	06 10 18.4	-11
	comp=Z,0.2nm,0.5s,baz=335,slow=7.1,SNR=6.0						
SCHQ	Schefferville	116.80	347	PKP	PKPdf	06 10 21.6	-3.5
	comp=Z,1.9nm,0.5s,baz=354,slow=16,SNR=5.3						
ULM	Lac du Bonnet	122.99	7	PKP	PKPdf	06 10 34.5	-2.7
	comp=Z,6.0nm,0.7s,baz=12,slow=2.5,SNR=12						
ULM	Lac du Bonnet	122.99	7	PKP	PKPdf	06 10 34.5	-2.7
ELK	Elko	126.18	27	*e*P	PKPdf	06 10 40.6	-3.0
NVAR	Mina Array Bea	126.52	31	PKP	PKPdf	06 10 41.9	-2.4
	comp=Z,3.1nm,0.7s,baz=310,slow=2.0,SNR=13						
MNV	Mina	126.59	31	PKPdf	PKPdf	06 10 41.0	-3.5
PDAR	Pinedale Array	126.77	21	PKP	PKPdf	06 10 41.3	-3.4
	comp=Z,3.3nm,0.7s,baz=64,slow=0.8,SNR=15						
TPNV	Topopah Spring	128.70	31	*e*PKPdf	PKPdf	06 10 45.1	-3.5
USHA	Ushuaia	129.57	193	PKP	PKPdf	06 10 47.7	-2.0
	comp=Z,3.2nm,0.9s,baz=89,slow=21,SNR=3.4						
ANMO	Albuquerque	134.78	23	PKP	PKPdf	06 10 57.8	-2.4
	comp=Z,3.6nm,0.8s,baz=251,slow=1.6,SNR=11						
TXAR	Lajitas Array	140.83	24	PKhKP		06 11 02.0	
	comp=Z,0.4nm,0.5s,baz=227,slow=2.3,SNR=6.4						
TXAR				PKP	PKPdf	06 11 08.6	-2.8
	comp=Z,1.5nm,0.6s,baz=206,slow=0.2,SNR=11						
TXAR				PP	PP	06 14 06.6	-4.1
	comp=Z,1.5nm,1.0s,baz=359,slow=6.6,SNR=4.4						
TXAR	Lajitas Array	140.83	24	PKP	PKPdf	06 11 08.6	-2.8
TXAR				PP	PP	06 14 06.6	-4.1
BAO	Brasilia Array	141.12	253	PKP	PKPdf	06 11 04.6	-7.6
BDFB	Brasilia	141.14	253	PKP	PKPdf	06 11 08.4	-3.9
	comp=Z,2.7nm,0.7s,baz=181,slow=2.8,SNR=5.3						
CPUP	Villa Florida	145.82	231	PKPbc	PKPbc	06 11 17.1	+1.2
	comp=Z,0.0nm,0.3s,baz=350,slow=4.0,SNR=2.1						
BIM	Bigot	147.27	310	⇓*e*P	PKPdf	06 11 22.6	-0.2
TLL	Tololo Astrono	152.11	210	*e*P	PKPdf	06 11 34.1	+4.2
LVC	Limon Verde	156.57	225	PKPab	PKPab	06 12 03.4	+0.8
	comp=Z,5.5nm,0.7s,baz=283,slow=4.0,SNR=5.7						
SDV	Santo Domingo	158.03	314	*e*PKPdf	PKPdf	06 11 35.3	-3.1
LPAZ	La Paz	159.47	240	PKP	PKPdf	06 11 37.6	-2.3
	comp=Z,4.3nm,1.0s,baz=65,slow=3.2,SNR=7.0						
LPAZ				PKPab	PKPab	06 12 15.3	+0.1
	comp=Z,3.9nm,0.8s,baz=107,slow=4.4,SNR=5.3						
LPAZ	La Paz	159.47	240	PKP	PKPdf	06 11 37.6	-2.3
LPAZ				PKPab	PKPab	06 12 15.3	+0.1
ROSC	El Rosal	163.44	312	PKP	PKPdf	06 11 42.6	-1.5
	comp=Z,5.2nm,0.8s,baz=135,slow=3.6,SNR=8.2						

IDC 26 05:51:46.2±0.4**, 6.72N×93.31E, mb5.0**/31**, mb1 5.1**/32**, mb1mx5.0**/38**, ML4.7**/1**, Error ellipse: s-maj=16.6km s-min=10.8km az=44.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.90	25	Pn	P	05 54 52.5	-1.2
	1.4nm,0.3s,baz=230,slow=14,SNR=14						
MNGI	Mangalore	19.23	290	*e*	P	05 56 07.5	-7.3

	comp=Z,157nm,1.7s						
AKL	Akola	21.04	313	*e*	P	05 56 41.3	+7.0
	comp=Z,317nm,1.3s						
NDI	New Delhi	26.62	327	*e*	P	05 57 31.6	+3.2
	comp=Z,143nm,1.0s						
JOW	Kunigami	38.79	55	P	P	05 59 13.8	-0.7
	comp=Z,32nm,0.5s,baz=230,slow=7.2,SNR=10						
SONM	Songino Array	42.47	13	P	P	05 59 44.6	-0.1
	comp=Z,4.4nm,0.4s,baz=201,slow=7.3,SNR=7.4						
NWAO	Narrogin (SRO)	45.52	151	P	P	06 00 07.7	-1.8
	comp=Z,37nm,0.9s,baz=330,slow=3.9,SNR=7.5						
ZAL	Zalesovo	47.59	353	P	P	06 00 24.5	-1.1
	comp=Z,31nm,0.8s,baz=287,slow=8.3,SNR=9.7						
WRA	Warramunga Arr	48.28	124	P	P	06 00 28.6	-2.8
	comp=Z,17nm,0.5s,baz=303,slow=9.0,SNR=9.2						
BVAR	Borovoye Array	49.82	342	P	P	06 00 39.2	-3.7
	comp=Z,13nm,0.9s,baz=113,slow=11,SNR=8.1						
ASAR	Alice Springs	49.82	129	P	P	06 00 40.5	-2.9
	comp=Z,9.7nm,0.6s,baz=302,slow=7.0,SNR=9.2						
CBIJ	Chichi jima	50.58	60	P	P	06 00 47.7	-1.3
	comp=Z,48nm,0.5s,baz=297,slow=20,SNR=4.3						
GNI	Garni	54.66	315	P	P	06 01 17.7	-1.6
	comp=Z,29nm,1.0s,baz=96,slow=11,SNR=7.8						
PMG	Port Moresby	55.99	106	P	P	06 01 26.5	-2.8
	comp=Z,29nm,0.8s,baz=325,slow=5.3,SNR=7.0						
KMBO	Kilima Mbogo	56.48	264	P	P	06 01 31.1	-1.7
	comp=Z,7.8nm,1.0s,baz=57,slow=11,SNR=8.7						
ASF	Jabal al Asfar	58.16	304	P	P	06 01 44.0	-0.4
	comp=Z,22nm,1.1s,baz=345,slow=3.9,SNR=9.8						
CTA	Charters Tower	58.48	118	P	P	06 01 44.3	-2.5
	comp=Z,9.3nm,0.8s,baz=294,slow=9.1,SNR=5.0						
EIL	Elat	59.29	300	P	P	06 01 51.3	-1.1
	comp=Z,25nm,1.1s,baz=338,slow=4.5,SNR=8.2						
STKA	Stephens Creek	59.92	133	P	P	06 01 54.1	-2.6
	comp=Z,21nm,1.1s,baz=317,slow=4.4,SNR=8.0						
BRTR	Keskin Array B	62.56	311	P	P	06 02 10.7	-3.8
	comp=Z,8.3nm,0.8s,baz=117,slow=8.3,SNR=8.4						
AKASG	Malin Array Be	68.55	322	P	P	06 02 48.9	-3.9
	comp=Z,22nm,1.1s,baz=80,slow=4.7,SNR=4.2						
IDI	Anoyia	68.55	305	P	P	06 02 53.2	+0.1
	comp=Z,33nm,1.0s,baz=90,slow=11,SNR=7.2						
FINES	FINESS Array B	73.35	332	P	P	06 03 18.4	-3.1
	comp=Z,16nm,0.8s,baz=100,slow=12,SNR=7.7						
KAF	Kangasniemi	73.44	333	*e*p	P	06 03 19.8	-2.2
	comp=Z,21nm,0.9s						
KECS	Kecovo	73.63	319	*e*pP	pP	06 03 21.6	-1.8
KEV	Kevo	75.65	341	*e*p	P	06 03 33.3	-1.3
	comp=Z,15nm,0.9s						
ARCES	ARCESS Array B	76.07	340	P	P	06 03 34.4	-2.7
	comp=Z,16nm,1.0s,baz=101,slow=6.2,SNR=6.8						
VRAC	Vranov	76.28	319	P	P	06 03 36.2	-2.4
	comp=Z,3.0nm,1.0s,baz=63,slow=10.0,SNR=4.3						
MAW	Mawson	77.24	191	P	P	06 03 41.7	-1.9
	comp=Z,11nm,0.9s,baz=343,slow=9.0,SNR=7.6						
GERES	GERESS Array B	78.14	318	P	P	06 03 47.4	-1.5
	comp=Z,31nm,1.1s,baz=90,slow=5.3,SNR=12						
HFS	Hagfors	79.04	330	P	P	06 03 51.0	-2.6
	comp=Z,40nm,1.2s,baz=79,slow=7.6,SNR=7.3						
NOA	NORSAR Array B	80.33	331	P	P	06 03 58.0	-2.5
	comp=Z,8.6nm,1.0s,baz=94,slow=5.5,SNR=5.0						
RPZ	Rata Peaks	85.82	135	P	P	06 04 28.7	-0.4
	comp=Z,7.9nm,0.6s,baz=30,slow=12,SNR=4.0						
URZ	Urewera	89.27	128	P	P	06 04 44.7	-1.2
	comp=Z,16nm,0.9s,baz=4.9,slow=2.2,SNR=4.6						
ESDC	Sonseca Array	91.33	310	P	P	06 04 54.3	-1.1
	comp=Z,7.4nm,0.9s,baz=70,slow=3.9,SNR=9.2						
ILAR	Eielson Array	96.12	22	P	P	06 05 14.6	-2.2
	comp=Z,1.1nm,0.6s,baz=319,slow=4.4,SNR=4.4						
DBIC	Dimbokro	97.28	278	P	P	06 05 22.2	-1.0
	comp=Z,9.7nm,1.2s,baz=124,slow=2.0,SNR=3.7						
INK	Inuvik	98.33	16	P	P	06 05 25.7	-1.0
	comp=Z,20nm,1.4s,baz=308,slow=7.6,SNR=3.0						
NVAR	Mina Array Bea	126.33	31	PKP	PKPdf	06 10 52.3	-1.0
	comp=Z,5.3nm,1.1s,baz=280,slow=2.2,SNR=5.8						
PDAR	Pinedale Array	126.54	21	PKP	PKPdf	06 10 50.5	-3.0
	comp=Z,7.2nm,1.2s,baz=122,slow=3.7,SNR=5.2						
ANMO	Albuquerque	134.55	23	PKP	PKPdf	06 11 09.2	+0.1
	comp=Z,2.0nm,0.8s,baz=243,slow=1.3,SNR=4.7						
BDFB	Brasilia	141.09	253	PKP	PKPdf	06 11 20.7	-0.9
	comp=Z,3.7nm,0.8s,baz=152,slow=3.5,SNR=4.2						
CPUP	Villa Florida	145.91	232	PKPbc	PKPbc	06 11 28.9	+0.2
	comp=Z,0.0nm,0.4s,baz=84,slow=12,SNR=1.7						
LVC	Limon Verde	156.69	225	PKP	PKPdf	06 11 45.8	+0.1
	comp=Z,4.2nm,1.1s,baz=210,slow=7.6,SNR=4.4						
LVC				PKPab	PKPab	06 12 13.7	-2.0
	comp=Z,16nm,1.0s,baz=108,slow=8.2,SNR=7.9						
LPAZ	La Paz	159.50	241	PKP	PKPdf	06 11 48.6	-0.8
	comp=Z,6.4nm,1.0s,baz=45,slow=2.5,SNR=10						
LPAZ				PKPab	PKPab	06 12 24.8	-3.1
	comp=Z,5.0nm,1.2s,baz=71,slow=9.8,SNR=4.8						
ROSC	El Rosal	163.14	313	PKP	PKPdf	06 11 53.8	+0.7
	comp=Z,7.0nm,0.9s,baz=101,slow=7.6,SNR=5.6						

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*IDC **26** 05:55:45.8±0.4, 3.25N×94.00E, mb4.9/28, mb1 4.9/29, mb1mx4.9/31, Error ellipse: s-maj=19.9km s-min=10.4km az=48.0*

*BJI **26** 05:55:48.8, 2.83N×93.96E, h43^{km}, mb5.3*

*NEIC **26** 05:55:49.4±0.2, 3.17N×93.94E, mb5.1/36, Error ellipse: s-maj=10.9km s-min=6.2km az=47.0*

*CSEM **26** 05:55:51.1, 3.38N×93.89E, h33^{km}, mb5.5*

ISC 26 05:55:47.8±0.3**, 3.16N**±0.06×**93.97E**±0.06**, h24^{km}, h24^{km}**±1.0^{km}**:pP-P, n105, σ0^{s}99**/93**, mb5.1**/65**, 5D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.97	17	P	P	05 59 36.9	+4.0
	120nm,1.0s						
CMAR	Chiang Mai Arr	15.97	17	Pn	P	05 59 30.1	-2.7
	baz=212,slow=12,SNR=2.7						
KMI	Kunming	23.42	20	*e*P	P	06 00 59.3	+3.1
KMI				AMB	AMB		
	comp=Z,37nm,1.4s,mb4.6						
LSA	Lhasa	26.54	355	*e*P	P	06 01 28.2	+2.4
	comp=Z,130nm,0.8s,mb5.5						
XAN	Xi'an	33.74	23	P	P	06 02 29.8	0.0
XAN				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
MBWA	Marble Bar	34.94	135	*e*P	P	06 02 40.4	+0.1
	comp=Z,33nm,0.9s,mb5.3						
GTA	Gaotai	36.48	8	P	P	06 02 53.5	+0.4
GTA				AP	pP	06 03 02.0	+1.9
GTA				AMB	AMB		
	comp=Z,16nm,1.1s,mb4.9						
JOW	Kunigami	40.40	51	P	P	06 03 27.9	+1.9
	comp=Z,20nm,0.9s,mb4.8,baz=243,slow=14,SNR=3.3						
NWAO	Narrogin (SRO)	42.11	150	P	P	06 03 40.8	+0.8
	comp=Z,15nm,0.4s,mb5.0,baz=100,slow=6.4,SNR=23						
SONM	Songino Array	45.78	12	P	P	06 04 09.5	0.0
	comp=Z,16nm,0.8s,mb5.0,baz=191,slow=8.5,SNR=16						
WRA	Warramunga Arr	45.80	122	P	P	06 04 10.6	+0.6
	comp=Z,47nm,0.8s,mb5.5,baz=300,slow=8.9,SNR=23						
WRAB	Tennant Creek	45.81	122	*e*P	P	06 04 10.6	+0.6
	comp=Z,97nm,0.8s,mb5.8						
ULN	Ulaanbaatar	45.95	12	*e*P	P	06 04 11.3	+0.5
	comp=Z,8.9nm,0.7s,mb4.8						
ASAR	Alice Springs	47.14	127	P	P	06 04 20.4	-0.1
	comp=Z,25nm,0.8s,mb5.2,baz=303,slow=7.7,SNR=20						
ASAR				PcP	PcP	06 05 53.0	+0.6
	comp=Z,6.4nm,0.7s,baz=294,slow=3.4,SNR=5.5						
RDF	Al-Radifah	50.97	305	*e*P	P	06 04 50.9	+0.9
RDF				AMb	AMB	06 04 52.4	
	comp=Z,116nm,0.9s,mb5.8						
UMR	Umm Al-Rimmam	51.07	306	*e*P	P	06 04 52.2	+1.5
UMR				AMb	AMB	06 04 53.0	
	comp=Z,134nm,0.8s,mb5.9						
ZAL	Zalesovo	51.17	353	P	P	06 04 51.2	+0.1
	comp=Z,13nm,0.6s,mb5.0,baz=300,slow=6.1,SNR=8.6						
MIB	Mutribah	51.46	306	*e*P	P	06 04 54.5	+0.8
RST	Umm Al-Ruwaisa	51.63	306	AMb	AMB	06 05 05.2	
	comp=Z,52nm,0.9s,mb5.5						
BVAR	Borovoye Array	53.39	342	P	P	06 05 06.4	-1.4
	comp=Z,17nm,0.7s,mb5.1,baz=143,slow=7.4,SNR=17						
BRVK	Borovoye	53.45	342	*e*P	P	06 05 07.3	-0.9
	comp=Z,21nm,0.8s,mb5.1						
BRVK				*e*		06 05 20.4	
PMG	Port Moresby	54.45	104	P	P	06 05 15.6	-0.5
	comp=Z,11nm,0.8s,mb4.8,baz=279,slow=6.5,SNR=3.3						
CTA	Charters Tower	56.26	117	P	P	06 05 28.2	-0.9
	comp=Z,13nm,0.9s,mb4.9,baz=281,slow=8.9,SNR=7.3						
CTAO	Charters Tower	56.26	117	*e*P	P	06 05 28.3	-0.8
	comp=Z,16nm,0.9s,mb5.1						
KMBO	Kilima Mbogo	56.85	267	P	P	06 05 33.3	-0.2
	comp=Z,7.3nm,1.0s,mb4.7,baz=48,slow=9.0,SNR=9.2						
STKA	Stephens Creek	57.06	132	P	P	06 05 33.5	-1.2
	comp=Z,16nm,0.7s,mb5.2,baz=305,slow=7.1,SNR=13						
GNI	Garni	57.66	317	P	P	06 05 38.8	0.0
	comp=Z,8.0nm,0.6s,mb4.9,baz=147,slow=6.0,SNR=3.1						
ASAJ	Asahikawa	59.12	39	P	P	06 05 47.8	-1.1
	comp=Z,11nm,0.6s,mb5.0,baz=276,slow=7.6,SNR=5.6						
ARU	Arti	60.16	338	*e*P	P	06 05 54.6	-1.4
	comp=Z,23nm,0.9s,mb5.2						
ARU				*e*		06 06 07.3	
YSS	Yuzh-Sakhalins	60.62	36	*e*P	P	06 05 59.2	0.0
	comp=Z,67nm,1.0s,mb5.7						
ASF	Jabal al Asfar	60.71	305	P	P	06 06 00.7	+0.7
	comp=Z,9.1nm,0.9s,mb4.9,baz=336,slow=5.3,SNR=6.8						
KIV	Kislovodsk	60.73	320	P	P	06 05 59.7	-0.3
	comp=Z,423nm,0.8s,SNR=8.7						
KIV	Kislovodsk	60.73	320	*e*P	P	06 05 59.2	-0.8
	comp=Z,70nm,0.8s,mb5.8						
EIL	Elat	61.69	302	P	P	06 06 06.9	+0.2
	comp=Z,16nm,0.9s,mb5.2,baz=81,slow=3.0,SNR=8.5						
BRTR	Keskin Array B	65.42	313	P	P	06 06 29.7	-1.4
	comp=Z,8.3nm,0.8s,mb4.8,baz=129,slow=7.0,SNR=19						
LSZ	Lusaka	67.60	252	*e*P	P	06 06 45.0	-0.4
	comp=Z,14nm,1.3s,mb4.8						
IDI	Anoyia	71.15	306	P	P	06 07 07.0	+0.1
	comp=Z,20nm,0.7s,mb5.2,baz=91,slow=8.7,SNR=10						
AKASG	Malin Array Be	71.75	323	P	P	06 07 08.6	-1.6
	comp=Z,7.3nm,0.7s,mb4.7,baz=89,slow=4.2,SNR=16						
MAW	Mawson	73.91	192	P	P	06 07 23.0	+0.5
	comp=Z,4.7nm,0.8s,mb4.4,baz=21,slow=11,SNR=5.4						
KOLS	Kolonicke sedl	75.65	320	*i* P	P	06 07 33.9	+1.0
CRVS	Cervenica-Dubn	76.17	320	*e*P	P	06 07 39.6	+3.8
FINES	FINESS Array B	76.79	333	P	P	06 07 37.8	-1.3
	comp=Z,9.0nm,0.8s,mb4.8,baz=127,slow=9.5,SNR=8.9						
KAF	Kangasniemi	76.90	333	*e*p	P	06 07 39.5	-0.2
	comp=Z,11nm,0.9s,mb4.8						
OJC	Ojcow	77.47	321	*e*P	P	06 07 43.4	+0.3
VYHS	Vyhne	77.81	319	*e*P	P	06 07 45.0	+0.1
OKC	Ostrava-Krasne	78.46	320	*e*P	P	06 07 49.0	+0.5
OKC				*e*pP	pP	06 07 55.5	-0.5
ZST	Bratislava	78.91	318	*e*P	P	06 07 51.6	+0.6
KEV	Kevo	79.21	341	*e*p	P	06 07 52.6	+0.4
	comp=Z,5.3nm,0.7s,mb4.6						
ARCES	ARCESS Array B	79.62	341	P	P	06 07 54.2	-0.3
	comp=Z,7.0nm,0.7s,mb4.7,baz=88,slow=5.9,SNR=8.7						
ARCES	ARCESS Array B	79.62	341	P	P	06 07 54.2	-0.3
DPC	Dobruska-Polom	79.70	321	*e*P	P	06 07 56.3	+1.1
DPC				*e*pP	pP	06 08 03.3	+0.6
KSP	Ksiaz	79.78	321	*e*P	P	06 07 55.7	0.0
UPC	Upice	79.92	321	*e*P	P	06 07 57.5	+1.1
MOA	Molln	80.76	318	⇓*i*P	P	06 08 01.4	+0.5
	comp=Z,19nm,1.6s,mb4.8						
PRU	Pruhonice	80.79	320	*e*P	P	06 08 01.5	+0.4
PRU				*e*pP	pP	06 08 09.4	+0.8
PVCC	Panska Ves	80.83	321	*e*P	P	06 08 02.3	+1.0
GEC2	GERESS Array S	81.22	319	*e*P	P	06 08 04.2	+0.8
	comp=Z,16nm,0.8s,mb5.0						
GERES	GERESS Array B	81.22	319	P	P	06 08 03.6	+0.3
	comp=Z,13nm,0.7s,mb4.9,baz=104,slow=5.5,SNR=31						
BRG	Berggiesshubel	81.27	321	*e*P	P	06 08 04.6	+1.1
	comp=Z,14nm,1.1s,mb4.8						
BRG				*i*	pP	06 08 11.9	+0.9
KHC	Kasperske Hory	81.33	319	*e*P	P	06 08 04.1	+0.2
KHC				*e*pP	pP	06 08 11.9	+0.5
WET	Wettzell	81.79	319	*e*P	P	06 08 07.0	+0.7
CLL	Collm	81.90	321	*i* P	P	06 08 07.4	+0.6
	comp=Z,11nm,1.1s,mb4.7						
CLL				*i*	pP	06 08 14.5	+0.2
CLL	Collm	81.90	321	P	P	06 08 07.4	+0.6
	comp=Z,logA/T=1.0,mb4.7						
CLL				*i* *PP	pP	06 08 14.5	+0.2
NKC	Novy Kostel	82.16	320	*e*P	P	06 08 08.5	+0.3
HFS	Hagfors	82.43	330	P	P	06 08 08.7	-0.7
	comp=Z,12nm,0.9s,mb4.8,baz=146,slow=5.3,SNR=5.8						
WTTA	Wattenberg	82.49	317	⇓*i*P	P	06 08 10.5	+0.6
	comp=Z,23nm,0.8s,mb5.2						
WATA	Walderalm	82.53	317	⇓*i*P	P	06 08 10.3	+0.1
	comp=Z,14nm,0.9s,mb5.0						
MOX	Moxa	82.72	320	*i* P	P	06 08 12.1	+1.0
MOX	Moxa	82.72	320	*e*P	P	06 08 12.1	+1.0
SQTA	Sankt Quirin	82.78	317	⇓*i*P	P	06 08 11.9	+0.5
	comp=Z,14nm,0.7s,mb5.1						
FUR	Furstenfeldbru	82.78	318	*e*P	P	06 08 11.7	+0.2
MOTA	Moosalm	82.85	317	⇓*i*P	P	06 08 12.2	+0.4
	comp=Z,10nm,0.8s,mb4.9						
RPZ	Rata Peaks	82.87	135	P	P	06 08 12.8	+0.8
	comp=Z,12nm,0.9s,mb4.9,baz=118,slow=0.4,SNR=4.9						
GRA1	Grafenberg Arr	82.91	320	*e*P	P	06 08 13.7	+1.6
	comp=Z,12nm,0.8s,mb5.0						
GRF	Grafenberg Arr	82.91	320	*e*P	P	06 08 13.7	+1.6
	comp=Z,12nm,0.8s,mb5.0						
CLZ	Clausthal	83.57	322	*e*P	P	06 08 16.1	+0.7
	comp=Z,7.0nm,0.9s,mb4.8						
BSEG	Bad Segeberg	83.72	324	*e*P	P	06 08 16.9	+0.8
NB2	NORSAR Subarra	83.74	331	P	P	06 08 15.5	-0.6
	comp=Z,11nm,0.9s,mb5.0,baz=97,slow=5.3						
NOA	NORSAR Array B	83.74	331	P	P	06 08 14.9	-1.1
	comp=Z,6.8nm,0.9s,mb4.8,baz=95,slow=5.5,SNR=10						
PGF	Pioggiola	84.17	312	*e*P	P	06 08 15.7	-3.0
	comp=Z,93nm,1.2s,mb5.5						
BFO	Black Forest	84.76	318	*e*P	P	06 08 21.6	+0.1
	comp=Z,4.0nm,0.8s,mb4.6						
CDF	Champ du Feu	85.46	318	*e*P	P	06 08 23.5	-1.5
	comp=Z,52nm,1.6s,mb5.1						
MBDF	Montbardon	85.81	314	*e*P	P	06 08 25.7	-1.1
	comp=Z,16nm,0.8s,mb5.0						
LPL	La Plagne	85.83	315	*e*P	P	06 08 26.0	-0.9
	comp=Z,30nm,0.9s,mb5.2						
LMR	La Mourre	86.00	313	*e*P	P	06 08 26.0	-1.9
	comp=Z,111nm,1.4s,mb5.6						
HAU	Haudompre	86.08	318	*e*P	P	06 08 27.0	-1.1
	comp=Z,33nm,1.0s,mb5.2						
CABF	La Chapelle	86.27	316	*e*P	P	06 08 27.6	-1.5
	comp=Z,46nm,1.2s,mb5.3						
URZ	Urewera	86.55	128	P	P	06 08 30.0	-0.7
	comp=Z,9.9nm,0.7s,mb5.2,baz=283,slow=2.0,SNR=6.6						
BAIF	Baives	87.45	320	*e*P	P	06 08 32.8	-1.9
	comp=Z,47nm,1.4s,mb5.2						
VNDA	Vanda	88.37	168	P	P	06 08 38.7	+0.1
	comp=Z,1.9nm,0.8s,mb4.4,baz=68,slow=5.4,SNR=3.8						
VNDA	Vanda	88.37	168	P	P	06 08 38.7	+0.1
MTLF	Montolieu	89.13	313	*e*P	P	06 08 41.5	-1.4
	comp=Z,58nm,1.3s,mb5.5						
ETSF	Etsaut	91.19	313	*e*P	P	06 08 50.5	-2.0
	comp=Z,21nm,0.9s,mb5.2						
ESDC	Sonseca Array	94.11	310	P	P	06 09 06.4	+0.4
	comp=Z,2.0nm,0.7s,mb4.6,baz=59,slow=4.3,SNR=6.1						
NVAR	Mina Array Bea	128.99	33	PKP	PKPdf	06 14 57.3	-1.6
	comp=Z,1.4nm,0.8s,baz=80,slow=1.9,SNR=5.1						
PDAR	Pinedale Array	129.58	22	PKP	PKPdf	06 14 56.1	-3.8
	comp=Z,1.4nm,0.9s,baz=99,slow=3.0,SNR=5.3						
ANMO	Albuquerque	137.51	25	PKP	PKPdf	06 15 13.8	-1.1
	comp=Z,2.0nm,0.9s,baz=247,slow=1.3,SNR=3.7						
ANMO	Albuquerque	137.51	25	PKP	PKPdf	06 15 13.8	-1.1
BDFB	Brasilia	140.58	249	PKP	PKPdf	06 15 19.4	-1.6
	comp=Z,4.8nm,1.2s,baz=358,slow=2.1,SNR=2.7						
TXAR	Lajitas Array	143.54	26	PKP	PKPdf	06 15 21.9	-3.9
	comp=Z,2.0nm,0.8s,baz=247,slow=2.1,SNR=4.9						
CPUP	Villa Florida	144.11	227	PKP	PKPdf	06 15 22.6	-4.3
	comp=Z,0.0nm,0.3s,baz=132,slow=11,SNR=1.7						
LVC	Limon Verde	154.51	219	PKPbc	PKPdf	06 15 50.8	+7.6
	comp=Z,6.1nm,0.9s,baz=326,slow=0.7,SNR=5.9						
LPAZ	La Paz	158.09	232	PKP	PKPdf	06 15 45.9	-2.2
	comp=Z,2.8nm,0.3s,baz=61,slow=5.3,SNR=4.7						
LPAZ				PKPab	PKPab	06 16 21.0	+1.4
	comp=Z,2.4nm,0.7s,baz=125,slow=7.5,SNR=4.6						
LPAZ	La Paz	158.09	232	PKP	PKPdf	06 15 45.9	-2.2
LPAZ				PKPab	PKPab	06 16 21.0	+1.4
ROSC	El Rosal	165.86	304	PKP	PKPdf	06 15 54.5	-1.7
	comp=Z,4.3nm,0.9s,baz=99,slow=5.9,SNR=5.5						

IDC 26 05:59:56.2±0.7**, 7.15N×93.45E, mb4.2**/12**, mb1 4.3**/12**, mb1mx4.1**/19**, Error ellipse: s-maj=34.8km s-min=18.0km az=61.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	42.01	13	P	P	06 07 49.9	-1.1
	1.4nm,0.8s,baz=209,slow=6.8,SNR=3.6						
WRA	Warramunga Arr	48.41	125	P	P	06 08 40.4	-2.0
	5.9nm,0.7s,baz=302,slow=9.1,SNR=7.6						
BVAR	Borovoye Array	49.45	342	P	P	06 08 46.9	-3.2
	0.6nm,0.5s,baz=141,slow=9.5,SNR=3.7						
ASAR	Alice Springs	49.98	129	P	P	06 08 52.4	-2.2
	0.8nm,0.4s,baz=298,slow=7.9,SNR=5.7						
BRTR	Keskin Array B	62.38	311	P	P	06 10 21.4	-1.9
	1.4nm,1.0s,baz=101,slow=6.3,SNR=3.0						
FINES	FINESS Array B	73.03	332	P	P	06 11 26.5	-3.2
	2.5nm,0.8s,baz=90,slow=1.9,SNR=3.3						
ARCES	ARCESS Array B	75.71	340	P	P	06 11 43.0	-2.0
	4.2nm,1.1s,baz=63,slow=8.1,SNR=2.7						
MAW	Mawson	77.69	192	P	P	06 11 53.5	-2.6
	2.3nm,0.8s,baz=54,slow=16,SNR=2.5						
GERES	GERESS Array B	77.91	318	P	P	06 11 57.9	+0.2
	0.8nm,0.7s,baz=82,slow=6.9,SNR=3.1						
HFS	Hagfors	78.73	330	P	P	06 11 59.6	-2.4
	2.9nm,0.7s,baz=98,slow=10,SNR=2.6						
NB2	NORSAR Subarra	80.02	331	P	pP	06 12 15.3	+6.4
	1.0nm,0.6s,baz=91,slow=5.8						
NOA	NORSAR Array B	80.02	331	P	P	06 12 08.6	-0.3
	0.8nm,0.8s,baz=211,slow=14,SNR=2.8						
ILAR	Eielson Array	95.67	22	P	P	06 13 24.4	-0.4
	1.4nm,1.2s,baz=313,slow=6.2,SNR=4.1						
CPUP	Villa Florida	146.28	232	PKPbc	PKPbc	06 19 40.6	+1.0
	0.0nm,0.2s,baz=45,slow=10.0,SNR=2.1						

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*IDC **26** 06:01:04.2±0.9, 4.35N×93.33E, h21^{km}±3^{km}, mb3.8/8, mb1 4.0/9, mb1mx3.8/19, Error ellipse: s-maj=36.1km s-min=17.3km az=50.0*

ISC 26 06:01:02.2±0.9**, 4.3N**±0.1×**93.3E**±0.2**, h22^{km}, h22^{km}**±.7^{km}**:pP-P, n14, σ0^{s}92**/9**, mb3.9**/8**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.13	21	Pn	P	06 04 37.2	+0.6
	baz=209,slow=11,SNR=2.6						
SONM	Songino Array	44.82	13	P	P	06 09 16.3	-0.1
	1.2nm,0.7s,mb3.8,baz=198,slow=6.0,SNR=3.4						
SONM				pP	pP	06 09 22.9	-0.2
	6.1nm,0.9s,baz=192,slow=8.8,SNR=12						
WRA	Warramunga Arr	47.00	122	P	P	06 09 33.1	-0.9
	1.2nm,0.6s,mb4.0,baz=304,slow=8.8,SNR=3.0						
WRA				pP	pP	06 09 40.4	-0.4
	6.2nm,0.6s,baz=304,slow=8.7,SNR=8.6						
ASAR	Alice Springs	48.39	127	P	P	06 09 45.6	+0.8
	0.9nm,0.8s,mb3.8,baz=305,slow=7.1,SNR=2.3						
ZAL	Zalesovo	49.97	353	P	P	06 09 56.5	-0.1
	1.2nm,0.4s,mb4.3,baz=295,slow=3.4,SNR=2.2						
ZAL				pP	pP	06 10 02.9	-0.5
	3.9nm,0.6s,baz=316,slow=7.0,SNR=8.0						
BVAR	Borovoye Array	52.10	343	P	P	06 10 11.5	-1.2
	0.6nm,0.6s,mb3.7,baz=141,slow=9.2,SNR=2.5						
BVAR				pP	pP	06 10 18.7	-0.9
	5.3nm,0.8s,baz=143,slow=7.4,SNR=12						
BRTR	Keskin Array B	64.13	312	P	P	06 11 37.2	-0.2
	0.4nm,0.6s,mb3.6,baz=143,slow=7.2,SNR=2.5						
BRTR				pP	pP	06 11 44.1	-0.2
	3.2nm,0.8s,baz=125,slow=7.0,SNR=12						
BOLS	Boljevac	73.58	314	⇓*i*P	pP	06 12 45.8	+3.1
FINES	FINESS Array B	75.46	333	pP	pP	06 12 52.4	-0.8
	5.3nm,0.9s,baz=135,slow=14,SNR=3.3						
OJC	Ojcow	76.15	321	*e*P	pP	06 12 57.4	0.0
ARCES	ARCESS Array B	78.32	341	P	P	06 13 01.3	-0.6
	6.0nm,1.0s,mb4.5,baz=97,slow=5.9,SNR=3.3						
ARCES				pP	pP	06 13 09.1	+0.1
	3.1nm,0.7s,baz=79,slow=6.2,SNR=3.2						
GERES	GERESS Array B	79.91	319	P	P	06 13 13.1	+2.1
	0.5nm,0.6s,mb3.6,baz=86,slow=5.8,SNR=2.4						
GERES				pP	pP	06 13 19.1	+1.0
	3.4nm,0.9s,baz=104,slow=5.5,SNR=10.0						
PDAR	Pinedale Array	128.80	21	PKP	PKPdf	06 20 11.5	-1.4
	0.6nm,1.1s,baz=229,slow=9.6,SNR=2.6						
PDAR				pPKP		06 20 18.0	
	1.1nm,0.9s,baz=63,slow=3.3,SNR=6.3						
TXAR	Lajitas Array	142.82	25	PKP	PKPdf	06 20 35.3	-3.7
	0.1nm,0.6s,baz=72,slow=2.9,SNR=2.7						
TXAR				pPKP		06 20 42.6	
	0.4nm,0.8s,baz=264,slow=1.1,SNR=2.4						

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*MOS **26** 06:02:27.6±1.0, 8.35N×94.15E, h33^{km}, mb5.5/40, Error ellipse: s-maj=12.3km s-min=5.5km az=121.0*

*BJI **26** 06:02:27.1, 8.31N×93.82E, h26^{km}, mB6.2, mb5.4, Ms6.2, Msz5.8*

*IDC **26** 06:02:28.1±0.3, 8.38N×94.28E, h20^{km}±2^{km}, mb5.0/30, mb1 4.9/31, mb1mx4.9/31, MS5.8/3, Ms1 5.9/3, ms1mx4.8/29, Error ellipse: s-maj=14.1km s-min=8.0km az=51.0*

*NEIC **26** 06:02:28.4±0.2, 8.27N×94.06E, mb5.7/70, Error ellipse: s-maj=6.1km s-min=4.9km az=211.0*

*SYO **26** 06:02:29.4, 8.31N×94.01E, h29^{km}, MB5.6*

*CSEM **26** 06:02:33.7, 8.91N×93.28E, h33^{km}, mb5.7*

ISC 26 06:02:26.6±0.2**, 8.32N**±0.04×**94.07E**±0.03**, h22^{km}, h22^{km}**±.7^{km}**:pP-P, n473, σ1^{s}12**/429**, mb5.5**/132**, MS5.9**/10**, 23C-43D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNT	Nongplab	7.00	52	P	Sn	06 05 30.0	-0.4
CM31	Chiang Mai Arr	11.13	25	*e*P	P	06 05 07.8	0.0
	133nm,0.9s						
CMAR	Chiang Mai Arr	11.13	25	Pn	P	06 05 02.7	-5.1
	baz=215,slow=14,SNR=2.2						
CMAR				LR	LR	06 10 31.7	
	comp=Z,19µm,18.4s,baz=215,slow=44						
UBT	Ubonrachathani	12.73	56	P	P	06 05 30.0	+0.6
PALK	Pallekele	13.29	266	P	P	06 05 35.4	-1.3
	187nm,1.2s						
VIS	Vishakhapatnam	14.02	313	*e*P	P	06 05 45.8	-0.7
MDRS	Chennai	14.38	290	*e*P	P	06 05 51.0	-0.2
AGT	Agartala	15.71	350	⇓*i*	P	06 06 17.0	+8.5
AGT				*i*		06 07 07.0	
TRD	Trivandrum	16.93	272	*e*P	P	06 06 26.8	+2.8
TRD				*e*		06 06 37.5	
	comp=Z,284nm,1.0s						
BOK	Bokaro	17.27	334	*e*P	P	06 06 29.5	+1.3
SHL	Shillong	17.28	353	*e*P	P	06 06 27.0	-1.3
SHL				*e*		06 06 35.4	
	comp=Z,710nm,1.9s						
HYB	Hyderabad	17.61	302	*e*P	P	06 06 35.0	+2.5
HYB				*e*S	S	06 09 40.0	-5.8
HYB	Hyderabad	17.61	302	*i* P	P	06 06 35.0	+2.5
HYB				*e*S	S	06 09 40.0	-5.8
BLSP	Bilaspur	17.90	321	*e*P	P	06 06 36.3	+0.2
BLSP				*e*		06 06 48.9	
	comp=Z,2µm,1.4s						
QIZ	Qiongzhong	18.64	54	P	P	06 06 46.5	+1.2
QIZ				*e*S	S	06 10 15.0	+5.8
QIZ				LR	LR		
	comp=N,80µm,13.0s						
QIZ	Qiongzhong	18.64	54	*e*P	P	06 06 46.3	+1.0
	comp=N,447nm,1.5s						
KMI	Kunming	18.64	25	*e*P	P	06 06 47.5	+2.2
KMI				AP		06 06 50.8	
KMI				S	S	06 10 21.5	+12
KMI				AMB	AMB		
	comp=Z,290nm,2.0s						
KMI				LR	LR		
	comp=N,18µm,9.3s						
KMI				LR	LR		
	comp=E,23µm,12.2s						
KMI				LR	LR		
	comp=Z,20µm,11.9s						
MNGI	Mangalore	19.46	285	*e*P	P	06 06 57.0	+2.0
MNGI				*e*		06 07 08.9	
	comp=Z,600nm,2.2s						
ALBI	Allahabad	20.54	327	*e*P	P	06 07 05.0	-1.5
COCO	West Island	20.56	172	*e*P	P	06 07 07.2	+0.4
	comp=Z,1µm,1.3s						
AKL	Akola	20.57	309	*e*P	P	06 07 08.9	+2.2
AKL				*e*		06 07 21.5	
	comp=Z,618nm,1.5s						
MNCY	Minicoy	20.82	271	⇓*i*P	P	06 07 15.0	+5.6
MNCY				*i*		06 08 29.0	
PKI	Pulchoki	20.83	338	*e*P	P	06 07 09.0	-0.4
	comp=Z,2µm,1.4s						
GUN	Gumba	20.97	339	*e*P	P	06 07 11.0	+0.2
	comp=Z,2µm,1.1s						
DMN	Daman	20.98	337	*e*P	P	06 07 10.6	-0.3
	comp=Z,3µm,1.8s						
GOA	Goa	21.04	292	*e*	P	06 07 19.0	+7.4
GOA				*e*		06 07 29.3	
	comp=Z,818nm,1.1s						
KKN	Kakani	21.07	338	*e*P	P	06 07 11.5	-0.4
	comp=Z,2µm,1.4s,mb6.1						
KAD	Karad	21.33	297	*e*P	P	06 07 14.8	+0.3
LSA	Lhasa	21.45	353	P	P	06 07 12.5	-3.1
LSA				S	S	06 11 09.3	+1.8
LSA	Lhasa	21.45	353	*e*P	P	06 07 15.6	-0.1
	comp=Z,152nm,0.7s,mb5.4						
GKN	Gorkha	21.51	337	*e*P	P	06 07 16.0	-0.3

Sta	Name	Dist	Azi	Phase	ISC	Time	Res
	comp=Z,4µm,1.7s,mb6.6						
GYA	Guiyang	21.64	32	⇑*i*P	P	06 07 18.5	+0.8
GYA				AP		06 07 23.0	
GYA				AMB	AMB		
	comp=Z,330nm,2.0s,mb5.4						
GYA				AMB	AMB		
	comp=Z,1µm,4.2s						
GYA				LR	LR		
	comp=N,20µm,15.2s,MS5.8						
GYA				LR	LR		
	comp=E,21µm,16.4s,MS5.8						
GYA				LR	LR		
	comp=Z,20µm,16.4s,MS5.6						
KOLN	Koldanda	21.73	334	*e*P	P	06 07 18.7	+0.2
	comp=Z,3µm,1.5s,mb6.5						
BHPL	Bhopal	21.80	315	*e*P	P	06 07 20.0	+0.8
BHPL				*e*		06 07 29.6	
	comp=Z,686nm,2.1s						
POO	Poona	22.11	299	*e*P	P	06 07 22.8	+0.5
BOM	Bombay	23.15	299	*e*P	P	06 07 35.5	+2.8
BOM				*e*		06 07 46.3	
	comp=Z,849nm,1.5s						
CD2	Chengdu	24.23	21	P	P	06 07 43.5	+0.4
CD2				AMB	AMB		
	comp=Z,820nm,1.1s,mb6.1						
LGTI	Lohaghat	24.71	330	*e*P	P	06 07 49.5	+1.8
PTH	Pithoragarh	24.80	330	*e*P	P	06 07 50.2	+1.5
PTH				*e*		06 12 20.1	
NDI	New Delhi	25.73	324	*e*P	P	06 07 57.4	-0.1
NDI				*e*	pP	06 08 04.7	+0.8
	comp=Z,906nm,2.2s						
AJM	Ajmer	25.81	317	*e*P	P	06 07 59.8	+1.6
AJM				*e*		06 08 10.2	
	comp=Z,723nm,1.7s						
ENH	Enshi	26.18	31	*e*P	P	06 08 00.7	-0.9
	comp=Z,0.6nm,0.4s						
DDI	Dehra Dun	26.53	328	*e*P	P	06 08 04.8	0.0
DDI				*e*		06 13 05.4	
RCP	Roxas	28.42	81	⇓*e*P	P	06 08 22.3	+0.2
QZH	Quanzhou	28.64	52	*e*P	P	06 08 27.0	+3.0
PONG	Pong	28.93	327	*e*	P	06 08 31.0	+4.5
XAN	Xi’an	29.02	26	P	P	06 08 26.3	-1.1
XAN				AP	pP	06 08 33.0	-0.9
XAN				AMB	AMB		
	comp=Z,88nm,1.3s,mb5.3						
LZH	Lanzhou	29.04	16	*e*P	P	06 08 30.8	+3.3
LZH				AP	pP	06 08 34.0	0.0
LZH				XP	sP	06 08 35.5	-1.4
LZH				AMB	AMB		
	comp=Z,190nm,1.2s,mb5.7						
WHN	Wuhan	29.13	38	P	P	06 08 28.3	0.0
THN	Thein Dam	29.42	327	*e*P	P	06 08 29.8	-1.2
TBP	Tagbilaran	29.45	85	*e*P	P	06 08 25.2	-6.2
GTA	Gaotai	31.38	9	P	P	06 08 48.5	+0.3
GTA				AP	pP	06 08 54.8	0.0
GTA				XP	sP	06 08 58.3	+0.7
GTA				AMB	AMB		
	comp=Z,46nm,1.4s,mb5.1						
GTA				AMB	AMB		
	comp=Z,9µm,11.2s						
GTA				LR	LR		
	comp=N,8µm,17.5s,MS5.6						
GTA				LR	LR		
	comp=E,7µm,14.1s,MS5.6						
GTA				LR	LR		
	comp=Z,13µm,20.9s						
NJ2	Nanjing	32.98	41	*e*P	P	06 09 05.5	+3.3
NJ2				AP	pP	06 09 10.0	+1.2
NJ2				XP	sP	06 09 12.5	+0.9
NJ2				AMB	AMB		
	comp=Z,1µm,5.8s						
NJ2				LR	LR		
	comp=N,40µm,16.4s,MS6.2						
NJ2				LR	LR		
	comp=E,11µm,17.0s,MS6.2						
NJ2				LR	LR		
	comp=Z,21µm,16.6s,MS5.9						
TIA	Tai’an	34.82	34	*e*P	P	06 09 17.8	-0.3
KSH	Kashi	35.04	335	*i* P	P	06 09 19.3	-0.7
KSH				*e*AP	pP	06 09 25.0	-1.6
KSH				*e*XP	sP	06 09 27.8	-1.6
KSH				AMB	AMB		
	comp=Z,3µm,6.0s						
BTO	Baotou	35.15	21	*e*P	P	06 09 21.5	+0.6
BTO				AMB	AMB		
	comp=Z,90nm,1.8s,mb5.4						
WMQ	Urumqi	35.80	352	P	P	06 09 27.0	+0.6
WMQ				AP	pP	06 09 31.5	-1.5
WMQ				XP	sP	06 09 34.0	-1.8
WMQ				AMB	AMB		
	comp=Z,29nm,0.9s,mb5.2						
HHC	Hu-ho-hao-te	35.94	23	*e*P	P	06 09 31.5	+3.9
HHC				AP	pP	06 09 38.5	+4.3
HHC				XP	sP	06 09 42.0	+5.0
HHC				PP	PP	06 10 54.0	+4.7
HHC				PCP	PcP	06 11 57.3	+2.8
HHC				S	S	06 15 07.5	+3.6
HHC				XS		06 15 19.5	
HHC				PCS		06 15 43.8	
HHC				SS	SS	06 17 31.5	+5.2
HHC				SCS	ScS	06 19 45.3	+3.2
HHC				AMB	AMB		
	comp=Z,85nm,1.5s,mb5.5						
HHC				AMB	AMB		
	comp=Z,2µm,3.2s						
HHC				LR	LR		
	comp=N,1µm,8.3s						
HHC				LR	LR		
	comp=E,1µm,9.9s						
HHC				LR	LR		
	comp=Z,22µm,22.6s,MS5.9						
BJT	Baijiatuau	37.23	29	*e*P	P	06 09 38.1	-0.3
	comp=Z,205nm,1.1s,mb5.9						
BJI	Beijing	37.25	29	P	P	06 09 39.5	+0.9
BJI				AMB	AMB		
	comp=Z,119nm,0.9s,mb5.7						
JOW	Kunigami	37.26	56	P	P	06 09 38.7	-0.1
	comp=Z,14nm,0.8s,mb4.8,baz=202,slow=15						
JOW				LR	LR	06 27 16.3	
	comp=Z,15µm,20.4s,MS5.8,baz=260,slow=40						
KZA	Kyzart	37.50	337	P	P	06 09 39.2	-1.5
	SNR=9.7						
UCH	Uchtor	37.92	336	P	P	06 09 44.9	+0.7
	SNR=11						
TKM2	Tokmak 2	38.09	338	P	P	06 09 46.2	+0.6
	SNR=7.7						
AML	Almayashu	38.17	335	P	P	06 09 47.7	+1.4
	SNR=19						
AAK	Ala-Archa	38.27	336	P	P	06 09 48.7	+1.6
	SNR=23						
AAK	Ala-Archa	38.27	336	⇑*e*P	P	06 09 46.3	-0.9
AAK				pmax	pmax		
	comp=Z,135nm,2.2s,mb5.3						
FRU	Bishkek	38.39	337	*e*P	P	06 09 48.0	-0.2
FRU				pmax	pmax		
	comp=Z,280nm,2.0s,mb5.7						
CHMS	Chumysh	38.48	337	P	P	06 09 47.4	-1.5
	SNR=14						
EKS2	Erkin-Say	38.58	336	P	P	06 09 50.9	+1.2
	SNR=8.9						
MBWA	Marble Bar	38.65	140	*e*P	P	06 09 48.2	-2.3
	comp=Z,20nm,0.9s,mb4.9						
USP	Ospenovka	38.80	337	P	P	06 09 52.1	+0.5
	SNR=21						
DL2	Dalian	39.25	35	P	P	06 09 58.3	+2.9
DL2				AMB	AMB		
	comp=Z,120nm,1.5s,mb5.4						
MKAR	Makanchi Array	39.64	347	*i* P	P	06 09 57.4	-1.1
MKAR				pmax	pmax		
	comp=Z,78nm,0.8s						
SONM	Songino Array	40.75	13	P	P	06 10 08.4	+0.8
	comp=Z,23nm,0.9s,mb4.8,baz=196,slow=6.6,SNR=13						
SONM				PcP	PcP	06 12 09.6	+0.2
	comp=Z,10nm,1.1s,baz=206,slow=3.5,SNR=4.9						
SONM				pPcP		06 12 16.4	
	comp=Z,10nm,0.6s,baz=202,slow=3.5,SNR=10						
ULN	Ulaanbaatar	40.92	13	⇓*e*P	P	06 10 09.2	+0.1
ULN	Ulaanbaatar	40.92	13	⇓*e*P	P	06 10 09.3	+0.2
ULN				*e*P		06 10 09.6	
INCN	Inchon	41.36	40	*e*P	P	06 10 14.0	+1.3
	comp=Z,759nm,1.8s,mb6.0						
KS15	Wonju Array Si	42.15	41	*e*P	P	06 10 20.4	+1.1
SNY	Shenyang	42.34	33	⇑P	P	06 10 21.3	+0.5
SNY				AMB	AMB		
	comp=Z,110nm,1.5s,mb5.3						
ZAK	Zakamensk	42.62	9	*e*P	P	06 10 21.7	-1.3
MOY	Mondy	43.59	6	*e*P	P	06 10 35.2	+4.4
TLY	Talaya	43.94	9	⇑*e*P	P	06 10 35.8	+2.1
TLY				pmax	pmax		
	comp=Z,31nm,1.7s,mb4.8						
TLY	Talaya	43.94	9	*e*P	P	06 10 32.9	-0.7
	comp=Z,19nm,1.1s,mb4.7						
CN2	Changchun	44.69	32	*e*P	P	06 10 41.3	+1.4
CN2				*e*XP	sP	06 10 54.0	+4.7
CN2				*e*S	S	06 17 15.8	+1.3
CN2				AMB	AMB		
	comp=Z,90nm,1.4s,mb5.4						
CN2				LR	LR		
	comp=N,8µm,14.0s,MS5.9						
CN2				LR	LR		
	comp=E,7µm,14.0s,MS5.9						
CN2				LR	LR		
	comp=Z,9µm,15.0s,MS5.8						
HASS	Wahat al Ahsa’	45.44	297	P	P	06 10 47.5	+1.4
ZAL	Zalesovo	46.10	352	P	P	06 10 49.0	-1.9
	comp=Z,17nm,0.5s,mb5.2,baz=303,slow=6.2,SNR=19						
ZAL				pP	pP	06 10 57.0	-0.6
	comp=Z,60nm,0.7s,baz=295,slow=8.3,SNR=29						
ZAL	Zalesovo	46.10	352	P	P	06 10 49.0	-1.9
ZAL				*PP	pP	06 10 57.0	-0.6
ZAL				pmax	pmax		
	comp=Z,17nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,61nm,0.7s						
HIA	Hailar	46.14	23	*e*P	P	06 10 51.4	+0.1
	comp=Z,393nm,1.5s,mb6.1						
NWAO	Narrogin (SRO)	46.57	153	P	P	06 10 53.8	-1.2
	comp=Z,123nm,0.8s,mb5.9,baz=323,slow=9.5,SNR=22						
NWAO	Narrogin (SRO)	46.57	153	P	P	06 10 53.8	-1.1
NWAO				pmax	pmax		
	comp=Z,123nm,0.8s						
NWAO	Narrogin (SRO)	46.57	153	*e*P	P	06 10 53.2	-1.7
	comp=Z,147nm,0.9s,mb5.9						
NVS	Novosibirsk	47.20	351	*i* P	P	06 10 58.3	-1.3
NVS				*e*S	S	06 17 47.5	-2.6
NVS				pmax	pmax		
	comp=Z,245nm,1.5s,mb5.9						
NVS				pmax	pmax		
	comp=E,104nm,1.6s						
NVS				pmax	pmax		
	comp=N,296nm,1.5s						
NVS				smax			
	comp=N,150nm,2.7s						
NVS				smax			
	comp=E,280nm,3.6s						
MDJ	Mudanjiang	47.48	34	*e*P	P	06 11 04.1	+2.2
	comp=E,542nm,1.8s,mb6.2						
RDF	Al-Radifah	48.23	301	*e*P	P	06 11 08.8	+0.8
RDF				AMb	AMB	06 11 12.7	
	comp=Z,265nm,0.9s,mb6.3						
UMR	Umm Al-Rimmam	48.27	302	*e*P	P	06 11 08.5	+0.3
UMR				AMb	AMB	06 11 17.5	
	comp=Z,118nm,0.9s,mb5.9						
BVA0	Borovoye Array	48.55	341	P	P	06 11 09.1	-1.0
BVA0				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
BVAR	Borovoye Array	48.55	341	P	P	06 11 09.3	-0.8
	comp=Z,6.0nm,0.6s,mb4.8,baz=135,slow=8.4,SNR=15						
BVAR				pP	pP	06 11 16.2	-0.6
	comp=Z,28nm,0.7s,baz=143,slow=7.2,SNR=20						
BVAR				PcP	PcP	06 12 36.1	-0.1
	comp=Z,4.5nm,0.6s,baz=135,slow=4.1,SNR=2.0						
BVAR				pPcP		06 12 42.4	
	comp=Z,14nm,0.6s,baz=156,slow=5.9,SNR=5.5						
WRA	Warramunga Arr	48.58	126	P	P	06 11 07.8	-3.0
	comp=Z,17nm,0.8s,mb5.1,baz=305,slow=9.0,SNR=19						
WRA				pP	pP	06 11 15.0	-2.5
	comp=Z,34nm,0.8s,baz=306,slow=8.6,SNR=18						
WRA				PcP	PcP	06 12 35.7	-1.0
	comp=Z,11nm,1.2s,baz=318,slow=2.8,SNR=3.4						
WRA				pPcP		06 12 42.1	
	comp=Z,11nm,0.6s,baz=314,slow=3.0,SNR=9.4						
WRA	Warramunga Arr	48.58	126	P	P	06 11 07.8	-3.0
WRA				*PP	pP	06 11 15.0	-2.5
WRA						06 12 35.7	
WRA				pmax	pmax		
	comp=Z,17nm,0.8s						
WRA				pmax	pmax		
	comp=Z,34nm,0.8s						
WRA				pmax	pmax		
	comp=Z,11nm,1.2s						
WRA				pmax	pmax		
	comp=Z,11nm,0.6s						
WRAB	Tennant Creek	48.58	126	⇓*e*P	P	06 11 08.3	-2.5
WRAB	Tennant Creek	48.58	126	*e*P	P	06 11 07.8	-3.1
	comp=Z,32nm,0.8s,mb5.4						
BRVK	Borovoye	48.61	341	⇓*e*P	P	06 11 09.7	-0.9
RST	Umm Al-Ruwaisa	48.85	302	*e*P	P	06 11 13.2	+0.4
RST				AMb	AMB	06 11 17.0	
	comp=Z,193nm,0.9s,mb6.2						
MAJO	Matsushiro	48.91	48	*e*P	P	06 11 13.6	+0.4
	comp=Z,437nm,1.9s,mb6.2						
MAT	Matsushiro	48.91	48	P	P	06 11 14.1	+0.9
MAT	Matsushiro	48.91	48	*e*P	P	06 11 14.0	+0.8
	comp=Z,224nm,2.0s,mb5.8						
CHKZ	Chkalovo	49.03	342	*e*P	P	06 11 11.7	-2.1
	comp=Z,96nm,0.8s,mb5.9						
CBIJ	Chichi jima	49.15	61	P	P	06 11 12.5	-2.6
	comp=Z,76nm,0.7s,mb5.8,baz=257,slow=14,SNR=3.1						
MZLS	Mizel	49.20	295	P	P	06 11 17.3	+1.8
KAMS	Al Khamasin	49.23	290	P	P	06 11 17.3	+1.4
TATS	Tathlith	50.19	288	P	P	06 11 24.4	+1.2
ASAR	Alice Springs	50.25	130	P	P	06 11 20.7	-2.9
	comp=Z,19nm,0.9s,mb5.1,baz=303,slow=6.9,SNR=25						
ASAR				pP	pP	06 11 28.2	-2.2
	comp=Z,44nm,0.9s,baz=308,slow=7.2,SNR=22						
ASAR				PcP	PcP	06 12 42.6	-0.1
	comp=Z,17nm,1.0s,baz=303,slow=4.5,SNR=5.9						
ASAR				pPcP		06 12 47.9	
	comp=Z,20nm,0.7s,baz=303,slow=3.4,SNR=11						
AFFS	‘Afif	51.17	294	P	P	06 11 32.3	+1.7
ARSS	Ar Rass	51.28	296	P	P	06 11 32.2	+0.8
NAMS	An Nimas	51.35	288	P	P	06 11 34.7	+2.7
BOD	Bodaibo	51.73	13	*e*P	P	06 11 33.0	-1.4
BLJS	Baljurashi	51.98	289	P	P	06 11 39.2	+2.4
HILS	Ha’il	52.83	298	P	P	06 11 44.7	+1.6
CLNS	Chul’man	54.04	20	*e*P	P	06 11 50.4	-1.1
CLNS				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
CLNS				pmax	pmax		
	comp=N,34nm,1.7s						
CLNS				pmax	pmax		
	comp=E,12nm,1.0s						
GNI	Garni	54.08	314	P	P	06 11 52.0	0.0
	comp=E,35nm,1.0s,mb5.2,baz=113,slow=2.9,SNR=13						
GNI				PP	PP	06 13 58.3	+3.2
	comp=E,17nm,1.0s,baz=155,slow=11,SNR=3.3						
GNI	Garni	54.08	314	P	P	06 11 52.0	0.0
GNI						06 13 58.3	
GNI				pmax	pmax		
	comp=Z,35nm,1.0s						
GNI				pmax	pmax		
	comp=Z,17nm,1.0s						
TI2	Plekhanov	54.68	316	*e*P	P	06 11 56.2	-0.3
KBRS	Khaybar	54.80	296	P	P	06 11 59.2	+1.6
ASAJ	Asahikawa	55.13	41	P	P	06 12 00.9	+1.2
	comp=Z,23nm,0.9s,mb5.2,baz=251,slow=17,SNR=3.8						
ASAJ	Asahikawa	55.13	41	P	P	06 12 00.9	+1.2
ASAJ				pmax	pmax		
	comp=Z,23nm,0.9s						
ARU	Arti	55.45	337	⇓*e*P	P	06 12 01.1	-0.8
ARU				pmax	pmax		
	comp=Z,196nm,2.4s,mb5.7						
PMG	Port Moresby	55.73	107	P	P	06 12 02.3	-2.1
	comp=Z,12nm,0.6s,mb5.1,baz=286,slow=3.9,SNR=5.9						
PMG				pP	pP	06 12 10.2	-1.1
	comp=Z,72nm,0.7s,baz=300,slow=3.1,SNR=22						
PMG	Port Moresby	55.73	107	P	P	06 12 02.3	-2.1
PMG				*PP	pP	06 12 10.2	-1.0
PMG				pmax	pmax		
	comp=Z,12nm,0.6s						
PMG				pmax	pmax		
	comp=Z,72nm,0.7s						
YNBS	Yanbu‘ al Bahr	55.76	294	P	P	06 12 05.9	+1.4
BEST	Besiri	55.85	310	*i* P	P	06 12 04.0	-1.0
ERZM	Erzurum	56.42	313	*i* P	P	06 12 08.2	-0.9
YSS	Yuzh-Sakhalins	56.48	38	*e*P	P	06 12 08.5	-0.9
YSS				*e*	pP	06 12 14.7	-1.5
YSS				pmax	pmax		
	comp=Z,260nm,1.4s,mb6.1						
YSS				MLR	MLR		
	comp=Z,8µm,19.0s,MS5.8						
YSS	Yuzh-Sakhalins	56.48	38	⇓*e*P	P	06 12 09.0	-0.4
UMJS	Umm Lajj	56.48	295	P	P	06 12 11.4	+1.7
KIV	Kislovodsk	56.94	318	P	P	06 12 12.7	-0.1
	comp=Z,304nm,0.8s,mb6.4,SNR=9.3						
KIV	Kislovodsk	56.94	318	*c* *i*P	P	06 12 11.4	-1.4
KIV				pmax	pmax		
	comp=E,48nm,0.8s						
KIV				pmax	pmax		
	comp=Z,87nm,0.8s,mb5.8						
KIV	Kislovodsk	56.94	318	⇑*i*P	P	06 12 11.6	-1.2
GOF	Gofitskoye	57.15	319	⇓*i*P	P	06 12 12.5	-1.7
GOF				pmax	pmax		
	comp=Z,80nm,1.5s,mb5.5						
YUK	Yuzh-Kuril’sk	57.24	42	*e*P	P	06 12 15.0	+0.1
KMBO	Kilima Mbogo	57.40	263	P	P	06 12 18.7	+2.2
	comp=Z,53nm,0.9s,mb5.6,baz=55,slow=10,SNR=88						
KMBO	Kilima Mbogo	57.40	263	P	P	06 12 18.7	+2.3
KMBO				pmax	pmax		
	comp=Z,53nm,0.9s						
KMBO	Kilima Mbogo	57.40	263	P	P	06 12 18.7	+2.2
TBKS	Tabuk	57.55	298	P	P	06 12 18.8	+1.5
ELZG	Elazig	57.75	310	*i* P	P	06 12 17.0	-1.6
ASF	Jabal al Asfar	57.92	303	P	P	06 12 20.1	+0.4
	comp=Z,17nm,1.1s,mb5.0,baz=318,slow=2.7,SNR=8.8						
JMQS	Jabal Moqyreh	58.23	299	P	P	06 12 22.9	+0.9
GZT	Gaziantep	58.53	309	*i* P	P	06 12 23.1	-0.8
CTA	Charters Tower	58.59	120	P	P	06 12 22.5	-2.1
	comp=Z,9.0nm,0.8s,mb4.8,baz=297,slow=10,SNR=8.5						
CTA				pP	pP	06 12 30.2	-1.3
	comp=Z,22nm,0.9s,baz=288,slow=10,SNR=12						
CTA	Charters Tower	58.59	120	P	P	06 12 22.5	-2.1
CTA				*PP	pP	06 12 30.2	-1.3
CTA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CTA				pmax	pmax		
	comp=Z,23nm,0.9s						
CTA	Charters Tower	58.59	120	P	P	06 12 22.5	-2.1
CTA				pP	pP	06 12 30.2	-1.3
CTAO	Charters Tower	58.59	120	*e*P	P	06 12 22.1	-2.5
	comp=Z,23nm,0.9s,mb5.2						
AYUS	‘Aynunah	58.66	298	P	P	06 12 25.7	+0.7
SOC	Sochi	58.81	316	*e*P	P	06 12 22.6	-3.3
SOC				*e*S	S	06 20 26.9	-1.3
SOC				pmax	pmax		
	comp=Z,89nm,1.6s,mb5.5						
SOC				pmax	pmax		
	comp=N,27nm,1.5s						
SOC				pmax	pmax		
	comp=E,28nm,1.7s						
BDAS	Al Bad‘	58.84	298	P	P	06 12 26.6	+0.3
JMOS	Jabal al Moall	58.94	299	P	P	06 12 27.4	+0.4
ALWS	Ilw as Safayha	59.00	299	P	P	06 12 27.7	+0.4
HAQS	Haql	59.08	299	P	P	06 12 28.2	+0.3
EIL	Elat	59.15	300	P	P	06 12 28.7	+0.3
	comp=E,16nm,0.7s,mb5.1,baz=24,slow=2.3,SNR=14						
EIL	Elat	59.15	300	*e*P	P	06 12 28.1	-0.3
	comp=E,198nm,1.8s,mb5.8						
COBT	Iskenderun	59.35	308	*i* P	P	06 12 29.1	-0.6
YAK	Yakutsk	59.60	19	*e*P	P	06 12 30.2	-0.8
YAK				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.4						
YAK				pmax	pmax		
	comp=N,13nm,1.1s						
YAK				pmax	pmax		
	comp=E,19nm,1.3s						
STKA	Stephens Creek	60.46	134	P	P	06 12 34.6	-2.8
	comp=E,9.7nm,0.8s,mb4.9,baz=319,slow=7.9,SNR=14						
STKA				pP	pP	06 12 41.9	-2.4
	comp=E,26nm,0.9s,baz=314,slow=8.3,SNR=14						
STKA	Stephens Creek	60.46	134	*e*P	P	06 12 34.1	-3.2
ANN	Anapa	60.76	317	*e*P	P	06 12 39.3	+0.1
ANN				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.5						
AVNT	Avonos	60.95	310	*i* P	P	06 12 38.3	-2.3
MEST	Erdemli	61.02	307	*i* P	P	06 12 38.4	-2.7
CTKT	Corum	61.44	312	*i* P	P	06 12 41.6	-2.3
BOYT	Boyabat	61.56	313	*i* P	P	06 12 43.4	-1.3
BRTR	Keskin Array B	62.09	311	P	P	06 12 45.9	-2.4
	comp=Z,18nm,0.8s,mb5.3,baz=127,slow=7.2,SNR=29						
BRTR	Keskin Array B	62.09	311	P	P	06 12 45.9	-2.4
BRTR				pmax	pmax		
	comp=Z,18nm,0.8s						
ELDT	Eldivan	62.42	311	*i* P	P	06 12 49.2	-1.3
BALT	Daday	62.69	313	*i* P	P	06 12 49.6	-2.7
SIM	Simferopol’	63.06	316	*e*P	P	06 12 53.3	-1.3
SIM				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.5						
SGKT	Sivrigoynuk	63.46	311	*i* P	P	06 12 55.4	-1.9
MBAR	Mbarara	63.73	265	*e*P	P	06 12 59.0	-0.5
	comp=Z,178nm,1.4s,mb5.9						
ESKT	Eskisehir	64.15	310	*i* P	P	06 13 00.4	-1.5
HENT	Hendek	64.37	311	*i* P	P	06 13 01.0	-2.3
MOS	Moscow	64.67	329	*e*P	P	06 13 03.8	-1.2
MOS				*e*		06 13 38.1	
MOS				*e*		06 15 25.3	
MOS				*e*PPP	PPP	06 16 58.5	-4.0
MOS				*e*S	S	06 21 39.7	-2.4
MOS				*e*		06 22 57.5	
MOS				*e*SSS	SSS	06 28 51.4	+6.1
MOS				pmax	pmax		
	comp=Z,446nm,1.8s,mb6.2						
MOS				smax			
	comp=N,4µm,6.0s						
MOS				MLR	MLR		
	comp=Z,9µm,20.0s,MS5.9						
OBN	Obninsk	64.97	328	⇓*i*P	P	06 13 05.7	-1.2
OBN				*i*		06 13 35.0	
OBN				*e*		06 15 29.9	
OBN				pmax	pmax		
	comp=Z,240nm,1.5s,mb6.0						
OBN				MLR	MLR		
	comp=Z,8µm,20.0s,MS5.9						
ULDT	Uludag	65.56	310	*i* P	P	06 13 09.2	-1.8
SKR	Severo-Kuril’s	66.05	38	*e*P	P	06 13 12.2	-1.7
MA2	Magadan	66.41	28	⇑*e*P	P	06 13 16.4	+0.3
MA2				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.4						
MA2	Magadan	66.41	28	⇑*e*P	P	06 13 16.5	+0.4
KDAG	Bornova	66.72	308	*i* P	P	06 13 17.6	-0.9
KIS	Kishinev	67.15	318	*e*P	P	06 13 19.0	-2.0
CFR	Carcaliu	67.23	316	⇓*i*P	P	06 13 20.3	-1.3
CFR	Carcaliu	67.23	316	⇓*i*P	P	06 13 20.3	-1.3
AKASG	Malin Array Be	67.76	322	P	P	06 13 22.1	-2.8
	comp=Z,12nm,0.7s,mb5.0,baz=88,slow=4.5,SNR=43						
AKASG				pP	pP	06 13 30.5	-1.2
	comp=Z,15nm,0.6s,baz=81,slow=5.0,SNR=8.4						
AKASG				PP	PP	06 15 56.5	+0.4
	comp=Z,8.8nm,0.9s,baz=96,slow=6.9,SNR=5.2						
AKASG	Malin Array Be	67.76	322	P	P	06 13 22.1	-2.7
AKASG				*PP	pP	06 13 30.5	-1.3
AKASG						06 15 56.6	
AKASG				pmax	pmax		
	comp=Z,12nm,0.7s						
AKASG				pmax	pmax		
	comp=Z,15nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.9s						
PET	Petropavlovsk	68.22	36	⇑*e*P	P	06 13 31.4	+3.8
IDI	Anoyia	68.26	305	P	P	06 13 27.4	-0.9
	comp=Z,34nm,0.8s,mb5.4,baz=70,slow=5.3,SNR=4.1						
ISR	Istrita	68.33	315	⇓*i*P	P	06 13 28.3	-0.2
ISR	Istrita	68.33	315	⇓*i*P	P	06 13 28.3	-0.1
VRI	Vrincioaia	68.33	316	P	P	06 13 28.2	-0.3
VRI	Vrincioaia	68.33	316	⇓*i*P	P	06 13 28.1	-0.4
VRI	Vrincioaia	68.33	316	⇓*i*P	P	06 13 28.1	-0.4
MLR	Muntele Rosu	68.81	316	P	P	06 13 31.1	-0.3
RZN	Rozhen	69.11	311	P	P	06 13 32.0	-1.3
MNK	Minsk	69.55	325	⇓*e*P	P	06 13 32.0	-3.8
PUL	Pulkovo	69.79	331	⇓*e*P	P	06 13 36.6	-0.6
PUL				pmax	pmax		
	comp=Z,76nm,0.9s,mb5.6						
PUL				pmax	pmax		
	comp=N,56nm,0.8s						
PUL				pmax	pmax		
	comp=E,56nm,0.9s						
MMB	Musomiste	69.83	311	P	P	06 13 35.0	-2.8
VTS	Vitosha	70.33	312	P	P	06 13 40.0	-0.8
VTS	Vitosha	70.33	312	P	P	06 13 39.9	-0.9
KKB	Krupnik	70.34	311	P	P	06 13 39.0	-1.9
LVZ	Lovozero	71.12	340	⇑*e*P	P	06 13 49.9	+4.8
LVZ				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
LVZ				pmax	pmax		

	comp=E,12nm,1.2s						
LVZ	**Lovozero**	**71.12**	**340**	⇑*i*P	**P**	**06 13 44.9**	**-0.2**
VSU	**Vasula**	**71.17**	**329**	*d* *i*P	**P**	**06 13 44.7**	**-0.9**
VSU	**Vasula**	**71.17**	**329**	*i* Pr		06 13 44.8	
APA	**Apatity**	**71.41**	**339**	⇑*i*P	**P**	**06 13 45.9**	**-1.0**
APA				*i*		06 14 10.9	
APA				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.6						
KWP	**Kalwaria**	**71.65**	**320**	*e*P	**P**	**06 13 47.7**	**-0.9**
KWP				*e*		06 14 06.6	
KOLS	**Kolonicke sedl**	**71.82**	**319**	*i* P	**P**	**06 13 49.6**	**-0.1**
KOLS				*e*pP	pP	06 13 56.7	+0.1
SUW	**Suwalki**	**72.11**	**324**	*e*P	**P**	**06 13 49.7**	**-1.6**
GRUS	**Gruza**	**72.29**	**313**	⇓*i*P	**P**	**06 13 49.8**	**-2.7**
FINES	**FINESS Array B**	**72.29**	**332**	P	**P**	**06 13 51.4**	**-0.8**
	comp=Z,8.4nm,0.7s,mb4.8,baz=98,slow=5.5,SNR=16						
FINES				pP	pP	06 13 57.7	-1.4
	comp=Z,32nm,0.7s,baz=105,slow=5.4,SNR=18						
FINES	**FINESS Array B**	**72.29**	**332**	P	**P**	**06 13 51.4**	**-0.8**
FINES				*PP	pP	06 13 57.7	-1.5
FINES				pmax	pmax		
	comp=Z,8.0nm,0.7s						
FINES				pmax	pmax		
	comp=Z,32nm,0.7s						
FINES	**FINESS Array B**	**72.29**	**332**	P	**P**	**06 13 51.4**	**-0.8**
FINES				pP	pP	06 13 57.7	-1.4
CRVS	**Cervenica-Dubn**	**72.35**	**319**	*e*P	**P**	**06 13 53.9**	**+1.1**
CRVS				*e*	pP	06 13 59.9	+0.1
KAF	**Kangasniemi**	**72.36**	**333**	*e*p	**P**	**06 13 51.9**	**-0.8**
	comp=Z,50nm,1.4s,mb5.3						
KAF	**Kangasniemi**	**72.36**	**333**	*e*p	pP	06 13 58.7	-0.9
	comp=Z,21nm,0.7s						
KAF	**Kangasniemi**	**72.36**	**333**	*e*P	**P**	**06 13 51.9**	**-0.8**
KAF				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.3						
DIVS	**Divcibare**	**72.83**	**314**	⇓*i*P	**P**	**06 13 53.4**	**-2.4**
KECS	**Kecovo**	**72.94**	**318**	*e*P	**P**	**06 13 56.2**	**-0.1**
WAR	**Warsaw**	**73.09**	**322**	*e*P	**P**	**06 13 56.8**	**-0.3**
NIE	**Niedzica**	**73.16**	**319**	*e*P	**P**	**06 13 57.6**	**0.0**
PSZ	**Piszkesteto**	**73.27**	**317**	P	**P**	**06 13 57.8**	**-0.4**
PSZ	**Piszkesteto**	**73.27**	**317**	⇓*e*P	**P**	**06 13 57.6**	**-0.6**
OJC	**Ojcow**	**73.59**	**320**	*e*P	**P**	**06 13 59.7**	**-0.3**
VYHS	**Vyhne**	**74.03**	**318**	*i* P	**P**	**06 14 02.0**	**-0.6**
VYHS				*e*	pP	06 14 08.9	-0.7
VYHS				*e*PP	PP	06 16 39.2	-10
SRO	**Srobarova**	**74.32**	**317**	*e*P	**P**	**06 14 04.3**	**0.0**
LBTB	**Lobatse**	**74.39**	**241**	*e*P	**P**	**06 14 06.1**	**+0.9**
	comp=Z,157nm,1.6s,mb5.7						
KEV	**Kevo**	**74.39**	**341**	*e*p	**P**	**06 14 05.4**	**+1.1**
	comp=Z,11nm,0.7s,mb4.9						
KEV	**Kevo**	**74.39**	**341**	*e*p	**P**	**06 14 10.5**	**+6.2**
	comp=Z,32nm,0.7s,mb5.4						
KEV	**Kevo**	**74.39**	**341**	*e*P	**P**	**06 14 05.4**	**+1.1**
KEV				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
OKC	**Ostrava-Krasne**	**74.61**	**319**	*e*P	**P**	**06 14 06.0**	**0.0**
OKC				*e*pP	pP	06 14 12.9	0.0
ARCES	**ARCESS Array B**	**74.83**	**340**	P	**P**	**06 14 06.9**	**+0.1**
	comp=Z,34nm,1.2s,mb5.2,baz=99,slow=6.7,SNR=15						
ARCES				pP	pP	06 14 13.7	-0.1
	comp=Z,47nm,0.9s,baz=90,slow=7.2,SNR=16						
ARCES				LR	LR	06 49 38.4	
	comp=Z,15µm,21.8s,MS6.3,baz=212,slow=38						
ARCES	**ARCESS Array B**	**74.83**	**340**	P	**P**	**06 14 06.9**	**+0.1**
ARCES				*PP	pP	06 14 13.7	-0.1
ARCES				pmax	pmax		
	comp=Z,34nm,1.2s						
ARCES				pmax	pmax		
	comp=Z,47nm,1.0s						
ARCES				MLR	MLR		
	comp=Z,15µm,21.8s						
MORC	**Moravsky Berou**	**74.99**	**319**	*e*P	**P**	**06 14 07.5**	**-0.7**
	comp=Z,136nm,1.4s,mb5.7						
ZST	**Bratislava**	**75.16**	**318**	*i* P	**P**	**06 14 09.0**	**-0.2**
ZST				*e*PP	PP	06 16 43.4	-16
KTK1	**Kautokeino**	**75.45**	**339**	*e*P	**P**	**06 14 11.2**	**+0.8**
KTK1				*e*pP	pP	06 14 17.9	+0.4
KTK1				AMb	AMB	06 14 21.3	
	comp=Z,112nm,1.6s,mb5.5						
KTK1	**Kautokeino**	**75.45**	**339**	*e*P	**P**	**06 14 11.2**	**+0.8**
	comp=Z,112nm,1.6s,mb5.5						
GKP	**Gorka Klasztor**	**75.50**	**323**	*e*P	**P**	**06 14 10.7**	**-0.3**
VRAC	**Vranov**	**75.57**	**319**	P	**P**	**06 14 11.5**	**0.0**
BILL	**Bilibino**	**75.70**	**22**	⇓*e*P	**P**	**06 14 12.0**	**+0.1**
BILL				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
BILL	**Bilibino**	**75.70**	**22**	⇓*e*P	**P**	**06 14 12.1**	**+0.2**
BOSA	**Boshof**	**75.76**	**238**	*e*P	**P**	**06 14 13.9**	**+0.9**
	comp=Z,45nm,1.2s,mb5.3						
DPC	**Dobruska-Polom**	**75.82**	**320**	*e*P	**P**	**06 14 13.4**	**+0.5**
KSP	**Ksiaz**	**75.88**	**320**	*e*P	**P**	**06 14 12.7**	**-0.5**
KSP				*e*pP	pP	06 14 19.7	-0.5
KSP	**Ksiaz**	**75.88**	**320**	*e*P	**P**	**06 14 13.6**	**+0.4**
KSP				*e*	pP	06 14 21.5	+1.3
UPC	**Upice**	**76.03**	**320**	*e*P	**P**	**06 14 13.9**	**-0.2**
ARSA	**Arzberg**	**76.17**	**317**	⇑*i*P	**P**	**06 14 15.1**	**+0.2**
	comp=Z,83nm,1.9s,mb5.3						
PRU	**Pruhonice**	**76.94**	**319**	*e*P	**P**	**06 14 19.3**	**+0.1**
	comp=Z,117nm,1.8s,mb5.5						
PRU				*e*pP	pP	06 14 30.2	+4.0
PVCC	**Panska Ves**	**76.95**	**320**	*e*P	**P**	**06 14 19.0**	**-0.2**
BSD	**Bornholm Skovb**	**77.02**	**325**	*i* P	**P**	**06 14 25.1**	**+5.6**
BSD				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.5						
BSD	**Bornholm Skovb**	**77.02**	**325**	*i* P	**P**	**06 14 25.1**	**+5.6**
	comp=Z,39nm,0.7s,mb5.5						
DZM	**Mont Dzumac**	**77.04**	**115**	*e*P	**P**	**06 14 20.0**	**-0.3**
MOA	**Molln**	**77.04**	**317**	⇑*i*P	**P**	**06 14 19.3**	**-0.5**
	comp=Z,51nm,1.4s,mb5.3						
TRO	**Tromso**	**77.09**	**340**	*e*P	**P**	**06 14 19.0**	**-0.6**
TRO				AMb	AMB	06 14 28.2	
	comp=Z,148nm,1.6s,mb5.7						
TRO	**Tromso**	**77.09**	**340**	*e*P	**P**	**06 14 19.0**	**-0.6**
	comp=Z,148nm,1.6s,mb5.7						
BRG	**Berggiesshubel**	**77.37**	**320**	*i* P	**P**	**06 14 21.8**	**+0.3**
BRG				pmax	pmax		
	comp=Z,57nm,2.0s,mb5.2						
BRG	**Berggiesshubel**	**77.37**	**320**	*i* P	**P**	**06 14 21.8**	**+0.3**
	comp=Z,57nm,2.0s,mb5.2						
GEC2	**GERESS Array S**	**77.45**	**318**	*e*P	**P**	**06 14 21.8**	**-0.2**
GEC2				pmax	pmax		
	comp=Z,123nm,1.4s,mb5.6						
GEC2	**GERESS Array S**	**77.45**	**318**	*e*P	**P**	**06 14 21.8**	**-0.2**
	comp=Z,123nm,1.4s,mb5.6						
GERES	**GERESS Array B**	**77.45**	**318**	P	**P**	**06 14 21.8**	**-0.2**
	comp=Z,13nm,0.7s,mb5.0,baz=90,slow=3.3,SNR=40						
GERES				pP	pP	06 14 29.6	+0.6
	comp=Z,23nm,0.7s,baz=117,slow=4.4,SNR=16						
GERES	**GERESS Array B**	**77.45**	**318**	P	**P**	**06 14 21.8**	**-0.2**
GERES				*PP	pP	06 14 29.6	+0.6
GERES				pmax	pmax		
	comp=Z,13nm,0.7s						
GERES				pmax	pmax		
	comp=Z,23nm,0.7s						
RUE	**Ruedersdorf**	**77.54**	**322**	*e*P	**P**	**06 14 22.6**	**+0.2**
	comp=Z,100nm,0.9s,mb5.7						
KHC	**Kasperske Hory**	**77.54**	**318**	*e*P	**P**	**06 14 22.5**	**0.0**
KHC				*e*pP	pP	06 14 30.5	+1.0
PTCC	**Patocco-Chiusa**	**77.63**	**316**	*e*P	**P**	**06 14 22.8**	**-0.3**
GMNA	**Gemona**	**77.71**	**316**	*e*P	**P**	**06 14 23.3**	**-0.2**
ARV	**Arcevia**	**77.90**	**313**	*e*P	**P**	**06 14 23.9**	**-0.7**
SNTG	**Esanatoglia**	**77.90**	**312**	*e*P	**P**	**06 14 24.4**	**-0.2**
CLL	**Collm**	**77.97**	**321**	*i* P	**P**	**06 14 24.7**	**-0.1**
CLL				*e*		06 14 36.0	
CLL				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.5						
CLL	**Collm**	**77.97**	**321**	*i* P	**P**	**06 14 24.7**	**-0.1**
	comp=Z,80nm,1.4s,mb5.5						
CLL				*e*		06 14 36.0	
CLL	**Collm**	**77.97**	**321**	P	**P**	**06 14 24.7**	**-0.1**
	comp=Z,logA/T=1.8,mb5.5						
CLL				*e**SP	sP	06 14 36.0	+1.8
WET	**Wettzell**	**78.00**	**318**	*e*P	**P**	**06 14 24.6**	**-0.4**
WET				pmax	pmax		
	comp=Z,77nm,1.4s,mb5.4						
WET	**Wettzell**	**78.00**	**318**	*e*P	**P**	**06 14 24.6**	**-0.4**
	comp=Z,77nm,1.4s,mb5.4						
FSSB	**Fossombrone**	**78.02**	**313**	*e*P	**P**	**06 14 25.2**	**0.0**
FVI	**Forni Avoltri**	**78.03**	**316**	*e*P	**P**	**06 14 25.1**	**-0.1**
HFS	**Hagfors**	**78.04**	**330**	P	**P**	**06 14 24.1**	**-0.9**
	comp=Z,18nm,0.9s,mb5.0,baz=95,slow=6.7,SNR=19						
HFS				pP	pP	06 14 31.9	-0.1
	comp=Z,31nm,0.6s,baz=117,slow=6.4,SNR=18						
HFS	**Hagfors**	**78.04**	**330**	P	**P**	**06 14 24.1**	**-0.9**
HFS				*PP	pP	06 14 31.9	-0.1
HFS				pmax	pmax		
	comp=Z,19nm,0.9s						
HFS				pmax	pmax		
	comp=Z,31nm,0.6s						
MOR8	**Moi Rana**	**78.25**	**336**	*e*P	**P**	**06 14 26.0**	**0.0**
MOR8				*e*pP	pP	06 14 32.4	-0.6
MOR8				AMb	AMB	06 14 35.5	
	comp=Z,125nm,1.8s,mb5.5						
MOR8	**Moi Rana**	**78.25**	**336**	*e*P	**P**	**06 14 26.0**	**0.0**
	comp=Z,125nm,1.8s,mb5.5						
NKC	**Novy Kostel**	**78.30**	**320**	*e*P	**P**	**06 14 26.9**	**+0.3**
COP	**Copenhagen**	**78.46**	**325**	⇓*i*P	pP	06 14 34.3	-0.1
COP				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.6						
COP	**Copenhagen**	**78.46**	**325**	⇓*i*P	pP	06 14 34.3	-0.1
	comp=Z,59nm,0.8s						
SFI	**Santa Sofia**	**78.69**	**313**	*e*P	**P**	**06 14 29.9**	**+1.0**
PGD	**Poggio Sodo**	**78.78**	**313**	*e*P	**P**	**06 14 30.8**	**+1.4**
LOF	**Lofoten**	**78.80**	**338**	*e*P	**P**	**06 14 30.9**	**+1.9**
LOF				AMb	AMB	06 14 34.1	
	comp=Z,115nm,1.4s,mb5.6						
LOF	**Lofoten**	**78.80**	**338**	*e*P	**P**	**06 14 30.9**	**+1.9**
	comp=Z,115nm,1.4s,mb5.6						
CTI	**Castel Tesino**	**78.81**	**315**	*e*P	**P**	**06 14 29.9**	**+0.3**
WTTA	**Wattenberg**	**78.81**	**317**	⇑*i*P	**P**	**06 14 29.1**	**-0.4**
	comp=Z,94nm,1.3s,mb5.6						
MOX	**Moxa**	**78.84**	**320**	*e*P	**P**	**06 14 29.8**	**+0.2**
MOX	**Moxa**	**78.84**	**320**	*i* P	**P**	**06 14 29.8**	**+0.2**
WATA	**Walderalm**	**78.85**	**317**	⇑*i*P	**P**	**06 14 29.3**	**-0.5**
	comp=Z,25nm,0.7s,mb5.2						
VMG	**Vicchio**	**78.91**	**313**	*e*P	**P**	**06 14 31.0**	**+0.9**
MAW	**Mawson**	**78.95**	**192**	P	**P**	**06 14 30.8**	**+0.9**
	comp=Z,20nm,0.8s,mb5.1,baz=19,slow=6.4,SNR=25						
MAW				pP	pP	06 14 38.0	+1.0
	comp=Z,26nm,0.6s,baz=42,slow=7.7,SNR=16						
MAW	**Mawson**	**78.95**	**192**	P	**P**	**06 14 30.8**	**+0.9**
MAW				*PP	pP	06 14 38.0	+1.1
MAW				pmax	pmax		
	comp=Z,20nm,0.8s						
MAW				pmax	pmax		
	comp=Z,26nm,0.6s						
MAW	**Mawson**	**78.95**	**192**	*e*P	**P**	**06 14 30.8**	**+0.9**
	comp=Z,31nm,0.7s,mb5.3						
SEI	**Scarperia**	**79.04**	**313**	*e*P	**P**	**06 14 32.1**	**+1.2**
FUR	**Furstenfeldbru**	**79.05**	**317**	*e*P	**P**	**06 14 30.4**	**-0.4**
FUR				pmax	pmax		
	comp=Z,153nm,1.5s,mb5.7						
FUR	**Furstenfeldbru**	**79.05**	**317**	*e*P	**P**	**06 14 30.4**	**-0.4**
	comp=Z,153nm,1.5s,mb5.7						
GRA1	**Grafenberg Arr**	**79.09**	**319**	*e*P	**P**	**06 14 31.3**	**+0.3**
	comp=Z,215nm,1.7s,mb5.8						
GRF	**Grafenberg Arr**	**79.09**	**319**	*e*P	**P**	**06 14 31.3**	**+0.3**
GRF				pmax	pmax		
	comp=Z,215nm,1.7s,mb5.8						
GRF	**Grafenberg Arr**	**79.09**	**319**	*e*P	**P**	**06 14 31.3**	**+0.3**
	comp=Z,215nm,1.7s,mb5.8						
SQTA	**Sankt Quirin**	**79.11**	**316**	⇑*i*P	**P**	**06 14 30.8**	**-0.3**
	comp=Z,33nm,0.7s,mb5.4						
NSS	**Namsos**	**79.14**	**334**	*e*P	**P**	**06 14 29.2**	**-1.7**
MOTA	**Moosalm**	**79.17**	**317**	⇑*i*P	**P**	**06 14 31.1**	**-0.4**
	comp=Z,23nm,0.7s,mb5.2						
FNVD	**Fontana Vidola**	**79.21**	**313**	*e*P	**P**	**06 14 32.8**	**+1.0**
ZCCA	**Zocca**	**79.31**	**314**	*e*P	**P**	**06 14 34.0**	**+1.7**
NB2	**NORSAR Subarra**	**79.31**	**331**	P	**P**	**06 14 30.5**	**-1.4**
	comp=Z,54nm,1.0s,mb5.4,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**79.31**	**331**	P	**P**	**06 14 30.5**	**-1.4**
	baz=91,slow=5.9						
NOA	**NORSAR Array B**	**79.31**	**331**	P	**P**	**06 14 31.1**	**-0.9**
	comp=Z,8.6nm,0.8s,mb4.7,baz=97,slow=5.2,SNR=22						
NOA				pP	pP	06 14 38.4	-0.6
	comp=Z,21nm,0.7s,baz=96,slow=5.7,SNR=29						
NOA				PP	PP	06 17 26.8	-6.9
	comp=Z,2.3nm,0.8s,baz=77,slow=8.5,SNR=3.2						
NOA	**NORSAR Array B**	**79.31**	**331**	P	**P**	**06 14 31.1**	**-0.8**
NOA				*PP	pP	06 14 38.4	-0.6
NOA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NOA				pmax	pmax		
	comp=Z,21nm,0.7s						
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA	**NORSAR Array B**	**79.31**	**331**	P	**P**	**06 14 31.1**	**-0.9**
NOA				pP	pP	06 14 38.4	-0.6
NOA				PP	PP	06 17 26.8	-6.9
NAO01	**NORSAR Array S**	**79.46**	**330**	*e*P	**P**	**06 14 32.4**	**-0.4**
	comp=Z,53nm,0.8s,mb5.5						
OSL	**Oslo**	**79.52**	**329**	*e*P	**P**	**06 14 33.6**	**+0.5**
GSCL	**Gusciola**	**79.59**	**314**	*e*P	**P**	**06 14 34.8**	**+0.9**
CLZ	**Clausthal**	**79.62**	**321**	*e*P	**P**	**06 14 33.8**	**0.0**
	comp=Z,104nm,1.4s,mb5.6						
BSEG	**Bad Segeberg**	**79.65**	**323**	*e*P	**P**	**06 14 34.2**	**+0.3**
BSEG				pmax	pmax		
	comp=Z,139nm,1.1s,mb5.8						
BRMO	**Bormio**	**79.69**	**316**	*e*P	**P**	**06 14 34.6**	**+0.3**
HDH	**Heidenheim**	**79.76**	**318**	⇓*e*P	**P**	**06 14 34.3**	**-0.3**
UBR	**Uberruh**	**79.84**	**317**	⇓*e*P	**P**	**06 14 34.9**	**-0.2**
DAVA	**Damuels**	**80.01**	**317**	⇓*i*P	**P**	**06 14 36.4**	**+0.4**
	comp=Z,85nm,1.1s,mb5.6						
SIND	**Sindeldorf**	**80.14**	**319**	⇓*e*P	**P**	**06 14 37.0**	**+0.3**
MUD	**Monsted U’grnd**	**80.30**	**326**	*e*P	**P**	**06 14 38.1**	**+0.7**
MUD				pmax	pmax		
	comp=Z,84nm,0.8s,mb5.7						
MUD	**Monsted U’grnd**	**80.30**	**326**	*e*P	**P**	**06 14 38.1**	**+0.7**
	comp=Z,84nm,0.8s,mb5.7						
MUD	**Monsted U’grnd**	**80.30**	**326**	*i* P	**P**	**06 14 38.1**	**+0.7**
	comp=Z,84nm,0.8s,mb5.7						
BUCH	**Bad Urach**	**80.33**	**318**	⇓*e*P	**P**	**06 14 37.7**	**0.0**
DOMB	**Dombas**	**80.36**	**332**	*e*P	**P**	**06 14 38.0**	**+0.4**
DOMB				AMb	AMB	06 14 40.9	
	comp=Z,75nm,1.5s,mb5.4						
DOMB				*e*pP	pP	06 14 44.8	+0.2
DOMB	**Dombas**	**80.36**	**332**	*e*P	**P**	**06 14 38.0**	**+0.4**
	comp=Z,75nm,1.5s,mb5.4						
STU	**Stuttgart**	**80.43**	**318**	*e*P	**P**	**06 14 37.7**	**-0.5**
	comp=Z,84nm,1.3s,mb5.5						
GUT	**Gutenstein**	**80.50**	**317**	⇓*e*P	**P**	**06 14 38.5**	**-0.1**
SUR	**Sutherland**	**80.53**	**235**	*e*P	**P**	**06 14 40.6**	**+1.6**
	comp=Z,186nm,1.6s,mb5.8						
TOD	**Tromm**	**80.66**	**319**	*e*P	**P**	**06 14 39.6**	**+0.2**
TOD	**Tromm**	**80.66**	**319**	*e*P	**P**	**06 14 38.8**	**-0.6**
VSL	**Villasalto**	**80.68**	**309**	P	**P**	**06 14 40.0**	**+0.2**
	comp=Z,36nm,1.0s,mb5.3						
LBG	**Lerchenberg**	**80.70**	**318**	⇓*e*P	**P**	**06 14 39.4**	**-0.2**
SPAK	**Spaichingen**	**80.72**	**317**	⇓*e*P	**P**	**06 14 40.0**	**+0.2**
SWS	**Schriesheim**	**80.73**	**319**	⇓*e*P	**P**	**06 14 40.0**	**+0.2**
PGF	**Pioggiola**	**80.81**	**312**	*e*P	**P**	**06 14 39.5**	**-0.9**
	comp=Z,706nm,1.9s,mb6.0						
VAI	**Varese**	**80.82**	**315**	*e*P	**P**	**06 14 39.6**	**-0.7**
BFO	**Black Forest**	**81.02**	**318**	*e*P	**P**	**06 14 40.9**	**-0.4**
BFO				pmax	pmax		
	comp=Z,49nm,1.3s,mb5.3						
BFO	**Black Forest**	**81.02**	**318**	*e*P	**P**	**06 14 40.9**	**-0.4**
	comp=Z,49nm,1.3s,mb5.3						
PCP	**Pian Castagno**	**81.04**	**314**	P	**P**	**06 14 41.4**	**-0.1**
MOL	**Molde**	**81.07**	**332**	*e*P	**P**	**06 14 44.2**	**+2.9**
MOL				AMb	AMB	06 15 07.1	
	comp=Z,167nm,1.7s,mb5.7						
MOL	**Molde**	**81.07**	**332**	*e*P	**P**	**06 14 44.2**	**+2.9**
	comp=Z,167nm,1.7s,mb5.7						
KTD	**Kalmit**	**81.14**	**319**	*e*P	**P**	**06 14 43.5**	**+1.6**
FELD	**Feldberg**	**81.26**	**317**	⇓*e*P	**P**	**06 14 42.5**	**-0.1**
FIN	**Finale Ligure**	**81.30**	**313**	*e*P	**P**	**06 14 42.9**	**0.0**
KIZ	**Kirchzarten**	**81.31**	**317**	⇓*e*P	**P**	**06 14 42.7**	**-0.2**
LANF	**Langenberg**	**81.34**	**318**	*e*P	**P**	**06 14 43.1**	**+0.1**
MCGN	**Macugnaga**	**81.36**	**315**	*e*P	**P**	**06 14 44.0**	**+0.9**
STR	**Strasbourg**	**81.38**	**318**	*e*P	**P**	**06 14 44.0**	**+0.8**
ORX	**Oropa**	**81.39**	**315**	P	**P**	**06 14 43.7**	**+0.4**
ABH	**Alteburg**	**81.46**	**319**	*e*P	**P**	**06 14 44.2**	**+0.6**
ABH	**Alteburg**	**81.46**	**319**	*e*P	**P**	**06 14 44.4**	**+0.8**
LIBD	**Limburg**	**81.51**	**317**	*e*P	**P**	**06 14 44.3**	**+0.4**
LIBD	**Limburg**	**81.51**	**317**	*e*P	**P**	**06 14 43.1**	**-0.8**
ROB	**Roburent**	**81.54**	**314**	P	**P**	**06 14 44.2**	**+0.1**
IMI	**Imperia**	**81.55**	**313**	P	**P**	**06 14 44.7**	**+0.6**
BBS	**Basel-Blauen**	**81.61**	**317**	*e*P	**P**	**06 14 44.5**	**+0.1**
WLS	**Welschbruch**	**81.67**	**318**	*e*P	**P**	**06 14 44.7**	**0.0**
BLS5	**Blasjo**	**81.69**	**329**	*e*P	**P**	**06 14 46.7**	**+2.1**
BLS5				AMb	AMB	06 14 54.6	
	comp=Z,50nm,1.0s,mb5.4						
BLS5	**Blasjo**	**81.69**	**329**	*e*P	**P**	**06 14 46.7**	**+2.1**
	comp=Z,50nm,1.0s,mb5.4						
CDF	**Champ du Feu**	**81.72**	**318**	*e*P	**P**	**06 14 44.7**	**-0.2**
	comp=Z,205nm,1.6s,mb5.5						
RUP	**Ruppelstein**	**81.79**	**319**	*e*P	**P**	**06 14 46.0**	**+0.7**
RUP	**Ruppelstein**	**81.79**	**319**	*e*P	**P**	**06 14 45.6**	**+0.3**
ECH	**Echery**	**81.81**	**318**	*e*P	**P**	**06 14 45.4**	**0.0**
MOF	**Molkenrain**	**81.84**	**317**	*e*P	**P**	**06 14 44.7**	**-0.9**
ENR	**Entracque**	**81.86**	**314**	P	**P**	**06 14 46.4**	**+0.6**
AUTN	**L’Aution**	**81.88**	**313**	*e*P	**P**	**06 14 47.6**	**+1.7**
SBF	**Sospel**	**81.88**	**313**	*e*P	**P**	**06 14 44.6**	**-1.3**
	comp=Z,141nm,0.9s,mb5.6						
RSP	**Reno Superiore**	**81.92**	**314**	P	**P**	**06 14 45.1**	**-1.0**
BHB	**Bricherasio**	**81.94**	**314**	P	**P**	**06 14 45.0**	**-1.2**
LSD	**Ceresole Reale**	**81.97**	**315**	P	**P**	**06 14 46.6**	**+0.2**
TOUF	**Mont Tournerai**	**82.00**	**313**	*e*P	**P**	**06 14 46.0**	**-0.5**
FENE	**Fenestrelle**	**82.07**	**314**	P	**P**	**06 14 46.2**	**-0.6**
PZZ	**Prazzo**	**82.08**	**314**	P	**P**	**06 14 46.9**	**0.0**
MVIF	**Mont Vial**	**82.08**	**313**	*e*P	**P**	**06 14 43.6**	**-3.3**
LOMF	**Lomont**	**82.08**	**317**	*e*P	**P**	**06 14 44.7**	**-2.2**
LPL	**La Plagne**	**82.27**	**315**	*e*P	**P**	**06 14 47.3**	**-0.6**
	comp=Z,107nm,0.6s,mb5.6						
RRL	**Cesana Torines**	**82.27**	**314**	P	**P**	**06 14 48.2**	**+0.3**
MBDF	**Montbardon**	**82.30**	**314**	*e*P	**P**	**06 14 48.2**	**+0.2**
	comp=Z,62nm,0.8s,mb5.3						
BNI	**Bardonecchia**	**82.34**	**314**	*e*P	**P**	**06 14 47.8**	**-0.4**
	comp=Z,50nm,0.8s,mb5.5						
BNI				*e*	pP	06 14 53.6	-1.8
WLF	**Walferdange**	**82.38**	**319**	*e*P	**P**	**06 14 49.0**	**+0.7**
	comp=Z,241nm,1.8s,mb5.8						
THEF	**They Montfort**	**82.59**	**318**	*e*P	**P**	**06 14 49.5**	**0.0**
BAIF	**Baives**	**83.60**	**320**	*e*P	**P**	**06 14 54.9**	**+0.2**
	comp=Z,203nm,1.5s,mb5.7						
SSF	**Saint Saulge**	**84.36**	**317**	*e*P	**P**	**06 14 57.5**	**-1.1**
	comp=Z,247nm,1.7s,mb5.8						
PLDF	**La Plantade**	**84.40**	**316**	*e*P	**P**	**06 14 59.3**	**+0.5**
AGO	**Saint Agoulin**	**84.73**	**316**	*e*P	**P**	**06 15 01.2**	**+0.8**
LBL	**Lubilhac**	**84.74**	**315**	*e*P	**P**	**06 14 59.8**	**-0.7**
PYM	**Petit Puy Mans**	**84.85**	**315**	*e*P	**P**	**06 15 01.4**	**+0.4**
BGF	**Bois d’Agland**	**84.87**	**316**	*e*P	**P**	**06 15 01.2**	**+0.1**
	comp=Z,152nm,1.2s,mb5.7						
SYO	**Syowa Base**	**85.81**	**197**	⇑P	**P**	**06 15 06.3**	**+1.0**
SYO	**Syowa Base**	**85.81**	**197**	⇓PcP	PcP	06 15 07.9	-0.7
SYO	**Syowa Base**	**85.81**	**197**	⇓pP	pP	06 15 13.1	+0.7
RJF	**Les Rejaudoux**	**85.94**	**315**	*e*P	**P**	**06 15 07.0**	**+0.5**
	comp=Z,68nm,1.1s,mb5.5						
FLN	**La Foliniere**	**86.80**	**319**	*e*P	**P**	**06 15 09.2**	**-1.4**
	comp=Z,96nm,1.1s,mb5.6						
DAG	**Danmarks Havn**	**87.03**	**348**	*e*P	**P**	**06 15 11.0**	**-0.2**
DAG	**Danmarks Havn**	**87.03**	**348**	*i* P	**P**	**06 15 11.0**	**-0.2**
ANM	**Nome**	**87.06**	**25**	*e*P	pP	06 15 19.6	+1.0
EBR	**Ebro Roquetas**	**87.32**	**311**	*e*P	**P**	**06 15 08.9**	**-4.5**
DLF	**Lyons Farm**	**89.67**	**324**	*e*P	**P**	**06 15 29.0**	**+4.7**
DCN	**Croghan**	**90.10**	**324**	*e*P	**P**	**06 15 29.0**	**+2.8**
ESDC	**Sonseca Array**	**90.88**	**310**	P	**P**	**06 15 31.0**	**+0.8**
	comp=Z,7.8nm,0.7s,mb5.2,baz=60,slow=4.4,SNR=27						
ESLA	**Sonseca Array**	**90.88**	**310**	*e*P	**P**	**06 15 30.9**	**+0.7**
	comp=Z,14nm,1.2s,mb5.2						
IMA	**Indian Mountai**	**91.24**	**22**	*e*P	**P**	**06 15 32.9**	**+1.7**
	comp=Z,15nm,0.7s,mb5.4						
VNDA	**Vanda**	**93.38**	**168**	P	**P**	**06 15 41.1**	**+0.3**
	comp=Z,5.1nm,0.9s,mb4.9,baz=257,slow=7.1,SNR=6.7						
VNDA				pP	pP	06 15 47.4	-0.6
	comp=Z,7.5nm,0.9s,baz=258,slow=9.4,SNR=7.6						
VNDA	**Vanda**	**93.38**	**168**	P	**P**	**06 15 41.1**	**+0.3**
VNDA				*PP	pP	06 15 47.4	-0.6
VNDA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
VNDA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
VNDA	**Vanda**	**93.38**	**168**	*e*P	**P**	**06 15 41.8**	**+1.0**
	comp=Z,7.3nm,0.9s,mb5.1						
SUMG	**Summit**	**93.69**	**347**	P	**P**	**06 15 43.3**	**+0.9**
	comp=Z,255nm,2.1s,mb6.3						
RSO	**Redoubt South**	**93.91**	**27**	*e*P	**P**	**06 15 46.1**	**+2.6**
SPU	**Mount Spurr**	**93.92**	**26**	*e*P	**P**	**06 15 45.1**	**+1.5**
COLA	**College**	**93.95**	**22**	⇑*e*P	**P**	**06 15 46.1**	**+2.4**
ILAR	**Eielson Array**	**94.36**	**22**	P	**P**	**06 15 45.6**	**0.0**
	comp=Z,1.8nm,0.8s,mb4.5,baz=288,slow=4.7,SNR=13						
ILAR				pP	pP	06 15 52.5	-0.2
	comp=Z,7.1nm,0.9s,baz=302,slow=4.7,SNR=23						
ILAR				PP	PP	06 19 34.6	-0.9
	comp=Z,1.1nm,0.7s,baz=299,slow=6.7,SNR=4.2						
ILAR				PKKPbc		06 32 46.5	
	comp=Z,0.8nm,1.0s,baz=188,slow=2.9,SNR=4.3						
ILAR	**Eielson Array**	**94.36**	**22**	P	**P**	**06 15 45.6**	**0.0**
ILAR				*PP	pP	06 15 52.5	-0.2
ILAR						06 19 34.6	
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
SBA	**Scott Base**	**94.48**	**168**	*e*P	**P**	**06 15 46.9**	**+1.0**
SBA				*e*	pP	06 15 53.3	+0.2
FIB	**Fire Island**	**94.75**	**26**	*e*P	**P**	**06 15 48.6**	**+1.2**
PMR	**Palmer**	**95.00**	**25**	*e*P	**P**	**06 15 50.7**	**+2.1**
	comp=Z,108nm,1.4s,mb6.1						
SLKM	**Skilak Lake**	**95.02**	**27**	*e*P	**P**	**06 15 48.6**	**-0.1**
MENT	**Mentasta**	**96.51**	**23**	*e*P	**P**	**06 16 02.7**	**+7.2**
INK	**Inuvik**	**96.59**	**16**	P	**P**	**06 15 57.1**	**+1.4**
	comp=Z,9.1nm,0.9s,mb5.2,baz=325,slow=4.2,SNR=14						
INK				PKKP	PKKP	06 32 44.2	+10
	comp=Z,3.3nm,1.1s,baz=104,slow=3.0,SNR=5.3						
INK	**Inuvik**	**96.59**	**16**	P	**P**	**06 15 57.1**	**+1.4**
INK				pmax	pmax		
	comp=Z,9.0nm,1.0s						
INK				pmax	pmax		
	comp=Z,3.0nm,1.2s						
DAWY	**Dawson**	**97.47**	**21**	*e*P	**P**	**06 16 00.8**	**+1.1**
DBIC	**Dimbokro**	**97.81**	**278**	P	**P**	**06 16 04.8**	**+2.3**
	comp=Z,4.7nm,0.9s,mb5.0,baz=88,slow=4.4,SNR=5.3						
DBIC	**Dimbokro**	**97.81**	**278**	P	**P**	**06 16 04.8**	**+2.3**
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.9s						
SNAA	**Sanae**	**100.02**	**199**	⇑*i*		06 16 21.4	
SNAA	**Sanae**	**100.02**	**199**	P	P	06 16 12.9	+1.7
	comp=Z,0.6nm,0.7s,baz=114,slow=5.5,SNR=5.6						
SNAA				PKKP	PKKP	06 32 37.4	+9.2
	comp=Z,0.6nm,0.7s,baz=219,slow=2.9,SNR=7.0						
SNAA	**Sanae**	**100.02**	**199**	P	P	06 16 12.9	+1.7
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SNAA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SNAA	**Sanae**	**100.02**	**199**	*e*P	P	06 16 12.9	+1.8
	comp=Z,720nm,3.6s						
VNA1	**Neumayer--Stat**	**101.89**	**199**	⇓*i*		06 16 33.6	
VNA3	**Neumayer Olymp**	**102.24**	**199**	⇓*i*		06 16 33.8	
YKA	**Yellowknife Ar**	**106.01**	**13**	Pdiff	Pdif	06 16 41.9	+4.0
	comp=Z,0.7nm,0.9s,baz=327,slow=4.1,SNR=6.6						
YKA				PP	PP	06 20 58.7	-5.4
	comp=Z,0.6nm,0.7s,baz=335,slow=6.9,SNR=3.7						
YKA				PKKPbc		06 32 12.5	
	comp=Z,0.6nm,0.8s,baz=163,slow=2.1,SNR=6.6						
YKA				PKKP	PKKP	06 32 26.8	+9.2
	comp=Z,1.5nm,0.8s,baz=149,slow=3.4,SNR=14						
YKA	**Yellowknife Ar**	**106.01**	**13**	P	Pdif	06 16 41.9	+4.0
YKA						06 20 58.7	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
YKA	**Yellowknife Ar**	**106.01**	**13**	Pdif	Pdif	06 16 41.9	+4.0
YKA				PP	PP	06 20 58.7	-5.4
YKA				PKKPbc		06 32 12.5	
YKA				PKKP	PKKP	06 32 26.8	+9.2
HRY	**Holter Researc**	**120.55**	**20**	*e*PKPdf	PKPdf	06 21 19.1	-2.1
ULM	**Lac du Bonnet**	**121.03**	**7**	PKP	PKPdf	06 21 20.5	-1.7
	comp=Z,3.4nm,0.8s,baz=19,slow=3.4,SNR=6.7						
NSHM	**Saint Helena R**	**122.24**	**34**	*e*PKPdf	PKPdf	06 21 22.9	-1.8
OHCM	**Honcut**	**122.25**	**32**	*e*PKPdf	PKPdf	06 21 21.9	-2.8
ELK	**Elko**	**124.21**	**27**	*e*PKPdf	PKPdf	06 21 26.0	-2.5
NVAR	**Mina Array Bea**	**124.57**	**31**	PKP	PKPdf	06 21 28.0	-1.3
	comp=Z,4.6nm,0.8s,baz=273,slow=2.5,SNR=13						
NVAR	**Mina Array Bea**	**124.57**	**31**	PKP	PKPdf	06 21 28.0	-1.3
LRV	**Little Rabbit**	**124.62**	**34**	*e*PKPdf	PKPdf	06 21 28.1	-1.4
MNV	**Mina**	**124.65**	**31**	*e*PKPdf	PKPdf	06 21 27.4	-2.1
PDAR	**Pinedale Array**	**124.78**	**21**	PKP	PKPdf	06 21 27.1	-2.5
	comp=Z,3.4nm,0.9s,SNR=15						
PDAR				PKKPbc		06 31 06.7	
	comp=Z,0.8nm,0.7s,baz=131,slow=7.0,SNR=4.1						
MTUM	**Tungsten Hills**	**125.26**	**32**	*e*PKPdf	PKPdf	06 21 27.5	-3.1
DAU	**Daniels Canyon**	**126.17**	**24**	*e*PKPdf	PKPdf	06 21 31.1	-1.2

MIV	Mineville/With	126.66	349	ePKPdf	PKPdf	06 21 31.1	-2.0
MVU	Marysvale	127.38	26	ePKPdf	PKPdf	06 21 32.0	-2.6
MSU	Marysvale	127.39	26	ePKPdf	PKPdf	06 21 32.2	-2.5
ARUT	Antelope Range	127.42	27	PKPdf	PKPdf	06 21 32.2	-2.6
NEN	Nelson	128.47	30	ePKPdf	PKPdf	06 21 34.9	-2.0
PV10	Paradox Valley	128.79	23	ePKPdf	PKPdf	06 21 35.5	-2.0
PV01	Paradox Valley	129.19	23	ePKPdf	PKPdf	06 21 36.5	-1.7
TXAR	Lajitas Array	138.85	24	PKhKP		06 21 45.5	
	comp=Z,1.1nm,0.9s,baz=12,slow=0.5,SNR=5.7						
TXAR				PKP	PKPdf	06 21 53.0	-3.5
	comp=Z,0.9nm,0.6s,baz=353,slow=0.4,SNR=8.1						
TXAR				PP	PP	06 24 46.7	-1.4
	comp=Z,2.0nm,0.9s,slow=3.8,SNR=4.2						
TXAR	Lajitas Array	138.85	24	PKP	PKPdf	06 21 53.0	-3.5
TXAR				PP	PP	06 24 46.7	-1.4
HKT	Hockley	140.78	14	ePKPdf	PKPdf	06 21 58.8	-1.2
BAO	Brasilia Array	142.23	255	PKP	PKPdf	06 21 57.3	-5.5
BAO				e		06 22 02.2	
BAO				e		06 22 05.3	
BAO				e		06 22 07.6	
BAO				e		06 22 09.4	
BAO				e		06 22 14.7	
BAO				e		06 22 24.9	
BDFB	Brasilia	142.25	255	PKhKP		06 21 57.1	
	comp=Z,4.0nm,0.7s,baz=101,slow=4.2,SNR=6.5						
BDFB				PKP	PKPdf	06 22 02.3	-0.5
	comp=Z,11nm,0.8s,baz=359,slow=0.8,SNR=13						
BDFB	Brasilia	142.25	255	PKIKP	PKPdf	06 21 57.2	-5.6
BDFB						06 22 02.3	
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.7s						
BDFB				pmax	pmax		
	comp=Z,11nm,0.8s						
BIM	Bigot	146.49	312⇑	eP	PKPbc	06 22 09.9	+2.8
SJG	San Juan	147.27	323	PKPbc	PKPdf	06 22 11.4	0.0
	comp=Z,8.5nm,0.5s,baz=82,slow=1.8,SNR=6.7						
SJG	San Juan	147.27	323	PKP2	PKPab	06 22 11.4	-1.9
SJG				pmax	pmax		
	comp=Z,9.0nm,0.5s						
FCH	Farellones	151.22	208⇑	iP	PKPdf	06 22 21.2	+4.1
CLCH	Cerro Calan	151.28	208⇓	iP	PKPdf	06 22 22.0	+4.7
PCRV	Puerto La Cruz	151.95	311	PKPbc	PKPdf	06 22 23.4	+4.6
	comp=Z,11nm,0.5s,baz=110,slow=2.5,SNR=14						
SDV	Santo Domingo	157.10	318	PKP	PKPdf	06 22 24.8	-1.0
	comp=Z,5.4nm,1.1s,baz=26,slow=1.3,SNR=5.9						
SDV				PKPab	PKPab	06 22 55.0	+0.5
	comp=Z,12nm,0.8s,baz=360,slow=2.4,SNR=4.9						
SDV	Santo Domingo	157.10	318	PKPdf	PKPdf	06 22 24.2	-1.6
LVC	Limon Verde	158.33	227	PKP	PKPdf	06 22 26.1	-1.0
	comp=Z,2.7nm,0.9s,baz=117,slow=2.3						
LVC				PKPab	PKPab	06 23 01.1	+1.5
	comp=Z,16nm,0.9s,baz=136,slow=3.5,SNR=3.8						
LPAZ	La Paz	160.90	244	PKP	PKPdf	06 22 29.5	-0.6
	comp=Z,1.8nm,0.7s,baz=6.6,slow=1.0,SNR=6.5						
LPAZ				PKPab	PKPab	06 23 10.8	+0.1
	comp=Z,7.3nm,0.8s,baz=74,slow=3.7,SNR=6.1						
LPAZ	La Paz	160.90	244	PKIKP	PKPdf	06 22 29.5	-0.6
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LPAZ	La Paz	160.90	244	PKP	PKPdf	06 22 29.5	-0.6
LPAZ				PKPab	PKPab	06 23 10.8	+0.1
ROSC	El Rosal	162.53	318	PKP	PKPdf	06 22 30.6	-1.2
	comp=Z,8.4nm,0.9s,baz=97,slow=8.1,SNR=10.0						

IDC ***26*** *06:09:30.8±0.4, 6.38N×93.24E, h28^{km}±2^{km}, mb4.5/26, mb1 4.6/27, mb1mx4.6/27, ML4.5/1, Error ellipse: s-maj=18.9km s-min=8.9km az=46.0*

NEIC ***26*** *06:09:30.8±0.2, 6.34N×93.20E, mb4.8/14, Error ellipse: s-maj=8.7km s-min=5.5km az=49.0*

BJI ***26*** *06:09:30.8, 6.30N×93.20E, h29^{km}, mb4.9*

ISC 26 06:09:28.8±0.3, **6.31N**±0.07×**93.20E**±0.07, **h29**^{km}, **h29**^{km}±.6^{km}**:pP-P, n76,** σ**0**^{s}**82**/64, **mb4.7**/37, **1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.31	24	P	P	06 12 45.9	+7.4
CMAR	Chiang Mai Arr	13.31	24	Pn	P	06 12 38.0	-0.5
	0.8nm,0.3s,baz=227,slow=17,SNR=3.0						
QIZ	Qiongzhong	20.55	51	P	P	06 14 10.0	+2.1
QIZ	Qiongzhong	20.55	51	eP	P	06 14 09.0	+1.1
	60nm,1.3s						
GYA	Guiyang	23.80	31⇑	iP	P	06 14 42.0	+1.8
GYA				AMB	AMB		
	comp=Z,50nm,1.1s,mb4.9						
ENH	Enshi	28.33	31	eP	P	06 15 17.9	-4.6
	comp=Z,50nm,1.2s,mb5.0						
NJ2	Nanjing	35.06	40	eP	P	06 16 22.3	+0.8
AAK	Ala-Archa	39.78	338	eP	P	06 17 00.8	-0.2
	comp=Z,17nm,1.1s,mb4.7						
SONM	Songino Array	42.88	13	P	P	06 17 26.8	+0.4
	comp=Z,2.2nm,0.7s,mb4.0,baz=193,slow=6.4,SNR=4.7						
NWAO	Narrogin (SRO)	45.21	151	P	P	06 17 45.8	+0.4
	comp=Z,17nm,0.6s,mb5.0,baz=336,SNR=3.6						
ZAL	Zalesovo	47.97	353	P	P	06 18 06.3	-0.6
	comp=Z,11nm,0.6s,mb5.1,baz=303,slow=5.4,SNR=15						
ZAL				pP	pP	06 18 15.2	-0.6
	comp=Z,17nm,0.9s,baz=297,slow=9.1,SNR=12						
WRA	Warramunga Arr	48.14	124	P	P	06 18 07.6	-1.1
	comp=Z,22nm,0.7s,mb5.3,baz=302,slow=9.1,SNR=32						
WRA				PcP	PcP	06 19 36.4	+0.1
	comp=Z,4.4nm,0.6s,baz=324,slow=2.6,SNR=6.8						
WRAB	Tennant Creek	48.15	124	eP	P	06 18 07.9	-0.9
	comp=Z,42nm,0.8s,mb5.5						
ASAR	Alice Springs	49.66	128	P	P	06 18 19.2	-1.1
	comp=Z,20nm,0.8s,mb5.2,baz=300,slow=7.3,SNR=40						
ASAR				pP	pP	06 18 28.3	-1.0
	comp=Z,13nm,0.8s,baz=297,slow=6.8,SNR=10						
ASAR				PcP	PcP	06 19 41.9	+0.2
	comp=Z,6.9nm,0.7s,baz=301,slow=3.2,SNR=8.7						
ASAR				pPcP		06 19 52.8	
	comp=Z,2.7nm,0.7s,baz=317,slow=4.0,SNR=3.9						
BVAR	Borovoye Array	50.17	342	P	P	06 18 23.2	-0.6
	comp=Z,5.2nm,0.8s,mb4.6,baz=143,slow=7.4,SNR=10						
BVAR				pP	pP	06 18 30.9	-1.9
	comp=Z,4.0nm,0.8s,baz=104,slow=6.1,SNR=6.5						
CHKZ	Chkalovo	50.67	343	eP	P	06 18 27.0	-0.6
	comp=Z,9.5nm,0.8s,mb4.8						
GNI	Garni	54.87	315	P	P	06 18 59.3	+0.2
	comp=Z,7.7nm,0.8s,mb4.8,baz=151,slow=15,SNR=3.7						
PMG	Port Moresby	55.99	106	P	P	06 19 07.0	-0.5
	comp=Z,11nm,0.6s,mb5.1,baz=202,slow=7.6,SNR=6.2						
PMG				pP	pP	06 19 16.6	+0.1
	comp=Z,15nm,0.7s,baz=236,slow=5.3,SNR=5.7						
KMBO	Kilima Mbogo	56.33	264	P	P	06 19 10.8	+0.8
	comp=Z,3.0nm,0.7s,mb4.4,baz=52,slow=10,SNR=11						
KMBO	Kilima Mbogo	56.33	264	P	P	06 19 10.8	+0.8
ASF	Jabal al Asfar	58.30	304	P	P	06 19 24.3	+0.7
	comp=Z,8.1nm,1.1s,mb4.7,baz=315,slow=10.0,SNR=5.3						
ASF				pP	pP	06 19 33.2	+0.4
	comp=Z,5.3nm,1.0s,baz=11,slow=5.2,SNR=3.1						
CTA	Charters Tower	58.38	118	P	P	06 19 24.1	-0.3
	comp=Z,12nm,1.0s,mb4.9,baz=292,slow=11,SNR=6.8						
STKA	Stephens Creek	59.72	133	P	P	06 19 32.3	-1.2
	comp=Z,9.8nm,0.9s,mb4.8,baz=315,slow=7.0,SNR=10.0						
STKA				pP	pP	06 19 41.6	-1.1
	comp=Z,7.0nm,0.8s,baz=320,slow=4.7,SNR=4.9						
BRTR	Keskin Array B	62.75	312	P	P	06 19 52.5	-1.4
	comp=Z,7.3nm,0.8s,mb4.8,baz=120,slow=7.2,SNR=21						
BRTR				pP	pP	06 20 02.5	-0.5
	comp=Z,3.8nm,0.6s,baz=128,slow=6.3,SNR=6.4						
IDI	Anoyia	68.70	305	P	P	06 20 31.6	-0.5
	comp=Z,10nm,0.6s,mb4.9,baz=66,slow=4.9,SNR=8.4						
IDI				pP	pP	06 20 41.0	-0.3
	comp=Z,11nm,0.6s,baz=66,slow=10,SNR=6.0						
IDI				PcP	PcP	06 20 54.2	-2.6
	comp=Z,14nm,0.9s,baz=247,slow=2.9,SNR=4.2						
AKASG	Malin Array Be	68.80	322	P	P	06 20 30.4	-2.0
	comp=Z,3.7nm,0.7s,mb4.4,baz=89,slow=4.7,SNR=12						
AKASG				pP	pP	06 20 40.2	-1.5
	comp=Z,2.4nm,0.6s,baz=87,slow=4.7,SNR=8.1						
KOLS	Kolonicke sedl	72.77	319	eP	P	06 20 56.2	-0.3
FINES	FINESS Array B	73.65	333	P	P	06 21 00.6	-0.8
	comp=Z,6.4nm,0.7s,mb4.6,baz=112,slow=10,SNR=10.0						
FINES				pP	pP	06 21 10.7	+0.1
	comp=Z,12nm,0.9s,baz=119,slow=6.3,SNR=6.0						
KAF	Kangasniemi	73.75	333	ep	pP	06 21 11.5	+0.3
	comp=Z,10.0nm,0.8s						
KAF	Kangasniemi	73.75	333	eP	P	06 21 01.0	-0.9
	comp=Z,5.3nm,0.8s,mb4.5						
KAF				eP	pP	06 21 11.5	+0.3
KECS	Kecovo	73.86	319	eP	P	06 21 02.1	-0.7
OJC	Ojcow	74.57	320	eP	P	06 21 05.2	-1.7
OKC	Ostrava-Krasne	75.57	320	eP	P	06 21 12.8	+0.2
KEV	Kevo	75.99	341	ep	P	06 21 14.6	-0.1
ZST	Bratislava	76.06	318	eP	P	06 21 15.5	0.0
ZST				epP	pP	06 21 23.1	-1.6
ARCES	ARCESS Array B	76.41	340	P	P	06 21 17.2	+0.2
	comp=Z,7.2nm,0.8s,mb4.7,baz=90,slow=8.5,SNR=8.4						
ARCES				pP	pP	06 21 27.2	+0.9
	comp=Z,14nm,1.0s,baz=101,slow=6.7,SNR=6.4						
DPC	Dobruska-Polom	76.80	320	eP	P	06 21 20.0	+0.5
DPC				epP	pP	06 21 29.4	+0.6
MAW	Mawson	76.83	191	P	P	06 21 20.3	+0.9
	comp=Z,6.5nm,0.7s,mb4.7,baz=347,slow=5.9,SNR=5.6						
UPC	Upice	77.01	320	eP	P	06 21 21.1	+0.4
UPC				epP	pP	06 21 29.5	-0.5
PRU	Pruhonice	77.90	320	eP	P	06 21 25.5	-0.1
PRU				epP	pP	06 21 34.8	-0.2
BRG	Berggiesshubel	78.35	321	i P	P	06 21 28.6	+0.5
	comp=Z,37nm,1.8s,mb5.0						
GEC2	GERESS Array S	78.37	318	eP	P	06 21 28.8	+0.6
	comp=Z,8.0nm,0.9s,mb4.7						
GERES	GERESS Array B	78.37	318	P	P	06 21 28.8	+0.5
	comp=Z,6.8nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=26						
GERES				pP	pP	06 21 37.1	-0.5
	comp=Z,6.2nm,0.8s,baz=90,slow=5.3,SNR=12						
KHC	Kasperske Hory	78.47	319	eP	P	06 21 28.6	-0.2
KHC				epP	pP	06 21 36.8	-1.3
WET	Wettzell	78.93	319	eP	P	06 21 32.0	+0.7
CLL	Collm	78.98	321	eP	P	06 21 31.0	-0.5
CLL				i		06 22 04.0	
CLL	Collm	78.98	321	P	P	06 21 31.0	-0.5
MOX	Moxa	79.82	320	i P	P	06 21 36.4	+0.3
MOX	Moxa	79.82	320	eP	P	06 21 36.4	+0.3
FUR	Furstenfeldbru	79.94	318	eP	P	06 21 36.8	0.0
GRA1	Grafenberg Arr	80.03	319	eP	P	06 21 37.8	+0.6
	comp=Z,7.0nm,0.9s,mb4.6						
GRF	Grafenberg Arr	80.03	319	eP	P	06 21 37.8	+0.6
	comp=Z,7.0nm,0.9s,mb4.6						
NB2	NORSAR Subarra	80.63	331	P	P	06 21 39.3	-0.9
	comp=Z,1.1nm,0.7s,mb3.9,baz=97,slow=5.0						
NOA	NORSAR Array B	80.63	331	P	P	06 21 39.6	-0.6
	comp=Z,1.8nm,0.8s,mb4.1,baz=94,slow=5.8,SNR=4.1						
CLZ	Clausthal	80.64	321	eP	P	06 21 40.5	+0.1
	comp=Z,4.0nm,0.8s,mb4.4						
BSEG	Bad Segeberg	80.74	324	eP	P	06 21 41.4	+0.5
BFO	Black Forest	81.92	318	eP	P	06 21 47.1	-0.1
	comp=Z,3.0nm,0.8s,mb4.3						
LPL	La Plagne	83.07	315	eP	P	06 21 53.4	+0.2
	comp=Z,29nm,0.8s,mb5.0						
RPZ	Rata Peaks	85.61	135	P	P	06 22 07.4	+1.3
	comp=Z,11nm,0.7s,mb5.2,baz=356,slow=7.2,SNR=3.7						
ESDC	Sonseca Array	91.50	310	P	P	06 22 35.0	+0.8
	comp=Z,2.0nm,0.6s,mb4.6,baz=58,slow=4.4,SNR=12						
ESDC				pP	pP	06 22 45.2	+1.5
	comp=Z,1.1nm,0.6s,baz=66,slow=4.1,SNR=4.3						
VNDA	Vanda	91.60	168	P	P	06 22 34.7	+0.9
	comp=Z,1.9nm,0.9s,mb4.4,baz=243,slow=2.3,SNR=2.7						
VNDA	Vanda	91.60	168	P	P	06 22 34.7	+0.9
ILAR	Eielson Array	96.53	22	P	P	06 22 56.0	-0.7
	comp=Z,0.5nm,0.9s,mb3.9,baz=281,slow=4.6,SNR=3.5						
DBIC	Dimbokro	97.23	278	P	P	06 23 02.6	+1.6
	comp=Z,2.0nm,0.8s,mb4.6,baz=189,slow=5.0,SNR=3.8						
INK	Inuvik	98.74	16	P	P	06 23 07.9	+1.4
	comp=Z,1.9nm,0.9s,mb4.6,baz=34,slow=3.6,SNR=2.6						
ULM	Lac du Bonnet	123.12	7	PKP	PKPdf	06 28 25.5	-2.4
	comp=Z,4.6nm,0.8s,baz=119,slow=1.7,SNR=8.4						
ULM				pPKP		06 28 35.4	
	comp=Z,4.8nm,0.7s,baz=13,slow=5.1,SNR=6.1						
NVAR	Mina Array Bea	126.73	31	PKP	PKPdf	06 28 33.4	-1.8
	comp=Z,2.0nm,0.7s,baz=329,slow=1.0,SNR=13						
NVAR	Mina Array Bea	126.73	31	PKP	PKPdf	06 28 33.4	-1.8
PDAR	Pinedale Array	126.95	21	PKP	PKPdf	06 28 32.5	-3.1
	comp=Z,3.5nm,0.8s,baz=44,slow=1.5,SNR=20						
BDFB	Brasilia	140.88	253	PKP	PKPdf	06 29 00.3	-2.0
	comp=Z,3.0nm,0.7s,baz=33,slow=14,SNR=4.1						
TXAR	Lajitas Array	141.02	24	PKP	PKPdf	06 28 59.9	-2.3
	comp=Z,1.2nm,0.6s,baz=327,slow=0.5,SNR=16						
PCRV	Puerto La Cruz	152.51	306	PKPbc	PKPdf	06 29 25.5	+4.1
	comp=Z,8.5nm,0.8s,baz=23,slow=23,SNR=7.6						
SDV	Santo Domingo	157.92	313	PKP	PKPdf	06 29 26.5	-2.2
	comp=Z,5.1nm,0.8s,baz=320,slow=1.3,SNR=5.4						
LPAZ	La Paz	159.20	240	PKP	PKPdf	06 29 29.1	-1.0
	comp=Z,3.2nm,0.8s,baz=132,slow=0.8,SNR=6.4						
LPAZ				PKPab	PKPab	06 30 05.2	+0.7
	comp=Z,2.4nm,0.7s,baz=133,slow=5.9,SNR=4.3						
LPAZ	La Paz	159.20	240	PKP	PKPdf	06 29 29.1	-1.0
LPAZ				PKPab	PKPab	06 30 05.2	+0.7
ROSC	El Rosal	163.33	311	PKP	PKPdf	06 29 33.0	-1.4
	comp=Z,8.6nm,1.0s,baz=101,slow=22,SNR=9.4						

BJI ***26*** *06:11:03.7, 8.97N×93.72E, h45^{km}, mB6.2, mb5.3, Ms5.9, Msz5.7*

IDC ***26*** *06:11:04.8±0.5, 9.37N×93.90E, h24^{km}±3^{km}, mb4.6/22, mb1 4.6/23, mb1mx4.6/26, ML4.7/1, Error ellipse: s-maj=18.6km s-min=11.1km az=49.0*

NEIC ***26*** *06:11:04.6±0.2, 9.31N×93.91E, mb5.1/22, Error ellipse: s-maj=7.6km s-min=5.5km az=47.0*

ISC 26 06:11:02.8±0.4, **9.18N**±0.07×**93.85E**±0.06, **h25**^{km}, **h25**^{km}±.7^{km}**:pP-P, n101,** σ**0**^{s}**80**/90, **mb4.9**/49, **MS5.8**/3, **4C-4D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.46	28	Pn	P	06 13 30.2	-4.3
	1.6nm,0.3s,baz=212,slow=14,SNR=3.2						
KMI	Kunming	17.97	27	eP	P	06 15 16.5	+3.7
KMI				AMB	AMB		
	comp=Z,99nm,1.1s						
LSA	Lhasa	20.57	353	eP	P	06 15 41.6	-0.9
	comp=Z,222nm,1.2s						
GYA	Guiyang	21.04	34⇑	iP	P	06 15 47.0	-0.4
GYA				AMB	AMB		
	comp=Z,70nm,1.3s,mb4.8						
CD2	Chengdu	23.51	22⇓	iP	P	06 16 12.8	+0.9
CD2				AMB	AMB		
	comp=Z,250nm,1.3s,mb5.5						
ENH	Enshi	25.57	33	eP	P	06 16 31.3	-0.4
	comp=Z,99nm,1.2s,mb5.2						
LZH	Lanzhou	28.29	17	eP	P	06 16 57.3	+0.8
LZH				PP	PP	06 17 50.0	+2.3
LZH				AMB	AMB		
	comp=Z,102nm,1.3s,mb5.3						
GTA	Gaotai	30.57	9	P	P	06 17 17.0	+0.1
GTA				AP	pP	06 17 26.0	+1.9
GTA				XP	sP	06 17 31.0	+3.6
GTA				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.3						
GTA				AMB	AMB		
	comp=Z,5µm,11.9s						
GTA				LR	LR		
	comp=N,9µm,13.3s,MS5.7						
GTA				LR	LR		
	comp=E,6µm,12.2s,MS5.7						
GTA				LR	LR		
	comp=Z,15µm,26.6s						
KSH	Kashi	34.18	335	P	P	06 17 48.3	-0.1
KSH				eAP	pP	06 17 58.0	+2.3
KSH				eXP	sP	06 18 01.8	+3.0
KSH				AMB	AMB		
	comp=Z,2µm,6.2s						
KSH				LR	LR		
	comp=N,9µm,14.0s,MS5.8						
KSH				LR	LR		
	comp=E,6µm,11.8s,MS5.8						
WMQ	Urumqi	34.92	352	P	P	06 17 55.3	+0.6
WMQ				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.9						
HHC	Hu-ho-hao-te	35.24	24	eP	P	06 17 58.0	+0.6
HHC				AP	pP	06 18 05.5	+0.7
HHC				XP	sP	06 18 10.5	+2.6
HHC				PP	PP	06 19 22.0	+5.2
HHC				S	S	06 23 37.3	+8.6
HHC				XS		06 23 45.5	
HHC				AMB	AMB		
	comp=Z,62nm,1.1s,mb5.5						
HHC				AMB	AMB		
	comp=Z,5µm,10.3s						
HHC				LR	LR		
	comp=N,10µm,14.3s,MS5.8						
HHC				LR	LR		
	comp=E,8µm,15.5s,MS5.8						
HHC				LR	LR		
	comp=Z,12µm,14.3s,MS5.8						
BJI	Beijing	36.60	29	P	P	06 18 10.3	+1.3
BJI				AMB	AMB		
	comp=Z,119nm,0.9s,mb5.7						
AML	Almayashu	37.31	335	P	P	06 18 16.4	+1.6
	SNR=9.6						
AAK	Ala-Archa	37.40	336	P	P	06 18 17.1	+1.5
	SNR=6.8						
CHMS	Chumysh	37.61	337	P	P	06 18 17.5	+0.2
	SNR=8.9						
EKS2	Erkin-Say	37.71	336	P	P	06 18 19.8	+1.5
	SNR=7.2						
USP	Ospenovka	37.93	337	P	P	06 18 20.5	+0.4
	SNR=9.2						
DL2	Dalian	38.67	36	P	P	06 18 27.5	+1.1
DL2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
SONM	Songino Array	39.96	13	P	P	06 18 35.9	-1.0
	comp=Z,9.8nm,0.9s,mb4.5,baz=196,slow=8.1,SNR=9.1						
SONM				PcP	PcP	06 20 42.7	+0.1
	comp=Z,4.3nm,0.7s,baz=193,slow=5.5,SNR=2.8						
SONM	Songino Array	39.96	13	P	P	06 18 35.9	-1.0
SONM				PcP	PcP	06 20 42.7	+0.1
ULN	Ulaanbaatar	40.14	14	eP	P	06 18 37.6	-0.8
	comp=Z,12nm,0.9s,mb4.6						
CN2	Changchun	44.09	33	⇓P	P	06 19 11.3	+0.5
CN2				AMB	AMB		
	comp=Z,70nm,1.2s,mb5.3						
ZAL	Zalesovo	45.22	352	P	P	06 19 18.2	-1.6
	comp=Z,12nm,0.9s,mb4.7,baz=289,slow=6.9,SNR=4.4						
ZAL				PP	PP	06 21 06.9	+0.6
	comp=Z,11nm,1.1s,baz=326,slow=3.0,SNR=3.0						
NWAO	Narrogin (SRO)	47.43	153	P	P	06 19 36.6	-0.9
	comp=Z,34nm,1.2s,mb5.2,baz=323,slow=5.6,SNR=3.9						
RDF	Al-Radifah	47.61	301	eP	P	06 19 39.8	+0.8
BVAR	Borovoye Array	47.67	341	P	P	06 19 37.4	-1.7
	comp=Z,6.6nm,0.8s,mb4.7,baz=149,slow=8.6,SNR=5.2						
BVAR				PP	PP	06 21 32.1	+2.1
	comp=Z,3.6nm,0.6s,baz=143,slow=7.2,SNR=2.6						
CHKZ	Chkalovo	48.15	342	eP	P	06 19 42.0	-0.9
	comp=Z,40nm,0.9s,mb5.5						
RST	Umm Al-Ruwaisa	48.22	301	eP	P	06 19 44.2	+0.4
WRA	Warramunga Arr	49.25	126	P	P	06 19 51.9	+0.1
	comp=Z,4.7nm,0.8s,mb4.6,baz=302,slow=8.6,SNR=4.0						
WRA				PcP	PcP	06 21 13.2	-1.7
	comp=Z,5.7nm,1.1s,baz=313,slow=3.7,SNR=2.5						
WRA				PP	PP	06 21 53.5	+7.5
	comp=Z,2.5nm,0.4s,baz=300,slow=9.7,SNR=7.9						
ASAR	Alice Springs	50.97	131	P	P	06 20 04.7	-0.2
	comp=Z,4.6nm,0.9s,mb4.4,baz=307,slow=6.8,SNR=2.8						
ASAR				PcP	PcP	06 21 22.5	+1.4
	comp=Z,4.4nm,0.8s,baz=311,slow=3.8,SNR=3.4						
ASAR				PP	PP	06 22 05.2	+3.0
	comp=Z,3.9nm,0.9s,baz=303,slow=7.8,SNR=5.7						
GNI	Garni	53.33	314	P	P	06 20 21.4	-1.0
	comp=Z,1.8nm,0.3s,mb4.4,baz=163,slow=22,SNR=4.3						
ASAJ	Asahikawa	54.63	42	P	P	06 20 30.7	-1.1
	comp=Z,26nm,1.1s,mb5.2,baz=273,slow=16,SNR=4.1						
YSS	Yuzh-Sakhalins	55.94	39	eP	P	06 20 41.4	+0.1
KIV	Kislovodsk	56.17	317	eP	P	06 20 42.7	-0.2
	comp=Z,61nm,1.3s,mb5.5						
PMG	Port Moresby	56.19	108	P	P	06 20 43.7	+0.1
	comp=Z,11nm,0.8s,mb4.9,baz=271,slow=7.1,SNR=2.9						
KMBO	Kilima Mbogo	57.30	263	P	P	06 20 52.3	+0.9
	comp=Z,1.3nm,0.6s,mb4.2,baz=55,slow=14,SNR=2.0						
MALT	Malatya	57.41	310	eP	P	06 20 51.4	-0.5
	comp=Z,22nm,1.5s,mb5.0						
MALT				e	pP	06 20 59.8	+0.3
CTA	Charters Tower	59.20	120	P	P	06 21 04.0	-0.6
	comp=Z,11nm,1.0s,mb4.8,baz=283,slow=9.0,SNR=6.6						
CTA				pP	pP	06 21 12.6	+0.3
	comp=Z,11nm,1.0s,baz=286,slow=10.0,SNR=5.2						
CTAO	Charters Tower	59.20	120	eP	P	06 21 03.6	-1.1
	comp=Z,1µm,3.3s						
BRTR	Keskin Array B	61.37	310	P	P	06 21 17.4	-1.9
	comp=Z,4.4nm,0.8s,mb4.6,baz=122,slow=6.4,SNR=6.2						
AKASG	Malin Array Be	66.96	321	P	P	06 21 53.4	-2.1
	comp=Z,8.0nm,0.9s,mb4.7,baz=87,slow=4.5,SNR=11						
KOLS	Kolonicke sedl	71.04	319	e	pP	06 22 33.5	+5.0
FINES	FINESS Array B	71.43	332	P	P	06 22 21.7	-1.2
	comp=Z,10nm,0.8s,mb4.8,baz=94,slow=5.4,SNR=8.5						
FINES				pP	pP	06 22 29.2	-1.4
	comp=Z,9.7nm,0.8s,baz=104,slow=7.9,SNR=5.7						
KAF	Kangasniemi	71.51	333	ep	P	06 22 22.4	-0.9
	comp=Z,6.1nm,0.8s,mb4.6						
CRVS	Cervenica-Dubn	71.57	318	i P	P	06 22 25.0	+1.1
NIE	Niedzica	72.38	319	eP	P	06 22 29.0	+0.3
OJC	Ojcow	72.80	320	eP	P	06 22 30.7	-0.5
VYHS	Vyhne	73.25	318	eP	P	06 22 33.4	-0.5
KEV	Kevo	73.52	341	ep	P	06 22 34.8	-0.2
	comp=Z,15nm,0.8s,mb5.0						
OKC	Ostrava-Krasne	73.82	319	eP	P	06 22 37.1	-0.1
OKC				epP	pP	06 22 44.1	-0.8
ARCES	ARCESS Array B	73.95	340	P	P	06 22 37.5	0.0
	comp=Z,19nm,0.8s,mb5.0,baz=80,slow=7.4,SNR=11						
ARCES				pP	pP	06 22 45.0	-0.3
	comp=Z,14nm,0.7s,baz=90,slow=6.1,SNR=8.4						
ARCES	ARCESS Array B	73.95	340	P	P	06 22 37.5	0.0
ARCES				pP	pP	06 22 45.0	-0.3
ZST	Bratislava	74.38	317	eP	P	06 22 40.7	+0.2
DPC	Dobruska-Polom	75.03	320	eP	P	06 22 43.8	-0.4
DPC				epP	pP	06 22 50.8	-1.1
KSP	Ksiaz	75.08	320	eP	P	06 22 44.3	-0.1
KSP				epP	pP	06 22 49.8	-2.4
UPC	Upice	75.24	320	eP	P	06 22 45.8	+0.4
UPC				epP	pP	06 22 52.4	-0.7
ARSA	Arzberg	75.40	316⇓	iP	P	06 22 47.2	+0.9
	comp=Z,13nm,1.1s,mb4.8						
PRU	Pruhonice	76.16	319	eP	P	06 22 50.4	-0.2
PRU				epP	pP	06 22 57.1	-1.3
BRG	Berggiesshubel	76.57	320	eP	P	06 22 53.2	+0.3
	comp=Z,32nm,1.6s,mb5.0						
BRG				eP	pP	06 23 01.2	+0.5
GEC2	GERESS Array S	76.67	318	eP	P	06 22 53.5	0.0
	comp=Z,26nm,1.2s,mb5.0						
GERES	GERESS Array B	76.67	318	P	P	06 22 53.1	-0.4
	comp=Z,8.7nm,0.8s,mb4.7,baz=90,slow=5.3,SNR=10						
GERES				pP	pP	06 23 01.6	+0.3
	comp=Z,4.3nm,0.6s,baz=84,slow=6.8,SNR=5.3						
KHC	Kasperske Hory	76.76	318	eP	P	06 22 54.1	+0.2
KHC				epP	pP	06 23 02.0	+0.3
CLL	Collm	77.18	321	i P	P	06 22 55.8	-0.4
	comp=Z,17nm,1.3s,mb4.8						
CLL	Collm	77.18	321	P	P	06 22 55.8	-0.4
	comp=Z,logA/T=1.1,mb4.8						
CLL				i *PP	pP	06 23 04.0	0.0
HFS	Hagfors	77.19	330	P	P	06 22 56.1	0.0
	comp=Z,6.5nm,0.4s,mb4.9,baz=117,slow=3.2,SNR=9.3						
HFS				pP	pP	06 23 04.0	+0.1
	comp=Z,16nm,0.8s,baz=90,slow=4.4,SNR=4.3						
HFS	Hagfors	77.19	330	P	P	06 22 56.1	0.0
HFS				pP	pP	06 23 04.0	+0.1
WET	Wettzell	77.22	318	eP	P	06 22 56.7	+0.2
NKC	Novy Kostel	77.51	319	eP	P	06 22 58.7	+0.6
NKC				epP	pP	06 23 06.2	+0.3
MOX	Moxa	78.05	320	i P	P	06 23 01.0	0.0
MOX	Moxa	78.05	320	eP	P	06 23 01.0	0.0
WTTA	Wattenberg	78.05	316⇑	iP	P	06 23 00.9	-0.2
	comp=Z,32nm,1.6s,mb5.0						
FUR	Furstenfeldbru	78.28	317	eP	P	06 23 02.4	+0.1
GRA1	Grafenberg Arr	78.30	319	eP	P	06 23 03.1	+0.7
	comp=Z,78nm,1.6s,mb5.4						
GRA1				epP	pP	06 23 10.8	+0.5
GRF	Grafenberg Arr	78.30	319	eP	P	06 23 03.1	+0.7
	comp=Z,78nm,1.6s,mb5.4						
GRF				epP	pP	06 23 10.8	+0.5
SQTA	Sankt Quirin	78.34	316⇓	iP	P	06 23 03.0	+0.3
	comp=Z,12nm,0.8s,mb4.9						
MOTA	Moosalm	78.41	316⇑	iP	P	06 23 02.8	-0.3
	comp=Z,10nm,1.0s,mb4.7						
NB2	NORSAR Subarra	78.46	330	P	P	06 23 01.9	-1.2
	comp=Z,15nm,0.8s,mb5.0,baz=91,slow=5.8						
NB2	NORSAR Subarra	78.46	330	P	P	06 23 01.9	-1.2
	baz=91,slow=5.9						
NOA	NORSAR Array B	78.46	330	P	P	06 23 02.3	-0.7
	comp=Z,11nm,0.9s,mb4.8,baz=92,slow=5.6,SNR=13						
NOA				pP	pP	06 23 10.3	-0.6
	comp=Z,9.9nm,0.8s,baz=92,slow=5.6,SNR=10						
NOA	NORSAR Array B	78.46	330	P	P	06 23 02.3	-0.7
NOA				pP	pP	06 23 10.3	-0.6
CLZ	Clausthal	78.82	321	eP	P	06 23 05.6	+0.4
	comp=Z,32nm,1.2s,mb5.1						
BSEG	Bad Segeberg	78.84	323	eP	P	06 23 06.1	+0.8
DAVA	Damuels	79.24	316⇑	iP	P	06 23 08.0	+0.4
	comp=Z,23nm,1.1s,mb5.0						
MAW	Mawson	79.75	192	P	P	06 23 11.8	+1.9
	comp=Z,8.0nm,0.9s,mb4.6,baz=8.4,slow=11,SNR=5.4						
BFO	Black Forest	80.24	318	eP	P	06 23 13.0	0.0

	comp=Z,29nm,1.4s,mb5.0						
LPL	**La Plagne**	**81.51**	**315**	*e*P	**P**	**06 23 19.8**	**+0.1**
	comp=Z,50nm,0.9s,mb5.1						
ESDC	**Sonseca Array**	**90.16**	**310**	P	**P**	**06 24 01.9**	**-0.7**
	comp=Z,2.1nm,0.8s,mb4.5,baz=58,slow=3.8,SNR=6.2						
SPU	**Mount Spurr**	**93.25**	**26**	*e*P	**P**	**06 24 16.9**	**+0.6**
ILAR	**Eielson Array**	**93.65**	**22**	P	**P**	**06 24 17.6**	**-0.5**
	comp=Z,3.4nm,0.8s,mb4.8,baz=302,slow=4.5,SNR=18						
ILAR				pP	pP	06 24 25.4	-0.5
	comp=Z,1.4nm,0.7s,baz=306,slow=4.7,SNR=4.3						
INK	**Inuvik**	**95.82**	**16**	P	**P**	**06 24 28.6**	**+0.7**
	comp=Z,8.2nm,0.9s,mb5.2,baz=336,slow=5.4,SNR=14						
YKA	**Yellowknife Ar**	**105.23**	**13**	Pdiff	Pdif	06 25 10.5	+0.3
	comp=Z,0.4nm,1.0s,baz=324,slow=4.7,SNR=3.6						
YKA				PP	PP	06 29 29.1	-5.3
	comp=Z,0.7nm,0.8s,baz=335,slow=7.6,SNR=4.1						
NVAR	**Mina Array Bea**	**123.95**	**30**	PKP	PKPdf	06 30 02.2	-1.8
	comp=Z,2.9nm,0.8s,baz=304,slow=1.5,SNR=9.1						
PDAR	**Pinedale Array**	**124.06**	**21**	PKP	PKPdf	06 30 01.1	-3.1
	comp=Z,2.1nm,0.8s,baz=29,slow=1.4,SNR=7.2						
TXAR	**Lajitas Array**	**138.15**	**23**	PKP	PKPdf	06 30 28.9	-2.2
	comp=Z,1.4nm,0.8s,baz=180,slow=1.3,SNR=5.7						
BDFB	**Brasilia**	**142.25**	**256**	PKP	PKPdf	06 30 37.3	-1.5
	comp=Z,2.1nm,0.8s,baz=111,slow=3.1,SNR=2.4						
SJG	**San Juan**	**146.46**	**324**	PKPbc	PKPbc	06 30 43.8	+1.0
	comp=Z,3.8nm,0.5s,baz=14,slow=6.1,SNR=2.7						
PCRV	**Puerto La Cruz**	**151.22**	**311**	PKPbc	PKPdf	06 30 58.8	+5.1
	comp=Z,15nm,1.0s,baz=210,slow=7.5,SNR=3.2						
PCRV				PKPab	PKPab	06 31 03.2	-2.1
	comp=Z,20nm,1.1s,baz=306,slow=0.7,SNR=3.7						
SDV	**Santo Domingo**	**156.32**	**319**	PKPab	PKPab	06 31 25.7	-1.2
	comp=Z,6.6nm,0.8s,baz=65,slow=2.3,SNR=7.1						
LVC	**Limon Verde**	**158.75**	**229**	PKPab	PKPab	06 31 39.6	+2.6
	comp=Z,7.4nm,1.0s,baz=111,slow=8.6,SNR=2.0						
LPAZ	**La Paz**	**161.07**	**246**	PKPab	PKPab	06 31 48.0	+0.8
	comp=Z,2.0nm,0.9s,baz=53,slow=5.1,SNR=2.9						
ROSC	**El Rosal**	**161.75**	**319**	PKPab	PKPab	06 31 50.7	+0.3
	comp=Z,2.8nm,0.6s,baz=91,slow=16,SNR=4.3						

IDC 26 06:11:40.8±0.8**,4.49N**×**93.31E,mb4.6**/11**,mb1 4.8**/12**, mb1mx4.5**/21**,ML5.0**/1**,Error ellipse: s-maj=37.7km s-min=17.9km az=55.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.93**	**21**	Pn	P	06 15 13.6	-1.6
	2.1nm,0.3s,baz=213,slow=11,SNR=10.0						
NWAO	**Narrogin (SRO)**	**43.59**	**150**	P	P	06 19 45.8	-2.8
	16nm,0.7s,baz=325,slow=13,SNR=5.0						
SONM	**Songino Array**	**44.62**	**13**	P	P	06 19 54.6	-2.2
	9.1nm,0.7s,baz=191,slow=8.6,SNR=8.3						
WRA	**Warramunga Arr**	**47.07**	**122**	P	P	06 20 15.1	-1.4
	9.8nm,0.8s,baz=302,slow=9.0,SNR=5.8						
ASAR	**Alice Springs**	**48.47**	**127**	P	P	06 20 26.4	-1.0
	4.4nm,0.8s,baz=314,slow=7.8,SNR=3.0						
ZAL	**Zalesovo**	**49.78**	**353**	P	P	06 20 35.5	-1.6
	8.2nm,0.7s,baz=307,slow=6.8,SNR=5.3						
BVAR	**Borovoye Array**	**51.92**	**343**	P	P	06 20 51.3	-2.2
	7.5nm,0.8s,baz=153,slow=6.6,SNR=5.5						
BVAR				PP	PP	06 22 47.9	-4.3
	1.8nm,0.9s,baz=151,slow=15,SNR=2.3						
BRTR	**Keskin Array B**	**64.04**	**312**	P	P	06 22 16.6	-2.2
	3.6nm,0.6s,baz=126,slow=7.0,SNR=3.7						
IDI	**Anoyia**	**69.83**	**306**	P	P	06 22 54.7	-0.8
	9.0nm,0.6s,baz=106,slow=8.9,SNR=6.7						
FINES	**FINESS Array B**	**75.31**	**333**	P	P	06 23 25.1	-2.4
	2.9nm,0.7s,baz=90,slow=6.9,SNR=2.3						
ARCES	**ARCESS Array B**	**78.15**	**341**	P	P	06 23 41.4	-1.8
	4.3nm,0.7s,baz=79,slow=4.6,SNR=2.7						
GERES	**GERESS Array B**	**79.79**	**319**	P	P	06 23 51.3	-1.2
	3.4nm,0.8s,baz=117,slow=4.4,SNR=2.1						
CLL	**Collm**	**80.45**	**321**	P	P	06 23 54.0	-2.0
CLL				*e*		06 24 12.0	
NVAR	**Mina Array Bea**	**128.22**	**32**	PKP	PKPdf	06 30 49.3	-2.4
	1.0nm,0.7s,baz=288,slow=2.9,SNR=3.1						
BDFB	**Brasilia**	**140.42**	**251**	PKP	PKPdf	06 31 14.0	-0.9
	2.3nm,0.7s,baz=162,slow=9.6						
TXAR	**Lajitas Array**	**142.62**	**25**	PKhKP		06 31 11.8	
	0.5nm,0.7s,baz=270,slow=0.9,SNR=2.2						
TXAR				PKP	PKPdf	06 31 17.9	-0.6
	0.7nm,0.6s,baz=228,slow=0.8,SNR=3.0						
SDV	**Santo Domingo**	**159.19**	**310**	PKPab	PKPab	06 32 18.4	-2.9
	baz=352,slow=7.1						

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*IDC **26** 06:13:00.9±0.8,8.73N×92.68E,mb4.3/9,mb1 4.4/10, mb1mx4.2/20,ML4.3/1,Error ellipse: s-maj=39.2km s-min=19.9km az=49.0*

ISC 26 06:13:03.9±0.7**,8.8N**±0.1×**92.8E**±0.1**,h33**^{km}**,n10, σ0**^{s}**61**/10**,mb4.3**/9**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.29**	**31**	Pn	**P**	**06 15 45.3**	**-0.8**
	0.6nm,0.3s,baz=215,slow=11,SNR=1.6						
BVAR	**Borovoye Array**	**47.70**	**342**	P	**P**	**06 21 40.0**	**+0.7**
	5.7nm,0.8s,mb4.6,baz=150,slow=12,SNR=2.4						
WRA	**Warramunga Arr**	**49.86**	**125**	P	**P**	**06 21 57.0**	**+0.6**
	3.2nm,0.5s,mb4.6,baz=305,slow=8.7,SNR=2.7						
ASAR	**Alice Springs**	**51.51**	**130**	P	**P**	**06 22 08.7**	**-0.1**
	3.8nm,0.9s,mb4.3,baz=301,slow=8.0,SNR=3.1						
ASAR				PcP	PcP	06 23 23.9	+0.9
	1.3nm,0.5s,baz=310,slow=3.3,SNR=5.0						
KMBO	**Kilima Mbogo**	**56.23**	**263**	P	**P**	**06 22 42.8**	**-1.0**
	1.2nm,0.6s,mb4.1,baz=57,slow=13,SNR=2.7						
STKA	**Stephens Creek**	**61.69**	**133**	P	**P**	**06 23 21.2**	**-0.2**
	2.6nm,0.8s,mb4.4,baz=326,slow=12,SNR=2.6						
FINES	**FINESS Array B**	**71.29**	**332**	P	**P**	**06 24 22.3**	**+0.5**
	0.9nm,0.5s,mb4.0,baz=101,slow=7.1,SNR=4.2						
ARCES	**ARCESS Array B**	**73.96**	**340**	P	**P**	**06 24 37.9**	**+0.5**
	2.2nm,0.5s,mb4.3,baz=90,slow=4.9,SNR=4.3						
GERES	**GERESS Array B**	**76.27**	**318**	P	**P**	**06 24 51.6**	**+0.5**
	1.1nm,0.7s,mb3.9,baz=90,slow=4.9,SNR=3.5						
HFS	**Hagfors**	**77.00**	**330**	P	**P**	**06 24 54.3**	**-0.7**
	2.0nm,0.5s,mb4.3,baz=90,slow=7.2,SNR=4.0						

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*IDC **26** 06:15:11.8±0.8,8.22N×93.95E,h21^{km}±3^{km},mb4.1/14, mb1 4.2/15,mb1mx4.1/22,ML4.2/1,Error ellipse: s-maj=32.0km s-min=18.4km az=59.0*

ISC 26 06:15:10.0±0.7**,8.2N**±0.1×**94.0E**±0.1**,h22**^{km}**, h22**^{km}±1.0^{km}**:pP-P,n19,σ0**^{s}**77**/19**,mb4.3**/17**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.22**	**25**	Pn	**P**	**06 17 52.1**	**-0.4**
	0.4nm,0.3s,baz=213,slow=15,SNR=5.1						
SONM	**Songino Array**	**40.83**	**13**	P	**P**	**06 22 52.7**	**+0.9**
	1.8nm,0.9s,mb3.7,baz=191,slow=7.3,SNR=3.0						
ZAL	**Zalesovo**	**46.18**	**352**	P	**P**	**06 23 35.0**	**+0.1**
	4.1nm,0.5s,mb4.6,baz=295,slow=11,SNR=4.6						
ZAL				pP	pP	06 23 41.0	-0.4
	5.5nm,0.6s,baz=298,slow=10,SNR=8.0						
NWAO	**Narrogin (SRO)**	**46.52**	**153**	P	**P**	**06 23 38.1**	**+0.2**
	12nm,0.8s,mb4.9,baz=342,slow=9.1,SNR=2.7						
BVAR	**Borovoye Array**	**48.61**	**341**	P	**P**	**06 23 53.2**	**-0.8**
	3.6nm,1.0s,mb4.4,baz=172,slow=10,SNR=4.0						
ASAR	**Alice Springs**	**50.23**	**130**	P	**P**	**06 24 06.3**	**-0.6**
	2.7nm,0.7s,mb4.4,baz=301,slow=7.8,SNR=5.4						
BRTR	**Keskin Array B**	**62.11**	**311**	P	**P**	**06 25 31.0**	**-0.9**
	0.6nm,0.4s,mb4.1,baz=141,slow=7.4,SNR=3.5						
BRTR				pP	pP	06 25 37.3	-1.3
	1.5nm,0.6s,baz=124,slow=6.0,SNR=4.8						
AKASG	**Malin Array Be**	**67.80**	**322**	P	**P**	**06 26 06.9**	**-1.6**
	0.6nm,0.3s,mb4.1,baz=77,slow=4.9,SNR=6.0						
AKASG				pP	pP	06 26 15.3	0.0
	0.9nm,0.4s,baz=89,slow=4.4,SNR=3.8						
IDI	**Anoyia**	**68.27**	**305**	P	**P**	**06 26 11.0**	**-0.7**
	5.7nm,0.9s,mb4.6,baz=62,slow=11,SNR=4.1						
FINES	**FINESS Array B**	**72.34**	**332**	P	**P**	**06 26 35.8**	**-0.2**
	1.8nm,0.8s,mb4.1,baz=94,slow=5.5,SNR=5.2						
FINES				pP	pP	06 26 41.3	-1.5
	3.0nm,0.7s,baz=84,slow=5.0,SNR=2.8						
KAF	**Kangasniemi**	**72.42**	**333**	*e*p	**P**	**06 26 36.6**	**+0.1**
	1.1nm,0.5s,mb4.0						
KEV	**Kevo**	**74.46**	**341**	*e*p	**P**	**06 26 38.8**	**-9.4**
	5.4nm,0.8s,mb4.5						
ARCES	**ARCESS Array B**	**74.89**	**340**	P	**P**	**06 26 51.2**	**+0.6**
	3.1nm,1.0s,mb4.2,baz=98,slow=6.9,SNR=5.1						
ARCES				pP	pP	06 26 57.4	-0.1
	2.7nm,0.7s,baz=80,slow=7.4,SNR=2.4						
GERES	**GERESS Array B**	**77.49**	**318**	P	**P**	**06 27 06.5**	**+0.8**
	1.1nm,0.6s,mb4.0,baz=86,slow=6.2,SNR=8.9						
GERES				pP	pP	06 27 12.9	+0.4
	3.1nm,0.9s,baz=90,slow=4.0,SNR=8.0						
HFS	**Hagfors**	**78.09**	**330**	P	**P**	**06 27 08.8**	**+0.1**
	2.2nm,0.5s,mb4.4,baz=104,slow=6.1,SNR=6.2						
HFS				pP	pP	06 27 16.2	+0.6
	3.9nm,0.7s,baz=108,slow=4.7,SNR=3.8						
NB2	**NORSAR Subarra**	**79.36**	**331**	P	**P**	**06 27 15.2**	**-0.5**
	5.4nm,1.0s,mb4.4,baz=93,slow=5.8						
NOA	**NORSAR Array B**	**79.36**	**331**	P	**P**	**06 27 16.0**	**+0.3**
	1.1nm,0.8s,mb3.8,baz=97,slow=5.1,SNR=3.2						
NOA				pP	pP	06 27 23.1	+0.5
	2.6nm,0.7s,baz=93,slow=5.6,SNR=6.3						
LPL	**La Plagne**	**82.30**	**315**	*e*P	**P**	**06 27 33.0**	**+1.5**
	49nm,1.2s,mb5.0						
ESDC	**Sonseca Array**	**90.90**	**310**	P	**P**	**06 28 14.6**	**+0.9**
	0.6nm,0.5s,mb4.2,baz=72,slow=4.7,SNR=5.1						
ESDC				pP	pP	06 28 22.5	+1.9
	3.4nm,0.9s,baz=58,slow=3.6,SNR=7.3						

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*IDC **26** 06:15:18.2±0.7,5.41N×93.97E,h15^{km}±4^{km},mb4.3/12, mb1 4.4/13,mb1mx4.3/20,ML4.5/1,Error ellipse: s-maj=23.5km s-min=13.5km az=43.0*

ISC 26 06:15:16.7±0.6**,5.4N**±0.1×**94.0E**±0.1**,h16**^{km}**, h16**^{km}±.7^{km}**:pP-P,n20,σ1**^{s}**00**/15**,mb4.4**/13**,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.85**	**20**	Pn	**P**	**06 18 34.7**	**-0.2**
	0.8nm,0.3s,baz=230,slow=15,SNR=0.9						
SONM	**Songino Array**	**43.60**	**12**	P	**P**	**06 23 20.8**	**-1.1**
	4.2nm,1.0s,mb4.1,baz=204,slow=5.9,SNR=4.4						
SONM				pP	pP	06 23 25.3	-1.5
	1.4nm,0.4s,baz=201,slow=8.0,SNR=2.9						
WRA	**Warramunga Arr**	**46.97**	**124**	P	**P**	**06 23 49.4**	**+0.3**
	9.1nm,0.7s,mb4.8,baz=302,slow=9.3,SNR=14						
WRA				pP	pP	06 23 54.0	-0.1
	2.0nm,0.6s,baz=304,slow=9.1,SNR=6.5						
ASAR	**Alice Springs**	**48.46**	**128**	P	**P**	**06 24 01.0**	**+0.2**
	3.8nm,0.6s,mb4.6,baz=302,slow=7.9,SNR=8.6						
ZAL	**Zalesovo**	**48.98**	**353**	P	**P**	**06 24 04.2**	**-0.1**
	6.9nm,0.3s,mb5.1,baz=311,slow=5.1,SNR=7.5						
BVAR	**Borovoye Array**	**51.29**	**342**	P	**P**	**06 24 21.9**	**-0.1**
	2.6nm,0.5s,mb4.5,baz=139,slow=12,SNR=7.8						
PMG	**Port Moresby**	**54.97**	**105**	P	**P**	**06 24 50.1**	**+0.2**
	4.2nm,0.7s,mb4.6,baz=247,slow=13,SNR=2.1						
PMG				pP	pP	06 24 55.6	+0.7
	6.9nm,0.7s,baz=264,slow=8.5,SNR=3.4						
KMBO	**Kilima Mbogo**	**57.05**	**265**	P	**P**	**06 25 03.6**	**-1.2**
	1.7nm,0.7s,mb4.2,baz=49,slow=8.1,SNR=5.5						
KMBO				pP	pP	06 25 09.1	-0.9
	6.1nm,0.8s,baz=49,slow=10,SNR=11						
STKA	**Stephens Creek**	**58.51**	**133**	P	**P**	**06 25 14.5**	**-0.4**
	2.6nm,1.0s,mb4.2,baz=327,slow=5.9,SNR=5.2						
AKASG	**Malin Array Be**	**70.02**	**322**	P	**P**	**06 26 28.1**	**-1.5**
	0.9nm,0.7s,mb3.8,baz=89,slow=4.6,SNR=2.3						
FINES	**FINESS Array B**	**74.83**	**333**	P	**P**	**06 26 58.5**	**+0.6**
	2.6nm,0.5s,mb4.4,baz=106,slow=6.4,SNR=16						
KAF	**Kangasniemi**	**74.93**	**333**	*e*p	**P**	**06 27 00.0**	**+1.5**
	1.1nm,0.4s,mb4.1						
ARCES	**ARCESS Array B**	**77.54**	**340**	P	**P**	**06 27 14.7**	**+1.6**
	1.4nm,0.5s,mb4.2,baz=101,slow=6.2,SNR=4.1						
GERES	**GERESS Array B**	**79.58**	**319**	PP	PP	06 30 22.9	-4.1
	5.0nm,0.8s,baz=90,slow=5.3,SNR=5.7						
HFS	**Hagfors**	**80.52**	**330**	P	**P**	**06 27 31.1**	**+1.7**
	161nm,1.6s,baz=104,slow=6.1,SNR=5.8						
ILAR	**Eielson Array**	**97.08**	**22**	P	**P**	**06 28 47.6**	**-1.3**
	0.4nm,0.6s,mb4.1,baz=308,slow=5.2,SNR=4.2						
NVAR	**Mina Array Bea**	**127.09**	**32**	PKP	PKPdf	06 34 21.4	-3.1
	0.8nm,0.8s,baz=243,slow=2.0,SNR=3.5						
PDAR	**Pinedale Array**	**127.51**	**22**	PKP	PKPdf	06 34 21.0	-4.2
	1.0nm,1.0s,baz=315,slow=2.6,SNR=4.2						
TXAR	**Lajitas Array**	**141.52**	**25**	PKP	PKPdf	06 34 47.1	-4.6
	0.5nm,0.8s,baz=358,slow=1.3,SNR=3.9						
ROSC	**El Rosal**	**164.53**	**311**	PKPab	PKPab	06 36 17.7	0.0
	4.7nm,0.7s,baz=90,slow=10,SNR=6.8						

IDC 26 06:15:45.8±0.9**,4.31N**×**94.86E,mb4.6**/15**,mb1 4.6**/16**, mb1mx4.5**/22**,Error ellipse: s-maj=33.7km s-min=17.2km az=46.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.62**	**16**	Pn	P	06 19 13.4	-2.7
	baz=225,slow=14,SNR=2.8						
JOW	**Kunigami**	**38.99**	**51**	P	P	06 23 14.4	-1.4
	9.6nm,0.3s,baz=274,slow=4.8,SNR=5.1						
SONM	**Songino Array**	**44.48**	**11**	P	P	06 23 58.2	-2.4
	3.8nm,0.7s,baz=191,slow=9.2,SNR=5.1						
WRA	**Warramunga Arr**	**45.67**	**123**	P	P	06 24 09.6	-0.9
	7.3nm,0.8s,baz=302,slow=9.0,SNR=5.8						
ASAR	**Alice Springs**	**47.13**	**128**	P	P	06 24 18.6	-3.3
	3.5nm,0.9s,baz=301,slow=7.9,SNR=4.6						
ZAL	**Zalesovo**	**50.15**	**352**	P	P	06 24 42.9	-2.1
	9.7nm,0.5s,baz=308,slow=4.7,SNR=7.6						
BVAR	**Borovoye Array**	**52.57**	**342**	P	P	06 25 01.5	-1.9
	16nm,0.7s,baz=135,slow=8.4,SNR=17						
STKA	**Stephens Creek**	**57.16**	**132**	P	P	06 25 35.1	-2.0
	1.6nm,0.5s,baz=357,slow=13,SNR=3.2						
BRTR	**Keskin Array B**	**65.31**	**312**	P	P	06 26 30.4	-1.7
	2.9nm,0.7s,baz=129,slow=7.7,SNR=4.4						
AKASG	**Malin Array Be**	**71.38**	**322**	P	P	06 27 06.8	-2.9
	4.5nm,0.6s,baz=81,slow=4.7,SNR=11						
FINES	**FINESS Array B**	**76.18**	**333**	P	P	06 27 35.6	-1.7
	3.3nm,0.6s,baz=112,slow=10,SNR=4.6						
ARCES	**ARCESS Array B**	**78.84**	**340**	P	P	06 27 51.1	-0.8
	2.6nm,0.6s,baz=99,slow=7.0,SNR=6.3						
FX1	**Attu Island--F**	**79.52**	**37**	P	P	06 27 54.4	-1.6
	23nm,0.7s,baz=64,slow=19,SNR=6.1						
GERES	**GERESS Array B**	**80.95**	**319**	P	P	06 28 02.2	-1.5
	4.5nm,1.0s,baz=120,slow=5.2,SNR=5.3						
HFS	**Hagfors**	**81.88**	**330**	P	P	06 28 07.2	-1.1
	1.4nm,0.4s,baz=101,slow=7.3,SNR=3.1						
NB2	**NORSAR Subarra**	**83.17**	**331**	P	P	06 28 09.2	-5.8
	6.1nm,0.8s,baz=95,slow=5.6						
NOA	**NORSAR Array B**	**83.17**	**331**	P	P	06 28 14.6	-0.4
	1.2nm,0.7s,baz=97,slow=5.5,SNR=2.3						
PDAR	**Pinedale Array**	**128.18**	**23**	PKP	PKPdf	06 34 54.1	-2.3
	1.8nm,1.2s,baz=135,slow=1.3,SNR=3.9						
TXAR	**Lajitas Array**	**142.12**	**27**	PKP	PKPdf	06 35 21.6	-1.1
	0.4nm,0.6s,baz=346,slow=0.7,SNR=3.5						

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*IDC **26** 06:16:10.6±0.4,5.80N×93.30E,mb4.8/26,mb1 4.8/27, mb1mx4.8/29,ML4.9/1,Error ellipse: s-maj=19.7km s-min=10.5km az=45.0*

*NEIC **26** 06:16:14.7±0.2,5.84N×93.36E,mb4.9/12,Error ellipse: s-maj=9.9km s-min=6.1km az=49.0*

*BJI **26** 06:16:14.6,5.80N×93.40E,h26^{km},mb4.8*

ISC 26 06:16:12.8±0.3**,5.75N**±0.07×**93.27E**±0.06**,h27**^{km}**, h27**^{km}±1.6^{km}**:pP-P,n73,σ0**^{s}**92**/62**,mb4.8**/40**,2C,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.79**	**23**	Pn	**P**	**06 19 25.8**	**-3.4**
	2.0nm,0.3s,baz=213,slow=12,SNR=5.3						
CMAR				PP	PP	06 19 34.1	-5.8
	1.3nm,0.3s,baz=229,slow=14,SNR=12						
QIZ	**Qiongzhong**	**20.85**	**49**	P	**P**	**06 20 56.5**	**+1.2**
KMI	**Kunming**	**21.29**	**24**	*e*P	**P**	**06 21 01.8**	**+2.0**
KMI				AMB	AMB		
	comp=Z,37nm,1.0s,mb4.7						
GYA	**Guiyang**	**24.24**	**30**	⇑*i*P	**P**	**06 21 30.3**	**+1.4**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
WHN	**Wuhan**	**31.64**	**36**	⇑P	**P**	**06 22 36.0**	**-0.2**
NJ2	**Nanjing**	**35.44**	**39**	*e*P	**P**	**06 23 09.3**	**+0.2**
JOW	**Kunigami**	**39.38**	**54**	P	**P**	**06 23 42.0**	**-0.2**
	comp=Z,39nm,0.8s,mb5.2,baz=234,slow=5.9,SNR=6.6						
AAK	**Ala-Archa**	**40.33**	**338**	*e*P	**P**	**06 23 42.3**	**-7.5**
	comp=Z,14nm,0.7s,mb4.8						
SONM	**Songino Array**	**43.41**	**13**	P	**P**	**06 24 14.7**	**-0.3**
	comp=Z,14nm,1.0s,mb4.7,baz=193,slow=7.8,SNR=9.9						
SONM				PcP	PcP	06 26 03.9	+0.2
	comp=Z,7.0nm,0.7s,baz=195,slow=3.5,SNR=8.9						
ULN	**Ulaanbaatar**	**43.59**	**13**	*e*P	**P**	**06 24 16.3**	**-0.2**
	comp=Z,7.1nm,0.9s,mb4.4						
NWAO	**Narrogin (SRO)**	**44.69**	**151**	P	**P**	**06 24 25.7**	**+0.1**
	comp=Z,6.4nm,0.7s,mb4.6,baz=327,slow=12,SNR=2.7						
WRA	**Warramunga Arr**	**47.78**	**123**	P	**P**	**06 24 49.4**	**-0.8**
	comp=Z,72nm,0.7s,mb5.8,baz=302,slow=9.1,SNR=30						
WRA				PcP	PcP	06 26 18.7	-0.6
	comp=Z,4.6nm,0.7s,baz=309,slow=3.0,SNR=3.9						
WRAB	**Tennant Creek**	**47.78**	**123**	*e*P	**P**	**06 24 49.9**	**-0.3**
ZAL	**Zalesovo**	**48.53**	**353**	P	**P**	**06 24 55.7**	**+0.1**
	comp=Z,30nm,1.2s,mb5.2,baz=293,slow=10.0,SNR=6.0						
ZAL				PP	PP	06 26 49.6	+1.5
	comp=Z,5.4nm,0.7s,baz=289,slow=5.0,SNR=3.2						
ASAR	**Alice Springs**	**49.26**	**128**	P	**P**	**06 25 00.6**	**-0.9**
	comp=Z,23nm,0.7s,mb5.3,baz=303,slow=7.4,SNR=18						
ASAR				PcP	PcP	06 26 24.8	+0.2
	comp=Z,9.7nm,0.7s,baz=308,slow=3.4,SNR=9.5						
ASAR				PP	PP	06 26 52.4	-3.3
	comp=Z,6.6nm,1.0s,baz=306,slow=5.9,SNR=2.9						
ASAR	**Alice Springs**	**49.26**	**128**	P	**P**	**06 25 00.6**	**-0.9**
ASAR				PcP	PcP	06 26 24.8	+0.2
ASAR				PP	PP	06 26 52.4	-3.3
BVAR	**Borovoye Array**	**50.72**	**342**	P	**P**	**06 25 12.1**	**-0.2**
	comp=Z,19nm,1.0s,mb5.0,baz=153,slow=9.9,SNR=7.0						
BVAR				PcP	PcP	06 26 29.5	0.0
	comp=Z,3.4nm,0.7s,baz=162,slow=4.6,SNR=2.4						
BRVK	**Borovoye**	**50.78**	**342**	*e*P	**P**	**06 25 12.2**	**-0.6**
	comp=Z,13nm,0.9s,mb4.9						
GNI	**Garni**	**55.32**	**316**	P	**P**	**06 25 45.3**	**-1.5**
	comp=Z,5.7nm,0.5s,mb4.8,baz=90,slow=6.1,SNR=3.0						
PMG	**Port Moresby**	**55.77**	**105**	P	**P**	**06 25 49.5**	**-0.8**
	comp=Z,65nm,0.6s,mb5.8,baz=6.7,slow=2.1,SNR=32						
KMBO	**Kilima Mbogo**	**56.35**	**265**	P	**P**	**06 25 54.0**	**-0.5**
	comp=Z,2.3nm,0.7s,mb4.3,baz=49,slow=12,SNR=5.1						
CTA	**Charters Tower**	**58.05**	**118**	P	**P**	**06 26 05.8**	**-0.6**
	comp=Z,12nm,0.8s,mb5.0,baz=277,slow=8.2,SNR=8.5						
CTA				PcP	PcP	06 26 58.5	+0.6
	comp=Z,3.5nm,0.6s,baz=238,slow=3.9,SNR=4.0						
KIV	**Kislovodsk**	**58.33**	**319**	*e*P	**P**	**06 26 06.4**	**-1.6**
	comp=Z,24nm,0.9s,mb5.2						
ASF	**Jabal al Asfar**	**58.67**	**304**	P	**P**	**06 26 10.9**	**+0.3**
	comp=Z,14nm,1.1s,mb4.9,baz=174,slow=7.6,SNR=8.0						
STKA	**Stephens Creek**	**59.30**	**132**	P	**P**	**06 26 14.5**	**-0.4**
	comp=Z,15nm,0.7s,mb5.2,baz=305,slow=6.5,SNR=17						
EIL	**Elat**	**59.75**	**301**	P	**P**	**06 26 18.1**	**0.0**
	comp=Z,17nm,1.1s,mb5.0,baz=16,slow=6.0,SNR=5.2						
BRTR	**Keskin Array B**	**63.17**	**312**	P	**P**	**06 26 40.0**	**-0.9**
	comp=Z,7.5nm,0.9s,mb4.8,baz=125,slow=7.1,SNR=8.4						
IDI	**Anoyia**	**69.08**	**305**	P	**P**	**06 27 18.6**	**-0.2**
	comp=Z,8.3nm,0.8s,mb4.7,baz=59,slow=11,SNR=2.7						
AKASG	**Malin Array Be**	**69.29**	**322**	P	**P**	**06 27 18.1**	**-1.7**
	comp=Z,4.4nm,0.7s,mb4.5,baz=87,slow=4.3,SNR=6.4						
KOLS	**Kolonicke sedl**	**73.23**	**319**	*e*	pP	06 27 48.3	-3.7
CRVS	**Cervenica-Dubn**	**73.76**	**319**	*e*	**P**	**06 27 51.0**	**+4.4**
FINES	**FINESS Array B**	**74.18**	**333**	P	**P**	**06 27 48.5**	**-0.3**
	comp=Z,15nm,0.8s,mb5.0,baz=104,slow=7.9,SNR=13						
KAF	**Kangasniemi**	**74.28**	**333**	*e*p	**P**	**06 27 48.6**	**-0.7**
	comp=Z,11nm,0.9s,mb4.8						
PSZ	**Piszkesteto**	**74.63**	**318**	*e*P	**P**	**06 27 51.5**	**-0.1**
	comp=Z,13nm,0.9s,mb4.8						
VYHS	**Vyhne**	**75.41**	**319**	*e*P	**P**	**06 27 56.5**	**+0.4**
OKC	**Ostrava-Krasne**	**76.04**	**320**	*e*P	**P**	**06 27 59.5**	**-0.2**
OKC				*e*pP	pP	06 28 08.7	+0.5
OKC	**Ostrava-Krasne**	**76.04**	**320**	*e*P	**P**	**06 27 59.9**	**+0.2**
OKC				*e*pP	pP	06 28 08.7	+0.5
MORC	**Moravsky Berou**	**76.42**	**320**	*e*P	**P**	**06 28 02.1**	**+0.2**
	comp=Z,13nm,1.2s,mb4.7						
ZST	**Bratislava**	**76.52**	**318**	*e*P	**P**	**06 28 03.0**	**+0.6**
KEV	**Kevo**	**76.54**	**341**	*e*p	**P**	**06 28 01.4**	**-0.7**
	comp=Z,15nm,0.8s,mb5.0						
ARCES	**ARCESS Array B**	**76.96**	**340**	P	**P**	**06 28 05.0**	**+0.5**
	comp=Z,9.4nm,0.6s,mb4.9,baz=112,slow=6.5,SNR=12						
ARCES	**ARCESS Array B**	**76.96**	**340**	P	**P**	**06 28 05.0**	**+0.5**
DPC	**Dobruska-Polom**	**77.27**	**320**	*e*P	**P**	**06 28 06.9**	**+0.4**
DPC				*e*pP	pP	06 28 14.9	-0.1
DPC	**Dobruska-Polom**	**77.27**	**320**	*e*P	**P**	**06 28 07.1**	**+0.6**
DPC				*e*pP	pP	06 28 14.9	-0.1
UPC	**Upice**	**77.48**	**320**	*e*P	**P**	**06 28 08.4**	**+0.7**
UPC	**Upice**	**77.48**	**320**	*e*P	**P**	**06 28 08.6**	**+0.9**
PRU	**Pruhonice**	**78.37**	**320**	*e*P	**P**	**06 28 13.2**	**+0.6**
PRU				*e*pP	pP	06 28 21.1	0.0
PRU	**Pruhonice**	**78.37**	**320**	*e*P	**P**	**06 28 13.6**	**+1.0**
PRU				*e*pP	pP	06 28 21.1	0.0
BRG	**Berggiesshubel**	**78.83**	**321**	*e*P	**P**	**06 28 16.0**	**+0.9**
	comp=Z,34nm,1.7s,mb5.0						
GERES	**GERESS Array B**	**78.83**	**319**	P	**P**	**06 28 16.1**	**+1.0**
	comp=Z,7.0nm,0.7s,mb4.7,baz=90,slow=5.3,SNR=9.5						
KHC	**Kasperske Hory**	**78.93**	**319**	*e*P	**P**	**06 28 15.9**	**+0.2**
KHC	**Kasperske Hory**	**78.93**	**319**	*e*P	**P**	**06 28 12.5**	**-3.2**
KHC				x	x	06 28 16.4	
RUE	**Ruedersdorf**	**79.06**	**322**	*e*P	**P**	**06 28 15.7**	**-0.7**
CLL	**Collm**	**79.45**	**321**	*i* P	**P**	**06 28 18.5**	**0.0**
	comp=Z,9.0nm,1.1s,mb4.6						
CLL				*e*	pP	06 28 28.0	+1.0
CLL	**Collm**	**79.45**	**321**	P	**P**	**06 28 18.5**	**0.0**
	comp=Z,logA/T=0.9,mb4.6						
CLL				*e**SP	sP	06 28 28.0	-1.9
HFS	**Hagfors**	**79.85**	**330**	P	**P**	**06 28 19.9**	**-0.5**
	comp=Z,7.1nm,0.7s,mb4.7,baz=135,slow=8.4,SNR=4.7						
NOA	**NORSAR Array B**	**81.15**	**331**	P	**P**	**06 28 26.1**	**-1.2**
	comp=Z,11nm,1.1s,mb4.7,baz=95,slow=5.4,SNR=5.1						
LPG	**La Plagne**	**83.50**	**315**	*e*P	**P**	**06 28 31.0**	**-8.8**
	comp=Z,32nm,1.0s,mb5.0						
URZ	**Urewera**	**88.70**	**128**	P	**P**	**06 29 05.5**	**-0.1**
	comp=Z,4.1nm,0.7s,mb4.9,baz=273,slow=1.9,SNR=4.6						
VNDA	**Vanda**	**91.04**	**168**	P	**P**	**06 29 16.9**	**+1.3**
	comp=Z,1.9nm,0.8s,mb4.5,baz=289,slow=10,SNR=3.8						
ESDC	**Sonseca Array**	**91.92**	**310**	P	**P**	**06 29 22.1**	**+1.6**
	comp=Z,2.0nm,0.7s,mb4.5,baz=65,slow=4.2,SNR=4.8						
SNAA	**Sanae**	**97.35**	**198**	P	**P**	**06 29 46.8**	**+2.2**
	comp=Z,0.6nm,0.9s,mb4.0,baz=117,slow=9.0,SNR=4.0						
DBIC	**Dimbokro**	**97.37**	**277**	P	**P**	**06 29 47.8**	**+1.8**
	comp=Z,1.8nm,0.8s,mb4.5,baz=76,slow=4.2,SNR=3.4						
YKA	**Yellowknife Ar**	**108.68**	**13**	Pdiff	Pdif	06 30 37.6	+2.5
	comp=Z,0.1nm,0.4s,baz=330,slow=6.5,SNR=4.1						
YKA				PKiKP		06 34 42.0	
	comp=Z,0.1nm,0.6s,baz=326,slow=2.4,SNR=3.5						
YKA				PP	PP	06 35 03.1	-6.9
	comp=Z,0.3nm,0.7s,baz=332,slow=7.1,SNR=5.1						
YKA				PKKPbc		06 45 49.7	
	comp=Z,0.4nm,0.5s,baz=150,slow=3.4,SNR=8.0						
YKA				PKKP	PKKP	06 46 03.1	+5.4
	comp=Z,1.5nm,0.8s,baz=148,slow=4.8,SNR=18						
ULM	**Lac du Bonnet**	**123.67**	**7**	PKP	PKPdf	06 35 10.5	-2.6
	comp=Z,3.7nm,0.6s,baz=354,slow=2.3,SNR=6.1						
ULM				PKKPbc		06 44 56.8	
	comp=Z,1.5nm,0.5s,baz=204,slow=8.5,SNR=3.0						
NVAR	**Mina Array Bea**	**127.17**	**31**	PKP	PKPdf	06 35 19.2	-1.0
	comp=Z,3.5nm,0.6s,baz=300,slow=2.0,SNR=14						
NVAR				PP	PP	06 37 15.3	-3.1
	comp=Z,0.8nm,0.7s,baz=290,slow=2.2,SNR=3.9						
PDAR	**Pinedale Array**	**127.44**	**21**	PKP	PKPdf	06 35 18.2	-2.4
	comp=Z,4.8nm,0.8s,baz=61,slow=1.8,SNR=14						
BDFB	**Brasilia**	**140.78**	**252**	PKP	PKPdf	06 35 43.1	-3.2
	comp=Z,2.9nm,0.8s,baz=27,slow=8.0,SNR=3.3						
TXAR	**Lajitas Array**	**141.50**	**24**	PKhKP		06 35 41.8	
	comp=Z,1.6nm,0.9s,baz=148,slow=0.8,SNR=6.0						
TXAR				PKP	PKPdf	06 35 46.0	-1.2
	comp=Z,2.9nm,0.6s,baz=101,slow=0.3,SNR=19						
PCRV	**Puerto La Cruz**	**152.90**	**306**	PKPbc	PKPdf	06 36 09.0	+2.9
	comp=Z,5.4nm,0.6s,baz=90,slow=6.1,SNR=4.3						
LPAZ	**La Paz**	**158.98**	**239**	PKP	PKPdf	06 36 12.8	-1.2
	comp=Z,4.6nm,1.2s,baz=16,slow=5.6,SNR=3.6						
LPAZ				PKPab	PKPab	06 36 48.5	+0.5
	comp=Z,2.1nm,0.7s,baz=103,slow=0.8,SNR=4.2						
LPAZ	**La Paz**	**158.98**	**239**	PKP	PKPdf	06 36 12.8	-1.2
LPAZ				PKPab	PKPab	06 36 48.5	+0.5
ROSC	**El Rosal**	**163.75**	**310**	PKPab	PKPab	06 37 08.7	0.0
	comp=Z,1.1nm,0.4s,baz=274,slow=19,SNR=2.2						

IDC 26 06:16:46.0±1.7**,5.16N**×**93.84E,mb4.4**/6**,mb1 4.6**/6**, mb1mx4.2**/17**,Error ellipse: s-maj=78.6km s-min=26.2km az=54.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.86**	**12**	P	P	06 24 54.2	-1.6
	4.4nm,0.9s,baz=190,slow=8.9,SNR=3.3						
WRA	**Warramunga Arr**	**46.98**	**123**	P	P	06 25 17.4	-3.6
	11nm,0.8s,baz=301,slow=9.2,SNR=2.1						
ASAR	**Alice Springs**	**48.45**	**128**	P	P	06 25 32.3	-0.2
	3.1nm,0.6s,baz=307,slow=9.0,SNR=2.5						
FINES	**FINESS Array B**	**74.96**	**333**	P	P	06 28 29.2	-1.4
	3.1nm,0.5s,baz=100,slow=5.8,SNR=3.8						
ARCES	**ARCESS Array B**	**77.70**	**340**	P	P	06 28 44.4	-1.4
	3.5nm,0.9s,baz=82,slow=6.4,SNR=2.1						
NOA	**NORSAR Array B**	**81.93**	**331**	P	P	06 29 06.9	-1.8
	0.9nm,0.7s,baz=119,slow=3.6,SNR=2.6						

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*IDC **26** 06:17:50.9±1.2,4.28N×95.29E,mb4.5/12,mb1 4.5/13, mb1mx4.4/22,Error ellipse: s-maj=40.4km s-min=29.8km*

az=41.0

ISC 26 06:17:54.6±0.8,**4.3N**±0.1×**95.4E**±0.2,**h33**^{km},**n23**, σ**1**^{s}**21**/23,**mb4.5**/14,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.52	14	Pn	P	06 21 19.3	-0.5
	baz=228,slow=13,SNR=1.1						
WRA	Warramunga Arr	45.22	124	P	P	06 26 10.0	-0.8
	1.8nm,0.5s,mb4.2,baz=302,slow=8.9,SNR=1.6						
BVAR	Borovoye Array	52.77	341	P	P	06 27 05.9	-2.8
	6.3nm,0.7s,mb4.6,baz=135,slow=8.4,SNR=4.1						
GNI	Garni	57.83	316	P	P	06 27 44.0	-1.4
	6.9nm,0.8s,mb4.7,baz=192,slow=14,SNR=2.4						
KMBO	Kilima Mbogo	58.33	266	P	P	06 27 48.7	-0.6
	3.0nm,0.8s,mb4.3,baz=65,slow=7.6,SNR=4.9						
EIL	Elat	62.30	301	P	P	06 28 14.5	-1.7
	4.0nm,0.7s,mb4.7,baz=120,slow=8.1,SNR=2.8						
BRTR	Keskin Array B	65.71	312	P	P	06 28 36.1	-2.2
	5.4nm,0.8s,mb4.7,baz=121,slow=7.5,SNR=7.9						
AKASG	Malin Array Be	71.73	322	P	P	06 29 12.7	-2.6
	2.5nm,0.7s,mb4.2,baz=88,slow=4.2,SNR=4.5						
KOLS	Kolonicke sedl	75.71	319	*e*P	P	06 29 39.7	+1.1
FINES	FINESS Array B	76.45	332	P	P	06 29 42.5	0.0
	5.2nm,0.5s,mb4.7,baz=96,slow=6.6,SNR=10						
KAF	Kangasniemi	76.54	333	*e*p	P	06 29 42.7	-0.3
	5.1nm,0.6s,mb4.6						
OJC	Ojcow	77.51	320	*e*P	P	06 29 49.2	+0.5
OKC	Ostrava-Krasne	78.51	320	*e*P	P	06 29 54.4	+0.2
ZST	Bratislava	79.01	318	*e*P	P	06 29 57.2	+0.2
ZST				*e*		06 29 57.7	
ZST				*e*		06 30 10.4	
ARCES	ARCESS Array B	79.05	340	P	P	06 29 58.4	+1.6
	4.3nm,0.9s,mb4.4,baz=82,slow=6.4,SNR=2.6						
DPC	Dobruska-Polom	79.74	320	*e*P	P	06 30 01.3	+0.4
GERES	GERESS Array B	81.32	319	P	P	06 30 10.4	+1.1
	3.5nm,0.7s,mb4.4,baz=94,slow=5.7,SNR=6.1						
KHC	Kasperske Hory	81.42	319	*e*P	P	06 30 11.4	+1.6
CLL	Collm	81.91	321	P	P	06 30 13.0	+0.7
HFS	Hagfors	82.17	330	P	P	06 30 14.2	+0.8
	3.9nm,0.7s,mb4.5,baz=90,slow=3.0,SNR=6.5						
NB2	NORSAR Subarra	83.45	331	P	P	06 30 20.8	+0.8
	0.3nm,0.7s,mb3.4,baz=97,slow=5.8						
NOA	NORSAR Array B	83.45	331	P	P	06 30 20.7	+0.7
	2.3nm,0.8s,mb4.3,baz=94,slow=5.4,SNR=3.8						
LPG	La Plagne	86.02	315	*e*P	P	06 30 34.9	+1.8
	24nm,1.0s,mb5.1						

*IDC **26** 06:19:13.8±0.5, 2.83N×94.29E, h28^{km}±3^{km}, mb4.4/20, mb1 4.5/21, mb1mx4.5/26, ML4.9/1, Error ellipse: s-maj=21.0km s-min=10.9km az=42.0*

ISC 26 06:19:11.8±0.5,**2.8N**±0.1×**94.31E**±0.10,**h27**^{km}, **h27**^{km}±1.0^{km}**:pP-P,n30,**σ**0**^{s}**83**/26,**mb4.6**/20,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.19	16	Pn	P	06 22 59.1	-0.2
	1.4nm,0.3s,baz=209,slow=11,SNR=9.6						
JOW	Kunigami	40.35	50	P	P	06 26 50.5	+1.4
	5.7nm,0.4s,mb4.7,baz=177,slow=6.5,SNR=3.6						
WRA	Warramunga Arr	45.34	122	P	P	06 27 29.5	-0.3
	12nm,1.0s,mb4.7,baz=299,slow=8.9,SNR=5.7						
WRA				pP	pP	06 27 38.4	+0.3
	6.9nm,0.8s,baz=298,slow=9.0,SNR=3.1						
SONM	Songino Array	46.05	11	P	P	06 27 34.2	-0.8
	8.5nm,1.2s,mb4.6,baz=198,slow=7.8,SNR=5.6						
SONM				pP	pP	06 27 44.5	+1.2
	10.0nm,1.0s,baz=196,slow=9.0,SNR=6.3						
ASAR	Alice Springs	46.67	127	P	P	06 27 41.4	+1.0
	7.7nm,1.0s,mb4.6,baz=296,slow=6.8,SNR=4.8						
ASAR				pP	pP	06 27 48.5	0.0
	8.0nm,0.8s,baz=303,slow=7.6,SNR=4.9						
ZAL	Zalesovo	51.55	353	P	P	06 28 17.1	-0.4
	5.5nm,0.6s,mb4.7,baz=311,slow=6.1,SNR=5.5						
ZAL				pP	pP	06 28 25.5	-0.4
	9.5nm,0.5s,baz=282,slow=6.7,SNR=6.6						
BVAR	Borovoye Array	53.81	342	P	P	06 28 33.2	-1.2
	6.1nm,0.7s,mb4.6,baz=143,slow=7.4,SNR=4.8						
BVAR				pP	pP	06 28 42.1	-0.7
	3.0nm,0.7s,baz=143,slow=7.4,SNR=4.4						
CTA	Charters Tower	55.81	117	P	P	06 28 49.0	-0.4
	12nm,1.0s,mb4.9,baz=299,slow=8.9,SNR=5.9						
CTA				pP	pP	06 28 57.9	+0.1
	14nm,0.8s,baz=285,slow=8.6,SNR=8.1						
STKA	Stephens Creek	56.58	132	P	P	06 28 53.7	-1.1
	7.2nm,1.0s,mb4.6,baz=315,slow=8.9,SNR=4.4						
STKA				pP	pP	06 29 02.8	-0.4
	8.9nm,0.8s,baz=304,slow=8.1,SNR=6.4						
KMBO	Kilima Mbogo	57.17	267	P	P	06 28 59.6	+0.3
	4.0nm,1.0s,mb4.4,baz=54,slow=12,SNR=4.5						
KMBO				pP	pP	06 29 08.7	+1.0
	4.4nm,0.9s,baz=61,slow=12,SNR=5.3						
ASF	Jabal al Asfar	61.18	305	P	P	06 29 27.0	+0.3
	4.9nm,0.9s,mb4.6,baz=3.1,slow=5.7,SNR=3.5						
EIL	Elat	62.15	302	P	P	06 29 33.1	-0.2
	5.0nm,0.8s,mb4.7,baz=225,slow=4.3,SNR=2.9						
BRTR	Keskin Array B	65.89	313	P	P	06 29 56.8	-0.9
	2.2nm,0.8s,mb4.2,baz=135,slow=7.0,SNR=4.2						
IDI	Anoyia	71.62	306	P	P	06 30 31.9	-1.3
	7.2nm,0.8s,mb4.7,baz=85,slow=6.8,SNR=3.2						
AKASG	Malin Array Be	72.23	323	P	P	06 30 34.4	-2.1
	2.7nm,0.8s,mb4.2,baz=86,slow=4.6,SNR=6.0						
KOLS	Kolonicke sedl	76.12	320	*e*	P	06 30 59.9	+0.8
KOLS				*e*	pP	06 31 07.2	-0.5
CRVS	Cervenica-Dubn	76.64	320	*e*	P	06 31 02.3	+0.3
FINES	FINESS Array B	77.24	333	P	P	06 31 05.1	+0.1
	7.6nm,1.1s,mb4.6,baz=117,slow=6.2,SNR=3.7						
OJC	Ojcow	77.95	321	*e*P	P	06 31 09.6	+0.4
VYHS	Vyhne	78.28	319	*e*	P	06 31 11.7	+0.7
VYHS				*e*	pP	06 31 19.0	-0.7
ZST	Bratislava	79.38	318	*e*	P	06 31 17.3	+0.3
ZST				*e*	pP	06 31 27.2	+1.5
ARCES	ARCESS Array B	80.05	341	P	P	06 31 21.0	+0.7
	10nm,1.1s,mb4.7,baz=99,slow=6.0,SNR=4.2						
GERES	GERESS Array B	81.70	319	P	P	06 31 30.3	+1.0
	2.8nm,0.8s,mb4.2,baz=104,slow=5.5,SNR=4.6						
GERES				pP	pP	06 31 38.6	+0.6
	4.0nm,0.8s,baz=104,slow=5.5,SNR=6.0						
HFS	Hagfors	82.89	330	P	P	06 31 36.5	+1.3
	7.8nm,1.1s,mb4.7,baz=135,slow=4.1,SNR=2.4						
HFS				pP	pP	06 31 43.5	-0.5
	3.6nm,0.7s,baz=104,slow=6.1,SNR=1.9						
NOA	NORSAR Array B	84.20	331	P	P	06 31 42.0	+0.1
	0.7nm,0.9s,mb3.8,baz=132,slow=3.4,SNR=3.5						
URZ	Urewera	86.08	128	P	P	06 31 51.5	-0.3
	14nm,0.9s,mb5.2,baz=7.6,slow=5.7,SNR=4.9						
NVAR	Mina Array Bea	129.09	33	PKP	PKPdf	06 38 21.5	-1.4
	0.8nm,0.8s,baz=180,slow=0.9,SNR=3.6						
PDAR	Pinedale Array	129.76	23	PKP	PKPdf	06 38 22.0	-2.1
	0.7nm,0.9s,baz=45,slow=1.3,SNR=3.9						
PDAR	Pinedale Array	129.76	23	PKP	PKPdf	06 38 22.0	-2.1
TXAR	Lajitas Array	143.69	27	PKP	PKPdf	06 38 45.6	-4.2
	3.2nm,1.1s,baz=297,slow=2.0,SNR=7.5						

*MOS **26** 06:21:59.2±1.0, 10.64N×92.36E, h33^{km}, mb5.5/39, Error ellipse: s-maj=9.8km s-min=5.8km az=117.7*

*BJI **26** 06:21:59.2, 10.40N×92.42E, h43^{km}, mB6.1, mb5.6, Ms5.8, Msz5.6*

*IDC **26** 06:22:00.3±0.5, 10.64N×92.35E, h24^{km}±2^{km}, mb5.2/32, mb1 5.2/33, mb1mx5.2/34, ML5.0/1, Error ellipse: s-maj=13.2km s-min=9.1km az=36.0*

*NEIC **26** 06:22:00.4±0.2, 10.68N×92.33E, mb5.4/65, Error ellipse: s-maj=5.4km s-min=4.2km az=201.0*

*SYO **26** 06:22:02.2, 10.67N×92.33E, h39^{km}, MB5.5*

ISC 26 06:21:58.5±0.2,**10.62N**±0.04×**92.37E**±0.03,**h27**^{km}, **h27**^{km}±.5^{km}**:pP-P,n377,**σ**1**^{s}**03**/362,**mb5.4**/123,**MS5.7**/10, **26C-28D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.06	38	*e*P	P	06 24 25.2	+0.6
	102nm,0.6s						
CMAR	Chiang Mai Arr	10.06	38	Pn	P	06 24 23.3	-1.2
	3.9nm,0.3s,baz=228,slow=11,SNR=35						
CMAR	Chiang Mai Arr	10.06	38	P	P	06 24 23.3	-1.2
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
VIS	Vishakhapatnam	11.25	310	*e*P	P	06 24 36.3	-4.5
VIS				*e*S	S	06 26 32.2	-14
MDRS	Chennai	12.11	283	*e*P	P	06 24 48.5	-3.9
MDRS				*e*S	S	06 26 54.7	-13
BOK	Bokaro	14.49	336	*e*	P	06 25 19.5	-4.4
SHL	Shillong	14.88	358	*e*P	P	06 25 28.6	-0.3
SHL				*e*		06 25 57.5	
	comp=Z,162nm,1.8s						
HYB	Hyderabad	15.01	298	*e*P	P	06 25 29.0	-1.7
HYB				*e*		06 25 37.5	
HYB				*e*S		06 28 48.0	
HYB	Hyderabad	15.01	298	*i* P	P	06 25 29.0	-1.7
HYB				*e*		06 25 37.5	
HYB				*e*S		06 28 48.0	
BLSP	Bilaspur	15.07	321	*e*P	P	06 25 28.9	-2.6
BLSP				*e*	S	06 28 36.0	+18
TRD	Trivandrum	15.34	263	*e*P	P	06 25 36.3	+1.2
TRD				*e*P		06 25 36.3	
TRD				*e*	S	06 28 12.2	-12
MNGI	Mangalore	17.33	279	*e*P	P	06 26 00.7	+0.4
MNGI				*e*		06 26 05.2	
	comp=Z,641nm,1.8s						
KMI	Kunming	17.46	33	*e*P	P	06 26 03.8	+1.8
KMI				AP		06 26 10.5	
KMI				AMB	AMB		
	comp=Z,108nm,1.0s						
AKL	Akola	17.84	306	*e*P	P	06 26 09.2	+2.5
AKL				*e*		06 26 13.7	
	comp=Z,660nm,1.1s						
GOA	Goa	18.70	287	*e*	P	06 26 26.5	+9.2
	comp=Z,265nm,1.3s						
QIZ	Qiongzhong	18.84	62	P	P	06 26 19.0	+0.1
KAD	Karad	18.85	293	*e*P	P	06 26 18.1	-1.0
BHPL	Bhopal	19.00	313	*e*P	P	06 26 21.1	+0.3
BHPL				*e*		06 26 23.6	
	comp=Z,652nm,1.4s						
BHPL				*e*S	S	06 29 55.7	+7.5
LSA	Lhasa	19.02	357	*e*P	P	06 26 24.3	+3.2
LSA				pmax	pmax		
	comp=Z,69nm,0.7s						
LSA	Lhasa	19.02	357	*e*P	P	06 26 21.6	+0.5
	comp=Z,82nm,0.6s						
MNCY	Minicoy	19.21	265	⇓*i*P	P	06 26 25.0	+1.6
MNCY				*i*		06 27 52.0	
POO	Poona	19.56	296	*e*P	P	06 26 27.0	-0.3
POO				*e*		06 26 29.8	
	comp=Z,582nm,1.9s						
BOM	Bombay	20.61	296	*e*P	P	06 26 39.2	+0.8
BOM				*e*		06 26 43.0	
	comp=Z,561nm,1.8s						
GYA	Guiyang	20.75	39	⇑*i*P	P	06 26 39.0	-0.8
GYA				PP	PP	06 27 06.5	+4.6
GYA				S	S	06 30 33.3	+8.1
GYA				AMB	AMB		
	comp=Z,250nm,0.8s						
GYA				AMB	AMB		
	comp=Z,2µm,5.0s						
GYA				LR	LR		
	comp=N,35µm,15.9s,MS6.0						
GYA				LR	LR		
	comp=E,40µm,16.0s,MS6.0						
GYA				LR	LR		
	comp=Z,42µm,16.5s,MS5.9						
CD2	Chengdu	22.80	26	⇑*i*P	P	06 27 00.3	-0.1
CD2				S	S	06 31 05.0	+1.8
CD2				AMB	AMB		
	comp=Z,380nm,1.4s,mb5.6						
NDI	New Delhi	22.90	324	*e*P	P	06 27 02.0	+0.6
NDI				*e*		06 27 04.9	
	comp=Z,497nm,1.1s						
AJM	Ajmer	23.00	316	*e*P	P	06 27 04.0	+1.6
AJM				*e*		06 27 06.6	
	comp=Z,269nm,1.7s						
COCO	West Island	23.09	169	*e*P	P	06 27 07.2	+3.8
	comp=Z,451nm,1.0s,mb5.8						
DDI	Dehra Dun	23.70	328	*e*P	P	06 27 10.4	+1.2
BHJ	Bhuj	25.05	303	*e*P	P	06 27 24.6	+2.3
BHJ				*e*		06 27 26.9	
	comp=Z,149nm,1.1s						
ENH	Enshi	25.23	37	*e*P	P	06 27 23.2	-0.7
	comp=Z,305nm,0.8s,mb5.9						
DLH	Dalhousie	26.55	328	*e*P	P	06 27 35.0	-1.1
THN	Thein Dam	26.59	327	*e*P	P	06 27 36.1	-0.4
	comp=Z,27nm,0.8s,mb4.8						
LZH	Lanzhou	27.41	20	*e*P	P	06 27 44.3	+0.4
LZH				PP	PP	06 28 33.3	+1.6
LZH				S	S	06 32 21.0	+0.3
LZH				SS	SS	06 33 41.0	+2.5
LZH				AMB	AMB		
	comp=Z,223nm,1.3s,mb5.5						
LZH				AMB	AMB		
	comp=Z,1µm,4.5s						
LZH				LR	LR		
	comp=E,7µm,13.1s						
LZH				LR	LR		
	comp=Z,10µm,15.0s,MS5.5						
TGY	Tagaytay City	28.11	80	P	P	06 27 49.9	-0.6
	comp=Z,271nm,0.8s,mb5.9,baz=254,slow=7.4,SNR=4.7						
TGY	Tagaytay City	28.11	80	P	P	06 27 49.9	-0.6
TGY				pmax	pmax		
	comp=Z,271nm,0.8s						
WHN	Wuhan	28.47	43	⇓*i*P	P	06 27 58.3	+4.7
GTA	Gaotai	29.43	12	P	P	06 28 03.3	+1.1
GTA				AP	pP	06 28 11.5	+1.4
GTA				XP	sP	06 28 14.8	+1.1
GTA				PP	PP	06 28 57.0	-0.9
GTA				S	S	06 32 54.3	+1.1
GTA				SCS	ScS	06 38 41.8	+2.3
GTA				AMB	AMB		
	comp=Z,113nm,0.8s,mb5.7						
GTA				AMB	AMB		
	comp=Z,4µm,11.1s						
GTA				LR	LR		
	comp=N,5µm,20.5s,MS5.3						
GTA				LR	LR		
	comp=E,4µm,17.9s,MS5.3						
GTA				LR	LR		
	comp=Z,9µm,18.6s,MS5.4						
KSH	Kashi	32.27	336	P	P	06 28 28.0	+0.9
KSH				PP	PP	06 29 35.3	+0.5
KSH				*e*PPP	PPP	06 29 50.5	+0.4
KSH				*e*PCP	PcP	06 31 15.5	+0.3
KSH				S	S	06 33 39.5	+1.8
KSH				*e*PCS		06 35 01.0	
KSH				SS	SS	06 35 33.3	+0.5
KSH				SCS	ScS	06 38 55.0	+1.7
KSH				AMB	AMB		
	comp=Z,2µm,9.1s						
KSH				LR	LR		
	comp=N,6µm,11.8s,MS5.6						
KSH				LR	LR		
	comp=E,5µm,11.9s,MS5.6						
NJ2	Nanjing	32.45	45	*e*P	P	06 28 29.5	+0.7
NJ2				AP	pP	06 28 40.3	+3.5
NJ2				XP	sP	06 28 43.3	+3.0
NJ2				PP	PP	06 29 39.8	+2.6
NJ2				S	S	06 33 41.3	+0.6
NJ2				XS		06 33 57.5	
NJ2				AMB	AMB		
	comp=Z,470nm,0.7s,mb6.4						
NJ2				AMB	AMB		
	comp=Z,1µm,5.0s						
NJ2				LR	LR		
	comp=N,31µm,18.0s,MS6.1						
NJ2				LR	LR		
	comp=E,21µm,17.6s,MS6.1						
NJ2				LR	LR		
	comp=Z,42µm,16.2s,MS6.2						
WMQ	Urumqi	33.33	354	⇑P	P	06 28 37.5	+1.2
WMQ				PP	PP	06 29 49.5	+1.3
WMQ				PPP	PPP	06 30 05.5	+0.6
WMQ				*e*S	S	06 33 56.5	+2.3
WMQ				AMB	AMB		
	comp=Z,26nm,0.8s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,4µm,8.9s						
WMQ				LR	LR		
	comp=N,4µm,27.8s						
WMQ				LR	LR		
	comp=E,2µm,22.5s						
WMQ				LR	LR		
	comp=Z,9µm,23.8s,MS5.4						
SSE	Sheshan	33.59	48	*e*P	P	06 28 34.8	-4.0
SSE				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,13µm,10.3s						
BTO	Baotou	33.70	25	*e*P	P	06 28 38.8	-0.8
BTO				AMB	AMB		
	comp=Z,95nm,1.0s,mb5.7						
HHC	Hu-ho-hao-te	34.55	26	*e*P	P	06 28 47.0	0.0
HHC				AP	pP	06 28 59.0	+4.0
HHC				XP	sP	06 29 04.8	+6.3
HHC				PP	PP	06 30 03.0	-0.5
HHC				S	S	06 34 10.0	-3.2
HHC				XS		06 34 30.3	
HHC				AMB	AMB		
	comp=Z,77nm,0.8s,mb5.7						
HHC				AMB	AMB		
	comp=Z,4µm,9.2s						
HHC				LR	LR		
	comp=N,6µm,17.8s,MS5.5						
HHC				LR	LR		
	comp=E,4µm,16.7s,MS5.5						
HHC				LR	LR		
	comp=Z,14µm,23.8s						
KZA	Kyzart	34.74	337	P	P	06 28 49.9	+1.3
	SNR=10						
UCH	Uchtor	35.16	337	P	P	06 28 53.5	+1.4
	SNR=10						
TKM2	Tokmak 2	35.35	339	P	P	06 28 54.9	+1.2
	SNR=9.4						
AML	Almayashu	35.40	336	P	P	06 28 55.8	+1.7
	SNR=26						
AAK	Ala-Archa	35.51	337	P	P	06 28 56.5	+1.4
	SNR=17						
AAK	Ala-Archa	35.51	337	⇓*e*P	P	06 28 55.3	+0.2
AAK				pmax	pmax		
	comp=Z,86nm,1.2s,mb5.6						
AAK	Ala-Archa	35.51	337	⇓*e*P	P	06 28 55.4	+0.3
CHMS	Chumysh	35.72	338	P	P	06 28 57.4	+0.5
	SNR=19						
EKS2	Erkin-Say	35.81	336	P	P	06 28 59.1	+1.5
	SNR=20						
USP	Ospenovka	36.05	338	P	P	06 29 00.6	+0.9
	SNR=26						
BJT	Baijiatuau	36.10	32	*e*P	P	06 29 00.3	+0.2
	comp=Z,54nm,0.8s,mb5.5						
BJI	Beijing	36.12	32	P	P	06 29 00.5	+0.2
BJI				AMB	AMB		
	comp=Z,89nm,0.8s,mb5.8						
JOW	Kunigami	37.47	59	P	P	06 29 12.5	+0.8
	comp=Z,26nm,0.6s,mb5.2,baz=314,slow=22,SNR=7.1						
DL2	Dalian	38.40	38	P	P	06 29 19.8	+0.3
DL2				AMB	AMB		
	comp=Z,70nm,1.2s,mb5.3						
SONM	Songino Array	38.93	15	P	P	06 29 24.6	+0.8
	comp=Z,50nm,1.0s,mb5.2,baz=198,slow=7.8,SNR=28						
SONM				pP	pP	06 29 32.7	+0.7
	comp=Z,31nm,0.8s,baz=205,slow=8.1,SNR=13						
ULN	Ulaanbaatar	39.13	16	⇑*e*P	P	06 29 25.9	+0.4
ZAK	Zakamensk	40.66	11	*e*P	P	06 29 39.3	+1.3
SNY	Shenyang	41.41	36	⇑P	P	06 29 44.0	-0.3
SNY				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.3						
MBWA	Marble Bar	41.48	140	*e*P	P	06 29 41.2	-3.8
	comp=Z,64nm,1.2s,mb5.1						
MOY	Mondy	41.53	8	*e*P	P	06 29 47.4	+2.2
KS15	Wonju Array Si	41.61	44	*e*P	P	06 29 44.8	-1.2
JNU	Nakatsue	41.83	52	P	P	06 29 49.2	+1.3
	comp=Z,0.6nm,0.4s,baz=63,slow=4.5,SNR=2.0						
TLY	Talaya	41.97	10	*e*P	P	06 29 50.9	+2.1
TLY				pmax	pmax		
	comp=Z,40nm,1.4s,mb4.9						
HASS	Wahat al Ahsa’	42.91	296	P	P	06 29 58.1	+1.2
ZAL	Zalesovo	43.63	354	P	P	06 30 02.5	+0.2
	comp=Z,8.5nm,0.9s,mb4.5,baz=298,slow=9.7,SNR=8.4						
ZAL	Zalesovo	43.63	354	P	P	06 30 02.5	+0.2
ZAL				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CN2	Changchun	43.72	35	⇑P	P	06 30 06.5	+3.3
CN2				*e*XP	sP	06 30 20.5	+5.8
CN2				*e*S	S	06 36 34.5	+3.3
CN2				AMB	AMB		
	comp=Z,200nm,0.8s,mb5.9						
CN2				AMB	AMB		
	comp=Z,9µm,10.0s						
CN2				LR	LR		
	comp=N,7µm,14.0s,MS5.9						
CN2				LR	LR		
	comp=E,8µm,14.0s,MS5.9						
CN2				LR	LR		
	comp=Z,9µm,15.0s,MS5.8						
NVS	Novosibirsk	44.70	353	*e*P	P	06 30 09.7	-1.3
HIA	Hailar	44.75	25	*e*P	P	06 30 10.8	-0.7
	comp=Z,89nm,1.1s,mb5.5						
QRN	Al-Qurain	45.26	300	*e*P	P	06 30 16.8	+1.0
RDF	Al-Radifah	45.62	300	*e*P	P	06 30 19.4	+0.8
RDF				AMb	AMB	06 30 21.5	
	comp=Z,398nm,1.1s,mb6.3						
UMR	Umm Al-Rimmam	45.63	301	*e*P	P	06 30 19.4	+0.7
UMR				AMb	AMB	06 30 21.3	
	comp=Z,183nm,1.1s,mb5.9						
BVAR	Borovoye Array	45.85	342	P	P	06 30 20.0	-0.1
	comp=Z,44nm,1.0s,mb5.3,baz=143,slow=7.4,SNR=30						
BVAR				pP	pP	06 30 28.1	-0.1
	comp=Z,21nm,0.9s,baz=148,slow=9.3,SNR=6.9						
BRVK	Borovoye	45.91	342	⇓*e*P	P	06 30 20.3	-0.2
RST	Umm Al-Ruwaisa	46.23	301	*e*P	P	06 30 23.9	+0.5
RST				AMb	AMB	06 30 25.7	
	comp=Z,365nm,0.7s,mb6.4						
CHKZ	Chkalovo	46.34	342	P	P	06 30 24.2	+0.3
CHKZ				pmax	pmax		
	comp=Z,110nm,0.9s,mb5.8						
CHKZ	Chkalovo	46.34	342	*e*P	P	06 30 24.0	0.0
	comp=Z,106nm,0.9s,mb5.8						
CHKZ				*e*	pP	06 30 31.5	-0.6
MDJ	Mudanjiang	46.59	36	P	P	06 30 26.5	+0.4
MDJ				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.8						
MZLS	Mizel	46.74	293	P	P	06 30 28.8	+1.3
TATS	Tathlith	47.89	287	P	P	06 30 37.9	+1.2
MAJO	Matsushiro	48.69	50	*e*P	P	06 30 42.7	+0.1
MAJO				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
MAJO	Matsushiro	48.69	50	*e*P	P	06 30 42.1	-0.5
	comp=Z,30nm,0.8s,mb5.4						
MAT	Matsushiro	48.69	50	P	P	06 30 41.8	-0.8
MAT	Matsushiro	48.69	50	*e*P	P	06 30 42.0	-0.6
	comp=Z,192nm,1.7s,mb5.8						
AFFS	‘Afif	48.73	292	P	P	06 30 44.6	+1.6
ARSS	Ar Rass	48.78	295	P	P	06 30 43.8	+0.4
NAMS	An Nimas	49.07	286	P	P	06 30 48.3	+2.5
NWAO	Narrogin (SRO)	49.37	152	P	P	06 30 46.9	-1.0
	comp=Z,102nm,0.9s,mb5.8,baz=318,slow=10,SNR=26						
NWAO	Narrogin (SRO)	49.37	152	P	P	06 30 46.9	-1.0
NWAO				pmax	pmax		
	comp=Z,102nm,0.9s						
NWAO	Narrogin (SRO)	49.37	152	P	P	06 30 46.9	-1.0
BLJS	Baljurashi	49.68	287	P	P	06 30 52.5	+2.1
BOD	Bodaibo	49.93	15	*e*P	P	06 30 51.7	-0.2
HILS	Ha’il	50.29	297	P	P	06 30 56.5	+1.5
WRA	Warramunga Arr	51.28	126	P	P	06 31 01.7	-0.9
	comp=Z,126nm,0.7s,mb6.0,baz=305,slow=8.6,SNR=199						
WRA	Warramunga Arr	51.28	126	P	P	06 31 01.7	-0.9
WRA				pmax	pmax		
	comp=Z,126nm,0.7s						
WRAB	Tennant Creek	51.28	126	*e*P	P	06 31 01.8	-0.8
WRAB				pmax	pmax		
	comp=Z,240nm,0.7s,mb6.2						
WRAB	Tennant Creek	51.28	126	*e*P	P	06 31 01.8	-0.8
WRAB				pmax	pmax		
	comp=Z,240nm,0.7s,mb6.2						
WRAB	Tennant Creek	51.28	126	*e*P	P	06 31 01.8	-0.9
	comp=Z,238nm,0.6s,mb6.3						
GNI	Garni	51.28	313	P	P	06 31 03.5	+1.2
	comp=Z,98nm,0.9s,mb5.7,baz=333,slow=0.5,SNR=52						
GNI	Garni	51.28	313	⇓*e*P	P	06 31 03.4	+1.0
GNI				pmax	pmax		
	comp=Z,374nm,1.8s						
GNI	Garni	51.28	313	*e*P	P	06 31 03.1	+0.7
	comp=Z,231nm,1.1s,mb6.0						
GNI				⇓*e*P		06 31 03.4	
KBRS	Khaybar	52.31	294	P	P	06 31 11.7	+1.3
CLNS	Chul’man	52.52	22	*e*P	P	06 31 09.4	-2.1
CLNS				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.5						
CLNS				pmax	pmax		
	comp=N,33nm,0.9s						
CLNS				pmax	pmax		
	comp=E,28nm,0.8s						
ARU	Arti	52.70	337	⇓*i*P	P	06 31 12.3	-0.5
ARU				*e*		06 32 14.8	
ARU				*e*		06 33 15.3	
ARU				*e*PPP	PPP	06 34 21.3	+2.8

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ARU                                eS      S       06 38 40.5 +3.3
ARU                                 pmax   pmax
       comp=Z,78nm,1.1s,mb5.5
ARU    Arti              52.70 337⇓eP      P       06 31 12.4 -0.4
ASAR   Alice Springs     53.01 130  P      P       06 31 14.8 -0.9
       comp=Z,194nm,0.8s,mb6.1,baz=308,slow=7.0,SNR=21
BEST   Besiri            53.10 310 i P     P       06 31 15.4 -0.6
ERZM   Erzurum           53.64 312 i P     P       06 31 21.1 +1.1
KIV    Kislovodsk        54.12 317c iP     P       06 31 21.7 -1.8
KIV                                 pmax   pmax
       comp=N,127nm,1.4s
KIV                                 pmax   pmax
       comp=E,122nm,1.4s
KIV                                 pmax   pmax
       comp=Z,285nm,1.4s,mb6.0
KIV    Kislovodsk        54.12 317 i Pr            06 31 23.6
GOF    Gofitskoye        54.32 319⇑iP      P       06 31 24.5 -0.4
GOF                                 pmax   pmax
       comp=Z,100nm,1.2s,mb5.6
ASAJ   Asahikawa         54.55  43  P      P       06 31 26.4 -0.2
       comp=Z,44nm,0.8s,mb5.5,baz=255,slow=9.4,SNR=24
ASAJ   Asahikawa         54.55  43  P      P       06 31 26.5 -0.1
ASAJ                                pmax   pmax
       comp=Z,44nm,0.8s
ELZG   Elazig            55.00 310 i P     P       06 31 29.6 -0.4
ASF    Jabal al Asfar    55.28 302  P      P       06 31 32.5 +0.4
       comp=Z,24nm,1.0s,mb5.2,baz=0.3,slow=1.1,SNR=16
YSS    Yuzh-Sakhalins    55.75  40⇑iP      P       06 31 34.0 -1.3
YSS                                e       pP      06 31 41.8 -1.8
YSS                                 pmax   pmax
       comp=Z,1.0nm,0.8s
YSS                                 MLR    MLR
       comp=Z,10µm,19.0s
YSS                                 MLR    MLR
       comp=E,11µm,20.0s
YSS    Yuzh-Sakhalins    55.75  40 i Pr            06 31 34.8
GZT    Gaziantep         55.80 308 i P     P       06 31 34.4 -1.4
SOC    Sochi             56.00 316 eP      P       06 31 35.3 -1.8
SOC                                eS      S       06 39 23.4 +1.5
SOC                                 pmax   pmax
       comp=N,9.0nm,0.8s
SOC                                 pmax   pmax
       comp=Z,58nm,0.8s,mb5.7
SOC                                 pmax   pmax
       comp=E,17nm,1.1s
KMBO   Kilima Mbogo      56.04 261  P      P       06 31 39.3 +1.5
       comp=E,14nm,1.0s,mb4.9,baz=58,slow=10,SNR=17
KMBO   Kilima Mbogo      56.04 261 eP      P       06 31 38.7 +0.9
KMBO                                pmax   pmax
       comp=Z,17nm,1.0s
KMBO   Kilima Mbogo      56.04 261 eP      P       06 31 38.7 +0.8
       comp=Z,17nm,1.0s,mb5.0
KAHT   Ahir Dag          56.39 308 i P     P       06 31 38.8 -1.3
EIL    Elat              56.57 299  P      P       06 31 41.5 +0.1
       comp=Z,36nm,0.8s,mb5.5,baz=61,slow=5.4,SNR=21
EIL    Elat              56.57 299 eP      P       06 31 41.2 -0.2
       comp=Z,85nm,1.3s,mb5.6
COBT   Iskenderun        56.63 307 i P     P       06 31 40.8 -0.9
YUK    Yuzh-Kuril'sk     56.73  44 eP      P       06 31 37.5 -4.9
YAK    Yakutsk           57.99  20 eP      P       06 31 49.5 -1.5
YAK                                e       pP      06 31 57.5 -1.9
YAK                                 pmax   pmax
       comp=N,8.0nm,0.8s
YAK                                 pmax   pmax
       comp=Z,34nm,0.8s,mb5.4
YAK                                 pmax   pmax
       comp=E,12nm,1.0s
YAK                                 pmax   pmax
       comp=Z,45nm,0.7s,mb5.6
YAK                                 pmax   pmax
       comp=N,25nm,0.9s
YAK                                 pmax   pmax
       comp=E,24nm,1.1s
PMG    Port Moresby      58.02 108  P      P       06 31 51.6 -0.2
       comp=E,113nm,0.7s,mb6.0,baz=322,slow=3.2,SNR=43
PMG    Port Moresby      58.02 108 eP      P       06 31 51.7 -0.2
PMG                                 pmax   pmax
       comp=Z,190nm,1.1s
PMG    Port Moresby      58.02 108 eP      P       06 31 51.6 -0.2
       comp=Z,189nm,1.1s,mb6.0
AVNT   Avonos            58.20 309 i P     P       06 31 51.4 -1.4
CTKT   Corum             58.67 311 i P     P       06 31 54.4 -1.7
CSS    Prodhromos        58.68 304 eP      P       06 31 55.2 -1.0
       comp=Z,124nm,1.5s,mb5.7
BOYT   Boyabat           58.78 312 i P     P       06 31 52.5 -4.3
SZAC   Souni-Zanaja      59.01 304  P      P       06 31 57.9 -0.6
ALFC   Alevga            59.30 305  P      P       06 31 59.2 -1.3
       comp=Z,1.2nm,0.7s
BRTR   Keskin Array B    59.33 310  P      P       06 31 58.9 -1.8
       comp=Z,12nm,0.8s,mb5.0,baz=126,slow=7.3,SNR=25
BRTR   Keskin Array B    59.33 310  P      P       06 31 58.9 -1.7
BRTR                                pmax   pmax
       comp=Z,12nm,0.8s
ELDT   Eldivan           59.65 311 i P     P       06 32 02.1 -0.8
SIM    Simferopol'       60.25 316d iP     P       06 32 05.8 -1.1
SIM                                 pmax   pmax
       comp=Z,51nm,0.7s,mb5.7
SGKT   Sivrigoynuk       60.69 311 i P     P       06 32 09.3 -0.7
CTA    Charters Tower    61.18 120  P      P       06 32 13.3 -0.2
       comp=Z,67nm,1.0s,mb5.7,baz=298,slow=8.4,SNR=36
CTA    Charters Tower    61.18 120  P      P       06 32 13.3 -0.2
CTA                                 pmax   pmax
       comp=Z,67nm,1.0s
CTA    Charters Tower    61.18 120  P      P       06 32 13.3 -0.2
ISP    Isparta           61.38 307d eP     P       06 32 12.8 -1.9
ISP    Isparta           61.38 307 eP      P       06 32 12.8 -1.9
       comp=Z,113nm,1.4s,mb5.8
ESKT   Eskisehir         61.40 309 i P     P       06 32 13.4 -1.3
HENT   Hendek            61.60 311 i P     P       06 32 14.2 -2.0
MOS    Moscow            61.84 328⇓iP      P       06 32 17.0 -0.5
MOS                                e       pP      06 32 25.9 -0.1
MOS                                e               06 32 57.9
MOS                                e               06 34 29.2
MOS                                ePPP    PPP     06 36 00.1 -4.6
MOS                                eS      S       06 40 38.1 +0.6
MOS                                e               06 40 51.3
MOS                                eSS     SS      06 44 38.6 -2.7
MOS                                 pmax   pmax
       comp=Z,300nm,1.3s,mb6.3
MOS                                 pmax   pmax
       comp=Z,300nm,1.4s,mb6.2
MOS                                 smax
       comp=E,400nm,3.3s
MOS                                 MLR    MLR
       comp=Z,12µm,21.8s,MS6.0
MOS                                 MLR    MLR
       comp=E,7µm,21.2s
OBN    Obninsk           62.14 327d iP     P       06 32 18.7 -0.8
OBN                                i *PP   pP      06 32 27.9 -0.1
OBN                                e               06 32 58.8
OBN                                e               06 34 33.2
OBN                                eS      S       06 40 43.9 +2.6
OBN                                eSS     SS      06 44 41.4 -4.7
OBN                                 pmax   pmax
       comp=Z,242nm,1.5s,mb6.1
OBN                                 MLR    MLR
       comp=Z,10µm,20.0s,MS6.0
OBN    Obninsk           62.14 327 i Pr            06 32 18.7
ULDT   Uludag            62.81 310 i P     P       06 32 22.5 -1.6
STKA   Stephens Creek    63.26 134  P      P       06 32 27.2  0.0
       comp=Z,107nm,0.9s,mb6.0,baz=309,slow=6.5,SNR=76
STKA   Stephens Creek    63.26 134 eP      P       06 32 26.9 -0.3
BTOK   Tokmak            63.59 309 i P     P       06 32 28.0 -1.3
KDAG   Bornova           63.99 308 i P     P       06 32 30.6 -1.5
KIS    Kishinev          64.33 317 eP      P       06 32 32.0 -2.1
KIS                                e       pP      06 32 41.0 -1.5
CFR    Carcaliu          64.42 315⇑iP      P       06 32 33.9 -0.8
CFR    Carcaliu          64.42 315⇑iP      P       06 32 33.9 -0.8
AYVA   Ayvalik           64.55 308 i P     P       06 32 31.8 -3.9
AKASG  Malin Array Be    64.93 321  P      P       06 32 36.1 -1.8
       comp=Z,20nm,0.8s,mb5.2,baz=89,slow=4.4,SNR=46
AKASG                               pP     pP      06 32 44.2 -2.1
       comp=Z,17nm,0.9s,baz=82,slow=5.1,SNR=7.1
AKASG                               PP     PP      06 34 59.7 -3.1
       comp=Z,2.2nm,0.8s,baz=92,slow=6.0,SNR=4.1
AKASG  Malin Array Be    64.93 321  P      P       06 32 36.2 -1.7
AKASG                               *PP    pP      06 32 44.2 -2.2
AKASG                                              06 34 59.7
AKASG                               pmax   pmax
       comp=Z,20nm,0.8s
AKASG                               pmax   pmax
       comp=Z,17nm,0.9s
AKASG                               pmax   pmax
       comp=Z,2.0nm,0.8s
MA2    Magadan           65.18  29 eP      P       06 32 38.5 -0.9
MA2                                 pmax   pmax
       comp=Z,50nm,1.0s,mb5.5
MA2    Magadan           65.18  29 eP      P       06 32 38.8 -0.6
       comp=Z,60nm,0.8s,mb5.7
MA2                                e       pP      06 32 46.7 -1.1
SKR    Severo-Kuril's    65.30  39 eP      P       06 32 35.3 -5.0
SKR                                e       pP      06 32 45.6 -3.1
SKR                                 pmax   pmax
       comp=Z,180nm,1.0s,mb6.1
ISR    Istrita           65.52 315⇓iP      P       06 32 42.4 +0.6
ISR    Istrita           65.52 315⇓iP      P       06 32 42.4 +0.6
VRI    Vrincioaia        65.52 316⇑iP      P       06 32 42.1 +0.3
VRI    Vrincioaia        65.52 316⇑iP      P       06 32 42.1 +0.3
IDI    Anoyia            65.58 304  P      P       06 32 41.5 -0.9
       comp=Z,25nm,0.7s,mb5.4,baz=99,slow=7.8,SNR=20
IDI                                 pP     pP      06 32 48.6 -2.2
       comp=Z,14nm,0.7s,baz=79,slow=10,SNR=5.0
RZN    Rozhen            66.34 311  P      P       06 32 46.0 -1.1
MNK    Minsk             66.72 325 eP      P       06 32 46.0 -3.3
MMB    Musomiste         67.07 311  P      P       06 32 50.0 -1.7
PET    Petropavlovsk     67.37  37 eP      P       06 32 52.5 -1.0
PET                                 pmax   pmax
       comp=Z,35nm,0.9s,mb5.4
VTS    Vitosha           67.56 312  P      P       06 32 54.0 -0.8
KKB    Krupnik           67.58 311  P      P       06 32 55.0 +0.1
VSU    Vasula            68.35 329d iP     P       06 32 58.6 -0.9
VSU    Vasula            68.35 329 i Pr            06 32 58.6
LSZ    Lusaka            68.57 249 eP      P       06 33 02.3 +0.8
       comp=Z,41nm,1.1s,mb5.3
BOLS   Boljevac          68.60 313⇓iP      P       06 32 59.9 -1.4
APA    Apatity           68.68 339⇑iP      P       06 33 00.3 -1.1
APA                                i               06 33 19.6
APA                                 pmax   pmax
       comp=Z,31nm,1.0s,mb5.2
KWP    Kalwaria          68.82 319  P      P       06 32 57.0 -5.5
KWP                                 pmax   pmax
       comp=Z,73nm,1.0s,mb5.6
KWP    Kalwaria          68.82 319  P      P       06 33 02.2 -0.3
       comp=Z,46nm,0.8s,mb5.5
KOLS   Kolonicke sedl    69.00 318 i P     P       06 33 03.6 -0.1
KOLS                               epP     pP      06 33 11.1 -1.0
SUW    Suwalki           69.27 324  P      P       06 33 04.1 -1.1
SUW                                 pmax   pmax
       comp=Z,200nm,1.1s,mb6.0
SUW    Suwalki           69.27 324 eP      P       06 33 03.9 -1.3
FINES  FINESS Array B    69.48 332  P      P       06 33 05.7 -0.7
       comp=Z,12nm,0.7s,mb4.9,baz=103,slow=7.0,SNR=18
FINES  FINESS Array B    69.48 332  P      P       06 33 05.7 -0.7
FINES                               pmax   pmax
       comp=Z,12nm,0.7s
GRUS   Gruza             69.50 313⇓iP      P       06 33 06.1 -0.7
CRVS   Cervenica-Dubn    69.53 318 i P     P       06 33 08.7 +1.8
CRVS                               epP     pP      06 33 16.7 +1.4
KAF    Kangasniemi       69.57 333 ep      P       06 33 06.3 -0.6
       comp=Z,7.6nm,0.8s,mb4.7
KAF    Kangasniemi       69.57 333 eP      P       06 33 06.3 -0.6
KAF                                 pmax   pmax
       comp=Z,8.0nm,0.8s,mb4.7
DIVS   Divcibare         70.04 313⇑iP      P       06 33 08.7 -1.4
KECS   Kecovo            70.12 318 i P     P       06 33 10.2 -0.3
NIE    Niedzica          70.34 319 eP      P       06 33 11.7 -0.1
PSZ    Piszkesteto       70.45 317 eP      P       06 33 11.8 -0.7
PSZ                                 pmax   pmax
       comp=Z,18nm,0.9s,mb5.0
PSZ    Piszkesteto       70.45 317⇓eP      P       06 33 11.8 -0.7
OJC    Ojcow             70.76 320 eP      P       06 33 14.2 -0.2
VYHS   Vyhne             71.21 318 i P     P       06 33 16.5 -0.6
VYHS                               epP     pP      06 33 24.8 -0.8
SRO2   Moca              71.44 317 eP      P       06 33 18.4 -0.1
SRO    Srobarova         71.50 317 eP      P       06 33 18.8 -0.1
KEV    Kevo              71.68 341 ep      P       06 33 19.2 -0.4
       comp=Z,17nm,0.6s,mb5.2
KEV    Kevo              71.68 341 eP      P       06 33 19.2 -0.4
KEV                                 pmax   pmax
       comp=Z,17nm,0.6s,mb5.2
OKC    Ostrava-Krasne    71.78 319 eP      P       06 33 20.4 -0.1
OKC                                epP     pP      06 33 28.2 -0.8
ARCES  ARCESS Array B    72.11 340  P      P       06 33 22.1  0.0
       comp=Z,19nm,0.7s,mb5.1,baz=87,slow=5.5,SNR=32
ARCES  ARCESS Array B    72.11 340  P      P       06 33 22.2 +0.1
ARCES                               pmax   pmax
       comp=Z,19nm,0.7s
SMOL   Smolenice         72.14 318 eP      P       06 33 22.0 -0.7
SMOL   Smolenice         72.14 318 eP      P       06 33 22.9 +0.2
ZST    Bratislava        72.34 317 eP      P       06 33 23.1 -0.8
ZST                                epP     pP      06 33 32.4  0.0
SOP    Sopron            72.67 317⇑eP      P       06 33 25.6 -0.3
DPC    Dobruska-Polom    73.00 319 eP      P       06 33 27.6 -0.1
DPC                                epP     pP      06 33 36.3 +0.1
KSP    Ksiaz             73.05 320⇓eP      P       06 33 27.8 -0.2
KSP                                epP     pP      06 33 36.1 -0.4
KSP    Ksiaz             73.05 320 eP      P       06 33 28.0  0.0
UPC    Upice             73.20 320 eP      P       06 33 29.0 +0.1
UPC                                epP     pP      06 33 37.2 -0.2
ARSA   Arzberg           73.35 316⇓iP      P       06 33 29.8 -0.1
       comp=Z,56nm,1.8s,mb5.2
OBKA   Obir              74.00 315⇓iP      P       06 33 33.2 -0.4
       comp=Z,47nm,1.2s,mb5.3
LBTB   Lobatse           74.05 240 eP      P       06 33 34.9 +0.6
       comp=Z,43nm,0.9s,mb5.4
LBTB                               e       pP      06 33 43.6 +0.8
PRU    Pruhonice         74.12 319 eP      P       06 33 34.3 +0.1
       comp=Z,49nm,1.2s,mb5.3
PRU                                epP     pP      06 33 41.7 -1.0
PVCC   Panska Ves        74.12 320 eP      P       06 33 34.2  0.0
PVCC                               epP     pP      06 33 42.7  0.0
BILL   Bilibino          74.21  22⇓eP      P       06 33 34.3 -0.1
BILL                                pmax   pmax
       comp=Z,28nm,1.5s,mb5.0
BILL   Bilibino          74.21  22⇓eP      P       06 33 34.4  0.0
MOA    Molln             74.23 317⇑iP      P       06 33 34.2 -0.7
       comp=Z,22nm,1.0s,mb5.0
TRO    Tromso            74.36 340 eP      P       06 33 33.4 -1.9
TRO                                epP     pP      06 33 42.6 -1.1
BRG    Berggiesshubel    74.54 320 i P     P       06 33 36.6  0.0
BRG                                e       pP      06 33 44.3 -0.8
BRG                                 pmax   pmax
       comp=Z,70nm,1.5s,mb5.4
BRG    Berggiesshubel    74.54 320 i P     P       06 33 36.6  0.0
       comp=Z,70nm,1.4s,mb5.4
BRG                                e       pP      06 33 44.3 -0.8
GEC2   GERESS Array S    74.63 318 eP      P       06 33 37.4 +0.2
GEC2                                pmax   pmax
       comp=Z,26nm,0.9s,mb5.2
GEC2   GERESS Array S    74.63 318 eP      P       06 33 37.4 +0.2
       comp=Z,26nm,0.9s,mb5.2
GERES  GERESS Array B    74.63 318  P      P       06 33 37.1 -0.1
       comp=Z,17nm,0.8s,mb5.0,baz=90,slow=5.3,SNR=35
GERES                               pP     pP      06 33 45.4 -0.4
       comp=Z,10nm,0.7s,baz=87,slow=5.1,SNR=10.0
GERES  GERESS Array B    74.63 318  P      P       06 33 37.1 -0.1
GERES                               *PP    pP      06 33 45.4 -0.3
GERES                               pmax   pmax
       comp=Z,17nm,0.8s
GERES                               pmax   pmax
       comp=Z,11nm,0.7s
KHC    Kasperske Hory    74.72 318 eP      P       06 33 37.3 -0.4
KHC                                epP     pP      06 33 45.3 -0.9
PTCC   Patocco-Chiusa    74.82 315 eP      P       06 33 38.1 -0.3
KBA    Koelnbreinsper    74.84 316⇑iP      P       06 33 38.0 -0.4
       comp=Z,31nm,1.4s,mb5.0
CLL    Collm             75.14 320⇓iP      P       06 33 39.5 -0.6
CLL                                i       pP      06 33 48.0 -0.6
CLL                                 pmax   pmax
       comp=Z,43nm,1.2s,mb5.2
CLL    Collm             75.14 320⇓iP      P       06 33 39.5 -0.6
       comp=Z,43nm,1.2s,mb5.2
CLL                                i       pP      06 33 48.0 -0.6
CLL    Collm             75.14 320 ⇓P      P       06 33 39.5 -0.6
       comp=Z,logA/T=1.6,mb5.3
CLL                                i *PP   pP      06 33 48.0 -0.6
WET    Wettzell          75.18 318 eP      P       06 33 40.4  0.0
HFS    Hagfors           75.22 329  P      P       06 33 39.9 -0.4
       comp=Z,21nm,0.7s,mb5.2,baz=117,slow=6.6,SNR=32
HFS                                 PP     PP      06 36 27.5 -3.5
       comp=Z,5.0nm,0.8s,baz=108,slow=9.1,SNR=2.5
HFS    Hagfors           75.22 329  P      P       06 33 39.9 -0.5
HFS                                                06 36 27.5
HFS                                 pmax   pmax
       comp=Z,21nm,0.7s
HFS                                 pmax   pmax
       comp=Z,5.0nm,0.8s
NKC    Novy Kostel       75.47 319 eP      P       06 33 41.6 -0.4
NKC                                epP     pP      06 33 50.3 -0.3
BOSA   Boshof            75.58 237 eP      P       06 33 44.0 +0.9
       comp=Z,48nm,0.9s,mb5.4
BOSA                               e       pP      06 33 52.3 +0.6
SFI    Santa Sofia       75.90 313 eP      P       06 33 44.8 +0.2
WTTA   Wattenberg        76.00 316⇓iP      P       06 33 44.4 -0.7
       comp=Z,42nm,1.0s,mb5.3
CTI    Castel Tesino     76.01 315 eP      P       06 33 44.8 -0.4
MOX    Moxa              76.01 320 eP      P       06 33 45.4 +0.3
MOX    Moxa              76.01 320 i P     P       06 33 45.4 +0.3
WATA   Walderalm         76.04 316⇑iP      P       06 33 44.3 -1.0
       comp=Z,19nm,0.9s,mb5.0
LOF    Lofoten           76.05 338 eP      P       06 33 46.4 +1.4
LOF                                 AMb    AMB     06 33 52.7
       comp=Z,140nm,1.8s,mb5.6
LOF    Lofoten           76.05 338 eP      P       06 33 46.4 +1.4
       comp=Z,140nm,1.8s,mb5.6
FX1    Attu Island--F    76.06  38  P      P       06 33 46.0 +0.8
       comp=Z,44nm,0.6s,mb5.6,baz=46,slow=5.4,SNR=11
FX1                                 pP     pP      06 33 53.6 -0.2
       comp=Z,42nm,0.6s,baz=143,slow=21,SNR=3.6
FX1    Attu Island--F    76.06  38  P      P       06 33 46.0 +0.7
FX1                                 *PP    pP      06 33 53.6 -0.2
FX1                                 pmax   pmax
       comp=Z,44nm,0.6s
FX1                                 pmax   pmax
       comp=Z,42nm,0.6s
FX1    Attu Island--F    76.06  38 eP      P       06 33 45.2 -0.1
FX1                                e       pP      06 33 53.2 -0.6
VMG    Vicchio           76.12 313 eP      P       06 33 46.5 +0.7
FUR    Furstenfeldbru    76.24 317 eP      P       06 33 46.0 -0.4
SEI    Scarperia         76.25 313 eP      P       06 33 46.8 +0.2
GRA1   Grafenberg Arr    76.26 319 eP      P       06 33 46.9 +0.4
       comp=Z,35nm,1.0s,mb5.2
GRA1                               epP     pP      06 33 55.5 +0.5
GRF    Grafenberg Arr    76.26 319 eP      P       06 33 46.9 +0.4
GRF                                e*PP    pP      06 33 55.5 +0.5
GRF                                 pmax   pmax
       comp=Z,35nm,1.0s,mb5.2
GRF    Grafenberg Arr    76.26 319 eP      P       06 33 46.9 +0.4
       comp=Z,35nm,1.0s,mb5.2
GRF                                epP     pP      06 33 55.5 +0.5
SQTA   Sankt Quirin      76.29 316⇑iP      P       06 33 46.1 -0.6
       comp=Z,32nm,0.9s,mb5.2
MOTA   Moosalm           76.36 316⇑iP      P       06 33 46.3 -0.8
       comp=Z,34nm,1.0s,mb5.2
NB2    NORSAR Subarra    76.50 330  P      P       06 33 46.7 -0.9
       comp=Z,21nm,0.8s,mb5.1,baz=95,slow=5.0
NB2    NORSAR Subarra    76.50 330  P      P       06 33 46.7 -0.9
       baz=95,slow=5.3
NOA    NORSAR Array B    76.50 330  P      P       06 33 46.9 -0.7
       comp=Z,15nm,0.8s,mb5.0,baz=93,slow=5.7,SNR=25
NOA    NORSAR Array B    76.50 330  P      P       06 33 46.9 -0.7
NOA                                 pmax   pmax
       comp=Z,15nm,0.8s
NAO01  NORSAR Array S    76.65 330 eP      P       06 33 47.4 -1.1
       comp=Z,11nm,0.8s,mb4.8
CLZ    Clausthal         76.79 321 eP      P       06 33 49.4  0.0
       comp=Z,17nm,0.8s,mb5.0
GSCL   Gusciola          76.80 313 eP      P       06 33 50.4 +0.8
BSEG   Bad Segeberg      76.82 323 eP      P       06 33 50.0 +0.5
BRMO   Bormio            76.88 315 eP      P       06 33 49.9 -0.2
DAVA   Damuels           77.20 316⇑iP      P       06 33 51.6 -0.2
       comp=Z,80nm,1.1s,mb5.6
MUD    Monsted U'grnd    77.47 326 i P     P       06 33 53.8 +0.7
MUD                                 pmax   pmax
       comp=Z,32nm,0.7s,mb5.4
MUD    Monsted U'grnd    77.47 326 i P     P       06 33 53.8 +0.7
       comp=Z,32nm,0.7s,mb5.4
STU    Stuttgart         77.61 318  P      P       06 33 53.8 -0.2
STU                                e       pP      06 34 02.2 -0.4
STU                                 pmax   pmax
       comp=Z,25nm,1.0s,mb5.1
STU    Stuttgart         77.61 318 eP      P       06 33 53.7 -0.3
       comp=Z,25nm,1.0s,mb5.1
STU                                e       pP      06 34 01.8 -0.7
TOD    Tromm             77.83 319 eP      P       06 33 55.4 +0.2
VAI    Varese            78.02 315 eP      P       06 33 55.3 -1.0
PGF    Pioggiola         78.04 311 eP      P       06 33 56.2 -0.3
       comp=Z,481nm,1.8s,mb5.8
BFO    Black Forest      78.20 317 eP      P       06 33 56.8 -0.4
BFO                                 pmax   pmax
       comp=Z,22nm,1.0s,mb5.0
BFO    Black Forest      78.20 317 eP      P       06 33 56.8 -0.4
       comp=Z,22nm,1.0s,mb5.0
MOL    Molde             78.27 332 eP      P       06 34 00.2 +2.9
KTD    Kalmit            78.32 318 eP      P       06 33 57.6 -0.3
FELD   Feldberg          78.44 317 eP      P       06 33 57.5 -1.1
LANF   Langenberg        78.52 318 eP      P       06 33 58.9 -0.1
MCGN   Macugnaga         78.56 315 eP      P       06 34 00.0 +0.7
STR    Strasbourg        78.56 318 eP      P       06 33 59.7 +0.5
ABH    Alteburg          78.64 319 eP      P       06 33 59.9 +0.3
LIBD   Limburg           78.69 317 eP      P       06 33 59.8 -0.2
BBS    Basel-Blauen      78.80 316 eP      P       06 34 00.4 -0.1
WLS    Welschbruch       78.85 317 eP      P       06 33 59.8 -1.0
CDF    Champ du Feu      78.90 317 eP      P       06 34 00.6 -0.5
       comp=Z,74nm,1.2s,mb5.2
RUP    Ruppelstein       78.96 319 eP      P       06 34 01.1 -0.3
ECH    Echery            78.99 317 eP      P       06 34 01.7 +0.1
MOF    Molkenrain        79.03 317 eP      P       06 34 00.3 -1.5
AUTN   L'Aution          79.09 313 eP      P       06 34 00.4 -1.8
TOUF   Mont Tournerai    79.22 313 eP      P       06 34 03.2 +0.3
MVIF   Mont Vial         79.29 313 eP      P       06 34 01.1 -2.2
LPL    La Plagne         79.47 315 eP      P       06 34 04.4 +0.2
       comp=Z,181nm,1.0s,mb5.7
MBDF   Montbardon        79.50 314 eP      P       06 34 03.7 -0.7
       comp=Z,93nm,1.2s,mb5.3
DZM    Mont Dzumac       79.53 115 eP      P       06 34 06.4 +1.4
HAU    Haudompre         79.54 317 eP      P       06 34 04.1 -0.5
       comp=Z,103nm,1.0s,mb5.4
THEF   They Montfort     79.77 317 eP      P       06 34 03.4 -2.4
SUR    Sutherland        80.47 234 eP      P       06 34 12.1 +2.2
MAW    Mawson            80.86 191  P      P       06 34 13.1 +1.9
       comp=Z,9.8nm,0.9s,mb4.7,baz=325,slow=8.7,SNR=8.5
MAW    Mawson            80.86 191  P      P       06 34 13.1 +1.9
MAW                                 pmax   pmax
       comp=Z,10.0nm,0.9s
MAW    Mawson            80.86 191 eP      P       06 34 12.5 +1.3
       comp=Z,13nm,0.6s,mb5.0
MAW                                e       pP      06 34 20.5 +0.7
VIVF   Saint-Julien-l    80.98 314 eP      P       06 34 12.4 +0.1
       comp=Z,158nm,1.1s,mb5.5
SSF    Saint Saulge      81.55 316 eP      P       06 34 15.1 -0.1
       comp=Z,128nm,1.4s,mb5.4
PLDF   La Plantade       81.59 315 eP      P       06 34 16.5 +1.0
AGO    Saint Agoulin     81.92 315 eP      P       06 34 18.1 +0.9
LBL    Lubilhac          81.94 314 eP      P       06 34 18.4 +1.1
PYM    Petit Puy Mans    82.05 315 eP      P       06 34 19.3 +1.5
EJON   La Jonquera       82.55 312  P      P       06 34 19.6 -0.9
       comp=Z,39nm,2.2s,mb5.0
CAF    Calviac           82.81 314 eP      P       06 34 21.4 -0.4
       comp=Z,46nm,1.0s,mb5.2
LDF    La Druitiere      83.77 318 eP      P       06 34 26.6  0.0
       comp=Z,73nm,0.9s,mb5.5
EPOB   Poblet            84.04 311  P      P       06 34 28.6 +0.4
       comp=Z,31nm,0.6s,mb5.6
EBIE   Bielsa            84.52 312  P      P       06 34 31.5 +0.9
       comp=Z,8.3nm,1.0s,mb4.8
EBR    Ebro Roquetas     84.56 310 eP      P       06 34 31.0 +0.2
ERTA   Horta de San J    84.66 311  P      P       06 34 31.3  0.0
       comp=Z,22nm,0.8s,mb5.3
ESAC   San Caprasio      85.13 311  P      P       06 34 35.4 +1.8
       comp=Z,32nm,0.7s,mb5.6
EMOS   Mosqueruela       85.36 310  P      P       06 34 37.9 +3.1
       comp=Z,17nm,0.7s,mb5.3
DLF    Lyons Farm        86.84 324⇑iP      P       06 34 43.1 +1.3
DCN    Croghan           87.26 324⇑iP      P       06 34 45.3 +1.5
SYO    Syowa Base        87.50 197 ⇑P      P       06 34 46.0 +1.3
SYO    Syowa Base        87.50 197 ⇑pP     pP      06 34 56.2 +2.8
GUD    Guadarrama        88.06 311  P      P       06 34 49.4 +1.4
       comp=Z,16nm,0.8s,mb5.3
ESDC   Sonseca Array     88.12 310  P      P       06 34 49.0 +0.7
       comp=Z,8.1nm,0.7s,mb5.1,baz=60,slow=4.5,SNR=23
ESDC                                pP     pP      06 34 57.8 +0.8
       comp=Z,5.7nm,0.8s,baz=62,slow=4.7,SNR=8.8
ESDC   Sonseca Array     88.12 310  P      P       06 34 48.9 +0.6
       comp=Z,6.6nm,0.6s,mb5.0
EADA   Adamuz            88.91 309  P      P       06 34 52.6 +0.5
       comp=Z,11nm,0.7s,mb5.3
RPZ    Rata Peaks        89.21 135  P      P       06 34 54.6 +1.1
       comp=Z,7.1nm,0.5s,mb5.3,baz=174,slow=9.0,SNR=3.1
IMA    Indian Mountai    89.75  22  P      P       06 34 56.9 +1.5
IMA                                 pmax   pmax
       comp=Z,52nm,0.7s,mb6.0
IMA    Indian Mountai    89.75  22 eP      P       06 34 56.5 +1.1
IMA                                e       pP      06 35 05.4 +1.3
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EMIN	**Mina Concepcio**	**90.62**	**308**	P	**P**	**06 35 00.3**	**+0.1**
	comp=Z,6.3nm,3.5s						
EBAD	**Badajoz**	**90.64**	**310**	P	**P**	**06 35 00.3**	**+0.2**
	comp=Z,12nm,0.7s,mb5.3						
URZ	**Urewera**	**92.41**	**128**	P	**P**	**06 35 10.2**	**+1.9**
	comp=Z,6.4nm,0.6s,mb5.1,baz=243,slow=4.4,SNR=4.2						
COLA	**College**	**92.46**	**22**	*e*P	**P**	**06 35 07.8**	**-0.1**
	comp=Z,7.4nm,0.9s,mb5.0						
SPU	**Mount Spurr**	**92.61**	**26**	*e*P	**P**	**06 35 09.2**	**+0.5**
RSO	**Redoubt South**	**92.63**	**27**	P	**P**	**06 35 08.8**	**0.0**
ILAR	**Eielson Array**	**92.87**	**22**	P	**P**	**06 35 09.8**	**0.0**
	comp=Z,5.4nm,0.7s,mb5.1,baz=301,slow=4.0,SNR=44						
ILAR				pP	pP	06 35 18.7	+0.2
	comp=Z,8.6nm,0.8s,baz=298,slow=4.3,SNR=16						
ILAR				PP	PP	06 38 52.9	-2.1
	comp=Z,2.7nm,0.9s,baz=283,slow=7.3,SNR=4.5						
ILAR	**Eielson Array**	**92.87**	**22**	P	**P**	**06 35 09.8**	**0.0**
ILAR				*PP	pP	06 35 18.7	+0.2
ILAR						06 38 52.9	
ILAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SLKM	**Skilak Lake**	**93.72**	**26**	P	pP	06 35 24.7	+2.2
SLKM	**Skilak Lake**	**93.72**	**26**	P	**P**	**06 35 14.9**	**+1.1**
INK	**Inuvik**	**94.85**	**16**	P	**P**	**06 35 19.7**	**+0.9**
	comp=Z,7.3nm,0.8s,mb5.2,baz=337,slow=5.0,SNR=18						
INK	**Inuvik**	**94.85**	**16**	P	**P**	**06 35 19.7**	**+0.9**
INK				pmax	pmax		
	comp=Z,7.0nm,0.8s						
DBIC	**Dimbokro**	**95.83**	**278**	P	**P**	**06 35 25.6**	**+0.9**
	comp=Z,6.5nm,0.8s,mb5.1,baz=105,slow=7.0,SNR=8.0						
DBIC	**Dimbokro**	**95.83**	**278**	P	**P**	**06 35 25.6**	**+1.0**
DBIC				pmax	pmax		
	comp=Z,7.0nm,0.9s						
DAWY	**Dawson**	**95.92**	**20**	*e*P	**P**	**06 35 24.1**	**+0.3**
YKA	**Yellowknife Ar**	**104.16**	**13**	Pdiff	Pdif	06 36 02.9	+2.1
	comp=Z,1.1nm,0.8s,baz=330,slow=4.4,SNR=5.6						
YKA				pPdiff		06 36 11.2	
	comp=Z,1.2nm,0.8s,baz=330,slow=4.1,SNR=7.6						
YKA				PKiKP		06 40 17.6	
	comp=Z,0.5nm,0.8s,baz=354,slow=2.1,SNR=9.2						
YKA				PKKPbc		06 51 48.2	
	comp=Z,0.6nm,0.8s,baz=152,slow=2.8,SNR=6.1						
YKA				PKKP	PKKP	06 51 56.8	+5.5
	comp=Z,1.0nm,0.9s,baz=159,slow=2.4,SNR=7.1						
YKA	**Yellowknife Ar**	**104.16**	**13**	P	Pdif	06 36 02.9	+2.1
YKA				*i*		06 40 17.6	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ULM	**Lac du Bonnet**	**118.96**	**6**	PKP	PKPdf	06 40 47.6	-2.0
	comp=Z,4.5nm,0.8s,baz=102,slow=1.8,SNR=6.9						
PDAR	**Pinedale Array**	**123.21**	**19**	PKP	PKPdf	06 40 55.2	-2.8
	comp=Z,8.1nm,1.1s,baz=63,slow=0.5,SNR=21						
NVAR	**Mina Array Bea**	**123.42**	**29**	PKP	PKPdf	06 40 57.6	-1.0
	comp=Z,4.9nm,0.6s,baz=297,slow=2.0,SNR=26						
SADO	**Sadowa**	**124.34**	**353**	PKP	PKPdf	06 40 58.0	-2.2
	comp=Z,5.9nm,0.8s,baz=180,slow=3.0						
MSU	**Marysvale**	**126.02**	**24**	PKIKP	PKPdf	06 41 02.9	-0.7
MSU	**Marysvale**	**126.02**	**24**	*e*PKPdf	PKPdf	06 41 02.0	-1.6
SRU	**San Rafael**	**126.13**	**22**	PKIKP	PKPdf	06 41 01.6	-2.2
NEN	**Nelson**	**127.29**	**28**	*e*PKPdf	PKPdf	06 41 04.2	-1.9
PV10	**Paradox Valley**	**127.32**	**21**	*e*PKPdf	PKPdf	06 41 03.5	-2.6
ANMO	**Albuquerque**	**131.30**	**21**	PKP	PKPdf	06 41 12.6	-1.3
	comp=Z,3.1nm,0.7s,baz=3.8,slow=1.1,SNR=14						
ANMO	**Albuquerque**	**131.30**	**21**	PKP	PKPdf	06 41 12.6	-1.3
TXAR	**Lajitas Array**	**137.38**	**21**	PKhKP		06 41 11.1	
	comp=Z,0.3nm,0.7s,baz=252,slow=2.9,SNR=3.6						
TXAR				PKP	PKPdf	06 41 23.6	-1.6
	comp=Z,1.9nm,0.6s,baz=180,slow=0.9,SNR=11						
TXAR				pPKP		06 41 30.1	
	comp=Z,2.2nm,0.6s,baz=354,slow=0.2,SNR=8.6						
TXAR	**Lajitas Array**	**137.38**	**21**	PKP	PKPdf	06 41 23.6	-1.6
TXAR				pPKP		06 41 30.1	
HKT	**Hockley**	**138.90**	**11**	*e*PKIKP	PKPdf	06 41 31.2	+3.2
BAO	**Brasilia Array**	**141.12**	**258**	PKP	PKPdf	06 41 26.2	-6.2
BDFB	**Brasilia**	**141.14**	**258**	PKhKP		06 41 24.3	
	comp=Z,1.4nm,0.8s,baz=145,slow=14,SNR=3.6						
BDFB				PKP	PKPdf	06 41 30.2	-2.3
	comp=Z,4.3nm,0.9s,baz=110,slow=5.0,SNR=4.7						
BDFB	**Brasilia**	**141.14**	**258**	PKIKP	PKPdf	06 41 24.3	-8.2
BDFB						06 41 30.2	
BDFB				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BDFB	**Brasilia**	**141.14**	**258**	PKP	PKPdf	06 41 30.2	-2.3
TEIG	**Tepich**	**149.34**	**1**	*e*PKPdf	PKPdf	06 41 42.1	-4.1
TEIG				*e*PKPbc	PKPdf	06 41 48.2	+2.0
SDV	**Santo Domingo**	**154.28**	**318**	PKP	PKPdf	06 41 51.1	-2.4
	comp=Z,2.7nm,0.9s,baz=302,slow=11,SNR=3.0						
SDV				PKPbc	PKPdf	06 41 59.1	+5.5
	comp=Z,5.8nm,1.0s,baz=262,slow=1.8,SNR=5.8						
SDV				PKPab	PKPab	06 42 12.5	-0.9
	comp=Z,23nm,0.9s,baz=270,slow=6.6,SNR=12						
LVC	**Limon Verde**	**158.49**	**234**	PKPab	PKPab	06 42 31.1	-0.1
	comp=Z,4.2nm,0.7s,baz=84,slow=5.0,SNR=6.8						
ROSC	**El Rosal**	**159.71**	**319**	PKP	PKPdf	06 41 58.8	-1.7
	comp=Z,6.6nm,1.2s,baz=84,slow=6.5,SNR=4.8						
ROSC				PKPab	PKPab	06 42 37.6	+0.8
	comp=Z,11nm,0.8s,baz=77,slow=8.4,SNR=7.2						
LPAZ	**La Paz**	**160.22**	**251**	PKP	PKPdf	06 41 59.2	-1.8
	comp=Z,1.0nm,0.8s,baz=72,slow=3.2,SNR=2.9						
LPAZ				pPKP		06 42 08.2	
	comp=Z,5.4nm,1.1s,baz=32,slow=5.8,SNR=6.0						
LPAZ				PKPab	PKPab	06 42 39.6	+0.8
	comp=Z,8.2nm,1.0s,baz=65,slow=7.6,SNR=8.7						
LPAZ	**La Paz**	**160.22**	**251**	PKIKP	PKPdf	06 41 59.2	-1.7
LPAZ						06 42 08.2	
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.1s						
LPAZ				pmax	pmax		
	comp=Z,8.0nm,1.0s						
LPAZ	**La Paz**	**160.22**	**251**	*e*PKPdf	PKPdf	06 41 58.7	-2.2
LPAZ				*e*PKPab	PKPab	06 42 39.1	+0.3

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*MOS **26** 06:22:34.6±0.8, 5.33N×93.13E, h33^{km}, mb5.3/13, Error ellipse: s-maj=27.1km s-min=12.8km az=104.0*

*IDC **26** 06:22:35.2±0.5, 5.33N×93.11E, h22^{km}±2^{km}, mb5.0/18, mb1 5.1/19, mb1mx4.9/24, Error ellipse: s-maj=19.1km s-min=10.8km az=53.0*

*NEIC **26** 06:22:35.2±0.4, 5.34N×93.07E, mb5.1/12, Error ellipse: s-maj=12.0km s-min=9.1km az=66.0*

ISC 26 06:22:33.5±0.4**, 5.35N**±0.07×**93.12E**±0.08**, h24^{km}, h24^{km}**±.7^{km}**:pP-P, n68,** σ0^{s}96/58**, mb5.2**/31**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**14.21**	**23**	P	**P**	**06 25 53.6**	**-2.0**
	1.0nm,0.6s						
CMAR	**Chiang Mai Arr**	**14.21**	**23**	Pn	**P**	**06 25 56.0**	**+0.4**
	baz=224,slow=15,SNR=2.1						
QIZ	**Qiongzhong**	**21.23**	**49**	*e*P	**P**	**06 27 19.3**	**-0.8**
	73nm,0.8s,mb5.1						
LSA	**Lhasa**	**24.29**	**356**	*e*P	**P**	**06 27 54.2**	**+3.9**
	70nm,0.7s,mb5.2						
JOW	**Kunigami**	**39.73**	**54**	P	**P**	**06 30 07.7**	**+1.6**
	16nm,0.8s,mb4.8,baz=218,slow=7.7,SNR=1.5						
JOW				pP	pP	06 30 13.6	+0.2
	18nm,0.6s,baz=248,slow=9.9,SNR=2.6						
AAK	**Ala-Archa**	**40.64**	**339**	*e*P	**P**	**06 30 12.7**	**-0.7**
	20nm,0.7s,mb4.9						
SONM	**Songino Array**	**43.83**	**13**	P	**P**	**06 30 39.6**	**+0.2**
	15nm,1.0s,mb4.7,baz=191,slow=9.0,SNR=2.3						
SONM				pP	pP	06 30 46.5	-0.2
	36nm,0.8s,baz=197,slow=8.2,SNR=6.7						
SONM				PcP	PcP	06 32 26.1	-0.1
	6.8nm,0.6s,baz=200,slow=3.8,SNR=6.1						
SONM				pPcP		06 32 33.6	
	8.1nm,0.6s,baz=198,slow=3.8,SNR=5.6						
NWAO	**Narrogin (SRO)**	**44.42**	**151**	P	**P**	**06 30 42.9**	**-1.5**
	49nm,1.0s,mb5.2,baz=274,slow=6.5,SNR=11						
NWAO	**Narrogin (SRO)**	**44.42**	**151**	P	**P**	**06 30 42.9**	**-1.5**
NWAO				pmax	pmax		
	comp=Z,49nm,1.0s						
NWAO	**Narrogin (SRO)**	**44.42**	**151**	P	**P**	**06 30 42.9**	**-1.5**
ZAK	**Zakamensk**	**45.68**	**9**	*e*P	**P**	**06 30 54.5**	**+0.3**
TLY	**Talaya**	**47.00**	**9**	P	**P**	**06 31 13.2**	**+8.6**
	comp=Z,15nm,0.8s,mb5.0						
WRA	**Warramunga Arr**	**47.69**	**123**	P	**P**	**06 31 09.6**	**-0.8**
	comp=Z,60nm,0.7s,mb5.7,baz=305,slow=8.7,SNR=13						
WRA				pP	pP	06 31 16.9	-0.9
	comp=Z,91nm,0.9s,baz=303,slow=9.0,SNR=8.3						
WRA	**Warramunga Arr**	**47.69**	**123**	P	**P**	**06 31 09.6**	**-0.9**
WRA				*PP	pP	06 31 16.9	-0.9
WRA				pmax	pmax		
	comp=Z,60nm,0.7s						
WRA				pmax	pmax		
	comp=Z,91nm,0.9s						
WRA	**Warramunga Arr**	**47.69**	**123**	P	**P**	**06 31 09.7**	**-0.8**
WRA				pP	pP	06 31 16.9	-0.9
ZAL	**Zalesovo**	**48.91**	**353**	P	**P**	**06 31 20.2**	**+0.8**
	comp=Z,16nm,0.5s,mb5.3,baz=309,slow=5.2,SNR=13						
ZAL				pP	pP	06 31 27.2	+0.3
	comp=Z,22nm,0.6s,baz=303,slow=5.2,SNR=5.4						
ZAL	**Zalesovo**	**48.91**	**353**	P	**P**	**06 31 20.3**	**+0.8**
ZAL				*PP	pP	06 31 27.2	+0.4
ZAL				pmax	pmax		
	comp=Z,16nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,22nm,0.6s						
ASAR	**Alice Springs**	**49.13**	**128**	P	**P**	**06 31 22.0**	**+0.4**
	comp=Z,76nm,0.7s,mb5.8,baz=305,slow=7.2,SNR=16						
ASAR	**Alice Springs**	**49.13**	**128**	P	**P**	**06 31 22.0**	**+0.4**
NVS	**Novosibirsk**	**49.99**	**353**	*i* P	**P**	**06 31 27.1**	**-0.6**
NVS				pmax	pmax		
	comp=Z,57nm,0.9s,mb5.6						
NVS				pmax	pmax		
	comp=E,11nm,0.6s						
NVS				pmax	pmax		
	comp=N,35nm,0.9s						
BVAR	**Borovoye Array**	**51.06**	**343**	P	**P**	**06 31 36.0**	**+0.2**
	comp=N,16nm,0.8s,mb5.0,baz=149,slow=8.6,SNR=4.4						
BVAR				pP	pP	06 31 43.3	0.0
	comp=N,23nm,0.7s,baz=143,slow=7.4,SNR=5.8						
BRVK	**Borovoye**	**51.12**	**342**	*e*P	**P**	**06 31 36.5**	**+0.2**
	comp=N,25nm,0.7s,mb5.3						
BRVK				*e*	pP	06 31 43.9	+0.2
CHKZ	**Chkalovo**	**51.56**	**343**	*e*P	**P**	**06 31 39.2**	**-0.4**
	comp=N,68nm,0.7s,mb5.7						
CHKZ				*e*	pP	06 31 46.8	-0.3
MAJO	**Matsushiro**	**51.61**	**47**	P	**P**	**06 31 41.5**	**+1.2**
	comp=N,16nm,0.7s,mb5.1						
CTA	**Charters Tower**	**58.00**	**118**	P	**P**	**06 32 26.9**	**-0.2**
	comp=N,14nm,0.9s,mb5.0,baz=325,slow=6.7,SNR=5.4						
CTA	**Charters Tower**	**58.00**	**118**	P	**P**	**06 32 26.9**	**-0.2**
CTA				pmax	pmax		
	comp=Z,14nm,0.9s						
KIV	**Kislovodsk**	**58.53**	**319**	P	**P**	**06 32 27.3**	**-3.1**
	comp=Z,43nm,1.0s,mb5.4						
STKA	**Stephens Creek**	**59.14**	**132**	P	**P**	**06 32 34.9**	**0.0**
	comp=Z,50nm,0.7s,mb5.6,baz=302,slow=8.8,SNR=14						
STKA				PcP	PcP	06 33 21.6	-1.5
	comp=Z,32nm,0.8s,baz=226,slow=1.2,SNR=3.4						
STKA	**Stephens Creek**	**59.14**	**132**	P	**P**	**06 32 34.9**	**0.0**
STKA				PcP	PcP	06 33 21.6	-1.5
MALT	**Malatya**	**59.34**	**312**	*e*P	**P**	**06 32 33.4**	**-2.8**
	comp=Z,14nm,1.0s,mb4.9						
BRTR	**Keskin Array B**	**63.33**	**312**	P	**P**	**06 33 02.3**	**-0.7**
	comp=Z,8.6nm,0.7s,mb5.0,baz=122,slow=7.1,SNR=5.4						
BRTR				sP	sP	06 33 12.9	-0.4
	comp=Z,7.1nm,0.8s,baz=123,slow=7.1,SNR=2.6						
BRTR	**Keskin Array B**	**63.33**	**312**	P	**P**	**06 33 02.3**	**-0.7**
BRTR				*SP	sP	06 33 12.9	-0.4
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.7s						
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
SIM	**Simferopol’**	**64.58**	**318***d*	*i*P	**P**	**06 32 58.0**	**-13**
SIM				pmax	pmax		
	comp=Z,51nm,0.7s,mb5.7						
IDI	**Anoyia**	**69.18**	**306**	P	**P**	**06 33 41.2**	**+0.7**
	comp=Z,27nm,0.8s,mb5.2,baz=96,slow=5.5,SNR=8.2						
AKASG	**Malin Array Be**	**69.51**	**322**	P	**P**	**06 33 40.8**	**-1.4**
	comp=Z,5.8nm,0.6s,mb4.7,baz=81,slow=4.8,SNR=7.1						
AKASG				pP	pP	06 33 49.2	-0.6
	comp=Z,9.0nm,0.9s,baz=86,slow=4.6,SNR=1.8						
AKASG	**Malin Array Be**	**69.51**	**322**	P	**P**	**06 33 40.8**	**-1.4**
AKASG				*PP	pP	06 33 49.2	-0.5
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.9s						
KOLS	**Kolonicke sedl**	**73.44**	**319**	*e*P	**P**	**06 34 07.0**	**+1.3**
KOLS				*e*pP	pP	06 34 15.6	+2.2
FINES	**FINESS Array B**	**74.46**	**333**	P	**P**	**06 34 11.2**	**-0.3**
	comp=Z,20nm,0.8s,mb5.1,baz=109,slow=5.8,SNR=12						
FINES				pP	pP	06 34 18.5	-0.5
	comp=Z,18nm,0.9s,baz=108,slow=5.1,SNR=2.9						
FINES	**FINESS Array B**	**74.46**	**333**	P	**P**	**06 34 11.2**	**-0.2**
FINES				*PP	pP	06 34 18.5	-0.6
FINES				pmax	pmax		
	comp=Z,20nm,0.8s						
FINES				pmax	pmax		
	comp=Z,18nm,0.9s						
KAF	**Kangasniemi**	**74.57**	**333**	*e*p	**P**	**06 34 11.8**	**-0.2**
	comp=Z,12nm,0.7s,mb4.9						
KAF	**Kangasniemi**	**74.57**	**333**	*e*P	**P**	**06 34 11.8**	**-0.2**
KAF				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
OJC	**Ojcow**	**75.25**	**320**	*e*P	**P**	**06 34 15.5**	**-0.7**
VYHS	**Vyhne**	**75.61**	**319**	*e*pP	pP	06 34 26.3	+0.4
VYHS				*e*		06 34 33.1	
MAW	**Mawson**	**75.87**	**191**	P	**P**	**06 34 20.4**	**+1.0**
	comp=Z,16nm,0.8s,mb5.0,baz=4.9,slow=4.8,SNR=19						
MAW	**Mawson**	**75.87**	**191**	P	**P**	**06 34 20.4**	**+1.0**
MAW				pmax	pmax		
	comp=Z,16nm,0.8s						
MAW	**Mawson**	**75.87**	**191**	P	**P**	**06 34 20.4**	**+1.0**
ZST	**Bratislava**	**76.72**	**318**	*e*P	**P**	**06 34 25.4**	**+0.9**
ZST				*e*pP	pP	06 34 33.9	+1.7
KEV	**Kevo**	**76.87**	**341**	*e*p	**P**	**06 34 25.3**	**+0.4**
	comp=Z,9.2nm,0.5s,mb5.0						
KEV	**Kevo**	**76.87**	**341**	*e*P	**P**	**06 34 25.3**	**+0.4**
KEV				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.0						
ARCES	**ARCESS Array B**	**77.29**	**341**	P	**P**	**06 34 27.7**	**+0.4**
	comp=Z,80nm,1.2s,mb5.5,baz=100,slow=6.4,SNR=16						
ARCES				pP	pP	06 34 35.3	+0.4
	comp=Z,14nm,0.8s,baz=76,slow=5.0,SNR=3.3						
ARCES	**ARCESS Array B**	**77.29**	**341**	P	**P**	**06 34 27.7**	**+0.4**
ARCES				*PP	pP	06 34 35.3	+0.4
ARCES				pmax	pmax		
	comp=Z,80nm,1.2s						
ARCES				pmax	pmax		
	comp=Z,14nm,0.8s						
GERES	**GERESS Array B**	**79.03**	**319**	P	**P**	**06 34 38.4**	**+1.2**
	comp=Z,13nm,0.7s,mb5.0,baz=90,slow=5.3,SNR=5.9						
GERES				sP	sP	06 34 47.6	0.0
	comp=Z,14nm,0.8s,baz=90,slow=4.0,SNR=3.2						
GERES	**GERESS Array B**	**79.03**	**319**	P	**P**	**06 34 38.4**	**+1.2**
GERES				*SP	sP	06 34 47.6	+0.1
GERES				pmax	pmax		
	comp=Z,13nm,0.7s						
GERES				pmax	pmax		
	comp=Z,14nm,0.9s						
CLL	**Collm**	**79.67**	**321**	P	**P**	**06 34 41.0**	**+0.4**
HFS	**Hagfors**	**80.12**	**330**	P	**P**	**06 34 43.5**	**+0.7**
	comp=Z,5.5nm,0.5s,mb4.8,baz=104,slow=6.1,SNR=8.9						
HFS	**Hagfors**	**80.12**	**330**	P	**P**	**06 34 43.5**	**+0.7**
HFS				pmax	pmax		
	comp=Z,6.0nm,0.5s						
NB2	**NORSAR Subarra**	**81.42**	**331**	P	**P**	**06 34 50.1**	**+0.4**
	comp=Z,4.6nm,0.7s,mb4.5,baz=98,slow=5.0						
NOA	**NORSAR Array B**	**81.42**	**331**	P	**P**	**06 34 50.0**	**+0.3**
	comp=Z,6.7nm,0.8s,mb4.6,baz=94,slow=5.5,SNR=4.0						
NOA	**NORSAR Array B**	**81.42**	**331**	P	**P**	**06 34 50.1**	**+0.4**
NOA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
YKA	**Yellowknife Ar**	**109.10**	**13**	PKKPbc		06 52 11.3	
	comp=Z,0.3nm,0.7s,baz=143,slow=3.5,SNR=4.7						
YKA				PKKP	PKKP	06 52 17.0	-1.2
	comp=Z,1.7nm,1.0s,baz=142,slow=3.4,SNR=6.6						
ULM	**Lac du Bonnet**	**124.08**	**7**	PKP	PKPdf	06 41 31.8	-3.0
	comp=Z,3.9nm,0.7s,baz=343,slow=1.1,SNR=4.7						
PDAR	**Pinedale Array**	**127.87**	**21**	PKP	PKPdf	06 41 39.5	-2.8
	comp=Z,4.6nm,0.9s,baz=355,slow=1.5,SNR=5.1						
PDAR	**Pinedale Array**	**127.87**	**21**	PKP	PKPdf	06 41 39.5	-2.8
TXAR	**Lajitas Array**	**141.93**	**24**	PKP	PKPdf	06 42 07.6	-1.1
	comp=Z,1.8nm,0.6s,baz=44,slow=1.8,SNR=4.5						
TXAR	**Lajitas Array**	**141.93**	**24**	PKP	PKPdf	06 42 07.6	-1.1
LVC	**Limon Verde**	**155.59**	**224**	PKPab	PKPab	06 42 55.0	+0.7
	comp=Z,7.2nm,0.7s,baz=132,slow=2.7,SNR=5.2						
LPAZ	**La Paz**	**158.64**	**238**	PKPab	PKPab	06 43 08.9	+1.3
	comp=Z,5.9nm,0.9s,baz=52,slow=5.9,SNR=3.5						
LPAZ	**La Paz**	**158.64**	**238**	PKP2	PKPab	06 43 08.9	+1.4
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.9s						

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*IDC **26** 06:26:42.8±0.9, 8.33N×92.04E, h17^{km}±4^{km}, mb4.1/9, mb1 4.3/10, mb1mx4.1/19, ML4.1/1, Error ellipse: s-maj=36.3km s-min=19.6km az=49.0*

ISC 26 06:26:41.1±0.8**, 8.4N**±0.1×**92.1E**±0.2**, h18^{km}, h18^{km}**±.7^{km}**:pP-P, n15,** σ0^{s}74/11**, mb4.2**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.01**	**33**	Pn	**P**	**06 29 34.0**	**-0.5**
	0.4nm,0.3s,baz=233,slow=14,SNR=4.1						
SONM	**Songino Array**	**41.15**	**15**	P	**P**	**06 34 25.7**	**-0.1**
	1.7nm,0.7s,mb3.8,baz=199,slow=6.1,SNR=3.3						
ZAL	**Zalesovo**	**45.82**	**354**	P	**P**	**06 35 04.0**	**+0.4**
	1.9nm,0.4s,mb4.4,baz=313,slow=12,SNR=3.8						
ZAL				pP	pP	06 35 09.4	+0.3
	5.3nm,0.8s,baz=282,slow=8.9,SNR=4.8						
WRA	**Warramunga Arr**	**50.17**	**125**	P	**P**	**06 35 37.3**	**-0.7**
	2.4nm,0.3s,mb4.7,baz=300,slow=10.0,SNR=14						
ASAR	**Alice Springs**	**51.76**	**129**	P	**P**	**06 35 50.4**	**+0.3**
	1.8nm,0.4s,mb4.3,baz=307,slow=7.6,SNR=7.9						
BRTR	**Keskin Array B**	**60.60**	**311**	P	**P**	**06 36 52.1**	**-1.1**
	0.5nm,0.6s,mb3.9,baz=108,slow=4.6,SNR=2.6						
BRTR				pP	pP	06 36 57.3	-1.6
	3.6nm,0.9s,baz=118,slow=7.7,SNR=7.0						
FINES	**FINESS Array B**	**71.35**	**332**	P	**P**	**06 38 00.9**	**-0.7**
	1.8nm,0.8s,mb4.1,baz=127,slow=10.0,SNR=2.0						
FINES				pP	pP	06 38 07.1	-0.2
	4.5nm,0.8s,baz=104,slow=12,SNR=3.0						
GERES	**GERESS Array B**	**76.13**	**318**	P	**P**	**06 38 29.8**	**+0.1**
	1.4nm,0.9s,mb3.9,baz=76,slow=4.0,SNR=3.9						
GERES				pP	pP	06 38 36.1	+0.7
	4.1nm,0.8s,baz=103,slow=4.9,SNR=8.9						
CLL	**Collm**	**76.72**	**321**	P	sP	06 38 40.0	-0.7
NOA	**NORSAR Array B**	**78.32**	**331**	P	**P**	**06 38 42.4**	**+0.8**
	0.6nm,0.8s,mb3.6,baz=84,slow=6.1,SNR=2.4						
LPL	**La Plagne**	**80.87**	**315**	*e*P	**P**	**06 39 02.3**	**+6.7**
	41nm,1.1s,mb5.0						
INK	**Inuvik**	**97.06**	**16**	P	**P**	**06 40 14.3**	**+1.5**
	4.9nm,1.3s,mb4.8,baz=331,slow=1.8,SNR=3.4						
INK				pP	pP	06 40 19.9	+1.2
	4.2nm,0.9s,baz=315,slow=5.7,SNR=4.1						
PDAR	**Pinedale Array**	**125.39**	**20**	PKP	PKPdf	06 45 44.0	-1.4
	0.8nm,1.0s,baz=90,slow=0.9,SNR=3.6						
NVAR	**Mina Array Bea**	**125.48**	**29**	PKP	PKPdf	06 45 45.2	-0.5
	0.3nm,0.6s,baz=278,slow=6.4,SNR=2.7						
TXAR	**Lajitas Array**	**139.54**	**21**	PKP	PKPdf	06 46 11.6	-0.7
	0.4nm,0.6s,baz=117,slow=0.3,SNR=2.8						

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*IDC **26** 06:28:05.8±0.7, 2.77N×95.36E, mb4.6/15, mb1 4.8/16, mb1mx4.6/21, ML4.9/1, Error ellipse: s-maj=25.8km s-min=14.1km az=41.0*

ISC 26 06:28:08.9±0.5**, 2.8N**±0.1×**95.41E**±0.09**, h33^{km}, n28,** σ1^{s}18/25**, mb4.5**/18**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.94**	**12**	Pn	**P**	**06 31 51.3**	**-1.1**
	1.8nm,0.3s,baz=204,slow=10,SNR=13						
JOW	**Kunigami**	**39.51**	**50**	P	**P**	**06 35 38.1**	**-0.3**
	0.7nm,0.3s,mb3.8,baz=270,slow=17,SNR=3.5						
WRA	**Warramunga Arr**	**44.40**	**122**	P	**P**	**06 36 18.2**	**-0.4**
	17nm,0.8s,mb4.8,baz=302,slow=9.1,SNR=11						
ASAR	**Alice Springs**	**45.78**	**127**	P	**P**	**06 36 29.8**	**+0.1**
	3.2nm,0.7s,mb4.4,baz=302,slow=8.5,SNR=4.1						
SONM	**Songino Array**	**45.85**	**10**	P	**P**	**06 36 30.2**	**+0.4**
	27nm,1.0s,mb5.1,baz=191,slow=8.6,SNR=22						
SONM				PcP	PcP	06 38 07.7	+0.5
	7.4nm,0.8s,baz=180,slow=4.4,SNR=4.4						
JHJ	**Hachijo jima 2**	**51.27**	**49**	P	**P**	**06 37 13.2**	**+1.2**
	231nm,0.7s,baz=235,slow=9.1,SNR=4.1						
ZAL	**Zalesovo**	**51.71**	**352**	P	**P**	**06 37 15.3**	**+0.4**
	16nm,0.5s,mb5.2,baz=306,slow=5.4,SNR=35						
PMG	**Port Moresby**	**52.97**	**104**	P	**P**	**06 37 24.3**	**-0.6**
	30nm,0.9s,mb5.2,baz=269,slow=6.1,SNR=8.0						
BVAR	**Borovoye Array**	**54.16**	**342**	P	**P**	**06 37 33.4**	**+0.2**
	8.7nm,0.7s,mb4.8,baz=149,slow=8.4,SNR=3.8						
CTA	**Charters Tower**	**54.82**	**117**	P	**P**	**06 37 38.3**	**-0.1**
	17nm,0.9s,mb5.1,baz=294,slow=8.8,SNR=8.2						
STKA	**Stephens Creek**	**55.75**	**132**	P	**P**	**06 37 44.8**	**-0.3**
	5.4nm,0.9s,mb4.6,baz=268,slow=8.9,SNR=3.9						
KMBO	**Kilima Mbogo**	**58.27**	**267**	P	**P**	**06 38 04.6**	**+1.4**
	1.4nm,0.6s,mb4.2,baz=56,slow=9.0,SNR=3.6						
ELZG	**Elazig**	**62.38**	**312**	*i* P	**P**	**06 38 28.9**	**-2.0**
GZT	**Gaziantep**	**63.07**	**311**	*i* P	**P**	**06 38 34.2**	**-1.3**
EIL	**Elat**	**63.09**	**302**	P	**P**	**06 38 33.4**	**-2.4**
	2.5nm,0.5s,mb4.6,baz=119,slow=10,SNR=2.0						
KAHT	**Ahir Dag**	**63.67**	**311**	*i* P	**P**	**06 38 38.3**	**-1.3**
BRTR	**Keskin Array B**	**66.72**	**312**	P	**P**	**06 38 57.4**	**-1.7**
	2.0nm,0.9s,mb4.2,baz=124,slow=6.5,SNR=4.6						
BALT	**Daday**	**67.43**	**314**	*i* P	**P**	**06 39 04.6**	**+1.2**
ULDT	**Uludag**	**70.17**	**312**	*i* P	**P**	**06 39 23.2**	**+2.8**
AKASG	**Malin Array Be**	**72.90**	**323**	P	**P**	**06 39 35.8**	**-0.9**
	1.0nm,0.5s,mb4.0,baz=85,slow=4.5,SNR=6.6						
FINES	**FINESS Array B**	**77.76**	**333**	P	**P**	**06 40 05.3**	**+1.1**
	2.7nm,0.5s,mb4.4,baz=107,slow=5.3,SNR=3.2						
KAF	**Kangasniemi**	**77.85**	**333**	*e*p	**P**	**06 40 05.9**	**+1.2**
	12nm,1.0s,mb4.8						
ARCES	**ARCESS Array B**	**80.43**	**340**	P	**P**	**06 40 20.4**	**+1.8**
	3.3nm,0.7s,mb4.4,baz=93,slow=4.6,SNR=11						
GERES	**GERESS Array B**	**82.44**	**319**	P	**P**	**06 40 30.8**	**+1.5**
	1.6nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=6.6						
NOA	**NORSAR Array B**	**84.74**	**331**	P	**P**	**06 40 40.4**	**-0.4**
	0.8nm,0.9s,mb3.9,baz=92,slow=8.3,SNR=3.3						
NVAR	**Mina Array Bea**	**128.50**	**34**	PKP	PKPdf	06 47 16.2	+3.1
	0.9nm,0.8s,baz=270,slow=1.8,SNR=5.2						
PDAR	**Pinedale Array**	**129.34**	**24**	PKP	PKPdf	06 47 17.2	+2.6
	0.4nm,1.0s,baz=90,slow=0.9,SNR=3.7						
TXAR	**Lajitas Array**	**143.18**	**28**	PKP	PKPdf	06 47 40.1	-0.2
	1.7nm,0.9s,baz=174,slow=1.1,SNR=7.9						

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*NEIC **26** 06:28:09.4, 31.29S×68.94W, h161^{km}, MD3.9(GUC), After GUC.*

*BJI **26** 06:28:09.4, 31.30S×68.90W, h161^{km}*

GUC 26 06:28:09.4±0.9**, 31.29S**×**68.94W, h161^{km}**±20^{km}**, MD3.9, ML3.8, 10C-6D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	**Mendoza**	**1.59**	**177**	⇑*i*P	P	06 28 37.9	-3.1
MDZ				S	S	06 28 58.9	-6.6
CMCH	**Combarbala**	**1.77**	**273**	⇓*i*P	P	06 28 43.6	+0.6
CMCH				*i* S	S	06 29 09.1	+0.2
CMCH				AMP		06 29 10.7	
	comp=N,4μm,0.4s						
ILCH	**Illapel**	**1.94**	**259**	⇓*i*P	P	06 28 45.1	+0.3
ILCH				*i* S	S	06 29 11.7	-0.5
ILCH				AMP		06 29 16.1	
	comp=E,618nm,0.2s						
PTCH	**Petorca**	**1.95**	**240**	⇑*i*P	P	06 28 44.9	-0.1
PTCH				*i* S	S	06 29 12.2	-0.3
TLL	**Tololo Astrono**	**1.96**	**304**	⇑*i*P	P	06 28 45.8	+0.7
TLL				*i* S	S	06 29 13.2	+0.6
TLL				AMP		06 29 19.0	
	comp=N,708nm,0.6s						
JACH	**Jahuel**	**1.98**	**225**	⇑*i*P	P	06 28 45.7	+0.5
JACH				*i* S	S	06 29 13.1	+0.2
FCH	**Farellones**	**2.33**	**209**	*e*P	P	06 28 49.8	+0.3
FCH				*i* S	S	06 29 21.0	+0.7
FCH				AMP		06 29 31.2	
	comp=E,178nm,0.2s						
LSCH	**La Serena**	**2.42**	**304**	⇓*i*P		06 30 02.5	
LSCH				*i* S		06 30 33.1	
LSCH				AMP		06 30 34.7	
	comp=N,442nm,0.2s						
ROCH	**El Roble**	**2.43**	**226**	⇑*i*P	P	06 28 51.1	+0.4
PACH	**Papudo**	**2.46**	**239**	*e*P	P	06 28 51.4	+0.2
CLCH	**Cerro Calan**	**2.50**	**212**	⇑*i*P	P	06 28 51.9	+0.3
CLCH				*i* S	S	06 29 24.0	+0.1

CLCH				AMP		06 29 30.7	
	comp=E,360nm,0.6s						
DSCH	Colegio Aleman	2.51	213	⇓iP	P	06 28 52.0	+0.3
DSCH				iS	S	06 29 24.3	0.0
DSCH				AMP		06 29 26.0	
	comp=N,334nm,0.5s						
FSR	Penalolen	2.56	211	⇑iP	P	06 28 52.9	+0.5
FSR				iS	S	06 29 25.3	0.0
FSR				AMP		06 29 31.8	
	comp=N,207nm,0.3s						
PCH	Pirque	2.68	209	⇑iP	P	06 28 54.2	+0.4
ANTU	Antumapu	2.69	212	⇓iP	P	06 28 53.9	0.0
ANTU				iS	S	06 29 27.9	-0.1
ANTU				AMP		06 29 33.8	
	comp=N,188nm,0.5s						
RCDM	Rinconada Maip	2.70	215	⇑iP	P	06 28 53.8	-0.3
RCDM				iS	S	06 29 28.2	-0.1
RCDM				AMP		06 29 30.7	
	comp=E,218nm,0.3s						
CHCH	Chadas Angostu	3.00	208	⇓iP	P	06 28 57.5	-0.4
CACH	El Canelo	3.15	206	⇑iP	P	06 28 59.9	+0.2

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*ORF **26** 06:28:37.7,2.84N×95.59E,h30km,mb5.6*
*IDC **26** 06:28:43.6±0.4,4.91N×94.76E,mb5.1/29,mb1 5.1/30, mb1mx5.1/32,ML4.7/1,Error ellipse: s-maj=17.3km s-min=11.0km az=37.0*
*MOS **26** 06:28:47.3±0.8,5.04N×94.88E,h33km,mb5.4/28,Error ellipse: s-maj=13.0km s-min=7.7km az=121.4*
*BJI **26** 06:28:47.6,4.82N×94.32E,h55km,mb5.7*
*NEIC **26** 06:28:48.4±0.2,4.96N×94.80E,h30km,mb5.4/44,Error ellipse: s-maj=6.2km s-min=4.3km az=216.0*

ISC 26 06:28:47.2±0.3,**4.99N**±0.05×**94.81E**±0.04,**h33km**, **(h56km**±4.4km**:pP-P),n188,σ0^{s}81**/172,**mb5.3**/76,**16C-5D,**
Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.98	16	eP	P	06 32 14.7	+9.3
CMAR	Chiang Mai Arr	13.98	16	Pn	P	06 32 03.9	-1.4
	1.3nm,0.3s,baz=218,slow=12,SNR=7.0						
CMAR	Chiang Mai Arr	13.98	16	P	P	06 32 03.9	-1.5
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	13.98	16	Pn	P	06 32 03.9	-1.4
COCO	West Island	17.18	173	P	P	06 32 49.5	+3.0
	comp=Z,263nm,1.1s						
QIZ	Qiongzhong	20.24	45	eP	P	06 33 22.8	+0.2
	comp=Z,83nm,1.0s						
SRDI	Scrawed	23.46	125	⇓iP	P	06 33 57.2	+2.3
	comp=Z,80nm,1.0s,mb5.1						
KELI	Kelakatan	23.61	124	eP	P	06 34 01.7	+5.4
	comp=Z,130nm,1.0s,mb5.3						
RATI	Rata	24.74	123	eP	P	06 34 06.3	-1.1
	comp=Z,264nm,0.8s,mb5.8						
LSA	Lhasa	24.82	352	eP	P	06 34 09.6	+1.5
	comp=Z,62nm,0.5s,mb5.4						
KEDI	Kedomdong	25.11	122	eP	P	06 34 11.3	+0.4
	comp=Z,86nm,0.8s,mb5.3						
TGY	Tagaytay City	27.28	69	P	P	06 34 32.0	+1.0
	comp=Z,373nm,0.7s,mb6.1,baz=238,slow=5.3,SNR=6.5						
TGY	Tagaytay City	27.28	69	P	P	06 34 32.0	+1.0
TGY				pmax	pmax		
	comp=Z,373nm,0.7s						
ENH	Enshi	28.71	27	eP	P	06 34 43.0	-0.7
	comp=Z,58nm,0.6s,mb5.5						
WHN	Wuhan	31.39	34	P	P	06 35 08.5	+1.0
NJ2	Nanjing	35.09	37	eP	P	06 35 40.3	+0.7
NJ2				AMB	AMB		
	comp=Z,220nm,0.8s,mb6.1						
JOW	Kunigami	38.61	52	P	P	06 36 10.2	+1.0
	comp=Z,53nm,0.5s,mb5.5,baz=250,slow=6.0						
BJT	Baijiatuau	39.84	26	P	P	06 36 18.1	-1.2
	comp=Z,130nm,0.9s,mb5.7						
DL2	Dalian	41.60	32	P	P	06 36 35.0	+1.1
DL2				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.3						
NWAO	Narrogin (SRO)	43.29	152	P	P	06 36 47.1	-0.7
	comp=Z,13nm,0.8s,mb4.7,baz=260,slow=4.3,SNR=3.1						
NWAO	Narrogin (SRO)	43.29	152	P	P	06 36 47.1	-0.7
NWAO				pmax	pmax		
	comp=Z,13nm,0.8s						
INCN	Inchon	43.47	38	eP	P	06 36 49.1	-0.1
	comp=Z,94nm,0.9s,mb5.5						
SONM	Songino Array	43.83	11	P	P	06 36 52.4	+0.4
	comp=Z,38nm,0.7s,mb5.2,baz=191,slow=8.3,SNR=5.0						
SONM				PcP	PcP	06 38 38.3	-0.2
	comp=Z,17nm,0.8s,baz=195,slow=4.2,SNR=7.0						
ULN	Ulaanbaatar	43.99	12	eP	P	06 36 53.2	0.0
	comp=Z,32nm,0.7s,mb5.2						
KS15	Wonju Array Si	44.21	39	eP	P	06 36 55.6	+0.4
ZAK	Zakamensk	45.80	8	eP	P	06 37 05.3	-2.4
WRA	Warramunga Arr	46.08	124	P	P	06 37 10.3	0.0
	comp=Z,86nm,0.7s,mb5.8,baz=302,slow=9.2,SNR=27						
WRA	Warramunga Arr	46.08	124	P	P	06 37 10.3	0.0
WRA				pmax	pmax		
	comp=Z,86nm,0.7s						
WRAB	Tennant Creek	46.08	124	eP	P	06 37 10.4	0.0
	comp=Z,175nm,0.7s,mb6.1						
TLY	Talaya	47.12	7	eP	P	06 37 17.4	-0.6
	comp=Z,31nm,0.7s,mb5.3						
ASAR	Alice Springs	47.58	128	P	P	06 37 21.2	-0.9
	comp=Z,32nm,0.6s,mb5.5,baz=299,slow=7.8,SNR=35						
ASAR				PcP	PcP	06 38 51.5	-0.4
	comp=Z,7.4nm,0.7s,baz=303,slow=3.4,SNR=4.2						
HIA	Hailar	48.92	21	eP	P	06 37 32.2	+0.1
	comp=Z,18nm,0.6s,mb5.3						
ZAL	Zalesovo	49.48	352	P	P	06 37 36.7	+0.3
	comp=Z,41nm,0.9s,mb5.5,baz=300,slow=5.2,SNR=22						
ZAL	Zalesovo	49.48	352	P	P	06 37 36.7	+0.4
ZAL				pmax	pmax		
	comp=Z,41nm,0.9s						
ZAL	Zalesovo	49.48	352	P	P	06 37 36.7	+0.3
MDJ	Mudanjiang	49.85	32	eP	P	06 37 40.1	+0.8
	comp=Z,99nm,1.2s,mb5.7						
CBIJ	Chichi jima	50.16	59	P	P	06 37 41.6	-0.4
	comp=Z,63nm,0.7s,mb5.8,baz=260,slow=19,SNR=3.4						
NVS	Novosibirsk	50.58	351	iP	pP	06 37 56.9	+2.2
NVS				eS	S	06 44 48.3	-7.3
MAJO	Matsushiro	50.64	46	eP	P	06 37 46.5	+1.0
	comp=Z,25nm,0.8s,mb5.2						
MAT	Matsushiro	50.64	46	P	P	06 37 45.2	-0.3
MAT	Matsushiro	50.64	46	eP	P	06 37 45.0	-0.5
BVAR	Borovoye Array	51.92	342	P	P	06 37 55.0	+0.1
	comp=Z,43nm,0.8s,mb5.4,baz=143,slow=7.4,SNR=11						
BRVK	Borovoye	51.98	341	eP	P	06 37 54.3	-1.0
	comp=Z,59nm,0.9s,mb5.5						
CHKZ	Chkalovo	52.41	342	eP	P	06 37 58.4	-0.1
	comp=Z,178nm,0.8s,mb6.0						
PMG	Port Moresby	54.09	105	P	P	06 38 10.8	-0.8
	comp=Z,20nm,0.8s,mb5.1,baz=262,slow=4.5,SNR=3.7						
PMG	Port Moresby	54.09	105	P	P	06 38 10.8	-0.7
PMG				pmax	pmax		
	comp=Z,20nm,0.8s						
BOD	Bodaibo	54.80	12	eP	P	06 38 10.6	-5.5
CTA	Charters Tower	56.34	118	P	P	06 38 27.2	-0.6
	comp=Z,14nm,0.8s,mb5.1,baz=276,slow=9.0,SNR=7.6						
CTA	Charters Tower	56.34	118	P	P	06 38 27.2	-0.6
CTA				pmax	pmax		
	comp=Z,14nm,0.8s						
CTAO	Charters Tower	56.34	118	eP	P	06 38 27.0	-0.8
	comp=Z,21nm,0.8s,mb5.2						
GNI	Garni	56.93	315	P	P	06 38 32.4	+0.7
	comp=Z,6.3nm,0.6s,mb4.8,baz=113,slow=19,SNR=5.0						
GNI	Garni	56.93	315	P	P	06 38 32.4	+0.6
GNI				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ASAJ	Asahikawa	57.18	39	P	P	06 38 33.9	+0.4
	comp=Z,20nm,0.9s,mb5.2,baz=256,slow=13,SNR=8.4						
ASAJ	Asahikawa	57.18	39	P	P	06 38 33.9	+0.5
ASAJ				pmax	pmax		
	comp=Z,21nm,0.9s						
STKA	Stephens Creek	57.65	133	P	P	06 38 35.4	-1.6
	comp=Z,14nm,0.8s,mb5.1,baz=314,slow=7.7,SNR=4.6						
KMBO	Kilima Mbogo	57.82	266	P	P	06 38 38.9	+0.5
	comp=Z,7.6nm,1.1s,mb4.7,baz=44,slow=8.9,SNR=5.8						
KMBO	Kilima Mbogo	57.82	266	P	P	06 38 38.9	+0.6
KMBO				pmax	pmax		
	comp=Z,8.0nm,1.1s						
YSS	Yuzh-Sakhalins	58.66	37	eP	P	06 38 43.6	-0.2
YSS	Yuzh-Sakhalins	58.66	37	eP	P	06 38 43.7	-0.1
	comp=Z,74nm,0.9s,mb5.7						
ARU	Arti	58.79	337	⇓iP	pP	06 38 55.7	+1.0
ARU				pmax	pmax		
	comp=Z,93nm,1.2s,mb5.7						
GOF	Gofitskoye	60.15	320	eP	P	06 38 51.0	-3.1
GOF				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.3						
MALT	Malatya	60.84	311	eP	P	06 38 58.5	-0.4
	comp=Z,16nm,1.0s,mb5.1						
EIL	Elat	61.45	301	P	P	06 39 03.8	+0.6
	comp=Z,15nm,1.0s,mb5.1,baz=241,slow=4.7,SNR=4.4						
SOC	Sochi	61.73	317	eP	P	06 39 13.4	+8.6
SOC				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.5						
SOC				pmax	pmax		
	comp=N,13nm,0.7s						
SOC				pmax	pmax		
	comp=E,33nm,1.6s						
COBT	Iskenderun	61.98	309	iP	P	06 39 04.1	-2.5
MEST	Erdemli	63.64	308	iP	P	06 39 16.3	-1.3
AVNT	Avonos	63.66	311	iP	P	06 39 08.0	-10
CTKT	Corum	64.22	313	iP	P	06 39 20.9	-0.4
BRTR	Keskin Array B	64.82	312	P	P	06 39 24.6	-0.7
	comp=E,15nm,0.7s,mb5.1,baz=127,slow=7.2,SNR=22						
ELDT	Eldivan	65.18	312	iP	P	06 39 26.4	-1.2
SGKT	Sivrigoynuk	66.21	312	iP	P	06 39 33.6	-0.5
ESKT	Eskisehir	66.86	311	iP	P	06 39 34.4	-3.8
HENT	Hendek	67.13	312	iP	P	06 39 35.1	-4.8
SKR	Severo-Kuril's	68.23	37	eP	P	06 39 42.5	-4.1
SKR				e		06 39 49.8	
SKR				pmax	pmax		
	comp=N,90nm,1.0s						
SKR				pmax	pmax		
	comp=E,130nm,1.0s						
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
MA2	Magadan	69.01	27	eP	P	06 39 50.8	-0.5
MA2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
MA2	Magadan	69.01	27	eP	P	06 39 50.7	-0.6
	comp=Z,33nm,0.8s,mb5.3						
BTOK	Tokmak	69.04	311	iP	P	06 39 43.8	-8.1
KDAG	Bornova	69.37	309	iP	P	06 39 53.1	-0.8
KIS	Kishinev	70.10	318	eP	P	06 39 58.0	-0.2
KIS				e		06 40 14.0	
CFR	Carcaliu	70.12	316	⇑iP	P	06 39 57.9	-0.5
CFR	Carcaliu	70.12	316	⇑iP	P	06 39 57.9	-0.4
PET	Petropavlovsk	70.48	35	eP	P	06 39 58.9	-1.5
PET				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.5						
IDI	Anoyia	70.77	306	P	P	06 40 02.0	-0.4
	comp=Z,14nm,0.7s,mb5.0,baz=98,slow=6.6,SNR=6.2						
AKASG	Malin Array Be	70.82	322	P	P	06 40 01.2	-1.3
	comp=Z,7.0nm,0.5s,mb4.8,baz=93,slow=4.2,SNR=14						
AKASG	Malin Array Be	70.82	322	P	P	06 40 01.2	-1.3
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.5s						
ISR	Istrita	71.21	316	⇑iP	P	06 40 05.6	+0.6
ISR	Istrita	71.21	316	⇑iP	P	06 40 05.6	+0.7
VRI	Vrincioaia	71.24	317	⇑iP	P	06 40 05.6	+0.4
VRI	Vrincioaia	71.24	317	⇑iP	P	06 40 05.6	+0.5
RZN	Rozhen	71.87	312	P	P	06 40 08.0	-0.9
MMB	Musomiste	72.58	312	P	P	06 40 12.0	-1.2
KKB	Krupnik	73.10	312	P	P	06 40 15.3	-1.0
VTS	Vitosha	73.12	313	P	P	06 40 16.0	-0.4
KWP	Kalwaria	74.65	320	eP	P	06 40 25.3	+0.2
	comp=Z,93nm,1.0s,mb5.7						
APA	Apatity	74.77	340	⇑iP	P	06 40 14.8	-11
APA				i		06 40 39.3	
APA				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
KOLS	Kolonicke sedl	74.81	319	iP	P	06 40 26.6	+0.6
CRVS	Cervenica-Dubn	75.33	319	eP	P	06 40 29.7	+0.6
FINES	FINESS Array B	75.56	332	P	P	06 40 29.8	-0.3
	comp=Z,11nm,0.7s,mb4.9,baz=112,slow=6.1,SNR=13						
FINES	FINESS Array B	75.56	332	P	P	06 40 29.8	-0.3
FINES				pmax	pmax		
	comp=Z,11nm,0.7s						
FINES	FINESS Array B	75.56	332	P	P	06 40 29.8	-0.3
KAF	Kangasniemi	75.65	333	ep	P	06 40 29.9	-0.7
	comp=Z,9.7nm,0.7s,mb4.8						
KAF	Kangasniemi	75.65	333	eP	P	06 40 29.9	-0.7
KAF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
KECS	Kecovo	75.91	319	iP	P	06 40 32.7	+0.4
NIE	Niedzica	76.16	320	eP	P	06 40 34.4	+0.7
OJC	Ojcow	76.61	320	eP	P	06 40 36.5	+0.2
VYHS	Vyhne	76.99	319	iP	P	06 40 38.7	+0.2
VYHS				e		06 40 54.3	
OKC	Ostrava-Krasne	77.61	320	eP	P	06 40 42.5	+0.6
OKC				epP	pP	06 40 59.6	+7.4
KEV	Kevo	77.76	341	ep	P	06 40 41.6	-0.8
	comp=Z,16nm,0.9s,mb4.9						
KEV	Kevo	77.76	341	eP	P	06 40 41.6	-0.8
KEV				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
SMOL	Smolenice	77.93	318	eP	P	06 40 44.2	+0.5
MORC	Moravsky Berou	77.99	320	eP	P	06 40 44.2	+0.3
	comp=Z,43nm,0.9s,mb5.4						
ZST	Bratislava	78.11	318	eP	P	06 40 45.4	+0.7
ZST				e		06 41 03.2	
ARCES	ARCESS Array B	78.19	340	P	P	06 40 44.6	-0.1
	comp=Z,30nm,1.0s,mb5.2,baz=104,slow=5.0,SNR=7.9						
ARCES	ARCESS Array B	78.19	340	P	P	06 40 44.6	-0.1
ARCES				pmax	pmax		
	comp=Z,30nm,1.0s						
ARE0	ARCESS Array S	78.19	340	eP	P	06 40 44.4	-0.3
DPC	Dobruska-Polom	78.83	320	eP	P	06 40 49.6	+1.0
DPC				epP	pP	06 41 06.4	+7.4
KSP	Ksiaz	78.90	321	⇑eP	P	06 40 49.5	+0.5
KSP				e		06 41 06.4	
FX1	Attu Island--F	79.01	37	P	P	06 40 49.4	-0.1
	comp=Z,60nm,0.7s,mb5.6,baz=302,slow=0.7,SNR=11						
FX1	Attu Island--F	79.01	37	P	P	06 40 49.4	-0.1
FX1				pmax	pmax		
	comp=Z,60nm,0.7s						
FX1	Attu Island--F	79.01	37	eP	P	06 40 49.1	-0.5
UPC	Upice	79.05	320	eP	P	06 40 50.2	+0.4
UPC				epP	pP	06 41 07.8	+7.7
ARSA	Arzberg	79.09	317	⇓iP	P	06 40 51.2	+1.1
	comp=Z,43nm,1.4s,mb5.2						
PRU	Pruhonice	79.94	320	eP	P	06 40 55.1	+0.5
PRU				epP	pP	06 41 09.6	+4.6
PVCC	Panska Ves	79.97	320	eP	P	06 40 55.5	+0.8
PVCC				epP	pP	06 41 13.1	+8.0
MOA	Molln	79.98	318	⇑iP	P	06 40 54.8	-0.1
	comp=Z,21nm,1.1s,mb5.0						
BRG	Berggiesshubel	80.39	321	eP	P	06 40 57.6	+0.6
BRG				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
BRG	Berggiesshubel	80.39	321	eP	P	06 40 57.6	+0.6
	comp=Z,32nm,1.0s,mb5.2						
GEC2	GERESS Array S	80.42	319	eP	P	06 40 57.7	+0.5
GEC2				pmax	pmax		
	comp=Z,72nm,1.0s,mb5.6						
GEC2	GERESS Array S	80.42	319	eP	P	06 40 57.7	+0.5
	comp=Z,72nm,1.0s,mb5.6						
GERES	GERESS Array B	80.42	319	P	P	06 40 57.8	+0.6
	comp=Z,38nm,0.8s,mb5.3,baz=90,slow=4.9,SNR=50						
GERES	GERESS Array B	80.42	319	P	P	06 40 57.8	+0.6
GERES				pmax	pmax		
	comp=Z,38nm,0.9s						
KHC	Kasperske Hory	80.51	319	eP	P	06 40 57.8	+0.1
KHC				epP	pP	06 41 08.9	+0.8
KBA	Koelnbreinsper	80.56	317	⇑iP	P	06 40 58.0	0.0
	comp=Z,24nm,1.3s,mb5.0						
WET	Wettzell	80.97	319	eP	P	06 41 00.8	+0.7
CLL	Collm	81.01	321	iP	P	06 41 00.2	0.0
CLL				e	pP	06 41 09.0	-1.7
CLL				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
CLL	Collm	81.01	321	iP	P	06 41 00.2	0.0
	comp=Z,26nm,1.1s,mb5.1						
CLL				e	pP	06 41 09.0	-1.7
CLL	Collm	81.01	321	P	P	06 41 00.2	0.0
	comp=Z,logA/T=1.4,mb5.1						
CLL				e*PP	pP	06 41 05.0	-5.7
CLL				e*SP	sP	06 41 09.0	-5.2
NKC	Novy Kostel	81.30	320	eP	P	06 41 02.4	+0.6
WTTA	Wattenberg	81.73	317	⇑iP	P	06 41 04.0	-0.1
	comp=Z,47nm,1.0s,mb5.4						
WATA	Walderalm	81.77	317	⇑iP	P	06 41 04.1	-0.2
	comp=Z,27nm,1.0s,mb5.1						
MOX	Moxa	81.85	320	eP	P	06 41 05.4	+0.7
MOX	Moxa	81.85	320	iP	P	06 41 05.4	+0.7
FUR	Furstenfeldbru	82.00	318	eP	P	06 41 05.8	+0.3
SQTA	Sankt Quirin	82.02	317	⇑iP	P	06 41 05.7	+0.1
	comp=Z,38nm,0.9s,mb5.3						
GRA1	Grafenberg Arr	82.08	319	eP	P	06 41 06.7	+0.9
	comp=Z,43nm,0.9s,mb5.4						
GRF	Grafenberg Arr	82.08	319	eP	P	06 41 06.7	+0.9
GRF				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.4						
GRF	Grafenberg Arr	82.08	319	eP	P	06 41 06.7	+0.9
	comp=Z,43nm,0.9s,mb5.4						
MOTA	Moosalm	82.09	317	⇑iP	P	06 41 05.8	-0.2
	comp=Z,12nm,0.8s,mb4.9						
NB2	NORSAR Subarra	82.56	331	P	P	06 41 07.0	-1.1
	comp=Z,15nm,0.9s,mb5.0,baz=93,slow=5.8						
NB2	NORSAR Subarra	82.56	331	P	P	06 41 07.0	-1.1
	baz=93,slow=5.9						
NOA	NORSAR Array B	82.56	331	P	P	06 41 07.5	-0.6
	comp=Z,9.2nm,0.8s,mb4.9,baz=94,slow=5.4,SNR=17						
NOA	NORSAR Array B	82.56	331	P	P	06 41 07.5	-0.6
NOA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CLZ	Clausthal	82.67	321	eP	P	06 41 09.4	+0.6
	comp=Z,30nm,0.9s,mb5.3						
BSEG	Bad Segeberg	82.75	324	eP	P	06 41 09.9	+0.7
DAVOX	Davos	82.92	316	P	P	06 41 11.3	+1.1
	baz=96,slow=9.2						
DAVA	Damuels	82.93	317	⇑iP	P	06 41 10.8	+0.6
	comp=Z,31nm,1.0s,mb5.3						
BFO	Black Forest	83.97	318	eP	P	06 41 15.8	+0.3
BFO				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
BFO	Black Forest	83.97	318	eP	P	06 41 15.8	+0.3
	comp=Z,15nm,0.9s,mb5.1						
LPL	La Plagne	85.13	315	⇑iP	P	06 41 22.0	+0.6
	comp=Z,37nm,0.8s,mb5.3						
URZ	Urewera	87.03	129	P	P	06 41 30.5	-0.3
	comp=Z,7.8nm,0.8s,mb5.0,baz=308,slow=12,SNR=2.6						
VNDA	Vanda	89.98	168	P	P	06 41 43.5	-0.6
	comp=Z,6.1nm,1.3s,mb4.8,baz=56,slow=21,SNR=2.1						
VNDA	Vanda	89.98	168	P	P	06 41 43.5	-0.6
VNDA				pmax	pmax		
	comp=Z,6.0nm,1.3s						
DAG	Danmarks Havn	90.42	348	⇓iP	P	06 41 45.8	-0.4
DAG				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb5.1						
DAG	Danmarks Havn	90.42	348	⇓iP	P	06 41 45.8	-0.4
	comp=Z,6.0nm,0.6s,mb5.1						
EKA	Eskdalemuir Ar	90.46	326	P	P	06 41 47.0	+0.3
	comp=Z,9.8nm,0.8s,mb5.2,baz=94,slow=5.1,SNR=3.7						
EKA	Eskdalemuir Ar	90.46	326	P	P	06 41 47.1	+0.3
EKA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ESDC	Sonseca Array	93.58	310	P	P	06 42 01.1	-0.4
	comp=Z,1.7nm,0.7s,mb4.6,baz=58,slow=4.0,SNR=8.0						
IMA	Indian Mountai	94.03	22	eP	P	06 42 04.0	+1.2
ILAR	Eielson Array	97.15	22	P	P	06 42 17.8	+0.6
	comp=Z,0.7nm,0.7s,mb4.2,baz=284,slow=5.0,SNR=4.8						
ILAR				PP	PP	06 46 05.2	-11
	comp=Z,1.6nm,0.9s,baz=278,slow=5.2,SNR=4.1						
ILAR	Eielson Array	97.15	22	P	P	06 42 17.8	+0.6
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
INK	Inuvik	99.56	16	P	P	06 42 27.2	-0.8
	comp=Z,2.0nm,0.7s,mb4.7,baz=331,slow=4.3,SNR=6.0						
INK	Inuvik	99.56	16	P	P	06 42 27.2	-0.8
INK				pmax	pmax		
	comp=Z,2.0nm,0.7s						
INK	Inuvik	99.56	16	P	P	06 42 27.2	-0.8
YKA	Yellowknife Ar	109.06	14	PKiKP		06 47 13.7	
	comp=Z,0.8nm,1.0s,baz=336,slow=2.5,SNR=5.4						
YKA				PP	PP	06 47 38.2	-8.2
	comp=Z,0.8nm,0.8s,baz=332,slow=7.3,SNR=6.1						
YKA				PKKPbc		06 58 20.8	
	comp=Z,0.4nm,0.7s,baz=151,slow=3.4,SNR=4.7						
YKA	Yellowknife Ar	109.06	14	PKPdf		06 47 13.7	
YKA				PP	PP	06 47 38.2	-8.2
YKA				PKKPbc		06 58 20.8	
ULM	Lac du Bonnet	124.22	8	PKP	PKPdf	06 47 44.9	+2.0
	comp=Z,5.6nm,0.7s,baz=355,slow=2.6,SNR=9.6						
NVAR	Mina Array Bea	127.01	33	PKP	PKPdf	06 47 51.1	+2.5
	comp=Z,5.9nm,0.9s,baz=312,slow=0.6,SNR=11						
PDAR	Pinedale Array	127.58	23	PKP	PKPdf	06 47 50.9	+1.3
	comp=Z,4.2nm,1.0s,baz=5.1,slow=1.6,SNR=10						
SADO	Sadowa	130.18	354	PKP	PKPdf	06 47 55.0	+0.6
	comp=Z,9.8nm,0.9s,baz=298,slow=2.9,SNR=3.0						
ANMO	Albuquerque	135.51	25	PKP	PKPdf	06 48 06.3	+1.6
	comp=Z,4.1nm,0.9s,baz=188,slow=1.1,SNR=7.5						
TXAR	Lajitas Array	141.54	26	PKP	PKPdf	06 48 14.9	-0.9
	comp=Z,1.5nm,0.6s,baz=124,slow=0.6,SNR=6.4						
BAO	Brasilia Array	141.97	251	PKP	PKPdf	06 48 19.1	+2.1
SJG	San Juan	150.34	321	PKPbc	PKPdf	06 48 37.2	+6.3
	comp=Z,26nm,0.8s,baz=47,slow=5.5,SNR=14						
SJG	San Juan	150.34	321	PKIKP	PKPdf	06 48 37.2	+6.3
SJG				pmax	pmax		
	comp=Z,26nm,0.8s						
PCRV	Puerto La Cruz	154.59	306	PKPbc	PKPdf	06 48 47.5	+10
	comp=Z,4.2nm,0.7s,baz=297,slow=4.5,SNR=3.9						
PCRV				PKPab	PKPab	06 49 02.3	-0.3
	comp=Z,8.1nm,0.6s,baz=308,slow=4.3,SNR=4.0						
LPAZ	La Paz	159.84	235	PKP	PKPdf	06 48 46.6	+3.0
	comp=Z,1.5nm,0.8s,baz=90,slow=2.0,SNR=3.4						
LPAZ				PKPab	PKPab	06 49 25.1	0.0
	comp=Z,4.0nm,0.9s,baz=105,slow=7.0,SNR=4.9						
LPAZ	La Paz	159.84	235	PKIKP	PKPdf	06 48 46.6	+3.0
LPAZ						06 49 25.1	
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ROSC	El Rosal	165.40	312	PKP	PKPdf	06 48 51.5	+2.2
	comp=Z,5.0nm,0.9s,baz=128,slow=5.4,SNR=4.9						
ROSC				PKPab	PKPab	06 49 49.0	-0.4
	comp=Z,4.3nm,0.8s,baz=94,slow=16,SNR=3.5						

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*CSEM **26** 06:30:17.6±0.2,33.92N×5.41W,h10km,ML3.0/10,Error ellipse: s-maj=6.2km s-min=4.6km az=107.0*
*NEIC **26** 06:30:18.8,34.11N×5.63W,MG3.8(MDD),After MDD.*
*MDD **26** 06:30:19.1±2.0,34.12N×5.55W,mb3.8/4,Error ellipse: s-maj=18.8km s-min=13.3km az=9.0,PRXIMO*
*CNRM **26** 06:30:19.3,33.92N×5.40W,h2km,MD3.7*

ISC 26 06:30:17.5±0.6,**34.15N**±0.03×**5.56W**±0.04,**h10km,n39,**
σ1^{s}31/65,**Morocco**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RTC	Rabat Centre	1.09	262	iP	Pb	06 30 41.5	+3.5
RTC				iS	Sb	06 30 55.0	+3.0
CZD	Col de Zad	1.20	159	iP	Pb	06 30 37.0	-2.9
CZD				iS	Sb	06 30 49.0	-6.2
DKH	Dar Kharkhour	1.34	7	iP	Pb	06 30 47.0	+4.7
DKH				iS	Sb	06 31 07.0	+7.6
TOU	Touzarine	1.70	61	eP	Pn	06 30 48.0	+0.5
TOU				iS	Sn	06 31 08.5	-0.9
ZAI	Zaio	2.46	70	eP	Pn	06 30 58.5	+0.1
EMIJ	Mijas	2.49	15	Pn	Pn	06 31 00.4	+1.6
	12nm,0.8s,SNR=7.9						
EMIJ				Sn	Sn	06 31 30.5	+0.9
	17nm,0.7s,SNR=6.7						
ESPR	Espera	2.72	355	Pn	Pn	06 31 03.3	+1.2
	0.2nm,0.3s,SNR=7.9						
ESPR				Sn	Sn	06 31 36.1	+0.7
	8.7nm,0.4s,SNR=7.9						
ESPR	Espera	2.72	355	Pn	Pn	06 31 03.3	+1.2
	0.2nm,0.3s,SNR=7.9						
ESPR				Sn	Sn	06 31 36.1	+0.7
	8.7nm,0.4s,SNR=7.9						
LIJA	Lijar	2.75	3	iP	Pn	06 31 02.0	-0.5
EBER	Berja	3.50	38	Pn	Pn	06 31 14.0	+0.8
	0.6nm,0.2s,SNR=7.9						
EBER				Sn	Sn	06 31 57.7	+2.6
	9.3nm,0.4s,SNR=7.9						
EBER	Berja	3.50	38	Pn	Pn	06 31 14.0	+0.8
	0.6nm,0.2s,SNR=7.9						
OUK	Oukaimeden	3.52	214	eP	Pn	06 31 12.0	-1.5
ELUQ	Luque	3.56	17	Sn	Sn	06 31 57.4	+0.8
	5.4nm,0.5s,SNR=7.9						
PALC	Alcoutim	3.65	335	ePn	Pn	06 31 16.9	+1.5
PALC				eSn	Sn	06 31 58.8	-0.2
	18nm,0.7s						
PALC	Alcoutim	3.65	335	ePn	Pn	06 31 16.9	+1.5
PALC				eSn	Sn	06 31 58.8	-0.2
	18nm,0.7s						
EGRO	El Granado	3.72	336	Pn	Pn	06 31 16.6	+0.3
	0.4nm,0.1s,SNR=7.9						
EGRO				Sn	Sn	06 31 58.8	-1.8
	5.0nm,0.3s,SNR=7.9						

EGRO	El Granado	3.72	336	Pn	Pn	06 31 16.6	+0.3
	0.4nm,0.1s,SNR=7.9						
EGRO	El Granado	3.72	336	Sn	Sn	06 31 58.8	-1.8
	5.0nm,0.3s,SNR=7.9						
EMIN	Mina Concepcio	3.72	346	Pn	Pn	06 31 16.9	+0.6
	5.8nm,0.8s,SNR=11						
EMIN				Sn	Sn	06 31 59.4	-1.2
	7.5nm,0.9s,SNR=7.8						
EMIN	Mina Concepcio	3.72	346	Sn	Sn	06 31 59.4	-1.2
	7.5nm,0.9s,SNR=7.8						
EMIN	Mina Concepcio	3.72	346	Pn	Pn	06 31 16.9	+0.6
	5.8nm,0.8s,SNR=11						
CIA	Chichaoua	3.73	227	*e*P	Pn	06 31 16.0	-0.4
ENIJ	Nijar	3.92	43	Pn	Pn	06 31 20.6	+1.4
	2.4nm,0.4s,SNR=4.0						
ENIJ				Sn	Sn	06 32 01.4	-4.5
	18nm,0.6s,SNR=7.9						
EADA	Adamuz	4.08	11	Pn	Pn	06 31 21.6	+0.1
	6.2nm,1.1s,SNR=11						
EADA				Sn	Sn	06 32 08.2	-1.7
	5.4nm,0.8s,SNR=4.5						
EADA	Adamuz	4.08	11	Pn	Pn	06 31 21.6	+0.1
	6.2nm,1.1s,SNR=11						
EADA				Sn	Sn	06 32 08.2	-1.7
	5.4nm,0.8s,SNR=4.5						
EQES	Quesada	4.17	28	Pn	Pn	06 31 24.6	+2.0
	6.8nm,0.6s,SNR=5.2						
EQES				Sn	Sn	06 32 09.6	-2.3
	14nm,0.7s,SNR=5.3						
EQES	Quesada	4.17	28	Pn	Pn	06 31 24.6	+2.0
	6.8nm,0.6s,SNR=5.2						
EQES				Sn	Sn	06 32 09.6	-2.4
	14nm,0.7s,SNR=5.3						
PTEO	Sao Teotonio	4.25	324	*e*Pn	Pn	06 31 24.8	+0.9
PTEO				*e*Sn	Sn	06 32 13.2	-0.9
	13nm,0.6s						
PTEO	Sao Teotonio	4.25	324	*e*Pn	Pn	06 31 24.8	+0.9
PTEO				*e*Sn	Sn	06 32 13.2	-0.9
	13nm,0.6s						
EBAN	Banos Encina	4.25	19	Pn	Pn	06 31 23.3	-0.6
	0.3nm,0.3s,SNR=7.9						
EBAN				Sn	Sn	06 32 14.2	-0.1
	0.2nm,0.4s,SNR=7.9						
PBEJ	Beja	4.29	335	*e*Pn	Pn	06 31 25.7	+1.2
PBEJ				*e*Sn	Sn	06 32 14.7	-0.5
	7.0nm,0.4s						
PBEJ	Beja	4.29	335	*e*Pn	Pn	06 31 25.7	+1.2
PBEJ				*e*Sn	Sn	06 32 14.7	-0.5
	7.0nm,0.4s						
EBAD	Badajoz	4.74	346	Pn	Pn	06 31 30.3	-0.5
	4.4nm,0.6s,SNR=12						
EBAD				Sn	Sn	06 32 23.2	-3.3
	4.4nm,0.3s,SNR=11						
EBAD	Badajoz	4.74	346	Sn	Sn	06 32 23.2	-3.3
	4.4nm,0.3s,SNR=11						
EBAD	Badajoz	4.74	346	Pn	Pn	06 31 30.4	-0.4
ESDC	Sonseca Array	5.66	13	Pn	Pn	06 31 42.0	-1.8
	0.2nm,0.3s,baz=196,slow=13,SNR=46						
ESDC				Sn	Sn	06 32 44.9	-4.7
	0.4nm,0.3s,baz=205,slow=22,SNR=4.8						
ESDC	Sonseca Array	5.66	13	Pn	Pn	06 31 42.0	-1.8
PCBR	Castelo Branco	5.88	345	*e*Pn	Pn	06 31 46.5	-0.4
PCBR				*e*Sn	Sn	06 32 52.0	-3.2
	4.1nm,0.7s						
PCBR	Castelo Branco	5.88	345	*e*Pn	Pn	06 31 46.5	-0.4
PCBR				*e*Sn	Sn	06 32 52.0	-3.2
	4.1nm,0.7s						

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*IDC **26** 06:34:47.6±1.0, 4.96N×93.62E, h15^{km}±5^{km}, mb4.5/15, mb1 4.6/16, mb1mx4.4/23, ML4.0/1, Error ellipse: s-maj=28.9km s-min=14.5km az=42.0*

ISC 26 06:34:45.4±0.6**, 4.9N**±0.1×**93.6E**±0.1**, h15^{km}, n21, σ1^{s}04**/17**, mb4.5**/15**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.44	21	Pn	P	06 38 11.8	+0.3
	0.2nm,0.3s,baz=201,slow=14,SNR=1.7						
TGY	Tagaytay City	28.41	69	P	P	06 40 40.7	-1.0
	81nm,0.3s,baz=156,slow=10.0,SNR=3.0						
SONM	Songino Array	44.16	12	P	P	06 42 55.6	+0.3
	12nm,0.8s,mb4.7,baz=204,slow=7.5,SNR=14						
SONM				pP	pP	06 42 58.8	-0.9
	12nm,0.8s,baz=195,slow=7.7,SNR=14						
WRA	Warramunga Arr	47.01	123	P	P	06 43 19.9	+1.5
	9.2nm,0.8s,mb4.8,baz=301,slow=9.0,SNR=10						
ASAR	Alice Springs	48.45	128	P	P	06 43 29.8	+0.2
	6.0nm,1.2s,mb4.5,baz=293,slow=7.2,SNR=3.9						
ZAL	Zalesovo	49.42	353	P	P	06 43 37.4	+0.8
	3.7nm,0.5s,mb4.7,baz=290,slow=9.0,SNR=6.5						
BVAR	Borovoye Array	51.64	342	P	P	06 43 51.5	-2.1
	4.0nm,0.6s,mb4.5,baz=143,slow=7.4,SNR=6.1						
CTA	Charters Tower	57.34	117	P	P	06 44 34.3	-1.5
	7.6nm,0.9s,mb4.7,baz=276,slow=7.6,SNR=5.2						
STKA	Stephens Creek	58.46	132	P	P	06 44 43.3	-0.1
	3.1nm,0.8s,mb4.4,baz=294,slow=10.0,SNR=3.2						
BRTR	Keskin Array B	64.01	312	P	P	06 45 19.6	-1.3
	3.2nm,0.8s,mb4.4,baz=124,slow=7.0,SNR=7.7						
IDI	Anoyia	69.86	306	P	P	06 45 56.4	-1.6
	6.6nm,0.7s,mb4.7,baz=74,slow=12,SNR=23						
FINES	FINESS Array B	75.10	333	P	P	06 46 28.6	+0.2
	3.3nm,0.8s,mb4.3,baz=108,slow=12,SNR=3.7						
ARCES	ARCESS Array B	77.88	340	P	P	06 46 44.8	+0.9
	12nm,1.1s,mb4.8,baz=86,slow=5.6,SNR=6.6						
GERES	GERESS Array B	79.71	319	P	P	06 46 55.4	+1.1
	4.9nm,0.8s,mb4.5,baz=104,slow=5.5,SNR=13						
GERES				pP	pP	06 47 01.0	+2.0
	2.2nm,0.8s,baz=90,slow=5.3,SNR=5.3						
HFS	Hagfors	80.76	330	P	P	06 46 59.5	-0.1
	3.4nm,0.7s,mb4.4,baz=121,slow=8.6,SNR=5.1						
NOA	NORSAR Array B	82.07	331	P	P	06 47 06.9	+0.5
	2.1nm,1.0s,mb4.0,baz=101,slow=6.1,SNR=2.8						
DAVOX	Davos	82.18	316	P	P	06 47 08.8	+1.5
	10nm,0.6s,mb5.0,baz=128,slow=6.3,SNR=19						
NVAR	Mina Array Bea	127.70	32	PKP	PKPdf	06 53 54.8	+0.2
	1.7nm,0.8s,baz=304,slow=3.3,SNR=7.1						
PDAR	Pinedale Array	128.10	22	PKP	PKPdf	06 53 54.6	-0.6
	1.9nm,0.9s,baz=45,slow=1.4,SNR=7.6						
ANMO	Albuquerque	136.08	24	PKP	PKPdf	06 54 10.0	-0.4
	2.3nm,1.0s,baz=210,slow=1.0,SNR=4.4						
TXAR	Lajitas Array	142.12	25	PKhKP		06 54 15.7	
	0.4nm,0.8s,baz=27,slow=2.0,SNR=4.2						
TXAR				PKP	PKPdf	06 54 21.4	-0.1
	0.7nm,0.7s,baz=216,slow=0.7,SNR=3.9						
TXAR				pPKP		06 54 24.6	
	0.7nm,0.7s,baz=154,slow=0.3,SNR=3.2						

IDC 26 06:35:15.0±0.7**, 5.96N**×**95.47E, mb4.4**/12**, mb1 4.5**/13**, mb1mx4.4**/21**, ML4.6**/1**, Error ellipse: s-maj=40.4km s-min=15.9km az=42.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.87	15	Pn	P	06 38 20.5	-1.6
	1.0nm,0.3s,baz=215,slow=12,SNR=11						
WRA	Warramunga Arr	46.09	125	P	P	06 43 40.9	-2.0
	9.3nm,0.6s,baz=304,slow=9.2,SNR=11						
ASAR	Alice Springs	47.69	130	P	P	06 43 53.8	-1.8
	15nm,0.7s,baz=300,slow=7.5,SNR=26						
PMG	Port Moresby	53.73	106	P	P	06 44 39.8	-1.8
	6.0nm,0.7s,baz=22,slow=16,SNR=3.2						
STKA	Stephens Creek	57.84	134	P	P	06 45 07.9	-3.1
	3.2nm,0.7s,baz=233,slow=6.5,SNR=5.3						
KMBO	Kilima Mbogo	58.55	265	P	P	06 45 15.0	-1.2
	1.4nm,0.6s,baz=65,slow=13,SNR=3.9						
BRTR	Keskin Array B	64.67	311	P	P	06 45 55.1	-2.0
	1.1nm,0.7s,baz=127,slow=7.2,SNR=2.6						
AKASG	Malin Array Be	70.46	322	P	P	06 46 30.4	-2.9
	2.4nm,0.5s,baz=81,slow=4.7,SNR=12						
FINES	FINESS Array B	75.00	332	P	P	06 46 57.9	-2.0
	1.8nm,0.7s,baz=90,slow=2.8,SNR=3.6						
ARCES	ARCESS Array B	77.50	340	P	P	06 47 12.4	-1.4
	3.5nm,0.9s,baz=80,slow=5.5,SNR=3.6						
GERES	GERESS Array B	80.12	318	P	P	06 47 27.9	-0.5
	1.7nm,0.8s,baz=118,slow=6.4,SNR=4.3						
CLL	Collm	80.67	321	P	P	06 47 39.0	+7.7
CLL				*e**SP	sP	06 47 49.0	+18
HFS	Hagfors	80.76	330	P	P	06 47 29.6	-2.0
	1.7nm,0.6s,baz=135,slow=6.3,SNR=5.5						
DAVOX	Davos	82.67	316	P	P	06 47 41.1	-0.8
	4.4nm,0.8s,baz=153,slow=6.8,SNR=2.9						
PDAR	Pinedale Array	126.43	23	PKP	PKPdf	06 54 21.5	-0.6
	3.3nm,1.4s,baz=22,slow=4.9,SNR=4.5						
PDAR	Pinedale Array	126.43	23	PKP	PKPdf	06 54 21.6	-0.6

IDC 26 06:35:52.4±0.9**, 8.37N**×**93.36E, mb4.5**/9**, mb1 4.7**/10**, mb1mx4.4**/21**, ML4.7**/1**, Error ellipse: s-maj=48.9km s-min=17.2km az=51.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.40	28	Pn	P	06 38 36.6	-3.0
	1.4nm,0.3s,baz=210,slow=12,SNR=7.7						
ZAL	Zalesovo	45.96	353	P	P	06 44 17.4	-1.4
	7.6nm,1.1s,baz=277,slow=9.0,SNR=3.5						
BVAR	Borovoye Array	48.27	342	P	P	06 44 34.3	-2.8
	1.5nm,0.5s,baz=157,slow=11,SNR=3.0						
WRA	Warramunga Arr	49.17	125	P	P	06 44 42.0	-2.5
	3.5nm,0.7s,baz=304,slow=8.9,SNR=3.0						
ASAR	Alice Springs	50.82	130	P	P	06 44 53.3	-3.8
	2.8nm,0.7s,baz=311,slow=6.7,SNR=2.1						
PMG	Port Moresby	56.41	107	P	P	06 45 35.7	-2.8
	14nm,0.8s,baz=299,slow=3.6,SNR=4.6						
STKA	Stephens Creek	61.00	133	P	P	06 46 09.9	-0.3
	5.8nm,0.8s,baz=325,slow=7.0,SNR=4.4						
ARCES	ARCESS Array B	74.54	340	P	P	06 47 32.9	-1.5
	4.1nm,0.8s,baz=106,slow=6.6,SNR=3.6						
GERES	GERESS Array B	76.94	318	P	P	06 47 45.6	-2.9
	4.8nm,0.8s,baz=90,slow=5.3,SNR=6.6						
DAVOX	Davos	79.50	316	P	P	06 48 02.2	-0.4
	5.2nm,0.7s,baz=353,slow=21,SNR=3.8						
NVAR	Mina Array Bea	124.88	30	PKhKP		06 54 48.4	
	0.2nm,0.4s,baz=272,slow=1.8,SNR=3.7						
NVAR				PKP	PKPdf	06 54 56.5	-0.3
	2.9nm,0.8s,baz=343,slow=0.9,SNR=10						
PDAR	Pinedale Array	124.98	20	PKhKP		06 54 48.0	
	0.5nm,0.8s,baz=236,slow=3.2,SNR=3.0						
PDAR				PKP	PKPdf	06 54 55.2	-1.7
	1.3nm,0.8s,baz=53,slow=2.0,SNR=6.0						
TXAR	Lajitas Array	139.08	23	PKhKP		06 55 15.5	
	baz=225,slow=1.3						
TXAR				PKP	PKPdf	06 55 23.8	0.0
	1.2nm,0.9s,baz=166,slow=0.9,SNR=4.1						

IDC 26 06:37:25.3±1.0**, 5.68N**×**93.18E, mb4.4**/14**, mb1 4.5**/15**, mb1mx4.3**/23**, Error ellipse: s-maj=51.2km s-min=18.8km az=46.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.89	23	Pn	P	06 40 47.6	+1.5
	baz=225,slow=12,SNR=1.5						
SONM	Songino Array	43.50	13	P	P	06 45 30.5	-1.7
	2.7nm,0.8s,baz=195,slow=7.6,SNR=3.1						
WRA	Warramunga Arr	47.82	123	P	P	06 46 04.7	-2.3
	6.6nm,0.6s,baz=303,slow=8.9,SNR=4.9						
ZAL	Zalesovo	48.59	353	P	P	06 46 10.3	-2.3
	1.9nm,0.5s,baz=262,slow=7.5,SNR=3.3						
BVAR	Borovoye Array	50.76	342	P	P	06 46 27.7	-1.5
	3.0nm,0.8s,baz=149,slow=8.4,SNR=2.9						
PMG	Port Moresby	55.84	105	P	P	06 47 04.8	-2.6
	6.2nm,0.5s,baz=302,slow=7.4,SNR=3.8						
STKA	Stephens Creek	59.32	132	P	P	06 47 29.2	-2.4
	4.7nm,0.8s,baz=306,slow=9.4,SNR=3.1						
BRTR	Keskin Array B	63.15	312	P	P	06 47 54.3	-3.2
	1.0nm,0.7s,baz=126,slow=7.9,SNR=2.6						
BALT	Daday	63.84	314	*i* P	P	06 48 01.8	-0.2
FINES	FINESS Array B	74.20	333	P	P	06 49 03.5	-2.1
	12nm,1.1s,baz=135,slow=8.1,SNR=5.1						
ARCES	ARCESS Array B	77.00	340	P	P	06 49 19.8	-1.6
	2.6nm,0.7s,baz=96,slow=6.7,SNR=8.6						
GERES	GERESS Array B	78.82	319	P	P	06 49 31.2	-0.6
	1.8nm,0.8s,baz=100,slow=6.0,SNR=4.7						
HFS	Hagfors	79.86	330	P	P	06 49 34.7	-2.5
	2.2nm,0.6s,baz=112,slow=8.0,SNR=4.8						
NOA	NORSAR Array B	81.17	331	P	P	06 49 42.4	-1.7
	0.8nm,0.8s,baz=103,slow=5.1,SNR=2.9						
DAVOX	Davos	81.30	316	P	P	06 49 44.8	-0.3
	4.0nm,0.7s,baz=145,slow=16,SNR=4.4						
EKA	Eskdalemuir Ar	88.97	325	P	P	06 50 22.3	-0.9
	4.4nm,1.1s,baz=90,slow=5.8,SNR=4.4						
NVAR	Mina Array Bea	127.28	31	PKP	PKPdf	06 56 33.5	-0.8
	0.9nm,0.7s,baz=270,slow=1.8,SNR=4.1						
PDAR	Pinedale Array	127.55	21	PKP	PKPdf	06 56 33.1	-1.6
	0.7nm,0.8s,baz=81,slow=1.7,SNR=3.7						
TXAR	Lajitas Array	141.61	24	PKP	PKPdf	06 57 01.0	-0.3
	0.4nm,0.5s,baz=217,slow=0.1,SNR=4.7						

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*IDC **26** 06:38:33.6±0.4, 6.72N×93.02E, mb5.3/33, mb1 5.3/34, mb1mx5.3/34, ML5.1/1, Error ellipse: s-maj=14.5km s-min=9.9km az=39.0*

*BJI **26** 06:38:33.9, 6.67N×92.89E, h19^{km}, mB5.9, mb5.5, Ms5.8, Msz5.7*

*MOS **26** 06:38:36.7±0.9, 6.77N×93.04E, h33^{km}, mb5.6/43, Error ellipse: s-maj=10.4km s-min=5.7km az=115.2*

*NEIC **26** 06:38:36.0±3.1, 6.65N×92.96E, h17^{km}±18^{km}, mb5.4/44, Error ellipse: s-maj=6.1km s-min=4.3km az=50.0*

*SYO **26** 06:38:39.5, 6.71N×92.94E, h38^{km}, MB5.5*

*CSEM **26** 06:38:40.7, 7.23N×92.64E, h33^{km}, mb5.5*

ISC 26 06:38:35.7±1.7**, 6.67N**±0.04×**93.05E**±0.03**, h27^{km}**±12^{km}**, h23^{km}**±3.5^{km}**:pP-P, n346, σ1^{s}01**/310**, mb5.4**/111**, MS5.8**/5**, 32C-20D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.04	26	*e*P	P	06 41 43.3	+1.2
	238nm,0.9s						
CMAR	Chiang Mai Arr	13.04	26	Pn	P	06 41 41.1	-1.0
	3.5nm,0.3s,baz=216,slow=14,SNR=31						
CMAR	Chiang Mai Arr	13.04	26	P	P	06 41 41.1	-1.0
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
MDRS	Chennai	14.12	298	*e*	P	06 41 55.0	-1.4
MDRS				*e*		06 44 19.0	
IMP	Imphal	18.03	3	*e*	P	06 42 43.5	-2.8
SHL	Shillong	18.82	357	*e*P	P	06 42 53.2	-2.8
SHL				*e*		06 43 13.4	
	comp=Z,223nm,1.2s						
MNGI	Mangalore	19.00	291	*e*P	P	06 42 52.4	-5.8
MNGI				*e*		06 43 06.3	
	comp=Z,162nm,1.1s						
COCO	West Island	19.11	169	*e*P	P	06 42 58.6	-0.9
	comp=Z,329nm,1.3s						
QIZ	Qiongzhong	20.44	52	P	P	06 43 14.5	+0.6
QIZ	Qiongzhong	20.44	52	*e*P	P	06 43 15.1	+1.2
	comp=Z,873nm,1.3s						
KMI	Kunming	20.56	26	*e*P	P	06 43 16.3	+1.2
KMI				AP		06 43 19.5	
KMI				AMB	AMB		
	comp=Z,256nm,1.0s						
GOA	Goa	20.79	297	*e*	P	06 43 19.5	+2.0
GOA				*e*		06 43 44.0	
	comp=Z,204nm,2.1s						
AKL	Akola	20.88	313	*e*P	P	06 43 15.9	-2.6
AKL				*e*		06 43 30.0	
	comp=Z,312nm,1.3s						
ALBI	Allahabad	21.43	331	*e*P	P	06 43 19.3	-4.7
ALBI				*e*		06 43 27.7	
PKI	Pulchoki	22.01	342	*e*P	P	06 43 30.1	+0.3
	comp=Z,1µm,1.7s,mb6.0						
DMN	Daman	22.14	341	*e*P	P	06 43 31.4	+0.2
	comp=Z,390nm,0.9s,mb5.8						
GUN	Gumba	22.19	343	*e*P	P	06 43 32.2	+0.6
	comp=Z,579nm,1.2s,mb5.9						
KKN	Kakani	22.26	342	*e*P	P	06 43 32.6	+0.3
	comp=Z,402nm,1.1s,mb5.8						
GKN	Gorkha	22.66	340	*e*P	P	06 43 36.8	+0.4
	comp=Z,704nm,1.0s,mb6.0						
KOLN	Koldanda	22.82	338	*e*P	P	06 43 38.7	+0.8
	comp=Z,695nm,1.2s,mb6.0						
LSA	Lhasa	22.98	356	*e*P	P	06 43 41.3	+1.9
	comp=Z,76nm,0.8s,mb5.2						
BOM	Bombay	23.14	304	*e*P	P	06 43 33.1	-8.0
BOM				*e*		06 43 45.2	
	comp=Z,212nm,1.2s						
GYA	Guiyang	23.57	32	⇑*i*P	P	06 43 46.3	+1.1
GYA				AP		06 43 50.3	
GYA				XP		06 43 53.5	
GYA				PP	PP	06 44 22.5	+4.8
GYA				AMB	AMB		
	comp=Z,370nm,1.0s,mb5.8						
GYA				AMB	AMB		
	comp=Z,2µm,5.2s						
GYA				LR	LR		
	comp=N,52µm,16.8s,MS6.2						
GYA				LR	LR		
	comp=E,41µm,17.0s,MS6.2						
GYA				LR	LR		
	comp=Z,39µm,16.7s,MS5.9						
LGTI	Lohaghat	25.67	333	*e*	P	06 44 06.3	+1.0
SRDI	Scrawed	25.86	125	⇑*i*P	P	06 44 06.1	-1.1
	comp=Z,348nm,1.0s,mb5.5						
KELI	Kelakatan	26.00	124	⇓*i*P	P	06 44 10.6	+2.1
	comp=Z,212nm,1.0s,mb5.3						
CD2	Chengdu	26.12	21	⇑*i*P	P	06 44 09.0	-0.4
CD2				AMB	AMB		
	comp=Z,280nm,0.9s,mb5.8						
NDI	New Delhi	26.52	328	*e*	P	06 44 13.0	-0.2
NDI				*e*		06 44 18.7	
	comp=Z,134nm,1.4s						
RATI	Rata	27.13	124	⇑*i*P	P	06 44 18.9	0.0
	comp=Z,204nm,0.3s,mb5.8						
KEDI	Kedomdong	27.48	123	⇓*i*P	P	06 44 20.5	-1.6
	comp=Z,197nm,0.8s,mb5.4						
ENH	Enshi	28.10	31	*e*P	P	06 44 26.6	-1.0
	comp=Z,2.1nm,1.2s						
TGY	Tagaytay City	28.38	73	P	P	06 44 31.9	+1.8
	comp=Z,199nm,0.4s,mb6.1,baz=196,slow=3.0,SNR=9.2						
TGY	Tagaytay City	28.38	73	P	P	06 44 31.9	+1.7
TGY				pmax	pmax		
	comp=Z,199nm,0.4s						
THN	Thein Dam	30.29	330	*e*	P	06 44 46.1	-1.1
QZH	Quanzhou	30.45	51	⇓*i*P	P	06 44 49.8	+1.2
QZH				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.7						
TBP	Tagbilaran	30.64	82	*e*P	P	06 44 50.1	-0.2
LZH	Lanzhou	30.90	17	⇑P	P	06 44 51.8	-0.7
LZH				AP	pP	06 44 54.8	-5.6
LZH				AMB	AMB		
	comp=Z,190nm,1.5s,mb5.7						
XAN	Xi'an	30.94	26	P	P	06 44 51.3	-1.5
XAN				AMB	AMB		
	comp=Z,300nm,0.8s,mb6.2						
WHN	Wuhan	31.04	37	⇓P	P	06 44 54.3	+0.5
GTA	Gaotai	33.16	10	P	P	06 45 11.5	-0.7
GTA				AP	pP	06 45 16.5	-3.7
GTA				XP	sP	06 45 21.3	-2.4
GTA				AMB	AMB		
	comp=Z,34nm,1.3s,mb5.1						
GTA				AMB	AMB		
	comp=Z,13µm,10.7s						
GTA				LR	LR		
	comp=N,3µm,20.5s,MS5.3						
GTA				LR	LR		
	comp=E,5µm,16.7s,MS5.3						
GTA				LR	LR		
	comp=Z,11µm,20.5s,MS5.5						
NJ2	Nanjing	34.88	40	*e*P	P	06 45 28.5	+1.4
NJ2				AP	pP	06 45 38.5	+3.3
NJ2				XP	sP	06 45 42.3	+3.7
NJ2				PP	PP	06 46 49.0	+3.9
NJ2				S	S	06 50 59.8	+4.2
NJ2				XS		06 51 15.0	
NJ2				AMB	AMB		
	comp=Z,1µm,9.0s						
NJ2				LR	LR		
	comp=N,31µm,18.0s,MS6.2						
NJ2				LR	LR		
	comp=E,21µm,16.4s,MS6.2						
NJ2				LR	LR		
	comp=Z,31µm,15.4s,MS6.2						
SSE	Sheshan	35.83	44	P	P	06 45 36.0	+0.8
SSE				AMB	AMB		
	comp=Z,93nm,0.9s,mb5.7						
SSE				AMB	AMB		
	comp=Z,709nm,6.6s						
KSH	Kashi	36.13	337	*e*P	P	06 45 38.3	+0.6
KSH				*e*AP	pP	06 45 45.0	-0.7
KSH				*e*XP	sP	06 45 49.0	-0.2
KSH				AMB	AMB		
	comp=Z,2µm,6.7s						
TIA	Tai'an	36.74	33	*e*P	P	06 45 43.3	+0.5
TIA				AMB	AMB		
	comp=Z,72nm,1.1s,mb5.4						
BTO	Baotou	37.04	22	*e*P	P	06 45 44.3	-1.0
BTO				AMB	AMB		
	comp=Z,32nm,1.1s,mb5.1						
WMQ	Urumqi	37.30	354	P	P	06 45 47.3	-0.1
WMQ				AP	pP	06 45 51.8	-3.7
WMQ				XP	sP	06 45 54.3	-4.6
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.6						
HHC	Hu-ho-hao-te	37.84	23	*e*P	P	06 45 52.5	+0.5
HHC				AP	pP	06 46 04.0	+3.9
HHC				PP	PP	06 47 23.3	+1.7
HHC				PCP	PcP	06 48 08.8	+0.2
HHC				S	S	06 51 40.0	-1.0
HHC				XS		06 52 00.0	
HHC				SS	SS	06 54 17.0	-0.2
HHC				SCS	ScS	06 55 55.5	-5.0
HHC				AMB	AMB		
	comp=Z,92nm,1.2s,mb5.4						
HHC				AMB	AMB		
	comp=Z,2µm,8.3s						
HHC				LR	LR		
	comp=N,6µm,20.2s,MS5.5						
HHC				LR	LR		
	comp=E,4µm,16.6s,MS5.5						
HHC				LR	LR		
	comp=Z,10µm,34.5s						
MBWA	Marble Bar	38.09	137	*e*P	P	06 45 53.4	-0.9
ULHL	Ulahol	38.43	340	P	P	06 45 57.9	+1.0
	SNR=5.5						
KZA	Kyzart	38.63	339	P	P	06 46 00.2	+1.6
	SNR=23						
JOW	Kunigami	39.02	55	P	P	06 46 03.3	+1.2
	comp=Z,189nm,0.7s,mb5.9,baz=251,slow=7.7,SNR=47						
UCH	Uchtor	39.03	338	P	P	06 46 03.2	+1.2
	SNR=48						
BJT	Baijiatuau	39.15	29	*e*P	P	06 46 04.1	+1.1
	comp=Z,126nm,0.7s,mb5.8						
BJI	Beijing	39.17	29	P	P	06 46 04.3	+1.2
BJI				AMB	AMB		
	comp=Z,219nm,0.8s,mb5.9						
KBK	Karagaybulak	39.25	339	P	P	06 46 05.2	+1.5
	SNR=14						
TKM2	Tokmak 2	39.25	340	P	P	06 46 04.4	+0.6
	SNR=15						
AML	Almayashu	39.26	337	P	P	06 46 05.4	+1.5
	SNR=86						
AAK	Ala-Archa	39.39	338	P	P	06 46 06.1	+1.1
	SNR=34						
AAK	Ala-Archa	39.39	338	*c i*P	P	06 46 05.0	0.0
AAK				pmax	pmax		
	comp=Z,106nm,0.9s,mb5.6						
AAK	Ala-Archa	39.39	338	⇑*i*P	P	06 46 05.0	0.0
CHMS	Chumysh	39.62	339	P	P	06 46 07.2	+0.4
	SNR=24						
EKS2	Erkin-Say	39.68	338	P	P	06 46 08.6	+1.3
	SNR=37						
USP	Ospenovka	39.94	339	P	P	06 46 10.1	+0.6
	SNR=44						
MKAR	Makanchi Array	41.03	349	*i* P	P	06 46 17.8	-0.6
MKAR				pmax	pmax		
	comp=Z,41nm,1.2s						
DL2	Dalian	41.16	35	P	P	06 46 21.0	+1.4
DL2				AMB	AMB		
	comp=Z,90nm,0.9s,mb5.4						
SONM	Songino Array	42.57	13	P	P	06 46 31.2	+0.2
	comp=Z,24nm,0.9s,mb4.9,baz=195,slow=8.2,SNR=21						
SONM				PcP	PcP	06 48 24.5	+0.7
	comp=Z,15nm,0.6s,baz=204,slow=5.0,SNR=13						
ULN	Ulaanbaatar	42.75	14	*e*P	P	06 46 31.9	-0.6
	comp=Z,18nm,1.0s,mb4.8						
INCN	Inchon	43.26	40	*e*P	P	06 46 36.7	-0.1
	comp=Z,24nm,0.5s,mb5.2						
KS15	Wonju Array Si	44.04	41	*e*P	P	06 46 42.6	-0.5
SNY	Shenyang	44.26	33	⇑P	P	06 46 45.0	+0.1
SNY				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.5						
ZAK	Zakamensk	44.40	9	*e*P	P	06 46 46.0	+0.2
HASS	Wahat al Ahsa'	45.31	299	P	P	06 46 54.9	+1.3
MOY	Mondy	45.33	7	*e*P	P	06 46 53.7	+0.4
NWAO	Narrogin (SRO)	45.60	151	P	P	06 46 56.4	+0.7
	comp=Z,32nm,0.8s,mb5.3,baz=307,slow=12,SNR=8.1						
NWAO	Narrogin (SRO)	45.60	151	P	P	06 46 56.4	+0.7
NWAO				pmax	pmax		
	comp=Z,32nm,0.8s						
NWAO	Narrogin (SRO)	45.60	151	P	P	06 46 56.4	+0.7
TLY	Talaya	45.71	9	⇑*e*P	P	06 46 57.0	+0.7
TLY				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						

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TLY   Talaya           45.71   9⇑eP      P       06 46 57.1 +0.8
CN2   Changchun        46.61  32 ⇑P      P       06 47 06.5 +3.0
CN2                              eS      S       06 53 53.0 +3.0
CN2                               AMB    AMB
      comp=Z,60nm,0.7s,mb5.6
CN2                               AMB    AMB
      comp=Z,6µm,7.0s
CN2                               LR     LR
      comp=N,7µm,14.0s,MS5.9
CN2                               LR     LR
      comp=E,7µm,14.0s,MS5.9
CN2                               LR     LR
      comp=Z,9µm,15.0s,MS5.8
ZAL   Zalesovo         47.60 353  P      P       06 47 11.2 +0.1
      comp=Z,30nm,0.8s,mb5.4,baz=297,slow=6.2,SNR=34
ZAL   Zalesovo         47.60 353  P      P       06 47 11.3 +0.1
ZAL                               pmax   pmax
      comp=Z,30nm,0.8s
HIA   Hailar           48.04  23 eP      P       06 47 14.5 -0.2
      comp=Z,52nm,1.0s,mb5.5
RDF   Al-Radifah       48.25 303 eP      P       06 47 17.8 +1.2
RDF                               AMb    AMB     06 47 20.0
      comp=Z,96nm,1.5s,mb5.6
UMR   Umm Al-Rimmam    48.31 304 eP      P       06 47 18.1 +1.1
UMR                               AMb    AMB     06 47 18.9
      comp=Z,82nm,0.8s,mb5.8
YOMI  Yo Moklole       48.32 100⇓iP      P       06 47 14.2 -3.1
WRA   Warramunga Arr   48.47 124  P      P       06 47 17.9 -0.5
      comp=Z,66nm,0.9s,mb5.7,baz=303,slow=8.7,SNR=43
WRA   Warramunga Arr   48.47 124  P      P       06 47 17.9 -0.5
WRA                               pmax   pmax
      comp=Z,66nm,0.9s
WRAB  Tennant Creek    48.47 124c iP     P       06 47 18.3 -0.1
WRAB  Tennant Creek    48.47 124 eP      P       06 47 17.8 -0.7
      comp=Z,148nm,0.9s,mb6.0
NVS   Novosibirsk      48.67 352 i P     P       06 47 18.0 -1.5
NVS                              i               06 47 34.4
NVS                              e               06 49 11.6
NVS                              i S     S       06 54 19.2 +0.2
NVS                               pmax   pmax
      comp=N,51nm,1.0s
NVS                               pmax   pmax
      comp=E,23nm,1.0s
NVS                               pmax   pmax
      comp=Z,72nm,1.0s,mb5.7
NVS                               smax
      comp=N,50nm,2.4s
NVS                               smax
      comp=E,70nm,2.4s
KAMS  Al Khamasin      48.86 291  P      P       06 47 21.6 +0.2
RST   Umm Al-Ruwaisa   48.89 304 eP      P       06 47 21.9 +0.4
RST                               AMb    AMB     06 47 23.2
      comp=Z,72nm,0.8s,mb5.7
MZLS  Mizel            48.98 296  P      P       06 47 23.3 +1.1
MDJ   Mudanjiang       49.40  34  P      P       06 47 25.8 +0.6
MDJ                               AMB    AMB
      comp=Z,75nm,1.2s,mb5.6
MDJ   Mudanjiang       49.40  34 eP      P       06 47 25.6 +0.4
      comp=Z,134nm,1.3s,mb5.8
TATS  Tathlith         49.77 290  P      P       06 47 29.2 +0.8
BVA0  Borovoye Array   49.78 342  P      P       06 47 27.0 -1.1
BVA0                              pmax   pmax
      comp=Z,4.0nm,0.9s,mb4.5
BVAR  Borovoye Array   49.78 342  P      P       06 47 27.1 -0.9
      comp=Z,27nm,0.8s,mb5.3,baz=143,slow=7.4,SNR=34
BVAR                              PcP    PcP     06 48 48.7 -0.2
      comp=Z,9.3nm,0.7s,baz=135,slow=2.1,SNR=5.1
BRVK  Borovoye         49.84 342⇑iP      P       06 47 27.8 -0.7
ASAR  Alice Springs    50.00 128  P      P       06 47 29.8 -0.3
      comp=Z,53nm,0.8s,mb5.6,baz=305,slow=7.3,SNR=49
CHKZ  Chkalovo         50.28 343 eP      P       06 47 31.1 -0.8
      comp=Z,80nm,1.0s,mb5.7
MAT   Matsushiro       50.76  47  P      P       06 47 35.1 -0.6
MAT   Matsushiro       50.76  47 eP      P       06 47 35.0 -0.7
      comp=Z,12nm,1.0s,mb4.8
CBIJ  Chichi jima      50.82  60  P      P       06 47 35.6 -0.7
      comp=Z,108nm,0.7s,mb5.9,baz=184,slow=5.0,SNR=7.4
AFFS  ‘Afif            50.94 295  P      P       06 47 38.9 +1.6
ARSS  Ar Rass          51.13 298  P      P       06 47 39.3 +0.6
BLJS  Baljurashi       51.57 290  P      P       06 47 44.0 +1.9
HILS  Ha’il            52.73 299  P      P       06 47 52.2 +1.5
BOD   Bodaibo          53.56  14 eP      P       06 47 55.9 -0.5
GNI   Garni            54.51 315  P      P       06 48 03.8 +0.2
      comp=Z,93nm,1.1s,mb5.7,baz=284,slow=1.0,SNR=16
GNI   Garni            54.51 315  P      P       06 48 03.8 +0.2
GNI                               pmax   pmax
      comp=Z,93nm,1.2s
GNI   Garni            54.51 315 eP      P       06 48 03.0 -0.6
      comp=Z,114nm,1.1s,mb5.8
KBRS  Khaybar          54.62 297  P      P       06 48 05.9 +1.3
CLNS  Chul’man         55.93  20 eP      P       06 48 10.2 -3.5
CLNS                              pmax   pmax
      comp=Z,91nm,0.9s,mb5.8
CLNS                              pmax   pmax
      comp=N,38nm,0.8s
CLNS                              pmax   pmax
      comp=E,45nm,1.0s
SVE   Sverdlovsk       56.12 339 eP      P       06 48 15.0 -0.1
SVE                              e               06 49 11.0
KMBO  Kilima Mbogo     56.22 264  P      P       06 48 17.6 +1.2
      comp=E,7.8nm,0.8s,mb4.8,baz=58,slow=10,SNR=16
KMBO  Kilima Mbogo     56.22 264  P      P       06 48 17.6 +1.2
KMBO                              pmax   pmax
      comp=Z,8.0nm,0.8s
KMBO  Kilima Mbogo     56.22 264 eP      P       06 48 16.7 +0.3
      comp=Z,32nm,1.6s,mb5.1
PMG   Port Moresby     56.23 106  P      P       06 48 15.9 -0.6
      comp=Z,116nm,0.7s,mb6.0,baz=326,slow=3.2,SNR=52
PMG   Port Moresby     56.23 106  P      P       06 48 15.9 -0.5
PMG                               pmax   pmax
      comp=Z,116nm,0.7s
PMG   Port Moresby     56.23 106 eP      P       06 48 15.6 -0.9
UMJS  Umm Lajj         56.26 296  P      P       06 48 18.3 +1.8
ARU   Arti             56.58 338c iP     P       06 48 17.0 -1.4
ARU                               pmax   pmax
      comp=Z,139nm,1.7s,mb5.7
ARU   Arti             56.58 338⇑iP      P       06 48 17.1 -1.3
ASAJ  Asahikawa        57.02  41  P      P       06 48 22.4 +0.7
      comp=Z,23nm,0.9s,mb5.2,baz=230,slow=12,SNR=6.2
ASAJ  Asahikawa        57.02  41  P      P       06 48 22.5 +0.7
ASAJ                              pmax   pmax
      comp=Z,23nm,0.9s
TBKS  Tabuk            57.45 299  P      P       06 48 26.6 +1.6
KIV   Kislovodsk       57.49 319  P      P       06 48 24.9 -0.1
      comp=Z,289nm,0.9s,mb6.3,SNR=15
KIV   Kislovodsk       57.49 319c iP     P       06 48 23.9 -1.1
KIV                               pmax   pmax
      comp=Z,116nm,2.0s,mb5.6
KIV   Kislovodsk       57.49 319⇑iP      P       06 48 23.0 -2.0
GOF   Gofitskoye       57.74 320⇓iP      P       06 48 25.5 -1.2
GOF                               pmax   pmax
      comp=Z,70nm,1.3s,mb5.5
ASF   Jabal al Asfar   57.97 304  P      P       06 48 29.9 +1.3
      comp=Z,25nm,0.9s,mb5.2,baz=28,slow=0.8,SNR=16
ELZG  Elazig           58.06 312 i P     P       06 48 28.6 -0.5
JMQS  Jabal Moqyreh    58.15 300  P      P       06 48 31.2 +1.3
YSS   Yuzh-Sakhalins   58.39  38⇑iP      P       06 48 30.2 -1.0
YSS                               pmax   pmax
      comp=Z,80nm,0.9s,mb5.8
YSS   Yuzh-Sakhalins   58.39  38 eP      P       06 48 30.8 -0.4
      comp=Z,93nm,1.2s,mb5.7
MALT  Malatya          58.42 311 eP      P       06 48 30.8 -0.9
      comp=Z,24nm,1.3s,mb5.1
AYUS  ‘Aynunah         58.55 299  P      P       06 48 33.7 +1.0
CTA   Charters Tower   58.68 118  P      P       06 48 33.4 -0.3
      comp=Z,49nm,0.9s,mb5.5,baz=294,slow=8.2,SNR=30
CTA   Charters Tower   58.68 118  P      P       06 48 33.4 -0.3
CTA                               pmax   pmax
      comp=Z,49nm,0.9s
BDAS  Al Bad‘          58.74 299  P      P       06 48 34.6 +0.6
GZT   Gaziantep        58.79 310 i P     P       06 48 33.7 -0.5
JMOS  Jabal al Moall   58.86 300  P      P       06 48 35.8 +1.0
MKRJ  Makawir          58.88 303  P      P       06 48 35.9 +1.0
ALWS  Ilw as Safayha   58.93 300  P      P       06 48 36.2 +0.9
HAQS  Haql             59.00 300  P      P       06 48 36.8 +1.0
AQBJ  Aqaba            59.02 301  P      P       06 48 36.5 +0.6
EIL   Elat             59.09 301  P      P       06 48 37.0 +0.6
      comp=Z,30nm,0.8s,mb5.4,baz=88,slow=5.6,SNR=19
EIL   Elat             59.09 301  P      P       06 48 37.0 +0.6
EIL   Elat             59.09 301 eP      P       06 48 36.7 +0.3
      comp=Z,81nm,1.3s,mb5.6
DRGI  Dragot           59.09 303  P      P       06 48 36.6 +0.2
YUK   Yuzh-Kuril’sk    59.13  42 eP      P       06 48 35.0 -1.5
MBH   Mount Berech     59.14 301  P      P       06 48 37.5 +0.7
MMLI  Mount Malkishu   59.25 304  P      P       06 48 38.7 +1.2
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SOC   Sochi            59.31 317 eP      P       06 48 35.0 -2.8
SOC                               pmax   pmax
      comp=Z,22nm,0.9s,mb5.2
SOC                               pmax   pmax
      comp=N,19nm,1.0s
SOC                               pmax   pmax
      comp=E,11nm,1.2s
COBT  Iskenderun       59.56 309 i P     P       06 48 39.6  0.0
OFRI  ‘Ofer            59.65 304  P      P       06 48 40.9 +0.7
STKA  Stephens Creek   60.08 133  P      P       06 48 43.0 -0.2
      comp=E,46nm,0.8s,mb5.6,baz=303,slow=6.7,SNR=40
STKA  Stephens Creek   60.08 133 eP      P       06 48 42.7 -0.5
AVNT  Avonos           61.24 311 i P     P       06 48 49.6 -1.3
YAK   Yakutsk          61.47  19 eP      P       06 48 49.6 -2.6
YAK                               pmax   pmax
      comp=Z,65nm,0.7s,mb5.9
YAK                               pmax   pmax
      comp=N,46nm,1.2s
YAK                               pmax   pmax
      comp=E,38nm,1.3s
CSS   Prodhromos       61.50 306 eP      P       06 48 51.5 -1.2
      comp=E,124nm,1.5s,mb5.8
CTKT  Corum            61.80 313 i P     P       06 48 53.2 -1.5
BOYT  Boyabat          61.94 314 i P     P       06 48 53.1 -2.6
BRTR  Keskin Array B   62.40 311  P      P       06 48 57.2 -1.6
      comp=E,17nm,0.8s,mb5.2,baz=123,slow=7.4,SNR=39
BRTR  Keskin Array B   62.40 311  P      P       06 48 57.2 -1.6
BRTR                              pmax   pmax
      comp=Z,17nm,0.8s
MBAR  Mbarara          62.59 266 eP      P       06 48 60.0 -0.4
      comp=Z,25nm,1.5s,mb5.1
ELDT  Eldivan          62.76 312 i P     P       06 48 59.9 -1.2
MOS   Moscow           65.54 329 eP      P       06 49 16.5 -2.5
MOS                               pmax   pmax
      comp=Z,129nm,1.2s,mb5.8
OBN   Obninsk          65.82 328⇑iP      P       06 49 18.9 -1.9
OBN                              e               06 49 50.2
OBN                              e               06 51 44.1
OBN                               S      S       06 58 04.6 +0.4
OBN                              i SS    SS      07 02 20.1 -0.3
OBN                               pmax   pmax
      comp=Z,61nm,1.1s,mb5.5
KIS   Kishinev         67.68 318 eP      P       06 49 30.0 -2.8
KIS                              e               06 49 55.0
CFR   Carcaliu         67.70 316⇓iP      P       06 49 32.0 -1.0
CFR   Carcaliu         67.70 316⇓iP      P       06 49 32.0 -0.9
LSZ   Lusaka           67.85 251 eP      P       06 49 34.1 -0.2
SKR   Severo-Kuril’s   67.96  38 eP      P       06 49 30.1 -4.3
SKR                              e       pP      06 49 37.9 -5.0
SKR                               pmax   pmax
      comp=N,180nm,1.0s
SKR                               pmax   pmax
      comp=E,180nm,1.0s
SKR                               pmax   pmax
      comp=Z,320nm,1.0s,mb6.3
MA2   Magadan          68.32  28 eP      P       06 49 36.3 -0.3
MA2                               pmax   pmax
      comp=Z,70nm,0.9s,mb5.7
MA2   Magadan          68.32  28 eP      P       06 49 35.7 -0.8
      comp=Z,306nm,1.5s,mb6.1
IDI   Anoyia           68.37 305  P      P       06 49 37.6 +0.3
      comp=Z,49nm,0.9s,mb5.5,baz=88,slow=5.9,SNR=14
AKASG Malin Array Be   68.43 322  P      P       06 49 35.2 -2.2
      comp=Z,14nm,0.8s,mb5.0,baz=90,slow=4.4,SNR=36
AKASG Malin Array Be   68.43 322  P      P       06 49 35.2 -2.2
AKASG                             pmax   pmax
      comp=Z,14nm,0.8s
ISR   Istrita          68.78 316⇓iP      P       06 49 40.4 +0.7
ISR   Istrita          68.78 316⇓iP      P       06 49 40.4 +0.7
VRI   Vrincioaia       68.82 317⇓iP      P       06 49 40.0 +0.1
RZN   Rozhen           69.44 312  P      P       06 49 43.0 -0.8
PAIG  Paliouri         69.95 310 eP      P       06 49 46.2 -0.7
PET   Petropavlovsk    70.13  36 eP      P       06 49 46.9 -0.9
PET                               pmax   pmax
      comp=Z,66nm,1.1s,mb5.5
PET   Petropavlovsk    70.13  36 eP      P       06 49 46.3 -1.5
      comp=Z,64nm,1.1s,mb5.5
MMB   Musomiste        70.16 312  P      P       06 49 47.0 -1.1
SRS   Serrai           70.19 311 eP      P       06 49 47.0 -1.3
SOH   Sokhos           70.32 311 eP      P       06 49 47.9 -1.3
KKB   Krupnik          70.68 312  P      P       06 49 50.0 -1.3
VTS   Vitosha          70.69 313  P      P       06 49 50.5 -0.9
AGG   Agios Georgios   70.86 309 eP      P       06 49 50.5 -2.0
LIT   Litokhoron       70.88 310 eP      P       06 49 50.4 -2.1
GRG   Griva            71.06 311 eP      P       06 49 52.3 -1.4
BOLS  Boljevac         71.78 314⇓iP      P       06 49 57.1 -0.9
KWP   Kalwaria         72.24 320 eP      P       06 50 00.3 -0.3
KOLS  Kolonicke sedl   72.40 319 eP      P       06 50 01.4 -0.1
APA   Apatity          72.59 340⇑iP      P       06 50 01.5 -0.8
APA                               pmax   pmax
      comp=Z,47nm,1.0s,mb5.4
GRUS  Gruza            72.68 314 e       P       06 50 02.5 -0.8
LBTB  Lobatse          72.72 241 eP      P       06 50 01.9 -2.0
      comp=Z,24nm,1.0s,mb5.1
SUW   Suwalki          72.85 325 eP      P       06 50 02.3 -1.7
CRVS  Cervenica-Dubn   72.92 319 eP      P       06 50 05.3 +0.7
FINES FINESS Array B   73.27 332  P      P       06 50 05.4 -0.9
      comp=Z,23nm,0.7s,mb5.2,baz=112,slow=10,SNR=29
FINES FINESS Array B   73.27 332  P      P       06 50 05.4 -0.9
FINES                             pmax   pmax
      comp=Z,23nm,0.7s
KAF   Kangasniemi      73.36 333 ep      P       06 50 06.0 -0.9
      comp=Z,19nm,0.9s,mb5.0
KAF   Kangasniemi      73.36 333 eP      P       06 50 06.0 -0.9
KAF                               pmax   pmax
      comp=Z,19nm,0.9s,mb5.0
KECS  Kecovo           73.49 319 eP      P       06 50 07.9  0.0
NIE   Niedzica         73.75 319 eP      P       06 50 09.1 -0.2
PSZ   Piszkesteto      73.80 318⇑eP      P       06 50 09.1 -0.6
PSZ                              i               06 52 01.0
OJC   Ojcow            74.20 320 eP      P       06 50 11.2 -0.7
VYHS  Vyhne            74.58 318 i P     P       06 50 13.7 -0.5
SRO2  Moca             74.78 318 eP      P       06 50 15.7 +0.3
SRO   Srobarova        74.84 318 eP      P       06 50 16.2 +0.5
OKC   Ostrava-Krasne   75.20 320 eP      P       06 50 17.3 -0.4
KEV   Kevo             75.61 341 ep      P       06 50 19.4 -0.3
      comp=Z,20nm,0.8s,mb5.1
KEV   Kevo             75.61 341 eP      P       06 50 19.4 -0.3
KEV                               pmax   pmax
      comp=Z,20nm,0.8s,mb5.1
ZST   Bratislava       75.69 318 i P     P       06 50 20.5 -0.1
ARCES ARCESS Array B   76.03 340  P      P       06 50 22.0 -0.1
      comp=Z,25nm,0.9s,mb5.2,baz=101,slow=6.2,SNR=27
ARCES ARCESS Array B   76.03 340  P      P       06 50 22.0 -0.1
ARCES                             pmax   pmax
      comp=Z,25nm,0.9s
DPC   Dobruska-Polom   76.42 320 eP      P       06 50 24.8 +0.1
KSP   Ksiaz            76.50 321⇑eP      P       06 50 25.2 +0.1
KSP                              e               06 50 28.8
KSP   Ksiaz            76.50 321 eP      P       06 50 25.1  0.0
UPC   Upice            76.64 320 eP      P       06 50 25.7 -0.2
ARSA  Arzberg          76.67 317⇑iP      P       06 50 26.3 +0.2
      comp=Z,23nm,1.1s,mb5.0
MAW   Mawson           77.15 191  P      P       06 50 29.7 +1.3
      comp=Z,11nm,0.7s,mb4.9,baz=19,slow=8.2,SNR=11
MAW   Mawson           77.15 191  P      P       06 50 29.7 +1.3
MAW                               pmax   pmax
      comp=Z,11nm,0.7s
DZM   Mont Dzumac      77.28 114 eP      P       06 50 31.0 +1.0
DZM   Mont Dzumac      77.28 114 eP      P       06 50 31.0 +1.0
PRU   Pruhonice        77.53 320 eP      P       06 50 30.1 -0.7
PRU                              ex      x       06 50 48.4
MOA   Molln            77.56 317⇑iP      P       06 50 30.9 -0.1
      comp=Z,28nm,1.3s,mb5.0
PVCC  Panska Ves       77.56 320 eP      P       06 50 31.3 +0.3
BRG   Berggiesshubel   77.98 320 eP      P       06 50 33.5 +0.2
BRG                               pmax   pmax
      comp=Z,24nm,1.0s,mb5.1
BRG   Berggiesshubel   77.98 320 eP      P       06 50 33.5 +0.2
      comp=Z,24nm,1.0s,mb5.1
GEC2  GERESS Array S   78.00 318 eP      P       06 50 33.7 +0.3
GEC2                              pmax   pmax
      comp=Z,132nm,2.0s,mb5.5
GEC2  GERESS Array S   78.00 318 eP      P       06 50 33.7 +0.3
      comp=Z,132nm,2.0s,mb5.5
GERES GERESS Array B   78.00 318  P      P       06 50 33.6 +0.2
      comp=Z,16nm,0.8s,mb5.0,baz=90,slow=5.3,SNR=47
GERES GERESS Array B   78.00 318  P      P       06 50 33.6 +0.2
GERES                             pmax   pmax
      comp=Z,17nm,0.8s
KHC   Kasperske Hory   78.10 319 eP      P       06 50 33.9  0.0
KHC                              epP     pP      06 50 50.6 +8.1
PTCC  Patocco-Chiusa   78.10 316 eP      P       06 50 33.4 -0.6
RUE   Ruedersdorf      78.20 322 eP      P       06 50 34.0 -0.4
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      comp=Z,15nm,0.6s,mb5.1
ARV   Arcevia          78.27 313 eP      P       06 50 34.8 -0.2
WET   Wettzell         78.56 319 eP      P       06 50 36.7 +0.2
CLL   Collm            78.60 321 i P     P       06 50 36.3 -0.4
CLL                              i               06 50 40.0
CLL   Collm            78.60 321  P      P       06 50 36.3 -0.4
CLL                              i *PP   pP      06 50 40.0 -5.3
FX1   Attu Island--F   78.74  37  P      P       06 50 37.6 +0.2
      comp=Z,41nm,0.6s,mb5.5,baz=340,slow=1.2,SNR=7.3
FX1   Attu Island--F   78.74  37  P      P       06 50 37.6 +0.2
FX1                               pmax   pmax
      comp=Z,41nm,0.6s
NKC   Novy Kostel      78.89 320 eP      P       06 50 38.6 +0.3
HFS   Hagfors          78.94 330  P      P       06 50 38.0 -0.4
      comp=Z,12nm,0.8s,mb4.9,baz=108,slow=4.7,SNR=8.8
HFS   Hagfors          78.94 330  P      P       06 50 38.0 -0.4
HFS                               pmax   pmax
      comp=Z,12nm,0.8s
SFI   Santa Sofia      79.07 313 eP      P       06 50 40.6 +1.2
PGD   Poggio Sodo      79.16 313 eP      P       06 50 41.1 +1.2
CTI   Castel Tesino    79.27 316 eP      P       06 50 40.2 -0.2
VMG   Vicchio          79.29 313 eP      P       06 50 41.5 +0.9
WTTA  Wattenberg       79.31 317⇑iP      P       06 50 40.0 -0.6
      comp=Z,33nm,0.8s,mb5.3
WATA  Walderalm        79.35 317⇑iP      P       06 50 40.4 -0.4
      comp=Z,16nm,0.9s,mb5.0
SEI   Scarperia        79.43 313 eP      P       06 50 42.0 +0.7
MOX   Moxa             79.44 320 eP      P       06 50 41.6 +0.3
MOX   Moxa             79.44 320 i P     P       06 50 41.6 +0.3
FUR   Furstenfeldbru   79.58 318 eP      P       06 50 41.8 -0.3
SQTA  Sankt Quirin     79.60 317⇑iP      P       06 50 41.7 -0.5
      comp=Z,23nm,0.7s,mb5.2
GRA1  Grafenberg Arr   79.66 319 eP      P       06 50 43.1 +0.6
      comp=Z,44nm,1.0s,mb5.3
GRF   Grafenberg Arr   79.66 319 eP      P       06 50 43.1 +0.6
GRF                               pmax   pmax
      comp=Z,44nm,1.0s,mb5.3
GRF   Grafenberg Arr   79.66 319 eP      P       06 50 43.1 +0.6
      comp=Z,44nm,1.0s,mb5.3
MOTA  Moosalm          79.67 317⇑iP      P       06 50 42.0 -0.6
      comp=Z,18nm,0.8s,mb5.0
ZCCA  Zocca            79.71 314 eP      P       06 50 43.8 +1.0
GSCL  Gusciola         79.99 314 eP      P       06 50 45.2 +0.9
NB2   NORSAR Subarra   80.24 331  P      P       06 50 44.5 -0.8
      comp=Z,16nm,0.9s,mb5.0,baz=97,slow=5.3
NB2   NORSAR Subarra   80.24 331  P      P       06 50 44.5 -0.8
      baz=97,slow=5.3
NOA   NORSAR Array B   80.24 331  P      P       06 50 44.7 -0.6
      comp=Z,7.3nm,0.8s,mb4.7,baz=94,slow=5.5,SNR=17
NOA   NORSAR Array B   80.24 331  P      P       06 50 44.7 -0.6
NOA                               pmax   pmax
      comp=Z,7.0nm,0.8s
CLZ   Clausthal        80.27 321 eP      P       06 50 45.8 +0.1
      comp=Z,20nm,0.9s,mb5.0
BSEG  Bad Segeberg     80.36 323 eP      P       06 50 46.4 +0.3
DAVOX Davos            80.50 316  P      P       06 50 47.9 +0.9
      comp=Z,28nm,0.8s,mb5.2,baz=114,slow=6.7,SNR=24
DAVA  Damuels          80.50 317⇑iP      P       06 50 47.4 +0.4
      comp=Z,34nm,1.1s,mb5.2
MUD   Monsted U’grnd   81.09 326 i P     P       06 50 49.0 -0.9
MUD                               pmax   pmax
      comp=Z,26nm,0.9s,mb5.2
MUD   Monsted U’grnd   81.09 326 i P     P       06 50 49.0 -0.9
      comp=Z,26nm,0.9s,mb5.2
VAI   Varese           81.27 315 eP      P       06 50 50.3 -0.8
BFO   Black Forest     81.55 318 eP      P       06 50 52.2 -0.3
BFO                               pmax   pmax
      comp=Z,118nm,2.5s,mb5.4
BFO   Black Forest     81.55 318 eP      P       06 50 52.2 -0.3
      comp=Z,118nm,2.5s,mb5.4
LPG   La Plagne        82.69 315⇑iP      P       06 50 58.9 +0.4
      comp=Z,69nm,1.0s,mb5.3
BNI   Bardonecchia     82.76 315 eP      P       06 50 58.5 -0.3
      comp=Z,33nm,1.0s,mb5.3
SYO   Syowa Base       83.95 197 ⇓P      P       06 51 05.3 +0.9
SYO   Syowa Base       83.95 197 ⇓PcP    PcP     06 51 11.4 +2.7
SYO   Syowa Base       83.95 197 ⇓pP     pP      06 51 18.8 +5.7
EKA   Eskdalemuir Ar   88.09 325  P      P       06 51 25.8 +0.7
      comp=Z,14nm,0.7s,mb5.3,baz=98,slow=5.6,SNR=27
EKA   Eskdalemuir Ar   88.09 325  P      P       06 51 25.8 +0.8
EKA                               pmax   pmax
      comp=Z,14nm,0.7s
DAG   Danmarks Havn    88.41 348⇓eP      P       06 51 26.0 -0.2
DAG                               pmax   pmax
      comp=Z,9.0nm,0.6s,mb5.2
DAG   Danmarks Havn    88.41 348⇓eP      P       06 51 26.0 -0.2
      comp=Z,9.3nm,0.6s,mb5.2
DAG   Danmarks Havn    88.41 348⇓iP      P       06 51 26.0 -0.2
      comp=Z,9.3nm,0.6s,mb5.2
ESDC  Sonseca Array    91.16 310  P      P       06 51 40.9 +1.1
      comp=Z,9.5nm,0.8s,mb5.2,baz=60,slow=4.4,SNR=23
VNDA  Vanda            91.98 168  P      P       06 51 43.8 +1.0
      comp=Z,3.8nm,1.0s,mb4.7,baz=325,slow=6.4,SNR=3.6
VNDA  Vanda            91.98 168  P      P       06 51 43.8 +1.0
VNDA                              pmax   pmax
      comp=Z,4.0nm,1.0s
IMA   Indian Mountai   93.14  22 eP      P       06 51 49.9 +1.7
      comp=Z,79nm,0.8s,mb6.2
ILAR  Eielson Array    96.25  22  P      P       06 52 03.5 +0.9
      comp=Z,3.6nm,0.8s,mb4.9,baz=294,slow=4.6,SNR=25
ILAR  Eielson Array    96.25  22  P      P       06 52 03.5 +0.9
ILAR                              pmax   pmax
      comp=Z,4.0nm,0.8s
DBIC  Dimbokro         97.03 278  P      P       06 52 06.8 -0.6
      comp=Z,11nm,1.4s,mb5.1,baz=84,slow=12,SNR=3.4
DBIC  Dimbokro         97.03 278  P      P       06 52 06.8 -0.5
DBIC                              pmax   pmax
      comp=Z,11nm,1.4s
SNAA  Sanae            98.15 199⇓i       P       06 52 01.6 -9.4
SNAA  Sanae            98.15 199 e       P       06 52 12.4 +1.4
SNAA  Sanae            98.15 199 e       P       06 52 16.5 +5.5
SNAA  Sanae            98.15 199  P      P       06 52 12.4 +1.4
      comp=Z,0.5nm,0.7s,baz=27,slow=2.9,SNR=4.3
SNAA  Sanae            98.15 199  P      P       06 52 12.4 +1.4
SNAA                              pmax   pmax
      comp=Z,1.0nm,0.7s
SNAA  Sanae            98.15 199  P      P       06 52 12.4 +1.4
SNAA                             e               06 52 16.5
INK   Inuvik           98.44  16  P      P       06 52 13.5 +1.1
      comp=Z,18nm,0.9s,mb5.6,baz=318,slow=5.2,SNR=29
INK   Inuvik           98.44  16  P      P       06 52 13.5 +1.1
INK                               pmax   pmax
      comp=Z,18nm,0.9s
DAWY  Dawson           99.36  21 eP      P       06 52 17.5 +0.9
VNA2  Neumayer--Watz   99.69 199 e       pP      06 52 28.6 +1.8
VNA2  Neumayer--Watz   99.69 199 e       sP      06 52 32.8 +3.3
VNA2  Neumayer--Watz   99.69 199⇑iP      P       06 52 17.9 -0.1
VNA2                             e       pP      06 52 28.6 +1.8
VNA2                             e               06 52 32.8
VNA1  Neumayer--Stat  100.01 199 e               06 52 28.3
VNA1  Neumayer--Stat  100.01 199 e               06 52 32.5
VNA1  Neumayer--Stat  100.01 199⇓iP      P       06 52 18.1 -1.4
VNA1                             e               06 52 28.3
VNA1                             e               06 52 32.5
VNA3  Neumayer Olymp  100.37 199 e               06 52 29.0
VNA3  Neumayer Olymp  100.37 199 e               06 52 33.4
VNA3  Neumayer Olymp  100.37 199⇑iP      P       06 52 19.5 -1.6
VNA3                             e               06 52 29.0
VNA3                             e               06 52 33.4
YKA   Yellowknife Ar  107.83  13  Pdiff  Pdif    06 52 57.7 +3.5
      comp=Z,1.2nm,0.8s,baz=327,slow=4.5,SNR=14
YKA                               PKiKP          06 57 02.0
      comp=Z,1.0nm,0.9s,baz=321,slow=3.0,SNR=5.5
YKA   Yellowknife Ar  107.83  13  P      Pdif    06 52 57.7 +3.5
YKA                               pmax   pmax
      comp=Z,1.0nm,0.8s
YKA                               pmax   pmax
      comp=Z,1.0nm,0.9s
YKA   Yellowknife Ar  107.83  13  Pdif   Pdif    06 52 57.7 +3.5
YKA                               PKPdf          06 57 02.0
BMO   Blue Mountains  121.91  25 ePKPdf  PKPdf   06 57 28.7 -4.1
ULM   Lac du Bonnet   122.78   7  PKP    PKPdf   06 57 32.2 -2.0
      comp=Z,11nm,0.8s,baz=341,slow=1.8,SNR=18
ULM   Lac du Bonnet   122.78   7  PKP    PKPdf   06 57 32.2 -2.0
OHCM  Honcut          124.17  32 ePKPdf  PKPdf   06 57 34.5 -2.8
YMR   Madison River   124.51  21 ePKPdf  PKPdf   06 57 36.0 -1.9
REDW  Red Top Meadow  125.69  21 ePKPdf  PKPdf   06 57 38.0 -2.1
NVAR  Mina Array Bea  126.50  31  PKP    PKPdf   06 57 40.3 -1.5
      comp=Z,14nm,0.9s,baz=297,slow=0.9,SNR=47
PDAR  Pinedale Array  126.67  21  PKP    PKPdf   06 57 39.7 -2.3
      comp=Z,15nm,0.8s,baz=68,slow=1.9,SNR=66
PDAR  Pinedale Array  126.67  21  PKP    PKPdf   06 57 39.7 -2.3
MTUM  Tungsten Hills  127.18  32 ePKPdf  PKPdf   06 57 41.6 -1.6
DAU   Daniels Canyon  128.07  24 ePKPdf  PKPdf   06 57 43.1 -1.7
TMUT  Trail Mountain  129.04  24 ePKPdf  PKPdf   06 57 44.8 -2.0
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MSU	**Marysvale**	**129.30**	**26**	*e*PKPdf	PKPdf	06 57 46.1	-1.1
PV10	**Paradox Valley**	**130.70**	**23**	*e*PKPdf	PKPdf	06 57 48.0	-1.9
TXAR	**Lajitas Array**	**140.75**	**23**	PKhKP		06 57 59.1	
	comp=Z,2.1nm,0.8s,baz=222,slow=1.1,SNR=8.4						
TXAR				PKP	PKPdf	06 58 06.6	-2.2
	comp=Z,5.3nm,0.7s,baz=45,slow=3.0,SNR=20						
TXAR	**Lajitas Array**	**140.75**	**23**	PKP	PKPdf	06 58 06.6	-2.2
BDFB	**Brasilia**	**140.84**	**253**	PKhKP		06 57 59.8	
	comp=Z,1.9nm,1.0s,baz=185,slow=7.1,SNR=3.4						
BDFB				PKP	PKPdf	06 58 06.8	-2.4
	comp=Z,5.8nm,0.9s,baz=61,slow=4.0,SNR=7.7						
BDFB	**Brasilia**	**140.84**	**253**	PKHKP		06 57 59.8	
BDFB						06 58 06.8	
BDFB				pmax	pmax		
	comp=Z,2.0nm,1.0s						
BDFB				pmax	pmax		
	comp=Z,6.0nm,0.9s						
BDFB	**Brasilia**	**140.84**	**253**	PKP	PKPdf	06 58 06.8	-2.4
JCT	**Junction City**	**141.06**	**18**	*e*PKPpre		06 57 59.4	
JCT				*e*PKPdf	PKPdf	06 58 06.8	-2.4
SJG	**San Juan**	**147.94**	**320**	PKPbc	PKPdf	06 58 21.5	+0.2
	comp=Z,16nm,0.7s,baz=66,slow=5.6,SNR=6.7						
SJG	**San Juan**	**147.94**	**320**	PKP2	PKPab	06 58 21.5	-2.7
SJG				pmax	pmax		
	comp=Z,16nm,0.7s						
PCRV	**Puerto La Cruz**	**152.18**	**307**	PKPbc	PKPdf	06 58 30.1	+2.1
	comp=Z,17nm,0.6s,baz=76,slow=1.9,SNR=13						
LPAZ	**La Paz**	**159.25**	**241**	PKP	PKPdf	06 58 35.6	-1.6
	comp=Z,3.8nm,0.7s,baz=342,slow=2.2,SNR=10						
LPAZ				PKPab	PKPab	06 59 12.6	+0.6
	comp=Z,5.1nm,0.8s,baz=120,slow=7.0,SNR=5.7						
LPAZ	**La Paz**	**159.25**	**241**	PKIKP	PKPdf	06 58 35.6	-1.6
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.9s						
LPAZ	**La Paz**	**159.25**	**241**	*e*PKPdf	PKPdf	06 58 35.2	-2.0
ROSC	**El Rosal**	**162.98**	**312**	PKP	PKPdf	06 58 39.9	-1.3
	comp=Z,11nm,0.9s,baz=115,slow=3.3,SNR=18						

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*IDC **26** 06:40:10.0±0.8, 4.50N×95.27E, h20^{km}±5^{km}, mb4.9/25, mb1 4.9/26, mb1mx4.9/30, Error ellipse: s-maj=21.5km s-min=13.5km az=33.0*

ISC 26 06:40:08.3±0.5**, 4.35N**±0.09×**95.27E**±0.08**, h22^{km}, h22^{km}**±.1^{km}**:pP-P, n59, σ0^{s}85**/47**, mb5.0**/27**, MS5.5**/1**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.48**	**14**	Pn	**P**	**06 43 35.2**	**+1.0**
	baz=230,slow=14,SNR=1.6						
CMAR				ScP		06 52 21.5	
	0.6nm,0.3s,baz=243,slow=3.2,SNR=4.4						
JOW	**Kunigami**	**38.65**	**51**	P	**P**	**06 47 32.4**	**+0.2**
	72nm,0.9s,mb5.4,baz=268,slow=3.7,SNR=5.8						
KSH	**Kashi**	**39.13**	**336**	PKP	**P**	**06 47 37.0**	**+0.9**
KSH				LR	LR		
	comp=N,3µm,13.2s,MS5.5						
KSH				LR	LR		
	comp=E,3µm,10.0s,MS5.5						
ULHL	**Ulahol**	**41.38**	**339**	P	**P**	**06 47 54.0**	**-0.6**
	SNR=6.9						
DL2	**Dalian**	**41.91**	**31**	PKP	**P**	**06 48 00.0**	**+1.0**
TKM2	**Tokmak 2**	**42.20**	**338**	P	**P**	**06 48 02.0**	**+0.7**
	SNR=9.6						
AML	**Almayashu**	**42.26**	**336**	P	**P**	**06 48 02.8**	**+0.9**
	SNR=6.1						
AAK	**Ala-Archa**	**42.37**	**337**	P	**P**	**06 48 04.6**	**+1.9**
	SNR=6.0						
CHMS	**Chumysh**	**42.58**	**338**	P	**P**	**06 48 05.1**	**+0.6**
	SNR=5.8						
USP	**Ospenovka**	**42.90**	**338**	P	**P**	**06 48 08.0**	**+0.9**
	SNR=6.0						
SONM	**Songino Array**	**44.37**	**11**	P	**P**	**06 48 17.1**	**-1.9**
	comp=E,6.1nm,0.7s,mb4.5,baz=192,slow=7.8,SNR=5.9						
SONM				PcP	PcP	06 50 03.0	-0.3
	comp=E,6.6nm,0.6s,baz=190,slow=4.0,SNR=13						
SONM				pPcP		06 50 10.5	
	comp=E,7.2nm,0.7s,baz=198,slow=6.5,SNR=3.8						
WRA	**Warramunga Arr**	**45.35**	**124**	P	**P**	**06 48 27.4**	**+0.2**
	comp=E,81nm,0.7s,mb5.7,baz=302,slow=9.0,SNR=10						
WRA				pP	pP	06 48 34.0	+0.3
	comp=E,90nm,0.8s,baz=304,slow=9.0,SNR=7.0						
ASAR	**Alice Springs**	**46.84**	**128**	P	**P**	**06 48 39.0**	**+0.2**
	comp=E,37nm,0.7s,mb5.4,baz=304,slow=7.3,SNR=6.4						
ASAR				pP	pP	06 48 45.6	+0.2
	comp=E,52nm,0.8s,baz=306,slow=7.5,SNR=5.1						
ZAL	**Zalesovo**	**50.17**	**352**	P	**P**	**06 49 02.3**	**-2.0**
	comp=E,14nm,0.5s,mb5.3,baz=306,slow=7.1,SNR=11						
BVAR	**Borovoye Array**	**52.67**	**341**	P	**P**	**06 49 22.2**	**-1.0**
	comp=E,29nm,0.7s,mb5.3,baz=134,slow=11,SNR=19						
PMG	**Port Moresby**	**53.49**	**105**	P	**P**	**06 49 29.4**	**-0.4**
	comp=E,50nm,0.8s,mb5.5,baz=294,slow=7.2,SNR=5.5						
CTA	**Charters Tower**	**55.65**	**118**	P	**P**	**06 49 45.7**	**+0.2**
	comp=E,18nm,1.1s,mb5.0,baz=307,slow=11,SNR=3.7						
CTA				pP	pP	06 49 52.3	+0.1
	comp=E,17nm,0.8s,baz=290,slow=9.6,SNR=2.8						
ASAJ	**Asahikawa**	**57.38**	**39**	P	**P**	**06 49 56.9**	**-0.7**
	comp=E,18nm,1.0s,mb5.1,baz=234,slow=7.9,SNR=3.1						
KMBO	**Kilima Mbogo**	**58.22**	**266**	P	**P**	**06 50 04.8**	**+1.0**
	comp=E,4.0nm,0.7s,mb4.6,baz=51,slow=14,SNR=3.7						
EIL	**Elat**	**62.17**	**301**	P	**P**	**06 50 30.7**	**0.0**
	comp=E,6.4nm,0.6s,mb5.0,baz=46,slow=8.4,SNR=4.3						
BRTR	**Keskin Array B**	**65.58**	**312**	P	**P**	**06 50 51.2**	**-1.7**
	comp=E,7.6nm,0.7s,mb4.8,baz=133,slow=6.6,SNR=8.3						
IDI	**Anoyia**	**71.50**	**306**	P	**P**	**06 51 28.8**	**-0.9**
	comp=E,8.0nm,0.6s,mb4.8,baz=136,slow=8.3,SNR=4.6						
AKASG	**Malin Array Be**	**71.60**	**322**	P	**P**	**06 51 28.1**	**-1.9**
	comp=E,4.6nm,0.5s,mb4.7,baz=80,slow=4.7,SNR=20						
KOLS	**Kolonicke sedl**	**75.58**	**319**	*e*	**P**	**06 51 53.4**	**+0.1**
KOLS				*e*		06 52 14.4	
CRVS	**Cervenica-Dubn**	**76.11**	**319**	*e*	**P**	**06 52 00.8**	**+4.5**
FINES	**FINESS Array B**	**76.33**	**332**	P	**P**	**06 51 56.4**	**-0.9**
	comp=E,5.9nm,0.5s,mb4.8,baz=110,slow=6.9,SNR=19						
KAF	**Kangasniemi**	**76.42**	**333**	*e*p	**P**	**06 51 56.6**	**-1.2**
	comp=E,5.3nm,0.5s,mb4.7						
OJC	**Ojcow**	**77.38**	**320**	*e*P	**P**	**06 52 03.3**	**0.0**
VYHS	**Vyhne**	**77.77**	**319**	*e*	**P**	**06 52 05.4**	**-0.1**
OKC	**Ostrava-Krasne**	**78.39**	**320**	*e*P	**P**	**06 52 09.3**	**+0.4**
KEV	**Kevo**	**78.51**	**341**	*e*p	**P**	**06 52 08.2**	**-1.0**
	comp=E,17nm,1.0s,mb4.9						
ZST	**Bratislava**	**78.88**	**318**	*e*	**P**	**06 52 11.0**	**-0.6**
ZST				*e*		06 52 23.0	
ARCES	**ARCESS Array B**	**78.94**	**340**	P	**P**	**06 52 11.3**	**-0.2**
	comp=E,5.9nm,0.5s,mb4.8,baz=93,slow=5.6,SNR=24						
FX1	**Attu Island--F**	**79.25**	**37**	P	**P**	**06 52 13.6**	**+0.1**
	comp=E,49nm,0.6s,mb5.6,baz=47,slow=2.0,SNR=13						
DPC	**Dobruska-Polom**	**79.61**	**320**	*e*P	**P**	**06 52 16.2**	**+0.7**
PRU	**Pruhonice**	**80.72**	**320**	*e*P	**P**	**06 52 21.4**	**0.0**
GERES	**GERESS Array B**	**81.19**	**319**	P	**P**	**06 52 24.7**	**+0.7**
	comp=E,12nm,0.9s,mb4.8,baz=93,slow=4.1,SNR=11						
KHC	**Kasperske Hory**	**81.29**	**319**	*e*P	**P**	**06 52 24.6**	**+0.2**
CLL	**Collm**	**81.79**	**321**	P	**P**	**06 52 27.0**	**0.0**
CLL				*e**PP	pP	06 52 34.0	+0.1
HFS	**Hagfors**	**82.05**	**330**	P	**P**	**06 52 28.1**	**0.0**
	comp=E,7.5nm,0.8s,mb4.7,baz=120,slow=4.7,SNR=8.4						
NB2	**NORSAR Subarra**	**83.33**	**331**	P	**P**	**06 52 34.1**	**-0.7**
	comp=E,2.2nm,0.7s,mb4.3,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**83.33**	**331**	P	**P**	**06 52 34.5**	**-0.3**
	comp=E,4.6nm,0.9s,mb4.5,baz=95,slow=5.3,SNR=5.0						
DAVOX	**Davos**	**83.69**	**316**	P	**P**	**06 52 38.0**	**+1.1**
	comp=E,18nm,0.6s,mb5.4,baz=122,slow=11,SNR=19						
LPL	**La Plagne**	**85.90**	**315**	*e*P	**P**	**06 52 48.7**	**+0.7**
	comp=E,28nm,0.8s,mb5.2						
EKA	**Eskdalemuir Ar**	**91.24**	**326**	P	**P**	**06 53 13.7**	**+0.5**
	comp=E,1.7nm,0.5s,mb4.6,baz=92,slow=5.2,SNR=5.6						
ESDC	**Sonseca Array**	**94.33**	**310**	P	**P**	**06 53 28.2**	**+0.4**
	comp=E,0.6nm,0.5s,mb4.3,baz=67,slow=3.9,SNR=4.8						
ILAR	**Eielson Array**	**97.56**	**22**	P	**P**	**06 53 42.4**	**+0.5**
	comp=E,3.6nm,1.3s,mb4.7,baz=294,slow=4.2,SNR=4.5						
INK	**Inuvik**	**100.04**	**17**	P	P	06 53 53.5	+0.4
	comp=E,3.1nm,0.8s,baz=247,slow=4.9,SNR=4.6						
INK				PKKPbc		07 10 18.4	
	comp=E,3.7nm,0.8s,baz=133,slow=3.9,SNR=5.9						
SCHQ	**Schefferville**	**119.18**	**348**	PKP	PKPdf	06 58 56.8	-3.2
	comp=E,3.8nm,0.5s,baz=354,slow=4.6,SNR=11						
ULM	**Lac du Bonnet**	**124.78**	**9**	PKP	PKPdf	06 59 07.0	-4.1
	comp=E,11nm,0.9s,baz=342,slow=7.2,SNR=9.2						
NVAR	**Mina Array Bea**	**127.30**	**33**	PKP	PKPdf	06 59 14.1	-2.1
	comp=E,2.4nm,0.8s,baz=276,slow=3.9,SNR=3.7						
PDAR	**Pinedale Array**	**127.99**	**23**	PKP	PKPdf	06 59 15.1	-2.5
	comp=E,1.9nm,0.8s,baz=118,slow=2.2,SNR=7.0						
SADO	**Sadowa**	**130.85**	**355**	PKP	PKPdf	06 59 20.0	-2.8
	comp=E,3.9nm,0.6s,baz=244,slow=6.6,SNR=6.9						
ANMO	**Albuquerque**	**135.89**	**26**	PKP	PKPdf	06 59 31.1	-1.4
	comp=E,3.0nm,1.0s,baz=188,slow=2.5						
TXAR	**Lajitas Array**	**141.90**	**27**	PKhKP		06 59 36.4	
	comp=E,1.4nm,0.7s,baz=11,slow=1.1,SNR=5.5						
TXAR				PKP	PKPdf	06 59 40.9	-2.7
	comp=E,2.1nm,0.7s,baz=259,slow=0.2,SNR=5.0						
TXAR				PP	PP	07 02 48.5	+0.3
	comp=E,1.4nm,1.0s,baz=342,slow=5.7,SNR=2.8						
BDFB	**Brasilia**	**142.21**	**250**	PKP	PKPdf	06 59 42.5	-2.0
	comp=E,6.7nm,0.9s,baz=160,slow=2.1,SNR=4.9						
SJG	**San Juan**	**151.12**	**321**	PKPbc	PKPdf	07 00 02.2	+3.1
	comp=E,45nm,0.9s,baz=32,slow=5.1,SNR=7.8						
SJG				PKPab	PKPab	07 00 08.4	-2.4
	comp=E,37nm,1.0s,baz=264,slow=8.6,SNR=7.0						
LPAZ	**La Paz**	**159.83**	**233**	PKPab	PKPab	07 00 48.3	+0.5
	comp=E,2.0nm,0.8s,baz=50,slow=7.9,SNR=2.7						
ROSC	**El Rosal**	**166.16**	**311**	PKP	PKPdf	07 00 16.0	-1.1
	comp=E,9.4nm,1.0s,baz=195,slow=0.8,SNR=4.7						
ROSC				PKPab	PKPab	07 01 17.0	+1.5
	comp=E,2.9nm,0.7s,baz=104,slow=19,SNR=2.4						

IDC 26 06:43:14.4±1.6**, 8.85N**×**93.41E, mb4.4**/7**, mb1 4.5**/7**, mb1mx4.2**/17**, Error ellipse: s-maj=126.0km s-min=26.9km az=44.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**49.42**	**126**	P	P	06 52 06.4	-2.0
	5.1nm,0.8s,baz=306,slow=8.7,SNR=4.7						
BRTR	**Keskin Array B**	**61.24**	**311**	P	P	06 53 31.4	-2.4
	2.2nm,1.0s,baz=132,slow=8.4,SNR=2.4						
FINES	**FINESS Array B**	**71.51**	**332**	P	P	06 54 37.3	-1.5
	5.3nm,0.8s,baz=101,slow=9.7,SNR=4.2						
ARCES	**ARCESS Array B**	**74.10**	**340**	P	P	06 54 52.1	-1.8
	4.5nm,1.1s,baz=97,slow=7.3,SNR=2.8						
GERES	**GERESS Array B**	**76.62**	**318**	P	P	06 55 07.8	-0.9
	1.8nm,0.7s,baz=75,slow=6.9,SNR=4.1						
HFS	**Hagfors**	**77.25**	**330**	P	P	06 55 10.4	-1.6
	3.2nm,0.7s,baz=100,slow=8.8,SNR=2.7						
NOA	**NORSAR Array B**	**78.53**	**331**	P	P	06 55 17.3	-1.6
	1.5nm,0.8s,baz=97,slow=5.5,SNR=3.2						

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*IDC **26** 06:45:08.0±0.7, 5.88N×93.40E, h25^{km}±4^{km}, mb4.3/20, mb1 4.4/21, mb1mx4.3/26, ML4.4/1, Error ellipse: s-maj=26.1km s-min=12.1km az=38.0*

ISC 26 06:45:06.2±0.5**, 5.9N**±0.1×**93.45E**±0.10**, h26^{km}, h26^{km}**±1.1^{km}**:pP-P, n27, σ0^{s}89**/23**, mb4.5**/22**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.60**	**23**	Pn	**P**	**06 48 19.8**	**-0.3**
	0.5nm,0.3s,baz=213,slow=15,SNR=4.2						
SONM	**Songino Array**	**43.24**	**13**	P	**P**	**06 53 07.1**	**0.0**
	2.6nm,0.8s,mb4.0,baz=200,slow=9.6,SNR=3.1						
WRA	**Warramunga Arr**	**47.70**	**124**	P	**P**	**06 53 42.7**	**-0.4**
	4.4nm,0.8s,mb4.6,baz=303,slow=9.1,SNR=3.2						
WRA				pP	pP	06 53 50.4	-0.7
	3.5nm,0.6s,baz=303,slow=9.0,SNR=3.3						
ZAL	**Zalesovo**	**48.42**	**353**	P	**P**	**06 53 46.8**	**-1.4**
	5.8nm,0.7s,mb4.7,baz=308,slow=6.7,SNR=4.8						
ASAR	**Alice Springs**	**49.20**	**128**	P	**P**	**06 53 55.1**	**+0.5**
	1.2nm,0.5s,mb4.2,baz=298,slow=8.5,SNR=2.6						
ASAR				pP	pP	06 54 02.3	-0.3
	5.8nm,0.7s,baz=303,slow=7.6,SNR=7.2						
BVAR	**Borovoye Array**	**50.65**	**342**	P	**P**	**06 54 06.0**	**+0.7**
	5.5nm,0.7s,mb4.6,baz=141,slow=9.5,SNR=5.0						
CBIJ	**Chichi jima**	**50.88**	**60**	P	**P**	**06 54 07.2**	**-0.1**
	57nm,0.8s,mb5.5,baz=302,slow=19,SNR=2.1						
PMG	**Port Moresby**	**55.64**	**106**	P	**P**	**06 54 42.9**	**+0.1**
	6.1nm,0.7s,mb4.8,baz=233,slow=5.1,SNR=2.9						
KMBO	**Kilima Mbogo**	**56.54**	**265**	P	**P**	**06 54 49.5**	**+0.2**
	1.0nm,0.7s,mb4.0,baz=58,slow=10,SNR=3.7						
ASF	**Jabal al Asfar**	**58.73**	**304**	P	**P**	**06 55 04.1**	**-0.4**
	3.9nm,0.8s,mb4.5,baz=349,slow=5.2,SNR=2.7						
STKA	**Stephens Creek**	**59.26**	**132**	P	**P**	**06 55 07.5**	**-0.6**
	1.4nm,0.7s,mb4.1,baz=290,slow=12,SNR=1.6						
STKA				pP	pP	06 55 16.0	-0.3
	4.2nm,0.8s,baz=335,slow=8.5,SNR=3.8						
BRTR	**Keskin Array B**	**63.21**	**312**	P	**P**	**06 55 34.0**	**-0.7**
	2.2nm,0.7s,mb4.4,baz=130,slow=5.4,SNR=3.6						
BRTR				pP	pP	06 55 43.1	+0.2
	2.3nm,0.8s,baz=112,slow=6.7,SNR=3.8						
IDI	**Anoyia**	**69.14**	**305**	P	**P**	**06 56 11.0**	**-1.6**
	4.5nm,0.7s,mb4.5,baz=129,slow=14,SNR=1.9						
AKASG	**Malin Array Be**	**69.29**	**322**	P	**P**	**06 56 11.2**	**-2.1**
	1.8nm,0.7s,mb4.1,baz=86,slow=4.4,SNR=5.6						
MLR	**Muntele Rosu**	**70.11**	**316**	P	**P**	**06 56 19.0**	**+0.6**
	9.0nm,0.9s,mb4.7,baz=87,slow=1.9						
FINES	**FINESS Array B**	**74.14**	**333**	P	**P**	**06 56 41.4**	**-0.6**
	4.8nm,0.7s,mb4.5,baz=112,slow=7.4,SNR=6.0						
KAF	**Kangasniemi**	**74.24**	**333**	*e*p	**P**	**06 56 43.8**	**+1.3**
	2.9nm,0.5s,mb4.5						
ARCES	**ARCESS Array B**	**76.90**	**340**	P	**P**	**06 56 58.8**	**+1.3**
	3.3nm,0.6s,mb4.5,baz=96,slow=5.6,SNR=11						
GERES	**GERESS Array B**	**78.85**	**319**	P	**P**	**06 57 08.1**	**-0.5**
	4.5nm,0.7s,mb4.5,baz=92,slow=5.1,SNR=8.6						
HFS	**Hagfors**	**79.82**	**330**	P	**P**	**06 57 14.4**	**+0.7**
	2.7nm,0.6s,mb4.4,baz=104,slow=6.1,SNR=8.0						
NOA	**NORSAR Array B**	**81.12**	**331**	P	**P**	**06 57 21.5**	**+1.0**
	1.0nm,0.8s,mb3.8,baz=102,slow=5.1,SNR=2.5						
DAVOX	**Davos**	**81.34**	**316**	P	**P**	**06 57 22.2**	**+0.2**
	7.3nm,0.6s,mb4.8,baz=144,slow=6.5,SNR=6.1						
EKA	**Eskdalemuir Ar**	**88.96**	**325**	P	**P**	**06 58 01.5**	**+1.7**
	3.0nm,0.6s,mb4.8,baz=92,slow=4.7,SNR=8.2						
ULM	**Lac du Bonnet**	**123.52**	**7**	PKP	PKPdf	07 04 03.7	-2.5
	2.2nm,0.7s,baz=284,slow=1.3,SNR=3.5						
NVAR	**Mina Array Bea**	**126.97**	**31**	PKP	PKPdf	07 04 11.4	-1.8
	0.6nm,0.7s,baz=252,slow=2.9,SNR=3.4						
PDAR	**Pinedale Array**	**127.26**	**21**	PKP	PKPdf	07 04 11.4	-2.3
	0.6nm,0.7s,baz=96,slow=1.0,SNR=3.7						
TXAR	**Lajitas Array**	**141.31**	**24**	PKP	PKPdf	07 04 35.9	-4.4
	0.6nm,1.0s,baz=7.1,slow=1.4,SNR=2.2						

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*IDC **26** 06:46:24.5±0.7, 8.43N×92.24E, mb4.3/19, mb1 4.5/20, mb1mx4.4/25, ML4.8/1, Error ellipse: s-maj=33.6km s-min=13.3km az=46.0*

ISC 26 06:46:27.8±0.6**, 8.5N**±0.1×**92.4E**±0.1**, h33^{km}, n22, σ0^{s}81**/21**, mb4.3**/20**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.74**	**32**	Pn	**P**	**06 49 14.8**	**-1.2**
	1.8nm,0.3s,baz=225,slow=15,SNR=5.6						
SONM	**Songino Array**	**40.94**	**14**	P	**P**	**06 54 11.1**	**+2.2**
	3.2nm,1.0s,mb3.9,baz=196,slow=7.4,SNR=2.5						
SONM				PcP	PcP	06 56 10.7	+1.3
	1.5nm,0.9s,baz=180,slow=4.3,SNR=2.7						
BVAR	**Borovoye Array**	**47.86**	**342**	P	**P**	**06 55 04.3**	**0.0**
	0.9nm,0.5s,mb4.1,baz=135,slow=6.1,SNR=2.1						
WRA	**Warramunga Arr**	**50.01**	**125**	P	**P**	**06 55 21.7**	**+0.3**
	5.9nm,0.6s,mb4.8,baz=301,slow=9.6,SNR=8.0						
ASAR	**Alice Springs**	**51.62**	**129**	P	**P**	**06 55 32.9**	**-0.7**
	3.1nm,0.4s,mb4.5,baz=302,slow=7.9,SNR=8.4						
ASAR				PcP	PcP	06 56 48.8	+1.5
	1.6nm,0.5s,baz=305,slow=3.6,SNR=4.6						
PMG	**Port Moresby**	**57.34**	**107**	P	**P**	**06 56 15.7**	**+0.2**
	5.5nm,0.8s,mb4.7,baz=338,slow=5.1,SNR=3.7						
CTA	**Charters Tower**	**60.10**	**119**	P	**P**	**06 56 35.2**	**+0.7**
	2.6nm,0.7s,mb4.4,baz=277,slow=8.1,SNR=3.7						
CTA				PcP	PcP	06 57 21.8	+1.9
	1.7nm,0.5s,baz=284,slow=4.2,SNR=4.0						
BRTR	**Keskin Array B**	**60.73**	**311**	P	**P**	**06 56 37.3**	**-1.3**
	1.8nm,0.8s,mb4.2,baz=117,slow=6.4,SNR=3.1						
STKA	**Stephens Creek**	**61.77**	**133**	P	**P**	**06 56 45.0**	**-0.8**
	7.6nm,0.9s,mb4.8,baz=310,slow=6.3,SNR=6.4						
MLR	**Muntele Rosu**	**67.53**	**316**	P	**P**	**06 57 22.6**	**-0.3**
	2.1nm,0.8s,mb4.2,baz=141,slow=12,SNR=1.8						
FINES	**FINESS Array B**	**71.36**	**332**	P	**P**	**06 57 45.0**	**-1.1**
	1.8nm,0.6s,mb4.2,baz=107,slow=5.2,SNR=6.0						
KAF	**Kangasniemi**	**71.46**	**333**	*e*p	**P**	**06 57 46.0**	**-0.6**
	1.3nm,0.4s,mb4.2						
ARCES	**ARCESS Array B**	**74.10**	**340**	P	**P**	**06 58 01.9**	**-0.2**
	1.6nm,0.5s,mb4.2,baz=91,slow=5.5,SNR=5.3						
GERES	**GERESS Array B**	**76.22**	**318**	P	**P**	**06 58 14.7**	**0.0**
	1.0nm,0.7s,mb3.9,baz=80,slow=6.0,SNR=3.1						
HFS	**Hagfors**	**77.06**	**330**	P	**P**	**06 58 18.9**	**-0.2**
	6.0nm,1.0s,mb4.5,baz=108,slow=4.6,SNR=3.4						
NOA	**NORSAR Array B**	**78.35**	**331**	P	**P**	**06 58 26.2**	**0.0**
	0.8nm,0.8s,mb3.7,baz=118,slow=6.1,SNR=2.6						
DAVOX	**Davos**	**78.76**	**316**	P	**P**	**06 58 29.8**	**+1.0**
	1.8nm,0.5s,mb4.3,baz=166,slow=8.3,SNR=3.5						
EKA	**Eskdalemuir Ar**	**86.24**	**325**	P	**P**	**06 59 08.2**	**+1.2**
	1.5nm,0.6s,mb4.4,baz=96,slow=5.3,SNR=7.3						
ESDC	**Sonseca Array**	**89.51**	**310**	P	**P**	**06 59 23.9**	**+0.6**
	0.3nm,0.4s,mb4.0,baz=66,slow=4.2,SNR=5.5						
ILAR	**Eielson Array**	**94.79**	**22**	P	**P**	**06 59 47.4**	**+0.4**
	0.7nm,0.6s,mb4.2,baz=300,slow=4.9,SNR=6.4						
INK	**Inuvik**	**96.85**	**16**	P	**P**	**06 59 56.7**	**+0.5**
	0.9nm,0.5s,mb4.4,baz=296,slow=5.2,SNR=6.9						
PDAR	**Pinedale Array**	**125.17**	**20**	PKP	PKPdf	07 05 27.6	+2.2
	0.8nm,0.7s,baz=97,slow=1.5,SNR=3.7						

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*IDC **26** 06:48:04.5±1.1, 3.06N×95.60E, mb4.3/8, mb1 4.5/9, mb1mx4.3/17, ML4.9/1, Error ellipse: s-maj=51.3km s-min=20.9km az=50.0*

ISC 26 06:48:08.8±1.0**, 3.3N**±0.2×**95.9E**±0.2**, h33^{km}, n9, σ1^{s}20**/9**, mb4.2**/8**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.39**	**11**	Pn	**P**	**06 51 44.8**	**-0.5**
	1.7nm,0.3s,baz=230,slow=13,SNR=3.8						
WRA	**Warramunga Arr**	**44.19**	**123**	P	**P**	**06 56 17.0**	**+0.2**
	4.2nm,0.6s,mb4.4,baz=300,slow=9.0,SNR=4.8						
SONM	**Songino Array**	**45.31**	**10**	P	**P**	**06 56 27.5**	**+2.1**
	1.4nm,0.6s,mb4.0,baz=197,slow=11,SNR=2.9						
ASAR	**Alice Springs**	**45.63**	**128**	P	**P**	**06 56 27.8**	**-0.6**
	2.6nm,0.5s,mb4.4,baz=298,slow=7.7,SNR=4.7						
ZAL	**Zalesovo**	**51.34**	**352**	P	**P**	**06 57 10.2**	**-1.8**
	5.7nm,0.8s,mb4.5,baz=291,slow=9.1,SNR=7.6						
BRTR	**Keskin Array B**	**66.81**	**312**	P	**P**	**06 58 56.1**	**-3.4**
	1.4nm,0.8s,mb4.0,baz=126,slow=8.5,SNR=3.9						
FINES	**FINESS Array B**	**77.61**	**332**	P	**P**	**07 00 03.5**	**+0.2**
	3.6nm,0.7s,mb4.4,baz=115,slow=7.7,SNR=4.6						
ARCES	**ARCESS Array B**	**80.19**	**340**	P	**P**	**07 00 17.2**	**+0.1**
	3.4nm,0.9s,mb4.3,baz=99,slow=6.0,SNR=3.3						
GERES	**GERESS Array B**	**82.45**	**319**	P	**P**	**07 00 30.6**	**+1.2**
	1.0nm,0.7s,mb3.9,baz=90,slow=4.9,SNR=4.8						

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*IDC **26** 06:50:22.8±1.3, 7.45N×92.76E, mb4.1/5, mb1 4.3/6, mb1mx4.0/17, Error ellipse: s-maj=50.4km s-min=22.0km az=62.0*

ISC 26 06:50:26.4±1.3**, 7.7N**±0.1×**93.0E**±0.3**, h33^{km}, n6, σ1^{s}39**/6**, mb4.1**/5**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.19**	**28**	Pn	**P**	**06 53 19.8**	**-0.8**
	baz=228,slow=15,SNR=2.2						
SONM	**Songino Array**	**41.63**	**14**	P	**P**	**06 58 15.8**	**+2.6**
	1.1nm,0.6s,mb3.7,baz=198,slow=7.5,SNR=2.8						
WRA	**Warramunga Arr**	**49.04**	**125**	P	**P**	**06 59 12.6**	**+0.1**
	3.0nm,0.6s,mb4.5,baz=305,slow=8.7,SNR=6.4						
ASAR	**Alice Springs**	**50.62**	**129**	P	**P**	**06 59 24.8**	**+0.2**
	1.3nm,0.5s,mb4.2,baz=303,slow=8.2,SNR=4.2						
ASAR				PcP	PcP	07 00 41.0	-1.1
	1.5nm,0.5s,baz=306,slow=3.6,SNR=6.8						
STKA	**Stephens Creek**	**60.76**	**133**	P	**P**	**07 00 37.1**	**-0.4**
	0.8nm,0.4s,mb4.2,baz=313,slow=5.4,SNR=7.2						
AKASG	**Malin Array Be**	**67.65**	**322**	P	**P**	**07 01 21.5**	**-0.6**
	0.4nm,0.2s,mb4.1,baz=110,slow=7.3,SNR=3.2						

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*IDC **26** 06:53:00.9±1.3, 9.71N×94.43E, mb4.0/7, mb1 4.1/8, mb1mx3.9/18, ML4.4/1, Error ellipse: s-maj=43.9km s-min=27.6km az=51.0*

ISC 26 06:53:04.7±1.1**, 9.9N**±0.2×**94.7E**±0.2**, h33^{km}, n8, σ0^{s}97**/8**, mb3.9**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.48**	**25**	Pn	**P**	**06 55 21.1**	**-0.9**
	0.9nm,0.3s,baz=215,slow=11,SNR=6.2						
SONM	**Songino Array**	**39.11**	**13**	P	**P**	**07 00 31.9**	**+1.4**
	0.6nm,0.6s,mb3.5,baz=194,slow=9.2,SNR=2.6						
WRA	**Warramunga Arr**	**49.00**	**127**	P	**P**	**07 01 50.5**	**-0.1**
	1.3nm,0.6s,mb4.1,baz=301,slow=9.0,SNR=4.5						
FINES	**FINESS Array B**	**71.21**	**332**	P	**P**	**07 04 21.2**	**-0.9**
	2.3nm,0.7s,mb4.2,baz=117,slow=4.3,SNR=5.5						
ARCES	**ARCESS Array B**	**73.58**	**340**	P	**P**	**07 04 37.1**	**+1.1**
	2.2nm,0.9s,mb4.1,baz=104,slow=5.0,SNR=3.9						
GERES	**GERESS Array B**	**76.71**	**318**	P	**P**	**07 04 52.8**	**-1.6**
	0.4nm,0.6s,mb3.5,baz=112,slow=5.3,SNR=3.3						
HFS	**Hagfors**	**77.02**	**330**	P	**P**	**07 04 56.6**	**+0.7**
	1.7nm,0.6s,mb4.2,baz=100,slow=9.0,SNR=6.5						
NOA	**NORSAR Array B**	**78.27**	**330**	P	**P**	**07 05 03.0**	**+0.3**
	0.7nm,0.7s,mb3.7,baz=83,slow=4.7,SNR=2.8						

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*IDC **26** 06:55:13.1±0.7, 10.54N×91.63E, h19^{km}±3^{km}, mb4.3/13, mb1 4.4/14, mb1mx4.3/20, Error ellipse: s-maj=29.7km s-min=12.9km az=50.0*

ISC 26 06:55:10.8±0.6**, 10.5N**±0.1×**91.7E**±0.1**, h18^{km}, h18^{km}**±.3^{km}**:pP-P, n24, σ0^{s}63**/17**, mb4.3**/14**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.57**	**41**	Pn	**P**	**06 57 44.3**	**-0.4**
	baz=240,slow=14,SNR=3.5						
SONM	**Songino Array**	**39.20**	**16**	P	**P**	**07 02 40.5**	**+0.9**
	7.2nm,0.8s,mb4.4,baz=202,slow=7.8,SNR=22						
ZAL	**Zalesovo**	**43.64**	**354**	P	**P**	**07 03 16.0**	**+0.1**
	baz=295,slow=10						
BVAR	**Borovoye Array**	**45.72**	**342**	P	**P**	**07 03 32.6**	**0.0**
	2.4nm,0.8s,mb4.2,baz=135,slow=8.4,SNR=5.4						
WRA	**Warramunga Arr**	**51.79**	**126**	P	**P**	**07 04 20.1**	**+0.1**
	4.6nm,0.5s,mb4.7,baz=305,slow=8.0,SNR=12						
WRA				PcP	PcP	07 05 31.1	-2.1
	3.0nm,0.7s,baz=299,slow=8.8,SNR=4.9						
ASAR	**Alice Springs**	**53.49**	**130**	P	**P**	**07 04 32.3**	**-0.3**
	8.8nm,0.7s,mb4.8,baz=308,slow=7.2,SNR=20						
ASAR				PcP	PcP	07 05 40.5	+1.0
	2.0nm,0.7s,baz=305,slow=4.0,SNR=5.5						
BRTR	**Keskin Array B**	**58.85**	**310**	P	**P**	**07 05 10.7**	**-0.2**
	1.4nm,0.9s,mb4.0,baz=100,slow=7.5,SNR=4.2						
BRTR				pP	pP	07 05 16.3	-0.3
	2.4nm,0.9s,baz=122,slow=6.8,SNR=7.9						
CTA	**Charters Tower**	**61.74**	**120**	P	**P**	**07 05 30.6**	**-0.2**
	6.6nm,0.9s,mb4.7,baz=299,slow=11,SNR=6.4						
STKA	**Stephens Creek**	**63.70**	**133**	P	**P**	**07 05 44.1**	**+0.3**
	4.5nm,0.6s,mb4.7,baz=298,slow=6.4,SNR=15						
AKASG	**Malin Array Be**	**64.56**	**321**	P	**P**	**07 05 48.2**	**-0.9**
	0.9nm,0.6s,mb4.0,baz=82,slow=3.5,SNR=5.4						
AKASG				pP	pP	07 05 54.4	-0.5
	5.1nm,1.1s,baz=92,slow=4.4,SNR=3.0						
MLR	**Muntele Rosu**	**65.57**	**315**	P	**P**	**07 05 56.8**	**+1.1**
	2.8nm,0.9s,mb4.3,baz=104,slow=20,SNR=3.0						
MLR				pP	pP	07 06 02.4	+0.9
	9.0nm,1.1s,baz=72,slow=2.6,SNR=5.2						
FINES	**FINESS Array B**	**69.23**	**332**	P	**P**	**07 06 16.9**	**-1.5**
	5.1nm,0.9s,mb4.5,baz=158,slow=10,SNR=4.8						
GERES	**GERESS Array B**	**74.23**	**318**	P	**P**	**07 06 49.1**	**+0.7**
	1.2nm,0.9s,mb3.8,baz=135,slow=1.9,SNR=4.7						
GERES				pP	pP	07 06 54.9	+0.6
	2.3nm,0.9s,baz=104,slow=5.5,SNR=6.4						
NB2	**NORSAR Subarra**	**76.23**	**330**	P	**P**	**07 06 59.0**	**-0.7**
	2.6nm,0.8s,mb4.2,baz=96,slow=5.3						
NOA	**NORSAR Array B**	**76.23**	**330**	P	**P**	**07 06 59.8**	**+0.1**
	1.3nm,0.8s,mb3.9,baz=98,slow=4.9,SNR=3.3						
ILAR	**Eielson Array**	**93.21**	**21**	P	**P**	**07 08 25.1**	**+0.1**
	0.7nm,0.7s,mb4.2,baz=304,slow=4.1,SNR=8.1						
INK	**Inuvik**	**95.12**	**15**	P	**P**	**07 08 34.0**	**+0.3**
	2.0nm,0.9s,mb4.5,baz=309,slow=3.3,SNR=5.1						
YKA	**Yellowknife Ar**	**104.40**	**12**	PP	PP	07 13 33.3	-3.7
	0.4nm,1.0s,baz=329,slow=7.2,SNR=3.0						
PDAR	**Pinedale Array**	**123.52**	**19**	PKP	PKPdf	07 14 09.3	-2.1
	0.6nm,0.9s,baz=45,slow=2.1,SNR=3.9						
PDAR				pPKP		07 14 17.1	
	0.4nm,0.8s,baz=63,slow=2.0,SNR=2.9						
NVAR	**Mina Array Bea**	**123.83**	**28**	PKP	PKPdf	07 14 11.9	-0.3
	0.6nm,0.7s,baz=260,slow=1.9,SNR=6.2						
NVAR				pPKP		07 14 17.9	
	1.5nm,0.8s,baz=279,slow=3.3,SNR=5.6						
TXAR	**Lajitas Array**	**137.70**	**20**	PKhKP		07 14 29.0	
	0.2nm,0.7s,baz=18,slow=2.9,SNR=3.7						
TXAR				PKP	PKPdf	07 14 37.0	-1.7
	0.5nm,0.7s,baz=103,slow=0.5,SNR=4.9						
SDV	**Santo Domingo**	**153.88**	**317**	PKPbc	PKPdf	07 15 11.9	+6.0
	1.8nm,0.7s,baz=322,slow=12,SNR=3.0						
LVC	**Limon Verde**	**157.87**	**235**	PKP	PKPdf	07 15 09.4	-1.5
	0.8nm,0.4s,slow=13,SNR=3.3						
ROSC	**El Rosal**	**159.31**	**317**	PKPab	PKPab	07 15 50.1	+1.4
	0.6nm,0.4s,baz=270,slow=20,SNR=2.0						

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*BJI **26** 06:56:46.0, 10.82N×92.17E, h37^{km}, mB5.9, mb5.3, Ms5.6, Msz5.5*

*IDC **26** 06:56:47.6±0.7, 11.04N×92.32E, h24^{km}±4^{km}, mb4.8/30,* *mb1 4.8/31, mb1mx4.8/31, ML4.7/1, Error ellipse: s-maj=15.5km s-min=9.3km az=47.0*

*NEIC **26** 06:56:47.4±0.2, 10.98N×92.28E, mb5.5/17, Error ellipse: s-maj=7.8km s-min=6.3km az=214.0*

ISC 26 06:56:45.5±0.3**, 10.92N**±0.05×**92.27E**±0.04**, h23^{km}, h23^{km}**±1.3^{km}**:pP-P, n123,** σ1^{s}**01**/101**, mb5.1**/58**, MS5.5**/3**, 7C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	9.89	40	eP	P	06 59 09.2	-0.4
CMAR	Chiang Mai Arr	9.89	40	Pn	P	06 59 05.7	-3.8
	1.8nm,0.3s,baz=222,slow=12,SNR=9.3						
PALK	Pallekele	11.98	253	eP	P	06 59 43.5	+5.5
SHL	Shillong	14.57	359	eP	P	07 00 16.4	+3.9
HYB	Hyderabad	14.78	297	eP	P	07 00 20.0	+4.9
HYB	Hyderabad	14.78	297	i P	P	07 00 20.0	+4.9
MNGI	Mangalore	17.19	278	eP	P	07 00 44.8	-1.1
MNGI				e		07 00 48.9	
	comp=Z,231nm,0.8s						
KMI	Kunming	17.27	34	eP	P	07 00 49.0	+2.1
KMI				AP		07 00 58.8	
KMI				AMB	AMB		
	comp=Z,162nm,1.0s						
ALBI	Allahabad	17.41	327	eP	P	07 00 51.5	+2.9
AKL	Akola	17.59	305	eP	P	07 00 51.5	+0.6
AKL				e		07 00 55.2	
	comp=Z,158nm,0.8s						
GOA	Goa	18.52	286	eP	P	07 01 06.4	+3.9
GOA				e		07 01 09.6	
	comp=Z,136nm,2.0s						
LSA	Lhasa	18.71	357	P	P	07 01 05.0	+0.2
LSA	Lhasa	18.71	357	eP	P	07 01 05.5	+0.7
	comp=Z,146nm,0.6s						
QIZ	Qiongzhong	18.78	63	P	P	07 01 06.5	+0.8
QIZ	Qiongzhong	18.78	63	eP	P	07 01 07.9	+2.2
	comp=Z,140nm,1.0s						
BOM	Bombay	20.39	295	eP	P	07 01 23.8	+0.1
BOM				e		07 01 25.7	
	comp=Z,181nm,1.3s						
GYA	Guiyang	20.58	39	⇑iP	P	07 01 25.3	-0.3
GYA				AMB	AMB		
	comp=Z,26nm,0.8s						
CD2	Chengdu	22.57	26	⇑iP	P	07 01 45.8	+0.2
CD2				AMB	AMB		
	comp=Z,430nm,0.7s,mb6.0						
NDI	New Delhi	22.60	324	eP	P	07 01 48.5	+2.6
ENH	Enshi	25.05	37	eP	P	07 02 09.0	-0.7
	comp=Z,208nm,0.6s,mb5.8						
ENH				e	pP	07 02 15.3	-1.2
LZH	Lanzhou	27.16	21	⇑P	P	07 02 29.5	+0.3
LZH				PP	PP	07 03 19.8	+3.9
LZH				AMB	AMB		
	comp=Z,120nm,1.2s,mb5.3						
LZH				AMB	AMB		
	comp=Z,659nm,4.6s						
LZH				LR	LR		
	comp=E,13µm,13.7s						
LZH				LR	LR		
	comp=Z,17µm,15.4s,MS5.7						
XAN	Xi'an	27.60	31	P	P	07 02 31.5	-1.7
XAN				AP	pP	07 02 39.0	-1.0
TGY	Tagaytay City	28.16	81	P	P	07 02 38.0	-0.4
	comp=Z,132nm,0.4s,mb6.0,baz=169,slow=7.6,SNR=4.5						
WHN	Wuhan	28.32	43	eP	P	07 02 40.0	+0.3
GTA	Gaotai	29.16	12	P	P	07 02 47.5	+0.3
GTA				AP	pP	07 02 57.3	+3.2
GTA				XP	sP	07 03 01.5	+4.4
GTA				AMB	AMB		
	comp=Z,41nm,1.4s,mb5.0						
GTA				AMB	AMB		
	comp=Z,2µm,10.2s						
GTA				LR	LR		
	comp=N,5µm,20.2s,MS5.3						
GTA				LR	LR		
	comp=E,6µm,20.9s,MS5.3						
GTA				LR	LR		
	comp=Z,12µm,24.3s,MS5.4						
NJ2	Nanjing	32.31	45	eP	P	07 03 15.3	+0.2
WMQ	Urumqi	33.02	354	P	P	07 03 22.0	+0.8
WMQ				AP	pP	07 03 26.5	-1.5
WMQ				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
BTO	Baotou	33.47	25	eP	P	07 03 24.3	-0.8
BTO				AMB	AMB		
	comp=Z,33nm,0.8s,mb5.3						
HHC	Hu-ho-hao-te	34.33	26	⇑iP	P	07 03 32.8	+0.2
HHC				AP	pP	07 03 40.0	+0.5
HHC				XP	sP	07 03 45.3	+2.9
HHC				PP	PP	07 04 53.0	+4.9
HHC				S	S	07 08 49.5	-8.1
HHC				SS	SS	07 11 10.0	+2.1
HHC				AMB	AMB		
	comp=Z,46nm,0.9s,mb5.4						
HHC				AMB	AMB		
	comp=Z,4µm,10.2s						
HHC				LR	LR		
	comp=N,6µm,17.8s,MS5.5						
HHC				LR	LR		
	comp=E,4µm,19.0s,MS5.5						
HHC				LR	LR		
	comp=Z,11µm,23.8s,MS5.5						
BJT	Baijiatuau	35.89	32	eP	P	07 03 46.6	+0.7
	comp=Z,73nm,0.7s,mb5.7						
BJT				e	pP	07 03 52.2	-0.7
BJI	Beijing	35.91	32	P	P	07 03 46.5	+0.4
BJI				AMB	AMB		
	comp=Z,78nm,0.9s,mb5.6						
DL2	Dalian	38.23	38	P	P	07 04 06.5	+1.0
DL2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.1						
SONM	Songino Array	38.67	15	P	P	07 04 09.6	+0.5
	comp=Z,23nm,0.9s,mb4.9,baz=198,slow=7.8,SNR=22						
SONM				PcP	PcP	07 06 21.5	0.0
	comp=Z,5.5nm,0.7s,baz=199,slow=3.1,SNR=4.1						
SNY	Shenyang	41.22	36	⇑P	P	07 04 30.3	0.0
SNY				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.0						
KS15	Wonju Array Si	41.46	44	eP	P	07 04 32.1	-0.1
TLY	Talaya	41.69	11	P	P	07 04 35.9	+1.9
	comp=Z,132nm,1.0s,mb5.5,SNR=9.8						
ZAL	Zalesovo	43.32	354	P	P	07 04 46.4	-0.9
	comp=Z,20nm,0.9s,mb4.8,baz=296,slow=10						
CN2	Changchun	43.53	35	eP	P	07 04 49.0	-0.2
CN2				AMB	AMB		
	comp=Z,90nm,0.9s,mb5.5						
RDF	Al-Radifah	45.38	300	eP	P	07 05 04.6	+0.3
BVAR	Borovoye Array	45.53	342	P	P	07 05 04.8	-0.3
	comp=Z,13nm,1.0s,mb4.8,baz=141,slow=9.5,SNR=9.0						
BVAR				pP	pP	07 05 12.8	+0.7
	comp=Z,6.1nm,0.5s,baz=144,slow=9.9,SNR=7.8						
RST	Umm Al-Ruwaisa	45.99	301	eP	P	07 05 09.0	-0.1
CHKZ	Chkalovo	46.02	342	eP	P	07 05 08.5	-0.5
	comp=Z,50nm,0.8s,mb5.5						
MAT	Matsushiro	48.58	51	P	P	07 05 27.6	-1.7
MAT	Matsushiro	48.58	51	eP	P	07 05 28.0	-1.3
	comp=Z,59nm,1.2s,mb5.5						
CBIJ	Chichi jima	49.53	64	P	P	07 05 34.4	-2.4
	comp=Z,62nm,0.7s,mb5.7,baz=89,slow=18,SNR=2.9						
NWAO	Narrogin (SRO)	49.69	152	P	P	07 05 37.5	-0.4
	comp=Z,70nm,0.9s,mb5.7,baz=319,slow=9.0,SNR=20						
GNI	Garni	51.01	313	P	P	07 05 48.6	+0.8
	comp=Z,7.0nm,0.5s,mb4.8,baz=338,slow=6.7,SNR=6.3						
GNI				pP	pP	07 05 55.8	+0.9
	comp=Z,16nm,0.8s,baz=169,slow=5.2,SNR=5.0						
WRA	Warramunga Arr	51.53	126	P	P	07 05 51.5	-0.6
	comp=Z,124nm,0.7s,mb6.0,baz=306,slow=8.6,SNR=130						
WRAB	Tennant Creek	51.54	126	⇑eP	P	07 05 51.4	-0.7
	comp=Z,138nm,0.6s						
ASAR	Alice Springs	53.28	131	P	P	07 06 04.5	-0.6
	comp=Z,40nm,0.5s,mb5.6,baz=305,slow=6.7,SNR=95						
ASAR				PcP	PcP	07 07 12.8	+0.2
	comp=Z,21nm,1.0s,baz=302,slow=3.2,SNR=6.5						
KIV	Kislovodsk	53.84	317	eP	P	07 06 08.9	0.0
	comp=Z,31nm,0.7s,mb5.3						
ASF	Jabal al Asfar	55.04	302	P	P	07 06 17.7	-0.2
	comp=Z,2.2nm,0.5s,mb4.5,baz=14,slow=4.2,SNR=4.2						
MALT	Malatya	55.10	309	eP	P	07 06 17.6	-0.7
	comp=Z,26nm,1.2s,mb5.1						
YSS	Yuzh-Sakhalins	55.59	40	eP	P	07 06 21.3	-0.4
	comp=Z,36nm,0.8s,mb5.5						
YSS				e	pP	07 06 29.4	+0.6
KMBO	Kilima Mbogo	55.99	261	P	P	07 06 26.1	+1.1
	comp=Z,3.2nm,1.0s,mb4.3,baz=47,slow=11,SNR=5.8						
EIL	Elat	56.34	298	P	P	07 06 26.9	-0.4
	comp=Z,7.7nm,0.7s,mb4.8,baz=24,slow=12,SNR=5.9						
PMG	Port Moresby	58.21	108	P	P	07 06 40.7	0.0
	comp=Z,91nm,0.7s,mb5.9,baz=312,slow=3.3,SNR=40						
BRTR	Keskin Array B	59.06	310	P	P	07 06 43.6	-2.7
	comp=Z,2.7nm,0.7s,mb4.4,baz=126,slow=6.8,SNR=7.7						
ISP	Isparta	61.12	307	P	P	07 07 01.5	+1.0
	comp=Z,37nm,1.3s,mb5.4						
CTA	Charters Tower	61.41	120	P	P	07 07 02.9	+0.2
	comp=Z,26nm,0.7s,mb5.4,baz=301,slow=8.1,SNR=24						
STKA	Stephens Creek	63.53	134	P	P	07 07 16.7	0.0
	comp=Z,63nm,1.1s,mb5.6,baz=308,slow=6.1,SNR=31						
AKASG	Malin Array Be	64.64	321	P	P	07 07 21.4	-2.1
	comp=Z,2.8nm,0.6s,mb4.5,baz=88,slow=4.2,SNR=11						
MA2	Magadan	64.96	29	eP	P	07 07 24.6	-0.9
	comp=Z,63nm,0.9s,mb5.6						
IDI	Anoyia	65.33	304	P	P	07 07 27.6	-0.7
	comp=Z,6.4nm,0.8s,mb4.7,baz=84,slow=17,SNR=3.5						
MLR	Muntele Rosu	65.72	315	P	P	07 07 29.2	-1.4
	comp=Z,21nm,1.0s,mb5.1,baz=176,slow=5.7,SNR=8.7						
KOLS	Kolonicke sedl	68.71	318	eP	P	07 07 49.2	-0.3
SUW	Suwalki	68.97	324	eP	P	07 07 48.8	-2.2
	comp=Z,45nm,0.9s,mb5.4						
FINES	FINESS Array B	69.17	332	P	P	07 07 51.0	-1.0
	comp=Z,6.3nm,0.9s,mb4.5,baz=96,slow=6.0,SNR=12						
CRVS	Cervenica-Dubn	69.24	318	e	pP	07 07 57.5	-2.5
OJC	Ojcow	70.47	319	eP	P	07 07 59.3	-0.9
VYHS	Vyhne	70.92	318	eP	P	07 08 02.1	-0.9
OKC	Ostrava-Krasne	71.49	319	eP	P	07 08 05.9	-0.5
ARCES	ARCESS Array B	71.79	340	P	P	07 08 06.9	-0.9
	comp=Z,14nm,1.0s,mb4.9,baz=84,slow=6.4,SNR=13						
ZST	Bratislava	72.05	317	eP	P	07 08 11.1	+1.4
DPC	Dobruska-Polom	72.70	319	eP	pP	07 08 19.7	-1.2
DPC	Dobruska-Polom	72.70	319	epP	pP	07 08 19.7	-1.2
UPC	Upice	72.91	320	eP	P	07 08 16.7	+1.9
PRU	Pruhonice	73.83	319	eP	P	07 08 19.5	-0.6
BRG	Berggiesshubel	74.24	320	eP	P	07 08 22.4	-0.1
	comp=Z,7.7nm,0.9s,mb4.6						
GERES	GERESS Array B	74.34	318	P	P	07 08 22.3	-0.8
	comp=Z,5.8nm,0.9s,mb4.5,baz=87,slow=5.3,SNR=12						
KHC	Kasperske Hory	74.43	318	eP	P	07 08 24.6	+1.0
CLL	Collm	74.85	320	P	P	07 08 27.9	+1.9
CLL	Collm	74.85	320	P	P	07 08 25.0	-1.0
CLL				e*PP	pP	07 08 32.0	-1.3
HFS	Hagfors	74.91	329	P	P	07 08 25.6	-0.5
	comp=Z,5.9nm,0.5s,mb4.8,baz=117,slow=3.2,SNR=14						
FX1	Attu Island--F	75.88	38	P	P	07 08 31.6	-0.3
	comp=Z,36nm,0.5s,mb5.6,baz=115,slow=12,SNR=9.7						
NB2	NORSAR Subarra	76.19	330	P	P	07 08 32.2	-1.2
	comp=Z,2.9nm,0.8s,mb4.3,baz=95,slow=5.0						
NOA	NORSAR Array B	76.19	330	P	P	07 08 32.5	-0.9
	comp=Z,5.8nm,0.9s,mb4.5,baz=93,slow=5.7,SNR=9.4						
DAVOX	Davos	76.93	316	P	P	07 08 37.5	-0.3
	comp=Z,3.2nm,0.5s,mb4.5,baz=356,slow=1.4,SNR=6.9						
LPG	La Plagne	79.17	314	eP	P	07 08 46.3	-3.9
	comp=Z,30nm,0.9s,mb4.9						
DZM	Mont Dzumac	79.74	115	eP	P	07 08 55.4	+1.7
DZM	Mont Dzumac	79.74	115	eP	P	07 08 55.4	+1.7
MAW	Mawson	81.14	191	P	P	07 09 01.6	+1.4
	comp=Z,2.1nm,0.7s,mb4.2,baz=51,slow=19,SNR=5.8						
MAW				pP	pP	07 09 08.0	+0.3
	comp=Z,8.5nm,0.9s,baz=12,slow=6.2,SNR=7.5						
DAG	Danmarks Havn	84.12	348	⇑iP	P	07 09 15.0	-0.4
	comp=Z,5.5nm,0.7s,mb4.8						
ESDC	Sonseca Array	87.86	310	P	P	07 09 34.9	+0.2
	comp=Z,4.0nm,1.0s,mb4.6,baz=52,slow=4.2,SNR=6.2						
IMA	Indian Mountai	89.51	22	eP	P	07 09 43.0	+1.1
	comp=Z,63nm,0.6s,mb6.1						
IMA				e	pP	07 09 50.4	+1.1
RSO	Redoubt South	92.41	27	eP	P	07 09 56.0	+0.6
ILAR	Eielson Array	92.62	22	P	P	07 09 55.8	-0.5
	comp=Z,10nm,0.7s,mb5.3,baz=301,slow=4.2,SNR=71						
URZ	Urewera	92.67	128	P	P	07 09 57.5	+0.4
	comp=Z,2.6nm,0.5s,mb4.9,baz=342,slow=20,SNR=2.6						
SLKM	Skilak Lake	93.49	26	eP	P	07 10 00.7	+0.4
INK	Inuvik	94.58	16	P	P	07 10 05.6	+0.4
	comp=Z,7.3nm,0.7s,mb5.2,baz=344,slow=5.3,SNR=29						
DAWY	Dawson	95.67	20	eP	P	07 10 10.8	+0.5
DBIC	Dimbokro	95.70	278	P	P	07 10 14.0	+2.4
	comp=Z,1.6nm,0.7s,mb4.6,slow=2.0,SNR=3.2						
VNDA	Vanda	96.27	168	P	P	07 10 14.4	+1.6
	comp=Z,1.5nm,0.8s,mb4.5,baz=202,slow=8.4,SNR=3.6						
YKA	Yellowknife Ar	103.89	12	PP	PP	07 15 01.4	-5.5
	comp=Z,1.1nm,0.8s,baz=333,slow=7.8,SNR=7.3						
ULM	Lac du Bonnet	118.68	6	PKP	PKPdf	07 15 33.1	-3.2
	comp=Z,2.3nm,0.6s,baz=42,slow=5.5,SNR=4.8						
HLID	Hailey	120.58	22	ePKP	PKPdf	07 15 37.7	-2.5
PDAR	Pinedale Array	122.96	19	PKP	PKPdf	07 15 42.0	-2.7
	comp=Z,2.5nm,0.7s,baz=139,slow=0.4,SNR=21						
PDAR				PP	PP	07 17 19.2	-4.8
	comp=Z,1.2nm,0.9s,baz=45,slow=1.3,SNR=3.4						
NVAR	Mina Array Bea	123.21	29	PKP	PKPdf	07 15 43.7	-1.6
	comp=Z,4.3nm,0.6s,baz=286,slow=3.0,SNR=29						
HWUT	Hardware Ranch	123.31	21	ePKP	PKPdf	07 15 42.5	-3.0
NEN	Nelson	127.07	28	ePKP	PKPdf	07 15 50.9	-2.0
PV10	Paradox Valley	127.07	21	ePKP	PKPdf	07 15 49.9	-3.0
TXAR	Lajitas Array	137.13	21	PKhKP		07 16 00.2	
	comp=Z,0.3nm,0.6s,baz=27,slow=2.0,SNR=3.9						
TXAR				PKP	PKPdf	07 16 09.6	-2.4
	comp=Z,2.0nm,0.6s,baz=54,slow=0.1,SNR=26						
TXAR				PP	PP	07 18 52.2	-3.3
	comp=Z,2.0nm,1.0s,baz=333,slow=2.8,SNR=6.5						
TXAR	Lajitas Array	137.13	21	PKP	PKPdf	07 16 09.6	-2.4
TXAR				PP	PP	07 18 52.2	-3.3
JCT	Junction City	137.23	15	ePKP	PKPdf	07 16 09.8	-2.4
BDFB	Brasilia	141.10	259	PKhKP		07 16 10.2	
	comp=Z,2.6nm,0.9s,baz=75,slow=13,SNR=3.1						
BDFB				PKP	PKPdf	07 16 17.6	-2.1
	comp=Z,3.1nm,0.7s,baz=114,slow=1.9,SNR=7.2						
BDFB	Brasilia	141.10	259	PKP	PKPdf	07 16 17.6	-2.1
SJG	San Juan	144.14	323	PKP	PKPdf	07 16 19.7	-5.1
	comp=Z,7.2nm,0.6s,baz=166,slow=13,SNR=5.3						
SJG	San Juan	144.14	323	PKP	PKPdf	07 16 19.7	-5.1
PCRV	Puerto La Cruz	148.91	312	PKPbc	PKPdf	07 16 32.1	-0.8
	comp=Z,7.1nm,0.6s,baz=23,slow=3.1,SNR=3.3						
SDV	Santo Domingo	153.99	319	PKPbc	PKPdf	07 16 45.2	+4.8
	comp=Z,4.8nm,0.6s,baz=311,slow=9.3,SNR=6.8						
LVC	Limon Verde	158.58	235	PKPab	PKPab	07 17 20.6	+1.3
	comp=Z,2.7nm,0.8s,baz=76,slow=8.3,SNR=3.4						
ROSC	El Rosal	159.42	319	PKP	PKPdf	07 16 45.6	-1.9
	comp=Z,4.6nm,0.8s,baz=254,slow=2.0,SNR=8.3						
ROSC				PKPab	PKPab	07 17 23.6	+0.5
	comp=Z,3.8nm,0.6s,baz=111,slow=6.2,SNR=6.2						
LPAZ	La Paz	160.22	252	PKP	PKPdf	07 16 47.1	-1.1
	comp=Z,1.5nm,0.8s,baz=60,slow=4.7,SNR=4.9						
LPAZ				PKPab	PKPab	07 17 28.6	+2.1
	comp=Z,2.5nm,0.9s,baz=81,slow=13,SNR=4.1						

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*IDC **26** 06:59:57.0±0.5, 9.35N×93.70E, h26^{km}±3^{km}, mb5.0/31, mb1 5.0/32, mb1mx5.0/32, Error ellipse: s-maj=14.1km s-min=8.5km az=47.0*

*MOS **26** 06:59:56.4±1.1, 9.52N×93.71E, h33^{km}, mb5.5/34, Error ellipse: s-maj=12.6km s-min=6.2km az=123.7*

*BJI **26** 06:59:56.4, 9.03N×93.31E, h57^{km}, mb5.2, mB5.9, Ms5.6, Msz5.6*

*NEIC **26** 06:59:57.3±0.2, 9.36N×93.70E, h30^{km}, mb5.4/74, Error ellipse: s-maj=5.8km s-min=4.5km az=222.0*

*CSEM **26** 06:59:58.0, 9.31N×93.18E, h33^{km}, mb5.6*

ISC 26 06:59:55.3±0.2**, 9.30N**±0.04×**93.66E**±0.03**, h29^{km}, h29^{km}**±1.1^{km}**:pP-P, n333,** σ1^{s}**04**/289**, mb5.3**/116**, MS5.6**/4**, 28C-13D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.44	29	eP	P	07 02 27.7	+1.2
CMAR	Chiang Mai Arr	10.44	29	Pn	P	07 02 22.9	-3.5
	baz=233,slow=17,SNR=1.8						
KMI	Kunming	17.95	28	eP	P	07 04 08.3	+3.6
KMI				AP		07 04 15.0	
KMI				AMB	AMB		
	comp=Z,154nm,1.2s						
QIZ	Qiongzhong	18.41	57	P	P	07 04 13.0	+2.5
QIZ				S	S	07 07 31.3	-0.3
QIZ				LR	LR		
	comp=N,9µm,11.4s						
QIZ				LR	LR		
	comp=E,8µm,12.9s						
QIZ	Qiongzhong	18.41	57	eP	P	07 04 12.5	+2.0
	comp=E,93nm,1.3s						
PKI	Pulchoki	19.77	338	eP	P	07 04 26.7	+0.4
	comp=E,698nm,1.0s						
GUN	Gumba	19.91	339	eP	P	07 04 27.9	+0.1
	comp=E,826nm,0.7s						
KKN	Kakani	20.02	338	eP	P	07 04 29.3	+0.5
LSA	Lhasa	20.43	354	P	P	07 04 31.5	-1.6
LSA	Lhasa	20.43	354	eP	P	07 04 31.8	-1.3
	comp=E,68nm,0.8s						
GKN	Gorkha	20.45	337	eP	P	07 04 33.5	+0.1
	comp=E,688nm,0.8s						
KOLN	Koldanda	20.68	334	eP	P	07 04 36.7	+1.0
	comp=E,994nm,1.0s						
GYA	Guiyang	21.05	34	⇑iP	P	07 04 40.5	+1.0
GYA				AMB	AMB		
	comp=Z,190nm,0.7s,mb5.5						
GYA				AMB	AMB		
	comp=Z,750nm,7.5s						
GYA				LR	LR		
	comp=N,7µm,18.5s,MS5.1						
GYA				LR	LR		
	comp=E,3µm,16.2s,MS5.1						
GYA				LR	LR		
	comp=Z,11µm,17.6s,MS5.3						
COCO	West Island	21.58	172	eP	P	07 04 46.8	+1.9
	comp=Z,352nm,1.1s,mb5.7						
CD2	Chengdu	23.47	22	P	P	07 05 04.8	+1.3
CD2				AMB	AMB		
	comp=Z,120nm,0.9s,mb5.3						
ENH	Enshi	25.57	33	eP	P	07 05 23.7	+0.1
	comp=Z,80nm,0.8s,mb5.3						
TGY	Tagaytay City	27.12	77	P	P	07 05 39.2	+1.1
	comp=Z,152nm,0.3s,mb6.0,baz=121,slow=5.9,SNR=4.3						
TGY	Tagaytay City	27.12	77	P	P	07 05 39.2	+1.1
TGY				pmax	pmax		
	comp=Z,152nm,0.3s						
LZH	Lanzhou	28.23	18	eP	P	07 05 47.8	-0.1
LZH				AMB	AMB		
	comp=Z,72nm,1.1s,mb5.2						
QZH	Quanzhou	28.37	54	⇑iP	P	07 05 51.0	+1.6
QZH				AMB	AMB		
	comp=Z,290nm,0.8s,mb6.0						
WHN	Wuhan	28.62	40	eP	P	07 05 54.5	+3.0
GTA	Gaotai	30.48	9	P	P	07 06 08.3	+0.2
GTA				AMB	AMB		
	comp=Z,42nm,1.1s,mb5.1						
GTA				AMB	AMB		
	comp=Z,5µm,10.9s						
GTA				LR	LR		
	comp=N,7µm,21.3s,MS5.3						
GTA				LR	LR		
	comp=E,3µm,21.7s,MS5.3						
GTA				LR	LR		
	comp=Z,12µm,22.8s,MS5.5						
NJ2	Nanjing	32.52	42	eP	P	07 06 26.3	+0.3
NJ2				XS		07 12 05.0	
NJ2				AMB	AMB		
	comp=Z,2µm,5.0s						
NJ2				LR	LR		
	comp=N,31µm,18.4s,MS6.2						
NJ2				LR	LR		
	comp=E,32µm,17.8s,MS6.2						
NJ2				LR	LR		
	comp=Z,33µm,15.8s,MS6.1						
KSH	Kashi	33.99	335	P	P	07 06 39.0	+0.3
KSH				eAP	pP	07 06 47.0	-0.4
KSH				AMB	AMB		
	comp=Z,360nm,4.8s						
WMQ	Urumqi	34.78	352	P	P	07 06 45.5	+0.1
WMQ				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.8						
HHC	Hu-ho-hao-te	35.20	24	eP	P	07 06 49.5	+0.4
HHC				AMB	AMB		
	comp=Z,26nm,1.0s,mb5.1						
HHC				LR	LR		
	comp=N,7µm,19.0s,MS5.5						
HHC				LR	LR		
	comp=E,5µm,16.7s,MS5.5						
HHC				LR	LR		
	comp=Z,18µm,20.2s,MS5.8						
ULHL	Ulahol	36.21	338	P	P	07 06 58.6	+1.0
	SNR=7.8						
KZA	Kyzart	36.45	337	P	P	07 07 00.7	+1.1
	SNR=10						
BJT	Baijiatuau	36.57	30	eP	P	07 07 01.9	+1.2
	comp=Z,32nm,0.9s,mb5.2						
BJT				e	pP	07 07 12.0	+2.6
BJI	Beijing	36.59	30	P	P	07 07 02.0	+1.2
BJI				AMB	AMB		
	comp=Z,34nm,1.1s,mb5.1						
UCH	Uchtor	36.87	336	P	P	07 07 04.4	+1.3
	SNR=18						
TKM2	Tokmak 2	37.03	338	P	P	07 07 05.2	+0.7
	SNR=12						
KBK	Karagaybulak	37.06	337	P	P	07 07 03.9	-0.8
	SNR=8.3						
JOW	Kunigami	37.06	57	P	P	07 07 05.8	+0.8
	comp=Z,48nm,0.8s,mb5.4,baz=268,slow=6.3,SNR=7.9						
AML	Almayashu	37.12	335	P	P	07 07 06.9	+1.6
	SNR=55						
AAK	Ala-Archa	37.21	336	P	P	07 07 07.4	+1.3
	SNR=33						
AAK	Ala-Archa	37.21	336	d iP	P	07 07 05.7	-0.3
AAK	Ala-Archa	37.21	336	eP	P	07 07 05.5	-0.5
	comp=Z,76nm,0.8s,mb5.6						
AAK				e	pP	07 07 13.3	-1.4
CHMS	Chumysh	37.42	337	P	P	07 07 08.4	+0.6
	SNR=37						
EKS2	Erkin-Say	37.52	336	P	P	07 07 10.1	+1.5
	SNR=32						
USP	Ospenovka	37.75	337	P	P	07 07 11.2	+0.7
	SNR=65						
DL2	Dalian	38.68	36	P	P	07 07 19.8	+1.4
DL2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.1						
MBWA	Marble Bar	39.65	140	eP	P	07 07 24.2	-2.5
	comp=Z,23nm,1.1s,mb4.8						
SONM	Songino Array	39.89	13	P	P	07 07 28.5	+0.2
	comp=Z,17nm,0.9s,mb4.8,baz=198,slow=4.8,SNR=11						
SONM				pP	pP	07 07 35.4	-1.7
	comp=Z,18nm,0.8s,baz=200,slow=8.3,SNR=11						
SONM				PcP	PcP	07 09 33.9	-0.3
	comp=Z,3.3nm,0.5s,baz=203,slow=4.8,SNR=8.8						
ZAK	Zakamensk	41.72	9	eP	P	07 07 43.8	+0.4
SNY	Shenyang	41.75	34	⇑P	P	07 07 43.5	-0.2
SNY				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.8						
TLY	Talaya	43.04	9	eP	P	07 07 54.6	+0.5
	comp=Z,16nm,0.9s,mb4.7						
CN2	Changchun	44.09	33	eP	P	07 08 03.0	+0.2
CN2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
NVS	Novosibirsk	46.17	352	i P	P	07 08 17.9	-1.3
NVS				i		07 10 09.3	
NVS				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=E,9.0nm,0.9s						
NVS				pmax	pmax		
	comp=N,23nm,1.0s						
QRN	Al-Qurain	47.02	301	eP	P	07 08 27.6	+1.3
RDF	Al-Radifah	47.38	301	eP	P	07 08 30.0	+0.8
RDF				AMb	AMB	07 08 31.8	
	comp=Z,428nm,0.8s,mb6.4						
UMR	Umm Al-Rimmam	47.41	302	eP	P	07 08 30.2	+0.9
UMR				AMb	AMB	07 08 32.8	
	comp=Z,138nm,1.3s,mb5.7						
BVAR	Borovoye Array	47.49	341	P	P	07 08 28.6	-1.1
	comp=Z,27nm,1.0s,mb5.1,baz=143,slow=7.4,SNR=13						
BVAR				pP	pP	07 08 36.8	-1.8
	comp=Z,22nm,0.9s,baz=127,slow=7.4,SNR=10						
BVAR				PcP	PcP	07 09 59.8	-0.2
	comp=Z,7.6nm,0.7s,baz=270,slow=1.4,SNR=3.8						
BRVK	Borovoye	47.55	341	eP	P	07 08 29.2	-1.0
	comp=Z,35nm,1.0s,mb5.3						
NWAO	Narrogin (SRO)	47.62	153	P	P	07 08 29.0	-2.0
	comp=Z,24nm,0.5s,mb5.5,baz=319,slow=8.0,SNR=13						
NWAO				pP	pP	07 08 39.1	-0.7
	comp=Z,21nm,0.6s,baz=329,slow=11,SNR=3.6						
NWAO	Narrogin (SRO)	47.62	153	P	P	07 08 29.0	-2.0
NWAO				*PP	pP	07 08 39.2	-0.7
NWAO				pmax	pmax		
	comp=Z,24nm,0.5s						
NWAO				pmax	pmax		
	comp=Z,21nm,0.6s						
NWAO	Narrogin (SRO)	47.62	153	eP	P	07 08 29.0	-2.0
	comp=Z,20nm,0.8s,mb5.2						
CHKZ	Chkalovo	47.98	342	eP	P	07 08 32.3	-1.2
RST	Umm Al-Ruwaisa	48.00	301	eP	P	07 08 34.0	+0.1
RST				AMb	AMB	07 08 36.2	
	comp=Z,301nm,0.8s,mb6.4						
MAT	Matsushiro	48.57	49	P	P	07 08 37.6	-0.7
MAT	Matsushiro	48.57	49	P	P	07 08 38.0	-0.3
WRA	Warramunga Arr	49.48	126	P	P	07 08 44.1	-1.4

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      comp=Z,20nm,0.6s,mb5.3,baz=306,slow=8.6,SNR=16
WRA                                PcP     PcP     07 10 06.3  -1.2
      comp=Z,11nm,0.7s,baz=320,slow=2.9,SNR=6.8
WRA   Warramunga Arr    49.48 126  P       P       07 08 44.1  -1.4
WRA                                                07 10 06.3
WRA                                pmax    pmax
      comp=Z,20nm,0.6s
WRA                                pmax    pmax
      comp=Z,11nm,0.7s
WRAB  Tennant Creek     49.48 126  eP      P       07 08 44.3  -1.2
      comp=Z,37nm,0.6s,mb5.6
BOD   Bodaibo           50.88  14  eP      P       07 08 54.5  -1.1
ASAR  Alice Springs     51.19 131  P       P       07 08 56.7  -1.8
      comp=Z,24nm,0.8s,mb5.2,baz=305,slow=7.2,SNR=14
ASAR                               pP      pP      07 09 07.4  -0.1
      comp=Z,12nm,0.8s,baz=308,slow=6.7,SNR=5.7
ASAR                               PcP     PcP     07 10 12.7  -1.1
      comp=Z,12nm,0.9s,baz=303,slow=3.5,SNR=6.7
GNI   Garni             53.11 314  P       P       07 09 13.9  +1.2
      comp=Z,37nm,0.9s,mb5.3,baz=149,slow=0.6,SNR=12
GNI   Garni             53.11 314  P       P       07 09 13.9  +1.2
GNI                                pmax    pmax
      comp=Z,37nm,1.0s
GNI   Garni             53.11 314  eP      P       07 09 12.8  +0.1
      comp=Z,102nm,1.2s,mb5.6
TI2   Plekhanov         53.70 316⇑iP       P       07 09 17.2  +0.2
SVE   Sverdlovsk        53.91 338  eP      P       07 09 17.5  -0.8
SVE                                pmax    pmax
      comp=Z,110nm,1.0s,mb5.7
ARU   Arti              54.40 337⇓iP       P       07 09 20.6  -1.3
ARU                                e               07 10 23.5
ARU                                e               07 11 21.6
ARU                                ePPP    PPP     07 12 40.7  +4.2
ARU                                eS      S       07 17 04.1  +7.5
ARU                                e               07 19 04.7
ARU                                pmax    pmax
      comp=Z,39nm,1.1s,mb5.2
ASAJ  Asahikawa         54.66  42  P       P       07 09 24.9  +0.9
      comp=Z,8.8nm,0.9s,mb4.8,baz=211,slow=5.9
ASAJ  Asahikawa         54.66  42  P       P       07 09 24.9  +0.9
ASAJ                               pmax    pmax
      comp=Z,9.0nm,0.9s
YNBS  Yanbu‘ al Bahr    55.00 293  P       P       07 09 28.7  +1.9
ERZM  Erzurum           55.46 312  i P     pP      07 09 41.4  +2.5
UMJS  Umm Lajj          55.71 294  P       P       07 09 33.8  +2.0
KIV   Kislovodsk        55.95 317  eP      P       07 09 32.6  -0.7
KIV                                pmax    pmax
      comp=N,75nm,1.3s
KIV                                pmax    pmax
      comp=E,54nm,1.3s
KIV                                pmax    pmax
      comp=Z,127nm,1.3s,mb5.8
KIV   Kislovodsk        55.95 317  eP      P       07 09 33.2  -0.2
      comp=Z,99nm,1.1s,mb5.8
KIV                                e       pP      07 09 41.8  -0.6
YSS   Yuzh-Sakhalins    55.96  39⇑iP       P       07 09 22.0   -11
YSS                                e               07 09 39.0
YSS                                pmax    pmax
      comp=Z,50nm,0.9s,mb5.5
YSS   Yuzh-Sakhalins    55.96  39  eP      P       07 09 33.3   0.0
      comp=Z,48nm,0.9s,mb5.5
GOF   Gofitskoye        56.15 319⇓iP       P       07 09 34.0  -0.7
GOF                                pmax    pmax
      comp=Z,80nm,1.4s,mb5.6
PMG   Port Moresby      56.41 108  P       P       07 09 37.4  +0.4
      comp=Z,178nm,1.1s,mb6.0,baz=320,slow=4.3,SNR=23
PMG   Port Moresby      56.41 108  P       P       07 09 37.4  +0.4
PMG                                pmax    pmax
      comp=Z,178nm,1.1s
PMG   Port Moresby      56.41 108  eP      P       07 09 36.7  -0.3
      comp=Z,91nm,0.8s,mb5.9
TBKS  Tabuk             56.74 298  P       P       07 09 41.2  +2.0
ELZG  Elazig            56.81 310  i P     P       07 09 39.0  -0.7
ASF   Jabal al Asfar    57.05 302  P       P       07 09 42.4  +1.0
      comp=Z,30nm,1.0s,mb5.3,baz=6.0,slow=1.6,SNR=18
DBAS  Duba              57.12 296  P       P       07 09 43.6  +1.7
KMBO  Kilima Mbogo      57.12 263  P       P       07 09 43.5  +1.4
      comp=Z,55nm,1.2s,mb5.5,baz=56,slow=11,SNR=40
KMBO  Kilima Mbogo      57.12 263  i P     P       07 09 44.7  +2.5
KMBO                               pmax    pmax
      comp=Z,55nm,1.2s
KMBO  Kilima Mbogo      57.12 263  eP      P       07 09 44.0  +1.8
      comp=Z,248nm,2.1s,mb5.9
MALT  Malatya           57.19 310  eP      P       07 09 41.4  -0.9
      comp=Z,29nm,1.1s,mb5.2
JMQS  Jabal Moqyreh     57.41 298  P       P       07 09 45.6  +1.6
GZT   Gaziantep         57.61 308  i P     P       07 09 43.8  -1.5
AYUS  ‘Aynunah          57.85 297  P       P       07 09 48.3  +1.3
MKRJ  Makawir           58.00 301  P       P       07 09 49.0  +0.9
BDAS  Al Bad‘           58.03 298  P       P       07 09 49.4  +1.1
JMOS  Jabal al Moall    58.11 299  P       P       07 09 49.7  +0.9
ALWS  Ilw as Safayha    58.17 299  P       P       07 09 50.5  +1.2
DRGI  Dragot            58.22 301  P       P       07 09 50.1  +0.5
ZFRI  Zfri              58.24 300  P       P       07 09 50.2  +0.4
HAQS  Haql              58.26 298  P       P       07 09 50.8  +1.0
EIL   Elat              58.32 299  P       P       07 09 51.0  +0.7
      comp=Z,42nm,0.9s,mb5.5,baz=72,slow=6.0,SNR=23
EIL   Elat              58.32 299  eP      P       07 09 50.2  -0.1
      comp=Z,79nm,1.1s,mb5.7
MBH   Mount Berech      58.36 299  P       P       07 09 51.7  +1.1
COBT  Iskenderun        58.44 307  i P     P       07 09 50.9  -0.1
YAK   Yakutsk           58.80  19  eP      P       07 09 51.9  -1.4
      comp=Z,40nm,0.7s,mb5.6
CTA   Charters Tower    59.42 120  P       P       07 09 58.0  -0.1
      comp=Z,53nm,0.9s,mb5.6,baz=295,slow=8.6,SNR=23
CTA                                pP      pP      07 10 07.2   0.0
      comp=Z,29nm,1.1s,baz=317,slow=9.1,SNR=3.8
CTA                                PcP     PcP     07 10 45.8  +0.4
      comp=Z,27nm,1.1s,baz=333,slow=4.5,SNR=5.1
CTA   Charters Tower    59.42 120  P       P       07 09 58.0  -0.1
CTA                                *PP     pP      07 10 07.2   0.0
CTA                                                07 10 45.8
CTA                                pmax    pmax
      comp=Z,53nm,0.9s
CTA                                pmax    pmax
      comp=Z,29nm,1.1s
CTA                                pmax    pmax
      comp=Z,27nm,1.1s
CTAO  Charters Tower    59.42 120  eP      P       07 09 56.9  -1.2
      comp=Z,79nm,1.0s,mb5.7
CTAO                               e       pP      07 10 07.1  -0.1
AVNT  Avonos            60.02 309  i P     P       07 10 01.0  -1.0
CSS   Prodhromos        60.47 305  eP      P       07 10 04.0  -1.1
      comp=Z,54nm,1.2s,mb5.5
CTKT  Corum             60.49 312  i P     P       07 10 04.2  -1.0
BOYT  Boyabat           60.60 312  i P     P       07 10 03.6  -2.4
BRTR  Keskin Array B    61.15 310  P       P       07 10 08.0  -1.7
      comp=Z,19nm,0.9s,mb5.2,baz=127,slow=6.2,SNR=31
BRTR  Keskin Array B    61.15 310  P       P       07 10 08.0  -1.6
BRTR                               pmax    pmax
      comp=Z,19nm,0.9s
STKA  Stephens Creek    61.43 134  P       P       07 10 10.0  -1.7
      comp=Z,11nm,0.8s,mb5.0,baz=303,slow=8.4,SNR=5.7
STKA                               pP      pP      07 10 18.8  -2.0
      comp=Z,6.0nm,0.8s,baz=301,slow=7.8,SNR=2.6
STKA  Stephens Creek    61.43 134  eP      P       07 10 09.1  -2.5
ELDT  Eldivan           61.47 311  i P     P       07 10 10.9  -0.9
BALT  Daday             61.74 312  i P     P       07 10 12.3  -1.3
SGKT  Sivrigoynuk       62.51 311  i P     P       07 10 16.9  -1.9
ISP   Isparta           63.19 308  eP      P       07 10 21.8  -1.5
      comp=Z,92nm,1.4s,mb5.7
ESKT  Eskisehir         63.22 310  i P     P       07 10 21.6  -1.9
MBAR  Mbarara           63.41 265  eP      P       07 10 26.7  +1.7
      comp=Z,78nm,1.4s,mb5.6
HENT  Hendek            63.42 311  i P     P       07 10 23.1  -1.7
MOS   Moscow            63.62 328  eP      P       07 10 24.1  -1.8
MOS                                pmax    pmax
      comp=Z,166nm,1.7s,mb5.8
OBN   Obninsk           63.93 328⇑eP       P       07 10 26.9  -1.0
OBN                                pmax    pmax
      comp=Z,18nm,0.8s,mb5.2
ULDT  Uludag            64.62 310  i P     P       07 10 32.0  -0.7
MA2   Magadan           65.73  28  eP      P       07 10 36.3  -3.1
MA2                                pmax    pmax
      comp=Z,20nm,1.0s,mb5.1
MA2   Magadan           65.73  28  eP      P       07 10 38.9  -0.6
      comp=Z,28nm,1.0s,mb5.2
KDAG  Bornova           65.80 308  i P     P       07 10 40.3   0.0
KIS   Kishinev          66.16 317  eP      P       07 10 40.0  -2.4
KIS                                e       pP      07 10 48.0  -3.5
CFR   Carcaliu          66.25 315⇑iP       P       07 10 41.9  -1.2
CFR   Carcaliu          66.25 315⇑iP       P       07 10 41.9  -1.1
AKASG Malin Array Be    66.75 321  P       P       07 10 44.3  -1.8
      comp=Z,5.8nm,0.7s,mb4.8,baz=90,slow=4.4,SNR=15
AKASG                              PP      PP      07 13 14.2  -0.8
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      comp=Z,12nm,1.2s,baz=94,slow=6.4,SNR=5.0
AKASG Malin Array Be    66.75 321  P       P       07 10 44.3  -1.8
AKASG                                              07 13 14.2
AKASG                              pmax    pmax
      comp=Z,6.0nm,0.7s
AKASG                              pmax    pmax
      comp=Z,12nm,1.2s
ISR   Istrita           67.35 315⇑iP       P       07 10 50.7  +0.7
ISR   Istrita           67.35 315⇑iP       P       07 10 50.7  +0.7
VRI   Vrincioaia        67.35 316⇑iP       P       07 10 50.0   0.0
VRI   Vrincioaia        67.35 316⇑iP       P       07 10 50.0   0.0
IDI   Anoyia            67.37 304  P       P       07 10 50.3   0.0
      comp=Z,21nm,0.9s,mb5.2,baz=85,slow=6.8,SNR=8.7
MLR   Muntele Rosu      67.83 315  P       P       07 10 53.0   0.0
      comp=Z,96nm,1.2s,mb5.7,baz=90,slow=1.7,SNR=15
MLR   Muntele Rosu      67.83 315  P       P       07 10 53.0   0.0
MLR                                pmax    pmax
      comp=Z,96nm,1.2s
RZN   Rozhen            68.16 311  P       P       07 10 54.0  -1.2
MMB   Musomiste         68.89 311  P       P       07 10 58.0  -1.7
LSZ   Lusaka            69.31 250  eP      P       07 11 03.3  +0.7
      comp=Z,45nm,1.1s,mb5.3
VTS   Vitosha           69.38 312  P       P       07 11 01.5  -1.2
KKB   Krupnik           69.40 311  P       P       07 11 01.0  -1.8
APA   Apatity           70.35 339⇑iP       P       07 11 06.5  -1.7
APA                                i       pP      07 11 16.3  -1.0
APA                                pmax    pmax
      comp=Z,29nm,0.9s,mb5.2
BOLS  Boljevac          70.42 313  eP      P       07 11 07.5  -1.5
KWP   Kalwaria          70.64 319  eP      P       07 11 09.9  -0.3
KOLS  Kolonicke sedl    70.83 319  eP      P       07 11 11.0  -0.4
KOLS                               epP     pP      07 11 22.2  +1.7
SUW   Suwalki           71.08 324  eP      P       07 11 11.4  -1.4
FINES FINESS Array B    71.24 332  P       P       07 11 12.5  -1.1
      comp=Z,11nm,1.0s,mb4.8,baz=104,slow=7.9,SNR=14
FINES FINESS Array B    71.24 332  P       P       07 11 12.5  -1.1
FINES                              pmax    pmax
      comp=Z,11nm,1.0s
KAF   Kangasniemi       71.31 333  ep      P       07 11 12.5  -1.6
      comp=Z,21nm,1.1s,mb5.0
KAF   Kangasniemi       71.31 333  eP      P       07 11 12.5  -1.6
KAF                                pmax    pmax
      comp=Z,21nm,1.1s,mb5.0
GRUS  Gruza             71.32 313  e       P       07 11 14.2  -0.3
CRVS  Cervenica-Dubn    71.35 318  eP      P       07 11 15.1  +0.6
DIVS  Divcibare         71.86 313⇓iP       P       07 11 16.9  -0.8
KECS  Kecovo            71.94 318  eP      P       07 11 18.0  -0.1
NIE   Niedzica          72.16 319  i P     P       07 11 19.6  +0.2
PSZ   Piszkesteto       72.28 317  eP      P       07 11 18.7  -1.3
      comp=Z,23nm,0.9s,mb5.1
OJC   Ojcow             72.58 320  eP      P       07 11 21.2  -0.7
VYHS  Vyhne             73.04 318  i P     P       07 11 23.9  -0.6
SRO2  Moca              73.27 317  eP      P       07 11 23.9  -2.0
KEV   Kevo              73.34 341  ep      P       07 11 25.0  -0.9
      comp=Z,26nm,0.7s,mb5.3
KEV   Kevo              73.34 341  eP      P       07 11 25.0  -0.9
KEV                                pmax    pmax
      comp=Z,26nm,0.7s,mb5.3
OKC   Ostrava-Krasne    73.61 319  eP      P       07 11 26.6  -1.2
ARCES ARCESS Array B    73.77 340  P       P       07 11 28.2  -0.2
      comp=Z,24nm,0.9s,mb5.2,baz=100,slow=6.6,SNR=39
ARCES ARCESS Array B    73.77 340  P       P       07 11 28.2  -0.2
ARCES                              pmax    pmax
      comp=Z,24nm,0.9s
SMOL  Smolenice         73.97 318  eP      P       07 11 28.6  -1.4
MORC  Moravsky Berou    73.99 319  eP      P       07 11 29.5  -0.6
      comp=Z,33nm,1.1s,mb5.2
ZST   Bratislava        74.17 317  eP      P       07 11 30.9  -0.2
KTK1  Kautokeino        74.40 339  eP      P       07 11 32.5  +0.4
KTK1                               AMb     AMB     07 11 41.9
      comp=Z,80nm,1.8s,mb5.4
KTK1  Kautokeino        74.40 339  eP      P       07 11 32.5  +0.4
      comp=Z,80nm,1.8s,mb5.3
LBTB  Lobatse           74.51 241  eP      P       07 11 34.5  +0.9
      comp=Z,46nm,1.1s,mb5.3
VRAC  Vranov            74.58 319  P       P       07 11 35.3  +1.8
      comp=Z,15nm,1.2s,mb4.8,baz=114,slow=8.4,SNR=7.5
VRAC  Vranov            74.58 319  P       P       07 11 35.3  +1.9
VRAC                               pmax    pmax
      comp=Z,15nm,1.2s
DPC   Dobruska-Polom    74.82 320  eP      P       07 11 35.2  +0.4
KSP   Ksiaz             74.87 320  eP      P       07 11 34.9  -0.2
KSP   Ksiaz             74.87 320  eP      P       07 11 35.3  +0.2
BILL  Bilibino          74.94  22  eP      P       07 11 34.7  -0.5
      comp=Z,12nm,1.1s,mb4.8
UPC   Upice             75.03 320  eP      P       07 11 35.4  -0.6
ARSA  Arzberg           75.18 316⇑iP       P       07 11 37.1  +0.1
      comp=Z,33nm,1.2s,mb5.1
OBKA  Obir              75.83 316⇓iP       P       07 11 41.3  +0.6
      comp=Z,32nm,1.1s,mb5.2
PRU   Pruhonice         75.94 319  eP      P       07 11 40.6  -0.7
BOSA  Boshof            75.94 237  eP      P       07 11 42.3  +0.6
      comp=Z,49nm,1.1s,mb5.3
PVCC  Panska Ves        75.95 320  eP      P       07 11 41.9  +0.6
TRO   Tromso            76.03 340  eP      P       07 11 39.7  -1.7
TRO   Tromso            76.03 340  eP      P       07 11 39.3  -2.1
MOA   Molln             76.05 317⇑iP       P       07 11 41.4  -0.5
      comp=Z,32nm,1.6s,mb5.0
BRG   Berggiesshubel    76.36 320  i P     P       07 11 43.8  +0.2
BRG                                pmax    pmax
      comp=Z,43nm,1.5s,mb5.2
BRG   Berggiesshubel    76.36 320  i P     P       07 11 43.8  +0.2
      comp=Z,43nm,1.5s,mb5.2
GEC2  GERESS Array S    76.45 318  eP      P       07 11 44.5  +0.3
GEC2                               pmax    pmax
      comp=Z,89nm,1.8s,mb5.4
GEC2  GERESS Array S    76.45 318  eP      P       07 11 44.5  +0.3
      comp=Z,89nm,1.8s,mb5.4
GERES GERESS Array B    76.45 318  P       P       07 11 43.9  -0.3
      comp=Z,14nm,0.9s,mb4.9,baz=90,slow=5.1,SNR=26
GERES GERESS Array B    76.45 318  P       P       07 11 43.9  -0.3
GERES                              pmax    pmax
      comp=Z,14nm,0.9s
RUE   Ruedersdorf       76.52 322  eP      P       07 11 44.4  -0.1
      comp=Z,29nm,0.6s,mb5.4
KHC   Kasperske Hory    76.54 318  eP      P       07 11 44.3  -0.3
PTCC  Patocco-Chiusa    76.65 315  eP      P       07 11 45.1  -0.2
KBA   Koelnbreinsper    76.66 316⇑iP       P       07 11 45.0  -0.4
      comp=Z,19nm,1.1s,mb4.9
SMY   Shemya            76.87  38  eP      P       07 11 45.2  -1.2
      comp=Z,295nm,1.3s,mb6.1
CLL   Collm             76.96 321  i P     P       07 11 46.3  -0.6
CLL                                pmax    pmax
      comp=Z,70nm,1.8s,mb5.3
CLL   Collm             76.96 321  i P     P       07 11 46.3  -0.6
      comp=Z,70nm,1.8s,mb5.3
CLL                                e               07 12 06.0
CLL   Collm             76.96 321  P       P       07 11 46.3  -0.6
      comp=Z,logA/T=1.6,mb5.3
CLL                                e*PP    pP      07 11 53.0  -3.2
CLL                                e               07 12 06.0
HFS   Hagfors           76.99 330  P       P       07 11 46.6  -0.3
      comp=Z,8.0nm,0.6s,mb4.8,baz=96,slow=3.6,SNR=27
HFS   Hagfors           76.99 330  P       P       07 11 46.6  -0.3
HFS                                pmax    pmax
      comp=Z,8.0nm,0.6s
WET   Wettzell          77.00 318  eP      P       07 11 47.5  +0.3
FVI   Forni Avoltri     77.05 316  eP      P       07 11 46.9  -0.6
MOR8  Moi Rana          77.19 336  eP      P       07 11 47.2  -0.7
MOR8                               AMb     AMB     07 11 50.9
      comp=Z,37nm,1.5s,mb5.1
MOR8                               epP     pP      07 11 56.7  -0.5
MOR8  Moi Rana          77.19 336  eP      P       07 11 47.2  -0.7
      comp=Z,37nm,1.5s,mb5.1
NKC   Novy Kostel       77.30 319  eP      P       07 11 48.8   0.0
SFI   Santa Sofia       77.73 313  eP      P       07 11 53.6  +2.3
PGD   Poggio Sodo       77.82 313  eP      P       07 11 53.0  +1.2
MOX   Moxa              77.83 320  eP      P       07 11 52.5  +0.8
MOX   Moxa              77.83 320  i P     P       07 11 52.5  +0.8
CTI   Castel Tesino     77.83 315  eP      P       07 11 51.9  +0.1
WATA  Walderalm         77.87 316⇑iP       P       07 11 51.7  -0.3
      comp=Z,16nm,0.6s,mb5.1
VMG   Vicchio           77.95 313  eP      P       07 11 54.0  +1.5
FUR   Furstenfeldbru    78.06 317  eP      P       07 11 52.5  -0.6
SEI   Scarperia         78.08 313  eP      P       07 11 54.1  +0.9
GRA1  Grafenberg Arr    78.09 319  eP      P       07 11 53.9  +0.8
      comp=Z,62nm,1.3s,mb5.4
GRF   Grafenberg Arr    78.09 319  eP      P       07 11 53.9  +0.8
GRF                                pmax    pmax
      comp=Z,62nm,1.3s,mb5.4
GRF   Grafenberg Arr    78.09 319  eP      P       07 11 53.9  +0.8
      comp=Z,62nm,1.3s,mb5.4
SQTA  Sankt Quirin      78.12 316⇑iP       P       07 11 52.5  -0.9
      comp=Z,23nm,0.7s,mb5.2
MOTA  Moosalm           78.19 316⇑iP       P       07 11 53.7  -0.1
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      comp=Z,19nm,0.9s,mb5.0
NB2   NORSAR Subarra    78.26 330  P       P       07 11 52.6  -1.3
      comp=Z,16nm,0.9s,mb5.0,baz=92,slow=5.6
NB2   NORSAR Subarra    78.26 330  P       P       07 11 52.6  -1.3
      baz=92,slow=5.9
NOA   NORSAR Array B    78.26 330  P       P       07 11 53.1  -0.7
      comp=Z,9.7nm,0.9s,mb4.8,baz=93,slow=5.5,SNR=15
NOA   NORSAR Array B    78.26 330  P       P       07 11 53.2  -0.7
NOA                                pmax    pmax
      comp=Z,10.0nm,0.9s
ZCCA  Zocca             78.34 313  eP      P       07 11 56.8  +2.1
NAO01 NORSAR Array S    78.42 330  eP      P       07 11 53.9  -0.8
      comp=Z,23nm,0.9s,mb5.1
CLZ   Clausthal         78.61 321  eP      P       07 11 56.4  +0.4
      comp=Z,71nm,1.7s,mb5.3
GSCL  Gusciola          78.62 313  eP      P       07 11 57.1  +0.9
BSEG  Bad Segeberg      78.63 323  eP      P       07 11 56.8  +0.8
BRMO  Bormio            78.71 316  eP      P       07 11 57.1  +0.5
DAVA  Damuels           79.02 316⇑iP       P       07 11 58.5  +0.1
      comp=Z,43nm,0.8s,mb5.4
DAVOX Davos             79.04 316  P       P       07 11 58.2  -0.3
      comp=Z,17nm,0.7s,mb5.1,baz=111,slow=6.2,SNR=15
MUD   Monsted U’grnd    79.27 326  i P     P       07 11 59.6  +0.1
MUD                                pmax    pmax
      comp=Z,27nm,0.9s,mb5.2
MUD   Monsted U’grnd    79.27 326  i P     P       07 11 59.6  +0.1
      comp=Z,27nm,0.9s,mb5.2
STU   Stuttgart         79.43 318  eP      P       07 12 00.3  -0.2
      comp=Z,17nm,0.7s,mb5.1
MAW   Mawson            79.83 191  P       P       07 12 03.3  +1.0
      comp=Z,40nm,0.9s,mb5.3,baz=12,slow=6.2,SNR=24
MAW   Mawson            79.83 191  P       P       07 12 03.3  +1.0
MAW                                pmax    pmax
      comp=Z,40nm,0.9s
MAW   Mawson            79.83 191  eP      P       07 12 03.0  +0.7
      comp=Z,62nm,1.0s,mb5.5
VAI   Varese            79.85 315  eP      P       07 12 02.4  -0.4
PGF   Pioggiola         79.86 312  eP      P       07 12 02.8  -0.2
      comp=Z,30nm,1.0s,mb4.9
MOL   Molde             80.02 332  eP      P       07 12 06.8  +3.3
MOL                                AMb     AMB     07 12 08.6
      comp=Z,64nm,1.9s,mb5.2
MOL   Molde             80.02 332  eP      P       07 12 06.8  +3.3
      comp=Z,64nm,1.9s,mb5.2
BFO   Black Forest      80.03 318  eP      P       07 12 03.7   0.0
BFO                                pmax    pmax
      comp=Z,48nm,1.6s,mb5.2
BFO   Black Forest      80.03 318  eP      P       07 12 03.7   0.0
      comp=Z,48nm,1.6s,mb5.2
FIN   Finale Ligure     80.34 313  eP      P       07 12 05.7  +0.2
MCGN  Macugnaga         80.39 315  eP      P       07 12 06.8  +1.1
CDF   Champ du Feu      80.72 318  eP      P       07 12 07.0  -0.4
      comp=Z,26nm,1.0s,mb4.8
SUR   Sutherland        80.75 235  eP      P       07 12 09.9  +2.0
      comp=Z,41nm,0.8s,mb5.4
LPL   La Plagne         81.29 315  eP      P       07 12 10.9  +0.4
      comp=Z,106nm,0.8s,mb5.5
BNI   Bardonecchia      81.37 314  eP      P       07 12 11.3  +0.4
      comp=Z,39nm,0.9s,mb5.3
HAU   Haudompre         81.37 317  eP      P       07 12 10.8   0.0
      comp=Z,57nm,0.9s,mb5.2
VIVF  Saint-Julien-l    82.80 314  eP      P       07 12 18.6  +0.3
      comp=Z,110nm,1.4s,mb5.4
SSF   Saint Saulge      83.38 317  eP      P       07 12 20.9  -0.3
      comp=Z,103nm,1.4s,mb5.4
JMIC  Jan Mayen         85.21 341  P       P       07 12 30.0   0.0
      comp=Z,61nm,0.8s,mb5.8,baz=122,slow=11,SNR=3.1
LDF   La Druitiere      85.59 318  eP      P       07 12 32.4  +0.1
      comp=Z,172nm,1.5s,mb5.8
DAG   Danmarks Havn     85.99 348⇓iP       P       07 12 33.2  -0.5
DAG                                pmax    pmax
      comp=Z,7.0nm,0.8s,mb4.9
DAG   Danmarks Havn     85.99 348⇓iP       P       07 12 33.2  -0.5
      comp=Z,6.7nm,0.8s,mb4.9
SYO   Syowa Base        86.62 197 ⇓P       P       07 12 38.7  +1.7
SYO   Syowa Base        86.62 197 ⇑P       P       07 12 42.5  +5.5
ETSF  Etsaut            86.82 313  eP      P       07 12 38.4  -0.1
      comp=Z,57nm,1.1s,mb5.4
SGMF  Saint Gilles      87.25 318  eP      P       07 12 40.8  +0.3
      comp=Z,147nm,1.4s,mb5.7
ESDC  Sonseca Array     89.94 310  P       P       07 12 54.6  +1.1
      comp=Z,1.6nm,0.5s,mb4.6,baz=63,slow=4.3,SNR=12
IMA   Indian Mountai    90.49  22  eP      P       07 12 56.1  +0.7
      comp=Z,117nm,0.8s,mb6.3
URZ   Urewera           90.59 129  P       P       07 12 55.9  -0.7
      comp=Z,3.6nm,0.4s,mb5.0,baz=8.1,slow=3.2,SNR=6.6
SUMG  Summit            92.65 347  eP      P       07 13 06.2  +0.9
      comp=Z,24nm,1.0s,mb5.6
RSO   Redoubt South     93.22  27  eP      P       07 13 08.7  +0.6
ILAR  Eielson Array     93.61  22  P       P       07 13 10.8  +1.1
      comp=Z,12nm,0.8s,mb5.4,baz=298,slow=4.3,SNR=36
ILAR                               PKKPbc          07 30 15.2
      comp=Z,1.3nm,0.6s,baz=155,slow=1.3,SNR=14
ILAR  Eielson Array     93.61  22  P       P       07 13 10.8  +1.0
ILAR                               pmax    pmax
      comp=Z,12nm,0.8s
ILAR                               pmax    pmax
      comp=Z,1.0nm,0.6s
SLKM  Skilak Lake       94.33  26  eP      P       07 13 12.9  -0.2
VNDA  Vanda             94.41 168  P       P       07 13 14.4  +1.1
      comp=Z,7.6nm,1.1s,mb5.0,baz=340,slow=4.1,SNR=4.6
VNDA  Vanda             94.41 168  P       P       07 13 14.4  +1.1
VNDA                               pmax    pmax
      comp=Z,8.0nm,1.1s
INK   Inuvik            95.76  16  P       P       07 13 19.8  +0.2
      comp=Z,22nm,0.9s,mb5.6,baz=333,slow=5.0,SNR=32
INK                                PKKPbc          07 30 09.0
      comp=Z,1.6nm,0.9s,baz=134,slow=2.7,SNR=5.6
INK   Inuvik            95.76  16  P       P       07 13 19.8  +0.2
INK                                pmax    pmax
      comp=Z,22nm,0.9s
INK                                pmax    pmax
      comp=Z,2.0nm,0.9s
INK   Inuvik            95.76  16  eP      P       07 13 19.3  -0.3
      comp=Z,28nm,1.0s,mb5.6
RES   Resolute Bay      96.00   2  eP      P       07 13 21.0  +0.4
      comp=Z,2.3nm,0.4s,mb5.0
DAWY  Dawson            96.70  21  eP      P       07 13 24.1  +0.1
DBIC  Dimbokro          97.28 278  P       P       07 13 29.2  +1.5
      comp=Z,8.9nm,1.1s,mb5.1,baz=104,slow=7.1,SNR=4.1
DBIC                               PP      PP      07 17 25.4  -1.7
      comp=Z,2.8nm,1.1s,baz=133,slow=5.8,SNR=3.2
DBIC  Dimbokro          97.28 278  P       P       07 13 29.2  +1.5
DBIC                                               07 17 25.4
DBIC                               pmax    pmax
      comp=Z,9.0nm,1.1s
DBIC                               pmax    pmax
      comp=Z,3.0nm,1.1s
DBIC  Dimbokro          97.28 278  P       P       07 13 29.2  +1.5
DBIC                               PP      PP      07 17 25.4  -1.7
QSPA  South Pole Qui    99.19 180⇓iP       P       07 13 44.1  +9.2
      comp=Z,5.0nm,1.0s,mb5.0
SNAA  Sanae            100.82 199⇑i        P       07 13 45.2  +2.8
SNAA  Sanae            100.82 199⇑i                07 18 05.9
VNA2  Neumayer--Watz   102.35 199⇑i        Pdif    07 13 50.8  +1.6
VNA2  Neumayer--Watz   102.35 199⇑i                07 18 14.6
VNA1  Neumayer--Stat   102.67 200⇑i        Pdif    07 13 56.4  +5.8
VNA1  Neumayer--Stat   102.67 200⇓i                07 18 11.4
VNA3  Neumayer Olymp   103.04 199⇓i        Pdif    07 14 00.6  +8.4
VNA3  Neumayer Olymp   103.04 199⇑i                07 18 12.8
YKA   Yellowknife Ar   105.15  13  Pdiff   Pdif    07 14 01.8  +0.1
      comp=Z,1.8nm,0.9s,baz=325,slow=4.2,SNR=15
YKA                                PP      PP      07 18 21.0  -4.8
      comp=Z,1.5nm,0.9s,baz=334,slow=8.0,SNR=5.8
YKA   Yellowknife Ar   105.15  13  P       Pdif    07 14 01.8  +0.1
YKA                                                07 18 21.0
YKA                                pmax    pmax
      comp=Z,2.0nm,1.0s
YKA                                pmax    pmax
      comp=Z,2.0nm,0.9s
MSO   Missoula         118.94  21  ePKPdf  PKPdf   07 18 42.5  -4.0
ULM   Lac du Bonnet    120.12   7  PKP     PKPdf   07 18 44.9  -3.7
      comp=Z,3.6nm,0.7s,baz=340,slow=6.9,SNR=6.1
ULM   Lac du Bonnet    120.12   7  PKP     PKPdf   07 18 44.9  -3.7
HLID  Hailey           121.52  24  ePKPdf  PKPdf   07 18 48.7  -2.8
REDW  Red Top Meadow   123.03  21  ePKPdf  PKPdf   07 18 51.1  -3.2
REDW                               e               07 18 59.5
NVAR  Mina Array Bea   123.94  30  PKP     PKPdf   07 18 54.0  -2.4
      comp=Z,7.0nm,0.9s,baz=297,slow=2.0,SNR=19
NVAR                               pPKP            07 19 02.6
      comp=Z,4.2nm,0.8s,baz=303,slow=2.1,SNR=7.5
PDAR  Pinedale Array   124.01  21  PKP     PKPdf   07 18 52.8  -3.6
      comp=Z,6.0nm,0.9s,baz=28,slow=1.3,SNR=22
HWUT  Hardware Ranch   124.29  23  ePKPdf  PKPdf   07 18 52.5  -4.5
HWUT                               e               07 19 01.4
TRCR  Troy Canyon      125.30  28  ePKPdf  PKPdf   07 18 56.3  -2.7
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TRCR				*e*		07 19 03.5	
MIV	**Mineville/With**	**125.62**	**349**	*e*PKPdf	PKPdf	07 18 55.0	-4.4
MSU	**Marysvale**	**126.68**	**25**	*e*PKPdf	PKPdf	07 18 59.2	-2.4
NEN	**Nelson**	**127.83**	**29**	*e*PKPdf	PKPdf	07 19 01.2	-2.7
NEN				*e*		07 19 08.4	
PV10	**Paradox Valley**	**128.06**	**23**	*e*PKPdf	PKPdf	07 19 02.0	-2.4
USHA	**Ushuaia**	**132.41**	**194**	PKP	PKPdf	07 19 09.5	-2.6
	comp=Z,11nm,0.9s,baz=101,slow=7.3,SNR=3.3						
TXAR	**Lajitas Array**	**138.11**	**23**	PKhKP		07 19 11.6	
	comp=Z,1.0nm,0.7s,baz=357,slow=0.7,SNR=5.0						
TXAR				PKP	PKPdf	07 19 21.3	-2.1
	comp=Z,2.1nm,0.7s,baz=7.0,slow=0.5,SNR=9.6						
TXAR				PP	PP	07 22 03.2	-8.1
	comp=Z,0.6nm,0.7s,slow=2.7,SNR=3.3						
TXAR	**Lajitas Array**	**138.11**	**23**	PKP	PKPdf	07 19 21.3	-2.1
TXAR				PP	PP	07 22 03.2	-8.1
JCT	**Junction City**	**138.39**	**18**	*e*PKPpre		07 19 10.2	
JCT				*e*PKPdf	PKPdf	07 19 20.6	-3.3
JCT				*e*		07 19 29.3	
FDF	**Fort de France**	**145.45**	**313**	⇓*e*P	PKPbc	07 19 33.3	+1.1
BIM	**Bigot**	**145.53**	**313**	⇓*e*P	PKPbc	07 19 33.6	+1.2
SJG	**San Juan**	**146.25**	**324**	PKPbc	PKPbc	07 19 35.6	+1.6
	comp=Z,26nm,0.9s,baz=35,slow=5.2,SNR=8.9						
SJG	**San Juan**	**146.25**	**324**	PKP2	PKPab	07 19 35.6	-1.3
SJG				pmax	pmax		
	comp=Z,26nm,0.9s						
SJG	**San Juan**	**146.25**	**324**	*e*PKPdf	PKPdf	07 19 33.6	-4.3
TEIG	**Tepich**	**150.60**	**4**	*e*PKPbc	PKPdf	07 19 47.5	+2.6
PCRV	**Puerto La Cruz**	**151.00**	**311**	PKPbc	PKPdf	07 19 46.4	+0.8
	comp=Z,44nm,1.0s,baz=60,slow=5.2,SNR=11						
MDZ	**Mendoza**	**151.51**	**212**	*e*P	PKPdf	07 19 50.1	+4.2
FCH	**Farellones**	**151.88**	**209**	⇑*i*P	PKPdf	07 19 50.9	+4.4
CLCH	**Cerro Calan**	**151.94**	**209**	*i* P	PKPdf	07 19 50.6	+4.0
RPN	**Rapa Nui**	**151.96**	**132**	*e*PKPbc	PKPdf	07 19 51.0	+4.2
SDV	**Santo Domingo**	**156.10**	**319**	PKP	PKPdf	07 19 49.7	-3.0
	comp=Z,8.3nm,1.0s,baz=205,slow=0.9,SNR=5.2						
SDV				PKPab	PKPab	07 20 17.4	-0.4
	comp=Z,11nm,0.8s,baz=75,slow=4.4,SNR=6.5						
SDV	**Santo Domingo**	**156.10**	**319**	*e*PKPdf	PKPdf	07 19 49.4	-3.4
SDV				*e*		07 19 59.1	
LVC	**Limon Verde**	**158.68**	**230**	PKP	PKPdf	07 19 54.6	-1.3
	comp=Z,6.6nm,1.0s,baz=269,slow=1.5,SNR=4.9						
LVC				PKPab	PKPab	07 20 30.1	+1.5
	comp=Z,42nm,1.1s,baz=151,slow=2.0,SNR=13						
LPAZ	**La Paz**	**160.94**	**247**	PKP	PKPdf	07 19 56.8	-1.6
	comp=Z,5.6nm,1.0s,baz=41,slow=4.4,SNR=8.9						
LPAZ				PKPab	PKPab	07 20 39.2	+0.7
	comp=Z,11nm,0.9s,baz=132,slow=4.4,SNR=13						
LPAZ	**La Paz**	**160.94**	**247**	PKIKP	PKPdf	07 19 56.8	-1.6
LPAZ						07 20 39.2	
LPAZ				pmax	pmax		
	comp=Z,6.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,11nm,0.9s						
LPAZ	**La Paz**	**160.94**	**247**	*e*PKPdf	PKPdf	07 19 56.5	-1.9
LPAZ				*e*		07 20 06.6	
ROSC	**El Rosal**	**161.53**	**319**	PKP	PKPdf	07 19 56.9	-2.2
	comp=Z,13nm,0.8s,baz=120,slow=2.3,SNR=14						
ROSC				PKPab	PKPab	07 20 42.5	+1.3
	comp=Z,7.0nm,0.8s,baz=123,slow=3.9,SNR=4.7						

IDC 26 07:01:28.5±1.5**, 8.94N**×**93.04E, mb4.6**/6**, mb1 4.8**/6**, mb1mx4.3**/19**, Error ellipse: s-maj=206.0km s-min=24.3km az=43.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**49.77**	**126**	P	P	07 10 23.1	-2.1
	3.9nm,0.5s,baz=305,slow=8.6,SNR=4.6						
ASAR	**Alice Springs**	**51.44**	**130**	P	P	07 10 35.8	-2.0
	9.8nm,1.0s,baz=303,slow=7.6,SNR=3.3						
MLR	**Muntele Rosu**	**67.65**	**316**	P	P	07 12 27.8	-1.8
	3.8nm,0.7s,baz=90,slow=8.1,SNR=2.4						
FINES	**FINESS Array B**	**71.26**	**332**	P	P	07 12 49.3	-2.2
	3.8nm,0.8s,baz=121,slow=8.1,SNR=2.0						
GERES	**GERESS Array B**	**76.31**	**318**	P	P	07 13 20.0	-1.0
	3.1nm,0.8s,baz=104,slow=4.0,SNR=2.2						
DAVOX	**Davos**	**78.87**	**316**	P	P	07 13 33.7	-1.5
	5.2nm,0.6s,baz=128,slow=9.0,SNR=2.8						

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*IDC **26** 07:01:46.8±0.7, 9.28N×93.64E, mb4.5/14, mb1 4.6/14, mb1mx4.5/21, Error ellipse: s-maj=44.1km s-min=17.0km az=52.0*

ISC 26 07:01:50.1±0.6**, 9.2N**±0.2×**93.6E**±0.2**, h33**^{km}**, n16, σ0**$\overset{s}{.}$**87**/15**, mb4.5**/14**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**39.98**	**13**	P	**P**	**07 09 22.8**	**-0.4**
	3.9nm,0.7s,mb4.2,baz=198,slow=7.2,SNR=4.3						
NWAO	**Narrogin (SRO)**	**47.57**	**153**	P	**P**	**07 10 24.6**	**-0.2**
	8.4nm,0.5s,mb5.1,baz=333,slow=8.4,SNR=7.2						
WRA	**Warramunga Arr**	**49.46**	**126**	P	**P**	**07 10 40.1**	**+0.6**
	5.0nm,0.5s,mb4.8,baz=306,slow=8.4,SNR=4.8						
WRA				PcP	PcP	07 12 00.3	-1.3
	1.1nm,0.5s,baz=317,slow=3.1,SNR=5.2						
BRTR	**Keskin Array B**	**61.17**	**310**	P	**P**	**07 12 02.8**	**-1.1**
	6.1nm,0.9s,mb4.7,baz=123,slow=8.1,SNR=4.0						
STKA	**Stephens Creek**	**61.40**	**134**	P	**P**	**07 12 04.8**	**-0.8**
	4.0nm,0.9s,mb4.5,baz=305,slow=7.3,SNR=3.6						
AKASG	**Malin Array Be**	**66.79**	**321**	P	**P**	**07 12 41.7**	**+1.3**
	1.3nm,0.6s,mb4.2,baz=86,slow=5.2,SNR=2.6						
MLR	**Muntele Rosu**	**67.86**	**315**	P	**P**	**07 12 48.3**	**+1.0**
	11nm,1.1s,mb4.8,baz=139,slow=2.8,SNR=2.8						
FINES	**FINESS Array B**	**71.29**	**332**	P	**P**	**07 13 06.0**	**-2.0**
	2.5nm,0.7s,mb4.3,baz=108,slow=8.8,SNR=3.7						
ARCES	**ARCESS Array B**	**73.84**	**340**	P	**P**	**07 13 22.1**	**-0.7**
	2.7nm,0.8s,mb4.2,baz=100,slow=5.5,SNR=3.5						
GERES	**GERESS Array B**	**76.49**	**318**	P	**P**	**07 13 39.2**	**+0.7**
	2.9nm,0.7s,mb4.3,baz=90,slow=4.9,SNR=5.1						
HFS	**Hagfors**	**77.05**	**330**	P	**P**	**07 13 41.4**	**0.0**
	2.0nm,0.4s,mb4.4,baz=104,slow=5.9,SNR=5.7						
NOA	**NORSAR Array B**	**78.32**	**330**	P	**P**	**07 13 48.0**	**-0.4**
	1.9nm,0.9s,mb4.0,baz=96,slow=5.4,SNR=2.5						
DAVOX	**Davos**	**79.07**	**316**	P	**P**	**07 13 53.3**	**+0.4**
	5.7nm,0.8s,mb4.5,baz=131,slow=11,SNR=3.0						
ILAR	**Eielson Array**	**93.70**	**22**	P	**P**	**07 15 05.4**	**+1.1**
	1.4nm,0.7s,mb4.5,baz=307,slow=4.6,SNR=4.5						
INK	**Inuvik**	**95.85**	**16**	P	**P**	**07 15 14.2**	**+0.2**
	baz=326,slow=2.7						
NVAR	**Mina Array Bea**	**124.03**	**30**	PKP	PKPdf	07 20 48.5	+2.9
	0.5nm,0.7s,baz=315,slow=2.6,SNR=2.6						

IDC 26 07:04:52.4±1.2**, 4.47N**×**94.57E, mb4.2**/10**, mb1 4.4**/11**, mb1mx4.2**/20**, ML4.6**/1**, Error ellipse: s-maj=79.1km s-min=21.6km az=46.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.54**	**17**	Pn	P	07 08 26.8	+5.1
	0.9nm,0.3s,baz=210,slow=12,SNR=6.5						
WRA	**Warramunga Arr**	**46.00**	**123**	P	P	07 13 16.6	-3.0
	3.2nm,0.7s,baz=301,slow=9.1,SNR=5.0						
ASAR	**Alice Springs**	**47.46**	**128**	P	P	07 13 30.5	-0.6
	1.1nm,0.6s,baz=299,slow=7.8,SNR=3.5						
ZAL	**Zalesovo**	**49.96**	**352**	P	P	07 13 48.2	-1.8
	2.0nm,0.6s,baz=228,slow=22,SNR=3.5						
BVAR	**Borovoye Array**	**52.33**	**342**	P	P	07 14 06.2	-1.9
	1.1nm,0.8s,baz=146,slow=10,SNR=2.4						
BRTR	**Keskin Array B**	**64.98**	**312**	P	P	07 15 34.7	-1.8
	1.8nm,0.8s,baz=117,slow=6.4,SNR=4.4						
AKASG	**Malin Array Be**	**71.08**	**322**	P	P	07 16 11.5	-2.9
	1.5nm,0.6s,baz=82,slow=4.7,SNR=6.2						
FINES	**FINESS Array B**	**75.91**	**333**	P	P	07 16 40.0	-2.4
	3.1nm,0.8s,baz=113,slow=6.1,SNR=6.7						
ARCES	**ARCESS Array B**	**78.59**	**340**	P	P	07 16 56.1	-1.1
	2.4nm,0.8s,baz=101,slow=6.2,SNR=4.1						
GERES	**GERESS Array B**	**80.64**	**319**	P	P	07 17 07.9	-0.7
	1.5nm,0.7s,baz=117,slow=6.0,SNR=4.8						
DAVOX	**Davos**	**83.13**	**316**	P	P	07 17 21.1	-0.5
	4.1nm,0.7s,baz=105,slow=8.0,SNR=5.4						
TXAR	**Lajitas Array**	**142.10**	**26**	PKhKP		07 24 22.6	
	0.3nm,0.7s,baz=72,slow=4.0,SNR=2.5						

IDC 26 07:05:16.4±1.5**, 4.95N**×**93.80E, mb4.6**/7**, mb1 4.8**/8**, mb1mx4.4**/20**, ML4.7**/1**, Error ellipse: s-maj=67.8km s-min=19.9km az=56.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.34**	**20**	Pn	P	07 08 49.8	+6.9
	1.2nm,0.3s,baz=223,slow=13,SNR=7.6						
SONM	**Songino Array**	**44.07**	**12**	P	P	07 13 26.5	-1.4
	8.3nm,0.8s,baz=192,slow=7.8,SNR=12						
WRA	**Warramunga Arr**	**46.90**	**123**	P	P	07 13 49.2	-1.5
	19nm,0.7s,baz=300,slow=9.2,SNR=12						
ASAR	**Alice Springs**	**48.35**	**128**	P	P	07 14 00.1	-2.0
	5.5nm,0.8s,baz=308,slow=8.3,SNR=5.4						
BVAR	**Borovoye Array**	**51.64**	**342**	P	P	07 14 23.5	-3.4
	3.0nm,0.8s,baz=146,slow=10,SNR=4.1						
CTA	**Charters Tower**	**57.22**	**118**	P	P	07 15 06.2	-2.0
	5.1nm,0.8s,baz=238,slow=7.3,SNR=4.9						
STKA	**Stephens Creek**	**58.37**	**132**	P	P	07 15 13.2	-2.9
	8.8nm,0.6s,baz=297,slow=5.5,SNR=16						
GERES	**GERESS Array B**	**79.78**	**319**	P	P	07 17 27.4	-0.5
	1.9nm,0.9s,baz=104,slow=4.0,SNR=3.8						

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*IDC **26** 07:06:41.1±0.7, 9.05N×92.20E, h27^{km}±3^{km}, mb4.3/16, mb1 4.4/16, mb1mx4.3/22, Error ellipse: s-maj=34.2km s-min=12.0km az=50.0*

ISC 26 07:06:39.1±0.6**, 9.0N**±0.2×**92.3E**±0.2**, h29**^{km}**, h29**^{km}±.8^{km}**:pP-P, n27, σ0**$\overset{s}{.}$**78**/20**, mb4.5**/16**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**40.50**	**15**	P	**P**	**07 14 18.0**	**+0.9**
	8.7nm,0.9s,mb4.5,baz=197,slow=8.6,SNR=6.2						
SONM				pP	pP	07 14 26.8	+1.0
	4.7nm,0.9s,baz=204,slow=7.0,SNR=3.1						
NWAO	**Narrogin (SRO)**	**48.02**	**151**	P	**P**	**07 15 19.6**	**+1.8**
	9.6nm,1.1s,mb4.8,baz=106,slow=18,SNR=6.9						
WRA	**Warramunga Arr**	**50.43**	**125**	P	**P**	**07 15 35.8**	**-0.8**
	3.1nm,0.6s,mb4.5,baz=302,slow=8.9,SNR=5.3						
WRA				pP	pP	07 15 45.3	-0.2
	4.1nm,0.5s,baz=303,slow=8.8,SNR=4.3						
ASAR	**Alice Springs**	**52.07**	**129**	P	**P**	**07 15 48.2**	**-0.6**
	2.3nm,0.6s,mb4.3,baz=299,slow=7.3,SNR=4.6						
ASAR				pP	pP	07 15 57.9	+0.1
	2.1nm,0.6s,baz=302,slow=7.0,SNR=3.2						
BRTR	**Keskin Array B**	**60.28**	**311**	P	**P**	**07 16 46.7**	**-0.7**
	1.5nm,0.6s,mb4.2,baz=118,slow=8.1,SNR=3.3						
CTA	**Charters Tower**	**60.48**	**119**	P	**P**	**07 16 48.9**	**-0.2**
	4.2nm,0.9s,mb4.5,baz=269,slow=6.9,SNR=3.7						
STKA	**Stephens Creek**	**62.24**	**133**	P	**P**	**07 17 00.6**	**-0.2**
	3.2nm,0.8s,mb4.5,baz=334,slow=10,SNR=3.1						
STKA				pP	pP	07 17 10.6	+0.6
	2.1nm,0.6s,baz=312,slow=8.6,SNR=2.5						
ULDT	**Uludag**	**63.75**	**310**	*i* P	**P**	**07 17 17.3**	**+6.6**
AKASG	**Malin Array Be**	**66.11**	**322**	P	**P**	**07 17 23.9**	**-1.8**
	2.2nm,0.8s,mb4.3,baz=83,slow=4.9,SNR=5.7						
AKASG				PP	PP	07 19 51.3	-2.3
	0.7nm,0.6s,baz=84,slow=9.7,SNR=2.4						
MLR	**Muntele Rosu**	**67.06**	**316**	P	**P**	**07 17 32.5**	**+0.6**
	8.7nm,0.8s,mb4.8,baz=145,slow=1.3,SNR=4.7						
FINES	**FINESS Array B**	**70.84**	**332**	P	**P**	**07 17 54.7**	**-0.3**
	5.4nm,0.7s,mb4.6,baz=117,slow=4.3,SNR=5.7						
FINES				pP	pP	07 18 03.7	-0.4
	2.9nm,0.8s,baz=90,slow=3.8,SNR=1.8						
ARCES	**ARCESS Array B**	**73.57**	**340**	P	**P**	**07 18 11.3**	**+0.3**
	4.6nm,0.8s,mb4.5,baz=101,slow=6.2,SNR=6.0						
PRU	**Pruhonice**	**75.25**	**319**	*e*P	**P**	**07 18 21.5**	**+0.4**
GERES	**GERESS Array B**	**75.74**	**318**	P	**P**	**07 18 24.4**	**+0.5**
	3.3nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=6.6						
GERES				pP	pP	07 18 33.2	+0.1
	4.4nm,1.0s,baz=90,slow=5.3,SNR=3.9						
KHC	**Kasperske Hory**	**75.83**	**318**	*e*P	**P**	**07 18 24.5**	**+0.1**
NB2	**NORSAR Subarra**	**77.83**	**331**	P	**P**	**07 18 34.2**	**-1.0**
	7.0nm,1.1s,mb4.5,baz=93,slow=5.8						
NOA	**NORSAR Array B**	**77.83**	**331**	P	**P**	**07 18 34.8**	**-0.5**
	2.4nm,0.8s,mb4.2,baz=93,slow=6.0,SNR=5.5						
NOA				pP	pP	07 18 42.5	-2.0
	1.2nm,0.6s,baz=92,slow=5.7,SNR=2.5						
DAVOX	**Davos**	**78.28**	**316**	P	**P**	**07 18 38.8**	**+0.7**
	4.0nm,0.8s,mb4.4,baz=332,slow=2.2,SNR=3.3						
ILAR	**Eielson Array**	**94.39**	**22**	P	**P**	**07 19 56.6**	**-0.5**
	0.8nm,0.7s,mb4.2,baz=305,slow=4.9,SNR=5.4						
INK	**Inuvik**	**96.41**	**16**	P	**P**	**07 20 06.9**	**+0.6**
	1.5nm,0.7s,mb4.5,baz=336,slow=5.5,SNR=4.4						
INK				pP	pP	07 20 16.1	+0.5
	1.1nm,0.6s,baz=334,slow=5.7,SNR=2.9						
YKA	**Yellowknife Ar**	**105.74**	**13**	PP	PP	07 25 07.9	-5.7
	0.6nm,0.8s,baz=335,slow=7.6,SNR=6.8						
ULM	**Lac du Bonnet**	**120.56**	**6**	PKP	PKPdf	07 25 31.1	-2.1
	2.3nm,0.8s,baz=303,slow=23,SNR=4.7						
PDAR	**Pinedale Array**	**124.75**	**19**	PKP	PKPdf	07 25 39.0	-2.6
	1.1nm,0.7s,baz=52,slow=2.3,SNR=6.9						
NVAR	**Mina Array Bea**	**124.87**	**29**	PKP	PKPdf	07 25 40.5	-1.4
	2.1nm,1.0s,baz=316,slow=2.3,SNR=5.3						
NVAR				PP	PP	07 27 29.8	+0.5
	1.2nm,1.0s,baz=90,slow=0.3,SNR=2.7						
ANMO	**Albuquerque**	**132.82**	**21**	PKP	PKPdf	07 25 55.6	-1.6
	0.9nm,0.7s,baz=354,slow=4.7,SNR=3.6						
TXAR	**Lajitas Array**	**138.90**	**21**	PKP	PKPdf	07 26 07.0	-1.5
	0.4nm,0.6s,baz=349,slow=0.3,SNR=3.7						
BDFB	**Brasilia**	**140.68**	**256**	PKP	PKPdf	07 26 09.6	-2.6
	3.4nm,1.0s,baz=90,slow=8.4,SNR=3.3						

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*IDC **26** 07:07:10.0±0.3, 10.32N×93.68E, h18^{km}±1^{km}, mb4.8/28, mb1 4.8/29, mb1mx4.8/31, ML4.1/1, Error ellipse: s-maj=15.4km s-min=8.0km az=43.0*

*BJI **26** 07:07:09.1, 10.10N×93.55E, h40^{km}, mB6.0, mb5.2, Ms5.6, Msz5.5*

*MOS **26** 07:07:10.8±1.2, 10.43N×93.76E, h33^{km}, mb5.5/35, Error ellipse: s-maj=10.6km s-min=6.0km az=120.2*

*NEIC **26** 07:07:10.3±0.2, 10.36N×93.75E, mb5.6/47, Error ellipse: s-maj=7.0km s-min=5.7km az=213.0*

*SYO **26** 07:07:12.5, 10.37N×93.73E, h30^{km}, MB5.6*

ISC 26 07:07:08.3±0.2**, 10.31N**±0.04×**93.78E**±0.03**, h20**^{km}**, h20**^{km}±.6^{km}**:pP-P, n324, σ1**$\overset{s}{.}$**18**/289**, mb5.3**/91**, MS5.4**/9**, 26C-10D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**9.52**	**31**	P	**P**	**07 09 25.1**	**-2.5**
CMAR	**Chiang Mai Arr**	**9.52**	**31**	Pn	**P**	**07 09 27.4**	**-0.1**
	0.5nm,0.3s,baz=217,slow=14,SNR=2.7						
CMAR	**Chiang Mai Arr**	**9.52**	**31**	P	**P**	**07 09 27.4**	**-0.2**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VIS	**Vishakhapatnam**	**12.53**	**307**	*e*P	**P**	**07 10 08.5**	**-0.1**
VIS				*e*		07 10 23.5	
	comp=Z,630nm,1.1s						
VIS				*e*S	**S**	**07 12 17.8**	**-11**
PALK	**Pallekele**	**13.27**	**258**	P	**P**	**07 10 19.3**	**+0.9**
	comp=Z,100nm,0.5s						
MDRS	**Chennai**	**13.53**	**283**	*e*P	**P**	**07 10 18.9**	**-3.1**
IMP	**Imphal**	**14.39**	**1**	*e*	**P**	**07 10 38.3**	**+5.1**
SHL	**Shillong**	**15.28**	**353**	*e*	**P**	**07 10 45.7**	**+0.9**
SHL				*e*		07 10 55.4	
	comp=Z,253nm,1.2s						
BOK	**Bokaro**	**15.38**	**332**	*e*	**P**	**07 10 54.6**	**+8.5**
BOK				*e*		07 11 01.9	
	comp=Z,153nm,1.3s						
BLSP	**Bilaspur**	**16.21**	**318**	*e*P	**P**	**07 10 58.9**	**+2.1**
BLSP				*e*		07 11 06.1	
	comp=Z,287nm,1.0s						
TRD	**Trivandrum**	**16.69**	**265**	*e*P	**P**	**07 11 03.5**	**+0.5**
TRD				*e*		07 11 15.7	
	comp=Z,191nm,1.4s						
KMI	**Kunming**	**17.01**	**29**	*e*P	**P**	**07 11 10.5**	**+3.6**
KMI				AP		07 11 13.8	
KMI				AMB	AMB		
	comp=Z,62nm,1.0s						
QIZ	**Qiongzhong**	**17.78**	**59**	P	**P**	**07 11 20.5**	**+3.9**
QIZ				S	**S**	**07 14 34.3**	**+2.5**
QIZ	**Qiongzhong**	**17.78**	**59**	P	**P**	**07 11 20.7**	**+4.2**
	comp=Z,143nm,1.4s						
ALBI	**Allahabad**	**18.75**	**324**	*e*P	**P**	**07 11 28.8**	**+0.3**
AKL	**Akola**	**19.16**	**305**	*e*	**P**	**07 11 37.4**	**+4.1**
AKL				*e*		07 11 54.3	
	comp=Z,134nm,1.2s						
LSA	**Lhasa**	**19.45**	**353**	P	**P**	**07 11 38.3**	**+1.6**
LSA	**Lhasa**	**19.45**	**353**	*e*P	**P**	**07 11 35.8**	**-0.9**
	comp=Z,118nm,0.8s						
GYA	**Guiyang**	**20.16**	**35**	⇑*i*P	**P**	**07 11 43.5**	**-0.9**
GYA				PP	PP	07 12 07.3	+3.0
GYA				AMB	AMB		
	comp=Z,170nm,1.2s						
GYA				AMB	AMB		
	comp=Z,670nm,6.2s						
GYA				LR	LR		
	comp=N,5µm,16.4s,MS5.3						
GYA				LR	LR		
	comp=E,10µm,17.0s,MS5.3						
GYA				LR	LR		
	comp=Z,3µm,16.2s,MS4.7						
BHPL	**Bhopal**	**20.23**	**311**	*e*P	**P**	**07 11 46.1**	**+0.8**
BHPL				*e*		07 11 58.9	
	comp=Z,143nm,1.3s						
KAD	**Karad**	**20.25**	**292**	*e*P	**P**	**07 11 46.5**	**+1.0**
KAD				*e*		07 11 55.8	
	comp=Z,258nm,1.7s						
POO	**Poona**	**20.94**	**295**	*e*	**P**	**07 11 56.3**	**+3.7**
POO				*e*		07 12 03.9	
	comp=Z,223nm,1.2s						
COCO	**West Island**	**22.56**	**172**	P	**P**	**07 12 09.5**	**+0.5**
	comp=Z,403nm,1.2s,mb5.7						
NDI	**New Delhi**	**23.98**	**322**	*e*P	**P**	**07 12 24.6**	**+1.9**
NDI				*e*		07 12 31.3	
	comp=Z,158nm,1.3s						
ENH	**Enshi**	**24.67**	**34**	*e*P	**P**	**07 12 25.9**	**-3.4**
	comp=Z,159nm,1.0s,mb5.5						
DDI	**Dehra Dun**	**24.72**	**326**	*e*P	**P**	**07 12 31.5**	**+1.7**
TGY	**Tagaytay City**	**26.80**	**79**	pP	pP	07 12 56.5	+1.3
	comp=Z,136nm,0.4s,baz=198,slow=10,SNR=2.3						
PCPH	**Palayan**	**27.11**	**76**	⇓*e*P	**P**	**07 12 58.0**	**+5.7**
LZH	**Lanzhou**	**27.24**	**18**	*e*P	**P**	**07 12 53.5**	**+0.3**
LZH				PP	PP	07 13 41.5	+1.3
LZH				*e*S	**S**	**07 17 30.0**	**+0.6**
LZH				SS	SS	07 18 46.3	+0.7
LZH				AMB	AMB		
	comp=Z,213nm,1.2s,mb5.5						
LZH				AMB	AMB		
	comp=Z,1µm,4.8s						
LZH				LR	LR		
	comp=E,11µm,15.0s						
LZH				LR	LR		
	comp=Z,17µm,18.0s,MS5.7						
QZH	**Quanzhou**	**27.69**	**55**	P	**P**	**07 13 03.0**	**+5.6**
QZH				AMB	AMB		
	comp=Z,230nm,1.0s,mb5.8						
WHN	**Wuhan**	**27.78**	**41**	*e*P	**P**	**07 12 58.0**	**-0.1**
GTA	**Gaotai**	**29.47**	**10**	P	**P**	**07 13 11.8**	**-1.6**
GTA				PP	PP	07 14 05.3	-3.9
GTA				S	**S**	**07 18 02.5**	**-2.8**
GTA				PCS		07 20 02.5	
GTA				AMB	AMB		
	comp=Z,23nm,1.3s,mb4.8						
GTA				AMB	AMB		
	comp=Z,4µm,10.3s						
GTA				LR	LR		
	comp=N,5µm,22.0s,MS5.3						
GTA				LR	LR		
	comp=E,5µm,20.9s,MS5.3						
GTA				LR	LR		
	comp=Z,11µm,25.1s,MS5.4						
NJ2	**Nanjing**	**31.70**	**43**	*e*P	**P**	**07 13 32.5**	**-0.6**
NJ2				AP	pP	07 13 42.0	+3.0
NJ2				XP	sP	07 13 45.8	+4.3
NJ2				AMB	AMB		
	comp=Z,1µm,5.6s						
NJ2				LR	LR		
	comp=N,2µm,15.0s,MS4.9						
NJ2				LR	LR		
	comp=E,1µm,15.8s,MS4.9						
NJ2				LR	LR		
	comp=Z,2µm,17.0s,MS4.9						
SSE	**Sheshan**	**32.77**	**47**	*e*P	**P**	**07 13 42.5**	**0.0**
SSE				AMB	AMB		
	comp=Z,44nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,8µm,10.5s						
KSH	**Kashi**	**33.13**	**334**	P	**P**	**07 13 45.8**	**+0.3**
KSH				*e*AP	pP	07 13 54.8	+3.5
KSH				*e*XP	sP	07 13 59.5	+5.6
KSH				PP	PP	07 14 56.8	+0.2
KSH				PPP	PPP	07 15 13.8	+0.9
KSH				PCP	PcP	07 16 28.3	-0.2
KSH				*e*S	**S**	**07 19 03.5**	**+0.9**
KSH				XS		07 19 19.0	
KSH				*e*SCP		07 20 09.0	
KSH				*e*PCS		07 20 13.0	
KSH				*e*SS	SS	07 21 04.3	+0.5
KSH				*e*SCS	ScS	07 24 09.5	-0.1
KSH				AMB	AMB		
	comp=Z,1µm,5.3s						
KSH				LR	LR		
	comp=N,5µm,15.0s,MS5.5						
KSH				LR	LR		
	comp=E,5µm,15.6s,MS5.5						
BTO	**Baotou**	**33.42**	**23**	*e*P	**P**	**07 13 47.3**	**-0.7**
BTO				AMB	AMB		
	comp=Z,35nm,1.2s,mb5.2						
WMQ	**Urumqi**	**33.80**	**352**	⇑P	**P**	**07 13 53.0**	**+1.7**
WMQ				AP	pP	07 13 57.5	+0.4
WMQ				PP	PP	07 15 05.8	+1.2
WMQ				PPP	PPP	07 15 23.0	+0.8
WMQ				*e*S	**S**	**07 19 14.8**	**+1.8**
WMQ				AMB	AMB		
	comp=Z,49nm,0.9s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,4µm,10.9s						
WMQ				LR	LR		
	comp=Z,11µm,22.9s,MS5.5						
HHC	**Hu-ho-hao-te**	**34.24**	**24**	*e*P	**P**	**07 13 54.8**	**-0.3**
HHC				AP	pP	07 14 02.0	+1.0
HHC				PP	PP	07 15 08.5	-1.6
HHC				PCP	PcP	07 16 32.0	+0.3
HHC				S	**S**	**07 19 17.0**	**-2.8**
HHC				SCS	ScS	07 24 15.5	+0.2
HHC				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.3						
HHC				AMB	AMB		
	comp=Z,7µm,10.1s						
HHC				LR	LR		
	comp=N,6µm,15.5s,MS5.5						
HHC				LR	LR		
	comp=E,4µm,16.7s,MS5.5						
HHC				LR	LR		
	comp=Z,9µm,17.8s,MS5.6						
KZA	**Kyzart**	**35.57**	**336**	P	**P**	**07 14 09.3**	**+2.8**
	SNR=6.8						
BJT	**Baijiatuau**	**35.64**	**30**	P	**P**	**07 14 08.3**	**+1.2**
BJT				pmax	pmax		
	comp=Z,130nm,1.2s						
BJT	**Baijiatuau**	**35.64**	**30**	*e*P	**P**	**07 14 07.9**	**+0.8**
	comp=Z,131nm,1.2s,mb5.7						
BJI	**Beijing**	**35.66**	**30**	P	**P**	**07 14 08.3**	**+1.0**
BJI				AMB	AMB		
	comp=Z,43nm,1.1s,mb5.3						
AML	**Almayashu**	**36.26**	**334**	P	**P**	**07 14 13.7**	**+1.4**
	SNR=5.6						
AAK	**Ala-Archa**	**36.34**	**336**	P	**P**	**07 14 13.9**	**+0.9**
	SNR=7.5						
AAK	**Ala-Archa**	**36.34**	**336**	P	**P**	**07 14 13.4**	**+0.4**
AAK				pmax	pmax		
	comp=Z,89nm,1.1s,mb5.6						
AAK	**Ala-Archa**	**36.34**	**336**	⇑*e*P	**P**	**07 14 14.1**	**+1.1**
JOW	**Kunigami**	**36.43**	**58**	P	**P**	**07 14 15.9**	**+2.1**
	comp=Z,26nm,0.9s,mb5.1,baz=345,slow=19,SNR=2.5						
FRU	**Bishkek**	**36.46**	**336**	*e*P	**P**	**07 14 15.0**	**+1.0**
FRU				pmax	pmax		
	comp=Z,120nm,1.8s,mb5.5						
CHMS	**Chumysh**	**36.55**	**336**	P	**P**	**07 14 14.7**	**0.0**
	SNR=9.9						
EKS2	**Erkin-Say**	**36.66**	**335**	P	**P**	**07 14 16.1**	**+0.5**
	SNR=6.3						
USP	**Ospenovka**	**36.87**	**336**	P	**P**	**07 14 18.3**	**+0.9**
	SNR=7.1						
SONM	**Songino Array**	**38.88**	**14**	P	**P**	**07 14 35.2**	**+0.9**
	comp=Z,23nm,1.0s,mb4.8,baz=207,slow=5.5,SNR=14						
SONM				pP	pP	07 14 40.5	+0.3
	comp=Z,40nm,1.1s,baz=196,slow=9.0,SNR=11						
SONM				PcP	PcP	07 16 45.8	+0.3
	comp=Z,3.1nm,0.9s,baz=196,slow=4.6,SNR=3.2						
SONM				pPcP		07 16 51.7	
	comp=Z,4.8nm,0.9s,baz=180,slow=2.5,SNR=3.5						
ULN	**Ulaanbaatar**	**39.07**	**14**	*e*P	**P**	**07 14 35.2**	**-0.6**
	comp=Z,17nm,1.0s,mb4.7						
MBWA	**Marble Bar**	**40.35**	**141**	*e*P	**P**	**07 14 45.4**	**-1.3**
	comp=Z,86nm,1.4s,mb5.3						
ZAK	**Zakamensk**	**40.71**	**9**	*e*P	**P**	**07 14 51.6**	**+2.3**
SNY	**Shenyang**	**40.85**	**35**	⇑P	**P**	**07 14 50.8**	**+0.2**
SNY				AMB	AMB		
	comp=Z,40nm,1.6s,mb4.8						
KS15	**Wonju Array Si**	**40.87**	**43**	P	**P**	**07 14 53.4**	**+2.6**
TLY	**Talaya**	**42.03**	**9**	*c i*P	**P**	**07 15 07.4**	**+7.3**

CN2	**Changchun**	**43.19**	**34**	*e*P	**P**	**07 15 10.5**	**+0.8**
CN2				*e*AP	pP	07 15 19.5	+3.8
CN2				*e*S	**S**	**07 21 34.5**	**-0.5**
CN2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
CN2				LR	LR		
	comp=N,4µm,17.0s,MS5.5						
CN2				LR	LR		
	comp=E,3µm,17.0s,MS5.5						
CN2				LR	LR		
	comp=Z,4µm,18.0s,MS5.4						
ZAL	**Zalesovo**	**44.10**	**352**	P	**P**	**07 15 16.9**	**-0.1**
	comp=Z,16nm,0.7s,mb4.8,baz=301,slow=8.3,SNR=15						
ZAL				pP	pP	07 15 22.8	-0.1
	comp=Z,26nm,0.8s,baz=293,slow=11,SNR=13						
ZAL	**Zalesovo**	**44.10**	**352**	P	**P**	**07 15 16.9**	**0.0**
ZAL				*PP	pP	07 15 22.8	-0.1
ZAL				pmax	pmax		
	comp=Z,16nm,0.7s						
ZAL				pmax	pmax		
	comp=Z,27nm,0.9s						
HIA	**Hailar**	**44.44**	**24**	P	**P**	**07 15 20.6**	**+0.8**
HIA				pmax	pmax		
	comp=Z,220nm,1.5s						
HIA	**Hailar**	**44.44**	**24**	*e*P	**P**	**07 15 19.8**	**0.0**
	comp=Z,218nm,1.5s,mb5.7						
NVS	**Novosibirsk**	**45.20**	**351**	*i* P	**P**	**07 15 24.3**	**-1.4**
NVS				*i*		07 17 06.3	
NVS				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.4						
NVS				pmax	pmax		
	comp=E,35nm,1.4s						
NVS				pmax	pmax		
	comp=N,73nm,1.6s						
MDJ	**Mudanjiang**	**46.02**	**36**	P	**P**	**07 15 34.0**	**+1.6**
MDJ				AMB	AMB		
	comp=Z,38nm,2.0s,mb5.0						
BVAR	**Borovoye Array**	**46.58**	**341**	P	**P**	**07 15 35.9**	**-0.8**
	comp=Z,6.8nm,0.7s,mb4.7,baz=143,slow=7.4,SNR=8.3						
BVAR				pP	pP	07 15 42.4	-0.4
	comp=Z,25nm,1.1s,baz=141,slow=9.5,SNR=7.1						
BRVK	**Borovoye**	**46.65**	**341⇓**	*e*P	**P**	**07 15 36.9**	**-0.3**
CHKZ	**Chkalovo**	**47.06**	**341**	*e*P	**P**	**07 15 39.5**	**-1.1**
	comp=Z,101nm,1.1s,mb5.7						
MAT	**Matsushiro**	**47.83**	**50**	P	**P**	**07 15 46.5**	**-0.3**
MAT	**Matsushiro**	**47.83**	**50**	*e*P	**P**	**07 15 47.0**	**+0.2**
NWAO	**Narrogin (SRO)**	**48.47**	**153**	pP	pP	07 15 56.8	-1.1
	comp=Z,15nm,0.9s,baz=332,slow=9.8,SNR=3.0						
BOD	**Bodaibo**	**49.88**	**14**	*e*P	**P**	**07 16 01.5**	**-0.8**
WRA	**Warramunga Arr**	**49.98**	**127**	P	**P**	**07 16 03.2**	**-0.4**
	comp=Z,15nm,0.7s,mb5.1,baz=307,slow=8.1,SNR=19						
WRA				pP	pP	07 16 09.1	-0.6
	comp=Z,68nm,1.1s,baz=309,slow=8.0,SNR=20						
WRA	**Warramunga Arr**	**49.98**	**127**	P	**P**	**07 16 03.2**	**-0.4**
WRA				*PP	pP	07 16 09.1	-0.6
WRA				pmax	pmax		
	comp=Z,15nm,0.7s						
WRA				pmax	pmax		
	comp=Z,68nm,1.1s						
WRAB	**Tennant Creek**	**49.98**	**127⇓**	*e*P	**P**	**07 16 04.2**	**+0.6**
WRAB	**Tennant Creek**	**49.98**	**127**	*e*P	**P**	**07 16 03.9**	**+0.3**
	comp=Z,107nm,1.0s,mb5.8						
WRAB				*e*	pP	07 16 09.5	-0.2
ASAR	**Alice Springs**	**51.76**	**131**	P	**P**	**07 16 16.4**	**-0.7**
	comp=Z,8.5nm,0.6s,mb4.8,baz=310,slow=7.0,SNR=12						
ASAR				pP	pP	07 16 22.6	-0.5
	comp=Z,21nm,0.9s,baz=314,slow=7.4,SNR=14						
CLNS	**Chul’man**	**52.29**	**21**	*e*P	**P**	**07 16 18.8**	**-1.8**
CLNS				pmax	pmax		
	comp=N,31nm,1.1s						
CLNS				pmax	pmax		
	comp=E,28nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,57nm,1.1s,mb5.4						
GNI	**Garni**	**52.50**	**313**	P	**P**	**07 16 23.6**	**+1.1**
	comp=Z,22nm,0.7s,mb5.2,baz=8.9,slow=4.4,SNR=26						
GNI	**Garni**	**52.50**	**313**	P	**P**	**07 16 23.6**	**+1.1**
GNI				pmax	pmax		
	comp=Z,23nm,0.7s						
GNI	**Garni**	**52.50**	**313**	*e*P	**P**	**07 16 22.5**	**0.0**
	comp=Z,335nm,1.4s,mb6.1						
SVE	**Sverdlovsk**	**53.02**	**338**	*e*P	**P**	**07 16 25.0**	**-1.1**
SVE				*e*	pP	07 16 32.0	-0.2
SVE				pmax	pmax		
	comp=Z,200nm,1.6s,mb5.8						
ARU	**Arti**	**53.52**	**337*c***	*i*P	**P**	**07 16 30.1**	**+0.3**
ARU				pmax	pmax		
	comp=Z,71nm,2.2s,mb5.2						
ARU	**Arti**	**53.52**	**337⇑**	*i*P	**P**	**07 16 30.1**	**+0.3**
ASAJ	**Asahikawa**	**53.84**	**42**	P	**P**	**07 16 32.8**	**+0.5**
	comp=Z,6.2nm,0.5s,mb4.8,baz=263,slow=18,SNR=3.9						
ASAJ	**Asahikawa**	**53.84**	**42**	P	**P**	**07 16 32.8**	**+0.6**
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.5s						
YNBS	**Yanbu‘ al Bahr**	**54.72**	**292**	P	**P**	**07 16 41.3**	**+2.4**
ERZM	**Erzurum**	**54.88**	**312**	*i* P	**P**	**07 16 41.4**	**+1.4**
YSS	**Yuzh-Sakhalins**	**55.11**	**39**	*e*P	**P**	**07 16 38.2**	**-3.3**
YSS				*i*	pP	07 16 46.2	-1.4
YSS				pmax	pmax		
	comp=Z,1µm,1.2s						
YSS				pmax	pmax		
	comp=Z,160nm,1.0s						
YSS	**Yuzh-Sakhalins**	**55.11**	**39**	*e*P	**P**	**07 16 40.9**	**-0.6**
	comp=Z,53nm,0.9s,mb5.6						
KIV	**Kislovodsk**	**55.29**	**317**	P	**P**	**07 16 43.0**	**+0.1**
	comp=Z,912nm,1.0s,SNR=45						
KIV	**Kislovodsk**	**55.29**	**317**	*e*P	**P**	**07 16 42.1**	**-0.8**
KIV				*e*		07 17 42.5	
KIV				*e*S	**S**	**07 24 26.3**	**+2.4**
KIV				pmax	pmax		
	comp=Z,341nm,1.0s,mb6.3						
KIV				pmax	pmax		
	comp=Z,541nm,1.3s,mb6.4						
KIV	**Kislovodsk**	**55.29**	**317⇑**	*i*P	**P**	**07 16 42.1**	**-0.8**
UMJS	**Umm Lajj**	**55.41**	**293**	P	**P**	**07 16 46.1**	**+2.1**
GOF	**Gofitskoye**	**55.47**	**318⇓**	*i*P	**P**	**07 16 44.0**	**-0.2**
GOF				pmax	pmax		
	comp=Z,180nm,1.4s,mb5.9						
YUK	**Yuzh-Kuril’sk**	**55.99**	**43**	*e*P	**P**	**07 16 42.0**	**-5.9**
ELZG	**Elazig**	**56.26**	**310**	*i* P	**P**	**07 16 49.9**	**-0.1**
TBKS	**Tabuk**	**56.38**	**297**	P	**P**	**07 16 53.7**	**+2.7**
PMG	**Port Moresby**	**56.61**	**108**	P	**P**	**07 16 53.6**	**+0.8**
	comp=Z,36nm,0.8s,mb5.5,baz=221,slow=3.1,SNR=4.5						
PMG				pP	pP	07 16 59.0	+0.1
	comp=Z,38nm,0.8s,baz=301,slow=2.5,SNR=12						
PMG	**Port Moresby**	**56.61**	**108**	*e*P	**P**	**07 16 53.3**	**+0.5**
PMG				*e*	pP	07 16 58.9	0.0
PMG				pmax	pmax		
	comp=Z,54nm,0.9s						
PMG	**Port Moresby**	**56.61**	**108**	*e*P	**P**	**07 16 53.3**	**+0.5**
	comp=Z,54nm,0.9s,mb5.6						
PMG				*e*	pP	07 16 58.9	0.0
ASF	**Jabal al Asfar**	**56.62**	**302**	P	**P**	**07 16 53.3**	**+0.7**
	comp=Z,14nm,1.0s,mb4.9,baz=321,slow=4.1,SNR=6.9						
MALT	**Malatya**	**56.64**	**309**	*e*P	**P**	**07 16 51.9**	**-0.8**
	comp=Z,52nm,1.2s,mb5.4						
JMQS	**Jabal Moqyreh**	**57.04**	**298**	P	**P**	**07 16 57.7**	**+2.0**
GZT	**Gaziantep**	**57.08**	**308**	*i* P	**P**	**07 16 54.3**	**-1.6**
SOC	**Sochi**	**57.19**	**316**	*e*P	**P**	**07 16 56.8**	**+0.3**
SOC				pmax	pmax		
	comp=Z,139nm,0.9s,mb6.0						
SOC				pmax	pmax		
	comp=N,55nm,1.4s						
SOC				pmax	pmax		
	comp=E,55nm,1.0s						
KMBO	**Kilima Mbogo**	**57.37**	**262**	P	**P**	**07 17 00.4**	**+2.2**
	comp=E,14nm,1.2s,mb4.9,baz=58,slow=8.8,SNR=17						
KMBO				PcP	PcP	07 17 53.2	+1.3
	comp=E,5.7nm,1.1s,baz=46,slow=6.7,SNR=2.2						
KMBO				pPcP		07 17 59.8	
	comp=E,11nm,1.1s,baz=340,slow=4.1,SNR=4.6						
KMBO	**Kilima Mbogo**	**57.37**	**262**	P	**P**	**07 17 00.4**	**+2.2**
KMBO						07 17 53.3	
KMBO				pmax	pmax		
	comp=Z,14nm,1.2s						
KMBO				pmax	pmax		
	comp=Z,6.0nm,1.1s						
KMBO				pmax	pmax		
	comp=Z,11nm,1.1s						
KMBO	**Kilima Mbogo**	**57.37**	**262**	*e*P	**P**	**07 17 00.8**	**+2.6**
	comp=Z,61nm,1.6s,mb5.4						
AYUS	**‘Aynunah**	**57.50**	**297**	P	**P**	**07 17 00.8**	**+1.9**
BDAS	**Al Bad‘**	**57.67**	**297**	P	**P**	**07 17 01.9**	**+1.8**
JMOS	**Jabal al Moall**	**57.74**	**298**	P	**P**	**07 17 02.2**	**+1.6**
ALWS	**Ilw as Safayha**	**57.80**	**298**	P	**P**	**07 17 02.6**	**+1.6**
YAK	**Yakutsk**	**57.82**	**19**	*e*P	**P**	**07 16 59.6**	**-1.0**
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
YAK	**Yakutsk**	**57.82**	**19**	*e*P	**P**	**07 16 59.4**	**-1.2**
	comp=Z,19nm,0.8s,mb5.2						
YAK				*e*	pP	07 17 05.2	-1.6
HAQS	**Haql**	**57.89**	**298**	P	**P**	**07 17 02.1**	**+0.5**
COBT	**Iskenderun**	**57.93**	**307**	*i* P	**P**	**07 16 59.0**	**-2.8**
EIL	**Elat**	**57.94**	**299**	P	**P**	**07 17 01.6**	**-0.4**
	comp=Z,63nm,1.3s,mb5.5,baz=53,slow=10,SNR=11						
EIL				pP	pP	07 17 08.7	+0.6
	comp=Z,32nm,0.8s,baz=55,slow=4.7,SNR=13						
EIL	**Elat**	**57.94**	**299**	*e*P	**P**	**07 17 00.8**	**-1.2**
	comp=Z,90nm,1.2s,mb5.7						
EIL				*e*	pP	07 17 08.0	-0.1
AVNT	**Avonos**	**59.47**	**309**	*i* P	**P**	**07 17 11.7**	**-0.9**
CTA	**Charters Tower**	**59.82**	**120**	P	**P**	**07 17 16.3**	**+1.1**
	comp=Z,17nm,0.9s,mb5.0,baz=283,slow=9.0,SNR=14						
CTA				pP	pP	07 17 21.6	+0.2
	comp=Z,79nm,1.1s,baz=299,slow=7.5,SNR=21						
CTA	**Charters Tower**	**59.82**	**120**	P	**P**	**07 17 16.3**	**+1.1**
CTA				*PP	pP	07 17 21.6	+0.2
CTA				pmax	pmax		
	comp=Z,17nm,0.9s						
CTA				pmax	pmax		
	comp=Z,79nm,1.1s						
CTAO	**Charters Tower**	**59.82**	**120**	*e*P	**P**	**07 17 16.2**	**+1.0**
CTAO				*e*	pP	07 17 21.3	-0.1
CTAO				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.8						
CTAO	**Charters Tower**	**59.82**	**120**	*e*P	**P**	**07 17 16.2**	**+1.0**
	comp=Z,102nm,1.1s,mb5.8						
CTAO				*e*	pP	07 17 21.2	-0.1
CTKT	**Corum**	**59.92**	**311**	*i* P	**P**	**07 17 15.5**	**-0.1**
CSS	**Prodhromos**	**59.99**	**304**	*e*P	**P**	**07 17 15.3**	**-0.9**
	comp=Z,130nm,1.4s,mb5.8						
BOYT	**Boyabat**	**60.02**	**312**	*i* P	**P**	**07 17 13.8**	**-2.4**
BRTR	**Keskin Array B**	**60.59**	**310**	P	**P**	**07 17 18.6**	**-1.5**
	comp=Z,13nm,0.7s,mb5.2,baz=121,slow=7.2,SNR=22						
BRTR				pP	pP	07 17 24.7	-1.7
	comp=Z,33nm,0.9s,baz=122,slow=7.5,SNR=22						
BRTR	**Keskin Array B**	**60.59**	**310**	P	**P**	**07 17 18.7**	**-1.5**
BRTR				*PP	pP	07 17 24.7	-1.7
BRTR				pmax	pmax		
	comp=Z,13nm,0.7s						
BRTR				pmax	pmax		
	comp=Z,33nm,0.9s						
ELDT	**Eldivan**	**60.90**	**311**	*i* P	**P**	**07 17 20.7**	**-1.6**
BALT	**Daday**	**61.15**	**312**	*i* P	**P**	**07 17 19.0**	**-5.0**
SIM	**Simferopol’**	**61.44**	**316**	*e*P	**P**	**07 17 26.0**	**+0.2**
SGKT	**Sivrigoynuk**	**61.95**	**311**	*i* P	**P**	**07 17 28.0**	**-1.3**
STKA	**Stephens Creek**	**62.05**	**134**	P	**P**	**07 17 29.5**	**-0.6**
	comp=Z,11nm,0.7s,mb5.1,baz=316,slow=7.5,SNR=12						
STKA				pP	pP	07 17 36.1	-0.2
	comp=Z,28nm,0.8s,baz=307,slow=6.9,SNR=15						
STKA	**Stephens Creek**	**62.05**	**134**	*e*P	**P**	**07 17 29.2**	**-1.0**
ESKT	**Eskisehir**	**62.67**	**309**	*i* P	**P**	**07 17 32.7**	**-1.4**
ISP	**Isparta**	**62.67**	**307**	P	**P**	**07 17 33.7**	**-0.5**
ISP				pmax	pmax		
	comp=Z,180nm,1.2s,mb6.1						
ISP	**Isparta**	**62.67**	**307**	*e*P	**P**	**07 17 32.2**	**-2.0**
	comp=Z,177nm,1.3s,mb6.0						
MOS	**Moscow**	**62.83**	**328**	*e*P	**P**	**07 17 33.7**	**-1.3**
MOS				*e*		07 19 57.9	
MOS				pmax	pmax		
	comp=Z,230nm,1.6s,mb6.1						
HENT	**Hendek**	**62.85**	**311**	*i* P	**P**	**07 17 30.0**	**-5.4**
OBN	**Obninsk**	**63.15**	**327⇑**	*e*P	**P**	**07 17 35.7**	**-1.3**
OBN				*e*		07 18 15.1	
OBN				*e*		07 19 52.5	
OBN				*e*S	**S**	**07 26 05.5**	**0.0**
OBN				*e*SS	SS	07 30 13.0	-0.7
OBN				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.8						
OBN				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.4						
OBN	**Obninsk**	**63.15**	**327⇑**	*e*P	**P**	**07 17 35.8**	**-1.2**
MA2	**Magadan**	**64.79**	**28**	*e*P	**P**	**07 17 46.4**	**-1.3**
MA2				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.5						
MA2	**Magadan**	**64.79**	**28**	*e*P	**P**	**07 17 46.9**	**-0.9**
	comp=Z,116nm,1.4s,mb5.7						
KDAG	**Bornova**	**65.28**	**308**	*i* P	**P**	**07 17 50.1**	**-1.2**
KIS	**Kishinev**	**65.50**	**317**	*e*P	**P**	**07 17 52.0**	**-0.5**
KIS				*e*	pP	07 17 57.0	-1.7
KIS				*e*		07 18 28.0	
KIS				*e*		07 20 25.0	
CFR	**Carcaliu**	**65.62**	**315⇑**	*i*P	**P**	**07 17 51.9**	**-1.4**
CFR	**Carcaliu**	**65.62**	**315⇑**	*i*P	**P**	**07 17 51.9**	**-1.4**
AKASG	**Malin Array Be**	**66.04**	**321**	P	**P**	**07 17 53.8**	**-2.1**
	comp=Z,3.3nm,0.5s,mb4.6,baz=87,slow=4.4,SNR=19						
AKASG				pP	pP	07 18 00.0	-2.1
	comp=Z,3.1nm,0.7s,baz=114,slow=9.8,SNR=13						
AKASG				PP	PP	07 20 16.8	-6.9
	comp=Z,4.6nm,0.9s,baz=103,slow=8.1,SNR=4.3						
AKASG	**Malin Array Be**	**66.04**	**321**	P	**P**	**07 17 53.8**	**-2.1**
AKASG				*PP	pP	07 18 00.0	-2.1
AKASG						07 20 16.8	
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
AKASG				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ALN	**Alexandroupoli**	**66.51**	**310**	*e*P	**P**	**07 17 59.4**	**+0.3**
VRI	**Vrincioaia**	**66.71**	**316⇑**	*i*P	**P**	**07 17 59.6**	**-0.7**
VRI	**Vrincioaia**	**66.71**	**316⇑**	*i*P	**P**	**07 17 59.6**	**-0.7**
ISR	**Istrita**	**66.72**	**315⇑**	*i*P	**P**	**07 18 02.1**	**+1.7**
ISR	**Istrita**	**66.72**	**315⇑**	*i*P	**P**	**07 18 02.1**	**+1.7**
IDI	**Anoyia**	**66.91**	**304**	P	**P**	**07 18 00.8**	**-0.9**
	comp=Z,15nm,0.6s,mb5.2,baz=104,slow=7.5,SNR=11						
MLR	**Muntele Rosu**	**67.20**	**315**	P	**P**	**07 18 03.1**	**-0.3**
	comp=Z,72nm,1.2s,mb5.6						
MLR				PP	PP	07 20 31.3	-1.9
	comp=Z,6.9nm,1.1s,baz=60,slow=10,SNR=2.0						
MLR	**Muntele Rosu**	**67.20**	**315**	P	**P**	**07 18 03.1**	**-0.3**
MLR						07 20 31.3	
MLR				pmax	pmax		
	comp=Z,73nm,1.2s						
MLR				pmax	pmax		
	comp=Z,7.0nm,1.1s						
RZN	**Rozhen**	**67.59**	**311**	P	**P**	**07 18 05.0**	**-1.0**
PAIG	**Paliouri**	**68.21**	**309**	*e*P	**P**	**07 18 09.2**	**-0.7**
MMB	**Musomiste**	**68.32**	**311**	P	**P**	**07 18 10.0**	**-0.5**
SRS	**Serrai**	**68.38**	**310**	*e*P	**P**	**07 18 08.9**	**-1.9**
VTS	**Vitosha**	**68.80**	**312**	P	**P**	**07 18 11.0**	**-2.5**
KKB	**Krupnik**	**68.83**	**311**	P	**P**	**07 18 11.0**	**-2.6**
KNT	**Kendrikon**	**68.90**	**310**	*e*P	**P**	**07 18 12.1**	**-2.0**
LIT	**Litokhoron**	**69.13**	**309**	*e*P	**P**	**07 18 14.3**	**-1.2**
LVZ	**Lovozero**	**69.16**	**340⇑**	*e*P	**P**	**07 18 19.7**	**+4.4**
LVZ				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.3						
LVZ				pmax	pmax		
	comp=N,6.0nm,1.1s						
LVZ				pmax	pmax		
	comp=E,13nm,1.2s						
GRG	**Griva**	**69.26**	**310**	*e*P	**P**	**07 18 14.3**	**-2.0**
APA	**Apatity**	**69.46**	**339⇓**	*i*P	**P**	**07 18 17.5**	**+0.4**
APA				*i*	pP	07 18 22.5	-0.8
APA				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.3						
LSZ	**Lusaka**	**69.76**	**250**	P	**P**	**07 18 22.4**	**+2.6**
LSZ				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.3						
LSZ	**Lusaka**	**69.76**	**250**	*e*P	**P**	**07 18 20.2**	**+0.4**
	comp=Z,46nm,1.2s,mb5.3						
BOLS	**Boljevac**	**69.82**	**313⇑**	*i*P	**P**	**07 18 19.7**	**0.0**
KWP	**Kalwaria**	**69.96**	**319**	*e*P	**P**	**07 18 19.9**	**-0.5**
KWP				*e*	pP	07 18 27.0	+0.4
KOLS	**Kolonicke sedl**	**70.15**	**318**	*e*pP	pP	07 18 28.2	+0.4
SUW	**Suwalki**	**70.34**	**324**	*e*P	**P**	**07 18 21.2**	**-1.4**
SUW				*e*	pP	07 18 27.7	-1.1
FINES	**FINESS Array B**	**70.41**	**332**	P	**P**	**07 18 21.3**	**-1.6**
	comp=Z,8.8nm,0.8s,mb4.7,baz=86,slow=4.5,SNR=10						
FINES				pP	pP	07 18 28.6	-0.5
	comp=Z,12nm,0.8s,baz=108,slow=12,SNR=5.7						
FINES	**FINESS Array B**	**70.41**	**332**	P	**P**	**07 18 21.3**	**-1.6**
FINES				*PP	pP	07 18 28.7	-0.4
FINES				pmax	pmax		
	comp=Z,9.0nm,0.8s						
FINES				pmax	pmax		
	comp=Z,12nm,0.8s						
CRVS	**Cervenica-Dubn**	**70.68**	**318**	*e*	pP	07 18 36.8	+5.8
GRUS	**Gruza**	**70.72**	**313⇑**	*i*P	**P**	**07 18 24.5**	**-0.7**
DIVS	**Divcibare**	**71.26**	**313⇑**	*i*P	**P**	**07 18 27.4**	**-1.0**
KECS	**Kecovo**	**71.28**	**318**	*e*pP	pP	07 18 34.0	-0.7
NIE	**Niedzica**	**71.48**	**319**	*e*P	**P**	**07 18 30.9**	**+1.2**
PSZ	**Piszkesteto**	**71.62**	**317**	P	**P**	**07 18 31.2**	**+0.7**
PSZ				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.3						
PSZ	**Piszkesteto**	**71.62**	**317**	*e*P	**P**	**07 18 29.3**	**-1.2**
	comp=Z,41nm,1.1s,mb5.3						
OJC	**Ojcow**	**71.90**	**319**	*e*P	**P**	**07 18 31.3**	**-0.8**
OJC	**Ojcow**	**71.90**	**319**	*e*P	PP	07 21 15.6	+2.1
VYHS	**Vyhne**	**72.37**	**318**	*e*pP	pP	07 18 40.7	-0.5
ARCES	**ARCESS Array B**	**72.87**	**340**	P	**P**	**07 18 36.7**	**-0.8**
	comp=Z,8.0nm,0.7s,mb4.8,baz=101,slow=6.2,SNR=11						
ARCES				pP	pP	07 18 43.7	0.0
	comp=Z,16nm,0.9s,baz=117,slow=5.4,SNR=8.0						
ARCES	**ARCESS Array B**	**72.87**	**340**	P	**P**	**07 18 36.7**	**-0.8**
ARCES				*PP	pP	07 18 43.7	0.0
ARCES				pmax	pmax		
	comp=Z,8.0nm,0.7s						
ARCES				pmax	pmax		
	comp=Z,16nm,0.9s						
ARCES	**ARCESS Array B**	**72.87**	**340**	P	**P**	**07 18 36.7**	**-0.8**
ARCES				pP	pP	07 18 43.7	0.0
OKC	**Ostrava-Krasne**	**72.92**	**319**	*e*P	**P**	**07 18 37.7**	**-0.5**
OKC				*e*pP	pP	07 18 43.9	-0.5
SMOL	**Smolenice**	**73.31**	**318**	*e*P	**P**	**07 18 39.4**	**-1.1**
MORC	**Moravsky Berou**	**73.31**	**319**	P	**P**	**07 18 39.4**	**-1.1**
MORC				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.4						
MORC	**Moravsky Berou**	**73.31**	**319**	*e*P	**P**	**07 18 38.3**	**-2.1**
	comp=Z,64nm,1.3s,mb5.4						
ZST	**Bratislava**	**73.51**	**317**	*e*P	**P**	**07 18 42.0**	**+0.4**
ZST				*e*pP	pP	07 18 47.4	-0.5
ZST				*e*PP	PP	07 21 21.4	-6.1
VRAC	**Vranov**	**73.90**	**318**	P	**P**	**07 18 44.3**	**+0.4**
	comp=Z,10nm,1.3s,mb4.6,baz=76,slow=8.2,SNR=4.7						
VRAC				PP	PP	07 21 27.3	-3.3
	comp=Z,1.1nm,0.4s,baz=76,slow=9.5,SNR=3.5						
VRAC	**Vranov**	**73.90**	**318**	P	**P**	**07 18 44.3**	**+0.4**
VRAC						07 21 27.3	
VRAC				pmax	pmax		
	comp=Z,10.0nm,1.3s						
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.4s						
DPC	**Dobruska-Polom**	**74.13**	**319**	*e*P	**P**	**07 18 46.5**	**+1.3**
DPC				*e*pP	pP	07 18 51.1	-0.3
KSP	**Ksiaz**	**74.17**	**320**	*e*P	**P**	**07 18 44.8**	**-0.6**
KSP				*e*pP	pP	07 18 50.3	-1.4
KSP	**Ksiaz**	**74.17**	**320**	*e*P	**P**	**07 18 45.3**	**-0.1**
KSP				*e*	pP	07 18 51.9	+0.2
UPC	**Upice**	**74.34**	**320**	*e*P	**P**	**07 18 46.7**	**+0.3**
UPC				*e*pP	pP	07 18 52.7	+0.1
LBTB	**Lobatse**	**75.11**	**241**	P	**P**	**07 18 52.8**	**+1.4**
LBTB				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.5						
LBTB	**Lobatse**	**75.11**	**241**	*e*P	**P**	**07 18 52.2**	**+0.8**
	comp=Z,58nm,1.0s,mb5.5						
LBTB				*e*	pP	07 18 58.8	+1.1
OBKA	**Obir**	**75.19**	**315⇓**	*i*P	**P**	**07 18 53.2**	**+1.8**
	comp=Z,81nm,1.2s,mb5.5						
PVCC	**Panska Ves**	**75.26**	**320**	*e*P	**P**	**07 18 50.7**	**-1.0**
PRU	**Pruhonice**	**75.26**	**319**	*e*P	**P**	**07 18 51.3**	**-0.4**
PRU				*e*pP	pP	07 18 57.1	-0.9
MOA	**Molln**	**75.40**	**317⇑**	*i*P	**P**	**07 18 53.4**	**+0.8**
	comp=Z,39nm,1.5s,mb5.1						
BRG	**Berggiesshubel**	**75.66**	**320**	*i* P	**P**	**07 18 53.9**	**-0.1**
BRG				*e*	pP	07 19 00.4	+0.1
BRG				pmax	pmax		
	comp=Z,74nm,1.5s,mb5.4						
BRG	**Berggiesshubel**	**75.66**	**320**	*i* P	**P**	**07 18 53.9**	**-0.1**
	comp=Z,74nm,1.5s,mb5.4						
BRG				*e*	pP	07 19 00.4	+0.1
GEC2	**GERESS Array S**	**75.79**	**318**	*e*P	**P**	**07 18 54.7**	**-0.1**
GEC2				pmax	pmax		
	comp=Z,44nm,1.1s,mb5.3						
GEC2	**GERESS Array S**	**75.79**	**318**	*e*P	**P**	**07 18 54.7**	**-0.1**
	comp=Z,44nm,1.1s,mb5.3						
GERES	**GERESS Array B**	**75.79**	**318**	P	**P**	**07 18 54.4**	**-0.4**
	comp=Z,7.2nm,0.7s,mb4.7,baz=94,slow=4.7,SNR=22						
GERES				pP	pP	07 19 00.3	-0.7
	comp=Z,16nm,0.8s,baz=90,slow=5.3,SNR=13						
GERES	**GERESS Array B**	**75.79**	**318**	P	**P**	**07 18 54.4**	**-0.4**
GERES				*PP	pP	07 19 00.3	-0.7
GERES				pmax	pmax		
	comp=Z,7.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,16nm,0.9s						
KHC	**Kasperske Hory**	**75.87**	**318**	*e*P	**P**	**07 18 54.7**	**-0.5**
KHC				*e*pP	pP	07 19 00.8	-0.7
PTCC	**Patocco-Chiusa**	**76.02**	**315**	*e*P	**P**	**07 18 55.5**	**-0.6**
HFS	**Hagfors**	**76.19**	**329**	P	**P**	**07 18 55.0**	**-1.8**
	comp=Z,4.2nm,0.5s,mb4.6,baz=101,slow=7.6,SNR=7.7						
HFS				pP	pP	07 19 01.7	-1.3
	comp=Z,16nm,0.9s,baz=90,slow=3.0,SNR=5.5						
HFS	**Hagfors**	**76.19**	**329**	P	**P**	**07 18 55.0**	**-1.8**
HFS				*PP	pP	07 19 01.7	-1.3
HFS				pmax	pmax		
	comp=Z,4.0nm,0.5s						
HFS				pmax	pmax		
	comp=Z,16nm,1.0s						
CLL	**Collm**	**76.27**	**320⇑**	*i*P	**P**	**07 18 58.0**	**+0.6**
CLL				*i*	pP	07 19 03.2	-0.5
CLL				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
CLL	**Collm**	**76.27**	**320⇑**	*i*P	**P**	**07 18 58.0**	**+0.6**
	comp=Z,14nm,1.1s,mb4.8						
CLL				*i*	pP	07 19 03.2	-0.5
CLL	**Collm**	**76.27**	**320**	⇑P	**P**	**07 18 58.0**	**+0.6**
	comp=Z,logA/T=1.1,mb4.8						
CLL				*i* *PP	pP	07 19 03.2	-0.5
WET	**Wettzell**	**76.33**	**318**	*e*P	**P**	**07 18 57.8**	**0.0**
ARV	**Arcevia**	**76.35**	**312**	*e*P	**P**	**07 18 57.9**	**-0.1**
SNTG	**Esanatoglia**	**76.36**	**312**	*e*P	**P**	**07 18 58.6**	**+0.5**
FVI	**Forni Avoltri**	**76.41**	**316**	*e*P	**P**	**07 18 59.7**	**+1.4**
FSSB	**Fossombrone**	**76.46**	**313**	*e*P	**P**	**07 18 59.5**	**+0.8**
BOSA	**Boshof**	**76.58**	**237**	*e*P	**P**	**07 19 00.0**	**+0.3**
BOSA				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.5						
BOSA	**Boshof**	**76.58**	**237**	*e*P	**P**	**07 18 60.0**	**+0.3**
	comp=Z,71nm,1.1s,mb5.5						
NKC	**Novy Kostel**	**76.61**	**319**	*e*P	**P**	**07 19 01.3**	**+1.9**
NKC				*e*pP	pP	07 19 05.8	+0.2
SFI	**Santa Sofia**	**77.13**	**313**	*e*P	**P**	**07 19 03.8**	**+1.4**
MOX	**Moxa**	**77.14**	**320**	*e*P	**P**	**07 19 03.3**	**+1.0**
MOX	**Moxa**	**77.14**	**320**	*i* P	**P**	**07 19 03.3**	**+1.0**
WTTA	**Wattenberg**	**77.18**	**316⇑**	*i*P	**P**	**07 19 01.8**	**-0.8**
	comp=Z,51nm,1.4s,mb5.3						
CTI	**Castel Tesino**	**77.20**	**315**	*e*P	**P**	**07 19 03.9**	**+1.1**
PGD	**Poggio Sodo**	**77.22**	**313**	*e*P	**P**	**07 19 03.6**	**+0.7**
VMG	**Vicchio**	**77.35**	**313**	*e*P	**P**	**07 19 04.9**	**+1.3**
FUR	**Furstenfeldbru**	**77.41**	**317**	*e*P	**P**	**07 19 03.4**	**-0.4**
GRA1	**Grafenberg Arr**	**77.41**	**319**	*e*P	**P**	**07 19 04.3**	**+0.5**
	comp=Z,86nm,1.4s,mb5.5						
GRA1				*e*pP	pP	07 19 10.5	+0.4
GRF	**Grafenberg Arr**	**77.41**	**319**	*e*P	**P**	**07 19 04.3**	**+0.5**
GRF				*e**PP	pP	07 19 10.5	+0.4
GRF				pmax	pmax		
	comp=Z,86nm,1.4s,mb5.5						
GRF	**Grafenberg Arr**	**77.41**	**319**	*e*P	**P**	**07 19 04.3**	**+0.5**
	comp=Z,86nm,1.4s,mb5.5						
GRF				*e*pP	pP	07 19 10.5	+0.4
NOA	**NORSAR Array B**	**77.45**	**330**	P	**P**	**07 19 02.9**	**-0.9**
	comp=Z,22nm,1.2s,mb5.0,baz=92,slow=5.6,SNR=6.5						
NOA				pP	pP	07 19 08.8	-1.3
	comp=Z,13nm,0.9s,baz=92,slow=5.7,SNR=12						
NOA	**NORSAR Array B**	**77.45**	**330**	P	**P**	**07 19 02.9**	**-0.9**
NOA				*PP	pP	07 19 08.8	-1.3
NOA				pmax	pmax		
	comp=Z,22nm,1.3s						
NOA				pmax	pmax		
	comp=Z,13nm,0.9s						
SEI	**Scarperia**	**77.48**	**313**	*e*P	**P**	**07 19 05.3**	**+1.0**
FNVD	**Fontana Vidola**	**77.64**	**313**	*e*P	**P**	**07 19 07.4**	**+2.2**
BSEG	**Bad Segeberg**	**77.90**	**323**	*e*P	**P**	**07 19 06.7**	**+0.3**
CLZ	**Clausthal**	**77.90**	**321**	*e*P	**P**	**07 19 06.5**	**+0.1**
	comp=Z,52nm,1.1s,mb5.4						
DAVOX	**Davos**	**78.40**	**316**	P	**P**	**07 19 08.9**	**-0.4**
	comp=Z,19nm,0.7s,mb5.1,baz=127,slow=11,SNR=10.0						
DAVOX				pP	pP	07 19 15.6	0.0
	comp=Z,19nm,0.7s,baz=108,slow=5.9,SNR=8.6						
PGF	**Pioggiola**	**79.28**	**311**	*e*P	**P**	**07 19 13.2**	**-1.0**
	comp=Z,245nm,1.5s,mb5.6						
BFO	**Black Forest**	**79.37**	**317**	*e*P	**P**	**07 19 14.1**	**-0.4**
BFO				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.1						

BFO	Black Forest	79.37	317	*e*P	P	07 19 14.1	-0.4
	comp=Z,36nm,1.3s,mb5.1						
FELD	Feldberg	79.61	317	*e*P	P	07 19 14.7	-1.2
LANF	Langenberg	79.67	318	*e*P	P	07 19 16.1	-0.1
ABH	Alteburg	79.78	319	*e*P	P	07 19 17.7	+1.0
WLS	Welschbruch	80.01	318	*e*P	P	07 19 16.3	-1.7
CDF	Champ du Feu	80.06	318	*e*P	P	07 19 17.7	-0.6
	comp=Z,53nm,1.2s,mb5.0						
RUP	Ruppelstein	80.11	319	*e*P	P	07 19 19.1	+0.6
ECH	Echery	80.15	317	*e*P	P	07 19 19.6	+0.8
MOF	Molkenrain	80.20	317	*e*P	P	07 19 19.8	+0.8
LOMF	Lomont	80.45	316	*e*P	P	07 19 21.5	+1.2
LPL	La Plagne	80.67	315	*e*P	P	07 19 21.1	-0.5
	comp=Z,90nm,0.9s,mb5.4						
HAU	Haudompre	80.71	317	*e*P	P	07 19 20.5	-1.2
	comp=Z,171nm,1.4s,mb5.5						
MAW	Mawson	80.83	192	P	P	07 19 21.1	-0.9
	comp=Z,3.3nm,0.3s,mb4.7,baz=344,slow=23,SNR=13						
MAW	Mawson	80.83	192	P	P	07 19 21.1	-0.9
MAW				pmax	pmax		
	comp=Z,3.0nm,0.3s						
FRF	La Foret Royal	80.92	313	*e*P	P	07 19 22.1	-0.8
	comp=Z,413nm,1.5s,mb5.8						
THEF	They Montfort	80.93	317	*e*P	P	07 19 22.7	-0.2
SUR	Sutherland	81.42	235	*e*P	P	07 19 27.9	+2.1
VIVF	Saint-Julien-l	82.19	314	*e*P	P	07 19 28.6	-0.9
	comp=Z,68nm,1.1s,mb5.2						
SSF	Saint Saulge	82.73	316	*e*P	P	07 19 31.8	-0.5
	comp=Z,157nm,1.5s,mb5.5						
PLDF	La Plantade	82.79	315	*e*P	P	07 19 33.6	+1.0
AGO	Saint Agoulin	83.12	315	*e*P	P	07 19 31.8	-2.5
LBL	Lubilhac	83.14	315	*e*P	P	07 19 33.2	-1.2
CAF	Calviac	84.02	314	*e*P	P	07 19 38.5	-0.4
	comp=Z,138nm,1.5s,mb5.6						
MTLF	Montolieu	84.14	313	*e*P	P	07 19 39.1	-0.5
	comp=Z,103nm,1.3s,mb5.5						
FLN	La Foliniere	85.13	319	*e*P	P	07 19 43.7	-0.7
	comp=Z,81nm,1.1s,mb5.5						
ROSF	Rostrenen	87.03	318	*e*P	P	07 19 52.9	-0.9
	comp=Z,243nm,1.5s,mb5.9						
SYO	Syowa Base	87.62	197	⇓P	P	07 19 56.7	+0.6
SYO	Syowa Base	87.62	197	⇓PcP	PcP	07 19 58.5	0.0
ESDC	Sonseca Array	89.38	310	P	P	07 20 05.8	+0.5
	comp=Z,8.7nm,1.1s,mb5.0,baz=63,slow=4.3,SNR=8.7						
ESDC				pP	pP	07 20 12.1	+0.4
	comp=Z,16nm,1.2s,baz=59,slow=4.3,SNR=9.0						
IMA	Indian Mountai	89.51	22	*e*P	P	07 20 07.7	+2.5
IMA	Indian Mountai	89.51	22	*e*P	P	07 20 05.3	+0.1
SPU	Mount Spurr	92.27	26	*e*P	P	07 20 19.7	+1.6
ILAR	Eielson Array	92.63	22	P	P	07 20 19.3	-0.3
	comp=Z,1.0nm,0.8s,mb4.3,baz=293,slow=4.6,SNR=6.3						
ILAR				pP	pP	07 20 25.4	-0.6
	comp=Z,2.4nm,0.8s,baz=304,slow=4.1,SNR=9.6						
ILAR				PP	PP	07 24 00.5	-3.7
	comp=Z,0.6nm,0.9s,baz=304,slow=6.5,SNR=3.8						
ILAR	Eielson Array	92.63	22	P	P	07 20 19.3	-0.3
ILAR				*PP	pP	07 20 25.4	-0.6
ILAR						07 24 00.5	
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
PWA	Palmer West	92.99	25	*e*P	P	07 20 22.0	+0.6
SLKM	Skilak Lake	93.38	26	P	P	07 20 12.7	-10
INK	Inuvik	94.76	16	P	P	07 20 29.3	-0.1
	comp=Z,2.5nm,0.6s,mb4.8,baz=307,slow=3.8,SNR=7.2						
INK	Inuvik	94.76	16	P	P	07 20 29.3	-0.1
INK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
INK	Inuvik	94.76	16	P	P	07 20 29.3	-0.1
YKA	Yellowknife Ar	104.15	13	PP	PP	07 25 26.2	-6.1
	comp=Z,1.6nm,1.1s,baz=333,slow=7.2,SNR=7.5						
ULM	Lac du Bonnet	119.11	7	PKP	PKPdf	07 25 58.3	-1.9
	comp=Z,2.4nm,0.6s,baz=1.7,slow=10,SNR=2.9						
LKWY	Lake	121.15	20	PKIKP	PKPdf	07 26 05.0	+0.7
NVAR	Mina Array Bea	123.01	30	PKP	PKPdf	07 26 06.2	-1.8
	comp=Z,1.6nm,0.7s,baz=55,slow=0.2,SNR=7.1						
NVAR				pPKP		07 26 12.5	
	comp=Z,7.4nm,1.0s,baz=286,slow=1.0,SNR=13						
NVAR				PP	PP	07 27 44.9	-2.8
	comp=Z,0.6nm,0.8s,baz=270,slow=0.9,SNR=3.4						
NVAR	Mina Array Bea	123.01	30	PKP	PKPdf	07 26 06.2	-1.8
NVAR				pPKP		07 26 12.5	
NVAR				PP	PP	07 27 44.9	-2.8
PDAR	Pinedale Array	123.03	20	PKP	PKPdf	07 26 05.1	-2.8
	comp=Z,1.4nm,0.7s,baz=39,slow=1.0,SNR=9.4						
PDAR				pPKP		07 26 11.2	
	comp=Z,6.1nm,0.9s,SNR=15						
HWUT	Hardware Ranch	123.32	23	*e*P	PKPdf	07 26 05.8	-2.7
HWUT				*e*		07 26 12.2	
TRCR	Troy Canyon	124.36	28	*e*PKPdf	PKPdf	07 26 09.2	-1.5
TRCR				*e*		07 26 15.4	
TMUT	Trail Mountain	125.45	24	*e*PKPdf	PKPdf	07 26 10.3	-2.5
TMUT				*e*		07 26 16.9	
MSU	Marysvale	125.72	25	PKIKP	PKPdf	07 26 14.0	+0.7
MSU	Marysvale	125.72	25	*e*PKPdf	PKPdf	07 26 11.8	-1.6
NEN	Nelson	126.89	29	*e*PKPdf	PKPdf	07 26 14.0	-1.6
PV10	Paradox Valley	127.08	22	*e*PKPdf	PKPdf	07 26 13.8	-2.1
PV10				*e*		07 26 20.4	
ANMO	Albuquerque	131.07	22	PKP	PKPdf	07 26 23.0	-0.7
	comp=Z,3.5nm,1.1s,baz=340,slow=1.2,SNR=5.5						
ANMO				pPKP		07 26 28.6	
	comp=Z,5.2nm,0.9s,baz=281,slow=0.7,SNR=10.0						
ANMO	Albuquerque	131.07	22	PKP	PKPdf	07 26 23.0	-0.7
ANMO				pPKP		07 26 28.6	
TUC	Tucson	131.55	28	PKIKP	PKPdf	07 26 24.2	-0.5
TUC	Tucson	131.55	28	*e*PKPdf	PKPdf	07 26 23.8	-0.9
TUC				*e*		07 26 30.5	
TXAR	Lajitas Array	137.14	23	PKP	PKPdf	07 26 34.0	-1.1
	comp=Z,1.9nm,1.0s,SNR=7.5						
TXAR				PP	PP	07 29 12.4	-6.6
	comp=Z,0.3nm,0.6s,baz=48,slow=1.5,SNR=5.4						
JCT	Junction City	137.39	17	PKIKP	PKPdf	07 26 34.8	-0.7
JCT	Junction City	137.39	17	PKPdf	PKPdf	07 26 34.7	-0.8
BAO	Brasilia Array	142.41	258	PKP	PKPdf	07 26 37.9	-7.0
BAO				*e*		07 26 41.2	
BAO				*e*		07 26 44.4	
BAO				*e*		07 26 49.4	
BAO				*e*		07 26 51.7	
BDFB	Brasilia	142.43	258	PKP	PKPdf	07 26 43.9	-1.1
	comp=Z,7.7nm,0.9s,baz=86,slow=2.7,SNR=7.2						
BDFB	Brasilia	142.43	258	PKIKP	PKPdf	07 26 43.9	-1.0
BDFB				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MVM	Montagne Vaucl	144.78	314	⇓*e*P	PKPbc	07 26 45.5	+0.6
FDF	Fort de France	144.83	315	⇓*e*P	PKPbc	07 26 45.9	+0.8
BIM	Bigot	144.93	314	⇑*e*P	PKPbc	07 26 45.7	+0.3
SJG	San Juan	145.50	325	PKPbc	PKPbc	07 26 47.4	+0.7
	comp=Z,21nm,1.1s,baz=52,slow=3.5,SNR=4.6						
SJG	San Juan	145.50	325	*e*PKIKP	PKPdf	07 26 48.7	-1.5
SJG	San Juan	145.50	325	*e*PKPdf	PKPdf	07 26 47.4	-2.8
PCRV	Puerto La Cruz	150.42	313	PKPbc	PKPdf	07 26 58.9	+0.5
	comp=Z,20nm,1.0s,baz=339,slow=12,SNR=3.9						
SDV	Santo Domingo	155.42	320	PKPab	PKPab	07 27 29.1	-0.2
	comp=Z,23nm,1.1s,baz=70,slow=5.0,SNR=11						
SDV				pPKPab		07 27 34.9	
	comp=Z,26nm,0.9s,baz=70,slow=3.4,SNR=16						
SDV	Santo Domingo	155.42	320	*e*PKPab	PKPab	07 27 28.5	-0.8
SDV				*e*		07 27 34.4	
LVC	Limon Verde	159.41	231	PKPab	PKPab	07 27 47.5	+1.2
	comp=Z,6.3nm,0.8s,baz=214,slow=2.8,SNR=5.9						
LVC				pPKPab		07 27 53.5	
	comp=Z,16nm,0.9s,baz=81,slow=2.5,SNR=11						
ROSC	El Rosal	160.84	321	PKP	PKPdf	07 27 11.0	-0.9
	comp=Z,2.2nm,0.8s,baz=284,slow=22,SNR=3.7						
ROSC				pPKP		07 27 17.4	
	comp=Z,2.7nm,0.5s,baz=132,slow=3.2,SNR=4.7						
ROSC				PKPab	PKPab	07 27 53.5	+0.9
	comp=Z,8.9nm,0.8s,baz=105,slow=5.4,SNR=8.0						
ROSC				pPKPab		07 28 00.0	
	comp=Z,17nm,0.9s,baz=98,slow=5.7,SNR=10						
LPAZ	La Paz	161.43	249	PKP	PKPdf	07 27 11.7	-0.7
	comp=Z,1.3nm,0.8s,baz=141,slow=2.2,SNR=5.3						
LPAZ				pPKP		07 27 18.5	
	comp=Z,2.2nm,0.8s,baz=58,slow=8.2,SNR=3.6						
LPAZ				PKPab	PKPab	07 27 55.1	0.0
	comp=Z,4.7nm,0.9s,baz=64,slow=7.9,SNR=6.2						
LPAZ				pPKPab		07 28 01.5	
	comp=Z,12nm,1.0s,baz=70,slow=5.1,SNR=11						
LPAZ				PP	PP	07 31 38.2	-1.3
	comp=Z,1.0nm,0.7s,baz=32,slow=7.9,SNR=2.8						
LPAZ	La Paz	161.43	249	PKIKP	PKPdf	07 27 11.7	-0.7
LPAZ						07 27 18.5	
LPAZ						07 27 55.1	
LPAZ						07 31 38.2	
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,12nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	La Paz	161.43	249	*e*PKPdf	PKPdf	07 27 11.3	-1.1
LPAZ				*e*		07 28 01.3	

IDC ***26*** *07:09:41.8±1.2, 4.60N×93.61E, mb4.2/7, mb1 4.4/8, mb1mx4.2/19, ML4.4/1, Error ellipse: s-maj=49.7km s-min=20.5km az=51.0*

ISC 26 07:09:45.2±0.9**, 4.7N**±0.1×**93.7E**±0.2**, h33^{km}, n10,** σ**0^{s}60**/10**, mb4.3**/8**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.59	20	Pn	P	07 13 11.2	-0.2
	0.5nm,0.3s,baz=225,slow=15,SNR=3.7						
IMP	Imphal	19.97	1	*e*	P	07 14 13.9	-3.7
SONM	Songino Array	44.33	12	P	P	07 17 54.3	+0.3
	1.7nm,0.7s,mb3.9,baz=189,slow=7.1,SNR=3.3						
WRA	Warramunga Arr	46.82	123	P	P	07 18 14.2	0.0
	5.3nm,0.5s,mb4.7,baz=300,slow=9.1,SNR=7.4						
ASAR	Alice Springs	48.26	128	P	P	07 18 25.1	-0.2
	1.9nm,0.6s,mb4.3,baz=298,slow=8.2,SNR=4.4						
BVAR	Borovoye Array	51.86	342	P	P	07 18 52.5	+0.1
	1.8nm,0.6s,mb4.2,baz=162,slow=9.1,SNR=3.5						
BRTR	Keskin Array B	64.21	312	P	P	07 20 18.4	-0.9
	1.0nm,0.5s,mb4.1,baz=121,slow=8.4,SNR=3.7						
FINES	FINESS Array B	75.32	333	P	P	07 21 26.9	+0.2
	1.2nm,0.6s,mb4.0,baz=117,slow=6.2,SNR=3.1						
ARCES	ARCESS Array B	78.10	341	P	P	07 21 43.1	+0.9
	8.2nm,1.2s,mb4.5,baz=90,slow=5.4,SNR=6.2						
CLL	Collm	80.55	321	P	P	07 21 56.0	+0.1
	logA/T=1.2,mb4.9						

IDC ***26*** *07:11:28.6±1.3, 8.58N×93.72E, mb4.2/12, mb1 4.4/12, mb1mx4.3/21, Error ellipse: s-maj=71.8km s-min=25.3km az=41.0*

ISC 26 07:11:31.9±1.1**, 8.5N**±0.3×**93.7E**±0.3**, h33^{km}, n14,** σ**0^{s}97**/13**, mb4.4**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	48.23	341	P	P	07 20 10.0	-1.4
	1.2nm,0.4s,mb4.3,baz=148,slow=10,SNR=5.0						
WRA	Warramunga Arr	49.01	126	P	P	07 20 17.2	-0.6
	13nm,0.7s,mb5.0,baz=302,slow=9.1,SNR=5.6						
BRTR	Keskin Array B	61.66	311	P	P	07 21 48.2	-0.8
	2.4nm,0.6s,mb4.5,baz=124,slow=7.6,SNR=7.7						
AKASG	Malin Array Be	67.36	322	P	P	07 22 23.9	-1.9
	1.3nm,0.6s,mb4.1,baz=86,slow=4.7,SNR=4.8						
MLR	Muntele Rosu	68.39	316	P	P	07 22 33.0	+0.7
	5.8nm,0.9s,mb4.6,baz=183,slow=3.6,SNR=3.1						
FINES	FINESS Array B	71.92	332	P	P	07 22 53.3	-0.2
	2.1nm,0.8s,mb4.1,baz=90,slow=6.9,SNR=3.1						
ARCES	ARCESS Array B	74.50	340	P	P	07 23 09.1	+0.6
	18nm,1.3s,mb4.8,baz=100,slow=5.9,SNR=12						
GERES	GERESS Array B	77.04	318	P	P	07 23 24.5	+1.2
	2.2nm,0.7s,mb4.2,baz=86,slow=6.1,SNR=9.9						
HFS	Hagfors	77.67	330	P	P	07 23 26.5	-0.1
	1.7nm,0.6s,mb4.2,baz=112,slow=8.0,SNR=6.7						
NB2	NORSAR Subarra	78.94	331	P	P	07 23 33.0	-0.6
	6.6nm,1.2s,mb4.4,baz=91,slow=5.8						
NOA	NORSAR Array B	78.94	331	P	P	07 23 33.9	+0.3
	0.9nm,0.7s,mb3.8,baz=93,slow=5.5,SNR=2.7						
DAVOX	Davos	79.60	316	P	P	07 23 38.7	+1.3
	2.0nm,0.5s,mb4.3,baz=301,slow=23,SNR=3.8						
ILAR	Eielson Array	94.32	22	P	P	07 24 50.0	+1.1
	0.8nm,0.9s,mb4.1,baz=297,slow=4.4,SNR=3.6						
PDAR	Pinedale Array	124.73	21	PKP	PKPdf	07 30 30.4	+1.7
	0.3nm,0.7s,baz=72,slow=38,SNR=3.4						

IDC ***26*** *07:11:35.0±0.4, 4.85N×94.97E, mb4.8/26, mb1 4.8/26, mb1mx4.8/29, Error ellipse: s-maj=17.6km s-min=11.5km az=49.0*

BJI ***26*** *07:11:38.8, 5.08N×94.97E, h18^{km}, mb5.3, Ms5.8*

NEIC ***26*** *07:11:40.4±3.6, 4.81N×94.97E, h35^{km}±32^{km}, mb5.2/13, Error ellipse: s-maj=10.6km s-min=6.7km az=56.0*

ISC 26 07:11:38.4±0.3**, 4.76N**±0.06×**95.01E**±0.06**, h33^{km}, n77,** σ**0^{s}94**/69**, mb4.9**/48**, MS5.5**/1**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GYA	Guiyang	24.29	26	⇑*i*P	P	07 16 55.8	+1.8
GYA				AMB	AMB		
	comp=Z,30nm,0.6s,mb4.9						
LSA	Lhasa	25.07	352	*e*P	P	07 17 02.0	+0.5
	comp=Z,34nm,0.5s,mb5.1						
CD2	Chengdu	27.29	17	P	P	07 17 21.0	-1.1
CD2				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.2						
WHN	Wuhan	31.47	33	P	P	07 18 00.0	+0.6
XAN	Xi'an	31.87	22	P	P	07 18 01.8	-1.1
XAN				AMB	AMB		
	comp=Z,110nm,0.7s,mb5.8						
LZH	Lanzhou	32.22	14	*e*P	P	07 18 04.5	-1.4
LZH				AMB	AMB		
	comp=Z,50nm,1.4s,mb5.2						
GTA	Gaotai	34.77	7	P	P	07 18 27.0	-0.9
GTA				AMB	AMB		
	comp=Z,41nm,0.8s,mb5.4						
NJ2	Nanjing	35.16	37	*e*P	P	07 18 31.5	+0.2
JOW	Kunigami	38.60	52	P	P	07 19 01.6	+1.3
	comp=Z,18nm,0.5s,mb5.1,baz=244,slow=7.9,SNR=11						
HHC	Hu-ho-hao-te	38.89	20	*e*P	P	07 19 03.3	+0.8
HHC				AP	pP	07 19 09.5	-2.8
HHC				XP	sP	07 19 13.5	-3.0
HHC				AMB	AMB		
	comp=Z,23nm,0.8s,mb5.0						
HHC				LR	LR		
	comp=N,5µm,18.8s,MS5.5						
HHC				LR	LR		
	comp=E,4µm,14.9s,MS5.5						
BJI	Beijing	39.98	26	P	P	07 19 12.8	+1.2
ULHL	Ulahol	40.90	339	P	P	07 19 20.0	+0.8
	SNR=7.4						
KZA	Kyzart	41.12	338	P	P	07 19 22.0	+1.0
	SNR=6.1						
UCH	Uchtor	41.53	337	P	P	07 19 25.6	+1.2
	SNR=8.4						
DL2	Dalian	41.70	32	P	P	07 19 26.5	+0.7
DL2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.3						
TKM2	Tokmak 2	41.72	338	P	P	07 19 26.8	+0.8
	SNR=9.0						
KBK	Karagaybulak	41.73	338	P	P	07 19 26.6	+0.5
	SNR=9.7						
AML	Almayashu	41.78	336	P	P	07 19 27.7	+1.3
	SNR=8.8						
AAK	Ala-Archa	41.89	337	P	P	07 19 29.5	+2.1
	SNR=6.2						
AAK	Ala-Archa	41.89	337	*e*P	P	07 19 26.8	-0.5
	comp=Z,29nm,1.0s,mb4.9						
EKS2	Erkin-Say	42.19	337	P	P	07 19 31.0	+1.2
	SNR=9.9						
USP	Ospenovka	42.42	338	P	P	07 19 32.2	+0.5
	SNR=12						
NWAO	Narrogin (SRO)	43.01	152	P	P	07 19 37.0	+0.3
	comp=Z,24nm,0.8s,mb5.0,baz=305,slow=6.3,SNR=4.5						
SONM	Songino Array	44.02	11	P	P	07 19 43.7	-0.9
	comp=Z,3.4nm,0.4s,mb4.4,baz=195,slow=9.0,SNR=15						
SONM				PcP	PcP	07 21 29.7	-0.7
	comp=Z,2.0nm,0.4s,baz=197,slow=3.7,SNR=7.7						
KS15	Wonju Array Si	44.27	38	*e*P	P	07 19 45.8	-1.0
WRA	Warramunga Arr	45.80	124	P	P	07 19 59.7	+0.4
	comp=Z,20nm,0.7s,mb5.2,baz=302,slow=9.2,SNR=23						
WRAB	Tennant Creek	45.80	124	*e*P	P	07 19 59.6	+0.3
	comp=Z,50nm,1.0s,mb5.4						
CN2	Changchun	47.24	30	*e*P	P	07 20 09.5	-0.7
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
ASAR	Alice Springs	47.29	128	P	P	07 20 11.2	+0.2
	comp=Z,8.9nm,0.6s,mb4.9,baz=299,slow=7.9,SNR=21						
ZAL	Zalesovo	49.73	352	P	P	07 20 28.6	-0.8
	comp=Z,12nm,0.4s,mb5.3,baz=302,slow=6.1,SNR=18						
MDJ	Mudanjiang	49.93	32	P	P	07 20 31.5	+0.4
MDJ				AMB	AMB		
	comp=Z,29nm,1.3s,mb5.2						
BVAR	Borovoye Array	52.19	341	P	P	07 20 47.1	-1.0
	comp=Z,14nm,0.7s,mb5.0,baz=143,slow=7.4,SNR=18						
CHKZ	Chkalovo	52.68	342	*e*P	P	07 20 50.9	-0.8
	comp=Z,64nm,0.8s,mb5.6						
CTA	Charters Tower	56.07	118	P	P	07 21 15.7	-1.3
	comp=Z,2.5nm,0.8s,mb4.3,baz=299,slow=11,SNR=2.1						
ASAJ	Asahikawa	57.23	39	P	P	07 21 24.4	-0.6
	comp=Z,5.2nm,0.4s,mb4.9,baz=49,slow=15,SNR=5.6						
STKA	Stephens Creek	57.36	133	P	P	07 21 25.9	-0.2
	comp=Z,5.9nm,0.8s,mb4.7,baz=351,slow=5.9,SNR=6.4						
KMBO	Kilima Mbogo	57.99	266	P	P	07 21 31.7	+1.0
	comp=Z,8.9nm,0.8s,mb4.8,baz=58,slow=11,SNR=23						
YSS	Yuzh-Sakhalins	58.73	36	*e*P	P	07 21 35.1	-0.3
	comp=Z,55nm,1.3s,mb5.4						
BRTR	Keskin Array B	65.11	312	P	P	07 22 17.1	-1.2
	comp=Z,6.3nm,0.7s,mb4.7,baz=144,slow=7.2,SNR=13						
LSZ	Lusaka	69.08	252	*e*P	P	07 22 43.1	-0.5
	comp=Z,9.4nm,0.9s,mb4.7						
IDI	Anoyia	71.05	306	P	P	07 22 53.0	-2.4
	comp=Z,6.7nm,0.7s,mb4.7,baz=57,slow=11,SNR=4.4						
AKASG	Malin Array Be	71.12	322	P	P	07 22 53.6	-1.9
	comp=Z,2.3nm,0.4s,mb4.5,baz=80,slow=4.7,SNR=18						
MLR	Muntele Rosu	71.99	316	P	P	07 23 00.2	-0.5
	comp=Z,10nm,0.8s,mb4.8,baz=40,slow=6.4,SNR=5.6						
LBTB	Lobatse	73.54	242	*e*P	P	07 23 10.7	+0.3
	comp=Z,48nm,1.4s,mb5.2						
BOSA	Boshof	74.69	239	*e*P	P	07 23 16.9	-0.1
	comp=Z,26nm,1.2s,mb5.0						
KOLS	Kolonicke sedl	75.10	319	*e*P	P	07 23 19.6	+0.7
SUW	Suwalki	75.52	325	*e*P	P	07 23 19.8	-1.4
	comp=Z,45nm,1.1s,mb5.3						
CRVS	Cervenica-Dubn	75.63	319	*e*P	P	07 23 25.9	+4.0
MAW	Mawson	75.69	192	P	P	07 23 22.4	+0.6
	comp=Z,2.0nm,0.6s,mb4.2,baz=294,slow=14,SNR=4.6						
FINES	FINESS Array B	75.85	332	P	P	07 23 20.9	-2.1
	comp=Z,4.3nm,0.4s,mb4.7,baz=107,slow=5.8,SNR=32						
KAF	Kangasniemi	75.94	333	*e*p	P	07 23 22.1	-1.3
	comp=Z,3.5nm,0.5s,mb4.5						
PSZ	Piszkesteto	76.51	318	*e*P	P	07 23 26.6	-0.4
	comp=Z,11nm,1.1s,mb4.7						
OJC	Ojcow	76.90	320	*e*P	P	07 23 29.7	+0.6
VYHS	Vyhne	77.29	319	*e*P	P	07 23 31.0	-0.3
OKC	Ostrava-Krasne	77.91	320	*e*P	P	07 23 34.8	+0.1
KEV	Kevo	78.04	341	*e*p	P	07 23 33.5	-1.5
	comp=Z,8.1nm,0.9s,mb4.7						
ZST	Bratislava	78.40	318	*e*P	P	07 23 38.0	+0.5
ARCES	ARCESS Array B	78.47	340	P	P	07 23 36.8	-0.5
	comp=Z,3.8nm,0.5s,mb4.6,baz=91,slow=6.1,SNR=23						
VRAC	Vranov	78.85	319	P	P	07 23 40.3	+0.4
	comp=Z,2.6nm,0.6s,mb4.3,baz=87,slow=4.3,SNR=3.5						
FX1	Attu Island--F	79.08	37	P	P	07 23 40.7	-0.3
	comp=Z,32nm,0.4s,mb5.6,baz=306,slow=3.0,SNR=21						
DPC	Dobruska-Polom	79.13	320	*e*P	P	07 23 41.8	+0.4
GERES	GERESS Array B	80.71	319	P	P	07 23 50.6	+0.7
	comp=Z,5.2nm,0.8s,mb4.5,baz=90,slow=5.3,SNR=11						
HFS	Hagfors	81.56	330	P	P	07 23 53.4	-0.8
	comp=Z,3.1nm,0.4s,mb4.6,baz=96,slow=3.7,SNR=11						
NOA	NORSAR Array B	82.85	331	P	P	07 24 01.4	+0.7
	comp=Z,3.6nm,1.0s,mb4.4,baz=90,slow=5.8,SNR=3.4						
NOA	NORSAR Array B	82.85	331	P	P	07 24 01.4	+0.7
DAVOX	Davos	83.22	316	P	P	07 24 04.1	+1.2
	comp=Z,9.1nm,0.6s,mb5.0,baz=171,slow=15,SNR=12						
URZ	Urewera	86.74	129	P	P	07 24 20.4	-0.3
	comp=Z,4.7nm,0.5s,mb5.0,baz=27,slow=10,SNR=3.4						
ESDC	Sonseca Array	93.87	310	P	P	07 24 55.1	+1.1
	comp=Z,0.8nm,0.6s,mb4.3,baz=70,slow=3.8,SNR=6.3						
IMA	Indian Mountai	94.16	22	*e*P	P	07 24 56.0	+1.3
	comp=Z,12nm,0.8s,mb5.4						
NVAR	Mina Array Bea	127.09	33	PKP	PKPdf	07 30 42.9	+2.9
	comp=Z,0.8nm,0.6s,baz=306,slow=1.9,SNR=3.8						
PDAR	Pinedale Array	127.71	23	PKP	PKPdf	07 30 42.2	+1.3
	comp=Z,5.4nm,1.3s,baz=95,slow=2.9,SNR=6.8						
ANMO	Albuquerque	135.63	25	PKP	PKPdf	07 30 59.3	+3.2
	comp=Z,1.3nm,0.9s,baz=280,slow=3.9,SNR=4.0						
TXAR	Lajitas Array	141.65	27	PKhKP		07 31 01.8	
	comp=Z,0.9nm,1.0s,baz=176,slow=1.5,SNR=3.9						
TXAR	Lajitas Array	141.65	27	PKP	PKPdf	07 31 01.8	-5.4
LVC	Limon Verde	156.40	220	PKP	PKPdf	07 31 31.8	+1.5
	comp=Z,2.4nm,0.9s,baz=354,slow=6.2,SNR=2.3						
LVC				PKPab	PKPab	07 32 02.1	+0.8
	comp=Z,2.6nm,0.7s,baz=114,slow=3.3,SNR=5.2						
LPAZ	La Paz	159.87	234	PKPab	PKPab	07 32 17.0	+0.7
	comp=Z,1.6nm,0.6s,baz=114,slow=6.9,SNR=6.3						
LPAZ	La Paz	159.87	234	PKPdf	PKPdf	07 31 37.0	+2.3

IDC 26 07:15:11.8±5.4**, 8.18N**×**93.54E, mb4.2**/8**, mb1 4.4**/8**, mb1mx4.1**/18**, Error ellipse: s-maj=131.0km s-min=53.3km az=146.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.00	13	P	P	07 22 56.3	-1.9
	1.8nm,0.8s,baz=193,slow=8.2,SNR=3.4						
ZAL	Zalesovo	46.17	353	P	P	07 23 38.5	-1.4
	5.8nm,0.8s,baz=291,slow=8.9,SNR=8.0						
BRTR	Keskin Array B	61.78	311	P	P	07 25 32.4	-2.4
	1.5nm,0.7s,baz=117,slow=8.3,SNR=4.6						
AKASG	Malin Array Be	67.55	322	P	P	07 26 09.3	-2.8
	6.2nm,1.1s,baz=89,slow=4.4,SNR=4.3						
FINES	FINESS Array B	72.16	332	P	P	07 26 38.0	-2.1
	5.4nm,0.9s,baz=117,slow=8.5,SNR=4.6						
GERES	GERESS Array B	77.20	318	P	P	07 27 08.9	-0.5
	1.6nm,0.6s,baz=79,slow=5.0,SNR=6.9						
HFS	Hagfors	77.89	330	P	P	07 27 11.4	-1.5
	1.8nm,0.6s,baz=122,slow=28,SNR=4.3						
NB2	NORSAR Subarra	79.17	331	P	P	07 27 18.1	-1.8
	1.8nm,0.7s,baz=92,slow=5.6						
NOA	NORSAR Array B	79.17	331	P	P	07 27 18.4	-1.5
	2.9nm,0.8s,baz=92,slow=5.6,SNR=7.3						
ANMO	Albuquerque	133.12	23	PKhKP		07 34 24.6	
	1.9nm,0.9s,baz=352,slow=3.3,SNR=8.6						
TXAR	Lajitas Array	139.19	23	PKP	PKPdf	07 34 41.1	-2.2
	1.1nm,0.8s,SNR=6.0						

IDC ***26*** *07:16:45.5±1.2, 9.76N×93.42E, mb4.1/8, mb1 4.3/8, mb1mx4.0/19, Error ellipse: s-maj=57.0km s-min=21.3km az=51.0*

ISC 26 07:16:48.7±1.0**, 9.8N**±0.2×**93.5E**±0.3**, h33^{km}, n9,** σ**0^{s}60**/8**, mb4.0**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	39.49	14	P	P	07 24 17.1	-0.6
	0.9nm,0.9s,mb3.5,baz=202,slow=6.7,SNR=2.8						
BVAR	Borovoye Array	47.00	341	P	P	07 25 19.5	+1.0
	1.6nm,0.8s,mb4.0,baz=180,slow=7.2,SNR=4.1						
WRA	Warramunga Arr	49.90	126	P	P	07 25 41.4	-0.1
	1.2nm,0.6s,mb4.1,baz=302,slow=9.0,SNR=4.6						
ASAR	Alice Springs	51.63	131	P	P	07 25 54.7	+0.2
	1.4nm,0.6s,mb4.0,baz=310,slow=7.3,SNR=5.1						
MLR	Muntele Rosu	67.37	315	P	P	07 27 41.6	-1.1
	2.5nm,0.9s,mb4.2,baz=113,slow=7.9,SNR=3.5						
FINES	FINESS Array B	70.75	332	P	P	07 28 03.4	+0.1
	3.3nm,1.0s,mb4.2,baz=122,slow=13,SNR=2.7						
ARCES	ARCESS Array B	73.28	340	P	P	07 28 18.5	+0.3
	3.5nm,0.9s,mb4.3,baz=90,slow=8.1,SNR=3.3						
GERES	GERESS Array B	75.99	318	P	P	07 28 34.4	+0.2
	0.6nm,0.7s,mb3.6,baz=89,slow=5.8,SNR=4.4						
TXAR	Lajitas Array	137.77	23	PKP	PKPdf	07 36 13.2	+2.7
	0.3nm,0.7s,baz=180,slow=1.8,SNR=2.7						

IDC 26 07:20:46.8±1.6**, 3.99N**×**95.38E, mb4.1**/6**, mb1 4.4**/7**, mb1mx4.1**/19**, ML4.6**/1**, Error ellipse: s-maj=71.7km s-min=20.6km az=55.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.79	13	Pn	P	07 24 23.8	+4.5
	0.9nm,0.3s,baz=199,slow=11,SNR=15						
SONM	Songino Array	44.70	11	P	P	07 29 01.3	-2.0
	2.6nm,1.0s,baz=196,slow=9.0,SNR=6.5						
WRA	Warramunga Arr	45.06	123	P	P	07 29 04.0	-2.6
	3.4nm,0.5s,baz=300,slow=9.1,SNR=16						
ASAR	Alice Springs	46.52	128	P	P	07 29 17.1	-1.0
	1.8nm,0.5s,baz=299,slow=8.1,SNR=17						
ZAL	Zalesovo	50.54	352	P	P	07 29 47.5	-1.3
	1.8nm,0.6s,baz=295,slow=5.8,SNR=7.0						
BVAR	Borovoye Array	53.04	341	P	P	07 30 04.0	-3.7
	1.3nm,0.8s,baz=117,slow=9.9,SNR=3.6						
GERES	GERESS Array B	81.53	319	P	P	07 33 07.0	-0.7

3.5nm,1.1s,baz=90,slow=4.0,SNR=5.3

IDC 26 07:20:55.0±1.0,8.87N×93.58E,mb4.2/10,mb1 4.4/10, mb1mx4.1/19,Error ellipse: s-maj=70.9km s-min=18.1km az=49.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAL	Zalesovo	45.50	353	P	P	07 29 16.3	-1.6
	0.7nm,0.8s,baz=287,slow=7.0,SNR=5.4						
BVAR	Borovoye Array	47.88	341	P	P	07 29 34.4	-2.3
	0.8nm,0.5s,baz=138,slow=8.6,SNR=4.4						
WRA	Warramunga Arr	49.29	126	P	P	07 29 46.5	-1.5
	6.1nm,0.7s,baz=302,slow=8.9,SNR=6.4						
ASAR	Alice Springs	50.98	130	P	P	07 29 57.6	-3.2
	2.9nm,0.8s,baz=315,slow=8.1,SNR=4.7						
STKA	Stephens Creek	61.19	134	P	P	07 31 12.5	-1.7
	3.0nm,0.8s,baz=326,slow=6.4,SNR=3.6						
BRTR	Keskin Array B	61.36	310	P	P	07 31 13.1	-2.2
	2.0nm,0.9s,baz=119,slow=7.4,SNR=5.9						
MLR	Muntele Rosu	68.08	315	P	P	07 31 57.3	-1.5
	2.9nm,1.1s,baz=150,slow=11,SNR=2.8						
ARCES	ARCESS Array B	74.15	340	P	P	07 32 32.8	-2.0
	3.5nm,0.9s,baz=333,slow=8.1,SNR=3.2						
GERES	GERESS Array B	76.72	318	P	P	07 32 48.6	-1.3
	3.0nm,1.1s,baz=104,slow=5.5,SNR=8.5						
NB2	NORSAR Subarra	78.60	331	P	P	07 33 04.9	+4.9
	1.3nm,0.7s,baz=93,slow=5.6						
NOA	NORSAR Array B	78.60	331	P	P	07 32 58.3	-1.7
	1.0nm,0.8s,baz=94,slow=5.6,SNR=2.7						

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*IDC **26** 07:21:02.1±0.9,4.68N×93.29E,mb4.4/10,mb1 4.5/11, mb1mx4.3/18,ML4.2/1,Error ellipse: s-maj=45.1km s-min=16.1km az=52.0*

ISC 26 07:21:05.3±0.7,**4.7N**±0.1×**93.3E**±0.2,**h33**^{km}**,n16,** σ**0**^{s}**86**/13,**mb4.4**/11,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.76	21	Pn	P	07 24 34.2	+0.6
	0.4nm,0.3s,baz=235,slow=14,SNR=9.8						
SONM	Songino Array	44.45	13	P	P	07 29 13.8	-1.1
	3.4nm,0.9s,mb4.1,baz=198,slow=7.8,SNR=6.8						
WRA	Warramunga Arr	47.14	123	P	P	07 29 36.4	-0.3
	23nm,0.7s,mb5.2,baz=301,slow=9.1,SNR=43						
WRAB	Tennant Creek	47.15	123	*e*P	P	07 29 36.4	-0.3
ASAR	Alice Springs	48.56	127	P	P	07 29 48.0	+0.4
	7.6nm,0.8s,mb4.8,baz=308,slow=7.4,SNR=14						
ZAL	Zalesovo	49.61	353	P	P	07 29 55.6	+0.2
	2.9nm,0.5s,mb4.6,baz=308,slow=6.5,SNR=8.8						
BVAR	Borovoye Array	51.77	343	P	P	07 30 10.5	-1.2
	2.0nm,0.7s,mb4.1,baz=135,slow=6.3,SNR=5.8						
STKA	Stephens Creek	58.53	132	P	P	07 31 01.3	+0.2
	7.1nm,0.8s,mb4.8,baz=302,slow=7.9,SNR=10						
BRTR	Keskin Array B	63.93	312	P	P	07 31 38.1	+0.6
	1.3nm,0.9s,mb4.0,baz=108,slow=8.1,SNR=2.7						
AKASG	Malin Array Be	70.17	323	P	P	07 32 15.2	-1.3
	0.7nm,0.6s,mb3.8,baz=87,slow=5.2,SNR=3.5						
FINES	FINESS Array B	75.16	333	P	P	07 32 46.9	+1.1
	3.0nm,0.9s,mb4.2,baz=117,slow=8.5,SNR=3.9						
ARCES	ARCESS Array B	78.00	341	P	P	07 33 03.4	+1.7
	6.5nm,1.1s,mb4.5,baz=96,slow=5.9,SNR=6.0						
GERES	GERESS Array B	79.67	319	P	P	07 33 10.8	-0.4
	1.5nm,0.8s,mb4.0,baz=113,slow=4.7,SNR=5.9						
PDAR	Pinedale Array	128.43	21	PKhKP		07 40 08.3	
	0.8nm,0.9s,baz=27,slow=3.3,SNR=6.8						
ANMO	Albuquerque	136.41	24	PKP	PKPdf	07 40 25.2	+0.8
	1.4nm,0.8s,baz=119,slow=2.3,SNR=6.6						
TXAR	Lajitas Array	142.46	25	PKhKP		07 40 26.2	
	0.4nm,1.1s,baz=207,slow=0.9,SNR=3.6						
TXAR				PKP	PKPdf	07 40 36.0	+0.5
	1.9nm,1.1s,baz=278,slow=1.7,SNR=7.4						

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*NEIC **26** 07:22:07.9±1.2,21.37S×178.92W,h544^{km}±14^{km},mb4.6/6, Error ellipse: s-maj=15.2km s-min=9.9km az=133.0*

*IDC **26** 07:22:11.7±2.7,21.58S×178.95W,h590^{km}±31^{km}, mb3.6/17,mb1 3.8/18,mb1mx3.8/22,Error ellipse: s-maj=17.1km s-min=15.1km az=130.0*

ISC 26 07:22:06.0±1.3,**21.44S**±0.07×**178.9W**±0.1,**h528**^{km}±16^{km}, **n63,**σ**0**^{s}**99**/37,**mb4.2**/22,**1C-4D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	Afiamalu	10.11	43	*e*P	P	07 24 26.2	+0.4
PUZ	Puketiti	16.76	188	P	P	07 25 33.5	+0.7
URZ	Urewera	17.11	191	P	P	07 25 36.2	-0.1
	9.7nm,0.3s,baz=347,slow=3.8,SNR=27						
URZ				S	S	07 28 25.6	-0.6
	0.6nm,0.3s,baz=244,slow=19,SNR=4.7						
NNZ	Nelson	20.77	197	P	P	07 26 10.5	-0.5
THZ	Tophouse	21.41	197	P	P	07 26 16.0	-0.9
DSZ	Denniston Nort	21.71	199	P	P	07 26 19.6	-0.1
RPZ	Rata Peaks	23.73	198	P	P	07 26 36.9	-1.1
	18nm,0.6s,mb4.9,baz=313,slow=3.0,SNR=6.4						
CTA	Charters Tower	32.57	266	P	P	07 27 55.5	+0.5
	2.7nm,0.4s,mb4.1,baz=92,slow=10,SNR=7.3						
CTAO	Charters Tower	32.57	266	*e*P	P	07 27 55.6	+0.6
	3.3nm,0.4s,mb4.2						
PMG	Port Moresby	34.75	285	P	P	07 28 13.6	+0.3
	6.6nm,0.7s,mb4.3,baz=110,slow=6.8,SNR=4.2						
STKA	Stephens Creek	36.63	245	P	P	07 28 29.7	+1.0
	6.1nm,0.5s,mb4.4,baz=86,slow=9.3,SNR=20						
ASAR	Alice Springs	43.49	258	P	P	07 29 23.9	-0.1
	5.7nm,0.5s,mb4.4,baz=100,slow=7.6,SNR=69						
ASAR	Alice Springs	43.49	258	P	P	07 29 23.9	-0.1
WRA	Warramunga Arr	43.65	263	P	P	07 29 24.6	-0.6
	1.2nm,0.3s,mb3.9,baz=96,slow=7.7,SNR=30						
QSPA	South Pole Qui	68.63	180	*e*P	P	07 32 17.4	+0.3
	14nm,0.7s,mb4.6						
ASAJ	Asahikawa	74.16	332	P	P	07 32 50.1	+0.4
	11nm,0.9s,mb4.3,baz=247,slow=20,SNR=3.2						
MAW	Mawson	80.40	200	P	P	07 33 22.7	-0.2
	2.0nm,0.7s,mb3.5,baz=109,slow=6.3,SNR=3.6						
MTUM	Tungsten Hills	81.50	44	P	P	07 33 30.1	+1.0
YBH	Yreka Blue Hor	81.55	39	P	P	07 33 30.1	+0.8
	6.0nm,0.8s,mb4.1,baz=191,slow=3.7,SNR=9.4						
NVAR	Mina Array Bea	82.28	44	P	P	07 33 33.6	+0.6
	4.3nm,0.8s,mb4.0,baz=220,slow=8.0,SNR=18						
BMO	Blue Mountains	86.57	39	*e*P	P	07 33 53.1	-0.8
	2.9nm,0.8s,mb4.0						
SNAA	Sanae	87.09	179	⇓*i*	P	07 33 54.9	-0.8
SNAA	Sanae	87.09	179	P	P	07 33 54.7	-1.0
	0.4nm,0.6s,mb3.2,baz=205,slow=12,SNR=8.5						
VNA3	Neumayer Olymp	87.26	177	⇓*i*	P	07 33 59.0	+2.5
VNA2	Neumayer--Watz	87.69	177	⇑*i*	P	07 34 01.0	+2.5
VNA1	Neumayer--Stat	87.92	177	⇓*i*	P	07 34 00.2	+0.6
TXAR	Lajitas Array	88.27	58	P	P	07 34 03.2	+1.0
	2.7nm,0.9s,mb4.0,baz=218,slow=5.7,SNR=16						
ANMO	Albuquerque	88.65	52	P	P	07 34 03.9	0.0
	1.8nm,1.0s,mb3.8,baz=228,slow=6.5,SNR=4.5						
AHID	Auburn Hatcher	89.23	43	*e*P	P	07 34 06.7	+0.3
	4.6nm,0.7s,mb4.4						
COLA	College	89.30	13	*e*P	P	07 34 04.4	-1.8
	14nm,1.0s,mb4.7						
ILAR	Eielson Array	89.42	13	P	P	07 34 05.0	-1.7
	2.8nm,0.7s,mb4.2,baz=223,slow=5.3,SNR=18						
PDAR	Pinedale Array	90.22	44	P	P	07 34 10.9	-0.1
	2.5nm,0.8s,mb4.1,baz=210,slow=2.7,SNR=15						
DAWY	Dawson	90.59	16	*e*P	P	07 34 11.4	-0.8
INK	Inuvik	95.40	15	P	P	07 34 32.1	-1.9
	1.0nm,0.9s,mb3.9,baz=230,slow=8.5,SNR=5.5						
ULN	Ulaanbaatar	95.52	319	P	P	07 34 36.7	+1.6
	8.2nm,0.6s,mb5.1						
YKA	Yellowknife Ar	97.72	25	P	P	07 34 43.3	-1.4
	0.6nm,0.9s,mb3.9,baz=241,slow=4.2,SNR=6.5						
BVAR	Borovoye Array	119.25	320	PKP	PKPdf	07 39 53.6	-1.1
	2.1nm,0.4s,baz=127,slow=2.6,SNR=8.0						
ARCES	ARCESS Array B	129.69	349	PKP	PKPdf	07 40 13.3	-1.0
	3.2nm,0.5s,baz=84,slow=1.3,SNR=11						
KAF	Kangasniemi	135.81	343	*e*p	PKPdf	07 40 25.2	-0.7
NB2	NORSAR Subarra	139.81	352	PKP	PKPdf	07 40 26.3	-6.9
	1.0nm,0.5s,baz=13,slow=3.2						
AKASG	Malin Array Be	143.41	330	PKP	PKPdf	07 40 37.3	-2.3
	19nm,0.7s,baz=39,slow=4.1,SNR=25						
ASF	Jabal al Asfar	146.45	296	PKPbc	PKPbc	07 40 47.3	-0.1
	3.0nm,0.7s,baz=100,slow=7.7,SNR=3.7						
BRTR	Keskin Array B	146.83	311	PKPbc	PKPbc	07 40 48.4	+0.4
	4.0nm,0.8s,baz=124,slow=4.2,SNR=7.8						
KOLS	Kolonicke sedl	147.79	333	*e*P	PKPdf	07 40 51.6	+4.6
KOLS				*e*	PKPab	07 41 02.8	+5.3
CRVS	Cervenica-Dubn	148.15	334	*e*P	PKPdf	07 40 52.5	+4.9
CRVS				*e*		07 41 02.9	
EIL	Elat	148.47	292	PKPbc	PKPdf	07 40 52.5	+3.8
	10nm,1.0s,baz=47,slow=6.4,SNR=3.1						
MLR	Muntele Rosu	148.54	326	PKPbc	PKPdf	07 40 53.6	+5.2
	9.2nm,0.7s,baz=130,slow=21,SNR=5.6						
OKC	Ostrava-Krasne	148.61	339	*e*PKPbc	PKPdf	07 40 53.3	+5.0
UPC	Upice	148.71	342	*e*PKPbc	PKPdf	07 40 53.6	+5.1
UPC				*e*PKPab	PKPab	07 40 59.8	-1.4
DPC	Dobruska-Polom	148.75	341	*e*PKPbc	PKPdf	07 40 53.8	+5.2
DPC				*e*PKPab	PKPab	07 41 00.3	-1.1
CLL	Collm	148.77	346	⇓*i*PKP1	PKPdf	07 40 53.2	+4.6
CLL				*i* PKP2	PKPab	07 40 59.3	-2.1
PVCC	Panska Ves	149.10	343	*e*PKPbc	PKPdf	07 40 54.7	+5.6
VYHS	Vyhne	149.50	336	*e*PKP	PKPdf	07 40 55.1	+5.3
VYHS	Vyhne	149.50	336	*e*P	PKPab	07 41 03.0	-1.5
VRAC	Vranov	149.58	340	PKPbc	PKPdf	07 40 55.8	+5.9
	4.8nm,0.8s,baz=59,slow=5.6,SNR=5.8						
VRAC				PKPab	PKPab	07 41 03.3	-1.5
	3.1nm,0.5s,baz=47,slow=7.1,SNR=7.4						
PRU	Pruhonice	149.59	343	*e*PKPbc	PKPdf	07 40 55.4	+5.5
PRU				*e*PKPab	PKPab	07 41 03.2	-1.6
MOX	Moxa	149.70	347	*e*PKP	PKPdf	07 40 55.9	+5.8
NKC	Novy Kostel	149.90	345	*e*PKPbc	PKPdf	07 40 56.2	+5.8
SMOL	Smolenice	149.99	338	*e*PKP	PKPdf	07 40 57.2	+6.6
SMOL				*e*	PKPab	07 41 05.7	-0.8
KHC	Kasperske Hory	150.63	343	*e*PKPbc	PKPdf	07 40 58.0	+6.4
KHC				*e*PKPab	PKPab	07 41 07.6	-1.6
GRF	Grafenberg Arr	150.69	347	*e*PKP	PKPdf	07 40 58.4	+6.8
GERES	GERESS Array B	150.86	343	PKPbc	PKPdf	07 40 58.3	+6.4
	5.1nm,0.8s,baz=22,slow=2.3,SNR=19						
GERES				PKPab	PKPab	07 41 08.4	-1.7
	1.1nm,0.8s,baz=30,slow=3.9,SNR=4.0						
DAVOX	Davos	153.73	346	PKPbc	PKPdf	07 41 04.5	+8.6
	2.6nm,0.5s,baz=2.8,slow=4.2,SNR=5.7						
DAVOX				PKPab	PKPab	07 41 20.8	-1.5
	5.0nm,1.1s,baz=17,slow=4.5,SNR=5.1						

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*BJI **26** 07:23:36.3,5.38N×94.37E,h31^{km},mb5.0*

*NEIC **26** 07:23:38.8±0.4,5.44N×94.41E,h30^{km},mb4.7/12,Error ellipse: s-maj=12.4km s-min=8.3km az=219.0*

*IDC **26** 07:23:42.2±7.6,5.60N×94.51E,h56^{km}±68^{km},mb4.3/18, mb1 4.4/18,mb1mx4.3/23,ML4.8/1,Error ellipse: s-maj=21.3km s-min=13.0km az=45.0*

ISC 26 07:23:36.7±0.5,**5.41N**±0.07×**94.39E**±0.07,**h30**^{km}**,n54,** σ**1**^{s}**02**/46,**mb4.6**/38,**1C,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.71	19	P	P	07 26 54.2	+2.6
	1.6nm,0.3s,baz=213,slow=14,SNR=14						
CHG	Chiang Mai	14.04	18	P	P	07 27 01.1	+5.0
	150nm,0.9s						
QIZ	Qiongzhong	20.25	47	*e*P	P	07 28 13.2	+0.5
	33nm,1.0s						
KMI	Kunming	21.17	21	*e*P	P	07 28 23.8	+1.8
KMI				AMB	AMB		
	comp=Z,31nm,1.1s,mb4.5						
GYA	Guiyang	23.99	28	⇑*i*P	P	07 28 51.0	+1.1
GYA				AMB	AMB		
	comp=Z,80nm,0.7s,mb5.3						
CD2	Chengdu	26.85	18	P	P	07 29 16.0	-0.8
XAN	Xi’an	31.52	23	P	P	07 29 56.5	-2.0
LZH	Lanzhou	31.74	15	*e*P	P	07 29 57.8	-2.7
LZH				AMB	AMB		
	comp=Z,31nm,1.2s,mb5.0						
GTA	Gaotai	34.20	7	P	P	07 30 20.5	-1.3
GTA				AP	pP	07 30 25.8	-4.9
GTA				XP	sP	07 30 29.8	-4.7
GTA				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.9						
NJ2	Nanjing	35.01	38	*e*P	P	07 30 29.3	+0.4
HHC	Hu-ho-hao-te	38.50	21	*e*P	P	07 30 58.5	+0.4
HHC				AP	pP	07 31 05.0	-2.1
HHC				XP	sP	07 31 08.8	-2.1
HHC				AMB	AMB		
	comp=Z,15nm,0.7s,mb4.8						
JOW	Kunigami	38.69	53	P	P	07 31 00.3	+0.5
	comp=Z,20nm,0.7s,mb5.0,baz=229,slow=5.4,SNR=6.4						
BJT	Baijiatuau	39.64	27	*e*P	P	07 31 08.2	+0.5
	comp=Z,32nm,1.1s,mb5.0						
BJI	Beijing	39.66	27	P	P	07 31 08.5	+0.6
BJI				AMB	AMB		
	comp=Z,25nm,0.9s,mb4.9						
AAK	Ala-Archa	41.05	338	*e*P	P	07 31 20.9	+1.7
	comp=Z,7.9nm,1.0s,mb4.3						
DL2	Dalian	41.47	33	P	P	07 31 23.8	+1.1
DL2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.6						
SONM	Songino Array	43.50	12	P	P	07 31 38.6	-0.6
	comp=Z,6.8nm,0.8s,mb4.4,baz=198,slow=7.8,SNR=14						
WRA	Warramunga Arr	46.67	124	P	P	07 32 05.1	+0.3
	comp=Z,15nm,0.7s,mb5.0,baz=304,slow=9.3,SNR=20						
WRAB	Tennant Creek	46.67	124	*e*P	P	07 32 04.7	-0.2
	comp=Z,24nm,0.6s,mb5.3						
CN2	Changchun	46.99	31	*e*P	P	07 32 06.0	-1.1
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
ASAR	Alice Springs	48.18	128	P	P	07 32 16.9	+0.2
	comp=Z,6.5nm,0.5s,mb4.9,baz=300,slow=7.7,SNR=28						
ZAL	Zalesovo	49.00	353	P	P	07 32 22.4	-0.2
	comp=Z,15nm,1.1s,mb4.9,baz=290,slow=7.3,SNR=14						
BVAR	Borovoye Array	51.38	342	P	P	07 32 40.4	-0.4
	comp=Z,5.6nm,0.7s,mb4.6,baz=147,slow=10,SNR=16						
BRVK	Borovoye	51.45	342	*e*P	P	07 32 40.3	-1.0
	comp=Z,6.1nm,0.6s,mb4.7						
CHKZ	Chkalovo	51.87	342	*e*P	P	07 32 44.2	-0.3
	comp=Z,17nm,0.8s,mb5.0						
PMG	Port Moresby	54.61	105	P	P	07 33 04.7	-0.7
	comp=Z,9.9nm,0.6s,mb5.0,baz=285,slow=6.9,SNR=6.9						
GNI	Garni	56.33	315	*e*P	P	07 33 17.1	-0.4
	comp=Z,2.7nm,0.6s,mb4.5						
KMBO	Kilima Mbogo	57.43	265	P	P	07 33 27.7	+2.1
	comp=Z,2.2nm,0.7s,mb4.3,baz=52,slow=11,SNR=7.5						
ARU	Arti	58.24	338	P	P	07 33 32.2	+1.6
	comp=Z,9.1nm,1.1s,mb4.7						
STKA	Stephens Creek	58.25	133	P	P	07 33 31.2	+0.1
	comp=Z,2.4nm,0.6s,mb4.4,baz=313,slow=9.8,SNR=6.7						
STKA	Stephens Creek	58.25	133	P	P	07 33 31.2	+0.1
KIV	Kislovodsk	59.31	319	*e*P	P	07 33 37.9	-0.4
	comp=Z,3.2nm,0.4s,mb4.7						
BRTR	Keskin Array B	64.22	312	P	P	07 34 10.1	-1.3
	comp=Z,1.3nm,0.7s,mb4.1,baz=124,slow=7.6,SNR=5.7						
IDI	Anoyia	70.17	305	P	P	07 34 49.6	+0.7
	comp=Z,6.5nm,0.5s,mb4.8,baz=108,slow=8.8,SNR=10						
AKASG	Malin Array Be	70.23	322	P	P	07 34 47.4	-1.6
	comp=Z,0.8nm,0.5s,mb4.0,baz=86,slow=4.8,SNR=7.1						
MLR	Muntele Rosu	71.10	316	P	P	07 34 55.0	+0.6
	comp=Z,2.5nm,0.8s,mb4.2,baz=114,slow=8.5,SNR=3.7						
BOSA	Boshof	74.50	238	*e*P	P	07 35 15.1	+0.4
	comp=Z,8.7nm,0.9s,mb4.7						
FINES	FINESS Array B	74.99	332	P	P	07 35 16.4	-0.4
	comp=Z,6.3nm,1.0s,mb4.5,baz=95,slow=6.1,SNR=6.4						
PSZ	Piszkesteto	75.62	318	*e*P	P	07 35 20.8	0.0
	comp=Z,2.1nm,0.8s,mb4.1						
MORC	Moravsky Berou	77.39	320	*e*P	P	07 35 31.4	+0.8
	comp=Z,1.5nm,0.6s,mb4.1						
ARCES	ARCESS Array B	77.65	340	P	P	07 35 30.7	-1.0
	comp=Z,3.7nm,0.9s,mb4.3,baz=90,slow=6.1,SNR=9.5						
ARCES	ARCESS Array B	77.65	340	P	P	07 35 30.7	-1.0
FX1	Attu Island--F	78.93	37	P	P	07 35 38.5	-0.5
	comp=Z,25nm,1.1s,mb5.1,baz=278,slow=22,SNR=2.6						
GERES	GERESS Array B	79.82	319	P	P	07 35 44.8	+1.0
	comp=Z,2.1nm,0.7s,mb4.2,baz=120,slow=5.1,SNR=18						
ILAR	Eielson Array	96.92	22	P	P	07 37 04.6	-1.6
	comp=Z,0.4nm,0.6s,mb4.0,baz=314,slow=3.9,SNR=6.8						
INK	Inuvik	99.27	16	P	P	07 37 16.4	-0.4
	comp=Z,1.2nm,0.9s,mb4.4,baz=6.8,slow=6.2,SNR=6.8						
NVAR	Mina Array Bea	126.88	32	PKP	PKPdf	07 42 41.2	-2.1
	comp=Z,1.7nm,0.8s,baz=311,slow=1.9,SNR=6.7						
NVAR	Mina Array Bea	126.88	32	PKP	PKPdf	07 42 41.2	-2.1
PDAR	Pinedale Array	127.35	22	PKP	PKPdf	07 42 40.8	-3.4
	comp=Z,1.1nm,0.8s,baz=57,slow=0.9,SNR=8.7						
ANMO	Albuquerque	135.31	25	PKP	PKPdf	07 42 56.4	-3.1
	comp=Z,0.9nm,0.5s,baz=171,slow=1.7,SNR=7.1						
TXAR	Lajitas Array	141.34	26	PKhKP		07 42 58.9	
	comp=Z,0.4nm,1.1s,baz=225,slow=1.8,SNR=2.3						
TXAR				PKP	PKPdf	07 43 07.6	-3.0
	comp=Z,0.7nm,0.6s,baz=45,slow=0.6,SNR=7.8						
TXAR	Lajitas Array	141.34	26	PKP	PKPdf	07 43 07.6	-3.0
LVC	Limon Verde	156.49	222	PKPab	PKPab	07 44 02.9	+2.4
	comp=Z,1.9nm,1.0s,baz=231,slow=14,SNR=3.3						
LPAZ	La Paz	159.74	236	PKPab	PKPab	07 44 15.6	+1.0
	comp=Z,1.6nm,0.7s,baz=164,slow=3.5,SNR=5.5						

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*IDC **26** 07:24:47.8±0.4,7.51N×92.75E,mb5.0/29,mb1 5.1/29, mb1mx5.0/30,ML5.6/1,Error ellipse: s-maj=16.8km s-min=10.4km az=39.0*

*MOS **26** 07:24:50.9±0.9,7.58N×92.81E,h33^{km},mb5.2/30,Error ellipse: s-maj=16.9km s-min=7.4km az=122.3*

*BJI **26** 07:24:50.1,7.64N×92.59E,h15^{km},mB5.7,mb5.1,Ms5.5, Msz5.5*

*NEIC **26** 07:24:53.0±2.3,7.42N×92.64E,h35^{km}±15^{km},mb5.1/30, Error ellipse: s-maj=7.9km s-min=5.9km az=201.0*

ISC 26 07:24:49.5±0.3,**7.39N**±0.05×**92.70E**±0.04,**h25**^{km}**,** **h25**^{km}±2.6^{km}**:pP-P,n187,**σ**0**^{s}**97**/167,**mb5.1**/70,**MS5.5**/2, **12C-8D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	11.90	270	P	P	07 27 37.5	-3.4
CM31	Chiang Mai Arr	12.57	28	*e*P	P	07 27 54.5	+4.7
	114nm,0.5s						
CMAR	Chiang Mai Arr	12.57	28	Pn	P	07 27 52.2	+2.4
	11nm,0.3s,baz=231,slow=14,SNR=58						
CMAR	Chiang Mai Arr	12.57	28	P	P	07 27 52.2	+2.4
CMAR				pmax	pmax		
	comp=Z,11nm,0.3s						
UBT	Ubonrachathani	14.38	56	⇑P	P	07 28 22.0	+8.2
HYB	Hyderabad	17.02	307	*i* P	P	07 28 48.5	+0.7
HYB				*e*S	Sx	07 31 30.0	
IMP	Imphal	17.34	4	*e*	P	07 28 50.1	-1.6
SHL	Shillong	18.09	358	*e*P	P	07 29 00.5	-0.7
SHL				*e*		07 29 01.1	
	comp=Z,78nm,0.8s						
SHL				*e*S	S	07 32 18.6	-0.7
MNGI	Mangalore	18.44	289	*e*P	P	07 29 04.9	-0.5
	comp=Z,75nm,1.5s						
KMI	Kunming	20.08	27	*e*P	P	07 29 24.8	+0.6
KMI				AMB	AMB		
	comp=Z,106nm,1.2s						
AKL	Akola	20.14	313	*e*P	P	07 29 26.3	+1.4
AKL				*e*		07 29 34.0	
	comp=Z,92nm,1.0s						
GOA	Goa	20.16	295	*e*P	P	07 29 29.7	+4.5
QIZ	Qiongzhong	20.28	54	P	P	07 29 27.3	+0.9
QIZ	Qiongzhong	20.28	54	*e*P	P	07 29 26.6	+0.2
	comp=Z,76nm,0.8s						
ALBI	Allahabad	20.64	331	*e*P	P	07 29 31.5	+1.5
PKI	Pulchoki	21.23	342	*e*P	P	07 29 35.3	-0.8
	comp=Z,293nm,1.0s,mb5.6						
GUN	Gumba	21.41	343	*e*P	P	07 29 38.5	+0.6
	comp=Z,355nm,0.7s,mb5.8						
KKN	Kakani	21.48	342	*e*P	P	07 29 38.6	+0.1
GKN	Gorkha	21.88	341	*e*P	P	07 29 43.1	+0.5
	comp=Z,312nm,0.8s,mb5.8						
KOLN	Koldanda	22.03	338	*e*P	P	07 29 44.9	+0.8
	comp=Z,217nm,0.8s,mb5.6						
LSA	Lhasa	22.24	356	P	P	07 29 46.3	+0.1
LSA	Lhasa	22.24	356	*e*P	P	07 29 48.4	+2.2
	comp=Z,92nm,0.7s,mb5.3						
BOM	Bombay	22.46	303	*e*P	P	07 29 46.5	-2.0
BOM				*e*		07 30 01.9	
	comp=Z,113nm,1.4s						
GYA	Guiyang	23.16	33	⇑*i*P	P	07 29 56.3	+1.0
GYA				AMB	AMB		
	comp=Z,110nm,0.8s,mb5.3						
CD2	Chengdu	25.59	22	⇑*i*P	P	07 30 18.5	-0.1
NDI	New Delhi	25.74	327	*e*P	P	07 30 19.7	-0.3
NDI				*e*		07 30 22.8	
	comp=Z,75nm,1.4s						
NDI				*e*S	S	07 34 51.0	+6.0
ENH	Enshi	27.68	33	*e*P	P	07 30 36.9	-1.0
	comp=Z,59nm,0.7s,mb5.3						
LZH	Lanzhou	30.33	18	*e*P	P	07 31 01.0	-0.5
LZH				AP	pP	07 31 03.0	-5.8
LZH				XP	sP	07 31 05.0	-7.1
LZH				AMB	AMB		
	comp=Z,93nm,1.0s,mb5.5						
LZH				AMB	AMB		
	comp=Z,443nm,4.4s						
LZH				LR	LR		
	comp=E,10µm,15.8s						
LZH				LR	LR		
	comp=Z,10µm,18.0s,MS5.5						
XAN	Xi’an	30.46	27	P	P	07 31 00.5	-2.2
XAN				AP	pP	07 31 08.5	-1.5
XAN				AMB	AMB		
	comp=Z,34nm,0.8s,mb5.1						
WHN	Wuhan	30.70	39	⇓*i*P	P	07 31 05.3	+0.5
GTA	Gaotai	32.52	10	P	P	07 31 21.0	+0.3
GTA				AP	pP	07 31 28.5	+0.5
GTA				XP	sP	07 31 33.3	+2.1
GTA				AMB	AMB		
	comp=Z,33nm,0.6s,mb5.4						
NJ2	Nanjing	34.57	41	*e*P	P	07 31 39.5	+1.0
NJ2				AMB	AMB		
	comp=Z,40nm,0.5s,mb5.6						
KSH	Kashi	35.34	337	*e*P	P	07 31 45.3	+0.2
KSH				*e*AP	pP	07 31 54.5	+2.0
KSH				*e*XP	sP	07 31 58.0	+2.4
KSH				AMB	AMB		
	comp=Z,570nm,4.1s						
WMQ	Urumqi	36.55	354	P	P	07 31 55.5	+0.3
WMQ				AP	pP	07 32 00.0	-2.6
WMQ				XP	sP	07 32 02.5	-3.3
WMQ				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
HHC	Hu-ho-hao-te	37.33	24	*e*P	P	07 32 01.8	0.0
HHC				AP	pP	07 32 09.0	-0.2
HHC				XP	sP	07 32 12.0	-0.3
HHC				AMB	AMB		
	comp=Z,14nm,0.6s,mb5.0						
HHC				AMB	AMB		
	comp=Z,6µm,8.5s						
HHC				LR	LR		
	comp=N,3µm,20.2s						
HHC				LR	LR		
	comp=E,3µm,14.3s						
HHC				LR	LR		
	comp=Z,6µm,19.0s,MS5.4						
KZA	Kyzart	37.84	339	P	P	07 32 07.7	+1.6
	SNR=9.9						
UCH	Uchtor	38.24	338	P	P	07 32 11.0	+1.5
	SNR=14						
KBK	Karagaybulak	38.46	339	P	P	07 32 13.2	+1.9
	SNR=9.3						
TKM2	Tokmak 2	38.46	340	P	P	07 32 12.4	+1.1
	SNR=9.3						
AML	Almayashu	38.47	337	P	P	07 32 13.2	+1.8
	SNR=18						
AAK	Ala-Archa	38.60	338	P	P	07 32 13.9	+1.4
	SNR=14						
AAK	Ala-Archa	38.60	338	*e*P	P	07 32 12.8	+0.3
	comp=Z,75nm,1.0s,mb5.4						
BJI	Beijing	38.72	29	P	P	07 32 14.3	+0.8
BJI				AMB	AMB		
	comp=Z,25nm,0.9s,mb4.9						
CHMS	Chumysh	38.83	339	P	P	07 32 15.1	+0.7
	SNR=12						
EKS2	Erkin-Say	38.90	338	P	P	07 32 16.3	+1.3
	SNR=15						
JOW	Kunigami	38.91	56	P	P	07 32 16.2	+1.1
	comp=Z,18nm,0.5s,mb5.1,baz=280,slow=9.4,SNR=8.5						
USP	Ospenovka	39.15	339	P	P	07 32 17.9	+0.9
	SNR=28						
DL2	Dalian	40.78	35	P	P	07 32 32.0	+1.5
DL2				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.6						
SONM	Songino Array	41.96	14	P	P	07 32 39.9	-0.2
	comp=Z,6.0nm,0.8s,mb4.3,baz=199,slow=9.6,SNR=8.7						
SONM				PcP	PcP	07 34 36.3	+0.4
	comp=Z,6.6nm,0.6s,baz=208,slow=4.1,SNR=9.1						
SNY	Shenyang	43.86	34	⇑P	P	07 32 55.3	-0.4
SNY				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.1						
CN2	Changchun	46.20	33	*e*P	P	07 33 13.0	-1.4
NWAO	Narrogin (SRO)	46.39	151	P	P	07 33 16.8	+0.7
	comp=Z,13nm,0.7s,mb5.0,baz=73,slow=14,SNR=3.0						
NWAO	Narrogin (SRO)	46.39	151	P	P	07 33 16.8	+0.8
NWAO				pmax	pmax		
	comp=Z,13nm,0.7s						
ZAL	Zalesovo	46.85	354	P	P	07 33 18.6	-0.8
	comp=Z,7.6nm,0.5s,mb4.9,baz=291,slow=7.0,SNR=7.7						
ZAL	Zalesovo	46.85	354	P	P	07 33 18.6	-0.8
ZAL				pmax	pmax		
	comp=Z,8.0nm,0.5s						
HIA	Hailar	47.53	24	*e*P	P	07 33 24.5	-0.3
	comp=Z,37nm,1.3s,mb5.2						
NVS	Novosibirsk	47.93	353	*i* P	P	07 33 26.2	-1.6

BVAR	Borovoye Array	49.00	342	P	P	07 33 35.5	-0.6
	comp=Z,17nm,0.7s,mb5.2,baz=143,slow=7.4,SNR=17						
BRVK	Borovoye	49.06	342	*e*P	P	07 33 35.8	-0.8
	comp=Z,24nm,0.7s,mb5.3						
WRA	Warramunga Arr	49.15	124	P	P	07 33 37.2	-0.6
	comp=Z,43nm,0.9s,mb5.5,baz=303,slow=8.9,SNR=30						
WRA	Warramunga Arr	49.15	124	P	P	07 33 37.2	-0.6
WRA				pmax	pmax		
	comp=Z,43nm,0.9s						
CHKZ	Chkalovo	49.50	343	⇑*e*P	P	07 33 39.5	-0.5
	comp=Z,59nm,0.9s,mb5.6						
MAT	Matsushiro	50.54	48	P	P	07 33 47.9	-0.3
MAT	Matsushiro	50.54	48	*e*P	P	07 33 48.0	-0.2
ASAR	Alice Springs	50.71	129	P	P	07 33 49.3	-0.3
	comp=Z,48nm,0.6s,mb5.6,baz=302,slow=7.3,SNR=48						
ASAR				PcP	PcP	07 35 07.0	+0.2
	comp=Z,14nm,1.0s,baz=314,slow=4.1,SNR=4.9						
CBIJ	Chichi jima	50.78	61	P	P	07 33 49.3	-0.8
	comp=Z,134nm,0.6s,mb6.0,baz=226,slow=4.9,SNR=12						
BOD	Bodaibo	52.96	14	*e*P	P	07 34 04.1	-2.0
GNI	Garni	53.76	315	P	P	07 34 12.2	-0.1
	comp=Z,8.1nm,0.6s,mb4.8,baz=86,slow=2.5,SNR=10						
GNI	Garni	53.76	315	P	P	07 34 12.2	0.0
GNI				pmax	pmax		
	comp=Z,8.0nm,0.6s						
ARU	Arti	55.79	338	⇑*i*P	P	07 34 25.9	-0.9
ARU				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.6						
ARU	Arti	55.79	338	*e*P	P	07 34 25.7	-1.1
	comp=Z,47nm,0.6s,mb5.7						
KMBO	Kilima Mbogo	55.95	264	P	P	07 34 29.8	+1.2
	comp=Z,3.4nm,0.6s,mb4.5,baz=58,slow=11,SNR=9.2						
KMBO	Kilima Mbogo	55.95	264	P	P	07 34 29.8	+1.2
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KMBO	Kilima Mbogo	55.95	264	P	P	07 34 29.8	+1.2
KIV	Kislovodsk	56.73	319	P	P	07 34 33.1	-0.6
	comp=Z,208nm,0.8s,mb6.2,SNR=9.4						
KIV	Kislovodsk	56.73	319	*e*P	P	07 34 32.4	-1.3
KIV				pmax	pmax		
	comp=N,21nm,0.9s						
KIV				pmax	pmax		
	comp=E,15nm,0.9s						
KIV				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.4						
KIV	Kislovodsk	56.73	319	*e*P	P	07 34 32.5	-1.2
	comp=Z,30nm,0.8s,mb5.4						
PMG	Port Moresby	56.76	106	P	P	07 34 33.6	-0.8
	comp=Z,17nm,0.6s,mb5.3,baz=343,slow=1.7,SNR=9.7						
PMG	Port Moresby	56.76	106	P	P	07 34 33.6	-0.8
PMG				pmax	pmax		
	comp=Z,17nm,0.6s						
PMG	Port Moresby	56.76	106	P	P	07 34 33.6	-0.8
GOF	Gofitskoye	56.97	320	*e*P	P	07 34 33.0	-2.5
ASF	Jabal al Asfar	57.29	304	P	P	07 34 39.0	+1.1
	comp=Z,6.8nm,0.6s,mb4.9,baz=335,slow=5.9,SNR=7.6						
MALT	Malatya	57.69	311	*e*P	P	07 34 40.0	-0.6
	comp=Z,15nm,1.1s,mb4.9						
EIL	Elat	58.43	300	P	P	07 34 46.6	+0.7
	comp=Z,19nm,0.6s,mb5.3,baz=51,slow=4.1,SNR=16						
CTA	Charters Tower	59.32	118	P	P	07 34 51.7	-0.6
	comp=Z,6.7nm,0.8s,mb4.7,baz=282,slow=8.9,SNR=6.4						
CTA				PcP	PcP	07 35 40.3	+0.4
	comp=Z,4.9nm,0.9s,baz=328,slow=3.5,SNR=3.6						
CTA	Charters Tower	59.32	118	P	P	07 34 51.7	-0.5
CTA						07 35 40.3	
CTA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
CTA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CTA	Charters Tower	59.32	118	P	P	07 34 51.7	-0.6
CTA				PcP	PcP	07 35 40.3	+0.4
STKA	Stephens Creek	60.81	133	P	P	07 35 02.0	-0.3
	comp=Z,31nm,0.6s,mb5.6,baz=311,slow=6.1,SNR=36						
BRTR	Keskin Array B	61.67	311	P	P	07 35 06.5	-1.5
	comp=Z,6.9nm,0.8s,mb4.8,baz=121,slow=7.2,SNR=13						
BRTR	Keskin Array B	61.67	311	P	P	07 35 06.5	-1.5
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
OBN	Obninsk	65.03	328	⇑*i*P	P	07 35 28.1	-1.8
OBN				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
AKASG	Malin Array Be	67.65	322	P	P	07 35 44.5	-2.1
	comp=Z,3.0nm,0.6s,mb4.5,baz=86,slow=4.3,SNR=13						
AKASG	Malin Array Be	67.65	322	P	P	07 35 44.5	-2.1
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
IDI	Anoyia	67.67	305	P	P	07 35 47.1	+0.1
	comp=Z,23nm,0.7s,mb5.3,baz=92,slow=6.7,SNR=16						
MA2	Magadan	67.86	28	*e*P	P	07 35 47.3	-0.5
MA2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
MA2	Magadan	67.86	28	*e*P	P	07 35 46.8	-1.0
	comp=Z,33nm,0.9s,mb5.4						
MLR	Muntele Rosu	68.52	316	P	P	07 35 52.0	-0.2
	comp=Z,28nm,1.0s,mb5.1,baz=86,slow=1.7,SNR=15						
MLR	Muntele Rosu	68.52	316	P	P	07 35 52.0	-0.2
MLR				pmax	pmax		
	comp=Z,28nm,1.0s						
KOLS	Kolonicke sedl	71.63	319	*e*P	P	07 36 11.5	+0.5
KOLS				*e*pP	pP	07 36 22.2	+3.4
SUW	Suwalki	72.07	324	*e*P	P	07 36 11.0	-2.6
	comp=Z,79nm,1.0s,mb5.6						
CRVS	Cervenica-Dubn	72.15	319	*e*P	P	07 36 16.1	+1.9
FINES	FINESS Array B	72.48	332	P	P	07 36 14.8	-1.1
	comp=Z,11nm,0.7s,mb4.9,baz=117,slow=8.5,SNR=15						
FINES	FINESS Array B	72.48	332	P	P	07 36 14.8	-1.0
FINES				pmax	pmax		
	comp=Z,11nm,0.7s						
KAF	Kangasniemi	72.57	333	*e*p	P	07 36 15.1	-1.3
	comp=Z,13nm,0.9s,mb4.8						
KAF	Kangasniemi	72.57	333	*e*P	P	07 36 15.1	-1.3
KAF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
NIE	Niedzica	72.98	319	*e*P	P	07 36 19.3	+0.3
OJC	Ojcow	73.43	320	*e*P	P	07 36 21.0	-0.6
VYHS	Vyhne	73.82	318	*i* P	P	07 36 22.9	-1.0
OKC	Ostrava-Krasne	74.43	320	*e*P	P	07 36 27.4	0.0
MORC	Moravsky Berou	74.81	320	*e*P	P	07 36 29.4	-0.2
	comp=Z,17nm,1.0s,mb4.9						
KEV	Kevo	74.82	341	*e*p	P	07 36 28.6	-0.7
	comp=Z,12nm,0.7s,mb4.9						
KEV	Kevo	74.82	341	*e*P	P	07 36 28.6	-0.7
KEV				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
ZST	Bratislava	74.93	318	*i* P	P	07 36 30.1	-0.3
ZST				*e*	pP	07 36 36.8	-1.4
ZST				*e*		07 36 42.4	
ARCES	ARCESS Array B	75.24	340	P	P	07 36 31.5	-0.2
	comp=Z,8.4nm,0.6s,mb4.8,baz=121,slow=4.1,SNR=15						
ARCES	ARCESS Array B	75.24	340	P	P	07 36 31.5	-0.2
ARCES				pmax	pmax		
	comp=Z,8.0nm,0.6s						
DPC	Dobruska-Polom	75.66	320	*e*P	P	07 36 34.7	+0.2
KSP	Ksiaz	75.73	321	⇑*e*P	P	07 36 35.0	+0.2
UPC	Upice	75.87	320	*e*P	P	07 36 35.9	+0.2
ARSA	Arzberg	75.91	317	⇓*i*P	P	07 36 36.5	+0.5
	comp=Z,18nm,1.6s,mb4.8						
PRU	Pruhonice	76.77	320	*e*P	P	07 36 40.7	0.0
BRG	Berggiesshubel	77.21	320	*i* P	P	07 36 43.0	-0.2
BRG				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
BRG	Berggiesshubel	77.21	320	*i* P	P	07 36 43.0	-0.2
	comp=Z,14nm,1.0s,mb4.9						
GEC2	GERESS Array S	77.24	318	*e*P	P	07 36 43.6	+0.3
GEC2				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
GEC2	GERESS Array S	77.24	318	*e*P	P	07 36 43.6	+0.3
	comp=Z,14nm,0.8s,mb4.9						
GERES	GERESS Array B	77.24	318	P	P	07 36 43.4	+0.1
	comp=Z,12nm,0.8s,mb4.9,baz=90,slow=5.3,SNR=24						
GERES	GERESS Array B	77.24	318	P	P	07 36 43.4	+0.1
GERES				pmax	pmax		
	comp=Z,12nm,0.8s						
KHC	Kasperske Hory	77.33	319	*e*P	P	07 36 43.6	-0.3
MAW	Mawson	77.78	191	P	P	07 36 47.5	+1.6
	comp=Z,4.1nm,0.7s,mb4.5,baz=0.3,slow=9.0,SNR=4.9						
MAW	Mawson	77.78	191	P	P	07 36 47.5	+1.6
MAW				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WET	Wettzell	77.80	319	*e*P	P	07 36 46.7	+0.3
CLL	Collm	77.83	321	⇑*i*P	P	07 36 45.7	-0.9
CLL				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
CLL	Collm	77.83	321	⇑*i*P	P	07 36 45.7	-0.9
	comp=Z,11nm,1.0s,mb4.7						
CLL	Collm	77.83	321	⇑P	P	07 36 45.7	-0.9
	comp=Z,logA/T=1.0,mb4.7						
NKC	Novy Kostel	78.13	320	*e*P	P	07 36 48.2	0.0
FX1	Attu Island--F	78.39	38	P	P	07 36 49.8	+0.2
	comp=Z,35nm,0.8s,mb5.3,baz=313,slow=20,SNR=6.9						
FX1	Attu Island--F	78.39	38	P	P	07 36 49.8	+0.2
FX1				pmax	pmax		
	comp=Z,35nm,0.8s						
WATA	Walderalm	78.60	317	⇓*i*P	P	07 36 50.5	-0.3
	comp=Z,9.0nm,0.7s,mb4.8						
MOX	Moxa	78.68	320	*e*P	P	07 36 51.5	+0.3
MOX	Moxa	78.68	320	*i* P	P	07 36 51.5	+0.3
FUR	Furstenfeldbru	78.82	318	*e*P	P	07 36 51.8	-0.2
SQTA	Sankt Quirin	78.84	317	⇓*i*P	P	07 36 52.0	-0.2
	comp=Z,17nm,0.7s,mb5.1						
GRA1	Grafenberg Arr	78.90	319	*e*P	P	07 36 53.1	+0.7
	comp=Z,15nm,0.8s,mb5.0						
GRF	Grafenberg Arr	78.90	319	*e*P	P	07 36 53.1	+0.7
GRF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
GRF	Grafenberg Arr	78.90	319	*e*P	P	07 36 53.1	+0.7
	comp=Z,15nm,0.8s,mb5.0						
MOTA	Moosalm	78.92	317	⇓*i*P	P	07 36 52.3	-0.3
	comp=Z,12nm,0.8s,mb4.9						
NB2	NORSAR Subarra	79.45	331	P	P	07 36 54.1	-1.1
	comp=Z,7.0nm,0.7s,mb4.7,baz=98,slow=5.0						
NOA	NORSAR Array B	79.45	331	P	P	07 36 54.5	-0.7
	comp=Z,5.1nm,0.7s,mb4.5,baz=94,slow=5.5,SNR=13						
NOA	NORSAR Array B	79.45	331	P	P	07 36 54.5	-0.7
NOA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NOA	NORSAR Array B	79.45	331	P	P	07 36 54.5	-0.7
CLZ	Clausthal	79.50	321	*e*P	P	07 36 55.8	+0.2
	comp=Z,13nm,0.8s,mb4.9						
BSEG	Bad Segeberg	79.59	323	*e*P	P	07 36 56.4	+0.3
BFO	Black Forest	80.79	318	*e*P	P	07 37 02.4	-0.2
BFO				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
BFO	Black Forest	80.79	318	*e*P	P	07 37 02.4	-0.2
	comp=Z,6.0nm,0.8s,mb4.6						
LPL	La Plagne	81.96	315	⇑*i*P	P	07 37 09.4	+0.6
	comp=Z,59nm,0.9s,mb5.2						
DAG	Danmarks Havn	87.64	348	⇓*e*P	P	07 37 36.4	-0.2
DAG				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.3						
DAG	Danmarks Havn	87.64	348	⇓*e*P	P	07 37 36.4	-0.2
	comp=Z,11nm,0.5s,mb5.3						
DAG	Danmarks Havn	87.64	348	⇓*i*P	P	07 37 36.4	-0.2
	comp=Z,11nm,0.5s,mb5.3						
ESDC	Sonseca Array	90.44	310	P	P	07 37 51.6	+0.9
	comp=Z,4.8nm,0.7s,mb5.0,baz=64,slow=4.0,SNR=19						
IMA	Indian Mountai	92.61	22	*e*P	P	07 38 01.9	+2.0
	comp=Z,24nm,0.8s,mb5.7						
ILAR	Eielson Array	95.73	22	P	P	07 38 14.0	-0.3
	comp=Z,1.8nm,0.7s,mb4.6,baz=304,slow=4.3,SNR=14						
ILAR	Eielson Array	95.73	22	P	P	07 38 14.0	-0.3
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
DBIC	Dimbokro	96.59	278	P	P	07 38 20.9	+1.5
	comp=Z,5.2nm,0.9s,mb5.0,baz=56,slow=5.3,SNR=5.9						
DBIC	Dimbokro	96.59	278	P	P	07 38 21.0	+1.5
DBIC				pmax	pmax		
	comp=Z,5.0nm,0.9s						
INK	Inuvik	97.85	16	P	P	07 38 24.2	+0.4
	comp=Z,8.4nm,1.1s,mb5.2,baz=349,slow=4.8,SNR=13						
INK	Inuvik	97.85	16	P	P	07 38 24.2	+0.4
INK				pmax	pmax		
	comp=Z,8.0nm,1.1s						
YKA	Yellowknife Ar	107.22	13	Pdiff	Pdif	07 39 06.5	+0.8
	comp=Z,0.2nm,0.8s,baz=328,slow=4.5,SNR=3.7						
MSO	Missoula	121.05	21	*e*PKP	PKPdf	07 43 41.7	-3.3
ULM	Lac du Bonnet	122.12	6	PKP	PKPdf	07 43 44.5	-2.4
	comp=Z,5.2nm,0.5s,baz=1.1,slow=2.0,SNR=9.6						
LAO	LASA Array	123.59	16	*e*PKP	PKPdf	07 43 48.1	-1.8
SNOW	Snow King Moun	125.10	21	*e*PKP	PKPdf	07 43 51.1	-1.8
REDW	Red Top Meadow	125.15	21	*e*PKP	PKPdf	07 43 50.8	-2.3
NVAR	Mina Array Bea	126.06	30	PKP	PKPdf	07 43 53.8	-1.1
	comp=Z,7.7nm,0.8s,baz=2.6,slow=0.8,SNR=29						
PDAR	Pinedale Array	126.12	20	PKP	PKPdf	07 43 52.5	-2.4
	comp=Z,7.0nm,0.8s,baz=56,slow=1.0,SNR=42						
NEN	Nelson	129.95	29	*e*PKP	PKPdf	07 44 01.1	-1.3
PV10	Paradox Valley	130.18	22	*e*PKP	PKPdf	07 44 02.3	-0.5
ANMO	Albuquerque	134.17	22	PKP	PKPdf	07 44 09.5	-0.9
	comp=Z,5.6nm,0.7s,baz=291,slow=0.7,SNR=23						
MNTX	Cornudas Mount	137.47	23	*e*PKP	PKPdf	07 44 14.4	-2.2
TXAR	Lajitas Array	140.24	23	PKhKP		07 44 13.6	
	comp=Z,0.8nm,0.4s,baz=157,slow=0.3,SNR=16						
TXAR				PKP	PKPdf	07 44 20.0	-1.7
	comp=Z,3.5nm,0.5s,baz=49,slow=1.0,SNR=27						
TXAR	Lajitas Array	140.24	23	PKP	PKPdf	07 44 20.0	-1.7
BDFB	Brasilia	140.70	254	PKP	PKPdf	07 44 20.8	-2.1
	comp=Z,3.9nm,0.9s,baz=133,slow=5.9,SNR=5.1						
BDFB	Brasilia	140.70	254	PKIKP	PKPdf	07 44 20.8	-2.1
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.9s						
SJG	San Juan	147.17	321	PKPbc	PKPdf	07 44 32.9	-1.0
	comp=Z,7.1nm,0.4s,baz=72,slow=4.3,SNR=12						
SJG	San Juan	147.17	321	PKP2	PKPab	07 44 32.9	-2.5
SJG				pmax	pmax		
	comp=Z,7.0nm,0.4s						
LVC	Limon Verde	156.71	227	PKPab	PKPab	07 45 16.3	+1.2
	comp=Z,9.0nm,0.7s,baz=74,slow=1.0,SNR=19						
LPAZ	La Paz	159.28	243	PKPab	PKPab	07 45 27.0	+0.8
	comp=Z,3.6nm,0.7s,baz=93,slow=2.8,SNR=8.5						
LPAZ	La Paz	159.28	243	PKP2	PKPab	07 45 27.0	+0.8
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ROSC	El Rosal	162.24	313	PKP	PKPdf	07 44 53.1	-1.2
	comp=Z,4.8nm,1.1s,baz=251,slow=5.9,SNR=4.0						

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*IDC **26** 07:26:38.2±0.8, 8.28N×94.02E, mb4.4/14, mb1 4.5/14, mb1mx4.4/20, Error ellipse: s-maj=30.8km s-min=18.5km az=56.0*

ISC 26 07:26:41.2±0.7, **8.3N**±0.1×**94.12E**±0.10, **h33^{km}, n21, σ0ˢ.74**/20, **mb4.4**/16, **1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNT	Nongplab	6.98	52	⇑P	P	07 28 22.0	-1.7
NST	Nakhon Sawan	9.40	38	P	P	07 28 58.0	+0.6
CMAR	Chiang Mai Arr	11.14	24	Pn	P	07 29 25.3	+4.0
	baz=214,slow=14,SNR=5.2						
SONM	Songino Array	40.76	13	P	P	07 34 22.1	+1.3
	4.3nm,0.9s,mb4.1,baz=207,slow=5.5,SNR=2.8						
ZAL	Zalesovo	46.13	352	P	P	07 35 04.7	+0.5
	12nm,0.4s,mb5.2,baz=299,slow=5.0,SNR=6.6						
NWAO	Narrogin (SRO)	46.52	153	P	P	07 35 07.1	-0.5
	22nm,1.2s,mb5.0,baz=250,slow=20,SNR=2.9						
WRA	Warramunga Arr	48.52	126	P	P	07 35 24.3	+1.0
	2.2nm,0.6s,mb4.4,baz=307,slow=8.3,SNR=2.7						
BVAR	Borovoye Array	48.59	341	P	P	07 35 23.1	-0.4
	1.5nm,0.5s,mb4.3,baz=135,slow=8.6,SNR=4.2						
KMBO	Kilima Mbogo	57.45	263	P	P	07 36 30.1	+0.3
	1.2nm,0.5s,mb4.2,baz=64,slow=13,SNR=5.5						
BRTR	Keskin Array B	62.14	311	P	P	07 37 01.6	+0.1
	1.9nm,0.8s,mb4.3,baz=122,slow=7.6,SNR=2.7						
AKASG	Malin Array Be	67.82	322	P	P	07 37 38.2	+0.2
	0.5nm,0.4s,mb3.9,baz=84,slow=4.7,SNR=3.3						
MLR	Muntele Rosu	68.86	316	P	P	07 37 44.1	-0.5
	3.4nm,0.9s,mb4.3,baz=233,slow=19,SNR=2.1						
FINES	FINESS Array B	72.33	332	P	P	07 38 04.7	-0.6
	2.7nm,0.7s,mb4.3,baz=105,slow=6.2,SNR=3.7						
KAF	Kangasniemi	72.41	333	*e*p	P	07 38 05.2	-0.5
	5.3nm,0.9s,mb4.5						
ARCES	ARCESS Array B	74.87	340	P	P	07 38 20.1	+0.2
	4.7nm,1.1s,mb4.3,baz=84,slow=5.3,SNR=4.9						
GERES	GERESS Array B	77.50	318	P	P	07 38 35.6	+0.3
	2.4nm,0.9s,mb4.2,baz=92,slow=4.9,SNR=3.8						
NB2	NORSAR Subarra	79.36	331	P	P	07 38 44.3	-0.9
	4.6nm,0.7s,mb4.5,baz=96,slow=5.0						
NOA	NORSAR Array B	79.36	331	P	P	07 38 44.2	-1.0
	1.0nm,0.5s,mb4.0,baz=96,slow=4.9,SNR=4.0						
DAVOX	Davos	80.08	316	P	P	07 38 49.7	+0.4
	6.0nm,0.9s,mb4.5,baz=202,slow=4.7,SNR=3.4						
ESDC	Sonseca Array	90.94	310	P	P	07 39 43.3	-0.1
	0.8nm,0.5s,mb4.3,baz=70,slow=3.9,SNR=5.7						
PDAR	Pinedale Array	124.79	21	PKP	PKPdf	07 45 41.0	+2.8
	0.7nm,0.7s,baz=90,slow=4.4,SNR=2.7						

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*PLV **26** 07:30:10.0±3.8, 24.35N×101.40E*

*IDC **26** 07:30:11.7±6.2, 24.83N×101.63E, h23^{km}±41^{km}, mb4.2/18, mb1 4.3/19, mb1mx4.3/23, ML4.0/1, Error ellipse: s-maj=25.2km s-min=14.2km az=51.0*

*BJI **26** 07:30:13.9, 24.76N×101.75E, h51^{km}, mb4.7, ML5.0, Ms5.0, Msz4.8*

*NEIC **26** 07:30:16.9±1.1, 24.85N×101.69E, h66^{km}±10^{km}, mb4.7/5, Error ellipse: s-maj=10.9km s-min=7.8km az=90.0*

ISC 26 07:30:07.5±0.4, **24.61N**±0.04×**101.61E**±0.05, **h10^{km}, n49, σ1ˢ.40**/65, **mb4.5**/24, **MS5.1**/1, **3C, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	Kunming	1.15	63	*e*P	Pb	07 30 33.0	+4.1
KMI				S	Sb	07 30 49.5	+5.8
DHV	Doan Hung	4.43	131	*e*P	Pn	07 31 19.3	+3.0
DHV				*e*PG	Pg	07 31 34.0	-1.9
DHV				*e*SG	Sg	07 32 30.9	-4.2
BVV	Ba Vi	4.92	134	*e*P	Pn	07 31 26.1	+2.8
BVV				*e*PG	Pg	07 31 44.1	-1.6
BVV				*e*SG	Sg	07 32 46.4	-4.8
GYA	Guiyang	4.92	67	P	Pn	07 31 26.0	+2.7
GYA				S	Sn	07 32 12.0	-9.0
GYA				LR	LR		
	comp=N,7µm,4.2s						
GYA				LR	LR		
	comp=E,9µm,7.2s						
GYA				LR	LR		
	comp=Z,9µm,8.0s						
HNV	Hanoi	5.24	132	*e*P	Pn	07 31 31.9	+4.1
HNV				*e*PG	Pg	07 31 48.3	-3.8
HNV				*e*SG	Sg	07 33 01.1	-0.9
MTZV	Met	5.32	124	*e*P	Pn	07 31 31.1	+2.2
MTZV				*e*SG	Sg	07 33 03.2	-1.2
BGV	Bac-Giang	5.38	127	*e*P	Pn	07 31 32.2	+2.4
DSV	Doi Son	5.68	134	*e*P	Pn	07 31 37.1	+3.0
DSV				*e*PG	Pg	07 31 56.6	-4.3
DSV				*e*SG	Sg	07 33 13.0	-3.7
YTV	Yen Tu	5.83	125	*e*P	Pn	07 31 38.4	+2.3
YTV				*e*SG	Sg	07 33 20.2	-1.3
PLV	Phu-Lien	5.98	128	*e*P	Pn	07 31 39.5	+1.2
PLV				*e*SG	Sg	07 33 20.8	-5.9
CD2	Chengdu	6.56	16	P	Pn	07 31 47.8	+1.4
CD2				Smax			
	comp=N,1µm,1.9s						
CD2				Smax			
	comp=E,1µm,1.8s						
CD2				LR	LR		
	comp=E,30µm,9.0s						
CD2				LR	LR		
	comp=Z,13µm,13.8s						
CMAR	Chiang Mai Arr	6.61	203	Pn	Pn	07 31 55.2	+8.1
	comp=Z,0.8nm,0.3s,baz=19,slow=12,SNR=3.6						
CMAR				Pg	Pg	07 32 15.3	-4.1
	comp=Z,6.4nm,0.3s,baz=13,slow=18,SNR=18						
CMAR				Lg		07 33 42.3	
	comp=Z,11nm,0.3s,baz=20,slow=29,SNR=8.6						
ENH	Enshi	8.98	49	⇑*e*P	P	07 32 20.2	-0.1
QIZ	Qiongzhong	9.45	124	P	P	07 32 27.5	+0.8
QIZ				S	Sn	07 34 06.0	-8.1
QIZ				AMB	AMB		
	comp=Z,24nm,1.5s						
QIZ				LR	LR		
	comp=N,7µm,13.1s						
QIZ				LR	LR		
	comp=Z,8µm,21.6s						
XAN	Xi'an	11.35	32	P	P	07 32 50.3	-2.5
XAN				AP		07 32 56.0	
XAN				S	S	07 34 50.8	-10
XAN				AMB	AMB		
	comp=Z,46nm,0.8s						
XAN				LR	LR		
	comp=N,7µm,10.9s						
XAN				LR	LR		
	comp=E,8µm,13.0s						
XAN				LR	LR		
	comp=Z,5µm,16.0s						
WHN	Wuhan	12.75	60	⇑P	P	07 33 12.0	+0.4
WHN				AP		07 33 19.0	
NJ2	Nanjing	16.88	60	*e*P	P	07 34 09.5	+4.0
NJ2				AP		07 34 12.8	
NJ2				XP		07 34 16.5	
NJ2				PP	PP	07 34 22.5	+2.8
NJ2				PPP	PPP	07 34 31.8	+4.1
NJ2				S	S	07 37 17.0	+4.8
NJ2				XS		07 37 23.0	
NJ2				AMB	AMB		
	comp=Z,60nm,1.0s						
NJ2				LR	LR		
	comp=N,1µm,13.9s						
NJ2				LR	LR		
	comp=E,4µm,15.6s						
NJ2				LR	LR		
	comp=Z,3µm,14.1s						
BTO	Baotou	17.44	22	*e*P	P	07 34 10.3	-2.1
BTO				AMB	AMB		
	comp=Z,21nm,0.7s						
HHC	Hu-ho-hao-te	18.21	25	*e*P	P	07 34 21.8	-0.2
HHC				AP		07 34 32.0	
HHC				XP		07 34 35.8	
HHC				AMB	AMB		
	comp=Z,28nm,0.4s						
HHC				LR	LR		
	comp=N,3µm,15.5s						
HHC				LR	LR		
	comp=E,3µm,16.6s						
HHC				LR	LR		
	comp=Z,4µm,17.8s						
BJT	Baijiatuau	19.64	35	*e*P	P	07 34 39.1	0.0
	comp=Z,30nm,0.8s						
BJI	Beijing	19.66	35	P	P	07 34 39.3	0.0
BJI				AMB	AMB		
	comp=Z,25nm,0.9s						
DL2	Dalian	22.13	45	P	P	07 35 06.5	+1.6
DL2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
SONM	Songino Array	23.49	8	P	P	07 35 18.2	+0.1
	comp=Z,7.7nm,0.8s,mb4.2,baz=190,slow=9.8,SNR=5.3						
ULN	Ulaanbaatar	23.61	9	*e*P	P	07 35 19.6	+0.4
	comp=Z,13nm,0.8s,mb4.4						
SNY	Shenyang	25.04	41	⇑P	P	07 35 33.5	+0.3
SNY				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.9						
SNY				LR	LR		
	comp=N,4µm,17.8s						
SNY				LR	LR		
	comp=Z,6µm,20.2s,MS5.1						
CN2	Changchun	27.32	40	*e*P	P	07 35 54.3	0.0
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.3						
BVAR	Borovoye Array	36.85	329	P	P	07 37 18.0	+0.4
	comp=Z,0.7nm,0.5s,mb3.8,baz=118,slow=8.5,SNR=3.4						
ASAJ	Asahikawa	38.54	49	P	P	07 37 30.5	-1.4
	comp=Z,13nm,0.6s,mb4.8,baz=232,slow=7.8,SNR=5.2						
WRAB	Tennant Creek	54.55	141	P	P	07 39 39.1	+0.8
	comp=Z,15nm,0.7s,mb5.1						
WRA	Warramunga Arr	54.55	141	P	P	07 39 39.4	+1.1
	comp=Z,6.6nm,0.7s,mb4.8,baz=333,slow=8.2,SNR=9.0						
ASAR	Alice Springs	57.30	144	P	P	07 39 59.3	+1.2
	comp=Z,3.0nm,1.1s,mb4.2,baz=322,slow=7.2,SNR=4.2						
BRTR	Keskin Array B	58.20	303	P	P	07 40 03.4	-0.8
	comp=Z,0.7nm,0.6s,mb3.9,baz=131,slow=11,SNR=2.8						
AKASG	Malin Array Be	60.35	316	P	P	07 40 17.2	-1.7
	comp=Z,11nm,0.8s,mb4.9,baz=71,slow=5.9,SNR=11						
FINES	FINESS Array B	61.81	328	P	P	07 40 28.0	-0.7
	comp=Z,4.3nm,0.8s,mb4.6,baz=90,slow=2.8,SNR=6.5						
CTA	Charters Tower	62.14	132	P	P	07 40 32.6	+1.2
	comp=Z,5.3nm,0.8s,mb4.8,baz=324,slow=8.5,SNR=4.6						
ARCES	ARCESS Array B	62.32	337	P	P	07 40 30.7	-1.3
	comp=Z,8.7nm,1.0s,mb4.8,baz=111,slow=10,SNR=5.2						
MLR	Muntele Rosu	63.07	310	P	P	07 40 37.1	-0.1
	comp=Z,5.9nm,0.8s,mb4.8,baz=82,slow=9.4,SNR=6.7						
IDI	Anoyia	65.85	299	P	P	07 40 54.0	-1.5
	comp=Z,4.6nm,0.7s,mb4.6,baz=50,slow=13,SNR=4.3						
KECS	Kecovo	66.26	314	*e*	P	07 41 03.2	+5.3
STKA	Stephens Creek	67.93	144	P	P	07 41 09.7	+0.9
	comp=Z,4.0nm,0.9s,mb4.4,baz=310,slow=5.3,SNR=3.6						
NB2	NORSAR Subarra	68.98	329	P	P	07 41 13.2	-1.5
	comp=Z,7.1nm,0.8s,mb4.7,baz=78,slow=6.2						
NOA	NORSAR Array B	68.98	329	P	P	07 41 12.4	-2.3
	comp=Z,3.8nm,0.7s,mb4.4,baz=78,slow=6.4,SNR=8.7						
GERES	GERESS Array B	70.56	316	P	P	07 41 24.7	+0.1
	comp=Z,0.9nm,0.5s,mb3.9,baz=72,slow=6.2,SNR=3.5						
LPL	La Plagne	76.11	314	*e*P	P	07 41 58.4	+1.2
	comp=Z,17nm,0.8s,mb4.7						
ILAR	Eielson Array	76.63	24	P	P	07 41 57.8	-1.9
	comp=Z,3.4nm,1.2s,mb4.2,baz=275,slow=4.3,SNR=7.0						
INK	Inuvik	78.99	18	P	P	07 42 12.6	0.0
	comp=Z,5.2nm,0.9s,mb4.5,baz=319,slow=5.4,SNR=9.2						

YKA	Yellowknife Ar	88.52	16	P	P	07 43 01.4	+0.3
	comp=Z,0.7nm,0.7s,mb4.1,baz=327,slow=4.5,SNR=11						
YKA	Yellowknife Ar	88.52	16	P	P	07 43 01.4	+0.3
SDV	Santo Domingo	145.86	346	ePKPdf	PKPdf	07 49 48.4	-2.0

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*IDC **26** 07:30:17.6±0.9, 4.44N×96.13E, mb4.4/12, mb1 4.5/12, mb1mx4.4/19, Error ellipse: s-maj=49.4km s-min=15.2km az=49.0*

ISC 26 07:30:20.7±0.8**, 4.5N**±0.2×**96.2E**±0.2**, h33^{km}, n15, σ0^{s}53**/12**, mb4.4**/12**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	44.09	10	P	P	07 38 28.5	+1.0
	2.6nm,0.9s,mb4.0,baz=180,slow=8.6,SNR=4.0						
WRA	Warramunga Arr	44.64	124	P	P	07 38 32.1	-0.2
	14nm,0.5s,mb5.1,baz=301,slow=9.2,SNR=25						
ASAR	Alice Springs	46.18	129	P	P	07 38 44.9	+0.3
	2.9nm,0.3s,mb4.6,baz=298,slow=7.3,SNR=30						
ZAL	Zalesovo	50.19	351	P	P	07 39 14.6	-0.7
	1.7nm,0.4s,mb4.5,baz=296,slow=6.2,SNR=4.5						
BVAR	Borovoye Array	52.86	341	P	P	07 39 34.9	-0.5
	0.6nm,0.5s,mb3.8,baz=135,slow=8.4,SNR=2.5						
CTA	Charters Tower	54.88	118	P	P	07 39 50.9	+0.2
	3.8nm,0.9s,mb4.4,baz=272,slow=12,SNR=5.6						
STKA	Stephens Creek	56.29	133	P	P	07 40 00.2	-0.5
	4.2nm,1.0s,mb4.4,baz=326,slow=7.8,SNR=3.8						
BRTR	Keskin Array B	66.20	312	P	P	07 41 08.2	+0.7
	1.1nm,0.5s,mb4.2,baz=126,slow=6.7,SNR=2.7						
FINES	FINESS Array B	76.66	332	P	P	07 42 10.0	+0.2
	15nm,1.3s,mb4.8,baz=104,slow=5.7,SNR=3.2						
ARCES	ARCESS Array B	79.15	340	P	P	07 42 22.6	-0.9
	0.9nm,0.5s,mb3.9,baz=86,slow=5.9,SNR=3.9						
GERES	GERESS Array B	81.72	319	P	P	07 42 37.8	+0.3
	1.0nm,0.5s,mb4.0,baz=119,slow=5.2,SNR=6.7						
DAVOX	Davos	84.26	316	P	P	07 42 50.5	0.0
	3.4nm,0.5s,mb4.7,baz=113,slow=5.3,SNR=3.8						
PDAR	Pinedale Array	127.51	24	PKP	PKPdf	07 49 26.9	+4.0
	0.3nm,0.6s,baz=89,slow=3.6,SNR=5.1						
TXAR	Lajitas Array	141.36	28	PKP	PKPdf	07 49 53.1	+4.1
	0.8nm,0.9s,baz=243,slow=0.3,SNR=3.1						
BDFB	Brasilia	143.13	250	PKP	PKPdf	07 49 56.2	+3.9
	1.8nm,0.8s,baz=93,slow=8.6,SNR=3.3						

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*IDC **26** 07:31:51.3±1.2, 9.01N×93.77E, mb4.4/12, mb1 4.6/12, mb1mx4.4/20, Error ellipse: s-maj=44.7km s-min=26.7km az=48.0*

ISC 26 07:31:53.8±0.9**, 8.6N**±0.1×**93.43E**±0.08**, h33^{km}, n27, σ0^{s}96**/24**, mb4.5**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	7.34	57	P	S	07 35 05.0	+0.8
UBT	Ubonrachathani	13.10	59	P	P	07 35 05.0	+4.8
UCH	Uchtor	37.38	337	P	P	07 39 06.3	+1.0
	SNR=5.3						
AML	Almayashu	37.63	336	P	P	07 39 08.6	+1.2
	SNR=7.8						
AAK	Ala-Archa	37.73	337	P	P	07 39 08.7	+0.5
	SNR=5.9						
CHMS	Chumysh	37.95	338	P	P	07 39 10.2	+0.1
	SNR=6.4						
EKS2	Erkin-Say	38.04	336	P	P	07 39 12.0	+1.2
	SNR=6.6						
USP	Ospenovka	38.27	338	P	P	07 39 13.0	+0.3
	SNR=7.0						
SONM	Songino Array	40.59	13	P	P	07 39 28.8	-3.1
	2.5nm,0.8s,mb3.9,baz=195,slow=7.8,SNR=2.7						
ZAL	Zalesovo	45.71	353	P	P	07 40 12.0	-1.4
	11nm,0.7s,mb4.9,baz=297,slow=7.4,SNR=17						
BVAR	Borovoye Array	48.05	341	P	P	07 40 30.5	-1.3
	4.7nm,0.8s,mb4.5,baz=135,slow=8.4,SNR=4.9						
ASAR	Alice Springs	50.94	130	P	P	07 40 55.0	+0.6
	1.3nm,0.7s,mb3.9,baz=315,slow=7.7,SNR=2.2						
BRTR	Keskin Array B	61.41	311	P	P	07 42 09.0	-0.2
	1.7nm,0.8s,mb4.2,baz=124,slow=7.5,SNR=3.6						
MLR	Muntele Rosu	68.14	316	P	P	07 42 53.9	+1.2
	5.3nm,0.8s,mb4.6,baz=51,slow=5.3,SNR=3.1						
FINES	FINESS Array B	71.72	332	P	P	07 43 13.7	-0.5
	2.7nm,0.7s,mb4.3,baz=114,slow=6.1,SNR=5.5						
KAF	Kangasniemi	71.80	333	ep	P	07 43 13.6	-1.1
	3.3nm,0.6s,mb4.4						
KEV	Kevo	73.89	341	ep	P	07 43 26.6	-0.2
	4.1nm,0.6s,mb4.5						
ARCES	ARCESS Array B	74.32	340	P	P	07 43 29.1	-0.2
	3.9nm,0.7s,mb4.5,baz=103,slow=6.8,SNR=6.4						
GERES	GERESS Array B	76.80	318	P	P	07 43 45.1	+1.2
	3.1nm,0.8s,mb4.3,baz=76,slow=5.5,SNR=7.0						
NB2	NORSAR Subarra	78.73	331	P	P	07 43 53.9	-0.4
	1.5nm,0.6s,mb4.1,baz=95,slow=5.0						
NOA	NORSAR Array B	78.73	331	P	P	07 43 54.0	-0.3
	3.2nm,0.8s,mb4.3,baz=91,slow=5.7,SNR=5.6						
LPL	La Plagne	81.60	315	eP	P	07 44 10.5	+0.5
	48nm,1.3s,mb5.0						
ILAR	Eielson Array	94.31	22	P	P	07 45 09.2	-1.6
	1.4nm,0.7s,mb4.5,baz=315,slow=4.3,SNR=10						
INK	Inuvik	96.46	16	P	P	07 45 19.9	-0.5
	6.4nm,1.1s,mb5.0,baz=342,slow=4.1,SNR=6.7						
NVAR	Mina Array Bea	124.62	30	PKP	PKPdf	07 50 52.9	+2.3
	0.7nm,0.6s,baz=360,slow=1.2,SNR=4.1						
PDAR	Pinedale Array	124.71	20	PKP	PKPdf	07 50 52.2	+1.7
	0.6nm,0.7s,baz=13,slow=0.7,SNR=5.0						
TXAR	Lajitas Array	138.81	23	PKP	PKPdf	07 51 20.1	+2.6
	0.3nm,0.6s,baz=78,slow=0.8,SNR=4.6						

BJI 26 07:31:57.9, 24.80N×101.55E, h21^{km}, ML4.2, 1C, Yunnan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHN	Wuhan	12.70	60	⇑P	P	07 35 00.0	-0.3

IDC 26 07:35:39.3±0.9**, 2.80N**×**94.30E, mb4.2**/9**, mb1 4.4**/10**, mb1mx4.3**/19**, ML4.3**/1**, Error ellipse: s-maj=37.1km s-min=21.3km az=43.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.22	16	Pn	P	07 39 33.2	+2.9
	0.4nm,0.3s,baz=211,slow=10,SNR=5.8						
WRA	Warramunga Arr	45.34	122	P	P	07 43 58.7	-2.6
	4.4nm,1.2s,baz=297,slow=9.0,SNR=4.5						
SONM	Songino Array	46.07	11	P	P	07 44 06.1	-0.6
	3.9nm,1.2s,baz=198,slow=7.8,SNR=3.9						
ASAR	Alice Springs	46.67	127	P	P	07 44 10.7	-1.2
	1.9nm,0.9s,baz=297,slow=7.0,SNR=4.7						
ZAL	Zalesovo	51.57	353	P	P	07 44 47.8	-1.5
	1.8nm,0.6s,baz=288,slow=7.5,SNR=4.3						
BVAR	Borovoye Array	53.83	342	P	P	07 45 03.6	-2.5
	1.3nm,0.6s,baz=141,slow=9.5,SNR=5.4						
KMBO	Kilima Mbogo	57.16	267	P	P	07 45 29.9	-0.9
	1.6nm,0.7s,baz=47,slow=10,SNR=5.4						
BRTR	Keskin Array B	65.90	313	P	P	07 46 26.6	-2.7
	1.2nm,0.9s,baz=143,slow=6.2,SNR=3.8						
AKASG	Malin Array Be	72.23	323	P	P	07 47 04.7	-3.6
	0.3nm,0.4s,baz=86,slow=4.2,SNR=4.4						
MLR	Muntele Rosu	72.92	317	P	P	07 47 11.3	-1.1
	6.2nm,1.1s,baz=96,slow=4.6,SNR=4.3						
GERES	GERESS Array B	81.71	319	P	P	07 47 59.9	-1.2
	1.8nm,1.0s,baz=90,slow=4.0,SNR=6.3						
TXAR	Lajitas Array	143.71	27	PKP	PKPdf	07 55 15.3	-3.5
	0.7nm,0.9s,baz=270,slow=3.8,SNR=4.7						

IDC 26 07:35:47.2±1.1**, 2.60N**×**94.13E, mb4.3**/8**, mb1 4.5**/9**, mb1mx4.2**/19**, ML4.4**/1**, Error ellipse: s-maj=48.6km s-min=17.9km az=54.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.45	16	Pn	P	07 39 41.5	+0.3
	0.5nm,0.3s,baz=211,slow=12,SNR=7.8						
WRA	Warramunga Arr	45.37	121	P	P	07 44 06.1	-3.4
	2.8nm,0.5s,baz=300,slow=10,SNR=16						
SONM	Songino Array	46.29	11	P	P	07 44 14.3	-2.1
	5.2nm,1.0s,baz=190,slow=7.3,SNR=8.6						
ASAR	Alice Springs	46.68	126	P	P	07 44 19.1	-0.8
	9.6nm,1.2s,baz=305,slow=7.0,SNR=11						
ZAL	Zalesovo	51.74	353	P	P	07 44 55.8	-2.7
	3.9nm,0.7s,baz=271,slow=8.9,SNR=7.8						
BVAR	Borovoye Array	53.97	342	P	P	07 45 13.3	-1.8
	6.1nm,1.0s,baz=143,slow=7.4,SNR=8.4						
STKA	Stephens Creek	56.57	131	P	P	07 45 32.9	-1.4
	1.2nm,0.8s,baz=338,slow=14,SNR=3.4						
BRTR	Keskin Array B	65.91	313	P	P	07 46 35.0	-2.3
	1.6nm,1.0s,baz=140,slow=9.6,SNR=4.1						
GERES	GERESS Array B	81.75	319	P	P	07 48 08.2	-1.0
	1.9nm,0.9s,baz=124,slow=4.8,SNR=6.3						

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*BJI **26** 07:38:24.6, 13.10N×93.03E, h29^{km}, mB6.1, mb5.8, Ms6.1, Msz5.9*

*IDC **26** 07:38:25.1±3.2, 13.12N×93.06E, h18^{km}±19^{km}, mb5.5/35, mb1 5.5/36, mb1mx5.5/36, ML5.8/1, MS5.8/8, Ms1 5.8/8, ms1mx5.2/31, Error ellipse: s-maj=13.6km s-min=8.8km az=37.0*

*MOS **26** 07:38:26.1±1.4, 13.19N×93.02E, h33^{km}, mb5.9/66, MS5.8/13, Error ellipse: s-maj=7.7km s-min=4.5km az=118.6*

*NEIC **26** 07:38:27.0±0.1, 13.13N×93.04E, h30^{km}, mb5.7/120, Error ellipse: s-maj=4.8km s-min=3.2km az=199.0*

*SYO **26** 07:38:27.6, 13.15N×93.02E, h30^{km}, MB5.8*

ISC 26 07:38:24.1±0.2**, 13.12N**±0.03×**93.05E**±0.02**, h24^{km}, h24^{km}**±1.8^{km}**: pP-P, n749, σ1^{s}05**/695**, mb5.7**/188**, MS5.9**/32**, 77C-32D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.77	46	ePn	Pn	07 40 18.5	-0.1
	2µm,1.0s						
CMAR	Chiang Mai Arr	7.77	46	Pn	Pn	07 40 18.3	-0.3
	34nm,0.3s,baz=238,slow=15,SNR=157						
CMAR				Sn	Sn	07 41 45.6	-1.2
	baz=235,slow=25,SNR=2.7						
CMAR				LR	LR	07 44 03.3	
	comp=Z,55µm,19.0s,baz=235,slow=44						
CMAR	Chiang Mai Arr	7.77	46	P	Pn	07 40 18.3	-0.3
CMAR						07 41 45.6	
CMAR				pmax	pmax		
	comp=Z,34nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,55µm,19.0s						
CAL	Calcutta	10.39	335	eP	P	07 40 52.0	-2.9
CAL				e	S	07 42 38.3	-13
VIS	Vishakhapatnam	10.43	297	eP	P	07 40 53.2	-2.3
VIS				e	S	07 42 43.6	-8.9
	comp=N,5µm,1.8s						
VIS				e		07 42 43.8	
	comp=E,3µm,1.5s						
AGT	Agartala	10.84	351	⇓iP	P	07 40 58.0	-3.1
AGT				i		07 42 24.0	
IMP	Imphal	11.63	4	e	P	07 41 09.5	-2.4
MDRS	Chennai	12.47	271	eP	P	07 41 21.2	-2.0
MDRS				e	S	07 43 33.6	-8.8
	comp=N,3µm,0.8s						
MDRS				e		07 43 33.6	
	comp=E,1µm,0.5s						
MDRS				i		07 46 33.3	
	comp=Z,58µm,20.2s						
BOK	Bokaro	12.60	328	eP	P	07 41 20.6	-4.2
PALK	Pallekele	13.46	246	eP	P	07 41 36.1	-0.2
BLSP	Bilaspur	13.72	312	eP	P	07 41 37.6	-2.2
BLSP				e		07 41 41.2	
	comp=Z,948nm,1.3s						
SLGI	Shiliguri	14.19	343	e	P	07 41 44.9	-1.1
HYB	Hyderabad	14.62	289	eP	P	07 41 49.5	-2.1
HYB				eS	S	07 44 33.0	-0.7
HYB	Hyderabad	14.62	289	i P	P	07 41 49.5	-2.1
HYB				eS	S	07 44 33.0	-0.7
KMI	Kunming	15.04	36	eP	P	07 41 59.5	+2.5
KMI				AP		07 42 02.8	
KMI				XP		07 42 05.0	
KMI				PP	PP	07 42 11.5	+2.6
KMI				PPP	PPP	07 42 19.3	+3.3
KMI				S	S	07 44 48.0	+4.4
KMI				SS	SS	07 45 06.0	+4.8
KMI				SSS	SSS	07 45 18.0	+3.4
KMI				AMB	AMB		
	comp=Z,398nm,1.2s						
KMI				LR	LR		
	comp=N,52µm,15.7s						
KMI				LR	LR		
	comp=E,48µm,14.3s						
KMI				LR	LR		
	comp=Z,54µm,15.0s						
PKI	Pulchoki	16.05	335	eP	P	07 42 05.3	-4.8
	comp=Z,880nm,0.7s						
ALBI	Allahabad	16.10	321	eP	P	07 42 09.0	-1.7
GUN	Gumba	16.17	337	eP	P	07 42 07.1	-4.5
	comp=Z,941nm,1.1s						
DMN	Daman	16.22	334	eP	P	07 42 07.9	-4.3
	comp=Z,1µm,1.0s						
KKN	Kakani	16.30	335	eP	P	07 42 09.7	-3.6
LSA	Lhasa	16.59	354	P	P	07 42 17.8	+0.8
LSA				LR	LR		
	comp=N,13µm,26.8s						
LSA				LR	LR		
	comp=E,48µm,29.1s						
LSA				LR	LR		
	comp=Z,24µm,22.1s						
LSA	Lhasa	16.59	354	eP	P	07 42 16.0	-1.0
	comp=Z,329nm,1.0s						
GKN	Gorkha	16.76	333	eP	P	07 42 14.5	-4.6
	comp=Z,794nm,0.7s						
KOLN	Koldanda	17.04	330	eP	P	07 42 18.3	-4.3
	comp=Z,2µm,1.1s						
KOLN				eS	S	07 45 20.3	-10
AKL	Akola	17.08	298	e	P	07 42 28.0	+4.9
	comp=Z,744nm,1.3s						
AKL				i	S	07 45 20.6	-10
QIZ	Qiongzhong	17.17	68	P	P	07 42 26.5	+2.2
QIZ				S	S	07 45 35.8	+2.8
QIZ				LR	LR		
	comp=N,27µm,15.1s						
QIZ				LR	LR		
	comp=Z,42µm,16.3s						
QIZ	Qiongzhong	17.17	68	eP	P	07 42 24.8	+0.5
	comp=Z,194nm,1.1s						
MNGI	Mangalore	17.76	271	i P	P	07 42 30.1	-1.5
	comp=Z,140nm,1.7s						
MNGI				i P		07 42 30.1	
MNGI				e		07 42 37.9	
	comp=Z,261nm,0.7s						
MNGI				e	S	07 45 32.8	-14
	comp=Z,47µm,18.2s						
MNGI				e		07 45 32.8	
BHPL	Bhopal	17.92	306	eP	P	07 42 30.3	-3.3
BHPL				e		07 42 36.6	
	comp=Z,589nm,1.5s						
BHPL				eS	S	07 45 51.8	+1.9
JHNI	Jhansi	18.37	314	⇓iP	P	07 42 36.0	-3.2
JHNI				e	S	07 45 52.0	-8.2
GYA	Guiyang	18.43	42	⇑iP	P	07 42 39.8	-0.1
GYA				AP		07 42 43.8	
GYA				XP		07 42 47.0	
GYA				PP	PP	07 42 59.8	+4.5
GYA				AMB	AMB		
	comp=Z,270nm,1.1s						
GYA				AMB	AMB		
	comp=Z,970nm,4.8s						
GYA				LR	LR		
	comp=N,3µm,16.2s						
GYA				LR	LR		
	comp=E,5µm,17.2s						
GYA				LR	LR		
	comp=Z,8µm,16.0s						
KAD	Karad	18.67	285	eP	P	07 42 42.6	-0.3
KAD				e		07 42 45.5	
	comp=Z,464nm,0.9s						
GOA	Goa	18.77	280	e	P	07 42 50.1	+5.9
GOA				i	S	07 46 30.0	+21
POO	Poona	19.23	289	eP	P	07 42 48.6	-0.9
POO				e		07 42 52.4	
	comp=Z,460nm,1.1s						
POO				eS	S	07 46 23.7	+4.0
LGTI	Lohaghat	20.13	326	eP	P	07 43 00.0	+0.6
PTH	Pithoragarh	20.22	326	e	P	07 43 00.4	+0.1
PTH				eP		07 43 00.4	
PTH				e	S	07 46 35.1	-5.7
MNCY	Minicoy	20.24	258	⇓iP	P	07 43 02.0	+1.4
MNCY				i		07 45 09.0	
BOM	Bombay	20.27	289	⇑iP	P	07 43 00.9	0.0
CD2	Chengdu	20.28	27	⇓iP	P	07 43 00.0	-0.9
CD2				S	S	07 46 37.5	-4.4
CD2				AMB	AMB		
	comp=Z,2µm,1.0s						
CD2				LR	LR		
	comp=E,28µm,13.2s						
CD2				LR	LR		
	comp=Z,34µm,15.0s,MS5.8						
NDI	New Delhi	21.37	319	eP	P	07 43 12.6	+0.4
NDI				e		07 43 17.6	
	comp=Z,1µm,1.5s						
NDI				eS	S	07 47 03.0	-0.2
GZH	Guangzhou	21.66	60	P	P	07 43 19.5	+4.4
GZH				LR	LR		
	comp=N,21µm,17.7s,MS5.8						
GZH				LR	LR		
	comp=E,25µm,18.3s,MS5.8						
GZH				LR	LR		
	comp=Z,33µm,16.2s,MS5.8						
BHV	Bhavnagar	21.69	296	eP	P	07 43 17.0	+1.6
AJM	Ajmer	21.79	310	i P	P	07 43 18.0	+1.6
DDI	Dehra Dun	22.03	323	eP	P	07 43 18.9	+0.2
DDI				e	S	07 47 13.4	-2.0
PENI	Pendagan	22.13	146	⇑iP	P	07 43 12.7	-7.1
	comp=Z,85nm,0.5s,mb5.4						
ENH	Enshi	22.86	39	⇓eP	P	07 43 26.5	-0.5
	comp=Z,2µm,1.0s,mb6.5						
SMLA	Simla	23.14	323	⇑i	P	07 43 44.7	+15
	comp=Z,562nm,0.7s,mb6.1						
SMLA				i	S	07 47 55.1	+20
	comp=Z,610nm,0.7s						
PULI	Pulasari	23.21	146	⇑iP	P	07 43 26.3	-4.3
	comp=Z,98nm,0.6s,mb5.4						
SDNR	Sundarnagar	23.52	324	eP	P	07 43 35.5	+2.1
SDNR				e		07 43 35.5	
SDNR				e	S	07 48 09.5	+27
BHK	Bhakra	23.79	323	eP	P	07 43 37.0	+1.0
BHK				e	S	07 47 53.8	+7.1
BHJ	Bhuj	24.37	298	eP	P	07 43 44.7	+2.9
BHJ				e		07 43 47.0	
	comp=Z,250nm,1.2s						
PONG	Pong	24.45	323	eP	P	07 43 44.0	+1.6
PONG				e		07 49 05.0	
LZH	Lanzhou	24.85	21	eP	P	07 43 47.5	+1.3
LZH				AP		07 43 50.5	
LZH				PP	PP	07 44 25.0	+1.6
LZH				eS	S	07 48 07.8	+3.0
LZH				SS	SS	07 49 06.5	+3.4
LZH				AMB	AMB		
	comp=Z,520nm,1.1s,mb6.0						
LZH				AMB	AMB		
	comp=Z,3µm,6.0s						
LZH				LR	LR		
	comp=N,27µm,14.3s						
LZH				LR	LR		
	comp=Z,44µm,15.9s,MS6.1						
DLH	Dalhousie	24.86	324	⇑eP	P	07 43 47.0	+0.6
DLH				e	S	07 48 20.0	+15
THN	Thein Dam	24.93	323	eP	P	07 43 46.6	-0.4
	comp=Z,92nm,0.6s,mb5.5						
THN				e	S	07 48 18.4	+12
WHN	Wuhan	26.22	45	⇓P	P	07 43 58.5	-0.6
WHN				LR	LR		
	comp=N,31µm,14.0s,MS6.2						
WHN				LR	LR		
	comp=E,34µm,13.5s,MS6.2						
WHN				LR	LR		
	comp=Z,90µm,16.0s,MS6.4						
QZH	Quanzhou	26.81	60	⇑iP	P	07 44 04.0	-0.6
QZH				AMB	AMB		
	comp=Z,350nm,0.9s,mb5.9						
QZH				LR	LR		
	comp=N,19µm,14.8s,MS6.0						
QZH				LR	LR		
	comp=E,26µm,16.3s,MS6.0						
QZH				LR	LR		
	comp=Z,46µm,18.8s,MS6.1						
GTA	Gaotai	26.86	12	P	P	07 44 06.0	+1.1
GTA				AP	pP	07 44 11.0	-1.0
GTA				XP	sP	07 44 13.5	-1.7
GTA				PP	PP	07 44 48.5	-1.9
GTA				PPP	PPP	07 45 04.5	+2.1
GTA				PCP	PcP	07 47 30.8	+3.3
GTA				S	S	07 48 37.3	-0.9
GTA				SCP		07 51 07.5	
GTA				SCS	ScS	07 54 55.8	+1.5
GTA				AMB	AMB		
	comp=Z,253nm,1.2s,mb5.6						
GTA				AMB	AMB		
	comp=Z,3µm,9.9s						
GTA				LR	LR		
	comp=N,12µm,17.5s,MS5.6						
GTA				LR	LR		
	comp=E,9µm,20.5s,MS5.6						
GTA				LR	LR		
	comp=Z,14µm,19.4s,MS5.5						
TGY	Tagaytay City	27.12	85	P	P	07 44 07.0	-0.5
	comp=Z,139nm,0.4s,mb5.8,baz=197,slow=6.2,SNR=2.3						
TGY				LR	LR	07 55 16.7	
	comp=Z,11µm,18.4s,MS5.5,baz=21,slow=37						
TGY	Tagaytay City	27.12	85	P	P	07 44 07.0	-0.5
TGY				pmax	pmax		
	comp=Z,139nm,0.4s						
TGY				MLR	MLR		
	comp=Z,11µm,18.4s						
PCPH	Palayan	27.28	81	⇓eP	P	07 44 08.7	-0.3
SRDI	Scrawed	29.99	135	⇑iP	P	07 44 32.4	-1.0
	comp=Z,185nm,0.7s,mb5.9						
NJ2	Nanjing	30.25	47	eP	P	07 44 32.5	-3.0
NJ2				AMB	AMB		
	comp=Z,1µm,0.9s,mb6.5						
NJ2				AMB	AMB		
	comp=Z,1µm,7.0s						
NJ2				LR	LR		
	comp=N,42µm,15.0s,MS6.2						
NJ2				LR	LR		
	comp=E,21µm,15.8s,MS6.2						
NJ2				LR	LR		
	comp=Z,51µm,15.8s,MS6.3						
KSH	Kashi	30.31	333	⇑iP	P	07 44 37.0	+1.0
KSH				AP	pP	07 44 46.5	+3.4
KSH				PP	PP	07 45 38.0	+2.7
KSH				PPP	PPP	07 45 53.3	+3.7
KSH				PCP	PcP	07 47 33.5	-2.6
KSH				S	S	07 49 37.3	+3.9
KSH				XS		07 49 51.0	
KSH				SCP		07 51 13.8	
KSH				PCS		07 51 16.8	
KSH				SCS	ScS	07 55 08.5	-1.6
KSH				AMB	AMB		
	comp=Z,570nm,1.3s,mb6.1						
KSH				LR	LR		
	comp=N,11µm,14.3s,MS5.8						
KSH				LR	LR		
	comp=E,11µm,13.6s,MS5.8						
TANI	Tanete Lipujan	30.89	120	⇑iP	P	07 44 41.0	-0.4
WMQ	Urumqi	30.94	352	⇓P	P	07 44 43.0	+1.5
WMQ				AP	pP	07 44 47.5	-1.1
WMQ				XP	sP	07 44 50.0	-1.7
WMQ				AMB	AMB		
	comp=Z,730nm,1.0s,mb6.5						
WMQ				AMB	AMB		
	comp=Z,2µm,11.8s						
WMQ				LR	LR		
	comp=N,7µm,24.4s,MS5.4						
WMQ				LR	LR		
	comp=E,6µm,25.9s,MS5.4						
WMQ				LR	LR		
	comp=Z,15µm,22.4s,MS5.6						
RATI	Rata	31.14	133	⇓iP	P	07 44 41.6	-1.9
	comp=Z,311nm,0.3s,mb6.6						
BTO	Baotou	31.17	25	eP	P	07 44 43.3	-0.2
BTO				AMB	AMB		
	comp=Z,234nm,1.1s,mb5.9						
BTO				LR	LR		
	comp=N,6µm,13.7s,MS5.8						
BTO				LR	LR		
	comp=E,13µm,14.7s,MS5.8						
KEDI	Kedomdong	31.39	132	⇓iP	P	07 44 44.4	-1.4
	comp=E,156nm,0.3s,mb6.3						
SSE	Sheshan	31.48	51	eP	P	07 44 46.8	+0.4
SSE				S	S	07 49 55.3	+3.5
SSE				AMB	AMB		
	comp=Z,111nm,1.2s,mb5.6						
SSE				AMB	AMB		
	comp=Z,2µm,8.9s						
SSE				LR	LR		
	comp=N,15µm,15.0s,MS6.0						

SSE				LR	LR		
	comp=E,22µm,15.0s,MS6.0						
SSE				LR	LR		
	comp=Z,36µm,14.9s,MS6.2						
TIA	Tai'an	31.57	39	⇓P	P	07 44 46.3	-0.8
TIA				AMB	AMB		
	comp=Z,139nm,1.2s,mb5.7						
HHC	Hu-ho-hao-te	32.03	27	*e*P	P	07 44 51.3	+0.2
HHC				AP	pP	07 45 00.5	+2.3
HHC				XP	sP	07 45 04.8	+3.4
HHC				PP	PP	07 45 57.0	-0.7
HHC				PCP	PcP	07 47 41.3	+0.7
HHC				S	S	07 49 58.0	-2.4
HHC				XS		07 50 13.5	
HHC				SCP		07 51 22.0	
HHC				AMB	AMB		
	comp=Z,137nm,1.1s,mb5.7						
HHC				AMB	AMB		
	comp=Z,4µm,5.7s						
HHC				LR	LR		
	comp=N,13µm,19.0s,MS5.8						
HHC				LR	LR		
	comp=E,15µm,17.8s,MS5.8						
HHC				LR	LR		
	comp=Z,14µm,21.4s,MS5.6						
KZA	Kyzart	32.74	335	P	P	07 44 58.6	+1.4
	SNR=56						
AAA	Alma-Ata	33.10	338	*i* P	P	07 45 00.0	-0.4
AAA				pmax	pmax		
	comp=Z,2µm,3.0s						
UCH	Uchtor	33.17	334	P	P	07 45 02.3	+1.3
	SNR=27						
TKM2	Tokmak 2	33.31	336	P	P	07 45 03.0	+0.8
	SNR=22						
KBK	Karagaybulak	33.34	335	P	P	07 45 03.7	+1.2
	SNR=8.6						
AML	Almayashu	33.44	333	P	P	07 45 04.6	+1.3
	SNR=66						
AAK	Ala-Archa	33.51	335	P	P	07 45 05.4	+1.4
	SNR=50						
AAK	Ala-Archa	33.51	335	*c i*P	P	07 45 04.3	+0.3
AAK				pmax	pmax		
	comp=Z,149nm,1.0s,mb5.9						
AAK	Ala-Archa	33.51	335	⇑*i*P	P	07 45 04.2	+0.3
	comp=Z,247nm,1.4s,mb6.0						
BJT	Baijiatuau	33.64	33	*e*P	P	07 45 05.5	+0.4
	comp=Z,286nm,1.2s,mb6.1						
BJI	Beijing	33.66	33	P	P	07 45 05.0	-0.3
BJI				S	S	07 50 23.5	-2.2
BJI				AMB	AMB		
	comp=Z,25nm,0.9s,mb5.1						
BJI				LR	LR		
	comp=N,14µm,20.4s,MS5.9						
BJI				LR	LR		
	comp=E,19µm,20.2s,MS5.9						
BJI				LR	LR		
	comp=Z,12µm,27.9s						
CHMS	Chumysh	33.71	335	P	P	07 45 05.9	+0.2
	SNR=52						
EKS2	Erkin-Say	33.84	334	P	P	07 45 07.6	+0.9
	SNR=51						
USP	Ospenovka	34.03	335	P	P	07 45 09.1	+0.6
	SNR=76						
TAS	Tashkent	34.92	328	*ce*P	P	07 45 14.5	-1.6
TAS				*e*S	S	07 50 43.0	-2.1
TAS				pmax	pmax		
	comp=Z,2µm,3.0s						
TAS				MLR	MLR		
	comp=Z,25µm,20.0s,MS6.0						
JOW	Kunigami	35.67	62	P	P	07 45 23.4	+0.7
	comp=Z,48nm,0.3s,mb5.9,baz=297,slow=8.1,SNR=28						
JOW				PcP	PcP	07 47 52.2	+1.2
	comp=Z,44nm,0.8s,baz=270,slow=10,SNR=6.0						
JOW				LR	LR	08 02 48.0	
	comp=Z,12µm,19.7s,MS5.7,baz=252,slow=41						
DL2	Dalian	36.04	39	P	P	07 45 26.3	+0.6
DL2				AMB	AMB		
	comp=Z,150nm,0.9s,mb5.9						
SONM	Songino Array	36.36	15	P	P	07 45 28.9	+0.6
	comp=Z,214nm,1.1s,mb6.0,baz=202,slow=6.7,SNR=158						
SONM				PcP	PcP	07 47 54.3	+1.5
	comp=Z,17nm,0.7s,baz=186,slow=2.0,SNR=4.3						
SONM				S	S	07 51 02.9	-4.5
	comp=Z,4.8nm,1.3s,baz=2.4,slow=30,SNR=3.3						
SONM				ScP		07 51 37.6	
	comp=Z,9.6nm,1.0s,baz=209,slow=3.5,SNR=4.7						
SONM				ScS	ScS	07 55 43.5	+2.2
	comp=Z,1.3nm,0.9s,baz=198,slow=4.6,SNR=2.1						
ULN	Ulaanbaatar	36.56	16	P	P	07 45 30.5	+0.6
ULN				pmax	pmax		
	comp=Z,200nm,1.2s,mb5.8						
ULN	Ulaanbaatar	36.56	16	*e*P	P	07 45 30.3	+0.4
	comp=Z,201nm,1.2s,mb5.8						
ZAK	Zakamensk	38.09	11	⇑*i*P	P	07 45 44.7	+1.9
ZAK				*e*		07 47 59.7	
INCN	Inchon	38.53	45	*e*P	P	07 45 45.8	-0.8
	comp=Z,181nm,0.9s,mb5.8						
MOY	Mondy	38.98	8	*e*P	P	07 45 52.1	+1.9
SNY	Shenyang	39.01	37	⇑P	P	07 45 50.5	-0.1
SNY				AMB	AMB		
	comp=Z,170nm,1.2s,mb5.7						
KS15	Wonju Array Si	39.38	46	*e*P	P	07 45 52.7	-1.0
TLY	Talaya	39.40	10	P	P	07 45 56.5	+2.8
	comp=Z,664nm,1.1s,mb6.3,SNR=32						
TLY	Talaya	39.40	10	*e*P	P	07 45 56.3	+2.6
TLY				pmax	pmax		
	comp=Z,166nm,1.1s,mb5.7						
TLY				MLR	MLR		
	comp=Z,11µm,21.0s,MS5.7						
TLY	Talaya	39.40	10	*i* Pr		07 45 56.7	
IRK	Irkutsk	40.05	11	*e*P	P	07 46 00.6	+1.5
ZAL	Zalesovo	41.24	353	P	P	07 46 08.8	0.0
	comp=Z,32nm,0.5s,mb5.2,baz=299,slow=7.7,SNR=34						
ZAL	Zalesovo	41.24	353	P	P	07 46 08.8	0.0
ZAL				pmax	pmax		
	comp=Z,32nm,0.5s						
ZAL	Zalesovo	41.24	353	P	P	07 46 08.8	0.0
CN2	Changchun	41.31	36	*e*P	P	07 46 10.3	+0.8
CN2				*e*XP	sP	07 46 23.3	+3.6
CN2				*e*S	S	07 52 22.0	-0.1
CN2				AMB	AMB		
	comp=Z,490nm,1.1s,mb6.0						
CN2				AMB	AMB		
	comp=Z,6µm,7.0s						
CN2				LR	LR		
	comp=N,3µm,17.0s,MS5.4						
CN2				LR	LR		
	comp=E,4µm,17.0s,MS5.4						
CN2				LR	LR		
	comp=Z,4µm,18.0s,MS5.3						
HIA	Hailar	42.22	26	*e*P	P	07 46 17.1	+0.2
	comp=Z,62nm,0.9s,mb5.2						
NVS	Novosibirsk	42.33	352	*i* P	P	07 46 16.7	-1.0
NVS				*i* S	S	07 52 30.6	-6.5
NVS				pmax	pmax		
	comp=Z,72nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=E,80nm,1.4s						
NVS				smax			
	comp=N,30nm,1.5s						
NVS				smax			
	comp=E,54nm,1.6s						
HASS	Wahat al Ahsa'	42.50	293	P	P	07 46 20.3	+0.8
MBWA	Marble Bar	42.98	142	*e*P	P	07 46 22.1	-1.5
	comp=E,31nm,0.7s,mb5.1						
BVAR	Borovoye Array	43.71	340	P	P	07 46 28.6	-0.4
	comp=E,22nm,0.6s,mb5.0,baz=141,slow=9.3,SNR=69						
BVAR				S	S	07 52 52.0	-5.2
	comp=E,2.4nm,0.8s,baz=315,slow=6.3,SNR=2.1						
BVAR				ScS	ScS	07 56 24.4	-0.1
	comp=E,0.7nm,0.4s,baz=11,slow=30,SNR=2.9						
BRVK	Borovoye	43.78	340	P	P	07 46 29.5	0.0
BRVK				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.2						
BRVK	Borovoye	43.78	340	⇓*i*P	P	07 46 29.2	-0.3
CHKZ	Chkalovo	44.19	341	*e*P	P	07 46 32.5	-0.4
	comp=Z,132nm,0.7s,mb5.8						
MDJ	Mudanjiang	44.21	38	P	P	07 46 33.5	+0.4
MDJ				AMB	AMB		
	comp=Z,45nm,1.4s,mb5.0						
MDJ	Mudanjiang	44.21	38	*e*P	P	07 46 32.4	-0.7
	comp=Z,42nm,0.8s,mb5.2						
RYDS	Riyadh	45.14	291	P	P	07 46 41.9	+0.9
MZLS	Mizel	46.43	291	P	P	07 46 51.7	+0.6
MAJO	Matsushiro	46.61	52	P	P	07 46 55.0	+2.6
MAJO				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.0						
MAJO	Matsushiro	46.61	52	*e*P	P	07 46 52.0	-0.4
	comp=Z,177nm,1.0s,mb6.0						
MAJO				*e*PcP	PcP	07 48 26.2	-0.4
MAT	Matsushiro	46.61	52	P	P	07 46 51.7	-0.7
MAT	Matsushiro	46.61	52	*e*P	P	07 46 52.0	-0.4
	comp=Z,297nm,1.2s,mb6.1						
KAMS	Al Khamasin	46.83	286	P	P	07 46 54.6	+0.2
BOD	Bodaibo	47.36	15	*e*P	P	07 46 57.2	-0.8
TATS	Tathlith	47.87	285	P	P	07 47 03.2	+0.7
CBIJ	Chichi jima	47.90	65	P	P	07 47 00.8	-1.9
	comp=Z,142nm,0.8s,mb6.0,baz=269,slow=17,SNR=9.5						
ARSS	Ar Rass	48.37	293	P	P	07 47 06.3	0.0
AFFS	'Afif	48.44	290	P	P	07 47 07.7	+0.8
MAK	Makhachkala	49.15	316	*e*P	P	07 47 15.0	+2.9
BLJS	Baljurashi	49.63	285	P	P	07 47 17.6	+1.5
HILS	Ha'il	49.81	295	P	P	07 47 18.3	+1.0
CLNS	Chul'man	49.97	22	*e*P	P	07 47 18.3	+0.1
CLNS				*e**PP	pP	07 47 25.1	-0.4
CLNS				*e*		07 49 17.7	
CLNS				pmax	pmax		
	comp=Z,173nm,1.1s,mb6.0						
CLNS				pmax	pmax		
	comp=N,94nm,1.2s						
CLNS				pmax	pmax		
	comp=E,79nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.4						
CLNS				pmax	pmax		
	comp=N,18nm,0.8s						
CLNS				pmax	pmax		
	comp=E,36nm,1.3s						
CLNS				MLR	MLR		
	comp=Z,16µm,15.0s,MS6.1						
CLNS				MLR	MLR		
	comp=N,7µm,17.0s,MS5.8						
CLNS				MLR	MLR		
	comp=E,2µm,14.0s,MS5.8						
HKR	Hakkari	50.09	308	*e*P	P	07 47 20.1	+0.7
HKR	Hakkari	50.09	308	P	P	07 47 20.7	+1.3
GNI	Garni	50.09	312	*e*P	P	07 47 21.0	+1.6
GNI	Garni	50.09	312	P	P	07 47 21.0	+1.7
	comp=E,343nm,1.1s,mb6.3,baz=354,slow=1.1,SNR=144						
GNI				S	S	07 54 34.3	+6.4
	comp=E,1.2nm,0.3s,baz=28,slow=17,SNR=3.3						
GNI	Garni	50.09	312	P	P	07 47 21.0	+1.6
GNI				S	S	07 54 34.3	+6.4
GNI				pmax	pmax		
	comp=Z,343nm,1.1s						
GNI				smax			
	comp=N,1.0nm,0.4s						
GNI	Garni	50.09	312	P	P	07 47 21.7	+2.3
SVE	Sverdlovsk	50.17	337	⇑*i*P	P	07 47 20.0	+0.3
SVE				*e*		07 48 32.0	
SVE				pmax	pmax		
	comp=Z,490nm,1.6s,mb6.3						
TVAN	Van	50.60	309	*i* P	P	07 47 23.3	+0.1
TI2	Plekhanov	50.60	314	⇑*i*P	P	07 47 23.6	+0.4
TI2				*e*S	S	07 54 40.0	+5.0
ARU	Arti	50.68	336	*c i*P	P	07 47 23.3	-0.3
ARU				pmax	pmax		
	comp=Z,135nm,1.1s,mb5.8						
ARU	Arti	50.68	336	⇑*i*P	P	07 47 23.3	-0.3
NWAO	Narrogin (SRO)	51.29	154	P	P	07 47 27.5	-1.1
	comp=Z,88nm,0.8s,mb5.8,baz=327,slow=8.1,SNR=19						
NWAO				S	S	07 54 43.9	-0.6
	comp=Z,7.8nm,0.7s,baz=76,slow=9.0,SNR=1.6						
NWAO	Narrogin (SRO)	51.29	154	P	P	07 47 27.5	-1.0
NWAO				S	S	07 54 43.9	-0.6
NWAO				pmax	pmax		
	comp=Z,88nm,0.8s						
NWAO				smax			
	comp=N,8.0nm,0.7s						
NWAO	Narrogin (SRO)	51.29	154	*e*P	P	07 47 27.4	-1.2
	comp=N,72nm,0.9s,mb5.6						
BTMT	Batman	51.97	308	*e*P	P	07 47 34.2	+0.6
BEST	Besiri	52.06	308	*i* P	P	07 47 33.7	-0.7
VRT	Varto	52.17	310	*e*P	P	07 47 36.0	+0.8
VRT	Varto	52.17	310	P	P	07 47 37.0	+1.8
WRA	Warramunga Arr	52.25	128	P	P	07 47 34.3	-1.7
	comp=N,29nm,0.5s,mb5.5,baz=306,slow=9.3,SNR=92						
WRA				PcP	PcP	07 48 47.4	+0.1
	comp=N,19nm,0.5s,baz=317,slow=3.0,SNR=12						
WRA				S	S	07 54 56.0	-2.0
	comp=N,25nm,1.3s,baz=301,slow=14,SNR=22						
WRA	Warramunga Arr	52.25	128	P	P	07 47 34.3	-1.7
WRA						07 48 47.4	
WRA				S	S	07 54 56.0	-2.0
WRA				pmax	pmax		
	comp=Z,29nm,0.5s						
WRA				pmax	pmax		
	comp=Z,19nm,0.5s						
WRA				smax			
	comp=N,25nm,1.3s						
WRAB	Tennant Creek	52.26	128	⇓*e*P	P	07 47 34.5	-1.5
WRAB	Tennant Creek	52.26	128	*e*P	P	07 47 34.6	-1.5
	comp=N,86nm,0.7s,mb5.8						
ASAJ	Asahikawa	52.29	44	P	P	07 47 35.5	-0.4
	comp=N,75nm,0.8s,mb5.7,baz=244,slow=9.8,SNR=8.1						
ASAJ				LR	LR	08 12 20.0	
	comp=N,8µm,18.3s,MS5.8,baz=253,slow=39						
ASAJ	Asahikawa	52.29	44	P	P	07 47 35.6	-0.4
ASAJ				pmax	pmax		
	comp=Z,75nm,0.8s						
ASAJ				MLR	MLR		
	comp=Z,8µm,18.3s						
EZM	Erzurum	52.50	310	*e*P	P	07 47 39.3	+1.6
KIV	Kislovodsk	52.78	316	P	P	07 47 40.2	+0.5
	comp=Z,2µm,1.0s,SNR=70						
KIV	Kislovodsk	52.78	316	*c i*P	P	07 47 39.8	+0.1
KIV				*e*PPP	PPP	07 50 42.3	-3.4
KIV				*i* S	S	07 55 08.8	+4.0
KIV				pmax	pmax		
	comp=Z,342nm,1.2s,mb6.2						
KIV				pmax	pmax		
	comp=N,179nm,1.1s						
KIV				pmax	pmax		
	comp=E,142nm,1.1s						
KIV				pmax	pmax		
	comp=Z,670nm,1.7s,mb6.3						
KIV				smax			
	comp=N,745nm,3.8s						
KIV				smax			
	comp=E,740nm,3.8s						
KIV				MLR	MLR		
	comp=N,5µm,22.0s,MS5.6						
KIV				MLR	MLR		
	comp=E,4µm,22.0s,MS5.6						
KIV				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.5						
KIV	Kislovodsk	52.78	316	*e*P	P	07 47 39.7	+0.1
	comp=Z,355nm,1.0s,mb6.2						
KIV				⇑*e*P		07 47 39.9	
GOF	Gofitskoye	52.93	317	⇓*i*P	P	07 47 40.5	-0.2
GOF				pmax	pmax		
	comp=Z,200nm,1.2s,mb5.9						
YNBS	Yanbu' al Bahr	53.03	291	P	P	07 47 42.2	+0.4
YSS	Yuzh-Sakhalins	53.42	41	*e*P	P	07 47 42.0	-2.4
YSS				*e*		07 47 51.8	
YSS				pmax	pmax		
	comp=Z,280nm,1.0s,mb6.2						
YSS				MLR	MLR		
	comp=N,9µm,15.0s,MS6.2						
YSS				MLR	MLR		
	comp=E,14µm,15.0s,MS6.2						
YSS				MLR	MLR		
	comp=Z,9µm,15.0s,MS6.0						
YSS	Yuzh-Sakhalins	53.42	41	*e*P	P	07 47 44.0	-0.4
	comp=Z,239nm,0.9s,mb6.1						
EZC	Erzincan	53.61	310	*e*P	P	07 47 49.4	+3.6
EZC	Erzincan	53.61	310	P	P	07 47 50.2	+4.4
UMJS	Umm Lajj	53.67	292	P	P	07 47 47.4	+0.9
PTK	Pertek	53.73	309	*e*P	P	07 47 47.0	+0.3
URFA	Urfa	53.85	307	*e*P	P	07 47 47.8	+0.2
GUMT	Gumushane	54.04	311	*e*P	P	07 47 50.0	+1.1
GUMT	Gumushane	54.04	311	P	P	07 47 50.3	+1.4
ASAR	Alice Springs	54.15	132	P	P	07 47 48.5	-1.5
	comp=Z,30nm,0.5s,mb5.5,baz=314,slow=7.1,SNR=115						
ASAR				PcP	PcP	07 48 55.1	+0.7
	comp=Z,30nm,0.9s,baz=314,slow=5.1,SNR=5.5						
ASAR				ScP		07 52 49.8	
	comp=Z,7.3nm,0.7s,baz=314,slow=4.6,SNR=7.1						
ASAR				S	S	07 55 21.3	-2.4
	comp=Z,4.8nm,0.9s,baz=302,slow=13,SNR=6.9						
ASAR				ScS	ScS	07 57 32.0	-2.3
	comp=Z,1.3nm,0.5s,baz=300,slow=7.3,SNR=2.8						
MALT	Malatya	54.34	308	⇑*e*P	P	07 47 51.0	-0.2
	comp=Z,191nm,1.1s,mb5.9						
MYA	Malataya	54.34	308	*e*P	P	07 47 51.4	+0.2
MYA	Malataya	54.34	308	P	P	07 47 52.5	+1.3
YUK	Yuzh-Kuril'sk	54.49	45	*e*P	P	07 47 50.0	-2.2
YUK				pmax	pmax		
	comp=Z,3µm,3.0s						
TBKS	Tabuk	54.51	295	P	P	07 47 53.3	+0.7
ASF	Jabal al Asfar	54.57	300	P	P	07 47 52.9	-0.1
	comp=Z,61nm,1.0s,mb5.6,baz=335,slow=2.1,SNR=37						
ASF				ScS	ScS	07 57 40.8	+3.6
	comp=Z,1.3nm,0.5s,baz=145,slow=21,SNR=1.7						
SOC	Sochi	54.71	314	*i* P	P	07 47 53.3	-0.5
SOC				*e*S	S	07 55 32.5	+1.6
SOC				pmax	pmax		
	comp=Z,300nm,1.7s,mb6.0						
SOC				pmax	pmax		
	comp=N,66nm,1.3s						
SOC				pmax	pmax		
	comp=E,43nm,1.6s						
SOC				MLR	MLR		
	comp=Z,6µm,18.0s,MS5.7						
SOC				MLR	MLR		
	comp=N,9µm,21.0s,MS5.9						
SOC				MLR	MLR		
	comp=E,4µm,18.0s,MS5.9						
DBAS	Duba	54.95	294	P	P	07 47 56.4	+0.6
JMQS	Jabal Moqyreh	55.14	296	P	P	07 47 57.4	+0.3
YAK	Yakutsk	55.43	20	*d i*P	P	07 47 58.3	-0.5
YAK				*e*		07 49 00.2	
YAK				*e*S	S	07 55 37.6	-2.6
YAK				*e*		07 57 41.1	
YAK				*e*SS	SS	07 59 24.7	-0.2
YAK				pmax	pmax		
	comp=Z,96nm,0.9s,mb5.8						
YAK				pmax	pmax		
	comp=N,39nm,1.1s						
YAK				pmax	pmax		
	comp=E,33nm,1.0s						
YAK				pmax	pmax		
	comp=N,12nm,1.0s						
YAK				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
YAK				pmax	pmax		
	comp=E,17nm,1.1s						
YAK				smax			
	comp=N,9.0nm,1.1s						
YAK				smax			
	comp=Z,4.0nm,0.9s						
YAK				smax			
	comp=E,6.0nm,1.1s						
YAK				MLR	MLR		
	comp=Z,5µm,15.0s,MS5.7						
YAK				MLR	MLR		
	comp=N,3µm,14.0s,MS5.6						
YAK				MLR	MLR		
	comp=E,3µm,15.0s,MS5.6						
YAK	Yakutsk	55.43	20	*e*P	P	07 47 57.4	-1.4
	comp=E,171nm,0.8s,mb6.1						
MKRJ	Makawir	55.56	299	P	P	07 48 00.4	+0.2
KSHT	Keshet	55.57	301	P	P	07 48 00.9	+0.6
AYUS	'Aynunah	55.63	295	P	P	07 48 00.9	+0.1
HRI	Mount Hermon	55.67	301	P	P	07 48 01.1	+0.1
COBT	Iskenderun	55.70	305	*i* P	P	07 48 01.3	+0.2
SVST	Sivas	55.77	309	*i* P	P	07 48 02.5	+1.0
MZDA	Masada	55.78	299	P	P	07 48 02.1	+0.3
DRGI	Dragot	55.78	299	P	P	07 48 02.0	+0.2
BDAS	Al Bad'	55.79	295	P	P	07 48 01.8	-0.1
JMOS	Jabal al Moall	55.83	296	P	P	07 48 01.9	-0.3
MMLI	Mount Malkishu	55.84	300	P	P	07 48 02.6	+0.4
ZFRI	Zfri	55.87	298	P	P	07 48 02.3	-0.1
ALWS	Ilw as Safayha	55.88	297	P	P	07 48 02.7	+0.2
HAQS	Haql	55.98	296	P	P	07 48 02.9	-0.3
EIL	Elat	56.00	297	P	P	07 48 02.5	-0.8
	comp=E,75nm,1.0s,mb5.7,baz=84,slow=6.1,SNR=32						
EIL	Elat	56.00	297	P	P	07 48 02.9	-0.5
EIL	Elat	56.00	297	*e*P	P	07 48 02.5	-0.9
	comp=E,142nm,1.1s,mb5.9						
PRNI	Paran	56.00	298	P	P	07 48 03.4	0.0
MBH	Mount Berech	56.04	297	P	P	07 48 03.6	-0.1
HNTI	Hanita	56.12	301	P	P	07 48 04.5	+0.3
SLTI	Sal'it	56.14	300	P	P	07 48 04.7	+0.4
CEYT	Ceyhan	56.19	306	*e*P	P	07 48 04.2	-0.4
CEYT	Ceyhan	56.19	306	P	P	07 48 06.2	+1.6
HAF	Haifa	56.21	301	P	P	07 48 05.0	+0.2
OFRI	'Ofer	56.23	301	P	P	07 48 05.2	+0.2
BNN	Bunyan	56.43	308	*e*P	P	07 48 05.7	-0.7
KZIT	Kziot	56.57	298	P	P	07 48 07.0	-0.4
ANN	Anapa	56.63	315	*d i*P	P	07 48 06.8	-0.9
ANN				*e*S	S	07 56 01.1	+4.7
ANN				pmax	pmax		
	comp=Z,122nm,1.5s,mb5.7						
KVT	Kavak	56.72	311	*e*P	P	07 48 08.5	+0.1
KVT	Kavak	56.72	311	P	P	07 48 08.8	+0.4
KMBO	Kilima Mbogo	57.10	260	P	P	07 48 12.4	+1.0
	comp=Z,12nm,0.8s,mb4.9,baz=49,slow=9.7,SNR=30						
KMBO				S	S	07 56 09.6	+6.5
	comp=Z,0.3nm,0.3s,baz=227,slow=24,SNR=2.4						
KMBO	Kilima Mbogo	57.10	260	P	P	07 48 12.5	+1.0
KMBO				S	S	07 56 09.6	+6.5
KMBO				pmax	pmax		
	comp=Z,12nm,0.9s						
KMBO	Kilima Mbogo	57.10	260	⇑*e*P	P	07 48 12.6	+1.1
	comp=Z,16nm,0.9s,mb5.0						
AVNT	Avonos	57.18	308	*i* P	P	07 48 11.4	-0.2
NIG	Nigde	57.26	307	*e*P	P	07 48 11.4	-0.8
NIG	Nigde	57.26	307	P	P	07 48 13.0	+0.7
PHNC	Paralimni	57.28	303	P	P	07 48 11.3	-1.2
MEST	Erdemli	57.40	305	*i* P	P	07 48 11.4	-1.9
CTKT	Corum	57.56	310	*i* P	P	07 48 14.1	-0.2
BOYT	Boyabat	57.63	311	*i* P	pP	07 48 28.1	+5.8
IKL	Isikli	57.72	305	*e*P	P	07 48 13.3	-2.2
IKL	Isikli	57.72	305	P	P	07 48 15.4	-0.1
BYBT	Boyabat	57.74	311	*e*P	P	07 48 15.0	-0.6
BYBT	Boyabat	57.74	311	P	P	07 48 16.0	+0.4
CSS	Prodhromos	57.85	303	⇑*e*P	P	07 48 15.2	-1.3
	comp=Z,176nm,1.5s,mb5.9						
MAMC	Mammari	57.96	303	⇑P	P	07 48 16.9	-0.3
MAMC	Mammari	57.96	303	⇑*i*P	P	07 48 16.9	-0.3
KAMT	Kaman	58.15	308	*e*P	P	07 48 17.5	-1.0
KAMT	Kaman	58.15	308	P	P	07 48 18.3	-0.2
SZAC	Souni-Zanaja	58.19	303	⇑P	P	07 48 18.3	-0.5
	comp=Z,2.7nm,1.0s						
SZAC	Souni-Zanaja	58.19	303	⇑*i*P	P	07 48 18.3	-0.5
PMG	Port Moresby	58.20	110	P	P	07 48 18.3	-0.8
	comp=Z,51nm,0.8s,mb5.6,baz=309,slow=4.5,SNR=22						
PMG	Port Moresby	58.20	110	P	P	07 48 18.3	-0.9
PMG				pmax	pmax		
	comp=Z,51nm,0.8s						
PMG	Port Moresby	58.20	110	*e*P	P	07 48 18.5	-0.7
	comp=Z,69nm,0.9s,mb5.7						
TOS	Tosya	58.21	310	*e*P	P	07 48 18.4	-0.5
TOS	Tosya	58.21	310	P	P	07 48 19.4	+0.5
BRTR	Keskin Array B	58.27	309	P	P	07 48 18.1	-1.2
	comp=Z,96nm,0.9s,mb5.8,baz=121,slow=7.2,SNR=173						
BRTR				S	S	07 56 20.3	+2.1
	comp=Z,2.8nm,0.9s,baz=90,slow=8.6,SNR=5.0						
BRTR	Keskin Array B	58.27	309	P	P	07 48 18.1	-1.2
BRTR				S	S	07 56 20.3	+2.2
BRTR				pmax	pmax		
	comp=Z,96nm,0.9s						
BRTR				smax			
	comp=N,3.0nm,0.9s						
BRTR	Keskin Array B	58.27	309	P	P	07 48 18.1	-1.2
BRTR				S	S	07 56 20.3	+2.1
CANT	Cankiri	58.43	310	*e*P	P	07 48 20.4	0.0
CANT	Cankiri	58.43	310	P	P	07 48 21.0	+0.6
ALFC	Alevga	58.47	303	⇑P	P	07 48 19.6	-1.1
	comp=N,2.7nm,0.8s						
ALFC	Alevga	58.47	303	⇑*i*P	P	07 48 19.6	-1.1
ELDT	Eldivan	58.56	310	*i* P	pP	07 48 32.1	+3.3
PPCY	Paphos	58.65	303	⇑P	P	07 48 20.5	-1.5
PPCY	Paphos	58.65	303	⇑*i*P	P	07 48 20.5	-1.5
HDMB	Hadim	58.77	305	*e*P	P	07 48 21.1	-1.7
HDMB	Hadim	58.77	305	P	P	07 48 22.8	0.0
ANTO	Ankara	58.93	309	P	P	07 48 23.4	-0.6
SIM	Simferopol'	58.95	315	*c i*P	P	07 48 23.8	-0.2
SIM				*e*S	S	07 56 28.0	+1.1
SIM				pmax	pmax		
	comp=Z,165nm,0.8s,mb6.1						
LOD	Lodumlu	58.96	309	*e*P	P	07 48 22.8	-1.3
KONT	Konya--Tatoy	58.99	306	*e*P	P	07 48 23.4	-0.9
KONT	Konya--Tatoy	58.99	306	P	P	07 48 24.7	+0.3

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SAFT  Safranbolu        59.24 310  eP    P     07 48 25.8 -0.3
SAFT  Safranbolu        59.24 310   P    P     07 48 26.0 -0.1
KIZT  Kizilcal          59.49 307  eP    P     07 48 26.1 -1.7
KIZT  Kizilcal          59.49 307   P    P     07 48 27.0 -0.8
SGKT  Sivrigoynuk       59.60 309  i P   P     07 48 28.1 -0.5
MOS   Moscow            60.09 328  eP    P     07 48 30.9 -0.7
MOS                                eS    S     07 56 40.1 -1.4
MOS                                 pmax pmax
      comp=Z,285nm,1.2s,mb6.2
MDU   Mudurnu           60.22 309  eP    P     07 48 31.4 -1.4
MDU   Mudurnu           60.22 309   P    P     07 48 32.5 -0.3
ESKT  Eskisehir         60.37 308  eP    P     07 48 32.6 -1.2
ESKT  Eskisehir         60.37 308   P    P     07 48 33.3 -0.5
ESKT  Eskisehir         60.37 308  i P   P     07 48 32.1 -1.7
OBN   Obninsk           60.42 327c iP    P     07 48 33.1 -0.8
OBN                                i     pP    07 48 40.4 -1.0
OBN                                e           07 50 45.3
OBN                                 S    S     07 56 46.5 +0.8
OBN                                 pmax pmax
      comp=Z,232nm,1.1s,mb6.1
OBN                                 MLR  MLR
      comp=Z,7µm,18.0s,MS5.8
OBN   Obninsk           60.42 327⇑iP    P     07 48 33.1 -0.8
ISP   Isparta           60.43 306   P    P     07 48 33.9 -0.4
ISP                                 pmax pmax
      comp=Z,230nm,1.5s,mb6.0
ISP   Isparta           60.43 306  eP    P     07 48 32.7 -1.6
      comp=Z,230nm,1.5s,mb6.0
HENT  Hendek            60.51 310  i P   P     07 48 33.4 -1.3
HRT   Hereke            61.44 309  eP    P     07 48 39.5 -1.5
HRT   Hereke            61.44 309   P    P     07 48 41.3 +0.3
FETY  Fethiye           61.45 305  eP    P     07 48 39.0 -2.2
DNZL  Cakiroluk         61.57 306  i P   P     07 48 40.3 -1.7
ULDT  Uludag            61.75 309  i P   P     07 48 42.6 -0.6
DALT  Dalyan (Mudla)    61.82 305  eP    P     07 48 43.0 -0.6
DALT  Dalyan (Mudla)    61.82 305   P    P     07 48 43.8 +0.1
CTA   Charters Tower    61.87 121   P    P     07 48 43.1 -1.2
      comp=Z,14nm,0.8s,mb5.2,baz=310,slow=7.1,SNR=18
CTA                                 S    S     07 57 06.7 +2.0
      comp=Z,1.2nm,1.0s,baz=63,slow=23,SNR=6.1
CTA   Charters Tower    61.87 121   P    P     07 48 43.1 -1.2
CTA                                 S    S     07 57 06.7 +2.0
CTA                                 pmax pmax
      comp=Z,14nm,0.8s
CTA                                 smax
      comp=N,1.0nm,1.0s
CTA   Charters Tower    61.87 121   P    P     07 48 43.1 -1.2
CTA                                 S    S     07 57 06.7 +2.0
CTAO  Charters Tower    61.87 121  eP    P     07 48 42.8 -1.5
CTAO                                pmax pmax
      comp=Z,27nm,0.8s,mb5.4
CTAO  Charters Tower    61.87 121  eP    P     07 48 42.8 -1.5
      comp=Z,27nm,0.8s,mb5.4
MANT  Manisa            62.03 307  i P   P     07 48 44.6 -0.5
BTOK  Tokmak            62.56 308  i P   P     07 48 47.1 -1.5
AKS   Akhisar           62.64 307  eP    P     07 48 48.1 -1.1
AKS   Akhisar           62.64 307   P    P     07 48 48.9 -0.2
MA2   Magadan           62.68  29  eP    P     07 48 48.5 -0.6
MA2                                 pmax pmax
      comp=Z,100nm,1.1s,mb5.9
MA2   Magadan           62.68  29  eP    P     07 48 47.2 -1.9
      comp=Z,111nm,0.9s,mb6.0
TIRR  Tirgusor          62.85 313   P    P     07 48 50.1 -0.4
PSN   Preselentsi       62.91 312  eP    P     07 48 50.0 -0.8
SKR   Severo-Kuril's    62.95  40  eP    P     07 48 47.0 -4.0
SKR                                 pmax pmax
      comp=N,180nm,1.0s
SKR                                 pmax pmax
      comp=Z,400nm,1.0s,mb6.5
SKR                                 pmax pmax
      comp=E,640nm,1.4s
MRMT  Marmara Adasi     62.97 309  eP    P     07 48 50.2 -1.1
KIS   Kishinev          62.98 316⇑iP    P     07 48 49.0 -2.2
KIS                                e     pP    07 48 57.0 -1.7
KIS                                e           07 49 22.0
KIS                                 pmax pmax
      comp=Z,400nm,1.0s,mb6.5
KDAG  Bornova           63.03 306  i P   P     07 48 51.2 -0.5
IZM   Izmir             63.03 306  eP    P     07 48 50.8 -0.9
IZM   Izmir             63.03 306   P    P     07 48 51.4 -0.3
CFR   Carcaliu          63.15 314⇑iP    P     07 48 52.0 -0.4
CFR   Carcaliu          63.15 314⇑iP    P     07 48 52.0 -0.4
MBAR  Mbarara           63.23 263   P    P     07 48 56.2 +2.8
MBAR                                pmax pmax
      comp=Z,130nm,1.9s,mb5.7
MBAR  Mbarara           63.23 263  eP    P     07 48 53.7 +0.4
      comp=Z,42nm,1.2s,mb5.5
PRD   Provadia          63.41 312  eP    P     07 48 54.0 -0.1
AKASG Malin Array Be    63.43 320   P    P     07 48 51.7 -2.4
      comp=Z,58nm,1.0s,mb5.7,baz=86,slow=4.6,SNR=116
AKASG                               S    S     07 57 23.9 +0.1
      comp=Z,1.5nm,0.8s,baz=127,slow=21,SNR=4.5
AKASG Malin Array Be    63.43 320   P    P     07 48 51.7 -2.4
AKASG                               S    S     07 57 23.9 +0.1
AKASG                               pmax pmax
      comp=Z,58nm,1.0s
AKASG                               smax
      comp=N,2.0nm,0.8s
AYVA  Ayvalik           63.55 307  i P   P     07 48 53.8 -1.4
ALN   Alexandroupoli    64.17 309  eP    P     07 48 59.4 +0.1
VRI   Vrincioaia        64.23 315 ⇑P    P     07 48 59.9 +0.4
ISR   Istrita           64.26 314⇑iP    P     07 49 00.8 +1.0
ISR   Istrita           64.26 314⇑iP    P     07 49 00.8 +1.1
SANT  Santorini         64.34 304  eP    P     07 48 59.0 -1.4
      comp=N,32nm,0.5s,mb5.6
STKA  Stephens Creek    64.52 135   P    P     07 49 00.3 -1.3
      comp=N,33nm,0.8s,mb5.4,baz=319,slow=6.8,SNR=34
STKA  Stephens Creek    64.52 135  eP    P     07 49 00.3 -1.4
KDZ   Kurdzhali         64.71 310  eP    P     07 49 02.0 -0.7
MLR   Muntele Rosu      64.73 314   P    P     07 49 03.2 +0.5
      comp=N,170nm,1.0s,mb6.0,baz=76,slow=2.5,SNR=104
MLR                                 S    S     07 57 41.6 +1.6
      comp=N,3.2nm,1.1s,baz=112,slow=21,SNR=5.2
MLR   Muntele Rosu      64.73 314   P    P     07 49 03.2 +0.5
MLR                                 S    S     07 57 41.6 +1.6
MLR                                 pmax pmax
      comp=Z,170nm,1.0s
MLR                                 smax
      comp=N,3.0nm,1.1s
MLR   Muntele Rosu      64.73 314   P    P     07 49 03.4 +0.6
IDI   Anoyia            64.77 303   P    P     07 49 01.8 -1.4
      comp=N,33nm,0.9s,mb5.4,baz=97,slow=6.2,SNR=19
IDI                                 S    S     07 57 40.1 -0.7
      comp=N,4.5nm,0.6s,baz=218,slow=16,SNR=1.2
PVL   Pavlikeni         64.91 312  eP    P     07 49 04.0  0.0
PET   Petropavlovsk     64.99  37  eP    P     07 49 04.0 -0.3
PET                                 pmax pmax
      comp=Z,132nm,1.0s,mb5.9
PET                                 MLR  MLR
      comp=Z,12µm,17.0s,MS6.2
PET   Petropavlovsk     64.99  37  eP    P     07 49 03.6 -0.7
      comp=Z,130nm,1.0s,mb5.9
MNK   Minsk             65.08 324  eP    P     07 49 02.0 -2.8
PUL   Pulkovo           65.14 330⇓eP    P     07 49 05.4 +0.3
PUL                                eS    S     07 57 48.1 +3.3
PUL                                 pmax pmax
      comp=Z,160nm,0.9s,mb6.0
PUL   Pulkovo           65.14 330⇓iP    P     07 49 05.3 +0.2
RZN   Rozhen            65.24 310   P    P     07 49 05.0 -1.1
PGB   Panagyurishte     65.71 311  eP    P     07 49 08.5 -0.6
AOS   Alonnisos         65.72 307  eP    P     07 49 08.0 -1.2
IDID  Didziasalis       65.87 325  i P   P     07 49 09.2 -0.7
IDID                                AMPb AMB   07 49 11.6
      comp=Z,60nm,1.1s,mb5.5
PAIG  Paliouri          65.91 308  eP    P     07 49 09.7 -0.8
MMB   Musomiste         65.97 310   P    P     07 49 10.0 -0.8
SRS   Serrai            66.04 309  eP    P     07 49 10.0 -1.2
IIGN  Ignalina          66.17 325  eP    P     07 49 11.2 -0.6
SOH   Sokhos            66.21 309  eP    P     07 49 11.3 -1.0
IZAR  Zarasai           66.23 325  eP    P     07 49 11.6 -0.6
IZAR                                AMPb AMB   07 49 13.9
      comp=Z,50nm,1.2s,mb5.4
XOR   Xorichti          66.26 307  eP    P     07 49 10.9 -1.8
ISAL  Salakas           66.26 325  eP    P     07 49 11.7 -0.7
ISAL                                AMPb AMB   07 49 14.1
      comp=Z,40nm,1.1s,mb5.4
LVZ   Lovozero          66.30 339⇓eP    P     07 49 12.1 -0.3
LVZ                                 pmax pmax
      comp=Z,66nm,0.9s,mb5.7
LVZ                                 pmax pmax
      comp=E,20nm,1.0s
LVZ                                 MLR  MLR
      comp=Z,9µm,16.0s,MS6.1
LVZ                                 MLR  MLR
      comp=N,7µm,17.0s,MS6.1
LVZ                                 MLR  MLR
      comp=E,6µm,17.0s,MS6.1
LVZ   Lovozero          66.30 339⇑iP    P     07 49 11.7 -0.7
VTS   Vitosha           66.42 311   P    P     07 49 13.0 -0.6
KKB   Krupnik           66.47 310   P    P     07 49 12.5 -1.5
THE   Thessaloniki      66.49 309  eP    P     07 49 12.6 -1.5
LVV   L'vov             66.56 319  i P   P     07 49 13.7 -0.7
LVV                                eS    S     07 58 02.0 -0.4
KNT   Kendrikon         66.57 309  eP    P     07 49 13.4 -1.2
APA   Apatity           66.60 339⇑iP    P     07 49 14.1 -0.2
APA                                i           07 49 25.9
APA                                 pmax pmax
      comp=Z,62nm,0.9s,mb5.6
APA                                 MLR  MLR
      comp=Z,16µm,16.0s,MS6.3
VAY   Valandovo         66.82 309  i P   P     07 49 15.7 -0.5
LIT   Litokhoron        66.83 308  eP    P     07 49 14.5 -1.8
AGG   Agios Georgios    66.92 307  eP    P     07 49 14.3 -2.6
GRG   Griva             66.93 309  eP    P     07 49 15.6 -1.4
KWP   Kalwaria          67.39 318  eP    P     07 49 19.7  0.0
BOLS  Boljevac          67.41 312⇑iP    P     07 49 19.0 -0.9
KOLS  Kolonicke sedl    67.60 318  i P   P     07 49 21.1 +0.1
KOLS                               e     pP    07 49 29.6 +1.1
FINES FINESS Array B    67.61 331   P    P     07 49 20.1 -0.7
      comp=Z,39nm,0.8s,mb5.5,baz=104,slow=7.9,SNR=45
FINES                               LR   LR    08 25 17.5
      comp=Z,6µm,18.4s,MS5.8,baz=283,slow=42
SUW   Suwalki           67.67 323  eP    P     07 49 20.7 -0.6
KAF   Kangasniemi       67.67 332  ep    P     07 49 20.3 -0.9
      comp=Z,63nm,1.1s,mb5.6
KAF   Kangasniemi       67.67 332  eP    P     07 49 20.3 -0.9
KAF                                 pmax pmax
      comp=Z,63nm,1.1s,mb5.6
SKO   Skopje            67.70 310  i P   P     07 49 20.3 -1.5
FNA   Florina           67.70 309  eP    P     07 49 19.3 -2.5
CRVS  Cervenica-Dubn    68.13 318  eP    P     07 49 26.1 +1.8
GRUS  Gruza             68.31 312⇓iP    P     07 49 25.0 -0.6
IGT   Igoumenitsa       68.48 307  eP    P     07 49 24.4 -2.3
BEO   Belgrade          68.54 313⇑iP    P     07 49 26.8 -0.2
KECS  Kecovo            68.74 317  i P   P     07 49 28.0 -0.1
QSH   Qafa e Shtames    68.83 310  ep    P     07 49 28.0 -0.8
DIVS  Divcibare         68.84 312⇓iP    P     07 49 27.0 -1.8
NIE   Niedzica          68.92 318  eP    P     07 49 29.5 +0.3
PKSN  Nyarlorinc        69.06 315  eP    P     07 49 30.3 +0.2
PSZ   Piszkesteto       69.10 316   P    P     07 49 29.9 -0.4
PSZ                                 pmax pmax
      comp=Z,88nm,1.1s,mb5.6
PSZ   Piszkesteto       69.10 316  eP    P     07 49 29.8 -0.5
      comp=Z,88nm,1.1s,mb5.6
OJC   Ojcow             69.32 319⇑iP    P     07 49 31.4 -0.2
OJC   Ojcow             69.32 319  i P   P     07 49 31.4 -0.2
KEV   Kevo              69.57 340  ep    P     07 49 32.3 -0.5
      comp=Z,28nm,0.6s,mb5.4
KEV   Kevo              69.57 340  eP    P     07 49 32.3 -0.5
KEV                                 pmax pmax
      comp=Z,28nm,0.6s,mb5.4
VYHS  Vyhne             69.83 317  i P   P     07 49 34.3 -0.5
PKSM  Moragy            69.87 315⇑iP    P     07 49 34.6 -0.5
ARCES ARCESS Array B    70.00 340   P    P     07 49 35.4 -0.1
      comp=Z,33nm,0.6s,mb5.5,baz=88,slow=6.0,SNR=78
ARCES                               S    S     07 58 45.4 +2.3
      comp=Z,7.5nm,1.0s,baz=66,slow=15,SNR=5.0
ARCES                               LR   LR    08 25 35.8
      comp=Z,11µm,18.8s,MS6.1,baz=113,slow=40
ARCES ARCESS Array B    70.00 340   P    P     07 49 35.4 -0.1
ARCES                               S    S     07 58 45.4 +2.4
ARCES                               pmax pmax
      comp=Z,33nm,0.6s
ARCES                               smax
      comp=N,8.0nm,1.0s
ARCES                               MLR  MLR
      comp=Z,11µm,18.8s
ARE0  ARCESS Array S    70.00 340  eP    P     07 49 35.2 -0.2
LSZ   Lusaka            70.10 248   P    P     07 49 37.3 +0.4
LSZ                                 pmax pmax
      comp=Z,20nm,0.7s,mb5.2
LSZ   Lusaka            70.10 248  eP    P     07 49 37.8 +0.9
      comp=Z,20nm,0.6s,mb5.2
SRO2  Moca              70.10 316  eP    P     07 49 36.9 +0.5
KOLL  Kolacno           70.13 317  eP    P     07 49 36.9 +0.3
SRO   Srobarova         70.15 316  i P   P     07 49 36.9 +0.1
RHK1  Bakonya           70.26 314⇓eP    P     07 49 37.1 -0.4
RAC   Raciborz          70.34 319  eP    P     07 49 38.8 +1.0
OKC   Ostrava-Krasne    70.36 318  eP    P     07 49 37.7 -0.2
KTK1  Kautokeino        70.64 339  eP    P     07 49 39.7 +0.3
MORC  Moravsky Berou    70.74 318   P    P     07 49 39.7 -0.6
MORC                                pmax pmax
      comp=Z,110nm,1.0s,mb5.7
MORC  Moravsky Berou    70.74 318  eP    P     07 49 39.9 -0.5
      comp=Z,112nm,1.0s,mb5.8
SMOL  Smolenice         70.77 317  eP    P     07 49 40.7 +0.2
ZST   Bratislava        70.98 317  eP    P     07 49 41.6 -0.2
GKP   Gorka Klasztor    71.11 322  eP    P     07 49 42.3 -0.2
SOP   Sopron            71.33 316⇑ePcP  P     07 49 43.8 -0.1
VRAC  Vranov            71.34 318   P    P     07 49 43.6 -0.4
      comp=Z,12nm,0.6s,mb5.0,baz=90,slow=6.5,SNR=19
VRAC  Vranov            71.34 318   P    P     07 49 43.6 -0.4
VRAC                                pmax pmax
      comp=Z,12nm,0.6s
VRAC  Vranov            71.34 318   P    P     07 49 44.1 +0.1
SISC  Sisak             71.44 314  i P   P     07 49 45.8 +1.1
DPC   Dobruska-Polom    71.55 319  eP    P     07 49 45.4 +0.2
KSP   Ksiaz             71.58 319  eP    P     07 49 45.2 -0.2
KSP                                epP   pP    07 49 50.4 -2.5
KSP   Ksiaz             71.58 319  eP    P     07 49 45.6 +0.2
BILL  Bilibino          71.66  22   P    P     07 49 43.8 -1.7
BILL                                pmax pmax
      comp=Z,100nm,1.0s,mb5.7
BILL  Bilibino          71.66  22  eP    P     07 49 43.5 -2.1
      comp=Z,101nm,1.0s,mb5.7
UPC   Upice             71.75 319  eP    P     07 49 46.6 +0.2
ARSA  Arzberg           72.03 316⇑iP    P     07 49 48.2 +0.1
      comp=Z,70nm,1.6s,mb5.3
BOJS  Bojanci           72.23 314  eP    P     07 49 48.8 -0.5
TRO   Tromso            72.27 339  eP    P     07 49 47.2 -2.0
BSD   Bornholm Skovb    72.56 324  i P   P     07 49 50.1 -1.0
BSD                                 pmax pmax
      comp=Z,65nm,1.0s,mb5.5
BSD   Bornholm Skovb    72.56 324  i P   P     07 49 50.1 -1.0
      comp=Z,65nm,1.0s,mb5.5
PVCC  Panska Ves        72.67 319  eP    P     07 49 52.3 +0.5
PRU   Pruhonice         72.69 319  eP    P     07 49 51.9  0.0
      comp=Z,115nm,1.3s,mb5.7
OBKA  Obir              72.71 315⇑iP    P     07 49 52.3 +0.2
      comp=Z,90nm,1.1s,mb5.6
LJU   Ljubljana         72.73 314  eP    P     07 49 52.2  0.0
MOA   Molln             72.88 316⇑iP    P     07 49 52.9 -0.2
      comp=Z,50nm,1.0s,mb5.4
BRG   Berggiesshubel    73.07 319  i P   P     07 49 54.6 +0.4
BRG                                i           07 50 05.3
BRG                                 pmax pmax
      comp=Z,117nm,1.1s,mb5.7
BRG   Berggiesshubel    73.07 319  i P   P     07 49 54.6 +0.4
      comp=Z,117nm,1.1s,mb5.7
BRG                                i           07 50 05.3
VOY   Vojsko            73.17 314⇓eP    P     07 49 54.2 -0.7
RUE   Ruedersdorf       73.18 321  eP    P     07 49 54.6 -0.1
      comp=Z,111nm,0.8s,mb5.8
GEC2  GERESS Array S    73.24 317  eP    P     07 49 55.5 +0.3
GEC2                                pmax pmax
      comp=Z,120nm,1.2s,mb5.7
GEC2  GERESS Array S    73.24 317  eP    P     07 49 55.5 +0.3
      comp=Z,120nm,1.2s,mb5.7
GERES GERESS Array B    73.24 317   P    P     07 49 55.2 -0.1
      comp=Z,60nm,0.8s,mb5.6,baz=89,slow=5.5,SNR=138
GERES                               S    S     07 59 22.6 +1.9
      comp=Z,5.0nm,0.7s,baz=84,slow=6.3,SNR=11
GERES GERESS Array B    73.24 317   P    P     07 49 55.2  0.0
GERES                               S    S     07 59 22.6 +1.9
GERES                               pmax pmax
      comp=Z,60nm,0.8s
GERES                               smax
      comp=N,5.0nm,0.7s
KHC   Kasperske Hory    73.32 318  eP    P     07 49 55.2 -0.5
ROBS  Robic             73.43 315  eP    P     07 49 55.6 -0.8
MOR8  Moi Rana          73.48 335  eP    P     07 49 55.5 -0.8
MOR8                                AMb  AMB   07 49 58.0
      comp=Z,95nm,1.0s,mb5.7
MOR8                               epP   pP    07 50 04.8 +1.0
MOR8  Moi Rana          73.48 335  eP    P     07 49 55.5 -0.8
      comp=Z,95nm,1.0s,mb5.7
KBA   Koelnbreinsper    73.52 315⇑iP    P     07 49 56.3 -0.6
      comp=Z,60nm,1.0s,mb5.5
CLL   Collm             73.66 320⇑iP    P     07 49 57.5 -0.1
CLL                                e     pP    07 50 05.0 -0.2
CLL                                 pmax pmax
      comp=Z,94nm,1.2s,mb5.6
CLL   Collm             73.66 320⇑iP    P     07 49 57.5 -0.1
      comp=Z,94nm,1.2s,mb5.6
CLL                                e     pP    07 50 05.0 -0.2
CLL   Collm             73.66 320 ⇑P    P     07 49 57.5 -0.1
      comp=Z,logA/T=1.9,mb5.6
CLL                                e*PP  pP    07 50 05.0 -0.2
CLL                                ePP   PP    07 52 46.0 +2.2
AQU   L'Aquila          73.67 311   P    P     07 49 58.3 +0.5
AQU   L'Aquila          73.67 311  eP    P     07 49 57.8 -0.1
FX1   Attu Island--F    73.70  38   P    P     07 49 57.0 -0.8
      comp=Z,148nm,0.5s,mb6.2,baz=213,slow=3.2,SNR=39
FX1   Attu Island--F    73.70  38   P    P     07 49 57.0 -0.8
FX1                                 pmax pmax
      comp=Z,148nm,0.5s
FX1   Attu Island--F    73.70  38  eP    P     07 49 57.4 -0.4
WET   Wettzell          73.78 318  eP    P     07 49 58.7 +0.4
WET                                 pmax pmax
      comp=Z,101nm,1.2s,mb5.6
WET   Wettzell          73.78 318  eP    P     07 49 58.7 +0.4
      comp=Z,101nm,1.2s,mb5.6
COP   Copenhagen        73.99 324  i P   P     07 50 02.0 +2.6
COP                                 pmax pmax
      comp=Z,41nm,0.9s,mb5.4
COP   Copenhagen        73.99 324  i P   P     07 50 02.0 +2.6
      comp=Z,41nm,0.9s,mb5.4
LOF   Lofoten           74.00 337  eP    P     07 50 00.6 +1.3
LOF                                 AMb  AMB   07 50 04.8
      comp=Z,132nm,2.2s,mb5.5
LOF   Lofoten           74.00 337  eP    P     07 50 00.6 +1.3
      comp=Z,132nm,2.2s,mb5.5
NKC   Novy Kostel       74.03 319  eP    P     07 49 59.8  0.0
SMY   Shemya            74.27  39   P    P     07 50 02.8 +1.7
SMY                                 pmax pmax
      comp=Z,580nm,0.9s,mb6.5
SMY   Shemya            74.27  39  eP    P     07 50 02.2 +1.1
NSS   Namsos            74.42 334  eP    P     07 50 00.3 -1.3
HSP   Hornsund          74.49 347  eP    P     07 50 02.0  0.0
MOX   Moxa              74.55 319  eP    P     07 50 02.9 +0.1
MOX   Moxa              74.55 319  i P   P     07 50 02.9 +0.1
NB2   NORSAR Subarra    74.67 330   P    P     07 50 02.0 -1.2
      comp=Z,101nm,1.2s,mb5.6,baz=91,slow=5.8
NB2   NORSAR Subarra    74.67 330   P    P     07 50 02.0 -1.2
      baz=91,slow=5.9
NOA   NORSAR Array B    74.67 330   P    P     07 50 02.3 -0.9
      comp=Z,41nm,1.0s,mb5.3,baz=90,slow=5.7,SNR=47
NOA   NORSAR Array B    74.67 330   P    P     07 50 02.3 -0.9
NOA                                 pmax pmax
      comp=Z,41nm,1.0s
WTTA  Wattenberg        74.68 316⇑iP    P     07 50 02.6 -1.0
      comp=Z,58nm,0.8s,mb5.6
WATA  Walderalm         74.72 316⇑iP    P     07 50 02.8 -1.0
      comp=Z,18nm,0.5s,mb5.2
NAO01 NORSAR Array S    74.83 330  eP    P     07 50 03.2 -0.9
      comp=Z,37nm,0.9s,mb5.3
GRA1  Grafenberg Arr    74.84 318  eP    P     07 50 05.3 +0.8
      comp=Z,162nm,1.3s,mb5.8
GRF   Grafenberg Arr    74.84 318  eP    P     07 50 05.3 +0.8
GRF                                 pmax pmax
      comp=Z,162nm,1.3s,mb5.8
GRF   Grafenberg Arr    74.84 318  eP    P     07 50 05.3 +0.8
      comp=Z,162nm,1.3s,mb5.8
FUR   Furstenfeldbru    74.88 317  eP    P     07 50 04.5 -0.2
FUR                                 pmax pmax
      comp=Z,118nm,1.3s,mb5.7
FUR   Furstenfeldbru    74.88 317  eP    P     07 50 04.5 -0.2
      comp=Z,118nm,1.3s,mb5.7
OSL   Oslo              74.91 329  eP    P     07 50 04.0 -0.6
SQTA  Sankt Quirin      74.97 316⇑iP    P     07 50 04.3 -1.0
      comp=Z,27nm,0.5s,mb5.4
MOTA  Moosalm           75.04 316⇑iP    P     07 50 05.0 -0.6
      comp=Z,53nm,1.0s,mb5.4
BSEG  Bad Segeberg      75.24 323  eP    P     07 50 07.3 +0.6
BSEG                                pmax pmax
      comp=Z,163nm,1.1s,mb5.9
CLZ   Clausthal         75.29 320  eP    P     07 50 07.4 +0.4
      comp=Z,144nm,1.2s,mb5.8
HDH   Heidenheim        75.57 317⇑eP    P     07 50 08.3 -0.3
UBR   Uberruh           75.69 316⇑eP    P     07 50 08.9 -0.5
MAIM                    75.69 312   P    P     07 50 07.8 -1.7
DOMB  Dombas            75.70 331  eP    P     07 50 08.9 -0.2
DOMB                                AMb  AMB   07 50 18.1
      comp=Z,68nm,1.6s,mb5.3
DOMB                               esP   sP    07 50 21.9 +2.6
DOMB  Dombas            75.70 331  eP    P     07 50 08.9 -0.2
      comp=Z,68nm,1.6s,mb5.3
MUD   Monsted U'grnd    75.80 325  i P   P     07 50 09.4 -0.4
MUD                                 pmax pmax
      comp=Z,110nm,1.2s,mb5.7
MUD   Monsted U'grnd    75.80 325  i P   P     07 50 09.4 -0.4
      comp=Z,111nm,1.2s,mb5.7
LBTB  Lobatse           75.87 240   P    P     07 50 11.9 +1.1
LBTB                                pmax pmax
      comp=Z,40nm,0.9s,mb5.3
LBTB  Lobatse           75.87 240  eP    P     07 50 11.3 +0.5
      comp=Z,40nm,0.9s,mb5.3
DAVA  Damuels           75.87 316⇑iP    P     07 50 10.1 -0.3
      comp=Z,172nm,1.1s,mb5.9
DAVOX Davos             75.91 315   P    P     07 50 10.4 -0.2
      comp=Z,56nm,1.0s,mb5.4,baz=108,slow=4.6,SNR=35
SIND  Sindeldorf        75.91 318⇑eP    P     07 50 10.8 +0.2
GRAM                    75.95 313   P    P     07 50 11.7 +0.8
BACM                    75.97 313   P    P     07 50 11.2 +0.2
CODM                    76.12 313   P    P     07 50 11.6 -0.3
BUCH  Bad Urach         76.14 317⇑eP    P     07 50 11.5 -0.4
STU   Stuttgart         76.22 317   P    P     07 50 11.6 -0.7
STU                                 pmax pmax
      comp=Z,34nm,0.7s,mb5.4
STU   Stuttgart         76.22 317  eP    P     07 50 11.9 -0.5
      comp=Z,34nm,0.7s,mb5.4
GUT   Gutenstein        76.33 317⇑eP    P     07 50 12.6 -0.3
MOL   Molde             76.39 332  eP    P     07 50 16.3 +3.3
MOL                                 AMb  AMB   07 50 18.6
      comp=Z,120nm,1.6s,mb5.6
MOL   Molde             76.39 332  eP    P     07 50 16.3 +3.3
      comp=Z,120nm,1.6s,mb5.6
TOD   Tromm             76.42 318⇑eP    P     07 50 13.1 -0.3
TOD   Tromm             76.42 318  eP    P     07 50 13.0 -0.4
SWS   Schriesheim       76.49 318⇑eP    P     07 50 13.8  0.0
LBG   Lerchenberg       76.50 317⇑eP    P     07 50 13.7 -0.2
SPAK  Spaichingen       76.55 317  eP    P     07 50 14.1 -0.1
BFO   Black Forest      76.83 317  eP    P     07 50 15.5 -0.3
BFO                                 pmax pmax
      comp=Z,61nm,1.3s,mb5.4
BFO   Black Forest      76.83 317  eP    P     07 50 15.5 -0.3
      comp=Z,61nm,1.3s,mb5.4
PGF   Pioggiola         76.90 311  eP    P     07 50 16.0 -0.3
      comp=Z,195nm,1.2s,mb5.6
KTD   Kalmit            76.91 318  eP    P     07 50 16.3 +0.1
KTD   Kalmit            76.91 318  eP    P     07 50 16.7 +0.5
VSL   Villasalto        76.94 308  eP    P     07 50 15.9 -0.7
      comp=Z,51nm,0.9s,mb5.5
PCP   Pian Castagno     77.03 313   P    P     07 50 16.9  0.0
BLS5  Blasjo            77.09 328  eP    P     07 50 18.4 +1.4
BLS5                                AMb  AMB   07 50 20.4
      comp=Z,32nm,1.0s,mb5.2
BLS5  Blasjo            77.09 328  eP    P     07 50 18.4 +1.4
      comp=Z,32nm,1.0s,mb5.2
FELD  Feldberg          77.09 317⇑eP    P     07 50 17.2  0.0
LANF  Langenberg        77.12 318  eP    P     07 50 17.7 +0.4
KIZ   Kirchzarten       77.14 317⇑eP    P     07 50 17.3 -0.2
STR   Strasbourg        77.18 317  eP    P     07 50 17.7  0.0
ABH   Alteburg          77.21 319⇑eP    P     07 50 18.2 +0.4
FIN   Finale Ligure     77.31 313   P    P     07 50 18.0 -0.5
ORX   Oropa             77.32 314   P    P     07 50 17.2 -1.3
LIBD  Limburg           77.33 317  eP    P     07 50 18.1 -0.4
LIBD  Limburg           77.33 317  eP    P     07 50 18.0 -0.5
BBS   Basel-Blauen      77.46 316  eP    P     07 50 19.1 -0.2
WLS   Welschbruch       77.47 317  eP    P     07 50 19.1 -0.2
WTSB  Winterswijk       77.49 321⇑iP    P     07 50 19.8 +0.5
      comp=Z,125nm,1.3s,mb5.7
WIT   Witteveen         77.49 322  eP    P     07 50 20.6 +1.3
BOSA  Boshof            77.51 236   P    P     07 50 20.7 +0.8
BOSA                                pmax pmax
      comp=Z,47nm,0.7s,mb5.5
BOSA  Boshof            77.51 236  eP    P     07 50 20.6 +0.7
      comp=Z,47nm,0.7s,mb5.5
CDF   Champ du Feu      77.52 317  eP    P     07 50 19.4 -0.2
      comp=Z,99nm,1.1s,mb5.3
RUP   Ruppelstein       77.54 318⇑eP    P     07 50 20.1 +0.5
RUP   Ruppelstein       77.54 318  eP    P     07 50 20.0 +0.4
ROB   Roburent          77.54 313   P    P     07 50 19.7 -0.1
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IMI	Imperia	77.57	312	P	P	07 50 21.6	+1.7
ECH	Echery	77.62	317	*e*P	P	07 50 19.4	-0.7
MONE	Monesi	77.64	313	P	P	07 50 20.0	-0.3
MOF	Molkenrain	77.67	317	*e*P	P	07 50 20.3	-0.1
NEGI	Negi	77.71	312	P	P	07 50 19.9	-0.8
ENR	Entracque	77.87	313	P	P	07 50 21.0	-0.5
RSP	Reno Superiore	77.88	314	P	P	07 50 20.9	-0.7
AUTN	L'Aution	77.89	313	*e*P	P	07 50 22.1	+0.4
BHB	Bricherasio	77.91	313	P	P	07 50 20.5	-1.3
LSD	Ceresole Reale	77.92	314	P	P	07 50 22.0	+0.2
LOMF	Lomont	77.93	316	*e*P	P	07 50 21.7	-0.1
STV	Sta Anna Valdi	77.93	313	P	P	07 50 22.0	+0.1
TOUF	Mont Tournerai	78.02	313	*e*P	P	07 50 22.4	0.0
FENE	Fenestrelle	78.03	314	P	P	07 50 22.2	-0.2
PZZ	Prazzo	78.06	313	P	P	07 50 21.7	-0.9
WLF	Walferdange	78.13	318	P	P	07 50 24.0	+1.1
WLF				pmax	pmax		
	comp=Z,130nm,1.7s,mb5.6						
WLF	Walferdange	78.13	318	*e*P	P	07 50 23.2	+0.4
	comp=Z,134nm,1.7s,mb5.6						
HGN	Heimansgroeve	78.15	320	*e*P	P	07 50 23.4	+0.4
	comp=Z,37nm,1.3s,mb5.1						
LPL	La Plagne	78.21	314	*e*P	P	07 50 24.1	+0.7
	comp=Z,255nm,0.7s,mb5.9						
RRL	Cesana Torines	78.24	314	P	P	07 50 23.2	-0.3
SURF	Saint Ours	78.27	313	*e*P	P	07 50 24.3	+0.5
BNI	Bardonecchia	78.30	314	P	P	07 50 24.2	+0.3
BNI				pmax	pmax		
	comp=Z,87nm,1.0s,mb5.6						
BNI	Bardonecchia	78.30	314	*e*P	P	07 50 23.9	0.0
	comp=Z,87nm,1.0s,mb5.6						
THEF	They Montfort	78.40	317	*e*P	P	07 50 24.3	-0.1
FRF	La Foret Royal	78.50	312	*e*P	P	07 50 25.0	-0.1
	comp=Z,372nm,1.2s,mb5.9						
GDM	Grand'Maison	78.67	314	*e*P	P	07 50 26.1	+0.1
MEZF	Maizieres J'vi	78.98	317	*e*P	P	07 50 27.8	+0.2
	comp=Z,158nm,1.3s,mb5.5						
KIWB	Kanaga Island	79.69	39	*e*P	P	07 50 31.5	+0.2
DZM	Mont Dzumac	79.98	115	*e*P	P	07 50 34.6	+1.1
DZM	Mont Dzumac	79.98	115	*e*P	P	07 50 34.6	+1.1
SSF	Saint Saulge	80.22	316	*e*P	P	07 50 34.3	0.0
	comp=Z,257nm,1.4s,mb5.7						
PLDF	La Plantade	80.30	315	*e*P	P	07 50 36.2	+1.5
AGO	Saint Agoulin	80.63	315	*e*P	P	07 50 37.9	+1.4
LBL	Lubilhac	80.68	314	*e*P	P	07 50 38.3	+1.6
PYM	Petit Puy Mans	80.76	315	*e*P	P	07 50 38.6	+1.4
FRNF	Fournols	81.13	315	*e*P	P	07 50 38.1	-1.0
EJON	La Jonquera	81.39	312	P	P	07 50 42.2	+1.7
	comp=Z,31nm,1.0s,mb5.2						
MTLF	Montolieu	81.72	313	*e*P	P	07 50 42.8	+0.6
	comp=Z,216nm,1.2s,mb5.7						
RJF	Les Rejaudoux	81.87	315	*e*P	P	07 50 43.8	+0.8
	comp=Z,278nm,1.3s,mb5.7						
VALF	Valcebollere	82.04	312	*e*P	P	07 50 44.8	+0.9
DAG	Danmarks Havn	82.16	348	⇑*i*P	P	07 50 43.9	0.0
DAG				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
DAG	Danmarks Havn	82.16	348	⇑*i*P	P	07 50 43.9	0.0
	comp=Z,13nm,0.8s,mb4.9						
SUR	Sutherland	82.45	234	*e*P	P	07 50 48.2	+2.0
	comp=Z,47nm,0.8s,mb5.5						
FLN	La Foliniere	82.56	318	*e*P	P	07 50 46.9	+0.4
	comp=Z,174nm,1.1s,mb5.7						
EKA	Eskdalemuir Ar	82.83	325	PKKPbc		08 09 12.9	
	comp=Z,2.7nm,0.7s,baz=252,slow=2.2,SNR=4.2						
ESK	Eskdalemuir	82.85	325	P	P	07 50 48.9	+1.0
ESK				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.5						
ESK	Eskdalemuir	82.85	325	*e*P	P	07 50 48.9	+1.0
	comp=Z,43nm,0.8s,mb5.5						
EPOB	Poblet	82.92	311	P	P	07 50 49.6	+1.1
	comp=Z,73nm,0.8s,mb5.8						
ANM	Nome	83.17	25	*e*P	P	07 50 50.8	+1.5
RESF	Ens	83.18	312	*e*P	P	07 50 51.1	+1.3
EBIE	Bielsa	83.34	312	P	P	07 50 52.0	+1.4
	comp=Z,37nm,1.1s,mb5.3						
MAW	Mawson	83.43	191	P	P	07 50 51.9	+1.3
	comp=Z,35nm,0.8s,mb5.4,baz=12,slow=7.0,SNR=16						
MAW				S	S	08 01 11.9	+3.0
	comp=Z,2.8nm,0.9s,baz=101,slow=23,SNR=2.1						
MAW				LR	LR	08 25 38.8	
	comp=Z,4µm,18.5s,MS5.8,baz=84,slow=34						
MAW	Mawson	83.43	191	P	P	07 50 51.9	+1.3
MAW				S	S	08 01 11.9	+2.9
MAW				pmax	pmax		
	comp=Z,35nm,0.9s						
MAW				smax			
	comp=N,3.0nm,0.9s						
MAW	Mawson	83.43	191	P	P	07 50 52.3	+1.7
MAW				pmax	pmax		
	comp=Z,97nm,1.1s						
MAW	Mawson	83.43	191	*e*P	P	07 50 51.9	+1.3
	comp=Z,97nm,1.2s,mb5.7						
EBR	Ebro Roquetas	83.46	310	*e*P	P	07 50 53.0	+1.7
ERTA	Horta de San J	83.55	310	P	P	07 50 53.0	+1.3
	comp=Z,51nm,0.8s,mb5.7						
ESAC	San Caprasio	83.98	311	P	P	07 50 55.5	+1.5
	comp=Z,74nm,0.8s,mb5.9						
EMOS	Mosqueruela	84.27	310	P	P	07 50 57.9	+2.4
	comp=Z,109nm,0.9s,mb6.0						
EALK	Alkurruntz	84.41	313	P	P	07 50 57.4	+1.3
	comp=Z,61nm,0.9s,mb5.7						
EBEN	Beniarda	84.44	308	P	P	07 50 56.7	+0.4
	comp=Z,38nm,0.9s,mb5.5						
DLF	Lyons Farm	85.24	324	*e*P	P	07 51 02.8	+2.9
EMUR	La Murta	85.41	308	P	P	07 51 02.3	+1.2
	comp=Z,21nm,1.0s,mb5.2						
DCN	Croghan	85.65	324	*e*P	P	07 51 05.1	+3.1
ELAN	Lanestosa	85.78	313	P	P	07 51 03.2	+0.3
	comp=Z,52nm,1.4s,mb5.6						
EVIA	Vianos	86.19	309	P	P	07 51 06.4	+1.4
	comp=Z,35nm,0.9s,mb5.6						
EQES	Quesada	86.82	308	P	P	07 51 09.6	+1.4
	comp=Z,9.3nm,2.7s,mb4.5						
EBER	Berja	86.90	307	P	P	07 51 09.1	+0.6
	comp=Z,47nm,0.9s,mb5.7						
GUD	Guadarrama	86.94	311	P	P	07 51 10.0	+1.4
	comp=Z,52nm,0.7s,mb5.9						
EARI	Arriondas	87.02	314	P	P	07 51 09.9	+1.0
	comp=Z,26nm,2.5s,mb5.0						
ESDC	Sonseca Array	87.04	310	P	P	07 51 09.7	+0.5
	comp=Z,22nm,0.8s,mb5.4,baz=60,slow=4.8,SNR=44						
ESDC				PP	PP	07 54 23.9	-11
	comp=Z,5.2nm,1.1s,baz=76,slow=8.8,SNR=4.1						
ESDC				PKKPbc		08 09 03.1	
	comp=Z,0.6nm,0.4s,baz=270,slow=1.3,SNR=4.6						
ESDC	Sonseca Array	87.04	310	P	P	07 51 09.7	+0.5
	comp=Z,19nm,0.8s,mb5.4						
ESLA	Sonseca Array	87.04	310	*e*P	P	07 51 09.7	+0.5
	comp=Z,7.8nm,0.9s,mb4.9						
IMA	Indian Mountai	87.20	22	P	P	07 51 10.9	+1.6
IMA				pmax	pmax		
	comp=Z,750nm,1.0s						
IMA	Indian Mountai	87.20	22	*e*P	P	07 51 11.0	+1.7
EBAN	Banos Encina	87.28	308	P	P	07 51 11.8	+1.5
	comp=Z,25nm,0.9s,mb5.5						
ELUQ	Luque	87.80	308	P	P	07 51 14.6	+1.7
	comp=Z,20nm,1.0s,mb5.3						
EADA	Adamuz	87.89	309	P	P	07 51 14.8	+1.5
	comp=Z,42nm,1.0s,mb5.6						
EMIJ	Mijas	88.45	307	P	P	07 51 17.9	+1.9
	comp=Z,35nm,0.8s,mb5.6						
PBRG	Braganca	88.51	313	*e*P	P	07 51 17.4	+1.2
SUMG	Summit	88.82	347	*e*P	P	07 51 17.8	+0.8
	comp=Z,66nm,1.3s,mb5.8						
ESPR	Espera	89.21	308	P	P	07 51 19.4	-0.3
	comp=Z,2µm,5.3s						
PVRL	Vila Real	89.37	312	*e*P	P	07 51 22.1	+1.8
ELOB	Lobios	89.44	313	P	P	07 51 21.1	+0.5
	comp=Z,25nm,2.6s,mb5.1						
STS	Santiago	89.49	314	P	P	07 51 21.5	+0.7
	comp=Z,34nm,0.7s,mb5.8						
MTE	Manteigas	89.49	311	*e*P	P	07 51 22.9	+2.0
	comp=Z,124nm,1.3s,mb6.1						
MTE	Manteigas	89.49	311	*e*P	P	07 51 22.1	+1.2
	comp=Z,56nm,0.9s,mb5.9						
EBAD	Badajoz	89.57	310	P	P	07 51 21.5	+0.2
	comp=Z,11nm,2.5s,mb4.7						
EMIN	Mina Concepcio	89.59	309	P	P	07 51 21.2	-0.2
	comp=Z,48nm,3.4s						
PCBR	Castelo Branco	89.61	311	*e*P	P	07 51 23.1	+1.7
	comp=Z,100nm,1.4s,mb6.0						
PVIS	Viseu	89.66	312	*e*P	P	07 51 23.5	+1.9
	comp=Z,118nm,1.4s,mb6.0						
EMAZ	Mazaricos	89.77	314	P	P	07 51 22.2	+0.1
	comp=Z,36nm,2.5s,mb5.3						
COLA	College	89.91	22	*e*P	P	07 51 24.2	+2.0
SYO	Syowa Base	90.08	197	⇑P	P	07 51 24.9	+2.0
SYO	Syowa Base	90.08	197	⇓PcP	PcP	07 51 28.2	+3.8
SYO	Syowa Base	90.08	197	⇓pP	pP	07 51 33.8	+3.1
SYO	Syowa Base	90.08	197	⇑sP	sP	07 51 40.1	+6.9
RSO	Redoubt South	90.11	27	*e*P	P	07 51 24.3	+1.0
EGRO	El Granado	90.27	309	P	P	07 51 24.2	-0.4
	comp=Z,24nm,2.0s,mb5.2						
PALC	Alcoutim	90.28	309	*e*P	P	07 51 25.4	+0.8
	comp=Z,72nm,1.3s,mb5.8						
ILAR	Eielson Array	90.31	22	P	P	07 51 25.0	+0.9
	comp=Z,36nm,0.8s,mb5.8,baz=299,slow=4.2,SNR=113						
ILAR				PP	PP	07 54 53.1	-7.5
	comp=Z,2.4nm,0.8s,baz=306,slow=6.0,SNR=3.9						
ILAR				S		08 01 49.8	
	comp=Z,0.5nm,0.9s,baz=132,slow=4.8,SNR=3.8						
ILAR				LR	LR	08 39 47.5	
	comp=Z,5µm,18.8s,MS5.9,baz=63,slow=41						
ILAR	Eielson Array	90.31	22	P	P	07 51 25.0	+0.9
ILAR				S		08 01 49.8	
ILAR				pmax	pmax		
	comp=Z,36nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ILAR				smax			
	comp=N,1.0nm,0.9s						
PBEJ	Beja	90.42	309	*e*P	P	07 51 26.9	+1.7
	comp=N,66nm,1.2s,mb5.8						
FIB	Fire Island	90.89	26	*e*P	P	07 51 29.2	+2.4
FIB	Fire Island	90.89	26	*e*P	P	07 51 28.3	+1.5
SLKM	Skilak Lake	91.20	26	*e*P	P	07 51 29.7	+1.5
SLKM	Skilak Lake	91.20	26	*e*P	P	07 51 29.1	+0.8
PTEO	Sao Teotonio	91.21	309	*e*P	P	07 51 30.5	+1.6
	comp=N,174nm,1.4s,mb6.2						
KDAK	Kodiak Island	91.43	29	*e*P	P	07 51 30.8	+1.4
	comp=N,228nm,1.3s,mb6.3						
THY	Trims Highway	91.47	23	P	P	07 51 30.6	+1.2
RES	Resolute Bay	92.24	2	P	P	07 51 34.2	+1.4
RES				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.5						
RES	Resolute Bay	92.24	2	*e*P	P	07 51 34.0	+1.2
	comp=Z,22nm,0.8s,mb5.5						
INK	Inuvik	92.27	16	P	P	07 51 33.5	+0.4
	comp=Z,55nm,1.1s,mb5.8,baz=321,slow=5.7,SNR=66						
INK				S		08 02 01.8	
	comp=Z,1.8nm,1.1s,baz=104,slow=0.9,SNR=2.4						
INK	Inuvik	92.27	16	P	P	07 51 33.5	+0.5
INK				S		08 02 01.8	
INK				pmax	pmax		
	comp=Z,55nm,1.1s						
INK				smax			
	comp=N,2.0nm,1.1s						
INK	Inuvik	92.27	16	*e*P	P	07 51 33.4	+0.4
	comp=N,50nm,0.9s,mb5.8						
MENT	Mentasta	92.50	23	*e*P	P	07 51 37.1	+2.9
DIV	Divide	92.73	25	*e*P	P	07 51 37.5	+2.2
	comp=N,196nm,0.8s,mb6.6						
EYAK	Cordova Ski Ar	93.06	25	*e*P	P	07 51 39.5	+2.7
DAWY	Dawson	93.36	20	*e*P	P	07 51 40.2	+2.1
URZ	Urewera	93.42	128	P	P	07 51 38.6	-0.5
	comp=N,52nm,0.8s,mb6.0,baz=328,slow=1.9,SNR=25						
DBIC	Dimbokro	96.14	278	P	P	07 51 52.4	+0.2
	comp=N,12nm,1.0s,mb5.3,baz=66,slow=4.7,SNR=17						
DBIC				PP	PP	07 55 43.3	-4.2
	comp=N,5.1nm,1.1s,baz=52,slow=12,SNR=2.4						
DBIC	Dimbokro	96.14	278	P	P	07 51 52.4	+0.3
DBIC						07 55 43.3	
DBIC				pmax	pmax		
	comp=Z,12nm,1.0s						
DBIC				pmax	pmax		
	comp=Z,5.0nm,1.1s						
DBIC	Dimbokro	96.14	278	*e*P	P	07 51 51.4	-0.7
	comp=Z,13nm,0.9s,mb5.4						
VNDA	Vanda	98.25	168	P	P	07 52 02.0	+1.8
	comp=Z,4.0nm,0.9s,mb4.9,baz=291,slow=7.7,SNR=4.5						
VNDA	Vanda	98.25	168	P	P	07 52 02.0	+1.8
VNDA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
DLBC	Dease Lake	100.52	21	P	P	07 52 12.9	+2.1
	comp=Z,7.5nm,1.1s,baz=328,slow=11,SNR=4.8						
YKW3	Yellowknife Ar	101.53	13	*e*P	P	07 52 15.7	+0.5
YKA	Yellowknife Ar	101.59	13	P	P	07 52 16.2	+0.6
	comp=Z,4.9nm,0.9s,baz=330,slow=4.2,SNR=41						
YKA				PP	PP	07 56 22.0	-6.3
	comp=Z,6.2nm,1.0s,baz=334,slow=7.9,SNR=10						
YKA				PKKPbc		08 08 22.9	
	comp=Z,0.5nm,0.6s,baz=156,slow=3.1,SNR=9.1						
YKA	Yellowknife Ar	101.59	13	P	P	07 52 16.2	+0.6
YKA						07 56 22.0	
YKA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,6.0nm,1.0s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	101.59	13	P	P	07 52 16.2	+0.6
YKA				PP	PP	07 56 22.0	-6.3
YKA				PKKPbc		08 08 22.9	
FRB	Frobisher Bay	102.07	352	PP	PP	07 56 28.2	-3.5
	comp=Z,2.8nm,0.8s,baz=277,slow=8.9,SNR=2.6						
FRB				PKKPbc		08 08 21.9	
	comp=Z,2.8nm,0.7s,baz=173,slow=7.1,SNR=5.2						
QSPA	South Pole Qui	102.99	180	⇑*i*P	Pdif	07 52 32.6	+11
SNAA	Sanae	104.21	199	⇓*i*		07 56 51.9	
VNA2	Neumayer--Watz	105.72	200	⇓*i*		07 56 54.9	
VNA3	Neumayer Olymp	106.42	199	⇓*i*		07 56 57.4	
FCC	Fort Churchill	108.14	4	P	Pdif	07 52 53.6	+9.1
FCC				pmax	pmax		
	comp=Z,5.0nm,0.4s						
SCHQ	Schefferville	110.20	348	PKKPbc		08 07 55.9	
	comp=Z,3.8nm,0.6s,baz=260,slow=1.5,SNR=11						
MSO	Missoula	115.60	20	*e*PKPdf	PKPdf	07 57 06.2	-2.8
YBH	Yreka Blue Hor	116.25	29	PKP	PKPdf	07 57 08.3	-2.0
	comp=Z,1.4nm,0.6s,baz=74,slow=14,SNR=2.5						
YBH	Yreka Blue Hor	116.25	29	PKIKP	PKPdf	07 57 08.3	-2.1
YBH				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ULM	Lac du Bonnet	116.42	6	PKP	PKPdf	07 57 08.3	-2.2
	comp=Z,6.1nm,0.6s,baz=22,slow=2.0,SNR=12						
ULM				PKKPbc		08 07 37.0	
	comp=Z,4.3nm,0.6s,baz=185,slow=4.8,SNR=7.0						
ULM	Lac du Bonnet	116.42	6	PKP	PKPdf	07 57 08.3	-2.2
ULM				PKKPbc		08 07 37.0	
LAO	LASA Array	118.00	15	*e*PKPdf	PKPdf	07 57 12.1	-1.5
YMR	Madison River	118.49	19	*e*PKPdf	PKPdf	07 57 13.5	-1.2
NSHM	Saint Helena R	118.76	31	*e*PKPdf	PKPdf	07 57 13.7	-1.6
LKWY	Lake	118.76	19	PKIKP	PKPdf	07 57 16.2	+1.0
LKWY	Lake	118.76	19	*e*PKPdf	PKPdf	07 57 15.3	+0.1
TPAW	Teton Pass	119.55	20	*e*PKPdf	PKPdf	07 57 15.5	-1.2
WCN	Washoe City	119.55	29	PKIKP	PKPdf	07 57 17.0	+0.2
WCN	Washoe City	119.55	29	*e*PKPdf	PKPdf	07 57 16.1	-0.7
LOHW	Long Hollow	119.55	20	*e*PKPdf	PKPdf	07 57 14.2	-2.4
WUWY	Wally Ulrich	119.57	20	*e*PKPdf	PKPdf	07 57 14.5	-2.2
SNOW	Snow King Moun	119.64	20	*e*PKPdf	PKPdf	07 57 14.8	-2.1
REDW	Red Top Meadow	119.69	20	*e*PKPdf	PKPdf	07 57 14.7	-2.2
HVU	Hansel Valley	120.41	22	PKIKP	PKPdf	07 57 17.7	-0.7
HVU	Hansel Valley	120.41	22	*e*PKPdf	PKPdf	07 57 17.3	-1.2
PDAR	Pinedale Array	120.65	19	PKP	PKPdf	07 57 16.6	-2.2
	comp=Z,10.0nm,0.9s,baz=108,slow=1.2,SNR=54						
PDAR				PP	PP	07 58 42.5	-3.7
	comp=Z,7.6nm,1.1s,slow=1.5,SNR=5.2						
PDAR				PKKPbc		08 07 20.2	
	comp=Z,1.3nm,0.6s,baz=135,slow=5.1,SNR=9.0						
NVAR	Mina Array Bea	120.92	28	PKP	PKPdf	07 57 18.1	-1.4
	comp=Z,11nm,0.7s,baz=288,slow=3.2,SNR=47						
NVAR				PKKPbc		08 07 20.7	
	comp=Z,1.1nm,1.0s,baz=121,slow=5.3,SNR=4.0						
MNV	Mina	120.99	28	PKIKP	PKPdf	07 57 18.7	-1.0
MNV	Mina	120.99	28	*e*PKPdf	PKPdf	07 57 17.9	-1.8
HWUT	Hardware Ranch	121.00	21	*e*PKPdf	PKPdf	07 57 15.4	-4.2
LRV	Little Rabbit	121.17	32	*e*PKPdf	PKPdf	07 57 18.6	-1.5
MTUM	Tungsten Hills	121.66	29	*e*PKPdf	PKPdf	07 57 20.0	-1.0
TPH	Tonopah	121.71	28	PKIKP	PKPdf	07 57 20.3	-0.8
TPH	Tonopah	121.71	28	*e*PKPdf	PKPdf	07 57 19.7	-1.4
MDV	Middlebury	121.79	348	*e*PKPdf	PKPdf	07 57 18.1	-3.0
DAU	Daniels Canyon	122.16	22	PKIKP	PKPdf	07 57 21.0	-0.8
DAU	Daniels Canyon	122.16	22	*e*PKPdf	PKPdf	07 57 20.2	-1.6
TRCR	Troy Canyon	122.21	26	*e*PKPdf	PKPdf	07 57 20.7	-1.3
NLU	North Lily Min	122.26	23	*e*PKPdf	PKPdf	07 57 20.4	-1.7
MPU	Maple Canyon	122.37	22	*e*PKPdf	PKPdf	07 57 20.4	-1.9
TPNV	Topopah Spring	123.07	28	PKIKP	PKPdf	07 57 22.6	-1.1
TPNV	Topopah Spring	123.07	28	*e*PKPdf	PKPdf	07 57 21.5	-2.2
TMUT	Trail Mountain	123.16	22	*e*PKPdf	PKPdf	07 57 22.6	-1.2
PHWY	Pilot Hill	123.22	17	*e*PKPdf	PKPdf	07 57 21.1	-2.7
MVU	Marysvale	123.47	24	*e*PKPdf	PKPdf	07 57 23.9	-0.6
MSU	Marysvale	123.48	24	*e*PKPdf	PKPdf	07 57 23.2	-1.3
SRU	San Rafael	123.58	22	PKIKP	PKPdf	07 57 17.2	-7.4
SRU	San Rafael	123.58	22	*e*PKPdf	PKPdf	07 57 22.8	-1.9
ARUT	Antelope Range	123.59	25	PKIKP	PKPdf	07 57 25.5	+0.8
ARUT	Antelope Range	123.59	25	*e*PKPdf	PKPdf	07 57 24.7	0.0
GENY	Geneseo	123.76	352	*e*PKPdf	PKPdf	07 57 22.2	-2.7
JFWS	Jewell Farm	124.16	3	PKIKP	PKPdf	07 57 22.8	-2.9
JFWS	Jewell Farm	124.16	3	*e*PKPdf	PKPdf	07 57 22.2	-3.5
PV10	Paradox Valley	124.76	21	*e*PKPdf	PKPdf	07 57 25.7	-1.3
NEN	Nelson	124.78	28	*e*PKPdf	PKPdf	07 57 25.1	-2.1
PV01	Paradox Valley	125.14	21	*e*PKPdf	PKPdf	07 57 26.1	-1.7
SSPA	Standing Stone	125.86	351	*e*PKPdf	PKPdf	07 57 26.3	-2.7
ACSO	Alum Creek Sta	126.80	356	*e*PKPdf	PKPdf	07 57 28.0	-2.8
SDMD	Soldier's Deli	126.90	350	*e*PKPdf	PKPdf	07 57 28.1	-2.9
KSU1	Kansas State U	127.28	9	*e*PKPdf	PKPdf	07 57 28.4	-3.4
BLO	Bloomington	127.98	360	PKIKP	PKPdf	07 57 31.6	-1.6
BLO	Bloomington	127.98	360	*e*PKPdf	PKPdf	07 57 31.2	-2.0
ANMO	Albuquerque	128.74	21	PKP	PKPdf	07 57 33.0	-1.7
	comp=Z,11nm,0.8s,baz=348,slow=0.7,SNR=40						
ANMO	Albuquerque	128.74	21	PKIKP	PKPdf	07 57 33.5	-1.3
ANMO	Albuquerque	128.74	21	*e*PKPdf	PKPdf	07 57 33.2	-1.5
FVM	French Village	129.07	4	PKIKP	PKPdf	07 57 32.3	-3.0
FVM	French Village	129.07	4	*e*PKPdf	PKPdf	07 57 31.9	-3.4
TUC	Tucson	129.40	26	PKIKP	PKPdf	07 57 37.2	+1.1
TUC	Tucson	129.40	26	*e*PKPdf	PKPdf	07 57 34.6	-1.4
PWV	Princeton	129.51	354	*e*PKPdf	PKPdf	07 57 33.4	-2.8
ELN	Prospectdale	129.59	354	*e*PKPdf	PKPdf	07 57 33.2	-3.0
WVT	Waverly	131.01	1	PKIKP	PKPdf	07 57 38.9	-0.1
WVT	Waverly	131.01	1	*e*PKPdf	PKPdf	07 57 36.5	-2.5
WMOK	Wichita Mounta	131.10	13	PKIKP	PKPdf	07 57 37.0	-2.2
WMOK	Wichita Mounta	131.10	13	*e*PKPdf	PKPdf	07 57 36.4	-2.8
UALR	University of	132.10	6	*e*PKPdf	PKPdf	07 57 38.9	-2.2
MIAR	Mount Ida	132.19	7	PKIKP	PKPdf	07 57 40.0	-1.3
MIAR	Mount Ida	132.19	7	*e*PKPdf	PKPdf	07 57 39.5	-1.8
NATX	Nacogdoches	134.77	9	*e*PKPdf	PKPdf	07 57 43.7	-2.5
LTX	Lajitas	134.82	21	PKIKP	PKPdf	07 57 44.8	-1.6
LTX	Lajitas	134.82	21	*e*PKPdf	PKPdf	07 57 44.6	-1.8
TXAR	Lajitas Array	134.82	21	PKhKP		07 57 29.8	
	comp=Z,0.5nm,0.5s,baz=236,slow=1.2,SNR=9.3						
TXAR				PKP	PKPdf	07 57 44.7	-1.6
	comp=Z,4.3nm,0.5s,baz=180,slow=0.6,SNR=22						
TXAR				PP	PP	08 00 11.1	-8.9
	comp=Z,4.8nm,0.9s,slow=2.5,SNR=5.4						
TXAR	Lajitas Array	134.82	21	PKP	PKPdf	07 57 44.7	-1.6
TXAR				PP	PP	08 00 11.1	-8.9
JCT	Junction City	134.93	16	*e*PKPpre		07 57 27.1	
JCT				*e*PKPdf	PKPdf	07 57 44.3	-2.2
BAO	Brasilia Array	142.21	261	PKP	PKPdf	07 57 52.9	-7.2
BAO				*e*		07 57 58.4	
BAO				*i*		07 58 03.6	
BAO				*i*		07 58 12.1	
BAO				*e*		07 58 22.8	
BAO				*e*		07 58 27.3	
BAO				*e*		07 58 32.1	
BAO				*e*		07 58 52.5	
BDFB	Brasilia	142.23	261	PKhKP		07 57 53.6	
	comp=Z,5.3nm,0.7s,baz=99,slow=3.2,SNR=13						
BDFB	Brasilia	142.23	261	*i* PKIKP	PKPdf	07 57 53.6	-6.5
BDFB				pmax	pmax		
	comp=Z,5.0nm,0.7s						
TRQA	Tornquist	146.68	217	*e*PKPdf	PKPdf	07 58 04.1	-3.0
TEIG	Tepich	146.84	2	*e*PKPdf	PKPdf	07 58 06.8	-1.1
STH	Stony Hill	147.43	342	⇓*e*P	PKPdf	07 58 08.0	-0.9
CVJ	Coleyville	147.50	343	⇓*e*P	PKPdf	07 58 09.5	+0.5
NEJ	Negril	147.69	345	⇓*e*P	PKPdf	07 58 09.9	+0.6
MCJ	Malvern	147.83	343	⇓*e*P	PKPdf	07 58 10.6	+1.0
SDV	Santo Domingo	152.79	323	*e*PKPdf	PKPdf	07 58 14.4	-2.9
ROSC	El Rosal	158.18	324	PKP	PKPdf	07 58 23.1	-1.4
	comp=Z,11nm,0.7s,baz=91,slow=1.2,SNR=22						
ROSC				PKPab	PKPab	07 58 57.5	+1.3
	comp=Z,28nm,0.8s,baz=78,slow=17,SNR=11						
LVC	Limon Verde	160.42	239	*e*PKPdf	PKPdf	07 58 24.5	-2.3
LPAZ	La Paz	161.52	258	PKP	PKPdf	07 58 27.0	-1.0
	comp=Z,5.0nm,0.7s,baz=19,slow=4.3,SNR=17						
LPAZ				PKPab	PKPab	07 59 10.9	+0.3
	comp=Z,8.6nm,0.9s,baz=87,slow=12,SNR=4.1						
LPAZ	La Paz	161.52	258	PKIKP	PKPdf	07 58 26.9	-1.1
LPAZ	La Paz	161.52	258	PKIKP	PKPdf	07 58 27.0	-1.0
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LPAZ	La Paz	161.52	258	PKP2	PKPab	07 59 10.9	+0.3
LPAZ				pmax	pmax		
	comp=Z,9.0nm,0.9s						
LPAZ	La Paz	161.52	258	*e*PKPdf	PKPdf	07 58 26.2	-1.8
ARE	Arequipa	164.68	256	*e*P	PKPdf	07 58 31.0	-0.2

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*IDC **26** 07:46:25.7±1.7, 12.98N×93.17E, mb4.4/14, mb1 4.6/14, mb1mx4.4/21, Error ellipse: s-maj=45.9km s-min=34.2km az=2.0*

ISC 26 07:46:29.5±2.3**, 13.1N**±0.4×**93.1E**±0.2**, h33^{km}, n20,** σ**0.^{s}69**/17**, mb4.3**/15**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SONM	Songino Array	36.38	15	P	P	07 53 32.9	+0.4
	2.2nm,0.8s,mb4.1,baz=191,slow=8.1,SNR=3.2						
ZAL	Zalesovo	41.30	353	P	P	07 54 13.8	+0.4
	2.6nm,0.6s,mb4.1,baz=308,slow=9.0,SNR=4.2						
BVAR	Borovoye Array	43.79	340	P	P	07 54 34.1	+0.3
	2.4nm,0.6s,mb4.1,baz=134,slow=8.5,SNR=5.2						
BRTR	Keskin Array B	58.37	309	P	P	07 56 23.8	-0.2
	1.6nm,0.7s,mb4.2,baz=135,slow=7.7,SNR=5.4						
AKASG	Malin Array Be	63.52	320	P	P	07 56 57.4	-1.4
	1.4nm,0.7s,mb4.1,baz=79,slow=5.5,SNR=4.1						
MLR	Muntele Rosu	64.82	314	P	P	07 57 08.3	+0.9
	6.2nm,0.9s,mb4.6,baz=308,slow=0.6,SNR=4.5						
FINES	FINESS Array B	67.69	331	P	P	07 57 25.0	-0.3
	5.8nm,0.7s,mb4.7,baz=114,slow=7.7,SNR=10						
KEV	Kevo	69.64	340	*e*p	P	07 57 35.6	-1.6
ARCES	ARCESS Array B	70.07	340	P	P	07 57 40.0	+0.1
	2.5nm,0.5s,mb4.4,baz=91,slow=6.2,SNR=8.1						
GERES	GERESS Array B	73.34	317	P	P	07 58 00.5	+0.8
	4.4nm,0.6s,mb4.5,baz=91,slow=5.7,SNR=19						
HFS	Hagfors	73.50	329	P	P	07 58 00.6	+0.1
	6.8nm,0.7s,mb4.7,baz=104,slow=5.9,SNR=9.2						
NB2	NORSAR Subarra	74.75	330	P	P	07 58 07.1	-0.6
	1.9nm,0.6s,mb4.2,baz=91,slow=5.6						
NOA	NORSAR Array B	74.75	330	P	P	07 58 07.3	-0.3
	2.7nm,0.6s,mb4.3,baz=91,slow=5.6,SNR=7.0						
EKA	Eskdalemuir Ar	82.91	325	P	P	07 58 52.6	+0.4
	2.8nm,0.7s,mb4.4,baz=88,slow=5.2,SNR=6.2						
ESDC	Sonseca Array	87.14	310	P	P	07 59 14.0	+0.5
	0.8nm,0.6s,mb4.1,baz=61,slow=4.4,SNR=5.9						
ILAR	Eielson Array	90.32	22	P	P	07 59 27.6	-0.5
	0.9nm,0.7s,mb4.2,baz=296,slow=4.3,SNR=7.1						
INK	Inuvik	92.29	16	P	P	07 59 37.5	+0.4
	0.8nm,0.5s,mb4.3,baz=252,slow=7.2,SNR=5.9						
PDAR	Pinedale Array	120.66	19	PKP	PKPdf	08 05 19.9	+1.5
	0.5nm,0.8s,baz=315,slow=2.6,SNR=3.4						
NVAR	Mina Array Bea	120.92	29	PKP	PKPdf	08 05 21.6	+2.6
	0.9nm,0.8s,baz=3.1,slow=2.0,SNR=3.8						
TXAR	Lajitas Array	134.83	21	PKP	PKPdf	08 05 48.9	+3.1
	0.4nm,0.6s,baz=128,slow=0.9,SNR=6.7						

IDC 26 07:47:00.4±8.5**, 9.64N**×**92.85E, mb4.2**/4**, mb1 4.3**/4**, mb1mx3.8**/17**, Error ellipse: s-maj=293.0km s-min=31.0km az=75.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SONM	Songino Array	39.76	14	P	P	07 54 34.8	-1.7
	3.3nm,0.7s,baz=191,slow=8.4,SNR=5.6						
WRA	Warramunga Arr	50.32	126	P	P	07 55 59.9	-1.4
	1.8nm,0.5s,baz=305,slow=8.5,SNR=6.3						
ASAR	Alice Springs	52.02	130	P	P	07 56 11.4	-2.7
	3.2nm,0.9s,baz=308,slow=8.0,SNR=5.7						
STKA	Stephens Creek	62.24	134	P	P	07 57 24.2	-2.4
	2.3nm,0.8s,baz=295,slow=3.1,SNR=4.0						
CRVS	Cervenica-Dubn	70.57	318	*e*P	P	07 58 23.1	+3.8
CLL	Collm	76.19	320	P	P	07 58 58.0	+5.8

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*CSEM **26** 07:47:27.2, 8.84N×92.91E, h33^{km}, mb5.5*

*IDC **26** 07:47:27.7±6.3, 9.38N×93.79E, h42^{km}±57^{km}, mb4.5/25, mb1 4.5/25, mb1mx4.5/25, Error ellipse: s-maj=21.2km s-min=10.5km az=51.0*

ISC 26 07:47:24.7±0.4**, 9.37N**±0.10×**93.8E**±0.1**, h33^{km}, n41,** σ**0.^{s}88**/35**, mb4.7**/30**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC

SONM	Songino Array	39.79	13	P	P	07 54 56.2	0.0
	1.6nm,0.7s,mb3.9,baz=180,slow=8.6,SNR=3.3						
SONM				PcP	PcP	07 57 03.4	+0.8
	1.7nm,0.5s,baz=204,slow=3.9,SNR=4.8						
ZAL	Zalesovo	45.03	352	P	P	07 55 39.4	+0.5
	4.3nm,0.4s,mb4.6,baz=309,slow=5.5,SNR=6.3						
BVAR	Borovoye Array	47.48	341	P	P	07 55 57.9	-0.4
	1.1nm,0.4s,mb4.2,baz=143,slow=7.9,SNR=10						
BVAR				PcP	PcP	07 57 28.7	+0.1
	5.0nm,0.8s,baz=153,slow=6.4,SNR=4.7						
NWAO	Narrogin (SRO)	47.62	153	P	P	07 55 58.5	-1.2
	17nm,0.7s,mb5.2,baz=319,slow=6.3,SNR=12						
WRA	Warramunga Arr	49.40	126	P	P	07 56 13.8	+0.1
	9.6nm,0.6s,mb5.0,baz=305,slow=8.5,SNR=15						
WRA				PcP	PcP	07 57 35.8	-0.2
	2.0nm,0.3s,baz=316,slow=2.7,SNR=9.1						
ASAR	Alice Springs	51.13	131	PcP	PcP	07 57 42.1	-0.2
	2.8nm,0.5s,baz=318,slow=3.3,SNR=6.4						
GNI	Garni	53.16	314	P	P	07 56 43.2	+1.4
	9.8nm,0.8s,mb4.8,baz=308,slow=1.0,SNR=4.7						
PMG	Port Moresby	56.30	108	P	P	07 57 06.3	+1.3
	20nm,0.8s,mb5.2,baz=287,slow=6.1,SNR=8.3						
KMBO	Kilima Mbogo	57.27	263	P	P	07 57 13.5	+1.6
	3.6nm,0.9s,mb4.4,baz=64,slow=7.7,SNR=4.9						
KMBO				PcP	PcP	07 58 06.0	+0.2
	2.8nm,0.8s,baz=41,slow=21,SNR=3.9						
CTA	Charters Tower	59.33	120	P	P	07 57 25.6	-0.6
	14nm,0.8s,mb5.0,baz=293,slow=7.9,SNR=12						
CTA				PcP	PcP	07 58 14.3	+0.6
	3.7nm,0.5s,baz=298,slow=4.5,SNR=4.0						
BRTR	Keskin Array B	61.21	310	P	P	07 57 37.4	-1.4
	6.1nm,0.8s,mb4.8,baz=121,slow=7.2,SNR=15						
STKA	Stephens Creek	61.38	134	P	P	07 57 39.0	-1.0
	3.2nm,0.6s,mb4.6,baz=319,slow=2.8,SNR=9.7						
STKA				PcP	PcP	07 58 20.2	-1.6
	2.6nm,1.0s,baz=303,slow=13,SNR=3.1						
AKASG	Malin Array Be	66.78	321	P	P	07 58 13.2	-1.8
	2.8nm,0.9s,mb4.3,baz=98,slow=4.0,SNR=6.2						
MLR	Muntele Rosu	67.88	315	P	P	07 58 21.9	0.0
	23nm,1.2s,mb5.1,baz=2.3,slow=7.4,SNR=6.7						
FINES	FINESS Array B	71.24	332	P	P	07 58 42.6	+0.3
	4.0nm,0.7s,mb4.4,baz=95,slow=6.5,SNR=14						
KAF	Kangasniemi	71.32	333	*e*p	P	07 58 42.2	-0.5
	3.3nm,0.5s,mb4.5						
VYHS	Vyhne	73.08	318	*e*P	P	07 58 50.7	-2.8
KEV	Kevo	73.33	340	*e*p	P	07 58 54.2	-0.3
	0.9nm,0.4s,mb4.0						
ARCES	ARCESS Array B	73.76	340	P	P	07 58 57.5	+0.5
	2.8nm,0.7s,mb4.3,baz=98,slow=6.7,SNR=23						
ZST	Bratislava	74.21	317	*e*P	P	07 59 00.7	+0.7
ZST				*e*		07 59 06.0	
GERES	GERESS Array B	76.50	318	P	P	07 59 13.3	+0.2
	2.7nm,0.6s,mb4.4,baz=94,slow=5.8,SNR=19						
KHC	Kasperske Hory	76.58	318	*e*P	P	07 59 14.0	+0.4
KHC				*e*x	x	07 59 20.5	
CLL	Collm	77.00	321	*e**PP	P	07 59 16.0	+0.1
CLL				*e*	pP	07 59 26.0	-0.2
HFS	Hagfors	77.01	330	P	P	07 59 15.7	-0.1
	3.1nm,0.4s,mb4.6,baz=90,slow=4.4,SNR=20						
NB2	NORSAR Subarra	78.28	330	P	P	07 59 22.7	0.0
	1.3nm,0.6s,mb4.0,baz=96,slow=5.0						
NOA	NORSAR Array B	78.28	330	P	P	07 59 22.4	-0.3
	2.8nm,0.9s,mb4.2,baz=92,slow=5.6,SNR=5.3						
DAVOX	Davos	79.09	316	P	P	07 59 27.8	+0.3
	6.0nm,0.8s,mb4.6						
MAW	Mawson	79.92	192	P	P	07 59 32.6	+1.0
	11nm,0.9s,mb4.8,baz=18,slow=6.6,SNR=7.5						
LPG	La Plagne	81.33	315	*e*P	P	07 59 39.2	-0.3
	49nm,1.1s,mb5.1						
LPL	La Plagne	81.35	315	*e*P	P	07 59 39.3	-0.3
	57nm,1.0s,mb5.2						
EKA	Eskdalemuir Ar	86.31	325	P	P	08 00 05.3	+1.0
	8.8nm,1.0s,mb4.9,baz=95,slow=5.6,SNR=10						
ESDC	Sonseca Array	90.00	310	P	P	08 00 20.9	-1.5
	0.8nm,0.6s,mb4.3,baz=63,slow=2.9,SNR=4.1						
ILAR	Eielson Array	93.50	22	P	P	08 00 38.1	+0.2
	1.8nm,0.7s,mb4.6,baz=310,slow=4.7,SNR=16						
VNDA	Vanda	94.45	168	P	P	08 00 42.2	+0.2
	4.3nm,1.2s,mb4.7,baz=160,slow=3.9,SNR=3.0						
INK	Inuvik	95.66	16	P	P	08 00 49.0	+1.3
	3.2nm,0.5s,mb5.0,baz=325,slow=4.2,SNR=23						
DBIC	Dimbokro	97.40	278	P	P	08 00 56.9	-0.1
	11nm,1.4s,mb5.1,baz=16,slow=3.1,SNR=3.3						
NVAR	Mina Array Bea	123.81	30	PKP	PKPdf	08 06 21.0	+1.2
	1.3nm,0.7s,baz=312,slow=1.2,SNR=7.5						
PDAR	Pinedale Array	123.90	21	PKP	PKPdf	08 06 19.9	0.0
	0.7nm,0.8s,baz=45,slow=2.1,SNR=4.0						
TXAR	Lajitas Array	138.00	23	PKhKP		08 06 37.5	
	0.3nm,0.5s,baz=212,slow=1.1,SNR=6.0						
TXAR				PKP	PKPdf	08 06 48.8	+1.9
	1.1nm,1.0s,baz=189,slow=0.9,SNR=6.3						
BDFB	Brasilia	142.24	257	PKP	PKPdf	08 06 54.9	+0.1
	1.3nm,0.5s,baz=238,slow=16,SNR=4.8						
LPAZ	La Paz	161.09	247	PKP	PKPdf	08 07 25.6	+3.4
	4.3nm,1.2s,baz=84,slow=1.9,SNR=3.9						
LPAZ				PKPab	PKPab	08 08 08.0	+0.2
	5.3nm,1.1s,baz=70,slow=2.4,SNR=5.3						

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*IDC **26** 07:48:38.0±1.4, 6.67N×94.05E, mb4.2/11, mb1 4.4/12, mb1mx4.3/20, Error ellipse: s-maj=50.7km s-min=30.6km az=44.0*

ISC 26 07:48:41.0±1.0**, 6.6N**±0.2×**94.0E**±0.2**, h33^{km}, n12, σ0^{s}85**/12**, mb4.3**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.76	22	Pn	P	07 51 43.6	+0.6
	baz=209,slow=12,SNR=5.4						
SONM	Songino Array	42.46	12	P	P	07 56 32.7	-1.9
	1.9nm,0.5s,mb4.0,baz=188,slow=9.7,SNR=7.7						
WRA	Warramunga Arr	47.65	124	P	P	07 57 16.5	0.0
	4.6nm,0.6s,mb4.7,baz=302,slow=9.1,SNR=2.4						
ZAL	Zalesovo	47.81	353	P	P	07 57 17.8	+0.5
	2.5nm,0.6s,mb4.5,baz=285,slow=4.7,SNR=3.9						
BVAR	Borovoye Array	50.16	342	P	P	07 57 34.8	-0.6
	2.0nm,0.6s,mb4.3,baz=149,slow=8.6,SNR=3.3						
BRTR	Keskin Array B	63.16	311	P	P	07 59 08.0	-0.2
	2.5nm,1.1s,mb4.3,baz=143,slow=7.2,SNR=2.8						
AKASG	Malin Array Be	69.07	322	P	P	07 59 45.2	-0.4
	1.6nm,0.5s,mb4.2,baz=82,slow=4.5,SNR=5.2						
FINES	FINESS Array B	73.78	332	P	P	08 00 13.4	-0.2
	2.5nm,0.7s,mb4.2,baz=102,slow=7.2,SNR=4.4						
ARCES	ARCESS Array B	76.43	340	P	P	08 00 30.6	+1.9
	2.6nm,0.7s,mb4.3,baz=101,slow=6.2,SNR=4.2						
GERES	GERESS Array B	78.69	318	P	P	08 00 41.8	+0.2
	0.9nm,0.5s,mb4.0,baz=146,slow=4.8,SNR=5.1						
HFS	Hagfors	79.50	330	P	P	08 00 46.5	+0.7
	6.4nm,0.9s,mb4.6,baz=121,slow=8.4,SNR=3.3						
NOA	NORSAR Array B	80.78	331	P	P	08 00 52.0	-0.6
	2.0nm,1.0s,mb4.0,baz=93,slow=5.3,SNR=2.6						

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*IDC **26** 07:50:32.3±1.0, 8.12N×92.22E, mb4.2/15, mb1 4.4/15, mb1mx4.2/23, Error ellipse: s-maj=45.6km s-min=19.9km az=45.0*

ISC 26 07:50:35.7±0.8**, 8.1N**±0.2×**92.2E**±0.2**, h33^{km}, n16, σ0^{s}56**/15**, mb4.2**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.40	14	P	P	07 58 20.3	-0.2
	1.7nm,0.7s,mb3.8,baz=207,slow=6.4,SNR=3.2						
BVAR	Borovoye Array	48.21	342	P	P	07 59 14.5	-0.5
	1.3nm,0.4s,mb4.3,baz=141,slow=10,SNR=4.7						
WRA	Warramunga Arr	49.92	124	P	P	07 59 28.0	-0.6
	1.2nm,0.5s,mb4.2,baz=303,slow=8.6,SNR=4.5						
ASAR	Alice Springs	51.50	129	P	P	07 59 40.8	+0.2
	1.6nm,0.8s,mb4.0,baz=302,slow=7.5,SNR=4.6						
BRTR	Keskin Array B	60.87	311	P	P	08 00 46.6	-0.9
	2.2nm,1.0s,mb4.2,baz=127,slow=6.2,SNR=3.8						
MLR	Muntele Rosu	67.71	316	P	P	08 01 32.1	+0.2
	4.9nm,1.0s,mb4.5,baz=88,slow=3.1,SNR=3.3						
FINES	FINESS Array B	71.65	332	P	P	08 01 55.5	-0.2
	2.7nm,0.8s,mb4.2,baz=90,slow=7.6,SNR=3.8						
ARCES	ARCESS Array B	74.44	340	P	P	08 02 12.2	+0.3
	1.5nm,0.6s,mb4.1,baz=108,slow=3.8,SNR=3.9						
GERES	GERESS Array B	76.42	318	P	P	08 02 24.2	+0.5
	3.6nm,1.0s,mb4.2,baz=90,slow=6.7,SNR=5.4						
HFS	Hagfors	77.33	330	P	P	08 02 28.4	-0.1
	5.0nm,0.9s,mb4.5,baz=117,slow=6.6,SNR=4.0						
NOA	NORSAR Array B	78.63	331	P	P	08 02 34.7	-1.0
	1.2nm,0.7s,mb3.9,baz=94,slow=5.6,SNR=3.0						
DAVOX	Davos	78.94	316	P	P	08 02 38.1	+0.4
	2.1nm,0.5s,mb4.4,baz=222,slow=3.3,SNR=6.0						
EKA	Eskdalemuir Ar	86.48	325	P	P	08 03 17.1	+1.0
	2.4nm,1.0s,mb4.4,baz=90,slow=5.0,SNR=4.0						
ILAR	Eielson Array	95.25	22	P	P	08 03 57.8	+0.8
	0.2nm,0.5s,mb3.9,baz=290,slow=4.7,SNR=4.7						
INK	Inuvik	97.31	16	P	P	08 04 06.3	+0.1
	0.6nm,0.5s,mb4.3,baz=321,slow=8.2,SNR=6.0						
TXAR	Lajitas Array	139.77	22	PKhKP		08 09 58.0	
	0.4nm,0.7s,baz=203,slow=1.1,SNR=3.7						

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*IDC **26** 07:51:13.6±0.7, 7.75N×93.37E, mb4.4/16, mb1 4.6/17, mb1mx4.5/21, ML5.0/1, MS5.7/4, Ms1 5.7/4, ms1mx4.8/30, Error ellipse: s-maj=33.5km s-min=14.8km az=46.0*

ISC 26 07:51:16.8±0.7**, 7.7N**±0.2×**93.4E**±0.2**, h33^{km}, n28, σ0^{s}99**/22**, mb4.3**/19**, MS5.7**/3**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.95	26	Pn	P	07 54 12.6	+4.8
	2.7nm,0.3s,baz=213,slow=15,SNR=18						
CMAR				LR	LR	07 59 40.5	
	comp=Z,26µm,18.9s,baz=205,slow=42						
SONM	Songino Array	41.47	13	P	P	07 59 01.1	-1.1
	4.5nm,0.8s,mb4.1,baz=203,slow=8.9,SNR=9.4						
ZAL	Zalesovo	46.59	353	P	P	07 59 43.4	-0.1
	8.1nm,0.4s,mb5.0,baz=306,slow=5.3,SNR=14						
WRA	Warramunga Arr	48.78	125	P	P	08 00 00.8	-0.2
	3.4nm,0.3s,mb4.8,baz=301,slow=9.7,SNR=16						
BVAR	Borovoye Array	48.89	342	P	P	08 00 01.1	-0.3
	1.6nm,0.5s,mb4.3,baz=141,slow=7.0,SNR=11						
CBIJ	Chichi jima	50.01	61	P	P	08 00 10.2	-0.1
	48nm,0.4s,baz=296,slow=23,SNR=11						
ASAR	Alice Springs	50.39	129	P	P	08 00 13.2	-0.1
	1.5nm,0.3s,mb4.5,baz=305,slow=7.6,SNR=14						
KMBO	Kilima Mbogo	56.68	264	LR	LR	08 21 32.2	
	comp=Z,7µm,18.6s,MS5.8,baz=107,slow=32						
ASF	Jabal al Asfar	57.68	303	LR	LR	08 26 38.0	
	comp=Z,5µm,19.6s,MS5.6,baz=316,slow=37						
EIL	Elat	58.86	300	LR	LR	08 28 25.4	
	comp=Z,7µm,21.0s,MS5.8,baz=104,slow=38						
STKA	Stephens Creek	60.54	133	P	P	08 01 25.9	-0.6
	5.0nm,0.9s,mb4.7,baz=284,slow=5.3,SNR=7.7						
BRTR	Keskin Array B	61.97	311	P	P	08 01 34.6	-1.4
	1.8nm,0.9s,mb4.2,baz=129,slow=7.9,SNR=3.0						
AKASG	Malin Array Be	67.81	322	P	P	08 02 12.5	-1.1
	0.9nm,0.6s,mb4.0,baz=82,slow=5.2,SNR=3.0						
FINES	FINESS Array B	72.50	332	P	P	08 02 41.6	-0.3
	0.8nm,0.4s,mb4.0,baz=113,slow=8.1,SNR=8.1						
KAF	Kangasniemi	72.58	333	*e*p	P	08 02 42.3	-0.1
	0.9nm,0.4s,mb4.0						
KEV	Kevo	74.73	341	*e*p	P	08 02 52.3	-2.5
	7.6nm,0.9s,mb4.6						
ARCES	ARCESS Array B	75.15	340	P	P	08 02 57.9	+0.7
	8.4nm,0.9s,mb4.7,baz=105,slow=6.4,SNR=19						
GERES	GERESS Array B	77.44	318	P	P	08 03 11.9	+1.3
	0.9nm,0.6s,mb3.9,baz=84,slow=5.8,SNR=5.0						
HFS	Hagfors	78.21	330	P	P	08 03 14.5	-0.1
	1.8nm,0.3s,mb4.4,baz=102,slow=3.7,SNR=17						
NB2	NORSAR Subarra	79.50	331	P	P	08 03 21.6	0.0
	1.0nm,0.5s,mb4.0,baz=98,slow=4.8						
NOA	NORSAR Array B	79.50	331	P	P	08 03 21.5	-0.1
	2.3nm,0.9s,mb4.1,baz=95,slow=5.2,SNR=4.4						
EKA	Eskdalemuir Ar	87.42	325	P	P	08 04 03.0	+1.1
	1.3nm,0.5s,mb4.4,baz=94,slow=5.2,SNR=4.0						
ESDC	Sonseca Array	90.75	310	P	P	08 04 19.6	+1.5
	0.5nm,0.5s,mb4.2,baz=60,slow=4.4,SNR=5.2						
ILAR	Eielson Array	95.15	22	P	P	08 04 38.8	+1.1
	0.6nm,0.7s,mb4.2,baz=292,slow=4.6,SNR=6.8						
INK	Inuvik	97.33	16	P	P	08 04 48.9	+1.4
	1.6nm,1.0s,mb4.4,baz=155,slow=6.1,SNR=3.3						
ULM	Lac du Bonnet	121.70	7	PKP	PKPdf	08 10 09.4	+1.9
	1.4nm,0.5s,baz=349,slow=4.8,SNR=2.9						
PDAR	Pinedale Array	125.56	21	PKP	PKPdf	08 10 17.8	+2.6
	0.8nm,0.6s,baz=85,slow=1.5,SNR=4.4						
TXAR	Lajitas Array	139.65	23	PKP	PKPdf	08 10 45.8	+3.8
	0.5nm,0.5s,baz=192,slow=0.2,SNR=8.2						

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*IDC **26** 07:52:26.0±0.4, 8.18N×94.12E, mb4.9/31, mb1 5.0/32, mb1mx5.0/32, ML5.0/1, Error ellipse: s-maj=21.1km s-min=10.6km az=48.0*

*NEIC **26** 07:52:28.8±0.2, 8.13N×94.07E, mb5.5/68, Error ellipse: s-maj=7.1km s-min=5.3km az=49.0*

*BJI **26** 07:52:28.1, 7.82N×93.68E, h38^{km}, mB6.0, mb5.0, Ms6.3, Msz5.9*

*SYO **26** 07:52:32.8, 8.17N×94.05E, h48^{km}, MB5.4*

*ORF **26** 07:52:33.7, 9.04N×94.52E, h30^{km}, mb5.6*

ISC 26 07:52:27.1±0.2**, 8.01N**±0.04×**94.05E**±0.04**, h19^{km}, h19^{km}**±1.0^{km}**:pP-P, n268, σ1^{s}17**/242**, mb5.2**/101**, MS6.0**/7**, 2C-5D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.42	24	*e*P	P	07 55 13.4	+0.9
	235nm,1.1s						
CMAR	Chiang Mai Arr	11.42	24	Pn	P	07 55 12.5	0.0
	3.1nm,0.3s,baz=212,slow=14,SNR=24						
IMP	Imphal	16.68	360	*e*	P	07 56 11.8	-10
IMP				*e*	S	07 59 28.2	+2.6
SHL	Shillong	17.58	354	*e*P	P	07 56 31.5	-1.4
SHL				*e*		07 56 44.8	
	comp=Z,478nm,1.7s						
QIZ	Qiongzhong	18.84	53	P	P	07 56 50.5	+2.0
QIZ				AP		07 56 58.0	
QIZ				S	S	08 00 24.5	+10
QIZ				LR	LR		
	comp=N,104µm,14.1s						
QIZ				LR	LR		
	comp=Z,24µm,16.6s						
KMI	Kunming	18.93	25	*e*P	P	07 56 52.3	+2.7
KMI				AMB	AMB		
	comp=Z,192nm,1.2s						
MNGI	Mangalore	19.53	286	*e*P	P	07 57 00.9	+4.3
COCO	West Island	20.26	172	*e*P	P	07 57 07.1	+2.6
	comp=Z,2µm,1.7s						
AKL	Akola	20.75	309	*e*P	P	07 57 10.2	+0.8
ALBI	Allahabad	20.79	327	*e*P	P	07 57 09.2	-0.7
PKI	Pulchoki	21.11	338	*e*P	P	07 57 14.9	+1.8
	comp=Z,2µm,1.5s,mb6.2						
GOA	Goa	21.14	292	*e*	P	07 57 10.9	-2.6
	comp=Z,342nm,1.1s,mb5.6						
GUN	Gumba	21.25	340	*e*P	P	07 57 15.1	+0.6
DMN	Daman	21.25	338	*e*P	P	07 57 17.2	+2.6
KKN	Kakani	21.35	338	*e*P	P	07 57 17.4	+1.8
	comp=Z,431nm,1.2s,mb5.7						
LSA	Lhasa	21.75	353	P	P	07 57 19.3	-0.3
LSA				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.0						
LSA	Lhasa	21.75	353	*e*P	P	07 57 18.8	-0.8
	comp=Z,153nm,0.7s,mb5.5						
GKN	Gorkha	21.79	337	*e*P	P	07 57 20.5	+0.5
	comp=Z,518nm,0.7s,mb6.1						
GYA	Guiyang	21.92	32	⇑*i*P	P	07 57 22.8	+1.5
GYA				S	S	08 01 27.0	+10
GYA				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.1						
GYA				AMB	AMB		
	comp=Z,780nm,4.9s						
GYA				LR	LR		
	comp=N,42µm,14.3s,MS6.3						
GYA				LR	LR		
	comp=E,62µm,13.4s,MS6.3						
GYA				LR	LR		
	comp=Z,42µm,16.7s,MS5.9						
KOLN	Koldanda	22.00	335	*e*P	P	07 57 22.5	+0.4
	comp=Z,1µm,1.3s,mb6.2						
BOM	Bombay	23.29	300	*e*P	P	07 57 39.9	+5.0
GZH	Guangzhou	23.83	49	P	P	07 57 47.0	+6.8
GZH				S	S	08 02 04.0	+12
GZH				LR	LR		
	comp=N,23µm,16.8s,MS6.1						
GZH				LR	LR		
	comp=E,43µm,14.0s,MS6.1						
GZH				LR	LR		
	comp=Z,65µm,14.3s,MS6.2						
CD2	Chengdu	24.52	20	P	P	07 57 48.3	+1.4
CD2				AMB	AMB		
	comp=Z,190nm,2.0s,mb5.3						
LGTI	Lohaghat	24.97	330	*e*P	P	07 57 52.0	+0.9
NDI	New Delhi	25.98	324	*e*P	P	07 58 05.2	+4.6
NDI				*e*	pP	07 58 12.4	+6.2
	comp=Z,254nm,1.2s						
ENH	Enshi	26.45	31	*e*P	P	07 58 04.5	-0.5
	comp=Z,0.6nm,0.4s						
DDI	Dehra Dun	26.78	328	*e*	P	07 58 09.6	+1.6
DDI				*e*		08 00 55.2	
LZH	Lanzhou	29.34	16	*e*P	P	07 58 31.5	+0.4
LZH				AMB	AMB		
	comp=Z,82nm,1.6s,mb5.2						
LZH				AMB	AMB		
	comp=Z,450nm,7.0s						
LZH				LR	LR		
	comp=E,20µm,14.0s						
LZH				LR	LR		
	comp=Z,22µm,16.1s,MS5.9						
WHN	Wuhan	29.39	38	P	P	07 58 32.5	+1.0
WHN				LR	LR		
	comp=N,15µm,10.3s,MS6.3						
WHN				LR	LR		
	comp=E,35µm,12.5s,MS6.3						
WHN				LR	LR		
	comp=Z,66µm,13.6s,MS6.4						
GTA	Gaotai	31.69	9	P	P	07 58 52.0	+0.2
GTA				AMB	AMB		
	comp=Z,17nm,1.1s,mb4.8						
GTA				AMB	AMB		
	comp=Z,7µm,11.4s						
GTA				LR	LR		
	comp=N,10µm,18.6s,MS5.7						
GTA				LR	LR		
	comp=E,9µm,14.1s,MS5.7						
GTA				LR	LR		
	comp=Z,11µm,27.0s						
NJ2	Nanjing	33.23	41	*e*P	P	07 59 09.3	+4.0
NJ2				AP	pP	07 59 19.0	+8.0
NJ2				XP	sP	07 59 23.5	+10
NJ2				AMB	AMB		
	comp=Z,2µm,6.4s						
NJ2				LR	LR		
	comp=N,31µm,17.2s,MS6.1						
NJ2				LR	LR		
	comp=E,13µm,16.6s,MS6.1						
NJ2				LR	LR		
	comp=Z,21µm,15.6s,MS6.0						
WMQ	Urumqi	36.10	352	P	P	07 59 30.5	+0.7
WMQ				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.8						
HHC	Hu-ho-hao-te	36.23	23	*e*P	P	07 59 31.8	+0.9
HHC				AP	pP	07 59 44.8	+8.1
HHC				XP	sP	07 59 49.5	+10
HHC				PP	PP	08 00 54.3	+0.4
HHC				S	S	08 05 05.0	-4.5
HHC				XS		08 05 26.8	
HHC				PCS		08 05 43.3	
HHC				SCS	ScS	08 09 42.8	-2.2
HHC				AMB	AMB		
	comp=Z,16nm,0.6s,mb5.1						
HHC				AMB	AMB		
	comp=Z,6µm,11.4s						
HHC				LR	LR		
	comp=N,12µm,15.5s,MS6.0						
HHC				LR	LR		
	comp=E,16µm,11.9s,MS6.0						
HHC				LR	LR		
	comp=Z,16µm,16.7s,MS5.9						
BJT	Baijiatuau	37.51	28	*e*P	P	07 59 41.3	-0.4
	comp=Z,245nm,1.8s,mb5.6						
KZA	Kyzart	37.78	337	P	P	07 59 45.4	+1.5
	SNR=6.8						
UCH	Uchtor	38.20	336	P	P	07 59 47.8	+0.4
	SNR=11						
TKM2	Tokmak 2	38.37	338	P	P	07 59 49.3	+0.4
	SNR=7.0						
KBK	Karagaybulak	38.39	337	P	P	07 59 50.2	+1.1
	SNR=6.0						
MBWA	Marble Bar	38.42	139	*e*P	P	07 59 48.6	-1.0
	comp=Z,142nm,1.9s,mb5.4						
AML	Almayashu	38.45	335	P	P	07 59 49.3	-0.3
	SNR=22						
AAK	Ala-Archa	38.55	337	P	P	07 59 52.1	+1.7
	SNR=10						
AAK	Ala-Archa	38.55	337	*e*P	P	07 59 50.2	-0.1
	comp=Z,26nm,0.8s,mb5.0						
CHMS	Chumysh	38.76	337	P	P	07 59 52.0	-0.1
	SNR=15						
EKS2	Erkin-Say	38.85	336	P	P	07 59 52.8	-0.2
	SNR=13						
USP	Ospenovka	39.08	337	P	P	07 59 55.1	+0.3
	SNR=19						
DL2	Dalian	39.51	35	P	P	08 00 02.5	+4.0
DL2				AMB	AMB		
	comp=Z,40nm,1.8s,mb4.8						
SONM	Songino Array	41.05	13	P	P	08 00 11.6	+0.6
	comp=Z,13nm,0.9s,mb4.5,baz=198,slow=7.8,SNR=18						
SONM				PcP	PcP	08 02 11.3	-0.1
	comp=Z,3.8nm,0.6s,baz=202,slow=3.5,SNR=6.0						
ULN	Ulaanbaatar	41.23	13	*e*P	P	08 00 12.3	-0.2
	comp=Z,27nm,1.2s,mb4.8						
SNY	Shenyang	42.61	33	⇓P	P	08 00 24.0	+0.1
SNY				AMB	AMB		
	comp=Z,30nm,1.5s,mb4.8						
CN2	Changchun	44.96	32	*e*P	P	08 00 48.8	+5.8
CN2				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.0						
NWAO	Narrogin (SRO)	46.31	153	P	P	08 00 54.8	+1.1
	comp=Z,24nm,0.7s,mb5.2,baz=327,slow=6.7,SNR=8.2						
NWAO	Narrogin (SRO)	46.31	153	*e*P	P	08 00 54.1	+0.3
	comp=Z,32nm,0.8s,mb5.3						
ZAL	Zalesovo	46.40	352	P	P	08 00 53.5	-0.6
	comp=Z,26nm,0.6s,mb5.3,baz=302,slow=5.2,SNR=31						
HIA	Hailar	46.43	23	*e*P	P	08 00 52.9	-1.6
	comp=Z,90nm,1.3s,mb5.5						
MDJ	Mudanjiang	47.75	34	P	P	08 01 03.6	-1.3
	comp=Z,63nm,1.5s,mb5.4						
WRA	Warramunga Arr	48.41	126	P	P	08 01 08.7	-1.7
	comp=Z,8.4nm,0.5s,mb5.0,baz=304,slow=8.6,SNR=12						
WRAB	Tennant Creek	48.42	126	*e*P	P	08 01 09.5	-1.0
	comp=Z,42nm,0.9s,mb5.5						
BVAR	Borovoye Array	48.83	341	P	P	08 01 11.9	-1.3
	comp=Z,6.4nm,0.7s,mb4.8,baz=149,slow=8.6,SNR=12						
BVAR				PcP	PcP	08 02 37.8	-0.4
	comp=Z,7.4nm,0.7s,baz=150,slow=5.0,SNR=4.0						
BRVK	Borovoye	48.90	341	*e*P	P	08 01 12.4	-1.3
	comp=Z,7.6nm,0.6s,mb4.9						
MAT	Matsushiro	49.14	48	P	P	08 01 13.4	-2.4
MAT	Matsushiro	49.14	48	*e*P	P	08 01 13.0	-2.8
MZLS	Mizel	49.31	295	P	P	08 01 19.0	+1.7
CHKZ	Chkalovo	49.32	342	*e*P	P	08 01 16.2	-0.8
	comp=Z,30nm,0.6s,mb5.5						
KAMS	Al Khamasin	49.32	290	P	P	08 01 19.2	+1.7
ASAR	Alice Springs	50.07	130	P	P	08 01 22.1	-1.1
	comp=Z,11nm,0.9s,mb4.9,baz=306,slow=7.4,SNR=14						
ASAR				PcP	PcP	08 02 44.1	+1.1
	comp=Z,8.3nm,0.8s,baz=300,slow=3.4,SNR=2.7						
TATS	Tathlith	50.27	289	P	P	08 01 25.7	+1.1
AFFS	‘Afif	51.28	294	P	P	08 01 34.1	+1.8
ARSS	Ar Rass	51.41	297	P	P	08 01 34.9	+1.7
BLJS	Baljurashi	52.06	289	P	P	08 01 41.4	+3.1
HILS	Ha’il	52.96	298	P	P	08 01 47.4	+2.4
GNI	Garni	54.28	314	P	P	08 01 54.3	-0.1
	comp=Z,4.6nm,0.6s,mb4.6,baz=353,slow=11,SNR=3.3						
GNI	Garni	54.28	314	*e*P	P	08 01 53.8	-0.6
	comp=Z,130nm,1.5s,mb5.6						
PMG	Port Moresby	55.66	107	P	P	08 02 04.5	-0.3
	comp=Z,26nm,0.7s,mb5.4,baz=316,slow=5.3,SNR=13						
PMG	Port Moresby	55.66	107	*e*P	P	08 02 04.1	-0.8
	comp=Z,30nm,0.8s,mb5.4						
ARU	Arti	55.73	337	*e*P	P	08 02 01.8	-3.0
	comp=Z,98nm,1.4s,mb5.7						
ERZM	Erzurum	56.62	313	*i* P	P	08 02 16.8	+5.4
KIV	Kislovodsk	57.16	318	P	P	08 02 15.6	+0.4
	comp=Z,242nm,0.9s,mb6.2,SNR=7.1						
KIV	Kislovodsk	57.16	318	*e*P	P	08 02 14.3	-0.9
	comp=Z,31nm,0.8s,mb5.4						
KMBO	Kilima Mbogo	57.35	264	P	P	08 02 18.4	+1.5
	comp=Z,19nm,1.1s,mb5.1,baz=50,slow=9.7,SNR=25						
KMBO	Kilima Mbogo	57.35	264	*e*P	P	08 02 18.3	+1.3
	comp=Z,51nm,1.1s,mb5.5						
ELZG	Elazig	57.94	311	*i* P	P	08 02 19.4	-1.3
ASF	Jabal al Asfar	58.07	303	P	P	08 02 21.8	+0.1
	comp=Z,2.7nm,0.4s,mb4.6,baz=28,slow=7.2,SNR=3.4						
MALT	Malatya	58.31	310	*e*P	P	08 02 20.8	-2.5
	comp=Z,24nm,1.3s,mb5.1						
JMQS	Jabal Moqyreh	58.36	299	P	P	08 02 30.2	+6.4
CTA	Charters Tower	58.45	119	P	P	08 02 25.0	+0.4
	comp=Z,7.3nm,1.0s,mb4.7,baz=283,slow=9.0,SNR=5.2						
CTAO	Charters Tower	58.45	119	*e*P	P	08 02 26.1	+1.6
	comp=Z,28nm,1.4s,mb5.1						
GZT	Gaziantep	58.71	309	*i* P	P	08 02 24.8	-1.3
BDAS	Al Bad‘	58.97	298	P	P	08 02 33.9	+5.8
JMOS	Jabal al Moall	59.07	299	P	P	08 02 34.9	+6.2
ALWS	Ilw as Safayha	59.13	299	P	P	08 02 34.9	+5.8
EIL	Elat	59.28	300	P	P	08 02 30.3	+0.1
	comp=Z,6.8nm,0.7s,mb4.8,baz=102,slow=8.5,SNR=2.4						

EIL	Elat	59.28	300	P	P	08 02 29.9	-0.3
	comp=Z,102nm,1.4s,mb5.7						
COBT	Iskenderun	59.52	308	iP	P	08 02 31.6	-0.2
YAK	Yakutsk	59.90	19	eP	P	08 02 33.2	-0.8
	comp=Z,58nm,0.7s,mb5.7						
STKA	Stephens Creek	60.26	134	P	P	08 02 36.3	-0.6
	comp=Z,6.1nm,0.7s,mb4.8,baz=317,slow=7.6,SNR=7.8						
STKA	Stephens Creek	60.26	134	eP	P	08 02 36.1	-0.9
AVNT	Avonos	61.13	310	iP	P	08 02 43.6	+0.8
CSS	Prodhromos	61.52	305	P	P	08 02 45.0	-0.4
	comp=Z,23nm,1.0s,mb5.2						
CTKT	Corum	61.63	312	iP	P	08 02 46.1	-0.1
BOYT	Boyabat	61.76	313	iP	P	08 02 46.2	-0.8
BRTR	Keskin Array B	62.27	311	P	P	08 02 48.0	-2.4
	comp=Z,9.6nm,0.8s,mb5.0,baz=128,slow=7.1,SNR=16						
ELDT	Eldivan	62.61	312	iP	P	08 02 51.6	-1.0
MBAR	Mbarara	63.68	265	eP	P	08 02 60.0	-0.2
	comp=Z,62nm,1.4s,mb5.4						
ISP	Isparta	64.28	308	eP	P	08 03 02.6	-1.1
	comp=Z,63nm,1.3s,mb5.5						
HENT	Hendek	64.56	311	iP	P	08 03 10.3	+4.9
OBN	Obninsk	65.22	328	eP	P	08 03 07.0	-2.4
	comp=Z,27nm,0.6s,mb5.5						
MA2	Magadan	66.69	28	eP	P	08 03 18.4	-0.4
	comp=Z,42nm,0.9s,mb5.5						
AKASG	Malin Array Be	67.99	322	P	P	08 03 25.0	-2.2
	comp=Z,6.9nm,0.7s,mb4.8,baz=86,slow=4.5,SNR=19						
IDI	Anoyia	68.42	305	P	P	08 03 29.0	-1.1
	comp=Z,35nm,0.8s,mb5.4,baz=108,slow=13,SNR=8.1						
MLR	Muntele Rosu	69.01	316	P	P	08 03 33.8	+0.2
	comp=Z,32nm,1.0s,mb5.2,baz=54,slow=6.9,SNR=11						
RZN	Rozhen	69.30	311	eP	P	08 03 35.0	-0.4
PAIG	Paliouri	69.86	310	eP	P	08 03 37.0	-1.9
MMB	Musomiste	70.02	311	eP	P	08 03 38.0	-1.8
SRS	Serrai	70.06	311	eP	P	08 03 38.2	-1.9
SOH	Sokhos	70.21	310	eP	P	08 03 40.5	-0.5
VTS	Vitosha	70.53	312	eP	P	08 03 42.0	-0.9
KKB	Krupnik	70.53	312	eP	P	08 03 41.0	-1.9
LIT	Litokhoron	70.79	310	eP	P	08 03 42.8	-1.7
AGG	Agios Georgios	70.81	308	eP	P	08 03 39.5	-5.1
GRG	Griva	70.94	310	eP	P	08 03 44.5	-1.0
BOLS	Boljevac	71.58	313	⇓iP	P	08 03 52.0	+2.8
FNA	Florina	71.70	310	eP	P	08 03 48.6	-1.4
KWP	Kalwaria	71.87	320	eP	P	08 03 50.3	-0.6
KWP				e	pP	08 03 56.7	-0.2
KOLS	Kolonicke sedl	72.04	319	eP	P	08 03 51.0	-0.9
KOLS				e	pP	08 03 55.7	-2.3
KOLS				e		08 04 15.6	
SUW	Suwalki	72.34	324	eP	P	08 03 52.3	-1.3
SUW				e	pP	08 03 59.2	-0.5
GRUS	Gruza	72.48	313	eP	P	08 03 49.1	-5.6
FINES	FINESS Array B	72.55	332	P	P	08 03 53.2	-1.4
	comp=Z,15nm,0.7s,mb5.0,baz=104,slow=7.9,SNR=24						
FINES	FINESS Array B	72.55	332	P	P	08 03 53.2	-1.4
CRVS	Cervenica-Dubn	72.57	319	eP	P	08 03 56.9	+1.9
CRVS				epP	pP	08 04 01.4	+0.3
CRVS				e		08 04 09.5	
KAF	Kangasniemi	72.63	333	ep	P	08 03 53.0	-2.1
	comp=Z,32nm,0.9s,mb5.2						
KECS	Kecovo	73.16	318	eP	P	08 03 55.7	-2.8
KECS				e		08 03 58.4	
NIE	Niedzica	73.38	319	eP	P	08 04 00.3	+0.5
PSZ	Piszkesteto	73.48	318	eP	P	08 04 00.0	-0.4
	comp=Z,54nm,1.4s,mb5.3						
OJC	Ojcow	73.81	320	eP	P	08 04 01.8	-0.5
PKSM	Moragy	74.17	316	⇓eP	P	08 04 03.5	-0.9
LBTB	Lobatse	74.23	241	eP	P	08 04 06.2	+1.1
	comp=Z,52nm,1.0s,mb5.4						
VYHS	Vyhne	74.25	318	eP	P	08 04 04.1	-0.7
VYHS				epP	pP	08 04 09.6	-1.3
VYHS				e		08 04 38.1	
SRO	Srobarova	74.53	317	eP	P	08 04 09.6	+3.1
KEV	Kevo	74.68	341	ep	P	08 04 05.4	-1.5
	comp=Z,17nm,0.6s,mb5.2						
OKC	Ostrava-Krasne	74.83	319	eP	P	08 04 07.8	-0.4
OKC				epP	pP	08 04 13.6	-0.7
ARCES	ARCESS Array B	75.11	340	P	P	08 04 08.6	-0.8
	comp=Z,12nm,0.8s,mb4.9,baz=79,slow=6.2,SNR=14						
SMOL	Smolenice	75.18	318	epP	pP	08 04 15.9	-0.4
MORC	Moravsky Berou	75.22	319	eP	P	08 04 10.2	-0.2
	comp=Z,44nm,1.1s,mb5.3						
ZST	Bratislava	75.37	318	eP	P	08 04 11.1	-0.2
ZST				e	pP	08 04 17.0	-0.4
BOSA	Boshof	75.58	238	eP	P	08 04 13.8	+0.9
	comp=Z,59nm,1.1s,mb5.4						
GKP	Gorka Klasztor	75.74	323	eP	P	08 04 13.2	-0.1
GKP				e	pP	08 04 18.8	-0.6
VRAC	Vranov	75.79	319	P	P	08 04 13.6	-0.1
	comp=Z,3.6nm,0.7s,mb4.4,baz=74,slow=7.8,SNR=2.4						
BILL	Bilibino	76.00	22	eP	P	08 04 12.9	-1.6
	comp=Z,14nm,0.9s,mb4.9						
DPC	Dobruska-Polom	76.05	320	eP	P	08 04 15.3	+0.2
KSP	Ksiaz	76.10	320	eP	P	08 04 15.2	-0.2
KSP				e		08 04 17.4	
KSP	Ksiaz	76.10	320	eP	P	08 04 15.7	+0.3
KSP				e	pP	08 04 21.9	+0.4
UPC	Upice	76.25	320	eP	P	08 04 16.1	-0.2
UPC				epP	pP	08 04 22.4	0.0
PRU	Pruhonice	77.17	319	eP	P	08 04 21.3	0.0
PRU				epP	pP	08 04 27.4	-0.1
PVCC	Panska Ves	77.18	320	eP	P	08 04 24.8	+3.4
BSD	Bornholm Skovb	77.26	325	iP	P	08 04 21.0	-0.8
	comp=Z,25nm,0.6s,mb5.3						
TRO	Tromso	77.37	340	eP	P	08 04 20.1	-2.0
TRO				AMb	AMB	08 04 29.7	
	comp=Z,85nm,1.9s,mb5.3						
TRO	Tromso	77.37	340	eP	P	08 04 20.1	-2.0
	comp=Z,85nm,1.9s,mb5.3						
VOY	Vojsko	77.45	315	eP	P	08 04 18.3	-4.7
BRG	Berggiesshubel	77.59	320	eP	P	08 04 24.1	+0.4
	comp=Z,55nm,1.3s,mb5.3						
BRG				i	pP	08 04 31.4	+1.6
GEC2	GERESS Array S	77.67	318	eP	P	08 04 24.5	+0.4
	comp=Z,48nm,1.1s,mb5.3						
GERES	GERESS Array B	77.67	318	P	P	08 04 24.1	0.0
	comp=Z,15nm,0.8s,mb5.0,baz=86,slow=5.4,SNR=28						
KHC	Kasperske Hory	77.76	318	eP	P	08 04 23.8	-0.8
KHC				epP	pP	08 04 27.9	-2.9
RUE	Ruedersdorf	77.77	322	eP	P	08 04 24.4	-0.2
	comp=Z,100nm,0.9s,mb5.7						
PTCC	Patocco-Chiusa	77.84	316	eP	P	08 04 25.1	0.0
GMNA	Gemona	77.91	316	eP	P	08 04 28.2	+2.7
ARV	Arcevia	78.09	313	eP	P	08 04 30.8	+4.2
CLL	Collm	78.20	321	eP	P	08 04 27.0	0.0
	comp=Z,10.0nm,0.8s,mb4.8						
CLL				i	pP	08 04 32.8	-0.3
CLL	Collm	78.20	321	P	P	08 04 27.0	0.0
CLL				i		08 04 29.7	
CLL				i *PP	pP	08 04 32.8	-0.3
WET	Wettzell	78.22	318	eP	P	08 04 27.5	+0.4
	comp=Z,51nm,1.3s,mb5.3						
FVI	Forni Avoltri	78.23	316	eP	P	08 04 27.5	+0.2
HFS	Hagfors	78.30	330	P	P	08 04 26.5	-0.8
	comp=Z,20nm,0.6s,mb5.2,baz=117,slow=6.6,SNR=23						
MOR8	Moi Rana	78.52	336	eP	P	08 04 27.4	-1.0
MOR8				epP	pP	08 04 33.8	-0.8
MOR8				AMb	AMB	08 04 38.4	
	comp=Z,85nm,1.5s,mb5.5						
MOR8	Moi Rana	78.52	336	eP	P	08 04 27.4	-1.0
	comp=Z,85nm,1.5s,mb5.5						
NKC	Novy Kostel	78.52	320	eP	P	08 04 32.2	+3.4
MAW	Mawson	78.65	192	P	P	08 04 31.5	+2.3
	comp=Z,10nm,0.8s,mb4.8,baz=33,slow=9.8,SNR=7.2						
MAW	Mawson	78.65	192	eP	P	08 04 31.5	+2.4
	comp=Z,126nm,1.7s,mb5.6						
COP	Copenhagen	78.71	325	iP	P	08 04 30.4	+0.7
	comp=Z,35nm,0.6s,mb5.5						
SFI	Santa Sofia	78.89	313	eP	P	08 04 32.4	+1.4
CTI	Castel Tesino	79.02	315	eP	P	08 04 31.9	+0.3
MOX	Moxa	79.06	320	iP	P	08 04 32.1	+0.4
MOX	Moxa	79.06	320	eP	P	08 04 32.1	+0.4
LOF	Lofoten	79.08	338	eP	P	08 04 33.0	+1.5
VMG	Vicchio	79.10	313	eP	P	08 04 32.8	+0.6
SEI	Scarperia	79.24	313	eP	P	08 04 34.5	+1.6
FUR	Furstenfeldbru	79.27	317	eP	P	08 04 32.7	-0.2
	comp=Z,101nm,1.5s,mb5.5						
GRA1	Grafenberg Arr	79.31	319	eP	P	08 04 33.9	+0.8
	comp=Z,25nm,1.1s,mb5.1						
GRF	Grafenberg Arr	79.31	319	eP	P	08 04 33.9	+0.8
	comp=Z,25nm,1.1s,mb5.1						
GRFL	Gerfalco	79.53	312	eP	P	08 04 34.0	-0.5
NB2	NORSAR Subarra	79.57	331	P	P	08 04 33.3	-1.0
	comp=Z,13nm,0.6s,mb5.0,baz=97,slow=5.0						
NB2	NORSAR Subarra	79.57	331	P	P	08 04 33.3	-1.0
	baz=96,slow=5.1						
NOA	NORSAR Array B	79.57	331	P	P	08 04 33.6	-0.7
	comp=Z,13nm,0.7s,mb5.0,baz=93,slow=5.6,SNR=31						
NAO01	NORSAR Array S	79.72	330	eP	P	08 04 34.0	-1.1
	comp=Z,32nm,0.8s,mb5.3						
GSCL	Gusciola	79.79	314	eP	P	08 04 39.5	+3.7
CLZ	Clausthal	79.85	321	eP	P	08 04 36.4	+0.4
	comp=Z,129nm,1.7s,mb5.6						
BSEG	Bad Segeberg	79.89	323	eP	P	08 04 36.8	+0.7
BRMO	Bormio	79.90	316	eP	P	08 04 36.6	+0.2
DAVOX	Davos	80.23	316	P	P	08 04 38.6	+0.5
	comp=Z,30nm,0.8s,mb5.3,baz=108,slow=4.0,SNR=13						
SUR	Sutherland	80.33	235	eP	P	08 04 40.9	+1.9
	comp=Z,25nm,0.8s,mb5.2						
MUD	Monsted U'grnd	80.55	326	iP	P	08 04 40.0	+0.4
	comp=Z,29nm,0.7s,mb5.3						
PGF	Pioggiola	81.00	312	eP	P	08 04 42.2	-0.1
	comp=Z,120nm,1.2s,mb5.4						
VAI	Varese	81.03	315	eP	P	08 04 42.4	0.0
BFO	Black Forest	81.23	318	eP	P	08 04 43.3	-0.1
	comp=Z,52nm,1.6s,mb5.2						
MOL	Molde	81.33	332	eP	P	08 04 45.3	+1.7
MOL				AMb	AMB	08 04 54.4	
	comp=Z,79nm,1.9s,mb5.3						
MOL	Molde	81.33	332	eP	P	08 04 45.3	+1.7
	comp=Z,79nm,1.9s,mb5.3						
FIN	Finale Ligure	81.50	314	eP	P	08 04 45.0	+0.2
MCGN	Macugnaga	81.57	315	eP	P	08 04 46.2	+1.1
ORX	Oropa	81.59	315	P	P	08 04 44.1	-1.2
CDF	Champ du Feu	81.93	318	eP	P	08 04 46.6	-0.4
	comp=Z,19nm,0.7s,mb4.8						
ENR	Entracque	82.06	314	P	P	08 04 47.2	-0.6
SBF	Sospel	82.08	313	eP	P	08 04 48.5	+0.7
	comp=Z,135nm,0.8s,mb5.6						
RSP	Reno Superiore	82.12	315	P	P	08 04 47.5	-0.6
BHB	Bricherasio	82.14	314	P	P	08 04 45.7	-2.4
LSD	Ceresole Reale	82.18	315	P	P	08 04 48.3	0.0
FENE	Fenestrelle	82.27	314	P	P	08 04 48.5	-0.3
PZZ	Prazzo	82.28	314	P	P	08 04 47.5	-1.4
LPL	La Plagne	82.47	315	eP	P	08 04 50.6	+0.7
	comp=Z,97nm,0.7s,mb5.6						
RRL	Cesana Torines	82.47	314	P	P	08 04 49.3	-0.6
MBDF	Montbardon	82.50	314	eP	P	08 04 50.0	0.0
	comp=Z,25nm,0.6s,mb5.0						
BNI	Bardonecchia	82.54	314	eP	P	08 04 48.9	-1.4
	comp=Z,54nm,0.9s,mb5.6						
HAU	Haudompre	82.58	317	eP	P	08 04 50.0	-0.3
	comp=Z,77nm,0.9s,mb5.4						
WLF	Walferdange	82.60	319	eP	P	08 04 50.7	+0.3
	comp=Z,55nm,1.3s,mb5.4						
SSF	Saint Saulge	84.57	317	eP	P	08 05 00.5	-0.1
	comp=Z,73nm,1.3s,mb5.3						
SYO	Syowa Base	85.51	197	⇓P	P	08 05 06.8	+2.1
SYO	Syowa Base	85.51	197	⇓PcP	PcP	08 05 10.4	+2.2
SYO	Syowa Base	85.51	197	⇑pP	pP	08 05 21.2	+10
CAF	Calviac	85.81	315	eP	P	08 05 06.6	-0.2
	comp=Z,59nm,1.2s,mb5.4						
FLN	La Foliniere	87.02	319	eP	P	08 05 12.6	0.0
	comp=Z,60nm,1.0s,mb5.5						
EKA	Eskdalemuir Ar	87.56	325	P	P	08 05 15.7	+0.6
	comp=Z,13nm,0.8s,mb5.2,baz=104,slow=5.3,SNR=14						
ESDC	Sonseca Array	91.06	310	P	P	08 05 32.5	+0.5
	comp=Z,6.0nm,0.7s,mb5.1,baz=61,slow=4.3,SNR=18						
ESLA	Sonseca Array	91.06	310	eP	P	08 05 34.5	+2.5
	comp=Z,4.2nm,1.0s,mb4.7						
IMA	Indian Mountai	91.53	22	eP	P	08 05 34.7	+1.2
	comp=Z,67nm,0.8s,mb6.0						
VNDA	Vanda	93.08	168	P	P	08 05 42.1	+1.7
	comp=Z,2.3nm,0.8s,mb4.7,baz=308,slow=5.8,SNR=3.8						
VNDA	Vanda	93.08	168	eP	P	08 05 42.1	+1.7
ILAR	Eielson Array	94.66	22	P	P	08 05 47.3	-0.6
	comp=Z,1.1nm,0.6s,mb4.4,baz=313,slow=4.3,SNR=14						
SLKM	Skilak Lake	95.31	27	eP	P	08 05 51.0	+0.1
INK	Inuvik	96.89	16	P	P	08 05 58.0	+0.1
	comp=Z,6.0nm,1.1s,mb5.0,baz=290,slow=5.2,SNR=8.4						
INK	Inuvik	96.89	16	eP	P	08 05 57.7	-0.3
	comp=Z,18nm,1.2s,mb5.4						
RES	Resolute Bay	97.27	2	eP	P	08 06 00.5	+0.9
	comp=Z,6.9nm,1.0s,mb5.0						
DAWY	Dawson	97.77	21	eP	P	08 06 02.1	+0.1
DBIC	Dimbokro	97.83	278	P	P	08 06 05.0	+1.5
	comp=Z,6.7nm,1.1s,mb5.1,baz=144,slow=3.9,SNR=3.2						
YKA	Yellowknife Ar	106.32	13	Pdiff	Pdif	08 06 42.1	+1.9
	comp=Z,0.3nm,0.9s,baz=276,slow=7.1,SNR=2.5						
MSO	Missoula	119.99	22	ePKPdf	PKPdf	08 11 17.2	-3.6
ULM	Lac du Bonnet	121.34	7	PKP	PKPdf	08 11 21.1	-2.3
	comp=Z,4.6nm,0.9s,baz=25,slow=4.1,SNR=5.9						
HLID	Hailey	122.54	24	ePKPdf	PKPdf	08 11 23.6	-2.2
LAO	LASA Array	122.63	16	PKPdf	PKPdf	08 11 23.4	-2.5
LOHW	Long Hollow	123.96	21	ePKPdf	PKPdf	08 11 26.4	-2.2
WUWY	Wally Ulrich	123.97	22	ePKPdf	PKPdf	08 11 26.2	-2.5
SNOW	Snow King Moun	124.04	22	ePKPdf	PKPdf	08 11 27.3	-1.5
CMB	Columbia Colle	124.06	33	ePKPdf	PKPdf	08 11 26.6	-2.3
REDW	Red Top Meadow	124.09	22	ePKPdf	PKPdf	08 11 26.7	-2.2
NVAR	Mina Array Bea	124.85	31	PKP	PKPdf	08 11 29.1	-1.4
	comp=Z,3.1nm,0.7s,baz=275,slow=3.4,SNR=12						
PDAR	Pinedale Array	125.08	21	PKP	PKPdf	08 11 28.5	-2.3
	comp=Z,3.2nm,0.8s,baz=43,slow=0.9,SNR=12						
MIV	Mineville/With	126.96	349	ePKPdf	PKPdf	08 11 32.5	-1.9
MVU	Marysvale	127.67	26	ePKPdf	PKPdf	08 11 34.5	-1.4
MSU	Marysvale	127.67	26	ePKPdf	PKPdf	08 11 35.7	-0.3
NEN	Nelson	128.75	30	ePKPdf	PKPdf	08 11 36.9	-1.2
PV10	Paradox Valley	129.09	23	ePKPdf	PKPdf	08 11 37.3	-1.4
BLA	Blacksburg	134.72	354	ePKPdf	PKPdf	08 11 47.0	-2.4
WVT	Waverly	136.06	2	ePKPdf	PKPdf	08 11 50.2	-1.6
TXAR	Lajitas Array	139.14	24	PKhKP		08 11 47.4	
	comp=Z,0.4nm,0.5s,baz=60,slow=0.1,SNR=7.3						
JCT	Junction City	139.49	19	ePKPdf	PKPdf	08 11 56.2	-2.0
BAO	Brasilia Array	142.13	255	PKP	PKPdf	08 11 59.3	-4.0
BDFB	Brasilia	142.15	255	PKP	PKPdf	08 11 59.4	-3.9
	comp=Z,4.0nm,0.9s,baz=81,slow=3.6,SNR=4.4						
TRQA	Tornquist	143.07	212	ePKPpre		08 11 57.8	
SJG	San Juan	147.51	323	ePKPdf	PKPdf	08 12 11.4	-1.0
LPAZ	La Paz	160.75	243	PKP	PKPdf	08 12 30.6	0.0
	comp=Z,16nm,1.3s,baz=184,slow=2.9,SNR=7.2						
LPAZ				PKPab	PKPab	08 13 15.7	+4.6
	comp=Z,5.0nm,0.8s,baz=101,slow=8.8,SNR=6.1						
LPAZ	La Paz	160.75	243	ePKPdf		08 12 25.7	
LPAZ				PKP	PKPdf	08 12 30.6	0.0
LPAZ				PKPab	PKPab	08 13 15.7	+4.6
ROSC	El Rosal	162.75	317	PKP	PKPdf	08 12 32.7	0.0
	comp=Z,4.4nm,0.8s,baz=90,slow=7.1,SNR=3.4						

IDC 26 07:55:04.0±1.5, 8.23N×92.67E, mb4.5/10, mb1 4.6/10, mb1mx4.4/19, MS5.6/1, Ms1 5.6/1, ms1mx3.8/29, Error ellipse: s-maj=60.8km s-min=30.7km az=48.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.15	14	P	P	08 02 50.2	-1.4
	3.7nm,0.8s,baz=202,slow=7.8,SNR=2.3						
ZAL	Zalesovo	46.02	354	P	P	08 03 28.4	-2.5
	4.1nm,0.6s,baz=294,slow=8.2,SNR=3.2						
ZAL				LR	LR	08 25 54.0	
	comp=Z,7μm,20.3s,baz=288,slow=40						
BVAR	Borovoye Array	48.19	342	P	P	08 03 46.5	-1.6
	6.0nm,0.8s,baz=135,slow=10,SNR=3.2						
WRA	Warramunga Arr	49.66	125	P	P	08 03 57.8	-2.1
	8.7nm,1.1s,baz=305,slow=8.6,SNR=3.2						
AKASG	Malin Array Be	66.97	322	P	P	08 05 57.4	-3.3
	8.4nm,0.9s,baz=91,slow=5.7,SNR=6.4						
FINES	FINESS Array B	71.72	332	P	P	08 06 29.5	-0.2
	4.6nm,0.7s,baz=108,slow=8.8,SNR=5.0						
ARCES	ARCESS Array B	74.44	340	P	P	08 06 43.5	-1.9
	4.7nm,1.0s,baz=99,slow=6.8,SNR=4.5						
GERES	GERESS Array B	76.59	318	P	P	08 06 57.6	-0.6
	2.0nm,0.8s,baz=74,slow=7.1,SNR=3.9						
HFS	Hagfors	77.41	330	P	P	08 07 00.5	-2.0
	4.3nm,0.7s,baz=112,slow=8.0,SNR=4.3						
NOA	NORSAR Array B	78.70	331	P	P	08 07 07.9	-1.7
	3.3nm,0.8s,baz=92,slow=5.6,SNR=3.8						

IDC 26 07:55:08.6±1.1, 12.80N×93.21E, mb4.5/9, mb1 4.6/9, mb1mx4.4/20, Error ellipse: s-maj=62.6km s-min=23.7km az=47.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	44.07	340	P	P	08 03 17.7	-2.2
	3.0nm,0.7s,baz=133,slow=9.1,SNR=2.5						
GNI	Garni	50.42	312	P	P	08 04 09.8	-0.2
	19nm,1.1s,baz=335,slow=2.1,SNR=4.4						
BRTR	Keskin Array B	58.59	309	P	P	08 05 06.5	-3.2
	3.3nm,0.7s,baz=119,slow=7.3,SNR=3.7						
STKA	Stephens Creek	64.18	135	P	P	08 05 45.4	-2.3
	13nm,0.6s,baz=304,slow=8.7,SNR=9.8						
STKA	Stephens Creek	64.18	135	P	P	08 05 45.4	-2.3
FINES	FINESS Array B	67.96	331	P	P	08 06 08.8	-2.5
	6.7nm,1.0s,baz=120,slow=15,SNR=2.9						
ARCES	ARCESS Array B	70.35	340	P	P	08 06 23.4	-2.4
	4.1nm,0.9s,baz=90,slow=7.3,SNR=5.3						
GERES	GERESS Array B	73.58	317	P	P	08 06 44.1	-1.3
	4.6nm,0.9s,baz=89,slow=6.0,SNR=5.1						
KHC	Kasperske Hory	73.66	318	eP	P	08 06 44.5	-1.4
KHC				ex	x	08 06 52.0	
ILAR	Eielson Array	90.55	22	P	P	08 08 12.2	-1.3
	0.6nm,0.6s,baz=278,slow=5.6,SNR=5.9						
INK	Inuvik	92.53	16	P	P	08 08 22.5	-0.1
	1.2nm,0.5s,baz=261,slow=3.0,SNR=8.4						
PDAR	Pinedale Array	120.89	19	PKP	PKPdf	08 14 02.9	-2.2
	0.7nm,0.8s,baz=44,slow=0.8,SNR=3.9						

IDC 26 07:55:22.4±0.5, 7.41N×92.34E, mb4.9/28, mb1 5.0/29, mb1mx4.9/32, ML5.2/1, Error ellipse: s-maj=23.0km s-min=12.1km az=41.0

BJI 26 07:55:25.8, 7.30N×92.41E, h40^{km}, mB6.0, mb5.0, Ms5.9, Msz5.6

NEIC 26 07:55:27.1±0.3, 7.48N×92.36E, h30^{km}, mb5.3/27, Error ellipse: s-maj=10.3km s-min=6.7km az=219.0

ISC 26 07:55:24.2±0.4, 7.40N±0.07×92.33E±0.05, h24^{km}, h24^{km}±1.5^{km}:pP-P, n113, σ0^{s}98/90, mb5.1/62, 4C-1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.74	30	P	P	07 58 23.7	-3.2
	48nm,0.3s						
CMAR	Chiang Mai Arr	12.74	30	Pn	P	07 58 29.8	+2.9
	4.0nm,0.3s,baz=229,slow=14,SNR=12						
QIZ	Qiongzhong	20.58	54	P	P	08 00 04.8	+0.6
LSA	Lhasa	22.21	357	P	P	08 00 22.5	+1.8
LSA	Lhasa	22.21	357	eP	P	08 00 21.4	+0.8
	75nm,0.8s,mb5.2						
GYA	Guiyang	23.35	34	⇑iP	P	08 00 32.0	+0.1
GYA				AMB	AMB		
	comp=Z,60nm,1.2s,mb4.9						
CD2	Chengdu	25.72	23	P	P	08 00 54.5	-0.1
CD2				AMB	AMB		
	comp=Z,100nm,0.9s,mb5.3						
LZH	Lanzhou	30.44	19	eP	P	08 01 36.0	-1.3
LZH				AMB	AMB		
	comp=Z,70nm,1.3s,mb5.2						
WHN	Wuhan	30.92	39	eP	P	08 01 41.5	-0.1
GTA	Gaotai	32.58	11	P	P	08 01 56.0	0.0
GTA				AP	pP	08 02 03.0	-0.1
GTA				AMB	AMB		
	comp=Z,52nm,1.0s,mb5.4						
GTA				AMB	AMB		
	comp=Z,3μm,10.9s						
GTA				LR	LR		
	comp=N,10μm,19.4s						
GTA				LR	LR		
	comp=E,9μm,13.3s						
GTA				LR	LR		
	comp=Z,11μm,26.2s						
NJ2	Nanjing	34.81	42	eP	P	08 02 15.3	-0.1
HHC	Hu-ho-hao-te	37.47	24	eP	P	08 02 38.0	+0.3
HHC				AP	pP	08 02 47.3	+2.3
HHC				XP	sP	08 02 51.0	+3.0
HHC				AMB	AMB		
	comp=Z,27nm,1.0s,mb5.0						
HHC				AMB	AMB		
	comp=Z,3μm,10.0s						
AAK	Ala-Archa	38.46	339	eP	P	08 02 46.0	0.0
	comp=Z,76nm,1.1s,mb5.3						
JOW	Kunigami	39.21	56	P	P	08 02 53.2	+0.7
	comp=Z,64nm,1.2s,mb5.2,baz=197,slow=7.7,SNR=4.6						
DL2	Dalian	40.99	36	P	P	08 03 07.8	+0.8
DL2				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.9						
SONM	Songino Array	42.04	14	P	P	08 03 16.1	+0.5
	comp=Z,29nm,1.0s,mb4.8,baz=196,slow=6.7,SNR=9.3						
SNY	Shenyang	44.06	34	⇑P	P	08 03 31.8	-0.3
SNY				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.7						
CN2	Changchun	46.40	33	eP	P	08 03 50.8	+0.1
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
ZAL	Zalesovo	46.80	354	P	P	08 03 53.3	-0.4
	comp=Z,12nm,1.0s,mb4.8,baz=291,slow=10,SNR=3.9						
BVAR	Borovoye Array	48.88	343	P	P	08 04 09.6	-0.4
	comp=Z,20nm,0.8s,mb5.2,baz=153,slow=6.6,SNR=8.6						
BRVK	Borovoye	48.94	343	eP	P	08 04 10.0	-0.5
	comp=Z,41nm,0.9s,mb5.5						
MDJ	Mudanjiang	49.21	35	eP	P	08 04 12.8	+0.1
	comp=Z,28nm,1.1s,mb5.2						
CHKZ	Chkalovo	49.38	343	eP	P	08 04 13.6	-0.2
	comp=Z,59nm,0.7s,mb5.7						
WRA	Warramunga Arr	49.47	124	P	P	08 04 14.0	-0.9
	comp=Z,34nm,0.9s,mb5.4,baz=304,slow=8.7,SNR=15						
WRAB	Tennant Creek	49.47	124	eP	P	08 04 14.0	-1.0
	comp=Z,94nm,1.1s,mb5.7						
MAT	Matsushiro	50.81	48	PCP	PcP	08 05 41.4	-0.5
ASAR	Alice Springs	51.01	128	P	P	08 04 26.1	-0.5
	comp=Z,21nm,0.9s,mb5.1,baz=303,slow=7.3,SNR=10.0						
GNI	Garni	53.49	315	P	P	08 04 46.5	+1.4
	comp=Z,34nm,1.1s,mb5.2,baz=280,slow=2.5,SNR=3.4						
ARU	Arti	55.64	338	eP	P	08 04 58.9	-1.6
	comp=Z,69nm,1.1s,mb5.6						
KIV	Kislovodsk	56.48	319	eP	P	08 05 06.1	-0.6
	comp=Z,47nm,1.0s,mb5.5						
ASAJ	Asahikawa	56.95	41	P	P	08 05 10.4	+0.3
	comp=Z,6.7nm,0.9s,mb4.7,baz=150,slow=30,SNR=3.1						
ASF	Jabal al Asfar	56.98	304	P	P	08 05 09.6	-0.8
	comp=Z,12nm,1.2s,mb4.8,baz=4.3,slow=4.8,SNR=2.4						
PMG	Port Moresby	57.12	106	P	P	08 05 11.3	-0.4
	comp=Z,12nm,1.0s,mb4.9,baz=345,slow=7.2,SNR=3.7						
MALT	Malatya	57.41	311	P	P	08 05 13.6	+0.2
	comp=Z,9.7nm,1.0s,mb4.8						
EIL	Elat	58.11	300	P	P	08 05 19.2	+0.8
	comp=Z,17nm,0.8s,mb5.1,baz=80,slow=6.3,SNR=6.3						
CTA	Charters Tower	59.65	118	P	P	08 05 28.0	-1.3
	comp=Z,14nm,0.9s,mb5.0,baz=282,slow=9.1,SNR=7.6						
CTA	Charters Tower	59.65	118	P	P	08 05 28.0	-1.3
CSS	Prodhromos	60.49	306	eP	P	08 05 32.0	-2.9
	comp=Z,38nm,1.3s,mb5.3						
YAK	Yakutsk	61.02	19	eP	P	08 05 36.9	-1.1
	comp=Z,81nm,1.0s,mb5.8						
STKA	Stephens Creek	61.09	133	P	P	08 05 38.5	-0.4
	comp=Z,14nm,0.8s,mb5.1,baz=300,slow=4.9,SNR=7.4						
STKA	Stephens Creek	61.09	133	P	P	08 05 38.5	-0.4
BRTR	Keskin Array B	61.39	311	P	P	08 05 39.8	-1.0
	comp=Z,6.4nm,0.9s,mb4.8,baz=112,slow=6.7,SNR=4.8						
ISP	Isparta	63.32	309	eP	P	08 05 52.7	-1.0
	comp=Z,37nm,1.1s,mb5.4						
AKASG	Malin Array Be	67.42	322	P	P	08 06 17.7	-2.3
	comp=Z,4.7nm,0.7s,mb4.7,baz=90,slow=4.6,SNR=5.4						
MA2	Magadan	68.02	28	eP	P	08 06 22.6	-1.0
	comp=Z,42nm,0.9s,mb5.5						
MLR	Muntele Rosu	68.26	316	P	P	08 06 25.8	+0.5
	comp=Z,45nm,0.9s,mb5.5,baz=71,slow=3.9,SNR=11						
KOLS	Kolonicke sedl	71.38	319	eP	P	08 06 44.5	+0.2
SUW	Suwalki	71.84	325	eP	P	08 06 45.6	-1.4
	comp=Z,95nm,0.9s,mb5.7						
CRVS	Cervenica-Dubn	71.91	319	eP	P	08 06 48.2	+0.7
FINES	FINESS Array B	72.30	333	P	P	08 06 48.9	-0.6
	comp=Z,8.8nm,0.6s,mb4.9,baz=108,slow=7.2,SNR=8.4						
FINES	FINESS Array B	72.30	333	P	P	08 06 48.9	-0.6
KAF	Kangasniemi	72.40	333	ep	P	08 06 49.3	-0.9
	comp=Z,18nm,1.0s,mb4.9						
KECS	Kecovo	72.48	318	eP	P	08 06 51.8	+1.0
OJC	Ojcow	73.19	320	eP	P	08 06 54.3	-0.7
VYHS	Vyhne	73.56	318	eP	P	08 06 56.6	-0.6
OKC	Ostrava-Krasne	74.19	320	eP	P	08 07 01.0	+0.2
OKC				epP	pP	08 07 08.9	+0.5
MORC	Moravsky Berou	74.57	320	eP	P	08 07 02.0	-1.0
	comp=Z,21nm,1.1s,mb5.0						
ZST	Bratislava	74.68	318	eP	P	08 07 03.6	-0.1
KEV	Kevo	74.69	341	ep	P	08 07 05.6	+2.3
ARCES	ARCESS Array B	75.11	340	P	P	08 07 05.7	0.0
	comp=Z,9.8nm,0.8s,mb4.8,baz=104,slow=5.0,SNR=6.0						
VRAC	Vranov	75.13	319	P	P	08 07 06.4	+0.2
	comp=Z,5.1nm,0.9s,mb4.5,baz=96,slow=9.6,SNR=4.6						
DPC	Dobruska-Polom	75.41	320	eP	P	08 07 08.8	+0.9
DPC				epP	pP	08 07 14.8	-0.7
KSP	Ksiaz	75.48	321	eP	P	08 07 08.8	+0.5
KSP				e		08 07 11.6	

UPC	Upice	75.63	320	*e*P	P	08 07 09.7	+0.6
ARSA	Arzberg	75.65	317	⇓*i*P	P	08 07 09.9	+0.6
	comp=Z,20nm,1.3s,mb4.9						
PRU	Pruhonice	76.52	320	*e*P	P	08 07 14.7	+0.6
PRU				*e*pP	pP	08 07 22.1	+0.3
PVCC	Panska Ves	76.55	320	*e*P	P	08 07 15.2	+1.0
BRG	Berggiesshubel	76.97	320	*i* P	P	08 07 16.6	0.0
	comp=Z,19nm,1.2s,mb4.9						
GERES	GERESS Array B	76.98	318	P	P	08 07 16.4	-0.3
	comp=Z,11nm,0.7s,mb4.9,baz=87,slow=5.2,SNR=9.7						
KHC	Kasperske Hory	77.08	319	*e*P	P	08 07 17.6	+0.3
KHC				*e*pP	pP	08 07 25.2	+0.3
BILL	Bilibino	77.19	22	*e*P	P	08 07 16.4	-1.1
	comp=Z,16nm,1.0s,mb4.9						
RUE	Ruedersdorf	77.20	322	*e*P	P	08 07 17.4	-0.4
	comp=Z,38nm,0.8s,mb5.4						
CLL	Collm	77.59	321	*e*P	P	08 07 18.0	-2.0
	comp=Z,20nm,1.1s,mb5.0						
CLL	Collm	77.59	321	P	P	08 07 20.0	0.0
	comp=Z,logA/T=1.3,mb5.0						
MAW	Mawson	77.71	191	P	P	08 07 22.2	+1.9
	comp=Z,3.5nm,0.8s,mb4.4,baz=67,slow=5.9,SNR=4.3						
NKC	Novy Kostel	77.88	320	*e*P	P	08 07 22.2	+0.6
HFS	Hagfors	77.96	330	P	P	08 07 19.3	-2.5
	comp=Z,3.9nm,0.5s,mb4.6,baz=108,slow=4.7,SNR=6.2						
WTTA	Wattenberg	78.29	317	⇑*i*P	P	08 07 23.5	-0.5
	comp=Z,31nm,1.1s,mb5.2						
NB2	NORSAR Subarra	79.26	331	P	P	08 07 27.5	-1.5
	comp=Z,15nm,1.1s,mb4.8,baz=94,slow=5.8						
NOA	NORSAR Array B	79.26	331	P	P	08 07 27.9	-1.0
	comp=Z,4.3nm,0.7s,mb4.5,baz=94,slow=5.5,SNR=3.7						
DAVOX	Davos	79.49	316	P	P	08 07 31.5	+1.0
	comp=Z,9.1nm,0.5s,mb5.0,baz=47,slow=3.3,SNR=10						
LPL	La Plagne	81.69	315	*e*P	P	08 07 43.0	+0.8
	comp=Z,65nm,0.9s,mb5.2						
BNI	Bardonecchia	81.75	314	*e*P	P	08 07 44.3	+1.8
	comp=Z,41nm,1.0s,mb5.3						
DSZ	Denniston Nort	87.09	133	*e*P	P	08 08 12.0	+2.5
EKA	Eskdalemuir Ar	87.09	325	P	P	08 08 09.8	+0.6
	comp=Z,7.4nm,0.7s,mb5.0,baz=93,slow=4.9,SNR=6.5						
DAG	Danmarks Havn	87.56	348	⇑*i*P	P	08 08 10.9	-0.1
	comp=Z,7.5nm,0.8s,mb5.0						
ESDC	Sonseca Array	90.15	310	P	P	08 08 24.9	+0.8
	comp=Z,3.7nm,0.7s,mb4.9,baz=66,slow=4.3,SNR=8.0						
IMA	Indian Mountai	92.74	22	*e*P	P	08 08 37.2	+1.8
	comp=Z,88nm,1.3s,mb6.0						
ILAR	Eielson Array	95.86	22	P	P	08 08 50.3	+0.6
	comp=Z,1.8nm,0.9s,mb4.5,baz=292,slow=4.3,SNR=6.0						
INK	Inuvik	97.94	16	P	P	08 09 00.3	+1.2
	comp=Z,8.0nm,1.1s,mb5.2,baz=302,slow=4.8,SNR=5.6						
DAWY	Dawson	98.94	20	*e*P	P	08 09 04.0	+0.4
MSO	Missoula	121.18	21	*e*PKP	PKPdf	08 14 16.5	-3.5
ULM	Lac du Bonnet	122.15	6	PKP	PKPdf	08 14 19.1	-2.6
	comp=Z,2.5nm,0.6s,baz=312,slow=0.7,SNR=3.5						
HLID	Hailey	123.78	23	*e*PKP	PKPdf	08 14 22.2	-2.9
WUWY	Wally Ulrich	125.15	20	*e*PKP	PKPdf	08 14 25.4	-2.3
SNOW	Snow King Moun	125.22	20	*e*PKP	PKPdf	08 14 25.8	-2.0
REDW	Red Top Meadow	125.27	21	*e*PKP	PKPdf	08 14 25.9	-2.1
ELK	Elko	125.79	26	*e*PKP	PKPdf	08 14 27.4	-1.7
NVAR	Mina Array Bea	126.24	30	PKP	PKPdf	08 14 28.1	-1.9
	comp=Z,4.5nm,0.6s,baz=280,slow=3.1,SNR=11						
PDAR	Pinedale Array	126.24	20	PKP	PKPdf	08 14 27.2	-2.6
	comp=Z,4.0nm,0.7s,slow=1.5,SNR=8.7						
MTUM	Tungsten Hills	126.94	31	*e*PKP	PKPdf	08 14 28.9	-2.4
MVU	Marysvale	128.95	25	*e*PKP	PKPdf	08 14 34.4	-0.8
MSU	Marysvale	128.95	25	*e*PKP	PKPdf	08 14 35.1	-0.1
NEN	Nelson	130.12	29	*e*PKP	PKPdf	08 14 35.2	-2.3
KSU1	Kansas State U	133.00	10	*e*PKP	PKPdf	08 14 40.3	-2.6
MNTX	Cornudas Mount	137.60	23	*e*PKP	PKPdf	08 14 48.1	-3.4
BAO	Brasilia Array	140.32	254	PKP		08 14 44.6	
TXAR	Lajitas Array	140.37	22	PKhKP		08 14 45.1	
	comp=Z,1.3nm,1.0s,baz=90,slow=1.3,SNR=4.0						
TXAR				PKP	PKPdf	08 14 55.0	-1.7
	comp=Z,1.5nm,0.5s,slow=2.5,SNR=5.9						
TXAR	Lajitas Array	140.37	22	PKP	PKPdf	08 14 55.0	-1.7
JCT	Junction City	140.58	17	*e*PKPdf	PKPdf	08 14 55.2	-1.9
LPAZ	La Paz	158.95	243	PKP	PKPdf	08 15 24.5	-1.0
	comp=Z,2.7nm,0.9s,baz=98,slow=5.2,SNR=3.6						
LPAZ	La Paz	158.95	243	PKP	PKPdf	08 15 24.5	-1.0
ROSC	El Rosal	161.96	312	PKP	PKPdf	08 15 27.1	-1.7
	comp=Z,4.0nm,0.9s,baz=277,slow=22,SNR=4.0						

IDC 26 07:55:53.3±6.3,7.19N×94.14E,mb4.6/9,mb1 4.7/9, mb1mx4.5/20,Error ellipse: s-maj=162.0km s-min=75.7km az=131.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAL	Zalesovo	47.22	352	P	P	08 04 27.8	-2.0
	8.2nm,0.7s,baz=302,slow=10,SNR=4.0						
BVAR	Borovoye Array	49.63	341	P	P	08 04 46.7	-1.8
	7.0nm,0.7s,baz=134,slow=9.0,SNR=5.4						
BRTR	Keskin Array B	62.88	311	P	P	08 06 21.5	-2.1
	3.8nm,0.8s,baz=130,slow=6.7,SNR=2.5						
FINES	FINESS Array B	73.31	332	P	P	08 07 26.4	-2.0
	6.6nm,0.6s,baz=116,slow=6.0,SNR=4.1						
ARCES	ARCESS Array B	75.91	340	P	P	08 07 41.6	-1.6
	4.3nm,0.8s,baz=105,slow=6.5,SNR=3.0						
GERES	GERESS Array B	78.34	318	P	P	08 07 56.1	-1.0
	1.1nm,0.5s,baz=114,slow=4.4,SNR=3.2						
HFS	Hagfors	79.05	330	P	P	08 07 59.3	-1.4
	12nm,1.0s,baz=63,slow=6.6,SNR=5.9						
NOA	NORSAR Array B	80.33	331	P	P	08 08 05.6	-2.0
	8.5nm,1.1s,baz=94,slow=5.3,SNR=2.9						
EKA	Eskdalemuir Ar	88.28	325	P	P	08 08 47.2	-0.6
	4.4nm,0.7s,baz=91,slow=5.1,SNR=4.6						

IDC 26 07:56:40.7±1.1,8.86N×93.79E,mb4.6/13,mb1 4.8/13, mb1mx4.6/22,Error ellipse: s-maj=96.0km s-min=21.4km az=45.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BVAR	Borovoye Array	47.95	341	P	P	08 05 20.9	-2.0
	3.6nm,0.6s,baz=134,slow=8.3,SNR=3.1						
WRA	Warramunga Arr	49.11	126	P	P	08 05 29.2	-3.1
	35nm,1.1s,baz=300,slow=8.9,SNR=4.7						
ASAR	Alice Springs	50.81	130	P	P	08 05 44.3	-1.0
	7.7nm,0.9s,baz=313,slow=8.1,SNR=2.6						
BRTR	Keskin Array B	61.53	310	P	P	08 06 59.2	-2.8
	4.8nm,0.8s,baz=121,slow=5.9,SNR=6.7						
AKASG	Malin Array Be	67.17	321	P	P	08 07 35.0	-3.7
	1.4nm,0.4s,baz=82,slow=4.8,SNR=5.7						
MLR	Muntele Rosu	68.23	315	P	P	08 07 44.1	-1.3
	7.9nm,0.9s,baz=92,slow=4.0,SNR=3.3						
FINES	FINESS Array B	71.68	332	P	P	08 08 04.2	-1.9
	1.9nm,0.5s,baz=104,slow=7.9,SNR=2.5						
ARCES	ARCESS Array B	74.23	340	P	P	08 08 19.4	-1.4
	11nm,1.1s,baz=90,slow=4.9,SNR=3.7						
GERES	GERESS Array B	76.87	318	P	P	08 08 35.4	-0.9
	2.8nm,0.5s,baz=83,slow=6.6,SNR=8.4						
HFS	Hagfors	77.44	330	P	P	08 08 37.8	-1.4
	4.6nm,0.5s,baz=90,slow=7.4,SNR=5.2						
NOA	NORSAR Array B	78.71	331	P	P	08 08 44.6	-1.6
	2.7nm,0.6s,baz=92,slow=5.7,SNR=3.9						
DAVOX	Davos	79.44	316	P	P	08 08 50.0	-0.5
	9.4nm,0.9s,baz=112,slow=10,SNR=3.4						
EKA	Eskdalemuir Ar	86.72	325	P	P	08 09 27.4	-0.3
	5.3nm,0.7s,baz=98,slow=5.3,SNR=5.6						

IDC 26 07:56:50.3±1.3,4.13N×93.50E,mb4.8/12,mb1 4.9/12, mb1mx4.7/20,Error ellipse: s-maj=49.0km s-min=26.9km az=43.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	44.93	12	P	P	08 05 06.9	-1.9
	13nm,0.7s,baz=194,slow=8.2,SNR=8.1						
WRA	Warramunga Arr	46.72	122	P	P	08 05 21.1	-2.1
	14nm,0.5s,baz=300,slow=9.1,SNR=6.3						
ZAL	Zalesovo	50.15	353	P	P	08 05 47.0	-2.4
	9.5nm,0.5s,baz=295,slow=7.0,SNR=5.0						
BVAR	Borovoye Array	52.32	343	P	P	08 06 04.0	-2.0
	13nm,0.8s,baz=143,slow=7.4,SNR=5.6						
BRTR	Keskin Array B	64.41	312	P	P	08 07 26.9	-3.9
	1.8nm,0.4s,baz=175,slow=30,SNR=6.0						
AKASG	Malin Array Be	70.69	323	P	P	08 08 06.6	-3.4
	2.1nm,0.6s,baz=82,slow=4.2,SNR=4.1						
MLR	Muntele Rosu	71.41	317	P	P	08 08 13.8	-0.6
	17nm,1.0s,baz=91,slow=2.8,SNR=3.1						
FINES	FINESS Array B	75.71	333	P	P	08 08 37.3	-1.9
	5.7nm,0.9s,baz=107,slow=6.8,SNR=3.3						
ARCES	ARCESS Array B	78.55	341	P	P	08 08 53.4	-1.5
	15nm,1.1s,baz=76,slow=5.0,SNR=3.8						
GERES	GERESS Array B	80.18	319	P	P	08 09 04.1	0.0
	5.0nm,0.8s,baz=90,slow=5.3,SNR=3.9						
HFS	Hagfors	81.35	330	P	P	08 09 09.2	-0.9
	10nm,1.0s,baz=146,slow=5.3,SNR=3.2						
DAVOX	Davos	82.63	316	P	P	08 09 17.3	+0.3
	12nm,0.8s,baz=118,slow=3.4,SNR=3.6						
NOA	NORSAR Array B	82.66	331	P	P	08 09 16.0	-0.8
	3.4nm,0.9s,baz=95,slow=5.1,SNR=2.3						

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*IDC **26** 07:57:43.6±0.6,8.47N×92.54E,mb4.9/26,mb1 5.0/27, mb1mx4.9/31,ML4.9/1,Error ellipse: s-maj=29.6km s-min=12.5km az=39.0*

ISC 26 07:57:46.8±0.5,8.34N±0.08×92.58E±0.09,h33^{km},n65, σ1^{s}06/60,mb5.0/31,4C-2D,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.80	31	Pn	P	08 00 35.6	-0.3
	2.4nm,0.3s,baz=229,slow=14,SNR=7.8						
HYB	Hyderabad	16.37	305	*e*P	P	08 01 39.5	+3.7
HYB				*e*S	S	08 04 20.0	-16
PKI	Pulchoki	20.30	341	*e*P	P	08 02 22.4	-0.2
	425nm,0.4s						
DMN	Daman	20.43	341	*e*P	P	08 02 23.8	-0.2
	1µm,0.8s						
GUN	Gumba	20.47	343	*e*P	P	08 02 24.7	+0.3
	222nm,0.3s						
KKN	Kakani	20.54	341	*e*P	P	08 02 24.8	-0.4
	455nm,0.7s						
GKN	Gorkha	20.95	340	*e*P	P	08 02 28.0	-1.4
	717nm,0.4s						
KOLN	Koldanda	21.11	337	*e*P	P	08 02 31.1	+0.1
	245nm,0.3s,mb6.0						
KZA	Kyzart	36.92	338	P	P	08 04 55.9	+1.4
	SNR=8.0						
UCH	Uchtor	37.32	338	P	P	08 04 59.7	+1.8
	SNR=5.2						
KBK	Karagaybulak	37.53	338	P	P	08 05 01.3	+1.7
	SNR=6.3						
TKM2	Tokmak 2	37.53	339	P	P	08 05 00.6	+1.0
	SNR=6.2						
AML	Almayashu	37.55	337	P	P	08 05 01.5	+1.7
	SNR=13						
AAK	Ala-Archa	37.68	338	P	P	08 05 02.5	+1.7
	SNR=12						
CHMS	Chumysh	37.90	339	P	P	08 05 03.4	+0.7
	SNR=12						
EKS2	Erkin-Say	37.97	337	P	P	08 05 04.9	+1.6
	SNR=8.3						
USP	Ospenovka	38.23	339	P	P	08 05 06.4	+1.0
	SNR=7.8						
SONM	Songino Array	41.07	14	P	P	08 05 28.6	-0.3
	4.1nm,0.8s,mb4.1,baz=201,slow=8.6,SNR=6.8						
ZAL	Zalesovo	45.90	354	P	P	08 06 05.8	-2.2
	7.3nm,0.6s,mb4.8,baz=298,slow=7.1,SNR=3.6						
BVAR	Borovoye Array	48.06	342	P	P	08 06 24.3	-0.7
	24nm,0.9s,mb5.2,baz=143,slow=7.4,SNR=6.0						
WRA	Warramunga Arr	49.79	125	P	P	08 06 38.8	0.0
	20nm,0.9s,mb5.1,baz=306,slow=8.4,SNR=24						
ASAR	Alice Springs	51.40	129	P	P	08 06 51.0	0.0
	7.1nm,0.7s,mb4.7,baz=305,slow=7.7,SNR=11						
GNI	Garni	53.01	315	P	P	08 07 02.0	-0.7
	13nm,0.8s,mb4.9,baz=126,slow=1.7,SNR=4.4						
ASAJ	Asahikawa	56.09	42	P	P	08 07 23.6	-1.6
	20nm,1.0s,mb5.1,baz=287,slow=5.3,SNR=3.9						
ASF	Jabal al Asfar	56.67	303	P	P	08 07 26.9	-2.7
	3.5nm,0.6s,mb4.6,baz=343,slow=3.5,SNR=4.3						
PMG	Port Moresby	57.14	107	P	P	08 07 33.5	+0.3
	19nm,0.7s,mb5.3,baz=282,slow=5.6,SNR=6.9						
EIL	Elat	57.85	300	P	P	08 07 38.5	+0.6
	13nm,0.7s,mb5.1,baz=349,slow=0.8,SNR=5.9						
CTA	Charters Tower	59.88	119	P	P	08 07 52.9	+0.7
	3.4nm,0.6s,mb4.5,baz=309,slow=5.4,SNR=5.1						
BRTR	Keskin Array B	60.96	311	P	P	08 07 57.6	-1.6
	18nm,0.8s,mb5.3,baz=120,slow=7.6,SNR=12						
STKA	Stephens Creek	61.55	133	P	P	08 08 03.7	+0.4
	19nm,1.2s,mb5.1,baz=265,slow=11,SNR=3.3						
AKASG	Malin Array Be	66.83	322	P	P	08 08 35.1	-2.3
	14nm,0.8s,mb5.0,baz=89,slow=4.5,SNR=10						
MLR	Muntele Rosu	67.76	316	P	P	08 08 43.1	-0.2
	36nm,0.8s,mb5.5,baz=25,slow=0.5,SNR=8.3						
KOLS	Kolonicke sedl	70.84	319	*e*P	P	08 09 02.4	+0.2
KOLS				*e*	pP	08 09 13.7	+1.2
CRVS	Cervenica-Dubn	71.36	319	*e*P	P	08 09 07.5	+2.1
FINES	FINESS Array B	71.58	332	P	P	08 09 05.6	-0.9
	22nm,0.8s,mb5.1,baz=104,slow=7.9,SNR=12						
KAF	Kangasniemi	71.68	333	*e*p	P	08 09 06.0	-1.0
	39nm,1.0s,mb5.3						
KECS	Kecovo	71.94	318	*e*P	P	08 09 08.6	-0.2
NIE	Niedzica	72.18	319	*e*P	P	08 09 10.6	+0.4
VYHS	Vyhne	73.03	318	*e*P	P	08 09 10.4	-4.9
SRO	Srobarova	73.30	317	*e*P	P	08 09 16.8	-0.1
KEV	Kevo	73.89	341	*e*p	P	08 09 18.8	-1.1
SMOL	Smolenice	73.96	318	*e*P	P	08 09 17.2	-3.5
ZST	Bratislava	74.15	318	*e*P	P	08 09 15.2	-6.6
ZST				*e*		08 09 21.8	
ZST				*e*		08 09 31.5	
ARCES	ARCESS Array B	74.31	340	P	P	08 09 22.0	-0.3
	3.9nm,0.5s,mb4.6,baz=90,slow=6.1,SNR=5.2						
VRAC	Vranov	74.59	319	P	P	08 09 23.7	-0.6
	6.2nm,0.7s,mb4.6,baz=129,slow=9.9,SNR=7.1						
ARSA	Arzberg	75.14	317	⇑*i*P	P	08 09 22.7	-4.8
	41nm,1.4s,mb5.2						
PRU	Pruhonice	75.97	319	*e*P	P	08 09 27.0	-5.2
PRU				*e*x	x	08 09 40.4	
GERES	GERESS Array B	76.45	318	P	P	08 09 35.2	+0.2
	6.2nm,0.8s,mb4.6,baz=90,slow=4.9,SNR=4.6						
CLL	Collm	77.02	321	P	P	08 09 37.9	-0.3
	logA/T=1.2,mb4.9						
CLL				*e**PP	pP	08 09 48.0	-0.5
HFS	Hagfors	77.28	330	P	P	08 09 38.8	-0.6
	14nm,0.6s,mb5.0,baz=101,slow=7.6,SNR=12						
WTTA	Wattenberg	77.78	317	⇑*i*P	P	08 09 40.7	-1.8
	23nm,0.7s,mb5.2						
MOX	Moxa	77.87	320	*i* P	P	08 09 43.1	+0.2
NB2	NORSAR Subarra	78.57	331	P	P	08 09 45.5	-1.0
	11nm,0.7s,mb4.9,baz=93,slow=5.8						
NOA	NORSAR Array B	78.57	331	P	P	08 09 45.9	-0.6
	8.0nm,0.7s,mb4.8,baz=94,slow=5.7,SNR=7.9						
DAVOX	Davos	78.98	316	P	P	08 09 49.4	+0.3
	13nm,0.4s,mb5.2,baz=133,slow=8.0,SNR=14						
EKA	Eskdalemuir Ar	86.46	325	P	P	08 10 27.9	+0.7
	7.7nm,0.7s,mb5.1,baz=95,slow=5.6,SNR=10						
ESDC	Sonseca Array	89.74	310	P	P	08 10 44.0	+0.6
	2.5nm,0.6s,mb4.7,baz=64,slow=4.2,SNR=7.7						
DBIC	Dimbokro	96.35	278	P	P	08 11 15.0	+0.8
	3.6nm,0.7s,mb4.9,baz=113,slow=4.8,SNR=5.5						
INK	Inuvik	96.97	16	P	P	08 11 16.9	+1.1
	1.6nm,0.5s,mb4.7,baz=312,slow=5.2,SNR=5.0						
SNAA	Sanae	99.57	199	⇑*i*	PP	08 15 38.3	+4.3
VNA2	Neumayer--Watz	101.09	199	⇓*i*	PP	08 15 47.7	+1.6
VNA1	Neumayer--Stat	101.42	200	⇑*i*	PP	08 15 50.8	+2.4
VNA3	Neumayer Olymp	101.79	199	⇓*i*	PP	08 15 46.0	-4.9
YKA	Yellowknife Ar	106.33	13	PP	PP	08 16 17.9	-7.3
	0.6nm,0.7s,baz=337,slow=7.9,SNR=4.9						
PDAR	Pinedale Array	125.28	20	PKP	PKPdf	08 16 46.8	+2.1
	1.4nm,0.9s,baz=92,slow=2.5,SNR=3.1						

IDC 26 07:57:55.5±1.0,8.89N×93.08E,mb4.8/12,mb1 4.9/12, mb1mx4.7/20,Error ellipse: s-maj=48.5km s-min=20.3km az=50.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	40.42	14	P	P	08 05 35.5	-1.6
	13nm,0.8s,baz=200,slow=8.3,SNR=5.4						
ZAL	Zalesovo	45.41	353	P	P	08 06 15.7	-1.9
	17nm,0.5s,baz=313,slow=6.4,SNR=7.1						
BVAR	Borovoye Array	47.70	342	P	P	08 06 33.7	-2.1
	4.8nm,0.5s,baz=141,slow=9.6,SNR=4.6						
WRA	Warramunga Arr	49.70	126	P	P	08 06 49.2	-2.5
	13nm,0.9s,baz=306,slow=8.5,SNR=5.2						
ASAR	Alice Springs	51.37	130	P	P	08 07 03.0	-1.3
	13nm,0.9s,baz=304,slow=7.4,SNR=5.5						
BRTR	Keskin Array B	60.98	311	P	P	08 08 12.4	-0.6
	5.8nm,0.6s,baz=141,slow=7.9,SNR=3.0						
ARCES	ARCESS Array B	73.96	340	P	P	08 09 33.4	-0.8
	11nm,0.9s,baz=90,slow=3.6,SNR=5.0						
GERES	GERESS Array B	76.37	318	P	P	08 09 45.8	-2.7
	5.7nm,0.7s,baz=90,slow=5.3,SNR=5.1						
HFS	Hagfors	77.06	330	P	P	08 09 50.3	-1.7
	4.2nm,0.5s,baz=105,slow=3.6,SNR=5.3						
NOA	NORSAR Array B	78.34	331	P	P	08 09 57.5	-1.5
	6.8nm,0.9s,baz=94,slow=5.6,SNR=3.3						
EKA	Eskdalemuir Ar	86.29	325	P	P	08 10 39.1	-1.3
	5.3nm,0.9s,baz=98,slow=5.1,SNR=3.5						
ESDC	Sonseca Array	89.77	310	P	P	08 10 55.9	-1.5
	1.3nm,0.6s,baz=62,slow=4.2,SNR=4.6						
NVAR	Mina Array Bea	124.58	30	PKP	PKPdf	08 16 55.7	-3.6
	1.6nm,0.8s,baz=307,slow=4.5,SNR=3.1						
PDAR	Pinedale Array	124.59	20	PKP	PKPdf	08 16 58.4	-0.8
	2.9nm,1.0s,baz=270,slow=0.9,SNR=4.5						

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*CNRM **26** 07:58:29.6,35.27N×2.78W,h9^{km},MD3.0*

*NEIC **26** 07:58:33.0,35.07N×3.05W,h8^{km},MG3.7(MDD),After MDD.*

*MDD **26** 07:58:32.5±1.5,35.06N×3.11W,mb3.7/6,Error ellipse: s-maj=15.2km s-min=5.6km az=158.0,PRXIMO AftershockPLICA*

*CSEM **26** 07:58:32.8±0.2,35.20N×3.07W,h12^{km},mb3.7/6,Error ellipse: s-maj=4.6km s-min=2.4km az=138.0*

ISC 26 07:58:34.2±0.7,35.27N±0.05×3.15W±0.04,h10^{km},n32, σ1^{s}26/49,Strait of Gibraltar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMEL	Melilla	0.16	79	P	Pg	07 58 37.5	-0.3
	216nm,0.3s,SNR=12						
EMEL				S	Sg	07 58 41.7	+1.4
	1µm,0.2s,SNR=7.9						
EMLI	Melilla	0.16	79	P	Pg	07 58 37.5	-0.4
	216nm,0.3s,SNR=12						
TOU	Touzarine	0.58	239	*i* P	Pg	07 58 46.0	0.0
TOU				*i* S	Sg	07 58 57.5	+3.7
MPAL	Palemas	0.65	266	*e*P	Pb	07 58 48.0	+0.8
MPAL				*i* S	Sb	07 59 00.0	+4.0
EBER	Berja	1.64	7	P	Pn	07 59 05.1	+1.9
	1.0nm,0.2s,SNR=4.0						
EBER				S	Sn	07 59 25.1	+0.5
	38nm,0.4s,SNR=7.9						
EBER	Berja	1.64	7	P	Pn	07 59 05.1	+1.8
	1.0nm,0.2s,SNR=4.0						
EBER				S	Sn	07 59 25.1	+0.5
	38nm,0.4s,SNR=7.9						
ERON	Agron	1.83	343	S	Sn	07 59 31.1	+1.8
	4.6nm,0.2s,SNR=7.9						
EMIJ	Mijas	1.85	315	P	Pn	07 59 06.0	-0.2
	0.6nm,0.1s,SNR=12						
EMIJ				S	Sn	07 59 31.1	+1.2
	19nm,0.3s,SNR=6.6						
EMIJ	Mijas	1.85	315	P	Pn	07 59 06.0	-0.3
	0.6nm,0.1s,SNR=12						
EMIJ				S	Sn	07 59 31.0	+1.1
	19nm,0.3s,SNR=6.6						
ENIJ	Nijar	1.86	24	P	Pn	07 59 05.2	-1.3
	2.2nm,0.2s,SNR=7.9						
ENIJ				S	Sn	07 59 30.7	+0.4
	12nm,0.4s,SNR=7.9						
LIJA	Lijar	2.45	312	*i* P	Pn	07 59 17.0	+2.1
EQES	Quesada	2.53	1	P	Pn	07 59 17.9	+1.9
	1.2nm,0.2s,SNR=10						
EQES				S	Sn	07 59 51.7	+4.5
	9.5nm,0.2s,SNR=7.0						
EQES	Quesada	2.53	1	P	Pn	07 59 17.9	+1.9
	1.2nm,0.2s,SNR=10						
ESPR	Espera	2.71	307	P	Pn	07 59 19.6	+0.9
	0.5nm,0.1s,SNR=6.2						
ESPR	Espera	2.71	307	P	Pn	07 59 19.6	+0.9
	0.5nm,0.1s,SNR=6.2						
EMUR	La Murta	2.99	30	P	Pn	07 59 20.5	-2.1
	0.6nm,0.2s,SNR=7.1						
EMUR				S	Sn	07 59 56.0	-2.9
	19nm,0.6s,SNR=7.9						
EMUR	La Murta	2.99	30	P	Pn	07 59 20.5	-2.1
	0.6nm,0.2s,SNR=7.1						
EADA	Adamuz	3.11	339	P	Pn	07 59 24.8	+0.5
	0.3nm,0.1s,SNR=8.4						
EADA				S	Sn	08 00 03.1	+1.1
	5.7nm,0.3s,SNR=7.8						
EADA	Adamuz	3.11	339	P	Pn	07 59 24.8	+0.5
	0.3nm,0.1s,SNR=8.4						
EADA				S	Sn	08 00 03.1	+1.1
	5.7nm,0.3s,SNR=7.8						
EMIN	Mina Concepcio	3.78	312	P	Pn	07 59 33.0	-0.8
	1.3nm,0.1s,SNR=17						
EMIN				S	Sn	08 00 18.0	-0.9
	SNR=6.5						
EMIN	Mina Concepcio	3.78	312	P	Pn	07 59 33.0	-0.8
	1.3nm,0.1s,SNR=17						
EMIN				S	Sn	08 00 18.0	-0.8
	SNR=6.5						
PALC	Alcoutim	4.12	303	*e*Pn	Pn	07 59 37.4	-1.3
PALC				*e*Sn	Sn	08 00 26.8	-0.8
	5.5nm,0.5s						
PALC	Alcoutim	4.12	303	P	Pn	07 59 37.4	-1.3
PALC				S	Sn	08 00 26.8	-0.8
	2.8nm,0.5s						
EGRO	El Granado	4.16	304	P	Pn	07 59 38.1	-1.2
	14nm,0.3s,SNR=7.9						
EGRO	El Granado	4.16	304	P	Pn	07 59 38.1	-1.2
	14nm,0.3s,SNR=7.9						
ESDC	Sonseca Array	4.45	352	P	Pn	07 59 42.9	-0.4
	0.1nm,0.3s,baz=172,slow=12,SNR=8.2						
ESDC	Sonseca Array	4.45	352	P	Pn	07 59 42.9	-0.4
	0.1nm,0.3s,SNR=8.2						
EBAD	Badajoz	4.66	320	P	Pn	07 59 45.4	-0.9
	4.0nm,0.2s,SNR=6.4						
EBAD				S	Sn	08 00 38.3	-2.8
	0.8nm,0.4s						
EBAD	Badajoz	4.66	320	S	Sn	08 00 38.3	-2.8
EBAD	Badajoz	4.66	320	P	Pn	07 59 45.4	-0.9
	4.0nm,0.2s,SNR=6.4						
PBEJ	Beja	4.69	307	*e*Pn	Pn	07 59 46.1	-0.6
PCBR	Castelo Branco	5.71	324	*e*Pn	Pn	08 00 00.4	-0.8

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*IDC **26** 07:59:32.8±0.5,3.19N×93.82E,mb5.0/24,mb1 5.1/25, mb1mx5.0/29,ML4.1/1,Error ellipse: s-maj=22.9km s-min=12.2km az=48.0*

*BJI **26** 07:59:36.2,2.67N×93.72E,h62^{km},mB6.2,mb5.2,Ms5.9, Msz5.7*

*NEIC **26** 07:59:37.7±5.1,3.23N×93.91E,h32^{km}±34^{km},mb5.3/16, Error ellipse: s-maj=16.0km s-min=6.7km az=50.0*

ISC 26 07:59:36.2±0.3,3.17N±0.06×93.86E±0.07,h33^{km}, (h28^{km}±7.4^{km}:pP-P),n80,σ0^{s}95/69,mb5.1/46,MS5.8/2, 4C-1D,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.99	18	Pn	P	08 03 18.5	-1.9
	0.3nm,0.3s,baz=219,slow=9.2,SNR=3.0						
IMP	Imphal	21.49	0	*e*	P	08 04 25.5	+1.2
KMI	Kunming	23.44	21	*e*P	P	08 04 45.8	+2.2
KMI				AMB	AMB		
	comp=Z,58nm,2.0s,mb4.7						
GYA	Guiyang	26.21	27	⇑*i*P	P	08 05 11.0	+0.9
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
LSA	Lhasa	26.51	355	P	P	08 05 14.3	+1.5
LSA				AMB	AMB		
	comp=Z,270nm,0.9s,mb5.8						
LSA	Lhasa	26.51	355	*e*P	P	08 05 14.0	+1.2
	comp=Z,224nm,0.7s,mb5.8						
WHN	Wuhan	33.41	33	⇓P	P	08 06 15.5	+1.3
LZH	Lanzhou	34.03	15	*e*P	P	08 06 19.5	+0.1
LZH				AMB	AMB		
	comp=Z,45nm,1.4s,mb5.2						
MBWA	Marble Bar	35.02	135	*e*P	P	08 06 27.5	-0.6
	comp=Z,55nm,1.0s,mb5.4						
GTA	Gaotai	36.48	8	P	P	08 06 39.0	-1.2
GTA				AMB	AMB		
	comp=Z,37nm,1.0s,mb5.3						
GTA				AMB	AMB		
	comp=Z,4µm,11.4s						
GTA				LR	LR		
	comp=N,4µm,13.7s,MS5.6						
GTA				LR	LR		
	comp=E,5µm,12.2s,MS5.6						
GTA				LR	LR		
	comp=Z,19µm,15.6s,MS6.0						
NJ2	Nanjing	37.11	36	*e*P	P	08 06 45.3	-0.3
HHC	Hu-ho-hao-te	40.77	21	*e*P	P	08 07 16.5	+0.5
HHC				AMB	AMB		
	comp=Z,28nm,0.9s,mb4.9						
HHC				AMB	AMB		
	comp=Z,5µm,9.4s						
HHC				LR	LR		
	comp=N,8µm,14.3s,MS5.9						

HHC				LR	LR		
	comp=E,13µm,19.0s,MS5.9						
HHC				LR	LR		
	comp=Z,11µm,25.0s						
BJI	**Beijing**	**41.90**	**26**	P	**P**	**08 07 25.5**	**+0.2**
BJI				AMB	AMB		
	comp=Z,61nm,1.2s,mb5.1						
SONM	**Songino Array**	**45.79**	**12**	P	**P**	**08 07 56.9**	**+0.2**
	comp=Z,20nm,0.8s,mb5.1,baz=198,slow=7.8,SNR=7.7						
SONM				PcP	PcP	08 09 34.5	+0.1
	comp=Z,9.9nm,1.1s,baz=208,slow=4.2,SNR=4.0						
WRA	**Warramunga Arr**	**45.90**	**122**	P	**P**	**08 07 57.3**	**-0.6**
	comp=Z,27nm,0.8s,mb5.2,baz=298,slow=9.0,SNR=11						
WRAB	**Tennant Creek**	**45.90**	**122**	eP	**P**	**08 07 58.1**	**+0.1**
	comp=Z,106nm,0.9s,mb5.8						
SNY	**Shenyang**	**46.80**	**31**	⇑P	**P**	**08 08 04.5**	**-0.1**
SNY				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.2						
ASAR	**Alice Springs**	**47.24**	**127**	P	**P**	**08 08 07.3**	**-1.0**
	comp=Z,20nm,1.0s,mb5.0,baz=303,slow=7.7,SNR=6.1						
ASAR				PcP	PcP	08 09 40.5	+0.7
	comp=Z,4.0nm,0.8s,baz=288,slow=2.9,SNR=2.4						
ZAL	**Zalesovo**	**51.15**	**353**	P	**P**	**08 08 37.1**	**-1.0**
	comp=Z,28nm,0.5s,mb5.4,baz=297,slow=6.1,SNR=12						
MDJ	**Mudanjiang**	**51.88**	**32**	eP	**P**	**08 08 43.8**	**+0.1**
	comp=Z,23nm,0.9s,mb5.1						
BVAR	**Borovoye Array**	**53.35**	**343**	P	**P**	**08 08 53.0**	**-1.5**
	comp=Z,18nm,0.8s,mb5.1,baz=145,slow=9.3,SNR=8.1						
BRVK	**Borovoye**	**53.41**	**342**	eP	**P**	**08 08 53.7**	**-1.3**
	comp=Z,22nm,0.7s,mb5.2						
CHKZ	**Chkalovo**	**53.85**	**343**	eP	**P**	**08 08 56.9**	**-1.4**
	comp=Z,54nm,1.0s,mb5.4						
CTA	**Charters Tower**	**56.36**	**117**	P	**P**	**08 09 16.5**	**-0.4**
	comp=Z,15nm,1.0s,mb5.0,baz=285,slow=5.6,SNR=4.2						
CTA	**Charters Tower**	**56.36**	**117**	P	**P**	**08 09 16.5**	**-0.4**
KMBO	**Kilima Mbogo**	**56.75**	**267**	P	**P**	**08 09 20.5**	**+0.7**
	comp=Z,11nm,1.1s,mb4.8,baz=56,slow=9.4,SNR=5.1						
STKA	**Stephens Creek**	**57.15**	**131**	P	**P**	**08 09 22.6**	**+0.2**
	comp=Z,10nm,0.7s,mb5.0,baz=303,slow=7.0,SNR=3.9						
GNI	**Garni**	**57.58**	**317**	P	**P**	**08 09 26.0**	**+0.7**
	comp=Z,6.8nm,0.6s,mb4.9,baz=290,slow=5.5,SNR=2.9						
ASAJ	**Asahikawa**	**59.17**	**39**	P	**P**	**08 09 37.4**	**+0.9**
	comp=Z,18nm,0.9s,mb5.1,baz=259,slow=14,SNR=4.3						
KIV	**Kislovodsk**	**60.66**	**320**	eP	**P**	**08 09 44.5**	**-2.1**
	comp=Z,41nm,0.9s,mb5.6						
YSS	**Yuzh-Sakhalins**	**60.68**	**36**	eP	**P**	**08 09 46.1**	**-0.6**
	comp=Z,82nm,1.0s,mb5.8						
BRTR	**Keskin Array B**	**65.33**	**313**	P	**P**	**08 10 16.8**	**-0.8**
	comp=Z,6.5nm,0.7s,mb4.8,baz=135,slow=5.2,SNR=5.9						
AKASG	**Malin Array Be**	**71.68**	**323**	P	**P**	**08 10 55.5**	**-1.1**
	comp=Z,6.5nm,0.7s,mb4.7,baz=90,slow=4.4,SNR=8.2						
MLR	**Muntele Rosu**	**72.36**	**317**	P	**P**	**08 11 00.8**	**+0.1**
	comp=Z,14nm,0.6s,mb5.1,baz=27,slow=9.5,SNR=12						
KOLS	**Kolonicke sedl**	**75.57**	**320**	i P	**P**	**08 11 20.1**	**+0.7**
KOLS				e		08 11 26.4	
CRVS	**Cervenica-Dubn**	**76.09**	**320**	eP	**P**	**08 11 25.6**	**+3.2**
KECS	**Kecovo**	**76.64**	**319**	eP	**P**	**08 11 25.6**	**+0.1**
FINES	**FINESS Array B**	**76.73**	**333**	P	**P**	**08 11 24.6**	**-1.2**
	comp=Z,4.9nm,0.6s,mb4.7,baz=102,slow=6.6,SNR=6.2						
KAF	**Kangasniemi**	**76.84**	**333**	ep	**P**	**08 11 24.9**	**-1.5**
	comp=Z,17nm,1.0s,mb4.9						
OJC	**Ojcow**	**77.40**	**321**	eP	**P**	**08 11 29.5**	**-0.3**
VYHS	**Vyhne**	**77.72**	**319**	eP	**P**	**08 11 30.9**	**-0.7**
OKC	**Ostrava-Krasne**	**78.38**	**320**	eP	**P**	**08 11 35.7**	**+0.5**
MORC	**Moravsky Berou**	**78.76**	**320**	eP	**P**	**08 11 36.6**	**-0.6**
	comp=Z,24nm,1.1s,mb5.0						
ZST	**Bratislava**	**78.83**	**318**	eP	**P**	**08 11 37.7**	**+0.1**
ZST				epP	pP	08 11 46.4	-1.6
KEV	**Kevo**	**79.16**	**341**	ep	**P**	**08 11 40.0**	**+1.0**
	comp=Z,15nm,1.0s,mb4.9						
VRAC	**Vranov**	**79.31**	**319**	P	**P**	**08 11 40.2**	**0.0**
	comp=Z,5.0nm,1.0s,mb4.4,baz=103,slow=4.7,SNR=3.6						
ARCES	**ARCESS Array B**	**79.58**	**341**	P	**P**	**08 11 39.8**	**-1.5**
	comp=Z,9.8nm,0.8s,mb4.8,baz=91,slow=5.7,SNR=9.5						
ARCES	**ARCESS Array B**	**79.58**	**341**	P	**P**	**08 11 39.8**	**-1.5**
DPC	**Dobruska-Polom**	**79.62**	**321**	eP	**P**	**08 11 42.3**	**+0.4**
KSP	**Ksiaz**	**79.70**	**321**	eP	**P**	**08 11 42.3**	**0.0**
ARSA	**Arzberg**	**79.77**	**317**	⇑iP	**P**	**08 11 43.7**	**+0.9**
	comp=Z,29nm,1.0s,mb5.2						
UPC	**Upice**	**79.84**	**321**	eP	**P**	**08 11 45.0**	**+1.9**
PRU	**Pruhonice**	**80.71**	**320**	eP	**P**	**08 11 47.1**	**-0.6**
PVCC	**Panska Ves**	**80.75**	**321**	eP	**P**	**08 11 47.5**	**-0.4**
GERES	**GERESS Array B**	**81.14**	**319**	P	**P**	**08 11 50.3**	**+0.3**
	comp=Z,18nm,0.9s,mb5.0,baz=115,slow=5.4,SNR=20						
BRG	**Berggiesshubel**	**81.19**	**321**	eP	**P**	**08 11 50.9**	**+0.7**
	comp=Z,25nm,1.2s,mb5.0						
KHC	**Kasperske Hory**	**81.25**	**319**	eP	**P**	**08 11 52.3**	**+1.7**
KHC				epP	pP	08 11 59.5	-1.5
CLL	**Collm**	**81.82**	**321**	i P	**P**	**08 11 54.0**	**+0.5**
	comp=Z,14nm,1.1s,mb4.8						
CLL				i	pP	08 12 06.4	+2.5
CLL	**Collm**	**81.82**	**321**	P	**P**	**08 11 54.0**	**+0.5**
	comp=Z,logA/T=1.1,mb4.8						
CLL				i *PP	pP	08 12 06.4	+2.5
CLL				e*SP	sP	08 12 13.0	+5.5
NKC	**Novy Kostel**	**82.08**	**320**	eP	**P**	**08 11 56.7**	**+1.9**
HFS	**Hagfors**	**82.36**	**330**	P	**P**	**08 11 55.9**	**-0.2**
	comp=Z,5.8nm,0.7s,mb4.7,baz=112,slow=8.0,SNR=4.7						
WTTA	**Wattenberg**	**82.40**	**317**	⇑iP	**P**	**08 11 56.8**	**+0.2**
	comp=Z,23nm,0.8s,mb5.2						
RPZ	**Rata Peaks**	**82.95**	**135**	P	**P**	**08 12 00.4**	**+1.0**
	comp=Z,20nm,1.0s,mb5.1						
DAVOX	**Davos**	**83.58**	**317**	P	**P**	**08 12 03.2**	**+0.6**
	comp=Z,23nm,0.5s,mb5.5,baz=118,slow=2.8,SNR=19						
NB2	**NORSAR Subarra**	**83.68**	**331**	P	**P**	**08 12 01.1**	**-1.6**
	comp=Z,15nm,1.1s,mb5.0,baz=90,slow=5.3						
NOA	**NORSAR Array B**	**83.68**	**331**	P	**P**	**08 12 01.8**	**-0.9**
	comp=Z,5.9nm,0.9s,mb4.7,baz=95,slow=5.4,SNR=3.9						
URZ	**Urewera**	**86.64**	**128**	P	**P**	**08 12 18.0**	**0.0**
	comp=Z,7.3nm,0.7s,mb5.0						
VNDA	**Vanda**	**88.41**	**168**	P	**P**	**08 12 26.0**	**+0.3**
	comp=Z,19nm,1.4s,mb5.1,baz=351,slow=1.9,SNR=3.4						
EKA	**Eskdalemuir Ar**	**91.42**	**325**	P	**P**	**08 12 39.9**	**-0.4**
	comp=Z,4.3nm,0.8s,mb4.8,baz=95,slow=5.4,SNR=4.8						
YKA	**Yellowknife Ar**	**111.03**	**14**	Pdiff	Pdif	08 14 05.3	-2.6
	comp=Z,2.8nm,0.9s,baz=335,slow=8.1,SNR=10						
NVAR	**Mina Array Bea**	**129.04**	**33**	PKP	PKPdf	08 18 43.5	+2.0
	comp=Z,1.0nm,0.8s,baz=301,slow=5.3,SNR=3.5						
PDAR	**Pinedale Array**	**129.61**	**22**	PKP	PKPdf	08 18 43.5	+1.0
	comp=Z,3.3nm,1.1s,slow=1.5,SNR=4.1						
MNTX	**Cornudas Mount**	**140.79**	**26**	ePKP	PKPdf	08 19 05.9	+2.3
TXAR	**Lajitas Array**	**143.57**	**26**	PKP	PKPdf	08 19 08.5	+0.2
	comp=Z,2.4nm,0.9s,baz=270,slow=0.9,SNR=4.9						
TXAR	**Lajitas Array**	**143.57**	**26**	PKP	PKPdf	08 19 08.5	+0.2
NATX	**Nacogdoches**	**144.33**	**13**	ePKP	PKPdf	08 19 10.2	+0.6
SJG	**San Juan**	**151.10**	**318**	PKPbc	PKPdf	08 19 29.4	+8.4
	comp=Z,15nm,1.0s,baz=75,slow=12,SNR=2.6						
LVC	**Limon Verde**	**154.46**	**219**	PKPbc	PKPdf	08 19 37.1	+11
	comp=Z,7.7nm,1.1s,baz=298,slow=2.6,SNR=3.2						
LPAZ	**La Paz**	**158.01**	**232**	PKPab	PKPab	08 20 05.9	-0.3
	comp=Z,4.3nm,1.1s,baz=74,slow=6.8,SNR=2.9						
SDV	**Santo Domingo**	**160.45**	**308**	PKPab	PKPab	08 20 16.4	-0.4
	comp=Z,9.4nm,0.9s,baz=78,slow=1.9,SNR=7.7						

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*BJI **26** 08:02:32.4, 5.05N×94.37E, h51^{km}, mb5.3, Ms6.0, Msz5.7*
*IDC **26** 08:02:34.5±0.4, 5.32N×94.41E, h33^{km}±2^{km}, mb4.7/31, mb1 4.7/32, mb1mx4.7/33, ML4.5/1, Error ellipse: s-maj=15.4km s-min=9.7km az=43.0*
*NEIC **26** 08:02:34.6±0.2, 5.35N×94.48E, mb5.1/26, Error ellipse: s-maj=6.8km s-min=4.6km az=49.0*
*CSEM **26** 08:02:43.0, 7.04N×93.84E, h33^{km}, mb5.5*
ISC 26 08:02:33.4±0.3**, 5.33N**±0.06×**94.47E**±0.05**, h38^{km}, h38^{km}**±1.9^{km}**:pP-P, n109, σ0^{s}88**/93**, mb5.0**/62**, MS5.8**/1**, 7C-3D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**13.76**	**18**	eP	**P**	**08 05 46.4**	**-2.0**
CMAR	**Chiang Mai Arr**	**13.76**	**18**	Pn	**P**	**08 05 46.3**	**-2.1**
	0.7nm,0.3s,baz=230,slow=15,SNR=1.6						
CMAR	**Chiang Mai Arr**	**13.76**	**18**	Pn	**P**	**08 05 46.3**	**-2.1**
KMI	**Kunming**	**21.22**	**21**	eP	**P**	**08 07 20.5**	**+2.2**
KMI				AMB	AMB		
	comp=Z,48nm,1.5s,mb4.6						
GYA	**Guiyang**	**24.03**	**28**	⇑iP	**P**	**08 07 48.3**	**+2.3**
GYA				AMB	AMB		
	comp=Z,120nm,0.9s,mb5.3						
LSA	**Lhasa**	**24.44**	**353**	eP	**P**	**08 07 52.0**	**+2.0**
WHN	**Wuhan**	**31.30**	**34**	⇓P	**P**	**08 08 53.5**	**+1.1**
GTA	**Gaotai**	**34.27**	**7**	P	**P**	**08 09 18.0**	**-0.1**
GTA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
NJ2	**Nanjing**	**35.03**	**38**	eP	**P**	**08 09 25.3**	**+0.6**
HHC	**Hu-ho-hao-te**	**38.55**	**21**	eP	**P**	**08 09 55.0**	**+0.8**
HHC				AP	pP	08 10 07.0	+2.0
HHC				XP	sP	08 10 15.3	+5.5
HHC				AMB	AMB		
	comp=Z,23nm,0.8s,mb5.0						
HHC				LR	LR		
	comp=N,7µm,16.6s,MS6.0						
HHC				LR	LR		
	comp=E,14µm,14.3s,MS6.0						
HHC				LR	LR		
	comp=Z,10µm,17.8s,MS5.7						
JOW	**Kunigami**	**38.67**	**53**	P	**P**	**08 09 56.9**	**+1.5**
	comp=Z,20nm,0.5s,mb5.1,baz=246,slow=7.3,SNR=11						
WMQ	**Urumqi**	**38.80**	**352**	P	**P**	**08 09 56.5**	**+0.3**
WMQ				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
BJI	**Beijing**	**39.70**	**26**	P	**P**	**08 10 05.5**	**+1.7**
BJI				AMB	AMB		
	comp=Z,44nm,0.9s,mb5.2						
AAK	**Ala-Archa**	**41.16**	**337**	eP	**P**	**08 10 15.9**	**+0.2**
	comp=Z,44nm,0.9s,mb5.1						
DL2	**Dalian**	**41.50**	**33**	P	**P**	**08 10 16.8**	**-1.9**
DL2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.0						
SONM	**Songino Array**	**43.57**	**12**	P	**P**	**08 10 35.4**	**-0.1**
	comp=Z,9.3nm,0.4s,mb4.8,baz=187,slow=8.5,SNR=18						
SONM				pP	pP	08 10 46.6	+0.2
	comp=Z,22nm,0.7s,baz=191,slow=7.7,SNR=7.3						
SONM				PcP	PcP	08 12 23.0	-0.2
	comp=Z,8.4nm,0.6s,baz=194,slow=3.8,SNR=10.0						
SONM				pPcP		08 12 37.0	
	comp=Z,7.1nm,0.7s,baz=206,slow=2.6,SNR=3.7						
ULN	**Ulaanbaatar**	**43.73**	**12**	eP	**P**	**08 10 36.1**	**-0.7**
	comp=Z,7.5nm,0.6s,mb4.6						
SNY	**Shenyang**	**44.64**	**31**	⇑P	**P**	**08 10 44.0**	**-0.2**
SNY				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.1						
WRA	**Warramunga Arr**	**46.56**	**124**	P	**P**	**08 10 59.9**	**+0.3**
	comp=Z,42nm,0.8s,mb5.5,baz=302,slow=9.1,SNR=17						
WRA				pP	pP	08 11 09.0	-1.7
	comp=Z,57nm,0.9s,baz=302,slow=9.0,SNR=10						
WRAB	**Tennant Creek**	**46.56**	**124**	eP	**P**	**08 10 59.9**	**+0.2**
	comp=Z,132nm,1.1s,mb5.8						
CN2	**Changchun**	**47.02**	**31**	eP	**P**	**08 11 03.0**	**0.0**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
ASAR	**Alice Springs**	**48.07**	**128**	P	**P**	**08 11 11.6**	**0.0**
	comp=Z,9.5nm,0.6s,mb5.0,baz=300,slow=7.5,SNR=10						
HIA	**Hailar**	**48.73**	**22**	eP	**P**	**08 11 14.8**	**-1.5**
	comp=Z,31nm,1.0s,mb5.3						
ZAL	**Zalesovo**	**49.10**	**352**	P	**P**	**08 11 18.9**	**-0.1**
	comp=Z,26nm,0.5s,mb5.6,baz=300,slow=5.5,SNR=27						
ZAL				pP	pP	08 11 27.9	-2.1
	comp=Z,22nm,0.8s,baz=307,slow=3.8,SNR=6.6						
CBIJ	**Chichi jima**	**50.28**	**59**	P	**P**	**08 11 27.7**	**-0.9**
	comp=Z,55nm,0.7s,mb5.7,baz=179,slow=20,SNR=7.0						
BVAR	**Borovoye Array**	**51.49**	**342**	P	**P**	**08 11 36.6**	**-0.7**
	comp=Z,11nm,0.5s,mb5.0,baz=142,slow=8.7,SNR=29						
BVAR				sP	sP	08 11 50.5	-2.5
	comp=Z,19nm,0.5s,baz=164,slow=12,SNR=8.8						
BRVK	**Borovoye**	**51.55**	**342**	eP	**P**	**08 11 36.9**	**-0.8**
	comp=Z,37nm,0.7s,mb5.4						
CHKZ	**Chkalovo**	**51.98**	**342**	eP	**P**	**08 11 40.6**	**-0.3**
	comp=Z,76nm,0.6s,mb5.8						
PMG	**Port Moresby**	**54.51**	**105**	P	**P**	**08 11 59.3**	**-0.9**
	comp=Z,6.5nm,0.6s,mb4.9,baz=8.1,slow=7.1,SNR=3.6						
GNI	**Garni**	**56.45**	**315**	P	**P**	**08 12 13.6**	**-0.3**
	comp=Z,2.8nm,0.4s,mb4.6,baz=160,slow=4.6,SNR=2.9						
CTA	**Charters Tower**	**56.81**	**118**	P	**P**	**08 12 15.3**	**-1.5**
	comp=Z,5.5nm,0.8s,mb4.7,baz=286,slow=12,SNR=3.9						
CTAO	**Charters Tower**	**56.81**	**118**	eP	**P**	**08 12 15.1**	**-1.7**
	comp=Z,14nm,0.9s,mb5.0						
ASAJ	**Asahikawa**	**57.13**	**40**	P	**P**	**08 12 18.2**	**-0.5**
	comp=Z,5.2nm,0.7s,mb4.7,baz=152,slow=22,SNR=2.3						
KMBO	**Kilima Mbogo**	**57.50**	**265**	P	**P**	**08 12 21.0**	**-0.8**
	comp=Z,4.9nm,0.9s,mb4.5,baz=62,slow=15,SNR=5.2						
KMBO				sP	sP	08 12 35.7	-1.8
	comp=Z,8.8nm,0.9s,baz=58,slow=11,SNR=8.3						
STKA	**Stephens Creek**	**58.14**	**133**	P	**P**	**08 12 25.6**	**-0.4**
	comp=Z,9.0nm,0.8s,mb4.9,baz=298,slow=9.5,SNR=5.3						
STKA				sP	sP	08 12 39.2	-2.5
	comp=Z,8.9nm,0.7s,baz=301,slow=9.4,SNR=3.5						
KIV	**Kislovodsk**	**59.42**	**319**	eP	**P**	**08 12 33.2**	**-1.5**
	comp=Z,37nm,1.2s,mb5.3						
MALT	**Malatya**	**60.36**	**311**	eP	**P**	**08 12 37.4**	**-3.8**
	comp=Z,12nm,1.0s,mb4.9						
EIL	**Elat**	**60.98**	**301**	eP	**P**	**08 12 45.6**	**0.0**
	comp=Z,10nm,0.6s,mb5.1						
BRTR	**Keskin Array B**	**64.34**	**312**	P	**P**	**08 13 06.3**	**-1.4**
	comp=Z,11nm,0.7s,mb5.0,baz=137,slow=6.8,SNR=14						
BRTR				sP	sP	08 13 21.2	-2.3
	comp=Z,5.2nm,0.6s,baz=127,slow=7.1,SNR=6.0						
IDI	**Anoyia**	**70.29**	**305**	P	**P**	**08 13 44.2**	**-0.9**
	comp=Z,9.1nm,0.6s,mb4.9,baz=102,slow=5.2,SNR=5.2						
AKASG	**Malin Array Be**	**70.34**	**322**	P	**P**	**08 13 43.4**	**-1.8**
	comp=Z,6.7nm,0.4s,mb4.9,baz=82,slow=4.6,SNR=33						
AKASG				pP	pP	08 13 55.7	-1.1
	comp=Z,9.0nm,0.8s,baz=89,slow=4.5,SNR=6.3						
MLR	**Muntele Rosu**	**71.21**	**316**	P	**P**	**08 13 50.2**	**-0.3**
	comp=Z,26nm,0.9s,mb5.1,baz=142,slow=2.9,SNR=12						
MLR				pP	pP	08 14 01.3	-0.8
	comp=Z,20nm,1.0s,baz=85,slow=6.2,SNR=4.2						
KOLS	**Kolonicke sedl**	**74.33**	**319**	eP	**P**	**08 14 08.6**	**-0.2**
CRVS	**Cervenica-Dubn**	**74.85**	**319**	eP	**P**	**08 14 14.1**	**+2.2**
FINES	**FINESS Array B**	**75.10**	**332**	P	**P**	**08 14 12.3**	**-0.8**
	comp=Z,9.1nm,0.8s,mb4.8,baz=125,slow=9.0,SNR=12						
FINES				sP	sP	08 14 27.6	-1.3
	comp=Z,5.4nm,0.5s,baz=106,slow=6.8,SNR=9.8						
KAF	**Kangasniemi**	**75.19**	**333**	ep	**P**	**08 14 12.7**	**-0.9**
	comp=Z,15nm,1.0s,mb4.9						
KECS	**Kecovo**	**75.42**	**319**	eP	**P**	**08 14 14.4**	**-0.8**
NIE	**Niedzica**	**75.67**	**320**	eP	**P**	**08 14 17.3**	**+0.7**
OJC	**Ojcow**	**76.12**	**320**	eP	**P**	**08 14 19.1**	**0.0**
MAW	**Mawson**	**76.13**	**192**	P	**P**	**08 14 18.9**	**+0.1**
	comp=Z,1.8nm,0.6s,mb4.2,baz=130,slow=3.2,SNR=3.6						
VYHS	**Vyhne**	**76.51**	**318**	i P	**P**	**08 14 21.2**	**-0.2**
OKC	**Ostrava-Krasne**	**77.13**	**320**	eP	**P**	**08 14 25.0**	**+0.2**
OKC				epP	pP	08 14 40.8	+4.4
KEV	**Kevo**	**77.33**	**341**	ep	**P**	**08 14 26.0**	**+0.4**
	comp=Z,10.0nm,1.1s,mb4.7						
ZST	**Bratislava**	**77.62**	**318**	eP	**P**	**08 14 27.8**	**+0.2**
ZST				e	pP	08 14 37.7	-1.5
ARCES	**ARCESS Array B**	**77.75**	**340**	P	**P**	**08 14 27.7**	**-0.2**
	comp=Z,2.6nm,0.5s,mb4.5,baz=102,slow=6.6,SNR=23						
ARCES				pP	pP	08 14 38.4	-1.1
	comp=Z,4.4nm,0.5s,baz=96,slow=5.1,SNR=8.1						
VRAC	**Vranov**	**78.07**	**319**	P	**P**	**08 14 29.6**	**-0.4**
	comp=Z,3.8nm,0.6s,mb4.5,baz=92,slow=8.2,SNR=5.0						
DPC	**Dobruska-Polom**	**78.35**	**320**	eP	**P**	**08 14 32.2**	**+0.7**
KSP	**Ksiaz**	**78.42**	**321**	⇑eP	**P**	**08 14 32.4**	**+0.5**
UPC	**Upice**	**78.56**	**320**	eP	**P**	**08 14 33.1**	**+0.4**
ARSA	**Arzberg**	**78.60**	**317**	⇓iP	**P**	**08 14 33.8**	**+0.8**
	comp=Z,38nm,1.4s,mb5.1						
PRU	**Pruhonice**	**79.46**	**320**	eP	**P**	**08 14 37.8**	**+0.2**
PRU				epP	pP	08 14 47.6	-1.7
PVCC	**Panska Ves**	**79.48**	**320**	eP	**P**	**08 14 38.1**	**+0.4**
MOA	**Molln**	**79.49**	**318**	⇑iP	**P**	**08 14 37.9**	**+0.1**
	comp=Z,17nm,1.1s,mb4.9						
BRG	**Berggiesshubel**	**79.91**	**321**	i P	**P**	**08 14 40.5**	**+0.5**
	comp=Z,16nm,0.9s,mb5.0						
GEC2	**GERESS Array S**	**79.93**	**319**	eP	**P**	**08 14 40.4**	**+0.2**
	comp=Z,62nm,1.3s,mb5.4						
GERES	**GERESS Array B**	**79.93**	**319**	P	**P**	**08 14 40.6**	**+0.4**
	comp=Z,16nm,0.6s,mb5.1,baz=117,slow=5.3,SNR=32						
GERES				pP	pP	08 14 51.0	-0.8
	comp=Z,12nm,0.7s,baz=98,slow=3.6,SNR=11						
KHC	**Kasperske Hory**	**80.03**	**319**	eP	**P**	**08 14 40.8**	**+0.1**
KHC				epP	pP	08 14 53.8	+1.4
WET	**Wettzell**	**80.49**	**319**	eP	**P**	**08 14 43.3**	**+0.2**
CLL	**Collm**	**80.53**	**321**	i P	**P**	**08 14 43.1**	**-0.2**
CLL				e	pP	08 14 56.0	+1.0
CLL	**Collm**	**80.53**	**321**	P	**P**	**08 14 43.1**	**-0.2**
	comp=Z,logA/T=1.2,mb4.9						
CLL				e*SP	sP	08 14 56.0	-3.2
HFS	**Hagfors**	**80.81**	**330**	P	**P**	**08 14 44.2**	**-0.4**
	comp=Z,3.8nm,0.4s,mb4.7,baz=124,slow=5.3,SNR=16						
NKC	**Novy Kostel**	**80.82**	**320**	eP	**P**	**08 14 45.1**	**+0.2**
WATA	**Walderalm**	**81.29**	**317**	⇑iP	**P**	**08 14 46.8**	**-0.6**
	comp=Z,9.4nm,0.6s,mb4.9						
MOX	**Moxa**	**81.37**	**320**	i P	**P**	**08 14 47.9**	**+0.2**
MOX	**Moxa**	**81.37**	**320**	eP	**P**	**08 14 47.9**	**+0.2**
GRA1	**Grafenberg Arr**	**81.59**	**319**	eP	**P**	**08 14 49.5**	**+0.6**
	comp=Z,35nm,1.0s,mb5.2						
GRA1				epP	pP	08 15 03.3	+2.7
GRF	**Grafenberg Arr**	**81.59**	**319**	eP	**P**	**08 14 49.5**	**+0.6**
	comp=Z,35nm,1.0s,mb5.2						
GRF				epP	pP	08 15 03.3	+2.7
MOTA	**Moosalm**	**81.61**	**317**	⇓iP	**P**	**08 14 48.9**	**-0.2**
	comp=Z,9.9nm,0.7s,mb4.8						
NB2	**NORSAR Subarra**	**82.09**	**331**	P	**P**	**08 14 44.1**	**-7.2**
	comp=Z,14nm,1.2s,mb4.8,baz=91,slow=4.8						
NOA	**NORSAR Array B**	**82.09**	**331**	P	**P**	**08 14 50.6**	**-0.7**
	comp=Z,2.5nm,0.8s,mb4.2,baz=94,slow=5.8,SNR=3.7						
CLZ	**Clausthal**	**82.19**	**321**	eP	**P**	**08 14 52.0**	**+0.1**
	comp=Z,30nm,1.2s,mb5.1						
BSEG	**Bad Segeberg**	**82.28**	**324**	eP	**P**	**08 14 52.6**	**+0.3**
DAVOX	**Davos**	**82.44**	**316**	P	**P**	**08 14 54.1**	**+0.7**
	comp=Z,29nm,0.6s,mb5.4,baz=125,slow=5.8,SNR=27						
DAVOX				pP	pP	08 15 04.3	-0.7
	comp=Z,16nm,0.6s,baz=324,slow=23,SNR=5.6						
DAVA	**Damuels**	**82.44**	**317**	⇑iP	**P**	**08 14 53.8**	**+0.5**
	comp=Z,16nm,0.6s,mb5.1						
BFO	**Black Forest**	**83.48**	**318**	eP	**P**	**08 14 58.5**	**-0.1**
	comp=Z,16nm,0.8s,mb5.1						
LPG	**La Plagne**	**84.63**	**315**	⇑iP	**P**	**08 15 05.1**	**+0.6**
	comp=Z,36nm,0.8s,mb5.2						
URZ	**Urewera**	**87.51**	**129**	P	**P**	**08 15 18.3**	**-0.5**
	comp=Z,6.6nm,0.5s,mb5.2,baz=220,slow=3.2,SNR=7.9						
EKA	**Eskdalemuir Ar**	**89.99**	**326**	P	**P**	**08 15 30.9**	**+0.7**
	comp=Z,6.0nm,0.6s,mb5.1,baz=89,slow=5.5,SNR=18						
EKA				sP	sP	08 15 44.8	-1.2
	comp=Z,4.7nm,0.6s,baz=102,slow=5.4,SNR=9.4						
VNDA	**Vanda**	**90.39**	**168**	P	**P**	**08 15 32.9**	**+1.3**
	comp=Z,1.5nm,0.8s,mb4.4,baz=306,slow=8.5,SNR=3.2						
ESDC	**Sonseca Array**	**93.09**	**310**	P	**P**	**08 15 45.9**	**+1.0**
	comp=Z,1.9nm,0.7s,mb4.7,baz=60,slow=3.8,SNR=8.6						
ESDC				sP	sP	08 15 59.8	-0.9
	comp=Z,2.6nm,0.7s,baz=64,slow=3.9,SNR=8.4						
ILAR	**Eielson Array**	**96.96**	**22**	P	**P**	**08 16 02.8**	**+0.9**
	comp=Z,1.1nm,0.8s,mb4.4,baz=308,slow=4.9,SNR=7.3						
ILAR				sP	sP	08 16 16.9	-0.8
	comp=Z,1.1nm,0.6s,baz=298,slow=5.2,SNR=14						
ILAR				PKKPbc		08 32 42.8	
	comp=Z,0.2nm,0.7s,baz=137,slow=0.4,SNR=4.1						
INK	**Inuvik**	**99.33**	**16**	P	**P**	**08 16 12.8**	**+0.3**
	comp=Z,1.7nm,0.5s,mb4.8,baz=307,slow=7.1,SNR=13						
INK	**Inuvik**	**99.33**	**16**	eP	**P**	**08 16 12.5**	**0.0**
	comp=Z,3.7nm,0.7s,mb5.0						
INK				P		08 16 12.8	
YKA	**Yellowknife Ar**	**108.81**	**14**	PKKPbc		08 32 07.7	
	comp=Z,0.2nm,0.5s,baz=148,slow=3.3,SNR=7.3						
SCHQ	**Schefferville**	**118.06**	**348**	PKP	PKPdf	08 21 17.5	+1.2
	comp=Z,4.6nm,1.1s,baz=217,slow=9.9,SNR=8.1						
MSO	**Missoula**	**122.30**	**23**	ePKP	PKPdf	08 21 25.6	+0.9
ULM	**Lac du Bonnet**	**123.93**	**8**	PKP	PKPdf	08 21 30.0	+2.2
	comp=Z,2.5nm,0.5s,baz=97,slow=3.2,SNR=6.0						
SNOW	**Snow King Moun**	**126.35**	**23**	ePKP	PKPdf	08 21 34.9	+2.3
NVAR	**Mina Array Bea**	**126.91**	**32**	PKP	PKPdf	08 21 36.6	+2.7
	comp=Z,1.8nm,0.6s,baz=313,slow=1.6,SNR=8.5						
PDAR	**Pinedale Array**	**127.40**	**22**	PKP	PKPdf	08 21 36.5	+1.7
	comp=Z,4.2nm,1.0s,baz=125,slow=2.5,SNR=10						
TRCR	**Troy Canyon**	**128.37**	**30**	ePKP	PKPdf	08 21 38.8	+2.1
MNTX	**Cornudas Mount**	**138.60**	**26**	ePKP	PKPdf	08 21 57.8	+1.8
TXAR	**Lajitas Array**	**141.38**	**26**	PKhKP		08 21 56.5	
	comp=Z,2.2nm,0.6s,baz=156,slow=0.5,SNR=13						
TXAR				PKP	PKPdf	08 22 01.4	+0.3
	comp=Z,1.5nm,0.5s,baz=130,slow=0.4,SNR=15						
TXAR	**Lajitas Array**	**141.38**	**26**	PKP	PKPdf	08 22 01.4	+0.3
BDFB	**Brasilia**	**141.78**	**252**	PKP	PKPdf	08 22 02.1	0.0
	comp=Z,1.7nm,0.7s,baz=60,slow=22,SNR=3.2						
SJG	**San Juan**	**149.86**	**321**	PKPbc	PKPdf	08 22 22.1	+6.4
	comp=Z,11nm,0.5s,baz=83,slow=5.4,SNR=11						
SJG	**San Juan**	**149.86**	**321**	PKPbc	PKPdf	08 22 22.1	+6.4
PCRV	**Puerto La Cruz**	**154.10**	**306**	PKPbc	PKPdf	08 22 30.6	+8.7
	comp=Z,8.8nm,0.6s,baz=2.6,slow=5.6,SNR=9.0						
LPAZ	**La Paz**	**159.75**	**236**	PKPab	PKPab	08 23 11.2	+0.9
	comp=Z,1.8nm,0.6s,baz=83,slow=8.1,SNR=3.7						

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*IDC **26** 08:04:44.9±0.8, 4.40N×93.80E, mb4.6/15, mb1 4.6/16, mb1mx4.5/25, ML4.3/1, Error ellipse: s-maj=40.4km s-min=14.8km az=42.0*
ISC 26 08:04:48.2±0.6**, 4.4N**±0.1×**93.9E**±0.1**, h33^{km}, n17, σ0^{s}51**/16**, mb4.5**/15**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.82**	**19**	Pn	**P**	**08 08 17.3**	**+0.1**
	0.5nm,0.3s,baz=214,slow=13,SNR=2.5						
SONM	**Songino Array**	**44.58**	**12**	P	**P**	**08 12 59.5**	**+0.6**
	12nm,0.7s,mb4.8,baz=193,slow=7.9,SNR=6.8						
WRA	**Warramunga Arr**	**46.53**	**123**	P	**P**	**08 13 15.2**	**+0.4**
	8.6nm,0.6s,mb4.9,baz=300,slow=9.1,SNR=4.6						
BVAR	**Borovoye Array**	**52.18**	**342**	P	**P**	**08 13 56.8**	**-1.0**
	8.0nm,0.7s,mb4.8,baz=143,slow=7.4,SNR=3.9						
PMG	**Port Moresby**	**54.83**	**105**	P	**P**	**08 14 17.5**	**-0.4**
	3.9nm,0.5s,mb4.7,baz=270,slow=2.0,SNR=2.9						
CTA	**Charters Tower**	**56.90**	**117**	P	**P**	**08 14 32.9**	**+0.2**
	6.5nm,0.9s,mb4.7,baz=264,slow=14,SNR=3.3						
STKA	**Stephens Creek**	**57.95**	**132**	P	**P**	**08 14 39.6**	**-0.4**
	3.7nm,0.6s,mb4.6,baz=321,slow=11,SNR=2.7						
BRTR	**Keskin Array B**	**64.52**	**312**	P	**P**	**08 15 23.4**	**-0.9**
	2.2nm,0.5s,mb4.4,baz=141,slow=6.6,SNR=5.2						
IDI	**Anoyia**	**70.35**	**306**	P	**P**	**08 16 01.4**	**+0.6**
	7.5nm,0.5s,mb4.8,baz=74,slow=8.4,SNR=6.6						
MLR	**Muntele Rosu**	**71.48**	**317**	P	**P**	**08 16 08.1**	**+0.6**
	5.1nm,0.9s,mb4.4,baz=180,slow=9.1,SNR=3.2						
FINES	**FINESS Array B**	**75.65**	**333**	P	**P**	**08 16 31.5**	**-0.1**
	2.0nm,0.6s,mb4.3,baz=90,slow=8.3,SNR=3.4						
ARCES	**ARCESS Array B**	**78.43**	**341**	P	**P**	**08 16 46.8**	**-0.1**
	1.5nm,0.6s,mb4.1,baz=83,slow=7.3,SNR=4.5						
GERES	**GERESS Array B**	**80.24**	**319**	P	**P**	**08 16 57.4**	**+0.2**
	2.5nm,0.8s,mb4.2,baz=112,slow=5.3,SNR=4.8						
HFS	**Hagfors**	**81.31**	**330**	P	**P**	**08 17 02.1**	**-0.5**
	3.8nm,0.9s,mb4.3,baz=102,slow=13,SNR=2.7						
NOA	**NORSAR Array B**	**82.61**	**331**	P	**P**	**08 17 09.3**	**0.0**
	1.2nm,0.8s,mb4.0,baz=102,slow=5.0,SNR=2.8						
DAVOX	**Davos**	**82.71**	**316**	P	**P**	**08 17 10.9**	**+0.8**
	8.4nm,0.6s,mb5.0,baz=122,slow=4.9,SNR=6.6						
PDAR	**Pinedale Array**	**128.47**	**22**	PKP	PKPdf	08 23 55.0	+2.8
	0.8nm,0.7s,slow=2.7,SNR=3.5						

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*IDC **26** 08:05:35.8±0.4, 7.40N×93.92E, mb4.8/27, mb1 4.9/28, mb1mx4.8/29, ML4.4/1, Error ellipse: s-maj=22.5km s-min=11.6km az=50.0*
ISC 26 08:05:39.1±0.4**, 7.45N**±0.08×**94.04E**±0.09**, h33^{km}, n50, σ0^{s}83**/42**, mb4.8**/30**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.94**	**23**	Pn	**P**	**08 08 28.3**	**-1.6**
	0.7nm,0.3s,baz=206,slow=13,SNR=5.0						
SONM	**Songino Array**	**41.59**	**13**	P	**P**	**08 13 27.1**	**+1.6**
	4.2nm,0.6s,mb4.3,baz=207,slow=8.3,SNR=12						
NWAO	**Narrogin (SRO)**	**45.82**	**152**	P	**P**	**08 14 00.1**	**+0.1**
	21nm,0.8s,mb5.1,baz=298,slow=10,SNR=5.3						
ZAL	**Zalesovo**	**46.95**	**353**	P	**P**	**08 14 09.1**	**+0.6**
	26nm,0.3s,mb5.6,baz=305,slow=5.2,SNR=19						
WRA	**Warramunga Arr**	**48.10**	**125**	P	**P**	**08 14 17.5**	**-0.6**
	22nm,0.6s,mb5.4,baz=305,slow=8.5,SNR=9.4						
BVAR	**Borovoye Array**	**49.35**	**341**	P	**P**	**08 14 27.2**	**0.0**
	2.1nm,0.4s,mb4.5,baz=137,slow=7.9,SNR=5.5						
BVAR				PcP	PcP	08 15 49.9	+0.2
	8.0nm,0.9s,baz=162,slow=4.7,SNR=4.1						
ASAR	**Alice Springs**	**49.73**	**130**	P	**P**	**08 14 29.9**	**-0.6**
	19nm,0.9s,mb5.1,baz=306,slow=7.6,SNR=7.8						
ASAR				PcP	PcP	08 15 51.8	+0.3
	5.6nm,0.7s,baz=308,slow=3.5,SNR=5.1						
PMG	**Port Moresby**	**55.51**	**107**	P	**P**	**08 15 13.7**	**0.0**
	18nm,0.8s,mb5.2,baz=306,slow=3.9,SNR=4.8						
KMBO	**Kilima Mbogo**	**57.27**	**264**	P	**P**	**08 15 26.7**	**+0.3**
	12nm,0.9s,mb4.9,baz=55,slow=8.2,SNR=5.9						
CTA	**Charters Tower**	**58.20**	**119**	P	**P**	**08 15 32.4**	**-0.3**
	11nm,0.9s,mb4.9,baz=265,slow=6.2,SNR=5.8						
EIL	**Elat**	**59.54**	**300**	P	**P**	**08 15 41.7**	**-0.3**
	7.0nm,0.6s,mb4.9,baz=16,slow=13,SNR=5.2						
STKA	**Stephens Creek**	**59.89**	**133**	P	**P**	**08 15 43.4**	**-1.0**
	15nm,0.9s,mb5.0,baz=312,slow=7.8,SNR=6.1						
BRTR	**Keskin Array B**	**62.62**	**311**	P	**P**	**08 16 00.5**	**-2.1**
	3.7nm,0.7s,mb4.6,baz=128,slow=6.0,SNR=5.7						
AKASG	**Malin Array Be**	**68.42**	**322**	P	**P**	**08 16 37.4**	**-2.3**
	5.4nm,0.9s,mb4.6,baz=90,slow=4.4,SNR=4.5						
IDI	**Anoyia**	**68.72**	**305**	P	**P**	**08 16 41.5**	**-0.3**
	9.9nm,0.5s,mb5.0,baz=82,slow=8.1,SNR=3.5						
MLR	**Muntele Rosu**	**69.40**	**316**	P	**P**	**08 16 45.2**	**-0.5**
	13nm,0.9s,mb4.9,baz=49,slow=2.5,SNR=3.8						
CRVS	**Cervenica-Dubn**	**72.97**	**319**	eP	**P**	**08 17 05.9**	**-1.3**
FINES	**FINESS Array B**	**73.03**	**332**	P	**P**	**08 17 07.1**	**-0.2**
	6.9nm,0.7s,mb4.7,baz=113,slow=8.6,SNR=12						
KAF	**Kangasniemi**	**73.11**	**333**	ep	**P**	**08 17 07.8**	**0.0**
	8.1nm,0.8s,mb4.7						
OJC	**Ojcow**	**74.23**	**320**	eP	**P**	**08 17 14.2**	**-0.3**

VYHS	**Vyhne**	**74.65**	**318**	*e*P	**P**	**08 17 16.5**	**-0.5**
KEV	**Kevo**	**75.19**	**341**	*e*p	**P**	**08 17 20.4**	**+0.7**
	7.5nm,0.6s,mb4.8						
OKC	**Ostrava-Krasne**	**75.24**	**320**	*e*P	**P**	**08 17 20.4**	**+0.1**
ARCES	**ARCESS Array B**	**75.62**	**340**	P	**P**	**08 17 22.6**	**+0.4**
	8.2nm,0.8s,mb4.7,baz=102,slow=6.9,SNR=17						
ZST	**Bratislava**	**75.77**	**318**	*e*P	**P**	**08 17 23.7**	**+0.3**
ZST				*e*		08 17 27.9	
DPC	**Dobruska-Polom**	**76.46**	**320**	*e*P	**P**	**08 17 28.1**	**+0.8**
UPC	**Upice**	**76.67**	**320**	*e*P	**P**	**08 17 28.6**	**+0.1**
PRU	**Pruhonice**	**77.58**	**319**	*e*P	**P**	**08 17 34.0**	**+0.4**
GERES	**GERESS Array B**	**78.07**	**318**	P	**P**	**08 17 36.3**	**+0.1**
	12nm,1.0s,mb4.8,baz=108,slow=4.9,SNR=7.6						
MAW	**Mawson**	**78.10**	**192**	P	**P**	**08 17 36.4**	**+0.3**
	3.6nm,0.9s,mb4.3,baz=168,slow=12,SNR=3.5						
KHC	**Kasperske Hory**	**78.16**	**319**	*e*P	**P**	**08 17 36.6**	**-0.2**
CLL	**Collm**	**78.62**	**321**	P	**P**	**08 17 43.0**	**+3.8**
HFS	**Hagfors**	**78.76**	**330**	P	**P**	**08 17 39.7**	**-0.1**
	6.8nm,0.6s,mb4.8,baz=100,slow=4.1,SNR=32						
NB2	**NORSAR Subarra**	**80.04**	**331**	P	**P**	**08 17 46.2**	**-0.6**
	5.1nm,0.8s,mb4.5,baz=92,slow=5.8						
NOA	**NORSAR Array B**	**80.04**	**331**	P	**P**	**08 17 46.4**	**-0.3**
	3.0nm,0.7s,mb4.3,baz=93,slow=5.7,SNR=5.9						
DAVOX	**Davos**	**80.62**	**316**	P	**P**	**08 17 50.9**	**+0.8**
	12nm,0.7s,mb4.9,baz=120,slow=9.8,SNR=6.6						
LPL	**La Plagne**	**82.85**	**315**	*e*P	**P**	**08 18 02.1**	**+0.4**
	23nm,0.8s,mb5.0						
EKA	**Eskdalemuir Ar**	**88.01**	**325**	P	**P**	**08 18 27.6**	**+0.6**
	3.8nm,0.8s,mb4.7,baz=82,slow=5.6,SNR=3.9						
ESDC	**Sonseca Array**	**91.41**	**310**	P	**P**	**08 18 43.2**	**-0.3**
	4.2nm,0.9s,mb4.8,baz=57,slow=4.5,SNR=7.0						
VNDA	**Vanda**	**92.54**	**168**	P	**P**	**08 18 49.0**	**+1.2**
	1.6nm,0.9s,mb4.4,baz=34,slow=17,SNR=2.5						
ILAR	**Eielson Array**	**95.17**	**22**	P	**P**	**08 19 01.4**	**+1.4**
	0.8nm,0.9s,mb4.2,baz=300,slow=5.5,SNR=3.2						
INK	**Inuvik**	**97.42**	**16**	P	**P**	**08 19 11.6**	**+1.4**
	1.8nm,0.9s,mb4.5,baz=348,slow=3.9,SNR=3.6						
ULM	**Lac du Bonnet**	**121.89**	**7**	PKP	PKPdf	08 24 33.3	+3.1
	2.9nm,0.8s,baz=73,slow=3.6,SNR=4.6						
NVAR	**Mina Array Bea**	**125.33**	**31**	PKP	PKPdf	08 24 40.6	+3.5
	2.5nm,0.7s,baz=324,slow=1.4,SNR=5.4						
PDAR	**Pinedale Array**	**125.59**	**21**	PKP	PKPdf	08 24 39.7	+2.1
	2.8nm,0.8s,baz=356,slow=1.2,SNR=8.4						
ANMO	**Albuquerque**	**133.59**	**23**	PKP	PKPdf	08 24 57.2	+4.1
	2.3nm,0.8s,baz=4.6,slow=3.4,SNR=6.0						
TXAR	**Lajitas Array**	**139.65**	**24**	PKP	PKPdf	08 25 05.2	+0.9
	1.4nm,0.7s,baz=348,slow=0.7,SNR=7.9						
BDFB	**Brasilia**	**141.99**	**254**	PKP	PKPdf	08 25 10.4	+1.6
	4.1nm,0.8s,baz=130,slow=6.8,SNR=2.5						
SJG	**San Juan**	**147.94**	**323**	PKPbc	PKPdf	08 25 23.8	+5.0
	13nm,0.8s,baz=331,slow=2.7,SNR=3.9						
PCRV	**Puerto La Cruz**	**152.47**	**309**	PKPbc	PKPdf	08 25 33.7	+7.8
	8.6nm,0.8s,baz=189,slow=11,SNR=3.2						

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*ATH **26** 08:05:39.9, 36.19N×27.26E, h13^{km}±1^{km}, MD4.0/10, ML4.3*

*NEIC **26** 08:05:40.0, 36.19N×27.26E, h14^{km}, mb4.6/1, ML4.3(ATH), After ATH.*

*ISK **26** 08:05:40.5, 36.00N×27.17E, h47^{km}, ML4.2*

*CSEM **26** 08:05:42.7±0.1, 36.17N×27.43E, h60^{km}, mb4.7/1, Error ellipse: s-maj=2.2km s-min=1.4km az=8.0*

*IDC **26** 08:05:44.3±3.2, 36.18N×27.21E, h35^{km}±31^{km}, mb4.1/7, mb1 4.2/13, mb1mx4.0/24, ML3.9/6, MS4.5/1, Ms1 4.5/1, ms1mx3.7/26, Error ellipse: s-maj=20.8km s-min=14.3km az=162.0*

*NIC **26** 08:05:45.7±0.2, 36.25N×27.54E, h25^{km}, mb4.6, ML4.2, MW3.6*

ISC 26 08:05:42.2±0.3**, 36.01N**±0.03×**27.39E**±0.02**, h50**^{km}±6^{km}**, n85,** σ**1**^{s}**25**/100**, mb4.3**/7**, 3C-2D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KARP	**Karpathos**	**0.50**	**202**	⇑*i*PB	**P**	**08 05 52.3**	**-1.1**
ARG	**Arkhangelos**	**0.63**	**71**	*e*PB	**P**	**08 05 53.5**	**-1.6**
DALT	**Dalyan (Mudla)**	**1.26**	**53**	*i* PN	**P**	**08 06 05.0**	**+1.2**
DALT				*i* SN	**S**	**08 06 22.8**	**+2.9**
MLSB	**Milas**	**1.32**	**13**	*i* PN	**P**	**08 06 03.5**	**-1.3**
MLSB				*i* SN	**S**	**08 06 21.2**	**-0.3**
FETY	**Fethiye**	**1.50**	**65**	*i* PN	**P**	**08 06 08.1**	**+0.8**
NPS	**Neapolis**	**1.63**	**243**	*e*PB	**P**	**08 06 09.6**	**+0.6**
SMG	**Samos**	**1.75**	**346**	*e*PB	**P**	**08 06 09.2**	**-1.6**
KSL	**Kastellorizon**	**1.78**	**85**	*e*PN	**P**	**08 06 14.0**	**+2.8**
XRY	**Khrisi**	**1.79**	**231**	*e*PG	**P**	**08 06 13.6**	**+2.4**
APE	**Apeiranthos**	**1.83**	**306**	PN	**P**	**08 06 09.6**	**-2.3**
APE	**Apeiranthos**	**1.83**	**306**	⇓*i*PB	**P**	**08 06 10.7**	**-1.2**
APE	**Apeiranthos**	**1.83**	**306**	⇓*i*Pg	**P**	**08 06 10.7**	**-1.2**
IDI	**Anoyia**	**2.16**	**251**	Pn	**P**	**08 06 16.9**	**+0.4**
	25nm,0.3s,baz=59,slow=13,SNR=84						
IDI				Sn	**S**	**08 06 43.5**	**+1.4**
	175nm,0.3s,baz=341,slow=14,SNR=15						
IDI	**Anoyia**	**2.16**	**251**	Pn	**P**	**08 06 16.9**	**+0.4**
IDI				Sn	**S**	**08 06 43.5**	**+1.4**
DENT	**Denizli**	**2.19**	**37**	PN	**P**	**08 06 16.6**	**-0.3**
IZM	**Izmir**	**2.39**	**358**	PN	**P**	**08 06 18.5**	**-1.3**
VAM	**Vamos**	**2.66**	**258**	*e*PN	**P**	**08 06 24.6**	**+0.9**
ANTB	**Antalya**	**2.78**	**70**	*e*PN	**P**	**08 06 27.3**	**+2.0**
KHL	**Karahalli**	**2.87**	**36**	PN	**P**	**08 06 26.8**	**+0.2**
AKS	**Akhisar**	**2.89**	**7**	*e*PN	**P**	**08 06 26.1**	**-0.7**
BCK	**Bucak**	**2.95**	**60**	*e*PN	**P**	**08 06 28.3**	**+0.5**
ISP	**Isparta**	**3.10**	**53**	*e*PN	**P**	**08 06 29.9**	**0.0**
ISP	**Isparta**	**3.10**	**53**	*e*Pn	**P**	**08 06 31.8**	**+2.0**
PRK	**Paraskevi**	**3.35**	**345**	*e*PN	**P**	**08 06 31.5**	**-1.9**
PTL	**Penteli**	**3.48**	**307**	*e*PB	**P**	**08 06 34.5**	**-0.7**
ATH	**Athens Observa**	**3.53**	**305**	*e*PB	**P**	**08 06 35.6**	**-0.4**
KYTH	**Kithira**	**3.53**	**276**	*e*PN	**P**	**08 06 36.3**	**+0.3**
BALB	**Balikesir**	**3.65**	**6**	*e*PN	**P**	**08 06 37.6**	**0.0**
VLI	**Veliai**	**3.66**	**282**	*e*PB	**P**	**08 06 37.9**	**+0.1**
ALT	**Altintas**	**3.73**	**35**	*e*PN	**P**	**08 06 38.6**	**-0.2**
AKMC	**Akamas**	**4.15**	**102**	P	**P**	**08 06 45.6**	**+1.0**
PPCY	**Paphos**	**4.20**	**104**	⇑*i*P	**P**	**08 06 46.6**	**+1.2**
HDMB	**Hadim**	**4.22**	**75**	*e*PN	**P**	**08 06 46.9**	**+1.3**
ALFC	**Alevga**	**4.33**	**100**	⇑P	**P**	**08 06 47.7**	**+0.5**
	11nm,0.3s						
ALFC				S	**S**	**08 07 36.8**	**-0.2**
ALFC	**Alevga**	**4.33**	**100**	S	**S**	**08 07 36.8**	**-0.2**
LPK	**Lapseki**	**4.39**	**354**	*e*PN	**P**	**08 06 46.8**	**-1.2**
KONT	**Konya--Tatoy**	**4.42**	**63**	*e*PN	**P**	**08 06 49.5**	**+0.9**
LEF	**Lefka**	**4.57**	**100**	*e*PN	**P**	**08 06 51.1**	**+0.5**
KIZT	**Kizilcal**	**4.58**	**50**	*e*PN	**P**	**08 06 51.9**	**+1.1**
SZAC	**Souni-Zanaja**	**4.66**	**104**	P	**P**	**08 06 52.8**	**+0.9**
	21nm,0.3s						
SZAC				S	**S**	**08 07 45.4**	**+0.1**
MAMC	**Mammari**	**4.82**	**98**	P	**P**	**08 06 54.8**	**+0.6**
CSS	**Prodhromos**	**4.96**	**100**	P	**P**	**08 06 56.9**	**+0.8**
	3.6nm,0.5s						
CSS				S	**S**	**08 07 53.0**	**+0.2**
IKL	**Isikli**	**5.10**	**86**	*e*PN	**P**	**08 06 59.6**	**+1.6**
EVR	**Evrytania**	**5.30**	**305**	*e*PN	**P**	**08 06 59.1**	**-1.8**
PHNC	**Paralimni**	**5.51**	**99**	P	**P**	**08 07 07.6**	**+3.9**
BRTR	**Keskin Array B**	**6.18**	**51**	Pn	**P**	**08 07 13.5**	**+0.4**
	1.5nm,0.3s,baz=247,slow=14,SNR=24						
BRTR				Sn	**S**	**08 08 23.0**	**-0.4**
	baz=248,slow=27,SNR=2.0						
BRTR	**Keskin Array B**	**6.18**	**51**	Pn	**P**	**08 07 13.4**	**+0.3**
HNTI	**Hanita**	**7.05**	**112**	S	**S**	**08 08 43.1**	**-1.9**
HTY	**Hatay**	**7.09**	**87**	*e*PN	**P**	**08 07 26.2**	**+0.4**
KSDI	**Kefar Szold**	**7.37**	**110**	S	**S**	**08 08 50.3**	**-2.7**
MMLI	**Mount Malkishu**	**7.54**	**116**	S	**S**	**08 08 56.2**	**-1.0**
KSHT	**Keshet**	**7.58**	**111**	S	**S**	**08 08 56.3**	**-1.7**
KZIT	**Kziot**	**7.75**	**129**	S	**S**	**08 08 58.9**	**-3.5**
DRGI	**Dragot**	**7.98**	**121**	S	**S**	**08 09 07.2**	**-0.8**
MZDA	**Masada**	**8.13**	**123**	S	**S**	**08 09 10.3**	**-1.4**
MKRJ	**Makawir**	**8.18**	**121**	S	**S**	**08 09 12.7**	**-0.2**
ZFRI	**Zfri**	**8.49**	**128**	S	**S**	**08 09 17.0**	**-3.6**
PRNI	**Paran**	**8.52**	**129**	S	**S**	**08 09 16.2**	**-5.1**
ASF	**Jabal al Asfar**	**8.76**	**113**	Pn	**P**	**08 07 51.8**	**+2.8**
	0.9nm,0.3s,baz=159,slow=14,SNR=3.6						
ASF				Sn	**S**	**08 09 30.7**	**+3.3**
	0.6nm,0.3s,baz=210,slow=22,SNR=4.2						
ASF	**Jabal al Asfar**	**8.76**	**113**	Pn	**P**	**08 07 51.8**	**+2.8**
ASF				Sn	**S**	**08 09 30.7**	**+3.3**
MBH	**Mount Berech**	**8.85**	**132**	S	**S**	**08 09 23.4**	**-6.3**
EIL	**Elat**	**8.96**	**133**	Pn	**P**	**08 07 53.3**	**+1.5**
	2.6nm,0.3s,baz=223,slow=3.2,SNR=13						
EIL				Sn	**S**	**08 09 29.1**	**-3.3**
	8.7nm,0.3s,baz=68,slow=26,SNR=9.5						
EIL				LR	LR	08 12 56.5	
	comp=Z,3μm,20.4s,baz=309,slow=47						
EIL	**Elat**	**8.96**	**133**	S	**S**	**08 09 27.2**	**-5.2**
EIL	**Elat**	**8.96**	**133**	Pn	**P**	**08 07 53.3**	**+1.6**
EIL				S	**S**	**08 09 27.2**	**-5.2**
EIL				Sn	**S**	**08 09 29.0**	**-3.4**
ALWS	**Ilw as Safayha**	**9.29**	**134**	P	**P**	**08 07 55.5**	**-0.8**
HAQS	**Haql**	**9.41**	**135**	P	**P**	**08 07 57.2**	**-0.7**
HAQS				S	**S**	**08 09 39.6**	**-3.8**
JMOS	**Jabal al Moall**	**9.43**	**134**	P	**P**	**08 07 57.3**	**-0.7**
JMOS				S	**S**	**08 09 39.4**	**-4.4**
BDAS	**Al Bad'**	**9.98**	**137**	P	**P**	**08 08 04.8**	**-0.9**
BHD	**Baghdad**	**14.25**	**96**	*i* P	**P**	**08 09 02.0**	**-0.8**
OJC	**Ojcow**	**15.23**	**341**	*e*P	**P**	**08 09 12.7**	**-2.7**
GERES	**GERESS Array B**	**16.30**	**326**	Pn	**P**	**08 09 27.4**	**-1.5**
	0.1nm,0.3s,baz=90,slow=4.0,SNR=3.7						
GERES	**GERESS Array B**	**16.30**	**326**	Pn	**P**	**08 09 27.4**	**-1.5**
GERES	**GERESS Array B**	**16.30**	**326**	Pn	**P**	**08 09 27.4**	**-1.5**
KHC	**Kasperske Hory**	**16.56**	**327**	*e*P	**P**	**08 09 24.5**	**-7.8**
KHC				x	x	08 09 36.0	
DAVOX	**Davos**	**16.94**	**315**	Pn	**P**	**08 09 37.3**	**+0.2**
	0.3nm,0.3s,baz=192,slow=10,SNR=1.8						
LPL	**La Plagne**	**18.26**	**308**	*e*P	**P**	**08 09 54.3**	**+0.8**
	77nm,0.8s						
ESDC	**Sonseca Array**	**24.96**	**288**	P	**P**	**08 11 02.7**	**+0.3**
	1.3nm,0.5s,mb3.8,baz=82,slow=10.0,SNR=14						
ESDC	**Sonseca Array**	**24.96**	**288**	P	**P**	**08 11 02.7**	**+0.3**
ESDC	**Sonseca Array**	**24.96**	**288**	P	**P**	**08 11 02.7**	**+0.3**
HFS	**Hagfors**	**25.71**	**344**	P	**P**	**08 11 09.0**	**-0.2**
	3.2nm,0.7s,mb4.0,baz=158,slow=7.8,SNR=2.8						
ARCES	**ARCESS Array B**	**33.60**	**359**	P	**P**	**08 12 19.8**	**+0.4**
	5.9nm,0.9s,mb4.5,baz=170,slow=11,SNR=3.2						
DBIC	**Dimbokro**	**41.52**	**233**	P	**P**	**08 13 28.4**	**+1.9**
	2.3nm,0.4s,mb4.2,baz=15,slow=8.9,SNR=13						
ZAL	**Zalesovo**	**43.09**	**47**	P	**P**	**08 13 41.1**	**+2.3**
	9.3nm,0.6s,mb4.7,baz=315,slow=6.8,SNR=4.6						
SONM	**Songino Array**	**57.54**	**52**	P	**P**	**08 15 30.3**	**+1.5**
	1.9nm,0.6s,mb4.3,baz=271,slow=7.3,SNR=7.7						
SCHQ	**Schefferville**	**63.72**	**320**	P	**P**	**08 16 09.4**	**-1.2**
	2.0nm,0.5s,mb4.4,baz=44,slow=7.8,SNR=3.6						

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*IDC **26** 08:09:08.7±0.7, 7.17N×94.76E, mb4.4/19, mb1 4.5/19, mb1mx4.4/24, Error ellipse: s-maj=33.4km s-min=17.2km az=45.0*

ISC 26 08:09:12.0±0.6**, 7.1N**±0.1×**94.8E**±0.1**, h33**^{km}**, n23,** σ**0**^{s}**89**/20**, mb4.4**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	**41.76**	**12**	P	**P**	**08 17 00.4**	**+0.7**
	2.9nm,0.8s,mb3.9,baz=196,slow=9.0,SNR=3.0						
WRA	**Warramunga Arr**	**47.33**	**125**	P	**P**	**08 17 43.5**	**-1.4**
	2.8nm,1.0s,mb4.2,baz=303,slow=9.5,SNR=4.4						
ZAL	**Zalesovo**	**47.36**	**352**	P	**P**	**08 17 44.5**	**-0.2**
	3.4nm,0.6s,mb4.5,baz=312,slow=3.0,SNR=3.8						
ASAR	**Alice Springs**	**48.97**	**130**	P	**P**	**08 17 57.9**	**+0.3**
	3.9nm,0.9s,mb4.5,baz=309,slow=7.4,SNR=6.9						
BVAR	**Borovoye Array**	**49.89**	**341**	P	**P**	**08 18 04.1**	**-0.1**
	2.9nm,0.7s,mb4.4,baz=133,slow=8.5,SNR=7.3						
KMBO	**Kilima Mbogo**	**57.95**	**264**	P	**P**	**08 19 05.4**	**+1.3**
	7.2nm,1.0s,mb4.7,baz=240,slow=23,SNR=4.2						
STKA	**Stephens Creek**	**59.15**	**134**	P	**P**	**08 19 12.5**	**+0.4**
	3.6nm,0.8s,mb4.5,baz=301,slow=7.6,SNR=2.9						
EIL	**Elat**	**60.33**	**300**	P	**P**	**08 19 19.7**	**-0.5**
	15nm,1.2s,mb4.9,baz=163,slow=14,SNR=3.2						
BRTR	**Keskin Array B**	**63.38**	**311**	P	**P**	**08 19 38.4**	**-2.1**
	1.0nm,0.7s,mb4.0,baz=127,slow=6.2,SNR=2.8						
IDI	**Anoyia**	**69.49**	**305**	P	**P**	**08 20 18.0**	**-1.5**
	8.0nm,1.0s,mb4.6,baz=345,slow=11,SNR=2.9						
MLR	**Muntele Rosu**	**70.13**	**316**	P	**P**	**08 20 23.6**	**+0.5**
	3.7nm,0.8s,mb4.4,baz=29,slow=4.2,SNR=3.2						
FINES	**FINESS Array B**	**73.65**	**332**	P	**P**	**08 20 43.5**	**-0.3**
	3.1nm,0.8s,mb4.3,baz=91,slow=7.3,SNR=6.0						
ARCES	**ARCESS Array B**	**76.17**	**340**	P	**P**	**08 20 58.6**	**+0.5**
	1.8nm,0.6s,mb4.2,baz=63,slow=2.7,SNR=3.5						
GERES	**GERESS Array B**	**78.79**	**318**	P	**P**	**08 21 13.2**	**+0.1**
	10nm,1.4s,mb4.6,baz=108,slow=4.2,SNR=3.2						
HFS	**Hagfors**	**79.40**	**330**	P	**P**	**08 21 15.8**	**-0.5**
	7.7nm,1.1s,mb4.6,baz=108,slow=4.7,SNR=5.3						
NB2	**NORSAR Subarra**	**80.68**	**331**	P	**P**	**08 21 22.0**	**-1.0**
	4.5nm,1.0s,mb4.3,baz=91,slow=5.8						
NOA	**NORSAR Array B**	**80.68**	**331**	P	**P**	**08 21 23.0**	**-0.1**
	0.7nm,0.6s,mb3.8,baz=95,slow=4.9,SNR=3.5						
EKA	**Eskdalemuir Ar**	**88.68**	**326**	P	**P**	**08 22 04.3**	**+1.2**
	3.7nm,1.0s,mb4.7,baz=98,slow=5.9,SNR=3.5						
ESDC	**Sonseca Array**	**92.16**	**310**	P	**P**	**08 22 21.1**	**+1.3**
	1.3nm,0.8s,mb4.3,baz=56,slow=5.3,SNR=3.8						
INK	**Inuvik**	**97.53**	**16**	P	**P**	**08 22 44.0**	**+0.4**
	1.0nm,0.7s,mb4.5,baz=186,slow=14,SNR=3.5						
PDAR	**Pinedale Array**	**125.63**	**22**	PKP	PKPdf	08 28 12.3	+1.8
	0.5nm,0.8s,baz=315,slow=1.3,SNR=3.0						
PDAR	**Pinedale Array**	**125.63**	**22**	PKP	PKPdf	08 28 12.3	+1.8
TXAR	**Lajitas Array**	**139.64**	**25**	PKP	PKPdf	08 28 37.1	-0.1
	0.7nm,0.9s,baz=288,slow=2.9,SNR=2.3						

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*IDC **26** 08:12:32.3±0.5, 9.13N×93.72E, mb4.4/24, mb1 4.5/24, mb1mx4.5/28, Error ellipse: s-maj=22.9km s-min=12.3km az=45.0*

*NEIC **26** 08:12:38.7±2.7, 9.26N×93.84E, h36^{km}±22^{km}, mb4.8/12, Error ellipse: s-maj=21.2km s-min=14.6km az=46.0*

*BJI **26** 08:12:41.1, 9.39N×93.05E, h37^{km}, mb4.7*

ISC 26 08:12:32.3±5.2**, 9.14N**±0.10×**93.9E**±0.1**, h15**^{km}±35^{km}**, n68,** σ**0**^{s}**98**/59**, mb4.6**/36**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**10.49**	**27**	*e*Pn	**P**	**08 15 04.6**	**-0.8**
	90nm,0.5s						
CHG	**Chiang Mai**	**10.80**	**27**	PG	**P**	**08 15 08.3**	**-1.3**
CHG				SG	Px	08 16 46.9	
KMI	**Kunming**	**18.00**	**27**	*e*P	**P**	**08 16 53.8**	**+10**
KMI				AMB	AMB		
	comp=Z,51nm,1.4s						
PKI	**Pulchoki**	**20.00**	**338**	*e*P	**P**	**08 17 09.0**	**+1.7**
	comp=Z,209nm,1.2s						
GUN	**Gumba**	**20.14**	**339**	*e*P	**P**	**08 17 11.2**	**+2.4**
	comp=Z,131nm,0.7s						
DMN	**Daman**	**20.15**	**337**	*e*P	**P**	**08 17 10.0**	**+1.1**
	comp=Z,66nm,0.7s						
KKN	**Kakani**	**20.25**	**338**	*e*P	**P**	**08 17 11.7**	**+1.8**
	comp=Z,98nm,0.9s						
LSA	**Lhasa**	**20.62**	**353**	P	**P**	**08 17 19.0**	**+5.3**
LSA	**Lhasa**	**20.62**	**353**	*e*P	**P**	**08 17 15.4**	**+1.6**
	comp=Z,17nm,0.5s						
GKN	**Gorkha**	**20.69**	**336**	*e*P	**P**	**08 17 16.5**	**+2.0**
	comp=Z,128nm,0.7s						
KOLN	**Koldanda**	**20.92**	**334**	*e*P	**P**	**08 17 18.2**	**+1.4**
	comp=Z,82nm,0.8s						
GYA	**Guiyang**	**21.07**	**34**	⇑*i*P	**P**	**08 17 27.5**	**+9.1**
GYA				AMB	AMB		
	comp=Z,50nm,1.1s,mb4.8						
AAK	**Ala-Archa**	**37.45**	**336**	*e*P	**P**	**08 19 48.3**	**+1.5**
	comp=Z,27nm,1.1s,mb5.0						
SONM	**Songino Array**	**40.00**	**13**	P	**P**	**08 20 07.7**	**-0.4**
	comp=Z,1.1nm,0.8s,mb3.7,baz=211,slow=8.4,SNR=3.3						
SONM				PcP	PcP	08 22 15.2	+1.3
	comp=Z,1.5nm,0.9s,baz=186,slow=4.2,SNR=2.9						
ZAL	**Zalesovo**	**45.27**	**352**	P	**P**	**08 20 51.9**	**+1.0**
	comp=Z,2.5nm,0.5s,mb4.3,baz=308,slow=11,SNR=5.6						
NWAO	**Narrogin (SRO)**	**47.38**	**153**	P	**P**	**08 21 09.2**	**+1.2**
	comp=Z,11nm,0.8s,mb4.9,baz=359,slow=3.7,SNR=3.1						
BVAR	**Borovoye Array**	**47.72**	**341**	P	**P**	**08 21 11.1**	**+0.8**
	comp=Z,3.0nm,0.6s,mb4.5,baz=141,slow=9.2,SNR=7.7						
BRVK	**Borovoye**	**47.78**	**341**	*e*P	**P**	**08 21 11.9**	**+1.1**
	comp=Z,5.0nm,0.6s,mb4.7						
CHKZ	**Chkalovo**	**48.20**	**342**	*e*P	**P**	**08 21 14.8**	**+0.7**
	comp=Z,9.2nm,0.6s,mb5.0						
WRA	**Warramunga Arr**	**49.21**	**126**	P	**P**	**08 21 23.7**	**+1.4**
	comp=Z,1.5nm,0.6s,mb4.2,baz=302,slow=9.0,SNR=5.4						
WRA	**Warramunga Arr**	**49.21**	**126**	P	**P**	**08 21 23.7**	**+1.4**
ASAR	**Alice Springs**	**50.93**	**131**	P	**P**	**08 21 34.5**	**-0.9**
	comp=Z,1.6nm,0.6s,mb4.1,baz=307,slow=9.0,SNR=3.6						
GNI	**Garni**	**53.37**	**314**	P	**P**	**08 21 54.6**	**+1.1**
	comp=Z,3.6nm,0.5s,mb4.5,baz=3.0,slow=12,SNR=4.6						
GNI	**Garni**	**53.37**	**314**	P	**P**	**08 21 54.6**	**+1.1**
GNI				*e*P		08 21 55.1	
PMG	**Port Moresby**	**56.16**	**108**	P	**P**	**08 22 16.5**	**+2.3**
	comp=Z,7.5nm,0.8s,mb4.8,baz=323,slow=5.1,SNR=3.6						
KIV	**Kislovodsk**	**56.21**	**317**	*e*P	**P**	**08 22 14.7**	**+0.6**
	comp=Z,12nm,0.8s,mb5.0						
KMBO	**Kilima Mbogo**	**57.31**	**263**	P	**P**	**08 22 20.3**	**-2.1**
	comp=Z,1.7nm,0.7s,mb4.2,baz=51,slow=14,SNR=3.6						
ASF	**Jabal al Asfar**	**57.31**	**302**	P	**P**	**08 22 22.9**	**+0.7**
	comp=Z,5.8nm,1.0s,mb4.6,baz=22,slow=19,SNR=3.2						
EIL	**Elat**	**58.58**	**299**	P	**P**	**08 22 31.8**	**+0.7**
	comp=Z,3.4nm,0.5s,mb4.6,baz=146,slow=9.5,SNR=2.6						
CTA	**Charters Tower**	**59.16**	**120**	P	**P**	**08 22 36.5**	**+1.3**
	comp=Z,12nm,1.2s,mb4.8,baz=296,slow=6.8,SNR=4.1						
STKA	**Stephens Creek**	**61.17**	**134**	P	**P**	**08 22 50.3**	**+1.4**
	comp=Z,4.1nm,1.0s,mb4.5,baz=332,slow=4.5,SNR=3.5						
STKA	**Stephens Creek**	**61.17**	**134**	P	**P**	**08 22 50.3**	**+1.4**
STKA				*e*P		08 22 51.7	
BRTR	**Keskin Array B**	**61.41**	**310**	P	**P**	**08 22 49.1**	**-1.3**
	comp=Z,4.4nm,0.7s,mb4.7,baz=124,slow=7.3,SNR=17						
AKASG	**Malin Array Be**	**67.01**	**321**	P	**P**	**08 23 25.5**	**-1.3**
	comp=Z,1.4nm,0.5s,mb4.3,baz=88,slow=4.8,SNR=9.0						
KOLS	**Kolonicke sedl**	**71.09**	**319**	*e*P	**P**	**08 23 52.8**	**+0.9**
FINES	**FINESS Array B**	**71.48**	**332**	P	**P**	**08 23 53.6**	**-0.5**
	comp=Z,3.3nm,0.7s,mb4.4,baz=118,slow=8.3,SNR=9.4						
KAF	**Kangasniemi**	**71.55**	**333**	*e*p	**P**	**08 23 54.3**	**-0.2**
	comp=Z,3.9nm,0.7s,mb4.5						
CRVS	**Cervenica-Dubn**	**71.61**	**318**	*e*P	**P**	**08 23 58.3**	**+3.2**
OJC	**Ojcow**	**72.84**	**320**	*e*P	**P**	**08 24 02.7**	**+0.3**
VYHS	**Vyhne**	**73.30**	**318**	*e*P	**P**	**08 24 05.2**	**+0.1**
KEV	**Kevo**	**73.56**	**341**	*e*p	**P**	**08 24 06.9**	**+0.7**
	comp=Z,6.5nm,0.6s,mb4.7						
ARCES	**ARCESS Array B**	**74.00**	**340**	P	**P**	**08 24 09.0**	**+0.3**
	comp=Z,2.2nm,0.5s,mb4.4,baz=102,slow=7.0,SNR=27						
ARCES	**ARCESS Array B**	**74.00**	**340**	P	**P**	**08 24 09.0**	**+0.3**
MORC	**Moravsky Berou**	**74.25**	**319**	*e*P	**P**	**08 24 11.3**	**+0.7**
	comp=Z,7.7nm,1.0s,mb4.6						
ZST	**Bratislava**	**74.43**	**317**	*e*P	**P**	**08 24 12.8**	**+1.2**
LBTB	**Lobatse**	**74.61**	**241**	*e*P	**P**	**08 24 14.8**	**+1.6**
	comp=Z,14nm,1.1s,mb4.8						
DPC	**Dobruska-Polom**	**75.08**	**320**	*e*P	**P**	**08 24 17.0**	**+1.7**
BRG	**Berggiesshubel**	**76.62**	**320**	*e*P	**P**	**08 24 25.6**	**+1.6**
	comp=Z,13nm,1.4s,mb4.7						
GERES	**GERESS Array B**	**76.72**	**318**	P	**P**	**08 24 25.5**	**+0.8**
	comp=Z,3.3nm,0.6s,mb4.4,baz=84,slow=6.3,SNR=18						
KHC	**Kasperske Hory**	**76.80**	**318**	*e*P	**P**	**08 24 26.3**	**+1.2**
CLL	**Collm**	**77.22**	**321**	P	**P**	**08 24 29.0**	**+1.6**
	comp=Z,logA/T=0.9,mb4.6						
HFS	**Hagfors**	**77.24**	**330**	P	**P**	**08 24 27.3**	**-0.1**
	comp=Z,1.9nm,0.3s,mb4.5,baz=102,slow=4.2,SNR=26						
NB2	**NORSAR Subarra**	**78.51**	**330**	P	**P**	**08 24 34.3**	**0.0**
	comp=Z,2.2nm,0.6s,mb4.3,baz=95,slow=5.0						
NOA	**NORSAR Array B**	**78.51**	**330**	P	**P**	**08 24 34.8**	**+0.5**
	comp=Z,3.2nm,0.6s,mb4.4,baz=92,slow=5.7,SNR=7.4						
DAVOX	**Davos**	**79.30**	**316**	P	**P**	**08 24 40.0**	**+1.1**
	comp=Z,3.9nm,0.6s,mb4.5,baz=71,slow=2.5,SNR=6.3						
LPG	**La Plagne**	**81.55**	**315**	*e*P	**P**	**08 24 51.4**	**+0.6**
	comp=Z,42nm,1.0s,mb5.0						
EKA	**Eskdalemuir Ar**	**86.54**	**325**	P	**P**	**08 25 16.5**	**+0.6**
	comp=Z,2.9nm,0.6s,mb4.7,baz=87,slow=6.2,SNR=12						
ILAR	**Eielson Array**	**93.68**	**22**	P	**P**	**08 25 50.6**	**+1.5**
	comp=Z,1.1nm,0.7s,mb4.4,baz=304,slow=5.6,SNR=11						
INK	**Inuvik**	**95.86**	**16**	P	**P**	**08 26 01.5**	**+2.4**
	comp=Z,2.7nm,1.1s,mb4.6,baz=333,slow=7.7,SNR=7.3						
NVAR	**Mina Array Bea**	**123.97**	**30**	PKP	PKPdf	08 31 33.8	-0.3
	comp=Z,0.8nm,0.8s,baz=278,slow=5.4,SNR=4.0						
PDAR	**Pinedale Array**	**124.09**	**21**	PKP	PKPdf	08 31 32.7	-1.5
	comp=Z,0.9nm,0.8s,baz=90,slow=1.5,SNR=6.2						
PDAR	**Pinedale Array**	**124.09**	**21**	PKP	PKPdf	08 31 32.8	-1.5
TXAR	**Lajitas Array**	**138.19**	**23**	PKP	PKPdf	08 32 01.4	+0.2
	comp=Z,0.3nm,0.5s,baz=70,slow=0.4,SNR=4.9						
BAO	**Brasilia Array**	**142.24**	**256**	PKP	PKPdf	08 32 04.8	-4.0
PCRV	**Puerto La Cruz**	**151.27**	**311**	PKPbc	PKPdf	08 32 27.2	+3.4
	comp=Z,19nm,1.1s,baz=48,slow=14,SNR=4.6						
PCRV				PKPab	PKPab	08 32 34.5	-2.1
	comp=Z,4.9nm,0.6s,baz=17,slow=18,SNR=5.9						
SDV	**Santo Domingo**	**156.36**	**319**	PKPab	PKPab	08 32 58.3	+0.2
	comp=Z,3.0nm,0.9s,baz=45,slow=11,SNR=3.6						
LVC	**Limon Verde**	**158.73**	**229**	PKPab	PKPab	08 33 08.2	+0.1
	comp=Z,2.6nm,0.8s,baz=63,slow=4.5,SNR=5.4						
LPAZ	**La Paz**	**161.07**	**246**	PKPab	PKPab	08 33 19.5	+1.2
	comp=Z,2.0nm,0.8s,baz=192,slow=2.9,SNR=5.1						

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*NEIC **26** 08:12:58.8, 33.63S×72.62W, h39^{km}, MD3.5(GUC), After GUC.*

GUC 26 08:12:58.8±0.8**, 33.63S**×**72.62W, h39**^{km}±3^{km}**, MD3.5, ML3.1, 12C-1D, Off coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LCCH	**Las Cruces**	**0.89**	**80**	⇑*i*P	P	08 13 15.1	+0.2
LCCH				*i* S	S	08 13 27.7	+0.9
IHA	**Instituto Hidr**	**1.02**	**54**	⇑*i*P	P	08 13 16.9	+0.2
IHA				*i* S	S	08 13 30.9	+0.8
LNV	**Longovilo**	**1.06**	**108**	⇑*i*P	P	08 13 17.4	0.0
LNV				*i* S	S	08 13 32.5	+1.5
TACH	**Talagante**	**1.40**	**91**	⇑*i*P	P	08 13 22.6	+0.2
TACH				*i* S	S	08 13 44.9	+5.0
ROCH	**El Roble**	**1.50**	**64**	*e*P	P	08 13 24.6	+0.9
RCDM	**Rinconada Maip**	**1.52**	**85**	⇑*i*P	P	08 13 24.6	+0.6
RCDM				*i* S	S	08 13 43.8	+1.0
RCDM				AMP		08 13 52.4	
	comp=N,226nm,0.4s						
SFDO	**San Fernando**	**1.66**	**127**	⇑*i*P	P	08 13 26.4	+0.5
ANTU	**Antumapu**	**1.66**	**88**	*i* P	P	08 13 26.7	+0.7
ANTU				AMP		08 13 56.6	
	comp=E,393nm,0.6s						
CHCH	**Chadas Angostu**	**1.67**	**101**	⇑*i*P	P	08 13 26.5	+0.4
CHCH				*i* S	S	08 13 48.0	+1.6
DSCH	**Colegio Aleman**	**1.73**	**83**	⇑*i*P	P	08 13 28.2	+1.2
DSCH				*i* S	S	08 13 49.6	+1.6
DSCH				AMP		08 14 03.5	
	comp=N,726nm,0.6s						
CACH	**El Canelo**	**1.75**	**107**	⇓*i*P	P	08 13 28.9	+1.7
FSR	**Penalolen**	**1.75**	**86**	*e*P	P	08 13 28.0	+0.7
CLCH	**Cerro Calan**	**1.76**	**83**	⇑*i*P	P	08 13 28.4	+1.0
CLCH				*i* S	S	08 13 50.5	+1.8
PCH	**Pirque**	**1.76**	**90**	⇑*i*P	P	08 13 27.8	+0.4
FCH	**Farellones**	**1.97**	**82**	⇑*i*P	P	08 13 31.4	+1.1
FCH				*i* S	S	08 13 56.2	+2.2
FCH				AMP		08 14 10.5	
	comp=N,191nm,0.3s						
LMEL	**Las Melosas**	**2.02**	**97**	⇑*i*P	P	08 13 32.2	+1.0
LMEL				*i* S	S	08 13 56.5	+1.1
LMEL				AMP		08 14 08.4	
	comp=N,293nm,0.7s						

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*IDC **26** 08:13:16.4±1.3, 7.00N×94.74E, h31^{km}±6^{km}, mb4.5/9, mb1 4.6/9, mb1mx4.2/21, Error ellipse: s-maj=43.4km s-min=21.4km az=48.0*

ISC 26 08:13:14.4±1.1**, 7.0N**±0.2×**94.8E**±0.2**, h32**^{km}**, h32**^{km}±1.1^{km}**:pP-P, n14,** σ**0**^{s}**47**/10**, mb4.6**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	**41.89**	**12**	P	**P**	**08 21 04.0**	**+0.4**
	4.9nm,0.9s,mb4.1,baz=198,slow=7.4,SNR=3.1						
SONM				pP	pP	08 21 12.8	-0.3
	4.8nm,0.8s,baz=192,slow=7.8,SNR=3.4						
WRA	**Warramunga Arr**	**47.23**	**125**	P	**P**	**08 21 46.8**	**+0.1**
	7.8nm,1.1s,mb4.6,baz=302,slow=9.1,SNR=5.2						
ZAL	**Zalesovo**	**47.51**	**352**	P	**P**	**08 21 47.9**	**-0.7**
	5.2nm,0.7s,mb4.7,baz=294,slow=9.2,SNR=4.2						
ZAL				pP	pP	08 21 58.2	0.0
	4.9nm,0.6s,baz=304,slow=6.0,SNR=2.9						
BVAR	**Borovoye Array**	**50.03**	**341**	P	**P**	**08 22 07.8**	**-0.2**
	6.5nm,1.0s,mb4.6,baz=135,slow=8.4,SNR=5.3						
BVAR				pP	pP	08 22 17.0	-0.7
	3.7nm,0.7s,baz=143,slow=7.4,SNR=4.1						
PMG	**Port Moresby**	**54.66**	**107**	P	**P**	**08 22 42.8**	**-0.3**
	6.3nm,0.7s,mb4.8,baz=217,slow=5.1,SNR=2.4						
ZST	**Bratislava**	**76.61**	**318**	*e*	**P**	**08 25 03.7**	**-0.1**
GERES	**GERESS Array B**	**78.91**	**318**	P	**P**	**08 25 15.9**	**-0.5**
	2.5nm,0.8s,mb4.2,baz=90,slow=6.7,SNR=4.0						
GERES				pP	pP	08 25 26.6	+0.1
	2.2nm,0.6s,baz=90,slow=5.3,SNR=3.2						
DAVOX	**Davos**	**81.47**	**316**	P	**P**	**08 25 30.8**	**+0.8**
	6.3nm,0.6s,mb4.7,baz=135,slow=8.6,SNR=4.7						
ILAR	**Eielson Array**	**95.32**	**22**	P	**P**	**08 26 36.1**	**-0.2**
	3.0nm,0.8s,mb4.8,baz=298,slow=5.3,SNR=12						
INK	**Inuvik**	**97.66**	**16**	P	**P**	**08 26 47.6**	**+0.7**
	3.9nm,0.7s,mb5.0,baz=344,slow=3.7,SNR=7.3						
YKA	**Yellowknife Ar**	**107.13**	**14**	Pdiff	Pdif	08 27 29.2	+0.1
	1.2nm,1.1s,baz=331,slow=4.7,SNR=4.8						
NVAR	**Mina Array Bea**	**125.34**	**32**	PKP	PKPdf	08 32 15.6	-2.5
	0.7nm,0.7s,baz=270,slow=4.5,SNR=3.1						
PDAR	**Pinedale Array**	**125.75**	**22**	PKP	PKPdf	08 32 15.5	-3.2
	0.7nm,0.9s,baz=310,slow=1.0,SNR=3.8						
ANMO	**Albuquerque**	**133.72**	**24**	PKP	PKPdf	08 32 31.8	-2.2
	1.1nm,0.7s,baz=110,slow=2.3,SNR=3.1						

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*IDC **26** 08:13:40.9±0.6, 13.30N×96.55E, mb4.4/9, mb1 4.6/10, mb1mx4.4/20, ML5.0/1, Error ellipse: s-maj=24.9km s-min=14.8km az=71.0*

ISC 26 08:13:44.0±0.6**, 13.31N**±0.07×**96.6E**±0.1**, h33**^{km}**, n17,**

σ0^{s}81/12, mb4.4/9, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	5.58	23	Pn	**Pn**	**08 15 05.9**	**-1.1**
	12nm,0.3s,baz=212,slow=14,SNR=63						
CMAR				Sn	**Sn**	**08 16 11.2**	**+0.5**
	6.9nm,0.3s,baz=202,slow=19,SNR=5.6						
CMAR				Lg		08 16 40.0	
	26nm,0.3s,baz=210,slow=32,SNR=10						
SONM	Songino Array	35.37	11	P	**P**	**08 20 39.3**	**+0.8**
	2.1nm,0.9s,mb4.1,baz=196,slow=9.0,SNR=7.5						
ZAL	Zalesovo	41.60	349	P	**P**	**08 21 29.8**	**-0.6**
	4.9nm,0.7s,mb4.2,baz=297,slow=12,SNR=5.7						
WRA	Warramunga Arr	49.68	131	P	**P**	**08 22 35.1**	**0.0**
	6.9nm,0.6s,mb4.9,baz=313,slow=8.4,SNR=14						
NWAO	Narrogin (SRO)	50.01	157	P	**P**	**08 22 37.1**	**-0.3**
	6.9nm,0.8s,mb4.7,baz=345,slow=12,SNR=1.3						
ASAR	Alice Springs	51.75	135	P	**P**	**08 22 51.1**	**+0.4**
	4.8nm,0.6s,mb4.6,baz=312,slow=7.3,SNR=9.2						
ASAR				PcP	PcP	08 24 04.6	+0.7
	1.8nm,0.7s,baz=317,slow=4.8,SNR=4.1						
BRTR	Keskin Array B	60.90	308	P	**P**	**08 23 56.1**	**+0.1**
	1.7nm,0.9s,mb4.2,baz=108,slow=4.6,SNR=2.2						
STKA	Stephens Creek	62.23	137	P	**P**	**08 24 05.0**	**-0.1**
	4.3nm,0.8s,mb4.6,baz=338,slow=5.3,SNR=4.7						
AKASG	Malin Array Be	65.53	320	P	**P**	**08 24 24.9**	**-1.5**
	0.8nm,0.5s,mb4.0,baz=84,slow=4.3,SNR=4.5						
CRVS	Cervenica-Dubn	70.36	317	*e*	**P**	**08 24 58.3**	**+1.9**
EKA	Eskdalemuir Ar	84.66	326	P	**P**	**08 26 15.7**	**+0.1**
	2.9nm,0.7s,mb4.5,baz=74,slow=6.1,SNR=3.5						
ANMO	Albuquerque	127.24	24	PKP	PKPdf	08 32 46.7	+0.8
	1.1nm,0.8s,baz=303,slow=11,SNR=5.1						
TXAR	Lajitas Array	133.29	25	PKP	PKPdf	08 32 59.3	+1.8
	0.4nm,0.6s,baz=256,slow=3.7,SNR=3.2						
BDFB	Brasilia	145.72	262	PKPbc	PKPbc	08 33 22.8	+1.9
	4.8nm,0.8s,baz=83,slow=3.8,SNR=6.2						
PCRV	Puerto La Cruz	150.17	321	PKPbc	PKPdf	08 33 33.4	+6.0
	8.0nm,0.6s,baz=310,slow=4.7,SNR=7.2						
SDV	Santo Domingo	154.59	330	PKPbc	PKPdf	08 33 45.1	+11
	2.2nm,0.7s,baz=35,slow=5.0,SNR=2.7						
SDV				PKPab	PKPab	08 33 59.0	-0.3
	2.5nm,0.7s,baz=354,slow=2.5,SNR=2.7						
ROSC	El Rosal	159.85	333	PKPab	PKPab	08 34 22.9	+1.0
	5.0nm,1.1s,baz=95,slow=12,SNR=3.5						

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*BJI **26** 08:14:50.7, 5.94N×94.14E, h30^{km}, mb4.9*
*IDC **26** 08:14:58.0±1.6, 6.89N×94.66E, h23^{km}±4^{km}, mb4.4/12, mb1 4.5/12, mb1mx4.4/20, Error ellipse: s-maj=38.7km s-min=30.3km az=136.0*
*NEIC **26** 08:14:59.1±0.8, 6.79N×94.54E, h30^{km}, mb4.8/8, Error ellipse: s-maj=22.8km s-min=19.2km az=146.0*
ISC 26 08:14:59.8±2.2, **7.3N**±0.3×**94.1E**±0.2, **h21^{km}, h21^{km}**±2.2^{km}**:pP-P, n36, σ0^{s}69**/28, **mb4.7**/22, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CD2	Chengdu	25.14	20	P	**P**	**08 20 25.5**	**+0.2**
CD2				AMB	AMB		
	comp=Z,70nm,0.9s,mb5.2						
LZH	Lanzhou	29.98	16	*e*P	**P**	**08 21 14.8**	**+5.5**
LZH				AP	pP	08 21 17.8	+2.4
LZH				XP	sP	08 21 19.5	+1.4
LZH				AMB	AMB		
	comp=Z,50nm,1.3s,mb5.1						
HHC	Hu-ho-hao-te	36.84	22	*e*P	**P**	**08 22 09.0**	**+0.5**
HHC				AP	pP	08 22 15.5	+0.8
HHC				XP	sP	08 22 20.0	+2.7
HHC				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.8						
BJT	Baijiatuau	38.08	28	*e*P	**P**	**08 22 18.8**	**-0.2**
	comp=Z,23nm,1.1s,mb4.8						
BJI	Beijing	38.10	28	P	**P**	**08 22 19.0**	**-0.2**
BJI				AMB	AMB		
	comp=Z,24nm,1.1s,mb4.8						
SONM	Songino Array	41.70	12	P	**P**	**08 22 48.8**	**-0.1**
	comp=Z,7.4nm,0.8s,mb4.3,baz=197,slow=7.2,SNR=7.0						
ZAL	Zalesovo	47.08	352	P	**P**	**08 23 31.8**	**-0.2**
	comp=Z,4.1nm,0.9s,mb4.3,baz=310,slow=8.6,SNR=3.5						
BVAR	Borovoye Array	49.49	341	P	**P**	**08 23 51.4**	**+0.6**
	comp=Z,6.6nm,0.7s,mb4.8,baz=135,slow=10,SNR=7.9						
BRVK	Borovoye	49.56	341	*e*P	**P**	**08 23 51.7**	**+0.5**
	comp=Z,10nm,1.0s,mb4.8						
CHKZ	Chkalovo	49.98	342	*e*P	**P**	**08 23 55.2**	**+0.7**
	comp=Z,19nm,0.7s,mb5.2						
KMBO	Kilima Mbogo	57.33	264	P	**P**	**08 24 50.2**	**+0.9**
	comp=Z,1.4nm,0.7s,mb4.1,baz=59,slow=16,SNR=1.9						
BRTR	Keskin Array B	62.76	311	P	**P**	**08 25 25.5**	**-0.6**
	comp=Z,3.1nm,0.7s,mb4.6,baz=128,slow=6.9,SNR=6.5						
AKASG	Malin Array Be	68.56	322	P	**P**	**08 26 01.5**	**-1.7**
	comp=Z,0.9nm,0.6s,mb3.9,baz=85,slow=4.8,SNR=5.2						
IDI	Anoyia	68.85	305	P	**P**	**08 26 05.5**	**+0.2**
	comp=Z,7.2nm,0.5s,mb4.8,baz=87,slow=7.8,SNR=7.9						
CRVS	Cervenica-Dubn	73.12	319	*e*	pP	08 26 35.4	-1.8
FINES	FINESS Array B	73.18	332	P	**P**	**08 26 30.7**	**-0.1**
	comp=Z,7.5nm,0.5s,mb4.9,baz=96,slow=6.4,SNR=22						
FINES				pP	pP	08 26 37.8	+0.5
	comp=Z,3.7nm,0.6s,baz=94,slow=6.7,SNR=3.0						
KAF	Kangasniemi	73.26	333	*e*p	**P**	**08 26 31.2**	**-0.1**
	comp=Z,6.7nm,0.6s,mb4.8						
OJC	Ojcow	74.37	320	*e*P	**P**	**08 26 38.4**	**+0.4**
VYHS	Vyhne	74.79	318	*e*P	**P**	**08 26 39.8**	**-0.6**
ARCES	ARCESS Array B	75.77	340	P	**P**	**08 26 44.8**	**-0.8**
	comp=Z,9.6nm,0.7s,mb4.8,baz=88,slow=5.6,SNR=18						
MORC	Moravsky Berou	75.77	319	*e*P	**P**	**08 26 46.6**	**+0.6**
	comp=Z,9.4nm,1.0s,mb4.7						
ZST	Bratislava	75.91	318	*e*P	**P**	**08 26 47.4**	**+0.5**
PRU	Pruhonice	77.72	319	*e*P	**P**	**08 26 57.0**	**+0.1**
BRG	Berggiesshubel	78.15	320	*i* P	pP	08 27 07.2	+1.4
	comp=Z,29nm,1.9s						
GERES	GERESS Array B	78.21	318	P	**P**	**08 27 00.4**	**+0.8**
	comp=Z,3.9nm,0.6s,mb4.5,baz=90,slow=4.9,SNR=13						
GERES				pP	pP	08 27 07.4	+1.3
	comp=Z,1.7nm,0.6s,baz=117,slow=6.0,SNR=4.2						
KHC	Kasperske Hory	78.30	319	*e*P	**P**	**08 26 57.0**	**-3.1**
HFS	Hagfors	78.91	330	P	**P**	**08 27 03.5**	**+0.3**
	comp=Z,8.6nm,0.6s,mb4.8,baz=124,slow=5.3,SNR=16						
NB2	NORSAR Subarra	80.19	331	P	**P**	**08 27 03.2**	**-6.9**
	comp=Z,7.7nm,0.9s,mb4.6,baz=93,slow=5.3						
NOA	NORSAR Array B	80.19	331	P	**P**	**08 27 09.7**	**-0.3**
	comp=Z,4.7nm,0.8s,mb4.5,baz=93,slow=5.6,SNR=7.0						
NOA				pP	pP	08 27 17.2	+0.6
	comp=Z,2.1nm,0.7s,baz=93,slow=5.7,SNR=4.1						
LPG	La Plagne	82.98	315	*e*P	**P**	**08 27 24.4**	**-0.6**
	comp=Z,15nm,0.8s,mb4.8						
ULM	Lac du Bonnet	122.01	8	PKP	PKPdf	08 33 50.9	-6.4
	comp=Z,0.9nm,0.5s,baz=354,slow=14,SNR=4.0						
NVAR	Mina Array Bea	125.40	31	PKP	PKPdf	08 33 58.0	-6.1
	comp=Z,0.8nm,0.7s,baz=283,slow=2.2,SNR=4.3						
PDAR	Pinedale Array	125.69	21	PKP	PKPdf	08 33 58.0	-6.5
	comp=Z,1.1nm,0.8s,baz=307,slow=1.5,SNR=5.7						
ANMO	Albuquerque	133.68	24	PKP	PKPdf	08 34 14.6	-5.4
	comp=Z,0.7nm,0.6s,baz=293,slow=2.3,SNR=3.6						
TXAR	Lajitas Array	139.74	24	PKP	PKPdf	08 34 25.0	-6.3
	comp=Z,0.3nm,0.6s,baz=27,slow=2.0,SNR=4.2						
PCRV	Puerto La Cruz	152.61	309	PKPbc	PKPdf	08 34 54.2	+1.2
	comp=Z,7.2nm,0.7s,baz=345,slow=5.8,SNR=2.8						
PCRV				PKPab	PKPab	08 35 05.5	-3.3
	comp=Z,6.1nm,0.8s,baz=63,slow=4.5,SNR=2.6						

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*IDC **26** 08:15:30.4±1.0, 13.54N×92.77E, h30^{km}±5^{km}, mb4.3/17, mb1 4.4/17, mb1mx4.3/24, Error ellipse: s-maj=30.9km s-min=11.1km az=50.0*
ISC 26 08:15:28.1±0.6, **13.5N**±0.1×**92.8E**±0.2, **h30^{km}, h30^{km}**±.7^{km}**:pP-P, n23, σ0^{s}46**/18, **mb4.5**/18, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JOW	Kunigami	35.74	63	P	**P**	**08 22 26.9**	**+0.3**
	8.0nm,0.3s,mb5.1,baz=266,slow=8.8,SNR=11						
ZAL	Zalesovo	40.84	353	P	**P**	**08 23 08.8**	**+0.1**
	4.2nm,0.4s,mb4.4,baz=308,slow=4.7,SNR=5.2						
ZAL				pP	pP	08 23 17.4	-0.2
	4.2nm,0.4s,baz=311,slow=6.4,SNR=3.6						
BVAR	Borovoye Array	43.27	340	P	**P**	**08 23 29.0**	**+0.3**
	1.0nm,0.4s,mb3.9,baz=141,slow=13,SNR=4.1						
BVAR				pP	pP	08 23 37.8	+0.2
	2.6nm,0.6s,baz=124,slow=5.3,SNR=4.1						
NWAO	Narrogin (SRO)	51.74	154	P	**P**	**08 24 35.2**	**0.0**
	5.3nm,0.4s,mb4.8,baz=358,slow=6.8,SNR=6.6						
WRA	Warramunga Arr	52.70	128	P	**P**	**08 24 42.2**	**-0.4**
	8.7nm,0.6s,mb4.9,baz=303,slow=10,SNR=18						
WRA				pP	pP	08 24 51.8	+0.1
	3.7nm,0.6s,baz=300,slow=9.7,SNR=3.7						
WRA				PcP	PcP	08 25 52.5	+0.4
	2.8nm,0.6s,baz=318,slow=3.1,SNR=11						
ASAR	Alice Springs	54.61	132	P	**P**	**08 24 56.4**	**-0.3**
	4.5nm,0.4s,mb4.8,baz=313,slow=7.1,SNR=24						
BRTR	Keskin Array B	57.82	309	P	**P**	**08 25 19.4**	**0.0**
	2.0nm,0.8s,mb4.2,baz=118,slow=8.3,SNR=3.5						
PMG	Port Moresby	58.59	110	P	**P**	**08 25 25.3**	**+0.2**
	7.4nm,0.8s,mb4.8,baz=307,slow=5.1,SNR=3.2						
CTA	Charters Tower	62.30	121	P	**P**	**08 25 50.8**	**+0.4**
	4.5nm,1.0s,mb4.5,baz=256,slow=8.3,SNR=3.2						
STKA	Stephens Creek	64.98	135	P	**P**	**08 26 08.1**	**+0.3**
	1.9nm,0.4s,mb4.5,baz=321,slow=7.4,SNR=8.9						
FINES	FINESS Array B	67.15	331	P	**P**	**08 26 21.0**	**-0.2**
	3.4nm,0.8s,mb4.4,baz=104,slow=6.1,SNR=5.9						
KEV	Kevo	69.12	340	*e*p	**P**	**08 26 32.0**	**-1.3**
	9.9nm,0.6s,mb4.9						
ARCES	ARCESS Array B	69.56	340	P	**P**	**08 26 36.4**	**+0.4**
	2.0nm,0.5s,mb4.3,baz=99,slow=7.0,SNR=8.3						
GERES	GERESS Array B	72.78	317	P	**P**	**08 26 56.4**	**+0.7**
	3.8nm,0.6s,mb4.5,baz=86,slow=6.0,SNR=17						
HFS	Hagfors	72.96	329	P	**P**	**08 26 56.6**	**0.0**
	2.4nm,0.5s,mb4.4,baz=108,slow=4.7,SNR=7.2						
NOA	NORSAR Array B	74.21	330	P	**P**	**08 27 04.0**	**+0.2**
	1.6nm,0.6s,mb4.2,baz=90,slow=5.7,SNR=5.7						
ILAR	Eielson Array	90.07	22	P	**P**	**08 28 26.2**	**+0.1**
	1.1nm,0.7s,mb4.3,baz=300,slow=4.8,SNR=8.3						
INK	Inuvik	91.99	16	P	**P**	**08 28 34.1**	**-0.8**
	1.1nm,0.8s,mb4.2,baz=326,slow=8.0,SNR=7.0						
NVAR	Mina Array Bea	120.72	28	PKP	PKPdf	08 34 20.4	-2.5
	0.2nm,0.5s,baz=297,slow=2.0,SNR=3.6						
ANMO	Albuquerque	128.48	20	PKP	PKPdf	08 34 35.3	-2.7
	1.0nm,0.7s,baz=254,slow=1.2,SNR=4.5						
TXAR	Lajitas Array	134.56	20	PKP	PKPdf	08 34 47.7	-1.8
	0.5nm,0.5s,baz=106,slow=0.6,SNR=7.5						
PCRV	Puerto La Cruz	147.50	315	PKPbc	PKPdf	08 35 10.6	-2.3
	5.1nm,0.5s,baz=224,slow=4.0,SNR=4.4						
SDV	Santo Domingo	152.32	323	PKPbc	PKPdf	08 35 23.8	+3.4
	2.0nm,0.6s,baz=315,slow=8.6,SNR=5.5						
SDV				PKPab	PKPab	08 35 34.7	+0.2
	3.5nm,0.8s,baz=90,slow=15,SNR=3.8						

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*IDC **26** 08:18:43.6±1.1, 3.43N×96.13E, mb4.0/11, mb1 4.1/12, mb1mx4.0/19, ML4.5/1, Error ellipse: s-maj=53.4km s-min=17.4km az=48.0*
ISC 26 08:18:46.4±0.8, **3.2N**±0.2×**96.0E**±0.2, **h33^{km}, n12, σ1^{s}15**/12, **mb4.0**/11, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.39	11	Pn	**P**	**08 22 24.8**	**+1.9**
	0.7nm,0.3s,baz=191,slow=14,SNR=2.0						
WRA	Warramunga Arr	44.14	123	P	**P**	**08 26 54.7**	**+0.7**
	1.5nm,0.8s,mb3.8,baz=302,slow=9.1,SNR=4.9						
SONM	Songino Array	45.32	10	P	**P**	**08 27 02.3**	**-0.8**
	1.8nm,0.5s,mb4.1,baz=189,slow=8.5,SNR=9.2						
ASAR	Alice Springs	45.59	128	P	**P**	**08 27 04.4**	**-1.1**
	1.1nm,0.7s,mb3.9,baz=297,slow=8.0,SNR=4.4						
ZAL	Zalesovo	51.36	352	P	**P**	**08 27 47.8**	**-2.0**
	4.4nm,0.5s,mb4.6,baz=315,slow=5.4,SNR=11						
BVAR	Borovoye Array	53.94	341	P	**P**	**08 28 07.9**	**-1.2**
	2.2nm,0.8s,mb4.2,baz=143,slow=7.4,SNR=7.2						
CTA	Charters Tower	54.50	117	P	**P**	**08 28 14.2**	**+0.6**
	1.9nm,0.9s,mb4.0,baz=253,slow=7.7,SNR=3.5						
BRTR	Keskin Array B	66.85	312	P	**P**	**08 29 39.2**	**+1.9**
	0.7nm,0.7s,mb3.8,baz=109,slow=4.4,SNR=4.0						
AKASG	Malin Array Be	72.91	322	P	**P**	**08 30 13.5**	**-0.6**
	0.7nm,0.7s,mb3.7,baz=89,slow=4.5,SNR=4.8						
FINES	FINESS Array B	77.64	332	P	**P**	**08 30 40.8**	**-0.2**
	1.1nm,0.8s,mb3.9,baz=98,slow=7.2,SNR=2.7						
ARCES	ARCESS Array B	80.22	340	P	**P**	**08 30 55.0**	**+0.2**
	10nm,1.2s,mb4.7,baz=79,slow=6.2,SNR=3.6						
GERES	GERESS Array B	82.49	319	P	**P**	**08 31 08.2**	**+1.0**
	0.5nm,0.8s,mb3.5,baz=63,slow=6.6,SNR=3.0						

IDC 26 08:21:26.4±1.3, **4.59N**×**96.69E, mb4.2**/8, **mb1 4.3**/8, **mb1mx4.0**/18, **Error ellipse: s-maj=62.9km s-min=30.1km az=50.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.89	9	P	P	08 29 34.6	-1.8
	0.5nm,0.6s,baz=197,slow=6.8,SNR=2.4						
ASAR	Alice Springs	45.88	129	P	P	08 29 50.8	-1.9
	2.8nm,1.1s,baz=299,slow=7.9,SNR=4.5						
FINES	FINESS Array B	76.78	332	P	P	08 33 18.8	-2.5
	3.7nm,0.8s,baz=104,slow=5.7,SNR=5.0						
ARCES	ARCESS Array B	79.20	340	P	P	08 33 33.5	-1.0
	4.4nm,1.1s,baz=95,slow=10.0,SNR=4.3						
GERES	GERESS Array B	81.95	319	P	P	08 33 48.4	-1.1
	1.4nm,0.6s,baz=90,slow=5.3,SNR=9.3						
HFS	Hagfors	82.55	330	P	P	08 33 51.8	-0.6
	2.1nm,0.6s,baz=112,slow=8.0,SNR=4.8						
NOA	NORSAR Array B	83.82	331	P	P	08 33 57.5	-1.3
	1.2nm,0.8s,baz=95,slow=5.3,SNR=3.4						
DAVOX	Davos	84.50	316	P	P	08 34 01.5	-1.1
	1.7nm,0.4s,baz=114,slow=7.9,SNR=5.6						

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*IDC **26** 08:21:56.8±0.8, 9.66N×93.64E, h28^{km}±4^{km}, mb4.0/15, mb1 4.1/15, mb1mx4.0/23, Error ellipse: s-maj=39.0km s-min=14.7km az=48.0*
ISC 26 08:21:55.8±0.6, **9.6N**±0.2×**93.6E**±0.2, **h33^{km}, n19, σ0^{s}68**/15, **mb4.2**/15, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	Zalesovo	44.78	353	P	**P**	**08 30 08.8**	**+0.8**
	3.0nm,0.6s,mb4.3,baz=305,slow=8.1,SNR=8.3						
BVAR	Borovoye Array	47.18	341	P	**P**	**08 30 26.7**	**-0.4**
	1.1nm,0.7s,mb3.9,baz=146,slow=11,SNR=4.0						
NWAO	Narrogin (SRO)	47.93	153	P	**P**	**08 30 33.3**	**0.0**
	7.5nm,0.7s,mb4.8,baz=306,slow=9.9,SNR=4.2						
WRA	Warramunga Arr	49.74	126	P	**P**	**08 30 48.1**	**+0.8**
	2.0nm,0.5s,mb4.4,baz=302,slow=8.9,SNR=8.8						
ASAR	Alice Springs	51.47	131	P	**P**	**08 30 59.7**	**-0.7**
	2.2nm,0.5s,mb4.3,baz=301,slow=7.2,SNR=11						
ASAR				PcP	PcP	08 32 13.7	-1.0
	0.7nm,1.0s,baz=310,slow=4.4,SNR=2.2						
ASAR				pPcP		08 32 18.9	
	1.9nm,0.7s,baz=311,slow=3.6,SNR=8.8						
ASF	Jabal al Asfar	56.80	302	P	**P**	**08 31 39.9**	**+0.4**
	2.3nm,0.3s,mb4.7,baz=116,slow=19,SNR=7.0						
ASF				pP	pP	08 31 48.0	-1.6
	4.4nm,0.3s,baz=279,slow=19,SNR=4.8						
BRTR	Keskin Array B	60.87	310	P	**P**	**08 32 06.4**	**-1.3**
	0.5nm,0.5s,mb3.9,baz=101,slow=6.3,SNR=3.3						
FINES	FINESS Array B	70.93	332	P	**P**	**08 33 11.0**	**-0.5**
	11nm,1.3s,mb4.6,baz=108,slow=6.0,SNR=3.6						
ARCES	ARCESS Array B	73.46	340	P	**P**	**08 33 26.5**	**+0.1**
	2.7nm,0.8s,mb4.2,baz=63,slow=5.4,SNR=5.2						
GERES	GERESS Array B	76.16	318	P	**P**	**08 33 43.1**	**+0.7**
	0.9nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=4.8						
HFS	Hagfors	76.69	330	P	**P**	**08 33 44.4**	**-0.7**
	1.7nm,0.9s,mb4.0,baz=174,slow=40,SNR=3.4						
NOA	NORSAR Array B	77.96	330	P	**P**	**08 33 52.4**	**+0.3**
	1.2nm,0.9s,mb3.8,baz=228,slow=18,SNR=2.6						
DAVOX	Davos	78.75	316	P	**P**	**08 33 57.8**	**+1.0**
	1.3nm,0.6s,mb4.0,baz=130,slow=14,SNR=2.1						
ILAR	Eielson Array	93.38	22	P	**P**	**08 35 07.6**	**-1.0**
	0.4nm,0.7s,mb3.9,baz=314,slow=4.5,SNR=4.9						
ILAR				pP	pP	08 35 18.2	-1.0
	0.6nm,0.6s,baz=317,slow=4.8,SNR=5.4						
INK	Inuvik	95.51	16	P	**P**	**08 35 18.6**	**+0.4**
	0.8nm,0.7s,mb4.3,baz=324,slow=16,SNR=3.1						
NVAR	Mina Array Bea	123.74	30	PKP	PKPdf	08 40 50.5	-0.3
	0.1nm,0.3s,baz=339,slow=1.5,SNR=2.3						
NVAR				pPKP		08 41 01.8	
	1.2nm,0.7s,baz=326,slow=2.3,SNR=5.7						
PDAR	Pinedale Array	123.78	20	PKP	PKPdf	08 40 50.5	-0.2
	0.7nm,1.2s,baz=338,slow=1.0,SNR=2.6						
PDAR				pPKP		08 41 00.1	
	0.7nm,0.6s,baz=96,slow=0.7,SNR=6.3						
ANMO	Albuquerque	131.82	22	PKP	PKPdf	08 41 06.6	+0.2
	0.3nm,0.5s,baz=125,slow=8.0,SNR=3.3						
ANMO				pPKP		08 41 17.3	
	0.6nm,0.6s,baz=32,slow=5.3,SNR=2.9						
TXAR	Lajitas Array	137.89	23	PKP	PKPdf	08 41 18.5	+0.7
	0.2nm,0.8s,baz=34,slow=0.8,SNR=4.5						
TXAR				pPKP		08 41 28.8	
	0.4nm,0.5s,baz=197,slow=0.3,SNR=6.7						

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*IDC **26** 08:23:44.1±0.9, 11.70N×94.89E, mb4.1/10, mb1 4.2/11, mb1mx4.0/20, ML4.5/1, Error ellipse: s-maj=36.4km s-min=19.1km az=50.0*
ISC 26 08:23:47.5±0.8, **11.8N**±0.1×**95.1E**±0.2, **h33^{km}, n11, σ1^{s}13**/11, **mb4.2**/10, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.55	29	Pn	**Pn**	**08 25 36.7**	**-1.5**
	1.7nm,0.3s,baz=217,slow=12,SNR=2.1						
SONM	Songino Array	37.11	13	P	**P**	**08 30 57.6**	**+0.9**
	1.2nm,0.7s,mb3.8,baz=200,slow=7.8,SNR=2.9						
ZAL	Zalesovo	42.78	351	P	**P**	**08 31 45.3**	**+1.7**
	2.7nm,0.4s,mb4.3,baz=302,slow=7.0,SNR=5.9						
WRA	Warramunga Arr	49.90	129	P	**P**	**08 32 40.8**	**+0.5**
	1.8nm,1.1s,mb4.0,baz=304,slow=9.0,SNR=3.0						
ASAR	Alice Springs	51.82	133	P	**P**	**08 32 54.1**	**-0.7**
	0.6nm,0.7s,mb3.6,baz=311,slow=7.3,SNR=2.2						
GNI	Garni	52.43	312	P	**P**	**08 32 57.3**	**-1.8**
	1.4nm,0.3s,mb4.4,baz=160,slow=12,SNR=2.2						
BRTR	Keskin Array B	60.62	309	P	**P**	**08 33 55.9**	**-1.8**
	2.4nm,0.6s,mb4.5,baz=126,slow=6.6,SNR=8.0						
FINES	FINESS Array B	69.68	331	P	**P**	**08 34 56.1**	**+0.5**
	3.6nm,1.0s,mb4.3,baz=135,slow=5.4,SNR=3.6						
ARCES	ARCESS Array B	71.88	340	P	**P**	**08 35 09.2**	**+0.4**
	3.7nm,1.0s,mb4.3,baz=82,slow=6.4,SNR=5.2						
GERES	GERESS Array B	75.53	318	P	**P**	**08 35 31.3**	**+0.9**
	1.4nm,0.9s,mb3.9,baz=90,slow=6.7,SNR=5.0						
HFS	Hagfors	75.54	329	P	**P**	**08 35 30.8**	**+0.6**
	4.8nm,1.0s,mb4.4,baz=90,slow=5.9,SNR=4.7						

IDC 26 08:26:16.3±2.3, **12.99N**×**93.45E, mb4.1**/5, **mb1 4.3**/5, **mb1mx3.9**/18, **Error ellipse: s-maj=99.6km s-min=21.1km az=63.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	36.39	15	P	P	08 33 20.8	-3.4
	1.6nm,0.7s,baz=190,slow=8.8,SNR=6.3						
ZAL	Zalesovo	41.42	352	P	P	08 34 06.1	+0.1
	1.9nm,0.6s,baz=319,slow=7.6,SNR=6.3						
BVAR	Borovoye Array	43.97	340	P	P	08 34 24.4	-2.4
	1.6nm,0.6s,baz=146,slow=11,SNR=6.6						
WRA	Warramunga Arr	51.86	128	P	P	08 35 27.9	-1.0
	4.6nm,0.7s,baz=304,slow=9.2,SNR=13						
ASAR	Alice Springs	53.78	132	P	P	08 35 39.9	-3.2
	1.2nm,0.5s,baz=304,slow=7.8,SNR=8.2						

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*IDC **26** 08:27:50.4±0.8, 6.43N×93.38E, h33^{km}±4^{km}, mb4.1/13, mb1 4.2/14, mb1mx4.1/21, ML4.4/1, Error ellipse: s-maj=40.9km s-min=15.2km az=50.0*
ISC 26 08:27:48.1±0.7, **6.3N**±0.2×**93.3E**±0.2, **h32^{km}, h32^{km}**±.2^{km}**:pP-P, n17, σ0^{s}81**/16, **mb4.3**/15, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.29	24	Pn	**P**	**08 31 00.1**	**+3.0**
	0.6nm,0.3s,baz=228,slow=14,SNR=9.8						
SONM	Songino Array	42.88	13	P	**P**	**08 35 44.3**	**-0.9**
	2.0nm,0.7s,mb4.0,baz=196,slow=9.1,SNR=7.1						
ZAL	Zalesovo	47.99	353	P	**P**	**08 36 25.0**	**-0.8**
	7.6nm,0.5s,mb5.0,baz=305,slow=5.7,SNR=17						
ZAL				pP	pP	08 36 34.6	-1.1
	3.1nm,0.6s,baz=7.5,slow=6.4,SNR=3.5						
WRA	Warramunga Arr	48.07	124	P	**P**	**08 36 27.0**	**0.0**
	6.9nm,0.6s,mb4.8,baz=300,slow=9.0,SNR=13						
ASAR	Alice Springs	49.59	128	P	**P**	**08 36 38.3**	**-0.2**
	3.8nm,0.6s,mb4.6,baz=296,slow=8.0,SNR=19						
BVAR	Borovoye Array	50.20	342	P	**P**	**08 36 42.2**	**-0.7**
	2.2nm,0.9s,mb4.2,baz=149,slow=8.6,SNR=5.2						
STKA	Stephens Creek	59.66	133	P	**P**	**08 37 51.8**	**0.0**
	2.7nm,0.6s,mb4.5,baz=293,slow=10,SNR=4.8						
BRTR	Keskin Array B	62.81	312	P	**P**	**08 38 12.7**	**-0.4**
	0.8nm,0.6s,mb4.0,baz=135,slow=7.0,SNR=3.2						
BRTR				pP	pP	08 38 23.0	-0.2
	1.2nm,0.7s,baz=108,slow=7.8,SNR=4.3						
AKASG	Malin Array Be	68.86	322	P	**P**	**08 38 50.3**	**-1.3**
	0.1nm,0.2s,mb3.3,baz=76,slow=4.4,SNR=4.2						
FINES	FINESS Array B	73.70	333	P	**P**	**08 39 20.2**	**-0.2**
	4.8nm,0.9s,mb4.4,baz=88,slow=6.9,SNR=12						
FINES				pP	pP	08 39 30.4	-0.2
	1.8nm,0.6s,baz=108,slow=6.0,SNR=1.9						
KAF	Kangasniemi	73.80	333	*e*p	**P**	**08 39 20.9**	**0.0**
	2.0nm,0.4s,mb4.4						
ARCES	ARCESS Array B	76.45	340	P	**P**	**08 39 36.4**	**+0.4**
	3.5nm,0.9s,mb4.3,baz=78,slow=3.8,SNR=7.1						
GERES	GERESS Array B	78.43	318	P	**P**	**08 39 48.5**	**+1.2**
	1.4nm,0.8s,mb4.0,baz=76,slow=5.5,SNR=6.4						
GERES				pP	pP	08 39 58.9	+1.3
	1.1nm,0.7s,baz=90,slow=4.0,SNR=4.2						
HFS	Hagfors	79.38	330	P	**P**	**08 39 52.6**	**+0.3**
	1.6nm,0.8s,mb4.0,baz=127,slow=7.4,SNR=4.7						
HFS				pP	pP	08 40 02.9	+0.3
	2.1nm,0.7s,baz=106,slow=10,SNR=2.0						
DAVOX	Davos	80.92	316	P	**P**	**08 40 01.9**	**+1.1**
	2.0nm,0.7s,mb4.2,baz=109,slow=8.0,SNR=4.5						
EKA	Eskdalemuir Ar	88.52	325	P	**P**	**08 40 39.3**	**+0.6**
	1.6nm,0.7s,mb4.5,baz=76,slow=6.9,SNR=3.8						
NVAR	Mina Array Bea	126.70	31	PKP	PKPdf	08 46 52.0	-2.2
	0.2nm,0.6s,baz=265,slow=2.0,SNR=3.7						

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*IDC **26** 08:28:07.2±0.7, 4.26N×93.95E, mb4.1/13, mb1 4.3/14, mb1mx4.2/20, ML4.6/1, Error ellipse: s-maj=40.6km s-min=16.8km az=50.0*
ISC 26 08:28:10.9±0.7, **4.4N**±0.1×**94.1E**±0.2, **h33^{km}, n21, σ0^{s}89**/19, **mb4.2**/14, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.72	18	Pn	**P**	**08 31 48.0**	**+9.3**
	1.0nm,0.3s,baz=210,slow=11,SNR=13						
IMP	Imphal	20.24	360	*e*	**P**	**08 32 44.4**	**-1.7**
IMP				*e*	**S**	**08 36 25.8**	**-0.5**
SONM	Songino Array	44.51	12	P	**P**	**08 36 21.9**	**+0.8**
	1.2nm,0.5s,mb4.0,baz=192,slow=8.6,SNR=4.7						
WRA	Warramunga Arr	46.36	123	P	**P**	**08 36 37.0**	**+0.8**
	3.9nm,1.0s,mb4.3,baz=302,slow=9.2,SNR=5.1						
ASAR	Alice Springs	47.80	128	P	**P**	**08 36 47.0**	**-0.5**
	2.0nm,0.8s,mb4.2,baz=310,slow=6.9,SNR=5.1						
ASAR				PcP	PcP	08 38 12.8	-3.6
	1.6nm,0.6s,baz=302,slow=3.6,SNR=6.0						
ZAL	Zalesovo	49.94	353	P	**P**	**08 37 05.2**	**+1.7**
	1.9nm,0.7s,mb4.3,baz=300,slow=8.1,SNR=2.2						
BVAR	Borovoye Array	52.23	342	P	**P**	**08 37 21.9**	**+1.1**
	2.9nm,0.7s,mb4.3,baz=149,slow=8.6,SNR=8.4						
STKA	Stephens Creek	57.80	132	P	**P**	**08 38 00.9**	**-0.7**
	4.0nm,0.9s,mb4.4,baz=16,slow=4.6,SNR=3.3						
BRTR	Keskin Array B	64.67	312	P	**P**	**08 38 47.8**	**-0.2**
	1.0nm,0.8s,mb3.9,baz=127,slow=6.2,SNR=3.6						
IDI	Anoyia	70.52	306	P	**P**	**08 39 24.9**	**+0.3**
	11nm,1.1s,mb4.7,baz=112,slow=22,SNR=2.3						
AKASG	Malin Array Be	70.83	322	P	**P**	**08 39 24.9**	**-1.4**
	0.3nm,0.4s,mb3.6,baz=92,slow=4.5,SNR=4.1						
FINES	FINESS Array B	75.73	333	P	**P**	**08 39 54.5**	**-0.2**
	1.3nm,0.5s,mb4.1,baz=94,slow=7.0,SNR=5.3						
KAF	Kangasniemi	75.83	333	*e*p	**P**	**08 40 00.3**	**+5.0**
	8.7nm,0.9s,mb4.7						
ARCES	ARCESS Array B	78.48	340	P	**P**	**08 40 09.5**	**-0.4**
	3.7nm,0.9s,mb4.3,baz=72,slow=8.6,SNR=5.2						
GERES	GERESS Array B	80.36	319	P	**P**	**08 40 21.1**	**+0.5**
	2.8nm,1.0s,mb4.2,baz=117,slow=6.0,SNR=6.7						
KHC	Kasperske Hory	80.47	319	*e*P	pP	08 40 32.0	+0.5
NB2	NORSAR Subarra	82.70	331	P	**P**	**08 40 32.1**	**-0.3**
	32nm,2.0s,mb5.0,baz=91,slow=5.0						
NB2	NORSAR Subarra	82.70	331	P	**P**	**08 40 32.1**	**-0.3**
	baz=91,slow=5.3						
NOA	NORSAR Array B	82.70	331	P	**P**	**08 40 32.8**	**+0.3**
	1.3nm,0.9s,mb4.0,baz=128,slow=3.5,SNR=2.8						
TXAR	Lajitas Array	142.34	26	PKP	PKPdf	08 47 40.8	-0.1
	0.3nm,0.7s,baz=241,slow=2.1,SNR=4.5						
LPAZ	La Paz	158.95	235	PKPab	PKPab	08 48 44.8	-0.1
	1.2nm,0.7s,baz=175,slow=8.1,SNR=4.7						

IDC 26 08:30:50.5±1.0, **12.97N**×**91.53E, mb4.2**/7, **mb1 4.3**/7, **mb1mx4.1**/17, **Error ellipse: s-maj=50.9km s-min=19.6km az=49.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	36.91	17	P	P	08 38 00.8	-2.0
	1.4nm,0.7s,baz=204,slow=7.0,SNR=3.1						
WRA	Warramunga Arr	53.34	127	P	P	08 40 11.6	-2.5

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
	2.0nm,0.5s,baz=300,slow=10.0,SNR=8.5						
ASAR	Alice Springs	55.16	131	P	P	08 40 25.4	-2.0
	1.3nm,0.4s,baz=309,slow=6.8,SNR=15						
BRTR	Keskin Array B	57.21	309	P	P	08 40 40.1	-1.9
	2.6nm,1.0s,baz=117,slow=5.5,SNR=4.6						
FINES	FINESS Array B	67.03	332	P	P	08 41 46.6	-0.7
	4.0nm,1.1s,baz=111,slow=12,SNR=3.7						
ARCES	ARCESS Array B	69.63	340	P	P	08 42 01.2	-2.2
	2.5nm,0.8s,baz=102,slow=8.3,SNR=3.7						
GERES	GERESS Array B	72.35	317	P	P	08 42 17.2	-2.9
	1.2nm,0.9s,baz=104,slow=5.5,SNR=4.8						

IDC 26 08:31:27.7±1.6, 0.01S×99.33E, mb4.1/6, mb1 4.2/6, mb1mx4.0/15, Error ellipse: s-maj=79.4km s-min=23.4km az=51.0, Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	39.59	122	P	P	08 39 00.5	-2.2
	0.8nm,0.5s,baz=304,slow=9.0,SNR=5.3						
ASAR	Alice Springs	40.97	127	P	P	08 39 12.9	-1.1
	1.4nm,0.6s,baz=302,slow=7.9,SNR=6.7						
SONM	Songino Array	48.05	6	P	P	08 40 08.9	-1.9
	1.2nm,0.5s,baz=195,slow=10,SNR=10.0						
FINES	FINESS Array B	82.05	332	P	P	08 43 49.9	-1.1
	1.6nm,0.8s,baz=117,slow=7.5,SNR=4.2						
KAF	Kangasniemi	82.12	333	ep	P	08 43 50.8	-0.6
ARCES	ARCESS Array B	84.39	340	P	P	08 44 01.5	-1.3
	1.0nm,0.4s,baz=76,slow=5.0,SNR=4.5						
GERES	GERESS Array B	87.12	319	P	P	08 44 15.6	-1.2
	1.9nm,1.0s,baz=76,slow=5.5,SNR=5.1						

*IDC **26** 08:32:40.2±0.8, 10.46N×93.63E, mb4.3/14, mb1 4.4/14, mb1mx4.3/22, Error ellipse: s-maj=34.8km s-min=19.2km az=49.0*

ISC 26 08:32:43.9±0.8, 10.5N±0.2×93.7E±0.2, h33^{km}, n28, σ0^{s}91/17, mb4.3/14, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PKI	Pulchoki	18.67	336	eP		08 37 13.6	
	105nm,0.9s						
GUN	Gumba	18.80	338	eP		08 37 15.7	
	141nm,0.7s						
DMN	Daman	18.82	336	eP		08 37 14.9	
	89nm,0.8s						
KKN	Kakani	18.92	336	eP		08 37 16.0	
	151nm,1.0s						
GKN	Gorkha	19.36	335	eP		08 37 20.9	
	162nm,0.8s						
KOLN	Koldanda	19.61	332	eP		08 37 22.7	
	140nm,0.9s						
DDI	Dehra Dun	24.50	326	e		08 38 10.1	
SONM	Songino Array	38.69	14	P	P	08 40 05.5	-0.8
	1.1nm,0.5s,mb3.9,baz=200,slow=9.3,SNR=9.9						
ZAL	Zalesovo	43.88	352	P	P	08 40 48.8	-0.2
	2.9nm,0.4s,mb4.3,baz=325,slow=4.0,SNR=8.6						
BVAR	Borovoye Array	46.36	341	P	P	08 41 08.7	0.0
	5.5nm,1.0s,mb4.5,baz=135,slow=8.4,SNR=3.6						
WRA	Warramunga Arr	50.16	127	P	P	08 41 39.6	+0.9
	3.8nm,0.6s,mb4.6,baz=302,slow=9.1,SNR=6.1						
ASAR	Alice Springs	51.95	131	P	P	08 41 50.9	-1.3
	1.4nm,0.5s,mb4.2,baz=300,slow=8.1,SNR=4.3						
BRTR	Keskin Array B	60.40	310	P	P	08 42 50.9	-1.7
	3.6nm,0.8s,mb4.5,baz=123,slow=7.4,SNR=12						
AKASG	Malin Array Be	65.83	321	P	P	08 43 27.0	-1.2
	1.8nm,0.7s,mb4.2,baz=96,slow=4.2,SNR=8.6						
OJC	Ojcow	71.69	319	eP	P	08 44 03.9	-0.5
GERES	GERESS Array B	75.58	318	P	P	08 44 26.9	-0.2
	1.6nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=5.5						
HFS	Hagfors	75.97	329	P	P	08 44 30.1	+1.0
	5.8nm,0.9s,mb4.5,baz=104,slow=6.1,SNR=8.5						
NB2	NORSAR Subarra	77.23	330	P	P	08 44 37.2	+1.0
	8.1nm,1.0s,mb4.6,baz=93,slow=5.8						
NOA	NORSAR Array B	77.23	330	P	P	08 44 37.6	+1.3
	4.2nm,0.9s,mb4.4,baz=92,slow=5.6,SNR=6.5						
DAVOX	Davos	78.20	316	P	P	08 44 42.1	+0.2
	2.9nm,0.8s,mb4.3,baz=132,slow=21,SNR=3.7						
JMIC	Jan Mayen	84.08	341	P	P	08 45 13.2	+1.0
	92nm,0.8s,baz=191,slow=10,SNR=2.8						
EKA	Eskdalemuir Ar	85.31	325	P	P	08 45 20.2	+1.5
	3.1nm,0.8s,mb4.5,baz=102,slow=5.2,SNR=5.5						
ILAR	Eielson Array	92.46	22	P	P	08 45 52.0	-0.4
	0.2nm,0.6s,mb3.6,baz=288,slow=5.5,SNR=3.5						
INK	Inuvik	94.58	16	P	P	08 46 02.3	+0.3
	1.2nm,0.9s,mb4.3,baz=54,slow=4.6,SNR=2.6						
PDAR	Pinedale Array	122.85	20	PKhKP		08 51 33.9	
	0.4nm,0.7s,slow=3.0,SNR=3.7						
PDAR				PKP	PKPdf	08 51 37.9	+0.8
	0.3nm,0.6s,baz=18,slow=2.9,SNR=3.4						
NVAR	Mina Array Bea	122.86	30	PKP	PKPdf	08 51 39.2	+2.0
	0.6nm,0.8s,baz=350,slow=2.2,SNR=3.5						
TXAR	Lajitas Array	136.97	22	PKP	PKPdf	08 52 04.6	+0.4
	0.1nm,0.5s,baz=358,slow=0.6,SNR=3.9						
LPAZ	La Paz	161.44	250	PKPab	PKPab	08 53 26.6	-2.0
	2.6nm,1.1s,baz=75,slow=6.5,SNR=5.1						

*TAP **26** 08:34:23.3, 24.26N×122.45E, h32^{km}, ML2.7*

JMA 26 08:34:22.7±0.1, 24.40N×122.36E, h53^{km}, M1.9, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	Yonaguni jima	0.60	84	P	P	08 34 35.3	0.0
YOJ				eS	S	08 34 44.5	-0.1
IRIF	Iriomote-Funau	1.25	93	P	P	08 34 44.1	-0.1
IRIF				eS	S	08 35 00.1	-0.2
JKRS	Kuro-shima	1.51	96	P	P	08 34 48.2	+0.2
JKRS				eS	S	08 35 07.1	+0.4
JIJ	Ishigaki jima	1.63	91	P	P	08 34 49.5	0.0
JIJ				eS	S	08 35 08.3	-1.1
JTJ	Tarama	2.15	83	P	P	08 34 57.3	+0.5
JTJ				eS	S	08 35 22.7	+0.4

IDC 26 08:34:51.5±2.6, 5.16N×95.71E, mb4.1/4, mb1 4.3/4, mb1mx3.9/17, Error ellipse: s-maj=114.0km s-min=28.4km az=59.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	43.49	10	P	P	08 42 56.6	-1.6
	1.4nm,0.7s,baz=194,slow=8.1,SNR=3.7						
WRA	Warramunga Arr	45.43	124	P	P	08 43 12.6	-1.7
	1.1nm,0.5s,baz=303,slow=8.8,SNR=3.0						
ASAR	Alice Springs	46.99	129	P	P	08 43 24.6	-2.0
	1.6nm,0.5s,baz=303,slow=7.7,SNR=4.8						
ARCES	ARCESS Array B	78.33	340	P	P	08 46 53.3	-1.5
	3.4nm,0.9s,baz=90,slow=7.3,SNR=4.5						

*IDC **26** 08:35:52.9±1.4, 7.68N×93.70E, h23^{km}±4^{km}, mb3.9/8, mb1 4.1/8, mb1mx3.9/18, Error ellipse: s-maj=76.9km s-min=26.1km az=35.0*

ISC 26 08:35:50.6±1.3, 7.5N±0.5×93.6E±0.4, h23^{km}, h23^{km}±.4^{km}:pP-P, n10, σ1^{s}19/9, mb4.1/8, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	48.48	125	P	P	08 44 33.6	-0.4
	1.3nm,0.5s,mb4.2,baz=302,slow=9.0,SNR=4.7						
BRTR	Keskin Array B	62.27	311	P	P	08 46 13.3	-0.1
	1.4nm,0.6s,mb4.3,baz=122,slow=7.2,SNR=5.8						
BRTR				pP	pP	08 46 20.8	+0.2
	1.5nm,0.6s,baz=118,slow=7.6,SNR=5.0						
AKASG	Malin Array Be	68.13	322	P	P	08 46 49.0	-2.0
	0.6nm,0.7s,mb3.8,baz=103,slow=7.1,SNR=4.1						
AKASG				pP	pP	08 46 56.6	-1.6
	0.2nm,0.3s,baz=88,slow=4.4,SNR=5.7						
FINES	FINESS Array B	72.82	332	P	P	08 47 17.8	-1.4
	3.2nm,0.9s,mb4.2,baz=100,slow=8.5,SNR=2.9						
OJC	Ojcow	73.93	320	eP	pP	08 47 33.6	+0.4
GERES	GERESS Array B	77.76	318	P	P	08 47 49.3	+1.7
	1.2nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=4.9						
GERES				pP	pP	08 47 56.2	+1.3
	1.8nm,0.6s,baz=90,slow=5.3,SNR=10						
NB2	NORSAR Subarra	79.82	331	P	P	08 48 05.6	+7.0
	1.4nm,0.7s,mb4.0,baz=96,slow=5.3						
NOA	NORSAR Array B	79.82	331	P	P	08 47 58.5	-0.1
	0.7nm,0.8s,mb3.7,baz=124,slow=4.0,SNR=2.9						
NOA				pP	pP	08 48 05.6	-0.3
	1.7nm,0.8s,baz=95,slow=5.1,SNR=4.1						
EKA	Eskdalemuir Ar	87.75	325	P	P	08 48 40.3	+1.4
	3.1nm,1.0s,mb4.5,baz=86,slow=5.6,SNR=3.7						
EKA				pP	pP	08 48 47.9	+1.6
	3.6nm,0.8s,baz=104,slow=6.9,SNR=3.7						
ILAR	Eielson Array	95.36	22	P	P	08 49 14.6	+0.6
	0.5nm,0.7s,mb4.0,baz=304,slow=4.0,SNR=5.8						
ILAR				pP	pP	08 49 21.8	+0.4
	0.6nm,0.8s,baz=305,slow=5.3,SNR=4.5						

*IDC **26** 08:36:52.8±0.8, 6.36N×93.10E, mb4.3/12, mb1 4.4/13, mb1mx4.3/20, ML4.3/1, Error ellipse: s-maj=32.5km s-min=20.0km az=46.0*

ISC 26 08:36:56.0±0.7, 6.4N±0.2×93.1E±0.2, h33^{km}, n15, σ0^{s}78/13, mb4.3/12, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.29	25	Pn	P	08 39 55.5	-9.4
	0.4nm,0.3s,baz=236,slow=14,SNR=4.1						
SONM	Songino Array	42.85	13	P	P	08 44 53.5	+0.7
	0.7nm,0.8s,mb3.5,baz=106,slow=14,SNR=3.0						
ZAL	Zalesovo	47.92	353	P	P	08 45 33.4	+0.3
	7.2nm,0.4s,mb5.0,baz=302,slow=5.3,SNR=16						
WRA	Warramunga Arr	48.22	124	P	P	08 45 36.3	+0.4
	4.2nm,1.1s,mb4.4,baz=304,slow=9.0,SNR=5.4						
ASAR	Alice Springs	49.73	128	P	P	08 45 46.7	-0.8
	2.0nm,0.5s,mb4.4,baz=301,slow=7.4,SNR=5.3						
BVAR	Borovoye Array	50.11	342	P	P	08 45 49.4	-0.5
	1.7nm,0.7s,mb4.2,baz=141,slow=9.5,SNR=5.5						
KMBO	Kilima Mbogo	56.28	264	P	P	08 46 37.2	+0.9
	3.1nm,0.8s,mb4.4,baz=46,slow=12,SNR=6.2						
BRTR	Keskin Array B	62.68	312	P	P	08 47 18.9	-1.1
	3.4nm,0.8s,mb4.5,baz=121,slow=7.2,SNR=11						
AKASG	Malin Array Be	68.73	322	P	P	08 47 56.8	-1.8
	1.7nm,0.7s,mb4.1,baz=93,slow=4.3,SNR=6.4						
FINES	FINESS Array B	73.59	333	P	P	08 48 27.7	+0.2
	3.8nm,0.8s,mb4.3,baz=135,slow=11,SNR=4.1						
ARCES	ARCESS Array B	76.35	340	P	P	08 48 43.6	+0.3
	5.0nm,1.0s,mb4.4,baz=93,slow=6.2,SNR=4.0						
GERES	GERESS Array B	78.29	318	P	P	08 48 55.0	+0.5
	2.8nm,0.8s,mb4.2,baz=90,slow=5.3,SNR=10						
DAVOX	Davos	80.79	316	P	P	08 49 08.5	+0.5
	3.7nm,0.6s,mb4.5,baz=93,slow=5.3,SNR=5.6						
PDAR	Pinedale Array	126.93	21	PKP	PKPdf	08 55 59.0	+1.9
	0.6nm,0.9s,baz=45,slow=2.1,SNR=3.4						
TXAR	Lajitas Array	141.00	24	PKP	PKPdf	08 56 24.7	+1.0
	0.3nm,0.7s,baz=76,slow=1.0,SNR=4.7						

IDC 26 08:37:22.2±1.6, 5.85N×92.27E, mb4.2/4, mb1 4.4/4, mb1mx4.0/18, MS5.0/1, Ms1 5.0/1, ms1mx3.5/19, Error ellipse: s-maj=113.0km s-min=28.7km az=43.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	48.66	123	P	P	08 46 08.4	-2.0
	5.0nm,0.7s,baz=303,slow=9.0,SNR=6.4						
BVAR	Borovoye Array	50.33	343	P	P	08 46 20.8	-1.9
	2.0nm,0.7s,baz=143,slow=7.4,SNR=4.8						
BRTR	Keskin Array B	62.37	312	P	P	08 47 46.4	-2.8
	2.7nm,0.8s,baz=113,slow=7.4,SNR=5.6						
GERES	GERESS Array B	78.10	319	P	P	08 49 23.9	-0.8
	1.1nm,0.7s,baz=88,slow=6.8,SNR=5.1						

*IDC **26** 08:41:02.9±1.1, 4.68N×94.78E, mb4.1/11, mb1 4.2/11, mb1mx4.1/19, Error ellipse: s-maj=53.5km s-min=20.1km az=49.0*

ISC 26 08:41:06.3±0.9, 4.7N±0.2×94.9E±0.3, h33^{km}, n11, σ0^{s}80/11, mb4.1/11, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	44.05	11	P	P	08 49 12.3	-0.6
	0.4nm,0.3s,mb3.6,baz=198,slow=8.2,SNR=5.7						
WRA	Warramunga Arr	45.89	124	P	P	08 49 27.7	-0.2
	1.4nm,0.6s,mb4.1,baz=302,slow=9.1,SNR=5.3						
ASAR	Alice Springs	47.38	128	P	P	08 49 39.6	+0.1
	0.9nm,0.5s,mb4.0,baz=299,slow=7.9,SNR=4.6						
ZAL	Zalesovo	49.73	352	P	P	08 49 57.8	+0.5
	3.6nm,0.4s,mb4.8,baz=314,slow=6.7,SNR=7.2						
BVAR	Borovoye Array	52.17	342	P	P	08 50 16.1	+0.3
	1.1nm,0.3s,mb4.2,baz=138,slow=11,SNR=11						
BRTR	Keskin Array B	65.04	312	P	P	08 51 45.0	-0.7
	1.8nm,1.1s,mb4.0,baz=134,slow=7.0,SNR=4.4						
AKASG	Malin Array Be	71.06	322	P	P	08 52 21.7	-1.3
	0.5nm,0.4s,mb3.8,baz=79,slow=4.6,SNR=3.4						
FINES	FINESS Array B	75.81	332	P	P	08 52 49.6	-1.0
	4.2nm,1.1s,mb4.3,baz=90,slow=3.8,SNR=8.0						
ARCES	ARCESS Array B	78.44	340	P	P	08 53 06.0	+0.9
	4.2nm,1.1s,mb4.3,baz=101,slow=6.4,SNR=6.4						
GERES	GERESS Array B	80.64	319	P	P	08 53 18.9	+1.4
	0.3nm,0.6s,mb3.4,baz=127,slow=6.7,SNR=4.3						
HFS	Hagfors	81.52	330	P	P	08 53 22.4	+0.6
	4.3nm,1.0s,mb4.3,baz=135,slow=4.2,SNR=5.7						

*IDC **26** 08:41:48.9±0.6, 9.00N×93.44E, h23^{km}±3^{km}, mb4.6/24, mb1 4.6/24, mb1mx4.6/26, MS4.9/1, Ms1 5.1/1, ms1mx3.9/27, Error ellipse: s-maj=19.8km s-min=11.2km az=44.0*

*NEIC **26** 08:41:48.9±0.3, 8.90N×93.48E, mb5.2/17, Error ellipse: s-maj=12.5km s-min=8.1km az=53.0*

*BJI **26** 08:41:48.6, 9.16N×93.05E, h16^{km}, mB5.8, mb5.0, Ms5.4, Msz5.3*

ISC 26 08:41:47.1±0.3, 8.78N±0.05×93.48E±0.06, h24^{km}, h24^{km}±1.1^{km}:pP-P, n121, σ1^{s}22/109, mb4.9/42, MS5.1/4, 1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.99	28	LR	LR	08 49 04.2	
	comp=Z,6µm,18.1s,baz=210,slow=40						
IMP	Imphal	15.92	2	e	P	08 45 35.3	+3.7
HYB	Hyderabad	16.87	302	eP	P	08 45 48.0	+4.4
HYB	Hyderabad	16.87	302	i P	P	08 45 48.0	+4.4
KMI	Kunming	18.50	27	eP	P	08 46 04.8	+1.0
PKI	Pulchoki	20.19	339	eP	P	08 46 23.6	+0.5
	439nm,1.2s						
DMN	Daman	20.33	338	eP	P	08 46 25.2	+0.6
	110nm,0.6s						
GUN	Gumba	20.34	340	eP	P	08 46 25.0	+0.3
	216nm,0.6s						
KKN	Kakani	20.43	339	eP	P	08 46 26.0	+0.3
	207nm,0.8s						
GKN	Gorkha	20.86	338	eP	P	08 46 30.7	+0.6
	324nm,0.9s						
LSA	Lhasa	20.93	354	P	P	08 46 30.0	-0.7
LSA	Lhasa	20.93	354	eP	P	08 46 30.3	-0.4
	75nm,0.6s						
KOLN	Koldanda	21.07	335	eP	P	08 46 33.3	+1.1
	438nm,1.3s,mb5.6						
GYA	Guiyang	21.58	34	⇓iP	P	08 46 37.5	+0.2
GYA				AP		08 46 41.8	
GYA				XP		08 46 44.5	
GYA				S	S	08 50 32.3	+2.1
GYA				LR	LR		
	comp=N,2µm,16.2s,MS4.9						
GYA				LR	LR		
	comp=E,3µm,15.8s,MS4.9						
GZH	Guangzhou	23.77	51	P	P	08 47 04.3	+5.3
GZH				LR	LR		
	comp=N,5µm,10.3s,MS5.3						
GZH				LR	LR		
	comp=E,4µm,11.5s,MS5.3						
GZH				LR	LR		
	comp=Z,7µm,12.1s,MS5.4						
CD2	Chengdu	24.02	22	P	P	08 47 03.0	+1.6
PTH	Pithoragarh	24.12	331	eP	P	08 47 04.7	+2.3
DDI	Dehra Dun	25.84	328	e	P	08 47 19.8	+1.1
THN	Thein Dam	28.73	328	e	P	08 47 44.1	-0.9
LZH	Lanzhou	28.78	18	eP	P	08 47 45.0	-0.4
LZH				AP	pP	08 47 48.0	-4.3
LZH				AMB	AMB		
	comp=Z,42nm,1.4s,mb5.0						
GTA	Gaotai	31.03	10	P	P	08 48 04.3	-1.1
GTA				AP	pP	08 48 12.5	+0.2
WMQ	Urumqi	35.27	353	P	P	08 48 42.5	+0.3
WMQ				AP	pP	08 48 47.0	-2.2
WMQ				XP	sP	08 48 49.5	-2.7
WMQ				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
HHC	Hu-ho-hao-te	35.75	24	eP	P	08 48 48.8	+2.5
HHC				AP	pP	08 48 54.0	+0.7
HHC				XP	sP	08 49 00.0	+3.7
HHC				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.9						
HHC				AMB	AMB		
	comp=Z,2µm,9.2s						
HHC				LR	LR		
	comp=N,2µm,15.5s,MS5.2						
HHC				LR	LR		
	comp=E,3µm,13.1s,MS5.2						
HHC				LR	LR		
	comp=Z,3µm,17.8s,MS5.2						
KZA	Kyzart	36.86	337	P	P	08 48 57.6	+2.1
	SNR=6.3						
UCH	Uchtor	37.27	337	P	P	08 48 54.5	-4.6
	SNR=5.7						
TKM2	Tokmak 2	37.45	338	P	P	08 49 00.8	+0.3
	SNR=5.6						
AML	Almayashu	37.52	336	P	P	08 48 56.5	-4.6
	SNR=7.0						
AAK	Ala-Archa	37.62	337	P	P	08 49 03.0	+1.0
	SNR=12						
AAK	Ala-Archa	37.62	337	eP	P	08 49 01.8	-0.2
	comp=Z,70nm,1.5s,mb5.2						
CHMS	Chumysh	37.83	337	P	P	08 49 03.9	+0.1
	SNR=9.3						
EKS2	Erkin-Say	37.93	336	P	P	08 49 05.3	+0.7
	SNR=8.6						
USP	Ospenovka	38.16	337	P	P	08 49 01.1	-5.4
	SNR=5.5						
SONM	Songino Array	40.44	13	P	P	08 49 24.1	-1.2
	comp=Z,1.8nm,0.4s,mb4.2,baz=202,slow=9.2,SNR=12						
SONM				pP	pP	08 49 31.5	-1.0
	comp=Z,7.1nm,0.9s,baz=196,slow=9.0,SNR=12						
ZAL	Zalesovo	45.57	353	P	P	08 50 06.5	-0.6
	comp=Z,21nm,0.4s,mb5.4,baz=307,slow=4.4,SNR=41						
ZAL	Zalesovo	45.57	353	P	P	08 50 06.5	-0.6
NWAO	Narrogin (SRO)	47.24	153	P	P	08 50 22.8	+2.3
	comp=Z,62nm,0.8s,mb5.6,baz=319,slow=11,SNR=12						
BVAR	Borovoye Array	47.93	341	P	P	08 50 24.5	-1.2
	comp=Z,3.0nm,0.5s,mb4.6,baz=145,slow=9.6,SNR=18						
BVAR	Borovoye Array	47.93	341	P	P	08 50 24.5	-1.2
MZLS	Mizel	48.48	294	P	P	08 50 31.6	+1.4
KAMS	Al Khamasin	48.53	289	P	P	08 50 32.7	+2.0
JHJ	Hachijo jima 2	49.04	53	LR	LR	09 12 02.5	
	comp=Z,1µm,19.2s,MS5.0,baz=214,slow=40						
WRA	Warramunga Arr	49.32	126	P	P	08 50 37.3	+0.6
	comp=Z,8.4nm,0.7s,mb4.9,baz=305,slow=8.5,SNR=11						
AFFS	‘Afif	50.45	294	P	P	08 50 46.9	+1.5
ARSS	Ar Rass	50.56	296	P	P	08 50 46.8	+0.6
ASAR	Alice Springs	50.99	130	P	P	08 50 49.8	+0.3
	comp=Z,5.7nm,0.8s,mb4.5,baz=304,slow=6.9,SNR=9.5						
BLJS	Baljurashi	51.28	288	D		08 50 56.7	
HILS	Ha’il	52.10	298	P	P	08 50 59.2	+1.3
GNI	Garni	53.34	314	P	P	08 51 05.6	-1.3
	comp=Z,5.8nm,0.6s,mb4.7,baz=330,slow=16,SNR=8.9						
KBRS	Khaybar	54.08	295	P	P	08 51 15.2	+2.6
ARU	Arti	54.81	337	eP	P	08 51 15.0	-2.5
	comp=Z,68nm,1.7s,mb5.4						
YNBS	Yanbu‘ al Bahr	55.04	293	P	P	08 51 21.0	+1.3
UMJS	Umm Lajj	55.76	294	P	P	08 51 26.4	+1.6
KIV	Kislovodsk	56.21	318	P	P	08 51 27.1	-0.7
	comp=Z,95nm,0.8s,mb5.9,SNR=8.3						
KIV	Kislovodsk	56.21	318	eP	P	08 51 26.4	-1.3
	comp=Z,23nm,0.8s,mb5.3						
PMG	Port Moresby	56.42	107	P	P	08 51 31.4	+1.7
	comp=Z,22nm,0.8s,mb5.2,baz=289,slow=5.7,SNR=8.8						
PMG	Port Moresby	56.42	107	P	P	08 51 25.0	-4.7
	comp=Z,32nm,1.0s,mb5.3						
PMG				P	pP	08 51 31.4	-5.5
TBKS	Tabuk	56.82	298	P	P	08 51 33.9	+1.5
KMBO	Kilima Mbogo	56.88	263	P	P	08 51 33.0	0.0
	comp=Z,3.6nm,0.9s,mb4.4,baz=53,slow=14,SNR=8.9						
ASF	Jabal al Asfar	57.18	303	P	P	08 51 33.9	-1.0
	comp=Z,6.6nm,0.9s,mb4.7,baz=33,slow=3.7,SNR=4.7						
DBAS	Duba	57.19	297	P	P	08 51 38.3	+3.3
MALT	Malatya	57.38	310	eP	P	08 51 36.1	-0.1
	comp=Z,18nm,1.3s,mb4.9						
JMQS	Jabal Moqyreh	57.50	299	P	P	08 51 40.0	+2.8
AYUS	‘Aynunah	57.94	298	P	P	08 51 41.4	+1.2
EIL	Elat	58.41	299	eP	P	08 51 42.7	-0.9
	comp=Z,54nm,1.5s,mb5.4						
CTA	Charters Tower	59.32	120	P	P	08 51 51.1	+1.2
	comp=Z,9.8nm,1.2s,mb4.7,baz=343,slow=11,SNR=2.9						
STKA	Stephens Creek	61.20	134	P	P	08 52 02.9	+0.2
	comp=Z,2.6nm,0.3s,mb4.8,baz=326,slow=5.4,SNR=5.3						
BRTR	Keskin Array B	61.35	311	P	P	08 52 01.4	-2.1
	comp=Z,6.9nm,0.7s,mb4.9,baz=127,slow=7.4,SNR=21						
BRTR				pP	pP	08 52 09.7	-1.2
	comp=Z,11nm,0.7s,baz=119,slow=7.6,SNR=13						
OBN	Obninsk	64.27	328	eP	P	08 52 21.4	-1.3
AKASG	Malin Array Be	67.04	322	P	P	08 52 37.8	-2.8
	comp=Z,1.3nm,0.5s,mb4.2,baz=92,slow=4.0,SNR=16						
IDI	Anoyia	67.52	304	P	P	08 52 43.3	-0.6
	comp=Z,7.6nm,0.5s,mb5.0,baz=89,slow=8.1,SNR=9.7						
IDI				pP	pP	08 52 50.4	-0.9
	comp=Z,23nm,0.7s,baz=73,slow=8.1,SNR=7.6						
LSZ	Lusaka	68.95	250	eP	P	08 52 52.7	-0.3
	comp=Z,12nm,0.7s,mb4.9						
LSZ				e	pP	08 53 00.2	-0.2
KOLS	Kolonicke sedl	71.10	319	eP	P	08 53 05.0	-0.6
FINES	FINESS Array B	71.61	332	P	P	08 53 07.0	-1.5
	comp=Z,3.6nm,0.5s,mb4.6,baz=97,slow=6.2,SNR=26						
FINES	FINESS Array B	71.61	332	P	P	08 53 07.0	-1.5
CRVS	Cervenica-Dubn	71.62	319	e	P	08 53 12.1	+3.3
CRVS				e		08 53 30.0	
KAF	Kangasniemi	71.69	333	ep	P	08 53 07.6	-1.4
	comp=Z,3.5nm,0.4s,mb4.6,baz=103,slow=5.7						
PSZ	Piszkesteto	72.54	317	eP	P	08 53 14.1	-0.2
OJC	Ojcow	72.87	320	eP	P	08 53 15.0	-1.1
VYHS	Vyhne	73.30	318	eP	P	08 53 18.5	-0.2
VYHS				e	pP	08 53 24.5	-1.6
KEV	Kevo	73.77	341	ep	P	08 53 20.0	-1.0
OKC	Ostrava-Krasne	73.88	319	eP	P	08 53 22.0	0.0
LBTB	Lobatse	74.10	241	eP	P	08 53 22.9	-0.9
	comp=Z,32nm,0.7s,mb5.4						
LBTB				epP	pP	08 53 31.4	+0.2
ARCES	ARCESS Array B	74.20	340	P	P	08 53 22.1	-1.3
	comp=Z,3.2nm,0.6s,mb4.5,baz=100,slow=6.6,SNR=16						
MORC	Moravsky Berou	74.27	319	eP	P	08 53 24.3	+0.1
	comp=Z,35nm,1.4s,mb5.1						
ZST	Bratislava	74.43	318	eP	P	08 53 24.5	-0.7
ZST				epP	pP	08 53 32.6	0.0
ZST				ePP	PP	08 56 02.6	-11
DPC	Dobruska-Polom	75.10	320	eP	P	08 53 28.6	-0.4
KSP	Ksiaz	75.15	320	eP	P	08 53 28.2	-1.1
KSP				e	pP	08 53 36.5	-0.3
UPC	Upice	75.31	320	eP	P	08 53 31.2	+1.0
BOSA	Boshof	75.51	237	eP	P	08 53 29.7	-2.1
	comp=Z,26nm,0.8s,mb5.2						
BOSA				epP	pP	08 53 39.0	-0.2
PRU	Pruhonice	76.22	319	eP	P	08 53 35.5	+0.1
BRG	Berggiesshubel	76.64	320	i P	P	08 53 38.1	+0.3
	comp=Z,54nm,1.8s,mb5.2						
GERES	GERESS Array B	76.72	318	P	P	08 53 37.7	-0.6
	comp=Z,2.1nm,0.6s,mb4.3,baz=108,slow=8.4,SNR=9.2						
GERES				pP	pP	08 53 44.8	-0.9
	comp=Z,4.6nm,0.7s,baz=90,slow=4.0,SNR=12						
KHC	Kasperske Hory	76.81	318	eP	P	08 53 37.7	-1.0
KHC				epP	pP	08 53 46.5	+0.3
CLL	Collm	77.25	321	eP	P	08 53 42.0	+0.9
CLL	Collm	77.25	321	P	P	08 53 42.0	+0.9
HFS	Hagfors	77.35	330	P	P	08 53 40.8	-0.7
	comp=Z,7.1nm,0.5s,mb4.9,baz=104,slow=6.1,SNR=33						
NKC	Novy Kostel	77.58	319	eP	P	08 53 43.2	+0.3
MOX	Moxa	78.11	320	eP	P	08 53 48.0	+2.1
NB2	NORSAR Subarra	78.63	331	P	P	08 53 46.3	-2.2
	comp=Z,11nm,0.9s,mb4.8,baz=97,slow=5.0						
NOA	NORSAR Array B	78.63	331	P	P	08 53 47.0	-1.5
	comp=Z,7.9nm,0.8s,mb4.7,baz=93,slow=5.7,SNR=18						
NOA	NORSAR Array B	78.63	331	P	P	08 53 47.0	-1.5
NAO01	NORSAR Array S	78.78	330	eP	P	08 53 47.1	-2.2
	comp=Z,8.2nm,0.8s,mb4.7						
MUD	Monsted U’grnd	79.60	326	eP	P	08 53 48.2	-5.7
MUD	Monsted U’grnd	79.60	326	i P	P	08 53 48.2	-5.7
LPL	La Plagne	81.53	315	eP	P	08 54 04.2	-0.1
	comp=Z,30nm,0.6s,mb5.1						
ESDC	Sonseca Array	90.14	310	P	P	08 54 46.3	-0.7
	comp=Z,4.9nm,0.9s,mb4.8,baz=60,slow=4.2,SNR=9.9						
ESDC				pP	pP	08 54 54.2	-0.4
	comp=Z,4.3nm,0.8s,baz=55,slow=4.0,SNR=9.2						
IMA	Indian Mountai	91.04	22	eP	P	08 54 50.0	-0.5
	comp=Z,138nm,1.8s,mb6.0						
SPU	Mount Spurr	93.77	26	eP	P	08 55 01.1	-2.1
ILAR	Eielson Array	94.16	22	P	P	08 55 03.5	-1.4
	comp=Z,0.5nm,0.7s,mb4.0,baz=291,slow=4.5,SNR=17						

ILAR				pP	pP	08 55 11.7	-0.8
	comp=Z,1.6nm,0.7s,baz=298,slow=4.4,SNR=12						
INK	Inuvik	96.31	16	P	P	08 55 12.9	-1.8
	comp=Z,2.8nm,1.1s,mb4.6,baz=351,slow=5.1,SNR=6.8						
DBIC	Dimbokro	97.17	278	P	P	08 55 19.8	0.0
	comp=Z,3.2nm,0.9s,mb4.8,baz=253,slow=6.5,SNR=3.5						
DLBC	Dease Lake	104.37	22	PKKPbc		09 11 39.2	
	comp=Z,0.7nm,0.3s,baz=309,slow=26,SNR=8.9						
YKA	Yellowknife Ar	105.70	13	PKKPbc		09 11 36.9	
	comp=Z,0.3nm,0.6s,baz=153,slow=3.2,SNR=7.4						
REDW	Red Top Meadow	123.58	21	ePKP	PKPdf	09 00 42.7	-5.0
NVAR	Mina Array Bea	124.48	30	PKP	PKPdf	09 00 44.8	-4.7
	comp=Z,0.5nm,0.7s,baz=317,slow=2.5,SNR=3.8						
NVAR				pPKP		09 00 53.7	
	comp=Z,0.6nm,0.7s,baz=139,slow=30,SNR=8.4						
PDAR	Pinedale Array	124.56	20	PKP	PKPdf	09 00 45.5	-4.1
	comp=Z,1.0nm,0.7s,baz=333,slow=3.3,SNR=5.4						
PDAR				pPKP		09 00 53.3	
	comp=Z,1.0nm,0.7s,baz=201,slow=2.4,SNR=6.8						
TXAR	Lajitas Array	138.66	23	PKhKP		09 01 06.7	
	comp=Z,0.2nm,0.5s,baz=148,slow=0.5,SNR=6.7						
TXAR				PKP	PKPdf	09 01 13.9	-2.6
	comp=Z,0.4nm,0.6s,baz=130,slow=1.4,SNR=9.0						
TXAR				PKKP	PKKP	09 10 46.0	+10
	comp=Z,0.7nm,0.7s,baz=258,slow=0.6,SNR=4.8						
TXAR	Lajitas Array	138.66	23	PKP	PKPdf	09 01 13.9	-2.5
TXAR				PKKP	PKKP	09 10 46.0	+10
BAO	Brasilia Array	141.78	256	PKP	PKPdf	09 01 18.4	-4.0
BDFB	Brasilia	141.80	256	PKP	PKPdf	09 01 18.8	-3.7
	comp=Z,2.1nm,0.5s,baz=114,slow=3.6,SNR=4.8						
LPAZ	La Paz	160.57	246	PKP	PKPdf	09 01 49.4	-0.7
	comp=Z,1.1nm,0.6s,baz=194,slow=7.2,SNR=3.4						
LPAZ				PKPab	PKPab	09 02 29.9	+0.3
	comp=Z,2.3nm,0.6s,baz=109,slow=1.6,SNR=5.9						

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*IDC **26** 08:44:18.0±0.9, 7.54N×93.63E, mb4.4/12, mb1 4.6/12, mb1mx4.4/21, Error ellipse: s-maj=64.6km s-min=17.1km az=41.0*

ISC 26 08:44:21.2±0.8**, 7.6N**±0.3×**93.7E**±0.3**, $h33^{km}$, n24, $\sigma 1^{s}28$**/17**, mb4.4**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTH	Pithoragarh	25.25	331	eS	P	08 49 43.2	-2.8
ZAL	Zalesovo	46.74	353	P	P	08 52 49.0	0.0
	9.1nm,1.1s,mb4.6,baz=303,slow=6.9,SNR=3.6						
WRA	Warramunga Arr	48.44	125	P	P	08 53 02.3	-0.4
	1.6nm,0.6s,mb4.2,baz=302,slow=9.8,SNR=2.7						
ASAR	Alice Springs	50.06	130	P	P	08 53 15.0	-0.2
	2.2nm,0.9s,mb4.2,baz=301,slow=6.3,SNR=2.3						
PMG	Port Moresby	55.84	107	P	P	08 53 58.2	0.0
	7.5nm,0.7s,mb4.8,baz=63,slow=7.5,SNR=3.7						
BRTR	Keskin Array B	62.29	311	P	P	08 54 40.9	-1.6
	1.1nm,0.5s,mb4.2,baz=293,slow=30,SNR=2.8						
AKASG	Malin Array Be	68.10	322	P	P	08 55 17.8	-2.0
	1.3nm,0.6s,mb4.1,baz=94,slow=6.3,SNR=4.0						
IDI	Anoyia	68.38	305	P	P	08 55 22.5	+0.7
	7.6nm,0.7s,mb4.8,baz=106,slow=13,SNR=3.2						
FINES	FINESS Array B	72.75	332	P	P	08 55 48.1	+0.4
	3.1nm,0.6s,mb4.4,baz=100,slow=12,SNR=3.4						
SMOL	Smolenice	75.26	318	ePP	P	08 56 00.5	-2.1
ARCES	ARCESS Array B	75.37	340	P	P	08 56 03.4	+0.6
	5.2nm,0.8s,mb4.5,baz=90,slow=7.2,SNR=3.9						
PRU	Pruhonice	77.26	319	eP	P	08 56 20.0	+6.1
PRU				ex	x	08 56 31.0	
GERES	GERESS Array B	77.75	318	P	P	08 56 18.5	+1.8
	2.8nm,0.7s,mb4.3,baz=90,slow=5.3,SNR=4.6						
KHC	Kasperske Hory	77.84	319	eP	P	08 56 19.0	+1.9
KHC				ex	x	08 56 22.0	
HFS	Hagfors	78.47	330	P	P	08 56 21.7	+1.3
	5.2nm,0.6s,mb4.7,baz=104,slow=6.1,SNR=6.4						
NB2	NORSAR Subarra	79.75	331	P	P	08 56 27.9	+0.6
	2.3nm,0.7s,mb4.2,baz=95,slow=5.3						
NOA	NORSAR Array B	79.75	331	P	P	08 56 27.6	+0.3
	3.7nm,0.8s,mb4.4,baz=91,slow=5.7,SNR=4.7						
ULM	Lac du Bonnet	121.77	7	PKP	PKPdf	09 03 14.8	+2.8
	4.6nm,1.1s,baz=5.1,slow=11,SNR=3.2						
ULM	Lac du Bonnet	121.77	7	PKP	PKPdf	09 03 14.8	+2.8
NVAR	Mina Array Bea	125.34	31	PKP	PKPdf	09 03 22.5	+3.2
	1.2nm,0.8s,baz=315,slow=1.3,SNR=4.1						
NVAR	Mina Array Bea	125.34	31	PKP	PKPdf	09 03 22.4	+3.2
PDAR	Pinedale Array	125.55	21	PKP	PKPdf	09 03 22.6	+3.0
	1.1nm,0.8s,baz=13,slow=0.2,SNR=4.3						
PDAR	Pinedale Array	125.55	21	PKP	PKPdf	09 03 22.6	+3.0
TXAR	Lajitas Array	139.62	24	PKP	PKPdf	09 03 48.9	+2.5
	0.6nm,0.8s,baz=270,slow=0.9,SNR=3.4						

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*IDC **26** 08:45:40.0±2.2, 8.56N×92.35E, $h32^{km}$±4^{km}, mb4.3/11, mb1 4.4/12, mb1mx4.2/21, Error ellipse: s-maj=57.0km s-min=31.5km az=163.0*

ISC 26 08:45:40.4±2.4**, 8.9N**±0.4×**92.2E**±0.2**, $h32^{km}$, $h32^{km}$**±.6^{km}**:pP-P, n16, $\sigma 0^{s}64$**/14**, mb4.4**/12**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.55	34	Pn	P	08 48 26.5	+0.3
	baz=199,slow=13,SNR=1.6						
SONM	Songino Array	40.63	15	P	P	08 53 19.1	0.0
	9.7nm,0.9s,mb4.5,baz=194,slow=7.7,SNR=8.2						
ZAL	Zalesovo	45.31	354	P	P	08 53 56.9	-0.2
	3.3nm,0.5s,mb4.5,baz=290,slow=6.3,SNR=3.5						
BVAR	Borovoye Array	47.42	342	P	P	08 54 13.9	+0.2
	2.8nm,0.8s,mb4.3,baz=149,slow=8.4,SNR=3.5						
BRTR	Keskin Array B	60.30	311	P	P	08 55 48.4	-0.2
	2.6nm,0.8s,mb4.3,baz=121,slow=7.2,SNR=4.1						
BRTR				pP	pP	08 55 58.4	0.0
	1.4nm,0.7s,baz=104,slow=5.9,SNR=2.7						
FINES	FINESS Array B	70.91	332	P	P	08 56 55.3	-1.0
	2.6nm,0.7s,mb4.3,baz=117,slow=9.3,SNR=3.5						
FINES				pP	pP	08 57 06.3	0.0
	4.7nm,0.9s,baz=110,slow=6.4,SNR=2.8						
ARCES	ARCESS Array B	73.66	340	P	P	08 57 12.3	-0.1
	4.3nm,0.8s,mb4.5,baz=12,slow=11,SNR=3.3						
ARCES				pP	pP	08 57 22.1	-0.3
	3.1nm,0.6s,baz=90,slow=6.1,SNR=3.1						
GERES	GERESS Array B	75.78	318	P	P	08 57 25.6	+0.6
	4.1nm,0.9s,mb4.4,baz=90,slow=5.3,SNR=5.2						
GERES				pP	pP	08 57 34.9	-0.1
	2.3nm,0.8s,baz=96,slow=6.5,SNR=4.0						
KHC	Kasperske Hory	75.88	318	eP	P	08 57 24.5	-1.0
KHC				ex	x	08 57 35.0	
HFS	Hagfors	76.60	330	P	P	08 57 29.6	+0.2
	2.5nm,0.7s,mb4.3,baz=129,slow=9.5,SNR=3.4						
HFS				pP	pP	08 57 39.9	+0.5
	5.1nm,0.9s,baz=104,slow=6.1,SNR=2.4						
NOA	NORSAR Array B	77.90	331	P	P	08 57 36.5	0.0
	2.9nm,0.8s,mb4.2,baz=95,slow=5.6,SNR=3.4						
NOA				pP	pP	08 57 47.0	+0.4
	3.2nm,0.8s,baz=95,slow=5.4,SNR=4.9						
LPG	La Plagne	80.53	315	⇑iP	P	08 57 52.9	+1.8
	35nm,1.0s,mb5.0						
ILAR	Eielson Array	94.52	22	P	P	08 58 58.4	-0.2
	0.9nm,0.7s,mb4.3,baz=295,slow=4.1,SNR=6.0						
ILAR				pP	pP	08 59 08.1	-0.7
	1.1nm,0.7s,baz=302,slow=4.2,SNR=6.7						
INK	Inuvik	96.54	16	P	P	08 59 07.5	-0.2
	4.8nm,1.1s,mb4.8,baz=295,slow=2.6,SNR=5.4						
INK				pP	pP	08 59 17.4	-0.6
	2.8nm,0.6s,baz=5.0,slow=3.0,SNR=5.7						
TXAR	Lajitas Array	139.03	21	PKhKP		09 04 43.5	
	0.8nm,0.8s,baz=340,slow=2.0,SNR=4.1						
TXAR				PKP	PKPdf	09 05 03.7	-6.2
	0.3nm,0.6s,baz=331,slow=1.8,SNR=3.1						
BDFB	Brasilia	140.59	256	PKhKP		09 04 51.7	
	3.1nm,0.8s,baz=59,slow=3.0,SNR=5.9						
BDFB				PKP	PKPdf	09 05 05.4	-7.7
	4.0nm,0.9s,baz=89,slow=18,SNR=3.4						

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*BJI **26** 08:47:45.2, 4.67N×94.99E, $h68^{km}$, mB5.9, mb5.5, Ms5.2, Msz4.9*

*IDC **26** 08:47:46.0±0.4, 4.80N×95.03E, $h45^{km}$±3^{km}, mb4.9/26, mb1 4.9/27, mb1mx4.8/30, Error ellipse: s-maj=17.2km s-min=8.7km az=39.0*

*NEIC **26** 08:47:46.7±1.2, 4.86N×95.10E, $h51^{km}$±10^{km}, mb5.3/56, Error ellipse: s-maj=7.0km s-min=4.5km az=213.0*

*CSEM **26** 08:47:48.0, 6.17N×95.29E, $h33^{km}$, mb5.5*

ISC 26 08:47:45.0±0.3**, 4.80N**±0.05×**95.12E**±0.04**, $h51^{km}$, $h51^{km}$**±1.0^{km}**:pP-P, n225, $\sigma 0^{s}82$**/194**, mb5.3**/95**, MS5.2**/1**, 25C-4D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.08	15	eP	P	08 51 00.8	-2.7
	77nm,0.6s						
CMAR	Chiang Mai Arr	14.08	15	P	P	08 51 04.0	+0.6
	1.4nm,0.3s,baz=220,slow=14,SNR=4.0						
QIZ	Qiongzhong	20.16	44	P	P	08 52 18.5	+0.6
QIZ	Qiongzhong	20.16	44	P	P	08 52 17.8	-0.1
	87nm,1.2s						
SHL	Shillong	20.88	352	e	P	08 52 20.7	-4.6
SHL				e		08 52 30.5	
	comp=Z,48nm,1.0s						
KMI	Kunming	21.50	19	eP	P	08 52 35.3	+3.9
KMI				AP		08 52 45.5	
KMI				AMB	AMB		
	comp=Z,69nm,1.0s,mb4.9						
MNGI	Mangalore	21.61	293	eP	P	08 52 39.7	+7.1
MNGI				e		08 52 49.2	
	comp=Z,127nm,1.9s						
GOA	Goa	23.47	298	e	P	08 52 43.5	-7.5
GOA				e		08 52 46.2	
	comp=Z,67nm,1.5s						
AKL	Akola	23.65	314	eP	P	08 52 58.2	+5.4
AKL				e		08 52 59.9	
	comp=Z,92nm,1.3s						
ALBI	Allahabad	24.07	329	e	P	08 52 57.2	+0.5
GYA	Guiyang	24.21	26	⇓iP	P	08 52 59.5	+1.4
GYA				AMB	AMB		
	comp=Z,90nm,0.7s,mb5.3						
PKI	Pulchoki	24.46	339	eP	P	08 53 00.4	-0.2
	comp=Z,37nm,0.6s,mb5.0						
DMN	Daman	24.61	338	eP	P	08 53 02.3	+0.3
	comp=Z,80nm,0.9s,mb5.3						
GUN	Gumba	24.61	340	eP	P	08 53 02.3	+0.3
	comp=Z,147nm,0.6s,mb5.7						
KKN	Kakani	24.71	339	eP	P	08 53 02.6	-0.4
	comp=Z,83nm,0.7s,mb5.4						
LSA	Lhasa	25.05	352	P	P	08 53 06.5	+0.3
LSA				AMB	AMB		
	comp=Z,70nm,0.7s,mb5.3						
LSA	Lhasa	25.05	352	eP	P	08 53 06.5	+0.2
	comp=Z,45nm,0.6s,mb5.2						
GKN	Gorkha	25.14	338	eP	P	08 53 06.8	-0.3
	comp=Z,74nm,0.5s,mb5.5						
KOLN	Koldanda	25.34	336	eP	P	08 53 09.4	+0.4
	comp=Z,261nm,0.7s,mb5.9						
BOM	Bombay	25.89	305	eP	P	08 53 17.7	+3.6
TGY	Tagaytay City	27.07	68	P	P	08 53 23.9	-1.1
	comp=Z,145nm,0.3s,mb5.9,baz=185,slow=15,SNR=3.0						
CD2	Chengdu	27.22	16	P	P	08 53 24.3	-2.0
CD2				AMB	AMB		
	comp=Z,180nm,0.6s,mb5.8						
ENH	Enshi	28.74	27	eP	P	08 53 38.6	-1.4
	comp=Z,21nm,0.5s,mb5.1						
WHN	Wuhan	31.38	33	⇓P	P	08 54 04.0	+0.6
LZH	Lanzhou	32.16	13	⇑P	P	08 54 09.3	-0.9
LZH				AMB	AMB		
	comp=Z,90nm,1.4s,mb5.4						
THN	Thein Dam	32.94	329	e	P	08 54 15.1	-1.9
GTA	Gaotai	34.72	6	⇑iP	P	08 54 31.5	-0.7
GTA				PCP	PcP	08 57 05.5	+0.1
GTA				AMB	AMB		
	comp=Z,66nm,0.8s,mb5.6						
NJ2	Nanjing	35.06	37	eP	P	08 54 36.0	+0.8
NJ2				AMB	AMB		
	comp=Z,1µm,5.0s						
BTO	Baotou	38.09	19	eP	P	08 55 00.0	-0.6
JOW	Kunigami	38.49	52	P	P	08 55 05.5	+1.5
	comp=Z,37nm,0.7s,mb5.2,baz=263,slow=11,SNR=8.5						
KSH	Kashi	38.66	336	P	P	08 55 06.0	+0.7
KSH				AMB	AMB		
	comp=Z,200nm,2.4s,mb5.4						
HHC	Hu-ho-hao-te	38.82	20	eP	P	08 55 07.5	+0.9
HHC				AMB	AMB		
	comp=Z,52nm,0.3s,mb5.7						
HHC				LR	LR		
	comp=N,2µm,14.3s,MS5.2						
HHC				LR	LR		
	comp=E,2µm,15.5s,MS5.2						
HHC				LR	LR		
	comp=Z,2µm,21.4s						
WMQ	Urumqi	39.41	352	P	P	08 55 11.8	+0.3
WMQ				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
BJT	Baijiatuau	39.88	25	eP	P	08 55 16.9	+1.5
	comp=Z,125nm,0.8s,mb5.7						
BJI	Beijing	39.90	25	P	P	08 55 17.0	+1.4
BJI				AMB	AMB		
	comp=Z,177nm,0.8s,mb5.8						
ULHL	Ulahol	40.91	338	P	P	08 55 25.2	+1.3
	SNR=9.2						
KZA	Kyzart	41.13	337	P	P	08 55 27.2	+1.4
	SNR=14						
UCH	Uchtor	41.55	337	P	P	08 55 30.6	+1.4
	SNR=22						
DL2	Dalian	41.61	32	P	P	08 55 30.5	+0.7
DL2				AMB	AMB		
	comp=Z,100nm,0.7s,mb5.5						
TKM2	Tokmak 2	41.73	338	P	P	08 55 31.8	+1.1
	SNR=32						
KBK	Karagaybulak	41.74	338	P	P	08 55 32.5	+1.7
	SNR=18						
AML	Almayashu	41.79	336	P	P	08 55 32.8	+1.6
	SNR=30						
AAK	Ala-Archa	41.90	337	P	P	08 55 33.9	+1.8
	SNR=15						
AAK	Ala-Archa	41.90	337	eP	P	08 55 32.2	+0.1
	comp=Z,50nm,0.8s,mb5.2						
CHMS	Chumysh	42.11	338	P	P	08 55 34.4	+0.6
	SNR=22						
EKS2	Erkin-Say	42.20	336	P	P	08 55 36.0	+1.4
	SNR=9.2						
USP	Ospenovka	42.43	338	P	P	08 55 37.2	+0.7
	SNR=50						
NWAO	Narrogin (SRO)	42.99	152	P	P	08 55 41.0	-0.2
	comp=Z,9.5nm,0.8s,mb4.6,baz=212,slow=14,SNR=2.6						
NWAO	Narrogin (SRO)	42.99	152	P	P	08 55 41.2	0.0
INCN	Inchon	43.44	37	eP	P	08 55 43.5	-1.3
SONM	Songino Array	43.96	11	P	P	08 55 48.4	-0.4
	comp=Z,16nm,0.8s,mb4.8,baz=193,slow=9.1,SNR=16						
SONM				PcP	PcP	08 57 34.3	-0.2
	comp=Z,11nm,0.6s,baz=191,slow=3.6,SNR=18						
SONM				pPcP		08 57 48.8	
	comp=Z,3.0nm,0.5s,baz=191,slow=3.8,SNR=6.1						
KS15	Wonju Array Si	44.17	38	eP	P	08 55 51.6	+0.9
SNY	Shenyang	44.77	30	⇑P	P	08 55 55.5	+0.1
SNY				AMB	AMB		
	comp=Z,70nm,0.4s,mb5.8						
WRA	Warramunga Arr	45.72	124	P	P	08 56 03.7	+0.4
	comp=Z,78nm,0.7s,mb5.7,baz=302,slow=9.1,SNR=50						
WRA				pP	pP	08 56 16.1	-0.8
	comp=Z,50nm,0.8s,baz=302,slow=9.3,SNR=8.9						
WRAB	Tennant Creek	45.73	124	eP	P	08 56 03.7	+0.4
	comp=Z,147nm,0.8s,mb6.0						
CN2	Changchun	47.15	30	eP	P	08 56 14.0	-0.2
CN2				AMB	AMB		
	comp=Z,60nm,0.6s,mb5.7						
ASAR	Alice Springs	47.23	129	P	P	08 56 15.3	+0.2
	comp=Z,20nm,0.5s,mb5.3,baz=299,slow=7.7,SNR=35						
ASAR				pP	pP	08 56 28.0	-0.7
	comp=Z,11nm,0.5s,baz=301,slow=7.1,SNR=6.4						
ASAR				sP	sP	08 56 33.5	-1.2
	comp=Z,48nm,0.6s,baz=298,slow=7.6,SNR=16						
HIA	Hailar	48.99	21	eP	P	08 56 28.1	-0.4
	comp=Z,17nm,0.6s,mb5.2						
ZAL	Zalesovo	49.71	352	P	P	08 56 32.9	-1.0
	comp=Z,24nm,0.4s,mb5.6,baz=304,slow=5.7,SNR=42						
ZAL	Zalesovo	49.71	352	P	P	08 56 32.9	-1.0
MDJ	Mudanjiang	49.85	32	P	P	08 56 35.5	+0.4
MDJ				AMB	AMB		
	comp=Z,53nm,1.2s,mb5.5						
MDJ	Mudanjiang	49.85	32	eP	P	08 56 35.2	0.0
	comp=Z,102nm,1.3s,mb5.7						
MAT	Matsushiro	50.56	45	P	P	08 56 40.2	-0.5
MAT	Matsushiro	50.56	45	eP	P	08 56 40.0	-0.7
	comp=Z,20nm,1.0s,mb5.0						
BVAR	Borovoye Array	52.20	341	P	P	08 56 52.0	-0.8
	comp=Z,105nm,0.7s,mb5.9,baz=135,slow=8.4,SNR=139						
BRVK	Borovoye	52.26	341	⇑iP	P	08 56 52.2	-1.0
	comp=Z,112nm,0.7s,mb5.9						
CHKZ	Chkalovo	52.68	342	⇑iP	P	08 56 55.8	-0.6
	comp=Z,245nm,0.7s,mb6.2						
PMG	Port Moresby	53.75	105	P	P	08 57 04.3	-0.6
	comp=Z,18nm,0.4s,mb5.3,baz=51,slow=2.2,SNR=15						
PMG	Port Moresby	53.75	105	eP	P	08 57 04.1	-0.8
	comp=Z,22nm,0.6s,mb5.3						
CTA	Charters Tower	55.99	118	P	P	08 57 20.7	-0.3
	comp=Z,7.7nm,0.7s,mb4.8,baz=292,slow=6.8,SNR=8.3						
CTA				pP	pP	08 57 33.8	-1.2
	comp=Z,15nm,1.1s,baz=283,slow=6.6,SNR=5.0						
ASAJ	Asahikawa	57.13	39	P	P	08 57 28.8	-0.1
	comp=Z,16nm,0.4s,mb5.4,baz=271,slow=6.0,SNR=20						
GNI	Garni	57.28	315	P	P	08 57 29.8	-0.2
	comp=Z,19nm,0.8s,mb5.2,baz=132,slow=5.0,SNR=6.5						
GNI	Garni	57.28	315	eP	P	08 57 28.9	-1.1
	comp=Z,20nm,0.8s,mb5.2						
STKA	Stephens Creek	57.30	133	P	P	08 57 29.8	-0.5
	comp=Z,6.7nm,0.8s,mb4.8,baz=307,slow=9.4,SNR=7.3						
STKA				pP	pP	08 57 43.0	-1.3
	comp=Z,9.1nm,0.8s,baz=305,slow=4.8,SNR=4.7						
STKA	Stephens Creek	57.30	133	eP	P	08 57 29.5	-0.8
KMBO	Kilima Mbogo	58.10	266	P	P	08 57 34.8	-1.3
	comp=Z,2.8nm,0.8s,mb4.3,baz=238,slow=24,SNR=2.0						
KMBO				pP	pP	08 57 48.0	-2.2
	comp=Z,4.3nm,0.8s,baz=52,slow=9.9,SNR=4.5						
KMBO				sP	sP	08 57 53.5	-2.6
	comp=Z,4.6nm,1.0s,baz=34,slow=11,SNR=3.0						
KMBO	Kilima Mbogo	58.10	266	eP	P	08 57 37.5	+1.4
	comp=Z,4.9nm,1.0s,mb4.5						
YSS	Yuzh-Sakhalins	58.63	36	eP	P	08 57 39.0	-0.3
	comp=Z,71nm,0.8s,mb5.8						
ARU	Arti	59.08	337	eP	P	08 57 40.6	-1.7
	comp=Z,45nm,0.9s,mb5.5						
KIV	Kislovodsk	60.25	319	eP	P	08 57 49.1	-1.4
	comp=Z,25nm,0.7s,mb5.3						
ASF	Jabal al Asfar	60.72	304	P	P	08 57 54.3	+0.4
	comp=Z,5.7nm,0.8s,mb4.7,slow=1.0,SNR=3.8						
MALT	Malatya	61.20	311	eP	P	08 57 56.3	-0.7
	comp=Z,15nm,1.0s,mb5.1						
EIL	Elat	61.81	301	eP	P	08 58 01.0	-0.3
	comp=Z,13nm,0.8s,mb5.1						
CSS	Prodhromos	64.26	307	eP	P	08 58 16.1	-1.4
	comp=Z,12nm,0.7s,mb5.0						
BRTR	Keskin Array B	65.17	312	P	P	08 58 22.0	-1.3
	comp=Z,19nm,0.7s,mb5.2,baz=126,slow=7.2,SNR=38						
ISP	Isparta	67.10	309	eP	P	08 58 34.4	-1.1
	comp=Z,14nm,0.6s,mb5.2						
OBN	Obninsk	68.49	328	eP	P	08 58 42.4	-1.5
	comp=Z,28nm,0.9s,mb5.3						
CFR	Carcaliu	70.47	316	⇑iP	P	08 58 55.4	-0.8
CFR	Carcaliu	70.47	316	⇑iP	P	08 58 55.4	-0.8
IDI	Anoyia	71.12	306	P	P	08 58 59.9	-0.4
	comp=Z,22nm,0.6s,mb5.2,baz=100,slow=8.0,SNR=16						
IDI				pP	pP	08 59 12.3	-2.5
	comp=Z,11nm,0.5s,baz=108,slow=7.4,SNR=4.0						
AKASG	Malin Array Be	71.16	322	P	P	08 58 58.5	-1.7
	comp=Z,24nm,0.7s,mb5.2,baz=88,slow=4.6,SNR=54						
ISR	Istrita	71.55	316	⇑iP	P	08 59 03.6	+0.9
ISR	Istrita	71.55	316	⇑iP	P	08 59 03.6	+0.9
VRI	Vrincioaia	71.59	317	⇑iP	P	08 59 03.2	+0.4
VRI	Vrincioaia	71.59	317	⇑iP	P	08 59 03.2	+0.3
MMB	Musomiste	72.93	312	eP	P	08 59 10.0	-1.0
KKB	Krupnik	73.45	312	eP	P	08 59 13.0	-1.0
VTS	Vitosha	73.47	313	eP	P	08 59 13.0	-1.1
LBTB	Lobatse	73.65	242	eP	P	08 59 15.8	+0.2
	comp=Z,9.4nm,1.2s,mb4.6						
KWP	Kalwaria	74.99	320	eP	P	08 59 23.0	+0.2
KOLS	Kolonicke sedl	75.15	319	i P	P	08 59 24.2	+0.5
KOLS				e		08 59 28.6	
SUW	Suwalki	75.56	325	eP	P	08 59 24.9	-1.0
CRVS	Cervenica-Dubn	75.67	319	i P	P	08 59 27.2	+0.5
CRVS				e		08 59 36.6	
MAW	Mawson	75.74	192	eP	P	08 59 28.2	+1.5
	comp=Z,6.4nm,0.9s,mb4.5						
FINES	FINESS Array B	75.87	332	P	P	08 59 26.8	-0.7
	comp=Z,21nm,0.6s,mb5.3,baz=105,slow=6.8,SNR=49						
FINES				pP	pP	08 59 40.8	-1.3
	comp=Z,16nm,0.6s,baz=100,slow=6.7,SNR=8.0						
KAF	Kangasniemi	75.96	333	ep	P	08 59 27.6	-0.4
	baz=103,slow=5.3						
KECS	Kecovo	76.25	319	i P	P	08 59 30.2	+0.3
NIE	Niedzica	76.50	320	i P	P	08 59 31.9	+0.6
PSZ	Piszkesteto	76.56	318	⇑iP	P	08 59 31.8	+0.1
OJC	Ojcow	76.94	320	⇑iP	P	08 59 33.7	-0.1
OJC	Ojcow	76.94	320	i P	P	08 59 33.7	-0.1
VYHS	Vyhne	77.34	319	i P	P	08 59 36.0	-0.1
VYHS				e		08 59 42.7	
SRO	Srobarova	77.60	318	eP	P	08 59 38.0	+0.5
OKC	Ostrava-Krasne	77.95	320	eP	P	08 59 39.6	+0.2
OKC				epP	pP	08 59 55.0	+1.0
KEV	Kevo	78.04	341	ep	P	08 59 39.2	-0.3
	comp=Z,41nm,0.7s,mb5.5						
SMOL	Smolenice	78.27	318	eP	P	08 59 41.2	0.0
SMOL				e	pP	08 59 54.6	-1.2
MORC	Moravsky Berou	78.33	320	eP	P	08 59 41.4	-0.1
	comp=Z,32nm,0.8s,mb5.3						
ZST	Bratislava	78.45	318	i P	P	08 59 42.6	+0.4
ZST				e	pP	08 59 58.1	+1.3
ARCES	ARCESS Array B	78.47	340	P	P	08 59 41.9	0.0
	comp=Z,33nm,0.6s,mb5.4,baz=93,slow=5.6,SNR=109						
ARE0	ARCESS Array S	78.47	340	eP	P	08 59 41.7	-0.2
BILL	Bilibino	78.58	21	eP	P	08 59 42.1	-0.4
	comp=Z,9.9nm,0.6s,mb4.9						
GKP	Gorka Klasztor	78.93	323	eP	P	08 59 44.1	-0.6
FX1	Attu Island--F	78.98	37	eP	P	08 59 44.0	-1.0
KTK1	Kautokeino	79.10	340	⇑iP	P	08 59 46.0	+0.7
KTK1				AMb	AMB	08 59 46.9	
	comp=Z,72nm,0.7s,mb5.7						
KTK1				epP	pP	08 59 59.5	-0.4
KTK1	Kautokeino	79.10	340	⇑iP	P	08 59 46.0	+0.7
	comp=Z,72nm,0.7s,mb5.7						
DPC	Dobruska-Polom	79.17	320	eP	P	08 59 46.8	+0.7
DPC				epP	pP	09 00 02.1	+1.4
KSP	Ksiaz	79.24	321	eP	P	08 59 46.4	-0.1
KSP				e	pP	09 00 02.1	+1.0
KSP	Ksiaz	79.24	321	eP	P	08 59 47.0	+0.5
UPC	Upice	79.39	320	eP	P	08 59 47.7	+0.4
ARSA	Arzberg	79.43	317	⇑iP	P	08 59 48.0	+0.4
	comp=Z,39nm,1.1s,mb5.2						
PRU	Pruhonice	80.28	320	eP	P	08 59 52.3	+0.2
PRU				epP	pP	09 00 08.4	+1.7
PVCC	Panska Ves	80.31	320	eP	P	08 59 51.7	-0.5
MOA	Molln	80.32	318	⇓iP	P	08 59 51.5	-0.8
	comp=Z,14nm,0.8s,mb4.9						
BRG	Berggiesshubel	80.73	321	i P	P	08 59 54.8	+0.4
	comp=Z,38nm,1.4s,mb5.1						
BRG				i	pP	09 00 10.1	+1.0
TRO	Tromso	80.73	340	eP	P	08 59 52.3	-1.8
GEC2	GERESS Array S	80.76	319	eP	P	08 59 55.0	+0.4
	comp=Z,55nm,0.8s,mb5.5						
GERES	GERESS Array B	80.76	319	P	P	08 59 55.1	+0.4
	comp=Z,32nm,0.7s,mb5.4,baz=90,slow=5.3,SNR=67						
KHC	Kasperske Hory	80.85	319	eP	P	08 59 55.0	-0.1
PTCC	Patocco-Chiusa	80.86	316	eP	P	08 59 55.3	0.0
KBA	Koelnbreinsper	80.90	317	⇑iP	P	08 59 55.2	-0.2
	comp=Z,10nm,0.6s,mb4.9						
GMNA	Gemona	80.94	316	eP	P	08 59 55.7	+0.1
SNTG	Esanatoglia	81.03	313	eP	P	08 59 55.7	-0.5
ARV	Arcevia	81.04	313	eP	P	08 59 56.8	+0.6
FSSB	Fossombrone	81.17	313	eP	P	08 59 56.8	-0.1
FVI	Forni Avoltri	81.27	316	eP	P	08 59 57.3	0.0
WET	Wettzell	81.31	319	eP	P	08 59 57.8	+0.3
CLL	Collm	81.34	321	⇑iP	P	08 59 57.1	-0.5
	comp=Z,17nm,1.0s,mb4.9						
CLL				i	pP	09 00 13.2	+0.9
CLL	Collm	81.34	321	⇑P	P	08 59 57.1	-0.5
	comp=Z,logA/T=1.2,mb4.9						
CLL				i *PP	pP	09 00 13.2	+0.9
HFS	Hagfors	81.59	330	P	P	08 59 58.3	-0.4
	comp=Z,18nm,0.5s,mb5.2,baz=108,slow=4.7,SNR=57						
HFS				pP	pP	09 00 12.2	-1.2
	comp=Z,14nm,0.7s,baz=135,slow=4.2,SNR=5.5						
NKC	Novy Kostel	81.64	320	eP	P	08 59 59.4	+0.2
NKC				epP	pP	09 00 15.1	+1.2
SFI	Santa Sofia	81.85	314	eP	P	09 00 00.8	+0.4
MOR8	Moi Rana	81.87	336	eP	P	08 59 58.9	-1.2
MOR8				epP	pP	09 00 14.0	-0.8
PGD	Poggio Sodo	81.94	313	eP	P	09 00 02.5	+1.7
CTI	Castel Tesino	82.03	316	eP	P	09 00 01.7	+0.3
VMG	Vicchio	82.07	314	eP	P	09 00 02.5	+1.0
WTTA	Wattenberg	82.08	317	⇑iP	P	09 00 01.3	-0.2
	comp=Z,22nm,0.5s,mb5.3						
WATA	Walderalm	82.12	317	⇑iP	P	09 00 01.3	-0.4
	comp=Z,16nm,0.5s,mb5.2						
MOX	Moxa	82.19	320	i P	P	09 00 02.3	+0.3
MOX	Moxa	82.19	320	eP	P	09 00 02.3	+0.3
SEI	Scarperia	82.20	314	eP	P	09 00 02.9	+0.6
FUR	Furstenfeldbru	82.34	318	eP	P	09 00 02.7	-0.2
SQTA	Sankt Quirin	82.36	317	⇑iP	P	09 00 03.0	0.0
	comp=Z,41nm,0.5s,mb5.6						

GRA1	Grafenberg Arr	82.42	319	*e*P	P	09 00 03.8	+0.6
	comp=Z,29nm,0.8s,mb5.3						
GRA1				*e*pP	pP	09 00 19.4	+1.5
GRF	Grafenberg Arr	82.42	319	*e*P	P	09 00 03.8	+0.6
	comp=Z,29nm,0.8s,mb5.3						
GRF				*e*pP	pP	09 00 19.4	+1.5
LOF	Lofoten	82.43	338	*e*P	P	09 00 04.8	+1.9
LOF				AMb	AMB	09 00 06.9	
	comp=Z,98nm,2.2s,mb5.3						
LOF	Lofoten	82.43	338	*e*P	P	09 00 04.8	+1.9
	comp=Z,98nm,2.3s,mb5.3						
MOTA	Moosalm	82.44	317	⇑*i*P	P	09 00 03.2	-0.2
	comp=Z,20nm,0.7s,mb5.2						
NB2	NORSAR Subarra	82.87	331	P	P	09 00 04.8	-0.5
	comp=Z,24nm,1.0s,mb5.2,baz=97,slow=5.0						
NB2	NORSAR Subarra	82.87	331	P	P	09 00 04.8	-0.5
	baz=97,slow=5.3						
NOA	NORSAR Array B	82.87	331	P	P	09 00 05.0	-0.3
	comp=Z,12nm,0.8s,mb4.9,baz=94,slow=5.4,SNR=16						
NOA				pP	pP	09 00 19.2	-0.8
	comp=Z,5.0nm,0.8s,baz=95,slow=4.9,SNR=6.0						
NOA				PP	PP	09 03 15.2	-2.7
	comp=Z,0.8nm,0.9s,baz=103,slow=12,SNR=3.6						
BRMO	Bormio	82.93	316	*e*P	P	09 00 06.3	+0.5
CLZ	Clausthal	83.00	322	*e*P	P	09 00 06.4	+0.2
	comp=Z,30nm,0.9s,mb5.3						
BSEG	Bad Segeberg	83.08	324	*e*P	P	09 00 06.9	+0.4
RPZ	Rata Peaks	83.20	135	P	P	09 00 07.8	+0.4
	comp=Z,9.5nm,0.7s,mb4.9,baz=190,slow=4.3,SNR=5.0						
DAVA	Damuels	83.27	317	⇑*i*P	P	09 00 08.0	+0.4
	comp=Z,31nm,0.8s,mb5.4						
STU	Stuttgart	83.73	318	*e*P	P	09 00 09.9	0.0
	comp=Z,8.1nm,0.6s,mb5.0						
BFO	Black Forest	84.31	318	*e*P	P	09 00 12.6	-0.3
	comp=Z,20nm,0.8s,mb5.3						
MOL	Molde	84.65	332	⇑*i*P	P	09 00 16.4	+2.2
CDF	Champ du Feu	85.01	318	*e*P	P	09 00 15.9	-0.4
	comp=Z,17nm,0.7s,mb5.0						
SBF	Sospel	85.04	313	*e*P	P	09 00 16.6	0.0
	comp=Z,82nm,0.7s,mb5.7						
LPL	La Plagne	85.48	315	*e*P	P	09 00 19.0	+0.3
	comp=Z,43nm,0.8s,mb5.3						
MBDF	Montbardon	85.48	314	*e*P	P	09 00 18.2	-0.6
	comp=Z,23nm,0.8s,mb5.1						
HAU	Haudompre	85.64	318	*e*P	P	09 00 19.0	-0.5
	comp=Z,54nm,0.8s,mb5.5						
ORIF	Oris-en-Rattie	86.11	315	*e*P	P	09 00 21.9	+0.1
	comp=Z,38nm,0.9s,mb5.3						
SMF	Signal de Mont	87.42	316	*e*P	P	09 00 28.0	-0.2
	comp=Z,38nm,0.7s,mb5.4						
SSF	Saint Saulge	87.62	317	*e*P	P	09 00 29.1	0.0
	comp=Z,16nm,0.7s,mb5.1						
FLN	La Foliniere	90.12	319	*e*P	P	09 00 41.1	+0.2
	comp=Z,38nm,0.7s,mb5.5						
DAG	Danmarks Havn	90.67	348	⇓*i*P	P	09 00 42.4	-0.5
	comp=Z,4.8nm,0.7s,mb4.9						
ESDC	Sonseca Array	93.93	310	P	P	09 00 58.9	+0.2
	comp=Z,2.1nm,0.6s,mb4.7,baz=62,slow=3.9,SNR=10						
IMA	Indian Mountai	94.08	22	*e*P	P	09 00 59.9	+1.2
	comp=Z,64nm,0.7s,mb6.2						
SPU	Mount Spurr	96.59	27	*e*P	P	09 01 09.9	-0.3
ILAR	Eielson Array	97.21	22	P	P	09 01 12.1	-1.0
	comp=Z,1.5nm,0.7s,mb4.5,baz=279,slow=4.6,SNR=8.5						
INK	Inuvik	99.66	16	P	P	09 01 24.8	+0.7
	comp=Z,2.9nm,0.7s,mb4.8,baz=340,slow=3.3,SNR=12						
INK				PP	PP	09 05 24.0	-6.9
	comp=Z,0.7nm,0.6s,baz=285,slow=4.3,SNR=6.5						
INK				PKiKP		09 05 53.1	
	comp=Z,1.3nm,0.9s,baz=26,slow=3.5,SNR=3.5						
INK	Inuvik	99.66	16	P	P	09 01 24.8	+0.7
INK				PP	PP	09 05 24.0	-6.9
YKA	Yellowknife Ar	109.16	14	Pdiff	Pdif	09 02 08.3	+2.1
	comp=Z,0.3nm,0.7s,baz=332,slow=4.9,SNR=5.3						
YKA				PKiKP		09 06 09.5	
	comp=Z,0.3nm,0.7s,baz=341,slow=1.9,SNR=6.3						
YKA				PP	PP	09 06 33.9	-9.0
	comp=Z,0.6nm,0.7s,baz=335,slow=7.4,SNR=7.0						
YKA				PKKPbc		09 17 16.7	
	comp=Z,0.3nm,0.8s,baz=151,slow=2.9,SNR=5.6						
YKA	Yellowknife Ar	109.16	14	Pdif	Pdif	09 02 08.3	+2.1
YKA				PKPdf		09 06 09.6	
YKA				PP	PP	09 06 33.9	-9.0
YKA				PKKPbc		09 17 16.7	
SCHQ	Schefferville	118.72	348	PKP	PKPdf	09 06 29.1	+1.5
	comp=Z,2.1nm,0.6s,baz=93,slow=14,SNR=6.8						
SCHQ				PP	PP	09 07 47.0	-4.0
	comp=Z,2.1nm,0.6s,baz=48,slow=6.1,SNR=3.9						
MSO	Missoula	122.53	23	*e*PKPdf	PKPdf	09 06 35.8	+0.7
ULM	Lac du Bonnet	124.36	9	PKP	PKPdf	09 06 40.9	+2.3
	comp=Z,10nm,0.8s,baz=356,slow=2.1,SNR=16						
ULM	Lac du Bonnet	124.36	9	PKP	PKPdf	09 06 40.9	+2.3
LAO	LASA Array	125.36	18	*e*PKPdf	PKPdf	09 06 42.8	+2.2
SNOW	Snow King Moun	126.58	23	*e*PKPdf	PKPdf	09 06 45.2	+2.2
LRV	Little Rabbit	126.87	36	*e*PKPdf	PKPdf	09 06 46.6	+2.8
NVAR	Mina Array Bea	127.00	33	PKP	PKPdf	09 06 47.0	+3.0
	comp=Z,6.9nm,0.8s,baz=312,slow=1.3,SNR=29						
NVAR	Mina Array Bea	127.00	33	PKP	PKPdf	09 06 47.0	+3.0
MTUM	Tungsten Hills	127.64	34	*e*PKPdf	PKPdf	09 06 48.3	+3.0
PDAR	Pinedale Array	127.64	23	PKP	PKPdf	09 06 46.4	+1.2
	comp=Z,5.1nm,0.7s,baz=104,slow=2.0,SNR=33						
PDAR	Pinedale Array	127.64	23	PKP	PKPdf	09 06 46.4	+1.2
BGU	Big Grassy Mou	127.71	27	*e*PKPdf	PKPdf	09 06 46.6	+1.3
TRCR	Troy Canyon	128.49	31	*e*PKPdf	PKPdf	09 06 49.0	+2.1
NLU	North Lily Min	128.92	27	*e*PKPdf	PKPdf	09 06 49.8	+2.1
TMUT	Trail Mountain	129.84	27	*e*PKPdf	PKPdf	09 06 52.1	+2.6
PV10	Paradox Valley	131.56	25	*e*PKPdf	PKPdf	09 06 54.0	+1.2
MNTX	Cornudas Mount	138.78	27	*e*PKPpre		09 06 57.2	
MNTX				*e*PKPdf	PKPdf	09 07 07.6	+1.3
MIAR	Mount Ida	140.02	11	PKPpre		09 07 05.0	
TXAR	Lajitas Array	141.57	27	PKhKP		09 07 07.5	
	comp=Z,1.3nm,0.6s,baz=5.0,slow=3.0,SNR=17						
TXAR				PKP	PKPdf	09 07 12.1	+0.7
	comp=Z,5.8nm,0.7s,baz=214,slow=0.8,SNR=13						
TXAR				PP	PP	09 10 17.1	-1.8
	comp=Z,1.3nm,1.1s,baz=54,slow=2.1,SNR=4.1						
TXAR				PKKP	PKKP	09 16 30.1	+8.0
	comp=Z,0.2nm,0.5s,baz=126,slow=1.1,SNR=3.9						
JCT	Junction City	142.13	21	*e*PKPpre		09 07 08.1	
JCT				*e*PKPdf	PKPdf	09 07 14.3	+2.0
BAO	Brasilia Array	142.20	251	PKP	PKPdf	09 07 14.8	+2.0
BDFB	Brasilia	142.22	251	PKP	PKPdf	09 07 15.8	+2.9
	comp=Z,3.0nm,0.8s,baz=233,slow=2.3,SNR=3.5						
HKT	Hockley	143.89	16	*e*PKPpre		09 07 14.7	
SJG	San Juan	150.68	321	PKPbc	PKPdf	09 07 33.0	+6.2
	comp=Z,22nm,1.0s,baz=50,slow=6.7,SNR=3.7						
LPAZ	La Paz	159.98	234	PKP	PKPdf	09 07 42.5	+3.3
	comp=Z,2.6nm,0.9s,baz=28,slow=7.7,SNR=4.3						
LPAZ	La Paz	159.98	234	*e*PKPdf	PKPdf	09 07 42.2	+3.0
SDV	Santo Domingo	160.34	314	*e*PKPdf	PKPdf	09 07 41.3	+1.7
ROSC	El Rosal	165.75	312	PKP	PKPdf	09 07 47.7	+2.7
	comp=Z,8.3nm,0.9s,baz=112,slow=6.7,SNR=6.7						

IDC ***26*** *08:52:47.9±0.6, 2.75N×94.13E, h28^{km}±3^{km}, mb4.1/13, mb1 4.2/13, mb1mx4.1/19, Error ellipse: s-maj=31.7km s-min=12.3km az=47.0*

ISC 26 08:52:46.1±0.7, 2.8N±0.2×94.2E±0.2, h29^{km}, h29^{km}±.6^{km}:pP-P, n16, σ0^{s}57/13, mb4.2/13, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	45.39	122	P	P	09 01 04.4	+0.1
	2.5nm,0.8s,mb4.1,baz=296,slow=8.9,SNR=6.9						
WRA				pP	pP	09 01 13.7	+0.8
	6.8nm,1.0s,baz=298,slow=8.9,SNR=9.3						
SONM	Songino Array	46.10	11	P	P	09 01 09.5	0.0
	5.3nm,0.9s,mb4.5,baz=191,slow=8.3,SNR=14						
SONM				pP	pP	09 01 18.6	+0.4
	2.3nm,0.8s,baz=192,slow=7.9,SNR=6.3						
ASAR	Alice Springs	46.72	126	P	P	09 01 14.9	+0.1
	1.1nm,0.7s,mb3.9,baz=302,slow=7.6,SNR=4.8						
ASAR				pP	pP	09 01 24.4	+0.9
	6.3nm,1.1s,baz=304,slow=8.0,SNR=7.5						
ZAL	Zalesovo	51.58	353	P	P	09 01 52.1	+0.2
	6.3nm,0.4s,mb4.9,baz=309,slow=4.8,SNR=18						
ZAL				pP	pP	09 02 00.5	-0.1
	10nm,0.4s,baz=307,slow=5.2,SNR=11						
BVAR	Borovoye Array	53.83	342	P	P	09 02 07.9	-0.7
	2.4nm,0.6s,mb4.3,baz=135,slow=10,SNR=9.0						
BVAR				pP	pP	09 02 17.2	-0.1
	4.8nm,0.6s,baz=146,slow=9.5,SNR=11						
STKA	Stephens Creek	56.62	131	P	P	09 02 28.7	-0.4
	1.7nm,0.8s,mb4.2,baz=259,slow=10,SNR=3.0						
BRTR	Keskin Array B	65.86	313	P	P	09 03 31.3	-0.2
	0.7nm,0.6s,mb3.9,baz=132,slow=8.1,SNR=3.8						
BRTR				pP	pP	09 03 39.7	-0.7
	5.7nm,1.1s,baz=129,slow=7.9,SNR=5.9						
IDI	Anoyia	71.57	306	P	P	09 04 06.8	-0.1
	6.3nm,1.0s,mb4.5,baz=12,slow=11,SNR=2.5						
IDI				pP	pP	09 04 16.4	+0.4
	7.8nm,0.8s,baz=344,slow=14,SNR=2.9						
AKASG	Malin Array Be	72.21	323	P	P	09 04 09.3	-1.1
	0.5nm,0.6s,mb3.7,baz=105,slow=5.5,SNR=3.9						
AKASG				pP	pP	09 04 18.1	-1.4
	1.6nm,0.9s,baz=94,slow=4.3,SNR=4.8						
KOLS	Kolonicke sedl	76.10	320	*e*	pP	09 04 40.0	-2.1
FINES	FINESS Array B	77.24	333	P	P	09 04 38.8	-0.3
	5.4nm,1.0s,mb4.4,baz=101,slow=7.1,SNR=3.8						
FINES				pP	pP	09 04 47.4	-0.9
	29nm,1.4s,baz=127,slow=6.9,SNR=1.5						
ZST	Bratislava	79.35	318	*e*	pP	09 05 00.4	+0.3
ARCES	ARCESS Array B	80.06	341	P	P	09 04 54.8	+0.4
	2.3nm,0.9s,mb4.1,baz=97,slow=7.3,SNR=3.4						
GERES	GERESS Array B	81.67	319	P	P	09 05 04.5	+1.2
	4.1nm,1.1s,mb4.3,baz=90,slow=5.3,SNR=6.6						
GERES				pP	pP	09 05 13.1	+0.7
	5.9nm,1.0s,baz=104,slow=5.5,SNR=13						
NOA	NORSAR Array B	84.19	331	P	P	09 05 16.6	+0.7
	0.8nm,0.8s,mb3.9,baz=86,slow=16,SNR=2.8						
NOA				pP	pP	09 05 25.3	+0.2
	2.2nm,0.9s,baz=94,slow=5.4,SNR=4.2						
TXAR	Lajitas Array	143.76	27	PKP	PKPdf	09 12 19.1	-5.1
	1.2nm,1.0s,baz=14,slow=0.6,SNR=8.4						
TXAR				pPKP		09 12 29.4	
	1.4nm,0.9s,baz=306,slow=1.2,SNR=5.5						

IDC ***26*** *08:53:35.5±0.9, 8.42N×94.01E, mb4.1/10, mb1 4.2/10, mb1mx4.1/19, Error ellipse: s-maj=92.0km s-min=18.7km az=51.0*

ISC 26 08:53:38.6±0.7, 8.4N±0.4×94.0E±0.4, h33^{km}, n11, σ0^{s}63/10, mb4.2/10, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	Narrogin (SRO)	46.65	153	P	P	09 02 06.6	+0.7
	9.4nm,0.6s,mb4.9,baz=334,slow=19,SNR=6.0						
WRA	Warramunga Arr	48.65	126	P	P	09 02 21.1	-0.6
	1.7nm,0.7s,mb4.2,baz=303,slow=9.3,SNR=3.0						
ASAR	Alice Springs	50.33	130	P	P	09 02 34.4	-0.2
	1.8nm,0.6s,mb4.2,baz=300,slow=7.0,SNR=4.1						
BRTR	Keskin Array B	62.02	311	P	P	09 03 57.1	-1.0
	1.3nm,0.7s,mb4.2,baz=128,slow=7.7,SNR=3.7						
AKASG	Malin Array Be	67.69	322	P	P	09 04 33.7	-0.9
	0.2nm,0.3s,mb3.6,baz=88,slow=4.5,SNR=4.3						
FINES	FINESS Array B	72.21	332	P	P	09 05 01.7	-0.2
	3.3nm,1.0s,mb4.2,baz=80,slow=8.5,SNR=3.8						
ARCES	ARCESS Array B	74.75	340	P	P	09 05 17.2	+0.6
	1.5nm,0.6s,mb4.1,baz=84,slow=8.2,SNR=4.0						
GERES	GERESS Array B	77.38	318	P	P	09 05 32.5	+0.5
	0.9nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=5.6						
HFS	Hagfors	77.97	330	P	P	09 05 35.7	+0.7
	2.2nm,0.6s,mb4.2,baz=90,slow=5.9,SNR=5.0						
NOA	NORSAR Array B	79.24	331	P	P	09 05 42.4	+0.5
	0.9nm,0.5s,mb3.9,baz=95,slow=5.0,SNR=3.4						
TXAR	Lajitas Array	138.81	24	PKP	PKPdf	09 13 05.0	+2.7
	0.2nm,0.5s,baz=180,slow=0.9,SNR=3.6						

IDC 26 08:54:54.0±3.1, 5.58N×94.47E, mb4.2/5, mb1 4.4/5, mb1mx3.9/18, Error ellipse: s-maj=223.0km s-min=22.8km az=50.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.69	124	P	P	09 03 24.6	-2.1
	2.9nm,1.0s,baz=303,slow=9.0,SNR=4.2						
ASAR	Alice Springs	48.22	129	P	P	09 03 37.2	-1.5
	1.1nm,0.7s,baz=304,slow=7.3,SNR=4.9						
BVAR	Borovoye Array	51.26	342	P	P	09 04 00.5	-1.1
	1.7nm,0.6s,baz=151,slow=9.7,SNR=5.8						
FINES	FINESS Array B	74.88	332	P	P	09 06 36.4	-1.8
	3.7nm,1.0s,baz=104,slow=5.7,SNR=3.6						
ARCES	ARCESS Array B	77.52	340	P	P	09 06 50.5	-2.4
	4.8nm,1.0s,baz=103,slow=7.4,SNR=6.3						

IDC 26 08:58:08.8±0.7, 6.85N×93.15E, mb4.2/16, mb1 4.4/17, mb1mx4.3/22, ML4.6/1, Error ellipse: s-maj=34.6km s-min=16.1km az=46.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.84	26	Pn	P	09 01 19.4	+3.9
	1.1nm,0.3s,baz=230,slow=14,SNR=13						
PKI	Pulchoki	21.88	341	*e*P	P	09 03 04.4	-0.9
DMN	Daman	22.01	341	*e*P	P	09 03 06.0	-0.6
KKN	Kakani	22.12	341	*e*P	P	09 03 08.0	+0.3
	23nm,0.8s						
GKN	Gorkha	22.53	340	*e*P	P	09 03 11.6	-0.3
KOLN	Koldanda	22.69	338	*e*P	P	09 03 13.0	-0.5
	82nm,1.4s						
SONM	Songino Array	42.37	13	P	P	09 06 05.6	-0.9
	0.7nm,0.6s,baz=183,slow=7.0,SNR=3.7						
ZAL	Zalesovo	47.43	353	P	P	09 06 46.5	-0.5
	2.4nm,0.8s,baz=290,slow=6.0,SNR=5.8						
WRA	Warramunga Arr	48.49	124	P	P	09 06 54.6	-1.1
	12nm,0.7s,baz=300,slow=8.9,SNR=26						
BVAR	Borovoye Array	49.64	342	P	P	09 07 01.2	-2.9
	0.4nm,0.5s,baz=143,slow=7.2,SNR=2.9						
ASAR	Alice Springs	50.03	129	P	P	09 07 05.1	-2.4
	5.1nm,0.8s,baz=303,slow=7.7,SNR=15						
KMBO	Kilima Mbogo	56.34	264	P	P	09 07 53.6	-0.8
	2.1nm,1.0s,baz=60,slow=7.6,SNR=3.1						
STKA	Stephens Creek	60.13	133	P	P	09 08 17.4	-3.3
	1.7nm,0.9s,baz=111,slow=8.5,SNR=3.1						
BRTR	Keskin Array B	62.36	311	P	P	09 08 32.9	-2.9
	1.1nm,0.7s,baz=118,slow=6.4,SNR=4.9						
IDI	Anoyia	68.34	305	P	P	09 09 12.7	-1.7
	5.4nm,0.5s,baz=100,slow=8.1,SNR=7.3						
FINES	FINESS Array B	73.15	332	P	P	09 09 40.6	-2.4
	2.5nm,0.8s,baz=101,slow=7.6,SNR=6.2						
ARCES	ARCESS Array B	75.89	340	P	P	09 09 57.2	-1.4
	1.6nm,0.5s,baz=117,slow=5.4,SNR=8.6						
GERES	GERESS Array B	77.93	318	P	P	09 10 09.1	-1.2
	1.3nm,0.7s,baz=90,slow=5.3,SNR=7.1						
NOA	NORSAR Array B	80.14	331	P	P	09 10 19.4	-2.7
	0.9nm,0.9s,baz=93,slow=5.5,SNR=3.3						
DAVOX	Davos	80.44	316	P	P	09 10 22.3	-1.7
	2.6nm,0.6s,baz=49,slow=16,SNR=5.0						
EKA	Eskdalemuir Ar	88.00	325	P	P	09 11 01.4	-0.6
	1.8nm,0.6s,baz=98,slow=5.9,SNR=4.5						
ESDC	Sonseca Array	91.12	310	P	P	09 11 17.4	+0.3
	0.6nm,0.5s,baz=60,slow=4.0,SNR=5.5						
PDAR	Pinedale Array	126.47	21	PKP	PKPdf	09 17 13.7	-2.3
	0.4nm,0.8s,baz=14,slow=1.5,SNR=4.7						

IDC 26 08:58:28.1±0.6, 3.99N×93.28E, mb4.5/15, mb1 4.6/16, mb1mx4.5/23, Error ellipse: s-maj=25.6km s-min=15.3km az=46.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.41	21	Pn	P	09 02 07.4	-1.3
	baz=220,slow=13,SNR=2.5						
SONM	Songino Array	45.11	12	P	P	09 06 46.2	-1.8
	5.8nm,0.8s,baz=192,slow=8.1,SNR=16						
WRA	Warramunga Arr	46.83	122	P	P	09 07 01.7	-0.2
	3.4nm,0.6s,baz=300,slow=9.1,SNR=6.7						
ASAR	Alice Springs	48.19	127	P	P	09 07 10.2	-2.4
	1.2nm,0.6s,baz=304,slow=8.0,SNR=4.4						
ASAR				PcP	PcP	09 08 35.3	-5.0
	1.3nm,0.8s,baz=297,slow=3.3,SNR=4.2						
ZAL	Zalesovo	50.27	353	P	P	09 07 27.1	-1.1
	6.1nm,0.5s,baz=298,slow=5.8,SNR=12						
BVAR	Borovoye Array	52.39	343	P	P	09 07 42.5	-1.7
	6.0nm,0.7s,baz=141,slow=9.5,SNR=17						
KMBO	Kilima Mbogo	56.22	266	P	P	09 08 11.3	-1.5
	1.4nm,0.6s,baz=45,slow=23,SNR=3.9						
GNI	Garni	56.58	317	P	P	09 08 13.7	-1.3
	2.0nm,0.3s,baz=74,slow=7.4,SNR=3.6						
CTA	Charters Tower	57.25	117	P	P	09 08 18.9	-1.2
	4.5nm,1.1s,baz=225,slow=16,SNR=3.0						
BRTR	Keskin Array B	64.35	312	P	P	09 09 06.0	-2.1
	4.5nm,0.9s,baz=121,slow=7.2,SNR=13						
IDI	Anoyia	70.10	306	P	P	09 09 43.3	-1.2
	6.9nm,0.7s,baz=81,slow=6.4,SNR=6.8						
AKASG	Malin Array Be	70.67	323	P	P	09 09 44.4	-3.3
	1.9nm,0.7s,baz=92,slow=4.6,SNR=8.8						
KOLS	Kolonicke sedl	74.57	320	*e*	P	09 10 10.2	-0.5
FINES	FINESS Array B	75.73	333	P	P	09 10 15.1	-2.1
	3.1nm,0.7s,baz=91,slow=5.4,SNR=8.1						
VYHS	Vyhne	76.72	319	*e*	P	09 10 22.1	-0.9
ZST	Bratislava	77.83	318	*e*	P	09 10 28.3	-0.8
ARCES	ARCESS Array B	78.61	341	P	P	09 10 30.7	-2.3
	5.4nm,0.9s,baz=90,slow=5.4,SNR=5.0						
GERES	GERESS Array B	80.14	319	P	P	09 10 41.2	-0.5
	3.7nm,0.8s,baz=106,slow=5.4,SNR=12						
KHC	Kasperske Hory	80.25	319	*e*P	P	09 10 41.5	-0.7
DAVOX	Davos	82.58	316	P	P	09 10 54.3	-0.2
	11nm,0.7s,baz=125,slow=6.4,SNR=17						
ULM	Lac du Bonnet	125.40	7	PKP	PKPdf	09 17 30.1	-3.1
	5.2nm,1.2s,baz=345,slow=5.5,SNR=3.8						
NVAR	Mina Array Bea	128.66	32	PKhKP		09 17 30.6	
	0.4nm,0.7s,baz=276,slow=0.2,SNR=3.8						
NVAR				PKP	PKPdf	09 17 37.0	-2.8
	0.2nm,0.5s,baz=296,slow=3.0,SNR=3.5						
PDAR	Pinedale Array	129.07	22	PKhKP		09 17 29.9	
	0.7nm,0.9s,baz=270,slow=1.5,SNR=4.1						
PDAR				PKP	PKPdf	09 17 36.7	-3.8
	0.5nm,0.9s,baz=270,slow=2.7,SNR=3.8						
ANMO	Albuquerque	137.05	24	PKhKP		09 17 46.7	
	0.3nm,0.5s,baz=208,slow=2.4,SNR=4.4						
ANMO				PKP	PKPdf	09 17 53.1	-2.3
	0.9nm,0.9s,baz=8.2,slow=8.4,SNR=2.5						
TXAR	Lajitas Array	143.09	25	PKhKP		09 17 59.5	
	0.4nm,0.7s,baz=27,slow=1.6,SNR=9.0						
TXAR				PKP	PKPdf	09 18 05.3	-1.2
	1.5nm,1.1s,baz=138,slow=1.7,SNR=5.1						
LVC	Limon Verde	154.70	221	PKPab	PKPab	09 18 47.2	-1.8
	2.6nm,0.7s,baz=96,slow=3.8,SNR=4.3						
LPAZ	La Paz	158.02	235	PKPab	PKPab	09 19 01.7	-1.7
	1.6nm,0.8s,baz=137,slow=5.3,SNR=4.8						
SDV	Santo Domingo	159.48	309	PKPab	PKPab	09 19 06.7	-3.1
	2.1nm,0.9s,baz=252,slow=3.2,SNR=3.4						

IDC ***26*** *09:00:41.1±1.1, 9.13N×93.74E, mb4.4/16, mb1 4.6/17, mb1mx4.5/23, Error ellipse: s-maj=33.1km s-min=31.3km az=115.0*

ISC 26 09:00:44.9±1.5, 9.2N±0.2×93.8E±0.2, h33^{km}, n41, σ0^{s}91/31, mb4.4/18, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.50	28	Pn	P	09 03 16.4	+0.2
	baz=214,slow=14,SNR=1.8						
AML	Almayashu	37.31	335	P	P	09 07 57.3	+1.6
	SNR=14						
AAK	Ala-Archa	37.40	336	P	P	09 07 55.2	-1.4
	SNR=5.3						
CHMS	Chumysh	37.61	337	P	P	09 07 59.1	+0.8
	SNR=6.6						
EKS2	Erkin-Say	37.71	336	P	P	09 08 00.7	+1.5
	SNR=8.5						
USP	Ospenovka	37.93	337	P	P	09 08 01.5	+0.4
	SNR=11						
SONM	Songino Array	39.99	13	P	P	09 08 18.5	+0.4
	1.1nm,0.6s,mb3.8,baz=197,slow=7.3,SNR=4.0						
ZAL	Zalesovo	45.24	353	P	P	09 09 01.2	+0.4
	9.0nm,1.0s,mb4.6,baz=308,slow=5.8,SNR=10.0						
BVAR	Borovoye Array	47.67	341	P	P	09 09 18.6	-1.4
	3.3nm,0.8s,mb4.4,baz=139,slow=9.3,SNR=6.4						
KMBO	Kilima Mbogo	57.25	263	P	P	09 10 33.5	+1.5
	1.7nm,0.6s,mb4.3,baz=53,slow=10,SNR=5.7						
BRTR	Keskin Array B	61.35	310	P	P	09 10 58.0	-1.9
	2.1nm,0.6s,mb4.4,baz=130,slow=7.4,SNR=6.8						
AKASG	Malin Array Be	66.95	321	P	P	09 11 34.1	-2.1
	0.2nm,0.3s,mb3.6,baz=90,slow=5.0,SNR=6.6						
IDI	Anoyia	67.57	304	P	P	09 11 39.5	-0.9
	5.4nm,0.7s,mb4.7,baz=79,slow=9.2,SNR=5.2						
FINES	FINESS Array B	71.43	332	P	P	09 12 03.0	-0.6
	5.7nm,0.7s,mb4.6,baz=100,slow=6.8,SNR=20						
KAF	Kangasniemi	71.50	333	*e*p	P	09 12 03.6	-0.4
	4.3nm,0.5s,mb4.6,baz=104,slow=5.8						
KECS	Kecovo	72.14	318	*e*	P	09 12 02.6	-5.4
OJC	Ojcow	72.79	320	*e*P	P	09 12 12.4	+0.6
VYHS	Vyhne	73.24	318	*e*	P	09 12 14.0	-0.6
KEV	Kevo	73.52	341	*e*p	P	09 12 15.4	-0.4
ARCES	ARCESS Array B	73.95	340	P	P	09 12 18.6	+0.3
	5.1nm,0.8s,mb4.5,baz=103,slow=6.2,SNR=9.2						
GERES	GERESS Array B	76.66	318	P	P	09 12 34.1	-0.1
	4.6nm,0.8s,mb4.5,baz=87,slow=5.1,SNR=15						
KHC	Kasperske Hory	76.74	318	*e*P	P	09 12 35.0	+0.3
CLL	Collm	77.17	321	P	P	09 12 37.8	+0.8
NB2	NORSAR Subarra	78.46	330	P	P	09 12 42.9	-1.0
	3.0nm,0.6s,mb4.4,baz=95,slow=5.0						
NOA	NORSAR Array B	78.46	330	P	P	09 12 43.4	-0.5
	3.4nm,0.6s,mb4.4,baz=91,slow=5.7,SNR=12						
DAVOX	Davos	79.24	316	P	P	09 12 48.9	+0.4
	4.4nm,0.6s,mb4.5,baz=122,slow=8.7,SNR=6.8						
LPL	La Plagne	81.50	315	*e*P	P	09 13 01.1	+0.6
	18nm,0.6s,mb4.9						
EKA	Eskdalemuir Ar	86.48	325	P	P	09 13 26.4	+1.0
	6.2nm,0.7s,mb5.0,baz=97,slow=5.6,SNR=15						
ESDC	Sonseca Array	90.14	310	P	P	09 13 43.3	0.0
	2.1nm,0.9s,mb4.5,baz=59,slow=4.5,SNR=4.8						
ILAR	Eielson Array	93.68	22	P	P	09 13 58.4	-0.6
	0.6nm,0.7s,mb4.1,baz=311,slow=6.4,SNR=4.7						
INK	Inuvik	95.85	16	P	P	09 14 08.8	+0.1
	1.8nm,0.8s,mb4.5,baz=336,slow=4.1,SNR=7.6						
NVAR	Mina Array Bea	123.98	30	PKP	PKPdf	09 19 41.8	+1.4
	1.1nm,0.6s,baz=330,slow=2.2,SNR=9.3						
PDAR	Pinedale Array	124.09	21	PKP	PKPdf	09 19 41.6	+1.2
	0.9nm,0.7s,baz=276,slow=0.9,SNR=6.6						
ANMO	Albuquerque	132.12	23	PKP	PKPdf	09 19 57.8	+1.7
	0.5nm,0.5s,baz=243,slow=1.1,SNR=4.2						
TXAR	Lajitas Array	138.19	23	PKhKP		09 20 01.6	
	0.2nm,0.7s,baz=12,slow=0.9,SNR=3.7						
TXAR				PKP	PKPdf	09 20 08.0	+0.6
	1.9nm,1.1s,baz=295,slow=0.1,SNR=7.8						
BDFB	Brasilia	142.21	256	PKP	PKPdf	09 20 15.3	+0.3
	2.0nm,0.7s,baz=147,slow=5.9,SNR=4.0						
SJG	San Juan	146.45	324	PKPbc	PKPbc	09 20 24.8	+1.4
	14nm,1.1s,baz=12,slow=5.5,SNR=3.6						
PCRV	Puerto La Cruz	151.20	311	PKPbc	PKPdf	09 20 36.8	+6.9
	9.5nm,0.9s,baz=16,slow=10.0,SNR=5.0						
SDV	Santo Domingo	156.31	319	PKPab	PKPab	09 21 07.0	-0.6
	5.5nm,0.9s,baz=27,slow=2.8,SNR=8.8						
LPAZ	La Paz	161.02	246	PKP	PKPdf	09 20 45.3	+2.9
	1.1nm,0.9s,baz=269,slow=2.2,SNR=3.5						
LPAZ				PKPab	PKPab	09 21 28.0	+0.2
	1.4nm,0.7s,baz=199,slow=3.3,SNR=4.1						
ROSC	El Rosal	161.73	319	PKPab	PKPab	09 21 32.2	+1.2
	3.3nm,0.6s,baz=110,slow=18,SNR=4.1						

IDC 26 09:00:48.6±1.1, 3.15N×94.51E, mb4.3/7, mb1 4.5/8, mb1mx4.2/19, Error ellipse: s-maj=43.1km s-min=20.7km az=61.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.83	16	Pn	P	09 04 31.9	-2.7
	baz=213,slow=12,SNR=5.6						
WRA	Warramunga Arr	45.34	122	P	P	09 09 08.8	-1.9
	9.5nm,0.9s,baz=300,slow=8.9,SNR=11						
SONM	Songino Array	45.69	11	P	P	09 09 11.9	-1.2
	1.3nm,0.6s,baz=211,slow=8.4,SNR=2.9						
ASAR	Alice Springs	46.70	127	P	P	09 09 19.6	-1.8
	3.8nm,0.8s,baz=302,slow=8.0,SNR=8.5						
BVAR	Borovoye Array	53.56	342	P	P	09 10 11.2	-2.3
	2.3nm,0.7s,baz=143,slow=7.4,SNR=4.0						
STKA	Stephens Creek	56.65	132	P	P	09 10 33.6	-2.6
	2.4nm,0.7s,baz=326,slow=4.5,SNR=5.8						
MAW	Mawson	74.01	192	P	P	09 12 26.0	-1.6
	3.7nm,0.9s,baz=33,slow=6.4,SNR=3.5						
GERES	GERESS Array B	81.59	319	P	P	09 13 08.3	-1.5
	2.6nm,0.8s,baz=104,slow=5.5,SNR=4.4						

BJI ***26*** *09:02:35.4, 7.65N×93.40E, h26^{km}, mB5.6, mb4.9, Ms4.9, Msz4.8*

IDC ***26*** *09:02:42.3±0.6, 8.26N×93.88E, h24^{km}±3^{km}, mb4.7/25, mb1 4.8/26, mb1mx4.8/28, ML4.5/1, Error ellipse: s-maj=20.7km s-min=10.4km az=51.0*

NEIC ***26*** *09:02:42.5±0.2, 8.29N×93.98E, mb4.9/20, Error ellipse: s-maj=9.2km s-min=5.9km az=45.0*

ISC 26 09:02:40.2±0.3, 8.16N±0.06×93.85E±0.06, h24^{km}, h24^{km}±1.0^{km}:pP-P, n102, σ1^{s}02/86, mb4.9/49, MS4.7/1, 3C-1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.37	25	Pn	P	09 05 25.5	+1.0
	1.1nm,0.3s,baz=212,slow=15,SNR=8.8						

HYB	Hyderabad	17.52	303	eP	P	09 06 48.0	+3.3
HYB	Hyderabad	17.52	303	i P	P	09 06 48.0	+3.3
KMI	Kunming	18.88	26	eP	P	09 07 05.3	+3.8
KMI				AMB	AMB		
	comp=Z,56nm,1.6s						
QIZ	Qiongzhong	18.91	54	P	P	09 07 04.5	+2.6
LSA	Lhasa	21.58	354	P	P	09 07 30.0	-0.3
LSA				AMB	AMB		
	comp=Z,60nm,1.3s,mb4.9						
LSA	Lhasa	21.58	354	eP	P	09 07 29.9	-0.5
	comp=Z,42nm,0.6s,mb5.0						
GYA	Guiyang	21.89	32	⇑iP	P	09 07 35.0	+1.5
GYA				AP		09 07 39.3	
GYA				XP		09 07 42.8	
GYA				S	S	09 11 36.5	+7.5
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.8						
GYA				LR	LR		
	comp=N,2μm,15.8s,MS4.7						
GYA				LR	LR		
	comp=E,1μm,16.0s,MS4.7						
GYA				LR	LR		
	comp=Z,2μm,16.2s,MS4.7						
PTH	Pithoragarh	24.84	331	eP	P	09 08 03.2	+0.9
PTH				e		09 11 38.8	
ENH	Enshi	26.43	32	eP	P	09 08 16.0	-1.2
	comp=Z,39nm,1.0s,mb4.9						
DDI	Dehra Dun	26.55	328	e	P	09 08 18.1	-0.2
DDI				e		09 12 11.5	
LZH	Lanzhou	29.26	17	eP	P	09 08 42.3	-0.5
LZH				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.8						
THN	Thein Dam	29.44	328	eP	P	09 08 42.4	-2.1
	comp=Z,24nm,0.7s,mb5.0						
GTA	Gaotai	31.57	9	P	P	09 09 03.5	+0.3
GTA				AP	pP	09 09 10.8	+0.4
GTA				XP	sP	09 09 15.0	+1.5
GTA				AMB	AMB		
	comp=Z,13nm,1.9s,mb4.4						
NJ2	Nanjing	33.24	41	eP	P	09 09 19.3	+1.5
WMQ	Urumqi	35.93	352	P	P	09 09 41.5	+0.7
WMQ				AP	pP	09 09 46.0	-2.0
WMQ				XP	sP	09 09 48.5	-2.6
WMQ				AMB	AMB		
	comp=Z,49nm,0.8s,mb5.5						
HHC	Hu-ho-hao-te	36.17	23	eP	P	09 09 48.3	+5.5
HHC				AP	pP	09 09 55.0	+5.0
HHC				PP	PP	09 11 05.0	-0.6
HHC				S	S	09 15 26.5	+5.9
HHC				SS	SS	09 17 58.8	+14
HHC				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
HHC				AMB	AMB		
	comp=Z,1μm,10.1s						
SONM	Songino Array	40.95	13	P	P	09 10 22.6	0.0
	comp=Z,8.3nm,0.7s,mb4.5,baz=196,slow=5.7,SNR=9.5						
SONM				PcP	PcP	09 12 23.5	+0.2
	comp=Z,5.8nm,0.8s,baz=208,slow=2.6,SNR=4.9						
CN2	Changchun	44.94	32	eP	P	09 10 55.8	+0.6
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
ZAL	Zalesovo	46.23	353	P	P	09 11 05.0	-0.2
	comp=Z,24nm,0.8s,mb5.2,baz=297,slow=6.8,SNR=31						
ZAL				pP	pP	09 11 13.4	+0.9
	comp=Z,31nm,0.8s,baz=283,slow=11,SNR=16						
HIA	Hailar	46.38	23	eP	P	09 11 06.0	-0.4
	comp=Z,9.6nm,0.6s,mb4.9						
NWAO	Narrogin (SRO)	46.53	153	P	P	09 11 09.0	+1.1
	comp=Z,50nm,0.9s,mb5.4,baz=314,slow=9.5,SNR=9.5						
BVAR	Borovoye Array	48.63	341	P	P	09 11 23.0	-1.0
	comp=Z,3.4nm,0.7s,mb4.5,baz=144,slow=7.4,SNR=5.3						
BVAR				pP	pP	09 11 31.2	-0.3
	comp=Z,10nm,1.0s,baz=137,slow=10,SNR=4.3						
BVAR				PcP	PcP	09 12 49.5	-0.2
	comp=Z,4.3nm,0.7s,baz=135,slow=2.1,SNR=4.2						
WRA	Warramunga Arr	48.66	126	P	P	09 11 23.7	-1.0
	comp=Z,15nm,0.6s,mb5.2,baz=303,slow=8.9,SNR=21						
WRA				PcP	PcP	09 12 50.1	-0.1
	comp=Z,5.2nm,0.7s,baz=320,slow=3.4,SNR=8.9						
WRAB	Tennant Creek	48.66	126	eP	P	09 11 23.7	-1.0
	comp=Z,34nm,0.8s,mb5.4						
CHKZ	Chkalovo	49.12	342	eP	P	09 11 26.8	-1.0
	comp=Z,13nm,0.7s,mb5.1						
CHKZ				e	pP	09 11 33.9	-1.3
MAT	Matsushiro	49.18	48	P	P	09 11 27.2	-1.3
MAT	Matsushiro	49.18	48	eP	P	09 11 27.0	-1.5
ASAR	Alice Springs	50.31	130	P	P	09 11 36.2	-1.2
	comp=Z,15nm,0.7s,mb5.1,baz=307,slow=7.3,SNR=21						
ASAR				PcP	PcP	09 12 56.3	+0.1
	comp=Z,9.8nm,0.8s,baz=308,slow=3.4,SNR=16						
GNI	Garni	54.04	314	P	P	09 12 04.8	-0.2
	comp=Z,1.4nm,0.3s,mb4.4,baz=162,slow=22,SNR=4.6						
PMG	Port Moresby	55.89	107	P	P	09 12 19.3	+0.4
	comp=Z,30nm,0.8s,mb5.4,baz=338,slow=4.6,SNR=12						
KMBO	Kilima Mbogo	57.17	263	P	P	09 12 30.9	+2.9
	comp=Z,4.9nm,0.7s,mb4.6,baz=52,slow=11,SNR=10						
CTA	Charters Tower	58.69	119	P	P	09 12 38.0	-0.6
	comp=Z,13nm,1.1s,mb4.9,baz=299,slow=8.4,SNR=6.6						
CTA				PcP	PcP	09 13 29.1	+0.9
	comp=Z,8.4nm,0.7s,baz=277,slow=5.6,SNR=8.2						
CTA	Charters Tower	58.69	119	P	P	09 12 38.0	-0.6
CTA				PcP	PcP	09 13 29.1	+0.9
YAK	Yakutsk	59.82	19	⇓eP	P	09 12 44.5	-1.4
	comp=Z,27nm,0.6s,mb5.5						
YAK				e	pP	09 12 52.8	-0.6
STKA	Stephens Creek	60.51	134	P	P	09 12 49.8	-1.2
	comp=Z,12nm,0.9s,mb5.0,baz=326,slow=7.3,SNR=9.8						
STKA				PcP	PcP	09 13 35.4	+0.1
	comp=Z,7.0nm,0.9s,baz=313,slow=8.7,SNR=3.9						
BRTR	Keskin Array B	62.03	311	P	P	09 12 59.5	-1.7
	comp=Z,4.4nm,0.6s,mb4.7,baz=124,slow=7.8,SNR=12						
BRTR				pP	pP	09 13 06.9	-1.9
	comp=Z,3.9nm,0.7s,baz=124,slow=4.5,SNR=5.5						
AKASG	Malin Array Be	67.76	322	P	P	09 13 35.8	-2.3
	comp=Z,3.2nm,0.7s,mb4.5,baz=87,slow=4.8,SNR=4.1						
IDI	Anoyia	68.17	305	P	P	09 13 39.9	-1.0
	comp=Z,6.5nm,0.7s,mb4.8,baz=72,slow=5.8,SNR=3.8						
KOLS	Kolonicke sedl	71.81	319	eP	P	09 14 01.0	-1.8
KOLS				e		09 14 41.9	
CRVS	Cervenica-Dubn	72.33	319	eP	P	09 14 07.6	+1.6
CRVS				e		09 14 46.2	
FINES	FINESS Array B	72.33	332	P	P	09 14 05.0	-0.8
	comp=Z,7.9nm,0.6s,mb4.8,baz=107,slow=6.3,SNR=13						
FINES				pP	pP	09 14 12.8	-0.5
	comp=Z,7.9nm,0.6s,baz=99,slow=6.1,SNR=6.6						
KAF	Kangasniemi	72.41	333	ep	P	09 14 05.6	-0.6
	baz=104,slow=5.7						
OJC	Ojcow	73.58	320	eP	P	09 14 13.1	-0.1
VYHS	Vyhne	74.01	318	eP	P	09 14 15.2	-0.6
VYHS				e		09 14 54.3	
LBTB	Lobatse	74.13	241	eP	P	09 14 18.5	+1.6
	comp=Z,12nm,0.8s,mb4.9						
OKC	Ostrava-Krasne	74.59	319	eP	P	09 14 19.2	+0.1
ARCES	ARCESS Array B	74.91	340	P	P	09 14 20.4	-0.1
	comp=Z,7.2nm,0.8s,mb4.7,baz=98,slow=7.2,SNR=7.1						
ARCES	ARCESS Array B	74.91	340	P	P	09 14 20.4	-0.1
MORC	Moravsky Berou	74.98	319	eP	P	09 14 21.1	-0.2
	comp=Z,48nm,1.8s,mb5.1						
ZST	Bratislava	75.13	318	eP	P	09 14 22.0	-0.3
ZST				epP	pP	09 14 30.2	+0.3
DPC	Dobruska-Polom	75.81	320	eP	P	09 14 26.1	0.0
BILL	Bilibino	75.93	22	eP	P	09 14 26.2	-0.2
	comp=Z,12nm,0.8s,mb4.9						
UPC	Upice	76.02	320	eP	P	09 14 26.6	-0.7
ARSA	Arzberg	76.14	317	⇑iP	P	09 14 28.4	+0.4
	comp=Z,15nm,1.3s,mb4.8						
PRU	Pruhonice	76.93	319	eP	P	09 14 32.5	+0.1
FX1	Attu Island--F	77.09	38	P	P	09 14 33.4	+0.2
	comp=Z,33nm,0.7s,mb5.4,baz=41,slow=24,SNR=8.4						
BRG	Berggiesshubel	77.35	320	eP	P	09 14 35.2	+0.5
	comp=Z,11nm,1.1s,mb4.7						
GEC2	GERESS Array S	77.43	318	eP	P	09 14 35.7	+0.5
	comp=Z,5.0nm,0.8s,mb4.5						
GERES	GERESS Array B	77.43	318	P	P	09 14 35.3	+0.2
	comp=Z,4.5nm,0.8s,mb4.5,baz=90,slow=5.3,SNR=8.5						
KHC	Kasperske Hory	77.52	318	eP	P	09 14 35.9	+0.3
KHC				epP	pP	09 14 41.0	-2.3
CLL	Collm	77.96	321	i P	P	09 14 37.6	-0.4
	comp=Z,36nm,1.7s,mb5.0						
CLL	Collm	77.96	321	P	P	09 14 37.6	-0.4
	comp=Z,logA/T=1.3,mb5.0						
WET	Wettzell	77.98	318	eP	P	09 14 38.7	+0.5
MAW	Mawson	78.75	192	P	P	09 14 44.4	+2.3
	comp=Z,6.4nm,0.9s,mb4.5,baz=50,slow=7.2,SNR=3.9						
MOX	Moxa	78.82	320	i P	P	09 14 43.4	+0.6
MOX	Moxa	78.82	320	eP	P	09 14 43.4	+0.6
FUR	Furstenfeldbru	79.03	317	eP	P	09 14 44.0	0.0
GRA1	Grafenberg Arr	79.07	319	eP	P	09 14 44.9	+0.8
	comp=Z,7.0nm,0.8s,mb4.6						
GRA1				epP	pP	09 14 53.2	+1.4
GRF	Grafenberg Arr	79.07	319	eP	P	09 14 44.9	+0.8
	comp=Z,7.0nm,0.8s,mb4.6						
GRF				epP	pP	09 14 53.2	+1.4
SQTA	Sankt Quirin	79.08	316	⇑iP	P	09 14 42.2	-2.0
	comp=Z,8.6nm,0.7s,mb4.8						
NB2	NORSAR Subarra	79.35	331	P	P	09 14 44.3	-1.1
	comp=Z,5.2nm,0.6s,mb4.6,baz=95,slow=5.0						
NOA	NORSAR Array B	79.35	331	P	P	09 14 44.9	-0.5
	comp=Z,8.5nm,0.8s,mb4.7,baz=92,slow=5.6,SNR=19						
NOA				pP	pP	09 14 53.5	+0.3
	comp=Z,11nm,0.9s,baz=95,slow=5.1,SNR=7.6						
NOA	NORSAR Array B	79.35	331	P	P	09 14 44.9	-0.5
NOA				pP	pP	09 14 53.5	+0.3
CLZ	Clausthal	79.61	321	eP	P	09 14 47.4	+0.4
	comp=Z,6.0nm,0.8s,mb4.6						
BSEG	Bad Segeberg	79.66	323	eP	P	09 14 48.1	+0.9
DAVOX	Davos	79.99	316	P	P	09 14 50.0	+0.9
	comp=Z,9.6nm,0.8s,mb4.8,baz=117,slow=6.4,SNR=8.2						
BFO	Black Forest	80.99	318	eP	P	09 14 54.8	+0.3
	comp=Z,3.0nm,0.9s,mb4.2						
LPG	La Plagne	82.22	315	eP	P	09 15 01.5	+0.6
	comp=Z,32nm,0.7s,mb5.0						
EKA	Eskdalemuir Ar	87.33	325	P	P	09 15 27.4	+1.1
	comp=Z,11nm,0.7s,mb5.2,baz=98,slow=5.6,SNR=20						
ESDC	Sonseca Array	90.82	310	P	P	09 15 44.1	+1.0
	comp=Z,7.8nm,0.8s,mb5.1,baz=61,slow=4.3,SNR=18						
ESDC				pP	pP	09 15 52.0	+1.0
	comp=Z,5.8nm,0.8s,baz=60,slow=4.2,SNR=10						
IMA	Indian Mountai	91.47	22	eP	P	09 15 46.7	+1.2
	comp=Z,144nm,1.3s						
ILAR	Eielson Array	94.59	22	P	P	09 15 59.5	-0.3
	comp=Z,1.8nm,0.7s,mb4.6,baz=310,slow=4.4,SNR=14						
INK	Inuvik	96.80	16	P	P	09 16 10.1	+0.2
	comp=Z,5.2nm,0.9s,mb5.0,baz=313,slow=4.9,SNR=14						
YKA	Yellowknife Ar	106.22	13	Pdiff	Pdif	09 16 52.6	+0.5
	comp=Z,0.4nm,0.9s,baz=328,slow=4.6,SNR=5.3						
YKA				PP	PP	09 21 11.9	-7.1
	comp=Z,1.2nm,0.8s,baz=333,slow=7.8,SNR=8.5						
YKA				PKKPbc		09 32 25.2	
	comp=Z,0.6nm,0.7s,baz=153,slow=2.6,SNR=12						
YKA	Yellowknife Ar	106.22	13	Pdif	Pdif	09 16 52.6	+0.5
YKA				PP	PP	09 21 11.9	-7.1
YKA				PKKPbc		09 32 25.2	
ULM	Lac du Bonnet	121.22	7	PKP	PKPdf	09 21 33.6	-2.3
	comp=Z,3.5nm,0.6s,baz=358,slow=6.7,SNR=7.1						
NVAR	Mina Array Bea	124.82	31	PKP	PKPdf	09 21 42.0	-1.3
	comp=Z,3.4nm,0.7s,baz=349,slow=1.4,SNR=17						
NVAR	Mina Array Bea	124.82	31	PKP	PKPdf	09 21 42.0	-1.3
PDAR	Pinedale Array	125.01	21	PKP	PKPdf	09 21 40.6	-2.8
	comp=Z,3.6nm,0.8s,baz=35,slow=1.1,SNR=25						
SADO	Sadowa	126.94	354	PKP	PKPdf	09 21 44.2	-2.9
	comp=Z,5.3nm,0.7s,baz=322,slow=11,SNR=4.8						
SADO	Sadowa	126.94	354	PKP	PKPdf	09 21 44.2	-2.9
ANMO	Albuquerque	133.02	23	PKP	PKPdf	09 21 57.3	-1.8
	comp=Z,2.8nm,0.7s,baz=327,slow=0.9,SNR=14						
TXAR	Lajitas Array	139.08	24	PKhKP		09 22 01.4	
	comp=Z,0.4nm,0.5s,baz=215,slow=1.6,SNR=4.8						
TXAR				PKP	PKPdf	09 22 08.3	-2.0
	comp=Z,0.7nm,0.5s,baz=312,slow=0.5,SNR=15						
JCT	Junction City	139.41	18	ePKP	PKPdf	09 22 08.7	-2.2
BAO	Brasilia Array	141.98	255	PKP	PKPdf	09 22 07.8	-8.1
BDFB	Brasilia	142.00	255	PKhKP		09 22 06.6	
	comp=Z,2.7nm,0.7s,baz=143,slow=7.3,SNR=3.1						
BDFB				PKP	PKPdf	09 22 14.1	-1.7
	comp=Z,3.2nm,0.7s,baz=279,slow=3.6,SNR=4.4						
BDFB	Brasilia	142.00	255	PKP	PKPdf	09 22 14.1	-1.7
PCRV	Puerto La Cruz	151.89	310	PKPbc	PKPdf	09 22 34.8	+2.7
	comp=Z,7.7nm,0.5s,baz=169,slow=3.7,SNR=12						
SDV	Santo Domingo	157.07	317	PKP	PKPdf	09 22 37.2	-2.0
	comp=Z,7.1nm,1.0s,baz=55,slow=4.1,SNR=6.7						
SDV				PKPab	PKPab	09 23 07.6	-0.1
	comp=Z,3.0nm,0.6s,baz=53,slow=1.9,SNR=4.5						
LVC	Limon Verde	158.07	227	PKP	PKPdf	09 22 39.4	-0.9
	comp=Z,2.4nm,0.9s,baz=278,slow=3.8,SNR=3.9						
LVC				PKPab	PKPab	09 23 13.6	+1.9
	comp=Z,6.5nm,0.8s,baz=96,slow=3.0,SNR=10						
LPAZ	La Paz	160.64	244	PKP	PKPdf	09 22 42.8	-0.5
	comp=Z,3.0nm,0.8s,baz=9.9,slow=0.7,SNR=6.7						
LPAZ				PKPab	PKPab	09 23 24.2	+1.4
	comp=Z,2.9nm,0.8s,baz=94,slow=5.0,SNR=5.9						

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*IDC **26** 09:03:41.8±0.6, 13.52N×92.65E, h21^{km}±3^{km}, mb4.6/15, mb1 4.7/15, mb1mx4.6/21, MS4.1/1, Ms1 4.3/1, ms1mx3.3/29, Error ellipse: s-maj=36.6km s-min=13.4km az=48.0*

ISC 26 09:03:39.8±0.5**, 13.6N**±0.1×**92.7E**±0.2**, h21**^{km}**,**
h21^{km}±.5^{km}**:pP-P, n30, σ0^{s}98**/23**, mb4.7**/15**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.70	50	LR	LR	09 09 14.6	
	comp=Z,2μm,21.0s,baz=230,slow=43						
PKI	Pulchoki	15.52	335	eP	P	09 07 18.3	-0.9
	274nm,1.0s						
GUN	Gumba	15.63	337	eP	P	09 07 23.1	+2.4
	438nm,1.0s						
DMN	Daman	15.68	334	eP	P	09 07 19.8	-1.5
KKN	Kakani	15.76	335	eP	P	09 07 22.0	-0.4
	160nm,0.9s						
GKN	Gorkha	16.22	334	eP	P	09 07 28.3	+0.1
	313nm,0.8s						
KOLN	Koldanda	16.50	330	eP	P	09 07 30.4	-1.3
	162nm,0.7s						
NWAO	Narrogin (SRO)	51.83	154	P	P	09 12 47.6	-1.1
	24nm,0.8s,mb5.2,baz=348,slow=5.4,SNR=3.9						
WRA	Warramunga Arr	52.78	128	P	P	09 12 55.3	-0.7
	14nm,0.7s,mb5.0,baz=306,slow=8.1,SNR=16						
ASAR	Alice Springs	54.69	132	P	P	09 13 09.3	-0.7
	4.1nm,0.5s,mb4.8,baz=312,slow=7.5,SNR=15						
BRTR	Keskin Array B	57.74	309	P	P	09 13 31.0	-0.7
	3.6nm,0.8s,mb4.5,baz=120,slow=7.1,SNR=2.9						
BRTR				pP	pP	09 13 38.2	-0.2
	7.6nm,0.8s,baz=120,slow=7.5,SNR=6.1						
PMG	Port Moresby	58.65	110	P	P	09 13 39.1	+0.7
	13nm,0.6s,mb5.1,baz=273,slow=8.1,SNR=4.3						
CTA	Charters Tower	62.37	121	P	P	09 14 02.9	-0.8
	12nm,0.9s,mb5.0,baz=317,slow=6.8,SNR=5.0						
AKASG	Malin Array Be	62.88	320	P	P	09 14 05.5	-1.1
	6.3nm,1.1s,mb4.7,baz=85,slow=4.5,SNR=4.5						
AKASG				pP	pP	09 14 12.3	-1.0
	2.1nm,0.6s,baz=88,slow=4.5,SNR=3.0						
STKA	Stephens Creek	65.06	135	P	P	09 14 21.0	-0.2
	6.9nm,0.8s,mb4.7,baz=303,slow=6.6,SNR=5.0						
VYHS	Vyhne	69.29	317	e	pP	09 15 02.8	+8.5
ARCES	ARCESS Array B	69.47	340	P	P	09 14 48.8	+0.5
	3.1nm,0.7s,mb4.4,baz=96,slow=6.3,SNR=6.0						
ZST	Bratislava	70.44	317	e	P	09 14 55.5	+0.9
ZST				e	pP	09 15 02.2	+0.9
GERES	GERESS Array B	72.70	317	P	P	09 15 08.6	+0.5
	5.7nm,1.0s,mb4.5,baz=90,slow=6.7,SNR=4.2						
GERES				pP	pP	09 15 14.7	-0.2
	7.1nm,0.8s,baz=90,slow=5.3,SNR=4.7						
CLL	Collm	73.12	320	P	P	09 15 11.0	+0.5
CLL				i *PP	pP	09 15 18.0	+0.7
NOA	NORSAR Array B	74.13	330	P	P	09 15 16.2	+0.1
	3.2nm,0.7s,mb4.4,baz=90,slow=5.8,SNR=2.9						
NOA				pP	pP	09 15 22.7	-0.2
	5.3nm,0.8s,baz=89,slow=6.1,SNR=3.5						
MAW	Mawson	83.81	191	P	P	09 16 10.1	+1.6
	14nm,1.0s,mb5.0,baz=1.5,slow=8.3,SNR=7.8						
ESDC	Sonseca Array	86.51	310	P	P	09 16 23.3	+0.6
	2.8nm,0.8s,mb4.5,baz=52,slow=6.3,SNR=4.3						
ILAR	Eielson Array	90.01	22	P	P	09 16 39.5	+0.7
	2.1nm,0.7s,mb4.5,baz=299,slow=5.6,SNR=6.3						
INK	Inuvik	91.93	16	P	P	09 16 49.3	+1.8
	5.6nm,0.8s,mb4.9,baz=291,slow=3.1,SNR=6.4						
YKA	Yellowknife Ar	101.22	13	P	P	09 17 30.0	0.0
	0.5nm,0.9s,baz=328,slow=4.2,SNR=4.6						
PDAR	Pinedale Array	120.33	19	PKP	PKPdf	09 22 32.1	-2.0
	1.8nm,1.0s,baz=86,slow=2.8,SNR=7.5						
PDAR				pPKP		09 22 39.0	
	1.0nm,0.7s,baz=315,slow=1.3,SNR=2.3						
NVAR	Mina Array Bea	120.68	28	PKP	PKPdf	09 22 34.2	-0.7
	2.1nm,0.7s,baz=38,slow=2.2,SNR=6.5						
NVAR				pPKP		09 22 41.3	
	2.3nm,0.8s,baz=286,slow=3.8,SNR=4.0						
ANMO	Albuquerque	128.43	20	PKP	PKPdf	09 22 49.4	-0.6
	2.5nm,0.8s,baz=263,slow=1.3,SNR=6.6						
ANMO				pPKP		09 22 56.5	
	2.9nm,0.8s,baz=228,slow=2.6,SNR=5.5						
TXAR	Lajitas Array	134.51	20	PKP	PKPdf	09 23 00.6	-1.0
	1.3nm,0.8s,baz=225,slow=1.8,SNR=4.8						

IDC 26 09:06:20.1±7.3**, 5.37N×94.57E, mb4.1**/9**, mb1 4.2**/9**, mb1mx4.0**/19**, Error ellipse: s-maj=181.0km s-min=58.9km az=141.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.50	12	P	P	09 14 25.4	-1.5
	3.8nm,0.9s,baz=203,slow=9.4,SNR=4.2						
ZAL	Zalesovo	49.07	352	P	P	09 15 09.2	-1.7
	3.3nm,0.8s,baz=298,slow=7.1,SNR=4.1						
BVAR	Borovoye Array	51.48	342	P	P	09 15 27.2	-2.1
	2.2nm,0.8s,baz=146,slow=11,SNR=4.2						
BRTR	Keskin Array B	64.39	312	P	P	09 16 58.1	-2.2
	1.0nm,0.6s,baz=117,slow=6.4,SNR=2.4						
FINES	FINESS Array B	75.11	332	P	P	09 18 02.6	-3.0
	1.4nm,0.6s,baz=90,slow=7.6,SNR=3.9						
ARCES	ARCESS Array B	77.75	340	P	P	09 18 18.1	-2.0
	2.2nm,0.8s,baz=95,slow=10.0,SNR=2.5						
GERES	GERESS Array B	79.97	319	P	P	09 18 32.9	+0.2
	3.2nm,1.3s,baz=76,slow=8.1,SNR=3.0						
HFS	Hagfors	80.82	330	P	P	09 18 35.6	-1.4
	3.5nm,0.7s,baz=90,slow=8.9,SNR=6.4						
NOA	NORSAR Array B	82.11	331	P	P	09 18 42.8	-0.9
	0.5nm,0.6s,baz=98,slow=5.1,SNR=2.8						

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*JMA **26** 09:07:13.5±0.2, 24.87N×122.60E, h113^{km}±3^{km}, M3.2*

TAP 26 09:07:12.0, 24.76N×122.59E, h117^{km}±1^{km}**, ML4.0, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.48	128	P	P	09 07 31.1	+1.4
YOJ				S	S	09 07 44.8	+1.7
IRIF	Iriomote-Funau	1.12	112	P	P	09 07 36.6	+1.2
IRIF				S	S	09 07 54.1	+1.2
HATJ	Hateruma jima	1.31	122	P	P	09 07 39.5	+2.0
HATJ				S	S	09 07 58.5	+1.6
JKRS	Kuro-shima	1.39	112	P	P	09 07 40.2	+1.7
JKRS				S	S	09 07 59.9	+1.4
JIJ	Ishigaki jima	1.47	105	P	P	09 07 40.5	+1.2
JIJ				S	S	09 08 00.3	+0.3
JTJ	Tarama	1.93	93	P	P	09 07 46.4	+1.6
JTJ				S	S	09 08 10.7	+1.1
JMJ	Miyako jima 2	2.46	88	eS	S	09 08 22.9	+0.9
JOGS	Gusukube	2.56	89	eS	S	09 08 25.7	+1.3
JKE	Kume jima 2	4.10	67	P	P	09 08 14.5	+0.6
JKE				eS	S	09 09 01.8	+0.5
JAGN	Aguni-jima	4.58	66	eS	S	09 09 12.0	-0.9
JOW	Kunigami	5.52	67	P	P	09 08 32.2	-0.9
JOW				eS	S	09 09 32.7	-3.3
JTK	Tokunoshima	6.46	61	P	P	09 08 44.3	-1.6
JAM	Amami Oshima	7.26	58	P	P	09 08 54.3	-2.5

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*IDC **26** 09:07:34.7±0.7, 3.50N×94.31E, mb4.6/15, mb1 4.8/16, mb1mx4.7/21, ML4.9/1, Error ellipse: s-maj=33.9km s-min=14.2km az=46.0*

*NEIC **26** 09:07:39.0±6.6, 3.42N×94.34E, h25^{km}±45^{km}, mb4.9/10, Error ellipse: s-maj=22.9km s-min=11.3km az=51.0*

*BJI **26** 09:07:38.2, 3.73N×94.26E, h5^{km}, mB5.6, mb4.8, Ms5.0, Msz5.6*

ISC 26 09:07:37.4±6.9**, 3.36N**±0.10×**94.3E**±0.1**, h29**^{km}±47^{km}**,**
h25^{km}±2.4^{km}**:pP-P, n52, σ1^{s}28**/46**, mb4.7**/28**, MS5.3**/1**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.68	17	ePn	P	09 11 17.5	-0.8
	76nm,0.9s						
CMAR	Chiang Mai Arr	15.68	17	Pn	P	09 11 18.9	+0.7
	1.6nm,0.3s,baz=211,slow=11,SNR=20						
GYA	Guiyang	25.85	26	⇓iP	P	09 13 09.5	+1.1
GYA				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.0						
LSA	Lhasa	26.37	354	P	P	09 13 15.0	+1.8
GTA	Gaotai	36.23	7	P	P	09 14 38.5	-1.4
GTA				AP	pP	09 14 47.5	-1.1
GTA				XP	sP	09 14 50.3	-2.0
GTA				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.2						
GTA				AMB	AMB		
	comp=Z,1μm,10.6s						
GTA				LR	LR		
	comp=N,784nm,13.7s,MS4.9						
GTA				LR	LR		
	comp=E,1μm,12.6s,MS4.9						
GTA				LR	LR		
	comp=Z,7μm,12.2s,MS5.6						
KSH	Kashi	39.65	338	eP	P	09 15 11.5	+2.9
KSH				eAP	pP	09 15 18.5	+1.2
KSH				eXP	sP	09 15 23.5	+2.5
HHC	Hu-ho-hao-te	40.44	20	eP	P	09 15 17.5	+2.5
HHC				AP	pP	09 15 23.8	0.0
HHC				XP	sP	09 15 27.0	-0.4
HHC				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,1μm,9.4s						
BJT	Baijiatuau	41.52	26	eP	P	09 15 23.6	-0.4
	comp=Z,30nm,1.0s,mb4.9						
BJI	Beijing	41.54	26	P	P	09 15 26.3	+2.2
BJI				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.5						
AAK	Ala-Archa	42.91	338	eP	P	09 15 35.1	-0.3
	comp=Z,33nm,1.3s,mb4.9						
SONM	Songino Array	45.52	11	P	P	09 15 55.3	-1.0
	comp=Z,4.3nm,0.8s,mb4.4,baz=194,slow=8.7,SNR=7.9						
SONM				PcP	PcP	09 17 34.6	-0.6
	comp=Z,2.6nm,0.6s,baz=189,slow=4.0,SNR=6.0						
WRA	Warramunga Arr	45.63	122	P	P	09 15 56.5	-1.0
	comp=Z,17nm,0.7s,mb5.1,baz=300,slow=8.9,SNR=19						
WRAB	Tennant Creek	45.64	122	eP	P	09 15 56.9	-0.6
	comp=Z,32nm,0.8s,mb5.3						
ASAR	Alice Springs	47.00	127	P	P	09 16 07.5	-0.8
	comp=Z,8.8nm,0.6s,mb4.9,baz=297,slow=8.0,SNR=16						
ZAL	Zalesovo	51.02	353	P	P	09 16 37.5	-1.4
	comp=Z,4.5nm,0.5s,mb4.7,baz=307,slow=6.7,SNR=7.7						
ZAL	Zalesovo	51.02	353	P	P	09 16 37.5	-1.4
BVAR	Borovoye Array	53.30	342	P	P	09 16 54.1	-1.9
	comp=Z,4.4nm,0.6s,mb4.6,baz=145,slow=9.2,SNR=12						
BRVK	Borovoye	53.36	342	eP	P	09 16 54.3	-2.1
	comp=Z,16nm,1.1s,mb4.9						
CHKZ	Chkalovo	53.79	343	eP	P	09 16 58.2	-1.4
	comp=Z,24nm,1.1s,mb5.0						
CTA	Charters Tower	56.06	117	P	P	09 17 17.4	+0.9
	comp=Z,5.3nm,0.8s,mb4.6,baz=296,slow=10,SNR=6.9						
STKA	Stephens Creek	56.95	132	P	P	09 17 23.3	+0.5
	comp=Z,5.5nm,0.6s,mb4.8,baz=309,slow=7.4,SNR=7.6						
KMBO	Kilima Mbogo	57.19	267	P	P	09 17 25.6	+0.8
	comp=Z,2.1nm,0.8s,mb4.2,baz=62,slow=15,SNR=5.2						
BRTR	Keskin Array B	65.52	312	P	P	09 18 18.9	-1.7
	comp=Z,2.6nm,1.0s,mb4.2,baz=135,slow=7.0,SNR=4.8						
AKASG	Malin Array Be	71.79	323	P	P	09 18 56.9	-2.4
	comp=Z,1.6nm,0.6s,mb4.1,baz=83,slow=4.6,SNR=5.8						
LBTB	Lobatse	72.27	243	eP	P	09 19 02.9	+0.3
	comp=Z,14nm,1.0s,mb4.8						
KOLS	Kolonicke sedl	75.70	320	eP	P	09 19 22.0	-0.1
CRVS	Cervenica-Dubn	76.22	320	esP	pP	09 19 36.2	+2.0
FINES	FINESS Array B	76.76	333	P	P	09 19 26.9	-0.8
	comp=Z,5.6nm,0.8s,mb4.5,baz=117,slow=6.2,SNR=8.3						
KAF	Kangasniemi	76.86	333	ep	P	09 19 27.5	-0.8
VYHS	Vyhne	77.87	319	eP	P	09 19 34.2	+0.1
OKC	Ostrava-Krasne	78.52	320	eP	P	09 19 41.7	+4.1
MORC	Moravsky Berou	78.89	320	eP	P	09 19 39.5	-0.2
	comp=Z,11nm,1.3s,mb4.6						
ZST	Bratislava	78.97	318	eP	P	09 19 40.1	-0.1
ARCES	ARCESS Array B	79.54	341	P	P	09 19 43.3	+0.5
	comp=Z,11nm,1.0s,mb4.8,baz=100,slow=4.5,SNR=9.5						
DPC	Dobruska-Polom	79.75	320	eP	P	09 19 44.8	+0.5
PRU	Pruhonice	80.85	320	eP	P	09 19 53.0	+2.8
GERES	GERESS Array B	81.29	319	P	P	09 19 52.8	+0.3
	comp=Z,7.0nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=17						
BRG	Berggiesshubel	81.31	321	i P	P	09 19 56.0	+3.4
	comp=Z,18nm,1.4s,mb4.8						
KHC	Kasperske Hory	81.39	319	eP	P	09 19 55.9	+2.8
CLL	Collm	81.94	321	eP	P	09 19 58.0	+2.2
CLL	Collm	81.94	321	P	P	09 19 58.0	+2.2
HFS	Hagfors	82.42	330	P	P	09 19 57.9	-0.2
	comp=Z,5.9nm,0.9s,mb4.5,baz=153,slow=6.6,SNR=3.6						
NB2	NORSAR Subarra	83.72	331	P	P	09 20 04.1	-0.7

	comp=Z,2.0nm,0.8s,mb4.3,baz=98,slow=4.8						
NOA	**NORSAR Array B**	83.72	331	P	P	09 20 04.0	-0.8
	comp=Z,4.9nm,0.9s,mb4.6,baz=94,slow=5.4,SNR=5.7						
NOA	**NORSAR Array B**	83.72	331	P	P	09 20 04.0	-0.8
DAVOX	**Davos**	83.74	317	P	P	09 20 06.0	+0.7
	comp=Z,10.0nm,0.7s,mb5.1,baz=117,slow=5.7,SNR=9.7						
DAVOX	**Davos**	83.74	317	P	P	09 20 06.0	+0.7
NVAR	**Mina Array Bea**	128.65	33	PKP	PKPdf	09 26 45.5	-2.1
	comp=Z,1.1nm,0.8s,baz=297,slow=1.6,SNR=5.5						
PDAR	**Pinedale Array**	129.27	23	PKP	PKPdf	09 26 48.0	-0.6
	comp=Z,3.6nm,1.2s,slow=1.5,SNR=7.0						
ANMO	**Albuquerque**	137.19	25	PKP	PKPdf	09 27 01.5	-2.1
	comp=Z,2.2nm,0.9s,baz=277,slow=0.8,SNR=5.8						
ANMO	**Albuquerque**	137.19	25	PKP	PKPdf	09 27 01.5	-2.1
TXAR	**Lajitas Array**	143.21	27	PKP	PKPdf	09 27 10.2	-4.4
	comp=Z,0.4nm,0.6s,baz=316,slow=0.7,SNR=7.6						

IDC 26 09:10:31.6±1.8**, 5.11N×95.94E, mb4.2**/6**, mb1 4.4**/6**, mb1mx4.0**/17**, Error ellipse: s-maj=177.0km s-min=21.8km az=46.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	45.22	125	P	P	09 18 50.6	-2.2
	5.1nm,0.6s,baz=304,slow=8.4,SNR=9.0						
ASAR	**Alice Springs**	46.79	129	P	P	09 19 03.5	-1.6
	1.9nm,0.5s,baz=301,slow=7.7,SNR=9.0						
FINES	**FINESS Array B**	75.97	332	P	P	09 22 18.9	-3.1
	2.4nm,0.8s,baz=90,slow=5.6,SNR=3.5						
ARCES	**ARCESS Array B**	78.45	340	P	P	09 22 35.1	-0.5
	3.3nm,1.1s,baz=90,slow=4.9,SNR=4.2						
GERES	**GERESS Array B**	81.06	319	P	P	09 22 49.1	-1.0
	0.6nm,0.7s,baz=104,slow=4.0,SNR=3.1						
HFS	**Hagfors**	81.72	330	P	P	09 22 52.2	-1.1
	3.1nm,0.8s,baz=90,slow=4.3,SNR=4.2						

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*IDC **26** 09:11:13.2±0.5, 7.48N×93.14E, mb4.5/23, mb1 4.6/24, mb1mx4.6/26, ML4.1/1, Error ellipse: s-maj=27.0km s-min=13.6km az=43.0*

ISC 26 09:11:16.4±0.5**, 7.4N**±0.1×**93.1E**±0.1**, h33**^{km}**, n31, σ0^{s}83**/26**, mb4.5**/23**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	12.38	27	Pn	P	09 14 17.9	+4.7
	0.3nm,0.3s,baz=229,slow=15,SNR=4.6						
SONM	**Songino Array**	41.87	13	P	P	09 19 06.3	+1.2
	1.1nm,0.8s,mb3.6,baz=195,slow=7.1,SNR=2.6						
SONM				PcP	PcP	09 21 01.2	0.0
	3.7nm,0.9s,baz=212,slow=3.8,SNR=5.0						
ZAL	**Zalesovo**	46.91	353	P	P	09 19 46.9	+1.4
	3.0nm,0.7s,mb4.3,baz=321,slow=9.8,SNR=3.5						
WRA	**Warramunga Arr**	48.79	125	P	P	09 20 00.3	-0.4
	11nm,0.7s,mb5.0,baz=304,slow=9.0,SNR=13						
ASAR	**Alice Springs**	50.37	129	P	P	09 20 12.4	-0.4
	10nm,0.8s,mb4.9,baz=306,slow=8.1,SNR=17						
PMG	**Port Moresby**	56.34	106	P	P	09 20 56.8	-0.3
	8.8nm,0.6s,mb5.0,baz=284,slow=7.2,SNR=5.5						
KMBO	**Kilima Mbogo**	56.38	264	P	P	09 20 58.3	+0.9
	1.2nm,0.5s,mb4.2,baz=49,slow=12,SNR=4.5						
CTA	**Charters Tower**	58.94	119	P	P	09 21 14.9	-0.3
	3.6nm,0.8s,mb4.5,baz=296,slow=12,SNR=3.6						
STKA	**Stephens Creek**	60.49	133	P	P	09 21 25.9	0.0
	4.9nm,0.7s,mb4.6,baz=318,slow=6.7,SNR=7.0						
BRTR	**Keskin Array B**	62.00	311	P	P	09 21 33.9	-1.9
	1.4nm,0.8s,mb4.1,baz=127,slow=7.2,SNR=4.0						
AKASG	**Malin Array Be**	67.93	322	P	P	09 22 10.6	-3.4
	1.1nm,0.6s,mb4.1,baz=96,slow=4.2,SNR=6.1						
IDI	**Anoyia**	68.03	305	P	P	09 22 15.0	+0.1
	6.8nm,0.7s,mb4.8,baz=79,slow=10,SNR=3.9						
MLR	**Muntele Rosu**	68.83	316	P	P	09 22 19.7	+0.1
	4.8nm,0.8s,mb4.5,baz=172,slow=7.8,SNR=3.6						
FINES	**FINESS Array B**	72.69	332	P	P	09 22 41.9	-0.7
	11nm,1.1s,mb4.7,baz=118,slow=8.2,SNR=6.5						
KAF	**Kangasniemi**	72.78	333	*e*p	P	09 22 42.5	-0.6
	baz=105,slow=5.7						
ARCES	**ARCESS Array B**	75.39	340	P	P	09 22 57.9	-0.3
	3.5nm,0.7s,mb4.4,baz=79,slow=6.2,SNR=3.9						
GERES	**GERESS Array B**	77.53	318	P	P	09 23 10.9	+0.2
	2.6nm,0.7s,mb4.3,baz=90,slow=4.9,SNR=7.4						
MAW	**Mawson**	77.85	191	P	P	09 23 13.2	+1.1
	4.5nm,0.5s,mb4.7,baz=256,slow=2.9,SNR=5.3						
FX1	**Attu Island--F**	78.14	38	P	P	09 23 14.0	+0.1
	13nm,0.7s,mb5.0,baz=47,slow=7.2,SNR=2.4						
HFS	**Hagfors**	78.38	330	P	P	09 23 14.3	-0.8
	3.2nm,0.5s,mb4.5,baz=120,slow=5.3,SNR=6.0						
NB2	**NORSAR Subarra**	79.67	331	P	P	09 23 21.2	-0.9
	2.1nm,0.6s,mb4.2,baz=99,slow=4.8						
NOA	**NORSAR Array B**	79.67	331	P	P	09 23 21.4	-0.7
	2.7nm,0.7s,mb4.3,baz=94,slow=5.7,SNR=7.5						
DAVOX	**Davos**	80.06	316	P	P	09 23 24.8	+0.3
	5.1nm,0.8s,mb4.5,baz=128,slow=5.2,SNR=6.6						
ESDC	**Sonseca Array**	90.77	310	P	P	09 24 18.9	+1.1
	0.6nm,0.6s,mb4.1,baz=52,slow=3.9,SNR=4.1						
ILAR	**Eielson Array**	95.57	22	P	P	09 24 39.1	0.0
	0.6nm,0.8s,mb4.1,baz=313,slow=4.9,SNR=7.3						
INK	**Inuvik**	97.74	16	P	P	09 24 49.6	+0.6
	2.3nm,0.9s,mb4.7,baz=292,slow=4.6,SNR=5.2						
ULM	**Lac du Bonnet**	122.08	7	PKP	PKPdf	09 30 10.1	+2.2
	0.7nm,0.4s,baz=292,slow=5.4,SNR=3.5						
NVAR	**Mina Array Bea**	125.85	30	PKP	PKPdf	09 30 18.2	+2.7
	1.1nm,0.7s,baz=336,slow=1.7,SNR=6.1						
PDAR	**Pinedale Array**	125.98	21	PKP	PKPdf	09 30 17.6	+1.9
	1.5nm,0.7s,baz=47,slow=1.0,SNR=9.9						
ANMO	**Albuquerque**	134.01	23	PKP	PKPdf	09 30 33.6	+2.4
	1.1nm,0.7s,baz=50,slow=1.2,SNR=6.6						
TXAR	**Lajitas Array**	140.08	23	PKP	PKPdf	09 30 44.9	+2.5
	0.4nm,0.6s,baz=82,slow=0.2,SNR=7.6						

IDC 26 09:12:19.5±1.5**, 7.26N×93.85E, mb4.3**/7**, mb1 4.5**/7**, mb1mx4.1**/18**, Error ellipse: s-maj=63.0km s-min=29.1km az=52.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	41.82	13	P	P	09 20 10.9	-1.7
	0.8nm,0.4s,baz=200,slow=9.2,SNR=5.1						
ZAL	**Zalesovo**	47.12	353	P	P	09 20 53.3	-1.8
	5.1nm,0.4s,baz=302,slow=4.9,SNR=8.3						
WRA	**Warramunga Arr**	48.14	125	P	P	09 21 01.6	-2.0
	3.0nm,0.5s,baz=305,slow=8.5,SNR=5.2						
FINES	**FINESS Array B**	73.12	332	P	P	09 23 51.5	-1.9
	3.6nm,0.8s,baz=153,slow=4.3,SNR=4.5						
ARCES	**ARCESS Array B**	75.75	340	P	P	09 24 06.9	-1.5
	5.4nm,1.1s,baz=102,slow=6.8,SNR=5.7						
GERES	**GERESS Array B**	78.09	318	P	P	09 24 20.7	-1.2
	0.8nm,0.7s,baz=104,slow=5.5,SNR=4.4						
HFS	**Hagfors**	78.84	330	P	P	09 24 24.1	-1.7
	1.1nm,0.4s,baz=90,slow=4.4,SNR=5.6						
TXAR	**Lajitas Array**	139.90	24	PKP	PKPdf	09 31 51.3	-1.0
	0.3nm,0.4s,baz=333,slow=1.0,SNR=6.7						

IDC 26 09:12:23.2±2.9**, 2.84N×95.74E, mb4.4**/5**, mb1 4.5**/6**, mb1mx4.1**/19**, Error ellipse: s-maj=107.0km s-min=23.2km az=55.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	15.83	11	Pn	P	09 16 11.8	+2.6
	baz=205,slow=11,SNR=4.8						
ASAR	**Alice Springs**	45.54	127	P	P	09 20 45.3	-1.5
	1.1nm,0.6s,baz=296,slow=7.3,SNR=2.2						
SONM	**Songino Array**	45.75	10	P	P	09 20 46.4	-1.7
	3.6nm,0.8s,baz=189,slow=9.2,SNR=6.6						
ZAL	**Zalesovo**	51.72	352	P	P	09 21 32.2	-2.0
	4.6nm,0.7s,baz=314,slow=6.3,SNR=7.3						
PMG	**Port Moresby**	52.66	104	P	P	09 21 39.3	-2.6
	5.3nm,0.3s,baz=165,slow=9.1,SNR=6.2						
BVAR	**Borovoye Array**	54.23	341	P	P	09 21 50.4	-2.5
	5.1nm,0.8s,baz=143,slow=7.4,SNR=11						

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*IDC **26** 09:13:49.7±0.4, 7.43N×92.28E, mb4.6/26, mb1 4.7/27, mb1mx4.7/29, ML4.8/1, Error ellipse: s-maj=26.6km s-min=11.4km az=48.0*

*NEIC **26** 09:13:54.7±0.3, 7.31N×92.19E, mb5.2/12, Error ellipse: s-maj=9.5km s-min=7.6km az=224.0*

ISC 26 09:13:52.8±0.3**, 7.28N**±0.06×**92.19E**±0.06**, h32**^{km}**, h32**^{km}±1.7^{km}**: pP-P, n79, σ1^{s}10**/66**, mb4.8**/45**, 2C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	11.39	271	*e*P	P	09 16 35.2	-1.4
CM31	**Chiang Mai Arr**	12.91	30	*e*P	P	09 16 58.4	+1.6
CMAR	**Chiang Mai Arr**	12.91	30	Pn	P	09 16 55.6	-1.2
	1.8nm,0.3s,baz=231,slow=14,SNR=23						
CHG	**Chiang Mai**	13.21	29	PG	P	09 16 54.8	-6.0
TRD	**Trivandrum**	15.14	276	*e*P	P	09 17 21.2	-5.0
TRD				*e*S	S	09 19 58.9	-14
KMI	**Kunming**	20.41	28	*e*P	P	09 18 29.3	-0.7
KMI				AMB	AMB		
	comp=Z,67nm,1.0s						
QIZ	**Qiongzhong**	20.75	54	*e*P	P	09 18 33.5	-0.1
LSA	**Lhasa**	22.32	358	P	P	09 18 51.8	+2.5
LSA	**Lhasa**	22.32	358	*e*P	P	09 18 49.3	0.0
	comp=Z,56nm,0.7s,mb5.1						
GYA	**Guiyang**	23.52	34	⇑*i*P	P	09 19 02.5	+1.3
GYA				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.7						
CD2	**Chengdu**	25.88	23	P	P	09 19 24.3	+0.6
CD2				AMB	AMB		
	comp=Z,80nm,1.1s,mb5.2						
ENH	**Enshi**	28.05	33	*e*P	P	09 19 40.6	-2.8
	comp=Z,38nm,0.9s,mb5.0						
LZH	**Lanzhou**	30.59	19	*e*P	P	09 20 11.0	+4.9
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
GTA	**Gaotai**	32.71	11	P	P	09 20 24.5	-0.2
GTA				AP	pP	09 20 31.3	-2.8
GTA				XP	sP	09 20 36.3	-1.9
GTA				AMB	AMB		
	comp=Z,13nm,0.6s,mb5.0						
KSH	**Kashi**	35.25	338	P	pP	09 20 53.0	-3.1
KSH				AMB	AMB		
	comp=Z,200nm,3.5s						
WMQ	**Urumqi**	36.61	355	P	P	09 20 59.0	+1.0
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.6s,mb4.4						
HHC	**Hu-ho-hao-te**	37.63	24	*e*P	pP	09 21 12.3	-3.8
HHC				AMB	AMB		
	comp=Z,14nm,0.5s,mb5.0						
HHC				AMB	AMB		
	comp=Z,467nm,8.3s						
AAK	**Ala-Archa**	38.52	339	*e*P	P	09 21 14.9	+0.8
	comp=Z,77nm,1.1s,mb5.3						
JOW	**Kunigami**	39.38	56	P	P	09 21 23.6	+2.2
	comp=Z,16nm,0.7s,mb4.8,baz=228,slow=12,SNR=5.1						
SONM	**Songino Array**	42.18	14	P	P	09 21 44.2	-0.1
	comp=Z,6.9nm,1.0s,mb4.2,baz=200,slow=7.2,SNR=8.3						
NWAO	**Narrogin (SRO)**	46.55	151	P	P	09 22 19.9	+0.4
	comp=Z,12nm,0.8s,mb4.9,baz=300,slow=10,SNR=6.5						
CN2	**Changchun**	46.57	33	*e*P	P	09 22 19.0	-0.5
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
BVAR	**Borovoye Array**	48.95	343	P	P	09 22 36.8	-1.2
	comp=Z,3.0nm,0.7s,mb4.4,baz=135,slow=6.1,SNR=6.0						
CHKZ	**Chkalovo**	49.45	343	*e*P	P	09 22 41.3	-0.6
	comp=Z,19nm,0.9s,mb5.1						
WRA	**Warramunga Arr**	49.52	124	P	P	09 22 42.0	-0.8
	comp=Z,31nm,0.8s,mb5.4,baz=304,slow=8.8,SNR=49						
WRA				PcP	PcP	09 24 04.5	-0.1
	comp=Z,4.3nm,0.5s,baz=309,slow=2.9,SNR=11						
WRAB	**Tennant Creek**	49.52	124	*e*P	P	09 22 42.0	-0.8
	comp=Z,56nm,0.8s,mb5.6						
ASAR	**Alice Springs**	51.05	128	P	P	09 22 53.8	-0.7
	comp=Z,17nm,0.9s,mb5.0,baz=307,slow=7.3,SNR=28						
ASAR				PcP	PcP	09 24 10.2	0.0
	comp=Z,7.0nm,0.7s,baz=308,slow=3.5,SNR=7.9						
GNI	**Garni**	53.48	315	*e*P	P	09 23 12.9	+0.4
	comp=Z,53nm,1.2s,mb5.3						
KMBO	**Kilima Mbogo**	55.44	264	P	P	09 23 28.9	+1.8
	comp=Z,1.8nm,0.9s,mb4.1,baz=37,slow=6.5,SNR=3.6						
KMBO	**Kilima Mbogo**	55.44	264	P	P	09 23 28.9	+1.8
ARU	**Arti**	55.69	338	*e*P	P	09 23 27.3	-1.1
	comp=Z,105nm,1.3s,mb5.7						
CTA	**Charters Tower**	59.72	118	P	P	09 23 56.5	-0.7
	comp=Z,9.9nm,0.9s,mb4.8,baz=295,slow=9.2,SNR=8.3						
STKA	**Stephens Creek**	61.12	132	P	P	09 24 06.4	-0.2
	comp=Z,18nm,0.8s,mb5.2,baz=303,slow=6.9,SNR=22						
BRTR	**Keskin Array B**	61.36	311	P	P	09 24 07.0	-1.1
	comp=Z,1.5nm,0.8s,mb4.2,baz=117,slow=5.5,SNR=5.3						
IDI	**Anoyia**	67.32	305	P	P	09 24 46.4	-0.6
	comp=Z,5.2nm,0.4s,mb4.9,baz=267,slow=9.2,SNR=13						
AKASG	**Malin Array Be**	67.42	322	P	P	09 24 46.2	-1.2
	comp=Z,0.4nm,0.5s,mb3.8,baz=84,slow=5.2,SNR=4.3						
MLR	**Muntele Rosu**	68.25	316	P	P	09 24 51.9	-0.8
	comp=Z,20nm,1.2s,mb5.0,baz=72,slow=7.2,SNR=4.6						
KOLS	**Kolonicke sedl**	71.38	319	*e*	pP	09 25 18.7	-3.0
KOLS				*e*		09 25 23.9	
CRVS	**Cervenica-Dubn**	71.90	319	*e*P	P	09 25 17.9	+3.1
FINES	**FINESS Array B**	72.33	333	P	P	09 25 16.0	-1.2
	comp=Z,1.2nm,0.5s,mb4.1,baz=105,slow=5.6,SNR=10						
KAF	**Kangasniemi**	72.44	333	*e*p	P	09 25 16.5	-1.3
OJC	**Ojcow**	73.18	320	*e*P	pP	09 25 33.4	+1.0
VYHS	**Vyhne**	73.56	318	*e*	pP	09 25 35.5	+0.9
OKC	**Ostrava-Krasne**	74.18	320	*e*P	P	09 25 28.8	+0.6
OKC				*e*pP	pP	09 25 39.9	+1.7
ZST	**Bratislava**	74.67	318	*e*pP	pP	09 25 42.3	+1.2
ARCES	**ARCESS Array B**	75.17	340	P	P	09 25 33.1	-0.4
	comp=Z,0.8nm,0.4s,mb4.0,baz=111,slow=5.5,SNR=7.8						
DPC	**Dobruska-Polom**	75.41	320	*e*P	P	09 25 36.5	+1.2
DPC				*e*pP	pP	09 25 46.4	+1.1
KSP	**Ksiaz**	75.48	321	*e*P	P	09 25 35.8	+0.1
KSP				*e*	pP	09 25 47.2	+1.5
UPC	**Upice**	75.62	320	*e*P	P	09 25 37.2	+0.7
UPC				*e*pP	pP	09 25 48.3	+1.7
ARSA	**Arzberg**	75.64	317	⇑*i*P	P	09 25 38.2	+1.6
	comp=Z,32nm,1.4s,mb5.1						
PRU	**Pruhonice**	76.52	320	*e*P	P	09 25 44.6	+3.1
PRU				*e*pP	pP	09 25 53.6	+2.0
GERES	**GERESS Array B**	76.98	318	P	P	09 25 44.3	+0.2
	comp=Z,1.5nm,0.6s,mb4.1,baz=101,slow=6.0,SNR=10						
KHC	**Kasperske Hory**	77.08	319	*e*P	P	09 25 44.8	+0.2
KHC				*e*pP	pP	09 25 55.1	+0.3
KHC	**Kasperske Hory**	77.08	319	*e*P	P	09 25 44.8	+0.2
KHC				*e*x	x	09 25 51.0	
KHC				*e*pP	pP	09 25 55.1	+0.3
MAW	**Mawson**	77.58	191	P	P	09 25 48.3	+1.3
	comp=Z,3.3nm,0.3s,mb4.7,baz=247,slow=20,SNR=4.7						
CLL	**Collm**	77.59	321	*e**PP	pP	09 25 59.0	+1.4
HFS	**Hagfors**	77.99	330	P	P	09 25 48.8	-0.6
	comp=Z,3.0nm,0.7s,mb4.3,baz=90,slow=5.9,SNR=5.1						
WATA	**Walderalm**	78.32	317	⇓*i*P	P	09 25 49.0	-2.5
	comp=Z,3.8nm,0.6s,mb4.5						
SQTA	**Sankt Quirin**	78.57	317	⇓*i*P	P	09 25 51.5	-1.4
	comp=Z,13nm,0.9s,mb4.8						
NB2	**NORSAR Subarra**	79.29	331	P	P	09 25 55.3	-1.2
	comp=Z,9.6nm,0.9s,mb4.7,baz=93,slow=5.8						
NOA	**NORSAR Array B**	79.29	331	P	P	09 25 55.5	-1.1
	comp=Z,0.9nm,0.6s,mb3.9,baz=102,slow=5.0,SNR=2.9						
DAVOX	**Davos**	79.47	316	P	P	09 25 58.4	+0.6
	comp=Z,2.7nm,0.4s,mb4.5,baz=127,slow=5.6,SNR=12						
DAVOX	**Davos**	79.47	316	P	P	09 25 58.4	+0.6
DAVA	**Damuels**	79.48	317	⇓*i*P	P	09 26 01.5	+3.7
	comp=Z,36nm,1.2s,mb5.2						
LPG	**La Plagne**	81.66	315	*e*P	P	09 26 09.8	+0.4
	comp=Z,52nm,0.9s,mb5.1						
RPZ	**Rata Peaks**	87.01	135	P	P	09 26 37.1	+0.7
	comp=Z,41nm,1.0s,mb5.6,baz=150,slow=3.4,SNR=7.2						
RPZ	**Rata Peaks**	87.01	135	P	P	09 26 37.1	+0.7
ESDC	**Sonseca Array**	90.11	310	P	P	09 26 52.3	+0.9
	comp=Z,0.7nm,0.5s,mb4.2,baz=66,slow=3.7,SNR=5.5						
URZ	**Urewera**	90.49	128	P	P	09 26 52.7	-0.4
	comp=Z,8.5nm,0.8s,mb5.1,baz=317,slow=2.1,SNR=4.8						
ILAR	**Eielson Array**	96.01	22	P	P	09 27 17.8	0.0
	comp=Z,0.6nm,0.9s,mb4.0,baz=284,slow=5.1,SNR=3.8						
DBIC	**Dimbokro**	96.10	278	P	P	09 27 21.0	+1.5
	comp=Z,3.2nm,1.0s,mb4.7,baz=146,slow=3.6,SNR=3.4						
INK	**Inuvik**	98.08	16	P	P	09 27 27.4	+0.4
	comp=Z,1.8nm,1.1s,mb4.5,baz=305,slow=1.8,SNR=3.3						
PDAR	**Pinedale Array**	126.39	20	PKP	PKPdf	09 32 54.8	-3.4
	comp=Z,1.0nm,0.6s,baz=92,slow=2.4,SNR=12						
NVAR	**Mina Array Bea**	126.40	30	PKP	PKPdf	09 32 55.8	-2.5
	comp=Z,2.3nm,0.7s,baz=286,slow=2.7,SNR=13						
HWUT	**Hardware Ranch**	126.70	22	*e*PKP	PKPdf	09 32 55.5	-3.3
ANMO	**Albuquerque**	134.45	22	PKP	PKPdf	09 33 10.8	-2.9
	comp=Z,1.5nm,0.7s,baz=115,slow=1.3,SNR=7.9						
ANMO	**Albuquerque**	134.45	22	PKP	PKPdf	09 33 10.8	-2.9
TXAR	**Lajitas Array**	140.53	22	PKP	PKPdf	09 33 22.1	-3.0
	comp=Z,0.8nm,0.4s,baz=198,slow=0.5,SNR=24						
TXAR				PP	PP	09 36 20.6	-2.2
	comp=Z,0.7nm,1.0s,baz=18,slow=4.0,SNR=3.8						
JCT	**Junction City**	140.73	16	*e*PKP	PKPdf	09 33 20.3	-5.1

IDC 26 09:13:57.5±2.2**, 7.54N×92.13E, mb4.6**/8**, mb1 4.8**/9**, mb1mx4.6**/20**, ML4.9**/1**, Error ellipse: s-maj=57.4km s-min=50.2km az=145.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	12.72	31	Pn	P	09 17 04.1	+1.5
	2.3nm,0.3s,baz=230,slow=14,SNR=12						
SONM	**Songino Array**	41.95	14	P	P	09 21 50.6	-1.1
	11nm,0.8s,baz=200,slow=8.8,SNR=16						
ZAL	**Zalesovo**	46.64	354	P	P	09 22 27.7	-1.7
	44nm,1.2s,baz=281,slow=8.3,SNR=11						
BVAR	**Borovoye Array**	48.69	343	P	P	09 22 43.4	-2.0
	4.7nm,0.7s,baz=135,slow=8.4,SNR=7.9						
ARCES	**ARCESS Array B**	74.91	340	P	P	09 25 39.7	-2.0
	5.1nm,0.8s,baz=63,slow=5.4,SNR=5.9						
GERES	**GERESS Array B**	76.75	318	P	P	09 25 51.0	-1.6
	6.3nm,0.9s,baz=76,slow=5.5,SNR=9.5						
ESDC	**Sonseca Array**	89.90	310	P	P	09 26 59.2	-0.9
	3.6nm,0.7s,baz=55,slow=4.0,SNR=6.0						
ILAR	**Eielson Array**	95.80	22	P	P	09 27 24.5	-2.1
	0.4nm,0.6s,baz=302,slow=4.6,SNR=5.2						
INK	**Inuvik**	97.86	16	P	P	09 27 33.9	-2.0
	3.1nm,1.0s,baz=357,slow=2.5,SNR=4.3						
NVAR	**Mina Array Bea**	126.21	30	PKP	PKPdf	09 33 03.5	-0.9
	2.8nm,0.8s,baz=240,slow=4.6,SNR=5.6						

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*IDC **26** 09:14:01.7±0.7, 7.45N×92.22E, mb4.9/19, mb1 5.0/20, mb1mx4.9/24, ML5.2/1, Error ellipse: s-maj=32.2km s-min=15.7km az=45.0*

*BJI **26** 09:14:02.1, 8.14N×92.43E, h33^{km}, mB5.4, mb4.9*

ISC 26 09:14:04.7±0.6**, 7.3N**±0.1×**92.2E**±0.1**, h33**^{km}**, n30, σ1^{s}07**/25**, mb4.8**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	12.84	30	Pn	P	09 17 08.9	+1.2
	4.5nm,0.3s,baz=232,slow=14,SNR=15						
CHG	**Chiang Mai**	13.14	29	SG	P	09 17 06.6	-5.1
OTRP	**Odiongan**	29.77	78	*e*P	P	09 20 06.3	-4.4
LZH	**Lanzhou**	30.52	19	AP	P	09 20 14.0	-3.2
KSH	**Kashi**	35.21	338	*e*AP	P	09 21 00.3	+2.4
HHC	**Hu-ho-hao-te**	37.56	24	AP	P	09 21 18.3	+0.6
SONM	**Songino Array**	42.12	14	P	P	09 21 55.3	-0.1
	13nm,0.8s,mb4.6,baz=198,slow=8.3,SNR=15						
ZAL	**Zalesovo**	46.85	354	P	P	09 22 32.7	-0.6
	44nm,1.2s,mb5.2,baz=289,slow=8.3,SNR=14						
BVAR	**Borovoye Array**	48.90	343	P	P	09 22 48.8	-0.5
	43nm,1.2s,mb5.4,baz=143,slow=7.4,SNR=12						
WRA	**Warramunga Arr**	49.52	124	P	P	09 22 55.1	+0.5
	16nm,0.9s,mb5.1,baz=304,slow=8.7,SNR=6.5						
ASAR	**Alice Springs**	51.06	128	PcP	PcP	09 24 22.3	+0.3
	2.4nm,0.6s,baz=314,slow=3.4,SNR=4.0						
CTA	**Charters Tower**	59.72	118	P	P	09 24 08.6	-0.3
	8.2nm,1.0s,mb4.7,baz=300,slow=10,SNR=4.8						
STKA	**Stephens Creek**	61.13	132	P	P	09 24 18.0	-0.4
	5.7nm,0.6s,mb4.9,baz=309,slow=8.5,SNR=6.8						
BRTR	**Keskin Array B**	61.34	311	P	P	09 24 18.3	-1.4
	6.7nm,0.8s,mb4.8,baz=112,slow=6.7,SNR=9.6						
IDI	**Anoyia**	67.31	305	P	P	09 24 59.1	+0.6
	14nm,0.6s,mb5.2,baz=107,slow=6.2,SNR=7.8						
AKASG	**Malin Array Be**	67.40	322	P	P	09 24 57.1	-1.7
	6.5nm,1.0s,mb4.6,baz=92,slow=4.2,SNR=5.2						
MLR	**Muntele Rosu**	68.23	316	P	P	09 25 04.8	+0.6
	35nm,1.0s,mb5.4,baz=87,slow=4.0,SNR=17						
FINES	**FINESS Array B**	72.30	333	P	P	09 25 27.5	-1.0
	8.3nm,0.8s,mb4.7,baz=77,slow=4.8,SNR=6.2						
ARCES	**ARCESS Array B**	75.12	340	P	P	09 25 44.8	-0.1
	3.8nm,0.7s,mb4.4,baz=108,slow=3.8,SNR=6.9						
GERES	**GERESS Array B**	76.95	318	P	P	09 25 56.0	+0.3
	8.9nm,0.9s,mb4.7,baz=90,slow=5.3,SNR=17						
HFS	**Hagfors**	77.96	330	P	P	09 26 00.9	-0.1
	6.2nm,0.8s,mb4.6,baz=104,slow=6.1,SNR=8.4						
NOA	**NORSAR Array B**	79.26	331	P	P	09 26 07.5	-0.6
	5.4nm,0.9s,mb4.5,baz=94,slow=5.5,SNR=7.7						
DAVOX	**Davos**	79.45	316	P	P	09 26 10.5	+1.0
	12nm,0.7s,mb4.9,baz=110,slow=8.0,SNR=12						
ESDC	**Sonseca Array**	90.10	310	P	P	09 27 04.3	+1.4
	3.2nm,0.7s,mb4.8,baz=61,slow=4.1,SNR=11						
ILAR	**Eielson Array**	95.94	22	P	P	09 27 29.1	0.0
	1.0nm,0.8s,mb4.3,baz=306,slow=4.7,SNR=6.0						
INK	**Inuvik**	98.02	16	P	P	09 27 39.3	+0.9
	3.7nm,1.0s,mb4.9,baz=322,slow=3.7,SNR=7.0						
PDAR	**Pinedale Array**	126.33	20	PKP	PKPdf	09 33 06.8	+2.2
	1.4nm,0.8s,baz=127,slow=0.5,SNR=5.9						
NVAR	**Mina Array Bea**	126.33	30	PKP	PKPdf	09 33 08.0	+3.3
	2.0nm,0.8s,baz=290,slow=2.7,SNR=9.6						
ANMO	**Albuquerque**	134.39	22	PKP	PKPdf	09 33 23.8	+3.7
	0.9nm,0.8s,baz=24,slow=2.4,SNR=7.7						
LPAZ	**La Paz**	158.83	243	PKPab	PKPab	09 34 39.4	+1.3
	1.5nm,0.7s,baz=52,slow=10,SNR=4.3						

IDC 26 09:14:51.7±4.0**, 5.16N×94.30E, mb4.4**/10**, mb1 4.5**/11**, mb1mx4.3**/21**, ML4.6**/1**, Error ellipse: s-maj=99.4km s-min=63.7km az=157.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	**Nongplab**	9.13	36	P	P	09 17 14.0	+6.4
NNT	**Nongplab**	9.13	36	P	P	09 17 14.0	+6.4
CMAR	**Chiang Mai Arr**	13.97	19	Pn	P	09 18 17.9	+4.4
	0.9nm,0.3s,baz=214,slow=12,SNR=5.3						
VLK	**Valmikinagar**	24.18	337	*i*	P	09 20 15.0	+4.2
ZAL	**Zalesovo**	49.24	353	P	P	09 23 42.3	-1.6
	5.2nm,0.3s,baz=308,slow=5.6,SNR=8.3						
BVAR	**Borovoye Array**	51.60	342	P	P	09 23 59.5	-2.4
	1.6nm,0.5s,baz=143,slow=7.2,SNR=4.1						
BRTR	**Keskin Array B**	64.33	312	P	P	09 25 29.8	-1.8
	1.4nm,0.6s,baz=128,slow=6.7,SNR=4.1						
AKASG	**Malin Array Be**	70.38	322	P	P	09 26 06.1	-3.3
	1.2nm,0.8s,baz=87,slow=4.3,SNR=4.1						
FINES	**FINESS Array B**	75.17	333	P	P	09 26 35.8	-1.8
	2.4nm,0.6s,baz=105,slow=7.0,SNR=6.4						
ARCES	**ARCESS Array B**	77.86	340	P	P	09 26 51.1	-1.4
	2.4nm,0.7s,baz=90,slow=4.5,SNR=2.2						
GERES	**GERESS Array B**	79.95	319	P	P	09 27 03.1	-1.2
	2.5nm,0.7s,baz=90,slow=5.3,SNR=5.5						
HFS	**Hagfors**	80.87	330	P	P	09 27 07.4	-1.5
	1.2nm,0.6s,baz=104,slow=6.1,SNR=4.4						
DAVOX	**Davos**	82.45	316	P	P	09 27 17.4	+0.1
	3.8nm,0.5s,baz=153,slow=6.3,SNR=5.3						
ILAR	**Eielson Array**	97.18	22	P	P	09 28 25.6	-1.5
	0.5nm,0.6s,baz=292,slow=4.7,SNR=4.9						

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*IDC **26** 09:17:50.4±0.6, 6.92N×94.38E, h20^{km}±2^{km}, mb4.3/18, mb1 4.4/19, mb1mx4.4/23, ML4.5/1, Error ellipse: s-maj=27.1km s-min=12.0km az=50.0*

*NEIC **26** 09:17:51.2±0.4, 7.06N×94.39E, mb5.0/19, Error ellipse: s-maj=11.9km s-min=10.0km az=67.0*

*BJI **26** 09:17:51.2, 7.34N×93.94E, h12^{km}, mB5.5, mb4.9*

ISC 26 09:17:49.6±0.4**, 7.00N**±0.07×**94.40E**±0.07**, h21**^{km}**, h21**^{km}±1.0^{km}**: pP-P, n76, σ1^{s}29**/62**, mb4.8**/43**, 1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	12.21	21	Pn	P	09 20 46.0	+0.5
	0.8nm,0.3s,baz=214,slow=14,SNR=5.4						
KMI	**Kunming**	19.71	23	*e*P	P	09 22 23.5	+2.8
KMI				AP		09 22 27.0	
KMI				AMB	AMB		
	comp=Z,55nm,1.0s						
ALBI	**Allahabad**	21.82	328	*e*	P	09 22 43.5	+1.0
ALBI				*e*		09 24 25.0	
GYA	**Guiyang**	22.60	30	⇓*i*P	P	09 22 52.0	+1.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.2						
LSA	**Lhasa**	22.78	353	*e*P	P	09 22 51.2	-0.9
	comp=Z,57nm,1.3s,mb4.8						
CD2	**Chengdu**	25.35	19	P	P	09 23 18.5	+1.6
CD2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.0						
ENH	**Enshi**	27.14	30	*e*P	P	09 23 32.4	-1.1
	comp=Z,38nm,1.0s,mb4.9						
LZH	**Lanzhou**	30.21	15	*e*P	P	09 24 01.3	+0.2
LZH				PP	PP	09 25 03.5	+3.5
LZH				AMB	AMB		
	comp=Z,24nm,1.0s,mb4.9						
GTA	**Gaotai**	32.63	8	P	P	09 24 22.0	-0.2
GTA				AP	pP	09 24 29.3	+0.7
GTA				XP	sP	09 24 32.0	+0.7
GTA				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.9						

WMQ	**Urumqi**	**37.14**	**352**	P	**P**	**09 25 01.5**	**+0.8**
WMQ				AP	pP	09 25 06.0	-1.1
WMQ				XP	sP	09 25 08.5	-1.3
WMQ				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.5						
BJT	**Baijiatuau**	**38.23**	**27**	*e*P	**P**	**09 25 12.0**	**+2.1**
	comp=Z,74nm,1.3s,mb5.2						
BJI	**Beijing**	**38.25**	**27**	P	**P**	**09 25 10.5**	**+0.4**
BJI				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.6						
AAK	**Ala-Archa**	**39.60**	**337**	*e*P	**P**	**09 25 20.2**	**-1.2**
	comp=Z,16nm,1.0s,mb4.7						
SONM	**Songino Array**	**41.95**	**12**	P	**P**	**09 25 40.5**	**-0.1**
	comp=Z,10nm,0.9s,mb4.5,baz=195,slow=6.0,SNR=15						
SONM				pP	pP	09 25 47.2	+0.2
	comp=Z,14nm,0.9s,baz=192,slow=6.6,SNR=13						
ULN	**Ulaanbaatar**	**42.12**	**13**	*e*P	**P**	**09 25 41.6**	**-0.4**
ULN				*e*pP	pP	09 25 48.4	-0.1
SNY	**Shenyang**	**43.26**	**32**	⇑P	**P**	**09 25 58.8**	**+7.3**
SNY				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
CN2	**Changchun**	**45.63**	**31**	*e*P	**P**	**09 26 10.5**	**+0.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAL	**Zalesovo**	**47.44**	**352**	P	**P**	**09 26 24.1**	**-0.6**
	comp=Z,6.8nm,0.5s,mb4.8,baz=303,slow=7.6,SNR=10						
ZAL				pP	pP	09 26 31.1	0.0
	comp=Z,19nm,1.0s,baz=287,slow=8.3,SNR=11						
WRA	**Warramunga Arr**	**47.55**	**125**	P	**P**	**09 26 24.6**	**-1.3**
	comp=Z,3.9nm,0.8s,mb4.5,baz=304,slow=9.1,SNR=4.5						
WRA				pP	pP	09 26 29.8	-2.7
	comp=Z,7.1nm,0.7s,baz=303,slow=9.2,SNR=12						
WRAB	**Tennant Creek**	**47.56**	**125**	*e*P	**P**	**09 26 26.9**	**+0.9**
	comp=Z,11nm,0.6s,mb5.0						
MDJ	**Mudanjiang**	**48.38**	**33**	*e*P	**P**	**09 26 32.4**	**+0.3**
	comp=Z,53nm,1.3s,mb5.4						
ASAR	**Alice Springs**	**49.16**	**130**	P	**P**	**09 26 37.0**	**-1.4**
	comp=Z,8.2nm,0.5s,mb5.0,baz=309,slow=7.6,SNR=11						
ASAR				pP	pP	09 26 42.0	-2.9
	comp=Z,7.9nm,0.5s,baz=301,slow=7.9,SNR=17						
BVAR	**Borovoye Array**	**49.89**	**341**	P	**P**	**09 26 41.2**	**-2.3**
	comp=Z,22nm,1.1s,mb5.1,baz=143,slow=7.4,SNR=11						
BVAR				pP	pP	09 26 49.1	-1.0
	comp=Z,11nm,0.7s,baz=143,slow=7.4,SNR=12						
BRVK	**Borovoye**	**49.95**	**341**	*e*P	**P**	**09 26 41.2**	**-2.8**
	comp=Z,49nm,1.3s,mb5.4						
CHKZ	**Chkalovo**	**50.38**	**342**	*e*P	**P**	**09 26 45.1**	**-2.1**
	comp=Z,28nm,0.8s,mb5.3						
GNI	**Garni**	**55.23**	**315**	P	**P**	**09 27 30.5**	**+6.9**
	comp=Z,6.3nm,0.7s,mb4.8						
ARU	**Arti**	**56.79**	**337**	*e*P	**P**	**09 27 31.7**	**-2.9**
	comp=Z,70nm,1.3s,mb5.5						
ARU				*e*	pP	09 27 39.9	-1.3
KMBO	**Kilima Mbogo**	**57.59**	**264**	P	**P**	**09 27 43.1**	**+2.3**
	comp=Z,3.1nm,0.8s,mb4.4,baz=54,slow=12,SNR=5.7						
KMBO	**Kilima Mbogo**	**57.59**	**264**	*e*P	**P**	**09 27 43.0**	**+2.2**
	comp=Z,32nm,1.5s,mb5.1						
KMBO				P		09 27 43.1	
STKA	**Stephens Creek**	**59.32**	**133**	P	**P**	**09 27 52.3**	**-0.4**
	comp=Z,8.4nm,0.8s,mb4.8,baz=305,slow=8.1,SNR=6.2						
EIL	**Elat**	**60.08**	**300**	P	**P**	**09 27 57.2**	**-0.7**
	comp=Z,2.4nm,0.4s,mb4.5,baz=86,slow=7.2,SNR=2.7						
BRTR	**Keskin Array B**	**63.19**	**311**	P	**P**	**09 28 16.6**	**-2.1**
	comp=Z,1.9nm,0.6s,mb4.4,baz=133,slow=7.0,SNR=6.0						
MBAR	**Mbarara**	**63.95**	**266**	*e*P	**P**	**09 28 28.8**	**+4.7**
	comp=Z,21nm,1.5s,mb5.0						
AKASG	**Malin Array Be**	**68.99**	**322**	P	**P**	**09 28 53.6**	**-2.0**
	comp=Z,2.1nm,0.9s,mb4.0,baz=91,slow=4.7,SNR=3.4						
LSZ	**Lusaka**	**69.22**	**251**	*e*P	**P**	**09 28 59.0**	**+1.5**
IDI	**Anoyia**	**69.27**	**305**	P	**P**	**09 28 56.6**	**-1.0**
	comp=Z,7.3nm,0.8s,mb4.6,baz=93,slow=8.5,SNR=4.9						
KOLS	**Kolonicke sedl**	**73.02**	**319**	*e*P	**P**	**09 29 23.9**	**+4.0**
CRVS	**Cervenica-Dubn**	**73.55**	**319**	*e*sP	sP	09 29 33.8	+1.8
FINES	**FINESS Array B**	**73.59**	**332**	P	**P**	**09 29 22.2**	**-0.7**
	comp=Z,2.5nm,0.6s,mb4.3,baz=113,slow=3.1,SNR=5.8						
KAF	**Kangasniemi**	**73.68**	**333**	*e*p	**P**	**09 29 18.6**	**-4.8**
LBTB	**Lobatse**	**74.05**	**242**	P	**P**	**09 29 31.1**	**+4.7**
	comp=Z,9.6nm,0.9s,mb4.7						
KECS	**Kecovo**	**74.13**	**318**	*e*P	**P**	**09 29 28.6**	**+2.3**
OJC	**Ojcow**	**74.80**	**320**	*e*P	**P**	**09 29 33.8**	**+3.6**
VYHS	**Vyhne**	**75.22**	**318**	*e*P	**P**	**09 29 37.2**	**+4.6**
BOSA	**Boshof**	**75.34**	**238**	*e*P	**P**	**09 29 34.5**	**+0.8**
	comp=Z,20nm,1.1s,mb5.0						
OKC	**Ostrava-Krasne**	**75.81**	**320**	*e*P	**P**	**09 29 43.2**	**+7.2**
OKC	**Ostrava-Krasne**	**75.81**	**320**	*e*pP	pP	09 29 43.2	+0.5
MORC	**Moravsky Berou**	**76.20**	**319**	P	**P**	**09 29 38.2**	**+0.1**
	comp=Z,17nm,1.2s,mb4.8						
ZST	**Bratislava**	**76.34**	**318**	*e*P	**P**	**09 29 43.8**	**+4.8**
BILL	**Bilibino**	**76.80**	**22**	*e*P	**P**	**09 29 40.5**	**-0.6**
	comp=Z,3.2nm,0.8s,mb4.3						
DPC	**Dobruska-Polom**	**77.03**	**320**	*e*P	**P**	**09 29 49.9**	**+7.1**
DPC	**Dobruska-Polom**	**77.03**	**320**	*e*pP	pP	09 29 49.9	+0.3
PRU	**Pruhonice**	**78.15**	**320**	*e*P	**P**	**09 29 55.1**	**+6.2**
PRU	**Pruhonice**	**78.15**	**320**	*e*pP	pP	09 29 55.1	-0.6
BRG	**Berggiesshubel**	**78.58**	**320**	*i* P	**P**	**09 29 57.9**	**+6.6**
	comp=Z,17nm,1.4s,mb4.8						
GERES	**GERESS Array B**	**78.64**	**318**	P	**P**	**09 29 51.8**	**+0.2**
	comp=Z,2.2nm,0.7s,mb4.2,baz=90,slow=5.1,SNR=6.8						
GERES				pP	pP	09 29 58.8	+0.3
	comp=Z,9.1nm,1.1s,baz=90,slow=5.3,SNR=9.3						
KHC	**Kasperske Hory**	**78.73**	**319**	*e*P	**P**	**09 29 58.7**	**+6.5**
KHC	**Kasperske Hory**	**78.73**	**319**	*e*pP	pP	09 29 58.7	-0.3
CLL	**Collm**	**79.19**	**321**	*e*P	**P**	**09 30 02.0**	**+7.4**
CLL	**Collm**	**79.19**	**321**	*e**PP	pP	09 30 02.0	+0.6
HFS	**Hagfors**	**79.33**	**330**	P	**P**	**09 29 55.0**	**-0.2**
	comp=Z,3.5nm,0.7s,mb4.4,baz=108,slow=4.6,SNR=5.6						
HFS				pP	pP	09 30 01.6	-0.4
	comp=Z,13nm,1.0s,baz=99,slow=4.3,SNR=5.5						
HFS	**Hagfors**	**79.33**	**330**	P	**P**	**09 29 55.0**	**-0.2**
HFS				pP	pP	09 30 01.6	-0.4
NB2	**NORSAR Subarra**	**80.61**	**331**	P	**P**	**09 29 57.7**	**-4.3**
	comp=Z,15nm,1.2s,mb4.8,baz=90,slow=5.3						
NOA	**NORSAR Array B**	**80.61**	**331**	P	**P**	**09 30 01.9**	**-0.1**
	comp=Z,1.3nm,0.8s,mb3.9,baz=98,slow=5.3,SNR=3.5						
NOA				pP	pP	09 30 08.3	-0.5
	comp=Z,7.3nm,1.0s,baz=94,slow=5.4,SNR=6.1						
DAVOX	**Davos**	**81.19**	**316**	P	**P**	**09 30 05.5**	**+0.1**
	comp=Z,6.4nm,1.0s,mb4.5,baz=112,slow=6.1,SNR=3.7						
DAVOX				pP	pP	09 30 12.3	+0.1
	comp=Z,11nm,0.9s,baz=185,slow=4.2,SNR=6.8						
LPG	**La Plagne**	**83.41**	**315**	*e*P	**P**	**09 30 17.2**	**+0.3**
	comp=Z,27nm,0.8s,mb5.0						
ESDC	**Sonseca Array**	**91.97**	**310**	P	**P**	**09 30 59.1**	**+0.8**
	comp=Z,4.4nm,1.2s,mb4.7,baz=66,slow=3.9,SNR=4.8						
ILAR	**Eielson Array**	**95.45**	**22**	P	**P**	**09 31 12.8**	**-0.9**
	comp=Z,0.6nm,0.9s,mb4.0,baz=306,slow=7.8,SNR=4.5						
ELK	**Elko**	**125.22**	**27**	*e*PKP	PKPdf	09 36 50.6	-2.9
NVAR	**Mina Array Bea**	**125.53**	**31**	PKP	PKPdf	09 36 51.0	-3.2
	comp=Z,0.8nm,0.8s,baz=8.7,slow=1.2,SNR=3.5						
NVAR				pPKP		09 36 58.3	
	comp=Z,2.5nm,0.9s,baz=176,slow=0.7,SNR=8.5						
MNV	**Mina**	**125.60**	**31**	*e*PKP	PKPdf	09 36 51.9	-2.4
PDAR	**Pinedale Array**	**125.88**	**22**	PKP	PKPdf	09 36 51.2	-3.5
	comp=Z,3.2nm,1.0s,baz=135,slow=2.1,SNR=3.6						
PV10	**Paradox Valley**	**129.86**	**24**	*e*PKP	PKPdf	09 37 00.4	-2.2
ANMO	**Albuquerque**	**133.86**	**24**	PKP	PKPdf	09 37 07.0	-3.0
	comp=Z,1.1nm,0.9s,baz=326,slow=3.6,SNR=2.9						
ANMO				pPKP		09 37 14.7	
	comp=Z,2.5nm,1.0s,baz=137,slow=1.4,SNR=5.6						
TXAR	**Lajitas Array**	**139.91**	**25**	PKP	PKPdf	09 37 17.7	-3.7
	comp=Z,0.7nm,0.7s,baz=294,slow=0.9,SNR=4.5						
JCT	**Junction City**	**140.32**	**19**	*e*PKP	PKPdf	09 37 18.7	-3.4

IDC 26 09:19:32.5±1.0**, 8.27N**×**92.16E, mb4.2**/9**, mb1 4.4**/10**,**
mb1mx4.2/19**, ML4.7**/1**, Error ellipse: s-maj=42.4km**
s-min=20.2km az=50.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.08**	**32**	Pn	P	09 22 28.2	-0.8
	1.5nm,0.3s,baz=233,slow=14,SNR=8.0						
IMP	**Imphal**	**16.51**	**6**	*e*	P	09 23 28.3	+1.2
AML	**Almayashu**	**37.45**	**337**	P	P	09 26 50.4	+1.1
	SNR=7.0						
EKS2	**Erkin-Say**	**37.88**	**338**	P	P	09 26 53.8	+0.8
	SNR=6.2						
USP	**Ospenovka**	**38.14**	**339**	P	P	09 26 54.9	-0.2
	SNR=7.5						
SONM	**Songino Array**	**41.24**	**15**	P	P	09 27 19.1	-1.7
	1.4nm,0.6s,baz=207,slow=9.7,SNR=3.5						
BVAR	**Borovoye Array**	**48.00**	**342**	P	P	09 28 11.1	-4.0
	2.1nm,0.7s,baz=146,slow=5.2,SNR=1.8						
WRA	**Warramunga Arr**	**50.09**	**125**	P	P	09 28 29.3	-2.3
	6.7nm,0.9s,baz=301,slow=9.6,SNR=5.3						
ASAR	**Alice Springs**	**51.68**	**129**	P	P	09 28 41.5	-2.1
	4.8nm,0.8s,baz=304,slow=7.4,SNR=5.9						
AKASG	**Malin Array Be**	**66.63**	**322**	P	P	09 30 25.0	-2.0
	0.2nm,0.3s,baz=85,slow=4.6,SNR=3.2						
FINES	**FINESS Array B**	**71.45**	**332**	P	P	09 30 54.8	-1.7
	1.6nm,0.6s,baz=98,slow=9.8,SNR=2.3						
ARCES	**ARCESS Array B**	**74.23**	**340**	P	P	09 31 11.4	-1.3
	2.8nm,0.7s,baz=90,slow=4.9,SNR=12						
GERES	**GERESS Array B**	**76.22**	**318**	P	P	09 31 24.0	-0.5
	1.7nm,0.8s,baz=80,slow=6.0,SNR=3.3						
NOA	**NORSAR Array B**	**78.42**	**331**	P	P	09 31 34.8	-1.7
	1.9nm,0.8s,baz=96,slow=5.8,SNR=3.3						

IDC 26 09:19:42.7±0.8**, 8.33N**×**92.20E, mb4.5**/16**, mb1 4.6**/17**,**
mb1mx4.5/22**, ML4.6**/1**, Error ellipse: s-maj=33.3km**
s-min=17.9km az=47.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.01**	**32**	Pn	P	09 22 37.1	-1.1
	1.2nm,0.3s,baz=235,slow=14,SNR=4.2						
SGCP	**Mt. Cagua**	**30.63**	**68**	*e*P	P	09 25 58.6	-2.5
SONM	**Songino Array**	**41.17**	**15**	P	P	09 27 28.9	-1.5
	7.5nm,0.6s,baz=201,slow=7.9,SNR=10						
ZAK	**Zakamensk**	**42.92**	**10**	*e*P	P	09 27 42.0	-2.8
ZAL	**Zalesovo**	**45.87**	**354**	P	P	09 28 05.5	-3.0
	4.0nm,0.7s,baz=338,slow=4.4,SNR=2.9						
BVAR	**Borovoye Array**	**47.95**	**342**	P	P	09 28 22.2	-2.7
	12nm,1.0s,baz=135,slow=8.2,SNR=4.7						
WRA	**Warramunga Arr**	**50.10**	**125**	P	P	09 28 38.3	-3.5
	2.4nm,0.4s,baz=300,slow=9.9,SNR=5.7						
PMG	**Port Moresby**	**57.51**	**107**	P	P	09 29 34.8	-1.8
	5.0nm,0.5s,baz=299,slow=1.8,SNR=3.8						
BRTR	**Keskin Array B**	**60.67**	**311**	P	P	09 29 55.8	-2.4
	4.5nm,0.8s,baz=120,slow=6.1,SNR=5.4						
STKA	**Stephens Creek**	**61.82**	**133**	P	P	09 30 03.5	-2.6
	1.8nm,0.5s,baz=293,slow=6.3,SNR=3.4						
AKASG	**Malin Array Be**	**66.60**	**322**	P	P	09 30 34.5	-2.5
	5.4nm,1.1s,baz=91,slow=4.5,SNR=4.4						
FINES	**FINESS Array B**	**71.41**	**332**	P	P	09 31 05.0	-1.5
	4.0nm,0.7s,baz=108,slow=6.0,SNR=3.4						
ARCES	**ARCESS Array B**	**74.19**	**340**	P	P	09 31 19.6	-3.1
	1.9nm,0.7s,baz=41,slow=24,SNR=3.4						
NVLJ	**Novalja**	**75.17**	**314**	*i* P	P	09 31 23.7	-5.2
GERES	**GERESS Array B**	**76.20**	**318**	P	P	09 31 32.9	-1.7
	3.3nm,0.8s,baz=90,slow=4.0,SNR=5.2						
HFS	**Hagfors**	**77.09**	**330**	P	P	09 31 38.2	-1.1
	3.5nm,0.7s,baz=112,slow=8.0,SNR=5.1						
NOA	**NORSAR Array B**	**78.39**	**331**	P	P	09 31 44.7	-1.8
	6.8nm,1.1s,baz=93,slow=5.7,SNR=5.0						
DAG	**Danmarks Havn**	**86.62**	**348**	*e*P	P	09 32 28.0	-0.8
DAG	**Danmarks Havn**	**86.62**	**348**	*i* P	P	09 32 28.0	-0.8
ESDC	**Sonseca Array**	**89.45**	**310**	P	P	09 32 43.3	+0.1
	0.5nm,0.4s,baz=65,slow=4.3,SNR=5.3						
ILAR	**Eielson Array**	**95.04**	**22**	P	P	09 33 07.2	-1.1
	0.5nm,0.5s,baz=310,slow=4.7,SNR=5.5						
INK	**Inuvik**	**97.08**	**16**	P	P	09 33 17.1	-0.4
	1.3nm,0.4s,baz=289,slow=3.4,SNR=14						
PDAR	**Pinedale Array**	**125.41**	**20**	PKP	PKPdf	09 38 47.4	-0.6
	1.3nm,0.9s,baz=130,slow=2.2,SNR=5.3						
NVAR	**Mina Array Bea**	**125.49**	**29**	PKP	PKPdf	09 38 46.0	-2.2
	1.1nm,0.8s,baz=2.5,slow=2.7,SNR=4.2						
MSU	**Marysvale**	**128.16**	**24**	PKIKP	PKPdf	09 38 59.5	+6.1
AAM	**Ann Arbor**	**129.47**	**356**	P	Pdif	09 35 46.4	+5.1
ANMO	**Albuquerque**	**133.48**	**21**	PKIKP	PKPdf	09 39 10.5	+7.0
CCM	**Cathedral Cave**	**133.74**	**4**	PKP	PKPdf	09 39 10.8	+7.0
CCM				LR	LR		
	comp=Z,5µm,20.0s						
TXAR	**Lajitas Array**	**139.55**	**22**	PKP	PKPdf	09 39 14.2	-0.6
	comp=Z,0.5nm,0.5s,baz=147,slow=0.6,SNR=7.9						
BAO	**Brasilia Array**	**140.44**	**256**	PKP	PKPdf	09 39 26.8	+10
BDFB	**Brasilia**	**140.46**	**256**	PKP	PKPdf	09 39 15.1	-1.7
	comp=Z,1.8nm,0.6s,baz=354,slow=6.5,SNR=2.6						
PCRV	**Puerto La Cruz**	**150.50**	**308**	PKPbc	PKPdf	09 39 38.1	+4.3
	comp=Z,9.2nm,0.6s,baz=190,slow=6.8,SNR=5.3						

IDC ***26*** *09:19:58.7±0.4, 8.86N×92.20E, mb5.4/33, mb1 5.4/34,*
mb1mx5.4/34, ML4.8/1, MS6.4/24, Ms1 6.4/24,
ms1mx6.2/30, Error ellipse: s-maj=16.1km s-min=10.3km
az=43.0

BJI ***26*** *09:19:59.8, 8.58N×92.32E, h34^{km}, mB6.3, mb5.5, Ms6.8,*
Msz6.5

SYO ***26*** *09:19:59.9, 8.87N×92.37E, h6^{km}, MB6.0, MS6.6*

NEIC ***26*** *09:20:01.6±2.8, 8.88N×92.38E, h16^{km}±16^{km}, mb6.0/131,*
ME6.4, MS6.6/126, Error ellipse: s-maj=6.0km
s-min=3.9km az=215.0, Depth from synthetics of
broadband displacement seismograms. Energy computed
from CMT mechanism.

INMG ***26*** *09:20:01.6, 8.88N×92.38E, h16^{km}, MS6.6*

HRVD ***26*** *09:20:01.6±0.2, 8.58N×92.45E, h12^{km}, MW6.6/83,*
Centroid moment Tensor Solution. LP body waves:
s48,c72;Mantle waves: s83,c193; Half duration: 4^{s}9
Moment tensor: Scale 10^{19}Nm; M_{rr}0.94±.01;
$M_{\theta\theta}$-0.12±.01; $M_{\phi\phi}$-0.81±.01; $M_{r\theta}$0.02±.06; $M_{\theta\phi}$0.32±.01;
$M_{\phi r}$-0.27±.05; Best double couple: M_0.98×10^{19} NP1:
ϕ_s333°, δ38°, λ82°. NP2:ϕ_s163°, δ53°, λ96°. Principal
axes: T .98, Plg81°, Azm101°; N 0, Plg5°, Azm340°; P -.98,
Plg8°, Azm249°; nsta1 refers to body waves, cutoff=50s.
nsta2 refers to surface waves, cutoff=50s.

MOS ***26*** *09:20:04.0±1.2, 9.13N×92.16E, h33^{km}, mb6.0/59,*
MS6.4/33 Error ellipse: s-maj=8.3km s-min=4.9km
az=116.8

ISC 26 09:20:00.8±0.1**, 8.95N**±0.03×**92.28E**±0.02**, h17**^{km}**,**
h17^{km}±1.0^{km}**:pP-P, n992,** σ**1**^{s}**29**/780**, mb5.8**/195**, MS6.5**/180**,**
59C-41D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNT	**Nongplab**	**8.16**	**63**	P	**Sn**	**09 23 22.0**	**-12**
CM31	**Chiang Mai Arr**	**11.45**	**34**	*e*P	**P**	**09 22 45.9**	**-1.0**
	53nm,0.8s						
CMAR	**Chiang Mai Arr**	**11.45**	**34**	Pn	**P**	**09 22 46.1**	**-0.7**
	1.7nm,0.3s,baz=224,slow=14,SNR=11						
CMAR				LR	LR	09 28 03.3	
	comp=Z,176µm,18.4s,baz=215,slow=42						
CMAR	**Chiang Mai Arr**	**11.45**	**34**	P	**P**	**09 22 46.2**	**-0.7**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,176µm,18.4s						
PALK	**Pallekele**	**11.59**	**263**	P	**P**	**09 22 42.5**	**-6.2**
	comp=Z,227nm,1.1s						
CHG	**Chiang Mai**	**11.74**	**33**	⇑P	**P**	**09 22 50.9**	**+0.1**
	comp=Z,150nm,1.1s						
CHG	**Chiang Mai**	**11.74**	**33**	⇑P	**P**	**09 22 50.9**	**+0.1**
	comp=Z,150nm,1.1s						
VIS	**Vishakhapatnam**	**12.32**	**316**	⇓*e*P	**P**	**09 22 55.6**	**-3.0**
	comp=Z,2µm,1.2s						
MDRS	**Chennai**	**12.51**	**290**	*e*P	**P**	**09 22 59.0**	**-2.0**
	comp=Z,1µm,1.7s						
MDRS				*e*		09 23 01.0	
MDRS				*e*	**S**	**09 25 16.0**	**-5.0**
CAL	**Calcutta**	**14.04**	**345**	*e*P	**P**	**09 23 24.4**	**+3.0**
CAL				*e*		09 23 34.4	
TRD	**Trivandrum**	**15.16**	**270**	⇓*e*P	**P**	**09 23 36.5**	**+0.4**
HYB	**Hyderabad**	**15.79**	**304**	*e*P	**P**	**09 23 49.0**	**+4.7**
HYB	**Hyderabad**	**15.79**	**304**	*i* P	**P**	**09 23 49.0**	**+4.7**
BOK	**Bokaro**	**15.98**	**338**	⇑*e*P	**P**	**09 23 48.2**	**+1.4**
BOK				*e*	**S**	**09 26 59.4**	**+16**
BLSP	**Bilaspur**	**16.34**	**324**	*e*P	**P**	**09 23 51.0**	**-0.3**
SHL	**Shillong**	**16.53**	**359**	⇑*e*P	**P**	**09 23 59.8**	**+6.0**
SHL				*e*		09 24 10.8	
	comp=Z,734nm,1.3s						
MNGI	**Mangalore**	**17.59**	**285**	⇑*e*P	**P**	**09 24 07.1**	**-0.1**
MNGI				*e*	**S**	**09 27 17.2**	**-3.5**
NGP	**Nagpur**	**17.60**	**315**	⇓*e*	**P**	**09 24 12.2**	**+5.0**
NGP				*e*	Sx	09 27 48.8	
SLGI	**Shiliguri**	**18.03**	**349**	*e*	**P**	**09 24 21.4**	**+8.8**
AKL	**Akola**	**18.80**	**310**	⇓*i*P	**P**	**09 24 24.2**	**+2.2**
AKL				*e*		09 24 42.5	
	comp=Z,922nm,1.2s						
AKL				*i*	rx	09 28 25.5	
KMI	**Kunming**	**18.92**	**30**	*e*P	**P**	**09 24 24.5**	**+1.1**
KMI				AP		09 24 27.5	
KMI				PP	PP	09 24 41.8	+1.9
KMI				PPP	PPP	09 24 50.5	+1.6
KMI				S	**S**	**09 27 54.8**	**+4.3**
KMI				SS	SS	09 28 20.5	+4.4
KMI				SSS	SSS	09 28 34.0	+4.5
KMI				AMB	AMB		
	comp=Z,469nm,1.3s						
KMI				AMB	AMB		
	comp=Z,13µm,6.4s						
KMI				LR	LR		
	comp=N,167µm,18.8s						
KMI				LR	LR		
	comp=E,113µm,19.4s						
KMI				LR	LR		
	comp=Z,152µm,15.6s						
MNCY	**Minicoy**	**19.05**	**269**	⇓*i*P	**P**	**09 24 22.0**	**-3.0**
MNCY				*i*		09 26 41.0	
ALBI	**Allahabad**	**19.08**	**330**	⇑*e*P	**P**	**09 24 24.8**	**-0.5**
GOA	**Goa**	**19.17**	**292**	⇑*i*P	**P**	**09 24 28.4**	**+2.0**
GOA				*i*		09 28 26.7	
PENI	**Pendagan**	**19.31**	**138**	⇓*e*P	**P**	**09 24 21.5**	**-6.6**
	comp=Z,225nm,0.4s						
KAD	**Karad**	**19.47**	**297**	⇑*i*P	**P**	**09 24 29.6**	**-0.3**
KAD				*e*S	**S**	**09 28 07.7**	**+4.6**
QIZ	**Qiongzhong**	**19.75**	**58**	P	**P**	**09 24 31.3**	**-1.7**
QIZ				PP	PP	09 24 49.5	-2.0
QIZ				S	**S**	**09 28 11.3**	**+2.3**
QIZ				LR	LR		
	comp=N,365µm,14.9s						
QIZ				LR	LR		
	comp=Z,189µm,15.2s						
QIZ	**Qiongzhong**	**19.75**	**58**	*e*P	**P**	**09 24 30.3**	**-2.7**
	comp=Z,500nm,1.4s						
BHPL	**Bhopal**	**20.12**	**317**	⇑*i*P	**P**	**09 24 35.6**	**-1.3**
BHPL				*e*		09 24 56.3	
	comp=Z,905nm,1.6s						
BHPL				*e*S	**S**	**09 28 23.2**	**+6.4**
BHPL	**Bhopal**	**20.12**	**317**	*i*	AMS	09 33 55.7	
	comp=Z,216µm,17.9s,MS6.5						
POO	**Poona**	**20.26**	**300**	⇑*i*P	**P**	**09 24 38.0**	**-0.5**
POO				*e*S	**S**	**09 28 23.5**	**+3.7**
POO	**Poona**	**20.26**	**300**	*e*	AMS	09 33 40.0	
	comp=Z,173µm,19.6s,MS6.4						
PULI	**Pulasari**	**20.42**	**138**	⇑*e*P	**P**	**09 24 32.8**	**-7.4**
	comp=Z,932nm,0.5s						
LSA	**Lhasa**	**20.67**	**357**	P	**P**	**09 24 46.5**	**+3.8**
LSA				LR	LR		
	comp=N,85µm,27.9s,MS6.2						
LSA				LR	LR		
	comp=E,100µm,27.9s,MS6.2						
LSA				LR	LR		
	comp=Z,100µm,28.4s,MS6.0						
LSA	**Lhasa**	**20.67**	**357**	*e*P	**P**	**09 24 42.6**	**0.0**
	comp=Z,728nm,0.9s						
JHNI	**Jhansi**	**21.00**	**323**	*e*	**P**	**09 24 44.0**	**-2.0**
JHNI				*e*		09 24 55.0	
BOM	**Bombay**	**21.31**	**300**	*e*P	**P**	**09 24 51.7**	**+2.5**
COCO	**West Island**	**21.48**	**168**	*e*P	**P**	**09 24 50.1**	**-0.9**
	comp=Z,7µm,1.8s,mb6.7						
COCO				LR	LR		
	comp=Z,78µm,20.0s,MS6.1						
SINI	**Singah**	**21.94**	**136**	*e*P	**P**	**09 24 48.0**	**-7.6**
GYA	**Guiyang**	**22.12**	**36**	⇑*i*P	**P**	**09 24 56.5**	**-0.8**
GYA				AP		09 25 01.0	
GYA				PP	PP	09 25 26.8	+3.1
GYA				S	**S**	**09 29 02.8**	**+7.5**
GYA				AMB	AMB		
	comp=Z,570nm,1.0s,mb6.0						
GYA				AMB	AMB		
	comp=Z,14µm,10.2s						
GYA				LR	LR		
	comp=N,147µm,15.9s,MS6.6						
GYA				LR	LR		
	comp=E,110µm,14.0s,MS6.6						
GYA				LR	LR		
	comp=Z,215µm,16.2s,MS6.7						
AGRA	**Agra**	**22.68**	**325**	*e*P	**P**	**09 25 05.8**	**+2.8**
AGRA				*e*		09 25 28.2	
	comp=Z,925nm,1.1s						
BHV	**Bhavnagar**	**23.18**	**306**	*e*P	**P**	**09 25 08.0**	**+0.1**
LGTI	**Lohaghat**	**23.31**	**333**	*e*P	**P**	**09 25 14.3**	**+5.2**
PTH	**Pithoragarh**	**23.41**	**333**	*e*P	**P**	**09 25 14.9**	**+4.8**
PTH				*e*		09 25 41.1	
AYAN	**Aya Nagar**	**24.11**	**326**	*e*P	**P**	**09 25 17.4**	**+0.6**
AJM	**Ajmer**	**24.16**	**318**	⇑*i*P	**P**	**09 25 18.8**	**+1.4**
AJM				*e*S	**S**	**09 29 36.0**	**+4.5**
AJM	**Ajmer**	**24.16**	**318**	*e*	AMS	09 36 29.9	
	comp=Z,184µm,17.4s,MS6.6						
NDI	**New Delhi**	**24.21**	**326**	*e*P	**P**	**09 25 20.0**	**+2.1**
NDI				*e*		09 25 39.4	
	comp=Z,892nm,1.3s						
CD2	**Chengdu**	**24.33**	**25**	P	**P**	**09 25 19.5**	**+0.5**
CD2				S	**S**	**09 29 36.8**	**+2.4**
CD2				AMB	AMB		
	comp=Z,500nm,1.6s,mb5.7						
CD2				LR	LR		
	comp=N,115µm,10.8s						
CD2				LR	LR		
	comp=Z,102µm,15.6s,MS6.4						
BHGR	**Bahadurgarh**	**24.37**	**326**	*e*P	**P**	**09 25 22.3**	**+2.9**
KHET	**Khetri**	**24.56**	**323**	⇑*e*P	**P**	**09 25 23.7**	**+2.4**
KHET				*e*		09 25 33.5	
	comp=Z,526nm,1.1s						
RTK	**Rohtak**	**24.93**	**325**	*e*P	**P**	**09 25 29.1**	**+4.3**
DDI	**Dehra Dun**	**25.08**	**330**	*e*P	**P**	**09 25 27.5**	**+1.3**
DDI				*e*		09 30 24.4	
BATP	**Bataraza**	**25.21**	**88**	*e*P	**P**	**09 25 27.2**	**-0.4**
KKR	**Kurukshetra**	**25.43**	**327**	*e*P	**P**	**09 25 32.6**	**+3.1**
DGAR	**Diego Garcia**	**25.59**	**231**	P	**P**	**09 25 30.6**	**-0.5**
	comp=Z,597nm,1.2s,mb6.0						
DGAR				LR	LR		
	comp=Z,89µm,21.0s,MS6.3						
BHJ	**Bhuj**	**25.92**	**306**	⇑*i*P	**P**	**09 25 34.3**	**+0.1**
KLP	**Kalpa**	**25.99**	**332**	*e*P	**P**	**09 25 36.1**	**+1.4**
PPR	**Puerto Princes**	**26.11**	**86**	⇓*e*P	**P**	**09 25 34.9**	**-1.0**
SDNR	**Sundarnagar**	**26.58**	**330**	*e*P	**P**	**09 25 44.5**	**+4.3**
ENH	**Enshi**	**26.62**	**35**	*e*P	**P**	**09 25 37.3**	**-3.2**
	comp=Z,389nm,0.8s,mb6.0						
ENPP	**El Nido**	**26.81**	**83**	*e*P	**P**	**09 25 42.5**	**+0.1**
JASL	**Jaisalmer**	**27.00**	**314**	*e*	**P**	**09 25 41.1**	**-2.9**
PONG	**Pong**	**27.46**	**329**	*e*	**P**	**09 25 56.0**	**+7.8**
LUBP	**Lubang**	**27.81**	**78**	*e*P	**P**	**09 25 54.5**	**+2.9**
SRDI	**Scrawed**	**27.82**	**128**	⇑*i*P	**P**	**09 25 48.7**	**-2.9**
BOLP	**Bolinao**	**27.93**	**72**	*e*P	**P**	**09 25 52.2**	**-0.4**
KELI	**Kelakatan**	**27.93**	**127**	⇓*e*P	**P**	**09 25 53.3**	**+0.6**
THN	**Thein Dam**	**27.96**	**329**	*e*P	**P**	**09 25 53.3**	**+0.6**
CUYO	**Cuyo Island**	**28.36**	**84**	*e*P	**P**	**09 25 58.9**	**+2.4**
TGY	**Tagaytay City**	**28.52**	**77**	P	**P**	**09 25 58.8**	**+0.8**
	comp=Z,2µm,1.2s,mb6.6,baz=198,slow=6.8,SNR=9.5						
TGY				LR	LR	09 36 40.2	
	comp=Z,77µm,21.4s,MS6.3,baz=229,slow=35						
SJMP	**San Jose**	**28.54**	**80**	*e*P	**P**	**09 26 00.1**	**+2.0**
BCPH	**Baguio City Da**	**28.55**	**72**	⇑*e*P	**P**	**09 25 59.9**	**+1.7**
PCPH	**Palayan**	**28.89**	**74**	⇓*e*P	**P**	**09 26 01.2**	**-0.1**
LZH	**Lanzhou**	**29.00**	**20**	⇑P	**P**	**09 26 01.0**	**-1.0**
LZH				PP	PP	09 26 55.0	-1.0
LZH				S	**S**	**09 30 51.0**	**+0.1**
LZH				SS	SS	09 32 20.0	+0.1
LZH				AMB	AMB		
	comp=Z,871nm,1.1s,mb6.4						
LZH				AMB	AMB		
	comp=Z,4µm,4.9s						
LZH				LR	LR		
	comp=E,162µm,16.8s						
LZH				LR	LR		
	comp=Z,181µm,19.5s,MS6.7						
RATI	**Rata**	**29.06**	**127**	⇑*e*P	**P**	**09 25 57.2**	**-5.6**
	comp=Z,352nm,0.2s,mb6.8						
LQP	**Lukban**	**29.11**	**77**	⇓*e*P	**P**	**09 26 04.3**	**+1.1**
AAP	**Anini-y**	**29.27**	**85**	*e*P	**P**	**09 26 02.0**	**-2.7**
XAN	**Xi'an**	**29.29**	**29**	P	**P**	**09 26 02.3**	**-2.4**
XAN				S	**S**	**09 31 01.5**	**+5.9**
XAN				AMB	AMB		
	comp=Z,4µm,8.3s						
XAN				LR	LR		
	comp=N,28µm,14.7s,MS6.4						
XAN				LR	LR		
	comp=E,55µm,14.7s,MS6.4						
XAN				LR	LR		
	comp=Z,62µm,17.6s,MS6.3						
BOAC	**Boac**	**29.33**	**78**	*e*P	**P**	**09 26 05.7**	**+0.5**
BALP	**Baler**	**29.38**	**74**	*e*P	**P**	**09 26 06.5**	**+0.9**
KEDI	**Kedomdong**	**29.38**	**125**	⇓*e*P	**P**	**09 25 59.8**	**-5.9**
OTRP	**Odiongan**	**29.41**	**81**	*e*P	**P**	**09 26 06.5**	**+0.5**
APYP	**Conner**	**29.49**	**69**	*e*P	**P**	**09 26 08.1**	**+1.4**
WHN	**Wuhan**	**29.77**	**41**	*e*P	**P**	**09 26 09.3**	**+0.3**
WHN				LR	LR		
	comp=N,82µm,17.0s,MS6.8						
WHN				LR	LR		
	comp=E,206µm,19.7s,MS6.8						
WHN				LR	LR		

	comp=Z,229µm,16.0s,MS6.9						
CAUP	**Cauayan**	**29.83**	**72**	*e*P	**P**	**09 26 11.4**	**+1.7**
GUIM	**Jordan**	**29.91**	**84**	*e*P	**P**	**09 26 13.7**	**+3.3**
GQP	**Guinayangan**	**29.96**	**78⇓**	*e*P	**P**	**09 26 12.8**	**+1.9**
IPIL	**Ipil**	**29.98**	**90**	*e*P	**P**	**09 26 12.3**	**+1.2**
CVP	**Callao Caves**	**29.99**	**70**	*e*P	**P**	**09 26 13.0**	**+1.8**
RCP	**Roxas**	**30.08**	**82⇑**	*e*P	**P**	**09 26 10.9**	**-1.0**
SNPH	**Sibulan**	**30.56**	**87**	*e*P	**P**	**09 26 13.0**	**-3.1**
BBP	**Basco**	**30.84**	**65**	*e*P	**P**	**09 26 17.6**	**-1.0**
GTA	**Gaotai**	**31.07**	**11**	P	**P**	**09 26 20.5**	**0.0**
GTA				XP	sP	09 26 29.3	+1.8
GTA				PP	PP	09 27 23.0	+0.1
GTA				S	**S**	**09 31 23.0**	**-0.8**
GTA				AMB	AMB		
	comp=Z,82nm,1.0s,mb5.5						
GTA				AMB	AMB		
	comp=Z,2µm,8.7s						
GTA				LR	LR		
	comp=N,44µm,17.5s,MS6.4						
GTA				LR	LR		
	comp=E,54µm,15.6s,MS6.4						
GTA				LR	LR		
	comp=Z,30µm,27.0s						
TBP	**Tagbilaran**	**31.16**	**86**	*e*P	**P**	**09 26 21.8**	**+0.3**
LLP	**Lapu-Lapu**	**31.26**	**85**	*e*P	**P**	**09 26 23.7**	**+1.4**
PVCP	**Virac**	**31.58**	**79**	*e*P	**P**	**09 26 25.5**	**+0.4**
OCLP	**Ormoc**	**31.89**	**83**	*e*P	pP	09 26 38.3	+5.5
CNP	**Catarman**	**32.00**	**81**	*e*P	**P**	**09 26 30.2**	**+1.4**
TATO	**Taipei**	**32.05**	**57**	P	**P**	**09 26 30.4**	**+1.2**
	comp=Z,406nm,1.4s,mb6.1						
TATO				LR	LR		
	comp=Z,55µm,20.0s,MS6.2						
MSLP	**Maasin**	**32.14**	**85**	*e*P	**P**	**09 26 33.8**	**+3.8**
BUKP	**Musuan**	**32.44**	**89**	*e*P	**P**	**09 26 33.6**	**+1.0**
KCP	**Kidapawan**	**32.54**	**91⇑**	*e*P	**P**	**09 26 40.0**	**+6.4**
DAV	**Davao City (W)**	**33.02**	**91**	*e*P	**P**	**09 26 40.0**	**+2.3**
NJ2	**Nanjing**	**33.70**	**43**	*e*P	**P**	**09 26 44.0**	**+0.5**
NJ2				AP	pP	09 26 54.3	+5.9
NJ2				XP	sP	09 27 00.5	+10
NJ2				AMB	AMB		
	comp=Z,1µm,7.0s						
NJ2				LR	LR		
	comp=N,42µm,17.4s,MS6.4						
NJ2				LR	LR		
	comp=E,41µm,15.0s,MS6.4						
NJ2				LR	LR		
	comp=Z,51µm,18.0s,MS6.3						
KSH	**Kashi**	**33.76**	**337⇑**	*i*P	**P**	**09 26 44.5**	**+0.6**
KSH				*e*AP	pP	09 26 50.5	+1.7
KSH				*e*XP	sP	09 26 52.8	+1.9
KSH				PP	PP	09 27 58.0	+1.0
KSH				*e*PPP	PPP	09 28 15.0	+0.4
KSH				PCP	PcP	09 29 23.3	0.0
KSH				S	**S**	**09 32 08.3**	**+2.7**
KSH				XS		09 32 20.0	
KSH				*e*SCP		09 33 05.0	
KSH				PCS		09 33 07.3	
KSH				SS	SS	09 34 19.5	+8.1
KSH				SCS	ScS	09 37 04.5	-1.7
KSH				AMB	AMB		
	comp=Z,870nm,4.5s						
KSH				LR	LR		
	comp=N,38µm,12.8s,MS6.6						
KSH				LR	LR		
	comp=E,75µm,14.4s,MS6.6						
SSE	**Sheshan**	**34.78**	**47**	*e*P	**P**	**09 26 52.0**	**-0.8**
SSE				S	**S**	**09 32 23.5**	**+2.0**
SSE				AMB	AMB		
	comp=Z,55nm,1.0s,mb5.4						
SSE				AMB	AMB		
	comp=Z,2µm,9.9s						
SSE				LR	LR		
	comp=N,60µm,14.1s,MS6.5						
SSE				LR	LR		
	comp=E,27µm,14.1s,MS6.5						
SSE				LR	LR		
	comp=Z,72µm,14.0s,MS6.6						
WMQ	**Urumqi**	**34.97**	**354**	⇑P	**P**	**09 26 55.5**	**+1.2**
WMQ				AP	pP	09 27 00.0	+0.8
WMQ				PP	PP	09 28 14.3	+1.8
WMQ				PPP	PPP	09 28 32.3	+1.8
WMQ				*e*S	**S**	**09 32 26.5**	**+2.2**
WMQ				AMB	AMB		
	comp=Z,111nm,0.9s,mb5.8						
WMQ				AMB	AMB		
	comp=Z,914nm,7.9s						
WMQ				LR	LR		
	comp=N,49µm,26.2s,MS6.5						
WMQ				LR	LR		
	comp=E,118µm,28.5s,MS6.5						
WMQ				LR	LR		
	comp=Z,54µm,25.9s,MS6.2						
BTO	**Baotou**	**35.25**	**24**	*e*P	**P**	**09 26 56.0**	**-0.7**
BTO				AMB	AMB		
	comp=Z,87nm,1.1s,mb5.6						
TIA	**Tai'an**	**35.31**	**36**	⇑P	**P**	**09 26 52.5**	**-4.8**
TIA				AMB	AMB		
	comp=Z,75nm,1.0s,mb5.6						
TIA				LR	LR		
	comp=N,24µm,17.1s,MS6.3						
TIA				LR	LR		
	comp=E,42µm,17.7s,MS6.3						
HHC	**Hu-ho-hao-te**	**36.09**	**25**	*e*P	**P**	**09 27 02.5**	**-1.3**
HHC				PP	PP	09 28 24.3	-1.8
HHC				PCP	PcP	09 29 27.5	-2.6
HHC				PCS		09 33 15.8	
HHC				SS	SS	09 35 03.0	-1.8
HHC				AMB	AMB		
	comp=Z,101nm,1.3s,mb5.6						
HHC				AMB	AMB		
	comp=Z,4µm,4.8s						
HHC				LR	LR		
	comp=N,60µm,14.3s,MS6.9						
HHC				LR	LR		
	comp=E,139µm,17.8s,MS6.9						
HHC				LR	LR		
	comp=Z,54µm,14.3s,MS6.5						
KZA	**Kyzart**	**36.25**	**338**	P	**P**	**09 27 08.5**	**+3.3**
	SNR=8.8						
UCH	**Uchtor**	**36.65**	**338**	P	**P**	**09 27 10.4**	**+1.9**
	SNR=8.0						
AAA	**Alma-Ata**	**36.73**	**341**	*e*P	**P**	**09 27 09.0**	**-0.1**
AAA				*e*		09 28 48.5	
AAA				*e*S	**S**	**09 32 55.0**	**+3.6**
AAA				pmax	pmax		
	comp=Z,10µm,4.0s						
AAA				MLR	MLR		
	comp=N,34µm,17.0s,MS6.3						
AAA				MLR	MLR		
	comp=E,22µm,17.0s,MS6.3						
AAA				MLR	MLR		
	comp=Z,41µm,17.0s,MS6.3						
KBK	**Karagaybulak**	**36.87**	**339**	P	**P**	**09 27 13.9**	**+3.6**
	SNR=8.8						
TKM2	**Tokmak 2**	**36.87**	**339**	P	**P**	**09 27 14.2**	**+3.9**
	SNR=9.1						
AAK	**Ala-Archa**	**37.01**	**338**	P	**P**	**09 27 13.5**	**+2.0**
	SNR=8.8						
AAK	**Ala-Archa**	**37.01**	**338*d***	*i*P	**P**	**09 27 10.6**	**-0.9**
AAK				pmax	pmax		
	comp=Z,359nm,2.4s,mb5.8						
AAK	**Ala-Archa**	**37.01**	**338**	*e*P	**P**	**09 27 11.6**	**+0.1**
	comp=Z,12nm,0.8s,mb4.8						
AAK				LR	LR		
	comp=Z,25µm,21.0s,MS6.0						
FRU	**Bishkek**	**37.14**	**338**	*i* P	**P**	**09 27 18.0**	**+5.4**
FRU				*e*		09 27 30.0	
FRU				MLR	MLR		
	comp=Z,55µm,18.0s,MS6.4						
CHMS	**Chumysh**	**37.23**	**339**	P	**P**	**09 27 14.6**	**+1.2**
	SNR=14						
BJT	**Baijiatuau**	**37.56**	**31**	*e*P	**P**	**09 27 15.5**	**-0.7**
	comp=Z,263nm,1.0s,mb5.9						
TAS	**Tashkent**	**38.12**	**332*d***	*e*P	**P**	**09 27 22.5**	**+1.6**
TAS				pmax	pmax		
	comp=Z,5µm,2.0s,mb6.9						
TAS				MLR	MLR		
	comp=Z,62µm,20.0s,MS6.4						
JOW	**Kunigami**	**38.40**	**58**	LR	LR	09 47 16.4	
	comp=Z,54µm,18.1s,MS6.4,baz=245,slow=42						
MKAR	**Makanchi Array**	**38.67**	**349**	*i* P	**P**	**09 27 24.6**	**-0.8**
MKAR				pmax	pmax		
	comp=Z,353nm,1.2s						
DL2	**Dalian**	**39.77**	**37**	⇑P	**P**	**09 27 34.5**	**-0.2**
DL2				AMB	AMB		
	comp=Z,190nm,1.0s,mb5.8						
DL2				AMB	AMB		
	comp=Z,3µm,4.9s						
DL2				LR	LR		
	comp=N,120µm,16.7s						
DL2				LR	LR		
	comp=Z,23µm,16.7s,MS6.1						
MBWA	**Marble Bar**	**40.28**	**138**	*e*P	**P**	**09 27 35.5**	**-3.5**
	comp=Z,2µm,1.7s,mb6.5						
MBWA				LR	LR		
	comp=Z,134µm,22.0s,MS6.8						
SONM	**Songino Array**	**40.56**	**15**	P	**P**	**09 27 40.6**	**-0.5**
	comp=Z,118nm,0.9s,mb5.5,baz=200,slow=7.6,SNR=18						
ULN	**Ulaanbaatar**	**40.75**	**15**	*e*P	**P**	**09 27 42.0**	**-0.6**
	comp=Z,93nm,0.9s,mb5.4						
ULN				LR	LR		
	comp=Z,91µm,21.0s,MS6.6						
ASH	**Ashkhabad**	**42.04**	**319**	*e*P	**P**	**09 27 57.0**	**+3.6**
INCN	**Inchon**	**42.05**	**42**	*e*P	**P**	**09 27 51.9**	**-1.6**
	comp=Z,251nm,1.2s,mb5.7						
INCN				LR	LR		
	comp=Z,49µm,19.0s,MS6.4						
SNY	**Shenyang**	**42.81**	**35**	⇑P	**P**	**09 27 54.5**	**-5.1**
SNY				AMB	AMB		
	comp=Z,2µm,10.7s						
SNY				LR	LR		
	comp=N,63µm,16.5s,MS6.7						
SNY				LR	LR		
	comp=E,44µm,16.9s,MS6.7						
SNY				LR	LR		
	comp=Z,73µm,14.4s,MS6.7						
KS15	**Wonju Array Si**	**42.87**	**43**	*e*P	**P**	**09 27 58.6**	**-1.5**
MOY	**Mondy**	**43.19**	**8**	*e*P	**P**	**09 28 01.9**	**-0.6**
HASS	**Wahat al Ahsa'**	**43.58**	**297**	D		09 28 08.8	
TLY	**Talaya**	**43.61**	**10**	P	**P**	**09 28 08.9**	**+2.9**
	comp=Z,449nm,1.0s,mb6.2,SNR=30						
TLY	**Talaya**	**43.61**	**10**	*e*P	**P**	**09 28 07.6**	**+1.6**
TLY				*e*		09 28 23.5	
TLY				pmax	pmax		
	comp=Z,88nm,1.1s,mb5.4						
TLY	**Talaya**	**43.61**	**10**	*e*P	**P**	**09 28 07.0**	**+1.0**
	comp=Z,90nm,1.0s,mb5.5						
TLY				LR	LR		
	comp=Z,8µm,20.0s,MS5.6						
IRK	**Irkutsk**	**44.27**	**11**	*e*P	**P**	**09 28 14.2**	**+2.9**
IRK				*e*		09 35 00.0	
CN2	**Changchun**	**45.14**	**34**	*e*P	**P**	**09 28 17.0**	**-1.4**
CN2				*e*S	**S**	**09 34 55.5**	**-0.9**
CN2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.2						
CN2				AMB	AMB		
	comp=Z,2µm,4.0s						
CN2				LR	LR		
	comp=N,50µm,16.0s,MS6.7						
CN2				LR	LR		
	comp=E,44µm,16.0s,MS6.7						
CN2				LR	LR		
	comp=Z,44µm,16.0s,MS6.5						
ZAL	**Zalesovo**	**45.27**	**354**	P	**P**	**09 28 18.9**	**-0.3**
	comp=Z,25nm,0.9s,mb5.0,baz=300,slow=9.3,SNR=9.8						
ZAL	**Zalesovo**	**45.27**	**354**	P	**P**	**09 28 19.0**	**-0.3**
ZAL				pmax	pmax		
	comp=Z,25nm,0.9s						
BDHA	**Al Bayda'**	**46.00**	**281⇓**	*e*P	**P**	**09 28 27.3**	**+1.7**
BDHA				AMb	AMB	09 28 29.4	
	comp=Z,203nm,1.3s,mb5.9						
QRN	**Al-Qurain**	**46.04**	**301**	*e*P	**P**	**09 28 27.5**	**+1.7**
QRN				AMb	AMB	09 28 34.1	
	comp=Z,427nm,0.8s,mb6.4						
RYDS	**Riyadh**	**46.07**	**295**	P	**P**	**09 28 29.5**	**+3.4**
HIA	**Hailar**	**46.29**	**25**	*e*P	**P**	**09 28 26.2**	**-1.2**
	comp=Z,229nm,1.1s,mb6.0						
LBOS		**46.31**	**281⇓**	*e*P	**P**	**09 28 30.4**	**+2.4**
LBOS				AMb	AMB	09 28 32.1	
	comp=Z,788nm,2.0s,mb6.3						
NVS	**Novosibirsk**	**46.34**	**353**	*e*P	**P**	**09 28 26.7**	**-1.0**
NVS				*i*		09 30 12.3	
NVS				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.0						
NVS				pmax	pmax		
	comp=N,150nm,1.2s						
RDF	**Al-Radifah**	**46.40**	**302**	*e*P	**P**	**09 28 29.1**	**+0.5**
RDF				AMb	AMB	09 28 36.7	
	comp=Z,642nm,1.0s,mb6.5						
RST	**Umm Al-Ruwaisa**	**47.02**	**302**	*e*P	**P**	**09 28 34.1**	**+0.6**
RST				AMb	AMB	09 28 41.3	
	comp=Z,693nm,0.9s,mb6.6						
MZLS	**Mizel**	**47.33**	**294**	P	**P**	**09 28 38.4**	**+2.4**
KAMS	**Al Khamasin**	**47.36**	**289**	P	**P**	**09 28 37.9**	**+1.6**
BVA0	**Borovoye Array**	**47.40**	**342**	P	**P**	**09 28 36.1**	**-0.1**
BVA0				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
BVAR	**Borovoye Array**	**47.40**	**342**	P	**P**	**09 28 34.9**	**-1.2**
	comp=Z,23nm,0.8s,mb5.2,baz=135,slow=8.2,SNR=12						
TRBA	**At Turbah**	**47.41**	**280⇑**	*e*P	**P**	**09 28 38.5**	**+1.8**
BRVK	**Borovoye**	**47.46**	**342**	*e*P	**P**	**09 28 36.1**	**-0.5**
	comp=Z,141nm,1.0s,mb5.8						
BRVK				LR	LR		
	comp=Z,17µm,19.0s,MS6.0						
CHKZ	**Chkalovo**	**47.90**	**343**	*e*P	**P**	**09 28 39.2**	**-0.9**
	comp=Z,395nm,1.1s,mb6.3						
HAJJ	**Hajjah**	**47.95**	**283⇑**	*e*P	**P**	**09 28 42.8**	**+1.8**
HAJJ				AMb	AMB	09 28 43.9	
	comp=Z,924nm,1.9s,mb6.5						
NWAO	**Narrogin (SRO)**	**47.95**	**151**	P	**P**	**09 28 37.1**	**-3.7**
	comp=Z,104nm,0.7s,mb6.0,baz=324,slow=6.7,SNR=21						
NWAO	**Narrogin (SRO)**	**47.95**	**151**	*e*P	**P**	**09 28 36.9**	**-3.8**
	comp=Z,127nm,0.9s,mb6.0						
NWAO				LR	LR		
	comp=Z,136µm,21.0s,MS6.9						
MDJ	**Mudanjiang**	**47.98**	**36**	P	**P**	**09 28 40.5**	**-0.3**
MDJ				PCP	PcP	09 30 07.3	-2.0
MDJ				PP	PP	09 30 32.8	+0.5
MDJ				S	**S**	**09 35 36.5**	**-0.3**
MDJ				SCS	ScS	09 38 31.8	+1.0
MDJ				SS	SS	09 39 05.3	+4.7
MDJ				AMB	AMB		
	comp=Z,53nm,2.3s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,4µm,10.5s						
MDJ				LR	LR		
	comp=N,44µm,17.1s,MS6.7						
MDJ				LR	LR		
	comp=E,55µm,15.1s,MS6.7						
MDJ				LR	LR		
	comp=Z,66µm,18.1s,MS6.7						
MDJ	**Mudanjiang**	**47.98**	**36**	*e*P	**P**	**09 28 40.2**	**-0.7**
	comp=Z,191nm,1.3s,mb6.0						
TATS	**Tathlith**	**48.31**	**288**	P	**P**	**09 28 45.7**	**+2.0**
AFFS	**'Afif**	**49.30**	**294**	P	**P**	**09 28 54.3**	**+3.0**
ARSS	**Ar Rass**	**49.43**	**296**	P	**P**	**09 28 54.5**	**+2.2**
NAMS	**An Nimas**	**49.48**	**288**	D		09 28 55.8	
YOMI	**Yo Moklole**	**49.48**	**101**	*e*P	**P**	**09 28 50.5**	**-2.3**
MAJO	**Matsushiro**	**49.83**	**49**	*e*P	**P**	**09 28 53.7**	**-1.5**
	comp=Z,91nm,0.9s,mb5.8						
MAJO				LR	LR		
	comp=Z,41µm,22.0s,MS6.4						
MAT	**Matsushiro**	**49.83**	**49**	P	**P**	**09 28 52.7**	**-2.5**
MAT				S	**S**	**09 36 06.0**	**+3.2**
MAT	**Matsushiro**	**49.83**	**49**	*e*P	**P**	**09 28 53.0**	**-2.2**
	comp=Z,612nm,2.0s,mb6.3						
MAT				*e*S	**S**	**09 36 07.0**	**+4.2**
JHJ	**Hachijo jima 2**	**49.90**	**54**	LR	LR	09 49 40.4	
	comp=Z,17µm,20.3s,MS6.0,baz=177,slow=36						
WRA	**Warramunga Arr**	**50.38**	**125**	P	**P**	**09 28 55.1**	**-4.5**
	comp=Z,189nm,0.8s,mb6.2,baz=306,slow=8.8,SNR=42						
WRA				PcP	PcP	09 30 19.0	+0.7
	comp=Z,46nm,0.7s,baz=319,slow=2.9,SNR=4.5						
WRA	**Warramunga Arr**	**50.38**	**125**	P	**P**	**09 28 55.1**	**-4.5**
WRA						09 30 19.0	
WRA				pmax	pmax		
	comp=Z,189nm,0.8s						
WRA				pmax	pmax		
	comp=Z,46nm,0.7s						
WRAB	**Tennant Creek**	**50.38**	**125**	*e*P	**P**	**09 28 55.4**	**-4.3**
	comp=Z,406nm,0.8s,mb6.5						
WRAB				LR	LR		
	comp=Z,53µm,21.0s,MS6.5						
CBIJ	**Chichi jima**	**50.41**	**62**	LR	LR	09 48 21.8	
	comp=Z,13µm,20.9s,MS5.9,baz=264,slow=34						
HILS	**Ha'il**	**50.98**	**298**	P	**P**	**09 29 07.3**	**+3.2**
BOD	**Bodaibo**	**51.56**	**15**	*e*P	**P**	**09 29 06.2**	**-1.8**
GUMO	**Guam**	**51.70**	**80**	PFAKE		09 29 20.0	+10
GUMO				LR	LR		
	comp=Z,28µm,21.0s,MS6.3						
MAK	**Makhachkala**	**51.70**	**319**	*e*P	**P**	**09 29 08.0**	**-1.3**
MAK				*e*S	**S**	**09 36 36.0**	**+7.4**
MAK				pmax	pmax		
	comp=Z,14µm,8.0s						
MAK				pmax	pmax		
	comp=N,2µm,6.0s						
MAK				pmax	pmax		
	comp=E,6µm,8.0s						
ASAR	**Alice Springs**	**52.01**	**129**	P	**P**	**09 29 07.1**	**-4.8**
	comp=E,117nm,0.9s,mb5.8,baz=306,slow=7.9,SNR=33						
ASAR				PcP	PcP	09 30 24.3	0.0
	comp=E,67nm,0.8s,baz=308,slow=3.5,SNR=8.6						
ASAR				LR	LR	09 56 18.5	
	comp=E,69µm,18.4s,MS6.7,baz=302,slow=42						
ASAR	**Alice Springs**	**52.01**	**129**	P	**P**	**09 29 07.1**	**-4.8**
ASAR				PcP	PcP	09 30 24.3	0.0
ASAR				LR	LR	09 56 18.5	
HKR	**Hakkari**	**52.16**	**311**	*e*P	**P**	**09 29 13.6**	**+0.7**
GNI	**Garni**	**52.38**	**314**	*e*P	**P**	**09 29 14.8**	**+0.3**
GNI	**Garni**	**52.38**	**314**	P	**P**	**09 29 13.7**	**-0.8**
	comp=E,28nm,0.8s,mb5.2,baz=158,slow=5.4,SNR=9.8						
GNI				LR	LR	09 55 11.2	
	comp=E,26µm,20.7s,MS6.2,baz=300,slow=40						
GNI	**Garni**	**52.38**	**314*c***	*i*P	**P**	**09 29 14.2**	**-0.3**
GNI				pmax	pmax		
	comp=Z,278nm,2.1s						
GNI	**Garni**	**52.38**	**314**	*e*P	**P**	**09 29 14.5**	**0.0**
	comp=Z,291nm,1.2s,mb6.1						
GNI				LR	LR		
	comp=Z,27µm,21.0s,MS6.3						
KBRS	**Khaybar**	**52.94**	**296**	P	**P**	**09 29 21.2**	**+2.3**
TI2	**Plekhanov**	**53.01**	**316**	*i* P	**P**	**09 29 20.0**	**+0.8**
SVE	**Sverdlovsk**	**53.74**	**339⇑**	*e*P	**P**	**09 29 22.0**	**-2.3**
SVE				*e*		09 31 21.0	
SVE				*e*		09 32 37.0	
SVE				*e*		09 36 54.0	
SVE				pmax	pmax		
	comp=Z,900nm,1.5s						
SVE				pmax	pmax		
	comp=Z,1.0nm,2.0s						
YNBS	**Yanbu' al Bahr**	**53.89**	**294**	P	**P**	**09 29 28.3**	**+2.5**
BTMT	**Batman**	**54.04**	**311**	*e*P	**P**	**09 29 27.2**	**+0.4**
CLNS	**Chul'man**	**54.09**	**21**	*e*P	**P**	**09 29 29.3**	**+2.4**
CLNS				*e**PP	pP	09 29 37.7	+5.7
CLNS				*e*		09 30 33.6	
CLNS				*e*		09 31 27.0	
CLNS				*e*S	**S**	**09 37 06.5**	**+5.6**
CLNS				*e*SS	SS	09 40 40.9	-1.3
CLNS				pmax	pmax		
	comp=Z,112nm,1.0s,mb5.8						
CLNS				pmax	pmax		
	comp=N,63nm,0.9s						
CLNS				pmax	pmax		
	comp=E,58nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
CLNS				pmax	pmax		
	comp=N,30nm,1.0s						
CLNS				pmax	pmax		
	comp=E,22nm,0.7s						
CLNS				smax			
	comp=N,2µm,11.8s						
CLNS				smax			
	comp=Z,3µm,12.5s						
CLNS				smax			
	comp=E,381nm,14.5s						
CLNS				MLR	MLR		
	comp=N,40µm,14.0s,MS6.6						
CLNS				MLR	MLR		
	comp=Z,57µm,14.0s,MS6.8						
CLNS				MLR	MLR		
	comp=E,9µm,15.0s,MS6.6						
ARU	**Arti**	**54.20**	**338⇑**	*i*P	**P**	**09 29 26.4**	**-1.3**
ARU				*i*		09 30 28.9	
ARU				*e*PPP	PPP	09 32 43.2	+2.1
ARU				*i* S	**S**	**09 37 03.6**	**+1.2**
ARU				*e*		09 39 12.6	
ARU				pmax	pmax		
	comp=Z,508nm,1.1s,mb6.4						
ARU				MLR	MLR		
	comp=Z,38µm,20.0s,MS6.5						
ARU				MLR	MLR		
	comp=E,37µm,19.0s						
ARU	**Arti**	**54.20**	**338**	*e*P	**P**	**09 29 26.1**	**-1.5**
	comp=E,498nm,1.1s,mb6.4						
ARU				LR	LR		
	comp=Z,11µm,21.0s,MS5.9						
VRT	**Varto**	**54.32**	**312**	*e*P	**P**	**09 29 27.9**	**-0.9**
UMJS	**Umm Lajj**	**54.61**	**295**	P	**P**	**09 29 32.4**	**+1.3**
EZM	**Erzurum**	**54.70**	**313**	*e*P	**P**	**09 29 32.9**	**+1.2**
BINT	**Bingol**	**55.00**	**312**	*e*P	**P**	**09 29 34.3**	**+0.5**
BCA	**Borcka**	**55.06**	**315**	*e*P	**P**	**09 29 34.7**	**+0.4**
KIV	**Kislovodsk**	**55.30**	**318**	P	**P**	**09 29 37.0**	**+1.1**
	comp=Z,1µm,1.2s,mb6.8,SNR=52						
KIV	**Kislovodsk**	**55.30**	**318*c***	*i*P	**P**	**09 29 34.4**	**-1.5**
KIV				*e*		09 31 39.7	
KIV				*e*S	**S**	**09 37 21.4**	**+4.2**
KIV				*e*SS	SS	09 41 04.6	+2.9
KIV				pmax	pmax		
	comp=Z,284nm,1.1s,mb6.2						
KIV				MLR	MLR		
	comp=N,18µm,18.0s						
KIV				MLR	MLR		
	comp=Z,26µm,18.0s,MS6.3						
KIV	**Kislovodsk**	**55.30**	**318**	*e*P	**P**	**09 29 34.5**	**-1.4**
	comp=Z,357nm,1.2s,mb6.3						
KIV				LR	LR		
	comp=Z,8µm,22.0s,MS5.8						
GOF	**Gofitskoye**	**55.52**	**319**	*e*P	**P**	**09 29 35.0**	**-2.5**
GOF				pmax	pmax		
	comp=Z,180nm,1.2s,mb6.0						
TBKS	**Tabuk**	**55.70**	**298**	P	**P**	**09 29 42.0**	**+2.9**
KMBO	**Kilima Mbogo**	**55.73**	**263**	P	**P**	**09 29 39.1**	**-0.3**
	comp=Z,14nm,0.8s,mb5.0,baz=54,slow=9.9,SNR=13						
KMBO				LR	LR	09 52 25.9	
	comp=Z,93µm,18.3s,MS6.9,baz=76,slow=35						
KMBO	**Kilima Mbogo**	**55.73**	**263**	*e*P	**P**	**09 29 39.3**	**-0.2**
	comp=Z,47nm,1.0s,mb5.5						
KMBO				LR	LR		
	comp=Z,89µm,19.0s,MS6.9						
EZC	**Erzincan**	**55.77**	**312**	*e*P	**P**	**09 29 42.5**	**+3.0**
PTK	**Pertek**	**55.82**	**311**	*e*P	**P**	**09 29 38.7**	**-1.1**
URFA	**Urfa**	**55.83**	**309**	*e*P	**P**	**09 29 38.7**	**-1.1**
ASAJ	**Asahikawa**	**55.83**	**42**	P	**P**	**09 29 40.2**	**+0.4**
	comp=Z,46nm,0.9s,mb5.5,baz=237,slow=4.4,SNR=9.0						
ASAJ				LR	LR	09 56 21.1	
	comp=Z,35µm,18.3s,MS6.5,baz=253,slow=39						
ASAJ	**Asahikawa**	**55.83**	**42**	P	**P**	**09 29 40.2**	**+0.4**
ASAJ				pmax	pmax		
	comp=Z,46nm,0.9s						
ASAJ				MLR	MLR		
	comp=Z,35µm,18.3s						
ASF	**Jabal al Asfar**	**56.09**	**303**	P	**P**	**09 29 41.4**	**-0.5**
	comp=Z,18nm,0.9s,mb5.1,baz=350,slow=5.5,SNR=11						
GUMT	**Gumushane**	**56.25**	**313**	*e*P	**P**	**09 29 41.6**	**-1.2**
MALT	**Malatya**	**56.37**	**310**	*e*P	**P**	**09 29 42.2**	**-1.5**
	comp=Z,138nm,1.4s,mb5.8						
MYA	**Malataya**	**56.38**	**310**	*e*P	**P**	**09 29 43.9**	**+0.1**
JMQS	**Jabal Moqyreh**	**56.38**	**299**	P	**P**	**09 29 45.8**	**+1.9**
AYUS	**'Aynunah**	**56.81**	**298**	P	**P**	**09 29 49.2**	**+2.2**
DUSS	**Damascus Unive**	**56.87**	**304**	*i* P	**P**	**09 29 46.4**	**-1.0**
DUSS				*i* P		09 29 46.9	
DUSS				*i* P		09 29 46.9	
DUSS				*e*		09 29 56.5	
	baz=101,slow=7.4						
DUSS				*e*S	**S**	**09 37 37.2**	**-1.1**
DUSS				AMS	AMS	09 56 34.0	
	comp=E,619µm,18.4s						
DUSS				AMS	AMS	09 57 00.1	
	comp=N,735µm,16.4s						
DUSS				AMS	AMS	09 57 25.7	
	comp=Z,463µm,20.5s						
GAZ	**Gaziantep**	**56.99**	**309**	*e*P	**P**	**09 29 48.2**	**0.0**
MKRJ	**Makawir**	**57.03**	**302**	P	**P**	**09 29 48.6**	**+0.1**
YSS	**Yuzh-Sakhalins**	**57.09**	**39**	*e*P	**P**	**09 29 45.0**	**-3.8**
YSS				*e*		09 30 02.0	
YSS				S	**S**	**09 37 33.0**	**-8.0**
YSS				*e*PS	PS	09 37 46.0	-10
YSS				*e*SSS	SSS	09 43 50.0	+5.1
YSS				MLR	MLR		
	comp=Z,29µm,17.0s,MS6.5						
YSS				MLR	MLR		
	comp=E,39µm,15.0s						
YSS	**Yuzh-Sakhalins**	**57.09**	**39**	*e*P	**P**	**09 29 49.3**	**+0.6**
	comp=E,108nm,0.7s,mb6.0						
YSS				LR	LR		

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      comp=Z,31µm,19.0s,MS6.4
JMOS  Jabal al Moall     57.09 299   P       P       09 29 50.9 +1.9
SOC   Sochi              57.14 317 i P       P       09 29 46.3 -2.9
SOC                                e                 09 30 45.1
SOC                                e                 09 31 50.8
SOC                                eS        S       09 37 39.3 -2.5
SOC                                  pmax    pmax
      comp=Z,384nm,1.8s,mb6.1
SOC                                  pmax    pmax
      comp=N,147nm,1.7s
SOC                                  pmax    pmax
      comp=E,86nm,1.6s
SOC                                  MLR     MLR
      comp=Z,22µm,17.0s,MS6.3
SOC                                  MLR     MLR
      comp=N,39µm,20.0s,MS6.5
SOC                                  MLR     MLR
      comp=E,19µm,20.0s,MS6.5
ALWS  Ilw as Safayha     57.15 299   P       P       09 29 51.3 +1.8
KSHT  Keshet             57.15 303   P       P       09 29 50.1 +0.7
MZDA  Masada             57.22 301   P       P       09 29 50.1 +0.2
AQBJ  Aqaba              57.23 300   P       P       09 29 49.8 -0.2
HAQS  Haql               57.23 299   P       P       09 29 51.9 +1.9
DRGI  Dragot             57.24 302   P       P       09 29 50.1  0.0
ZFRI  Zfri               57.25 301   P       P       09 29 50.0 -0.1
EIL   Elat               57.30 299   P       P       09 29 50.0 -0.5
      comp=E,28nm,0.7s,mb5.4,baz=76,slow=4.8,SNR=16
EIL                                  LR      LR      09 57 27.7
      comp=E,37µm,18.1s,MS6.5,baz=216,slow=39
EIL   Elat               57.30 299   P       P       09 29 50.4 -0.1
EIL   Elat               57.30 299 eP        P       09 29 49.9 -0.6
      comp=E,145nm,1.0s,mb6.0
MBH   Mount Berech       57.35 300   P       P       09 29 51.0 +0.2
PRNI  Paran              57.36 300   P       P       09 29 51.0 +0.1
MMLI  Mount Malkishu     57.37 303   P       P       09 29 51.2 +0.2
KMTI  Karmit             57.56 300   P       P       09 29 52.3  0.0
HTY   Hatay              57.57 307 eP        P       09 29 55.8 +3.5
PMG   Port Moresby       57.60 107   P       P       09 29 52.7 -0.1
      comp=E,174nm,0.8s,mb6.1,baz=302,slow=5.1,SNR=37
PMG   Port Moresby       57.60 107 eP        P       09 29 52.0 -0.7
      comp=E,22nm,1.0s,mb5.1
PMG                                  LR      LR
      comp=Z,52µm,22.0s,MS6.6
SLTI  Sal’it             57.65 302   P       P       09 29 53.1 +0.2
HAF   Haifa              57.77 303   P       P       09 29 53.5 -0.2
OFRI  ‘Ofer              57.77 303   P       P       09 29 53.7  0.0
KZIT  Kziot              57.97 301   P       P       09 29 55.0 -0.1
YUK   Yuzh-Kuril’sk      57.99  43 eP        P       09 29 52.0 -3.1
YUK                                eS        S       09 37 53.0 +0.1
YUK                                  pmax    pmax
      comp=Z,8µm,5.0s
YUK                                  smax
      comp=N,8µm,5.0s
YUK                                  smax
      comp=E,2µm,5.0s
YUK                                  MLR     MLR
      comp=N,29µm,18.0s,MS6.7
YUK                                  MLR     MLR
      comp=E,42µm,16.0s,MS6.7
CEYT  Ceyhan             58.08 308 eP        P       09 29 57.4 +1.6
TOKT  Tokat              58.34 312 eP        P       09 29 57.8 +0.1
BNN   Bunyan             58.47 310 eP        P       09 29 57.9 -0.6
ANN   Anapa              59.11 317c iP       P       09 29 59.3 -3.6
ANN                                  pmax    pmax
      comp=Z,171nm,1.3s,mb5.9
ANN                                  MLR     MLR
      comp=N,27µm,18.0s,MS6.5
ANN                                  MLR     MLR
      comp=E,21µm,18.0s,MS6.5
ANN                                  MLR     MLR
      comp=Z,21µm,18.0s,MS6.3
AVNT  Avonos             59.20 310 i P       P       09 30 00.9 -2.6
NIG   Nigde              59.22 309 eP        P       09 30 05.0 +1.2
IKL   Isikli             59.53 307 eP        P       09 30 05.7 -0.2
CSS   Prodhromos         59.56 305 eP        P       09 30 05.2 -0.9
      comp=Z,78nm,1.2s,mb5.6
YAK   Yakutsk            59.58  19 eP        P       09 30 07.5 +1.6
YAK                                e                 09 30 19.4
YAK                                eS        S       09 38 26.9  +13
YAK                                e                 09 39 43.8
YAK                                  pmax    pmax
      comp=Z,113nm,1.0s,mb5.8
YAK                                  pmax    pmax
      comp=N,52nm,1.2s
YAK                                  pmax    pmax
      comp=E,43nm,1.1s
YAK                                  pmax    pmax
      comp=N,23nm,1.0s
YAK                                  pmax    pmax
      comp=Z,32nm,1.0s,mb5.3
YAK                                  pmax    pmax
      comp=E,15nm,0.9s
YAK                                  smax
      comp=N,16nm,1.3s
YAK                                  smax
      comp=Z,4.0nm,1.0s
YAK                                  smax
      comp=E,18nm,1.5s
YAK                                  pmax    pmax
      comp=N,12µm,18.4s
YAK                                  pmax    pmax
      comp=Z,9µm,19.3s
YAK                                  pmax    pmax
      comp=E,20µm,17.0s
YAK                                  MLR     MLR
      comp=Z,28µm,16.0s,MS6.5
YAK                                  MLR     MLR
      comp=N,27µm,17.0s,MS6.5
YAK                                  MLR     MLR
      comp=E,16µm,14.0s,MS6.5
YAK   Yakutsk            59.58  19 eP        P       09 30 02.7 -3.2
      comp=E,196nm,1.0s,mb6.1
CTKT  Corum              59.71 312 i P       P       09 30 07.3 +0.2
CORM  Corum              59.72 311 eP        P       09 30 10.2 +3.1
BOYT  Boyabat            59.84 313 i P       P       09 30 06.6 -1.4
LEF   Lefka              59.94 305 eP        P       09 30 09.2 +0.4
BYBT  Boyabat            59.95 313 eP        P       09 30 07.4 -1.4
KAMT  Kaman              60.20 310 eP        P       09 30 06.8 -3.7
PECR  Pechory            60.31 331 eP        P       09 30 14.0 +3.0
PECR                               eS        S       09 38 12.0  -11
PECR                               e                 09 38 40.0
PECR                                 pmax    pmax
      comp=E,3µm,8.0s
PECR                                 pmax    pmax
      comp=N,3µm,13.0s
PECR                                 smax
      comp=N,3µm,12.0s
PECR                                 MLR     MLR
      comp=E,2µm,21.0s
BR131 Keskin Array S     60.34 311   PFAKE           09 30 20.0 +8.6
BR131                                LR      LR
      comp=Z,13µm,21.0s,MS6.0
BRTR  Keskin Array B     60.34 311   P       P       09 30 09.2 -2.2
      comp=Z,15nm,0.9s,mb5.0,baz=124,slow=7.0,SNR=13
BRTR  Keskin Array B     60.34 311   P       P       09 30 09.3 -2.1
BRTR                                 pmax    pmax
      comp=Z,15nm,0.9s
CTA   Charters Tower     60.43 119   P       P       09 30 10.0 -2.3
      comp=Z,95nm,1.0s,mb5.8,baz=294,slow=8.5,SNR=33
CTA                                  LR      LR      10 01 41.6
      comp=Z,55µm,18.6s,MS6.7,baz=292,slow=41
CTA   Charters Tower     60.43 119   P       P       09 30 10.0 -2.3
CTA                                  pmax    pmax
      comp=Z,95nm,1.0s
CTA                                  MLR     MLR
      comp=Z,55µm,18.6s
CTAO  Charters Tower     60.43 119   P       P       09 30 09.1 -3.2
CTAO                                 pmax    pmax
      comp=Z,340nm,1.4s,mb6.2
CTAO  Charters Tower     60.43 119 eP        P       09 30 08.7 -3.6
      comp=Z,345nm,1.4s,mb6.2
CTAO                                 LR      LR
      comp=Z,125µm,22.0s,MS7.0
CANT  Cankiri            60.57 312 eP        P       09 30 12.7 -0.3
HDMB  Hadim              60.62 307 eP        P       09 30 11.4 -2.0
BZK   Bozkurt            60.64 313 eP        P       09 30 14.3 +0.9
ELDT  Eldivan            60.68 312 i P       P       09 30 14.0 +0.2
KONT  Konya--Tatoy       60.92 308 eP        P       09 30 15.6 +0.2
BALT  Daday              60.97 313 i P       P       09 30 14.5 -1.2
ANTO  Ankara             61.01 311 eP        P       09 30 13.2 -2.8
LOD   Lodumlu            61.03 311 eP        P       09 30 15.6 -0.5
SIM   Simferopol’        61.39 317 eP        P       09 30 18.0 -0.5
SIM                                eS        S       09 38 35.0 -1.8
SIM                                  pmax    pmax
      comp=Z,2µm,11.3s
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SAFT  Safranbolu         61.41 312 eP        P       09 30 18.1 -0.6
KIZT  Kizilcal           61.48 309 eP        P       09 30 17.0 -2.2
SGKT  Sivrigoynuk        61.72 311 i P       P       09 30 18.9 -1.8
MBAR  Mbarara            62.02 265 eP        P       09 30 23.8 +0.6
MBAR                                 pmax    pmax
      comp=Z,41nm,1.1s,mb5.5
MBAR  Mbarara            62.02 265 eP        P       09 30 22.7 -0.5
      comp=Z,41nm,1.1s,mb5.5
MBAR                                 LR      LR
      comp=Z,27µm,21.0s,MS6.4
ANTB  Antalya            62.05 307 eP        sP      09 30 37.1 +6.9
STKA  Stephens Creek     62.17 133   P       P       09 30 21.0 -2.9
      comp=Z,68nm,0.7s,mb5.9,baz=306,slow=7.0,SNR=27
STKA  Stephens Creek     62.17 133 eP        P       09 30 19.8 -4.2
MDU   Mudurnu            62.32 311 eP        P       09 30 23.9 -0.9
ISP   Isparta            62.33 308 eP        P       09 30 23.7 -1.3
ISP   Isparta            62.33 308d iP       P       09 30 24.0 -1.0
ISP   Isparta            62.33 308 eP        P       09 30 22.6 -2.4
      comp=Z,191nm,1.2s,mb6.1
ESKT  Eskisehir          62.40 310 eP        P       09 30 25.3 -0.1
ESKT  Eskisehir          62.40 310 i P       P       09 30 24.1 -1.2
HENT  Hendek             62.63 311 i P       P       09 30 23.8 -3.1
ALT   Altintas           62.87 309 eP        P       09 30 27.7 -0.7
MOS   Moscow             63.22 329α iP       P       09 30 28.3 -2.2
MOS                                e                 09 30 46.3
MOS                                e                 09 31 03.2
MOS                                e                 09 32 50.2
MOS                                ePPP      PPP     09 34 22.4  0.0
MOS                                e                 09 40 20.5
MOS                                  pmax    pmax
      comp=Z,1µm,2.0s,mb6.6
MOS                                  pmax    pmax
      comp=Z,398nm,1.3s,mb6.4
MOS                                  pmax    pmax
      comp=E,206nm,1.2s
FETY  Fethiye            63.25 306 eP        P       09 30 28.3 -2.7
DNZL  Cakiroluk          63.45 308 i P       P       09 30 33.5 +1.2
DENT  Denizli            63.47 308 eP        P       09 30 33.9 +1.5
OBN   Obninsk            63.50 328⇓eP        P       09 30 30.7 -1.7
OBN                                i                 09 30 45.0
OBN                                e                 09 31 07.2
OBN                                eS        S       09 39 02.0 -1.2
OBN                                  pmax    pmax
      comp=Z,152nm,2.0s,mb5.8
OBN                                  MLR     MLR
      comp=Z,47µm,19.0s,MS6.7
OBN   Obninsk            63.50 328⇓eP        P       09 30 30.8 -1.6
HRT   Hereke             63.55 311 eP        P       09 30 32.4 -0.5
DALT  Dalyan (Mudla)     63.62 307 eP        P       09 30 33.6 +0.1
YLV   Yalova             63.72 311 eP        P       09 30 28.9 -5.1
ULDT  Uludag             63.81 310 i P       P       09 30 34.2 -0.5
MANT  Manisa             63.96 308 i P       P       09 30 34.7 -1.1
ISK   Istanbul-Kandi     64.05 311 eP        P       09 30 33.6 -2.6
AYDN  Tasoluk            64.36 307 i P       P       09 30 37.0 -1.3
MLSB  Milas              64.38 307 eP        P       09 30 37.1 -1.4
BTOK  Tokmak             64.58 310 i P       P       09 30 39.4 -0.4
AKS   Akhisar            64.60 309 eP        P       09 30 39.9  0.0
BDRM  Kayabasi           64.61 307 i P       P       09 30 41.3 +1.3
BALB  Balikesir          64.67 310 eP        P       09 30 40.0 -0.3
BNT   Bandirma           64.77 310 eP        P       09 30 43.2 +2.3
KDAG  Bornova            64.95 308 i P       P       09 30 41.2 -0.9
IZM   Izmir              64.95 308 eP        P       09 30 41.7 -0.5
MRMT  Marmara Adasi      65.05 311 eP        P       09 30 41.0 -1.7
PSN   Preselentsi        65.20 314   P       P       09 30 44.0 +0.3
TIRR  Tirgusor           65.20 315   P       P       09 30 43.5 -0.1
MFT   Murefte            65.32 311 eP        P       09 30 47.0 +2.5
SART  Tekirdag           65.38 311 i P       P       09 30 42.7 -2.2
KIS   Kishinev           65.50 318 eP        P       09 30 44.0 -1.5
KIS                                e                 09 30 54.0
AYVA  Ayvalik            65.53 309 i P       P       09 30 38.9 -7.0
CFR   Carcaliu           65.55 316⇑iP        P       09 30 43.6 -2.3
CFR   Carcaliu           65.55 316⇑iP        P       09 30 43.6 -2.3
PRD   Provadia           65.67 313 eP        P       09 30 46.0 -0.7
EDRB  Edirne             65.90 312 eP        P       09 30 46.4 -1.7
SANT  Santorini          66.11 306 eP        P       09 30 47.1 -2.5
JMB   Yambol             66.12 312 eP        P       09 30 50.0 +0.4
APE   Apeiranthos        66.13 307 eP        P       09 30 47.0 -2.7
AKASG Malin Array Be     66.18 322   P       P       09 30 46.8 -3.0
      comp=Z,9.1nm,0.7s,mb4.9,baz=89,slow=4.4,SNR=21
AKASG Malin Array Be     66.18 322   P       P       09 30 46.8 -3.0
AKASG                                pmax    pmax
      comp=Z,9.0nm,0.7s
ALN   Alexandroupoli     66.26 311 eP        P       09 30 48.8 -1.7
IDI   Anoyia             66.45 305   P       P       09 30 49.8 -2.0
      comp=Z,16nm,0.6s,mb5.2,baz=91,slow=6.9,SNR=8.8
TIXI  Tiksi              66.56  12 eP        P       09 30 49.6 -2.3
TIXI                               eS        S       09 39 45.6 +5.1
TIXI                                 pmax    pmax
      comp=N,134nm,0.9s
TIXI                                 pmax    pmax
      comp=E,67nm,0.9s
TIXI                                 pmax    pmax
      comp=Z,1µm,0.9s,mb6.8
TIXI                                 smax
      comp=N,4µm,19.3s
TIXI                                 smax
      comp=E,16µm,22.7s
TIXI                                 MLR     MLR
      comp=Z,29µm,16.0s,MS6.6
TIXI                                 MLR     MLR
      comp=N,6µm,14.0s,MS7.0
TIXI                                 MLR     MLR
      comp=E,73µm,18.0s,MS7.0
TIXI  Tiksi              66.56  12⇑eP        P       09 30 49.9 -2.0
TIXI                                 LR      LR
      comp=Z,28µm,20.0s,MS6.5
ISR   Istrita            66.64 315⇓iP        P       09 30 52.8  0.0
ISR   Istrita            66.64 315⇓iP        P       09 30 52.8  0.0
SKR   Severo-Kuril’s     66.65  38 eP        P       09 30 52.0 -0.8
SKR                                e         pP      09 30 58.9 +0.9
SKR                                e                 09 31 18.0
SKR                                eS        S       09 39 44.0 +2.0
SKR                                ePS       PS      09 40 16.0  +10
SKR                                  pmax    pmax
      comp=N,320nm,1.2s
SKR                                  pmax    pmax
      comp=E,180nm,1.0s
SKR                                  pmax    pmax
      comp=N,2µm,4.0s
SKR                                  pmax    pmax
      comp=Z,5µm,4.0s
SKR                                  pmax    pmax
      comp=E,2µm,6.0s
SKR                                  smax
      comp=N,5µm,10.0s
SKR                                  smax
      comp=E,3µm,10.0s
SKR                                  MLR     MLR
      comp=N,34µm,16.0s,MS6.7
SKR                                  MLR     MLR
      comp=Z,29µm,16.0s,MS6.6
SKR                                  MLR     MLR
      comp=E,17µm,18.0s,MS6.7
VRI   Vrincioaia         66.66 316 ⇓P        P       09 30 52.7 -0.2
VRI   Vrincioaia         66.66 316 ⇓P        P       09 30 52.7 -0.2
MA2   Magadan            66.68  28⇑eP        P       09 30 52.1 -0.7
MA2                                  pmax    pmax
      comp=Z,106nm,1.5s,mb5.7
KDZ   Kurdzhali          66.85 311 eP        P       09 30 54.0 -0.2
GVD   Gavdhos            67.06 304 eP        P       09 30 57.6 +1.9
      comp=Z,138nm,1.1s,mb5.9
MLR   Muntele Rosu       67.12 316   P       P       09 30 54.6 -1.3
      comp=Z,43nm,0.8s,mb5.6,baz=49,slow=4.3,SNR=18
MLR                                  LR      LR      10 05 56.9
      comp=Z,24µm,18.4s,MS6.5,baz=266,slow=41
MLR   Muntele Rosu       67.12 316   P       P       09 30 56.5 +0.6
RZN   Rozhen             67.37 311 eP        P       09 30 55.0 -2.6
SNX   Sinaia             67.40 315   P       P       09 31 00.4 +2.8
PGB   Panagyurishte      67.90 312 eP        P       09 31 01.0 +0.1
LSZ   Lusaka             67.91 250 eP        P       09 31 01.6 +0.3
LSZ                                  pmax    pmax
      comp=Z,86nm,1.4s,mb5.6
LSZ   Lusaka             67.91 250 eP        P       09 30 59.9 -1.5
      comp=Z,86nm,1.4s,mb5.6
LSZ                                  LR      LR
      comp=Z,86µm,22.0s,MS6.9
PAIG  Paliouri           67.92 309 eP        P       09 31 00.8 -0.2
MNK   Minsk              68.03 325 eP        P       09 30 57.0 -4.5
MNK                                e                 09 31 10.0
MNK                                e                 09 33 36.0
MNK                                eS        S       09 40 00.0 +1.5
MNK                                ePS       PS      09 40 30.0 +4.7
MNK                                  MLR     MLR
      comp=N,23µm,20.0s,MS6.5
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MNK                                  MLR     MLR
      comp=E,17µm,20.0s,MS6.5
MNK                                  MLR     MLR
      comp=Z,21µm,20.0s,MS6.4
MMB   Musomiste          68.09 311 eP        P       09 31 00.0 -2.1
SRS   Serrai             68.13 311 eP        P       09 31 00.7 -1.6
XOR   Xorichti           68.23 309 eP        P       09 31 05.0 +2.1
SOH   Sokhos             68.27 310 eP        P       09 31 01.0 -2.2
PUL   Pulkovo            68.39 331⇓eP        P       09 31 07.0 +3.4
PUL                                e                 09 40 49.9
PUL                                  pmax    pmax
      comp=Z,387nm,1.0s,mb6.4
PUL                                  pmax    pmax
      comp=N,88nm,0.8s
PUL                                  pmax    pmax
      comp=E,268nm,1.0s
THE   Thessaloniki       68.54 310 eP        P       09 31 04.1 -0.8
KKB   Krupnik            68.61 311 eP        P       09 31 03.5 -1.8
VTS   Vitosha            68.61 312 eP        P       09 31 03.0 -2.3
VTS   Vitosha            68.61 312   P       P       09 31 05.5 +0.2
KNT   Kendrikon          68.66 311 eP        P       09 31 02.7 -2.9
SEY   Seymchan           68.73  25 eP        P       09 31 04.9 -0.8
SEY                                                  09 31 23.9
SEY                                eS        S       09 40 02.7 -4.0
SEY                                  pmax    pmax
      comp=Z,300nm,1.2s,mb6.1
SEY                                  pmax    pmax
      comp=N,40nm,1.3s
SEY                                  pmax    pmax
      comp=E,200nm,1.3s
SEY                                  smax
      comp=N,9µm,20.3s
SEY                                  smax
      comp=E,10µm,29.2s
PET   Petropavlovsk      68.75  36 eP        P       09 31 13.0 +7.0
PET                                e                 09 31 38.2
PET                                  pmax    pmax
      comp=Z,59nm,0.8s,mb5.6
PET                                  pmax    pmax
      comp=Z,4µm,17.4s
PET                                  pmax    pmax
      comp=Z,3µm,5.6s
PET                                  pmax    pmax
      comp=Z,69nm,1.2s,mb5.5
PET                                  pmax    pmax
      comp=Z,3µm,8.3s
PET                                  pmax    pmax
      comp=Z,2µm,9.3s
PET                                  pmax    pmax
      comp=Z,2µm,18.7s
PET   Petropavlovsk      68.75  36   P       P       09 31 04.7 -1.3
      comp=Z,35nm,0.8s,mb5.3
PET                                  LR      LR
      comp=Z,29µm,19.0s,MS6.5
LIT   Litokhoron         68.84 309 eP        P       09 31 05.0 -1.7
AGG   Agios Georgios     68.86 308 eP        P       09 31 05.3 -1.5
IDID  Didziasalis        68.86 326 eP        P       09 31 05.3 -1.3
IDID                                 AMPb    AMB     09 31 13.4
      comp=Z,95nm,1.1s,mb5.7
VAY   Valandovo          68.92 311 i P       P       09 31 09.5 +2.3
VAY   Valandovo          68.92 311⇓iP        P       09 31 06.2 -1.0
VAY                                i PcP     PcP     09 31 23.3 -8.4
VAY                               ⇓i                 09 34 04.8
GRG   Griva              69.01 310 eP        P       09 31 04.8 -2.9
IIGN  Ignalina           69.16 326 eP        P       09 31 06.6 -1.8
IIGN                                 AMPb    AMB     09 31 15.3
      comp=Z,94nm,0.9s,mb5.7
LVV   L’vov              69.22 320 eP        P       09 31 14.0 +5.1
IZAR  Zarasai            69.25 326 eP        P       09 31 07.2 -1.8
IZAR                                 AMPb    AMB     09 31 15.8
      comp=Z,62nm,1.0s,mb5.5
ISAL  Salakas            69.27 326 eP        P       09 31 07.1 -2.0
ISAL                                 AMPb    AMB     09 31 15.9
      comp=Z,67nm,0.9s,mb5.6
BOLS  Boljevac           69.67 313⇓iP        P       09 31 11.2 -0.6
FNA   Florina            69.76 310 eP        P       09 31 11.4 -0.9
SKO   Skopje             69.84 311 eP        P       09 31 11.5 -1.3
      comp=Z,70nm,1.0s,mb5.5
SKO                                i         pP      09 31 17.0 -1.0
SKO                                i                 09 31 25.8
SKO   Skopje             69.84 311 eP        P       09 31 11.5 -1.3
SKO                                i         pP      09 31 17.0 -1.0
      comp=Z,0.1nm,1.0s
SKO                                i                 09 31 25.8
      comp=Z,0.1nm,1.0s
LVZ   Lovozero           69.93 340⇓eP        P       09 31 12.4 -0.5
LVZ                                  pmax    pmax
      comp=Z,111nm,1.1s,mb5.7
LVZ                                  pmax    pmax
      comp=N,17nm,1.3s
LVZ                                  pmax    pmax
      comp=E,14nm,0.9s
LVZ                                  MLR     MLR
      comp=Z,45µm,21.0s,MS6.7
LVZ                                  MLR     MLR
      comp=N,19µm,16.0s,MS6.7
LVZ                                  MLR     MLR
      comp=E,31µm,18.0s,MS6.7
KWP   Kalwaria           70.03 320 eP        P       09 31 14.0 +0.2
KWP                                epP       pP      09 31 17.3 -1.7
KWP                                  MLR     MLR     10 08 11.6
      comp=E,24µm,19.4s,MS6.5
UZH   Uzhgorod           70.13 318 i P       P       09 31 16.0 +1.5
UZH                                eS        S       09 40 27.0 +3.6
KOLS  Kolonicke sedl     70.19 319 eP        P       09 31 13.3 -1.5
KOLS                               esP       sP      09 31 20.8 -1.1
KOLS                               e                 09 31 28.2
KOLS                               ePP       PP      09 33 54.9 +2.8
APA   Apatity            70.20 340⇓iP        P       09 31 15.1 +0.5
APA                                i                 09 31 25.0
APA                                i                 09 33 44.0
APA                                eS        S       09 40 25.0 +1.0
APA                                  pmax    pmax
      comp=Z,190nm,1.0s,mb6.0
APA                                  MLR     MLR
      comp=Z,46µm,16.0s,MS6.8
OHR   Ohrid              70.23 310 eP        P       09 31 13.0 -2.2
OHR                                i         pP      09 31 17.2 -3.2
SVIS  Svilajnac          70.26 314 eP        P       09 31 15.2 -0.2
SUW   Suwalki            70.57 324 eP        P       09 31 15.4 -1.6
SUW                                epP       pP      09 31 21.1 -1.1
SUW                                  MLR     MLR     10 08 56.0
      comp=Z,21µm,20.4s,MS6.4
GRUS  Gruza              70.57 313⇑iP        P       09 31 14.6 -2.7
CRVS  Cervenica-Dubn     70.72 319 eP        P       09 31 19.4 +1.4
BEO   Belgrade           70.86 314⇑iP        P       09 31 21.6 +2.6
FINES FINESS Array B     70.91 332   P       P       09 31 17.2 -1.8
      comp=Z,29nm,0.7s,mb5.3,baz=104,slow=7.9,SNR=24
FINES                                LR      LR      10 09 17.9
      comp=Z,26µm,19.9s,MS6.5,baz=109,slow=42
QSH   Qafa e Shtames     70.94 311 i p       P       09 31 24.0 +4.5
KAF   Kangasniemi        71.00 333 ep        P       09 31 17.9 -1.7
      comp=Z,323nm,1.2s,mb6.1,baz=104,slow=5.5
DIVS  Divcibare          71.11 313⇑iP        P       09 31 20.2 -0.3
NVSS  Nova Varos 2       71.27 313⇑iP        P       09 31 11.6  -10
KECS  Kecovo             71.30 318 eP        P       09 31 20.8 -0.7
KECS                               e                 09 31 32.5
KECS  Kecovo             71.30 318 eP        P       09 31 20.8 -0.7
KECS                               epP       pP      09 31 26.3 -0.5
KECS                               e                 09 31 32.5
WAR   Warsaw             71.52 322 eP        P       09 31 25.7 +2.9
WAR                                e                 09 31 41.0
WAR   Warsaw             71.52 322 eP        P       09 31 25.7 +2.9
WAR                                epP       pP      09 31 27.2 -0.8
WAR                                ePcP      PcP     09 31 41.0 -1.4
WAR                                  MLR     MLR     10 08 30.4
      comp=Z,33µm,20.6s,MS6.6
NIE   Niedzica           71.54 319 eP        P       09 31 22.4 -0.6
PSZ   Piszkesteto        71.61 317 eP        P       09 31 22.4 -1.1
PSZ                                  pmax    pmax
      comp=Z,83nm,1.0s,mb5.6
PSZ   Piszkesteto        71.61 317 eP        P       09 31 22.4 -1.1
      comp=Z,83nm,1.0s,mb5.6
OJC   Ojcow              71.98 320 eP        P       09 31 23.7 -1.9
OJC                                ePcP      PcP     09 31 43.0 -1.4
OJC                                eS        S       09 41 00.9  +16
OJC                                  MLR     MLR     10 09 33.8
      comp=Z,18µm,19.9s,MS6.3
PKSM  Moragy             72.28 316⇑eP        P       09 31 27.4  0.0
VYHS  Vyhne              72.39 318 eP        P       09 31 28.4 +0.4
VYHS                               e                 09 31 40.9
WAKE  Wake Island        72.41  73   PFAKE           09 31 40.0  +11
WAKE                                 LR      LR
      comp=Z,64µm,21.0s,MS6.9
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SRO2	**Moca**	**72.60**	**317**	*e*P	**P**	**09 31 28.5**	**-0.8**
RHK1	**Bakonya**	**72.66**	**315**	*e*P	**P**	**09 31 29.7**	**0.0**
SRO	**Srobarova**	**72.66**	**317**	*e*P	**P**	**09 31 29.7**	**0.0**
SRO				*e*		09 31 41.4	
OKC	**Ostrava-Krasne**	**72.99**	**319**	*e*P	**P**	**09 31 30.3**	**-1.3**
OKC				*e*S	S	09 40 55.4	-0.9
OKC				AMS	AMS	10 09 00.0	
	comp=Z,12µm,18.6s						
LBTB	**Lobatse**	**73.16**	**241**	P	**P**	**09 31 32.0**	**-1.1**
LBTB				SPn		09 42 00.1	
LBTB				SPn		09 42 06.0	
LBTB	**Lobatse**	**73.16**	**241**	*e*P	**P**	**09 31 33.0**	**-0.1**
LBTB				pmax	pmax		
	comp=Z,91nm,1.0s,mb5.7						
LBTB	**Lobatse**	**73.16**	**241**	*e*P	**P**	**09 31 31.6**	**-1.5**
	comp=Z,91nm,1.1s,mb5.6						
LBTB				LR	LR		
	comp=Z,87µm,22.0s,MS7.0						
TIP	**Timpagrande**	**73.19**	**308**	*e*P	**P**	**09 31 33.6**	**+0.6**
KEV	**Kevo**	**73.22**	**341**	*e*p	**P**	**09 31 30.9**	**-1.6**
	comp=Z,245nm,1.0s,mb6.1						
KEV	**Kevo**	**73.22**	**341**	*e*P	**P**	**09 31 30.9**	**-1.6**
KEV				pmax	pmax		
	comp=Z,245nm,1.0s,mb6.1						
SMOL	**Smolenice**	**73.32**	**318**	*e*P	**P**	**09 31 36.7**	**+3.2**
SMOL				*e*		09 31 45.6	
MORC	**Moravsky Berou**	**73.37**	**319**	*e*P	**P**	**09 31 33.2**	**-0.6**
MORC				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
MORC	**Moravsky Berou**	**73.37**	**319**	*e*P	**P**	**09 31 32.1**	**-1.7**
	comp=Z,124nm,1.0s,mb5.8						
GRI	**Girifalco**	**73.44**	**308**	*e*P	**P**	**09 31 35.7**	**+1.2**
ORI	**Oriolo Calabro**	**73.46**	**309**	*e*P	**P**	**09 31 38.9**	**+4.4**
ZST	**Bratislava**	**73.51**	**318**	*e*P	**P**	**09 31 34.2**	**-0.4**
ZST				*e*pP	pP	09 31 40.2	+0.3
ZST				*e*		09 31 46.6	
ZST				*e*		09 41 57.2	
ARCES	**ARCESS Array B**	**73.64**	**340**	P	**P**	**09 31 33.5**	**-1.5**
	comp=Z,26nm,0.7s,mb5.3,baz=90,slow=4.9,SNR=20						
ARCES				LR	LR	10 08 12.2	
	comp=Z,30µm,18.8s,MS6.6,baz=116,slow=39						
ARCES	**ARCESS Array B**	**73.64**	**340**	P	**P**	**09 31 33.5**	**-1.5**
ARCES				pmax	pmax		
	comp=Z,26nm,0.7s						
ARCES				MLR	MLR		
	comp=Z,30µm,18.8s						
ARE0	**ARCESS Array S**	**73.64**	**340**	*e*P	**P**	**09 31 34.2**	**-0.8**
SOI	**Samo**	**73.71**	**307**	*e*P	**P**	**09 31 40.1**	**+4.1**
SOP	**Sopron**	**73.83**	**317**	*e*P	**P**	**09 31 35.7**	**-0.8**
GKP	**Gorka Klasztor**	**73.94**	**323**	*e*P	**P**	**09 31 39.6**	**+2.6**
GKP				*e*		09 31 54.3	
GKP				*e*		09 34 23.0	
GKP				MLR	MLR		
	comp=Z,26µm,23.2s,MS6.5						
GKP	**Gorka Klasztor**	**73.94**	**323**	*e*P	**P**	**09 31 39.6**	**+2.6**
GKP				*e*pP	pP	09 31 41.9	-0.3
GKP				*e*PcP	PcP	09 31 54.3	+1.6
GKP				*e*PP	PP	09 34 23.0	-0.8
GKP				MLR	MLR	10 07 28.0	
	comp=Z,26µm,23.2s,MS6.5						
VRAC	**Vranov**	**73.94**	**319**	LR	LR	10 09 51.8	
	comp=Z,20µm,20.4s,MS6.4,baz=3.7,slow=40						
VRAC	**Vranov**	**73.94**	**319**	P	**P**	**09 31 37.8**	**+0.7**
SCLL	**Scilla**	**73.98**	**307**	*e*P	**P**	**09 31 38.9**	**+1.3**
DPC	**Dobruska-Polom**	**74.21**	**320**	*e*P	**P**	**09 31 38.5**	**-0.1**
DPC				MLR	MLR		
	comp=Z,14µm,17.6s,MS6.3						
DPC	**Dobruska-Polom**	**74.21**	**320**	*e*P	**P**	**09 31 38.5**	**-0.1**
DPC				*e*S	S	09 41 20.1	+10
DPC				LR	LR		
	comp=Z,14µm,17.6s,MS6.3						
DPC	**Dobruska-Polom**	**74.21**	**320**	*e*P	**P**	**09 31 38.5**	**-0.1**
DPC				*e*S	S	09 41 20.1	+10
DPC				AMS	AMS	10 12 40.0	
	comp=Z,14µm,17.6s						
KTK1	**Kautokeino**	**74.25**	**340**	*e*P	**P**	**09 31 38.6**	**+0.1**
KTK1				*e*pP	pP	09 31 43.4	-0.4
KTK1				AMb	AMB	09 31 59.1	
	comp=Z,347nm,1.7s,mb6.0						
KTK1	**Kautokeino**	**74.25**	**340**	*e*P	**P**	**09 31 38.6**	**+0.1**
	comp=Z,347nm,1.7s,mb6.0						
KSP	**Ksiaz**	**74.27**	**320**⇑	*e*P	**P**	**09 31 37.8**	**-1.2**
KSP				*e*pP	pP	09 31 42.1	-2.1
KSP				*e*		09 31 49.9	
KSP				*e*S	S	09 41 16.0	+5.3
KSP				LR	LR		
	comp=Z,51µm,19.8s,MS6.8						
KSP	**Ksiaz**	**74.27**	**320**	*e*P	**P**	**09 31 39.5**	**+0.5**
KSP				*e*pP	pP	09 31 43.0	-1.2
KSP				*e*PcP	PcP	09 31 51.7	-2.5
KSP				MLR	MLR	10 09 49.3	
	comp=Z,44µm,19.8s,MS6.8						
UPC	**Upice**	**74.42**	**320**	*e*P	**P**	**09 31 38.5**	**-1.3**
ARSA	**Arzberg**	**74.50**	**317**⇑	*i*P	**P**	**09 31 41.4**	**+1.0**
	comp=Z,147nm,1.1s,mb5.8						
BOJS	**Bojanci**	**74.59**	**315**	*e*P	**P**	**09 31 41.2**	**+0.3**
BOJS				*e*		09 31 57.5	
BOSA	**Boshof**	**74.61**	**237**	SPn		09 42 07.2	
BOSA				SPn		09 42 12.9	
BOSA				SPn		09 42 16.8	
BOSA	**Boshof**	**74.61**	**237**	*e*P	**P**	**09 31 41.8**	**+0.4**
BOSA				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.7						
BOSA	**Boshof**	**74.61**	**237**	*e*P	**P**	**09 31 40.0**	**-1.4**
	comp=Z,105nm,1.0s,mb5.7						
BOSA				LR	LR		
	comp=Z,105µm,22.0s,MS7.1						
LJU	**Ljubljana**	**75.12**	**315**	*e*P	**P**	**09 31 44.4**	**+0.4**
LJU				*e*		09 32 00.8	
OBKA	**Obir**	**75.13**	**316**⇑	*i*P	**P**	**09 31 44.9**	**+0.9**
	comp=Z,164nm,1.1s,mb5.9						
MIR	**Mirnyy**	**75.30**	**180**	d*e*P	**P**	**09 31 52.0**	**+7.4**
MIR				pmax	pmax		
	comp=Z,6µm,14.0s						
MIR				MLR	MLR		
	comp=N,42µm,17.0s,MS6.8						
MIR				MLR	MLR		
	comp=E,8µm,17.0s,MS6.8						
MIR				MLR	MLR		
	comp=Z,52µm,17.0s,MS6.9						
PRU	**Pruhonice**	**75.32**	**319**	*e*P	**P**	**09 31 44.1**	**-1.0**
	comp=Z,128nm,1.0s,mb5.8						
PRU				*e*S	S	09 41 27.5	+5.1
PRU				AMS	AMS	10 10 20.0	
	comp=Z,11µm,17.5s						
PVCC	**Panska Ves**	**75.34**	**320**	*e*P	**P**	**09 31 46.3**	**+1.1**
PVCC				MLR	MLR		
	comp=Z,16µm,18.6s,MS6.3						
PVCC	**Panska Ves**	**75.34**	**320**	*e*P	**P**	**09 31 46.3**	**+1.1**
PVCC				*e*S	S	09 41 33.5	+11
PVCC				AMS	AMS	10 10 40.0	
	comp=Z,16µm,18.6s						
MOA	**Molln**	**75.38**	**317**⇑	*i*P	**P**	**09 31 45.8**	**+0.3**
	comp=Z,98nm,1.1s,mb5.7						
PRA	**Prague**	**75.40**	**319**	P	**P**	**09 31 45.0**	**-0.5**
PRA				*e*x	x	09 32 00.0	
PRA				*e*x	x	09 32 55.0	
JAVS	**Javornik**	**75.44**	**315**	*e*	PcP	09 32 02.2	+2.9
BSD	**Bornholm Skovb**	**75.49**	**325**	*i* P	**P**	**09 31 45.8**	**-0.1**
BSD				*i*		09 31 59.0	
BSD				pmax	pmax		
	comp=Z,130nm,0.9s,mb5.9						
BSD				MLR	MLR		
	comp=Z,21µm,20.0s,MS6.4						
BSD	**Bornholm Skovb**	**75.49**	**325**	*i* P	**P**	**09 31 45.8**	**-0.1**
	comp=Z,134nm,0.9s,mb5.9						
BSD				*i*		09 31 59.0	
BSD				*i* S	S	09 41 35.0	+11
	comp=Z,21µm,20.0s						
CADS	**Cadrg**	**75.68**	**315**	*e*	PcP	09 32 03.7	+3.4
BRG	**Berggiesshubel**	**75.76**	**320**	*i* P	**P**	**09 31 46.9**	**-0.6**
BRG				pmax	pmax		
	comp=Z,137nm,1.1s,mb5.8						
BRG	**Berggiesshubel**	**75.76**	**320**	*i* P	**P**	**09 31 46.9**	**-0.6**
	comp=Z,137nm,1.1s,mb5.8						
BILL	**Bilibino**	**75.78**	**22**	*e*P	**P**	**09 31 46.0**	**-1.3**
BILL				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
BILL	**Bilibino**	**75.78**	**22**⇑	*e*P	**P**	**09 31 47.2**	**-0.1**
GEC2	**GERESS Array S**	**75.81**	**318**	*e*P	**P**	**09 31 47.3**	**-0.6**
GEC2				pmax	pmax		
	comp=Z,188nm,1.0s,mb6.0						
GEC2	**GERESS Array S**	**75.81**	**318**	*e*P	**P**	**09 31 47.3**	**-0.6**
	comp=Z,188nm,1.0s,mb6.0						
GERES	**GERESS Array B**	**75.81**	**318**	P	**P**	**09 31 46.7**	**-1.2**
	comp=Z,19nm,0.7s,mb5.1,baz=91,slow=4.6,SNR=26						
GERES	**GERESS Array B**	**75.81**	**318**	P	**P**	**09 31 46.7**	**-1.2**
GERES				pmax	pmax		
	comp=Z,19nm,0.7s						
PTQR	**Pietraquaria**	**75.82**	**311**	*e*P	**P**	**09 31 51.1**	**+3.0**
AQU	**L’Aquila**	**75.82**	**311**	P	**P**	**09 31 47.3**	**-0.8**
AQU				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.5						
AQU	**L’Aquila**	**75.82**	**311**	*e*P	**P**	**09 31 47.2**	**-0.9**
ROBS	**Robic**	**75.83**	**315**	*e*P	**P**	**09 31 48.4**	**+0.3**
TRO	**Tromso**	**75.89**	**340**	*e*P	**P**	**09 31 45.3**	**-2.6**
TRO				AMb	AMB	09 32 04.4	
	comp=Z,307nm,1.1s,mb6.2						
TRO	**Tromso**	**75.89**	**340**	*e*P	**P**	**09 31 45.3**	**-2.6**
	comp=Z,307nm,1.1s,mb6.2						
KHC	**Kasperske Hory**	**75.90**	**318**	*e*P	**P**	**09 31 47.3**	**-1.1**
KHC				pP	pP	09 31 52.5	-1.1
KHC				AMS	AMS	10 10 50.0	
	comp=Z,16µm,19.4s						
PTCC	**Patocco-Chiusa**	**75.95**	**316**	*e*P	**P**	**09 31 47.8**	**-0.9**
RUE	**Ruedersdorf**	**75.95**	**322**	*e*P	**P**	**09 31 47.8**	**-0.8**
	comp=Z,299nm,0.9s,mb6.2						
KBA	**Koelnbreinsper**	**75.97**	**316**⇑	*i*P	**P**	**09 31 49.3**	**+0.5**
	comp=Z,139nm,1.2s,mb5.8						
GMNA	**Gemona**	**76.02**	**315**	*e*P	**P**	**09 31 49.6**	**+0.4**
NRCA	**Norcia**	**76.04**	**312**	*e*P	**P**	**09 31 49.4**	**0.0**
SNTG	**Esanatoglia**	**76.17**	**312**	*e*P	**P**	**09 31 49.8**	**-0.2**
ARV	**Arcevia**	**76.18**	**313**	*e*P	**P**	**09 31 50.5**	**+0.4**
CASY	**Casey**	**76.22**	**173**	*e*P	**P**	**09 31 50.2**	**+0.4**
	comp=Z,210nm,1.3s,mb5.9						
CASY				LR	LR		
	comp=Z,58µm,19.0s,MS6.9						
FSSB	**Fossombrone**	**76.30**	**313**	*e*P	**P**	**09 31 51.7**	**+0.9**
FVI	**Forni Avoltri**	**76.35**	**316**	*e*P	**P**	**09 31 51.0**	**0.0**
WET	**Wettzell**	**76.36**	**318**	*e*P	**P**	**09 31 50.5**	**-0.5**
RGN	**Rugen**	**76.36**	**324**	*e*P	**P**	**09 31 51.5**	**+0.6**
	comp=Z,275nm,1.2s,mb6.1						
CLL	**Collm**	**76.37**	**321**	*i* P	**P**	**09 31 51.1**	**+0.1**
CLL				*i*	pP	09 31 56.1	-0.1
CLL				*e*S	S	09 41 30.0	-3.9
CLL				pmax	pmax		
	comp=Z,118nm,1.1s,mb5.7						
CLL				MLR	MLR		
	comp=Z,21µm,18.2s,MS6.5						
CLL	**Collm**	**76.37**	**321**	*i* P	**P**	**09 31 51.1**	**+0.1**
	comp=Z,118nm,1.1s,mb5.7						
CLL				*i*	pP	09 31 56.1	-0.1
CLL				*e*S	S	09 41 30.0	-3.9
CLL				LR	LR		
	comp=Z,21µm,18.2s,MS6.5						
CLL	**Collm**	**76.37**	**321**	P	**P**	**09 31 51.1**	**+0.1**
CLL				*i* *PP	pP	09 31 56.1	-0.1
CLL				*e*		09 32 04.0	
CLL				*e*		09 32 44.0	
CLL				*e*		09 37 30.0	
CLL				*e*S	S	09 41 30.0	-3.9
CLL				*e*PPS	PPS	09 42 33.0	+2.3
CLL				*e*SS	Sx	09 47 03.0	
ERC	**Erice**	**76.45**	**307**	*e*P	**P**	**09 31 53.0**	**+1.3**
RSM	**Repubblica di**	**76.54**	**313**	*e*P	**P**	**09 31 56.3**	**+4.3**
HFS	**Hagfors**	**76.61**	**330**	P	**P**	**09 31 50.7**	**-1.4**
	comp=Z,31nm,0.6s,mb5.4,baz=108,slow=4.7,SNR=22						
HFS	**Hagfors**	**76.61**	**330**	P	**P**	**09 31 50.7**	**-1.4**
HFS				pmax	pmax		
	comp=Z,31nm,0.6s						
NKC	**Novy Kostel**	**76.68**	**319**	*e*P	**P**	**09 31 53.2**	**+0.5**
NKC				*e*S	S	09 41 40.8	+3.5
NKC				AMS	AMS	10 11 40.0	
	comp=Z,17µm,19.1s						
COP	**Copenhagen**	**76.94**	**325**	*e*P	**P**	**09 31 59.0**	**+4.9**
COP				pmax	pmax		
	comp=Z,68nm,0.7s,mb5.7						
COP	**Copenhagen**	**76.94**	**325**	*i* P	**P**	**09 31 59.0**	**+4.9**
	comp=Z,68nm,0.7s,mb5.7						
MOR8	**Moi Rana**	**76.95**	**336**	*e*P	**P**	**09 31 52.6**	**-1.3**
MOR8				*e*pP	pP	09 31 58.1	-1.1
MOR8				AMb	AMB	09 32 11.1	
	comp=Z,242nm,2.1s,mb5.8						
MOR8	**Moi Rana**	**76.95**	**336**	*e*P	**P**	**09 31 52.6**	**-1.3**
	comp=Z,242nm,2.1s,mb5.8						
SFI	**Santa Sofia**	**76.97**	**313**	*e*P	**P**	**09 31 56.0**	**+1.4**
PGD	**Poggio Sodo**	**77.06**	**313**	*e*P	**P**	**09 31 55.4**	**+0.4**
CTI	**Castel Tesino**	**77.12**	**315**	*e*P	**P**	**09 31 54.9**	**-0.4**
WTTA	**Wattenberg**	**77.14**	**316**⇑	*i*P	**P**	**09 31 54.7**	**-0.7**
	comp=Z,183nm,0.9s,mb6.0						
WATA	**Walderalm**	**77.19**	**316**⇑	*i*P	**P**	**09 31 56.0**	**+0.4**
	comp=Z,49nm,0.8s,mb5.5						
VMG	**Vicchio**	**77.19**	**313**	*e*P	**P**	**09 31 56.7**	**+1.0**
MOX	**Moxa**	**77.22**	**320**	*e*P	**P**	**09 31 56.7**	**+1.0**
MOX				*e*		09 32 09.4	
MOX	**Moxa**	**77.22**	**320**	*i* P	**P**	**09 31 56.7**	**+1.0**
MOX				pP	PcP	09 32 09.0	+2.1
MOX	**Moxa**	**77.22**	**320**	*e*P	**P**	**09 31 54.5**	**-1.2**
MOX				*e*P		09 31 56.7	
MOX				*e*		09 32 09.4	
SEI	**Scarperia**	**77.33**	**313**	*e*P	**P**	**09 31 57.0**	**+0.6**
CSNT	**Castellina Chi**	**77.38**	**313**	*e*P	**P**	**09 32 01.0**	**+4.3**
FUR	**Furstenfeldbru**	**77.40**	**317**	*e*P	**P**	**09 31 55.8**	**-1.0**
FX1	**Attu Island--F**	**77.42**	**38**	P	**P**	**09 31 57.1**	**+0.3**
	comp=Z,43nm,0.6s,baz=126,slow=9.3,SNR=6.3						
FX1				LR	LR	10 09 05.4	
	comp=Z,600nm,21.8s,baz=287,slow=38						
FX1	**Attu Island--F**	**77.42**	**38**	P	**P**	**09 31 57.1**	**+0.3**
FX1				pmax	pmax		
	comp=Z,43nm,0.6s						
FX1				MLR	MLR		
	comp=Z,600nm,21.8s						
FX1	**Attu Island--F**	**77.42**	**38**	*e*P	**P**	**09 31 56.4**	**-0.4**
SQTA	**Sankt Quirin**	**77.44**	**316**⇑	*i*P	**P**	**09 31 57.5**	**+0.5**
	comp=Z,130nm,0.8s,mb5.9						
GRA1	**Grafenberg Arr**	**77.46**	**319**	*e*P	**P**	**09 31 57.0**	**0.0**
	comp=Z,157nm,1.0s,mb5.9						
GRA1				*e*pP	pP	09 32 03.6	+1.3
GRF	**Grafenberg Arr**	**77.46**	**319**	*e*P	**P**	**09 31 57.0**	**0.0**
GRF				*e**PP	pP	09 32 03.6	+1.3
GRF				pmax	pmax		
	comp=Z,157nm,1.0s,mb5.9						
GRF				pmax	pmax		
	comp=Z,260nm,1.0s,mb6.1						
GRF	**Grafenberg Arr**	**77.46**	**319**	*e*P	**P**	**09 31 57.0**	**0.0**
	comp=Z,157nm,1.0s,mb5.9						
GRF				*e*pP	pP	09 32 03.6	+1.3
MOTA	**Moosalm**	**77.51**	**317**⇓	*i*P	**P**	**09 31 56.9**	**-0.5**
	comp=Z,141nm,0.9s,mb5.9						
ZCCA	**Zocca**	**77.60**	**313**	*e*P	**P**	**09 32 00.1**	**+2.2**
GRFL	**Gerfalco**	**77.61**	**312**	*e*P	**P**	**09 31 57.7**	**-0.3**
NSS	**Namsos**	**77.81**	**334**	*e*P	**P**	**09 31 56.6**	**-2.0**
NSS				*e*pP	pP	09 32 02.3	-1.7
NSS				AMb	AMB	09 32 04.3	
	comp=Z,420nm,0.9s,mb6.4						
NSS	**Namsos**	**77.81**	**334**	*e*P	**P**	**09 31 56.6**	**-2.0**
	comp=Z,420nm,0.9s,mb6.4						
BDI	**Bagni Di Lucca**	**77.87**	**313**	*e*P	**P**	**09 31 58.9**	**-0.5**
GSCL	**Gusciola**	**77.88**	**313**	*e*P	**P**	**09 31 59.7**	**+0.3**
NB2	**NORSAR Subarra**	**77.90**	**331**	P	**P**	**09 31 57.3**	**-1.9**
	comp=Z,173nm,0.9s,mb6.0,baz=93,slow=5.6						
NB2	**NORSAR Subarra**	**77.90**	**331**	P	**P**	**09 31 57.3**	**-1.9**
	baz=93,slow=5.9						
NOA	**NORSAR Array B**	**77.90**	**331**	P	**P**	**09 31 57.5**	**-1.8**
	comp=Z,15nm,0.6s,mb5.1,baz=94,slow=5.6,SNR=34						
NOA				LR	LR	10 11 17.4	
	comp=Z,24µm,19.0s,MS6.5,baz=115,slow=40						
NOA	**NORSAR Array B**	**77.90**	**331**	P	**P**	**09 31 57.5**	**-1.7**
NOA				pmax	pmax		
	comp=Z,15nm,0.6s						
NOA				MLR	MLR		
	comp=Z,24µm,19.0s						
NOA	**NORSAR Array B**	**77.90**	**331**	P	**P**	**09 31 57.5**	**-1.8**
NOA				LR	LR	10 11 17.4	
PII	**Pisa**	**77.93**	**313**	*e*P	**P**	**09 31 57.5**	**-2.3**
SMY	**Shemya**	**77.98**	**38**	PFAKE		09 32 10.0	+10
SMY				LR	LR		
	comp=Z,22µm,21.0s,MS6.5						
ERBM	**Eremo**	**78.00**	**314**	*e*P	**P**	**09 32 04.6**	**+4.5**
BRMO	**Bormio**	**78.01**	**316**	*e*P	**P**	**09 31 59.6**	**-0.5**
VLC	**Villacollemand**	**78.02**	**313**	P	**P**	**09 32 00.1**	**-0.2**
	comp=Z,101nm,0.9s,mb5.8						
CLZ	**Clausthal**	**78.03**	**321**	*e*P	**P**	**09 31 59.6**	**-0.5**
	comp=Z,146nm,1.0s,mb5.9						
NAO01	**NORSAR Array S**	**78.05**	**330**	*e*P	**P**	**09 31 57.8**	**-2.3**
	comp=Z,154nm,0.9s,mb5.9						
NAO01				LR	LR		
	comp=Z,33µm,21.0s,MS6.6						
OSL	**Oslo**	**78.08**	**329**	*e*P	**P**	**09 31 59.8**	**-0.5**
BSEG	**Bad Segeberg**	**78.10**	**323**	*e*P	**P**	**09 32 00.1**	**-0.4**
HDH	**Heidenheim**	**78.11**	**318**	*e*P	**P**	**09 31 59.7**	**-1.0**
UBR	**Uberruh**	**78.18**	**317**⇓	*e*P	**P**	**09 32 01.0**	**-0.1**
BACM		**78.25**	**313**	P	**P**	**09 32 00.8**	**-0.7**
GRAM		**78.25**	**314**	P	**P**	**09 32 00.5**	**-1.0**
DAVA	**Damuels**	**78.34**	**316**⇑	*i*P	**P**	**09 32 02.0**	**0.0**
	comp=Z,333nm,1.0s,mb6.2						
DAVOX	**Davos**	**78.35**	**316**	P	**P**	**09 32 01.9**	**-0.1**
	comp=Z,95nm,0.9s,mb5.7,baz=101,slow=11,SNR=18						
TRON	**Trondheim**	**78.41**	**333**	*e*P	**P**	**09 32 02.7**	**+0.7**
CODM		**78.41**	**313**	P	**P**	**09 32 01.9**	**-0.5**
SIND	**Sindeldorf**	**78.51**	**319**	*e*P	**P**	**09 32 02.5**	**-0.3**
KONO	**Kongsberg**	**78.64**	**329**	PFAKE		09 32 10.0	+6.7
KONO				LR	LR		
	comp=Z,32µm,21.0s,MS6.6						
BUCH	**Bad Urach**	**78.68**	**318**⇓	*e*P	**P**	**09 32 04.0**	**+0.2**
BOB	**Bobbio (Coli)**	**78.69**	**314**	*e*P	**P**	**09 32 04.7**	**+0.8**
STU	**Stuttgart**	**78.78**	**318**	P	**P**	**09 32 03.4**	**-1.0**
STU				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
STU	**Stuttgart**	**78.78**	**318**	*e*P	**P**	**09 32 02.8**	**-1.6**
	comp=Z,108nm,0.9s,mb5.8						
NOUC	**Port Laguerre**	**78.79**	**115**	*e*P	**P**	**09 32 05.5**	**+0.5**
MUD	**Monsted U’grnd**	**78.80**	**326**	*e*P	**P**	**09 32 03.9**	**-0.4**
MUD				*i* S	S	09 42 03.1	+3.2
MUD				pmax	pmax		
	comp=Z,230nm,0.9s,mb6.1						
MUD				MLR	MLR		
	comp=Z,13µm,16.0s,MS6.4						
MUD	**Monsted U’grnd**	**78.80**	**326**	*e*P	**P**	**09 32 03.9**	**-0.4**
	comp=Z,231nm,0.9s,mb6.1						
MUD				*i* S	S	09 42 03.1	+3.2
MUD	**Monsted U’grnd**	**78.80**	**326**	*i* P	**P**	**09 32 03.9**	**-0.4**
	comp=Z,231nm,0.9s,mb6.1						
MUD				*i* S	S	09 42 03.1	+3.2
	comp=Z,13µm,16.0s						
GUT	**Gutenstein**	**78.85**	**317**⇓	*e*P	**P**	**09 32 04.6**	**-0.1**
DZM	**Mont Dzumac**	**78.91**	**115**	*e*P	**P**	**09 32 05.9**	**+0.3**
DZM	**Mont Dzumac**	**78.91**	**115**	*e*P	**P**	**09 32 05.9**	**+0.3**
VSL	**Villasalto**	**78.91**	**309**	*e*P	**P**	**09 32 04.8**	**-0.5**
	comp=Z,109nm,1.0s,mb5.7						
DOMB	**Dombas**	**78.97**	**332**	*e*P	**P**	**09 32 04.1**	**-1.0**
DOMB				*e*pP	pP	09 32 10.1	-0.4
DOMB				AMb	AMB	09 32 12.0	
	comp=Z,252nm,1.1s,mb6.1						
DOMB	**Dombas**	**78.97**	**332**	*e*P	**P**	**09 32 04.1**	**-1.0**
	comp=Z,252nm,1.1s,mb6.1						
TOD	**Tromm**	**79.03**	**319**	*e*P	**P**	**09 32 06.0**	**+0.3**
TOD	**Tromm**	**79.03**	**319**	*e*P	**P**	**09 32 06.5**	**+0.8**
LBG	**Lerchenberg**	**79.05**	**318**⇓	*e*P	**P**	**09 32 05.3**	**-0.5**
SPAK	**Spaichingen**	**79.07**	**317**	*e*P	**P**	**09 32 05.4**	**-0.5**
PGF	**Pioggiola**	**79.08**	**312**	*e*P	**P**	**09 32 05.9**	**-0.2**
	comp=Z,395nm,1.2s,mb5.9						
SWS	**Schriesheim**	**79.10**	**319**	*e*P	**P**	**09 32 06.3**	**+0.2**
VAI	**Varese**	**79.14**	**315**	*e*P	**P**	**09 32 05.4**	**-1.0**
MAW	**Mawson**	**79.22**	**191**	P	**P**	**09 32 04.9**	**-1.4**
	comp=Z,49nm,0.8s,mb5.5,baz=353,slow=6.2,SNR=31						
MAW				LR	LR	10 02 33.1	
	comp=Z,28µm,18.3s,MS6.6,baz=25,slow=32						
MAW	**Mawson**	**79.22**	**191**	*e*P	**P**	**09 32 04.7**	**-1.6**
MAW				pmax	pmax		
	comp=Z,190nm,1.3s						
MAW	**Mawson**	**79.22**	**191**	*e*P	**P**	**09 32 04.7**	**-1.6**
	comp=Z,191nm,1.4s,mb5.8						
PCP	**Pian Castagno**	**79.33**	**314**	P	**P**	**09 32 06.7**	**-0.8**
BFO	**Black Forest**	**79.37**	**318**	*e*P	**P**	**09 32 06.6**	**-0.9**
BFO				pmax	pmax		
	comp=Z,126nm,1.1s,mb5.8						
BFO	**Black Forest**	**79.37**	**318**	*e*P	**P**	**09 32 06.6**	**-0.9**
	comp=Z,126nm,1.1s,mb5.8						
SUR	**Sutherland**	**79.44**	**235**	*e*P	**P**	**09 32 08.6**	**+0.4**
	comp=Z,103nm,0.8s,mb5.8						
SUR				LR	LR		
	comp=Z,9µm,21.0s,MS6.1						
KTD	**Kalmit**	**79.50**	**319**	*e*P	**P**	**09 32 07.8**	**-0.5**
KTD	**Kalmit**	**79.50**	**319**	*e*P	**P**	**09 32 10.2**	**+1.9**
FIN	**Finale Ligure**	**79.59**	**313**	*e*P	**P**	**09 32 09.3**	**+0.5**
FELD	**Feldberg**	**79.60**	**317**	*e*P	**P**	**09 32 09.1**	**+0.3**
KIZ	**Kirchzarten**	**79.65**	**317**	*e*P	**P**	**09 32 08.5**	**-0.6**
MCGN	**Macugnaga**	**79.68**	**315**	*e*P	**P**	**09 32 10.2**	**+1.0**
MOL	**Molde**	**79.69**	**332**	*e*P	**P**	**09 32 10.1**	**+1.1**
MOL				AMb	AMB	09 32 18.1	
	comp=Z,271nm,1.2s,mb6.0						
MOL	**Molde**	**79.69**	**332**	*e*P	**P**	**09 32 10.1**	**+1.1**
	comp=Z,271nm,1.2s,mb6.0						
ORX	**Oropa**	**79.69**	**315**	P	**P**	**09 32 08.7**	**-0.7**
ORO	**Oropa**	**79.69**	**315**	*e*P	**P**	**09 32 13.7**	**+4.3**
LANF	**Langenberg**	**79.70**	**318**	*e*P	**P**	**09 32 09.9**	**+0.6**
STR	**Strasbourg**	**79.73**	**318**	*e*P	**P**	**09 32 12.1**	**+2.6**
ROB	**Roburent**	**79.83**	**313**	P	**P**	**09 32 10.1**	**0.0**
IMI	**Imperia**	**79.83**	**313**	P	**P**	**09 32 11.2**	**+1.0**
ABH	**Alteburg**	**79.84**	**319**	*e*P	**P**	**09 32 10.5**	**+0.5**
ABH	**Alteburg**	**79.84**	**319**	*e*P	**P**	**09 32 11.1**	**+1.1**
LIBD	**Limburg**	**79.86**	**317**	*e*P	**P**	**09 32 10.8**	**+0.6**
LIBD	**Limburg**	**79.86**	**317**	*e*P	**P**	**09 32 10.7**	**+0.5**
MONE	**Monesi**	**79.92**	**313**	P	**P**	**09 32 11.9**	**+1.3**
BBS	**Basel-Blauen**	**79.95**	**317**	*e*P	**P**	**09 32 10.3**	**-0.4**
WLS	**Welschbruch**	**80.02**	**318**	*e*P	**P**	**09 32 11.1**	**+0.1**
CDF	**Champ du Feu**	**80.07**	**318**	*e*P	**P**	**09 32 10.9**	**-0.4**
	comp=Z,205nm,1.1s,mb5.7						
ECH	**Echery**	**80.15**	**317**	*e*P	**P**	**09 32 11.8**	**0.0**
ENR	**Entracque**	**80.16**	**313**	P	**P**	**09 32 13.7**	**+1.8**
RUP	**Ruppelstein**	**80.16**	**319**	*e*P	**P**	**09 32 12.6**	**+0.8**
RUP	**Ruppelstein**	**80.16**	**319**	*e*P	**P**	**09 32 12.1**	**+0.3**
AUTN	**L’Aution**	**80.16**	**313**	*e*P	**P**	**09 32 16.4**	**+4.5**
MOF	**Molkenrain**	**80.19**	**317**	*e*P	**P**	**09 32 12.8**	**+0.9**
REVF	**Revere**	**80.22**	**313**	*e*P	**P**	**09 32 14.1**	**+1.9**
STV	**Sta Anna Valdi**	**80.22**	**313**	P	**P**	**09 32 13.6**	**+1.3**
RSP	**Reno Superiore**	**80.22**	**314**	P	**P**	**09 32 11.4**	**-0.8**
BHB	**Bricherasio**	**80.24**	**314**	P	**P**	**09 32 11.5**	**-0.7**
BLS5	**Blasjo**	**80.24**	**329**	*e*P	**P**	**09 32 12.6**	**+0.7**
BLS5				*e*sP	sP	09 32 19.2	+0.2
BLS5				AMb	AMB	09 32 31.4	
	comp=Z,152nm,0.8s,mb6.0						
BLS5	**Blasjo**	**80.24**	**329**	*e*P	**P**	**09 32 12.6**	**+0.7**
	comp=Z,152nm,0.8s,mb6.0						
WTSB	**Winterswijk**	**80.24**	**321**	*e*P	**P**	**09 32 12.3**	**+0.2**
	comp=Z,48nm,1.2s,mb5.3						
DOI	**San Damiano**	**80.27**	**314**	*e*P	**P**	**09 32 11.4**	**-1.0**
LSD	**Ceresole Reale**	**80.28**	**315**	P	**P**	**09 32 13.3**	**+0.8**
TOUF	**Mont Tournerai**	**80.29**	**313**	*e*P	**P**	**09 32 15.1**	**+2.5**
WIT	**Witteveen**	**80.29**	**322**	*e*P	**P**	**09 32 16.0**	**+3.6**
	comp=Z,426nm,1.5s,mb6.2						
MVIF	**Mont Vial**	**80.36**	**313**	*e*P	**P**	**09 32 16.0**	**+3.0**
FENE	**Fenestrelle**	**80.37**	**314**	P	**P**	**09 32 13.2**	**+0.2**
PZZ	**Prazzo**	**80.37**	**314**	P	**P**	**09 32 13.8**	**+0.8**
LOMF	**Lomont**	**80.42**	**317**	*e*P	**P**	**09 32 14.0**	**+0.8**
OG22	**Abries**	**80.46**	**314**	*e*P	**P**	**09 32 14.2**	**+0.7**
RRL	**Cesana Torines**	**80.57**	**314**	P	**P**	**09 32 14.6**	**+0.6**
LPL	**La Plagne**	**80.58**	**315**	*e*P	**P**	**09 32 13.9**	**-0.2**
	comp=Z,780nm,0.9s,mb6.3						
SURF	**Saint Ours**	**80.58**	**314**	*e*P	**P**	**09 32 15.4**	**+1.3**
BNI	**Bardonecchia**	**80.64**	**314**	P	**P**	**09 32 14.7**	**+0.3**
BNI				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
BNI	**Bardonecchia**	**80.64**	**314**	P	**P**	**09 32 14.7**	**+0.2**
	comp=Z,44nm,1.0s,mb5.3						
HAU	**Haudompre**	**80.70**	**317**	*e*P	**P**	**09 32 14.2**	**-0.5**
	comp=Z,393nm,1.0s,mb6.0						
HAU				*e*R			
	comp=Z,16µm,22.0s						
WLF	**Walferdange**	**80.75**	**319**	P	**P**	**09 32 16.3**	**+1.4**
WLF				pmax	pmax		
	comp=Z,300nm,1.5s,mb6.0						
WLF	**Walferdange**	**80.75**	**319**	*e*P	**P**	**09 32 15.6**	**+0.7**
	comp=Z,304nm,1.5s,mb6.0						
RUND	**Rundenannen**	**80.76**	**330**	*e*P	**P**	**09 32 15.9**	**+1.1**
RUND				AMb	AMB	09 32 33.0	
	comp=Z,378nm,1.4s,mb6.1						
HGN	**Heimansgroeve**	**80.83**	**320**	*e*P	**P**	**09 32 14.9**	**-0.4**
	comp=Z,23nm,2.0s,mb4.8						
FOO	**Floro**	**80.88**	**331**	*e*P	**P**	**09 32 15.1**	**-0.2**
FOO				AMb	AMB	09 32 33.4	
	comp=Z,199nm,1.7s,mb5.8						
FOO	**Floro**	**80.88**	**331**	*e*P	**P**	**09 32 15.1**	**-0.2**
	comp=Z,199nm,1.7s,mb5.8						
THEF	**They Montfort**	**80.94**	**317**	*e*P	**P**	**09 32 16.1**	**+0.2**
GDM	**Grand’Maison**	**81.03**	**314**	*e*P	**P**	**09 32 16.6**	**+0.1**
OG25	**Le Caire**	**81.11**	**314**	*e*P	**P**	**09 32 16.8**	**-0.1**
GIVF	**Givet**	**81.58**	**319**	*e*P	**P**	**09 32 18.3**	**-0.9**
	comp=Z,250nm,1.3s,mb5.7						
OCF	**Saint Nazaire**	**81.65**	**314**	*e*P	**P**	**09 32 19.7**	**0.0**
OG26	**St.-Nazaire-De**	**81.65**	**314**	*e*P	**P**	**09 32 19.7**	**0.0**

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VIVF  Saint-Julien-l    82.07 314  eP      P       09 32 22.0 +0.1
            comp=Z,289nm,1.0s,mb5.9
SSF   Saint Saulge      82.69 316  eP      P       09 32 25.0 -0.1
            comp=Z,471nm,1.5s,mb6.0
PLDF  La Plantade       82.72 315  eP      P       09 32 27.5 +2.3
DRV   Dumont d'Urvil    82.93 163   P      P       09 32 32.0 +6.1
DRV   Dumont d'Urvil    82.93 163   S      S       09 42 49.0 +6.4
LBL   Lubilhac          83.05 315  eP      P       09 32 29.6 +2.7
AGO   Saint Agoulin     83.05 315  eP      P       09 32 28.9 +2.0
PYM   Petit Puy Mans    83.16 315  eP      P       09 32 29.6 +2.1
EJON  La Jonquera       83.59 312   P      P       09 32 34.4 +4.6
            comp=Z,42nm,1.0s,mb5.5
FILF  Fillols           83.82 312  eP      P       09 32 31.4 +0.4
CAF   Calviac           83.91 314  eP      P       09 32 30.6 -0.8
            comp=Z,236nm,1.3s,mb5.9
LRW   Lerwick           84.03 330  eP      P       09 32 30.4 -1.2
WAL1  Walls             84.24 330  eP      P       09 32 33.9 +1.2
VALF  Valcebollere      84.24 312  eP      P       09 32 33.1  0.0
LMK   Market Rasen      84.44 323  eP      P       09 32 35.0 +1.2
MLS   Moulis            84.84 313  eP      P       09 32 34.0 -2.1
LCP   Cassop            84.93 324  eP      P       09 32 36.1 -0.2
LDF   La Druitiere      84.95 318  eP      P       09 32 36.2 -0.3
            comp=Z,159nm,0.8s,mb5.9
EPOB  Poblet            85.06 311   P      P       09 32 41.5 +4.2
            comp=Z,89nm,0.9s,mb5.9
JMIC  Jan Mayen         85.11 341   LR     LR      10 18 05.4
            comp=Z,13µm,20.8s,MS6.3,baz=261,slow=41
HPK   Haverah Park      85.13 324  eP      P       09 32 38.5 +1.2
EIBI  Ibiza             85.17 309   P      P       09 32 41.9 +4.1
            comp=Z,490nm,1.6s,mb6.4
KBI1  Birley Grange     85.18 323  eP      P       09 32 37.2 -0.3
LHO   Holmfirth         85.33 323  eP      P       09 32 39.2 +0.9
ESY   Stoneypath        85.40 326  eP      P       09 32 40.7 +2.1
KWE   Weaver Farm       85.40 323  eP      P       09 32 38.5 -0.1
EGRA  Graus             85.52 312   P      P       09 32 43.3 +3.8
            comp=Z,31nm,0.8s,mb5.6
EBR   Ebro Roquetas     85.57 310  eP      P       09 32 45.5 +5.7
EBIE  Bielsa            85.58 312   P      P       09 32 45.2 +5.4
            comp=Z,45nm,1.1s,mb5.6
ERTA  Horta de San J    85.67 311   P      P       09 32 44.7 +4.4
            comp=Z,71nm,0.9s,mb5.9
EDI   Edinburgh         85.72 326  eP      P       09 32 41.2 +1.1
EKA   Eskdalemuir Ar    85.80 325   PKKPbc         09 50 50.7
            comp=Z,1.7nm,0.7s,baz=270,slow=3.3,SNR=4.1
ESK   Eskdalemuir       85.83 325  eP      P       09 32 41.6 +0.9
ESK   Eskdalemuir       85.83 325   P      P       09 32 42.0 +1.3
ESK                                 pmax   pmax
            comp=Z,150nm,1.0s,mb6.2
ESK   Eskdalemuir       85.83 325  eP      P       09 32 40.2 -0.5
            comp=Z,146nm,1.0s,mb6.2
ESK                                 LR     LR
            comp=Z,5µm,19.0s,MS6.0
EAU   Auchinoon         85.87 326  eP      P       09 32 42.1 +1.1
SYO   Syowa Base        85.89 197 ⇓P       P       09 32 39.1 -1.6
SYO   Syowa Base        85.89 197 ⇓pP      pP      09 32 43.2 -2.9
SYO   Syowa Base        85.89 197 ⇓PcP     PcP     09 32 44.7 +0.7
HAE   Alders End        85.98 322  eP      P       09 32 42.4 +0.9
HLM1  Long Mynd         86.10 322  eP      P       09 32 43.3 +1.1
MIDW  Midway            86.14  62   PFAKE          09 32 50.0 +7.1
MIDW                                LR     LR
            comp=Z,11µm,21.0s,MS6.2
MSZ   Milford Sound     86.19 136   P      P       09 32 44.2 +1.4
HGH   Gray Hill         86.20 322  eP      P       09 32 42.4 -0.3
MCH1  Michaelchurch     86.26 322  eP      P       09 32 42.7 -0.2
MCH1                               eP              09 32 43.7
MCH1  Michaelchurch     86.26 322   P      P       09 32 43.7 +0.8
EAB   Aberfoyle         86.31 326  eP      P       09 32 44.3 +1.2
EMOS  Mosqueruela       86.37 310   P      P       09 32 49.1 +5.4
            comp=Z,124nm,0.9s,mb6.1
EBEN  Beniarda          86.42 308   P      P       09 32 49.3 +5.2
            comp=Z,836nm,2.8s,mb6.5
WPM1  Penmaenmawr       86.59 323  eP      P       09 32 44.6 +0.1
JCZ   Jackson Bay       86.59 135  eP      P       09 32 45.6 +0.8
WME   Myndd Eilian      86.80 323  eP      P       09 32 47.8 +2.2
HSA   Swansea           87.01 322  eP      P       09 32 47.6 +1.0
ANM   Nome              87.24  25  eP      P       09 32 46.8 -0.6
EMUR  La Murta          87.35 308   P      P       09 32 53.2 +4.6
            comp=Z,227nm,2.2s,mb6.0
HPE   Pembroke          87.35 322  eP      P       09 32 49.4 +1.1
TUZ   Tuapeka           87.69 137   P      P       09 32 48.9 -1.1
TUZ   Tuapeka           87.69 137  eP      P       09 32 51.1 +1.1
DSB   Dublin            88.05 324  eP      P       09 32 50.2 -1.3
            comp=Z,37nm,0.9s,mb5.6
ELAN  Lanestosa         88.08 313   P      P       09 32 56.9 +5.0
            comp=Z,174nm,1.6s,mb6.0
OUZ   Omahuta           88.08 126  eP      P       09 32 54.7 +2.5
OUZ   Omahuta           88.08 126  eP      P       09 32 54.2 +2.0
RPZ   Rata Peaks        88.10 135   P      P       09 32 51.5 -0.6
            comp=Z,158nm,0.9s,mb6.3,baz=98,slow=2.0,SNR=26
RPZ   Rata Peaks        88.10 135   P      P       09 32 52.3 +0.2
RPZ   Rata Peaks        88.10 135  eP      P       09 32 52.0 -0.1
DLF   Lyons Farm        88.13 324  eP      P       09 32 54.1 +2.2
DSZ   Denniston Nort    88.17 133  eP      P       09 32 51.1 -1.3
DSZ   Denniston Nort    88.17 133   P      P       09 32 54.2 +1.8
EVIA  Vianos            88.19 309   P      P       09 32 57.6 +5.0
            comp=Z,60nm,0.9s,mb5.8
QRZ   Quartz Range      88.49 132  eP      P       09 32 54.4 +0.4
QRZ   Quartz Range      88.49 132  eP      P       09 32 54.1 +0.1
DCN   Croghan           88.55 324  eP      P       09 32 56.4 +2.4
EQES  Quesada           88.78 308   P      P       09 33 00.5 +5.0
            comp=Z,42nm,0.8s,mb5.8
EBER  Berja             88.80 307   P      P       09 33 00.2 +4.6
            comp=Z,78nm,0.9s,mb6.0
WCZ   Waipu Caves       88.83 126  eP      P       09 32 58.7 +3.0
WCZ   Waipu Caves       88.83 126   P      P       09 32 58.5 +2.8
THZ   Tophouse          88.97 132  eP      P       09 32 54.6 -1.7
THZ   Tophouse          88.97 132  eP      P       09 32 55.4 -0.9
GUD   Guadarrama        89.09 311   P      P       09 33 01.7 +4.9
            comp=Z,14nm,0.8s,mb5.3
ESDC  Sonseca Array     89.12 310   P      P       09 32 56.2 -0.8
            comp=Z,5.1nm,0.6s,mb5.1,baz=62,slow=4.6,SNR=19
ESDC                                PKKPbc         09 50 42.5
            comp=Z,0.3nm,0.5s,baz=273,slow=2.8,SNR=4.2
ESDC  Sonseca Array     89.12 310   P      P       09 32 56.2 -0.8
ESDC                                P      pP      09 33 02.3 -0.1
ESDC                                PKKPbc         09 50 42.5
ESLA  Sonseca Array     89.12 310  eP      P       09 32 56.9 -0.1
            comp=Z,15nm,1.0s,mb5.3
ESLA                                LR     LR
            comp=Z,73µm,22.0s,MS7.1
MQZ   McQueen's Vall    89.23 134   P      P       09 32 59.6 +2.2
MQZ   McQueen's Vall    89.23 134  eP      P       09 32 59.8 +2.4
EBAN  Banos Encina      89.27 308   P      P       09 33 02.3 +4.5
            comp=Z,63nm,1.0s,mb5.9
EARI  Arriondas         89.34 314   P      P       09 33 02.3 +4.3
            comp=Z,858nm,4.0s
UNV   Unalaska Valle    89.39  36   PFAKE          09 33 10.0  +12
UNV                                 LR     LR
            comp=Z,40µm,19.0s,MS6.9
SCO   Scoresbysund      89.47 342  iP      P       09 32 59.8 +1.8
            comp=Z,16nm,0.9s,mb5.3
ERON  Agron             89.50 307   P      P       09 33 03.8 +4.9
            comp=Z,23nm,0.9s,mb5.5
ELOJ  Sierra Loja       89.75 307   P      P       09 33 04.6 +4.5
            comp=Z,21nm,0.9s,mb5.5
ELUQ  Luque             89.76 308   P      P       09 33 05.1 +5.0
            comp=Z,33nm,0.8s,mb5.7
EMIJ  Mijas             90.35 307   P      P       09 33 07.2 +4.3
            comp=Z,76nm,0.9s,mb6.0
EPON  Pontenova         90.72 314   P      P       09 33 09.2 +4.8
            comp=Z,68nm,1.0s,mb5.9
ECAL  Calabor           90.73 313   P      P       09 33 09.1 +4.6
            comp=Z,25nm,0.8s,mb5.6
PBRG  Braganca          90.76 312  epP     pP      09 33 10.7 +0.7
ERUA  La Rua            90.92 313   P      P       09 33 10.4 +5.0
            comp=Z,43nm,0.9s,mb5.8
ESPR  Espera            91.14 307   P      P       09 33 11.1 +4.6
            comp=Z,79nm,0.9s,mb6.0
IMA   Indian Mountai    91.32  22   P      P       09 33 06.8 +0.2
IMA                                 pmax   pmax
            comp=Z,270nm,0.9s,mb6.6
IMA   Indian Mountai    91.32  22  eP      P       09 33 06.6  0.0
URZ   Urewera           91.44 128   P      P       09 33 07.7 -0.1
            comp=Z,40nm,0.9s,mb5.7,baz=347,slow=2.0,SNR=12
PWZ   Pawanui           91.56 130   P      P       09 33 06.8 -1.5
PWZ   Pawanui           91.56 130   P      P       09 33 11.4 +3.1
EMIN  Mina Concepcio    91.58 308   P      P       09 33 13.2 +4.7
            comp=Z,44nm,0.9s,mb5.8
PVRL  Vila Real         91.59 312  epP     pP      09 33 15.1 +1.3
EBAD  Badajoz           91.63 309   P      P       09 33 13.4 +4.8
            comp=Z,50nm,1.0s,mb5.8
MTE   Manteigas         91.66 311  eP      P       09 33 11.1 +2.3
MTE                                epP     pP      09 33 14.9 +0.8
MTE                                eS      Sx      09 44 30.2
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MTE                                eLQ             09 57 52.5
            comp=Z,12µm,17.8s
MTE   Manteigas         91.66 311  eP      P       09 33 08.5 -0.3
            comp=Z,99nm,0.9s,mb6.1
ELOB  Lobios            91.71 313   P      P       09 33 14.0 +5.0
            comp=Z,54nm,0.9s,mb5.9
BORG  Borgarnes         91.73 337   LR     LR      10 20 25.0
            comp=Z,19µm,19.7s,MS6.5,baz=249,slow=40
BORG  Borgarnes         91.73 337   PFAKE          09 33 20.0  +12
BORG                                LR     LR
            comp=Z,5µm,22.0s,MS5.9
PCBR  Castelo Branco    91.74 311  eP      P       09 33 11.0 +1.8
PCBR                               epP     pP      09 33 15.4 +0.9
PVIS  Viseu             91.85 312  eP      P       09 33 10.8 +1.1
PVIS                               epP     pP      09 33 16.0 +1.0
EMAZ  Mazaricos         92.11 314   P      P       09 33 15.2 +4.5
            comp=Z,69nm,0.9s,mb6.0
EGRO  El Granado        92.26 308   P      P       09 33 16.8 +5.1
            comp=Z,189nm,1.7s,mb6.2
PBEJ  Beja              92.45 309  eP      P       09 33 14.3 +1.8
PBEJ                               epP     pP      09 33 18.6 +0.8
SUMG  Summit            92.69 347  eP      P       09 33 12.8  0.0
            comp=Z,121nm,1.2s,mb6.2
PTEO  Sao Teotonio      93.22 309  epP     pP      09 33 23.3 +1.9
COLA  College           94.03  22   P      P       09 33 19.0 -0.1
COLA                                pmax   pmax
            comp=Z,12nm,0.9s,mb5.3
COLA  College           94.03  22  eP      P       09 33 21.7 +2.6
RAO   Raoul Island      94.13 119   PFAKE          09 33 30.0  +10
RAO                                 LR     LR
            comp=Z,35µm,21.0s,MS6.8
SPU   Mount Spurr       94.14  26  eP      P       09 33 19.1 -0.6
RSO   Redoubt South     94.15  27   P      P       09 33 18.6 -1.2
VNDA  Vanda             94.35 168   P      P       09 33 19.2 -1.1
            comp=Z,14nm,0.9s,mb5.4,baz=275,slow=6.8,SNR=16
VNDA                                LR     LR      10 12 02.8
            comp=Z,38µm,19.1s,MS6.9,baz=297,slow=33
VNDA  Vanda             94.35 168  eP      P       09 33 19.9 -0.4
            comp=Z,72nm,1.3s,mb5.9
VNDA                                LR     LR
            comp=Z,38µm,19.0s,MS6.9
ILAR  Eielson Array     94.44  22   P      P       09 33 20.1 -0.9
            comp=Z,6.8nm,0.7s,mb5.2,baz=300,slow=5.0,SNR=35
ILAR                                PKKPbc         09 50 19.4
            comp=Z,1.9nm,0.9s,baz=156,slow=2.1,SNR=6.4
ILAR                                LR     LR      10 22 05.7
            comp=Z,15µm,21.2s,MS6.4,baz=321,slow=39
PWA   Palmer West       94.84  25  eP      P       09 33 22.6 -0.3
FIB   Fire Island       94.95  26  eP      P       09 33 22.0 -1.4
FIB   Fire Island       94.95  26  eP      P       09 33 23.8 +0.4
FIB                                 LR     LR
            comp=Z,9µm,20.0s,MS6.2
PMR   Palmer            95.19  25  eP      P       09 33 24.7 +0.2
SLKM  Skilak Lake       95.25  26  eP      P       09 33 29.0 +4.2
SLKM  Skilak Lake       95.25  26  eP      P       09 33 25.5 +0.7
NVL   N'lazarevskaya    95.25 199⇓eP       P       09 33 29.0 +4.4
NVL                                eS      SKS     09 43 59.0 -5.5
NVL                                 pmax   pmax
            comp=Z,4µm,9.0s
KDAK  Kodiak Island     95.41  29  eP      P       09 33 25.0 -0.6
            comp=Z,229nm,1.4s,mb6.4
KDAK                                LR     LR
            comp=Z,5µm,19.0s,MS6.0
SBA   Scott Base        95.45 168  eP      P       09 33 25.8 +0.4
            comp=Z,164nm,1.4s,mb6.3
SBA                                 LR     LR
            comp=Z,32µm,19.0s,MS6.8
THY   Trims Highway     95.58  23  eP      P       09 33 27.0 +0.8
DBIC  Dimbokro          95.98 278   P      P       09 33 28.5 -0.7
            comp=Z,12nm,0.9s,mb5.3,baz=62,slow=3.8,SNR=8.2
DBIC                                LR     LR      10 17 06.6
            comp=Z,27µm,18.9s,MS6.8,baz=68,slow=36
DBIC  Dimbokro          95.98 278   P      P       09 33 28.5 -0.8
DBIC                                pmax   pmax
            comp=Z,12nm,0.9s
DBIC                                MLR    MLR
            comp=Z,27µm,19.0s
DBIC  Dimbokro          95.98 278  eP      P       09 33 28.4 -0.8
            comp=Z,32nm,0.9s,mb5.8
DBIC                                LR     LR
            comp=Z,29µm,19.0s,MS6.8
INK   Inuvik            96.47  16   P      P       09 33 28.9 -1.3
            comp=Z,15nm,0.9s,mb5.4,baz=332,slow=5.9,SNR=24
INK                                 PKKPbc         09 50 15.4
            comp=Z,3.1nm,0.8s,baz=128,slow=5.6,SNR=6.4
INK                                 LR     LR      10 24 12.4
            comp=Z,18µm,20.6s,MS6.5,baz=54,slow=40
DIV   Divide            96.81  25  eP      P       09 33 32.0 +0.1
            comp=Z,78nm,1.0s,mb6.1
DIV                                 LR     LR
            comp=Z,65µm,21.0s,MS7.1
EYAK  Cordova Ski Ar    97.13  25  eP      P       09 33 34.1 +0.8
AFI   Afiamalu          97.83 103   PFAKE          09 33 50.0  +12
AFI                                 LR     LR
            comp=Z,10µm,22.0s,MS6.3
SNAA  Sanae            100.05 199   PKKPbc         09 50 08.9
            comp=Z,3.4nm,1.2s,baz=278,slow=1.9,SNR=5.8
SNAA  Sanae            100.05 199  eP      P       09 33 49.9 +3.6
SNAA                                pmax   pmax
            comp=Z,12nm,1.2s
SNAA  Sanae            100.05 199  eP      P       09 33 47.2 +0.9
            comp=Z,12nm,1.3s
SIT   Sitka            103.56  25   PFAKE          09 34 10.0 +7.6
SIT                                 LR     LR
            comp=Z,19µm,19.0s,MS6.7
KIP   Kipapa           104.73  65   PFAKE          09 34 20.0  +12
KIP                                 LR     LR
            comp=Z,13µm,20.0s,MS6.5
YKA   Yellowknife Ar   105.80  13   Pdiff  Pdif    09 34 12.9 +0.8
            comp=Z,2.4nm,0.8s,baz=329,slow=4.3,SNR=13
YKA                                 PP     PP      09 38 29.9 -7.8
            comp=Z,1.0nm,0.6s,baz=337,slow=6.9,SNR=4.5
YKA                                 PKKPbc         09 49 48.6
            comp=Z,1.3nm,0.9s,baz=151,slow=3.5,SNR=7.8
YKA                                 PKPPKP         09 58 17.9
            comp=Z,0.5nm,1.0s,baz=149,slow=2.2,SNR=3.6
YKA   Yellowknife Ar   105.80  13   P      Pdif    09 34 12.9 +0.8
YKA                                 pmax   pmax
            comp=Z,2.0nm,0.9s
YKA                                 pmax   pmax
            comp=Z,1.0nm,0.6s
YKA                                 pmax   pmax
            comp=Z,1.0nm,0.9s
YKA                                 pmax   pmax
            comp=Z,1.0nm,1.0s
TRIS  Tristan da Cun   106.97 234   PFAKE          09 38 40.0
TRIS                                LR     LR
            comp=Z,27µm,19.0s,MS6.8
POHA  Pohakuloa        107.42  66   PFAKE          09 38 40.0
POHA                                LR     LR
            comp=Z,1.0nm,19.0s
RAR   Rarotonga        109.85 109   PP     PP      09 39 04.5 -4.5
            comp=Z,18nm,0.6s,baz=344,slow=5.3,SNR=4.2
RAR   Rarotonga        109.85 109   PFAKE          09 38 40.0
RAR                                 LR     LR
            comp=Z,16µm,21.0s,MS6.6
SCHQ  Schefferville    114.08 347   PKKPbc         09 49 23.3
            comp=Z,8.2nm,0.7s,baz=288,slow=2.6,SNR=7.6
SCHQ  Schefferville    114.08 347   PFAKE          09 38 50.0 +7.0
SCHQ                                LR     LR
            comp=Z,15µm,20.0s,MS6.6
OCWA  Octopus Mounta   114.97  26   PFAKE          09 38 50.0 +5.1
OCWA                                LR     LR
            comp=Z,17µm,22.0s,MS6.6
NEW   Newport          117.40  22   PKIKP  PKPdf   09 38 51.5 +1.9
NEW   Newport          117.40  22  ePKPdf  PKPdf   09 38 47.9 -1.7
NEW                                 LR     LR
            comp=Z,17µm,21.0s,MS6.6
COR   Corvallis        117.78  28   PFAKE          09 39 00.0  +10
COR                                 LR     LR
            comp=Z,3µm,22.0s,MS5.9
TBI   Tubuai           119.39 112  ePP     PP      09 40 06.0  -10
TBI                                eSS     SS      09 56 45.9  +11
TBI                                eLQ             10 10 25.9
TBI                                eLR     LR      10 15 22.6
            comp=Z,49µm,24.5s
PPT   Papeete          119.40 105  ePP     PP      09 40 29.7  +13
PPT                                eSS     SS      09 56 36.3 +1.5
PPT                                eLR     LR      10 15 29.9
            comp=Z,25µm,22.0s
HUMO  Hull Mountain    119.44  29  ePKPdf  PKPdf   09 38 51.7 -2.0
HUMO                                LR     LR
            comp=Z,8µm,21.0s,MS6.3
MSO   Missoula         119.75  20  ePKPdf  PKPdf   09 38 51.4 -2.7
MSO                                 LR     LR
            comp=Z,16µm,19.0s,MS6.7
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BMO   Blue Mountains   120.17  24   PKIKP  PKPdf   09 38 56.9 +1.9
BMO   Blue Mountains   120.17  24  ePKPdf  PKPdf   09 38 51.7 -3.3
BMO                                 LR     LR
            comp=Z,14µm,22.0s,MS6.6
YBH   Yreka Blue Hor   120.22  30   PFAKE          09 39 00.0 +4.8
YBH                                 LR     LR
            comp=Z,10µm,20.0s,MS6.4
KHMM  Horse Mountain   120.35  31  ePKPdf  PKPdf   09 38 53.1 -2.4
HRY   Holter Researc   120.56  19  ePKPdf  PKPdf   09 38 53.1 -2.7
ULM   Lac du Bonnet    120.62   6   PKP    PKPdf   09 38 53.8 -2.1
            comp=Z,8.9nm,0.8s,baz=63,slow=1.2,SNR=14
ULM                                 PKKPbc         09 49 00.5
            comp=Z,4.1nm,0.9s,baz=170,slow=6.5,SNR=4.7
ULM   Lac du Bonnet    120.62   6  ePKPdf  PKPdf   09 38 53.8 -2.0
ULM                                 LR     LR
            comp=Z,22µm,21.0s,MS6.8
DGMT  Dagmar           121.01  13  ePKPdf  PKPdf   09 38 54.2 -2.5
DGMT                                LR     LR
            comp=Z,17µm,22.0s,MS6.6
WDC   Whiskeytown Da   121.17  31   PKIKP  PKPdf   09 38 54.9 -2.3
WDC   Whiskeytown Da   121.17  31  ePKPdf  PKPdf   09 38 53.1 -4.0
WDC                                 LR     LR
            comp=Z,11µm,21.0s,MS6.5
MOD   Modoc            121.24  28  ePKPdf  PKPdf   09 38 52.8 -4.5
MOD                                 LR     LR
            comp=Z,11µm,21.0s,MS6.5
BOZ   Bozeman (W)      121.56  19   PKIKP  PKPdf   09 38 55.9 -1.9
BOZ   Bozeman (W)      121.56  19  ePKPdf  PKPdf   09 38 54.0 -3.8
BOZ                                 LR     LR
            comp=Z,18µm,19.0s,MS6.7
PMSA  Palmer Station   121.83 192   PFAKE          09 39 10.0  +12
PMSA                                LR     LR
            comp=Z,29µm,21.0s,MS6.9
PQI   Presque Isle     121.91 344   PFAKE          09 39 10.0  +12
PQI                                 LR     LR
            comp=Z,57µm,20.0s,MS7.2
HOPS  Hopland          122.08  32  ePKPdf  PKPdf   09 38 57.4 -1.5
HOPS                                LR     LR
            comp=Z,12µm,22.0s,MS6.5
LAO   LASA Array       122.20  15  ePKPdf  PKPdf   09 38 55.9 -3.0
LAO                                 LR     LR
            comp=Z,20µm,19.0s,MS6.8
HLID  Hailey           122.38  23  ePKPdf  PKPdf   09 38 56.4 -2.9
HLID                                LR     LR
            comp=Z,12µm,20.0s,MS6.5
OHCM  Honcut           122.64  31  ePKPdf  PKPdf   09 38 56.4 -3.5
YMR   Madison River    122.65  20  ePKPdf  PKPdf   09 38 58.1 -1.7
NSHM  Saint Helena R   122.67  32  ePKPdf  PKPdf   09 38 56.1 -3.9
YNR   Norris Junctio   122.70  19  ePKPdf  PKPdf   09 38 59.0 -0.9
YFT   Old Faithful     122.88  20  ePKPdf  PKPdf   09 38 58.3 -1.9
LKWY  Lake             122.92  19  ePKIKP  PKPdf   09 39 01.3 +1.0
LKWY  Lake             122.92  19  ePKPdf  PKPdf   09 39 00.2 -0.2
LKWY                                LR     LR
            comp=Z,33µm,20.0s,MS7.0
EYMN  Ely              123.26   3  ePKPdf  PKPdf   09 38 58.2 -2.7
EYMN                                LR     LR
            comp=Z,4µm,20.0s,MS6.1
IMW   Indian Meadow    123.34  20  ePKPdf  PKPdf   09 38 57.8 -3.4
PAHR  Pah Rah Range    123.39  29  ePKPdf  PKPdf   09 39 00.5 -0.9
WCN   Washoe City      123.53  30   PKIKP  PKPdf   09 39 02.5 +0.8
WCN   Washoe City      123.53  30  ePKPdf  PKPdf   09 38 58.9 -2.8
MOOW  Moose Ponds      123.54  20  ePKPdf  PKPdf   09 38 59.2 -2.5
TPAW  Teton Pass       123.70  20  ePKPdf  PKPdf   09 38 57.5 -4.5
LOHW  Long Hollow      123.70  20  ePKPdf  PKPdf   09 38 58.3 -3.7
WUWY  Wally Ulrich     123.72  20  ePKPdf  PKPdf   09 38 59.3 -2.7
SNOW  Snow King Moun   123.79  20  ePKPdf  PKPdf   09 38 58.7 -3.4
BMN   Battle Mountai   123.82  27  ePKPdf  PKPdf   09 39 00.7 -1.6
BMN                                 LR     LR
            comp=Z,11µm,20.0s,MS6.5
REDW  Red Top Meadow   123.84  20  ePKPdf  PKPdf   09 38 59.7 -2.6
CMB   Columbia Colle   124.19  31   PKIKP  PKPdf   09 39 00.8 -2.3
CMB   Columbia Colle   124.19  31  ePKPdf  PKPdf   09 38 59.1 -4.0
CMB                                 LR     LR
            comp=Z,11µm,20.0s,MS6.5
AHID  Auburn Hatcher   124.28  21  ePKPdf  PKPdf   09 39 02.6 -0.5
AHID                                LR     LR
            comp=Z,21µm,19.0s,MS6.8
WVL   Waterville       124.29 344   PFAKE          09 39 10.0 +6.9
WVL                                 LR     LR
            comp=Z,35µm,20.0s,MS7.0
ELK   Elko             124.42  25  ePKIKP  PKPdf   09 39 01.9 -1.5
ELK   Elko             124.42  25  ePKPdf  PKPdf   09 39 01.6 -1.8
ELK                                 LR     LR
            comp=Z,10µm,21.0s,MS6.4
HVU   Hansel Valley    124.53  23   PKIKP  PKPdf   09 39 02.0 -1.7
HVU   Hansel Valley    124.53  23  ePKPdf  PKPdf   09 39 00.9 -2.7
SAO   San Andreas Ge   124.59  33   PKIKP  PKPdf   09 39 07.3 +3.4
SAO   San Andreas Ge   124.59  33   PKPdf  PKPdf   09 39 00.6 -3.3
SAO                                 LR     LR
            comp=Z,8µm,21.0s,MS6.4
BW06  Boulder Array    124.81  19  ePKPdf  PKPdf   09 39 01.3 -2.9
BW06                                LR     LR
            comp=Z,19µm,20.0s,MS6.8
PDAR  Pinedale Array   124.81  19   PKP    PKPdf   09 39 00.3 -3.9
            comp=Z,11nm,0.8s,baz=236,slow=0.8,SNR=12
PDAR                                PKKPbc         09 48 41.9
            comp=Z,1.7nm,1.0s,baz=134,slow=6.3,SNR=5.6
NVAR  Mina Array Bea   124.92  29   PKP    PKPdf   09 39 01.9 -2.6
            comp=Z,4.0nm,0.6s,baz=310,slow=2.4,SNR=15
NVAR                                PKKPbc         09 48 42.0
            comp=Z,1.8nm,0.8s,baz=162,slow=5.3,SNR=7.3
NVAR  Mina Array Bea   124.92  29   PKP    PKPdf   09 39 01.9 -2.6
NVAR                                PKKPbc         09 48 42.0
MNV   Mina             124.98  29  ePKIKP  PKPdf   09 39 02.2 -2.4
MNV   Mina             124.98  29  ePKPdf  PKPdf   09 39 01.8 -2.9
MNV                                 LR     LR
            comp=Z,11µm,20.0s,MS6.5
SPUT  South Promonto   125.06  23  ePKPdf  PKPdf   09 39 01.6 -3.1
LRV   Little Rabbit    125.08  33  ePKPdf  PKPdf   09 39 01.5 -3.4
HWUT  Hardware Ranch   125.13  22  ePKPdf  PKPdf   09 39 01.0 -3.8
HWUT                                LR     LR
            comp=Z,22µm,20.0s,MS6.8
RSSD  Black Hills      125.15  14   PFAKE          09 39 10.0 +5.2
RSSD                                LR     LR
            comp=Z,1.0nm,20.0s
BGU   Big Grassy Mou   125.17  23  ePKPdf  PKPdf   09 39 01.9 -3.0
MTUM  Tungsten Hills   125.63  30  ePKPdf  PKPdf   09 39 04.0 -1.9
MDV   Middlebury       125.68 347  ePKPdf  PKPdf   09 39 03.3 -2.5
MIV   Mineville/With   125.68 347  ePKPdf  PKPdf   09 39 05.2 -0.6
TPH   Tonopah          125.71  29   PKIKP  PKPdf   09 39 08.8 +2.8
TPH   Tonopah          125.71  29  ePKPdf  PKPdf   09 39 03.9 -2.1
TPH                                 LR     LR
            comp=Z,12µm,19.0s,MS6.6
NOQ   North Oquirrh    125.75  23   PKPdf  PKPdf   09 39 03.1 -2.9
NCB   Newcomb          125.93 348  ePKPdf  PKPdf   09 39 03.9 -2.3
NCB                                 LR     LR
            comp=Z,16µm,20.0s,MS6.7
TRCR  Troy Canyon      126.25  27  ePKPdf  PKPdf   09 39 04.7 -2.3
DAU   Daniels Canyon   126.29  22   PKIKP  PKPdf   09 39 05.9 -1.1
DAU   Daniels Canyon   126.29  22  ePKPdf  PKPdf   09 39 05.3 -1.7
NLU   North Lily Min   126.37  23  ePKPdf  PKPdf   09 39 05.2 -1.9
MPU   Maple Canyon     126.49  23  ePKPdf  PKPdf   09 39 04.9 -2.5
RWWY  Rawlins          126.53  18  ePKPdf  PKPdf   09 39 02.5 -4.9
HRV   Harvard--Oak R   126.71 345   PFAKE          09 39 20.0  +12
HRV                                 LR     LR
            comp=Z,11µm,20.0s,MS6.5
WES   Weston           126.76 345   PFAKE          09 39 20.0  +12
WES                                 LR     LR
            comp=Z,14µm,20.0s,MS6.6
DAC   Darwin (Calif)   126.96  30   PKIKP  PKPdf   09 39 11.8 +3.4
DAC   Darwin (Calif)   126.96  30   PKPdf  PKPdf   09 39 05.8 -2.5
DAC                                 LR     LR
            comp=Z,11µm,20.0s,MS6.5
TPNV  Topopah Spring   127.08  29   PKIKP  PKPdf   09 39 07.7 -0.9
TPNV  Topopah Spring   127.08  29  ePKPdf  PKPdf   09 39 06.7 -1.9
TPNV                                LR     LR
            comp=Z,12µm,19.0s,MS6.6
TMUT  Trail Mountain   127.28  23  ePKPdf  PKPdf   09 39 06.9 -2.0
PHWY  Pilot Hill       127.40  17  ePKPdf  PKPdf   09 39 06.9 -2.3
MVU   Marysvale        127.56  24  ePKPdf  PKPdf   09 39 08.0 -1.5
MVU                                 LR     LR
            comp=Z,12µm,21.0s,MS6.5
MSU   Marysvale        127.57  24  ePKPdf  PKPdf   09 39 07.4 -2.2
ARUT  Antelope Range   127.66  26   PKIKP  PKPdf   09 39 10.7 +0.9
ARUT  Antelope Range   127.66  26  ePKPdf  PKPdf   09 39 07.0 -2.8
SRU   San Rafael       127.70  22   PKIKP  PKPdf   09 39 08.5 -1.3
SRU   San Rafael       127.70  22  ePKPdf  PKPdf   09 39 07.6 -2.2
GENY  Geneseo          127.75 351  ePKPdf  PKPdf   09 39 06.6 -3.2
BINY  Binghamton       127.98 349   PFAKE          09 39 20.0  +10
BINY                                LR     LR
            comp=Z,18µm,22.0s,MS6.7
JFWS  Jewell Farm      128.34   2   PKIKP  PKPdf   09 39 10.1 -0.9
JFWS  Jewell Farm      128.34   2  ePKPdf  PKPdf   09 39 08.8 -2.2
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JFWS				LR	LR		
	comp=Z,24µm,22.0s,MS6.8						
RCBR	**Riachuelo**	**128.55**	**270**	*e*PKPdf	PKPdf	09 39 09.6	-2.6
RCBR				LR	LR		
	comp=Z,20µm,21.0s,MS6.8						
ERPA	**Erie**	**128.69**	**353**	*e*PKPdf	PKPdf	09 39 10.6	-1.1
ERPA				LR	LR		
	comp=Z,23µm,21.0s,MS6.8						
ISCO	**Idaho Springs**	**128.74**	**18**	PKIKP	PKPdf	09 39 11.6	-0.2
ISCO	**Idaho Springs**	**128.74**	**18**	*e*PKPdf	PKPdf	09 39 10.3	-1.5
ISCO				LR	LR		
	comp=Z,15µm,22.0s,MS6.6						
NEN	**Nelson**	**128.79**	**28**	*e*PKPdf	PKPdf	09 39 07.3	-4.8
AAM	**Ann Arbor**	**128.87**	**356**	PFAKE		09 39 20.0	+8.0
AAM				LR	LR		
	comp=Z,17µm,21.0s,MS6.7						
PV10	**Paradox Valley**	**128.89**	**22**	*e*PKPdf	PKPdf	09 39 10.1	-2.0
RW3	**Ridgway**	**129.48**	**20**	PKHKP		09 38 53.3	
RW3	**Ridgway**	**129.48**	**20**	PKPdf	PKPdf	09 39 09.2	-4.1
PFO	**Pinyon Flat Ob**	**129.63**	**31**	PKIKP	PKPdf	09 39 11.6	-2.1
PFO	**Pinyon Flat Ob**	**129.63**	**31**	*e*PKPpre		09 39 01.5	
PFO				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
SSPA	**Standing Stone**	**129.84**	**350**	*e*PKPdf	PKPdf	09 39 10.7	-3.2
SSPA				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
SDCO	**Great Sand Dun**	**130.66**	**19**	PFAKE		09 39 20.0	+4.5
SDCO				LR	LR		
	comp=Z,17µm,21.0s,MS6.7						
ACSO	**Alum Creek Sta**	**130.87**	**355**	*e*PKPdf	PKPdf	09 39 12.1	-3.8
ACSO				LR	LR		
	comp=Z,15µm,22.0s,MS6.7						
EFI	**East Falkland**	**130.96**	**204**	PFAKE		09 39 20.0	+4.3
EFI				LR	LR		
	comp=Z,5µm,21.0s,MS6.2						
MCWV	**Mont Chateau**	**131.09**	**352**	PFAKE		09 39 20.0	+3.7
MCWV				LR	LR		
	comp=Z,15µm,20.0s,MS6.7						
KSU1	**Kansas State U**	**131.49**	**9**	*e*PKPdf	PKPdf	09 39 14.6	-2.4
CBN	**Corbin**	**132.11**	**349**	PFAKE		09 39 30.0	+12
CBN				LR	LR		
	comp=Z,18µm,19.0s,MS6.8						
BLO	**Bloomington**	**132.12**	**359**	PKIKP	PKPdf	09 39 19.7	+1.4
BLO	**Bloomington**	**132.12**	**359**	PKPdf	PKPdf	09 39 16.3	-1.9
RKT	**Rikitea**	**132.66**	**113**	*e*SS	SS	09 59 18.2	-3.2
RKT				*e*LR	LR	10 21 42.9	
	comp=Z,38µm,23.5s						
ANMO	**Albuquerque**	**132.88**	**21**	PKP	PKPdf	09 39 17.6	-2.3
	comp=Z,9.6nm,0.7s,baz=189,slow=0.8,SNR=14						
ANMO	**Albuquerque**	**132.88**	**21**	*e*PKPpre		09 39 05.5	
ANMO				PKP	PKPdf	09 39 17.6	-2.3
ANMO				LR	LR		
	comp=Z,16µm,20.0s,MS6.7						
CCM	**Cathedral Cave**	**133.13**	**4**	PKIKP	PKPdf	09 39 25.1	+4.9
FVM	**French Village**	**133.25**	**3**	PKIKP	PKPdf	09 39 18.4	-2.0
FVM	**French Village**	**133.25**	**3**	*e*PKPdf	PKPdf	09 39 17.9	-2.4
FWV	**Forest Hill**	**133.27**	**352**	*e*PKPdf	PKPdf	09 39 17.2	-3.2
BBSR	**BB Station**	**133.41**	**333**	PFAKE		09 39 30.0	+9.2
BBSR				LR	LR		
	comp=Z,13µm,20.0s,MS6.6						
TUC	**Tucson**	**133.44**	**27**	PKIKP	PKPdf	09 39 24.0	+3.1
TUC	**Tucson**	**133.44**	**27**	*e*PKPdf	PKPdf	09 39 18.6	-2.3
TUC				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
PWV	**Princeton**	**133.54**	**353**	PKPdf	PKPdf	09 39 18.9	-2.0
BLA	**Blacksburg**	**133.58**	**352**	PFAKE		09 39 30.0	+9.0
BLA				LR	LR		
	comp=Z,16µm,20.0s,MS6.7						
ELN	**Prospectdale**	**133.61**	**352**	*e*PKPdf	PKPdf	09 39 19.2	-1.8
AMTX	**Amarillo**	**134.45**	**16**	PFAKE		09 39 30.0	+7.3
AMTX				LR	LR		
	comp=Z,20µm,20.0s,MS6.8						
WVT	**Waverly**	**135.16**	**0**	*e*PKIKP	PKPdf	09 39 26.8	+2.8
WVT	**Waverly**	**135.16**	**0**	*e*PKPdf	PKPdf	09 39 18.2	-5.8
WVT				LR	LR		
	comp=Z,25µm,22.0s,MS6.9						
WMOK	**Wichita Mounta**	**135.31**	**13**	PKHKP		09 39 11.9	
WMOK	**Wichita Mounta**	**135.31**	**13**	*e*PKPpre		09 39 11.1	
WMOK				LR	LR		
	comp=Z,17µm,20.0s,MS6.8						
CPCT	**Cooper Cave**	**135.74**	**356**	*e*PKPdf	PKPdf	09 39 22.0	-3.1
MNTX	**Cornudas Mount**	**136.19**	**22**	PFAKE		09 39 30.0	+4.0
MNTX				LR	LR		
	comp=Z,12µm,22.0s,MS6.6						
UALR	**University of**	**136.30**	**6**	*e*PKPdf	PKPdf	09 39 21.2	-4.8
MIAR	**Mount Ida**	**136.39**	**7**	PKHKP		09 39 15.4	
MIAR	**Mount Ida**	**136.39**	**7**	*e*PKPdf	PKPdf	09 39 24.1	-2.1
JSC	**Jenkinsville**	**136.57**	**352**	*e*PKPdf	PKPdf	09 39 23.6	-3.0
OXF	**Oxford**	**136.75**	**2**	PKPdf	PKPdf	09 39 22.0	-4.9
OXF				LR	LR		
	comp=Z,19µm,20.0s,MS6.8						
NHSC	**New Hope**	**137.57**	**351**	PFAKE		09 39 40.0	+12
NHSC				LR	LR		
	comp=Z,18µm,20.0s,MS6.8						
GOGA	**Godfrey**	**137.68**	**355**	*e*PKPdf	PKPdf	09 39 25.7	-3.0
LRAL	**Lakeview Retre**	**138.25**	**359**	*e*PKPdf	PKPdf	09 39 26.6	-3.1
LTX	**Lajitas**	**138.95**	**21**	PKIKP	PKPdf	09 39 28.2	-2.9
LTX	**Lajitas**	**138.95**	**21**	*e*PKPdf	PKPdf	09 39 26.6	-4.5
LTX				LR	LR		
	comp=Z,16µm,20.0s,MS6.8						
TXAR	**Lajitas Array**	**138.95**	**21**	PKP	PKPdf	09 39 27.7	-3.4
	comp=Z,2.0nm,0.6s,baz=142,slow=0.6,SNR=9.7						
TXAR				PP	PP	09 42 22.5	-1.2
	comp=Z,9.1nm,0.9s,slow=3.8,SNR=6.1						
NATX	**Nacogdoches**	**138.98**	**9**	*e*PKPdf	PKPdf	09 39 27.5	-3.6
JCT	**Junction City**	**139.12**	**16**	PKHKP		09 39 17.8	
JCT	**Junction City**	**139.12**	**16**	*e*PKPpre		09 39 16.8	
JCT				LR	LR		
	comp=Z,17µm,19.0s,MS6.8						
HKT	**Hockley**	**140.55**	**11**	*e*PKPpre		09 39 26.3	
HKT				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
BAO	**Brasilia Array**	**140.67**	**256**	*i*	PKPdf	09 39 35.0	+0.4
BAO				*i*		09 39 43.8	
BDFB	**Brasilia**	**140.69**	**256**	PKP	PKPdf	09 39 31.4	-3.2
	comp=Z,16nm,0.7s,baz=141,slow=2.9,SNR=5.5						
BDFB	**Brasilia**	**140.69**	**256**	PKIKP	PKPdf	09 39 31.5	-3.2
BDFB				pmax	pmax		
	comp=Z,16nm,0.7s						
DWPF	**Disney**	**142.66**	**351**	PFAKE		09 39 50.0	+12
DWPF				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
TRQA	**Tornquist**	**142.88**	**215**	*e*PKPpre		09 39 31.1	
TRQA				LR	LR		
	comp=Z,38µm,19.0s,MS7.2						
DEG	**La Desirade**	**143.59**	**313**	*e*P	PKPbc	09 39 34.6	0.0
MGG	**Marie-Galante**	**144.03**	**313**	*e*P	PKPbc	09 39 37.6	+1.8
BBL	**Barber's Block**	**144.40**	**313**	*e*P	PKPbc	09 39 37.9	+1.0
CRM	**Caravelle**	**144.49**	**311**	⇑*e*P	PKPbc	09 39 36.5	-0.7
MVM	**Montagne Vaucl**	**144.61**	**311**	⇓*e*P	PKPbc	09 39 36.6	-0.9
FDF	**Fort de France**	**144.68**	**312**	⇑*e*P	PKPbc	09 39 36.5	-1.1
BIM	**Bigot**	**144.76**	**311**	*e*P	PKPbc	09 39 36.8	-1.1
SJG	**San Juan**	**145.70**	**322**	PKPbc	PKPbc	09 39 39.4	-0.8
	comp=Z,67nm,0.8s,baz=48,slow=5.1,SNR=14						
SJG	**San Juan**	**145.70**	**322**	PKP2	PKPab	09 39 39.4	-2.9
SJG				pmax	pmax		
	comp=Z,67nm,0.8s						
SJG	**San Juan**	**145.70**	**322**	*e*PKPdf	PKPdf	09 39 38.9	-4.4
SJG				LR	LR		
	comp=Z,21µm,22.0s,MS6.9						
IIC	**Rita Coyotepec**	**149.29**	**22**	*i* P	PKPdf	09 39 47.8	-1.3
PTVM	**Pico Tres Padr**	**149.50**	**22**	*e*P	PKPdf	09 39 51.0	+1.6
IIO	**Organos**	**149.64**	**21**	*e*P	PKPdf	09 39 51.0	+1.3
IIZ	**Mezontepec**	**149.82**	**22**	*e*P	PKPdf	09 39 51.0	+1.0
CHVM	**Chichinautzin**	**149.95**	**22**	*e*P	PKPdf	09 39 51.0	+0.8
NICH	**Los Niches**	**149.99**	**208**	⇑*i*P	PKPdf	09 39 53.4	+3.6
PCRV	**Puerto La Cruz**	**150.19**	**309**	PKPbc	PKPdf	09 39 51.5	+0.8
	comp=Z,24nm,0.5s,baz=216,slow=0.9,SNR=14						
FCH	**Farellones**	**150.89**	**211**	⇑*i*P	PKPdf	09 39 53.9	+2.7
CLCH	**Cerro Calan**	**150.96**	**211**	*e*P	PKPdf	09 39 54.1	+2.8
TEIG	**Tepich**	**151.00**	**1**	*e*PKPdf	PKPdf	09 39 48.2	-3.5
TEIG				*e*PKPab	PKPab	09 40 00.0	-3.6
TEIG				LR	LR		
	comp=Z,7µm,20.0s,MS6.5						
STH	**Stony Hill**	**151.07**	**338**	*e*P	PKPdf	09 39 53.7	+1.8
CVJ	**Coleyville**	**151.19**	**340**	⇑*e*P	PKPdf	09 39 53.9	+1.9
NEJ	**Negril**	**151.43**	**341**	⇑*e*P	PKPdf	09 39 54.8	+2.4
MCJ	**Malvern**	**151.52**	**340**	⇑*e*P	PKPdf	09 39 56.8	+4.2
RPN	**Rapa Nui**	**152.71**	**134**	PFAKE		09 40 00.0	+5.9
RPN				LR	LR		
	comp=Z,3µm,19.0s,MS6.2						
TLL	**Tololo Astrono**	**153.62**	**215**	⇓*i*P	PKPdf	09 39 55.9	+0.7
SDV	**Santo Domingo**	**155.44**	**316**	PKP	PKPdf	09 39 55.3	-2.8
	comp=Z,3.8nm,0.8s,baz=3.7,slow=20,SNR=7.1						
SDV				PKPbc	PKPdf	09 40 06.1	+8.0
	comp=Z,21nm,0.9s,baz=328,slow=1.8,SNR=9.3						
SDV				PKPab	PKPab	09 40 21.3	-1.1
	comp=Z,61nm,0.9s,baz=6.3,slow=8.5,SNR=9.0						
SDV	**Santo Domingo**	**155.44**	**316**	*e*PKPdf	PKPdf	09 39 55.1	-3.0
SDV				LR	LR		
	comp=Z,19µm,20.0s,MS6.9						
LVC	**Limon Verde**	**157.41**	**231**	PKP	PKPdf	09 39 58.8	-1.7
	comp=Z,9.9nm,0.9s,baz=150,slow=0.4,SNR=7.8						
LVC	**Limon Verde**	**157.41**	**231**	*e*PKPdf	PKPdf	09 39 58.5	-2.0
LPAZ	**La Paz**	**159.56**	**247**	PKP	PKPdf	09 40 01.4	-1.9
	comp=Z,5.7nm,0.9s,baz=50,slow=5.7,SNR=9.7						
LPAZ	**La Paz**	**159.56**	**247**	PKIKP	PKPdf	09 40 01.4	-1.8
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.9s						
LPAZ	**La Paz**	**159.56**	**247**	PKIKP	PKPdf	09 40 02.0	-1.2
LPAZ	**La Paz**	**159.56**	**247**	*e*PKPdf	PKPdf	09 40 01.6	-1.7
LPAZ				LR	LR		
	comp=Z,29µm,22.0s,MS7.1						
TRTC	**Tortuguero**	**160.20**	**348**	*e*P	PKPdf	09 39 59.7	-4.3
JTS	**JuntasAbangare**	**160.69**	**352**	PFAKE		09 40 10.0	+5.5
JTS				LR	LR		
	comp=Z,7µm,20.0s						
ICR	**Volcan Irazu**	**160.80**	**348**	*e*P	PKPdf	09 40 05.5	+0.9
ROSC	**El Rosal**	**160.87**	**315**	PKP	PKPdf	09 40 02.9	-1.8
	comp=Z,3.4nm,0.4s,baz=90,slow=23,SNR=6.2						
LCR2	**La Lucha 2**	**161.07**	**349**	*e*P	PKPdf	09 40 01.1	-3.7
JCR	**Jicaral**	**161.15**	**352**	*e*P	PKPdf	09 40 02.1	-2.8
ARE	**Arequipa**	**162.51**	**243**	*e*P	PKPdf	09 40 09.0	+2.8
NNA	**Nana**	**168.89**	**253**	*e*PKPdf	PKPdf	09 40 08.2	-3.3
PAYG	**Puerto Ayora**	**171.39**	**17**	PFAKE		09 40 20.0	+6.9
PAYG				LR	LR		
	comp=Z,23µm,21.0s						

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*IDC **26** 09:28:23.0±0.6, 4.54N×93.62E, h24^{km}±2^{km}, mb4.4/15, mb1 4.5/16, mb1mx4.4/22, ML4.0/1, Error ellipse: s-maj=30.9km s-min=12.6km az=46.0*

ISC 26 09:28:21.2±0.6**, 4.5N**±0.1×**93.6E**±0.1**, h26**^{km}**, h26**^{km}±.6^{km}**:pP-P, n20,** σ**0**^{s}**61**/18**, mb4.5**/16**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.80**	**20**	Pn	**P**	**09 31 51.2**	**+0.3**
	0.2nm,0.3s,baz=215,slow=14,SNR=3.8						
CMAR				pP		09 31 56.2	
	1.6nm,0.3s,baz=214,slow=12,SNR=7.1						
SONM	**Songino Array**	**44.53**	**12**	P	**P**	**09 36 32.3**	**-0.4**
	5.8nm,0.8s,mb4.5,baz=196,slow=8.6,SNR=10						
SONM				sP	sP	09 36 42.2	-1.3
	3.2nm,0.7s,baz=197,slow=6.7,SNR=4.4						
WRA	**Warramunga Arr**	**46.82**	**123**	P	**P**	**09 36 51.4**	**+0.2**
	8.1nm,0.6s,mb4.8,baz=300,slow=9.0,SNR=14						
WRA				pP	pP	09 36 58.9	0.0
	9.2nm,0.7s,baz=298,slow=9.1,SNR=5.9						
WRA				sP	sP	09 37 01.4	-0.6
	9.4nm,0.7s,baz=299,slow=9.0,SNR=6.2						
ASAR	**Alice Springs**	**48.23**	**127**	P	**P**	**09 37 02.5**	**+0.3**
	4.8nm,0.9s,mb4.5,baz=300,slow=8.0,SNR=4.1						
ZAL	**Zalesovo**	**49.79**	**353**	P	**P**	**09 37 13.8**	**+0.1**
	12nm,0.5s,mb5.2,baz=307,slow=5.0,SNR=40						
BVAR	**Borovoye Array**	**51.99**	**342**	P	**P**	**09 37 30.3**	**-0.2**
	5.1nm,0.7s,mb4.6,baz=138,slow=12,SNR=7.4						
BVAR				pP	pP	09 37 38.1	-0.3
	3.8nm,0.7s,baz=143,slow=7.4,SNR=4.5						
STKA	**Stephens Creek**	**58.22**	**132**	P	**P**	**09 38 15.3**	**-0.6**
	3.7nm,0.8s,mb4.4,baz=189,slow=23,SNR=5.5						
BRTR	**Keskin Array B**	**64.25**	**312**	P	**P**	**09 38 56.4**	**-0.3**
	2.6nm,0.6s,mb4.5,baz=130,slow=7.2,SNR=7.0						
BRTR				pP	pP	09 39 03.9	-0.8
	6.8nm,0.9s,baz=130,slow=7.4,SNR=9.2						
IDI	**Anoyia**	**70.07**	**306**	P	**P**	**09 39 33.8**	**+0.4**
	4.9nm,0.6s,mb4.6,baz=67,slow=10,SNR=4.8						
AKASG	**Malin Array Be**	**70.47**	**323**	P	**P**	**09 39 34.3**	**-1.3**
	0.5nm,0.5s,mb3.7,baz=90,slow=4.9,SNR=3.1						
AKASG				pP	pP	09 39 43.4	-0.2
	1.3nm,0.6s,baz=91,slow=4.7,SNR=4.0						
MLR	**Muntele Rosu**	**71.22**	**317**	P	**P**	**09 39 39.7**	**-0.5**
	8.7nm,1.0s,mb4.7,baz=197,slow=17,SNR=4.4						
MLR				sP	sP	09 39 50.1	-0.9
	13nm,0.9s,baz=135,slow=3.9,SNR=7.9						
FINES	**FINESS Array B**	**75.43**	**333**	P	**P**	**09 40 04.2**	**-0.3**
	4.5nm,0.8s,mb4.4,baz=108,slow=6.0,SNR=6.1						
FINES				pP	pP	09 40 12.3	-0.3
	6.9nm,0.8s,baz=117,slow=8.5,SNR=3.7						
KAF	**Kangasniemi**	**75.53**	**333**	*e*p	**P**	**09 40 04.8**	**-0.3**
ARCES	**ARCESS Array B**	**78.23**	**341**	P	**P**	**09 40 20.7**	**+0.7**
	1.8nm,0.4s,mb4.3,baz=98,slow=6.3,SNR=18						
ARCES				pP	pP	09 40 28.5	+0.4
	3.4nm,0.7s,baz=100,slow=5.9,SNR=3.0						
GERES	**GERESS Array B**	**79.98**	**319**	P	**P**	**09 40 30.8**	**+0.9**
	1.8nm,0.8s,mb4.0,baz=104,slow=5.5,SNR=6.3						
GERES				pP	pP	09 40 38.9	+0.9
	2.6nm,0.8s,baz=108,slow=4.2,SNR=6.6						
HFS	**Hagfors**	**81.08**	**330**	P	**P**	**09 40 35.7**	**+0.2**
	12nm,1.2s,mb4.7,baz=108,slow=4.7,SNR=4.4						
NOA	**NORSAR Array B**	**82.39**	**331**	P	**P**	**09 40 41.8**	**-0.5**
	1.6nm,0.9s,mb4.0,baz=205,slow=19,SNR=3.3						
DAVOX	**Davos**	**82.44**	**316**	P	**P**	**09 40 44.3**	**+1.4**
	3.5nm,0.6s,mb4.5,baz=1.9,slow=20,SNR=7.6						
PDAR	**Pinedale Array**	**128.46**	**22**	PKP	PKPdf	09 47 28.9	-2.2
	1.5nm,0.9s,baz=45,slow=2.1,SNR=4.3						
TXAR	**Lajitas Array**	**142.47**	**25**	PKP	PKPdf	09 47 52.3	-5.0
	0.4nm,0.6s,baz=350,slow=1.5,SNR=8.9						

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*IDC **26** 09:30:27.5±0.6, 7.47N×94.08E, mb4.6/18, mb1 4.8/19, mb1mx4.7/23, ML4.2/1, Error ellipse: s-maj=28.6km s-min=13.1km az=43.0*

*NEIC **26** 09:30:29.5±0.3, 7.39N×93.99E, mb4.9/14, Error ellipse: s-maj=14.7km s-min=7.5km az=48.0*

*BJI **26** 09:30:29.5, 7.40N×94.00E, h13^{km}, mb4.9*

ISC 26 09:30:27.7±0.4**, 7.39N**±0.09×**94.04E**±0.09**, h14**^{km}**, h14**^{km}±.6^{km}**:pP-P, n46,** σ**1**^{s}**08**/40**, mb4.7**/32**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.99**	**23**	Pn	**P**	**09 33 27.4**	**+6.2**
	0.5nm,0.3s,baz=211,slow=14,SNR=6.2						
AAK	**Ala-Archa**	**39.10**	**337**	*e*P	**P**	**09 37 57.2**	**+0.9**
	7.1nm,0.9s,mb4.4						
SONM	**Songino Array**	**41.65**	**13**	P	**P**	**09 38 16.5**	**-0.7**
	2.2nm,0.4s,mb4.1,baz=200,slow=8.9,SNR=15						
CN2	**Changchun**	**45.49**	**32**	*e*P	**P**	**09 38 51.0**	**+2.5**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
HIA	**Hailar**	**47.00**	**23**	*e*P	**P**	**09 39 02.0**	**+1.7**
	comp=Z,12nm,0.4s,mb5.2						
HIA				*e*pP	pP	09 39 06.2	+1.8
ZAL	**Zalesovo**	**47.01**	**353**	P	**P**	**09 39 00.6**	**+0.3**
	comp=Z,14nm,0.4s,mb5.3,baz=309,slow=5.0,SNR=28						
ZAL	**Zalesovo**	**47.01**	**353**	P	**P**	**09 39 00.6**	**+0.3**
WRA	**Warramunga Arr**	**48.07**	**125**	P	**P**	**09 39 09.0**	**-0.1**
	comp=Z,12nm,0.5s,mb5.2,baz=305,slow=8.6,SNR=29						
WRAB	**Tennant Creek**	**48.07**	**125**	*e*P	**P**	**09 39 08.7**	**-0.4**
	comp=Z,35nm,0.9s,mb5.4						
BVAR	**Borovoye Array**	**49.41**	**341**	P	**P**	**09 39 18.7**	**-0.3**
	comp=Z,1.3nm,0.5s,mb4.3,baz=146,slow=9.5,SNR=5.3						
BRVK	**Borovoye**	**49.47**	**341**	*e*P	**P**	**09 39 18.9**	**-0.6**
	comp=Z,6.8nm,1.0s,mb4.6						
BRVK				*e*pP	pP	09 39 23.2	-0.4
ASAR	**Alice Springs**	**49.69**	**130**	P	**P**	**09 39 20.4**	**-1.1**
	comp=Z,9.5nm,0.9s,mb4.8,baz=303,slow=7.8,SNR=28						
CHKZ	**Chkalovo**	**49.90**	**342**	*e*P	**P**	**09 39 22.2**	**-0.5**
	comp=Z,8.5nm,0.7s,mb4.9						
CHKZ				*e*pP	pP	09 39 26.8	-0.1
PMG	**Port Moresby**	**55.49**	**107**	P	**P**	**09 40 06.3**	**+1.3**
	comp=Z,24nm,1.1s,mb5.1,baz=326,slow=13,SNR=8.8						
ARU	**Arti**	**56.29**	**337**	*e*P	**P**	**09 40 09.6**	**-0.5**
	comp=Z,17nm,0.9s,mb5.1						
ARU				*e*pP	pP	09 40 13.4	-0.9
KMBO	**Kilima Mbogo**	**57.27**	**264**	P	**P**	**09 40 19.6**	**+1.8**
	comp=Z,8.6nm,0.8s,mb4.8,baz=54,slow=10,SNR=11						
KIV	**Kislovodsk**	**57.60**	**318**	*e*P	**P**	**09 40 17.5**	**-2.2**
	comp=Z,17nm,1.0s,mb5.0						
CTA	**Charters Tower**	**58.16**	**119**	P	**P**	**09 40 24.1**	**+0.2**
	comp=Z,6.0nm,0.8s,mb4.7,baz=281,slow=8.5,SNR=7.1						
MALT	**Malatya**	**58.70**	**311**	*e*P	**P**	**09 40 26.7**	**-0.7**
	comp=Z,5.6nm,1.1s,mb4.5						
MALT				*e*pP	pP	09 40 31.7	+0.1
STKA	**Stephens Creek**	**59.85**	**133**	P	**P**	**09 40 33.5**	**-2.0**
	comp=Z,7.3nm,0.9s,mb4.7,baz=324,slow=12,SNR=5.3						
STKA	**Stephens Creek**	**59.85**	**133**	P	**P**	**09 40 33.5**	**-2.0**
BRTR	**Keskin Array B**	**62.66**	**311**	P	**P**	**09 40 52.9**	**-1.5**
	comp=Z,2.7nm,1.0s,mb4.3,baz=129,slow=7.9,SNR=3.8						
AKASG	**Malin Array Be**	**68.47**	**322**	P	**P**	**09 41 29.1**	**-2.4**
	comp=Z,2.8nm,0.8s,mb4.3,baz=84,slow=4.6,SNR=4.3						
IDI	**Anoyia**	**68.76**	**305**	P	**P**	**09 41 33.4**	**-0.2**
	comp=Z,8.7nm,0.7s,mb4.8,baz=84,slow=3.8,SNR=5.5						
MLR	**Muntele Rosu**	**69.44**	**316**	P	**P**	**09 41 37.9**	**+0.3**
	comp=Z,7.5nm,0.7s,mb4.7,baz=148,slow=2.1,SNR=4.6						
FINES	**FINESS Array B**	**73.09**	**332**	P	**P**	**09 41 58.4**	**-0.8**
	comp=Z,15nm,1.1s,mb4.8,baz=96,slow=5.6,SNR=15						
KAF	**Kangasniemi**	**73.17**	**333**	*e*p	**P**	**09 41 59.5**	**-0.2**
	comp=Z,3.3nm,0.4s,mb4.6,baz=103,slow=5.6						
LBTB	**Lobatse**	**73.92**	**241**	*e*P	**P**	**09 42 05.8**	**+1.0**
	comp=Z,19nm,0.9s,mb5.0						
LBTB				*e*pP	pP	09 42 09.5	+0.4
BOSA	**Boshof**	**75.24**	**238**	*e*P	**P**	**09 42 13.1**	**+0.8**
	comp=Z,18nm,0.9s,mb5.0						
BOSA				*e*pP	pP	09 42 17.1	+0.4
KEV	**Kevo**	**75.25**	**341**	*e*p	**P**	**09 42 11.4**	**-0.2**
	comp=Z,4.5nm,0.5s,mb4.7						
OKC	**Ostrava-Krasne**	**75.29**	**320**	*e*P	**P**	**09 42 11.8**	**-0.4**
MORC	**Moravsky Berou**	**75.67**	**319**	*e*P	**P**	**09 42 14.2**	**-0.1**
	comp=Z,7.8nm,1.2s,mb4.5						
ARCES	**ARCESS Array B**	**75.68**	**340**	P	**P**	**09 42 14.3**	**+0.3**
	comp=Z,3.5nm,0.5s,mb4.5,baz=107,slow=6.3,SNR=18						
DPC	**Dobruska-Polom**	**76.51**	**320**	*e*P	**P**	**09 42 20.9**	**+1.8**
PRU	**Pruhonice**	**77.62**	**319**	*e*P	**P**	**09 42 28.0**	**+2.7**
GERES	**GERESS Array B**	**78.11**	**318**	P	**P**	**09 42 28.3**	**+0.3**
	comp=Z,5.8nm,1.0s,mb4.5,baz=99,slow=5.1,SNR=16						
KHC	**Kasperske Hory**	**78.21**	**319**	*e*P	**P**	**09 42 28.7**	**+0.2**
NB2	**NORSAR Subarra**	**80.10**	**331**	P	**P**	**09 42 37.6**	**-0.9**
	comp=Z,1.5nm,0.6s,mb4.1,baz=97,slow=5.0						
NOA	**NORSAR Array B**	**80.10**	**331**	P	**P**	**09 42 38.5**	**-0.1**
	comp=Z,2.3nm,0.7s,mb4.2,baz=92,slow=5.8,SNR=4.7						
ESDC	**Sonseca Array**	**91.45**	**310**	P	**P**	**09 43 35.7**	**+0.6**
	comp=Z,2.3nm,0.8s,mb4.6,baz=85,slow=3.1,SNR=4.3						
NVAR	**Mina Array Bea**	**125.38**	**31**	PKP	PKPdf	09 49 32.2	-0.2
	comp=Z,1.0nm,0.6s,baz=277,slow=3.0,SNR=5.0						
PDAR	**Pinedale Array**	**125.65**	**21**	PKP	PKPdf	09 49 31.9	-0.9
	comp=Z,0.9nm,0.6s,baz=91,slow=4.7,SNR=4.9						
ANMO	**Albuquerque**	**133.65**	**23**	PKP	PKPdf	09 49 48.2	0.0
	comp=Z,1.2nm,0.9s,baz=295,slow=4.0,SNR=3.5						
ANMO	**Albuquerque**	**133.65**	**23**	PKP	PKPdf	09 49 48.2	0.0
TXAR	**Lajitas Array**	**139.70**	**24**	PKhKP		09 49 53.8	
	comp=Z,0.5nm,0.8s,baz=336,slow=0.7,SNR=4.5						
SDV	**Santo Domingo**	**157.75**	**316**	PKP	PKPdf	09 50 27.7	-0.5
	comp=Z,10nm,1.2s,baz=28,slow=4.4,SNR=3.8						

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*IDC **26** 09:30:51.4±0.5, 7.31N×93.84E, mb5.1/28, mb1 5.1/29, mb1mx5.1/31, ML4.8/1, Error ellipse: s-maj=20.1km s-min=10.9km az=41.0*

*BJI **26** 09:30:53.3, 7.20N×93.69E, h32^{km}, mB6.5, mb5.3, Msz6.3*

*MOS **26** 09:30:54.4±0.9, 7.41N×93.96E, h33^{km}, mb5.2/22, Error ellipse: s-maj=16.0km s-min=9.1km az=119.1*

*NEIC **26** 09:30:55.8±0.3, 7.18N×93.76E, h30^{km}, mb5.4/18, Error ellipse: s-maj=9.7km s-min=7.7km az=224.0*

ISC 26 09:30:53.7±0.4**, 7.22N**±0.06×**93.78E**±0.05**, h30**^{km}**, (h15**^{km}±.4^{km}**:pP-P), n148,** σ**1**^{s}**01**/129**, mb5.2**/59**, MS6.2**/1**, 6C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**12.25**	**24**	*e*P	**P**	**09 33 51.1**	**+1.9**
CMAR	**Chiang Mai Arr**	**12.25**	**24**	Pn	**P**	**09 33 51.0**	**+1.8**
	1.7nm,0.3s,baz=217,slow=14,SNR=12						
CMAR	**Chiang Mai Arr**	**12.25**	**24**	P	**P**	**09 33 51.0**	**+1.8**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CAL	**Calcutta**	**16.11**	**342**	*e*P	**P**	**09 34 43.9**	**+4.1**
HYB	**Hyderabad**	**17.98**	**306**	*i* P		09 35 18.0	
SHL	**Shillong**	**18.33**	**355**	*e*P	**P**	**09 35 05.2**	**-2.5**
SHL				*e*		09 35 33.2	
	comp=Z,99nm,1.8s						
MNGI	**Mangalore**	**19.50**	**288**	*e*P	**P**	**09 35 21.3**	**-0.3**
QIZ	**Qiongzhong**	**19.54**	**52**	P	**P**	**09 35 23.5**	**+1.5**
QIZ	**Qiongzhong**	**19.54**	**52**	*e*P	**P**	**09 35 23.1**	**+1.2**
AKL	**Akola**	**21.05**	**311**	*e*P	**P**	**09 35 34.6**	**-3.1**
AKL				*e*		09 35 48.7	
	comp=Z,146nm,1.2s						
GOA	**Goa**	**21.20**	**295**	*e*P	**P**	**09 35 36.2**	**-3.1**
ALBI	**Allahabad**	**21.31**	**329**	*e*P	**P**	**09 35 44.2**	**+3.8**
LSA	**Lhasa**	**22.50**	**354**	*e*P	**P**	**09 35 49.7**	**-2.5**
	comp=Z,95nm,0.7s,mb5.3						
GYA	**Guiyang**	**22.73**	**31**	⇑*i*P	**P**	**09 35 54.8**	**+0.2**
BOM	**Bombay**	**23.45**	**302**	*e*P	**P**	**09 36 00.8**	**-0.9**
BOM				*e*		09 36 27.9	
	comp=Z,156nm,1.5s						
CD2	**Chengdu**	**25.35**	**20**	P	**P**	**09 36 20.0**	**+0.1**
CD2				AMB	AMB		
	comp=Z,190nm,0.9s,mb5.6						
NDI	**New Delhi**	**26.46**	**326**	*e*P	**P**	**09 36 31.1**	**+0.9**
ENH	**Enshi**	**27.27**	**31**	*e*P	**P**	**09 36 37.0**	**-0.5**
	comp=Z,44nm,0.8s,mb5.0						
LZH	**Lanzhou**	**30.17**	**16**	*e*P	**P**	**09 37 02.8**	**-0.8**
LZH				PP	PP	09 37 57.0	-5.5
LZH				AMB	AMB		
	comp=Z,113nm,1.2s,mb5.5						
GTA	**Gaotai**	**32.51**	**9**	P	**P**	**09 37 23.5**	**-0.6**
GTA				AP	pP	09 37 38.0	+5.1
GTA				AMB	AMB		
	comp=Z,22nm,1.0s,mb5.0						
WMQ	**Urumqi**	**36.84**	**353**	P	**P**	**09 38 01.8**	**+0.7**
WMQ				AP	pP	09 38 06.3	-3.8
WMQ				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.9						
HHC	**Hu-ho-hao-te**	**37.06**	**23**	*e*P	**P**	**09 38 03.8**	**+0.8**
HHC				AP	pP	09 38 08.0	-3.9
HHC				S	**S**	**09 43 40.0**	**-6.4**
HHC				AMB	AMB		
	comp=Z,91nm,0.9s,mb5.6						
HHC				AMB	AMB		
	comp=Z,5µm,9.0s						
HHC				LR	LR		
	comp=Z,31µm,17.8s,MS6.2						
JOW	**Kunigami**	**38.12**	**55**	P	**P**	**09 38 12.6**	**+0.5**
	comp=Z,23nm,0.9s,mb4.9,baz=222,slow=7.1,SNR=4.0						
AAK	**Ala-Archa**	**39.16**	**337**	*e*P	**P**	**09 38 20.8**	**+0.2**
	comp=Z,37nm,0.9s,mb5.1						
DL2	**Dalian**	**40.31**	**34**	P	**P**	**09 38 31.0**	**+0.9**
DL2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.0						
SONM	**Songino Array**	**41.88**	**13**	P	**P**	**09 38 42.6**	**-0.3**
	comp=Z,10.0nm,0.7s,mb4.6,baz=205,slow=9.8,SNR=17						
SONM				PcP	PcP	09 40 38.7	-0.3
	comp=Z,8.0nm,0.8s,baz=197,slow=3.6,SNR=5.1						
SNY	**Shenyang**	**43.41**	**33**	⇑P	**P**	**09 38 56.3**	**+0.8**
SNY				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
ZAK	**Zakamensk**	**43.75**	**9**	*e*P	**P**	**09 38 57.4**	**-0.7**
NWAO	**Narrogin (SRO)**	**45.74**	**152**	P	**P**	**09 39 15.2**	**+0.9**
	comp=Z,24nm,0.7s,mb5.2,baz=324,slow=10,SNR=6.9						
NWAO	**Narrogin (SRO)**	**45.74**	**152**	P	**P**	**09 39 15.2**	**+0.9**
NWAO				pmax	pmax		
	comp=Z,24nm,0.7s						
CN2	**Changchun**	**45.77**	**32**	*e*P	**P**	**09 39 14.8**	**+0.4**
CN2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.5						
ZAL	**Zalesovo**	**47.15**	**353**	P	**P**	**09 39 24.9**	**-0.2**
	comp=Z,31nm,0.3s,mb5.7,baz=301,slow=6.5,SNR=24						
ZAL	**Zalesovo**	**47.15**	**353**	P	**P**	**09 39 24.9**	**-0.2**
ZAL				pmax	pmax		
	comp=Z,31nm,0.4s						
ZAL	**Zalesovo**	**47.15**	**353**	P	**P**	**09 39 24.9**	**-0.2**
HIA	**Hailar**	**47.26**	**23**	*e*P	**P**	**09 39 25.8**	**-0.3**
	comp=Z,96nm,0.9s,mb5.7						
WRA	**Warramunga Arr**	**48.18**	**125**	P	**P**	**09 39 32.9**	**-0.8**
	comp=Z,51nm,0.6s,mb5.7,baz=305,slow=8.5,SNR=34						
WRA	**Warramunga Arr**	**48.18**	**125**	P	**P**	**09 39 32.9**	**-0.8**
WRA				pmax	pmax		
	comp=Z,51nm,0.6s						
WRAB	**Tennant Creek**	**48.19**	**125**	*e*P	**P**	**09 39 33.1**	**-0.7**
	comp=Z,147nm,0.8s,mb6.1						
NVS	**Novosibirsk**	**48.23**	**352**	*i* P	**P**	**09 39 32.7**	**-0.9**
NVS				pmax	pmax		
	comp=N,14nm,0.9s						
NVS				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.4						
BVAR	**Borovoye Array**	**49.49**	**342**	P	**P**	**09 39 42.4**	**-0.9**
	comp=Z,6.6nm,0.6s,mb4.9,baz=143,slow=8.1,SNR=8.8						
BVAR				PcP	PcP	09 41 06.1	+0.8
	comp=Z,11nm,0.7s,baz=146,slow=5.3,SNR=6.3						
ASAR	**Alice Springs**	**49.78**	**129**	P	**P**	**09 39 45.6**	**-0.3**
	comp=Z,36nm,0.9s,mb5.4,baz=308,slow=7.4,SNR=16						
ASAR				PcP	PcP	09 41 07.3	+0.5
	comp=Z,20nm,1.1s,baz=311,slow=3.6,SNR=6.5						

MAT	**Matsushiro**	**49.87**	**48**	P	**P**	**09 39 45.8**	**-0.7**
MAT	**Matsushiro**	**49.87**	**48**	*e*P	**P**	**09 39 46.0**	**-0.5**
	comp=Z,22nm,1.0s,mb5.1						
CBIJ	**Chichi jima**	**49.93**	**61**	P	**P**	**09 39 46.7**	**-0.4**
	comp=Z,99nm,0.6s,mb6.0,baz=293,slow=19,SNR=7.2						
KLR	**Kul'dur**	**52.63**	**31**	*e*P	**P**	**09 40 03.3**	**-3.9**
BOD	**Bodaibo**	**52.87**	**13**	*e*P	**P**	**09 40 06.6**	**-2.3**
GNI	**Garni**	**54.63**	**315**	P	**P**	**09 40 23.1**	**+1.0**
	comp=Z,2.0nm,0.4s,mb4.5,baz=320,slow=13,SNR=3.6						
GNI	**Garni**	**54.63**	**315**	P	**P**	**09 40 23.1**	**+1.0**
GNI				pmax	pmax		
	comp=Z,2.0nm,0.4s						
PMG	**Port Moresby**	**55.69**	**106**	P	**P**	**09 40 29.7**	**-0.4**
	comp=Z,30nm,0.7s,mb5.4,baz=304,slow=5.0,SNR=13						
PMG	**Port Moresby**	**55.69**	**106**	P	**P**	**09 40 29.7**	**-0.4**
PMG				pmax	pmax		
	comp=Z,30nm,0.7s						
ASAJ	**Asahikawa**	**56.14**	**41**	P	**P**	**09 40 32.5**	**-0.5**
	comp=Z,15nm,0.9s,mb5.0,baz=85,slow=24,SNR=5.6						
ASAJ	**Asahikawa**	**56.14**	**41**	P	**P**	**09 40 32.5**	**-0.5**
ASAJ				pmax	pmax		
	comp=Z,15nm,0.9s						
ZEI	**Tsey**	**56.27**	**317**	*e*P	**P**	**09 40 33.3**	**-0.6**
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
ARU	**Arti**	**56.35**	**337**	*e*P	**P**	**09 40 33.7**	**-0.6**
ARU	**Arti**	**56.35**	**337**	*e*P	**P**	**09 40 34.0**	**-0.2**
	comp=Z,90nm,0.9s,mb5.8						
KMBO	**Kilima Mbogo**	**56.99**	**264**	P	**P**	**09 40 43.2**	**+3.7**
	comp=Z,10nm,0.9s,mb4.9,baz=52,slow=11,SNR=12						
KMBO	**Kilima Mbogo**	**56.99**	**264**	P	**P**	**09 40 43.2**	**+3.7**
KMBO				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KMBO	**Kilima Mbogo**	**56.99**	**264**	P	**P**	**09 40 43.2**	**+3.7**
YSS	**Yuzh-Sakhalins**	**57.52**	**38**	*e*P	**P**	**09 40 41.0**	**-1.7**
YSS				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.7						
YSS	**Yuzh-Sakhalins**	**57.52**	**38**	*e*P	**P**	**09 40 42.9**	**+0.2**
	comp=Z,51nm,0.8s,mb5.6						
KIV	**Kislovodsk**	**57.56**	**318**	*e*P	**P**	**09 40 42.4**	**-0.7**
KIV				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
CTA	**Charters Tower**	**58.31**	**119**	P	**P**	**09 40 47.6**	**-0.9**
	comp=Z,17nm,0.8s,mb5.2,baz=292,slow=8.8,SNR=14						
CTA	**Charters Tower**	**58.31**	**119**	P	**P**	**09 40 47.7**	**-0.9**
CTA				pmax	pmax		
	comp=Z,17nm,0.8s						
EIL	**Elat**	**59.44**	**300**	P	**P**	**09 40 58.1**	**+1.8**
	comp=Z,18nm,0.8s,mb5.1,baz=88,slow=3.1,SNR=8.1						
STKA	**Stephens Creek**	**59.92**	**133**	P	**P**	**09 40 59.5**	**-0.1**
	comp=Z,16nm,0.8s,mb5.1,baz=297,slow=8.4,SNR=8.5						
YAK	**Yakutsk**	**60.73**	**18**	*e*P	**P**	**09 41 03.1**	**-1.6**
	comp=Z,90nm,0.9s,mb5.9						
BRTR	**Keskin Array B**	**62.58**	**311**	P	**P**	**09 41 16.6**	**-0.9**
	comp=Z,6.2nm,0.7s,mb4.8,baz=121,slow=7.4,SNR=9.8						
BRTR	**Keskin Array B**	**62.58**	**311**	P	**P**	**09 41 16.6**	**-0.9**
BRTR				pmax	pmax		
	comp=Z,6.0nm,0.7s						
OBN	**Obninsk**	**65.74**	**328**	*e*P	**P**	**09 41 37.3**	**-0.5**
OBN				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.2						
SKR	**Severo-Kuril's**	**67.09**	**38**	*e*P	**P**	**09 41 41.0**	**-5.5**
SKR				*e*		09 41 52.5	
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
MA2	**Magadan**	**67.51**	**28**	*e*P	**P**	**09 41 48.4**	**-0.6**
	comp=Z,57nm,0.9s,mb5.6						
AKASG	**Malin Array Be**	**68.44**	**322**	P	**P**	**09 41 53.4**	**-1.6**
	comp=Z,17nm,1.1s,mb5.0,baz=88,slow=4.5,SNR=11						
AKASG	**Malin Array Be**	**68.44**	**322**	P	**P**	**09 41 53.4**	**-1.6**
AKASG				pmax	pmax		
	comp=Z,17nm,1.1s						
IDI	**Anoyia**	**68.64**	**305**	P	**P**	**09 41 57.1**	**+0.6**
	comp=Z,33nm,0.6s,mb5.5,baz=110,slow=6.2,SNR=21						
MLR	**Muntele Rosu**	**69.39**	**316**	P	**P**	**09 42 00.2**	**-0.7**
	comp=Z,23nm,0.9s,mb5.1,baz=115,slow=2.9,SNR=11						
MLR	**Muntele Rosu**	**69.39**	**316**	P	**P**	**09 42 00.2**	**-0.7**
MLR				pmax	pmax		
	comp=Z,23nm,0.9s						
RZN	**Rozhen**	**69.62**	**312**	*e*P	**P**	**09 42 02.5**	**+0.1**
MMB	**Musomiste**	**70.33**	**312**	*e*P	**P**	**09 42 06.0**	**-0.7**
KKB	**Krupnik**	**70.85**	**312**	*e*P	**P**	**09 42 13.0**	**+3.1**
VTS	**Vitosha**	**70.86**	**313**	*e*P	**P**	**09 42 10.0**	**+0.1**
APA	**Apatity**	**72.33**	**340⇑**	*i*P	**P**	**09 42 17.9**	**-0.4**
APA				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
FINES	**FINESS Array B**	**73.12**	**332**	P	**P**	**09 42 22.9**	**-0.1**
	comp=Z,14nm,0.7s,mb5.0,baz=114,slow=7.5,SNR=15						
FINES	**FINESS Array B**	**73.12**	**332**	P	**P**	**09 42 22.9**	**-0.1**
FINES				pmax	pmax		
	comp=Z,14nm,0.7s						
OJC	**Ojcow**	**74.24**	**320**	*e*P	**P**	**09 42 30.0**	**+0.3**
VYHS	**Vyhne**	**74.65**	**318**	*e*P	**P**	**09 42 32.3**	**+0.2**
OKC	**Ostrava-Krasne**	**75.25**	**320**	*e*P	**P**	**09 42 35.5**	**-0.1**
OKC	**Ostrava-Krasne**	**75.25**	**320**	*e*pP	**P**	**09 42 35.5**	**-0.1**
ARCES	**ARCESS Array B**	**75.75**	**340**	P	**P**	**09 42 38.7**	**+0.6**
	comp=Z,14nm,0.7s,mb5.0,baz=103,slow=6.6,SNR=19						
ARCES	**ARCESS Array B**	**75.75**	**340**	P	**P**	**09 42 38.7**	**+0.6**
ARCES				pmax	pmax		
	comp=Z,14nm,0.7s						
ARCES	**ARCESS Array B**	**75.75**	**340**	P	**P**	**09 42 38.7**	**+0.6**
ZST	**Bratislava**	**75.77**	**318**	*e*P	**P**	**09 42 38.9**	**+0.3**
DPC	**Dobruska-Polom**	**76.47**	**320**	*e*P	**P**	**09 42 43.6**	**+1.1**
DPC	**Dobruska-Polom**	**76.47**	**320**	*e*pP	**P**	**09 42 43.6**	**+1.1**
KSP	**Ksiaz**	**76.53**	**320**	*e*P	**P**	**09 42 43.0**	**+0.2**
KSP				*e*		09 42 47.2	
UPC	**Upice**	**76.68**	**320**	*e*P	**P**	**09 42 43.6**	**0.0**
BILL	**Bilibino**	**76.82**	**22**	*e*P	**P**	**09 42 43.9**	**-0.2**
	comp=Z,11nm,0.8s,mb4.8						
MAW	**Mawson**	**77.82**	**192**	P	**P**	**09 42 45.0**	**-4.6**
	comp=Z,9.1nm,0.8s,mb4.8,baz=78,slow=23,SNR=8.2						
MAW	**Mawson**	**77.82**	**192**	P	**P**	**09 42 45.0**	**-4.6**
MAW				pmax	pmax		
	comp=Z,9.0nm,0.8s						
FX1	**Attu Island--F**	**77.88**	**38**	P	**P**	**09 42 50.4**	**+0.3**
	comp=Z,41nm,0.5s,mb5.6,baz=258,slow=0.7,SNR=12						
FX1	**Attu Island--F**	**77.88**	**38**	P	**P**	**09 42 50.4**	**+0.2**
FX1				pmax	pmax		
	comp=Z,41nm,0.5s						
FX1	**Attu Island--F**	**77.88**	**38**	*e*P	**P**	**09 42 50.4**	**+0.2**
TRO	**Tromso**	**78.01**	**340**	*e*P	**P**	**09 42 49.7**	**-0.9**
BRG	**Berggiesshubel**	**78.02**	**320**	*e*P	**P**	**09 42 52.1**	**+1.1**
BRG				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
BRG	**Berggiesshubel**	**78.02**	**320**	*e*P	**P**	**09 42 52.1**	**+1.1**
	comp=Z,13nm,1.1s,mb4.8						
GERES	**GERESS Array B**	**78.07**	**318**	P	**P**	**09 42 52.3**	**+1.0**
	comp=Z,12nm,0.7s,mb5.0,baz=105,slow=4.8,SNR=17						
GERES	**GERESS Array B**	**78.07**	**318**	P	**P**	**09 42 52.3**	**+1.0**
GERES				pmax	pmax		
	comp=Z,12nm,0.7s						
KHC	**Kasperske Hory**	**78.17**	**319**	*e*P	**P**	**09 42 52.5**	**+0.7**
KHC				*e*x	pP	09 42 57.5	-3.8
KHC	**Kasperske Hory**	**78.17**	**319**	*e*pP	**P**	**09 42 52.6**	**+0.8**
CLL	**Collm**	**78.64**	**321**	*e*P	**P**	**09 42 55.0**	**+0.6**
CLL	**Collm**	**78.64**	**321**	P	**P**	**09 42 55.0**	**+0.6**
MOR8	**Moi Rana**	**79.12**	**336**	*e*P	**P**	**09 42 56.6**	**-0.1**
MOR8				AMb	AMB	09 43 08.9	
	comp=Z,60nm,2.2s,mb5.1						
MOR8	**Moi Rana**	**79.12**	**336**	*e*P	**P**	**09 42 56.6**	**-0.1**
	comp=Z,60nm,2.2s,mb5.1						
LOF	**Lofoten**	**79.70**	**338**	*e*P	**P**	**09 43 01.9**	**+2.1**
LOF				AMb	AMB	09 43 03.7	
	comp=Z,100nm,1.4s,mb5.6						
LOF	**Lofoten**	**79.70**	**338**	*e*P	**P**	**09 43 01.9**	**+2.1**
	comp=Z,100nm,1.4s,mb5.5						
NB2	**NORSAR Subarra**	**80.12**	**331**	P	**P**	**09 43 02.0**	**-0.2**
	comp=Z,7.0nm,0.7s,mb4.7,baz=94,slow=5.8						
NB2	**NORSAR Subarra**	**80.12**	**331**	P	**P**	**09 43 02.0**	**-0.2**
	baz=94,slow=5.9						
NOA	**NORSAR Array B**	**80.12**	**331**	P	**P**	**09 43 01.6**	**-0.6**
	comp=Z,5.0nm,0.8s,mb4.5,baz=94,slow=5.5,SNR=4.8						
NOA	**NORSAR Array B**	**80.12**	**331**	P	**P**	**09 43 01.6**	**-0.6**
NOA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MOL	**Molde**	**81.90**	**332**	*e*P	**P**	**09 43 15.1**	**+3.6**
LPL	**La Plagne**	**82.83**	**315**	*e*P	**P**	**09 43 17.5**	**+0.8**
	comp=Z,45nm,0.7s,mb5.3						
DAG	**Danmarks Havn**	**88.03**	**348⇑**	*e*P	**P**	**09 43 41.7**	**-0.2**
DAG				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.5						
DAG	**Danmarks Havn**	**88.03**	**348⇑**	*e*P	**P**	**09 43 41.7**	**-0.2**
	comp=Z,3.4nm,0.9s,mb4.6						
DAG	**Danmarks Havn**	**88.03**	**348⇑**	*i*P	**P**	**09 43 41.7**	**-0.2**
	comp=Z,3.4nm,0.9s,mb4.6						
ESDC	**Sonseca Array**	**91.36**	**310**	P	**P**	**09 44 00.2**	**+1.9**
	comp=Z,5.4nm,0.7s,mb5.0,baz=57,slow=4.1,SNR=15						
IMA	**Indian Mountai**	**92.36**	**22**	*e*P	**P**	**09 44 04.4**	**+2.2**
	comp=Z,229nm,1.7s,mb6.2						
ILAR	**Eielson Array**	**95.48**	**22**	P	**P**	**09 44 17.1**	**+0.4**
	comp=Z,1.4nm,0.8s,mb4.4,baz=293,slow=6.5,SNR=5.6						
ILAR	**Eielson Array**	**95.48**	**22**	P	**P**	**09 44 17.1**	**+0.5**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
INK	**Inuvik**	**97.72**	**16**	P	**P**	**09 44 26.6**	**0.0**
	comp=Z,5.7nm,1.0s,mb5.0,baz=186,slow=2.4,SNR=6.7						
INK	**Inuvik**	**97.72**	**16**	P	**P**	**09 44 26.6**	**0.0**
INK				pmax	pmax		
	comp=Z,6.0nm,1.0s						
YKA	**Yellowknife Ar**	**107.14**	**13**	PP	PP	09 49 32.4	-6.5
	comp=Z,0.9nm,0.9s,baz=333,slow=7.5,SNR=6.1						
YKA				PKKPbc		10 00 35.6	
	comp=Z,0.3nm,0.7s,baz=150,slow=3.5,SNR=5.5						
YBH	**Yreka Blue Hor**	**120.95**	**31**	PKP	PKPdf	09 49 47.2	-1.6
	comp=Z,3.3nm,0.9s,baz=13,slow=6.5,SNR=2.8						
YBH	**Yreka Blue Hor**	**120.95**	**31**	PKIKP	PKPdf	09 49 47.2	-1.6
YBH				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ULM	**Lac du Bonnet**	**122.16**	**7**	PKP	PKPdf	09 49 48.5	-2.3
	comp=Z,3.9nm,0.6s,baz=306,slow=3.4,SNR=3.2						
NVAR	**Mina Array Bea**	**125.66**	**31**	PKP	PKPdf	09 49 56.4	-1.6
	comp=Z,4.2nm,0.7s,baz=285,slow=2.4,SNR=13						
PDAR	**Pinedale Array**	**125.90**	**21**	PKP	PKPdf	09 49 55.5	-2.9
	comp=Z,5.5nm,0.9s,baz=62,slow=1.0,SNR=13						
TRCR	**Troy Canyon**	**127.07**	**29**	*e*PKP	PKPdf	09 49 58.9	-1.8
ANMO	**Albuquerque**	**133.91**	**23**	PKP	PKPdf	09 50 12.4	-1.3
	comp=Z,3.1nm,0.8s,baz=279,slow=0.4,SNR=9.5						
TXAR	**Lajitas Array**	**139.97**	**24**	PKP	PKPdf	09 50 22.6	-2.4
	comp=Z,2.0nm,0.5s,baz=193,slow=1.2,SNR=20						
JCT	**Junction City**	**140.32**	**19**	*e*PKP	PKPdf	09 50 23.1	-2.5
BAO	**Brasilia Array**	**141.66**	**254**	PKP	PKPdf	09 50 22.1	-6.3
BDFB	**Brasilia**	**141.68**	**254**	PKP	PKPdf	09 50 27.0	-1.4
	comp=Z,7.1nm,1.0s,baz=178,slow=3.0,SNR=4.9						
BDFB	**Brasilia**	**141.68**	**254**	PKIKP	PKPdf	09 50 27.0	-1.4
BDFB				pmax	pmax		
	comp=Z,7.0nm,1.0s						
SJG	**San Juan**	**147.97**	**322**	PKPbc	PKPdf	09 50 39.3	+0.3
	comp=Z,12nm,0.8s,baz=5.2,slow=3.6,SNR=3.4						
SJG	**San Juan**	**147.97**	**322**	PKP2	PKPab	09 50 39.3	-2.5
SJG				pmax	pmax		
	comp=Z,13nm,0.8s						
SJG	**San Juan**	**147.97**	**322**	PKPbc	PKPdf	09 50 39.3	+0.2
PCRV	**Puerto La Cruz**	**152.42**	**309**	PKPbc	PKPdf	09 50 50.1	+4.0
	comp=Z,11nm,0.6s,baz=175,slow=1.4,SNR=6.1						
LVC	**Limon Verde**	**157.37**	**226**	PKPab	PKPab	09 51 23.1	+1.9
	comp=Z,4.1nm,0.7s,baz=99,slow=3.7,SNR=4.5						
SDV	**Santo Domingo**	**157.70**	**316**	PKP	PKPdf	09 50 50.8	-2.4
	comp=Z,6.6nm,1.0s,baz=246,slow=2.9,SNR=17						
SDV				PKPab	PKPab	09 51 23.3	+0.5
	comp=Z,5.9nm,0.8s,baz=250,slow=3.2,SNR=4.2						

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*IDC **26** 09:36:35.2±1.2, 9.42N×91.79E, mb4.3/12, mb1 4.5/13, mb1mx4.3/22, ML3.9/1, Error ellipse: s-maj=36.7km s-min=26.1km az=39.0*

*NEIC **26** 09:36:39.3±0.7, 9.35N×91.86E, h30^{km}, mb4.6/4, Error ellipse: s-maj=17.6km s-min=15.8km az=147.0*

ISC 26 09:36:38.6±0.8**, 9.4N**±0.1×**91.9E**±0.1**, h33^{km}, n25, σ0^{s}61**/22**, mb4.4**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.28**	**37**	Pn	**P**	**09 39 20.4**	**-0.2**
	0.3nm,0.3s,baz=226,slow=14,SNR=5.5						
SONM	**Songino Array**	**40.19**	**15**	P	**P**	**09 44 13.4**	**+0.1**
	4.7nm,0.8s,mb4.3,baz=198,slow=8.4,SNR=9.5						
ZAL	**Zalesovo**	**44.74**	**354**	P	**P**	**09 44 50.0**	**-0.5**
	2.5nm,0.7s,mb4.2,baz=290,slow=11,SNR=4.5						
ZAL	**Zalesovo**	**44.74**	**354**	P	**P**	**09 44 50.0**	**-0.5**
BVAR	**Borovoye Array**	**46.82**	**342**	P	**P**	**09 45 07.8**	**+0.8**
	1.7nm,0.7s,mb4.1,baz=141,slow=9.5,SNR=3.7						
WRA	**Warramunga Arr**	**50.98**	**125**	P	**P**	**09 45 40.0**	**+0.5**
	4.1nm,0.8s,mb4.4,baz=307,slow=8.3,SNR=6.1						
WRA	**Warramunga Arr**	**50.98**	**125**	P	**P**	**09 45 40.0**	**+0.5**
BRTR	**Keskin Array B**	**59.73**	**311**	P	**P**	**09 46 41.6**	**-0.9**
	1.6nm,0.8s,mb4.1,baz=121,slow=7.2,SNR=3.7						
MLR	**Muntele Rosu**	**66.50**	**316**	P	**P**	**09 47 27.7**	**+0.5**
	5.3nm,0.7s,mb4.7,baz=336,slow=15,SNR=5.1						
FINES	**FINESS Array B**	**70.30**	**332**	P	**P**	**09 47 50.1**	**-0.3**
	2.6nm,0.6s,mb4.3,baz=94,slow=5.6,SNR=8.3						
ARCES	**ARCESS Array B**	**73.05**	**340**	P	**P**	**09 48 06.5**	**-0.3**
	3.7nm,0.7s,mb4.4,baz=67,slow=9.2,SNR=4.8						
LBTB	**Lobatse**	**73.05**	**240**	*e*P	**P**	**09 48 06.8**	**-0.8**
	2.0nm,0.4s,mb4.4						
BRG	**Berggiesshubel**	**75.13**	**320**	*e*P	**P**	**09 48 20.3**	**+1.1**
	15nm,1.6s,mb4.7						
GERES	**GERESS Array B**	**75.18**	**318**	P	**P**	**09 48 19.8**	**+0.3**
	1.6nm,0.6s,mb4.2,baz=90,slow=5.3,SNR=8.9						
GERES				pP	pP	09 48 29.2	-0.6
	1.3nm,0.7s,baz=90,slow=5.3,SNR=4.4						
CLL	**Collm**	**75.75**	**321**	*e*P	**P**	**09 48 23.0**	**+0.3**
CLL	**Collm**	**75.75**	**321**	P	**P**	**09 48 23.0**	**+0.3**
NB2	**NORSAR Subarra**	**77.28**	**331**	P	**P**	**09 48 30.3**	**-0.9**
	1.1nm,0.7s,mb3.9,baz=94,slow=5.6						
NOA	**NORSAR Array B**	**77.28**	**331**	P	**P**	**09 48 30.3**	**-0.8**
	1.6nm,0.7s,mb4.0,baz=95,slow=5.4,SNR=3.8						
LPG	**La Plagne**	**79.94**	**315**	*e*P	**P**	**09 48 46.6**	**+0.6**
	28nm,1.0s,mb4.8						
EKA	**Eskdalemuir Ar**	**85.17**	**325**	P	**P**	**09 49 12.9**	**+0.2**
	1.8nm,0.6s,mb4.3,baz=89,slow=4.9,SNR=4.8						
INK	**Inuvik**	**96.10**	**15**	P	**P**	**09 50 02.9**	**-0.7**
	2.2nm,1.1s,mb4.5,baz=334,slow=7.4,SNR=4.3						
INK	**Inuvik**	**96.10**	**15**	P	**P**	**09 50 02.9**	**-0.7**
YKA	**Yellowknife Ar**	**105.41**	**12**	PP	PP	09 55 03.9	-6.3
	0.6nm,0.8s,baz=335,slow=7.9,SNR=6.1						
PDAR	**Pinedale Array**	**124.48**	**19**	PKhKP		09 55 34.0	
	0.4nm,0.7s,SNR=3.6						
TXAR	**Lajitas Array**	**138.64**	**21**	PKP	PKPdf	09 56 02.1	+0.2
	0.3nm,0.7s,baz=315,slow=1.3,SNR=4.0						

IDC 26 09:37:08.6±5.0**, 3.80N**×**93.43E, mb4.0**/4**, mb1 4.3**/5**, mb1mx3.9**/19**, ML4.3**/1**, Error ellipse: s-maj=122.0km s-min=68.1km az=139.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.54**	**20**	Pn	P	09 40 54.2	+3.3
	0.4nm,0.3s,baz=207,slow=12,SNR=6.9						
SONM	**Songino Array**	**45.27**	**12**	P	P	09 45 27.7	-2.0
	1.8nm,0.7s,baz=192,slow=8.7,SNR=3.0						
ZAL	**Zalesovo**	**50.48**	**353**	P	P	09 46 08.9	-1.4
	1.9nm,0.5s,baz=256,slow=8.3,SNR=3.6						
BVAR	**Borovoye Array**	**52.62**	**343**	P	P	09 46 23.8	-2.7
	1.5nm,0.8s,baz=153,slow=6.4,SNR=2.9						
KOLS	**Kolonicke sedl**	**74.81**	**320**	*e*	P	09 49 00.4	+7.8
GERES	**GERESS Array B**	**80.39**	**319**	P	P	09 49 22.2	-1.3
	1.3nm,0.9s,baz=101,slow=5.0,SNR=2.4						
TXAR	**Lajitas Array**	**143.20**	**25**	PKP	PKPdf	09 56 45.3	-1.9
	0.5nm,0.7s,baz=318,slow=1.6,SNR=3.5						

WEL 26 09:37:37.9±0.4**, 39.22S**×**174.89E, h203^{km}**±3^{km}**, ML3.6**/7**, 1C-2D, Error ellipse: s-maj=4.8km s-min=3.0km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WAZ	**Wanganui**	**0.54**	**172**	PN	P	09 38 05.5	-0.3
WAZ				SN	S	09 38 27.0	-0.4
TUVZ	**Tukino**	**0.60**	**95**	PN	P	09 38 06.1	0.0
TUVZ				SN	S	09 38 25.9	-1.9
MOVZ	**Moawhango**	**0.70**	**106**	PN	P	09 38 06.0	-0.5
MOVZ				SN	S	09 38 27.1	-1.5
TSZ	**Takapari Road**	**1.18**	**136**	PN	P	09 38 09.6	+0.1
TSZ				SN	S	09 38 33.5	-0.4
BKZ	**Black Stump Fm**	**1.25**	**88**	⇓PN	P	09 38 09.5	-0.6
BKZ				SN	S	09 38 33.1	-1.9
MRZ	**Mangatainoka R**	**1.53**	**160**	SN	S	09 38 37.9	-1.4
KIW	**Kapiti Island**	**1.64**	**179**	PN	P	09 38 12.6	-0.9
PWZ	**Pawanui**	**1.72**	**118**	⇓PN	P	09 38 14.1	-0.2
PWZ				SN	S	09 38 41.9	-0.5
CAW	**Cannon Point**	**1.89**	**176**	PN	P	09 38 14.9	-1.0
CAW				*e*SN	S	09 38 43.5	-1.6
URZ	**Urewera**	**1.98**	**62**	PN	P	09 38 14.8	-2.0
URZ				*e*SN	S	09 38 43.7	-3.1
MTW	**Mount Morrison**	**1.99**	**167**	PN	P	09 38 15.7	-1.2
MRW	**Makara Radio**	**2.01**	**184**	PN	P	09 38 15.9	-1.2
MRW				*e*SN	S	09 38 45.0	-2.3
KNZ	**Kokohu**	**2.18**	**86**	PN	P	09 38 17.9	-0.9
PAWZ	**Paruwai Farm**	**2.20**	**169**	PN	P	09 38 17.7	-1.4
MSWZ	**Moikau Station**	**2.21**	**173**	PN	P	09 38 17.8	-1.4
MSWZ				SN	S	09 38 48.9	-2.2
MWZ	**Matawai**	**2.25**	**68**	PN	P	09 38 17.8	-1.9
MWZ				SN	S	09 38 48.9	-2.9
NNZ	**Nelson**	**2.31**	**210**	⇑PN	P	09 38 18.3	-2.0
NNZ				SN	S	09 38 49.8	-3.2
TUWZ	**Tuamarina**	**2.32**	**198**	PN	P	09 38 18.8	-1.7
QRZ	**Quartz Range**	**2.42**	**228**	PN	P	09 38 18.6	-3.0
BSWZ	**Blackbirch Sta**	**2.61**	**197**	*e*PN	P	09 38 22.1	-1.6
THZ	**Tophouse**	**2.96**	**210**	PN	P	09 38 25.0	-2.6
KHZ	**Kahutara**	**3.35**	**197**	PN	P	09 38 29.7	-2.7
DSZ	**Denniston Nort**	**3.45**	**222**	PN	P	09 38 29.8	-3.8
DSZ				SN	S	09 39 11.0	-5.7
LTZ	**Lake Taylor**	**4.07**	**208**	PN	P	09 38 37.9	-3.4
MQZ	**McQueen's Vall**	**4.79**	**200**	*e*PN	P	09 38 45.7	-4.7
MQZ				SN	S	09 39 39.1	-7.4
WVZ	**Waitaha Valley**	**4.96**	**218**	SN	S	09 39 42.3	-8.3

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*IDC **26** 09:38:34.7±0.4, 8.98N×92.34E, mb4.7/29, mb1 4.8/30, mb1mx4.8/32, ML4.2/1, Error ellipse: s-maj=21.9km s-min=11.2km az=43.0*

*BJI **26** 09:38:38.8, 8.52N×92.42E, h60^{km}, mb5.2*

*NEIC **26** 09:38:39.4±0.2, 8.96N×92.33E, h30^{km}, mb4.9/24, Error ellipse: s-maj=7.4km s-min=4.8km az=224.0*

ISC 26 09:38:38.0±0.3**, 8.90N**±0.06×**92.37E**±0.05**, h33^{km}, n115, σ0^{s}89**/102**, mb4.8**/53**, 1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.44**	**33**	Pn	**P**	**09 41 25.4**	**+3.2**
	0.4nm,0.3s,baz=209,slow=12,SNR=4.5						
KMI	**Kunming**	**18.92**	**30**	*e*P	**P**	**09 43 00.0**	**+1.3**
KMI				AMB	AMB		
	comp=Z,38nm,1.0s						
LSA	**Lhasa**	**20.72**	**357**	*e*P	**P**	**09 43 17.9**	**-0.3**
	comp=Z,57nm,0.9s						
GYA	**Guiyang**	**22.11**	**36⇑**	*i*P	**P**	**09 43 33.0**	**+0.9**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
ENH	**Enshi**	**26.61**	**35**	*e*P	**P**	**09 44 14.5**	**-0.9**
	comp=Z,19nm,0.7s,mb4.7						
LZH	**Lanzhou**	**29.01**	**19**	*e*P	**P**	**09 44 37.0**	**0.0**
LZH				AMB	AMB		
	comp=Z,60nm,1.3s,mb5.2						
GTA	**Gaotai**	**31.10**	**11⇓**	*i*P	**P**	**09 44 56.0**	**+0.4**
GTA				AMB	AMB		
	comp=Z,61nm,1.1s,mb5.3						
UCH	**Uchtor**	**36.73**	**338**	P	**P**	**09 45 45.4**	**+1.4**
	SNR=9.2						
KBK	**Karagaybulak**	**36.94**	**338**	P	**P**	**09 45 47.2**	**+1.5**
	SNR=5.7						
TKM2	**Tokmak 2**	**36.94**	**339**	P	**P**	**09 45 46.6**	**+0.8**
	SNR=7.8						
AML	**Almayashu**	**36.96**	**337**	P	**P**	**09 45 47.6**	**+1.6**
	SNR=7.6						
AAK	**Ala-Archa**	**37.09**	**338**	P	**P**	**09 45 48.5**	**+1.5**
	SNR=12						
AAK	**Ala-Archa**	**37.09**	**338**	*e*P	**P**	**09 45 47.3**	**+0.3**
	comp=Z,48nm,1.2s,mb5.2						
AAK				*e*pP	pP	09 45 51.7	-5.1
CHMS	**Chumysh**	**37.31**	**339**	P	**P**	**09 45 49.7**	**+0.8**
	SNR=10						
EKS2	**Erkin-Say**	**37.38**	**337**	P	**P**	**09 45 51.1**	**+1.6**
	SNR=14						
BJT	**Baijiatuau**	**37.55**	**31**	*e*P	**P**	**09 45 51.5**	**+0.5**
	comp=Z,9.3nm,0.7s,mb4.6						
USP	**Ospenovka**	**37.63**	**338**	P	**P**	**09 45 52.5**	**+0.9**
	SNR=22						
SONM	**Songino Array**	**40.58**	**15**	P	**P**	**09 46 16.5**	**+0.5**
	comp=Z,16nm,0.8s,mb4.7,baz=202,slow=9.1,SNR=38						
SONM				PcP	PcP	09 48 18.9	+0.4
	comp=Z,3.1nm,0.9s,baz=210,slow=3.9,SNR=4.5						
CN2	**Changchun**	**45.13**	**34**	*e*P	**P**	**09 46 53.0**	**-0.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
ZAL	**Zalesovo**	**45.32**	**354**	P	**P**	**09 46 54.2**	**-0.4**
	comp=Z,7.6nm,0.9s,mb4.5,baz=290,slow=6.6,SNR=11						
MZLS	**Mizel**	**47.43**	**294**	P	**P**	**09 47 12.6**	**+1.0**
BVAR	**Borovoye Array**	**47.47**	**342**	P	**P**	**09 47 11.0**	**-0.5**
	comp=Z,11nm,0.9s,mb4.8,baz=143,slow=7.4,SNR=12						
BRVK	**Borovoye**	**47.53**	**342**	*e*P	**P**	**09 47 11.2**	**-0.8**
	comp=Z,13nm,1.0s,mb4.9						
NWAO	**Narrogin (SRO)**	**47.87**	**152**	P	**P**	**09 47 15.8**	**+0.9**
	comp=Z,7.1nm,0.7s,mb4.8,baz=252,slow=22,SNR=7.2						
CHKZ	**Chkalovo**	**47.97**	**343**	*e*P	**P**	**09 47 14.9**	**-0.5**
	comp=Z,30nm,0.9s,mb5.3						
AFFS	**'Afif**	**49.40**	**294**	P	**P**	**09 47 28.3**	**+1.4**
ARSS	**Ar Rass**	**49.52**	**296**	P	**P**	**09 47 28.4**	**+0.6**
MAT	**Matsushiro**	**49.79**	**49**	P	**P**	**09 47 30.1**	**+0.4**
MAT	**Matsushiro**	**49.79**	**49**	*e*P	**P**	**09 47 30.0**	**+0.3**
WRA	**Warramunga Arr**	**50.28**	**125**	P	**P**	**09 47 32.5**	**-1.1**
	comp=Z,2.1nm,0.3s,mb4.6,baz=306,slow=8.4,SNR=20						
WRAB	**Tennant Creek**	**50.28**	**125**	P	**P**	**09 47 34.1**	**+0.5**
	comp=Z,7.9nm,0.5s,mb5.0						
HILS	**Ha'il**	**51.08**	**298**	P	**P**	**09 47 41.0**	**+1.3**
ASAR	**Alice Springs**	**51.91**	**129**	P	**P**	**09 47 45.1**	**-0.8**
	comp=Z,3.6nm,0.7s,mb4.4,baz=303,slow=6.6,SNR=10.0						
ASAR				PcP	PcP	09 48 57.2	-1.2
	comp=Z,1.4nm,0.6s,baz=314,slow=3.7,SNR=5.1						
GNI	**Garni**	**52.47**	**314**	P	**P**	**09 47 49.9**	**0.0**
	comp=Z,9.0nm,0.8s,mb4.8,baz=359,slow=7.6,SNR=6.4						
GNI	**Garni**	**52.47**	**314**	*e*P	**P**	**09 47 50.1**	**+0.2**
KBRS	**Khaybar**	**53.04**	**296**	P	**P**	**09 47 55.9**	**+1.6**
ARU	**Arti**	**54.27**	**338**	*e*P	**P**	**09 48 02.2**	**-0.8**
	comp=Z,30nm,0.8s,mb5.3						
UMJS	**Umm Lajj**	**54.71**	**295**	P	**P**	**09 48 08.4**	**+1.7**
KIV	**Kislovodsk**	**55.39**	**318**	*e*P	**P**	**09 48 10.1**	**-1.2**
	comp=Z,20nm,0.8s,mb5.2						
KMBO	**Kilima Mbogo**	**55.81**	**263**	P	**P**	**09 48 15.9**	**+1.1**
	comp=Z,1.7nm,0.7s,mb4.2,baz=62,slow=20,SNR=4.8						
JMQS	**Jabal Moqyreh**	**56.48**	**299**	P	**P**	**09 48 20.1**	**+0.7**
BDAS	**Al Bad'**	**57.09**	**298**	P	**P**	**09 48 24.5**	**+0.8**
JMOS	**Jabal al Moall**	**57.19**	**299**	P	**P**	**09 48 24.8**	**+0.3**
HAQS	**Haql**	**57.33**	**299**	P	**P**	**09 48 26.1**	**+0.7**
EIL	**Elat**	**57.40**	**299**	P	**P**	**09 48 26.2**	**+0.3**
	comp=Z,15nm,0.8s,mb5.1,baz=105,slow=4.0,SNR=10						
PMG	**Port Moresby**	**57.50**	**107**	P	**P**	**09 48 28.0**	**+1.2**
	comp=Z,4.5nm,0.7s,mb4.6,baz=265,slow=7.7,SNR=4.0						
PMG	**Port Moresby**	**57.50**	**107**	P	**P**	**09 48 28.0**	**+1.2**
YAK	**Yakutsk**	**59.60**	**19**	*e*P	**P**	**09 48 39.2**	**-1.6**
	comp=Z,30nm,0.8s,mb5.4						
CTA	**Charters Tower**	**60.33**	**119**	P	**P**	**09 48 46.1**	**-0.3**
	comp=Z,2.8nm,0.6s,mb4.5,baz=304,slow=8.5,SNR=6.0						
BRTR	**Keskin Array B**	**60.44**	**311**	P	**P**	**09 48 44.9**	**-2.0**
	comp=Z,7.3nm,0.8s,mb4.7,baz=121,slow=7.2,SNR=18						
STKA	**Stephens Creek**	**62.08**	**133**	P	**P**	**09 48 58.4**	**+0.3**
	comp=Z,3.9nm,0.8s,mb4.6,baz=311,slow=7.5,SNR=3.3						
AKASG	**Malin Array Be**	**66.27**	**322**	P	**P**	**09 49 22.8**	**-2.2**
	comp=Z,3.2nm,0.6s,mb4.6,baz=91,slow=4.7,SNR=12						
IDI	**Anoyia**	**66.55**	**305**	P	**P**	**09 49 26.3**	**-0.8**
	comp=Z,9.9nm,0.8s,mb4.9,baz=100,slow=9.1,SNR=4.4						
MLR	**Muntele Rosu**	**67.22**	**316**	P	**P**	**09 49 30.6**	**-0.4**
	comp=Z,21nm,0.8s,mb5.2,baz=170,slow=2.8,SNR=20						
KOLS	**Kolonicke sedl**	**70.28**	**319**	*e*P	**P**	**09 49 47.5**	**-2.5**
SUW	**Suwalki**	**70.65**	**324**	*e*P	**P**	**09 49 50.6**	**-1.5**
CRVS	**Cervenica-Dubn**	**70.81**	**319**	*e*P	**P**	**09 49 53.5**	**+0.3**
FINES	**FINESS Array B**	**70.99**	**332**	P	**P**	**09 49 53.1**	**-1.0**
	comp=Z,10nm,0.8s,mb4.8,baz=100,slow=7.5,SNR=16						
KAF	**Kangasniemi**	**71.09**	**333**	*e*p	**P**	**09 49 53.4**	**-1.2**
	baz=105,slow=5.8						
PSZ	**Piszkesteto**	**71.71**	**317**	*e*P	**P**	**09 49 57.6**	**-1.0**
	comp=Z,7.4nm,1.1s,mb4.5						
OJC	**Ojcow**	**72.07**	**320**	*e*P	**P**	**09 49 59.9**	**-0.7**
VYHS	**Vyhne**	**72.48**	**318**	*e*P	**P**	**09 50 02.1**	**-1.0**
OKC	**Ostrava-Krasne**	**73.08**	**319**	*e*P	**P**	**09 50 06.5**	**-0.2**
LBTB	**Lobatse**	**73.21**	**241**	*e*P	**P**	**09 50 08.2**	**+0.2**
	comp=Z,3.6nm,0.5s,mb4.6						
KEV	**Kevo**	**73.29**	**341**	*e*p	**P**	**09 50 06.7**	**-0.9**
	comp=Z,12nm,0.7s,mb4.9						
MORC	**Moravsky Berou**	**73.46**	**319**	*e*P	**P**	**09 50 08.1**	**-0.8**
	comp=Z,4.3nm,0.8s,mb4.4						
ZST	**Bratislava**	**73.60**	**318**	*e*P	**P**	**09 50 09.3**	**-0.5**
ARCES	**ARCESS Array B**	**73.71**	**340**	P	**P**	**09 50 10.0**	**-0.1**
	comp=Z,9.8nm,0.6s,mb4.9,baz=98,slow=5.0,SNR=21						
VRAC	**Vranov**	**74.03**	**319**	P	**P**	**09 50 11.8**	**-0.5**
	comp=Z,3.2nm,0.6s,mb4.4,baz=106,slow=7.0,SNR=6.3						
DPC	**Dobruska-Polom**	**74.30**	**320**	*e*P	**P**	**09 50 13.9**	**+0.1**
KSP	**Ksiaz**	**74.36**	**320**	*e*P	**P**	**09 50 13.8**	**-0.3**
UPC	**Upice**	**74.51**	**320**	*e*P	**P**	**09 50 14.8**	**-0.2**
PRU	**Pruhonice**	**75.41**	**319**	*e*P	**P**	**09 50 19.9**	**-0.3**
PVCC	**Panska Ves**	**75.43**	**320**	*e*P	**P**	**09 50 20.1**	**-0.2**
BRG	**Berggiesshubel**	**75.85**	**320**	*e*P	**P**	**09 50 22.4**	**-0.3**

	comp=Z,11nm,0.9s,mb4.8						
GEC2	GERESS Array S	75.90	318	*e*P	P	09 50 22.9	-0.1
	comp=Z,9.0nm,0.8s,mb4.8						
GERES	GERESS Array B	75.90	318	P	P	09 50 22.8	-0.2
	comp=Z,9.7nm,0.9s,mb4.8,baz=90,slow=5.3,SNR=28						
KHC	Kasperske Hory	75.99	318	*e*P	P	09 50 22.8	-0.7
RUE	Ruedersdorf	76.05	322	*e*P	P	09 50 23.1	-0.6
	comp=Z,35nm,1.1s,mb5.2						
WET	Wettzell	76.45	318	*e*P	P	09 50 26.1	0.0
CLL	Collm	76.46	321	*e*P	P	09 50 25.0	-1.1
	comp=Z,9.0nm,0.9s,mb4.7						
CLL	Collm	76.46	321	P	P	09 50 25.0	-1.1
	comp=Z,logA/T=1.0,mb4.7						
HFS	Hagfors	76.69	330	P	P	09 50 26.4	-0.8
	comp=Z,4.0nm,0.5s,mb4.7,baz=101,slow=7.6,SNR=15						
NKC	Novy Kostel	76.77	319	*e*P	P	09 50 27.9	0.0
MOX	Moxa	77.31	320	*i* P	P	09 50 30.2	-0.8
MOX	Moxa	77.31	320	*e*P	P	09 50 30.2	-0.8
FX1	Attu Island--F	77.40	38	P	P	09 50 31.6	+0.2
	comp=Z,35nm,0.8s,mb5.3,baz=33,slow=3.6,SNR=5.9						
GRA1	Grafenberg Arr	77.55	319	*e*P	P	09 50 32.7	+0.4
	comp=Z,13nm,0.9s,mb4.9						
GRF	Grafenberg Arr	77.55	319	*e*P	P	09 50 32.7	+0.4
	comp=Z,13nm,0.9s,mb4.9						
NB2	NORSAR Subarra	77.98	331	P	P	09 50 33.4	-1.0
	comp=Z,3.5nm,0.7s,mb4.4,baz=96,slow=5.3						
NOA	NORSAR Array B	77.98	331	P	P	09 50 33.5	-1.0
	comp=Z,6.4nm,0.8s,mb4.6,baz=94,slow=5.5,SNR=13						
CLZ	Clausthal	78.12	321	*e*P	P	09 50 35.2	-0.2
	comp=Z,8.0nm,0.8s,mb4.7						
BSEG	Bad Segeberg	78.19	323	*e*P	P	09 50 35.7	0.0
DAVOX	Davos	78.44	316	P	P	09 50 37.2	-0.1
	comp=Z,9.4nm,0.7s,mb4.8,baz=120,slow=8.7,SNR=16						
BFO	Black Forest	79.46	318	*e*P	P	09 50 42.3	-0.5
	comp=Z,5.0nm,0.9s,mb4.4						
LPL	La Plagne	80.67	315	*e*P	P	09 50 49.3	0.0
	comp=Z,72nm,1.0s,mb5.3						
EKA	Eskdalemuir Ar	85.89	325	P	P	09 51 15.9	+0.3
	comp=Z,5.4nm,0.8s,mb4.8,baz=92,slow=4.7,SNR=9.3						
ESDC	Sonseca Array	89.22	310	P	P	09 51 32.4	+0.4
	comp=Z,0.9nm,0.5s,mb4.4,baz=64,slow=4.1,SNR=6.5						
ILAR	Eielson Array	94.45	22	P	P	09 51 55.4	-0.2
	comp=Z,1.3nm,0.8s,mb4.4,baz=284,slow=4.3,SNR=7.3						
DBIC	Dimbokro	96.07	278	P	P	09 52 05.4	+1.3
	comp=Z,4.0nm,0.8s,mb4.9,baz=94,slow=1.3,SNR=3.8						
INK	Inuvik	96.49	16	P	P	09 52 05.6	+0.8
	comp=Z,2.9nm,0.6s,mb4.9,baz=346,slow=3.5,SNR=8.9						
INK	Inuvik	96.49	16	P	P	09 52 05.6	+0.8
YKA	Yellowknife Ar	105.83	13	PP	PP	09 57 06.6	-5.9
	comp=Z,5.3nm,1.1s,baz=334,slow=7.7,SNR=20						
ULM	Lac du Bonnet	120.66	6	PKP	PKPdf	09 57 28.6	+1.9
	comp=Z,0.9nm,0.4s,baz=104,slow=4.2,SNR=4.0						
PDAR	Pinedale Array	124.82	20	PKP	PKPdf	09 57 36.7	+1.8
	comp=Z,1.3nm,0.9s,baz=90,slow=1.3,SNR=7.6						
NVAR	Mina Array Bea	124.91	29	PKP	PKPdf	09 57 38.3	+3.1
	comp=Z,0.9nm,0.6s,baz=286,slow=3.2,SNR=6.9						
ANMO	Albuquerque	132.89	21	PKP	PKPdf	09 57 53.8	+3.2
	comp=Z,0.3nm,0.3s,baz=264,slow=2.7,SNR=3.6						
TXAR	Lajitas Array	138.97	22	PKhKP		09 57 56.8	
	comp=Z,0.2nm,0.6s,baz=266,slow=0.6,SNR=5.3						
TXAR				PKP	PKPdf	09 58 04.5	+2.6
	comp=Z,0.6nm,0.6s,baz=58,slow=0.3,SNR=9.9						
BDFB	Brasilia	140.76	256	PKP	PKPdf	09 58 07.5	+1.9
	comp=Z,3.1nm,0.7s,baz=52,slow=3.9,SNR=4.3						
SJG	San Juan	145.79	322	PKPbc	PKPbc	09 58 16.0	+1.0
	comp=Z,12nm,0.8s,baz=154,slow=2.9,SNR=4.8						
SJG	San Juan	145.79	322	PKPbc	PKPbc	09 58 16.0	+1.0
PCRV	Puerto La Cruz	150.29	309	PKPbc	PKPdf	09 58 27.4	+5.8
	comp=Z,15nm,0.6s,baz=226,slow=1.6,SNR=15						
SDV	Santo Domingo	155.53	316	PKP	PKPdf	09 58 31.5	+2.6
	comp=Z,2.0nm,0.8s,baz=28,slow=8.6,SNR=3.6						
SDV				PKPbc	PKPdf	09 58 42.4	+13
	comp=Z,3.0nm,0.7s,baz=118,slow=9.0,SNR=4.1						
SDV				PKPab	PKPab	09 58 56.4	-0.9
	comp=Z,1.8nm,0.6s,baz=345,slow=12,SNR=5.3						
LPAZ	La Paz	159.62	247	PKP	PKPdf	09 58 37.1	+3.0
	comp=Z,1.0nm,0.5s,baz=65,slow=3.2,SNR=3.0						
LPAZ				PKPab	PKPab	09 59 15.3	+0.5
	comp=Z,2.0nm,0.8s,baz=232,slow=12,SNR=3.4						
LPAZ	La Paz	159.62	247	PKP	PKPdf	09 58 37.1	+3.0
LPAZ				PKPab	PKPab	09 59 15.3	+0.5

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*IDC **26** 09:38:58.2±0.7, 3.69N×95.42E, mb4.4/18, mb1 4.5/19, mb1mx4.5/25, ML4.4/1, Error ellipse: s-maj=43.1km s-min=14.4km az=46.0*

*NEIC **26** 09:39:02.8±0.3, 3.61N×95.39E, h30^{km}, mb4.5/4, Error ellipse: s-maj=14.4km s-min=6.4km az=52.0*

ISC 26 09:39:01.5±0.5**, 3.6N**±0.1×**95.5E**±0.1**, h33^{km}, n28, σ0^{s}74**/28**, mb4.4**/22**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.12	13	*e*Pn	P	09 42 35.8	+1.3
CMAR	Chiang Mai Arr	15.12	13	Pn	P	09 42 39.6	+5.1
	0.6nm,0.3s,baz=204,slow=11,SNR=7.0						
AAK	Ala-Archa	43.08	337	*e*P	P	09 47 01.3	+1.0
	4.4nm,0.8s,mb4.2						
WRA	Warramunga Arr	44.81	123	P	P	09 47 14.6	+0.1
	2.7nm,0.6s,mb4.2,baz=299,slow=9.3,SNR=6.6						
WRAB	Tennant Creek	44.82	123	*e*P	P	09 47 14.7	+0.1
	4.5nm,0.6s,mb4.5						
SONM	Songino Array	45.02	10	P	P	09 47 15.2	-0.7
	2.6nm,0.6s,mb4.2,baz=192,slow=10,SNR=2.9						
ASAR	Alice Springs	46.26	128	P	P	09 47 26.4	+0.4
	1.9nm,0.7s,mb4.1,baz=296,slow=8.1,SNR=7.0						
ZAL	Zalesovo	50.89	352	P	P	09 48 00.6	-0.8
	12nm,0.7s,mb5.0,baz=301,slow=5.4,SNR=15						
BVAR	Borovoye Array	53.39	341	P	P	09 48 19.1	-1.0
	2.1nm,0.5s,mb4.3,baz=136,slow=12,SNR=6.8						
BRVK	Borovoye	53.45	341	*e*P	P	09 48 19.5	-1.1
	2.1nm,0.4s,mb4.4						
CHKZ	Chkalovo	53.87	342	*e*P	P	09 48 22.7	-1.0
	6.3nm,0.4s,mb4.9						
CTA	Charters Tower	55.16	117	P	P	09 48 33.1	-0.5
	1.8nm,0.6s,mb4.3,baz=276,slow=7.4,SNR=6.2						
STKA	Stephens Creek	56.28	132	P	P	09 48 41.2	-0.3
	0.9nm,0.5s,mb4.0,baz=324,slow=8.7,SNR=2.1						
STKA	Stephens Creek	56.28	132	P	P	09 48 41.2	-0.3
BRTR	Keskin Array B	66.19	312	P	P	09 49 47.4	-0.9
	1.1nm,0.5s,mb4.2,baz=131,slow=7.8,SNR=2.9						
IDI	Anoyia	72.06	306	P	P	09 50 24.3	-0.2
	6.1nm,0.5s,mb4.8,baz=78,slow=7.7,SNR=6.1						
AKASG	Malin Array Be	72.27	322	P	P	09 50 24.2	-1.2
	3.4nm,0.6s,mb4.5,baz=86,slow=4.5,SNR=12						
MLR	Muntele Rosu	73.10	316	P	P	09 50 31.2	+0.6
	3.3nm,0.6s,mb4.4,baz=149,slow=5.9,SNR=3.0						
KOLS	Kolonicke sedl	76.24	319	*e*P	P	09 50 49.0	+0.5
KOLS				*e*sP	sP	09 51 02.6	+0.1
FINES	FINESS Array B	77.04	333	P	P	09 50 52.4	-0.4
	3.8nm,0.4s,mb4.6,baz=107,slow=6.0,SNR=17						
FINES	FINESS Array B	77.04	333	P	P	09 50 52.4	-0.4
ZST	Bratislava	79.53	318	*e*P	P	09 51 07.4	+0.7
ZST				*e*pP	pP	09 51 17.4	+0.3
ARCES	ARCESS Array B	79.66	340	P	P	09 51 07.3	+0.2
	2.8nm,0.5s,mb4.4,baz=94,slow=4.9,SNR=7.1						
GERES	GERESS Array B	81.84	319	P	P	09 51 19.7	+0.7
	1.5nm,0.5s,mb4.2,baz=108,slow=5.1,SNR=8.3						
HFS	Hagfors	82.75	330	P	P	09 51 23.6	+0.3
	2.5nm,0.6s,mb4.5,baz=79,slow=7.6,SNR=5.4						
NOA	NORSAR Array B	84.04	331	P	P	09 51 30.4	+0.6
	0.6nm,0.9s,mb3.7,baz=95,slow=7.2,SNR=3.0						
DAVOX	Davos	84.33	316	P	P	09 51 32.7	+1.0
	1.7nm,0.5s,mb4.5,baz=107,slow=4.0,SNR=3.5						
EKA	Eskdalemuir Ar	91.92	326	P	P	09 52 08.7	+0.8
	2.3nm,0.9s,mb4.5,baz=74,slow=6.0,SNR=3.6						

IDC 26 09:42:21.6±13.0**, 10.16N×93.82E, mb4.0**/3**, mb1 4.3**/3**, mb1mx3.7**/17**, Error ellipse: s-maj=567.0km s-min=45.9km az=65.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	49.86	127	P	P	09 51 17.3	-1.6
	1.3nm,0.5s,baz=309,slow=8.0,SNR=6.8						
ASAR	Alice Springs	51.63	131	P	P	09 51 29.8	-2.6
	0.7nm,0.5s,baz=307,slow=7.1,SNR=4.5						
ILAR	Eielson Array	92.76	22	P	P	09 55 35.5	-1.1
	1.0nm,1.0s,baz=286,slow=5.8,SNR=5.0						

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*IDC **26** 09:43:14.3±0.6, 5.44N×93.03E, mb4.6/26, mb1 4.7/27, mb1mx4.7/31, ML4.6/1, Error ellipse: s-maj=30.3km s-min=13.0km az=41.0*

*BJI **26** 09:43:18.7, 5.21N×92.81E, h52^{km}, mb4.9*

*NEIC **26** 09:43:19.4±0.3, 5.53N×93.14E, h30^{km}, mb5.1/11, Error ellipse: s-maj=9.6km s-min=7.5km az=215.0*

ISC 26 09:43:17.3±4.1**, 5.50N**±0.07×**93.13E**±0.07**, h27^{km}**±28^{km}**, h26^{km}**±.7^{km}**:pP-P, n91, σ0^{s}93**/85**, mb4.8**/46**, 1C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.08	23	Pn	P	09 46 37.0	-0.5
	1.0nm,0.3s,baz=217,slow=14,SNR=13						
VIS	Vishakhapatnam	15.47	323	*e*P	P	09 46 53.1	-2.5
BOK	Bokaro	19.48	340	*e*P	P	09 47 45.2	-0.1
QIZ	Qiongzhong	21.13	49	P	P	09 48 03.0	+0.4
QIZ	Qiongzhong	21.13	49	*e*P	P	09 48 02.3	-0.3
	143nm,1.3s,mb5.1						
KMI	Kunming	21.59	24	*e*P	P	09 48 12.5	+5.4
KMI				AMB	AMB		
	comp=Z,39nm,1.0s,mb4.8						
PKI	Pulchoki	23.15	342	*e*P	P	09 48 22.9	+0.2
	comp=Z,355nm,1.5s,mb5.6						
DMN	Daman	23.28	342	*e*P	P	09 48 23.8	-0.1
GUN	Gumba	23.33	344	*e*P	P	09 48 24.6	+0.2
KKN	Kakani	23.39	342	*e*P	P	09 48 25.1	+0.1
	comp=Z,476nm,1.4s,mb5.7						
GKN	Gorkha	23.79	341	*e*P	P	09 48 29.3	+0.4
	comp=Z,397nm,1.1s,mb5.8						
KOLN	Koldanda	23.93	339	*e*P	P	09 48 31.3	+1.0
	comp=Z,534nm,1.3s,mb5.8						
LSA	Lhasa	24.15	356	P	P	09 48 33.5	+1.1
LSA	Lhasa	24.15	356	*e*P	P	09 48 32.9	+0.6
	comp=Z,23nm,0.7s,mb4.7						
DGAR	Diego Garcia	24.29	238	P	P	09 48 35.1	+1.2
	comp=Z,233nm,0.3s						
GYA	Guiyang	24.53	30	⇑*i*P	P	09 48 36.8	+0.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
ENH	Enshi	29.07	30	*e*P	P	09 49 19.1	+1.3
	comp=Z,13nm,0.9s,mb4.7						
THN	Thein Dam	31.35	331	*e*P	P	09 49 36.1	-1.9
	comp=Z,21nm,0.8s,mb5.0						
WHN	Wuhan	31.93	36	*e*P	P	09 49 48.0	+4.8
LZH	Lanzhou	32.00	17	*e*P	P	09 49 43.3	-0.4
LZH				AMB	AMB		
	comp=Z,31nm,1.1s,mb5.0						
GTA	Gaotai	34.30	9	P	P	09 50 03.0	-0.6
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
WMQ	Urumqi	38.47	354	P	P	09 50 39.0	+0.2
WMQ				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.1						
HHC	Hu-ho-hao-te	38.89	22	*e*P	P	09 50 43.5	+1.1
HHC				AMB	AMB		
	comp=Z,32nm,0.9s,mb5.0						
KZA	Kyzart	39.75	339	P	P	09 50 50.7	+1.2
	SNR=7.8						
UCH	Uchtor	40.15	338	P	P	09 50 53.8	+1.0
	SNR=12						
KBK	Karagaybulak	40.36	339	P	P	09 50 55.6	+1.1
	SNR=6.7						
AML	Almayashu	40.37	338	P	P	09 50 55.6	+1.0
	SNR=14						
TKM2	Tokmak 2	40.37	340	P	P	09 50 55.4	+0.8
	SNR=7.6						
AAK	Ala-Archa	40.51	339	P	P	09 50 57.0	+1.3
	SNR=12						
CHMS	Chumysh	40.73	339	P	P	09 50 57.7	+0.1
	SNR=7.3						
EKS2	Erkin-Say	40.79	338	P	P	09 50 58.9	+0.9
	SNR=11						
USP	Ospenovka	41.06	339	P	P	09 51 00.5	+0.2
	SNR=15						
SONM	Songino Array	43.69	13	P	P	09 51 21.3	-0.4
	comp=Z,10nm,0.9s,mb4.5,baz=196,slow=7.4,SNR=21						
CN2	Changchun	47.57	32	*e*P	P	09 51 57.3	+4.6
WRA	Warramunga Arr	47.76	123	P	P	09 51 54.6	+0.1
	comp=Z,7.1nm,0.7s,mb4.8,baz=302,slow=9.0,SNR=16						
WRAB	Tennant Creek	47.77	123	*e*P	P	09 51 55.1	+0.6
	comp=Z,20nm,0.6s,mb5.3						
ZAL	Zalesovo	48.77	353	P	P	09 52 01.5	-0.3
	comp=Z,17nm,0.5s,mb5.4,baz=312,slow=4.8,SNR=52						
HIA	Hailar	49.09	23	*e*P	P	09 52 04.5	+0.2
HIA				*e*	pP	09 52 12.7	0.0
ASAR	Alice Springs	49.22	128	P	P	09 52 03.2	-2.5
	comp=Z,2.5nm,0.8s,mb4.3,baz=299,slow=7.6,SNR=7.5						
ASAR	Alice Springs	49.22	128	P	P	09 52 03.2	-2.5
BVAR	Borovoye Array	50.92	342	P	P	09 52 17.1	-1.2
	comp=Z,10nm,0.8s,mb4.8,baz=143,slow=7.4,SNR=20						
BRVK	Borovoye	50.98	342	*e*P	P	09 52 17.0	-1.8
	comp=Z,52nm,1.0s,mb5.4						
CHKZ	Chkalovo	51.42	343	*e*P	P	09 52 21.0	-1.1
	comp=Z,59nm,1.2s,mb5.4						
GNI	Garni	55.40	316	P	P	09 52 50.4	-1.3
	comp=Z,4.7nm,0.6s,mb4.7,baz=212,slow=4.3,SNR=3.9						
PMG	Port Moresby	55.84	105	P	P	09 52 55.0	-0.3
	comp=Z,16nm,1.1s,mb5.0,baz=341,slow=7.0,SNR=4.1						
KMBO	Kilima Mbogo	56.19	265	P	P	09 52 59.6	+1.9
	comp=Z,3.1nm,1.0s,mb4.3,baz=47,slow=14,SNR=5.1						
KMBO				PP	PP	09 55 04.5	0.0
	comp=Z,3.7nm,0.9s,baz=51,slow=12,SNR=3.3						
ARU	Arti	57.69	338	*e*P	P	09 53 06.4	-1.4
	comp=Z,17nm,1.0s,mb5.0						
CTA	Charters Tower	58.07	118	P	P	09 53 09.9	-1.0
	comp=Z,2.5nm,0.9s,mb4.2,baz=303,slow=9.7,SNR=3.6						
ASF	Jabal al Asfar	58.69	304	P	P	09 53 16.6	+1.4
	comp=Z,5.0nm,0.7s,mb4.7,baz=133,slow=5.4,SNR=6.2						
STKA	Stephens Creek	59.23	132	P	P	09 53 19.3	+0.3
	comp=Z,2.9nm,0.9s,mb4.3,baz=299,slow=6.7,SNR=4.1						
EIL	Elat	59.75	301	P	P	09 53 23.4	+0.9
	comp=Z,9.3nm,0.8s,mb4.8,baz=352,slow=7.2,SNR=6.6						
CSS	Prodhromos	62.25	307	P	P	09 53 38.6	-0.8
BRTR	Keskin Array B	63.23	312	P	P	09 53 44.2	-1.6
	comp=Z,6.6nm,0.9s,mb4.8,baz=125,slow=7.0,SNR=16						
IDI	Anoyia	69.10	306	P	P	09 54 23.3	-0.1
	comp=Z,9.5nm,1.0s,mb4.7,baz=314,slow=8.9,SNR=4.0						
AKASG	Malin Array Be	69.39	322	P	P	09 54 22.7	-2.2
	comp=Z,2.3nm,0.4s,mb4.4,baz=90,slow=4.3,SNR=18						
MLR	Muntele Rosu	70.17	316	P	P	09 54 29.4	-0.3
	comp=Z,18nm,0.9s,mb5.0,baz=79,slow=1.4,SNR=14						
KOLS	Kolonicke sedl	73.33	319	*e*P	P	09 54 50.3	+1.8
FINES	FINESS Array B	74.34	333	P	P	09 54 53.3	-0.8
	comp=Z,6.6nm,0.7s,mb4.7,baz=103,slow=8.1,SNR=14						
KECS	Kecovo	74.42	319	*e*P	P	09 54 54.5	-0.3
KAF	Kangasniemi	74.44	333	*e*p	P	09 54 54.1	-0.6
	baz=106,slow=5.5						
PSZ	Piszkesteto	74.72	318	*e*P	P	09 54 55.9	-0.7
VYHS	Vyhne	75.50	319	*e*P	P	09 55 01.1	0.0
OKC	Ostrava-Krasne	76.14	320	*e*P	P	09 55 04.9	+0.2
MORC	Moravsky Berou	76.52	320	*e*P	P	09 55 06.6	-0.2
	comp=Z,24nm,1.2s,mb5.0						
ZST	Bratislava	76.61	318	*e*P	P	09 55 07.6	+0.3
ZST				*e*pP	pP	09 55 15.3	-0.6
KEV	Kevo	76.73	341	*e*p	P	09 55 07.6	0.0
VRAC	Vranov	77.08	319	P	P	09 55 09.2	-0.7
	comp=Z,2.1nm,0.6s,mb4.3,baz=98,slow=7.2,SNR=4.3						
ARCES	ARCESS Array B	77.15	341	P	P	09 55 09.6	-0.4
	comp=Z,5.0nm,0.6s,mb4.7,baz=93,slow=5.5,SNR=21						
DPC	Dobruska-Polom	77.37	320	*e*P	P	09 55 11.5	0.0
UPC	Upice	77.58	320	*e*P	P	09 55 13.4	+0.7
PRU	Pruhonice	78.47	320	*e*P	P	09 55 18.3	+0.7
GERES	GERESS Array B	78.92	319	P	P	09 55 20.5	+0.4
	comp=Z,8.4nm,0.9s,mb4.7,baz=93,slow=4.9,SNR=26						
BRG	Berggiesshubel	78.93	321	*i* P	P	09 55 19.4	-0.7
	comp=Z,585nm,1.7s						
KHC	Kasperske Hory	79.03	319	*e*P	P	09 55 20.4	-0.2
KHC				*e*pP	pP	09 55 29.0	-0.2
CLL	Collm	79.56	321	*e*P	P	09 55 23.0	-0.4
CLL				*e*		09 55 34.0	
CLL	Collm	79.56	321	P	P	09 55 23.0	-0.4
CLL				*e**SP	sP	09 55 34.0	-1.0
CLL				*e*		09 55 57.0	
FX1	Attu Island--F	79.63	37	P	P	09 55 25.2	+1.4
	comp=Z,21nm,0.9s,mb5.1,slow=7.1,SNR=3.2						
NKC	Novy Kostel	79.83	320	*e*P	P	09 55 23.0	-2.0
HFS	Hagfors	79.99	330	P	P	09 55 25.1	-0.5
	comp=Z,7.2nm,1.0s,mb4.5,baz=90,slow=5.9,SNR=12						
NB2	NORSAR Subarra	81.30	331	P	P	09 55 31.7	-0.8
	comp=Z,15nm,1.2s,mb4.8,baz=91,slow=4.8						
NOA	NORSAR Array B	81.30	331	P	P	09 55 32.1	-0.3
	comp=Z,1.4nm,0.6s,mb4.0,baz=94,slow=5.4,SNR=4.8						
DAVOX	Davos	81.40	316	P	P	09 55 34.0	+0.7
	comp=Z,11nm,0.7s,mb4.9,baz=114,slow=9.2,SNR=16						
EKA	Eskdalemuir Ar	89.09	325	P	P	09 56 11.9	+0.5
	comp=Z,2.6nm,0.6s,mb4.8,baz=95,slow=5.4,SNR=7.5						
DAG	Danmarks Havn	89.57	348	⇓*i*P	P	09 56 14.0	+0.7
	comp=Z,2.1nm,0.7s,mb4.6						
DAG				*i*		09 57 12.0	
	comp=Z,31µm,20.0s						
ESDC	Sonseca Array	91.97	310	P	P	09 56 25.7	+0.6
	comp=Z,0.2nm,0.4s,mb3.8,baz=62,slow=5.0,SNR=5.0						
YKA	Yellowknife Ar	108.96	13	PP	PP	10 02 19.1	+2.4
	comp=Z,0.5nm,0.8s,baz=336,slow=7.2,SNR=5.5						
NVAR	Mina Array Bea	127.46	31	PKP	PKPdf	10 02 20.1	-5.2
	comp=Z,0.8nm,0.8s,baz=236,slow=3.3,SNR=3.5						
PDAR	Pinedale Array	127.73	21	PKP	PKPdf	10 02 22.6	-3.1
	comp=Z,0.4nm,0.7s,baz=43,slow=2.5,SNR=3.6						
TXAR	Lajitas Array	141.79	24	PKhKP		10 02 41.8	
	comp=Z,0.2nm,0.6s,baz=202,slow=1.3,SNR=3.5						
TXAR				PKP	PKPdf	10 02 48.0	-4.2
	comp=Z,0.3nm,0.5s,baz=148,slow=0.5,SNR=7.0						
TXAR	Lajitas Array	141.79	24	PKP	PKPdf	10 02 48.0	-4.2
JCT	Junction City	142.15	18	PKP	PKPdf	10 02 46.0	-6.7

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*BJI **26** 09:44:18.9, 5.30N×92.90E, h66^{km}, mb5.1, Ms6.3, Msz5.8*

*NEIC **26** 09:44:20.4±0.2, 5.73N×93.10E, mb5.2/27, Error ellipse: s-maj=7.4km s-min=5.7km az=52.0*

*IDC **26** 09:44:21.4±4.5, 5.73N×93.16E, h44^{km}±41^{km}, mb4.7/27, mb1 4.8/28, mb1mx4.8/30, Error ellipse: s-maj=20.0km s-min=12.4km az=45.0*

ISC 26 09:44:18.4±0.3**, 5.63N**±0.05×**93.16E**±0.05**, h36^{km}, h36^{km}**±1.0^{km}**:pP-P, n124, σ0^{s}94**/113**, mb5.2**/60**, 5C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.94	23	P	P	09 47 36.0	+0.2
	baz=210,slow=10,SNR=3.4						
VIS	Vishakhapatnam	15.38	322	*e*	P	09 47 53.3	-1.3
COCO	West Island	18.08	168	P	P	09 48 32.6	+4.0
	761nm,1.4s						
BOK	Bokaro	19.37	340	*e*	P	09 48 46.9	+3.0
QIZ	Qiongzhong	21.02	49	P	P	09 49 02.0	+0.5
QIZ	Qiongzhong	21.02	49	*e*P	P	09 49 01.1	-0.3
	105nm,0.9s,mb5.2						
KMI	Kunming	21.45	24	*e*P	P	09 49 09.0	+3.3
KMI				AMB	AMB		
	comp=Z,116nm,1.0s,mb5.2						
BHPL	Bhopal	23.16	321	*e*		09 49 39.7	
GYA	Guiyang	24.40	30	⇑*i*P	P	09 49 35.8	+1.0
GYA				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.4						
ENH	Enshi	28.94	30	P	P	09 50 23.5	+6.9
	comp=Z,37nm,0.9s,mb5.1						
LZH	Lanzhou	31.86	17	⇑P	P	09 50 41.8	-0.7
LZH				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.3						
GTA	Gaotai	34.16	9	P	P	09 51 02.0	-0.4
GTA				AMB	AMB		
	comp=Z,28nm,0.9s,mb5.2						
NJ2	Nanjing	35.61	39	*e*P	P	09 51 19.3	+4.5
KSH	Kashi	37.13	338	P	P	09 51 27.5	-0.1
KSH				AMB	AMB		
	comp=Z,1µm,2.6s,mb6.2						
MBWA	Marble Bar	37.27	136	*e*P	P	09 51 27.9	-1.0
	comp=Z,100nm,1.6s						
MBWA				*e*	pP	09 51 36.7	-2.6
WMQ	Urumqi	38.34	354	P	P	09 51 38.3	+0.7
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
HHC	Hu-ho-hao-te	38.75	23	*e*P	P	09 51 41.5	+0.4
HHC				PP	PP	09 53 12.0	-1.9
HHC				AMB	AMB		
	comp=Z,54nm,1.1s,mb5.2						
HHC				LR	LR		
	comp=N,19µm,13.1s						
HHC				LR	LR		
	comp=E,12µm,19.0s						
HHC				LR	LR		
	comp=Z,15µm,19.0s						
JOW	Kunigami	39.54	54	P	P	09 51 48.5	+0.7
	comp=Z,26nm,1.0s,mb4.9,baz=247,slow=7.7,SNR=3.2						
KZA	Kyzart	39.63	339	P	P	09 51 49.6	+1.2
	SNR=8.5						
UCH	Uchtor	40.03	338	P	P	09 51 53.0	+1.3
	SNR=13						
KBK	Karagaybulak	40.25	339	P	P	09 51 55.0	+1.5
	SNR=8.7						
AML	Almayashu	40.26	337	P	P	09 51 55.0	+1.5
	SNR=11						
TKM2	Tokmak 2	40.26	340	P	P	09 51 54.4	+0.8
	SNR=7.2						
AAK	Ala-Archa	40.39	339	P	P	09 51 56.0	+1.3
	SNR=8.4						
AAK	Ala-Archa	40.39	339	*e*P	P	09 51 52.8	-1.9
	comp=Z,63nm,1.1s,mb5.3						
CHMS	Chumysh	40.62	339	P	P	09 51 56.9	+0.4
	SNR=7.3						
EKS2	Erkin-Say	40.68	338	P	P	09 51 57.8	+0.7
	SNR=11						
USP	Ospenovka	40.94	339	P	P	09 51 59.1	-0.1
	SNR=14						
SONM	Songino Array	43.55	13	P	P	09 52 20.7	+0.1
	comp=Z,20nm,1.0s,mb4.8,baz=198,slow=7.8,SNR=14						
ULN	Ulaanbaatar	43.73	14	*e*P	P	09 52 21.7	-0.3
	comp=Z,15nm,0.8s,mb4.8						
CN2	Changchun	47.44	32	*e*P	P	09 52 52.5	+1.0
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
WRA	Warramunga Arr	47.81	123	P	P	09 52 54.4	-0.3
	comp=Z,16nm,0.8s,mb5.1,baz=302,slow=8.6,SNR=8.8						
WRAB	Tennant Creek	47.81	123	*e*P	P	09 52 55.4	+0.6
	comp=Z,117nm,0.7s,mb6.0						
QRN	Al-Qurain	48.55	304	*e*P	P	09 53 01.1	+0.8
QRN				AMb	AMB	09 53 03.0	
	comp=Z,126nm,0.9s,mb5.9						
ZAL	Zalesovo	48.64	353	P	P	09 53 00.8	+0.1
	comp=Z,30nm,0.5s,mb5.6,baz=306,slow=5.7,SNR=14						
ZAL	Zalesovo	48.64	353	P	P	09 53 00.8	+0.1
RDF	Al-Radifah	48.91	304	*e*P	P	09 53 03.7	+0.6
RDF				AMb	AMB	09 53 05.7	
	comp=Z,207nm,0.9s,mb6.2						
HIA	Hailar	48.95	23	*e*P	P	09 53 03.3	+0.1
	comp=Z,7.0nm,0.3s,mb5.2						
ASAR	Alice Springs	49.28	128	P	P	09 53 05.9	-0.1
	comp=Z,4.6nm,0.6s,mb4.7,baz=297,slow=7.4,SNR=4.4						
RST	Umm Al-Ruwaisa	49.55	304	*e*P	P	09 53 08.4	+0.3
RST				AMb	AMB	09 53 10.4	
	comp=Z,147nm,1.0s,mb6.0						
MDJ	Mudanjiang	50.20	34	*e*P	P	09 53 14.2	+1.3
	comp=Z,36nm,1.2s,mb5.3						
BVAR	Borovoye Array	50.80	342	P	P	09 53 16.4	-0.9
	comp=Z,24nm,0.8s,mb5.2,baz=143,slow=7.4,SNR=17						
BRVK	Borovoye	50.86	342	*e*P	P	09 53 16.2	-1.5
	comp=Z,36nm,0.9s,mb5.3						
CHKZ	Chkalovo	51.30	343	*e*P	P	09 53 20.0	-1.1
	comp=Z,95nm,0.9s,mb5.7						
HILS	Ha’il	53.33	300	P	P	09 53 37.6	+1.0
KBRS	Khaybar	55.19	297	P	P	09 53 51.4	+1.2
GNI	Garni	55.32	316	P	P	09 53 50.5	-0.5
	comp=Z,17nm,0.7s,mb5.2,baz=129,slow=0.8,SNR=8.3						
YNBS	Yanbu‘ al Bahr	56.05	296	P	P	09 53 57.1	+0.7
KMBO	Kilima Mbogo	56.23	265	P	P	09 53 58.2	+0.4
	comp=Z,16nm,1.1s,mb5.0,baz=48,slow=8.9,SNR=10						
UMJS	Umm Lajj	56.81	296	P	P	09 54 03.3	+1.4
ARU	Arti	57.58	338	*e*P	P	09 54 05.2	-1.6
	comp=Z,56nm,1.0s,mb5.5						
ARU				*e*	pP	09 54 15.3	-2.4
TBKS	Tabuk	58.05	300	P	P	09 54 12.0	+1.5
CTA	Charters Tower	58.10	118	P	P	09 54 11.2	+0.2
	comp=Z,6.0nm,1.1s,mb4.5,baz=294,slow=7.9,SNR=2.8						
CTAO	Charters Tower	58.10	118	*e*P	P	09 54 11.3	+0.2
	comp=Z,43nm,1.3s,mb5.3						
KIV	Kislovodsk	58.34	319	P	P	09 54 11.9	-0.5
	comp=Z,289nm,1.0s,SNR=7.7						
ASF	Jabal al Asfar	58.64	304	P	P	09 54 15.4	+0.8
	comp=Z,23nm,1.0s,mb5.2,baz=304,slow=3.6,SNR=9.6						
JMQS	Jabal Moqyreh	58.76	300	P	P	09 54 16.4	+0.9
AYUS	‘Aynunah	59.15	299	P	P	09 54 18.9	+0.7
STKA	Stephens Creek	59.30	132	P	P	09 54 18.4	-0.9
	comp=Z,6.9nm,0.8s,mb4.7,baz=296,slow=5.8,SNR=5.2						
BDAS	Al Bad‘	59.34	300	P	P	09 54 20.1	+0.6
JMOS	Jabal al Moall	59.48	301	P	P	09 54 21.1	+0.6
ALWS	Ilw as Safayha	59.54	301	P	P	09 54 21.3	+0.4
HAQS	Haql	59.61	300	P	P	09 54 22.0	+0.5
EIL	Elat	59.71	301	P	P	09 54 22.2	0.0
	comp=Z,26nm,0.9s,mb5.2,baz=108,slow=8.2,SNR=12						
EIL	Elat	59.71	301	P	P	09 54 22.2	0.0
CSS	Prodhromos	62.19	307	*e*P	P	09 54 37.5	-1.3
	comp=Z,99nm,1.4s,mb5.8						
YAK	Yakutsk	62.42	18	*e*P	P	09 54 37.7	-2.2

	comp=Z,81nm,1.0s,mb5.8						
BRTR	Keskin Array B	63.16	312	P	P	09 54 43.5	-1.7
	comp=Z,14nm,0.9s,mb5.1,baz=121,slow=7.2,SNR=17						
LSZ	Lusaka	67.61	251	*e*P	P	09 55 14.4	+0.3
	comp=Z,34nm,1.3s,mb5.2						
IDI	Anoyia	69.05	306	P	P	09 55 22.4	-0.4
	comp=Z,31nm,1.0s,mb5.2,baz=104,slow=9.4,SNR=7.6						
AKASG	Malin Array Be	69.31	322	P	P	09 55 21.5	-2.6
	comp=Z,11nm,0.7s,mb4.9,baz=89,slow=4.4,SNR=17						
MLR	Muntele Rosu	70.10	316	P	P	09 55 28.6	-0.4
	comp=Z,49nm,0.9s,mb5.4,baz=93,slow=2.6,SNR=14						
LBTB	Lobatse	72.32	242	*e*P	P	09 55 43.2	+0.5
	comp=Z,19nm,1.1s,mb4.9						
KOLS	Kolonicke sedl	73.25	319	*i* P	P	09 55 48.1	+0.3
BOSA	Boshof	73.58	238	*e*P	P	09 55 49.8	-0.4
BOSA				*e*	pP	09 56 01.5	+0.3
CRVS	Cervenica-Dubn	73.77	319	*e*P	P	09 55 53.7	+2.8
FINES	FINESS Array B	74.23	333	P	P	09 55 52.5	-0.8
	comp=Z,17nm,0.8s,mb5.0,baz=112,slow=10,SNR=12						
FINES	FINESS Array B	74.23	333	P	P	09 55 52.5	-0.8
KECS	Kecovo	74.33	319	*e*P	P	09 55 53.3	-0.8
KAF	Kangasniemi	74.34	333	*e*p	P	09 55 52.4	-1.4
PSZ	Piszkesteto	74.64	318	*e*P	P	09 55 55.0	-0.9
	comp=Z,16nm,1.0s,mb4.9						
OJC	Ojcow	75.06	320	*e*P	P	09 55 56.3	-2.0
VYHS	Vyhne	75.42	319	*e*P	P	09 55 59.2	-1.2
OKC	Ostrava-Krasne	76.06	320	*e*P	P	09 56 03.8	-0.2
OKC				*e*pP	pP	09 56 14.7	-0.3
MAW	Mawson	76.16	191	P	P	09 56 05.8	+1.7
	comp=Z,3.6nm,0.3s,mb4.8,baz=26,slow=4.0,SNR=5.1						
MORC	Moravsky Berou	76.44	320	*e*P	P	09 56 05.5	-0.7
	comp=Z,45nm,1.2s,mb5.3						
ZST	Bratislava	76.53	318	*e*P	P	09 56 06.2	-0.5
ZST				*e*pP	pP	09 56 17.5	-0.2
KEV	Kevo	76.62	341	*e*p	P	09 56 05.9	-0.9
VRAC	Vranov	76.99	319	P	P	09 56 09.1	-0.2
	comp=Z,11nm,1.0s,mb4.7,baz=68,slow=5.3,SNR=8.7						
ARCES	ARCESS Array B	77.03	340	P	P	09 56 08.4	-0.8
	comp=Z,17nm,0.9s,mb5.0,baz=90,slow=7.3,SNR=9.4						
DPC	Dobruska-Polom	77.29	320	*e*P	P	09 56 09.4	-1.5
DPC				*e*pP	pP	09 56 21.8	-0.2
KSP	Ksiaz	77.36	321	*e*P	P	09 56 10.7	-0.6
ARSA	Arzberg	77.49	317	⇓*i*P	P	09 56 12.2	+0.1
	comp=Z,36nm,1.1s,mb5.2						
UPC	Upice	77.50	320	*e*P	P	09 56 12.3	+0.2
UPC				*e*pP	pP	09 56 23.2	0.0
PRU	Pruhonice	78.39	320	*e*P	P	09 56 16.5	-0.5
PRU				*e*pP	pP	09 56 27.0	-1.1
PVCC	Panska Ves	78.42	320	*e*P	P	09 56 17.0	-0.1
PVCC				*e*pP	pP	09 56 27.2	-1.0
GERES	GERESS Array B	78.84	319	P	P	09 56 19.3	-0.2
	comp=Z,21nm,0.8s,mb5.1,baz=90,slow=5.3,SNR=22						
BRG	Berggiesshubel	78.85	321	*i* P	P	09 56 19.6	+0.1
	comp=Z,36nm,1.7s,mb5.0						
KHC	Kasperske Hory	78.94	319	*e*P	P	09 56 19.4	-0.7
KHC				*e*pP	pP	09 56 31.2	+0.1
CLL	Collm	79.47	321	*i* P	P	09 56 22.3	-0.6
	comp=Z,26nm,1.2s,mb5.0						
CLL				*i*	pP	09 56 33.3	-0.7
CLL	Collm	79.47	321	P	P	09 56 22.3	-0.6
	comp=Z,logA/T=1.3,mb5.0						
CLL				*i* *PP	pP	09 56 33.3	-0.7
NKC	Novy Kostel	79.75	320	*e*P	P	09 56 23.9	-0.5
NKC				*e*pP	pP	09 56 35.0	-0.5
HFS	Hagfors	79.89	330	P	P	09 56 23.9	-1.1
	comp=Z,26nm,1.1s,mb5.1,baz=108,slow=4.7,SNR=7.4						
WATA	Walderalm	80.18	317	⇑*i*P	P	09 56 26.0	-0.8
	comp=Z,16nm,0.8s,mb5.0						
MOX	Moxa	80.31	320	*e*P	P	09 56 28.0	+0.6
MOX				pP	pP	09 56 40.0	+1.5
SQTA	Sankt Quirin	80.42	317	⇑*i*P	P	09 56 27.8	-0.3
	comp=Z,20nm,0.8s,mb5.1						
NB2	NORSAR Subarra	81.20	331	P	P	09 56 30.2	-1.6
	comp=Z,3.7nm,0.8s,mb4.4,baz=94,slow=5.8						
NOA	NORSAR Array B	81.20	331	P	P	09 56 31.2	-0.7
	comp=Z,7.9nm,0.9s,mb4.6,baz=94,slow=5.4,SNR=8.5						
DAVOX	Davos	81.32	316	P	P	09 56 33.2	+0.4
	comp=Z,28nm,0.8s,mb5.2,baz=115,slow=5.0,SNR=13						
DAVA	Damuels	81.33	317	⇑*i*P	P	09 56 33.2	+0.4
	comp=Z,41nm,1.2s,mb5.2						
LPG	La Plagne	83.50	315	*e*P	P	09 56 44.0	0.0
	comp=Z,24nm,0.8s,mb5.1						
EKA	Eskdalemuir Ar	89.00	325	P	P	09 57 11.3	+0.6
	comp=Z,8.3nm,0.8s,mb5.1,baz=100,slow=5.1,SNR=8.3						
ESDC	Sonseca Array	91.90	310	P	P	09 57 25.5	+0.9
	comp=Z,3.0nm,0.7s,mb4.7,baz=54,slow=4.2,SNR=9.4						
ILAR	Eielson Array	97.18	22	P	P	09 57 49.2	+1.1
	comp=Z,0.5nm,0.9s,baz=291,slow=5.1,SNR=3.3						
ILAR				PP	PP	10 01 46.5	-0.7
	comp=Z,0.9nm,1.0s,baz=281,slow=5.3,SNR=4.5						
YKA	Yellowknife Ar	108.82	13	PP	PP	10 03 12.1	-3.3
	comp=Z,0.5nm,0.8s,baz=332,slow=8.5,SNR=4.2						
YKA				PKKPbc		10 14 01.0	
	comp=Z,0.4nm,0.6s,baz=151,slow=3.9,SNR=6.9						
ULM	Lac du Bonnet	123.80	7	PKP	PKPdf	10 03 15.2	+2.3
	comp=Z,3.3nm,0.9s,baz=315,slow=8.0,SNR=3.9						
LOHW	Long Hollow	126.48	21	*e*PKP	PKPdf	10 03 19.9	+1.7
NVAR	Mina Array Bea	127.33	31	PKP	PKPdf	10 03 22.9	+2.8
	comp=Z,2.6nm,0.9s,baz=284,slow=2.9,SNR=6.8						
PDAR	Pinedale Array	127.60	21	PKP	PKPdf	10 03 22.1	+1.7
	comp=Z,2.5nm,1.0s,baz=129,slow=1.8,SNR=7.9						
MSU	Marysvale	130.18	26	*e*PKP	PKPdf	10 03 27.4	+1.9
ANMO	Albuquerque	135.60	23	PKP	PKPdf	10 03 38.5	+2.9
	comp=Z,2.7nm,0.8s,baz=249,slow=1.8,SNR=8.3						
TXAR	Lajitas Array	141.66	24	PKP	PKPdf	10 03 47.0	+0.1
	comp=Z,1.4nm,0.7s,baz=108,slow=0.6,SNR=5.5						
LVC	Limon Verde	155.81	224	PKPab	PKPab	10 04 39.5	+1.0
	comp=Z,4.7nm,0.9s,baz=118,slow=4.2,SNR=4.1						
LPAZ	La Paz	158.82	239	PKPab	PKPab	10 04 52.0	+0.5
	comp=Z,3.9nm,1.0s,baz=85,slow=9.4,SNR=4.5						

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*NEIC **26** 09:48:09.6±0.5, 6.12N×95.07E, h30^{km}, mb4.7/8, Error ellipse: s-maj=14.6km s-min=11.0km az=76.0*

*IDC **26** 09:48:14.6±6.1, 6.23N×95.21E, h76^{km}±55^{km}, mb4.1/16, mb1 4.3/17, mb1mx4.2/23, ML5.4/1, Error ellipse: s-maj=35.5km s-min=15.0km az=50.0*

ISC 26 09:48:08.2±0.5**, 6.16N**±0.08×**95.12E**±0.10**, h33**^{km}**, n31, σ1**^{s}**07**/31**, mb4.5**/24**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.78	17	*e*Pn	P	09 51 11.8	+1.4
	20nm,0.3s						
CMAR	Chiang Mai Arr	12.78	17	P	P	09 51 12.1	+1.7
	5.9nm,0.3s,baz=208,slow=14,SNR=20						
AAK	Ala-Archa	40.66	336	*e*P	P	09 55 47.0	0.0
	3.8nm,0.5s,mb4.3						
SONM	Songino Array	42.63	11	P	P	09 56 04.0	+0.8
	3.1nm,0.6s,mb4.2,baz=192,slow=9.5,SNR=3.8						
WRA	Warramunga Arr	46.48	125	P	P	09 56 34.3	-0.1
	6.5nm,0.6s,mb4.7,baz=304,slow=9.1,SNR=8.3						
WRAB	Tennant Creek	46.48	125	*e*P	P	09 56 34.8	+0.4
	13nm,0.6s,mb5.0						
ASAR	Alice Springs	48.07	129	P	P	09 56 46.1	-0.8
	8.1nm,0.7s,mb4.9,baz=300,slow=7.6,SNR=6.9						
BVAR	Borovoye Array	50.92	341	P	P	09 57 07.0	-1.3
	3.4nm,0.8s,mb4.4,baz=135,slow=6.1,SNR=4.2						
BRVK	Borovoye	50.98	341	*e*P	P	09 57 08.7	-0.1
	5.2nm,0.8s,mb4.5						
CHKZ	Chkalovo	51.40	342	*e*P	P	09 57 11.0	-0.9
	6.4nm,0.6s,mb4.7						
KMBO	Kilima Mbogo	58.22	265	P	P	09 58 03.1	+1.0
	1.7nm,0.7s,mb4.2,baz=75,slow=7.8,SNR=4.3						
STKA	Stephens Creek	58.22	133	P	P	09 58 01.0	-0.9
	6.1nm,0.9s,mb4.7,baz=344,slow=5.8,SNR=4.6						
BRTR	Keskin Array B	64.28	311	P	P	09 58 41.2	-1.5
	1.6nm,0.5s,mb4.3,baz=143,slow=7.0,SNR=4.5						
AKASG	Malin Array Be	70.10	322	P	P	09 59 18.8	-0.3
	1.0nm,0.3s,mb4.2,baz=81,slow=4.7,SNR=6.3						
IDI	Anoyia	70.34	305	P	P	09 59 20.8	0.0
	6.7nm,0.6s,mb4.7,baz=72,slow=6.1,SNR=6.4						
MLR	Muntele Rosu	71.08	316	P	P	09 59 24.7	-0.5
	6.7nm,1.1s,mb4.5,baz=329,slow=3.7,SNR=4.1						
LBTB	Lobatse	74.29	242	*e*P	P	09 59 46.0	+1.5
	3.3nm,0.7s,mb4.4						
FINES	FINESS Array B	74.67	332	P	P	09 59 44.9	-1.1
	3.0nm,0.6s,mb4.4,baz=98,slow=6.1,SNR=12						
FINES	FINESS Array B	74.67	332	P	P	09 59 44.9	-1.1
KAF	Kangasniemi	74.75	333	*e*p	P	09 59 45.2	-1.2
BOSA	Boshof	75.51	238	*e*P	P	09 59 51.5	0.0
	5.7nm,0.6s,mb4.7						
KEV	Kevo	76.77	341	*e*p	P	09 59 55.3	-2.5
ARCES	ARCESS Array B	77.20	340	P	P	09 59 59.6	-0.7
	2.0nm,0.6s,mb4.2,baz=89,slow=6.2,SNR=9.2						
ARCES				PP	PP	10 02 54.7	-1.1
	1.8nm,0.7s,baz=95,slow=6.8,SNR=5.7						
ARCES	ARCESS Array B	77.20	340	P	P	09 59 59.6	-0.7
ARCES				PP	PP	10 02 54.7	-1.1
MORC	Moravsky Berou	77.31	320	*e*P	P	10 00 01.8	+0.6
	12nm,1.4s,mb4.6						
GERES	GERESS Array B	79.75	318	P	P	10 00 15.2	+0.6
	1.6nm,0.7s,mb4.1,baz=140,slow=4.8,SNR=7.6						
SUR	Sutherland	80.17	236	*e*P	P	10 00 19.2	+2.0
	8.8nm,0.8s,mb4.7						
HFS	Hagfors	80.42	330	P	P	10 00 16.9	-1.0
	2.3nm,0.6s,mb4.3,baz=104,slow=6.1,SNR=6.0						
NOA	NORSAR Array B	81.70	331	P	P	10 00 25.4	+0.8
	2.3nm,0.9s,mb4.1,baz=92,slow=5.8,SNR=3.5						
NOA	NORSAR Array B	81.70	331	P	P	10 00 25.4	+0.8
DAVOX	Davos	82.30	316	P	P	10 00 29.9	+1.9
	2.2nm,0.5s,mb4.4,baz=97,slow=14,SNR=3.7						

IDC 26 09:51:44.5±1.4**, 11.08N**×**93.44E, mb4.4**/7**, mb1 4.5**/7**, mb1mx4.2**/18**, Error ellipse: s-maj=73.3km s-min=18.9km az=61.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	38.22	14	P	P	09 59 04.9	-2.9
	7.0nm,0.7s,baz=190,slow=8.5,SNR=11						
ZAL	Zalesovo	43.30	353	P	P	09 59 49.6	0.0
	9.4nm,0.4s,baz=302,slow=5.8,SNR=16						
BVAR	Borovoye Array	45.75	341	P	P	10 00 07.5	-1.8
	2.3nm,0.6s,baz=137,slow=11,SNR=5.2						
WRA	Warramunga Arr	50.71	127	P	P	10 00 46.7	-1.7
	1.7nm,0.5s,baz=300,slow=10.0,SNR=7.2						
ASAR	Alice Springs	52.52	131	P	P	10 00 59.2	-2.8
	2.4nm,0.7s,baz=306,slow=7.3,SNR=5.1						
STKA	Stephens Creek	62.82	135	P	P	10 02 12.3	-2.3
	3.9nm,0.8s,baz=287,slow=3.0,SNR=4.0						
FINES	FINESS Array B	69.57	332	P	P	10 02 53.5	-3.7
	1.5nm,0.5s,baz=95,slow=5.4,SNR=4.7						
PDAR	Pinedale Array	122.43	20	PKP	PKPdf	10 10 42.4	-1.5
	0.1nm,0.5s,slow=3.0,SNR=3.8						
NVAR	Mina Array Bea	122.51	29	PKP	PKPdf	10 10 43.9	-0.3
	0.8nm,0.8s,baz=276,slow=2.8,SNR=3.9						

IDC 26 09:52:42.5±1.4**, 1.92N**×**94.72E, mb4.2**/7**, mb1 4.4**/8**, mb1mx4.2**/18**, ML5.0**/1**, Error ellipse: s-maj=46.1km s-min=27.5km az=48.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	16.95	14	Pn	P	09 56 40.9	-2.0
	2.2nm,0.3s,baz=222,slow=11,SNR=4.7						
WRA	Warramunga Arr	44.52	121	P	P	10 00 56.0	-2.0
	3.3nm,0.6s,baz=305,slow=8.5,SNR=5.2						
SONM	Songino Array	46.84	11	P	P	10 01 14.6	-1.5
	3.3nm,0.6s,baz=189,slow=8.9,SNR=7.4						
ZAL	Zalesovo	52.49	353	P	P	10 01 57.3	-2.1
	6.7nm,0.5s,baz=296,slow=4.5,SNR=10						
BVAR	Borovoye Array	54.79	342	P	P	10 02 13.7	-2.7
	3.7nm,0.6s,baz=148,slow=9.5,SNR=8.9						
BRTR	Keskin Array B	66.80	313	P	P	10 03 36.7	-1.6
	1.0nm,0.7s,baz=127,slow=7.2,SNR=3.8						
AKASG	Malin Array Be	73.19	323	P	P	10 04 13.9	-3.2
	0.6nm,0.5s,baz=86,slow=5.0,SNR=4.5						
GERES	GERESS Array B	82.65	319	P	P	10 05 09.4	+0.2
	1.2nm,0.8s,baz=112,slow=5.3,SNR=4.8						
TXAR	Lajitas Array	144.29	28	PKP	PKPdf	10 12 21.4	-1.7
	1.6nm,1.2s,baz=176,slow=1.2,SNR=3.9						

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*IDC **26** 09:55:08.2±0.9, 7.43N×94.07E, mb4.2/16, mb1 4.3/17, mb1mx4.3/23, ML4.5/1, Error ellipse: s-maj=37.3km s-min=19.7km az=47.0*

*NEIC **26** 09:55:12.1±0.5, 7.59N×94.30E, mb4.6/9, Error ellipse: s-maj=14.5km s-min=10.8km az=57.0*

ISC 26 09:55:10.1±0.5**, 7.62N**±0.10×**94.3E**±0.1**, h19**^{km}**, h19**^{km}±1.1^{km}**:pP-P, n29, σ0**^{s}**97**/29**, mb4.3**/24**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.68	22	Pn	P	09 57 59.2	+0.3
	1.0nm,0.3s,baz=202,slow=9.7,SNR=4.1						
AAK	Ala-Archa	39.01	337	*e*P	P	10 02 37.2	0.0
	10.0nm,1.3s,mb4.4						
SONM	Songino Array	41.37	12	P	P	10 02 58.2	+1.6
	1.8nm,0.8s,mb3.8,baz=191,slow=4.2,SNR=4.5						
ZAL	Zalesovo	46.83	352	P	P	10 03 41.0	+0.5
	2.8nm,0.3s,mb4.6,baz=337,slow=5.5,SNR=5.7						
WRA	Warramunga Arr	47.96	125	P	P	10 03 49.5	-0.3
	1.2nm,0.5s,mb4.2,baz=305,slow=8.5,SNR=5.6						
WRAB	Tennant Creek	47.96	125	*e*P	P	10 03 49.5	-0.4
	3.4nm,0.5s,mb4.6						
BVAR	Borovoye Array	49.29	341	P	P	10 03 59.5	-0.2
	3.7nm,1.1s,mb4.3,baz=141,slow=9.2,SNR=4.1						
BRVK	Borovoye	49.35	341	*e*P	P	10 04 00.9	+0.8
	8.2nm,1.1s,mb4.7						
BRVK				*e*pP	pP	10 04 06.1	0.0
ASAR	Alice Springs	49.61	130	P	P	10 04 02.2	-0.3
	0.9nm,0.5s,mb4.0,baz=302,slow=7.6,SNR=5.9						
CHKZ	Chkalovo	49.78	342	*e*P	P	10 04 03.7	+0.3
	16nm,1.0s,mb5.0						
CHKZ				*e*pP	pP	10 04 09.9	+0.5
GNI	Garni	54.75	314	*e*P	P	10 04 40.7	-0.2
	2.4nm,0.5s,mb4.5						
KMBO	Kilima Mbogo	57.58	264	P	P	10 05 03.7	+2.2
	1.9nm,0.8s,mb4.2,baz=51,slow=14,SNR=5.9						
KMBO	Kilima Mbogo	57.58	264	P	P	10 05 03.7	+2.2
KIV	Kislovodsk	57.63	318	*e*P	P	10 05 00.5	-1.0
	5.1nm,0.5s,mb4.8						
KIV				*e*pP	pP	10 05 07.0	-0.5
BRTR	Keskin Array B	62.74	311	P	P	10 05 34.4	-2.1
	1.6nm,0.9s,mb4.1,baz=120,slow=7.0,SNR=4.0						
AKASG	Malin Array Be	68.47	322	P	P	10 06 11.2	-1.9
	0.3nm,0.4s,mb3.7,baz=93,slow=4.7,SNR=3.5						
IDI	Anoyia	68.87	305	P	P	10 06 13.9	-2.0
	6.0nm,0.7s,mb4.7,baz=75,slow=5.7,SNR=5.2						
MLR	Muntele Rosu	69.48	316	P	P	10 06 19.7	+0.3
	6.6nm,1.1s,mb4.5,baz=110,slow=9.3,SNR=3.4						
FINES	FINESS Array B	73.03	332	P	P	10 06 39.7	-0.7
	2.6nm,0.6s,mb4.3,baz=98,slow=6.6,SNR=10.0						
FINES	FINESS Array B	73.03	332	P	P	10 06 39.7	-0.7
KAF	Kangasniemi	73.11	333	*e*p	P	10 06 40.4	-0.4
	baz=103,slow=5.6						
LBTB	Lobatse	74.28	241	*e*P	P	10 06 50.0	+1.6
	2.4nm,0.7s,mb4.2						
ARCES	ARCESS Array B	75.57	340	P	P	10 06 54.6	-0.3
	2.0nm,0.8s,mb4.1,baz=72,slow=7.7,SNR=4.4						
MORC	Moravsky Berou	75.69	319	*e*P	P	10 06 56.6	+0.5
	6.9nm,1.2s,mb4.5						
GERES	GERESS Array B	78.14	318	P	P	10 07 09.8	+0.2
	0.2nm,0.3s,mb3.5,baz=90,slow=5.9,SNR=6.3						
HFS	Hagfors	78.77	330	P	P	10 07 12.9	0.0
	3.3nm,0.6s,mb4.5,baz=124,slow=5.3,SNR=15						
NB2	NORSAR Subarra	80.05	331	P	P	10 07 19.7	-0.1
	1.2nm,0.6s,mb4.0,baz=97,slow=5.0						
NOA	NORSAR Array B	80.05	331	P	P	10 07 20.0	+0.2
	0.9nm,0.5s,mb4.0,baz=95,slow=5.0,SNR=6.7						
DAVOX	Davos	80.70	316	P	P	10 07 24.7	+1.1
	2.0nm,0.7s,mb4.2,slow=3.0,SNR=3.7						

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*NEIC **26** 09:58:47.1±0.4, 9.26N×93.68E, mb4.6/8, Error ellipse: s-maj=12.8km s-min=8.3km az=54.0*

*IDC **26** 09:58:49.7±4.8, 9.36N×93.69E, h42^{km}±42^{km}, mb4.0/20, mb1 4.1/21, mb1mx4.1/25, ML4.3/1, Error ellipse: s-maj=25.0km s-min=12.6km az=46.0*

ISC 26 09:58:48.0±3.4**, 9.3N**±0.1×**93.8E**±0.1**, h46**^{km}±30^{km}**, n40, σ0**^{s}**90**/35**, mb4.4**/26**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.42	28	P	P	10 01 17.3	-0.5
	0.8nm,0.3s,baz=215,slow=11,SNR=4.1						
PKI	Pulchoki	19.83	338	*e*P	P	10 03 18.0	+0.2
	59nm,1.0s						
GUN	Gumba	19.96	339	*e*P	P	10 03 20.1	+0.9
	75nm,0.8s						
DMN	Daman	19.98	337	*e*P	P	10 03 19.9	+0.5
	53nm,1.0s						
KKN	Kakani	20.07	338	*e*P	P	10 03 20.0	-0.4
	44nm,0.9s						
LSA	Lhasa	20.46	354	*e*P	P	10 03 24.4	-0.1
	12nm,0.8s						
GKN	Gorkha	20.51	336	*e*P	P	10 03 25.5	+0.5
	87nm,0.7s						
KOLN	Koldanda	20.74	334	*e*P	P	10 03 27.7	+0.4
	40nm,0.8s						
AAK	Ala-Archa	37.27	336	*e*P	P	10 05 58.3	+1.0
	8.7nm,0.8s,mb4.6						
AAK				*e*pP	pP	10 06 05.2	-4.5
SONM	Songino Array	39.89	13	P	P	10 06 19.9	+0.9
	0.6nm,0.6s,mb3.5,baz=198,slow=9.1,SNR=2.7						
ZAL	Zalesovo	45.11	353	P	P	10 07 01.4	-0.2
	2.4nm,0.5s,mb4.3,baz=293,slow=7.0,SNR=6.1						
BVAR	Borovoye Array	47.55	341	P	P	10 07 20.2	-0.6
	0.7nm,0.6s,mb3.9,baz=141,slow=9.2,SNR=4.5						
BVAR				PcP	PcP	10 08 50.1	-0.5
	1.1nm,0.7s,baz=135,slow=6.3,SNR=4.0						
CHKZ	Chkalovo	48.03	342	*e*P	P	10 07 24.3	-0.3
	2.9nm,0.5s,mb4.6						
CHKZ				*e*pP	pP	10 07 31.4	-5.7
WRA	Warramunga Arr	49.39	126	P	P	10 07 35.3	-0.2
	3.1nm,0.5s,mb4.6,baz=306,slow=8.7,SNR=9.4						
WRA				PcP	PcP	10 08 58.1	+0.4
	1.1nm,0.5s,baz=312,slow=2.9,SNR=8.4						
WRAB	Tennant Creek	49.39	126	*e*P	P	10 07 35.3	-0.3
	8.6nm,0.7s,mb4.9						
ASAR	Alice Springs	51.11	131	P	P	10 07 47.2	-1.4
	1.2nm,0.6s,mb4.0,baz=302,slow=6.9,SNR=4.1						
ASAR				PcP	PcP	10 09 04.6	+0.6
	1.5nm,0.6s,baz=310,slow=3.6,SNR=7.1						
KIV	Kislovodsk	56.03	317	*e*P	P	10 08 23.7	-0.9
	5.1nm,0.6s,mb4.7						
PMG	Port Moresby	56.31	108	P	P	10 08 28.8	+1.7
	12nm,0.7s,mb5.0,baz=301,slow=6.1,SNR=6.9						
KMBO	Kilima Mbogo	57.21	263	P	P	10 08 34.5	+1.1
	2.9nm,0.7s,mb4.4,baz=304,slow=7.0,SNR=7.5						
CTA	Charters Tower	59.33	120	P	P	10 08 48.8	+0.6
	4.3nm,0.8s,mb4.5,baz=315,slow=8.6,SNR=4.2						
BRTR	Keskin Array B	61.23	310	P	P	10 08 58.8	-2.1
	2.2nm,0.6s,mb4.4,baz=121,slow=7.2,SNR=8.6						
STKA	Stephens Creek	61.35	134	P	P	10 09 00.8	-1.0
	1.6nm,0.7s,mb4.3,baz=316,slow=9.8,SNR=3.0						
AKASG	Malin Array Be	66.82	321	P	P	10 09 35.0	-2.2
	0.3nm,0.3s,mb3.8,baz=89,slow=4.2,SNR=5.1						
MLR	Muntele Rosu	67.91	315	P	P	10 09 43.1	-0.9
	6.1nm,1.0s,mb4.6,baz=48,slow=3.0,SNR=4.8						
FINES	FINESS Array B	71.30	332	P	P	10 10 03.3	-1.2
	7.5nm,1.1s,mb4.5,baz=90,slow=5.7,SNR=5.2						
ARCES	ARCESS Array B	73.82	340	P	P	10 10 18.9	-0.4
	3.6nm,0.9s,mb4.3,baz=95,slow=7.0,SNR=8.7						
MORC	Moravsky Berou	74.07	319	*e*P	P	10 10 21.3	+0.2
	8.5nm,1.3s,mb4.5						
LBTB	Lobatse	74.58	241	*e*P	P	10 10 26.3	+1.7
	3.6nm,0.7s,mb4.4						
GERES	GERESS Array B	76.53	318	P	P	10 10 35.4	+0.2
	1.4nm,0.6s,mb4.0,baz=94,slow=5.1,SNR=8.1						
HFS	Hagfors	77.06	330	P	P	10 10 37.8	-0.1
	2.5nm,0.7s,mb4.3,baz=51,slow=9.2,SNR=8.7						
NB2	NORSAR Subarra	78.33	330	P	P	10 10 44.4	-0.5
	0.9nm,0.7s,mb3.8,baz=92,slow=5.6						
NOA	NORSAR Array B	78.33	330	P	P	10 10 44.8	-0.1
	0.7nm,0.8s,mb3.6,baz=113,slow=4.3,SNR=2.7						
DAVOX	Davos	79.12	316	P	P	10 10 50.3	+0.8
	3.8nm,0.9s,mb4.3,baz=117,slow=6.8,SNR=3.2						
ILAR	Eielson Array	93.59	22	P	P	10 12 00.8	+0.6
	1.0nm,0.6s,mb4.4,baz=319,slow=4.7,SNR=13						
INK	Inuvik	95.76	16	P	P	10 12 11.1	+1.2
	1.6nm,0.6s,mb4.7,baz=338,slow=5.7,SNR=16						
PDAR	Pinedale Array	124.00	21	PKP	PKPdf	10 17 44.2	+2.5
	0.6nm,0.8s,baz=239,slow=0.1,SNR=4.1						
TXAR	Lajitas Array	138.10	23	PKP	PKPdf	10 18 11.4	+2.6
	0.2nm,0.5s,baz=327,slow=1.0,SNR=5.8						
BDFB	Brasilia	142.18	256	PKP	PKPdf	10 18 19.6	+3.2
	3.5nm,1.0s,baz=198,slow=3.2,SNR=3.3						
LVC	Limon Verde	158.74	229	PKPab	PKPab	10 19 20.1	+0.6
	2.3nm,0.7s,baz=160,slow=2.5,SNR=4.0						
LPAZ	La Paz	161.02	247	PKPab	PKPab	10 19 30.8	+1.4
	1.2nm,0.6s,baz=205,slow=4.2,SNR=5.3						

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*IDC **26** 10:00:21.9±0.5, 9.00N×92.36E, mb4.3/20, mb1 4.4/21, mb1mx4.4/26, ML3.8/1, Error ellipse: s-maj=26.8km s-min=13.2km az=47.0*

ISC 26 10:00:25.0±4.8**, 8.9N**±0.1×**92.3E**±0.2**, h34**^{km}±41^{km}**, n32, σ0**^{s}**79**/28**, mb4.3**/20**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.50	33	Pn	P	10 03 10.1	+0.2
	0.2nm,0.3s,baz=230,slow=13,SNR=3.3						
SONM	Songino Array	40.62	15	P	P	10 08 03.8	+0.5
	6.3nm,0.8s,mb4.3,baz=198,slow=7.2,SNR=19						
ZAL	Zalesovo	45.33	354	P	P	10 08 40.9	-0.6
	2.5nm,0.9s,mb4.0,baz=302,slow=8.9,SNR=5.3						
BVAR	Borovoye Array	47.46	342	P	P	10 08 58.0	-0.4
	2.5nm,0.8s,mb4.2,baz=149,slow=8.6,SNR=6.7						
WRA	Warramunga Arr	50.33	125	P	P	10 09 20.0	-0.9
	1.0nm,0.3s,mb4.3,baz=306,slow=8.4,SNR=18						
ASAR	Alice Springs	51.96	129	P	P	10 09 32.3	-0.9
	1.2nm,0.6s,mb4.0,baz=305,slow=7.6,SNR=14						
GNI	Garni	52.43	314	P	P	10 09 37.8	+1.4
	5.3nm,0.7s,mb4.6,baz=75,slow=14,SNR=2.7						
EIL	Elat	57.34	300	P	P	10 10 13.7	+1.3
	4.2nm,0.8s,mb4.5,baz=305,slow=39,SNR=2.4						
BRTR	Keskin Array B	60.39	311	P	P	10 10 31.9	-1.4
	6.9nm,1.1s,mb4.6,baz=121,slow=7.2,SNR=8.0						
CTA	Charters Tower	60.40	119	P	P	10 10 34.7	+1.0
	3.8nm,0.8s,mb4.5,baz=253,slow=9.9,SNR=3.3						
STKA	Stephens Creek	62.12	133	P	P	10 10 45.8	+0.6
	2.3nm,0.8s,mb4.4,baz=321,slow=9.1,SNR=4.4						
AKASG	Malin Array Be	66.23	322	P	P	10 11 09.4	-2.2
	1.0nm,0.6s,mb4.0,baz=88,slow=4.8,SNR=5.6						
MLR	Muntele Rosu	67.17	316	P	P	10 11 17.6	-0.1
	8.0nm,0.8s,mb4.8,baz=135,slow=4.0,SNR=8.6						
FINES	FINESS Array B	70.97	332	P	P	10 11 39.9	-0.9
	4.5nm,0.8s,mb4.5,baz=101,slow=9.7,SNR=6.3						
KAF	Kangasniemi	71.06	333	*e*p	P	10 11 41.4	0.0
ARCES	ARCESS Array B	73.70	340	P	P	10 11 56.7	-0.1
	4.3nm,0.8s,mb4.4,baz=76,slow=5.0,SNR=6.1						
VRAC	Vranov	73.99	319	P	P	10 11 59.0	+0.2
	1.2nm,0.5s,mb4.1,baz=87,slow=9.2,SNR=3.5						
DPC	Dobruska-Polom	74.26	320	*e*P	P	10 12 00.5	+0.1
UPC	Upice	74.47	320	*e*P	P	10 12 01.7	+0.1
PRU	Pruhonice	75.37	319	*e*P	P	10 12 07.5	+0.7
GERES	GERESS Array B	75.86	318	P	P	10 12 09.9	+0.3
	5.1nm,1.0s,mb4.4,baz=90,slow=5.3,SNR=12						
KHC	Kasperske Hory	75.95	318	*e*P	P	10 12 10.0	-0.2
HFS	Hagfors	76.67	330	P	P	10 12 13.8	-0.2
	4.8nm,0.9s,mb4.4,baz=101,slow=7.6,SNR=7.6						
NB2	NORSAR Subarra	77.96	331	P	P	10 12 20.2	-0.9
	1.3nm,0.7s,mb4.0,baz=99,slow=4.8						
NOA	NORSAR Array B	77.96	331	P	P	10 12 20.8	-0.3
	1.7nm,0.7s,mb4.1,baz=94,slow=5.7,SNR=4.7						
DAVOX	Davos	78.40	316	P	P	10 12 24.7	+0.9
	baz=106,slow=7.4						
ILAR	Eielson Array	94.50	22	P	P	10 13 42.6	0.0
	1.2nm,1.0s,mb4.3,baz=288,slow=4.5,SNR=4.1						
INK	Inuvik	96.53	16	P	P	10 13 52.7	+0.9
	1.9nm,1.0s,mb4.5,baz=228,slow=5.8,SNR=3.7						
CPUP	Villa Florida	146.38	235	PKPbc	PKPbc	10 20 05.5	+2.5
	0.0nm,0.4s,baz=202,slow=16,SNR=1.5						
PCRV	Puerto La Cruz	150.24	309	PKPbc	PKPdf	10 20 14.9	+6.5
	8.9nm,0.8s,baz=268,slow=5.2,SNR=3.2						
LVC	Limon Verde	157.38	231	PKPab	PKPab	10 20 53.1	+1.2
	2.2nm,0.9s,baz=40,slow=4.3,SNR=3.8						
LPAZ	La Paz	159.54	247	PKPab	PKPab	10 21 03.1	+1.8
	0.6nm,0.4s,baz=352,slow=4.5,SNR=2.4						

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*BJI **26** 10:02:02.8, 6.98N×92.34E, h31^{km}, mb4.9*

*NEIC **26** 10:02:07.8±0.4, 7.65N×92.79E, mb4.8/8, Error ellipse: s-maj=12.8km s-min=9.0km az=54.0*

*IDC **26** 10:02:10.4±4.5, 7.78N×92.83E, h50^{km}±42^{km}, mb4.1/17, mb1 4.2/18, mb1mx4.1/24, Error ellipse: s-maj=26.5km s-min=13.6km az=42.0*

ISC 26 10:02:06.1±0.5**, 7.56N**±0.08×**92.65E**±0.09**, h33**^{km}**, n45, σ1**^{s}**31**/38**, mb4.6**/31**, 2C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.45	29	P	P	10 05 01.3	-2.6
	baz=231,slow=13,SNR=2.2						
IMP	Imphal	17.18	4	*e*	P	10 06 04.3	-1.0
KMI	Kunming	19.95	28	*e*P	P	10 06 43.0	+4.7
KMI				AMB	AMB		
	comp=Z,39nm,1.3s						
LSA	Lhasa	22.07	357	*e*P	P	10 07 01.8	+1.9
	comp=Z,14nm,0.6s,mb4.6						
GYA	Guiyang	23.05	34	⇑*i*P	P	10 07 14.0	+4.3
GYA				AMB	AMB		

	comp=Z,10.0nm,0.6s,mb4.4						
CD2	Chengdu	25.45	23	P	P	10 07 35.0	+2.1
CD2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.0						
LZH	Lanzhou	30.19	18	*e*P	P	10 08 18.5	+2.8
LZH				AMB	AMB		
	comp=Z,41nm,1.4s,mb5.0						
GTA	Gaotai	32.36	10	P	P	10 08 35.8	+0.9
GTA				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.6						
AAK	Ala-Archa	38.43	338	*e*P	P	10 09 26.9	+0.5
	comp=Z,17nm,1.1s,mb4.7						
AAK				*e*pP	pP	10 09 35.1	-1.1
SONM	Songino Array	41.81	14	P	P	10 09 53.6	-0.8
	comp=Z,1.0nm,0.8s,mb3.5,baz=190,slow=8.8,SNR=2.4						
SNY	Shenyang	43.75	34	⇑P	P	10 10 14.3	+4.0
SNY				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.2						
CN2	Changchun	46.09	33	*e*P	P	10 10 30.5	+1.5
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAL	Zalesovo	46.68	354	P	P	10 10 32.3	-1.1
	comp=Z,2.5nm,0.4s,mb4.5,baz=337,slow=2.9,SNR=5.9						
BVAR	Borovoye Array	48.83	342	P	P	10 10 48.9	-1.3
	comp=Z,2.6nm,0.7s,mb4.3,baz=143,slow=7.4,SNR=4.0						
BRVK	Borovoye	48.89	342	*e*P	P	10 10 49.7	-1.0
	comp=Z,9.6nm,1.1s,mb4.7						
WRA	Warramunga Arr	49.29	124	P	P	10 10 52.7	-1.6
	comp=Z,5.8nm,0.8s,mb4.7,baz=303,slow=9.0,SNR=8.8						
WRAB	Tennant Creek	49.30	124	*e*P	P	10 10 51.9	-2.4
	comp=Z,34nm,1.1s,mb5.3						
CHKZ	Chkalovo	49.33	343	*e*P	P	10 10 52.5	-1.6
	comp=Z,23nm,1.1s,mb5.1						
ASAR	Alice Springs	50.86	129	P	P	10 11 07.2	+1.0
	comp=Z,9.9nm,1.2s,mb4.6,baz=302,slow=6.8,SNR=5.5						
GNI	Garni	53.61	315	P	P	10 11 27.4	+0.9
	comp=Z,2.4nm,0.4s,mb4.5,baz=201,slow=20,SNR=3.5						
GNI	Garni	53.61	315	*e*P	P	10 11 26.7	+0.2
	comp=Z,17nm,0.9s,mb5.0						
GNI				*e*pP	pP	10 11 37.1	+0.5
KMBO	Kilima Mbogo	55.92	264	P	P	10 11 46.6	+2.9
	comp=Z,4.3nm,0.9s,mb4.5,baz=55,slow=12,SNR=8.8						
KIV	Kislovodsk	56.57	319	*e*P	P	10 11 47.5	-0.4
ASF	Jabal al Asfar	57.15	303	P	P	10 11 53.8	+1.4
	comp=Z,2.1nm,0.7s,mb4.3,baz=18,slow=21,SNR=2.1						
CTA	Charters Tower	59.45	119	P	P	10 12 08.9	+0.4
	comp=Z,4.4nm,1.0s,mb4.4,baz=296,slow=14,SNR=3.2						
STKA	Stephens Creek	60.97	133	P	P	10 12 18.7	0.0
	comp=Z,4.6nm,0.8s,mb4.6,baz=306,slow=8.6,SNR=4.4						
BRTR	Keskin Array B	61.52	311	P	P	10 12 21.2	-1.1
	comp=Z,2.0nm,0.7s,mb4.4,baz=127,slow=6.2,SNR=4.0						
AKASG	Malin Array Be	67.49	322	P	P	10 12 59.3	-1.6
	comp=Z,3.8nm,1.1s,mb4.3,baz=85,slow=4.8,SNR=4.2						
IDI	Anoyia	67.53	305	P	P	10 13 00.5	-1.0
	comp=Z,7.5nm,1.0s,mb4.7,baz=15,slow=19,SNR=2.5						
MLR	Muntele Rosu	68.37	316	P	P	10 13 06.6	+0.1
	comp=Z,6.4nm,1.1s,mb4.6,baz=114,slow=6.0,SNR=3.9						
KOLS	Kolonicke sedl	71.47	319	*e*	pP	10 13 32.8	-2.8
LBTB	Lobatse	72.79	241	*e*P	P	10 13 35.5	+1.7
	comp=Z,4.2nm,0.9s,mb4.4						
OJC	Ojcow	73.27	320	*e*P	P	10 13 32.6	-3.4
VYHS	Vyhne	73.66	318	*e*P	P	10 13 38.0	-0.3
MORC	Moravsky Berou	74.65	319	*e*P	P	10 13 44.5	+0.5
	comp=Z,10nm,1.4s,mb4.6						
GERES	GERESS Array B	77.08	318	P	P	10 13 58.2	+0.3
	comp=Z,1.7nm,0.9s,mb4.0,baz=90,slow=5.3,SNR=5.3						
NOA	NORSAR Array B	79.28	331	P	P	10 14 10.2	+0.4
	comp=Z,1.1nm,0.7s,mb3.9,baz=93,slow=6.2,SNR=3.5						
ILAR	Eielson Array	95.59	22	P	P	10 15 29.2	+0.2
	comp=Z,0.8nm,0.8s,mb4.2,baz=234,slow=5.8,SNR=3.3						
INK	Inuvik	97.70	16	P	P	10 15 38.2	-0.2
	comp=Z,1.9nm,1.2s,mb4.5,baz=352,slow=4.3,SNR=2.1						
NVAR	Mina Array Bea	125.94	30	PKP	PKPdf	10 21 07.8	+2.4
	comp=Z,0.2nm,0.3s,baz=333,slow=6.0,SNR=1.6						
NVAR	Mina Array Bea	125.94	30	PKP	PKPdf	10 21 07.8	+2.4
PDAR	Pinedale Array	125.99	20	PKP	PKPdf	10 21 07.3	+2.0
	comp=Z,1.0nm,0.8s,baz=270,slow=1.5,SNR=4.7						
PDAR	Pinedale Array	125.99	20	PKP	PKPdf	10 21 07.3	+2.0
TXAR	Lajitas Array	140.10	22	PKP	PKPdf	10 21 33.0	+0.9
	comp=Z,0.2nm,0.6s,baz=186,slow=1.6,SNR=4.2						
CPUP	Villa Florida	145.89	233	PKPbc	PKPbc	10 21 44.3	+1.0
	comp=Z,0.0nm,0.2s,baz=37,slow=20,SNR=1.8						

*IDC **26** 10:04:26.8±0.5, 9.05N×93.66E, mb4.3/23, mb1 4.5/24, mb1mx4.4/27, ML4.5/1, Error ellipse: s-maj=23.1km s-min=12.6km az=49.0*

ISC 26 10:04:29.7±0.4**, 8.90N**±0.08×**93.62E**±0.09**, h33**^{km}**, n45,** σ**0**^{s}**94**/38**, mb4.4**/25**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.82	28	Pn	P	10 07 06.2	+0.8
	1.1nm,0.3s,baz=212,slow=15,SNR=5.1						
PKI	Pulchoki	20.13	338	*e*P	P	10 09 04.4	+0.7
	50nm,0.7s						
GUN	Gumba	20.27	340	*e*P	P	10 09 05.3	0.0
	89nm,0.7s						
DMN	Daman	20.28	338	*e*P	P	10 09 06.1	+0.8
	42nm,0.7s						
KKN	Kakani	20.38	338	*e*P	P	10 09 06.7	+0.4
GKN	Gorkha	20.81	337	*e*P	P	10 09 10.6	-0.2
	93nm,0.5s						
KOLN	Koldanda	21.02	335	*e*P	P	10 09 13.1	+0.1
	84nm,0.7s,mb5.2						
SONM	Songino Array	40.29	13	P	P	10 12 05.7	+0.3
	2.3nm,1.0s,mb3.9,baz=192,slow=5.8,SNR=4.9						
ZAL	Zalesovo	45.47	353	P	P	10 12 46.6	-0.9
	17nm,1.2s,mb4.7,baz=317,slow=9.3,SNR=5.9						
QRN	Al-Qurain	47.20	301	*e*P	P	10 13 03.6	+2.3
NWAO	Narrogin (SRO)	47.28	153	P	P	10 13 01.8	-0.2
	6.9nm,0.7s,mb4.7,baz=277,slow=3.6,SNR=10						
RDF	Al-Radifah	47.55	301	*e*P	P	10 13 06.2	+1.9
RDF				AMb	AMB	10 13 09.1	
	comp=Z,86nm,1.2s						
BVAR	Borovoye Array	47.86	341	P	P	10 13 04.8	-1.5
	comp=Z,1.7nm,0.6s,mb4.3,baz=143,slow=9.0,SNR=7.9						
RST	Umm Al-Ruwaisa	48.17	302	*e*P	P	10 13 09.8	+0.8
WRA	Warramunga Arr	49.27	126	P	P	10 13 17.3	-0.4
	comp=Z,2.4nm,0.7s,mb4.3,baz=301,slow=9.8,SNR=7.0						
ASAR	Alice Springs	50.96	130	P	P	10 13 31.4	+0.9
	comp=Z,2.2nm,1.0s,mb4.0,baz=304,slow=7.8,SNR=4.2						
KMBO	Kilima Mbogo	57.03	263	P	P	10 14 15.0	-0.2
	comp=Z,1.7nm,0.7s,mb4.2,baz=64,slow=23,SNR=2.8						
ASF	Jabal al Asfar	57.23	303	P	P	10 14 16.7	+0.2
	comp=Z,3.8nm,0.8s,mb4.5,baz=99,slow=3.4,SNR=2.6						
EIL	Elat	58.48	299	P	P	10 14 25.3	+0.2
	comp=Z,3.9nm,0.7s,mb4.5,baz=48,slow=18,SNR=3.3						
CTA	Charters Tower	59.26	120	P	P	10 14 32.5	+1.8
	comp=Z,3.3nm,0.8s,mb4.4,baz=260,slow=8.4,SNR=2.9						
STKA	Stephens Creek	61.18	134	P	P	10 14 42.5	-1.2
	comp=Z,1.8nm,0.6s,mb4.4,baz=317,slow=10,SNR=3.3						
BRTR	Keskin Array B	61.38	310	P	P	10 14 43.0	-1.9
	comp=Z,2.1nm,0.7s,mb4.3,baz=129,slow=7.9,SNR=4.3						
AKASG	Malin Array Be	67.04	321	P	P	10 15 21.7	+0.2
	comp=Z,0.5nm,0.3s,mb4.0,baz=81,slow=4.6,SNR=3.8						
IDI	Anoyia	67.57	304	P	P	10 15 25.2	+0.1
	comp=Z,2.6nm,0.6s,mb4.5,baz=70,slow=19,SNR=3.3						
MLR	Muntele Rosu	68.08	315	P	P	10 15 28.6	+0.3
	comp=Z,4.8nm,0.9s,mb4.5,baz=79,slow=16,SNR=3.6						
KOLS	Kolonicke sedl	71.10	319	*e*P	P	10 15 45.6	-1.0
FINES	FINESS Array B	71.57	332	P	P	10 15 48.2	-1.1
	comp=Z,4.3nm,0.9s,mb4.4,baz=111,slow=7.7,SNR=9.0						
KAF	Kangasniemi	71.65	333	*e*p	P	10 15 48.1	-1.6
KEV	Kevo	73.71	341	*e*p	P	10 16 00.8	-0.9
ARCES	ARCESS Array B	74.14	340	P	P	10 16 04.1	-0.1
	comp=Z,1.4nm,0.4s,mb4.3,baz=97,slow=6.9,SNR=35						
GERES	GERESS Array B	76.73	318	P	P	10 16 19.8	+0.4
	comp=Z,2.2nm,0.8s,mb4.2,baz=87,slow=5.1,SNR=7.2						
CLL	Collm	77.25	321	P	pP	10 16 34.0	+1.4
HFS	Hagfors	77.32	330	P	P	10 16 22.1	-0.4
	comp=Z,1.9nm,0.4s,mb4.4,baz=101,slow=5.1,SNR=20						
NB2	NORSAR Subarra	78.59	331	P	P	10 16 26.7	-2.8
	comp=Z,6.2nm,1.1s,mb4.5,baz=92,slow=5.8						
NOA	NORSAR Array B	78.59	331	P	P	10 16 28.6	-0.8
	comp=Z,3.2nm,1.0s,mb4.2,baz=97,slow=5.4,SNR=4.9						
LPL	La Plagne	81.55	315	*e*P	P	10 16 44.9	-0.7
	comp=Z,16nm,0.7s,mb4.8						
ESDC	Sonseca Array	90.17	310	P	P	10 17 29.4	+1.2
	comp=Z,1.3nm,0.8s,mb4.3,baz=198,slow=30,SNR=3.0						
ILAR	Eielson Array	94.00	22	P	P	10 17 45.8	+0.6
	comp=Z,0.7nm,0.8s,mb4.2,baz=312,slow=4.6,SNR=9.8						
INK	Inuvik	96.16	16	P	P	10 17 54.8	-0.2
	comp=Z,2.5nm,0.9s,mb4.6,baz=324,slow=5.9,SNR=7.6						
NVAR	Mina Array Bea	124.31	30	PKP	PKPdf	10 23 28.3	+2.5
	comp=Z,0.2nm,0.3s,baz=270,slow=0.9,SNR=2.6						
PDAR	Pinedale Array	124.40	21	PKP	PKPdf	10 23 28.3	+2.5
	comp=Z,0.8nm,1.0s,slow=0.9,SNR=3.2						
TXAR	Lajitas Array	138.50	23	PKP	PKPdf	10 23 55.8	+3.0
	comp=Z,0.3nm,0.7s,baz=232,slow=0.9,SNR=6.1						
CPUP	Villa Florida	147.46	234	PKPbc	PKPdf	10 24 14.2	+5.8
	comp=Z,0.0nm,0.3s,baz=277,slow=17,SNR=1.7						
LVC	Limon Verde	158.38	229	PKPab	PKPab	10 25 03.6	+2.5
	comp=Z,4.3nm,1.1s,baz=130,slow=7.9,SNR=2.2						
LPAZ	La Paz	160.74	246	PKPab	PKPab	10 25 13.1	+1.8
	comp=Z,2.1nm,1.1s,baz=52,slow=10,SNR=3.4						

*IDC **26** 10:05:45.1±5.1, 8.06N×93.94E, h112^{km}±45^{km}, mb3.9/12, mb1 4.1/13, mb1mx3.9/21, Error ellipse: s-maj=29.4km s-min=16.0km az=51.0*

ISC 26 10:05:34.5±0.7**, 7.9N**±0.1×**93.7E**±0.1**, h33**^{km}**, n21,** σ**0**^{s}**83**/16**, mb4.3**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.69	25	P	P	10 08 23.1	+1.1
	0.3nm,0.3s,baz=218,slow=15,SNR=2.4						
SONM	Songino Array	41.26	13	P	P	10 13 18.7	+0.6
	4.0nm,0.9s,mb4.0,baz=200,slow=7.7,SNR=4.6						
ZAL	Zalesovo	46.48	353	P	P	10 14 00.1	-0.2
	2.4nm,0.7s,mb4.3,baz=282,slow=8.7,SNR=3.3						
WRA	Warramunga Arr	48.63	125	P	P	10 14 16.9	-0.6
	1.4nm,0.7s,mb4.1,baz=305,slow=8.6,SNR=2.5						
BVAR	Borovoye Array	48.84	341	P	P	10 14 17.2	-1.5
	1.7nm,0.7s,mb4.2,baz=143,slow=7.2,SNR=2.4						
ASAR	Alice Springs	50.26	130	P	P	10 14 30.2	+0.2
	1.4nm,0.7s,mb4.1,baz=303,slow=6.9,SNR=2.6						
KMBO	Kilima Mbogo	56.98	264	P	P	10 15 22.7	+3.0
	3.0nm,0.8s,mb4.4,baz=53,slow=11,SNR=4.8						
IDI	Anoyia	68.20	305	P	P	10 16 34.1	+0.1
	4.8nm,0.6s,mb4.7,baz=70,slow=15,SNR=3.2						
MLR	Muntele Rosu	68.86	316	P	P	10 16 38.1	+0.3
	3.3nm,0.8s,mb4.3,baz=288,slow=20,SNR=2.1						
FINES	FINESS Array B	72.50	332	P	P	10 16 59.2	-0.3
	5.1nm,0.8s,mb4.5,baz=116,slow=6.3,SNR=5.4						
KAF	Kangasniemi	72.58	333	*e*p	P	10 16 59.4	-0.6
	baz=102,slow=5.1						
ARCES	ARCESS Array B	75.11	340	P	P	10 17 14.5	-0.1
	3.4nm,0.9s,mb4.2,baz=98,slow=6.4,SNR=2.9						
GERES	GERESS Array B	77.53	318	P	P	10 17 29.2	+0.5
	1.3nm,0.8s,mb3.9,baz=100,slow=6.0,SNR=2.8						
HFS	Hagfors	78.23	330	P	P	10 17 31.8	-0.5
	baz=111,slow=3.4						
NB2	NORSAR Subarra	79.51	331	P	P	10 17 38.4	-0.9
	2.5nm,0.6s,mb4.3,baz=96,slow=5.0						
NOA	NORSAR Array B	79.51	331	P	P	10 17 38.8	-0.5
	2.5nm,0.7s,mb4.2,baz=92,slow=5.7,SNR=5.4						
ULM	Lac du Bonnet	121.52	7	PKP	PKPdf	10 24 24.9	+0.1
	1.7nm,0.8s,baz=221,slow=7.2,SNR=2.8						
NVAR	Mina Array Bea	125.14	31	PKP	PKPdf	10 24 32.0	-0.2
	0.6nm,0.6s,baz=37,slow=4.5,SNR=3.5						
PDAR	Pinedale Array	125.32	21	PKP	PKPdf	10 24 31.5	-0.9
	0.7nm,0.8s,baz=63,slow=2.0,SNR=2.6						
TXAR	Lajitas Array	139.40	24	PKP	PKPdf	10 25 00.3	+1.1
	0.4nm,0.7s,slow=0.9,SNR=2.8						
CPUP	Villa Florida	146.91	233	PKPbc	PKPbc	10 25 14.1	+0.1
	0.0nm,0.3s,baz=232,slow=18,SNR=2.0						

*IDC **26** 10:07:33.7±0.9, 11.73N×93.76E, mb4.1/13, mb1 4.2/14, mb1mx4.2/20, ML4.4/1, Error ellipse: s-maj=48.2km s-min=16.7km az=54.0*

ISC 26 10:07:36.7±0.7**, 11.7N**±0.1×**93.7E**±0.1**, h33**^{km}**, n16,** σ**1**^{s}**26**/14**, mb4.1**/13**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.44	36	Pn	P	10 09 39.6	+0.1
	1.3nm,0.3s,baz=234,slow=16,SNR=8.4						
SONM	Songino Array	37.60	14	P	P	10 14 50.2	+0.3
	1.2nm,0.8s,mb3.7,baz=198,slow=7.8,SNR=2.7						
ZAL	Zalesovo	42.76	352	P	P	10 15 30.4	-2.2
	2.1nm,0.6s,mb4.1,baz=325,slow=1.1,SNR=4.2						
BVAR	Borovoye Array	45.30	340	P	P	10 15 50.8	-2.2
	1.6nm,0.6s,mb4.0,baz=149,slow=11,SNR=3.9						
WRA	Warramunga Arr	50.85	128	P	P	10 16 37.9	+1.2
	1.6nm,0.8s,mb4.0,baz=304,slow=8.9,SNR=4.2						
ASAR	Alice Springs	52.70	132	P	P	10 16 49.0	-1.6
	1.1nm,0.4s,mb4.1,baz=298,slow=8.0,SNR=7.4						
STKA	Stephens Creek	63.04	135	P	P	10 18 02.4	-0.8
	1.7nm,0.8s,mb4.3,baz=309,slow=5.8,SNR=2.7						
AKASG	Malin Array Be	64.95	321	P	P	10 18 15.7	+0.4
	0.6nm,0.5s,mb3.9,baz=90,slow=4.8,SNR=6.9						
FINES	FINESS Array B	69.19	332	P	P	10 18 41.3	-0.4
	2.5nm,0.7s,mb4.3,baz=114,slow=6.6,SNR=6.0						
ARCES	ARCESS Array B	71.58	340	P	P	10 18 56.4	+0.3
	1.7nm,0.7s,mb4.1,baz=100,slow=7.4,SNR=4.6						
GERES	GERESS Array B	74.75	318	P	P	10 19 16.4	+1.4
	1.7nm,0.6s,mb4.2,baz=90,slow=4.9,SNR=17						
NOA	NORSAR Array B	76.25	330	P	P	10 19 23.7	+0.3
	3.1nm,1.3s,mb4.1,baz=96,slow=4.2,SNR=2.9						
ILAR	Eielson Array	91.42	22	P	P	10 20 42.2	+1.8
	1.2nm,1.0s,mb4.2,baz=300,slow=4.5,SNR=9.5						
INK	Inuvik	93.49	16	P	P	10 20 53.3	+3.4
	0.8nm,0.5s,mb4.4,baz=302,slow=3.1,SNR=9.8						
PDAR	Pinedale Array	121.80	20	PKP	PKPdf	10 26 31.5	+3.8
	0.3nm,0.5s,baz=59,slow=8.6,SNR=1.9						
TXAR	Lajitas Array	135.93	22	PKP	PKPdf	10 26 56.9	+1.9
	0.6nm,1.1s,baz=270,slow=2.7,SNR=2.3						

*NEIC **26** 10:07:46.5, 37.40S×176.43E, h208^{km}, After WEL.*

WEL 26 10:07:47.8±0.3**, 37.46S**×**176.53E, h201**^{km}±3^{km}**, ML3.7**/8**, Error ellipse: s-maj=3.9km s-min=3.5km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.92	150	*e*P	P	10 08 17.1	-0.2
URZ	Urewera	0.92	150	PN	P	10 08 17.1	-0.2
URZ				SN	S	10 08 40.1	0.0
MWZ	Matawai	1.18	138	P	P	10 08 19.4	+0.2
MWZ	Matawai	1.18	138	PN	P	10 08 19.3	+0.1
MWZ				SN	S	10 08 43.1	-0.4
MXZ	Matakaoa Point	1.42	95	P	P	10 08 21.0	-0.2
MXZ	Matakaoa Point	1.42	95	PN	P	10 08 20.9	-0.3
MXZ				SN	S	10 08 46.2	-0.8
PUZ	Puketiti	1.50	115	*e*P	P	10 08 21.7	-0.2
PUZ	Puketiti	1.50	115	PN	P	10 08 21.5	-0.4
PUZ				SN	S	10 08 46.9	-1.4
BKZ	Black Stump Fm	1.71	181	P	P	10 08 23.2	-0.6
BKZ	Black Stump Fm	1.71	181	PN	P	10 08 23.2	-0.6
BKZ				SN	S	10 08 50.5	-1.1
MGZ	Maungaku	1.73	207	P	P	10 08 24.4	+0.4
MGZ	Maungaku	1.73	207	PN	P	10 08 24.2	+0.2
KNZ	Kokohu	1.80	150	PN	P	10 08 24.6	-0.1
KNZ				SN	S	10 08 52.7	-0.5
NGZ	Ngauruhoe	1.86	203	*e*PN	P	10 08 25.6	+0.3
CNZ	Chateau	1.90	204	P	P	10 08 25.8	+0.1
CNZ	Chateau	1.90	204	*e*PN	P	10 08 25.9	+0.1
TUVZ	Tukino	1.93	201	P	P	10 08 25.9	-0.1
TUVZ	Tukino	1.93	201	*e*PN	P	10 08 25.8	-0.2
FWVZ	Far West T-bar	1.95	203	P	P	10 08 26.5	+0.3
FWVZ	Far West T-bar	1.95	203	*e*PN	P	10 08 26.4	+0.2
WNVZ	Wahianoa	2.00	201	P	P	10 08 26.4	-0.3
MOVZ	Moawhango	2.04	197	P	P	10 08 26.7	-0.4
MOVZ	Moawhango	2.04	197	*e*PN	P	10 08 26.2	-1.0
PWZ	Pawanui	2.58	174	*e*P	P	10 08 32.0	-1.1
PWZ	Pawanui	2.58	174	PN	P	10 08 31.8	-1.3
WAZ	Wanganui	2.59	207	*e*P	P	10 08 32.8	-0.4
WAZ	Wanganui	2.59	207	*e*PN	P	10 08 32.0	-1.2
TSZ	Takapari Road	2.63	190	P	P	10 08 32.2	-1.5
TSZ	Takapari Road	2.63	190	PN	P	10 08 32.2	-1.6
MRZ	Mangatainoka R	3.28	193	P	P	10 08 38.8	-2.6
MRZ	Mangatainoka R	3.28	193	PN	P	10 08 38.8	-2.6
KIW	Kapiti Island	3.62	200	P	P	10 08 42.4	-3.1
KIW	Kapiti Island	3.62	200	PN	P	10 08 42.2	-3.3
MTW	Mount Morrison	3.78	192	P	P	10 08 44.1	-3.4
MTW	Mount Morrison	3.78	192	PN	P	10 08 43.9	-3.5
CAW	Cannon Point	3.82	197	PN	P	10 08 44.5	-3.4
MRW	Makara Radio	4.02	200	P	P	10 08 47.0	-3.5
MRW	Makara Radio	4.02	200	*e*PN	P	10 08 46.7	-3.8
MSWZ	Moikau Station	4.07	194	P	P	10 08 47.4	-3.7
MSWZ	Moikau Station	4.07	194	PN	P	10 08 47.3	-3.9
TUWZ	Tuamarina	4.44	206	*e*PN	P	10 08 51.5	-4.3
NNZ	Nelson	4.48	212	*e*PN	P	10 08 51.8	-4.5
QRZ	Quartz Range	4.58	222	*e*P	P	10 08 53.6	-3.9
QRZ	Quartz Range	4.58	222	*e*PN	P	10 08 53.5	-4.0
THZ	Tophouse	5.13	212	*e*P	P	10 09 00.4	-4.1
THZ	Tophouse	5.13	212	*e*PN	P	10 09 00.1	-4.4
KHZ	Kahutara	5.46	204	*e*P	P	10 09 04.7	-4.1
KHZ	Kahutara	5.46	204	*e*PN	P	10 09 04.3	-4.5
DSZ	Denniston Nort	5.63	219	*e*P	P	10 09 05.9	-5.0
DSZ	Denniston Nort	5.63	219	*e*PN	P	10 09 05.5	-5.5
LTZ	Lake Taylor	6.24	210	*e*P	P	10 09 13.9	-5.0
LTZ	Lake Taylor	6.24	210	*e*PN	P	10 09 13.8	-5.1
MQZ	McQueen's Vall	6.90	204	SN	S	10 10 35.7	-10

*IDC **26** 10:10:07.9±0.9, 7.64N×94.14E, h22^{km}±4^{km}, mb3.8/8, mb1 4.0/9, mb1mx3.9/15, ML3.9/1, Error ellipse: s-maj=41.8km s-min=16.9km az=55.0*

ISC 26 10:10:06.1±0.8**, 7.9N**±0.1×**94.3E**±0.2**, h21**^{km}**, h21**^{km}±.4^{km}**:pP-P, n23,** σ**0**^{s}**94**/16**, mb4.4**/14**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.47	23	Pn	P	10 12 52.5	+0.5
	0.2nm,0.3s,baz=215,slow=14,SNR=2.9						
PKI	Pulchoki	21.35	338	*e*P	P	10 14 54.0	-0.3
	131nm,1.3s,mb5.1						
GUN	Gumba	21.49	339	*e*P	P	10 14 54.9	-0.8
	79nm,1.0s,mb5.0						
DMN	Daman	21.50	337	*e*P	P	10 14 55.1	-0.7
	32nm,0.7s,mb4.8						
KKN	Kakani	21.60	338	*e*P	P	10 14 55.4	-1.4
	54nm,1.0s,mb4.9						
GKN	Gorkha	22.04	337	*e*P	P	10 15 00.8	-0.4
	77nm,1.0s,mb5.1						
KOLN	Koldanda	22.26	334	*e*P	P	10 15 03.5	+0.1
	38nm,0.7s,mb4.9						
SONM	Songino Array	41.15	12	pP	pP	10 17 57.4	+0.5
	1.4nm,1.1s,baz=198,slow=9.1,SNR=3.7						
ZAL	Zalesovo	46.60	352	P	P	10 18 35.8	+1.3
	1.4nm,0.4s,mb4.2,baz=327,slow=7.1,SNR=4.8						
ZAL				pP	pP	10 18 42.0	+1.1
	3.1nm,0.5s,baz=300,slow=6.7,SNR=7.7						
WRA	Warramunga Arr	48.11	126	P	P	10 18 47.4	+0.6
	1.8nm,0.8s,mb4.2,baz=303,slow=9.1,SNR=3.7						
WRA				pP	pP	10 18 53.5	+0.3
	1.5nm,0.8s,baz=303,slow=9.0,SNR=2.7						
BVAR	Borovoye Array	49.07	341	P	P	10 18 53.1	-0.6
	0.3nm,0.4s,mb3.7,baz=146,slow=11,SNR=4.0						
ASAR	Alice Springs	49.77	130	P	P	10 18 59.2	-0.3
	0.7nm,0.6s,mb3.9,baz=295,slow=7.9,SNR=2.6						
STKA	Stephens Creek	59.97	134	P	P	10 20 12.2	-1.4
	1.1nm,0.5s,mb4.2,baz=342,slow=13,SNR=2.8						
AKASG	Malin Array Be	68.28	322	P	P	10 21 08.5	+0.8
	1.8nm,0.8s,mb4.2,baz=82,slow=3.9,SNR=4.5						
FINES	FINESS Array B	72.81	332	pP	pP	10 21 41.4	-0.2
	5.1nm,0.8s,baz=112,slow=10,SNR=4.3						
OJC	Ojcow	74.10	320	*e*P	P	10 21 45.9	+3.2
ARCES	ARCESS Array B	75.35	340	P	P	10 21 50.2	+0.8
	4.6nm,0.9s,mb4.4,baz=63,slow=6.0,SNR=3.3						
ARCES				pP	pP	10 21 57.2	+1.1
	3.1nm,0.8s,baz=72,slow=3.8,SNR=2.3						
GERES	GERESS Array B	77.96	318	P	P	10 22 05.4	+1.0
	0.3nm,0.6s,mb3.4,baz=108,slow=3.1,SNR=3.6						
GERES				pP	pP	10 22 12.3	+1.2
	1.6nm,0.7s,baz=90,slow=4.9,SNR=9.9						
NB2	NORSAR Subarra	79.84	331	P	pP	10 22 21.9	+0.8
	1.3nm,0.7s,baz=95,slow=5.3						
NOA	NORSAR Array B	79.84	331	pP	pP	10 22 21.8	+0.7
	1.5nm,0.7s,baz=95,slow=5.1,SNR=3.3						
PDAR	Pinedale Array	125.13	21	PKP	PKPdf	10 29 10.3	+0.5
	0.1nm,0.6s,baz=243,slow=2.0,SNR=2.1						
TXAR	Lajitas Array	139.18	24	pPKP		10 29 44.9	
	0.3nm,0.7s,baz=21,slow=2.3,SNR=3.1						
CPUP	Villa Florida	147.38	232	PKPbc	PKPdf	10 29 47.7	-3.2
	0.0nm,0.4s,baz=345,slow=20,SNR=1.8						

*IDC **26** 10:11:01.7±0.8, 3.25N×93.84E, h24^{km}±4^{km}, mb4.3/10, mb1 4.4/11, mb1mx4.2/20, ML4.7/1, Error ellipse: s-maj=38.5km s-min=13.9km az=51.0*

ISC 26 10:10:59.4±0.8**, 3.1N**±0.1×**93.7E**±0.2**, h24**^{km}**, h24**^{km}±.8^{km}**:pP-P, n12,** σ**0**^{s}**81**/11**, mb4.4**/10**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	16.13	18	Pn	P	10 14 47.6	+1.2
	1.0nm,0.3s,baz=214,slow=12,SNR=8.9						
SONM	Songino Array	45.92	12	P	P	10 19 20.9	-1.2
	5.6nm,0.6s,mb4.7,baz=193,slow=8.3,SNR=16						
SONM				pP	pP	10 19 27.9	-1.5
	5.9nm,0.6s,baz=193,slow=8.4,SNR=10						
WRA	Warramunga Arr	45.99	122	P	P	10 19 23.1	+0.1
	9.7nm,0.8s,mb4.8,baz=301,slow=8.8,SNR=11						
WRA				pP	pP	10 19 30.2	-0.2
	10nm,0.7s,baz=301,slow=8.9,SNR=9.1						
ASAR	Alice Springs	47.31	126	P	P	10 19 33.7	+0.3
	4.7nm,0.8s,mb4.5,baz=297,slow=7.9,SNR=8.7						
ASAR				pP	pP	10 19 41.9	+1.1
	3.8nm,0.5s,baz=295,slow=7.8,SNR=7.1						
ZAL	Zalesovo	51.23	353	P	P	10 20 02.4	-0.7
	4.0nm,0.4s,mb4.7,baz=302,slow=4.9,SNR=9.5						
BVAR	Borovoye Array	53.39	343	P	P	10 20 18.4	-0.9
	3.4nm,0.7s,mb4.4,baz=143,slow=7.4,SNR=9.0						
STKA	Stephens Creek	57.21	131	P	P	10 20 46.8	-0.5
	1.7nm,0.6s,mb4.3,baz=302,slow=14,SNR=4.6						
BRTR	Keskin Array B	65.27	313	P	P	10 21 41.4	-0.3
	1.8nm,1.0s,mb4.0,baz=124,slow=5.2,SNR=2.6						
FINES	FINESS Array B	76.74	333	P	P	10 22 50.0	-0.3
	4.6nm,1.1s,mb4.3,baz=146,slow=6.9,SNR=3.9						
GERES	GERESS Array B	81.11	319	P	P	10 23 15.6	+1.4
	0.6nm,0.5s,mb3.8,baz=117,slow=5.2,SNR=6.2						
GERES				pP	pP	10 23 23.3	+1.2
	2.4nm,0.7s,baz=96,slow=5.1,SNR=6.6						
DAVOX	Davos	83.53	317	P	P	10 23 27.9	+1.0
	2.3nm,0.5s,mb4.6,baz=180,slow=1.0,SNR=3.3						
TXAR	Lajitas Array	143.73	26	PKP	PKPdf	10 30 33.4	-4.4
	0.1nm,0.4s,baz=228,slow=2.6,SNR=3.5						
TXAR				pPKP		10 30 41.8	
	0.2nm,0.5s,baz=177,slow=1.7,SNR=2.5						

*IDC **26** 10:12:05.5±0.7, 10.25N×94.34E, mb4.5/13, mb1 4.6/14, mb1mx4.4/22, ML3.5/1, Error ellipse: s-maj=31.4km s-min=16.0km az=45.0*

*NEIC **26** 10:12:10.2±0.4, 10.25N×94.31E, h30^{km}, mb5.1/15, Error ellipse: s-maj=13.9km s-min=10.7km az=46.0*

*BJI **26** 10:12:12.3, 10.59N×93.70E, h20^{km}, mb4.8, Ms5.9, Msz5.5*

ISC 26 10:12:06.5±0.4**, 10.05N**±0.08×**94.12E**±0.08**, h15**^{km}**, h15**^{km}±2.1^{km}**:pP-P, n46,** σ**1**^{s}**55**/40**, mb4.8**/31**, MS5.6**/1**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	9.58	29	Pn	P	10 14 22.8	-4.3
	0.1nm,0.3s,baz=230,slow=14,SNR=2.8						
LSA	Lhasa	19.75	352	*e*P	P	10 16 38.0	-0.9
	50nm,0.7s						
GYA	Guiyang	20.18	34	⇑*i*P	P	10 16 46.5	+3.0
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
CD2	Chengdu	22.61	22	P	P	10 17 12.0	+3.8
CD2				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.0						
ENH	Enshi	24.70	33	P	P	10 17 29.3	+0.7
	comp=Z,23nm,1.0s,mb4.7						
LZH	Lanzhou	27.39	17	*e*P	P	10 17 55.8	+2.4
LZH				AP	pP	10 17 58.8	+1.1
LZH				AMB	AMB		
	comp=Z,21nm,1.0s,mb4.6						
WMQ	Urumqi	34.11	352	P	P	10 18 53.3	+0.5
WMQ				AP	pP	10 18 57.8	+0.7
WMQ				XP	sP	10 19 00.3	+1.3
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.6						
HHC	Hu-ho-hao-te	34.34	24	*e*P	P	10 18 58.5	+3.7
HHC				AP	pP	10 19 04.0	+4.8
HHC				XP	sP	10 19 08.5	+7.4
HHC				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.9						
HHC				LR	LR		
	comp=N,10µm,20.2s,MS5.8						
HHC				LR	LR		
	comp=E,12µm,17.8s,MS5.8						
HHC				LR	LR		
	comp=Z,10µm,22.6s,MS5.5						
CN2	Changchun	43.22	33	*e*P	P	10 20 10.3	+1.4
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.4						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HIA	**Hailar**	**44.55**	**24**	*e*P	**P**	**10 20 23.3**	**+3.8**
	comp=Z,15nm,1.1s,mb4.7						
BVAR	**Borovoye Array**	**46.94**	**341**	P	**P**	**10 20 34.9**	**-3.5**
	comp=Z,4.9nm,0.9s,mb4.5,baz=139,slow=10,SNR=5.0						
WRA	**Warramunga Arr**	**49.56**	**127**	P	**P**	**10 20 59.2**	**0.0**
	comp=Z,21nm,0.6s,mb5.3,baz=301,slow=9.1,SNR=19						
WRAB	**Tennant Creek**	**49.56**	**127**	*e*P	**P**	**10 20 59.0**	**-0.3**
	comp=Z,46nm,0.7s,mb5.6						
GUMO	**Guam**	**49.73**	**81**	P	**P**	**10 20 58.1**	**-2.5**
	comp=Z,100nm,1.1s,mb5.8						
ASAR	**Alice Springs**	**51.34**	**131**	P	**P**	**10 21 10.2**	**-2.5**
	comp=Z,5.2nm,0.8s,mb4.5,baz=306,slow=7.2,SNR=6.2						
GNI	**Garni**	**52.93**	**313**	P	**P**	**10 21 24.9**	**+0.4**
	comp=Z,14nm,0.7s,mb5.0,baz=17,slow=3.7,SNR=9.7						
GNI	**Garni**	**52.93**	**313**	*e*P	**P**	**10 21 22.5**	**-2.0**
	comp=Z,61nm,1.2s,mb5.4						
KIV	**Kislovodsk**	**55.71**	**317**	P	**P**	**10 21 44.4**	**-0.5**
	comp=Z,200nm,1.1s,SNR=11						
KIV	**Kislovodsk**	**55.71**	**317**	*e*P	**P**	**10 21 43.4**	**-1.5**
	comp=Z,40nm,0.8s,mb5.5						
PMG	**Port Moresby**	**56.21**	**108**	P	**P**	**10 21 50.7**	**+1.8**
	comp=Z,19nm,1.2s,mb5.0						
KMBO	**Kilima Mbogo**	**57.67**	**262**	P	**P**	**10 22 00.8**	**+1.6**
	comp=Z,3.6nm,0.9s,mb4.4,baz=46,slow=17,SNR=5.2						
KMBO	**Kilima Mbogo**	**57.67**	**262**	P	**P**	**10 22 00.8**	**+1.6**
KMBO				*e*P		10 22 01.0	
EIL	**Elat**	**58.35**	**299**	P	**P**	**10 22 01.1**	**-2.7**
	comp=Z,22nm,1.3s,mb5.0						
CTAO	**Charters Tower**	**59.40**	**120**	P	**P**	**10 22 10.5**	**-0.7**
	comp=Z,39nm,1.5s,mb5.2						
BRTR	**Keskin Array B**	**61.01**	**310**	P	**P**	**10 22 20.0**	**-1.9**
	comp=Z,5.5nm,0.8s,mb4.7,baz=122,slow=6.8,SNR=11						
STKA	**Stephens Creek**	**61.63**	**135**	P	**P**	**10 22 23.7**	**-2.5**
	comp=Z,4.8nm,1.0s,mb4.6,baz=279,slow=9.7,SNR=3.5						
STKA	**Stephens Creek**	**61.63**	**135**	*e*P	**P**	**10 22 23.4**	**-2.8**
AKASG	**Malin Array Be**	**66.45**	**321**	P	**P**	**10 22 55.6**	**-1.8**
	comp=Z,1.5nm,0.6s,mb4.2,baz=88,slow=5.2,SNR=5.2						
MLR	**Muntele Rosu**	**67.62**	**315**	P	**P**	**10 23 03.7**	**-1.2**
	comp=Z,7.6nm,0.9s,mb4.7,baz=75,slow=3.1,SNR=6.3						
LSZ	**Lusaka**	**69.98**	**250**	*e*P	**P**	**10 23 20.8**	**+0.8**
	comp=Z,14nm,1.2s,mb4.8						
FINES	**FINESS Array B**	**70.79**	**332**	P	**P**	**10 23 23.8**	**-0.4**
	comp=Z,5.9nm,1.0s,mb4.5,baz=117,slow=4.3,SNR=3.9						
FINES	**FINESS Array B**	**70.79**	**332**	P	**P**	**10 23 23.8**	**-0.4**
KAF	**Kangasniemi**	**70.86**	**333**	*e*p	**P**	**10 23 30.7**	**+6.1**
ARCES	**ARCESS Array B**	**73.23**	**340**	P	**P**	**10 23 38.6**	**+0.1**
	comp=Z,1.2nm,0.5s,mb4.1,baz=100,slow=5.2,SNR=6.9						
LBTB	**Lobatse**	**75.27**	**241**	*e*P	**P**	**10 23 53.0**	**+1.8**
	comp=Z,24nm,1.2s,mb5.0						
GERES	**GERESS Array B**	**76.20**	**318**	P	**P**	**10 23 55.9**	**-0.1**
	comp=Z,2.0nm,0.7s,mb4.2,baz=94,slow=6.0,SNR=10						
BOSA	**Boshof**	**76.72**	**237**	*e*P	**P**	**10 24 01.4**	**+2.1**
	comp=Z,21nm,1.2s,mb4.9						
DAVOX	**Davos**	**78.82**	**316**	P	**P**	**10 24 10.9**	**+0.4**
	comp=Z,3.1nm,0.5s,mb4.5,baz=146,slow=5.8,SNR=3.9						
LPG	**La Plagne**	**81.08**	**315**	*e*P	**P**	**10 24 23.1**	**+0.4**
	comp=Z,21nm,0.8s,mb4.8						
SUR	**Sutherland**	**81.55**	**235**	*e*P	**P**	**10 24 28.6**	**+3.2**
	comp=Z,25nm,1.1s,mb5.0						
NVAR	**Mina Array Bea**	**123.07**	**30**	PKP	PKPdf	10 31 07.0	+0.5
	comp=Z,1.0nm,0.8s,baz=50,slow=1.1,SNR=5.5						
PDAR	**Pinedale Array**	**123.16**	**21**	PKP	PKPdf	10 31 05.7	-1.0
	comp=Z,0.9nm,0.7s,slow=1.5,SNR=5.6						
TXAR	**Lajitas Array**	**137.25**	**23**	PKP	PKPdf	10 31 34.1	+0.4
	comp=Z,0.5nm,0.6s,baz=166,slow=0.4,SNR=9.2						
BAO	**Brasilia Array**	**142.68**	**257**	PKP	PKPdf	10 31 42.9	-1.0
PCRV	**Puerto La Cruz**	**150.84**	**313**	PKPbc	PKPdf	10 32 00.8	+3.4
	comp=Z,4.2nm,0.5s,slow=3.0,SNR=5.7						
LPAZ	**La Paz**	**161.64**	**248**	PKPab	PKPab	10 32 57.5	+2.4
	comp=Z,1.1nm,0.5s,baz=117,slow=3.5,SNR=3.7						

IDC 26 10:12:27.5±7.7**, 5.15N**×**93.63E, mb4.5**/9**, mb1 4.7**/9**, mb1mx4.4**/21**, Error ellipse: s-maj=188.0km s-min=46.3km az=143.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.91**	**12**	P	P	10 20 36.1	-1.6
	2.5nm,0.8s,baz=191,slow=9.8,SNR=2.4						
ZAL	**Zalesovo**	**49.17**	**353**	P	P	10 21 17.1	-2.1
	5.2nm,0.6s,baz=304,slow=6.0,SNR=4.5						
BVAR	**Borovoye Array**	**51.40**	**342**	P	P	10 21 34.6	-1.6
	5.8nm,0.9s,baz=146,slow=8.3,SNR=5.2						
IDI	**Anoyia**	**69.72**	**306**	P	P	10 23 40.4	-1.2
	10nm,0.6s,baz=85,slow=8.6,SNR=8.8						
AKASG	**Malin Array Be**	**69.98**	**322**	P	P	10 23 39.7	-3.2
	3.7nm,0.8s,baz=80,slow=4.9,SNR=4.1						
MLR	**Muntele Rosu**	**70.77**	**316**	P	P	10 23 45.8	-2.0
	20nm,1.1s,baz=105,slow=2.1,SNR=4.2						
FINES	**FINESS Array B**	**74.88**	**333**	P	P	10 24 09.7	-2.0
	2.7nm,0.6s,baz=97,slow=5.6,SNR=5.8						
KAF	**Kangasniemi**	**74.98**	**333**	*e*p	P	10 24 09.3	-2.9
ARCES	**ARCESS Array B**	**77.65**	**340**	P	P	10 24 25.7	-1.4
	2.1nm,0.7s,baz=106,slow=6.6,SNR=3.1						
DAVOX	**Davos**	**82.00**	**316**	P	P	10 24 50.0	-0.9
	4.7nm,0.5s,baz=290,slow=6.7,SNR=5.2						

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*IDC **26** 10:12:41.3±0.9, 10.05N×93.58E, h21^{km}±4^{km}, mb4.3/10, mb1 4.4/10, mb1mx4.3/17, Error ellipse: s-maj=43.0km s-min=16.5km az=43.0*

ISC 26 10:12:39.4±0.8**, 10.1N**±0.3×**93.7E**±0.3**, h21^{km}, n17, σ0^{s}74**/11**, mb4.5**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	**Zalesovo**	**44.31**	**352**	P	**P**	**10 20 50.0**	**+0.5**
	3.0nm,0.6s,mb4.2,baz=285,slow=8.1,SNR=2.4						
ASAR	**Alice Springs**	**51.68**	**131**	P	**P**	**10 21 47.6**	**+0.3**
	8.8nm,0.7s,mb4.8,baz=308,slow=7.3,SNR=6.0						
PMG	**Port Moresby**	**56.63**	**108**	P	**P**	**10 22 23.7**	**0.0**
	14nm,0.8s,mb5.0,baz=286,slow=7.2,SNR=5.9						
CTA	**Charters Tower**	**59.79**	**120**	P	**P**	**10 22 45.6**	**-0.2**
	5.6nm,0.8s,mb4.6,baz=299,slow=9.1,SNR=3.0						
BRTR	**Keskin Array B**	**60.66**	**310**	P	**P**	**10 22 51.0**	**-0.4**
	3.4nm,0.7s,mb4.6,baz=118,slow=7.4,SNR=3.9						
STKA	**Stephens Creek**	**61.95**	**134**	P	**P**	**10 23 00.0**	**-0.3**
	7.3nm,0.8s,mb4.8,baz=339,slow=10,SNR=4.6						
AKASG	**Malin Array Be**	**66.16**	**321**	P	**P**	**10 23 25.8**	**-1.7**
	1.1nm,0.6s,mb4.1,baz=82,slow=4.7,SNR=4.0						
AKASG				pP	pP	10 23 33.5	-0.7
	6.0nm,1.1s,baz=82,slow=5.5,SNR=2.6						
KOLS	**Kolonicke sedl**	**70.26**	**318**	*e*	**P**	**10 23 53.6**	**+0.5**
ARCES	**ARCESS Array B**	**73.05**	**340**	P	**P**	**10 24 08.8**	**-0.5**
	2.8nm,0.6s,mb4.3,baz=97,slow=7.3,SNR=3.4						
GERES	**GERESS Array B**	**75.89**	**318**	P	**P**	**10 24 26.4**	**+0.2**
	2.2nm,0.7s,mb4.2,baz=90,slow=6.3,SNR=3.9						
GERES				pP	pP	10 24 33.9	+1.0
	2.2nm,0.7s,baz=85,slow=5.6,SNR=3.0						
NOA	**NORSAR Array B**	**77.60**	**330**	pP	pP	10 24 42.7	+0.5
	1.4nm,0.8s,baz=91,slow=5.7,SNR=2.3						
ESDC	**Sonseca Array**	**89.46**	**310**	P	**P**	**10 25 37.9**	**+1.5**
	1.3nm,0.7s,mb4.4,baz=63,slow=4.4,SNR=4.2						
ILAR	**Eielson Array**	**92.88**	**22**	pP	pP	10 25 58.9	+0.4
	0.6nm,0.8s,baz=311,slow=4.2,SNR=3.9						
NVAR	**Mina Array Bea**	**123.26**	**30**	PKP	PKPdf	10 31 38.0	-1.5
	0.9nm,0.6s,baz=354,slow=1.2,SNR=5.8						
NVAR				pPKP		10 31 45.3	
	2.0nm,0.7s,baz=297,slow=2.3,SNR=7.4						
PDAR	**Pinedale Array**	**123.28**	**20**	PKP	PKPdf	10 31 37.0	-2.4
	0.7nm,0.7s,SNR=3.2						
PDAR				pPKP		10 31 44.1	
	1.2nm,0.7s,baz=192,slow=1.1,SNR=4.5						
TXAR	**Lajitas Array**	**137.39**	**23**	PKP	PKPdf	10 32 06.8	+0.3
	0.5nm,0.6s,baz=135,slow=1.8,SNR=4.0						
LPAZ	**La Paz**	**161.25**	**249**	PKPab	PKPab	10 33 24.4	-0.7
	1.7nm,0.8s,baz=315,slow=1.4,SNR=2.8						

IDC 26 10:16:29.5±2.1**, 7.18N**×**92.70E, mb4.1**/3**, mb1 4.4**/3**, mb1mx3.8**/17**, Error ellipse: s-maj=319.0km s-min=32.0km az=41.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**49.04**	**124**	P	P	10 25 17.5	-3.1
	4.5nm,0.7s,baz=301,slow=9.0,SNR=8.4						
ASAR	**Alice Springs**	**50.59**	**129**	P	P	10 25 31.6	-0.8
	1.6nm,0.8s,baz=307,slow=8.0,SNR=5.9						
GERES	**GERESS Array B**	**77.39**	**318**	P	P	10 28 26.6	-1.5
	0.3nm,0.6s,baz=104,slow=5.5,SNR=3.6						

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*IDC **26** 10:16:59.2±0.6, 7.06N×93.20E, h26^{km}±3^{km}, mb4.4/21, mb1 4.5/22, mb1mx4.5/26, ML4.4/1, Error ellipse: s-maj=26.1km s-min=11.0km az=41.0*

ISC 26 10:16:58.1±0.5**, 7.1N**±0.1×**93.2E**±0.1**, h33^{km}, n28, σ0^{s}87**/27**, mb4.5**/21**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.63**	**26**	Pn	**P**	**10 20 06.0**	**+7.7**
	0.7nm,0.3s,baz=232,slow=14,SNR=17						
SONM	**Songino Array**	**42.16**	**13**	P	**P**	**10 24 50.0**	**+0.8**
	2.2nm,1.0s,mb3.7,baz=199,slow=7.3,SNR=3.0						
SONM				sP	sP	10 25 02.1	-1.2
	2.1nm,0.8s,baz=192,slow=8.4,SNR=6.8						
ZAL	**Zalesovo**	**47.25**	**353**	P	**P**	**10 25 30.6**	**+0.7**
	3.9nm,0.9s,mb4.3,baz=298,slow=7.9,SNR=10						
WRA	**Warramunga Arr**	**48.53**	**124**	P	**P**	**10 25 40.3**	**-0.1**
	21nm,0.8s,mb5.2,baz=303,slow=9.0,SNR=27						
WRA				pP	pP	10 25 48.4	-1.8
	12nm,0.9s,baz=298,slow=11,SNR=7.2						
BVAR	**Borovoye Array**	**49.48**	**342**	P	**P**	**10 25 46.7**	**-0.6**
	2.0nm,0.7s,mb4.3,baz=158,slow=8.0,SNR=5.4						
BVAR				sP	sP	10 25 57.7	-3.6
	2.1nm,0.7s,baz=135,slow=10,SNR=5.7						
ASAR	**Alice Springs**	**50.09**	**129**	P	**P**	**10 25 52.5**	**+0.1**
	6.6nm,0.7s,mb4.8,baz=306,slow=7.3,SNR=15						
GNI	**Garni**	**54.37**	**315**	P	**P**	**10 26 23.4**	**-0.8**
	2.6nm,0.5s,mb4.4,baz=115,slow=2.7,SNR=5.1						
PMG	**Port Moresby**	**56.16**	**106**	P	**P**	**10 26 37.5**	**+0.1**
	16nm,0.8s,mb5.1,baz=9.2,slow=1.5,SNR=9.2						
KMBO	**Kilima Mbogo**	**56.44**	**264**	P	**P**	**10 26 40.5**	**+1.0**
	5.0nm,1.1s,mb4.5,baz=54,slow=10,SNR=6.5						
CTA	**Charters Tower**	**58.70**	**119**	P	**P**	**10 26 55.3**	**0.0**
	11nm,0.9s,mb4.9,baz=281,slow=4.5,SNR=8.4						
EIL	**Elat**	**59.06**	**300**	P	**P**	**10 26 58.5**	**+0.8**
	5.7nm,0.7s,mb4.7,baz=64,slow=7.6,SNR=4.8						
STKA	**Stephens Creek**	**60.20**	**133**	P	**P**	**10 27 04.9**	**-0.7**
	4.5nm,0.9s,mb4.5,baz=346,slow=6.3,SNR=4.3						
BRTR	**Keskin Array B**	**62.29**	**311**	P	**P**	**10 27 18.2**	**-1.3**
	3.7nm,0.8s,mb4.6,baz=121,slow=7.2,SNR=12						
BRTR				pP	pP	10 27 27.8	-1.8
	1.0nm,0.6s,baz=135,slow=5.2,SNR=2.8						
AKASG	**Malin Array Be**	**68.24**	**322**	P	**P**	**10 27 55.5**	**-2.1**
	3.1nm,0.9s,mb4.3,baz=89,slow=4.6,SNR=8.5						
IDI	**Anoyia**	**68.30**	**305**	P	**P**	**10 27 57.8**	**-0.4**
	18nm,0.8s,mb5.1,baz=105,slow=9.5,SNR=8.8						
MLR	**Muntele Rosu**	**69.13**	**316**	P	**P**	**10 28 03.3**	**+0.1**
	12nm,0.9s,mb4.8,baz=130,slow=3.2,SNR=13						
KOLS	**Kolonicke sedl**	**72.23**	**319**	*e*	**P**	**10 28 22.5**	**+0.7**
KOLS				*e*		10 28 26.9	
CRVS	**Cervenica-Dubn**	**72.75**	**319**	*e*	**P**	**10 28 18.5**	**-6.5**
FINES	**FINESS Array B**	**73.02**	**332**	P	**P**	**10 28 26.1**	**-0.2**
	6.3nm,0.8s,mb4.6,baz=106,slow=14,SNR=9.4						
FINES				sP	sP	10 28 38.6	-1.7
	3.3nm,0.8s,baz=112,slow=10,SNR=2.7						
VYHS	**Vyhne**	**74.42**	**318**	*e*	**P**	**10 28 32.3**	**-2.4**
ZST	**Bratislava**	**75.53**	**318**	*e*	**P**	**10 28 42.1**	**+1.0**
ARCES	**ARCESS Array B**	**75.73**	**340**	P	**P**	**10 28 42.5**	**+0.7**
	2.7nm,0.7s,mb4.3,baz=124,slow=4.4,SNR=9.8						
GERES	**GERESS Array B**	**77.84**	**318**	P	**P**	**10 28 54.9**	**+0.8**
	3.5nm,0.8s,mb4.4,baz=90,slow=5.3,SNR=15						
NB2	**NORSAR Subarra**	**80.00**	**331**	P	**P**	**10 29 04.4**	**-1.2**
	3.4nm,1.0s,mb4.2,baz=91,slow=4.8						
NOA	**NORSAR Array B**	**80.00**	**331**	P	**P**	**10 29 05.7**	**+0.1**
	2.7nm,0.9s,mb4.2,baz=94,slow=5.6,SNR=4.8						
NOA				sP	sP	10 29 17.7	-1.9
	2.1nm,0.8s,baz=95,slow=5.4,SNR=3.7						
DAVOX	**Davos**	**80.36**	**316**	P	**P**	**10 29 08.2**	**+0.4**
	5.9nm,0.7s,mb4.6,baz=89,slow=6.2,SNR=8.8						
ESDC	**Sonseca Array**	**91.06**	**310**	P	**P**	**10 30 01.8**	**+0.9**
	0.4nm,0.5s,mb4.0,baz=45,slow=4.2,SNR=4.1						
TXAR	**Lajitas Array**	**140.34**	**23**	PKhKP		10 36 22.5	
	0.5nm,0.9s,baz=69,slow=1.7,SNR=3.6						
TXAR				PKP	PKPdf	10 36 26.9	+2.3
	0.2nm,0.6s,baz=358,slow=2.0,SNR=3.5						

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*IDC **26** 10:18:08.7±0.4, 8.96N×93.87E, mb5.0/29, mb1 5.1/30, mb1mx5.1/31, ML5.6/1, MS5.8/2, Ms1 5.9/2, ms1mx4.6/17, Error ellipse: s-maj=18.7km s-min=10.5km az=47.0*

*MOS **26** 10:18:12.5±1.3, 8.89N×93.79E, h33^{km}, mb5.5/51, Error ellipse: s-maj=9.8km s-min=5.8km az=111.3*

*BJI **26** 10:18:12.7, 8.75N×93.46E, h42^{km}, mB6.1, mb5.1, Ms6.3, Msz6.1*

*NEIC **26** 10:18:13.8±0.2, 8.86N×93.74E, h30^{km}, mb5.5/52, Error ellipse: s-maj=7.2km s-min=6.3km az=204.0*

*SYO **26** 10:18:13.4, 8.97N×93.72E, h14^{km}, MB5.5*

*HRVD **26** 10:18:13.8±0.8, 8.91N×94.11E, h33^{km}±1^{km}, MW6.3/53, Centroid moment Tensor Solution. LP body waves: s5,c5; Mantle waves: s53,c84; Half duration: 3^{s}3 Moment tensor: Scale 10^{18}Nm; M_{rr}3.80±.43; $M_{\theta\theta}$-3.19±.23; $M_{\phi\phi}$-0.60±.24; $M_{r\theta}$0.54±.17; $M_{\theta\phi}$-0.56±.12; $M_{\phi r}$1.57±.35; Best double couple: $M_0$3.87×10^{18} NP1:ϕ_s272°, δ40°, λ115°. NP2:ϕ_s61°, δ54°, λ70°. Principal axes: T 4.32, Plg72°, Azm279°; N -.9, Plg16°, Azm73°; P -3.41, Plg7°, Azm165°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 10:18:11.8±0.2**, 8.79N**±0.04×**93.75E**±0.03**, h30^{km}, (h17^{km}±.7^{km}:pP-P), n328, σ1^{s}26**/277**, mb5.3**/91**, MS6.1**/11**, 22C-6D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**10.85**	**27**	*e*P	**P**	**10 20 48.5**	**+0.1**
CMAR	**Chiang Mai Arr**	**10.85**	**27**	Pn	**P**	**10 20 48.6**	**+0.2**
	15nm,0.3s,baz=212,slow=15,SNR=42						
CMAR	**Chiang Mai Arr**	**10.85**	**27**	P	**P**	**10 20 48.6**	**+0.2**
CMAR				pmax	pmax		
	comp=Z,15nm,0.3s						
PALK	**Pallekele**	**13.01**	**264**	*e*P	**P**	**10 21 19.6**	**+2.2**
	comp=Z,190nm,1.3s						
VIS	**Vishakhapatnam**	**13.47**	**312**	⇑*e*P	**P**	**10 21 24.2**	**+0.7**
MDRS	**Chennai**	**13.92**	**289**	*e*P	**P**	**10 21 28.9**	**-0.7**
CAL	**Calcutta**	**14.62**	**340**	*e*	**P**	**10 21 47.2**	**+8.5**
AGT	**Agartala**	**15.19**	**351**	⇑*i*P	**P**	**10 21 46.0**	**-0.2**
AGT				*i*		10 23 14.0	
TRD	**Trivandrum**	**16.60**	**270**	⇑*e*P	**P**	**10 22 07.7**	**+3.4**
TRD				*e*		10 22 17.5	
	comp=Z,254nm,1.7s						
TRD				*e*		10 22 17.5	
	comp=Z,254nm,1.7s						
BOK	**Bokaro**	**16.71**	**334**	*e*	**P**	**10 22 00.1**	**-5.5**
	comp=Z,108nm,0.6s						
SHL	**Shillong**	**16.77**	**354**	⇑*i*P	**P**	**10 22 06.8**	**+0.4**
HYB	**Hyderabad**	**17.09**	**302**	*e*P	**P**	**10 22 16.0**	**+5.6**
HYB	**Hyderabad**	**17.09**	**302**	*i* P	**P**	**10 22 16.0**	**+5.6**
BLSP	**Bilaspur**	**17.34**	**321**	⇑*e*P	**P**	**10 22 14.3**	**+0.9**
KMI	**Kunming**	**18.36**	**27**	*e*P	**P**	**10 22 29.5**	**+3.3**
KMI				AMB	AMB		
	comp=Z,235nm,2.0s						
QIZ	**Qiongzhong**	**18.63**	**55**	P	**P**	**10 22 30.3**	**+0.8**
QIZ	**Qiongzhong**	**18.63**	**55**	*e*P	**P**	**10 22 29.8**	**+0.4**
	comp=Z,146nm,1.1s						
MNGI	**Mangalore**	**19.03**	**284**	*i* P	**P**	**10 22 36.4**	**+2.1**
ALBI	**Allahabad**	**19.97**	**327**	⇑*i*	**P**	**10 22 48.5**	**+3.6**
AKL	**Akola**	**20.02**	**308**	⇑*e*	**P**	**10 22 49.6**	**+4.3**
PKI	**Pulchoki**	**20.27**	**338**	*e*P	**P**	**10 22 47.7**	**-0.2**
	comp=Z,3μm,1.5s						
GUN	**Gumba**	**20.41**	**340**	*e*P	**P**	**10 22 49.3**	**-0.1**
	comp=Z,4μm,1.4s						
DMN	**Daman**	**20.42**	**338**	*e*P	**P**	**10 22 49.8**	**+0.4**
	comp=Z,1μm,1.3s						
MNCY	**Minicoy**	**20.49**	**270**	⇓*i*	**P**	**10 22 58.0**	**+7.8**
MNCY				*i*	**S**	**10 26 30.0**	**-3.0**
KKN	**Kakani**	**20.52**	**338**	*e*P	**P**	**10 22 50.1**	**-0.3**
	comp=Z,2μm,1.5s						
GOA	**Goa**	**20.57**	**291**	⇑*i*		10 23 10.2	
KAD	**Karad**	**20.84**	**296**	⇑*e*P	**P**	**10 22 53.7**	**0.0**
KAD				*e*		10 22 58.7	
LSA	**Lhasa**	**20.94**	**354**	P	**P**	**10 22 53.0**	**-1.8**
LSA				XS		10 27 03.5	
LSA				LR	LR		
	comp=N,22μm,17.6s,MS6.0						
LSA				LR	LR		
	comp=E,52μm,14.9s,MS6.0						
LSA				LR	LR		
	comp=Z,54μm,13.9s,MS6.1						
LSA	**Lhasa**	**20.94**	**354**	*e*P	**P**	**10 22 54.2**	**-0.6**
LSA				pmax	pmax		
	comp=Z,220nm,0.8s						
LSA	**Lhasa**	**20.94**	**354**	*e*P	**P**	**10 22 54.2**	**-0.6**
	comp=Z,218nm,0.8s						
GKN	**Gorkha**	**20.95**	**337**	*e*P	**P**	**10 22 54.9**	**0.0**
	comp=Z,2μm,1.2s						
COCO	**West Island**	**21.07**	**172**	*e*P	**P**	**10 22 59.1**	**+2.9**
	comp=Z,1μm,1.4s,mb6.0						
KOLN	**Koldanda**	**21.17**	**334**	*e*P	**P**	**10 22 57.6**	**+0.5**
	comp=Z,517nm,0.8s,mb5.9						
BHPL	**Bhopal**	**21.24**	**314**	⇑*e*P	**P**	**10 23 00.4**	**+2.6**
BHPL				*e*		10 23 05.7	
	comp=Z,369nm,1.7s						
GYA	**Guiyang**	**21.42**	**33**	⇑*i*P	**P**	**10 23 00.3**	**+0.7**
GYA				S	**S**	**10 27 00.0**	**+9.3**
GYA				AMB	AMB		
	comp=Z,140nm,1.1s,mb5.2						
GYA				AMB	AMB		
	comp=Z,11μm,11.6s						
GYA				LR	LR		
	comp=N,49μm,13.2s,MS6.2						
GYA				LR	LR		
	comp=E,42μm,13.2s,MS6.2						
GYA				LR	LR		
	comp=Z,62μm,15.6s,MS6.1						
POO	**Poona**	**21.60**	**299**	⇑*e*P	**P**	**10 23 06.2**	**+4.7**
POO				*e*		10 23 15.4	
	comp=Z,248nm,1.7s						
BOM	**Bombay**	**22.64**	**299**	⇑*e*P	**P**	**10 23 14.8**	**+2.8**
GZH	**Guangzhou**	**23.56**	**51**	P	**P**	**10 23 27.0**	**+6.2**
GZH				LR	LR		
	comp=N,79μm,11.0s,MS6.5						
GZH				LR	LR		
	comp=E,57μm,10.6s,MS6.5						
GZH				LR	LR		
	comp=Z,76μm,13.4s,MS6.3						
CD2	**Chengdu**	**23.91**	**22**	P	**P**	**10 23 26.0**	**+1.9**
CD2				S	**S**	**10 27 37.5**	**+2.2**
CD2				AMB	AMB		
	comp=Z,540nm,1.2s,mb5.8						
CD2				LR	LR		
	comp=N,56μm,21.6s						
CD2				LR	LR		
	comp=Z,54μm,17.4s,MS6.1						
NDI	**New Delhi**	**25.17**	**324**	*e*P	**P**	**10 23 37.0**	**+0.7**
AJM	**Ajmer**	**25.25**	**317**	⇑*e*P	**P**	**10 23 40.9**	**+3.8**
ENH	**Enshi**	**25.95**	**32**	*e*P	**P**	**10 23 43.9**	**+0.3**
	comp=Z,606nm,1.7s,mb5.8						
BHJ	**Bhuj**	**27.19**	**305**	⇑*e*P	pP	10 24 01.8	-2.0
LQP	**Lukban**	**27.73**	**76**	⇓*e*P	**P**	**10 23 59.2**	**-0.8**
QZH	**Quanzhou**	**28.61**	**53**	P	**P**	**10 24 08.5**	**+0.7**
LZH	**Lanzhou**	**28.68**	**17**	*e*P	**P**	**10 24 09.3**	**+0.9**
LZH				PP	PP	10 25 01.3	0.0
LZH				*e*S	**S**	**10 28 57.0**	**+3.0**
LZH				SS	SS	10 30 24.0	+2.7
LZH				AMB	AMB		
	comp=Z,172nm,1.4s,mb5.6						
LZH				AMB	AMB		
	comp=Z,820nm,5.3s						
LZH				LR	LR		
	comp=E,23μm,16.2s						
LZH				LR	LR		
	comp=Z,44μm,19.0s,MS6.1						
WHN	**Wuhan**	**28.96**	**39**	*e*P	**P**	**10 24 11.5**	**+0.6**
GTA	**Gaotai**	**30.97**	**9**	P	**P**	**10 24 28.3**	**-0.4**
GTA				S	**S**	**10 29 36.0**	**+5.8**
GTA				AMB	AMB		
	comp=Z,30nm,1.4s,mb4.9						
GTA				AMB	AMB		
	comp=Z,1μm,8.4s						
GTA				LR	LR		
	comp=N,7μm,13.7s						
GTA				LR	LR		
	comp=E,12μm,25.1s						
GTA				LR	LR		
	comp=Z,11μm,12.5s,MS5.7						
DAV	**Davao City (W)**	**31.57**	**91**	*e*P	**P**	**10 24 35.0**	**+0.7**
NJ2	**Nanjing**	**32.84**	**42**	*e*P	**P**	**10 24 45.3**	**+0.2**
NJ2				AMB	AMB		
	comp=Z,90nm,0.8s,mb5.8						
SSE	**Sheshan**	**33.84**	**45**	*e*P	**P**	**10 24 55.5**	**+1.6**
SSE				AMB	AMB		
	comp=Z,58nm,1.5s,mb5.3						
SSE				AMB	AMB		
	comp=Z,6μm,11.6s						
WMQ	**Urumqi**	**35.29**	**352**	P	**P**	**10 25 06.5**	**+0.3**
WMQ				AMB	AMB		
	comp=Z,13nm,0.7s,mb5.0						
HHC	**Hu-ho-hao-te**	**35.63**	**23**	*e*P	**P**	**10 25 10.0**	**+0.9**
HHC				PP	PP	10 26 29.0	-0.9
HHC				PCP	PcP	10 27 41.0	+3.4
HHC				S	**S**	**10 30 42.0**	**-0.6**
HHC				SCS	ScS	10 35 26.8	+3.3
HHC				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.2						
HHC				AMB	AMB		
	comp=Z,6μm,11.3s						
HHC				LR	LR		
	comp=N,17μm,16.7s,MS6.0						
HHC				LR	LR		
	comp=E,11μm,16.7s,MS6.0						
HHC				LR	LR		
	comp=Z,21μm,11.9s,MS6.1						
KZA	**Kyzart**	**36.94**	**337**	P	**P**	**10 25 22.6**	**+2.5**
	SNR=17						
BJT	**Baijiatuau**	**36.97**	**29**	P	**P**	**10 25 20.9**	**+0.5**
BJT				pmax	pmax		
	comp=Z,78nm,1.2s						
BJT	**Baijiatuau**	**36.97**	**29**	*e*P	**P**	**10 25 20.3**	**-0.1**
	comp=Z,78nm,1.2s,mb5.4						
BJI	**Beijing**	**36.99**	**29**	P	**P**	**10 25 23.0**	**+2.4**
BJI				AMB	AMB		
	comp=Z,66nm,1.5s,mb5.2						
BJI				LR	LR		
	comp=N,37μm,18.9s,MS6.3						
BJI				LR	LR		
	comp=E,33μm,16.9s,MS6.3						
BJI				LR	LR		
	comp=Z,36μm,19.4s,MS6.2						
JOW	**Kunigami**	**37.27**	**57**	P	**P**	**10 25 24.0**	**+1.0**
	comp=Z,26nm,0.6s,mb5.2,baz=269,slow=11,SNR=8.2						
UCH	**Uchtor**	**37.36**	**336**	P	**P**	**10 25 24.1**	**+0.5**
	SNR=19						
TKM2	**Tokmak 2**	**37.53**	**338**	P	**P**	**10 25 24.8**	**-0.4**
	SNR=16						
KBK	**Karagaybulak**	**37.55**	**337**	P	**P**	**10 25 26.0**	**+0.7**
	SNR=22						
AML	**Almayashu**	**37.61**	**335**	P	**P**	**10 25 26.8**	**+1.1**
	SNR=8.6						
AAK	**Ala-Archa**	**37.71**	**337**	P	**P**	**10 25 29.3**	**+2.7**
	SNR=38						
AAK	**Ala-Archa**	**37.71**	**337**	*e*P	**P**	**10 25 26.6**	**0.0**
AAK				pmax	pmax		
	comp=Z,150nm,1.0s,mb5.7						
AAK	**Ala-Archa**	**37.71**	**337**	*e*P	**P**	**10 25 25.8**	**-0.7**
	comp=Z,153nm,1.0s,mb5.7						
FRU	**Bishkek**	**37.83**	**337**	*e*P	**P**	**10 25 29.5**	**+1.9**
FRU				MLR	MLR		
	comp=Z,44μm,18.0s,MS6.3						
CHMS	**Chumysh**	**37.92**	**337**	P	**P**	**10 25 28.2**	**-0.2**
	SNR=26						
EKS2	**Erkin-Say**	**38.02**	**336**	P	**P**	**10 25 29.8**	**+0.6**
	SNR=31						
USP	**Ospenovka**	**38.24**	**337**	P	**P**	**10 25 31.0**	**-0.1**
	SNR=39						
DL2	**Dalian**	**39.04**	**35**	P	**P**	**10 25 39.5**	**+1.7**
DL2				AMB	AMB		
	comp=Z,50nm,1.7s,mb5.0						
MBWA	**Marble Bar**	**39.21**	**140**	*e*P	**P**	**10 25 40.3**	**+0.9**
SONM	**Songino Array**	**40.36**	**13**	P	**P**	**10 25 47.8**	**-0.7**
	comp=Z,26nm,1.2s,mb4.9,baz=198,slow=7.8,SNR=15						
ULN	**Ulaanbaatar**	**40.54**	**14**	P	**P**	**10 25 51.7**	**+1.7**
ULN				pmax	pmax		
	comp=Z,55nm,1.3s,mb5.0						
ULN	**Ulaanbaatar**	**40.54**	**14**	*e*P	**P**	**10 25 50.1**	**+0.1**
	comp=Z,55nm,1.4s,mb5.0						
INCN	**Inchon**	**41.21**	**41**	P	**P**	**10 25 53.8**	**-1.9**
	comp=Z,328nm,1.8s,mb5.7						
KS15	**Wonju Array Si**	**42.00**	**42**	*e*P	**P**	**10 26 04.1**	**+1.8**
SNY	**Shenyang**	**42.12**	**34**	⇑P	**P**	**10 26 03.0**	**-0.1**
SNY				AMB	AMB		
	comp=Z,100nm,2.6s,mb5.0						
MOY	**Mondy**	**43.16**	**7**	*e*P	**P**	**10 26 12.4**	**+1.0**
TLY	**Talaya**	**43.52**	**9**	P	**P**	**10 26 16.0**	**+1.6**
TLY	**Talaya**	**43.52**	**9**	*e*P	**P**	**10 26 15.7**	**+1.2**
CN2	**Changchun**	**44.47**	**33**	*e*P	**P**	**10 26 21.5**	**-0.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
ZAL	**Zalesovo**	**45.59**	**353**	P	**P**	**10 26 30.6**	**-0.4**
	comp=Z,36nm,0.9s,mb5.3,baz=316,slow=5.8,SNR=24						
ZAL				LR	LR	10 50 10.2	
	comp=Z,25μm,18.2s,MS6.2,baz=292,slow=42						
ZAL	**Zalesovo**	**45.59**	**353**	P	**P**	**10 26 30.6**	**-0.4**
ZAL				pmax	pmax		

	comp=Z,36nm,0.9s						
ZAL				MLR	MLR		
	comp=Z,25µm,18.2s						
HIA	Hailar	45.84	24	P	P	10 26 33.7	+0.7
HIA				pmax	pmax		
	comp=Z,25nm,0.8s						
HIA	Hailar	45.84	24	*e*P	P	10 26 32.4	-0.6
	comp=Z,24nm,0.8s,mb5.2						
NVS	Novosibirsk	46.68	352	*i* P	P	10 26 37.8	-1.8
NVS				pmax	pmax		
	comp=Z,173nm,1.4s,mb5.8						
NVS				pmax	pmax		
	comp=E,60nm,1.1s						
NVS				pmax	pmax		
	comp=N,151nm,1.4s						
NVS				smax			
	comp=E,230nm,2.0s						
NVS				smax			
	comp=N,36nm,1.4s						
NWAO	Narrogin (SRO)	47.14	153	P	P	10 26 43.5	0.0
	comp=N,84nm,0.8s,mb5.7,baz=331,slow=8.2,SNR=17						
NWAO	Narrogin (SRO)	47.14	153	P	P	10 26 43.5	0.0
NWAO				pmax	pmax		
	comp=Z,84nm,0.9s						
NWAO	Narrogin (SRO)	47.14	153	*e*P	P	10 26 43.2	-0.3
	comp=Z,72nm,0.9s,mb5.6						
MDJ	Mudanjiang	47.27	35	P	P	10 26 45.0	+0.6
MDJ				AMB	AMB		
	comp=Z,57nm,1.9s,mb5.2						
MDJ	Mudanjiang	47.27	35	P	P	10 26 45.4	+1.0
	comp=Z,580nm,2.5s,mb6.1						
BVAR	Borovoye Array	48.00	341	P	P	10 26 48.4	-1.6
	comp=Z,18nm,0.8s,mb5.2,baz=142,slow=9.2,SNR=26						
BRVK	Borovoye	48.06	341	P	P	10 26 49.0	-1.5
BRVK				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.4						
BRVK	Borovoye	48.06	341	*e*P	P	10 26 48.8	-1.7
	comp=Z,44nm,1.0s,mb5.4						
CHKZ	Chkalovo	48.48	342	P	P	10 26 52.8	-0.9
CHKZ				pmax	pmax		
	comp=Z,72nm,1.0s,mb5.7						
CHKZ	Chkalovo	48.48	342	*e*P	P	10 26 52.1	-1.6
	comp=Z,72nm,1.0s,mb5.7						
MZLS	Mizel	48.71	294	P	P	10 26 58.4	+2.5
MAJO	Matsushiro	48.84	49	P	P	10 26 58.0	+1.3
MAJO				pmax	pmax		
	comp=Z,400nm,2.2s,mb6.1						
MAJO	Matsushiro	48.84	49	*e*P	P	10 26 55.1	-1.6
	comp=Z,404nm,2.2s,mb6.1						
MAT	Matsushiro	48.84	49	P	P	10 26 56.9	+0.2
MAT	Matsushiro	48.84	49	*e*P	P	10 26 57.0	+0.3
	comp=Z,556nm,2.5s,mb6.2						
WRA	Warramunga Arr	49.11	126	P	P	10 26 57.2	-1.8
	comp=Z,8.6nm,0.6s,mb5.0,baz=301,slow=9.8,SNR=13						
WRA	Warramunga Arr	49.11	126	P	P	10 26 57.2	-1.8
WRA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
WRAB	Tennant Creek	49.12	126	P	P	10 26 59.0	-0.1
WRAB				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.4						
WRAB	Tennant Creek	49.12	126	*e*P	P	10 26 57.8	-1.2
	comp=Z,36nm,0.9s,mb5.4						
CBIJ	Chichi jima	49.20	62	LR	LR	10 48 26.4	
	comp=Z,5µm,20.7s,MS5.5,baz=82,slow=37						
DJNS	Zahran al Janu	49.54	286	P	pP	10 27 08.2	-3.3
AFFS	‘Afif	50.69	294	P	P	10 27 13.7	+2.6
ARSS	Ar Rass	50.79	296	P	P	10 27 13.2	+1.5
ASAR	Alice Springs	50.80	130	P	P	10 27 09.4	-2.5
	comp=Z,6.7nm,0.7s,mb4.7,baz=304,slow=6.9,SNR=9.1						
NAMS	An Nimas	50.90	287	P	P	10 27 18.3	+5.6
KLR	Kul’dur	51.30	31	⇓*i*P	P	10 27 16.0	+0.7
KLR				pmax	pmax		
	comp=N,90nm,2.4s						
KLR				pmax	pmax		
	comp=E,150nm,2.4s						
KLR				pmax	pmax		
	comp=Z,170nm,2.4s,mb5.5						
BOD	Bodaibo	51.35	14	*e*P	P	10 27 13.5	-2.1
HILS	Ha’il	52.33	298	P	P	10 27 24.6	+1.2
GNI	Garni	53.52	314	P	P	10 27 32.2	+0.1
	comp=Z,2.8nm,0.4s,mb4.5,baz=307,slow=7.3,SNR=4.3						
GNI	Garni	53.52	314	*e*P	P	10 27 34.1	+2.0
GNI				pmax	pmax		
	comp=Z,130nm,1.4s						
GNI	Garni	53.52	314	*e*P	P	10 27 32.2	+0.2
	comp=Z,131nm,1.4s,mb5.7						
ARU	Arti	54.90	337	*e*P	P	10 27 41.1	-0.9
ARU				pmax	pmax		
	comp=Z,47nm,1.1s,mb5.4						
ARU	Arti	54.90	337	*e*P	P	10 27 40.9	-1.1
	comp=Z,47nm,1.1s,mb5.4						
YNBS	Yanbu‘ al Bahr	55.28	293	P	P	10 27 47.3	+2.1
ERZM	Erzurum	55.87	313	*i* P	P	10 27 49.5	+0.3
UMJS	Umm Lajj	55.99	294	P	P	10 27 52.3	+2.0
PMG	Port Moresby	56.17	108	P	P	10 27 51.6	-0.1
	comp=Z,54nm,0.8s,mb5.6,baz=301,slow=5.0,SNR=24						
PMG	Port Moresby	56.17	108	P	P	10 27 51.6	-0.1
PMG				pmax	pmax		
	comp=Z,54nm,0.8s						
PMG	Port Moresby	56.17	108	*e*P	P	10 27 51.7	0.0
	comp=Z,64nm,0.8s,mb5.7						
YSS	Yuzh-Sakhalins	56.30	38	*e*P	P	10 27 49.0	-3.2
KIV	Kislovodsk	56.38	318	P	P	10 27 52.7	-0.1
	comp=Z,176nm,1.2s,mb6.0,SNR=9.1						
KIV	Kislovodsk	56.38	318	*e*P	P	10 27 51.0	-1.8
KIV				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.4						
KIV				pmax	pmax		
	comp=N,13nm,0.9s						
KIV	Kislovodsk	56.38	318	P	P	10 27 51.6	-1.2
	comp=N,18nm,0.6s,mb5.3						
GOF	Gofitskoye	56.58	319	*e*P	P	10 27 54.0	-0.3
GOF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.4						
TBKS	Tabuk	57.05	298	P	P	10 27 59.0	+1.2
KMBO	Kilima Mbogo	57.14	263	P	P	10 28 00.6	+1.9
	comp=Z,23nm,1.1s,mb5.1,baz=55,slow=9.6,SNR=26						
KMBO	Kilima Mbogo	57.14	263	P	P	10 28 00.6	+1.9
KMBO				pmax	pmax		
	comp=Z,23nm,1.1s						
KMBO	Kilima Mbogo	57.14	263	*e*P	P	10 28 00.9	+2.2
	comp=Z,57nm,1.4s,mb5.4						
ELZG	Elazig	57.20	310	*i* P	P	10 27 57.8	-1.0
MALT	Malatya	57.58	310	*e*P	P	10 28 00.9	-0.5
MALT				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
GZT	Gaziantep	57.99	309	*i* P	P	10 28 02.7	-1.5
BDAS	Al Bad‘	58.34	298	P	P	10 28 07.6	+0.8
JMOS	Jabal al Moall	58.43	299	P	P	10 28 08.5	+1.0
HAQS	Haql	58.57	299	P	P	10 28 09.1	+0.6
EIL	Elat	58.64	299	P	P	10 28 08.4	-0.5
	comp=Z,8.2nm,0.7s,mb4.9,baz=338,slow=4.5,SNR=6.8						
EIL	Elat	58.64	299	*e*P	P	10 28 08.1	-0.8
	comp=Z,24nm,0.9s,mb5.2						
COBT	Iskenderun	58.81	307	*i* P	P	10 28 09.0	-1.0
CTA	Charters Tower	59.10	120	P	P	10 28 11.6	-0.7
	comp=Z,16nm,0.9s,mb5.1,baz=295,slow=8.9,SNR=11						
CTA	Charters Tower	59.10	120	P	P	10 28 11.6	-0.6
CTA				pmax	pmax		
	comp=Z,16nm,0.9s						
YAK	Yakutsk	59.25	19	P	P	10 28 12.3	-0.4
YAK				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.5						
YAK	Yakutsk	59.25	19	*e*P	P	10 28 12.1	-0.6
	comp=Z,36nm,0.7s,mb5.5						
AVNT	Avonos	60.40	310	*i* P	P	10 28 19.4	-1.6
MEST	Erdemli	60.48	307	*i* P	P	10 28 19.4	-2.1
CSS	Prodhromos	60.83	305	P	P	10 28 25.3	+1.4
	comp=Z,11nm,0.8s,mb5.0						
CTKT	Corum	60.89	312	*i* P	P	10 28 22.3	-2.0
BOYT	Boyabat	61.01	313	*i* P	P	10 28 22.8	-2.2
STKA	Stephens Creek	61.02	134	P	P	10 28 23.6	-1.7
	comp=Z,9.9nm,0.9s,mb4.9,baz=311,slow=7.2,SNR=7.9						
STKA	Stephens Creek	61.02	134	*e*P	P	10 28 23.9	-1.3
BRTR	Keskin Array B	61.54	310	P	P	10 28 26.3	-2.4
	comp=Z,13nm,0.8s,mb5.1,baz=123,slow=6.4,SNR=16						
BRTR	Keskin Array B	61.54	310	P	P	10 28 26.3	-2.4
BRTR				pmax	pmax		
	comp=Z,13nm,0.8s						
CANT	Cankiri	61.75	311	P	P	10 28 28.8	-1.3
ELDT	Eldivan	61.87	311	*i* P	P	10 28 29.3	-1.6
BALT	Daday	62.14	312	*i* P	P	10 28 31.2	-1.5
SAFT	Safranbolu	62.58	312	P	P	10 28 34.2	-1.5
SGKT	Sivrigoynuk	62.91	311	*i* P	P	10 28 35.8	-2.0
MBAR	Mbarara	63.45	265	P	P	10 28 42.9	+1.2
MBAR				pmax	pmax		
	comp=Z,59nm,1.4s,mb5.5						
MBAR	Mbarara	63.45	265	*e*P	P	10 28 42.1	+0.4
	comp=Z,59nm,1.4s,mb5.5						
ISP	Isparta	63.57	308	P	P	10 28 44.0	+1.8
ISP				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
ISP	Isparta	63.57	308	*e*P	P	10 28 42.5	+0.3
	comp=Z,20nm,0.9s,mb5.2						
ESKT	Eskisehir	63.60	310	*i* P	P	10 28 40.4	-2.1
HENT	Hendek	63.82	311	*i* P	P	10 28 40.5	-3.3
MOS	Moscow	64.10	329	*e*P	P	10 28 43.1	-2.3
MOS				pmax	pmax		
	comp=Z,85nm,0.8s,mb5.8						
OBN	Obninsk	64.40	328	⇑*e*P	P	10 28 47.2	-0.1
OBN				pmax	pmax		
	comp=Z,84nm,1.5s,mb5.5						
OBN	Obninsk	64.40	328	*e*P	P	10 28 47.5	+0.1
	comp=Z,152nm,1.5s,mb5.8						
ULDT	Uludag	65.01	310	*i* P	P	10 28 49.6	-2.0
MA2	Magadan	66.14	28	*e*P	P	10 29 00.4	+2.0
MA2	Magadan	66.14	28	*e*P	P	10 28 57.6	-0.8
	comp=Z,252nm,1.9s,mb5.9						
KDAG	Bornova	66.18	308	*i* P	P	10 28 59.4	+0.3
CFR	Carcaliu	66.67	315	⇑*i*P	P	10 29 01.8	-0.3
CFR	Carcaliu	66.67	315	⇑*i*P	P	10 29 01.8	-0.3
AKASG	Malin Array Be	67.20	321	P	P	10 29 02.8	-2.6
	comp=Z,3.7nm,0.5s,mb4.7,baz=88,slow=5.0,SNR=14						
AKASG	Malin Array Be	67.20	321	P	P	10 29 02.8	-2.5
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.5s						
IDI	Anoyia	67.73	304	P	P	10 29 07.4	-1.6
	comp=Z,17nm,0.9s,mb5.1,baz=103,slow=11,SNR=4.2						
VRI	Vrincioaia	67.77	316	⇑*i*P	P	10 29 08.2	-0.8
VRI	Vrincioaia	67.77	316	⇑*i*P	P	10 29 08.2	-0.9
MLR	Muntele Rosu	68.25	315	P	P	10 29 11.1	-0.9
	comp=Z,22nm,0.8s,mb5.2,baz=206,slow=2.3,SNR=11						
MLR	Muntele Rosu	68.25	315	P	P	10 29 11.1	-0.9
MLR				pmax	pmax		
	comp=Z,22nm,0.9s						
SEY	Seymchan	68.26	25	*e*P	P	10 29 11.4	-0.4
RZN	Rozhen	68.56	311	*e*P	P	10 29 13.0	-1.0
MNK	Minsk	68.98	325	*e*P	P	10 29 15.0	-1.4
LSZ	Lusaka	69.21	250	P	P	10 29 20.0	+1.6
LSZ				pmax	pmax		
	comp=Z,59nm,1.3s,mb5.4						
LSZ	Lusaka	69.21	250	*e*P	P	10 29 19.7	+1.2
	comp=Z,59nm,1.3s,mb5.4						
MMB	Musomiste	69.28	311	*e*P	P	10 29 18.0	-0.5
VTS	Vitosha	69.78	312	*e*P	P	10 29 19.0	-2.5
KKB	Krupnik	69.79	311	*e*P	P	10 29 20.0	-1.6
APA	Apatity	70.86	339	⇓*i*P	P	10 29 28.0	+0.4
APA				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
KWP	Kalwaria	71.08	319	*e*P	P	10 29 28.5	-0.8
KWP				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.4						
KWP	Kalwaria	71.08	319	*e*P	P	10 29 28.4	-0.9
	comp=Z,49nm,1.0s,mb5.4						
KOLS	Kolonicke sedl	71.26	319	*e*P	P	10 29 30.7	+0.3
KOLS				*e*	pP	10 29 36.3	-3.5
SUW	Suwalki	71.54	324	*e*P	P	10 29 31.0	-0.9
SUW				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.6						
SUW	Suwalki	71.54	324	*e*P	P	10 29 30.7	-1.2
	comp=Z,88nm,1.0s,mb5.6						
FINES	FINESS Array B	71.72	332	P	P	10 29 31.2	-1.7
	comp=Z,7.7nm,0.7s,mb4.8,baz=98,slow=6.9,SNR=15						
FINES	FINESS Array B	71.72	332	P	P	10 29 31.2	-1.7
FINES				pmax	pmax		
	comp=Z,8.0nm,0.7s						
CRVS	Cervenica-Dubn	71.79	319	*e*	P	10 29 36.4	+2.9
CRVS				*e*pP	pP	10 29 42.2	-0.7
KAF	Kangasniemi	71.80	333	*e*p	P	10 29 32.3	-1.1
	comp=Z,7.2nm,0.5s,mb4.9,baz=104,slow=5.7						
KAF	Kangasniemi	71.80	333	*e*P	P	10 29 32.3	-1.1
KAF				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
KECS	Kecovo	72.38	318	*e*	P	10 29 41.0	+4.0
KECS				*e*pP	pP	10 29 45.8	-0.6
PSZ	Piszkesteto	72.70	317	P	P	10 29 38.7	-0.3
PSZ				pmax	pmax		
	comp=Z,53nm,1.4s,mb5.3						
PSZ	Piszkesteto	72.70	317	*e*P	P	10 29 38.9	-0.1
	comp=Z,53nm,1.4s,mb5.3						
PSZ				*e*	pP	10 29 43.8	-4.6
PKSM	Moragy	73.40	316	*e*P	P	10 29 41.3	-1.8
VYHS	Vyhne	73.47	318	*e*P	P	10 29 42.7	-0.7
RHK1	Bakonya	73.78	315	*e*P	pP	10 29 50.0	-4.7
KEV	Kevo	73.84	341	*e*p	P	10 29 44.3	-0.9
OKC	Ostrava-Krasne	74.04	319	*e*P	P	10 29 47.0	+0.3
ARCES	ARCESS Array B	74.27	340	P	P	10 29 47.5	-0.2
	comp=Z,16nm,0.8s,mb5.0,baz=88,slow=3.4,SNR=25						
ARCES	ARCESS Array B	74.27	340	P	P	10 29 47.5	-0.2
ARCES				pmax	pmax		
	comp=Z,16nm,0.8s						
ARE0	ARCESS Array S	74.27	340	*e*P	P	10 29 47.1	-0.6
MORC	Moravsky Berou	74.43	319	P	P	10 29 49.0	0.0
MORC				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.3						
MORC	Moravsky Berou	74.43	319	*e*P	P	10 29 48.6	-0.3
	comp=Z,46nm,1.2s,mb5.3						
ZST	Bratislava	74.59	318	*e*P	P	10 29 49.8	-0.2
ZST				*e*		10 29 55.3	
VRAC	Vranov	75.01	319	P	P	10 29 51.2	-1.1
	baz=103,slow=7.5						
DPC	Dobruska-Polom	75.26	320	*e*P	P	10 29 54.2	+0.5
KSP	Ksiaz	75.31	320	*e*P	P	10 29 53.7	-0.3
BILL	Bilibino	75.38	22	P	P	10 29 54.9	+0.8
BILL				pmax	pmax		
	comp=Z,71nm,1.6s,mb5.3						
BILL	Bilibino	75.38	22	P	P	10 29 55.0	+0.9
	comp=Z,71nm,1.6s,mb5.3						
UPC	Upice	75.47	320	*e*P	P	10 29 54.8	-0.1
BOSA	Boshof	75.74	238	P	P	10 29 58.4	+1.4
BOSA				pmax	pmax		
	comp=Z,79nm,1.2s,mb5.5						
BOSA	Boshof	75.74	238	*e*P	P	10 29 58.0	+1.0
	comp=Z,78nm,1.3s,mb5.5						
PRU	Pruhonice	76.38	319	*e*P	P	10 29 59.9	-0.2
PVCC	Panska Ves	76.39	320	*e*P	P	10 30 01.9	+1.8
FX1	Attu Island--F	76.66	38	P	P	10 29 59.6	-2.0
	comp=Z,21nm,0.8s,mb5.1,baz=94,slow=16,SNR=2.6						
FX1	Attu Island--F	76.66	38	P	P	10 29 59.6	-2.0
FX1				pmax	pmax		
	comp=Z,21nm,0.9s						
BRG	Berggiesshubel	76.80	320	*i* P	P	10 30 02.8	+0.4
BRG				*i*		10 30 14.7	
BRG				pmax	pmax		
	comp=Z,92nm,1.7s,mb5.4						
BRG	Berggiesshubel	76.80	320	*i* P	P	10 30 02.8	+0.4
	comp=Z,92nm,1.7s,mb5.4						
BRG				*i*		10 30 14.7	
GERES	GERESS Array B	76.89	318	P	P	10 30 02.7	-0.2
	comp=Z,15nm,0.9s,mb4.9,baz=86,slow=5.4,SNR=17						
GERES	GERESS Array B	76.89	318	P	P	10 30 02.7	-0.2
GERES				pmax	pmax		
	comp=Z,15nm,0.9s						
RUE	Ruedersdorf	76.97	322	*e*P	P	10 30 03.2	-0.1
	comp=Z,60nm,0.9s,mb5.5						
KHC	Kasperske Hory	76.97	318	*e*P	P	10 30 03.0	-0.4
CLL	Collm	77.41	321	*e*P	P	10 30 05.0	-0.8
CLL				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
CLL	Collm	77.41	321	*e*P	P	10 30 05.0	-0.8
	comp=Z,22nm,1.0s,mb5.0						
CLL				*i*		10 30 08.8	
CLL	Collm	77.41	321	P	P	10 30 05.0	-0.8
CLL				*i*		10 30 08.8	
CLL				*i* *SP	sP	10 30 17.7	-0.8
NKC	Novy Kostel	77.73	319	*e*P	P	10 30 09.2	+1.6
NB2	NORSAR Subarra	78.74	331	P	P	10 30 11.5	-1.4
	comp=Z,20nm,0.8s,mb5.1,baz=92,slow=5.6						
NB2	NORSAR Subarra	78.74	331	P	P	10 30 11.5	-1.4
	baz=92,slow=5.9						
NOA	NORSAR Array B	78.74	331	P	P	10 30 11.9	-1.0
	comp=Z,12nm,0.8s,mb4.9,baz=93,slow=5.6,SNR=23						
NOA	NORSAR Array B	78.74	331	P	P	10 30 11.9	-1.0
NOA				pmax	pmax		
	comp=Z,12nm,0.8s						
NAO01	NORSAR Array S	78.90	330	*e*P	P	10 30 12.6	-1.1
	comp=Z,21nm,0.8s,mb5.1						
MAW	Mawson	79.35	192	P	P	10 30 17.8	+1.7
	comp=Z,20nm,0.9s,mb5.0,baz=81,slow=5.4,SNR=8.2						
MAW	Mawson	79.35	192	P	P	10 30 17.8	+1.7
MAW				pmax	pmax		
	comp=Z,20nm,0.9s						
DAVOX	Davos	79.46	316	P	P	10 30 17.0	-0.1
	comp=Z,17nm,0.8s,mb5.0,baz=132,slow=5.7,SNR=10						
MUD	Monsted U’grnd	79.73	326	*e*P	P	10 30 16.7	-1.7
MUD	Monsted U’grnd	79.73	326	*i* P	P	10 30 16.7	-1.7
STU	Stuttgart	79.86	318	P	P	10 30 20.6	+1.4
STU				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
STU	Stuttgart	79.86	318	*e*P	P	10 30 19.3	+0.1
	comp=Z,12nm,0.7s,mb4.9						
SUR	Sutherland	80.53	235	*e*P	P	10 30 25.9	+2.7
	comp=Z,118nm,1.4s,mb5.6						
LPG	La Plagne	81.70	315	*e*P	P	10 30 28.8	-0.2
	comp=Z,64nm,0.8s,mb5.3						
BNI	Bardonecchia	81.78	314	P	P	10 30 31.6	+2.2
BNI				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
BNI	Bardonecchia	81.78	314	*e*P	P	10 30 31.2	+1.8
	comp=Z,40nm,0.9s,mb5.3						
SYO	Syowa Base	86.17	197	⇓P	Px	10 30 56.7	
SYO	Syowa Base	86.17	197	⇓PcP	pP	10 30 58.9	-1.8
DAG	Danmarks Havn	86.50	348	*e*P	P	10 30 52.0	-0.6
DAG				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
DAG	Danmarks Havn	86.50	348	*e*P	P	10 30 52.0	-0.6
	comp=Z,8.4nm,0.9s,mb5.0						
DAG	Danmarks Havn	86.50	348	*i* P	P	10 30 52.0	-0.6
	comp=Z,8.4nm,0.9s,mb5.0						
ESK	Eskdalemuir	86.78	325	P	P	10 30 56.4	+2.0
ESK				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.6						
ESK	Eskdalemuir	86.78	325	*e*P	P	10 30 54.4	0.0
	comp=Z,41nm,1.0s,mb5.6						
URZ	Urewera	90.21	129	P	P	10 31 10.8	-0.4
	comp=Z,13nm,1.0s,mb5.2,baz=195,slow=4.2,SNR=3.3						
ESDC	Sonseca Array	90.33	310	P	P	10 31 12.1	+0.4
	comp=Z,21nm,1.2s,mb5.3,baz=50,slow=4.3,SNR=23						
IMA	Indian Mountai	90.92	22	*e*P	P	10 31 14.8	+1.0
	comp=Z,188nm,0.9s,mb6.4						
SUMG	Summit	93.17	347	*e*P	P	10 31 26.1	+2.2
	comp=Z,18nm,1.1s,mb5.4						
RSO	Redoubt South	93.63	27	P	P	10 31 28.5	+2.1
COLA	College	93.64	22	*e*P	P	10 31 26.2	-0.1
	comp=Z,4.4nm,0.8s,mb4.9						
SPU	Mount Spurr	93.64	26	*e*P	P	10 31 26.1	-0.3
ILAR	Eielson Array	94.04	22	P	P	10 31 26.9	-1.2
	comp=Z,5.9nm,0.8s,mb5.1,baz=306,slow=4.3,SNR=26						
ILAR				PKKPbc		10 48 35.0	
	comp=Z,0.5nm,0.6s,baz=147,slow=2.1,SNR=4.9						
ILAR	Eielson Array	94.04	22	P	P	10 31 27.0	-1.1
ILAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FIB	Fire Island	94.46	26	*e*P	P	10 31 30.5	+0.4
SLKM	Skilak Lake	94.74	26	*e*P	P	10 31 31.0	-0.4
KDAK	Kodiak Island	94.84	29	*e*P	P	10 31 31.4	-0.6
	comp=Z,181nm,1.8s,mb6.2						
INK	Inuvik	96.22	16	P	P	10 31 37.5	-0.5
	comp=Z,14nm,0.8s,mb5.5,baz=339,slow=5.8,SNR=16						
INK	Inuvik	96.22	16	P	P	10 31 37.5	-0.6
INK				pmax	pmax		
	comp=Z,15nm,0.8s						
DBIC	Dimbokro	97.43	278	P	P	10 31 47.1	+2.3
	comp=Z,5.8nm,0.8s,mb5.1,baz=88,slow=16,SNR=6.8						
DBIC	Dimbokro	97.43	278	P	P	10 31 47.1	+2.3
DBIC				pmax	pmax		
	comp=Z,6.0nm,0.8s						
DBIC	Dimbokro	97.43	278	*e*P	P	10 31 46.7	+1.9
	comp=Z,36nm,1.5s,mb5.6						
YKA	Yellowknife Ar	105.63	13	Pdiff	Pdif	10 32 21.6	+1.4
	comp=Z,0.8nm,0.8s,baz=325,slow=4.0,SNR=12						
YKA				PP	PP	10 36 40.8	-4.6
	comp=Z,2.5nm,0.9s,baz=331,slow=7.7,SNR=4.3						
YKA				PKKPbc		10 47 59.5	
	comp=Z,0.8nm,0.7s,baz=152,slow=3.2,SNR=7.8						
YKA	Yellowknife Ar	105.63	13	P	Pdif	10 32 21.6	+1.5
YKA						10 36 40.8	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	Yellowknife Ar	105.63	13	Pdif	Pdif	10 32 21.6	+1.4
YKA				PP	PP	10 36 40.9	-4.6
YKA				PKKPbc		10 47 59.5	
YBH	Yreka Blue Hor	119.62	31	PKIKP	PKPdf	10 37 00.7	-3.6
ULM	Lac du Bonnet	120.61	7	PKP	PKPdf	10 37 03.6	-2.4
	comp=Z,4.2nm,0.8s,baz=0.4,slow=4.7,SNR=6.0						
ULM				PKKPbc		10 47 12.2	
	comp=Z,1.3nm,0.4s,baz=113,slow=0.8,SNR=3.0						
LAO	LASA Array	121.96	16	*e*PKPdf	PKPdf	10 37 05.8	-2.9
SNOW	Snow King Moun	123.42	21	*e*PKPdf	PKPdf	10 37 09.9	-1.7
ELK	Elko	123.93	26	PKIKP	PKPdf	10 37 13.0	+0.3
ELK	Elko	123.93	26	*e*PKPdf	PKPdf	10 37 09.3	-3.4
NVAR	Mina Array Bea	124.33	30	PKP	PKPdf	10 37 11.0	-2.6
	comp=Z,2.3nm,0.5s,baz=260,slow=4.8,SNR=8.6						
MNV	Mina	124.40	30	PKIKP	PKPdf	10 37 14.7	+1.0
PDAR	Pinedale Array	124.45	21	PKP	PKPdf	10 37 10.8	-2.9
	comp=Z,3.5nm,0.8s,baz=70,slow=2.1,SNR=15						
PDAR				PKKPbc		10 46 56.9	
	comp=Z,0.8nm,0.8s,baz=154,slow=6.9,SNR=5.7						
TRCR	Troy Canyon	125.71	28	*e*PKPdf	PKPdf	10 37 12.8	-3.5
MVU	Marysvale	127.09	26	PKPdf	PKPdf	10 37 15.6	-3.3
MSU	Marysvale	127.10	25	PKIKP	PKPdf	10 37 18.5	-0.4
MSU	Marysvale	127.10	25	*e*PKPdf	PKPdf	10 37 16.8	-2.1
PHWY	Pilot Hill	127.11	18	PKPdf	PKPdf	10 37 15.2	-3.7
SRU	San Rafael	127.27	24	PKIKP	PKPdf	10 37 19.8	+0.6
SRU	San Rafael	127.27	24	*e*PKPdf	PKPdf	10 37 19.1	-0.1
PV10	Paradox Valley	128.49	23	*e*PKPdf	PKPdf	10 37 19.7	-1.9
KSU1	Kansas State U	131.39	11	PKPdf	PKPdf	10 37 25.3	-1.7
ANMO	Albuquerque	132.48	23	PKP	PKPdf	10 37 26.5	-2.8
	comp=Z,3.0nm,0.9s,baz=137,slow=1.4,SNR=9.1						
ANMO	Albuquerque	132.48	23	PKIKP	PKPdf	10 37 28.1	-1.2
ANMO	Albuquerque	132.48	23	*e*PKPdf	PKPdf	10 37 26.9	-2.4
TUC	Tucson	132.89	29	PKIKP	PKPdf	10 37 30.3	+0.2
TUC	Tucson	132.89	29	*e*PKPdf	PKPdf	10 37 28.3	-1.8
MNTX	Cornudas Mount	135.77	24	*e*PKPdf	PKPdf	10 37 30.9	-4.6
MYNC	Murphy	136.32	357	PKIKP	PKPdf	10 37 34.1	-2.2
TXAR	Lajitas Array	138.54	23	PKhKP		10 37 32.5	
	comp=Z,1.0nm,0.9s,baz=222,slow=0.8,SNR=5.5						
TXAR	Lajitas Array	138.54	23	PKP	PKPdf	10 37 32.5	-8.1
JCT	Junction City	138.84	18	PKIKP	PKPdf	10 37 35.1	-6.0
JCT	Junction City	138.84	18	*e*PKPdf	PKPdf	10 37 39.0	-2.1
BAO	Brasilia Array	142.04	256	PKP	PKPdf	10 37 41.9	-5.3
BAO				*e*		10 38 58.2	
BAO				*e*		10 39 05.7	
BAO				*e*		10 39 40.2	
BDFB	Brasilia	142.06	256	PKP	PKPdf	10 37 42.0	-5.3
	comp=Z,2.8nm,0.5s,baz=143,slow=3.9,SNR=6.4						
BDFB	Brasilia	142.06	256	PKIKP	PKPdf	10 37 42.0	-5.2
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.5s						
SJG	San Juan	146.70	323	PKPbc	PKPbc	10 37 52.9	+1.5
	comp=Z,12nm,0.6s,baz=52,slow=4.8,SNR=7.5						
SJG	San Juan	146.70	323	PKP2	PKPab	10 37 52.9	-2.1
SJG				pmax	pmax		
	comp=Z,12nm,0.6s						
SJG	San Juan	146.70	323	*e*PKPdf	PKPdf	10 37 52.2	-3.0
COLM	Colima	147.32	32	*e*P	PKPdf	10 37 58.2	+2.1
MDZ	Mendoza	151.12	211	*e*P	PKPab	10 38 08.9	-3.7
PCRV	Puerto La Cruz	151.40	311	PKPbc	PKPab	10 38 07.2	-7.0
	comp=Z,20nm,0.7s,baz=42,slow=4.6,SNR=7.4						
FCH	Farellones	151.48	209	⇑*i*P	PKPab	10 38 06.8	-7.3
CLCH	Cerro Calan	151.54	208	*i* P	PKPab	10 38 08.1	-6.2
SDV	Santo Domingo	156.54	318	PKP	PKPdf	10 38 09.4	-0.4
	comp=Z,4.9nm,1.1s,baz=168,slow=3.3,SNR=5.6						
SDV				PKPab	PKPab	10 38 35.3	-0.7
	comp=Z,33nm,1.2s,baz=114,slow=3.7,SNR=11						
SDV	Santo Domingo	156.54	318	*e*PKPdf	PKPdf	10 38 07.7	-2.1
LVC	Limon Verde	158.41	228	PKP	PKPdf	10 38 13.0	+1.0
	comp=Z,8.1nm,1.1s,baz=114,slow=2.5,SNR=4.5						
LVC				PKPab	PKPab	10 38 43.7	-0.1
	comp=Z,12nm,0.7s,baz=24,slow=0.7,SNR=7.0						
LPAZ	La Paz	160.82	245	PKP	PKPdf	10 38 16.2	+1.5
	comp=Z,5.2nm,0.7s,baz=11,slow=2.9,SNR=11						
LPAZ				PKPab	PKPab	10 38 54.9	+0.6
	comp=Z,5.9nm,0.7s,baz=143,slow=4.3,SNR=5.1						
LPAZ	La Paz	160.82	245	PKIKP	PKPdf	10 38 16.2	+1.5
LPAZ						10 38 54.9	
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.7s						

LPAZ	**La Paz**	**160.82**	**245**	*e*PKPdf	PKPdf	10 38 14.9	+0.1
ROSC	**El Rosal**	**161.97**	**318**	PKP	PKPdf	10 38 14.4	-1.6
	comp=Z,14nm,0.9s,baz=107,slow=22,SNR=9.3						

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*SYO **26** 10:19:28.9, 13.47N×92.78E, h6^{km}, MB6.3*

*BJI **26** 10:19:29.9, 13.24N×92.74E, h40^{km}, mB6.4, mb6.1, Ms6.4, Msz6.2*

*NEIC **26** 10:19:31.7±0.1, 13.46N×92.74E, mb6.1/117, MS6.0/23, Error ellipse: s-maj=4.9km s-min=2.9km az=200.0*

*HRVD **26** 10:19:31.7±0.5, 13.59N×92.63E, h27^{km}±1^{km}, MW6.3/59, Centroid moment Tensor Solution. LP body waves: s28,c38;Mantle waves: s59,c95; Half duration: 3^{s}4 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-3.12±.22; M$_{\theta\theta}$0.54±.13; M$_{\phi\phi}$2.58±.14; M$_{r\theta}$1.38±.32; M$_{\theta\phi}$0.66±.10; M$_{\phi r}$0.30±.28; Best double couple: M$_0$3.22×10^{18} NP1:φ$_s$1°, δ41°,λ-116°. NP2:φ$_s$215°,δ54°,λ-69°. Principal axes: T 2.86, Plg7°, Azm290°; N .72, Plg17°, Azm22°; P -3.58, Plg72°, Azm178°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **26** 10:19:32.7±0.9, 13.76N×92.67E, h33^{km}, mb6.3/62, MS6.1/14 Error ellipse: s-maj=8.3km s-min=4.7km az=117.0*

*DHMR **26** 10:19:32.4±3.0, 13.48N×92.70E, h10^{km}, mb5.9*

*IDC **26** 10:19:33.5±2.9, 13.47N×92.80E, h38^{km}±24^{km}, mb5.7/34, mb1 5.7/35, mb1mx5.7/36, ML5.4/1, MS5.7/1, Ms1 5.7/1, ms1mx4.3/16, Error ellipse: s-maj=14.5km s-min=8.7km az=40.0*

ISC 26 10:19:29.8±0.1**, 13.44N**±0.03×**92.74E**±0.02**, h27**^{km}**, h27**^{km}±.5^{km}**:pP-P, n777, σ1^{s}00**/675**, mb6.0**/191**, MS6.1**/46**, 45C-90D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**7.78**	**49**	*e*P	**Pn**	**10 21 23.0**	**-1.2**
CMAR	**Chiang Mai Arr**	**7.78**	**49**	Pn	**Pn**	**10 21 22.9**	**-1.3**
	15nm,0.3s,baz=242,slow=15,SNR=26						
CMAR				Sn	**Sn**	**10 22 46.6**	**-5.6**
	49nm,0.3s,baz=234,slow=18,SNR=7.8						
CMAR	**Chiang Mai Arr**	**7.78**	**49**	P	**Pn**	**10 21 23.0**	**-1.2**
CMAR						10 22 46.7	
CMAR				pmax	pmax		
	comp=Z,15nm,0.3s						
CAL	**Calcutta**	**9.98**	**336**	⇑*e*P	**P**	**10 21 52.7**	**-2.1**
VIS	**Vishakhapatnam**	**10.02**	**296**	⇑*e*	**P**	**10 21 51.0**	**-4.3**
SHL	**Shillong**	**12.10**	**356**	⇑*e*P	**P**	**10 22 19.6**	**-3.9**
	comp=Z,380nm,1.7s						
MDRS	**Chennai**	**12.17**	**270**	*e*P	**P**	**10 22 24.9**	**+0.2**
BOK	**Bokaro**	**12.18**	**329**	⇑*e*	**P**	**10 22 19.7**	**-5.0**
BLSP	**Bilaspur**	**13.29**	**312**	⇓*e*P	**P**	**10 22 38.0**	**-1.5**
	comp=Z,2µm,1.1s						
PALK	**Pallekele**	**13.33**	**244**	*e*P	**P**	**10 22 39.8**	**-0.2**
	comp=Z,484nm,1.3s						
SLGI	**Shiliguri**	**13.81**	**344**	*e*	**P**	**10 22 45.4**	**-0.9**
HYB	**Hyderabad**	**14.24**	**288**	*e*P	**P**	**10 22 51.0**	**-1.1**
HYB	**Hyderabad**	**14.24**	**288**	*i* P	**P**	**10 22 51.0**	**-1.1**
KMI	**Kunming**	**14.96**	**38**	*e*P	**P**	**10 23 03.0**	**+1.5**
KMI				S	**S**	**10 25 49.0**	**+1.9**
KMI				AMB	AMB		
	comp=Z,755nm,1.1s						
KMI				LR	LR		
	comp=N,46µm,12.8s						
KMI				LR	LR		
	comp=E,72µm,14.9s						
KMI				LR	LR		
	comp=Z,60µm,18.1s						
NGP	**Nagpur**	**15.15**	**302**	*e*P	**P**	**10 23 03.8**	**-0.2**
NGP				*e*	**S**	**10 26 00.8**	**+9.3**
JBP	**Jabalpur**	**15.50**	**310**	⇑*e*P	**P**	**10 23 12.0**	**+3.6**
JBP				*e*	**S**	**10 26 17.3**	**+18**
ALBI	**Allahabad**	**15.67**	**321**	*e*P	**P**	**10 23 10.4**	**-0.2**
TRD	**Trivandrum**	**16.25**	**254**	⇓*e*P	**P**	**10 23 18.0**	**-0.1**
LSA	**Lhasa**	**16.25**	**355**	P	**P**	**10 23 18.7**	**+0.6**
	comp=Z,708nm,0.8s						
AKL	**Akola**	**16.68**	**298**	⇑*e*P	**P**	**10 23 25.1**	**+1.6**
AKL				*e*		10 23 38.4	
	comp=Z,3µm,1.2s						
QIZ	**Qiongzhong**	**17.33**	**69**	P	**P**	**10 23 35.3**	**+3.6**
QIZ				S	**S**	**10 26 40.8**	**-1.1**
QIZ				AMB	AMB		
	comp=Z,241nm,1.4s						
QIZ				LR	LR		
	comp=N,202µm,14.4s						
QIZ				LR	LR		
	comp=E,70µm,14.8s						
QIZ				LR	LR		
	comp=Z,178µm,13.7s						
QIZ	**Qiongzhong**	**17.33**	**69**	*e*P	**P**	**10 23 31.8**	**+0.1**
	comp=Z,178nm,0.9s						
KAD	**Karad**	**18.30**	**284**	⇓*e*P	**P**	**10 23 45.0**	**+1.1**
GOA	**Goa**	**18.43**	**279**	*e*P	**P**	**10 23 49.5**	**+4.0**
GOA				*e*		10 24 17.1	
	comp=Z,759nm,1.6s						
POO	**Poona**	**18.85**	**288**	⇓*e*P	**P**	**10 23 51.6**	**+1.1**
POO				*e*		10 23 56.9	
	comp=Z,608nm,1.3s						
POO				*e*S	**S**	**10 27 27.2**	**+11**
BOM	**Bombay**	**19.89**	**288**	*e*P	**P**	**10 24 03.2**	**+0.9**
CD2	**Chengdu**	**20.14**	**28**	P	**P**	**10 24 03.5**	**-1.3**
CD2				S	**S**	**10 27 45.3**	**+1.0**
CD2				AMB	AMB		
	comp=Z,2µm,0.8s						
CD2				LR	LR		
	comp=E,54µm,12.0s						
CD2				LR	LR		
	comp=Z,63µm,10.2s,MS6.2						
NDI	**New Delhi**	**20.94**	**319**	*e*		10 24 26.6	
	comp=Z,1µm,1.4s						
NDI				*e*	**S**	**10 27 53.0**	**-7.3**
AJM	**Ajmer**	**21.36**	**310**	⇑*e*P	**P**	**10 24 19.0**	**+1.6**
AJM				*e*S	**S**	**10 28 14.9**	**+6.7**
BHK	**Bhakra**	**23.36**	**323**	*e*P	**P**	**10 24 38.5**	**+1.3**
BHK				*e*		10 28 34.9	
BHJ	**Bhuj**	**23.96**	**297**	⇑*e*P	**P**	**10 24 46.0**	**+2.9**
BHJ				*e*S	**S**	**10 29 04.5**	**+10**
PONG	**Pong**	**24.02**	**323**	*e*P	**P**	**10 24 46.0**	**+2.4**
PONG				*e*S	**S**	**10 29 05.0**	**+9.1**
LZH	**Lanzhou**	**24.66**	**22**	⇓P	**P**	**10 24 50.8**	**+0.9**
LZH				PP	PP	10 25 27.0	+0.6
LZH				S	**S**	**10 29 09.5**	**+2.7**
LZH				SS	SS	10 30 04.0	+0.3
LZH				AMB	AMB		
	comp=Z,2µm,1.5s,mb6.3						
LZH				AMB	AMB		
	comp=Z,6µm,5.5s						
LZH				LR	LR		
	comp=E,38µm,11.0s						
LZH				LR	LR		
	comp=Z,75µm,15.8s,MS6.3						
COCO	**West Island**	**25.78**	**171**	*e*P	**P**	**10 24 54.6**	**-6.0**
	comp=Z,28nm,0.4s,mb5.1						
COCO				LR	LR		
	comp=Z,7µm,21.0s,MS5.2						
ENPP	**El Nido**	**26.16**	**92**	*e*P	**P**	**10 25 04.0**	**0.0**
WHN	**Wuhan**	**26.21**	**46**	⇓P	**P**	**10 25 03.8**	**-0.6**
WHN				S	**S**	**10 29 39.0**	**+6.3**
WHN				LR	LR		
	comp=N,43µm,12.0s						
WHN				LR	LR		
	comp=E,65µm,20.0s						
WHN				LR	LR		
	comp=Z,102µm,14.5s,MS6.5						
BOLP	**Bolinao**	**26.41**	**80**	*e*P	**P**	**10 25 07.8**	**+1.4**
GTA	**Gaotai**	**26.62**	**12**	P	**P**	**10 25 08.8**	**+0.8**
GTA				PCP	PcP	10 28 33.0	+0.8
GTA				S	**S**	**10 29 43.0**	**+3.7**
GTA				PCS		10 32 13.8	
GTA				SCS	ScS	10 35 58.3	+0.1
GTA				AMB	AMB		
	comp=Z,578nm,1.3s,mb6.0						
GTA				AMB	AMB		
	comp=Z,10µm,10.3s						
GTA				LR	LR		
	comp=N,37µm,19.8s,MS6.0						
GTA				LR	LR		
	comp=E,18µm,22.8s,MS6.0						
GTA				LR	LR		
	comp=Z,36µm,20.9s,MS5.9						
QZH	**Quanzhou**	**26.91**	**61**	⇓*i*P	**P**	**10 25 11.0**	**+0.1**
QZH				LR	LR		
	comp=N,103µm,13.0s,MS6.7						
QZH				LR	LR		
	comp=E,87µm,15.0s,MS6.7						
QZH				LR	LR		
	comp=Z,110µm,15.4s,MS6.5						
ABRA	**Dolores**	**27.25**	**78**	*e*P	**P**	**10 25 17.2**	**+3.2**
TGY	**Tagaytay City**	**27.39**	**85**	P	**P**	**10 25 16.2**	**+0.9**
	comp=Z,652nm,1.0s,mb6.1,baz=188,slow=7.1,SNR=6.5						
TGY	**Tagaytay City**	**27.39**	**85**	P	**P**	**10 25 16.2**	**+0.9**
TGY				pmax	pmax		
	comp=Z,652nm,1.0s						
PCPH	**Palayan**	**27.52**	**82**	⇓*e*P	**P**	**10 25 15.8**	**-0.7**
SJMP	**San Jose**	**27.66**	**89**	*e*P	**P**	**10 25 17.7**	**-0.2**
APYP	**Conner**	**27.78**	**77**	*e*P	**P**	**10 25 18.1**	**-0.8**
LQP	**Lukban**	**27.97**	**85**	⇑*i*P	**P**	**10 25 21.4**	**+0.8**
BALP	**Baler**	**27.99**	**82**	*e*P	**P**	**10 25 20.6**	**-0.2**
CAUP	**Cauayan**	**28.27**	**79**	*e*P	**P**	**10 25 23.3**	**0.0**
CVP	**Callao Caves**	**28.31**	**78**	*e*P	**P**	**10 25 24.0**	**+0.3**
BBP	**Basco**	**28.78**	**72**	*e*P	**P**	**10 25 27.6**	**-0.2**
DGAR	**Diego Garcia**	**28.90**	**225**	PFAKE		10 25 40.0	+11
DGAR				LR	LR		
	comp=Z,14µm,20.0s,MS5.6						
TATO	**Taipei**	**29.40**	**63**	*e*P	**P**	**10 25 33.3**	**-0.1**
	comp=Z,359nm,1.1s,mb6.0						
KSH	**Kashi**	**29.89**	**333**	P	**P**	**10 25 38.3**	**+0.6**
KSH				*e*PP	PP	10 26 36.0	+0.7
KSH				*e*PPP	PPP	10 26 50.0	+0.8
KSH				*e*PCP	PcP	10 28 40.0	-0.3
KSH				*e*S	**S**	**10 30 32.8**	**+0.9**
KSH				*e*SS	SS	10 32 11.5	+2.9
KSH				*e*SCP		10 32 21.0	
KSH				*e*PCS		10 32 23.8	
KSH				*e*SCS	ScS	10 36 14.8	+1.7
KSH				AMB	AMB		
	comp=Z,3µm,2.8s,mb6.5						
KSH				LR	LR		
	comp=N,29µm,12.5s,MS6.4						
KSH				LR	LR		
	comp=E,47µm,13.0s,MS6.4						
NJ2	**Nanjing**	**30.25**	**48**	*e*P	**P**	**10 25 40.5**	**-0.4**
NJ2				AP	pP	10 25 49.3	+0.5
NJ2				XP	sP	10 25 53.0	+0.7
NJ2				AMB	AMB		
	comp=Z,540nm,1.0s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,2µm,5.4s						
NJ2				LR	LR		
	comp=N,51µm,16.4s,MS6.4						
NJ2				LR	LR		
	comp=E,51µm,17.0s,MS6.4						
NJ2				LR	LR		
	comp=Z,62µm,15.6s,MS6.4						
SRDI	**Scrawed**	**30.42**	**135**	⇑*e*P	**P**	**10 25 41.8**	**-0.8**
KELI	**Kelakatan**	**30.48**	**134**	⇓*e*P	**P**	**10 25 44.2**	**+1.1**
WMQ	**Urumqi**	**30.59**	**353**	⇑P	**P**	**10 25 44.5**	**+0.7**
WMQ				PP	PP	10 26 45.0	+0.7
WMQ				*e*S	**S**	**10 30 44.5**	**+1.6**
WMQ				AMB	AMB		
	comp=Z,300nm,1.2s,mb6.0						
WMQ				AMB	AMB		
	comp=Z,4µm,11.0s						
WMQ				LR	LR		
	comp=N,14µm,21.5s,MS6.1						
WMQ				LR	LR		
	comp=E,41µm,22.4s,MS6.1						
WMQ				LR	LR		
	comp=Z,25µm,18.4s,MS5.9						
BTO	**Baotou**	**31.01**	**26**	*e*P	**P**	**10 25 47.0**	**-0.5**
BTO				AMB	AMB		
	comp=Z,441nm,1.0s,mb6.2						
BTO				LR	LR		
	comp=N,10µm,13.7s,MS6.0						
BTO				LR	LR		
	comp=E,28µm,18.1s,MS6.0						
SSE	**Sheshan**	**31.51**	**51**	*e*P	**P**	**10 25 51.0**	**-1.0**
SSE				S	**S**	**10 31 00.5**	**+3.1**
SSE				AMB	AMB		
	comp=Z,333nm,1.1s,mb6.1						
SSE				AMB	AMB		
	comp=Z,3µm,9.8s						
SSE				LR	LR		
	comp=N,54µm,13.9s,MS6.4						
SSE				LR	LR		
	comp=E,27µm,13.9s,MS6.4						
SSE				LR	LR		
	comp=Z,59µm,15.5s,MS6.4						
TIA	**Tai’an**	**31.51**	**40**	⇓P	**P**	**10 25 51.0**	**-1.0**
TIA				AMB	AMB		
	comp=Z,409nm,1.3s,mb6.1						
RATI	**Rata**	**31.57**	**133**	⇑*e*P	**P**	**10 25 50.9**	**-1.8**
KEDI	**Kedomdong**	**31.82**	**132**	⇑*e*P	**P**	**10 25 53.1**	**-1.8**
	comp=Z,172nm,0.5s,mb6.1						
KEDI				*e*S	**S**	**10 30 54.5**	**-8.0**
HHC	**Hu-ho-hao-te**	**31.89**	**28**	⇓*i*P	**P**	**10 25 55.5**	**+0.3**
HHC				PP	PP	10 26 59.0	-2.3
HHC				PCP	PcP	10 28 47.5	+2.0
HHC				S	**S**	**10 31 02.5**	**-0.7**
HHC				SCS	ScS	10 36 22.5	-0.3
HHC				AMB	AMB		
	comp=Z,733nm,1.3s,mb6.3						
HHC				LR	LR		
	comp=N,21µm,14.3s,MS6.2						
HHC				LR	LR		
	comp=E,30µm,14.3s,MS6.2						
HHC				LR	LR		
	comp=Z,25µm,15.5s,MS6.0						
AAA	**Alma-Ata**	**32.70**	**338**	*i* P	**P**	**10 26 02.0**	**-0.2**
AAA				*i* S	**S**	**10 31 18.0**	**+2.2**
AAA				pmax	pmax		
	comp=Z,5µm,3.0s						
AAK	**Ala-Archa**	**33.10**	**335**	*i* P	**P**	**10 26 06.2**	**+0.5**
AAK				LR	LR		
	comp=Z,9µm,19.0s,MS5.5						
FRU	**Bishkek**	**33.22**	**335**	*e*P	**P**	**10 26 08.0**	**+1.2**
MKAR	**Makanchi Array**	**34.40**	**347**	*i* P	**P**	**10 26 17.1**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,1µm,1.1s						
JOW	**Kunigami**	**35.79**	**63**	P	**P**	**10 26 29.1**	**0.0**
	comp=Z,109nm,0.3s,mb6.2,baz=266,slow=7.4,SNR=52						
DL2	**Dalian**	**35.99**	**40**	⇓*i*P	**P**	**10 26 31.0**	**+0.4**
DL2				AMB	AMB		
	comp=Z,360nm,1.1s,mb6.2						
SONM	**Songino Array**	**36.13**	**16**	P	**P**	**10 26 32.3**	**+0.6**
	comp=Z,292nm,1.1s,mb6.1,baz=198,slow=7.8,SNR=62						
SONM				PcP	PcP	10 28 58.5	+1.1
	comp=Z,48nm,1.0s,baz=180,slow=1.2,SNR=4.4						
ZAK	**Zakamensk**	**37.84**	**11**	⇑*e*P	**P**	**10 26 46.1**	**+0.1**
ZAK				*e*		10 29 02.7	
INCN	**Inchon**	**38.52**	**45**	*e*P	**P**	**10 26 51.2**	**-0.6**
	comp=Z,1µm,1.8s,mb6.3						
INCN				LR	LR		
	comp=Z,48µm,19.0s,MS6.3						
MOY	**Mondy**	**38.71**	**8**	*e*P	**P**	**10 26 54.8**	**+1.5**
SNY	**Shenyang**	**38.94**	**38**	⇑P	**P**	**10 26 54.5**	**-0.8**
SNY				AP	pP	10 27 03.0	-0.4
SNY				AMB	AMB		
	comp=Z,580nm,2.0s,mb6.0						
SNY				AMB	AMB		
	comp=Z,4µm,5.9s						
SNY				LR	LR		
	comp=N,17µm,16.3s,MS6.1						
SNY				LR	LR		
	comp=E,14µm,13.6s,MS6.1						
SNY				LR	LR		
	comp=Z,29µm,14.5s,MS6.2						
TLY	**Talaya**	**39.15**	**11**	P	**P**	**10 26 58.7**	**+1.8**
	comp=Z,820nm,1.2s,mb6.3,SNR=17						
TLY	**Talaya**	**39.15**	**11**	*e*P	**P**	**10 26 58.1**	**+1.2**
TLY				*e*	pP	10 27 06.3	+1.3
TLY				pmax	pmax		
	comp=Z,158nm,1.1s,mb5.7						
TLY				MLR	MLR		
	comp=Z,14µm,15.0s,MS5.9						
TLY	**Talaya**	**39.15**	**11**	*e*P	**P**	**10 26 58.5**	**+1.6**
	comp=Z,147nm,1.0s,mb5.7						
KS15	**Wonju Array Si**	**39.37**	**46**	*e*P	**P**	**10 26 58.9**	**0.0**
IRK	**Irkutsk**	**39.80**	**11**	*e*P	**P**	**10 27 02.2**	**-0.2**
IRK				*e*		10 28 39.4	
IRK				*e*		10 33 08.2	
ZAL	**Zalesovo**	**40.89**	**353**	P	**P**	**10 27 11.6**	**+0.3**
	comp=Z,295nm,1.0s,mb5.9,baz=298,slow=8.7,SNR=38						
ZAL	**Zalesovo**	**40.89**	**353**	P	**P**	**10 27 11.6**	**+0.3**
ZAL				pmax	pmax		
	comp=Z,295nm,1.0s						
ZAL	**Zalesovo**	**40.89**	**353**	P	**P**	**10 27 11.6**	**+0.3**
CN2	**Changchun**	**41.23**	**36**	*e*P	**P**	**10 27 14.3**	**+0.1**
CN2				*e*S	**S**	**10 33 27.0**	**+1.0**
CN2				AMB	AMB		
	comp=Z,830nm,1.2s,mb6.2						
CN2				AMB	AMB		
	comp=Z,13µm,10.0s						
CN2				LR	LR		
	comp=N,22µm,15.0s,MS6.3						
CN2				LR	LR		
	comp=E,26µm,15.0s,MS6.3						
CN2				LR	LR		
	comp=Z,28µm,17.0s,MS6.2						
NVS	**Novosibirsk**	**41.98**	**352**	*i* P	**P**	**10 27 19.1**	**-1.1**
NVS				*i* S	**S**	**10 33 33.9**	**-3.0**
BVA0	**Borovoye Array**	**43.32**	**340**	P	**P**	**10 27 31.1**	**-0.1**
BVA0				pmax	pmax		
	comp=Z,45nm,1.2s,mb5.1						
BVAR	**Borovoye Array**	**43.32**	**340**	P	**P**	**10 27 31.3**	**+0.1**
	comp=Z,331nm,1.1s,mb6.0,baz=143,slow=7.4,SNR=25						
BRVK	**Borovoye**	**43.38**	**340**	*i* Pr		10 27 31.6	
BRVK				LR	LR		
	comp=Z,4µm,20.0s,MS5.3						
MBWA	**Marble Bar**	**43.41**	**142**	*e*P	**P**	**10 27 31.1**	**-1.2**
	comp=Z,165nm,1.1s,mb5.7						
MBWA				LR	LR		
	comp=Z,15µm,21.0s,MS5.9						
MDJ	**Mudanjiang**	**44.14**	**38**	P	**P**	**10 27 37.5**	**-0.4**
MDJ				AMB	AMB		
	comp=Z,182nm,1.4s,mb5.6						
MDJ				AMB	AMB		
	comp=Z,2µm,6.0s						
MDJ	**Mudanjiang**	**44.14**	**38**	*e*P	**P**	**10 27 37.6**	**-0.3**
	comp=Z,596nm,1.6s,mb6.1						
LBOS		**46.09**	**276**	⇓*e*P	**P**	**10 27 56.7**	**+2.8**
LBOS				AMb	AMB	10 27 57.6	
	comp=Z,174nm,0.8s,mb6.0						
MAJO	**Matsushiro**	**46.65**	**52**	*e*P	**P**	**10 27 58.5**	**+0.5**
MAJO				pmax	pmax		
	comp=Z,580nm,1.2s,mb6.4						
MAJO	**Matsushiro**	**46.65**	**52**	⇓*e*P	**P**	**10 27 57.6**	**-0.4**
	comp=Z,583nm,1.3s,mb6.3						
MAJO				LR	LR		
	comp=Z,30µm,20.0s,MS6.2						
MAT	**Matsushiro**	**46.65**	**52**	P	**P**	**10 27 57.2**	**-0.8**
BOD	**Bodaibo**	**47.13**	**15**	*e*P	**P**	**10 28 00.8**	**-0.8**
TRBA	**At Turbah**	**47.26**	**276**	⇓*e*P	**P**	**10 28 05.8**	**+2.7**
TRBA				AMb	AMB	10 28 06.3	
	comp=Z,247nm,1.4s,mb6.0						
HAJJ	**Hajjah**	**47.54**	**279**	⇓*e*P	**P**	**10 28 07.9**	**+2.6**
KLR	**Kul’dur**	**47.93**	**34**	*e*P	**P**	**10 28 03.2**	**-4.8**
KLR				pmax	pmax		
	comp=N,180nm,1.8s						
KLR				pmax	pmax		
	comp=E,320nm,1.8s						
KLR				pmax	pmax		
	comp=Z,350nm,1.8s,mb6.1						
CBIJ	**Chichi jima**	**48.04**	**66**	P	**P**	**10 28 06.4**	**-2.7**
	comp=Z,202nm,0.9s,mb6.2,baz=100,slow=4.4,SNR=5.8						
MAK	**Makhachkala**	**48.72**	**316**	*e*P	**P**	**10 28 14.0**	**-0.1**
MAK				*e*S	**S**	**10 35 16.0**	**+2.1**
MAK				*e*PS	PS	10 35 34.0	+8.4
MAK				pmax	pmax		
	comp=N,780nm,2.0s						
MAK				pmax	pmax		
	comp=Z,780nm,2.0s,mb6.4						
MAK				smax			
	comp=N,3µm,3.0s						
HKR	**Hakkari**	**49.66**	**308**	*e*P	**P**	**10 28 20.9**	**-0.6**
GNI	**Garni**	**49.66**	**312**	*e*P	**P**	**10 28 23.2**	**+1.8**
GNI	**Garni**	**49.66**	**312**	P	**P**	**10 28 23.3**	**+1.9**
	comp=N,290nm,1.1s,mb6.2,baz=105,slow=1.7,SNR=28						
GNI	**Garni**	**49.66**	**312**	P	**P**	**10 28 23.3**	**+1.9**
GNI				pmax	pmax		
	comp=Z,290nm,1.1s						
SVE	**Sverdlovsk**	**49.76**	**337**	*e*P	**P**	**10 28 22.0**	**0.0**
CLNS	**Chul’man**	**49.79**	**23**	⇓*i*P	**P**	**10 28 22.5**	**+0.4**
CLNS				*e**PP	pP	10 28 29.9	-0.4
CLNS				*e*		10 29 40.1	
CLNS				*e*		10 30 13.6	
CLNS				*e*S	**S**	**10 35 29.0**	**+0.4**
CLNS				*e*SS	SS	10 38 56.2	-1.4
CLNS				pmax	pmax		
	comp=Z,595nm,0.8s,mb6.7						
CLNS				pmax	pmax		
	comp=N,366nm,0.9s						
CLNS				pmax	pmax		
	comp=E,393nm,1.0s						
CLNS				pmax	pmax		
	comp=N,51nm,0.9s						
CLNS				pmax	pmax		
	comp=E,60nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.5						
CLNS				smax			
	comp=Z,9.0nm,1.1s						
CLNS				smax			
	comp=N,49nm,1.2s						
CLNS				smax			
	comp=E,34nm,1.2s						
CLNS				MLR	MLR		
	comp=Z,20µm,17.0s,MS6.2						
CLNS				MLR	MLR		
	comp=N,15µm,16.0s,MS6.1						
CLNS				MLR	MLR		
	comp=E,2µm,13.0s,MS6.1						
ARU	**Arti**	**50.27**	**336**	*d* *i*P	**P**	**10 28 25.6**	**-0.3**
ARU				pmax	pmax		
	comp=Z,273nm,1.0s,mb6.2						
ARU	**Arti**	**50.27**	**336**	*i* Pr		10 28 25.6	
GUMO	**Guam**	**50.60**	**83**	PFAKE		10 28 40.0	+11
GUMO				LR	LR		
	comp=Z,7µm,21.0s,MS5.6						
KARS	**Kars**	**51.00**	**312**	*e*P	**P**	**10 28 34.0**	**+2.4**
ZEI	**Tsey**	**51.12**	**315**	*e*P	**P**	**10 28 32.8**	**+0.3**
BTMT	**Batman**	**51.54**	**308**	*e*P	**P**	**10 28 36.8**	**+1.0**
BEST	**Besiri**	**51.63**	**308**	*i* P	**P**	**10 28 36.6**	**+0.2**
NWAO	**Narrogin (SRO)**	**51.70**	**154**	P	**P**	**10 28 35.0**	**-2.0**
	comp=Z,114nm,1.1s,mb5.7,baz=330,slow=8.6,SNR=17						
NWAO	**Narrogin (SRO)**	**51.70**	**154**	*e*P	**P**	**10 28 36.4**	**-0.7**
	comp=Z,156nm,0.8s,mb6.0						
NWAO				LR	LR		
	comp=Z,14µm,21.0s,MS6.0						
VRT	**Varto**	**51.75**	**309**	*e*P	**P**	**10 28 39.9**	**+2.6**
ERZM	**Erzurum**	**52.07**	**310**	*i* P	**P**	**10 28 40.7**	**+1.0**
EZM	**Erzurum**	**52.07**	**310**	*e*P	**P**	**10 28 42.3**	**+2.5**
ASAJ	**Asahikawa**	**52.27**	**44**	P	**P**	**10 28 41.2**	**+0.1**
	comp=Z,212nm,1.0s,mb6.0,baz=257,slow=10,SNR=18						
ASAJ	**Asahikawa**	**52.27**	**44**	P	**P**	**10 28 41.3**	**+0.2**
ASAJ				pmax	pmax		
	comp=Z,212nm,1.0s						
BCA	**Borcka**	**52.31**	**312**	*e*P	**P**	**10 28 43.2**	**+1.7**
KIV	**Kislovodsk**	**52.35**	**316**	P	**P**	**10 28 42.0**	**+0.2**
	comp=Z,2µm,1.2s,mb6.9,SNR=10						
KIV	**Kislovodsk**	**52.35**	**316**	*e*P	**P**	**10 28 42.7**	**+0.9**
KIV				*e*		10 29 53.6	
KIV				*e*		10 30 44.4	
KIV				*i* S	**S**	**10 36 08.4**	**+4.3**
KIV				pmax	pmax		
	comp=N,187nm,1.1s						
KIV				pmax	pmax		
	comp=E,187nm,1.1s						
KIV				pmax	pmax		
	comp=Z,348nm,1.1s,mb6.2						
KIV				pmax	pmax		
	comp=Z,594nm,1.2s,mb6.4						
KIV				smax			
	comp=N,2µm,3.1s						
KIV				smax			
	comp=E,1µm,3.1s						
KIV				MLR	MLR		
	comp=N,8µm,23.0s						
KIV				MLR	MLR		
	comp=Z,16µm,23.0s,MS6.0						
KIV				MLR	MLR		
	comp=E,8µm,15.0s						
KIV	**Kislovodsk**	**52.35**	**316**	*i* Pr		10 28 42.8	
KIV				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
BINT	**Bingol**	**52.47**	**309**	*e*P	**P**	**10 28 44.2**	**+1.5**
GOF	**Gofitskoye**	**52.50**	**317**	⇑*i*P	**P**	**10 28 43.0**	**+0.1**
GOF				pmax	pmax		
	comp=Z,380nm,1.2s,mb6.2						
WRA	**Warramunga Arr**	**52.68**	**128**	P	**P**	**10 28 43.3**	**-1.2**
	comp=Z,104nm,0.6s,mb5.9,baz=302,slow=10,SNR=57						
WRA				PcP	PcP	10 29 54.7	+0.5
	comp=Z,52nm,0.9s,baz=320,slow=3.1,SNR=5.6						
WRA				S	**S**	**10 36 05.9**	**-2.9**

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      comp=Z,46nm,1.0s,baz=304,slow=14,SNR=21
WRA   Warramunga Arr    52.68 128  P      P      10 28 43.3 -1.3
WRA                                              10 29 54.7
WRA                                S      S      10 36 05.9 -3.0
WRA                                pmax   pmax
      comp=Z,104nm,0.6s
WRA                                pmax   pmax
      comp=Z,53nm,0.9s
WRAB  Tennant Creek     52.68 128d iP     P      10 28 43.5 -1.1
WRAB  Tennant Creek     52.68 128  eP     P      10 28 43.8 -0.8
      comp=Z,386nm,0.9s,mb6.3
EZC   Erzincan          53.19 310  eP     P      10 28 52.4 +4.3
YSS   Yuzh-Sakhalins    53.38  41⇑ eP     P      10 28 48.2 -1.2
YSS                                e             10 29 56.0
YSS                                ePS    PS     10 36 28.0 -3.8
YSS                                eSS    SS     10 39 56.0 -1.4
YSS                                eSSS   SSS    10 41 47.0 -0.7
YSS                                pmax   pmax
      comp=Z,490nm,1.0s,mb6.4
YSS                                MLR    MLR
      comp=Z,15µm,16.0s,MS6.1
YSS                                MLR    MLR
      comp=N,12µm,14.0s,MS6.3
YSS                                MLR    MLR
      comp=E,15µm,15.0s,MS6.3
YSS   Yuzh-Sakhalins    53.38  41⇓ eP     P      10 28 49.1 -0.3
      comp=E,549nm,1.1s,mb6.4
URFA  Urfa              53.43 307  eP     P      10 28 51.0 +1.1
ELZG  Elazig            53.53 308  i P    P      10 28 51.1 +0.5
GUMT  Gumushane         53.61 311  eP     P      10 28 52.7 +1.6
MYA   Malataya          53.92 308  eP     P      10 28 54.6 +1.2
SOC   Sochi             54.28 314  i P    P      10 28 54.2 -1.8
SOC                                e             10 29 53.7
SOC                                e             10 31 02.4
SOC                                ePPP   PPP    10 32 10.5 +0.5
SOC                                i S    S      10 36 31.5 +1.3
SOC                                pmax   pmax
      comp=N,66nm,1.3s
SOC                                pmax   pmax
      comp=Z,291nm,1.3s,mb6.0
SOC                                pmax   pmax
      comp=E,115nm,1.7s
SOC                                MLR    MLR
      comp=Z,12µm,19.0s,MS6.0
SOC                                MLR    MLR
      comp=N,16µm,17.0s,MS6.2
SOC                                MLR    MLR
      comp=E,10µm,20.0s,MS6.2
GZT   Gaziantep         54.40 306  i P    P      10 28 57.6 +0.6
YUK   Yuzh-Kuril'sk     54.47  45  P      P      10 28 51.5 -5.9
YUK                                i S    S      10 36 34.0 +1.2
YUK                                pmax   pmax
      comp=E,6µm,3.5s
YUK                                pmax   pmax
      comp=N,2µm,2.0s
YUK                                smax
      comp=E,5µm,4.0s
YUK                                smax
      comp=N,3µm,5.0s
YUK                                MLR    MLR
      comp=N,9µm,18.0s,MS6.5
YUK                                MLR    MLR
      comp=E,35µm,18.0s,MS6.5
YUK                                MLR    MLR
      comp=Z,35µm,18.0s,MS6.5
ASAR  Alice Springs     54.58 132  P      P      10 28 57.6 -0.9
      comp=Z,77nm,0.8s,mb5.8,baz=308,slow=6.7,SNR=48
ASAR                               PcP    PcP    10 30 01.8 +0.4
      comp=Z,65nm,1.1s,baz=311,slow=3.6,SNR=4.7
ASAR                               ScP           10 33 55.7
      comp=Z,22nm,1.0s,baz=310,slow=4.2,SNR=7.7
ASAR                               S      S      10 36 33.0 -1.6
      comp=Z,5.8nm,0.8s,baz=300,slow=12,SNR=6.3
ASAR                               PKPPKP        10 59 14.1
      comp=Z,2.1nm,0.9s,baz=92,slow=2.4,SNR=5.3
GAZ   Gaziantep         54.64 306  eP     P      10 28 59.5 +0.7
DUSS  Damascus Unive    54.83 302  i P    P      10 29 01.8 +1.6
DUSS                               i P           10 29 02.1
DUSS                               i P           10 29 02.8
DUSS                               e             10 29 03.9
      baz=96,slow=6.2
DUSS                               eS     S      10 36 46.0 +8.3
DUSS                               AMS    AMS    10 55 49.6
      comp=Z,266µm,22.5s
DUSS                               AMS    AMS    10 56 05.0
      comp=E,304µm,21.0s
DUSS                               AMS    AMS    10 56 58.4
      comp=N,190µm,17.3s
KAHT  Ahir Dag          54.98 307  i P    P      10 29 00.7 -0.6
MKRJ  Makawir           55.15 299  P      P      10 29 02.4 -0.2
KSHT  Keshet            55.16 301  P      P      10 29 02.9 +0.3
YAK   Yakutsk           55.23  20d iP     P      10 29 01.5 -1.2
YAK                                e      pP     10 29 09.8 -1.2
YAK                                e             10 30 01.8
YAK                                eS     S      10 36 41.9 -0.8
YAK                                pmax   pmax
      comp=Z,432nm,0.9s,mb6.5
YAK                                pmax   pmax
      comp=N,175nm,1.1s
YAK                                pmax   pmax
      comp=E,156nm,1.1s
YAK                                pmax   pmax
      comp=Z,58nm,0.9s,mb5.6
YAK                                pmax   pmax
      comp=N,55nm,1.1s
YAK                                pmax   pmax
      comp=E,48nm,1.1s
YAK                                smax
      comp=N,19nm,3.4s
YAK                                smax
      comp=Z,6.0nm,0.9s
YAK                                smax
      comp=E,8.0nm,1.1s
YAK                                MLR    MLR
      comp=Z,10µm,14.0s,MS6.1
YAK                                MLR    MLR
      comp=N,5µm,15.0s
YAK                                MLR    MLR
      comp=E,11µm,21.0s
YAK   Yakutsk           55.23  20  eP     P      10 29 01.3 -1.4
      comp=E,858nm,0.9s,mb6.8
HRI   Mount Hermon      55.26 301  P      P      10 29 03.0 -0.3
COBT  Iskenderun        55.28 305  i P    P      10 29 03.4 -0.1
HTY   Hatay             55.31 305  P      P      10 29 04.2 +0.5
MZDA  Masada            55.37 299  P      P      10 29 04.0 -0.2
DRGI  Dragot            55.37 299  P      P      10 29 04.0 -0.2
MMLI  Mount Malkishu    55.43 300  P      P      10 29 04.8 +0.2
AQBJ  Aqaba             55.51 297  P      P      10 29 04.7 -0.5
EIL   Elat              55.59 297  P      P      10 29 05.7 -0.2
      comp=E,61nm,1.0s,mb5.6,baz=90,slow=4.2,SNR=12
EIL   Elat              55.59 297  P      P      10 29 05.3 -0.5
PRNI  Paran             55.60 298  P      P      10 29 05.4 -0.4
HNTI  Hanita            55.70 301  P      P      10 29 06.6 +0.1
SLTI  Sal'it            55.73 300  P      P      10 29 06.7  0.0
TOKT  Tokat             55.76 310  eP     P      10 29 08.1 +1.3
CEYT  Ceyhan            55.76 306  eP     P      10 29 08.2 +1.2
HAF   Haifa             55.80 301  P      P      10 29 07.1 -0.1
OFRI  'Ofer             55.81 300  P      P      10 29 07.3  0.0
KMTI  Karmit            55.82 297  P      P      10 29 07.0 -0.4
BNN   Bunyan            56.00 308  eP     P      10 29 08.5 -0.1
KZIT  Kziot             56.16 298  P      P      10 29 09.4 -0.4
ANN   Anapa             56.20 315d iP     P      10 29 08.6 -1.3
ANN                                e      pP     10 29 18.8 +0.6
ANN                                e             10 30 06.4
ANN                                eS     S      10 37 00.2 +4.4
ANN                                pmax   pmax
      comp=Z,132nm,1.4s,mb5.8
KVT   Kavak             56.29 311  eP     P      10 29 11.3 +0.7
YOZ   Yozgat            56.55 309  eP     P      10 29 12.4 -0.1
PECR  Pechory           56.65 330  eP     P      10 29 03.0  -10
AVNT  Avonos            56.75 308  i P    P      10 29 13.3 -0.7
NIG   Nigde             56.83 307  eP     P      10 29 15.6 +1.0
PHNC  Paralimni         56.86 303  P      P      10 29 14.2 -0.6
KMBO  Kilima Mbogo      56.87 260  P      P      10 29 16.9 +1.8
      comp=Z,38nm,1.1s,mb5.3,baz=56,slow=8.0,SNR=11
KMBO  Kilima Mbogo      56.87 260  P      P      10 29 16.9 +1.8
KMBO                               LR     LR
      comp=Z,22µm,20.0s,MS6.2
MEST  Erdemli           56.97 305  i P    P      10 29 14.5 -1.1
CTKT  Corum             57.13 310  i P    P      10 29 10.3 -6.4
CORM  Corum             57.17 309  eP     P      10 29 17.7 +0.8
BOYT  Boyabat           57.20 311  i P    P      10 29 16.8 -0.4
IKL   Isikli            57.29 305  eP     P      10 29 16.3 -1.6
BYBT  Boyabat           57.31 311  eP     P      10 29 17.8 -0.1
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CSS   Prodhromos        57.43 303  eP     P      10 29 18.3 -0.6
      comp=Z,474nm,1.8s,mb6.2
MAMC  Mammari           57.54 303  P      P      10 29 20.0 +0.4
KAMT  Kaman             57.73 308  eP     P      10 29 20.6 -0.3
SZAC  Souni-Zanaja      57.77 303  ⇓P     P      10 29 20.9 -0.3
SZAC  Souni-Zanaja      57.77 303⇓ eP     P      10 29 20.9 -0.3
TOS   Tosya             57.78 310  eP     P      10 29 21.9 +0.7
LEF   Lefka             57.81 303  eP     P      10 29 21.1 -0.3
BRTR  Keskin Array B    57.84 309  P      P      10 29 21.3 -0.3
      comp=Z,147nm,1.1s,mb5.9,baz=126,slow=6.9,SNR=24
BRTR  Keskin Array B    57.84 309  P      P      10 29 21.3 -0.3
BRTR                               pmax   pmax
      comp=Z,147nm,1.1s
BZK   Bozkurt           57.97 311  eP     P      10 29 22.5  0.0
ALFC  Alevga            58.05 303  ⇓P     P      10 29 22.3 -0.8
      comp=Z,3.6nm,0.8s
ALFC  Alevga            58.05 303⇓ iP     P      10 29 22.3 -0.8
ELDT  Eldivan           58.13 309  i P    P      10 29 23.4 -0.3
PPCY  Paphos            58.23 303  ⇓P     P      10 29 23.6 -0.8
PPCY  Paphos            58.23 303⇓ eP     P      10 29 23.6 -0.8
HDMB  Hadim             58.34 305  eP     P      10 29 24.8 -0.4
BALT  Daday             58.34 311  i P    P      10 29 25.2  0.0
ANTO  Ankara            58.51 309  eP     P      10 29 25.7 -0.6
SIM   Simferopol'       58.52 315d iP     P      10 29 26.0 -0.3
SIM                                eS     S      10 37 28.0 +1.6
SIM                                pmax   pmax
      comp=Z,217nm,0.9s,mb6.2
LOD   Lodumlu           58.53 309  eP     P      10 29 26.3 -0.2
KONT  Konya--Tatoy      58.57 306  eP     P      10 29 26.4 -0.3
PMG   Port Moresby      58.59 110  P      P      10 29 27.2  0.0
      comp=Z,209nm,0.9s,mb6.2,baz=313,slow=5.7,SNR=20
PMG                                LR     LR     10 53 15.4
      comp=Z,7µm,21.5s,MS5.7,baz=123,slow=34
PMG   Port Moresby      58.59 110  eP     P      10 29 27.1 -0.1
PMG                                pmax   pmax
      comp=Z,220nm,1.0s
PMG   Port Moresby      58.59 110  eP     P      10 29 26.9 -0.3
      comp=Z,215nm,0.9s,mb6.2
KIZT  Kizilcal          59.06 307  eP     P      10 29 29.5 -0.7
SGKT  Sivrigoynuk       59.17 309  i P    P      10 29 30.0 -1.0
MOS   Moscow            59.66 327  i P    P      10 29 33.0 -1.1
MOS                                e             10 30 20.6
MOS                                e             10 31 46.8
MOS                                eS     S      10 37 39.8 -1.3
MOS                                e             10 37 54.5
MOS                                pmax   pmax
      comp=Z,3µm,3.0s
MOS                                pmax   pmax
      comp=Z,796nm,2.0s,mb6.4
MOS                                smax
      comp=N,3µm,5.8s
MOS                                MLR    MLR
      comp=Z,20µm,17.1s,MS6.3
MOS                                MLR    MLR
      comp=E,17µm,17.7s
MDU   Mudurnu           59.79 309  eP     P      10 29 35.2  0.0
ANTB  Antalya           59.79 305  eP     P      10 29 34.2 -1.0
BCK   Bucak             59.90 306  P      P      10 29 35.8 -0.2
ESKT  Eskisehir         59.94 308  eP     P      10 29 36.0 -0.2
ESKT  Eskisehir         59.94 308  i P    P      10 29 34.9 -1.4
OBN   Obninsk           59.99 327⇓ iP     P      10 29 35.5 -0.8
OBN                                e      pP     10 29 43.5 -1.2
OBN                                e             10 30 22.4
OBN                                e             10 31 50.1
OBN                                pmax   pmax
      comp=Z,549nm,1.4s,mb6.4
OBN                                MLR    MLR
      comp=Z,14µm,15.0s,MS6.2
OBN   Obninsk           59.99 327⇓ eP     P      10 29 35.1 -1.2
      comp=Z,582nm,1.3s,mb6.5
OBN                                LR     LR
      comp=Z,3µm,19.0s,MS5.5
ISP   Isparta           60.01 306  eP     P      10 29 35.1 -1.6
ISP   Isparta           60.01 306d iP     P      10 29 35.4 -1.3
HENT  Hendek            60.08 309  i P    P      10 29 36.0 -1.1
ALT   Altintas          60.45 307  eP     P      10 29 39.3 -0.5
HRT   Hereke            61.01 309  eP     P      10 29 41.9 -1.6
HRT   Hereke            61.01 309  eP     P      10 29 43.4  0.0
HRT   Hereke            61.01 309  P      P      10 29 43.4  0.0
FETY  Fethiye           61.03 305  eP     P      10 29 42.6 -1.0
DNZL  Cakiroluk         61.15 306  i P    P      10 29 43.0 -1.5
DENT  Denizli           61.16 306  eP     P      10 29 43.5 -1.1
YLV   Yalova            61.20 309  eP     P      10 29 43.9 -0.9
ULDT  Uludag            61.33 308  i P    P      10 29 45.1 -0.6
DALT  Dalyan (Mudla)    61.39 305  eP     P      10 29 46.4 +0.2
ISK   Istanbul-Kandi    61.49 310  eP     P      10 29 46.3 -0.5
ORLT  Orhaneli          61.50 308  eP     P      10 29 46.9 +0.1
MANT  Manisa            61.60 307  i P    P      10 29 46.3 -1.2
DST   Dursunbey         61.66 308  eP     P      10 29 47.0 -0.9
AYDN  Tasoluk           62.07 306  i P    P      10 29 50.1 -0.6
TIXI  Tiksi             62.10  12  eP     P      10 29 49.2 -1.3
TIXI                               pmax   pmax
      comp=Z,976nm,1.3s,mb6.8
TIXI                               pmax   pmax
      comp=N,210nm,1.5s
TIXI                               pmax   pmax
      comp=E,230nm,1.7s
TIXI                               pmax   pmax
      comp=Z,2µm,1.7s,mb7.0
TIXI                               MLR    MLR
      comp=Z,17µm,17.0s,MS6.3
TIXI                               MLR    MLR
      comp=N,9µm,18.0s,MS6.6
TIXI                               MLR    MLR
      comp=E,39µm,18.0s,MS6.6
MLSB  Milas             62.12 305  eP     P      10 29 50.5 -0.6
BTOK  Tokmak            62.13 308  i P    P      10 29 49.4 -1.7
AKS   Akhisar           62.22 307  eP     P      10 29 51.3 -0.4
BALB  Balikesir         62.24 308  eP     P      10 29 51.4 -0.4
BNT   Bandirma          62.28 309  eP     P      10 29 51.5 -0.6
CTA   Charters Tower    62.29 121  P      P      10 29 52.1 -0.2
      comp=E,70nm,0.9s,mb5.8,baz=302,slow=7.8,SNR=18
CTA                                PKPPKP        10 58 59.3
      comp=E,18nm,1.3s,baz=90,slow=1.7,SNR=3.2
CTA   Charters Tower    62.29 121  P      P      10 29 52.2 -0.2
CTA                                pmax   pmax
      comp=Z,70nm,0.9s
CTA                                pmax   pmax
      comp=Z,18nm,1.3s
CTAO  Charters Tower    62.29 121  P      P      10 29 52.8 +0.4
CTAO                               pmax   pmax
      comp=Z,340nm,1.4s,mb6.3
CTAO  Charters Tower    62.29 121  eP     P      10 29 52.2 -0.2
      comp=Z,340nm,1.4s,mb6.3
CTAO                               LR     LR
      comp=Z,10µm,20.0s,MS6.0
BDRM  Kayabasi          62.37 305  i P    P      10 29 51.0 -1.7
PSN   Preselentsi       62.48 312  eP     P      10 29 53.0 -0.3
KIS   Kishinev          62.55 316⇑ iP     P      10 29 51.0 -2.7
KIS                                e             10 30 08.0
KIS                                e             10 32 13.0
KIS                                pmax   pmax
      comp=Z,800nm,2.0s,mb6.5
MRMT  Marmara Adasi     62.55 309  eP     P      10 29 52.4 -1.4
MA2   Magadan           62.55  29  eP     P      10 29 52.7 -0.9
MA2                                pmax   pmax
      comp=Z,220nm,1.2s,mb6.2
MA2   Magadan           62.55  29  i Pr          10 29 52.3
KDAG  Bornova           62.61 306  i P    P      10 29 53.4 -0.8
IZM   Izmir             62.61 306  eP     P      10 29 54.2 -0.1
MFT   Murefte           62.80 309  P      P      10 29 58.4 +2.9
SKR   Severo-Kuril's    62.90  40  eP     P      10 29 51.5 -4.5
SKR                                e      pP     10 29 58.8 -5.6
SKR                                e             10 30 06.5
SKR                                pmax   pmax
      comp=N,130nm,1.0s
SKR                                pmax   pmax
      comp=E,220nm,1.0s
SKR                                pmax   pmax
      comp=Z,450nm,1.0s,mb6.5
SKR                                MLR    MLR
      comp=N,8µm,14.0s,MS6.1
SKR                                MLR    MLR
      comp=E,6µm,14.0s,MS6.1
SKR                                MLR    MLR
      comp=Z,14µm,14.0s,MS6.3
PRD   Provadia          62.98 312  eP     P      10 29 56.0 -0.6
MBAR  Mbarara           62.98 262  PFAKE         10 30 10.0  +13
MBAR                               LR     LR
      comp=Z,5µm,21.0s,MS5.6
AKASG Malin Array Be    62.99 320  P      P      10 29 55.4 -1.2
      comp=Z,53nm,0.8s,mb5.7,baz=87,slow=5.0,SNR=23
AKASG Malin Array Be    62.99 320  P      P      10 29 55.4 -1.2
AKASG                              pmax   pmax
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      comp=Z,53nm,0.9s
LPK   Lapseki           63.16 309  eP     P      10 29 58.1 +0.3
EDRB  Edirne            63.31 310  eP     P      10 29 58.7 -0.2
JMB   Yambol            63.49 311  eP     P      10 30 00.0  0.0
ALN   Alexandroupoli    63.75 309  eP     P      10 30 00.4 -1.4
ISR   Istrita           63.83 314⇑ iP     P      10 30 03.3 +1.1
ISR   Istrita           63.83 314⇑ iP     P      10 30 03.3 +1.1
APE   Apeiranthos       63.90 305  eP     P      10 29 59.9 -2.9
SANT  Santorini         63.92 304  eP     P      10 30 01.1 -1.9
      comp=Z,104nm,0.6s,mb6.0
SZH   Strazhica         64.05 312  eP     P      10 30 03.0 -0.7
DIM   Dimitrovgrad      64.23 310  eP     P      10 30 04.0 -0.9
KDZ   Kurdzhali         64.28 310  eP     P      10 30 05.0 -0.3
MLR   Muntele Rosu      64.30 314  P      P      10 30 05.9 +0.7
      comp=Z,323nm,1.0s,mb6.3,baz=69,slow=2.8,SNR=28
MLR   Muntele Rosu      64.30 314  P      P      10 30 05.9 +0.6
MLR                                pmax   pmax
      comp=Z,323nm,1.0s
IDI   Anoyia            64.35 303  P      P      10 30 05.6 -0.3
      comp=Z,42nm,0.6s,mb5.6,baz=100,slow=6.9,SNR=12
LOS   Limnos            64.41 308  eP     P      10 30 05.1 -1.0
PVL   Pavlikeni         64.48 312  eP     P      10 30 06.5  0.0
MNK   Minsk             64.65 324  eP     P      10 30 04.0 -3.4
MNK                                e             10 30 42.0
MNK                                eSSS   SSS    10 45 50.0 +2.9
PUL   Pulkovo           64.72 330⇑ eP     P      10 30 07.5 -0.3
PUL                                pmax   pmax
      comp=Z,334nm,1.0s,mb6.3
PUL                                pmax   pmax
      comp=E,298nm,1.1s
PUL   Pulkovo           64.72 330  i Pr          10 30 07.6
RZN   Rozhen            64.81 310  eP     P      10 30 08.0 -0.7
PLD   Plovdiv           64.85 310  eP     P      10 30 08.5 -0.4
PET   Petropavlovsk     64.92  38  eP     P      10 30 07.8 -1.4
PET                                pmax   pmax
      comp=Z,160nm,1.2s,mb5.9
PET   Petropavlovsk     64.92  38⇑ iP     P      10 30 08.0 -1.2
STKA  Stephens Creek    64.95 135  P      P      10 30 09.2 -0.5
      comp=Z,52nm,0.7s,mb5.7,baz=310,slow=6.7,SNR=18
STKA  Stephens Creek    64.95 135  eP     P      10 30 09.2 -0.6
GVD   Gavdhos           65.00 302  eP     P      10 30 08.4 -1.7
      comp=Z,156nm,1.1s,mb6.0
OUR   Ouranopolis       65.28 308  eP     P      10 30 10.7 -1.0
PGB   Panagyurishte     65.28 311  eP     P      10 30 11.5 -0.2
AOS   Alonnisos         65.29 307  eP     P      10 30 10.8 -1.0
IDID  Didziasalis       65.44 325  i P    P      10 30 12.3 -0.2
IDID                               AMPb   AMB    10 30 14.4
      comp=Z,111nm,1.3s,mb5.7
PAIG  Paliouri          65.48 308  eP     P      10 30 12.5 -0.5
MMB   Musomiste         65.54 310  eP     P      10 30 10.5 -2.9
SRS   Serrai            65.61 309  eP     P      10 30 12.8 -1.1
IIGN  Ignalina          65.74 325  i P    P      10 30 14.3 -0.1
IIGN                               AMPb   AMB    10 30 16.4
      comp=Z,118nm,1.3s,mb5.8
SOH   Sokhos            65.78 309  eP     P      10 30 13.9 -1.0
IZAR  Zarasai           65.81 325  i P    P      10 30 14.6 -0.2
IZAR                               AMPb   AMB    10 30 16.8
      comp=Z,106nm,1.3s,mb5.7
XOR   Xorichti          65.84 307  eP     P      10 30 13.5 -1.8
ISAL  Salakas           65.84 325  i P    P      10 30 14.8 -0.2
ISAL                               AMPb   AMB    10 30 17.1
      comp=Z,97nm,1.4s,mb5.6
LVZ   Lovozero          65.90 339  eP     P      10 30 14.4 -0.8
LVZ                                pmax   pmax
      comp=Z,261nm,1.1s,mb6.2
LVZ                                pmax   pmax
      comp=E,72nm,1.5s
LVZ                                MLR    MLR
      comp=Z,20µm,14.0s,MS6.5
LVZ                                MLR    MLR
      comp=E,14µm,16.0s
LVZ   Lovozero          65.90 339  i Pr          10 30 14.7
VTS   Vitosha           65.99 311  P      P      10 30 15.0 -1.2
KKB   Krupnik           66.04 310  P      P      10 30 15.0 -1.5
THE   Thessaloniki      66.06 309  eP     P      10 30 15.3 -1.4
KNT   Kendrikon         66.14 309  eP     P      10 30 16.4 -0.8
APA   Apatity           66.20 339⇑ iP     P      10 30 16.7 -0.4
APA                                pmax   pmax
      comp=Z,340nm,1.1s,mb6.3
VAY   Valandovo         66.39 309  i P    P      10 30 17.2 -1.6
LIT   Litokhoron        66.41 308  eP     P      10 30 17.5 -1.4
AGG   Agios Georgios    66.49 307  eP     P      10 30 17.4 -2.1
GRG   Griva             66.51 309  eP     P      10 30 18.4 -1.1
KWP   Kalwaria          66.96 318  eP     P      10 30 22.2 -0.1
KWP                                e      pP     10 30 30.7  0.0
BOLS  Boljevac          66.98 312⇓ iP     P      10 30 21.6 -0.9
KOLS  Kolonicke sedl    67.17 318  i P    P      10 30 24.1 +0.5
FINES FINESS Array B    67.19 331  P      P      10 30 23.1 -0.5
      comp=Z,97nm,0.9s,mb5.8,baz=104,slow=7.9,SNR=27
FINES FINESS Array B    67.19 331  P      P      10 30 23.1 -0.5
FINES                              pmax   pmax
      comp=Z,97nm,0.9s
SUW   Suwalki           67.24 323  eP     P      10 30 23.0 -1.0
SUW                                e      pP     10 30 31.5 -0.9
KAF   Kangasniemi       67.25 332  ep     P      10 30 23.6 -0.3
      comp=Z,670nm,1.4s,mb6.5,baz=103,slow=6.2
KAF   Kangasniemi       67.25 332  eP     P      10 30 23.6 -0.3
KAF                                pmax   pmax
      comp=Z,670nm,1.4s,mb6.5
SKO   Skopje            67.27 310⇓ iP     P      10 30 23.2 -1.2
      comp=Z,0.1nm,1.0s
FNA   Florina           67.28 309  eP     P      10 30 22.5 -2.0
CRVS  Cervenica-Dubn    67.70 318  i P    P      10 30 28.6 +1.6
OHR   Ohrid             67.72 309  i P    P      10 30 25.4 -1.9
GRUS  Gruza             67.88 312⇑ iP     P      10 30 26.4 -1.8
IGT   Igoumenitsa       68.05 307  eP     P      10 30 27.4 -1.9
BEO   Belgrade          68.11 313⇑ iP     P      10 30 28.9 -0.7
WAR   Warsaw            68.30 321  eP     P      10 30 30.7  0.0
WAR                                e      pP     10 30 38.3 -0.7
KECS  Kecovo            68.31 317  i P    P      10 30 30.2 -0.6
QSH   Qafa e Shtames    68.41 309  ep     P      10 30 31.0 -0.5
DIVS  Divcibare         68.41 312⇓ iP     P      10 30 29.8 -1.7
OJC   Ojcow             68.89 319⇓ iP     P      10 30 34.0 -0.3
KEV   Kevo              69.17 340  ep     P      10 30 35.6 -0.1
      comp=Z,826nm,1.5s,mb6.4
KEV   Kevo              69.17 340  eP     P      10 30 35.6 -0.1
KEV                                pmax   pmax
      comp=Z,826nm,1.5s,mb6.4
VYHS  Vyhne             69.40 317  i P    P      10 30 37.2 -0.3
PKSM  Moragy            69.44 314  i      P      10 30 37.6 -0.2
ARCES ARCESS Array B    69.60 340  P      P      10 30 38.3 -0.1
      comp=Z,227nm,1.1s,mb6.0,baz=90,slow=6.1,SNR=30
ARCES ARCESS Array B    69.60 340  P      P      10 30 38.3 -0.1
ARCES                              pmax   pmax
      comp=Z,227nm,1.1s
ARE0  ARCESS Array S    69.60 340  eP     P      10 30 38.1 -0.3
ARE0                               e      pP     10 30 46.8 +0.1
KOLL  Kolacno           69.70 317  i P    P      10 30 39.0 -0.3
SRO   Srobarova         69.72 316  i P    P      10 30 39.7 +0.2
SRO                                e      pP     10 30 48.1 +0.2
RHK1  Bakonya           69.83 314  i      P      10 30 39.8 -0.4
RAC   Raciborz          69.91 319  eP     P      10 30 40.2 -0.3
OKC   Ostrava-Krasne    69.92 318  eP     P      10 30 40.9 +0.2
OKC                                epP    pP     10 30 50.4 +1.4
OKC                                AMS    AMS    11 07 30.0
      comp=Z,7µm,14.6s
LSZ   Lusaka            69.94 248  PFAKE         10 30 50.0 +8.7
LSZ                                LR     LR
      comp=Z,33µm,19.0s,MS6.6
KTK1  Kautokeino        70.24 339⇓ iP     P      10 30 43.1 +0.8
KTK1                               AMb    AMB    10 30 44.7
      comp=Z,487nm,1.4s,mb6.3
KTK1                               epP    pP     10 30 52.6 +1.9
KTK1  Kautokeino        70.24 339⇓ iP     P      10 30 43.1 +0.8
      comp=Z,487nm,1.4s,mb6.2
SMOL  Smolenice         70.34 317  eP     P      10 30 42.9 -0.3
ZST   Bratislava        70.55 317  i P    P      10 30 44.0 -0.5
GKP   Gorka Klasztor    70.68 322  eP     P      10 30 44.7 -0.5
GKP                                e      pP     10 30 51.9 -1.7
TIP   Timpagrande       70.83 307  eP     P      10 30 46.0 -0.4
SISC  Sisak             71.01 314  i P    P      10 30 47.0 -0.4
VKA   Vienna            71.07 317⇓ iP     P      10 30 52.5 +4.8
      comp=Z,2µm,3.0s
DPC   Dobruska-Polom    71.12 319  eP     P      10 30 48.5 +0.6
DPC                                epP    pP     10 30 56.5 +0.2
DPC                                AMS    AMS    11 10 30.0
      comp=Z,8µm,14.5s
KSP   Ksiaz             71.15 319⇓ iP     P      10 30 48.5 +0.4
KSP                                epP    pP     10 30 55.8 -0.7
KSP   Ksiaz             71.15 319  eP     P      10 30 48.7 +0.6
KSP                                e      pP     10 30 56.9 +0.4
UPC   Upice             71.32 319  eP     P      10 30 49.5 +0.4
BILL  Bilibino          71.48  22d iP     P      10 30 49.2 -0.6
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BILL                                 pmax     pmax
      comp=Z,473nm,1.6s,mb6.2
BILL  Bilibino           71.48  22  i Pr      P        10 30 49.3 -0.5
BILL                                 LR       LR
      comp=Z,17µm,20.0s,MS6.3
GCIS  Gornji Cirnik      71.53 314  eP        P        10 30 50.6 +0.1
ARSA  Arzberg            71.60 316⇑iP         P        10 30 51.3 +0.4
      comp=Z,136nm,1.4s,mb5.7
LEGS  Legarje            71.75 314  eP        P        10 30 51.0 -0.8
BOJS  Bojanci            71.80 314  eP        P        10 30 52.0 -0.1
TRO   Tromso             71.87 339⇓iP         P        10 30 50.5 -1.6
TRO                                  AMb      AMB      10 31 00.8
      comp=Z,486nm,1.6s,mb6.2
TRO   Tromso             71.87 339⇓iP         P        10 30 50.5 -1.6
      comp=Z,486nm,1.6s,mb6.2
PERS  Pernice            71.88 315  eP        P        10 30 52.9 +0.3
BSD   Bornholm Skovb     72.13 324⇓iP         P        10 30 53.1 -0.8
BSD                                  pmax     pmax
      comp=Z,180nm,1.1s,mb5.9
BSD   Bornholm Skovb     72.13 324⇓iP         P        10 30 53.1 -0.8
      comp=Z,180nm,1.1s,mb5.9
PVCC  Panska Ves         72.24 319  eP        P        10 30 55.2 +0.6
PVCC                                 AMS      AMS      11 08 00.0
      comp=Z,8µm,18.0s
PRU   Pruhonice          72.26 318  eP        P        10 30 55.2 +0.5
      comp=Z,958nm,2.2s,mb6.3
PRU                                 epP       pP       10 31 03.1  0.0
PRU                                  AMS      AMS      11 09 00.0
      comp=Z,6µm,16.6s
OBKA  Obir               72.28 315⇑iP         P        10 30 55.4 +0.5
      comp=Z,166nm,1.1s,mb5.9
LJU   Ljubljana          72.30 314  eP        P        10 30 55.3 +0.2
PRA   Prague             72.33 319   P        P        10 30 55.0 -0.1
MOA   Molln              72.45 316⇑iP         P        10 30 55.7 -0.2
      comp=Z,101nm,1.1s,mb5.7
BRG   Berggiesshubel     72.64 319  i P       P        10 30 57.4 +0.4
BRG                                 i         pP       10 31 06.1 +0.7
BRG                                  pmax     pmax
      comp=Z,373nm,1.6s,mb6.1
BRG   Berggiesshubel     72.64 319  i P       P        10 30 57.4 +0.4
      comp=Z,373nm,1.6s,mb6.1
BRG                                 i         pP       10 31 06.1 +0.7
VOY   Vojsko             72.74 314⇓eP         P        10 30 57.3 -0.4
RUE   Ruedersdorf        72.75 321  eP        P        10 30 57.6  0.0
      comp=Z,694nm,1.3s,mb6.4
GEC2  GERESS Array S     72.81 317  eP        P        10 30 58.4 +0.4
GEC2                                 pmax     pmax
      comp=Z,292nm,1.2s,mb6.1
GEC2  GERESS Array S     72.81 317  eP        P        10 30 58.4 +0.4
      comp=Z,292nm,1.2s,mb6.1
GERES GERESS Array B     72.81 317   P        P        10 30 58.4 +0.4
      comp=Z,108nm,0.9s,mb5.8,baz=90,slow=5.3,SNR=28
GERES GERESS Array B     72.81 317   P        P        10 30 58.4 +0.4
GERES                                pmax     pmax
      comp=Z,108nm,0.9s
CADS  Cadrg              72.84 315  eP        P        10 30 58.1 -0.2
KHC   Kasperske Hory     72.89 318  eP        P        10 30 58.5  0.0
KHC                                  AMS      AMS      11 11 30.0
      comp=Z,8µm,15.7s
HFS   Hagfors            73.00 329   P        P        10 30 58.4 -0.5
      comp=Z,267nm,1.1s,mb6.1,baz=104,slow=5.9,SNR=5.9
HFS   Hagfors            73.00 329   P        P        10 30 58.4 -0.5
HFS                                  pmax     pmax
      comp=Z,267nm,1.1s
ROBS  Robic              73.00 315  eP        P        10 30 58.9 -0.3
RGN   Rugen              73.04 323  eP        P        10 30 59.8 +0.6
      comp=Z,2µm,2.0s,mb6.6
MOR8  Moi Rana           73.08 335⇓iP         P        10 30 58.3 -0.9
MOR8                                 AMb      AMB      10 31 00.0
      comp=Z,386nm,1.4s,mb6.1
MOR8  Moi Rana           73.08 335⇓iP         P        10 30 58.3 -0.9
      comp=Z,386nm,1.4s,mb6.1
KBA   Koelnbreinsper     73.09 315⇑iP         P        10 30 59.5 -0.2
      comp=Z,79nm,1.2s,mb5.5
CLL   Collm              73.23 320⇓iP         P        10 31 00.5 +0.1
CLL                                 e         pP       10 31 08.0 -0.9
CLL                                  pmax     pmax
      comp=Z,277nm,1.3s,mb6.0
CLL   Collm              73.23 320⇓iP         P        10 31 00.5 +0.1
      comp=Z,277nm,1.3s,mb6.0
CLL                                 e         pP       10 31 08.0 -0.9
CLL   Collm              73.23 320 ⇓P         P        10 31 00.5 +0.1
      comp=Z,logA/T=2.3,mb6.0
CLL                                 e*PP      pP       10 31 08.0 -0.9
CLL                                 eS        S        10 40 25.0 -0.6
CLL                                 e*SS               10 40 43.0
WET   Wettzell           73.35 318  eP        P        10 31 01.6 +0.4
WET                                  pmax     pmax
      comp=Z,249nm,1.2s,mb6.0
WET   Wettzell           73.35 318  eP        P        10 31 01.6 +0.4
      comp=Z,249nm,1.2s,mb6.0
COP   Copenhagen         73.56 324⇓iP         P        10 31 02.7 +0.5
COP                                  pmax     pmax
      comp=Z,140nm,1.1s,mb5.8
COP   Copenhagen         73.56 324⇓iP         P        10 31 02.7 +0.5
      comp=Z,143nm,1.1s,mb5.8
LOF   Lofoten            73.60 337⇓iP         P        10 31 03.8 +1.5
LOF                                  AMb      AMB      10 31 05.3
      comp=Z,407nm,1.7s,mb6.1
LOF                                 epP       pP       10 31 12.3 +1.7
LOF   Lofoten            73.60 337⇓iP         P        10 31 03.8 +1.5
      comp=Z,407nm,1.7s,mb6.1
NKC   Novy Kostel        73.60 319  eP        P        10 31 03.0 +0.4
NKC                                  AMS      AMS      11 08 30.0
      comp=Z,11µm,19.3s
FX1   Attu Island--F     73.63  39   P        P        10 31 01.0 -1.7
      comp=Z,267nm,0.9s,mb6.2,baz=300,slow=3.4,SNR=26
FX1   Attu Island--F     73.63  39   P        P        10 31 01.0 -1.7
FX1                                  pmax     pmax
      comp=Z,267nm,0.9s
FX1   Attu Island--F     73.63  39  eP        P        10 31 02.6 -0.1
NSS   Namsos             74.00 334  eP        P        10 31 03.5 -1.1
MOX   Moxa               74.12 319  eP        P        10 31 05.9 +0.3
MOX   Moxa               74.12 319  i P       P        10 31 05.9 +0.3
SMY   Shemya             74.20  39   P        P        10 31 06.0  0.0
SMY                                  pmax     pmax
      comp=Z,2µm,1.2s,mb6.8
SMY   Shemya             74.20  39  eP        P        10 31 05.5 -0.6
      comp=Z,2µm,1.3s,mb6.8
SMY                                  LR       LR
      comp=Z,6µm,21.0s,MS5.9
WTTA  Wattenberg         74.25 316⇑iP         P        10 31 06.1 -0.3
      comp=Z,8.0nm,0.4s,mb5.0
NB2   NORSAR Subarra     74.25 330   P        P        10 31 05.5 -0.6
      comp=Z,346nm,1.2s,mb6.2,baz=93,slow=5.6
NB2   NORSAR Subarra     74.25 330   P        P        10 31 05.5 -0.6
      baz=93,slow=5.6
NOA   NORSAR Array B     74.25 330   P        P        10 31 05.7 -0.4
      comp=Z,120nm,1.0s,mb5.8,baz=91,slow=5.7,SNR=29
NOA   NORSAR Array B     74.25 330   P        P        10 31 05.7 -0.4
NOA                                  pmax     pmax
      comp=Z,120nm,1.0s
WATA  Walderalm          74.28 316⇑iP         P        10 31 06.4 -0.2
      comp=Z,51nm,0.7s,mb5.6
NAO01 NORSAR Array S     74.41 330  eP        P        10 31 05.9 -1.1
      comp=Z,86nm,0.8s,mb5.7
NAO01                                LR       LR
      comp=Z,10µm,19.0s,MS6.1
GRA1  Grafenberg Arr     74.41 318  eP        P        10 31 08.2 +0.9
      comp=Z,396nm,1.3s,mb6.2
GRF   Grafenberg Arr     74.41 318  eP        P        10 31 08.2 +0.9
GRF                                  pmax     pmax
      comp=Z,396nm,1.3s,mb6.2
GRF   Grafenberg Arr     74.41 318  eP        P        10 31 08.2 +0.9
      comp=Z,396nm,1.3s,mb6.2
FUR   Furstenfeldbru     74.45 317  eP        P        10 31 07.5  0.0
FUR                                  pmax     pmax
      comp=Z,234nm,1.2s,mb6.0
FUR   Furstenfeldbru     74.45 317  eP        P        10 31 07.5  0.0
      comp=Z,234nm,1.2s,mb6.0
OSL   Oslo               74.49 329  eP        P        10 31 07.7 +0.2
SQTA  Sankt Quirin       74.54 316⇑iP         P        10 31 07.9 -0.2
      comp=Z,40nm,0.5s,mb5.6
MOTA  Moosalm            74.61 316⇑iP         P        10 31 08.2 -0.3
      comp=Z,55nm,0.9s,mb5.5
BSEG  Bad Segeberg       74.81 323  eP        P        10 31 10.2 +0.7
BSEG                                 pmax     pmax
      comp=Z,627nm,1.3s,mb6.4
CLZ   Clausthal          74.86 320  eP        P        10 31 10.3 +0.5
      comp=Z,384nm,1.2s,mb6.2
KONO  Kongsberg          75.06 329   P        sP       10 31 21.9 -0.3
KONO  Kongsberg          75.06 329  eP        pP       10 31 17.9 -1.4
      comp=Z,48nm,1.2s
KONO                                 LR       LR
      comp=Z,13µm,19.0s,MS6.2
HDH   Heidenheim         75.14 317⇓eP         P        10 31 11.3 -0.2
UBR   Uberruh            75.26 316⇓eP         P        10 31 12.0 -0.2
MAIM                     75.27 312   P        P        10 31 10.5 -1.9
DOMB  Dombas             75.28 331⇓iP         P        10 31 12.1  0.0
DOMB                                 AMb      AMB      10 31 13.6
      comp=Z,318nm,1.3s,mb6.1
DOMB  Dombas             75.28 331⇓iP         P        10 31 12.1  0.0
      comp=Z,318nm,1.3s,mb6.1
MUD   Monsted U'grnd     75.37 325  i P       P        10 31 12.4 -0.3
MUD                                  pmax     pmax
      comp=Z,360nm,1.2s,mb6.2
MUD   Monsted U'grnd     75.37 325  i P       P        10 31 12.4 -0.3
      comp=Z,356nm,1.2s,mb6.2
VALM                     75.41 313   P        P        10 31 12.3 -0.8
DAVA  Damuels            75.44 316⇑iP         P        10 31 13.4 +0.1
      comp=Z,223nm,1.1s,mb6.0
DAVOX Davos              75.48 315   P        P        10 31 13.9 +0.4
      comp=Z,76nm,1.0s,mb5.6,baz=62,slow=5.6,SNR=12
SIND  Sindeldorf         75.48 318⇓eP         P        10 31 13.8 +0.3
VINC  Vinca              75.49 312   P        P        10 31 12.3 -1.3
GRAM                     75.52 313   P        P        10 31 12.8 -1.0
BACM                     75.54 313   P        P        10 31 13.0 -0.9
CODM                     75.69 313   P        P        10 31 14.0 -0.7
BUCH  Bad Urach          75.71 317⇓eP         P        10 31 15.0 +0.2
LBTB  Lobatse            75.77 240   P        P        10 31 17.6 +2.0
LBTB                                 pmax     pmax
      comp=Z,110nm,1.0s,mb5.7
LBTB  Lobatse            75.77 240  eP        P        10 31 17.2 +1.6
      comp=Z,108nm,1.0s,mb5.7
LBTB                                e         pP       10 31 25.2 +1.1
LBTB                                 LR       LR
      comp=Z,18µm,19.0s,MS6.4
STU   Stuttgart          75.79 317  eP        P        10 31 15.3 +0.1
STU                                  pmax     pmax
      comp=Z,30nm,0.6s,mb5.4
STU   Stuttgart          75.79 317  eP        P        10 31 14.7 -0.6
      comp=Z,30nm,0.6s,mb5.4
GUT   Gutenstein         75.90 317⇓eP         P        10 31 15.7 -0.1
MOL   Molde              75.97 332⇓iP         P        10 31 18.5 +2.6
MOL                                  AMb      AMB      10 31 20.5
      comp=Z,401nm,1.5s,mb6.1
MOL   Molde              75.97 332⇓iP         P        10 31 18.5 +2.6
      comp=Z,401nm,1.5s,mb6.1
TOD   Tromm              75.99 318⇓eP         P        10 31 16.6 +0.3
TOD   Tromm              75.99 318  eP        P        10 31 16.5 +0.2
SWS   Schriesheim        76.06 318⇓eP         P        10 31 16.9 +0.2
LBG   Lerchenberg        76.06 317⇓eP         P        10 31 16.9 +0.1
SPAK  Spaichingen        76.11 317⇓eP         P        10 31 17.3 +0.2
SPAK  Spaichingen        76.11 317  eP        P        10 31 17.0 -0.1
BFO   Black Forest       76.40 317  eP        P        10 31 18.6 -0.1
BFO                                  pmax     pmax
      comp=Z,141nm,1.4s,mb5.7
BFO   Black Forest       76.40 317  eP        P        10 31 18.6 -0.1
      comp=Z,141nm,1.4s,mb5.7
PGF   Pioggiola          76.47 311⇓iP         P        10 31 18.8 -0.4
      comp=Z,625nm,1.6s,mb6.0
KTD   Kalmit             76.48 318⇓eP         P        10 31 19.4 +0.3
KTD   Kalmit             76.48 318  eP        P        10 31 19.3 +0.2
VSL   Villasalto         76.51 308  eP        P        10 31 18.6 -0.9
      comp=Z,72nm,1.0s,mb5.6
PCP   Pian Castagno      76.60 313   P        P        10 31 19.3 -0.6
FELD  Feldberg           76.66 316⇓eP         P        10 31 20.3 +0.2
BLS5  Blasjo             76.67 328  eP        P        10 31 21.7 +1.8
LANF  Langenberg         76.69 318  eP        P        10 31 20.3  0.0
KIZ   Kirchzarten        76.71 317⇓eP         P        10 31 20.4  0.0
STR   Strasbourg         76.75 317  eP        P        10 31 19.6 -1.0
ABH   Alteburg           76.78 319⇓eP         P        10 31 21.3 +0.6
ABH   Alteburg           76.78 319  eP        P        10 31 20.7  0.0
FIN   Finale Ligure      76.88 313   P        P        10 31 20.2 -1.2
ORX   Oropa              76.89 314   P        P        10 31 19.6 -1.9
LIBD  Limburg            76.90 317⇓eP         P        10 31 22.0 +0.5
LIBD  Limburg            76.90 317  eP        P        10 31 21.0 -0.5
BBS   Basel-Blauen       77.03 316⇓eP         P        10 31 22.2  0.0
BBS   Basel-Blauen       77.03 316  eP        P        10 31 21.7 -0.5
WLS   Welschbruch        77.04 317  eP        P        10 31 22.0 -0.2
WTSB  Winterswijk        77.06 321  eP        P        10 31 22.5 +0.3
      comp=Z,459nm,1.6s,mb6.2
WIT   Witteveen          77.06 322  eP        P        10 31 23.2 +1.0
      comp=Z,1µm,1.7s,mb6.6
CDF   Champ du Feu       77.09 317⇓iP         P        10 31 22.3 -0.2
      comp=Z,420nm,1.5s,mb5.8
RUP   Ruppelstein        77.11 318⇓eP         P        10 31 23.2 +0.6
RUP   Ruppelstein        77.11 318  eP        P        10 31 21.9 -0.7
ROB   Roburent           77.11 313   P        P        10 31 22.1 -0.6
IMI   Imperia            77.14 312   P        P        10 31 20.5 -2.4
RUND  Rundenannen        77.14 329  eP        P        10 31 22.9 +0.3
ECH   Echery             77.19 317  eP        P        10 31 22.0 -1.1
MONE  Monesi             77.22 313   P        P        10 31 22.2 -1.1
MOF   Molkenrain         77.24 316  eP        P        10 31 22.7 -0.7
NEGI  Negi               77.28 312   P        P        10 31 22.5 -1.2
BOSA  Boshof             77.44 236  eP        P        10 31 26.4 +1.6
      comp=Z,284nm,1.1s,mb6.1
BOSA                                 LR       LR
      comp=Z,9µm,22.0s,MS6.0
ENR   Entracque          77.44 313   P        P        10 31 23.3 -1.2
RSP   Reno Superiore     77.45 314   P        P        10 31 23.6 -0.9
AUTN  L'Aution           77.46 313  eP        P        10 31 24.3 -0.3
BHB   Bricherasio        77.48 313   P        P        10 31 22.9 -1.8
LSD   Ceresole Reale     77.49 314   P        P        10 31 24.3 -0.4
LOMF  Lomont             77.50 316  eP        P        10 31 24.3 -0.5
STV2  Anna di Valdie     77.50 313   P        P        10 31 23.6 -1.3
STV   Sta Anna Valdi     77.50 313   P        P        10 31 23.9 -1.0
REVF  Revere             77.53 312  eP        P        10 31 23.3 -1.7
TOUF  Mont Tournerai     77.58 313  eP        P        10 31 25.0 -0.3
FENE  Fenestrelle        77.60 314   P        P        10 31 25.1 -0.3
PZZ   Prazzo             77.63 313   P        P        10 31 23.6 -2.0
MVIF  Mont Vial          77.67 312  eP        P        10 31 26.2 +0.4
WLF   Walferdange        77.70 318   P        P        10 31 26.7 +0.9
WLF                                  pmax     pmax
      comp=Z,450nm,1.8s,mb6.1
WLF   Walferdange        77.70 318  eP        P        10 31 26.4 +0.5
      comp=Z,447nm,1.8s,mb6.1
WLF                                 e         pP       10 31 34.8 +0.5
OG22  Abries             77.71 313  eP        P        10 31 25.9 -0.1
HGN   Heimansgroeve      77.72 320  eP        P        10 31 26.1 +0.2
      comp=Z,213nm,1.5s,mb5.8
LPL   La Plagne          77.78 314⇓iP         P        10 31 26.9 +0.6
      comp=Z,259nm,0.7s,mb5.9
RRL   Cesana Torines     77.81 314   P        P        10 31 25.1 -1.5
MBDF  Montbardon         77.84 313⇓iP         P        10 31 26.3 -0.4
      comp=Z,414nm,1.3s,mb5.9
SURF  Saint Ours         77.84 313  eP        P        10 31 27.0 +0.3
THEF  They Montfort      77.97 317  eP        P        10 31 26.0 -1.3
GDM   Grand'Maison       78.24 314  eP        P        10 31 28.6 -0.3
GRN   Grenoble           78.50 314  eP        P        10 31 31.4 +1.1
OCF   Saint Nazaire      78.90 313  eP        P        10 31 33.1 +0.6
OG26  St.-Nazaire-De     78.90 313  eP        P        10 31 33.1 +0.6
KIWB  Kanaga Island      79.63  39  eP        P        10 31 35.4 -0.9
SSF   Saint Saulge       79.79 316⇓iP         P        10 31 37.3  0.0
      comp=Z,985nm,1.8s,mb6.2
PLDF  La Plantade        79.87 315  eP        P        10 31 39.0 +1.2
COLF  Collangettes       79.89 314  eP        P        10 31 37.8 -0.1
AGO   Saint Agoulin      80.20 315  eP        P        10 31 40.9 +1.4
LBL   Lubilhac           80.25 314  eP        P        10 31 40.7 +0.9
BGF   Bois d'Agland      80.31 316⇓iP         P        10 31 40.3 +0.2
      comp=Z,1µm,1.8s,mb6.2
PYM   Petit Puy Mans     80.33 315  eP        P        10 31 40.5 +0.3
DZM   Mont Dzumac        80.38 115⇓eP         P        10 31 42.7 +1.7
DZM   Mont Dzumac        80.38 115⇓eP         P        10 31 42.7 +1.7
LRW   Lerwick            80.41 330  eP        P        10 31 39.8 -0.5
CASY  Casey              80.58 173   PFAKE             10 31 50.0 +8.9
CASY                                 LR       LR
      comp=Z,10µm,19.0s,MS6.2
WAL1  Walls              80.61 330  eP        P        10 31 41.8 +0.4
FRNF  Fournols           80.70 314  eP        P        10 31 42.7 +0.5
EJON  La Jonquera        80.96 311   P        P        10 31 44.0 +0.4
      comp=Z,37nm,1.3s,mb5.2
CAF   Calviac            81.12 314⇓iP         P        10 31 45.1 +0.7
      comp=Z,494nm,1.5s,mb5.9
FILF  Fillols            81.18 312  eP        P        10 31 43.2 -1.6
MTLF  Montolieu          81.29 312⇓iP         P        10 31 45.4 +0.1
      comp=Z,852nm,1.6s,mb6.1
KTG1  Tilbrook Grang     81.40 322  eP        P        10 31 44.3 -1.4
LCP   Cassop             81.57 324  eP        P        10 31 45.2 -1.3
VALF  Valcebollere       81.61 312  eP        P        10 31 47.9 +0.9
DAG   Danmarks Havn      81.78 347  i         P        10 31 46.8 -0.5
DAG   Danmarks Havn      81.78 347  i         P        10 31 46.8 -0.5
HPK   Haverah Park       81.81 323  eP        P        10 31 47.5 -0.3
KBI1  Birley Grange      81.89 323  eP        P        10 31 46.7 -1.6
LDF   La Druitiere       81.93 318⇓iP         P        10 31 48.7 +0.2
      comp=Z,566nm,1.3s,mb6.0
ESY   Stoneypath         81.97 326⇑eP         P        10 31 48.1 -0.5
ESY                                  AMb      AMB      10 31 50.8
      comp=Z,240nm,1.3s,mb6.0
LHO   Holmfirth          82.03 323  eP        P        10 31 48.5 -0.4
KWE   Weaver Farm        82.13 323  eP        P        10 31 47.0 -2.5
MLS   Moulis             82.17 312  eP        P        10 31 49.5 -0.4
EBL   Broad Law          82.24 325  eP        P        10 31 50.5 +0.6
EDI   Edinburgh          82.29 326⇑eP         P        10 31 50.3 +0.1
EDI                                  AMb      AMB      10 31 52.7
      comp=Z,362nm,1.4s,mb6.1
SUR   Sutherland         82.40 234  eP        P        10 31 54.1 +2.8
      comp=Z,58nm,0.8s,mb5.6
SUR                                 e         pP       10 32 02.8 +2.9
ESK   Eskdalemuir        82.43 325  eP        P        10 31 51.0  0.0
ESK   Eskdalemuir        82.43 325  eP        P        10 31 51.8 +0.8
ESK   Eskdalemuir        82.43 325  eP        P        10 31 51.6 +0.7
EAU   Auchinoon          82.45 326⇑eP         P        10 31 51.4 +0.4
EAU                                  AMb      AMB      10 31 53.8
      comp=Z,491nm,1.3s,mb6.3
EPOB  Poblet             82.49 311   P        P        10 31 52.3 +0.7
      comp=Z,138nm,1.1s,mb5.8
LCHF  La Chataignera     82.72 316  eP        P        10 31 53.9 +1.2
RESF  Ens                82.75 312  eP        P        10 31 53.0 +0.1
HAE   Alders End         82.75 322  eP        P        10 31 52.9 +0.1
EAB   Aberfoyle          82.86 326⇑eP         P        10 31 53.7 +0.6
EAB                                  AMb      AMB      10 31 55.8
      comp=Z,274nm,1.3s,mb6.1
EGRA  Graus              82.89 312   P        P        10 31 55.0 +1.3
      comp=Z,42nm,0.9s,mb5.5
LABF  Labassere          82.89 312  eP        P        10 31 48.1 -5.5
EBIE  Bielsa             82.91 312   P        P        10 31 55.5 +1.7
      comp=Z,57nm,1.2s,mb5.5
VIEF  Viey               82.96 312  eP        P        10 31 54.5 +0.5
HGH   Gray Hill          83.00 321  eP        P        10 31 53.5 -0.5
ANM   Nome               83.01  25  eP        P        10 31 55.0 +1.2
SSP1  Stoney Pound       83.01 322  eP        P        10 31 54.1 +0.1
EBR   Ebro Roquetas      83.03 310  eP        P        10 31 55.8 +1.4
MCH1  Michaelchurch      83.03 322  eP        P        10 31 54.3 +0.1
ERTA  Horta de San J     83.12 310   P        P        10 31 56.5 +1.6
      comp=Z,130nm,1.2s,mb5.8
REYF  Montagne du Re     83.22 313  eP        P        10 31 51.6 -3.7
GAL1  Galloway           83.37 325  eP        P        10 31 56.6 +0.7
ESAC  San Caprasio       83.56 311   P        P        10 31 58.1 +1.0
      comp=Z,130nm,1.1s,mb6.0
SGMF  Saint Gilles       83.59 318⇓iP         P        10 31 56.9 -0.2
      comp=Z,490nm,1.4s,mb6.1
MAW   Mawson             83.68 191   P        P        10 31 59.1 +2.0
      comp=Z,49nm,1.0s,mb5.6,baz=22,slow=7.0,SNR=16
MAW   Mawson             83.68 191   P        P        10 31 59.1 +2.0
MAW                                  pmax     pmax
      comp=Z,49nm,1.0s
MAW   Mawson             83.68 191  eP        P        10 31 59.0 +1.8
      comp=Z,1µm,2.1s,mb6.7
MAW                                 e         pP       10 32 08.1 +2.3
HSA   Swansea            83.79 322  eP        P        10 31 58.6 +0.5
EMOS  Mosqueruela        83.84 310   P        P        10 32 00.5 +1.9
      comp=Z,147nm,1.0s,mb6.1
EALK  Alkurruntz         83.98 313   P        P        10 31 59.6 +0.4
      comp=Z,209nm,1.5s,mb6.0
EBEN  Beniarda           84.01 308   P        P        10 32 00.1 +0.6
      comp=Z,581nm,1.9s,mb6.4
HPE   Pembroke           84.12 322  eP        P        10 32 00.3 +0.6
GMM   Mts of Mourne      84.23 324  eP        P        10 32 00.6 +0.4
DSB   Dublin             84.73 323  eP        P        10 32 03.9 +1.1
      comp=Z,57nm,1.0s,mb5.7
DLF   Lyons Farm         84.81 323  eP        P        10 32 04.1 +1.0
CART  Cartagena          84.85 307  eP        P        10 32 04.1 +0.4
      comp=Z,1µm,2.2s,mb6.7
EMUR  La Murta           84.98 308   P        P        10 32 05.9 +1.5
      comp=Z,22nm,0.9s,mb5.3
DCN   Croghan            85.22 324  eP        P        10 32 06.2 +1.0
ELAN  Lanestosa          85.35 313   P        P        10 32 06.5 +0.4
      comp=Z,142nm,3.5s
SCO   Scoresbysund       85.36 342  i P       P        10 32 04.9 -0.6
      comp=Z,24nm,0.8s,mb5.4
EVIA  Vianos             85.76 309   P        P        10 32 09.9 +1.6
      comp=Z,131nm,1.2s,mb6.0
ENIJ  Nijar              85.93 307   P        P        10 32 09.7 +0.6
      comp=Z,697nm,1.9s,mb6.6
EQES  Quesada            86.40 308   P        P        10 32 11.9 +0.5
      comp=Z,25nm,1.0s,mb5.4
EBER  Berja              86.48 307   P        P        10 32 13.4 +1.6
      comp=Z,83nm,1.1s,mb5.9
GUD   Guadarrama         86.51 311   P        P        10 32 13.2 +1.3
      comp=Z,52nm,0.8s,mb5.8
EARI  Arriondas          86.59 314   P        P        10 32 13.3 +1.1
      comp=Z,792nm,3.3s
ESDC  Sonseca Array      86.61 310   P        P        10 32 13.2 +0.8
      comp=Z,33nm,1.0s,mb5.5,baz=60,slow=4.7,SNR=19
ESLA  Sonseca Array      86.61 310  eP        P        10 32 13.2 +0.8
      comp=Z,24nm,1.3s,mb5.3
EBAN  Banos Encina       86.86 308   P        P        10 32 14.9 +1.3
      comp=Z,30nm,0.9s,mb5.5
IMA   Indian Mountai     87.02  22  eP        P        10 32 15.7 +1.9
ERON  Agron              87.16 307   P        P        10 32 16.0 +0.9
      comp=Z,2.9nm,0.6s
VAL   Valentia           87.37 323  eP        P        10 32 14.4 -1.4
ELUQ  Luque              87.38 308   P        P        10 32 17.0 +0.8
      comp=Z,38nm,1.4s,mb5.4
ELOJ  Sierra Loja        87.39 307   P        P        10 32 16.1 -0.1
      comp=Z,6.3nm,0.8s
EADA  Adamuz             87.46 309   P        P        10 32 17.9 +1.4
      comp=Z,81nm,1.2s,mb5.8
BORG  Borgarnes          87.80 337  eP        P        10 32 21.0 +3.5
      comp=Z,170nm,1.1s,mb6.2
EPON  Pontenova          87.95 314   P        P        10 32 18.7 -0.1
      comp=Z,444nm,1.9s,mb6.4
EMIJ  Mijas              88.03 307   P        P        10 32 18.2 -1.1
      comp=Z,56nm,1.1s,mb5.7
ECAL  Calabor            88.04 313   P        P        10 32 19.1 -0.1
      comp=Z,362nm,1.7s,mb6.3
PBRG  Braganca           88.08 312  eP        P        10 32 21.1 +1.7
ERUA  La Rua             88.20 313   P        P        10 32 19.9 -0.2
      comp=Z,181nm,1.6s,mb6.0
SUMG  Summit             88.45 347⇓eP         P        10 32 21.6 +1.1
      comp=Z,211nm,1.3s,mb6.2
ESPR  Espera             88.78 308   P        P        10 32 23.9 +1.0
      comp=Z,31nm,1.0s,mb5.6
PVRL  Vila Real          88.94 312  eP        P        10 32 25.4 +1.9
      comp=Z,129nm,1.9s,mb5.9
ELOB  Lobios             89.01 313   P        P        10 32 25.8 +1.9
      comp=Z,51nm,1.0s,mb5.8
STS   Santiago           89.06 314   P        P        10 32 25.6 +1.5
      comp=Z,126nm,1.2s,mb6.1
MTE   Manteigas          89.06 311  eP        P        10 32 25.7 +1.5
      comp=Z,283nm,1.3s,mb6.4
MTE   Manteigas          89.06 311  eP        P        10 32 25.6 +1.5
      comp=Z,203nm,1.4s,mb6.3
MSZ   Milford Sound      89.10 136   P        P        10 32 24.9 +0.7
EBAD  Badajoz            89.14 310   P        P        10 32 26.1 +1.5
      comp=Z,38nm,1.1s,mb5.6
EMIN  Mina Concepcio     89.16 309   P        P        10 32 26.0 +1.3
      comp=Z,39nm,1.1s,mb5.7
PCBR  Castelo Branco     89.18 311  eP        P        10 32 25.9 +1.2
      comp=Z,208nm,1.5s,mb6.2
PVIS  Viseu              89.23 312  eP        P        10 32 26.0 +1.1
      comp=Z,257nm,1.4s,mb6.4
EMAZ  Mazaricos          89.33 314   P        P        10 32 27.1 +1.7
      comp=Z,198nm,1.2s,mb6.3
EZAM  Zamans             89.38 313   P        P        10 32 27.4 +1.7
      comp=Z,38nm,1.0s,mb5.7
COLA  College            89.72  22  eP        P        10 32 26.9 +0.2
COLA                                 pmax     pmax
      comp=Z,879nm,2.3s,mb6.7
COLA  College            89.72  22  eP        P        10 32 26.9 +0.2
      comp=Z,879nm,2.3s,mb6.7
EGRO  El Granado         89.84 309   P        P        10 32 28.8 +0.8
      comp=Z,604nm,1.9s,mb6.6
PALC  Alcoutim           89.86 308  eP        P        10 32 29.2 +1.2
      comp=Z,243nm,1.7s,mb6.2
SPU   Mount Spurr        89.93  26  eP        P        10 32 28.6 +0.9
RSO   Redoubt South      89.97  27  eP        P        10 32 29.0 +1.1
PBEJ  Beja               89.99 309  eP        P        10 32 29.5 +0.9
      comp=Z,187nm,1.6s,mb6.2
ILAR  Eielson Array      90.13  22   P        P        10 32 28.4 -0.2
      comp=Z,104nm,1.2s,mb6.0,baz=287,slow=3.8,SNR=49
ILAR                                 PP       PP       10 35 56.5 -8.0
      comp=Z,8.5nm,0.9s,baz=305,slow=7.1,SNR=4.8
ILAR                                 PKKPbc            10 50 02.2
      comp=Z,1.3nm,1.1s,baz=164,slow=1.5,SNR=4.8
ILAR  Eielson Array      90.13  22   P        P        10 32 28.4 -0.2
ILAR                                 pmax     pmax
      comp=Z,104nm,1.2s
ILAR                                 pmax     pmax
      comp=Z,9.0nm,0.9s
ILAR                                 pmax     pmax
      comp=Z,1.0nm,1.1s
SYO   Syowa Base         90.29 197  ⇑P        P        10 32 31.2 +2.0
SYO   Syowa Base         90.29 197  ⇓PcP      PcP      10 32 33.9 +3.3
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OUZ	**Omahuta**	**90.34**	**126**	P	**P**	**10 32 32.3**	**+2.0**
PWA	**Palmer West**	**90.61**	**25**	*e*P	**P**	**10 32 32.1**	**+1.2**
	comp=Z,918nm,1.0s,mb7.1						
TUZ	**Tuapeka**	**90.65**	**137**	P	**P**	**10 32 31.7**	**+0.3**
TUZ	**Tuapeka**	**90.65**	**137**	P	sP	10 32 48.3	+5.5
PLOU	**Loures**	**90.70**	**310**	*e*P	**P**	**10 32 34.1**	**+2.3**
	comp=Z,300nm,1.8s,mb6.3						
FIB	**Fire Island**	**90.73**	**26**	*e*P	**P**	**10 32 33.1**	**+1.7**
FIB	**Fire Island**	**90.73**	**26**	*e*P	**P**	**10 32 33.0**	**+1.6**
PTEO	**Sao Teotonio**	**90.78**	**309**	*e*P	**P**	**10 32 34.0**	**+1.8**
	comp=Z,258nm,1.5s,mb6.3						
RPZ	**Rata Peaks**	**90.92**	**135**	P	**P**	**10 32 33.6**	**+0.8**
	comp=Z,29nm,0.6s,mb5.8,baz=301,slow=2.6,SNR=15						
PMR	**Palmer**	**90.95**	**25**	*e*P	**P**	**10 32 33.2**	**+0.8**
	comp=Z,1μm,2.0s,mb7.0						
SLKM	**Skilak Lake**	**91.04**	**26**	*e*P	**P**	**10 32 33.8**	**+0.9**
SLKM	**Skilak Lake**	**91.04**	**26**	*e*P	**P**	**10 32 33.7**	**+0.8**
WCZ	**Waipu Caves**	**91.12**	**127**	P	**P**	**10 32 35.9**	**+2.1**
THY	**Trims Highway**	**91.29**	**23**	*e*P	**P**	**10 32 35.5**	**+1.6**
KDAK	**Kodiak Island**	**91.30**	**29**	*e*P	**P**	**10 32 35.4**	**+1.3**
	comp=Z,3μm,1.3s						
INK	**Inuvik**	**92.05**	**16**	P	**P**	**10 32 38.2**	**+0.8**
	comp=Z,164nm,1.1s,mb6.3,baz=329,slow=5.2,SNR=55						
INK	**Inuvik**	**92.05**	**16**	P	**P**	**10 32 38.2**	**+0.9**
INK				pmax	pmax		
	comp=Z,165nm,1.1s						
INK	**Inuvik**	**92.05**	**16**	P	**P**	**10 32 38.2**	**+0.8**
MENT	**Mentasta**	**92.33**	**22**	*e*P	**P**	**10 32 40.3**	**+1.6**
DIV	**Divide**	**92.57**	**24**	*e*P	**P**	**10 32 41.5**	**+1.7**
	comp=Z,681nm,1.3s,mb6.9						
EYAK	**Cordova Ski Ar**	**92.90**	**25**	*e*P	**P**	**10 32 43.2**	**+1.8**
URZ	**Urewera**	**93.85**	**128**	P	**P**	**10 32 46.2**	**-0.2**
	comp=Z,64nm,0.8s,mb6.1,baz=4.7,slow=1.3,SNR=17						
DBIC	**Dimbokro**	**95.81**	**278**	P	**P**	**10 32 56.8**	**+0.9**
	comp=Z,30nm,1.2s,mb5.6,baz=66,slow=5.5,SNR=13						
DBIC				PKKPbc		10 49 46.9	
	comp=Z,2.7nm,0.7s,baz=258,slow=6.6,SNR=3.1						
DBIC	**Dimbokro**	**95.81**	**278**	P	**P**	**10 32 56.8**	**+0.9**
DBIC				pmax	pmax		
	comp=Z,30nm,1.2s						
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.7s						
DBIC	**Dimbokro**	**95.81**	**278**	*e*P	**P**	**10 32 58.9**	**+3.0**
DBIC				pmax	pmax		
	comp=Z,97nm,1.5s						
DBIC	**Dimbokro**	**95.81**	**278**	*e*P	**P**	**10 32 56.7**	**+0.8**
	comp=Z,100nm,1.5s,mb6.0						
DLBC	**Dease Lake**	**100.33**	**21**	P	P	10 33 17.4	+2.0
	comp=Z,30nm,1.2s,baz=302,slow=6.7,SNR=15						
DLBC				PP	PP	10 37 20.6	-3.7
	comp=Z,20nm,1.0s,baz=325,slow=8.7,SNR=8.5						
YKA	**Yellowknife Ar**	**101.35**	**13**	Pdiff	P	10 33 20.1	+0.4
	comp=Z,12nm,0.9s,baz=329,slow=4.6,SNR=47						
YKA				PP	PP	10 37 26.4	-5.5
	comp=Z,18nm,0.9s,baz=334,slow=8.0,SNR=19						
YKA				PKKPbc		10 49 28.8	
	comp=Z,1.4nm,1.0s,baz=148,slow=2.2,SNR=4.1						
YKA	**Yellowknife Ar**	**101.35**	**13**	P	P	10 33 20.1	+0.3
YKA						10 37 26.4	
YKA				pmax	pmax		
	comp=Z,12nm,0.9s						
YKA				pmax	pmax		
	comp=Z,19nm,0.9s						
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA	**Yellowknife Ar**	**101.35**	**13**	Pdif	P	10 33 20.1	+0.4
YKA				PP	PP	10 37 26.4	-5.5
YKA				PKKPbc		10 49 28.8	
FRB	**Frobisher Bay**	**101.72**	**352**	PKKPbc		10 49 30.0	
	comp=Z,3.1nm,0.8s,baz=185,slow=8.5,SNR=3.1						
QSPA	**South Pole Qui**	**103.30**	**180**⇓	*i*P	Pdif	10 33 43.1	+15
SNAA	**Sanae**	**104.42**	**199**⇑	*i*	PKKP	10 49 19.9	-2.2
SNAA	**Sanae**	**104.42**	**199**	PKKPbc		10 49 20.0	
	comp=Z,3.0nm,1.1s,baz=260,slow=2.7,SNR=6.0						
SCHQ	**Schefferville**	**109.83**	**348**	PP	PP	10 38 30.1	-5.4
	comp=Z,14nm,0.9s,baz=23,slow=7.0,SNR=5.7						
SCHQ				PKKPbc		10 49 05.5	
	comp=Z,1.7nm,0.5s,baz=222,slow=4.5,SNR=5.1						
WTV	**Waterville**	**112.51**	**23**	P	PKPdf	10 38 05.9	-2.5
WRD	**Warden**	**113.56**	**23**	P	PKPdf	10 38 08.4	-2.2
GBL	**Gable Mountain**	**113.61**	**24**	P	PKPdf	10 38 08.8	-1.9
VFP	**Flag Point**	**113.84**	**26**	P	PKPdf	10 38 09.2	-1.9
BMO	**Blue Mountains**	**115.90**	**23**	PKIKP	PKPdf	10 38 11.9	-3.3
BMO	**Blue Mountains**	**115.90**	**23**	PKPdf	PKPdf	10 38 11.1	-4.1
ULM	**Lac du Bonnet**	**116.14**	**6**	PKP	PKPdf	10 38 11.3	-4.2
	comp=Z,9.6nm,1.0s,baz=343,slow=3.3,SNR=6.4						
ULM				PP	PP	10 39 10.8	-10
	comp=Z,12nm,1.0s,baz=352,slow=9.3,SNR=4.7						
ULM				PKKPbc		10 48 41.6	
	comp=Z,8.5nm,1.2s,baz=200,slow=3.8,SNR=5.0						
HRY	**Holter Researc**	**116.19**	**19**	*e*PKPdf	PKPdf	10 38 12.7	-3.0
DGMT	**Dagmar**	**116.56**	**13**	*e*PKPdf	PKPdf	10 38 11.3	-5.1
LTIM	**Timbered Crate**	**117.12**	**28**	P	PKPdf	10 38 15.9	-1.7
LAO	**LASA Array**	**117.78**	**15**	*e*PKPdf	PKPdf	10 38 16.2	-2.5
OHCM	**Honcut**	**118.56**	**30**	*e*P	PKPdf	10 38 17.4	-3.1
IMW	**Indian Meadow**	**118.99**	**19**	*e*PKPdf	PKPdf	10 38 19.0	-2.2
MOOW	**Moose Ponds**	**119.18**	**19**	*e*PKPdf	PKPdf	10 38 18.6	-3.0
WUWY	**Wally Ulrich**	**119.37**	**19**	*e*PKPdf	PKPdf	10 38 19.6	-2.3
SNOW	**Snow King Moun**	**119.44**	**19**	*e*PKPdf	PKPdf	10 38 20.2	-1.8
REDW	**Red Top Meadow**	**119.50**	**20**	*e*PKPdf	PKPdf	10 38 19.9	-2.2
ELK	**Elko**	**120.18**	**24**	*e*PKIKP	PKPdf	10 38 22.0	-1.6
ELK	**Elko**	**120.18**	**24**	*e*PKPdf	PKPdf	10 38 21.8	-1.7
ELK				*e*		10 38 30.7	
HVU	**Hansel Valley**	**120.23**	**22**	PKIKP	PKPdf	10 38 21.7	-1.9
HVU	**Hansel Valley**	**120.23**	**22**	*e*PKPdf	PKPdf	10 38 21.1	-2.5
PDAR	**Pinedale Array**	**120.45**	**19**	PKP	PKPdf	10 38 21.1	-2.9
	comp=Z,15nm,1.0s,baz=90,slow=1.2,SNR=31						
PDAR				PP	PP	10 39 45.2	-4.9
	comp=Z,18nm,1.1s,slow=1.5,SNR=8.0						
PDAR				PKKPbc		10 48 26.4	
	comp=Z,1.1nm,0.9s,baz=135,slow=6.3,SNR=4.3						
FRNY	**Flat Rock**	**120.69**	**349**	PKPdf	PKPdf	10 38 20.7	-3.8
SPUT	**South Promonto**	**120.76**	**22**	*e*PKPdf	PKPdf	10 38 21.9	-2.8
NVAR	**Mina Array Bea**	**120.78**	**28**	PKP	PKPdf	10 38 23.3	-1.6
	comp=Z,34nm,1.0s,baz=273,slow=2.8,SNR=26						
NVAR				PP	PP	10 39 50.3	-2.3
	comp=Z,3.4nm,0.9s,baz=304,slow=3.3,SNR=2.6						
NVAR				PKKPbc		10 48 27.5	
	comp=Z,2.4nm,0.9s,baz=169,slow=3.8,SNR=7.1						
NVAR	**Mina Array Bea**	**120.78**	**28**	PKP	PKPdf	10 38 23.3	-1.6
NVAR				PP	PP	10 39 50.3	-2.3
NVAR				PKKPbc		10 48 27.5	
MNV	**Mina**	**120.85**	**28**	*e*PKIKP	PKPdf	10 38 23.4	-1.6
MNV	**Mina**	**120.85**	**28**	*e*PKPdf	PKPdf	10 38 22.4	-2.6
BGU	**Big Grassy Mou**	**120.88**	**23**	*e*PKPdf	PKPdf	10 38 22.3	-2.7
LRV	**Little Rabbit**	**121.06**	**32**	*e*PKPdf	PKPdf	10 38 23.6	-1.9
MIV	**Mineville/With**	**121.42**	**348**	*e*PKPdf	PKPdf	10 38 22.6	-3.3
MDV	**Middlebury**	**121.42**	**348**	*e*PKPdf	PKPdf	10 38 22.2	-3.7
NOQ	**North Oquirrh**	**121.46**	**22**	*e*PKPdf	PKPdf	10 38 23.6	-2.4
MTUM	**Tungsten Hills**	**121.53**	**29**	*e*PKPdf	PKPdf	10 38 24.6	-1.7
TPH	**Tonopah**	**121.56**	**28**	PKIKP	PKPdf	10 38 25.0	-1.3
TPH	**Tonopah**	**121.56**	**28**	*e*PKPdf	PKPdf	10 38 24.0	-2.3
SADO	**Sadowa**	**121.61**	**353**	PKKPbc		10 48 24.2	
	comp=Z,13nm,1.1s,baz=234,slow=4.5,SNR=3.1						
DAU	**Daniels Canyon**	**121.98**	**21**	PKIKP	PKPdf	10 38 25.5	-1.6
DAU	**Daniels Canyon**	**121.98**	**21**	*e*PKPdf	PKPdf	10 38 25.0	-2.1
TRCR	**Troy Canyon**	**122.06**	**26**	*e*PKPdf	PKPdf	10 38 25.4	-1.9
RWWY	**Rawlins**	**122.14**	**18**	PKPdf	PKPdf	10 38 24.5	-2.8
DAC	**Darwin (Calif)**	**122.86**	**29**	PKIKP	PKPdf	10 38 27.7	-1.1
DAC	**Darwin (Calif)**	**122.86**	**29**	*e*PKPdf	PKPdf	10 38 27.0	-1.9
MVU	**Marysvale**	**123.30**	**23**	*e*PKPdf	PKPdf	10 38 28.0	-1.6
MSU	**Marysvale**	**123.30**	**23**	*e*PKIKP	PKPdf	10 38 28.2	-1.5
MSU	**Marysvale**	**123.30**	**23**	*e*PKPdf	PKPdf	10 38 28.4	-1.3
SRU	**San Rafael**	**123.39**	**22**	*e*PKIKP	PKPdf	10 38 27.7	-2.1
SRU	**San Rafael**	**123.39**	**22**	*e*PKPdf	PKPdf	10 38 26.6	-3.2
ARUT	**Antelope Range**	**123.43**	**25**	PKIKP	PKPdf	10 38 28.3	-1.6
ARUT	**Antelope Range**	**123.43**	**25**	*e*PKPdf	PKPdf	10 38 28.2	-1.7
ERPA	**Erie**	**124.32**	**353**	*e*PKPdf	PKPdf	10 38 27.0	-4.6
ERPA				*e*		10 38 36.3	
NEN	**Nelson**	**124.64**	**27**	*e*PKPdf	PKPdf	10 38 30.6	-1.8
NEN				*e*		10 38 38.5	
PV01	**Paradox Valley**	**124.95**	**20**	*e*PKPdf	PKPdf	10 38 30.1	-2.8
PFO	**Pinyon Flat Ob**	**125.56**	**30**	PKIKP	PKPdf	10 38 31.3	-2.9
PFO	**Pinyon Flat Ob**	**125.56**	**30**	*e*PKPdf	PKPdf	10 38 31.4	-2.8
ACSO	**Alum Creek Sta**	**126.46**	**356**	*e*PKPdf	PKPdf	10 38 32.1	-3.6
KSU1	**Kansas State U**	**127.01**	**9**	*e*PKPdf	PKPdf	10 38 33.6	-3.2
KSU1				*e*		10 38 41.3	
ANMO	**Albuquerque**	**128.54**	**20**	PKP	PKPdf	10 38 38.1	-1.8
	comp=Z,38nm,1.0s,baz=9.2,slow=0.3,SNR=31						
ANMO				PP	PP	10 40 33.2	-12
	comp=Z,6.9nm,1.1s,baz=343,slow=12,SNR=2.0						
ANMO	**Albuquerque**	**128.54**	**20**	PKP	PKPdf	10 38 38.1	-1.8
ANMO				PP	PP	10 40 33.2	-12
FVM	**French Village**	**128.77**	**3**	PKIKP	PKPdf	10 38 37.1	-3.2
FVM	**French Village**	**128.77**	**3**	*e*PKPdf	PKPdf	10 38 36.4	-3.9
FVM				*e*		10 38 45.6	
FWV	**Forest Hill**	**128.90**	**353**	*e*PKPdf	PKPdf	10 38 37.4	-3.2
PWV	**Princeton**	**129.16**	**354**	*e*PKPdf	PKPdf	10 38 38.0	-3.1
ELN	**Prospectdale**	**129.24**	**353**	*e*PKPdf	PKPdf	10 38 37.9	-3.3
TUC	**Tucson**	**129.24**	**26**	*e*PKIKP	PKPdf	10 38 42.7	+1.4
TUC	**Tucson**	**129.24**	**26**	*e*PKPdf	PKPdf	10 38 39.5	-1.8
PVMO	**Portageville**	**130.37**	**3**	*e*PKPdf	PKPdf	10 38 40.9	-2.5
PVMO				*e*		10 38 49.9	
WVT	**Waverly**	**130.70**	**1**	PKIKP	PKPdf	10 38 41.0	-3.0
WVT	**Waverly**	**130.70**	**1**	*e*PKPdf	PKPdf	10 38 40.5	-3.5
HALT	**Halls**	**130.88**	**2**	*e*PKPdf	PKPdf	10 38 41.3	-3.1
HBAR	**Harrisburg**	**131.17**	**4**	*e*PKPdf	PKPdf	10 38 41.0	-3.9
CPCT	**Cooper Cave**	**131.32**	**357**	*e*PKPdf	PKPdf	10 38 41.8	-3.4
CPCT				*e*		10 38 50.6	
UALR	**University of**	**131.81**	**6**	*e*PKPdf	PKPdf	10 38 43.2	-2.9
UALR				*e*		10 38 52.1	
MIAR	**Mount Ida**	**131.91**	**7**	PKIKP	PKPdf	10 38 44.0	-2.4
MIAR	**Mount Ida**	**131.91**	**7**	*e*PKPdf	PKPdf	10 38 43.4	-3.0
MIAR				*e*		10 38 52.5	
OXF	**Oxford**	**132.28**	**2**	PKIKP	PKPdf	10 38 44.8	-2.3
OXF				*e*		10 38 50.9	
OXF	**Oxford**	**132.28**	**2**	*e*PKPdf	PKPdf	10 38 43.5	-3.5
OXF				*e*		10 38 50.2	
NATX	**Nacogdoches**	**134.51**	**9**	*e*PKPdf	PKPdf	10 38 49.5	-1.7
LTX	**Lajitas**	**134.62**	**20**	PKIKP	PKPdf	10 38 48.7	-2.9
LTX	**Lajitas**	**134.62**	**20**	*e*PKPdf	PKPdf	10 38 49.2	-2.3
TXAR	**Lajitas Array**	**134.62**	**20**	PKP	PKPdf	10 38 49.6	-2.0
	comp=Z,13nm,0.8s,baz=256,slow=1.0,SNR=18						
TXAR				PP	PP	10 41 12.5	-12
	comp=Z,10nm,0.9s,slow=2.5,SNR=5.6						
BDFB	**Brasilia**	**141.99**	**262**	PKhKP		10 38 57.0	
	comp=Z,12nm,0.8s,baz=68,slow=9.1,SNR=4.8						
BDFB				PKP	PKPdf	10 39 02.9	-2.4
	comp=Z,25nm,0.9s,baz=74,slow=0.9,SNR=8.7						
BDFB	**Brasilia**	**141.99**	**262**	PKHKP		10 38 57.0	
BDFB						10 39 02.9	
BDFB				pmax	pmax		
	comp=Z,12nm,0.8s						
BDFB				pmax	pmax		
	comp=Z,25nm,0.9s						
MOIG	**Morelia**	**144.35**	**23**	*i* P	PKPbc	10 39 04.7	+0.7
IIC	**Rita Coyotepec**	**144.96**	**20**	*e*P	PKPbc	10 39 04.6	-1.0
PTVM	**Pico Tres Padr**	**145.17**	**20**	*e*P	PKPbc	10 39 07.4	+1.2
IIO	**Organos**	**145.29**	**19**	*e*P	PKPbc	10 39 04.6	-1.9
UNM	**Universidad Na**	**145.39**	**20**	*i* P	PKPbc	10 39 09.0	+2.2
IIZ	**Mezontepec**	**145.50**	**20**	*e*P	PKPbc	10 39 07.4	+0.4
CHVM	**Chichinautzin**	**145.62**	**20**	*e*P	PKPbc	10 39 04.6	-2.7
PPM	**Popocatepetl**	**145.82**	**19**	*e*P	PKPbc	10 39 09.8	+2.0
PLIG	**Platanillo**	**146.15**	**21**	*i* P	PKPbc	10 39 10.8	+2.2
TEIG	**Tepich**	**146.54**	**2**	*e*PKPdf	PKPdf	10 39 11.6	-1.4
STH	**Stony Hill**	**147.04**	**342**⇑	*e*P	PKPdf	10 39 12.1	-1.8
HOJ	**Hope**	**147.09**	**341**⇑	*e*P	PKPdf	10 39 12.6	-1.3
CAIG	**El Cayaco**	**147.10**	**23**	*e*P	PKPdf	10 39 12.4	-1.6
CVJ	**Coleyville**	**147.11**	**343**⇑	*e*P	PKPdf	10 39 12.4	-1.6
NEJ	**Negril**	**147.31**	**344**⇑	*e*P	PKPdf	10 39 11.9	-2.4
ACX	**Acapulco**	**147.40**	**23**	*e*P	PKPdf	10 39 12.3	-2.2
MCJ	**Malvern**	**147.44**	**343**⇑	*e*P	PKPdf	10 39 12.8	-1.7
PCRV	**Puerto La Cruz**	**147.53**	**315**	PKPbc	PKPdf	10 39 12.5	-2.3
	comp=Z,120nm,0.9s,baz=28,slow=5.7,SNR=17						
VHO	**Vista Hermosa**	**148.28**	**17**	*e*P	PKPdf	10 39 14.4	-1.4
PNIG	**Pinotepa**	**148.48**	**20**	*e*P	PKPdf	10 39 14.3	-1.9
CMIG	**Matias Romero**	**148.75**	**14**	*e*P	PKPdf	10 39 12.1	-4.5
HUIG	**Huatulco**	**149.69**	**17**	*i* P	PKPdf	10 39 16.4	-1.8
CCIG	**Comitan**	**150.08**	**9**	*e*P	PKPdf	10 39 16.2	-2.6
SDV	**Santo Domingo**	**152.36**	**322**	PKP	PKPdf	10 39 19.5	-2.8
	comp=Z,41nm,1.0s,baz=68,slow=2.6,SNR=11						
SDV				PKPbc	PKPdf	10 39 25.8	+3.6
	comp=Z,110nm,1.0s,baz=23,slow=0.8,SNR=33						
SDV				PKPab	PKPab	10 39 35.4	-1.3
	comp=Z,85nm,0.8s,baz=56,slow=7.2,SNR=12						
ROSC	**El Rosal**	**157.75**	**324**	PKP	PKPdf	10 39 28.9	-0.7
	comp=Z,40nm,0.8s,baz=100,slow=2.1,SNR=19						
ROSC				PKPab	PKPab	10 40 00.2	+0.5
	comp=Z,100nm,1.0s,baz=69,slow=2.8,SNR=13						
LVC	**Limon Verde**	**160.33**	**240**	PKPab	PKPab	10 40 10.7	+0.1
	comp=Z,28nm,1.0s,baz=128,slow=6.1,SNR=6.5						
LPAZ	**La Paz**	**161.30**	**259**	PKP	PKPdf	10 39 31.8	-1.5
	comp=Z,17nm,1.1s,baz=44,slow=3.8,SNR=5.9						
LPAZ				PKPab	PKPab	10 40 15.2	+0.3
	comp=Z,42nm,1.1s,baz=96,slow=6.3,SNR=7.8						
LPAZ	**La Paz**	**161.30**	**259**	PKIKP	PKPdf	10 39 31.8	-1.5
LPAZ						10 40 15.2	
LPAZ				pmax	pmax		
	comp=Z,17nm,1.1s						
LPAZ				pmax	pmax		
	comp=Z,42nm,1.1s						
LPAZ	**La Paz**	**161.30**	**259**	*e*PKPdf	PKPdf	10 39 31.7	-1.6

IDC 26 10:26:46.4±1.1**,9.00N**×**92.76E,mb4.2**/8**,mb1 4.3**/8**,**
mb1mx4.1/19**,Error ellipse: s-maj=56.9km**
s-min=19.9km az=52.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**40.39**	**14**	P	P	10 34 26.3	-1.4
	2.3nm,0.4s,baz=205,slow=7.2,SNR=16						
BVAR	**Borovoye Array**	**47.50**	**342**	P	P	10 35 23.2	-1.9
	5.7nm,1.1s,baz=143,slow=7.2,SNR=2.7						
WRA	**Warramunga Arr**	**50.02**	**125**	P	P	10 35 42.8	-2.2
	1.3nm,0.3s,baz=299,slow=10,SNR=9.5						
ASAR	**Alice Springs**	**51.68**	**130**	P	P	10 35 55.5	-2.0
	0.8nm,0.4s,baz=299,slow=7.1,SNR=6.2						
FINES	**FINESS Array B**	**71.09**	**332**	P	P	10 38 05.6	-2.7
	2.7nm,0.9s,baz=104,slow=5.7,SNR=2.9						
GERES	**GERESS Array B**	**76.08**	**318**	P	P	10 38 37.0	-0.6
	1.3nm,0.6s,baz=100,slow=8.1,SNR=3.9						
HFS	**Hagfors**	**76.80**	**330**	P	P	10 38 40.0	-1.4
	1.2nm,0.5s,baz=104,slow=4.7,SNR=7.9						
NOA	**NORSAR Array B**	**78.09**	**331**	P	P	10 38 46.8	-1.7
	0.4nm,0.6s,baz=115,slow=3.8,SNR=2.1						
PDAR	**Pinedale Array**	**124.60**	**20**	PKP	PKPdf	10 45 48.4	-1.7
	0.4nm,0.5s,baz=107,slow=1.5,SNR=6.0						
TXAR	**Lajitas Array**	**138.74**	**22**	PKP	PKPdf	10 46 17.8	+0.7
	0.3nm,0.5s,baz=302,slow=0.5,SNR=6.3						

IDC ***26*** *10:27:21.1*±*1.2, 8.35N*×*93.72E, mb4.4/11, mb1 4.6/12,*
mb1mx4.4/21, ML4.6/1, Error ellipse: s-maj=45.6km
s-min=25.5km az=49.0
ISC 26 10:27:24.8±1.0**,8.5N**±0.2×**93.8E**±0.2**,h33^{km},n14,**
σ**0^{s}81**/13**,mb4.4**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.12**	**26**	Pn	**P**	**10 30 04.2**	**-0.4**
	1.1nm,0.3s,baz=213,slow=15,SNR=6.4						
ZAL	**Zalesovo**	**45.94**	**353**	P	**P**	**10 35 45.8**	**-0.5**
	6.3nm,0.5s,mb4.8,baz=282,slow=9.9,SNR=6.5						
BVAR	**Borovoye Array**	**48.35**	**341**	P	**P**	**10 36 04.1**	**-1.1**
	2.4nm,0.6s,mb4.4,baz=137,slow=11,SNR=4.3						
ASAR	**Alice Springs**	**50.52**	**130**	P	**P**	**10 36 21.4**	**-0.8**
	1.7nm,0.7s,mb4.1,baz=303,slow=7.7,SNR=3.5						
BRTR	**Keskin Array B**	**61.82**	**311**	P	**P**	**10 37 42.0**	**-1.0**
	4.1nm,1.0s,mb4.5,baz=125,slow=7.9,SNR=4.4						
FINES	**FINESS Array B**	**72.06**	**332**	P	**P**	**10 38 46.8**	**-0.4**
	9.0nm,1.2s,mb4.6,baz=90,slow=6.9,SNR=3.4						
ARCES	**ARCESS Array B**	**74.62**	**340**	P	**P**	**10 39 02.8**	**+0.7**
	4.1nm,0.7s,mb4.5,baz=90,slow=6.1,SNR=4.2						
GERES	**GERESS Array B**	**77.19**	**318**	P	**P**	**10 39 18.2**	**+1.1**
	2.7nm,0.9s,mb4.2,baz=90,slow=4.0,SNR=4.7						
HFS	**Hagfors**	**77.81**	**330**	P	**P**	**10 39 20.2**	**-0.1**
	4.6nm,0.9s,mb4.4,baz=117,slow=3.3,SNR=5.1						
NB2	**NORSAR Subarra**	**79.08**	**331**	P	**P**	**10 39 27.6**	**+0.3**
	1.2nm,0.7s,mb3.9,baz=91,slow=5.8						
NOA	**NORSAR Array B**	**79.08**	**331**	P	**P**	**10 39 27.6**	**+0.3**
	1.8nm,0.8s,mb4.1,baz=93,slow=5.6,SNR=3.7						
ILAR	**Eielson Array**	**94.33**	**22**	P	**P**	**10 40 43.0**	**+1.2**
	1.0nm,0.7s,mb4.3,baz=305,slow=3.8,SNR=5.7						
INK	**Inuvik**	**96.53**	**16**	P	**P**	**10 40 53.0**	**+1.2**
	4.6nm,1.1s,mb4.8,baz=348,slow=4.8,SNR=3.8						
TXAR	**Lajitas Array**	**138.82**	**24**	PKP	PKPdf	10 46 54.6	+6.2
	0.2nm,0.5s,baz=247,slow=0.6,SNR=3.6						

IDC ***26*** *10:29:41.8*±*0.5, 5.27N*×*93.55E, mb4.8/22, mb1 4.9/23,*
mb1mx4.9/26, Error ellipse: s-maj=21.7km s-min=12.3km
az=50.0
NEIC ***26*** *10:29:49.0*±*1.4, 5.17N*×*93.48E, h47^{km}*±*12^{km}, mb5.3/34,*
Error ellipse: s-maj=8.7km s-min=7.1km az=57.0
BJI ***26*** *10:29:56.5, 6.10N*×*93.13E, h46^{km}, mb5.1*
ISC 26 10:29:45.4±0.3**,5.11N**±0.05×**93.42E**±0.05**,h33^{km},n104,**
σ**1^{s}23**/90**,mb5.2**/55**,1C,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**12.83**	**280**	*e*P	**P**	**10 32 50.0**	**+1.7**
CM31	**Chiang Mai Arr**	**14.32**	**22**	*e*P	**P**	**10 33 08.1**	**+0.2**
	55nm,0.8s						
CMAR	**Chiang Mai Arr**	**14.32**	**22**	Pn	**P**	**10 33 03.5**	**-4.4**
	baz=228,slow=13,SNR=2.8						
COCO	**West Island**	**17.52**	**169**	*e*P	**P**	**10 33 52.0**	**+3.1**
	1μm,1.2s						
SHL	**Shillong**	**20.39**	**356**	*e*P	**P**	**10 34 27.9**	**+5.7**
QIZ	**Qiongzhong**	**21.16**	**48**	P	**P**	**10 34 33.8**	**+3.7**
QIZ	**Qiongzhong**	**21.16**	**48**	*e*P	**P**	**10 34 28.9**	**-1.2**
	158nm,1.1s,mb5.3						
KMI	**Kunming**	**21.81**	**23**	*e*P	**P**	**10 34 39.0**	**+2.4**
KMI				AP		10 34 45.5	
KMI				AMB	AMB		
	comp=Z,78nm,1.4s,mb5.0						
AKL	**Akola**	**22.23**	**316**	*e*P	**P**	**10 34 41.2**	**+0.4**
BOM	**Bombay**	**24.33**	**306**	*e*P		10 35 10.7	
LSA	**Lhasa**	**24.55**	**355**	*e*P	**P**	**10 35 06.0**	**+2.5**
	comp=Z,93nm,0.9s,mb5.3						
GYA	**Guiyang**	**24.71**	**29**⇑	*i*P	**P**	**10 35 06.3**	**+1.2**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
CD2	**Chengdu**	**27.44**	**20**	P	**P**	**10 35 35.0**	**+4.5**
NDI	**New Delhi**	**28.03**	**329**	*e*P	**P**	**10 35 39.4**	**+3.6**
ENH	**Enshi**	**29.25**	**29**	*e*P	**P**	**10 35 47.6**	**+1.0**
	comp=Z,182nm,1.2s,mb5.7						
WHN	**Wuhan**	**32.07**	**35**	*e*P	**P**	**10 36 17.3**	**+5.7**
GTA	**Gaotai**	**34.63**	**9**	P	**P**	**10 36 38.3**	**+4.7**
GTA				AP	pP	10 36 45.0	+1.7
GTA				XP	sP	10 36 47.8	+0.2
GTA				AMB	AMB		
	comp=Z,27nm,1.1s,mb5.1						
NJ2	**Nanjing**	**35.84**	**39**	*e*P	**P**	**10 36 49.5**	**+5.4**
NJ2				AMB	AMB		
	comp=Z,110nm,0.5s,mb6.0						
MBWA	**Marble Bar**	**36.71**	**136**	*e*P	**P**	**10 36 50.1**	**-1.4**
	comp=Z,51nm,1.1s,mb5.3						
BJT	**Baijiatuau**	**40.34**	**27**	*e*P	**P**	**10 37 22.9**	**+1.3**
	comp=Z,34nm,1.1s,mb5.0						
SONM	**Songino Array**	**43.99**	**13**	P	**P**	**10 37 48.6**	**-2.8**
	comp=Z,5.3nm,1.0s,mb4.2,baz=198,slow=7.8,SNR=6.0						
SONM				PcP	PcP	10 39 36.6	-0.6
	comp=Z,3.7nm,0.7s,baz=192,slow=3.9,SNR=3.2						
NWAO	**Narrogin (SRO)**	**44.07**	**151**	*e*P	**P**	**10 37 53.1**	**+0.8**
	comp=Z,23nm,1.2s,mb4.8						
WRA	**Warramunga Arr**	**47.30**	**123**	P	**P**	**10 38 16.0**	**-2.1**
	comp=Z,51nm,0.9s,mb5.4,baz=300,slow=8.8,SNR=29						
WRAB	**Tennant Creek**	**47.31**	**123**	*e*P	**P**	**10 38 16.2**	**-1.9**
	comp=Z,184nm,1.1s,mb5.9						
ASAR	**Alice Springs**	**48.75**	**128**	P	**P**	**10 38 29.1**	**-0.1**
	comp=Z,18nm,0.9s,mb5.1,baz=306,slow=7.5,SNR=14						
ZAL	**Zalesovo**	**49.18**	**353**	P	**P**	**10 38 30.1**	**-2.1**
	comp=Z,303nm,1.6s,mb6.1,baz=294,slow=8.2,SNR=8.8						
HIA	**Hailar**	**49.33**	**23**	*e*P	**P**	**10 38 32.6**	**-0.7**
	comp=Z,19nm,0.8s,mb5.2						
MDJ	**Mudanjiang**	**50.49**	**33**	*e*P	**P**	**10 38 46.0**	**+3.7**
	comp=Z,42nm,1.3s,mb5.3						
BVAR	**Borovoye Array**	**51.37**	**342**	P	**P**	**10 38 47.5**	**-1.4**
	comp=Z,6.6nm,0.8s,mb4.6,baz=143,slow=7.4,SNR=8.8						
BRVK	**Borovoye**	**51.43**	**342**	*e*P	**P**	**10 38 48.3**	**-1.0**
	comp=Z,30nm,1.3s,mb5.1						
MAJO	**Matsushiro**	**51.55**	**46**	P	**P**	**10 38 51.6**	**+1.1**
	comp=Z,42nm,1.6s,mb5.1						
CHKZ	**Chkalovo**	**51.87**	**343**	*e*P	**P**	**10 38 52.2**	**-0.4**
	comp=Z,66nm,1.1s,mb5.5						
PMG	**Port Moresby**	**55.46**	**105**	*e*P	**P**	**10 39 19.3**	**-0.4**
	comp=Z,16nm,0.8s,mb5.1						
GNI	**Garni**	**55.88**	**316**	P	**P**	**10 39 22.2**	**0.0**
	comp=Z,5.6nm,0.5s,mb4.8,baz=188,slow=17,SNR=4.6						
GNI	**Garni**	**55.88**	**316**	*e*P	**P**	**10 39 21.9**	**-0.4**
	comp=Z,45nm,1.1s,mb5.4						
KMBO	**Kilima Mbogo**	**56.45**	**265**	P	**P**	**10 39 26.8**	**+0.1**
	comp=Z,7.2nm,0.8s,mb4.8,baz=49,slow=9.3,SNR=9.5						
KMBO	**Kilima Mbogo**	**56.45**	**265**	*e*P	**P**	**10 39 26.6**	**-0.2**
	comp=Z,12nm,1.0s,mb4.9						
CTA	**Charters Tower**	**57.63**	**118**	P	**P**	**10 39 35.2**	**+0.1**
	comp=Z,26nm,1.0s,mb5.2,baz=291,slow=9.1,SNR=6.1						
CTAO	**Charters Tower**	**57.63**	**118**	*e*P	**P**	**10 39 35.8**	**+0.8**
	comp=Z,52nm,1.2s,mb5.4						
ARU	**Arti**	**58.15**	**338**	*e*P	**P**	**10 39 37.5**	**-0.7**
	comp=Z,57nm,1.1s,mb5.5						
STKA	**Stephens Creek**	**58.76**	**132**	P	**P**	**10 39 41.9**	**-1.0**
	comp=Z,30nm,1.0s,mb5.3,baz=309,slow=11,SNR=8.4						
STKA	**Stephens Creek**	**58.76**	**132**	*e*P	**P**	**10 39 41.8**	**-1.0**
KIV	**Kislovodsk**	**58.90**	**319**	*e*P	**P**	**10 39 43.4**	**-0.2**
	comp=Z,59nm,1.2s,mb5.5						
ELZG	**Elazig**	**59.37**	**312**	*i* P	**P**	**10 39 46.0**	**-1.0**
YSS	**Yuzh-Sakhalins**	**59.39**	**37**	*e*P	**P**	**10 39 48.2**	**+1.3**
	comp=Z,106nm,1.4s,mb5.7						
MALT	**Malatya**	**59.72**	**312**	*e*P	**P**	**10 39 50.2**	**+0.7**
	comp=Z,22nm,1.2s,mb5.1						
GZT	**Gaziantep**	**60.07**	**310**	*i* P	**P**	**10 39 52.3**	**+0.5**
EIL	**Elat**	**60.20**	**301**	P	**P**	**10 39 52.7**	**-0.1**
	comp=Z,21nm,0.9s,mb5.2,baz=42,slow=9.1,SNR=6.4						
EIL	**Elat**	**60.20**	**301**	*e*P	**P**	**10 39 52.5**	**-0.3**
	comp=Z,57nm,1.2s,mb5.5						
KAHT	**Ahir Dag**	**60.67**	**311**	*i* P	**P**	**10 39 56.6**	**+0.7**
COBT	**Iskenderun**	**60.82**	**309**	*i* P	**P**	**10 39 56.9**	**0.0**
MEST	**Erdemli**	**62.48**	**309**	*i* P	**P**	**10 40 06.2**	**-1.8**
AVNT	**Avonos**	**62.53**	**311**	*i* P	**P**	**10 40 07.9**	**-0.5**
YAK	**Yakutsk**	**62.82**	**18**	*e*P	**P**	**10 40 08.0**	**-2.0**
	comp=Z,52nm,0.9s,mb5.7						
BOYT	**Boyabat**	**63.28**	**314**	*i* P	**P**	**10 40 11.8**	**-1.5**
BRTR	**Keskin Array B**	**63.71**	**312**	P	**P**	**10 40 15.7**	**-0.5**
	comp=Z,9.9nm,1.1s,mb4.8,baz=127,slow=6.2,SNR=12						
ELDT	**Eldivan**	**64.08**	**313**	*i* P	**P**	**10 40 18.1**	**-0.5**
BALT	**Daday**	**64.41**	**314**	*i* P	**P**	**10 40 17.3**	**-3.3**
SGKT	**Sivrigoynuk**	**65.11**	**313**	*i* P	**P**	**10 40 24.2**	**-1.0**
ISP	**Isparta**	**65.60**	**309**	*e*P	**P**	**10 40 28.3**	**-0.1**
	comp=Z,62nm,1.3s,mb5.5						
ESKT	**Eskisehir**	**65.73**	**311**	*i* P	**P**	**10 40 27.1**	**-2.1**
ULDT	**Uludag**	**67.16**	**311**	*i* P	**P**	**10 40 31.7**	**-6.6**
LSZ	**Lusaka**	**67.70**	**251**	*e*P	**P**	**10 40 41.9**	**-0.1**
	comp=Z,39nm,1.2s,mb5.3						
MA2	**Magadan**	**69.53**	**27**	*e*P	**P**	**10 40 52.7**	**+0.1**
	comp=Z,61nm,1.2s,mb5.4						
IDI	**Anoyia**	**69.56**	**306**	P	**P**	**10 40 53.1**	**-0.1**
	comp=Z,18nm,0.9s,mb5.0,baz=117,slow=11,SNR=5.6						
AKASG	**Malin Array Be**	**69.88**	**322**	P	**P**	**10 40 53.6**	**-1.3**
	comp=Z,3.8nm,0.8s,mb4.4,baz=86,slow=4.8,SNR=5.9						
MLR	**Muntele Rosu**	**70.65**	**316**	P	**P**	**10 40 59.5**	**-0.2**
	comp=Z,23nm,1.0s,mb5.0,baz=62,slow=9.4,SNR=8.0						
LBTB	**Lobatse**	**72.31**	**242**	*e*P	**P**	**10 41 10.3**	**+0.4**
	comp=Z,54nm,1.0s,mb5.4						
BOSA	**Boshof**	**73.53**	**238**	*e*P	**P**	**10 41 16.7**	**-0.5**
	comp=Z,36nm,1.0s,mb5.3						
KOLS	**Kolonicke sedl**	**73.81**	**319**	*e*	**P**	**10 41 24.3**	**+5.9**
CRVS	**Cervenica-Dubn**	**74.33**	**319**	*e*	**P**	**10 41 26.9**	**+5.5**
FINES	**FINESS Array B**	**74.81**	**333**	P	**P**	**10 41 22.8**	**-1.1**
	comp=Z,9.5nm,1.0s,mb4.7,baz=135,slow=11,SNR=4.9						
OJC	**Ojcow**	**75.62**	**320**	*e*P	**P**	**10 41 33.2**	**+4.4**
MAW	**Mawson**	**75.70**	**192**	P	**P**	**10 41 29.7**	**+0.7**
	comp=Z,22nm,0.8s,mb5.1,baz=46,slow=7.7,SNR=15						
VYHS	**Vyhne**	**75.98**	**319**	*e*	**P**	**10 41 26.0**	**-4.9**
ZST	**Bratislava**	**77.09**	**318**	*e*P	**P**	**10 41 37.9**	**+0.7**
ZST				*e*		10 41 43.2	
ARCES	**ARCESS Array B**	**77.61**	**341**	P	**P**	**10 41 39.2**	**-0.4**
	comp=Z,18nm,1.2s,mb4.9,baz=104,slow=7.4,SNR=6.1						
SUR	**Sutherland**	**78.19**	**236**	*e*P	**P**	**10 41 46.2**	**+2.6**
	comp=Z,42nm,1.1s,mb5.3						
BILL	**Bilibino**	**78.90**	**21**	*e*P	**P**	**10 41 47.2**	**+0.5**
	comp=Z,24nm,1.4s,mb4.9						
GERES	**GERESS Array B**	**79.40**	**319**	P	**P**	**10 41 50.3**	**+0.4**
	comp=Z,15nm,1.0s,mb4.9,baz=90,slow=5.3,SNR=14						
BRG	**Berggiesshubel**	**79.41**	**321**	*e*P	**P**	**10 41 52.4**	**+2.5**
	comp=Z,13nm,1.3s,mb4.7						
CLL	**Collm**	**80.04**	**321**	*e*P	**P**	**10 41 54.0**	**+0.8**
CLL	**Collm**	**80.04**	**321**	P	**P**	**10 41 54.0**	**+0.8**
HFS	**Hagfors**	**80.47**	**330**	P	**P**	**10 41 57.4**	**+2.0**
	comp=Z,22nm,1.2s,mb5.0,baz=117,slow=3.3,SNR=4.5						
NB2	**NORSAR Subarra**	**81.77**	**331**	P	**P**	**10 42 01.9**	**-0.3**
	comp=Z,12nm,1.1s,mb4.7,baz=92,slow=5.6						
NOA	**NORSAR Array B**	**81.77**	**331**	P	**P**	**10 42 01.6**	**-0.6**
	comp=Z,0.7nm,0.9s,baz=193,slow=5.1,SNR=3.1						
DAVOX	**Davos**	**81.88**	**316**	P	**P**	**10 42 02.6**	**-0.4**
	comp=Z,8.4nm,0.9s,mb4.7,baz=158,slow=4.3						
LPL	**La Plagne**	**84.06**	**315**	*e*P	**P**	**10 42 15.0**	**+0.8**
	comp=Z,77nm,1.2s,mb5.4						
URZ	**Urewera**	**88.19**	**128**	P	**P**	**10 42 34.7**	**+0.1**
	comp=Z,19nm,0.9s,mb5.3,baz=50,slow=3.5,SNR=5.0						
VNDA	**Vanda**	**90.39**	**168**	*e*P	**P**	**10 42 47.1**	**+2.9**
	comp=Z,25nm,1.5s,mb5.3						

ESDC	**Sonseca Array**	**92.44**	**310**	P	**P**	**10 42 57.1**	**+2.6**
	comp=Z,5.2nm,1.0s,mb4.8,baz=51,slow=4.8,SNR=7.3						
YKA	**Yellowknife Ar**	**109.26**	**13**	PP	PP	10 48 41.5	-4.4
	comp=Z,0.7nm,0.9s,baz=334,slow=7.5,SNR=4.3						
YKA				PKKPbc		10 59 23.4	
	comp=Z,0.9nm,0.9s,baz=155,slow=2.7,SNR=8.7						
BMO	**Blue Mountains**	**123.15**	**26**	*e*PKPdf	PKPdf	10 48 42.0	+2.9
NVAR	**Mina Array Bea**	**127.63**	**31**	PKP	PKPdf	10 48 49.9	+2.0
	comp=Z,1.7nm,0.9s,baz=180,slow=0.9,SNR=3.2						
NVAR	**Mina Array Bea**	**127.63**	**31**	PKP	PKPdf	10 48 49.9	+2.0
PDAR	**Pinedale Array**	**127.98**	**21**	PKP	PKPdf	10 48 53.2	+4.8
	comp=Z,4.2nm,0.9s,baz=23,slow=2.5,SNR=9.8						
PDAR				PKKPbc		10 58 16.5	
	comp=Z,0.7nm,0.8s,baz=90,slow=5.9,SNR=3.5						
MSU	**Marysvale**	**130.53**	**26**	*e*PKPdf	PKPdf	10 48 57.0	+3.6
ANMO	**Albuquerque**	**135.97**	**24**	PKP	PKPdf	10 49 06.2	+2.5
	comp=Z,4.3nm,1.0s,baz=218,slow=5.0,SNR=11						
BAO	**Brasilia Array**	**140.70**	**252**	*i* P	PKPdf	10 49 13.0	+0.1
BDFB	**Brasilia**	**140.72**	**252**	PKP	PKPdf	10 49 16.1	+3.2
	comp=Z,9.4nm,1.0s,baz=164,slow=2.3,SNR=5.5						
TXAR	**Lajitas Array**	**142.02**	**25**	PKP	PKPdf	10 49 16.4	+1.6
	comp=Z,1.3nm,0.6s,baz=287,slow=0.6,SNR=10						
TXAR	**Lajitas Array**	**142.02**	**25**	PKP	PKPdf	10 49 16.4	+1.6
LVC	**Limon Verde**	**155.62**	**223**	PKPab	PKPab	10 50 06.2	+1.3
	comp=Z,10nm,0.8s,baz=122,slow=1.8,SNR=3.2						
LPAZ	**La Paz**	**158.77**	**237**	PKPab	PKPab	10 50 18.2	-0.4
	comp=Z,1.6nm,0.3s,baz=264,slow=5.6,SNR=7.7						

IDC ***26*** *10:31:01.4±1.1,5.51N×92.95E,mb4.4/9,mb1 4.5/9, mb1mx4.3/19,Error ellipse: s-maj=56.2km s-min=18.3km az=44.0*

ISC 26 10:31:04.5±1.0,**5.5N**±0.3×**93.0E**±0.3,**h33**^{km}**,n11,** σ**0^{s}71**/10,**mb4.4**/9,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.72**	**13**	P	**P**	**10 39 08.6**	**+0.2**
	4.2nm,0.9s,mb4.2,baz=203,slow=7.0,SNR=3.3						
WRA	**Warramunga Arr**	**47.87**	**123**	P	**P**	**10 39 42.2**	**+0.6**
	11nm,0.8s,mb5.0,baz=303,slow=9.0,SNR=3.5						
ASAR	**Alice Springs**	**49.33**	**128**	P	**P**	**10 39 53.5**	**+0.7**
	3.4nm,0.6s,mb4.6,baz=304,slow=7.5,SNR=2.9						
PMG	**Port Moresby**	**55.98**	**105**	P	**P**	**10 40 40.9**	**-1.6**
	23nm,1.1s,mb5.1,baz=256,slow=8.5,SNR=4.1						
BRTR	**Keskin Array B**	**63.13**	**312**	P	**P**	**10 41 31.2**	**-0.3**
	1.6nm,0.7s,mb4.3,baz=98,slow=6.9,SNR=2.8						
AKASG	**Malin Array Be**	**69.31**	**322**	P	**P**	**10 42 09.6**	**-1.0**
	1.2nm,0.5s,mb4.0,baz=85,slow=5.4,SNR=4.9						
FINES	**FINESS Array B**	**74.28**	**333**	P	**P**	**10 42 40.2**	**+0.3**
	1.5nm,0.5s,mb4.2,baz=110,slow=6.2,SNR=11						
KAF	**Kangasniemi**	**74.38**	**333**	*e*p	**P**	**10 42 40.7**	**+0.1**
ARCES	**ARCESS Array B**	**77.11**	**341**	P	**P**	**10 42 56.7**	**+0.7**
	2.0nm,0.5s,mb4.3,baz=103,slow=6.6,SNR=7.6						
HFS	**Hagfors**	**79.93**	**330**	P	**P**	**10 43 11.9**	**+0.3**
	3.4nm,0.9s,mb4.3,baz=79,slow=7.3,SNR=4.2						
TXAR	**Lajitas Array**	**141.85**	**24**	PKP	PKPdf	10 50 36.8	+3.2
	1.0nm,0.8s,baz=308,slow=0.3,SNR=4.7						

ISC 26 10:32:12.5±0.7,**41.51N**±0.04×**20.27E**±0.04,**h10**^{km}**,n6,** σ**1^{s}11**/10,**Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QSH	**Qafa e Shtames**	**0.27**	**272**	*i* Pg	**Pg**	**10 32 18.4**	**+0.1**
TIR	**Tirane**	**0.34**	**242**	*i* Pg	**Pg**	**10 32 19.0**	**-0.6**
TIR				*i* Sg	**Sg**	**10 32 23.5**	**-0.9**
PRZA	**Preza**	**0.46**	**260**	*i* Pg	**Sg**	**10 32 29.5**	**+1.5**
OHR	**Ohrid**	**0.57**	**135**	*i* Pg	**Pg**	**10 32 23.2**	**-0.8**
OHR				*i* Sg	**Sg**	**10 32 33.1**	**+1.5**
PUK	**Puka**	**0.60**	**332**	*i* Pg	**Pg**	**10 32 24.0**	**-0.7**
PUK				*i* Sg	**Sg**	**10 32 33.6**	**+0.8**
SKO	**Skopje**	**0.99**	**62**	*e*Pg	**Pg**	**10 32 30.0**	**-2.4**
SKO				*i* Sg	**Sg**	**10 32 46.5**	**+0.8**

CSEM ***26*** *10:32:58.1,8.51N×93.76E,h33*^{km}*,mb5.6*

IDC ***26*** *10:32:59.3±0.3,8.72N×92.63E,mb5.1/30,mb1 5.1/31, mb1mx5.1/31,ML4.5/1,Error ellipse: s-maj=15.9km s-min=10.0km az=49.0*

MOS ***26*** *10:33:02.9±0.9,8.81N×92.71E,h33*^{km}*,mb5.3/29,Error ellipse: s-maj=13.8km s-min=7.2km az=120.5*

BJI ***26*** *10:33:03.5,8.45N×92.57E,h60*^{km}*,mB6.0,mb5.3,Ms5.9, Msz5.4*

NEIC ***26*** *10:33:05.2±1.2,8.70N×92.62E,h40*^{km}*±10*^{km}*,mb5.4/61, Error ellipse: s-maj=6.4km s-min=4.7km az=50.0*

ISC 26 10:33:02.3±0.2,**8.67N**±0.04×**92.64E**±0.04,**h32**^{km}**, h32**^{km}±.6^{km}**:pP-P,n241,** σ**1^{s}05**/221,**mb5.3**/91,**MS5.6**/3, **7C-7D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.49**	**32**	*e*P	**P**	**10 35 47.7**	**+0.3**
	57nm,0.8s						
CMAR	**Chiang Mai Arr**	**11.49**	**32**	Pn	**P**	**10 35 45.8**	**-1.7**
	0.8nm,0.3s,baz=208,slow=13,SNR=2.7						
CMAR	**Chiang Mai Arr**	**11.49**	**32**	P	**P**	**10 35 45.8**	**-1.6**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SHL	**Shillong**	**16.82**	**358**	*e*P	**P**	**10 36 56.2**	**-1.0**
SHL				*e*		10 37 11.7	
	comp=Z,150nm,1.8s						
SHL				*e*S	**S**	**10 40 12.6**	**+11**
MNGI	**Mangalore**	**18.01**	**285**	*e*P	**P**	**10 37 15.2**	**+3.0**
MNGI				*e*S	**S**	**10 40 37.3**	**+8.2**
KMI	**Kunming**	**18.98**	**29**	*e*P	**P**	**10 37 26.0**	**+2.1**
KMI				AMB	AMB		
	comp=Z,95nm,1.0s						
QIZ	**Qiongzhong**	**19.60**	**57**	P	**P**	**10 37 31.5**	**+0.5**
QIZ	**Qiongzhong**	**19.60**	**57**	*e*P	**P**	**10 37 32.1**	**+1.1**
	comp=Z,794nm,2.0s						
GOA	**Goa**	**19.60**	**292**	*e*P	**P**	**10 37 41.2**	**+10**
GOA				*e*S	**S**	**10 41 12.1**	**+7.3**
LSA	**Lhasa**	**20.96**	**356**	*e*P	**P**	**10 37 46.6**	**+1.4**
	comp=Z,119nm,0.9s						
COCO	**West Island**	**21.14**	**169**	*e*P	**P**	**10 37 46.4**	**-0.7**
	comp=Z,928nm,1.6s,mb5.9						
BOM	**Bombay**	**21.75**	**300**	*e*P	**P**	**10 37 55.5**	**+2.2**
BOM				*e*		10 38 01.0	
	comp=Z,1µm,1.5s						
GYA	**Guiyang**	**22.13**	**35**	⇑*i*P	**P**	**10 37 57.3**	**+0.3**
GYA				S	**S**	**10 42 00.5**	**+6.5**
GYA				AMB	AMB		
	comp=Z,100nm,1.2s,mb5.1						
GYA				AMB	AMB		
	comp=Z,970nm,4.8s						
GYA				LR	LR		
	comp=N,2µm,15.2s,MS5.0						
GYA				LR	LR		
	comp=E,3µm,16.4s,MS5.0						
GYA				LR	LR		
	comp=Z,4µm,15.0s,MS5.0						
CD2	**Chengdu**	**24.43**	**24**	⇑*i*P	**P**	**10 38 20.8**	**+1.3**
CD2				AMB	AMB		
	comp=Z,220nm,1.0s,mb5.5						
NDI	**New Delhi**	**24.64**	**326**	*e*P	**P**	**10 38 25.6**	**+4.1**
ENH	**Enshi**	**26.64**	**34**	*e*P	**P**	**10 38 39.6**	**-0.6**
	comp=Z,149nm,1.0s,mb5.5						
LZH	**Lanzhou**	**29.14**	**19**	⇑P	**P**	**10 39 03.0**	**+0.2**
LZH				AMB	AMB		
	comp=Z,120nm,1.2s,mb5.5						
QZH	**Quanzhou**	**29.55**	**54**	P	**P**	**10 39 07.0**	**+0.4**
WHN	**Wuhan**	**29.74**	**40**	⇑P	**P**	**10 39 08.8**	**+0.5**
WHN				AP	pP	10 39 20.0	+2.4
GTA	**Gaotai**	**31.27**	**11**	P	**P**	**10 39 22.5**	**+0.8**
GTA				AP	pP	10 39 31.5	+0.4
GTA				PCP	PcP	10 42 16.8	+1.2
GTA				AMB	AMB		
	comp=Z,67nm,1.5s,mb5.2						
GTA				LR	LR		
	comp=N,5µm,16.3s,MS5.3						
GTA				LR	LR		
	comp=E,5µm,19.0s,MS5.3						
GTA				LR	LR		
	comp=Z,6µm,15.2s,MS5.4						
NJ2	**Nanjing**	**33.66**	**43**	*e*P	**P**	**10 39 43.3**	**+0.8**
NJ2				PP	PP	10 40 54.3	-1.2
NJ2				S	**S**	**10 45 00.0**	**-2.2**
NJ2				AMB	AMB		
	comp=Z,1µm,5.8s						
NJ2				LR	LR		
	comp=N,41µm,18.5s,MS6.4						
NJ2				LR	LR		
	comp=E,51µm,15.0s,MS6.4						
NJ2				LR	LR		
	comp=Z,52µm,15.8s,MS6.4						
TIA	**Tai'an**	**35.33**	**35**	*e*P	**P**	**10 39 56.5**	**-0.3**
HHC	**Hu-ho-hao-te**	**36.18**	**25**	*e*P	**P**	**10 40 04.5**	**+0.5**
HHC				AMB	AMB		
	comp=Z,85nm,1.1s,mb5.6						
UCH	**Uchtor**	**37.04**	**337**	P	**P**	**10 40 13.4**	**+2.2**
	SNR=5.2						
KBK	**Karagaybulak**	**37.25**	**338**	P	**P**	**10 40 14.9**	**+2.0**
	SNR=9.6						
AML	**Almayashu**	**37.27**	**336**	P	**P**	**10 40 15.4**	**+2.3**
	SNR=11						
AAK	**Ala-Archa**	**37.40**	**338**	P	**P**	**10 40 13.6**	**-0.6**
	SNR=9.3						
BJT	**Baijiatuau**	**37.61**	**30**	*e*P	**P**	**10 40 16.4**	**+0.4**
	comp=Z,126nm,1.2s,mb5.5						
CHMS	**Chumysh**	**37.62**	**338**	P	**P**	**10 40 17.5**	**+1.4**
	SNR=9.1						
EKS2	**Erkin-Say**	**37.69**	**337**	P	**P**	**10 40 18.6**	**+1.9**
	SNR=6.0						
USP	**Ospenovka**	**37.94**	**338**	P	**P**	**10 40 20.0**	**+1.3**
	SNR=12						
JOW	**Kunigami**	**38.25**	**57**	P	**P**	**10 40 22.8**	**+1.3**
	comp=Z,8.7nm,0.3s,mb5.0,baz=246,slow=4.8,SNR=9.8						
DL2	**Dalian**	**39.78**	**36**	P	**P**	**10 40 35.3**	**+1.2**
DL2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
MBWA	**Marble Bar**	**39.84**	**138**	*e*P	**P**	**10 40 34.5**	**-0.3**
	comp=Z,91nm,1.1s,mb5.4						
SONM	**Songino Array**	**40.73**	**14**	P	**P**	**10 40 42.1**	**+0.3**
	comp=Z,37nm,1.1s,mb4.9,baz=198,slow=7.8,SNR=13						
SONM				PcP	PcP	10 42 43.9	+0.4
	comp=Z,7.3nm,0.7s,baz=205,slow=3.8,SNR=11						
ULN	**Ulaanbaatar**	**40.92**	**15**	*e*P	**P**	**10 40 43.7**	**+0.3**
	comp=Z,83nm,1.7s,mb5.1						
ZAK	**Zakamensk**	**42.51**	**10**	*e*P	**P**	**10 40 57.2**	**+0.8**
ZAK				*e*		10 42 49.1	
ZAK				*e*		10 51 01.1	
KS15	**Wonju Array Si**	**42.83**	**43**	*e*P	**P**	**10 40 58.9**	**-0.3**
TLY	**Talaya**	**43.82**	**10**	*e*P	**P**	**10 41 05.8**	**-1.2**
	comp=Z,65nm,1.5s,mb5.1						
CN2	**Changchun**	**45.16**	**34**	*e*P	**P**	**10 41 18.0**	**0.0**
CN2				AMB	AMB		
	comp=Z,70nm,1.3s,mb5.3						
ZAL	**Zalesovo**	**45.58**	**354**	P	**P**	**10 41 21.2**	**+0.1**
	comp=Z,8.4nm,0.8s,mb4.8,baz=305,slow=7.8,SNR=5.7						
ZAL	**Zalesovo**	**45.58**	**354**	P	**P**	**10 41 21.2**	**+0.1**
ZAL				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HIA	**Hailar**	**46.39**	**24**	*e*P	**P**	**10 41 27.9**	**+0.3**
	comp=Z,71nm,1.0s,mb5.5						
HIA				*e*	pP	10 41 37.8	+0.6
NVS	**Novosibirsk**	**46.65**	**353**	*e*P	**P**	**10 41 28.9**	**-0.7**
NWAO	**Narrogin (SRO)**	**47.54**	**152**	P	**P**	**10 41 37.5**	**+0.5**
	comp=Z,22nm,0.6s,mb5.3,baz=309,slow=9.8,SNR=19						
NWAO	**Narrogin (SRO)**	**47.54**	**152**	P	**P**	**10 41 37.5**	**+0.6**
NWAO				pmax	pmax		
	comp=Z,22nm,0.6s						
NWAO	**Narrogin (SRO)**	**47.54**	**152**	*e*P	**P**	**10 41 37.3**	**+0.3**
	comp=Z,188nm,1.6s,mb5.9						
BVAR	**Borovoye Array**	**47.77**	**342**	P	**P**	**10 41 38.1**	**-0.3**
	comp=Z,4.9nm,0.5s,mb4.8,baz=147,slow=9.1,SNR=13						
MDJ	**Mudanjiang**	**47.99**	**35**	*e*P	**P**	**10 41 41.2**	**+0.9**
	comp=Z,86nm,1.3s,mb5.6						
CHKZ	**Chkalovo**	**48.26**	**343**	*e*P	**P**	**10 41 42.2**	**0.0**
	comp=Z,78nm,1.0s,mb5.7						
CHKZ				*e*	pP	10 41 53.2	+1.2
MAJO	**Matsushiro**	**49.74**	**49**	*e*P	**P**	**10 41 54.3**	**+0.5**
	comp=Z,154nm,1.7s,mb5.8						
MAJO				*e*PcP	PcP	10 43 14.8	0.0
MAT	**Matsushiro**	**49.74**	**49**	P	**P**	**10 41 53.6**	**-0.3**
MAT	**Matsushiro**	**49.74**	**49**	*e*P	**P**	**10 41 54.0**	**+0.1**
	comp=Z,265nm,2.0s,mb5.9						
ARSS	**Ar Rass**	**49.87**	**297**	P	pP	10 42 06.7	+1.9
WRA	**Warramunga Arr**	**49.93**	**125**	P	**P**	**10 41 53.8**	**-1.7**
	comp=Z,42nm,1.0s,mb5.4,baz=300,slow=9.8,SNR=22						
WRA				PcP	PcP	10 43 15.6	-0.1
	comp=Z,10.0nm,0.9s,baz=315,slow=3.2,SNR=5.7						
WRA	**Warramunga Arr**	**49.93**	**125**	P	**P**	**10 41 53.8**	**-1.7**
WRA						10 43 15.6	
WRA				pmax	pmax		
	comp=Z,42nm,1.0s						
WRA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
WRAB	**Tennant Creek**	**49.93**	**125**	*e*P	**P**	**10 41 54.4**	**-1.2**
	comp=Z,78nm,0.8s,mb5.8						
HILS	**Ha'il**	**51.42**	**298**	P	**P**	**10 42 09.8**	**+3.0**
ASAR	**Alice Springs**	**51.56**	**129**	P	**P**	**10 42 06.6**	**-1.3**
	comp=Z,31nm,0.9s,mb5.2,baz=313,slow=4.5,SNR=26						
ASAR				PcP	PcP	10 43 21.9	+0.3
	comp=Z,10nm,0.8s,baz=308,slow=4.1,SNR=9.0						
BOD	**Bodaibo**	**51.73**	**14**	*e*P	**P**	**10 42 07.6**	**-1.1**
KLR	**Kul'dur**	**51.97**	**32**	*e*P	**P**	**10 42 03.8**	**-6.8**
GNI	**Garni**	**52.82**	**314**	P	**P**	**10 42 16.3**	**-0.8**
	comp=Z,3.7nm,0.5s,mb4.6,baz=220,slow=10,SNR=3.2						
GNI	**Garni**	**52.82**	**314**	P	**P**	**10 42 16.3**	**-0.9**
GNI				pmax	pmax		
	comp=Z,4.0nm,0.5s						
KBRS	**Khaybar**	**53.38**	**296**	P	pP	10 42 34.6	+3.4
ARU	**Arti**	**54.58**	**338**	*e*P	**P**	**10 42 28.8**	**-1.1**
KIV	**Kislovodsk**	**55.73**	**318**	*e*P	**P**	**10 42 37.4**	**-1.0**
KIV				pmax	pmax		
	comp=N,13nm,1.3s						
KIV				pmax	pmax		
	comp=E,22nm,1.3s						
KIV				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.3						
KIV	**Kislovodsk**	**55.73**	**318**	*e*P	**P**	**10 42 37.1**	**-1.3**
	comp=Z,66nm,1.2s,mb5.5						
ASAJ	**Asahikawa**	**55.80**	**42**	P	**P**	**10 42 37.9**	**-1.0**
	comp=Z,72nm,1.2s,mb5.6,baz=268,slow=13,SNR=7.6						
ASAJ	**Asahikawa**	**55.80**	**42**	P	**P**	**10 42 37.9**	**-0.9**
ASAJ				pmax	pmax		
	comp=Z,72nm,1.2s						
GOF	**Gofitskoye**	**55.96**	**319**	⇓*i*P	**P**	**10 42 39.0**	**-1.0**
GOF				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.1						
KMBO	**Kilima Mbogo**	**56.05**	**263**	P	**P**	**10 42 41.8**	**+0.7**
	comp=Z,2.2nm,0.9s,mb4.2,baz=52,slow=16,SNR=4.1						
KMBO	**Kilima Mbogo**	**56.05**	**263**	P	**P**	**10 42 41.8**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.9s						
TBKS	**Tabuk**	**56.14**	**298**	P	**P**	**10 42 43.6**	**+2.1**
ELZG	**Elazig**	**56.45**	**311**	*i* P	**P**	**10 42 43.5**	**-0.2**
JMQS	**Jabal Moqyreh**	**56.83**	**299**	P	**P**	**10 42 43.5**	**-3.0**
YSS	**Yuzh-Sakhalins**	**57.08**	**39**	*e*P	**P**	**10 42 47.9**	**-0.1**
	comp=Z,265nm,1.4s,mb6.1						
PMG	**Port Moresby**	**57.18**	**107**	P	**P**	**10 42 48.9**	**-0.3**
	comp=Z,47nm,0.9s,mb5.5,baz=316,slow=6.2,SNR=8.9						
PMG	**Port Moresby**	**57.18**	**107**	P	**P**	**10 42 48.9**	**-0.3**
PMG				pmax	pmax		
	comp=Z,47nm,1.0s						
PMG	**Port Moresby**	**57.18**	**107**	*e*P	**P**	**10 42 48.5**	**-0.7**
	comp=Z,83nm,1.1s,mb5.7						
GZT	**Gaziantep**	**57.21**	**309**	*i* P	**P**	**10 42 49.0**	**-0.1**
BDAS	**Al Bad'**	**57.43**	**298**	P	**P**	**10 42 52.0**	**+1.2**
EIL	**Elat**	**57.74**	**300**	*e*P	**P**	**10 42 53.8**	**+0.9**
	comp=Z,73nm,1.4s,mb5.5						
EIL				*e*	pP	10 43 03.5	+0.7
COBT	**Iskenderun**	**58.02**	**308**	*i* P	**P**	**10 42 54.2**	**-0.5**
AVNT	**Avonos**	**59.64**	**310**	*i* P	**P**	**10 43 04.7**	**-1.3**
MEST	**Erdemli**	**59.69**	**307**	*i* P	**P**	**10 43 05.1**	**-1.2**
YAK	**Yakutsk**	**59.72**	**19**	*e*P	**P**	**10 43 05.0**	**-1.2**
	comp=Z,103nm,1.3s,mb5.7						
CTA	**Charters Tower**	**59.99**	**119**	P	**P**	**10 43 08.1**	**-0.5**
	comp=Z,37nm,1.1s,mb5.3,baz=284,slow=7.4,SNR=11						
CTA				PcP	PcP	10 43 55.0	+0.8
	comp=Z,10nm,0.9s,baz=4.1,slow=4.7,SNR=2.9						
CTA	**Charters Tower**	**59.99**	**119**	P	**P**	**10 43 08.1**	**-0.5**
CTA						10 43 55.0	
CTA				pmax	pmax		
	comp=Z,37nm,1.2s						
CTA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
CTA	**Charters Tower**	**59.99**	**119**	P	**P**	**10 43 08.1**	**-0.5**
CTA				PcP	PcP	10 43 55.0	+0.8
CTAO	**Charters Tower**	**59.99**	**119**	*e*P	**P**	**10 43 08.3**	**-0.3**
	comp=Z,86nm,1.4s,mb5.6						
CTKT	**Corum**	**60.16**	**312**	*i* P	**P**	**10 43 08.8**	**-0.7**
BOYT	**Boyabat**	**60.29**	**313**	*i* P	**P**	**10 43 08.8**	**-1.6**
BRTR	**Keskin Array B**	**60.79**	**311**	P	**P**	**10 43 12.1**	**-1.7**
	comp=Z,9.0nm,0.8s,mb4.9,baz=130,slow=6.7,SNR=11						
BRTR	**Keskin Array B**	**60.79**	**311**	P	**P**	**10 43 12.1**	**-1.7**
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ELDT	**Eldivan**	**61.13**	**312**	*i* P	**P**	**10 43 14.9**	**-1.2**
BALT	**Daday**	**61.42**	**313**	*i* P	**P**	**10 43 16.7**	**-1.3**
STKA	**Stephens Creek**	**61.73**	**133**	P	**P**	**10 43 19.5**	**-0.8**
	comp=Z,14nm,0.6s,mb5.2,baz=309,slow=8.2,SNR=13						
STKA	**Stephens Creek**	**61.73**	**133**	*e*P	**P**	**10 43 18.9**	**-1.3**
SGKT	**Sivrigoynuk**	**62.16**	**311**	*i* P	**P**	**10 43 21.2**	**-1.9**
ESKT	**Eskisehir**	**62.84**	**310**	*i* P	**P**	**10 43 25.9**	**-1.7**
OBN	**Obninsk**	**63.92**	**328**	*e*P	**P**	**10 43 32.8**	**-1.6**
OBN				*e*	pP	10 43 42.7	-1.7
OBN				pmax	pmax		
	comp=Z,71nm,1.2s,mb5.6						
OBN	**Obninsk**	**63.92**	**328**	*e*P	**P**	**10 43 33.0**	**-1.4**
	comp=Z,156nm,1.5s,mb5.8						
ULDT	**Uludag**	**64.26**	**310**	*i* P	**P**	**10 43 33.9**	**-3.0**
AKASG	**Malin Array Be**	**66.61**	**322**	P	**P**	**10 43 49.7**	**-2.2**
	comp=Z,2.5nm,0.6s,mb4.5,baz=81,slow=5.3,SNR=8.0						
AKASG	**Malin Array Be**	**66.61**	**322**	P	**P**	**10 43 49.7**	**-2.1**
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
MA2	**Magadan**	**66.75**	**28**	*e*P	**P**	**10 43 50.2**	**-2.3**
	comp=Z,64nm,1.4s,mb5.5						
IDI	**Anoyia**	**66.90**	**305**	P	**P**	**10 43 53.9**	**-0.1**
	comp=Z,9.0nm,0.6s,mb5.0,baz=60,slow=8.0,SNR=6.8						
MLR	**Muntele Rosu**	**67.57**	**316**	P	**P**	**10 43 58.1**	**+0.1**
	comp=Z,16nm,0.9s,mb5.1,baz=93,slow=1.7,SNR=12						
MLR	**Muntele Rosu**	**67.57**	**316**	P	**P**	**10 43 58.1**	**+0.1**
MLR				pmax	pmax		
	comp=Z,16nm,0.9s						
LSZ	**Lusaka**	**68.15**	**250**	*e*P	**P**	**10 44 02.3**	**+0.3**
	comp=Z,29nm,1.4s,mb5.1						
LSZ				*e*	pP	10 44 12.2	+0.2
KWP	**Kalwaria**	**70.47**	**320**	*e*P	**P**	**10 44 15.0**	**-0.7**
	comp=Z,64nm,1.2s,mb5.4						
KWP				*e*	pP	10 44 23.2	-2.5
KOLS	**Kolonicke sedl**	**70.63**	**319**	*e*P	**P**	**10 44 16.9**	**+0.1**
KOLS				*e*pP	pP	10 44 27.8	+1.1
CRVS	**Cervenica-Dubn**	**71.16**	**319**	*e*P	**P**	**10 44 20.8**	**+0.9**
FINES	**FINESS Array B**	**71.32**	**332**	P	**P**	**10 44 19.7**	**-1.0**
	comp=Z,15nm,1.0s,mb4.9,baz=91,slow=6.2,SNR=13						
FINES	**FINESS Array B**	**71.32**	**332**	P	**P**	**10 44 19.7**	**-1.0**
FINES				pmax	pmax		
	comp=Z,15nm,1.0s						
KAF	**Kangasniemi**	**71.41**	**333**	*e*p	**P**	**10 44 20.6**	**-0.6**
	baz=106,slow=5.8						
NIE	**Niedzica**	**71.97**	**319**	*e*P	**P**	**10 44 25.2**	**+0.4**
OJC	**Ojcow**	**72.41**	**320**	*e*P	**P**	**10 44 24.9**	**-2.5**
VYHS	**Vyhne**	**72.83**	**318**	*i* P	**P**	**10 44 29.5**	**-0.4**
VYHS				*e*	pP	10 44 38.9	-1.0
LBTB	**Lobatse**	**73.33**	**241**	*e*P	**P**	**10 44 34.3**	**+0.9**
	comp=Z,25nm,1.1s,mb5.1						
LBTB				*e*	pP	10 44 43.7	+0.4
OKC	**Ostrava-Krasne**	**73.42**	**319**	*e*P	**P**	**10 44 33.0**	**-0.4**
OKC				*e*pP	pP	10 44 42.8	-0.6
KEV	**Kevo**	**73.59**	**341**	*e*p	**P**	**10 44 33.7**	**-0.3**
	comp=Z,5.2nm,0.5s,mb4.7						
KEV	**Kevo**	**73.59**	**341**	*e*P	**P**	**10 44 33.7**	**-0.3**
KEV				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
MORC	**Moravsky Berou**	**73.81**	**319**	*e*P	**P**	**10 44 34.1**	**-1.5**
	comp=Z,80nm,1.6s,mb5.4						
ZST	**Bratislava**	**73.95**	**318**	*i* P	**P**	**10 44 36.1**	**-0.3**
ZST				*e*pP	pP	10 44 46.3	-0.2
ARCES	**ARCESS Array B**	**74.02**	**340**	P	**P**	**10 44 36.7**	**+0.3**
	comp=Z,12nm,0.8s,mb4.8,baz=92,slow=5.0,SNR=14						
ARCES	**ARCESS Array B**	**74.02**	**340**	P	**P**	**10 44 36.7**	**+0.3**
ARCES				pmax	pmax		
	comp=Z,12nm,0.8s						
ARCES	**ARCESS Array B**	**74.02**	**340**	P	**P**	**10 44 36.7**	**+0.3**
DPC	**Dobruska-Polom**	**74.64**	**320**	*e*P	**P**	**10 44 40.7**	**+0.3**
DPC				*e*pP	pP	10 44 50.1	-0.4
KSP	**Ksiaz**	**74.70**	**320**	*e*P	**P**	**10 44 40.5**	**-0.3**
KSP				*e*pP	pP	10 44 49.9	-0.9
BOSA	**Boshof**	**74.76**	**237**	*e*P	**P**	**10 44 42.3**	**+0.8**
	comp=Z,49nm,1.2s,mb5.3						
BOSA				*e*		10 44 50.3	
UPC	**Upice**	**74.86**	**320**	*e*P	**P**	**10 44 42.2**	**+0.6**
UPC				*e*pP	pP	10 44 51.0	-0.7
ARSA	**Arzberg**	**74.94**	**317**	⇑*i*P	**P**	**10 44 42.6**	**+0.4**
	comp=Z,39nm,1.4s,mb5.2						
OBKA	**Obir**	**75.57**	**316**	⇓*i*P	**P**	**10 44 46.7**	**+0.9**
	comp=Z,40nm,1.4s,mb5.2						
PRU	**Pruhonice**	**75.76**	**319**	*e*P	**P**	**10 44 47.1**	**+0.3**
PRU				*e*pP	pP	10 44 56.5	-0.4
PVCC	**Panska Ves**	**75.78**	**320**	*e*P	**P**	**10 44 47.4**	**+0.5**
PVCC				*e*pP	pP	10 44 58.0	+1.0
BILL	**Bilibino**	**75.90**	**22**	*e*P	**P**	**10 44 47.0**	**-0.2**
	comp=Z,19nm,1.2s,mb4.9						
BRG	**Berggiesshubel**	**76.19**	**320**	*i* P	**P**	**10 44 49.7**	**+0.5**
BRG				*i*	pP	10 45 00.7	+1.4
BRG				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.3						
BRG	**Berggiesshubel**	**76.19**	**320**	*i* P	**P**	**10 44 49.7**	**+0.5**
	comp=Z,62nm,1.5s,mb5.3						
BRG				*i*	pP	10 45 00.7	+1.4
GEC2	**GERESS Array S**	**76.25**	**318**	*e*P	**P**	**10 44 49.9**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,70nm,1.5s,mb5.4						
GEC2	**GERESS Array S**	**76.25**	**318**	*e*P	**P**	**10 44 49.9**	**+0.3**
	comp=Z,70nm,1.5s,mb5.4						
GERES	**GERESS Array B**	**76.25**	**318**	P	**P**	**10 44 50.0**	**+0.4**
	comp=Z,9.7nm,0.9s,mb4.8,baz=96,slow=5.8,SNR=16						
GERES	**GERESS Array B**	**76.25**	**318**	P	**P**	**10 44 50.0**	**+0.4**
GERES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KHC	**Kasperske Hory**	**76.34**	**318**	*e*P	**P**	**10 44 50.3**	**+0.2**
KHC				*e*pP	pP	10 45 00.8	+0.6
RUE	**Ruedersdorf**	**76.39**	**322**	*e*P	**P**	**10 44 50.2**	**-0.1**
	comp=Z,251nm,1.6s,mb5.9						
RUE				*e*	pP	10 45 00.2	-0.2
WET	**Wettzell**	**76.80**	**318**	*e*P	**P**	**10 44 53.1**	**+0.4**
CLL	**Collm**	**76.81**	**321**	⇓*i*P	**P**	**10 44 52.2**	**-0.5**
CLL				*i*	pP	10 45 03.5	+0.7
CLL				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.1						
CLL	**Collm**	**76.81**	**321**	⇓*i*P	**P**	**10 44 52.2**	**-0.5**
	comp=Z,34nm,1.3s,mb5.1						
CLL				*i*	pP	10 45 03.5	+0.7
CLL	**Collm**	**76.81**	**321**	⇓P	**P**	**10 44 52.2**	**-0.5**
	comp=Z,logA/T=1.4,mb5.1						
CLL				*i* *PP	pP	10 45 03.5	+0.7
HFS	**Hagfors**	**77.02**	**330**	P	**P**	**10 44 53.1**	**-0.5**
	comp=Z,7.4nm,0.6s,mb4.8,baz=104,slow=6.1,SNR=13						
HFS	**Hagfors**	**77.02**	**330**	P	**P**	**10 44 53.1**	**-0.6**
HFS				pmax	pmax		
	comp=Z,7.0nm,0.6s						
NKC	**Novy Kostel**	**77.12**	**320**	*e*P	**P**	**10 44 54.8**	**+0.4**
NKC				*e*pP	pP	10 45 05.5	+1.0
FX1	**Attu Island--F**	**77.42**	**38**	P	**P**	**10 44 56.2**	**+0.2**
	comp=Z,25nm,0.6s,mb5.3,baz=43,slow=5.1,SNR=8.3						
FX1	**Attu Island--F**	**77.42**	**38**	P	**P**	**10 44 56.2**	**+0.2**
FX1				pmax	pmax		
	comp=Z,25nm,0.6s						
MOX	**Moxa**	**77.66**	**320**	*i* P	**P**	**10 44 57.6**	**+0.2**
MOX				pP	pP	10 45 08.0	+0.5
MOX	**Moxa**	**77.66**	**320**	*e*P	**P**	**10 44 57.6**	**+0.2**
MOX				*e*pP	pP	10 45 08.1	+0.6
FUR	**Furstenfeldbru**	**77.84**	**317**	*e*P	**P**	**10 44 58.4**	**0.0**
GRA1	**Grafenberg Arr**	**77.89**	**319**	*e*P	**P**	**10 44 59.6**	**+0.9**
	comp=Z,53nm,1.3s,mb5.3						
GRA1				*e*pP	pP	10 45 09.5	+0.7
GRF	**Grafenberg Arr**	**77.89**	**319**	*e*P	**P**	**10 44 59.6**	**+0.9**
GRF				*e**PP	pP	10 45 09.5	+0.7
GRF				pmax	pmax		
	comp=Z,53nm,1.3s,mb5.3						
GRF	**Grafenberg Arr**	**77.89**	**319**	*e*P	**P**	**10 44 59.6**	**+0.9**
	comp=Z,53nm,1.3s,mb5.3						
GRF				*e*pP	pP	10 45 09.5	+0.7
MOTA	**Moosalm**	**77.95**	**317**	⇓*i*P	**P**	**10 44 57.9**	**-1.1**
	comp=Z,21nm,1.1s,mb5.0						
NB2	**NORSAR Subarra**	**78.31**	**331**	P	**P**	**10 44 59.6**	**-1.1**
	comp=Z,68nm,1.4s,mb5.4,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	**78.31**	**331**	P	**P**	**10 44 59.6**	**-1.1**
	baz=97,slow=5.3						
NOA	**NORSAR Array B**	**78.31**	**331**	P	**P**	**10 45 00.3**	**-0.4**
	comp=Z,6.6nm,0.7s,mb4.7,baz=94,slow=5.7,SNR=19						
NOA	**NORSAR Array B**	**78.31**	**331**	P	**P**	**10 45 00.3**	**-0.4**
NOA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NOA	**NORSAR Array B**	**78.31**	**331**	P	**P**	**10 45 00.3**	**-0.4**
NAO01	**NORSAR Array S**	**78.46**	**330**	*e*P	**P**	**10 45 00.7**	**-0.9**
	comp=Z,26nm,1.0s,mb5.1						
CLZ	**Clausthal**	**78.46**	**321**	*e*P	**P**	**10 45 02.2**	**+0.4**
	comp=Z,47nm,1.4s,mb5.2						
BSEG	**Bad Segeberg**	**78.53**	**323**	*e*P	**P**	**10 45 02.6**	**+0.5**

DAVA	Damuels	78.78	316	⇑*i*P	P	10 45 04.1	+0.5
	comp=Z,49nm,1.2s,mb5.3						
DAVOX	Davos	78.79	316	P	P	10 45 04.4	+0.8
	comp=Z,11nm,0.6s,mb5.0,baz=118,slow=4.8,SNR=18						
MAW	Mawson	79.02	191	P	P	10 45 06.1	+1.6
	comp=Z,24nm,1.1s,mb5.0,baz=23,slow=6.4,SNR=10						
MAW	Mawson	79.02	191	P	P	10 45 06.1	+1.6
MAW				pmax	pmax		
	comp=Z,24nm,1.1s						
MAW	Mawson	79.02	191	*e*P	P	10 45 05.2	+0.7
	comp=Z,121nm,1.6s,mb5.6						
TOD	Tromm	79.47	319	*e*P	P	10 45 07.8	+0.5
PGF	Pioggiola	79.52	312	*e*P	P	10 45 07.3	-0.5
	comp=Z,332nm,1.7s,mb5.7						
SUR	Sutherland	79.57	235	*e*P	P	10 45 10.7	+2.5
	comp=Z,62nm,1.1s,mb5.5						
BFO	Black Forest	79.81	318	*e*P	P	10 45 09.1	0.0
BFO				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.0						
BFO	Black Forest	79.81	318	*e*P	P	10 45 09.1	0.0
	comp=Z,27nm,1.3s,mb5.0						
KTD	Kalmit	79.94	319	*e*P	P	10 45 10.9	+1.1
FELD	Feldberg	80.04	317	*e*P	P	10 45 10.4	0.0
LANF	Langenberg	80.14	318	*e*P	P	10 45 11.3	+0.4
ABH	Alteburg	80.28	319	*e*P	P	10 45 11.8	+0.2
LIBD	Limburg	80.30	317	*e*P	P	10 45 11.6	-0.2
BBS	Basel-Blauen	80.39	317	*e*P	P	10 45 11.6	-0.7
CDF	Champ du Feu	80.51	318	*e*P	P	10 45 12.3	-0.6
	comp=Z,33nm,1.3s,mb4.8						
RUP	Ruppelstein	80.60	319	*e*P	P	10 45 13.0	-0.3
MOF	Molkenrain	80.63	317	*e*P	P	10 45 10.9	-2.6
LOMF	Lomont	80.86	317	*e*P	P	10 45 11.1	-3.6
LPL	La Plagne	81.02	315	*e*P	P	10 45 15.4	-0.2
	comp=Z,86nm,0.9s,mb5.4						
SURF	Saint Ours	81.02	314	*e*P	P	10 45 15.7	0.0
BNI	Bardonecchia	81.08	314	*e*P	P	10 45 15.5	-0.5
	comp=Z,50nm,1.0s,mb5.4						
HAU	Haudompre	81.15	317	*e*P	P	10 45 15.6	-0.6
	comp=Z,96nm,1.3s,mb5.3						
FRF	La Foret Royal	81.20	313	*e*P	P	10 45 16.9	+0.3
	comp=Z,357nm,1.6s,mb5.7						
CABF	La Chapelle	81.40	316	*e*P	P	10 45 16.7	-0.9
	comp=Z,73nm,1.3s,mb5.2						
VIVF	Saint-Julien-l	82.52	314	*e*P	P	10 45 23.7	+0.3
	comp=Z,122nm,1.6s,mb5.4						
SSF	Saint Saulge	83.14	316	*e*P	P	10 45 26.0	-0.6
	comp=Z,125nm,1.6s,mb5.4						
PLDF	La Plantade	83.16	315	*e*P	P	10 45 28.7	+2.0
AGO	Saint Agoulin	83.49	315	*e*P	P	10 45 25.9	-2.5
LBL	Lubilhac	83.49	315	*e*P	P	10 45 29.9	+1.5
PYM	Petit Puy Mans	83.61	315	*e*P	P	10 45 29.4	+0.4
BGF	Bois d’Agland	83.64	316	*e*P	P	10 45 28.4	-0.8
	comp=Z,71nm,1.2s,mb5.4						
CAF	Calviac	84.36	314	*e*P	P	10 45 31.8	-1.0
	comp=Z,62nm,1.3s,mb5.3						
RPZ	Rata Peaks	87.66	135	P	P	10 45 50.1	+0.9
	comp=Z,41nm,0.9s,mb5.7,baz=128,slow=1.7,SNR=8.3						
ESDC	Sonseca Array	89.57	310	P	P	10 45 59.2	+0.8
	comp=Z,4.3nm,0.8s,mb4.9,baz=65,slow=4.0,SNR=13						
ESLA	Sonseca Array	89.57	310	*e*P	P	10 45 56.6	-1.8
	comp=Z,4.7nm,1.0s,mb4.8						
IMA	Indian Mountai	91.44	22	*e*P	P	10 46 07.5	+1.2
	comp=Z,226nm,1.2s,mb6.4						
VNDA	Vanda	94.01	168	P	P	10 46 19.4	+1.5
	comp=Z,4.9nm,0.8s,mb5.0,baz=267,slow=8.5,SNR=11						
VNDA	Vanda	94.01	168	P	P	10 46 19.4	+1.4
VNDA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
VNDA	Vanda	94.01	168	P	P	10 46 19.4	+1.4
	comp=Z,6.3nm,1.1s,mb5.0						
COLA	College	94.15	22	*e*P	P	10 46 19.5	+0.6
	comp=Z,5.1nm,1.0s,mb4.9						
SPU	Mount Spurr	94.23	26	*e*P	P	10 46 20.1	+0.9
ILAR	Eielson Array	94.56	22	P	P	10 46 20.8	+0.1
	comp=Z,3.0nm,0.6s,mb4.9,baz=284,slow=4.1,SNR=49						
ILAR				PKKPbc		11 03 19.4	
	comp=Z,0.4nm,0.7s,baz=139,slow=2.2,SNR=4.2						
SBA	Scott Base	95.11	168	*e*P	P	10 46 25.1	+2.1
	comp=Z,90nm,1.4s,mb6.0						
DBIC	Dimbokro	96.37	278	P	P	10 46 32.0	+1.8
	comp=Z,8.6nm,0.8s,mb5.2,baz=77,slow=7.7,SNR=8.4						
DBIC	Dimbokro	96.37	278	P	P	10 46 32.1	+1.9
DBIC				pmax	pmax		
	comp=Z,9.0nm,0.9s						
INK	Inuvik	96.63	16	P	P	10 46 30.6	+0.5
	comp=Z,16nm,0.8s,mb5.5,baz=324,slow=4.5,SNR=82						
INK	Inuvik	96.63	16	P	P	10 46 30.6	+0.5
INK				pmax	pmax		
	comp=Z,16nm,0.8s						
VNA2	Neumayer--Watz	101.43	199	⇑*i*	P	10 46 56.2	+4.5
VNA3	Neumayer Olymp	102.12	199	⇓*i*	Pdif	10 46 54.4	-0.3
YKA	Yellowknife Ar	105.99	13	Pdiff	Pdif	10 47 12.9	+1.0
	comp=Z,0.7nm,0.9s,baz=326,slow=4.3,SNR=5.7						
YKA				PP	PP	10 51 33.4	-4.7
	comp=Z,1.7nm,0.9s,baz=335,slow=7.3,SNR=5.9						
YKA	Yellowknife Ar	105.99	13	P	Pdif	10 47 12.9	+1.0
YKA						10 51 33.4	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
YKA	Yellowknife Ar	105.99	13	Pdif	Pdif	10 47 12.9	+1.0
YKA				PP	PP	10 51 33.4	-4.7
ULM	Lac du Bonnet	120.86	6	PKP	PKPdf	10 51 53.6	-3.3
	comp=Z,2.8nm,0.5s,baz=345,slow=5.2,SNR=4.4						
HVU	Hansel Valley	124.64	23	*e*PKPdf	PKPdf	10 52 01.7	-2.7
PDAR	Pinedale Array	124.94	20	PKP	PKPdf	10 52 01.9	-3.0
	comp=Z,3.7nm,0.6s,baz=105,slow=1.4,SNR=19						
PDAR				PKKPbc		11 01 42.8	
	comp=Z,1.0nm,0.7s,baz=98,slow=2.8,SNR=8.9						
NVAR	Mina Array Bea	124.98	30	PKP	PKPdf	10 52 03.2	-1.9
	comp=Z,9.3nm,0.9s,baz=285,slow=3.0,SNR=19						
TRCR	Troy Canyon	126.33	27	*e*PKPdf	PKPdf	10 52 05.8	-2.0
ANMO	Albuquerque	133.00	22	PKP	PKPdf	10 52 18.6	-2.0
	comp=Z,4.5nm,0.8s,baz=185,slow=0.7,SNR=9.5						
TXAR	Lajitas Array	139.07	22	PKP	PKPdf	10 52 29.4	-2.5
	comp=Z,1.6nm,0.5s,baz=189,slow=0.7,SNR=28						
BDFB	Brasilia	140.97	256	PKP	PKPdf	10 52 32.5	-3.2
	comp=Z,6.0nm,0.8s,baz=64,slow=2.5,SNR=5.5						
BDFB	Brasilia	140.97	256	PKIKP	PKPdf	10 52 32.5	-3.2
BDFB				pmax	pmax		
	comp=Z,6.0nm,0.8s						
SJG	San Juan	146.14	322	PKPbc	PKPbc	10 52 41.2	+0.8
	comp=Z,16nm,0.7s,baz=93,slow=6.7,SNR=7.1						
SJG	San Juan	146.14	322	PKP2	PKPab	10 52 41.2	-1.8
SJG				pmax	pmax		
	comp=Z,16nm,0.7s						
PCRV	Puerto La Cruz	150.64	309	PKPbc	PKPdf	10 52 53.1	+1.2
	comp=Z,9.0nm,0.5s,baz=35,slow=7.9,SNR=9.6						
TEIG	Tepich	151.27	2	*e*PKPbc	PKPdf	10 52 55.6	+2.9
SDV	Santo Domingo	155.88	316	PKP	PKPdf	10 52 56.3	-2.9
	comp=Z,5.2nm,1.1s,baz=50,slow=4.4,SNR=3.5						
SDV				PKPab	PKPab	10 53 22.5	-0.9
	comp=Z,11nm,1.1s,baz=71,slow=3.8,SNR=5.4						
LVC	Limon Verde	157.51	230	PKP	PKPdf	10 52 59.1	-2.1
	comp=Z,4.7nm,0.9s,baz=230,slow=6.7,SNR=3.7						
LVC				PKPab	PKPab	10 53 29.8	-0.3
	comp=Z,10.0nm,1.0s,baz=121,slow=4.2,SNR=5.2						
LPAZ	La Paz	159.77	246	PKP	PKPdf	10 53 01.9	-2.1
	comp=Z,19nm,1.4s,baz=19,slow=8.0,SNR=3.8						
LPAZ				PKPab	PKPab	10 53 40.3	+0.3
	comp=Z,6.9nm,0.7s,baz=103,slow=4.3,SNR=7.0						
LPAZ	La Paz	159.77	246	PKIKP	PKPdf	10 53 01.9	-2.1
LPAZ						10 53 40.3	
LPAZ				pmax	pmax		
	comp=Z,19nm,1.4s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ROSC	El Rosal	161.31	316	PKP	PKPdf	10 53 03.5	-2.2
	comp=Z,2.4nm,0.3s,baz=96,slow=23,SNR=3.9						

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*IDC **26** 10:33:54.1±6.6, 19.18S×167.53E, h94^{km}±61^{km}, mb4.3/10, mb1 4.3/10, mb1mx4.2/18, Error ellipse: s-maj=26.6km s-min=19.7km az=18.0*

ISC 26 10:33:46.2±0.7**, 19.21S**±0.09×**167.6E**±0.1**, h33^{km}, n17, σ0^{s}92**/15**, mb4.6**/9**, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	3.03	200	*e*P	P	10 34 32.1	-0.9
NOUC	Port Laguerre	3.11	202	*e*P	P	10 34 33.3	-0.8
CTA	Charters Tower	20.08	264	P	P	10 38 20.3	+0.5
	9.6nm,0.7s,baz=93,slow=15,SNR=7.7						
PMG	Port Moresby	22.01	293	P	P	10 38 39.8	+0.3
	10nm,0.8s,mb4.3,baz=127,slow=5.1,SNR=3.6						
RPZ	Rata Peaks	24.61	174	P	P	10 39 05.7	+0.9
	14nm,0.9s,mb4.5,baz=348,slow=6.5,SNR=4.5						
STKA	Stephens Creek	26.53	237	P	P	10 39 23.9	+1.1
	16nm,1.1s,mb4.5,baz=69,slow=9.2,SNR=7.6						
RAR	Rarotonga	30.70	99	P	P	10 40 01.0	+0.6
	14nm,0.4s,mb5.1,baz=149,slow=12,SNR=4.7						
ASAR	Alice Springs	31.59	256	P	P	10 40 07.7	-0.6
	6.3nm,0.6s,mb4.6,baz=85,slow=8.3,SNR=22						
SONM	Songino Array	86.25	324	P	P	10 46 25.4	-0.3
	6.3nm,0.9s,mb4.8,baz=135,slow=4.4,SNR=8.3						
YBH	Yreka Blue Hor	88.39	45	P	P	10 46 35.4	-0.8
	3.0nm,0.8s,mb4.5,baz=184,slow=4.9,SNR=6.0						
SNAA	Sanae	89.12	183		P	10 46 38.4	-0.6
SNAA	Sanae	89.12	183	P	P	10 46 37.8	-1.2
	1.1nm,0.9s,mb4.2,baz=188,slow=9.1,SNR=4.0						
SNAA	Sanae	89.12	183	P	P	10 46 38.4	-0.6
NVAR	Mina Array Bea	89.98	49	P	P	10 46 43.1	-0.7
	3.2nm,0.8s,mb4.7,baz=226,slow=7.6,SNR=11						
VNA2	Neumayer--Watz	90.04	182		P	10 46 46.0	+2.7
YKA	Yellowknife Ar	101.37	28	P	P	10 47 33.8	-1.4
	0.7nm,0.5s,baz=256,slow=4.8,SNR=19						
DAVOX	Davos	146.97	331	PKPbc	PKPbc	10 53 26.0	+1.0
	6.8nm,0.7s,baz=61,slow=1.0,SNR=8.5						

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*IDC **26** 10:35:24.9±1.1, 5.57N×93.04E, mb4.4/8, mb1 4.5/9, mb1mx4.3/19, ML4.5/1, Error ellipse: s-maj=41.4km s-min=21.5km az=49.0*

ISC 26 10:35:28.2±0.9**, 5.6N**±0.1×**93.1E**±0.2**, h33^{km}, n11, σ0^{s}65**/10**, mb4.3**/8**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.01	23	Pn	P	10 38 47.0	+0.3
	0.7nm,0.3s,baz=222,slow=13,SNR=3.6						
IMP	Imphal	19.11	2	*e*	P	10 39 55.3	+4.2
SONM	Songino Array	43.61	13	P	P	10 43 30.9	-0.2
	4.9nm,0.8s,mb4.3,baz=194,slow=7.4,SNR=4.3						
WRA	Warramunga Arr	47.82	123	P	P	10 44 04.6	-0.3
	2.2nm,0.4s,mb4.6,baz=252,slow=9.0,SNR=5.4						
ZAL	Zalesovo	48.68	353	P	P	10 44 10.1	-1.0
	4.1nm,0.3s,mb4.9,baz=324,slow=6.1,SNR=5.1						
ASAR	Alice Springs	49.28	128	P	P	10 44 16.4	+0.2
	0.6nm,0.3s,mb4.0,baz=97,slow=11,SNR=5.3						
BRTR	Keskin Array B	63.16	312	P	P	10 45 54.5	-0.9
	1.2nm,0.6s,mb4.2,baz=135,slow=7.7,SNR=2.6						
ARCES	ARCESS Array B	77.07	341	P	P	10 47 19.9	+0.4
	2.2nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=4.4						
GERES	GERESS Array B	78.85	319	P	P	10 47 30.1	+0.4
	1.4nm,0.6s,mb4.0,baz=90,slow=3.9,SNR=4.0						
DAVOX	Davos	81.33	316	P	P	10 47 43.9	+0.9
	3.8nm,0.8s,mb4.4,baz=125,slow=14,SNR=4.3						
TXAR	Lajitas Array	141.72	24	PKP	PKPdf	10 55 00.3	+3.2
	0.7nm,0.7s,baz=49,slow=0.5,SNR=4.5						

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*IDC **26** 10:37:04.7±1.0, 8.72N×92.41E, mb4.4/10, mb1 4.5/10, mb1mx4.2/21, Error ellipse: s-maj=52.5km s-min=19.9km az=49.0*

ISC 26 10:37:09.5±0.7**, 9.0N**±0.2×**92.3E**±0.2**, h33^{km}, n18, σ0^{s}68**/15**, mb4.4**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.55	15	P	P	10 44 47.5	+0.2
	2.1nm,1.0s,mb3.7,baz=200,slow=7.5,SNR=2.9						
BVAR	Borovoye Array	47.41	342	P	P	10 45 43.1	+0.5
	1.0nm,0.7s,mb3.8,baz=166,slow=5.9,SNR=2.3						
NWAO	Narrogin (SRO)	47.93	151	P	P	10 45 47.0	0.0
	10.0nm,0.8s,mb4.9,baz=293,slow=11,SNR=5.6						
WRA	Warramunga Arr	50.35	125	P	P	10 46 02.1	-3.6
	11nm,0.8s,mb4.9,baz=305,slow=8.8,SNR=11						
WRA	Warramunga Arr	50.35	125	P	P	10 46 05.5	-0.2
	10nm,0.8s,mb4.9,baz=305,slow=8.7,SNR=17						
WRA				PcP	PcP	10 47 27.9	+3.7
	2.9nm,0.8s,baz=314,slow=3.0,SNR=6.1						
ASAR	Alice Springs	51.98	129	P	P	10 46 14.2	-3.7
	5.3nm,0.7s,mb4.6,baz=305,slow=7.7,SNR=4.8						
ASAR	Alice Springs	51.98	129	P	P	10 46 18.1	+0.1
	5.4nm,0.7s,mb4.6,baz=302,slow=7.0,SNR=16						
ASAR				PcP	PcP	10 47 34.4	+4.1
	3.4nm,0.6s,baz=308,slow=3.8,SNR=9.4						
STKA	Stephens Creek	62.15	133	P	P	10 47 30.6	+0.7
	2.9nm,0.7s,mb4.5,baz=324,slow=7.4,SNR=5.3						
FINES	FINESS Array B	70.93	332	P	P	10 48 24.5	-0.7
	5.1nm,1.0s,mb4.4,baz=127,slow=9.5,SNR=3.3						
ARCES	ARCESS Array B	73.65	340	P	P	10 48 41.1	-0.1
	1.7nm,0.8s,mb4.0,baz=98,slow=7.6,SNR=3.5						
GERES	GERESS Array B	75.83	318	P	P	10 48 54.1	0.0
	1.6nm,0.9s,mb4.0,baz=90,slow=5.9,SNR=4.8						
HFS	Hagfors	76.63	330	P	P	10 48 58.0	-0.4
	2.4nm,0.7s,mb4.3,baz=106,slow=10,SNR=4.2						
NB2	NORSAR Subarra	77.92	331	P	P	10 49 04.7	-0.9
	6.1nm,0.8s,mb4.6,baz=93,slow=5.8						
DAVOX	Davos	78.37	316	P	P	10 49 09.6	+1.2
	2.0nm,0.5s,mb4.3,baz=151,slow=13,SNR=4.1						
INK	Inuvik	96.46	16	P	P	10 50 36.2	0.0
	4.8nm,1.2s,mb4.8,baz=316,slow=5.2,SNR=4.6						
PDAR	Pinedale Array	124.79	20	PKP	PKPdf	10 56 06.5	0.0
	0.6nm,0.9s,baz=27,slow=2.0,SNR=3.4						
NVAR	Mina Array Bea	124.90	29	PKP	PKPdf	10 56 08.9	+2.1
	0.5nm,0.7s,baz=243,slow=2.0,SNR=2.9						
TXAR	Lajitas Array	138.94	21	PKP	PKPdf	10 56 36.1	+2.7
	0.5nm,0.7s,baz=101,slow=4.6,SNR=2.8						

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*IDC **26** 10:37:12.0±0.6, 8.27N×92.62E, mb4.5/17, mb1 4.6/18, mb1mx4.6/22, ML3.7/1, Error ellipse: s-maj=38.9km s-min=13.8km az=50.0*

ISC 26 10:37:15.7±2.7**, 8.3N**±0.4×**92.6E**±0.3**, h33^{km}, n21, σ0^{s}63**/18**, mb4.5**/14**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.87	31	Pn	P	10 40 06.2	+0.5
	0.2nm,0.3s,baz=232,slow=15,SNR=5.9						
SONM	Songino Array	41.14	14	P	P	10 44 58.5	+0.1
	3.3nm,0.8s,mb4.0,baz=198,slow=7.8,SNR=3.8						
ZAL	Zalesovo	45.97	354	P	P	10 45 37.4	0.0
	3.3nm,0.9s,mb4.3,baz=286,slow=8.5,SNR=3.6						
BVAR	Borovoye Array	48.12	342	P	P	10 45 54.4	+0.1
	3.4nm,0.7s,mb4.5,baz=153,slow=6.6,SNR=6.1						
BRTR	Keskin Array B	60.99	311	P	P	10 47 27.7	-0.6
	3.5nm,0.8s,mb4.6,baz=120,slow=7.9,SNR=8.0						
AKASG	Malin Array Be	66.88	322	P	P	10 48 05.4	-1.2
	1.9nm,0.7s,mb4.2,baz=89,slow=5.2,SNR=4.7						
IDI	Anoyia	67.06	305	P	P	10 48 08.6	+0.6
	7.0nm,0.7s,mb4.8,baz=84,slow=9.2,SNR=4.2						
KOLS	Kolonicke sedl	70.88	319	*e*	P	10 48 32.1	+0.8
FINES	FINESS Array B	71.64	332	P	P	10 48 35.1	-0.5
	5.7nm,0.8s,mb4.6,baz=117,slow=8.5,SNR=7.9						
KAF	Kangasniemi	71.73	333	*e*p	P	10 48 34.9	-1.2
	baz=104,slow=5.7						
ZST	Bratislava	74.19	318	*e*	P	10 48 51.4	+0.5
ARCES	ARCESS Array B	74.37	340	P	P	10 48 51.0	-0.5
	3.6nm,0.9s,mb4.3,baz=214,slow=4.4,SNR=3.7						
GERES	GERESS Array B	76.49	318	P	P	10 49 04.5	+0.4
	3.9nm,0.7s,mb4.4,baz=90,slow=5.3,SNR=10						
NOA	NORSAR Array B	78.62	331	P	P	10 49 15.4	-0.2
	3.4nm,0.9s,mb4.3,baz=94,slow=5.5,SNR=5.2						
DAVOX	Davos	79.02	316	P	P	10 49 18.2	+0.1
	4.4nm,0.7s,mb4.5,baz=116,slow=7.7,SNR=5.5						
LPL	La Plagne	81.25	315	*e*P	P	10 49 30.9	+0.9
	25nm,0.9s,mb4.8						
ESDC	Sonseca Array	89.77	310	P	P	10 50 13.1	+0.7
	1.5nm,0.7s,mb4.4,baz=78,slow=4.9,SNR=4.7						
ILAR	Eielson Array	94.96	22	P	P	10 50 35.0	-0.7
	3.4nm,1.2s,mb4.6,baz=291,slow=3.6,SNR=4.9						
PDAR	Pinedale Array	125.34	20	PKP	PKPdf	10 56 15.3	+1.7
	5.2nm,1.2s,baz=77,slow=2.4,SNR=5.3						
NVAR	Mina Array Bea	125.36	30	PKP	PKPdf	10 56 16.0	+2.2
	1.3nm,0.6s,baz=319,slow=0.7,SNR=7.5						
TXAR	Lajitas Array	139.47	22	PKP	PKPdf	10 56 45.0	+4.5
	0.4nm,0.4s,baz=159,slow=0.8,SNR=9.5						

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*IDC **26** 10:39:03.5±0.7, 8.52N×92.50E, mb4.4/16, mb1 4.5/17, mb1mx4.4/23, ML4.6/1, Error ellipse: s-maj=32.7km s-min=14.5km az=55.0*

ISC 26 10:39:06.8±0.6**, 8.6N**±0.1×**92.6E**±0.1**, h33^{km}, n23, σ0^{s}75**/19**, mb4.4**/17**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.62	31	Pn	P	10 41 53.5	+0.1
	1.0nm,0.3s,baz=234,slow=14,SNR=5.7						
SONM	Songino Array	40.87	14	P	P	10 46 48.0	+0.7
	1.6nm,0.4s,mb4.0,baz=202,slow=7.8,SNR=9.6						
SONM				PcP	PcP	10 48 47.9	-0.3
	0.6nm,0.4s,baz=209,slow=3.9,SNR=5.4						
ZAL	Zalesovo	45.70	354	P	P	10 47 25.8	-0.7
	2.3nm,0.4s,mb4.5,baz=276,slow=4.5,SNR=5.7						
NWAO	Narrogin (SRO)	47.45	152	P	P	10 47 41.9	+1.4
	9.1nm,0.8s,mb4.8,baz=5.7,slow=9.9,SNR=6.4						
BVAR	Borovoye Array	47.88	342	P	P	10 47 43.4	-0.2
	2.6nm,0.8s,mb4.3,baz=142,slow=8.6,SNR=6.6						
WRA	Warramunga Arr	49.89	125	P	P	10 47 58.8	-0.7
	6.2nm,0.8s,mb4.7,baz=300,slow=10,SNR=17						
ASAR	Alice Springs	51.51	129	P	P	10 48 11.1	-0.8
	4.3nm,0.8s,mb4.4,baz=317,slow=4.6,SNR=7.2						
BRTR	Keskin Array B	60.84	311	P	P	10 49 17.7	-0.8
	1.5nm,0.9s,mb4.1,baz=126,slow=6.9,SNR=2.9						
STKA	Stephens Creek	61.67	133	P	P	10 49 23.7	-0.4
	1.7nm,0.3s,mb4.6,baz=328,slow=20,SNR=5.0						
FINES	FINESS Array B	71.41	332	P	P	10 50 24.7	-0.8
	2.9nm,0.8s,mb4.3,baz=90,slow=7.6,SNR=5.3						
ARCES	ARCESS Array B	74.12	340	P	P	10 50 41.0	-0.2
	2.1nm,0.6s,mb4.2,baz=108,slow=3.8,SNR=9.1						
GERES	GERESS Array B	76.31	318	P	P	10 50 53.5	-0.7
	1.1nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=4.5						
HFS	Hagfors	77.11	330	P	P	10 50 58.3	-0.3
	1.2nm,0.5s,mb4.1,baz=108,slow=4.7,SNR=6.9						
NB2	NORSAR Subarra	78.40	331	P	P	10 51 05.2	-0.4
	1.5nm,0.6s,mb4.1,baz=94,slow=5.6						
NOA	NORSAR Array B	78.40	331	P	P	10 51 05.5	-0.1
	0.6nm,0.5s,mb3.8,baz=98,slow=5.6,SNR=3.5						
DAVOX	Davos	78.85	316	P	P	10 51 09.8	+1.4
	2.3nm,0.5s,mb4.3,baz=166,slow=17,SNR=6.1						
LPG	La Plagne	81.07	315	*e*P	P	10 51 21.5	+1.2
	20nm,0.9s,mb4.8						
ILAR	Eielson Array	94.69	22	P	P	10 52 26.1	+0.5
	0.8nm,0.8s,mb4.2,baz=282,slow=4.3,SNR=10						
INK	Inuvik	96.77	16	P	P	10 52 35.6	+0.7
	2.1nm,0.4s,mb4.9,baz=331,slow=2.6,SNR=16						
PDAR	Pinedale Array	125.08	20	PKP	PKPdf	10 58 06.7	+2.4
	0.6nm,0.4s,baz=89,slow=2.5,SNR=11						
NVAR	Mina Array Bea	125.11	30	PKP	PKPdf	10 58 07.3	+2.8
	0.7nm,0.5s,baz=303,slow=2.9,SNR=4.8						
TXAR	Lajitas Array	139.21	22	PKP	PKPdf	10 58 35.1	+3.9
	0.4nm,0.4s,baz=207,slow=0.4,SNR=12						
PCRV	Puerto La Cruz	150.69	309	PKPbc	PKPdf	10 58 57.7	+6.6
	2.7nm,0.4s,baz=60,slow=4.3,SNR=4.1						

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*IDC **26** 10:41:24.9±0.9, 11.72N×95.73E, h28^{km}±7^{km}, mb4.1/11, mb1 4.2/11, mb1mx4.1/19, Error ellipse: s-maj=69.4km s-min=18.4km az=44.0*

ISC 26 10:41:23.4±0.8**, 11.5N**±0.3×**95.5E**±0.3**, h33^{km}, n14, σ0^{s}95**/13**, mb4.3**/12**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	49.36	129	P	P	10 50 12.6	+0.6
	2.8nm,0.8s,mb4.3,baz=305,slow=8.7,SNR=5.4						
WRA				pP	pP	10 50 21.7	-0.2
	2.8nm,0.7s,baz=303,slow=8.9,SNR=5.2						
ASAR	Alice Springs	51.28	133	P	P	10 50 26.1	-0.5
	2.6nm,0.9s,mb4.2,baz=310,slow=6.4,SNR=4.4						
ASAR				pP	pP	10 50 35.0	-1.6
	3.4nm,0.8s,baz=311,slow=7.4,SNR=7.4						
GNI	Garni	52.97	312	P	P	10 50 40.4	+1.4
	14nm,0.9s,mb4.9,baz=173,slow=19,SNR=5.1						
BRTR	Keskin Array B	61.16	309	P	P	10 51 37.0	-0.1
	3.5nm,0.7s,mb4.6,baz=126,slow=7.6,SNR=8.8						
AKASG	Malin Array Be	66.22	320	P	P	10 52 09.6	-0.5
	1.4nm,0.7s,mb4.1,baz=85,slow=5.0,SNR=4.7						
FINES	FINESS Array B	70.20	331	P	P	10 52 35.1	+0.5
	2.6nm,0.9s,mb4.2,baz=108,slow=8.8,SNR=2.2						
ARCES	ARCESS Array B	72.37	340	P	P	10 52 46.5	-1.0
	4.7nm,1.0s,mb4.4,baz=90,slow=4.9,SNR=3.7						
HFS	Hagfors	76.06	329	P	P	10 53 09.2	+0.1
	1.1nm,0.6s,mb4.0,baz=79,slow=7.3,SNR=3.9						
GERES	GERESS Array B	76.07	318	P	P	10 53 10.8	+1.4
	1.7nm,0.6s,mb4.2,baz=87,slow=6.2,SNR=8.3						
NB2	NORSAR Subarra	77.29	330	P	P	10 53 15.2	-0.8
	1.3nm,0.7s,mb4.0,baz=93,slow=5.6						
NOA	NORSAR Array B	77.29	330	P	P	10 53 15.6	-0.5
	0.4nm,0.7s,mb3.5,baz=84,slow=5.8,SNR=3.1						
LPG	La Plagne	81.05	315	*e*P	P	10 53 34.5	-2.2
	15nm,0.7s,mb4.7						
ILAR	Eielson Array	90.94	22	P	P	10 54 25.5	+0.6
	2.3nm,1.3s,mb4.3,baz=247,slow=6.9,SNR=4.1						
PDAR	Pinedale Array	121.36	21	PKP	PKPdf	11 00 14.0	+0.4
	0.5nm,0.9s,baz=346,slow=3.7,SNR=3.4						
PDAR				pPKP		11 00 23.4	
	0.8nm,0.8s,slow=3.0,SNR=5.5						

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*IDC **26** 10:42:34.8±0.8, 4.61N×94.95E, mb4.6/17, mb1 4.7/18, mb1mx4.6/24, ML4.9/1, Error ellipse: s-maj=34.9km s-min=14.9km az=42.0*

*MOS **26** 10:42:38.4±0.9, 4.84N×95.25E, h33^{km}, mb4.9/15, Error ellipse: s-maj=37.3km s-min=11.2km az=115.5*

ISC 26 10:42:38.3±0.6**, 4.6N**±0.1×**95.1E**±0.1**, h33^{km}, n63, σ0^{s}99**/60**, mb4.7**/26**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.25	15	Pn	P	10 46 08.4	+8.4
	1.8nm,0.3s,baz=208,slow=11,SNR=20						
CMAR	Chiang Mai Arr	14.25	15	P	P	10 46 08.4	+8.4
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PKI	Pulchoki	24.62	339	*e*P	P	10 47 57.8	+0.6
	comp=Z,25nm,0.6s,mb4.9						
DMN	Daman	24.77	338	*e*P	P	10 47 59.1	+0.5
GUN	Gumba	24.77	340	*e*P	P	10 47 58.9	+0.3
	comp=Z,34nm,0.6s,mb5.0						
KKN	Kakani	24.87	339	*e*P	P	10 47 59.6	0.0
GKN	Gorkha	25.30	338	*e*P	P	10 48 02.7	-0.9
KOLN	Koldanda	25.50	336	*e*P	P	10 48 05.1	-0.4
	comp=Z,55nm,0.7s,mb5.2						
UCH	Uchtor	41.70	337	P	P	10 50 27.2	+1.4
	SNR=19						
TKM2	Tokmak 2	41.88	338	P	P	10 50 28.1	+0.9
	SNR=11						
KBK	Karagaybulak	41.90	338	P	P	10 50 29.1	+1.7
	SNR=18						
AML	Almayashu	41.95	336	P	P	10 50 29.4	+1.6
	SNR=19						
AAK	Ala-Archa	42.05	337	P	P	10 50 28.2	-0.4
	SNR=11						
CHMS	Chumysh	42.27	338	P	P	10 50 32.2	+1.8
	SNR=6.7						
EKS2	Erkin-Say	42.36	337	P	P	10 50 32.6	+1.5
	SNR=11						
USP	Ospenovka	42.59	338	P	P	10 50 33.9	+0.9
	SNR=28						
MKAR	Makanchi Array	43.45	347	*i* P	P	10 50 39.9	-0.1
MKAR				pmax	pmax		
	comp=Z,22nm,0.8s						
SONM	Songino Array	44.13	11	P	P	10 50 45.2	-0.3
	comp=Z,3.7nm,0.5s,mb4.4,baz=190,slow=8.7,SNR=14						
SONM				PcP	PcP	10 52 30.7	0.0
	comp=Z,9.2nm,0.7s,baz=183,slow=4.1,SNR=4.8						
WRA	Warramunga Arr	45.63	124	P	P	10 50 58.7	+0.8
	comp=Z,11nm,0.6s,mb5.0,baz=302,slow=9.1,SNR=11						
WRA	Warramunga Arr	45.63	124	P	P	10 50 58.7	+0.8
WRA				pmax	pmax		
	comp=Z,11nm,0.6s						
ASAR	Alice Springs	47.13	128	P	P	10 51 10.2	+0.7
	comp=Z,2.7nm,0.6s,mb4.4,baz=305,slow=7.3,SNR=19						
ZAL	Zalesovo	49.88	352	P	P	10 51 30.1	-0.4
	comp=Z,12nm,0.7s,mb5.1,baz=300,slow=6.2,SNR=28						
ZAL	Zalesovo	49.88	352	P	P	10 51 30.1	-0.4
ZAL				pmax	pmax		
	comp=Z,12nm,0.7s						
CBIJ	Chichi jima	50.10	58	P	P	10 51 33.4	+0.8
	comp=Z,35nm,0.3s,mb5.8,baz=291,slow=22,SNR=9.6						
NVS	Novosibirsk	50.98	351	*e*P	P	10 51 36.5	-2.4
BVA0	Borovoye Array	52.36	341	P	P	10 51 48.4	-0.8
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BVAR	Borovoye Array	52.36	341	P	P	10 51 48.6	-0.6
	comp=Z,13nm,0.6s,mb5.0,baz=141,slow=9.5,SNR=43						
CHKZ	Chkalovo	52.84	342	P	P	10 51 52.6	-0.3
CHKZ				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
BOD	Bodaibo	55.09	12	*e*P	P	10 52 06.9	-2.4
CTA	Charters Tower	55.91	118	P	P	10 52 15.1	-0.7
	comp=Z,3.4nm,0.8s,mb4.4,baz=352,slow=15,SNR=3.2						
CTA	Charters Tower	55.91	118	P	P	10 52 15.1	-0.7
CTA				pmax	pmax		
	comp=Z,3.0nm,0.8s						

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KIV   Kislovodsk        60.37 319 eP      P          10 52 45.7 -1.0
KIV                               pmax    pmax
      comp=E,8.0nm,1.0s
KIV                               pmax    pmax
      comp=Z,11nm,1.0s,mb4.8
BRTR  Keskin Array B    65.28 312  P      P          10 53 18.1 -1.2
      comp=Z,2.4nm,0.6s,mb4.4,baz=127,slow=7.6,SNR=7.6
BRTR  Keskin Array B    65.28 312  P      P          10 53 18.2 -1.1
BRTR                              pmax    pmax
      comp=Z,2.0nm,0.6s
OBN   Obninsk           68.63 328 eP      P          10 53 38.2 -1.9
OBN                               pmax    pmax
      comp=Z,45nm,1.9s,mb5.1
AKASG Malin Array Be    71.29 322  P      P          10 53 54.8 -1.6
      comp=Z,7.8nm,0.7s,mb4.7,baz=87,slow=5.0,SNR=19
AKASG Malin Array Be    71.29 322  P      P          10 53 54.8 -1.6
AKASG                             pmax    pmax
      comp=Z,8.0nm,0.7s
MLR   Muntele Rosu      72.16 316  P      P          10 54 01.7 +0.1
      comp=Z,4.1nm,0.7s,mb4.5,baz=106,slow=5.7,SNR=4.4
MLR   Muntele Rosu      72.16 316  P      P          10 54 01.7  0.0
MLR                               pmax    pmax
      comp=Z,4.0nm,0.7s
KOLS  Kolonicke sedl    75.28 319 eP      P          10 54 20.9 +1.1
CRVS  Cervenica-Dubn    75.80 319 eP      P          10 54 24.7 +1.9
FINES FINESS Array B    76.02 332  P      P          10 54 23.1 -0.7
      comp=Z,4.0nm,0.5s,mb4.6,baz=103,slow=6.6,SNR=22
FINES FINESS Array B    76.02 332  P      P          10 54 23.1 -0.7
FINES                             pmax    pmax
      comp=Z,4.0nm,0.5s
KAF   Kangasniemi       76.11 333 ep      P          10 54 23.8 -0.5
      comp=Z,5.6nm,0.6s,mb4.7
KAF   Kangasniemi       76.11 333 eP      P          10 54 23.8 -0.5
KAF                               pmax    pmax
      comp=Z,6.0nm,0.6s,mb4.7
OJC   Ojcow             77.07 320 eP      P          10 54 30.6 +0.6
VYHS  Vyhne             77.46 319 eP      P          10 54 31.8 -0.4
ARCES ARCESS Array B    78.63 340  P      P          10 54 38.0 -0.2
      comp=Z,7.1nm,0.9s,mb4.6,baz=98,slow=6.8,SNR=14
ARCES ARCESS Array B    78.63 340  P      P          10 54 38.0 -0.2
ARCES                             pmax    pmax
      comp=Z,7.0nm,0.9s
GERES GERESS Array B    80.88 319  P      P          10 54 50.8 +0.1
      comp=Z,4.1nm,0.8s,mb4.4,baz=97,slow=5.5,SNR=15
GERES GERESS Array B    80.88 319  P      P          10 54 50.8 +0.1
GERES                             pmax    pmax
      comp=Z,4.0nm,0.8s
KHC   Kasperske Hory    80.98 319 eP      P          10 54 50.3 -0.9
HFS   Hagfors           81.73 330  P      P          10 54 54.7 -0.2
      comp=Z,3.2nm,0.5s,mb4.5,baz=104,slow=6.1,SNR=13
HFS   Hagfors           81.73 330  P      P          10 54 54.7 -0.2
HFS                               pmax    pmax
      comp=Z,3.0nm,0.5s
NOA   NORSAR Array B    83.02 331  P      P          10 55 01.3 -0.2
      comp=Z,0.9nm,0.9s,mb3.8,baz=94,slow=5.3,SNR=3.7
NOA   NORSAR Array B    83.02 331  P      P          10 55 01.3 -0.2
NOA                               pmax    pmax
      comp=Z,1.0nm,0.9s
DAVOX Davos             83.39 316  P      P          10 55 04.3 +0.6
      comp=Z,4.7nm,0.6s,mb4.7,baz=175,slow=12,SNR=6.2
ILAR  Eielson Array     97.37  22  P      P          10 56 08.5 -0.8
      comp=Z,0.2nm,0.6s,mb3.8,baz=290,slow=4.0,SNR=4.7
INK   Inuvik            99.83  16  P      P          10 56 20.8 +0.4
      comp=Z,0.6nm,0.5s,mb4.2,baz=308,slow=4.3,SNR=3.6
INK   Inuvik            99.83  16  P      P          10 56 20.8 +0.5
INK                               pmax    pmax
      comp=Z,1.0nm,0.5s
ULM   Lac du Bonnet    124.53   9  PKP    PKPdf      11 01 36.6 +2.1
      comp=Z,1.7nm,0.5s,baz=297,slow=2.4,SNR=3.9
NVAR  Mina Array Bea   127.15  33  PKP    PKPdf      11 01 42.4 +2.4
      comp=Z,0.7nm,0.6s,baz=300,slow=2.4,SNR=4.2
TXAR  Lajitas Array    141.73  27  PKhKP             11 02 02.6
      comp=Z,0.4nm,0.5s,baz=123,slow=0.7,SNR=7.6
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MOS ***26*** *10:43:27.7±1.1, 6.61N×92.90E, h33km, mb5.4/32, Error ellipse: s-maj=12.4km s-min=7.0km az=117.1*

BJI ***26*** *10:43:27.8, 6.42N×92.68E, h46km, mB5.4, mb5.3, Ms5.9, Msz5.6*

IDC ***26*** *10:43:29.8±0.3, 6.53N×92.88E, h36km±2km, mb4.9/30, mb1 4.9/31, mb1mx4.9/31, ML5.1/1, Error ellipse: s-maj=14.8km s-min=7.7km az=41.0*

NEIC ***26*** *10:43:29.9±0.2, 6.53N×92.83E, mb5.4/36, Error ellipse: s-maj=5.9km s-min=4.7km az=214.0*

ISC 26 10:43:28.4±1.2**, 6.51N**±0.04×**92.86E**±0.04**, h40**km±10km**, h38**km±.7km**: pP-P, n252,** σ**0**s**96**/215**, mb5.2**/78**, MS5.5**/3**,**
13C-5D, Nicobar Islands region

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Code  Station Name        Δ°   AZ°   Phase ID           Time      Res
                                  Op      ISC        h  m  s    ISC
PALK  Pallekele         12.09 274  P      P          10 46 19.9 -1.2
CM31  Chiang Mai Arr    13.28  26  P      P          10 46 38.9 +2.0
      90nm,0.8s
CMAR  Chiang Mai Arr    13.28  26  Pn     P          10 46 36.2 -0.6
      3.0nm,0.3s,baz=238,slow=18,SNR=4.2
CMAR  Chiang Mai Arr    13.28  26  P      P          10 46 36.3 -0.6
CMAR                              pmax    pmax
      comp=Z,3.0nm,0.3s
HYB   Hyderabad         17.68 309 eP      P          10 47 33.5 -0.1
HYB                               eS      S          10 50 40.0 -6.8
HYB   Hyderabad         17.68 309 i P     P          10 47 33.5 -0.1
HYB                               eS      S          10 50 40.0 -6.8
IMP   Imphal            18.20   3 e       P          10 47 40.3 +0.3
MNGI  Mangalore         18.88 291 eP      P          10 47 48.4 +0.2
MNGI                              e                  10 48 00.7
      comp=Z,313nm,1.3s
SHL   Shillong          18.97 357 eP      P          10 47 47.9 -1.4
SHL                               e                  10 48 03.5
      comp=Z,212nm,1.6s
SHL                               eS      S          10 51 21.2 +5.3
COCO  West Island       18.99 168 eP      P          10 47 49.9 +0.3
      comp=Z,217nm,1.1s
GOA   Goa               20.69 297 e       P          10 48 15.2 +7.4
GOA                               eS      S          10 51 57.0 +5.3
QIZ   Qiongzhong        20.69  51  P      P          10 48 08.0 +0.2
QIZ   Qiongzhong        20.69  51 eP      P          10 48 08.8 +1.0
      comp=Z,282nm,1.4s
KMI   Kunming           20.79  26 eP      P          10 48 10.5 +1.7
KMI                                PP     PP         10 48 32.5 +1.1
KMI                                AMB    AMB
      comp=Z,139nm,1.0s
AKL   Akola             20.85 314 eP      P          10 48 12.9 +3.4
AKL                               e                  10 48 27.2
      comp=Z,445nm,1.4s
AKL                               eS      S          10 51 59.0 +4.2
ALBI  Allahabad         21.48 332 eP      P          10 48 16.0 +0.3
BOM   Bombay            23.07 304 eP      P          10 48 33.4 +1.7
BOM                               e                  10 48 46.6
      comp=Z,317nm,1.3s
LSA   Lhasa             23.12 356  P      P          10 48 31.8 -0.3
      comp=Z,40nm,0.6s,mb5.0
GYA   Guiyang           23.81  32⇑iP      P          10 48 40.0 +1.3
GYA                                PP     PP         10 49 14.0 +1.3
GYA                                S      S          10 52 53.3 +4.7
GYA                                AMB    AMB
      comp=Z,280nm,1.2s,mb5.6
GYA                                AMB    AMB
      comp=Z,970nm,6.2s
GYA                                LR     LR
      comp=N,24µm,16.2s,MS5.9
GYA                                LR     LR
      comp=E,21µm,15.0s,MS5.9
GYA                                LR     LR
      comp=Z,19µm,16.0s,MS5.7
CD2   Chengdu           26.34  21  P      P          10 49 02.5 -0.3
CD2                                AMB    AMB
      comp=Z,100nm,1.1s,mb5.3
NDI   New Delhi         26.56 328 eP      P          10 49 05.7 +0.9
NDI                               e       pP         10 49 17.8 +2.3
      comp=Z,162nm,1.3s
ENH   Enshi             28.34  31 eP      P          10 49 19.4 -1.6
      comp=Z,72nm,1.1s,mb5.2
TGY   Tagaytay City     28.62  72  P      P          10 49 23.9 +0.4
      comp=Z,252nm,0.8s,mb6.0,baz=331,slow=3.4,SNR=6.0
TGY   Tagaytay City     28.62  72  P      P          10 49 23.9 +0.3
TGY                               pmax    pmax
      comp=Z,252nm,0.8s
LQP   Lukban            29.19  73⇑iP      P          10 49 29.4 +0.8
QZH   Quanzhou          30.71  51  P      P          10 49 42.3 +0.2
LZH   Lanzhou           31.11  17 eP      P          10 49 45.3 -0.3
LZH                                AMB    AMB
      comp=Z,23nm,1.0s,mb5.0
WHN   Wuhan             31.29  37 ⇓P      P          10 49 47.5 +0.3
GTA   Gaotai            33.35  10  P      P          10 50 05.0 -0.1
GTA                                AMB    AMB
      comp=Z,28nm,1.5s,mb5.0
GTA                                LR     LR
      comp=N,4µm,17.5s,MS5.5
GTA                                LR     LR
      comp=E,6µm,12.9s,MS5.5
GTA                                LR     LR
      comp=Z,5µm,12.9s,MS5.4
NJ2   Nanjing           35.13  40 eP      P          10 50 21.3 +0.9
NJ2                                AMB    AMB
      comp=Z,170nm,0.6s,mb6.2
HHC   Hu-ho-hao-te      38.06  23 eP      P          10 50 46.0 +1.0
HHC                                XP     sP         10 50 57.3 -3.8
HHC                                PP     PP         10 52 11.8 -3.9
HHC                                S      S          10 56 27.5 -7.0
HHC                                AMB    AMB
      comp=Z,60nm,1.2s,mb5.2
HHC                                LR     LR
      comp=N,5µm,8.3s
HHC                                LR     LR
      comp=E,6µm,13.1s
HHC                                LR     LR
      comp=Z,4µm,16.6s,MS5.3
JOW   Kunigami          39.28  55  P      P          10 50 56.0 +0.8
      comp=Z,60nm,1.1s,mb5.2,baz=253,slow=8.9,SNR=6.7
BJT   Baijiatuau        39.38  29 eP      P          10 50 56.9 +0.9
      comp=Z,84nm,1.2s,mb5.3
BJI   Beijing           39.41  29  P      P          10 50 57.3 +1.1
BJI                                AMB    AMB
      comp=Z,51nm,1.3s,mb5.1
AAK   Ala-Archa         39.47 339 eP      P          10 50 54.9 -1.8
AAK                               e       pP         10 51 08.2 +0.4
DL2   Dalian            41.41  35  P      P          10 51 13.5 +0.7
DL2                                AMB    AMB
      comp=Z,40nm,1.1s,mb5.0
SONM  Songino Array     42.77  13  P      P          10 51 24.4 +0.5
      comp=Z,13nm,0.9s,mb4.7,baz=196,slow=8.2,SNR=18
SONM                               PcP    PcP        10 53 15.4  0.0
      comp=Z,15nm,1.0s,baz=203,slow=4.4,SNR=6.8
SONM                               pPcP              10 53 27.3
      comp=Z,7.6nm,0.6s,baz=198,slow=4.3,SNR=6.8
SNY   Shenyang          44.50  33 ⇓P      P          10 51 37.8 -0.2
SNY                                AMB    AMB
      comp=Z,40nm,1.3s,mb5.1
ZAK   Zakamensk         44.59   9⇓iP      P          10 51 38.8 +0.3
ZAK                               e                  10 53 21.6
MOY   Mondy             45.52   7 eP      P          10 51 46.8 +0.9
NWAO  Narrogin (SRO)    45.55 151  P      P          10 51 44.9 -1.6
      comp=Z,14nm,0.9s,mb4.9,baz=324,slow=5.9,SNR=4.3
NWAO  Narrogin (SRO)    45.55 151  P      P          10 51 44.9 -1.6
NWAO                              pmax    pmax
      comp=Z,14nm,0.9s
NWAO  Narrogin (SRO)    45.55 151 eP      P          10 51 46.6 +0.2
NWAO                              e       pP         10 51 57.4 -0.3
TLY   Talaya            45.91   9 eP      P          10 51 49.8 +0.8
TLY                               pmax    pmax
      comp=Z,23nm,1.2s,mb5.0
CN2   Changchun         46.86  32 eP      P          10 51 57.0 +0.4
CN2                                AMB    AMB
      comp=Z,40nm,1.3s,mb5.2
ZAL   Zalesovo          47.74 354  P      P          10 52 01.1 -2.3
      comp=Z,13nm,0.8s,mb5.0,baz=296,slow=7.1,SNR=10
ZAL                               pP      pP         10 52 14.9 +0.2
      comp=Z,37nm,0.8s,baz=294,slow=8.2,SNR=13
ZAL   Zalesovo          47.74 354  P      P          10 52 01.1 -2.3
ZAL                               *PP     pP         10 52 14.9 +0.2
ZAL                               pmax    pmax
      comp=Z,13nm,0.8s
ZAL                               pmax    pmax
      comp=Z,37nm,0.8s
WRA   Warramunga Arr    48.54 124  P      P          10 52 09.4 -0.7
      comp=Z,48nm,0.9s,mb5.5,baz=301,slow=8.6,SNR=35
WRA                                S      S          10 59 06.5 -1.0
      comp=Z,6.6nm,1.0s,baz=301,slow=15,SNR=9.3
WRA   Warramunga Arr    48.54 124  P      P          10 52 09.4 -0.6
WRA                                S      S          10 59 06.5 -1.1
WRA                               pmax    pmax
      comp=Z,48nm,1.0s
WRAB  Tennant Creek     48.54 124 eP      P          10 52 09.2 -0.9
      comp=Z,144nm,1.2s,mb5.9
NVS   Novosibirsk       48.81 353 i P     P          10 52 09.4 -2.3
NVS                               i                  10 54 03.6
NVS                               eS      S          10 59 10.8 -0.1
NVS                               pmax    pmax
      comp=E,33nm,1.3s
NVS                               pmax    pmax
      comp=Z,90nm,1.3s,mb5.6
NVS                               pmax    pmax
      comp=N,114nm,1.7s
NVS                               pmax    pmax
      comp=Z,38nm,1.6s,mb5.2
NVS                               pmax    pmax
      comp=N,30nm,1.9s
NVS                               smax
      comp=N,21nm,1.3s
NVS                               smax
      comp=E,56nm,1.5s
BVAR  Borovoye Array    49.88 342  P      P          10 52 19.5 -0.5
      comp=E,6.1nm,0.6s,mb4.8,baz=154,slow=11,SNR=6.0
BVAR                              pP      pP         10 52 30.5 -0.7
      comp=E,26nm,0.9s,baz=135,slow=8.4,SNR=7.3
BRVK  Borovoye          49.94 342 eP      P          10 52 19.6 -0.8
      comp=E,16nm,0.6s,mb5.2
BRVK                              e       pP         10 52 30.9 -0.8
ASAR  Alice Springs     50.05 128  P      P          10 52 21.1 -0.5
      comp=E,54nm,0.7s,mb5.7,baz=307,slow=7.3,SNR=58
ASAR                              pP      pP         10 52 32.8 -0.2
      comp=E,23nm,0.6s,baz=302,slow=7.5,SNR=7.5
ASAR                               S      S          10 59 28.9 +0.3
      comp=E,2.7nm,1.0s,baz=293,slow=13,SNR=4.3
CHKZ  Chkalovo          50.38 343 eP      P          10 52 23.1 -0.7
      comp=E,40nm,0.5s,mb5.7
MAT   Matsushiro        51.02  47  P      P          10 52 27.6 -1.2
MAT   Matsushiro        51.02  47 eP      P          10 52 28.0 -0.8
KLR   Kul'dur           53.70  31 eP      P          10 52 44.8 -3.9
KLR                               pmax    pmax
      comp=Z,50nm,1.6s,mb5.2
BOD   Bodaibo           53.77  14 eP      P          10 52 47.8 -1.3
GNI   Garni             54.49 315  P      P          10 52 54.8 +0.2
      comp=Z,34nm,1.2s,mb5.2,baz=168,slow=16,SNR=8.5
GNI   Garni             54.49 315  P      P          10 52 54.8 +0.2
GNI                               pmax    pmax
      comp=Z,34nm,1.2s
KMBO  Kilima Mbogo      56.01 264  P      P          10 53 07.3 +1.3
      comp=Z,9.4nm,1.0s,mb4.8,baz=58,slow=11,SNR=12
KMBO  Kilima Mbogo      56.01 264  P      P          10 53 07.3 +1.3
KMBO                              pmax    pmax
      comp=Z,9.0nm,1.0s
KMBO  Kilima Mbogo      56.01 264 eP      P          10 53 06.6 +0.6
      comp=Z,18nm,1.3s,mb5.0
ZEI   Tsey              56.18 318 eP      pP         10 53 17.0 -1.3
ZEI                               pmax    pmax
      comp=Z,50nm,1.1s,mb5.5
PMG   Port Moresby      56.37 106  P      P          10 53 07.9 -0.7
      comp=Z,24nm,0.6s,mb5.4,baz=303,slow=4.8,SNR=12
PMG                               pP      pP         10 53 19.7 -0.5
      comp=Z,16nm,0.5s,baz=158,slow=22,SNR=4.7
PMG   Port Moresby      56.37 106  P      P          10 53 07.9 -0.6
PMG                               *PP     pP         10 53 19.7 -0.4
PMG                               pmax    pmax
      comp=Z,24nm,0.6s
PMG                               pmax    pmax
      comp=Z,17nm,0.5s
PMG   Port Moresby      56.37 106 eP      P          10 53 07.7 -0.9
      comp=Z,37nm,0.9s,mb5.4
ARU   Arti              56.66 338 eP      P          10 53 08.6 -1.4
ARU   Arti              56.66 338 eP      P          10 53 08.4 -1.6
      comp=Z,75nm,1.6s,mb5.5
ARU                               e       pP         10 53 19.9 -1.7
ASAJ  Asahikawa         57.27  41  P      P          10 53 14.4 -0.2
      comp=Z,17nm,1.0s,mb5.0,baz=255,slow=10,SNR=5.0
ASAJ  Asahikawa         57.27  41  P      P          10 53 14.5 -0.1
ASAJ                              pmax    pmax
      comp=Z,17nm,1.0s
KIV   Kislovodsk        57.48 319 eP      P          10 53 13.6 -2.5
KIV                               pmax    pmax
      comp=E,58nm,1.2s
KIV                               pmax    pmax
      comp=Z,128nm,1.2s,mb5.8
KIV   Kislovodsk        57.48 319 eP      P          10 53 14.9 -1.2
      comp=Z,105nm,1.0s,mb5.8
GOF   Gofitskoye        57.74 320 eP      P          10 53 16.5 -1.3
GOF                               pmax    pmax
      comp=Z,40nm,1.4s,mb5.3
YSS   Yuzh-Sakhalins    58.64  38 eP      P          10 53 21.8 -2.3
YSS                               pmax    pmax
      comp=Z,100nm,1.1s,mb5.8
YSS   Yuzh-Sakhalins    58.64  38 eP      P          10 53 23.6 -0.5
CTA   Charters Tower    58.77 118  P      P          10 53 24.8 -0.6
      comp=Z,45nm,1.0s,mb5.4,baz=289,slow=8.5,SNR=19
CTA   Charters Tower    58.77 118  P      P          10 53 24.8 -0.6
CTA                               pmax    pmax
      comp=Z,45nm,1.0s
CTAO  Charters Tower    58.77 118 eP      P          10 53 24.4 -1.0
      comp=Z,68nm,1.1s,mb5.6
CTAO                              e       pP         10 53 35.7 -1.3
KSHT  Keshet            58.98 305  P      P          10 53 28.1 +1.4
ZFRI  Zfri              58.98 302  P      P          10 53 27.7 +1.0
EIL   Elat              59.01 301  P      P          10 53 27.4 +0.5
      comp=Z,7.6nm,0.7s,mb4.8,baz=67,slow=2.8,SNR=6.9
EIL   Elat              59.01 301  P      P          10 53 27.6 +0.7
EIL   Elat              59.01 301 eP      P          10 53 27.4 +0.5
      comp=Z,101nm,1.4s,mb5.7
DRGI  Dragot            59.02 303  P      P          10 53 27.5 +0.5
MBH   Mount Berech      59.06 301  P      P          10 53 28.2 +0.9
PRNI  Paran             59.09 301  P      P          10 53 28.5 +1.0
MMLI  Mount Malkishu    59.18 304  P      P          10 53 29.3 +1.2
KMTI  Karmit            59.28 301  P      P          10 53 29.3 +0.5
HNTI  Hanita            59.52 305  P      P          10 53 29.5 -0.9
OFRI  'Ofer             59.58 304  P      P          10 53 31.7 +0.9
STKA  Stephens Creek    60.11 132  P      P          10 53 34.2 -0.3
      comp=Z,57nm,0.8s,mb5.6,baz=308,slow=6.8,SNR=43
STKA  Stephens Creek    60.11 132 eP      P          10 53 34.0 -0.5
CSS   Prodhromos        61.44 306 eP      P          10 53 43.2 -0.3
      comp=Z,174nm,1.4s,mb6.0
YAK   Yakutsk           61.69  19 eP      P          10 53 43.7 -1.0
      comp=Z,118nm,1.0s,mb6.0
BRTR  Keskin Array B    62.36 312  P      P          10 53 48.6 -0.9
      comp=Z,8.7nm,0.8s,mb5.0,baz=124,slow=7.3,SNR=13
BRTR                              pP      pP         10 53 58.6 -2.6
      comp=Z,24nm,0.8s,baz=127,slow=6.2,SNR=18
BRTR  Keskin Array B    62.36 312  P      P          10 53 48.6 -0.9
BRTR                              *PP     pP         10 53 58.7 -2.5
BRTR                              pmax    pmax
      comp=Z,9.0nm,0.8s
BRTR                              pmax    pmax
      comp=Z,24nm,0.8s
MBAR  Mbarara           62.39 266 eP      P          10 53 49.3 -0.7
      comp=Z,27nm,1.5s,mb5.2
ISP   Isparta           64.28 309 eP      P          10 54 01.1 -1.1
      comp=Z,97nm,1.5s,mb5.6
ISP                               e       pP         10 54 12.2 -1.8
HENT  Hendek            64.67 312 i P     P          10 54 02.9 -1.8
MOS   Moscow            65.58 329 eP      P          10 54 07.7 -2.6
MOS                               pmax    pmax
      comp=Z,108nm,1.6s,mb5.6
ULDT  Uludag            65.82 311 i P     P          10 54 09.7 -2.5
OBN   Obninsk           65.86 328 eP      P          10 54 10.3 -1.8
OBN                               pmax    pmax
      comp=Z,33nm,1.2s,mb5.2
OBN   Obninsk           65.86 328 eP      P          10 54 10.3 -1.8
      comp=Z,112nm,1.3s,mb5.7
OBN                               e       pP         10 54 21.4 -2.5
MANT  Manisa            65.92 309 i P     P          10 54 09.7 -3.1
BTOK  Tokmak            66.58 311 i P     P          10 54 16.1 -0.8
KDAG  Bornova           66.90 309 i P     P          10 54 19.0 +0.1
AYVA  Ayvalik           67.51 310 i P     pP         10 54 33.4 -1.2
KIS   Kishinev          67.68 318 eP      pP         10 54 34.0 -1.5
CFR   Carcaliu          67.68 316⇑iP      pP         10 54 33.5 -2.1
CFR   Carcaliu          67.68 316⇑iP      pP         10 54 33.5 -2.1
SKR   Severo-Kuril's    68.21  38 eP      P          10 54 22.1 -4.8
SKR                               e       pP         10 54 34.5 -4.3
SKR                               pmax    pmax
      comp=Z,220nm,1.0s,mb6.1
IDI   Anoyia            68.30 305  P      P          10 54 28.2 +0.4
      comp=Z,17nm,0.5s,mb5.3,baz=82,slow=9.2,SNR=12
IDI                               pP      pP         10 54 38.7 -0.9
      comp=Z,43nm,0.8s,baz=108,slow=7.0,SNR=7.0
AKASG Malin Array Be    68.44 322  P      P          10 54 26.6 -1.7
      comp=Z,2.9nm,0.6s,mb4.5,baz=90,slow=4.7,SNR=11
AKASG                             pP      pP         10 54 37.9 -2.3
      comp=Z,13nm,0.6s,baz=90,slow=4.8,SNR=15
AKASG Malin Array Be    68.44 322  P      P          10 54 26.7 -1.7
AKASG                             *PP     pP         10 54 37.9 -2.3
AKASG                             pmax    pmax
      comp=Z,3.0nm,0.6s
AKASG                             pmax    pmax
      comp=Z,13nm,0.6s
MA2   Magadan           68.56  28 eP      P          10 54 29.1 +0.1
      comp=Z,96nm,1.5s,mb5.5
MA2                               e       pP         10 54 40.4 -0.4
ISR   Istrita           68.77 316⇑iP      pP         10 54 42.2 -0.2
ISR   Istrita           68.77 316⇑iP      pP         10 54 42.2 -0.2
VRI   Vrincioaia        68.81 317⇑iP      P          10 54 30.8  0.0
VRI   Vrincioaia        68.81 317⇑iP      P          10 54 30.8  0.0
MLR   Muntele Rosu      69.26 316  P      P          10 54 33.8 +0.3
      comp=Z,29nm,1.1s,mb5.1,baz=76,slow=5.1,SNR=15
MLR                               pP      pP         10 54 44.0 -1.4
      comp=Z,82nm,0.9s,baz=68,slow=6.1,SNR=22
MLR   Muntele Rosu      69.26 316  P      P          10 54 33.8 +0.2
MLR                               *PP     pP         10 54 44.0 -1.4
MLR                               pmax    pmax
      comp=Z,29nm,1.1s
MLR                               pmax    pmax
      comp=Z,82nm,0.9s
KOLS  Kolonicke sedl    72.39 319 eP      P          10 54 52.7 +0.4
KOLS                              epP     pP         10 55 03.2 -1.0
LBTB  Lobatse           72.47 241 eP      P          10 54 53.6 +0.3
      comp=Z,54nm,1.4s,mb5.3
APA   Apatity           72.67 340 i P     P          10 54 52.3 -1.4
APA                               pmax    pmax
      comp=Z,21nm,1.0s,mb5.0
CRVS  Cervenica-Dubn    72.92 319 eP      P          10 55 00.6 +5.1
CRVS                              e       pP         10 55 09.5 +2.2
CRVS  Cervenica-Dubn    72.92 319 e       P          10 55 00.6 +5.1
CRVS                              esP     sP         10 55 09.5 -2.2
FINES FINESS Array B    73.32 333  P      P          10 54 56.9 -0.7
      comp=Z,5.5nm,0.7s,mb4.6,baz=104,slow=7.9,SNR=5.9
FINES                             pP      pP         10 55 08.1 -1.4
      comp=Z,21nm,0.7s,baz=104,slow=7.9,SNR=11
FINES FINESS Array B    73.32 333  P      P          10 54 56.9 -0.7
FINES                             *PP     pP         10 55 08.1 -1.4
FINES                             pmax    pmax
      comp=Z,6.0nm,0.7s
FINES                             pmax    pmax
      comp=Z,21nm,0.7s
FINES FINESS Array B    73.32 333  P      P          10 54 56.9 -0.7
FINES                             pP      pP         10 55 08.1 -1.4
KAF   Kangasniemi       73.42 333 ep      P          10 54 57.7 -0.5
      baz=100,slow=4.9
KECS  Kecovo            73.48 319 eP      pP         10 55 10.3 -0.4
KECS  Kecovo            73.48 319 epP     pP         10 55 10.3 -0.4
NIE   Niedzica          73.74 320 eP      P          10 55 00.8 +0.5
PSZ   Piszkesteto       73.79 318 eP      P          10 54 59.8 -0.9
PSZ                               e       pP         10 55 11.1 -1.3
OJC   Ojcow             74.20 320 eP      P          10 55 02.9  0.0
OJC                               i PcP   PcP        10 55 14.0 -4.1
VYHS  Vyhne             74.57 318 eP      P          10 55 04.9 -0.2
VYHS                              epP     pP         10 55 16.1 -0.9
SRO   Srobarova         74.83 318 epP     pP         10 55 16.5 -2.0
OKC   Ostrava-Krasne    75.20 320 eP      P          10 55 09.0 +0.3
OKC                               epP     pP         10 55 19.4 -1.2
ZST   Bratislava        75.68 318 eP      P          10 55 11.3 -0.2
ZST                               epP     pP         10 55 22.9 -0.5
ZST                               e                  10 55 49.8
ARCES ARCESS Array B    76.11 340  P      P          10 55 13.8 +0.2
      comp=Z,11nm,0.9s,mb4.8,baz=90,slow=8.5,SNR=8.3
ARCES                             pP      pP         10 55 24.9 -0.5
      comp=Z,13nm,0.6s,baz=101,slow=6.2,SNR=10
ARCES ARCESS Array B    76.11 340  P      P          10 55 13.8 +0.3
ARCES                             *PP     pP         10 55 25.0 -0.4
ARCES                             pmax    pmax
      comp=Z,11nm,0.9s
ARCES                             pmax    pmax
      comp=Z,13nm,0.6s
VRAC  Vranov            76.14 319 pP      pP         10 55 25.4 -0.5
      comp=Z,7.1nm,0.8s,baz=100,slow=5.8,SNR=6.9
DPC   Dobruska-Polom    76.43 320 eP      P          10 55 16.4 +0.7
DPC                               epP     pP         10 55 27.8 +0.2
KSP   Ksiaz             76.50 321 eP      P          10 55 15.9 -0.2
KSP                               e       pP         10 55 27.7 -0.3
UPC   Upice             76.64 320 eP      P          10 55 17.5 +0.6
UPC                               epP     pP         10 55 28.8  0.0
ARSA  Arzberg           76.65 317⇓iP      P          10 55 17.1 +0.1
      comp=Z,78nm,1.3s,mb5.5
MAW   Mawson            76.95 191  P      P          10 55 20.1 +1.8
      comp=Z,20nm,1.0s,mb5.0,baz=20,slow=7.5,SNR=12
MAW   Mawson            76.95 191  P      P          10 55 20.1 +1.8
MAW                               pmax    pmax
      comp=Z,20nm,1.0s
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DZM	Mont Dzumac	77.39	114	eP	P	10 55 21.4	-0.3
DZM	Mont Dzumac	77.39	114	eP	P	10 55 21.4	-0.3
PRU	Pruhonice	77.53	320	eP	P	10 55 21.7	-0.2
PRU				epP	pP	10 55 32.9	-0.9
MOA	Molln	77.55	317	⇑iP	P	10 55 22.0	0.0
	comp=Z,46nm,1.5s,mb5.2						
PVCC	Panska Ves	77.56	320	eP	P	10 55 22.0	0.0
BRG	Berggiesshubel	77.98	321	i P	P	10 55 24.6	+0.3
BRG				i	pP	10 55 36.1	-0.2
BRG				pmax	pmax		
	comp=Z,111nm,1.6s,mb5.5						
BRG	Berggiesshubel	77.98	321	i P	P	10 55 24.6	+0.3
	comp=Z,111nm,1.6s,mb5.5						
BRG				i	pP	10 55 36.1	-0.2
GEC2	GERESS Array S	77.99	318	eP	P	10 55 24.9	+0.5
GEC2				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
GEC2	GERESS Array S	77.99	318	eP	P	10 55 24.9	+0.5
	comp=Z,40nm,0.9s,mb5.3						
GERES	GERESS Array B	77.99	318	P	P	10 55 24.8	+0.4
	comp=Z,21nm,1.0s,mb5.0,baz=90,slow=5.3,SNR=22						
GERES				pP	pP	10 55 35.4	-1.0
	comp=Z,35nm,0.9s,baz=90,slow=5.3,SNR=24						
GERES	GERESS Array B	77.99	318	P	P	10 55 24.8	+0.4
GERES				*PP	pP	10 55 35.4	-1.0
GERES				pmax	pmax		
	comp=Z,21nm,1.0s						
GERES				pmax	pmax		
	comp=Z,35nm,0.9s						
PTCC	Patocco-Chiusa	78.08	316	eP	P	10 55 24.8	-0.2
KHC	Kasperske Hory	78.09	319	eP	P	10 55 24.7	-0.3
KHC				epP	pP	10 55 36.3	-0.6
FVI	Forni Avoltri	78.48	316	eP	P	10 55 26.2	-1.0
WET	Wettzell	78.55	319	eP	P	10 55 27.9	+0.4
CLL	Collm	78.61	321	eP	P	10 55 27.0	-0.8
CLL				i	pP	10 55 39.0	-0.7
CLL				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.0						
CLL	Collm	78.61	321	eP	P	10 55 27.0	-0.8
	comp=Z,30nm,1.5s,mb5.0						
CLL				i	pP	10 55 39.0	-0.7
CLL	Collm	78.61	321	P	P	10 55 27.0	-0.8
	comp=Z,logA/T=1.3,mb5.0						
CLL				i *SP	sP	10 55 39.0	-5.1
CLL				e		10 56 06.0	
NKC	Novy Kostel	78.89	320	eP	P	10 55 28.8	-0.6
NKC				epP	pP	10 55 40.7	-0.6
HFS	Hagfors	78.99	330	P	P	10 55 29.0	-0.7
	comp=Z,3.3nm,0.5s,mb4.5,baz=90,slow=4.4,SNR=6.0						
HFS	Hagfors	78.99	330	P	P	10 55 29.0	-0.7
HFS				pmax	pmax		
	comp=Z,3.0nm,0.5s						
SFI	Santa Sofia	79.04	313	eP	P	10 55 31.3	+1.0
PGD	Poggio Sodo	79.13	313	eP	P	10 55 32.0	+1.2
CTI	Castel Tesino	79.25	316	eP	P	10 55 31.7	+0.3
VMG	Vicchio	79.26	313	eP	P	10 55 32.8	+1.3
SEI	Scarperia	79.40	313	eP	P	10 55 32.6	+0.4
MOX	Moxa	79.44	320	eP	P	10 55 33.4	+1.0
MOX	Moxa	79.44	320	i P	P	10 55 33.4	+1.0
FUR	Furstenfeldbru	79.57	318	eP	P	10 55 32.9	-0.2
SQTA	Sankt Quirin	79.58	317	⇓iP	P	10 55 33.5	+0.3
	comp=Z,52nm,0.7s,mb5.6						
GRA1	Grafenberg Arr	79.66	319	eP	P	10 55 34.3	+0.8
	comp=Z,34nm,0.9s,mb5.3						
GRA1				epP	pP	10 55 45.3	-0.2
GRF	Grafenberg Arr	79.66	319	eP	P	10 55 34.3	+0.8
GRF				e*PP	pP	10 55 45.3	-0.2
GRF				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.3						
GRF	Grafenberg Arr	79.66	319	eP	P	10 55 34.3	+0.8
	comp=Z,34nm,0.9s,mb5.3						
GRF				epP	pP	10 55 45.3	-0.2
ZCCA	Zocca	79.68	314	eP	P	10 55 35.5	+1.7
BRMO	Bormio	80.14	316	eP	P	10 55 36.6	+0.4
CLZ	Clausthal	80.27	321	eP	P	10 55 37.0	+0.2
	comp=Z,34nm,1.1s,mb5.2						
NB2	NORSAR Subarra	80.29	331	P	pP	10 55 47.0	-1.7
	comp=Z,3.8nm,0.7s,baz=98,slow=5.3						
NB2	NORSAR Subarra	80.29	331	P	P	10 55 35.2	-1.5
	comp=Z,20nm,1.1s,mb5.0,baz=94,slow=5.8						
NB2	NORSAR Subarra	80.29	331	P	P	10 55 35.2	-1.5
	baz=94,slow=5.9						
NOA	NORSAR Array B	80.29	331	P	P	10 55 35.3	-1.4
	comp=Z,4.1nm,1.0s,mb4.3,baz=95,slow=5.4,SNR=4.5						
NOA				pP	pP	10 55 47.1	-1.5
	comp=Z,6.7nm,0.8s,baz=94,slow=5.4,SNR=10						
NOA	NORSAR Array B	80.29	331	P	P	10 55 35.3	-1.4
NOA				*PP	pP	10 55 47.2	-1.5
NOA				pmax	pmax		
	comp=Z,4.0nm,1.0s						
NOA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BSEG	Bad Segeberg	80.38	324	eP	P	10 55 37.6	+0.3
DAVOX	Davos	80.48	316	P	P	10 55 38.9	+0.9
	comp=Z,13nm,0.4s,mb5.2,baz=116,slow=5.3,SNR=23						
DAVOX				pP	pP	10 55 49.6	-0.4
	comp=Z,60nm,0.7s,baz=132,slow=5.9,SNR=16						
DAVA	Damuels	80.49	317	⇑iP	P	10 55 38.8	+0.8
	comp=Z,29nm,0.9s,mb5.2						
VAI	Varese	81.25	315	eP	P	10 55 40.0	-2.1
BFO	Black Forest	81.54	318	eP	P	10 55 43.4	-0.1
BFO				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
BFO	Black Forest	81.54	318	eP	P	10 55 43.4	-0.1
	comp=Z,13nm,0.8s,mb4.9						
MCGN	Macugnaga	81.80	315	eP	P	10 55 46.0	+1.1
LPL	La Plagne	82.69	315	eP	P	10 55 50.3	+0.8
	comp=Z,111nm,0.8s,mb5.7						
BNI	Bardonecchia	82.74	315	eP	P	10 55 49.8	0.0
	comp=Z,21nm,1.0s,mb5.1						
DAG	Danmarks Havn	88.53	348	⇑eP	P	10 56 17.8	+0.1
DAG				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.2						
DAG	Danmarks Havn	88.53	348	⇑eP	P	10 56 17.8	+0.1
	comp=Z,7.0nm,0.5s,mb5.2						
DAG	Danmarks Havn	88.53	348	⇑iP	P	10 56 17.8	+0.1
	comp=Z,7.0nm,0.5s,mb5.2						
URZ	Urewera	89.49	128	P	P	10 56 22.1	-0.9
	comp=Z,11nm,0.9s,mb5.2,baz=294,slow=4.5,SNR=4.5						
ESDC	Sonseca Array	91.11	310	P	P	10 56 30.9	+0.2
	comp=Z,3.1nm,0.6s,mb4.8,baz=59,slow=3.8,SNR=13						
ESDC				pP	pP	10 56 42.7	-0.2
	comp=Z,5.9nm,0.6s,baz=64,slow=3.4,SNR=19						
VNDA	Vanda	91.86	168	P	P	10 56 34.4	+1.1
	comp=Z,30nm,1.4s,mb5.4,baz=303,slow=3.3,SNR=9.6						
VNDA	Vanda	91.86	168	P	P	10 56 34.4	+1.2
VNDA				pmax	pmax		
	comp=Z,30nm,1.4s						
IMA	Indian Mountai	93.36	22	eP	P	10 56 41.2	+0.9
	comp=Z,355nm,1.8s						
IMA				e	pP	10 56 53.7	+1.1
RSO	Redoubt South	96.06	27	eP	P	10 56 53.5	+0.9
SPU	Mount Spurr	96.06	26	eP	P	10 56 53.3	+0.6
SPU				e	pP	10 57 04.7	-0.2
ILAR	Eielson Array	96.48	22	P	P	10 56 54.1	-0.4
	comp=Z,2.5nm,1.0s,mb4.6,baz=298,slow=4.7,SNR=9.6						
ILAR				PP	PP	11 00 51.0	-0.3
	comp=Z,1.8nm,1.0s,baz=295,slow=6.8,SNR=6.4						
ILAR	Eielson Array	96.48	22	P	P	10 56 54.1	-0.4
ILAR						11 00 51.1	
ILAR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
DBIC	Dimbokro	96.86	278	P	P	10 56 59.5	+2.1
	comp=Z,1.6nm,0.6s,mb4.7,baz=269,slow=0.9,SNR=5.1						
DBIC	Dimbokro	96.86	278	P	P	10 56 59.5	+2.0
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	Inuvik	98.65	16	P	P	10 57 05.2	+0.9
	comp=Z,8.4nm,1.0s,mb5.2,baz=311,slow=5.5,SNR=13						
INK	Inuvik	98.65	16	P	P	10 57 05.2	+0.9
INK				pmax	pmax		
	comp=Z,8.0nm,1.0s						
YKA	Yellowknife Ar	108.04	13	Pdiff	Pdif	10 57 48.8	+2.7
	comp=Z,0.6nm,0.9s,baz=332,slow=4.7,SNR=5.3						
YKA				PKiKP		11 01 52.6	
	comp=Z,0.2nm,0.5s,baz=356,slow=1.9,SNR=4.9						
YKA				PP	PP	11 02 21.2	+2.4
	comp=Z,1.0nm,0.7s,baz=335,slow=7.6,SNR=4.8						
YKA				PKKPbc		11 13 05.3	
	comp=Z,0.6nm,0.6s,baz=139,slow=3.4,SNR=6.2						
YKA	Yellowknife Ar	108.04	13	Pdif	Pdif	10 57 48.9	+2.7
YKA				PKPdf		11 01 52.6	
YKA				PP	PP	11 02 21.2	+2.4
YKA				PKKPbc		11 13 05.3	
SCHQ	Schefferville	116.57	347	PKP	PKPdf	11 02 09.7	+1.4
	comp=Z,2.8nm,1.1s,baz=200,slow=2.5,SNR=3.5						
MSO	Missoula	121.81	21	ePKPdf	PKPdf	11 02 20.2	+1.6
MSO				e		11 02 31.7	
BMO	Blue Mountains	122.14	25	ePKPdf	PKPdf	11 02 21.0	+1.7
HRY	Holter Researc	122.65	20	ePKPdf	PKPdf	11 02 22.1	+1.8
HRY				e		11 02 33.4	
ULM	Lac du Bonnet	122.97	7	PKP	PKPdf	11 02 23.2	+2.4
	comp=Z,12nm,1.0s,baz=340,slow=2.4,SNR=12						
ULM				pPKP		11 02 34.7	
	comp=Z,9.0nm,0.6s,baz=15,slow=2.5,SNR=9.3						
ULM	Lac du Bonnet	122.97	7	PKP	PKPdf	11 02 23.2	+2.4
ULM				pPKP		11 02 34.7	
MOD	Modoc	123.10	29	ePKPdf	PKPdf	11 02 24.0	+2.7
LAO	LASA Array	124.39	16	ePKPdf	PKPdf	11 02 25.8	+2.2
LAO				e		11 02 37.8	
SNOW	Snow King Moun	125.86	21	ePKPdf	PKPdf	11 02 29.5	+2.9
SNOW				e		11 02 41.0	
NVAR	Mina Array Bea	126.74	30	PKP	PKPdf	11 02 31.8	+3.3
	comp=Z,7.6nm,0.6s,baz=276,slow=2.2,SNR=45						
NVAR				pPKP		11 02 43.7	
	comp=Z,10nm,0.6s,baz=301,slow=2.8,SNR=18						
NVAR	Mina Array Bea	126.74	30	PKP	PKPdf	11 02 31.8	+3.3
NVAR				pPKP		11 02 43.7	
PDAR	Pinedale Array	126.89	21	PKP	PKPdf	11 02 30.7	+2.1
	comp=Z,12nm,0.9s,baz=50,slow=1.1,SNR=52						
DAU	Daniels Canyon	128.30	23	eP	PKPdf	11 02 34.1	+2.8
DAU				e		11 02 45.9	
SADO	Sadowa	128.45	353	PKP	PKPdf	11 02 33.5	+1.9
	comp=Z,8.3nm,1.1s,baz=119,slow=1.5,SNR=4.4						
SADO				pPKP		11 02 44.1	
	comp=Z,11nm,1.0s,baz=330,slow=5.1,SNR=2.8						
MSU	Marysvale	129.53	25	eP	PKPdf	11 02 37.2	+3.5
MSU				e		11 02 48.9	
ARUT	Antelope Range	129.57	27	PKPdf	PKPdf	11 02 36.2	+2.3
NEN	Nelson	130.63	30	ePKPdf	PKPdf	11 02 38.5	+2.6
NEN				e		11 02 50.3	
PV10	Paradox Valley	130.92	23	ePKPdf	PKPdf	11 02 39.1	+2.7
ANMO	Albuquerque	134.92	23	PKP	PKPdf	11 02 46.8	+2.8
	comp=Z,12nm,0.8s,baz=232,slow=0.8,SNR=34						
ANMO				pPKP		11 02 59.1	
	comp=Z,8.0nm,0.7s,baz=337,slow=2.7,SNR=8.7						
BDFB	Brasilia	140.60	253	PKP	PKPdf	11 02 54.9	-0.1
	comp=Z,3.3nm,0.7s,baz=152,slow=4.9,SNR=4.7						
BDFB	Brasilia	140.60	253	PKIKP	PKPdf	11 02 54.9	0.0
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.7s						
TXAR	Lajitas Array	140.98	23	PKP	PKPdf	11 02 55.8	+0.5
	comp=Z,4.2nm,0.4s,baz=225,slow=1.8,SNR=8.4						
JCT	Junction City	141.27	18	ePKPpre		11 02 51.4	
JCT				e		11 02 57.9	
SJG	San Juan	147.94	320	PKPbc	PKPdf	11 03 11.3	+4.0
	comp=Z,8.6nm,0.5s,baz=69,slow=7.7,SNR=4.1						
SJG	San Juan	147.94	320	PKP2	PKPab	11 03 11.3	-3.9
SJG				pmax	pmax		
	comp=Z,9.0nm,0.5s						
RPN	Rapa Nui	150.58	137	ePKPbc	PKPdf	11 03 19.6	+8.2
RPN				e		11 03 29.5	
PCRV	Puerto La Cruz	152.12	306	PKPbc	PKPdf	11 03 20.5	+6.6
	comp=Z,12nm,0.6s,baz=197,slow=0.7,SNR=12						
TEIG	Tepich	153.41	2	ePKPbc	PKPdf	11 03 25.4	+10
TEIG				ePKPab	PKPab	11 03 36.8	-1.1
TEIG				e		11 03 49.0	
SDV	Santo Domingo	157.53	313	PKP	PKPdf	11 03 23.6	+2.3
	comp=Z,6.5nm,0.9s,baz=325,slow=4.2,SNR=6.0						
SDV				pPKP		11 03 34.8	
	comp=Z,9.8nm,1.1s,baz=344,slow=6.9,SNR=5.3						
SDV	Santo Domingo	157.53	313	ePKPdf	PKPdf	11 03 22.8	+1.5
SDV				e		11 03 34.2	
LPAZ	La Paz	159.00	241	PKP	PKPdf	11 03 26.1	+3.1
	comp=Z,4.2nm,0.9s,baz=53,slow=2.9,SNR=5.9						
LPAZ				pPKP		11 03 37.0	
	comp=Z,3.9nm,0.8s,baz=71,slow=3.9,SNR=4.4						
LPAZ				PKPab	PKPab	11 04 01.1	-0.7
	comp=Z,4.7nm,0.7s,baz=72,slow=3.8,SNR=5.1						
LPAZ	La Paz	159.00	241	PKIKP	PKPdf	11 03 26.1	+3.1
LPAZ						11 03 37.1	
LPAZ						11 04 01.2	
LPAZ				pmax	pmax		
	comp=Z,4.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LPAZ	La Paz	159.00	241	ePKPdf	PKPdf	11 03 25.9	+2.9
LPAZ				e		11 03 37.1	
ROSC	El Rosal	162.94	311	PKP	PKPdf	11 03 29.9	+2.8
	comp=Z,3.7nm,0.3s,baz=98,slow=22,SNR=8.2						
ROSC				pPKP		11 03 41.9	
	comp=Z,8.6nm,0.8s,baz=101,slow=20,SNR=5.4						

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*IDC **26** 10:45:48.1±1.0, 9.99N×93.53E, h22^{km}±3^{km}, mb4.3/6, mb1 4.5/6, mb1mx4.1/19, Error ellipse: s-maj=83.4km s-min=23.5km az=41.0*

ISC 26 10:45:46.6±1.2**, 10.1N**±0.6×**93.6E**±0.5**, h22^{km}, h22^{km}**±.6^{km}**:pP-P, n10, σ0^{s}63**/7**, mb4.5**/7**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	49.96	127	P	P	10 54 41.4	-0.1
	2.6nm,0.5s,mb4.5,baz=302,slow=9.5,SNR=3.4						
BRTR	Keskin Array B	60.62	310	P	P	10 55 57.9	-0.6
	5.7nm,1.0s,mb4.7,baz=118,slow=7.2,SNR=3.7						
BRTR				pP	pP	10 56 04.8	-0.4
	3.3nm,0.6s,baz=145,slow=5.6,SNR=4.2						
MLR	Muntele Rosu	67.26	315	P	P	10 56 41.6	-0.2
	6.2nm,0.9s,mb4.6,baz=180,slow=3.0,SNR=5.1						
MLR				pP	pP	10 56 48.2	-0.4
	5.7nm,0.6s,baz=102,slow=11,SNR=1.9						
ARCES	ARCESS Array B	73.03	340	P	P	10 57 16.5	0.0
	2.3nm,0.5s,mb4.4,baz=99,slow=6.9,SNR=7.4						
ARCES				pP	pP	10 57 22.8	-0.5
	2.0nm,0.4s,baz=102,slow=6.7,SNR=2.4						
GERES	GERESS Array B	75.86	318	P	P	10 57 32.6	-0.5
	1.6nm,0.6s,mb4.2,baz=91,slow=5.6,SNR=4.0						
GERES				pP	pP	10 57 40.0	0.0
	2.1nm,0.5s,baz=94,slow=6.1,SNR=3.6						
HFS	Hagfors	76.31	330	P	P	10 57 35.4	0.0
	2.4nm,0.8s,mb4.2,baz=90,slow=4.3,SNR=3.5						
LPL	La Plagne	80.73	315	eP	P	10 58 01.4	+1.5
	23nm,0.6s,mb5.0						
PDAR	Pinedale Array	123.29	20	PKP	PKPdf	11 04 43.8	-2.9
	1.4nm,0.7s,baz=90,slow=0.9,SNR=4.3						
PDAR				pPKP		11 04 51.3	
	1.1nm,0.6s,baz=270,slow=0.9,SNR=2.8						
SJG	San Juan	145.60	324	PKPbc	PKPbc	11 05 24.5	-0.5
	10nm,0.3s,baz=266,slow=19,SNR=2.9						
PCRV	Puerto La Cruz	150.46	312	PKPbc	PKPdf	11 05 38.3	+1.7
	8.4nm,0.4s,baz=15,slow=9.5,SNR=8.5						
PCRV				pPKPbc		11 05 46.3	
	7.7nm,0.5s,baz=136,slow=4.8,SNR=3.2						

CASC 26 10:51:02.1±2.2**, 11.40N×86.03W, h113^{km}**±8^{km}**, MD3.9, 12C-4D, Near coast of Nicaragua**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APON	Apoyo	0.52	356	⇑eP	P	10 51 19.9	+0.4
CRUN	El Crucero	0.64	335	eP	P	10 51 20.8	+0.5
TICN	Ticuantepe	0.67	342	⇑eP	P	10 51 21.1	+0.6
TICN				eS	S	10 51 35.8	+1.2
WILN	Americas 2	0.78	348	⇑eP	P	10 51 21.8	+0.3
WILN				eS	S	10 51 36.6	+0.4
MGAN	Managua	0.78	344	⇑iP	P	10 51 20.0	-1.6
XAVN	Gruta Xavier	0.81	339	⇑iP	P	10 51 21.9	+0.1
XAVN				eS	S	10 51 39.8	+3.1
APYN	Apoyeque	0.89	339	⇓eP	P	10 51 22.9	+0.2
COPN	Copaltepe	0.96	325	⇓eP	P	10 51 23.5	+0.1
MOMJ	Momotombo	1.13	334	⇑eP	P	10 51 25.1	-0.1
MOMJ				eS	S	10 51 42.3	-0.2
PYTN	Playitas	1.14	358	⇓eP	P	10 51 25.1	-0.2
PYTN				eS	S	10 51 42.4	-0.3
MIRN	Miramar	1.24	327	⇑eP	P	10 51 26.8	+0.3
CNGN	Cerro Negro	1.28	329	⇑eP	P	10 51 26.9	-0.1
CNGN				eS	S	10 51 46.1	+0.5
LEON	Leon	1.32	320	⇑eP	P	10 51 27.5	0.0
LEON				eS	S	10 51 45.5	-1.1
TEL3	Telica 3	1.42	326	⇑eP	P	10 51 28.7	+0.2
TEL3				eS	S	10 51 47.5	-1.0
CRIN	San Cristobal	1.64	322	eS	S	10 51 53.6	+0.5
JCR	Jicaral	1.78	150	⇑eP	P	10 51 33.2	+0.3
JCR				eS	S	10 51 56.7	+0.7
CGA2	Cerro Gallo 2	2.06	132	eP	P	10 51 37.4	+1.0
CGA2				eS	S	10 52 03.4	+1.2
PRS1	Puriscal	2.19	130	eP	P	10 51 38.9	+0.7
PRS1				eS	S	10 52 08.3	+2.9
TRTC	Tortuguero	2.41	110	⇑iP	P	10 51 40.0	-1.2
LAJ	Bijagual	2.41	129	eP	P	10 51 38.6	-2.6
SJS	Escuela Geolog	2.42	127	eS	S	10 52 14.1	+3.3
LCR2	La Lucha 2	2.58	129	eP	P	10 51 43.5	0.0
LCR2				eS	S	10 52 16.4	+1.8
URSC	Urasca	2.70	125	⇓eP	P	10 51 45.1	+0.1
ACR	Cerro Adams	3.92	134	eP	P	10 52 01.5	0.0
ACR				eS	S	10 52 46.5	-0.4

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*IDC **26** 10:51:14.8±0.4, 7.73N×92.32E, mb4.9/31, mb1 4.9/32, mb1mx4.9/33, ML5.3/1, MS6.0/4, Ms1 6.0/4, ms1mx5.1/31, Error ellipse: s-maj=17.7km s-min=10.8km az=40.0*

*ORF **26** 10:51:15.5, 7.21N×93.76E, h30^{km}, mb5.6*

*BJI **26** 10:51:17.3, 7.55N×92.39E, h31^{km}, mB6.1, mb5.1, Ms6.5, Msz6.2*

*NEIC **26** 10:51:19.8±0.3, 7.63N×92.31E, h30^{km}, mb5.5/46, Error ellipse: s-maj=9.4km s-min=6.8km az=207.0*

*SYO **26** 10:51:20.1, 7.60N×92.33E, h30^{km}, MB5.6*

*MOS **26** 10:51:23.2±1.5, 8.42N×92.20E, h33^{km}, mb5.4/20, Error ellipse: s-maj=12.9km s-min=6.8km az=110.3*

*DUSS **26** 10:51:35.1±0.4, 7.90N×91.08E, h15^{km}*

ISC 26 10:51:19.5±0.2**, 7.69N**±0.04×**92.34E**±0.03**, h39^{km}, h39^{km}**±3.0^{km}**:pP-P, n298, σ1^{s}43**/291**, mb5.3**/92**, MS6.2**/14**, 17C-6D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	11.54	269	P	P	10 54 04.4	-0.5
	124nm,0.6s						
CM31	Chiang Mai Arr	12.48	30	eP	P	10 54 17.4	0.0
	84nm,0.7s						
CMAR	Chiang Mai Arr	12.48	30	Pn	P	10 54 15.2	-2.2
	5.6nm,0.3s,baz=231,slow=14,SNR=78						
CMAR				LR	LR	10 59 13.1	
	comp=Z,28µm,18.2s,baz=213,slow=38						
CMAR	Chiang Mai Arr	12.48	30	P	P	10 54 15.3	-2.2
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,28µm,18.2s						
CAL	Calcutta	15.26	346	eP	P	10 54 54.5	+0.5
HYB	Hyderabad	16.55	307	eP	P	10 55 10.0	-0.5
HYB				eS	S	10 58 11.0	-1.3
HYB	Hyderabad	16.55	307	i P	P	10 55 10.0	-0.5
HYB				eS	S	10 58 11.0	-1.3
IMP	Imphal	17.07	5	e	P	10 55 14.9	-2.0
SHL	Shillong	17.78	359	eP	P	10 55 23.4	-2.4
SHL				e		10 55 44.8	
	comp=Z,590nm,2.3s						
SHL				eS	S	10 58 47.7	+7.5
MNGI	Mangalore	18.00	288	eP	P	10 55 29.0	+0.4
MNGI				e		10 55 43.8	
	comp=Z,242nm,1.4s						
PENI	Pendagan	18.37	135	⇓eP	P	10 55 26.2	-7.0
PULI	Pulasari	19.48	135	⇑eP	P	10 55 41.5	-4.7
AKL	Akola	19.67	313	eP	P	10 55 49.4	+1.2
AKL				e		10 56 03.5	
	comp=Z,734nm,1.8s						
AKL				eS	S	10 59 31.1	+8.5
GOA	Goa	19.71	295	⇑e	P	10 55 53.4	+4.7
	comp=Z,203nm,0.7s						
GOA				e	S	10 59 20.9	-2.5
KMI	Kunming	19.98	29	eP	P	10 55 51.5	0.0
KMI				PP	PP	10 56 14.5	+3.3
KMI				S	S	10 59 37.3	+8.2
KMI				AMB	AMB		
	comp=Z,210nm,1.1s						
ALBI	Allahabad	20.20	331	eP	P	10 55 51.4	-2.5
QIZ	Qiongzhong	20.40	55	P	P	10 55 55.5	-0.4
QIZ				S	S	10 59 40.3	+3.0
QIZ				LR	LR		
	comp=N,97µm,14.1s						
QIZ				LR	LR		
	comp=Z,69µm,12.7s,MS6.2						
QIZ	Qiongzhong	20.40	55	eP	P	10 55 55.8	-0.1
	comp=Z,3µm,2.1s						
PKI	Pulchoki	20.83	342	eP	P	10 56 00.5	+0.1
	comp=Z,2µm,1.1s						
DMN	Daman	20.96	342	eP	P	10 56 01.8	+0.1
	comp=Z,743nm,0.8s						
GUN	Gumba	21.02	344	eP	P	10 56 01.3	-1.0
	comp=Z,2µm,1.4s,mb6.3						
BHPL	Bhopal	21.08	319	i P	P	10 56 02.4	-0.5
KKN	Kakani	21.08	342	eP	P	10 56 02.5	-0.4
	comp=Z,960nm,0.9s,mb6.1						
GKN	Gorkha	21.48	341	eP	P	10 56 06.9	0.0
	comp=Z,2µm,1.1s,mb6.3						
KOLN	Koldanda	21.62	339	eP	P	10 56 08.5	+0.2
	comp=Z,926nm,0.8s,mb6.2						
LSA	Lhasa	21.92	357	P	P	10 56 12.3	+1.0
LSA				S	S	11 00 12.0	+6.0
LSA				LR	LR		
	comp=N,53µm,19.8s,MS6.2						
LSA				LR	LR		
	comp=E,82µm,19.8s,MS6.2						
LSA				LR	LR		
	comp=Z,100µm,16.0s,MS6.3						
LSA	Lhasa	21.92	357	eP	P	10 56 13.7	+2.4
	comp=Z,162nm,0.7s,mb5.6						
BOM	Bombay	22.00	302	eP	P	10 56 13.2	+1.1
BOM				e		10 56 26.8	
	comp=Z,342nm,1.2s						
BOM				eS	S	11 00 14.2	+6.8
GYA	Guiyang	23.11	34	⇑iP	P	10 56 23.5	+0.4
GYA				AP		10 56 27.8	
GYA				XP		10 56 30.5	
GYA				PP	PP	10 56 55.8	+1.8
GYA				S	S	11 00 30.3	+2.8
GYA				AMB	AMB		
	comp=Z,80nm,1.1s,mb5.1						
GYA				AMB	AMB		
	comp=Z,840nm,5.8s						
GYA				LR	LR		
	comp=N,39µm,14.5s,MS6.1						
GYA				LR	LR		
	comp=E,39µm,15.9s,MS6.1						
GYA				LR	LR		
	comp=Z,39µm,16.8s,MS5.9						
PTH	Pithoragarh	24.55	334	eP	P	10 56 37.2	+0.1
PTH				e	S	11 01 07.2	+15
BATP	Bataraza	25.22	86	eP	P	10 56 49.1	+5.4
NDI	New Delhi	25.29	328	eP	P	10 56 44.4	+0.3
NDI				e	pP	10 56 57.2	+2.6
	comp=Z,581nm,1.3s						
NDI				eS	S	11 01 09.1	+4.3
CD2	Chengdu	25.45	23	P	P	10 56 45.5	-0.2
CD2				AMB	AMB		
	comp=Z,260nm,1.0s,mb5.7						
DDI	Dehra Dun	26.20	331	e	P	10 56 58.8	+6.2
ENPP	El Nido	26.94	80	eP	P	10 57 00.7	+1.1
SRDI	Scrawed	27.02	126	⇑eP	P	10 56 59.2	-1.2
SRDI	Scrawed	27.02	126	⇑eP	P	10 56 56.2	-4.2
KELI	Kelakatan	27.15	125	eP	P	10 56 52.4	-9.2
ENH	Enshi	27.63	33	eP	P	10 57 04.3	-1.4
	comp=Z,181nm,1.0s,mb5.7						
RATI	Rata	28.29	125	⇓eP	P	10 57 05.6	-6.2
KEDI	Kedomdong	28.63	124	⇑eP	P	10 57 09.8	-5.1
	comp=Z,110nm,0.6s,mb5.4						
TGY	Tagaytay City	28.78	75	P	P	10 57 21.8	+5.6
	comp=Z,155nm,0.4s,mb6.0,baz=115,slow=2.7,SNR=4.4						
TGY				LR	LR	11 09 13.2	
	comp=Z,41µm,18.9s,MS6.1,baz=89,slow=38						
TGY	Tagaytay City	28.78	75	P	P	10 57 21.8	+5.6
TGY				pmax	pmax		
	comp=Z,155nm,0.4s						
TGY				MLR	MLR		
	comp=Z,41µm,18.9s						
LQP	Lukban	29.36	75	eP	P	10 57 20.2	-1.1
ABRA	Dolores	29.36	68	eP	P	10 57 28.1	+6.8
OTRP	Odiongan	29.58	79	eP	P	10 57 29.0	+5.7
BALP	Baler	29.70	72	eP	P	10 57 25.2	+0.9
APYP	Conner	29.90	67	eP	P	10 57 25.6	-0.6
APYP				eS	pP	10 57 33.1	-3.8
GUIM	Jordan	30.00	82	eP	P	10 57 30.9	+3.8
LZH	Lanzhou	30.16	19	eP	P	10 57 27.8	-0.5

LZH				AMB	AMB		
	comp=Z,160nm,1.2s,mb5.6						
LZH				AMB	AMB		
	comp=Z,820nm,5.4s						
LZH				LR	LR		
	comp=E,38µm,18.1s						
LZH				LR	LR		
	comp=Z,57µm,18.8s,MS6.2						
CAUP	Cauayan	30.20	69	eP	P	10 57 34.9	+6.1
RCP	Roxas	30.21	80	⇑eP	P	10 57 30.3	+1.3
QZH	Quanzhou	30.38	53	⇓iP	P	10 57 30.5	+0.2
QZH				LR	LR		
	comp=N,57µm,14.0s,MS6.5						
QZH				LR	LR		
	comp=E,48µm,12.2s,MS6.5						
QZH				LR	LR		
	comp=Z,94µm,13.4s,MS6.6						
CVP	Callao Caves	30.39	68	iP	P	10 57 37.0	+6.5
WHN	Wuhan	30.69	39	⇑P	P	10 57 32.3	-0.7
WHN				S	S	11 02 37.0	+5.3
WHN				LR	LR		
	comp=N,60µm,34.4s						
WHN				LR	LR		
	comp=E,117µm,19.1s						
WHN				LR	LR		
	comp=Z,174µm,15.1s						
PAGZ	Pagadian	30.76	88	eP	P	10 57 34.2	+0.5
MSLP	Maasin	32.21	83	eP	P	10 57 53.9	+7.3
GTA	Gaotai	32.29	11	P	P	10 57 47.0	0.0
GTA				AP	pP	10 57 54.5	-3.4
GTA				XP	sP	10 57 57.8	-5.1
GTA				PP	PP	10 58 57.0	+1.9
GTA				S	S	11 03 00.3	+3.6
GTA				SCS	ScS	11 08 13.0	+1.5
GTA				AMB	AMB		
	comp=Z,90nm,1.4s,mb5.4						
GTA				AMB	AMB		
	comp=Z,3µm,9.1s						
GTA				LR	LR		
	comp=N,37µm,16.4s,MS6.2						
GTA				LR	LR		
	comp=E,26µm,19.4s,MS6.2						
GTA				LR	LR		
	comp=Z,31µm,13.7s						
BUKP	Musuan	32.42	87	eP	P	10 57 49.9	+1.6
DAV	Davao City (W)	32.97	89	eP	P	10 57 55.5	+2.3
NJ2	Nanjing	34.58	42	eP	P	10 58 07.5	+0.6
NJ2				AP	pP	10 58 17.5	-0.3
NJ2				XP	sP	10 58 21.5	-1.3
NJ2				PP	PP	10 59 23.3	-0.7
NJ2				S	S	11 03 31.5	-0.9
NJ2				XS		11 03 47.3	
NJ2				AMB	AMB		
	comp=Z,670nm,5.6s						
NJ2				LR	LR		
	comp=N,33µm,18.4s,MS6.3						
NJ2				LR	LR		
	comp=E,42µm,17.8s,MS6.3						
NJ2				LR	LR		
	comp=Z,41µm,15.8s,MS6.3						
KSH	Kashi	34.93	338	eP	P	10 58 13.3	+3.5
KSH				eAP	pP	10 58 21.0	+0.3
KSH				eXP	sP	10 58 26.0	+0.3
KSH				ePP	PP	10 59 31.0	+2.6
KSH				ePPP	PPP	10 59 50.5	+4.1
KSH				PCP	PcP	11 00 43.8	+1.8
KSH				S	S	11 03 44.5	+6.8
KSH				XS		11 03 58.3	
KSH				SCP		11 04 25.0	
KSH				PCS		11 04 28.0	
KSH				SS	SS	11 06 00.0	+6.6
KSH				AMB	AMB		
	comp=Z,710nm,4.6s						
KSH				LR	LR		
	comp=N,22µm,11.2s,MS6.3						
KSH				LR	LR		
	comp=E,23µm,11.1s,MS6.3						
WMQ	Urumqi	36.22	354	P	P	10 58 21.5	+0.8
WMQ				AP	pP	10 58 26.0	-5.6
WMQ				AMB	AMB		
	comp=Z,23nm,1.2s,mb5.0						
TIA	Tai’an	36.30	35	eP	P	10 58 24.8	+3.3
BTO	Baotou	36.38	23	eP	P	10 58 20.0	-2.0
HHC	Hu-ho-hao-te	37.20	24	eP	P	10 58 29.3	+0.4
HHC				AP	pP	10 58 36.5	-3.4
HHC				XP	sP	10 58 40.3	-4.6
HHC				PP	PP	10 59 55.3	-1.3
HHC				S	S	11 04 12.3	-0.3
HHC				XS		11 04 25.3	
HHC				SS	SS	11 06 42.0	-2.6
HHC				SCS	ScS	11 08 39.8	+2.0
HHC				AMB	AMB		
	comp=Z,38nm,0.5s,mb5.5						
HHC				AMB	AMB		
	comp=Z,4µm,7.3s						
HHC				LR	LR		
	comp=N,24µm,11.9s,MS6.4						
HHC				LR	LR		
	comp=E,30µm,13.1s,MS6.4						
HHC				LR	LR		
	comp=Z,28µm,14.3s,MS6.2						
KZA	Kyzart	37.43	339	P	P	10 58 33.0	+2.1
	SNR=8.3						
UCH	Uchtor	37.83	338	P	P	10 58 35.0	+0.8
	SNR=9.8						
AAA	Alma-Ata	37.93	342	eP	P	10 58 41.0	+6.0
KBK	Karagaybulak	38.05	339	P	P	10 58 37.9	+1.9
	SNR=22						
AML	Almayashu	38.05	337	P	P	10 58 37.4	+1.3
	SNR=34						
TKM2	Tokmak 2	38.06	340	P	P	10 58 34.9	-1.2
	SNR=7.5						
AAK	Ala-Archa	38.19	339	P	P	10 58 38.5	+1.3
	SNR=17						
AAK	Ala-Archa	38.19	339	eP	P	10 58 37.0	-0.2
	comp=Z,178nm,1.2s,mb5.7						
CHMS	Chumysh	38.42	339	P	P	10 58 39.4	+0.3
	SNR=8.3						
EKS2	Erkin-Say	38.48	338	P	P	10 58 40.5	+0.8
	SNR=13						
BJT	Baijiatuau	38.61	30	eP	P	10 58 40.5	-0.2
	comp=Z,160nm,1.8s,mb5.5						
BJI	Beijing	38.63	30	P	P	10 58 41.3	+0.4
BJI				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.0						
USP	Ospenovka	38.74	339	P	P	10 58 42.0	+0.2
	SNR=18						
JOW	Kunigami	39.04	56	P	P	10 58 45.3	+0.9
	comp=Z,51nm,0.8s,mb5.3,baz=239,slow=7.9,SNR=8.9						
MBWA	Marble Bar	39.31	137	eP	P	10 58 45.9	-0.9
	comp=Z,118nm,1.5s,mb5.4						
MKAR	Makanchi Array	39.90	349	eP	P	10 58 50.5	-0.9
MKAR				pmax	pmax		
	comp=Z,54nm,0.9s						
DL2	Dalian	40.75	36	P	P	10 58 55.0	-3.5
DL2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.1						
SONM	Songino Array	41.75	14	P	P	10 59 06.4	-0.3
	comp=Z,27nm,0.9s,mb4.9,baz=198,slow=7.8,SNR=43						
INCN	Inchon	42.95	41	eP	P	10 59 15.6	-1.1
	comp=Z,70nm,1.2s,mb5.3						
ZAK	Zakamensk	43.52	10	eP	P	10 59 21.2	+0.1
KS15	Wonju Array Si	43.75	42	P	P	10 59 23.7	+0.6
SNY	Shenyang	43.81	34	⇑P	P	10 59 22.5	-1.0
SNY				AMB	AMB		
	comp=Z,30nm,1.6s,mb4.8						
MOY	Mondy	44.42	8	eP	P	10 59 29.0	+0.7
TLY	Talaya	44.84	10	eP	P	10 59 32.5	+0.9
TLY				pmax	pmax		
	comp=Z,52nm,1.4s,mb5.2						
TLY	Talaya	44.84	10	eP	P	10 59 32.2	+0.6
	comp=Z,118nm,1.7s,mb5.4						
IRK	Irkutsk	45.48	10	eP	P	10 59 36.8	0.0
CN2	Changchun	46.15	33	eP	P	10 59 41.8	-0.4
CN2				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.1						
ZAL	Zalesovo	46.52	354	P	P	10 59 44.0	-0.9
	comp=Z,11nm,0.9s,mb4.8,baz=291,slow=9.0,SNR=21						
ZAL	Zalesovo	46.52	354	P	P	10 59 44.1	-0.8
ZAL				pmax	pmax		
	comp=Z,11nm,0.9s						
NWAO	Narrogin (SRO)	46.83	151	P	P	10 59 47.4	-0.3
	comp=Z,38nm,1.2s,mb5.2,baz=319,slow=6.0,SNR=4.9						
NWAO	Narrogin (SRO)	46.83	151	P	P	10 59 47.4	-0.3
NWAO				pmax	pmax		
	comp=Z,38nm,1.2s						
NVS	Novosibirsk	47.58	353	iP	P	10 59 51.4	-1.9
BVA0	Borovoye Array	48.60	342	P	P	11 00 00.0	-1.3
BVA0				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.7						
BVAR	Borovoye Array	48.60	342	P	P	10 59 59.3	-2.0
	comp=Z,11nm,0.8s,mb4.9,baz=150,slow=8.6,SNR=23						
BRVK	Borovoye	48.67	342	eP	P	10 59 59.2	-2.5
	comp=Z,40nm,0.9s,mb5.4						
CHKZ	Chkalovo	49.11	343	P	P	11 00 04.4	-0.7
CHKZ				pmax	pmax		
	comp=Z,206nm,1.4s,mb6.0						
CHKZ	Chkalovo	49.11	343	eP	P	11 00 04.3	-0.9
	comp=Z,134nm,1.0s,mb5.9						
YOMI	Yo Moklole	49.19	100	eP	P	11 00 05.7	-0.6
WRA	Warramunga Arr	49.62	124	P	P	11 00 07.6	-2.0
	comp=Z,30nm,0.9s,mb5.3,baz=308,slow=8.4,SNR=28						
WRA	Warramunga Arr	49.62	124	P	P	11 00 07.6	-1.9
WRA				pmax	pmax		
	comp=Z,30nm,0.9s						
WRAB	Tennant Creek	49.63	124	eP	P	11 00 09.3	-0.3
	comp=Z,486nm,1.4s,mb6.3						
MAT	Matsushiro	50.61	48	P	P	11 00 17.6	+0.7
MAT	Matsushiro	50.61	48	eP	P	11 00 18.0	+1.1
	comp=Z,667nm,2.5s,mb6.1						
ASAR	Alice Springs	51.18	129	P	P	11 00 18.9	-2.4
	comp=Z,17nm,0.6s,mb5.2,baz=302,slow=7.2,SNR=55						
BOD	Bodaibo	52.75	14	eP	P	11 00 30.5	-2.2
KLR	Kul’dur	52.96	31	eP	P	11 00 30.6	-3.8
GNI	Garni	53.30	315	P	P	11 00 34.4	-2.6
	comp=Z,2.4nm,0.4s,mb4.5,baz=350,slow=17,SNR=2.4						
GNI	Garni	53.30	315	P	P	11 00 34.4	-2.6
GNI				pmax	pmax		
	comp=Z,2.0nm,0.4s						
GNI	Garni	53.30	315	eP	P	11 00 34.7	-2.3
	comp=Z,193nm,1.6s,mb5.8						
ZEI	Tsey	54.96	318	eP	P	11 00 48.7	-0.5
ZEI				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
ARU	Arti	55.37	338	⇑iP	P	11 00 50.1	-1.9
ARU				e		11 02 50.2	
ARU				iS	S	11 08 34.4	+2.6
ARU				pmax	pmax		
	comp=Z,145nm,1.4s,mb5.8						
ARU				MLR	MLR		
	comp=Z,25µm,20.0s,MS6.3						
ARU				MLR	MLR		
	comp=N,12µm,21.0s,MS6.3						
ARU				MLR	MLR		
	comp=E,23µm,18.0s,MS6.3						
KMBO	Kilima Mbogo	55.63	263	P	P	11 00 52.2	-2.2
	comp=E,4.2nm,0.8s,mb4.5,baz=55,slow=11,SNR=7.9						
KMBO				LR	LR	11 22 52.9	
	comp=E,19µm,18.6s,MS6.2,baz=131,slow=34						
KMBO	Kilima Mbogo	55.63	263	eP	P	11 00 53.9	-0.5
	comp=E,19nm,1.1s,mb5.0						
KIV	Kislovodsk	56.26	319	P	P	11 00 57.6	-0.9
	comp=E,171nm,1.3s,mb5.9,SNR=11						
KIV	Kislovodsk	56.26	319	eP	P	11 00 56.5	-2.0
KIV				pmax	pmax		
	comp=N,19nm,0.9s						
KIV				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.4						
GOF	Gofitskoye	56.51	320	⇓iP	P	11 01 01.5	+1.2
GOF				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.4						
ASAJ	Asahikawa	56.73	41	P	P	11 00 58.6	-3.3
	comp=Z,6.8nm,0.8s,mb4.7,baz=270,slow=18,SNR=2.0						
ASAJ	Asahikawa	56.73	41	P	P	11 00 58.6	-3.3
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ASF	Jabal al Asfar	56.82	303	P	P	11 01 00.8	-1.9
	comp=Z,3.7nm,0.8s,mb4.5,baz=67,slow=15,SNR=3.4						
PMG	Port Moresby	57.19	106	P	P	11 01 04.5	-1.0
	comp=Z,14nm,0.8s,mb5.0,baz=282,slow=9.3,SNR=3.5						
PMG	Port Moresby	57.19	106	P	P	11 01 04.5	-1.1
PMG				pmax	pmax		
	comp=Z,14nm,0.8s						
PMG	Port Moresby	57.19	106	P	P	11 01 05.6	0.0
	comp=Z,69nm,1.4s,mb5.5						
MALT	Malatya	57.23	311	eP	P	11 01 03.9	-1.6
	comp=Z,24nm,1.4s,mb5.0						
DUSS	Damascus Unive	57.62	305	iP	P	11 01 16.7	+8.3
DUSS				iP		11 01 16.7	
DUSS				iP		11 01 16.8	
DUSS				e		11 01 19.1	
	baz=103,slow=5.9						
DUSS				eS	S	11 09 08.3	+6.4
EIL	Elat	57.97	300	P	P	11 01 09.9	-0.9
	comp=Z,14nm,0.6s,mb5.1,baz=46,slow=1.9,SNR=7.7						
EIL	Elat	57.97	300	eP	P	11 01 08.0	-2.8
	comp=Z,28nm,0.9s,mb5.3						
YSS	Yuzh-Sakhalins	58.03	38	eP	P	11 01 09.5	-1.5
COBT	Iskenderun	58.38	308	iP	P	11 01 13.0	-0.6
YUK	Yuzh-Kuril’sk	58.87	43	eP	P	11 01 16.0	-0.9
CTA	Charters Tower	59.78	118	P	P	11 01 21.4	-2.2
	comp=Z,13nm,1.0s,mb4.9,baz=302,slow=5.3,SNR=8.2						
CTA	Charters Tower	59.78	118	P	P	11 01 21.4	-2.1
CTA				pmax	pmax		
	comp=Z,13nm,1.0s						
CTAO	Charters Tower	59.78	118	eP	P	11 01 22.6	-0.9
	comp=Z,168nm,1.6s,mb5.8						
AVNT	Avonos	60.04	310	iP	P	11 01 25.7	+0.7
CSS	Prodhromos	60.33	306	P	P	11 01 26.4	-0.7
	comp=Z,41nm,1.3s,mb5.3						
CTKT	Corum	60.59	312	iP	P	11 01 26.3	-2.5
BOYT	Boyabat	60.73	313	iP	P	11 01 27.2	-2.5
STKA	Stephens Creek	61.28	133	P	P	11 01 32.4	-1.2
	comp=Z,9.2nm,0.7s,mb5.0,baz=302,slow=6.4,SNR=9.3						
STKA	Stephens Creek	61.28	133	eP	P	11 01 32.8	-0.8
ELDT	Eldivan	61.55	312	iP	P	11 01 33.9	-1.4
BALT	Daday	61.86	313	iP	P	11 01 37.3	0.0
SGKT	Sivrigoynuk	62.59	312	iP	P	11 01 43.3	+1.1
ESKT	Eskisehir	63.24	310	iP	P	11 01 43.4	-3.2
HENT	Hendek	63.50	312	iP	P	11 01 45.5	-2.8
MOS	Moscow	64.31	329	eP	P	11 01 52.8	-0.5
MOS				eS	S	11 10 24.3	-2.6
MOS				pmax	pmax		
	comp=Z,120nm,1.3s,mb5.8						
MOS				MLR	MLR		
	comp=Z,17µm,17.0s,MS6.3						
OBN	Obninsk	64.59	328	eP	P	11 01 53.0	-2.1
OBN				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.6						
ULDT	Uludag	64.67	311	iP	P	11 01 50.4	-5.4
KDAG	Bornova	65.77	309	iP	P	11 02 03.7	+0.7
KIS	Kishinev	66.46	318	eP	P	11 02 09.0	+1.8
KIS				e		11 02 28.0	
CFR	Carcaliu	66.48	316	⇑iP	P	11 02 07.8	+0.4
AKASG	Malin Array Be	67.19	322	P	P	11 02 09.1	-2.7
	comp=Z,2.5nm,0.7s,mb4.4,baz=94,slow=4.3,SNR=13						
AKASG	Malin Array Be	67.19	322	P	P	11 02 09.1	-2.6
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
IDI	Anoyia	67.21	305	P	P	11 02 10.4	-1.7
	comp=Z,10.0nm,0.6s,mb5.0,baz=64,slow=6.8,SNR=9.8						
LSZ	Lusaka	67.53	250	eP	P	11 02 11.6	-2.8
	comp=Z,173nm,2.0s,mb5.7						
VRI	Vrincioaia	67.60	317	⇑iP	P	11 02 16.4	+2.0
MA2	Magadan	67.76	28	eP	P	11 02 14.8	-0.3
MA2				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.8						
MA2	Magadan	67.76	28	eP	P	11 02 14.8	-0.3
	comp=Z,121nm,0.9s,mb5.9						
MLR	Muntele Rosu	68.06	316	P	P	11 02 15.9	-1.3
	comp=Z,28nm,1.0s,mb5.2,baz=59,slow=4.7,SNR=14						
MLR	Muntele Rosu	68.06	316	P	P	11 02 16.0	-1.3
MLR				pmax	pmax		
	comp=Z,29nm,1.0s						
SEY	Seymchan	69.84	25	eP	P	11 02 27.3	-0.6
KOLS	Kolonicke sedl	71.17	319	eP	P	11 02 37.9	+1.7
KOLS				esP	sP	11 02 52.8	+0.5
APA	Apatity	71.39	340	⇓iP	P	11 02 37.1	-0.2
APA				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.2						
CRVS	Cervenica-Dubn	71.69	319	eP	P	11 02 45.0	+5.7
CRVS				e	pP	11 02 56.3	+5.2
CRVS	Cervenica-Dubn	71.69	319	e	P	11 02 45.0	+5.7
CRVS				e	pP	11 02 56.3	+5.2
FINES	FINESS Array B	72.04	332	P	P	11 02 38.9	-2.3
	comp=Z,2.7nm,0.6s,mb4.4,baz=120,slow=5.7,SNR=11						
FINES	FINESS Array B	72.04	332	P	P	11 02 38.9	-2.3
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KAF	Kangasniemi	72.14	333	ep	P	11 02 40.6	-1.2
KECS	Kecovo	72.26	318	eP	P	11 02 42.4	-0.3
KECS				e		11 02 59.1	
NIE	Niedzica	72.52	319	eP	P	11 02 46.3	+2.1
PSZ	Piszkesteto	72.57	318	eP	P	11 02 46.1	+1.5
	comp=Z,95nm,1.8s,mb5.4						
OJC	Ojcow	72.97	320	eP	P	11 02 54.1	+7.2
VYHS	Vyhne	73.35	318	eP	P	11 02 50.9	+1.7
VYHS				esP	sP	11 03 02.1	-3.2
OKC	Ostrava-Krasne	73.97	320	eP	P	11 02 54.4	+1.6
OKC				epP	pP	11 03 07.4	+2.9
ZST	Bratislava	74.47	318	eP	P	11 02 57.9	+2.2
ZST				e	pP	11 03 11.5	+4.1
ARCES	ARCESS Array B	74.84	340	P	P	11 02 56.1	-1.3
	comp=Z,12nm,1.0s,mb4.8,baz=90,slow=6.1,SNR=7.8						
ARCES	ARCESS Array B	74.84	340	P	P	11 02 56.1	-1.3
ARCES				pmax	pmax		
	comp=Z,12nm,1.0s						
VRAC	Vranov	74.92	319	P	P	11 02 59.0	+0.8
	comp=Z,6.9nm,1.2s,mb4.4,baz=100,slow=12,SNR=4.0						
VRAC	Vranov	74.92	319	P	P	11 02 59.0	+0.8
VRAC				pmax	pmax		
	comp=Z,7.0nm,1.3s						
DPC	Dobruska-Polom	75.20	320	eP	P	11 03 00.4	+0.6
DPC				epP	pP	11 03 13.9	+2.3
KSP	Ksiaz	75.27	320	eP	P	11 03 01.0	+0.8
KSP				e	pP	11 03 13.8	+1.8
UPC	Upice	75.41	320	eP	P	11 03 03.3	+2.3
ARSA	Arzberg	75.44	317	⇑iP	P	11 03 03.9	+2.6
	comp=Z,30nm,1.4s,mb5.0						
OBKA	Obir	76.06	316	⇑iP	P	11 03 05.4	+0.6
	comp=Z,35nm,1.5s,mb5.1						
PRU	Pruhonice	76.30	320	eP	P	11 03 07.8	+1.6
PVCC	Panska Ves	76.33	320	eP	P	11 03 09.4	+3.1
PVCC				epP	pP	11 03 22.8	+4.8
BRG	Berggiesshubel	76.75	320	iP	P	11 03 11.4	+2.7
BRG				i	pP	11 03 23.4	+3.0
BRG				pmax	pmax		
	comp=Z,84nm,1.5s,mb5.5						
BRG	Berggiesshubel	76.75	320	iP	P	11 03 11.4	+2.7
	comp=Z,84nm,1.5s,mb5.5						
BRG				i	pP	11 03 23.4	+3.0
GEC2	GERESS Array S	76.77	318	eP	P	11 03 10.9	+2.1
GEC2				pmax	pmax		
	comp=Z,77nm,1.4s,mb5.4						
GEC2	GERESS Array S	76.77	318	eP	P	11 03 10.9	+2.1
	comp=Z,77nm,1.4s,mb5.4						
GERES	GERESS Array B	76.77	318	P	P	11 03 08.2	-0.6
	comp=Z,20nm,1.2s,mb4.9,baz=90,slow=5.3,SNR=21						
GERES	GERESS Array B	76.77	318	P	P	11 03 08.2	-0.6
GERES				pmax	pmax		
	comp=Z,20nm,1.2s						
KHC	Kasperske Hory	76.87	319	eP	P	11 03 10.6	+1.2
KHC				epP	pP	11 03 24.9	+3.7
PTCC	Patocco-Chiusa	76.88	316	eP	P	11 03 11.6	+2.1
BILL	Bilibino	76.92	22	eP	P	11 03 09.3	0.0
	comp=Z,175nm,1.9s,mb5.7						
FVI	Forni Avoltri	77.28	316	eP	P	11 03 13.7	+1.9
WET	Wettzell	77.33	319	eP	P	11 03 14.0	+2.0
CLL	Collm	77.37	321	eP	P	11 03 08.0	-4.1
CLL				i		11 03 13.8	
CLL	Collm	77.37	321	P	P	11 03 08.0	-4.1
CLL				i *PP	pP	11 03 13.8	-10
CLL				e		11 03 28.0	
NKC	Novy Kostel	77.67	320	eP	P	11 03 15.8	+2.0
HFS	Hagfors	77.72	330	P	P	11 03 12.7	-1.1
	comp=Z,7.6nm,1.0s,mb4.6,baz=121,slow=8.6,SNR=5.7						
HFS	Hagfors	77.72	330	P	P	11 03 12.7	-1.1
HFS				pmax	pmax		
	comp=Z,8.0nm,1.0s						
SFI	Santa Sofia	77.86	313	eP	P	11 03 18.2	+3.2
CTI	Castel Tesino	78.05	315	eP	P	11 03 17.3	+1.3
VMG	Vicchio	78.08	313	eP	P	11 03 19.7	+3.5
MOX	Moxa	78.21	320	eP	P	11 03 20.0	+3.2
MOX	Moxa	78.21	320	iP	P	11 03 20.0	+3.2
SEI	Scarperia	78.22	313	eP	P	11 03 17.4	+0.4
DZM	Mont Dzumac	78.34	114	eP	P	11 03 20.2	+2.1
FUR	Furstenfeldbru	78.36	318	eP	P	11 03 19.2	+1.6
FX1	Attu Island--F	78.38	38	eP	P	11 03 24.6	+7.0
GRA1	Grafenberg Arr	78.43	319	eP	P	11 03 20.5	+2.5
	comp=Z,77nm,1.2s,mb5.5						
GRF	Grafenberg Arr	78.43	319	eP	P	11 03 20.5	+2.5
GRF				pmax	pmax		
	comp=Z,77nm,1.2s,mb5.5						
GRF	Grafenberg Arr	78.43	319	eP	P	11 03 20.5	+2.5
	comp=Z,77nm,1.2s,mb5.5						
MOTA	Moosalm	78.45	317	⇑iP	P	11 03 20.0	+1.8
	comp=Z,22nm,0.9s,mb5.1						
GSCL	Gusciola	78.78	314	eP	P	11 03 20.9	+0.9
BRMO	Bormio	78.94	316	eP	P	11 03 22.9	+2.0
NB2	NORSAR Subarra	79.01	331	P	P	11 03 18.9	-2.1
	comp=Z,25nm,1.1s,mb5.1,baz=92,slow=5.3						
NB2	NORSAR Subarra	79.01	331	P	P	11 03 18.9	-2.1
	baz=92,slow=5.3						
NOA	NORSAR Array B	79.01	331	P	P	11 03 19.8	-1.2
	comp=Z,5.2nm,1.1s,mb4.4,baz=99,slow=5.4,SNR=5.5						
NOA	NORSAR Array B	79.01	331	P	P	11 03 19.8	-1.2
NOA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
CLZ	Clausthal	79.03	321	eP	P	11 03 23.1	+1.8
	comp=Z,71nm,1.5s,mb5.4						
BSEG	Bad Segeberg	79.13	323	eP	P	11 03 23.6	+1.9
DAVOX	Davos	79.28	316	P	P	11 03 22.4	-0.3
	comp=Z,12nm,0.6s,mb5.0,baz=194,slow=4.1,SNR=11						
DAVA	Damuels	79.28	317	⇑iP	P	11 03 25.4	+2.7
	comp=Z,53nm,1.4s,mb5.3						
PGF	Pioggiola	79.95	312	eP	P	11 03 24.4	-2.0
	comp=Z,143nm,1.3s,mb5.5						
TOD	Tromm	80.00	319	eP	P	11 03 29.0	+2.5
VAI	Varese	80.06	315	eP	P	11 03 27.9	+1.0
BFO	Black Forest	80.33	318	eP	P	11 03 29.8	+1.5
BFO				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.2						
BFO	Black Forest	80.33	318	eP	P	11 03 29.8	+1.5
	comp=Z,50nm,1.5s,mb5.2						
FELD	Feldberg	80.55	317	eP	P	11 03 30.1	+0.6
MCGN	Macugnaga	80.60	315	eP	P	11 03 32.9	+3.1
LANF	Langenberg	80.66	318	eP	P	11 03 29.7	-0.4
STR	Strasbourg	80.70	318	eP	P	11 03 34.4	+4.2
BBS	Basel-Blauen	80.89	317	eP	P	11 03 35.3	+4.0
WLS	Welschbruch	80.97	318	eP	P	11 03 29.2	-2.5
CDF	Champ du Feu	81.03	318	eP	P	11 03 30.6	-1.4
	comp=Z,33nm,1.1s,mb4.9						
ECH	Echery	81.11	318	eP	P	11 03 33.0	+0.6
RUP	Ruppelstein	81.14	319	eP	P	11 03 33.4	+0.9
MOF	Molkenrain	81.14	317	eP	P	11 03 30.8	-1.8
LOMF	Lomont	81.36	317	eP	P	11 03 32.5	-1.3
LPL	La Plagne	81.49	315	eP	P	11 03 33.3	-1.2
	comp=Z,237nm,1.2s,mb5.7						
BNI	Bardonecchia	81.55	314	eP	P	11 03 34.6	-0.2
	comp=Z,34nm,1.1s,mb5.2						
FRF	La Foret Royal	81.64	313	eP	P	11 03 33.7	-1.6
	comp=Z,290nm,1.5s,mb5.7						
HAU	Haudompre	81.66	317	eP	P	11 03 33.1	-2.2
	comp=Z,90nm,1.3s,mb5.2						
HAU				eR			
	comp=Z,13µm,22.0s						
THEF	They Montfort	81.89	318	eP	P	11 03 35.8	-0.7
CABF	La Chapelle	81.89	316	eP	P	11 03 35.0	-1.5
	comp=Z,290nm,1.9s,mb5.6						
VIVF	Saint-Julien-l	82.98	314	eP	P	11 03 40.6	-1.5
	comp=Z,96nm,1.3s,mb5.4						
SSF	Saint Saulge	83.64	317	eP	P	11 03 43.6	-1.8
	comp=Z,178nm,1.8s,mb5.6						
LBL	Lubilhac	83.96	315	eP	P	11 03 51.8	+4.7
AGO	Saint Agoulin	83.97	316	eP	P	11 03 49.7	+2.5
PYM	Petit Puy Mans	84.09	315	eP	P	11 03 50.6	+2.8
BGF	Bois d’Agland	84.13	316	eP	P	11 03 45.5	-2.5
	comp=Z,73nm,1.2s,mb5.4						
SYO	Syowa Base	84.71	197	⇑P	P	11 03 50.1	-0.2
SYO	Syowa Base	84.71	197	⇓PcP	PcP	11 03 53.7	-0.5
CAF	Calviac	84.83	314	eP	P	11 03 49.5	-2.0
	comp=Z,116nm,1.6s,mb5.5						
JMIC	Jan Mayen	86.31	341	LR	LR	11 44 04.1	
	comp=Z,6µm,19.9s,MS6.0,baz=298,slow=37						
EKA	Eskdalemuir Ar	86.86	325	P	P	11 04 01.4	+0.2
	comp=Z,11nm,1.1s,mb5.0,baz=95,slow=5.0,SNR=8.2						
ESDC	Sonseca Array	89.97	310	P	P	11 04 16.4	0.0
	comp=Z,12nm,1.1s,mb5.2,baz=66,slow=4.2,SNR=14						
IMA	Indian Mountai	92.46	22	eP	P	11 04 28.1	+0.7
	comp=Z,394nm,1.8s,mb6.4						
VNDA	Vanda	93.11	168	P	P	11 04 31.5	+1.4
	comp=Z,7.8nm,1.2s,mb5.0,baz=301,slow=4.9,SNR=3.0						
VNDA	Vanda	93.11	168	P	P	11 04 31.5	+1.4
SPU	Mount Spurr	95.24	26	eP	P	11 04 42.2	+2.1

ILAR	**Eielson Array**	**95.58**	**22**	P	**P**	**11 04 42.9**	**+1.3**
	comp=Z,1.6nm,0.8s,mb4.5,baz=317,slow=5.0,SNR=13						
ILAR				PP	PP	11 08 27.6	-7.6
	comp=Z,2.7nm,0.9s,baz=304,slow=7.5,SNR=6.0						
DBIC	**Dimbokro**	**96.20**	**278**	P	**P**	**11 04 46.9**	**+1.3**
	comp=Z,7.9nm,0.9s,mb5.1,baz=114,slow=3.0,SNR=6.3						
DBIC	**Dimbokro**	**96.20**	**278**	*e*P	**P**	**11 04 44.8**	**-0.7**
SLKM	**Skilak Lake**	**96.34**	**26**	P	**P**	**11 04 46.3**	**+1.1**
INK	**Inuvik**	**97.66**	**16**	P	**P**	**11 04 50.2**	**-0.8**
	comp=Z,5.5nm,0.8s,mb5.1,baz=323,slow=5.4,SNR=12						
INK	**Inuvik**	**97.66**	**16**	P	**P**	**11 04 50.2**	**-0.8**
YKA	**Yellowknife Ar**	**107.01**	**13**	PP	PP	11 09 54.6	-8.1
	comp=Z,2.6nm,0.8s,baz=333,slow=7.7,SNR=7.7						
ULM	**Lac du Bonnet**	**121.86**	**6**	PKP	PKPdf	11 10 10.9	+1.2
	comp=Z,3.8nm,1.0s,baz=280,slow=6.1,SNR=2.2						
DGMT	**Dagmar**	**122.22**	**13**	*e*PKPdf	PKPdf	11 10 14.4	+3.9
LAO	**LASA Array**	**123.39**	**15**	*e*PKPdf	PKPdf	11 10 15.4	+2.6
SNOW	**Snow King Moun**	**124.94**	**20**	*e*PKPdf	PKPdf	11 10 19.0	+3.0
AHID	**Auburn Hatcher**	**125.43**	**21**	PKPdf	PKPdf	11 10 20.7	+3.8
PDAR	**Pinedale Array**	**125.97**	**20**	PKP	PKPdf	11 10 18.9	+1.0
	comp=Z,2.6nm,0.7s,slow=1.5,SNR=17						
NVAR	**Mina Array Bea**	**125.98**	**30**	PKP	PKPdf	11 10 20.1	+2.0
	comp=Z,4.3nm,0.7s,baz=279,slow=2.7,SNR=22						
MNV	**Mina**	**126.05**	**30**	*e*PKPdf	PKPdf	11 10 20.7	+2.5
MTUM	**Tungsten Hills**	**126.68**	**31**	PKPdf	PKPdf	11 10 23.2	+3.7
MSU	**Marysvale**	**128.68**	**25**	*e*PKPdf	PKPdf	11 10 27.8	+4.4
ARUT	**Antelope Range**	**128.75**	**26**	*e*PKPdf	PKPdf	11 10 27.7	+4.2
NEN	**Nelson**	**129.86**	**29**	*e*PKPdf	PKPdf	11 10 29.3	+3.7
PV10	**Paradox Valley**	**130.03**	**22**	*e*PKPdf	PKPdf	11 10 30.7	+4.8
ANMO	**Albuquerque**	**134.02**	**22**	PKP	PKPdf	11 10 34.3	+0.8
	comp=Z,2.3nm,0.8s,baz=206,slow=1.9,SNR=11						
TXAR	**Lajitas Array**	**140.09**	**22**	PKhKP		11 10 41.2	
	comp=Z,1.8nm,0.9s,baz=17,slow=1.9,SNR=7.9						
JCT	**Junction City**	**140.30**	**17**	*e*PKPpre		11 10 39.8	
BDFB	**Brasilia**	**140.43**	**255**	PKP	PKPdf	11 10 46.2	+0.6
	comp=Z,4.2nm,0.9s,baz=270,slow=1.0,SNR=3.6						
SJG	**San Juan**	**146.71**	**321**	PKPbc	PKPbc	11 11 00.3	+2.3
	comp=Z,19nm,0.8s,baz=335,slow=5.6,SNR=4.7						
PCRV	**Puerto La Cruz**	**151.00**	**307**	PKPbc	PKPdf	11 11 09.4	+5.9
	comp=Z,27nm,1.1s,baz=182,slow=7.4,SNR=5.8						
SDV	**Santo Domingo**	**156.35**	**314**	PKP	PKPdf	11 11 14.2	+3.4
	comp=Z,20nm,1.4s,baz=332,slow=5.8,SNR=4.5						
SDV				PKPab	PKPab	11 11 43.4	+1.7
	comp=Z,7.7nm,0.9s,baz=87,slow=3.0,SNR=3.6						
SDV	**Santo Domingo**	**156.35**	**314**	*e*PKPdf	PKPdf	11 11 14.4	+3.5
LPAZ	**La Paz**	**159.09**	**244**	PKP	PKPdf	11 11 17.9	+3.6
	comp=Z,9.0nm,1.2s,baz=73,slow=4.4,SNR=12						
LPAZ				PKPab	PKPab	11 11 54.8	+1.4
	comp=Z,5.5nm,0.7s,baz=65,slow=5.1,SNR=4.8						
LPAZ	**La Paz**	**159.09**	**244**	*e*PKPdf	PKPdf	11 11 17.4	+3.1
ROSC	**El Rosal**	**161.77**	**313**	PKP	PKPdf	11 11 20.6	+3.4
	comp=Z,13nm,0.9s,baz=283,slow=21,SNR=8.6						

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*IDC **26** 10:53:53.8±0.7, 10.18N×93.63E, mb4.7/16, mb1 4.9/16, mb1mx4.7/24, Error ellipse: s-maj=51.8km s-min=15.7km az=45.0*

*NEIC **26** 10:53:58.4±0.3, 10.19N×93.68E, h30^{km}, mb5.3/17, Error ellipse: s-maj=13.6km s-min=6.2km az=54.0*

ISC 26 10:53:56.6±0.4**, 10.27N**±0.08×**93.8E**±0.1**, h30**^{km}**, n42, σ0^{s}96**/38**, mb5.0**/30**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	**Lhasa**	**19.49**	**353**	*e*P	**P**	**10 58 22.8**	**-1.5**
	48nm,0.8s						
COCO	**West Island**	**22.52**	**172**	P	**P**	**10 58 54.3**	**-1.2**
	501nm,1.4s,mb5.8						
BJT	**Baijiatuau**	**35.68**	**30**	P	**P**	**11 00 56.3**	**+2.1**
	46nm,1.1s,mb5.3						
ULN	**Ulaanbaatar**	**39.11**	**14**	P	**P**	**11 01 23.9**	**+0.8**
	14nm,0.8s,mb4.7						
MBWA	**Marble Bar**	**40.31**	**141**	P	**P**	**11 01 32.5**	**-0.8**
	16nm,1.1s,mb4.7						
ZAL	**Zalesovo**	**44.14**	**352**	P	**P**	**11 02 05.1**	**+0.9**
	11nm,0.8s,mb4.7,baz=309,slow=7.0,SNR=8.2						
BVAR	**Borovoye Array**	**46.63**	**341**	P	**P**	**11 02 23.8**	**-0.1**
	30nm,1.2s,mb5.1,baz=137,slow=6.8,SNR=3.8						
BRVK	**Borovoye**	**46.69**	**341**	*e*P	**P**	**11 02 22.6**	**-1.8**
	36nm,1.1s,mb5.2						
CHKZ	**Chkalovo**	**47.11**	**341**	*e*P	**P**	**11 02 28.1**	**+0.4**
	99nm,1.2s,mb5.6						
WRA	**Warramunga Arr**	**49.95**	**127**	P	**P**	**11 02 49.8**	**-0.4**
	8.8nm,0.7s,mb4.9,baz=303,slow=8.7,SNR=5.0						
ASAR	**Alice Springs**	**51.73**	**131**	P	**P**	**11 03 04.5**	**+0.8**
	16nm,0.9s,mb5.0,baz=299,slow=7.4,SNR=4.9						
GNI	**Garni**	**52.54**	**313**	*e*P	**P**	**11 03 09.3**	**-0.3**
	72nm,1.1s,mb5.5						
ARU	**Arti**	**53.57**	**337**	P	**P**	**11 03 13.9**	**-3.1**
	24nm,0.9s,mb5.1						
KIV	**Kislovodsk**	**55.33**	**317**	*e*P	**P**	**11 03 30.2**	**+0.2**
	103nm,1.1s,mb5.8						
PMG	**Port Moresby**	**56.59**	**108**	P	**P**	**11 03 39.0**	**-0.5**
	27nm,1.0s,mb5.2						
EIL	**Elat**	**57.96**	**299**	*e*P	**P**	**11 03 49.3**	**+0.3**
	25nm,1.2s,mb5.1						
CTA	**Charters Tower**	**59.79**	**120**	P	**P**	**11 04 01.9**	**+0.1**
	32nm,1.0s,mb5.3,baz=303,slow=8.8,SNR=7.1						
CTAO	**Charters Tower**	**59.79**	**120**	*e*P	**P**	**11 04 03.0**	**+1.2**
	71nm,1.2s,mb5.6						
BRTR	**Keskin Array B**	**60.62**	**310**	P	**P**	**11 04 06.0**	**-1.2**
	4.3nm,0.7s,mb4.7,baz=126,slow=7.1,SNR=4.3						
STKA	**Stephens Creek**	**62.01**	**134**	P	**P**	**11 04 16.7**	**-0.1**
OBN	**Obninsk**	**63.19**	**327**	*e*P	**P**	**11 04 30.5**	**+6.4**
	173nm,1.4s,mb6.0						
MA2	**Magadan**	**64.82**	**28**	P	**P**	**11 04 31.7**	**-3.1**
	25nm,1.1s,mb5.2						
AKASG	**Malin Array Be**	**66.08**	**321**	P	**P**	**11 04 41.6**	**-1.3**
	6.1nm,0.9s,mb4.6,baz=84,slow=5.0,SNR=4.3						
IDI	**Anoyia**	**66.94**	**304**	P	**P**	**11 04 48.8**	**+0.1**
	7.2nm,0.7s,mb4.8,baz=80,slow=9.9,SNR=4.7						
MLR	**Muntele Rosu**	**67.23**	**315**	P	**P**	**11 04 50.8**	**+0.3**
	25nm,1.1s,mb5.2,baz=117,slow=2.3,SNR=3.7						
FINES	**FINESS Array B**	**70.45**	**332**	P	**P**	**11 05 09.9**	**-0.1**
	3.1nm,0.6s,mb4.5,baz=103,slow=6.6,SNR=4.7						
KAF	**Kangasniemi**	**70.52**	**333**	*e*p	**P**	**11 05 10.1**	**-0.3**
KEV	**Kevo**	**72.48**	**340**	*e*p	**P**	**11 05 21.9**	**-0.1**
ARCES	**ARCESS Array B**	**72.91**	**340**	P	**P**	**11 05 24.8**	**+0.2**
	4.1nm,0.5s,mb4.6,baz=90,slow=6.3,SNR=14						
ZST	**Bratislava**	**73.55**	**317**	*e*	**P**	**11 05 29.5**	**+0.9**
GERES	**GERESS Array B**	**75.83**	**318**	P	**P**	**11 05 42.5**	**+0.7**
	3.0nm,0.8s,mb4.2,baz=90,slow=5.9,SNR=5.1						
HFS	**Hagfors**	**76.23**	**329**	P	**P**	**11 05 43.7**	**-0.1**
	2.3nm,0.5s,mb4.4,baz=104,slow=5.9,SNR=5.8						
BOSA	**Boshof**	**76.57**	**237**	*e*P	**P**	**11 05 47.8**	**+1.5**
	62nm,1.5s,mb5.3						
NOA	**NORSAR Array B**	**77.49**	**330**	P	**P**	**11 05 50.8**	**+0.1**
	0.8nm,0.7s,baz=98,slow=3.8,SNR=3.6						
DAVOX	**Davos**	**78.44**	**316**	P	**P**	**11 05 56.2**	**-0.1**
	4.8nm,0.9s,mb4.4,baz=127,slow=10,SNR=2.5						
DAVOX	**Davos**	**78.44**	**316**	P	**P**	**11 05 56.2**	**-0.1**
LPL	**La Plagne**	**80.71**	**315**	*e*P	**P**	**11 06 09.3**	**+0.8**
	80nm,1.2s,mb5.2						
EKA	**Eskdalemuir Ar**	**85.57**	**325**	P	**P**	**11 06 34.6**	**+1.4**
	4.8nm,0.8s,mb4.8,baz=101,slow=5.6,SNR=5.7						
PDAR	**Pinedale Array**	**123.07**	**20**	PKP	PKPdf	11 12 52.9	-2.8
	2.1nm,1.0s,baz=103,slow=0.5,SNR=3.9						
TXAR	**Lajitas Array**	**137.18**	**23**	PKP	PKPdf	11 13 20.1	-2.8
	0.8nm,0.7s,baz=187,slow=0.5,SNR=3.8						
BDFB	**Brasilia**	**142.43**	**258**	PKP	PKPdf	11 13 28.4	-4.2
	3.6nm,0.7s,baz=117,slow=3.0,SNR=4.2						
PCRV	**Puerto La Cruz**	**150.45**	**313**	PKPbc	PKPdf	11 13 47.6	+1.6
	7.3nm,0.5s,baz=238,slow=8.5,SNR=7.9						

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*BJI **26** 10:55:06.9, 3.86N×95.11E, h57^{km}, mb5.4*

*NEIC **26** 10:55:07.5±0.3, 4.26N×95.13E, h30^{km}, mb5.2/16, Error ellipse: s-maj=10.4km s-min=7.1km az=47.0*

*IDC **26** 10:55:09.8±0.9, 4.30N×95.12E, h47^{km}±6^{km}, mb4.6/16, mb1 4.7/17, mb1mx4.5/23, Error ellipse: s-maj=32.0km s-min=17.6km az=40.0*

ISC 26 10:55:08.0±0.5**, 4.29N**±0.08×**95.17E**±0.08**, h48**^{km}**, h48**^{km}±3.2^{km}**:pP-P, n59, σ1^{s}04**/54**, mb5.0**/37**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**14.56**	**14**	*e*P	**P**	**10 58 38.5**	**+5.7**
	65nm,0.7s						
CMAR	**Chiang Mai Arr**	**14.56**	**14**	P	**P**	**10 58 39.1**	**+6.3**
	1.9nm,0.3s,baz=207,slow=11,SNR=18						
QIZ	**Qiongzhong**	**20.49**	**43**	P	**P**	**10 59 44.8**	**+0.2**
QIZ	**Qiongzhong**	**20.49**	**43**	*e*P	**P**	**10 59 44.7**	**+0.1**
	62nm,1.2s						
GYA	**Guiyang**	**24.64**	**25**	⇑*i*P	**P**	**11 00 26.8**	**+1.2**
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.0						
CD2	**Chengdu**	**27.69**	**16**	P	**P**	**11 00 52.8**	**-1.1**
CD2				AMB	AMB		
	comp=Z,90nm,0.8s,mb5.5						
AGRA	**Agra**	**28.13**	**326**	*e*	**P**	**11 00 55.4**	**-2.4**
ENH	**Enshi**	**29.17**	**26**	*e*P	**P**	**11 01 05.3**	**-1.8**
	comp=Z,30nm,0.8s,mb5.1						
KKR	**Kurukshetra**	**30.88**	**328**	*e*	**P**	**11 01 27.6**	**+5.4**
KLP	**Kalpa**	**31.43**	**332**	*e*	**P**	**11 01 33.9**	**+6.8**
MBWA	**Marble Bar**	**34.92**	**137**	*e*P	**P**	**11 01 56.0**	**-1.4**
	comp=Z,26nm,1.1s,mb5.1						
GTA	**Gaotai**	**35.22**	**6**	P	**P**	**11 01 59.0**	**-0.8**
GTA				AMB	AMB		
	comp=Z,21nm,1.0s,mb5.0						
JOW	**Kunigami**	**38.76**	**51**	P	**P**	**11 02 30.9**	**+1.3**
	comp=Z,19nm,0.7s,mb4.9,baz=227,slow=9.6,SNR=4.4						
KSH	**Kashi**	**39.15**	**336**	*e*P	**P**	**11 02 34.0**	**+1.3**
KSH				*e*AP	pP	11 02 43.5	-2.1
KSH				*e*XP	sP	11 02 48.5	-2.9
KSH				AMB	AMB		
	comp=Z,960nm,3.8s						
WMQ	**Urumqi**	**39.92**	**352**	P	**P**	**11 02 41.0**	**+1.9**
WMQ				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.7						
BJT	**Baijiatuau**	**40.31**	**25**	*e*P	**P**	**11 02 43.4**	**+1.1**
	comp=Z,49nm,0.7s,mb5.3						
BJI	**Beijing**	**40.33**	**25**	P	**P**	**11 02 43.8**	**+1.3**
BJI				AMB	AMB		
	comp=Z,79nm,0.8s,mb5.5						
DL2	**Dalian**	**42.01**	**31**	P	**P**	**11 02 57.5**	**+1.1**
DL2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.2						
SONM	**Songino Array**	**44.45**	**11**	P	**P**	**11 03 15.6**	**-0.4**
	comp=Z,3.8nm,0.7s,mb4.2,baz=195,slow=8.3,SNR=7.3						
KS15	**Wonju Array Si**	**44.54**	**38**	*e*P	**P**	**11 03 17.1**	**+0.2**
ULN	**Ulaanbaatar**	**44.60**	**11**	P	**P**	**11 03 14.2**	**-3.1**
	comp=Z,20nm,0.9s,mb5.0						
WRA	**Warramunga Arr**	**45.40**	**123**	P	**P**	**11 03 24.4**	**+0.4**
	comp=Z,25nm,0.8s,mb5.1,baz=302,slow=9.1,SNR=6.9						
WRAB	**Tennant Creek**	**45.40**	**123**	*e*P	**P**	**11 03 24.2**	**+0.1**
	comp=Z,67nm,0.9s,mb5.5						
ASAR	**Alice Springs**	**46.87**	**128**	P	**P**	**11 03 35.5**	**-0.1**
	comp=Z,9.9nm,0.6s,mb4.9,baz=298,slow=8.0,SNR=5.4						
HIA	**Hailar**	**49.45**	**21**	*e*P	**P**	**11 03 55.1**	**-0.1**
	comp=Z,28nm,0.8s,mb5.3						
ZAL	**Zalesovo**	**50.22**	**352**	P	**P**	**11 04 00.3**	**-0.8**
	comp=Z,4.3nm,0.8s,mb4.5,baz=288,slow=8.8,SNR=6.1						
MDJ	**Mudanjiang**	**50.25**	**32**	*e*P	**P**	**11 04 01.3**	**-0.2**
	comp=Z,29nm,1.2s,mb5.2						
MAJO	**Matsushiro**	**50.88**	**45**	P	**P**	**11 03 59.7**	**-6.7**
	comp=Z,16nm,1.1s,mb4.9						
BVAR	**Borovoye Array**	**52.69**	**341**	P	**P**	**11 04 19.3**	**-0.5**
	comp=Z,32nm,0.7s,mb5.4,baz=143,slow=7.4,SNR=22						
BRVK	**Borovoye**	**52.76**	**341**	*e*P	**P**	**11 04 19.5**	**-0.7**
	comp=Z,40nm,0.7s,mb5.5						
CHKZ	**Chkalovo**	**53.18**	**342**	*e*P	**P**	**11 04 23.1**	**-0.3**
	comp=Z,93nm,0.7s,mb5.8						
PMG	**Port Moresby**	**53.56**	**105**	*e*P	**P**	**11 04 26.6**	**-0.2**
	comp=Z,26nm,0.9s,mb5.2						
ARU	**Arti**	**59.57**	**337**	*e*P	**P**	**11 05 08.1**	**-0.9**
	comp=Z,50nm,1.3s,mb5.4						
YAK	**Yakutsk**	**63.07**	**17**	*e*P	**P**	**11 05 30.5**	**-2.1**
	comp=Z,57nm,1.1s,mb5.6						
BRTR	**Keskin Array B**	**65.55**	**312**	P	**P**	**11 05 48.3**	**-0.7**
	comp=Z,5.9nm,1.0s,mb4.6,baz=132,slow=7.7,SNR=5.1						
BRTR				pP	pP	11 06 02.3	-0.4
	comp=Z,3.4nm,0.7s,baz=133,slow=7.6,SNR=4.5						
MA2	**Magadan**	**69.47**	**27**	*e*P	**P**	**11 06 12.2**	**-1.0**
	comp=Z,19nm,0.8s,mb5.1						
AKASG	**Malin Array Be**	**71.59**	**322**	P	**P**	**11 06 24.9**	**-1.3**
	comp=Z,4.9nm,0.7s,mb4.5,baz=86,slow=5.4,SNR=8.3						
AKASG				pP	pP	11 06 38.7	-1.3
	comp=Z,13nm,0.9s,baz=86,slow=5.2,SNR=7.5						
KOLS	**Kolonicke sedl**	**75.57**	**319**	*e*P	**P**	**11 06 50.7**	**+1.3**
KOLS				*e*	pP	11 07 04.8	+1.5
CRVS	**Cervenica-Dubn**	**76.09**	**319**	*e*pP	pP	11 07 00.4	-5.9
FINES	**FINESS Array B**	**76.34**	**332**	P	**P**	**11 06 53.5**	**-0.1**
	comp=Z,5.4nm,0.7s,mb4.6,baz=110,slow=6.5,SNR=7.7						
FINES				pP	pP	11 07 06.8	-0.7
	comp=Z,6.2nm,0.7s,baz=104,slow=6.6,SNR=2.5						
FINES	**FINESS Array B**	**76.34**	**332**	P	**P**	**11 06 53.5**	**-0.1**
FINES				pP	pP	11 07 06.8	-0.7
KAF	**Kangasniemi**	**76.43**	**333**	*e*p	**P**	**11 06 47.4**	**-6.6**
OJC	**Ojcow**	**77.37**	**320**	*e*P	**P**	**11 06 59.9**	**+0.4**
VYHS	**Vyhne**	**77.75**	**319**	*e*	**P**	**11 06 54.2**	**-7.5**
VYHS				*e*	pP	11 07 12.4	-3.2
ZST	**Bratislava**	**78.87**	**318**	*e*P	**P**	**11 07 08.7**	**+0.9**
ZST				*e*sP	sP	11 07 22.5	-4.6
ARCES	**ARCESS Array B**	**78.97**	**340**	P	**P**	**11 07 08.5**	**+0.5**
	comp=Z,4.7nm,0.7s,mb4.5,baz=100,slow=5.8,SNR=5.2						
BILL	**Bilibino**	**79.03**	**21**	*e*P	**P**	**11 07 07.8**	**-0.5**
	comp=Z,6.9nm,0.7s,mb4.7						
PRU	**Pruhonice**	**80.71**	**320**	*e*P	**P**	**11 07 16.7**	**-1.0**
GERES	**GERESS Array B**	**81.17**	**319**	P	**P**	**11 07 21.2**	**+1.1**
	comp=Z,4.2nm,0.7s,mb4.5,baz=101,slow=5.0,SNR=8.1						
GERES				pP	pP	11 07 35.5	+1.3
	comp=Z,6.7nm,0.9s,baz=90,slow=5.3,SNR=6.2						
KHC	**Kasperske Hory**	**81.27**	**319**	*e*P	**P**	**11 07 21.0**	**+0.4**
HFS	**Hagfors**	**82.05**	**330**	P	**P**	**11 07 24.9**	**+0.4**
	comp=Z,2.8nm,0.5s,mb4.4,baz=90,slow=4.4,SNR=5.7						
NB2	**NORSAR Subarra**	**83.34**	**331**	P	pP	11 07 44.7	-0.4
	comp=Z,17nm,1.1s,baz=95,slow=5.0						
NB2	**NORSAR Subarra**	**83.34**	**331**	P	pP	11 07 44.7	-0.4
	baz=95,slow=5.1						
DAVOX	**Davos**	**83.67**	**316**	P	**P**	**11 07 34.6**	**+1.6**
	comp=Z,6.4nm,0.6s,mb4.9,baz=124,slow=7.7,SNR=6.6						
EKA	**Eskdalemuir Ar**	**91.24**	**326**	P	**P**	**11 08 10.7**	**+1.4**
	comp=Z,4.7nm,0.8s,mb4.9,baz=96,slow=5.3,SNR=5.2						
ILAR	**Eielson Array**	**97.66**	**22**	P	**P**	**11 08 39.5**	**+1.2**
	comp=Z,3.8nm,1.0s,mb4.9,baz=306,slow=6.2,SNR=6.6						
DBIC	**Dimbokro**	**99.43**	**277**	P	**P**	**11 08 47.3**	**-0.3**
	comp=Z,3.4nm,0.8s,mb4.9,baz=138,slow=2.8,SNR=6.8						
PDAR	**Pinedale Array**	**128.08**	**23**	PKP	PKPdf	11 14 11.3	+1.9
	comp=Z,4.0nm,1.3s,baz=315,slow=2.6,SNR=3.1						
TXAR	**Lajitas Array**	**142.00**	**27**	PKhKP		11 14 34.0	
	comp=Z,2.3nm,1.0s,baz=288,slow=0.2,SNR=2.7						

IDC 26 10:55:18.8±11.0**, 7.98N×93.60E, mb4.4**/5**, mb1 4.5**/5**, mb1mx4.2**/18**, Error ellipse: s-maj=265.0km s-min=53.1km az=148.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**41.18**	**13**	P	P	11 03 04.6	-2.0
	3.4nm,0.8s,baz=188,slow=10,SNR=2.8						
ZAL	**Zalesovo**	**46.37**	**353**	P	P	11 03 46.9	-1.6
	4.8nm,0.7s,baz=283,slow=7.8,SNR=5.5						
BRTR	**Keskin Array B**	**61.95**	**311**	P	P	11 05 40.4	-2.6
	1.5nm,0.8s,baz=120,slow=6.9,SNR=2.2						
FINES	**FINESS Array B**	**72.37**	**332**	P	P	11 06 46.5	-1.8
	2.2nm,0.6s,baz=117,slow=9.3,SNR=3.9						
HFS	**Hagfors**	**78.09**	**330**	P	P	11 07 20.0	-0.9
	2.2nm,0.6s,baz=104,slow=6.1,SNR=4.0						

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*IDC **26** 10:55:58.1±0.7, 10.07N×93.85E, mb4.8/10, mb1 5.0/11, mb1mx4.8/21, ML4.3/1, Error ellipse: s-maj=28.2km s-min=17.1km az=41.0*

*BJI **26** 10:56:00.5, 10.10N×93.80E, h30^{km}, mB6.0, mb5.1, Ms6.2, Msz6.1*

*NEIC **26** 10:56:02.6±0.4, 10.07N×93.83E, h30^{km}, mb5.5/21, Error ellipse: s-maj=11.9km s-min=10.8km az=222.0*

ISC 26 10:56:00.6±0.5**, 10.09N**±0.07×**93.83E**±0.07**, h30**^{km}**, n44, σ1^{s}14**/40**, mb5.3**/31**, MS6.1**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.69**	**30**	Pn	**P**	**10 58 18.3**	**-2.9**
	0.7nm,0.3s,baz=221,slow=16,SNR=3.2						
COCO	**West Island**	**22.33**	**172**	*e*P	**P**	**11 01 02.0**	**+4.5**
	541nm,1.4s,mb5.8						
ENH	**Enshi**	**24.83**	**34**	*e*P	**P**	**11 01 21.5**	**-0.4**
	106nm,1.2s,mb5.2						
LZH	**Lanzhou**	**27.44**	**18**	*e*P	**P**	**11 01 45.5**	**-0.4**
LZH				PP	PP	11 02 32.5	-1.3
LZH				*e*S	**S**	**11 06 22.0**	**-0.7**
LZH				SS	SS	11 07 37.3	-3.5
LZH				AMB	AMB		
	comp=Z,452nm,1.4s,mb5.8						
LZH				AMB	AMB		
	comp=Z,3µm,6.9s						
LZH				LR	LR		
	comp=E,26µm,11.0s						
LZH				LR	LR		
	comp=Z,40µm,15.0s,MS6.1						
NJ2	**Nanjing**	**31.83**	**43**	*e*P	**P**	**11 02 25.3**	**+0.1**
NJ2				AMB	AMB		
	comp=Z,170nm,0.5s,mb6.1						
BJT	**Baijiatuau**	**35.81**	**30**	*e*P	**P**	**11 02 59.8**	**+0.4**
	comp=Z,36nm,0.8s,mb5.3						
SONM	**Songino Array**	**39.09**	**13**	P	**P**	**11 03 26.9**	**0.0**
	comp=Z,8.9nm,0.8s,mb4.5,baz=196,slow=6.7,SNR=4.1						
MBWA	**Marble Bar**	**40.15**	**141**	*e*P	**P**	**11 03 36.4**	**+0.6**
	comp=Z,109nm,1.6s,mb5.3						
HIA	**Hailar**	**44.63**	**24**	*e*P	**P**	**11 04 11.8**	**-0.4**
	comp=Z,42nm,1.0s,mb5.2						
MDJ	**Mudanjiang**	**46.18**	**35**	P	**P**	**11 04 26.4**	**+1.9**
	comp=Z,57nm,1.4s,mb5.3						
MAJO	**Matsushiro**	**47.94**	**49**	*e*P	**P**	**11 04 40.4**	**+1.8**
	comp=Z,132nm,1.8s,mb5.7						
MAT	**Matsushiro**	**47.94**	**49**	P	**P**	**11 04 38.7**	**+0.2**
MAT	**Matsushiro**	**47.94**	**49**	*e*P	**P**	**11 04 39.0**	**+0.5**
	comp=Z,200nm,2.0s,mb5.8						
WRA	**Warramunga Arr**	**49.81**	**127**	P	**P**	**11 04 52.8**	**-0.4**
	comp=Z,16nm,0.9s,mb5.1,baz=307,slow=8.0,SNR=7.0						
WRAB	**Tennant Creek**	**49.81**	**127**	*e*P	**P**	**11 04 53.0**	**-0.2**
	comp=Z,110nm,1.2s,mb5.8						
ASAR	**Alice Springs**	**51.58**	**131**	P	**P**	**11 05 06.3**	**-0.2**
	comp=Z,11nm,0.8s,mb4.8,baz=304,slow=6.6,SNR=4.2						
GNI	**Garni**	**52.69**	**313**	P	**P**	**11 05 14.7**	**0.0**
	comp=Z,16nm,0.8s,mb5.0,baz=141,slow=3.4,SNR=4.0						
GNI	**Garni**	**52.69**	**313**	*e*P	**P**	**11 05 14.3**	**-0.4**
	comp=Z,140nm,1.2s,mb5.8						
ARU	**Arti**	**53.75**	**337**	*e*P	**P**	**11 05 19.3**	**-2.9**
	comp=Z,37nm,1.2s,mb5.2						
YSS	**Yuzh-Sakhalins**	**55.25**	**39**	*e*P	**P**	**11 05 33.9**	**+0.4**
	comp=Z,333nm,1.7s,mb6.1						
KIV	**Kislovodsk**	**55.49**	**317**	*e*P	**P**	**11 05 31.9**	**-3.3**
	comp=Z,124nm,1.0s,mb5.9						
MALT	**Malatya**	**56.82**	**309**	*e*P	**P**	**11 05 45.9**	**+1.1**
	comp=Z,33nm,1.3s,mb5.2						
KMBO	**Kilima Mbogo**	**57.39**	**262**	P	**P**	**11 05 50.6**	**+1.5**
	comp=Z,8.1nm,1.1s,mb4.7,baz=61,slow=12,SNR=4.3						
EIL	**Elat**	**58.08**	**299**	*e*P	**P**	**11 05 54.6**	**+0.8**
	comp=Z,44nm,1.3s,mb5.3						
CTA	**Charters Tower**	**59.67**	**120**	P	**P**	**11 06 04.2**	**-0.7**
	comp=Z,13nm,1.1s,mb4.9,baz=309,slow=5.4,SNR=4.8						
CTAO	**Charters Tower**	**59.67**	**120**	*e*P	**P**	**11 06 02.5**	**-2.4**
	comp=Z,63nm,1.3s,mb5.5						
CSS	**Prodhromos**	**60.16**	**305**	*e*P	**P**	**11 06 07.1**	**-1.0**
	comp=Z,28nm,1.0s,mb5.2						
BRTR	**Keskin Array B**	**60.77**	**310**	P	**P**	**11 06 11.3**	**-0.9**
	comp=Z,5.9nm,0.8s,mb4.8,baz=124,slow=7.4,SNR=5.5						
STKA	**Stephens Creek**	**61.86**	**134**	P	**P**	**11 06 19.1**	**-0.6**
	comp=Z,25nm,1.1s,mb5.3,baz=312,slow=7.5,SNR=7.1						
STKA	**Stephens Creek**	**61.86**	**134**	*e*P	**P**	**11 06 15.7**	**-4.0**
OBN	**Obninsk**	**63.36**	**327**	*e*P	**P**	**11 06 22.7**	**-6.6**
	comp=Z,182nm,1.7s,mb5.9						
MA2	**Magadan**	**64.97**	**28**	P	**P**	**11 06 40.2**	**+0.5**
	comp=Z,80nm,1.3s,mb5.6						
MLR	**Muntele Rosu**	**67.39**	**315**	P	**P**	**11 06 55.9**	**+0.5**
	comp=Z,12nm,0.8s,mb5.0,baz=135,slow=6.1,SNR=4.4						
CRVS	**Cervenica-Dubn**	**70.88**	**318**	*e*P	**P**	**11 07 17.4**	**+0.6**
CLL	**Collm**	**76.47**	**320**	*e*P	**P**	**11 07 40.0**	**-9.3**
CLL	**Collm**	**76.47**	**320**	*e*	**P**	**11 07 40.0**	**-9.3**
BOSA	**Boshof**	**76.50**	**237**	*e*P	**P**	**11 07 49.0**	**-1.0**
	comp=Z,40nm,1.1s,mb5.3						
MAW	**Mawson**	**80.62**	**192**	*e*P	**P**	**11 08 07.6**	**-4.0**
	comp=Z,26nm,1.3s,mb5.0						
ILAR	**Eielson Array**	**92.83**	**22**	P	**P**	**11 09 14.2**	**+2.9**
	comp=Z,7.5nm,1.2s,mb5.0,baz=301,slow=4.3,SNR=4.0						
NVAR	**Mina Array Bea**	**123.18**	**30**	PKP	PKPdf	11 14 58.0	-2.0
	comp=Z,1.9nm,0.8s,baz=274,slow=3.0,SNR=4.5						
NVAR	**Mina Array Bea**	**123.18**	**30**	PKP	PKPdf	11 14 58.0	-2.0
PDAR	**Pinedale Array**	**123.22**	**20**	PKP	PKPdf	11 14 56.8	-3.2
	comp=Z,1.6nm,0.8s,baz=10,slow=3.1,SNR=3.9						
SDV	**Santo Domingo**	**155.62**	**320**	PKP	PKPdf	11 15 54.5	-2.7
	comp=Z,4.4nm,1.0s,baz=59,slow=6.1,SNR=3.6						
SDV				PKPab	PKPab	11 16 21.2	+0.5
	comp=Z,8.7nm,1.0s,baz=30,slow=5.9,SNR=4.6						
LPAZ	**La Paz**	**161.39**	**249**	PKPab	PKPab	11 16 45.1	-0.4
	comp=Z,1.7nm,0.7s,baz=42,slow=4.8,SNR=3.3						

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*IDC **26** 10:56:22.1±2.2, 34.59N×25.16E, mb4.0/3, mb1 4.0/5, mb1mx3.7/20, ML4.0/2, Error ellipse: s-maj=60.1km s-min=12.1km az=63.0*

*NEIC **26** 10:56:26.3, 34.87N×25.32E, h15^{km}, MD3.7(ATH), After ATH.*

*CSEM **26** 10:56:27.1±0.2, 34.80N×25.42E, h20^{km}, MD3.7, Error ellipse: s-maj=7.8km s-min=3.6km az=4.0*

ATH 26 10:56:26.3, 34.87N×25.33E, h14^{km}±2^{km}**, MD3.7**/9**, 1C-2D, Crete**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XRY	**Khrisi**	**0.30**	**89**	⇑*i*PB	Pb	10 56 32.4	-0.5
NPS	**Neapolis**	**0.46**	**31**	⇓*i*PG	Pg	10 56 35.5	-0.2
IDI	**Anoyia**	**0.55**	**319**	Pg	Pg	10 56 37.0	-0.6
	158nm,0.3s,baz=224,slow=1.6,SNR=1082						
IDI				Lg		10 56 45.9	
	518nm,0.3s,baz=308,slow=20,SNR=42						
GVD	**Gavdhos**	**1.02**	**269**	⇓*i*PB	Pb	10 56 45.7	+0.4
VAM	**Vamos**	**1.07**	**300**	*e*PG	Pg	10 56 46.4	-1.4
SANT	**Santorini**	**1.50**	**4**	*e*Pn	Pn	10 56 53.8	+0.8
KARP	**Karpathos**	**1.65**	**65**	*e*PG	Pg	10 56 57.2	-2.0
APE	**Apeiranthos**	**2.20**	**4**	*e*PN	Pn	10 57 04.5	+1.5
KYTH	**Kithira**	**2.34**	**308**	*e*PN	Pn	10 57 06.5	+1.5
ARG	**Arkhangelos**	**2.65**	**59**	*e*PN	Pn	10 57 12.0	+2.6
VLI	**Veliai**	**2.68**	**314**	*e*PN	Pn	10 57 10.9	+1.0
CSS	**Prodhromos**	**6.57**	**87**	*e*Pn	Pn	10 58 00.8	-4.2
	13nm,0.4s						
CSS	**Prodhromos**	**6.57**	**87**	*e*Pn	Pn	10 58 00.8	-4.2
	13nm,0.4s						
EIL	**Elat**	**9.65**	**120**	Pn	P	10 58 43.0	-4.9
	0.5nm,0.3s,baz=326,slow=38,SNR=7.7						
EIL				Sn	Sn	11 00 26.6	-11
	0.8nm,0.3s,baz=74,slow=27,SNR=4.3						
EIL	**Elat**	**9.65**	**120**	Pn	P	10 58 43.0	-4.9
EIL				Sn	Sn	11 00 26.6	-11
EIL	**Elat**	**9.65**	**120**	Sn	Sn	11 00 26.5	-11
AKASG	**Malin Array Be**	**16.07**	**9**	Pn	P	11 00 13.7	+0.3
	1.7nm,0.3s,baz=202,slow=11,SNR=10						
FINES	**FINESS Array B**	**26.60**	**1**	P	P	11 02 02.5	-3.1
	1.8nm,0.8s,baz=162,slow=12,SNR=4.6						
SONM	**Songino Array**	**59.56**	**51**	P	P	11 06 29.4	-2.2
	4.1nm,1.0s,baz=290,slow=8.0,SNR=4.6						
YKA	**Yellowknife Ar**	**77.77**	**342**	P	P	11 08 21.8	-2.1
	0.2nm,0.4s,baz=32,slow=5.2,SNR=8.3						

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*IDC **26** 10:57:37.5±0.5, 12.44N×92.42E, mb5.0/22, mb1 5.0/23, mb1mx5.0/27, ML4.3/1, Error ellipse: s-maj=21.5km s-min=12.1km az=49.0*

*BJI **26** 10:57:37.0, 12.01N×92.26E, h33^{km}, mB6.1, mb5.4, Ms6.3, Msz6.1*

*NEIC **26** 10:57:38.4±2.8, 12.45N×92.44E, h5^{km}±17^{km}, mb5.4/35, Error ellipse: s-maj=5.6km s-min=5.3km az=203.0*

*MOS **26** 10:57:40.7±0.8, 12.46N×92.54E, h33^{km}, mb5.2/19, Error ellipse: s-maj=15.7km s-min=8.9km az=113.8*

ISC 26 10:57:40.7±0.3**, 12.42N**±0.05×**92.43E**±0.04**, h33**^{km}**, (h13**^{km}±6.1^{km}**:pP-P), n133, σ0^{s}96**/126**, mb5.2**/64**, MS6.1**/2**, 2C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**8.68**	**45**	*e*P	**P**	**10 59 45.7**	**-1.2**
	25nm,0.6s						
CMAR	**Chiang Mai Arr**	**8.68**	**45**	Pn	**P**	**10 59 43.9**	**-3.1**
	1.0nm,0.3s,baz=242,slow=13,SNR=3.9						
CMAR				Sn	**Sn**	**11 01 26.6**	**+1.6**
	baz=230,slow=24,SNR=2.9						
CMAR	**Chiang Mai Arr**	**8.68**	**45**	P	**P**	**10 59 43.9**	**-3.1**
CMAR						11 01 26.6	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PALK	**Pallekele**	**12.64**	**247**	P	**P**	**11 00 38.9**	**-2.1**
KMI	**Kunming**	**15.95**	**36**	*e*P	**P**	**11 01 30.0**	**+5.6**
KMI				AMB	AMB		
	comp=Z,191nm,1.5s						
LSA	**Lhasa**	**17.24**	**356**	*e*P	**P**	**11 01 40.2**	**-0.4**
	comp=Z,534nm,1.4s						
QIZ	**Qiongzhong**	**17.99**	**66**	P	**P**	**11 01 53.9**	**+3.8**
	comp=Z,35nm,0.9s						
GYA	**Guiyang**	**19.34**	**42**	⇑*i*P	**P**	**11 02 07.8**	**+1.6**
GYA				AMB	AMB		
	comp=Z,60nm,0.8s						
CD2	**Chengdu**	**21.17**	**28**	P	**P**	**11 02 25.5**	**0.0**

CD2				AMB	AMB		
	comp=Z,300nm,1.2s,mb5.5						
ENH	**Enshi**	**23.77**	**39**	*e*P	**P**	**11 02 51.5**	**+0.2**
	comp=Z,275nm,1.0s,mb5.6						
COCO	**West Island**	**24.84**	**170**	P	**P**	**11 02 56.9**	**-4.8**
	comp=Z,608nm,1.5s,mb5.9						
LZH	**Lanzhou**	**25.71**	**22**	*e*P	**P**	**11 03 11.0**	**+1.1**
LZH				AMB	AMB		
	comp=Z,192nm,1.2s,mb5.5						
GTA	**Gaotai**	**27.67**	**12**	P	**P**	**11 03 28.3**	**+0.5**
GTA				AP	pP	11 03 32.5	-4.8
GTA				S	**S**	**11 08 02.3**	**-3.5**
GTA				AMB	AMB		
	comp=Z,85nm,1.1s,mb5.3						
GTA				AMB	AMB		
	comp=Z,4µm,8.4s						
GTA				LR	LR		
	comp=N,37µm,17.1s,MS6.1						
GTA				LR	LR		
	comp=E,27µm,17.9s,MS6.1						
GTA				LR	LR		
	comp=Z,31µm,13.3s,MS6.1						
NJ2	**Nanjing**	**31.16**	**47**	*e*P	**P**	**11 03 59.5**	**+0.6**
NJ2				AMB	AMB		
	comp=Z,480nm,0.8s,mb6.4						
BTO	**Baotou**	**32.05**	**26**	*e*P	**P**	**11 04 05.3**	**-1.4**
BTO				AMB	AMB		
	comp=Z,54nm,0.8s,mb5.4						
TIA	**Tai'an**	**32.49**	**39**	*e*P	**P**	**11 04 09.5**	**-1.1**
HHC	**Hu-ho-hao-te**	**32.92**	**27**	*e*P	**P**	**11 04 14.5**	**+0.2**
HHC				AP	pP	11 04 22.0	-2.0
HHC				XP	sP	11 04 25.0	-3.3
HHC				AMB	AMB		
	comp=Z,63nm,1.0s,mb5.5						
HHC				AMB	AMB		
	comp=Z,2µm,4.6s						
HHC				LR	LR		
	comp=N,15µm,9.5s						
HHC				LR	LR		
	comp=E,36µm,11.9s						
HHC				LR	LR		
	comp=Z,27µm,15.5s,MS6.1						
BJT	**Baijiatuau**	**34.55**	**33**	*e*P	**P**	**11 04 28.2**	**-0.1**
	comp=Z,124nm,0.9s,mb5.8						
BJI	**Beijing**	**34.57**	**33**	P	**P**	**11 04 28.0**	**-0.5**
BJI				AMB	AMB		
	comp=Z,114nm,0.7s,mb5.9						
DL2	**Dalian**	**36.96**	**39**	P	**P**	**11 04 49.8**	**+1.0**
DL2				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.2						
SONM	**Songino Array**	**37.19**	**16**	P	**P**	**11 04 51.3**	**+0.7**
	comp=Z,50nm,0.9s,mb5.3,baz=202,slow=7.5,SNR=20						
ULN	**Ulaanbaatar**	**37.39**	**16**	*e*P	**P**	**11 04 52.5**	**+0.2**
	comp=Z,59nm,1.0s,mb5.4						
ZAK	**Zakamensk**	**38.89**	**11**	*e*P	**P**	**11 05 05.2**	**+0.5**
SNY	**Shenyang**	**39.93**	**37**	⇑P	**P**	**11 05 13.5**	**0.0**
SNY				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.3						
TLY	**Talaya**	**40.20**	**11**	*e*P	**P**	**11 05 16.8**	**+1.2**
TLY				*e*		11 05 31.5	
TLY				pmax	pmax		
	comp=Z,33nm,1.2s,mb4.9						
TLY	**Talaya**	**40.20**	**11**	*e*P	**P**	**11 05 16.9**	**+1.3**
	comp=Z,34nm,1.1s,mb5.0						
KS15	**Wonju Array Si**	**40.29**	**46**	*e*P	**P**	**11 05 15.7**	**-0.8**
ZAL	**Zalesovo**	**41.86**	**353**	P	**P**	**11 05 28.8**	**-0.5**
	comp=Z,20nm,0.6s,mb5.0,baz=306,slow=8.4,SNR=8.3						
ZAL	**Zalesovo**	**41.86**	**353**	P	**P**	**11 05 28.8**	**-0.4**
ZAL				pmax	pmax		
	comp=Z,20nm,0.6s						
CN2	**Changchun**	**42.23**	**36**	*e*P	**P**	**11 05 32.3**	**-0.1**
CN2				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.3						
MBWA	**Marble Bar**	**42.81**	**141**	*e*P	**P**	**11 05 37.4**	**-0.1**
	comp=Z,21nm,0.9s,mb4.9						
NVS	**Novosibirsk**	**42.94**	**352**	*e*P	**P**	**11 05 34.0**	**-4.1**
HIA	**Hailar**	**43.11**	**26**	*e*P	**P**	**11 05 39.5**	**0.0**
	comp=Z,22nm,0.9s,mb4.9						
BVAR	**Borovoye Array**	**44.17**	**341**	P	**P**	**11 05 47.1**	**-1.0**
	comp=Z,38nm,1.1s,mb5.0,baz=149,slow=8.6,SNR=5.6						
BRVK	**Borovoye**	**44.23**	**341**	*e*P	**P**	**11 05 48.1**	**-0.5**
	comp=Z,42nm,1.0s,mb5.1						
CHKZ	**Chkalovo**	**44.66**	**342**	*e*P	**P**	**11 05 50.7**	**-1.3**
	comp=Z,116nm,0.9s,mb5.7						
MDJ	**Mudanjiang**	**45.12**	**38**	P	**P**	**11 05 55.9**	**0.0**
	comp=Z,35nm,1.3s,mb5.0						
MAJO	**Matsushiro**	**47.51**	**51**	*e*P	**P**	**11 06 13.6**	**-1.3**
	comp=Z,22nm,0.6s,mb5.4						
MAT	**Matsushiro**	**47.51**	**51**	P	**P**	**11 06 12.5**	**-2.4**
MAT	**Matsushiro**	**47.51**	**51**	*e*P	**P**	**11 06 13.0**	**-1.9**
BOD	**Bodaibo**	**48.19**	**15**	*e*P	**P**	**11 06 19.0**	**-0.8**
GNI	**Garni**	**50.11**	**312**	*e*P	**P**	**11 06 34.6**	**-0.3**
	comp=Z,92nm,1.1s,mb5.7						
NWAO	**Narrogin (SRO)**	**50.93**	**153**	P	**P**	**11 06 40.7**	**-0.5**
	comp=Z,24nm,0.7s,mb5.3,baz=319,slow=8.5,SNR=11						
NWAO	**Narrogin (SRO)**	**50.93**	**153**	P	**P**	**11 06 40.7**	**-0.5**
NWAO				pmax	pmax		
	comp=Z,24nm,0.7s						
NWAO	**Narrogin (SRO)**	**50.93**	**153**	P	**P**	**11 06 40.7**	**-0.5**
ARU	**Arti**	**51.08**	**337**	*e*P	**P**	**11 06 40.8**	**-1.1**
ARU	**Arti**	**51.08**	**337**	*e*P	**P**	**11 06 40.3**	**-1.6**
	comp=Z,59nm,1.0s,mb5.5						
WRA	**Warramunga Arr**	**52.30**	**127**	P	**P**	**11 06 50.8**	**-0.8**
	comp=Z,11nm,0.9s,mb4.8,baz=305,slow=8.3,SNR=7.8						
WRA				PcP	PcP	11 08 03.7	+1.0
	comp=Z,2.5nm,0.6s,baz=315,slow=3.1,SNR=7.4						
WRA	**Warramunga Arr**	**52.30**	**127**	P	**P**	**11 06 50.8**	**-0.8**
WRA						11 08 03.7	
WRA				pmax	pmax		
	comp=Z,11nm,0.9s						
WRA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
WRAB	**Tennant Creek**	**52.30**	**127**	*e*P	**P**	**11 06 51.1**	**-0.5**
	comp=Z,178nm,1.4s,mb5.8						
KIV	**Kislovodsk**	**52.87**	**316**	*e*P	**P**	**11 06 56.1**	**+0.6**
KIV				pmax	pmax		
	comp=N,59nm,1.2s						
KIV				pmax	pmax		
	comp=E,59nm,1.2s						
KIV				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.6						
KIV	**Kislovodsk**	**52.87**	**316**	*e*P	**P**	**11 06 55.4**	**-0.2**
	comp=Z,80nm,1.0s,mb5.6						
ASAJ	**Asahikawa**	**53.20**	**44**	P	**P**	**11 06 57.8**	**-0.3**
	comp=Z,6.4nm,0.6s,mb4.8,baz=273,slow=8.8,SNR=6.3						
ASAJ	**Asahikawa**	**53.20**	**44**	P	**P**	**11 06 57.8**	**-0.3**
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ASAR	**Alice Springs**	**54.14**	**131**	P	**P**	**11 07 05.3**	**+0.1**
	comp=Z,8.5nm,0.6s,mb4.8,baz=310,slow=7.3,SNR=13						
MALT	**Malatya**	**54.30**	**308**	*e*P	**P**	**11 07 04.5**	**-1.7**
	comp=Z,25nm,1.2s,mb5.0						
YSS	**Yuzh-Sakhalins**	**54.34**	**40**	*e*P	**P**	**11 07 06.4**	**0.0**
	comp=Z,122nm,1.1s,mb5.8						
YAK	**Yakutsk**	**56.28**	**20**	*e*P	**P**	**11 07 18.1**	**-2.1**
	comp=Z,93nm,0.7s,mb5.9						
BRTR	**Keskin Array B**	**58.24**	**309**	P	**P**	**11 07 33.5**	**-0.9**
	comp=Z,9.8nm,1.0s,mb4.8,baz=127,slow=7.7,SNR=3.6						
BRTR	**Keskin Array B**	**58.24**	**309**	P	**P**	**11 07 33.5**	**-0.9**
BRTR				pmax	pmax		
	comp=Z,10.0nm,1.0s						
PMG	**Port Moresby**	**58.53**	**109**	P	**P**	**11 07 36.6**	**-0.2**
	comp=Z,12nm,0.8s,mb5.0,baz=313,slow=10.0,SNR=3.4						
PMG	**Port Moresby**	**58.53**	**109**	P	**P**	**11 07 36.6**	**-0.2**
PMG				pmax	pmax		
	comp=Z,12nm,0.8s						
PMG	**Port Moresby**	**58.53**	**109**	*e*P	**P**	**11 07 31.6**	**-5.2**
PMG				P		11 07 36.6	
MOS	**Moscow**	**60.35**	**328**	*e*P	**P**	**11 07 47.6**	**-1.2**
MOS				pmax	pmax		
	comp=Z,141nm,1.7s,mb5.7						
OBN	**Obninsk**	**60.67**	**327**	*e*P	**P**	**11 07 50.1**	**-0.9**
OBN	**Obninsk**	**60.67**	**327**	*e*P	**P**	**11 07 49.4**	**-1.6**
	comp=Z,66nm,1.1s,mb5.7						
CTAO	**Charters Tower**	**62.03**	**121**	*e*P	**P**	**11 08 02.2**	**+1.7**
	comp=Z,26nm,1.3s,mb5.2						
MA2	**Magadan**	**63.58**	**29**	*e*P	**P**	**11 08 09.8**	**-0.5**
	comp=Z,49nm,1.0s,mb5.5						
AKASG	**Malin Array Be**	**63.58**	**321**	P	**P**	**11 08 08.7**	**-1.7**
	comp=Z,16nm,0.8s,mb5.1,baz=85,slow=5.3,SNR=9.3						
AKASG	**Malin Array Be**	**63.58**	**321**	P	**P**	**11 08 08.7**	**-1.8**
AKASG				pmax	pmax		
	comp=Z,16nm,0.8s						
STKA	**Stephens Creek**	**64.46**	**134**	P	**P**	**11 08 15.3**	**-1.1**
	comp=Z,8.9nm,1.0s,mb4.8,baz=324,slow=6.3,SNR=7.5						
STKA	**Stephens Creek**	**64.46**	**134**	P	**P**	**11 08 15.3**	**-1.1**
MLR	**Muntele Rosu**	**64.78**	**315**	P	**P**	**11 08 19.1**	**+0.8**
	comp=Z,34nm,1.0s,mb5.3,baz=81,slow=5.0,SNR=5.1						
MLR	**Muntele Rosu**	**64.78**	**315**	P	**P**	**11 08 19.1**	**+0.7**
MLR				pmax	pmax		
	comp=Z,34nm,1.0s						
FINES	**FINESS Array B**	**67.94**	**332**	P	**P**	**11 08 38.0**	**0.0**
	comp=Z,23nm,0.9s,mb5.2,baz=102,slow=6.9,SNR=15						
FINES	**FINESS Array B**	**67.94**	**332**	P	**P**	**11 08 38.0**	**-0.1**
FINES				pmax	pmax		
	comp=Z,23nm,0.9s						
KAF	**Kangasniemi**	**68.01**	**332**	*e*p	**P**	**11 08 38.7**	**+0.2**
	baz=104,slow=6.0						
CRVS	**Cervenica-Dubn**	**68.24**	**318**	*e*P	**P**	**11 08 42.8**	**+2.6**
KECS	**Kecovo**	**68.84**	**317**	*e*P	**P**	**11 08 44.5**	**+0.6**
LSZ	**Lusaka**	**69.28**	**248**	*e*P	**P**	**11 08 46.9**	**-0.3**
	comp=Z,10nm,0.8s,mb4.8						
OJC	**Ojcow**	**69.45**	**319**	*e*P	**P**	**11 08 48.0**	**+0.4**
VYHS	**Vyhne**	**69.94**	**317**	*e*P	**P**	**11 08 50.8**	**+0.2**
VYHS				*e*		11 08 56.0	
KEV	**Kevo**	**70.02**	**340**	*e*p	**P**	**11 08 51.1**	**+0.3**
ARCES	**ARCESS Array B**	**70.45**	**340**	P	**P**	**11 08 53.3**	**-0.1**
	comp=Z,21nm,0.7s,mb5.2,baz=90,slow=6.1,SNR=12						
ARCES	**ARCESS Array B**	**70.45**	**340**	P	**P**	**11 08 53.3**	**-0.1**
ARCES				pmax	pmax		
	comp=Z,21nm,0.7s						
OKC	**Ostrava-Krasne**	**70.48**	**319**	*e*P	**P**	**11 08 54.5**	**+0.6**
ZST	**Bratislava**	**71.08**	**317**	*e*P	**P**	**11 08 57.6**	**0.0**
ZST				*e*		11 09 03.7	
DPC	**Dobruska-Polom**	**71.68**	**319**	*e*P	**P**	**11 09 02.0**	**+0.9**
UPC	**Upice**	**71.89**	**319**	*e*P	**P**	**11 09 03.0**	**+0.7**
BILL	**Bilibino**	**72.53**	**22**	*e*P	**P**	**11 09 05.2**	**-0.6**
	comp=Z,29nm,1.0s,mb5.2						
PRU	**Pruhonice**	**72.81**	**319**	*e*P	**P**	**11 09 08.1**	**+0.2**
BRG	**Berggiesshubel**	**73.21**	**320**	*i* P	**P**	**11 09 11.3**	**+1.1**
BRG				*i*		11 09 17.5	
BRG				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.0						
BRG	**Berggiesshubel**	**73.21**	**320**	*i* P	**P**	**11 09 11.3**	**+1.1**
	comp=Z,30nm,1.4s,mb5.0						
BRG				*i*		11 09 17.5	
GERES	**GERESS Array B**	**73.35**	**317**	P	**P**	**11 09 10.6**	**-0.5**
	comp=Z,7.4nm,0.8s,mb4.7,baz=87,slow=6.0,SNR=5.3						
GERES	**GERESS Array B**	**73.35**	**317**	P	**P**	**11 09 10.6**	**-0.5**
GERES				pmax	pmax		
	comp=Z,7.0nm,0.8s						
KHC	**Kasperske Hory**	**73.43**	**318**	*e*P	**P**	**11 09 11.5**	**0.0**
KHC				*e*x	x	11 09 17.5	
HFS	**Hagfors**	**73.71**	**329**	P	**P**	**11 09 13.4**	**+0.5**
	comp=Z,9.7nm,0.5s,mb5.0,baz=117,slow=6.6,SNR=16						
HFS	**Hagfors**	**73.71**	**329**	P	**P**	**11 09 13.4**	**+0.5**
HFS				pmax	pmax		
	comp=Z,10.0nm,0.5s						
CLL	**Collm**	**73.81**	**320**	*i* P	**P**	**11 09 14.1**	**+0.4**
CLL				*i*		11 09 19.5	
CLL				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
CLL	**Collm**	**73.81**	**320**	*i* P	**P**	**11 09 14.1**	**+0.4**
	comp=Z,11nm,1.1s,mb4.7						
CLL				*i*		11 09 19.5	
CLL	**Collm**	**73.81**	**320**	P	**P**	**11 09 14.1**	**+0.4**
	comp=Z,logA/T=1.0,mb4.7						
CLL				*i* *PP	pP	11 09 19.5	-4.5
CLL				*e*		11 09 37.0	
FX1	**Attu Island--F**	**74.61**	**38**	*e*P	**P**	**11 09 18.7**	**+0.4**
NB2	**NORSAR Subarra**	**74.97**	**330**	P	**P**	**11 09 20.1**	**-0.1**
	comp=Z,43nm,1.4s,mb5.2,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**74.97**	**330**	P	**P**	**11 09 20.1**	**-0.1**
	baz=91,slow=5.9						
NOA	**NORSAR Array B**	**74.97**	**330**	P	**P**	**11 09 20.3**	**+0.1**
	comp=Z,5.6nm,0.6s,mb4.7,baz=92,slow=5.7,SNR=8.6						
NOA	**NORSAR Array B**	**74.97**	**330**	P	**P**	**11 09 20.3**	**+0.1**
NOA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
NOA	**NORSAR Array B**	**74.97**	**330**	P	**P**	**11 09 20.3**	**+0.1**
LBTB	**Lobatse**	**75.00**	**240**	*e*P	**P**	**11 09 21.3**	**+0.1**
	comp=Z,31nm,1.3s,mb5.1						
DAVOX	**Davos**	**75.98**	**315**	P	**P**	**11 09 26.7**	**+0.5**
	comp=Z,10nm,0.9s,mb4.7,baz=274,slow=0.8,SNR=3.1						
BOSA	**Boshof**	**76.62**	**236**	*e*P	**P**	**11 09 31.6**	**+1.3**
	comp=Z,12nm,0.8s,mb4.9						
LPL	**La Plagne**	**78.26**	**314**	*e*P	**P**	**11 09 40.1**	**+1.1**
	comp=Z,119nm,0.9s,mb5.5						
SUR	**Sutherland**	**81.56**	**234**	*e*P	**P**	**11 09 59.7**	**+2.7**
	comp=Z,21nm,0.8s,mb5.1						
MAW	**Mawson**	**82.63**	**191**	*e*P	**P**	**11 10 02.1**	**+0.3**
	comp=Z,40nm,1.5s,mb5.2						
EKA	**Eskdalemuir Ar**	**83.05**	**325**	P	**P**	**11 10 05.2**	**+1.0**
	comp=Z,9.1nm,0.9s,mb4.8,baz=83,slow=5.7,SNR=7.3						
EKA	**Eskdalemuir Ar**	**83.05**	**325**	P	**P**	**11 10 05.2**	**+1.1**
EKA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
ESDC	**Sonseca Array**	**87.03**	**310**	P	**P**	**11 10 25.4**	**+1.1**
	comp=Z,2.9nm,0.7s,mb4.7,baz=58,slow=4.2,SNR=8.7						
COLA	**College**	**90.78**	**22**	*e*P	**P**	**11 10 41.4**	**-0.1**
	comp=Z,5.6nm,0.9s,mb4.9						
SPU	**Mount Spurr**	**90.97**	**26**	*e*P	**P**	**11 10 42.4**	**-0.1**
ILAR	**Eielson Array**	**91.18**	**22**	P	**P**	**11 10 44.0**	**+0.6**
	comp=Z,6.4nm,0.8s,mb5.0,baz=271,slow=4.9,SNR=17						
ILAR				PP	PP	11 14 14.8	-8.1
	comp=Z,0.7nm,0.7s,baz=299,slow=7.2,SNR=5.2						
ILAR	**Eielson Array**	**91.18**	**22**	P	**P**	**11 10 44.0**	**+0.6**
ILAR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FIB	**Fire Island**	**91.78**	**26**	*e*P	**P**	**11 10 48.5**	**+2.3**
SLKM	**Skilak Lake**	**92.08**	**26**	*e*P	**P**	**11 10 48.9**	**+1.3**
INK	**Inuvik**	**93.11**	**16**	P	**P**	**11 10 52.4**	**+0.2**
	comp=Z,7.1nm,0.7s,mb5.2,baz=350,slow=5.7,SNR=21						
INK	**Inuvik**	**93.11**	**16**	P	**P**	**11 10 52.4**	**+0.3**
INK				pmax	pmax		
	comp=Z,7.0nm,0.7s						
YKA	**Yellowknife Ar**	**102.40**	**12**	PP	PP	11 15 42.2	-7.5
	comp=Z,1.4nm,0.8s,baz=334,slow=8.0,SNR=6.2						
NVAR	**Mina Array Bea**	**121.82**	**28**	PKP	PKPdf	11 16 35.5	+3.6
	comp=Z,1.7nm,0.8s,baz=300,slow=1.8,SNR=3.6						
TXAR	**Lajitas Array**	**135.68**	**20**	PKP	PKPdf	11 17 03.2	+4.6
	comp=Z,0.6nm,0.5s,baz=92,slow=0.6,SNR=5.4						
TXAR				PP	PP	11 19 40.7	+0.2
	comp=Z,2.0nm,1.0s,baz=342,slow=4.0,SNR=3.8						
TXAR	**Lajitas Array**	**135.68**	**20**	PKP	PKPdf	11 17 03.2	+4.6
TXAR				PP	PP	11 19 40.7	+0.2
PCRV	**Puerto La Cruz**	**148.02**	**314**	PKPbc	PKPdf	11 17 25.3	+4.6
	comp=Z,19nm,0.7s,baz=196,slow=1.7,SNR=6.1						
SDV	**Santo Domingo**	**152.96**	**321**	PKPbc	PKPdf	11 17 37.2	+8.9
	comp=Z,7.0nm,0.8s,baz=354,slow=4.4,SNR=3.8						
SDV				PKPab	PKPab	11 17 47.5	-1.7
	comp=Z,5.0nm,0.7s,slow=7.1,SNR=3.1						
ROSC	**El Rosal**	**158.38**	**322**	PKPab	PKPab	11 18 13.1	+0.7
	comp=Z,4.6nm,0.5s,baz=98,slow=19,SNR=2.8						
LPAZ	**La Paz**	**160.78**	**256**	PKPab	PKPab	11 18 25.5	+2.9
	comp=Z,2.6nm,0.7s,baz=96,slow=7.4,SNR=4.0						
LPAZ	**La Paz**	**160.78**	**256**	PKP2	PKPab	11 18 25.5	+2.9
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.7s						

IDC ***26*** *11:00:24.1±1.1, 6.79N×91.79E, mb4.5/10, mb1 4.7/10, mb1mx4.4/20, Error ellipse: s-maj=103.0km s-min=18.3km az=45.0*

ISC 26 11:00:27.5±0.8**, 6.8N**±0.4×**91.9E**±0.4**, h33^{km}, n12, σ0^{s}83**/12**, mb4.6**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	**Borovoye Array**	**49.32**	**343**	P	**P**	**11 09 16.0**	**+0.6**
	8.3nm,1.1s,mb4.7,baz=143,slow=7.4,SNR=3.9						
WRA	**Warramunga Arr**	**49.51**	**123**	P	**P**	**11 09 16.8**	**-0.5**
	14nm,0.9s,mb5.0,baz=302,slow=8.9,SNR=6.6						
ASAR	**Alice Springs**	**50.99**	**128**	P	**P**	**11 09 28.6**	**0.0**
	8.4nm,0.9s,mb4.7,baz=306,slow=8.0,SNR=5.1						
STKA	**Stephens Creek**	**61.02**	**132**	P	**P**	**11 10 41.0**	**+0.6**
	4.1nm,0.6s,mb4.7,baz=266,slow=13,SNR=3.1						
BRTR	**Keskin Array B**	**61.44**	**312**	P	**P**	**11 10 41.7**	**-1.5**
	5.5nm,1.1s,mb4.6,baz=123,slow=8.1,SNR=4.0						
MLR	**Muntele Rosu**	**68.38**	**316**	P	**P**	**11 11 28.6**	**+0.7**
	7.0nm,0.9s,mb4.7,baz=106,slow=4.9,SNR=3.8						
FINES	**FINESS Array B**	**72.62**	**333**	P	**P**	**11 11 52.8**	**-0.5**
	7.9nm,1.0s,mb4.6,baz=119,slow=14,SNR=4.2						
PRU	**Pruhonice**	**76.68**	**320**	*e*P	**P**	**11 12 17.8**	**+0.8**
GERES	**GERESS Array B**	**77.13**	**318**	P	**P**	**11 12 20.1**	**+0.6**
	4.9nm,0.9s,mb4.5,baz=90,slow=5.3,SNR=6.4						
KHC	**Kasperske Hory**	**77.24**	**319**	*e*x	**P**	**11 12 16.0**	**-4.1**
NOA	**NORSAR Array B**	**79.57**	**331**	P	**P**	**11 12 31.2**	**-1.4**
	1.4nm,0.8s,mb3.9,baz=89,slow=7.3,SNR=3.8						
DAVOX	**Davos**	**79.61**	**316**	P	**P**	**11 12 33.8**	**+0.6**
	4.4nm,0.7s,mb4.5,baz=147,slow=16,SNR=4.3						

IDC 26 11:03:30.1±7.4**, 11.20N×90.67E, mb4.5**/4**, mb1 4.7**/5**, mb1mx4.0**/19**, ML5.2**/1**, Error ellipse: s-maj=163.0km s-min=47.8km az=107.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.77**	**47**	Pn	P	11 06 06.2	-2.5
	5.4nm,0.3s,baz=237,slow=18,SNR=18						
CMAR	**Chiang Mai Arr**	**10.77**	**47**	Pn	P	11 06 06.2	-2.5
WRA	**Warramunga Arr**	**52.97**	**126**	P	P	11 12 46.8	-4.2
	5.3nm,0.8s,baz=306,slow=8.4,SNR=9.5						
ASAR	**Alice Springs**	**54.66**	**130**	P	P	11 13 00.5	-2.9
	3.3nm,0.6s,baz=302,slow=6.9,SNR=14						
CTA	**Charters Tower**	**62.91**	**119**	P	P	11 13 59.3	-1.6
	8.6nm,1.1s,baz=306,slow=8.8,SNR=4.1						
STKA	**Stephens Creek**	**64.86**	**133**	P	P	11 14 13.2	-0.4
	3.4nm,0.6s,baz=309,slow=10,SNR=8.3						

BJI ***26*** *11:03:51.7, 11.77N×92.94E, h11^{km}, mb4.9*

NEIC ***26*** *11:03:53.3±0.5, 11.10N×93.95E, h30^{km}, mb4.8/16, Error ellipse: s-maj=11.1km s-min=10.6km az=158.0*

IDC ***26*** *11:04:07.7±5.0, 13.00N×93.07E, h47^{km}±45^{km}, mb4.0/16, mb1 4.2/17, mb1mx4.1/23, ML4.5/1, Error ellipse: s-maj=34.5km s-min=17.2km az=45.0*

ISC 26 11:03:53.5±1.1**, 11.6N**±0.2×**93.6E**±0.1**, h30^{km}, n40, σ1^{s}46**/37**, mb4.6**/33**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**8.55**	**36**	*e*P	**P**	**11 05 58.7**	**+0.3**
	23nm,0.7s						
CMAR	**Chiang Mai Arr**	**8.55**	**36**	P	**P**	**11 05 58.7**	**+0.3**
	2.0nm,0.3s,baz=238,slow=15,SNR=18						
CMAR	**Chiang Mai Arr**	**8.55**	**36**	P	**P**	**11 05 58.7**	**+0.3**
ENH	**Enshi**	**23.73**	**36**	*e*P	**P**	**11 09 06.2**	**+2.1**
	83nm,1.0s,mb5.1						
LZH	**Lanzhou**	**26.10**	**19**	*e*P	**P**	**11 09 28.5**	**+1.9**
LZH				AP	pP	11 09 31.5	-3.8
LZH				XP	sP	11 09 33.3	-6.0
LZH				PP	PP	11 10 10.5	+2.1
LZH				AMB	AMB		
	comp=Z,53nm,1.2s,mb5.0						
GTA	**Gaotai**	**28.26**	**10**	P	**P**	**11 09 46.3**	**0.0**
GTA				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.4						
BJT	**Baijiatuau**	**34.64**	**31**	*e*P	**P**	**11 10 42.0**	**-0.4**
	comp=Z,25nm,1.2s,mb5.0						
AAK	**Ala-Archa**	**35.15**	**335**	*e*P	**P**	**11 10 44.7**	**-1.9**
	comp=Z,6.7nm,0.9s,mb4.6						
AAK				*e*		11 10 57.5	
SONM	**Songino Array**	**37.70**	**14**	P	**P**	**11 11 07.9**	**-0.2**
	comp=Z,3.7nm,0.6s,mb4.3,baz=201,slow=8.2,SNR=12						
ULN	**Ulaanbaatar**	**37.89**	**15**	*e*P	**P**	**11 11 09.0**	**-0.7**
	comp=Z,8.2nm,1.1s,mb4.4						
CN2	**Changchun**	**42.23**	**35**	*e*P	**P**	**11 11 49.8**	**+4.1**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.7						
ZAL	**Zalesovo**	**42.84**	**352**	P	**P**	**11 11 49.2**	**-1.3**
	comp=Z,3.3nm,0.4s,mb4.4,baz=338,slow=5.7,SNR=5.4						
BVAR	**Borovoye Array**	**45.35**	**340**	P	**P**	**11 12 08.9**	**-2.0**
	comp=Z,2.6nm,0.9s,mb4.0,baz=131,slow=9.4,SNR=5.0						
BRVK	**Borovoye**	**45.42**	**340**	P	**P**	**11 12 09.4**	**-1.9**
	comp=Z,7.8nm,1.0s,mb4.5						
BRVK				*e*		11 12 20.8	
CHKZ	**Chkalovo**	**45.83**	**341**	*e*P	**P**	**11 12 12.7**	**-1.9**
	comp=Z,13nm,0.8s,mb4.9						
MAJO	**Matsushiro**	**47.13**	**50**	P	**P**	**11 12 24.5**	**-0.6**
	comp=Z,16nm,1.1s,mb4.8						
MAJO				*e*	pP	11 12 32.0	-2.2
GNI	**Garni**	**51.55**	**312**	*e*P	**P**	**11 13 01.2**	**+2.2**
	comp=Z,20nm,1.0s,mb5.0						
ARU	**Arti**	**52.32**	**336**	*e*P	**P**	**11 13 01.9**	**-2.7**
	comp=Z,12nm,1.1s,mb4.7						
ASAJ	**Asahikawa**	**53.01**	**43**	P	**P**	**11 13 15.6**	**+5.6**
	comp=Z,8.5nm,0.7s,mb4.8,baz=270,slow=2.0,SNR=4.6						
YSS	**Yuzh-Sakhalins**	**54.23**	**40**	*e*P	**P**	**11 13 16.5**	**-2.3**
	comp=Z,44nm,1.2s,mb5.3						
KIV	**Kislovodsk**	**54.29**	**316**	*e*P	**P**	**11 13 19.9**	**+0.6**
	comp=Z,28nm,1.0s,mb5.2						
MALT	**Malatya**	**55.74**	**309**	*e*P	**P**	**11 13 31.1**	**+1.0**
	comp=Z,9.6nm,1.2s,mb4.7						
EIL	**Elat**	**57.22**	**298**	P	**P**	**11 13 37.9**	**-2.8**
	comp=Z,7.5nm,1.2s,mb4.6						
BRTR	**Keskin Array B**	**59.68**	**309**	P	**P**	**11 13 58.1**	**+0.4**
	comp=Z,3.4nm,0.8s,mb4.4,baz=121,slow=7.2,SNR=10.0						
AKASG	**Malin Array Be**	**64.98**	**321**	P	**P**	**11 14 32.7**	**-0.2**
	comp=Z,0.3nm,0.3s,mb3.7,baz=79,slow=5.6,SNR=4.7						
MLR	**Muntele Rosu**	**66.21**	**315**	P	**P**	**11 14 42.5**	**+1.6**
	comp=Z,5.7nm,0.9s,mb4.6,baz=211,slow=6.5,SNR=4.4						
FINES	**FINESS Array B**	**69.23**	**332**	P	**P**	**11 15 00.1**	**+0.5**
	comp=Z,1.8nm,0.8s,mb4.1,baz=146,slow=6.9,SNR=3.6						
SUW	**Suwalki**	**69.24**	**324**	*e*P	**P**	**11 14 58.9**	**-0.8**
	comp=Z,31nm,1.3s,mb5.1						
LSZ	**Lusaka**	**70.07**	**249**	*e*P	**P**	**11 15 05.1**	**-0.3**
	comp=Z,3.0nm,0.6s,mb4.4						
ARCES	**ARCESS Array B**	**71.64**	**340**	P	**P**	**11 15 15.2**	**+1.2**
	comp=Z,2.5nm,0.7s,mb4.2,baz=90,slow=6.1,SNR=5.5						
GERES	**GERESS Array B**	**74.77**	**318**	P	**P**	**11 15 35.4**	**+2.7**
	comp=Z,2.1nm,0.7s,mb4.2,baz=89,slow=5.5,SNR=13						
HFS	**Hagfors**	**75.04**	**329**	P	**P**	**11 15 35.8**	**+1.8**
	comp=Z,2.0nm,0.7s,mb4.2,baz=108,slow=14,SNR=2.6						
NOA	**NORSAR Array B**	**76.29**	**330**	P	**P**	**11 15 42.3**	**+1.2**
	comp=Z,2.5nm,1.1s,mb4.1,baz=96,slow=5.7,SNR=3.2						
BOSA	**Boshof**	**77.14**	**237**	*e*P	**P**	**11 15 44.9**	**-1.6**
	comp=Z,4.6nm,0.6s,mb4.6						
DAVOX	**Davos**	**77.41**	**316**	P	**P**	**11 15 50.6**	**+3.1**
	comp=Z,2.3nm,0.8s,mb4.2,baz=138,slow=14,SNR=3.5						
SPU	**Mount Spurr**	**91.21**	**26**	*e*P	**P**	**11 17 02.8**	**+5.9**
ILAR	**Eielson Array**	**91.53**	**22**	P	**P**	**11 17 03.7**	**+5.5**
	comp=Z,0.9nm,0.6s,mb4.2,baz=273,slow=5.9,SNR=11						
REDW	**Red Top Meadow**	**120.94**	**21**	*e*PKPdf	PKPdf	11 22 45.4	-3.1
TXAR	**Lajitas Array**	**136.04**	**22**	PKP	PKPdf	11 23 19.5	+1.9
	comp=Z,0.5nm,0.8s,baz=231,slow=0.3,SNR=4.0						
TXAR	**Lajitas Array**	**136.04**	**22**	PKP	PKPdf	11 23 19.5	+1.9

IDC ***26*** *11:04:58.8±0.3, 13.56N×92.85E, mb5.9/34, mb1 5.9/35, mb1mx5.9/35, ML5.5/1, MS6.2/10, Ms1 6.2/10, ms1mx5.8/17, Error ellipse: s-maj=13.3km s-min=8.0km az=38.0*

BJI ***26*** *11:04:58.3, 13.45N×92.81E, h16^{km}, mB6.3, mb5.9, Ms6.5, Msz6.1*

NEIC ***26*** *11:05:00.7±0.1, 13.53N×92.84E, mb6.3/140, MS6.3/126, Error ellipse: s-maj=4.7km s-min=3.0km az=197.0*

BGS ***26*** *11:05:00.4, 13.40N×92.60E, h12^{km}, mb6.4*

HRVD ***26*** *11:05:00.7±0.3, 13.49N×92.84E, h14^{km}, MW6.2/73, Centroid moment Tensor Solution. LP body waves: s7,c9; Mantle waves: s73,c126; Half duration: 3^{s}1 Moment tensor: Scale 10^{18}Nm; M_{rr}0.75±.09; $M_{\theta\theta}$1.36±.06; $M_{\phi\phi}$-2.10±.06; $M_{r\theta}$1.37±.19; $M_{\theta\phi}$0.57±.06; $M_{\phi r}$-0.22±.17; Best double couple: $M_0$2.37×10^{18} NP1:ϕ_s29°,δ56°,λ158°. NP2:ϕ_s132°,δ72°,λ36°. Principal axes: T 2.48, Plg38°, Azm355°; N -.21, Plg50°, Azm155°; P -2.27, Plg10°, Azm257°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***26*** *11:05:00.5, 13.53N×92.86E, h13^{km}, MB6.3, MS6.3*

DHMR ***26*** *11:05:01.1±3.0, 13.58N×93.00E, h10^{km}, mb6.2*

MOS ***26*** *11:05:02.7±1.2, 13.68N×92.85E, h33^{km}, mb6.5/73, MS6.2/22, Error ellipse: s-maj=7.8km s-min=4.3km az=120.4*

ISC 26 11:04:59.0±0.1**, 13.52N**±0.03×**92.85E**±0.02**, h14^{km}, h14^{km}**±.5^{km}**:pP-P, n1086, σ1^{s}01**/916**, mb6.2**/229**, MS6.2**/152**, 174C-34D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**7.64**	**49**	*e*P	**Pn**	**11 06 51.8**	**-0.9**
	260nm,0.6s						
CMAR	**Chiang Mai Arr**	**7.64**	**49**	Pn	**Pn**	**11 06 51.8**	**-0.9**
	18nm,0.3s,baz=241,slow=14,SNR=42						
CMAR				Sn	**Sn**	**11 08 18.3**	**-1.6**
	41nm,0.3s,baz=239,slow=28,SNR=6.3						
CMAR	**Chiang Mai Arr**	**7.64**	**49**	P	**Pn**	**11 06 51.8**	**-0.9**
CMAR						11 08 18.3	
CMAR				pmax	pmax		
	comp=Z,18nm,0.3s						
CAL	**Calcutta**	**9.94**	**335**	⇑*e*P	**P**	**11 07 21.6**	**-3.1**
	comp=Z,6µm,1.9s						

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VIS    Vishakhapatnam    10.07 296⇓eP     P      11 07 25.1  -1.4
VIS                                eS     x      11 09 06.0
VIS                                e      S      11 09 14.0  -6.4
       comp=N,8µm,0.7s
VIS                                e             11 09 14.0
       comp=E,5µm,0.7s
IMP    Imphal            11.25   5 e      P      11 07 38.3  -4.3
SHL    Shillong          12.01 356⇑eP     P      11 07 48.4  -4.6
SHL                                e             11 08 01.5
       comp=Z,2µm,1.2s
SHL                                eS     S      11 09 45.5   -22
BOK    Bokaro            12.16 328⇑eP     P      11 07 50.6  -4.3
       comp=Z,698nm,0.6s
MDRS   Chennai           12.28 269 e      S      11 10 05.6  -8.6
       comp=N,4µm,0.5s
MDRS                               e             11 10 05.7
       comp=E,2µm,0.4s
BLSP   Bilaspur          13.31 312⇑eP     P      11 08 09.7  -0.6
       comp=Z,1µm,1.2s
PALK   Pallekele         13.46 244  P     P      11 08 10.9  -1.4
       comp=Z,439nm,0.9s
SLGI   Shiliguri         13.75 343 eP     P      11 08 15.4  -0.7
SLGI                               e      S      11 10 39.9   -10
HYB    Hyderabad         14.31 288 eP     P      11 08 23.5  -0.1
HYB                                eS     S      11 10 45.0   -18
HYB    Hyderabad         14.31 288 i P    P      11 08 23.5  -0.1
HYB                                eS     S      11 10 45.0   -18
KMI    Kunming           14.83  37 eP     P      11 08 34.5  +4.2
KMI                                 XP           11 08 38.5
KMI                                 S     S      11 11 19.8  +4.6
KMI                                 AMB   AMB
       comp=Z,481nm,1.3s
KMI                                 LR    LR
       comp=N,166µm,15.0s
KMI                                 LR    LR
       comp=E,125µm,15.0s
KMI                                 LR    LR
       comp=Z,97µm,16.0s
NGP    Nagpur            15.19 302⇓eP     P      11 08 35.2  +0.2
NGP                                eS     S      11 11 12.5   -11
PKI    Pulchoki          15.61 335 eP     P      11 08 36.7  -3.7
       comp=Z,2µm,0.7s
ALBI   Allahabad         15.67 320 eP     P      11 08 42.8  +1.6
GUN    Gumba             15.72 337 eP     P      11 08 38.7  -3.2
       comp=Z,3µm,1.0s
DMN    Daman             15.77 334 eP     P      11 08 38.9  -3.6
       comp=Z,992nm,0.5s
KKN    Kakani            15.85 335 eP     P      11 08 40.0  -3.6
       comp=Z,5µm,1.4s
LSA    Lhasa             16.17 355  P     P      11 08 46.5  -1.2
LSA    Lhasa             16.17 355 eP     P      11 08 46.1  -1.6
       comp=Z,2µm,1.3s
GKN    Gorkha            16.31 333 eP     P      11 08 47.1  -2.4
       comp=Z,910nm,0.5s
TRD    Trivandrum        16.37 254⇓eP     P      11 08 55.6  +5.3
KOLN   Koldanda          16.59 330 eP     P      11 08 51.6  -1.4
       comp=Z,1µm,0.6s
AKL    Akola             16.73 297⇑eP     P      11 08 56.9  +2.2
AKL                                e             11 09 07.6
       comp=Z,1µm,1.1s
QIZ    Qiongzhong        17.20  69  P     P      11 09 02.5  +1.8
QIZ                                 S     S      11 12 12.5  +2.1
QIZ                                 LR    LR
       comp=N,162µm,19.9s
QIZ                                 LR    LR
       comp=Z,103µm,14.3s
QIZ    Qiongzhong        17.20  69 eP     P      11 09 02.4  +1.6
       comp=Z,81nm,0.8s
BHPL   Bhopal            17.53 306⇓eP     P      11 09 03.2  -1.6
BHPL                               e             11 09 14.5
       comp=Z,1µm,1.7s
BHPL                               eS     S      11 12 10.0  -7.7
MNGI   Mangalore         17.56 270 eP     P      11 09 08.6  +3.3
MNGI                               e             11 09 17.1
       comp=Z,1µm,1.7s
MNGI                               e      S      11 12 04.7   -14
JHNI   Jhansi            17.95 314 eP     P      11 09 08.0  -2.1
GYA    Guiyang           18.26  43⇑iP     P      11 09 13.8  -0.1
GYA                                 AP           11 09 18.5
GYA                                 XP           11 09 20.8
GYA                                 AMB   AMB
       comp=Z,720nm,1.2s
GYA                                 AMB   AMB
       comp=Z,11µm,8.9s
GYA                                 LR    LR
       comp=N,69µm,20.1s
GYA                                 LR    LR
       comp=E,36µm,16.5s
GYA                                 LR    LR
       comp=Z,61µm,18.3s
KAD    Karad             18.38 284⇓eP     P      11 09 16.4  +0.9
KAD                                e             11 09 29.2
       comp=Z,977nm,1.3s
GOA    Goa               18.52 278⇓e      P      11 09 25.4  +8.2
GOA                                e             11 09 53.8
       comp=Z,604nm,1.4s
POO    Poona             18.92 288⇓eP     P      11 09 21.7  -0.3
POO                                i             11 09 31.1
       comp=Z,673nm,1.8s
POO                                eS     S      11 12 46.6  -2.8
AGRA   Agra              19.50 317 eP     P      11 09 29.7  +1.0
AGRA                               e             11 09 36.8
       comp=Z,1µm,1.3s
AGRA                               e      S      11 12 51.7   -11
LGTI   Lohaghat          19.69 326 eP     P      11 09 33.0  +2.2
PTH    Pithoragarh       19.78 326 eP     P      11 09 33.5  +1.6
PTH                                eS     S      11 13 03.1  -5.4
BOM    Bombay            19.96 288⇓eP     P      11 09 36.2  +2.3
BOM                                e             11 09 46.9
       comp=Z,2µm,1.8s
CD2    Chengdu           20.01  28⇑iP     P      11 09 33.5  -0.8
CD2                                 S     S      11 13 15.3  +2.0
CD2                                 AMB   AMB
       comp=Z,900nm,1.5s
CD2                                 LR    LR
       comp=N,58µm,14.4s
CD2                                 LR    LR
       comp=Z,72µm,16.8s,MS6.1
MNCY   Minicoy           20.14 257⇑iP     P      11 09 44.0  +8.2
ASOR   Ausora            20.64 320 eP     P      11 09 42.1  +1.2
BISR   Bishrakh          20.73 319 eP     P      11 09 42.0  +0.2
AYAN   Aya Nagar         20.87 318 eP     P      11 09 43.8  +0.5
NDI    New Delhi         20.94 319⇑eP     P      11 09 44.5  +0.5
NDI                                e             11 09 52.4
       comp=Z,2µm,1.1s
BHGR   Bahadurgarh       21.13 318 eP     P      11 09 46.2  +0.3
BHGR                               e             11 09 54.2
       comp=Z,2µm,1.6s
BHV    Bhavnagar         21.34 295 eP     P      11 09 50.0  +1.9
AJM    Ajmer             21.38 310⇑eP     P      11 09 50.2  +1.6
AJM                                e             11 09 56.6
       comp=Z,2µm,1.6s
AJM                                eS     S      11 13 38.3  -2.2
KHET   Khetri            21.49 315 eP     P      11 09 50.3  +0.8
KHET                               eS     S      11 13 39.7  -2.7
DDI    Dehra Dun         21.59 323 e      P      11 09 51.5  +0.9
DDI                                eP            11 09 51.5
KKR    Kurukshetra       22.07 320 eP     P      11 09 56.7  +1.3
KLP    Kalpa             22.39 326 eP     P      11 10 00.6  +2.1
KLP                                e             11 10 18.5
       comp=Z,4µm,1.6s
SMLA   Simla             22.70 323⇑i      P      11 10 17.8   +16
SMLA                               i      S      11 14 27.9   +23
SDNR   Sundarnagar       23.08 323 eP     P      11 10 07.9  +2.5
SDNR                               e      S      11 14 36.9   +25
BHK    Bhakra            23.35 322 eP     P      11 10 09.7  +1.7
BHK                                eS     S      11 14 16.5  +0.2
PONG   Pong              24.01 323 eP     P      11 10 17.0  +2.6
BHJ    Bhuj              24.01 297⇓eP     P      11 10 17.5  +2.9
BHJ                                eS     S      11 14 31.7  +3.8
DLH    Dalhousie         24.42 324 eP     P      11 10 20.0  +1.5
DLH                                e      S      11 14 53.0   +18
THN    Thein Dam         24.49 323 eP     P      11 10 19.2  +0.1
THN                                e      S      11 15 08.4   +32
LZH    Lanzhou           24.54  22 ⇑P     P      11 10 21.0  +1.4
LZH                                 AP           11 10 24.0
LZH                                 XP           11 10 25.5
LZH                                 PP    PP     11 10 57.0  +1.4
LZH                                eS     S      11 14 39.0  +2.1
LZH                                 XS           11 14 44.3
LZH                                 SS    SS     11 15 34.0  +1.7
LZH                                 SCS   ScS    11 21 26.0  +3.5
LZH                                 AMB   AMB
       comp=Z,2µm,1.2s,mb6.5
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LZH                                 AMB   AMB
       comp=Z,11µm,5.3s
LZH                                 LR    LR
       comp=N,69µm,15.4s
LZH                                 LR    LR
       comp=Z,126µm,16.4s,MS6.5
BATP   Bataraza          24.92  98 eP     P      11 10 21.7  -1.7
BATP   Bataraza          24.92  98 eP     P      11 10 21.6  -1.8
XAN    Xi'an             25.10  33  P     P      11 10 24.0  -0.9
XAN                                 AMB   AMB
       comp=Z,975nm,1.1s,mb6.2
COCO   West Island       25.85 171  P     P      11 10 31.1  -1.1
       comp=Z,180nm,1.0s,mb5.6
COCO                                LR    LR
       comp=Z,16µm,19.0s,MS5.6
ENPP   El Nido           26.06  92 eP     P      11 10 35.8  +1.8
ENPP   El Nido           26.06  92 eP     P      11 10 33.3  -0.8
WHN    Wuhan             26.07  46⇑iP     P      11 10 33.5  -0.6
GTA    Gaotai            26.51  12⇑iP     P      11 10 39.0  +1.0
GTA                                 AP    pP     11 10 42.3  +0.3
GTA                                 XP    sP     11 10 45.0  +1.2
GTA                                 PP    PP     11 11 18.0  -3.6
GTA                                 PPP   PPP    11 11 30.3  -3.3
GTA                                 S     S      11 15 03.8  -5.8
GTA                                 SCP          11 17 45.5
GTA                                 SCS   ScS    11 21 33.8  +3.2
GTA                                 AMB   AMB
       comp=Z,501nm,1.8s,mb5.7
GTA                                 AMB   AMB
       comp=Z,9µm,10.3s
GTA                                 LR    LR
       comp=N,31µm,20.2s,MS6.0
GTA                                 LR    LR
       comp=E,32µm,23.6s,MS6.0
GTA                                 LR    LR
       comp=Z,34µm,21.3s,MS5.9
LUBP   Lubang            26.62  86 eP     P      11 10 55.9   +17
QZH    Quanzhou          26.77  61⇑iP     P      11 10 40.5  -0.1
QZH                                 AMB   AMB
       comp=Z,420nm,1.0s,mb5.9
QZH                                 LR    LR
       comp=N,64µm,13.5s,MS6.5
QZH                                 LR    LR
       comp=E,63µm,13.0s,MS6.5
QZH                                 LR    LR
       comp=Z,123µm,13.8s,MS6.6
TGY    Tagaytay City     27.27  85  P     P      11 10 46.3  +1.0
       comp=Z,2µm,1.3s,mb6.4,baz=222,slow=5.4,SNR=5.5
PCPH   Palayan           27.41  82⇓eP     P      11 10 47.5  +1.0
SJMP   San Jose          27.56  89 eP     P      11 10 53.7  +5.9
APYP   Conner            27.66  77 eP     P      11 10 47.9  -0.9
APYP   Conner            27.66  77 eP     P      11 10 47.7  -1.0
LQP    Lukban            27.86  85⇓eP     P      11 10 50.1  -0.5
BALP   Baler             27.87  82 eP     P      11 10 54.2  +3.5
BALP   Baler             27.87  82 eP     P      11 10 53.4  +2.7
CAUP   Cauayan           28.15  79 eP     P      11 10 53.8  +0.7
CAUP   Cauayan           28.15  79 eP     P      11 10 49.0  -4.1
CVP    Callao Caves      28.20  78 eP     P      11 10 57.0  +3.4
POLP   Polilio Island    28.23  84 eP     P      11 10 44.0   -10
OTRP   Odiongan          28.45  89 eP     P      11 10 56.0  +0.2
OTRP   Odiongan          28.45  89 eP     P      11 10 54.8  -1.1
BBP    Basco             28.65  72 eP     P      11 10 57.5  -0.2
BBP    Basco             28.65  72 eP     P      11 10 56.5  -1.1
DGAR   Diego Garcia      29.03 225  PFAKE        11 11 10.0  +8.8
DGAR                                LR    LR
       comp=Z,14µm,19.0s,MS5.6
TATO   Taipei            29.27  63 eP     P      11 11 03.8  +0.6
       comp=Z,173nm,0.8s,mb5.8
TATO                                LR    LR
       comp=Z,40µm,19.0s,MS6.1
KSH    Kashi             29.86 333⇑iP     P      11 11 09.3  +0.9
KSH                                eAP    pP     11 11 13.5  +1.1
KSH                                 XP    sP     11 11 16.8  +2.7
KSH                                 PP    PP     11 12 06.0  +0.3
KSH                                ePPP   PPP    11 12 19.5  -0.1
KSH                                ePCP   PcP    11 14 13.5  +2.0
KSH                                eS     S      11 16 04.5  +0.9
KSH                                 XS           11 16 12.5
KSH                                eSS    SS     11 17 38.8  -0.6
KSH                                eSCP          11 17 53.0
KSH                                ePCS          11 17 55.0
KSH                                eSCS   ScS    11 21 45.5  -0.3
KSH                                 AMB   AMB
       comp=Z,1µm,1.6s,mb6.3
KSH                                 LR    LR
       comp=N,37µm,12.7s,MS6.3
KSH                                 LR    LR
       comp=E,36µm,12.9s,MS6.3
NJ2    Nanjing           30.11  48 eP     P      11 11 10.0  -0.7
NJ2                                 AP    pP     11 11 19.5  +4.8
NJ2                                 AMB   AMB
       comp=Z,330nm,0.8s,mb6.1
NJ2                                 AMB   AMB
       comp=Z,1µm,5.8s
NJ2                                 LR    LR
       comp=N,11µm,17.4s,MS6.2
NJ2                                 LR    LR
       comp=E,41µm,16.0s,MS6.2
NJ2                                 LR    LR
       comp=Z,31µm,17.8s,MS6.0
PAGZ   Pagadian          30.51  98 eP     P      11 11 13.7  -0.6
PAGZ   Pagadian          30.51  98 eP     P      11 11 12.2  -2.1
WMQ    Urumqi            30.51 353 ⇑P     P      11 11 16.0  +1.9
WMQ                                 AP    pP     11 11 20.5  +2.4
WMQ                                 XP    sP     11 11 23.0  +3.2
WMQ                                 PP    PP     11 12 16.0  +1.9
WMQ                                 PPP   PPP    11 12 30.0  +1.3
WMQ                                eS     S      11 16 16.0  +2.1
WMQ                                 AMB   AMB
       comp=Z,139nm,1.2s,mb5.7
WMQ                                 AMB   AMB
       comp=Z,2µm,8.3s
WMQ                                 LR    LR
       comp=N,32µm,23.0s
WMQ                                 LR    LR
       comp=E,51µm,29.8s
WMQ                                 LR    LR
       comp=Z,20µm,16.8s
BTO    Baotou            30.89  26 eP     P      11 11 16.8  -0.6
BTO                                 AMB   AMB
       comp=Z,203nm,1.0s,mb5.9
BTO                                 LR    LR
       comp=N,12µm,14.9s,MS6.4
BTO                                 LR    LR
       comp=E,54µm,14.1s,MS6.4
SSE    Sheshan           31.37  51 eP     P      11 11 20.8  -1.0
SSE                                 AP    pP     11 11 24.0  -1.8
SSE                                 S     S      11 16 29.0  +1.5
SSE                                 AMB   AMB
       comp=Z,188nm,1.1s,mb5.8
SSE                                 AMB   AMB
       comp=Z,3µm,10.0s
SSE                                 LR    LR
       comp=N,53µm,23.8s,MS6.2
SSE                                 LR    LR
       comp=E,34µm,23.8s,MS6.2
SSE                                 LR    LR
       comp=Z,45µm,14.4s
TIA    Tai'an            31.38  40 ⇑P     P      11 11 21.5  -0.3
TIA                                 AMB   AMB
       comp=Z,275nm,1.2s,mb6.0
TIA                                 LR    LR
       comp=N,61µm,18.0s,MS6.5
TIA                                 LR    LR
       comp=E,85µm,18.0s,MS6.5
MSLP   Maasin            31.50  93 eP     P      11 11 27.1  +4.0
MSLP   Maasin            31.50  93 eP     P      11 11 26.4  +3.3
HHC    Hu-ho-hao-te      31.76  28⇑iP     P      11 11 24.5  -0.6
HHC                                 AP    pP     11 11 28.8  -0.3
HHC                                 XP    sP     11 11 31.5  +0.6
HHC                                 PP    PP     11 12 28.8  -1.6
HHC                                 PCP   PcP    11 14 16.5   0.0
HHC                                 S     S      11 16 32.0  -1.4
HHC                                 PCS          11 18 00.0
HHC                                 SS    SS     11 18 20.5  -3.5
HHC                                 SCS   ScS    11 21 55.0   0.0
HHC                                 AMB   AMB
       comp=Z,360nm,1.1s,mb6.1
HHC                                 AMB   AMB
       comp=Z,9µm,8.1s
HHC                                 LR    LR
       comp=N,31µm,13.1s,MS6.3
HHC                                 LR    LR
       comp=E,29µm,11.9s,MS6.3
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HHC                                 LR    LR
       comp=Z,27µm,19.0s
ULHL   Ulahol            32.04 336  P     P      11 11 26.9  -0.5
       SNR=11
KZA    Kyzart            32.29 335  P     P      11 11 30.9  +1.2
       SNR=67
AAA    Alma-Ata          32.65 338 i P    P      11 11 33.0  +0.2
UCH    Uchtor            32.72 334  P     P      11 11 34.7  +1.3
       SNR=60
DAV    Davao City (W)    32.81  98 eP     P      11 11 38.3  +3.8
TKM2   Tokmak 2          32.86 336  P     P      11 11 35.3  +0.7
       SNR=63
KBK    Karagaybulak      32.90 335  P     P      11 11 36.4  +1.4
       SNR=49
AML    Almayashu         32.99 333  P     P      11 11 37.2  +1.4
       SNR=63
AAK    Ala-Archa         33.06 335  P     P      11 11 37.8  +1.4
       SNR=81
AAK    Ala-Archa         33.06 335 eP     P      11 11 36.6  +0.2
       comp=Z,768nm,1.4s,mb6.4
AAK                                 LR    LR
       comp=Z,11µm,19.0s,MS5.6
FRU    Bishkek           33.18 335⇑iP     P      11 11 39.0  +1.6
FRU                                 pmax  pmax
       comp=Z,1µm,1.9s,mb6.6
CHMS   Chumysh           33.26 335  P     P      11 11 38.7  +0.6
       SNR=89
EKS2   Erkin-Say         33.39 334  P     P      11 11 40.5  +1.2
       SNR=75
BJT    Baijiatuau        33.41  34 eP     P      11 11 39.8  +0.4
       comp=Z,762nm,1.3s,mb6.5
BJI    Beijing           33.43  33  P     P      11 11 39.8  +0.2
BJI                                 AMB   AMB
       comp=Z,477nm,1.1s,mb6.3
USP    Ospenovka         33.59 335  P     P      11 11 41.4  +0.5
       SNR=112
TAS    Tashkent          34.47 328 eP     P      11 11 49.0  +0.4
TAS                                 pmax  pmax
       comp=Z,5µm,8.0s
JOW    Kunigami          35.66  63  P     P      11 11 59.9  +1.0
       comp=Z,84nm,0.5s,mb5.9,baz=266,slow=6.0,SNR=38
JOW                                 PcP   PcP    11 14 28.4  +0.8
       comp=Z,39nm,0.8s,baz=283,slow=4.2,SNR=3.6
JOW                                 ScP          11 18 17.1
       comp=Z,62nm,1.3s,baz=345,slow=8.4,SNR=4.5
DL2    Dalian            35.85  40 ⇑P     P      11 12 01.3  +0.8
DL2                                 AMB   AMB
       comp=Z,290nm,1.0s,mb6.2
DL2                                 AMB   AMB
       comp=Z,2µm,12.6s
DL2                                 LR    LR
       comp=E,21µm,15.8s
DL2                                 LR    LR
       comp=Z,18µm,18.6s,MS5.9
SONM   Songino Array     36.02  16  P     P      11 12 02.3  +0.6
       comp=Z,302nm,1.0s,mb6.2,baz=198,slow=7.8,SNR=163
SONM                                PcP   PcP    11 14 29.8  +1.4
       comp=Z,49nm,0.8s,baz=177,slow=2.1,SNR=5.8
SONM                                ScP          11 18 16.6
       comp=Z,10nm,0.9s,baz=180,slow=3.7,SNR=3.8
ULN    Ulaanbaatar       36.23  16 eP     P      11 12 03.8  +0.3
       comp=Z,493nm,1.3s,mb6.3
ULN                                 LR    LR
       comp=Z,33µm,20.0s,MS6.1
ZAK    Zakamensk         37.73  11⇓iP     P      11 12 16.8  +0.7
ZAK                                e             11 13 48.4
ZAK                                e             11 14 28.7
ZAK                                e             11 18 07.5
INCN   Inchon            38.38  45 eP     P      11 12 21.1  -0.6
       comp=Z,245nm,1.1s,mb5.8
INCN                                LR    LR
       comp=Z,43µm,20.0s,MS6.3
MOY    Mondy             38.61   8 eP     P      11 12 24.5  +1.1
SNY    Shenyang          38.81  38 ⇑P     P      11 12 25.0  -0.2
SNY                                 S     S      11 18 20.5  -1.5
SNY                                 AMB   AMB
       comp=Z,360nm,1.6s,mb5.8
SNY                                 LR    LR
       comp=N,38µm,16.5s,MS6.5
SNY                                 LR    LR
       comp=E,42µm,18.0s,MS6.5
SNY                                 LR    LR
       comp=Z,27µm,20.0s,MS6.1
TLY    Talaya            39.04  11  P     P      11 12 28.3  +1.2
       comp=Z,426nm,1.2s,mb6.0,SNR=61
TLY    Talaya            39.04  11c iP    P      11 12 28.7  +1.6
TLY                                i             11 13 58.3
TLY                                i             11 14 38.4
TLY                                 pmax  pmax
       comp=Z,220nm,2.0s,mb5.5
TLY    Talaya            39.04  11 eP     P      11 12 28.5  +1.5
       comp=Z,701nm,1.7s,mb6.1
TLY                                 LR    LR
       comp=Z,7µm,19.0s,MS5.5
KS15   Wonju Array Si    39.23  46 eP     P      11 12 28.3  -0.5
IRK    Irkutsk           39.69  11 eP     P      11 12 32.6  +0.1
IRK                                e             11 14 04.6
ZAL    Zalesovo          40.81 353  P     P      11 12 41.6   0.0
       comp=Z,203nm,0.6s,mb5.9,baz=300,slow=9.3,SNR=110
ZAL                                 LR    LR     11 33 38.8
       comp=Z,36µm,18.3s,MS6.3,baz=286,slow=42
ZAL    Zalesovo          40.81 353  P     P      11 12 41.7   0.0
ZAL                                 pmax  pmax
       comp=Z,203nm,0.6s
ZAL                                 MLR   MLR
       comp=Z,36µm,18.3s
CN2    Changchun         41.10  36 ⇑P     P      11 12 44.5  +0.4
CN2                                eXP    sP     11 12 51.3  +1.4
CN2                                eS     S      11 18 56.5  +0.2
CN2                                 AMB   AMB
       comp=Z,360nm,1.2s,mb5.9
CN2                                 AMB   AMB
       comp=Z,3µm,7.0s
CN2                                 LR    LR
       comp=N,44µm,16.0s,MS6.5
CN2                                 LR    LR
       comp=E,28µm,16.0s,MS6.5
CN2                                 LR    LR
       comp=Z,33µm,17.0s,MS6.3
NVS    Novosibirsk       41.90 352 i P    P      11 12 49.6  -1.0
NVS                                 pmax  pmax
       comp=Z,698nm,1.2s,mb6.2
NVS                                 pmax  pmax
       comp=N,839nm,1.7s
NVS                                 pmax  pmax
       comp=E,313nm,1.5s
HIA    Hailar            41.94  26 eP     P      11 12 51.1  +0.1
       comp=E,297nm,1.2s,mb5.8
HASS   Wahat al Ahsa'    42.17 293  P     P      11 12 54.2  +1.0
BVAR   Borovoye Array    43.27 340  P     P      11 13 01.8   0.0
       comp=E,227nm,1.0s,mb5.9,baz=143,slow=7.4,SNR=110
BRVK   Borovoye          43.33 340 eP     P      11 13 02.2  -0.1
       comp=E,512nm,1.1s,mb6.2
BRVK                                LR    LR
       comp=Z,6µm,21.0s,MS5.5
MBWA   Marble Bar        43.42 142 eP     P      11 13 02.1  -1.3
       comp=Z,449nm,1.4s,mb6.0
MBWA                                LR    LR
       comp=Z,19µm,20.0s,MS6.0
CHKZ   Chkalovo          43.75 341 eP     P      11 13 05.9  +0.2
       comp=Z,2µm,1.2s,mb6.6
MDJ    Mudanjiang        44.00  38  P     P      11 13 07.5  -0.4
MDJ                                 AP    pP     11 13 10.3  -1.6
MDJ                                 PCP   PcP    11 14 52.8  -1.3
MDJ                                 SCP          11 18 45.8
MDJ                                 S     S      11 19 41.5  +2.6
MDJ                                 SCS   ScS    11 23 06.3  +2.1
MDJ                                 AMB   AMB
       comp=Z,68nm,1.3s,mb5.2
MDJ                                 LR    LR
       comp=N,38µm,18.8s,MS6.4
MDJ                                 LR    LR
       comp=E,18µm,17.5s,MS6.4
MDJ                                 LR    LR
       comp=Z,20µm,21.9s,MS6.0
MDJ    Mudanjiang        44.00  38 eP     P      11 13 07.2  -0.7
       comp=Z,413nm,1.7s,mb5.9
RYDS   Riyadh            44.82 291  P     P      11 13 15.9  +1.2
BDHA   Al Bayda'         45.87 276⇑eP     P      11 13 25.2  +2.0
BDHA                                AMb   AMB    11 13 27.5
       comp=Z,521nm,1.3s,mb6.3
MZLS   Mizel             46.11 290  P     P      11 13 25.7  +0.7
LBOS                     46.19 276⇑eP     P      11 13 27.7  +2.1
LBOS                                AMb   AMB    11 13 29.5
       comp=Z,492nm,1.3s,mb6.3
MAT    Matsushiro        46.52  52  P     P      11 13 27.4  -0.6
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MAT   Matsushiro         46.52  52  eP      P       11 13 27.0 -1.0
      comp=Z,150nm,1.0s,mb5.9
MAT                                 eS      x       11 20 53.0
MAJO  Matsushiro         46.52  52  eP      P       11 13 27.9 -0.1
      comp=Z,295nm,0.9s,mb6.2
MAJO                                 LR     LR
      comp=Z,31µm,20.0s,MS6.3
KAMS  Al Khamasin        46.54 285   P      P       11 13 29.7 +1.3
BOD   Bodaibo            47.02  15  eP      P       11 13 31.5 -0.2
TRBA  At Turbah          47.35 276⇑eP      P       11 13 36.8 +1.9
TRBA                                 AMb    AMB     11 13 38.9
      comp=Z,383nm,1.2s,mb6.2
TATS  Tathlith           47.58 284   P      P       11 13 37.7 +1.1
KLR   Kul'dur            47.80  34⇓iP      P       11 13 34.2 -3.8
KLR                                  pmax   pmax
      comp=N,100nm,1.4s
KLR                                  pmax   pmax
      comp=E,160nm,1.4s
KLR                                  pmax   pmax
      comp=Z,190nm,1.4s,mb5.9
CBIJ  Chichi jima        47.91  66   P      P       11 13 39.6 +0.5
      comp=Z,227nm,0.8s,mb6.2,baz=245,slow=8.9,SNR=7.2
ARSS  Ar Rass            48.04 293   P      P       11 13 40.4 +0.2
AFFS  'Afif              48.12 290   P      P       11 13 41.6 +0.8
MAK   Makhachkala        48.73 316  eP      P       11 13 45.5 +0.3
MAK                                 e               11 15 09.0
MAK                                 e               11 15 42.0
MAK                                 eS      S       11 20 51.5 +5.2
MAK                                  pmax   pmax
      comp=Z,495nm,1.0s,mb6.5
NAMS  An Nimas           48.79 284   P      P       11 13 48.4 +2.4
HILS  Ha'il              49.47 294   P      P       11 13 51.9 +0.8
CLNS  Chul'man           49.66  22⇑iP      P       11 13 52.7 +0.5
CLNS                                e*PP    pP      11 14 01.9 +5.5
CLNS                                e               11 15 17.4
CLNS                                ePPP    PPP     11 16 35.2 -7.1
CLNS                                eS      S       11 21 05.2 +6.0
CLNS                                 pmax   pmax
      comp=N,373nm,1.1s
CLNS                                 pmax   pmax
      comp=Z,838nm,1.1s,mb6.7
CLNS                                 pmax   pmax
      comp=E,447nm,1.2s
CLNS                                 smax
      comp=Z,4µm,17.1s
CLNS                                 smax
      comp=N,5µm,14.3s
CLNS                                 smax
      comp=E,826nm,11.9s
CLNS                                 MLR    MLR
      comp=N,16µm,14.0s,MS6.2
CLNS                                 MLR    MLR
      comp=E,3µm,14.0s,MS6.2
CLNS                                 MLR    MLR
      comp=Z,24µm,14.0s,MS6.3
GNI   Garni              49.68 312  eP      P       11 13 54.7 +2.1
GNI   Garni              49.68 312   P      P       11 13 54.0 +1.4
      comp=Z,616nm,1.0s,mb6.6,baz=156,slow=2.5,SNR=71
GNI                                  LR     LR      11 39 14.3
      comp=Z,26µm,19.2s,MS6.2,baz=280,slow=41
GNI   Garni              49.68 312  eP      P       11 13 54.2 +1.6
      comp=Z,2µm,1.3s,mb6.9
GNI                                  LR     LR
      comp=Z,26µm,19.0s,MS6.3
HKR   Hakkari            49.69 308  eP      P       11 13 53.0 +0.3
ARU   Arti               50.23 336  eP      P       11 13 56.0 -0.6
ARU                                  pmax   pmax
      comp=Z,900nm,1.2s,mb6.7
ARU   Arti               50.23 336  eP      P       11 13 56.0 -0.6
      comp=Z,900nm,1.3s,mb6.6
ARU                                  LR     LR
      comp=Z,7µm,22.0s,MS5.6
GUMO  Guam               50.49  83   PFAKE          11 14 10.0  +11
GUMO                                 LR     LR
      comp=Z,8µm,20.0s,MS5.7
KARS  Kars               51.02 312  eP      P       11 14 04.8 +1.9
ZEI   Tsey               51.13 314  i P     P       11 14 04.6 +1.0
ZEI                                 i *PP   pP      11 14 14.5 +6.7
ZEI                                 eS      S       11 21 37.7  +18
ZEI                                  pmax   pmax
      comp=Z,126nm,1.1s,mb5.8
BTMT  Batman             51.56 308  eP      P       11 14 07.7 +0.7
KBRS  Khaybar            51.61 292   P      P       11 14 08.6 +1.1
BEST  Besiri             51.66 308  i P     P       11 14 07.7 -0.1
NWAO  Narrogin (SRO)     51.73 154   P      P       11 14 07.4 -0.9
      comp=Z,119nm,0.7s,mb5.9,baz=329,slow=7.4,SNR=26
NWAO  Narrogin (SRO)     51.73 154  eP      P       11 14 06.8 -1.5
      comp=Z,388nm,1.0s,mb6.3
NWAO                                 LR     LR
      comp=Z,17µm,19.0s,MS6.1
VRT   Varto              51.77 309  eP      P       11 14 10.1 +1.6
ERZM  Erzurum            52.09 310  i P     P       11 14 12.7 +1.7
EZM   Erzurum            52.09 310  eP      P       11 14 13.2 +2.2
ASAJ  Asahikawa          52.13  44   P      P       11 14 10.9 -0.2
      comp=Z,146nm,0.8s,mb5.9,baz=253,slow=10,SNR=27
ASAJ  Asahikawa          52.13  44   P      P       11 14 11.0 -0.2
ASAJ                                 pmax   pmax
      comp=Z,146nm,0.9s
BCA   Borcka             52.33 312  eP      P       11 14 13.8 +1.1
KIV   Kislovodsk         52.36 316   P      P       11 14 13.3 +0.4
      comp=Z,2µm,0.9s,mb7.1,SNR=96
KIV   Kislovodsk         52.36 316c iP      P       11 14 13.5 +0.6
KIV                                 e               11 15 23.6
KIV                                 e               11 16 11.2
KIV                                 i S     S       11 21 40.0 +3.5
KIV                                  pmax   pmax
      comp=Z,3µm,2.4s,mb6.7
KIV                                  pmax   pmax
      comp=N,262nm,0.9s
KIV                                  pmax   pmax
      comp=Z,583nm,0.9s,mb6.5
KIV                                  smax
      comp=N,5µm,9.6s
KIV                                  MLR    MLR
      comp=N,8µm,22.0s,MS6.2
KIV                                  MLR    MLR
      comp=E,23µm,22.0s,MS6.2
KIV                                  MLR    MLR
      comp=Z,24µm,22.0s,MS6.2
KIV   Kislovodsk         52.36 316  eP      P       11 14 13.3 +0.4
      comp=Z,827nm,1.1s,mb6.6
KIV                                  LR     LR
      comp=Z,5µm,20.0s,MS5.5
BINT  Bingol             52.49 309  eP      P       11 14 15.3 +1.4
GOF   Gofitskoye         52.50 317⇓iP      P       11 14 14.0  0.0
GOF                                  pmax   pmax
      comp=Z,200nm,1.2s,mb5.9
WRA   Warramunga Arr     52.65 128   P      P       11 14 13.5 -2.0
      comp=Z,156nm,0.8s,mb6.0,baz=308,slow=8.0,SNR=58
WRA                                  PcP    PcP     11 15 26.4 +1.1
      comp=Z,174nm,1.2s,baz=321,slow=3.1,SNR=9.3
WRA                                  ScP            11 19 22.6
      comp=Z,7.5nm,0.7s,baz=320,slow=4.0,SNR=5.5
WRA                                  S      S       11 21 37.1 -3.7
      comp=Z,35nm,1.0s,baz=303,slow=14,SNR=18
WRA                                  PKPPKP         11 44 37.7
      comp=Z,4.5nm,1.1s,baz=181,slow=2.0,SNR=5.1
WRA   Warramunga Arr     52.65 128   P      P       11 14 13.5 -1.9
WRA                                                 11 15 26.4
WRA                                  S      S       11 21 37.1 -3.7
WRA                                  pmax   pmax
      comp=Z,156nm,0.8s
WRAB  Tennant Creek      52.66 128d iP      P       11 14 14.2 -1.2
WRAB  Tennant Creek      52.66 128  eP      P       11 14 13.7 -1.7
      comp=Z,218nm,0.7s,mb6.2
WRAB                                 LR     LR
      comp=Z,7µm,21.0s,MS5.7
YNBS  Yanbu' al Bahr     52.71 290   P      P       11 14 16.4 +0.6
YSS   Yuzh-Sakhalins     53.24  41⇑eP      P       11 14 18.2 -1.2
YSS                                  S      S       11 21 50.0 +1.5
YSS                                  MLR    MLR
      comp=E,17µm,14.0s,MS6.5
YSS                                  MLR    MLR
      comp=Z,19µm,14.0s,MS6.3
YSS                                  MLR    MLR
      comp=N,23µm,15.0s,MS6.5
YSS   Yuzh-Sakhalins     53.24  41  eP      P       11 14 19.1 -0.4
      comp=N,264nm,0.8s,mb6.2
YSS                                  LR     LR
      comp=Z,16µm,19.0s,MS6.1
URFA  Urfa               53.46 307  eP      P       11 14 20.2 -0.9
ELZG  Elazig             53.55 308  i P     P       11 14 22.0 +0.2
GUMT  Gumushane          53.63 310  eP      P       11 14 23.7 +1.3
MALT  Malatya            53.94 308  eP      P       11 14 25.0 +0.3
      comp=Z,411nm,1.1s,mb6.3
MYA   Malataya           53.95 308  eP      P       11 14 25.6 +0.9
TBKS  Tabuk              54.16 295   P      P       11 14 27.1 +0.7
ASF   Jabal al Asfar     54.20 300   P      P       11 14 26.7  0.0
      comp=Z,96nm,1.2s,mb5.6,baz=321,slow=4.6,SNR=17
ASF                                  LR     LR      11 42 24.5
      comp=Z,12µm,18.6s,MS6.0,baz=152,slow=41
SOC   Sochi              54.29 314  eP      P       11 14 26.0 -1.1
SOC                                 e               11 15 35.9
SOC                                 eS      S       11 22 07.9 +5.2
SOC                                  pmax   pmax
      comp=Z,696nm,1.6s,mb6.3
SOC                                  pmax   pmax
      comp=N,167nm,1.5s
SOC                                  pmax   pmax
      comp=E,141nm,1.3s
SOC                                  MLR    MLR
      comp=E,19µm,21.0s,MS6.2
SOC                                  MLR    MLR
      comp=Z,15µm,21.0s,MS6.0
SOC                                  MLR    MLR
      comp=N,10µm,18.0s,MS6.2
YUK   Yuzh-Kuril'sk      54.34  45  eP      P       11 14 22.0 -5.5
YUK                                  pmax   pmax
      comp=N,2µm,2.0s
YUK                                  pmax   pmax
      comp=Z,3µm,2.0s,mb6.9
YUK                                  MLR    MLR
      comp=E,32µm,19.0s
YUK                                  MLR    MLR
      comp=Z,36µm,19.0s,MS6.5
GZT   Gaziantep          54.42 306  i P     P       11 14 28.2  0.0
ASAR  Alice Springs      54.57 132   P      P       11 14 28.1 -1.4
      comp=Z,74nm,0.7s,mb5.8,baz=307,slow=6.3,SNR=47
ASAR                                 PcP    PcP     11 15 33.2 +0.7
      comp=Z,93nm,1.0s,baz=314,slow=3.4,SNR=8.8
ASAR                                 ScP            11 19 31.2
      comp=Z,16nm,1.0s,baz=306,slow=4.3,SNR=5.6
ASAR                                 S      S       11 22 05.0 -1.7
      comp=Z,19nm,1.1s,baz=299,slow=12,SNR=11
ASAR                                 LR     LR      11 38 16.1
      comp=Z,11µm,20.9s,MS5.9,baz=300,slow=37
ASAR                                 PKPPKP         11 44 44.6
      comp=Z,5.6nm,1.0s,baz=144,slow=2.9,SNR=4.7
GAZ   Gaziantep          54.67 306  eP      P       11 14 31.0 +1.0
JMQS  Jabal Moqyreh      54.79 296   P      P       11 14 31.1 +0.1
KAHT  Ahir Dag           55.02 307  i P     P       11 14 32.4 -0.2
YAK   Yakutsk            55.11  20  eP      P       11 14 31.2 -1.8
YAK                                  pmax   pmax
      comp=Z,890nm,0.9s,mb6.8
YAK   Yakutsk            55.11  20  eP      P       11 14 31.2 -1.7
      comp=Z,895nm,0.9s,mb6.8
MKRJ  Makawir            55.20 299   P      P       11 14 33.9 -0.1
KSHT  Keshet             55.20 301   P      P       11 14 34.3 +0.3
AYUS  'Aynunah           55.29 295   P      P       11 14 35.0 +0.3
COBT  Iskenderun         55.31 305  i P     P       11 14 34.8 +0.1
HTY   Hatay              55.35 305  eP      P       11 14 35.3 +0.3
SVST  Sivas              55.36 309  i P     P       11 14 34.8 -0.3
DRGI  Dragot             55.42 299   P      P       11 14 35.4 -0.2
MZDA  Masada             55.42 299   P      P       11 14 35.5 -0.1
BDAS  Al Bad'            55.45 295   P      P       11 14 35.5 -0.3
MMLI  Mount Malkishu     55.47 300   P      P       11 14 36.2 +0.2
JMOS  Jabal al Moall     55.48 296   P      P       11 14 35.7 -0.3
ZFRI  Zfri               55.51 298   P      P       11 14 35.9 -0.4
ALWS  Ilw as Safayha     55.53 296   P      P       11 14 36.6 +0.2
AQBJ  Aqaba              55.56 297   P      P       11 14 36.0 -0.7
HAQS  Haql               55.63 296   P      P       11 14 37.1 -0.1
EIL   Elat               55.65 297   P      P       11 14 37.4 +0.2
      comp=Z,90nm,0.9s,mb5.8,baz=98,slow=5.2,SNR=25
EIL                                  LR     LR      11 40 05.1
      comp=Z,20µm,19.1s,MS6.2,baz=92,slow=38
EIL   Elat               55.65 297   P      P       11 14 36.7 -0.6
EIL   Elat               55.65 297  eP      P       11 14 36.7 -0.6
      comp=Z,253nm,1.3s,mb6.1
PRNI  Paran              55.65 298   P      P       11 14 36.9 -0.4
MBH   Mount Berech       55.69 297   P      P       11 14 37.1 -0.4
SLTI  Sal'it             55.77 300   P      P       11 14 38.2 +0.1
TOKT  Tokat              55.78 310  eP      P       11 14 38.6 +0.5
CEYT  Ceyhan             55.80 306  eP      P       11 14 39.0 +0.8
HAF   Haifa              55.84 300   P      P       11 14 38.5 -0.1
OFRI  'Ofer              55.86 300   P      P       11 14 38.7  0.0
KMTI  Karmit             55.87 297   P      P       11 14 38.4 -0.5
MASH  Mash'abbe Sade     55.88 298   P      P       11 14 38.5 -0.4
BNN   Bunyan             56.03 308  eP      P       11 14 40.1 +0.3
ANN   Anapa              56.20 315c iP      P       11 14 43.2 +2.2
ANN                                 e               11 15 41.8
ANN                                 i S     S       11 22 31.0 +2.7
ANN                                  pmax   pmax
      comp=Z,338nm,1.3s,mb6.2
KZIT  Kziot              56.21 298   P      P       11 14 40.7 -0.6
AVNT  Avonos             56.78 308  i P     P       11 14 44.4 -0.8
NIG   Nigde              56.86 307  eP      P       11 14 46.2 +0.4
PHNC  Paralimni          56.90 303   P      P       11 14 45.2 -1.0
KMBO  Kilima Mbogo       56.98 260   P      P       11 14 48.5 +1.4
      comp=Z,42nm,0.9s,mb5.5,baz=49,slow=8.4,SNR=27
KMBO                                 LR     LR      11 37 55.2
      comp=Z,18µm,19.3s,MS6.2,baz=85,slow=35
KMBO  Kilima Mbogo       56.98 260  eP      P       11 14 48.0 +1.0
      comp=Z,71nm,1.0s,mb5.7
KMBO                                 LR     LR
      comp=Z,17µm,19.0s,MS6.2
MEST  Erdemli            57.01 305  i P     P       11 14 45.4 -1.5
CTKT  Corum              57.16 310  i P     P       11 14 47.8 -0.1
CORM  Corum              57.19 309  eP      P       11 14 47.8 -0.4
CSS   Prodhromos         57.47 303  eP      P       11 14 49.1 -1.1
      comp=Z,888nm,1.8s,mb6.5
MAMC  Mammari            57.58 303   P      P       11 14 50.9 -0.1
KAMT  Kaman              57.75 308  eP      P       11 14 51.3 -0.8
TOS   Tosya              57.80 310  eP      P       11 14 51.9 -0.5
SZAC  Souni-Zanaja       57.81 303  ⇑P      P       11 14 51.8 -0.8
      comp=Z,7.0nm,0.9s
SZAC  Souni-Zanaja       57.81 303⇑eP      P       11 14 51.8 -0.8
LEF   Lefka              57.84 303  eP      P       11 14 52.6 -0.2
BRTR  Keskin Array B     57.87 309   P      P       11 14 51.8 -1.1
      comp=Z,218nm,0.9s,mb6.2,baz=127,slow=6.2,SNR=108
BRTR                                 ScP            11 19 43.7
      comp=Z,3.2nm,0.9s,baz=108,slow=4.6,SNR=3.1
BRTR                                 S      S       11 22 54.5 +4.2
      comp=Z,0.3nm,0.3s,baz=123,slow=19,SNR=3.2
BRTR                                 PKPPKP         11 44 30.3
      comp=Z,1.2nm,0.9s,baz=342,slow=3.9,SNR=4.3
BRTR                                 PKP2bc         11 44 48.0
      comp=Z,1.8nm,0.9s,baz=180,slow=1.4,SNR=4.7
BRTR  Keskin Array B     57.87 309   P      P       11 14 51.8 -1.1
BRTR                                 S      S       11 22 54.5 +4.2
BRTR                                 pmax   pmax
      comp=Z,218nm,1.0s
BRTR  Keskin Array B     57.87 309   P      P       11 14 51.8 -1.1
BRTR                                 ScP            11 19 43.7
BRTR                                 S      S       11 22 54.5 +4.2
BRTR                                 P'P'           11 44 30.3
BRTR                               ⇑e               11 44 48.0
BZK   Bozkurt            57.99 311  eP      P       11 14 54.6 +0.9
CANT  Cankiri            58.03 310  eP      P       11 14 54.6 +0.6
ALFC  Alevga             58.09 303  ⇑P      P       11 14 53.2 -1.3
      comp=Z,5.8nm,0.8s
ALFC  Alevga             58.09 303⇑eP      P       11 14 53.2 -1.3
ELDT  Eldivan            58.15 309  i P     P       11 14 54.2 -0.7
PPCY  Paphos             58.27 303   P      P       11 14 54.6 -1.2
AKMC  Akamas             58.29 303  ⇑P      P       11 14 54.8 -1.1
AKMC  Akamas             58.29 303⇑iP      P       11 14 54.8 -1.1
HDMB  Hadim              58.38 305  eP      P       11 14 55.9 -0.6
PMG   Port Moresby       58.52 110   P      P       11 14 57.5 -0.3
      comp=Z,148nm,0.8s,mb6.1,baz=300,slow=3.0,SNR=28
PMG                                  ScP            11 19 51.3
      comp=Z,24nm,1.1s,baz=279,slow=7.7,SNR=3.1
PMG   Port Moresby       58.52 110  eP      P       11 14 56.9 -0.9
      comp=Z,198nm,0.8s,mb6.2
PMG                                  LR     LR
      comp=Z,11µm,19.0s,MS6.0
SIM   Simferopol'        58.53 315  i P     P       11 14 57.0 -0.5
SIM                                 eS      S       11 23 04.0 +5.1
SIM                                  pmax   pmax
      comp=Z,508nm,1.1s,mb6.5
ANTO  Ankara             58.53 309  eP      P       11 14 57.8 +0.3
ANTO  Ankara             58.53 309   P      P       11 14 57.0 -0.6
LOD   Lodumlu            58.56 309  eP      P       11 14 57.3 -0.4
KONT  Konya--Tatoy       58.60 306  eP      P       11 14 57.5 -0.5
SAFT  Safranbolu         58.83 310  eP      P       11 14 59.4 -0.2
KIZT  Kizilcal           59.09 307  eP      P       11 15 00.8 -0.7
SGKT  Sivrigoynuk        59.20 309  i P     P       11 15 01.6 -0.6
MOS   Moscow             59.64 327α iP      P       11 15 04.1 -0.9
MOS                                 e               11 15 56.1
MOS                                 e               11 17 18.1
MOS                                 ePPP    PPP     11 18 38.8 -5.2
MOS                                 eS      S       11 23 11.8 -1.4
MOS                                  pmax   pmax
      comp=Z,3µm,2.0s,mb7.0
MOS                                  pmax   pmax
      comp=Z,2µm,1.5s,mb6.8
MDU   Mudurnu            59.82 309  eP      P       11 15 05.2 -1.3
ESKT  Eskisehir          59.97 308  eP      P       11 15 06.9 -0.6
ESKT  Eskisehir          59.97 308  i P     P       11 15 06.2 -1.3
OBN   Obninsk            59.97 326c iP      P       11 15 06.1 -1.2
OBN                                 e               11 15 53.7
OBN                                 e               11 17 16.8
OBN                                 eS      S       11 23 19.3 +1.8
OBN                                  pmax   pmax
      comp=Z,573nm,1.4s,mb6.4
OBN                                  MLR    MLR
      comp=Z,14µm,17.0s,MS6.2
OBN   Obninsk            59.97 326  eP      P       11 15 06.1 -1.2
      comp=Z,1µm,1.4s,mb6.8
OBN                                  LR     LR
      comp=Z,4µm,19.0s,MS5.6
ISP   Isparta            60.04 306  eP      P       11 15 06.3 -1.7
ISP   Isparta            60.04 306  eP      P       11 15 06.5 -1.5
ISP                                  pmax   pmax
      comp=Z,610nm,1.2s,mb6.5
ISP   Isparta            60.04 306  eP      P       11 15 06.5 -1.5
      comp=Z,613nm,1.3s,mb6.5
HENT  Hendek             60.10 309  i P     P       11 15 06.7 -1.7
ALT   Altintas           60.48 307  eP      P       11 15 10.3 -0.7
KHL   Karahalli          60.86 306  eP      P       11 15 12.8 -0.8
HRT   Hereke             61.03 309  eP      P       11 15 13.0 -1.7
FETY  Fethiye            61.06 304  eP      P       11 15 13.7 -1.3
DNZL  Cakiroluk          61.18 306  i P     P       11 15 13.8 -2.0
DENT  Denizli            61.19 306  eP      P       11 15 15.1 -0.8
YLV   Yalova             61.22 309  eP      P       11 15 14.1 -1.9
ULDT  Uludag             61.35 308  i P     P       11 15 15.7 -1.2
DALT  Dalyan (Mudla)     61.43 305  eP      P       11 15 17.4  0.0
MANT  Manisa             61.63 307  i P     P       11 15 17.4 -1.4
TIXI  Tiksi              61.99  12⇑eP      P       11 15 19.3 -1.5
TIXI                                i               11 15 26.9
TIXI                                 pmax   pmax
      comp=Z,456nm,1.1s,mb6.5
TIXI  Tiksi              61.99  12⇑eP      P       11 15 19.4 -1.4
TIXI                                 LR     LR
      comp=Z,18µm,21.0s,MS6.2
AYDN  Tasoluk            62.10 306  i P     P       11 15 20.8 -1.3
BTOK  Tokmak             62.16 308  i P     P       11 15 20.9 -1.5
AKS   Akhisar            62.25 307  eP      P       11 15 22.4 -0.6
CTA   Charters Tower     62.25 121   P      P       11 15 22.0 -1.2
      comp=Z,35nm,0.8s,mb5.6,baz=306,slow=8.2,SNR=28
CTA                                  S      S       11 23 50.0 +3.1
      comp=Z,3.1nm,1.0s,baz=90,slow=21,SNR=5.8
CTA                                  PKP2bc         11 44 33.5
      comp=Z,9.4nm,1.0s,baz=276,slow=2.3,SNR=4.4
CTA   Charters Tower     62.25 121   P      P       11 15 22.0 -1.2
CTA                                  S      S       11 23 50.0 +3.1
CTA                                ⇑e               11 44 33.5
CTAO  Charters Tower     62.25 121  eP      P       11 15 21.9 -1.3
      comp=Z,161nm,1.2s,mb6.0
CTAO                                 LR     LR
      comp=Z,12µm,20.0s,MS6.1
BNT   Bandirma           62.30 309  eP      P       11 15 22.9 -0.4
BDRM  Kayabasi           62.40 305  i P     P       11 15 19.6 -4.4
MA2   Magadan            62.42  29c iP      P       11 15 22.6 -1.2
MA2                                  pmax   pmax
      comp=Z,126nm,1.0s,mb6.0
MA2   Magadan            62.42  29  eP      P       11 15 22.6 -1.2
      comp=Z,212nm,0.9s,mb6.3
MA2                                  LR     LR
      comp=Z,13µm,19.0s,MS6.1
TIRR  Tirgusor           62.44 313   P      P       11 15 23.7 -0.4
PSN   Preselentsi        62.49 312   P      P       11 15 24.0 -0.5
KIS   Kishinev           62.55 316  eP      P       11 15 24.0 -0.9
KIS                                 e               11 15 41.0
KIS                                 e               11 19 15.0
KIS                                  pmax   pmax
      comp=Z,700nm,1.0s,mb6.8
MRMT  Marmara Adasi      62.57 309  eP      P       11 15 22.8 -2.3
KDAG  Bornova            62.64 306  i P     P       11 15 24.3 -1.2
IZM   Izmir              62.64 306  eP      P       11 15 25.6  0.0
CFR   Carcaliu           62.73 314  ⇑P      P       11 15 25.7 -0.4
SKR   Severo-Kuril's     62.77  40  eP      P       11 15 22.0 -4.2
SKR                                 e               11 15 32.5
SKR                                  pmax   pmax
      comp=N,220nm,1.0s
SKR                                  pmax   pmax
      comp=E,220nm,1.0s
SKR                                  pmax   pmax
      comp=Z,450nm,1.0s,mb6.5
SKR                                  MLR    MLR
      comp=Z,25µm,16.0s,MS6.5
SKR                                  MLR    MLR
      comp=N,9µm,20.0s,MS6.2
SKR                                  MLR    MLR
      comp=E,16µm,20.0s,MS6.2
HARR  Harsova            62.81 313⇑iP      P       11 15 26.1 -0.5
HARR  Harsova            62.81 313⇑iP      P       11 15 26.1 -0.5
MFT   Murefte            62.83 309  eP      P       11 15 29.3 +2.5
SART  Tekirdag           62.90 309  i P     P       11 15 25.8 -1.4
AKASG Malin Array Be     62.99 320   P      P       11 15 26.1 -1.6
      comp=E,176nm,1.0s,mb6.2,baz=83,slow=5.6,SNR=119
AKASG                                S      S       11 23 57.7 +1.9
      comp=E,0.6nm,0.5s,baz=90,slow=14,SNR=4.3
AKASG                                PKPPKP         11 44 31.6
      comp=E,0.9nm,0.6s,baz=271,slow=3.8,SNR=5.4
PRD   Provadia           63.00 312   P      P       11 15 27.0 -0.8
MBAR  Mbarara            63.10 262  eP      P       11 15 29.2 +0.3
      comp=E,210nm,1.3s,mb6.1
MBAR                                 LR     LR
      comp=Z,3µm,19.0s,MS5.5
AYVA  Ayvalik            63.15 307  i P     P       11 15 27.5 -1.5
LPK   Lapseki            63.19 309  eP      P       11 15 29.4 +0.2
JMB   Yambol             63.51 311   P      P       11 15 31.5 +0.2
ALN   Alexandroupoli     63.77 309  eP      P       11 15 32.2 -0.8
VRI   Vrincioaia         63.81 315  ⇑P      P       11 15 33.6 +0.4
VRI   Vrincioaia         63.81 315  ⇑P      P       11 15 33.6 +0.4
ISR   Istrita            63.84 314⇑iP      P       11 15 34.0 +0.6
ISR   Istrita            63.84 314⇑iP      P       11 15 34.0 +0.6
APE   Apeiranthos        63.93 305   P      P       11 15 33.6 -0.5
SANT  Santorini          63.96 304  eP      P       11 15 32.5 -1.8
      comp=Z,349nm,0.8s,mb6.4
SZH   Strazhica          64.07 312   P      P       11 15 35.0  0.0
BUC1  Bucharest          64.12 313   P      P       11 15 36.5 +1.3
DIM   Dimitrovgrad       64.25 310  eP      P       11 15 35.0 -1.2
KDZ   Kurdzhali          64.31 310   P      P       11 15 36.5  0.0
MLR   Muntele Rosu       64.31 314   P      P       11 15 36.8 +0.3
      comp=Z,664nm,1.0s,mb6.6,baz=72,slow=2.1,SNR=80
MLR                                  S      S       11 24 16.4 +4.0
      comp=Z,10nm,1.2s,baz=25,slow=22,SNR=6.5
MLR   Muntele Rosu       64.31 314   P      P       11 15 36.8 +0.3
MLR                                  S      S       11 24 16.4 +4.0
MLR                                  pmax   pmax
      comp=Z,664nm,1.0s
MLR   Muntele Rosu       64.31 314⇑iP      P       11 15 37.1 +0.6
MLR   Muntele Rosu       64.31 314⇑iP      P       11 15 37.3 +0.8
SEY   Seymchan           64.39  26  eP      P       11 15 35.3 -1.4
SEY                                                 11 16 07.0
SEY                                 eS      S       11 24 12.9 -0.2
SEY                                  *SS            11 24 22.9
SEY                                 eSSS    SSS     11 31 16.8 +2.5
SEY                                  pmax   pmax
      comp=E,110nm,1.2s
SEY                                  pmax   pmax
      comp=Z,210nm,1.2s,mb6.0
SEY                                  MLR    MLR
      comp=N,50µm,20.0s,MS6.8
SEY                                  MLR    MLR
      comp=Z,53µm,20.0s,MS6.7
SEY                                  MLR    MLR
      comp=E,24µm,15.0s,MS6.8
IDI   Anoyia             64.39 303   P      P       11 15 36.5 -0.7
      comp=E,151nm,0.8s,mb6.1,baz=98,slow=7.3,SNR=29
IDI                                  PKP2ab         11 44 39.5
      comp=E,22nm,1.0s,baz=335,slow=4.1,SNR=5.5
LOS   Limnos             64.44 308  eP      P       11 15 36.2 -1.2
PVL   Pavlikeni          64.50 312   P      P       11 15 38.0 +0.2
MNK   Minsk              64.64 324  eP      P       11 15 36.0 -2.4
MNK                                 eS      S       11 24 14.0 -2.2
PUL   Pulkovo            64.69 330  eP      P       11 15 38.8 +0.1
PUL                                  pmax   pmax
      comp=E,890nm,1.1s
PUL   Pulkovo            64.69 330  i Pr            11 15 38.0
PET   Petropavlovsk      64.79  38  eP      P       11 15 36.7 -2.7
PET                                  pmax   pmax
      comp=Z,191nm,0.9s,mb6.1
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PET	Petropavlovsk	64.79	38	eP	P	11 15 38.2	-1.2
	comp=Z,145nm,0.9s,mb6.0						
PET				LR	LR		
	comp=Z,24µm,19.0s,MS6.4						
RZN	Rozhen	64.83	310	P	P	11 15 39.0	-0.9
PLD	Plovdiv	64.87	310	P	P	11 15 40.0	-0.2
STKA	Stephens Creek	64.94	135	P	P	11 15 39.9	-0.9
	comp=Z,76nm,0.7s,mb5.8,baz=309,slow=6.6,SNR=43						
STKA				LR	LR	11 43 22.0	
	comp=Z,21µm,21.3s,MS6.3,baz=74,slow=35						
STKA				PKPPKP		11 44 23.9	
	comp=Z,7.0nm,1.0s,baz=184,slow=1.5,SNR=6.2						
STKA	Stephens Creek	64.94	135	eP	P	11 15 39.2	-1.6
GVD	Gavdhos	65.04	302	eP	P	11 15 39.6	-1.8
	comp=Z,265nm,1.0s,mb6.2						
OUR	Ouranopolis	65.30	308	eP	P	11 15 42.2	-0.8
PGB	Panagyurishte	65.30	311	P	P	11 15 42.0	-0.9
AOS	Alonnisos	65.32	307	eP	P	11 15 42.0	-1.2
IDID	Didziasalis	65.43	325	i P	P	11 15 43.1	-0.4
IDID				AMPb	AMB	11 15 49.4	
	comp=Z,279nm,1.1s,mb6.2						
PAIG	Paliouri	65.51	308	eP	P	11 15 43.5	-0.8
MMB	Musomiste	65.56	310	P	P	11 15 43.0	-1.6
SRS	Serrai	65.64	309	eP	P	11 15 44.0	-1.1
IIGN	Ignalina	65.72	325	i P	P	11 15 45.1	-0.3
IIGN				AMPb	AMB	11 15 51.5	
	comp=Z,286nm,1.2s,mb6.2						
IZAR	Zarasai	65.79	325	i P	P	11 15 45.4	-0.5
IZAR				AMPb	AMB	11 15 51.8	
	comp=Z,233nm,1.2s,mb6.1						
SOH	Sokhos	65.80	309	eP	P	11 15 44.9	-1.3
ISAL	Salakas	65.82	325	i P	P	11 15 45.6	-0.4
ISAL				AMPb	AMB	11 15 52.0	
	comp=Z,238nm,1.2s,mb6.1						
LVZ	Lovozero	65.85	339	⇓iP	P	11 15 45.4	-0.6
LVZ				pmax	pmax		
	comp=Z,472nm,1.1s,mb6.4						
LVZ				pmax	pmax		
	comp=E,203nm,2.3s						
LVZ				MLR	MLR		
	comp=Z,23µm,15.0s,MS6.5						
LVZ				MLR	MLR		
	comp=N,15µm,14.0s,MS6.4						
LVZ				MLR	MLR		
	comp=E,13µm,19.0s,MS6.4						
LVZ	Lovozero	65.85	339	⇑iP	P	11 15 45.1	-0.9
XOR	Xorichti	65.86	307	eP	P	11 15 44.5	-2.1
VTS	Vitosha	66.01	311	P	P	11 15 46.5	-1.0
VTS	Vitosha	66.01	311	P	P	11 15 47.1	-0.4
KKB	Krupnik	66.06	310	P	P	11 15 46.8	-1.0
THE	Thessaloniki	66.09	309	eP	P	11 15 46.5	-1.5
VSU	Vasula	66.13	328	c iP	P	11 15 46.9	-1.0
VSU	Vasula	66.13	328	⇑iP	P	11 15 46.0	-1.9
APA	Apatity	66.15	339	⇓iP	P	11 15 47.3	-0.6
APA				pmax	pmax		
	comp=Z,230nm,1.0s,mb6.2						
KNT	Kendrikon	66.16	309	eP	P	11 15 47.3	-1.2
VAY	Valandovo	66.42	309	i P	P	11 15 49.4	-0.7
LIT	Litokhoron	66.43	308	eP	P	11 15 48.4	-1.9
AGG	Agios Georgios	66.52	307	eP	P	11 15 48.9	-1.9
GRG	Griva	66.53	309	eP	P	11 15 49.5	-1.4
KWP	Kalwaria	66.96	318	eP	P	11 15 53.2	-0.2
KWP				MLR	MLR		
	comp=Z,10µm,19.4s,MS6.1						
KWP	Kalwaria	66.96	318	eP	P	11 15 53.2	-0.2
KWP				e	pP	11 15 57.2	-0.5
KWP				MLR	MLR	11 49 11.4	
	comp=Z,10µm,19.4s,MS6.1						
BOLS	Boljevac	67.00	312	⇑iP	P	11 15 52.9	-0.9
FINES	FINESS Array B	67.16	331	P	P	11 15 53.8	-0.7
	comp=Z,153nm,0.9s,mb6.0,baz=104,slow=7.9,SNR=66						
FINES	FINESS Array B	67.16	331	P	P	11 15 53.8	-0.7
FINES				pmax	pmax		
	comp=Z,153nm,0.9s						
KOLS	Kolonicke sedl	67.17	318	eP	P	11 15 54.8	0.0
KOLS				e		11 16 05.8	
KAF	Kangasniemi	67.22	332	ep	P	11 15 54.0	-0.9
	comp=Z,1µm,1.3s,mb6.7,baz=103,slow=6.2						
KAF	Kangasniemi	67.22	332	eP	P	11 15 54.0	-0.9
KAF				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.7						
SUW	Suwalki	67.23	323	eP	P	11 15 54.0	-1.0
SUW				MLR	MLR		
	comp=Z,13µm,21.0s,MS6.1						
SUW	Suwalki	67.23	323	eP	P	11 15 54.0	-1.0
SUW				e	pP	11 15 57.9	-1.4
SUW				MLR	MLR	11 48 55.6	
	comp=Z,13µm,21.0s,MS6.1						
SKO	Skopje	67.29	310	i P	P	11 15 54.2	-1.5
	comp=Z,0.2nm,1.0s						
FNA	Florina	67.30	309	eP	P	11 15 54.0	-1.8
BIA	Bitola	67.35	309	⇓iP	P	11 15 55.5	-0.5
SVIS	Svilajnac	67.55	312	eP	P	11 15 56.7	-0.6
CRVS	Cervenica-Dubn	67.70	317	eP	P	11 15 59.2	+1.1
CRVS				esP	sP	11 16 05.0	+1.1
CRVS				e		11 16 15.8	
OHR	Ohrid	67.75	309	i P	P	11 15 56.5	-2.0
GRUS	Gruza	67.90	312	⇓iP	P	11 15 58.7	-0.7
IGT	Igoumenitsa	68.08	307	eP	P	11 15 59.5	-1.2
BEO	Belgrade	68.12	313	⇑iP	P	11 16 00.2	-0.6
WAR	Warsaw	68.30	321	eP	P	11 16 04.1	+2.3
WAR				MLR	MLR	11 50 36.7	
	comp=Z,20µm,21.3s,MS6.3						
KECS	Kecovo	68.31	317	eP	P	11 16 01.7	-0.2
KECS				epP	pP	11 16 06.0	-0.2
PVY	Plav	68.40	311	⇑iP	P	11 16 01.8	-0.7
QSH	Qafa e Shtames	68.43	309	i p	P	11 16 02.0	-0.8
TIR	Tirane	68.46	309	i p	P	11 16 01.2	-1.7
IVA	Berane	68.46	311	⇑iP	P	11 16 02.3	-0.7
NIE	Niedzica	68.49	318	eP	P	11 16 03.4	+0.4
PSZ	Piszkesteto	68.67	316	eP	P	11 16 03.7	-0.5
PSZ				pmax	pmax		
	comp=Z,570nm,1.3s,mb6.3						
PSZ	Piszkesteto	68.67	316	⇑eP	P	11 16 04.0	-0.2
PLE	Pljevlja	68.84	311	⇑iP	P	11 16 05.1	-0.1
OJC	Ojcow	68.89	319	⇑iP	P	11 16 05.1	-0.3
OJC				eS	S	11 25 05.5	-2.2
OJC				LR	LR		
	comp=Z,12µm,19.9s,MS6.1						
OJC	Ojcow	68.89	319	i P	P	11 16 05.1	-0.3
OJC				eS	S	11 25 05.5	-2.2
OJC				MLR	MLR	11 48 57.4	
	comp=Z,12µm,19.9s,MS6.1						
TTG	Podgorica	68.92	310	⇑iP	P	11 16 04.4	-1.4
ULC	Ulcinj	68.92	310	⇑iP	P	11 16 04.7	-1.1
PENC	Penc	69.08	316	⇑eP	P	11 16 06.7	0.0
NKY	Niksic	69.12	311	⇑iP	P	11 16 05.8	-1.2
KEV	Kevo	69.12	340	ep	P	11 16 06.3	-0.3
	comp=Z,895nm,1.3s,mb6.5						
KEV	Kevo	69.12	340	eP	P	11 16 06.3	-0.3
KEV				pmax	pmax		
	comp=Z,895nm,1.3s,mb6.5						
BUM	Brajici-Budva	69.19	310	⇑iP	P	11 16 06.2	-1.3
UPM	Unac-Piva	69.19	311	⇑iP	P	11 16 07.0	-0.4
BUD	Budapest	69.24	316	eP	P	11 16 07.5	-0.1
LIKS	Likavka	69.26	318	eP	P	11 16 05.9	-1.9
LIKS				epP	pP	11 16 11.5	-0.5
VYHS	Vyhne	69.41	317	i P	P	11 16 08.3	-0.4
VYHS				e		11 16 19.6	
VYHS				e		11 16 28.8	
VYHS	Vyhne	69.41	317	i P	P	11 16 08.3	-0.4
VYHS				epP	pP	11 16 12.2	-0.7
VYHS				e		11 16 19.6	
VYHS				e		11 16 28.8	
PKSM	Moragy	69.45	314	⇑eP	P	11 16 08.4	-0.6
BRY	Bratogost	69.45	311	⇑iP	P	11 16 08.6	-0.4
HCY	Herceg Novi	69.49	310	⇑iP	P	11 16 08.9	-0.4
ARCES	ARCESS Array B	69.56	340	P	P	11 16 09.1	-0.1
	comp=Z,165nm,0.8s,mb6.0,baz=94,slow=5.8,SNR=78						
ARCES	ARCESS Array B	69.56	340	P	P	11 16 09.1	-0.1
ARCES				pmax	pmax		
	comp=Z,165nm,0.8s						
ARE0	ARCESS Array S	69.56	340	eP	P	11 16 09.1	-0.1
PKSG		69.66	316	⇓eP	P	11 16 10.3	+0.1
SRO2	Moca	69.67	316	eP	P	11 16 11.0	+0.7
KOLL	Kolacno	69.70	317	eP	P	11 16 10.4	-0.1
KOLL				e		11 16 35.1	
SRO	Srobarova	69.73	316	i P	P	11 16 11.0	+0.4
SRO				e		11 16 22.3	
SRO				e		11 16 26.3	
SRO	Srobarova	69.73	316	i P	P	11 16 11.0	+0.4
SRO				epP	pP	11 16 15.1	+0.2
SRO				e		11 16 22.3	
SRO				e		11 16 26.3	
LCI	Lecce	69.79	308	eP	P	11 16 10.3	-0.8
RHK1	Bakonya	69.84	314	⇑eP	P	11 16 10.6	-0.8
OKC	Ostrava-Krasne	69.93	318	⇑iP	P	11 16 11.8	0.0
OKC				MLR	MLR		
	comp=Z,8µm,17.7s,MS6.0						
OKC	Ostrava-Krasne	69.93	318	⇑iP	P	11 16 11.8	0.0
OKC				epP	pP	11 16 16.0	0.0
OKC				AMS	AMS	11 56 00.0	
	comp=Z,8µm,17.7s						
LSZ	Lusaka	70.07	248	eP	P	11 16 13.8	+0.6
LSZ				pmax	pmax		
	comp=Z,250nm,1.2s,mb6.0						
LSZ	Lusaka	70.07	248	eP	P	11 16 13.8	+0.6
	comp=Z,249nm,1.3s,mb6.0						
LSZ				e	pP	11 16 18.6	+1.1
LSZ				LR	LR		
	comp=Z,36µm,19.0s,MS6.7						
STON	Ston	70.08	311	i P	P	11 16 12.8	-0.1
KTK1	Kautokeino	70.19	339	eP	P	11 16 13.7	+0.6
KTK1				epP	pP	11 16 17.9	+0.5
KTK1				AMb	AMB	11 16 19.6	
	comp=Z,821nm,1.3s,mb6.5						
KTK1	Kautokeino	70.19	339	eP	P	11 16 13.7	+0.6
	comp=Z,821nm,1.3s,mb6.5						
MORC	Moravsky Berou	70.31	318	eP	P	11 16 14.2	0.0
MORC				pmax	pmax		
	comp=Z,690nm,1.1s,mb6.5						
MORC	Moravsky Berou	70.31	318	eP	P	11 16 14.2	0.0
	comp=Z,692nm,1.1s,mb6.5						
SMOL	Smolenice	70.34	317	eP	P	11 16 14.0	-0.4
SMOL				e		11 16 22.2	
ZST	Bratislava	70.55	317	eP	P	11 16 15.8	+0.1
ZST				e		11 16 35.8	
ZST	Bratislava	70.55	317	eP	P	11 16 15.8	+0.1
ZST				epP	pP	11 16 19.7	-0.2
ZST				e		11 16 35.8	
WAKE	Wake Island	70.58	74	PFAKE		11 16 30.0	+14
WAKE				LR	LR		
	comp=Z,156µm,20.0s,MS7.3						
GKP	Gorka Klasztor	70.67	322	eP	P	11 16 15.8	-0.5
GKP				MLR	MLR		
	comp=Z,16µm,23.9s,MS6.2						
GKP	Gorka Klasztor	70.67	322	eP	P	11 16 15.8	-0.5
GKP				e	pP	11 16 19.5	-1.0
GKP				MLR	MLR	11 49 34.0	
	comp=Z,16µm,23.9s,MS6.2						
LTRZ	Laterza	70.77	309	eP	P	11 16 16.6	-0.5
TIP	Timpagrande	70.86	307	eP	P	11 16 16.9	-0.8
TIP				e	pP	11 16 21.4	-0.5
SOP	Sopron	70.91	316	⇑eP	P	11 16 17.7	-0.1
VRAC	Vranov	70.92	318	P	P	11 16 17.7	-0.2
	comp=Z,50nm,0.8s,mb5.5,baz=96,slow=6.3,SNR=28						
VRAC	Vranov	70.92	318	P	P	11 16 17.7	-0.2
VRAC				pmax	pmax		
	comp=Z,50nm,0.9s						
VRAC	Vranov	70.92	318	P	P	11 16 17.9	0.0
ORI	Oriolo Calabro	71.06	308	eP	P	11 16 19.4	+0.4
DPC	Dobruska-Polom	71.12	319	⇑iP	P	11 16 19.6	+0.5
DPC				eS	S	11 25 34.6	+0.7
DPC				MLR	MLR		
	comp=Z,15µm,20.3s,MS6.2						
DPC	Dobruska-Polom	71.12	319	⇑iP	P	11 16 19.6	+0.5
DPC				epP	pP	11 16 23.4	+0.1
DPC				eS	S	11 25 34.6	+0.7
DPC				AMS	AMS	11 49 30.0	
	comp=Z,15µm,20.3s						
GRI	Girifalco	71.13	307	eP	P	11 16 19.6	+0.3
KSP	Ksiaz	71.15	319	⇑eP	P	11 16 19.5	+0.3
KSP				epP	pP	11 16 23.2	-0.3
KSP				LR	LR		
	comp=Z,30µm,20.1s,MS6.5						
KSP	Ksiaz	71.15	319	eP	P	11 16 19.8	+0.6
KSP				e	pP	11 16 23.5	0.0
KSP				MLR	MLR	11 52 28.1	
	comp=Z,26µm,20.1s,MS6.5						
UPC	Upice	71.32	319	⇑iP	P	11 16 20.5	+0.2
UPC				epP	pP	11 16 24.6	+0.1
BILL	Bilibino	71.36	22	⇑eP	P	11 16 19.2	-1.0
BILL				pmax	pmax		
	comp=Z,129nm,1.0s,mb5.8						
BILL	Bilibino	71.36	22	⇑eP	P	11 16 19.3	-0.9
FGMS	Monte Sant'Ang	71.39	310	eP	P	11 16 19.9	-0.9
SOI	Samo	71.45	306	eP	P	11 16 21.6	+0.3
GCIS	Gornji Cirnik	71.55	314	eP	P	11 16 21.4	-0.3
ARSA	Arzberg	71.61	316	⇑iP	P	11 16 22.0	-0.1
	comp=Z,190nm,1.1s,mb5.9						
RGNG	Rignano Grg	71.67	310	eP	P	11 16 21.4	-1.1
SCLL	Scilla	71.71	306	eP	P	11 16 22.9	+0.1
FG4	Candela	71.74	309	eP	P	11 16 24.6	+1.7
MTTG	Motta San Giov	71.74	306	eP	P	11 16 23.7	+0.7
MGR	Morigerati	71.75	308	eP	P	11 16 22.3	-0.7
MRLC	Muro Lucano	71.77	309	eP	P	11 16 25.8	+2.7
BOJS	Bojanci	71.81	314	eP	P	11 16 22.9	-0.4
TRO	Tromso	71.82	339	eP	P	11 16 21.3	-1.7
TRO				AMb	AMB	11 16 27.3	
	comp=Z,707nm,1.1s,mb6.5						
PERS	Pernice	71.89	315	eP	P	11 16 23.7	-0.1
SGO	Sicignano	71.92	309	eP	P	11 16 24.1	+0.1
NVLJ	Novalja	72.10	313	i P	P	11 16 23.3	-1.7
BSD	Bornholm Skovb	72.12	324	i P	P	11 16 24.0	-1.0
BSD				pmax	pmax		
	comp=Z,370nm,1.0s,mb6.3						
BSD	Bornholm Skovb	72.12	324	i P	P	11 16 24.0	-1.0
	comp=Z,370nm,1.0s,mb6.3						
AGST	Augusta-Monte	72.16	305	eP	P	11 16 24.9	-0.6
PVCC	Panska Ves	72.24	319	eP	P	11 16 25.9	+0.1
PVCC				MLR	MLR		
	comp=Z,14µm,18.4s,MS6.3						
PVCC	Panska Ves	72.24	319	⇑eP	P	11 16 25.9	+0.1
PVCC				epP	pP	11 16 30.3	+0.3
PVCC				AMS	AMS	11 50 30.0	
	comp=Z,14µm,18.4s						
PRU	Pruhonice	72.26	318	eP	P	11 16 26.0	+0.1
PRU				eS	S	11 25 47.1	+0.1
PRU				MLR	MLR		
	comp=Z,10µm,18.4s,MS6.1						
PRU	Pruhonice	72.26	318	⇑eP	P	11 16 26.0	+0.1
	comp=Z,486nm,1.2s,mb6.3						
PRU				epP	pP	11 16 30.1	0.0
PRU				eS	S	11 25 47.1	+0.1
PRU				AMS	AMS	11 58 30.0	
	comp=Z,10µm,18.4s						
OBKA	Obir	72.29	315	⇑iP	P	11 16 26.4	+0.3
	comp=Z,532nm,1.2s,mb6.3						
LJU	Ljubljana	72.31	314	eP	P	11 16 26.1	-0.2
PRA	Prague	72.33	319	⇑P	P	11 16 27.0	+0.7
PZI	Palazzolo	72.39	305	eP	P	11 16 27.3	+0.4
MOA	Molln	72.46	316	⇑iP	P	11 16 26.7	-0.4
	comp=Z,284nm,1.1s,mb6.1						
CII	Carovilli	72.62	310	eP	P	11 16 27.6	-0.6
	comp=Z,245nm,1.6s,mb5.9						
JAVS	Javornik	72.64	314	eP	P	11 16 27.5	-0.7
BRG	Berggiesshubel	72.64	319	⇑iP	P	11 16 28.5	+0.4
BRG				i	pP	11 16 33.5	+1.1
BRG				pmax	pmax		
	comp=Z,505nm,1.1s,mb6.4						
BRG	Berggiesshubel	72.64	319	⇑iP	P	11 16 28.5	+0.4
	comp=Z,505nm,1.1s,mb6.4						
BRG				i	pP	11 16 33.5	+1.1
RUE	Ruedersdorf	72.74	321	eP	P	11 16 28.7	0.0
	comp=Z,1µm,1.1s,mb6.7						
VOY	Vojsko	72.75	314	⇑eP	P	11 16 28.3	-0.6
GEC2	GERESS Array S	72.82	317	eP	P	11 16 29.4	+0.2
GEC2				pmax	pmax		
	comp=Z,547nm,1.0s,mb6.4						
GEC2	GERESS Array S	72.82	317	eP	P	11 16 29.4	+0.2
	comp=Z,547nm,1.0s,mb6.4						
GERES	GERESS Array B	72.82	317	P	P	11 16 29.3	+0.1
	comp=Z,197nm,0.8s,mb6.1,baz=90,slow=4.0,SNR=128						
GERES	GERESS Array B	72.82	317	P	P	11 16 29.3	+0.1
GERES				pmax	pmax		
	comp=Z,197nm,0.9s						
TRI	Trieste	72.85	314	eP	P	11 16 28.6	-0.8
CADS	Cadrg	72.86	314	eP	P	11 16 28.9	-0.6
KHC	Kasperske Hory	72.89	318	⇑iP	P	11 16 29.5	-0.1
KHC				eS	S	11 25 55.2	+1.0
KHC				AMS	AMS	11 55 00.0	
	comp=Z,10µm,16.8s						
HFS	Hagfors	72.98	329	P	P	11 16 29.4	-0.5
	comp=Z,231nm,0.8s,mb6.1,baz=90,slow=5.9,SNR=58						
HFS	Hagfors	72.98	329	P	P	11 16 29.4	-0.5
HFS				pmax	pmax		
	comp=Z,231nm,0.9s						
ROBS	Robic	73.01	315	eP	P	11 16 29.8	-0.6
RGN	Rugen	73.03	323	eP	P	11 16 30.4	+0.1
	comp=Z,697nm,1.1s,mb6.5						
CSLB	Castelbuono	73.04	306	eP	P	11 16 33.0	+2.3
MOR8	Moi Rana	73.04	335	⇑iP	P	11 16 29.0	-1.2
MOR8				epP	pP	11 16 33.4	-1.0
MOR8				AMb	AMB	11 16 35.1	
	comp=Z,711nm,1.2s,mb6.5						
MOR8	Moi Rana	73.04	335	⇑iP	P	11 16 29.0	-1.2
	comp=Z,711nm,1.2s,mb6.5						
KBA	Koelnbreinsper	73.10	315	⇑iP	P	11 16 30.2	-0.7
	comp=Z,224nm,1.1s,mb6.0						
PTCC	Patocco-Chiusa	73.11	315	eP	P	11 16 30.6	-0.4
GMNA	Gemona	73.20	315	eP	P	11 16 31.4	-0.1
CLL	Collm	73.23	320	⇓iP	P	11 16 31.9	+0.3
CLL				eS	S	11 25 48.0	-10
CLL				pmax	pmax		
	comp=Z,534nm,1.2s,mb6.3						
CLL				MLR	MLR		
	comp=Z,18µm,17.4s,MS6.4						
CLL	Collm	73.23	320	⇓iP	P	11 16 31.9	+0.3
	comp=Z,534nm,1.2s,mb6.3						
CLL				i	pP	11 16 35.1	-0.7
CLL				eS	S	11 25 48.0	-10
CLL				LR	LR		
	comp=Z,18µm,17.4s,MS6.4						
CLL	Collm	73.23	320	⇓P	P	11 16 31.9	+0.3
	comp=Z,logA/T=2.2,mb5.9						
CLL				i *PP	pP	11 16 35.1	-0.7
CLL				e		11 18 46.0	
CLL				ePP	PP	11 19 13.0	-3.8
CLL				eS	S	11 25 54.0	-4.0
AQU	L'Aquila	73.26	310	P	P	11 16 31.6	-0.3
AQU				pmax	pmax		
	comp=Z,250nm,1.2s,mb6.0						
AQU	L'Aquila	73.26	310	eP	P	11 16 31.5	-0.4
PTQR	Pietraquaria	73.28	310	eP	P	11 16 31.4	-0.7
WET	Wettzell	73.35	318	eP	P	11 16 32.6	+0.3
WET				pmax	pmax		
	comp=Z,541nm,1.2s,mb6.3						
WET	Wettzell	73.35	318	eP	P	11 16 32.6	+0.3
	comp=Z,541nm,1.2s,mb6.3						
NRCA	Norcia	73.45	311	eP	P	11 16 32.2	-0.8
FX1	Attu Island--F	73.50	39	eP	P	11 16 32.2	-0.9
FVI	Forni Avoltri	73.50	315	eP	P	11 16 32.5	-0.7
ARV	Arcevia	73.54	312	eP	P	11 16 33.2	-0.3
COP	Copenhagen	73.55	324	i P	P	11 16 34.2	+0.9
COP				pmax	pmax		
	comp=Z,260nm,1.0s,mb6.1						
COP	Copenhagen	73.55	324	i P	P	11 16 34.2	+0.9
	comp=Z,258nm,1.0s,mb6.1						
COP				i		11 16 57.3	
SNTG	Esanatoglia	73.55	311	eP	P	11 16 33.2	-0.4
LOF	Lofoten	73.56	337	⇑iP	P	11 16 34.5	+1.3
LOF				AMb	AMB	11 16 40.3	
	comp=Z,785nm,1.6s,mb6.4						
LOF	Lofoten	73.56	337	⇑iP	P	11 16 34.5	+1.3
	comp=Z,785nm,1.6s,mb6.4						
NKC	Novy Kostel	73.60	319	⇑iP	P	11 16 34.0	+0.2
NKC				eS	S	11 26 04.4	+2.2
NKC				MLR	MLR		
	comp=Z,14µm,18.7s,MS6.3						
NKC	Novy Kostel	73.60	319	⇑iP	P	11 16 34.0	+0.2
NKC				epP	pP	11 16 38.2	+0.2
NKC				eS	S	11 26 04.4	+2.2
NKC				AMS	AMS	11 53 30.0	
	comp=Z,14µm,18.7s						
FSSB	Fossombrone	73.64	312	eP	P	11 16 34.1	-0.1
MNS	Montasola	73.79	311	eP	P	11 16 34.4	-0.6
RSM	Repubblica di	73.87	312	eP	P	11 16 35.5	+0.1
NSS	Namsos	73.97	334	eP	P	11 16 34.2	-1.4
NSS				AMb	AMB	11 16 39.8	
	comp=Z,682nm,0.8s,mb6.6						
SMY	Shemya	74.07	39	P	P	11 16 36.2	-0.2
SMY				pmax	pmax		
	comp=Z,560nm,0.8s,mb6.5						
SMY	Shemya	74.07	39	eP	P	11 16 35.4	-1.0
MOX	Moxa	74.12	319	eP	P	11 16 36.8	+0.1
MOX	Moxa	74.12	319	i P	P	11 16 36.8	+0.1
ERC	Erice	74.19	306	eP	P	11 16 38.1	+0.7
NB2	NORSAR Subarra	74.22	330	P	P	11 16 36.4	-0.7
	comp=Z,401nm,1.0s,mb6.3,baz=90,slow=5.8						
NB2	NORSAR Subarra	74.22	330	P	P	11 16 36.4	-0.7
	baz=90,slow=6.2						
NOA	NORSAR Array B	74.22	330	P	P	11 16 36.4	-0.7
	comp=Z,123nm,0.8s,mb5.9,baz=90,slow=5.7,SNR=80						
NOA				PP	PP	11 19 24.2	-0.6
	comp=Z,11nm,0.9s,baz=92,slow=8.1,SNR=4.1						
NOA				LR	LR	11 55 34.4	
	comp=Z,16µm,18.8s,MS6.3,baz=115,slow=41						
NOA	NORSAR Array B	74.22	330	P	P	11 16 36.4	-0.7
NOA						11 19 24.2	
NOA				pmax	pmax		
	comp=Z,123nm,0.8s						
NOA				pmax	pmax		
	comp=Z,11nm,0.9s						
WTTA	Wattenberg	74.26	316	⇑iP	P	11 16 37.1	-0.5
	comp=Z,499nm,1.3s,mb6.3						
WATA	Walderalm	74.29	316	⇑iP	P	11 16 37.0	-0.8
	comp=Z,200nm,1.0s,mb6.0						
SFI	Santa Sofia	74.31	312	eP	P	11 16 39.0	+1.1
CTI	Castel Tesino	74.31	314	eP	P	11 16 37.7	-0.2
NAO01	NORSAR Array S	74.38	330	eP	P	11 16 36.3	-1.7
	comp=Z,329nm,1.0s,mb6.2						
NAO01				LR	LR		
	comp=Z,22µm,19.0s,MS6.5						
PGD	Poggio Sodo	74.40	312	eP	P	11 16 39.2	+0.7
GRA1	Grafenberg Arr	74.42	318	eP	P	11 16 38.9	+0.4
	comp=Z,658nm,1.2s,mb6.4						
GRA1				e	pP	11 16 43.2	+0.5
GRF	Grafenberg Arr	74.42	318	eP	P	11 16 38.9	+0.4
GRF				pmax	pmax		
	comp=Z,658nm,1.2s,mb6.4						
GRF	Grafenberg Arr	74.42	318	eP	P	11 16 38.9	+0.4
	comp=Z,658nm,1.2s,mb6.4						
GRF				e	pP	11 16 43.2	+0.5
FUR	Furstenfeldbru	74.45	317	eP	P	11 16 38.6	-0.1
FUR				pmax	pmax		
	comp=Z,414nm,1.2s,mb6.2						
FUR	Furstenfeldbru	74.45	317	eP	P	11 16 38.6	-0.1
	comp=Z,414nm,1.2s,mb6.2						
OSL	Oslo	74.46	329	eP	P	11 16 38.6	+0.1
OSL				epP	pP	11 16 43.0	+0.2
OSL				AMb	AMB	11 16 44.1	
	comp=Z,218nm,1.2s,mb6.0						
OSL	Oslo	74.46	329	eP	P	11 16 37.9	-0.6
	comp=Z,218nm,1.2s,mb6.0						
VMG	Vicchio	74.52	312	eP	P	11 16 40.3	+1.1
SQTA	Sankt Quirin	74.55	316	⇑iP	P	11 16 38.7	-0.6
	comp=Z,147nm,0.6s,mb6.1						
MOTA	Moosalm	74.61	316	⇑iP	P	11 16 38.9	-0.8
	comp=Z,187nm,0.9s,mb6.0						
SEI	Scarperia	74.65	312	eP	P	11 16 40.8	+0.8
CSNT	Castellina Chi	74.74	312	eP	P	11 16 39.2	-1.3
BSEG	Bad Segeberg	74.80	323	eP	P	11 16 41.2	+0.6
BSEG				pmax	pmax		
	comp=Z,903nm,1.1s,mb6.6						
FNVD	Fontana Vidola	74.81	312	eP	P	11 16 43.8	+3.0
CLZ	Clausthal	74.86	320	eP	P	11 16 41.3	+0.3
	comp=Z,726nm,1.1s,mb6.5						
ZCCA	Zocca	74.90	313	eP	P	11 16 43.1	+1.7
GRFL	Gerfalco	74.99	311	eP	P	11 16 40.9	-1.1
KONO	Kongsberg	75.03	329	PFAKE		11 16 50.0	+8.2
KONO				LR	LR		
	comp=Z,21µm,19.0s,MS6.5						
MABI	Malga Bissina	75.10	314	eP	P	11 16 47.4	+4.8
HDH	Heidenheim	75.14	317	⇑eP	P	11 16 42.1	-0.6
BRMO	Bormio	75.17	315	eP	P	11 16 42.5	-0.4
GSCL	Gusciola	75.18	313	eP	P	11 16 43.8	+0.8
BDI	Bagni Di Lucca	75.19	312	eP	P	11 16 42.3	-0.8
FUORN	Ofenpass	75.23	315	⇑iP	P	11 16 43.0	-0.3
DOMB	Dombas	75.25	331	⇑iP	P	11 16 42.8	-0.3
DOMB				epP	pP	11 16 47.1	-0.2
DOMB				AMb	AMB	11 16 48.8	
	comp=Z,560nm,1.4s,mb6.3						
DOMB	Dombas	75.25	331	⇑iP	P	11 16 42.8	-0.3
	comp=Z,560nm,1.4s,mb6.3						
UBR	Uberruh	75.27	316	⇑eP	P	11 16 42.8	-0.6
PII	Pisa	75.27	312	eP	P	11 16 42.0	-1.5
MAIM		75.28	312	P	P	11 16 42.5	-1.1
ERBM	Eremo	75.30	313	eP	P	11 16 44.7	+1.0
VLC	Villacollemand	75.34	312	eP	P	11 16 43.2	-0.7
	comp=Z,153nm,1.1s,mb5.8						
MUD	Monsted U'grnd	75.36	325	i P	P	11 16 44.8	+1.0

MUD				pmax	pmax		
	comp=Z,530nm,1.0s,mb6.4						
MUD	Monsted U'grnd	75.36	325	iP	P	11 16 44.8	+1.0
	comp=Z,528nm,1.0s,mb6.4						
BERNI	Berninapass	75.42	315	⇑iP	P	11 16 44.6	+0.3
VALM		75.42	313	P	P	11 16 44.1	-0.3
DAVA	Damuels	75.45	316	⇑iP	P	11 16 44.2	-0.3
	comp=Z,676nm,1.1s,mb6.5						
DAVOX	Davos	75.49	315	P	P	11 16 44.8	+0.1
	comp=Z,238nm,1.0s,mb6.1,baz=109,slow=4.0,SNR=54						
DAVOX	Davos	75.49	315	⇑iP	P	11 16 44.7	0.0
SIND	Sindeldorf	75.49	318	⇑eP	P	11 16 44.8	+0.2
VINC	Vinca	75.51	312	P	P	11 16 43.6	-1.3
GRAM		75.54	313	P	P	11 16 44.5	-0.6
BACM		75.55	313	P	P	11 16 44.5	-0.7
CODM		75.70	313	P	P	11 16 44.9	-1.0
BUCH	Bad Urach	75.72	317	⇑eP	P	11 16 45.6	-0.4
VDL	Val di Lei	75.79	315	⇑iP	P	11 16 46.5	+0.1
STU	Stuttgart	75.80	317	P	P	11 16 45.9	-0.5
STU				pmax	pmax		
	comp=Z,250nm,1.1s,mb6.1						
STU	Stuttgart	75.80	317	eP	P	11 16 46.1	-0.3
	comp=Z,248nm,1.1s,mb6.0						
PLONS	Plons	75.81	316	⇑iP	P	11 16 46.2	-0.3
GUT	Gutenstein	75.90	317	⇑eP	P	11 16 46.5	-0.5
LBTB	Lobatse	75.91	240	P	P	11 16 48.8	+1.3
LBTB				pmax	pmax		
	comp=Z,270nm,1.0s,mb6.1						
LBTB	Lobatse	75.91	240	eP	P	11 16 48.5	+0.9
	comp=Z,272nm,1.0s,mb6.1						
LBTB				LR	LR		
	comp=Z,22µm,19.0s,MS6.5						
BOB	Bobbio (Coli)	75.95	313	eP	P	11 16 48.1	+0.7
TOD	Tromm	75.99	318	⇑eP	P	11 16 47.4	-0.1
TOD	Tromm	75.99	318	eP	P	11 16 47.3	-0.2
SWS	Schriesheim	76.06	318	⇑eP	P	11 16 47.7	-0.2
LBG	Lerchenberg	76.07	317	⇑eP	P	11 16 47.7	-0.3
LLS	Linth-Limmern	76.08	315	⇑iP	P	11 16 47.8	-0.2
WILA	Wila	76.10	316	⇑iP	P	11 16 47.2	-0.9
SPAK	Spaichingen	76.12	317	eP	P	11 16 47.9	-0.4
SPAK	Spaichingen	76.12	317	eP	P	11 16 48.0	-0.3
MUGIO	Muggio	76.14	314	⇑iP	P	11 16 48.0	-0.4
TRULL	Truellikon	76.23	316	⇑iP	P	11 16 48.3	-0.6
MUO	Muotathal	76.32	315	⇑iP	P	11 16 49.7	+0.3
VAI	Varese	76.33	314	eP	P	11 16 48.8	-0.7
BFO	Black Forest	76.41	317	eP	P	11 16 49.6	-0.3
BFO				pmax	pmax		
	comp=Z,208nm,1.2s,mb5.9						
BFO	Black Forest	76.41	317	eP	P	11 16 49.6	-0.3
	comp=Z,208nm,1.2s,mb5.9						
BNALP	Bannalp	76.47	315	⇑iP	P	11 16 50.4	+0.1
KTD	Kalmit	76.48	318	eP	P	11 16 50.3	0.0
KTD	Kalmit	76.48	318	eP	P	11 16 50.5	+0.2
PGF	Pioggiola	76.49	311	eP	P	11 16 50.1	-0.4
	comp=Z,560nm,1.3s,mb6.0						
ODD1	Odda	76.53	329	eP	P	11 16 49.5	-0.8
ODD1				AMb	AMB	11 16 57.3	
	comp=Z,234nm,1.2s,mb6.0						
VSL	Villasalto	76.54	308	eP	P	11 16 50.5	-0.3
	comp=Z,205nm,1.2s,mb5.9						
PCP	Pian Castagno	76.62	313	P	P	11 16 50.7	-0.4
SULZ	Sulz-Cheisache	76.62	316	⇑iP	P	11 16 50.7	-0.4
BLS5	Blasjo	76.64	328	eP	P	11 16 52.6	+1.7
BLS5				AMb	AMB	11 16 58.5	
	comp=Z,249nm,1.1s,mb6.1						
BLS5	Blasjo	76.64	328	eP	P	11 16 52.6	+1.7
	comp=Z,249nm,1.1s,mb6.0						
HYA	Hoyanger	76.66	330	eP	P	11 16 53.0	+2.0
HYA				AMb	AMB	11 16 57.7	
	comp=Z,478nm,1.1s,mb6.3						
FELD	Feldberg	76.67	316	eP	P	11 16 51.1	-0.2
HASLI	Hasliberg	76.67	315	⇑eP	P	11 16 51.2	-0.2
LANF	Langenberg	76.69	318	eP	P	11 16 51.3	-0.1
KIZ	Kirchzarten	76.72	317	⇑eP	P	11 16 51.1	-0.5
STR	Strasbourg	76.76	317	eP	P	11 16 51.7	-0.1
ABH	Alteburg	76.78	319	⇑eP	P	11 16 51.9	0.0
MCGN	Macugnaga	76.86	314	eP	P	11 16 52.1	-0.3
FIN	Finale Ligure	76.89	313	P	P	11 16 52.3	-0.4
ORX	Oropa	76.90	314	P	P	11 16 51.1	-1.5
LIBD	Limburg	76.91	317	eP	P	11 16 52.4	-0.3
LIBD	Limburg	76.91	317	eP	P	11 16 52.5	-0.2
BALST	Balsthal	76.92	316	⇑iP	P	11 16 52.4	-0.4
BBS	Basel-Blauen	77.04	316	eP	P	11 16 52.4	-1.0
WIMIS	Wimmis	77.04	315	⇑iP	P	11 16 53.4	0.0
WLS	Welschbruch	77.05	317	eP	P	11 16 52.7	-0.7
WTSB	Winterswijk	77.06	321	eP	P	11 16 53.4	0.0
	comp=Z,173nm,1.5s,mb5.8						
WIT	Witteveen	77.06	322	eP	P	11 16 54.1	+0.7
	comp=Z,672nm,1.5s,mb6.3						
STAV	Stavanger	77.07	328	eP	P	11 16 53.7	+0.4
STAV				epP	pP	11 16 56.7	-0.9
STAV				AMb	AMB	11 16 59.1	
	comp=Z,309nm,1.1s,mb6.1						
LKBD	Leukerbad	77.07	315	⇑iP	P	11 16 53.8	+0.2
CDF	Champ du Feu	77.10	317	eP	P	11 16 53.3	-0.4
	comp=Z,479nm,1.2s,mb6.0						
RUP	Ruppelstein	77.11	318	⇑eP	P	11 16 53.9	+0.2
RUP	Ruppelstein	77.11	318	eP	P	11 16 54.0	+0.3
RUND	Rundenannen	77.12	329	⇑iP	P	11 16 53.6	+0.1
RUND				epP	pP	11 16 58.1	+0.3
RUND				AMb	AMB	11 16 59.9	
	comp=Z,628nm,1.5s,mb6.3						
ROB	Roburent	77.12	313	P	P	11 16 53.5	-0.4
IMI	Imperia	77.15	312	eP	P	11 16 53.2	-0.9
FOO	Floro	77.18	331	eP	P	11 16 55.0	+1.1
FOO				AMb	AMB	11 17 02.0	
	comp=Z,262nm,1.6s,mb5.9						
ECH	Echery	77.20	317	eP	P	11 16 53.5	-0.8
MONE	Monesi	77.23	313	P	P	11 16 54.4	-0.1
DIX	Grande Dixence	77.25	315	⇑iP	P	11 16 55.2	+0.6
MOF	Molkenrain	77.25	316	eP	P	11 16 54.2	-0.4
NEGI	Negi	77.29	312	P	P	11 16 54.0	-0.9
GRYON	Gryon	77.44	315	⇑iP	P	11 16 55.5	-0.1
ENR	Entracque	77.45	313	P	P	11 16 55.2	-0.6
RSP	Reno Superiore	77.46	314	P	P	11 16 54.9	-0.9
AUTN	L'Aution	77.47	313	eP	P	11 16 57.6	+1.7
SBF	Sospel	77.48	312	eP	P	11 16 55.6	-0.3
	comp=Z,550nm,1.1s,mb6.1						
TORNY	Torny	77.49	315	⇑iP	P	11 16 56.1	+0.2
BHB	Bricherasio	77.49	313	P	P	11 16 54.4	-1.6
LSD	Ceresole Reale	77.50	314	P	P	11 16 56.4	+0.4
LOMF	Lomont	77.51	316	eP	P	11 16 55.8	-0.2
STV2	Anna di Valdie	77.52	313	P	P	11 16 55.0	-1.1
STV	Sta Anna Valdi	77.52	313	P	P	11 16 54.7	-1.4
DOI	San Damiano	77.55	313	eP	P	11 16 55.6	-0.7
SALAN	Lac Salanfe	77.55	315	⇑iP	P	11 16 56.6	+0.4
REVF	Revere	77.55	312	eP	P	11 16 58.5	+2.2
BOSA	Boshof	77.57	236	P	P	11 16 57.4	+0.7
BOSA				pmax	pmax		
	comp=Z,350nm,0.9s,mb6.3						
BOSA	Boshof	77.57	236	eP	P	11 16 57.5	+0.8
	comp=Z,352nm,0.9s,mb6.3						
BOSA				LR	LR		
	comp=Z,11µm,19.0s,MS6.2						
TOUF	Mont Tournerai	77.60	313	eP	P	11 16 57.9	+1.3
EMV	Vieux Emosson	77.61	315	⇑iP	P	11 16 56.9	+0.3
FENE	Fenestrelle	77.61	314	P	P	11 16 56.4	-0.2
PZZ	Prazzo	77.65	313	P	P	11 16 55.2	-1.6
MVIF	Mont Vial	77.68	312	eP	P	11 16 57.9	+0.9
WLF	Walferdange	77.70	318	P	P	11 16 58.0	+1.0
WLF				pmax	pmax		
	comp=Z,330nm,1.2s,mb6.1						
WLF	Walferdange	77.70	318	eP	P	11 16 56.8	-0.2
	comp=Z,329nm,1.3s,mb6.1						
HGN	Heimansgroeve	77.72	320	eP	P	11 16 57.0	-0.1
	comp=Z,36nm,1.4s,mb5.1						
OG22	Abries	77.72	313	eP	P	11 16 56.4	-0.8
HAU	Haudompre	77.76	317	eP	P	11 16 56.9	-0.5
	comp=Z,825nm,1.1s,mb6.3						
HAU				eR			
	comp=Z,13µm,22.0s						
LPG	La Plagne	77.78	314	eP	P	11 16 57.9	+0.4
	comp=Z,1µm,1.1s,mb6.5						
RRL	Cesana Torines	77.82	314	P	P	11 16 57.7	-0.1
MBDF	Montbardon	77.86	313	eP	P	11 16 57.3	-0.7
	comp=Z,554nm,1.1s,mb6.1						
SURF	Saint Ours	77.86	313	eP	P	11 16 58.3	+0.3
BNI	Bardonecchia	77.88	314	P	P	11 16 57.9	-0.2
BNI				pmax	pmax		
	comp=Z,440nm,1.1s,mb6.3						
BNI	Bardonecchia	77.88	314	eP	P	11 16 57.6	-0.5
	comp=Z,441nm,1.1s,mb6.3						
THEF	They Montfort	77.97	317	eP	P	11 16 58.2	-0.3
GDM	Grand'Maison	78.26	314	eP	P	11 17 00.7	+0.6
OG25	Le Caire	78.39	313	eP	P	11 17 00.4	-0.5
GRN	Grenoble	78.51	314	eP	P	11 17 02.6	+1.1
BAIF	Baives	78.90	319	eP	P	11 17 03.8	+0.2
	comp=Z,877nm,1.1s,mb6.3						
OCF	Saint Nazaire	78.91	313	eP	P	11 17 03.7	-0.1
OG26	St.-Nazaire-De	78.91	313	eP	P	11 17 03.7	-0.1
KIWB	Kanaga Island	79.50	39	eP	P	11 17 05.7	-1.1
SSF	Saint Saulge	79.79	316	eP	P	11 17 08.3	-0.2
	comp=Z,781nm,1.3s,mb6.2						
PLDF	La Plantade	79.88	315	eP	P	11 17 09.9	+0.9
COLF	Collangettes	79.90	314	eP	P	11 17 09.2	+0.1
GSTR	Great Sitkin T	80.13	39	eP	P	11 17 10.4	+0.2
AGO	Saint Agoulin	80.21	315	eP	P	11 17 12.3	+1.6
NOUC	Port Laguerre	80.21	116	eP	P	11 17 12.2	+1.0
LBL	Lubilhac	80.26	314	eP	P	11 17 12.5	+1.5
BGF	Bois d'Agland	80.32	316	eP	P	11 17 11.4	+0.1
	comp=Z,644nm,1.2s,mb6.1						
DZM	Mont Dzumac	80.33	115	eP	P	11 17 12.7	+0.8
PYM	Petit Puy Mans	80.34	315	eP	P	11 17 12.7	+1.3
AEU	East Anglia Un	80.36	322	eP	P	11 17 11.2	-0.1
LRW	Lerwick	80.39	330	eP	P	11 17 11.5	+0.1
SAN1	Sandwick	80.44	329	eP	P	11 17 10.1	-1.6
AWH	Whinburgh	80.53	322	⇑eP	P	11 17 12.0	-0.2
WAL1	Walls	80.58	330	eP	P	11 17 10.4	-2.0
CASY	Casey	80.66	173	eP	P	11 17 12.9	+0.2
	comp=Z,399nm,1.2s,mb6.2						
CASY				LR	LR		
	comp=Z,20µm,20.0s,MS6.5						
TFO1	Folkestone	80.67	320	eP	P	11 17 13.3	+0.3
FRNF	Fournols	80.71	314	eP	P	11 17 13.9	+0.5
SJAF	Saint Jean de	80.98	311	eP	P	11 17 14.4	-0.5
EJON	La Jonquera	80.98	311	P	P	11 17 14.1	-0.8
	comp=Z,62nm,1.0s,mb5.5						
FILF	Fillols	81.20	312	eP	P	11 17 16.8	+0.8
TSA1	Sevenoaks	81.26	321	⇑eP	P	11 17 16.4	+0.3
KTG1	Tilbrook Grang	81.40	322	⇑eP	P	11 17 13.8	-3.0
RJF	Les Rejaudoux	81.45	314	eP	P	11 17 17.8	+0.5
	comp=Z,768nm,1.1s,mb6.2						
RJF				eR			
	comp=Z,15µm,23.0s						
CARF	Carcanieres	81.50	312	eP	P	11 17 18.2	+0.6
LCP	Cassop	81.56	324	⇑eP	P	11 17 18.1	+0.4
VALF	Valcebollere	81.62	312	eP	P	11 17 19.1	+0.9
DAG	Danmarks Havn	81.72	347	⇓iP	P	11 17 17.5	-0.6
DAG				pmax	pmax		
	comp=Z,330nm,1.3s,mb6.1						
DAG	Danmarks Havn	81.72	347	⇓iP	P	11 17 17.5	-0.6
	comp=Z,326nm,1.3s,mb6.1						
HPK	Haverah Park	81.80	323	⇑eP	P	11 17 18.7	-0.2
KBI1	Birley Grange	81.89	323	⇑eP	P	11 17 15.9	-3.5
ESY	Stoneypath	81.96	326	⇑eP	P	11 17 19.5	-0.2
ESY				AMb	AMB	11 17 25.9	
	comp=Z,343nm,1.3s,mb6.1						
LHO	Holmfirth	82.02	323	⇑eP	P	11 17 19.9	-0.1
KWE	Weaver Farm	82.12	323	⇑eP	P	11 17 17.5	-3.1
FLN	La Foliniere	82.14	318	eP	P	11 17 20.7	-0.1
	comp=Z,685nm,1.0s,mb6.2						
FLN				eR			
	comp=Z,20µm,20.2s						
SALF	Salau	82.16	312	eP	P	11 17 20.7	-0.3
MLS	Moulis	82.19	312	eP	P	11 17 20.7	-0.5
BTA	Talkin	82.21	325	eP	P	11 17 21.2	+0.2
EDI	Edinburgh	82.27	326	⇑eP	P	11 17 21.4	+0.1
EDI				AMb	AMB	11 17 29.6	
	comp=Z,566nm,1.3s,mb6.3						
EKA	Eskdalemuir Ar	82.39	325	P	P	11 17 22.4	+0.4
	comp=Z,105nm,0.9s,mb5.8,baz=87,slow=4.9,SNR=49						
EKA				PP	PP	11 20 34.8	+1.8
	comp=Z,8.4nm,0.8s,baz=90,slow=7.8,SNR=3.8						
EKA	Eskdalemuir Ar	82.39	325	P	P	11 17 22.4	+0.5
EKA						11 20 34.8	
EKA				pmax	pmax		
	comp=Z,105nm,0.9s						
EKA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
ESK	Eskdalemuir	82.41	325	⇑eP	P	11 17 22.0	0.0
ESK				AMb	AMB	11 17 27.8	
	comp=Z,421nm,1.2s,mb6.2						
ESK	Eskdalemuir	82.41	325	P	P	11 17 23.0	+0.9
ESK				pmax	pmax		
	comp=Z,330nm,1.1s,mb6.2						
ESK	Eskdalemuir	82.41	325	eP	P	11 17 22.0	-0.1
	comp=Z,326nm,1.1s,mb6.2						
ESK				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
EAU	Auchinoon	82.43	326	⇑eP	P	11 17 22.8	+0.7
EAU				AMb	AMB	11 17 28.2	
	comp=Z,619nm,1.2s,mb6.4						
MELF	Melles	82.45	312	eP	P	11 17 23.3	+0.8
BHH	Howats Hill	82.47	325	⇑eP	P	11 17 22.7	+0.4
BCC1	Chapelcross	82.49	325	eP	P	11 17 22.5	0.0
EPOB	Poblet	82.51	311	P	P	11 17 23.7	+0.9
	comp=Z,240nm,0.9s,mb6.2						
SUR	Sutherland	82.53	234	eP	P	11 17 25.2	+2.1
	comp=Z,245nm,0.9s,mb6.2						
SUR				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
BWH	Wardlaw	82.70	325	⇑eP	P	11 17 24.3	+0.8
LCHF	La Chataignera	82.73	316	eP	P	11 17 24.5	+0.6
HAE	Alders End	82.75	322	⇑eP	P	11 17 24.2	+0.4
HAE				AMb	AMB	11 17 29.4	
	comp=Z,856nm,1.1s,mb6.7						
PCOU	Corrie	82.76	326	⇑eP	P	11 17 24.3	+0.5
RESF	Ens	82.76	312	eP	P	11 17 25.2	+1.1
EIBI	Ibiza	82.77	308	P	P	11 17 27.9	+3.7
	comp=Z,445nm,1.3s,mb6.3						
EAB	Aberfoyle	82.84	326	⇑eP	P	11 17 24.8	+0.5
EAB				AMb	AMB	11 17 30.8	
	comp=Z,459nm,1.3s,mb6.3						
HLM1	Long Mynd	82.84	322	⇑eP	P	11 17 24.8	+0.4
HLM1				AMb	AMB	11 17 32.0	
	comp=Z,362nm,1.5s,mb6.2						
ANM	Nome	82.89	25	eP	P	11 17 25.2	+0.9
EGRA	Graus	82.90	312	P	P	11 17 25.9	+1.0
	comp=Z,59nm,1.0s,mb5.6						
PCA1	Carrot	82.91	326	⇑eP	P	11 17 24.9	+0.3
EBIE	Bielsa	82.93	312	P	P	11 17 25.9	+0.9
	comp=Z,82nm,0.9s,mb5.8						
POB1	Observatory	82.97	326	eP	P	11 17 25.4	+0.5
VIEF	Viey	82.97	312	eP	P	11 17 27.1	+1.9
HGH	Gray Hill	82.99	321	⇑eP	P	11 17 25.4	+0.3
HGH				AMb	AMB	11 17 31.2	
	comp=Z,988nm,1.2s,mb6.7						
SSP1	Stoney Pound	83.00	322	⇑eP	P	11 17 25.5	+0.3
MCH1	Michaelchurch	83.03	322	eP	P	11 17 25.3	0.0
MCH1				eP		11 17 25.5	
MCH1	Michaelchurch	83.03	322	P	P	11 17 25.5	+0.2
JQE	Queens East	83.05	319	⇑eP	P	11 17 25.5	0.0
EBR	Ebro Roquetas	83.05	310	eP	P	11 17 27.0	+1.3
JLP	Les Platons	83.08	319	eP	P	11 17 25.7	+0.1
JRS	Jersey	83.08	319	eP	P	11 17 25.6	0.0
ERTA	Horta de San J	83.14	310	P	P	11 17 27.4	+1.2
	comp=Z,173nm,1.0s,mb6.0						
JVM	Valle D.L. Mar	83.15	319	eP	P	11 17 25.4	-0.6
HTR	Trewern Hill	83.17	322	eP	P	11 17 27.0	+0.9
WPM1	Penmaenmawr	83.28	323	⇑eP	P	11 17 27.0	+0.4
LRYF	La Roche-sur-Y	83.29	316	eP	P	11 17 27.3	+0.5
GAL1	Galloway	83.36	325	⇑eP	P	11 17 27.6	+0.6
ETSF	Etsaut	83.39	312	eP	P	11 17 28.0	+0.6
	comp=Z,341nm,1.0s,mb6.0						
WME	Myndd Eilian	83.48	323	eP	P	11 17 28.1	+0.5
WIM	Isle of Man	83.51	324	eP	P	11 17 27.4	-0.3
MIDW	Midway	83.54	63	PFAKE		11 17 40.0	+11
MIDW				LR	LR		
	comp=Z,8µm,21.0s,MS6.0						
ESAC	San Caprasio	83.58	311	P	P	11 17 29.4	+1.0
	comp=Z,266nm,0.9s,mb6.4						
YRE	Yr Eifl	83.65	323	eP	P	11 17 27.8	-0.6
LARF	Larrau	83.67	313	eP	P	11 17 29.2	+0.4
GMK	Mull of Kintyr	83.73	325	eP	P	11 17 30.2	+1.3
HSA	Swansea	83.78	322	eP	P	11 17 29.6	+0.4
MAW	Mawson	83.79	191	P	P	11 17 30.2	+1.3
	comp=Z,77nm,0.7s,mb5.9,baz=1.7,slow=6.8,SNR=18						
MAW				LR	LR	11 51 42.3	
	comp=Z,9µm,18.3s,MS6.2,baz=19,slow=33						
MAW	Mawson	83.79	191	eP	P	11 17 29.7	+0.9
	comp=Z,110nm,0.8s,mb6.0						
MAW				e	pP	11 17 34.4	+1.2
EMOS	Mosqueruela	83.87	310	P	P	11 17 31.0	+1.1
	comp=Z,288nm,1.0s,mb6.4						
EALK	Alkurruntz	84.00	313	P	P	11 17 32.2	+1.7
	comp=Z,181nm,1.0s,mb6.2						
EBEN	Beniarda	84.04	308	P	P	11 17 32.0	+1.2
	comp=Z,124nm,0.9s,mb6.0						
HPE	Pembroke	84.11	322	eP	P	11 17 31.3	+0.5
HTL	Hartland	84.17	321	eP	P	11 17 30.1	-1.1
GMM	Mts of Mourne	84.22	324	⇑eP	P	11 17 31.6	+0.3
DSB	Dublin	84.72	323	eP	P	11 17 34.9	+1.0
	comp=Z,108nm,0.9s,mb6.0						
DLF	Lyons Farm	84.80	324	⇓iP	P	11 17 35.4	+1.2
DMUB	Kingscourt	84.85	324	eP	P	11 17 37.7	+3.2
CART	Cartagena	84.88	307	eP	P	11 17 35.8	+0.8
	comp=Z,376nm,1.1s,mb6.4						
EMUR	La Murta	85.01	308	P	P	11 17 35.5	-0.1
	comp=Z,65nm,1.1s,mb5.7						
DCN	Croghan	85.21	324	⇓iP	P	11 17 37.8	+1.5
SCO	Scoresbysund	85.31	342	iP	P	11 17 37.9	+1.5
	comp=Z,40nm,0.9s,mb5.5						
ELAN	Lanestosa	85.37	313	P	P	11 17 39.8	+2.5
	comp=Z,87nm,0.9s,mb5.9						
UNV	Unalaska Valle	85.37	36	PFAKE		11 17 50.0	+13
UNV				LR	LR		
	comp=Z,27µm,20.0s,MS6.6						
EVIA	Vianos	85.79	309	P	P	11 17 41.4	+1.8
	comp=Z,163nm,1.0s,mb6.2						
ENIJ	Nijar	85.96	307	P	P	11 17 41.4	+1.0
	comp=Z,162nm,1.0s,mb6.2						
EQES	Quesada	86.42	308	P	P	11 17 44.4	+1.6
	comp=Z,60nm,1.0s,mb5.8						
EBER	Berja	86.51	307	P	P	11 17 44.1	+1.0
	comp=Z,228nm,1.2s,mb6.3						
GUD	Guadarrama	86.53	311	P	P	11 17 44.4	+1.2
	comp=Z,157nm,0.8s,mb6.3						
EARI	Arriondas	86.60	314	P	P	11 17 45.6	+2.2
	comp=Z,74nm,0.9s,mb5.9						
ESDC	Sonseca Array	86.63	310	P	P	11 17 44.0	+0.3
	comp=Z,119nm,1.0s,mb6.1,baz=58,slow=5.0,SNR=55						
ESDC				PKKPbc		11 35 41.9	
	comp=Z,0.7nm,0.6s,baz=291,slow=3.1,SNR=3.2						
ESDC	Sonseca Array	86.63	310	P	P	11 17 44.0	+0.3
	comp=Z,56nm,0.8s,mb5.8						
IMA	Indian Mountai	86.90	22	P	P	11 17 46.0	+1.7
IMA				pmax	pmax		
	comp=Z,1µm,0.9s,mb7.2						
IMA	Indian Mountai	86.90	22	eP	P	11 17 45.6	+1.3
ERON	Agron	87.19	307	P	P	11 17 49.1	+2.6
	comp=Z,22nm,0.8s,mb5.4						
VAL	Valentia	87.36	323	⇓iP	P	11 17 47.1	+0.2
ELUQ	Luque	87.40	308	P	P	11 17 50.1	+2.6
	comp=Z,36nm,0.8s,mb5.7						
ELOJ	Sierra Loja	87.42	307	P	P	11 17 47.9	+0.3
	comp=Z,28nm,1.0s,mb5.4						
EADA	Adamuz	87.48	309	P	P	11 17 48.8	+0.9
	comp=Z,114nm,1.0s,mb6.1						
BORG	Borgarnes	87.76	337	P	P	11 17 52.3	+3.7
	comp=Z,201nm,1.0s,mb6.3,baz=16,slow=8.7,SNR=9.2						
BORG	Borgarnes	87.76	337	eP	P	11 17 51.6	+3.0
	comp=Z,418nm,1.2s,mb6.5						
BORG				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
EPON	Pontenova	87.96	314	P	P	11 17 53.6	+3.6
	comp=Z,684nm,2.0s,mb6.5						
EMIJ	Mijas	88.05	307	P	P	11 17 50.3	-0.3
	comp=Z,92nm,1.0s,mb6.0						
ECAL	Calabor	88.06	313	P	P	11 17 51.1	+0.6
	comp=Z,66nm,0.9s,mb5.9						
PBRG	Braganca	88.10	312	eP	P	11 17 51.6	+0.9
ERUA	La Rua	88.22	313	P	P	11 17 56.1	+4.9
	comp=Z,61nm,1.0s,mb5.8						
SUMG	Summit	88.39	347	eP	P	11 17 52.0	+0.6
	comp=Z,254nm,1.1s,mb6.4						
ESPR	Espera	88.81	308	P	P	11 17 55.2	+0.9
	comp=Z,68nm,0.9s,mb6.0						
PVRL	Vila Real	88.95	312	eP	P	11 17 56.2	+1.4
ELOB	Lobios	89.03	313	P	P	11 17 57.0	+1.9
	comp=Z,109nm,0.9s,mb6.2						
STS	Santiago	89.07	314	P	P	11 17 57.4	+2.1
	comp=Z,85nm,0.9s,mb6.1						
MTE	Manteigas	89.08	311	eP	P	11 17 56.5	+1.0
	comp=Z,183nm,1.2s,mb6.3						
MTE	Manteigas	89.08	311	eP	P	11 17 55.9	+0.5
	comp=Z,304nm,1.2s,mb6.5						
MSZ	Milford Sound	89.09	136	P	P	11 17 56.1	+0.7
EBAD	Badajoz	89.16	310	P	P	11 17 57.0	+1.1
	comp=Z,67nm,0.9s,mb6.0						
EMIN	Mina Concepcio	89.19	309	P	P	11 17 55.9	-0.1
	comp=Z,82nm,0.9s,mb6.1						
PCBR	Castelo Branco	89.20	311	eP	P	11 17 57.5	+1.5
	comp=Z,151nm,1.4s,mb6.1						
PVIS	Viseu	89.25	312	eP	P	11 17 58.1	+1.9
	comp=Z,84nm,1.1s,mb6.0						
EMAZ	Mazaricos	89.35	314	P	P	11 17 58.6	+2.0
	comp=Z,211nm,0.9s,mb6.5						
EZAM	Zamans	89.39	313	P	P	11 18 01.6	+4.7
	comp=Z,28nm,0.8s,mb5.6						
JCZ	Jackson Bay	89.45	136	eP	P	11 17 55.8	-1.3
COLA	College	89.61	22	eP	P	11 17 57.5	+0.2
SPU	Mount Spurr	89.81	26	eP	P	11 17 58.7	+0.4
RSO	Redoubt South	89.84	27	eP	P	11 17 59.0	+0.5
EGRO	El Granado	89.87	309	P	P	11 18 00.1	+0.9
	comp=Z,684nm,1.4s,mb6.8						
PALC	Alcoutim	89.88	308	eP	P	11 18 00.6	+1.3
	comp=Z,148nm,1.4s,mb6.1						
ILAR	Eielson Array	90.01	22	P	P	11 17 58.7	-0.5
	comp=Z,61nm,0.7s,mb6.0,baz=296,slow=3.3,SNR=87						
ILAR				PP	PP	11 21 25.1	-10
	comp=Z,7.0nm,0.9s,baz=296,slow=5.9,SNR=4.8						
ILAR				S	S	11 28 30.6	-19
	comp=Z,1.1nm,0.9s,baz=225,slow=1.3,SNR=3.6						
ILAR				PKKPbc		11 35 30.1	
	comp=Z,1.3nm,0.9s,baz=173,slow=2.3,SNR=4.7						
PBEJ	Beja	90.02	309	eP	P	11 18 01.4	+1.5
	comp=Z,117nm,1.2s,mb6.1						
MOE	Montemor	90.23	310	eP	P	11 18 02.6	+1.7
SYO	Syowa Base	90.41	197	⇓P	P	11 18 01.3	+0.3
SYO	Syowa Base	90.41	197	⇓PcP	PcP	11 18 06.6	+4.2
SYO	Syowa Base	90.41	197	⇑pP	pP	11 18 03.0	-2.3
FIB	Fire Island	90.61	26	P	P	11 18 03.4	+1.4
FIB	Fire Island	90.61	26	eP	P	11 18 03.0	+1.0
FIB				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
PTEO	Sao Teotonio	90.81	309	eP	P	11 18 05.1	+1.5
	comp=Z,246nm,1.2s,mb6.4						
PMR	Palmer	90.83	25	eP	P	11 18 03.8	+0.8
SLKM	Skilak Lake	90.92	26	P	P	11 18 04.0	+0.5
SLKM	Skilak Lake	90.92	26	eP	P	11 18 03.7	+0.2
WCZ	Waipu Caves	91.09	127	eP	P	11 18 06.1	+1.2
KDAK	Kodiak Island	91.17	29	eP	P	11 18 04.8	+0.1
THY	Trims Highway	91.17	23	eP	P	11 18 05.8	+1.3
INK	Inuvik	91.94	16	PKKPbc		11 35 28.7	
	comp=Z,6.3nm,1.2s,baz=154,slow=2.4,SNR=4.0						
MQZ	McQueen's Vall	92.01	134	eP	P	11 18 13.1	+4.2
MENT	Mentasta	92.20	22	eP	P	11 18 11.1	+1.8
KUZ	Kuaotunu	92.38	127	eP	P	11 18 12.0	+1.2
DIV	Divide	92.44	25	eP	P	11 18 11.3	+0.9
	comp=Z,393nm,0.8s,mb6.8						
DIV				LR	LR		
	comp=Z,32µm,21.0s,MS6.8						
EYAK	Cordova Ski Ar	92.78	25	eP	P	11 18 13.4	+1.4
URZ	Urewera	93.83	128	PKKPbc		11 35 24.8	
	comp=Z,10nm,0.8s,baz=157,slow=3.3,SNR=4.3						
MWZ	Matawai	94.16	128	P	P	11 18 17.7	-1.3
RAO	Raoul Island	95.83	119	PFAKE		11 18 40.0	+13
RAO				LR	LR		
	comp=Z,9µm,20.0s,MS6.2						
DBIC	Dimbokro	95.90	278	P	P	11 18 28.6	+1.1
	comp=Z,24nm,1.0s,mb5.6,baz=70,slow=5.0,SNR=10						
DBIC				S	SKS	11 29 04.6	-3.1
	comp=Z,1.3nm,0.8s,baz=260,slow=23,SNR=6.6						
DBIC				PKKP	PKKP	11 35 13.2	+1.6
	comp=Z,2.3nm,0.6s,baz=162,slow=9.9,SNR=5.4						
DBIC	Dimbokro	95.90	278	eP	P	11 18 28.0	+0.5
	comp=Z,97nm,1.3s,mb6.1						
DBIC				LR	LR		
	comp=Z,13µm,19.0s,MS6.4						
AFI	Afiamalu	98.28	102	PFAKE		11 18 50.0	+12
AFI				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
VNDA	Vanda	98.68	168	P	P	11 18 40.9	+2.2
	comp=Z,15nm,1.2s,mb5.4,baz=283,slow=6.7,SNR=8.8						
VNDA				S	SKS	11 29 20.1	-0.8
	comp=Z,8.4nm,1.2s,baz=109,slow=14,SNR=6.6						
VNDA				LR	LR	12 00 35.0	
	comp=Z,17µm,18.2s,MS6.6,baz=327,slow=34						
SIT	Sitka	99.19	24	PFAKE		11 18 50.0	+8.7
SIT				LR	LR		
	comp=Z,13µm,19.0s,MS6.4						
SBA	Scott Base	99.79	168	ePdif	P	11 18 42.8	-0.9
	comp=Z,26nm,0.8s,mb5.7						

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
DLBC	Dease Lake	100.21	21	PKKPbc		11 35 05.3	
	comp=Z,2.0nm,0.9s,baz=180,slow=7.1,SNR=2.6						
YKA	Yellowknife Ar	101.24	13	P	P	11 18 51.2	+0.7
	comp=Z,12nm,0.9s,baz=336,slow=5.0,SNR=48						
YKA				PP	PP	11 22 56.3	-6.0
	comp=Z,11nm,0.8s,baz=333,slow=8.0,SNR=10						
YKA				PKKPbc		11 34 59.9	
	comp=Z,3.0nm,0.8s,baz=151,slow=2.5,SNR=12						
YKA				PKPPKP		11 43 11.2	
	comp=Z,0.5nm,1.0s,baz=153,slow=2.8,SNR=5.5						
YKA	Yellowknife Ar	101.24	13	P	P	11 18 51.2	+0.7
YKA				PP	PP	11 22 56.4	-6.0
YKA				PKKPbc		11 34 59.9	
YKA				P'P'		11 43 11.2	
FRB	Frobisher Bay	101.64	352	P	P	11 18 52.5	+0.2
	comp=Z,5.3nm,1.0s,baz=14,slow=10,SNR=3.7						
FRB				PP	PP	11 23 01.7	-3.5
	comp=Z,17nm,1.0s,baz=23,slow=7.0,SNR=6.2						
FRB	Frobisher Bay	101.64	352	P	P	11 18 52.5	+0.2
FRB						11 23 01.7	
FRB				pmax	pmax		
	comp=Z,5.0nm,1.0s						
FRB				pmax	pmax		
	comp=Z,17nm,1.0s						
FRB	Frobisher Bay	101.64	352	P	P	11 18 52.5	+0.2
FRB				PP	PP	11 23 01.7	-3.5
KIP	Kipapa	102.28	64	PFAKE		11 19 10.0	+14
KIP				LR	LR		
	comp=Z,14µm,22.0s,MS6.4						
QSPA	South Pole Qui	103.39	180	*e*P	Pdif	11 19 05.2	+5.4
	comp=Z,21nm,1.1s						
SNAA	Sanae	104.53	199	⇑*i*	Pdif	11 19 15.7	+11
SNAA	Sanae	104.53	199	PP	PP	11 23 28.8	+2.0
	comp=Z,1.4nm,0.8s,baz=52,slow=16,SNR=3.3						
SNAA				PKKPbc		11 34 50.2	
	comp=Z,4.8nm,1.1s,baz=186,slow=2.3,SNR=9.2						
VNA2	Neumayer--Watz	106.04	200	⇑*i*	Pdif	11 19 28.4	+17
SCHQ	Schefferville	109.77	348	PP	PP	11 24 01.4	-4.8
	comp=Z,24nm,0.9s,baz=29,slow=7.1,SNR=5.2						
SCHQ				PKKPbc		11 34 34.2	
	comp=Z,10nm,0.9s,baz=224,slow=5.4,SNR=13						
SCHQ	Schefferville	109.77	348	PFAKE		11 23 40.0	
SCHQ				LR	LR		
	comp=Z,14µm,21.0s,MS6.5						
TRIS	Tristan da Cun	110.06	235	PFAKE		11 23 40.0	+6.1
TRIS				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
OCWA	Octopus Mounta	110.64	26	PFAKE		11 23 40.0	+5.2
OCWA				LR	LR		
	comp=Z,10µm,21.0s,MS6.3						
RAR	Rarotonga	110.77	108	PKKPbc		11 34 29.5	
	comp=Z,11nm,0.6s,baz=5.0,slow=6.1,SNR=3.1						
RAR	Rarotonga	110.77	108	PFAKE		11 23 50.0	+14
RAR				LR	LR		
	comp=Z,5µm,20.0s,MS6.1						
NEW	Newport	112.96	21	PFAKE		11 23 50.0	+11
NEW				LR	LR		
	comp=Z,11µm,19.0s,MS6.5						
COR	Corvallis	113.49	27	PFAKE		11 23 50.0	+10
COR				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
HUMO	Hull Mountain	115.19	29	*e*PKPdf	PKPdf	11 23 43.1	-0.7
HUMO				LR	LR		
	comp=Z,4µm,22.0s,MS6.0						
MSO	Missoula	115.29	20	*e*PKiKP		11 23 41.7	
BMO	Blue Mountains	115.78	23	PKIKP	PKPdf	11 23 43.9	-1.0
BMO	Blue Mountains	115.78	23	*e*PKPdf	PKPdf	11 23 43.2	-1.7
BMO				LR	LR		
	comp=Z,8µm,21.0s,MS6.3						
YBH	Yreka Blue Hor	115.98	29	PFAKE		11 24 00.0	+15
YBH				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
ULM	Lac du Bonnet	116.04	6	PKP	PKPdf	11 23 44.7	-0.6
	comp=Z,8.6nm,0.8s,baz=5.6,slow=2.9,SNR=8.1						
ULM				PKKPbc		11 34 14.1	
	comp=Z,14nm,1.0s,baz=173,slow=4.8,SNR=12						
ULM	Lac du Bonnet	116.04	6	PKP	PKPdf	11 23 44.7	-0.6
ULM				PKKPbc		11 34 14.1	
ULM				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
HRY	Holter Researc	116.07	19	*e*PKPdf	PKPdf	11 23 44.1	-1.4
DGMT	Dagmar	116.45	13	*e*PKPdf	PKPdf	11 23 44.4	-1.7
DGMT				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
MOD	Modoc	116.95	27	*e*PKPdf	PKPdf	11 23 46.0	-1.2
MOD				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
WDC	Whiskeytown Da	116.96	30	PKIKP	PKPdf	11 23 46.2	-1.1
WDC	Whiskeytown Da	116.96	30	*e*PKPdf	PKPdf	11 23 45.8	-1.5
WDC				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
BOZ	Bozeman (W)	117.09	19	PFAKE		11 24 00.0	+13
BOZ				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
LAO	LASA Array	117.66	15	*e*PKPdf	PKPdf	11 23 47.5	-0.9
LAO				LR	LR		
	comp=Z,12µm,21.0s,MS6.5						
PQI	Presque Isle	117.66	345	PFAKE		11 24 00.0	+12
PQI				LR	LR		
	comp=Z,41µm,20.0s,MS7.0						
HOPS	Hopland	117.92	31	PFAKE		11 24 00.0	+11
HOPS				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
HLID	Hailey	117.97	22	*e*PKPdf	PKPdf	11 23 47.9	-1.2
HLID				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
YMR	Madison River	118.17	19	*e*PKPdf	PKPdf	11 23 49.0	-0.5
YNR	Norris Junctio	118.22	19	*e*PKPdf	PKPdf	11 23 49.8	+0.2
YFT	Old Faithful	118.41	19	*e*PKPdf	PKPdf	11 23 50.0	0.0
OHCM	Honcut	118.44	30	*e*PKPdf	PKPdf	11 23 48.3	-1.8
LKWY	Lake	118.44	19	PKIKP	PKPdf	11 23 50.8	+0.8
LKWY	Lake	118.44	19	*e*PKPdf	PKPdf	11 23 50.6	+0.6
LKWY				LR	LR		
	comp=Z,21µm,21.0s,MS6.8						
NSHM	Saint Helena R	118.51	31	*e*PKPdf	PKPdf	11 23 48.9	-1.4
IMW	Indian Meadow	118.87	19	*e*PKPdf	PKPdf	11 23 50.2	-0.7
TPAW	Teton Pass	119.23	20	*e*PKPdf	PKPdf	11 23 49.9	-1.7
LOHW	Long Hollow	119.23	19	*e*PKPdf	PKPdf	11 23 49.4	-2.1
WUWY	Wally Ulrich	119.25	19	*e*PKPdf	PKPdf	11 23 50.7	-0.9
SNOW	Snow King Moun	119.32	20	*e*PKPdf	PKPdf	11 23 50.4	-1.4
REDW	Red Top Meadow	119.38	20	*e*PKPdf	PKPdf	11 23 50.5	-1.4
BMN	Battle Mountai	119.50	26	PFAKE		11 24 00.0	+7.9
BMN				LR	LR		
	comp=Z,9µm,20.0s,MS6.4						
AHID	Auburn Hatcher	119.83	20	*e*PKPdf	PKPdf	11 23 50.7	-2.0
AHID				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
CMB	Columbia Colle	119.99	30	PKIKP	PKPdf	11 23 51.8	-1.3
CMB	Columbia Colle	119.99	30	*e*PKPdf	PKPdf	11 23 51.1	-2.0
CMB				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
WVL	Waterville	120.04	346	PFAKE		11 24 00.0	+6.9
WVL				LR	LR		
	comp=Z,32µm,22.0s,MS6.9						
ELK	Elko	120.06	24	PKIKP	PKPdf	11 23 52.2	-1.0
ELK	Elko	120.06	24	*e*PKPdf	PKPdf	11 23 51.7	-1.5
ELK				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
BW06	Boulder Array	120.33	19	PFAKE		11 24 00.0	+6.3
BW06				LR	LR		
	comp=Z,11µm,21.0s,MS6.5						
PDAR	Pinedale Array	120.33	19	PKP	PKPdf	11 23 51.8	-2.0
	comp=Z,23nm,0.9s,baz=64,slow=2.7,SNR=57						
PDAR				PP	PP	11 25 17.1	-3.4
	comp=Z,25nm,1.2s,baz=315,slow=2.1,SNR=6.4						
PDAR				PKKPab		11 34 01.4	
	comp=Z,2.5nm,0.7s,baz=127,slow=4.5,SNR=14						
SAO	San Andreas Ge	120.45	32	PFAKE		11 24 00.0	+5.9
SAO				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
NVAR	Mina Array Bea	120.66	28	PKP	PKPdf	11 23 53.7	-0.8
	comp=Z,74nm,1.0s,baz=277,slow=3.8,SNR=60						
NVAR				PP	PP	11 25 25.5	+2.6
	comp=Z,11nm,0.9s,baz=315,slow=1.3,SNR=3.8						
NVAR				PKKPab		11 34 02.8	
	comp=Z,4.7nm,0.9s,baz=153,slow=6.0,SNR=12						
NVAR	Mina Array Bea	120.66	28	PKP	PKPdf	11 23 53.7	-0.8
NVAR				PP	PP	11 25 25.5	+2.6
NVAR				PKKPab		11 34 02.8	
HWUT	Hardware Ranch	120.69	21	*e*PKPdf	PKPdf	11 23 52.3	-2.2
HWUT				LR	LR		
	comp=Z,10µm,21.0s,MS6.4						
MNV	Mina	120.72	28	PKIKP	PKPdf	11 23 53.9	-0.7
MNV	Mina	120.72	28	*e*PKPdf	PKPdf	11 23 53.7	-0.9
MNV				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
LRV	Little Rabbit	120.93	32	*e*PKPdf	PKPdf	11 23 53.9	-1.2
NOQ	North Oquirrh	121.34	22	*e*PKPdf	PKPdf	11 23 54.4	-1.4
MIV	Mineville/With	121.35	349	*e*PKPdf	PKPdf	11 23 53.7	-2.1
MDV	Middlebury	121.35	348	*e*PKPdf	PKPdf	11 23 53.8	-1.9
MTUM	Tungsten Hills	121.40	29	*e*PKPdf	PKPdf	11 23 55.5	-0.6
TPH	Tonopah	121.44	28	PKIKP	PKPdf	11 23 55.4	-0.6
TPH	Tonopah	121.44	28	*e*PKPdf	PKPdf	11 23 55.1	-0.9
TPH				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
SADO	Sadowa	121.53	353	PKKPbc		11 33 53.9	
	comp=Z,16nm,0.9s,baz=272,slow=3.4,SNR=5.6						
NCB	Newcomb	121.58	349	*e*PKPdf	PKPdf	11 23 53.5	-2.7
NCB				LR	LR		
	comp=Z,9µm,22.0s,MS6.4						
DAU	Daniels Canyon	121.86	22	PKIKP	PKPdf	11 23 56.4	-0.4
DAU	Daniels Canyon	121.86	22	*e*PKPdf	PKPdf	11 23 56.1	-0.6
NLU	North Lily Min	121.96	22	*e*PKPdf	PKPdf	11 23 55.6	-1.4
RWWY	Rawlins	122.03	18	*e*PKPdf	PKPdf	11 23 55.3	-1.7
ACCN	Adirondack Com	122.04	348	*e*PKPdf	PKPdf	11 23 55.5	-1.5
HRV	Harvard--Oak R	122.43	346	PFAKE		11 24 10.0	+12
HRV				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
WES	Weston	122.50	346	PFAKE		11 24 10.0	+12
WES				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
DAC	Darwin (Calif)	122.73	29	PKIKP	PKPdf	11 23 58.2	-0.3
DAC	Darwin (Calif)	122.73	29	*e*PKPdf	PKPdf	11 23 57.9	-0.5
DAC				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
TPNV	Topopah Spring	122.80	28	PKIKP	PKPdf	11 23 57.4	-1.2
TPNV	Topopah Spring	122.80	28	*e*PKPdf	PKPdf	11 23 57.0	-1.6
TPNV				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
TMUT	Trail Mountain	122.86	22	*e*PKPdf	PKPdf	11 23 57.7	-0.9
PHWY	Pilot Hill	122.88	16	*e*PKPdf	PKPdf	11 23 56.7	-1.9
MVU	Marysvale	123.18	23	*e*PKPdf	PKPdf	11 23 59.0	-0.3
MVU				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
MSU	Marysvale	123.18	23	PKIKP	PKPdf	11 23 59.1	-0.2
MSU	Marysvale	123.18	23	*e*PKPdf	PKPdf	11 23 58.8	-0.5
ARUT	Antelope Range	123.31	25	*e*PKPdf	PKPdf	11 23 59.1	-0.5
GENY	Geneseo	123.34	352	*e*PKPdf	PKPdf	11 23 57.4	-2.1
GENY				*e*PP	PP	11 25 36.7	-4.8
BINY	Binghamton	123.61	350	*e*PKPdf	PKPdf	11 23 59.9	-0.2
BINY				LR	LR		
	comp=Z,12µm,22.0s,MS6.5						
JFWS	Jewell Farm	123.77	3	PKIKP	PKPdf	11 23 57.7	-2.7
JFWS	Jewell Farm	123.77	3	*e*PKPdf	PKPdf	11 23 56.2	-4.3
JFWS				LR	LR		
	comp=Z,12µm,21.0s,MS6.5						
ISCO	Idaho Springs	124.24	17	PFAKE		11 24 10.0	+8.6
ISCO				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
ERPA	Erie	124.25	354	*e*PKPdf	PKPdf	11 23 59.0	-2.4
ERPA				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
AAM	Ann Arbor	124.36	357	PFAKE		11 24 10.0	+8.4
AAM				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
PAL	Palisades	124.38	348	PKIKP	PKPdf	11 24 00.3	-1.4
PV10	Paradox Valley	124.45	21	*e*PKPdf	PKPdf	11 24 00.9	-0.9
NEN	Nelson	124.51	27	*e*PKPdf	PKPdf	11 24 00.9	-1.2
CPNY	Central Park	124.60	348	*e*PKPdf	PKPdf	11 23 59.5	-2.6
PV01	Paradox Valley	124.83	21	*e*P	PKPdf	11 24 01.7	-0.9
PFO	Pinyon Flat Ob	125.44	30	PKIKP	PKPdf	11 24 03.3	-0.6
PFO	Pinyon Flat Ob	125.44	30	*e*PKPdf	PKPdf	11 24 03.0	-1.0
PFO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
SSPA	Standing Stone	125.44	351	*e*PKPdf	PKPdf	11 24 01.4	-2.4
SSPA				*e*PP	PP	11 25 51.0	-4.4
SSPA				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
SDCO	Great Sand Dun	126.17	18	PFAKE		11 24 20.0	+15
SDCO				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
ACSO	Alum Creek Sta	126.38	356	*e*PKPdf	PKPdf	11 24 02.7	-2.7
ACSO				LR	LR		
	comp=Z,10µm,22.0s,MS6.4						
PMSA	Palmer Station	126.39	192	PFAKE		11 24 10.0	+5.2
PMSA				LR	LR		
	comp=Z,12µm,20.0s,MS6.5						
SDMD	Soldier's Deli	126.47	350	*e*PKPdf	PKPdf	11 24 03.7	-1.9
MCWV	Mont Chateau	126.66	353	PFAKE		11 24 20.0	+14
MCWV				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
KSU1	Kansas State U	126.91	9	*e*PKPdf	PKPdf	11 24 03.6	-2.9
BLO	Bloomington	127.58	359	*e*PKPdf	PKPdf	11 24 05.9	-2.0
CBN	Corbin	127.74	350	PFAKE		11 24 20.0	+12
CBN				LR	LR		
	comp=Z,12µm,19.0s,MS6.6						
SLM	Saint Louis	128.03	3	PKIKP	PKPdf	11 24 06.6	-2.2
SLM	Saint Louis	128.03	3	*e*PKPdf	PKPdf	11 24 06.0	-2.9
ANMO	Albuquerque	128.43	20	*e*PKPdf	PKPdf	11 24 08.3	-1.4
ANMO				PFAKE		11 24 20.0	+10
ANMO				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
CCM	Cathedral Cave	128.55	4	PKIKP	PKPdf	11 24 04.8	-5.0
CCM	Cathedral Cave	128.55	4	*e*PKPdf	PKPdf	11 24 07.2	-2.6
CCM				PFAKE		11 24 20.0	+10
CCM				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
FVM	French Village	128.67	3	PKIKP	PKPdf	11 24 06.7	-3.3
USIN	University of	128.78	1	PKPdf	PKPdf	11 24 08.3	-1.9
FWV	Forest Hill	128.82	354	*e*PKPdf	PKPdf	11 24 07.8	-2.5
RCBR	Riachuelo	128.99	273	*e*PKPdf	PKPdf	11 24 09.6	-1.7
RCBR				PFAKE		11 24 20.0	+8.7
RCBR				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
PWV	Princeton	129.09	354	*e*PKPdf	PKPdf	11 24 08.6	-2.3
TUC	Tucson	129.12	26	PKIKP	PKPdf	11 24 07.7	-3.3
TUC	Tucson	129.12	26	*e*PKPdf	PKPdf	11 24 09.4	-1.6
TUC				PFAKE		11 24 20.0	+9.0
TUC				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
BLA	Blacksburg	129.14	353	PFAKE		11 24 20.0	+9.0
BLA				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						
BBSR	BB Station	129.56	335	*e*PKPdf	PKPdf	11 24 09.8	-2.1
BBSR				PFAKE		11 24 20.0	+8.1
BBSR				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
GLAT	Glass	130.44	2	PKPdf	PKPdf	11 24 11.0	-2.5
WVT	Waverly	130.61	1	PKIKP	PKPdf	11 24 12.1	-1.7
WVT	Waverly	130.61	1	*e*PKPdf	PKPdf	11 24 11.6	-2.1
WVT				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
WMOK	Wichita Mounta	130.75	13	PFAKE		11 24 20.0	+5.9
WMOK				LR	LR		
	comp=Z,9µm,21.0s,MS6.4						
HALT	Halls	130.79	2	*e*PKPdf	PKPdf	11 24 11.9	-2.2
HBAR	Harrisburg	131.08	4	*e*PKPdf	PKPdf	11 24 13.1	-1.6
MYNC	Murphy	131.59	357	P	Pdif	11 21 08.6	+3.7
MYNC						11 24 14.7	
MYNC	Murphy	131.59	357	*e*PKPdf	PKPdf	11 24 14.0	-1.7
UALR	University of	131.72	6	*e*PKPdf	PKPdf	11 24 13.4	-2.5
MNTX	Cornudas Mount	131.75	21	*e*PKPpre		11 23 58.1	
MNTX				*e*PKPdf	PKPdf	11 24 14.4	-1.7
MIAR	Mount Ida	131.81	7	*e*PKPpre		11 23 57.7	
MIAR				PKPdf	PKPdf	11 24 14.0	-2.1
OXF	Oxford	132.18	3	PKIKP	PKPdf	11 24 15.8	-1.0
OXF	Oxford	132.18	3	*e*PKPdf	PKPdf	11 24 14.7	-2.1
OXF				LR	LR		
	comp=Z,11µm,21.0s,MS6.5						
NHSC	New Hope	133.16	352	PFAKE		11 24 30.0	+11
NHSC				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
GOGA	Godfrey	133.20	356	PFAKE		11 24 30.0	+11
GOGA				LR	LR		
	comp=Z,11µm,20.0s,MS6.6						
LRAL	Lakeview Retre	133.71	360	*e*PKPdf	PKPdf	11 24 15.8	-3.7
LRAL				LR	LR		
	comp=Z,11µm,22.0s,MS6.5						
NATX	Nacogdoches	134.40	9	*e*PKPdf		11 24 08.4	
LTX	Lajitas	134.51	20	PKIKP	PKPdf	11 24 14.7	-6.5
LTX	Lajitas	134.51	20	*e*PKPdf	PKPdf	11 24 20.0	-1.2
LTX				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
TXAR	Lajitas Array	134.51	20	PKhKP		11 24 08.2	
	comp=Z,1.3nm,0.6s,baz=198,slow=0.5,SNR=10						
TXAR				PKP	PKPdf	11 24 20.6	-0.6
	comp=Z,25nm,0.9s,baz=156,slow=0.3,SNR=28						
TXAR				PP	PP	11 26 46.8	-7.8
	comp=Z,10nm,1.0s,baz=350,slow=3.5,SNR=4.3						
TXAR				SKP		11 27 54.5	
	comp=Z,9.5nm,1.0s,baz=350,slow=0.2,SNR=3.7						
TXAR				PKKP	PKKP	11 34 03.0	+4.1
	comp=Z,0.2nm,0.5s,baz=179,slow=0.7,SNR=5.2						
JCT	Junction City	134.59	15	*e*PKPpre		11 24 06.2	
EFI	East Falkland	135.32	206	PFAKE		11 24 30.0	+7.9
EFI				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
HKT	Hockley	135.98	11	PFAKE		11 24 30.0	+6.1
HKT				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
DWPF	Disney	138.24	352	PFAKE		11 24 40.0	+12
DWPF				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
BAO	Brasilia Array	142.08	262	PKP	PKPdf	11 24 29.5	-5.9
BAO				*i*		11 24 37.9	
BAO				*i*		11 24 43.5	
BAO				*e*		11 26 20.9	
BAO				*e*		11 27 39.8	
BAO				*e*		11 28 07.5	
BDFB	Brasilia	142.10	262	PKhKP		11 24 29.1	
	comp=Z,8.8nm,0.8s,baz=49,slow=5.9,SNR=10						
BDFB	Brasilia	142.10	262	PKIKP	PKPdf	11 24 29.1	-6.3
BDFB				pmax	pmax		
	comp=Z,9.0nm,0.8s						
SJG	San Juan	142.35	326	PKhKP		11 24 30.6	
	comp=Z,9.5nm,0.8s,baz=277,slow=6.7,SNR=3.0						
SJG	San Juan	142.35	326	PKIKP	PKPdf	11 24 30.6	-5.2
SJG				pmax	pmax		
	comp=Z,10.0nm,0.8s						
SJG	San Juan	142.35	326	PKP	PKPdf	11 24 30.6	-5.1
SJG				*e*PKPdf	PKPdf	11 24 33.8	-1.9
SJG				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
CJM	Chamela	142.75	29	*i* P	PKPdf	11 24 31.9	-4.5
SFJM	Santa Fe	142.77	25	*e*P	PKPdf	11 24 31.8	-4.6
COLM	Colima	143.65	27	*i* P	PKPbc	11 24 34.8	+1.6
MOIG	Morelia	144.23	23	*i* P	PKPbc	11 24 35.9	+0.9
IIJ	Jocotitlan	144.71	21	*e*P	PKPbc	11 24 39.8	+3.5
IIC	Rita Coyotepec	144.84	20	⇑*i*P	PKPbc	11 24 39.1	+2.5
PTVM	Pico Tres Padr	145.05	20	⇑*i*P	PKPbc	11 24 39.6	+2.4
IIO	Organos	145.18	19	⇑*i*P	PKPbc	11 24 40.3	+2.8
UNM	Universidad Na	145.27	20	*i* P	PKPbc	11 24 39.3	+1.5
IIZ	Mezontepec	145.38	20	*e*P	PKPbc	11 24 38.9	+0.8
CHVM	Chichinautzin	145.51	20	⇑*i*P	PKPbc	11 24 42.7	+4.3
COYC	Coyhaique	145.60	199	⇑*i*P	PKPbc	11 24 38.7	+0.9
PPM	Popocatepetl	145.70	20	*e*P	PKPbc	11 24 40.3	+1.4
YAIG	Yautepec	145.74	20	*i* P	PKPbc	11 24 39.8	+0.8
PLIG	Platanillo	146.03	21	*i* P	PKPbc	11 24 41.6	+2.0
IISM	Ciudad Serdan	146.16	18	*e*P	PKPbc	11 24 42.4	+2.4
TEIG	Tepich	146.44	2	*e*PKPdf	PKPdf	11 24 41.8	-1.0
TEIG				LR	LR		
	comp=Z,4µm,22.0s,MS6.2						
TRQA	Tornquist	146.88	218	*e*PKPdf	PKPdf	11 24 42.1	-0.9
TRQA				LR	LR		
	comp=Z,8µm,19.0s,MS6.5						
GWJ	Greenwich	146.96	342	⇓*e*P	PKPbc	11 24 44.3	+2.5
CAIG	El Cayaco	146.98	23	*e*P	PKPbc	11 24 43.7	+1.8
STH	Stony Hill	146.99	342	⇑*e*P	PKPbc	11 24 43.2	+1.3
HOJ	Hope	147.03	342	⇓*e*P	PKPdf	11 24 43.9	+0.1
CVJ	Coleyville	147.06	343	⇑*e*P	PKPdf	11 24 42.2	-1.7
EVV	El Vigia	147.21	14	*e*P	PKPdf	11 24 45.3	+1.2
NEJ	Negril	147.25	344	⇓*e*P	PKPdf	11 24 44.9	+0.8
ACX	Acapulco	147.28	23	*e*P	PKPdf	11 24 44.6	+0.4
MCJ	Malvern	147.39	343	⇓*e*P	PKPdf	11 24 43.4	-1.0
PCRV	Puerto La Cruz	147.54	315	PKPbc	PKPdf	11 24 43.3	-1.5
	comp=Z,171nm,0.7s,baz=38,slow=0.7,SNR=41						
OXX	Oaxaca	148.15	18	*e*P	PKPdf	11 24 48.7	+3.1
VHO	Vista Hermosa	148.16	18	*e*P	PKPdf	11 24 48.0	+2.4
PNIG	Pinotepa	148.36	20	*e*P	PKPdf	11 24 48.3	+2.3
CMIG	Matias Romero	148.64	14	*e*P	PKPdf	11 24 47.5	+1.1
HUIG	Huatulco	149.58	17	*e*P	PKPdf	11 24 50.8	+2.9
CCIG	Comitan	149.98	10	*e*P	PKPdf	11 24 51.6	+3.0
SDV	Santo Domingo	152.35	323	PKP	PKPdf	11 24 50.9	-1.3
	comp=Z,23nm,0.9s,baz=135,slow=1.9,SNR=14						
SDV				PP	PP	11 28 33.4	-7.7
	comp=Z,14nm,1.0s,baz=25,slow=3.8,SNR=2.3						
SDV	Santo Domingo	152.35	323	*e*PKPdf	PKPdf	11 24 50.3	-1.9
SDV				*e*PKPbc	PKPdf	11 24 58.4	+6.2
SDV				LR	LR		
	comp=Z,6µm,20.0s,MS6.4						
MDZ	Mendoza	154.50	218	*e*P	PKPdf	11 25 01.9	+7.3
FCH	Farellones	155.01	215	*e*P	PKPdf	11 24 57.9	+2.6
JTS	JuntasAbangare	156.24	355	PFAKE		11 25 10.0	+13
JTS				LR	LR		
	comp=Z,1µm,20.0s,MS5.8						
TLL	Tololo Astrono	157.59	220	⇑*i*P	PKPdf	11 25 01.1	+2.3
TLL	Tololo Astrono	157.59	220	*e*P	PKPdf	11 25 01.1	+2.3
ROSC	El Rosal	157.74	324	PKP	PKPdf	11 24 59.5	+0.1
	comp=Z,54nm,1.0s,baz=264,slow=20,SNR=10						
ROSC				PKPab	PKPab	11 25 31.8	+0.8
	comp=Z,134nm,1.0s,baz=254,slow=3.5,SNR=9.0						
LVC	Limon Verde	160.46	240	PKP	PKPdf	11 25 03.1	+0.8
	comp=Z,26nm,1.1s,baz=284,slow=1.1,SNR=9.6						
LVC				PKPab	PKPab	11 25 43.8	+1.4
	comp=Z,51nm,0.9s,baz=324,slow=0.4,SNR=7.6						
LVC				PP	PP	11 29 29.5	+3.9
	comp=Z,10nm,1.0s,baz=106,slow=9.5,SNR=5.0						
LVC	Limon Verde	160.46	240	*e*PKPdf	PKPdf	11 25 01.6	-0.7
LVC				LR	LR		
	comp=Z,5µm,20.0s						
LPAZ	La Paz	161.42	259	PKP	PKPdf	11 25 03.3	-0.1
	comp=Z,25nm,1.2s,baz=48,slow=3.3,SNR=6.9						
LPAZ				PKPab	PKPab	11 25 47.7	+1.0
	comp=Z,37nm,1.0s,baz=91,slow=6.3,SNR=8.5						
LPAZ	La Paz	161.42	259	PKIKP	PKPdf	11 25 03.3	-0.1
LPAZ						11 25 47.7	
LPAZ				pmax	pmax		
	comp=Z,25nm,1.2s						
LPAZ				pmax	pmax		
	comp=Z,37nm,1.0s						
LPAZ	La Paz	161.42	259	*e*PKPdf	PKPdf	11 25 03.1	-0.3
LPAZ				LR	LR		
	comp=Z,7µm,19.0s						
ARE	Arequipa	164.59	257	*e*P	PKPdf	11 25 10.0	+3.4
PAYG	Puerto Ayora	166.86	14	PFAKE		11 25 20.0	+11
PAYG				LR	LR		
	comp=Z,6µm,20.0s						
NNA	Nana	169.83	277	*e*PKPdf	PKPdf	11 25 09.3	-1.0
NNA				LR	LR		
	comp=Z,2µm,21.0s						

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*JMA **26** 11:05:40.3±0.1, 36.99N×141.15E, h72^{km}±1^{km}, M3.8*
Broadband fault plane solution: P waves. NP1:ϕ_s73°, δ75°, λ-9°. NP2:ϕ_s166°, δ81°, λ-165°. Principal axes: T Plg4°, Azm299°; N Plg73°, Azm196°; P Plg17°, Azm30°;
JMA Felt I J1.

ISC 26 11:05:39.6±1.4**, 36.99N**±0.06×**141.2E**±0.1**, h70**^{km}±9^{km}**, n9, σ0^{s}38**/17**, 5C-2D, Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ONAJ	Iwakimizuishiy	0.36	289	⇑P	P	11 05 51.8	+0.5
ONAJ				*e*S	S	11 05 59.9	-0.1
JFK	Kawauchi	0.47	324	⇑P	P	11 05 52.7	+0.4
JFK				S	S	11 06 01.7	+0.1
JHO	Hitachi	0.64	235	⇓P	P	11 05 54.2	+0.1
JHO				*e*S	S	11 06 04.1	-0.7
JFT	Otama	0.88	307	⇑P	P	11 05 57.2	+0.3
JFT				*e*S	S	11 06 09.8	+0.1
JMM	Marumori	0.94	339	P	P	11 05 58.0	+0.4
JMM				*e*S	S	11 06 11.1	+0.1
JFY	Yanaizu	1.28	290	⇑P	P	11 06 01.9	-0.2
JFY				*e*S	S	11 06 18.3	-0.5
JOU	Okura	1.45	342	⇑P	P	11 06 04.1	-0.3
JIO	Ouri	1.47	4	⇓P	P	11 06 04.6	-0.1
JIO				*e*S	S	11 06 22.9	-0.4
MAT	Matsushiro	2.46	261	*e*P	P	11 06 18.0	-0.4
MAT				*e*S	S	11 06 48.0	+0.7

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*IDC **26** 11:13:49.3±1.2, 5.67N×93.04E, mb4.3/8, mb1 4.4/9, mb1mx4.2/19, ML4.3/1, Error ellipse: s-maj=45.0km s-min=25.8km az=49.0*

ISC 26 11:13:52.6±1.0**, 5.7N**±0.2×**93.1E**±0.2**, h33**^{km}**, n16, σ0^{s}81**/14**, mb4.3**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.90	24	Pn	P	11 17 10.5	+0.7
	0.5nm,0.3s,baz=210,slow=15,SNR=4.8						

KAD	**Karad**	**21.83**	**304**	*i*	**P**	**11 18 47.8**	**+3.7**
	comp=Z,42µm,19.7s						
AJM	**Ajmer**	**27.17**	**322**	*i*	**P**	**11 19 29.4**	**-6.0**
	comp=Z,68µm,15.7s						
SONM	**Songino Array**	**43.50**	**13**	P	**P**	**11 21 54.8**	**+0.1**
	comp=Z,2.6nm,0.9s,mb4.0,baz=193,slow=6.3,SNR=4.3						
WRA	**Warramunga Arr**	**47.87**	**123**	P	**P**	**11 22 29.7**	**-0.1**
	comp=Z,3.0nm,0.7s,mb4.5,baz=302,slow=8.8,SNR=4.0						
ZAL	**Zalesovo**	**48.58**	**353**	P	**P**	**11 22 34.0**	**-0.8**
	comp=Z,3.0nm,0.3s,mb4.7,baz=308,slow=5.1,SNR=6.7						
BVAR	**Borovoye Array**	**50.73**	**342**	P	**P**	**11 22 50.5**	**-0.8**
	comp=Z,0.9nm,0.5s,mb3.9,baz=148,slow=14,SNR=2.7						
BRTR	**Keskin Array B**	**63.10**	**312**	P	**P**	**11 24 19.1**	**-0.3**
	comp=Z,1.7nm,0.8s,mb4.2,baz=128,slow=7.8,SNR=3.5						
FINES	**FINESS Array B**	**74.17**	**333**	P	**P**	**11 25 27.0**	**-0.5**
	comp=Z,4.1nm,0.9s,mb4.4,baz=93,slow=6.7,SNR=6.3						
KAF	**Kangasniemi**	**74.27**	**333**	*e*p	**P**	**11 25 27.6**	**-0.4**
	comp=Z,1.9nm,0.4s,mb4.4						
KEV	**Kevo**	**76.55**	**341**	*e*p	**P**	**11 25 40.4**	**-0.6**
ARCES	**ARCESS Array B**	**76.97**	**340**	P	**P**	**11 25 43.4**	**0.0**
	comp=Z,2.5nm,0.4s,mb4.5,baz=97,slow=6.2,SNR=20						
GERES	**GERESS Array B**	**78.78**	**319**	P	**P**	**11 25 54.5**	**+0.8**
	comp=Z,1.8nm,0.8s,mb4.1,baz=79,slow=6.8,SNR=4.6						
CLL	**Collm**	**79.41**	**321**	P	**P**	**11 25 59.0**	**+1.9**
PDAR	**Pinedale Array**	**127.56**	**21**	PKP	PKPdf	11 32 57.0	+2.1
	comp=Z,0.6nm,0.7s,baz=88,slow=3.8,SNR=4.0						
TXAR	**Lajitas Array**	**141.62**	**24**	PKP	PKPdf	11 33 26.4	+4.9
	comp=Z,0.5nm,0.4s,baz=297,slow=0.4,SNR=12						

WEL 26 11:14:05.6±0.1**,35.75S×179.35E,h33^{km},ML3.6**/1**,Error ellipse: s-maj=3.6km s-min=1.7km az=90.0,Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MXZ	**Matakaoa Point**	**2.00**	**205**	*e*P*	Pb	11 14 36.9	-4.2
MXZ				S*	Sb	11 15 00.1	-5.7
PUZ	**Puketiti**	**2.48**	**200**	PN	Pn	11 14 43.0	-1.7
PUZ				SN	Sn	11 15 11.3	-2.8
PUZ				SN	Sn	11 15 11.5	-2.7
MWZ	**Matawai**	**2.97**	**209**	P*	Pb	11 14 50.8	-6.9
MWZ				S*	Sb	11 15 24.5	-9.3
MWZ				S*	Sb	11 15 24.8	-9.0
MQZ	**McQueen's Vall**	**9.47**	**211**	SN	Sn	11 17 52.3	-17

IDC 26 11:14:31.2±8.0**,8.68N×93.67E,mb4.3**/7**,mb1 4.4**/7**, mb1mx4.1**/18**,Error ellipse: s-maj=194.0km s-min=71.6km az=133.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	**Zalesovo**	**45.69**	**353**	P	P	11 22 53.8	-1.8
	5.2nm,0.5s,baz=300,slow=7.5,SNR=7.4						
BVAR	**Borovoye Array**	**48.08**	**341**	P	P	11 23 12.2	-2.2
	2.2nm,0.5s,baz=141,slow=9.7,SNR=9.3						
BRTR	**Keskin Array B**	**61.55**	**311**	P	P	11 24 50.7	-1.9
	1.9nm,1.0s,baz=134,slow=8.5,SNR=3.2						
FINES	**FINESS Array B**	**71.78**	**332**	P	P	11 25 55.0	-2.2
	4.1nm,0.9s,baz=103,slow=6.9,SNR=8.9						
ARCES	**ARCESS Array B**	**74.35**	**340**	P	P	11 26 10.9	-1.2
	1.5nm,0.5s,baz=95,slow=5.8,SNR=6.5						
GERES	**GERESS Array B**	**76.91**	**318**	P	P	11 26 25.9	-1.2
	1.6nm,0.9s,baz=76,slow=4.0,SNR=3.5						
NB2	**NORSAR Subarra**	**78.80**	**331**	P	P	11 26 35.5	-1.7
	0.9nm,0.6s,baz=95,slow=5.0						
NOA	**NORSAR Array B**	**78.80**	**331**	P	P	11 26 35.2	-2.0
	0.9nm,0.6s,baz=93,slow=5.9,SNR=3.3						

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*IDC **26** 11:17:04.1±0.6,3.30N×93.74E,mb4.7/20,mb1 4.7/20, mb1mx4.7/24,Error ellipse: s-maj=25.5km s-min=13.8km az=39.0*

*NEIC **26** 11:17:08.5±0.3,3.25N×93.75E,h30^{km},mb5.2/20,Error ellipse: s-maj=9.9km s-min=7.9km az=210.0*

*BJI **26** 11:17:09.6,3.82N×93.89E,h30^{km},mb5.2*

ISC 26 11:17:07.3±0.4**,3.31N**±0.08×**93.82E**±0.07**,h33^{km}, h33^{km}**±2.5^{km}**:pP-P,n77,**σ**0**$\overset{s}{.}$**90**/60**,mb4.9**/39**,1C-1D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
QIZ	**Qiongzhong**	**22.13**	**44**	P	**P**	**11 22 01.8**	**-0.1**
LSA	**Lhasa**	**26.37**	**355**	*e*P	**P**	**11 22 44.9**	**+2.3**
	147nm,0.7s,mb5.6						
WHN	**Wuhan**	**33.32**	**33**	P	**P**	**11 23 42.8**	**-1.8**
WMQ	**Urumqi**	**40.70**	**353**	P	**P**	**11 24 45.3**	**-1.3**
WMQ				AMB	AMB		
	comp=Z,45nm,1.0s,mb5.0						
BJT	**Baijiatuau**	**41.77**	**26**	*e*P	**P**	**11 24 57.0**	**+1.6**
	comp=Z,21nm,0.8s,mb4.8						
SONM	**Songino Array**	**45.66**	**12**	P	**P**	**11 25 27.5**	**+0.7**
	comp=Z,11nm,0.7s,mb4.9,baz=195,slow=9.0,SNR=7.9						
SONM	**Songino Array**	**45.66**	**12**	P	pP	11 25 37.0	+0.4
	comp=Z,23nm,1.0s,baz=194,slow=8.6,SNR=6.3						
WRA	**Warramunga Arr**	**46.01**	**122**	P	**P**	**11 25 30.0**	**+0.1**
	comp=Z,13nm,0.7s,mb5.0,baz=301,slow=8.7,SNR=23						
WRA				PcP	PcP	11 27 07.4	+0.8
	comp=Z,1.5nm,0.7s,baz=312,slow=2.6,SNR=4.3						
WRA	**Warramunga Arr**	**46.01**	**122**	P	pP	11 25 39.6	-0.3
	comp=Z,13nm,0.8s,baz=299,slow=8.9,SNR=12						
WRAB	**Tennant Creek**	**46.02**	**122**	*e*P	**P**	**11 25 30.0**	**0.0**
	comp=Z,59nm,1.0s,mb5.5						
KS15	**Wonju Array Si**	**46.13**	**38**	*e*P	pP	11 25 37.5	-3.1
ASAR	**Alice Springs**	**47.36**	**127**	P	**P**	**11 25 40.4**	**-0.2**
	comp=Z,4.0nm,0.7s,mb4.5,baz=293,slow=7.6,SNR=15						
ASAR	**Alice Springs**	**47.36**	**127**	P	pP	11 25 50.6	+0.2
	comp=Z,3.5nm,0.5s,baz=296,slow=8.1,SNR=11						
CN2	**Changchun**	**49.08**	**30**	*e*P	**P**	**11 25 52.3**	**-1.3**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.7						
HIA	**Hailar**	**50.84**	**22**	*e*P	**P**	**11 26 06.5**	**-0.5**
	comp=Z,41nm,0.9s,mb5.4						
ZAL	**Zalesovo**	**51.00**	**353**	P	**P**	**11 26 08.2**	**+0.1**
	comp=Z,16nm,0.5s,mb5.2,baz=305,slow=5.6,SNR=18						
MAT	**Matsushiro**	**52.52**	**45**	P	**P**	**11 26 20.9**	**+1.0**
MAT	**Matsushiro**	**52.52**	**45**	*e*P	**P**	**11 26 21.0**	**+1.1**
BVAR	**Borovoye Array**	**53.20**	**343**	P	**P**	**11 26 23.7**	**-1.0**
	comp=Z,8.8nm,0.7s,mb4.8,baz=141,slow=9.5,SNR=16						
BVAR	**Borovoye Array**	**53.20**	**343**	P	pP	11 26 33.2	-1.5
	comp=Z,8.2nm,0.7s,baz=135,slow=8.4,SNR=8.9						
BRVK	**Borovoye**	**53.26**	**342**	*e*P	**P**	**11 26 24.4**	**-0.7**
	comp=Z,11nm,0.8s,mb4.8						
CHKZ	**Chkalovo**	**53.70**	**343**	*e*P	**P**	**11 26 27.7**	**-0.6**
	comp=Z,25nm,0.7s,mb5.2						
KMBO	**Kilima Mbogo**	**56.71**	**266**	P	**P**	**11 26 51.4**	**+0.7**
	comp=Z,1.6nm,0.6s,mb4.2,baz=58,slow=11,SNR=5.0						
KMBO	**Kilima Mbogo**	**56.71**	**266**	P	pP	11 26 59.8	-1.1
	comp=Z,1.1nm,0.6s,baz=49,slow=16,SNR=3.2						
KMBO	**Kilima Mbogo**	**56.71**	**266**	*e*P	**P**	**11 26 49.9**	**-0.8**
	comp=Z,6.1nm,1.0s,mb4.6						
KMBO				P		11 26 51.4	
STKA	**Stephens Creek**	**57.27**	**132**	P	**P**	**11 26 53.8**	**-0.7**
	comp=Z,4.6nm,0.6s,mb4.7,baz=293,slow=6.5,SNR=11						
STKA	**Stephens Creek**	**57.27**	**132**	P	pP	11 27 03.6	-1.0
	comp=Z,4.7nm,0.6s,baz=301,slow=9.9,SNR=7.7						
STKA	**Stephens Creek**	**57.27**	**132**	*e*P	**P**	**11 26 53.7**	**-0.8**
STKA				P		11 26 53.8	
GNI	**Garni**	**57.44**	**317**	P	**P**	**11 26 55.9**	**+0.4**
	comp=Z,4.8nm,0.7s,mb4.6,baz=306,slow=5.7,SNR=3.8						
GNI	**Garni**	**57.44**	**317**	P	**P**	**11 26 55.0**	**-0.5**
	comp=Z,187nm,1.6s,mb5.9						
GNI				P		11 26 55.9	
ASAJ	**Asahikawa**	**59.09**	**39**	P	**P**	**11 27 06.5**	**-0.5**
	comp=Z,12nm,0.9s,mb4.9,baz=172,slow=7.1,SNR=3.0						
ARU	**Arti**	**59.96**	**338**	*e*P	**P**	**11 27 04.9**	**-7.9**
	comp=Z,41nm,1.3s,mb5.3						
MALT	**Malatya**	**61.22**	**312**	*e*P	**P**	**11 27 21.6**	**0.0**
	comp=Z,25nm,1.3s,mb5.2						
EIL	**Elat**	**61.48**	**302**	P	**P**	**11 27 21.2**	**-2.3**
	comp=Z,4.1nm,0.7s,mb4.7,baz=63,slow=4.5,SNR=3.2						
EIL	**Elat**	**61.48**	**302**	P	**P**	**11 27 21.2**	**-2.3**
YAK	**Yakutsk**	**64.40**	**18**	*e*P	**P**	**11 27 36.3**	**-6.1**
	comp=Z,49nm,0.7s,mb5.6						
BRTR	**Keskin Array B**	**65.20**	**313**	P	**P**	**11 27 46.6**	**-1.3**
	comp=Z,2.3nm,0.7s,mb4.3,baz=124,slow=7.6,SNR=6.7						
BRTR	**Keskin Array B**	**65.20**	**313**	P	pP	11 27 56.3	-1.9
	comp=Z,8.2nm,1.2s,baz=117,slow=5.5,SNR=5.6						
LSZ	**Lusaka**	**67.50**	**252**	*e*P	**P**	**11 28 03.4**	**+0.4**
	comp=Z,33nm,1.6s,mb5.1						
IDI	**Anoyia**	**70.93**	**306**	P	**P**	**11 28 23.3**	**-0.5**
	comp=Z,8.3nm,0.5s,mb4.9,baz=84,slow=8.7,SNR=8.8						
MA2	**Magadan**	**70.95**	**27**	*e*P	pP	11 28 32.6	-1.0
	comp=Z,51nm,0.9s						
AKASG	**Malin Array Be**	**71.54**	**323**	P	**P**	**11 28 25.9**	**-1.3**
	comp=Z,2.5nm,0.6s,mb4.3,baz=85,slow=4.8,SNR=9.3						
LBTB	**Lobatse**	**71.82**	**242**	*e*P	**P**	**11 28 29.0**	**-0.3**
	comp=Z,13nm,1.0s,mb4.8						
MLR	**Muntele Rosu**	**72.22**	**317**	P	**P**	**11 28 31.8**	**+0.4**
	comp=Z,4.8nm,0.6s,mb4.6,baz=104,slow=4.6,SNR=13						
BOSA	**Boshof**	**72.93**	**239**	*e*P	**P**	**11 28 31.1**	**-4.8**
	comp=Z,53nm,1.7s,mb5.2						
KOLS	**Kolonicke sedl**	**75.43**	**320**	*e*P	**P**	**11 28 51.2**	**+1.3**
KOLS				*e*pP	pP	11 28 59.5	-0.7
FINES	**FINESS Array B**	**76.58**	**333**	P	**P**	**11 28 55.5**	**-0.7**
	comp=Z,2.4nm,0.5s,mb4.4,baz=103,slow=5.6,SNR=12						
FINES	**FINESS Array B**	**76.58**	**333**	P	pP	11 29 04.0	-2.4
	comp=Z,3.2nm,0.7s,baz=106,slow=7.0,SNR=8.7						
VYHS	**Vyhne**	**77.59**	**319**	*i* P	**P**	**11 29 02.1**	**+0.1**
OKC	**Ostrava-Krasne**	**78.25**	**320**	*e*P	**P**	**11 29 03.9**	**-1.6**
ZST	**Bratislava**	**78.69**	**318**	*i* P	**P**	**11 29 08.7**	**+0.7**
ZST				*e*pP	pP	11 29 17.9	-0.5
ARCES	**ARCESS Array B**	**79.43**	**341**	P	**P**	**11 29 11.6**	**-0.1**
	comp=Z,2.8nm,0.6s,mb4.4,baz=86,slow=5.0,SNR=9.6						
ARCES	**ARCESS Array B**	**79.43**	**341**	P	pP	11 29 19.5	-2.6
	comp=Z,4.7nm,0.9s,baz=90,slow=4.9,SNR=5.2						
DPC	**Dobruska-Polom**	**79.48**	**320**	*e*P	**P**	**11 29 12.9**	**+0.6**
DPC				*e*pP	pP	11 29 22.7	0.0
UPC	**Upice**	**79.70**	**321**	*e*P	**P**	**11 29 13.9**	**+0.5**
BILL	**Bilibino**	**80.42**	**21**	*e*P	**P**	**11 29 17.4**	**+0.4**
	comp=Z,12nm,0.9s,mb4.8						
PRU	**Pruhonice**	**80.58**	**320**	*e*P	**P**	**11 29 18.8**	**+0.7**
PRU				*e*x	x	11 29 43.7	
FX1	**Attu Island--F**	**80.94**	**37**	P	**P**	**11 29 21.3**	**+1.3**
	comp=Z,20nm,0.7s,mb5.2,baz=273,slow=17,SNR=3.7						
GERES	**GERESS Array B**	**81.01**	**319**	P	**P**	**11 29 21.4**	**+1.0**
	comp=Z,6.3nm,0.7s,mb4.7,baz=103,slow=5.3,SNR=29						
GERES	**GERESS Array B**	**81.01**	**319**	P	pP	11 29 30.5	-0.4
	comp=Z,3.1nm,0.6s,baz=104,slow=5.5,SNR=8.1						
BRG	**Berggiesshubel**	**81.05**	**321**	*e*P	**P**	**11 29 20.9**	**+0.3**
	comp=Z,7.9nm,0.9s,mb4.6						
KHC	**Kasperske Hory**	**81.11**	**319**	*e*P	**P**	**11 29 20.9**	**-0.1**
KHC				*e*pP	pP	11 29 33.1	+1.7
CLL	**Collm**	**81.68**	**321**	*e*P	**P**	**11 29 24.0**	**+0.1**
CLL	**Collm**	**81.68**	**321**	P	**P**	**11 29 24.0**	**+0.1**
NKC	**Novy Kostel**	**81.94**	**320**	*e*P	**P**	**11 29 25.5**	**+0.3**
NKC				*e*pP	pP	11 29 38.2	+2.5
WTTA	**Wattenberg**	**82.27**	**317**	⇓*i*P	**P**	**11 29 27.4**	**+0.4**
	comp=Z,15nm,0.8s,mb5.0						
SQTA	**Sankt Quirin**	**82.56**	**317**	⇑*i*P	**P**	**11 29 29.2**	**+0.7**
	comp=Z,8.4nm,0.6s,mb5.0						
NB2	**NORSAR Subarra**	**83.53**	**331**	P	**P**	**11 29 32.6**	**-0.6**
	comp=Z,1.3nm,0.9s,mb4.1,baz=89,slow=5.8						
NOA	**NORSAR Array B**	**83.53**	**331**	P	**P**	**11 29 33.0**	**-0.2**
	comp=Z,3.0nm,0.9s,mb4.4,baz=94,slow=5.6,SNR=5.1						
NOA	**NORSAR Array B**	**83.53**	**331**	P	**P**	**11 29 33.0**	**-0.2**
LPG	**La Plagne**	**85.60**	**315**	*e*P	**P**	**11 29 44.1**	**+0.1**
	comp=Z,31nm,1.0s,mb5.2						
ESDC	**Sonseca Array**	**93.89**	**310**	P	**P**	**11 30 24.9**	**+1.7**
	comp=Z,0.7nm,0.5s,mb4.4,baz=60,slow=3.8,SNR=5.4						
TXAR	**Lajitas Array**	**143.47**	**26**	PKP	PKPdf	11 36 39.0	-5.6
	comp=Z,0.6nm,0.4s,baz=192,slow=1.0,SNR=26						
TXAR	**Lajitas Array**	**143.47**	**26**	PKP		11 36 48.0	
	comp=Z,2.2nm,1.0s,baz=202,slow=2.1,SNR=6.7						
TXAR	**Lajitas Array**	**143.47**	**26**	PKP	PKPdf	11 36 39.0	-5.6
TXAR				PKP	PKPdf	11 36 48.0	+3.3
NATX	**Nacogdoches**	**144.20**	**12**	*e*PKPdf	PKPdf	11 36 41.5	-4.4
SDV	**Santo Domingo**	**160.32**	**308**	PKPab	PKPab	11 37 47.0	-0.4
	comp=Z,3.7nm,1.0s,baz=34,slow=4.6,SNR=3.8						

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*IDC **26** 11:18:18.4±0.6,15.09N×93.87E,mb4.7/19,mb1 4.8/20, mb1mx4.8/24,ML4.6/1,Error ellipse: s-maj=29.1km s-min=15.4km az=46.0*

ISC 26 11:18:23.0±0.8**,15.2N**±0.1×**93.73E**±0.09**,h33^{km},n26,** σ**1**$\overset{s}{.}$**28**/22**,mb4.7**/19**,Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**5.96**	**56**	Pn	**Pn**	**11 19 50.7**	**-0.6**
	4.0nm,0.3s,baz=242,slow=14,SNR=36						
JOW	**Kunigami**	**34.15**	**64**	P	**P**	**11 25 09.2**	**+2.0**
	25nm,0.6s,mb5.3,baz=282,slow=10,SNR=7.2						
SONM	**Songino Array**	**34.20**	**15**	P	**P**	**11 25 06.5**	**-1.0**
	18nm,0.9s,mb5.0,baz=205,slow=6.2,SNR=22						
ZAL	**Zalesovo**	**39.29**	**352**	P	**P**	**11 25 47.9**	**-2.4**
	6.6nm,0.7s,mb4.5,baz=307,slow=9.2,SNR=11						
BVAR	**Borovoye Array**	**42.02**	**339**	P	**P**	**11 26 10.7**	**-2.1**
	2.7nm,0.9s,mb3.9,baz=150,slow=11,SNR=4.6						
GNI	**Garni**	**49.24**	**310**	P	**P**	**11 27 09.5**	**-0.9**
	16nm,0.8s,mb5.1,baz=129,slow=14,SNR=6.9						
WRA	**Warramunga Arr**	**53.03**	**130**	P	**P**	**11 27 35.2**	**-4.2**
	11nm,1.2s,mb4.7,baz=312,slow=8.1,SNR=5.4						
WRA				PcP	PcP	11 28 45.3	-2.3
	2.5nm,0.7s,baz=320,slow=3.6,SNR=5.2						
ASAR	**Alice Springs**	**55.07**	**134**	P	**P**	**11 27 49.8**	**-4.5**
	3.3nm,0.7s,mb4.5,baz=310,slow=6.3,SNR=4.4						
EIL	**Elat**	**55.69**	**296**	P	**P**	**11 27 58.8**	**+0.1**
	13nm,1.1s,mb4.9,baz=67,slow=8.9,SNR=3.4						
BRTR	**Keskin Array B**	**57.52**	**308**	P	**P**	**11 28 10.9**	**-0.7**
	4.7nm,0.9s,mb4.5,baz=127,slow=6.2,SNR=5.0						
AKASG	**Malin Array Be**	**62.28**	**320**	P	**P**	**11 28 43.2**	**-0.9**
	7.1nm,0.9s,mb4.8,baz=82,slow=5.6,SNR=7.8						
MLR	**Muntele Rosu**	**63.78**	**313**	P	**P**	**11 28 55.3**	**+1.2**
	27nm,0.9s,mb5.2,baz=113,slow=7.4,SNR=8.7						
STKA	**Stephens Creek**	**65.53**	**136**	P	**P**	**11 29 04.9**	**-0.7**
	3.7nm,0.7s,mb4.6,baz=303,slow=9.2,SNR=4.5						
CRVS	**Cervenica-Dubn**	**67.07**	**317**	*e*	**P**	**11 29 17.1**	**+2.0**
GERES	**GERESS Array B**	**72.19**	**317**	P	**P**	**11 29 46.5**	**+0.2**
	12nm,0.8s,mb4.8,baz=90,slow=5.3,SNR=4.5						
CLL	**Collm**	**72.53**	**319**	P	**P**	**11 29 49.0**	**+0.7**
NOA	**NORSAR Array B**	**73.22**	**330**	P	**P**	**11 29 52.4**	**+0.1**
	3.0nm,0.8s,mb4.3,baz=90,slow=5.9,SNR=7.5						
ESDC	**Sonseca Array**	**86.23**	**310**	P	**P**	**11 31 02.5**	**-0.1**
	1.6nm,0.7s,mb4.4,baz=52,slow=4.1,SNR=5.1						
ILAR	**Eielson Array**	**88.16**	**22**	P	**P**	**11 31 12.2**	**+0.9**
	5.0nm,1.0s,mb4.7,baz=300,slow=4.8,SNR=19						
ILAR				PP	PP	11 34 39.6	-1.2
	1.1nm,0.9s,baz=307,slow=3.1,SNR=4.6						
INK	**Inuvik**	**90.11**	**16**	P	**P**	**11 31 22.2**	**+1.6**
	12nm,0.9s,mb5.2,baz=350,slow=5.6,SNR=17						
DBIC	**Dimbokro**	**96.50**	**279**	P	**P**	**11 31 51.2**	**+0.2**
	5.0nm,0.9s,mb4.9,baz=132,slow=14,SNR=2.2						
YKA	**Yellowknife Ar**	**99.44**	**13**	P	**P**	**11 32 04.5**	**+1.3**
	1.3nm,0.8s,mb4.5,baz=327,slow=4.2,SNR=9.5						
YKA				PP	PP	11 36 07.0	-2.2
	1.7nm,0.8s,baz=329,slow=8.0,SNR=7.5						
PDAR	**Pinedale Array**	**118.48**	**19**	PKP	PKPdf	11 37 09.8	+2.2
	1.5nm,0.8s,baz=284,slow=0.2,SNR=3.8						
NVAR	**Mina Array Bea**	**118.80**	**28**	PKP	PKPdf	11 37 07.3	-1.0
	3.1nm,0.9s,baz=243,slow=3.3,SNR=4.2						
TXAR	**Lajitas Array**	**132.66**	**21**	PKP	PKPdf	11 37 34.6	-0.7
	2.7nm,1.1s,baz=50,slow=1.4,SNR=2.6						
SDV	**Santo Domingo**	**151.50**	**326**	PKP	PKPdf	11 38 10.8	+2.5
	7.4nm,0.9s,baz=307,slow=4.1,SNR=6.3						
SDV				PKPbc	PKPdf	11 38 13.6	+5.2
	15nm,0.9s,baz=61,slow=5.1,SNR=7.8						

IDC 26 11:21:35.2±2.2**,5.40N×93.25E,mb4.1**/4**,mb1 4.2**/4**, mb1mx3.8**/18**,Error ellipse: s-maj=87.9km s-min=31.6km az=57.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.76**	**13**	P	P	11 29 42.1	-2.1
	1.5nm,0.7s,baz=192,slow=7.2,SNR=3.0						
ASAR	**Alice Springs**	**49.06**	**128**	P	P	11 30 24.8	-1.7
	4.6nm,1.1s,baz=306,slow=7.4,SNR=3.8						
BVAR	**Borovoye Array**	**51.05**	**342**	P	P	11 30 40.6	-0.6
	1.2nm,0.7s,baz=153,slow=9.7,SNR=2.8						
FINES	**FINESS Array B**	**74.48**	**333**	P	P	11 33 14.0	-3.1
	2.9nm,0.8s,baz=90,slow=4.2,SNR=4.3						

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*IDC **26** 11:24:45.5±1.1,3.28N×94.51E,mb4.4/9,mb1 4.5/10, mb1mx4.2/19,ML4.2/1,Error ellipse: s-maj=46.1km s-min=19.5km az=51.0*

ISC 26 11:24:49.0±0.9**,3.4N**±0.1×**94.7E**±0.2**,h33^{km},n11,** σ**0**$\overset{s}{.}$**81**/10**,mb4.3**/9**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.55**	**15**	Pn	**P**	**11 28 27.1**	**-0.4**
	0.3nm,0.3s,baz=40,slow=39,SNR=5.2						
WRA	**Warramunga Arr**	**45.35**	**122**	P	**P**	**11 33 05.8**	**-0.4**
	5.1nm,0.8s,mb4.4,baz=302,slow=9.0,SNR=10						
SONM	**Songino Array**	**45.42**	**11**	P	**P**	**11 33 07.7**	**+1.3**
	7.2nm,0.8s,mb4.5,baz=192,slow=8.1,SNR=21						
ASAR	**Alice Springs**	**46.74**	**127**	P	**P**	**11 33 17.2**	**+0.1**
	2.8nm,0.8s,mb4.2,baz=306,slow=7.2,SNR=7.2						
ZAL	**Zalesovo**	**51.03**	**353**	P	**P**	**11 33 49.6**	**-0.3**
	4.6nm,0.5s,mb4.7,baz=294,slow=4.6,SNR=8.4						
BVAR	**Borovoye Array**	**53.38**	**342**	P	**P**	**11 34 06.6**	**-0.9**
	5.3nm,0.7s,mb4.6,baz=141,slow=9.5,SNR=18						
BRTR	**Keskin Array B**	**65.77**	**312**	P	**P**	**11 35 32.1**	**-1.0**
	1.5nm,0.7s,mb4.1,baz=129,slow=7.9,SNR=6.5						
FINES	**FINESS Array B**	**76.90**	**333**	P	**P**	**11 36 39.0**	**-0.4**
	2.2nm,0.7s,mb4.2,baz=153,slow=4.3,SNR=3.4						
ARCES	**ARCESS Array B**	**79.63**	**340**	P	**P**	**11 36 55.2**	**+0.8**
	1.8nm,0.8s,mb4.0,baz=104,slow=7.4,SNR=3.4						
GERES	**GERESS Array B**	**81.50**	**319**	P	**P**	**11 37 06.0**	**+1.4**
	1.6nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=6.6						
TXAR	**Lajitas Array**	**143.02**	**27**	PKP	PKPdf	11 44 22.4	+2.3
	0.2nm,0.5s,baz=48,slow=0.8,SNR=4.9						

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*DJA **26** 11:26:04.9±6.3,3.29S×98.71E,h2^{km},mb5.1/6,Error ellipse: s-maj=285.6km s-min=8.4km az=55.0*

*IDC **26** 11:26:39.6±0.8,3.59S×101.20E,mb4.7/15,mb1 4.8/15, mb1mx4.6/19,Error ellipse: s-maj=35.3km s-min=14.2km az=48.0*

*BJI **26** 11:26:42.3,3.80S×101.57E,h46^{km},mb5.2*

*NEIC **26** 11:26:44.4±0.2,3.46S×101.39E,h30^{km},mb4.9/23,Error ellipse: s-maj=8.4km s-min=5.8km az=74.0*

ISC 26 11:26:42.2±2.4**,3.44S**±0.06×**101.44E**±0.07**,h28^{km}**±17^{km}**, n60,**σ**0**$\overset{s}{.}$**98**/55**,mb4.8**/40**,3C-3D,Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PENI	**Pendagan**	**4.28**	**120**	⇑*e*P	**Pn**	**11 27 47.8**	**+0.6**
	842nm,0.2s						
PULI	**Pulasari**	**5.36**	**123**	⇓*e*P	**Pn**	**11 28 03.3**	**+0.8**
	274nm,0.2s						
COCO	**West Island**	**9.82**	**207**	*e*P	**P**	**11 29 02.2**	**-2.6**
	178nm,0.7s						
SRDI	**Scrawed**	**13.58**	**112**	⇑*e*P	**P**	**11 29 55.2**	**-0.5**
	234nm,0.1s						
KELI	**Kelakatan**	**13.82**	**111**	⇓*i*P	**P**	**11 30 00.5**	**+1.7**
	78nm,0.2s						
RATI	**Rata**	**14.96**	**111**	⇑*e*P	**P**	**11 30 12.0**	**-1.7**
	556nm,0.2s						
KEDI	**Kedomdong**	**15.42**	**110**	⇓*e*P	**P**	**11 30 18.1**	**-1.7**
	66nm,0.2s						
CM31	**Chiang Mai Arr**	**21.90**	**354**	P	**P**	**11 31 33.5**	**-1.5**
	9.2nm,0.8s,mb4.3						
CMAR	**Chiang Mai Arr**	**21.90**	**354**	P	**P**	**11 31 37.0**	**+1.9**
	7.4nm,0.8s,mb4.2,baz=186,slow=8.6,SNR=6.5						
MBWA	**Marble Bar**	**25.03**	**136**	*e*P	**P**	**11 32 07.2**	**+1.4**
	5.0nm,0.6s,mb4.2						
ENH	**Enshi**	**34.39**	**12**	*e*P	**P**	**11 33 28.6**	**-0.7**
	17nm,0.7s,mb5.1						
LSA	**Lhasa**	**34.40**	**344**	P	**P**	**11 33 28.9**	**-0.4**
	12nm,0.8s,mb4.9						
WRA	**Warramunga Arr**	**36.03**	**120**	P	**P**	**11 33 43.9**	**+0.6**
	5.9nm,0.4s,mb4.9,baz=304,slow=9.5,SNR=39						
WRA				S	**S**	**11 39 16.6**	**-3.1**
	1.5nm,0.8s,baz=295,slow=16,SNR=6.0						
WRAB	**Tennant Creek**	**36.03**	**120**	*e*P	**P**	**11 33 43.3**	**-0.1**
	18nm,0.6s,mb5.2						
ASAR	**Alice Springs**	**37.25**	**126**	P	**P**	**11 33 54.2**	**+0.7**
	37nm,1.1s,mb5.1,baz=299,slow=7.8,SNR=32						
ASAR				S	**S**	**11 39 36.6**	**-1.8**
	2.8nm,0.8s,baz=298,slow=15,SNR=6.9						
HHC	**Hu-ho-hao-te**	**45.04**	**11**	*e*P	**P**	**11 34 58.5**	**+1.1**
HHC				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.8						
BJT	**Baijiatuau**	**45.31**	**16**	P	**P**	**11 35 00.2**	**+0.6**
	comp=Z,7.5nm,0.8s,mb4.6						
CTA	**Charters Tower**	**46.69**	**114**	P	**P**	**11 35 11.1**	**+0.3**
	comp=Z,23nm,0.8s,mb5.2,baz=290,slow=9.1,SNR=25						
CTAO	**Charters Tower**	**46.69**	**114**	*e*P	**P**	**11 35 10.7**	**0.0**
	comp=Z,29nm,0.9s,mb5.2						
STKA	**Stephens Creek**	**47.12**	**132**	P	**P**	**11 35 14.9**	**+0.8**
	comp=Z,4.1nm,0.7s,mb4.5,baz=344,slow=11,SNR=3.0						
STKA	**Stephens Creek**	**47.12**	**132**	*e*P	**P**	**11 35 14.6**	**+0.6**
WMQ	**Urumqi**	**48.65**	**347**	P	**P**	**11 35 26.8**	**+1.0**
WMQ				AMB	AMB		
	comp=Z,85nm,0.7s,mb5.9						
SONM	**Songino Array**	**51.24**	**4**	P	**P**	**11 35 46.6**	**+1.1**
	comp=Z,20nm,0.7s,mb5.1,baz=184,slow=9.3,SNR=45						
ULN	**Ulaanbaatar**	**51.33**	**5**	*e*P	**P**	**11 35 46.9**	**+0.7**
	comp=Z,11nm,0.8s,mb4.8						
CN2	**Changchun**	**51.74**	**22**	*e*P	**P**	**11 35 48.8**	**-0.6**
CN2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
MAJO	**Matsushiro**	**52.51**	**37**	P	**P**	**11 35 54.6**	**-0.7**
	comp=Z,10nm,0.8s,mb4.8						
MAT	**Matsushiro**	**52.51**	**37**	P	**P**	**11 35 55.1**	**-0.2**
MAT	**Matsushiro**	**52.51**	**37**	*e*P	**P**	**11 35 55.0**	**-0.3**
MDJ	**Mudanjiang**	**54.06**	**25**	P	**P**	**11 36 06.8**	**+0.2**
	comp=Z,8.7nm,0.9s,mb4.7						
HIA	**Hailar**	**54.84**	**15**	*e*P	**P**	**11 36 11.3**	**-1.0**
	comp=Z,5.4nm,0.7s,mb4.7						
TLY	**Talaya**	**54.94**	**2**	*e*P	**P**	**11 36 13.8**	**+0.8**
	comp=Z,14nm,0.8s,mb5.0						
ZAL	**Zalesovo**	**58.84**	**349**	P	**P**	**11 36 39.9**	**-0.7**
	comp=Z,12nm,0.4s,mb5.3,baz=315,slow=5.4,SNR=20						
ASAJ	**Asahikawa**	**60.00**	**33**	P	**P**	**11 36 49.4**	**+0.6**
	comp=Z,10.0nm,0.5s,mb5.1,baz=321,slow=18,SNR=17						
YSS	**Yuzh-Sakhalins**	**61.95**	**31**	*e*P	**P**	**11 37 01.5**	**-0.5**
	comp=Z,43nm,0.8s,mb5.6						
BVAR	**Borovoye Array**	**62.03**	**339**	P	**P**	**11 37 01.5**	**-0.9**
	comp=Z,6.7nm,0.7s,mb4.9,baz=142,slow=8.9,SNR=19						
BRVK	**Borovoye**	**62.09**	**339**	*e*P	**P**	**11 37 01.4**	**-1.4**
	comp=Z,8.7nm,0.7s,mb5.0						
BRVK				*e*		11 37 15.7	
CHKZ	**Chkalovo**	**62.48**	**340**	*e*P	**P**	**11 37 04.6**	**-0.8**
	comp=Z,13nm,0.7s,mb5.2						
CHKZ				*e*		11 37 19.1	
YAK	**Yakutsk**	**68.77**	**14**	*e*P	**P**	**11 37 44.1**	**-1.6**
	comp=Z,25nm,0.8s,mb5.2						
ARU	**Arti**	**69.10**	**336**	*e*P	**P**	**11 37 46.9**	**-0.8**
	comp=Z,8.1nm,0.8s,mb4.7						
ARU				*e*		11 38 01.1	
KIV	**Kislovodsk**	**70.57**	**319**	*e*P	**P**	**11 37 57.0**	**+0.1**
	comp=Z,9.2nm,0.9s,mb4.7						
MALT	**Malatya**	**71.37**	**312**	*e*P	**P**	**11 38 02.4**	**+0.6**
	comp=Z,5.7nm,1.0s,mb4.5						
MALT				*e*	pP	11 38 12.9	+2.3
MA2	**Magadan**	**73.75**	**24**	*e*P	**P**	**11 38 15.4**	**-0.1**
	comp=Z,7.4nm,0.6s,mb4.8						
MA2				*e*		11 38 33.3	
BRTR	**Keskin Array B**	**75.35**	**312**	P	**P**	**11 38 25.2**	**+0.1**
	comp=Z,2.0nm,0.6s,mb4.3,baz=132,slow=7.0,SNR=5.7						
LBTB	**Lobatse**	**75.73**	**245**	*e*P	**P**	**11 38 28.0**	**+0.4**
	comp=Z,2.0nm,0.7s,mb4.2						
BOSA	**Boshof**	**76.23**	**242**	*e*P	**P**	**11 38 30.6**	**+0.2**
	comp=Z,1.3nm,0.6s,mb4.0						
SUR	**Sutherland**	**80.25**	**238**	P	**P**	**11 38 53.9**	**+1.6**
	comp=Z,3.2nm,0.8s,mb4.3						
VNDA	**Vanda**	**80.48**	**169**	P	**P**	**11 38 51.7**	**-1.0**
IDI	**Anoyia**	**81.05**	**306**	P	**P**	**11 38 55.9**	**-0.5**
	comp=Z,6.8nm,1.0s,mb4.5,baz=94,slow=15,SNR=3.1						
AKASG	**Malin Array Be**	**81.50**	**322**	P	**P**	**11 38 58.5**	**+0.1**
	comp=Z,3.0nm,0.8s,mb4.3,baz=88,slow=5.1,SNR=5.9						
FINES	**FINESS Array B**	**86.05**	**332**	P	**P**	**11 39 22.5**	**+1.2**
	comp=Z,2.6nm,0.7s,mb4.6,baz=105,slow=7.4,SNR=8.2						
FINES	**FINESS Array B**	**86.05**	**332**	P	**P**	**11 39 22.5**	**+1.2**
ARCES	**ARCESS Array B**	**88.31**	**340**	P	**P**	**11 39 33.1**	**+1.0**
	comp=Z,3.9nm,0.9s,mb4.6,baz=105,slow=5.5,SNR=13						
NOA	**NORSAR Array B**	**93.10**	**331**	P	**P**	**11 39 55.2**	**+0.7**
	comp=Z,1.0nm,1.0s,mb4.2,baz=84,slow=5.0,SNR=2.5						
YKA	**Yellowknife Ar**	**115.31**	**18**	PKP	PKPdf	11 45 21.8	-4.1
	comp=Z,0.1nm,0.5s,baz=334,slow=1.7,SNR=4.7						
YKA	**Yellowknife Ar**	**115.31**	**18**	PKP	PKPdf	11 45 21.8	-4.1
NVAR	**Mina Array Bea**	**129.77**	**41**	PKP	PKPdf	11 45 53.1	-1.4
	comp=Z,1.0nm,0.6s,baz=327,slow=2.9,SNR=6.2						
ULM	**Lac du Bonnet**	**131.11**	**15**	PKP	PKPdf	11 45 54.3	-2.4
	comp=Z,1.5nm,0.5s,baz=210,slow=1.3,SNR=3.7						
BAO	**Brasilia Array**	**144.31**	**237**	PKP	PKPdf	11 46 18.1	-3.5
BDFB	**Brasilia**	**144.32**	**237**	PKP	PKPdf	11 46 17.9	-3.7
	comp=Z,1.3nm,0.5s,baz=95,slow=5.7,SNR=2.7						
TXAR	**Lajitas Array**	**144.92**	**40**	PKPbc	PKPbc	11 46 19.3	+1.8
	comp=Z,11nm,0.5s,baz=242,slow=0.9,SNR=169						

IDC 26 11:27:46.6±5.4**,7.93N×91.02E,mb4.2**/4**,mb1 4.5**/5**, mb1mx4.1**/18**,ML4.6**/1**,Error ellipse: s-maj=123.0km s-min=48.6km az=151.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.99**	**36**	Pn	P	11 30 52.3	-3.0
	1.1nm,0.3s,baz=231,slow=14,SNR=12						
ZAL	**Zalesovo**	**46.15**	**355**	P	P	11 36 13.2	-1.4

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	3.3nm,0.6s,baz=317,slow=6.6,SNR=10						
BRTR	Keskin Array B	60.06	311	P	P	11 37 56.8	-1.2
	1.5nm,0.7s,baz=130,slow=8.5,SNR=4.0						
ARCES	ARCESS Array B	74.17	341	P	P	11 39 24.2	-2.3
	1.9nm,0.7s,baz=98,slow=6.4,SNR=3.6						
GERES	GERESS Array B	75.73	318	P	P	11 39 33.8	-2.1
	1.4nm,0.7s,baz=90,slow=4.9,SNR=6.2						

*IDC **26** 11:34:15.3±0.9,5.28N×94.34E,mb4.3/12,mb1 4.5/13,mb1mx4.4/19,ML5.1/1,Error ellipse: s-maj=47.6km s-min=17.3km az=50.0*

*BJI **26** 11:34:18.3,4.91N×94.41E,h53^{km},mb4.8*

*NEIC **26** 11:34:20.0±0.5,5.28N×94.37E,h30^{km},mb4.8/14,Error ellipse: s-maj=12.8km s-min=10.0km az=63.0*

ISC 26 11:34:18.2±0.5,5.25N±0.07×94.38E±0.08,h30^{km},n51,σ1^{s}07/48,mb4.7/37,1C,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.86	18	eP	P	11 37 36.6	+1.4
	15nm,0.5s						
CMAR	Chiang Mai Arr	13.86	18	Pn	P	11 37 39.6	+4.4
	2.7nm,0.3s,baz=207,slow=14,SNR=33						
QIZ	Qiongzhong	20.37	46	P	P	11 38 55.8	+0.5
	11nm,0.8s						
KMI	Kunming	21.32	21	eP	P	11 39 07.0	+1.9
KMI				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.3						
PKI	Pulchoki	23.78	340	eP	P	11 39 30.5	+1.2
	comp=Z,36nm,0.6s,mb5.0						
DMN	Daman	23.92	339	eP	P	11 39 31.8	+1.1
	comp=Z,46nm,0.8s,mb5.0						
GUN	Gumba	23.94	341	eP	P	11 39 31.8	+0.9
	comp=Z,44nm,0.6s,mb5.0						
KKN	Kakani	24.03	340	eP	P	11 39 32.8	+1.0
	comp=Z,35nm,0.7s,mb4.9						
GYA	Guiyang	24.13	28	⇑iP	P	11 39 34.0	+1.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
GKN	Gorkha	24.45	339	eP	P	11 39 36.1	+0.3
	comp=Z,39nm,0.6s,mb5.0						
LSA	Lhasa	24.51	353	eP	P	11 39 37.8	+1.4
	comp=Z,28nm,0.6s,mb5.0						
KOLN	Koldanda	24.63	337	eP	P	11 39 38.3	+0.7
	comp=Z,25nm,0.6s,mb4.9						
ENH	Enshi	28.67	28	eP	P	11 40 12.3	-2.4
	comp=Z,11nm,0.8s,mb4.7						
XAN	Xi'an	31.66	23	P	P	11 40 39.5	-1.8
XAN				AMB	AMB		
	comp=Z,23nm,0.7s,mb5.1						
GTA	Gaotai	34.36	7	eP	P	11 41 02.5	-2.2
GTA				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.7						
MBWA	Marble Bar	36.16	137	P	P	11 41 14.6	-5.6
	comp=Z,23nm,1.4s,mb4.9						
HHC	Hu-ho-hao-te	38.65	21	eP	P	11 41 41.0	+0.1
HHC				AMB	AMB		
	comp=Z,11nm,0.5s,mb4.8						
WMQ	Urumqi	38.86	352	P	P	11 41 43.0	+0.4
WMQ				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.7						
BJT	Baijiatuau	39.79	26	eP	P	11 41 50.8	+0.4
	comp=Z,6.0nm,0.6s,mb4.5						
SONM	Songino Array	43.66	12	P	P	11 42 21.3	-0.7
	comp=Z,4.1nm,0.7s,mb4.2,baz=192,slow=8.3,SNR=23						
SONM				PcP	PcP	11 44 09.2	-0.2
	comp=Z,1.7nm,0.6s,baz=196,slow=4.3,SNR=5.4						
ULN	Ulaanbaatar	43.82	12	eP	P	11 42 22.3	-1.0
	comp=Z,4.8nm,0.8s,mb4.3						
ULN				e		11 42 34.6	
WRA	Warramunga Arr	46.59	124	P	P	11 42 45.7	0.0
	comp=Z,7.8nm,0.7s,mb4.7,baz=302,slow=9.1,SNR=27						
WRAB	Tennant Creek	46.59	124	eP	P	11 42 45.6	-0.1
	comp=Z,17nm,0.7s,mb5.1						
CN2	Changchun	47.13	31	eP	P	11 42 49.0	-0.7
ASAR	Alice Springs	48.09	128	P	P	11 42 57.2	-0.3
	comp=Z,1.8nm,0.6s,mb4.3,baz=300,slow=7.7,SNR=13						
ASAR				PcP	PcP	11 44 25.3	+0.1
	comp=Z,2.3nm,1.0s,baz=307,slow=4.5,SNR=4.8						
HIA	Hailar	48.84	22	eP	P	11 43 01.2	-1.7
	comp=Z,13nm,1.5s,mb4.8						
ZAL	Zalesovo	49.16	353	P	P	11 43 04.9	-0.4
	comp=Z,7.0nm,0.5s,mb5.0,baz=307,slow=6.6,SNR=25						
BVAR	Borovoye Array	51.53	342	P	P	11 43 22.6	-0.8
	comp=Z,4.6nm,0.6s,mb4.6,baz=141,slow=9.5,SNR=22						
BRVK	Borovoye	51.59	342	eP	P	11 43 22.7	-1.2
	comp=Z,5.4nm,0.6s,mb4.7						
BRVK				e		11 43 36.5	
CHKZ	Chkalovo	52.02	342	eP	P	11 43 26.5	-0.7
	comp=Z,14nm,0.6s,mb5.0						
CHKZ				e		11 43 39.8	
STKA	Stephens Creek	58.15	133	P	P	11 44 15.2	+3.4
	comp=Z,3.0nm,0.8s,mb4.3,baz=304,slow=8.2,SNR=3.9						
STKA	Stephens Creek	58.15	133	eP	P	11 44 14.7	+2.8
ARU	Arti	58.38	338	eP	P	11 44 11.6	-1.6
	comp=Z,24nm,1.2s,mb5.1						
ARU				e		11 44 26.1	
ARU				e		11 44 39.5	
KIV	Kislovodsk	59.42	319	eP	P	11 44 19.5	-1.1
	comp=Z,7.9nm,0.8s,mb4.8						
MALT	Malatya	60.35	311	eP	P	11 44 27.1	+0.2
	comp=Z,11nm,0.9s,mb4.9						
EIL	Elat	60.95	301	P	P	11 44 26.7	-4.4
	comp=Z,7.0nm,1.0s,mb4.8						
YAK	Yakutsk	62.40	18	P	P	11 44 42.1	+1.7
BRTR	Keskin Array B	64.32	312	P	P	11 44 52.8	-0.7
	comp=Z,9.3nm,1.3s,mb4.7,baz=132,slow=7.9,SNR=5.0						
AKASG	Malin Array Be	70.35	322	P	P	11 45 29.7	-1.5
	comp=Z,2.3nm,0.6s,mb4.3,baz=87,slow=4.7,SNR=5.6						
FINES	FINESS Array B	75.13	332	P	P	11 45 58.7	-0.5
	comp=Z,1.6nm,0.7s,mb4.1,baz=76,slow=7.9,SNR=4.6						
MAW	Mawson	76.03	192	P	P	11 46 05.9	+1.7
OJC	Ojcow	76.13	320	eP	P	11 46 05.3	+0.2
ARCES	ARCESS Array B	77.80	340	P	P	11 46 14.2	+0.3
	comp=Z,5.6nm,1.0s,mb4.5,baz=63,slow=2.7,SNR=8.2						
BILL	Bilibino	78.42	21	P	P	11 46 16.9	-0.5
PRU	Pruhonice	79.46	320	eP	P	11 46 23.9	+0.5
GERES	GERESS Array B	79.93	319	P	P	11 46 26.7	+0.7
	comp=Z,4.1nm,0.7s,mb4.5,baz=94,slow=5.3,SNR=30						
KHC	Kasperske Hory	80.03	319	eP	P	11 46 26.5	0.0
NB2	NORSAR Subarra	82.12	331	P	pP	11 46 52.9	+6.1
	comp=Z,0.8nm,0.8s,baz=92,slow=5.6						
NOA	NORSAR Array B	82.12	331	P	P	11 46 37.4	+0.2
	comp=Z,0.4nm,0.6s,mb3.5,baz=123,slow=3.8,SNR=2.5						
PDAR	Pinedale Array	127.50	22	PKhKP		11 53 15.6	
	comp=Z,0.3nm,0.9s,baz=45,slow=1.3,SNR=2.6						
PDAR				PKP	PKPdf	11 53 22.6	-3.4
	comp=Z,0.7nm,0.8s,baz=45,slow=2.1,SNR=4.7						
TXAR	Lajitas Array	141.49	26	PKhKP		11 53 42.3	
	comp=Z,0.3nm,0.5s,baz=303,slow=3.4,SNR=10						
TXAR				PKP	PKPdf	11 53 47.3	-5.1
	comp=Z,0.5nm,0.7s,SNR=10						

*IDC **26** 11:37:56.3±0.8,7.60N×92.95E,mb4.4/14,mb1 4.6/15,mb1mx4.5/20,ML3.8/1,Error ellipse: s-maj=40.0km s-min=15.4km az=49.0*

ISC 26 11:37:59.3±0.7,7.4N±0.1×92.9E±0.1,h33^{km},n31,σ0^{s}96/28,mb4.6/21,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.49	28	Pn	P	11 40 57.4	-0.3
	0.2nm,0.3s,baz=230,slow=13,SNR=5.0						
PKI	Pulchoki	21.30	341	eP	P	11 42 45.4	0.0
	42nm,0.6s,mb4.9						
DMN	Daman	21.43	341	eP	P	11 42 47.5	+0.8
	76nm,0.9s,mb5.0						
GUN	Gumba	21.48	343	eP	P	11 42 47.0	-0.1
	75nm,0.7s,mb5.1						
KKN	Kakani	21.54	341	eP	P	11 42 48.7	+0.9
	67nm,0.8s,mb5.1						
GKN	Gorkha	21.95	340	eP	P	11 42 52.1	+0.2
	94nm,0.6s,mb5.4						
KOLN	Koldanda	22.11	338	eP	P	11 42 53.6	+0.1
	39nm,0.6s,mb5.0						
UCH	Uchtor	38.32	338	P	P	11 45 19.8	+1.1
	SNR=8.3						
KBK	Karagaybulak	38.54	339	P	P	11 45 21.7	+1.3
	SNR=13						
AML	Almayashu	38.55	337	P	P	11 45 22.0	+1.4
	SNR=17						
EKS2	Erkin-Say	38.98	337	P	P	11 45 25.4	+1.3
	SNR=5.8						
USP	Ospenovka	39.23	339	P	P	11 45 26.7	+0.4
	SNR=12						
SONM	Songino Array	41.93	14	P	P	11 45 45.5	-3.0
	2.1nm,1.0s,mb3.7,baz=202,slow=6.0,SNR=3.8						
ZAL	Zalesovo	46.89	353	P	P	11 46 27.4	-0.8
	5.6nm,0.4s,mb4.9,baz=301,slow=4.8,SNR=14						
WRA	Warramunga Arr	49.00	124	P	P	11 46 45.5	+0.4
	2.1nm,0.4s,mb4.5,baz=303,slow=8.8,SNR=17						
BVAR	Borovoye Array	49.07	342	P	P	11 46 44.3	-1.0
	6.6nm,0.9s,mb4.7,baz=141,slow=9.5,SNR=11						
ASAR	Alice Springs	50.56	129	P	P	11 46 57.0	-0.1
	2.9nm,0.4s,mb4.6,baz=302,slow=7.8,SNR=18						
CTA	Charters Tower	59.16	119	P	P	11 48 03.3	+3.6
	3.7nm,0.7s,mb4.5,baz=264,slow=13,SNR=3.6						
STKA	Stephens Creek	60.67	133	P	P	11 48 10.4	+0.5
	2.0nm,0.6s,mb4.5,baz=316,slow=6.4,SNR=6.7						
BRTR	Keskin Array B	61.81	311	P	P	11 48 15.9	-1.5
	1.5nm,0.5s,mb4.4,baz=121,slow=7.2,SNR=6.6						
AKASG	Malin Array Be	67.77	322	P	P	11 48 53.7	-2.1
	1.3nm,0.6s,mb4.1,baz=88,slow=4.7,SNR=4.8						
IDI	Anoyia	67.83	305	P	P	11 48 56.7	+0.3
	5.7nm,0.6s,mb4.8,baz=93,slow=8.1,SNR=8.4						
FINES	FINESS Array B	72.57	332	P	P	11 49 23.9	-0.8
	18nm,1.1s,mb4.9,baz=111,slow=7.2,SNR=20						
ARCES	ARCESS Array B	75.31	340	P	P	11 49 40.5	-0.2
	2.6nm,0.5s,mb4.4,baz=111,slow=4.2,SNR=15						
GERES	GERESS Array B	77.37	318	P	P	11 49 52.9	+0.2
	2.3nm,0.6s,mb4.3,baz=83,slow=5.8,SNR=16						
NB2	NORSAR Subarra	79.55	331	P	P	11 50 03.1	-1.3
	3.1nm,0.6s,mb4.4,baz=98,slow=5.0						
NOA	NORSAR Array B	79.55	331	P	P	11 50 03.6	-0.8
	2.7nm,0.6s,mb4.3,baz=93,slow=5.7,SNR=10						
ILAR	Eielson Array	95.67	22	P	P	11 51 22.2	-0.3
	0.3nm,0.6s,mb3.9,baz=318,slow=5.6,SNR=6.5						
NVAR	Mina Array Bea	125.98	30	PKP	PKPdf	11 57 02.4	+3.8
	1.3nm,0.7s,baz=298,slow=2.0,SNR=6.1						
PDAR	Pinedale Array	126.07	20	PKP	PKPdf	11 57 01.1	+2.4
	1.3nm,0.9s,baz=55,slow=1.3,SNR=7.9						
TXAR	Lajitas Array	140.18	23	PKhKP		11 57 22.9	
	0.2nm,0.5s,baz=19,slow=0.5,SNR=5.6						
TXAR				PKP	PKPdf	11 57 30.4	+5.0
	0.5nm,0.5s,baz=177,slow=0.2,SNR=17						

IDC 26 11:38:08.1±6.0,4.38N×95.11E,mb4.1/3,mb1 4.3/4,mb1mx3.9/18,ML5.0/1,Error ellipse: s-maj=171.0km s-min=45.3km az=79.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.49	15	Pn	P	11 41 34.9	-1.8
	2.5nm,0.3s,baz=212,slow=17,SNR=8.7						
WRA	Warramunga Arr	45.50	123	P	P	11 46 29.1	-2.3
	1.8nm,0.5s,baz=302,slow=9.2,SNR=4.6						
ASAR	Alice Springs	46.97	128	P	P	11 46 41.5	-1.5
	1.2nm,0.4s,baz=300,slow=7.8,SNR=4.1						
STKA	Stephens Creek	57.02	133	P	P	11 47 56.1	-2.2
	1.8nm,0.8s,baz=7.2,slow=14,SNR=3.1						
TXAR	Lajitas Array	141.94	27	PKP	PKPdf	11 57 41.5	-3.1
	0.3nm,0.5s,baz=26,slow=0.5,SNR=6.3						

IDC 26 11:39:32.4±2.7,3.29S×101.51E,mb4.0/4,mb1 4.2/4,mb1mx3.8/16,Error ellipse: s-maj=122.0km s-min=23.2km az=54.0,Southern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	36.05	120	P	P	11 46 35.7	-2.0
	1.8nm,0.5s,baz=304,slow=9.0,SNR=17						
ASAR	Alice Springs	37.28	126	P	P	11 46 46.2	-1.8
	1.2nm,0.4s,baz=300,slow=7.9,SNR=11						
SONM	Songino Array	51.09	4	P	P	11 48 38.2	-0.5
	1.6nm,0.6s,baz=185,slow=9.8,SNR=5.4						
BVAR	Borovoye Array	61.91	339	P	P	11 49 52.9	-3.2
	0.7nm,0.6s,baz=141,slow=9.2,SNR=3.0						
TXAR	Lajitas Array	144.76	40	PKP	PKPdf	11 59 11.0	-2.8
	1.2nm,0.6s,baz=223,slow=0.9,SNR=20						

IDC 26 11:40:01.4±1.1,13.45N×96.61E,mb4.1/6,mb1 4.4/7,mb1mx4.1/18,ML4.5/1,Error ellipse: s-maj=41.3km s-min=22.2km az=59.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	5.46	24	Pn	Pn	11 41 26.1	+0.2
	4.2nm,0.3s,baz=212,slow=15,SNR=22						
SONM	Songino Array	35.23	11	P	P	11 46 55.9	-3.6
	0.6nm,0.5s,baz=193,slow=9.0,SNR=3.1						
WRA	Warramunga Arr	49.79	131	P	P	11 48 56.0	-2.2
	5.4nm,0.9s,baz=312,slow=8.2,SNR=7.4						
ASAR	Alice Springs	51.87	135	P	P	11 49 11.7	-2.3
	1.9nm,0.6s,baz=313,slow=7.1,SNR=4.9						
AKASG	Malin Array Be	65.40	320	P	P	11 50 45.5	-2.5
	0.7nm,0.6s,baz=83,slow=5.2,SNR=4.3						
GERES	GERESS Array B	75.35	317	P	P	11 51 47.5	-0.9
	3.0nm,1.0s,baz=90,slow=4.0,SNR=6.0						
ILAR	Eielson Array	88.69	23	P	P	11 52 56.5	-1.1
	1.3nm,0.7s,baz=298,slow=4.3,SNR=13						
YKA	Yellowknife Ar	100.46	14	P	P	11 53 51.8	+0.2
	0.6nm,1.1s,baz=324,slow=5.3,SNR=4.7						

IDC 26 11:41:59.5±2.0,1.07N×97.13E,mb4.1/6,mb1 4.2/6,mb1mx3.9/17,Error ellipse: s-maj=86.9km s-min=27.1km az=53.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	42.02	122	P	P	11 49 52.6	-2.0
	0.5nm,0.6s,baz=301,slow=10.0,SNR=3.6						
SONM	Songino Array	47.27	8	P	P	11 50 35.9	-0.6
	2.6nm,0.7s,baz=191,slow=8.6,SNR=9.2						
ZAL	Zalesovo	53.67	351	P	P	11 51 21.8	-3.4
	2.4nm,0.5s,baz=300,slow=5.3,SNR=9.3						
BVAR	Borovoye Array	56.35	341	P	P	11 51 40.3	-4.4
	1.2nm,0.6s,baz=158,slow=8.0,SNR=5.5						
FINES	FINESS Array B	80.09	333	P	P	11 54 11.3	-1.2
	2.7nm,0.9s,baz=117,slow=4.3,SNR=5.1						
ARCES	ARCESS Array B	82.64	340	P	P	11 54 26.1	+0.4
	4.8nm,1.0s,baz=90,slow=6.1,SNR=6.2						

*IDC **26** 11:44:08.1±0.7,7.81N×92.69E,mb4.0/14,mb1 4.2/15,mb1mx4.1/20,ML4.3/1,Error ellipse: s-maj=33.1km s-min=15.9km az=46.0*

ISC 26 11:44:10.8±0.6,7.57N±0.09×92.6E±0.1,h33^{km},n27,σ1^{s}27/24,mb4.3/20,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.46	29	Pn	P	11 47 09.2	+0.5
	0.6nm,0.3s,baz=232,slow=14,SNR=5.7						
PKI	Pulchoki	21.03	342	eP	P	11 48 54.9	+0.7
	85nm,0.8s,mb5.1						
DMN	Daman	21.16	341	eP	P	11 48 56.5	+1.0
	70nm,0.7s,mb5.1						
GUN	Gumba	21.21	343	eP	P	11 48 54.3	-1.7
	47nm,0.6s,mb5.0						
KKN	Kakani	21.27	342	eP	P	11 48 57.4	+0.8
	69nm,0.9s,mb5.0						
GKN	Gorkha	21.68	341	eP	P	11 49 02.4	+1.8
KOLN	Koldanda	21.82	338	eP	P	11 49 04.5	+2.4
	49nm,0.8s,mb5.0						
SONM	Songino Array	41.81	14	P	P	11 51 57.8	-1.2
	1.4nm,0.8s,mb3.7,baz=197,slow=8.2,SNR=5.4						
BVAR	Borovoye Array	48.80	342	P	P	11 52 52.5	-2.2
	2.1nm,1.1s,mb4.1,baz=135,slow=6.1,SNR=3.9						
WRA	Warramunga Arr	49.34	124	P	P	11 52 59.7	+0.4
	1.9nm,0.5s,mb4.4,baz=302,slow=9.1,SNR=12						
ASAR	Alice Springs	50.91	129	P	P	11 53 12.1	+0.8
	0.7nm,0.5s,mb3.9,baz=306,slow=7.6,SNR=6.5						
ASAR				PcP	PcP	11 54 28.6	+1.0
	2.0nm,1.0s,baz=299,slow=5.0,SNR=2.9						
KMBO	Kilima Mbogo	55.87	263	P	P	11 53 49.2	+1.3
	1.7nm,0.8s,mb4.1,baz=56,slow=11,SNR=5.5						
STKA	Stephens Creek	61.01	133	P	P	11 54 23.6	-0.1
	1.3nm,0.6s,mb4.3,slow=1.0,SNR=4.5						
BRTR	Keskin Array B	61.47	311	P	P	11 54 24.4	-2.3
	0.8nm,0.8s,mb3.9,baz=112,slow=6.7,SNR=3.8						
AKASG	Malin Array Be	67.45	322	P	P	11 55 04.8	-0.5
	0.3nm,0.4s,mb3.6,baz=92,slow=3.5,SNR=4.1						
IDI	Anoyia	67.48	305	P	P	11 55 06.2	+0.4
	25nm,1.3s,mb5.1,baz=86,slow=13,SNR=4.0						
FINES	FINESS Array B	72.27	332	P	P	11 55 35.1	+0.6
	2.0nm,0.8s,mb4.1,baz=127,slow=6.9,SNR=2.6						
ARCES	ARCESS Array B	75.04	340	P	P	11 55 50.4	-0.1
	1.8nm,0.8s,mb4.1,baz=98,slow=6.4,SNR=2.7						
GERES	GERESS Array B	77.03	318	P	P	11 56 03.5	+1.2
	0.7nm,0.6s,mb3.7,baz=117,slow=3.0,SNR=4.2						
CLL	Collm	77.63	321	P	P	11 56 04.0	-1.5
NB2	NORSAR Subarra	79.25	331	P	P	11 56 17.5	+3.3
	4.1nm,1.0s,mb4.3,baz=94,slow=5.3						
NOA	NORSAR Array B	79.25	331	P	P	11 56 13.6	-0.5
	1.1nm,0.9s,mb3.8,baz=102,slow=5.2,SNR=2.3						
LPL	La Plagne	81.76	315	eP	P	11 56 25.7	-2.1
	17nm,0.8s,mb4.7						
ILAR	Eielson Array	95.60	22	P	P	11 57 32.6	-1.0
	0.5nm,0.8s,mb4.0,baz=305,slow=3.5,SNR=5.8						
NVAR	Mina Array Bea	125.96	30	PKP	PKPdf	12 03 13.5	+3.4
	0.3nm,0.5s,baz=303,slow=3.3,SNR=3.6						
PDAR	Pinedale Array	125.99	20	PKP	PKPdf	12 03 12.4	+2.4
	1.4nm,1.1s,SNR=5.1						
TXAR	Lajitas Array	140.11	22	PKP	PKPdf	12 03 41.2	+4.4
	0.3nm,0.6s,baz=6.1,slow=0.2,SNR=4.2						

IDC 26 11:44:17.4±0.7,7.72N×92.58E,mb4.4/11,mb1 4.5/12,mb1mx4.4/20,ML4.0/1,Error ellipse: s-maj=28.6km s-min=17.3km az=50.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.34	29	Pn	P	11 47 16.3	-1.1
	0.2nm,0.3s,baz=231,slow=14,SNR=4.2						
SONM	Songino Array	41.67	14	P	P	11 52 08.3	-0.9
	3.9nm,0.8s,baz=197,slow=7.7,SNR=3.6						
ZAL	Zalesovo	46.51	354	P	P	11 52 46.1	-2.1
	1.7nm,0.4s,baz=296,slow=6.3,SNR=6.5						
BVAR	Borovoye Array	48.65	342	P	P	11 53 03.3	-1.7
	5.0nm,0.7s,baz=143,slow=7.4,SNR=15						
WRA	Warramunga Arr	49.44	124	P	P	11 53 08.0	-3.6
	2.8nm,0.5s,baz=304,slow=8.5,SNR=7.2						
ASAR	Alice Springs	51.01	129	P	P	11 53 22.1	-1.4
	3.8nm,0.9s,baz=302,slow=7.7,SNR=5.5						
ASAR				PcP	PcP	11 54 38.9	-0.9
	2.1nm,0.8s,baz=305,slow=4.1,SNR=4.6						
KMBO	Kilima Mbogo	55.87	263	P	P	11 53 58.9	-0.8
	2.6nm,0.8s,baz=61,slow=13,SNR=6.6						
STKA	Stephens Creek	61.12	133	P	P	11 54 33.5	-2.6
	2.9nm,0.7s,baz=348,slow=6.6,SNR=4.5						
IDI	Anoyia	67.39	305	P	P	11 55 14.3	-2.6
	7.1nm,0.8s,baz=116,slow=12,SNR=7.1						
GERES	GERESS Array B	76.91	318	P	P	11 56 10.7	-2.6
	3.5nm,0.9s,baz=90,slow=5.3,SNR=9.2						
NOA	NORSAR Array B	79.11	331	P	P	11 56 23.6	-1.5
	1.9nm,0.8s,baz=95,slow=5.3,SNR=4.3						
ILAR	Eielson Array	95.46	22	P	P	11 57 42.9	-2.1
	0.4nm,0.7s,baz=292,slow=3.6,SNR=6.0						
NVAR	Mina Array Bea	125.83	30	PKP	PKPdf	12 03 23.4	-0.3
	1.8nm,1.0s,baz=1.7,slow=1.2,SNR=6.0						
PDAR	Pinedale Array	125.86	20	PKP	PKPdf	12 03 21.4	-2.1
	1.3nm,1.0s,SNR=6.1						
TXAR	Lajitas Array	139.98	22	PKP	PKPdf	12 03 48.2	-2.2
	0.3nm,0.7s,baz=271,SNR=4.2						

IDC 26 11:45:38.3±1.3,13.81N×92.74E,mb4.1/8,mb1 4.3/8,mb1mx4.1/17,Error ellipse: s-maj=84.0km s-min=19.8km az=54.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	Zalesovo	40.52	353	P	P	11 53 19.8	-0.8
	2.4nm,0.4s,baz=286,slow=5.5,SNR=4.5						
WRA	Warramunga Arr	52.91	128	P	P	11 54 56.8	-1.9
	4.8nm,0.9s,baz=301,slow=9.7,SNR=5.9						
ASAR	Alice Springs	54.84	132	P	P	11 55 11.0	-1.8
	2.2nm,0.8s,baz=304,slow=8.1,SNR=6.0						
STKA	Stephens Creek	65.22	135	P	P	11 56 21.3	-2.7
	1.6nm,0.5s,baz=27,slow=7.4,SNR=3.3						
FINES	FINESS Array B	66.87	331	P	P	11 56 31.6	-2.5
	1.7nm,0.8s,baz=95,slow=7.7,SNR=4.7						
ARCES	ARCESS Array B	69.26	340	P	P	11 56 47.2	-1.6
	1.4nm,0.5s,baz=104,slow=5.0,SNR=3.5						
GERES	GERESS Array B	72.54	317	P	P	11 57 07.3	-1.7
	0.5nm,0.5s,baz=97,slow=5.4,SNR=5.0						
ILAR	Eielson Array	89.79	22	P	P	11 58 37.2	-2.5
	0.3nm,0.8s,baz=299,slow=5.2,SNR=4.4						

*IDC **26** 11:46:10.5±0.8,5.28N×93.09E,mb4.3/12,mb1 4.4/13,mb1mx4.3/20,ML3.8/1,Error ellipse: s-maj=38.5km s-min=16.8km az=48.0*

ISC 26 11:46:13.7±0.7,5.3N±0.1×93.2E±0.1,h33^{km},n13,σ0^{s}73/13,mb4.3/12,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.25	23	Pn	P	11 49 35.5	+0.2
	0.1nm,0.3s,baz=220,slow=13,SNR=5.4						
SONM	Songino Array	43.88	13	P	P	11 54 19.1	+0.3
	2.9nm,0.8s,mb4.1,baz=197,slow=7.2,SNR=5.6						
SONM				PcP	PcP	11 56 05.6	+0.5
	0.9nm,0.7s,baz=206,slow=3.4,SNR=4.0						
WRA	Warramunga Arr	47.63	123	P	P	11 54 49.0	+0.1
	11nm,0.8s,mb5.0,baz=301,slow=9.0,SNR=13						
ZAL	Zalesovo	48.97	353	P	P	11 54 58.6	-0.2
	2.7nm,0.5s,mb4.6,baz=303,slow=5.4,SNR=6.7						
ASAR	Alice Springs	49.08	128	P	P	11 55 00.1	0.0
	4.2nm,1.0s,mb4.4,baz=306,slow=7.3,SNR=5.2						
BVAR	Borovoye Array	51.12	343	P	P	11 55 15.4	+0.2
	2.7nm,1.0s,mb4.1,baz=135,slow=8.2,SNR=3.3						
STKA	Stephens Creek	59.08	132	P	P	11 56 13.2	-0.1
	2.6nm,0.7s,mb4.4,baz=312,slow=4.4,SNR=3.8						
BRTR	Keskin Array B	63.38	312	P	P	11 56 42.7	+0.4
	1.1nm,1.1s,mb3.9,baz=103,slow=5.7,SNR=2.5						
IDI	Anoyia	69.24	306	P	P	11 57 20.6	+1.0
	7.1nm,0.9s,mb4.6,baz=107,slow=11,SNR=2.6						
AKASG	Malin Array Be	69.57	322	P	P	11 57 19.6	-1.7
	0.5nm,0.5s,mb3.7,baz=83,slow=4.7,SNR=2.6						
FINES	FINESS Array B	74.53	333	P	P	11 57 49.1	-1.4
	5.4nm,1.2s,mb4.4,baz=117,slow=3.1,SNR=3.4						
ARCES	ARCESS Array B	77.35	341	P	P	11 58 06.9	+0.4
	11nm,1.1s,mb4.7,baz=90,slow=7.3,SNR=7.6						
GERES	GERESS Array B	79.09	319	P	P	11 58 17.3	+0.8
	1.6nm,0.7s,mb4.1,baz=82,slow=6.7,SNR=7.4						

*IDC **26** 11:49:03.4±1.0,6.99N×94.48E,mb3.9/12,mb1 4.1/13,mb1mx4.1/19,ML4.4/1,Error ellipse: s-maj=42.3km s-min=20.1km az=52.0*

ISC 26 11:49:06.8±0.8,7.1N±0.1×94.6E±0.2,h33^{km},n14,σ1^{s}24/14,mb3.9/12,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.08	20	Pn	P	11 51 59.2	-0.3
	0.7nm,0.3s,baz=214,slow=14,SNR=4.4						
SONM	Songino Array	41.84	12	P	P	11 56 56.3	+1.1
	1.0nm,0.9s,mb3.4,baz=180,slow=8.6,SNR=3.1						
ZAL	Zalesovo	47.39	352	P	P	11 57 38.8	-0.9
	2.2nm,0.8s,mb4.1,baz=276,slow=7.5,SNR=4.2						
WRA	Warramunga Arr	47.43	125	P	P	11 57 40.8	+0.3
	2.4nm,0.7s,mb4.2,baz=302,slow=9.0,SNR=4.7						
ASAR	Alice Springs	49.06	130	P	P	11 57 52.1	-0.9
	0.5nm,0.5s,mb3.8,baz=304,slow=7.6,SNR=3.5						
BVAR	Borovoye Array	49.89	341	P	P	11 57 57.3	-1.7
	0.8nm,0.7s,mb3.9,baz=121,slow=8.4,SNR=4.1						
BRTR	Keskin Array B	63.29	311	P	P	11 59 33.5	-1.3
	1.0nm,0.8s,mb4.0,baz=127,slow=6.6,SNR=4.2						
AKASG	Malin Array Be	69.06	322	P	P	12 00 09.7	-1.6
	0.7nm,0.6s,mb3.8,baz=88,slow=5.6,SNR=4.4						
FINES	FINESS Array B	73.62	332	P	P	12 00 38.9	+0.4
	8.0nm,1.1s,mb4.5,baz=89,slow=5.9,SNR=7.1						
ARCES	ARCESS Array B	76.17	340	P	P	12 00 54.5	+1.6
	1.0nm,0.6s,mb3.9,baz=97,slow=7.3,SNR=3.6						
GERES	GERESS Array B	78.72	318	P	P	12 01 09.7	+2.1
	1.1nm,0.9s,mb3.8,baz=76,slow=5.5,SNR=4.0						
NB2	NORSAR Subarra	80.64	331	P	P	12 01 18.9	+1.2
	0.8nm,0.6s,mb3.8,baz=90,slow=5.8						
NOA	NORSAR Array B	80.64	331	P	P	12 01 19.1	+1.4
	1.1nm,0.7s,mb3.9,baz=93,slow=5.7,SNR=4.4						
ILAR	Eielson Array	95.31	22	P	P	12 02 33.5	+5.1
	0.4nm,0.9s,mb3.9,baz=306,slow=5.0,SNR=4.1						

*IDC **26** 11:50:20.1±0.4,6.39N×93.27E,mb4.9/26,mb1 4.9/27,mb1mx4.9/29,MS5.0/2,Ms1 5.0/2,ms1mx4.0/30,Error ellipse: s-maj=20.3km s-min=10.6km az=42.0*

*MOS **26** 11:50:22.8±1.1,6.40N×93.28E,h33^{km},mb5.3/30,Error ellipse: s-maj=13.8km s-min=6.6km az=119.9*

*CSEM **26** 11:50:23.5,6.55N×93.51E,h33^{km},mb5.6*

*BJI **26** 11:50:26.9,6.07N×93.13E,h91^{km},mB5.9,mb5.0*

*NEIC **26** 11:50:28.1±0.2,6.39N×93.25E,mb5.2/41,Error ellipse: s-maj=6.0km s-min=4.8km az=219.0*

ISC 26 11:50:26.1±0.3**,6.32N**±0.04×**93.27E**±0.04**,h62**^{km}**,**
h62^{km}±.9^{km}**:pP-P,n241,**$\sigma 1^{s}$**02**/230**,mb5.1**/91**,16C-8D,**
Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	8.91	45	P	S	11 53 57.0	-17
PALK	Pallekele	12.52	275	P	P	11 53 22.9	-0.5
	26nm,0.7s						
CM31	Chiang Mai Arr	13.27	24	P	P	11 53 31.3	-2.0
	131nm,0.8s						
CM31				*e*		11 53 38.5	
CMAR	Chiang Mai Arr	13.27	24	Pn	P	11 53 31.9	-1.4
	baz=215,slow=13,SNR=3.2						
CHG	Chiang Mai	13.59	23	⇓P	P	11 53 40.7	+3.1
	94nm,1.0s						
UBT	Ubonrachathani	14.54	51	P	P	11 53 57.0	+6.9
HYB	Hyderabad	18.12	309	*i* P	P	11 54 35.0	-0.2
HYB				*e*S	S	11 57 30.0	-22
COCO	West Island	18.73	169	P	P	11 54 41.5	-0.9
	221nm,1.2s						
SHL	Shillong	19.18	356	*e*P	P	11 54 44.4	-3.1
SHL				*e*		11 54 53.5	
	comp=Z,285nm,1.3s						
SHL				*e*S	S	11 58 26.0	+10
MNGI	Mangalore	19.34	291	*e*P	P	11 54 48.5	-0.7
MNGI				*e*		11 54 50.0	
	comp=Z,158nm,1.8s						
QIZ	Qiongzhong	20.49	50	P	P	11 55 02.0	+0.6
QIZ	Qiongzhong	20.49	50	*e*P	P	11 55 01.8	+0.4
	comp=Z,188nm,1.1s						
KMI	Kunming	20.78	25	*e*P	P	11 55 05.5	+1.2
KMI				AMB	AMB		
	comp=Z,91nm,1.2s						
GOA	Goa	21.14	297	*e*P	P	11 55 13.2	+5.2
GOA				*e*		11 55 15.1	
	comp=Z,143nm,1.1s						
AKL	Akola	21.28	314	*e*P	P	11 55 10.5	+1.1
AKL				*e*		11 55 21.9	
	comp=Z,253nm,1.1s						
AKL				*e*S	S	11 59 07.1	+10
ALBI	Allahabad	21.84	331	*e*P	P	11 55 15.2	+0.3
PKI	Pulchoki	22.42	341	*e*P	P	11 55 20.8	+0.2
	comp=Z,537nm,1.1s,mb5.9						
DMN	Daman	22.55	341	*e*P	P	11 55 22.1	+0.1
	comp=Z,543nm,0.8s,mb6.0						
GUN	Gumba	22.59	343	*e*P	P	11 55 22.3	-0.1
	comp=Z,502nm,1.0s,mb5.9						
KKN	Kakani	22.66	341	*e*P	P	11 55 22.9	-0.2
	comp=Z,254nm,0.9s,mb5.7						
GKN	Gorkha	23.07	340	*e*P	P	11 55 27.0	-0.1
	comp=Z,617nm,0.9s,mb6.0						
KOLN	Koldanda	23.23	338	*e*P	P	11 55 27.8	-0.8
	comp=Z,735nm,1.2s,mb6.0						
LSA	Lhasa	23.34	355	P	P	11 55 27.5	-2.2
LSA				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.0						
LSA	Lhasa	23.34	355	*e*P	P	11 55 29.9	+0.2
	comp=Z,66nm,1.0s,mb5.0						
BOM	Bombay	23.52	304	*e*P	P	11 55 33.2	+1.7
BOM				*e*		11 55 35.5	
	comp=Z,127nm,1.1s						
GYA	Guiyang	23.75	31	⇑*i*P	P	11 55 34.5	+0.9
GYA				S	S	11 59 36.8	-4.6
GYA				AMB	AMB		
	comp=Z,130nm,1.0s,mb5.3						
GYA				LR	LR		
	comp=N,2μm,13.8s						
GYA				LR	LR		
	comp=E,560nm,13.2s						
GYA				LR	LR		
	comp=Z,2μm,15.6s						
DGAR	Diego Garcia	24.85	237	P	P	11 55 41.8	-2.7
	comp=Z,125nm,0.5s,mb5.7						
CD2	Chengdu	26.37	21	P	P	11 55 58.5	0.0
NDI	New Delhi	26.94	328	*e*P	P	11 56 03.5	-0.2
NDI				*e*		11 56 07.7	
	comp=Z,81nm,1.0s						
TGY	Tagaytay City	28.28	72	LR	LR	12 07 32.8	
	comp=Z,2μm,21.2s,baz=333,slow=36						
ENH	Enshi	28.29	31	*e*P	P	11 56 14.8	-1.2
	comp=Z,33nm,1.1s,mb4.9						
QZH	Quanzhou	30.51	50	⇓*i*P	P	11 56 41.0	+5.2
QZH				AMB	AMB		
	comp=Z,90nm,0.9s,mb5.6						
LZH	Lanzhou	31.17	17	*e*P	P	11 56 43.0	+1.5
LZH				AMB	AMB		
	comp=Z,31nm,1.1s,mb5.0						
WHN	Wuhan	31.19	37	*e*P	P	11 56 42.0	+0.3
GTA	Gaotai	33.47	9	P	P	11 57 01.0	-0.4
GTA				AMB	AMB		
	comp=Z,9.0nm,2.0s,mb4.3						
NJ2	Nanjing	35.01	40	*e*P	P	11 57 15.0	+0.3
NJ2				PP	PP	11 58 32.3	-2.2
NJ2				S	S	12 02 42.0	+0.6
NJ2				AMB	AMB		
	comp=Z,1μm,5.6s						
NJ2				LR	LR		
	comp=N,51μm,17.0s						
NJ2				LR	LR		
	comp=E,21μm,16.8s						
NJ2				LR	LR		
	comp=Z,62μm,15.8s						
SSE	Sheshan	35.93	43	*e*P	P	11 57 20.3	-2.3
SSE				AMB	AMB		
	comp=Z,39nm,0.8s,mb5.4						
SSE				AMB	AMB		
	comp=Z,2μm,10.1s						
KSH	Kashi	36.54	337	P	P	11 57 28.0	+0.4
KSH				AMB	AMB		
	comp=Z,510nm,6.5s						
WMQ	Urumqi	37.67	353	P	P	11 57 37.3	+0.3
WMQ				AMB	AMB		
	comp=Z,32nm,1.5s,mb4.8						
MBWA	Marble Bar	37.68	137	*e*P	P	11 57 37.8	+0.4
	comp=Z,39nm,1.2s,mb5.0						
HHC	Hu-ho-hao-te	38.08	23	*e*P	P	11 57 41.0	+0.6
HHC				AMB	AMB		
	comp=Z,34nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,3μm,10.6s						
HHC				LR	LR		
	comp=N,2μm,17.8s						
HHC				LR	LR		
	comp=E,4μm,16.7s						
HHC				LR	LR		
	comp=Z,4μm,15.5s						
KZA	Kyzart	39.04	339	P	P	11 57 52.0	+3.6
	SNR=10						
JOW	Kunigami	39.05	54	P	P	11 57 49.5	+0.8
	comp=Z,28nm,1.0s,mb5.0,baz=243,slow=14,SNR=3.5						
BJT	Baijiatuau	39.35	28	*e*P	P	11 57 52.1	+1.1
	comp=Z,27nm,0.9s,mb5.0						
BJI	Beijing	39.37	28	P	P	11 57 52.3	+1.1
BJI				AMB	AMB		
	comp=Z,21nm,0.9s,mb4.9						
UCH	Uchtor	39.44	338	P	P	11 57 52.8	+1.1
	SNR=27						
KBK	Karagaybulak	39.65	339	P	P	11 57 54.9	+1.4
	SNR=23						
TKM2	Tokmak 2	39.66	340	P	P	11 57 54.3	+0.8
	SNR=9.6						
AML	Almayashu	39.67	337	P	P	11 57 54.7	+1.0
	SNR=34						
AAK	Ala-Archa	39.80	338	P	P	11 57 56.5	+1.7
	SNR=22						
AAK	Ala-Archa	39.80	338	*c i*P	P	11 57 55.0	+0.3
AAK				pmax	pmax		
	comp=Z,83nm,1.4s,mb5.3						
AAK	Ala-Archa	39.80	338	⇑*i*P	P	11 57 55.0	+0.3
FRU	Bishkek	39.93	338	*e*P	P	11 57 57.0	+1.2
CHMS	Chumysh	40.02	339	P	P	11 57 57.4	+0.8
	SNR=12						
EKS2	Erkin-Say	40.09	338	P	P	11 57 58.4	+1.2
	SNR=16						
USP	Ospenovka	40.35	339	P	P	11 57 59.6	+0.3
	SNR=27						
DL2	Dalian	41.33	34	P	P	11 58 08.0	+0.6
DL2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
MKAR	Makanchi Array	41.42	349	*i* P	P	11 58 07.9	-0.1
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.5s						
SONM	Songino Array	42.86	13	P	P	11 58 19.9	+0.1
	comp=Z,3.5nm,0.6s,mb4.3,baz=198,slow=9.2,SNR=10						
ULN	Ulaanbaatar	43.04	14	*e*P	P	11 58 21.0	-0.3
	comp=Z,5.1nm,0.8s,mb4.3						
SNY	Shenyang	44.44	33	⇓P	P	11 58 32.8	+0.1
SNY				AMB	AMB		
	comp=Z,20nm,2.0s,mb4.5						
ZAK	Zakamensk	44.71	9	*e*P	P	11 58 43.3	+8.6
ZAK				*e*		12 00 17.9	
ZAK				*e*		12 00 20.8	
NWAO	Narrogin (SRO)	45.19	151	P	P	11 58 39.8	+0.9
	comp=Z,9.5nm,0.7s,mb4.8,baz=321,slow=15,SNR=11						
NWAO	Narrogin (SRO)	45.19	151	P	P	11 58 39.8	+1.0
NWAO				pmax	pmax		
	comp=Z,10.0nm,0.7s						
CN2	Changchun	46.79	32	*e*P	P	11 58 51.8	+0.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAL	Zalesovo	47.97	353	P	P	11 59 01.0	+0.5
	comp=Z,29nm,0.4s,mb5.7,baz=299,slow=6.6,SNR=52						
ZAL	Zalesovo	47.97	353	P	P	11 59 01.0	+0.5
ZAL				pmax	pmax		
	comp=Z,29nm,0.4s						
WRA	Warramunga Arr	48.09	124	P	P	11 59 01.3	-0.5
	comp=Z,29nm,0.7s,mb5.4,baz=302,slow=9.2,SNR=36						
WRA	Warramunga Arr	48.09	124	P	P	11 59 01.3	-0.5
WRA				pmax	pmax		
	comp=Z,29nm,0.7s						
WRAB	Tennant Creek	48.09	124	⇓*e*P	P	11 59 01.4	-0.5
WRAB	Tennant Creek	48.09	124	*e*P	P	11 59 01.2	-0.6
	comp=Z,51nm,0.7s,mb5.7						
QRN	Al-Qurain	48.27	303	*e*P	P	11 59 05.5	+2.4
HIA	Hailar	48.28	23	*e*P	P	11 59 02.7	-0.2
	comp=Z,31nm,1.1s,mb5.2						
RDF	Al-Radifah	48.63	303	*e*P	P	11 59 06.6	+0.7
NVS	Novosibirsk	49.05	352	*i* P	P	11 59 07.4	-1.4
NVS				*e*S	S	12 06 09.6	+2.0
NVS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.6						
NVS				pmax	pmax		
	comp=N,100nm,1.8s						
NVS				smax			
	comp=E,161nm,2.2s						
NVS				smax			
	comp=N,81nm,1.9s						
RST	Umm Al-Ruwaisa	49.27	304	*e*P	P	11 59 11.3	+0.4
MZLS	Mizel	49.33	296	P	P	11 59 12.1	+0.7
ASAR	Alice Springs	49.61	128	P	P	11 59 12.7	-0.8
	comp=N,21nm,0.5s,mb5.4,baz=298,slow=8.0,SNR=44						
ASAR				PcP	PcP	12 00 35.6	+1.1
	comp=N,5.0nm,0.7s,baz=315,slow=3.8,SNR=2.0						
TATS	Tathlith	50.10	290	P	P	11 59 17.5	+0.2
BVA0	Borovoye Array	50.19	342	P	P	11 59 16.4	-1.1
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
BVAR	Borovoye Array	50.19	342	P	P	11 59 17.1	-0.4
	comp=Z,8.3nm,0.8s,mb4.8,baz=143,slow=7.4,SNR=28						
BRVK	Borovoye	50.25	342	⇑*e*P	P	11 59 17.3	-0.7
CHKZ	Chkalovo	50.68	343	*i* P	P	11 59 20.5	-0.8
CHKZ				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.3						
CHKZ	Chkalovo	50.68	343	*e*P	P	11 59 20.7	-0.6
	comp=Z,72nm,1.4s,mb5.4						
AFFS	‘Afif	51.29	296	P	P	11 59 27.4	+1.1
ARSS	Ar Rass	51.49	298	P	P	11 59 28.2	+0.4
HILS	Ha’il	53.10	300	P	P	11 59 41.1	+1.3
KLR	Kul’dur	53.65	30	*e*P	P	11 59 40.8	-2.8
BOD	Bodaibo	53.85	14	*e*P	P	11 59 44.1	-0.8
GNI	Garni	54.92	315	P	P	11 59 53.2	+0.3
	comp=Z,15nm,0.8s,mb5.1,baz=40,slow=1.0,SNR=17						
GNI	Garni	54.92	315	P	P	11 59 53.2	+0.3
GNI				pmax	pmax		
	comp=Z,15nm,0.8s						
KBRS	Khaybar	54.98	297	P	P	11 59 55.0	+1.5
PMG	Port Moresby	55.92	106	P	P	12 00 00.9	+0.4
	comp=Z,14nm,0.7s,mb5.1,baz=180,slow=13,SNR=4.7						
PMG	Port Moresby	55.92	106	P	P	12 00 00.9	+0.4
PMG				pmax	pmax		
	comp=Z,14nm,0.7s						
KMBO	Kilima Mbogo	56.41	264	P	P	12 00 05.0	+0.9
	comp=Z,7.9nm,0.9s,mb4.8,baz=56,slow=9.0,SNR=15						
KMBO	Kilima Mbogo	56.41	264	P	P	12 00 05.0	+1.0
KMBO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KMBO	Kilima Mbogo	56.41	264	*e*P	P	12 00 04.8	+0.8
	comp=Z,16nm,1.2s,mb4.9						
SVE	Sverdlovsk	56.53	339	⇑*e*P	P	12 00 03.6	-0.7
SVE				*e*		12 02 08.0	
ZEI	Tsey	56.59	318	*e*P	P	12 00 04.1	-0.9
ZEI				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.9						
UMJS	Umm Lajj	56.62	296	P	P	12 00 07.1	+1.7
ARU	Arti	56.98	338	*c i*P	P	12 00 06.4	-1.2
ARU				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.5						
ARU	Arti	56.98	338	⇑*i*P	P	12 00 06.5	-1.1
ERZM	Erzurum	57.21	314	*i* P	P	12 00 09.2	-0.1
TBKS	Tabuk	57.81	299	P	P	12 00 15.6	+1.9
KIV	Kislovodsk	57.90	319	P	P	12 00 13.5	-0.6
	comp=Z,223nm,0.9s,mb6.2,SNR=12						
KIV	Kislovodsk	57.90	319	*e*P	P	12 00 09.5	-4.6
KIV				*e*S	S	12 08 06.8	-0.6
KIV				pmax	pmax		
	comp=N,20nm,1.0s						
KIV				pmax	pmax		
	comp=E,17nm,1.0s						
KIV				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.3						
KIV	Kislovodsk	57.90	319	⇑*i*P	P	12 00 13.3	-0.8
GOF	Gofitskoye	58.15	320	*e*P	P	12 00 13.5	-2.4
CTA	Charters Tower	58.32	118	P	P	12 00 17.3	-0.1
	comp=Z,24nm,1.0s,mb5.2,baz=280,slow=6.9,SNR=12						
CTA				LR	LR	12 26 34.7	
	comp=Z,2μm,19.0s,baz=303,slow=37						
CTA	Charters Tower	58.32	118	P	P	12 00 17.3	-0.1
CTA				pmax	pmax		
	comp=Z,24nm,1.0s						
CTA				MLR	MLR		
	comp=Z,2μm,19.0s						
CTAO	Charters Tower	58.32	118	P	P	12 00 17.1	-0.3
	comp=Z,38nm,1.1s,mb5.3						
ASF	Jabal al Asfar	58.35	304	P	P	12 00 18.3	+0.9
	comp=Z,27nm,1.1s,mb5.2,baz=179,slow=0.9,SNR=13						
ELZG	Elazig	58.46	312	*i* P	P	12 00 17.9	-0.2
BDAS	Al Bad‘	59.10	299	P	P	12 00 23.7	+1.0
GZT	Gaziantep	59.18	310	*i* P	P	12 00 23.1	0.0
EIL	Elat	59.46	301	P	P	12 00 25.4	+0.3
	comp=Z,26nm,1.1s,mb5.2,baz=86,slow=4.5,SNR=5.4						
EIL	Elat	59.46	301	*e*P	P	12 00 25.2	0.0
	comp=Z,39nm,1.3s,mb5.3						
STKA	Stephens Creek	59.68	133	P	P	12 00 26.1	-0.5
	comp=Z,8.5nm,0.8s,mb4.8,baz=304,slow=8.0,SNR=5.8						
STKA	Stephens Creek	59.68	133	*e*P	P	12 00 26.9	+0.3
SOC	Sochi	59.72	317	*e*P	P	12 00 21.5	-5.3
SOC				*e*S	S	12 08 31.6	+0.5
SOC				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.2						
SOC				pmax	pmax		
	comp=N,14nm,1.1s						
SOC				pmax	pmax		
	comp=E,13nm,0.9s						
KAHT	Ahir Dag	59.79	310	*i* P	P	12 00 27.1	-0.2
COBT	Iskenderun	59.95	309	*i* P	P	12 00 27.4	-1.1
MEST	Erdemli	61.61	308	*i* P	P	12 00 38.5	-1.3
AVNT	Avonos	61.63	311	*i* P	P	12 00 38.8	-1.0
ANN	Anapa	61.70	318	*e*P	P	12 00 38.0	-2.2
ANN				*i*		12 00 47.7	
ANN				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.5						
YAK	Yakutsk	61.73	19	*e*P	P	12 00 39.3	-0.8
	comp=Z,36nm,0.8s,mb5.5						
CSS	Prodhromos	61.88	306	*e*P	P	12 00 41.1	-0.4
	comp=Z,97nm,1.5s,mb5.7						
CTKT	Corum	62.20	313	*i* P	P	12 00 38.7	-4.9
BOYT	Boyabat	62.35	314	*i* P	P	12 00 43.2	-1.3
MBAR	Mbarara	62.79	266	⇑*e*P	P	12 00 47.7	-0.2
MBAR	Mbarara	62.79	266	*e*P	P	12 00 46.4	-1.5
	comp=Z,13nm,1.2s,mb4.9						
BRTR	Keskin Array B	62.80	312	P	P	12 00 46.6	-1.0
	comp=Z,13nm,0.8s,mb5.1,baz=121,slow=7.2,SNR=45						
BRTR	Keskin Array B	62.80	312	P	P	12 00 46.6	-1.0
BRTR				pmax	pmax		
	comp=Z,13nm,0.8s						
ELDT	Eldivan	63.16	312	*i* P	P	12 00 48.5	-1.5
BALT	Daday	63.47	313	*i* P	P	12 00 50.1	-1.9
SGKT	Sivrigoynuk	64.19	312	*i* P	P	12 00 55.6	-1.2
ISP	Isparta	64.73	309	*c i*P	P	12 00 59.2	-1.1
ISP	Isparta	64.73	309	*e*P	P	12 00 58.7	-1.6
	comp=Z,64nm,1.3s,mb5.5						
ESKT	Eskisehir	64.83	311	*i* P	P	12 00 59.3	-1.6
HENT	Hendek	65.10	312	*i* P	P	12 00 59.4	-3.3
MOS	Moscow	65.96	329	*e*P	P	12 01 05.4	-2.5
MOS				pmax	pmax		
	comp=Z,157nm,2.0s,mb5.7						
OBN	Obninsk	66.23	328	⇓*i*P	P	12 01 08.5	-1.1
OBN				S	S	12 09 56.7	+4.3
OBN				*e*SS	SS	12 14 13.7	+2.9
OBN				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.4						
OBN	Obninsk	66.23	328	*i* Pr		12 01 08.7	
ULDT	Uludag	66.26	311	*i* P	P	12 01 08.9	-1.1
MANT	Manisa	66.36	309	*i* P	P	12 01 10.5	-0.3
BTOK	Tokmak	67.01	311	*i* P	P	12 01 14.0	-0.8
KDAG	Bornova	67.34	309	*i* P	P	12 01 16.2	-0.7
LSZ	Lusaka	67.94	251	*e*P	P	12 01 20.9	-0.1
	comp=Z,20nm,1.3s,mb5.0						
MA2	Magadan	68.53	27	*e*P	P	12 01 20.6	-3.3
MA2				pmax	pmax		
	comp=Z,40nm,1.9s,mb5.0						
IDI	Anoyia	68.75	305	P	P	12 01 25.3	-0.4
	comp=Z,16nm,0.8s,mb5.0,baz=104,slow=4.4,SNR=9.9						
AKASG	Malin Array Be	68.84	322	P	P	12 01 24.3	-1.7
	comp=Z,6.1nm,0.8s,mb4.6,baz=90,slow=4.8,SNR=27						
AKASG	Malin Array Be	68.84	322	P	P	12 01 24.3	-1.7
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.8s						
TIXI	Tiksi	68.92	11	*e*P	P	12 01 25.3	-0.8
TIXI				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.3						
TIXI	Tiksi	68.92	11	⇑*e*P	P	12 01 25.5	-0.6
KWP	Kalwaria	72.66	320	*e*P	P	12 01 48.2	-0.8
LBTB	Lobatse	72.75	242	*e*P	P	12 01 50.6	+0.5
	comp=Z,28nm,1.4s,mb5.0						
APA	Apatity	72.99	340	⇓*i*P	P	12 01 49.7	-0.9
APA				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
SUW	Suwalki	73.26	325	*e*P	P	12 01 50.4	-2.0
CRVS	Cervenica-Dubn	73.33	319	*e*P	P	12 01 55.6	+2.7
CRVS				*e*		12 06 05.9	
CRVS				*e*		12 08 25.6	
FINES	FINESS Array B	73.68	333	P	P	12 01 54.2	-0.5
	comp=Z,8.9nm,0.9s,mb4.7,baz=104,slow=7.9,SNR=11						
FINES	FINESS Array B	73.68	333	P	P	12 01 54.2	-0.5
FINES				pmax	pmax		
	comp=Z,9.0nm,0.9s						
FINES	FINESS Array B	73.68	333	P	P	12 01 54.2	-0.5
PSZ	Piszkesteto	74.21	318	⇑*e*	P	12 01 57.9	-0.2
OJC	Ojcow	74.61	320	*e*P	P	12 02 00.2	-0.2
VYHS	Vyhne	74.99	318	*e*P	P	12 02 02.5	-0.1
OKC	Ostrava-Krasne	75.61	320	*e*P	P	12 02 06.4	+0.3
OKC				*e*pP	pP	12 02 23.6	+0.4
ZST	Bratislava	76.10	318	*i* P	P	12 02 08.8	-0.1
ZST				*e*pP	pP	12 02 26.6	+0.5
ARCES	ARCESS Array B	76.43	340	P	P	12 02 10.8	+0.4
	comp=Z,10nm,0.9s,mb4.8,baz=79,slow=6.2,SNR=11						
ARCES	ARCESS Array B	76.43	340	P	P	12 02 10.8	+0.4
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
ARCES	ARCESS Array B	76.43	340	P	P	12 02 10.8	+0.4
DPC	Dobruska-Polom	76.84	320	*e*P	P	12 02 13.8	+0.8
DPC				*e*pP	pP	12 02 30.5	+0.3
KSP	Ksiaz	76.91	321	*e*P	P	12 02 13.7	+0.3
KSP	Ksiaz	76.91	321	*e*P	P	12 02 14.0	+0.6
UPC	Upice	77.05	320	*e*P	P	12 02 14.8	+0.6
ARSA	Arzberg	77.07	317	⇑*i*P	P	12 02 14.8	+0.4
	comp=Z,31nm,1.2s,mb5.1						
BILL	Bilibino	77.84	22	⇓*e*P	P	12 02 17.0	-1.2
BILL				pmax	pmax		
	comp=Z,15nm,1.8s,mb4.6						
PRU	Pruhonice	77.94	320	*e*P	P	12 02 17.4	-1.7
BRG	Berggiesshubel	78.39	321	*i* P	P	12 02 22.6	+1.0
BRG				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
BRG	Berggiesshubel	78.39	321	*i* P	P	12 02 22.6	+1.0
	comp=Z,25nm,1.3s,mb5.0						
GEC2	GERESS Array S	78.41	318	*e*P	P	12 02 22.6	+0.9
GEC2				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.2						
GEC2	GERESS Array S	78.41	318	*e*P	P	12 02 22.6	+0.9
	comp=Z,44nm,1.3s,mb5.2						
GERES	GERESS Array B	78.41	318	P	P	12 02 22.6	+0.9
	comp=Z,37nm,1.2s,mb5.2,baz=90,slow=5.3,SNR=38						
GERES	GERESS Array B	78.41	318	P	P	12 02 22.6	+0.9
GERES				pmax	pmax		
	comp=Z,37nm,1.2s						
KHC	Kasperske Hory	78.51	319	⇑*e*P	P	12 02 22.5	+0.2
KHC	Kasperske Hory	78.51	319	*e*P	P	12 02 21.9	-0.4
KHC				*e*pP	pP	12 02 38.9	-0.6
WET	Wettzell	78.97	319	*e*P	P	12 02 25.0	+0.2
CLL	Collm	79.02	321	*e*P	P	12 02 25.0	0.0
CLL				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.8						
CLL	Collm	79.02	321	*e*P	P	12 02 25.0	0.0
	comp=Z,19nm,1.4s,mb4.8						
CLL	Collm	79.02	321	P	P	12 02 25.0	0.0
	comp=Z,logA/T=1.1,mb4.8						
NKC	Novy Kostel	79.30	320	*e*P	P	12 02 27.5	+0.9
WTTA	Wattenberg	79.72	317	⇓*i*P	P	12 02 29.2	+0.3
	comp=Z,43nm,1.3s,mb5.2						
MOX	Moxa	79.86	320	*e*P	P	12 02 30.7	+1.1
MOX	Moxa	79.86	320	*i* P	P	12 02 30.7	+1.1
SQTA	Sankt Quirin	80.01	317	⇑*i*P	P	12 02 30.6	+0.1
	comp=Z,38nm,1.4s,mb5.1						
GRA1	Grafenberg Arr	80.07	319	*e*P	P	12 02 32.0	+1.2
	comp=Z,64nm,1.6s,mb5.3						
GRF	Grafenberg Arr	80.07	319	*e*P	P	12 02 32.0	+1.2
GRF				pmax	pmax		
	comp=Z,64nm,1.6s,mb5.3						
GRF	Grafenberg Arr	80.07	319	*e*P	P	12 02 32.0	+1.2
	comp=Z,64nm,1.6s,mb5.3						
MOTA	Moosalm	80.08	317	⇑*i*P	P	12 02 31.1	+0.2
	comp=Z,21nm,1.1s,mb5.0						
NB2	NORSAR Subarra	80.66	331	P	P	12 02 33.2	-0.4
	comp=Z,1.5nm,0.9s,baz=99,slow=5.0						
NOA	NORSAR Array B	80.66	331	P	P	12 02 33.0	-0.7
	comp=Z,3.4nm,0.9s,mb4.3,baz=94,slow=5.5,SNR=4.0						
NOA	NORSAR Array B	80.66	331	P	P	12 02 33.0	-0.6
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
CLZ	Clausthal	80.68	321	*e*P	P	12 02 34.8	+0.9
	comp=Z,48nm,1.5s,mb5.2						
BSEG	Bad Segeberg	80.78	324	*e*P	P	12 02 34.7	+0.3
PGF	Pioggiola	81.55	312	*e*P	P	12 02 38.9	+0.2
	comp=Z,191nm,1.5s,mb5.5						
BFO	Black Forest	81.96	318	*e*P	P	12 02 41.4	+0.7
BFO				pmax	pmax		
	comp=Z,188nm,2.8s,mb5.5						
BFO	Black Forest	81.96	318	*e*P	P	12 02 41.4	+0.7
	comp=Z,188nm,2.8s,mb5.5						
CDF	Champ du Feu	82.66	318	*e*P	P	12 02 44.0	-0.3
	comp=Z,84nm,1.8s,mb5.2						
SBF	Sospel	82.67	313	*e*P	P	12 02 44.9	+0.5
	comp=Z,77nm,1.0s,mb5.4						
LPG	La Plagne	83.10	315	*e*P	P	12 02 47.0	+0.4
	comp=Z,23nm,0.8s,mb5.0						
MBDF	Montbardon	83.11	314	*e*P	P	12 02 46.6	-0.1
	comp=Z,33nm,1.2s,mb5.0						
HAU	Haudompre	83.29	318	*e*P	P	12 02 47.2	-0.3
	comp=Z,24nm,1.0s,mb4.9						
BAIF	Baives	84.60	320	*e*P	P	12 02 54.4	+0.4
	comp=Z,82nm,1.5s,mb5.3						
SSF	Saint Saulge	85.27	317	*e*P	P	12 02 57.7	+0.3
	comp=Z,45nm,1.4s,mb5.1						
RPZ	Rata Peaks	85.57	135	P	P	12 03 02.0	+3.0
	comp=Z,9.4nm,0.7s,mb5.2,slow=3.0,SNR=2.6						
BGF	Bois d’Agland	85.75	316	*e*P	P	12 02 59.9	+0.1
	comp=Z,42nm,1.2s,mb5.2						
RJF	Les Rejaudoux	86.79	315	*e*P	P	12 03 04.9	0.0
	comp=Z,23nm,1.1s,mb5.0						
FLN	La Foliniere	87.77	319	*e*P	P	12 03 09.4	-0.2
ETSF	Etsaut	88.55	313	*e*P	P	12 03 13.7	+0.3
ESDC	Sonseca Array	91.55	310	P	P	12 03 29.3	+1.7
	comp=Z,3.3nm,0.9s,mb4.7,baz=61,slow=5.0,SNR=7.2						
ILAR	Eielson Array	96.50	22	P	P	12 03 51.4	+1.9
	comp=Z,1.5nm,1.3s,mb4.3,baz=268,slow=4.3,SNR=4.7						
ILAR	Eielson Array	96.50	22	P	P	12 03 51.4	+1.9
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.3s						
DBIC	Dimbokro	97.30	278	P	P	12 03 56.1	+1.7
	comp=Z,1.9nm,0.8s,mb4.6,baz=73,slow=7.2,SNR=4.4						

DBIC	**Dimbokro**	97.30	278	P	P	12 03 56.1	+1.7
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.8s						
INK	**Inuvik**	98.71	16	P	P	12 04 01.2	+1.7
	comp=Z,0.7nm,0.6s,mb4.4,baz=184,slow=2.4,SNR=5.8						
INK	**Inuvik**	98.71	16	P	P	12 04 01.2	+1.7
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ULM	**Lac du Bonnet**	123.11	7	PKP	PKPdf	12 09 18.9	+3.1
	comp=Z,1.6nm,0.5s,baz=6.3,slow=6.9,SNR=4.1						
ULM	**Lac du Bonnet**	123.11	7	PKP	PKPdf	12 09 18.9	+3.1
LAO	**LASA Array**	124.45	16	*e*PKPdf	PKPdf	12 09 21.9	+3.4
NVAR	**Mina Array Bea**	126.69	31	PKP	PKPdf	12 09 26.7	+3.6
	comp=Z,0.7nm,0.5s,baz=247,slow=4.0,SNR=7.2						
BW06	**Boulder Array**	126.92	21	*e*PKPdf	PKPdf	12 09 25.7	+2.3
PDAR	**Pinedale Array**	126.92	21	PKP	PKPdf	12 09 26.1	+2.6
	comp=Z,2.4nm,0.9s,baz=28,slow=1.8,SNR=13						
MSU	**Marysvale**	129.52	26	*e*PKPdf	PKPdf	12 09 33.1	+4.6
NEN	**Nelson**	130.59	30	*e*PKPdf	PKPdf	12 09 33.9	+3.3
ANMO	**Albuquerque**	134.93	23	PKP	PKPdf	12 09 43.1	+4.3
	comp=Z,3.6nm,0.9s,baz=57,slow=1.2,SNR=8.9						
TXAR	**Lajitas Array**	140.99	24	PKP	PKPdf	12 09 52.8	+2.7
	comp=Z,0.5nm,0.5s,baz=218,slow=1.0,SNR=18						
JCT	**Junction City**	141.32	18	*e*PKPdf	PKPdf	12 09 53.3	+2.7
LVC	**Limon Verde**	156.38	225	PKPab	PKPab	12 10 47.3	+1.8
	comp=Z,7.1nm,0.9s,baz=146,slow=3.5,SNR=7.8						
SDV	**Santo Domingo**	157.97	313	*e*PKPdf	PKPdf	12 10 19.2	+2.6
LPAZ	**La Paz**	159.27	240	PKP	PKPdf	12 10 22.1	+4.1
	comp=Z,2.2nm,0.8s,baz=23,slow=0.8,SNR=4.1						
LPAZ	**La Paz**	159.27	240	PKIKP	PKPdf	12 10 22.2	+4.2
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ	**La Paz**	159.27	240	PKPdf	PKPdf	12 10 20.5	+2.5

*IDC **26** 11:53:36.1±0.7, 8.87N×92.37E, h26^{km}±3^{km}, mb4.2/17, mb1 4.3/18, mb1mx4.3/22, ML4.3/1, Error ellipse: s-maj=24.2km s-min=14.5km az=47.0*

ISC 26 11:53:34.2±0.5,**8.9N**±0.1×**92.4E**±0.1,**h27**^{km}**,** **h27**^{km}±.5^{km}**:pP-P,n27,**σ**0^{s}79**/23,**mb4.4**/18,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	11.44	33	Pn	P	11 56 18.2	-0.9
	0.6nm,0.3s,baz=228,slow=13,SNR=4.5						
SONM	**Songino Array**	40.59	14	P	P	12 01 14.5	+1.2
	2.5nm,0.7s,mb4.0,baz=196,slow=9.7,SNR=7.7						
SONM				pP	pP	12 01 21.9	+0.5
	3.9nm,0.6s,baz=203,slow=9.4,SNR=3.9						
SONM				PcP	PcP	12 03 16.5	+0.8
	1.2nm,0.5s,baz=206,slow=3.6,SNR=4.3						
ZAL	**Zalesovo**	45.36	354	P	P	12 01 51.7	-0.2
	2.0nm,0.3s,mb4.4,baz=281,slow=4.9,SNR=4.6						
BVAR	**Borovoye Array**	47.51	342	P	P	12 02 09.4	+0.4
	1.0nm,0.5s,mb4.1,baz=158,slow=7.8,SNR=3.1						
WRA	**Warramunga Arr**	50.22	125	P	P	12 02 29.6	-0.7
	3.5nm,0.4s,mb4.7,baz=306,slow=8.4,SNR=8.3						
ASAR	**Alice Springs**	51.85	129	P	P	12 02 42.3	-0.4
	2.1nm,0.5s,mb4.4,baz=305,slow=7.9,SNR=5.4						
EIL	**Elat**	57.46	299	P	P	12 03 23.9	+0.3
	7.7nm,0.9s,mb4.7,baz=122,slow=0.5,SNR=4.5						
CTA	**Charters Tower**	60.27	119	P	P	12 03 43.6	+0.5
	2.7nm,0.7s,mb4.4,baz=299,slow=9.4,SNR=3.5						
BRTR	**Keskin Array B**	60.50	311	P	P	12 03 42.6	-1.8
	2.1nm,0.8s,mb4.2,baz=122,slow=7.5,SNR=3.6						
STKA	**Stephens Creek**	62.02	133	P	P	12 03 54.8	0.0
	3.5nm,0.6s,mb4.7,baz=294,slow=6.6,SNR=4.9						
AKASG	**Malin Array Be**	66.33	322	P	P	12 04 20.8	-1.8
	0.8nm,0.5s,mb4.0,baz=83,slow=4.9,SNR=4.7						
AKASG				pP	pP	12 04 29.8	-1.3
	1.4nm,0.5s,baz=82,slow=5.2,SNR=4.1						
FINES	**FINESS Array B**	71.04	332	P	P	12 04 51.0	-0.7
	3.6nm,0.8s,mb4.4,baz=104,slow=7.9,SNR=4.2						
FINES				pP	pP	12 04 59.8	-0.3
	8.0nm,1.0s,baz=89,slow=6.6,SNR=3.8						
ARCES	**ARCESS Array B**	73.76	340	P	P	12 05 07.8	+0.3
	3.7nm,0.7s,mb4.5,baz=93,slow=4.5,SNR=6.9						
ARCES				pP	pP	12 05 16.7	+0.6
	5.1nm,0.6s,baz=68,slow=6.5,SNR=4.4						
PRU	**Pruhonice**	75.47	319	*e*P	P	12 05 18.5	+0.7
PRU				*e*x	x	12 05 22.0	
GERES	**GERESS Array B**	75.96	318	P	P	12 05 20.8	+0.2
	1.4nm,0.6s,mb4.1,baz=84,slow=6.9,SNR=5.3						
GERES				pP	pP	12 05 29.5	+0.3
	2.6nm,0.6s,baz=88,slow=6.0,SNR=7.8						
KHC	**Kasperske Hory**	76.05	318	*e*P	P	12 05 21.5	+0.4
CLL	**Collm**	76.52	321	P	P	12 05 31.0	+7.4
NB2	**NORSAR Subarra**	78.03	331	P	P	12 05 30.9	-0.9
	9.7nm,1.1s,mb4.7,baz=94,slow=5.8						
NOA	**NORSAR Array B**	78.03	331	P	P	12 05 31.4	-0.4
	1.7nm,0.7s,mb4.1,baz=94,slow=5.7,SNR=4.7						
NOA				pP	pP	12 05 40.0	-0.4
	2.7nm,0.7s,baz=95,slow=5.1,SNR=6.8						
LPL	**La Plagne**	80.73	315	*e*P	P	12 05 47.2	+0.5
	40nm,0.9s,mb5.0						
ILAR	**Eielson Array**	94.46	22	P	P	12 06 53.5	+0.6
	0.9nm,0.9s,mb4.2,baz=300,slow=4.0,SNR=8.2						
ILAR				pP	pP	12 07 01.7	+0.1
	0.9nm,0.8s,baz=301,slow=4.1,SNR=6.0						
DBIC	**Dimbokro**	96.13	278	P	P	12 07 02.2	+0.5
	2.8nm,0.9s,mb4.7,baz=101,slow=5.2,SNR=3.2						
INK	**Inuvik**	96.50	16	P	P	12 07 03.1	+1.0
	1.0nm,0.6s,mb4.4,baz=335,slow=3.4,SNR=8.0						
PDAR	**Pinedale Array**	124.83	20	PKP	PKPdf	12 12 34.2	-2.8
	0.5nm,0.8s,baz=297,slow=2.0,SNR=3.4						
TXAR	**Lajitas Array**	138.97	22	PKP	PKPdf	12 13 03.9	0.0
	0.5nm,0.7s,baz=15,slow=2.1,SNR=3.9						
BDFB	**Brasilia**	140.81	256	PKP	PKPdf	12 13 05.6	-2.1
	1.6nm,0.9s,baz=132,slow=3.3,SNR=4.3						
LVC	**Limon Verde**	157.47	231	PKPab	PKPab	12 14 03.5	+0.9
	2.3nm,0.9s,baz=158,slow=5.4,SNR=4.7						

*IDC **26** 11:54:37.5±0.6, 8.62N×93.60E, mb4.4/15, mb1 4.6/16, mb1mx4.5/21, ML4.8/1, Error ellipse: s-maj=30.4km s-min=16.2km az=58.0*

ISC 26 11:54:40.3±0.6,**8.5N**±0.1×**93.5E**±0.1,**h33**^{km}**,n28,** σ**0^{s}77**/21,**mb4.5**/16,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	11.26	28	Pn	P	11 57 22.2	+0.2
	1.9nm,0.3s,baz=212,slow=15,SNR=9.2						
SONM	**Songino Array**	40.74	13	P	P	12 02 20.0	+0.3
	3.7nm,1.0s,mb4.0,baz=207,slow=6.4,SNR=2.8						
SONM				PcP	PcP	12 04 21.6	+0.2
	1.6nm,0.7s,baz=209,slow=3.4,SNR=4.1						
ZAL	**Zalesovo**	45.89	353	P	P	12 03 01.4	0.0
	3.1nm,0.4s,mb4.6,baz=302,slow=4.6,SNR=4.5						
NWAO	**Narrogin (SRO)**	46.96	152	P	P	12 03 11.6	+1.5
	18nm,0.8s,mb5.0,baz=293,slow=11,SNR=4.4						
BVAR	**Borovoye Array**	48.23	341	P	P	12 03 19.6	-0.2
	1.3nm,0.4s,mb4.3,baz=138,slow=9.0,SNR=5.4						
WRA	**Warramunga Arr**	49.12	126	P	P	12 03 26.8	-0.4
	2.1nm,0.5s,mb4.4,baz=304,slow=8.7,SNR=3.2						
ASAR	**Alice Springs**	50.78	130	P	P	12 03 38.3	-1.5
	3.6nm,0.9s,mb4.3,baz=313,slow=7.2,SNR=3.7						
BRTR	**Keskin Array B**	61.56	311	P	P	12 04 56.0	-0.7
	3.8nm,0.8s,mb4.6,baz=126,slow=5.8,SNR=6.3						
AKASG	**Malin Array Be**	67.30	322	P	P	12 05 32.4	-1.5
	2.8nm,0.7s,mb4.4,baz=88,slow=4.9,SNR=6.1						
KOLS	**Kolonicke sedl**	71.34	319	*e*	P	12 05 59.2	+0.5
FINES	**FINESS Array B**	71.89	332	P	P	12 06 00.2	-1.6
	5.2nm,1.0s,mb4.4,baz=90,slow=5.6,SNR=3.6						
OJC	**Ojcow**	73.11	320	*e*P	P	12 06 09.5	+0.2
ARCES	**ARCESS Array B**	74.50	340	P	P	12 06 17.3	+0.4
	4.2nm,0.8s,mb4.4,baz=105,slow=7.0,SNR=6.9						
ZST	**Bratislava**	74.67	318	*e*	P	12 06 19.2	+0.9
GERES	**GERESS Array B**	76.96	318	P	P	12 06 32.2	+0.8
	3.1nm,0.8s,mb4.3,baz=90,slow=4.0,SNR=6.2						
NB2	**NORSAR Subarra**	78.91	331	P	P	12 06 41.3	-0.5
	5.7nm,1.0s,mb4.5,baz=91,slow=5.0						
NOA	**NORSAR Array B**	78.91	331	P	P	12 06 42.0	+0.1
	3.8nm,0.9s,mb4.3,baz=93,slow=5.7,SNR=4.6						
LPG	**La Plagne**	81.75	315	*e*P	P	12 06 57.6	+0.3
	39nm,1.2s,mb4.9						
ESDC	**Sonseca Array**	90.35	310	P	P	12 07 39.8	+0.1
	0.9nm,0.6s,mb4.3,baz=69,slow=5.1,SNR=4.0						
ILAR	**Eielson Array**	94.45	22	P	P	12 07 57.9	0.0
	1.7nm,0.8s,mb4.5,baz=290,slow=4.8,SNR=7.1						
INK	**Inuvik**	96.61	16	P	P	12 08 08.3	+0.6
	3.1nm,0.8s,mb4.8,baz=346,slow=6.5,SNR=5.6						
YKA	**Yellowknife Ar**	106.01	13	Pdiff	Pdif	12 08 50.2	+0.4
	0.4nm,0.9s,baz=306,slow=8.4,SNR=4.3						
YKA	**Yellowknife Ar**	106.01	13	Pdif	Pdif	12 08 50.2	+0.4
NVAR	**Mina Array Bea**	124.74	30	PKP	PKPdf	12 13 40.4	+3.2
	0.7nm,0.6s,baz=315,slow=2.6,SNR=3.1						
PDAR	**Pinedale Array**	124.85	21	PKP	PKPdf	12 13 38.6	+1.3
	0.8nm,0.7s,baz=310,slow=1.2,SNR=4.4						
TXAR	**Lajitas Array**	138.95	23	PKP	PKPdf	12 14 08.8	+4.6
	0.4nm,0.6s,baz=182,slow=0.6,SNR=4.7						
LVC	**Limon Verde**	158.00	228	PKPab	PKPab	12 15 13.3	+3.2
	5.3nm,0.7s,baz=351,slow=0.7,SNR=8.5						
LPAZ	**La Paz**	160.45	245	PKPab	PKPab	12 15 23.3	+2.6
	2.8nm,0.7s,baz=86,slow=4.5,SNR=5.8						

*IDC **26** 11:56:51.6±0.8, 9.25N×93.80E, mb4.1/13, mb1 4.3/13, mb1mx4.2/18, Error ellipse: s-maj=36.9km s-min=18.8km az=47.0*

ISC 26 11:56:54.6±0.7,**9.2N**±0.2×**93.8E**±0.2,**h33**^{km}**,n18,** σ**1^{s}15**/15,**mb4.1**/13,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	39.96	13	PcP	PcP	12 06 33.6	+0.4
	0.5nm,0.6s,baz=232,slow=3.6,SNR=4.0						
ZAL	**Zalesovo**	45.19	353	P	P	12 05 10.9	+0.8
	1.6nm,0.3s,mb4.3,baz=307,slow=9.2,SNR=3.8						
BVAR	**Borovoye Array**	47.62	341	P	P	12 05 28.0	-1.4
	0.6nm,0.5s,mb3.9,baz=120,slow=12,SNR=3.8						
WRA	**Warramunga Arr**	49.34	126	P	P	12 05 43.1	0.0
	1.3nm,0.6s,mb4.2,baz=306,slow=8.4,SNR=4.7						
ASAR	**Alice Springs**	51.06	131	P	P	12 05 55.2	-1.0
	1.3nm,0.9s,mb3.9,baz=309,slow=7.2,SNR=2.8						
KMBO	**Kilima Mbogo**	57.20	263	P	P	12 06 42.9	+1.5
	1.2nm,0.5s,mb4.2,baz=45,slow=12,SNR=5.2						
BRTR	**Keskin Array B**	61.28	310	P	P	12 07 07.3	-1.9
	2.2nm,0.9s,mb4.3,baz=137,slow=7.6,SNR=4.4						
AKASG	**Malin Array Be**	66.88	321	P	P	12 07 44.1	-1.5
	0.2nm,0.3s,mb3.6,baz=81,slow=4.4,SNR=3.7						
FINES	**FINESS Array B**	71.37	332	P	P	12 08 12.8	-0.1
	3.5nm,1.0s,mb4.2,baz=90,slow=5.6,SNR=3.4						
VYHS	**Vyhne**	73.17	318	*e*	P	12 08 17.0	-6.9
ARCES	**ARCESS Array B**	73.89	340	P	P	12 08 28.1	+0.3
	3.9nm,1.0s,mb4.3,baz=102,slow=6.4,SNR=6.1						
GERES	**GERESS Array B**	76.59	318	P	P	12 08 44.2	+0.6
	2.1nm,0.9s,mb4.0,baz=90,slow=5.3,SNR=4.3						
NB2	**NORSAR Subarra**	78.39	330	P	P	12 08 49.5	-3.8
	5.1nm,1.2s,mb4.3,baz=93,slow=5.8						
NOA	**NORSAR Array B**	78.39	330	P	P	12 08 55.8	+2.4
	0.8nm,0.7s,mb3.8,baz=96,slow=5.4,SNR=3.4						
ILAR	**Eielson Array**	93.67	22	P	P	12 10 09.2	+0.6
	0.6nm,0.7s,mb4.1,baz=300,slow=3.9,SNR=6.0						
INK	**Inuvik**	95.83	16	P	P	12 10 19.7	+1.3
	0.9nm,0.6s,mb4.4,baz=331,slow=13,SNR=5.7						
PDAR	**Pinedale Array**	124.07	21	PKP	PKPdf	12 15 52.0	+1.8
	0.5nm,0.9s,slow=2.7,SNR=3.1						
TXAR	**Lajitas Array**	138.17	23	PKP	PKPdf	12 16 21.3	+4.2
	0.6nm,1.0s,baz=243,slow=2.0,SNR=4.2						

IDC 26 11:59:31.7±1.3**,10.88N**×**91.82E,mb3.9**/7**,mb1 4.1**/7**, mb1mx3.9**/18**,Error ellipse: s-maj=57.7km s-min=21.2km az=54.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	38.83	16	P	P	12 06 58.5	-1.5
	0.6nm,0.6s,baz=208,slow=8.9,SNR=4.0						
BVAR	**Borovoye Array**	45.43	342	P	P	12 07 52.7	-1.3
	0.9nm,0.5s,baz=142,slow=10.0,SNR=4.3						
WRA	**Warramunga Arr**	51.87	126	P	P	12 08 42.0	-2.3
	1.2nm,0.4s,baz=300,slow=10.0,SNR=9.8						
ASAR	**Alice Springs**	53.59	130	P	P	12 08 55.2	-1.9
	1.1nm,0.8s,baz=304,slow=6.5,SNR=4.8						
FINES	**FINESS Array B**	69.00	332	P	P	12 10 38.6	-2.2
	3.6nm,1.0s,baz=117,slow=8.5,SNR=4.2						
GERES	**GERESS Array B**	74.08	318	P	P	12 11 09.8	-1.6
	0.5nm,0.6s,baz=117,slow=6.6,SNR=3.2						
ILAR	**Eielson Array**	92.82	22	P	P	12 12 45.2	-1.8
	0.7nm,0.8s,baz=300,slow=4.5,SNR=5.4						

*IDC **26** 12:01:23.8±0.8, 8.10N×92.30E, h28^{km}±4^{km}, mb4.1/14, mb1 4.3/15, mb1mx4.2/20, Error ellipse: s-maj=31.0km s-min=13.5km az=51.0*

ISC 26 12:01:22.1±0.7,**8.2N**±0.1×**92.4E**±0.1,**h31**^{km}**,** **h31**^{km}±1.5^{km}**:pP-P,n20,**σ**0^{s}82**/17,**mb4.3**/15,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	12.04	31	Pn	P	12 04 13.8	-1.0
	baz=228,slow=11,SNR=2.7						
SONM	**Songino Array**	41.28	14	P	P	12 09 07.1	+0.8
	4.6nm,0.8s,mb4.2,baz=196,slow=7.6,SNR=13						
SONM				pP	pP	12 09 17.2	+1.6
	2.2nm,0.8s,baz=198,slow=8.1,SNR=4.6						
ZAL	**Zalesovo**	46.06	354	P	P	12 09 44.9	+0.1
	1.5nm,0.7s,mb4.0,baz=336,slow=5.4,SNR=4.3						
BVAR	**Borovoye Array**	48.18	342	P	P	12 10 01.8	+0.2
	6.5nm,1.0s,mb4.6,baz=141,slow=9.5,SNR=9.0						
BVAR				pP	pP	12 10 10.2	-0.7
	1.3nm,0.7s,baz=143,slow=7.4,SNR=3.5						
BVAR				PcP	PcP	12 11 29.6	+0.7
	5.1nm,1.2s,baz=117,slow=3.3,SNR=3.6						
WRA	**Warramunga Arr**	49.82	125	P	P	12 10 14.0	-0.6
	3.0nm,0.7s,mb4.4,baz=305,slow=8.8,SNR=9.2						
WRA				pP	pP	12 10 23.6	-0.4
	2.7nm,0.6s,baz=302,slow=9.1,SNR=6.5						
ASAR	**Alice Springs**	51.41	129	P	P	12 10 26.8	+0.1
	2.2nm,0.7s,mb4.2,baz=307,slow=7.2,SNR=7.5						
ASAR				PcP	PcP	12 11 41.4	+0.4
	2.1nm,0.7s,baz=308,slow=4.0,SNR=8.3						
BRTR	**Keskin Array B**	60.95	311	P	P	12 11 33.6	-1.1
	0.5nm,0.5s,mb3.9,baz=129,slow=7.9,SNR=3.6						
BRTR				sP	sP	12 11 46.1	-1.8
	baz=101,slow=6.3,SNR=3.2						
STKA	**Stephens Creek**	61.55	133	P	P	12 11 39.0	0.0
	2.6nm,0.7s,mb4.5,baz=296,slow=7.8,SNR=5.1						
AKASG	**Malin Array Be**	66.87	322	P	P	12 12 12.1	-1.3
	0.9nm,0.5s,mb4.0,baz=86,slow=5.0,SNR=4.0						
MLR	**Muntele Rosu**	67.77	316	P	P	12 12 19.8	+0.6
	4.0nm,0.8s,mb4.5,baz=182,slow=10,SNR=4.2						
FINES	**FINESS Array B**	71.66	332	P	P	12 12 42.1	-0.5
	3.0nm,0.6s,mb4.4,baz=90,slow=5.7,SNR=7.4						
ARCES	**ARCESS Array B**	74.42	340	P	P	12 12 59.3	+0.7
	8.9nm,1.0s,mb4.6,baz=90,slow=4.9,SNR=7.6						
GERES	**GERESS Array B**	76.47	318	P	P	12 13 11.6	+0.9
	4.2nm,1.1s,mb4.3,baz=90,slow=5.3,SNR=8.1						
NB2	**NORSAR Subarra**	78.64	331	P	P	12 13 20.2	-2.2
	1.4nm,0.7s,mb4.0,baz=97,slow=5.0						
NOA	**NORSAR Array B**	78.64	331	P	P	12 13 22.6	+0.2
	2.1nm,0.8s,mb4.1,baz=94,slow=5.5,SNR=5.2						
ILAR	**Eielson Array**	95.12	22	P	P	12 14 43.5	+0.4
	0.3nm,0.6s,mb3.9,baz=309,slow=4.8,SNR=4.5						
INK	**Inuvik**	97.19	16	P	P	12 14 53.9	+1.4
	0.6nm,0.6s,mb4.2,baz=330,slow=5.6,SNR=5.1						
PDAR	**Pinedale Array**	125.50	20	PKP	PKPdf	12 20 23.2	-2.7
	0.6nm,0.8s,SNR=3.7						
NVAR	**Mina Array Bea**	125.53	30	PKP	PKPdf	12 20 24.4	-1.6
	1.0nm,0.7s,baz=6.2,slow=0.9,SNR=6.6						
TXAR	**Lajitas Array**	139.63	22	PKhKP		12 20 45.4	
	0.3nm,0.9s,baz=288,slow=2.9,SNR=2.6						

*IDC **26** 12:02:47.5±1.4, 5.27N×93.35E, mb3.9/7, mb1 4.1/8, mb1mx3.9/19, Error ellipse: s-maj=57.5km s-min=20.6km az=58.0*

ISC 26 12:02:50.7±1.1,**5.3N**±0.1×**93.4E**±0.2,**h33**^{km}**,n9,**σ**0^{s}48**/8,**mb4.0**/7,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.14	22	Pn	P	12 06 11.2	+0.2
	baz=220,slow=14,SNR=3.4						
SONM	**Songino Array**	43.81	13	P	P	12 10 55.4	+0.1
	1.1nm,0.6s,mb3.8,baz=197,slow=8.8,SNR=4.5						
WRA	**Warramunga Arr**	47.41	123	P	P	12 11 24.1	-0.1
	5.6nm,0.7s,mb4.6,baz=302,slow=9.0,SNR=11						
ASAR	**Alice Springs**	48.87	128	P	P	12 11 34.9	-0.6
	1.5nm,0.9s,mb4.0,baz=310,slow=7.0,SNR=2.5						
ZAL	**Zalesovo**	48.99	353	P	P	12 11 35.8	-0.3
	1.2nm,0.9s,mb3.9,baz=145,slow=5.3,SNR=3.3						
BVAR	**Borovoye Array**	51.19	342	P	P	12 11 52.3	-0.6
	1.0nm,0.6s,mb3.9,baz=141,slow=9.2,SNR=2.7						
STKA	**Stephens Creek**	58.89	132	P	P	12 12 49.8	+0.7
	1.3nm,0.7s,mb4.1,baz=144,slow=21,SNR=2.6						
GERES	**GERESS Array B**	79.26	319	P	P	12 14 55.1	+0.6
	0.6nm,0.7s,mb3.7,baz=90,slow=4.9,SNR=5.4						
TXAR	**Lajitas Array**	141.85	25	PKP	PKPdf	12 22 20.7	+0.8
	0.3nm,0.9s,baz=270,slow=0.9,SNR=2.8						

*IDC **26** 12:05:53.1±1.1, 4.59N×93.25E, mb4.1/10, mb1 4.2/11, mb1mx4.1/20, ML4.3/1, Error ellipse: s-maj=45.0km s-min=22.1km az=48.0*

ISC 26 12:05:56.6±0.9,**4.7N**±0.1×**93.4E**±0.2,**h33**^{km}**,n12,** σ**0^{s}69**/11,**mb4.0**/10,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.75	21	Pn	P	12 09 24.6	-0.1
	0.5nm,0.3s,baz=213,slow=15,SNR=4.3						
SONM	**Songino Array**	44.44	13	P	P	12 14 05.7	-0.5
	0.9nm,0.8s,mb3.5,baz=201,slow=8.0,SNR=3.9						
WRA	**Warramunga Arr**	47.12	123	P	P	12 14 27.3	-0.6
	0.8nm,0.6s,mb3.8,baz=301,slow=9.2,SNR=3.6						
ASAR	**Alice Springs**	48.54	127	P	P	12 14 39.4	+0.5
	0.5nm,0.6s,mb3.8,baz=305,slow=7.9,SNR=3.6						
ZAL	**Zalesovo**	49.61	353	P	P	12 14 47.5	+0.8
	1.9nm,0.4s,mb4.5,baz=320,slow=2.4,SNR=4.9						
BVAR	**Borovoye Array**	51.77	343	P	P	12 15 03.0	-0.1
	1.6nm,0.6s,mb4.1,baz=153,slow=6.6,SNR=5.7						
BRTR	**Keskin Array B**	63.95	312	P	P	12 16 27.4	-1.5
	2.2nm,0.9s,mb4.2,baz=121,slow=6.8,SNR=6.2						
MLR	**Muntele Rosu**	70.92	317	P	P	12 17 13.5	+0.9
	3.4nm,0.6s,mb4.5,baz=168,slow=4.9,SNR=5.1						
FINES	**FINESS Array B**	75.17	333	P	P	12 17 36.9	-0.4
	2.0nm,0.8s,mb4.1,baz=101,slow=7.1,SNR=2.9						
ARCES	**ARCESS Array B**	78.00	341	P	P	12 17 53.9	+0.9
	1.0nm,0.5s,mb4.0,baz=97,slow=5.8,SNR=5.8						
GERES	**GERESS Array B**	79.69	319	P	P	12 18 02.6	0.0
	1.3nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=8.2						
TXAR	**Lajitas Array**	142.44	25	PKP	PKPdf	12 25 26.6	-0.1
	0.1nm,0.5s,baz=3.0,slow=0.4,SNR=4.3						

IDC 26 12:07:28.3±1.6**,8.26N**×**93.55E,mb4.0**/6**,mb1 4.2**/7**, mb1mx3.9**/19**,ML3.7**/1**,Error ellipse: s-maj=70.0km s-min=27.3km az=51.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	11.41	27	Pn	P	12 10 19.9	+4.2
	0.2nm,0.3s,baz=225,slow=15,SNR=3.2						
SONM	**Songino Array**	40.92	13	P	P	12 15 11.5	-2.5
	1.7nm,0.9s,baz=202,slow=8.0,SNR=4.2						
BVAR	**Borovoye Array**	48.44	341	P	P	12 16 12.8	-1.5
	1.0nm,0.6s,baz=143,slow=7.4,SNR=4.5						
WRA	**Warramunga Arr**	48.96	125	P	P	12 16 16.9	-1.8
	2.7nm,0.6s,baz=302,slow=9.1,SNR=9.1						
FINES	**FINESS Array B**	72.10	332	P	P	12 18 54.3	-1.9
	3.8nm,1.1s,baz=135,slow=3.9,SNR=3.2						
ARCES	**ARCESS Array B**	74.70	340	P	P	12 19 10.7	-0.6
	2.6nm,0.9s,baz=90,slow=6.3,SNR=4.0						
GERES	**GERESS Array B**	77.15	318	P	P	12 19 23.2	-2.3
	0.6nm,0.7s,baz=76,slow=4.0,SNR=3.6						

IDC 26 12:07:57.3±1.1**,10.57N**×**92.08E,mb3.9**/6**,mb1 4.1**/7**, mb1mx3.9**/19**,ML4.2**/1**,Error ellipse: s-maj=42.9km s-min=22.2km az=52.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	10.27	39	Pn	P	12 10 26.8	-2.4
	0.6nm,0.3s,baz=213,slow=14,SNR=6.5						
SONM	**Songino Array**	39.05	15	P	P	12 15 25.6	-2.0
	0.9nm,0.8s,baz=180,slow=4.3,SNR=2.9						
WRA	**Warramunga Arr**	51.48	126	P	P	12 17 05.0	-2.0
	1.0nm,0.4s,baz=306,slow=8.3,SNR=9.7						
ASAR	**Alice Springs**	53.20	130	P	P	12 17 17.6	-2.4
	0.6nm,0.8s,baz=308,slow=7.0,SNR=4.4						
FINES	**FINESS Array B**	69.39	332	P	P	12 19 07.0	-1.9
	3.3nm,0.9s,baz=100,slow=8.5,SNR=2.4						
GERES	**GERESS Array B**	74.47	318	P	P	12 19 38.1	-1.3
	0.9nm,0.8s,baz=90,slow=2.7,SNR=4.3						
HFS	**Hagfors**	75.11	330	P	P	12 19 41.0	-1.9
	1.0nm,0.4s,baz=90,slow=4.3,SNR=6.8						

JMA 26 12:09:36.8,31.93N×131.18E,h12^{km},M3.8,4C-2D, Kyushu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTZ	**Takazaki**	0.08	250	⇑P	Pg	12 09 39.3	-0.2
JTZ				S	Sg	12 09 41.5	+0.2
JNAR	**Kushima--Naru**	0.41	169	⇑P	Pg	12 09 45.0	-0.3
JTSN	**Tsuno**	0.42	41	⇓P	Pg	12 09 44.9	-0.5
JTSN				S	Sg	12 09 50.9	-0.3
JZO	**Okuchi**	0.54	293	⇑P	Pb	12 09 47.0	-0.6
JZO				S	Sb	12 09 54.4	-0.6
JIU2	**Izumi 2**	0.69	333	⇑P	Pb	12 09 50.0	-0.2
JIU2				S	Sb	12 09 59.3	-0.1
JSU	**Suzuyama**	0.75	236	⇓P	Pb	12 09 51.0	-0.3

*BJI **26** 12:09:40.2, 12.14N×92.55E, h24^{km}, mB5.6, mb5.3, Ms5.2, Msz5.1*

*SYO **26** 12:09:41.5, 12.23N×92.61E, h13^{km}, MB5.4*

*IDC **26** 12:09:42.4±0.4, 12.24N×92.61E, h20^{km}±2^{km}, mb4.9/32, mb1 4.9/33, mb1mx4.9/34, ML4.7/1, Error ellipse: s-maj=13.4km s-min=8.9km az=45.0*

*MOS **26** 12:09:42.4±1.1, 12.26N×92.72E, h33^{km}, mb5.4/38, Error ellipse: s-maj=9.6km s-min=5.8km az=114.5*

*NEIC **26** 12:09:42.5±0.2, 12.19N×92.60E, mb5.4/52, Error ellipse: s-maj=4.8km s-min=4.1km az=196.0*

ISC 26 12:09:40.7±0.2,**12.25N**±0.03×**92.61E**±0.02,**h21**^{km}**,** **h21**^{km}±.5^{km}**:pP-P,n327,**σ**1^{s}11**/327,**mb5.2**/107,**MS5.1**/6,**29C-14D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNT	**Nongplab**	6.97	86	P	Sn	12 12 43.0	-0.9
CM31	**Chiang Mai Arr**	8.69	44	*e*Pn	P	12 11 48.2	-0.2
	188nm,1.0s						
CM31				*e*S	Sn	12 13 23.7	-3.0
CMAR	**Chiang Mai Arr**	8.69	44	Pn	P	12 11 48.0	-0.3
	2.4nm,0.3s,baz=237,slow=14,SNR=48						
CMAR				Sn	Sn	12 13 24.7	-2.0
	5.0nm,0.3s,baz=236,slow=28,SNR=4.8						
CMAR	**Chiang Mai Arr**	8.69	44	P	P	12 11 48.0	-0.3
CMAR						12 13 24.7	
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CHG	**Chiang Mai**	8.94	42	⇓P	P	12 11 51.2	-0.6
	comp=Z,150nm,0.8s						
VIS	**Vishakhapatnam**	10.48	302	*e*P	P	12 12 09.0	-4.2
	comp=Z,289nm,0.6s						
VIS				*e*S	x	12 13 55.4	
VIS				*e*		12 13 58.6	
	comp=N,2µm,0.7s						
VIS				*e*	S	12 13 59.0	-12
	comp=E,1µm,0.3s						
AGT	**Agartala**	11.65	354	⇓*i*P	P	12 12 28.0	-1.0
AGT				*i*	S	12 14 28.0	-11
MDRS	**Chennai**	12.09	275	*e*P	P	12 12 30.4	-4.6
	comp=Z,273nm,0.4s						
MDRS				*e*	S	12 14 47.4	-2.9
	comp=E,837nm,0.2s						
MDRS				*e*		12 14 47.5	
	comp=N,639nm,0.3s						
UBT	**Ubonrachathani**	12.42	75	P	P	12 12 43.0	+3.5
IMP	**Imphal**	12.53	6	*e*	P	12 12 39.4	-1.6
PALK	**Pallekele**	12.73	248	*e*P	P	12 12 40.3	-3.3
	comp=N,207nm,1.2s						
BOK	**Bokaro**	13.14	332	*e*P	P	12 12 46.7	-2.3
BOK				*e*	S	12 14 59.9	-16
SHL	**Shillong**	13.27	357	*e*P	P	12 12 47.1	-3.6
SHL				*e*		12 12 55.2	
	comp=Z,68nm,1.3s						
BLSP	**Bilaspur**	14.02	316	*e*P	P	12 12 57.2	-3.5
BLSP				*e*		12 12 59.5	
	comp=Z,604nm,0.9s						
BLSP				*e*	S	12 15 24.1	-12
HYB	**Hyderabad**	14.52	292	*e*P	P	12 13 05.0	-2.3
HYB	**Hyderabad**	14.52	292	*i* P	P	12 13 05.0	-2.3
TRD	**Trivandrum**	15.83	258	*e*	P	12 13 23.1	-1.3
TRD				*e*		12 13 38.1	
	comp=Z,241nm,1.4s						
KMI	**Kunming**	15.99	35	P	P	12 13 29.0	+2.6
KMI				XP		12 13 33.3	
KMI				PP	PP	12 13 39.0	-0.3

KMI				SS	SS	12 16 48.8	+6.5
KMI				AMB	AMB		
	comp=Z,154nm,1.5s						
ALBI	**Allahabad**	**16.52**	**323**	*e*P	**P**	**12 13 31.0**	**-2.0**
PKI	**Pulchoki**	**16.67**	**337**	*e*P	**P**	**12 13 33.7**	**-1.3**
	comp=Z,310nm,0.6s						
GUN	**Gumba**	**16.81**	**339**	*e*P	**P**	**12 13 36.2**	**-0.5**
	comp=Z,382nm,0.7s						
DMN	**Daman**	**16.82**	**336**	*e*P	**P**	**12 13 35.9**	**-1.0**
	comp=Z,668nm,0.7s						
KKN	**Kakani**	**16.92**	**337**	*e*P	**P**	**12 13 36.2**	**-1.9**
	comp=Z,340nm,0.7s						
AKL	**Akola**	**17.14**	**301**	*e*P	**P**	**12 13 42.1**	**+1.1**
AKL				*e*		12 13 46.6	
	comp=Z,253nm,0.9s						
AKL				⇑*i*	**S**	**12 16 37.1**	**-12**
GKN	**Gorkha**	**17.36**	**336**	*e*P	**P**	**12 13 42.4**	**-1.2**
	comp=Z,351nm,0.4s						
MNGI	**Mangalore**	**17.37**	**274**	*e*P	**P**	**12 13 43.3**	**-0.5**
MNGI				*e*		12 13 54.1	
	comp=Z,350nm,1.5s						
LSA	**Lhasa**	**17.42**	**356**	P	**P**	**12 13 44.3**	**-0.1**
LSA	**Lhasa**	**17.42**	**356**	*e*P	**P**	**12 13 45.9**	**+1.5**
	comp=Z,47nm,0.6s						
KOLN	**Koldanda**	**17.60**	**333**	*e*P	**P**	**12 13 46.0**	**-0.6**
	comp=Z,717nm,0.8s						
QIZ	**Qiongzhong**	**17.91**	**66**	P	**P**	**12 13 51.8**	**+1.3**
QIZ	**Qiongzhong**	**17.91**	**66**	*e*P	**P**	**12 13 51.8**	**+1.4**
	comp=Z,332nm,1.6s						
BHPL	**Bhopal**	**18.11**	**309**	*e*P	**P**	**12 13 54.6**	**+1.6**
BHPL				*e*		12 13 56.6	
	comp=Z,271nm,1.7s						
BHPL				*e*	**S**	**12 16 57.3**	**-14**
KAD	**Karad**	**18.51**	**288**	*e*P	**P**	**12 13 56.8**	**-1.2**
KAD				*e*		12 14 07.5	
	comp=Z,267nm,1.4s						
KAD				*e*S	**S**	**12 17 21.6**	**+1.1**
GOA	**Goa**	**18.52**	**282**	*e*	**P**	**12 14 04.2**	**+6.1**
GOA				*e*		12 14 07.3	
	comp=Z,182nm,1.8s						
POO	**Poona**	**19.13**	**291**	*e*P	**P**	**12 14 04.1**	**-1.2**
POO				*e*		12 14 14.4	
	comp=Z,184nm,1.4s						
GYA	**Guiyang**	**19.36**	**41**	⇑*i*P	**P**	**12 14 08.0**	**0.0**
GYA				AMB	AMB		
	comp=Z,80nm,0.8s						
BOM	**Bombay**	**20.17**	**292**	*e*P	**P**	**12 14 16.3**	**-0.6**
BOM				*e*		12 14 20.9	
	comp=Z,348nm,1.5s						
AGRA	**Agra**	**20.28**	**319**	*e*P	**P**	**12 14 15.8**	**-2.3**
AGRA				*e*	**S**	**12 17 50.0**	**-9.3**
CD2	**Chengdu**	**21.24**	**27**	⇑*i*P	**P**	**12 14 27.8**	**-0.1**
CD2				AMB	AMB		
	comp=Z,240nm,0.7s,mb5.6						
BISR	**Bishrakh**	**21.55**	**321**	*e*P	**P**	**12 14 30.6**	**-0.4**
BHV	**Bhavnagar**	**21.71**	**299**	*e*P	**P**	**12 14 33.5**	**+0.9**
NDI	**New Delhi**	**21.76**	**321**	*e*P	**P**	**12 14 31.8**	**-1.4**
NDI				*e*		12 14 43.6	
	comp=Z,361nm,1.4s						
NDI				*e*S	**S**	**12 18 25.0**	**-2.8**
BHGR	**Bahadurgarh**	**21.94**	**321**	*e*P	**P**	**12 14 34.9**	**0.0**
BHGR				*e*		12 14 42.9	
	comp=Z,445nm,0.6s						
AJM	**Ajmer**	**22.04**	**313**	*e*P	**P**	**12 14 36.3**	**+0.3**
AJM				*e*		12 14 43.8	
	comp=Z,229nm,1.3s						
AJM				*e*S	**S**	**12 18 32.4**	**-0.6**
KHET	**Khetri**	**22.24**	**318**	*e*P	**P**	**12 14 38.4**	**+0.4**
KHET				*e*		12 14 49.2	
	comp=Z,321nm,1.4s						
DDI	**Dehra Dun**	**22.48**	**325**	*e*P	**P**	**12 14 40.2**	**-0.1**
DDI				*e*S	**S**	**12 18 44.2**	**+3.2**
KKR	**Kurukshetra**	**22.92**	**323**	*e*P	**P**	**12 14 45.9**	**+1.2**
KKR				*e*		12 14 49.9	
	comp=Z,192nm,0.3s						
KLP	**Kalpa**	**23.32**	**328**	*e*P	**P**	**12 14 50.7**	**+2.2**
KLP				*e*		12 15 03.1	
	comp=Z,473nm,1.0s						
ENH	**Enshi**	**23.80**	**38**	⇑*i*P	**P**	**12 14 53.5**	**+0.3**
	comp=Z,158nm,0.7s,mb5.5						
SDNR	**Sundarnagar**	**23.98**	**325**	*e*P	**P**	**12 14 56.7**	**+1.8**
SDNR				*e*		12 17 24.1	
BHJ	**Bhuj**	**24.41**	**300**	*e*P	**P**	**12 14 57.6**	**-1.6**
BHJ				*e*		12 15 09.8	
	comp=Z,170nm,1.2s						
COCO	**West Island**	**24.64**	**170**	P	**P**	**12 15 01.3**	**-0.2**
	comp=Z,308nm,1.5s,mb5.6						
DLH	**Dalhousie**	**25.32**	**326**	*e*P	**P**	**12 15 09.0**	**+1.1**
THN	**Thein Dam**	**25.38**	**325**	*e*P	**P**	**12 15 08.2**	**-0.2**
THN				*e*		12 20 12.0	
LZH	**Lanzhou**	**25.81**	**21**	⇑P	**P**	**12 15 13.5**	**+1.1**
LZH				AP	pP	12 15 16.5	-1.9
LZH				PP	PP	12 15 52.5	-0.5
LZH				S	**S**	**12 19 40.8**	**+2.5**
LZH				SS	SS	12 20 46.0	+2.3
LZH				AMB	AMB		
	comp=Z,115nm,1.0s,mb5.4						
LZH				AMB	AMB		
	comp=Z,945nm,6.5s						
LZH				LR	LR		
	comp=N,2µm,12.0s						
LZH				LR	LR		
	comp=Z,4µm,14.5s,MS5.1						
XAN	**Xi'an**	**26.30**	**32**	P	**P**	**12 15 15.5**	**-1.4**
XAN				AMB	AMB		
	comp=Z,41nm,1.1s,mb4.9						
WHN	**Wuhan**	**27.14**	**44**	P	**P**	**12 15 24.8**	**+0.2**
QZH	**Quanzhou**	**27.61**	**59**	⇑*i*P	**P**	**12 15 29.8**	**+0.8**
QZH				AMB	AMB		
	comp=Z,120nm,1.1s,mb5.4						
TGY	**Tagaytay City**	**27.64**	**83**	P	**P**	**12 15 30.7**	**+1.4**
	comp=Z,73nm,0.3s,mb5.7,baz=161,slow=9.2,SNR=3.9						
TGY	**Tagaytay City**	**27.64**	**83**	P	**P**	**12 15 30.7**	**+1.4**
TGY				pmax	pmax		
	comp=Z,73nm,0.4s						
GTA	**Gaotai**	**27.80**	**12**	⇑*i*P	**P**	**12 15 31.3**	**+0.7**
GTA				AP	pP	12 15 38.5	+1.9
GTA				XP	sP	12 15 42.0	+2.7
GTA				PP	PP	12 16 19.0	-0.8
GTA				PPP	PPP	12 16 30.3	-1.5
GTA				S	**S**	**12 20 10.0**	**-0.7**
GTA				SCP		12 22 26.8	
GTA				SCS	ScS	12 26 17.5	+1.5
GTA				AMB	AMB		
	comp=Z,55nm,1.2s,mb5.1						
GTA				AMB	AMB		
	comp=Z,1µm,11.4s						
GTA				LR	LR		
	comp=N,2µm,14.1s,MS4.9						
GTA				LR	LR		
	comp=E,2µm,16.7s,MS4.9						
GTA				LR	LR		
	comp=Z,3µm,19.4s,MS5.0						
DGAR	**Diego Garcia**	**27.98**	**227**	*e*P	**P**	**12 15 23.4**	**-9.0**
	comp=Z,221nm,0.4s,mb6.1						
KSH	**Kashi**	**30.90**	**334**	P	**P**	**12 15 58.5**	**+0.2**
KSH				*e*AP	pP	12 16 05.5	+1.2
KSH				*e*XP	sP	12 16 08.8	+1.8
KSH				*e*PP	PP	12 16 59.5	-0.6
KSH				*e*PPP	PPP	12 17 15.5	+0.5
KSH				*e*PCP	PcP	12 18 51.0	-3.8
KSH				*e*S	**S**	**12 21 01.5**	**+1.4**
KSH				*e*XS		12 21 09.5	
KSH				*e*SCP		12 22 37.5	
KSH				*e*PCS		12 22 39.5	
KSH				SS	SS	12 22 42.8	-1.0
KSH				*e*SCS	ScS	12 26 32.5	+2.0
KSH				AMB	AMB		
	comp=Z,240nm,3.8s						
KSH				LR	LR		
	comp=N,2µm,13.1s,MS5.3						
KSH				LR	LR		
	comp=E,4µm,13.7s,MS5.3						
NJ2	**Nanjing**	**31.15**	**47**	*e*P	**P**	**12 15 59.8**	**-0.8**
NJ2				AP	pP	12 16 10.0	+3.3
NJ2				XP	sP	12 16 13.5	+4.2
NJ2				PP	PP	12 17 02.0	-1.4
NJ2				S	**S**	**12 21 02.5**	**-1.6**
NJ2				XS		12 21 19.5	
NJ2				AMB	AMB		
	comp=Z,1µm,5.6s						
WMQ	**Urumqi**	**31.75**	**353**	⇑P	**P**	**12 16 07.8**	**+2.1**
WMQ				AP	pP	12 16 12.3	+0.5
WMQ				XP	sP	12 16 14.8	+0.4
WMQ				PP	PP	12 17 13.3	+2.3
WMQ				PPP	PPP	12 17 28.0	+2.0
WMQ				*e*S	**S**	**12 21 16.0**	**+2.7**
WMQ				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,1µm,9.6s						
WMQ				LR	LR		
	comp=N,2µm,20.9s,MS5.0						
WMQ				LR	LR		
	comp=E,3µm,20.5s,MS5.0						
WMQ				LR	LR		
	comp=Z,2µm,20.1s,MS4.8						
BTO	**Baotou**	**32.14**	**25**	*e*P	**P**	**12 16 08.3**	**-0.8**
BTO				AMB	AMB		
	comp=Z,27nm,1.4s,mb4.9						
SSE	**Sheshan**	**32.36**	**50**	*e*P	**P**	**12 16 11.0**	**-0.2**
SSE				AMB	AMB		
	comp=Z,69nm,0.9s,mb5.5						
SSE				AMB	AMB		
	comp=Z,569nm,6.6s						
TIA	**Tai'an**	**32.52**	**39**	P	**P**	**12 16 11.8**	**-0.7**
TIA				AMB	AMB		
	comp=Z,22nm,0.9s,mb5.1						
HHC	**Hu-ho-hao-te**	**33.00**	**27**	⇑P	**P**	**12 16 17.0**	**+0.3**
HHC				AP	pP	12 16 21.3	-1.4
HHC				XP	sP	12 16 23.8	-1.6
HHC				PP	PP	12 17 26.0	-1.4
HHC				PCP	PcP	12 19 02.0	+1.5
HHC				S	**S**	**12 21 31.8**	**-1.1**
HHC				SCP		12 22 43.5	
HHC				SS	SS	12 23 29.5	-3.7
HHC				SCS	ScS	12 26 42.3	+1.2
HHC				AMB	AMB		
	comp=Z,46nm,1.2s,mb5.3						
HHC				AMB	AMB		
	comp=Z,1µm,6.2s						
HHC				LR	LR		
	comp=N,2µm,19.0s,MS4.9						
HHC				LR	LR		
	comp=E,2µm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,6µm,16.6s,MS5.4						
KZA	**Kyzart**	**33.35**	**336**	P	**P**	**12 16 22.0**	**+2.3**
	SNR=11						
UCH	**Uchtor**	**33.77**	**335**	P	**P**	**12 16 24.8**	**+1.5**
	SNR=14						
TKM2	**Tokmak 2**	**33.94**	**337**	P	**P**	**12 16 25.8**	**+1.0**
	SNR=18						
KBK	**Karagaybulak**	**33.96**	**336**	P	**P**	**12 16 27.0**	**+2.1**
	SNR=12						
AML	**Almayashu**	**34.03**	**334**	P	**P**	**12 16 27.0**	**+1.4**
	SNR=26						
AAK	**Ala-Archa**	**34.12**	**336**	P	**P**	**12 16 28.0**	**+1.6**
	SNR=20						
AAK	**Ala-Archa**	**34.12**	**336**	*c i*P	**P**	**12 16 26.7**	**+0.4**
AAK				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.2						
AAK	**Ala-Archa**	**34.12**	**336**	⇑*i*P	**P**	**12 16 26.8**	**+0.5**
	comp=Z,3.1nm,0.7s,mb4.3						
AAK				*e*	pP	12 16 33.1	+0.7
FRU	**Bishkek**	**34.24**	**336**	*e*P	**P**	**12 16 27.0**	**-0.4**
CHMS	**Chumysh**	**34.33**	**336**	P	**P**	**12 16 29.0**	**+0.8**
	SNR=22						
EKS2	**Erkin-Say**	**34.43**	**335**	P	**P**	**12 16 30.5**	**+1.4**
	SNR=21						
BJT	**Baijiatuau**	**34.60**	**33**	*e*P	**P**	**12 16 31.2**	**+0.6**
	comp=Z,53nm,0.9s,mb5.5						
USP	**Ospenovka**	**34.65**	**336**	P	**P**	**12 16 31.5**	**+0.6**
	SNR=46						
MKAR	**Makanchi Array**	**35.52**	**348**	*i* P	**P**	**12 16 38.1**	**-0.2**
MKAR				pmax	pmax		
	comp=Z,88nm,0.9s						
MKAR	**Makanchi Array**	**35.52**	**348**	*i* P	**P**	**12 16 38.2**	**-0.1**
JOW	**Kunigami**	**36.46**	**61**	P	**P**	**12 16 46.5**	**+0.1**
	comp=Z,38nm,0.7s,mb5.5,baz=276,slow=13,SNR=11						
DL2	**Dalian**	**36.99**	**39**	P	**P**	**12 16 51.3**	**+0.6**
DL2				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.4						
SONM	**Songino Array**	**37.31**	**15**	P	**P**	**12 16 54.0**	**+0.7**
	comp=Z,21nm,0.9s,mb5.0,baz=196,slow=9.0,SNR=60						
SONM				ScP		12 22 58.8	
	comp=Z,3.8nm,1.0s,baz=198,slow=3.9,SNR=3.8						
ULN	**Ulaanbaatar**	**37.51**	**16**	⇑*e*P	**P**	**12 16 55.3**	**+0.2**
	comp=Z,16nm,0.9s,mb4.7						
ZAK	**Zakamensk**	**39.02**	**11**	⇑*e*P	**P**	**12 17 08.7**	**+1.0**
MOY	**Mondy**	**39.90**	**8**	*e*P	**P**	**12 17 15.8**	**+0.9**
SNY	**Shenyang**	**39.96**	**37**	⇑P	**P**	**12 17 15.8**	**+0.2**
SNY				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.2						
KS15	**Wonju Array Si**	**40.29**	**45**	*e*P	**P**	**12 17 18.2**	**-0.1**
TLY	**Talaya**	**40.33**	**11**	*c i*P	**P**	**12 17 20.0**	**+1.5**
TLY				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.8						
TLY	**Talaya**	**40.33**	**11**	*e*P	**P**	**12 17 19.6**	**+1.0**
	comp=Z,16nm,0.9s,mb4.8						
ZAL	**Zalesovo**	**42.05**	**353**	P	**P**	**12 17 32.6**	**+0.1**
	comp=Z,14nm,0.8s,mb4.6,baz=299,slow=8.0,SNR=37						
ZAL				pP	pP	12 17 38.7	0.0
	comp=Z,30nm,0.5s,baz=292,slow=7.8,SNR=24						
ZAL	**Zalesovo**	**42.05**	**353**	P	**P**	**12 17 32.6**	**+0.1**
ZAL				*PP	pP	12 17 38.7	0.0
ZAL				pmax	pmax		
	comp=Z,14nm,0.8s						
ZAL				pmax	pmax		
	comp=Z,30nm,0.5s						
CN2	**Changchun**	**42.27**	**36**	⇑P	**P**	**12 17 35.0**	**+0.5**
CN2				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.4						
MBWA	**Marble Bar**	**42.57**	**141**	*e*P	**P**	**12 17 35.9**	**-1.4**
	comp=Z,32nm,0.9s,mb5.0						
MBWA				*e*	pP	12 17 43.0	-0.5
NVS	**Novosibirsk**	**43.13**	**352**	*i* P	**P**	**12 17 39.1**	**-2.3**
NVS				*e*PPP	PPP	12 19 58.7	-0.2
NVS				*e*S	**S**	**12 24 00.5**	**-5.6**
NVS				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.0						
NVS				pmax	pmax		
	comp=N,20nm,0.7s						
NVS				pmax	pmax		
	comp=E,15nm,0.9s						
NVS				smax			
	comp=E,33nm,1.7s						
NVS				smax			
	comp=N,19nm,1.4s						
HIA	**Hailar**	**43.19**	**26**	*e*P	**P**	**12 17 41.7**	**-0.2**
	comp=N,38nm,1.1s,mb5.0						
BVA0	**Borovoye Array**	**44.39**	**341**	P	**P**	**12 17 52.3**	**+0.7**
BVA0				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
BVAR	**Borovoye Array**	**44.39**	**341**	P	**P**	**12 17 50.9**	**-0.8**
	comp=Z,23nm,1.0s,mb4.9,baz=143,slow=7.4,SNR=34						
BVAR				pP	pP	12 17 57.7	-0.1
	comp=Z,63nm,1.0s,baz=135,slow=8.2,SNR=35						
BRVK	**Borovoye**	**44.45**	**341**	*e*P	**P**	**12 17 51.9**	**-0.2**
	comp=Z,52nm,0.8s,mb5.3						
QRN	**Al-Qurain**	**44.68**	**299**	*e*P	**P**	**12 17 54.6**	**+0.3**
CHKZ	**Chkalovo**	**44.88**	**342**	*i* P	**P**	**12 17 55.6**	**+0.1**
CHKZ				pmax	pmax		
	comp=Z,130nm,0.7s,mb5.9						
CHKZ	**Chkalovo**	**44.88**	**342**	*e*P	**P**	**12 17 55.6**	**+0.1**
	comp=Z,142nm,0.6s,mb6.0						
RDF	**Al-Radifah**	**45.03**	**299**	*e*P	**P**	**12 17 57.2**	**+0.1**
RDF				AMb	AMB	12 18 05.8	
	comp=Z,176nm,1.1s,mb5.8						
MDJ	**Mudanjiang**	**45.16**	**37**	P	**P**	**12 17 58.0**	**+0.1**
MDJ				AMB	AMB		
	comp=Z,17nm,1.3s,mb4.7						
MDJ	**Mudanjiang**	**45.16**	**37**	*e*P	**P**	**12 17 57.5**	**-0.3**
RST	**Umm Al-Ruwaisa**	**45.62**	**299**	*e*P	**P**	**12 18 01.3**	**-0.5**
RST				AMb	AMB	12 18 10.2	
	comp=Z,152nm,1.0s,mb5.9						
MAJO	**Matsushiro**	**47.49**	**51**	*e*P	**P**	**12 18 16.2**	**-0.2**
	comp=Z,86nm,1.4s,mb5.5						
MAT	**Matsushiro**	**47.49**	**51**	P	**P**	**12 18 16.3**	**-0.2**
MAT	**Matsushiro**	**47.49**	**51**	*e*P	**P**	**12 18 16.0**	**-0.5**
	comp=Z,139nm,1.5s,mb5.7						
BOD	**Bodaibo**	**48.31**	**15**	*e*P	**P**	**12 18 21.8**	**-0.7**
KLR	**Kul'dur**	**48.99**	**33**	*e*P	**P**	**12 18 24.6**	**-3.3**
GNI	**Garni**	**50.35**	**312**	P	**P**	**12 18 39.5**	**+1.0**
	comp=Z,28nm,0.8s,mb5.4,baz=7.3,slow=3.9,SNR=24						
GNI	**Garni**	**50.35**	**312**	*d i*P	**P**	**12 18 39.6**	**+1.1**
GNI				pmax	pmax		
	comp=Z,85nm,1.1s						
NWAO	**Narrogin (SRO)**	**50.70**	**153**	P	**P**	**12 18 41.0**	**-0.2**
	comp=Z,42nm,0.9s,mb5.4,baz=327,slow=8.5,SNR=12						
NWAO				pP	pP	12 18 47.4	-0.2
	comp=Z,41nm,0.9s,baz=342,slow=7.2,SNR=6.7						
NWAO	**Narrogin (SRO)**	**50.70**	**153**	P	**P**	**12 18 41.0**	**-0.2**
NWAO				*PP	pP	12 18 47.4	-0.1
NWAO				pmax	pmax		
	comp=Z,42nm,0.9s						
NWAO				pmax	pmax		
	comp=Z,41nm,0.9s						
NWAO	**Narrogin (SRO)**	**50.70**	**153**	⇓*e*P	**P**	**12 18 40.9**	**-0.3**
	comp=Z,36nm,0.9s,mb5.3						
SVE	**Sverdlovsk**	**50.81**	**338**	⇓*e*P	**P**	**12 18 42.0**	**+0.3**
SVE				pmax	pmax		
	comp=Z,120nm,1.5s,mb5.6						
CLNS	**Chul'man**	**50.93**	**22**	*e*P	**P**	**12 18 39.7**	**-2.9**
CLNS				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
CLNS				pmax	pmax		
	comp=N,14nm,1.0s						
CLNS				pmax	pmax		
	comp=E,13nm,1.0s						
ARU	**Arti**	**51.30**	**337**	*e*P	**P**	**12 18 46.3**	**+0.9**
ARU				*e*		12 20 05.1	
ARU				*e*		12 20 47.4	
ARU				*e*PPP	PPP	12 21 39.5	-4.6
ARU				*e*S	**S**	**12 26 06.7**	**+4.8**
ARU				*e*		12 28 31.9	
ARU	**Arti**	**51.30**	**337**	⇑*i*P	**P**	**12 18 46.5**	**+1.1**
ZEI	**Tsey**	**51.86**	**315**	*e*P	**P**	**12 18 52.6**	**+2.7**
ZEI				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
WRA	**Warramunga Arr**	**52.06**	**127**	P	**P**	**12 18 50.4**	**-1.3**
	comp=Z,38nm,0.9s,mb5.3,baz=305,slow=8.3,SNR=93						
WRA				PcP	PcP	12 20 03.0	-0.8
	comp=Z,12nm,0.9s,baz=315,slow=3.4,SNR=6.0						
WRA	**Warramunga Arr**	**52.06**	**127**	P	**P**	**12 18 50.4**	**-1.3**
WRA						12 20 03.0	
WRA				pmax	pmax		
	comp=Z,38nm,0.9s						
WRA				pmax	pmax		
	comp=Z,12nm,0.9s						
WRAB	**Tennant Creek**	**52.06**	**127**	*c i*P	**P**	**12 18 50.7**	**-1.0**
WRAB	**Tennant Creek**	**52.06**	**127**	*e*P	**P**	**12 18 50.7**	**-1.0**
	comp=Z,67nm,0.9s,mb5.6						
BEST	**Besiri**	**52.26**	**309**	*i* P	**P**	**12 18 52.2**	**-0.7**
ERZM	**Erzurum**	**52.74**	**311**	*i* P	**P**	**12 18 57.4**	**+0.8**
KIV	**Kislovodsk**	**53.11**	**316**	P	**P**	**12 18 59.9**	**+0.7**
	comp=Z,345nm,1.0s,mb6.2,SNR=37						
KIV	**Kislovodsk**	**53.11**	**316**	*e*P	**P**	**12 18 59.2**	**0.0**
KIV				pmax	pmax		
	comp=N,70nm,1.1s						
KIV				pmax	pmax		
	comp=Z,115nm,1.1s,mb5.7						
KIV	**Kislovodsk**	**53.11**	**316**	*i* Pr		12 18 59.4	
ASAJ	**Asahikawa**	**53.21**	**44**	P	**P**	**12 19 00.2**	**+0.3**
	comp=Z,38nm,1.0s,mb5.3,baz=250,slow=15,SNR=11						
ASAJ	**Asahikawa**	**53.21**	**44**	P	**P**	**12 19 00.3**	**+0.3**
ASAJ				pmax	pmax		
	comp=Z,38nm,1.0s						
GOF	**Gofitskoye**	**53.27**	**318**	*e*P	**P**	**12 19 00.0**	**-0.4**
GOF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
ASAR	**Alice Springs**	**53.90**	**131**	P	**P**	**12 19 04.2**	**-1.0**
	comp=Z,19nm,0.9s,mb5.0,baz=311,slow=7.3,SNR=56						
ASAR				PcP	PcP	12 20 10.2	-0.4
	comp=Z,7.9nm,1.1s,baz=319,slow=3.7,SNR=4.7						
ASAR				S	**S**	**12 26 34.7**	**-3.0**
	comp=Z,0.6nm,0.9s,baz=285,slow=24,SNR=3.5						
ELZG	**Elazig**	**54.16**	**309**	*i* P	**P**	**12 19 07.1**	**+0.2**
YSS	**Yuzh-Sakhalins**	**54.36**	**40**	*e*P	**P**	**12 19 07.4**	**-0.9**
YSS				*e*	pP	12 19 14.0	-0.7
YSS				pmax	pmax		
	comp=Z,100nm,1.3s,mb5.6						
ASF	**Jabal al Asfar**	**54.64**	**301**	P	**P**	**12 19 10.0**	**-0.6**
	comp=Z,9.5nm,1.1s,mb4.8,baz=25,slow=4.7,SNR=5.3						
GZT	**Gaziantep**	**54.99**	**307**	*i* P	**P**	**12 19 12.8**	**-0.4**
SOC	**Sochi**	**55.01**	**315**	*e*P	**P**	**12 19 12.8**	**-0.4**
SOC				*e*S	**S**	**12 26 48.7**	**-3.7**
SOC				pmax	pmax		
	comp=Z,61nm,1.1s,mb5.5						
SOC				pmax	pmax		
	comp=N,18nm,0.9s						
SOC				pmax	pmax		
	comp=E,24nm,1.1s						
SOC				MLR	MLR		
	comp=Z,1µm,15.0s,MS5.0						
SOC				MLR	MLR		
	comp=N,984nm,18.0s,MS5.1						
SOC				MLR	MLR		
	comp=E,954nm,16.0s,MS5.1						
KAHT	**Ahir Dag**	**55.59**	**307**	*i* P	**P**	**12 19 17.2**	**-0.2**
COBT	**Iskenderun**	**55.86**	**306**	*i* P	**P**	**12 19 19.2**	**-0.2**
EIL	**Elat**	**56.02**	**298**	P	**P**	**12 19 19.7**	**-0.9**
	comp=E,6.0nm,0.8s,mb4.7,baz=100,slow=6.1,SNR=4.0						
EIL				pP	pP	12 19 26.4	-0.5
	comp=E,14nm,0.8s,baz=100,slow=5.3,SNR=7.8						
EIL	**Elat**	**56.02**	**298**	*e*P	**P**	**12 19 19.7**	**-1.0**
	comp=E,55nm,1.3s,mb5.4						
EIL				*e*	pP	12 19 26.1	-0.8
YAK	**Yakutsk**	**56.39**	**20**	*e*P	**P**	**12 19 20.9**	**-1.9**
YAK				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
YAK				pmax	pmax		
	comp=N,10.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.0s						
YAK	**Yakutsk**	**56.39**	**20**	*e*P	**P**	**12 19 21.1**	**-1.8**
	comp=E,50nm,0.8s,mb5.6						
YAK				*e*	pP	12 19 25.9	-3.3
KMBO	**Kilima Mbogo**	**56.53**	**260**	P	**P**	**12 19 24.9**	**+0.4**
	comp=E,4.0nm,0.9s,mb4.4,baz=45,slow=22,SNR=9.1						
KMBO				pP	pP	12 19 32.0	+1.1
	comp=E,6.7nm,0.8s,baz=52,slow=11,SNR=11						
KMBO	**Kilima Mbogo**	**56.53**	**260**	P	**P**	**12 19 24.9**	**+0.4**
KMBO				*PP	pP	12 19 32.0	+1.1
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KMBO				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ANN	**Anapa**	**56.95**	**316**	*e*	**P**	**12 19 28.7**	**+1.6**
AVNT	**Avonos**	**57.37**	**308**	*i* P	**P**	**12 19 29.1**	**-1.1**
CTKT	**Corum**	**57.79**	**310**	*i* P	**P**	**12 19 32.2**	**-0.9**
BOYT	**Boyabat**	**57.88**	**311**	*i* P	**P**	**12 19 32.5**	**-1.2**
CSS	**Prodhromos**	**57.97**	**304**	P	**P**	**12 19 32.9**	**-1.5**
	comp=Z,29nm,1.1s,mb5.2						
PMG	**Port Moresby**	**58.32**	**109**	P	**P**	**12 19 36.5**	**-0.6**
	comp=Z,20nm,0.8s,mb5.2,baz=266,slow=7.5,SNR=4.9						
PMG	**Port Moresby**	**58.32**	**109**	P	**P**	**12 19 36.5**	**-0.6**
PMG				pmax	pmax		
	comp=Z,20nm,0.8s						
BRTR	**Keskin Array B**	**58.48**	**309**	P	**P**	**12 19 36.2**	**-1.6**
	comp=Z,7.7nm,0.9s,mb4.8,baz=124,slow=8.2,SNR=22						
BRTR				pP	pP	12 19 42.9	-1.4
	comp=Z,20nm,1.0s,baz=127,slow=6.2,SNR=17						
BRTR	**Keskin Array B**	**58.48**	**309**	P	**P**	**12 19 36.3**	**-1.6**
BRTR				*PP	pP	12 19 42.9	-1.4
BRTR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,20nm,1.0s						
ELDT	**Eldivan**	**58.78**	**310**	*i* P	**P**	**12 19 38.9**	**-1.2**
BALT	**Daday**	**59.02**	**311**	*i* P	**P**	**12 19 40.8**	**-0.9**
SIM	**Simferopol'**	**59.26**	**315**	*e*P	**P**	**12 19 43.0**	**-0.2**
SIM				pmax	pmax		
	comp=Z,62nm,1.0s,mb5.6						
SGKT	**Sivrigoynuk**	**59.83**	**310**	*i* P	**P**	**12 19 45.8**	**-1.5**
ESKT	**Eskisehir**	**60.57**	**309**	*i* P	**P**	**12 19 50.6**	**-1.8**
ISP	**Isparta**	**60.60**	**307**	⇓*e*P	**P**	**12 19 50.5**	**-2.0**
ISP	**Isparta**	**60.60**	**307**	*e*P	**P**	**12 19 50.6**	**-2.0**
	comp=Z,65nm,1.2s,mb5.6						
HENT	**Hendek**	**60.73**	**310**	*i* P	**P**	**12 19 51.4**	**-2.0**
OBN	**Obninsk**	**60.91**	**327**	⇑*e*P	**P**	**12 19 55.3**	**+0.9**
OBN				*e*		12 20 08.9	
OBN				*e*		12 20 37.1	
OBN				*e*S	**S**	**12 28 10.7**	**+1.3**
OBN				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.5						
OBN	**Obninsk**	**60.91**	**327**	*e*P	**P**	**12 19 53.0**	**-1.4**
	comp=Z,56nm,1.3s,mb5.5						
OBN				*e*	pP	12 20 00.3	-0.5
CTA	**Charters Tower**	**61.79**	**121**	P	**P**	**12 19 58.5**	**-2.4**
	comp=Z,14nm,1.2s,mb5.0,baz=270,slow=7.3,SNR=6.1						
CTA	**Charters Tower**	**61.79**	**121**	P	**P**	**12 19 58.5**	**-2.4**
CTA				pmax	pmax		
	comp=Z,14nm,1.2s						
CTA	**Charters Tower**	**61.79**	**121**	P	**P**	**12 19 58.5**	**-2.4**

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CTAO  Charters Tower    61.79 121    P         P        12 19 59.9  -1.0
      comp=Z,45nm,1.6s,mb5.3
ULDT  Uludag            61.96 309  i P         P        12 19 56.9  -4.8
MBAR  Mbarara           62.70 263 d iP         P        12 20 06.8  -0.2
MBAR  Mbarara           62.70 263  eP          P        12 20 06.9  -0.1
      comp=Z,43nm,1.4s,mb5.4
MBAR                               e           pP       12 20 13.3  -0.1
KDAG  Bornova           63.20 307  i P         P        12 20 06.4  -3.6
TIXI  Tiksi             63.28  12 ⇑eP          P        12 20 08.6  -1.5
TIXI                                 pmax      pmax
      comp=Z,58nm,1.2s,mb5.6
KIS   Kishinev          63.31 317  eP          P        12 20 15.0  +4.5
KIS                                e                    12 20 46.0
CFR   Carcaliu          63.45 314 ⇑iP          P        12 20 10.9  -0.6
CFR   Carcaliu          63.45 314 ⇑iP          P        12 20 10.9  -0.6
MA2   Magadan           63.65  29  eP          P        12 20 11.7  -0.9
MA2                                e                    12 22 31.0
MA2                                eS          S        12 28 43.4  -0.5
MA2                                  pmax      pmax
      comp=Z,30nm,1.0s,mb5.3
MA2                                  pmax      pmax
      comp=Z,30nm,0.9s,mb5.3
MA2   Magadan           63.65  29  eP          P        12 20 11.6  -1.0
      comp=Z,38nm,0.9s,mb5.4
AKASG Malin Array Be    63.82 321    P         P        12 20 12.3  -1.6
      comp=Z,5.1nm,0.7s,mb4.7,baz=88,slow=5.2,SNR=14
AKASG                                pP        pP       12 20 19.2  -1.1
      comp=Z,41nm,1.2s,baz=84,slow=4.8,SNR=9.1
AKASG Malin Array Be    63.82 321    P         P        12 20 12.3  -1.6
AKASG                                *PP       pP       12 20 19.2  -1.1
AKASG                                pmax      pmax
      comp=Z,5.0nm,0.7s
AKASG                                pmax      pmax
      comp=Z,41nm,1.2s
SKR   Severo-Kuril's    63.90  39  eP          P        12 20 11.0  -3.4
STKA  Stephens Creek    64.22 135    P         P        12 20 15.8  -1.0
      comp=Z,18nm,0.9s,mb5.1,baz=311,slow=7.5,SNR=16
STKA  Stephens Creek    64.22 135  eP          P        12 20 16.1  -0.7
VRI   Vrincioaia        64.54 315 ⇑iP          P        12 20 18.8  +0.2
VRI   Vrincioaia        64.54 315 ⇑iP          P        12 20 18.8  +0.1
ISR   Istrita           64.56 314 ⇑iP          P        12 20 25.5  +6.7
ISR   Istrita           64.56 314 ⇑iP          P        12 20 25.5  +6.7
IDI   Anoyia            64.89 303    P         P        12 20 20.3  -0.8
      comp=Z,8.4nm,0.9s,mb4.8,baz=60,slow=14,SNR=3.3
MLR   Muntele Rosu      65.03 315    P         P        12 20 21.7  -0.1
      comp=Z,22nm,0.9s,mb5.2,baz=66,slow=4.6,SNR=16
MLR   Muntele Rosu      65.03 315    P         P        12 20 21.7  -0.1
MLR                                  pmax      pmax
      comp=Z,23nm,0.9s
APA   Apatity           67.25 339 ⇓iP          P        12 20 36.8  +1.1
APA                                i           pP       12 20 42.3  +0.2
APA                                  pmax      pmax
      comp=Z,47nm,1.0s,mb5.5
KWP   Kalwaria          67.76 319  eP          P        12 20 39.3  +0.2
KOLS  Kolonicke sedl    67.95 318  eP          P        12 20 41.4  +1.0
SUW   Suwalki           68.11 323  eP          P        12 20 40.5  -0.7
SUW                                e           pP       12 20 46.9  -0.8
FINES FINESS Array B    68.17 332    P         P        12 20 41.5  +0.1
      comp=Z,12nm,0.8s,mb5.0,baz=102,slow=7.8,SNR=25
FINES                                pP        pP       12 20 47.4  -0.5
      comp=Z,15nm,0.7s,baz=92,slow=6.2,SNR=10
FINES FINESS Array B    68.17 332    P         P        12 20 41.6  +0.1
FINES                                *PP       pP       12 20 47.4  -0.5
FINES                                pmax      pmax
      comp=Z,12nm,0.8s
FINES                                pmax      pmax
      comp=Z,15nm,0.7s
CRVS  Cervenica-Dubn    68.48 318  eP          P        12 20 47.5  +3.8
KECS  Kecovo            69.08 317  eP          pP       12 20 53.5  -0.3
KECS  Kecovo            69.08 317  epP         pP       12 20 53.5  -0.3
NIE   Niedzica          69.28 318  eP          P        12 20 49.2  +0.6
LSZ   Lusaka            69.38 248  eP          P        12 20 50.2  +0.5
      comp=Z,32nm,0.9s,mb5.2
LSZ                                e           pP       12 20 57.3  +1.2
PSZ   Piszkesteto       69.43 317    P         P        12 20 49.8  +0.3
      comp=Z,30nm,1.1s,mb5.1
OJC   Ojcow             69.69 319  eP          P        12 20 50.8  -0.2
VYHS  Vyhne             70.18 317  eP          P        12 20 53.6  -0.5
VYHS                               e           pP       12 20 59.9  -0.6
ARCES ARCESS Array B    70.67 340    P         P        12 20 57.1  +0.4
      comp=Z,17nm,0.7s,mb5.1,baz=92,slow=4.8,SNR=32
ARCES                                pP        pP       12 21 03.1   0.0
      comp=Z,38nm,0.8s,baz=84,slow=6.9,SNR=17
ARE0  ARCESS Array S    70.67 340  eP          P        12 20 56.9  +0.2
ARE0                               e           pP       12 21 03.4  +0.3
OKC   Ostrava-Krasne    70.72 319  eP          P        12 20 57.3   0.0
OKC                                epP         pP       12 21 04.0  +0.2
MORC  Moravsky Berou    71.11 319  eP          P        12 20 59.5  -0.2
      comp=Z,21nm,1.0s,mb5.0
ZST   Bratislava        71.32 317  eP          P        12 21 00.6  -0.4
ZST                                epP         pP       12 21 07.5  +0.1
VRAC  Vranov            71.70 318    P         P        12 21 04.9  +1.7
      comp=Z,3.8nm,0.8s,mb4.3,baz=103,slow=7.5,SNR=3.9
VRAC  Vranov            71.70 318    P         P        12 21 04.9  +1.6
VRAC                                 pmax      pmax
      comp=Z,4.0nm,0.9s
DPC   Dobruska-Polom    71.92 319  eP          P        12 21 04.9  +0.3
KSP   Ksiaz             71.96 320  eP          P        12 21 05.2  +0.4
KSP                                epP         pP       12 21 11.3   0.0
KSP   Ksiaz             71.96 320  eP          P        12 21 05.7  +0.9
KSP                                e           pP       12 21 11.8  +0.5
UPC   Upice             72.13 319  eP          P        12 21 06.5  +0.7
UPC                                epP         pP       12 21 12.8  +0.6
ARSA  Arzberg           72.35 316 ⇓iP          P        12 21 14.9  +7.7
      comp=Z,17nm,1.1s,mb4.9
BILL  Bilibino          72.62  22 ⇑eP          P        12 21 07.9  -0.5
BILL                                 pmax      pmax
      comp=Z,35nm,1.9s,mb5.0
BILL  Bilibino          72.62  22 ⇑eP          P        12 21 07.0  -1.4
TRO   Tromso            72.93 339  eP          P        12 21 08.7  -1.4
TRO                                epP         pP       12 21 16.1  -0.5
TRO                                  AMb       AMB      12 21 19.3
      comp=Z,98nm,1.7s,mb5.5
TRO   Tromso            72.93 339  eP          P        12 21 08.7  -1.4
      comp=Z,98nm,1.7s,mb5.5
PVCC  Panska Ves        73.05 319  eP          P        12 21 17.7  +6.5
PRU   Pruhonice         73.06 319  eP          P        12 21 11.6  +0.3
PRU                                epP         pP       12 21 17.3  -0.4
BRG   Berggiesshubel    73.45 320  i P         P        12 21 14.1  +0.6
BRG                                i           pP       12 21 20.2  +0.2
BRG                                  pmax      pmax
      comp=Z,26nm,1.0s,mb5.1
BRG   Berggiesshubel    73.45 320  i P         P        12 21 14.1  +0.6
      comp=Z,26nm,1.0s,mb5.1
BRG                                i           pP       12 21 20.2  +0.2
RUE   Ruedersdorf       73.58 321  eP          P        12 21 14.8  +0.6
      comp=Z,57nm,0.8s,mb5.6
GEC2  GERESS Array S    73.59 317  eP          P        12 21 14.8  +0.4
GEC2                                 pmax      pmax
      comp=Z,12nm,0.9s,mb4.8
GEC2  GERESS Array S    73.59 317  eP          P        12 21 14.8  +0.4
      comp=Z,12nm,0.9s,mb4.8
GERES GERESS Array B    73.59 317    P         P        12 21 14.7  +0.3
      comp=Z,11nm,0.8s,mb4.8,baz=90,slow=5.3,SNR=26
GERES                                pP        pP       12 21 20.9  +0.1
      comp=Z,9.5nm,0.8s,baz=88,slow=5.5,SNR=14
GERES GERESS Array B    73.59 317    P         P        12 21 14.7  +0.3
GERES                                *PP       pP       12 21 20.9   0.0
GERES                                pmax      pmax
      comp=Z,11nm,0.8s
GERES                                pmax      pmax
      comp=Z,10.0nm,0.8s
KHC   Kasperske Hory    73.67 318  eP          P        12 21 14.8  -0.1
KHC                                epP         pP       12 21 21.1  -0.2
HFS   Hagfors           73.95 329    P         P        12 21 16.3  +0.1
      comp=Z,14nm,0.6s,mb5.1,baz=90,slow=4.4,SNR=18
HFS   Hagfors           73.95 329    P         P        12 21 16.3  +0.1
HFS                                  pmax      pmax
      comp=Z,14nm,0.6s
CLL   Collm             74.05 320 ⇓iP          P        12 21 17.5  +0.5
CLL                                i           sP       12 21 25.8  +0.1
CLL                                  pmax      pmax
      comp=Z,14nm,1.0s,mb4.8
CLL   Collm             74.05 320 ⇓iP          P        12 21 17.5  +0.5
      comp=Z,14nm,1.0s,mb4.8
CLL                                i           sP       12 21 25.8  +0.1
CLL   Collm             74.05 320  ⇓P          P        12 21 17.5  +0.5
      comp=Z,logA/T=1.1,mb4.8
CLL                                e*PP        pP       12 21 23.0  -0.5
CLL                                i *SP       sP       12 21 25.8  +0.1
CLL                                e                    12 21 34.0
MOR8  Moi Rana          74.10 336  eP          P        12 21 17.4  +0.4
MOR8                                 AMb       AMB      12 21 19.7
      comp=Z,64nm,1.0s,mb5.5
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MOR8                               epP         pP       12 21 23.8  +0.3
MOR8  Moi Rana          74.10 336  eP          P        12 21 17.4  +0.4
      comp=Z,64nm,1.0s,mb5.5
WET   Wettzell          74.13 318  eP          P        12 21 18.0  +0.5
NKC   Novy Kostel       74.41 319  eP          P        12 21 19.7  +0.6
COP   Copenhagen        74.44 325  eP          P        12 21 22.5  +3.3
COP                                  pmax      pmax
      comp=Z,34nm,1.1s,mb5.2
COP   Copenhagen        74.44 325  eP          P        12 21 22.5  +3.3
      comp=Z,34nm,1.1s,mb5.2
COP   Copenhagen        74.44 325  i P         P        12 21 22.5  +3.3
      comp=Z,34nm,1.1s,mb5.2
LOF   Lofoten           74.64 338  eP          P        12 21 23.2  +3.1
LOF                                  AMb       AMB      12 21 27.1
      comp=Z,84nm,1.8s,mb5.4
LOF   Lofoten           74.64 338  eP          P        12 21 23.2  +3.1
      comp=Z,84nm,1.8s,mb5.4
FX1   Attu Island--F    74.64  38    P         P        12 21 20.5  +0.2
      comp=Z,34nm,0.6s,mb5.5,baz=276,slow=23,SNR=7.3
FX1   Attu Island--F    74.64  38    P         P        12 21 20.5  +0.1
FX1                                  pmax      pmax
      comp=Z,34nm,0.6s
FX1   Attu Island--F    74.64  38  eP          P        12 21 20.2  -0.2
MOX   Moxa              74.93 319  eP          P        12 21 23.5  +1.4
MOX   Moxa              74.93 319  i P         P        12 21 23.5  +1.4
MOX                                i                    12 21 25.0
NSS   Namsos            75.00 334  eP          P        12 21 22.8  +0.6
NSS                                  AMb       AMB      12 21 28.9
      comp=Z,103nm,1.2s,mb5.6
NSS   Namsos            75.00 334  eP          P        12 21 22.8  +0.6
      comp=Z,103nm,1.2s,mb5.6
LBTB  Lobatse           75.06 240  eP          P        12 21 24.2  +0.8
      comp=Z,10nm,0.7s,mb4.9
LBTB                               e           pP       12 21 31.0  +1.1
GRA1  Grafenberg Arr    75.21 318  eP          P        12 21 25.9  +2.2
      comp=Z,13nm,0.8s,mb4.9
GRF   Grafenberg Arr    75.21 318  eP          P        12 21 25.9  +2.2
GRF                                  pmax      pmax
      comp=Z,13nm,0.8s,mb4.9
GRF   Grafenberg Arr    75.21 318  eP          P        12 21 25.9  +2.2
      comp=Z,13nm,0.8s,mb4.9
NB2   NORSAR Subarra    75.21 330    P         P        12 21 22.8  -0.7
      comp=Z,20nm,0.8s,mb5.1,baz=91,slow=5.8
NB2   NORSAR Subarra    75.21 330    P         P        12 21 22.8  -0.7
      baz=91,slow=5.9
NOA   NORSAR Array B    75.21 330    P         P        12 21 23.2  -0.3
      comp=Z,13nm,0.7s,mb5.0,baz=91,slow=5.7,SNR=28
NOA                                  pP        pP       12 21 29.8  -0.2
      comp=Z,12nm,0.7s,baz=96,slow=5.7,SNR=15
NOA   NORSAR Array B    75.21 330    P         P        12 21 23.2  -0.3
NOA                                  *PP       pP       12 21 29.8  -0.2
NOA                                  pmax      pmax
      comp=Z,13nm,0.7s
NOA                                  pmax      pmax
      comp=Z,12nm,0.7s
NOA   NORSAR Array B    75.21 330    P         P        12 21 23.2  -0.3
NOA                                  pP        pP       12 21 29.8  -0.2
FUR   Furstenfeldbru    75.22 317  eP          P        12 21 23.7  -0.1
MOTA  Moosalm           75.36 316 ⇓iP          P        12 21 25.4  +0.8
      comp=Z,6.8nm,0.7s,mb4.7
NAO01 NORSAR Array S    75.36 330  eP          P        12 21 24.1  -0.3
      comp=Z,22nm,0.8s,mb5.2
BSEG  Bad Segeberg      75.67 323  eP          P        12 21 27.0  +0.7
CLZ   Clausthal         75.69 321  eP          P        12 21 26.9  +0.5
      comp=Z,17nm,0.8s,mb5.0
DOMB  Dombas            76.25 331  eP          P        12 21 29.1  -0.3
DOMB                               epP         pP       12 21 36.2  +0.3
MUD   Monsted U'grnd    76.27 325  eP          P        12 21 31.3  +1.7
MUD                                  pmax      pmax
      comp=Z,29nm,0.7s,mb5.3
MUD   Monsted U'grnd    76.27 325  eP          P        12 21 31.3  +1.7
      comp=Z,29nm,0.7s,mb5.3
MUD   Monsted U'grnd    76.27 325  i P         P        12 21 31.3  +1.7
      comp=Z,29nm,0.7s,mb5.3
STU   Stuttgart         76.57 317  eP          P        12 21 33.2  +1.7
      comp=Z,25nm,1.0s,mb5.1
BOSA  Boshof            76.67 236  eP          P        12 21 33.3  +0.9
      comp=Z,32nm,0.9s,mb5.3
BOSA                               e           pP       12 21 39.8  +0.9
MOL   Molde             76.95 332  eP          P        12 21 36.0  +2.7
MOL                                  AMb       AMB      12 21 38.5
      comp=Z,68nm,1.3s,mb5.4
MOL                                esP         sP       12 21 42.7  +0.7
MOL   Molde             76.95 332  eP          P        12 21 36.0  +2.7
      comp=Z,68nm,1.3s,mb5.4
BFO   Black Forest      77.17 317  eP          P        12 21 34.7  -0.1
BFO                                  pmax      pmax
      comp=Z,4.0nm,0.9s,mb4.3
BFO   Black Forest      77.17 317  eP          P        12 21 34.7  -0.1
      comp=Z,4.0nm,0.9s,mb4.3
LPL   La Plagne         78.50 314  eP          P        12 21 43.0  +0.8
      comp=Z,93nm,0.8s,mb5.5
BNI   Bardonecchia      78.59 314  eP          P        12 21 43.1  +0.4
      comp=Z,47nm,1.2s,mb5.3
MAW   Mawson            82.50 191    P         P        12 22 03.9  +1.0
      comp=Z,3.8nm,0.9s,mb4.3,baz=280,slow=12,SNR=2.8
MAW   Mawson            82.50 191    P         P        12 22 03.9  +1.0
MAW                                  pmax      pmax
      comp=Z,4.0nm,0.9s
ANM   Nome              84.14  25  eP          P        12 22 12.5  +1.2
ESDC  Sonseca Array     87.27 310    P         P        12 22 27.9  +0.5
      comp=Z,10.0nm,1.1s,mb4.9,baz=52,slow=4.9,SNR=9.4
IMA   Indian Mountai    88.16  22  eP          P        12 22 32.2  +1.1
SYO   Syowa Base        89.12 197  ⇑P          P        12 22 37.2  +1.6
SYO   Syowa Base        89.12 197  ⇓PcP        PcP      12 22 39.5  +2.1
SPU   Mount Spurr       91.05  26  eP          P        12 22 45.6  +0.9
RSO   Redoubt South     91.08  27  eP          P        12 22 45.8  +0.9
ILAR  Eielson Array     91.28  22    P         P        12 22 45.2  -0.4
      comp=Z,8.7nm,0.8s,mb5.2,baz=299,slow=3.9,SNR=86
ILAR  Eielson Array     91.28  22    P         P        12 22 45.3  -0.4
ILAR                                 pmax      pmax
      comp=Z,9.0nm,0.8s
PWA   Palmer West       91.74  25  eP          P        12 22 49.0  +1.1
FIB   Fire Island       91.86  26  eP          P        12 22 49.9  +1.4
PMR   Palmer            92.08  25  eP          P        12 22 50.2  +0.7
SLKM  Skilak Lake       92.16  26  eP          P        12 22 50.1  +0.2
URZ   Urewera           93.22 128    P         P        12 22 55.0  -0.3
      comp=Z,13nm,0.8s,mb5.4,baz=41,slow=6.9,SNR=5.6
INK   Inuvik            93.22  16    P         P        12 22 54.3  -0.3
      comp=Z,10nm,1.0s,mb5.2,baz=342,slow=6.3,SNR=20
INK   Inuvik            93.22  16    P         P        12 22 54.3  -0.3
INK                                  pmax      pmax
      comp=Z,10.0nm,1.0s
MENT  Mentasta          93.47  22  eP          P        12 22 57.9  +2.1
DIV   Divide            93.70  24  eP          P        12 22 58.6  +1.7
      comp=Z,44nm,1.0s,mb5.8
VNDA  Vanda             97.49 168    P         P        12 23 13.9   0.0
      comp=Z,1.6nm,0.9s,mb4.5,baz=50,slow=2.5,SNR=3.7
VNDA  Vanda             97.49 168    P         P        12 23 13.9   0.0
VNDA                                 pmax      pmax
      comp=Z,2.0nm,0.9s
YKA   Yellowknife Ar   102.53  13    P         Pdif     12 23 36.5  -0.4
      comp=Z,0.7nm,0.7s,baz=328,slow=4.4,SNR=15
YKA                                  PKKPbc             12 39 36.5
      comp=Z,0.2nm,0.7s,baz=150,slow=2.5,SNR=4.4
PDAR  Pinedale Array   121.61  19    PKP       PKPdf    12 28 34.8  -2.8
      comp=Z,2.5nm,0.8s,baz=29,slow=1.7,SNR=19
NVAR  Mina Array Bea   121.89  28    PKP       PKPdf    12 28 36.3  -1.9
      comp=Z,5.2nm,0.8s,baz=8.1,slow=0.9,SNR=26
MTUM  Tungsten Hills   122.63  29    PKPdf     PKPdf    12 28 38.5  -1.1
MSU   Marysvale        124.44  24  ePKPdf      PKPdf    12 28 41.9  -1.3
MSU                                e                    12 28 49.0
PV10  Paradox Valley   125.72  21  ePKPdf      PKPdf    12 28 44.0  -1.6
NEN   Nelson           125.75  28  ePKPdf      PKPdf    12 28 44.1  -1.7
ANMO  Albuquerque      129.70  20    PKP       PKPdf    12 28 52.0  -1.4
      comp=Z,5.6nm,0.9s,baz=170,slow=0.2,SNR=20
MNTX  Cornudas Mount   133.03  21  ePKPdf      PKPdf    12 28 57.6  -2.2
TXAR  Lajitas Array    135.78  21    PKP       PKPdf    12 29 02.3  -2.7
      comp=Z,2.6nm,0.7s,baz=143,slow=0.2,SNR=4.6
TXAR                                 SKPbc              12 32 33.3
      comp=Z,6.1nm,1.0s,baz=315,slow=1.8,SNR=8.5
JCT   Junction City    135.88  15    PKPdf     PKPdf    12 29 03.0  -2.1
BDFB  Brasilia         141.67 260    PKhKP              12 29 09.7
      comp=Z,0.9nm,0.4s,baz=258,slow=19,SNR=2.0
BDFB  Brasilia         141.67 260    PKIKP     PKPdf    12 29 09.7  -6.3
BDFB                                 pmax      pmax
      comp=Z,1.0nm,0.4s
TRQA  Tornquist        145.73 217  ePKPdf      PKPdf    12 29 19.9  -2.5
TEIG  Tepich           147.72   2  ePKPbc      PKPdf    12 29 25.9  -0.4
PCRV  Puerto La Cruz   148.26 314    PKP       PKPdf    12 29 22.9  -4.3
      comp=Z,18nm,1.1s,baz=180,slow=3.0,SNR=2.3
PCRV                                 PKPbc     PKPdf    12 29 27.7  +0.5
      comp=Z,24nm,1.0s,baz=44,slow=2.5,SNR=3.8
SDV   Santo Domingo    153.20 321    PKP       PKPdf    12 29 31.1  -3.6
      comp=Z,1.8nm,0.8s,baz=43,slow=8.9,SNR=2.9
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SDV                                  PKPbc     PKPdf    12 29 38.7  +4.0
      comp=Z,2.6nm,0.7s,baz=36,slow=5.6,SNR=3.5
ROSC  El Rosal         158.62 322    PKP       PKPdf    12 29 40.4  -1.6
      comp=Z,1.5nm,0.3s,slow=1.0,SNR=4.1
ROSC                                 PKPab     PKPab    12 30 15.7  +0.3
      comp=Z,3.7nm,0.4s,baz=98,slow=22,SNR=3.8
LVC   Limon Verde      159.60 237    PKP       PKPdf    12 29 41.6  -1.2
      comp=Z,1.6nm,0.9s,baz=274,slow=8.5,SNR=3.1
LPAZ  La Paz           160.91 256    PKP       PKPdf    12 29 42.9  -1.4
      comp=Z,1.4nm,0.8s,baz=40,slow=8.1,SNR=3.7
LPAZ                                 PKPab     PKPab    12 30 25.3  +0.2
      comp=Z,2.4nm,0.8s,baz=82,slow=7.8,SNR=3.2
LPAZ  La Paz           160.91 256    PKIKP     PKPdf    12 29 42.9  -1.3
LPAZ                                                    12 30 25.3
LPAZ                                 pmax      pmax
      comp=Z,1.0nm,0.8s
LPAZ                                 pmax      pmax
      comp=Z,2.0nm,0.8s
LPAZ  La Paz           160.91 256    PKP       PKPdf    12 29 42.9  -1.4
LPAZ                                 PKPab     PKPab    12 30 25.3  +0.2
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IDC ***26*** *12:11:53.5±0.4, 11.57N×92.37E, mb5.1/28, mb1 5.1/28, mb1mx5.1/31, Error ellipse: s-maj=19.7km s-min=10.5km az=49.0*

BJI ***26*** *12:11:56.0, 11.39N×92.37E, h38^{km}, mB5.6, mb5.3, Ms5.1, Msz5.0*

MOS ***26*** *12:11:57.1±1.1, 11.62N×92.39E, h33^{km}, mb5.5/40, Error ellipse: s-maj=11.7km s-min=6.5km az=118.4*

NEIC ***26*** *12:11:57.7±0.2, 11.57N×92.41E, mb5.4/44, Error ellipse: s-maj=6.2km s-min=4.7km az=51.0*

SYO ***26*** *12:11:58.5, 11.54N×92.42E, h30^{km}, MB5.5*

ISC 26 12:11:56.0±0.2**, 11.56N**±0.04×**92.42E**±0.03**, h26^{km}, h26^{km}**±.4^{km}**:pP-P, n290,** σ1^{s}01/216**, mb5.2**/82**, MS5.0**/4**, 7C-9D, Andaman Islands region**

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Code  Station Name       Δ°    AZ°    Phase ID               Time      Res
                                   Op          ISC        h  m  s     ISC
CMAR  Chiang Mai Arr     9.31  42    Pn        P        12 14 16.6  +4.8
      5.9nm,0.3s,baz=236,slow=15,SNR=4.8
VIS   Vishakhapatnam    10.72 306  eP          P        12 14 27.6  -3.6
VIS                                e                    12 16 15.1
VIS                                e           S        12 16 18.3   -13
      comp=N,676nm,0.6s
VIS                                e                    12 16 18.4
      comp=E,735nm,0.7s
MDRS  Chennai           11.99 278  eP          P        12 14 51.2  +2.7
MDRS                               e           S        12 16 45.7   -17
BOK   Bokaro            13.67 334  eP          P        12 15 03.3  -7.4
SHL   Shillong          13.95 358  eP          P        12 15 05.8  -8.6
BLSP  Bilaspur          14.40 318  eP          P        12 15 21.2  +0.8
BLSP                               e           S        12 18 19.5   +20
TRD   Trivandrum        15.52 260  e           P        12 15 35.9  +0.8
      comp=Z,108nm,1.3s
TRD                                eP                   12 15 40.6
KMI   Kunming           16.66  35    P         P        12 15 51.0  +1.5
KMI                                  AP                 12 15 54.0
KMI                                  PP        PP       12 16 05.0  +1.7
KMI                                  AMB       AMB
      comp=Z,61nm,1.2s
ALBI  Allahabad         16.97 325  e           P        12 16 00.7  +7.3
MNGI  Mangalore         17.25 276  eP          P        12 16 01.0  +3.9
AKL   Akola             17.36 304  eP          P        12 16 00.2  +1.9
AKL                                e                    12 16 06.7
      comp=Z,156nm,1.2s
QIZ   Qiongzhong        18.37  64    P         P        12 16 13.0  +2.1
BHPL  Bhopal            18.41 311  eP          P        12 16 10.9  -0.5
BHPL                               e                    12 16 22.9
      comp=Z,192nm,1.8s
GOA   Goa               18.50 284  e                    12 16 24.4
KAD   Karad             18.56 290  eP          P        12 16 15.6  +2.3
KAD                                e                    12 16 17.8
      comp=Z,109nm,1.4s
POO   Poona             19.22 293  eP          P        12 16 20.0  -1.0
POO                                e                    12 16 23.1
      comp=Z,129nm,1.9s
GYA   Guiyang           20.00  40 ⇑iP          P        12 16 29.5  -0.3
GYA                                  AP                 12 16 34.3
GYA                                  AMB       AMB
      comp=Z,110nm,0.6s
GYA                                  AMB       AMB
      comp=Z,970nm,3.8s
GYA                                  LR        LR
      comp=N,3µm,16.4s
GYA                                  LR        LR
      comp=E,2µm,15.8s
GYA                                  LR        LR
      comp=Z,5µm,16.0s
BOM   Bombay            20.26 293  eP          P        12 16 33.4  +0.8
CD2   Chengdu           21.94  27 ⇓iP          P        12 16 49.5   0.0
CD2                                  AMB       AMB
      comp=Z,430nm,0.7s,mb6.0
NDI   New Delhi         22.19 322  eP          P        12 16 52.8  +0.8
AJM   Ajmer             22.38 314  eP          P        12 16 55.4  +1.6
AJM                                e                    12 17 03.0
      comp=Z,212nm,1.2s
KHET  Khetri            22.63 319  eP          P        12 16 59.1  +2.7
KHET                               e                    12 17 08.8
      comp=Z,172nm,2.3s
KLP   Kalpa             23.80 329  eP          P        12 17 08.8  +1.0
KLP                                e                    12 17 17.3
      comp=Z,146nm,1.3s
COCO  West Island       24.00 169    P         P        12 17 09.2  -0.6
      comp=Z,274nm,1.1s,mb5.6
ENH   Enshi             24.45  38 ⇓iP          P        12 17 13.9  -0.2
      comp=Z,202nm,0.6s,mb5.7
BHJ   Bhuj              24.60 301  eP          P        12 17 16.5  +0.8
BHJ                                e                    12 17 33.9
      comp=Z,109nm,1.7s
DLH   Dalhousie         25.79 327  e           P        12 17 35.0  +8.2
LZH   Lanzhou           26.52  21  ⇑P          P        12 17 34.3  +0.8
LZH                                eS          S        12 22 06.0  +1.9
LZH                                  SS        SS       12 23 17.0  +2.1
LZH                                  AMB       AMB
      comp=Z,90nm,1.1s,mb5.2
LZH                                  AMB       AMB
      comp=Z,1µm,8.3s
LZH                                  LR        LR
      comp=E,3µm,13.2s
LZH                                  LR        LR
      comp=Z,5µm,16.9s,MS5.1
QZH   Quanzhou          28.13  58    P         P        12 17 48.8  +0.6
QZH                                  AMB       AMB
      comp=Z,60nm,0.6s,mb5.4
GTA   Gaotai            28.51  12    P         P        12 17 52.8  +1.3
GTA                                  SCS       ScS      12 28 35.0  +2.0
GTA                                  AMB       AMB
      comp=Z,36nm,1.1s,mb5.0
GTA                                  AMB       AMB
      comp=Z,977nm,9.5s
GTA                                  LR        LR
      comp=N,1µm,20.5s,MS4.8
GTA                                  LR        LR
      comp=E,2µm,15.6s,MS4.8
GTA                                  LR        LR
      comp=Z,4µm,16.7s,MS5.1
NJ2   Nanjing           31.76  46  eP          P        12 18 20.5   0.0
NJ2                                  AP        pP       12 18 29.5  +1.4
NJ2                                  XP        sP       12 18 34.0  +2.6
NJ2                                  S         S        12 23 32.0  +4.4
NJ2                                  XS                 12 23 48.0
NJ2                                  AMB       AMB
      comp=Z,2µm,5.2s
WMQ   Urumqi            32.41 354  ⇓P          P        12 18 27.0  +1.0
WMQ                                  AP        pP       12 18 31.5  -2.1
WMQ                                  PP        PP       12 19 35.0  +0.8
WMQ                                  PPP       PPP      12 19 50.3  +0.7
WMQ                                eS          S        12 23 39.5  +1.9
WMQ                                  AMB       AMB
      comp=Z,32nm,1.0s,mb5.1
WMQ                                  AMB       AMB
      comp=Z,2µm,9.9s
WMQ                                  LR        LR
      comp=N,2µm,20.9s,MS5.0
WMQ                                  LR        LR
      comp=E,3µm,20.5s,MS5.0
WMQ                                  LR        LR
      comp=Z,2µm,20.1s,MS4.8
BTO   Baotou            32.84  25  eP          P        12 18 29.0  -0.7
SSE   Sheshan           32.94  49  eP          P        12 18 29.5  -1.3
SSE                                  AMB       AMB
      comp=Z,44nm,0.7s,mb5.5
SSE                                  AMB       AMB
      comp=Z,1µm,10.5s
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TIA   Tai'an             33.17  38 eP     P      12 18 32.3 -0.4
HHC   Hu-ho-hao-te       33.70  27 ⇓P     P      12 18 37.3 +0.1
HHC                                AMB    AMB
      comp=Z,131nm,0.7s,mb6.0
HHC                                AMB    AMB
      comp=Z,3µm,10.5s
HHC                                LR     LR
      comp=N,2µm,15.5s,MS5.0
HHC                                LR     LR
      comp=E,1µm,16.7s,MS5.0
HHC                                LR     LR
      comp=Z,4µm,14.3s,MS5.3
BJT   Baijiatuau         35.28  32 eP     P      12 18 51.7 +0.8
      comp=Z,48nm,0.6s,mb5.6
BJI   Beijing            35.30  32 P      P      12 18 51.5 +0.5
BJI                                AMB    AMB
      comp=Z,95nm,0.7s,mb5.8
DL2   Dalian             37.64  39 P      P      12 19 11.5 +0.8
DL2                                AMB    AMB
      comp=Z,30nm,0.7s,mb5.1
SONM  Songino Array      38.02  15 P      P      12 19 12.7 -1.1
      comp=Z,19nm,0.7s,mb5.0,baz=206,slow=6.9,SNR=21
SONM                               PcP    PcP    12 21 29.5 -0.1
      comp=Z,6.9nm,0.7s,baz=200,slow=3.6,SNR=4.5
SONM  Songino Array      38.02  15 P      pP     12 19 21.9 +0.4
      comp=Z,14nm,0.8s,baz=211,slow=7.2,SNR=7.6
ULN   Ulaanbaatar        38.22  16 eP     P      12 19 14.2 -1.4
      comp=Z,14nm,0.6s,mb4.9
SNY   Shenyang           40.62  36 ⇓P     P      12 19 35.5  0.0
SNY                                AMB    AMB
      comp=Z,50nm,1.4s,mb5.0
KS15  Wonju Array Si     40.91  45 eP     P      12 19 37.9  0.0
TLY   Talaya             41.04  11 eP     P      12 19 40.3 +1.5
MBWA  Marble Bar         42.16 140 eP     P      12 19 47.8 -0.6
      comp=Z,135nm,1.2s,mb5.5
MBWA                               e      pP     12 19 55.3 -0.8
ZAL   Zalesovo           42.71 353 P      P      12 19 51.7 -0.8
      comp=Z,17nm,0.8s,mb4.8,baz=296,slow=7.1,SNR=10
ZAL   Zalesovo           42.71 353 P      pP     12 20 00.0 -0.2
      comp=Z,11nm,0.7s,baz=332,slow=4.4,SNR=5.3
ZAL   Zalesovo           42.71 353 P      P      12 19 51.7 -0.8
ZAL                                pmax   pmax
      comp=Z,17nm,0.8s
ZAL   Zalesovo           42.71 353 P      P      12 19 51.7 -0.8
CN2   Changchun          42.93  35 ⇓P     P      12 19 54.8 +0.4
CN2                                AMB    AMB
      comp=Z,140nm,0.8s,mb5.7
HIA   Hailar             43.89  26 eP     P      12 20 01.7 -0.4
QRN   Al-Qurain          44.85 299 eP     pP     12 20 18.0 +0.1
BVAR  Borovoye Array     44.98 341 P      P      12 20 09.8 -1.1
      comp=Z,13nm,0.6s,mb4.9,baz=137,slow=9.0,SNR=10
BVAR                               PcP    PcP    12 21 51.7 -0.6
      comp=Z,5.6nm,0.7s,baz=153,slow=3.2,SNR=3.7
BVAR  Borovoye Array     44.98 341 P      pP     12 20 18.3 -0.3
      comp=Z,3.7nm,0.5s,baz=145,slow=9.3,SNR=5.0
BRVK  Borovoye           45.04 341 P      P      12 20 10.6 -0.8
      comp=Z,18nm,0.6s,mb5.1
RDF   Al-Radifah         45.20 299 eP     pP     12 20 21.4 +0.7
RDF                                AMb    AMB    12 20 22.5
      comp=Z,194nm,0.5s,mb6.2
CHKZ  Chkalovo           45.47 342 eP     P      12 20 15.1 +0.4
CHKZ                               pmax   pmax
      comp=Z,82nm,0.7s,mb5.7
CHKZ  Chkalovo           45.47 342 eP     P      12 20 15.1 +0.4
      comp=Z,82nm,0.6s,mb5.7
RST   Umm Al-Ruwaisa     45.80 300 eP     pP     12 20 25.8 +0.3
RST                                AMb    AMB    12 20 27.0
      comp=Z,142nm,1.3s,mb5.7
MDJ   Mudanjiang         45.81  37 P      P      12 20 17.0 -0.6
MDJ                                AMB    AMB
      comp=Z,11nm,1.7s,mb4.5
MZLS  Mizel              46.43 292 P      pP     12 20 31.7 +1.2
MAT   Matsushiro         48.06  51 P      P      12 20 35.7 +0.3
MAT   Matsushiro         48.06  51 eP     P      12 20 36.0 +0.6
      comp=Z,70nm,1.4s,mb5.5
AFFS  'Afif              48.42 292 P      pP     12 20 47.6 +1.3
ARSS  Ar Rass            48.44 294 P      pP     12 20 46.8 +0.4
BOD   Bodaibo            49.02  15 eP     P      12 20 40.7 -1.8
HILS  Ha'il              49.92 296 P      pP     12 20 59.0 +1.2
NWAO  Narrogin (SRO)     50.18 153 P      P      12 20 50.7 -1.1
      comp=Z,20nm,0.7s,mb5.2,baz=313,slow=9.7,SNR=8.6
NWAO                               PcP    PcP    12 22 10.7 -0.4
      comp=Z,12nm,0.9s,baz=99,slow=3.2,SNR=2.4
NWAO  Narrogin (SRO)     50.18 153 P      P      12 20 50.7 -1.1
NWAO                                             12 22 10.7
NWAO                               pmax   pmax
      comp=Z,20nm,0.7s
NWAO                               pmax   pmax
      comp=Z,12nm,0.9s
NWAO  Narrogin (SRO)     50.18 153 eP     P      12 20 50.8 -0.9
      comp=Z,11nm,0.7s,mb5.0
GNI   Garni              50.68 313 P      P      12 20 53.7 -1.8
      comp=Z,13nm,0.9s,mb4.9,baz=180,slow=12,SNR=2.4
GNI   Garni              50.68 313 P      pP     12 21 04.1 +0.7
      comp=Z,36nm,0.7s,baz=18,slow=4.5,SNR=4.8
GNI   Garni              50.68 313 P      P      12 20 53.7 -1.8
GNI                                pmax   pmax
      comp=Z,13nm,0.9s
WRA   Warramunga Arr     51.79 127 P      P      12 21 02.8 -1.4
      comp=Z,65nm,0.6s,mb5.8,baz=306,slow=8.4,SNR=70
WRA                                PcP    PcP    12 22 17.1 -0.1
      comp=Z,2.4nm,0.6s,baz=301,slow=3.6,SNR=2.9
WRA   Warramunga Arr     51.79 127 PcP    PcP    12 22 25.4 +8.2
      comp=Z,4.9nm,0.5s,baz=315,slow=3.0,SNR=5.4
WRA   Warramunga Arr     51.79 127 P      P      12 21 02.8 -1.4
WRA                                              12 22 17.1
WRA                                pmax   pmax
      comp=Z,65nm,0.6s
WRA                                pmax   pmax
      comp=Z,2.0nm,0.6s
ARU   Arti               51.86 337 eP     P      12 21 03.6 -0.6
KBRS  Khaybar            51.98 294 P      pP     12 21 14.8 +1.3
ZEI   Tsey               52.22 316 eP     P      12 21 04.5 -2.6
ZEI                                pmax   pmax
      comp=Z,19nm,0.9s,mb5.0
YNBS  Yanbu' al Bahr     53.02 292 P      pP     12 21 22.2 +1.0
KIV   Kislovodsk         53.48 317 eP     P      12 21 16.4  0.0
KIV                                pmax   pmax
      comp=Z,104nm,1.0s,mb5.7
KIV   Kislovodsk         53.48 317 eP     P      12 21 16.8 +0.3
      comp=Z,116nm,1.3s,mb5.7
KIV                                e      pP     12 21 24.6 +0.2
ASAR  Alice Springs      53.58 131 P      P      12 21 16.5 -0.9
      comp=Z,18nm,0.5s,mb5.2,baz=306,slow=6.9,SNR=25
GOF   Gofitskoye         53.66 318⇓iP     pP     12 21 25.5 -0.2
GOF                                pmax   pmax
      comp=Z,40nm,1.3s,mb5.2
UMJS  Umm Lajj           53.69 293 P      pP     12 21 27.8 +1.6
ASAJ  Asahikawa          53.84  43 P      P      12 21 18.9 -0.1
      comp=Z,16nm,0.6s,mb5.1,baz=246,slow=7.1,SNR=6.8
ASAJ                               PcP    PcP    12 22 24.3 -0.2
      comp=Z,6.1nm,0.6s,baz=148,slow=29,SNR=1.9
ASAJ  Asahikawa          53.84  43 P      P      12 21 18.9 -0.1
ASAJ                                             12 22 24.3
ASAJ                               pmax   pmax
      comp=Z,16nm,0.6s
ASAJ                               pmax   pmax
      comp=Z,6.0nm,0.6s
TBKS  Tabuk              54.63 296 P      pP     12 21 34.1 +1.0
YSS   Yuzh-Sakhalins     55.01  40⇑iP     P      12 21 27.0 -0.6
YSS                                e      pP     12 21 34.0 -1.5
JMQS  Jabal Moqyreh      55.29 297 P      pP     12 21 38.4 +0.6
EIL   Elat               56.17 298 P      P      12 21 35.7 -0.6
      comp=Z,3.6nm,0.5s,mb4.7,baz=107,slow=5.5,SNR=4.5
EIL   Elat               56.17 298 P      pP     12 21 43.7 -0.5
      comp=Z,17nm,0.6s,baz=103,slow=3.6,SNR=8.5
EIL   Elat               56.17 298 eP     P      12 21 36.2 -0.1
      comp=Z,21nm,0.7s,mb5.3
EIL                                i      pP     12 21 44.1 -0.1
KMBO  Kilima Mbogo       56.24 261 P      pP     12 21 45.5 +0.7
      comp=Z,4.3nm,0.7s,baz=48,slow=11,SNR=6.3
KMBO  Kilima Mbogo       56.24 261 P      pP     12 21 45.5 +0.6
KMBO                               pmax   pmax
      comp=Z,4.0nm,0.7s
KMBO  Kilima Mbogo       56.24 261 eP     pP     12 21 45.7 +0.9
YAK   Yakutsk            57.10  20 eP     P      12 21 40.9 -1.5
YAK                                pmax   pmax
      comp=Z,51nm,0.6s,mb5.7
YAK   Yakutsk            57.10  20 eP     P      12 21 40.9 -1.5
      comp=Z,51nm,0.6s,mb5.7
PMG   Port Moresby       58.27 109 P      P      12 21 51.3  0.0
      comp=Z,61nm,0.5s,mb5.9,baz=58,slow=3.0,SNR=43
PMG   Port Moresby       58.27 109 P      P      12 21 51.2 -0.1
PMG                                pmax   pmax
      comp=Z,69nm,0.7s
PMG   Port Moresby       58.27 109 eP     P      12 21 51.0 -0.2
      comp=Z,69nm,0.6s,mb5.9
BRTR  Keskin Array B     58.77 310 P      P      12 21 53.0 -1.5
      comp=Z,4.7nm,0.8s,mb4.6,baz=130,slow=6.9,SNR=4.5
BRTR  Keskin Array B     58.77 310 P      pP     12 22 00.6 -1.9
      comp=Z,41nm,1.1s,baz=128,slow=6.3,SNR=14
BRTR  Keskin Array B     58.77 310 P      P      12 21 53.0 -1.4
BRTR                               pmax   pmax
      comp=Z,5.0nm,0.8s
ISP   Isparta            60.86 307 eP     pP     12 22 15.0 -1.9
ISP                                pmax   pmax
      comp=Z,45nm,1.3s,mb5.4
ISP   Isparta            60.86 307 P      P      12 22 07.1 -1.7
      comp=Z,45nm,1.3s,mb5.4
MOS   Moscow             61.07 328 eP     P      12 22 08.1 -1.9
MOS                                e      pP     12 22 17.0 -1.1
MOS                                e             12 22 54.4
MOS                                eS     S      12 30 22.2 -3.4
MOS                                pmax   pmax
      comp=Z,106nm,1.7s,mb5.7
OBN   Obninsk            61.38 327 eP     P      12 22 10.9 -1.2
OBN                                i      pP     12 22 19.4 -0.8
OBN                                pmax   pmax
      comp=Z,77nm,1.4s,mb5.6
OBN   Obninsk            61.38 327 eP     P      12 22 11.1 -1.0
      comp=Z,13nm,0.5s,mb5.3
OBN                                e      pP     12 22 19.9 -0.3
CTA   Charters Tower     61.60 120 P      P      12 22 13.8 -0.2
      comp=Z,18nm,0.9s,mb5.2,baz=296,slow=6.1,SNR=9.1
CTA   Charters Tower     61.60 120 P      P      12 22 13.8 -0.3
CTA                                pmax   pmax
      comp=Z,18nm,0.9s
CTA   Charters Tower     61.60 120 P      P      12 22 13.8 -0.2
CTAO  Charters Tower     61.60 120 eP     P      12 22 13.9 -0.2
CTAO                               pmax   pmax
      comp=Z,65nm,1.3s,mb5.6
CTAO  Charters Tower     61.60 120 eP     P      12 22 13.9 -0.2
      comp=Z,65nm,1.4s,mb5.6
MBAR  Mbarara            62.43 263 eP     P      12 22 20.7 +1.0
MBAR  Mbarara            62.43 263 eP     P      12 22 19.3 -0.4
      comp=Z,28nm,1.4s,mb5.2
MBAR                               e      pP     12 22 27.9 +0.1
KIS   Kishinev           63.68 317 eP     P      12 22 25.0 -2.5
KIS                                e      pP     12 22 35.0 -0.6
STKA  Stephens Creek     63.87 134 P      P      12 22 28.5 -0.5
      comp=Z,29nm,0.8s,mb5.3,baz=318,slow=7.1,SNR=11
STKA  Stephens Creek     63.87 134 eP     P      12 22 28.3 -0.8
AKASG Malin Array Be     64.24 321 P      P      12 22 29.1 -1.9
      comp=Z,17nm,0.9s,mb5.1,baz=88,slow=4.9,SNR=10
AKASG Malin Array Be     64.24 321 P      pP     12 22 37.5 -1.7
      comp=Z,20nm,0.8s,baz=88,slow=4.5,SNR=14
AKASG Malin Array Be     64.24 321 P      P      12 22 29.2 -1.9
AKASG                              pmax   pmax
      comp=Z,17nm,0.9s
MA2   Magadan            64.34  29 eP     P      12 22 30.9 -0.7
MA2                                pmax   pmax
      comp=Z,35nm,0.9s,mb5.4
MA2   Magadan            64.34  29 eP     P      12 22 30.9 -0.7
      comp=Z,35nm,0.8s,mb5.4
IDI   Anoyia             65.11 304 P      P      12 22 36.1 -0.9
      comp=Z,9.1nm,0.8s,mb4.9,baz=45,slow=8.6,SNR=3.9
IDI   Anoyia             65.11 304 P      pP     12 22 44.2 -0.9
      comp=Z,18nm,0.7s,baz=84,slow=8.9,SNR=5.9
MLR   Muntele Rosu       65.38 315 P      P      12 22 38.2 -0.4
      comp=Z,25nm,0.9s,mb5.3,baz=152,slow=0.7,SNR=5.5
MLR   Muntele Rosu       65.38 315 P      pP     12 22 46.4 -0.2
      comp=Z,61nm,0.9s,baz=132,slow=3.1,SNR=9.5
MLR   Muntele Rosu       65.38 315 P      P      12 22 38.2 -0.4
MLR                                pmax   pmax
      comp=Z,25nm,0.9s
KWP   Kalwaria           68.15 319 eP     P      12 22 56.0 -0.1
KWP                                e      pP     12 23 03.5 -0.7
KOLS  Kolonicke sedl     68.34 318 eP     P      12 22 56.6 -0.7
KOLS                               epP    pP     12 23 05.1 -0.2
SUW   Suwalki            68.55 324 eP     P      12 22 57.4 -1.1
SUW                                e      pP     12 23 06.0 -0.5
FINES FINESS Array B     68.68 332 P      P      12 22 58.7 -0.5
      comp=Z,20nm,0.6s,mb5.2,baz=104,slow=7.5,SNR=22
FINES FINESS Array B     68.68 332 P      pP     12 23 06.7 -0.6
      comp=Z,30nm,0.5s,baz=101,slow=7.1,SNR=38
FINES FINESS Array B     68.68 332 P      P      12 22 58.7 -0.5
FINES                              pmax   pmax
      comp=Z,20nm,0.6s
FINES FINESS Array B     68.68 332 P      P      12 22 58.7 -0.5
KAF   Kangasniemi        68.76 333 ep     P      12 22 59.1 -0.5
      comp=Z,12nm,0.6s,mb5.0
KAF   Kangasniemi        68.76 333 eP     P      12 22 59.1 -0.5
KAF                                pmax   pmax
      comp=Z,12nm,0.6s,mb5.0
CRVS  Cervenica-Dubn     68.87 318 eP     P      12 23 01.0 +0.5
CRVS                               epP    pP     12 23 10.0 +1.4
LSZ   Lusaka             68.96 249 eP     P      12 23 01.6  0.0
      comp=Z,20nm,0.9s,mb5.0
LSZ                                e      pP     12 23 10.3 +0.6
KECS  Kecovo             69.46 318 eP     P      12 23 02.2 -2.0
KECS                               esP    sP     12 23 12.2 -3.0
NIE   Niedzica           69.67 318 eP     P      12 23 05.8 +0.4
PSZ   Piszkesteto        69.80 317 eP     P      12 23 06.1 -0.2
PSZ                                pmax   pmax
      comp=Z,47nm,1.3s,mb5.3
PSZ   Piszkesteto        69.80 317 eP     P      12 23 05.8 -0.5
      comp=Z,47nm,1.3s,mb5.3
PSZ                                e      pP     12 23 13.7 -0.6
OJC   Ojcow              70.09 319 eP     P      12 23 07.4 -0.6
OJC                                ePcP   pP     12 23 15.9 -0.1
VYHS  Vyhne              70.56 317 i P    P      12 23 10.2 -0.7
VYHS                               epP    pP     12 23 18.4 -0.5
KEV   Kevo               70.82 340 ep     P      12 23 11.5 -0.6
      comp=Z,19nm,0.6s,mb5.2
KEV   Kevo               70.82 340 eP     P      12 23 11.5 -0.6
KEV                                pmax   pmax
      comp=Z,19nm,0.6s,mb5.2
SRO   Srobarova          70.86 317 eP     pP     12 23 21.1 +0.3
SRO   Srobarova          70.86 317 esP    pP     12 23 21.1 +0.3
OKC   Ostrava-Krasne     71.11 319 eP     P      12 23 14.0 -0.2
OKC                                epP    pP     12 23 21.6 -0.7
ARCES ARCESS Array B     71.25 340 P      P      12 23 14.8 +0.1
      comp=Z,17nm,0.7s,mb5.1,baz=91,slow=6.3,SNR=14
ARCES ARCESS Array B     71.25 340 P      pP     12 23 22.7 -0.1
      comp=Z,24nm,0.5s,baz=90,slow=6.1,SNR=32
ARCES ARCESS Array B     71.25 340 P      P      12 23 14.8 +0.1
ARCES                              pmax   pmax
      comp=Z,17nm,0.7s
ARCES ARCESS Array B     71.25 340 P      P      12 23 14.8 +0.1
MORC  Moravsky Berou     71.50 319 eP     P      12 23 16.6 +0.1
MORC                               pmax   pmax
      comp=Z,38nm,1.0s,mb5.3
MORC  Moravsky Berou     71.50 319 eP     P      12 23 16.4 -0.1
      comp=Z,38nm,1.0s,mb5.3
MORC                               e      pP     12 23 24.1 -0.5
ZST   Bratislava         71.69 317 i P    P      12 23 17.6 -0.1
ZST                                epP    pP     12 23 25.6 -0.2
KTK1  Kautokeino         71.87 339 eP     P      12 23 19.2 +0.7
KTK1                               epP    pP     12 23 27.1 +0.6
VRAC  Vranov             72.09 318 P      P      12 23 19.3 -0.8
      comp=Z,3.8nm,0.8s,mb4.4,baz=72,slow=3.2,SNR=4.2
VRAC  Vranov             72.09 318 P      pP     12 23 27.6 -0.6
      comp=Z,5.7nm,0.7s,baz=106,slow=7.1,SNR=5.5
VRAC  Vranov             72.09 318 P      P      12 23 19.3 -0.7
VRAC                               pmax   pmax
      comp=Z,4.0nm,0.8s
DPC   Dobruska-Polom     72.32 319 eP     P      12 23 21.4  0.0
DPC                                epP    pP     12 23 29.6 +0.1
KSP   Ksiaz              72.37 320 eP     P      12 23 21.6 -0.1
KSP                                epP    pP     12 23 29.5 -0.3
KSP   Ksiaz              72.37 320 eP     P      12 23 21.7  0.0
KSP                                e      pP     12 23 30.1 +0.3
UPC   Upice              72.53 319 eP     P      12 23 23.2 +0.6
UPC                                epP    pP     12 23 30.1 -0.6
ARSA  Arzberg            72.72 316⇑iP     P      12 23 24.2 +0.4
      comp=Z,16nm,1.1s,mb4.8
BILL  Bilibino           73.33  22 eP     P      12 23 27.0 +0.1
BILL                               pmax   pmax
      comp=Z,11nm,0.6s,mb5.0
BILL  Bilibino           73.33  22 eP     P      12 23 26.6 -0.3
      comp=Z,11nm,0.6s,mb5.0
PVCC  Panska Ves         73.45 319 eP     P      12 23 27.7 -0.3
PVCC                               epP    pP     12 23 36.3 +0.2
PRU   Pruhonice          73.45 319 eP     P      12 23 28.0  0.0
PRU                                epP    pP     12 23 36.1 -0.1
BSD   Bornholm Skovb     73.46 324 eP     P      12 23 25.4 -2.6
BSD                                i      pP     12 23 34.8 -1.3
BSD                                pmax   pmax
      comp=Z,31nm,0.9s,mb5.2
BSD   Bornholm Skovb     73.46 324 eP     P      12 23 25.4 -2.6
      comp=Z,31nm,0.9s,mb5.2
BSD                                i      pP     12 23 34.8 -1.3
BSD   Bornholm Skovb     73.46 324 i P    P      12 23 25.4 -2.6
      comp=Z,31nm,0.9s,mb5.2
BSD                                i      pP     12 23 34.8 -1.3
TRO   Tromso             73.50 340 eP     P      12 23 26.7 -1.2
TRO                                epP    pP     12 23 34.9 -1.2
TRO                                AMb    AMB    12 23 35.4
      comp=Z,50nm,0.7s,mb5.6
TRO   Tromso             73.50 340 eP     P      12 23 26.7 -1.2
      comp=Z,50nm,0.7s,mb5.6
BRG   Berggiesshubel     73.86 320 eP     P      12 23 30.7 +0.3
BRG                                i      pP     12 23 38.6 +0.1
BRG                                pmax   pmax
      comp=Z,43nm,1.2s,mb5.2
BRG   Berggiesshubel     73.86 320 eP     P      12 23 30.7 +0.3
      comp=Z,43nm,1.1s,mb5.3
BRG                                i      pP     12 23 38.6 +0.1
GERES GERESS Array B     73.97 318 P      P      12 23 31.1  0.0
      comp=Z,9.8nm,0.7s,mb4.9,baz=84,slow=6.1,SNR=18
GERES GERESS Array B     73.97 318 P      pP     12 23 39.0 -0.2
      comp=Z,42nm,1.1s,baz=90,slow=5.3,SNR=15
GERES GERESS Array B     73.97 318 P      P      12 23 31.1  0.0
GERES                              pmax   pmax
      comp=Z,10.0nm,0.7s
KHC   Kasperske Hory     74.06 318 eP     P      12 23 31.2 -0.4
KHC                                epP    pP     12 23 39.4 -0.3
HFS   Hagfors            74.44 329 P      P      12 23 33.0 -0.6
      comp=Z,8.2nm,0.7s,mb4.8,baz=117,slow=6.6,SNR=5.6
HFS   Hagfors            74.44 329 P      pP     12 23 41.3 -0.4
      comp=Z,23nm,0.7s,baz=117,slow=6.6,SNR=19
HFS   Hagfors            74.44 329 P      P      12 23 33.0 -0.6
HFS                                pmax   pmax
      comp=Z,8.0nm,0.7s
CLL   Collm              74.46 320 i P    P      12 23 33.8  0.0
CLL                                i      pP     12 23 41.6 -0.4
CLL                                pmax   pmax
      comp=Z,34nm,1.5s,mb5.1
CLL   Collm              74.46 320 i P    P      12 23 33.8  0.0
      comp=Z,34nm,1.5s,mb5.1
CLL                                i      pP     12 23 41.6 -0.4
CLL   Collm              74.46 320 P      P      12 23 33.8  0.0
      comp=Z,logA/T=1.4,mb5.1
CLL                                i *PP  pP     12 23 41.6 -0.4
LBTB  Lobatse            74.56 240 eP     P      12 23 36.4 +1.4
LBTB                               pmax   pmax
      comp=Z,9.0nm,0.5s,mb5.0
LBTB  Lobatse            74.56 240 eP     P      12 23 36.1 +1.1
      comp=Z,22nm,0.6s,mb5.3
LBTB                               i      pP     12 23 44.4 +1.3
MOR8  Moi Rana           74.64 336 eP     P      12 23 34.2 -0.4
MOR8                               epP    pP     12 23 42.3 -0.5
MOR8                               AMb    AMB    12 23 45.5
      comp=Z,75nm,1.9s,mb5.3
MOR8  Moi Rana           74.64 336 eP     P      12 23 34.2 -0.4
      comp=Z,75nm,1.9s,mb5.3
NKC   Novy Kostel        74.80 319 eP     P      12 23 35.5 -0.3
NKC                                epP    pP     12 23 44.0  0.0
LOF   Lofoten            75.20 338 eP     P      12 23 39.0 +1.2
LOF                                epP    pP     12 23 47.5 +1.5
LOF                                AMb    AMB    12 23 51.2
      comp=Z,124nm,1.2s,mb5.7
LOF   Lofoten            75.20 338 eP     P      12 23 39.0 +1.2
      comp=Z,124nm,1.2s,mb5.7
FX1   Attu Island--F     75.30  38 P      P      12 23 39.1 +0.5
      comp=Z,38nm,0.6s,mb5.5,baz=309,slow=5.7,SNR=8.8
FX1   Attu Island--F     75.30  38 P      P      12 23 39.1 +0.5
FX1                                pmax   pmax
      comp=Z,38nm,0.6s
FX1   Attu Island--F     75.30  38 P      P      12 23 40.0 +1.4
MOX   Moxa               75.33 319 i P    P      12 23 39.4 +0.5
MOX   Moxa               75.33 319 eP     P      12 23 39.4 +0.5
WTTA  Wattenberg         75.37 316⇑iP     P      12 23 38.7 -0.5
      comp=Z,17nm,0.7s,mb5.1
NSS   Namsos             75.54 334 eP     P      12 23 39.0 -0.8
NSS                                epP    pP     12 23 46.4 -1.6
GRA1  Grafenberg Arr     75.60 319 eP     P      12 23 41.0 +0.6
      comp=Z,74nm,1.2s,mb5.5
GRA1                               epP    pP     12 23 48.8 +0.2
GRF   Grafenberg Arr     75.60 319 eP     P      12 23 41.0 +0.6
GRF                                e*PP   pP     12 23 48.8 +0.2
GRF                                pmax   pmax
      comp=Z,74nm,1.2s,mb5.5
GRF   Grafenberg Arr     75.60 319 eP     P      12 23 41.0 +0.6
      comp=Z,74nm,1.2s,mb5.5
GRF                                epP    pP     12 23 48.8 +0.2
NB2   NORSAR Subarra     75.71 330 P      P      12 23 39.9 -0.9
      comp=Z,12nm,0.6s,mb5.0,baz=94,slow=5.0
NB2   NORSAR Subarra     75.71 330 P      P      12 23 39.9 -0.9
      baz=94,slow=5.3
NOA   NORSAR Array B     75.71 330 P      P      12 23 40.3 -0.5
      comp=Z,4.8nm,0.9s,mb4.4,baz=97,slow=5.7,SNR=5.7
NOA   NORSAR Array B     75.71 330 P      pP     12 23 48.4 -0.6
      comp=Z,8.9nm,0.6s,baz=95,slow=5.4,SNR=14
NOA   NORSAR Array B     75.71 330 P      P      12 23 40.3 -0.5
NOA                                pmax   pmax
      comp=Z,5.0nm,0.9s
MOTA  Moosalm            75.73 316⇑iP     P      12 23 40.6 -0.6
      comp=Z,8.6nm,0.7s,mb4.8
BSEG  Bad Segeberg       76.11 323 eP     P      12 23 43.6 +0.4
BOSA  Boshof             76.14 237 eP     P      12 23 45.4 +1.5
BOSA                               pmax   pmax
      comp=Z,27nm,0.8s,mb5.2
BOSA  Boshof             76.14 237 eP     P      12 23 45.0 +1.1
      comp=Z,21nm,0.6s,mb5.2
BOSA                               e      pP     12 23 52.6 +0.6
DOMB  Dombas             76.76 331 eP     P      12 23 47.4 +0.7
DOMB                               epP    pP     12 23 54.9  0.0
MOL   Molde              77.47 332 eP     P      12 23 52.9 +2.3
MOL                                epP    pP     12 24 00.8 +2.0
BFO   Black Forest       77.55 317 eP     P      12 23 51.1 -0.3
BFO                                pmax   pmax
      comp=Z,31nm,1.2s,mb5.1
BFO   Black Forest       77.55 317 eP     P      12 23 51.1 -0.3
      comp=Z,31nm,1.2s,mb5.1
LPL   La Plagne          78.85 314 eP     P      12 23 58.7 +0.1
      comp=Z,124nm,0.8s,mb5.6
BNI   Bardonecchia       78.93 314 eP     P      12 24 02.0 +3.0
BNI                                pmax   pmax
      comp=Z,40nm,1.1s,mb5.3
BNI   Bardonecchia       78.93 314 P      P      12 23 58.5 -0.5
      comp=Z,40nm,1.1s,mb5.3
DZM   Mont Dzumac        79.87 115 eP     P      12 24 06.2 +1.6
SUR   Sutherland         81.05 234 eP     P      12 24 12.7 +2.1
      comp=Z,31nm,0.9s,mb5.2
SUR                                e      pP     12 24 21.0 +2.2
MAW   Mawson             81.79 191 P      P      12 24 14.7 +1.0
      comp=Z,7.2nm,0.7s,mb4.7,baz=6.6,slow=6.4,SNR=7.4
MAW   Mawson             81.79 191 P      P      12 24 14.7 +1.0
MAW                                pmax   pmax
      comp=Z,7.0nm,0.7s
ESDC  Sonseca Array      87.56 310 P      P      12 24 43.7 +0.3
      comp=Z,3.0nm,0.7s,mb4.7,baz=63,slow=4.2,SNR=12
ESDC  Sonseca Array      87.56 310 P      pP     12 24 51.9 +0.3
      comp=Z,4.2nm,0.6s,baz=60,slow=4.5,SNR=8.4
ESLA  Sonseca Array      87.56 310 P      P      12 24 42.9 -0.4
MSZ   Milford Sound      87.97 136 P      P      12 24 46.3 +1.2
SYO   Syowa Base         88.41 197 ⇑P     P      12 24 46.6 -0.1
SYO   Syowa Base         88.41 197 ⇓PcP   PcP    12 24 48.5 -0.2
SYO   Syowa Base         88.41 197 ⇓sP    sP     12 25 02.4 +4.7
IMA   Indian Mountai     88.87  22 eP     P      12 24 50.4 +1.5
IMA                                pmax   pmax
      comp=Z,90nm,0.6s,mb6.3
IMA   Indian Mountai     88.87  22 eP     P      12 24 50.2 +1.3
      comp=Z,90nm,0.6s,mb6.3
IMA                                e      pP     12 24 58.5 +1.2
IMA                                e             12 25 02.7
SPU   Mount Spurr        91.75  26 eP     P      12 25 03.4 +1.0
RSO   Redoubt South      91.78  27 eP     P      12 25 03.3 +0.8
ILAR  Eielson Array      91.98  22 P      P      12 25 03.0 -0.4
      comp=Z,16nm,0.7s,mb5.5,baz=298,slow=4.2,SNR=58
ILAR  Eielson Array      91.98  22 P      pP     12 25 11.5 -0.2
      comp=Z,9.9nm,0.6s,baz=303,slow=4.6,SNR=17
ILAR  Eielson Array      91.98  22 P      P      12 25 03.0 -0.4
ILAR                               pmax   pmax
      comp=Z,16nm,0.7s
SLKM  Skilak Lake        92.86  26 eP     P      12 25 08.4 +0.9
SLKM  Skilak Lake        92.86  26 eP     P      12 25 08.2 +0.6
URZ   Urewera            92.94 128 P      P      12 25 07.9 -0.5
      comp=Z,0.1nm,0.2s,baz=113,slow=4.0,SNR=3.7
THY   Trims Highway      93.14  23 eP     P      12 25 09.8 +1.0
INK   Inuvik             93.94  16 P      P      12 25 12.8 +0.5
      comp=Z,6.9nm,0.7s,mb5.2,baz=344,slow=5.2,SNR=19
INK   Inuvik             93.94  16 P      P      12 25 12.8 +0.5
INK                                pmax   pmax
```

	comp=Z,7.0nm,0.7s						
INK	**Inuvik**	**93.94**	**16**	P	**P**	**12 25 12.8**	**+0.5**
DIV	**Divide**	**94.40**	**24**	*e*P	**P**	**12 25 16.0**	**+1.4**
VNDA	**Vanda**	**96.86**	**168**	*e*P	**P**	**12 25 27.2**	**+1.7**
	comp=Z,0.6nm,0.5s,mb4.3						
YKA	**Yellowknife Ar**	**103.24**	**13**	Pdiff	Pdif	12 25 54.3	-0.1
	comp=Z,0.9nm,0.7s,baz=330,slow=4.1,SNR=8.4						
YKA				PKKPbc		12 41 48.5	
	comp=Z,0.3nm,0.7s,baz=152,slow=3.2,SNR=5.4						
YKA	**Yellowknife Ar**	**103.24**	**13**	Pdif	Pdif	12 25 54.4	-0.1
YKA				PKKPbc		12 41 48.5	
FRB	**Frobisher Bay**	**103.52**	**351**	Pdiff	Pdif	12 25 56.6	+1.0
	comp=Z,5.4nm,1.0s,baz=80,slow=3.0,SNR=3.3						
FRB	**Frobisher Bay**	**103.52**	**351**	P	Pdif	12 25 56.7	+1.1
FRB				pmax	pmax		
	comp=Z,5.0nm,1.0s						
MSO	**Missoula**	**117.27**	**20**	*e*PKPdf	PKPdf	12 30 40.4	-3.6
ULM	**Lac du Bonnet**	**118.03**	**6**	PKP	PKPdf	12 30 42.6	-2.8
	comp=Z,1.5nm,0.5s,baz=358,slow=6.1,SNR=2.7						
ULM	**Lac du Bonnet**	**118.03**	**6**	PKP	PKPdf	12 30 49.0	+3.7
	comp=Z,1.7nm,0.5s,baz=15,slow=3.7,SNR=6.3						
ULM	**Lac du Bonnet**	**118.03**	**6**	PKP	PKPdf	12 30 42.6	-2.8
ULM				PKP	PKPdf	12 30 49.0	+3.7
SNOW	**Snow King Moun**	**121.30**	**20**	*e*PKPdf	PKPdf	12 30 49.9	-2.0
PDAR	**Pinedale Array**	**122.31**	**19**	PKP	PKPdf	12 30 50.9	-3.0
	comp=Z,2.9nm,0.7s,baz=165,slow=0.5,SNR=12						
NVAR	**Mina Array Bea**	**122.58**	**28**	PKP	PKPdf	12 30 52.8	-1.7
	comp=Z,6.0nm,0.6s,baz=323,slow=2.3,SNR=21						
SADO	**Sadowa**	**123.42**	**353**	PKP	PKPdf	12 30 52.1	-3.8
	comp=Z,2.5nm,0.6s,baz=307,slow=4.5,SNR=3.9						
SADO	**Sadowa**	**123.42**	**353**	PKP	PKPdf	12 30 59.2	+3.2
	comp=Z,3.7nm,0.8s,baz=307,slow=3.2,SNR=6.7						
SADO	**Sadowa**	**123.42**	**353**	PKP	PKPdf	12 30 52.1	-3.8
SADO				PKP	PKPdf	12 30 59.2	+3.2
TMUT	**Trail Mountain**	**124.83**	**22**	*e*PKPdf	PKPdf	12 30 56.2	-2.6
MSU	**Marysvale**	**125.14**	**24**	*e*PKIKP	PKPdf	12 30 58.3	-1.2
MSU	**Marysvale**	**125.14**	**24**	*e*PKPdf	PKPdf	12 30 57.9	-1.7
NEN	**Nelson**	**126.44**	**28**	*e*PKPdf	PKPdf	12 30 59.7	-2.3
ANMO	**Albuquerque**	**130.41**	**20**	PKP	PKPdf	12 31 07.2	-2.6
	comp=Z,3.3nm,0.7s,baz=319,slow=1.7,SNR=12						
TXAR	**Lajitas Array**	**136.49**	**21**	PKhKP		12 31 06.5	
	comp=Z,0.4nm,0.5s,baz=267,slow=0.3,SNR=6.1						
TXAR				PKP	PKPdf	12 31 18.6	-2.6
	comp=Z,2.5nm,0.6s,baz=169,slow=1.0,SNR=6.0						
TXAR	**Lajitas Array**	**136.49**	**21**	PKP		12 31 06.5	
TXAR				PKP	PKPdf	12 31 18.6	-2.6
JCT	**Junction City**	**136.59**	**15**	*e*PKIKP	PKPdf	12 31 18.9	-2.4
JCT	**Junction City**	**136.59**	**15**	*e*PKPdf	PKPdf	12 31 18.3	-3.0
BAO	**Brasilia Array**	**141.35**	**259**	PKP		12 31 22.1	
BAO				*i*	PKPdf	12 31 28.3	-2.1
BAO				*i*		12 31 30.3	
BAO				*i*		12 31 35.1	
BDFB	**Brasilia**	**141.37**	**259**	PKP	PKPdf	12 31 27.9	-2.5
	comp=Z,4.2nm,0.6s,baz=39,slow=1.2,SNR=5.3						
BDFB	**Brasilia**	**141.37**	**259**	PKIKP	PKPdf	12 31 27.9	-2.5
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SJG	**San Juan**	**143.72**	**324**	PKhKP		12 31 27.6	
	comp=Z,20nm,0.8s,baz=110,slow=3.3,SNR=6.3						
SJG	**San Juan**	**143.72**	**324**	PKIKP		12 31 27.6	
SJG				pmax	pmax		
	comp=Z,20nm,0.8s						
TRQA	**Tornquist**	**145.07**	**217**	*e*PKPbc	PKPbc	12 31 32.6	+0.8
TRQA				*e*		12 31 40.5	
PCRV	**Puerto La Cruz**	**148.60**	**313**	PKPbc	PKPdf	12 31 41.5	-1.3
	comp=Z,34nm,0.6s,baz=148,slow=1.0,SNR=26						
PCRV	**Puerto La Cruz**	**148.60**	**313**	PKPbc	PKPdf	12 31 50.2	+7.5
	comp=Z,50nm,0.7s,baz=340,slow=1.7,SNR=14						
SDV	**Santo Domingo**	**153.61**	**320**	PKPbc	PKPdf	12 31 54.5	+4.3
	comp=Z,6.6nm,0.5s,baz=142,slow=8.8,SNR=11						
SDV	**Santo Domingo**	**153.61**	**320**	*e*PKPbc	PKPdf	12 31 54.5	+4.2
ROSC	**El Rosal**	**159.03**	**320**	PKP	PKPdf	12 31 55.0	-2.3
	comp=Z,4.1nm,0.3s,baz=269,slow=22,SNR=3.3						
ROSC				PKPab	PKPab	12 32 31.4	-0.2
	comp=Z,4.7nm,0.4s,baz=99,slow=23,SNR=4.1						
ROSC	**El Rosal**	**159.03**	**320**	PKPab		12 32 40.9	
	comp=Z,8.1nm,0.5s,baz=100,slow=18,SNR=6.5						
LVC	**Limon Verde**	**159.07**	**236**	PKPab	PKPab	12 32 31.4	0.0
	comp=Z,2.6nm,0.9s,baz=47,slow=2.2,SNR=3.8						
LVC	**Limon Verde**	**159.07**	**236**	PKPab		12 32 40.7	
	comp=Z,6.0nm,0.9s,baz=91,slow=3.8,SNR=5.3						
LPAZ	**La Paz**	**160.55**	**254**	PKP	PKPdf	12 31 56.7	-2.1
	comp=Z,1.7nm,0.8s,baz=46,slow=3.8,SNR=3.3						
LPAZ				PKPab	PKPab	12 32 37.5	-0.4
	comp=Z,35nm,1.6s,baz=66,slow=5.7,SNR=4.6						
LPAZ	**La Paz**	**160.55**	**254**	PKPab		12 32 46.8	
	comp=Z,3.4nm,0.8s,baz=85,slow=11,SNR=5.6						
LPAZ	**La Paz**	**160.55**	**254**	PKIKP	PKPdf	12 31 56.7	-2.1
LPAZ						12 32 37.5	
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,35nm,1.6s						
LPAZ	**La Paz**	**160.55**	**254**	PKP	PKPdf	12 31 56.7	-2.1
LPAZ				PKPab	PKPab	12 32 37.5	-0.4

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*CSEM **26** 12:12:23.5±0.1, 40.48N×0.93W, h10^{km}, ML2.5/9, Error ellipse: s-maj=1.8km s-min=1.1km az=109.0*

*MDD **26** 12:12:24.1±0.4, 40.41N×0.91W, h11^{km}, mbLg2.2/12, Error ellipse: s-maj=3.2km s-min=2.6km az=16.0, PRXIMO*

*LDG **26** 12:12:25.6±0.4, 40.53N×0.77W, h5^{km}, Ml2.3/4, Error ellipse: s-maj=6.7km s-min=6.0km az=55.0*

ISC 26 12:12:21.3±0.4, **40.49N**±0.02×**1.00W**±0.04, **h11**^{km}**, n38,** σ**1^{s}44**/66**, Spain**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMOS	**Mosqueruela**	**0.42**	**107**	Pg	**Pg**	**12 12 30.6**	**+0.6**
	13nm,0.4s,SNR=21						
EMOS				Lg		12 12 35.5	
	21nm,0.1s,SNR=28						
EMOS	**Mosqueruela**	**0.42**	**107**	Pg	**Pg**	**12 12 30.6**	**+0.7**
	13nm,0.4s,SNR=21						
EMOS				Lg		12 12 35.5	
	21nm,0.1s,SNR=28						
ERTA	**Horta de San J**	**1.12**	**65**	Pg	**Pg**	**12 12 44.2**	**+0.6**
	6.8nm,0.1s,SNR=29						
ERTA				Lg		12 12 59.0	
	22nm,0.1s,SNR=12						
ERTA	**Horta de San J**	**1.12**	**65**	Pg	**Pg**	**12 12 44.2**	**+0.6**
	6.8nm,0.1s,SNR=29						
EBR	**Ebro Roquetas**	**1.18**	**73**	*e*SG	**Sg**	**12 13 02.5**	**+1.7**
ESAC	**San Caprasio**	**1.29**	**18**	Pg	**Pg**	**12 12 48.9**	**+1.8**
	47nm,0.1s,SNR=13						
ESAC				Lg		12 13 06.6	
	46nm,0.2s,SNR=7.3						
ESAC	**San Caprasio**	**1.29**	**18**	Pg	**Pg**	**12 12 48.9**	**+1.7**
	47nm,0.1s,SNR=13						
EPOB	**Poblet**	**1.80**	**61**	Pn	**Pn**	**12 12 53.9**	**+1.4**
	0.5nm,0.2s,SNR=27						
EPOB				Pg	**Pg**	**12 12 55.9**	**-1.3**
	4.5nm,0.2s,SNR=6.6						
EPOB				Sn	**Sn**	**12 13 17.4**	**+2.0**
	3.6nm,0.2s,SNR=7.9						
EPOB				Lg		12 13 19.4	
	3.6nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**1.80**	**61**	Pn	**Pn**	**12 12 53.9**	**+1.4**
	0.5nm,0.2s,SNR=27						
EPOB	**Poblet**	**1.80**	**61**	Pg	**Pg**	**12 12 55.9**	**-1.3**
	4.5nm,0.2s,SNR=6.6						
EBEN	**Beniarda**	**1.88**	**161**	Pg	**Pg**	**12 12 57.4**	**-1.5**
	0.3nm,0.1s,SNR=15						
EBEN				Lg		12 13 20.2	
	8.6nm,0.3s,SNR=7.9						
EBEN	**Beniarda**	**1.88**	**161**	Pg	**Pg**	**12 12 57.4**	**-1.5**
	0.3nm,0.1s,SNR=15						
EGRA	**Graus**	**1.97**	**30**	Pg	**Pg**	**12 12 60.0**	**-0.7**
	1.4nm,0.1s,SNR=5.5						
EGRA				Lg		12 13 27.6	
	2.3nm,0.2s,SNR=5.1						
EVIA	**Vianos**	**2.18**	**213**	Lg		12 13 30.9	
	6.2nm,0.3s,SNR=7.2						
EBIE	**Bielsa**	**2.35**	**21**	Pg	**Pg**	**12 13 07.0**	**-1.3**
	2.7nm,0.3s,SNR=7.6						
EBIE				Sn	**Sn**	**12 13 31.8**	**+2.1**
	19nm,0.7s,SNR=4.0						
EBIE	**Bielsa**	**2.35**	**21**	Pg	**Pg**	**12 13 07.0**	**-1.3**
	2.7nm,0.3s,SNR=7.6						
EBIE				Sn	**Sn**	**12 13 31.8**	**+2.2**
	19nm,0.7s,SNR=4.0						
GUD	**Guadarrama**	**2.41**	**275**	Pn	**Pn**	**12 13 02.9**	**+1.7**
	1.9nm,0.4s,SNR=7.9						
GUD				Pg	**Pg**	**12 13 09.5**	**+0.2**
	1.2nm,0.3s,SNR=7.9						
GUD				Sn	**Sn**	**12 13 31.6**	**+0.7**
	0.8nm,0.2s,SNR=7.9						
GUD				Lg		12 13 40.9	
	2.8nm,0.3s,SNR=7.9						
GUD	**Guadarrama**	**2.41**	**275**	Pg	**Pg**	**12 13 09.5**	**+0.2**
	1.2nm,0.3s,SNR=7.9						
GUD				Sn	**Sn**	**12 13 31.6**	**+0.6**
	0.8nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	**2.41**	**251**	Pn	**Pn**	**12 13 02.7**	**+1.4**
	4.5nm,0.2s,baz=73,slow=14,SNR=11						
ESDC				Sn	**Sn**	**12 13 32.1**	**+0.9**
	2.0nm,0.1s,baz=72,slow=25,SNR=7.5						
ESDC				Lg		12 13 39.0	
	2.0nm,0.1s,baz=73,slow=30,SNR=7.4						
ESDC	**Sonseca Array**	**2.41**	**251**	Pn	**Pn**	**12 13 02.7**	**+1.3**
	4.5nm,0.2s,baz=73,slow=14,SNR=11						
ESDC	**Sonseca Array**	**2.41**	**251**	Sn	**Sn**	**12 13 32.1**	**+0.9**
	2.0nm,0.1s,baz=72,slow=25,SNR=7.5						
ETSF	**Etsaut**	**2.43**	**8**	*e*Pn	**Pn**	**12 13 03.4**	**+1.9**
ETSF				*e*Pg	**Pg**	**12 13 08.3**	**-1.5**
ETSF				*e*Sn	**Sn**	**12 13 31.6**	**+0.1**
ETSF				*e*Sg	**Sg**	**12 13 40.0**	**-2.2**
	2.0nm,0.2s						
ETSF	**Etsaut**	**2.43**	**8**	*e*Pg	**Pg**	**12 13 08.3**	**-1.5**
ETSF				*e*Sn	**Sn**	**12 13 31.6**	**+0.1**
ETSF				*e*Sg	**Sg**	**12 13 40.0**	**-2.2**
	1.0nm,0.2s						
SJPF	**Ste Jean**	**2.62**	**356**	*e*Pn	**Pn**	**12 13 06.7**	**+2.3**
SJPF				*e*Pg	**Pg**	**12 13 13.3**	**-0.4**
SJPF				*e*Sn	**Sn**	**12 13 36.9**	**+0.4**
SJPF				*e*Sg	**Sg**	**12 13 47.0**	**-1.7**
	1.8nm,0.2s						
SJPF	**Ste Jean**	**2.62**	**356**	*e*Pg	**Pg**	**12 13 13.3**	**-0.4**
SJPF				*e*Sn	**Sn**	**12 13 36.9**	**+0.4**
SJPF				*e*Sg	**Sg**	**12 13 47.0**	**-1.7**
	0.9nm,0.2s						
EMUR	**La Murta**	**2.65**	**184**	Pg	**Pg**	**12 13 12.1**	**-2.1**
	0.2nm,0.2s,SNR=7.9						
EMUR				Lg		12 13 44.6	
	3.8nm,0.7s,SNR=7.9						
EMUR	**La Murta**	**2.65**	**184**	Pg	**Pg**	**12 13 12.1**	**-2.1**
	0.2nm,0.2s,SNR=7.9						
EPF	**Esparros**	**2.73**	**21**	*e*Pg	**Pg**	**12 13 13.4**	**-2.4**
EPF				*e*Sn	**Sn**	**12 13 37.1**	**-2.0**
EPF				*e*Sg	**Sg**	**12 13 49.2**	**-3.0**
	3.9nm,0.2s						
EALK	**Alkurruntz**	**2.75**	**352**	Pg	**Pg**	**12 13 16.4**	**+0.2**
	4.1nm,0.4s,SNR=4.0						
EALK				Sn	**Sn**	**12 13 41.4**	**+1.6**
	1.7nm,0.2s,SNR=7.9						
EALK				Lg		12 13 54.3	
	19nm,0.5s,SNR=7.9						
EQES	**Quesada**	**3.13**	**212**	Pn	**Pn**	**12 13 12.1**	**+0.6**
	10.0nm,0.5s,SNR=7.9						
EQES				Pg	**Pg**	**12 13 20.2**	**-3.5**
	5.1nm,0.3s,SNR=7.9						
EQES				Sn	**Sn**	**12 13 48.1**	**-1.2**
	SNR=7.9						
EQES				Lg		12 14 00.2	
	6.1nm,0.5s,SNR=7.9						
EQES	**Quesada**	**3.13**	**212**	Pn	**Pn**	**12 13 12.1**	**+0.5**
	10.0nm,0.5s,SNR=7.9						
EQES	**Quesada**	**3.13**	**212**	Pg	**Pg**	**12 13 20.2**	**-3.6**
	5.1nm,0.3s,SNR=7.9						
EQES				Sn	**Sn**	**12 13 48.1**	**-1.2**
	SNR=7.9						
EADA	**Adamuz**	**3.62**	**231**	Pn	**Pn**	**12 13 18.9**	**+0.5**
	1.2nm,0.2s,SNR=7.9						
EADA				Sn	**Sn**	**12 13 59.0**	**-2.6**
	1.1nm,0.2s,SNR=7.9						
EADA				Lg		12 14 17.5	
	7.5nm,0.4s,SNR=4.0						
EADA	**Adamuz**	**3.62**	**231**	Pn	**Pn**	**12 13 18.9**	**+0.4**
	1.2nm,0.2s,SNR=7.9						
EADA				Sn	**Sn**	**12 13 59.0**	**-2.6**
	1.1nm,0.2s,SNR=7.9						
MTLF	**Montolieu**	**3.73**	**39**	*e*Pn	**Pn**	**12 13 20.2**	**+0.2**
MTLF				*e*Pg	**Pg**	**12 13 31.3**	**-4.3**
MTLF				*e*Sg	**Sg**	**12 14 17.8**	**-7.5**
	1.1nm,0.2s						
MTLF	**Montolieu**	**3.73**	**39**	*e*Pg	**Pg**	**12 13 31.3**	**-4.3**
MTLF				*e*Sg	**Sg**	**12 14 17.8**	**-7.5**
	0.6nm,0.2s						
CAF	**Calviac**	**4.97**	**26**	*e*Pn	**Pn**	**12 13 37.3**	**-0.4**
ELOB	**Lobios**	**5.50**	**287**	Pn	**Pn**	**12 13 45.6**	**+0.5**
	13nm,0.6s,SNR=7.9						

IDC 26 12:18:30.5±4.6**, 8.12N×91.73E, mb3.7**/3**, mb1 4.1**/4**, mb1mx3.8**/19**, ML4.2**/1**, Error ellipse: s-maj=101.0km s-min=48.9km az=152.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.44**	**34**	Pn	P	12 21 30.6	-1.3
	0.4nm,0.3s,baz=230,slow=14,SNR=8.4						
SONM	**Songino Array**	**41.49**	**15**	P	P	12 26 18.2	-2.7
	0.5nm,0.5s,baz=197,slow=10,SNR=4.0						
BVAR	**Borovoye Array**	**48.02**	**343**	P	P	12 27 12.2	-1.1
	0.4nm,0.4s,baz=135,slow=10,SNR=3.6						
GERES	**GERESS Array B**	**76.05**	**318**	P	P	12 30 20.2	-1.4
	1.0nm,0.8s,baz=104,slow=5.5,SNR=4.9						
TXAR	**Lajitas Array**	**139.92**	**21**	PKP	PKPdf	12 37 59.7	-3.7
	0.1nm,0.4s,baz=260,slow=0.5,SNR=4.1						

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*IDC **26** 12:18:53.6±0.8, 4.95N×94.77E, h52^{km}±5^{km}, mb4.1/11, mb1 4.3/12, mb1mx4.1/20, Error ellipse: s-maj=44.5km s-min=13.7km az=48.0*

ISC 26 12:18:52.0±0.8**, 5.1N**±0.2×**94.9E**±0.2**, h52**^{km}**, h52**^{km}±.9^{km}**:pP-P, n15,** σ**0^{s}71**/14**, mb4.4**/11**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.90**	**16**	P	**P**	**12 22 15.9**	**+7.9**
	0.5nm,0.3s,baz=210,slow=11,SNR=11						
SONM	**Songino Array**	**43.75**	**11**	P	**P**	**12 26 54.0**	**-0.2**
	2.6nm,0.8s,mb4.0,baz=192,slow=8.8,SNR=6.3						
SONM				PcP	PcP	12 28 41.0	+0.2
	1.4nm,0.8s,baz=198,slow=3.9,SNR=5.5						
WRA	**Warramunga Arr**	**46.04**	**124**	P	**P**	**12 27 12.8**	**0.0**
	1.7nm,0.5s,mb4.3,baz=301,slow=9.8,SNR=11						
WRA				pP	pP	12 27 26.6	0.0
	4.0nm,0.8s,baz=303,slow=9.1,SNR=7.1						
ASAR	**Alice Springs**	**47.55**	**129**	P	**P**	**12 27 24.4**	**-0.2**
	2.3nm,0.5s,mb4.5,baz=300,slow=7.9,SNR=11						
ASAR				pP	pP	12 27 38.5	0.0
	1.5nm,0.5s,baz=301,slow=7.9,SNR=4.0						
ZAL	**Zalesovo**	**49.43**	**352**	P	**P**	**12 27 38.8**	**0.0**
	3.9nm,0.4s,mb4.8,baz=315,slow=5.3,SNR=13						
BVAR	**Borovoye Array**	**51.89**	**341**	P	**P**	**12 27 57.2**	**-0.3**
	3.5nm,0.6s,mb4.5,baz=141,slow=9.5,SNR=11						
BVAR				pP	pP	12 28 10.9	-0.5
	2.9nm,0.7s,baz=149,slow=8.6,SNR=5.6						
BRTR	**Keskin Array B**	**64.85**	**312**	P	**P**	**12 29 26.7**	**-1.4**
	1.6nm,0.6s,mb4.3,baz=129,slow=7.0,SNR=7.1						
AKASG	**Malin Array Be**	**70.83**	**322**	P	**P**	**12 30 04.0**	**-1.2**
	1.0nm,0.4s,mb4.1,baz=82,slow=4.7,SNR=9.9						
FINES	**FINESS Array B**	**75.55**	**332**	P	**P**	**12 30 32.6**	**0.0**
	1.0nm,0.4s,mb4.1,baz=85,slow=5.5,SNR=8.8						
FINES				pP	pP	12 30 47.3	-0.1
	2.2nm,0.5s,baz=99,slow=6.0,SNR=2.6						
OJC	**Ojcow**	**76.62**	**320**	*e*P	**P**	**12 30 39.9**	**+1.0**
ARCES	**ARCESS Array B**	**78.17**	**340**	P	**P**	**12 30 47.8**	**+0.6**
	8.4nm,1.2s,mb4.5,baz=87,slow=6.2,SNR=12						
ARCES				pP	pP	12 31 02.7	+0.7
	1.2nm,0.6s,baz=90,slow=6.1,SNR=1.6						
GERES	**GERESS Array B**	**80.43**	**319**	P	**P**	**12 31 00.4**	**+0.6**
	2.1nm,0.6s,mb4.3,baz=98,slow=5.5,SNR=18						
GERES				pP	pP	12 31 14.5	-0.2
	0.8nm,0.6s,baz=118,slow=4.9,SNR=3.2						
KHC	**Kasperske Hory**	**80.53**	**319**	*e*P	**P**	**12 31 01.5**	**+1.2**
HFS	**Hagfors**	**81.27**	**330**	P	**P**	**12 31 03.9**	**-0.1**
	25nm,1.4s,mb5.0,baz=117,slow=3.3,SNR=5.0						
HFS				pP	pP	12 31 19.8	+0.8
	1.5nm,0.5s,baz=90,slow=7.4,SNR=2.0						
TXAR	**Lajitas Array**	**141.44**	**26**	PKhKP		12 38 15.1	
	0.4nm,0.9s,slow=1.8,SNR=3.6						

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*IDC **26** 12:19:56.9±0.9, 6.81N×94.62E, mb4.4/11, mb1 4.5/11, mb1mx4.3/19, Error ellipse: s-maj=51.0km s-min=18.0km az=51.0*

ISC 26 12:20:00.5±0.7**, 6.9N**±0.2×**94.8E**±0.2**, h33**^{km}**, n16,** σ**0^{s}92**/16**, mb4.4**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**41.98**	**12**	P	**P**	**12 27 51.5**	**+1.4**
	1.6nm,0.8s,mb3.7,baz=196,slow=7.3,SNR=2.9						
WRA	**Warramunga Arr**	**47.15**	**125**	P	**P**	**12 28 32.5**	**+0.5**
	4.4nm,0.5s,mb4.6,baz=307,slow=8.3,SNR=12						
ZAL	**Zalesovo**	**47.60**	**352**	P	**P**	**12 28 33.6**	**-1.5**
	3.9nm,0.4s,mb4.8,baz=296,slow=7.7,SNR=7.0						
ASAR	**Alice Springs**	**48.78**	**130**	P	**P**	**12 28 45.4**	**+0.7**
	3.1nm,0.9s,mb4.4,baz=309,slow=6.4,SNR=5.4						
STKA	**Stephens Creek**	**58.95**	**134**	P	**P**	**12 29 57.6**	**-1.7**
	1.4nm,0.6s,mb4.2,baz=271,slow=4.8,SNR=3.0						
FINES	**FINESS Array B**	**73.88**	**332**	P	**P**	**12 31 33.0**	**-0.7**
	2.5nm,0.7s,mb4.3,baz=98,slow=6.0,SNR=6.1						
KAF	**Kangasniemi**	**73.96**	**333**	*e*p	**P**	**12 31 33.6**	**-0.6**
	1.9nm,0.5s,mb4.3						
KEV	**Kevo**	**75.98**	**341**	*e*p	**P**	**12 31 45.3**	**-0.3**
GERES	**GERESS Array B**	**79.00**	**318**	P	**P**	**12 32 01.9**	**-0.9**
	4.6nm,1.1s,mb4.3,baz=90,slow=5.3,SNR=6.6						
KHC	**Kasperske Hory**	**79.09**	**319**	*e*P	**P**	**12 32 03.0**	**-0.3**
HFS	**Hagfors**	**79.63**	**330**	P	**P**	**12 32 06.3**	**+0.3**
	4.7nm,0.5s,mb4.6,baz=101,slow=7.6,SNR=16						
NB2	**NORSAR Subarra**	**80.91**	**331**	P	**P**	**12 32 12.8**	**0.0**
	2.9nm,0.6s,mb4.4,baz=97,slow=5.0						
NOA	**NORSAR Array B**	**80.91**	**331**	P	**P**	**12 32 12.9**	**+0.1**
	3.1nm,0.6s,mb4.4,baz=95,slow=5.1,SNR=12						
DAVOX	**Davos**	**81.55**	**316**	P	**P**	**12 32 17.5**	**+1.0**
	2.6nm,0.5s,mb4.4,baz=126,slow=7.9,SNR=4.3						
LPG	**La Plagne**	**83.78**	**315**	*e*P	**P**	**12 32 29.1**	**+1.2**
	13nm,0.7s,mb4.9						
ESDC	**Sonseca Array**	**92.36**	**310**	P	**P**	**12 33 10.1**	**+0.9**
	1.0nm,0.5s,mb4.4,baz=65,slow=4.4,SNR=6.1						

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*IDC **26** 12:24:05.0±0.6, 8.35N×93.59E, h24^{km}±3^{km}, mb4.1/17, mb1 4.3/18, mb1mx4.2/23, ML5.0/1, Error ellipse: s-maj=31.1km s-min=12.1km az=52.0*

ISC 26 12:24:02.6±7.2**, 8.3N**±0.1×**93.6E**±0.2**, h19**^{km}±49^{km}**, h25**^{km}±.4^{km}**:pP-P, n35,** σ**0^{s}91**/33**, mb4.3**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.33**	**27**	Pn	**P**	**12 26 46.9**	**+0.2**
	3.1nm,0.3s,baz=213,slow=15,SNR=40						
PKI	**Pulchoki**	**20.67**	**339**	*e*P	**P**	**12 28 44.1**	**0.0**
	85nm,0.9s						
DMN	**Daman**	**20.82**	**338**	*e*P	**P**	**12 28 45.4**	**-0.2**
	78nm,0.9s						
GUN	**Gumba**	**20.82**	**340**	*e*P	**P**	**12 28 45.2**	**-0.4**
	80nm,0.6s						
KKN	**Kakani**	**20.92**	**339**	*e*P	**P**	**12 28 46.2**	**-0.4**
	62nm,0.6s						
GKN	**Gorkha**	**21.35**	**338**	*e*P	**P**	**12 28 50.2**	**-0.8**
	98nm,0.9s,mb5.1						
KOLN	**Koldanda**	**21.55**	**335**	*e*P	**P**	**12 28 51.6**	**-1.4**
	53nm,0.8s,mb5.0						
UCH	**Uchtor**	**37.75**	**337**	P	**P**	**12 31 20.2**	**+1.1**
	SNR=6.8						
KBK	**Karagaybulak**	**37.95**	**337**	P	**P**	**12 31 22.0**	**+1.2**
	SNR=10						
AML	**Almayashu**	**38.00**	**336**	P	**P**	**12 31 22.6**	**+1.4**
	SNR=12						
AAK	**Ala-Archa**	**38.10**	**337**	P	**P**	**12 31 24.1**	**+2.0**
	SNR=7.4						
CHMS	**Chumysh**	**38.31**	**337**	P	**P**	**12 31 24.5**	**+0.6**
	SNR=5.7						
EKS2	**Erkin-Say**	**38.41**	**336**	P	**P**	**12 31 25.9**	**+1.3**
	SNR=5.2						
USP	**Ospenovka**	**38.64**	**337**	P	**P**	**12 31 26.9**	**+0.3**
	SNR=11						
SONM	**Songino Array**	**40.85**	**13**	P	**P**	**12 31 44.3**	**-0.5**
	1.5nm,0.9s,mb3.6,baz=198,slow=8.5,SNR=7.4						
SONM				PcP	PcP	12 33 46.2	+0.1
	0.5nm,0.5s,baz=209,slow=3.4,SNR=4.4						
ZAL	**Zalesovo**	**46.05**	**353**	P	**P**	**12 32 26.2**	**-0.6**
	9.3nm,0.5s,mb5.0,baz=299,slow=7.4,SNR=39						
NWAO	**Narrogin (SRO)**	**46.77**	**152**	P	**P**	**12 32 34.6**	**+1.8**
	6.2nm,0.6s,mb4.8,baz=309,slow=12,SNR=6.1						
BVAR	**Borovoye Array**	**48.41**	**341**	P	**P**	**12 32 44.2**	**-1.2**
	1.5nm,0.5s,mb4.3,baz=135,slow=8.4,SNR=9.8						
WRA	**Warramunga Arr**	**48.93**	**126**	P	**P**	**12 32 49.2**	**-0.7**
	1.5nm,0.5s,mb4.3,baz=305,slow=8.6,SNR=10.0						
ASAR	**Alice Springs**	**50.59**	**130**	P	**P**	**12 33 01.9**	**-0.7**
	1.2nm,0.8s,mb3.9,baz=300,slow=6.6,SNR=6.3						
ASAR				pP	pP	12 33 09.1	+0.6
	2.3nm,0.8s,baz=307,slow=7.5,SNR=8.6						
ASAR				PcP	PcP	12 34 20.5	+0.2
	0.8nm,0.6s,baz=314,slow=3.2,SNR=4.8						
STKA	**Stephens Creek**	**60.78**	**134**	P	**P**	**12 34 15.4**	**-0.5**
	1.9nm,0.8s,mb4.3,baz=336,slow=14,SNR=2.9						
BRTR	**Keskin Array B**	**61.76**	**311**	P	**P**	**12 34 20.9**	**-1.5**
	3.0nm,0.7s,mb4.5,baz=123,slow=7.6,SNR=11						
BRTR				pP	pP	12 34 28.7	+0.2
	3.4nm,0.7s,baz=135,slow=7.0,SNR=10.0						
AKASG	**Malin Array Be**	**67.49**	**322**	P	**P**	**12 34 58.0**	**-1.5**
	0.3nm,0.4s,mb3.7,baz=87,slow=4.6,SNR=6.3						
AKASG				pP	pP	12 35 05.8	+0.3
	2.2nm,0.8s,baz=88,slow=4.4,SNR=5.7						
MLR	**Muntele Rosu**	**68.50**	**316**	P	**P**	**12 35 06.1**	**+0.3**
	2.0nm,0.5s,mb4.3,baz=264,slow=21,SNR=4.1						
FINES	**FINESS Array B**	**72.09**	**332**	P	**P**	**12 35 26.9**	**-0.5**
	5.9nm,0.9s,mb4.5,baz=117,slow=8.5,SNR=13						
FINES				pP	pP	12 35 35.1	+1.6
	4.2nm,0.8s,baz=117,slow=13,SNR=3.3						
KAF	**Kangasniemi**	**72.17**	**333**	*e*p	**P**	**12 35 27.8**	**-0.1**
ARCES	**ARCESS Array B**	**74.68**	**340**	P	**P**	**12 35 42.9**	**+0.6**
	1.6nm,0.7s,mb4.0,baz=103,slow=6.3,SNR=8.5						
GERES	**GERESS Array B**	**77.16**	**318**	P	**P**	**12 35 56.9**	**+0.1**
	0.9nm,0.6s,mb3.9,baz=71,slow=5.6,SNR=6.8						
GERES				pP	pP	12 36 05.4	+2.4
	1.7nm,0.7s,baz=90,slow=5.3,SNR=8.5						
HFS	**Hagfors**	**77.82**	**330**	P	**P**	**12 36 00.1**	**-0.1**
	2.8nm,0.4s,mb4.5,baz=90,slow=5.9,SNR=17						
HFS				pP	pP	12 36 08.3	+2.0
	5.8nm,0.8s,baz=108,slow=4.7,SNR=4.1						
NB2	**NORSAR Subarra**	**79.10**	**331**	P	**P**	**12 36 05.9**	**-1.3**
	2.8nm,0.7s,mb4.3,baz=93,slow=5.6						
NOA	**NORSAR Array B**	**79.10**	**331**	P	**P**	**12 36 06.5**	**-0.6**
	1.2nm,0.5s,mb4.0,baz=93,slow=5.6,SNR=8.4						
NOA				pP	pP	12 36 14.6	+1.3
	2.4nm,0.7s,baz=97,slow=5.2,SNR=6.2						
DAVOX	**Davos**	**79.72**	**316**	P	**P**	**12 36 11.3**	**+0.5**
	2.1nm,0.6s,mb4.2,baz=157,slow=17,SNR=2.7						
ILAR	**Eielson Array**	**94.53**	**22**	P	**P**	**12 37 23.5**	**+0.8**
	0.3nm,0.6s,mb3.9,baz=294,slow=4.4,SNR=6.0						
PDAR	**Pinedale Array**	**124.94**	**21**	PKP	PKPdf	12 43 04.2	-1.9
	0.6nm,1.0s,baz=34,slow=3.3,SNR=3.1						
TXAR	**Lajitas Array**	**139.03**	**23**	PKhKP		12 43 26.5	
	0.1nm,0.4s,baz=225,slow=3.8,SNR=2.6						

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*IDC **26** 12:26:17.9±1.2, 5.56N×93.26E, h21^{km}±5^{km}, mb4.0/7, mb1 4.2/8, mb1mx4.0/18, Error ellipse: s-maj=43.2km s-min=18.4km az=60.0*

*NEIC **26** 12:26:18.2±0.6, 5.52N×93.09E, h30^{km}, mb4.6/6, Error ellipse: s-maj=17.0km s-min=11.9km az=73.0*

*BJI **26** 12:26:18.2, 5.50N×93.10E, h30^{km}, mb4.5*

ISC 26 12:26:14.7±0.7**, 5.49N**±0.08×**93.1E**±0.1**, h22**^{km}**, h22**^{km}±1.1^{km}**:pP-P, n24,** σ**1^{s}09**/21**, mb4.4**/16**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**14.11**	**24**	P	**P**	**12 29 42.0**	**+6.3**
CMAR	**Chiang Mai Arr**	**14.11**	**24**	Pn	**P**	**12 29 34.6**	**-1.2**
	baz=218,slow=11,SNR=3.7						
CMAR	**Chiang Mai Arr**	**14.11**	**24**	Pn	**P**	**12 29 34.6**	**-1.2**
QIZ	**Qiongzhong**	**21.18**	**49**	*e*P	**P**	**12 31 01.1**	**-0.1**
	35nm,1.1s,mb4.6						
KMI	**Kunming**	**21.61**	**24**	P	**P**	**12 31 08.3**	**+2.7**
KMI				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.4						
GYA	**Guiyang**	**24.56**	**30**	⇑*i*P	**P**	**12 31 35.5**	**+0.9**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
ENH	**Enshi**	**29.10**	**30**	*e*P	**P**	**12 32 14.6**	**-1.7**
	comp=Z,9.3nm,0.9s,mb4.5						
XAN	**Xi’an**	**31.99**	**25**	P	**P**	**12 32 40.0**	**-1.8**
XAN				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.5						
SONM	**Songino Array**	**43.71**	**13**	P	**P**	**12 34 20.4**	**+0.4**
	comp=Z,2.4nm,0.8s,mb4.0,baz=192,slow=8.0,SNR=9.1						
SONM				pP	pP	12 34 27.4	+0.9
	comp=Z,2.9nm,0.8s,baz=196,slow=8.3,SNR=8.4						
KS15	**Wonju Array Si**	**44.93**	**40**	P	**P**	**12 34 30.2**	**+0.1**

WRA	Warramunga Arr	47.81	123	P	P	12 34 52.8	-0.3
	comp=Z,8.8nm,0.8s,mb4.8,baz=301,slow=9.1,SNR=18						
WRAB	Tennant Creek	47.81	123	*e*P	P	12 34 53.3	+0.2
	comp=Z,14nm,0.8s,mb5.1						
ZAL	Zalesovo	48.77	354	P	P	12 35 00.8	+0.8
	comp=Z,1.5nm,0.6s,mb4.2,baz=301,slow=5.0,SNR=4.3						
ZAL				pP	pP	12 35 06.9	+0.3
	comp=Z,1.6nm,0.6s,baz=312,slow=7.6,SNR=3.3						
ZAL	Zalesovo	48.77	354	P	P	12 35 00.8	+0.8
ZAL				pP	pP	12 35 06.9	+0.3
ASAR	Alice Springs	49.27	128	P	P	12 35 04.5	+0.2
	comp=Z,2.7nm,0.8s,mb4.3,baz=302,slow=7.6,SNR=8.9						
BVAR	Borovoye Array	50.91	343	P	P	12 35 16.7	+0.3
	comp=Z,1.1nm,0.7s,mb3.9,baz=127,slow=7.4,SNR=3.9						
BRVK	Borovoye	50.97	342	P	P	12 35 16.1	-0.7
	comp=Z,3.4nm,0.9s,mb4.3						
PMG	Port Moresby	55.90	105	P	P	12 35 54.3	+0.4
	comp=Z,36nm,1.2s,mb5.3						
STKA	Stephens Creek	59.28	132	P	P	12 36 17.6	+0.1
	comp=Z,2.2nm,0.7s,mb4.3,baz=322,slow=6.7,SNR=4.3						
LBTB	Lobatse	72.17	242	P	P	12 37 38.7	-1.7
	comp=Z,2.7nm,1.0s,mb4.1						
ARCES	ARCESS Array B	77.14	341	pP	pP	12 38 16.4	+1.5
	comp=Z,2.5nm,0.7s,baz=80,slow=5.5,SNR=3.0						
GERES	GERESS Array B	78.89	319	P	P	12 38 20.2	+2.1
	comp=Z,0.8nm,0.8s,mb3.7,baz=104,slow=5.5,SNR=4.2						
GERES				pP	pP	12 38 27.1	+2.1
	comp=Z,0.9nm,0.8s,baz=104,slow=5.5,SNR=4.4						
NVAR	Mina Array Bea	127.50	31	PKP	PKPdf	12 45 23.2	+0.1
	comp=Z,0.5nm,0.7s,baz=270,slow=0.9,SNR=3.7						
PDAR	Pinedale Array	127.76	21	PKP	PKPdf	12 45 21.9	-1.7
	comp=Z,0.5nm,0.7s,baz=27,slow=3.3,SNR=4.4						

IDC 26 12:27:01.8±1.0**,9.10N**×**92.62E,mb4.3**/7**,mb1 4.5**/8**, mb1mx4.2**/19**,ML4.1**/1**,Error ellipse: s-maj=42.2km s-min=20.6km az=46.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.14	33	Pn	P	12 29 43.1	-2.4
	0.4nm,0.3s,baz=214,slow=13,SNR=5.8						
SONM	Songino Array	40.33	14	P	P	12 34 40.7	-1.9
	1.5nm,0.9s,baz=198,slow=9.5,SNR=3.2						
WRA	Warramunga Arr	50.19	125	P	P	12 35 59.8	-1.8
	19nm,0.7s,baz=301,slow=8.9,SNR=11						
ASAR	Alice Springs	51.85	130	P	P	12 36 11.8	-2.4
	8.5nm,0.5s,baz=307,slow=7.8,SNR=9.7						
BRTR	Keskin Array B	60.50	311	P	P	12 37 13.1	-3.0
	2.0nm,0.8s,baz=125,slow=7.1,SNR=6.1						
MLR	Muntele Rosu	67.25	316	P	P	12 37 59.5	-0.8
	2.1nm,0.9s,baz=127,slow=5.1,SNR=3.6						
FINES	FINESS Array B	70.94	332	P	P	12 38 20.0	-2.7
	1.8nm,0.8s,baz=63,slow=4.3,SNR=4.8						
GERES	GERESS Array B	75.92	318	P	P	12 38 51.6	-0.5
	0.7nm,0.7s,baz=101,slow=5.0,SNR=3.4						

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*BJI **26** 12:27:17.9,5.28N×94.36E,h25^{km},mb4.9*
*NEIC **26** 12:27:19.4±0.3,5.23N×94.38E,h30^{km},mb4.7/13,Error ellipse: s-maj=10.4km s-min=6.4km az=53.0*
*IDC **26** 12:27:20.9±0.6,5.25N×94.31E,h43^{km}±5^{km},mb4.3/18, mb1 4.4/19,mb1mx4.3/24,ML4.7/1,Error ellipse: s-maj=22.5km s-min=12.1km az=45.0*
ISC 26 12:27:19.4±0.4**,5.25N**±0.07×**94.39E**±0.08**,h44**^{km}**, h44**^{km}±.8^{km}**:pP-P,n50,**σ**0**^{s}**93**/43**,mb4.6**/32**,1D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.86	18	*e*P	P	12 30 40.6	+5.3
	14nm,0.6s						
CMAR	Chiang Mai Arr	13.86	18	P	P	12 30 40.8	+5.5
	1.1nm,0.3s,baz=208,slow=14,SNR=8.1						
GYA	Guiyang	24.13	28	⇓*i*P	P	12 32 34.5	+2.1
GYA				AMB	AMB		
	comp=Z,30nm,0.6s,mb4.9						
LSA	Lhasa	24.51	353	*e*P	P	12 32 39.0	+3.0
	comp=Z,31nm,0.9s,mb4.8						
ENH	Enshi	28.67	28	*e*P	P	12 33 13.4	-1.0
	comp=Z,14nm,0.7s,mb4.8						
GTA	Gaotai	34.36	7	P	P	12 34 04.5	+0.3
GTA				AP	pP	12 34 17.3	+1.2
GTA				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb4.6						
MBWA	Marble Bar	36.16	137	P	P	12 34 18.8	-0.9
	comp=Z,15nm,1.1s,mb4.8						
JOW	Kunigami	38.78	53	P	P	12 34 43.1	+1.5
	comp=Z,11nm,0.4s,mb4.9,baz=255,slow=12,SNR=6.7						
SONM	Songino Array	43.66	12	P	P	12 35 21.5	-0.1
	comp=Z,4.1nm,0.8s,mb4.2,baz=191,slow=8.1,SNR=7.2						
SONM				pP	pP	12 35 33.5	-0.2
	comp=Z,4.8nm,1.0s,baz=202,slow=6.7,SNR=3.9						
WRA	Warramunga Arr	46.58	124	P	P	12 35 45.6	+0.4
	comp=Z,15nm,0.5s,mb5.2,baz=302,slow=9.3,SNR=33						
WRAB	Tennant Creek	46.59	124	*e*P	P	12 35 45.6	+0.4
	comp=Z,40nm,0.6s,mb5.5						
ASAR	Alice Springs	48.08	128	P	P	12 35 57.2	+0.3
	comp=Z,7.7nm,0.7s,mb4.8,baz=302,slow=7.8,SNR=22						
ZAL	Zalesovo	49.16	353	P	P	12 36 04.1	-0.7
	comp=Z,2.6nm,0.4s,mb4.6,baz=286,slow=8.2,SNR=4.6						
ZAL				pP	pP	12 36 17.3	+0.2
	comp=Z,8.9nm,0.6s,baz=292,slow=9.2,SNR=8.6						
CBIJ	Chichi jima	50.39	59	P	P	12 36 13.6	-1.1
	comp=Z,204nm,1.2s,baz=106,slow=18,SNR=5.4						
BVAR	Borovoye Array	51.53	342	P	P	12 36 22.3	-0.6
	comp=Z,4.1nm,0.9s,mb4.4,baz=143,slow=7.4,SNR=7.8						
BRVK	Borovoye	51.60	342	*e*P	P	12 36 22.8	-0.6
	comp=Z,7.0nm,0.7s,mb4.7						
CHKZ	Chkalovo	52.02	342	P	P	12 36 26.2	-0.4
	comp=Z,9.5nm,0.9s,mb4.7						
PMG	Port Moresby	54.57	105	P	P	12 36 45.4	-0.7
	comp=Z,8.2nm,0.5s,mb5.0,baz=80,slow=9.2,SNR=7.9						
PMG	Port Moresby	54.57	105	P	P	12 36 45.4	-0.7
PMG				*e*P		12 36 45.9	
CTA	Charters Tower	56.84	118	P	P	12 37 01.1	-1.3
	comp=Z,7.3nm,1.0s,mb4.7,baz=266,slow=4.3,SNR=5.2						
CTAO	Charters Tower	56.84	118	*e*P	P	12 37 01.0	-1.3
	comp=Z,8.5nm,0.9s,mb4.8						
STKA	Stephens Creek	58.15	133	P	P	12 37 11.2	-0.1
	comp=Z,4.5nm,0.7s,mb4.6,baz=300,slow=6.2,SNR=7.8						
ARU	Arti	58.38	338	P	P	12 37 08.7	-4.0
BRTR	Keskin Array B	64.33	312	P	P	12 37 51.5	-1.4
	comp=Z,2.0nm,0.7s,mb4.2,baz=129,slow=7.6,SNR=6.2						
BRTR				pP	pP	12 38 03.9	-1.9
	comp=Z,1.9nm,0.7s,baz=127,slow=6.2,SNR=3.8						
MA2	Magadan	68.97	27	P	P	12 38 16.1	-5.9
AKASG	Malin Array Be	70.35	322	P	P	12 38 28.9	-1.6
	comp=Z,1.7nm,0.7s,mb4.1,baz=88,slow=4.3,SNR=4.1						
AKASG				pP	pP	12 38 42.1	-1.3
	comp=Z,4.2nm,0.8s,baz=88,slow=4.6,SNR=5.2						
MLR	Muntele Rosu	71.21	316	P	P	12 38 36.4	+0.6
	comp=Z,5.6nm,0.9s,mb4.5,baz=152,slow=7.8,SNR=5.3						
LBTB	Lobatse	73.22	242	*e*P	P	12 38 48.1	-0.1
	comp=Z,3.9nm,0.7s,mb4.5						
BOSA	Boshof	74.42	239	*e*P	P	12 38 55.3	+0.2
	comp=Z,3.5nm,0.7s,mb4.4						
FINES	FINESS Array B	75.13	332	P	P	12 38 58.0	-0.5
	comp=Z,1.5nm,0.4s,mb4.3,baz=101,slow=6.4,SNR=14						
FINES				pP	pP	12 39 10.9	-0.6
	comp=Z,3.0nm,0.5s,baz=96,slow=6.1,SNR=4.0						
KAF	Kangasniemi	75.22	333	*e*p	P	12 38 58.5	-0.5
OJC	Ojcow	76.13	320	*e*P	P	12 39 04.5	+0.1
ARCES	ARCESS Array B	77.80	340	P	P	12 39 13.5	+0.1
	comp=Z,4.4nm,1.0s,mb4.3,baz=104,slow=7.4,SNR=4.6						
DPC	Dobruska-Polom	78.36	320	*e*P	P	12 39 18.1	+1.3
DPC				*e*pP	pP	12 39 30.5	+0.7
BILL	Bilibino	78.42	21	*e*P	P	12 39 16.2	-0.6
	comp=Z,2.7nm,0.5s,mb4.4						
SUR	Sutherland	79.06	236	*e*P	P	12 39 22.6	+1.5
	comp=Z,5.2nm,0.8s,mb4.5						
GERES	GERESS Array B	79.94	319	P	P	12 39 25.6	+0.2
	comp=Z,3.6nm,0.9s,mb4.3,baz=72,slow=4.2,SNR=8.4						
GERES				pP	pP	12 39 39.0	+0.5
	comp=Z,8.8nm,0.8s,baz=90,slow=5.3,SNR=16						
KHC	Kasperske Hory	80.03	319	*e*P	P	12 39 26.6	+0.6
KHC				*e*pP	pP	12 39 39.0	0.0
CLL	Collm	80.53	321	*i* *SP	sP	12 39 42.0	-4.5
HFS	Hagfors	80.83	330	P	P	12 39 29.7	-0.3
	comp=Z,2.3nm,0.8s,mb4.1,baz=104,slow=6.1,SNR=6.5						
HFS				pP	pP	12 39 42.5	-0.6
	comp=Z,2.3nm,0.6s,baz=117,slow=6.6,SNR=3.1						
NB2	NORSAR Subarra	82.12	331	P	P	12 39 46.6	+10
	comp=Z,2.2nm,0.8s,mb4.1,baz=97,slow=5.0						
NOA	NORSAR Array B	82.12	331	pP	pP	12 39 49.2	-0.6
	comp=Z,1.3nm,0.9s,baz=97,slow=5.1,SNR=2.9						
URZ	Urewera	87.52	129	P	P	12 40 04.0	-0.1
	comp=Z,3.0nm,0.4s,mb4.8,baz=241,slow=5.8,SNR=3.0						
VNDA	Vanda	90.33	168	P	P	12 40 17.5	+0.9
	comp=Z,2.2nm,0.7s,mb4.6,baz=141,slow=8.4,SNR=7.2						
ILAR	Eielson Array	97.06	22	P	P	12 40 49.1	+1.6
	comp=Z,0.4nm,0.7s,mb4.0,baz=294,slow=5.5,SNR=4.5						
NVAR	Mina Array Bea	127.01	32	PKP	PKPdf	12 46 21.0	+1.6
	comp=Z,0.5nm,0.6s,baz=48,slow=3.2,SNR=4.3						
PDAR	Pinedale Array	127.50	22	PKP	PKPdf	12 46 21.6	+1.5
	comp=Z,1.1nm,1.0s,baz=272,slow=0.7,SNR=4.5						
ANMO	Albuquerque	135.45	25	PKP	PKPdf	12 46 38.3	+3.0
	comp=Z,2.8nm,1.2s,baz=21,slow=6.1,SNR=5.0						
TXAR	Lajitas Array	141.48	26	PKhKP		12 46 42.4	
	comp=Z,0.3nm,0.5s,baz=315,slow=3.8,SNR=6.9						
LPAZ	La Paz	159.65	236	PKPab	PKPab	12 47 55.4	+0.3
	comp=Z,0.9nm,0.7s,baz=146,slow=5.1,SNR=4.0						

IDC 26 12:28:38.5±6.9**,2.44N**×**95.95E,mb4.5**/6**,mb1 4.6**/7**, mb1mx4.2**/18**,ML4.3**/1**,Error ellipse: s-maj=176.0km s-min=58.1km az=135.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	16.19	10	Pn	P	12 32 29.1	0.0
	0.4nm,0.3s,baz=199,slow=10,SNR=5.7						
SONM	Songino Array	46.11	10	P	P	12 37 04.0	-2.2
	12nm,0.8s,baz=188,slow=8.5,SNR=20						
ZAL	Zalesovo	52.14	352	P	P	12 37 50.9	-1.9
	7.1nm,0.7s,baz=292,slow=7.3,SNR=8.0						
BVAR	Borovoye Array	54.68	341	P	P	12 38 08.2	-3.3
	9.0nm,1.1s,baz=143,slow=7.4,SNR=5.5						
AKASG	Malin Array Be	73.52	322	P	P	12 40 13.0	-2.0
	0.9nm,0.7s,baz=89,slow=4.7,SNR=4.2						
FINES	FINESS Array B	78.33	333	P	P	12 40 41.0	-1.0
	3.8nm,0.8s,baz=97,slow=11,SNR=4.0						
ARCES	ARCESS Array B	80.96	340	P	P	12 40 54.7	-1.2
	2.2nm,0.6s,baz=100,slow=4.7,SNR=8.9						

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*IDC **26** 12:30:55.4±0.6,4.00N×94.37E,mb4.6/17,mb1 4.7/18, mb1mx4.6/23,ML4.1/1,Error ellipse: s-maj=29.2km s-min=14.4km az=49.0*
*NEIC **26** 12:30:59.5±0.3,3.89N×94.44E,h30^{km},mb4.9/22,Error ellipse: s-maj=9.3km s-min=7.0km az=63.0*
*BJI **26** 12:30:59.2,3.49N×94.48E,h57^{km},mB5.6,mb4.9*
ISC 26 12:30:58.8±3.3**,3.84N**±0.07×**94.47E**±0.08**,h39**^{km}±29^{km}**, h38**^{km}±2.8^{km}**:pP-P,n70,**σ**1**^{s}**06**/64**,mb4.8**/42**,1C,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.17	16	P	P	12 34 31.1	-1.0
	47nm,1.0s						
CMAR	Chiang Mai Arr	15.17	16	Pn	P	12 34 32.6	+0.5
	0.3nm,0.3s,baz=229,slow=17,SNR=6.1						
CMAR				pP		12 34 37.5	
	0.5nm,0.3s,baz=211,slow=12,SNR=18						
IMP	Imphal	20.82	359	*e*	P	12 35 38.4	-1.1
KMI	Kunming	22.60	20	P	P	12 35 58.5	+1.1
KMI				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.5						
GYA	Guiyang	25.34	26	⇑*i*P	P	12 36 24.3	+0.4
GYA				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.7						
LSA	Lhasa	25.91	353	*e*P	P	12 36 31.2	+2.0
	comp=Z,33nm,0.7s,mb5.0						
ENH	Enshi	29.88	27	*e*P	P	12 37 02.7	-2.3
	comp=Z,22nm,1.1s,mb4.8						
WHN	Wuhan	32.52	33	P	P	12 37 29.0	+0.6
XAN	Xi'an	32.92	22	P	P	12 37 31.0	-0.8
XAN				AMB	AMB		
	comp=Z,28nm,0.9s,mb5.2						
MBWA	Marble Bar	35.08	136	*e*P	P	12 37 49.1	-1.3
	comp=Z,21nm,1.2s,mb4.9						
GTA	Gaotai	35.73	7	P	P	12 37 56.3	+0.4
GTA				PCP	PcP	12 40 25.0	+1.4
GTA				AMB	AMB		
	comp=Z,19nm,0.7s,mb5.1						
BJT	Baijiatuau	41.01	26	*e*P	P	12 38 41.4	+1.6
	comp=Z,14nm,0.8s,mb4.7						
BJI	Beijing	41.03	26	P	P	12 38 41.5	+1.5
BJI				AMB	AMB		
	comp=Z,21nm,0.9s,mb4.8						
UCH	Uchtor	42.17	338	P	P	12 38 50.7	+1.4
	SNR=8.9						
TKM2	Tokmak 2	42.38	339	P	P	12 38 51.9	+0.8
	SNR=5.3						
KBK	Karagaybulak	42.38	339	P	P	12 38 52.6	+1.5
	SNR=12						
AML	Almayashu	42.40	337	P	P	12 38 52.8	+1.5
	SNR=12						
AAK	Ala-Archa	42.53	338	P	P	12 38 54.0	+1.7
	SNR=5.4						
EKS2	Erkin-Say	42.82	337	P	P	12 38 55.9	+1.1
	SNR=6.0						
USP	Ospenovka	43.07	339	P	P	12 38 57.5	+0.7
	SNR=14						
SONM	Songino Array	45.01	11	P	P	12 39 11.1	-1.3
	comp=Z,2.7nm,0.8s,mb4.1,baz=189,slow=9.4,SNR=4.9						
SONM				PcP	PcP	12 40 53.9	+0.6
	comp=Z,3.3nm,0.8s,baz=183,slow=3.5,SNR=6.3						
WRA	Warramunga Arr	45.74	123	P	P	12 39 19.9	+1.3
	comp=Z,38nm,0.8s,mb5.4,baz=301,slow=8.9,SNR=36						
WRA				pP	pP	12 39 29.7	0.0
	comp=Z,8.6nm,0.6s,baz=300,slow=9.1,SNR=5.6						
WRAB	Tennant Creek	45.75	123	*e*P	P	12 39 19.9	+1.3
	comp=Z,91nm,1.0s,mb5.7						
ASAR	Alice Springs	47.16	127	P	P	12 39 30.9	+1.2
	comp=Z,11nm,0.7s,mb4.9,baz=305,slow=7.6,SNR=23						
ASAR				pP	pP	12 39 40.6	-0.1
	comp=Z,3.3nm,0.5s,baz=296,slow=7.8,SNR=5.0						
ASAR				PcP	PcP	12 41 02.1	+0.9
	comp=Z,3.3nm,0.8s,baz=309,slow=4.1,SNR=6.2						
HIA	Hailar	50.11	21	*e*P	P	12 39 51.3	-0.8
	comp=Z,15nm,0.9s,mb5.0						
HIA				*e*	pP	12 40 02.0	-1.3
ZAL	Zalesovo	50.56	353	P	P	12 39 54.8	-0.7
	comp=Z,16nm,1.2s,mb4.8,baz=287,slow=7.4,SNR=5.9						
BVAR	Borovoye Array	52.89	342	P	P	12 40 12.2	-0.8
	comp=Z,24nm,1.2s,mb5.0,baz=143,slow=7.4,SNR=14						
BRVK	Borovoye	52.95	342	*e*P	P	12 40 12.4	-1.1
	comp=Z,14nm,1.1s,mb4.8						
BRVK				*e*	pP	12 40 25.9	+1.1
CHKZ	Chkalovo	53.38	343	*e*P	P	12 40 16.5	-0.2
	comp=Z,25nm,1.0s,mb5.1						
CHKZ				*e*	pP	12 40 27.4	-0.7
PMG	Port Moresby	54.13	104	*e*P	P	12 40 20.7	-2.0
	comp=Z,34nm,1.2s,mb5.2						
CTAO	Charters Tower	56.12	117	*e*P	P	12 40 35.6	-1.5
	comp=Z,11nm,0.9s,mb4.9						
STKA	Stephens Creek	57.14	132	P	P	12 40 45.0	+0.8
	comp=Z,5.5nm,1.0s,mb4.6,baz=322,slow=6.6,SNR=4.7						
STKA	Stephens Creek	57.14	132	*e*P	P	12 40 43.0	-1.3
KMBO	Kilima Mbogo	57.39	266	P	P	12 40 46.8	+0.5
	comp=Z,1.6nm,0.7s,mb4.2,baz=27,slow=24,SNR=4.7						
KMBO	Kilima Mbogo	57.39	266	*e*P	P	12 40 46.5	+0.3
	comp=Z,5.5nm,1.1s,mb4.5						
GNI	Garni	57.51	316	*e*P	P	12 40 46.4	-0.3
	comp=Z,5.8nm,0.9s,mb4.6						
ARU	Arti	59.71	338	*e*P	P	12 41 00.4	-1.4
	comp=Z,27nm,1.4s,mb5.1						
KIV	Kislovodsk	60.54	319	*e*P	P	12 41 06.1	-1.5
	comp=Z,9.4nm,1.0s,mb4.9						
YAK	Yakutsk	63.70	18	*e*P	P	12 41 27.7	-0.8
	comp=Z,36nm,1.1s,mb5.3						
BRTR	Keskin Array B	65.33	312	P	P	12 41 38.1	-1.2
	comp=Z,5.9nm,1.1s,mb4.5,baz=129,slow=7.9,SNR=7.8						
OBN	Obninsk	68.95	329	*e*P	P	12 42 00.7	-1.2
	comp=Z,21nm,1.0s,mb5.0						
MA2	Magadan	70.18	27	P	P	12 42 09.6	+0.3
	comp=Z,14nm,0.9s,mb4.9						
IDI	Anoyia	71.15	306	P	P	12 42 14.7	-0.9
	comp=Z,10.0nm,0.7s,mb4.8,baz=78,slow=8.5,SNR=5.4						
AKASG	Malin Array Be	71.51	322	P	P	12 42 15.6	-1.9
	comp=Z,1.9nm,0.7s,mb4.1,baz=87,slow=4.5,SNR=7.6						
MLR	Muntele Rosu	72.28	317	P	P	12 42 22.2	+0.1
	comp=Z,4.4nm,0.9s,mb4.4,baz=111,slow=1.9,SNR=4.3						
LBTB	Lobatse	72.64	242	*e*P	P	12 42 24.6	-0.1
	comp=Z,6.4nm,1.0s,mb4.5						
BOSA	Boshof	73.76	239	*e*P	P	12 42 31.4	+0.1
	comp=Z,6.2nm,1.1s,mb4.5						
MAW	Mawson	74.68	192	P	P	12 42 37.4	+1.6
	comp=Z,4.3nm,0.8s,mb4.5,baz=185,slow=11,SNR=4.0						
KOLS	Kolonicke sedl	75.45	320	*e*P	P	12 42 41.5	+0.9
CRVS	Cervenica-Dubn	75.97	319	*e*pP	pP	12 42 51.4	-3.9
FINES	FINESS Array B	76.41	333	P	P	12 42 45.2	-0.6
	comp=Z,2.9nm,0.8s,mb4.3,baz=101,slow=5.2,SNR=6.0						
FINES	FINESS Array B	76.41	333	P	P	12 42 45.2	-0.6
KAF	Kangasniemi	76.51	333	*e*p	P	12 42 45.0	-1.3
VYHS	Vyhne	77.62	319	*e*P	P	12 42 51.8	-1.0
ZST	Bratislava	78.73	318	*e*P	P	12 42 59.9	+1.0
ARCES	ARCESS Array B	79.15	340	P	P	12 43 00.9	+0.1
	comp=Z,7.8nm,1.1s,mb4.6,baz=45,slow=5.1,SNR=4.5						
BILL	Bilibino	79.69	21	*e*P	P	12 43 04.1	+0.3
	comp=Z,4.1nm,1.0s,mb4.3						
PRU	Pruhonice	80.59	320	*e*P	P	12 43 08.9	0.0
GERES	GERESS Array B	81.04	319	P	P	12 43 11.5	+0.2
	comp=Z,7.6nm,1.1s,mb4.6,baz=104,slow=5.5,SNR=13						
BRG	Berggiesshubel	81.05	321	*e*P	P	12 43 11.7	+0.4
	comp=Z,12nm,1.3s,mb4.7						
KHC	Kasperske Hory	81.14	319	*e*P	P	12 43 12.0	+0.2
CLL	Collm	81.68	321	*e*P	P	12 43 14.0	-0.6
CLL	Collm	81.68	321	P	P	12 43 14.0	-0.6
HFS	Hagfors	82.08	330	P	P	12 43 16.6	+0.1
	comp=Z,1.2nm,0.7s,mb3.9,baz=117,slow=9.7,SNR=2.7						
DAVOX	Davos	83.51	316	P	P	12 43 24.8	+0.8
	comp=Z,5.5nm,0.6s,mb4.8,baz=144,slow=4.5,SNR=6.2						
ULM	Lac du Bonnet	125.39	8	PKP	PKPdf	12 49 58.6	+2.8
	comp=Z,2.8nm,0.9s,baz=180,slow=19,SNR=3.7						
NVAR	Mina Array Bea	128.15	33	PKP	PKPdf	12 50 05.2	+3.7
	comp=Z,2.4nm,0.9s,baz=314,slow=0.6,SNR=8.6						
PDAR	Pinedale Array	128.76	23	PKP	PKPdf	12 50 05.5	+2.9
	comp=Z,2.0nm,0.9s,slow=1.5,SNR=9.7						
BDFB	Brasilia	141.29	250	PKP	PKPdf	12 50 28.4	+1.9
	comp=Z,0.8nm,0.3s,baz=9.6,slow=3.2,SNR=3.2						
TXAR	Lajitas Array	142.70	27	PKhKP		12 50 26.4	
	comp=Z,0.3nm,0.6s,baz=135,slow=2.6,SNR=3.4						

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*IDC **26** 12:34:34.3±0.8,8.94N×93.89E,h24^{km}±3^{km},mb4.1/17, mb1 4.3/17,mb1mx4.2/23,Error ellipse: s-maj=47.9km s-min=14.4km az=44.0*
ISC 26 12:34:32.6±0.7**,9.0N**±0.2×**94.0E**±0.2**,h25**^{km}**, h25**^{km}±.5^{km}**:pP-P,n25,**σ**0**^{s}**74**/22**,mb4.3**/18**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
ZAL	Zalesovo	45.43	352	P	P	12 42 51.6	+0.5
	2.8nm,0.4s,mb4.4,baz=314,slow=4.5,SNR=5.5						
BVAR	Borovoye Array	47.90	341	P	P	12 43 10.7	0.0
	0.9nm,0.6s,mb4.0,baz=143,slow=7.4,SNR=3.8						
WRA	Warramunga Arr	49.02	126	P	P	12 43 20.1	+0.4
	1.6nm,0.6s,mb4.3,baz=307,slow=8.4,SNR=6.0						
WRA				pP	pP	12 43 27.1	-0.4
	1.5nm,0.7s,baz=305,slow=8.8,SNR=5.7						
ASAR	Alice Springs	50.73	131	P	P	12 43 32.2	-0.6
	1.8nm,1.0s,mb3.9,baz=304,slow=6.5,SNR=3.2						
CTA	Charters Tower	58.97	120	P	P	12 44 32.6	-0.2
	12nm,1.2s,mb4.8,baz=298,slow=6.4,SNR=3.3						
BRTR	Keskin Array B	61.61	310	P	P	12 44 48.8	-1.8
	2.1nm,0.9s,mb4.3,baz=122,slow=8.4,SNR=5.7						
AKASG	Malin Array Be	67.20	321	P	P	12 45 25.7	-1.1
	0.5nm,0.5s,mb3.8,baz=89,slow=5.4,SNR=3.9						
AKASG				pP	pP	12 45 33.1	-1.6
	0.1nm,0.3s,baz=276,slow=16,SNR=2.7						
MLR	Muntele Rosu	68.29	315	P	P	12 45 33.2	-0.5
	3.7nm,0.9s,mb4.4,baz=179,slow=11,SNR=3.1						
FINES	FINESS Array B	71.67	332	P	P	12 45 53.5	-0.6
	1.3nm,0.5s,mb4.1,baz=94,slow=6.8,SNR=9.6						
FINES				pP	pP	12 46 02.1	+0.1
	3.6nm,0.9s,baz=109,slow=6.1,SNR=1.5						
KAF	Kangasniemi	71.74	333	*e*p	P	12 45 54.0	-0.5
OJC	Ojcow	73.04	320	*e*P	P	12 46 02.4	0.0
ARCES	ARCESS Array B	74.18	340	P	P	12 46 09.0	+0.4
	3.5nm,0.8s,mb4.3,baz=99,slow=6.5,SNR=8.4						
ARCES				pP	pP	12 46 17.2	+0.7
	2.1nm,0.8s,baz=100,slow=7.4,SNR=1.8						
GERES	GERESS Array B	76.91	318	P	P	12 46 24.7	+0.1
	2.2nm,0.6s,mb4.3,baz=88,slow=5.3,SNR=12						
GERES				pP	pP	12 46 32.6	0.0
	1.4nm,0.6s,baz=87,slow=5.3,SNR=6.3						
KHC	Kasperske Hory	77.00	318	*e*P	P	12 46 25.5	+0.5
HFS	Hagfors	77.43	330	P	P	12 46 27.0	-0.2
	3.1nm,0.5s,mb4.5,baz=99,slow=4.7,SNR=22						
HFS				pP	pP	12 46 35.1	-0.1
	1.5nm,0.5s,baz=108,slow=4.7,SNR=1.9						
NB2	NORSAR Subarra	78.70	331	P	P	12 46 34.0	-0.1
	5.8nm,1.2s,mb4.4,baz=92,slow=5.6						
NOA	NORSAR Array B	78.70	331	P	P	12 46 33.7	-0.4
	1.1nm,0.7s,mb3.9,baz=91,slow=5.8,SNR=4.2						
NOA				pP	pP	12 46 41.8	-0.4
	0.9nm,0.6s,baz=91,slow=5.7,SNR=3.8						
DAVOX	Davos	79.50	316	P	P	12 46 39.8	+1.0
	2.2nm,0.5s,mb4.4,baz=105,slow=12,SNR=4.9						
LPG	La Plagne	81.74	315	*e*P	P	12 46 52.2	+1.5
	20nm,0.9s,mb4.7						
ESDC	Sonseca Array	90.40	310	P	P	12 47 34.9	+1.4
	0.9nm,0.7s,mb4.2,baz=50,slow=4.5,SNR=4.9						
ILAR	Eielson Array	93.77	22	P	P	12 47 48.2	-0.1
	0.3nm,0.8s,mb3.8,baz=304,slow=5.6,SNR=4.1						
ILAR				pP	pP	12 47 56.8	+0.3
	0.7nm,0.8s,baz=306,slow=5.0,SNR=5.6						
INK	Inuvik	95.96	16	P	P	12 47 58.4	0.0
	1.6nm,1.0s,mb4.4,baz=318,slow=9.3,SNR=3.8						
NVAR	Mina Array Bea	124.03	30	PKP	PKPdf	12 53 32.9	-1.1
	1.7nm,0.8s,baz=281,slow=2.3,SNR=10.0						
PDAR	Pinedale Array	124.18	21	PKP	PKPdf	12 53 31.6	-2.6
	1.1nm,0.8s,baz=63,slow=1.0,SNR=9.2						
PDAR				pPKP		12 53 40.4	
	0.5nm,0.7s,baz=90,slow=3.0,SNR=4.4						
TXAR	Lajitas Array	138.26	23	PKP	PKPdf	12 53 59.5	-1.7
	0.4nm,0.6s,baz=163,slow=0.6,SNR=7.7						

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*IDC **26** 12:35:55.3±11.0,19.17S×167.43E,h146^{km}±101^{km}, mb4.0/8,mb1 4.1/9,mb1mx4.0/16,Error ellipse: s-maj=36.8km s-min=22.5km az=48.0*
ISC 26 12:35:41.5±0.7**,19.12S**±0.07×**167.5E**±0.1**,h33**^{km}**,n19,** σ**1**^{s}**20**/17**,mb4.6**/9**,3C,Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
DZM	Mont Dzumac	3.10	199	*e*P	P	12 36 28.6	-0.7
DZM				*e*S	S	12 37 04.6	-1.0
NOUC	Port Laguerre	3.17	201	*e*P	P	12 36 30.0	-0.3
CTA	Charters Tower	20.05	264	P	P	12 40 16.9	+2.2
	0.4nm,0.3s,baz=96,slow=9.8,SNR=6.0						
RPZ	Rata Peaks	24.70	174	P	P	12 41 02.3	+1.4
	10nm,0.8s,mb4.4,baz=315,slow=7.1,SNR=4.0						
STKA	Stephens Creek	26.54	236	P	P	12 41 19.4	+1.1
	6.0nm,0.9s,mb4.1,baz=66,slow=9.1,SNR=4.6						
ASAR	Alice Springs	31.57	256	P	P	12 42 02.5	-0.9
	3.2nm,0.5s,mb4.4,baz=84,slow=8.3,SNR=24						
TGY	Tagaytay City	56.52	302	P	P	12 45 21.9	-1.3
	135nm,0.5s,mb6.3,baz=141,slow=3.4,SNR=5.6						
SONM	Songino Array	86.16	324	P	P	12 48 20.7	+0.2
	3.9nm,0.8s,mb4.7,baz=156,slow=5.1,SNR=11						
YBH	Yreka Blue Hor	88.35	45	P	P	12 48 31.4	+0.1
	3.0nm,0.9s,mb4.5,baz=81,slow=4.5,SNR=4.1						
SNAA	Sanae	89.20	183		P	12 48 36.0	+1.4
SNAA	Sanae	89.20	183		pP	12 48 46.0	+0.8
SNAA	Sanae	89.20	183	P	P	12 48 33.9	-0.8
	1.0nm,0.9s,mb4.1,baz=232,slow=3.5,SNR=4.5						
VNA3	Neumayer Olymp	89.85	181	⇑*i*	P	12 48 41.2	+3.5
VNA3	Neumayer Olymp	89.85	181		pP	12 48 51.0	+2.7
NVAR	Mina Array Bea	89.95	49	P	P	12 48 38.9	-0.1
	2.0nm,0.8s,mb4.5,baz=232,slow=9.3,SNR=8.9						
VNA2	Neumayer--Watz	90.12	182	⇑*i*	P	12 48 42.7	+3.7
VNA2	Neumayer--Watz	90.12	182	⇑	P	12 48 46.8	+7.8
ILAR	Eielson Array	90.61	18	P	P	12 48 39.6	-1.8
	1.1nm,0.8s,mb4.2,baz=261,slow=4.6,SNR=6.0						
YKA	Yellowknife Ar	101.32	28	P	P	12 49 29.6	-0.6
	0.3nm,0.5s,baz=254,slow=4.6,SNR=11						

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*IDC **26** 12:35:50.3±1.2,7.32N×92.23E,mb4.0/9,mb1 4.2/10, mb1mx4.1/20,ML4.4/1,MS4.3/1,Ms1 4.5/1,ms1mx3.1/30, Error ellipse: s-maj=38.4km s-min=28.5km az=50.0*
ISC 26 12:35:51.7±0.9**,7.3N**±0.1×**92.4E**±0.1**,h20**^{km}**,n42,** σ**0**^{s}**77**/23**,mb4.6**/16**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.77	29	Pn	P	12 38 55.7	+0.5
	0.6nm,0.3s,baz=230,slow=12,SNR=4.9						
CMAR				LR	LR	12 43 47.6	
	comp=Z,1µm,20.4s,baz=246,slow=37						
IMP	Imphal	17.43	5	*e*	P	12 39 54.3	-1.3
PKI	Pulchoki	21.21	343	*e*P	P	12 40 39.0	+0.3

	251nm,0.9s,mb5.5						
DMN	Daman	21.34	342	eP	P	12 40 40.2	+0.2
	65nm,0.6s,mb5.2						
GUN	Gumba	21.40	344	eP	P	12 40 40.9	+0.3
	134nm,0.9s,mb5.3						
KKN	Kakani	21.45	343	eP	P	12 40 41.1	0.0
	112nm,1.0s,mb5.2						
GKN	Gorkha	21.85	341	eP	P	12 40 45.6	+0.5
	84nm,0.5s,mb5.4						
KOLN	Koldanda	21.99	339	eP	P	12 40 47.3	+0.8
	53nm,0.6s,mb5.1						
DDI	Dehra Dun	26.55	331	e	P	12 41 31.8	+1.4
SONM	Songino Array	42.10	14	P	P	12 43 43.7	-0.4
	2.2nm,0.8s,mb3.8,baz=191,slow=6.3,SNR=6.2						
SONM	Songino Array	42.10	14	P	pP	12 43 49.8	-0.4
	3.3nm,0.7s,baz=197,slow=8.1,SNR=8.6						
ZAL	Zalesovo	46.89	354	P	P	12 44 22.0	-0.5
	10nm,1.3s,mb4.6,baz=287,slow=9.2,SNR=5.0						
ZAL	Zalesovo	46.89	354	P	pP	12 44 27.5	-1.1
	2.4nm,0.9s,baz=287,slow=9.5,SNR=6.2						
BVAR	Borovoye Array	48.98	343	P	P	12 44 38.4	-0.4
	3.6nm,0.8s,mb4.5,baz=153,slow=6.6,SNR=11						
BVAR	Borovoye Array	48.98	343	P	pP	12 44 43.7	-1.3
	2.9nm,0.5s,baz=140,slow=11,SNR=13						
STKA	Stephens Creek	60.98	133	P	P	12 46 06.8	+0.4
	1.5nm,0.7s,mb4.2,baz=301,slow=12,SNR=2.9						
BRTR	Keskin Array B	61.50	311	P	P	12 46 08.5	-1.2
	2.1nm,1.1s,mb4.2,baz=129,slow=7.9,SNR=4.5						
BRTR	Keskin Array B	61.50	311	P	pP	12 46 14.6	-1.4
	1.1nm,0.8s,baz=121,slow=7.2,SNR=6.3						
IDI	Anoyia	67.47	305	P	pP	12 46 54.3	-0.7
	7.6nm,0.9s,baz=117,slow=8.5,SNR=4.3						
AKASG	Malin Array Be	67.53	322	P	P	12 46 47.5	-1.3
	0.2nm,0.3s,mb3.6,baz=90,slow=4.7,SNR=6.0						
AKASG	Malin Array Be	67.53	322	P	pP	12 46 52.7	-2.3
	0.3nm,0.3s,baz=84,slow=4.5,SNR=6.0						
MLR	Muntele Rosu	68.37	316	P	P	12 46 54.5	+0.3
	9.5nm,1.2s,mb4.7,baz=78,slow=8.3,SNR=4.9						
MLR	Muntele Rosu	68.37	316	P	pP	12 46 59.9	-0.5
	12nm,0.9s,baz=328,slow=1.7,SNR=8.3						
KOLS	Kolonicke sedl	71.50	319	e	pP	12 47 20.4	+1.0
CRVS	Cervenica-Dubn	72.02	319	e	pP	12 47 23.2	+0.7
FINES	FINESS Array B	72.40	333	P	pP	12 47 23.3	-1.3
	3.6nm,0.7s,baz=108,slow=6.0,SNR=6.7						
OJC	Ojcow	73.30	320	eP	P	12 47 24.7	+0.9
VYHS	Vyhne	73.67	318	e	P	12 47 26.2	+0.2
ZST	Bratislava	74.79	318	e	P	12 47 33.3	+0.8
PRU	Pruhonice	76.63	320	eP	pP	12 47 49.5	+0.3
GERES	GERESS Array B	77.10	318	P	P	12 47 43.9	-1.6
	1.9nm,1.0s,mb4.0,baz=90,slow=5.3,SNR=4.8						
GERES	GERESS Array B	77.10	318	P	pP	12 47 52.2	+0.4
	3.2nm,0.7s,baz=90,slow=4.0,SNR=10						
KHC	Kasperske Hory	77.20	319	eP	pP	12 47 50.5	-1.9
NB2	NORSAR Subarra	79.37	331	P	P	12 47 58.0	+0.3
	6.6nm,1.2s,mb4.4,baz=96,slow=5.0						
NOA	NORSAR Array B	79.37	331	P	P	12 47 57.4	-0.4
	0.5nm,0.8s,mb3.5,baz=97,slow=5.8,SNR=3.1						
NOA	NORSAR Array B	79.37	331	P	pP	12 48 03.2	-0.9
	1.1nm,0.7s,baz=96,slow=5.5,SNR=3.4						
DAVOX	Davos	79.60	316	P	P	12 47 59.3	0.0
	4.9nm,1.1s,mb4.3,baz=135,slow=5.7,SNR=3.0						
DAVOX	Davos	79.60	316	P	pP	12 48 05.5	-0.1
	4.3nm,0.6s,baz=99,slow=6.0,SNR=6.8						
INK	Inuvik	98.00	16	P	pP	12 49 33.8	-0.2
	1.3nm,1.1s,baz=332,slow=6.1,SNR=3.6						
PDAR	Pinedale Array	126.29	20	PKP	PKPdf	12 54 55.5	-2.2
	0.5nm,0.9s,baz=18,slow=2.9,SNR=4.3						
PDAR	Pinedale Array	126.29	20	PKP	PKPdf	12 55 01.0	+3.3
	0.7nm,0.6s,baz=88,slow=0.7,SNR=5.7						
TXAR	Lajitas Array	140.41	22	PKP	PKPdf	12 55 22.4	-2.1
	0.2nm,0.5s,slow=1.8,SNR=2.8						

IDC 26 12:39:02.3±1.4**, 10.98N×92.00E, h25^{km}**±3^{km}**, mb4.0**/12**, mb1 4.1**/13**, mb1mx4.0**/22**, ML4.0**/1**, Error ellipse: s-maj=35.1km s-min=26.1km az=173.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.02	41	Pn	P	12 41 24.8	-3.3
	0.3nm,0.3s,baz=236,slow=16,SNR=6.8						
SONM	Songino Array	38.69	16	P	P	12 46 24.2	-1.6
	0.6nm,0.5s,baz=204,slow=8.6,SNR=5.2						
SONM				pP	pP	12 46 31.9	-1.5
	31nm,1.5s,baz=203,slow=8.0,SNR=7.5						
ZAL	Zalesovo	43.23	354	P	P	12 47 01.4	-1.8
	1.3nm,0.4s,baz=292,slow=9.8,SNR=3.6						
ZAL				pP	pP	12 47 09.1	-1.5
	3.1nm,0.5s,baz=313,slow=5.1,SNR=7.1						
BVAR	Borovoye Array	45.40	342	P	P	12 47 18.8	-1.8
	1.6nm,0.6s,baz=143,slow=7.4,SNR=4.5						
BVAR				pP	pP	12 47 26.5	-1.6
	0.9nm,0.5s,baz=137,slow=9.8,SNR=4.1						
BRTR	Keskin Array B	58.82	310	P	P	12 48 58.7	-2.5
	4.6nm,1.2s,baz=124,slow=8.9,SNR=6.1						
BRTR				pP	pP	12 49 06.2	-2.8
	1.5nm,0.8s,baz=127,slow=7.9,SNR=5.1						
MLR	Muntele Rosu	65.49	315	P	P	12 49 44.4	-1.3
	5.7nm,0.9s,baz=64,slow=2.9,SNR=4.3						
FINES	FINESS Array B	69.00	332	P	P	12 50 05.3	-2.3
	2.7nm,0.8s,baz=127,slow=9.5,SNR=4.1						
FINES				pP	pP	12 50 13.9	-1.5
	2.0nm,0.6s,baz=98,slow=7.6,SNR=2.8						
ARCES	ARCESS Array B	71.65	340	P	P	12 50 20.9	-2.7
	3.1nm,0.9s,baz=97,slow=7.3,SNR=3.1						
ARCES				pP	pP	12 50 30.1	-1.3
	1.3nm,0.6s,baz=76,slow=5.0,SNR=1.9						
GERES	GERESS Array B	74.12	318	P	P	12 50 36.3	-2.1
	1.1nm,0.8s,baz=90,slow=5.3,SNR=5.1						
GERES				pP	pP	12 50 45.1	-1.2
	0.6nm,0.6s,baz=90,slow=5.3,SNR=4.1						
HFS	Hagfors	74.73	329	P	P	12 50 40.0	-1.6
	14nm,1.3s,baz=98,slow=10,SNR=3.8						
HFS				pP	pP	12 50 47.9	-1.6
	1.6nm,0.5s,baz=117,slow=9.9,SNR=1.9						
NB2	NORSAR Subarra	76.01	330	P	P	12 50 46.8	-2.2
	3.2nm,1.0s,baz=92,slow=5.8						
NOA	NORSAR Array B	76.01	330	P	P	12 50 46.9	-2.1
	1.3nm,0.8s,baz=90,slow=6.6,SNR=3.5						
ILAR	Eielson Array	92.67	22	P	P	12 52 11.3	-1.7
	0.8nm,0.8s,baz=298,slow=4.3,SNR=8.8						
ILAR				pP	pP	12 52 19.4	-1.6
	1.5nm,0.7s,baz=301,slow=4.5,SNR=12						
INK	Inuvik	94.60	15	P	P	12 52 19.8	-2.1
	0.7nm,0.9s,baz=340,slow=9.5,SNR=3.8						
INK				pP	pP	12 52 27.5	-2.3
	0.6nm,0.5s,baz=1.7,slow=12,SNR=3.4						
PDAR	Pinedale Array	123.00	19	PKP	PKPdf	12 57 57.5	-4.0
	0.3nm,0.5s,baz=91,slow=2.0,SNR=4.2						
PDAR				pPKP		12 58 05.3	
	0.7nm,0.6s,baz=50,slow=0.3,SNR=5.1						
NVAR	Mina Array Bea	123.28	28	PKP	PKPdf	12 57 58.9	-3.3
	0.7nm,0.7s,baz=289,slow=4.1,SNR=4.0						
NVAR				pPKP		12 58 06.6	
	1.1nm,0.6s,baz=297,slow=1.5,SNR=7.3						
TXAR	Lajitas Array	137.17	20	PKP	PKPdf	12 58 22.5	-6.3
	0.4nm,1.0s,baz=333,slow=4.0,SNR=3.0						
TXAR				pPKP		12 58 32.3	
	0.3nm,0.5s,baz=174,slow=0.9,SNR=4.0						

BJI ***26*** *12:40:44.3, 6.29S×128.94E, h310^{km}, mB5.0, mb4.5*
NEIC ***26*** *12:40:53.2±1.0, 5.38S×128.74E, h311^{km}±11^{km}, mb4.6/24, Error ellipse: s-maj=8.5km s-min=5.4km az=59.0*
IDC ***26*** *12:40:54.4±1.4, 5.38S×128.74E, h320^{km}±13^{km}, mb4.2/20, mb1 4.2/23, mb1mx4.2/25, Error ellipse: s-maj=16.8km s-min=8.2km az=67.0*
DJA ***26*** *12:41:52.8±0.3, 6.44S×123.51E, h33^{km}, mb6.2/3, Error ellipse: s-maj=17.1km s-min=7.7km az=166.0*
ISC 26 12:40:52.2±1.1**, 5.37S**±0.04×**128.83E**±0.05**, h316^{km}**±12^{km}**, n96, σ0^{s}92**/83**, mb4.6**/50**, 6C-4D, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUNI	Buntu Taipa	8.64	281	eP	P	12 42 56.4	+1.9
YOMI	Yo Moklole	12.02	77	eP	S	12 45 54.7	+10
KEDI	Kedomdong	12.99	256⇓	eP	P	12 43 46.5	-1.2
	164nm,0.2s						
KEDI				eSn	S	12 46 07.1	+0.4
KEDI				eS	S	12 46 07.3	+0.6
RATI	Rata	13.61	255⇑	ePn	P	12 43 52.8	-2.4
RATI				eSn	S	12 46 21.9	+1.5
RATI				eS	S	12 46 22.9	+2.5
RATI	Rata	13.61	255⇑	eP	P	12 43 53.8	-1.4
	410nm,0.2s						
KELI	Kelakatan	14.51	258⇑	eP	P	12 44 04.9	-0.7
SRDI	Scrawed	14.90	257⇑	ePn	P	12 44 07.4	-2.6
SRDI				eSn	S	12 46 48.4	+0.6
SRDI	Scrawed	14.90	257	epP	P	12 44 08.5	-1.5
SRDI	Scrawed	14.90	257⇑	eP	P	12 44 07.4	-2.6
	331nm,0.2s						
WRAB	Tennant Creek	15.44	160	eP	P	12 44 14.2	-1.7
	62nm,0.8s						
WRA	Warramunga Arr	15.45	160	P	P	12 44 15.0	-1.0
	3.4nm,0.3s,baz=338,slow=12,SNR=88						
WRA				S	S	12 46 58.8	-0.2
	2.0nm,0.3s,baz=340,slow=21,SNR=14						
WRA				ScP		12 52 00.3	
	0.2nm,0.3s,baz=329,slow=2.5,SNR=6.2						
MBWA	Marble Bar	18.00	209	eP	P	12 44 41.7	-1.0
	89nm,1.0s						
PMG	Port Moresby	18.62	104	P	P	12 44 50.4	+1.5
	3.5nm,0.3s,baz=280,slow=4.2,SNR=27						
ASAR	Alice Springs	18.84	165	P	P	12 44 51.5	+0.4
	4.6nm,0.3s,baz=343,slow=11,SNR=118						
ASAR				S	S	12 48 06.4	+2.5
	1.3nm,0.3s,baz=344,slow=20,SNR=8.8						
ASAR				ScP		12 52 08.6	
	1.6nm,0.3s,baz=344,slow=2.2,SNR=16						
TGY	Tagaytay City	20.87	338	P	P	12 45 13.6	+2.5
	83nm,0.4s,baz=136,slow=3.1,SNR=4.2						
TGY	Tagaytay City	20.87	338	P	P	12 45 13.6	+2.5
CTA	Charters Tower	22.39	132	P	P	12 45 27.7	+2.0
	12nm,0.8s,mb4.2,baz=312,slow=10,SNR=9.1						
CTAO	Charters Tower	22.39	132	eP	P	12 45 27.5	+1.9
	17nm,1.0s,mb4.3						
GUMO	Guam	24.67	40	eP	P	12 45 45.8	-1.0
	171nm,0.8s,mb5.5						
STKA	Stephens Creek	28.95	157	P	P	12 46 25.6	+0.3
	5.6nm,0.7s,mb4.1,baz=338,slow=8.1,SNR=12						
STKA				ScP		12 52 35.0	
	6.1nm,0.5s,baz=337,slow=4.4,SNR=11						
STKA	Stephens Creek	28.95	157	eP	P	12 46 24.9	-0.3
STKA				ScP		12 52 35.0	
NWAO	Narrogin (SRO)	29.47	200	P	P	12 46 29.3	-0.5
	3.6nm,0.3s,mb4.3,baz=71,slow=10.0,SNR=14						
NWAO	Narrogin (SRO)	29.47	200	eP	P	12 46 29.2	-0.5
	20nm,1.1s,mb4.5						
JOW	Kunigami	32.02	359	P	P	12 46 52.4	+0.6
	66nm,0.7s,mb5.3,baz=201,slow=7.5						
CM31	Chiang Mai Arr	37.80	310	eP	P	12 47 41.1	+0.6
	20nm,0.7s,mb4.7						
CMAR	Chiang Mai Arr	37.80	310	P	P	12 47 40.9	+0.3
	16nm,0.6s,mb4.6,baz=136,slow=7.1,SNR=44						
CMAR				ScP	S	12 53 08.2	+0.3
	4.2nm,0.6s,baz=144,slow=3.2,SNR=4.3						
CMAR	Chiang Mai Arr	37.80	310	P	P	12 47 40.9	+0.3
CMAR				ScP	S	12 53 08.2	+0.3
NJ2	Nanjing	38.41	346	eP	P	12 47 46.5	+1.1
KMI	Kunming	39.52	321	P	P	12 47 54.0	-0.7
KMI				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.3						
ENH	Enshi	39.99	334	eP	P	12 47 58.0	-0.4
	comp=Z,8.2nm,0.7s,mb4.2						
KS15	Wonju Array Si	42.60	359	eP	P	12 48 20.4	+0.9
MAJO	Matsushiro	42.61	11	eP	P	12 48 18.8	-0.9
	comp=Z,46nm,0.8s,mb4.8						
MAT	Matsushiro	42.61	11	P	P	12 48 18.9	-0.7
MAT	Matsushiro	42.61	11	eP	P	12 48 19.0	-0.6
	comp=Z,50nm,1.0s,mb4.7						
BJT	Baijiatuau	46.65	347	eP	P	12 48 50.6	-0.8
	comp=Z,25nm,0.9s,mb4.5						
BJI	Beijing	46.66	347	P	P	12 48 51.5	-0.1
BJI				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
CN2	Changchun	49.04	357	eP	P	12 49 08.8	-0.9
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.3						
MDJ	Mudanjiang	49.76	1	eP	P	12 49 15.4	+0.3
	comp=Z,14nm,0.6s,mb4.5						
LSA	Lhasa	50.22	316	eP	P	12 49 19.6	+0.8
	comp=Z,14nm,0.5s,mb4.5						
ASAJ	Asahikawa	50.80	13	P	P	12 49 23.0	+0.1
	comp=Z,22nm,0.6s,mb4.7,baz=253,slow=8.1,SNR=16						
GTA	Gaotai	51.99	332	P	P	12 49 32.5	+0.8
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb3.7						
GUN	Gumba	53.01	311	eP	P	12 49 39.3	0.0
	comp=Z,190nm,0.7s,mb5.5						
PKI	Pulchoki	53.19	310	eP	P	12 49 40.1	-0.5
	comp=Z,26nm,0.5s,mb4.8						
RPZ	Rata Peaks	53.23	143	P	P	12 49 41.9	+1.2
	comp=Z,16nm,0.7s,mb4.5,baz=33,slow=18,SNR=9.9						
KKN	Kakani	53.40	311	eP	P	12 49 41.5	-0.6
	comp=Z,102nm,0.9s,mb5.1						
DMN	Daman	53.44	310	eP	P	12 49 42.1	-0.3
	comp=Z,86nm,0.9s,mb5.1						
YSS	Yuzh-Sakhalins	53.54	12	eP	P	12 49 42.9	+0.1
	comp=Z,35nm,0.8s,mb4.7						
GKN	Gorkha	53.99	310	eP	P	12 49 46.1	-0.3
	comp=Z,93nm,0.5s,mb5.4						
URZ	Urewera	54.63	134	P	P	12 49 50.8	0.0
	comp=Z,8.5nm,0.7s,mb4.3,baz=290,slow=12,SNR=4.5						
KOLN	Koldanda	54.67	310	eP	P	12 49 51.2	0.0
	comp=Z,82nm,0.8s,mb5.2						
HIA	Hailar	54.98	353	eP	P	12 49 53.7	+0.5
	comp=Z,8.6nm,0.7s,mb4.3						
ULN	Ulaanbaatar	56.37	343⇓	iP	P	12 50 03.9	+0.9
	comp=Z,5.2nm,0.5s,mb4.2						
SONM	Songino Array	56.54	342	P	P	12 50 04.4	+0.2
	comp=Z,8.3nm,1.0s,mb4.1,baz=155,slow=7.9,SNR=18						
SONM				PcP	PcP	12 50 56.9	0.0
	comp=Z,2.0nm,0.9s,baz=162,slow=4.5,SNR=3.9						
WMQ	Urumqi	61.40	327	P	P	12 50 36.5	-0.8
WMQ				AMB	AMB		
	comp=Z,17nm,0.8s,mb4.6						
MA2	Magadan	67.05	12	eP	P	12 51 14.0	+0.7
	comp=Z,34nm,1.0s,mb5.0						
YAK	Yakutsk	67.21	0⇓	iP	P	12 51 14.6	+0.3
	comp=Z,83nm,0.5s,mb5.7						
FX1	Attu Island--F	69.05	27	P	P	12 51 26.1	+0.5
	comp=Z,14nm,0.5s,mb4.9,baz=63,slow=4.5,SNR=3.3						
ZAL	Zalesovo	69.62	334	P	P	12 51 28.9	-0.2
	comp=Z,2.4nm,0.6s,mb4.1,baz=328,slow=6.0,SNR=8.1						
VNDA	Vanda	74.20	173	P	P	12 51 55.8	-0.1
	comp=Z,1.2nm,0.7s,mb3.6,baz=310,slow=6.5,SNR=3.9						
BVAR	Borovoye Array	76.07	328	P	P	12 52 07.0	+0.2
	comp=Z,1.1nm,0.5s,mb3.8,baz=121,slow=9.2,SNR=7.5						
BRVK	Borovoye	76.14	328	P	P	12 51 58.3	-9.0
	comp=Z,11nm,1.2s,mb4.4						
BILL	Bilibino	77.81	14	eP	P	12 52 16.2	+0.1
	comp=Z,3.9nm,0.9s,mb4.1						
ARU	Arti	83.71	328	eP	P	12 52 47.9	+0.9
	comp=Z,3.3nm,0.8s,mb4.2						
GNI	Garni	88.91	310	P	P	12 53 12.5	0.0
	comp=Z,4.1nm,0.5s,mb4.5,baz=9.1,slow=6.0,SNR=4.6						
GNI	Garni	88.91	310	eP	P	12 53 07.8	-4.6
	comp=Z,28nm,1.2s,mb5.0						
KIV	Kislovodsk	90.91	314	eP	P	12 53 27.1	+5.5
	comp=Z,32nm,0.9s,mb5.2						
KMBO	Kilima Mbogo	91.46	269	P	P	12 53 24.9	0.0
	comp=Z,1.6nm,0.6s,mb4.0,baz=40,slow=14,SNR=5.0						
COLA	College	91.99	25	eP	P	12 53 24.7	-1.4
	comp=Z,3.9nm,0.8s,mb4.4						
ILAR	Eielson Array	92.38	25	P	P	12 53 26.9	-1.1
	comp=Z,3.5nm,0.9s,mb4.3,baz=238,slow=5.6,SNR=21						
DIV	Divide	92.44	29	eP	P	12 53 28.4	0.0
	comp=Z,53nm,1.0s,mb5.4						
MALT	Malatya	93.60	308	eP	P	12 53 43.2	+9.0
	comp=Z,6.8nm,1.0s,mb4.6						
BRTR	Keskin Array B	97.39	309	P	P	12 53 50.5	-0.9
	comp=Z,0.7nm,0.6s,mb4.1,baz=117,slow=3.2,SNR=2.9						
INK	Inuvik	97.80	22	P	P	12 53 52.3	-0.3
	comp=Z,3.1nm,0.7s,mb4.8,baz=266,slow=3.5,SNR=12						
ARCES	ARCESS Array B	99.65	340	P	P	12 53 59.9	-1.1
	comp=Z,2.1nm,0.7s,mb4.7,baz=68,slow=6.5,SNR=9.1						
YKA	Yellowknife Ar	106.81	26	Pdiff	Pdif	12 54 32.7	0.0
	comp=Z,0.4nm,0.7s,baz=292,slow=4.7,SNR=7.4						
YKA				PKiKP		12 58 40.5	
	comp=Z,0.6nm,0.5s,baz=296,slow=1.7,SNR=20						
YKA	Yellowknife Ar	106.81	26	Pdif	Pdif	12 54 32.7	0.0
YKA				PKPdf		12 58 40.5	
NVAR	Mina Array Bea	111.19	51	Pdiff	Pdif	12 54 54.2	+1.6
	comp=Z,0.4nm,0.8s,baz=239,slow=5.3,SNR=2.5						
NVAR	Mina Array Bea	111.19	51	Pdif	Pdif	12 54 54.2	+1.6
CDF	Champ du Feu	114.61	321	ePKP1	Pdif	12 55 21.6	+14
	comp=Z,32nm,1.2s						
HINF	Hinteralfeld	115.09	321	ePKP1	Pdif	12 55 23.1	+14
HAU	Haudompre	115.34	321	ePKP1	Pdif	12 55 23.3	+13
	comp=Z,15nm,1.0s						
PDAR	Pinedale Array	116.57	45	PKP	PKPdf	12 59 01.2	+2.3
	comp=Z,1.0nm,0.8s,baz=347,slow=0.7,SNR=6.9						
SSF	Saint Saulge	117.48	321	ePKP1	Pdif	12 55 28.5	+8.5
VIVF	Saint-Julien-l	117.58	318	ePKP1	Pdif	12 55 31.9	+11
ULM	Lac du Bonnet	121.71	32	PKP	PKPdf	12 59 10.9	+2.2
	comp=Z,2.6nm,0.6s,baz=279,slow=4.0,SNR=5.9						
TXAR	Lajitas Array	125.08	58	PKP	PKPdf	12 59 17.9	+2.0
	comp=Z,0.8nm,0.5s,baz=182,slow=1.8,SNR=10						
SCHQ	Schefferville	129.09	12	PKP	PKPdf	12 59 24.8	+2.0
	comp=Z,4.7nm,1.1s,baz=259,slow=12,SNR=6.4						
LRAL	Lakeview Retre	136.77	46	ePKPdf	PKPdf	12 59 39.2	+1.5
JTS	JuntasAbangare	146.20	80	ePKPdf	PKPdf	12 59 56.5	+1.6
JTS				ePKPbc	PKPbc	12 59 59.4	+3.0
LPAZ	La Paz	152.71	142	PKPbc	PKPdf	13 00 16.0	+11
	comp=Z,3.5nm,0.5s,baz=179,slow=0.2,SNR=10.0						
LPAZ	La Paz	152.71	142	PKPbc	PKPdf	13 00 16.0	+11
SDV	Santo Domingo	160.38	79	ePKPdf	PKPdf	13 00 16.4	+1.8
SDV				i PKPab	PKPab	13 01 00.9	+1.2
SEG	Port Louis	165.07	42⇓	iP	PKPdf	13 00 28.2	+9.0
DEG	La Desirade	165.43	41	eP	PKPdf	13 00 29.9	+10
MGG	Marie-Galante	165.54	43⇑	iP	PKPdf	13 00 23.6	+3.9
BBL	Barber's Block	165.71	44	eP	PKPdf	13 00 24.3	+4.5

IDC ***26*** *12:43:16.9±1.0, 8.76N×93.50E, mb4.1/12, mb1 4.3/13, mb1mx4.2/21, ML3.6/1, Error ellipse: s-maj=36.8km s-min=24.2km az=51.0*
ISC 26 12:43:20.4±1.0**, 8.9N**±0.2×**93.6E**±0.2**, h33^{km}, n18, σ0^{s}63**/14**, mb4.1**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.86	28	Pn	P	12 45 56.1	-0.5
	0.1nm,0.3s,baz=227,slow=14,SNR=4.8						
ZAL	Zalesovo	45.52	353	P	P	12 51 38.1	-0.4
	2.6nm,0.9s,mb4.2,baz=316,slow=6.8,SNR=4.9						
BVAR	Borovoye Array	47.90	341	P	P	12 51 57.7	+0.4
	0.5nm,0.4s,mb3.9,baz=142,slow=11,SNR=5.4						
WRA	Warramunga Arr	49.25	126	P	P	12 52 07.7	-0.5
	5.1nm,0.7s,mb4.7,baz=302,slow=9.0,SNR=5.4						
BRTR	Keskin Array B	61.40	310	P	P	12 53 35.1	-0.7
	1.4nm,0.7s,mb4.2,baz=124,slow=8.9,SNR=6.4						
AKASG	Malin Array Be	67.07	321	P	P	12 54 11.4	-1.1
	0.5nm,0.5s,mb3.9,baz=89,slow=4.6,SNR=5.5						
FINES	FINESS Array B	71.61	332	P	P	12 54 39.9	-0.3
	2.1nm,0.9s,mb4.1,baz=117,slow=8.5,SNR=3.6						
ARCES	ARCESS Array B	74.17	340	P	P	12 54 55.8	+0.7
	2.8nm,1.0s,mb4.2,baz=106,slow=7.3,SNR=10						
GERES	GERESS Array B	76.75	318	P	P	12 55 10.7	+0.4
	0.8nm,0.7s,mb3.8,baz=90,slow=4.0,SNR=5.9						
HFS	Hagfors	77.35	330	P	P	12 55 13.7	+0.3
	4.5nm,0.9s,mb4.4,baz=94,slow=4.5,SNR=9.0						
NB2	NORSAR Subarra	78.63	331	P	P	12 55 20.4	0.0
	0.8nm,0.7s,mb3.8,baz=92,slow=5.6						
NOA	NORSAR Array B	78.63	331	P	P	12 55 20.3	-0.1
	1.0nm,0.7s,mb3.9,baz=94,slow=5.6,SNR=4.1						
ILAR	Eielson Array	94.04	22	P	P	12 56 36.7	+0.6
	0.5nm,0.6s,mb4.1,baz=304,slow=4.2,SNR=6.4						
INK	Inuvik	96.20	16	P	P	12 56 47.1	+1.2
	1.3nm,1.0s,mb4.3,baz=360,slow=6.1,SNR=3.3						
NVAR	Mina Array Bea	124.35	30	PKP	PKPdf	13 02 19.4	+2.9
	0.3nm,0.5s,baz=349,slow=4.6,SNR=3.1						
PDAR	Pinedale Array	124.44	21	PKP	PKPdf	13 02 18.5	+1.9
	0.5nm,0.7s,baz=124,slow=1.2,SNR=4.5						
TXAR	Lajitas Array	138.54	23	PKP	PKPdf	13 02 46.4	+2.8
	0.3nm,0.5s,baz=0.8,slow=0.1,SNR=12						
LVC	Limon Verde	158.35	229	PKPab	PKPab	13 03 50.8	-0.8
	1.6nm,0.7s,baz=137,slow=1.7,SNR=3.9						

IDC 26 12:43:52.5±1.2**, 10.51N×93.17E, mb4.1**/10**, mb1 4.3**/10**, mb1mx4.2**/19**, Error ellipse: s-maj=50.0km s-min=25.5km az=40.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	38.83	14	P	P	12 51 18.4	-2.6
	3.2nm,1.0s,baz=190,slow=7.5,SNR=6.1						
WRA	Warramunga Arr	50.58	127	P	P	12 52 53.3	-2.1
	3.3nm,0.7s,baz=302,slow=9.4,SNR=4.2						
BRTR	Keskin Array B	60.00	310	P	P	12 54 00.4	-3.0
	2.6nm,0.8s,baz=121,slow=7.2,SNR=8.1						
AKASG	Malin Array Be	65.51	321	P	P	12 54 37.2	-2.6
	1.0nm,0.7s,baz=80,slow=4.8,SNR=3.7						
MLR	Muntele Rosu	66.63	315	P	P	12 54 46.2	-0.9
	2.6nm,0.8s,baz=245,slow=5.7,SNR=3.3						
FINES	FINESS Array B	69.95	332	P	P	12 55 06.0	-1.4
	1.2nm,0.7s,baz=101,slow=7.1,SNR=2.2						
ARCES	ARCESS Array B	72.47	340	P	P	12 55 21.9	-0.7
	1.8nm,0.6s,baz=90,slow=7.2,SNR=3.5						
GERES	GERESS Array B	75.24	318	P	P	12 55 36.1	-2.9
	1.3nm,0.8s,baz=90,slow=5.3,SNR=4.7						
HFS	Hagfors	75.71	329	P	P	12 55 40.6	-0.9
	2.8nm,0.7s,baz=76,slow=5.9,SNR=3.1						
ILAR	Eielson Array	92.67	22	P	P	12 57 05.9	-1.3
	0.8nm,0.8s,baz=244,slow=6.1,SNR=4.2						

BJI ***26*** *12:46:03.7, 5.15N×92.46E, h25^{km}, mb4.8*
IDC ***26*** *12:46:05.8±0.7, 5.40N×93.25E, h21^{km}±4^{km}, mb4.4/18, mb1 4.5/19, mb1mx4.4/24, ML4.3/1, Error ellipse: s-maj=23.8km s-min=12.7km az=54.0*
NEIC ***26*** *12:46:06.4±0.8, 5.40N×93.28E, h26^{km}±5^{km}, mb4.9/15, Error ellipse: s-maj=8.4km s-min=7.1km az=222.0*
ISC 26 12:46:03.7±0.4**, 5.36N**±0.07×**93.26E**±0.07**, h21^{km}, h21^{km}**±1.1^{km}**:pP-P, n56, σ0^{s}93**/51**, mb4.6**/34**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.15	23	ePn	P	12 49 24.0	-1.4
	17nm,0.6s						
CMAR	Chiang Mai Arr	14.15	23	Pn	P	12 49 24.4	-1.0
	0.4nm,0.3s,baz=242,slow=17,SNR=3.3						
CMAR				Sn	S	12 51 49.5	-13
	0.9nm,0.3s,baz=239,slow=26,SNR=4.9						
QIZ	Qiongzhong	21.12	49	P	P	12 50 50.1	+0.4
	78nm,1.3s,mb4.9						
KMI	Kunming	21.66	24	P	P	12 51 04.5	+9.4
KMI				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.3						
LSA	Lhasa	24.30	356	P	P	12 51 23.1	+2.1
	comp=Z,14nm,0.6s,mb4.6						
GYA	Guiyang	24.58	30⇑	iP	P	12 51 25.8	+1.9
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
LZH	Lanzhou	32.09	16	eP	P	12 52 32.0	+0.2
LZH				AMB	AMB		
	comp=Z,21nm,1.3s,mb4.8						
WMQ	Urumqi	38.62	354	P	P	12 53 28.5	+1.1
WMQ				AP	pP	12 53 33.0	-0.6
WMQ				XP	sP	12 53 35.5	-0.7
WMQ				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
BJT	Baijiatuau	40.20	28	P	P	12 53 42.1	+1.6
SONM	Songino Array	43.79	13	P	P	12 54 10.4	+0.6
	comp=Z,3.7nm,1.0s,mb4.1,baz=198,slow=7.8,SNR=5.1						
SONM				pP	pP	12 54 17.3	+1.2
	comp=Z,6.2nm,1.1s,baz=199,slow=7.7,SNR=3.8						
SONM				PcP	PcP	12 55 56.9	0.0
	comp=Z,1.2nm,0.5s,baz=199,slow=3.0,SNR=5.8						
SONM	Songino Array	43.79	13	pP	pP	12 54 17.3	+1.2
WRA	Warramunga Arr	47.57	123	P	P	12 54 40.1	-0.2
	comp=Z,16nm,1.1s,mb5.0,baz=300,slow=9.2,SNR=14						
WRA				pP	pP	12 54 46.8	+0.3
	comp=Z,46nm,1.3s,baz=302,slow=8.7,SNR=14						
WRAB	Tennant Creek	47.58	123	eP	P	12 54 40.5	+0.2
	comp=Z,53nm,1.2s,mb5.5						
ZAL	Zalesovo	48.92	353	P	P	12 54 50.4	+0.1
	comp=Z,5.6nm,0.5s,mb4.8,baz=306,slow=5.9,SNR=10						
ZAL				pP	pP	12 54 57.4	+0.7
	comp=Z,5.0nm,0.5s,baz=312,slow=4.4,SNR=5.2						
ASAR	Alice Springs	49.02	128	P	P	12 54 51.5	0.0
	comp=Z,3.3nm,0.9s,mb4.4,baz=306,slow=7.7,SNR=4.9						
ASAR				pP	pP	12 54 57.7	-0.1
	comp=Z,3.2nm,0.6s,baz=298,slow=7.8,SNR=7.8						
BVAR	Borovoye Array	51.09	342	P	P	12 55 06.0	-0.9
	comp=Z,2.2nm,0.7s,mb4.2,baz=158,slow=8.0,SNR=5.8						
BVAR				pP	pP	12 55 12.4	-0.9
	comp=Z,2.4nm,0.8s,baz=135,slow=6.3,SNR=3.7						
BRVK	Borovoye	51.15	342	P	P	12 55 03.6	-3.8
	comp=Z,16nm,1.3s,mb4.8						
BRVK				e		12 55 13.1	
GUMO	Guam	51.47	77	P	P	12 55 08.5	-1.8
	comp=Z,18nm,0.6s,mb5.2						
MAJO	Matsushiro	51.50	47	P	P	12 55 03.8	-6.4
	comp=Z,13nm,1.0s,mb4.8						
CHKZ	Chkalovo	51.59	343	eP	P	12 55 09.7	-1.0

	comp=Z,17nm,1.0s,mb4.9						
KMBO	Kilima Mbogo	56.31	265	P	P	12 55 45.8	-0.2
	comp=Z,2.8nm,0.7s,mb4.4,baz=61,slow=7.5,SNR=9.4						
KMBO	Kilima Mbogo	56.31	265	eP	P	12 55 46.0	0.0
	comp=Z,21nm,1.4s,mb5.0						
ARU	Arti	57.87	338	eP	P	12 55 54.4	-1.9
	comp=Z,14nm,1.2s,mb4.9						
STKA	Stephens Creek	59.04	132	P	P	12 56 05.0	0.0
	comp=Z,7.7nm,1.0s,mb4.7,baz=71,slow=22,SNR=4.1						
STKA	Stephens Creek	59.04	132	P	P	12 56 05.0	0.0
	comp=Z,19nm,1.0s,mb5.1						
MALT	Malatya	59.45	312	eP	P	12 56 07.0	-0.6
	comp=Z,3.6nm,0.8s,mb4.5						
BRTR	Keskin Array B	63.43	312	P	P	12 56 33.5	-0.9
	comp=Z,2.2nm,0.7s,mb4.4,baz=112,slow=6.7,SNR=7.4						
IDI	Anoyia	69.30	306	P	P	12 57 12.1	+0.2
	comp=Z,3.9nm,0.5s,mb4.6,baz=63,slow=6.8,SNR=5.5						
AKASG	Malin Array Be	69.59	322	P	P	12 57 11.6	-1.8
	comp=Z,0.7nm,0.6s,mb3.8,baz=87,slow=4.5,SNR=6.3						
MLR	Muntele Rosu	70.37	316	P	P	12 57 18.4	+0.1
	comp=Z,18nm,1.1s,mb4.9,baz=1.9,slow=1.4,SNR=8.7						
LBTB	Lobatse	72.28	242	eP	P	12 57 30.3	+0.1
	comp=Z,11nm,1.3s,mb4.6						
KOLS	Kolonicke sedl	73.53	319	eP	P	12 57 36.0	-1.0
FINES	FINESS Array B	74.52	333	P	P	12 57 41.8	-0.8
	comp=Z,6.5nm,0.9s,mb4.6,baz=102,slow=6.6,SNR=6.3						
KAF	Kangasniemi	74.63	333	ep	P	12 57 43.1	0.0
VYHS	Vyhne	75.70	319	eP	P	12 57 49.2	-0.4
OKC	Ostrava-Krasne	76.33	320	eP	P	12 57 53.6	+0.5
ZST	Bratislava	76.81	318	eP	P	12 57 56.2	+0.4
VRAC	Vranov	77.27	319	P	P	12 57 58.3	0.0
	comp=Z,1.8nm,0.5s,mb4.2,baz=135,slow=9.7,SNR=4.1						
ARCES	ARCESS Array B	77.33	341	P	P	12 57 58.6	+0.3
	comp=Z,2.3nm,0.5s,mb4.3,baz=94,slow=5.2,SNR=10						
DPC	Dobruska-Polom	77.56	320	eP	P	12 58 00.9	+1.0
PRU	Pruhonice	78.67	320	eP	P	12 58 06.4	+0.4
GERES	GERESS Array B	79.12	319	P	P	12 58 08.9	+0.4
	comp=Z,4.1nm,0.7s,mb4.5,baz=90,slow=5.3,SNR=17						
BRG	Berggiesshubel	79.13	321	i P	P	12 58 09.9	+1.4
	comp=Z,32nm,1.8s,mb4.9						
KHC	Kasperske Hory	79.22	319	eP	P	12 58 08.7	-0.3
CLL	Collm	79.75	321	eP	P	12 58 13.0	+1.1
CLL	Collm	79.75	321	P	P	12 58 13.0	+1.1
HFS	Hagfors	80.18	330	P	P	12 58 13.5	-0.5
	comp=Z,2.9nm,0.5s,mb4.5,baz=101,slow=7.6,SNR=14						
NB2	NORSAR Subarra	81.49	331	P	P	12 58 21.0	+0.2
	comp=Z,1.2nm,0.6s,mb4.0,baz=98,slow=5.0						
NOA	NORSAR Array B	81.49	331	P	P	12 58 20.1	-0.8
	comp=Z,2.2nm,0.8s,mb4.2,baz=94,slow=5.7,SNR=3.6						
DAVOX	Davos	81.59	316	P	P	12 58 22.9	+1.3
	comp=Z,8.3nm,0.6s,mb4.8,baz=130,slow=4.8,SNR=14						
LPG	La Plagne	83.77	315	eP	P	12 58 33.2	+0.2
	comp=Z,14nm,0.8s,mb4.8						
NVAR	Mina Array Bea	127.51	31	PKP	PKPdf	13 05 09.7	-2.4
	comp=Z,0.3nm,0.4s,baz=290,slow=1.7,SNR=3.5						
PDAR	Pinedale Array	127.81	21	PKP	PKPdf	13 05 10.6	-2.1
	comp=Z,0.7nm,0.9s,baz=90,slow=1.5,SNR=5.4						
TXAR	Lajitas Array	141.86	24	PKhKP		13 05 32.2	
	comp=Z,0.3nm,0.5s,baz=271,slow=1.4,SNR=7.4						
LVC	Limon Verde	155.69	223	PKPab	PKPab	13 06 26.2	+0.7
	comp=Z,6.5nm,1.1s,baz=127,slow=4.4,SNR=5.0						
LPAZ	La Paz	158.76	238	PKPab	PKPab	13 06 40.4	+1.5
	comp=Z,3.0nm,0.8s,baz=103,slow=3.9,SNR=7.7						

IDC 26 12:46:09.4±7.4,**13.06N**×**92.82E**,**mb3.9**/6,**mb1 4.0**/7, **mb1mx3.9**/18,**ML4.0**/1,**Error ellipse: s-maj=168.0km s-min=35.4km az=155.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.98	47	Pn	Pn	12 48 06.6	-2.8
	0.6nm,0.3s,baz=241,slow=15,SNR=4.3						
CMAR	Chiang Mai Arr	7.98	47	Pn	Pn	12 48 06.6	-2.8
SONM	Songino Array	36.48	15	P	P	12 53 15.9	-2.2
	0.9nm,0.8s,baz=200,slow=7.0,SNR=3.0						
ZAL	Zalesovo	41.27	353	P	P	12 53 55.7	-2.2
	2.0nm,0.8s,baz=316,slow=7.4,SNR=4.4						
BRTR	Keskin Array B	58.13	309	P	P	12 56 04.9	-2.4
	0.8nm,0.6s,baz=130,slow=8.3,SNR=4.1						
FINES	FINESS Array B	67.56	331	P	P	12 57 08.6	-1.0
	1.3nm,0.7s,baz=101,slow=7.1,SNR=3.3						
ARCES	ARCESS Array B	69.98	340	P	P	12 57 23.9	-0.5
	5.3nm,1.2s,baz=90,slow=6.1,SNR=4.0						
GERES	GERESS Array B	73.14	317	P	P	12 57 41.0	-2.7
	0.7nm,0.7s,baz=90,slow=5.9,SNR=4.6						

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*NEIC **26** 12:50:04.8,31.68S×71.74W,h29^{km},ML3.1(GUC),After GUC.*

GUC 26 12:50:04.8±0.8,**31.68S**×**71.74W**,**h29**^{km}±3^{km},**MD3.7, ML3.1,5C-5D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ILCH	Illapel	0.49	85	⇑iP	Pb	12 50 15.1	+0.1
ILCH				i S	Sb	12 50 22.4	+0.4
ILCH				AMP		12 50 22.7	
	comp=N,5µm,0.2s						
CMCH	Combarbala	0.81	52	⇑iP	Pb	12 50 20.1	-0.1
CMCH				i S	Sb	12 50 31.4	+0.5
PACH	Papudo	0.90	163	⇑iP	Pn	12 50 21.0	-0.5
PACH				i S	Sb	12 50 33.0	-0.2
PTCH	Petorca	0.90	130	⇓iP	Pn	12 50 21.2	-0.4
PTCH				i S	Sb	12 50 33.3	-0.3
PTCH				AMP		12 50 35.7	
	comp=E,2µm,0.3s						
JACH	Jahuel	1.40	136	⇑iP	Pn	12 50 29.5	+0.8
JACH				i S	Sn	12 50 47.8	+1.5
ROCH	El Roble	1.43	155	⇓iP	Pn	12 50 30.2	+1.0
ROCH				i S	Sn	12 50 48.7	+1.6
TLL	Tololo Astrono	1.71	28	⇓iP	Pn	12 50 34.0	+0.8
TLL				AMP		12 51 00.4	
	comp=N,323nm,0.4s						
PEL	Peldehue	1.71	149	i P	Pn	12 50 34.0	+0.8
PEL				i S	Sn	12 50 56.8	+2.5
RCDM	Rinconada Maip	1.97	157	i P	Pn	12 50 37.5	+0.6
RCDM				AMP		12 51 10.1	
	comp=E,191nm,0.2s						
CLCH	Cerro Calan	1.99	150	⇓iP	Pn	12 50 38.0	+0.8
CLCH				i S	Sn	12 51 03.3	+1.9
CLCH				AMP		12 51 12.1	
	comp=N,206nm,0.5s						
FCH	Farellones	2.05	144	⇑iP	Pn	12 50 39.2	+1.1
FCH				i S	Sn	12 51 05.6	+2.7
FCH				AMP		12 51 09.3	
	comp=E,125nm,0.3s						
TACH	Talagante	2.08	161	i P	Pn	12 50 39.2	+0.7
TACH				i S	Sn	12 51 04.7	+1.0
LMEL	Las Melosas	2.52	149	⇓iP	Pn	12 50 45.9	+1.2
LMEL				i S	Sn	12 51 16.7	+1.9
LMEL				AMP		12 51 24.1	
	comp=N,161nm,0.2s						

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*IDC **26** 12:51:48.4±0.8,6.99N×92.50E,mb4.3/17,mb1 4.5/18, mb1mx4.4/23,ML5.0/1,Error ellipse: s-maj=28.4km s-min=18.2km az=44.0*

*NEIC **26** 12:51:52.6±0.5,6.97N×92.61E,h30^{km},mb4.7/18,Error ellipse: s-maj=11.6km s-min=9.6km az=153.0*

*BJI **26** 12:51:52.6,7.00N×92.60E,h30^{km},mb4.5,Ms4.9,Msz4.5*

ISC 26 12:51:48.4±0.5,**6.52N**±0.06×**92.97E**±0.07,**h30**^{km}**,n76,** σ**1$^{s}_{.}$30**/62,**mb4.6**/40,**MS4.6**/1,**1C,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.22	26	eP	P	12 54 54.6	-2.2
	32nm,0.6s						
CMAR	Chiang Mai Arr	13.22	26	Pn	P	12 54 56.4	-0.3
	2.6nm,0.3s,baz=224,slow=14,SNR=37						
IMP	Imphal	18.18	3	e	P	12 55 58.4	-2.2
QIZ	Qiongzhong	20.60	51	P	P	12 56 28.8	+1.0
QIZ	Qiongzhong	20.60	51	eP	P	12 56 27.6	-0.3
	32nm,0.9s						
KMI	Kunming	20.73	26	P	P	12 56 30.8	+1.6
KMI				AMB	AMB		
	comp=Z,25nm,0.7s						
KMI				LR	LR		
	comp=N,2µm,14.3s,MS4.7						
KMI				LR	LR		
	comp=E,2µm,13.2s,MS4.7						
KMI				LR	LR		
	comp=Z,2µm,15.3s,MS4.5						
PKI	Pulchoki	22.13	342	eP	P	12 56 45.4	+2.1
DMN	Daman	22.26	341	eP	P	12 56 46.4	+1.8
	comp=Z,193nm,1.3s,mb5.4						
GUN	Gumba	22.31	343	eP	P	12 56 45.8	+0.7
	comp=Z,102nm,0.8s,mb5.3						
KKN	Kakani	22.38	342	eP	P	12 56 47.1	+1.4
GKN	Gorkha	22.78	341	eP	P	12 56 50.8	+1.0
	comp=Z,31nm,0.4s,mb5.1						
KOLN	Koldanda	22.93	338	eP	P	12 56 52.5	+1.3
	comp=Z,72nm,1.1s,mb5.0						
LSA	Lhasa	23.12	356	eP	P	12 56 55.9	+2.8
	comp=Z,24nm,0.7s,mb4.7						
GYA	Guiyang	23.74	32	⇑iP	P	12 57 00.3	+1.2
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.8						
CD2	Chengdu	26.29	21	P	P	12 57 23.0	-0.3
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.9						
ENH	Enshi	28.27	31	eP	P	12 57 35.9	-5.5
	comp=Z,17nm,1.0s,mb4.6						
GTA	Gaotai	33.32	10	P	P	12 58 30.5	+4.7
GTA				AP	pP	12 58 38.5	+3.8
GTA				XP	sP	12 58 43.0	+4.4
GTA				PCP	PcP	13 01 09.3	+1.8
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
NJ2	Nanjing	35.05	40	eP	P	12 58 41.0	+0.2
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
KZA	Kyzart	38.74	339	P	P	12 59 13.4	+1.6
	SNR=5.0						
UCH	Uchtor	39.14	338	P	P	12 59 16.3	+1.1
	SNR=11						
BJT	Baijiatuau	39.32	29	eP	P	12 59 16.5	-0.2
	comp=Z,27nm,1.3s,mb4.8						
BJI	Beijing	39.34	29	P	P	12 59 15.5	-1.3
BJI				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.3						
KBK	Karagaybulak	39.36	339	P	P	12 59 18.5	+1.6
	SNR=9.0						
AML	Almayashu	39.37	337	P	P	12 59 18.7	+1.7
	SNR=16						
AAK	Ala-Archa	39.50	338	P	P	12 59 20.4	+2.3
	SNR=5.9						
AAK	Ala-Archa	39.50	338	eP	P	12 59 18.3	+0.2
	comp=Z,12nm,1.0s,mb4.6						
EKS2	Erkin-Say	39.79	338	P	P	12 59 21.9	+1.4
	SNR=7.5						
USP	Ospenovka	40.05	339	P	P	12 59 23.4	+0.7
	SNR=9.1						
SONM	Songino Array	42.73	13	P	P	12 59 44.2	-0.4
	comp=Z,1.1nm,0.7s,mb3.7,baz=192,slow=8.1,SNR=4.6						
ULN	Ulaanbaatar	42.92	14	P	P	12 59 41.4	-4.7
	comp=Z,5.7nm,0.8s,mb4.3						
NWAO	Narrogin (SRO)	45.51	151	P	P	13 00 09.7	+2.5
	comp=Z,26nm,1.2s,mb5.0						
ZAL	Zalesovo	47.74	353	P	P	13 00 23.9	-0.6
	comp=Z,3.0nm,0.5s,mb4.6,baz=311,slow=5.5,SNR=10.0						
ZAL	Zalesovo	47.74	353	P	pP	13 00 33.0	-0.6
	comp=Z,4.3nm,0.7s,baz=312,slow=7.8,SNR=7.9						
WRA	Warramunga Arr	48.45	124	P	pP	13 00 38.1	-1.5
	comp=Z,5.0nm,0.9s,baz=303,slow=9.0,SNR=6.9						
WRA	Warramunga Arr	48.45	124	P	P	13 00 28.9	-1.5
	comp=Z,1.2nm,0.5s,mb4.2,baz=306,slow=8.9,SNR=5.4						
WRAB	Tennant Creek	48.46	124	eP	pP	13 00 37.8	-1.9
	comp=Z,18nm,1.0s						
BVAR	Borovoye Array	49.90	342	P	P	13 00 40.4	-0.8
	comp=Z,3.9nm,1.0s,mb4.4,baz=135,slow=8.4,SNR=5.8						
BRVK	Borovoye	49.96	342	eP	P	13 00 39.1	-2.6
	comp=Z,2.0nm,0.6s,mb4.3						
ASAR	Alice Springs	49.97	128	P	pP	13 00 49.9	-1.4
	comp=Z,5.6nm,0.8s,baz=308,slow=7.1,SNR=12						
ASAR	Alice Springs	49.97	128	P	P	13 00 42.6	+0.5
	comp=Z,2.3nm,0.7s,mb4.3,baz=302,slow=7.2,SNR=10						
CHKZ	Chkalovo	50.40	343	P	P	13 00 44.2	-0.8
	comp=Z,10nm,1.0s,mb4.8						
GNI	Garni	54.56	315	eP	P	13 01 14.9	-1.4
	comp=Z,27nm,1.2s,mb5.2						
KMBO	Kilima Mbogo	56.13	264	P	P	13 01 28.5	+0.5
	comp=Z,2.0nm,0.6s,mb4.3,baz=61,slow=10,SNR=5.9						
KMBO	Kilima Mbogo	56.13	264	P	pP	13 01 39.7	+2.5
	comp=Z,3.9nm,1.0s,baz=52,slow=12,SNR=5.4						
KMBO	Kilima Mbogo	56.13	264	eP	P	13 01 28.6	+0.7
	comp=Z,6.5nm,1.1s,mb4.6						
KIV	Kislovodsk	57.55	319	eP	P	13 01 34.4	-3.3
	comp=Z,14nm,1.4s,mb4.8						
MALT	Malatya	58.46	311	P	P	13 01 41.9	-2.2
	comp=Z,7.3nm,1.5s,mb4.5						
BRTR	Keskin Array B	62.44	312	P	P	13 02 09.3	-1.9
	comp=Z,7.9nm,1.1s,mb4.7,baz=112,slow=6.7,SNR=11						
BRTR	Keskin Array B	62.44	312	P	pP	13 02 19.8	-0.9
	comp=Z,1.8nm,0.8s,baz=117,slow=5.5,SNR=4.3						
IDI	Anoyia	68.39	305	P	P	13 02 48.8	-0.8
	comp=Z,7.3nm,0.7s,mb4.8,baz=72,slow=9.6,SNR=3.7						
AKASG	Malin Array Be	68.50	322	P	P	13 02 47.7	-2.3
	comp=Z,2.4nm,0.7s,mb4.3,baz=89,slow=4.5,SNR=8.7						
AKASG	Malin Array Be	68.50	322	P	pP	13 02 57.4	-1.9
	comp=Z,0.4nm,0.6s,baz=91,slow=4.1,SNR=3.6						
MLR	Muntele Rosu	69.33	316	P	P	13 02 53.9	-1.3
	comp=Z,3.9nm,0.7s,mb4.4,baz=129,slow=5.4,SNR=5.1						
MLR	Muntele Rosu	69.33	316	P	pP	13 03 04.8	+0.2
	comp=Z,3.4nm,0.9s,baz=140,slow=7.9,SNR=3.7						
FINES	FINESS Array B	73.36	333	P	P	13 03 17.6	-1.5
	comp=Z,2.7nm,0.7s,mb4.3,baz=111,slow=7.4,SNR=9.3						
KAF	Kangasniemi	73.46	333	ep	P	13 03 18.0	-1.7
ARCES	ARCESS Array B	76.14	340	P	P	13 03 34.6	-0.3
	comp=Z,1.7nm,0.5s,mb4.2,baz=108,slow=7.1,SNR=7.0						
ARCES	ARCESS Array B	76.14	340	P	pP	13 03 44.3	-0.1
	comp=Z,1.4nm,0.6s,baz=56,slow=4.4,SNR=3.5						
MAW	Mawson	76.98	191	eP	P	13 03 40.2	+0.6
	comp=Z,6.6nm,0.9s,mb4.6						
GERES	GERESS Array B	78.06	318	P	P	13 03 45.9	0.0
	comp=Z,2.2nm,0.6s,mb4.3,baz=90,slow=5.3,SNR=16						
GERES	GERESS Array B	78.06	318	P	pP	13 03 54.5	-0.9
	comp=Z,1.5nm,0.8s,baz=72,slow=4.2,SNR=5.5						
KHC	Kasperske Hory	78.16	319	eP	P	13 03 46.5	0.0
SUR	Sutherland	78.61	235	eP	P	13 03 50.7	+1.4
	comp=Z,10nm,0.9s,mb4.8						
CLL	Collm	78.67	321	eP	P	13 03 49.0	-0.2
CLL	Collm	78.67	321	P	P	13 03 49.0	-0.2
HFS	Hagfors	79.03	330	P	P	13 03 50.4	-0.7
	comp=Z,1.6nm,0.5s,mb4.2,baz=104,slow=6.1,SNR=7.9						
NB2	NORSAR Subarra	80.33	331	P	P	13 03 56.8	-1.2
	comp=Z,27nm,2.0s,mb4.8,baz=91,slow=4.8						
NB2	NORSAR Subarra	80.33	331	P	P	13 03 56.8	-1.2
	baz=91,slow=5.1						
NOA	NORSAR Array B	80.33	331	P	P	13 03 57.1	-0.9
	comp=Z,0.9nm,0.8s,mb3.7,baz=100,slow=5.7,SNR=3.2						
DAVOX	Davos	80.56	316	P	P	13 03 59.6	+0.1
	comp=Z,6.8nm,0.7s,mb4.7,baz=128,slow=8.4,SNR=10						
LPG	La Plagne	82.75	315	eP	P	13 04 10.9	0.0
	comp=Z,12nm,0.7s,mb4.7						
ESDC	Sonseca Array	91.19	310	P	P	13 04 52.4	+0.2
	comp=Z,1.0nm,0.5s,mb4.4,baz=72,slow=3.8,SNR=8.5						
PDAR	Pinedale Array	126.84	21	PKP	PKPdf	13 10 52.1	-2.7
	comp=Z,0.2nm,0.6s,slow=4.4,SNR=2.8						
PDAR	Pinedale Array	126.84	21	PKP		13 10 56.0	
	comp=Z,0.5nm,0.9s,baz=32,slow=39,SNR=2.6						
PDAR	Pinedale Array	126.84	21	PKP	PKPdf	13 10 52.1	-2.7
PDAR				PKP		13 10 56.0	
TXAR	Lajitas Array	140.92	23	PKP	PKPdf	13 11 20.8	-0.7
	comp=Z,0.2nm,0.5s,baz=116,slow=0.2,SNR=6.6						

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*IDC **26** 12:52:41.1±0.7,10.61N×93.99E,mb4.3/15,mb1 4.4/15, mb1mx4.3/21,MS4.6/4,Ms1 4.6/4,ms1mx3.9/28,Error ellipse: s-maj=45.9km s-min=16.7km az=45.0*

*NEIC **26** 12:52:45.8±0.3,10.43N×93.91E,h30^{km},mb5.1/19,Error ellipse: s-maj=10.1km s-min=8.3km az=55.0*

*BJI **26** 12:52:49.7,10.40N×93.90E,h30^{km},mb4.9*

ISC 26 12:52:43.9±0.4,**10.37N**±0.07×**93.85E**±0.07,**h30**^{km}**,n52,** σ**1$^{s}_{.}$13**/42,**mb4.8**/35,**MS4.8**/3,**1D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	8.08	49	P	P	12 54 41.5	-0.7
CM31	Chiang Mai Arr	9.43	31	eP	P	12 54 57.4	-3.6
CMAR	Chiang Mai Arr	9.43	31	LR	LR	12 58 42.1	
	comp=Z,1µm,18.1s,baz=194,slow=39						
CHG	Chiang Mai	9.73	30	⇓P	P	12 55 05.6	+0.4
	31nm,0.8s						
ENH	Enshi	24.58	34	P	P	12 58 03.0	+0.2
	36nm,1.0s,mb4.9						
DDI	Dehra Dun	24.71	326	e	P	12 58 07.7	+3.6
WHN	Wuhan	27.69	41	eP	pP	12 58 41.0	+0.6
NJ2	Nanjing	31.61	43	eP	pP	12 59 13.5	-1.9
NJ2				AMB	AMB		
	comp=Z,180nm,0.9s,mb5.9						
BJT	Baijiatuau	35.56	30	P	P	12 59 41.7	+1.1
	comp=Z,40nm,1.4s,mb5.2						
ULN	Ulaanbaatar	38.99	14	eP	P	13 00 09.6	+0.2
	comp=Z,5.0nm,0.7s,mb4.3						
MBWA	Marble Bar	40.35	141	P	P	13 00 21.1	+0.2
CN2	Changchun	43.10	34	eP	P	13 00 45.8	+2.6
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
HIA	Hailar	44.36	24	P	P	13 00 55.0	+1.6
	comp=Z,68nm,1.3s,mb5.2						
BVAR	Borovoye Array	46.55	341	P	P	13 01 09.9	-0.8
	comp=Z,2.1nm,0.7s,mb4.2,baz=143,slow=7.2,SNR=4.3						
BRVK	Borovoye	46.62	341	eP	P	13 01 11.8	+0.6
	comp=Z,13nm,1.2s,mb4.7						
CHKZ	Chkalovo	47.03	341	eP	P	13 01 14.1	-0.4
	comp=Z,22nm,1.1s,mb5.0						
WRA	Warramunga Arr	49.96	127	P	P	13 01 37.2	-0.5
	comp=Z,5.2nm,0.9s,mb4.6,baz=305,slow=8.1,SNR=7.2						
WRAB	Tennant Creek	49.96	127	eP	P	13 01 36.5	-1.2
	comp=Z,28nm,0.9s,mb5.3						
ASAR	Alice Springs	51.75	131	P	P	13 01 50.9	-0.3
	comp=Z,5.5nm,1.1s,mb4.4,baz=308,slow=6.7,SNR=4.1						
ASAR				LR	LR	13 24 11.7	
	comp=Z,739nm,18.4s,MS4.8,baz=288,slow=36						
GNI	Garni	52.52	313	P	P	13 01 56.3	-0.5
	comp=Z,164nm,1.6s,mb5.7						
ARU	Arti	53.50	336	P	P	13 02 03.3	-0.5
	comp=Z,46nm,1.7s,mb5.1						
KIV	Kislovodsk	55.30	317	eP	P	13 02 17.8	+0.6
	comp=Z,70nm,1.1s,mb5.6						
MALT	Malatya	56.66	309	eP	P	13 02 27.4	+0.4
	comp=Z,11nm,1.2s,mb4.8						
KMBO	Kilima Mbogo	57.45	262	P	P	13 02 34.7	+1.7
	comp=Z,1.3nm,0.7s,mb4.1,baz=65,slow=10,SNR=3.2						
KMBO	Kilima Mbogo	57.45	262	P	P	13 02 34.7	+1.7
KMBO				eP		13 02 35.3	
EIL	Elat	57.97	298	P	P	13 02 36.3	0.0
	comp=Z,3.8nm,0.7s,mb4.6,baz=281,slow=3.5,SNR=2.6						
EIL	Elat	57.97	298	P	P	13 02 36.3	0.0
EIL				P		13 02 36.8	
BRTR	Keskin Array B	60.61	310	P	P	13 02 52.8	-1.7
	comp=Z,5.5nm,0.9s,mb4.7,baz=124,slow=7.4,SNR=7.8						
STKA	Stephens Creek	62.04	135	P	P	13 03 04.5	+0.2
	comp=Z,4.1nm,0.8s,mb4.6,baz=337,slow=7.0,SNR=5.7						
STKA				LR	LR	13 29 24.2	
	comp=Z,829nm,21.9s,MS4.8,baz=273,slow=36						
STKA	Stephens Creek	62.04	135	eP	P	13 03 03.9	-0.3
ISP	Isparta	62.70	307	eP	P	13 03 07.1	-1.4
	comp=Z,42nm,1.2s,mb5.5						
OBN	Obninsk	63.13	327	P	P	13 03 14.1	+2.9
	comp=Z,57nm,1.4s,mb5.5						
MBAR	Mbarara	63.70	264	eP	P	13 03 12.6	-3.0
	comp=Z,10.0nm,1.0s,mb4.8						
AKASG	Malin Array Be	66.04	321	P	P	13 03 28.0	-2.1
	comp=Z,3.5nm,1.0s,mb4.4,baz=82,slow=4.7,SNR=3.9						
LSZ	Lusaka	69.85	250	eP	P	13 03 55.5	+1.1
	comp=Z,4.9nm,0.5s,mb4.7						
FINES	FINESS Array B	70.39	332	P	P	13 03 55.9	-1.1
	comp=Z,1.6nm,0.7s,mb4.1,baz=101,slow=6.3,SNR=6.1						
ARCES	ARCESS Array B	72.84	340	P	P	13 04 11.4	0.0
	comp=Z,2.5nm,0.6s,mb4.3,baz=100,slow=5.3,SNR=6.7						
LBTB	Lobatse	75.20	241	eP	P	13 04 26.6	+0.5
	comp=Z,26nm,1.3s,mb5.0						
BRG	Berggiesshubel	75.67	320	eP	pP	13 04 35.9	-1.7
	comp=Z,9.2nm,1.2s						
GERES	GERESS Array B	75.79	318	P	P	13 04 28.5	-0.4
	comp=Z,1.7nm,0.6s,mb4.2,baz=94,slow=6.0,SNR=10						
HFS	Hagfors	76.17	329	P	P	13 04 30.6	-0.2
	comp=Z,2.8nm,0.8s,mb4.2,baz=104,slow=6.1,SNR=4.2						
CLL	Collm	76.27	320	eP	pP	13 04 40.0	-1.0
CLL	Collm	76.27	320	e*PP	pP	13 04 40.0	-1.0
BOSA	Boshof	76.67	237	eP	P	13 04 34.3	0.0
	comp=Z,37nm,1.4s,mb5.1						
NOA	NORSAR Array B	77.43	330	P	P	13 04 36.3	-1.5
	comp=Z,1.1nm,0.8s,mb3.9,baz=91,slow=5.7,SNR=3.4						
NOA				LR	LR	13 42 17.8	
	comp=Z,360nm,20.2s,MS4.7,baz=290,slow=38						
DAVOX	Davos	78.41	316	P	P	13 04 43.9	+0.4
	comp=Z,3.9nm,0.6s,mb4.5,baz=125,slow=10,SNR=3.6						
SUR	Sutherland	81.52	235	eP	P	13 05 03.8	+3.4
	comp=Z,19nm,1.1s,mb4.9						
ESDC	Sonseca Array	89.40	310	P	P	13 05 40.8	+1.3
	comp=Z,0.4nm,0.5s,mb4.0,baz=61,slow=4.3,SNR=4.7						
TXAR	Lajitas Array	137.06	23	PKP	PKPdf	13 12 08.1	-1.8
	comp=Z,0.3nm,0.6s,baz=315,slow=1.3,SNR=2.9						
TXAR	Lajitas Array	137.06	23	PKP	PKPdf	13 12 08.1	-1.9
PCRV	Puerto La Cruz	150.43	313	PKPbc	PKPdf	13 12 34.2	+0.8
	comp=Z,4.6nm,0.8s,baz=225,slow=5.7,SNR=2.0						
SDV	Santo Domingo	155.42	321	PKPab	PKPab	13 13 01.9	-1.4
	comp=Z,3.5nm,0.9s,baz=20,slow=8.4,SNR=4.5						

IDC 26 12:55:28.8±8.1,**2.31N**×**94.19E**,**mb4.0**/7,**mb1 4.3**/8, **mb1mx4.1**/19,**Error ellipse: s-maj=196.0km s-min=45.8km az=141.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.71	16	Pn	P	12 59 25.7	-0.4
	baz=211,slow=12,SNR=5.0						
SONM	Songino Array	46.56	11	P	P	13 03 58.2	-2.0
	2.1nm,0.9s,baz=197,slow=8.3,SNR=3.6						
ZAL	Zalesovo	52.04	353	P	P	13 04 40.0	-2.3
	2.5nm,0.5s,baz=288,slow=7.4,SNR=3.2						
BVAR	Borovoye Array	54.26	343	P	P	13 04 56.2	-2.5
	3.7nm,0.9s,baz=146,slow=11,SNR=4.7						
BRTR	Keskin Array B	66.15	313	P	P	13 06 18.7	-1.7
	0.7nm,0.8s,baz=90,slow=4.3,SNR=2.8						
AKASG	Malin Array Be	72.55	323	P	P	13 06 57.2	-2.4
	0.1nm,0.3s,baz=87,slow=5.4,SNR=4.9						
FINES	FINESS Array B	77.64	333	P	P	13 07 26.6	-1.8
	3.8nm,0.9s,baz=117,slow=6.7,SNR=5.6						
GERES	GERESS Array B	82.00	319	P	P	13 07 51.9	-0.3
	1.2nm,0.7s,baz=101,slow=5.0,SNR=5.1						

IDC 26 12:55:38.5±1.0,**2.49N**×**94.03E**,**mb4.4**/10,**mb1 4.6**/11, **mb1mx4.4**/19,**ML4.5**/1,**Error ellipse: s-maj=44.5km s-min=19.8km az=48.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.59	17	Pn	P	12 59 33.1	-1.1
	0.7nm,0.3s,baz=216,slow=12,SNR=7.1						
WRA	Warramunga Arr	45.41	121	P	P	13 03 58.8	-2.3
	5.6nm,0.6s,baz=300,slow=9.1,SNR=8.3						
SONM	Songino Array	46.42	11	P	P	13 04 06.9	-1.9
	3.7nm,0.6s,baz=192,slow=8.7,SNR=6.5						
ASAR	Alice Springs	46.70	126	P	P	13 04 10.2	-1.2
	3.5nm,0.9s,baz=296,slow=8.2,SNR=5.5						
ZAL	Zalesovo	51.84	353	P	P	13 04 48.5	-2.0
	5.3nm,0.4s,baz=303,slow=4.2,SNR=6.1						
BVAR	Borovoye Array	54.04	343	P	P	13 05 04.5	-2.3
	4.1nm,0.6s,baz=137,slow=9.2,SNR=7.5						
BRTR	Keskin Array B	65.91	313	P	P	13 06 26.4	-2.2
	1.0nm,0.6s,baz=118,slow=5.9,SNR=3.7						
AKASG	Malin Array Be	72.32	323	P	P	13 07 06.5	-1.5
	0.5nm,0.4s,baz=90,slow=4.7,SNR=5.9						
MLR	Muntele Rosu	72.96	317	P	P	13 07 10.9	-1.0
	6.3nm,1.0s,baz=76,slow=18,SNR=3.5						
FINES	FINESS Array B	77.41	333	P	P	13 07 34.5	-2.4
	4.0nm,1.1s,baz=45,slow=2.7,SNR=3.3						
GERES	GERESS Array B	81.76	319	P	P	13 07 59.5	-1.1
	2.4nm,0.9s,baz=90,slow=5.3,SNR=6.3						
NOA	NORSAR Array B	84.35	331	P	P	13 08 12.2	-1.5
	1.5nm,0.9s,baz=100,slow=5.4,SNR=3.8						
TXAR	Lajitas Array	144.11	27	PKhKP		13 15 08.3	
	0.2nm,0.5s,baz=50,slow=0.9,SNR=5.8						
TXAR				PKP	PKPdf	13 15 16.2	-2.5
	1.3nm,0.9s,baz=153,slow=0.6,SNR=6.6						

IDC 26 12:55:55.4±9.7,**8.40N**×**94.80E**,**mb4.3**/4,**mb1 4.4**/4, **mb1mx3.9**/18,**Error ellipse: s-maj=205.0km s-min=91.9km az=152.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.52	12	P	P	13 03 35.9	-1.9
	3.4nm,0.7s,baz=190,slow=8.8,SNR=7.7						
ZAL	Zalesovo	46.12	352	P	P	13 04 22.2	-1.0
	2.4nm,0.6s,baz=280,slow=6.7,SNR=5.8						
BVAR	Borovoye Array	48.71	341	P	P	13 04 40.8	-2.7
	3.6nm,0.8s,baz=143,slow=7.4,SNR=7.9						
ARCES	ARCESS Array B	75.00	340	P	P	13 07 38.5	-1.6

4.0nm,1.0s,baz=104,slow=7.4,SNR=2.5

IDC 26 12:56:17.0±1.2, 6.08N×93.43E, mb4.4/8, mb1 4.5/8, mb1mx4.2/18, Error ellipse: s-maj=100.0km s-min=19.7km az=43.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	49.34	128	P	P	13 05 08.2	-2.1
	5.9nm,0.9s,baz=302,slow=8.0,SNR=7.1						
PMG	Port Moresby	55.71	106	P	P	13 05 55.7	-2.3
	10.0nm,0.9s,baz=121,slow=2.6,SNR=4.4						
STKA	Stephens Creek	59.40	133	P	P	13 06 21.6	-2.3
	1.7nm,0.5s,baz=298,slow=11,SNR=4.3						
AKASG	Malin Array Be	69.12	322	P	P	13 07 23.2	-3.9
	0.6nm,0.5s,baz=88,slow=4.6,SNR=3.7						
FINES	FINESS Array B	73.96	333	P	P	13 07 54.1	-1.7
	4.5nm,0.8s,baz=111,slow=6.9,SNR=4.8						
ARCES	ARCESS Array B	76.71	340	P	P	13 08 10.2	-1.1
	1.1nm,0.4s,baz=98,slow=5.6,SNR=11						
GERES	GERESS Array B	78.69	318	P	P	13 08 22.0	-0.7
	1.2nm,0.6s,baz=101,slow=6.8,SNR=4.9						
EKA	Eskdalemuir Ar	88.79	325	P	P	13 09 13.1	-0.9
	1.7nm,0.6s,baz=91,slow=4.7,SNR=7.9						
ESDC	Sonseca Array	91.83	310	P	P	13 09 27.9	-0.6
	0.3nm,0.5s,baz=62,slow=4.6,SNR=4.0						
PDAR	Pinedale Array	127.09	21	PKP	PKPdf	13 15 23.3	-2.1
	0.7nm,0.9s,slow=1.5,SNR=3.8						

MEX 26 12:56:33.0±1.5, 16.61N×99.32W, h15^{km}±772^{km}, MD3.5, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ACX	Acapulco	0.63	294	*i* P	Pb	12 56 42.9	-2.2
ACX				*i* S	Sb	12 56 50.4	-3.1
CAIG	El Cayaco	1.01	296	*e*P	Pb	12 56 49.6	-2.0
CAIG				*i* S	Sb	12 57 02.3	-2.2
PLIG	Platanillo	1.78	354	*e*P	Pn	12 57 00.2	-3.4
PLIG				*e*S	Sn	12 57 21.0	-5.1

IDC 26 12:59:48.2±0.8, 5.41N×93.36E, mb4.3/13, mb1 4.5/14, mb1mx4.4/21, ML4.3/1, Error ellipse: s-maj=40.4km s-min=15.5km az=51.0

ISC 26 12:59:51.5±0.7, 5.4N±0.1×93.5E±0.2, h33^{km}, n18, σ0^{s}.74/14, mb4.4/13, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.01	22	Pn	P	13 03 10.2	+0.3
	0.4nm,0.3s,baz=209,slow=9.3,SNR=4.0						
SONM	Songino Array	43.67	13	P	P	13 07 54.7	-0.2
	3.1nm,1.0s,mb4.0,baz=196,slow=8.7,SNR=9.4						
SONM				PcP	PcP	13 09 41.3	-0.9
	0.7nm,0.5s,baz=190,slow=6.8,SNR=4.5						
WRA	Warramunga Arr	47.46	123	P	P	13 08 25.5	+0.1
	12nm,0.8s,mb4.9,baz=301,slow=9.1,SNR=27						
ZAL	Zalesovo	48.86	353	P	P	13 08 36.4	+0.5
	2.7nm,0.8s,mb4.3,baz=302,slow=6.0,SNR=7.4						
ASAR	Alice Springs	48.92	128	P	P	13 08 36.8	0.0
	7.4nm,1.1s,mb4.6,baz=304,slow=7.3,SNR=10						
ASAR				PcP	PcP	13 09 60.0	-1.1
	1.2nm,1.0s,baz=316,slow=4.4,SNR=5.1						
BVAR	Borovoye Array	51.07	342	P	P	13 08 52.1	-0.6
	2.8nm,0.7s,mb4.3,baz=141,slow=9.5,SNR=10.0						
STKA	Stephens Creek	58.95	132	P	P	13 09 50.0	-0.3
	4.3nm,0.8s,mb4.5,baz=288,slow=8.9,SNR=5.8						
AKASG	Malin Array Be	69.64	322	P	P	13 10 57.8	-1.7
	2.7nm,1.0s,mb4.2,baz=84,slow=5.2,SNR=4.2						
MLR	Muntele Rosu	70.44	316	P	P	13 11 04.5	0.0
	3.0nm,0.7s,mb4.3,baz=67,slow=1.8,SNR=4.6						
FINES	FINESS Array B	74.54	333	P	P	13 11 28.1	-0.4
	2.2nm,0.7s,mb4.2,baz=104,slow=7.9,SNR=5.5						
ARCES	ARCESS Array B	77.31	340	P	P	13 11 43.5	-0.7
	7.6nm,1.1s,mb4.5,baz=95,slow=6.1,SNR=8.0						
GERES	GERESS Array B	79.18	319	P	P	13 11 55.7	+0.9
	2.0nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=15						
DAVOX	Davos	81.67	316	P	P	13 12 09.6	+1.6
	2.9nm,0.9s,mb4.2,baz=114,slow=6.7,SNR=6.5						
EKA	Eskdalemuir Ar	89.33	325	P	P	13 12 46.1	+0.4
	1.5nm,0.6s,mb4.5,baz=108,slow=5.3,SNR=5.5						
NVAR	Mina Array Bea	127.34	31	PKP	PKPdf	13 18 57.0	+3.4
	0.9nm,0.6s,baz=293,slow=3.2,SNR=4.0						
PDAR	Pinedale Array	127.67	21	PKP	PKPdf	13 18 56.9	+2.9
	0.8nm,0.7s,baz=38,slow=2.7,SNR=8.7						
ANMO	Albuquerque	135.66	24	PKP	PKPdf	13 19 12.5	+3.3
	0.3nm,0.4s,baz=301,slow=4.9,SNR=4.9						
TXAR	Lajitas Array	141.71	25	PKhKP		13 19 19.1	
	0.6nm,1.0s,baz=326,slow=3.3,SNR=3.1						

IDC 26 13:01:27.5±2.5, 5.64N×93.21E, mb4.1/4, mb1 4.3/5, mb1mx3.9/19, Error ellipse: s-maj=85.4km s-min=25.9km az=64.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.91	23	Pn	P	13 04 46.5	-2.0
	baz=214,slow=13,SNR=2.2						
SONM	Songino Array	43.53	13	P	P	13 09 32.8	-1.8
	1.4nm,0.8s,baz=194,slow=8.3,SNR=3.6						
WRA	Warramunga Arr	47.77	123	P	P	13 10 06.6	-2.2
	4.3nm,0.7s,baz=302,slow=9.0,SNR=5.4						
ASAR	Alice Springs	49.24	128	P	P	13 10 18.4	-1.7
	1.2nm,0.5s,baz=300,slow=7.3,SNR=4.5						
BVAR	Borovoye Array	50.81	342	P	P	13 10 29.5	-2.2
	4.4nm,1.1s,baz=143,slow=7.2,SNR=4.3						

IDC 26 13:06:02.2±1.2, 4.68N×93.65E, mb4.0/6, mb1 4.3/6, mb1mx3.9/18, Error ellipse: s-maj=79.9km s-min=20.8km az=44.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	46.88	123	P	P	13 14 34.4	-2.0
	1.0nm,0.4s,baz=301,slow=9.1,SNR=13						
ASAR	Alice Springs	48.31	127	P	P	13 14 45.8	-1.9
	0.6nm,0.5s,baz=302,slow=7.6,SNR=5.5						
ZAL	Zalesovo	49.63	353	P	P	13 14 55.2	-2.2
	1.9nm,0.5s,baz=307,slow=6.3,SNR=7.8						
BRTR	Keskin Array B	64.17	312	P	P	13 16 38.0	-3.1
	0.7nm,0.6s,baz=124,slow=5.2,SNR=4.5						
MLR	Muntele Rosu	71.12	317	P	P	13 17 23.2	-1.4
	1.8nm,0.7s,baz=210,slow=6.0,SNR=3.6						
GERES	GERESS Array B	79.88	319	P	P	13 18 13.8	-0.5
	2.6nm,1.1s,baz=90,slow=4.0,SNR=6.7						

IDC 26 13:07:33.3±1.2, 8.91N×93.76E, mb3.8/10, mb1 4.0/11, mb1mx3.9/19, ML3.5/1, Error ellipse: s-maj=49.6km s-min=25.7km az=51.0

ISC 26 13:07:36.3±1.0, 8.8N±0.2×93.7E±0.2, h33^{km}, n11, σ0^{s}.91/11, mb3.8/10, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.86	28	Pn	P	13 10 13.2	+0.6
	0.1nm,0.3s,baz=230,slow=14,SNR=2.4						
SONM	Songino Array	40.35	13	P	P	13 15 12.7	+0.3
	0.7nm,1.0s,mb3.4,baz=202,slow=8.1,SNR=3.4						
ZAL	Zalesovo	45.56	353	P	P	13 15 54.0	-0.7
	1.7nm,1.0s,mb3.9,baz=292,slow=12,SNR=5.5						
BVAR	Borovoye Array	47.95	341	P	P	13 16 11.9	-1.8
	0.6nm,0.5s,mb3.9,baz=141,slow=9.5,SNR=3.8						
ASAR	Alice Springs	50.87	130	P	P	13 16 36.1	-0.3
	0.5nm,0.9s,mb3.5,baz=310,slow=7.0,SNR=2.5						
BRTR	Keskin Array B	61.47	310	P	P	13 17 52.7	+0.6
	0.8nm,0.8s,mb3.9,baz=138,slow=7.6,SNR=3.9						
AKASG	Malin Array Be	67.14	321	P	P	13 18 28.1	-0.7
	0.5nm,0.5s,mb3.8,baz=92,slow=4.8,SNR=4.3						
FINES	FINESS Array B	71.67	332	P	P	13 18 57.2	+0.8
	3.7nm,1.0s,mb4.3,baz=112,slow=7.5,SNR=2.6						
ARCES	ARCESS Array B	74.23	340	P	P	13 19 10.4	-0.8
	5.3nm,1.1s,mb4.4,baz=51,slow=5.8,SNR=3.9						
GERES	GERESS Array B	76.82	318	P	P	13 19 28.4	+1.8
	0.7nm,0.7s,mb3.7,baz=90,slow=5.9,SNR=5.3						
NOA	NORSAR Array B	78.69	331	P	P	13 19 36.8	+0.2
	1.0nm,0.9s,mb3.7,baz=232,slow=4.9,SNR=2.9						

IDC 26 13:09:25.2±2.3, 8.43N×93.18E, mb3.9/4, mb1 4.1/4, mb1mx3.8/17, Error ellipse: s-maj=95.3km s-min=25.9km az=62.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	40.84	14	P	P	13 17 08.8	-1.5
	0.4nm,0.5s,baz=197,slow=8.7,SNR=2.7						
WRA	Warramunga Arr	49.35	125	P	P	13 18 16.7	-2.0
	1.5nm,0.4s,baz=304,slow=8.7,SNR=11						
ASAR	Alice Springs	51.00	130	P	P	13 18 29.0	-2.2
	0.9nm,0.8s,baz=306,slow=7.4,SNR=6.0						
ARCES	ARCESS Array B	74.43	340	P	P	13 21 04.7	-1.9
	2.2nm,0.8s,baz=101,slow=6.2,SNR=4.6						
TXAR	Lajitas Array	139.10	23	PKP	PKPdf	13 28 56.3	-0.3
	0.3nm,0.9s,baz=120,slow=0.2,SNR=4.3						

IDC 26 13:10:37.4±0.5, 7.59N×94.19E, mb4.5/21, mb1 4.6/22, mb1mx4.5/25, ML3.4/1, Error ellipse: s-maj=23.4km s-min=12.8km az=44.0

NEIC 26 13:10:42.5±0.3, 7.59N×94.24E, h30^{km}, mb4.8/29, Error ellipse: s-maj=7.9km s-min=7.0km az=89.0

BJI 26 13:10:42.2, 7.45N×93.78E, h45^{km}, mB5.0, mb4.6, Ms4.9, Msz4.6

ISC 26 13:10:40.4±3.4, 7.54N±0.05×94.21E±0.06, h29^{km}±23^{km}, n95, σ1^{s}.17/86, mb4.7/62, MS5.0/1, 1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.79	23	P	P	13 13 28.5	-1.4
CMAR	Chiang Mai Arr	11.79	23	Pn	P	13 13 29.5	-0.3
	0.1nm,0.3s,baz=215,slow=14,SNR=4.0						
KMI	Kunming	19.29	24	P	P	13 15 09.3	+3.3
KMI				AMB	AMB		
	comp=Z,23nm,1.3s						
KMI				LR	LR		
	comp=N,1μm,14.5s						
KMI				LR	LR		
	comp=E,1μm,13.3s						
KMI				LR	LR		
	comp=Z,2μm,16.3s						
PKI	Pulchoki	21.60	338	*e*P	P	13 15 30.7	+0.5
	comp=Z,157nm,1.2s,mb5.3						
GUN	Gumba	21.74	340	*e*P	P	13 15 30.5	-1.1
	comp=Z,139nm,1.2s,mb5.3						
DMN	Daman	21.75	338	*e*P	P	13 15 32.4	+0.8
	comp=Z,103nm,0.9s,mb5.3						
KAD	Karad	21.81	298	*e*P	P	13 15 33.4	+1.0
KAD				*i* S	S	13 19 24.7	-2.2
KKN	Kakani	21.84	338	*e*P	P	13 15 32.8	+0.2
	comp=Z,175nm,1.3s,mb5.3						
LSA	Lhasa	22.23	353	P	P	13 15 36.8	+0.3
LSA	Lhasa	22.23	353	*e*P	P	13 15 36.5	0.0
	comp=Z,31nm,0.6s,mb4.9						
GYA	Guiyang	22.23	31	⇑*i*P	P	13 15 38.5	+2.0
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.4						
GKN	Gorkha	22.28	337	*e*P	P	13 15 36.4	-0.5
	comp=Z,55nm,0.7s,mb5.1						
KOLN	Koldanda	22.49	335	*e*P	P	13 15 38.6	-0.4
	comp=Z,122nm,1.2s,mb5.2						
CD2	Chengdu	24.91	20	P	P	13 16 05.5	+2.9
CD2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.1						
DGAR	Diego Garcia	26.30	236	P	P	13 16 15.6	-0.1
	comp=Z,182nm,0.4s						
ENH	Enshi	26.77	30	*e*P	P	13 16 19.2	-0.7
	comp=Z,29nm,1.1s,mb4.7						
XAN	Xi'an	29.66	25	P	P	13 16 46.5	+0.5
XAN				AMB	AMB		
	comp=Z,7.0nm,1.5s,mb4.2						
LZH	Lanzhou	29.75	16	*e*P	P	13 16 47.8	+1.0
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb4.8						
GTA	Gaotai	32.13	8	P	P	13 17 08.3	+0.6
GTA				AMB	AMB		
	comp=Z,8.0nm,1.5s,mb4.3						
WMQ	Urumqi	36.59	352	P	P	13 17 46.5	+0.6
WMQ				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.9						
HHC	Hu-ho-hao-te	36.60	22	*e*P	P	13 17 48.3	+2.3
HHC				AMB	AMB		
	comp=Z,7.0nm,0.1s,mb5.5						
HHC				AMB	AMB		
	comp=Z,399nm,6.9s						
HHC				LR	LR		
	comp=N,622nm,14.3s,MS5.0						
HHC				LR	LR		
	comp=E,2μm,13.1s,MS5.0						
HHC				LR	LR		
	comp=Z,1μm,19.0s						
JOW	Kunigami	37.58	55	P	P	13 17 53.1	-1.3
	baz=293,slow=18						
BJT	Baijiatuau	37.84	28	P	P	13 17 57.5	+1.0
	comp=Z,16nm,1.1s,mb4.7						
BJI	Beijing	37.86	28	P	P	13 17 59.3	+2.6
BJI				AMB	AMB		
	comp=Z,11nm,1.4s,mb4.4						
MBWA	Marble Bar	37.97	139	*e*P	P	13 17 56.2	-1.5
	comp=Z,16nm,1.2s,mb4.6						
AAK	Ala-Archa	39.04	337	*e*P	P	13 18 06.3	-0.2
	comp=Z,14nm,1.2s,mb4.6						
SONM	Songino Array	41.47	12	P	P	13 18 26.9	+0.5
	comp=Z,5.7nm,1.1s,mb4.1,baz=198,slow=7.8,SNR=14						
ULN	Ulaanbaatar	41.64	13	*e*P	P	13 18 27.1	-0.8
	comp=Z,3.6nm,0.8s,mb4.0						
KS15	Wonju Array Si	42.64	41	*e*P	P	13 18 38.3	+2.2
NWAO	Narrogin (SRO)	45.82	153	P	P	13 19 02.7	+0.8
	comp=Z,14nm,0.8s,mb5.0,baz=284,slow=5.7,SNR=4.7						
NWAO	Narrogin (SRO)	45.82	153	*e*P	P	13 19 02.1	+0.3
	comp=Z,22nm,1.0s,mb5.0						
HIA	Hailar	46.80	23	*e*P	P	13 19 10.5	+1.1
	comp=Z,8.7nm,1.0s,mb4.6						
ZAL	Zalesovo	46.88	352	P	P	13 19 09.1	-0.8
	comp=Z,4.7nm,0.4s,mb4.7,baz=308,slow=5.4,SNR=19						
WRA	Warramunga Arr	48.01	125	P	P	13 19 18.1	-1.2
	comp=Z,4.9nm,0.9s,mb4.5,baz=304,slow=9.1,SNR=17						
WRAB	Tennant Creek	48.02	125	*e*P	P	13 19 18.1	-1.3
	comp=Z,11nm,0.8s,mb4.9						
BVAR	Borovoye Array	49.33	341	P	P	13 19 27.6	-1.4
	comp=Z,3.6nm,0.9s,mb4.4,baz=143,slow=7.4,SNR=17						
MAJO	Matsushiro	49.33	48	*e*P	P	13 19 27.8	-1.5
	comp=Z,8.1nm,0.9s,mb4.8						
BRVK	Borovoye	49.39	341	*e*P	P	13 19 28.0	-1.4
	comp=Z,11nm,0.9s,mb4.9						
ASAR	Alice Springs	49.65	130	P	P	13 19 30.8	-1.1
	comp=Z,4.6nm,0.7s,mb4.6,baz=307,slow=7.4,SNR=19						
CHKZ	Chkalovo	49.81	342	*e*P	P	13 19 32.0	-0.7
	comp=Z,18nm,0.6s,mb5.3						
GNI	Garni	54.72	314	P	P	13 20 09.2	-0.5
	comp=Z,1.0nm,0.3s,mb4.3,baz=153,slow=17,SNR=3.9						
GNI	Garni	54.72	314	*e*P	P	13 20 08.6	-1.1
	comp=Z,11nm,1.0s,mb4.8						
PMG	Port Moresby	55.37	107	P	P	13 20 13.7	-1.0
	comp=Z,12nm,0.8s,mb5.0,baz=286,slow=5.5,SNR=4.3						
PMG	Port Moresby	55.37	107	P	P	13 20 13.7	-1.0
ARU	Arti	56.22	337	*e*P	P	13 20 18.9	-1.4
	comp=Z,54nm,1.5s,mb5.4						
KMBO	Kilima Mbogo	57.46	264	P	P	13 20 29.9	+0.2
	comp=Z,3.0nm,0.6s,mb4.5,baz=60,slow=14,SNR=8.9						
KIV	Kislovodsk	57.61	318	P	P	13 20 29.0	-1.3
	comp=Z,13nm,0.9s,mb5.0						
MALT	Malatya	58.73	310	*e*P	P	13 20 37.5	-0.7
	comp=Z,5.9nm,1.4s,mb4.4						
STKA	Stephens Creek	59.83	134	P	P	13 20 45.1	-0.8
	comp=Z,4.1nm,0.9s,mb4.5,baz=315,slow=9.5,SNR=5.2						
YAK	Yakutsk	60.29	18	*e*P	P	13 20 47.4	-1.2
	comp=Z,20nm,0.8s,mb5.2						
BRTR	Keskin Array B	62.70	311	P	P	13 21 02.5	-2.6
	comp=Z,1.7nm,0.7s,mb4.3,baz=124,slow=7.3,SNR=8.7						
MBAR	Mbarara	63.81	266	*e*P	P	13 21 13.9	+1.0
	comp=Z,8.6nm,1.3s,mb4.6						
OBN	Obninsk	65.70	328	*e*P	P	13 21 23.3	-1.2
	comp=Z,50nm,1.1s,mb5.5						
AKASG	Malin Array Be	68.46	322	P	P	13 21 39.6	-2.4
	comp=Z,1.3nm,0.7s,mb4.0,baz=90,slow=4.2,SNR=9.7						
IDI	Anoyia	68.81	305	P	P	13 21 43.5	-1.0
	comp=Z,10.0nm,0.8s,mb4.8,baz=75,slow=8.3,SNR=5.7						
LSZ	Lusaka	69.23	251	*e*P	P	13 21 48.0	+0.8
	comp=Z,13nm,1.5s,mb4.6						
KOLS	Kolonicke sedl	72.50	319	*e*P	P	13 22 07.2	+0.7
KOLS				*e*		13 22 37.3	
CRVS	Cervenica-Dubn	73.03	319	*e*	pP	13 22 15.2	-3.4
FINES	FINESS Array B	73.04	332	P	P	13 22 08.9	-0.5
	comp=Z,3.8nm,0.7s,mb4.4,baz=105,slow=6.2,SNR=14						
KAF	Kangasniemi	73.12	333	*e*p	P	13 22 09.3	-0.6
	comp=Z,3.7nm,0.6s,mb4.5						
LBTB	Lobatse	74.15	241	*e*P	P	13 22 18.4	+1.8
	comp=Z,5.6nm,0.8s,mb4.5						
VYHS	Vyhne	74.70	318	*e*P	P	13 22 19.1	-0.2
VYHS				*e*		13 22 59.9	
OKC	Ostrava-Krasne	75.29	319	*e*P	P	13 22 16.1	-6.6
BOSA	Boshof	75.47	238	*e*P	P	13 22 25.8	+1.6
	comp=Z,4.5nm,0.7s,mb4.5						
ARCES	ARCESS Array B	75.60	340	P	P	13 22 24.0	-0.1
	comp=Z,26nm,1.3s,mb5.0,baz=90,slow=6.1,SNR=6.4						
ARCES	ARCESS Array B	75.60	340	P	P	13 22 24.0	-0.1
ZST	Bratislava	75.83	318	*e*P	P	13 22 26.9	+1.1
ZST				*e*		13 23 05.2	
BILL	Bilibino	76.37	22	*e*P	P	13 22 28.6	+0.2
	comp=Z,8.9nm,1.3s,mb4.5						
DPC	Dobruska-Polom	76.51	320	*e*P	P	13 22 30.3	+0.7
PVCC	Panska Ves	77.64	320	*e*P	P	13 22 37.9	+2.1
BRG	Berggiesshubel	78.05	320	*e*P	P	13 22 39.1	+1.0
	comp=Z,9.1nm,1.4s,mb4.5						
GERES	GERESS Array B	78.12	318	P	P	13 22 38.4	-0.1
	comp=Z,1.8nm,0.7s,mb4.1,baz=87,slow=4.3,SNR=12						
KHC	Kasperske Hory	78.21	319	*e*P	P	13 22 38.4	-0.6
MAW	Mawson	78.22	192	P	P	13 22 41.0	+2.3
	comp=Z,11nm,1.0s,mb4.7						
CLL	Collm	78.66	321	*e*P	P	13 22 40.0	-1.4
CLL	Collm	78.66	321	P	P	13 22 41.0	-0.4
NB2	NORSAR Subarra	80.06	331	P	P	13 22 48.3	-0.5
	comp=Z,2.8nm,0.6s,mb4.4,baz=96,slow=5.0						
NOA	NORSAR Array B	80.06	331	P	P	13 22 47.9	-0.8
	comp=Z,4.4nm,0.8s,mb4.4,baz=95,slow=5.3,SNR=10.0						
NOA	NORSAR Array B	80.06	331	P	P	13 22 47.9	-0.8
SUR	Sutherland	80.20	235	*e*P	P	13 22 53.6	+3.4
	comp=Z,2.6nm,0.6s,mb4.3						
LPG	La Plagne	82.90	315	*e*P	P	13 23 04.7	+0.7
	comp=Z,12nm,0.9s,mb4.6						
EKA	Eskdalemuir Ar	88.03	325	P	P	13 23 28.9	-0.3
	comp=Z,4.1nm,0.9s,mb4.7,baz=98,slow=5.6,SNR=5.1						
ESDC	Sonseca Array	91.49	310	P	P	13 23 46.5	+0.8
	comp=Z,0.4nm,0.5s,mb4.0,baz=72,slow=4.7,SNR=4.3						
IMA	Indian Mountai	91.90	22	*e*P	P	13 23 49.0	+1.9
	comp=Z,43nm,0.9s,mb5.8						
ILAR	Eielson Array	95.02	22	P	P	13 24 02.2	+0.8
	comp=Z,0.5nm,0.7s,mb4.0,baz=311,slow=4.9,SNR=6.8						
INK	Inuvik	97.29	16	P	P	13 24 12.1	+0.5
	comp=Z,2.9nm,1.2s,mb4.6,baz=267,slow=6.7,SNR=3.2						
YKA	Yellowknife Ar	106.73	14	PKKPbc		13 40 23.0	
	comp=Z,0.2nm,0.7s,baz=153,slow=3.2,SNR=5.3						
YKA				PKKP	PKKP	13 40 38.2	+10
	comp=Z,0.3nm,0.7s,baz=146,slow=3.8,SNR=7.9						
ULM	Lac du Bonnet	121.78	8	PKP	PKPdf	13 29 33.9	-3.1
	comp=Z,1.5nm,0.5s,baz=288,slow=23,SNR=4.4						
NVAR	Mina Array Bea	125.17	31	PKP	PKPdf	13 29 41.3	-2.5
	comp=Z,1.4nm,0.8s,baz=270,slow=1.5,SNR=6.5						
PDAR	Pinedale Array	125.45	21	PKP	PKPdf	13 29 40.8	-3.5
	comp=Z,1.7nm,0.9s,slow=1.5,SNR=12						
ANMO	Albuquerque	133.44	24	PKP	PKPdf	13 29 58.2	-1.5
	comp=Z,1.5nm,1.0s,baz=130,slow=0.9,SNR=4.8						
ANMO	Albuquerque	133.44	24	PKP	PKPdf	13 29 58.2	-1.5
TXAR	Lajitas Array	139.50	24	PKP	PKPdf	13 30 08.8	-2.2
	comp=Z,1.5nm,1.1s,baz=221,slow=1.9,SNR=3.7						
JCT	Junction City	139.88	19	*e*PKPdf	PKPdf	13 30 09.0	-2.6
BDFB	Brasilia	142.18	254	PKP	PKPdf	13 30 13.7	-2.4
	comp=Z,6.1nm,1.1s,baz=210,slow=3.6,SNR=3.8						

IDC 26 13:11:17.3±0.8, 8.07N×92.24E, mb4.3/13, mb1 4.5/14, mb1mx4.4/21, ML4.5/1, Error ellipse: s-maj=30.9km s-min=17.4km az=44.0

ISC 26 13:11:20.3±0.7, 8.1N±0.1×92.3E±0.1, h33^{km}, n20, σ0^{s}.94/17, mb4.2/15, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.20	31	Pn	P	13 14 14.5	-0.3
	0.9nm,0.3s,baz=232,slow=14,SNR=6.4						
JOW	Kunigami	38.88	57	P	P	13 18 44.8	+0.2
	8.1nm,0.5s,mb4.7,baz=232,slow=4.0,SNR=6.2						
SONM	Songino Array	41.41	14	P	P	13 19 04.4	-0.9
	6.9nm,1.1s,mb4.2,baz=211,slow=7.2,SNR=6.8						
BVAR	Borovoye Array	48.24	342	P	P	13 20 00.5	+0.6
	1.7nm,0.6s,mb4.2,baz=145,slow=11,SNR=5.0						
WRA	Warramunga Arr	49.87	124	P	P	13 20 12.2	-0.7
	3.2nm,0.5s,mb4.6,baz=303,slow=8.7,SNR=7.1						
ASAR	Alice Springs	51.45	129	P	P	13 20 24.9	0.0
	4.5nm,0.7s,mb4.5,baz=310,slow=7.2,SNR=6.0						
BRTR	Keskin Array B	60.92	311	P	P	13 21 31.5	-1.0
	1.0nm,0.7s,mb4.1,baz=123,slow=7.8,SNR=2.4						
STKA	Stephens Creek	61.57	133	P	P	13 21 37.1	+0.1
	3.8nm,0.8s,mb4.6,baz=303,slow=8.5,SNR=4.0						
AKASG	Malin Array Be	66.87	322	P	P	13 22 09.8	-1.4
	0.6nm,0.4s,mb3.9,baz=83,slow=4.3,SNR=4.6						
KECS	Kecovo	71.95	318	*e*	P	13 22 40.2	-2.2
ARCES	ARCESS Array B	74.47	340	P	P	13 22 57.5	+0.7
	2.9nm,0.8s,mb4.3,baz=76,slow=5.0,SNR=4.2						
GERES	GERESS Array B	76.47	318	P	P	13 23 08.9	+0.3
	0.9nm,0.6s,mb3.9,baz=90,slow=6.9,SNR=2.6						
NB2	NORSAR Subarra	78.67	331	P	P	13 23 29.8	+9.2
	0.4nm,0.8s,mb3.4,baz=95,slow=6.2						
EKA	Eskdalemuir Ar	86.53	325	P	P	13 24 02.5	+1.4
	1.1nm,0.5s,mb4.3,baz=92,slow=4.8,SNR=5.5						
ESDC	Sonseca Array	89.69	310	P	P	13 24 18.1	+1.4
	0.6nm,0.6s,mb4.1,baz=67,slow=3.5,SNR=4.8						
ILAR	Eielson Array	95.26	22	P	P	13 24 42.2	+0.6
	0.3nm,0.6s,mb3.9,baz=308,slow=5.0,SNR=7.1						
INK	Inuvik	97.32	16	P	P	13 24 51.8	+0.8
	0.6nm,0.6s,mb4.2,baz=184,slow=25,SNR=5.5						
PDAR	Pinedale Array	125.64	20	PKP	PKPdf	13 30 21.6	+2.7
	0.6nm,0.7s,baz=333,slow=2.0,SNR=3.2						
NVAR	Mina Array Bea	125.69	29	PKP	PKPdf	13 30 23.4	+4.3
	1.7nm,0.9s,baz=288,slow=2.9,SNR=3.2						
TXAR	Lajitas Array	139.78	22	PKP	PKPdf	13 30 49.1	+3.4
	0.6nm,0.8s,baz=167,slow=0.5,SNR=5.7						

IDC 26 13:13:22.6±0.6, 6.25N×95.47E, mb4.5/14, mb1 4.6/15, mb1mx4.5/20, ML4.9/1, MS4.5/2, Ms1 4.6/2, ms1mx3.5/29, Error ellipse: s-maj=33.3km s-min=14.0km az=50.0

BJI 26 13:13:23.1, 5.56N×94.51E, h30^{km}, mB5.5, mb4.9, Ms5.2, Msz4.8

NEIC 26 13:13:27.1±0.4, 6.14N×95.43E, h30^{km}, mb4.9/15, Error ellipse: s-maj=12.8km s-min=9.8km az=78.0

ISC 26 13:13:25.7±0.4, 6.07N±0.07×95.37E±0.08, h30^{km}, n49, σ1^{s}.40/47, mb4.7/33, MS4.8/3, 1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.80	15	P	P	13 16 26.4	-2.1
	26nm,0.7s						
CMAR	Chiang Mai Arr	12.80	15	Pn	P	13 16 26.4	-2.1
	2.2nm,0.3s,baz=231,slow=4.6,SNR=8.5						
CMAR				LR	LR	13 22 07.9	
	comp=Z,2μm,18.2s,baz=219,slow=42						
QIZ	Qiongzhong	19.10	46	*e*P	P	13 17 50.0	+1.1
	64nm,1.2s						
KMI	Kunming	20.22	20	P	P	13 18 07.3	+6.1
KMI				AMB	AMB		
	comp=Z,31nm,1.3s						
KMI				LR	LR		
	comp=N,1μm,10.7s,MS4.8						
KMI				LR	LR		
	comp=E,3μm,12.8s,MS4.8						
KMI				LR	LR		
	comp=Z,2μm,13.8s,MS4.6						
CD2	Chengdu	25.94	17	P	P	13 19 01.5	+4.2
ENH	Enshi	27.50	27	*e*P	P	13 19 07.2	-4.4
	comp=Z,26nm,1.4s,mb4.6						
XAN	Xi'an	30.53	23	P	P	13 19 41.8	+3.0
XAN				AMB	AMB		
	comp=Z,35nm,1.3s,mb5.0						
LZH	Lanzhou	30.87	13	⇑P	P	13 19 46.0	+4.2
LZH				AMB	AMB		
	comp=Z,26nm,1.3s,mb4.9						
GTA	Gaotai	33.44	6	P	P	13 20 06.3	+2.2
GTA				AP	pP	13 20 20.8	+7.8
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.3						
NJ2	Nanjing	33.90	37	*e*P	P	13 20 12.5	+4.2
HHC	Hu-ho-hao-te	37.54	20	*e*P	P	13 20 44.8	+5.8
HHC				AP	pP	13 20 49.0	+1.0
HHC				XP	sP	13 20 51.5	-0.3
HHC				PP	PP	13 22 10.8	+3.1
HHC				AMB	AMB		
	comp=Z,26nm,1.0s,mb4.9						
HHC				AMB	AMB		
	comp=Z,659nm,8.6s						

HHC				LR	LR		
	comp=N,1μm,14.3s,MS5.1						
HHC				LR	LR		
	comp=E,1μm,11.9s,MS5.1						
HHC				LR	LR		
	comp=Z,2μm,16.6s,MS4.9						
BJT	Baijiatuau	38.63	26	eP	P	13 20 53.7	+5.6
	comp=Z,117nm,1.3s,mb5.5						
BJI	Beijing	38.65	26	P	P	13 20 53.0	+4.6
BJI				AMB	AMB		
	comp=Z,63nm,1.2s,mb5.2						
SONM	Songino Array	42.67	11	P	P	13 21 18.2	-3.2
	comp=Z,0.9nm,0.5s,mb3.8,baz=197,slow=7.4,SNR=4.3						
NWAO	Narrogin (SRO)	43.99	153	P	P	13 21 33.0	+0.6
	comp=Z,7.3nm,0.7s,mb4.5,baz=294,slow=4.2,SNR=3.0						
NWAO	Narrogin (SRO)	43.99	153	P	P	13 21 33.0	+0.6
NWAO				P		13 21 33.7	
WRA	Warramunga Arr	46.23	125	P	P	13 21 49.0	-1.4
	comp=Z,21nm,0.8s,mb5.1,baz=304,slow=9.1,SNR=15						
WRAB	Tennant Creek	46.23	125	eP	P	13 21 48.4	-2.0
	comp=Z,52nm,0.9s,mb5.5						
HIA	Hailar	47.72	21	P	P	13 21 56.4	-5.3
	comp=Z,8.6nm,0.9s,mb4.8						
HIA				e	pP	13 22 06.1	-4.8
ASAR	Alice Springs	47.83	130	P	P	13 22 01.2	-1.7
	comp=Z,23nm,0.7s,mb5.3,baz=301,slow=7.1,SNR=25						
ASAR				PcP	PcP	13 23 33.5	+1.7
	comp=Z,4.4nm,0.8s,baz=309,slow=4.2,SNR=4.7						
MDJ	Mudanjiang	48.64	32	eP	P	13 22 11.2	+2.2
	comp=Z,19nm,1.1s,mb5.0						
MAJO	Matsushiro	49.49	46	P	P	13 22 11.2	-4.4
	comp=Z,32nm,1.4s,mb5.2						
CTA	Charters Tower	56.37	119	LR	LR	13 48 05.1	
	comp=Z,477nm,18.6s,MS4.6,baz=107,slow=37						
CTAO	Charters Tower	56.37	119	eP	P	13 23 01.8	-5.1
	comp=Z,20nm,1.3s,mb5.0						
STKA	Stephens Creek	57.98	134	P	P	13 23 18.5	+0.3
	comp=Z,6.8nm,0.6s,mb4.8,baz=305,slow=7.2,SNR=8.6						
STKA	Stephens Creek	57.98	134	P	P	13 23 18.5	+0.3
STKA				eP		13 23 18.7	
KMBO	Kilima Mbogo	58.46	265	P	P	13 23 20.6	-1.2
	comp=Z,1.7nm,0.5s,mb4.3,baz=217,slow=20,SNR=2.5						
KMBO	Kilima Mbogo	58.46	265	P	P	13 23 20.6	-1.2
KMBO				eP		13 23 22.0	
KIV	Kislovodsk	59.47	318	P	P	13 23 25.3	-3.0
	comp=Z,14nm,1.0s,mb4.9						
YAK	Yakutsk	61.32	18	eP	P	13 23 40.6	-0.1
	comp=Z,18nm,1.1s,mb5.1						
BRTR	Keskin Array B	64.53	311	P	P	13 24 02.4	+0.1
	comp=Z,1.0nm,0.6s,mb4.0,baz=125,slow=4.9,SNR=3.9						
MBAR	Mbarara	64.85	266	eP	P	13 24 05.5	+0.7
	comp=Z,6.2nm,1.1s,mb4.5						
LSZ	Lusaka	69.83	251	P	P	13 24 37.0	+0.9
	comp=Z,6.1nm,1.1s,mb4.4						
AKASG	Malin Array Be	70.32	322	P	P	13 24 37.4	-1.1
	comp=Z,2.4nm,0.5s,mb4.4,baz=80,slow=4.8,SNR=8.5						
KOLS	Kolonicke sedl	74.36	319	eP	P	13 25 00.8	-1.6
LBTB	Lobatse	74.47	242	eP	P	13 25 03.0	-0.6
	comp=Z,12nm,1.0s,mb4.8						
FINES	FINESS Array B	74.87	332	P	P	13 25 04.0	-1.1
	comp=Z,1.7nm,0.6s,mb4.2,baz=108,slow=8.8,SNR=5.9						
FINES	FINESS Array B	74.87	332	P	P	13 25 04.0	-1.1
CRVS	Cervenica-Dubn	74.88	319	e	P	13 25 10.2	+4.7
BOSA	Boshof	75.68	239	eP	P	13 25 10.9	+0.4
	comp=Z,15nm,1.1s,mb4.8						
OJC	Ojcow	76.13	320	eP	P	13 25 13.3	+0.7
ARCES	ARCESS Array B	77.37	340	P	P	13 25 18.4	-0.7
	comp=Z,8.3nm,1.2s,mb4.5,baz=79,slow=6.2,SNR=3.8						
ZST	Bratislava	77.68	318	eP	P	13 25 22.8	+1.6
GERES	GERESS Array B	79.98	318	P	P	13 25 33.5	-0.2
	comp=Z,3.9nm,0.9s,mb4.3,baz=76,slow=5.5,SNR=6.2						
SUR	Sutherland	80.32	236	eP	P	13 25 36.0	+0.1
	comp=Z,6.7nm,0.8s,mb4.6						
NOA	NORSAR Array B	81.89	331	P	P	13 25 44.9	+1.4
	comp=Z,0.5nm,0.8s,mb3.5,baz=62,slow=7.4,SNR=3.4						
URZ	Urewera	87.27	129	P	P	13 26 12.4	+1.4
	comp=Z,9.6nm,0.9s,mb5.0,baz=273,slow=5.3,SNR=3.6						
VNDA	Vanda	90.93	168	P	P	13 26 28.6	+1.2
	comp=Z,3.2nm,1.2s,mb4.5,baz=336,slow=4.2,SNR=2.6						
TXAR	Lajitas Array	140.32	26	PKP	PKPdf	13 32 55.1	-2.5
	comp=Z,0.6nm,1.0s,baz=180,slow=0.9,SNR=2.5						

WEL 26 13:16:04.7±0.2, 38.14S×176.40E, h144^{km}±1^{km}, ML3.5/7, 1C, Error ellipse: s-maj=2.0km s-min=1.6km az=0.0, North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.58	103	PN	P	13 16 25.7	-0.6
URZ				SN	S	13 16 41.7	-1.1
MWZ	Matawai	0.91	103	PN	P	13 16 28.3	-0.1
MWZ				SN	S	13 16 46.2	-0.4
BKZ	Black Stump Fm	1.03	176	⇑PN	P	13 16 29.3	-0.1
BKZ				SN	S	13 16 47.4	-0.9
MGZ	Maungaku	1.09	218	PN	P	13 16 30.0	0.0
NGZ	Ngauruhoe	1.21	211	PN	P	13 16 30.8	-0.4
CNZ	Chateau	1.25	212	PN	P	13 16 31.4	-0.1
TUVZ	Tukino	1.27	207	PN	P	13 16 31.6	-0.2
KNZ	Kokohu	1.34	132	PN	P	13 16 32.1	-0.3
PUZ	Puketiti	1.47	88	ePN	P	13 16 33.2	-0.6
PUZ				SN	S	13 16 54.8	-1.5
MXZ	Matakaoa Point	1.62	70	PN	P	13 16 35.1	-0.4
VRZ	Vera Road	1.62	232	PN	P	13 16 35.0	-0.5
PWZ	Pawanui	1.93	169	PN	P	13 16 38.2	-0.8
TSZ	Takapari Road	1.95	190	PN	P	13 16 37.9	-1.3
MRZ	Mangatainoka R	2.60	194	PN	P	13 16 44.8	-2.6
MTW	Mount Morrison	3.10	193	PN	P	13 16 50.1	-3.7
CAW	Cannon Point	3.14	199	PN	P	13 16 50.9	-3.5
MSWZ	Moikau Station	3.39	195	SN	S	13 17 32.2	-6.0
TUWZ	Tuamarina	3.79	209	ePN	P	13 16 58.8	-4.1
THZ	Tophouse	4.51	215	ePN	P	13 17 08.1	-4.3
KHZ	Kahutara	4.80	206	PN	P	13 17 11.6	-4.8
MQZ	McQueen's Vall	6.25	206	SN	S	13 18 34.1	-12

IDC 26 13:16:06.6±3.7, 10.71N×92.47E, mb4.5/6, mb1 4.7/6, mb1mx4.1/17, Error ellipse: s-maj=152.0km s-min=21.3km az=68.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	38.81	15	P	P	13 23 33.6	-1.3
	5.5nm,1.1s,baz=198,slow=7.8,SNR=5.0						
ZAL	Zalesovo	43.54	353	P	P	13 24 12.0	-1.7
	2.1nm,0.7s,baz=293,slow=8.6,SNR=3.2						
WRA	Warramunga Arr	51.26	126	P	P	13 25 12.3	-2.3
	8.6nm,0.5s,baz=306,slow=8.3,SNR=40						
ASAR	Alice Springs	53.00	131	P	P	13 25 25.3	-2.4
	10nm,0.6s,baz=304,slow=7.2,SNR=30						
STKA	Stephens Creek	63.25	134	P	P	13 26 37.8	-1.7
	3.9nm,0.7s,baz=294,slow=3.1,SNR=7.0						
ILAR	Eielson Array	92.74	22	P	P	13 29 19.8	-1.9
	1.0nm,0.8s,baz=303,slow=4.2,SNR=8.4						

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*IDC **26** 13:16:41.0±0.7, 12.79N×92.84E, mb4.5/18, mb1 4.6/19, mb1mx4.5/23, ML4.4/1, Error ellipse: s-maj=23.4km s-min=16.1km az=44.0*

*BJI **26** 13:16:44.9, 13.19N×93.18E, h15^{km}, mB4.9, mb5.0, Ms4.6, Msz4.7*

*NEIC **26** 13:16:46.0±0.4, 12.89N×92.97E, h30^{km}, mb4.7/28, Error ellipse: s-maj=9.2km s-min=7.7km az=179.0*

ISC 26 13:16:46.1±3.1, 13.03N±0.06×93.09E±0.06, h33^{km}±22^{km}, n72, σ1^{s}07/68, mb4.7/46, MS4.7/2, 1C-1D, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.80	45	eP	Pn	13 18 39.6	-0.7
CMAR	Chiang Mai Arr	7.80	45	Pn	Pn	13 18 39.6	-0.7
	1.2nm,0.3s,baz=237,slow=14,SNR=14						
LSA	Lhasa	16.68	354	eP	P	13 20 33.1	-5.9
	28nm,0.8s						
QIZ	Qiongzhong	17.16	68	P	P	13 20 42.6	-2.5
	33nm,1.2s						
CD2	Chengdu	20.33	27	P	P	13 21 22.0	-0.3
CD2				AMB	AMB		
	comp=Z,80nm,1.0s						
ENH	Enshi	22.89	39	eP	P	13 21 48.0	-0.2
	comp=Z,88nm,1.0s,mb5.2						
LZH	Lanzhou	24.91	21	eP	P	13 22 09.0	+1.3
LZH				AP		13 22 12.0	
LZH				XP		13 22 13.5	
LZH				AMB	AMB		
	comp=Z,66nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,312nm,7.6s						
LZH				LR	LR		
	comp=E,875nm,12.8s						
LZH				LR	LR		
	comp=Z,1μm,13.0s,MS4.7						
GTA	Gaotai	26.94	12	P	P	13 22 27.0	+0.5
GTA				AP	pP	13 22 38.3	+2.4
GTA				XP	sP	13 22 41.5	+1.5
GTA				AMB	AMB		
	comp=Z,15nm,1.3s,mb4.4						
NJ2	Nanjing	30.27	47	eP	P	13 22 58.0	+1.5
HHC	Hu-ho-hao-te	32.09	27	eP	P	13 23 12.5	+0.1
HHC				AP	pP	13 23 17.0	-5.1
HHC				XP	sP	13 23 19.5	-6.9
HHC				PP	PP	13 24 18.5	-0.9
HHC				S	S	13 28 18.8	-2.5
HHC				AMB	AMB		
	comp=Z,18nm,1.0s,mb4.9						
HHC				LR	LR		
	comp=N,1μm,5.9s						
HHC				LR	LR		
	comp=E,1μm,10.7s						
HHC				LR	LR		
	comp=Z,2μm,15.5s,MS4.8						
BJT	Baijiatuau	33.69	33	eP	P	13 23 26.7	+0.4
	comp=Z,14nm,1.1s,mb4.8						
JOW	Kunigami	35.67	62	P	P	13 23 44.6	+1.2
	comp=Z,10nm,0.7s,mb4.9,baz=288,slow=27,SNR=9.8						
SONM	Songino Array	36.43	15	P	P	13 23 49.8	+0.2
	comp=Z,8.2nm,0.9s,mb4.7,baz=196,slow=9.0,SNR=10						
ULN	Ulaanbaatar	36.63	16	eP	P	13 23 51.2	-0.1
	comp=Z,13nm,1.2s,mb4.6						
KS15	Wonju Array Si	39.41	46	eP	P	13 24 14.5	-0.1
ZAL	Zalesovo	41.33	353	P	P	13 24 29.8	-0.5
	comp=Z,3.2nm,0.6s,mb4.2,baz=306,slow=6.4,SNR=4.8						
CN2	Changchun	41.35	36	⇓P	P	13 24 30.5	-0.1
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.7						
HIA	Hailar	42.28	26	P	P	13 24 39.2	+1.0
	comp=Z,10nm,1.2s,mb4.3						
MBWA	Marble Bar	42.89	142	eP	P	13 24 42.0	-1.5
	comp=Z,20nm,1.2s,mb4.7						
BVAR	Borovoye Array	43.81	340	P	P	13 24 49.9	-0.7
	comp=Z,4.2nm,0.9s,mb4.2,baz=149,slow=8.6,SNR=4.4						
BRVK	Borovoye	43.87	340	eP	P	13 24 46.5	-4.6
	comp=Z,6.8nm,0.9s,mb4.4						
MDJ	Mudanjiang	44.25	38	eP	P	13 24 52.1	-2.1
CHKZ	Chkalovo	44.29	341	eP	P	13 24 53.0	-1.4
	comp=Z,19nm,0.8s,mb4.9						
MAJO	Matsushiro	46.63	52	P	P	13 25 13.4	+0.2
	comp=Z,12nm,1.0s,mb4.8						
GNI	Garni	50.18	312	P	P	13 25 40.2	-0.6
	comp=Z,6.1nm,0.6s,mb4.8,baz=32,slow=4.8,SNR=6.6						
ARU	Arti	50.78	336	eP	P	13 25 43.8	-1.3
	comp=Z,8.2nm,0.7s,mb4.8						
NWAO	Narrogin (SRO)	51.19	154	eP	P	13 25 49.9	+1.3
	comp=Z,32nm,1.3s,mb5.1						
WRA	Warramunga Arr	52.16	128	P	P	13 25 54.5	-1.5
	comp=Z,3.6nm,0.8s,mb4.3,baz=306,slow=8.2,SNR=5.1						
WRAB	Tennant Creek	52.17	128	eP	P	13 25 54.2	-1.9
	comp=Z,12nm,0.9s,mb4.8						
KIV	Kislovodsk	52.87	316	eP	P	13 26 01.0	0.0
	comp=Z,33nm,1.0s,mb5.2						
YSS	Yuzh-Sakhalins	53.46	41	eP	P	13 26 04.4	-1.0
	comp=Z,26nm,1.0s,mb5.1						
ASAR	Alice Springs	54.06	132	P	P	13 26 08.6	-1.6
	comp=Z,2.9nm,0.5s,mb4.5,baz=305,slow=6.6,SNR=8.5						
MALT	Malatya	54.43	308	eP	P	13 26 09.5	-3.1
	comp=Z,8.2nm,1.1s,mb4.6						
YAK	Yakutsk	55.49	20	eP	P	13 26 17.7	-2.3
	comp=Z,14nm,0.7s,mb5.1						
BRTR	Keskin Array B	58.36	309	P	P	13 26 39.0	-1.6
	comp=Z,14nm,1.1s,mb4.9,baz=120,slow=7.1,SNR=16						
MA2	Magadan	62.73	29	eP	P	13 27 09.8	-0.3
	comp=Z,38nm,1.3s,mb5.4						
AKASG	Malin Array Be	63.52	320	P	P	13 27 12.7	-2.8
	comp=Z,5.0nm,0.9s,mb4.6,baz=82,slow=5.6,SNR=7.8						
FINES	FINESS Array B	67.71	331	P	P	13 27 40.4	-1.6
	comp=Z,3.8nm,0.7s,mb4.5,baz=117,slow=8.5,SNR=4.7						
FINES	FINESS Array B	67.71	331	P	P	13 27 40.4	-1.6
CRVS	Cervenica-Dubn	68.22	318	eP	P	13 27 46.2	+0.7
OJC	Ojcow	69.41	319	eP	P	13 27 53.6	+0.8
ARCES	ARCESS Array B	70.10	340	P	P	13 27 55.1	-1.5
	comp=Z,2.8nm,0.6s,mb4.4,baz=79,slow=6.2,SNR=6.0						
LSZ	Lusaka	70.11	248	eP	P	13 27 58.0	+0.5
	comp=Z,4.0nm,1.0s,mb4.3						
ZST	Bratislava	71.07	317	eP	P	13 28 02.7	-0.2
BILL	Bilibino	71.72	22	eP	P	13 28 05.8	-0.6
	comp=Z,7.6nm,1.1s,mb4.5						
BRG	Berggiesshubel	73.17	319	eP	P	13 28 16.1	+0.8
	comp=Z,6.5nm,0.9s,mb4.6						
GERES	GERESS Array B	73.34	317	P	P	13 28 15.6	-0.8
	comp=Z,4.9nm,0.7s,mb4.5,baz=86,slow=5.7,SNR=17						
KHC	Kasperske Hory	73.42	318	eP	P	13 28 16.2	-0.6
CLL	Collm	73.76	320	eP	P	13 28 18.0	-0.8
CLL	Collm	73.76	320	P	P	13 28 18.0	-0.8
MOX	Moxa	74.65	319	i P	P	13 28 23.7	-0.2
MOX	Moxa	74.65	319	eP	P	13 28 23.7	-0.2
NB2	NORSAR Subarra	74.77	330	P	P	13 28 22.8	-1.6
	comp=Z,4.7nm,1.0s,mb4.4,baz=91,slow=4.8						
NOA	NORSAR Array B	74.77	330	P	P	13 28 21.9	-2.5
	comp=Z,2.2nm,0.7s,mb4.2,baz=90,slow=5.9,SNR=5.5						
NOA	NORSAR Array B	74.77	330	P	P	13 28 21.9	-2.5
GRA1	Grafenberg Arr	74.94	318	eP	P	13 28 25.5	-0.1
	comp=Z,4.0nm,0.8s,mb4.4						
GRF	Grafenberg Arr	74.94	318	eP	P	13 28 25.5	-0.1
	comp=Z,4.0nm,0.8s,mb4.4						
LBTB	Lobatse	75.86	240	eP	P	13 28 31.8	+0.3
	comp=Z,8.5nm,1.1s,mb4.6						
BOSA	Boshof	77.50	237	eP	P	13 28 40.6	0.0
	comp=Z,13nm,1.3s,mb4.7						
LPL	La Plagne	78.30	314	⇑iP	P	13 28 44.8	+0.2
	comp=Z,29nm,0.7s,mb5.0						
SUR	Sutherland	82.44	234	eP	P	13 29 08.2	+1.2
	comp=Z,5.3nm,0.7s,mb4.6						
EKA	Eskdalemuir Ar	82.92	325	P	P	13 29 07.6	-1.3
	comp=Z,3.5nm,0.8s,mb4.5,baz=100,slow=5.1,SNR=4.5						
MAW	Mawson	83.35	191	P	P	13 29 06.3	-4.5
	comp=Z,3.7nm,0.9s,mb4.4,baz=313,slow=18,SNR=2.5						
ESDC	Sonseca Array	87.13	310	P	P	13 29 28.7	-1.5
	comp=Z,1.8nm,0.7s,mb4.4,baz=54,slow=4.6,SNR=6.1						
SPU	Mount Spurr	90.14	26	eP	P	13 29 44.4	+0.4
ILAR	Eielson Array	90.37	22	P	P	13 29 44.8	-0.3
	comp=Z,1.3nm,0.6s,mb4.4,baz=302,slow=5.6,SNR=8.7						
INK	Inuvik	92.34	16	P	P	13 29 54.0	-0.1
	comp=Z,1.9nm,0.6s,mb4.6,baz=305,slow=5.4,SNR=12						
PDAR	Pinedale Array	120.71	19	PKP	PKPdf	13 35 35.6	+0.5
	comp=Z,0.5nm,0.6s,baz=85,slow=1.8,SNR=4.4						
NVAR	Mina Array Bea	120.98	29	PKP	PKPdf	13 35 37.9	+2.1
	comp=Z,0.9nm,0.6s,baz=235,slow=1.2,SNR=5.0						
ANMO	Albuquerque	128.80	21	PKP	PKPdf	13 35 53.3	+2.3
	comp=Z,1.5nm,0.9s,baz=186,slow=2.4,SNR=5.5						
TXAR	Lajitas Array	134.88	21	PKP	PKPdf	13 36 03.7	+1.1
	comp=Z,0.6nm,0.7s,baz=186,slow=0.5,SNR=6.7						
TXAR	Lajitas Array	134.88	21	PKP	PKPdf	13 36 03.7	+1.1

IDC 26 13:17:43.0±5.5, 11.76N×94.24E, mb4.3/5, mb1 4.5/5, mb1mx4.0/18, Error ellipse: s-maj=210.0km s-min=26.4km az=73.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	37.38	14	P	P	13 24 57.0	-2.3
	1.2nm,0.7s,baz=201,slow=8.5,SNR=2.2						
WRA	Warramunga Arr	50.50	128	P	P	13 26 43.6	-1.7
	5.9nm,0.5s,baz=305,slow=8.7,SNR=13						
ASAR	Alice Springs	52.38	132	P	P	13 26 56.6	-2.9
	3.4nm,0.6s,baz=309,slow=6.3,SNR=5.1						
STKA	Stephens Creek	62.74	135	P	P	13 28 10.4	-2.2
	2.5nm,0.7s,baz=297,slow=7.3,SNR=3.2						
INK	Inuvik	93.25	16	P	P	13 31 00.2	-0.1
	6.6nm,1.4s,baz=315,slow=3.7,SNR=4.2						

IDC 26 13:20:27.5±1.4, 9.73N×92.85E, mb4.0/7, mb1 4.1/8, mb1mx3.9/19, ML3.8/1, Error ellipse: s-maj=52.1km s-min=22.1km az=60.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.50	34	Pn	P	13 23 00.1	-2.3
	0.2nm,0.3s,baz=224,slow=14,SNR=2.3						
SONM	Songino Array	39.67	14	P	P	13 28 00.9	-2.0
	0.9nm,0.8s,baz=198,slow=10,SNR=3.3						
BVAR	Borovoye Array	46.84	342	P	P	13 28 59.3	-1.6
	0.5nm,0.4s,baz=136,slow=8.5,SNR=5.8						
WRA	Warramunga Arr	50.37	126	P	P	13 29 27.2	-1.5
	0.9nm,0.4s,baz=302,slow=9.5,SNR=4.8						
ASAR	Alice Springs	52.07	130	P	P	13 29 39.2	-2.5
	0.5nm,0.7s,baz=304,slow=7.8,SNR=2.9						
FINES	FINESS Array B	70.49	332	P	P	13 31 43.8	-1.9
	2.1nm,0.9s,baz=45,slow=2.7,SNR=3.5						
ARCES	ARCESS Array B	73.10	340	P	P	13 31 59.6	-1.6
	2.8nm,0.9s,baz=45,slow=5.1,SNR=3.9						
ILAR	Eielson Array	93.51	22	P	P	13 33 44.6	-1.5
	0.4nm,0.4s,baz=306,slow=4.4,SNR=8.6						

IDC 26 13:23:27.8±1.0, 8.69N×92.20E, mb4.1/10, mb1 4.3/10, mb1mx4.2/18, Error ellipse: s-maj=50.6km s-min=19.4km az=48.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.83	15	P	P	13 31 11.2	-1.5
	2.6nm,0.7s,baz=198,slow=7.9,SNR=11						
BVAR	Borovoye Array	47.62	342	P	P	13 32 04.3	-3.1
	2.0nm,1.0s,baz=135,slow=8.4,SNR=4.2						
WRA	Warramunga Arr	50.30	125	P	P	13 32 26.3	-2.2
	3.4nm,0.8s,baz=305,slow=8.9,SNR=8.2						
ASAR	Alice Springs	51.91	129	P	P	13 32 38.5	-2.2
	1.1nm,0.5s,baz=304,slow=8.1,SNR=8.7						
BRTR	Keskin Array B	60.44	311	P	P	13 33 39.2	-2.5
	2.1nm,1.0s,baz=117,slow=5.5,SNR=4.9						
AKASG	Malin Array Be	66.33	322	P	P	13 34 17.8	-2.5
	0.2nm,0.4s,baz=91,slow=4.6,SNR=5.0						
FINES	FINESS Array B	71.10	332	P	P	13 34 48.1	-1.7
	5.4nm,1.0s,baz=76,slow=7.9,SNR=4.9						
ARCES	ARCESS Array B	73.86	340	P	P	13 35 05.0	-0.8
	3.9nm,1.0s,baz=108,slow=3.8,SNR=4.4						
GERES	GERESS Array B	75.94	318	P	P	13 35 17.2	-1.1
	1.7nm,0.8s,baz=89,slow=5.9,SNR=8.1						
KHC	Kasperske Hory	76.04	318	eP	P	13 35 18.5	-0.3
NB2	NORSAR Subarra	78.08	331	P	P	13 35 28.5	-1.4
	0.1nm,0.6s,baz=95,slow=5.8						
NOA	NORSAR Array B	78.08	331	P	P	13 35 28.4	-1.4
	1.3nm,0.7s,baz=93,slow=5.4,SNR=4.0						
TXAR	Lajitas Array	139.22	21	PKP	PKPdf	13 42 57.9	-1.5
	0.1nm,0.5s,baz=336,slow=0.2,SNR=3.8						

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*IDC **26** 13:23:46.2±0.7, 8.63N×92.16E, mb4.4/14, mb1 4.5/15, mb1mx4.4/23, ML4.4/1, Error ellipse: s-maj=31.0km s-min=14.1km az=47.0*

ISC 26 13:23:49.8±4.5, 8.6N±0.1×92.3E±0.1, h37^{km}±38^{km}, n32, σ0^{s}82/24, mb4.5/15, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.73	33	Pn	P	13 26 36.4	-1.3
	0.7nm,0.3s,baz=229,slow=14,SNR=11						
PKI	Pulchoki	19.93	342	eP	P	13 28 22.0	+0.6
	158nm,0.8s						
DMN	Daman	20.06	341	eP	P	13 28 23.8	+1.0
	193nm,0.8s						
GUN	Gumba	20.11	343	eP	P	13 28 23.6	+0.3
	109nm,0.7s						
KKN	Kakani	20.17	342	eP	P	13 28 24.2	+0.2
GKN	Gorkha	20.57	340	eP	P	13 28 28.1	-0.1
	95nm,0.6s						
KOLN	Koldanda	20.73	338	eP	P	13 28 30.3	+0.6
	78nm,0.6s						
DDI	Dehra Dun	25.35	330	e	P	13 29 16.6	+1.4
DDI				e		13 34 38.2	
SONM	Songino Array	40.87	15	P	P	13 31 30.0	+0.1
	4.6nm,0.7s,mb4.2,baz=197,slow=8.0,SNR=14						
ZAL	Zalesovo	45.58	354	P	P	13 32 08.0	-0.1
	2.2nm,0.8s,mb4.2,baz=296,slow=9.7,SNR=6.5						
BVAR	Borovoye Array	47.70	342	P	P	13 32 24.2	-0.5
	3.0nm,1.1s,mb4.2,baz=149,slow=8.6,SNR=4.4						
MAT	Matsushiro	50.05	49	P	P	13 32 42.7	-0.5
WRA	Warramunga Arr	50.21	125	P	P	13 32 44.4	-0.2
	8.1nm,0.6s,mb4.9,baz=306,slow=8.5,SNR=24						
ASAR	Alice Springs	51.82	129	P	P	13 32 56.2	-0.5
	6.0nm,0.8s,mb4.5,baz=308,slow=7.4,SNR=14						
EIL	Elat	57.44	300	P	P	13 33 38.2	+0.6
	2.9nm,0.8s,mb4.4,baz=37,slow=15,SNR=4.2						
PMG	Port Moresby	57.52	107	P	P	13 33 39.7	+1.3
	9.7nm,0.7s,mb5.0,baz=355,slow=15,SNR=7.1						
CTA	Charters Tower	60.29	119	P	P	13 33 58.0	+0.5
	7.0nm,0.8s,mb4.7,baz=274,slow=8.2,SNR=3.1						
BRTR	Keskin Array B	60.53	311	P	P	13 33 57.8	-1.1
	2.8nm,0.8s,mb4.4,baz=127,slow=8.4,SNR=10						
STKA	Stephens Creek	61.97	133	P	P	13 34 09.1	+0.3
	3.5nm,0.7s,mb4.6,baz=313,slow=7.1,SNR=6.4						
AKASG	Malin Array Be	66.42	322	P	P	13 34 36.0	-1.3
	0.6nm,0.6s,mb3.8,baz=79,slow=4.9,SNR=3.6						
CRVS	Cervenica-Dubn	70.94	319	e	pP	13 35 13.7	-2.9
ARCES	ARCESS Array B	73.93	340	P	P	13 35 22.9	+0.2
	2.3nm,0.8s,mb4.2,baz=83,slow=7.3,SNR=3.4						
DPC	Dobruska-Polom	74.44	320	eP	pP	13 35 36.5	-0.7
UPC	Upice	74.65	320	eP	pP	13 35 33.6	-4.8
PRU	Pruhonice	75.55	319	eP	pP	13 35 40.4	-3.2
GERES	GERESS Array B	76.03	318	P	P	13 35 34.9	-0.3
	1.1nm,0.6s,mb3.9,baz=85,slow=5.5,SNR=4.9						
FX1	Attu Island--F	77.68	38	P	P	13 35 45.0	+0.6
	12nm,0.6s,mb5.0,baz=77,slow=18,SNR=5.2						
LPG	La Plagne	80.77	315	eP	P	13 35 59.0	-2.3
	46nm,1.1s,mb5.0						
YKA	Yellowknife Ar	106.11	13	PP	PP	13 42 20.6	-5.5
	0.2nm,0.8s,baz=335,slow=7.5,SNR=3.8						
PDAR	Pinedale Array	125.11	20	PKP	PKPdf	13 42 50.0	+3.1
	0.7nm,0.6s,baz=8.7,slow=0.6,SNR=7.2						
NVAR	Mina Array Bea	125.20	29	PKP	PKPdf	13 42 48.1	+0.9
	1.1nm,0.6s,baz=298,slow=2.4,SNR=6.5						
TXAR	Lajitas Array	139.26	22	PKP	PKPdf	13 43 17.1	+3.3
	0.6nm,0.5s,baz=155,slow=0.8,SNR=15						

IDC 26 13:24:00.5±8.1, 7.44N×94.34E, mb4.4/7, mb1 4.6/8, mb1mx4.3/19, ML4.4/1, Error ellipse: s-maj=199.0km s-min=78.0km az=134.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.83	22	Pn	P	13 26 57.0	+3.4
	0.7nm,0.3s,baz=228,slow=14,SNR=9.2						
ZAL	Zalesovo	47.00	352	P	P	13 32 33.2	-2.0
	8.0nm,0.4s,baz=307,slow=6.6,SNR=4.0						
BVAR	Borovoye Array	49.46	341	P	P	13 32 52.0	-2.4
	5.6nm,1.1s,baz=158,slow=8.0,SNR=4.1						
BRTR	Keskin Array B	62.86	311	P	P	13 34 28.6	-2.1
	1.7nm,0.7s,baz=122,slow=6.8,SNR=2.6						
FINES	FINESS Array B	73.19	332	P	P	13 35 34.0	-0.9
	5.1nm,0.7s,baz=90,slow=6.0,SNR=8.0						
KAF	Kangasniemi	73.27	333	ep	P	13 35 35.3	0.0
ARCES	ARCESS Array B	75.74	340	P	P	13 35 47.3	-2.1
	2.7nm,0.9s,baz=90,slow=7.3,SNR=3.5						
GERES	GERESS Array B	78.28	318	P	P	13 36 02.4	-1.6
	1.7nm,0.8s,baz=82,slow=6.9,SNR=2.6						
NB2	NORSAR Subarra	80.21	331	P	P	13 36 14.4	+0.2
	2.0nm,0.6s,baz=98,slow=4.8						
NOA	NORSAR Array B	80.21	331	P	P	13 36 12.7	-1.5
	2.9nm,0.7s,baz=94,slow=5.5,SNR=6.9						

IDC 26 13:24:33.5±0.7, 3.27N×95.02E, mb4.5/13, mb1 4.6/14, mb1mx4.5/22, ML4.9/1, Error ellipse: s-maj=26.9km s-min=16.9km az=50.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.57	14	Pn	P	13 28 19.1	+2.9
	1.9nm,0.3s,baz=206,slow=11,SNR=23						
JOW	Kunigami	39.51	50	P	P	13 32 07.0	-0.8
	22nm,0.5s,baz=242,slow=9.4,SNR=8.9						
NWAO	Narrogin (SRO)	41.70	151	P	P	13 32 24.2	-1.6
	21nm,1.2s,baz=301,slow=12,SNR=3.1						
SONM	Songino Array	45.46	11	P	P	13 32 54.0	-2.1
	8.9nm,0.7s,baz=191,slow=9.4,SNR=7.7						
ZAL	Zalesovo	51.19	352	P	P	13 33 38.7	-1.8
	5.7nm,0.5s,baz=290,slow=6.9,SNR=7.2						
BVAR	Borovoye Array	53.60	342	P	P	13 33 56.3	-2.2
	2.7nm,0.5s,baz=148,slow=14,SNR=5.6						
CTA	Charters Tower	55.37	117	P	P	13 34 09.7	-2.4
	13nm,0.9s,baz=277,slow=8.8,SNR=7.8						
STKA	Stephens Creek	56.35	132	P	P	13 34 16.1	-2.9
	3.8nm,0.6s,baz=286,slow=7.3,SNR=5.4						
KMBO	Kilima Mbogo	57.91	267	P	P	13 34 29.0	-1.2
	3.0nm,0.6s,baz=221,slow=23,SNR=6.6						

BRTR	**Keskin Array B**	**66.11**	**312**	P	P	13 35 22.9	-2.0
	1.7nm,0.9s,baz=130,slow=7.7,SNR=2.8						
AKASG	**Malin Array Be**	**72.30**	**322**	P	P	13 36 00.4	-2.4
	1.4nm,0.6s,baz=90,slow=4.2,SNR=5.8						
FINES	**FINESS Array B**	**77.17**	**333**	P	P	13 36 28.2	-2.3
	3.4nm,0.7s,baz=106,slow=7.2,SNR=4.4						
KAF	**Kangasniemi**	**77.26**	**333**	*e*p	P	13 36 29.5	-1.6
ARCES	**ARCESS Array B**	**79.86**	**340**	P	P	13 36 43.5	-1.7
	8.4nm,1.1s,baz=89,slow=5.2,SNR=5.3						
GERES	**GERESS Array B**	**81.83**	**319**	P	P	13 36 55.2	-0.7
	2.3nm,0.8s,baz=76,slow=5.5,SNR=3.6						

IDC 26 13:24:42.1±1.0, 3.33N×95.14E, mb4.7/13, mb1 4.8/14, mb1mx4.6/22, ML4.8/1, Error ellipse: s-maj=48.4km s-min=16.8km az=40.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.49**	**14**	Pn	P	13 28 27.2	+3.5
	1.5nm,0.3s,baz=207,slow=11,SNR=13						
WRA	**Warramunga Arr**	**44.91**	**123**	P	P	13 32 59.1	-1.6
	5.4nm,0.6s,baz=306,slow=8.6,SNR=7.3						
SONM	**Songino Array**	**45.39**	**11**	P	P	13 33 02.3	-1.8
	7.8nm,0.9s,baz=186,slow=8.0,SNR=4.6						
ZAL	**Zalesovo**	**51.16**	**352**	P	P	13 33 46.9	-1.9
	4.8nm,0.6s,baz=271,slow=6.1,SNR=5.0						
PMG	**Port Moresby**	**53.36**	**104**	P	P	13 34 03.2	-2.7
	17nm,0.7s,baz=282,slow=3.1,SNR=6.4						
BVAR	**Borovoye Array**	**53.59**	**342**	P	P	13 34 05.0	-2.1
	4.4nm,0.7s,baz=143,slow=7.4,SNR=5.5						
CTA	**Charters Tower**	**55.30**	**117**	P	P	13 34 17.9	-2.2
	12nm,0.7s,baz=275,slow=7.5,SNR=11						
BRTR	**Keskin Array B**	**66.16**	**312**	P	P	13 35 31.9	-1.9
	1.6nm,0.7s,baz=127,slow=6.7,SNR=3.7						
IDI	**Anoyia**	**71.99**	**306**	P	P	13 36 08.2	-1.7
	14nm,0.6s,baz=96,slow=8.1,SNR=9.9						
AKASG	**Malin Array Be**	**72.33**	**322**	P	P	13 36 08.9	-2.6
	4.8nm,0.7s,baz=86,slow=4.7,SNR=13						
KOLS	**Kolonicke sedl**	**76.27**	**320**	*e*	P	13 36 34.5	+0.1
FINES	**FINESS Array B**	**77.17**	**333**	P	P	13 36 37.6	-1.6
	8.7nm,0.7s,baz=104,slow=7.9,SNR=9.3						
KECS	**Kecovo**	**77.36**	**319**	*e*	P	13 36 39.3	-1.2
ZST	**Bratislava**	**79.55**	**318**	*e*	P	13 36 52.3	-0.2
ARCES	**ARCESS Array B**	**79.85**	**340**	P	P	13 36 52.4	-1.3
	8.4nm,0.7s,baz=92,slow=5.6,SNR=10						
GERES	**GERESS Array B**	**81.86**	**319**	P	P	13 37 04.2	-0.5
	4.2nm,0.9s,baz=104,slow=5.5,SNR=6.4						
KHC	**Kasperske Hory**	**81.97**	**319**	*e*P	P	13 37 06.0	+0.8
CLL	**Collm**	**82.49**	**321**	P	P	13 37 08.0	+0.1
NB2	**NORSAR Subarra**	**84.16**	**331**	P	P	13 37 13.7	-2.5
	0.3nm,0.7s,baz=92,slow=6.5						
NOA	**NORSAR Array B**	**84.16**	**331**	P	P	13 37 14.8	-1.3
	3.0nm,0.8s,baz=95,slow=5.4,SNR=4.5						

IDC 26 13:27:36.4±1.2, 8.77N×92.22E, mb4.2/9, mb1 4.4/9, mb1mx4.1/19, Error ellipse: s-maj=57.4km s-min=21.2km az=53.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**40.74**	**15**	P	P	13 35 19.2	-1.4
	4.2nm,0.6s,baz=204,slow=8.9,SNR=9.9						
BVAR	**Borovoye Array**	**47.54**	**342**	P	P	13 36 13.5	-1.9
	0.9nm,0.5s,baz=129,slow=9.2,SNR=2.5						
WRA	**Warramunga Arr**	**50.33**	**125**	P	P	13 36 34.7	-2.7
	1.7nm,0.5s,baz=305,slow=8.5,SNR=8.1						
ASAR	**Alice Springs**	**51.95**	**129**	P	P	13 36 47.8	-1.9
	1.6nm,0.6s,baz=307,slow=7.1,SNR=6.0						
ARCES	**ARCESS Array B**	**73.78**	**340**	P	P	13 39 12.2	-1.8
	5.1nm,1.0s,baz=90,slow=4.9,SNR=3.9						
GERES	**GERESS Array B**	**75.89**	**318**	P	P	13 39 25.4	-1.2
	0.8nm,0.6s,baz=90,slow=6.7,SNR=4.9						
NOA	**NORSAR Array B**	**78.02**	**331**	P	P	13 39 36.0	-2.2
	0.9nm,1.1s,baz=97,slow=4.1,SNR=2.8						
ILAR	**Eielson Array**	**94.62**	**22**	P	P	13 40 58.9	-1.2
	0.9nm,0.9s,baz=305,slow=5.5,SNR=4.9						
INK	**Inuvik**	**96.65**	**16**	P	P	13 41 07.8	-1.5
	1.0nm,0.7s,baz=266,slow=5.4,SNR=5.2						
YKA	**Yellowknife Ar**	**105.98**	**13**	PP	PP	13 46 07.3	-10
	0.5nm,0.8s,baz=330,slow=6.8,SNR=4.4						
PDAR	**Pinedale Array**	**124.99**	**19**	PKP	PKPdf	13 46 40.1	-0.7
	0.6nm,0.7s,baz=57,slow=1.9,SNR=4.3						
TXAR	**Lajitas Array**	**139.14**	**21**	PKP	PKPdf	13 47 07.8	0.0
	0.3nm,0.5s,baz=161,SNR=5.9						

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*IDC **26** 13:28:53.5±0.4, 7.73N×94.01E, mb4.9/26, mb1 4.9/27, mb1mx4.9/27, ML4.6/1, Error ellipse: s-maj=19.7km s-min=11.2km az=49.0*

*MOS **26** 13:28:56.8±1.0, 7.73N×94.03E, h33km, mb5.3/33, Error ellipse: s-maj=13.4km s-min=6.8km az=117.7*

*NEIC **26** 13:28:56.5±0.2, 7.72N×94.03E, mb5.2/45, Error ellipse: s-maj=6.9km s-min=5.0km az=51.0*

*BJI **26** 13:28:56.0, 7.30N×93.62E, h49km, mB5.7, mb5.1, Ms4.9, Msz4.7*

*CSEM **26** 13:29:00.5, 8.32N×93.93E, h33km, mb5.5*

ISC 26 13:28:55.2±0.2, 7.64N±0.04×93.97E±0.04, h21km, h21km±1.2km:pP-P, n242, σ1.08/231, mb5.1/96, MS4.7/5, 20C-22D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**10.01**	**37**	P	**P**	**13 31 22.2**	**+1.1**
CM31	**Chiang Mai Arr**	**11.79**	**24**	*e*P	**P**	**13 31 48.5**	**+3.1**
	84nm,0.9s						
CMAR	**Chiang Mai Arr**	**11.79**	**24**	Pn	**P**	**13 31 48.0**	**+2.6**
	1.3nm,0.3s,baz=215,slow=14,SNR=24						
CMAR	**Chiang Mai Arr**	**11.79**	**24**	P	**P**	**13 31 48.1**	**+2.7**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CHG	**Chiang Mai**	**12.12**	**23**	⇓P	**P**	**13 31 53.1**	**+3.3**
	comp=Z,48nm,0.7s						
IMP	**Imphal**	**17.05**	**360**	*e*	**P**	**13 32 56.8**	**+2.6**
SHL	**Shillong**	**17.94**	**354**	*e*P	**P**	**13 33 01.1**	**-4.2**
SHL				*e*		13 33 06.7	
	comp=Z,82nm,1.0s						
SHL				*e*S	**S**	**13 36 21.3**	**-0.8**
QIZ	**Qiongzhong**	**19.13**	**52**	P	**P**	**13 33 22.5**	**+2.7**
QIZ				AMB	AMB		
	comp=Z,88nm,1.2s						
QIZ				LR	LR		
	comp=N,2µm,11.6s						
QIZ	**Qiongzhong**	**19.13**	**52**	P	**P**	**13 33 16.6**	**-3.2**
	comp=N,365nm,1.5s						
QIZ				*e*		13 33 24.0	
KMI	**Kunming**	**19.30**	**25**	P	**P**	**13 33 24.8**	**+3.0**
KMI				PP	PP	13 33 39.3	+0.2
KMI				LR	LR		
	comp=N,917nm,14.8s						
KMI				LR	LR		
	comp=E,2µm,16.7s						
KMI				LR	LR		
	comp=Z,2µm,18.6s						
COCO	**West Island**	**19.90**	**172**	P	**P**	**13 33 29.0**	**+0.4**
AKL	**Akola**	**20.92**	**310**	*e*P	**P**	**13 33 36.5**	**-2.6**
AKL				*e*		13 33 52.0	
	comp=Z,86nm,1.3s						
ALBI	**Allahabad**	**21.06**	**328**	*e*P	**P**	**13 33 40.4**	**-0.1**
PKI	**Pulchoki**	**21.42**	**339**	*e*P	**P**	**13 33 43.9**	**-0.2**
	comp=Z,96nm,0.7s,mb5.2						
DMN	**Daman**	**21.57**	**338**	*e*P	**P**	**13 33 45.1**	**-0.5**
	comp=Z,274nm,0.8s,mb5.8						
GUN	**Gumba**	**21.57**	**340**	*e*P	**P**	**13 33 44.7**	**-0.9**
	comp=Z,146nm,0.7s,mb5.5						
KKN	**Kakani**	**21.67**	**339**	*e*P	**P**	**13 33 46.3**	**-0.3**
	comp=Z,142nm,0.7s,mb5.5						
GKN	**Gorkha**	**22.10**	**338**	*e*P	**P**	**13 33 50.5**	**-0.4**
	comp=Z,170nm,0.7s,mb5.6						
LSA	**Lhasa**	**22.11**	**353**	P	**P**	**13 33 50.5**	**-0.5**
LSA	**Lhasa**	**22.11**	**353**	*e*P	**P**	**13 33 50.6**	**-0.4**
	comp=Z,121nm,0.8s,mb5.4						
GYA	**Guiyang**	**22.27**	**31**	⇑*i*P	**P**	**13 33 54.0**	**+1.3**
GYA				PP	PP	13 34 23.0	+3.4
GYA				S	**S**	**13 37 57.8**	**+6.2**
GYA				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.1						
GYA				AMB	AMB		
	comp=Z,108nm,3.2s						
GYA				LR	LR		
	comp=N,2µm,16.4s,MS4.9						
GYA				LR	LR		
	comp=E,3µm,15.8s,MS4.9						
GYA				LR	LR		
	comp=Z,5µm,14.8s,MS5.1						
KOLN	**Koldanda**	**22.30**	**335**	*e*P	**P**	**13 33 53.5**	**+0.6**
	comp=Z,196nm,0.8s,mb5.6						
BOM	**Bombay**	**23.41**	**301**	*e*P	**P**	**13 34 07.1**	**+3.2**
CD2	**Chengdu**	**24.90**	**20**	P	**P**	**13 34 19.5**	**+1.2**
LGTI	**Lohaghat**	**25.25**	**331**	*e*P	**P**	**13 34 22.7**	**+1.1**
NDI	**New Delhi**	**26.23**	**325**	*e*P	**P**	**13 34 28.5**	**-2.3**
NDI				*e*	pP	13 34 33.0	-3.9
	comp=Z,99nm,1.3s						
NDI				*e*S	**S**	**13 38 59.5**	**-0.2**
LZH	**Lanzhou**	**29.72**	**16**	*e*P	**P**	**13 35 02.8**	**+0.5**
LZH				AMB	AMB		
	comp=Z,83nm,1.5s,mb5.2						
LZH				AMB	AMB		
	comp=Z,253nm,5.4s						
LZH				LR	LR		
	comp=E,1µm,15.2s						
LZH				LR	LR		
	comp=Z,2µm,17.0s,MS4.7						
GTA	**Gaotai**	**32.07**	**9**	P	**P**	**13 35 23.0**	**0.0**
GTA				AMB	AMB		
	comp=Z,31nm,0.9s,mb5.1						
NJ2	**Nanjing**	**33.56**	**40**	*e*P	**P**	**13 35 36.5**	**+0.5**
NJ2				AP	pP	13 35 46.5	+4.2
NJ2				XP	sP	13 35 50.3	+5.3
NJ2				PP	PP	13 36 48.5	-0.1
NJ2				S	**S**	**13 40 53.5**	**-2.5**
NJ2				AMB	AMB		
	comp=Z,1µm,5.0s						
SSE	**Sheshan**	**34.51**	**44**	*e*P	**P**	**13 35 43.0**	**-1.2**
SSE				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,898nm,7.9s						
KSH	**Kashi**	**35.62**	**336**	P	**P**	**13 35 53.0**	**-0.6**
KSH				*e*AP	pP	13 36 00.8	+0.9
KSH				*e*XP	sP	13 36 06.0	+3.4
KSH				AMB	AMB		
	comp=Z,60nm,3.4s						
BTO	**Baotou**	**35.82**	**21**	*e*P	**P**	**13 35 55.8**	**+0.5**
WMQ	**Urumqi**	**36.46**	**352**	P	**P**	**13 36 01.0**	**+0.4**
WMQ				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
HHC	**Hu-ho-hao-te**	**36.60**	**23**	*e*P	**P**	**13 36 03.5**	**+1.6**
HHC				AMB	AMB		
	comp=Z,72nm,0.9s,mb5.5						
HHC				AMB	AMB		
	comp=Z,4µm,7.3s						
HHC				LR	LR		
	comp=N,946nm,16.6s,MS4.8						
HHC				LR	LR		
	comp=E,1µm,14.3s,MS4.8						
HHC				LR	LR		
	comp=Z,2µm,16.6s,MS5.0						
BJT	**Baijiatuau**	**37.87**	**28**	*e*P	**P**	**13 36 14.2**	**+1.6**
	comp=Z,21nm,0.8s,mb4.9						
BJT				*e*	pP	13 36 21.2	+2.4
BJI	**Beijing**	**37.89**	**28**	P	**P**	**13 36 14.5**	**+1.8**
BJI				AMB	AMB		
	comp=Z,33nm,1.0s,mb5.0						
KZA	**Kyzart**	**38.09**	**337**	P	**P**	**13 36 14.8**	**+0.4**
	SNR=5.9						
MBWA	**Marble Bar**	**38.20**	**139**	*e*P	**P**	**13 36 14.4**	**-1.1**
UCH	**Uchtor**	**38.50**	**337**	P	**P**	**13 36 18.5**	**+0.7**
	SNR=8.4						
KBK	**Karagaybulak**	**38.70**	**337**	P	**P**	**13 36 20.0**	**+0.5**
	SNR=13						
AML	**Almayashu**	**38.75**	**336**	P	**P**	**13 36 20.9**	**+1.0**
	SNR=16						
AAK	**Ala-Archa**	**38.85**	**337**	P	**P**	**13 36 21.9**	**+1.1**
	SNR=10.0						
AAK	**Ala-Archa**	**38.85**	**337**	⇓*i*P	**P**	**13 36 20.2**	**-0.6**
AAK				pmax	pmax		
	comp=Z,26nm,1.3s,mb4.8						
AAK	**Ala-Archa**	**38.85**	**337**	⇓*i*P	**P**	**13 36 20.3**	**-0.5**
CHMS	**Chumysh**	**39.07**	**337**	P	**P**	**13 36 22.6**	**0.0**
	SNR=6.0						
EKS2	**Erkin-Say**	**39.16**	**336**	P	**P**	**13 36 24.0**	**+0.7**
	SNR=9.7						
USP	**Ospenovka**	**39.39**	**337**	P	**P**	**13 36 25.3**	**0.0**
	SNR=14						
DL2	**Dalian**	**39.86**	**34**	P	**P**	**13 36 33.5**	**+4.3**
DL2				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.7						
SONM	**Songino Array**	**41.43**	**13**	P	**P**	**13 36 42.1**	**+0.2**
	comp=Z,17nm,0.8s,mb4.8,baz=195,slow=8.1,SNR=28						
SONM				PcP	PcP	13 38 38.9	-1.5
	comp=Z,4.6nm,0.8s,baz=207,slow=2.8,SNR=4.3						
ULN	**Ulaanbaatar**	**41.60**	**13**	*e*P	**P**	**13 36 43.3**	**-0.1**
	comp=Z,12nm,0.8s,mb4.6						
ULN				*e*	pP	13 36 50.0	+0.3
SNY	**Shenyang**	**42.96**	**33**	⇑P	**P**	**13 36 56.0**	**+1.4**
SNY				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
ZAK	**Zakamensk**	**43.31**	**9**	⇓*i*P	**P**	**13 36 57.5**	**+0.2**
TLY	**Talaya**	**44.63**	**9**	⇓*e*P	**P**	**13 37 08.7**	**+0.7**
TLY				pmax	pmax		
	comp=Z,17nm,1.5s,mb4.7						
CN2	**Changchun**	**45.32**	**32**	⇑P	**P**	**13 37 15.0**	**+1.4**
CN2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.1						
HASS	**Wahat al Ahsa’**	**45.66**	**298**	P	**P**	**13 37 18.3**	**+1.8**
NWAO	**Narrogin (SRO)**	**46.02**	**153**	P	**P**	**13 37 19.7**	**+0.4**
	comp=Z,12nm,0.6s,mb5.0,baz=328,slow=4.2,SNR=6.9						
NWAO	**Narrogin (SRO)**	**46.02**	**153**	P	**P**	**13 37 19.7**	**+0.4**
NWAO				pmax	pmax		
	comp=Z,13nm,0.6s						
NWAO	**Narrogin (SRO)**	**46.02**	**153**	*e*P	**P**	**13 37 19.2**	**-0.1**
	comp=Z,26nm,0.9s,mb5.2						
ZAL	**Zalesovo**	**46.76**	**353**	P	**P**	**13 37 24.2**	**-0.6**
	comp=Z,21nm,0.8s,mb5.1,baz=299,slow=6.8,SNR=30						
ZAL	**Zalesovo**	**46.76**	**353**	P	**P**	**13 37 24.2**	**-0.6**
ZAL				pmax	pmax		
	comp=Z,21nm,0.8s						
ZAL	**Zalesovo**	**46.76**	**353**	P	**P**	**13 37 24.2**	**-0.6**
HIA	**Hailar**	**46.80**	**23**	*e*P	**P**	**13 37 25.4**	**+0.1**
	comp=Z,73nm,1.0s,mb5.6						
NVS	**Novosibirsk**	**47.85**	**352**	*i* P	**P**	**13 37 31.6**	**-1.9**
NVS				pmax	pmax		
	comp=Z,53nm,1.3s,mb5.4						
NVS				pmax	pmax		
	comp=N,47nm,1.4s						
NVS				pmax	pmax		
	comp=E,18nm,1.2s						
MDJ	**Mudanjiang**	**48.10**	**34**	P	**P**	**13 37 37.3**	**+1.8**
MDJ				AMB	AMB		
	comp=Z,22nm,1.3s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,78nm,4.5s						
RYDS	**Riyadh**	**48.14**	**296**	P	**P**	**13 37 38.6**	**+2.5**
QRN	**Al-Qurain**	**48.15**	**302**	*e*P	**P**	**13 37 37.1**	**+1.0**
WRA	**Warramunga Arr**	**48.26**	**125**	P	**P**	**13 37 35.8**	**-1.2**
	comp=Z,12nm,0.8s,mb5.0,baz=305,slow=8.6,SNR=21						
WRA	**Warramunga Arr**	**48.26**	**125**	P	**P**	**13 37 35.8**	**-1.3**
WRA				pmax	pmax		
	comp=Z,12nm,0.8s						
WRAB	**Tennant Creek**	**48.27**	**125**	*d i*P	**P**	**13 37 36.0**	**-1.1**
WRAB	**Tennant Creek**	**48.27**	**125**	*e*P	**P**	**13 37 36.0**	**-1.2**
	comp=Z,36nm,1.1s,mb5.3						
RDF	**Al-Radifah**	**48.51**	**302**	*e*P	**P**	**13 37 39.3**	**+0.4**
RST	**Umm Al-Ruwaisa**	**49.13**	**303**	*e*P	**P**	**13 37 44.0**	**+0.3**
BVAR	**Borovoye Array**	**49.16**	**341**	P	**P**	**13 37 41.9**	**-1.6**
	comp=Z,8.2nm,1.1s,mb4.7,baz=143,slow=7.4,SNR=6.6						
BVAR				PcP	PcP	13 39 06.0	-1.1
	comp=Z,17nm,1.1s,baz=135,slow=2.1,SNR=7.0						
BRVK	**Borovoye**	**49.22**	**341**	*i* Pr		13 37 42.9	
KAMS	**Al Khamasin**	**49.37**	**290**	P	**P**	**13 37 46.4**	**+0.7**
MZLS	**Mizel**	**49.39**	**295**	P	**P**	**13 37 47.4**	**+1.7**
CHKZ	**Chkalovo**	**49.64**	**342**	*e*P	**P**	**13 37 46.5**	**-0.8**
	comp=Z,24nm,1.1s,mb5.1						
ASAR	**Alice Springs**	**49.89**	**130**	P	**P**	**13 37 48.5**	**-1.2**
	comp=Z,12nm,0.8s,mb5.0,baz=308,slow=7.5,SNR=27						
ASAR				PcP	PcP	13 39 08.1	-2.0
	comp=Z,5.0nm,0.7s,baz=309,slow=3.9,SNR=7.6						
TATS	**Tathlith**	**50.31**	**289**	P	**P**	**13 37 54.3**	**+1.5**
AFFS	**‘Afif**	**51.36**	**294**	P	**P**	**13 38 02.6**	**+1.9**
ARSS	**Ar Rass**	**51.50**	**297**	P	**P**	**13 38 02.6**	**+0.8**
KLR	**Kul’dur**	**52.17**	**31**	*e*P	**P**	**13 38 04.2**	**-2.4**
BOD	**Bodaibo**	**52.42**	**13**	*e*P	**P**	**13 38 07.3**	**-1.0**
HILS	**Ha’il**	**53.07**	**299**	P	**P**	**13 38 15.1**	**+1.6**
GNI	**Garni**	**54.48**	**315**	P	**P**	**13 38 23.1**	**-0.6**
	comp=Z,5.7nm,0.5s,mb4.8,baz=170,slow=13,SNR=8.2						
GNI	**Garni**	**54.48**	**315**	⇑*e*P	**P**	**13 38 23.8**	**+0.1**
GNI				pmax	pmax		
	comp=Z,42nm,1.5s						
KBRS	**Khaybar**	**55.01**	**296**	P	**P**	**13 38 29.4**	**+1.6**
SVE	**Sverdlovsk**	**55.56**	**339**	⇓*e*P	**P**	**13 38 30.0**	**-1.4**
SVE				*e*		13 40 40.0	
PMG	**Port Moresby**	**55.62**	**107**	P	**P**	**13 38 32.2**	**-0.2**
	comp=Z,20nm,0.9s,mb5.2,baz=246,slow=5.2,SNR=6.1						
PMG	**Port Moresby**	**55.62**	**107**	P	**P**	**13 38 32.2**	**-0.2**
PMG				pmax	pmax		
	comp=Z,21nm,0.9s						
ASAJ	**Asahikawa**	**55.70**	**41**	P	**P**	**13 38 32.0**	**-0.6**
	comp=Z,6.1nm,0.8s,mb4.7,baz=221,slow=19,SNR=2.1						
ASAJ	**Asahikawa**	**55.70**	**41**	P	**P**	**13 38 32.0**	**-0.6**
ASAJ				pmax	pmax		
	comp=Z,6.0nm,0.9s						
ARU	**Arti**	**56.04**	**337**	*d i*P	**P**	**13 38 33.6**	**-1.2**
ARU				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.4						
ARU	**Arti**	**56.04**	**337**	*i* Pr		13 38 33.6	
ZEI	**Tsey**	**56.10**	**317**	*e*P	**P**	**13 38 34.5**	**-0.9**
ZEI				*i*		13 40 41.5	
ZEI				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
YSS	**Yuzh-Sakhalins**	**57.07**	**38**	*e*P	**P**	**13 38 42.0**	**-0.4**
KMBO	**Kilima Mbogo**	**57.23**	**264**	P	**P**	**13 38 44.7**	**+0.8**
	comp=Z,5.8nm,0.9s,mb4.6,baz=46,slow=12,SNR=9.2						
KMBO	**Kilima Mbogo**	**57.23**	**264**	*i* P	**P**	**13 38 46.5**	**+2.6**
KMBO				pmax	pmax		
	comp=Z,6.0nm,0.9s						
KMBO	**Kilima Mbogo**	**57.23**	**264**	*e*P	**P**	**13 38 44.7**	**+0.8**
	comp=Z,8.1nm,0.9s,mb4.8						
KIV	**Kislovodsk**	**57.38**	**318**	*d i*P	**P**	**13 38 43.3**	**-1.3**
KIV				pmax	pmax		
	comp=N,19nm,1.0s						
KIV				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.3						
KIV				pmax	pmax		
	comp=E,11nm,0.8s						
KIV	**Kislovodsk**	**57.38**	**318**	⇓*e*P	**P**	**13 38 43.4**	**-1.2**
CTA	**Charters Tower**	**58.34**	**119**	P	**P**	**13 38 49.9**	**-1.7**
	comp=E,11nm,1.0s,mb4.8,baz=301,slow=6.7,SNR=5.7						
CTA	**Charters Tower**	**58.34**	**119**	P	**P**	**13 38 49.9**	**-1.7**
CTA				pmax	pmax		
	comp=Z,11nm,1.0s						
CTAO	**Charters Tower**	**58.34**	**119**	*e*P	**P**	**13 38 49.4**	**-2.2**
	comp=Z,15nm,1.0s,mb5.0						
SOC	**Sochi**	**59.24**	**317**	*e*P	**P**	**13 38 54.8**	**-2.7**
SOC				*e*S	**S**	**13 47 02.0**	**-0.5**
SOC				pmax	pmax		
	comp=N,16nm,1.0s						
SOC				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
SOC				pmax	pmax		
	comp=E,4.0nm,0.5s						
SOC				MLR	MLR		
	comp=Z,316nm,16.0s,MS4.5						
SOC				MLR	MLR		
	comp=N,209nm,21.0s,MS4.4						
SOC				MLR	MLR		
	comp=E,183nm,21.0s,MS4.4						
EIL	**Elat**	**59.40**	**300**	P	**P**	**13 38 58.1**	**-0.7**
	comp=E,22nm,0.8s,mb5.2						
STKA	**Stephens Creek**	**60.06**	**134**	P	**P**	**13 39 02.5**	**-1.0**
	comp=E,6.3nm,0.8s,mb4.7,baz=303,slow=4.6,SNR=7.1						
STKA	**Stephens Creek**	**60.06**	**134**	*e*P	**P**	**13 39 02.0**	**-1.4**
YAK	**Yakutsk**	**60.27**	**18**	*e*P	**P**	**13 39 03.2**	**-1.2**
YAK				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.1						
YAK				pmax	pmax		
	comp=N,13nm,1.2s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.2s						
YAK	**Yakutsk**	**60.27**	**18**	*e*P	**P**	**13 39 01.9**	**-2.5**
	comp=E,155nm,1.2s,mb5.9						
ANN	**Anapa**	**61.20**	**317**	*e*P	**P**	**13 38 59.7**	**-11**
ANN				*i* *PP	pP	13 39 06.2	-11
ANN				*i*		13 39 59.2	
ANN				*e*S	**S**	**13 47 21.5**	**-6.1**
ANN				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.4						
CSS	**Prodhromos**	**61.67**	**306**	*e*P	**P**	**13 39 13.1**	**-1.2**
BRTR	**Keskin Array B**	**62.45**	**311**	P	**P**	**13 39 17.4**	**-2.1**
	comp=Z,8.5nm,0.8s,mb4.9,baz=121,slow=7.3,SNR=28						
BRTR	**Keskin Array B**	**62.45**	**311**	P	**P**	**13 39 17.4**	**-2.1**
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MBAR	**Mbarara**	**63.58**	**266**	*e*P	**P**	**13 39 28.1**	**+0.7**
	comp=Z,12nm,1.1s,mb4.8						
ISP	**Isparta**	**64.45**	**308**	⇑*e*P	**P**	**13 39 31.3**	**-1.4**
ISP	**Isparta**	**64.45**	**308**	*e*P	**P**	**13 39 30.4**	**-2.2**
	comp=Z,15nm,1.0s,mb5.0						
MOS	**Moscow**	**65.19**	**329**	*e*P	**P**	**13 39 35.9**	**-1.2**
MOS				*e*		13 40 04.6	
MOS				*e*		13 42 05.7	
MOS				pmax	pmax		
	comp=Z,132nm,1.4s,mb5.8						
OBN	**Obninsk**	**65.49**	**328**	⇓*i*P	**P**	**13 39 37.5**	**-1.5**
OBN				*i*		13 39 52.6	
OBN				*i* S	S	13 48 20.1	-0.9
OBN				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.5						
OBN				MLR	MLR		
	comp=Z,200nm,13.0s,MS4.5						
OBN	**Obninsk**	**65.49**	**328**	⇓*e*P	**P**	**13 39 37.5**	**-1.5**
MA2	**Magadan**	**67.05**	**28**	*d i*P	**P**	**13 39 49.0**	**+0.1**
MA2				pmax	pmax		
	comp=Z,67nm,0.8s,mb5.7						
MA2	**Magadan**	**67.05**	**28**	*i* Pr		13 39 49.0	
TIXI	**Tiksi**	**67.50**	**11**	⇓*e*P	**P**	**13 39 50.4**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
TIXI	**Tiksi**	**67.50**	**11**	⇓*e*P	**P**	**13 39 50.5**	**-1.1**
CFR	**Carcaliu**	**67.64**	**316**	⇑*i*P	**P**	**13 39 51.8**	**-1.1**
CFR	**Carcaliu**	**67.64**	**316**	⇑*i*P	**P**	**13 39 51.8**	**-1.1**
AKASG	**Malin Array Be**	**68.23**	**322**	P	**P**	**13 39 53.8**	**-2.8**
	comp=Z,5.3nm,0.7s,mb4.7,baz=87,slow=4.5,SNR=15						
AKASG	**Malin Array Be**	**68.23**	**322**	P	**P**	**13 39 53.8**	**-2.7**
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
IDI	**Anoyia**	**68.56**	**305**	P	**P**	**13 39 58.5**	**-0.4**
	comp=Z,26nm,0.7s,mb5.3,baz=86,slow=7.5,SNR=16						
VRI	**Vrincioaia**	**68.75**	**316**	⇑*i*P	**P**	**13 39 59.6**	**-0.2**
VRI	**Vrincioaia**	**68.75**	**316**	⇑P	**P**	**13 39 59.6**	**-0.2**
LSZ	**Lusaka**	**69.03**	**250**	*e*P	**P**	**13 40 02.9**	**+0.9**
	comp=Z,9.5nm,0.8s,mb4.8						
MLR	**Muntele Rosu**	**69.22**	**316**	⇑*i*P	**P**	**13 40 02.6**	**-0.1**
MLR	**Muntele Rosu**	**69.22**	**316**	⇑*i*P	**P**	**13 40 02.6**	**-0.1**
VSU	**Vasula**	**71.70**	**329**	⇑*e*P	**P**	**13 40 16.9**	**-0.6**
APA	**Apatity**	**72.01**	**339**	⇓*i*P	**P**	**13 40 18.9**	**-0.3**
APA				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
KOLS	**Kolonicke sedl**	**72.27**	**319**	*i* P	**P**	**13 40 21.0**	**-0.1**
KOLS				*e*PP	PP	13 43 04.2	+0.7
SUW	**Suwalki**	**72.60**	**324**	*e*P	**P**	**13 40 21.4**	**-1.5**
SUW				*e*	pP	13 40 27.0	-2.5
CRVS	**Cervenica-Dubn**	**72.80**	**319**	*e*P	**P**	**13 40 24.4**	**+0.2**
FINES	**FINESS Array B**	**72.84**	**332**	P	**P**	**13 40 23.5**	**-0.7**
	comp=Z,22nm,0.7s,mb5.2,baz=104,slow=7.9,SNR=34						
FINES	**FINESS Array B**	**72.84**	**332**	P	**P**	**13 40 23.5**	**-0.7**
FINES				pmax	pmax		
	comp=Z,23nm,0.7s						
KAF	**Kangasniemi**	**72.92**	**333**	*e*p	**P**	**13 40 24.0**	**-0.7**
	comp=Z,62nm,1.1s,mb5.5						
KAF	**Kangasniemi**	**72.92**	**333**	*e*P	**P**	**13 40 24.0**	**-0.7**
KAF				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.5						
LBTB	**Lobatse**	**73.98**	**241**	*e*P	**P**	**13 40 32.7**	**+1.1**
	comp=Z,25nm,0.9s,mb5.2						
OJC	**Ojcow**	**74.05**	**320**	*e*P	**P**	**13 40 29.9**	**-1.5**
VYHS	**Vyhne**	**74.47**	**318**	*e*P	**P**	**13 40 33.1**	**-0.8**
VYHS				*e*PP	PP	13 43 21.2	-1.2
KEV	**Kevo**	**75.00**	**341**	*e*p	**P**	**13 40 36.6**	**0.0**
OKC	**Ostrava-Krasne**	**75.06**	**319**	*e*P	**P**	**13 40 37.4**	**+0.1**
OKC				*e*pP	pP	13 40 43.4	-0.6
BOSA	**Boshof**	**75.32**	**238**	*e*P	**P**	**13 40 40.2**	**+1.0**
	comp=Z,46nm,1.2s,mb5.3						
ARCES	**ARCESS Array B**	**75.43**	**340**	P	**P**	**13 40 38.7**	**-0.4**
	comp=Z,11nm,0.8s,mb4.8,baz=102,slow=6.2,SNR=13						
ARCES	**ARCESS Array B**	**75.43**	**340**	P	**P**	**13 40 38.7**	**-0.3**
ARCES				pmax	pmax		
	comp=Z,11nm,0.8s						
ARCES	**ARCESS Array B**	**75.43**	**340**	P	**P**	**13 40 38.7**	**-0.4**
MORC	**Moravsky Berou**	**75.44**	**319**	*e*P	**P**	**13 40 39.1**	**-0.4**
	comp=Z,26nm,1.3s,mb5.0						
ZST	**Bratislava**	**75.59**	**318**	*e*P	**P**	**13 40 40.3**	**-0.1**
ZST				*e*pP	pP	13 40 46.3	-0.7

ZST				*e*PP	PP	13 43 20.6	-11
DPC	**Dobruska-Polom**	**76.28**	**320**	*e*P	**P**	**13 40 44.6**	**+0.4**
DPC				*e*pP	pP	13 40 50.7	-0.2
KSP	**Ksiaz**	**76.34**	**320**	⇓*e*P	**P**	**13 40 44.6**	**+0.1**
KSP				*e*pP	pP	13 40 50.1	-1.1
KSP	**Ksiaz**	**76.34**	**320**	*e*P	**P**	**13 40 44.4**	**-0.1**
KSP				*e*	pP	13 40 51.4	+0.2
BILL	**Bilibino**	**76.37**	**22**	⇓*e*P	**P**	**13 40 44.4**	**0.0**
BILL				pmax	pmax		
	comp=Z,31nm,2.0s,mb4.9						
BILL	**Bilibino**	**76.37**	**22**	⇓*e*P	**P**	**13 40 44.5**	**+0.1**
	comp=Z,2.3nm,1.6s						
UPC	**Upice**	**76.49**	**320**	*e*P	**P**	**13 40 45.9**	**+0.5**
ARSA	**Arzberg**	**76.59**	**317**	⇓*i*P	**P**	**13 40 46.1**	**+0.1**
	comp=Z,28nm,1.6s,mb4.9						
PRU	**Pruhonice**	**77.40**	**319**	*e*P	**P**	**13 40 50.5**	**+0.1**
FX1	**Attu Island--F**	**77.43**	**38**	P	**P**	**13 40 50.9**	**+0.4**
	comp=Z,26nm,0.6s,mb5.3,baz=64,slow=3.0,SNR=6.1						
FX1	**Attu Island--F**	**77.43**	**38**	P	**P**	**13 40 50.9**	**+0.4**
FX1				pmax	pmax		
	comp=Z,26nm,0.6s						
FX1	**Attu Island--F**	**77.43**	**38**	*e*P	**P**	**13 40 50.5**	**-0.1**
FX1				*e*	pP	13 40 57.4	+0.2
BSD	**Bornholm Skovb**	**77.52**	**325**	*i* P	**P**	**13 40 49.9**	**-1.1**
BSD				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
BSD	**Bornholm Skovb**	**77.52**	**325**	*i* P	**P**	**13 40 49.9**	**-1.1**
	comp=Z,20nm,0.8s,mb5.1						
BSD				*i*		13 42 09.0	
BRG	**Berggiesshubel**	**77.83**	**320**	*i* P	**P**	**13 40 53.1**	**+0.3**
BRG				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
BRG	**Berggiesshubel**	**77.83**	**320**	*i* P	**P**	**13 40 53.1**	**+0.3**
	comp=Z,12nm,0.9s,mb4.8						
GERES	**GERESS Array B**	**77.89**	**318**	P	**P**	**13 40 53.2**	**+0.1**
	comp=Z,11nm,0.7s,mb4.9,baz=90,slow=5.3,SNR=44						
GERES	**GERESS Array B**	**77.89**	**318**	P	**P**	**13 40 53.2**	**0.0**
GERES				pmax	pmax		
	comp=Z,11nm,0.7s						
KHC	**Kasperske Hory**	**77.98**	**319**	⇑*e*P	**P**	**13 40 54.0**	**+0.3**
KHC	**Kasperske Hory**	**77.98**	**319**	*e*P	**P**	**13 40 53.5**	**-0.2**
KHC				*e*pP	pP	13 40 59.9	-0.4
RUE	**Ruedersdorf**	**78.01**	**322**	*e*P	**P**	**13 40 53.5**	**-0.3**
	comp=Z,28nm,0.8s,mb5.2						
PTCC	**Patocco-Chiusa**	**78.05**	**316**	*e*P	**P**	**13 40 53.7**	**-0.3**
MAW	**Mawson**	**78.27**	**192**	P	**P**	**13 40 56.9**	**+2.0**
	comp=Z,7.9nm,0.8s,mb4.7,baz=291,slow=6.2,SNR=6.7						
MAW	**Mawson**	**78.27**	**192**	P	**P**	**13 40 56.9**	**+2.0**
MAW				pmax	pmax		
	comp=Z,8.0nm,0.8s						
MAW	**Mawson**	**78.27**	**192**	*e*P	**P**	**13 40 56.3**	**+1.4**
CLL	**Collm**	**78.44**	**321**	⇑*i*P	**P**	**13 40 56.0**	**-0.1**
CLL				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.0						
CLL	**Collm**	**78.44**	**321**	⇑*i*P	**P**	**13 40 56.0**	**-0.1**
	comp=Z,27nm,1.4s,mb5.0						
CLL	**Collm**	**78.44**	**321**	⇑P	**P**	**13 40 56.0**	**-0.1**
	comp=Z,logA/T=1.3,mb5.0						
NKC	**Novy Kostel**	**78.75**	**320**	*e*P	**P**	**13 40 58.4**	**+0.5**
SFI	**Santa Sofia**	**79.08**	**313**	*e*P	**P**	**13 40 59.9**	**+0.1**
PGD	**Poggio Sodo**	**79.17**	**313**	*e*P	**P**	**13 41 01.6**	**+1.3**
WTTA	**Wattenberg**	**79.24**	**317**	⇓*i*P	**P**	**13 41 00.1**	**-0.5**
	comp=Z,25nm,0.8s,mb5.2						
WATA	**Walderalm**	**79.28**	**317**	⇑*i*P	**P**	**13 41 00.3**	**-0.5**
	comp=Z,8.6nm,0.7s,mb4.8						
MOX	**Moxa**	**79.29**	**320**	*e*P	**P**	**13 41 01.0**	**+0.2**
VMG	**Vicchio**	**79.30**	**313**	*e*P	**P**	**13 41 01.8**	**+0.8**
SEI	**Scarperia**	**79.44**	**313**	*e*P	**P**	**13 41 02.2**	**+0.5**
SQTA	**Sankt Quirin**	**79.53**	**317**	⇑*i*P	**P**	**13 41 01.8**	**-0.4**
	comp=Z,18nm,0.7s,mb5.1						
GRA1	**Grafenberg Arr**	**79.53**	**319**	*e*P	**P**	**13 41 02.9**	**+0.8**
	comp=Z,47nm,1.3s,mb5.3						
GRF	**Grafenberg Arr**	**79.53**	**319**	*e*P	**P**	**13 41 02.9**	**+0.8**
GRF				pmax	pmax		
	comp=Z,47nm,1.3s,mb5.3						
GRF	**Grafenberg Arr**	**79.53**	**319**	*e*P	**P**	**13 41 02.9**	**+0.8**
	comp=Z,47nm,1.3s,mb5.3						
MOTA	**Moosalm**	**79.60**	**317**	⇑*i*P	**P**	**13 41 02.2**	**-0.3**
	comp=Z,18nm,0.9s,mb5.0						
ZCCA	**Zocca**	**79.70**	**314**	*e*P	**P**	**13 41 04.7**	**+1.5**
NB2	**NORSAR Subarra**	**79.85**	**331**	P	**P**	**13 41 02.7**	**-0.9**
	comp=Z,30nm,1.1s,mb5.1,baz=91,slow=5.6						
NB2	**NORSAR Subarra**	**79.85**	**331**	P	**P**	**13 41 02.7**	**-0.9**
	baz=91,slow=5.9						
NOA	**NORSAR Array B**	**79.85**	**331**	P	**P**	**13 41 02.6**	**-1.0**
	comp=Z,11nm,0.9s,mb4.8,baz=93,slow=5.5,SNR=21						
NOA	**NORSAR Array B**	**79.85**	**331**	P	**P**	**13 41 02.6**	**-1.0**
NOA				pmax	pmax		
	comp=Z,11nm,0.9s						
GSCL	**Gusciola**	**79.98**	**314**	*e*P	**P**	**13 41 05.6**	**+1.0**
NAO01	**NORSAR Array S**	**80.00**	**330**	*e*P	**P**	**13 41 03.7**	**-0.7**
	comp=Z,6.4nm,0.7s,mb4.7						
SUR	**Sutherland**	**80.06**	**235**	*e*P	**P**	**13 41 07.8**	**+2.5**
	comp=Z,21nm,0.8s,mb5.1						
BRMO	**Bormio**	**80.11**	**316**	*e*P	**P**	**13 41 05.5**	**+0.2**
DAVA	**Damuels**	**80.43**	**317**	⇑*i*P	**P**	**13 41 07.4**	**+0.4**
	comp=Z,17nm,0.9s,mb5.0						
MUD	**Monsted U'grnd**	**80.81**	**326**	*e*P	**P**	**13 41 08.4**	**-0.4**
MUD				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.2						
MUD	**Monsted U'grnd**	**80.81**	**326**	*e*P	**P**	**13 41 08.4**	**-0.4**
	comp=Z,41nm,1.2s,mb5.2						
MUD	**Monsted U'grnd**	**80.81**	**326**	*i* P	**P**	**13 41 08.4**	**-0.4**
	comp=Z,41nm,1.2s,mb5.2						
PGF	**Pioggiola**	**81.19**	**312**	*e*P	**P**	**13 41 10.1**	**-1.0**
	comp=Z,158nm,1.4s,mb5.5						
VAI	**Varese**	**81.23**	**315**	*e*P	**P**	**13 41 10.6**	**-0.7**
CDF	**Champ du Feu**	**82.15**	**318**	*e*P	**P**	**13 41 15.3**	**-0.6**
	comp=Z,25nm,1.2s,mb4.7						
SBF	**Sospel**	**82.27**	**313**	*e*P	**P**	**13 41 16.3**	**-0.4**
	comp=Z,43nm,0.8s,mb5.1						
LPG	**La Plagne**	**82.67**	**315**	*e*P	**P**	**13 41 19.0**	**+0.3**
	comp=Z,56nm,0.9s,mb5.3						
MBDF	**Montbardon**	**82.70**	**314**	*e*P	**P**	**13 41 18.1**	**-0.8**
	comp=Z,10nm,0.7s,mb4.7						
HAU	**Haudompre**	**82.79**	**317**	*e*P	**P**	**13 41 18.8**	**-0.5**
	comp=Z,46nm,0.9s,mb5.2						
BAIF	**Baives**	**84.05**	**320**	*e*P	**P**	**13 41 25.7**	**0.0**
	comp=Z,31nm,1.1s,mb5.1						
BGF	**Bois d'Agland**	**85.29**	**316**	*e*P	**P**	**13 41 31.4**	**-0.6**
RJF	**Les Rejaudoux**	**86.36**	**315**	*e*P	**P**	**13 41 36.6**	**-0.7**
	comp=Z,68nm,1.3s,mb5.4						
FLN	**La Foliniere**	**87.25**	**319**	*e*P	**P**	**13 41 41.0**	**-0.5**
	comp=Z,27nm,1.0s,mb5.1						
ETSF	**Etsaut**	**88.17**	**313**	*e*P	**P**	**13 41 45.6**	**-0.5**
	comp=Z,11nm,0.8s,mb4.9						
ESDC	**Sonseca Array**	**91.24**	**310**	P	**P**	**13 42 01.3**	**+0.7**
	comp=Z,6.3nm,0.8s,mb5.0,baz=59,slow=4.2,SNR=19						
IMA	**Indian Mountai**	**91.90**	**22**	*e*P	**P**	**13 42 04.9**	**+1.9**
VNDA	**Vanda**	**92.73**	**168**	P	**P**	**13 42 07.8**	**+1.2**
	comp=Z,2.5nm,0.8s,mb4.7,baz=264,slow=7.5,SNR=5.3						
SPU	**Mount Spurr**	**94.57**	**26**	*e*P	**P**	**13 42 13.7**	**-1.7**
ILAR	**Eielson Array**	**95.03**	**22**	P	**P**	**13 42 16.4**	**-1.0**
	comp=Z,1.0nm,0.8s,mb4.3,baz=309,slow=5.1,SNR=6.9						
PWA	**Palmer West**	**95.31**	**25**	*e*P	**P**	**13 42 19.8**	**+1.1**
INK	**Inuvik**	**97.27**	**16**	P	**P**	**13 42 27.7**	**+0.2**
	comp=Z,4.4nm,1.0s,mb4.8,baz=317,slow=5.3,SNR=5.6						
INK	**Inuvik**	**97.27**	**16**	P	**P**	**13 42 27.7**	**+0.2**
DBIC	**Dimbokro**	**97.81**	**278**	P	**P**	**13 42 32.6**	**+1.4**
	comp=Z,3.3nm,0.9s,mb4.9,baz=46,slow=6.5,SNR=3.0						
YKA	**Yellowknife Ar**	**106.69**	**13**	PKiKP		13 47 20.0	
	comp=Z,0.3nm,0.9s,baz=314,slow=1.7,SNR=4.2						
YKA				PP	PP	13 47 31.5	-6.8
	comp=Z,0.1nm,0.3s,baz=333,slow=7.7,SNR=5.2						
YKA				PKKPbc		13 58 36.9	
	comp=Z,0.4nm,0.8s,baz=153,slow=2.8,SNR=5.5						
ULM	**Lac du Bonnet**	**121.72**	**7**	PKP	PKPdf	13 47 50.1	-2.0
	comp=Z,3.9nm,0.7s,baz=24,slow=1.7,SNR=7.6						
SNOW	**Snow King Moun**	**124.41**	**22**	*e*PKPdf	PKPdf	13 47 55.1	-2.4
REDW	**Red Top Meadow**	**124.46**	**22**	*e*PKPdf	PKPdf	13 47 52.0	-5.6
NVAR	**Mina Array Bea**	**125.21**	**31**	PKP	PKPdf	13 47 57.6	-1.5
	comp=Z,3.2nm,0.8s,baz=12,slow=0.9,SNR=13						
PDAR	**Pinedale Array**	**125.45**	**21**	PKP	PKPdf	13 47 56.5	-3.0
	comp=Z,3.1nm,0.9s,baz=30,slow=2.4,SNR=18						
MNTX	**Cornudas Mount**	**136.73**	**24**	*e*PKPdf	PKPdf	13 48 16.7	-4.4
TXAR	**Lajitas Array**	**139.51**	**24**	PKP	PKPdf	13 48 24.6	-1.6
	comp=Z,1.4nm,0.9s,baz=4.2,slow=1.3,SNR=7.7						
JCT	**Junction City**	**139.86**	**19**	*e*PKPdf	PKPdf	13 48 24.6	-2.2
BAO	**Brasilia Array**	**141.96**	**254**	PKP	PKPdf	13 48 22.3	-8.6
BAO				*i*		13 48 29.5	
BDFB	**Brasilia**	**141.98**	**254**	PKP	PKPdf	13 48 29.5	-1.5
	comp=Z,9.5nm,1.0s,baz=67,slow=4.4,SNR=6.9						
FCH	**Farellones**	**150.57**	**208**	⇓*i*P	PKPdf	13 48 48.7	+3.8
SDV	**Santo Domingo**	**157.53**	**317**	*e*PKPdf	PKPdf	13 48 52.4	-2.7
LPAZ	**La Paz**	**160.51**	**242**	*e*PKPdf	PKPdf	13 48 57.4	-0.9

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*IDC **26** 13:31:14.9±0.7, 3.54N×94.14E, mb4.1/12, mb1 4.3/13, mb1mx4.3/20, ML4.7/1, Error ellipse: s-maj=30.9km s-min=15.1km az=46.0*

ISC 26 13:31:17.8±0.6**, 3.5N**±0.1×**94.2E**±0.1**, h33^{km}, n16,** σ**0^{s}73**/13**, mb4.2**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.58**	**17**	Pn	**P**	**13 34 57.6**	**+0.8**
	1.1nm,0.3s,baz=209,slow=12,SNR=9.1						
SONM	**Songino Array**	**45.41**	**12**	P	**P**	**13 39 35.3**	**+0.1**
	0.6nm,0.4s,mb3.7,baz=211,slow=8.4,SNR=3.3						
WRA	**Warramunga Arr**	**45.83**	**122**	P	**P**	**13 39 38.0**	**-1.0**
	5.8nm,1.1s,mb4.4,baz=300,slow=9.0,SNR=4.1						
ASAR	**Alice Springs**	**47.21**	**127**	P	**P**	**13 39 49.5**	**-0.3**
	2.9nm,1.0s,mb4.2,baz=293,slow=7.7,SNR=3.9						
ZAL	**Zalesovo**	**50.85**	**353**	P	**P**	**13 40 16.6**	**-0.8**
	1.7nm,0.4s,mb4.4,baz=322,slow=6.2,SNR=3.9						
BVAR	**Borovoye Array**	**53.11**	**342**	P	**P**	**13 40 33.5**	**-0.9**
	1.2nm,0.6s,mb4.0,baz=135,slow=8.2,SNR=3.2						
CTA	**Charters Tower**	**56.25**	**117**	P	**P**	**13 40 58.0**	**+0.2**
	3.2nm,0.7s,mb4.5,baz=326,slow=7.3,SNR=2.4						
KMBO	**Kilima Mbogo**	**57.05**	**266**	P	**P**	**13 41 03.8**	**+0.2**
	0.8nm,0.7s,mb3.9,baz=100,slow=11,SNR=1.3						
STKA	**Stephens Creek**	**57.15**	**132**	P	**P**	**13 41 05.1**	**+1.0**
	6.5nm,0.7s,mb4.8,baz=316,slow=6.0,SNR=6.9						
BRTR	**Keskin Array B**	**65.32**	**312**	P	**P**	**13 41 58.8**	**-0.3**
	0.7nm,0.6s,mb3.9,baz=129,slow=7.3,SNR=3.4						
AKASG	**Malin Array Be**	**71.59**	**323**	P	**P**	**13 42 38.9**	**+1.2**
	0.8nm,0.4s,mb4.0,baz=81,slow=4.4,SNR=2.7						
FINES	**FINESS Array B**	**76.56**	**333**	P	**P**	**13 43 05.6**	**-0.8**
	4.7nm,0.9s,mb4.4,baz=90,slow=9.7,SNR=3.5						
PRU	**Pruhonice**	**80.64**	**320**	*e*P	pP	13 43 36.0	-3.4
GERES	**GERESS Array B**	**81.08**	**319**	P	**P**	**13 43 32.0**	**+0.7**
	1.1nm,0.8s,mb3.9,baz=101,slow=5.0,SNR=4.6						
KHC	**Kasperske Hory**	**81.19**	**319**	*e*P	pP	13 43 40.0	-2.3
TXAR	**Lajitas Array**	**143.15**	**26**	PKP	PKPdf	13 50 52.9	+3.6
	0.2nm,0.6s,baz=325,slow=0.5,SNR=3.6						

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*IDC **26** 13:34:49.6±1.2, 5.93N×92.72E, mb4.0/7, mb1 4.1/8, mb1mx4.0/19, ML3.9/1, Error ellipse: s-maj=52.4km s-min=21.3km az=51.0*

ISC 26 13:34:53.1±1.0**, 6.2N**±0.1×**93.1E**±0.2**, h33^{km}, n10,** σ**1^{s}10**/8**, mb4.0**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.46**	**25**	Pn	**P**	**13 38 03.0**	**-1.2**
	0.2nm,0.3s,baz=237,slow=15,SNR=3.9						
SONM	**Songino Array**	**43.02**	**13**	P	**P**	**13 42 54.0**	**+2.7**
	0.8nm,0.6s,mb3.6,baz=195,slow=11,SNR=2.7						
ZAL	**Zalesovo**	**48.06**	**353**	P	**P**	**13 43 32.1**	**+0.8**
	2.2nm,0.5s,mb4.4,baz=286,slow=3.1,SNR=5.1						
WRA	**Warramunga Arr**	**48.20**	**124**	P	**P**	**13 43 33.0**	**+0.2**
	3.6nm,0.8s,mb4.4,baz=303,slow=8.9,SNR=6.6						
ASAR	**Alice Springs**	**49.70**	**128**	P	**P**	**13 43 43.9**	**-0.4**
	1.7nm,0.7s,mb4.2,baz=308,slow=7.5,SNR=4.8						
BVAR	**Borovoye Array**	**50.23**	**342**	P	**P**	**13 43 47.8**	**-0.2**
	0.6nm,0.6s,mb3.8,baz=169,slow=7.3,SNR=2.0						
BRTR	**Keskin Array B**	**62.72**	**312**	P	**P**	**13 45 15.8**	**-1.5**
	0.6nm,0.7s,mb3.8,baz=127,slow=7.2,SNR=3.3						
GERES	**GERESS Array B**	**78.36**	**318**	P	**P**	**13 46 52.6**	**+0.7**
	1.3nm,0.7s,mb3.9,baz=90,slow=4.0,SNR=4.5						
PDAR	**Pinedale Array**	**127.10**	**21**	PKP	PKPdf	13 53 59.5	+4.9
	0.6nm,0.8s,baz=45,slow=4.2,SNR=3.6						
TXAR	**Lajitas Array**	**141.18**	**24**	PKP	PKPdf	13 54 23.7	+2.5
	0.3nm,0.9s,baz=45,slow=2.6,SNR=2.7						

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*IDC **26** 13:36:11.0±0.9, 4.87N×95.65E, mb4.5/10, mb1 4.6/11, mb1mx4.4/19, ML4.5/1, Error ellipse: s-maj=52.6km s-min=15.0km az=47.0*

ISC 26 13:36:14.4±0.8**, 4.9N**±0.2×**95.8E**±0.2**, h33^{km}, n15,** σ**0^{s}68**/13**, mb4.4**/11**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.83**	**13**	Pn	**P**	**13 39 39.8**	**+9.2**
	0.8nm,0.3s,baz=204,slow=11,SNR=13						
SONM	**Songino Array**	**43.74**	**10**	P	**P**	**13 44 18.8**	**+0.4**
	4.8nm,0.9s,mb4.2,baz=191,slow=8.9,SNR=9.1						
WRA	**Warramunga Arr**	**45.24**	**124**	P	**P**	**13 44 30.8**	**-0.1**
	10nm,0.7s,mb4.8,baz=302,slow=9.2,SNR=15						
ASAR	**Alice Springs**	**46.79**	**129**	P	**P**	**13 44 43.6**	**+0.7**
	18nm,0.5s,mb5.2,baz=302,slow=7.8,SNR=72						
BVAR	**Borovoye Array**	**52.31**	**341**	P	**P**	**13 45 24.7**	**-0.3**
	3.1nm,0.8s,mb4.3,baz=141,slow=9.2,SNR=3.8						
CTA	**Charters Tower**	**55.47**	**118**	P	**P**	**13 45 48.2**	**-0.4**
	3.4nm,0.8s,mb4.5,baz=279,slow=6.7,SNR=4.7						
STKA	**Stephens Creek**	**56.90**	**133**	P	**P**	**13 45 58.4**	**-0.4**
	3.1nm,0.8s,mb4.4,baz=328,slow=12,SNR=4.5						
BRTR	**Keskin Array B**	**65.59**	**312**	P	**P**	**13 46 57.0**	**-0.4**
	2.7nm,0.6s,mb4.5,baz=129,slow=7.0,SNR=11						
AKASG	**Malin Array Be**	**71.48**	**322**	P	**P**	**13 47 32.8**	**-0.9**
	1.2nm,0.6s,mb4.0,baz=87,slow=4.3,SNR=5.4						
FINES	**FINESS Array B**	**76.08**	**332**	P	**P**	**13 47 59.4**	**-0.8**
	2.5nm,0.7s,mb4.3,baz=115,slow=6.2,SNR=8.5						
ARCES	**ARCESS Array B**	**78.60**	**340**	P	**P**	**13 48 14.1**	**0.0**
	2.1nm,0.6s,mb4.3,baz=93,slow=6.0,SNR=15						
GERES	**GERESS Array B**	**81.11**	**319**	P	**P**	**13 48 28.8**	**+0.8**
	1.0nm,0.5s,mb4.0,baz=113,slow=4.6,SNR=14						
KHC	**Kasperske Hory**	**81.20**	**319**	*e*P	**P**	**13 48 30.0**	**+1.5**
PDAR	**Pinedale Array**	**127.29**	**23**	PKP	PKPdf	13 55 18.6	+2.4
	0.3nm,0.6s,baz=135,slow=1.3,SNR=3.1						
TXAR	**Lajitas Array**	**141.19**	**28**	PKP	PKPdf	13 55 45.5	+3.0
	0.2nm,0.6s,baz=209,slow=0.9,SNR=4.7						

IDC 26 13:37:49.3±1.3**, 7.36N**×**90.70E, mb4.1**/8**, mb1 4.3**/9**, mb1mx4.1**/19**, Error ellipse: s-maj=55.7km s-min=21.8km az=54.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.64**	**35**	Pn	P	13 40 55.1	-12
	baz=233,slow=14,SNR=4.5						
SONM	**Songino Array**	**42.49**	**16**	P	P	13 45 45.1	-2.7
	3.8nm,0.8s,baz=200,slow=7.4,SNR=8.4						
ZAL	**Zalesovo**	**46.69**	**355**	P	P	13 46 20.6	-0.9
	2.5nm,0.9s,baz=274,slow=6.9,SNR=3.9						
WRA	**Warramunga Arr**	**50.79**	**123**	P	P	13 46 52.4	-1.3
	2.0nm,0.8s,baz=301,slow=8.9,SNR=3.1						
ASAR	**Alice Springs**	**52.26**	**127**	P	P	13 47 01.8	-3.1
	0.5nm,0.5s,baz=302,slow=7.7,SNR=3.0						
GERES	**GERESS Array B**	**75.94**	**318**	P	P	13 49 38.4	-1.3
	0.8nm,0.7s,baz=90,slow=6.9,SNR=3.2						
NB2	**NORSAR Subarra**	**78.51**	**331**	P	P	13 50 00.3	+6.6
	1.2nm,0.8s,baz=92,slow=5.6						
NOA	**NORSAR Array B**	**78.51**	**331**	P	P	13 49 51.4	-2.3
	0.8nm,0.8s,baz=324,slow=24,SNR=2.5						
ILAR	**Eielson Array**	**96.48**	**21**	P	P	13 51 20.4	-1.1
	0.5nm,0.8s,baz=307,slow=4.3,SNR=4.2						
INK	**Inuvik**	**98.40**	**15**	P	P	13 51 30.3	+0.3
	0.9nm,0.8s,baz=113,slow=11,SNR=3.6						
TXAR	**Lajitas Array**	**140.98**	**20**	PKP	PKPdf	13 57 24.0	-0.1
	0.3nm,0.8s,baz=333,slow=4.0,SNR=2.2						

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*IDC **26** 13:39:43.8±0.8, 5.29N×93.27E, mb4.4/12, mb1 4.5/13, mb1mx4.4/20, ML4.7/1, Error ellipse: s-maj=38.4km s-min=15.5km az=49.0*

*NEIC **26** 13:39:48.2±0.4, 5.26N×93.30E, h30^{km}, mb4.7/17, Error ellipse: s-maj=10.5km s-min=9.4km az=68.0*

*BJI **26** 13:39:49.3, 4.98N×93.27E, h50^{km}, mB5.3, mb4.6*

ISC 26 13:39:46.5±0.4**, 5.20N**±0.06×**93.24E**±0.07**, h30^{km}, n44,** σ**1^{s}31**/41**, mb4.6**/34**, 2C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**12.63**	**280**	P	**P**	**13 42 46.4**	**-0.8**
	62nm,1.0s						
CM31	**Chiang Mai Arr**	**14.30**	**22**	*e*P	**P**	**13 43 06.9**	**-2.4**
	24nm,0.7s						
CMAR	**Chiang Mai Arr**	**14.30**	**22**	Pn	**P**	**13 43 06.5**	**-2.8**
	1.1nm,0.3s,baz=214,slow=13,SNR=5.0						
CHG	**Chiang Mai**	**14.63**	**22**	⇑P	**P**	**13 43 20.7**	**+7.1**
	32nm,0.9s						
QIZ	**Qiongzhong**	**21.24**	**48**	*e*P	**P**	**13 44 32.5**	**-0.1**
	39nm,1.0s,mb4.7						
KMI	**Kunming**	**21.81**	**24**	P	**P**	**13 44 40.8**	**+2.6**
KMI				AMB	AMB		
	comp=Z,16nm,0.7s,mb4.6						
LSA	**Lhasa**	**24.45**	**356**	P	**P**	**13 45 04.8**	**+0.7**
LSA	**Lhasa**	**24.45**	**356**	*e*P	**P**	**13 45 05.1**	**+1.0**
	comp=Z,23nm,0.6s,mb4.8						
GYA	**Guiyang**	**24.73**	**30**	⇑*i*P	**P**	**13 45 08.0**	**+1.2**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
LZH	**Lanzhou**	**32.25**	**16**	*e*P	**P**	**13 46 16.5**	**+1.8**
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb4.9						
GTA	**Gaotai**	**34.57**	**9**	P	**P**	**13 46 35.5**	**+0.7**
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.3						
MBWA	**Marble Bar**	**36.90**	**136**	*e*P	**P**	**13 46 54.9**	**+0.2**
	comp=Z,2.1nm,0.5s,mb4.2						
SONM	**Songino Array**	**43.95**	**13**	P	**P**	**13 47 51.0**	**-1.7**
	comp=Z,2.1nm,0.6s,mb4.0,baz=200,slow=7.7,SNR=4.2						
ULN	**Ulaanbaatar**	**44.13**	**13**	*e*P	**P**	**13 47 55.3**	**+1.3**
	comp=Z,4.9nm,0.8s,mb4.3						
NWAO	**Narrogin (SRO)**	**44.23**	**151**	P	**P**	**13 47 53.3**	**-1.9**
	comp=Z,53nm,1.5s,mb5.0						
TLY	**Talaya**	**47.13**	**9**	P	**P**	**13 48 20.0**	**+2.1**
	comp=Z,9.2nm,0.9s,mb4.7						
WRA	**Warramunga Arr**	**47.51**	**123**	P	**P**	**13 48 21.7**	**+0.4**
	comp=Z,22nm,0.7s,mb5.3,baz=301,slow=9.0,SNR=26						
WRAB	**Tennant Creek**	**47.51**	**123**	*e*P	**P**	**13 48 21.5**	**+0.2**
	comp=Z,50nm,0.8s,mb5.6						
ASAR	**Alice Springs**	**48.95**	**128**	P	**P**	**13 48 32.2**	**-0.2**
	comp=Z,3.3nm,0.6s,mb4.6,baz=304,slow=7.4,SNR=8.9						
ASAR				PcP	PcP	13 49 57.8	+1.1
	comp=Z,5.0nm,1.1s,baz=302,slow=3.8,SNR=5.3						
ZAL	**Zalesovo**	**49.07**	**353**	P	**P**	**13 48 32.2**	**-0.8**
	comp=Z,2.3nm,0.5s,mb4.5,baz=320,slow=6.8,SNR=5.2						
ZAL	**Zalesovo**	**49.07**	**353**	P	**P**	**13 48 32.2**	**-0.8**
BVAR	**Borovoye Array**	**51.23**	**342**	P	**P**	**13 48 50.4**	**+0.9**
	comp=Z,1.4nm,0.8s,mb4.0,baz=149,slow=8.6,SNR=4.2						
BRVK	**Borovoye**	**51.29**	**342**	P	**P**	**13 48 47.2**	**-2.7**
	comp=Z,2.1nm,0.5s,mb4.3						
GUMO	**Guam**	**51.53**	**77**	P	**P**	**13 48 48.0**	**-4.1**
	comp=Z,226nm,1.3s,mb5.9						
CHKZ	**Chkalovo**	**51.73**	**343**	*e*P	**P**	**13 48 51.2**	**-2.1**
	comp=Z,10nm,0.9s,mb4.8						
KMBO	**Kilima Mbogo**	**56.27**	**265**	P	**P**	**13 49 28.1**	**+1.0**
	comp=Z,2.0nm,1.0s,mb4.1						
ARU	**Arti**	**58.00**	**338**	P	**P**	**13 49 36.6**	**-2.2**
	comp=Z,5.4nm,1.0s,mb4.5						
STKA	**Stephens Creek**	**58.95**	**132**	P	**P**	**13 49 45.2**	**-0.6**
	comp=Z,5.2nm,0.6s,mb4.7,baz=318,slow=4.6,SNR=7.5						
EIL	**Elat**	**60.00**	**301**	P	**P**	**13 49 53.3**	**+0.3**
	comp=Z,9.0nm,0.9s,mb4.8						
YAK	**Yakutsk**	**62.80**	**18**	P	**P**	**13 50 11.2**	**-0.3**
	comp=Z,16nm,0.8s,mb5.2						
BRTR	**Keskin Array B**	**63.51**	**312**	P	**P**	**13 50 16.9**	**+0.4**
	comp=Z,2.5nm,0.7s,mb4.3,baz=129,slow=6.6,SNR=8.3						
LSZ	**Lusaka**	**67.55**	**251**	P	**P**	**13 50 44.4**	**+1.5**
	comp=Z,4.8nm,1.0s,mb4.5						
IDI	**Anoyia**	**69.36**	**306**	P	**P**	**13 50 52.7**	**-1.1**
	comp=Z,8.6nm,0.7s,mb4.8,baz=69,slow=17,SNR=2.5						
AKASG	**Malin Array Be**	**69.70**	**322**	P	**P**	**13 50 55.6**	**+0.1**
	comp=Z,1.2nm,0.6s,mb4.0,baz=89,slow=3.9,SNR=4.6						
LBTB	**Lobatse**	**72.19**	**242**	*e*P	**P**	**13 51 11.4**	**+0.3**
	comp=Z,4.2nm,1.0s,mb4.3						
BOSA	**Boshof**	**73.42**	**238**	P	**P**	**13 51 17.3**	**-1.0**
	comp=Z,7.3nm,1.1s,mb4.5						
FINES	**FINESS Array B**	**74.65**	**333**	P	**P**	**13 51 25.8**	**+1.0**
	comp=Z,6.0nm,0.9s,mb4.5,baz=90,slow=5.7,SNR=5.3						
KAF	**Kangasniemi**	**74.75**	**333**	*e*p	**P**	**13 51 27.0**	**+1.7**
MAW	**Mawson**	**75.75**	**192**	*e*P	**P**	**13 51 34.1**	**+3.2**
	comp=Z,4.5nm,0.7s,mb4.5						
ARCES	**ARCESS Array B**	**77.47**	**341**	P	**P**	**13 51 39.7**	**-0.7**
	comp=Z,1.0nm,0.6s,mb4.0,baz=101,slow=6.2,SNR=6.7						
GERES	**GERESS Array B**	**79.22**	**319**	P	**P**	**13 51 49.6**	**-0.8**
	comp=Z,2.0nm,0.8s,mb4.1,baz=104,slow=5.5,SNR=5.4						
PDAR	**Pinedale Array**	**127.97**	**21**	PKP	PKPdf	13 58 50.9	-4.3
	comp=Z,0.8nm,0.8s,baz=138,slow=1.1,SNR=5.1						
TXAR	**Lajitas Array**	**142.01**	**24**	PKP	PKPdf	13 59 16.1	-5.5
	comp=Z,0.3nm,0.7s,slow=2.7,SNR=2.9						
JCT	**Junction City**	**142.39**	**19**	*e*PKPpre		13 59 13.7	
JCT				*e*PKPdf	PKPdf	13 59 16.6	-5.5

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*IDC **26** 13:41:44.9±0.9, 9.06N×93.63E, mb4.2/12, mb1 4.4/13, mb1mx4.3/20, Error ellipse: s-maj=36.8km s-min=21.5km az=52.0*

ISC 26 13:41:48.0±0.9**, 9.1N**±0.1×**93.8E**±0.2**, h33^{km}, n19,** σ**0^{s}89**/16**, mb4.2**/14**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.55**	**28**	Pn	**P**	**13 44 19.1**	**-1.0**
	baz=214,slow=14,SNR=3.2						
SONM	**Songino Array**	**40.05**	**13**	P	**P**	**13 49 22.6**	**+0.9**
	1.4nm,0.8s,mb3.8,baz=202,slow=7.3,SNR=2.8						
SONM				PcP	PcP	13 51 27.8	+0.9
	0.6nm,0.6s,baz=196,slow=4.5,SNR=4.1						
ZAL	**Zalesovo**	**45.30**	**353**	P	**P**	**13 50 04.9**	**+0.5**
	2.4nm,0.5s,mb4.3,baz=280,slow=7.4,SNR=3.3						
BVAR	**Borovoye Array**	**47.73**	**341**	P	**P**	**13 50 23.3**	**-0.3**
	2.0nm,0.9s,mb4.1,baz=124,slow=5.2,SNR=2.8						
ASAR	**Alice Springs**	**50.95**	**131**	P	**P**	**13 50 48.2**	**-0.6**
	1.1nm,0.8s,mb3.8,baz=297,slow=6.0,SNR=3.6						
ASAR				PcP	PcP	13 52 06.2	+1.2
	2.3nm,1.1s,baz=294,slow=4.0,SNR=4.0						
BRTR	**Keskin Array B**	**61.39**	**310**	P	**P**	**13 52 01.8**	**-1.6**
	1.6nm,0.7s,mb4.3,baz=118,slow=7.6,SNR=4.8						
AKASG	**Malin Array Be**	**67.00**	**321**	P	**P**	**13 52 37.9**	**-1.8**
	0.9nm,0.6s,mb4.0,baz=89,slow=4.0,SNR=5.2						
FINES	**FINESS Array B**	**71.48**	**332**	P	**P**	**13 53 06.7**	**-0.4**
	2.4nm,0.6s,mb4.3,baz=92,slow=6.0,SNR=8.9						
KAF	**Kangasniemi**	**71.56**	**333**	*e*p	**P**	**13 53 08.0**	**+0.5**
	2.2nm,0.6s,mb4.3						
ARCES	**ARCESS Array B**	**74.01**	**340**	P	**P**	**13 53 21.6**	**-0.1**
	8.2nm,0.9s,mb4.7,baz=68,slow=6.5,SNR=6.9						
GERES	**GERESS Array B**	**76.70**	**318**	P	**P**	**13 53 38.7**	**+1.1**
	2.1nm,0.6s,mb4.2,baz=88,slow=6.5,SNR=8.9						
NB2	**NORSAR Subarra**	**78.51**	**330**	P	**P**	**13 53 47.7**	**+0.3**
	1.7nm,0.6s,mb4.2,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**78.51**	**330**	P	**P**	**13 53 48.0**	**+0.5**
	2.2nm,0.6s,mb4.2,baz=92,slow=5.6,SNR=6.6						
LPL	**La Plagne**	**81.54**	**315**	*e*P	**P**	**13 54 05.0**	**+1.0**
	11nm,0.8s,mb4.6						
ILAR	**Eielson Array**	**93.74**	**22**	P	**P**	**13 55 03.5**	**+1.1**
	0.7nm,0.8s,mb4.2,baz=305,slow=4.7,SNR=6.5						
INK	**Inuvik**	**95.91**	**16**	P	**P**	**13 55 12.3**	**+0.1**
	1.3nm,0.7s,mb4.5,baz=292,slow=7.6,SNR=6.0						
NVAR	**Mina Array Bea**	**124.03**	**30**	PKP	PKPdf	14 00 47.1	+3.5
	0.3nm,0.3s,baz=102,slow=2.2,SNR=3.9						
PDAR	**Pinedale Array**	**124.14**	**21**	PKP	PKPdf	14 00 46.9	+3.2
	0.9nm,0.8s,SNR=5.6						
TXAR	**Lajitas Array**	**138.24**	**23**	PKP	PKPdf	14 01 14.3	+3.7
	0.4nm,0.6s,baz=6.8,slow=0.4,SNR=4.9						

IDC 26 13:43:23.0±3.8**, 13.15N**×**93.53E, mb4.0**/6**, mb1 4.2**/7**, mb1mx3.9**/19**, ML4.2**/1**, Error ellipse: s-maj=120.0km s-min=66.4km az=25.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.42**	**44**	Pn	Pn	13 45 20.0	+4.8
	1.0nm,0.3s,baz=236,slow=16,SNR=5.0						
BVAR	**Borovoye Array**	**43.84**	**340**	P	P	13 51 30.5	-2.0
	1.1nm,0.7s,baz=140,slow=11,SNR=3.8						
FINES	**FINESS Array B**	**67.80**	**331**	P	P	13 54 22.9	-1.8
	3.7nm,1.0s,baz=117,slow=8.5,SNR=3.6						
ARCES	**ARCESS Array B**	**70.13**	**340**	P	P	13 54 38.1	-0.9
	0.9nm,0.5s,baz=80,slow=7.4,SNR=4.0						
GERES	**GERESS Array B**	**73.54**	**317**	P	P	13 54 57.7	-1.9
	0.9nm,0.7s,baz=79,slow=6.8,SNR=4.2						
NOA	**NORSAR Array B**	**74.88**	**330**	P	P	13 55 04.8	-2.3
	0.6nm,0.8s,baz=95,slow=5.6,SNR=2.5						
ILAR	**Eielson Array**	**90.11**	**22**	P	P	13 56 24.2	-1.7
	0.3nm,0.6s,baz=300,slow=4.6,SNR=7.0						
TXAR	**Lajitas Array**	**134.62**	**21**	PKP	PKPdf	14 02 44.8	-1.3
	0.1nm,0.6s,baz=240,slow=0.7,SNR=3.7						

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*MOS **26** 13:44:06.6±0.8, 4.06N×94.48E, h33^{km}, mb5.3/35, Error ellipse: s-maj=13.3km s-min=6.8km az=116.7*

*BJI **26** 13:44:06.7, 3.71N×94.45E, h47^{km}, mB5.4, mb5.0, Ms4.7, Msz4.5*

*IDC **26** 13:44:08.0±0.6, 4.05N×94.45E, h30^{km}±3^{km}, mb4.8/27, mb1 4.8/28, mb1mx4.8/28, ML4.3/1, Error ellipse: s-maj=17.6km s-min=8.7km az=50.0*

*NEIC **26** 13:44:08.1±0.2, 3.97N×94.39E, mb5.1/33, Error ellipse: s-maj=5.9km s-min=4.4km az=61.0*

ISC 26 13:44:05.9±0.2**, 3.97N**±0.04×**94.46E**±0.04**, h29^{km},**

h29^{km}±.7^{km}:pP-P,n237,σ0^{s}.92/210,mb5.1/81,MS4.7/2,
9C-17D,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	14.08	284	P	P	13 47 21.6	-4.3
CM31	Chiang Mai Arr	15.05	17	*e*P	P	13 47 39.8	+1.2
	87nm,1.0s						
CMAR	Chiang Mai Arr	15.05	17	Pn	P	13 47 37.9	-0.7
	0.4nm,0.3s,baz=212,slow=12,SNR=6.8						
COCO	West Island	16.23	172	*e*P	P	13 47 55.9	+2.2
	139nm,0.8s						
IMP	Imphal	20.70	359	*e*	P	13 48 44.3	-2.3
QIZ	Qiongzhong	21.21	44	P	P	13 48 52.5	+0.7
QIZ	Qiongzhong	21.21	44	*e*P	P	13 48 53.7	+1.9
	52nm,1.1s,mb4.8						
KMI	Kunming	22.49	20	P	P	13 49 07.3	+2.8
KMI				AP		13 49 15.3	
KMI				S	S	13 53 11.3	+6.6
KMI				AMB	AMB		
	comp=Z,50nm,1.0s,mb4.9						
KMI				LR	LR		
	comp=N,1μm,14.8s,MS4.6						
KMI				LR	LR		
	comp=E,1μm,13.0s,MS4.6						
KMI				LR	LR		
	comp=Z,1μm,16.7s,MS4.3						
LSA	Lhasa	25.78	353	P	P	13 49 36.5	+0.2
LSA	Lhasa	25.78	353	*e*P	P	13 49 38.3	+2.0
	comp=Z,53nm,0.8s,mb5.1						
LSA				*e*	pP	13 49 46.6	+1.8
CD2	Chengdu	28.20	17	P	P	13 49 58.3	0.0
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.1						
ENH	Enshi	29.77	27	*e*P	P	13 50 11.4	-1.1
	comp=Z,32nm,1.0s,mb5.0						
XAN	Xi’an	32.81	23	P	P	13 50 38.0	-1.1
XAN				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
LZH	Lanzhou	33.11	14	*e*P	P	13 50 41.5	-0.3
LZH				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.9						
MBWA	Marble Bar	35.18	136	*e*P	P	13 50 59.1	-0.5
	comp=Z,35nm,1.0s,mb5.2						
GTA	Gaotai	35.61	7	P	P	13 51 03.5	+0.3
GTA				AP	pP	13 51 11.5	-0.4
GTA				PCP	PcP	13 53 32.8	+1.0
GTA				AMB	AMB		
	comp=Z,29nm,1.0s,mb5.2						
NJ2	Nanjing	36.12	37	*e*P	P	13 51 08.3	+0.8
NJ2				AP	pP	13 51 17.3	+1.1
NJ2				XP	sP	13 51 21.3	+1.4
NJ2				PP	PP	13 52 34.5	+4.4
NJ2				S	S	13 56 52.0	+7.5
NJ2				AMB	AMB		
	comp=Z,1μm,5.8s						
SSE	Sheshan	36.90	40	*e*P	P	13 51 12.5	-1.6
SSE				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.9						
SSE				AMB	AMB		
	comp=Z,404nm,8.3s						
KSH	Kashi	39.15	337	P	P	13 51 33.0	+0.1
KSH				AMB	AMB		
	comp=Z,170nm,5.3s						
JOW	Kunigami	39.51	51	P	P	13 51 35.5	-0.5
	comp=Z,17nm,0.8s,mb4.8,baz=226,slow=4.0,SNR=4.2						
HHC	Hu-ho-hao-te	39.81	20	*e*P	P	13 51 39.5	+1.1
HHC				AP	pP	13 51 47.0	-0.2
HHC				XP	sP	13 51 53.3	+2.5
HHC				PP	PP	13 53 15.0	+1.3
HHC				PCP	PcP	13 53 45.0	+0.3
HHC				S	S	13 57 39.5	-1.1
HHC				SS	SS	14 00 31.3	+0.6
HHC				AMB	AMB		
	comp=Z,19nm,0.8s,mb4.9						
HHC				AMB	AMB		
	comp=Z,603nm,6.7s						
HHC				LR	LR		
	comp=E,643nm,19.0s						
WMQ	Urumqi	40.13	352	P	P	13 51 42.3	+1.3
WMQ				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.7						
BJT	Baijiatuau	40.90	26	*e*P	P	13 51 49.0	+1.7
	comp=Z,58nm,0.9s,mb5.2						
BJT				*e*	pP	13 51 56.9	+0.8
BJI	Beijing	40.92	26	P	P	13 51 49.0	+1.5
BJI				AMB	AMB		
	comp=Z,61nm,0.9s,mb5.2						
KZA	Kyzart	41.65	338	P	P	13 51 54.9	+1.5
	SNR=12						
UCH	Uchtor	42.05	338	P	P	13 51 58.0	+1.2
	SNR=38						
TKM2	Tokmak 2	42.26	339	P	P	13 51 59.7	+1.2
	SNR=16						
KBK	Karagaybulak	42.26	339	P	P	13 52 00.1	+1.6
	SNR=39						
AML	Almayashu	42.28	337	P	P	13 52 00.3	+1.7
	SNR=38						
AAK	Ala-Archa	42.41	338	P	P	13 52 01.5	+1.8
	SNR=19						
AAK	Ala-Archa	42.41	338	*d i*P	P	13 51 59.9	+0.2
AAK				pmax	pmax		
	comp=Z,46nm,1.4s,mb4.9						
AAK	Ala-Archa	42.41	338	*i* Pr		13 51 59.9	
FRU	Bishkek	42.53	338	*e*P	P	13 52 03.0	+2.2
FRU				*e*	pP	13 52 12.0	+2.5
FRU				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.1						
NWAO	Narrogin (SRO)	42.57	151	P	P	13 52 01.0	-0.2
	comp=Z,16nm,0.5s,mb5.0,baz=314,slow=8.5,SNR=19						
NWAO	Narrogin (SRO)	42.57	151	P	P	13 52 01.0	-0.2
NWAO				pmax	pmax		
	comp=Z,16nm,0.5s						
NWAO	Narrogin (SRO)	42.57	151	*e*P	P	13 52 01.4	+0.2
CHMS	Chumysh	42.63	339	P	P	13 52 02.2	+0.7
	SNR=14						
DL2	Dalian	42.65	32	P	P	13 52 01.5	-0.3
DL2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
EKS2	Erkin-Say	42.70	337	P	P	13 52 03.6	+1.5
	SNR=23						
USP	Ospenovka	42.95	339	P	P	13 52 05.0	+0.8
	SNR=51						
MKAR	Makanchi Array	43.95	348	*i* P	P	13 52 12.5	+0.4
MKAR				pmax	pmax		
	comp=Z,59nm,1.1s						
SONM	Songino Array	44.89	11	P	P	13 52 19.2	-0.6
	comp=Z,9.1nm,0.8s,mb4.7,baz=194,slow=7.7,SNR=27						
SONM				pP	pP	13 52 27.7	-0.9
	comp=Z,11nm,0.9s,baz=188,slow=8.6,SNR=11						
SONM				PcP	PcP	13 54 02.1	+0.6
	comp=Z,8.1nm,0.6s,baz=194,slow=3.8,SNR=11						
SNY	Shenyang	45.81	30	⇓P	P	13 52 27.8	+0.7
SNY				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
WRA	Warramunga Arr	45.82	123	P	P	13 52 27.9	+0.4
	comp=Z,126nm,0.7s,mb6.0,baz=300,slow=9.1,SNR=199						
WRA				pP	pP	13 52 37.4	+1.1
	comp=Z,40nm,0.8s,baz=302,slow=8.9,SNR=10						
WRA	Warramunga Arr	45.82	123	P	P	13 52 27.9	+0.4
WRA				*PP	pP	13 52 37.4	+1.1
WRA				pmax	pmax		
	comp=Z,126nm,0.7s						
WRA				pmax	pmax		
	comp=Z,40nm,0.8s						
WRAB	Tennant Creek	45.83	123	*d i*P	P	13 52 28.0	+0.5
WRAB	Tennant Creek	45.83	123	*e*P	P	13 52 28.1	+0.6
	comp=Z,181nm,0.7s,mb6.1						
ZAK	Zakamensk	46.85	8	*e*P	P	13 52 35.6	+0.4
ZAK				*e*		13 54 08.0	
ASAR	Alice Springs	47.24	127	P	P	13 52 38.9	+0.1
	comp=Z,43nm,0.7s,mb5.5,baz=297,slow=8.0,SNR=177						
ASAR				pP	pP	13 52 48.9	+1.3
	comp=Z,16nm,0.8s,baz=300,slow=7.9,SNR=7.4						
ASAR				PcP	PcP	13 54 10.2	+0.1
	comp=Z,18nm,1.0s,baz=301,slow=3.3,SNR=8.7						
ASAR				pPcP		13 54 20.5	
	comp=Z,6.2nm,0.8s,baz=304,slow=3.4,SNR=4.0						
HASS	Wahat al Ahsa’	47.87	301	P	P	13 52 44.3	+0.7
TLY	Talaya	48.17	8	⇑*e*P	P	13 52 46.4	+0.9
TLY				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
TLY	Talaya	48.17	8	⇑*e*P	P	13 52 46.5	+1.0
HIA	Hailar	49.99	21	*e*P	P	13 52 59.5	-0.2
	comp=Z,26nm,1.1s,mb5.2						
HIA				*e*	pP	13 53 07.8	-0.8
ZAL	Zalesovo	50.44	353	P	P	13 53 02.5	-0.4
	comp=Z,11nm,0.5s,mb5.1,baz=300,slow=5.6,SNR=23						
ZAL				pP	pP	13 53 10.1	-1.8
	comp=Z,14nm,0.8s,baz=291,slow=6.6,SNR=13						
ZAL	Zalesovo	50.44	353	P	P	13 53 02.5	-0.4
ZAL				*PP	pP	13 53 10.1	-1.8
ZAL				pmax	pmax		
	comp=Z,11nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,14nm,0.8s						
QRN	Al-Qurain	50.54	304	*e*P	P	13 53 05.3	+1.2
MDJ	Mudanjiang	50.89	32	*e*P	P	13 53 06.8	+0.2
	comp=Z,31nm,1.2s,mb5.1						
RDF	Al-Radifah	50.91	304	*e*P	P	13 53 07.7	+0.8
RDF				AMb	AMB	13 53 09.5	
	comp=Z,291nm,0.9s,mb6.2						
KAMS	Al Khamasin	51.16	293	P	P	13 53 08.6	-0.3
MZLS	Mizel	51.45	298	P	P	13 53 11.6	+0.5
NVS	Novosibirsk	51.53	352	*i* P	P	13 53 09.6	-1.6
NVS				*e*	pP	13 53 17.8	-2.4
NVS				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
NVS				pmax	pmax		
	comp=N,15nm,0.9s						
RST	Umm Al-Ruwaisa	51.56	305	*e*P	P	13 53 12.4	+0.6
RST				AMb	AMB	13 53 14.1	
	comp=Z,205nm,1.2s,mb6.0						
TATS	Tathlith	52.03	292	P	P	13 53 15.6	+0.1
BVA0	Borovoye Array	52.77	342	P	P	13 53 19.9	-0.7
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
BVAR	Borovoye Array	52.77	342	P	P	13 53 19.8	-0.8
	comp=Z,19nm,0.7s,mb5.2,baz=149,slow=8.6,SNR=57						
BVAR				pP	pP	13 53 29.3	-0.2
	comp=Z,8.9nm,0.9s,baz=143,slow=7.4,SNR=16						
BRVK	Borovoye	52.83	342	*i* Pr		13 53 20.3	
NAMS	An Nimas	53.15	291	P	P	13 53 25.0	+1.2
CHKZ	Chkalovo	53.26	343	*e*P	P	13 53 23.7	-0.6
	comp=Z,47nm,0.8s,mb5.5						
CHKZ				*e*	pP	13 53 31.3	-1.9
AFFS	‘Afif	53.38	297	P	P	13 53 26.2	+0.8
ARSS	Ar Rass	53.65	299	P	P	13 53 27.5	+0.1
PMG	Port Moresby	54.17	105	P	P	13 53 31.1	-0.3
	comp=Z,17nm,0.9s,mb5.0,baz=256,slow=7.3,SNR=5.9						
PMG	Port Moresby	54.17	105	P	P	13 53 31.1	-0.3
PMG				pmax	pmax		
	comp=Z,17nm,0.9s						
KLR	Kul’dur	55.10	29	*e*P	P	13 53 38.4	+0.7
HILS	Ha’il	55.29	301	P	P	13 53 40.4	+0.9
BOD	Bodaibo	55.86	12	*e*P	P	13 53 41.6	-1.5
BOD				*e*	pP	13 53 49.7	-2.4
CTA	Charters Tower	56.19	117	P	P	13 53 46.0	0.0
	comp=Z,18nm,0.8s,mb5.1,baz=278,slow=8.9,SNR=15						
CTA	Charters Tower	56.19	117	P	P	13 53 46.0	0.0
CTA				pmax	pmax		
	comp=Z,18nm,0.8s						
KBRS	Khaybar	57.10	298	P	P	13 53 53.6	+1.1
STKA	Stephens Creek	57.23	132	P	P	13 53 52.9	-0.4
	comp=Z,15nm,0.7s,mb5.1,baz=315,slow=6.9,SNR=24						
STKA	Stephens Creek	57.23	132	*e*P	P	13 53 52.9	-0.4
STKA				*e*	pP	13 54 02.5	+0.2
KMBO	Kilima Mbogo	57.39	266	P	P	13 53 55.1	+0.4
	comp=Z,9.8nm,0.9s,mb4.8,baz=50,slow=9.4,SNR=16						
KMBO	Kilima Mbogo	57.39	266	P	P	13 53 55.1	+0.4
KMBO				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KMBO	Kilima Mbogo	57.39	266	*e*P	P	13 53 54.9	+0.2
	comp=Z,14nm,1.0s,mb5.0						
GNI	Garni	57.41	316	P	P	13 53 53.8	-0.6
	comp=Z,8.5nm,0.8s,mb4.8,baz=174,slow=16,SNR=5.9						
GNI	Garni	57.41	316	⇑*e*P	P	13 53 54.4	-0.1
GNI				pmax	pmax		
	comp=Z,24nm,1.3s						
YNBS	Yanbu‘ al Bahr	57.94	296	P	P	13 53 59.1	+0.8
ZEI	Tsey	59.12	319	*e*P	P	13 54 05.7	-0.7
ZEI				*i* *PP	pP	13 54 16.7	+1.2
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SVE	Sverdlovsk	59.13	339	⇓*e*P	P	13 54 05.0	-1.2
SVE				*e*		13 56 16.0	
ARU	Arti	59.59	338	⇓*i*P	P	13 54 08.1	-1.3
ARU				*e*		13 56 23.2	
ARU				*e*S	S	14 02 17.8	+2.0
ARU				*e*		14 03 53.0	
ARU				*e*SS	SS	14 06 13.0	+0.3
ARU				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.2						
ARU	Arti	59.59	338	*i* Pr	P	13 54 08.1	-1.3
YSS	Yuzh-Sakhalins	59.69	36	P	sP	13 54 23.0	+0.4
KIV	Kislovodsk	60.44	319	⇑*e*P	P	13 54 14.7	-0.7
KIV				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.2						
KIV	Kislovodsk	60.44	319	⇑*e*P	P	13 54 14.8	-0.6
ASF	Jabal al Asfar	60.64	305	P	P	13 54 17.7	+0.7
	comp=Z,15nm,1.0s,mb5.1,baz=141,slow=14,SNR=10						
ELZG	Elazig	60.90	312	*i* P	P	13 54 18.4	-0.2
MALT	Malatya	61.25	312	*e*P	P	13 54 20.8	-0.2
	comp=Z,24nm,1.2s,mb5.2						
MKRJ	Makawir	61.52	304	P	P	13 54 23.3	+0.4
GZT	Gaziantep	61.59	311	*i* P	P	13 54 23.4	+0.1
EIL	Elat	61.68	302	P	P	13 54 24.2	+0.2
EIL	Elat	61.68	302	*e*P	P	13 54 24.1	+0.2
	comp=Z,37nm,1.1s,mb5.4						
ZFRI	Zfri	61.68	303	P	P	13 54 24.3	+0.3
MBH	Mount Berech	61.73	302	P	P	13 54 24.8	+0.4
KSHT	Keshet	61.74	305	P	P	13 54 25.3	+1.0
DRGI	Dragot	61.74	304	P	P	13 54 24.8	+0.4
PRNI	Paran	61.78	302	P	P	13 54 25.2	+0.5
MMLI	Mount Malkishu	61.92	305	P	P	13 54 26.3	+0.7
KMTI	Karmit	61.96	302	P	P	13 54 26.2	+0.3
KAHT	Ahir Dag	62.20	311	*i* P	P	13 54 27.5	+0.1
OFRI	‘Ofer	62.32	305	P	P	13 54 28.7	+0.4
COBT	Iskenderun	62.34	309	*i* P	P	13 54 27.6	-0.7
YAK	Yakutsk	63.59	18	*e*P	P	13 54 33.9	-2.2
YAK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,4.0nm,0.9s						
YAK	Yakutsk	63.59	18	*e*P	P	13 54 34.9	-1.2
	comp=E,32nm,0.9s,mb5.3						
YAK				*e*	pP	13 54 43.1	-2.1
MBAR	Mbarara	63.83	267	*d i*P	P	13 54 37.9	-0.7
MBAR	Mbarara	63.83	267	*e*P	P	13 54 37.4	-1.2
	comp=E,34nm,1.5s,mb5.2						
MEST	Erdemli	63.99	309	*i* P	P	13 54 38.2	-1.0
AVNT	Avonos	64.06	311	*i* P	P	13 54 38.8	-0.8
CSS	Prodhromos	64.22	307	*e*P	P	13 54 40.1	-0.7
	comp=E,22nm,1.1s,mb5.1						
ANN	Anapa	64.22	318	*e*P	P	13 54 35.5	-5.1
ANN				*e*S	S	14 03 11.0	-3.5
ANN				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.4						
BOYT	Boyabat	64.82	314	*i* P	P	13 54 43.7	-0.8
BRTR	Keskin Array B	65.23	312	P	P	13 54 46.0	-1.3
	comp=Z,10nm,0.8s,mb4.9,baz=121,slow=7.2,SNR=38						
BRTR				pP	pP	13 54 56.2	-0.2
	comp=Z,14nm,1.3s,baz=117,slow=5.5,SNR=5.3						
BRTR	Keskin Array B	65.23	312	P	P	13 54 46.0	-1.3
BRTR				*PP	pP	13 54 56.2	-0.2
BRTR				pmax	pmax		
	comp=Z,11nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,14nm,1.3s						
ELDT	Eldivan	65.61	313	*i* P	P	13 54 48.5	-1.1
BALT	Daday	65.94	314	*i* P	P	13 54 50.4	-1.3
SGKT	Sivrigoynuk	66.64	313	*i* P	P	13 54 54.2	-2.0
ISP	Isparta	67.12	309	⇓*e*P	P	13 54 59.0	-0.3
ESKT	Eskisehir	67.26	311	*i* P	P	13 54 59.0	-1.2
LSZ	Lusaka	68.32	252	*e*P	P	13 55 06.2	-0.9
	comp=Z,33nm,1.5s,mb5.1						
MOS	Moscow	68.57	329	*e*P	P	13 55 05.0	-3.1
MOS				*e*		13 55 31.2	
MOS				*e*		13 57 33.8	
MOS				*e*S	S	14 04 02.7	-4.3
MOS				pmax	pmax		
	comp=Z,110nm,1.5s,mb5.6						
ULDT	Uludag	68.69	312	*i* P	P	13 55 07.7	-1.4
OBN	Obninsk	68.84	329	*d i*P	P	13 55 08.3	-1.5
OBN				*e*		13 55 33.1	
OBN				*e*SS	SS	14 08 37.9	+0.6
OBN				pmax	pmax		
	comp=Z,78nm,1.6s,mb5.4						
OBN				MLR	MLR		
	comp=Z,500nm,15.0s,MS4.9						
OBN	Obninsk	68.84	329	*i* Pr		13 55 08.3	
BTOK	Tokmak	69.43	311	*i* P	P	13 55 12.1	-1.5
KDAG	Bornova	69.73	309	*i* P	P	13 55 15.4	-0.1
CFR	Carcaliu	70.61	317	⇑*i*P	P	13 55 20.0	-0.8
KIS	Kishinev	70.62	319	*e*P	P	13 55 20.0	-0.8
KIS				*e*		13 55 25.0	
TIXI	Tiksi	70.98	11	⇓*e*P	P	13 55 21.4	-1.2
TIXI				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.3						
IDI	Anoyia	71.07	306	P	P	13 55 23.0	-0.7
	comp=Z,29nm,0.6s,mb5.4,baz=97,slow=7.1,SNR=21						
AKASG	Malin Array Be	71.41	322	P	P	13 55 23.4	-2.1
	comp=Z,8.3nm,0.8s,mb4.7,baz=92,slow=4.1,SNR=21						
AKASG	Malin Array Be	71.41	322	P	P	13 55 23.4	-2.1
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.8s						
VRI	Vrincioaia	71.74	317	⇓*i*P	P	13 55 27.6	+0.1
MLR	Muntele Rosu	72.19	317	P	P	13 55 28.9	-1.4
	comp=Z,17nm,0.8s,mb5.0,baz=124,slow=3.3,SNR=5.1						
MLR	Muntele Rosu	72.19	317	P	P	13 55 28.9	-1.3
MLR				pmax	pmax		
	comp=Z,17nm,0.8s						
LBTB	Lobatse	72.69	242	*e*P	P	13 55 32.9	-0.8
	comp=Z,31nm,1.2s,mb5.1						
MAW	Mawson	74.80	192	P	P	13 55 45.7	+0.7
	comp=Z,18nm,0.8s,mb5.1,baz=23,slow=6.8,SNR=18						
MAW	Mawson	74.80	192	P	P	13 55 45.7	+0.7
MAW				pmax	pmax		
	comp=Z,18nm,0.8s						
MAW	Mawson	74.80	192	*e*P	P	13 55 45.4	+0.4
	comp=Z,27nm,1.0s,mb5.1						
KOLS	Kolonicke sedl	75.35	320	*i* P	P	13 55 49.0	+0.5
KOLS				*e*pP	pP	13 55 57.3	-0.4
SUW	Suwalki	75.85	325	*e*P	P	13 55 50.4	-0.9
SUW				*e*		13 55 57.5	
SUW	Suwalki	75.85	325	*e*P	P	13 55 50.2	-1.1
SUW				*e*	pP	13 55 57.5	-3.0
CRVS	Cervenica-Dubn	75.87	319	*e*P	P	13 55 54.2	+2.7
FINES	FINESS Array B	76.30	333	P	P	13 55 53.0	-0.7
	comp=Z,12nm,0.7s,mb4.9,baz=96,slow=6.8,SNR=29						
FINES	FINESS Array B	76.30	333	P	P	13 55 53.0	-0.6
FINES				pmax	pmax		
	comp=Z,12nm,0.7s						
FINES	FINESS Array B	76.30	333	P	P	13 55 53.0	-0.7
KAF	Kangasniemi	76.39	333	*e*p	P	13 55 53.1	-1.1
	comp=Z,10nm,0.6s,mb4.9						
KAF	Kangasniemi	76.39	333	*e*P	P	13 55 53.1	-1.1
KAF				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
KECS	Kecovo	76.43	319	*e*P	P	13 55 54.7	0.0
KECS				*e*		13 55 59.8	
OJC	Ojcow	77.16	321	*e*P	P	13 55 58.6	-0.1
VYHS	Vyhne	77.52	319	*i* P	P	13 56 00.6	-0.1
VYHS				*e*		13 56 06.9	
OKC	Ostrava-Krasne	78.16	320	*e*P	P	13 56 04.5	+0.3
OKC				*e*pP	pP	13 56 14.3	+0.9
MORC	Moravsky Berou	78.53	320	*e*P	P	13 56 05.7	-0.6
	comp=Z,31nm,1.5s,mb5.0						
KEV	Kevo	78.60	341	*e*p	P	13 56 05.7	-0.5
	comp=Z,5.5nm,0.6s,mb4.7						
KEV	Kevo	78.60	341	*e*P	P	13 56 05.7	-0.5
KEV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
ZST	Bratislava	78.63	318	*i* P	P	13 56 07.0	+0.2
ZST				*e*	pP	13 56 17.2	+1.1
ZST				*e*S	S	14 06 18.5	+18
ARCES	ARCESS Array B	79.03	340	P	P	13 56 08.7	+0.1
	comp=Z,9.1nm,0.8s,mb4.8,baz=94,slow=5.4,SNR=20						
ARCES	ARCESS Array B	79.03	340	P	P	13 56 08.7	+0.1
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.8s						
DPC	Dobruska-Polom	79.39	320	*e*P	P	13 56 11.4	+0.5
DPC				*e*pP	pP	13 56 19.7	-0.5
KSP	Ksiaz	79.46	321	*e*P	P	13 56 11.5	+0.2
KSP				*e*pP	pP	13 56 21.9	+1.3
KSP	Ksiaz	79.46	321	*e*P	P	13 56 11.6	+0.3
KSP	Ksiaz	79.46	321	*e*P	P	13 56 11.6	+0.3
KSP				*e*	pP	13 56 22.1	+1.5
BILL	Bilibino	79.58	21	⇑*e*P	P	13 56 11.6	0.0
BILL				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
BILL	Bilibino	79.58	21	⇑*e*P	P	13 56 11.7	+0.1
ARSA	Arzberg	79.59	317	⇑*i*P	P	13 56 12.8	+0.8
	comp=Z,31nm,1.3s,mb5.1						
UPC	Upice	79.60	321	*e*P	P	13 56 12.5	+0.5
UPC				*e*pP	pP	13 56 18.4	-2.9
PRU	Pruhonice	80.49	320	*e*P	P	13 56 17.2	+0.4
PRU				*e*pP	pP	13 56 27.2	+1.1
PVCC	Panska Ves	80.52	320	*e*P	P	13 56 17.1	+0.2
BSD	Bornholm Skovb	80.78	325	*i* P	P	13 56 17.3	-0.9
BSD				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
BSD	Bornholm Skovb	80.78	325	*i* P	P	13 56 17.3	-0.9
	comp=Z,16nm,0.7s,mb5.1						
GERES	GERESS Array B	80.94	319	P	P	13 56 19.5	+0.4
	comp=Z,13nm,0.8s,mb4.9,baz=104,slow=5.5,SNR=51						
GERES	GERESS Array B	80.94	319	P	P	13 56 19.5	+0.3
GERES				pmax	pmax		
	comp=Z,13nm,0.8s						
BRG	Berggiesshubel	80.95	321	*i* P	P	13 56 19.9	+0.7
BRG				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
BRG	Berggiesshubel	80.95	321	*i* P	P	13 56 19.9	+0.7
	comp=Z,15nm,0.9s,mb4.9						
KHC	Kasperske Hory	81.04	319	*e*P	P	13 56 19.3	-0.4
KHC				*e*pP	pP	13 56 30.0	+1.0
RUE	Ruedersdorf	81.19	322	*e*P	P	13 56 20.6	+0.2
CLL	Collm	81.57	321	⇓*i*P	P	13 56 22.3	-0.1
CLL				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
CLL	Collm	81.57	321	⇓*i*P	P	13 56 22.3	-0.1
	comp=Z,14nm,1.1s,mb4.8						
CLL	Collm	81.57	321	⇓P	P	13 56 22.3	-0.1
	comp=Z,logA/T=1.1,mb4.8						
SYO	Syowa Base	81.79	197	⇓P	P	13 56 23.4	+0.2
SYO	Syowa Base	81.79	197	⇓P	P	13 56 25.0	+1.8
NKC	Novy Kostel	81.85	320	*e*P	P	13 56 24.0	+0.1
NKC				*e*pP	pP	13 56 33.9	+0.7
MOX	Moxa	82.41	320	*e*P	P	13 56 27.0	+0.2
SQTA	Sankt Quirin	82.52	317	⇓*i*P	P	13 56 27.2	-0.2
	comp=Z,9.6nm,0.6s,mb5.0						
GRA1	Grafenberg Arr	82.61	319	*e*P	P	13 56 28.5	+0.6
	comp=Z,16nm,0.9s,mb5.0						
GRA1				*e*pP	pP	13 56 39.1	+1.9
GRF	Grafenberg Arr	82.61	319	*e*P	P	13 56 28.5	+0.6
GRF				*e**PP	pP	13 56 39.1	+1.9
GRF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
GRF	Grafenberg Arr	82.61	319	*e*P	P	13 56 28.5	+0.6
	comp=Z,16nm,0.9s,mb5.0						
GRF				*e*pP	pP	13 56 39.1	+1.9
RPZ	Rata Peaks	83.09	135	P	P	13 56 30.7	+0.3
	comp=Z,11nm,0.8s,mb4.9,baz=262,slow=6.8,SNR=5.1						
NB2	NORSAR Subarra	83.27	331	P	P	13 56 30.3	-0.7
	comp=Z,10nm,1.0s,mb4.8,baz=95,slow=5.6						
NOA	NORSAR Array B	83.27	331	P	P	13 56 30.8	-0.2
	comp=Z,5.0nm,0.8s,mb4.6,baz=94,slow=5.4,SNR=9.4						
NOA	NORSAR Array B	83.27	331	P	P	13 56 30.8	-0.2
NOA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
DAVA	Damuels	83.42	317	⇓*i*P	P	13 56 32.6	+0.5
	comp=Z,37nm,1.2s,mb5.3						
LPG	La Plagne	85.59	315	*e*P	P	13 56 43.0	0.0
	comp=Z,31nm,0.9s,mb5.2						
URZ	Urewera	86.67	129	P	P	13 56 48.0	-0.6
	comp=Z,23nm,1.0s,mb5.3,baz=349,slow=3.9,SNR=6.5						
VNDA	Vanda	89.06	168	P	P	13 56 59.0	-0.3
	comp=Z,3.0nm,0.8s,mb4.7,baz=324,slow=7.3,SNR=7.0						
VNDA	Vanda	89.06	168	P	P	13 56 59.0	-0.2
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
JMIC	Jan Mayen	90.48	341	P	P	13 57 06.0	+0.1
	comp=Z,35nm,0.3s,baz=180,slow=12,SNR=6.1						
ESDC	Sonseca Array	93.96	310	P	P	13 57 22.1	-0.5
	comp=Z,2.1nm,0.8s,mb4.7,baz=57,slow=4.4,SNR=6.9						
ILAR	Eielson Array	98.22	22	P	P	13 57 40.5	-0.9
	comp=Z,0.5nm,0.7s,mb4.2,baz=304,slow=5.9,SNR=8.7						
ILAR	Eielson Array	98.22	22	P	P	13 57 40.5	-0.9
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
DBIC	Dimbokro	98.77	277	P	P	13 57 45.4	+0.3
	comp=Z,3.4nm,0.9s,mb4.9,baz=330,slow=0.8,SNR=3.2						
DBIC	Dimbokro	98.77	277	P	P	13 57 45.4	+0.3

DBIC				pmax	pmax		
	comp=Z,3.0nm,0.9s						
YKA	**Yellowknife Ar**	**110.12**	**14**	PKiKP		14 02 35.0	
	comp=Z,0.4nm,0.7s,baz=334,slow=2.6,SNR=6.3						
YKA				PKKPbc		14 13 36.5	
	comp=Z,1.1nm,1.0s,baz=147,slow=3.1,SNR=11						
YKA				PKKPab		14 13 47.8	
	comp=Z,0.7nm,0.7s,baz=145,slow=4.2,SNR=11						
YKA	**Yellowknife Ar**	**110.12**	**14**	PKPdf	PKPdf	14 02 35.0	-4.4
YKA				PKKPbc		14 13 36.5	
YKA				PKKPab		14 13 47.8	
MSO	**Missoula**	**123.55**	**23**	*e*PKPdf	PKPdf	14 03 02.5	-3.4
MSO				*e*		14 03 11.5	
ULM	**Lac du Bonnet**	**125.27**	**8**	PKP	PKPdf	14 03 06.2	-3.0
	comp=Z,5.5nm,0.7s,baz=352,slow=4.3,SNR=10						
HLID	**Hailey**	**126.01**	**26**	*e*PKPdf	PKPdf	14 03 08.1	-2.7
LAO	**LASA Array**	**126.35**	**18**	*e*PKPdf	PKPdf	14 03 09.1	-2.3
SNOW	**Snow King Moun**	**127.60**	**23**	*e*PKPdf	PKPdf	14 03 11.8	-2.1
REDW	**Red Top Meadow**	**127.64**	**23**	*e*PKPdf	PKPdf	14 03 11.7	-2.3
NVAR	**Mina Array Bea**	**128.05**	**33**	PKP	PKPdf	14 03 12.8	-2.2
	comp=Z,8.7nm,1.0s,baz=267,slow=3.2,SNR=22						
PDAR	**Pinedale Array**	**128.65**	**23**	PKP	PKPdf	14 03 13.2	-2.7
	comp=Z,3.7nm,0.8s,baz=78,slow=0.9,SNR=26						
MTUM	**Tungsten Hills**	**128.69**	**34**	*e*PKPdf	PKPdf	14 03 14.6	-1.6
NLU	**North Lily Min**	**129.95**	**27**	*e*PKPdf	PKPdf	14 03 15.3	-3.2
MSU	**Marysvale**	**131.07**	**28**	*e*PKPdf	PKPdf	14 03 17.9	-2.8
NEN	**Nelson**	**131.97**	**32**	*e*PKPdf	PKPdf	14 03 20.0	-2.5
PV10	**Paradox Valley**	**132.58**	**25**	*e*PKPdf	PKPdf	14 03 22.2	-1.4
KSU1	**Kansas State U**	**135.94**	**12**	*e*PKPdf	PKPdf	14 03 25.7	-4.0
ANMO	**Albuquerque**	**136.58**	**25**	*e*PKPdf	PKPdf	14 03 28.7	-2.2
MIAR	**Mount Ida**	**140.95**	**11**	*e*PKPpre		14 03 28.6	
BDFB	**Brasilia**	**141.32**	**250**	PKP	PKPdf	14 03 36.8	-3.3
	comp=Z,7.2nm,0.8s,baz=119,slow=2.3,SNR=9.3						
BDFB	**Brasilia**	**141.32**	**250**	PKIKP	PKPdf	14 03 36.8	-3.4
BDFB				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LTX	**Lajitas**	**142.60**	**27**	*e*PKPpre		14 03 35.9	
TXAR	**Lajitas Array**	**142.60**	**27**	PKhKP		14 03 35.2	
	comp=Z,3.3nm,0.9s,baz=236,slow=1.0,SNR=18						
TXAR				PKP	PKPdf	14 03 37.4	-4.7
	comp=Z,3.5nm,0.9s,baz=234,slow=0.8,SNR=19						
JCT	**Junction City**	**143.13**	**21**	*e*PKPpre		14 03 36.1	
JCT				*e*		14 03 43.2	
LPAZ	**La Paz**	**158.97**	**233**	PKP	PKPdf	14 04 04.8	-2.1
	comp=Z,4.5nm,0.9s,baz=40,slow=2.7,SNR=10						
LPAZ	**La Paz**	**158.97**	**233**	PKIKP	PKPdf	14 04 04.8	-2.2
LPAZ				pmax	pmax		
	comp=Z,5.0nm,0.9s						
LPAZ	**La Paz**	**158.97**	**233**	*e*PKPdf	PKPdf	14 04 05.2	-1.8
SDV	**Santo Domingo**	**160.40**	**311**	PKPdf	PKPdf	14 04 05.4	-3.2
ROSC	**El Rosal**	**165.78**	**308**	PKP	PKPdf	14 04 10.2	-3.8
	comp=Z,6.9nm,0.5s,baz=70,slow=21,SNR=9.5						

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*IDC **26** 13:46:11.1±1.0, 13.71N×92.93E, mb4.3/9, mb1 4.4/9, mb1mx4.2/18, Error ellipse: s-maj=80.0km s-min=17.7km az=54.0*

ISC 26 13:46:14.2±0.8**, 13.6N**±0.3×**92.9E**±0.4**, h33**^{km}**, n10,** σ**0**^{s}**58**/10**, mb4.3**/9**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NWAO	**Narrogin (SRO)**	**51.79**	**154**	P	**P**	**13 55 21.1**	**0.0**
	18nm,1.1s,mb4.9,baz=127,slow=5.1,SNR=3.2						
WRA	**Warramunga Arr**	**52.69**	**128**	P	**P**	**13 55 27.8**	**-0.2**
	1.9nm,0.8s,mb4.1,baz=308,slow=7.9,SNR=5.2						
ASAR	**Alice Springs**	**54.61**	**132**	P	**P**	**13 55 41.9**	**-0.2**
	2.1nm,0.4s,mb4.6,baz=313,slow=7.3,SNR=12						
STKA	**Stephens Creek**	**64.98**	**135**	P	**P**	**13 56 53.5**	**+0.2**
	2.3nm,0.7s,mb4.3,baz=278,slow=11,SNR=2.3						
FINES	**FINESS Array B**	**67.11**	**331**	P	**P**	**13 57 05.7**	**-0.6**
	2.4nm,0.5s,mb4.5,baz=109,slow=8.4,SNR=4.0						
ARCES	**ARCESS Array B**	**69.50**	**340**	P	**P**	**13 57 20.4**	**-0.6**
	1.0nm,0.4s,mb4.1,baz=90,slow=5.8,SNR=4.0						
GERES	**GERESS Array B**	**72.77**	**317**	P	**P**	**13 57 42.2**	**+1.1**
	1.8nm,0.6s,mb4.2,baz=89,slow=6.6,SNR=5.3						
NB2	**NORSAR Subarra**	**74.17**	**330**	P	**P**	**13 57 48.7**	**-0.3**
	1.1nm,0.5s,mb4.0,baz=89,slow=5.8						
NOA	**NORSAR Array B**	**74.17**	**330**	P	**P**	**13 57 48.3**	**-0.7**
	1.2nm,0.5s,mb4.0,baz=90,slow=5.8,SNR=3.8						
ILAR	**Eielson Array**	**89.94**	**22**	P	**P**	**13 59 11.8**	**+0.8**
	0.4nm,0.7s,mb3.9,baz=303,slow=3.3,SNR=3.9						

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*IDC **26** 13:49:28.9±0.9, 6.23N×92.92E, mb4.1/10, mb1 4.2/11, mb1mx4.0/19, Error ellipse: s-maj=44.5km s-min=17.3km az=53.0*

ISC 26 13:49:32.0±0.8**, 6.3N**±0.1×**93.1E**±0.2**, h33**^{km}**, n14,** σ**0**^{s}**81**/11**, mb4.1**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.36**	**25**	Pn	**P**	**13 52 41.1**	**-0.7**
	baz=228,slow=14,SNR=3.5						
SONM	**Songino Array**	**42.92**	**13**	P	**P**	**13 57 31.2**	**+1.8**
	1.5nm,0.9s,mb3.7,baz=198,slow=10,SNR=3.8						
ZAL	**Zalesovo**	**47.97**	**353**	P	**P**	**13 58 10.4**	**+0.9**
	2.4nm,0.5s,mb4.5,baz=290,slow=7.1,SNR=5.8						
WRA	**Warramunga Arr**	**48.23**	**124**	P	**P**	**13 58 11.9**	**-0.1**
	2.5nm,0.9s,mb4.2,baz=303,slow=8.7,SNR=6.5						
ASAR	**Alice Springs**	**49.74**	**128**	P	**P**	**13 58 23.4**	**-0.1**
	2.0nm,1.1s,mb4.0,baz=298,slow=7.6,SNR=4.1						
BVAR	**Borovoye Array**	**50.15**	**342**	P	**P**	**13 58 25.2**	**-1.0**
	1.2nm,0.7s,mb4.0,baz=135,slow=8.4,SNR=5.0						
STKA	**Stephens Creek**	**59.80**	**132**	P	**P**	**13 59 36.8**	**+0.1**
	1.7nm,0.8s,mb4.1,baz=326,slow=3.6,SNR=2.0						
BRTR	**Keskin Array B**	**62.67**	**312**	P	**P**	**13 59 56.5**	**+0.6**
	1.1nm,0.8s,mb4.0,baz=112,slow=6.7,SNR=4.5						
FINES	**FINESS Array B**	**73.61**	**333**	P	**P**	**14 01 02.7**	**-0.9**
	2.8nm,0.9s,mb4.2,baz=155,slow=20,SNR=2.3						
ARCES	**ARCESS Array B**	**76.39**	**340**	P	**P**	**14 01 18.8**	**-0.7**
	1.4nm,0.8s,mb3.9,baz=117,slow=4.0,SNR=2.4						
GERES	**GERESS Array B**	**78.30**	**318**	P	**P**	**14 01 30.6**	**+0.1**
	1.7nm,0.7s,mb4.1,baz=108,slow=3.1,SNR=3.4						
NVAR	**Mina Array Bea**	**126.80**	**31**	PKP	PKPdf	14 08 37.7	+4.7
	0.2nm,0.3s,baz=301,slow=39,SNR=2.4						
PDAR	**Pinedale Array**	**127.00**	**21**	PKP	PKPdf	14 08 36.4	+3.2
	0.8nm,0.8s,baz=143,slow=4.5,SNR=5.8						
TXAR	**Lajitas Array**	**141.08**	**24**	PKP	PKPdf	14 09 04.1	+4.3
	0.2nm,0.6s,baz=27,slow=2.0,SNR=2.4						

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*IDC **26** 13:51:08.3±0.6, 8.65N×92.15E, h25^{km}±2^{km}, mb4.2/18, mb1 4.3/19, mb1mx4.2/24, ML4.5/1, Error ellipse: s-maj=22.9km s-min=10.4km az=50.0*

ISC 26 13:51:06.1±0.6**, 8.42N**±0.10×**92.1E**±0.1**, h27**^{km}**, h27**^{km}±.8^{km}**:pP-P, n37,** σ**1**^{s}**25**/28**, mb4.3**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.99**	**33**	Pn	**P**	**13 53 52.8**	**-5.7**
	0.8nm,0.3s,baz=239,slow=17,SNR=3.9						
IMP	**Imphal**	**16.37**	**6**	*e*	**P**	**13 54 58.3**	**+2.5**
PKI	**Pulchoki**	**20.07**	**342**	*e*P	**P**	**13 55 42.2**	**+1.8**
DMN	**Daman**	**20.20**	**342**	*e*P	**P**	**13 55 44.6**	**+2.8**
GUN	**Gumba**	**20.26**	**344**	*e*P	**P**	**13 55 42.7**	**+0.3**
KKN	**Kakani**	**20.32**	**342**	*e*P	**P**	**13 55 45.5**	**+2.5**
GKN	**Gorkha**	**20.71**	**341**	*e*P	**P**	**13 55 50.0**	**+2.9**
KOLN	**Koldanda**	**20.85**	**338**	*e*P	**P**	**13 55 54.7**	**+6.2**
JOW	**Kunigami**	**38.84**	**57**	P	**P**	**13 58 30.1**	**-0.8**
	14nm,0.6s,mb4.9,baz=92,slow=3.8,SNR=6.3						
SONM	**Songino Array**	**41.11**	**15**	P	**P**	**13 58 48.4**	**-1.1**
	9.3nm,0.7s,mb4.5,baz=196,slow=8.2,SNR=25						
SONM				pP	pP	13 58 55.6	-1.9
	8.7nm,0.6s,baz=203,slow=9.4,SNR=12						
SONM				PcP	PcP	14 00 49.7	+0.4
	1.1nm,0.4s,baz=211,slow=3.5,SNR=4.8						
SONM				pPcP		14 00 59.2	
	2.6nm,0.7s,baz=214,slow=2.7,SNR=5.3						
ZAL	**Zalesovo**	**45.77**	**354**	P	**P**	**13 59 26.4**	**-0.7**
	2.6nm,0.5s,mb4.5,baz=290,slow=5.7,SNR=3.7						
ZAL				pP	pP	13 59 33.3	-1.9
	4.7nm,0.5s,baz=300,slow=8.9,SNR=4.5						
NWAO	**Narrogin (SRO)**	**47.58**	**151**	P	**P**	**13 59 43.0**	**+1.3**
	6.2nm,0.7s,mb4.8,baz=311,slow=11,SNR=3.2						
BVAR	**Borovoye Array**	**47.84**	**342**	P	**P**	**13 59 41.7**	**-1.8**
	2.6nm,0.9s,mb4.2,baz=104,slow=12,SNR=4.3						
BVAR				pP	pP	13 59 49.6	-2.1
	4.1nm,0.7s,baz=135,slow=8.4,SNR=9.9						
WRA	**Warramunga Arr**	**50.23**	**125**	P	**P**	**14 00 02.6**	**+0.3**
	2.8nm,0.4s,mb4.7,baz=304,slow=8.5,SNR=18						
WRA				pP	pP	14 00 10.9	+0.3
	2.8nm,0.5s,baz=305,slow=8.5,SNR=5.1						
MAT	**Matsushiro**	**50.32**	**49**	P	**P**	**14 00 01.3**	**-1.4**
ASAR	**Alice Springs**	**51.83**	**129**	P	**P**	**14 00 15.1**	**+0.7**
	3.4nm,0.8s,mb4.3,baz=306,slow=7.6,SNR=10						
ASAR				pP	pP	14 00 22.9	+0.3
	3.9nm,0.9s,baz=302,slow=7.7,SNR=5.5						
ASAR				PcP	PcP	14 01 26.7	-0.6
	baz=304,slow=3.9						
ASAR				pPcP		14 01 41.6	
	3.3nm,0.9s,baz=295,slow=4.1,SNR=4.7						
PMG	**Port Moresby**	**57.63**	**107**	P	**P**	**14 00 56.6**	**-0.2**
	6.5nm,0.7s,mb4.8,baz=357,slow=12,SNR=5.1						
CTA	**Charters Tower**	**60.34**	**119**	P	**P**	**14 01 16.4**	**+0.9**
	3.4nm,0.9s,mb4.4,baz=285,slow=6.8,SNR=3.8						
BRTR	**Keskin Array B**	**60.54**	**311**	P	**P**	**14 01 15.2**	**-1.4**
	1.9nm,0.7s,mb4.3,baz=117,slow=7.9,SNR=5.9						
BRTR				pP	pP	14 01 23.6	-1.4
	5.5nm,0.8s,baz=122,slow=6.6,SNR=12						
STKA	**Stephens Creek**	**61.95**	**133**	P	**P**	**14 01 26.4**	**+0.1**
	1.1nm,0.6s,mb4.2,baz=321,slow=14,SNR=3.2						
STKA				pP	pP	14 01 35.6	+0.9
	3.7nm,0.7s,baz=308,slow=5.8,SNR=4.4						
AKASG	**Malin Array Be**	**66.47**	**322**	P	**P**	**14 01 53.3**	**-2.2**
	0.2nm,0.3s,mb3.6,baz=81,slow=5.2,SNR=3.2						
AKASG				pP	pP	14 02 03.3	-0.6
	1.7nm,0.7s,baz=89,slow=4.5,SNR=5.6						
MLR	**Muntele Rosu**	**67.37**	**316**	P	**P**	**14 02 01.3**	**+0.1**
	4.6nm,0.9s,mb4.5,baz=161,slow=5.1,SNR=4.2						
FINES	**FINESS Array B**	**71.29**	**332**	P	**P**	**14 02 23.9**	**-1.1**
	3.7nm,1.0s,mb4.3,baz=90,slow=3.8,SNR=3.5						
FINES				pP	pP	14 02 33.1	-0.4
	4.8nm,0.8s,baz=90,slow=7.6,SNR=4.4						
ARCES	**ARCESS Array B**	**74.07**	**340**	P	**P**	**14 02 40.3**	**-0.9**
	2.4nm,0.8s,mb4.2,baz=90,slow=4.9,SNR=5.6						
ARCES				pP	pP	14 02 49.1	-0.6
	7.5nm,0.9s,baz=53,slow=6.1,SNR=5.2						
PRU	**Pruhonice**	**75.59**	**319**	*e*P	pP	14 02 58.5	-0.4
GERES	**GERESS Array B**	**76.07**	**318**	P	**P**	**14 02 53.5**	**+0.4**
	1.0nm,0.7s,mb3.8,baz=101,slow=6.8,SNR=4.1						
GERES				pP	pP	14 03 01.3	-0.3
	4.0nm,0.8s,baz=90,slow=5.3,SNR=10						
KHC	**Kasperske Hory**	**76.17**	**318**	*e*P	pP	14 03 04.0	+1.8
FX1	**Attu Island--F**	**77.95**	**38**	P	**P**	**14 03 03.2**	**-0.2**
	22nm,0.7s,mb5.2,baz=13,slow=8.2,SNR=5.6						
NB2	**NORSAR Subarra**	**78.26**	**331**	P	pP	14 03 14.0	+0.5
	1.1nm,0.7s,baz=97,slow=5.3						
NOA	**NORSAR Array B**	**78.26**	**331**	P	**P**	**14 03 05.1**	**+0.1**
	0.3nm,0.4s,mb3.5,baz=151,slow=3.6,SNR=2.2						
LPL	**La Plagne**	**80.81**	**315**	*e*P	pP	14 03 26.7	-0.9
	45nm,1.0s						
ILAR	**Eielson Array**	**95.00**	**22**	P	**P**	**14 04 26.9**	**-0.4**
	0.5nm,0.7s,mb4.0,baz=303,slow=4.2,SNR=9.4						
YKA	**Yellowknife Ar**	**106.36**	**13**	PP	PP	14 09 38.0	-7.6
	0.5nm,0.7s,baz=335,slow=7.6,SNR=5.2						
PDAR	**Pinedale Array**	**125.36**	**19**	PKP	PKPdf	14 10 08.0	-1.9
	0.8nm,0.7s,baz=350,slow=1.0,SNR=7.0						
NVAR	**Mina Array Bea**	**125.47**	**29**	PKP	PKPdf	14 10 09.1	-1.2
	1.1nm,0.7s,baz=358,slow=1.8,SNR=5.7						
TXAR	**Lajitas Array**	**139.51**	**21**	PKP	PKPdf	14 10 34.9	-1.9
	0.6nm,0.5s,baz=164,slow=0.5,SNR=3.9						
BDFB	**Brasilia**	**140.38**	**256**	PKP	PKPdf	14 10 37.7	-1.0
	1.5nm,0.8s,baz=156,slow=2.6,SNR=2.8						

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*IDC **26** 13:56:35.5±0.4, 2.77N×94.42E, mb5.1/31, mb1 5.2/31, mb1mx5.2/32, ML4.8/1, MS5.5/18, Ms1 5.5/18, ms1mx5.4/25, Error ellipse: s-maj=15.8km s-min=9.9km az=45.0*

*MOS **26** 13:56:38.9±1.0, 2.83N×94.47E, h33^{km}, mb5.6/63, MS5.9/13, Error ellipse: s-maj=8.7km s-min=5.3km az=109.5*

*BJI **26** 13:56:38.6, 2.87N×94.21E, h30^{km}, mB6.1, mb5.4, Ms6.3, Msz6.1*

*NEIC **26** 13:56:40.2±0.2, 2.78N×94.47E, h30^{km}, mb5.5/66, MS5.9/110, Error ellipse: s-maj=5.5km s-min=4.4km az=221.0*

*SYO **26** 13:56:40.5, 2.77N×94.46E, h30^{km}, MB5.9*

*HRVD **26** 13:56:40.2±0.7, 2.57N×94.31E, h17^{km}, MW5.9/59, Centroid moment Tensor Solution. LP body waves: s15,c17;Mantle waves: s59,c97; Half duration: 2^{s}1 Moment tensor: Scale 10^{18}Nm; M_{rr}0.89±.04; $M_{\theta\theta}$-0.48±.03; $M_{\phi\phi}$-0.41±.04; $M_{r\theta}$0.17±.15; $M_{\theta\phi}$0.27±.02; $M_{\phi r}$-0.27±.14; Best double couple: M_0.86×10^{18} NP1: ϕ_s307°, δ35°, λ83°. NP2:ϕ_s136°, δ56°, λ95°. Principal axes: T .95, Plg79°, Azm65°; N -.18, Plg4°, Azm313°; P -.77, Plg11°, Azm223°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CSEM **26** 13:56:43.6, 3.68N×94.42E, h33^{km}, mb5.7*

ISC 26 13:56:38.0±0.2**, 2.76N**±0.03×**94.48E**±0.03**, h27**^{km}**, h27**^{km}±1.3^{km}**:pP-P, n486,** σ**1**^{s}**10**/397**, mb5.4**/128**, MS5.9**/150**, 39C-12D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PALK	**Pallekele**	**14.43**	**289**	*e*P	**P**	**14 00 01.4**	**-1.4**
	117nm,1.1s						
COCO	**West Island**	**15.04**	**171**	P	**P**	**14 00 09.4**	**-1.3**
	261nm,1.2s						
CM31	**Chiang Mai Arr**	**16.20**	**15**	*e*P	**P**	**14 00 24.7**	**-0.9**
	184nm,0.9s						
CMAR	**Chiang Mai Arr**	**16.20**	**15**	Pn	**P**	**14 00 24.5**	**-1.1**
	1.3nm,0.3s,baz=201,slow=11,SNR=35						
CMAR				LR	LR	14 06 37.0	
	comp=Z,18µm,21.1s,baz=200,slow=37						
CMAR	**Chiang Mai Arr**	**16.20**	**15**	P	**P**	**14 00 24.5**	**-1.1**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,18µm,21.1s						
MDRS	**Chennai**	**17.41**	**307**	*e*P	**P**	**14 00 39.8**	**-1.0**
MDRS				*e*		14 00 50.1	
	comp=Z,268nm,1.3s						
MDRS				*e*S	**S**	**14 04 02.5**	**+11**
MDRS	**Chennai**	**17.41**	**307**	*i*	AMS	14 06 48.6	
	comp=Z,16µm,17.7s						
TRD	**Trivandrum**	**18.34**	**289**	*e*	**P**	**14 00 47.6**	**-4.9**
TRD				*e*		14 01 10.3	
	comp=Z,322nm,1.6s						
TRD				*e*	**S**	**14 04 15.2**	**+2.2**
TRD	**Trivandrum**	**18.34**	**289**	*i*	AMS	14 07 25.8	
	comp=Z,20µm,21.7s						
VIS	**Vishakhapatnam**	**18.46**	**324**	*e*P	**P**	**14 00 53.4**	**-0.6**
VIS				*e*		14 01 01.6	
	comp=Z,295nm,1.6s						
VIS				*e*S	**S**	**14 04 24.4**	**+8.8**
CAL	**Calcutta**	**20.54**	**344**	*e*P	**P**	**14 01 16.8**	**-0.5**
CAL				*e*S	**S**	**14 05 08.0**	**+7.3**
AGT	**Agartala**	**21.23**	**352**	⇓*i*P	**P**	**14 01 23.0**	**-1.2**
AGT				*i*		14 02 05.0	
HYB	**Hyderabad**	**21.37**	**314**	*e*P	**P**	**14 01 25.5**	**-0.2**
QIZ	**Qiongzhong**	**22.07**	**42**	P	**P**	**14 01 32.5**	**-0.3**
QIZ				S	**S**	**14 05 29.8**	**+0.1**
QIZ				LR	LR		
	comp=E,48µm,16.9s						
QIZ				LR	LR		
	comp=Z,61µm,17.0s,MS6.1						
QIZ	**Qiongzhong**	**22.07**	**42**	*e*P	**P**	**14 01 32.2**	**-0.6**
	comp=Z,201nm,1.3s,mb5.4						
QIZ				LR	LR		
	comp=Z,55µm,19.0s,MS6.0						
BOK	**Bokaro**	**22.50**	**339**	*e*P	**P**	**14 01 37.0**	**0.0**
BOK				*e*S	**S**	**14 05 47.5**	**+10**
BLSP	**Bilaspur**	**22.68**	**329**	*e*P	**P**	**14 01 40.9**	**+2.0**
BLSP				*e*		14 01 56.9	
	comp=Z,399nm,1.5s						
BLSP				*e*S	**S**	**14 05 49.7**	**+8.9**
SHL	**Shillong**	**22.81**	**354**	⇑*i*P	**P**	**14 01 39.6**	**-0.5**
SHL				*e*S	**S**	**14 05 51.4**	**+8.4**
KMI	**Kunming**	**23.61**	**19**	P	**P**	**14 01 50.3**	**+2.4**
KMI				AP		14 01 53.5	
KMI				PP	PP	14 02 23.3	+2.7
KMI				PPP	PPP	14 02 33.5	+2.9
KMI				S	**S**	**14 06 02.3**	**+5.2**
KMI				AMB	AMB		
	comp=Z,174nm,1.6s,mb5.2						
KMI				AMB	AMB		
	comp=Z,5µm,5.9s						
KMI				LR	LR		
	comp=N,38µm,12.5s,MS6.2						
KMI				LR	LR		
	comp=E,26µm,10.0s,MS6.2						
KMI				LR	LR		
	comp=Z,37µm,12.6s,MS6.0						
BATP	**Bataraza**	**23.95**	**75**	*e*P	**P**	**14 02 00.0**	**+8.7**
GOA	**Goa**	**23.96**	**303**	*e*P	**P**	**14 01 53.9**	**+2.5**
GOA				*e*S	**S**	**14 06 13.9**	**+11**
DGAR	**Diego Garcia**	**24.19**	**245**	PFAKE		14 02 10.0	+16
DGAR				LR	LR		
	comp=Z,6µm,21.0s,MS5.1						
KAD	**Karad**	**24.62**	**307**	*e*P	**P**	**14 01 58.1**	**+0.4**
KAD				*e*		14 02 23.9	
	comp=Z,135nm,1.3s						
KAD				*e*S	**S**	**14 06 21.3**	**+6.9**
AKL	**Akola**	**24.65**	**318**	*e*P	**P**	**14 02 02.5**	**+4.5**
AKL				*e*S	**S**	**14 06 24.3**	**+9.4**
AKL				*e*S	**S**	**14 06 25.5**	**+11**
POO	**Poona**	**25.57**	**309**	*e*P	**P**	**14 02 09.5**	**+2.7**
POO				*e*	pP	14 02 16.3	+1.7
	comp=Z,140nm,1.1s						
POO				*e*S	**S**	**14 06 36.5**	**+6.2**
ENPP	**El Nido**	**26.12**	**70**	*e*P	**P**	**14 02 11.0**	**-0.9**
BHPL	**Bhopal**	**26.21**	**322**	*e*P	**P**	**14 02 11.5**	**-1.2**
BHPL				*e*		14 02 32.7	
	comp=Z,156nm,1.6s						
BHPL				*e*S	**S**	**14 06 46.4**	**+5.3**
GYA	**Guiyang**	**26.30**	**25**	⇑*i*P	**P**	**14 02 13.8**	**+0.3**
GYA				AP	pP	14 02 17.8	-3.5
GYA				S	**S**	**14 06 49.5**	**+7.1**
GYA				AMB	AMB		
	comp=Z,190nm,1.1s,mb5.5						
GYA				AMB	AMB		
	comp=Z,5µm,12.6s						
GYA				LR	LR		
	comp=N,40µm,18.6s,MS6.2						
GYA				LR	LR		
	comp=E,51µm,16.2s,MS6.2						
GYA				LR	LR		
	comp=Z,62µm,17.4s,MS6.2						
BOM	**Bombay**	**26.58**	**309**	*e*P	**P**	**14 02 15.5**	**-0.6**
BOM				*e*		14 02 39.2	
BOM				*e*S	**S**	**14 06 51.8**	**+4.7**
BOM				*e*S	**S**	**14 06 54.4**	**+7.3**
LSA	**Lhasa**	**26.97**	**354**	P	**P**	**14 02 15.3**	**-4.3**
LSA				LR	LR		
	comp=N,12µm,14.6s,MS5.9						
LSA				LR	LR		
	comp=E,21µm,14.6s,MS5.9						
LSA				LR	LR		
	comp=Z,26µm,14.6s,MS5.9						
LSA	**Lhasa**	**26.97**	**354**	P	**P**	**14 02 16.9**	**-2.7**
	comp=Z,36nm,0.8s,mb5.0						
LSA				LR	LR		
	comp=Z,16µm,22.0s,MS5.5						
GZH	**Guangzhou**	**27.24**	**41**	P	**P**	**14 02 27.0**	**+4.9**
GZH				LR	LR		
	comp=N,47µm,16.2s,MS6.2						
GZH				LR	LR		
	comp=E,28µm,15.5s,MS6.2						
GZH				LR	LR		
	comp=Z,60µm,14.3s,MS6.3						
TGY	**Tagaytay City**	**28.45**	**65**	P	**P**	**14 02 33.9**	**+0.8**
	comp=Z,216nm,0.5s,mb6.1,baz=156,slow=9.4,SNR=6.7						
TGY				LR	LR	14 14 14.2	
	comp=Z,11µm,18.8s,MS5.5,baz=62,slow=37						
TGY	**Tagaytay City**	**28.45**	**65**	P	**P**	**14 02 33.9**	**+0.8**
TGY				pmax	pmax		
	comp=Z,216nm,0.5s						
TGY				MLR	MLR		
	comp=Z,11µm,18.8s						
OTRP	**Odiongan**	**28.89**	**69**	*e*P	**P**	**14 02 36.2**	**-0.8**
GUIM	**Jordan**	**28.97**	**73**	*e*P	**P**	**14 02 38.1**	**+0.3**
BOAC	**Boac**	**29.06**	**67**	*e*P	**P**	**14 02 38.1**	**-0.5**
CD2	**Chengdu**	**29.34**	**16**	P	**P**	**14 02 40.8**	**-0.2**
CD2				PP	PP	14 03 34.8	-1.6
CD2				PPP	PPP	14 03 52.3	+2.6
CD2				S	**S**	**14 07 32.5**	**+1.2**
CD2				AMB	AMB		
	comp=Z,80nm,1.2s,mb5.3						
CD2				LR	LR		
	comp=N,34µm,12.0s						
CD2				LR	LR		
	comp=Z,30µm,10.2s,MS6.2						
PTH	**Pithoragarh**	**29.89**	**334**	*e*P	**P**	**14 02 42.1**	**-3.8**
TBP	**Tagbilaran**	**29.99**	**75**	*e*P	**P**	**14 02 44.9**	**-2.0**
LLP	**Lapu-Lapu**	**30.22**	**74**	*e*P	**P**	**14 02 50.5**	**+1.6**
AJM	**Ajmer**	**30.30**	**323**	*e*P	**P**	**14 02 45.4**	**-4.2**
AJM				*e*S	**S**	**14 07 50.4**	**+3.7**
NDI	**New Delhi**	**30.57**	**329**	*e*P	**P**	**14 02 49.8**	**-2.2**
NDI				*e*S	**S**	**14 07 52.3**	**+1.3**
ENH	**Enshi**	**30.83**	**26**	*e*P	**P**	**14 02 52.5**	**-1.7**
	comp=Z,53nm,0.8s,mb5.4						
ENH				LR	LR		
	comp=Z,49µm,20.0s,MS6.2						
BUKP	**Musuan**	**30.86**	**79**	*e*P	**P**	**14 02 55.2**	**+0.6**
DAV	**Davao City (W)**	**31.27**	**81**	*e*P	**P**	**14 02 59.5**	**+1.3**
BHJ	**Bhuj**	**31.51**	**312**	*e*P	**P**	**14 02 58.4**	**-1.8**
BHJ				*e*S	**S**	**14 08 10.0**	**+4.4**
DDI	**Dehra Dun**	**31.52**	**332**	*e*P	**P**	**14 03 00.0**	**-0.2**
QZH	**Quanzhou**	**32.03**	**44**	⇑*i*P	**P**	**14 03 05.3**	**+0.5**
QZH				S	**S**	**14 08 18.5**	**+4.7**
QZH				AMB	AMB		
	comp=Z,270nm,1.4s,mb5.9						
QZH				LR	LR		
	comp=N,27µm,12.3s,MS6.5						
QZH				LR	LR		
	comp=E,53µm,12.4s,MS6.5						
QZH				LR	LR		
	comp=Z,65µm,19.0s						
SDNR	**Sundarnagar**	**33.01**	**332**	*e*P	**P**	**14 03 13.5**	**+0.3**
WHN	**Wuhan**	**33.42**	**32**	P	**P**	**14 03 17.5**	**+0.7**
WHN				S	**S**	**14 08 41.8**	**+6.5**
WHN				LR	LR		
	comp=N,37µm,13.4s,MS6.5						
WHN				LR	LR		
	comp=E,47µm,15.0s,MS6.5						
WHN				LR	LR		
	comp=Z,95µm,13.4s,MS6.7						
XAN	**Xi’an**	**33.91**	**22**	P	**P**	**14 03 20.0**	**-1.1**
XAN				AP	pP	14 03 27.5	-1.5
XAN				S	**S**	**14 08 40.0**	**-2.9**
XAN				SS	SS	14 10 50.8	+0.6
XAN				AMB	AMB		
	comp=Z,88nm,1.1s,mb5.6						
XAN				LR	LR		
	comp=N,80µm,17.3s,MS6.6						
XAN				LR	LR		
	comp=E,24µm,14.1s,MS6.6						
XAN				LR	LR		
	comp=Z,31µm,16.2s,MS6.1						
LZH	**Lanzhou**	**34.27**	**14**	⇑P	**P**	**14 03 24.5**	**+0.4**
LZH				PP	PP	14 04 39.3	-0.1
LZH				S	**S**	**14 08 47.3**	**-1.2**
LZH				SS	SS	14 10 59.0	+0.5
LZH				AMB	AMB		
	comp=Z,98nm,1.0s,mb5.7						
LZH				AMB	AMB		
	comp=Z,769nm,5.8s						
LZH				LR	LR		
	comp=E,13µm,14.0s						
LZH				LR	LR		
	comp=Z,18µm,16.5s,MS5.9						
MBWA	**Marble Bar**	**34.30**	**135**	*e*P	**P**	**14 03 23.6**	**-1.0**
	comp=Z,46nm,1.1s,mb5.3						
MBWA				LR	LR		
	comp=Z,10µm,20.0s,MS5.5						
THN	**Thein Dam**	**34.38**	**331**	*e*P	**P**	**14 03 23.7**	**-1.4**
	comp=Z,32nm,0.9s,mb5.2						
GTA	**Gaotai**	**36.80**	**7**	P	**P**	**14 03 42.0**	**-3.5**
GTA				S	**S**	**14 09 23.8**	**-3.6**
GTA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.7						
GTA				AMB	AMB		
	comp=Z,2µm,9.9s						
GTA				LR	LR		
	comp=N,5µm,23.6s						
GTA				LR	LR		
	comp=E,9µm,16.0s						
GTA				LR	LR		
	comp=Z,14µm,11.8s						
NJ2	**Nanjing**	**37.07**	**36**	*e*P	**P**	**14 03 48.5**	**+0.6**
NJ2				AP	pP	14 03 53.0	-2.9
NJ2				PP	PP	14 05 15.0	+0.2
NJ2				S	**S**	**14 09 34.0**	**+2.3**
NJ2				AMB	AMB		
	comp=Z,1µm,5.6s						
NJ2				LR	LR		
	comp=N,41µm,18.0s,MS6.3						
NJ2				LR	LR		
	comp=E,21µm,16.2s,MS6.3						
NJ2				LR	LR		

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     comp=Z,52µm,15.6s,MS6.4
SSE  Sheshan           37.81  39  eP     P      14 03 54.3 +0.2
SSE                                PP    PP     14 05 20.5 -3.2
SSE                                S     S      14 09 47.0 +4.0
SSE                                AMB   AMB
     comp=Z,68nm,0.8s,mb5.4
SSE                                AMB   AMB
     comp=Z,573nm,4.8s
SSE                                LR    LR
     comp=N,37µm,15.9s,MS6.3
SSE                                LR    LR
     comp=E,15µm,15.9s,MS6.3
SSE                                LR    LR
     comp=Z,32µm,15.3s,MS6.2
TIA  Tai'an            39.31  29   P     P      14 04 08.0 +1.3
TIA                                AP    pP     14 04 19.0 +4.3
TIA                                PP    PP     14 05 43.0 +2.2
TIA                                PPP   PPP    14 06 11.0 +6.0
TIA                                S     S      14 10 13.0 +7.3
TIA                                AMB   AMB
     comp=Z,52nm,1.1s,mb5.2
TIA                                AMB   AMB
     comp=Z,2µm,8.0s
TIA                                LR    LR
     comp=N,8µm,16.2s,MS5.9
TIA                                LR    LR
     comp=E,12µm,14.4s,MS5.9
BTO  Baotou            40.20  18  eP     P      14 04 14.0  0.0
BTO                                S     S      14 10 18.5 -0.5
BTO                                AMB   AMB
     comp=Z,44nm,1.2s,mb5.1
BTO                                LR    LR
     comp=N,6µm,10.8s,MS6.2
BTO                                LR    LR
     comp=E,20µm,15.3s,MS6.2
JOW  Kunigami          40.25  50   P     P      14 04 15.8 +1.3
     comp=E,55nm,1.0s,mb5.2,baz=278,slow=8.8,SNR=7.0
JOW                                LR    LR     14 23 17.7
     comp=E,11µm,18.5s,MS5.7,baz=235,slow=40
KSH  Kashi             40.27 338⇑iP     P      14 04 15.3 +0.8
KSH                                AP    pP     14 04 24.0 +1.5
KSH                                XP    sP     14 04 28.3 +2.4
KSH                                PP    PP     14 05 51.3 +0.6
KSH                               ePCP   PcP    14 06 17.3 -1.3
KSH                               ePPP   PPP    14 06 19.5 +1.9
KSH                                SCP          14 10 03.5
KSH                                PCS          14 10 06.5
KSH                                S     S      14 10 21.5 +1.6
KSH                                XS           14 10 36.3
KSH                                SCS   ScS    14 14 17.3 +0.4
KSH                                AMB   AMB
     comp=Z,520nm,4.3s
KSH                                LR    LR
     comp=N,7µm,16.2s,MS5.8
KSH                                LR    LR
     comp=E,6µm,12.1s,MS5.8
HHC  Hu-ho-hao-te      40.93  20⇑iP     P      14 04 20.5 +0.6
HHC                                AP    pP     14 04 29.5 +1.5
HHC                                XP    sP     14 04 34.3 +3.0
HHC                                PP    PP     14 05 57.8 +0.4
HHC                                PCP   PcP    14 06 21.5 +0.8
HHC                                PCS          14 10 10.3
HHC                                S     S      14 10 28.0 -1.8
HHC                                XS           14 10 44.8
HHC                                SS    SS     14 13 25.3 -2.1
HHC                                SCS   ScS    14 14 20.0 -0.8
HHC                                AMB   AMB
     comp=Z,55nm,1.2s,mb5.1
HHC                                AMB   AMB
     comp=Z,4µm,9.2s
HHC                                LR    LR
     comp=N,26µm,13.1s,MS6.5
HHC                                LR    LR
     comp=E,32µm,13.1s,MS6.5
HHC                                LR    LR
     comp=Z,29µm,14.3s,MS6.3
WMQ  Urumqi            41.32 353 ⇑P     P      14 04 24.3 +1.2
WMQ                                AP    pP     14 04 28.8 -2.4
WMQ                                XP    sP     14 04 31.3 -3.2
WMQ                                PP    PP     14 06 02.8 +1.2
WMQ                                PPP   PPP    14 06 32.3 +0.2
WMQ                               eS     S      14 10 37.0 +1.4
WMQ                                AMB   AMB
     comp=Z,34nm,1.0s,mb4.9
WMQ                                AMB   AMB
     comp=Z,1µm,7.8s
WMQ                                LR    LR
     comp=N,5µm,22.3s,MS5.6
WMQ                                LR    LR
     comp=E,9µm,23.0s,MS5.6
NWAO Narrogin (SRO)    41.52 151   P     P      14 04 24.2 -0.7
     comp=E,8.2nm,0.7s,mb4.5,baz=351,slow=8.0,SNR=4.3
NWAO Narrogin (SRO)    41.52 151   P     P      14 04 25.4 +0.5
NWAO                               LR    LR
     comp=Z,8µm,19.0s,MS5.6
BJT  Baijiatuau        41.97  25  eP     P      14 04 30.0 +1.5
     comp=Z,146nm,1.2s,mb5.5
BJT                                LR    LR
     comp=Z,18µm,19.0s,MS6.0
BJI  Beijing           41.99  25   P     P      14 04 30.3 +1.6
BJI                                AMB   AMB
     comp=Z,61nm,0.9s,mb5.2
KZA  Kyzart            42.77 339   P     P      14 04 36.4 +1.4
     SNR=13
UCH  Uchtor            43.17 338   P     P      14 04 31.3 -7.0
     SNR=5.6
KBK  Karagaybulak      43.38 339   P     P      14 04 32.9 -7.1
     SNR=6.4
TKM2 Tokmak 2          43.39 340   P     P      14 04 41.1 +1.1
     SNR=19
AML  Almayashu         43.39 337   P     P      14 04 33.2 -6.9
     SNR=8.7
AAK  Ala-Archa         43.53 339   P     P      14 04 34.6 -6.6
     SNR=6.6
AAK  Ala-Archa         43.53 339  eP     P      14 04 40.9 -0.3
     comp=Z,125nm,1.4s,mb5.5
AAK                                LR    LR
     comp=Z,2µm,20.0s,MS5.1
FRU  Bishkek           43.66 339  eP     P      14 04 33.0 -9.2
FRU                               eS     S      14 11 16.0 +6.2
FRU                                pmax  pmax
     comp=Z,140nm,1.8s,mb5.4
FRU                                smax
     comp=E,3µm,8.0s
DL2  Dalian            43.66  31   P     P      14 04 44.3 +2.0
DL2                                S     S      14 11 11.8 +1.9
DL2                                AMB   AMB
     comp=Z,70nm,1.2s,mb5.3
DL2                                AMB   AMB
     comp=Z,2µm,5.7s
DL2                                LR    LR
     comp=N,8µm,17.4s,MS5.8
DL2                                LR    LR
     comp=E,4µm,13.4s,MS5.8
DL2                                LR    LR
     comp=Z,8µm,18.1s,MS5.7
CHMS Chumysh           43.75 339   P     P      14 04 43.1 +0.1
     SNR=12
EKS2 Erkin-Say         43.82 338   P     P      14 04 44.7 +1.2
     SNR=14
USP  Ospenovka         44.08 339   P     P      14 04 37.9 -7.7
     SNR=8.7
MKAR Makanchi Array    45.12 348  i P    P      14 04 46.0 -8.0
MKAR                               pmax  pmax
     comp=Z,96nm,0.9s
WRA  Warramunga Arr    45.16 122   P     P      14 04 54.2 -0.5
     comp=Z,34nm,0.9s,mb5.2,baz=299,slow=9.0,SNR=60
WRA  Warramunga Arr    45.16 122   P     P      14 04 54.2 -0.5
WRA                                pmax  pmax
     comp=Z,34nm,0.9s
WRAB Tennant Creek     45.17 122  eP     P      14 04 53.6 -1.1
WRAB                               pmax  pmax
     comp=Z,90nm,1.0s,mb5.5
WRAB Tennant Creek     45.17 122  eP     P      14 04 53.6 -1.1
     comp=Z,90nm,1.0s,mb5.5
INCN Inchon            45.43  36  eP     P      14 04 56.3 -0.3
     comp=Z,221nm,1.4s,mb5.8
INCN                               LR    LR
     comp=Z,13µm,20.0s,MS5.9
SONM Songino Array     46.06  11   P     P      14 05 01.9 +0.5
     comp=Z,37nm,0.8s,mb5.3,baz=198,slow=7.8,SNR=76
SONM                               PcP   PcP    14 06 39.5 +1.5
     comp=Z,14nm,1.1s,baz=198,slow=2.9,SNR=4.0
KS15 Wonju Array Si    46.16  37  eP     P      14 05 02.7 +0.4
ULN  Ulaanbaatar       46.22  12  eP     P      14 04 59.9 -2.8
ULN                                pmax  pmax
     comp=Z,49nm,1.1s,mb5.3
ULN  Ulaanbaatar       46.22  12  eP     P      14 04 59.9 -2.8
     comp=Z,49nm,1.1s,mb5.3
ASAR Alice Springs     46.50 127   P     P      14 05 04.8 -0.4
     comp=Z,10nm,0.7s,mb4.8,baz=303,slow=7.5,SNR=40
ASAR                               PcP   PcP    14 06 39.7 -0.2
     comp=Z,7.2nm,0.7s,baz=304,slow=3.7,SNR=7.9
ASAR                               LR    LR     14 24 23.6
     comp=Z,4µm,20.0s,MS5.4,baz=296,slow=36
SNY  Shenyang          46.83  30 ⇑P     P      14 05 04.5 -3.1
SNY                                S     S      14 11 48.5 -7.0
SNY                                AMB   AMB
     comp=Z,80nm,1.2s,mb5.5
SNY                                AMB   AMB
     comp=Z,2µm,11.5s
SNY                                LR    LR
     comp=N,17µm,15.9s
SNY                                LR    LR
     comp=E,11µm,21.1s
SNY                                LR    LR
     comp=Z,20µm,19.4s,MS6.1
ZAK  Zakamensk         48.03   8⇑iP     P      14 05 17.4 +0.5
HASS Wahat al Ahsa'    48.50 302   P     P      14 05 21.5 +0.6
HASS Wahat al Ahsa'    48.50 302   P     P      14 05 21.5 +0.6
MOY  Mondy             49.04   5  eP     P      14 05 25.0 +0.4
CN2  Changchun         49.22  29 ⇑P     P      14 05 26.3 +0.2
CN2                               eXP    sP     14 05 39.3 +1.8
CN2                               ePP    PP     14 07 23.0 +2.7
CN2                               eS     S      14 12 29.0 -0.1
CN2                                AMB   AMB
     comp=Z,40nm,1.2s,mb5.3
CN2                                AMB   AMB
     comp=Z,11µm,7.0s
CN2                                LR    LR
     comp=N,14µm,15.0s,MS6.2
CN2                                LR    LR
     comp=E,10µm,15.0s,MS6.2
CN2                                LR    LR
     comp=Z,18µm,17.0s,MS6.1
TLY  Talaya            49.35   8   P     P      14 05 28.7 +1.7
     comp=Z,347nm,1.1s,mb6.3,SNR=29
TLY  Talaya            49.35   8  eP     P      14 05 28.5 +1.5
TLY                               eS     S      14 12 39.2 +8.4
TLY                                pmax  pmax
     comp=Z,79nm,1.1s,mb5.7
TLY                                MLR   MLR
     comp=Z,12µm,17.0s,MS6.0
TLY  Talaya            49.35   8  eP     P      14 05 28.0 +0.9
     comp=Z,78nm,1.1s,mb5.7
IRK  Irkutsk           49.98   8  eP     P      14 05 32.0 +0.1
IRK                               e             14 12 35.8
GUMO Guam              50.92  75   PFAKE        14 05 50.0  +11
GUMO                               LR    LR
     comp=Z,7µm,19.0s,MS5.7
HIA  Hailar            51.10  21  eP     P      14 05 39.5 -0.9
     comp=Z,136nm,1.1s,mb5.8
HIA                                LR    LR
     comp=Z,52µm,19.0s,MS6.6
QRN  Al-Qurain         51.24 305  eP     P      14 05 42.3 +0.5
RDF  Al-Radifah        51.61 305  eP     P      14 05 45.4 +0.8
CBIJ Chichi jima       51.62  57   LR    LR     14 24 38.7
     comp=Z,3µm,20.8s,MS5.3,baz=271,slow=33
ZAL  Zalesovo          51.62 353   P     P      14 05 43.0 -1.3
     comp=Z,27nm,0.9s,mb5.2,baz=294,slow=6.2,SNR=27
ZAL  Zalesovo          51.62 353   P     P      14 05 43.1 -1.2
ZAL                                pmax  pmax
     comp=Z,27nm,0.9s
KAMS Al Khamasin       51.66 294   P     P      14 05 47.6 +2.6
KAMS Al Khamasin       51.66 294   P     P      14 05 47.6 +2.6
MDJ  Mudanjiang        51.90  31   P     P      14 05 47.5 +1.0
MDJ                                PCP   PcP    14 06 58.0 -1.1
MDJ                                PP    PP     14 07 46.0 +0.9
MDJ                                SCP          14 10 49.5
MDJ                                S     S      14 13 09.0 +2.9
MDJ                                AMB   AMB
     comp=Z,85nm,1.5s,mb5.5
MDJ                                AMB   AMB
     comp=Z,2µm,10.7s
MDJ                                LR    LR
     comp=N,7µm,15.8s,MS6.2
MDJ                                LR    LR
     comp=E,18µm,15.8s,MS6.2
MDJ                                LR    LR
     comp=Z,20µm,15.8s,MS6.2
MDJ  Mudanjiang        51.90  31  eP     P      14 05 46.8 +0.3
     comp=Z,89nm,1.1s,mb5.6
MDJ                                LR    LR
     comp=Z,12µm,19.0s,MS6.0
JHJ  Hachijo jima 2    52.00  49   LR    LR     14 30 05.1
     comp=Z,3µm,18.2s,MS5.3,baz=272,slow=39
MZLS Mizel             52.03 298   P     P      14 05 48.2 +0.4
MZLS Mizel             52.03 298   P     P      14 05 48.2 +0.4
VLA  Vladivostok       52.15  34⇑iP     P      14 05 52.0 +3.5
MAJO Matsushiro        52.43  45   PFAKE        14 06 00.0 +9.3
MAJO                               LR    LR
     comp=Z,15µm,19.0s,MS6.1
MAT  Matsushiro        52.43  45   P     P      14 05 49.6 -1.1
MAT                                S     S      14 13 18.0 +4.5
MAT  Matsushiro        52.43  45  eP     P      14 05 50.0 -0.7
     comp=Z,184nm,1.9s,mb5.7
MAT                               eS     S      14 13 19.0 +5.5
MAT                                LR    LR
     comp=Z,16µm,20.0s,MS6.0
TATS Tathlith          52.50 293   P     P      14 05 54.3 +2.9
TATS Tathlith          52.50 293   P     P      14 05 54.3 +2.9
NVS  Novosibirsk       52.72 352  i P    P      14 05 51.3 -1.2
NVS                               i S    S      14 13 19.6 +2.5
NVS                                pmax  pmax
     comp=Z,80nm,1.3s,mb5.5
NVS                                pmax  pmax
     comp=N,83nm,1.4s
NVS                                pmax  pmax
     comp=E,36nm,1.2s
NVS                                smax
     comp=E,143nm,2.7s
NAMS An Nimas          53.60 292   P     P      14 06 01.0 +1.4
NAMS An Nimas          53.60 292   P     P      14 06 01.0 +1.4
PMG  Port Moresby      53.86 104   P     P      14 06 01.1 -0.3
     comp=E,53nm,0.8s,mb5.5,baz=304,slow=5.6,SNR=17
PMG  Port Moresby      53.86 104   P     P      14 06 00.8 -0.7
PMG                                pmax  pmax
     comp=Z,62nm,0.9s
PMG  Port Moresby      53.86 104  eP     P      14 06 00.6 -0.8
     comp=Z,62nm,0.9s,mb5.5
PMG                                LR    LR
     comp=Z,5µm,20.0s,MS5.6
BVA0 Borovoye Array    53.91 342   P     P      14 06 00.1 -1.3
BVA0                               pmax  pmax
     comp=Z,8.0nm,1.1s,mb4.6
BVAR Borovoye Array    53.91 342   P     P      14 06 00.0 -1.3
     comp=Z,20nm,1.0s,mb5.0,baz=146,slow=5.3,SNR=34
AFFS 'Afif             53.95 298   P     P      14 06 02.5 +0.6
AFFS 'Afif             53.95 298   P     P      14 06 02.5 +0.6
BRVK Borovoye          53.98 342  eP     P      14 06 01.1 -0.7
     comp=Z,54nm,1.0s,mb5.4
BRVK                               LR    LR
     comp=Z,936nm,19.0s,MS4.9
ARSS Ar Rass           54.26 300   P     P      14 06 04.5 +0.3
ARSS Ar Rass           54.26 300   P     P      14 06 04.5 +0.3
CHKZ Chkalovo          54.41 343  eP     P      14 06 04.8 -0.2
CHKZ                               pmax  pmax
     comp=Z,190nm,1.1s,mb5.9
CHKZ Chkalovo          54.41 343  eP     P      14 06 04.8 -0.2
     comp=Z,194nm,1.1s,mb6.0
CTA  Charters Tower    55.63 117   P     P      14 06 13.8 -0.5
     comp=Z,44nm,0.9s,mb5.5,baz=289,slow=9.5,SNR=21
CTA                                LR    LR     14 33 42.3
     comp=Z,8µm,19.4s,MS5.8,baz=282,slow=40
CTA  Charters Tower    55.63 117   P     P      14 06 13.9 -0.5
CTA                                pmax  pmax
     comp=Z,44nm,1.0s
CTA                                MLR   MLR
     comp=Z,8µm,19.4s
CTAO Charters Tower    55.63 117  eP     P      14 06 14.1 -0.2
     comp=Z,66nm,1.1s,mb5.6
CTAO                               LR    LR
     comp=Z,5µm,19.0s,MS5.6
KLR  Kul'dur           56.13  29  eP     P      14 06 15.2 -2.4
KLR                               e             14 08 17.5
KLR                               i S    S      14 14 07.5 +4.3
KLR                                pmax  pmax
     comp=E,72nm,1.4s
KLR                                pmax  pmax
     comp=Z,100nm,1.4s,mb5.7
KLR                                pmax  pmax
     comp=N,2µm,11.5s
KLR                                pmax  pmax
     comp=E,1µm,11.5s
KLR                                pmax  pmax
     comp=Z,3µm,11.5s
KLR                                smax
     comp=N,7µm,8.0s
KLR                                smax
     comp=E,2µm,8.0s
STKA Stephens Creek    56.42 132   P     P      14 06 19.1 -0.8
     comp=E,23nm,1.0s,mb5.2,baz=311,slow=6.7,SNR=20
STKA                               LR    LR     14 31 28.5
     comp=E,6µm,18.7s,MS5.7,baz=301,slow=37
STKA Stephens Creek    56.42 132⇑iP     P      14 06 19.0 -0.9
BOD  Bodaibo           57.02  12  eP     P      14 06 23.3 -0.6
KMBO Kilima Mbogo      57.34 267   P     P      14 06 26.7  0.0
     comp=E,23nm,1.1s,mb5.1,baz=50,slow=8.8,SNR=17
KMBO                               LR    LR     14 27 26.4
     comp=E,9µm,19.1s,MS5.9,baz=92,slow=32
KMBO Kilima Mbogo      57.34 267  eP     P      14 06 26.9 +0.2
     comp=E,31nm,1.2s,mb5.2
KMBO                               LR    LR
     comp=Z,9µm,20.0s,MS5.9
KBRS Khaybar           57.70 299   P     P      14 06 29.6 +0.6
KBRS Khaybar           57.70 299   P     P      14 06 29.6 +0.6
GNI  Garni             58.29 317   P     P      14 06 33.1 +0.1
     comp=Z,4.3nm,0.4s,mb4.8,baz=350,slow=21,SNR=16
GNI  Garni             58.29 317c iP     P      14 06 32.7 -0.3
GNI                                pmax  pmax
     comp=Z,62nm,1.2s
YNBS Yanbu' al Bahr    58.49 297   P     P      14 06 35.3 +0.8
YNBS Yanbu' al Bahr    58.49 297   P     P      14 06 35.3 +0.8
TI2  Plekhanov         59.00 318  eP     P      14 06 37.0 -0.9
ASAJ Asahikawa         59.10  39   P     P      14 06 38.5 -0.1
     comp=Z,28nm,0.9s,mb5.3,baz=260,slow=15,SNR=8.0
ASAJ                               LR    LR     14 33 13.8
     comp=Z,11µm,19.6s,MS6.0,baz=238,slow=37
ASAJ Asahikawa         59.10  39   P     P      14 06 38.5 -0.1
ASAJ                               pmax  pmax
     comp=Z,29nm,0.9s
ASAJ                               MLR   MLR
     comp=Z,11µm,19.6s
CLNS Chul'man          59.11  19  eP     P      14 06 39.0 +0.6
CLNS                              e*PP   pP     14 06 46.1 -0.6
CLNS                              e             14 07 31.6
CLNS                              eS     S      14 14 34.3 -7.8
CLNS                              ePS    PS     14 14 48.8  -11
CLNS                              eSS    SS     14 18 29.3 -8.7
CLNS                               pmax  pmax
     comp=N,66nm,1.2s
CLNS                               pmax  pmax
     comp=Z,108nm,1.2s,mb5.8
CLNS                               pmax  pmax
     comp=E,46nm,1.0s
CLNS                               pmax  pmax
     comp=N,18nm,1.2s
CLNS                               pmax  pmax
     comp=Z,21nm,1.2s,mb5.0
CLNS                               pmax  pmax
     comp=E,19nm,0.9s
CLNS                               smax
     comp=E,452nm,14.1s
CLNS                               smax
     comp=Z,827nm,12.3s
CLNS                               smax
     comp=N,2µm,11.5s
CLNS                               MLR   MLR
     comp=N,18µm,17.0s,MS6.3
CLNS                               MLR   MLR
     comp=Z,37µm,17.0s,MS6.6
CLNS                               MLR   MLR
     comp=E,5µm,15.0s,MS6.3
BEST Besiri            59.83 313   P     P      14 06 42.8 -0.9
ZEI  Tsey              60.04 319  eP     P      14 06 43.0 -2.0
ZEI                               i *PP  pP     14 06 53.1 -0.3
ZEI                               i             14 08 58.0
ZEI                                pmax  pmax
     comp=Z,25nm,1.0s,mb5.2
SVE  Sverdlovsk        60.26 339⇓eP     P      14 06 43.0 -3.3
SVE                               e             14 07 31.0
SVE                               eS     S      14 15 00.0 +3.1
SVE                               e             14 16 35.0
SVE                                pmax  pmax
     comp=Z,180nm,1.5s,mb5.9
SVE                                MLR   MLR
     comp=Z,6µm,21.5s,MS5.7
ERZM Erzurum           60.54 315   P     P      14 06 49.0 +0.4
YSS  Yuzh-Sakhalins    60.64  36⇓iP     P      14 06 48.8 -0.3
YSS                               e             14 07 00.0
YSS                               e             14 07 34.0
YSS                               i             14 09 06.0
YSS                               eS     S      14 15 06.0 +4.1
YSS                               eSSS   SSS    14 21 42.0 +4.5
YSS                                pmax  pmax
     comp=Z,2µm,5.0s
YSS                                smax
     comp=N,2µm,9.0s
YSS                                MLR   MLR
     comp=N,12µm,16.0s,MS6.2
YSS                                MLR   MLR
     comp=Z,9µm,16.0s,MS6.0
YSS                                MLR   MLR
     comp=E,9µm,15.0s,MS6.2
YSS  Yuzh-Sakhalins    60.64  36  eP     P      14 06 49.3 +0.2
     comp=E,248nm,1.7s,mb6.1
ARU  Arti              60.71 338⇓iP     P      14 06 47.5 -1.9
ARU                               e             14 07 28.8
ARU                               e             14 08 59.1
ARU                               i S    S      14 15 03.3 +0.6
ARU                               i             14 16 29.9
ARU                                pmax  pmax
     comp=Z,77nm,1.2s,mb5.7
ARU  Arti              60.71 338⇑eP     P      14 06 47.4 -2.0
YUK  Yuzh-Kuril'sk     61.13  40  eP     P      14 06 51.0 -1.4
YUK                               eS     S      14 15 15.0 +6.8
YUK                                pmax  pmax
     comp=Z,2µm,5.0s
YUK                                smax
     comp=N,3µm,11.0s
YUK                                smax
     comp=E,2µm,7.0s
YUK                                MLR   MLR
     comp=Z,17µm,16.0s,MS6.3
YUK                                MLR   MLR
     comp=N,5µm,14.0s,MS6.2
YUK                                MLR   MLR
     comp=E,11µm,15.0s,MS6.2
ASF  Jabal al Asfar    61.35 305   P     P      14 06 54.5 +0.4
     comp=E,21nm,1.0s,mb5.2,baz=335,slow=3.9,SNR=11
KIV  Kislovodsk        61.36 320   P     P      14 06 53.2 -0.8
     comp=E,303nm,1.0s,mb6.4,SNR=18
KIV  Kislovodsk        61.36 320c iP     P      14 06 53.3 -0.7
KIV                               e             14 07 36.1
KIV                               e             14 09 09.6
KIV                               i S    S      14 15 12.6 +1.4
KIV                               eSS    SS     14 19 10.8 -2.6
KIV                                pmax  pmax
     comp=Z,66nm,1.2s,mb5.6
KIV                                pmax  pmax
     comp=N,25nm,0.9s
KIV                                smax
     comp=N,206nm,3.1s
KIV  Kislovodsk        61.36 320⇑iP     P      14 06 53.2 -0.8
GOF  Gofitskoye        61.64 321  i P    P      14 06 54.0 -1.9
ELZG Elazig            61.73 313   P     P      14 06 56.7 +0.1
MALT Malatya           62.07 312   P     P      14 06 59.1 +0.2
MALT                               pmax  pmax
     comp=Z,67nm,1.1s,mb5.7
MALT Malatya           62.07 312  eP     P      14 06 58.9  0.0
     comp=Z,67nm,1.1s,mb5.7
DUSS Damascus Unive    62.21 307  i P    P      14 06 59.8 -0.2
DUSS                              i P           14 07 00.9
DUSS                              i P           14 07 01.0
DUSS                              e             14 07 03.1
     baz=104,slow=5.1
DUSS                              eS     S      14 15 27.5 +5.4
DUSS                               AMS   AMS    14 34 18.4
     comp=E,88µm,17.6s
DUSS                               AMS   AMS    14 34 26.0
     comp=N,178µm,16.8s
DUSS                               AMS   AMS    14 37 47.6
     comp=Z,79µm,16.8s
EIL  Elat              62.33 302  eP     P      14 07 00.7  0.0
     comp=Z,36nm,1.1s,mb5.4
GZT  Gaziantep         62.39 311   P     P      14 07 01.5 +0.5
KAHT Ahir Dag          63.00 311   P     P      14 07 05.7 +0.6
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Code	Station	Dist	Az	Phase	ISC phase	Time	Res
COBT	**Iskenderun**	63.12	310	P	P	14 07 04.0	-1.8
SOC	**Sochi**	63.15	318	*i* P	P	14 07 04.1	-1.8
SOC				*i* S	S	14 15 31.9	-1.8
SOC				pmax	pmax		
	comp=Z,68nm,1.1s,mb5.7						
SOC				pmax	pmax		
	comp=N,41nm,1.4s						
SOC				pmax	pmax		
	comp=E,16nm,1.2s						
SOC				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
SOC				MLR	MLR		
	comp=N,2µm,18.0s,MS5.5						
SOC				MLR	MLR		
	comp=E,2µm,19.0s,MS5.5						
MBAR	**Mbarara**	63.81	268*c*	*i*P	P	14 07 09.4	-1.4
MBAR	**Mbarara**	63.81	268	*e*P	P	14 07 09.5	-1.3
	comp=E,20nm,1.3s,mb5.0						
MBAR				LR	LR		
	comp=Z,592nm,20.0s						
YAK	**Yakutsk**	64.72	17*c*	*i*P	P	14 07 15.2	-0.7
YAK				*e*		14 07 30.6	
YAK				*e*		14 09 32.6	
YAK				*e*S	S	14 15 54.7	+1.8
YAK				*e*		14 17 05.5	
YAK				*e*SS	SS	14 20 00.5	-5.4
YAK				pmax	pmax		
	comp=Z,132nm,1.0s,mb5.9						
YAK				pmax	pmax		
	comp=N,53nm,1.2s						
YAK				pmax	pmax		
	comp=E,58nm,1.3s						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,12nm,1.1s						
YAK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
YAK				smax			
	comp=N,2µm,8.5s						
YAK				smax			
	comp=Z,343nm,6.9s						
YAK				smax			
	comp=E,169nm,3.0s						
YAK				MLR	MLR		
	comp=Z,10µm,13.0s,MS6.2						
YAK				MLR	MLR		
	comp=N,6µm,16.0s,MS6.2						
YAK				MLR	MLR		
	comp=E,10µm,14.0s,MS6.2						
YAK	**Yakutsk**	64.72	17	*e*P	P	14 07 15.0	-1.0
	comp=E,275nm,1.0s,mb6.2						
AVNT	**Avonos**	64.87	312	P	P	14 07 16.5	-0.8
CSS	**Prodhromos**	64.96	307	*e*P	P	14 07 17.5	-0.5
	comp=E,72nm,1.2s,mb5.6						
ANN	**Anapa**	65.14	319	*e*P	P	14 07 23.6	+4.7
ANN				*e*S	S	14 16 01.6	+3.3
ANN				pmax	pmax		
	comp=Z,46nm,1.5s,mb5.3						
CTKT	**Corum**	65.50	314	P	P	14 07 20.4	-0.9
BOYT	**Boyabat**	65.67	315	P	P	14 07 21.3	-1.1
BR131	**Keskin Array S**	66.06	313	PFAKE		14 07 40.0	+15
BR131				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
BRTR	**Keskin Array B**	66.06	313	P	P	14 07 23.1	-1.8
	comp=Z,20nm,1.0s,mb5.1,baz=135,slow=7.0,SNR=36						
BRTR	**Keskin Array B**	66.06	313	P	P	14 07 23.1	-1.8
BRTR				pmax	pmax		
	comp=Z,20nm,1.0s						
ELDT	**Eldivan**	66.44	313	P	P	14 07 26.9	-0.4
BALT	**Daday**	66.79	314	P	P	14 07 28.4	-1.1
SGKT	**Sivrigoynuk**	67.46	313	P	P	14 07 31.3	-2.5
ISP	**Isparta**	67.90	310	P	P	14 07 36.6	0.0
ISP				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.5						
ISP	**Isparta**	67.90	310	*e*P	P	14 07 36.5	-0.1
	comp=Z,55nm,1.2s,mb5.5						
LSZ	**Lusaka**	67.97	252	*e*P	P	14 07 36.5	-1.0
	comp=Z,37nm,1.4s,mb5.2						
LSZ				LR	LR		
	comp=Z,6µm,22.0s,MS5.8						
ESKT	**Eskisehir**	68.07	312	P	P	14 07 36.7	-0.9
HENT	**Hendek**	68.38	313	P	P	14 07 38.5	-1.1
ULDT	**Uludag**	69.50	312	P	P	14 07 46.3	-0.2
MANT	**Manisa**	69.54	310	P	P	14 07 45.1	-1.7
MOS	**Moscow**	69.61	330	*e*P	P	14 07 45.8	-1.1
MOS				*e*		14 08 09.4	
MOS				*e*		14 10 22.5	
MOS				*e*PPP	PPP	14 12 00.0	-2.0
MOS				*e*S	S	14 16 52.8	+0.9
MOS				*e*		14 17 46.5	
MOS				*e*SS	SS	14 21 24.2	+2.6
MOS				pmax	pmax		
	comp=Z,122nm,1.3s,mb5.7						
MOS				smax			
	comp=N,1µm,5.0s						
CASY	**Casey**	69.85	173	PFAKE		14 08 00.0	+12
CASY				LR	LR		
	comp=Z,5µm,20.0s,MS5.8						
OBN	**Obninsk**	69.88	329	⇑*e*P	P	14 07 47.1	-1.4
OBN				*i*		14 08 06.8	
OBN				*i* S	S	14 16 55.1	0.0
OBN				pmax	pmax		
	comp=Z,89nm,1.2s,mb5.6						
OBN				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.3						
OBN	**Obninsk**	69.88	329	⇑*e*P	P	14 07 47.2	-1.3
SKR	**Severo-Kuril's**	70.19	37	*e*P	P	14 07 47.5	-3.0
SKR				*e*		14 08 06.0	
SKR				*e*		14 10 24.0	
SKR				*e*S	S	14 17 04.0	+5.1
SKR				*e*PS	PS	14 17 26.0	-3.3
SKR				*e*		14 17 37.2	
SKR				pmax	pmax		
	comp=Z,120nm,0.8s,mb5.9						
SKR				pmax	pmax		
	comp=N,180nm,1.0s						
SKR				pmax	pmax		
	comp=E,180nm,1.0s						
SKR				pmax	pmax		
	comp=N,2µm,4.0s						
SKR				pmax	pmax		
	comp=E,2µm,6.0s						
SKR				pmax	pmax		
	comp=Z,2µm,4.0s						
SKR				smax			
	comp=N,4µm,10.0s						
SKR				smax			
	comp=E,5µm,10.0s						
SKR				MLR	MLR		
	comp=N,6µm,18.0s,MS6.1						
SKR				MLR	MLR		
	comp=E,7µm,18.0s,MS6.1						
SKR				MLR	MLR		
	comp=Z,12µm,18.0s,MS6.2						
BTOK	**Tokmak**	70.23	311	P	P	14 07 48.6	-2.3
KDAG	**Bornova**	70.51	310	P	P	14 07 50.3	-2.4
MA2	**Magadan**	71.13	27	P	P	14 07 56.6	+0.6
MA2				pmax	pmax		
	comp=Z,170nm,1.4s,mb5.8						
MA2	**Magadan**	71.13	27	⇑*i*P	P	14 07 56.3	+0.3
CFR	**Carcaliu**	71.50	317	⇑*i*P	P	14 07 57.4	-1.1
CFR	**Carcaliu**	71.50	317	⇑*i*P	P	14 07 57.4	-1.1
KIS	**Kishinev**	71.54	319	*e*P	P	14 07 57.0	-1.7
KIS				*e*	pP	14 08 07.0	-0.1
IDI	**Anoyia**	71.79	306	P	P	14 07 59.4	-1.1
	comp=Z,35nm,1.0s,mb5.3,baz=93,slow=3.5,SNR=8.5						
TIXI	**Tiksi**	72.15	11	⇑*i*P	P	14 08 01.4	-0.6
TIXI				*e*S	S	14 17 21.8	+0.6
TIXI				pmax	pmax		
	comp=Z,205nm,1.2s,mb5.9						
TIXI				pmax	pmax		
	comp=N,36nm,1.1s						
TIXI				pmax	pmax		
	comp=E,32nm,1.1s						
TIXI				pmax	pmax		
	comp=Z,413nm,1.9s,mb6.0						
TIXI				smax			
	comp=N,2µm,16.9s						
TIXI				smax			
	comp=E,1µm,16.1s						
TIXI				MLR	MLR		
	comp=Z,13µm,18.0s,MS6.2						
TIXI				MLR	MLR		
	comp=N,4µm,15.0s						
TIXI				MLR	MLR		
	comp=E,31µm,22.0s						
TIXI	**Tiksi**	72.15	11	⇑*e*P	P	14 08 01.3	-0.7
LBTB	**Lobatse**	72.16	243	*e*P	P	14 08 01.9	-0.9
	comp=E,64nm,1.4s,mb5.4						
LBTB				LR	LR		
	comp=Z,10µm,20.0s,MS6.1						
AKASG	**Malin Array Be**	72.37	323	P	P	14 08 01.9	-1.7
	comp=Z,10nm,0.8s,mb4.8,baz=92,slow=4.1,SNR=38						
AKASG	**Malin Array Be**	72.37	323	P	P	14 08 01.9	-1.7
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.8s						
PET	**Petropavlovsk**	72.48	35	*e*P	P	14 08 03.2	-1.0
PET				*e*		14 10 39.7	
PET				*e*S	S	14 17 29.3	+4.1
PET				pmax	pmax		
	comp=Z,57nm,1.2s,mb5.4						
PET				pmax	pmax		
	comp=Z,1µm,14.4s						
PET				pmax	pmax		
	comp=Z,2µm,14.2s						
PET				pmax	pmax		
	comp=Z,600nm,12.8s						
PET				pmax	pmax		
	comp=Z,900nm,10.8s						
PET				smax			
	comp=N,2µm,12.9s						
PET				MLR	MLR		
	comp=Z,10µm,17.0s,MS6.2						
PET	**Petropavlovsk**	72.48	35	*e*P	P	14 08 03.5	-0.7
	comp=Z,59nm,1.1s,mb5.4						
PET				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
VRI	**Vrincioaia**	72.63	317	⇑*i*P	P	14 08 05.1	-0.1
MLR	**Muntele Rosu**	73.07	317	P	P	14 08 07.4	-0.4
	comp=Z,75nm,1.1s,mb5.6,baz=133,slow=3.2,SNR=24						
MLR	**Muntele Rosu**	73.07	317	P	P	14 08 07.4	-0.4
MLR				pmax	pmax		
	comp=Z,75nm,1.1s						
MLR	**Muntele Rosu**	73.07	317	⇑*i*P	P	14 08 07.7	-0.1
MLR	**Muntele Rosu**	73.07	317	⇑*i*P	P	14 08 07.8	0.0
BOSA	**Boshof**	73.22	239	P	P	14 08 08.6	-0.5
BOSA				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.2						
BOSA	**Boshof**	73.22	239	*e*P	P	14 08 08.1	-0.9
	comp=Z,43nm,1.3s,mb5.2						
BOSA				LR	LR		
	comp=Z,3µm,22.0s,MS5.5						
SEY	**Seymchan**	73.42	24	*e*P	P	14 08 09.5	0.0
SEY						14 08 27.2	
SEY						14 10 57.9	
SEY				*e*S	S	14 17 35.8	+0.2
SEY						14 18 25.3	
SEY				pmax	pmax		
	comp=Z,130nm,1.2s,mb5.7						
SEY				smax			
	comp=N,5µm,14.5s						
SEY				smax			
	comp=E,2µm,14.5s						
MAW	**Mawson**	73.64	192	P	P	14 08 10.8	+0.2
	comp=E,13nm,1.0s,mb4.8,baz=41,slow=7.4,SNR=8.2						
MAW				LR	LR	14 33 05.9	
	comp=E,3µm,18.3s,MS5.5,baz=21,slow=30						
MAW	**Mawson**	73.64	192	P	P	14 08 11.1	+0.4
MAW				pmax	pmax		
	comp=Z,13nm,0.7s						
MAW	**Mawson**	73.64	192	*e*P	P	14 08 10.8	+0.2
	comp=Z,13nm,0.7s,mb5.0						
MNK	**Minsk**	74.34	326	*e*P	P	14 08 13.0	-2.0
DZM	**Mont Dzumac**	74.40	114	*e*P	P	14 08 16.7	+0.7
PUL	**Pulkovo**	74.83	332	⇓*e*P	P	14 08 16.3	-1.4
PUL				*e*		14 11 10.1	
PUL				*e*S	S	14 17 49.0	-2.5
PUL				*e*		14 18 31.1	
PUL				pmax	pmax		
	comp=Z,54nm,0.7s,mb5.6						
PUL				pmax	pmax		
	comp=E,85nm,0.9s						
VSU	**Vasula**	76.14	330	⇑*e*P	P	14 08 25.4	+0.2
VSU	**Vasula**	76.14	330	⇑*e*P	P	14 08 25.5	+0.3
KWP	**Kalwaria**	76.14	320	*e*P	P	14 08 25.3	-0.1
KOLS	**Kolonicke sedl**	76.27	320	*i* P	P	14 08 27.0	+0.8
LVZ	**Lovozero**	76.45	340	⇓*e*P	P	14 08 31.4	+4.6
LVZ				*e*S	S	14 18 10.5	+1.4
LVZ				*e*		14 18 27.5	
LVZ				*e*		14 18 44.5	
LVZ				*e*SS	SS	14 23 07.5	+0.5
LVZ				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
LVZ				pmax	pmax		
	comp=N,15nm,1.4s						
LVZ				pmax	pmax		
	comp=E,14nm,1.4s						
LVZ				smax			
	comp=N,3µm,9.6s						
LVZ				smax			
	comp=E,2µm,8.7s						
LVZ				MLR	MLR		
	comp=Z,6µm,18.0s,MS6.0						
LVZ				MLR	MLR		
	comp=N,2µm,19.0s,MS5.9						
LVZ				MLR	MLR		
	comp=E,5µm,17.0s,MS5.9						
APA	**Apatity**	76.72	340	⇑*i*P	P	14 08 27.3	-1.0
APA				*i*	pP	14 08 36.6	-0.2
APA				*e*		14 11 21.0	
APA				*i* S	S	14 18 12.0	-0.1
APA				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
CRVS	**Cervenica-Dubn**	76.79	320	*e*P	P	14 08 32.3	+3.2
SUW	**Suwalki**	76.84	325	*e*P	P	14 08 28.4	-0.8
KECS	**Kecovo**	77.35	319	*e*P	P	14 08 32.0	-0.2
FINES	**FINESS Array B**	77.37	333	P	P	14 08 31.6	-0.4
	comp=Z,11nm,0.7s,mb4.9,baz=124,slow=6.9,SNR=15						
FINES				LR	LR	14 46 59.6	
	comp=Z,3µm,21.3s,MS5.6,baz=272,slow=39						
FINES	**FINESS Array B**	77.37	333	P	P	14 08 31.6	-0.4
FINES				pmax	pmax		
	comp=Z,11nm,0.7s						
FINES				MLR	MLR		
	comp=Z,3µm,21.3s						
KAF	**Kangasniemi**	77.47	333	*e*p	P	14 08 32.2	-0.4
	comp=Z,80nm,1.3s,mb5.5						
KAF	**Kangasniemi**	77.47	333	*e*P	P	14 08 32.2	-0.4
KAF				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.5						
NIE	**Niedzica**	77.63	320	*e*P	P	14 08 34.6	+0.9
PSZ	**Piszkesteto**	77.64	318	P	P	14 08 33.7	-0.1
PSZ				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
PSZ	**Piszkesteto**	77.64	318	*e*P	P	14 08 33.4	-0.4
	comp=Z,36nm,1.1s,mb5.2						
OJC	**Ojcow**	78.10	321	*e*P	P	14 08 36.3	+0.1
PKSM	**Moragy**	78.22	317	*e*P	P	14 08 36.7	-0.3
VYHS	**Vyhne**	78.43	319	*e*P	P	14 08 37.9	-0.2
PKSG		78.56	318	*e*P	P	14 08 38.9	+0.1
RHK1	**Bakonya**	78.59	316	*e*P	P	14 08 38.8	-0.2
SRO	**Srobarova**	78.68	318	*e*P	P	14 08 41.3	+1.8
OKC	**Ostrava-Krasne**	79.09	320	*e*P	P	14 08 42.2	+0.5
SMOL	**Smolenice**	79.36	319	*e*P	P	14 08 44.1	+0.9
MORC	**Moravsky Berou**	79.47	320	P	P	14 08 44.2	+0.5
MORC				pmax	pmax		
	comp=Z,49nm,1.3s,mb5.3						
MORC	**Moravsky Berou**	79.47	320	*e*P	P	14 08 43.7	0.0
	comp=Z,49nm,1.4s,mb5.2						
ZST	**Bratislava**	79.53	318	*i* P	P	14 08 44.5	+0.4
ZST				*e*	pP	14 08 52.3	-0.3
SOP	**Sopron**	79.83	318	*e*P	P	14 08 46.3	+0.6
VRAC	**Vranov**	80.01	319	P	P	14 08 46.3	-0.3
	comp=Z,8.4nm,1.1s,mb4.6,baz=104,slow=6.4,SNR=7.4						
VRAC	**Vranov**	80.01	319	P	P	14 08 46.3	-0.4
VRAC				pmax	pmax		
	comp=Z,8.0nm,1.1s						
ARCES	**ARCESS Array B**	80.16	341	P	P	14 08 46.7	-0.4
	comp=Z,22nm,0.9s,mb5.1,baz=108,slow=3.8,SNR=17						
ARCES	**ARCESS Array B**	80.16	341	P	P	14 08 46.7	-0.4
ARCES				pmax	pmax		
	comp=Z,22nm,0.9s						
ARE0	**ARCESS Array S**	80.16	341	*e*P	P	14 08 47.4	+0.3
DPC	**Dobruska-Polom**	80.32	321	*e*P	P	14 08 49.1	+0.8
DPC				*e*pP	pP	14 08 58.4	+1.6
KSP	**Ksiaz**	80.41	321	⇑*e*P	P	14 08 49.2	+0.5
KSP				*e*pP	pP	14 08 58.1	+0.9
KSP	**Ksiaz**	80.41	321	*e*P	P	14 08 49.4	+0.7
ARSA	**Arzberg**	80.48	317	⇑*i*P	P	14 08 49.6	+0.4
	comp=Z,49nm,1.4s,mb5.2						
UPC	**Upice**	80.54	321	*e*P	P	14 08 49.1	-0.3
SYO	**Syowa Base**	80.66	197	⇓P	P	14 08 50.6	+0.9
SYO	**Syowa Base**	80.66	197	⇓PcP	PcP	14 08 59.0	+2.2
SYO	**Syowa Base**	80.66	197	⇓pP	pP	14 09 02.7	+4.5
BILL	**Bilibino**	80.69	21	⇑*e*P	P	14 08 50.0	+0.1
BILL				pmax	pmax		
	comp=Z,37nm,1.8s,mb5.0						
FX1	**Attu Island--F**	80.97	37	LR	LR	14 47 13.5	
	comp=Z,166nm,18.6s,baz=281,slow=38						
MOA	**Molln**	81.39	318	⇑*i*P	P	14 08 56.0	+2.1
	comp=Z,30nm,1.3s,mb5.1						
PRU	**Pruhonice**	81.42	320	*e*P	P	14 08 54.7	+0.7
PRU				*e*pP	pP	14 09 02.7	+0.1
PVCC	**Panska Ves**	81.46	321	*e*P	P	14 08 54.4	+0.2
SMY	**Shemya**	81.52	37	PFAKE		14 09 10.0	+15
SMY				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
AQU	**L'Aquila**	81.55	312	P	P	14 08 56.1	+1.2
AQU				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.6						
AQU	**L'Aquila**	81.55	312	*e*P	P	14 08 55.7	+0.8
	comp=Z,74nm,1.0s,mb5.6						
BSD	**Bornholm Skovb**	81.77	325	*i* P	P	14 08 54.9	-0.9
BSD				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
BSD	**Bornholm Skovb**	81.77	325	*i* P	P	14 08 54.9	-0.9
	comp=Z,40nm,1.0s,mb5.3						
GERES	**GERESS Array B**	81.85	319	P	P	14 08 56.6	+0.3
	comp=Z,25nm,0.9s,mb5.2,baz=104,slow=5.5,SNR=51						
GERES	**GERESS Array B**	81.85	319	P	P	14 08 56.6	+0.3
GERES				pmax	pmax		
	comp=Z,25nm,0.9s						
PTCC	**Patocco-Chiusa**	81.88	316	*e*P	P	14 08 57.5	+1.0
BRG	**Berggiesshubel**	81.89	321	*i* P	P	14 08 57.4	+0.9
BRG				*i*	pP	14 09 06.4	+1.4
BRG				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.2						
BRG	**Berggiesshubel**	81.89	321	*i* P	P	14 08 57.4	+0.9
	comp=Z,42nm,1.4s,mb5.2						
BRG				*i*	pP	14 09 06.4	+1.4
KBA	**Koelnbreinsper**	81.94	317	⇓*i*P	P	14 08 56.9	+0.1
	comp=Z,21nm,1.2s,mb5.0						
SNTG	**Esanatoglia**	81.95	313	*e*P	P	14 08 58.3	+1.4
KHC	**Kasperske Hory**	81.96	319	*e*P	P	14 08 57.1	+0.2
KHC				*e*pP	pP	14 09 06.5	+1.1
ARV	**Arcevia**	81.96	313	*e*P	P	14 08 58.1	+1.1
FSSB	**Fossombrone**	82.09	314	*e*P	P	14 08 58.5	+0.8
RUE	**Ruedersdorf**	82.15	322	*e*P	P	14 08 58.2	+0.4
	comp=Z,70nm,1.3s,mb5.4						
RPZ	**Rata Peaks**	82.23	135	P	P	14 08 59.3	+0.9
	comp=Z,43nm,1.1s,mb5.3,baz=71,slow=6.5,SNR=7.4						
RPZ				LR	LR	14 50 18.7	
	comp=Z,4µm,18.0s,MS5.8,baz=280,slow=39						
CLL	**Collm**	82.52	321	*i* P	P	14 08 59.9	+0.2
CLL				*i*	pP	14 09 07.8	-0.5
CLL				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.1						
CLL	**Collm**	82.52	321	*i* P	P	14 08 59.9	+0.2
	comp=Z,22nm,1.1s,mb5.1						
CLL				*i*	pP	14 09 07.8	-0.5
CLL	**Collm**	82.52	321	P	P	14 08 59.9	+0.2
	comp=Z,logA/T=1.3,mb5.1						
CLL				*i* *PP	pP	14 09 07.8	-0.5
CLL				*e*		14 09 55.0	
SFI	**Santa Sofia**	82.78	314	*e*P	P	14 09 02.8	+1.5
NKC	**Novy Kostel**	82.78	320	*e*P	P	14 09 01.6	+0.5
PGD	**Poggio Sodo**	82.87	314	*e*P	P	14 09 03.5	+1.8
VMG	**Vicchio**	83.00	314	*e*P	P	14 09 05.0	+2.6
HFS	**Hagfors**	83.02	330	P	P	14 09 01.7	-0.4
	comp=Z,24nm,0.8s,mb5.3,baz=135,slow=6.3,SNR=13						
HFS	**Hagfors**	83.02	330	P	P	14 09 01.7	-0.4
HFS				pmax	pmax		
	comp=Z,24nm,0.8s						
CTI	**Castel Tesino**	83.04	316	*e*P	P	14 09 03.9	+1.4
WTTA	**Wattenberg**	83.12	317	⇑*i*P	P	14 09 02.8	-0.1
	comp=Z,49nm,1.0s,mb5.5						
SEI	**Scarperia**	83.14	314	*e*P	P	14 09 04.8	+1.7
MOX	**Moxa**	83.34	321	*e*P	P	14 09 07.0	+3.0
MOX	**Moxa**	83.34	321	*i* P	P	14 09 07.0	+3.0
MOTA	**Moosalm**	83.48	317	⇑*i*P	P	14 09 04.8	0.0
	comp=Z,28nm,1.0s,mb5.2						
GRA1	**Grafenberg Arr**	83.54	320	*e*P	P	14 09 04.7	-0.3
	comp=Z,77nm,1.4s,mb5.6						
GRF	**Grafenberg Arr**	83.54	320	*e*P	P	14 09 04.7	-0.3
GRF				pmax	pmax		
	comp=Z,77nm,1.4s,mb5.6						
GRF	**Grafenberg Arr**	83.54	320	*e*P	P	14 09 04.7	-0.3
	comp=Z,77nm,1.4s,mb5.6						
BRMO	**Bormio**	83.94	316	*e*P	P	14 09 08.0	+0.8
DAVOX	**Davos**	84.30	317	P	P	14 09 09.9	+1.0
	comp=Z,27nm,0.7s,mb5.5,baz=115,slow=5.6,SNR=20						
DAVA	**Damuels**	84.31	317	⇓*i*P	P	14 09 09.9	+0.9
	comp=Z,30nm,1.1s,mb5.3						
NB2	**NORSAR Subarra**	84.33	331	P	P	14 09 08.3	-0.4
	comp=Z,33nm,1.1s,mb5.4,baz=98,slow=5.3						
NB2	**NORSAR Subarra**	84.33	331	P	P	14 09 08.3	-0.4
	baz=98,slow=5.6						
NOA	**NORSAR Array B**	84.33	331	P	P	14 09 08.0	-0.8
	comp=Z,14nm,0.9s,mb5.1,baz=94,slow=5.5,SNR=20						
NOA	**NORSAR Array B**	84.33	331	P	P	14 09 08.0	-0.7
NOA				pmax	pmax		
	comp=Z,14nm,0.9s						
NOA	**NORSAR Array B**	84.33	331	P	P	14 09 08.0	-0.8
NAO01	**NORSAR Array S**	84.47	331	P	P	14 09 09.8	+0.3
	comp=Z,30nm,1.0s,mb5.4						
NAO01				LR	LR		
	comp=Z,4µm,19.0s,MS5.8						
PGF	**Pioggiola**	84.81	312	*e*P	P	14 09 11.2	-0.4
	comp=Z,329nm,1.7s,mb5.9						
KONO	**Kongsberg**	85.04	329	PFAKE		14 09 20.0	+7.7
KONO				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
MCGN	**Macugnaga**	85.59	316	*e*P	P	14 09 19.4	+4.0
URZ	**Urewera**	85.91	128	LR	LR	14 46 35.3	
	comp=Z,3µm,19.5s,MS5.8,baz=85,slow=35						
SBF	**Sospel**	85.97	314	*e*P	P	14 09 17.2	-0.2
	comp=Z,148nm,1.3s,mb5.8						
CDF	**Champ du Feu**	86.09	318	*e*P	P	14 09 17.5	-0.3
	comp=Z,30nm,1.3s,mb5.1						
MBDF	**Montbardon**	86.44	314	*e*P	P	14 09 19.4	-0.3
	comp=Z,42nm,1.1s,mb5.3						
LPG	**La Plagne**	86.45	315	*e*P	P	14 09 20.1	+0.4
	comp=Z,90nm,1.3s,mb5.5						
HAU	**Haudompre**	86.71	318	*e*P	P	14 09 20.7	-0.2
	comp=Z,38nm,1.0s,mb5.3						
HAU				*e*R			
	comp=Z,2µm,18.2s						
KIWB	**Kanaga Island**	86.84	38	*e*P	P	14 09 22.0	+0.5
MIDW	**Midway**	87.08	62	PFAKE		14 09 30.0	+6.8
MIDW				LR	LR		
	comp=Z,4µm,22.0s,MS5.7						
VNDA	**Vanda**	87.89	168	P	P	14 09 25.8	-0.1
	comp=Z,20nm,1.4s,mb5.2,baz=297,slow=7.6,SNR=4.5						
VNDA				LR	LR	14 44 49.4	
	comp=Z,5µm,18.1s,MS5.9,baz=293,slow=33						
VNDA	**Vanda**	87.89	168	*e*P	P	14 09 26.3	+0.3
	comp=Z,19nm,1.4s,mb5.1						
BAIF	**Baives**	88.08	320	*e*P	P	14 09 27.0	-0.4
	comp=Z,62nm,1.3s,mb5.4						
SSF	**Saint Saulge**	88.66	317	*e*P	P	14 09 30.3	0.0
	comp=Z,68nm,1.4s,mb5.5						
SBA	**Scott Base**	88.99	168	P	P	14 09 32.9	+1.6
SBA	**Scott Base**	88.99	168	PFAKE		14 09 40.0	+8.7
SBA				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
BGF	**Bois d'Agland**	89.14	316	*e*P	P	14 09 32.5	-0.1
	comp=Z,142nm,1.5s,mb5.8						
RAO	**Raoul Island**	89.24	119	PFAKE		14 09 50.0	+16
RAO				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
RJF	**Les Rejaudoux**	90.14	315	*e*P	P	14 09 36.7	-0.6
	comp=Z,176nm,1.9s,mb5.8						
RJF				*e*R			
	comp=Z,1µm,20.5s						
NVL	**N'lazarevskaya**	90.16	199	⇑*e*P	P	14 09 39.0	+2.2
NVL				*e*	pP	14 09 49.0	+3.6
NVL				*e*S	SKS	14 20 03.0	-9.0
NVL				*e*		14 21 33.0	
NVL				*e*		14 26 39.0	
NVL				pmax	pmax		
	comp=Z,195nm,2.2s,mb6.0						
FLN	**La Foliniere**	91.22	319	*e*P	P	14 09 42.1	-0.1
	comp=Z,211nm,1.8s,mb5.9						
FLN				*e*R			
	comp=Z,2µm,19.2s						

ETSF	**Etsaut**	**91.83**	**313**	*e*P	**P**	**14 09 44.3**	**-0.9**
	comp=Z,48nm,1.2s,mb5.4						
ANM	**Nome**	**91.88**	**25**	*e*P	**P**	**14 09 46.5**	**+1.7**
EKA	**Eskdalemuir Ar**	**92.09**	**325**	P	**P**	**14 09 47.1**	**+1.1**
	comp=Z,6.1nm,0.8s,mb5.0,baz=90,slow=2.8,SNR=4.1						
EKA	**Eskdalemuir Ar**	**92.09**	**325**	P	**P**	**14 09 47.1**	**+1.1**
EKA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
ESK	**Eskdalemuir**	**92.12**	**325**	PFAKE		14 10 00.0	+14
ESK				LR	LR		
	comp=Z,832nm,20.0s,MS5.2						
DAG	**Danmarks Havn**	**92.51**	**348⇑**	*i*P	**P**	**14 09 47.9**	**+0.4**
DAG				pmax	pmax		
	comp=Z,11nm,1.1s,mb5.2						
DAG	**Danmarks Havn**	**92.51**	**348⇑**	*i*P	**P**	**14 09 47.9**	**+0.4**
	comp=Z,11nm,1.1s,mb5.2						
QSPA	**South Pole Qui**	**92.70**	**180⇓**	*i*P	**P**	**14 09 53.3**	**+5.0**
	comp=Z,26nm,1.3s,mb5.5						
QSPA				LR	LR		
	comp=Z,8µm,19.0s,MS6.2						
AFI	**Afiamalu**	**94.29**	**104**	PFAKE		14 10 10.0	+13
AFI				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
ESDC	**Sonseca Array**	**94.75**	**310**	P	**P**	**14 09 59.5**	**+0.9**
	comp=Z,14nm,1.3s,mb5.2,baz=62,slow=4.8,SNR=7.1						
ESLA	**Sonseca Array**	**94.75**	**310**	PFAKE		14 10 10.0	+11
ESLA				LR	LR		
	comp=Z,8µm,22.0s,MS6.1						
SNAA	**Sanae**	**94.92**	**198**		**P**	**14 10 00.3**	**+1.6**
SNAA	**Sanae**	**94.92**	**198**	LR	LR	14 47 43.8	
	comp=Z,1µm,18.2s,MS5.4,baz=70,slow=32						
SNAA	**Sanae**	**94.92**	**198**	*e*P	**P**	**14 10 03.0**	**+4.3**
SNAA				pmax	pmax		
	comp=Z,12nm,1.3s						
IMA	**Indian Mountai**	**96.19**	**22**	P	**P**	**14 10 06.0**	**+1.4**
IMA				pmax	pmax		
	comp=Z,87nm,1.4s,mb6.0						
IMA	**Indian Mountai**	**96.19**	**22**	*e*P	**P**	**14 10 05.5**	**+0.8**
	comp=Z,87nm,1.4s,mb6.0						
VNA2	**Neumayer--Watz**	**96.48**	**199⇑**	*i*	**P**	**14 10 08.0**	**+2.2**
VNA2	**Neumayer--Watz**	**96.48**	**199⇑**	*i*	pP	14 10 22.7	+8.3
SPU	**Mount Spurr**	**98.67**	**27**	P	**P**	**14 10 16.6**	**+0.7**
COLA	**College**	**98.90**	**23**	PFAKE		14 10 30.0	+13
COLA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
DBIC	**Dimbokro**	**98.94**	**277**	LR	LR	14 50 44.3	
	comp=Z,3µm,20.0s,MS5.7,baz=75,slow=33						
DBIC	**Dimbokro**	**98.94**	**277**	PFAKE		14 10 30.0	+12
DBIC				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
ILAR	**Eielson Array**	**99.32**	**22**	P	**P**	**14 10 18.7**	**0.0**
	comp=Z,1.0nm,0.9s,mb4.3,baz=283,slow=5.0,SNR=6.8						
ILAR				PP	PP	14 14 17.9	-6.3
	comp=Z,3.6nm,0.9s,baz=292,slow=7.0,SNR=6.9						
ILAR				PKKPbc		14 26 42.4	
	comp=Z,0.5nm,0.9s,baz=153,slow=4.0,SNR=4.3						
ILAR	**Eielson Array**	**99.32**	**22**	P	**P**	**14 10 18.7**	**0.0**
ILAR						14 14 17.9	
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ILAR				pmax	pmax		
	comp=Z,4.0nm,1.0s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
FIB	**Fire Island**	**99.52**	**26**	PFAKE		14 10 30.0	+10
FIB				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
KDAK	**Kodiak Island**	**99.68**	**30**	PFAKE		14 10 30.0	+9.5
KDAK				LR	LR		
	comp=Z,2µm,21.0s,MS5.5						
DIV	**Divide**	**101.46**	**25**	PFAKE		14 10 40.0	+11
DIV				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
INK	**Inuvik**	**101.77**	**16**	P	P	14 10 30.1	+0.3
	comp=Z,3.3nm,1.0s,baz=295,slow=5.3,SNR=4.6						
INK	**Inuvik**	**101.77**	**16**	P	P	14 10 30.1	+0.3
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
TRIS	**Tristan da Cun**	**105.05**	**232**	PFAKE		14 15 10.0	
TRIS				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
RAR	**Rarotonga**	**105.67**	**111**	PFAKE		14 15 10.0	
RAR				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
SIT	**Sitka**	**108.19**	**26**	PFAKE		14 15 20.0	
SIT				LR	LR		
	comp=Z,6µm,20.0s,MS6.1						
YKA	**Yellowknife Ar**	**111.28**	**14**	PKiKP		14 15 09.8	
	comp=Z,0.6nm,0.8s,baz=328,slow=2.4,SNR=4.3						
YKA				PP	PP	14 15 45.8	-7.9
	comp=Z,1.9nm,1.0s,baz=335,slow=8.0,SNR=8.7						
YKA				PKKPbc		14 26 05.6	
	comp=Z,1.6nm,1.1s,baz=146,slow=3.1,SNR=8.1						
YKA	**Yellowknife Ar**	**111.28**	**14**	*i* PKIKP	PKPdf	14 15 09.8	-4.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
YKA				pmax	pmax		
	comp=Z,2.0nm,1.2s						
YKA	**Yellowknife Ar**	**111.28**	**14**	PKPdf	PKPdf	14 15 09.8	-4.0
YKA				PP	PP	14 15 45.8	-7.9
YKA				PKKPbc		14 26 05.6	
TBI	**Tubuai**	**114.97**	**114**	*e*PS	PS	14 25 56.8	+0.4
TBI				*e*LR	LR	14 50 07.0	
	comp=Z,2µm,22.8s						
PPT	**Papeete**	**115.55**	**108**	*e*PP	PP	14 16 21.3	-4.3
PPT				*e*PS	PS	14 25 57.4	-4.3
PPT				*e*PS	PS	14 26 03.2	+1.5
PPT				*e*LR	LR	14 50 28.0	
	comp=Z,3µm,25.5s						
PMSA	**Palmer Station**	**116.21**	**190**	PFAKE		14 15 30.0	+6.5
PMSA				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
OCWA	**Octopus Mounta**	**119.41**	**29**	PFAKE		14 15 40.0	+10
OCWA				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
SCHQ	**Schefferville**	**120.56**	**348**	PFAKE		14 15 40.0	+7.8
SCHQ				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
COR	**Corvallis**	**122.05**	**31**	PFAKE		14 15 40.0	+4.7
COR				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
NEW	**Newport**	**122.20**	**24**	PFAKE		14 15 40.0	+4.5
NEW				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
HUMO	**Hull Mountain**	**123.59**	**33**	PFAKE		14 15 50.0	+12
HUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
MSO	**Missoula**	**124.64**	**23**	*e*PKPdf	PKPdf	14 15 36.5	-3.8
MSO				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
BMO	**Blue Mountains**	**124.77**	**27**	PFAKE		14 15 50.0	+9.4
BMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
MOD	**Modoc**	**125.49**	**32**	*e*PKPdf	PKPdf	14 15 39.9	-2.1
MOD				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
HOPS	**Hopland**	**125.95**	**36**	PFAKE		14 15 50.0	+7.0
HOPS				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
EFI	**East Falkland**	**126.11**	**201**	PFAKE		14 15 50.0	+7.0
EFI				LR	LR		
	comp=Z,585nm,20.0s,MS5.2						
DGMT	**Dagmar**	**126.44**	**15**	PFAKE		14 15 50.0	+6.3
DGMT				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
ULM	**Lac du Bonnet**	**126.45**	**8**	PKP	PKPdf	14 15 40.5	-3.1
	comp=Z,8.7nm,0.8s,baz=340,slow=2.2,SNR=8.2						
ULM	**Lac du Bonnet**	**126.45**	**8**	*e*PKPdf	PKPdf	14 15 40.4	-3.3
ULM				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
BOZ	**Bozeman (W)**	**126.52**	**23**	PFAKE		14 15 50.0	+6.1
BOZ				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
HLID	**Hailey**	**127.07**	**26**	*e*PKPdf	PKPdf	14 15 42.9	-2.1
HLID				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
LAO	**LASA Array**	**127.48**	**18**	*e*PKPdf	PKPdf	14 15 42.9	-2.9
LAO				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
YMR	**Madison River**	**127.59**	**23**	*e*PKPdf	PKPdf	14 15 43.7	-2.3
YNR	**Norris Junctio**	**127.66**	**23**	*e*PKPdf	PKPdf	14 15 43.9	-2.3
YFT	**Old Faithful**	**127.83**	**23**	*e*PKPdf	PKPdf	14 15 45.0	-1.5
LKWY	**Lake**	**127.90**	**22**	PKIKP	PKPdf	14 15 46.5	-0.2
LKWY	**Lake**	**127.90**	**22**	*e*PKPdf	PKPdf	14 15 45.8	-0.9
LKWY				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
RKT	**Rikitea**	**128.06**	**117**	*e*SS	SS	14 34 56.7	-2.4
RKT				*e*LR	LR	14 56 28.4	
	comp=Z,1µm,24.2s						
BMN	**Battle Mountai**	**128.15**	**31**	PFAKE		14 16 00.0	+13
BMN				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
CMB	**Columbia Colle**	**128.15**	**35**	PFAKE		14 16 00.0	+13
CMB				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
SAO	**San Andreas Ge**	**128.39**	**37**	PFAKE		14 16 00.0	+12
SAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
PQI	**Presque Isle**	**128.41**	**345**	PFAKE		14 16 00.0	+12
PQI				LR	LR		
	comp=Z,14µm,19.0s,MS6.7						
REDW	**Red Top Meadow**	**128.73**	**24**	*e*PKPdf	PKPdf	14 15 45.8	-2.4
LRV	**Little Rabbit**	**128.87**	**37**	PKPdf	PKPdf	14 15 47.1	-1.6
ELK	**Elko**	**128.90**	**29**	PFAKE		14 16 00.0	+11
ELK				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
NVAR	**Mina Array Bea**	**129.04**	**33**	PKP	PKPdf	14 15 46.9	-2.2
	comp=Z,6.2nm,0.9s,baz=271,slow=4.4,SNR=15						
MNV	**Mina**	**129.12**	**33**	PFAKE		14 16 00.0	+11
MNV				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
AHID	**Auburn Hatcher**	**129.13**	**24**	PFAKE		14 16 00.0	+11
AHID				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
EYMN	**Ely**	**129.23**	**5**	PFAKE		14 16 00.0	+11
EYMN				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
MTUM	**Tungsten Hills**	**129.66**	**34**	*e*PKPdf	PKPdf	14 15 48.2	-2.1
BW06	**Boulder Array**	**129.74**	**23**	PFAKE		14 16 00.0	+10
BW06				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
PDAR	**Pinedale Array**	**129.74**	**23**	PKP	PKPdf	14 15 47.2	-3.0
	comp=Z,4.7nm,0.9s,slow=1.5,SNR=18						
PDAR				PP	PP	14 17 55.1	-5.6
	comp=Z,1.1nm,0.9s,baz=9.5,slow=5.5,SNR=2.3						
TPH	**Tonopah**	**129.89**	**33**	PFAKE		14 16 00.0	+9.4
TPH				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
HWUT	**Hardware Ranch**	**129.89**	**25**	*e*PKPdf	PKPdf	14 15 46.5	-4.0
HWUT				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
RCBR	**Riachuelo**	**130.44**	**265**	PFAKE		14 16 00.0	+7.7
RCBR				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
TRCR	**Troy Canyon**	**130.55**	**31**	*e*PKPdf	PKPdf	14 15 49.0	-2.8
WVL	**Waterville**	**130.79**	**345**	PFAKE		14 16 00.0	+7.8
WVL				LR	LR		
	comp=Z,9µm,19.0s,MS6.5						
DAC	**Darwin (Calif)**	**130.97**	**35**	PFAKE		14 16 00.0	+7.2
DAC				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
MPU	**Maple Canyon**	**131.16**	**27**	PKPdf	PKPdf	14 15 48.9	-4.1
TPNV	**Topopah Spring**	**131.24**	**33**	PFAKE		14 16 00.0	+6.8
TPNV				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MVU	**Marysvale**	**132.10**	**28**	*e*PKPdf	PKPdf	14 15 52.8	-2.1
MVU				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
MSU	**Marysvale**	**132.12**	**28**	PKIKP	PKPdf	14 15 53.8	-1.1
MSU	**Marysvale**	**132.12**	**28**	*e*PKPdf	PKPdf	14 15 52.8	-2.0
NCB	**Newcomb**	**132.38**	**349**	PFAKE		14 16 00.0	+4.8
NCB				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
PHWY	**Pilot Hill**	**132.53**	**20**	PKPdf	PKPdf	14 15 52.3	-3.2
NEN	**Nelson**	**132.96**	**33**	*e*PKPdf	PKPdf	14 15 53.3	-3.3
HRV	**Harvard--Oak R**	**133.20**	**346**	PFAKE		14 16 00.0	+3.2
HRV				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
PFO	**Pinyon Flat Ob**	**133.52**	**36**	PFAKE		14 16 10.0	+12
PFO				LR	LR		
	comp=Z,567nm,21.0s,MS5.3						
PV10	**Paradox Valley**	**133.65**	**26**	*e*PKPdf	PKPdf	14 15 55.9	-1.8
ISCO	**Idaho Springs**	**133.80**	**22**	PFAKE		14 16 10.0	+12
ISCO				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
JFWS	**Jewell Farm**	**134.33**	**5**	PFAKE		14 16 10.0	+11
JFWS				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
BINY	**Binghamton**	**134.42**	**350**	PFAKE		14 16 10.0	+11
BINY				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
ERPA	**Erie**	**135.05**	**354**	PFAKE		14 16 10.0	+10
ERPA				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
AAM	**Ann Arbor**	**135.11**	**358**	PFAKE		14 16 10.0	+10
AAM				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
SDCO	**Great Sand Dun**	**135.64**	**23**	PFAKE		14 16 10.0	+8.6
SDCO				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
ACSO	**Alum Creek Sta**	**137.15**	**357**	PFAKE		14 16 10.0	+5.9
ACSO				LR	LR		
	comp=Z,6µm,21.0s,MS6.3						
MCWV	**Mont Chateau**	**137.47**	**354**	PFAKE		14 16 10.0	+5.3
MCWV				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
ANMO	**Albuquerque**	**137.65**	**26**	PKIKP	PKPdf	14 16 01.5	-3.7
ANMO	**Albuquerque**	**137.65**	**26**	*e*PKPdf	PKPdf	14 16 00.9	-4.3
ANMO				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
CBN	**Corbin**	**138.55**	**350**	PFAKE		14 16 20.0	+13
CBN				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
CCM	**Cathedral Cave**	**139.04**	**7**	PFAKE		14 16 20.0	+12
CCM				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
AMTX	**Amarillo**	**139.59**	**21**	PFAKE		14 16 20.0	+11
AMTX				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
BBSR	**BB Station**	**139.86**	**332**	PFAKE		14 16 20.0	+11
BBSR				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
BLA	**Blacksburg**	**139.95**	**354**	PFAKE		14 16 20.0	+11
BLA				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
MNTX	**Cornudas Mount**	**140.87**	**27**	*e*PKPpre		14 15 59.1	
MNTX				*e*PKPdf	PKPdf	14 16 08.5	-2.7
MNTX				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
BAO	**Brasilia Array**	**140.90**	**249**	PKP	PKPdf	14 16 02.3	-9.3
BAO				*e*		14 16 08.3	
BAO				*e*		14 16 43.0	
BDFB	**Brasilia**	**140.92**	**249**	PKP	PKPdf	14 16 07.0	-4.7
	comp=Z,13nm,1.0s,baz=120,slow=2.9,SNR=11						
BDFB	**Brasilia**	**140.92**	**249**	PKIKP	PKPdf	14 16 07.0	-4.7
BDFB				pmax	pmax		
	comp=Z,13nm,1.0s						
MIAR	**Mount Ida**	**142.12**	**11**	PKIKP	PKPdf	14 16 06.7	-6.5
MIAR	**Mount Ida**	**142.12**	**11**	*e*PKPpre		14 16 06.0	
MIAR				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						
OXF	**Oxford**	**142.74**	**5**	PFAKE		14 16 20.0	+5.7
OXF				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
LTX	**Lajitas**	**143.65**	**27**	PKIKP	PKPdf	14 16 11.7	-4.3
LTX	**Lajitas**	**143.65**	**27**	*e*PKPpre		14 16 10.8	
LTX				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
TXAR	**Lajitas Array**	**143.66**	**27**	PKP	PKPdf	14 16 10.6	-5.4
	comp=Z,7.8nm,0.8s,baz=297,slow=2.8,SNR=40						
TXAR				PP	PP	14 19 25.3	-2.3
	comp=Z,3.1nm,1.0s,baz=349,slow=4.6,SNR=2.1						
TXAR	**Lajitas Array**	**143.66**	**27**	PKP	PKPdf	14 16 10.6	-5.4
TXAR				PP	PP	14 19 25.3	-2.3
NHSC	**New Hope**	**143.97**	**352**	PFAKE		14 16 20.0	+9.2
NHSC				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
GOGA	**Godfrey**	**143.97**	**357**	PFAKE		14 16 20.0	+9.2
GOGA				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
JCT	**Junction City**	**144.24**	**21**	*e*PKPdf	PKPdf	14 16 12.3	-4.7
JCT				LR	LR		
	comp=Z,4µm,21.0s,MS6.2						
LRAL	**Lakeview Retre**	**144.37**	**2**	PFAKE		14 16 30.0	+18
LRAL				LR	LR		
	comp=Z,5µm,20.0s,MS6.3						
NATX	**Nacogdoches**	**144.59**	**14**	*e*PKPdf	PKPdf	14 16 13.4	-4.1
NATX				LR	LR		
	comp=Z,2µm,19.0s,MS6.0						
HKT	**Hockley**	**146.01**	**16**	PKP2	PKPab	14 16 18.3	-0.4
HKT	**Hockley**	**146.01**	**16**	*e*PKPdf	PKPdf	14 16 18.0	-2.1
HKT				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
FCH	**Farellones**	**146.42**	**203**	*i* P	PKPbc	14 16 20.5	+3.4
RPN	**Rapa Nui**	**146.74**	**139**	PFAKE		14 16 30.0	+12
RPN				LR	LR		
	comp=Z,815nm,21.0s,MS5.5						
DWPF	**Disney**	**149.05**	**353**	PFAKE		14 16 30.0	+4.9
DWPF				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
SJG	**San Juan**	**151.81**	**318**	PFAKE		14 16 40.0	+10
SJG				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
LVC	**Limon Verde**	**154.53**	**218**	PKP	PKPdf	14 16 31.7	-1.6
	comp=Z,1.8nm,0.8s,baz=140,slow=9.7,SNR=2.9						
LVC				PKPbc	PKPdf	14 16 39.6	+6.4
	comp=Z,6.9nm,0.8s,baz=271,slow=3.3,SNR=11						
LVC				PKPab	PKPab	14 16 54.0	+0.1
	comp=Z,3.7nm,0.8s,baz=79,slow=5.2,SNR=3.8						
LVC	**Limon Verde**	**154.53**	**218**	PKP	PKPdf	14 16 31.7	-1.6
LVC				PKPbc	PKPdf	14 16 39.6	+6.3
LVC				PKPab	PKPab	14 16 54.0	+0.1
LVC				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
TEIG	**Tepich**	**156.99**	**7**	PFAKE		14 16 40.0	+3.4
TEIG				LR	LR		
	comp=Z,1µm,21.0s,MS5.8						
LPAZ	**La Paz**	**158.25**	**231**	PKP	PKPdf	14 16 36.5	-1.8
	comp=Z,6.4nm,1.0s,baz=57,slow=3.0,SNR=13						
LPAZ				PKPab	PKPab	14 17 10.7	+0.7
	comp=Z,11nm,0.9s,baz=95,slow=5.3,SNR=8.2						
LPAZ	**La Paz**	**158.25**	**231**	PKIKP	PKPdf	14 16 36.5	-1.8
LPAZ						14 17 10.7	
LPAZ				pmax	pmax		
	comp=Z,6.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,11nm,0.9s						
LPAZ	**La Paz**	**158.25**	**231**	*e*PKPdf	PKPdf	14 16 36.0	-2.3
LPAZ				LR	LR		
	comp=Z,3µm,20.0s,MS6.2						
SDV	**Santo Domingo**	**161.18**	**308**	PKPab	PKPab	14 17 22.4	-0.3
	comp=Z,12nm,1.1s,baz=182,slow=1.7,SNR=4.6						
SDV	**Santo Domingo**	**161.18**	**308**	*e*PKPdf	PKPdf	14 16 38.3	-3.2
SDV				LR	LR		
	comp=Z,4µm,19.0s						
ROSC	**El Rosal**	**166.50**	**304**	PKP	PKPdf	14 16 43.9	-2.8
	comp=Z,15nm,1.0s,baz=255,slow=7.5,SNR=11						
JTS	**JuntasAbangare**	**167.02**	**358**	PFAKE		14 16 50.0	+3.0
JTS				LR	LR		
	comp=Z,632nm,20.0s						
NNA	**Nana**	**167.44**	**223**	PFAKE		14 17 00.0	+13
NNA				LR	LR		
	comp=Z,602nm,21.0s						
PAYG	**Puerto Ayora**	**174.80**	**67**	PFAKE		14 17 00.0	+8.9
PAYG				LR	LR		
	comp=Z,2µm,20.0s						

IDC 26 14:00:32.9±1.3**, 5.65N**×**92.90E, mb4.4**/7**, mb1 4.6**/7**, mb1mx4.2**/19**, MS5.5**/2**, Ms1 5.6**/2**, ms1mx4.4**/29**, Error ellipse: s-maj=89.1km s-min=22.3km az=47.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.03**	**123**	P	P	14 09 14.5	-1.6
	7.4nm,0.8s,baz=302,slow=9.0,SNR=5.9						
ZAL	**Zalesovo**	**48.59**	**354**	P	P	14 09 18.1	-1.9
	2.1nm,0.5s,baz=267,slow=5.7,SNR=5.9						
ZAL				LR	LR	14 31 00.8	
	comp=Z,6µm,19.0s,baz=290,slow=38						
ASAR	**Alice Springs**	**49.49**	**128**	P	P	14 09 25.1	-2.2
	2.1nm,0.5s,baz=296,slow=8.1,SNR=5.6						
FINES	**FINESS Array B**	**74.10**	**333**	P	P	14 12 09.9	-2.7
	3.1nm,0.9s,baz=90,slow=6.9,SNR=4.7						
GERES	**GERESS Array B**	**78.66**	**319**	P	P	14 12 37.5	-0.9
	2.0nm,0.9s,baz=79,slow=5.0,SNR=4.4						
HFS	**Hagfors**	**79.75**	**330**	P	P	14 12 42.4	-1.8
	15nm,1.3s,baz=112,slow=7.8,SNR=4.2						
NOA	**NORSAR Array B**	**81.06**	**331**	LR	LR	14 50 59.9	
	comp=Z,3µm,21.4s,baz=50,slow=37						
DAVOX	**Davos**	**81.14**	**316**	P	P	14 12 51.4	-0.3
	2.1nm,0.5s,baz=142,slow=14,SNR=4.1						

IDC ***26*** *14:02:00.8±0.7, 4.76N×94.79E, mb4.3/13, mb1 4.4/14, mb1mx4.3/23, ML4.4/1, Error ellipse: s-maj=26.8km s-min=16.3km az=58.0*

NEIC ***26*** *14:02:05.0±0.5, 4.81N×94.78E, h30^{km}, mb4.8/8, Error ellipse: s-maj=17.6km s-min=10.9km az=51.0*

ISC 26 14:02:03.4±0.6**, 4.8N**±0.1×**94.8E**±0.1**, h30^{km}, n28,** σ**1^{s}05**/25**, mb4.6**/21**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.13**	**16**	Pn	**P**	**14 05 32.4**	**+8.5**
	0.5nm,0.3s,baz=208,slow=11,SNR=7.7						
ENH	**Enshi**	**28.84**	**27**	*e*P	**P**	**14 08 00.1**	**-1.4**
	12nm,0.7s,mb4.7						
JOW	**Kunigami**	**38.69**	**52**	P	**P**	**14 09 27.9**	**+1.4**
	15nm,1.0s,mb4.7,baz=288,slow=10.0,SNR=5.4						
NWAO	**Narrogin (SRO)**	**43.14**	**152**	P	**P**	**14 09 56.2**	**-7.0**
	26nm,1.3s,mb4.8						
JNU	**Nakatsue**	**43.81**	**45**	P	**P**	**14 10 08.2**	**-0.4**
	0.6nm,0.4s,mb3.7,baz=246,slow=10.0,SNR=2.9						
SONM	**Songino Array**	**43.99**	**11**	P	**P**	**14 10 11.0**	**+1.2**
	1.7nm,0.7s,mb3.9,baz=193,slow=8.8,SNR=4.8						
WRA	**Warramunga Arr**	**45.97**	**124**	P	**P**	**14 10 26.3**	**+0.2**
	12nm,0.6s,mb5.0,baz=300,slow=9.4,SNR=17						
WRAB	**Tennant Creek**	**45.97**	**124**	*e*P	**P**	**14 10 26.2**	**+0.1**
	19nm,0.6s,mb5.2						
WRAB				*e*		14 10 39.3	
ASAR	**Alice Springs**	**47.46**	**128**	P	**P**	**14 10 37.7**	**-0.1**
	4.4nm,0.8s,mb4.4,baz=300,slow=7.8,SNR=8.7						
HIA	**Hailar**	**49.07**	**21**	P	**P**	**14 10 48.1**	**-1.8**
	4.3nm,0.7s,mb4.6						
ZAL	**Zalesovo**	**49.64**	**352**	P	**P**	**14 10 54.0**	**-0.3**
	2.8nm,0.4s,mb4.7,baz=213,slow=5.8,SNR=6.2						
ZAL	**Zalesovo**	**49.64**	**352**	P	**P**	**14 10 54.0**	**-0.3**
BVAR	**Borovoye Array**	**52.08**	**342**	P	**P**	**14 11 13.6**	**+0.8**
	1.6nm,0.7s,mb4.1,baz=142,slow=9.9,SNR=5.8						
CHKZ	**Chkalovo**	**52.57**	**342**	P	**P**	**14 11 10.1**	**-6.4**
	4.0nm,0.6s,mb4.5						
CTA	**Charters Tower**	**56.25**	**118**	P	**P**	**14 11 43.6**	**-0.2**
	6.7nm,1.0s,mb4.6,baz=288,slow=6.4,SNR=2.8						
CTAO	**Charters Tower**	**56.25**	**118**	*e*P	**P**	**14 11 43.6**	**-0.1**
	16nm,1.2s,mb4.9						
SANT	**Santorini**	**70.57**	**307**	*e*P	**P**	**14 13 15.6**	**-2.5**
	73nm,1.0s,mb5.6						
MAW	**Mawson**	**75.71**	**192**	P	**P**	**14 13 47.5**	**0.0**
	23nm,0.3s,mb5.6,baz=246,slow=16,SNR=30						
FINES	**FINESS Array B**	**75.72**	**332**	P	**P**	**14 13 47.9**	**+0.2**
	1.4nm,0.5s,mb4.1,baz=107,slow=6.7,SNR=9.2						
KAF	**Kangasniemi**	**75.81**	**333**	*e*p	**P**	**14 13 48.2**	**0.0**
ARCES	**ARCESS Array B**	**78.35**	**340**	P	**P**	**14 14 03.0**	**+0.8**
	1.7nm,0.5s,mb4.2,baz=96,slow=6.2,SNR=10						
GERES	**GERESS Array B**	**80.55**	**319**	P	**P**	**14 14 15.8**	**+1.3**
	0.7nm,0.5s,mb3.9,baz=111,slow=4.5,SNR=5.1						
KHC	**Kasperske Hory**	**80.65**	**319**	*e*P	pP	14 14 31.0	+6.4
HFS	**Hagfors**	**81.42**	**330**	P	**P**	**14 14 19.1**	**+0.2**
	2.1nm,0.9s,mb4.1,baz=112,slow=8.0,SNR=4.3						
DAVOX	**Davos**	**83.06**	**316**	P	**P**	**14 14 29.1**	**+1.5**
	1.9nm,0.6s,mb4.3,baz=44,slow=18,SNR=5.5						
ESLA	**Sonseca Array**	**93.70**	**310**	P	**P**	**14 15 16.8**	**-2.0**
	4.3nm,1.1s,mb4.8						
PDAR	**Pinedale Array**	**127.72**	**23**	PKP	PKPdf	14 21 07.3	-4.2
	0.3nm,0.6s,baz=94,slow=4.4,SNR=4.3						
TXAR	**Lajitas Array**	**141.67**	**27**	PKP	PKPdf	14 21 33.8	-4.1
	0.2nm,0.4s,baz=223,slow=0.3,SNR=4.0						

IDC ***26*** *14:03:13.5±4.8, 8.33N×93.19E, h62^{km}±42^{km}, mb4.1/15, mb1 4.2/16, mb1mx4.2/22, ML4.1/1, Error ellipse: s-maj=27.7km s-min=13.9km az=52.0*

ISC 26 14:03:08.2±0.5**, 8.2N**±0.1×**93.1E**±0.1**, h33^{km}, n24,** σ**0^{s}92**/17**, mb4.5**/16**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.66**	**29**	P	**P**	**14 05 57.0**	**+1.6**
	0.4nm,0.3s,baz=217,slow=14,SNR=4.3						
SONM	**Songino Array**	**41.07**	**14**	P	**P**	**14 10 49.8**	**-0.5**
	3.9nm,0.9s,mb4.1,baz=193,slow=7.3,SNR=4.7						

ZAL	Zalesovo	46.09	353	P	P	14 11 30.1	-0.8
	2.7nm,0.4s,mb4.5,baz=284,slow=7.3,SNR=3.1						
NWAO	Narrogin (SRO)	46.92	152	P	P	14 11 38.6	+0.9
	13nm,0.8s,mb4.9,baz=330,slow=8.7,SNR=3.8						
WRA	Warramunga Arr	49.29	125	P	P	14 11 55.7	-0.6
	1.6nm,0.8s,mb4.1,baz=309,slow=8.3,SNR=3.5						
ASAR	Alice Springs	50.91	129	P	P	14 12 08.4	-0.3
	3.2nm,0.7s,mb4.3,baz=308,slow=7.4,SNR=5.2						
GNI	Garni	53.47	315	P	P	14 12 28.6	+1.0
	3.9nm,0.5s,mb4.6,baz=287,slow=11,SNR=3.9						
KMBO	Kilima Mbogo	56.45	263	P	P	14 12 51.0	+1.4
	1.4nm,0.6s,mb4.2,baz=54,slow=22,SNR=3.2						
STKA	Stephens Creek	61.08	133	P	P	14 13 21.3	-0.3
	13nm,1.0s,mb5.0,baz=325,slow=7.0,SNR=7.7						
BRTR	Keskin Array B	61.44	311	P	P	14 13 22.4	-1.4
	4.2nm,0.8s,mb4.6,baz=125,slow=8.2,SNR=8.1						
MLR	Muntele Rosu	68.22	316	P	P	14 14 07.7	+0.1
	7.9nm,0.8s,mb4.8,baz=137,slow=4.7,SNR=5.1						
FINES	FINESS Array B	71.94	332	P	P	14 14 29.2	-0.8
	4.7nm,1.0s,mb4.4,baz=117,slow=6.2,SNR=4.6						
ARCES	ARCESS Array B	74.61	340	P	P	14 14 46.8	+1.3
	2.2nm,0.8s,mb4.1,baz=98,slow=6.4,SNR=3.3						
GERES	GERESS Array B	76.90	318	P	P	14 14 58.6	-0.3
	7.3nm,1.1s,mb4.5,baz=90,slow=4.0,SNR=4.7						
HFS	Hagfors	77.65	330	P	P	14 15 02.3	-0.6
	3.2nm,0.8s,mb4.3,baz=162,slow=4.6,SNR=2.9						
NOA	NORSAR Array B	78.94	331	P	P	14 15 08.7	-1.3
	0.9nm,0.7s,mb3.8,baz=96,slow=5.0,SNR=3.6						
LPL	La Plagne	81.67	315	*e*P	P	14 15 25.5	+0.7
	29nm,1.0s,mb4.8						
ULM	Lac du Bonnet	121.26	7	PKP	PKPdf	14 21 59.0	+0.9
	1.8nm,0.8s,baz=51,slow=11,SNR=3.6						
NVAR	Mina Array Bea	125.15	30	PKP	PKPdf	14 22 08.0	+2.1
	1.9nm,0.8s,baz=49,slow=0.8,SNR=5.7						
PDAR	Pinedale Array	125.22	20	PKP	PKPdf	14 22 08.2	+2.2
	2.3nm,0.8s,baz=23,slow=1.6,SNR=13						
ANMO	Albuquerque	133.26	22	PKP	PKPdf	14 22 24.3	+2.8
	2.2nm,1.0s,baz=197,slow=0.7,SNR=6.1						
TXAR	Lajitas Array	139.33	23	PKP	PKPdf	14 22 35.6	+2.7
	0.7nm,0.8s,baz=170,slow=2.0,SNR=3.4						
LVC	Limon Verde	157.56	228	PKPab	PKPab	14 23 37.7	+1.6
	3.3nm,1.0s,baz=312,slow=2.3,SNR=4.5						
LPAZ	La Paz	160.00	245	PKPab	PKPab	14 23 47.6	+0.9
	1.8nm,0.8s,baz=131,slow=2.2,SNR=5.9						

IDC 26 14:04:32.3±1.5, 9.76N×90.65E, mb4.2/7, mb1 4.4/7, mb1mx4.0/19, Error ellipse: s-maj=143.0km s-min=20.9km az=46.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	52.16	125	P	P	14 13 44.7	-2.5
	2.5nm,0.6s,baz=306,slow=8.4,SNR=14						
ASAR	Alice Springs	53.77	129	P	P	14 13 57.2	-1.8
	1.9nm,0.5s,baz=309,slow=6.8,SNR=7.0						
FINES	FINESS Array B	69.45	332	P	P	14 15 42.5	-1.7
	3.9nm,0.9s,baz=120,slow=11,SNR=2.4						
ARCES	ARCESS Array B	72.34	340	P	P	14 16 00.2	-1.4
	7.5nm,1.1s,baz=112,slow=4.9,SNR=2.4						
GERES	GERESS Array B	74.13	318	P	P	14 16 09.0	-3.4
	0.3nm,0.4s,baz=84,slow=9.9,SNR=4.0						
HFS	Hagfors	75.10	330	P	P	14 16 16.2	-1.6
	1.6nm,0.6s,baz=120,slow=12,SNR=3.5						
DAVOX	Davos	76.64	316	P	P	14 16 26.6	-0.2
	2.7nm,0.9s,baz=278,slow=7.9,SNR=2.6						

IDC 26 14:08:01.7±3.0, 7.34N×92.83E, mb3.8/5, mb1 4.0/5, mb1mx3.8/18, Error ellipse: s-maj=123.0km s-min=23.5km az=62.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.98	14	P	P	14 15 55.6	-0.5
	2.9nm,1.0s,baz=203,slow=9.4,SNR=4.3						
ZAL	Zalesovo	46.92	354	P	P	14 16 32.5	-3.2
	0.8nm,0.7s,baz=298,slow=14,SNR=2.9						
WRA	Warramunga Arr	49.02	124	P	P	14 16 50.0	-2.6
	1.7nm,0.5s,baz=305,slow=8.5,SNR=10						
BVAR	Borovoye Array	49.09	342	P	P	14 16 50.9	-1.8
	2.4nm,1.1s,baz=140,slow=11,SNR=3.0						
ASAR	Alice Springs	50.58	129	P	P	14 17 03.0	-1.5
	0.8nm,0.6s,baz=306,slow=7.1,SNR=6.9						

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*IDC **26** 14:08:15.4±0.5, 8.07N×94.11E, mb4.6/23, mb1 4.7/24, mb1mx4.6/27, ML4.1/1, Error ellipse: s-maj=22.2km s-min=13.1km az=51.0*

ISC 26 14:08:18.5±0.5, 7.93N±0.09×94.13E±0.10, h33^{km}, n45, σ1^{s}07/36, mb4.6/24, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.46	24	Pn	P	14 11 03.9	+0.9
	0.4nm,0.3s,baz=211,slow=14,SNR=10						
SONM	Songino Array	41.11	13	P	P	14 16 01.1	+0.1
	3.2nm,1.0s,mb3.9,baz=196,slow=10,SNR=5.7						
SONM				PcP	PcP	14 18 01.1	+0.3
	1.0nm,0.6s,baz=191,slow=3.4,SNR=4.9						
ZAL	Zalesovo	46.49	352	P	P	14 16 44.6	+0.3
	10nm,1.1s,mb4.7,baz=297,slow=8.3,SNR=15						
WRA	Warramunga Arr	48.30	126	P	P	14 16 58.3	-0.7
	3.4nm,0.8s,mb4.4,baz=304,slow=9.2,SNR=9.2						
BVAR	Borovoye Array	48.93	341	P	P	14 17 01.7	-1.7
	6.0nm,1.1s,mb4.5,baz=146,slow=5.3,SNR=7.7						
ASAR	Alice Springs	49.96	130	P	P	14 17 10.8	-0.9
	3.4nm,0.9s,mb4.4,baz=307,slow=6.6,SNR=8.8						
GNI	Garni	54.39	314	P	P	14 17 44.9	+0.3
	1.4nm,0.4s,mb4.3,baz=1.6,slow=5.1,SNR=5.0						
PMG	Port Moresby	55.56	107	P	P	14 17 54.4	+1.0
	10nm,0.8s,mb4.9,baz=292,slow=7.8,SNR=6.1						
KMBO	Kilima Mbogo	57.42	264	P	P	14 18 07.8	+0.9
	9.5nm,0.8s,mb4.8,baz=55,slow=10,SNR=19						
STKA	Stephens Creek	60.15	134	P	P	14 18 24.2	-1.4
	4.6nm,1.0s,mb4.5,baz=184,slow=6.2,SNR=3.6						
BRTR	Keskin Array B	62.38	311	P	P	14 18 39.0	-1.4
	2.9nm,0.7s,mb4.5,baz=121,slow=7.2,SNR=11						
AKASG	Malin Array Be	68.10	322	P	P	14 19 15.1	-2.0
	3.4nm,0.8s,mb4.4,baz=84,slow=4.4,SNR=7.9						
IDI	Anoyia	68.53	305	P	P	14 19 19.2	-0.9
	9.7nm,0.9s,mb4.7,baz=138,slow=8.7,SNR=4.4						
MLR	Muntele Rosu	69.12	316	P	P	14 19 21.8	-1.7
	9.9nm,1.0s,mb4.7,baz=52,slow=2.7,SNR=5.4						
KOLS	Kolonicke sedl	72.16	319	*e*P	P	14 19 41.9	+0.2
FINES	FINESS Array B	72.66	332	P	P	14 19 42.5	-2.0
	5.6nm,0.9s,mb4.5,baz=90,slow=9.5,SNR=7.0						
CRVS	Cervenica-Dubn	72.68	319	*e*P	P	14 19 47.4	+2.5
OJC	Ojcow	73.92	320	*e*P	P	14 19 52.1	-0.1
VYHS	Vyhne	74.36	318	*e*P	P	14 19 55.2	+0.5
OKC	Ostrava-Krasne	74.94	319	*e*P	P	14 19 58.5	+0.4
ARCES	ARCESS Array B	75.21	340	P	P	14 19 59.3	+0.1
	2.2nm,0.8s,mb4.2,baz=45,slow=3.4,SNR=4.0						
ZST	Bratislava	75.48	318	*e*P	P	14 20 01.8	+0.6
ZST				*e*		14 20 06.9	
DPC	Dobruska-Polom	76.16	320	*e*P	P	14 20 05.1	+0.1
UPC	Upice	76.37	320	*e*P	P	14 20 07.4	+1.2
PRU	Pruhonice	77.28	319	*e*P	P	14 20 11.6	+0.3
GERES	GERESS Array B	77.78	318	P	P	14 20 14.5	+0.4
	3.6nm,0.7s,mb4.4,baz=90,slow=5.3,SNR=17						
KHC	Kasperske Hory	77.87	318	*e*P	P	14 20 14.8	+0.2
HFS	Hagfors	78.40	330	P	P	14 20 16.0	-1.3
	50nm,1.3s,mb5.3,baz=124,slow=5.3,SNR=17						
MAW	Mawson	78.59	192	P	P	14 20 20.4	+2.2
	9.3nm,0.3s,mb5.2,baz=165,slow=17,SNR=16						
NB2	NORSAR Subarra	79.68	331	P	P	14 20 23.8	-0.4
	2.2nm,0.7s,mb4.2,baz=96,slow=5.0						
NOA	NORSAR Array B	79.68	331	P	P	14 20 22.4	-1.9
	4.7nm,0.8s,mb4.5,baz=92,slow=5.6,SNR=9.4						
DAVOX	Davos	80.34	316	P	P	14 20 28.8	+0.7
	9.0nm,1.0s,mb4.7,baz=134,slow=4.2,SNR=8.4						
LPG	La Plagne	82.57	315	*e*P	P	14 20 40.1	+0.4
	34nm,1.0s,mb5.0						
EKA	Eskdalemuir Ar	87.67	325	P	P	14 21 05.5	+0.7
	4.9nm,0.9s,mb4.7,baz=104,slow=6.9,SNR=4.3						
ESDC	Sonseca Array	91.17	310	P	P	14 21 21.8	0.0
	1.8nm,0.8s,mb4.5,baz=51,slow=4.4,SNR=5.0						
INK	Inuvik	96.94	16	P	P	14 21 49.1	+1.7
	4.1nm,1.1s,mb4.8,baz=289,slow=4.5,SNR=5.9						
ULM	Lac du Bonnet	121.41	8	PKP	PKPdf	14 27 11.6	+3.0
	5.6nm,1.2s,baz=358,slow=5.2,SNR=3.8						
NVAR	Mina Array Bea	124.88	31	PKP	PKPdf	14 27 18.9	+3.2
	0.5nm,0.4s,baz=111,slow=1.1,SNR=5.1						
PDAR	Pinedale Array	125.12	21	PKP	PKPdf	14 27 18.3	+2.3
	1.9nm,0.9s,baz=12,slow=1.4,SNR=11						
ANMO	Albuquerque	133.12	23	PKP	PKPdf	14 27 35.4	+3.8
	1.3nm,0.8s,baz=353,slow=0.7,SNR=4.7						
TXAR	Lajitas Array	139.18	24	PKP	PKPdf	14 27 45.0	+2.1
	0.6nm,0.7s,baz=301,slow=0.9,SNR=4.0						
BDFB	Brasilia	142.21	255	PKP	PKPdf	14 27 51.5	+2.9
	5.5nm,1.0s,baz=176,slow=3.3,SNR=6.0						
SDV	Santo Domingo	157.43	317	PKP	PKPdf	14 28 15.0	+2.9
	1.6nm,0.4s,baz=288,slow=19,SNR=3.0						
SDV				PKPab	PKPab	14 28 45.7	-0.3
	6.9nm,1.2s,baz=312,slow=10.0,SNR=4.2						
LVC	Limon Verde	158.11	226	PKPab	PKPab	14 28 48.8	+0.1
	3.0nm,0.8s,baz=176,slow=0.1,SNR=4.6						
LPAZ	La Paz	160.78	243	PKP	PKPdf	14 28 19.8	+3.9
	0.4nm,0.4s,baz=31,slow=11,SNR=3.6						
LPAZ				PKPab	PKPab	14 29 01.9	+1.5
	0.8nm,0.6s,baz=101,slow=9.5,SNR=3.6						

IDC 26 14:10:05.8±1.4, 4.58N×99.43E, mb4.7/5, mb1 4.7/5, mb1mx4.1/18, Error ellipse: s-maj=69.5km s-min=25.7km az=51.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NWAO	Narrogin (SRO)	40.94	157	P	P	14 17 51.8	0.0
	6.8nm,0.5s,baz=326,slow=8.7,SNR=7.7						
WRA	Warramunga Arr	42.08	127	P	P	14 17 59.9	-1.5
	10nm,0.7s,baz=302,slow=9.1,SNR=19						
ASAR	Alice Springs	43.79	131	P	P	14 18 11.6	-3.7
	2.9nm,0.9s,baz=300,slow=8.0,SNR=12						
PMG	Port Moresby	49.55	106	P	P	14 18 59.1	-1.7
	11nm,0.6s,baz=116,slow=1.0,SNR=6.4						
FINES	FINESS Array B	78.07	332	P	P	14 22 06.2	-1.6
	5.7nm,1.1s,baz=126,slow=12,SNR=3.4						

IDC 26 14:11:20.3±0.9, 4.80N×94.25E, mb4.6/7, mb1 4.8/7, mb1mx4.4/19, Error ellipse: s-maj=41.5km s-min=19.4km az=42.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ENH	Enshi	29.13	28	*e*P	P	14 17 31.3	+6.0
	33nm,1.2s						
SONM	Songino Array	44.13	12	P	P	14 19 35.0	+2.7
	4.9nm,0.9s,baz=200,slow=8.0,SNR=12						
ULN	Ulaanbaatar	44.29	12	*e*P	P	14 19 35.9	+2.3
	23nm,1.2s						
TLY	Talaya	47.38	8	P	P	14 19 59.6	+1.5
	6.7nm,1.0s						
ZAL	Zalesovo	49.59	353	P	P	14 20 13.3	-1.9
	2.0nm,0.5s,baz=297,slow=14,SNR=4.5						
ZAL	Zalesovo	49.59	353	P	P	14 20 13.3	-1.9
BVAR	Borovoye Array	51.92	342	P	P	14 20 30.2	-2.8
	1.8nm,0.8s,baz=153,slow=9.9,SNR=4.5						

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*BJI **26** 14:11:24.2, 2.95N×93.72E, h30^{km}, mB5.7, mb5.1*

*IDC **26** 14:11:28.1±0.6, 4.99N×94.25E, mb4.6/20, mb1 4.7/20, mb1mx4.6/25, Error ellipse: s-maj=30.3km s-min=14.7km az=43.0*

*NEIC **26** 14:11:28.3±0.4, 3.67N×94.02E, h30^{km}, mb5.2/37, Error ellipse: s-maj=22.0km s-min=10.1km az=221.0*

ISC 26 14:11:26.6±0.3, 3.23N±0.06×93.79E±0.06, h30^{km}, n103, σ0^{s}93/79, mb5.0/56, 3D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.95	18	*e*P	P	14 15 07.0	-3.8
	91nm,1.2s						
IMP	Imphal	21.43	0	*e*	P	14 16 13.9	-0.6
KMI	Kunming	23.41	21	P	P	14 16 35.3	+1.1
KMI				AMB	AMB		
	comp=Z,31nm,1.4s,mb4.5						
LSA	Lhasa	26.44	355	P	P	14 17 04.3	+1.3
LSA				AMB	AMB		
	comp=Z,140nm,1.2s,mb5.4						
LSA	Lhasa	26.44	355	*e*P	P	14 17 03.8	+0.8
	comp=Z,206nm,1.1s,mb5.6						
MBWA	Marble Bar	35.12	135	*e*P	P	14 18 18.3	-1.5
	comp=Z,42nm,1.2s,mb5.2						
NJ2	Nanjing	37.10	37	*e*P	P	14 18 36.3	-0.1
HHC	Hu-ho-hao-te	40.73	21	*e*P	P	14 19 07.5	+0.9
HHC				AMB	AMB		
	comp=Z,17nm,1.2s,mb4.5						
WMQ	Urumqi	40.78	353	P	P	14 19 08.0	+1.1
WMQ				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.8						
BJT	Baijiatuau	41.85	26	*e*P	P	14 19 16.8	+1.0
	comp=Z,69nm,1.2s,mb5.2						
BJI	Beijing	41.87	26	P	P	14 19 16.8	+0.8
BJI				AMB	AMB		
	comp=Z,38nm,1.1s,mb4.9						
ULN	Ulaanbaatar	45.91	12	*e*	P	14 19 48.3	-0.1
WRA	Warramunga Arr	46.00	122	P	P	14 19 49.8	+0.3
	comp=Z,37nm,0.9s,mb5.3,baz=300,slow=8.9,SNR=36						
WRA	Warramunga Arr	46.00	122	P	pP	14 19 58.3	-0.2
	comp=Z,23nm,0.9s,baz=299,slow=8.8,SNR=13						
WRAB	Tennant Creek	46.00	122	*e*	pP	14 19 58.6	+0.1
WRAB	Tennant Creek	46.00	122	*e*P	P	14 19 49.8	+0.3
	comp=Z,89nm,1.0s,mb5.7						
ASAR	Alice Springs	47.33	127	P	P	14 20 00.2	+0.2
	comp=Z,14nm,0.9s,mb4.9,baz=305,slow=7.6,SNR=24						
ASAR	Alice Springs	47.33	127	P	pP	14 20 09.2	+0.1
	comp=Z,11nm,0.8s,baz=305,slow=7.9,SNR=11						
HIA	Hailar	50.92	22	*e*P	P	14 20 26.3	-0.9
	comp=Z,33nm,1.1s,mb5.2						
ZAL	Zalesovo	51.08	353	P	P	14 20 28.5	+0.1
	comp=Z,11nm,0.6s,mb5.0,baz=301,slow=4.8,SNR=22						
MDJ	Mudanjiang	51.87	32	*e*P	P	14 20 34.5	0.0
	comp=Z,43nm,1.4s,mb5.2						
BVAR	Borovoye Array	53.26	343	P	P	14 20 38.1	-6.7
	comp=Z,3.2nm,0.8s,mb4.3,baz=153,slow=6.6,SNR=6.6						
BRVK	Borovoye	53.32	343	*e*P	P	14 20 38.8	-6.4
	comp=Z,32nm,1.2s,mb5.1						
CHKZ	Chkalovo	53.77	343	P	P	14 20 42.0	-6.5
	comp=Z,73nm,1.2s,mb5.5						
CHKZ				*e*		14 20 47.7	
CTA	Charters Tower	56.45	117	P	P	14 21 07.5	-0.9
	comp=Z,12nm,1.0s,mb4.9,baz=282,slow=7.6,SNR=7.0						
CTAO	Charters Tower	56.45	117	*e*	pP	14 21 17.2	-0.5
CTAO	Charters Tower	56.45	117	*e*P	P	14 21 08.4	0.0
	comp=Z,22nm,1.1s,mb5.1						
KMBO	Kilima Mbogo	56.68	267	P	P	14 21 10.7	+0.4
	comp=Z,3.3nm,0.9s,mb4.4,baz=48,slow=23,SNR=8.2						
KMBO	Kilima Mbogo	56.68	267	P	pP	14 21 18.6	-0.8
	comp=Z,3.7nm,0.9s,baz=226,slow=24,SNR=4.8						
KMBO	Kilima Mbogo	56.68	267	P	P	14 21 10.7	+0.4
KMBO				*e*	pP	14 21 19.8	+0.4
STKA	Stephens Creek	57.24	131	P	P	14 21 13.8	-0.2
	comp=Z,11nm,0.8s,mb4.9,baz=308,slow=6.7,SNR=13						
STKA	Stephens Creek	57.24	131	P	pP	14 21 23.4	+0.1
	comp=Z,4.9nm,0.7s,baz=326,slow=6.1,SNR=5.9						
STKA	Stephens Creek	57.24	131	P	P	14 21 13.8	-0.2
GNI	Garni	57.48	317	P	P	14 21 12.4	-3.1
	comp=Z,1.5nm,0.4s,mb4.4,baz=165,slow=16,SNR=5.8						
GNI	Garni	57.48	317	*e*P	P	14 21 09.9	-5.6
	comp=Z,34nm,1.4s,mb5.2						
ARU	Arti	60.02	338	*e*P	P	14 21 28.3	-4.6
	comp=Z,34nm,1.4s,mb5.2						
ARU				*e*		14 21 44.5	
KIV	Kislovodsk	60.56	320	*e*P	P	14 21 35.5	-1.3
	comp=Z,55nm,1.4s,mb5.5						
YSS	Yuzh-Sakhalins	60.67	36	*e*P	P	14 21 37.2	-0.3
	comp=Z,137nm,1.4s,mb5.9						
MALT	Malatya	61.25	312	*e*P	P	14 21 41.7	+0.1
	comp=Z,27nm,1.2s,mb5.3						
EIL	Elat	61.49	302	P	P	14 21 42.5	-0.8
	comp=Z,14nm,1.1s,mb5.0,baz=111,slow=10,SNR=5.7						
YAK	Yakutsk	64.49	18	*e*P	P	14 22 00.9	-1.7
	comp=Z,91nm,1.4s,mb5.6						
BRTR	Keskin Array B	65.23	313	P	P	14 22 04.8	-3.0
	comp=Z,3.1nm,0.8s,mb4.4,baz=135,slow=5.2,SNR=13						
ISP	Isparta	67.07	310	*e*P	P	14 22 19.4	-0.2
	comp=Z,39nm,1.4s,mb5.2						
ISP				*e*	pP	14 22 28.4	-0.5
LSZ	Lusaka	67.45	252	*e*	pP	14 22 31.4	-0.3
LSZ	Lusaka	67.45	252	*e*P	P	14 22 22.5	+0.1
	comp=Z,29nm,1.6s,mb5.1						
OBN	Obninsk	69.12	329	*e*P	P	14 22 29.8	-2.3
	comp=Z,39nm,1.2s,mb5.2						
IDI	Anoyia	70.96	306	P	P	14 22 43.1	-0.6
	comp=Z,10nm,0.8s,mb4.8,baz=3.8,slow=12,SNR=5.1						
MA2	Magadan	71.03	27	P	P	14 22 43.1	-0.5
	comp=Z,35nm,1.3s,mb5.1						
AKASG	Malin Array Be	71.58	323	P	P	14 22 45.9	-1.3
	comp=Z,7.4nm,1.0s,mb4.5,baz=88,slow=4.5,SNR=14						
LBTB	Lobatse	71.76	242	*e*	pP	14 22 58.0	0.0
LBTB	Lobatse	71.76	242	*e*P	P	14 22 49.0	+0.4
	comp=Z,22nm,1.1s,mb5.0						
MLR	Muntele Rosu	72.26	317	P	P	14 22 50.0	-1.2
	comp=Z,67nm,1.4s,mb5.4,baz=164,slow=1.7,SNR=12						
BOSA	Boshof	72.87	239	*e*	pP	14 23 04.2	-0.4
BOSA	Boshof	72.87	239	*e*P	P	14 22 54.9	-0.3
	comp=Z,11nm,1.1s,mb4.7						
KOLS	Kolonicke sedl	75.47	320	*i* P	P	14 23 10.4	+0.6
CRVS	Cervenica-Dubn	75.99	320	*e*	pP	14 23 18.1	-4.1
FINES	FINESS Array B	76.64	333	P	P	14 23 12.2	-3.9
	comp=Z,2.2nm,0.6s,mb4.3,baz=90,slow=7.6,SNR=8.1						
KAF	Kangasniemi	76.75	333	*e*p	P	14 23 14.2	-2.5
	comp=Z,16nm,1.0s,mb4.9						
NIE	Niedzica	76.83	320	*e*P	P	14 23 17.8	+0.4
PSZ	Piszkesteto	76.83	318	*e*P	P	14 23 17.3	-0.2
	comp=Z,18nm,1.1s,mb4.9						
OJC	Ojcow	77.30	321	*e*P	P	14 23 19.0	-1.0
VYHS	Vyhne	77.63	319	*i* P	P	14 23 22.2	+0.3
VYHS				*e*		14 23 28.2	
OKC	Ostrava-Krasne	78.29	320	*e*P	P	14 23 26.3	+0.8
MORC	Moravsky Berou	78.67	320	*e*P	P	14 23 27.4	-0.1
	comp=Z,23nm,1.3s,mb5.0						
MORC				*e*		14 23 41.3	
ZST	Bratislava	78.73	318	*e*P	P	14 23 28.2	+0.3
VRAC	Vranov	79.21	319	P	P	14 23 30.1	-0.4
	comp=Z,6.3nm,1.2s,mb4.4,baz=138,slow=3.6,SNR=4.5						
ARCES	ARCESS Array B	79.49	341	P	P	14 23 28.8	-2.9
	comp=Z,8.0nm,0.9s,mb4.6,baz=27,slow=2.7,SNR=7.9						
ARCES	ARCESS Array B	79.49	341	P	P	14 23 28.8	-2.9
DPC	Dobruska-Polom	79.52	321	*e*P	P	14 23 33.0	+0.8
ARSA	Arzberg	79.67	317	⇓*i*P	P	14 23 34.0	+0.9
	comp=Z,36nm,1.4s,mb5.1						
UPC	Upice	79.74	321	*e*P	P	14 23 34.5	+1.1
BILL	Bilibino	80.51	21	*e*P	P	14 23 37.4	+0.3
	comp=Z,22nm,1.3s,mb4.9						
PRU	Pruhonice	80.62	320	*e*P	P	14 23 39.0	+1.0
GERES	GERESS Array B	81.05	319	P	P	14 23 40.7	+0.3
	comp=Z,24nm,1.1s,mb5.0,baz=90,slow=5.3,SNR=44						
BRG	Berggiesshubel	81.09	321	*i* P	P	14 23 41.1	+0.6
	comp=Z,20nm,1.3s,mb4.9						
KHC	Kasperske Hory	81.16	319	*e*P	P	14 23 41.3	+0.4
CLL	Collm	81.72	321	*e*P	P	14 23 44.0	+0.2
	comp=Z,12nm,1.3s,mb4.7						
CLL	Collm	81.72	321	P	P	14 23 44.0	+0.2
	comp=Z,logA/T=1.0,mb4.7						
NKC	Novy Kostel	81.98	320	*e*P	P	14 23 46.0	+0.8
HFS	Hagfors	82.27	330	P	P	14 23 45.7	-0.8
	comp=Z,7.7nm,0.9s,mb4.6,baz=117,slow=3.3,SNR=5.7						
WTTA	Wattenberg	82.31	317	⇓*i*P	P	14 23 47.4	+0.5
	comp=Z,25nm,1.1s,mb5.0						
DAVOX	Davos	83.48	317	P	P	14 23 54.0	+1.0
	comp=Z,12nm,0.6s,mb5.1,baz=129,slow=5.7,SNR=19						
DAVA	Damuels	83.50	317	⇓*i*P	P	14 23 54.3	+1.2
	comp=Z,24nm,1.1s,mb5.2						
NB2	NORSAR Subarra	83.58	331	P	P	14 23 52.3	-0.9
	comp=Z,10nm,1.1s,mb4.9,baz=94,slow=5.8						
NOA	NORSAR Array B	83.58	331	P	P	14 23 52.5	-0.7
	comp=Z,2.8nm,0.8s,mb4.4,baz=94,slow=5.6,SNR=5.5						
LPL	La Plagne	85.65	315	*e*P	P	14 24 04.9	+1.0
	comp=Z,27nm,0.8s,mb5.2						
VNDA	Vanda	88.48	168	P	P	14 24 18.1	+1.1
	comp=Z,35nm,1.7s,mb5.3						
EKA	Eskdalemuir Ar	91.32	325	P	P	14 24 31.5	+0.8
	comp=Z,2.2nm,0.6s,mb4.7,baz=103,slow=5.3,SNR=7.6						
ESDC	Sonseca Array	93.92	310	P	P	14 24 43.2	+0.2
	comp=Z,0.9nm,0.7s,mb4.3,baz=62,slow=4.0,SNR=4.0						
ULM	Lac du Bonnet	126.08	8	PKP	PKPdf	14 30 28.4	-3.0
	comp=Z,2.3nm,0.9s,baz=357,slow=0.9,SNR=3.4						
ULM	Lac du Bonnet	126.08	8	PKP	PKPdf	14 30 28.4	-3.0
NVAR	Mina Array Bea	129.03	32	PKP	PKPdf	14 30 34.9	-2.6
	comp=Z,0.6nm,0.5s,baz=256,slow=3.7,SNR=3.9						
NVAR	Mina Array Bea	129.03	32	PKP	PKPdf	14 30 34.9	-2.6
PDAR	Pinedale Array	129.58	22	PKP	PKPdf	14 30 35.9	-2.5
	comp=Z,1.5nm,1.0s,baz=27,slow=3.3,SNR=6.4						
PDAR	Pinedale Array	129.58	22	PKP	PKPdf	14 30 35.9	-2.5
ANMO	Albuquerque	137.52	25	PKP	PKPdf	14 30 51.8	-1.6
	comp=Z,0.9nm,1.0s,baz=302,slow=3.3,SNR=5.2						
BDFB	Brasilia	140.44	249	PKP	PKPdf	14 31 02.1	+2.9
	comp=Z,9.0nm,1.3s,baz=105,slow=2.9,SNR=3.4						
MNTX	Cornudas Mount	140.77	26	*e*PKPdf	PKPdf	14 30 56.5	-3.0
TXAR	Lajitas Array	143.55	26	PKhKP		14 30 59.7	
	comp=Z,6.4nm,1.2s,baz=297,slow=2.8,SNR=11						
TXAR	Lajitas Array	143.55	26	PKP	PKPdf	14 30 59.7	-4.6
NATX	Nacogdoches	144.29	12	*e*PKPdf	PKPdf	14 31 00.9	-4.6
HKT	Hockley	145.75	15	*e*PKPdf	PKPdf	14 31 05.5	-2.6
HKT				*e*		14 31 18.7	
LPAZ	La Paz	157.99	233	PKPab	PKPab	14 32 06.7	+10
	comp=Z,2.0nm,0.9s,baz=123,slow=11,SNR=3.7						

IDC 26 14:11:58.0±4.4, 7.52N×92.26E, mb4.6/4, mb1 4.8/4, mb1mx4.2/18, Error ellipse: s-maj=223.0km s-min=23.1km az=57.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	48.75	343	P	P	14 20 44.0	-2.4
	23nm,1.2s,baz=149,slow=8.6,SNR=17						
WRA	Warramunga Arr	49.59	124	P	P	14 20 51.1	-2.2
	6.4nm,0.7s,baz=304,slow=8.6,SNR=7.7						
ASAR	Alice Springs	51.13	129	P	P	14 21 03.2	-1.9
	1.5nm,0.8s,baz=304,slow=8.1,SNR=4.7						

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*IDC **26** 14:12:33.3±0.8, 6.45N×92.97E, mb4.6/17, mb1 4.7/18, mb1mx4.6/24, ML4.2/1, Error ellipse: s-maj=29.0km s-min=18.9km az=33.0*

ISC 26 14:12:34.1±9.3, 6.4N±0.2×93.0E±0.2, h16^{km}±64^{km}, n24, σ0^{s}88/21, mb4.6/19, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.28	25	Pn	P	14 15 44.5	-0.1
	0.4nm,0.3s,baz=214,slow=12,SNR=4.9						
JOW	Kunigami	39.19	55	P	P	14 20 05.1	+1.7
	18nm,0.6s,mb5.0,baz=198,slow=4.5,SNR=4.4						
ZAL	Zalesovo	47.83	353	P	P	14 21 13.2	+0.3
	5.3nm,0.7s,mb4.7,baz=307,slow=5.3,SNR=6.3						
WRA	Warramunga Arr	48.37	124	P	P	14 21 16.1	-1.4
	3.2nm,0.7s,mb4.5,baz=306,slow=8.9,SNR=2.1						
ASAR	Alice Springs	49.88	128	P	P	14 21 29.3	+0.2
	8.7nm,0.8s,mb4.8,baz=302,slow=6.0,SNR=9.0						
KMBO	Kilima Mbogo	56.16	264	P	P	14 22 17.2	+1.3
	3.4nm,0.7s,mb4.5,baz=227,slow=23,SNR=5.6						
BRTR	Keskin Array B	62.53	312	P	P	14 22 58.3	-1.3
	2.9nm,0.6s,mb4.6,baz=134,slow=7.4,SNR=6.2						
IDI	Anoyia	68.47	305	P	P	14 23 37.9	0.0
	7.3nm,0.6s,mb4.9,baz=124,slow=6.6,SNR=6.1						
AKASG	Malin Array Be	68.59	322	P	P	14 23 36.3	-2.1
	2.1nm,0.6s,mb4.3,baz=82,slow=4.4,SNR=5.5						
MLR	Muntele Rosu	69.42	316	P	P	14 23 43.8	+0.2
	5.8nm,0.8s,mb4.5,baz=153,slow=9.0,SNR=2.2						
FINES	FINESS Array B	73.46	333	P	P	14 24 06.5	-0.9
	5.8nm,0.9s,mb4.5,baz=101,slow=7.0,SNR=8.9						
KAF	Kangasniemi	73.56	333	*e*p	P	14 24 07.4	-0.6
	3.9nm,0.5s,mb4.6						
ZST	Bratislava	75.84	318	*e*	pP	14 24 27.5	+1.1
ARCES	ARCESS Array B	76.24	340	P	P	14 24 23.3	0.0
	2.6nm,0.7s,mb4.3,baz=32,slow=16,SNR=7.2						
GERES	GERESS Array B	78.15	318	P	P	14 24 34.5	+0.2
	4.3nm,0.7s,mb4.5,baz=82,slow=7.0,SNR=8.2						
KHC	Kasperske Hory	78.25	319	*e*P	P	14 24 35.0	+0.2
HFS	Hagfors	79.13	330	P	P	14 24 39.1	-0.3
	1.8nm,0.5s,mb4.3,baz=104,slow=6.1,SNR=7.8						
NOA	NORSAR Array B	80.43	331	P	P	14 24 45.8	-0.6
	0.6nm,0.6s,mb3.7,baz=103,slow=5.1,SNR=2.5						
DAVOX	Davos	80.65	316	P	P	14 24 48.9	+1.1
	11nm,0.7s,mb4.9,baz=134,slow=4.9,SNR=9.3						
LPG	La Plagne	82.84	315	*e*P	P	14 24 59.8	+0.6
	14nm,0.7s,mb4.8						
EKA	Eskdalemuir Ar	88.26	325	P	P	14 25 26.4	+0.5
	3.3nm,0.6s,mb4.7,baz=97,slow=5.4,SNR=10						
ESDC	Sonseca Array	91.28	310	P	P	14 25 41.4	+0.9
	1.8nm,0.6s,mb4.6,baz=66,slow=4.0,SNR=13						
TXAR	Lajitas Array	140.99	23	PKP	PKPdf	14 32 07.2	-0.9
	0.4nm,0.6s,baz=304,slow=2.3,SNR=3.8						
LPAZ	La Paz	159.10	240	PKP	PKPdf	14 32 34.3	-1.7
	2.4nm,1.1s,baz=94,slow=0.6,SNR=3.8						

IDC 26 14:12:43.0±1.1, 6.35N×93.33E, mb4.6/7, mb1 4.8/8, mb1mx4.5/19, ML5.2/1, Error ellipse: s-maj=46.5km s-min=21.2km az=56.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.23	24	Pn	P	14 15 51.3	-3.5
	3.7nm,0.3s,baz=231,slow=14,SNR=29						
SONM	Songino Array	42.82	13	P	P	14 20 43.2	-1.1
	4.8nm,0.8s,baz=198,slow=9.0,SNR=3.0						
ZAL	Zalesovo	47.95	353	P	P	14 21 22.9	-2.3
	5.9nm,0.5s,baz=298,slow=6.7,SNR=5.5						
WRA	Warramunga Arr	48.06	124	P	P	14 21 24.0	-2.5
	14nm,0.9s,baz=305,slow=8.9,SNR=6.1						
PMG	Port Moresby	55.88	106	P	P	14 22 23.0	-2.2
	11nm,0.5s,baz=116,slow=8.7,SNR=5.4						
STKA	Stephens Creek	59.66	133	P	P	14 22 50.0	-1.6
	5.8nm,0.8s,baz=325,slow=7.1,SNR=3.9						
FINES	FINESS Array B	73.68	333	P	P	14 24 18.9	-1.3
	3.0nm,0.8s,baz=100,slow=8.5,SNR=4.0						
ESDC	Sonseca Array	91.58	310	P	P	14 25 51.7	-1.6
	0.5nm,0.5s,baz=65,slow=4.1,SNR=5.0						
ULM	Lac du Bonnet	123.08	7	PKP	PKPdf	14 31 42.8	-0.6
	1.6nm,0.5s,baz=336,slow=8.8,SNR=3.1						
NVAR	Mina Array Bea	126.64	31	PKP	PKPdf	14 31 48.5	-2.1
	0.4nm,0.4s,baz=284,slow=3.7,SNR=3.7						
PDAR	Pinedale Array	126.88	21	PKP	PKPdf	14 31 47.9	-3.0
	3.0nm,1.0s,baz=45,slow=2.1,SNR=7.4						

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*IDC **26** 14:14:15.3±0.5, 13.48N×92.84E, mb4.6/22, mb1 4.7/23, mb1mx4.6/26, ML4.6/1, Error ellipse: s-maj=22.4km s-min=12.4km az=48.0*

*NEIC **26** 14:14:18.0±4.9, 13.50N×92.92E, h18^{km}±30^{km}, mb5.0/21, Error ellipse: s-maj=9.5km s-min=6.8km az=54.0*

*BJI **26** 14:14:18.0, 13.50N×92.90E, h17^{km}, mB5.3, mb5.1, Ms5.4, Msz5.4*

ISC 26 14:14:17.7±4.4**, 13.53N**±0.06×**93.01E**±0.06**, h29**^{km}±31^{km}**, n72, σ0ˢ94**/67**, mb4.8**/42**, MS5.3**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.52	49	P	Pn	14 16 07.9	-0.5
CMAR	Chiang Mai Arr	7.52	49	Pn	Pn	14 16 09.2	+0.7
	2.4nm,0.3s,baz=240,slow=15,SNR=5.9						
CMAR				Sn	Sn	14 17 32.5	-1.2
	3.5nm,0.3s,baz=238,slow=28,SNR=6.8						
ENH	Enshi	22.57	40	*e*P	P	14 19 14.3	-2.9
	89nm,1.3s,mb5.0						
LZH	Lanzhou	24.49	22	*e*P	P	14 19 38.0	+2.2
LZH				AP		14 19 41.0	
LZH				PP	PP	14 20 15.5	+3.7
LZH				AMB	AMB		
	comp=Z,100nm,1.2s,mb5.1						
LZH				AMB	AMB		
	comp=Z,635nm,6.2s						
LZH				LR	LR		
	comp=E,6μm,11.8s						
LZH				LR	LR		
	comp=Z,7μm,12.6s,MS5.3						
KSH	Kashi	29.93	333	*e*P	P	14 20 26.0	+0.3
KSH				*e*AP	pP	14 20 34.0	-0.1
KSH				*e*XP	sP	14 20 38.8	+1.0
KSH				AMB	AMB		
	comp=Z,590nm,7.9s						
BJT	Baijiatuau	33.32	33	*e*P	P	14 20 55.9	+0.6
	comp=Z,37nm,1.3s,mb5.2						
JOW	Kunigami	35.52	63	P	P	14 21 16.5	+2.1
	comp=Z,13nm,0.4s,mb5.2,baz=213,slow=6.3,SNR=10.0						
SONM	Songino Array	35.98	15	P	P	14 21 19.0	+0.9
	comp=Z,6.6nm,1.0s,mb4.5,baz=194,slow=10,SNR=4.5						
ULN	Ulaanbaatar	36.18	16	*e*P	P	14 21 20.4	+0.7
	comp=Z,23nm,1.2s,mb5.0						
KS15	Wonju Array Si	39.12	46	P	P	14 21 43.3	-1.3
ZAL	Zalesovo	40.84	353	P	P	14 21 58.6	+0.1
	comp=Z,12nm,0.9s,mb4.5,baz=304,slow=7.2,SNR=4.9						
HIA	Hailar	41.88	26	P	P	14 22 07.6	+0.5
	comp=Z,6.7nm,0.8s,mb4.3						
BVAR	Borovoye Array	43.32	340	P	P	14 22 18.9	0.0
	comp=Z,4.8nm,0.6s,mb4.4,baz=137,slow=9.0,SNR=5.3						
BRVK	Borovoye	43.38	340	*e*P	P	14 22 18.4	-0.9
	comp=Z,16nm,1.0s,mb4.7						
MAJO	Matsushiro	46.39	52	*e*P	P	14 22 44.7	+1.0
	comp=Z,24nm,1.2s,mb5.0						
NWAO	Narrogin (SRO)	51.66	154	P	P	14 23 24.0	-0.4
	comp=Z,3.2nm,0.5s,mb4.5,baz=148,slow=23,SNR=3.7						
KIV	Kislovodsk	52.47	315	*e*P	P	14 23 29.9	-0.4
	comp=Z,30nm,0.9s,mb5.2						
WRA	Warramunga Arr	52.53	128	P	P	14 23 30.9	-0.2
	comp=Z,6.8nm,0.8s,mb4.7,baz=307,slow=8.0,SNR=5.6						
WRAB	Tennant Creek	52.54	128	*e*P	P	14 23 30.6	-0.6
	comp=Z,15nm,0.7s,mb5.0						
YSS	Yuzh-Sakhalins	53.14	41	*e*P	P	14 23 36.2	+0.9
	comp=Z,134nm,1.4s,mb5.7						
ASAR	Alice Springs	54.45	132	P	P	14 23 45.0	-0.3
	comp=Z,2.5nm,0.6s,mb4.3,baz=311,slow=7.5,SNR=6.3						
YAK	Yakutsk	55.06	20	*e*P	P	14 23 47.9	-1.3
	comp=Z,34nm,0.8s,mb5.4						
EIL	Elat	55.78	297	P	P	14 23 50.9	-4.0
BRTR	Keskin Array B	57.99	308	P	P	14 24 09.3	-1.0
	comp=Z,9.1nm,0.8s,mb4.8,baz=119,slow=7.7,SNR=12						
CTA	Charters Tower	62.12	122	P	P	14 24 38.0	-0.9
	comp=Z,6.5nm,1.2s,mb4.6,baz=27,slow=12,SNR=3.1						
CTAO	Charters Tower	62.12	122	P	P	14 24 37.6	-1.3
AKASG	Malin Array Be	63.09	320	P	P	14 24 43.2	-1.7
	comp=Z,11nm,1.1s,mb4.9,baz=88,slow=4.4,SNR=8.6						
MLR	Muntele Rosu	64.42	314	P	P	14 24 54.2	+0.5
	baz=49,slow=4.8						
IDI	Anoyia	64.52	303	P	P	14 24 52.7	-1.9
	comp=Z,9.8nm,0.9s,mb4.8,baz=315,slow=7.1,SNR=2.4						
STKA	Stephens Creek	64.83	135	P	P	14 24 56.5	-0.2
	comp=Z,3.5nm,0.6s,mb4.6,baz=310,slow=11,SNR=5.5						
STKA	Stephens Creek	64.83	135	*e*P	P	14 24 55.9	-0.8
FINES	FINESS Array B	67.24	331	P	P	14 25 10.8	-0.6
	comp=Z,11nm,1.0s,mb4.8,baz=119,slow=9.4,SNR=6.5						
CRVS	Cervenica-Dubn	67.81	317	*e*	P	14 25 17.7	+2.4
KECS	Kecovo	68.42	317	*e*P	P	14 25 19.5	+0.4
OJC	Ojcow	68.99	319	*e*P	P	14 25 21.2	-1.4
ARCES	ARCESS Array B	69.61	340	P	P	14 25 26.0	0.0
	comp=Z,5.2nm,0.6s,mb4.6,baz=99,slow=6.9,SNR=7.5						
ARCES	ARCESS Array B	69.61	340	P	P	14 25 26.0	-0.1
OKC	Ostrava-Krasne	70.03	318	*e*P	P	14 25 28.0	-0.9
LSZ	Lusaka	70.21	248	*e*P	P	14 25 30.7	+0.1
	comp=Z,13nm,1.4s,mb4.7						
MORC	Moravsky Berou	70.42	318	*e*P	P	14 25 31.1	-0.2
	comp=Z,21nm,1.0s,mb5.0						
ZST	Bratislava	70.66	317	*e*P	P	14 25 33.1	+0.3
DPC	Dobruska-Polom	71.22	319	*e*P	P	14 25 36.7	+0.5
BILL	Bilibino	71.30	22	*e*P	P	14 25 35.5	-0.9
	comp=Z,8.4nm,1.0s,mb4.6						
PRU	Pruhonice	72.36	318	*e*P	P	14 25 42.6	-0.4
GERES	GERESS Array B	72.92	317	P	P	14 25 46.6	+0.3
	comp=Z,7.3nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=9.1						
KHC	Kasperske Hory	73.00	318	*e*P	P	14 25 46.6	-0.2
HFS	Hagfors	73.06	329	P	P	14 25 46.7	-0.2
	comp=Z,6.8nm,0.8s,mb4.7,baz=112,slow=8.0,SNR=6.2						
CLL	Collm	73.33	320	P	P	14 25 48.4	-0.2
NKC	Novy Kostel	73.71	319	*e*P	P	14 25 51.3	+0.5
MOX	Moxa	74.22	319	*e*P	P	14 25 54.0	+0.2
NB2	NORSAR Subarra	74.30	330	P	P	14 25 53.0	-1.1
	comp=Z,2.2nm,0.6s,mb4.3,baz=90,slow=5.6						
NOA	NORSAR Array B	74.30	330	P	P	14 25 53.4	-0.6
	comp=Z,4.5nm,0.8s,mb4.5,baz=90,slow=5.7,SNR=7.4						
NOA	NORSAR Array B	74.30	330	P	P	14 25 53.4	-0.6
GRA1	Grafenberg Arr	74.52	318	*e*P	P	14 25 56.3	+0.8
	comp=Z,12nm,1.0s,mb4.8						
GRF	Grafenberg Arr	74.52	318	*e*P	P	14 25 56.3	+0.8
	comp=Z,12nm,1.0s,mb4.8						
DAVOX	Davos	75.59	315	P	P	14 26 01.2	-0.6
	comp=Z,3.6nm,0.7s,mb4.4,baz=59,slow=5.9,SNR=2.7						
LBTB	Lobatse	76.04	240	*e*P	P	14 26 04.6	-0.2
	comp=Z,8.0nm,0.8s,mb4.7						
LBTB				*e*		14 26 11.1	
BOSA	Boshof	77.70	236	*e*P	P	14 26 14.7	+0.7
	comp=Z,17nm,0.9s,mb5.0						
LPL	La Plagne	77.90	314	*e*P	P	14 26 15.1	+0.4
	comp=Z,52nm,1.0s,mb5.1						
EKA	Eskdalemuir Ar	82.47	325	P	P	14 26 39.4	+0.5
	comp=Z,4.4nm,0.9s,mb4.4,baz=67,slow=6.4,SNR=4.7						
SUR	Sutherland	82.66	234	*e*P	P	14 26 40.1	-0.2
	comp=Z,10nm,0.8s,mb4.9						
MAW	Mawson	83.82	191	P	P	14 26 47.6	+2.1
	comp=Z,1.8nm,0.3s,mb4.7,baz=62,slow=17,SNR=2.8						
MAW	Mawson	83.82	191	*e*P	P	14 26 47.0	+1.5
	comp=Z,12nm,0.9s,mb5.0						
ESDC	Sonseca Array	86.75	310	P	P	14 27 01.8	+1.1
	comp=Z,3.2nm,0.9s,mb4.5,baz=58,slow=4.5,SNR=5.8						
IMA	Indian Mountai	86.84	22	*e*P	P	14 27 02.2	+1.7
	comp=Z,46nm,0.9s,mb5.7						
ILAR	Eielson Array	89.95	22	P	P	14 27 15.8	+0.5
	comp=Z,2.5nm,0.7s,mb4.6,baz=300,slow=4.3,SNR=18						
YKA	Yellowknife Ar	101.21	13	P	P	14 28 07.6	+0.9
	comp=Z,0.4nm,0.9s,baz=334,slow=5.0,SNR=3.7						
YKA	Yellowknife Ar	101.21	13	P	P	14 28 07.6	+0.9
NVAR	Mina Array Bea	120.58	28	PKP	PKPdf	14 33 11.0	-1.2
	comp=Z,2.2nm,0.8s,baz=276,slow=2.2,SNR=5.7						
ANMO	Albuquerque	128.37	20	PKP	PKPdf	14 33 26.4	-1.1
	comp=Z,1.4nm,0.9s,baz=287,slow=2.3,SNR=5.3						
TXAR	Lajitas Array	134.45	21	PKP	PKPdf	14 33 36.5	-2.5
	comp=Z,1.1nm,0.8s,baz=188,slow=0.3,SNR=4.1						
TXAR	Lajitas Array	134.45	21	PKP	PKPdf	14 33 36.5	-2.5

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*IDC **26** 14:15:42.4±0.9, 13.45N×92.70E, mb4.3/13, mb1 4.5/13, mb1mx4.3/20, Error ellipse: s-maj=61.6km s-min=15.9km az=51.0*

ISC 26 14:15:45.6±0.7**, 13.4N**±0.2×**92.7E**±0.3**, h33**^{km}**, n15, σ0ˢ48**/15**, mb4.3**/14**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	Zalesovo	40.90	353	P	P	14 23 26.1	-0.2
	4.4nm,0.5s,mb4.4,baz=298,slow=7.2,SNR=3.5						
BVAR	Borovoye Array	43.32	340	P	P	14 23 46.0	-0.1
	1.5nm,0.4s,mb4.0,baz=143,slow=10,SNR=5.2						
WRA	Warramunga Arr	52.69	128	P	P	14 24 59.5	+0.1
	6.0nm,0.6s,mb4.7,baz=308,slow=7.9,SNR=9.3						
ASAR	Alice Springs	54.59	132	P	P	14 25 13.7	+0.2
	1.8nm,0.5s,mb4.4,baz=312,slow=7.2,SNR=7.4						
BRTR	Keskin Array B	57.84	309	P	P	14 25 36.1	-0.4
	2.4nm,0.9s,mb4.2,baz=125,slow=7.5,SNR=4.1						
STKA	Stephens Creek	64.96	135	P	P	14 26 23.9	-0.7
	1.4nm,0.7s,mb4.1,baz=342,slow=10,SNR=2.6						
FINES	FINESS Array B	67.19	331	P	P	14 26 37.8	-0.5
	2.1nm,0.5s,mb4.4,baz=97,slow=6.3,SNR=7.2						
ARCES	ARCESS Array B	69.61	340	P	P	14 26 53.2	+0.1
	2.2nm,0.6s,mb4.3,baz=98,slow=7.4,SNR=7.2						
GERES	GERESS Array B	72.81	317	P	P	14 27 13.1	+0.4
	3.7nm,0.8s,mb4.4,baz=92,slow=5.5,SNR=6.1						
HFS	Hagfors	73.00	329	P	P	14 27 13.0	-0.6
	4.8nm,0.7s,mb4.6,baz=101,slow=7.6,SNR=5.1						
NB2	NORSAR Subarra	74.25	330	P	P	14 27 20.4	-0.5
	1.9nm,0.6s,mb4.2,baz=90,slow=5.6						
NOA	NORSAR Array B	74.25	330	P	P	14 27 20.5	-0.4
	2.2nm,0.6s,mb4.3,baz=90,slow=5.7,SNR=6.8						
LPL	La Plagne	77.77	314	*e*P	P	14 27 42.0	+0.8
	15nm,0.7s,mb4.8						
EKA	Eskdalemuir Ar	82.40	325	P	P	14 28 06.5	+0.8
	2.5nm,1.0s,mb4.1,baz=97,slow=6.7,SNR=3.5						
ILAR	Eielson Array	90.14	22	P	P	14 28 44.0	+0.5
	0.4nm,0.7s,mb3.9,baz=278,slow=6.3,SNR=4.5						

IDC 26 14:20:40.2±1.5**, 7.07N**×**92.55E, mb3.9**/7**, mb1 4.1**/7**, mb1mx3.9**/18**, Error ellipse: s-maj=71.0km s-min=20.2km az=57.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	42.30	14	P	P	14 28 34.1	-3.2
	0.6nm,0.8s,baz=191,slow=7.3,SNR=3.6						
ZAL	Zalesovo	47.15	354	P	P	14 29 15.3	-0.9
	0.7nm,0.6s,baz=85,slow=3.9,SNR=2.9						
WRA	Warramunga Arr	49.10	124	P	P	14 29 30.5	-1.3
	3.9nm,0.9s,baz=298,slow=8.8,SNR=8.9						
BVAR	Borovoye Array	49.26	342	P	P	14 29 32.1	-0.5
	0.5nm,0.6s,baz=135,slow=8.4,SNR=4.1						
ASAR	Alice Springs	50.63	128	P	P	14 29 41.0	-2.5
	2.0nm,0.8s,baz=294,slow=7.7,SNR=9.0						
STKA	Stephens Creek	60.71	133	P	P	14 30 53.9	-2.2
	1.7nm,0.7s,baz=32,slow=2.9,SNR=3.5						
GERES	GERESS Array B	77.38	318	P	P	14 32 36.3	-2.4
	0.8nm,0.9s,baz=104,slow=5.5,SNR=4.9						

IDC 26 14:21:24.0±7.2**, 5.54N**×**93.05E, mb4.1**/6**, mb1 4.3**/7**, mb1mx4.0**/20**, ML4.5**/1**, Error ellipse: s-maj=171.0km s-min=46.7km az=144.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.07	24	Pn	P	14 24 53.5	+6.4
	0.8nm,0.3s,baz=214,slow=12,SNR=12						
SONM	Songino Array	43.67	13	P	P	14 29 30.5	-1.7
	4.5nm,0.7s,baz=193,slow=7.7,SNR=18						
ZAL	Zalesovo	48.72	354	P	P	14 30 09.9	-2.2
	1.0nm,0.3s,baz=294,slow=9.1,SNR=3.3						
BVAR	Borovoye Array	50.86	343	P	P	14 30 26.5	-2.0
	2.1nm,0.6s,baz=146,slow=11,SNR=10						
BRTR	Keskin Array B	63.15	312	P	P	14 31 53.8	-2.3
	1.1nm,0.9s,baz=140,slow=6.0,SNR=3.9						
GERES	GERESS Array B	78.84	319	P	P	14 33 29.9	-0.6
	1.4nm,0.7s,baz=108,slow=4.2,SNR=9.4						
DAVOX	Davos	81.32	316	P	P	14 33 42.2	-1.6
	2.5nm,0.7s,baz=121,slow=14,SNR=5.1						

IDC 26 14:23:59.1±1.4**, 5.54N**×**94.47E, mb3.6**/4**, mb1 3.9**/5**, mb1mx3.7**/19**, ML4.4**/1**, Error ellipse: s-maj=69.9km s-min=23.5km az=51.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.56	18	Pn	P	14 27 12.1	-3.3
	0.6nm,0.3s,baz=243,slow=18,SNR=4.4						
WRA	Warramunga Arr	46.67	124	P	P	14 32 29.8	-1.9
	0.6nm,0.7s,baz=301,slow=9.9,SNR=3.3						
ASAR	Alice Springs	48.20	129	P	P	14 32 41.6	-2.0
	0.3nm,0.4s,baz=302,slow=7.8,SNR=4.4						
BVAR	Borovoye Array	51.29	342	P	P	14 33 05.1	-1.8
	0.6nm,0.4s,baz=143,slow=11,SNR=5.3						
GERES	GERESS Array B	79.77	319	P	P	14 36 09.1	-1.6
	0.2nm,0.4s,baz=104,slow=4.0,SNR=3.4						
TXAR	Lajitas Array	141.19	26	PKP	PKPdf	14 43 33.6	-0.6
	0.1nm,0.5s,baz=314,slow=1.4,SNR=4.4						

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*IDC **26** 14:24:58.8±1.2, 8.70N×93.03E, mb4.0/8, mb1 4.2/8, mb1mx4.0/17, Error ellipse: s-maj=60.6km s-min=20.1km az=53.0*

ISC 26 14:25:02.2±1.1**, 8.7N**±0.2×**93.1E**±0.3**, h33**^{km}**, n9, σ0ˢ79**/9**, mb3.9**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.56	14	P	P	14 32 39.6	-0.6
	0.9nm,0.7s,mb3.5,baz=201,slow=8.5,SNR=4.3						
ZAL	Zalesovo	45.58	353	P	P	14 33 22.1	+1.3
	2.1nm,0.5s,mb4.4,baz=304,slow=3.7,SNR=6.5						
WRA	Warramunga Arr	49.56	125	P	P	14 33 51.3	-1.0
	0.9nm,0.8s,mb3.9,baz=304,slow=8.7,SNR=4.5						
ASAR	Alice Springs	51.22	130	P	P	14 34 06.2	+1.2
	0.8nm,0.4s,mb4.0,baz=310,slow=7.0,SNR=11						
FINES	FINESS Array B	71.50	332	P	P	14 36 21.0	-0.3
	2.8nm,0.9s,mb4.2,baz=89,slow=6.7,SNR=9.4						
ARCES	ARCESS Array B	74.13	340	P	P	14 36 36.5	-0.1
	2.6nm,1.0s,mb4.1,baz=106,slow=6.6,SNR=3.1						
GERES	GERESS Array B	76.53	318	P	P	14 36 51.0	+0.3
	0.5nm,0.6s,mb3.6,baz=127,slow=4.9,SNR=3.6						
NB2	NORSAR Subarra	78.50	331	P	P	14 37 00.7	-0.8
	0.9nm,0.6s,mb3.9,baz=95,slow=5.3						
NOA	NORSAR Array B	78.50	331	P	P	14 37 00.8	-0.7
	1.0nm,0.7s,mb3.9,baz=93,slow=5.7,SNR=4.0						

IDC 26 14:26:43.6±2.7**, 4.88N**×**93.56E, mb3.7**/3**, mb1 3.8**/4**, mb1mx3.6**/19**, ML3.8**/1**, Error ellipse: s-maj=85.2km s-min=30.5km az=62.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.48	21	Pn	P	14 30 10.6	-1.4
	0.1nm,0.3s,baz=214,slow=9.8,SNR=3.2						
SONM	Songino Array	44.19	12	P	P	14 34 54.2	-1.9
	0.5nm,0.7s,baz=191,slow=7.3,SNR=2.6						
WRA	Warramunga Arr	47.06	123	P	P	14 35 17.4	-1.9
	1.7nm,0.7s,baz=302,slow=9.1,SNR=5.6						
BVAR	Borovoye Array	51.63	342	P	P	14 35 51.8	-2.2
	0.6nm,0.7s,baz=149,slow=8.4,SNR=3.4						

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*IDC **26** 14:29:21.8±4.8, 9.39N×93.49E, h60^{km}±43^{km}, mb4.0/17, mb1 4.1/18, mb1mx4.1/22, ML4.3/1, Error ellipse: s-maj=27.7km s-min=11.5km az=57.0*

ISC 26 14:29:17.6±0.5**, 9.33N**±0.08×**93.7E**±0.1**, h33**^{km}**, n34, σ1ˢ09**/28**, mb4.3**/18**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.42	29	P	P	14 31 46.4	-1.5
	0.6nm,0.3s,baz=213,slow=15,SNR=10						
PKI	Pulchoki	19.74	338	*e*P	P	14 33 48.7	+1.2
	216nm,1.5s						
GUN	Gumba	19.88	339	*e*P	P	14 33 50.1	+1.1
	75nm,1.0s						
DMN	Daman	19.89	337	*e*P	P	14 33 50.2	+1.1
	23nm,0.8s						
KKN	Kakani	19.99	338	*e*P	P	14 33 51.1	+0.9
	33nm,0.7s						
GKN	Gorkha	20.42	337	*e*P	P	14 33 54.8	0.0
	73nm,0.9s						
KOLN	Koldanda	20.65	334	*e*P	P	14 33 58.2	+1.1
	64nm,0.9s						
DDI	Dehra Dun	25.46	327	*e*	P	14 34 46.8	+2.4
SONM	Songino Array	39.86	13	P	P	14 36 49.5	-0.2
	1.0nm,0.8s,mb3.6,baz=198,slow=9.1,SNR=4.8						
SONM				PcP	PcP	14 38 53.3	-2.6
	1.4nm,0.8s,baz=207,slow=3.3,SNR=4.5						
ZAL	Zalesovo	45.05	353	P	P	14 37 31.8	-0.2
	3.8nm,0.8s,mb4.3,baz=311,slow=7.0,SNR=15						
BVAR	Borovoye Array	47.46	341	P	P	14 37 50.4	-0.7
	0.9nm,0.5s,mb4.0,baz=135,slow=10,SNR=5.8						
BVAR				PcP	PcP	14 39 19.9	-1.6
	1.1nm,0.8s,baz=180,slow=4.3,SNR=3.0						
NWAO	Narrogin (SRO)	47.66	153	P	P	14 37 53.3	+0.4
	12nm,0.8s,mb5.0,baz=6.0,slow=11,SNR=5.2						
WRA	Warramunga Arr	49.50	126	P	P	14 38 07.9	+0.6
	7.5nm,0.8s,mb4.8,baz=304,slow=8.9,SNR=21						
ASAR	Alice Springs	51.22	131	P	P	14 38 20.8	+0.4
	3.4nm,0.9s,mb4.3,baz=300,slow=7.0,SNR=10						
PMG	Port Moresby	56.42	108	P	P	14 38 59.7	+0.9
	14nm,0.9s,mb5.0,baz=314,slow=4.7,SNR=4.3						
CTA	Charters Tower	59.44	120	P	P	14 39 19.9	0.0
	8.9nm,1.0s,mb4.8,baz=303,slow=10,SNR=3.9						
BRTR	Keskin Array B	61.12	310	P	P	14 39 27.9	-3.2
	0.4nm,0.5s,mb3.8,baz=121,slow=8.4,SNR=2.7						
STKA	Stephens Creek	61.46	134	P	P	14 39 34.4	+0.9
	1.7nm,0.8s,mb4.2,baz=333,slow=14,SNR=3.9						
AKASG	Malin Array Be	66.72	321	P	P	14 40 05.0	-2.5
	0.1nm,0.3s,mb3.3,baz=242,slow=45,SNR=3.2						
FINES	FINESS Array B	71.21	332	P	P	14 40 33.5	-1.5
	4.4nm,0.9s,mb4.4,baz=117,slow=8.5,SNR=10						
ARCES	ARCESS Array B	73.74	340	P	P	14 40 49.0	-0.8
	5.8nm,0.9s,mb4.5,baz=79,slow=6.2,SNR=4.6						
GERES	GERESS Array B	76.43	318	P	P	14 41 05.3	-0.4
	1.1nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=9.8						
KHC	Kasperske Hory	76.52	318	*e*P	pP	14 41 15.0	-1.5
NB2	NORSAR Subarra	78.23	330	P	P	14 41 14.2	-1.2
	7.9nm,1.4s,mb4.5,baz=91,slow=5.8						
NOA	NORSAR Array B	78.23	330	P	P	14 41 14.7	-0.8
	3.0nm,1.1s,mb4.1,baz=96,slow=5.5,SNR=4.2						
MAW	Mawson	79.86	191	P	P	14 41 23.7	-0.5
	8.9nm,0.6s,mb4.9,baz=259,slow=17,SNR=11						
LPG	La Plagne	81.26	315	*e*P	P	14 41 32.0	0.0
	17nm,0.8s,mb4.7						
WHZ	Wether Hill Ro	85.91	138	*e*P	P	14 41 52.2	-3.4
ESDC	Sonseca Array	89.92	310	P	P	14 42 15.0	0.0
	0.2nm,0.4s,mb3.8,baz=196,slow=38,SNR=3.7						
NVAR	Mina Array Bea	123.92	30	PKP	PKPdf	14 48 12.3	-0.7
	0.6nm,0.6s,baz=270,slow=1.8,SNR=3.4						
PDAR	Pinedale Array	123.98	20	PKP	PKPdf	14 48 11.7	-1.3
	0.9nm,1.0s,baz=45,slow=2.1,SNR=5.4						
TXAR	Lajitas Array	138.09	23	PKP	PKPdf	14 48 38.3	-1.7
	0.3nm,0.6s,baz=177,slow=1.3,SNR=5.0						
LVC	Limon Verde	158.69	230	PKPab	PKPab	14 49 48.1	-2.2
	4.0nm,1.0s,baz=233,slow=5.1,SNR=3.4						
LPAZ	La Paz	160.95	247	PKP	PKPdf	14 49 15.0	0.0
	0.8nm,0.9s,baz=88,slow=1.6,SNR=3.9						
LPAZ				PKPab	PKPab	14 49 59.2	-1.0
	1.8nm,0.8s,baz=67,slow=11,SNR=3.7						

IDC 26 14:32:21.2±3.8**, 11.44N**×**91.84E, mb3.9**/3**, mb1 4.1**/4**, mb1mx3.7**/18**, ML3.6**/1**, Error ellipse: s-maj=99.2km s-min=31.6km az=83.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.78	44	Pn	P	14 34 42.4	-4.0
	0.2nm,0.3s,baz=237,slow=15,SNR=4.8						
SONM	Songino Array	38.28	16	P	P	14 39 43.7	-1.3
	1.5nm,1.0s,baz=201,slow=9.0,SNR=3.2						
WRA	Warramunga Arr	52.17	126	P	P	14 41 34.6	-1.6
	2.7nm,0.8s,baz=304,slow=8.6,SNR=5.1						
ASAR	Alice Springs	53.93	131	P	P	14 41 46.4	-2.7
	1.3nm,0.7s,baz=305,slow=7.1,SNR=5.5						

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*IDC **26** 14:36:33.0±0.5, 9.76N×92.49E, mb4.3/20, mb1 4.5/21, mb1mx4.4/25, ML4.4/1, Error ellipse: s-maj=27.4km s-min=12.8km az=52.0*

ISC 26 14:36:36.0±0.5**, 9.61N**±0.08×**92.4E**±0.1**, h33**^{km}**, n60, σ0ˢ72**/33**, mb4.4**/22**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.83	35	Pn	P	14 39 12.3	+0.4
	0.8nm,0.3s,baz=235,slow=14,SNR=7.0						
MDRS	Chennai	12.42	287	*e*	rx	14 41 40.0	
PKI	Pulchoki	19.05	341	*e*P	P	14 40 59.9	+1.7
	33nm,0.7s						
DMN	Daman	19.19	340	*e*P	P	14 40 59.7	0.0
GUN	Gumba	19.22	342	*e*P	P	14 41 00.3	+0.2
	36nm,0.7s						
KKN	Kakani	19.30	341	*e*P	P	14 41 01.4	+0.4
GKN	Gorkha	19.71	339	*e*P	P	14 41 05.3	-0.2
	26nm,0.7s						
KOLN	Koldanda	19.89	336	*e*P	P	14 41 07.4	0.0
	21nm,0.6s						
SONM	Songino Array	39.89	15	P	P	14 44 08.4	+0.2
	3.1nm,0.8s,mb4.1,baz=200,slow=5.9,SNR=16						
SONM	Songino Array	39.89	15	P	sP	14 44 23.0	+0.7
	2.5nm,0.6s,baz=199,slow=7.9,SNR=7.9						
ZAL	Zalesovo	44.63	354	P	P	14 44 46.0	-1.0
	1.8nm,0.9s,mb3.9,baz=312,slow=6.2,SNR=5.9						
BVAR	Borovoye Array	46.81	342	P	P	14 45 03.6	-0.7
	2.3nm,0.5s,mb4.3,baz=142,slow=9.7,SNR=13						
BVAR	Borovoye Array	46.81	342	P	pP	14 45 15.2	+1.0
	3.1nm,1.0s,baz=143,slow=7.4,SNR=6.1						
NWAO	Narrogin (SRO)	48.46	152	P	P	14 45 18.8	+1.3
	9.0nm,0.8s,mb4.8,baz=339,slow=8.6,SNR=3.5						
WRA	Warramunga Arr	50.65	126	P	P	14 45 34.1	-0.4
	4.0nm,0.4s,mb4.7,baz=307,slow=8.3,SNR=28						
WRA	Warramunga Arr	50.65	126	P	pP	14 45 43.3	-1.1
	3.3nm,0.4s,baz=300,slow=10.0,SNR=11						
GNI	Garni	52.02	314	P	P	14 45 45.2	+0.7
	2.2nm,0.5s,mb4.4,baz=149,slow=17,SNR=5.2						
ASAR	Alice Springs	52.33	130	P	P	14 45 46.5	-0.5
	2.2nm,0.5s,mb4.3,baz=306,slow=7.1,SNR=23						
ASAR	Alice Springs	52.33	130	P	pP	14 45 56.0	-1.0
	0.5nm,0.5s,baz=190,slow=24,SNR=4.8						
PMG	Port Moresby	57.67	108	P	pP	14 46 34.8	-1.3
	9.5nm,0.7s,baz=101,slow=19,SNR=6.5						
BRTR	Keskin Array B	60.02	310	P	P	14 46 40.8	-1.2
	1.6nm,0.7s,mb4.1,baz=122,slow=7.8,SNR=7.9						
BRTR	Keskin Array B	60.02	310	P	pP	14 46 49.9	-2.2
	1.2nm,0.7s,baz=117,slow=6.4,SNR=5.4						
CTA	Charters Tower	60.64	119	P	pP	14 46 56.4	-0.1
	12nm,0.9s,baz=289,slow=6.7,SNR=6.1						
STKA	Stephens Creek	62.53	133	P	P	14 46 59.0	0.0
	1.9nm,0.5s,mb4.5,baz=318,slow=8.6,SNR=9.8						
STKA	Stephens Creek	62.53	133	P	pP	14 47 08.3	-0.9
	4.8nm,0.7s,baz=290,slow=6.6,SNR=14						
AKASG	Malin Array Be	65.75	321	P	P	14 47 18.1	-1.6
	1.8nm,0.6s,mb4.3,baz=85,slow=4.5,SNR=9.1						
IDI	Anoyia	66.19	304	P	P	14 47 22.7	-0.1
	7.4nm,0.9s,mb4.7,baz=99,slow=13,SNR=3.6						
MLR	Muntele Rosu	66.75	315	P	P	14 47 26.7	+0.6
	3.9nm,0.6s,mb4.6,baz=354,slow=0.7,SNR=7.5						
FINES	FINESS Array B	70.39	332	P	P	14 47 48.0	-0.4
	3.9nm,0.6s,mb4.5,baz=98,slow=7.6,SNR=26						
FINES	FINESS Array B	70.39	332	P	pP	14 47 58.2	-0.5
	2.6nm,0.7s,baz=104,slow=7.9,SNR=4.7						
KAF	Kangasniemi	70.48	333	*e*p	P	14 47 48.8	-0.1
	2.5nm,0.5s,mb4.4						
OJC	Ojcow	71.56	320	*e*P	P	14 47 55.6	0.0
ARCES	ARCESS Array B	73.07	340	P	P	14 48 04.0	-0.2
	3.4nm,0.9s,mb4.3,baz=108,slow=3.8,SNR=5.8						
PRU	Pruhonice	74.91	319	*e*P	P	14 48 14.0	-1.3
GERES	GERESS Array B	75.41	318	P	P	14 48 18.6	+0.5
	3.4nm,0.7s,mb4.4,baz=89,slow=5.6,SNR=17						

GERES	**GERESS Array B**	**75.41**	**318**	P	pP	14 48 28.8	+0.3
	1.3nm,0.6s,baz=90,slow=5.9,SNR=6.7						
KHC	**Kasperske Hory**	**75.50**	**318**	*e*P	**P**	**14 48 19.5**	**+0.8**
HFS	**Hagfors**	**76.11**	**330**	P	**P**	**14 48 21.8**	**-0.1**
	3.7nm,0.5s,mb4.5,baz=112,slow=8.0,SNR=14						
NB2	**NORSAR Subarra**	**77.39**	**330**	P	**P**	**14 48 28.5**	**-0.7**
	1.7nm,0.6s,mb4.2,baz=97,slow=5.0						
NOA	**NORSAR Array B**	**77.39**	**330**	P	**P**	**14 48 29.0**	**-0.2**
	2.5nm,0.7s,mb4.2,baz=94,slow=5.5,SNR=9.9						
NOA	**NORSAR Array B**	**77.39**	**330**	P	pP	14 48 38.8	-0.7
	1.1nm,0.9s,baz=90,slow=7.2,SNR=3.6						
LPL	**La Plagne**	**80.21**	**315**	*e*P	**P**	**14 48 45.8**	**+1.0**
	25nm,0.9s,mb4.8						
ESDC	**Sonseca Array**	**88.81**	**310**	P	**P**	**14 49 29.2**	**+1.1**
	0.5nm,0.5s,mb4.1,baz=68,slow=4.2,SNR=4.9						
ILAR	**Eielson Array**	**93.78**	**22**	P	**P**	**14 49 50.1**	**-0.4**
	0.5nm,0.7s,mb4.1,baz=303,slow=4.8,SNR=8.9						
ILAR	**Eielson Array**	**93.78**	**22**	P	pP	14 50 02.9	+1.7
	0.4nm,0.8s,baz=291,slow=4.3,SNR=4.4						
INK	**Inuvik**	**95.80**	**16**	P	**P**	**14 49 59.7**	**+0.1**
	0.8nm,0.5s,mb4.4,baz=266,slow=11,SNR=6.2						
PDAR	**Pinedale Array**	**124.14**	**19**	PKP	PKPdf	14 55 34.0	+2.4
	1.4nm,1.1s,baz=11,slow=0.8,SNR=6.6						
PDAR	**Pinedale Array**	**124.14**	**19**	PKP		14 55 43.3	
	0.4nm,0.6s,SNR=4.2						
NVAR	**Mina Array Bea**	**124.28**	**29**	PKP	PKPdf	14 55 34.7	+2.8
	0.3nm,0.3s,baz=314,slow=1.7,SNR=5.9						
NVAR	**Mina Array Bea**	**124.28**	**29**	PKP		14 55 45.8	
	0.4nm,0.3s,baz=307,slow=4.5,SNR=2.7						
ANMO	**Albuquerque**	**132.22**	**21**	PKP	PKPdf	14 55 51.0	+3.7
	0.7nm,0.6s,baz=314,slow=5.4,SNR=3.9						
TXAR	**Lajitas Array**	**138.29**	**21**	PKP	PKPdf	14 56 02.6	+4.0
	0.5nm,0.6s,baz=225,slow=1.8,SNR=3.7						
TXAR	**Lajitas Array**	**138.29**	**21**	PKP		14 56 12.3	
	0.2nm,0.5s,baz=32,slow=0.3,SNR=4.6						
BDFB	**Brasilia**	**140.97**	**257**	PKP	PKPdf	14 56 05.5	+1.6
	1.6nm,0.6s,baz=223,slow=4.5,SNR=3.2						
SJG	**San Juan**	**145.27**	**322**	PKP	PKPdf	14 56 12.8	+1.6
	13nm,0.9s,baz=234,slow=4.9,SNR=3.3						
PCRV	**Puerto La Cruz**	**149.87**	**310**	PKPbc	PKPdf	14 56 24.9	+6.0
	baz=270,slow=1.0						
SDV	**Santo Domingo**	**155.05**	**317**	PKPab	PKPab	14 56 52.9	-0.4
	2.2nm,0.7s,baz=310,slow=18,SNR=4.1						
SDV	**Santo Domingo**	**155.05**	**317**	PKPab		14 57 01.9	
	1.6nm,0.3s,baz=292,slow=6.1,SNR=4.4						
LVC	**Limon Verde**	**157.93**	**232**	PKPab	PKPab	14 57 07.9	+2.5
	1.6nm,0.8s,baz=317,slow=6.7,SNR=3.5						
LPAZ	**La Paz**	**159.93**	**249**	PKPab	PKPab	14 57 15.5	+1.4
	0.5nm,0.5s,baz=27,slow=11,SNR=2.9						

IDC 26 14:38:44.9±5.0**, 9.82N×94.91E, mb4.0**/3**, mb1 4.2**/4**, mb1mx3.8**/18**, ML4.0**/1**, Error ellipse: s-maj=152.0km s-min=27.6km az=78.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.44**	**24**	Pn	P	14 41 00.9	-4.2
	0.4nm,0.3s,baz=231,slow=13,SNR=3.3						
SONM	**Songino Array**	**39.11**	**12**	P	P	14 46 14.4	-1.2
	1.6nm,0.5s,baz=209,slow=3.3,SNR=5.4						
WRA	**Warramunga Arr**	**48.80**	**127**	P	P	14 47 32.0	-2.0
	2.3nm,0.4s,baz=306,slow=8.3,SNR=5.4						
ASAR	**Alice Springs**	**50.60**	**132**	P	P	14 47 45.8	-2.1
	0.8nm,0.5s,baz=301,slow=7.0,SNR=5.0						

*IDC **26** 14:39:02.8±0.4, 8.39N×92.44E, mb4.8/30, mb1 4.8/31, mb1mx4.8/31, ML4.5/1, Error ellipse: s-maj=17.3km s-min=10.9km az=45.0*

*BJI **26** 14:39:05.9, 7.87N×92.30E, h55^{km}, mB5.7, mb4.8*

*MOS **26** 14:39:06.1±0.9, 8.42N×92.46E, h33^{km}, mb5.1/26, Error ellipse: s-maj=17.8km s-min=7.4km az=119.8*

*NEIC **26** 14:39:07.4±0.2, 8.30N×92.36E, h30^{km}, mb5.1/44, Error ellipse: s-maj=6.2km s-min=5.3km az=219.0*

ISC 26 14:39:05.8±0.3**, 8.28N**±0.05×**92.40E**±0.04**, h33**^{km}**, h33**^{km}±2.4^{km}**:pP-P, n200, σ0$\overset{s}{.}$94**/163**, mb4.9**/72**, 2C-5D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.95**	**31**	*e*P	**P**	**14 41 57.4**	**+0.3**
	31nm,0.8s						
CMAR	**Chiang Mai Arr**	**11.95**	**31**	Pn	**P**	**14 41 59.3**	**+2.2**
	0.9nm,0.3s,baz=232,slow=15,SNR=8.8						
CMAR	**Chiang Mai Arr**	**11.95**	**31**	Pn		14 42 08.4	
	1.4nm,0.3s,baz=232,slow=14,SNR=12						
CMAR	**Chiang Mai Arr**	**11.95**	**31**	P	**P**	**14 41 59.3**	**+2.2**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
HYB	**Hyderabad**	**16.26**	**305**	*e*P	**P**	**14 42 57.0**	**+3.3**
HYB				*e*S	**S**	**14 45 50.0**	**-2.5**
HYB	**Hyderabad**	**16.26**	**305**	*i* P	**P**	**14 42 57.0**	**+3.3**
HYB				*e*S	**S**	**14 45 50.0**	**-2.5**
IMP	**Imphal**	**16.48**	**5**	*e*	**P**	**14 43 00.9**	**+4.5**
KMI	**Kunming**	**19.44**	**29**	P	**P**	**14 43 36.0**	**+3.3**
KMI				AP		14 43 42.5	
KMI				AMB	AMB		
	comp=Z,17nm,0.8s						
QIZ	**Qiongzhong**	**20.02**	**56**	P	**P**	**14 43 39.5**	**+0.5**
QIZ	**Qiongzhong**	**20.02**	**56**	*e*P	**P**	**14 43 39.1**	**+0.1**
	comp=Z,44nm,1.2s						
PKI	**Pulchoki**	**20.30**	**342**	*e*P	**P**	**14 43 42.0**	**+0.2**
	comp=Z,220nm,1.0s						
DMN	**Daman**	**20.43**	**341**	*e*P	**P**	**14 43 43.4**	**+0.2**
GUN	**Gumba**	**20.48**	**343**	*e*P	**P**	**14 43 43.7**	**0.0**
	comp=Z,153nm,0.7s						
KKN	**Kakani**	**20.54**	**342**	*e*P	**P**	**14 43 44.0**	**-0.4**
	comp=Z,83nm,0.8s						
GKN	**Gorkha**	**20.95**	**340**	*e*P	**P**	**14 43 48.7**	**+0.2**
	comp=Z,241nm,0.9s						
KOLN	**Koldanda**	**21.10**	**338**	*e*P	**P**	**14 43 50.3**	**+0.3**
	comp=Z,206nm,0.9s,mb5.4						
LSA	**Lhasa**	**21.34**	**357**	P	**P**	**14 43 53.3**	**+0.8**
LSA	**Lhasa**	**21.34**	**357**	*e*P	**P**	**14 43 53.9**	**+1.3**
	comp=Z,86nm,0.8s,mb5.1						
GYA	**Guiyang**	**22.59**	**35**	⇓*i*P	**P**	**14 44 05.8**	**+0.7**
GYA				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.4						
PTH	**Pithoragarh**	**24.06**	**333**	*e*P	**P**	**14 44 19.9**	**+0.6**
DDI	**Dehra Dun**	**25.71**	**330**	*e*	pP	14 44 47.8	+3.2
DDI				*e*		14 45 40.2	
ENH	**Enshi**	**27.11**	**34**	*e*P	**P**	**14 44 45.4**	**-2.5**
	comp=Z,66nm,1.4s,mb5.0						
LZH	**Lanzhou**	**29.59**	**19**	*e*P	**P**	**14 45 10.5**	**+0.3**
LZH				AMB	AMB		
	comp=Z,80nm,1.6s,mb5.2						
XAN	**Xi’an**	**29.82**	**28**	P	**P**	**14 45 10.3**	**-2.0**
XAN				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.0						
GTA	**Gaotai**	**31.70**	**11**	P	**P**	**14 45 29.8**	**+0.9**
GTA				AMB	AMB		
	comp=Z,21nm,0.8s,mb5.0						
WMQ	**Urumqi**	**35.64**	**354**	P	**P**	**14 46 03.5**	**+0.6**
UCH	**Uchtor**	**37.31**	**338**	P	**P**	**14 46 18.2**	**+1.3**
	SNR=11						
KBK	**Karagaybulak**	**37.53**	**339**	P	**P**	**14 46 20.1**	**+1.4**
	SNR=11						
TKM2	**Tokmak 2**	**37.53**	**340**	P	**P**	**14 46 19.8**	**+1.1**
	SNR=7.0						
AML	**Almayashu**	**37.54**	**337**	P	**P**	**14 46 20.5**	**+1.7**
	SNR=18						
AAK	**Ala-Archa**	**37.67**	**338**	P	**P**	**14 46 21.4**	**+1.5**
	SNR=12						
AAK	**Ala-Archa**	**37.67**	**338**	*e*P	**P**	**14 46 20.2**	**+0.3**
	comp=Z,23nm,0.8s,mb5.0						
CHMS	**Chumysh**	**37.90**	**339**	P	**P**	**14 46 22.0**	**+0.2**
	SNR=8.4						
EKS2	**Erkin-Say**	**37.96**	**337**	P	**P**	**14 46 23.7**	**+1.3**
	SNR=6.4						
BJT	**Baijiatuau**	**38.08**	**30**	*e*P	**P**	**14 46 24.7**	**+1.3**
	comp=Z,12nm,0.7s,mb4.7						
USP	**Ospenovka**	**38.22**	**339**	P	**P**	**14 46 25.4**	**+0.8**
	SNR=11						
JOW	**Kunigami**	**38.67**	**57**	P	**P**	**14 46 28.4**	**0.0**
SONM	**Songino Array**	**41.17**	**14**	P	**P**	**14 46 49.6**	**+0.7**
	comp=Z,8.0nm,0.7s,mb4.4,baz=198,slow=7.4,SNR=18						
SONM	**Songino Array**	**41.17**	**14**	P	pP	14 46 57.4	-1.3
	comp=Z,8.3nm,0.9s,baz=203,slow=7.6,SNR=9.6						
ULN	**Ulaanbaatar**	**41.37**	**15**	*e*P	**P**	**14 46 50.2**	**-0.3**
	comp=Z,7.2nm,1.0s,mb4.3						
ZAK	**Zakamensk**	**42.94**	**10**	*e*P	**P**	**14 47 03.6**	**+0.3**
ZAK				*e*		14 49 00.0	
ZAL	**Zalesovo**	**45.94**	**354**	P	**P**	**14 47 27.6**	**+0.2**
	comp=Z,3.8nm,0.6s,mb4.5,baz=292,slow=7.0,SNR=12						
ZAL	**Zalesovo**	**45.94**	**354**	P	pP	14 47 34.6	-2.6
	comp=Z,3.7nm,0.5s,baz=293,slow=9.1,SNR=8.3						
ZAL	**Zalesovo**	**45.94**	**354**	P	**P**	**14 47 27.6**	**+0.2**
ZAL				pmax	pmax		
	comp=Z,4.0nm,0.6s						
HIA	**Hailar**	**46.85**	**24**	*e*P	**P**	**14 47 35.1**	**+0.4**
	comp=Z,28nm,1.3s,mb5.0						
NVS	**Novosibirsk**	**47.01**	**353**	*e*P	**P**	**14 47 34.4**	**-1.5**
NVS				*e*		14 47 41.9	
NVS				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
NVS				pmax	pmax		
	comp=N,11nm,0.9s						
NWAO	**Narrogin (SRO)**	**47.31**	**151**	P	**P**	**14 47 38.5**	**0.0**
	comp=N,3.7nm,0.6s,mb4.5,baz=283,slow=18,SNR=2.4						
NWAO	**Narrogin (SRO)**	**47.31**	**151**	P	**P**	**14 47 38.6**	**0.0**
NWAO				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NWAO	**Narrogin (SRO)**	**47.31**	**151**	*e*P	**P**	**14 47 43.7**	**+5.1**
	comp=Z,18nm,0.9s,mb5.0						
BVAR	**Borovoye Array**	**48.07**	**342**	P	**P**	**14 47 43.9**	**-0.3**
	comp=Z,9.9nm,0.9s,mb4.8,baz=143,slow=7.4,SNR=14						
BVAR	**Borovoye Array**	**48.07**	**342**	P	pP	14 47 52.7	-1.3
	comp=Z,18nm,1.1s,baz=149,slow=8.6,SNR=12						
BRVK	**Borovoye**	**48.13**	**342**	*e*P	**P**	**14 47 43.9**	**-0.7**
	comp=Z,23nm,1.1s,mb5.1						
BRVK				*e*	pP	14 47 53.0	-1.5
CHKZ	**Chkalovo**	**48.57**	**343**	*e*P	**P**	**14 47 47.4**	**-0.6**
	comp=Z,47nm,1.0s,mb5.5						
CHKZ				*e*	pP	14 47 55.7	-2.2
WRA	**Warramunga Arr**	**49.90**	**125**	P	**P**	**14 47 58.1**	**-0.7**
	comp=Z,3.8nm,0.4s,mb4.8,baz=302,slow=9.0,SNR=8.6						
WRA	**Warramunga Arr**	**49.90**	**125**	P	pP	14 48 07.0	-1.7
	comp=Z,7.5nm,0.6s,baz=305,slow=8.3,SNR=12						
WRA	**Warramunga Arr**	**49.90**	**125**	P	**P**	**14 47 58.1**	**-0.7**
WRA				pmax	pmax		
	comp=Z,4.0nm,0.4s						
WRAB	**Tennant Creek**	**49.91**	**125**	*e*P	**P**	**14 47 57.9**	**-0.9**
	comp=Z,26nm,0.9s,mb5.3						
MAT	**Matsushiro**	**50.18**	**49**	P	pP	14 48 08.7	-1.9
MAT	**Matsushiro**	**50.18**	**49**	*e*P	pP	14 48 09.0	-1.6
	comp=Z,12nm,0.9s						
CBIJ	**Chichi jima**	**50.62**	**62**	P	**P**	**14 48 01.9**	**-2.2**
	comp=Z,57nm,0.7s,mb5.6,baz=3.4,slow=19,SNR=2.9						
ASAR	**Alice Springs**	**51.50**	**129**	P	**P**	**14 48 10.0**	**-0.9**
	comp=Z,3.2nm,0.6s,mb4.4,baz=303,slow=7.6,SNR=6.2						
ASAR	**Alice Springs**	**51.50**	**129**	P	pP	14 48 17.2	-3.6
	comp=Z,8.9nm,0.7s,baz=306,slow=7.3,SNR=12						
BOD	**Bodaibo**	**52.17**	**14**	*e*P	**P**	**14 48 14.7**	**-0.8**
GNI	**Garni**	**52.92**	**315**	P	**P**	**14 48 21.1**	**-0.2**
	comp=Z,3.5nm,0.5s,mb4.5,baz=303,slow=6.6,SNR=7.1						
GNI	**Garni**	**52.92**	**315**	P	pP	14 48 30.1	-1.2
	comp=Z,2.3nm,0.5s,baz=80,slow=16,SNR=5.2						
GNI	**Garni**	**52.92**	**315**	*e*P	**P**	**14 48 19.8**	**-1.5**
	comp=Z,43nm,1.4s,mb5.2						
SVE	**Sverdlovsk**	**54.40**	**339**	⇓*e*P	**P**	**14 48 32.0**	**+0.1**
SVE				*e*		14 49 32.0	
SVE				*e*		14 50 36.0	
SVE				pmax	pmax		
	comp=Z,100nm,1.4s,mb5.5						
ZEI	**Tsey**	**54.57**	**317**	*e*P	**P**	**14 48 32.8**	**-0.6**
ZEI				*i* *PP	pP	14 48 43.5	+0.1
ZEI				*e*		14 49 38.4	
ZEI				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
ZEI				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
ARU	**Arti**	**54.86**	**338**	⇓*i*P	**P**	**14 48 34.4**	**-0.9**
ARU				*i*		14 49 35.2	
ARU				*e*		14 50 36.0	
ARU				*e*PPP	PPP	14 51 56.5	+4.4
ARU				*e*S	**S**	**14 56 13.5**	**+1.1**
ARU				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.2						
ARU	**Arti**	**54.86**	**338**	*e*P	**P**	**14 48 34.4**	**-0.9**
	comp=Z,38nm,1.1s,mb5.3						
KMBO	**Kilima Mbogo**	**55.76**	**263**	P	**P**	**14 48 43.9**	**+1.5**
	comp=Z,9.1nm,0.7s,mb4.9,baz=54,slow=11,SNR=24						
KMBO	**Kilima Mbogo**	**55.76**	**263**	P	**P**	**14 48 43.9**	**+1.5**
KMBO				pmax	pmax		
	comp=Z,9.0nm,0.7s						
KMBO	**Kilima Mbogo**	**55.76**	**263**	*e*P	**P**	**14 48 43.5**	**+1.2**
	comp=Z,11nm,0.8s,mb4.9						
KIV	**Kislovodsk**	**55.87**	**318**	*e*P	**P**	**14 48 41.7**	**-1.1**
KIV				pmax	pmax		
	comp=E,11nm,1.0s						
KIV				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
KIV	**Kislovodsk**	**55.87**	**318**	*e*P	**P**	**14 48 41.5**	**-1.2**
	comp=Z,22nm,0.9s,mb5.2						
GOF	**Gofitskoye**	**56.10**	**320**	*e*P	**P**	**14 48 42.0**	**-2.4**
ASAJ	**Asahikawa**	**56.25**	**42**	P	pP	14 48 54.6	-1.0
	comp=Z,8.6nm,0.7s,baz=126,slow=7.4,SNR=4.9						
ASF	**Jabal al Asfar**	**56.55**	**303**	P	**P**	**14 48 47.8**	**-0.1**
	comp=Z,11nm,1.1s,mb4.8,baz=305,slow=2.8,SNR=6.7						
MALT	**Malatya**	**56.89**	**311**	*e*P	**P**	**14 48 49.2**	**-1.0**
	comp=Z,6.1nm,1.0s,mb4.6						
MALT				*e*	pP	14 48 59.8	-0.5
PMG	**Port Moresby**	**57.30**	**107**	P	**P**	**14 48 52.8**	**-0.6**
	comp=Z,4.2nm,0.6s,mb4.7,baz=270,slow=10,SNR=4.7						
PMG	**Port Moresby**	**57.30**	**107**	P	pP	14 49 00.5	-2.9
	comp=Z,14nm,0.8s,baz=238,slow=5.5,SNR=4.7						
PMG	**Port Moresby**	**57.30**	**107**	P	**P**	**14 48 52.8**	**-0.6**
PMG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
PMG	**Port Moresby**	**57.30**	**107**	*e*P	**P**	**14 48 52.8**	**-0.7**
	comp=Z,24nm,1.0s,mb5.2						
MKRJ	**Makawir**	**57.48**	**302**	P	**P**	**14 48 55.1**	**+0.7**
ZFRI	**Zfri**	**57.68**	**301**	P	**P**	**14 48 56.5**	**+0.6**
DRGI	**Dragot**	**57.69**	**302**	P	**P**	**14 48 56.6**	**+0.7**
EIL	**Elat**	**57.73**	**300**	P	**P**	**14 48 56.8**	**+0.6**
EIL	**Elat**	**57.73**	**300**	*e*P	**P**	**14 48 56.4**	**+0.2**
	comp=Z,36nm,1.1s,mb5.3						
PRNI	**Paran**	**57.80**	**301**	P	**P**	**14 48 57.6**	**+0.9**
KMTI	**Karmit**	**57.99**	**300**	P	**P**	**14 48 58.9**	**+0.9**
CTA	**Charters Tower**	**60.01**	**119**	P	**P**	**14 49 11.9**	**-0.2**
	comp=Z,2.7nm,0.8s,mb4.3,baz=262,slow=10,SNR=3.1						
CTA	**Charters Tower**	**60.01**	**119**	P	pP	14 49 19.4	-2.9
	comp=Z,4.8nm,0.7s,baz=279,slow=5.7,SNR=6.8						
CTA	**Charters Tower**	**60.01**	**119**	P	**P**	**14 49 11.9**	**-0.3**
CTA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
YAK	**Yakutsk**	**60.17**	**19**	*e*P	**P**	**14 49 11.6**	**-1.1**
	comp=Z,13nm,0.8s,mb5.0						
YAK				*e*		14 49 19.1	
BRTR	**Keskin Array B**	**60.86**	**311**	P	**P**	**14 49 15.9**	**-1.7**
	comp=Z,6.9nm,0.8s,mb4.8,baz=123,slow=7.4,SNR=24						
BRTR	**Keskin Array B**	**60.86**	**311**	P	pP	14 49 25.4	-2.4
	comp=Z,3.3nm,0.8s,baz=117,slow=8.3,SNR=6.5						
BRTR	**Keskin Array B**	**60.86**	**311**	P	**P**	**14 49 16.0**	**-1.7**
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
STKA	**Stephens Creek**	**61.64**	**133**	P	**P**	**14 49 22.5**	**-0.6**
	comp=Z,5.0nm,0.9s,mb4.7,baz=331,slow=7.6,SNR=4.2						
STKA	**Stephens Creek**	**61.64**	**133**	P	pP	14 49 30.6	-2.6
	comp=Z,11nm,0.9s,baz=308,slow=9.5,SNR=8.4						
STKA	**Stephens Creek**	**61.64**	**133**	*e*P	pP	14 49 29.0	-4.3
MBAR	**Mbarara**	**62.08**	**265**	*e*P	**P**	**14 49 26.4**	**+0.2**
	comp=Z,16nm,1.2s,mb5.0						
OBN	**Obninsk**	**64.12**	**328**	P	**P**	**14 49 37.5**	**-1.7**
OBN				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.2						
AKASG	**Malin Array Be**	**66.77**	**322**	P	**P**	**14 49 54.0**	**-2.3**
	comp=Z,4.0nm,0.6s,mb4.7,baz=88,slow=4.6,SNR=19						
AKASG	**Malin Array Be**	**66.77**	**322**	P	**P**	**14 49 54.0**	**-2.3**
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
IDI	**Anoyia**	**66.92**	**305**	P	**P**	**14 49 56.8**	**-0.8**
	comp=Z,9.2nm,0.6s,mb5.0,baz=66,slow=7.9,SNR=11						
MLR	**Muntele Rosu**	**67.68**	**316**	P	**P**	**14 50 01.6**	**-0.5**
	comp=Z,18nm,0.8s,mb5.2,baz=157,slow=3.8,SNR=20						
MLR	**Muntele Rosu**	**67.68**	**316**	P	**P**	**14 50 01.6**	**-0.5**
MLR				pmax	pmax		
	comp=Z,18nm,0.8s						
LSZ	**Lusaka**	**67.78**	**250**	*e*P	**P**	**14 50 03.3**	**0.0**
	comp=Z,23nm,0.9s,mb5.2						
KOLS	**Kolonicke sedl**	**70.77**	**319**	*e*P	**P**	**14 50 21.7**	**+0.7**
SUW	**Suwalki**	**71.17**	**324**	*e*P	**P**	**14 50 21.7**	**-1.7**
	comp=Z,78nm,1.0s,mb5.6						
CRVS	**Cervenica-Dubn**	**71.29**	**319**	*e*P	**P**	**14 50 24.0**	**-0.2**
FINES	**FINESS Array B**	**71.55**	**332**	P	**P**	**14 50 24.5**	**-1.0**
	comp=Z,12nm,0.8s,mb4.9,baz=121,slow=11,SNR=17						
FINES	**FINESS Array B**	**71.55**	**332**	P	pP	14 50 33.0	-2.7
	comp=Z,3.9nm,0.7s,baz=86,slow=8.1,SNR=7.6						
FINES	**FINESS Array B**	**71.55**	**332**	P	**P**	**14 50 24.5**	**-1.0**
FINES				pmax	pmax		
	comp=Z,12nm,0.8s						
FINES	**FINESS Array B**	**71.55**	**332**	P	**P**	**14 50 24.5**	**-1.0**
KAF	**Kangasniemi**	**71.65**	**333**	*e*p	**P**	**14 50 25.3**	**-0.8**
	comp=Z,8.1nm,0.7s,mb4.8						
KAF	**Kangasniemi**	**71.65**	**333**	*e*P	**P**	**14 50 25.3**	**-0.8**
KAF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
OJC	**Ojcow**	**72.56**	**320**	*e*P	**P**	**14 50 30.7**	**-1.0**
LBTB	**Lobatse**	**72.93**	**241**	*e*P	**P**	**14 50 34.9**	**+0.5**
	comp=Z,33nm,1.1s,mb5.2						
LBTB				*e*	pP	14 50 43.4	-1.2
VYHS	**Vyhne**	**72.96**	**318**	*e*P	**P**	**14 50 33.4**	**-0.7**
OKC	**Ostrava-Krasne**	**73.56**	**319**	*e*P	**P**	**14 50 37.3**	**-0.3**
OKC				*e*pP	pP	14 50 49.9	+2.1
KEV	**Kevo**	**73.89**	**341**	*e*p	**P**	**14 50 38.7**	**-0.4**
	comp=Z,9.2nm,0.6s,mb4.9						
KEV	**Kevo**	**73.89**	**341**	*e*P	**P**	**14 50 38.7**	**-0.4**
KEV				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
MORC	**Moravsky Berou**	**73.95**	**319**	*e*P	**P**	**14 50 39.4**	**-0.4**
	comp=Z,16nm,1.1s,mb4.9						
ZST	**Bratislava**	**74.08**	**318**	*e*P	**P**	**14 50 40.5**	**-0.1**
ARCES	**ARCESS Array B**	**74.31**	**340**	P	**P**	**14 50 41.4**	**-0.1**
	comp=Z,17nm,0.9s,mb5.0,baz=94,slow=4.9,SNR=20						
ARCES	**ARCESS Array B**	**74.31**	**340**	P	pP	14 50 50.0	-1.7
	comp=Z,4.5nm,0.6s,baz=104,slow=5.0,SNR=7.8						
ARCES	**ARCESS Array B**	**74.31**	**340**	P	**P**	**14 50 41.4**	**-0.1**
ARCES				pmax	pmax		
	comp=Z,17nm,0.9s						
ARCES	**ARCESS Array B**	**74.31**	**340**	P	**P**	**14 50 41.4**	**-0.1**
DPC	**Dobruska-Polom**	**74.79**	**320**	*e*P	**P**	**14 50 45.1**	**+0.4**
KSP	**Ksiaz**	**74.85**	**320**	*e*P	**P**	**14 50 45.0**	**0.0**
UPC	**Upice**	**75.00**	**320**	*e*P	**P**	**14 50 45.8**	**-0.1**
ARSA	**Arzberg**	**75.06**	**317**	⇓*i*P	**P**	**14 50 46.3**	**0.0**
	comp=Z,12nm,1.1s,mb4.7						
PRU	**Pruhonice**	**75.90**	**319**	*e*P	**P**	**14 50 50.9**	**-0.1**
PVCC	**Panska Ves**	**75.92**	**320**	*e*P	**P**	**14 50 51.2**	**+0.1**
BRG	**Berggiesshubel**	**76.34**	**320**	*i* P	**P**	**14 50 53.6**	**+0.1**
BRG				*i*		14 51 06.3	
BRG				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.8						
BRG	**Berggiesshubel**	**76.34**	**320**	*i* P	**P**	**14 50 53.6**	**+0.1**
	comp=Z,19nm,1.5s,mb4.8						
BRG				*i*		14 51 06.3	
GERES	**GERESS Array B**	**76.38**	**318**	P	**P**	**14 50 53.8**	**0.0**
	comp=Z,14nm,0.9s,mb4.9,baz=90,slow=5.3,SNR=46						
GERES	**GERESS Array B**	**76.38**	**318**	P	pP	14 51 01.3	-2.7
	comp=Z,2.8nm,0.9s,baz=104,slow=5.5,SNR=6.5						
GERES	**GERESS Array B**	**76.38**	**318**	P	**P**	**14 50 53.8**	**+0.1**
GERES				pmax	pmax		
	comp=Z,14nm,0.9s						
KHC	**Kasperske Hory**	**76.47**	**318**	*e*P	**P**	**14 50 53.8**	**-0.5**
KHC				*e*pP	pP	14 51 07.9	+3.3
RUE	**Ruedersdorf**	**76.55**	**322**	*e*P	**P**	**14 50 54.3**	**-0.4**
	comp=Z,40nm,0.9s,mb5.3						
CLL	**Collm**	**76.96**	**321**	*i* P	**P**	**14 50 56.7**	**-0.2**
CLL				*i*		14 51 04.7	
CLL				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
CLL	**Collm**	**76.96**	**321**	*i* P	**P**	**14 50 56.7**	**-0.2**
	comp=Z,13nm,1.1s,mb4.8						
CLL				*i*		14 51 04.7	
CLL	**Collm**	**76.96**	**321**	P	**P**	**14 50 56.7**	**-0.2**
	comp=Z,logA/T=1.1,mb4.8						
CLL				*i* *PP	pP	14 51 04.7	-2.5
HFS	**Hagfors**	**77.24**	**330**	P	**P**	**14 50 57.7**	**-0.6**
	comp=Z,5.7nm,0.5s,mb4.7,baz=101,slow=7.6,SNR=13						
HFS	**Hagfors**	**77.24**	**330**	P	pP	14 51 05.7	-2.9
	comp=Z,3.8nm,0.6s,baz=117,slow=6.6,SNR=6.6						
HFS	**Hagfors**	**77.24**	**330**	P	**P**	**14 50 57.7**	**-0.6**
HFS				pmax	pmax		
	comp=Z,6.0nm,0.5s						
NKC	**Novy Kostel**	**77.26**	**320**	*e*P	**P**	**14 50 58.7**	**+0.1**
WTTA	**Wattenberg**	**77.70**	**317**	⇑*i*P	**P**	**14 51 00.8**	**-0.3**
	comp=Z,24nm,1.0s,mb5.1						
MOX	**Moxa**	**77.81**	**320**	*i* P	**P**	**14 51 01.8**	**+0.2**
MOX	**Moxa**	**77.81**	**320**	*e*P	**P**	**14 51 01.8**	**+0.2**
GRA1	**Grafenberg Arr**	**78.03**	**319**	*e*P	**P**	**14 51 03.5**	**+0.6**
	comp=Z,44nm,1.2s,mb5.3						
GRF	**Grafenberg Arr**	**78.03**	**319**	*e*P	**P**	**14 51 03.5**	**+0.6**
GRF				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.3						
GRF	**Grafenberg Arr**	**78.03**	**319**	*e*P	**P**	**14 51 03.5**	**+0.6**
	comp=Z,44nm,1.2s,mb5.3						
MOTA	**Moosalm**	**78.07**	**317**	⇑*i*P	**P**	**14 51 02.7**	**-0.4**
	comp=Z,14nm,0.9s,mb4.9						
NB2	**NORSAR Subarra**	**78.53**	**331**	P	**P**	**14 51 04.5**	**-0.9**
	comp=Z,4.1nm,0.7s,mb4.5,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**78.53**	**331**	P	**P**	**14 51 04.5**	**-0.9**
	comp=Z,6.2nm,0.7s,mb4.6,baz=93,slow=5.7,SNR=16						
NOA	**NORSAR Array B**	**78.53**	**331**	P	pP	14 51 12.5	-3.2
	comp=Z,2.1nm,0.7s,baz=94,slow=5.8,SNR=4.4						
NOA	**NORSAR Array B**	**78.53**	**331**	P	**P**	**14 51 04.5**	**-0.9**
NOA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
NOA	**NORSAR Array B**	**78.53**	**331**	P	**P**	**14 51 04.5**	**-0.9**
MAW	**Mawson**	**78.59**	**191**	P	**P**	**14 51 07.6**	**+2.0**
	comp=Z,9.6nm,0.9s,mb4.8,baz=46,slow=5.1,SNR=6.5						
MAW	**Mawson**	**78.59**	**191**	P	**P**	**14 51 07.6**	**+2.1**
MAW				pmax	pmax		
	comp=Z,10.0nm,0.9s						
MAW	**Mawson**	**78.59**	**191**	*e*P	**P**	**14 51 07.3**	**+1.7**
	comp=Z,13nm,0.8s,mb4.9						
DAVA	**Damuels**	**78.90**	**317**	⇓*i*P	**P**	**14 51 07.8**	**+0.1**
	comp=Z,30nm,0.9s,mb5.2						
SUR	**Sutherland**	**79.15**	**235**	*e*P	**P**	**14 51 11.7**	**+2.4**
	comp=Z,30nm,1.0s,mb5.2						
LPL	**La Plagne**	**81.12**	**315**	*e*P	**P**	**14 51 19.8**	**+0.2**
	comp=Z,66nm,0.8s,mb5.3						
BNI	**Bardonecchia**	**81.18**	**314**	*e*P	**P**	**14 51 20.1**	**+0.2**
	comp=Z,25nm,1.0s,mb5.1						
RPZ	**Rata Peaks**	**87.56**	**135**	P	**P**	**14 51 52.9**	**+0.9**
	comp=Z,14nm,0.8s,mb5.3,baz=12,slow=2.3,SNR=6.1						
ESDC	**Sonseca Array**	**89.64**	**310**	P	**P**	**14 52 02.7**	**+0.6**
	comp=Z,1.3nm,0.5s,mb4.5,baz=65,slow=4.7,SNR=8.5						
ESDC	**Sonseca Array**	**89.64**	**310**	P	pP	14 52 10.9	-1.6
	comp=Z,1.4nm,0.7s,baz=64,slow=4.2,SNR=6.7						
ESLA	**Sonseca Array**	**89.64**	**310**	*e*P	**P**	**14 52 02.5**	**+0.4**
	comp=Z,5.5nm,1.2s,mb4.8						
URZ	**Urewera**	**90.94**	**128**	P	**P**	**14 52 07.8**	**-0.4**
	comp=Z,8.0nm,0.9s,mb5.1,baz=73,slow=14,SNR=2.9						
VNDA	**Vanda**	**93.67**	**168**	P	**P**	**14 52 21.1**	**+1.3**
	comp=Z,0.8nm,0.6s,mb4.3,baz=356,slow=4.8,SNR=3.8						
VNDA	**Vanda**	**93.67**	**168**	P	**P**	**14 52 21.1**	**+1.3**
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ILAR	**Eielson Array**	**95.02**	**22**	P	**P**	**14 52 26.1**	**-0.1**
	comp=Z,1.3nm,1.0s,mb4.3,baz=289,slow=4.3,SNR=6.0						
ILAR	**Eielson Array**	**95.02**	**22**	P	pP	14 52 35.6	-1.1
	comp=Z,0.8nm,0.7s,baz=313,slow=4.4,SNR=8.9						
ILAR	**Eielson Array**	**95.02**	**22**	P	**P**	**14 52 26.1**	**-0.1**
ILAR				pmax	pmax		
	comp=Z,1.0nm,1.0s						
DBIC	**Dimbokro**	**96.18**	**278**	P	**P**	**14 52 34.5**	**+1.7**
	comp=Z,4.4nm,0.7s,mb5.0,baz=56,slow=8.3,SNR=5.7						
DBIC	**Dimbokro**	**96.18**	**278**	P	**P**	**14 52 34.5**	**+1.7**
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.7s						
DBIC	**Dimbokro**	**96.18**	**278**	*e*P	**P**	**14 52 33.9**	**+1.1**
	comp=Z,6.4nm,0.8s,mb5.1						
INK	**Inuvik**	**97.08**	**16**	P	**P**	**14 52 36.5**	**+1.0**
	comp=Z,3.3nm,0.8s,mb4.8,baz=341,slow=4.7,SNR=10						
INK	**Inuvik**	**97.08**	**16**	P	pP	14 52 44.7	-1.3
	comp=Z,2.8nm,0.7s,baz=310,slow=7.1,SNR=7.3						
INK	**Inuvik**	**97.08**	**16**	P	**P**	**14 52 36.6**	**+1.1**
INK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ULM	**Lac du Bonnet**	**121.27**	**6**	PKP	PKPdf	14 57 58.1	-3.0
	comp=Z,1.7nm,0.5s,baz=11,slow=3.8,SNR=3.4						
PDAR	**Pinedale Array**	**125.39**	**20**	PKP	PKPdf	14 58 06.2	-3.2
	comp=Z,1.5nm,0.7s,baz=43,slow=1.0,SNR=12						
NVAR	**Mina Array Bea**	**125.44**	**29**	PKP	PKPdf	14 58 07.7	-1.9
	comp=Z,3.2nm,0.8s,baz=276,slow=2.6,SNR=12						
NVAR	**Mina Array Bea**	**125.44**	**29**	PKP		14 58 16.6	
	comp=Z,1.5nm,0.7s,baz=238,slow=5.0,SNR=6.0						
NVAR	**Mina Array Bea**	**125.44**	**29**	PKP	PKPdf	14 58 07.7	-1.9
NVAR				PKP		14 58 16.6	
ANMO	**Albuquerque**	**133.46**	**21**	PKP	PKPdf	14 58 22.1	-2.8
	comp=Z,1.3nm,0.7s,baz=158,slow=1.2,SNR=6.3						
TXAR	**Lajitas Array**	**139.53**	**22**	PKP	PKPdf	14 58 33.5	-2.8
	comp=Z,0.6nm,0.5s,baz=233,slow=0.4,SNR=11						
TXAR	**Lajitas Array**	**139.53**	**22**	PKP		14 58 44.3	
	comp=Z,0.4nm,0.5s,baz=343,slow=0.1,SNR=7.5						
TXAR	**Lajitas Array**	**139.53**	**22**	PKP	PKPdf	14 58 33.5	-2.8
TXAR				PKP		14 58 44.3	
BDFB	**Brasilia**	**140.64**	**255**	PKP	PKPdf	14 58 35.6	-3.0

	comp=Z,3.8nm,0.9s,baz=170,slow=1.8,SNR=5.5						
BDFB	Brasilia	140.64	255	PKIKP	PKPdf	14 58 35.6	-3.0
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.9s						
PCRV	Puerto La Cruz	150.69	308	PKPbc	PKPdf	14 58 55.8	+0.3
	comp=Z,5.6nm,0.5s,baz=210,slow=13,SNR=5.4						
PCRV				PKPab	PKPab	14 59 05.0	+0.1
	comp=Z,10nm,0.7s,baz=57,slow=6.8,SNR=3.7						
SDV	Santo Domingo	155.99	315	PKPab	PKPab	14 59 26.1	-1.2
	comp=Z,2.4nm,0.5s,baz=340,slow=2.8,SNR=4.1						
LVC	Limon Verde	157.07	229	PKPab	PKPab	14 59 32.8	+1.2
	comp=Z,4.9nm,0.7s,baz=109,slow=2.4,SNR=7.0						
LPAZ	La Paz	159.39	245	PKP	PKPdf	14 59 05.2	-1.9
	comp=Z,1.5nm,0.7s,baz=62,slow=7.1,SNR=4.9						
LPAZ				PKPab	PKPab	14 59 42.9	+1.1
	comp=Z,5.6nm,0.6s,baz=114,slow=4.5,SNR=21						
LPAZ	La Paz	159.39	245	PKIKP	PKPdf	14 59 05.2	-1.9
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.6s						

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*BJI **26** 14:40:20.9, 10.52N×92.15E, h30^{km}, mB5.8, mb5.1, Ms5.6, Msz5.4*

*IDC **26** 14:40:25.8±0.5, 11.47N×92.17E, mb4.8/24, mb1 4.9/25, mb1mx4.9/27, ML4.3/1, Error ellipse: s-maj=20.1km s-min=12.2km az=49.0*

*NEIC **26** 14:40:30.4±0.2, 11.47N×92.18E, h30^{km}, mb5.3/44, Error ellipse: s-maj=5.8km s-min=4.8km az=219.0*

ISC 26 14:40:27.8±0.3**, 11.42N**±0.05×**92.19E**±0.04**, h26**^{km}**, h26**^{km}±.6^{km}**:pP-P, n122,** σ**0**^{s}**77**/111**, mb5.1**/72**, MS5.5**/1**, 2C-4D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	9.57	42	*e*P	P	14 42 52.9	+5.8
	53nm,0.9s						
CMAR	Chiang Mai Arr	9.57	42	Pn	P	14 42 52.6	+5.4
	0.8nm,0.3s,baz=237,slow=15,SNR=3.3						
CMAR				Sn	Sn	14 44 35.5	+0.6
	0.4nm,0.3s,baz=236,slow=27,SNR=3.1						
KMI	Kunming	16.90	35	P	P	14 44 25.3	+0.9
KMI				AMB	AMB		
	comp=Z,44nm,1.3s						
KMI				AMB	AMB		
	comp=Z,4μm,10.8s						
CD2	Chengdu	22.16	27	P	P	14 45 23.5	0.0
CD2				AMB	AMB		
	comp=Z,180nm,0.8s,mb5.5						
COCO	West Island	23.90	169	P	P	14 45 46.2	+5.5
	comp=Z,450nm,1.5s,mb5.7						
ENH	Enshi	24.70	38	*e*P	P	14 45 48.2	-0.1
	comp=Z,241nm,1.2s,mb5.6						
LZH	Lanzhou	26.73	21	⇑P	P	14 46 08.0	+0.8
LZH				AMB	AMB		
	comp=Z,54nm,1.0s,mb5.0						
GTA	Gaotai	28.69	12	P	P	14 46 25.5	+0.6
GTA				AP	pP	14 46 33.3	+0.7
GTA				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
KSH	Kashi	31.47	336	P	P	14 46 50.0	+0.3
KSH				AP	pP	14 46 58.5	+1.1
KSH				*e*XP	sP	14 47 02.0	+1.2
KSH				AMB	AMB		
	comp=Z,320nm,7.9s						
NJ2	Nanjing	32.01	46	*e*P	P	14 46 53.5	-1.0
NJ2				AP	pP	14 47 01.0	-1.3
WMQ	Urumqi	32.52	354	P	P	14 46 59.8	+1.1
WMQ				AP	pP	14 47 04.3	-2.2
WMQ				XP	sP	14 47 06.8	-3.1
WMQ				AMB	AMB		
	comp=Z,36nm,1.0s,mb5.3						
HHC	Hu-ho-hao-te	33.92	27	*e*P	P	14 47 11.3	+0.3
HHC				AP	pP	14 47 18.3	-0.5
HHC				XP	sP	14 47 24.5	+2.4
HHC				AMB	AMB		
	comp=Z,35nm,1.0s,mb5.2						
HHC				AMB	AMB		
	comp=Z,1μm,9.6s						
HHC				LR	LR		
	comp=N,3μm,15.5s,MS5.5						
HHC				LR	LR		
	comp=E,7μm,16.7s,MS5.5						
HHC				LR	LR		
	comp=Z,7μm,15.5s,MS5.5						
BJT	Baijiatuau	35.52	32	*e*P	P	14 47 25.1	+0.4
	comp=Z,48nm,1.0s,mb5.4						
BJI	Beijing	35.53	32	P	P	14 47 25.3	+0.5
BJI				AMB	AMB		
	comp=Z,42nm,0.9s,mb5.4						
JOW	Kunigami	37.22	60	P	P	14 47 40.5	+1.4
	comp=Z,16nm,0.7s,mb5.0,baz=262,slow=7.6,SNR=3.9						
SONM	Songino Array	38.21	16	P	P	14 47 47.8	+0.6
	comp=Z,20nm,1.0s,mb4.8,baz=198,slow=7.8,SNR=14						
SONM				PcP	PcP	14 50 02.3	+0.4
	comp=Z,4.4nm,0.9s,baz=200,slow=4.0,SNR=4.4						
ULN	Ulaanbaatar	38.41	16	*e*P	P	14 47 48.9	0.0
	comp=Z,28nm,1.2s,mb4.9						
SNY	Shenyang	40.87	37	⇓P	P	14 48 08.5	-0.8
SNY				AMB	AMB		
	comp=Z,30nm,1.3s,mb4.8						
KS15	Wonju Array Si	41.16	45	*e*P	P	14 48 11.8	0.0
TLY	Talaya	41.22	11	*e*P	P	14 48 13.6	+1.6
	comp=Z,20nm,1.1s,mb4.7						
MBWA	Marble Bar	42.20	140	*e*P	P	14 48 19.2	-1.4
	comp=Z,70nm,1.3s,mb5.1						
ZAL	Zalesovo	42.82	354	P	P	14 48 25.2	0.0
	comp=Z,15nm,0.9s,mb4.7,baz=307,slow=7.7,SNR=16						
HIA	Hailar	44.11	26	*e*P	P	14 48 35.5	-0.2
	comp=Z,9.6nm,0.9s,mb4.5						
QRN	Al-Qurain	44.72	299	*e*P	P	14 48 41.7	+0.7
BVAR	Borovoye Array	45.04	342	P	P	14 48 42.8	-0.4
	comp=Z,9.7nm,0.9s,mb4.6,baz=135,slow=8.4,SNR=8.3						
BVAR				PcP	PcP	14 50 24.1	-0.2
	comp=Z,5.0nm,0.8s,baz=162,slow=4.7,SNR=3.7						
RDF	Al-Radifah	45.07	300	*e*P	P	14 48 44.3	+0.6
RDF				AMb	AMB	14 48 46.2	
	comp=Z,108nm,1.3s,mb5.5						
BRVK	Borovoye	45.10	341	*e*P	P	14 48 42.3	-1.3
	comp=Z,23nm,1.1s,mb4.9						
BRVK				*e*		14 48 52.4	
CHKZ	Chkalovo	45.53	342	*e*P	P	14 48 46.9	-0.1
	comp=Z,87nm,1.2s,mb5.6						
RST	Umm Al-Ruwaisa	45.67	300	*e*P	P	14 48 48.9	+0.4
RST				AMb	AMB	14 48 50.7	
	comp=Z,96nm,1.1s,mb5.6						
MDJ	Mudanjiang	46.06	37	P	P	14 48 52.8	+1.5
	comp=Z,20nm,1.2s,mb4.9						
MAJO	Matsushiro	48.32	51	*e*P	P	14 49 09.2	-0.1
	comp=Z,26nm,1.2s,mb5.1						
MAT	Matsushiro	48.32	51	P	P	14 49 07.5	-1.7
MAT	Matsushiro	48.32	51	*e*P	P	14 49 08.0	-1.2
	comp=Z,56nm,1.5s,mb5.4						
NWAO	Narrogin (SRO)	50.16	152	P	P	14 49 24.8	+1.4
	comp=Z,7.6nm,0.9s,mb4.7,baz=288,slow=3.2,SNR=2.6						
GNI	Garni	50.61	313	P	P	14 49 28.3	+1.6
	comp=Z,32nm,0.9s,mb5.2,baz=17,slow=1.2,SNR=13						
GNI	Garni	50.61	313	*e*P	P	14 49 27.5	+0.7
	comp=Z,95nm,1.3s,mb5.6						
WRA	Warramunga Arr	51.89	127	P	P	14 49 36.0	-0.7
	comp=Z,6.8nm,0.4s,mb4.9,baz=300,slow=10,SNR=18						
WRAB	Tennant Creek	51.89	127	*e*P	P	14 49 35.8	-0.9
	comp=Z,15nm,0.4s,mb5.3						
ARU	Arti	51.90	337	*e*P	P	14 49 34.9	-1.4
	comp=Z,25nm,1.0s,mb5.1						
KIV	Kislovodsk	53.42	317	P	P	14 49 48.4	+0.6
	comp=Z,369nm,1.1s,SNR=12						
KIV	Kislovodsk	53.42	317	*e*P	P	14 49 48.0	+0.2
	comp=Z,113nm,1.2s,mb5.7						
ASAR	Alice Springs	53.66	131	P	P	14 49 49.0	-0.8
	comp=Z,2.1nm,0.4s,mb4.4,baz=304,slow=8.2,SNR=11						
ASAJ	Asahikawa	54.09	43	P	P	14 49 51.2	-1.5
	comp=Z,8.3nm,0.8s,mb4.7,baz=192,slow=17,SNR=2.0						
MALT	Malatya	54.73	309	*e*P	P	14 49 57.2	-0.3
	comp=Z,53nm,1.3s,mb5.4						
KMBO	Kilima Mbogo	55.99	261	P	P	14 50 07.6	+0.7
	comp=Z,9.0nm,1.2s,mb4.7,baz=53,slow=14,SNR=5.7						
KMBO	Kilima Mbogo	55.99	261	*e*P	P	14 50 07.2	+0.2
KMBO				*e*	pP	14 50 15.9	+0.9
EIL	Elat	56.04	298	*e*P	P	14 50 06.8	-0.3
	comp=Z,52nm,1.2s,mb5.4						
EIL				*e*	pP	14 50 14.1	-1.1
YAK	Yakutsk	57.30	20	*e*P	P	14 50 14.6	-1.1
	comp=Z,45nm,1.0s,mb5.5						
BRTR	Keskin Array B	58.69	310	P	P	14 50 24.2	-1.4
	comp=Z,9.1nm,0.9s,mb4.8,baz=121,slow=7.2,SNR=11						
OBN	Obninsk	61.37	327	*e*P	P	14 50 43.0	-0.8
	comp=Z,112nm,1.3s,mb5.8						
OBN				*e*	pP	14 50 51.8	-0.3
CTA	Charters Tower	61.73	120	P	P	14 50 46.9	+0.1
	comp=Z,11nm,1.1s,mb4.9,baz=278,slow=11,SNR=3.2						
CTAO	Charters Tower	61.73	120	*e*P	P	14 50 46.7	0.0
	comp=Z,54nm,1.4s,mb5.5						
CTAO				*e*	pP	14 50 54.0	-0.9
MBAR	Mbarara	62.19	263	*e*P	P	14 50 50.4	+0.4
	comp=Z,31nm,1.4s,mb5.2						
MBAR				*e*	pP	14 50 57.2	-0.9
STKA	Stephens Creek	63.93	134	P	P	14 51 00.9	-0.3
	comp=Z,5.6nm,1.0s,mb4.5,baz=329,slow=8.8,SNR=4.3						
AKASG	Malin Array Be	64.20	321	P	P	14 51 01.1	-1.6
	comp=Z,15nm,1.0s,mb5.0,baz=90,slow=4.6,SNR=16						
MA2	Magadan	64.57	29	*e*P	P	14 51 04.1	-0.7
	comp=Z,53nm,1.1s,mb5.5						
MLR	Muntele Rosu	65.31	315	P	P	14 51 09.2	-0.8
	comp=Z,31nm,1.0s,mb5.3,baz=76,slow=2.8,SNR=10						
KOLS	Kolonicke sedl	68.29	318	*e*P	P	14 51 28.8	0.0
KOLS				*e*pP	pP	14 51 37.4	+0.4
SUW	Suwalki	68.53	324	*e*P	P	14 51 28.9	-1.2
	comp=Z,129nm,1.1s,mb5.8						
LSZ	Lusaka	68.70	249	*e*P	P	14 51 32.3	+0.5
	comp=Z,22nm,1.2s,mb5.0						
LSZ				*e*	pP	14 51 40.1	+0.1
FINES	FINESS Array B	68.70	332	P	P	14 51 30.6	-0.4
	comp=Z,19nm,0.8s,mb5.1,baz=121,slow=11,SNR=14						
KAF	Kangasniemi	68.78	333	*e*p	P	14 51 31.3	-0.2
	comp=Z,34nm,1.1s,mb5.2						
CRVS	Cervenica-Dubn	68.82	318	*e*P	P	14 51 34.5	+2.5
CRVS				*e*pP	pP	14 51 45.9	+5.7
KECS	Kecovo	69.41	318	*e*P	P	14 51 35.4	-0.3
NIE	Niedzica	69.63	319	*e*P	P	14 51 37.0	0.0
OJC	Ojcow	70.05	319	*e*P	P	14 51 38.7	-0.8
VYHS	Vyhne	70.51	317	*e*P	P	14 51 41.9	-0.4
VYHS				*e*pP	pP	14 51 50.2	-0.3
KEV	Kevo	70.87	340	*e*p	P	14 51 44.2	0.0
	comp=Z,27nm,0.9s,mb5.2						
OKC	Ostrava-Krasne	71.07	319	*e*P	P	14 51 45.3	-0.4
OKC				*e*pP	pP	14 51 54.3	+0.3
ARCES	ARCESS Array B	71.30	340	P	P	14 51 47.0	+0.2
	comp=Z,20nm,0.8s,mb5.1,baz=101,slow=6.2,SNR=14						
MORC	Moravsky Berou	71.45	319	*e*P	P	14 51 47.4	-0.6
	comp=Z,22nm,1.1s,mb5.0						
MORC				*e*	pP	14 51 56.2	-0.1
ZST	Bratislava	71.64	317	*e*P	P	14 51 48.6	-0.6
ZST				*e*pP	pP	14 51 57.7	+0.3
ZST				*e*		14 59 32.2	
DPC	Dobruska-Polom	72.28	319	*e*P	P	14 51 53.3	+0.4
DPC				*e*pP	pP	14 52 01.1	-0.1
KSP	Ksiaz	72.33	320	⇓*e*P	P	14 51 53.1	-0.1
KSP				*e*	pP	14 52 00.6	-0.9
UPC	Upice	72.48	319	*e*P	P	14 51 54.5	+0.3
UPC				*e*pP	pP	14 52 02.6	+0.2
PRU	Pruhonice	73.40	319	*e*P	P	14 51 59.4	-0.2
PRU				*e*pP	pP	14 52 07.7	-0.1
PVCC	Panska Ves	73.41	319	*e*P	P	14 51 59.9	+0.3
PVCC				*e*pP	pP	14 52 08.8	+1.0
BILL	Bilibino	73.54	22	*e*P	P	14 51 59.3	-0.7
	comp=Z,35nm,1.3s,mb5.1						
BILL				*e*	pP	14 52 07.5	-0.7
BRG	Berggiesshubel	73.82	320	*i* P	P	14 52 02.1	+0.2
	comp=Z,40nm,1.4s,mb5.2						
GERES	GERESS Array B	73.92	318	P	P	14 52 02.4	-0.1
	comp=Z,7.7nm,0.8s,mb4.7,baz=90,slow=5.3,SNR=11						
RUE	Ruedersdorf	73.97	321	*e*P	P	14 52 02.7	-0.1
	comp=Z,39nm,0.9s,mb5.3						
RUE				*e*	pP	14 52 11.1	+0.1
KHC	Kasperske Hory	74.01	318	*e*P	P	14 52 02.2	-0.9
KHC				*e*pP	pP	14 52 11.9	+0.6
LBTB	Lobatse	74.30	240	*e*P	P	14 52 06.0	+0.7
	comp=Z,35nm,1.2s,mb5.2						
LBTB				*e*	pP	14 52 14.2	+0.7
CLL	Collm	74.42	320	⇓*i*P	P	14 52 04.6	-0.8
	comp=Z,26nm,1.2s,mb5.0						
CLL				*e*	pP	14 52 13.0	-0.7
CLL	Collm	74.42	320	⇓P	P	14 52 04.6	-0.8
	comp=Z,logA/T=1.3,mb5.0						
CLL				*e**PP	pP	14 52 13.0	-0.7
HFS	Hagfors	74.44	329	P	P	14 52 05.1	-0.2
	comp=Z,16nm,0.8s,mb5.0,baz=104,slow=6.1,SNR=9.2						
NKC	Novy Kostel	74.76	319	*e*P	P	14 52 07.4	0.0
MOX	Moxa	75.29	320	*i* P	P	14 52 10.4	0.0
MOX	Moxa	75.29	320	*e*P	P	14 52 10.4	0.0
GRA1	Grafenberg Arr	75.55	319	*e*P	P	14 52 12.4	+0.5
	comp=Z,39nm,1.3s,mb5.2						
GRF	Grafenberg Arr	75.55	319	*e*P	P	14 52 12.4	+0.5
	comp=Z,39nm,1.3s,mb5.2						
NB2	NORSAR Subarra	75.72	330	P	P	14 52 12.0	-0.7
	comp=Z,32nm,1.1s,mb5.2,baz=94,slow=5.6						
NB2	NORSAR Subarra	75.72	330	P	P	14 52 12.0	-0.7
	baz=94,slow=5.6						
NOA	NORSAR Array B	75.72	330	P	P	14 52 11.7	-1.0
	comp=Z,11nm,0.9s,mb4.8,baz=94,slow=5.5,SNR=8.8						
BOSA	Boshof	75.88	237	*e*P	P	14 52 15.0	+0.8
	comp=Z,50nm,1.4s,mb5.3						
BOSA				*e*	pP	14 52 23.1	+0.5
MUD	Monsted U'grnd	76.72	326	*e*P	P	14 52 18.1	-0.3
MUD	Monsted U'grnd	76.72	326	*i* P	P	14 52 18.1	-0.3
LPL	La Plagne	78.79	314	*e*P	P	14 52 30.1	+0.1
	comp=Z,98nm,1.2s,mb5.3						
SUR	Sutherland	80.79	234	*e*P	P	14 52 43.1	+2.1
	comp=Z,30nm,1.1s,mb5.1						
SUR				*e*	pP	14 52 51.6	+2.2
MAW	Mawson	81.61	191	P	P	14 52 45.7	+1.1
	comp=Z,5.9nm,0.8s,mb4.5,baz=52,slow=5.6,SNR=4.4						
MAW	Mawson	81.61	191	*e*P	P	14 52 44.9	+0.3
	comp=Z,18nm,1.2s,mb4.9						
DAG	Danmarks Havn	83.62	347	⇑*i*P	P	14 52 54.8	0.0
	comp=Z,14nm,1.1s,mb5.0						
ESDC	Sonseca Array	87.48	310	P	P	14 53 14.9	+0.2
	comp=Z,4.5nm,0.9s,mb4.7,baz=54,slow=4.2,SNR=6.7						
IMA	Indian Mountai	89.08	22	*e*P	P	14 53 23.0	+1.3
	comp=Z,53nm,0.8s,mb5.9						
SUMG	Summit	90.28	347	*e*P	P	14 53 27.8	+0.5
	comp=Z,28nm,1.2s,mb5.5						
COLA	College	91.79	22	*e*P	P	14 53 34.7	+0.4
	comp=Z,5.8nm,1.0s,mb4.9						
SPU	Mount Spurr	91.97	26	*e*P	P	14 53 36.2	+1.0
SPU				*e*	pP	14 53 43.5	-0.1
RSO	Redoubt South	92.00	27	*e*P	P	14 53 35.8	+0.4
ILAR	Eielson Array	92.19	22	P	P	14 53 36.0	-0.1
	comp=Z,5.1nm,0.8s,mb4.9,baz=296,slow=4.2,SNR=24						
INK	Inuvik	94.13	15	P	P	14 53 45.5	+0.5
	comp=Z,6.0nm,1.0s,mb5.0,baz=322,slow=5.2,SNR=6.9						
YKA	Yellowknife Ar	103.42	12	Pdiff	Pdif	14 54 27.4	+0.4
	comp=Z,0.6nm,0.9s,baz=325,slow=4.2,SNR=6.5						
PDAR	Pinedale Array	122.52	19	PKP	PKPdf	14 59 23.1	-2.9
	comp=Z,1.8nm,0.9s,baz=45,slow=2.1,SNR=7.3						
NVAR	Mina Array Bea	122.81	28	PKP	PKPdf	14 59 25.3	-1.4
	comp=Z,3.1nm,0.7s,baz=264,slow=2.3,SNR=11						
MVU	Marysvale	125.35	23	*e*PKPdf	PKPdf	14 59 30.4	-1.3
MSU	Marysvale	125.36	23	*e*PKPdf	PKPdf	14 59 30.5	-1.3
PV10	Paradox Valley	126.64	21	*e*PKPdf	PKPdf	14 59 31.3	-2.9
NEN	Nelson	126.67	27	*e*PKPdf	PKPdf	14 59 32.4	-1.9
ANMO	Albuquerque	130.61	20	PKP	PKPdf	14 59 40.3	-1.6
	comp=Z,3.5nm,1.0s,baz=251,slow=2.2,SNR=6.1						
TXAR	Lajitas Array	136.69	20	PKP	PKPdf	14 59 52.3	-1.0
	comp=Z,3.2nm,1.0s,baz=270,slow=1.3,SNR=9.8						
SDV	Santo Domingo	153.57	319	PKP	PKPdf	15 00 19.0	-3.0
	comp=Z,1.2nm,0.3s,baz=284,slow=8.3,SNR=2.7						
SDV				PKPbc	PKPdf	15 00 25.9	+3.9
	comp=Z,7.0nm,0.9s,baz=273,slow=3.3,SNR=6.3						
SDV				PKPab	PKPab	15 00 39.7	-0.2
	comp=Z,17nm,0.9s,baz=31,slow=3.3,SNR=12						
ROSC	El Rosal	158.99	320	PKP	PKPdf	15 00 27.9	-1.3
	comp=Z,2.6nm,0.3s,baz=95,slow=21,SNR=4.2						
ROSC				PKPab	PKPab	15 01 03.8	+0.6
	comp=Z,10nm,0.8s,baz=97,slow=8.9,SNR=6.6						
LPAZ	La Paz	160.29	254	PKP	PKPdf	15 00 29.1	-1.4
	comp=Z,3.1nm,1.0s,baz=345,slow=10,SNR=3.7						
LPAZ				PKPab	PKPab	15 01 09.8	+1.2
	comp=Z,13nm,1.4s,baz=68,slow=7.1,SNR=5.4						

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*IDC **26** 14:45:11.1±0.6, 7.50N×93.83E, h19^{km}±2^{km}, mb4.2/16, mb1 4.3/17, mb1mx4.2/23, ML4.1/1, Error ellipse: s-maj=28.4km s-min=12.1km az=52.0*

ISC 26 14:45:09.3±0.5**, 7.5N**±0.1×**93.8E**±0.1**, h21**^{km}**, h21**^{km}±.3^{km}**:pP-P, n21,** σ**0**^{s}**79**/20**, mb4.3**/18**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.01	24	Pn	P	14 48 02.8	+0.2
	0.4nm,0.3s,baz=211,slow=14,SNR=4.0						
SONM	Songino Array	41.63	13	P	P	14 52 57.5	-0.2
	1.0nm,0.4s,mb3.8,baz=197,slow=8.5,SNR=8.7						
SONM				pP	pP	14 53 03.5	-0.4
	2.7nm,0.7s,baz=195,slow=8.0,SNR=11						
NWAO	Narrogin (SRO)	45.93	152	P	P	14 53 33.5	+0.7
	5.9nm,0.9s,mb4.5,baz=206,slow=17,SNR=3.2						
ZAL	Zalesovo	46.91	353	P	P	14 53 39.6	-0.6
	4.0nm,0.4s,mb4.7,baz=304,slow=4.8,SNR=12						
WRA	Warramunga Arr	48.28	125	P	P	14 53 50.8	-0.6
	3.0nm,0.7s,mb4.5,baz=305,slow=8.6,SNR=8.6						
BVAR	Borovoye Array	49.27	342	P	P	14 53 59.9	+1.3
	0.7nm,0.7s,mb3.8,baz=251,slow=36,SNR=2.6						
ASAR	Alice Springs	49.90	129	P	P	14 54 03.6	-0.2
	3.7nm,0.7s,mb4.5,baz=302,slow=7.3,SNR=12						
ASAR				pP	pP	14 54 10.1	0.0
	2.3nm,0.6s,baz=302,slow=6.9,SNR=7.5						
STKA	Stephens Creek	60.06	133	P	P	14 55 17.5	0.0
	2.4nm,0.7s,mb4.3,baz=164,slow=19,SNR=3.0						
STKA				pP	pP	14 55 23.3	-0.6
	1.7nm,0.7s,baz=316,slow=19,SNR=2.3						
BRTR	Keskin Array B	62.45	311	P	P	14 55 32.4	-1.2
	0.8nm,0.5s,mb4.1,baz=141,slow=7.9,SNR=3.5						
BRTR				pP	pP	14 55 39.0	-1.0
	2.9nm,0.9s,baz=123,slow=7.9,SNR=5.8						
IDI	Anoyia	68.54	305	P	P	14 56 13.0	+0.2
	5.0nm,0.9s,mb4.5,baz=109,slow=14,SNR=2.1						
MLR	Muntele Rosu	69.24	316	P	P	14 56 17.3	+0.3
	3.1nm,0.7s,mb4.4,baz=176,slow=5.5,SNR=3.5						
FINES	FINESS Array B	72.92	332	P	P	14 56 38.5	-0.3
	12nm,1.1s,mb4.7,baz=107,slow=7.3,SNR=16						
FINES				pP	pP	14 56 44.9	-0.3
	4.1nm,0.6s,baz=96,slow=6.5,SNR=5.4						
KAF	Kangasniemi	73.01	333	*e*p	P	14 56 39.2	-0.1
	2.9nm,0.5s,mb4.5						
ARCES	ARCESS Array B	75.54	340	P	P	14 56 54.0	+0.2
	2.9nm,0.8s,mb4.2,baz=106,slow=6.3,SNR=8.8						
ARCES				pP	pP	14 57 00.8	+0.5
	4.0nm,1.0s,baz=104,slow=5.0,SNR=2.3						
GERES	GERESS Array B	77.92	318	P	P	14 57 08.4	+1.0
	1.3nm,0.6s,mb4.1,baz=91,slow=5.7,SNR=10						
GERES				pP	pP	14 57 14.5	+0.5
	2.1nm,0.7s,baz=91,slow=5.4,SNR=9.3						
HFS	Hagfors	78.65	330	P	P	14 57 11.5	+0.3
	3.4nm,0.8s,mb4.3,baz=108,slow=4.7,SNR=9.4						
HFS				pP	pP	14 57 18.2	+0.5
	4.1nm,1.0s,baz=90,slow=5.9,SNR=2.6						
NB2	NORSAR Subarra	79.93	331	P	P	14 57 17.2	-0.9
	4.7nm,1.0s,mb4.4,baz=96,slow=5.0						
NOA	NORSAR Array B	79.93	331	P	P	14 57 17.5	-0.7
	1.3nm,0.7s,mb4.0,baz=96,slow=5.7,SNR=5.0						
NOA				pP	pP	14 57 24.4	-0.3
	2.0nm,0.7s,baz=94,slow=5.6,SNR=7.0						
LPG	La Plagne	82.68	315	*e*P	P	14 57 30.8	-2.1
	19nm,1.0s,mb4.8						
ESDC	Sonseca Array	91.24	310	P	P	14 58 16.0	+1.3
	0.6nm,0.4s,mb4.2,baz=64,slow=3.8,SNR=5.9						
ESDC				pP	pP	14 58 22.6	+1.3
	4.6nm,1.1s,baz=63,slow=3.9,SNR=3.9						
PDAR	Pinedale Array	125.66	21	PKP	PKPdf	15 04 11.4	-2.5
	0.3nm,1.0s,slow=4.4,SNR=3.8						

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*IDC **26** 14:47:12.9±0.4, 4.67N×95.10E, mb4.6/27, mb1 4.7/27, mb1mx4.7/29, Error ellipse: s-maj=18.4km s-min=11.0km az=50.0*

*BJI **26** 14:47:15.5, 4.58N×95.14E, h31^{km}, mB5.6, mb5.1*

*NEIC **26** 14:47:17.4±0.2, 4.63N×95.10E, h30^{km}, mb4.9/27, Error ellipse: s-maj=7.2km s-min=5.6km az=54.0*

ISC 26 14:47:15.8±0.3**, 4.60N**±0.05×**95.12E**±0.06**, h30**^{km}**, n91,** σ**1**^{s}**06**/85**, mb4.8**/57**, 2C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	Nakhon Sawan	12.05	24	P	P	14 50 11.0	+2.2
COCO	West Island	16.77	174	*e*P	P	14 51 14.1	+3.7
	79nm,1.1s						
QIZ	Qiongzhong	20.30	44	*e*P	P	14 51 49.8	-2.5
GYA	Guiyang	24.38	26	⇑*i*P	P	14 52 33.5	+0.7
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.7						
CD2	Chengdu	27.41	16	P	P	14 53 00.3	-0.7
CD2				AMB	AMB		
	comp=Z,80nm,0.6s,mb5.4						
ENH	Enshi	28.91	26	*e*P	P	14 53 07.9	-6.7
	comp=Z,18nm,0.8s,mb4.9						
XAN	Xi'an	31.98	22	P	P	14 53 40.0	-1.7
GTA	Gaotai	34.91	6	P	P	14 54 06.0	-1.0
GTA				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
NJ2	Nanjing	35.22	36	*e*P	P	14 54 10.0	+0.3
JOW	Kunigami	38.60	52	P	P	14 54 39.3	+1.0
	comp=Z,24nm,0.5s,mb5.2						
HHC	Hu-ho-hao-te	39.00	20	*e*P	P	14 54 42.0	+0.6
HHC				AP	pP	14 54 51.3	+0.9
HHC				XP	sP	14 54 56.0	+1.8
HHC				PP	PP	14 56 17.5	+2.6
HHC				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.0						
HHC				AMB	AMB		
	comp=Z,1μm,10.7s						
BJT	Baijiatuau	40.05	25	*e*P	P	14 54 51.3	+1.2
	comp=Z,47nm,0.8s,mb5.3						
BJI	Beijing	40.07	25	P	P	14 54 51.5	+1.2
BJI				AMB	AMB		
	comp=Z,61nm,0.8s,mb5.4						
KZA	Kyzart	41.31	337	P	P	14 55 02.3	+1.9
	SNR=8.7						
UCH	Uchtor	41.72	337	P	P	14 55 05.2	+1.3
	SNR=22						
DL2	Dalian	41.77	32	P	P	14 55 05.3	+1.0
DL2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.2						
TKM2	Tokmak 2	41.91	338	P	P	14 55 06.8	+1.4
	SNR=7.7						
KBK	Karagaybulak	41.92	338	P	P	14 55 07.0	+1.5
	SNR=34						
AML	Almayashu	41.97	336	P	P	14 55 07.2	+1.3
	SNR=30						
AAK	Ala-Archa	42.08	337	P	P	14 55 08.6	+1.8
	SNR=14						
AAK	Ala-Archa	42.08	337	*e*P	P	14 55 06.2	-0.6
	comp=Z,30nm,0.8s,mb5.0						
CHMS	Chumysh	42.29	338	P	P	14 55 09.2	+0.7
	SNR=12						
EKS2	Erkin-Say	42.38	337	P	P	14 55 10.3	+1.0
	SNR=16						
USP	Ospenovka	42.61	338	P	P	14 55 11.8	+0.6
	SNR=35						
NWAO	Narrogin (SRO)	42.81	152	P	P	14 55 13.3	+0.3
	comp=Z,10.0nm,0.8s,mb4.6,baz=311,slow=11,SNR=3.6						
SONM	Songino Array	44.15	11	P	P	14 55 22.3	-1.2
	comp=Z,2.4nm,0.6s,mb4.1,baz=193,slow=8.5,SNR=10						
ULN	Ulaanbaatar	44.30	12	P	P	14 55 20.9	-3.9
KS15	Wonju Array Si	44.32	38	*e*P	P	14 55 24.4	-0.7
WRA	Warramunga Arr	45.61	124	P	P	14 55 36.1	+0.4
	comp=Z,24nm,0.6s,mb5.3,baz=302,slow=9.1,SNR=44						
WRAB	Tennant Creek	45.62	124	*e*P	P	14 55 36.4	+0.7
	comp=Z,58nm,1.0s,mb5.5						
ASAR	Alice Springs	47.11	128	P	P	14 55 47.7	+0.3
	comp=Z,9.4nm,0.5s,mb5.0,baz=299,slow=7.9,SNR=57						
ASAR				PcP	PcP	14 57 19.1	-0.2
	comp=Z,5.0nm,0.8s,baz=304,slow=3.9,SNR=6.3						
HIA	Hailar	49.17	21	⇑*e*P	P	14 56 02.4	-0.7
	comp=Z,12nm,0.7s,mb5.0						
ZAL	Zalesovo	49.90	352	P	P	14 56 07.6	-1.0
	comp=Z,8.3nm,0.7s,mb4.9,baz=305,slow=5.9,SNR=19						
MDJ	Mudanjiang	50.01	32	P	P	14 56 09.5	-0.1
MDJ				AMB	AMB		
	comp=Z,19nm,1.3s,mb5.0						
MDJ	Mudanjiang	50.01	32	*e*P	P	14 56 09.3	-0.3
MAJO	Matsushiro	50.69	45	*e*P	P	14 56 15.0	+0.1
	comp=Z,7.5nm,0.9s,mb4.6						
BVAR	Borovoye Array	52.38	341	P	P	14 56 26.3	-1.1
	comp=Z,17nm,0.7s,mb5.1,baz=141,slow=9.5,SNR=54						
BRVK	Borovoye	52.44	341	*e*P	P	14 56 26.7	-1.3
	comp=Z,17nm,0.6s,mb5.2						
CHKZ	Chkalovo	52.87	342	*e*P	P	14 56 30.2	-0.9
	comp=Z,50nm,0.6s,mb5.6						
PMG	Port Moresby	53.70	105	P	P	14 56 36.8	-0.9
	comp=Z,2.8nm,0.4s,mb4.5,baz=135,slow=4.3,SNR=5.4						
CTA	Charters Tower	55.90	118	P	P	14 56 53.5	-0.1
	comp=Z,11nm,1.1s,mb4.8,baz=283,slow=7.5,SNR=5.1						

STKA	Stephens Creek	57.17	133	P	P	14 57 02.0	-0.7
	comp=Z,3.2nm,0.8s,mb4.4,baz=319,slow=14,SNR=4.7						
STKA	Stephens Creek	57.17	133	*e*P	P	14 57 00.6	-2.0
KMBO	Kilima Mbogo	58.09	266	P	P	14 57 10.4	+1.1
	comp=Z,8.6nm,1.0s,mb4.7,baz=59,slow=9.8,SNR=14						
KMBO	Kilima Mbogo	58.09	266	*e*P	P	14 57 09.9	+0.6
	comp=Z,9.5nm,1.0s,mb4.8						
KMBO				*e*		14 57 27.3	
ARU	Arti	59.26	337	*e*P	P	14 57 14.9	-2.1
	comp=Z,6.9nm,0.7s,mb4.8						
MALT	Malatya	61.33	311	*e*P	P	14 57 29.1	-2.2
	comp=Z,1.8nm,0.7s,mb4.3						
YAK	Yakutsk	62.79	18	*e*P	P	14 57 34.8	-5.9
	comp=Z,30nm,1.0s,mb5.4						
MBAR	Mbarara	64.52	267	*e*P	P	14 57 52.4	-0.4
	comp=Z,11nm,1.3s,mb4.7						
BRTR	Keskin Array B	65.30	312	P	P	14 57 56.1	-1.3
	comp=Z,3.2nm,0.7s,mb4.5,baz=130,slow=7.2,SNR=14						
ISP	Isparta	67.23	309	P	P	14 58 09.1	-0.7
	comp=Z,22nm,1.3s,mb5.0						
OBN	Obninsk	68.65	328	P	P	14 58 18.8	+0.5
	comp=Z,13nm,1.0s,mb4.8						
LSZ	Lusaka	69.14	252	*e*P	P	14 58 21.8	-0.3
	comp=Z,8.1nm,0.8s,mb4.7						
IDI	Anoyia	71.23	306	P	P	14 58 33.8	-0.7
	comp=Z,8.9nm,0.9s,mb4.7,baz=69,slow=8.6,SNR=4.4						
AKASG	Malin Array Be	71.31	322	P	P	14 58 32.8	-1.9
	comp=Z,1.4nm,0.3s,mb4.3,baz=81,slow=4.6,SNR=20						
MLR	Muntele Rosu	72.19	316	P	P	14 58 39.7	-0.3
	comp=Z,6.0nm,0.9s,mb4.5,baz=85,slow=1.7,SNR=6.3						
LBTB	Lobatse	73.57	242	*e*P	P	14 58 48.5	0.0
	comp=Z,11nm,0.9s,mb4.8						
LBTB				*e*		14 59 06.3	
BOSA	Boshof	74.71	239	*e*P	P	14 58 55.0	-0.1
	comp=Z,14nm,0.8s,mb4.9						
KOLS	Kolonicke sedl	75.30	319	*e*P	P	14 58 59.2	+1.2
MAW	Mawson	75.56	192	P	P	14 58 59.9	+0.8
	comp=Z,3.3nm,0.7s,mb4.4,baz=54,slow=8.7,SNR=2.9						
SUW	Suwalki	75.72	325	*e*P	P	14 59 00.2	-0.1
	comp=Z,22nm,0.9s,mb5.1						
FINES	FINESS Array B	76.04	332	P	P	14 59 01.3	-0.7
	comp=Z,3.0nm,0.5s,mb4.5,baz=107,slow=6.3,SNR=20						
KAF	Kangasniemi	76.13	333	*e*p	P	14 59 01.7	-0.8
	comp=Z,3.6nm,0.5s,mb4.6						
OJC	Ojcow	77.09	320	*e*P	P	14 59 08.5	+0.4
KEV	Kevo	78.22	341	*e*p	P	14 59 13.8	-0.1
MORC	Moravsky Berou	78.48	320	*e*P	P	14 59 14.9	-0.8
	comp=Z,11nm,1.3s,mb4.6						
ARCES	ARCESS Array B	78.65	340	P	P	14 59 16.3	0.0
	comp=Z,3.2nm,0.7s,mb4.4,baz=98,slow=6.7,SNR=19						
ARCES	ARCESS Array B	78.65	340	P	P	14 59 16.3	0.0
BILL	Bilibino	78.76	21	*e*P	P	14 59 15.1	-1.8
	comp=Z,6.4nm,1.1s,mb4.5						
FX1	Attu Island--F	79.13	37	P	P	14 59 19.1	-0.1
	comp=Z,13nm,0.4s,mb5.2,baz=94,slow=9.3,SNR=8.3						
SUR	Sutherland	79.30	236	*e*P	P	14 59 21.3	+0.7
	comp=Z,18nm,0.9s,mb5.0						
PRU	Pruhonice	80.43	320	*e*P	P	14 59 24.5	-1.8
BRG	Berggiesshubel	80.88	321	*e*P	P	14 59 28.8	+0.2
	comp=Z,1.9nm,0.9s,mb4.0						
GERES	GERESS Array B	80.90	319	P	P	14 59 29.6	+0.8
	comp=Z,1.6nm,0.5s,mb4.2,baz=107,slow=5.6,SNR=15						
KHC	Kasperske Hory	81.00	319	*e*P	P	14 59 31.5	+2.2
CLL	Collm	81.50	321	P	P	14 59 33.0	+1.2
CLL				*e**SP	sP	14 59 48.0	+3.5
HFS	Hagfors	81.76	330	P	P	14 59 32.6	-0.4
	comp=Z,2.4nm,0.5s,mb4.4,baz=104,slow=6.1,SNR=14						
NOA	NORSAR Array B	83.04	331	P	P	14 59 40.3	+0.6
	comp=Z,0.7nm,0.8s,mb3.8,baz=100,slow=5.4,SNR=3.5						
RPZ	Rata Peaks	83.06	135	P	P	14 59 39.6	-0.5
	comp=Z,6.1nm,0.8s,mb4.7,baz=145,slow=15,SNR=2.3						
KIWB	Kanaga Island	85.01	38	P	P	14 59 52.6	+2.9
URZ	Urewera	86.55	129	P	P	14 59 57.3	-0.5
	comp=Z,4.9nm,0.5s,mb5.0,baz=198,slow=9.6,SNR=4.7						
VNDA	Vanda	89.55	168	P	P	15 00 11.5	+0.3
	comp=Z,3.0nm,1.0s,mb4.6,baz=309,slow=6.1,SNR=3.5						
VNDA	Vanda	89.55	168	*e*P	P	15 00 11.1	-0.2
	comp=Z,30nm,1.7s,mb5.3						
ILAR	Eielson Array	97.39	22	P	P	15 00 48.1	+0.7
	comp=Z,0.2nm,0.6s,mb3.7,baz=286,slow=4.7,SNR=4.3						
INK	Inuvik	99.84	16	P	P	15 00 58.9	+0.4
	comp=Z,0.7nm,0.6s,mb4.3,baz=309,slow=6.9,SNR=3.3						
YMR	Madison River	125.66	23	*e*P	PKPdf	15 06 16.7	-3.3
PDAR	Pinedale Array	127.81	23	PKP	PKPdf	15 06 22.4	-1.8
	comp=Z,3.1nm,0.8s,baz=315,slow=4.2,SNR=6.4						
TXAR	Lajitas Array	141.74	27	PKhKP		15 06 33.0	
	comp=Z,0.1nm,0.4s,baz=139,slow=53,SNR=5.3						
TXAR				PKP	PKPdf	15 06 44.9	-5.5
	comp=Z,0.8nm,0.6s,baz=315,slow=3.5,SNR=5.5						
TXAR	Lajitas Array	141.74	27	PKP	PKPdf	15 06 44.9	-5.5
LVC	Limon Verde	156.35	219	PKPab	PKPab	15 07 38.2	-0.8
	comp=Z,4.0nm,0.7s,baz=212,slow=3.0,SNR=5.7						
LPAZ	La Paz	159.87	234	PKP	PKPdf	15 07 15.2	-2.6
	comp=Z,1.1nm,0.9s,baz=26,slow=5.8,SNR=4.0						
LPAZ				PKPab	PKPab	15 07 54.9	+0.6
	comp=Z,3.1nm,0.9s,baz=110,slow=4.6,SNR=7.7						

IDC 26 14:47:28.2±0.8**,5.05N**×**95.57E,mb4.6**/13**,mb1 4.8**/13**,**
mb1mx4.6/20**,1D,Error ellipse: s-maj=34.9km**
s-min=19.2km az=40.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	43.63	11	P	P	14 55 33.8	-2.3
	2.5nm,1.0s,baz=194,slow=5.9,SNR=3.8						
WRA	Warramunga Arr	45.49	124	P	P	14 55 49.8	-1.7
	7.4nm,0.5s,baz=303,slow=9.2,SNR=13						
ASAR	Alice Springs	47.03	129	P	P	14 56 01.6	-2.1
	3.7nm,0.5s,baz=303,slow=7.6,SNR=8.9						
KMBO	Kilima Mbogo	58.57	266	P	P	14 57 27.4	-2.2
	4.3nm,0.8s,baz=58,slow=11,SNR=6.6						
BRTR	Keskin Array B	65.34	312	P	P	14 58 11.8	-2.9
	4.5nm,0.6s,baz=131,slow=7.2,SNR=11						
IDI	Anoyia	71.34	305	P	P	14 58 50.6	-1.6
	7.0nm,0.6s,baz=72,slow=9.6,SNR=5.9						
MLR	Muntele Rosu	72.17	316	P	P	14 58 55.5	-1.4
	13nm,1.0s,baz=169,slow=2.7,SNR=7.2						
CRVS	Cervenica-Dubn	75.78	319	*e*	P	14 59 19.2	+1.4
FINES	FINESS Array B	75.86	332	P	P	14 59 16.9	-1.0
	6.1nm,0.7s,baz=90,slow=6.9,SNR=7.1						
VYHS	Vyhne	77.45	318	*e*	P	14 59 25.8	-1.3
SRO	Srobarova	77.72	318	*e*	P	14 59 28.6	-0.1
ARCES	ARCESS Array B	78.39	340	P	P	14 59 30.7	-1.2
	5.6nm,0.8s,baz=90,slow=4.9,SNR=5.7						
GERES	GERESS Array B	80.87	319	P	P	14 59 44.6	-1.0
	6.9nm,0.8s,baz=90,slow=4.0,SNR=7.0						
KHC	Kasperske Hory	80.96	319	*e*P	P	14 59 45.0	-1.2
HFS	Hagfors	81.59	330	P	P	14 59 48.4	-0.8
	5.8nm,0.5s,baz=104,slow=6.1,SNR=18						
NOA	NORSAR Array B	82.87	331	P	P	14 59 54.8	-1.0
	3.9nm,0.8s,baz=94,slow=5.5,SNR=7.2						
SYO	Syowa Base	83.15	198	⇓P	P	15 00 06.4	+9.3
ILAR	Eielson Array	96.80	23	P	P	15 01 00.1	-1.8
	0.3nm,0.7s,baz=292,slow=4.5,SNR=4.1						
TXAR	Lajitas Array	141.14	27	PKP	PKPdf	15 07 03.0	-0.4
	1.0nm,0.6s,baz=150,slow=1.4,SNR=4.4						
TXAR	Lajitas Array	141.14	27	PKP	PKPdf	15 07 03.0	-0.4

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*IDC **26** 14:48:39.7±0.3, 13.56N×92.87E, mb5.5/33, mb1 5.6/34, mb1mx5.6/34, ML5.4/1, MS5.5/8, Ms1 5.5/8, ms1mx4.9/29, Error ellipse: s-maj=14.8km s-min=9.4km az=44.0*

*BJI **26** 14:48:42.4, 13.72N×92.82E, h24^{km}, mB5.9, mb5.6, Ms5.8, Msz5.5*

*MOS **26** 14:48:43.0±1.0, 13.65N×92.90E, h33^{km}, mb6.0/74, MS5.5/16, Error ellipse: s-maj=7.9km s-min=4.5km az=120.0*

*CSEM **26** 14:48:44.8, 13.73N×92.70E, h33^{km}, mb6.0*

*NEIC **26** 14:48:44.3±0.1, 13.59N×92.91E, h30^{km}, mb5.8/119, MS5.7/129, Error ellipse: s-maj=4.7km s-min=3.1km az=189.0*

*HRVD **26** 14:48:44.3±0.6, 13.52N×92.86E, h13^{km}, MW5.7/50, Centroid moment Tensor Solution. LP body waves: s3,c3; Mantle waves: s50,c70; Half duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}0.92±.31; $M_{\theta\theta}$3.02±.22; $M_{\phi\phi}$-3.93±.21; $M_{r\theta}$2.24±.76; $M_{\theta\phi}$0.39±.22; $M_{\phi r}$1.26±.63; Best double couple: $M_0$4.4×10^{17} NP1:ϕ_s137°,δ56°,λ15°. NP2:ϕ_s38°,δ78°,λ145°. Principal axes: T 4.56, Plg33°, Azm352°; N -.32, Plg53°, Azm201°; P -4.24, Plg14°, Azm91°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 14:48:41.2±0.2**,13.63N**±0.03×**92.92E**±0.02**,h21**^{km}±2.3^{km}**:pP-P,n806,**σ**0**^{s}**99**/701**,mb5.8**/208**,MS5.7**/149**,**
104C-18D,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.52	50	*e*P	Pn	14 50 32.3	-0.3
	582nm,0.7s						
CM31	Chiang Mai Arr	7.52	50	*e*Pn	Pn	14 50 31.6	-1.0
	110nm,0.6s						
CM31				*e*Sn	Sn	14 51 56.0	-2.2
CMAR	Chiang Mai Arr	7.52	50	Pn	Pn	14 50 32.7	+0.1
	14nm,0.3s,baz=241,slow=15,SNR=141						
CMAR				Sn	Sn	14 51 56.1	-2.0
	28nm,0.3s,baz=239,slow=28,SNR=13						
CMAR				LR	LR	14 53 58.0	
	comp=Z,19µm,20.0s,baz=229,slow=42						
CMAR	Chiang Mai Arr	7.52	50	P	Pn	14 50 32.7	+0.1
CMAR						14 51 56.2	
CMAR				pmax	pmax		
	comp=Z,14nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,19µm,20.0s						
CHG	Chiang Mai	7.75	48	PG	Pn	14 50 35.5	-0.3
CHG				SG		14 50 42.1	
NANT	Nan	9.07	54	⇑P	P	14 50 52.0	-2.1
	comp=Z,612nm,1.0s						
BWNR	Bhubaneshwar	9.49	315	*e*	P	14 50 48.8	-11
BWNR				*e*		14 52 24.3	
BWNR				*e*		14 52 32.7	
	comp=E,6µm,0.5s						
BWNR				*e*		14 52 33.0	
	comp=N,3µm,0.5s						
CAL	Calcutta	9.87	334	*e*P	P	14 50 59.8	-5.4
CAL				*e*		14 53 12.9	
VIS	Vishakhapatnam	10.09	295	*e*P	P	14 51 05.0	-3.3
VIS				*i* S	rx	14 52 47.6	
VIS				*e*		14 52 55.2	
	comp=N,4µm,0.7s						
VIS				*e*	S	14 52 55.4	-6.5
	comp=E,2µm,0.3s						
AGT	Agartala	10.32	351	⇑*i*P	P	14 51 07.0	-4.4
AGT				*i*		14 52 31.0	
IMP	Imphal	11.13	5	*e*	P	14 51 19.9	-2.6
SHL	Shillong	11.91	355	*e*P	P	14 51 28.1	-5.0
SHL				*e*		14 51 42.1	
	comp=Z,922nm,1.6s						
BOK	Bokaro	12.10	328	*e*P	P	14 51 32.6	-3.0
MDRS	Chennai	12.34	269	*e*P	P	14 51 35.7	-3.2
MDRS				*e*		14 53 39.5	
MDRS				*e*		14 53 45.7	
	comp=N,1µm,0.3s						
MDRS				*e*	S	14 53 45.8	-11
	comp=E,1µm,0.4s						
BLSP	Bilaspur	13.29	311	*e*P	P	14 51 49.0	-2.5
BLSP				*e*		14 51 52.4	
	comp=Z,725nm,0.9s						
BLSP				*e*	S	14 54 08.4	-11
PALK	Pallekele	13.57	243	*e*P	P	14 51 53.3	-2.0
	comp=Z,265nm,1.0s						
HYB	Hyderabad	14.34	287	*e*P	P	14 52 03.5	-1.9
HYB				*e*S	S	14 54 29.0	-16
HYB	Hyderabad	14.34	287	*i* P	P	14 52 03.5	-1.9
HYB				*e*S	S	14 54 29.0	-16
KMI	Kunming	14.71	38	P	P	14 52 10.0	-0.2
KMI				PP	PP	14 52 19.5	-2.3
KMI				PPP	PPP	14 52 29.3	+0.5
KMI				S	S	14 54 55.0	+1.6
KMI				SS	SS	14 55 12.5	+1.8
KMI				SSS	SSS	14 55 24.5	+0.8
KMI				AMB	AMB		
	comp=Z,179nm,1.6s						
KMI				LR	LR		
	comp=N,27µm,15.4s						
KMI				LR	LR		
	comp=E,23µm,15.2s						
KMI				LR	LR		
	comp=Z,18µm,13.6s						
PKI	Pulchoki	15.54	334	*e*P	P	14 52 19.6	-1.4
	comp=Z,1µm,1.0s						
ALBI	Allahabad	15.63	320	*e*P	P	14 52 20.0	-2.1
GUN	Gumba	15.65	336	*e*P	P	14 52 21.2	-1.2
	comp=Z,2µm,1.5s						
DMN	Daman	15.70	334	*e*P	P	14 52 20.6	-2.5
KKN	Kakani	15.78	334	*e*P	P	14 52 22.1	-2.1
	comp=Z,1µm,1.3s						
LSA	Lhasa	16.07	354	P	P	14 52 29.5	+1.7
LSA				LR	LR		
	comp=N,7µm,13.9s						
LSA				LR	LR		
	comp=E,23µm,14.7s						
LSA				LR	LR		
	comp=Z,16µm,17.3s						
LSA	Lhasa	16.07	354	*e*P	P	14 52 24.4	-3.4
	comp=Z,2µm,1.7s						
GKN	Gorkha	16.25	333	*e*P	P	14 52 27.5	-2.6
TRD	Trivandrum	16.46	254	*e*P	P	14 52 33.4	+0.5
TRD				*e*		14 52 42.9	
	comp=Z,605nm,1.5s						
KOLN	Koldanda	16.53	330	*e*P	P	14 52 33.4	-0.3
	comp=Z,4µm,1.4s						
AKL	Akola	16.73	297	⇑*i*P	P	14 52 38.5	+2.2
AKL				*e*		14 52 44.3	
	comp=Z,618nm,1.9s						
AKL				*e*		14 55 28.2	
QIZ	Qiongzhong	17.11	69	P	P	14 52 44.5	+3.5
QIZ				S	S	14 55 52.3	+3.1
QIZ				LR	LR		
	comp=N,31µm,19.1s						
QIZ				LR	LR		
	comp=Z,20µm,17.7s						
QIZ	Qiongzhong	17.11	69	P	P	14 52 41.7	+0.7
	comp=Z,500nm,1.5s						
BHPL	Bhopal	17.52	305	*e*P	P	14 52 45.2	-0.8
BHPL				*e*		14 52 49.2	
	comp=Z,595nm,1.5s						
BHPL				*e*S	S	14 56 00.5	+2.0
GYA	Guiyang	18.13	43	⇑*i*P	P	14 52 59.0	+5.2
GYA				AP		14 53 03.5	
GYA				XP		14 53 06.3	
GYA				PP	PP	14 53 14.0	+5.2
GYA				S	S	14 56 21.8	+9.2
GYA				AMB	AMB		
	comp=Z,130nm,1.0s						
GYA				AMB	AMB		
	comp=Z,2µm,4.6s						
GYA				LR	LR		
	comp=N,12µm,15.3s						
GYA				LR	LR		
	comp=E,12µm,15.9s						
GYA				LR	LR		
	comp=Z,14µm,12.9s						
KAD	Karad	18.42	284	⇑*i*P	P	14 52 57.3	-0.1
KAD				*e*S	S	14 56 25.1	+6.0
GOA	Goa	18.57	278	*e*		14 53 15.2	
	comp=Z,293nm,1.0s						
POO	Poona	18.95	287	*e*P	P	14 53 02.5	-1.3
POO				*e*S	S	14 56 36.5	+5.5
LGTI	Lohaghat	19.63	325	*e*P	P	14 53 12.5	+0.9
PTH	Pithoragarh	19.73	325	*e*P	P	14 53 11.9	-0.7
PTH				*e*		14 56 35.8	
CD2	Chengdu	19.88	28	P	P	14 53 13.5	-0.9
CD2				S	S	14 56 54.0	+2.4
CD2				AMB	AMB		
	comp=Z,770nm,1.3s						
CD2				LR	LR		
	comp=N,16µm,16.8s						
CD2				LR	LR		
	comp=Z,11µm,10.8s						
BOM	Bombay	19.99	288	⇑*i*P	P	14 53 15.5	-0.1
BOM				*e*		14 56 40.6	
MNCY	Minicoy	20.23	257	⇑*i*	P	14 53 27.0	+8.9
MNCY				*i*		14 55 33.0	
NDI	New Delhi	20.91	318	*e*P	P	14 53 25.8	+0.8
NDI				*e*		14 53 42.4	
	comp=Z,701nm,1.4s						
NDI				*e*S	S	14 57 14.9	+2.6
BHV	Bhavnagar	21.35	295	*e*P	P	14 53 31.0	+1.4
AJM	Ajmer	21.36	310	*e*P	P	14 53 30.5	+0.9
AJM				*e*		14 53 35.7	
	comp=Z,1µm,1.7s						
AJM				*e*S	S	14 57 23.6	+2.7
DDI	Dehra Dun	21.54	323	*e*P	P	14 53 30.7	-0.7
DDI				*e*		14 53 50.7	
DDI				*e*S	S	14 57 25.7	+1.5
ENH	Enshi	22.54	40	⇑*i*P	P	14 53 41.4	-0.1
	comp=Z,612nm,1.1s,mb6.0						
ENH				LR	LR		
	comp=Z,14µm,22.0s,MS5.4						
SMLA	Simla	22.65	323	⇑*i*P	P	14 53 57.3	+15
	comp=Z,2µm,1.8s,mb6.3						
SMLA				*i* S	S	14 58 04.7	+20
	comp=Z,3µm,2.3s						
SDNR	Sundarnagar	23.04	323	*e*P	P	14 53 48.5	+2.2
SDNR				*e*S	S	14 57 57.5	+6.0
BHK	Bhakra	23.30	322	*e*P	P	14 53 50.0	+1.1
BHK				*e*		14 58 05.2	
PONG	Pong	23.96	322	*e*P	P	14 53 56.0	+0.7
PONG				*e*		15 00 30.0	
BHJ	Bhuj	24.02	297	*e*P	P	14 53 55.3	-0.6
BHJ				*e*		14 54 01.4	
	comp=Z,350nm,1.6s						
BHJ				*e*S	S	14 58 12.0	+3.3
DLH	Dalhousie	24.38	323	*e*P	P	14 54 00.0	+0.7
LZH	Lanzhou	24.42	22	*e*P	P	14 54 01.5	+1.8
LZH				AP		14 54 04.5	
LZH				XP		14 54 06.3	
LZH				PP	PP	14 54 37.5	+2.1
LZH				S	S	14 58 18.3	+2.9
LZH				SS	SS	14 59 13.3	+3.1
LZH				SCS	ScS	15 05 05.0	+2.7
LZH				AMB	AMB		
	comp=Z,542nm,1.2s,mb5.8						
LZH				AMB	AMB		
	comp=Z,3µm,5.6s						
LZH				LR	LR		
	comp=E,12µm,14.5s						
LZH				LR	LR		
	comp=Z,19µm,16.3s,MS5.7						
THN	Thein Dam	24.44	323	*e*P	P	14 54 00.2	+0.2
THN				*e*		14 58 40.6	
XAN	Xi’an	24.98	33	P	P	14 54 05.3	+0.3
XAN				AP		14 54 15.0	
XAN				AMB	AMB		
	comp=Z,441nm,1.1s,mb5.9						
XAN				LR	LR		
	comp=N,6µm,24.5s,MS5.3						
XAN				LR	LR		
	comp=E,9µm,23.7s,MS5.3						
XAN				LR	LR		
	comp=Z,6µm,24.5s,MS5.0						
COCO	West Island	25.95	171	PFAKE		14 54 30.0	+16
COCO				LR	LR		
	comp=Z,4µm,20.0s,MS4.9						
WHN	Wuhan	25.95	46	⇑P	P	14 54 14.3	0.0
GTA	Gaotai	26.39	12	P	P	14 54 19.3	+1.1
GTA				AP	pP	14 54 22.8	-1.4
GTA				XP	sP	14 54 25.0	-1.9
GTA				PP	PP	14 54 59.0	-2.3
GTA				S	S	14 58 40.5	-7.8
GTA				SCS	ScS	15 05 13.0	+2.7
GTA				AMB	AMB		
	comp=Z,246nm,1.8s,mb5.4						
GTA				AMB	AMB		
	comp=Z,3µm,7.6s						
GTA				LR	LR		
	comp=N,7µm,20.1s,MS5.3						
GTA				LR	LR		
	comp=E,5µm,20.1s,MS5.3						
GTA				LR	LR		
	comp=Z,6µm,21.3s,MS5.1						
QZH	Quanzhou	26.67	61	P	P	14 54 22.5	+1.6
QZH				AMB	AMB		
	comp=Z,220nm,1.3s,mb5.5						
QZH				LR	LR		
	comp=N,22µm,14.6s						
QZH				LR	LR		
	comp=E,29µm,22.2s						
QZH				LR	LR		
	comp=Z,17µm,19.1s,MS5.6						
TGY	Tagaytay City	27.20	86	P	P	14 54 21.7	-4.2
	comp=Z,39nm,0.3s,mb5.3,baz=328,slow=6.5,SNR=3.6						
TGY				LR	LR	15 04 07.6	
	comp=Z,6µm,21.7s,MS5.1,baz=95,slow=34						
TGY	Tagaytay City	27.20	86	P	P	14 54 21.7	-4.2
TGY				pmax	pmax		
	comp=Z,39nm,0.4s						
TGY				MLR	MLR		
	comp=Z,6µm,21.7s						
DGAR	Diego Garcia	29.15	225	PFAKE		14 54 50.0	+6.5
DGAR				LR	LR		
	comp=Z,3µm,20.0s,MS4.9						
TATO	Taipei	29.17	63	P	P	14 54 41.8	-1.7
	comp=Z,18nm,0.6s,mb5.0						
TATO				LR	LR		
	comp=Z,6µm,19.0s,MS5.2						
KSH	Kashi	29.79	333	⇑*i*P	P	14 54 50.0	+1.0
KSH				AP	pP	14 54 58.5	+3.4
KSH				XP	sP	14 55 03.0	+5.3
KSH				PP	PP	14 55 47.8	+1.6
KSH				PPP	PPP	14 56 01.5	+1.5
KSH				*e*PCP	PcP	14 57 53.5	+1.1
KSH				S	S	14 59 46.0	+2.9
KSH				XS		14 59 59.0	
KSH				SS	SS	15 01 18.5	-0.2
KSH				SCP		15 01 31.5	
KSH				PCS		15 01 35.3	
KSH				SCS	ScS	15 05 26.0	+0.3
KSH				AMB	AMB		
	comp=Z,2µm,2.1s,mb6.4						
KSH				LR	LR		
	comp=N,8µm,13.6s,MS5.7						
KSH				LR	LR		
	comp=E,9µm,11.6s,MS5.7						
NJ2	Nanjing	29.99	48	*e*P	P	14 54 50.5	-0.4
NJ2				AP	pP	14 54 58.0	+1.1
NJ2				XP	sP	14 55 00.8	+1.2
NJ2				PP	PP	14 55 51.3	+2.4
NJ2				S	S	14 59 50.0	+3.6
NJ2				XS		14 59 59.0	
NJ2				AMB	AMB		
	comp=Z,340nm,0.5s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,1µm,5.8s						
NJ2				LR	LR		
	comp=N,22µm,18.4s,MS6.1						
NJ2				LR	LR		
	comp=E,31µm,17.0s,MS6.1						
NJ2				LR	LR		
	comp=Z,42µm,15.8s,MS6.2						
WMQ	Urumqi	30.41	353	⇑P	P	14 54 56.0	+1.5
WMQ				AP	pP	14 55 00.5	0.0
WMQ				XP	sP	14 55 03.0	-0.2
WMQ				PP	PP	14 55 55.5	+1.3
WMQ				PPP	PPP	14 56 10.0	+1.4
WMQ				*e*S	S	14 59 55.5	+2.6
WMQ				AMB	AMB		
	comp=Z,121nm,1.3s,mb5.5						
WMQ				LR	LR		
	comp=N,5µm,23.1s,MS5.4						
WMQ				LR	LR		
	comp=E,8µm,21.6s,MS5.4						
WMQ				LR	LR		
	comp=Z,4µm,24.4s,MS5.0						
BTO	Baotou	30.76	26	P	P	14 54 57.0	-0.6
BTO				AMB	AMB		
	comp=Z,125nm,1.1s,mb5.7						
SSE	Sheshan	31.26	52	*e*P	P	14 55 01.3	-0.7
SSE				S	S	15 00 09.8	+3.6
SSE				AMB	AMB		
	comp=Z,41nm,1.3s,mb5.1						
SSE				AMB	AMB		
	comp=Z,968nm,11.8s						
SSE				LR	LR		
	comp=N,12µm,23.9s,MS5.5						
SSE				LR	LR		
	comp=E,6µm,23.8s,MS5.5						
SSE				LR	LR		
	comp=Z,6µm,14.5s						
TIA	Tai’an	31.26	40	P	P	14 55 02.0	0.0
TIA				AMB	AMB		
	comp=Z,123nm,1.7s,mb5.5						
TIA				AMB	AMB		
	comp=Z,3µm,10.0s						
TIA				LR	LR		
	comp=N,6µm,13.8s,MS5.5						
TIA				LR	LR		
	comp=E,4µm,14.4s,MS5.5						
HHC	Hu-ho-hao-te	31.64	28	*e*P	P	14 55 06.0	+0.7
HHC				AP	pP	14 55 15.5	+4.2
HHC				XP	sP	14 55 19.5	+5.5

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HHC                                   PP      PP      14 56 11.5 +1.3
HHC                                   PCP     PcP     14 57 55.0 -2.3
HHC                                   S       S       15 00 10.8 -1.3
HHC                                   XS              15 00 27.3
HHC                                   PCS             15 01 41.0
HHC                                   AMB     AMB
      comp=Z,162nm,1.3s,mb5.7
HHC                                   LR      LR
      comp=N,6µm,16.6s,MS5.5
HHC                                   LR      LR
      comp=E,5µm,14.3s,MS5.5
HHC                                   LR      LR
      comp=Z,7µm,19.0s,MS5.4
AAK   Ala-Archa          32.99 335⇑ eP        P       14 55 17.1 +0.1
AAK                                   pmax    pmax
      comp=Z,240nm,1.1s,mb6.0
AAK   Ala-Archa          32.99 335⇑ eP        P       14 55 17.1 +0.1
      comp=Z,241nm,1.2s,mb6.0
AAK                                   LR      LR
      comp=Z,2µm,19.0s,MS4.9
FRU   Bishkek            33.11 335⇑ iP        P       14 55 18.0 -0.1
FRU                                   pmax    pmax
      comp=Z,680nm,2.0s,mb6.2
FRU                                   MLR     MLR
      comp=Z,10µm,18.0s,MS5.6
BJT   Baijiatuau         33.28  34  eP        P       14 55 19.4 -0.2
      comp=Z,164nm,1.3s,mb5.8
BJT                                   LR      LR
      comp=Z,5µm,19.0s,MS5.2
BJI   Beijing            33.30  34   P        P       14 55 20.3 +0.5
BJI                                   AMB     AMB
      comp=Z,123nm,1.4s,mb5.6
MKAR  Makanchi Array     34.24 347  i P       P       14 55 17.4  -10
MKAR                                  pmax    pmax
      comp=Z,630nm,1.2s
JOW   Kunigami           35.55  63   P        P       14 55 40.2 +1.0
      comp=Z,44nm,0.3s,mb5.9,baz=177,slow=5.6,SNR=72
JOW                                   LR      LR      15 13 18.3
      comp=Z,8µm,18.8s,MS5.5,baz=252,slow=42
DL2   Dalian             35.73  40   P        P       14 55 42.3 +1.6
DL2                                   AMB     AMB
      comp=Z,70nm,1.3s,mb5.4
SONM  Songino Array      35.90  16   P        P       14 55 43.5 +1.6
      comp=Z,84nm,1.0s,mb5.6,baz=198,slow=7.8,SNR=120
SONM                                  PcP     PcP     14 58 10.1 +0.9
      comp=Z,22nm,1.1s,baz=199,slow=3.6,SNR=8.9
ULN   Ulaanbaatar        36.10  16  eP        P       14 55 44.2 +0.5
      comp=Z,59nm,1.0s,mb5.5
ULN                                   LR      LR
      comp=Z,6µm,21.0s,MS5.3
ZAK   Zakamensk          37.61  11⇓ iP        P       14 55 57.2 +0.9
ZAK                                 e                 14 57 23.0
INCN  Inchon             38.26  45  eP        P       14 56 02.2 +0.3
      comp=Z,78nm,1.0s,mb5.4
INCN                                  LR      LR
      comp=Z,8µm,19.0s,MS5.5
MOY   Mondy              38.49   8  eP        P       14 56 05.3 +1.6
SNY   Shenyang           38.68  38  ⇑P        P       14 56 05.5 +0.1
SNY                                   AMB     AMB
      comp=Z,150nm,1.8s,mb5.4
TLY   Talaya             38.92  11   P        P       14 56 09.4 +2.1
      comp=Z,269nm,1.2s,mb5.8,SNR=20
TLY   Talaya             38.92  11  eP        P       14 56 08.6 +1.3
TLY                                   pmax    pmax
      comp=Z,201nm,2.2s,mb5.5
TLY                                   MLR     MLR
      comp=Z,5µm,21.0s,MS5.3
TLY   Talaya             38.92  11⇑ iP        P       14 56 08.9 +1.6
      comp=Z,249nm,1.8s,mb5.6
TLY                                   LR      LR
      comp=Z,1µm,22.0s,MS4.8
KS15  Wonju Array Si     39.12  46  eP        P       14 56 09.3 +0.2
IRK   Irkutsk            39.58  11  eP        P       14 56 13.5 +0.7
IRK                                 e                 14 57 50.8
ZAL   Zalesovo           40.72 353   P        P       14 56 21.9 -0.2
      comp=Z,43nm,0.7s,mb5.2,baz=311,slow=6.6,SNR=64
ZAL                                   LR      LR      15 17 16.1
      comp=Z,9µm,19.1s,MS5.7,baz=284,slow=42
ZAL   Zalesovo           40.72 353   P        P       14 56 21.9 -0.2
ZAL                                   pmax    pmax
      comp=Z,43nm,0.7s
ZAL                                   MLR     MLR
      comp=Z,9µm,19.1s
ZAL   Zalesovo           40.72 353   P        P       14 56 21.9 -0.2
ZAL                                   LR      LR      15 17 16.1
CN2   Changchun          40.97  36  ⇑P        P       14 56 24.8 +0.5
CN2                                 eXP       sP      14 56 37.8 +4.8
CN2                                 eS        S       15 02 34.5 -0.6
CN2                                   AMB     AMB
      comp=Z,200nm,1.4s,mb5.5
CN2                                   AMB     AMB
      comp=Z,6µm,6.0s
CN2                                   LR      LR
      comp=N,5µm,16.0s,MS5.7
CN2                                   LR      LR
      comp=E,7µm,16.0s,MS5.7
CN2                                   LR      LR
      comp=Z,7µm,17.0s,MS5.6
NVS   Novosibirsk        41.81 352  i P       P       14 56 29.9 -1.1
NVS                                   pmax    pmax
      comp=N,280nm,1.7s
NVS                                   pmax    pmax
      comp=Z,289nm,1.7s,mb5.6
NVS                                   pmax    pmax
      comp=E,81nm,1.4s
HIA   Hailar             41.82  26⇑ eP        P       14 56 30.2 -1.0
      comp=E,68nm,1.1s,mb5.2
HIA                                   LR      LR
      comp=Z,7µm,21.0s,MS5.5
HASS  Wahat al Ahsa’     42.18 292   P        P       14 56 35.8 +1.3
BVAR  Borovoye Array     43.19 340   P        P       14 56 41.7 -0.7
      comp=Z,31nm,0.6s,mb5.3,baz=140,slow=8.6,SNR=38
BRVK  Borovoye           43.25 340  eP        P       14 56 42.3 -0.5
      comp=Z,144nm,1.1s,mb5.6
BRVK                                  LR      LR
      comp=Z,1µm,22.0s,MS4.7
MBWA  Marble Bar         43.46 142  eP        P       14 56 42.8 -2.2
      comp=Z,139nm,1.3s,mb5.5
MBWA                                  LR      LR
      comp=Z,4µm,22.0s,MS5.2
CHKZ  Chkalovo           43.66 341⇑ eP        P       14 56 46.4 +0.2
CHKZ                                  pmax    pmax
      comp=Z,330nm,0.9s,mb6.1
CHKZ  Chkalovo           43.66 341⇑ eP        P       14 56 46.4 +0.2
      comp=Z,331nm,0.8s,mb6.1
MDJ   Mudanjiang         43.88  38   P        P       14 56 48.3 +0.2
MDJ                                   AMB     AMB
      comp=Z,42nm,1.7s,mb4.9
MDJ                                   AMB     AMB
      comp=Z,803nm,7.2s
MDJ   Mudanjiang         43.88  38  eP        P       14 56 46.1 -2.0
      comp=Z,67nm,1.4s,mb5.2
MDJ                                   LR      LR
      comp=Z,3µm,20.0s,MS5.2
QRN   Al-Qurain          44.30 297  eP        P       14 56 53.2 +1.5
QRN                                   AMb     AMB     14 56 54.1
      comp=Z,263nm,1.3s,mb5.8
RDF   Al-Radifah         44.65 297  eP        P       14 56 54.8 +0.3
RDF                                   AMb     AMB     14 56 57.8
      comp=Z,238nm,0.9s,mb6.0
RYDS  Riyadh             44.84 291   P        P       14 56 57.6 +1.4
RST   Umm Al-Ruwaisa     45.22 298  eP        P       14 56 59.4 +0.3
RST                                   AMb     AMB     14 57 01.0
      comp=Z,196nm,1.3s,mb5.8
MZLS  Mizel              46.13 290   P        P       14 57 06.7 +0.3
LBOS                     46.24 276⇓ eP        P       14 57 09.4 +2.1
MAT   Matsushiro         46.40  52   P        P       14 57 07.9 -0.4
MAT                                   S       S       15 03 54.0 -0.1
MAT   Matsushiro         46.40  52  eP        P       14 57 08.0 -0.3
      comp=Z,145nm,1.8s,mb5.6
MAT                                 eS        S       15 03 54.0 -0.1
MAJO  Matsushiro         46.40  52   P        P       14 57 09.1 +0.8
MAJO                                  pmax    pmax
      comp=Z,160nm,1.3s,mb5.8
MAJO  Matsushiro         46.40  52  eP        P       14 57 08.2 -0.1
      comp=Z,155nm,1.3s,mb5.8
KAMS  Al Khamasin        46.58 285   P        P       14 57 09.9 +0.1
JHJ   Hachijo jima 2     46.75  57   LR       LR      15 16 34.9
      comp=Z,4µm,20.4s,MS5.3,baz=283,slow=36
BOD   Bodaibo            46.90  15  eP        P       14 57 11.9  0.0
TRBA  At Turbah          47.40 276⇑ eP        P       14 57 18.1 +1.6
TATS  Tathlith           47.62 284   P        P       14 57 18.1  0.0
KLR   Kul’dur            47.68  34⇓ iP        P       14 57 15.1 -3.1
KLR                                   pmax    pmax
      comp=Z,120nm,1.8s,mb5.6
KLR                                   pmax    pmax
      comp=N,56µm,1.8s
KLR                                   pmax    pmax
      comp=E,100µm,1.8s
ARSS  Ar Rass            48.06 293   P        P       14 57 22.4 +0.9
AFFS  ‘Afif              48.14 290   P        P       14 57 22.7 +0.6
MAK   Makhachkala        48.70 316⇓ iP        P       14 57 26.0 -0.2
MAK                                 e                 14 59 20.0
MAK                                 eS        S       15 04 29.0 +2.6
MAK                                 i PS      PS      15 04 46.0 +8.8
MAK                                   pmax    pmax
      comp=Z,2µm,4.0s
MAK                                   pmax    pmax
      comp=Z,400nm,1.5s,mb6.2
MAK                                   pmax    pmax
      comp=Z,2µm,8.0s
MAK                                   smax
      comp=N,2µm,8.0s
MAK                                   smax
      comp=E,2µm,8.0s
HILS  Ha’il               49.48 294   P        P       14 57 34.1 +1.6
CLNS  Chul’man           49.54  22⇑ iP        P       14 57 33.5 +1.0
CLNS                                e*PP      pP      14 57 39.9 +1.1
CLNS                                e                 15 07 21.7
CLNS                                eSS       tx      15 09 34.3
CLNS                                  pmax    pmax
      comp=Z,223nm,1.2s,mb6.1
CLNS                                  pmax    pmax
      comp=N,81nm,1.1s
CLNS                                  pmax    pmax
      comp=E,107nm,1.1s
CLNS                                  pmax    pmax
      comp=Z,43nm,1.4s,mb5.3
CLNS                                  pmax    pmax
      comp=N,39nm,1.6s
CLNS                                  pmax    pmax
      comp=E,17nm,1.0s
SVE   Sverdlovsk         49.65 337⇑ iP        P       14 57 33.5 +0.2
SVE                                 e                 14 58 50.0
SVE                                 e                 15 00 22.0
SVE                                 eS        S       15 04 43.0 +3.5
SVE                                   pmax    pmax
      comp=Z,520nm,1.8s,mb6.3
SVE                                   MLR     MLR
      comp=Z,7µm,17.0s,MS5.7
GNI   Garni              49.66 311  eP        P       14 57 35.7 +2.1
GNI   Garni              49.66 311   P        P       14 57 35.4 +1.8
      comp=Z,321nm,1.1s,mb6.2,baz=346,slow=3.0,SNR=94
GNI                                   LR      LR      15 22 53.3
      comp=Z,4µm,19.8s,MS5.4,baz=275,slow=41
GNI   Garni              49.66 311⇑ iP        P       14 57 35.1 +1.5
GNI                                   pmax    pmax
      comp=Z,430nm,1.1s
HKR   Hakkari            49.67 308  eP        P       14 57 35.5 +1.7
TI2   Plekhanov          50.16 313⇑ iP        P       14 57 38.0 +0.5
ARU   Arti               50.16 336⇑ eP        P       14 57 36.5 -0.8
ARU                                   pmax    pmax
      comp=Z,180nm,1.0s,mb6.1
ARU   Arti               50.16 336⇑ eP        P       14 57 36.5 -0.8
      comp=Z,180nm,1.0s,mb6.0
ARU                                   LR      LR
      comp=Z,1µm,21.0s,MS4.9
GUMO  Guam               50.41  84   PFAKE            14 57 50.0  +10
GUMO                                  LR      LR
      comp=Z,3µm,19.0s,MS5.3
KARS  Kars               51.00 312  eP        P       14 57 46.1 +2.3
ZEI   Tsey               51.10 314  eP        P       14 57 38.9 -5.7
ZEI                                 i *PP     pP      14 57 49.5 -1.4
ZEI                                 i                 14 59 35.8
ZEI                                   pmax    pmax
      comp=Z,112nm,0.9s,mb5.8
BTMT  Batman             51.55 308  eP        P       14 57 49.5 +1.4
KBRS  Khaybar            51.62 292   P        P       14 57 50.3 +1.5
BEST  Besiri             51.65 308  i P       P       14 57 48.9 +0.1
VRT   Varto              51.75 309  eP        P       14 57 51.3 +1.8
NWAO  Narrogin (SRO)     51.80 154   P        P       14 57 48.5 -1.6
      comp=Z,103nm,0.9s,mb5.8,baz=328,slow=7.3,SNR=44
NWAO  Narrogin (SRO)     51.80 154   P        P       14 57 48.0 -2.1
NWAO                                  pmax    pmax
      comp=Z,92nm,0.9s
NWAO  Narrogin (SRO)     51.80 154  eP        P       14 57 47.9 -2.2
      comp=Z,92nm,0.9s,mb5.7
NWAO                                  LR      LR
      comp=Z,6µm,21.0s,MS5.6
ASAJ  Asahikawa          52.01  44   P        P       14 57 52.6 +1.1
      comp=Z,43nm,0.9s,mb5.4,baz=269,slow=13,SNR=8.2
ASAJ  Asahikawa          52.01  44   P        P       14 57 52.6 +1.1
ASAJ                                  pmax    pmax
      comp=Z,43nm,0.9s
ERZM  Erzurum            52.07 310  i P       P       14 57 53.8 +1.8
EZM   Erzurum            52.07 310  eP        P       14 57 53.9 +1.9
BCA   Borcka             52.30 312  eP        P       14 57 54.5 +0.7
KIV   Kislovodsk         52.33 315   P        P       14 57 54.4 +0.5
      comp=Z,2µm,0.9s,SNR=56
KIV   Kislovodsk         52.33 315c iP        P       14 57 54.5 +0.6
KIV                                 e                 14 59 48.1
KIV                                 ePPP      PPP     15 00 59.9 +2.1
KIV                                 i S       S       15 05 19.9 +3.3
KIV                                   pmax    pmax
      comp=Z,268nm,0.9s,mb6.2
KIV                                   pmax    pmax
      comp=Z,1µm,2.9s,mb6.4
KIV                                   smax
      comp=N,498nm,3.3s
KIV                                   smax
      comp=E,216nm,3.3s
KIV                                   MLR     MLR
      comp=E,4µm,21.0s
KIV                                   MLR     MLR
      comp=Z,5µm,21.0s,MS5.6
KIV   Kislovodsk         52.33 315⇑ eP        P       14 57 54.0 +0.2
      comp=Z,514nm,1.2s,mb6.3
KIV                                   LR      LR
      comp=Z,1µm,19.0s,MS4.9
GOF   Gofitskoye         52.47 317  eP        P       14 57 54.5 -0.4
GOF                                   pmax    pmax
      comp=Z,300nm,1.8s,mb5.9
BINT  Bingol             52.47 309  eP        P       14 57 56.8 +1.8
WRA   Warramunga Arr     52.67 128   P        P       14 57 55.3 -1.5
      comp=Z,42nm,0.7s,mb5.5,baz=310,slow=7.9,SNR=11
WRA                                   PcP     PcP     14 59 06.1 -0.5
      comp=Z,18nm,0.8s,baz=322,slow=3.2,SNR=12
WRA   Warramunga Arr     52.67 128   P        P       14 57 55.3 -1.5
WRA                                                   14 59 06.1
WRA                                   pmax    pmax
      comp=Z,42nm,0.7s
WRA                                   pmax    pmax
      comp=Z,18nm,0.8s
WRAB  Tennant Creek      52.67 128c iP        P       14 57 55.1 -1.7
WRAB  Tennant Creek      52.67 128  eP        P       14 57 54.9 -1.9
      comp=Z,85nm,0.6s,mb5.8
WRAB                                  LR      LR
      comp=Z,2µm,21.0s,MS5.1
YNBS  Yanbu‘ al Bahr     52.73 290   P        P       14 57 58.1 +1.0
YSS   Yuzh-Sakhalins     53.12  41  eP        P       14 57 58.0 -1.7
YSS                                 e                 14 58 08.0
YSS                                 e                 14 59 01.5
YSS                                   S       S       15 05 23.0 -4.3
YSS                                   MLR     MLR
      comp=E,3µm,17.0s
YSS                                   MLR     MLR
      comp=Z,3µm,17.0s,MS5.5
YSS   Yuzh-Sakhalins     53.12  41  eP        P       14 57 59.2 -0.6
      comp=Z,145nm,1.2s,mb5.8
YSS                                   LR      LR
      comp=Z,3µm,19.0s,MS5.4
EZC   Erzincan           53.19 310  eP        P       14 58 04.1 +3.8
PTK   Pertek             53.31 309  eP        P       14 58 01.3  0.0
UMJS  Umm Lajj           53.37 291   P        P       14 58 03.2 +1.4
URFA  Urfa               53.45 307  eP        P       14 58 02.8 +0.5
ELZG  Elazig             53.53 308  i P       P       14 58 03.5 +0.5
GUMT  Gumushane          53.61 310  eP        P       14 58 05.1 +1.6
MALT  Malatya            53.92 308  eP        P       14 58 05.4 -0.3
MALT  Malatya            53.92 308⇑ iP        P       14 58 06.0 +0.3
MALT                                  pmax    pmax
      comp=Z,190nm,1.3s,mb5.9
MYA   Malataya           53.93 308  eP        P       14 58 06.7 +0.9
TBKS  Tabuk              54.17 295   P        P       14 58 08.3 +0.6
ASF   Jabal al Asfar     54.20 300   P        P       14 58 07.6 -0.2
      comp=Z,23nm,0.9s,mb5.1,baz=6.3,slow=3.4,SNR=24
YUK   Yuzh-Kuril’sk      54.22  45  eP        P       14 58 06.0 -1.8
SOC   Sochi              54.26 314  i P       P       14 58 07.2 -0.9
SOC                                   pmax    pmax
      comp=Z,262nm,1.4s,mb6.0
SOC                                   pmax    pmax
      comp=N,66nm,1.3s
SOC                                   pmax    pmax
      comp=E,74nm,1.6s
GZT   Gaziantep          54.41 306  i P       P       14 58 09.9 +0.6
ASAR  Alice Springs      54.59 132   P        P       14 58 09.3 -1.5
      comp=E,24nm,0.5s,mb5.5,baz=308,slow=6.8,SNR=54
ASAR                                  PcP     PcP     14 59 13.1 -0.7
      comp=E,17nm,0.8s,baz=306,slow=5.5,SNR=3.1
DBAS  Duba               54.63 294   P        P       14 58 11.9 +0.8
GAZ   Gaziantep          54.66 306  eP        P       14 58 11.9 +0.8
JMQS  Jabal Moqyreh      54.80 296   P        P       14 58 13.7 +1.3
YAK   Yakutsk            54.99  20  eP        P       14 58 12.1 -1.2
      comp=E,144nm,0.8s,mb6.1
YAK                                   LR      LR
      comp=Z,2µm,20.0s,MS5.3
KAHT  Ahir Dag           55.00 306   P        P       14 58 14.1 +0.4
KSHT  Keshet             55.20 301   P        P       14 58 15.2  0.0
MKRJ  Makawir            55.20 299   P        P       14 58 14.8 -0.5
AYUS  ‘Aynunah           55.30 295   P        P       14 58 16.5 +0.5
COBT  Iskenderun         55.30 305   P        P       14 58 16.4 +0.5
DRGI  Dragot             55.42 299   P        P       14 58 16.4 -0.4
MZDA  Masada             55.42 299   P        P       14 58 16.4 -0.4
BDAS  Al Bad‘            55.46 295   P        P       14 58 17.8 +0.7
MMLI  Mount Malkishu     55.47 300   P        P       14 58 17.1 -0.1
ZFRI  Zfri               55.52 298   P        P       14 58 17.0 -0.5
PRNI  Paran              55.65 298   P        P       14 58 17.9 -0.6
EIL   Elat               55.66 297   P        P       14 58 17.7 -0.8
EIL   Elat               55.66 297  eP        P       14 58 17.8 -0.8
      comp=Z,130nm,1.3s,mb5.8
MBH   Mount Berech       55.69 297   P        P       14 58 18.1 -0.7
HNTI  Hanita             55.74 301   P        P       14 58 19.1  0.0
TOKT  Tokat              55.76 310  eP        P       14 58 19.8 +0.6
SLTI  Sal’it             55.77 300   P        P       14 58 19.1 -0.2
CEYT  Ceyhan             55.78 306  eP        P       14 58 21.0 +1.6
OFRI  ‘Ofer              55.86 300   P        P       14 58 19.6 -0.3
KMTI  Karmit             55.88 297   P        P       14 58 19.4 -0.7
BNN   Bunyan             56.01 308  eP        P       14 58 20.8 -0.1
ANN   Anapa              56.17 315  eP        P       14 58 20.8 -1.2
ANN                                 i *PP     pP      14 58 31.6 +3.3
ANN                                 i                 14 59 19.4
ANN                                 eS        S       15 06 06.7 -1.7
ANN                                   pmax    pmax
      comp=Z,80nm,1.3s,mb5.6
KZIT  Kziot              56.21 298   P        P       14 58 21.8 -0.7
YOZ   Yozgat             56.56 309  eP        P       14 58 24.6 -0.3
PECR  Pechory            56.56 330  eP        P       14 58 23.5 -1.1
PECR                                eS        S       15 06 13.0 -0.3
AVNT  Avonos             56.76 308   P        P       14 58 25.4 -0.9
NIG   Nigde              56.85 307  eP        P       14 58 27.4 +0.5
PHNC  Paralimni          56.89 303   P        P       14 58 27.3 -0.1
MEST  Erdemli            57.00 305   P        P       14 58 27.4 -0.7
KMBO  Kilima Mbogo       57.06 260   P        P       14 58 29.3 +0.5
      comp=Z,9.6nm,0.8s,mb4.9,baz=49,slow=11,SNR=20
KMBO  Kilima Mbogo       57.06 260  eP        P       14 58 29.1 +0.3
      comp=Z,135nm,1.9s,mb5.7
KMBO                                  LR      LR
      comp=Z,3µm,22.0s,MS5.4
CTKT  Corum              57.13 310   P        P       14 58 28.3 -0.7
CORM  Corum              57.17 309  eP        P       14 58 29.6 +0.3
BOYT  Boyabat            57.20 311   P        P       14 58 29.5 +0.1
CSS   Prodhromos         57.46 303   P        P       14 58 31.7 +0.3
MAMC  Mammari            57.58 303   P        P       14 58 32.2  0.0
KAMT  Kaman              57.74 308  eP        P       14 58 32.5 -0.7
TOS   Tosya              57.78 310  eP        P       14 58 34.1 +0.6
SZAC  Souni-Zanaja       57.81 303  ⇑P        P       14 58 32.7 -1.1
SZAC  Souni-Zanaja       57.81 303⇑ eP        P       14 58 32.7 -1.1
LEF   Lefka              57.84 303  eP        P       14 58 34.3 +0.3
BR131 Keskin Array S     57.85 308   PFAKE            14 58 50.0  +16
BR131                                 LR      LR
      comp=Z,1µm,19.0s,MS5.1
BRTR  Keskin Array B     57.85 308   P        P       14 58 33.5 -0.5
      comp=Z,91nm,0.8s,mb5.8,baz=121,slow=6.6,SNR=98
BRTR  Keskin Array B     57.85 308   P        P       14 58 33.5 -0.5
BRTR                                  pmax    pmax
      comp=Z,91nm,0.8s
CANT  Cankiri            58.01 309  eP        P       14 58 36.1 +1.0
ALFC  Alevga             58.08 303  ⇑P        P       14 58 35.2 -0.5
      comp=Z,3.2nm,0.8s
ALFC  Alevga             58.08 303⇑ eP        P       14 58 35.2 -0.5
ELDT  Eldivan            58.13 309   P        P       14 58 35.6 -0.4
PPCY  Paphos             58.26 303   P        P       14 58 35.6 -1.3
BALT  Daday              58.34 311   P        P       14 58 37.8 +0.4
HDMB  Hadim              58.37 305  eP        P       14 58 36.1 -1.5
SIM   Simferopol’        58.50 315c iP        P       14 58 37.8 -0.6
SIM                                 eS        S       15 06 36.0 -3.0
SIM                                   pmax    pmax
      comp=Z,169nm,0.9s,mb6.1
PMG   Port Moresby       58.50 110   P        P       14 58 38.5 -0.3
      comp=Z,58nm,0.9s,mb5.6,baz=329,slow=3.3,SNR=17
PMG   Port Moresby       58.50 110   P        P       14 58 38.5 -0.4
PMG                                   pmax    pmax
      comp=Z,58nm,0.9s
PMG   Port Moresby       58.50 110  eP        P       14 58 37.5 -1.3
      comp=Z,81nm,0.8s,mb5.8
PMG                                   LR      LR
      comp=Z,4µm,20.0s,MS5.5
ANTO  Ankara             58.52 309  eP        P       14 58 37.1 -1.6
LOD   Lodumlu            58.54 309  eP        P       14 58 38.3 -0.6
KONT  Konya--Tatoy       58.58 306  eP        P       14 58 39.5 +0.4
SAFT  Safranbolu         58.81 310  eP        P       14 58 40.8 +0.1
KIZT  Kizilcal           59.08 307  eP        P       14 58 42.2 -0.4
SGKT  Sivrigoynuk        59.18 309   P        P       14 58 43.1 -0.2
MOS   Moscow             59.59 327α iP        P       14 58 44.8 -1.0
MOS                                 e                 14 59 37.5
MOS                                 e                 15 00 57.4
MOS                                 eS        S       15 06 48.1 -4.9
MOS                                 e                 15 08 31.4
MOS                                 eSS       SS      15 10 44.9 -5.1
MOS                                   pmax    pmax
      comp=Z,1µm,1.7s,mb6.6
MOS                                   pmax    pmax
      comp=Z,582nm,1.6s,mb6.4
MOS                                   pmax    pmax
      comp=E,168nm,1.1s
MDU   Mudurnu            59.80 309  eP        P       14 58 47.2 -0.3
OBN   Obninsk            59.92 326⇑ eP        P       14 58 47.2 -0.9
OBN                                 e                 14 59 33.1
OBN                                 e                 15 00 57.8
OBN                                 eS        S       15 06 58.3 +1.0
OBN                                   pmax    pmax
      comp=Z,675nm,2.1s,mb6.3
OBN   Obninsk            59.92 326⇑ eP        P       14 58 47.3 -0.8
ESKT  Eskisehir          59.95 308   P        P       14 58 48.5 -0.1
ESKT  Eskisehir          59.95 308   P        P       14 58 45.1 -3.5
ISP   Isparta            60.03 306  eP        P       14 58 47.8 -1.3
ISP   Isparta            60.03 306   P        P       14 58 47.6 -1.5
ISP                                   pmax    pmax
      comp=Z,300nm,1.4s,mb6.1
HENT  Hendek             60.09 309   P        P       14 58 48.7 -0.7
ELL   Elmali             60.40 305  eP        P       14 58 51.2 -0.5
ALT   Altintas           60.47 307   P        P       14 58 52.0 -0.1
HRT   Hereke             61.01 309  eP        P       14 58 54.9 -0.9
FETY  Fethiye            61.05 304  eP        P       14 58 54.6 -1.5
DNZL  Cakiroluk          61.17 306   P        P       14 58 55.4 -1.5
DENT  Denizli            61.18 306  eP        P       14 58 57.0  0.0
YLV   Yalova             61.20 309  eP        P       14 58 55.3 -1.8
DALT  Dalyan (Mudla)     61.42 305  eP        P       14 58 58.4 -0.2
MANT  Manisa             61.62 306   P        P       14 58 59.0 -0.9
TIXI  Tiksi              61.87  12c iP        P       14 59 00.1 -1.1
TIXI                                  pmax    pmax
      comp=Z,480nm,2.1s,mb6.3
TIXI  Tiksi              61.87  12⇑ iP        P       14 59 00.2 -1.0
TIXI                                  LR      LR
      comp=Z,2µm,22.0s,MS5.2
AYDN  Tasoluk            62.09 305   P        P       14 59 02.8 -0.3
BTOK  Tokmak             62.14 308   P        P       14 59 02.8 -0.7
AKS   Akhisar            62.23 307  eP        P       14 59 03.9 -0.2
CTA   Charters Tower     62.25 122   P        P       14 59 03.8 -0.7
      comp=Z,30nm,1.0s,mb5.4,baz=304,slow=8.4,SNR=10
CTA   Charters Tower     62.25 122   P        P       14 59 03.8 -0.6
CTA                                   pmax    pmax
      comp=Z,30nm,1.0s
CTAO  Charters Tower     62.25 122   P        P       14 59 03.8 -0.6
CTAO                                  pmax    pmax
      comp=Z,59nm,1.0s,mb5.7
CTAO  Charters Tower     62.25 122  eP        P       14 59 03.2 -1.2
      comp=Z,59nm,1.0s,mb5.7
CTAO                                  LR      LR
      comp=Z,4µm,21.0s,MS5.5
BNT   Bandirma           62.28 309  eP        P       14 59 04.7 +0.3
MA2   Magadan            62.30  29⇓ eP        P       14 59 03.7 -0.5
MA2                                   pmax    pmax
      comp=Z,88nm,1.8s,mb5.6
MA2   Magadan            62.30  29  eP        P       14 59 03.0 -1.2
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	comp=Z,37nm,0.9s,mb5.5						
MA2				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
BDRM	**Kayabasi**	**62.39**	**305**	P	**P**	**14 59 02.6**	**-2.5**
PSN	**Preselentsi**	**62.47**	**312**	P	**P**	**14 59 05.0**	**-0.6**
KIS	**Kishinev**	**62.52**	**316**	⇑*i*P	**P**	**14 59 04.0**	**-1.9**
KIS				*e*		14 59 44.0	
KIS				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.6						
MRMT	**Marmara Adasi**	**62.55**	**309**	*e*P	**P**	**14 59 04.1**	**-2.1**
KDAG	**Bornova**	**62.62**	**306**	P	**P**	**14 59 06.0**	**-0.7**
IZM	**Izmir**	**62.63**	**306**	*e*P	**P**	**14 59 05.7**	**-1.0**
SKR	**Severo-Kuril's**	**62.64**	**40**	*e*P	**P**	**14 59 03.4**	**-3.2**
SKR				*e*		14 59 14.5	
SKR				pmax	pmax		
	comp=Z,80nm,0.5s,mb6.1						
CFR	**Carcaliu**	**62.70**	**314**	⇑*i*P	**P**	**14 59 06.4**	**-0.7**
SART	**Tekirdag**	**62.88**	**309**	P	**P**	**14 59 07.5**	**-0.8**
AKASG	**Malin Array Be**	**62.95**	**320**	P	**P**	**14 59 07.1**	**-1.5**
	comp=Z,28nm,0.6s,mb5.5,baz=84,slow=4.7,SNR=91						
AKASG	**Malin Array Be**	**62.95**	**320**	P	**P**	**14 59 07.1**	**-1.5**
AKASG				pmax	pmax		
	comp=Z,28nm,0.6s						
PRD	**Provadia**	**62.97**	**312**	P	**P**	**14 59 18.5**	**+10**
AYVA	**Ayvalik**	**63.14**	**307**	P	**P**	**14 59 09.8**	**-0.2**
MBAR	**Mbarara**	**63.17**	**262**	*c i*P	**P**	**14 59 10.3**	**-0.3**
MBAR	**Mbarara**	**63.17**	**262**	*e*P	**P**	**14 59 08.9**	**-1.7**
	comp=Z,127nm,1.5s,mb5.8						
MBAR				LR	LR		
	comp=Z,681nm,19.0s,MS4.8						
JMB	**Yambol**	**63.49**	**311**	P	**P**	**14 59 12.0**	**-0.3**
ALN	**Alexandroupoli**	**63.75**	**309**	*e*P	**P**	**14 59 14.1**	**0.0**
VRI	**Vrincioaia**	**63.78**	**315**	⇑*i*P	**P**	**14 59 14.7**	**+0.5**
VRI	**Vrincioaia**	**63.78**	**315**	⇑P	**P**	**14 59 14.7**	**+0.5**
ISR	**Istrita**	**63.81**	**314**	⇑*i*P	**P**	**14 59 15.1**	**+0.7**
ISR	**Istrita**	**63.81**	**314**	⇑*i*P	**P**	**14 59 15.1**	**+0.7**
SANT	**Santorini**	**63.95**	**304**	*e*P	**P**	**14 59 12.9**	**-2.6**
	comp=Z,168nm,0.6s,mb6.2						
SZH	**Strazhica**	**64.05**	**312**	*e*P	**P**	**14 59 15.0**	**-1.0**
DIM	**Dimitrovgrad**	**64.23**	**310**	P	**P**	**14 59 17.0**	**-0.2**
MLR	**Muntele Rosu**	**64.28**	**314**	P	**P**	**14 59 17.7**	**+0.3**
	comp=Z,213nm,0.9s,mb6.2,baz=162,slow=1.5,SNR=80						
MLR				LR	LR	15 33 25.1	
	comp=Z,4µm,19.1s,MS5.7,baz=172,slow=42						
MLR	**Muntele Rosu**	**64.28**	**314**	⇑*i*P	**P**	**14 59 17.7**	**+0.3**
MLR	**Muntele Rosu**	**64.28**	**314**	⇑*i*P	**P**	**14 59 17.7**	**+0.2**
KDZ	**Kurdzhali**	**64.28**	**310**	*e*P	**P**	**14 59 17.5**	**-0.1**
IDI	**Anoyia**	**64.39**	**303**	P	**P**	**14 59 18.3**	**0.0**
	comp=Z,76nm,0.7s,mb5.9,baz=93,slow=6.7,SNR=33						
PVL	**Pavlikeni**	**64.48**	**312**	P	**P**	**14 59 19.0**	**+0.2**
MNK	**Minsk**	**64.59**	**324**	*e*P	**P**	**14 59 17.0**	**-2.3**
MNK				pmax	pmax		
	comp=Z,1µm,1.0s						
PUL	**Pulkovo**	**64.63**	**330**	⇓*e*P	**P**	**14 59 19.7**	**+0.2**
PUL				pmax	pmax		
	comp=Z,270nm,1.1s,mb6.2						
PUL				pmax	pmax		
	comp=E,149nm,0.8s						
PUL	**Pulkovo**	**64.63**	**330**	⇓*e*P	**P**	**14 59 19.8**	**+0.3**
PET	**Petropavlovsk**	**64.66**	**38**	*e*P	**P**	**14 59 18.4**	**-1.4**
PET				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.4						
PET	**Petropavlovsk**	**64.66**	**38**	PFAKE		14 59 30.0	+10
PET				LR	LR		
	comp=Z,4µm,21.0s,MS5.6						
RZN	**Rozhen**	**64.81**	**310**	P	**P**	**14 59 20.0**	**-1.0**
PLD	**Plovdiv**	**64.85**	**310**	P	**P**	**14 59 20.0**	**-1.2**
STKA	**Stephens Creek**	**64.97**	**135**	P	**P**	**14 59 20.9**	**-1.3**
	comp=Z,20nm,0.7s,mb5.3,baz=314,slow=5.7,SNR=19						
STKA	**Stephens Creek**	**64.97**	**135**	*e*P	**P**	**14 59 20.7**	**-1.5**
GVD	**Gavdhos**	**65.04**	**302**	⇑*e*P	**P**	**14 59 20.3**	**-2.2**
	comp=Z,75nm,0.9s,mb5.7						
PGB	**Panagyurishte**	**65.28**	**311**	P	**P**	**14 59 24.0**	**0.0**
OUR	**Ouranopolis**	**65.28**	**308**	*e*P	**P**	**14 59 23.8**	**-0.2**
IDID	**Didziasalis**	**65.38**	**325**	*e*P	**P**	**14 59 24.0**	**-0.4**
IDID				AMPb	AMB	14 59 27.0	
	comp=Z,89nm,1.2s,mb5.7						
PAIG	**Paliouri**	**65.50**	**308**	*e*P	**P**	**14 59 25.1**	**-0.3**
MMB	**Musomiste**	**65.54**	**310**	P	**P**	**14 59 24.0**	**-1.7**
SRS	**Serrai**	**65.62**	**309**	*e*P	**P**	**14 59 25.5**	**-0.7**
IZAR	**Zarasai**	**65.74**	**325**	*e*P	**P**	**14 59 26.3**	**-0.4**
IZAR				AMPb	AMB	14 59 29.4	
	comp=Z,91nm,1.4s,mb5.6						
ISAL	**Salakas**	**65.77**	**325**	*e*P	**P**	**14 59 26.5**	**-0.4**
ISAL				AMPb	AMB	14 59 29.6	
	comp=Z,79nm,1.3s,mb5.6						
LVZ	**Lovozero**	**65.78**	**339**	⇓*e*P	**P**	**14 59 25.8**	**-0.9**
LVZ				pmax	pmax		
	comp=Z,168nm,1.2s,mb6.0						
LVZ				pmax	pmax		
	comp=N,29nm,2.0s						
LVZ				pmax	pmax		
	comp=E,56nm,1.3s						
LVZ				MLR	MLR		
	comp=Z,5µm,16.0s,MS5.8						
LVZ				MLR	MLR		
	comp=N,3µm,14.0s,MS5.8						
LVZ				MLR	MLR		
	comp=E,1µm,11.0s,MS5.8						
LVZ	**Lovozero**	**65.78**	**339**	⇑*e*P	**P**	**14 59 25.8**	**-0.9**
SOH	**Sokhos**	**65.78**	**309**	*e*P	**P**	**14 59 25.9**	**-1.4**
XOR	**Xorichti**	**65.85**	**307**	*e*P	**P**	**14 59 26.6**	**-1.1**
VTS	**Vitosha**	**65.99**	**311**	P	**P**	**14 59 28.0**	**-0.5**
KKB	**Krupnik**	**66.04**	**310**	P	**P**	**14 59 27.5**	**-1.4**
VSU	**Vasula**	**66.07**	**328**	*c i*P	**P**	**14 59 28.2**	**-0.5**
VSU	**Vasula**	**66.07**	**328**	⇑*i*P	**P**	**14 59 28.3**	**-0.4**
THE	**Thessaloniki**	**66.07**	**309**	*e*P	**P**	**14 59 27.2**	**-1.9**
APA	**Apatity**	**66.07**	**339**	⇑*i*P	**P**	**14 59 27.7**	**-0.9**
APA				*i*		14 59 40.3	
APA				pmax	pmax		
	comp=Z,300nm,1.4s,mb6.1						
KNT	**Kendrikon**	**66.14**	**309**	*e*P	**P**	**14 59 29.1**	**-0.4**
VAY	**Valandovo**	**66.40**	**309**	*i* P	**P**	**14 59 30.3**	**-0.9**
LIT	**Litokhoron**	**66.42**	**308**	*e*P	**P**	**14 59 29.4**	**-1.9**
AGG	**Agios Georgios**	**66.51**	**307**	*e*P	**P**	**14 59 30.1**	**-1.8**
GRG	**Griva**	**66.51**	**309**	*e*P	**P**	**14 59 30.4**	**-1.5**
KWP	**Kalwaria**	**66.92**	**318**	*e*P	**P**	**14 59 33.4**	**-0.9**
BOLS	**Boljevac**	**66.97**	**312**	⇑*i*P	**P**	**14 59 33.8**	**-1.0**
FINES	**FINESS Array B**	**67.10**	**331**	P	**P**	**14 59 34.6**	**-0.7**
	comp=Z,53nm,0.8s,mb5.6,baz=104,slow=7.9,SNR=36						
FINES	**FINESS Array B**	**67.10**	**331**	P	**P**	**14 59 34.6**	**-0.7**
FINES				pmax	pmax		
	comp=Z,53nm,0.8s						
KOLS	**Kolonicke sedl**	**67.13**	**318**	*i* P	**P**	**14 59 36.1**	**+0.4**
KAF	**Kangasniemi**	**67.16**	**332**	*e*p	**P**	**14 59 35.3**	**-0.3**
	comp=Z,119nm,1.2s,mb5.8						
KAF	**Kangasniemi**	**67.16**	**332**	*e*P	**P**	**14 59 35.3**	**-0.3**
KAF				pmax	pmax		
	comp=Z,119nm,1.2s,mb5.8						
SUW	**Suwalki**	**67.18**	**323**	*e*P	**P**	**14 59 34.4**	**-1.5**
SKO	**Skopje**	**67.27**	**310**	⇓*i*P	**P**	**14 59 36.2**	**-0.5**
	comp=Z,0.1nm,0.9s						
FNA	**Florina**	**67.28**	**309**	*e*P	**P**	**14 59 35.6**	**-1.2**
CRVS	**Cervenica-Dubn**	**67.67**	**317**	*i* P	**P**	**14 59 40.4**	**+1.3**
GRUS	**Gruza**	**67.87**	**312**	⇓*i*P	**P**	**14 59 39.8**	**-0.6**
IGT	**Igoumenitsa**	**68.07**	**307**	*e*P	**P**	**14 59 40.2**	**-1.5**
BEO	**Belgrade**	**68.10**	**313**	⇑*i*P	**P**	**14 59 41.9**	**0.0**
WAR	**Warsaw**	**68.25**	**321**	*e*P	**P**	**14 59 41.7**	**-1.0**
KECS	**Kecovo**	**68.28**	**317**	*i* P	**P**	**14 59 42.5**	**-0.4**
DIVS	**Divcibare**	**68.40**	**312**	⇓*i*P	**P**	**14 59 42.8**	**-0.9**
QSH	**Qafa e Shtames**	**68.41**	**309**	*i* p	**P**	**14 59 44.6**	**+0.8**
NIE	**Niedzica**	**68.46**	**318**	*i* P	**P**	**14 59 44.2**	**+0.2**
PSZ	**Piszkesteto**	**68.64**	**316**	P	**P**	**14 59 44.9**	**-0.2**
PSZ				pmax	pmax		
	comp=Z,200nm,1.3s,mb5.9						
PSZ	**Piszkesteto**	**68.64**	**316**	⇑*e*P	**P**	**14 59 44.8**	**-0.3**
OJC	**Ojcow**	**68.85**	**319**	*e*P	**P**	**14 59 46.0**	**-0.4**
KEV	**Kevo**	**69.04**	**340**	*e*p	**P**	**14 59 46.4**	**-0.9**
	comp=Z,60nm,0.7s,mb5.6						
KEV	**Kevo**	**69.04**	**340**	*e*P	**P**	**14 59 46.4**	**-0.9**
KEV				pmax	pmax		
	comp=Z,60nm,0.7s,mb5.6						
VYHS	**Vyhne**	**69.37**	**317**	*i* P	**P**	**14 59 49.3**	**-0.3**
PKSM	**Moragy**	**69.42**	**314**	⇓*e*P	**P**	**14 59 49.9**	**-0.1**
ARCES	**ARCESS Array B**	**69.48**	**340**	P	**P**	**14 59 49.9**	**0.0**
	comp=Z,59nm,0.8s,mb5.6,baz=91,slow=6.6,SNR=54						
ARCES				LR	LR	15 34 43.3	
	comp=Z,4µm,18.2s,MS5.8,baz=114,slow=40						
ARCES	**ARCESS Array B**	**69.48**	**340**	P	**P**	**14 59 49.9**	**0.0**
ARCES				pmax	pmax		
	comp=Z,59nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,4µm,18.2s						
ARCES	**ARCESS Array B**	**69.48**	**340**	P	**P**	**14 59 49.9**	**0.0**
ARCES				LR	LR	15 34 43.2	
ARE0	**ARCESS Array S**	**69.48**	**340**	⇑*i*P	**P**	**14 59 49.8**	**-0.1**
KOLL	**Kolacno**	**69.67**	**317**	*e*P	**P**	**14 59 51.2**	**-0.2**
SRO	**Srobarova**	**69.70**	**316**	*e*P	**P**	**14 59 52.3**	**+0.7**
RHK1	**Bakonya**	**69.81**	**314**	⇑*e*P	**P**	**14 59 52.4**	**0.0**
OKC	**Ostrava-Krasne**	**69.89**	**318**	*e*P	**P**	**14 59 52.7**	**0.0**
OKC				AMS	AMS	15 39 20.0	
	comp=Z,2µm,18.2s						
KTK1	**Kautokeino**	**70.12**	**339**	*e*P	**P**	**14 59 54.4**	**+0.5**
KTK1				AMb	AMB	14 59 57.0	
	comp=Z,246nm,1.6s,mb5.9						
KTK1	**Kautokeino**	**70.12**	**339**	*e*P	**P**	**14 59 55.1**	**+1.3**
LSZ	**Lusaka**	**70.17**	**248**	*e*P	**P**	**14 59 55.6**	**+0.6**
LSZ				pmax	pmax		
	comp=Z,240nm,1.8s,mb5.8						
LSZ	**Lusaka**	**70.17**	**248**	*e*P	**P**	**14 59 55.3**	**+0.3**
	comp=Z,241nm,1.8s,mb5.8						
LSZ				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
MORC	**Moravsky Berou**	**70.28**	**318**	*e*P	**P**	**14 59 55.1**	**0.0**
MORC				pmax	pmax		
	comp=Z,270nm,1.2s,mb6.0						
MORC	**Moravsky Berou**	**70.28**	**318**	*e*P	**P**	**14 59 55.1**	**0.0**
	comp=Z,269nm,1.2s,mb6.0						
SMOL	**Smolenice**	**70.31**	**317**	*e*P	**P**	**14 59 55.1**	**-0.2**
WAKE	**Wake Island**	**70.49**	**74**	PFAKE		15 00 10.0	+13
WAKE				LR	LR		
	comp=Z,50µm,20.0s,MS6.8						
ZST	**Bratislava**	**70.52**	**317**	*e*P	**P**	**14 59 56.4**	**-0.2**
GKP	**Gorka Klasztor**	**70.63**	**322**	*e*P	**P**	**14 59 56.2**	**-1.0**
SOP	**Sopron**	**70.88**	**316**	⇓*e*P	**P**	**14 59 59.2**	**+0.4**
DPC	**Dobruska-Polom**	**71.08**	**319**	*e*P	**P**	**15 00 00.0**	**0.0**
DPC				AMS	AMS	15 41 30.0	
	comp=Z,2µm,16.0s						
KSP	**Ksiaz**	**71.11**	**319**	*e*P	**P**	**14 59 59.9**	**-0.3**
KSP				*e*pP	pP	15 00 03.8	-2.8
KSP	**Ksiaz**	**71.11**	**319**	*e*P	**P**	**15 00 00.6**	**+0.4**
GRI	**Girifalco**	**71.12**	**307**	*e*P	**P**	**15 00 00.7**	**+0.2**
BILL	**Bilibino**	**71.23**	**22**	⇑*e*P	**P**	**15 00 00.0**	**-0.6**
BILL				pmax	pmax		
	comp=Z,112nm,1.6s,mb5.5						
BILL	**Bilibino**	**71.23**	**22**	*e*P	**P**	**14 59 59.6**	**-1.1**
	comp=Z,75nm,1.2s,mb5.5						
UPC	**Upice**	**71.28**	**319**	*e*P	**P**	**15 00 01.0**	**-0.2**
SOI	**Samo**	**71.44**	**306**	*e*P	**P**	**15 00 03.2**	**+0.8**
ARSA	**Arzberg**	**71.58**	**316**	⇑*i*P	**P**	**15 00 03.0**	**0.0**
	comp=Z,133nm,1.8s,mb5.6						
SCLL	**Scilla**	**71.70**	**306**	*e*P	**P**	**15 00 04.5**	**+0.6**
TRO	**Tromso**	**71.74**	**339**	*e*P	**P**	**15 00 02.4**	**-1.3**
TRO				AMb	AMB	15 00 04.6	
	comp=Z,207nm,1.6s,mb5.8						
TRO	**Tromso**	**71.74**	**339**	*e*P	**P**	**15 00 02.9**	**-0.8**
BOJS	**Bojanci**	**71.78**	**314**	*e*P	**P**	**15 00 03.8**	**-0.6**
BSD	**Bornholm Skovb**	**72.07**	**324**	*i* P	**P**	**15 00 04.9**	**-0.9**
BSD				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
BSD	**Bornholm Skovb**	**72.07**	**324**	*i* P	**P**	**15 00 04.9**	**-0.9**
	comp=Z,113nm,1.0s,mb5.8						
BSD				*i*		15 18 51.0	
AGST	**Augusta-Monte**	**72.15**	**305**	*e*P	**P**	**15 00 06.7**	**+0.1**
PVCC	**Panska Ves**	**72.20**	**319**	*e*P	**P**	**15 00 06.9**	**+0.2**
PVCC				AMS	AMS	15 41 50.0	
	comp=Z,3µm,22.3s						
PRU	**Pruhonice**	**72.22**	**318**	*e*P	**P**	**15 00 06.5**	**-0.3**
	comp=Z,232nm,1.3s,mb6.0						
PRU				AMS	AMS	15 42 00.0	
	comp=Z,2µm,17.5s						
OBKA	**Obir**	**72.25**	**315**	⇑*i*P	**P**	**15 00 07.5**	**+0.4**
	comp=Z,116nm,0.9s,mb5.8						
LJU	**Ljubljana**	**72.28**	**314**	*e*P	**P**	**15 00 07.2**	**0.0**
PZI	**Palazzolo**	**72.38**	**305**	*e*P	**P**	**15 00 08.3**	**+0.3**
MOA	**Molln**	**72.42**	**316**	⇑*i*P	**P**	**15 00 07.6**	**-0.5**
	comp=Z,85nm,1.0s,mb5.6						
BRG	**Berggiesshubel**	**72.60**	**319**	*i* P	**P**	**15 00 09.3**	**+0.2**
BRG				pmax	pmax		
	comp=Z,185nm,1.0s,mb6.0						
BRG	**Berggiesshubel**	**72.60**	**319**	*i* P	**P**	**15 00 09.3**	**+0.2**
	comp=Z,185nm,1.0s,mb6.0						
BRG				*i*		15 00 13.2	
RUE	**Ruedersdorf**	**72.70**	**321**	*e*P	**P**	**15 00 09.3**	**-0.3**
	comp=Z,449nm,1.1s,mb6.3						
VOY	**Vojsko**	**72.72**	**314**	*e*P	**P**	**15 00 08.7**	**-1.2**
GERES	**GERESS Array B**	**72.78**	**317**	P	**P**	**15 00 10.2**	**+0.1**
	comp=Z,84nm,0.8s,mb5.7,baz=87,slow=5.4,SNR=82						
GERES	**GERESS Array B**	**72.78**	**317**	P	**P**	**15 00 10.2**	**0.0**
GERES				pmax	pmax		
	comp=Z,84nm,0.8s						
CADS	**Cadrg**	**72.83**	**314**	*e*P	**P**	**15 00 09.8**	**-0.6**
KHC	**Kasperske Hory**	**72.86**	**318**	*e*P	**P**	**15 00 10.3**	**-0.3**
KHC				AMS	AMS	15 37 10.0	
	comp=Z,2µm,18.7s						
HFS	**Hagfors**	**72.92**	**329**	P	**P**	**15 00 10.3**	**-0.4**
	comp=Z,96nm,0.9s,mb5.7,baz=90,slow=5.9,SNR=47						
HFS	**Hagfors**	**72.92**	**329**	P	**P**	**15 00 10.3**	**-0.4**
HFS				pmax	pmax		
	comp=Z,96nm,0.9s						
MOR8	**Moi Rana**	**72.97**	**335**	*e*P	**P**	**15 00 09.5**	**-1.4**
MOR8				AMb	AMB	15 00 12.5	
	comp=Z,253nm,1.6s,mb5.9						
ROBS	**Robic**	**72.98**	**314**	*e*P	**P**	**15 00 10.6**	**-0.8**
RGN	**Rugen**	**72.98**	**323**	*e*P	**P**	**15 00 11.2**	**0.0**
	comp=Z,320nm,1.3s,mb6.1						
KBA	**Koelnbreinsper**	**73.07**	**315**	⇑*i*P	**P**	**15 00 11.8**	**-0.1**
	comp=Z,48nm,1.0s,mb5.4						
PTCC	**Patocco-Chiusa**	**73.08**	**315**	*e*P	**P**	**15 00 11.5**	**-0.5**
GMNA	**Gemona**	**73.17**	**315**	*e*P	**P**	**15 00 12.9**	**+0.4**
CLL	**Collm**	**73.19**	**320**	*i* P	**P**	**15 00 12.1**	**-0.4**
CLL				pmax	pmax		
	comp=Z,188nm,1.2s,mb5.9						
CLL				MLR	MLR		
	comp=Z,4µm,16.7s,MS5.7						
CLL	**Collm**	**73.19**	**320**	*i* P	**P**	**15 00 12.1**	**-0.4**
	comp=Z,188nm,1.2s,mb5.9						
CLL				LR	LR		
	comp=Z,4µm,16.7s,MS5.7						
CLL	**Collm**	**73.19**	**320**	P	**P**	**15 00 12.1**	**-0.4**
	comp=Z,logA/T=2.2,mb5.9						
CLL				*e**PP	pP	15 00 17.0	-1.9
CLL				*e*PP	PP	15 02 53.0	-4.6
PTQR	**Pietraquaria**	**73.26**	**310**	*e*P	**P**	**15 00 13.1**	**0.0**
FX1	**Attu Island--F**	**73.38**	**39**	P	**P**	**15 00 13.6**	**+0.1**
	comp=Z,44nm,0.6s,mb5.5,baz=252,slow=3.8,SNR=17						
FX1	**Attu Island--F**	**73.38**	**39**	P	**P**	**15 00 13.6**	**+0.1**
FX1				pmax	pmax		
	comp=Z,44nm,0.6s						
FX1	**Attu Island--F**	**73.38**	**39**	*e*P	**P**	**15 00 13.6**	**0.0**
FVI	**Forni Avoltri**	**73.47**	**315**	*e*P	**P**	**15 00 14.3**	**+0.1**
LOF	**Lofoten**	**73.48**	**337**	*e*P	**P**	**15 00 14.5**	**+0.7**
LOF				AMb	AMB	15 00 17.7	
	comp=Z,184nm,1.4s,mb5.8						
COP	**Copenhagen**	**73.50**	**324**	⇑*e*P	**P**	**15 00 14.5**	**+0.3**
COP				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.5						
COP	**Copenhagen**	**73.50**	**324**	⇑*e*P	**P**	**15 00 14.5**	**+0.3**
	comp=Z,62nm,1.1s,mb5.5						
COP	**Copenhagen**	**73.50**	**324**	⇑*i*P	**P**	**15 00 14.5**	**+0.3**
	comp=Z,62nm,1.1s,mb5.5						
ARV	**Arcevia**	**73.51**	**312**	*e*P	**P**	**15 00 15.0**	**+0.4**
SNTG	**Esanatoglia**	**73.53**	**311**	*e*P	**P**	**15 00 14.8**	**+0.2**
NKC	**Novy Kostel**	**73.56**	**319**	*e*P	**P**	**15 00 14.8**	**+0.1**
NKC				AMS	AMS	15 37 10.0	
	comp=Z,2µm,19.9s						
FSSB	**Fossombrone**	**73.62**	**312**	*e*P	**P**	**15 00 15.8**	**+0.6**
NSS	**Namsos**	**73.90**	**334**	*e*P	**P**	**15 00 15.1**	**-1.3**
SMY	**Shemya**	**73.95**	**39**	PFAKE		15 00 30.0	+13
SMY				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
HSP	**Hornsund**	**73.96**	**347**	*e*P	**P**	**15 00 17.6**	**+1.1**
MOX	**Moxa**	**74.08**	**319**	*e*P	**P**	**15 00 18.2**	**+0.5**
MOX	**Moxa**	**74.08**	**319**	*i* P	**P**	**15 00 18.2**	**+0.5**
NB2	**NORSAR Subarra**	**74.16**	**330**	P	**P**	**15 00 17.2**	**-0.7**
	comp=Z,140nm,1.0s,mb5.8,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**74.16**	**330**	P	**P**	**15 00 17.2**	**-0.7**
	baz=90,slow=5.9						
NOA	**NORSAR Array B**	**74.16**	**330**	P	**P**	**15 00 17.2**	**-0.7**
	comp=Z,45nm,0.9s,mb5.4,baz=90,slow=5.8,SNR=60						
NOA	**NORSAR Array B**	**74.16**	**330**	P	**P**	**15 00 17.3**	**-0.6**
NOA				pmax	pmax		
	comp=Z,45nm,0.9s						
ERC	**Erice**	**74.18**	**306**	*e*P	**P**	**15 00 18.9**	**+0.4**
WTTA	**Wattenberg**	**74.22**	**316**	⇑*i*P	**P**	**15 00 17.9**	**-0.7**
	comp=Z,83nm,0.8s,mb5.7						
WATA	**Walderalm**	**74.26**	**316**	⇑*i*P	**P**	**15 00 18.2**	**-0.6**
	comp=Z,42nm,0.6s,mb5.5						
SFI	**Santa Sofia**	**74.28**	**312**	*e*P	**P**	**15 00 20.4**	**+1.4**
CTI	**Castel Tesino**	**74.28**	**314**	*e*P	**P**	**15 00 19.0**	**0.0**
NAO01	**NORSAR Array S**	**74.32**	**330**	*e*P	**P**	**15 00 18.0**	**-0.8**
	comp=Z,60nm,0.9s,mb5.5						
NAO01				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
PGD	**Poggio Sodo**	**74.37**	**312**	*e*P	**P**	**15 00 20.4**	**+0.9**
GRA1	**Grafenberg Arr**	**74.38**	**318**	*e*P	**P**	**15 00 20.1**	**+0.7**
	comp=Z,260nm,1.2s,mb6.0						
GRF	**Grafenberg Arr**	**74.38**	**318**	*e*P	**P**	**15 00 20.1**	**+0.7**
GRF				pmax	pmax		
	comp=Z,260nm,1.2s,mb6.0						
GRF	**Grafenberg Arr**	**74.38**	**318**	*e*P	**P**	**15 00 20.1**	**+0.7**
	comp=Z,260nm,1.2s,mb6.0						
OSL	**Oslo**	**74.40**	**329**	*e*P	**P**	**15 00 18.4**	**-0.9**
OSL				AMb	AMB	15 00 21.5	
	comp=Z,70nm,1.4s,mb5.4						
VMG	**Vicchio**	**74.49**	**312**	*e*P	**P**	**15 00 21.3**	**+1.1**
SQTA	**Sankt Quirin**	**74.52**	**316**	⇑*i*P	**P**	**15 00 19.7**	**-0.6**
	comp=Z,42nm,0.5s,mb5.6						
MOTA	**Moosalm**	**74.58**	**316**	⇑*i*P	**P**	**15 00 20.5**	**-0.1**
	comp=Z,96nm,1.2s,mb5.6						
SEI	**Scarperia**	**74.62**	**312**	*e*P	**P**	**15 00 22.1**	**+1.2**
CSNT	**Castellina Chi**	**74.71**	**312**	*e*P	**P**	**15 00 20.6**	**-0.9**
FNVD	**Fontana Vidola**	**74.78**	**312**	*e*P	**P**	**15 00 22.4**	**+0.6**
ZCCA	**Zocca**	**74.87**	**313**	*e*P	**P**	**15 00 24.6**	**+2.2**
GRFL	**Gerfalco**	**74.97**	**311**	*e*P	**P**	**15 00 22.5**	**-0.4**
KONO	**Kongsberg**	**74.98**	**329**	PFAKE		15 00 30.0	+7.3
KONO				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
MABI	**Malga Bissina**	**75.07**	**314**	*e*P	**P**	**15 00 24.3**	**+0.8**
SAL	**Salo**	**75.10**	**314**	*e*P	**P**	**15 00 25.1**	**+1.4**
HDH	**Heidenheim**	**75.10**	**317**	⇑*e*P	**P**	**15 00 23.0**	**-0.6**
BRMO	**Bormio**	**75.14**	**315**	*e*P	**P**	**15 00 23.7**	**-0.2**
GSCL	**Gusciola**	**75.15**	**313**	*e*P	**P**	**15 00 24.8**	**+0.8**
BDI	**Bagni Di Lucca**	**75.17**	**312**	*e*P	**P**	**15 00 23.6**	**-0.5**
DOMB	**Dombas**	**75.19**	**331**	*e*P	**P**	**15 00 23.2**	**-0.6**
DOMB				AMb	AMB	15 00 26.2	
	comp=Z,217nm,1.5s,mb5.9						
DOMB	**Dombas**	**75.19**	**331**	*e*P	**P**	**15 00 22.3**	**-1.6**
UBR	**Uberruh**	**75.23**	**316**	⇑*e*P	**P**	**15 00 23.8**	**-0.6**
PII	**Pisa**	**75.25**	**312**	*e*P	**P**	**15 00 22.8**	**-1.7**
MAIM		**75.26**	**312**	P	**P**	**15 00 23.5**	**-1.1**
ERBM	**Eremo**	**75.27**	**313**	*e*P	**P**	**15 00 26.2**	**+1.6**
MUD	**Monsted U'grnd**	**75.31**	**325**	*i* P	**P**	**15 00 25.1**	**+0.5**
MUD				pmax	pmax		
	comp=Z,170nm,1.2s,mb5.8						
MUD	**Monsted U'grnd**	**75.31**	**325**	*i* P	**P**	**15 00 25.1**	**+0.5**
	comp=Z,173nm,1.2s,mb5.9						
VLC	**Villacollemand**	**75.31**	**312**	*e*P	**P**	**15 00 24.4**	**-0.6**
	comp=Z,32nm,0.8s,mb5.3						
VALM		**75.39**	**313**	P	**P**	**15 00 25.4**	**0.0**
DAVA	**Damuels**	**75.42**	**316**	⇑*i*P	**P**	**15 00 25.3**	**-0.1**
	comp=Z,194nm,1.1s,mb6.0						
SIND	**Sindeldorf**	**75.45**	**318**	⇑*e*P	**P**	**15 00 25.5**	**-0.1**
DAVOX	**Davos**	**75.45**	**315**	P	**P**	**15 00 26.4**	**+0.7**
	comp=Z,32nm,0.5s,mb5.5,baz=85,slow=5.0						
DAVOX	**Davos**	**75.45**	**315**	P	**P**	**15 00 26.4**	**+0.7**
VINC	**Vinca**	**75.48**	**312**	P	**P**	**15 00 25.2**	**-0.7**
BACM		**75.53**	**313**	P	**P**	**15 00 25.9**	**-0.2**
CODM		**75.67**	**313**	P	**P**	**15 00 27.4**	**+0.4**
BUCH	**Bad Urach**	**75.68**	**317**	⇑*e*P	**P**	**15 00 26.6**	**-0.3**
STU	**Stuttgart**	**75.76**	**317**	P	**P**	**15 00 27.3**	**-0.1**
STU				pmax	pmax		
	comp=Z,35nm,0.6s,mb5.5						
STU	**Stuttgart**	**75.76**	**317**	*e*P	**P**	**15 00 27.0**	**-0.4**
	comp=Z,35nm,0.6s,mb5.5						
GUT	**Gutenstein**	**75.87**	**317**	⇑*e*P	**P**	**15 00 27.3**	**-0.7**
MOL	**Molde**	**75.88**	**332**	*e*P	**P**	**15 00 29.5**	**+1.7**
MOL				AMb	AMB	15 00 34.1	
	comp=Z,291nm,2.0s,mb5.9						
BOB	**Bobbio (Coli)**	**75.93**	**313**	*e*P	**P**	**15 00 29.2**	**+0.8**
TOD	**Tromm**	**75.95**	**318**	⇑*e*P	**P**	**15 00 28.1**	**-0.3**
TOD	**Tromm**	**75.95**	**318**	*e*P	**P**	**15 00 28.5**	**+0.1**
LBTB	**Lobatse**	**76.02**	**240**	*e*P	**P**	**15 00 29.8**	**+0.5**
LBTB				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.7						
LBTB	**Lobatse**	**76.02**	**240**	*e*P	**P**	**15 00 29.6**	**+0.3**
	comp=Z,80nm,0.8s,mb5.7						
LBTB				LR	LR		
	comp=Z,21µm,20.0s,MS6.4						
SWS	**Schriesheim**	**76.03**	**318**	⇑*e*P	**P**	**15 00 28.5**	**-0.4**
LBG	**Lerchenberg**	**76.03**	**317**	⇑*e*P	**P**	**15 00 28.7**	**-0.2**
SPAK	**Spaichingen**	**76.09**	**317**	*e*P	**P**	**15 00 28.9**	**-0.3**
SPAK	**Spaichingen**	**76.09**	**317**	*e*P	**P**	**15 00 29.2**	**0.0**
VAI	**Varese**	**76.30**	**314**	*e*P	**P**	**15 00 29.6**	**-0.9**
KTD	**Kalmit**	**76.44**	**318**	*e*P	**P**	**15 00 30.8**	**-0.4**
KTD	**Kalmit**	**76.44**	**318**	*e*P	**P**	**15 00 31.7**	**+0.5**
PGF	**Pioggiola**	**76.47**	**311**	⇑*i*P	**P**	**15 00 31.0**	**-0.5**
	comp=Z,288nm,1.3s,mb5.8						
VSL	**Villasalto**	**76.52**	**308**	*e*P	**P**	**15 00 30.8**	**-1.1**
	comp=Z,48nm,0.8s,mb5.5						
BLS5	**Blasjo**	**76.59**	**328**	*e*P	**P**	**15 00 32.8**	**+1.0**
BLS5				AMb	AMB	15 00 35.3	
	comp=Z,94nm,1.6s,mb5.5						
PCP	**Pian Castagno**	**76.59**	**313**	P	**P**	**15 00 31.1**	**-1.0**
FELD	**Feldberg**	**76.63**	**316**	⇑*e*P	**P**	**15 00 32.0**	**-0.3**
LANF	**Langenberg**	**76.66**	**318**	*e*P	**P**	**15 00 32.6**	**+0.2**
KIZ	**Kirchzarten**	**76.68**	**317**	⇑*e*P	**P**	**15 00 32.2**	**-0.4**
STR	**Strasbourg**	**76.72**	**317**	*e*P	**P**	**15 00 32.9**	**+0.1**
ABH	**Alteburg**	**76.74**	**319**	⇑*e*P	**P**	**15 00 32.8**	**0.0**
ABH	**Alteburg**	**76.74**	**319**	*e*P	**P**	**15 00 32.9**	**+0.1**
MCGN	**Macugnaga**	**76.83**	**314**	*e*P	**P**	**15 00 33.8**	**+0.3**
FIN	**Finale Ligure**	**76.86**	**313**	*e*P	**P**	**15 00 34.0**	**+0.4**
LIBD	**Limburg**	**76.87**	**317**	⇑*e*P	**P**	**15 00 33.5**	**-0.1**
ORX	**Oropa**	**76.87**	**314**	P	**P**	**15 00 32.8**	**-0.9**
BBS	**Basel-Blauen**	**77.00**	**316**	⇑*e*P	**P**	**15 00 34.1**	**-0.3**
BBS	**Basel-Blauen**	**77.00**	**316**	*e*P	**P**	**15 00 34.3**	**-0.1**
WLS	**Welschbruch**	**77.01**	**317**	*e*P	**P**	**15 00 34.0**	**-0.4**
WIT	**Witteveen**	**77.01**	**322**	*e*P	**P**	**15 00 35.2**	**+0.9**
	comp=Z,826nm,1.6s,mb6.4						
WTSB	**Winterswijk**	**77.01**	**321**	*e*P	**P**	**15 00 34.7**	**+0.4**
	comp=Z,254nm,2.0s,mb5.8						
RUND	**Rundenannen**	**77.06**	**329**	*e*P	**P**	**15 00 35.6**	**+1.2**
CDF	**Champ du Feu**	**77.06**	**317**	⇑*i*P	**P**	**15 00 34.2**	**-0.5**
	comp=Z,180nm,1.2s,mb5.6						
RUP	**Ruppelstein**	**77.07**	**318**	⇑*e*P	**P**	**15 00 34.7**	**0.0**
RUP	**Ruppelstein**	**77.07**	**318**	*e*P	**P**	**15 00 34.5**	**-0.2**
ROB	**Roburent**	**77.10**	**313**	P	**P**	**15 00 34.4**	**-0.6**
IMI	**Imperia**	**77.13**	**312**	*e*P	**P**	**15 00 36.0**	**+0.8**
ECH	**Echery**	**77.16**	**317**	*e*P	**P**	**15 00 34.5**	**-0.7**
MONE	**Monesi**	**77.20**	**313**	P	**P**	**15 00 34.7**	**-0.8**
MOF	**Molkenrain**	**77.22**	**316**	*e*P	**P**	**15 00 35.2**	**-0.3**
ENR	**Entracque**	**77.43**	**313**	P	**P**	**15 00 36.3**	**-0.5**
RSP	**Reno Superiore**	**77.43**	**314**	P	**P**	**15 00 36.0**	**-0.8**
AUTN	**L'Aution**	**77.45**	**313**	*e*P	**P**	**15 00 38.3**	**+1.4**
SBF	**Sospel**	**77.46**	**312**	⇑*i*P	**P**	**15 00 36.6**	**-0.4**
	comp=Z,227nm,1.1s,mb5.7						
BHB	**Bricherasio**	**77.47**	**313**	P	**P**	**15 00 35.0**	**-1.9**
LSD	**Ceresole Reale**	**77.47**	**314**	P	**P**	**15 00 37.2**	**+0.3**
LOMF	**Lomont**	**77.48**	**316**	*e*P	**P**	**15 00 36.8**	**-0.2**
STV2	**Anna di Valdie**	**77.49**	**313**	P	**P**	**15 00 36.1**	**-1.0**
STV	**Sta Anna Valdi**	**77.49**	**313**	P	**P**	**15 00 35.6**	**-1.6**
DOI	**San Damiano**	**77.52**	**313**	*e*P	**P**	**15 00 34.1**	**-3.1**
TOUF	**Mont Tournerai**	**77.58**	**313**	*e*P	**P**	**15 00 37.8**	**+0.2**
FENE	**Fenestrelle**	**77.58**	**314**	P	**P**	**15 00 37.1**	**-0.5**
PZZ	**Prazzo**	**77.62**	**313**	P	**P**	**15 00 36.3**	**-1.5**
MVIF	**Mont Vial**	**77.66**	**312**	*e*P	**P**	**15 00 38.6**	**+0.5**
WLF	**Walferdange**	**77.66**	**318**	P	**P**	**15 00 37.4**	**-0.5**
WLF				pmax	pmax		
	comp=Z,280nm,1.6s,mb5.9						
WLF	**Walferdange**	**77.66**	**318**	*e*P	**P**	**15 00 36.8**	**-1.2**
	comp=Z,279nm,1.6s,mb5.9						
HGN	**Heimansgroeve**	**77.68**	**320**	*e*P	**P**	**15 00 37.7**	**-0.3**
	comp=Z,113nm,2.2s,mb5.4						
BOSA	**Boshof**	**77.68**	**236**	P	**P**	**15 00 39.0**	**+0.5**
BOSA				P		15 00 39.0	
BOSA				pP	pP	15 00 44.0	-1.0
BOSA	**Boshof**	**77.68**	**236**	P	**P**	**15 00 38.9**	**+0.4**
BOSA				pmax	pmax		
	comp=Z,140nm,0.8s,mb5.9						
BOSA	**Boshof**	**77.68**	**236**	*e*P	**P**	**15 00 38.7**	**+0.2**
	comp=Z,138nm,0.8s,mb5.9						
BOSA				*e*	pP	15 00 44.0	-1.0
BOSA				LR	LR		
	comp=Z,10µm,19.0s,MS6.2						
OG22	**Abries**	**77.69**	**313**	*e*P	**P**	**15 00 38.1**	**-0.1**
HAU	**Haudompre**	**77.72**	**317**	⇑*i*P	**P**	**15 00 37.8**	**-0.5**
	comp=Z,230nm,1.1s,mb5.7						
HAU				*e*R			
	comp=Z,3µm,18.5s						
LPG	**La Plagne**	**77.75**	**314**	⇑*i*P	**P**	**15 00 38.8**	**+0.3**
	comp=Z,356nm,0.9s,mb6.0						
RRL	**Cesana Torines**	**77.79**	**314**	P	**P**	**15 00 39.2**	**+0.4**

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MBDF Montbardon        77.83 313⇑iP     P        15 00 38.5 -0.5
     comp=Z,305nm,1.2s,mb5.8
SURF Saint Ours        77.83 313 eP     P        15 00 39.3 +0.3
BNI  Bardonecchia      77.85 314  P     P        15 00 39.3 +0.2
BNI                               pmax  pmax
     comp=Z,190nm,1.1s,mb5.9
BNI  Bardonecchia      77.85 314 eP     P        15 00 39.3 +0.2
     comp=Z,189nm,1.1s,mb5.9
THEF They Montfort     77.94 317 eP     P        15 00 39.2 -0.3
GDM  Grand'Maison      78.23 314 eP     P        15 00 41.0 -0.2
GRN  Grenoble          78.48 314 eP     P        15 00 43.6 +1.0
OG05 Jujurieux         78.58 315 eP     P        15 00 43.1 +0.1
BAIF Baives            78.86 319⇑iP     P        15 00 44.6 +0.1
     comp=Z,284nm,1.1s,mb5.8
OCF  Saint Nazaire     78.89 313 eP     P        15 00 45.5 +0.7
OG26 St.-Nazaire-De    78.89 313 eP     P        15 00 45.5 +0.7
SSF  Saint Saulge      79.76 316⇑iP     P        15 00 49.2 -0.3
     comp=Z,264nm,1.2s,mb5.7
PLDF La Plantade       79.85 315 eP     P        15 00 51.0 +1.0
COLF Collangettes      79.87 314 eP     P        15 00 50.3 +0.2
AGO  Saint Agoulin     80.18 315 eP     P        15 00 51.5 -0.2
LBL  Lubilhac          80.23 314 eP     P        15 00 52.9 +0.9
BGF  Bois d'Agland     80.29 316⇑iP     P        15 00 52.3  0.0
     comp=Z,117nm,0.9s,mb5.5
PYM  Petit Puy Mans    80.31 315 eP     P        15 00 53.9 +1.5
DZM  Mont Dzumac       80.32 116 eP     P        15 00 54.5 +1.5
LRW  Lerwick           80.33 330 eP     P        15 00 52.5 +0.2
WAL1 Walls             80.52 330 eP     P        15 00 53.6 +0.4
FRNF Fournols          80.68 314 eP     P        15 00 55.0 +0.6
CASY Casey             80.75 173  PFAKE          15 01 10.0  +16
CASY                              LR    LR
     comp=Z,8µm,20.0s,MS6.1
EJON La Jonquera       80.96 311  P     P        15 00 56.6 +0.7
     comp=Z,83nm,1.3s,mb5.5
RJF  Les Rejaudoux     81.42 314⇑iP     P        15 00 58.6 +0.3
     comp=Z,228nm,1.0s,mb5.8
RJF                              eR
     comp=Z,2µm,21.5s
VALF Valcebollere      81.60 312 eP     P        15 01 00.0 +0.7
DAG  Danmarks Havn     81.63 347⇓eP     P        15 00 58.2 -0.6
DAG                               pmax  pmax
     comp=Z,78nm,1.5s,mb5.4
DAG  Danmarks Havn     81.63 347⇓eP     P        15 00 58.2 -0.6
     comp=Z,78nm,1.5s,mb5.4
DAG  Danmarks Havn     81.63 347⇓iP     P        15 00 58.2 -0.6
     comp=Z,78nm,1.5s,mb5.4
HPK  Haverah Park      81.75 323 eP     P        15 00 59.8  0.0
LHO  Holmfirth         81.97 323 eP     P        15 01 01.1 +0.2
FLN  La Foliniere      82.10 318⇑iP     P        15 01 01.5 -0.2
     comp=Z,304nm,1.1s,mb5.8
FLN                              eR
     comp=Z,4µm,21.0s
MLS  Moulis            82.16 312 eP     P        15 01 01.7 -0.5
EDI  Edinburgh         82.22 326 eP     P        15 01 03.3 +1.1
EDI                               AMb   AMB      15 01 05.2
     comp=Z,184nm,1.6s,mb5.8
ESK  Eskdalemuir       82.36 325 eP     P        15 01 02.9  0.0
ESK  Eskdalemuir       82.36 325  P     P        15 01 04.0 +1.1
ESK                               pmax  pmax
     comp=Z,53nm,1.0s,mb5.4
ESK  Eskdalemuir       82.36 325 eP     P        15 01 03.5 +0.6
     comp=Z,53nm,0.9s,mb5.5
ESK                               LR    LR
     comp=Z,765nm,21.0s,MS5.0
EAU  Auchinoon         82.38 326 eP     P        15 01 03.8 +0.8
EAU                               AMb   AMB      15 01 06.3
     comp=Z,293nm,1.4s,mb6.0
EPOB Poblet            82.49 311  P     P        15 01 04.3 +0.4
     comp=Z,169nm,0.9s,mb6.0
SUR  Sutherland        82.65 234 eP     P        15 01 06.0 +1.0
     comp=Z,96nm,0.8s,mb5.9
SUR                              e      pP       15 01 11.6 +0.1
SUR                               LR    LR
     comp=Z,2µm,19.0s,MS5.5
HAE  Alders End        82.70 322 eP     P        15 01 04.9 +0.1
RESF Ens               82.74 312 eP     P        15 01 05.9 +0.7
EIBI Ibiza             82.75 308  P     P        15 01 06.5 +1.2
     comp=Z,290nm,1.3s,mb6.2
ANM  Nome              82.76  25 eP     P        15 01 06.0 +1.2
HLM1 Long Mynd         82.80 322 eP     P        15 01 05.5 +0.3
EGRA Graus             82.88 312  P     P        15 01 07.4 +1.5
     comp=Z,72nm,1.1s,mb5.6
EBIE Bielsa            82.90 312  P     P        15 01 06.9 +0.9
     comp=Z,85nm,1.2s,mb5.7
EBR  Ebro Roquetas     83.03 310 eP     P        15 01 08.5 +1.8
ERTA Horta de San J    83.12 310  P     P        15 01 07.9 +0.7
     comp=Z,219nm,1.2s,mb6.1
ETSF Etsaut            83.36 312⇑iP     P        15 01 08.8 +0.4
     comp=Z,104nm,1.0s,mb5.5
MIDW Midway            83.43  63  PFAKE          15 01 20.0  +11
MIDW                              LR    LR
     comp=Z,5µm,21.0s,MS5.9
ESAC San Caprasio      83.55 311  P     P        15 01 09.4  0.0
     comp=Z,251nm,1.0s,mb6.3
EMOS Mosqueruela       83.85 310  P     P        15 01 12.7 +1.7
     comp=Z,383nm,1.4s,mb6.3
MAW  Mawson            83.91 191  P     P        15 01 11.6 +1.0
     comp=Z,19nm,0.7s,mb5.4,baz=15,slow=5.8,SNR=19
MAW  Mawson            83.91 191  P     P        15 01 11.6 +1.0
MAW                               pmax  pmax
     comp=Z,19nm,0.7s
MAW  Mawson            83.91 191 eP     P        15 01 12.0 +1.4
MAW                               pmax  pmax
     comp=Z,84nm,0.9s
MAW  Mawson            83.91 191 eP     P        15 01 11.2 +0.6
     comp=Z,84nm,0.8s,mb5.9
MAW                              e      pP       15 01 16.7 -0.5
MAW                               LR    LR
     comp=Z,7µm,21.0s,MS6.0
EALK Alkurruntz        83.97 313  P     P        15 01 12.5 +0.9
     comp=Z,85nm,1.0s,mb5.8
EBEN Beniarda          84.02 308  P     P        15 01 13.0 +1.1
     comp=Z,135nm,1.4s,mb5.9
DLF  Lyons Farm        84.75 324⇑iP     P        15 01 16.1 +1.0
DMUB Kingscourt        84.80 324 eP     P        15 01 17.0 +1.6
CART Cartagena         84.86 307 eP     P        15 01 17.5 +1.4
     comp=Z,74nm,0.9s,mb5.8
EMUR La Murta          84.99 308  P     P        15 01 17.1 +0.4
     comp=Z,140nm,1.6s,mb5.8
DCN  Croghan           85.17 324⇑iP     P        15 01 18.4 +1.2
UNV  Unalaska Valle    85.25  36  PFAKE          15 01 30.0  +12
UNV                               LR    LR
     comp=Z,6µm,19.0s,MS6.0
ELAN Lanestosa         85.34 313  P     P        15 01 18.3  0.0
     comp=Z,45nm,1.1s,mb5.5
EVIA Vianos            85.77 309  P     P        15 01 20.8 +0.2
     comp=Z,71nm,1.1s,mb5.8
ENIJ Nijar             85.94 307  P     P        15 01 22.1 +0.5
     comp=Z,45nm,0.8s,mb5.8
EQES Quesada           86.41 308  P     P        15 01 24.5 +0.7
     comp=Z,175nm,2.2s,mb5.9
EBER Berja             86.49 307  P     P        15 01 24.9 +0.7
     comp=Z,180nm,1.6s,mb6.0
GUD  Guadarrama        86.51 311  P     P        15 01 24.7 +0.5
     comp=Z,59nm,0.7s,mb5.9
EARI Arriondas         86.58 314  P     P        15 01 25.0 +0.5
     comp=Z,319nm,2.9s,mb6.0
ESDC Sonseca Array     86.61 310  P     P        15 01 25.1 +0.3
     comp=Z,25nm,0.8s,mb5.5,baz=57,slow=4.5,SNR=52
ESDC Sonseca Array     86.61 310  P     P        15 01 24.9 +0.2
     comp=Z,35nm,0.9s,mb5.6
ESLA Sonseca Array     86.61 310 eP     P        15 01 25.5 +0.7
     comp=Z,8.2nm,0.9s,mb5.0
ESLA                              LR    LR
     comp=Z,7µm,19.0s,MS6.1
IMA  Indian Mountai    86.77  22  P     P        15 01 26.8 +1.9
IMA                               pmax  pmax
     comp=Z,150nm,0.8s,mb6.3
IMA  Indian Mountai    86.77  22 eP     P        15 01 26.4 +1.5
EBAN Banos Encina      86.86 308  P     P        15 01 26.2 +0.2
     comp=Z,27nm,0.8s,mb5.5
ERON Agron             87.17 307  P     P        15 01 27.7 +0.2
     comp=Z,4.7nm,0.6s,mb4.9
ELUQ Luque             87.39 308  P     P        15 01 28.9 +0.3
     comp=Z,21nm,0.7s,mb5.5
ELOJ Sierra Loja       87.41 307  P     P        15 01 29.2 +0.5
     comp=Z,8.1nm,0.8s,mb5.0
EADA Adamuz            87.47 309  P     P        15 01 28.8 -0.1
     comp=Z,66nm,1.1s,mb5.8
EMIJ Mijas             88.04 307  P     P        15 01 30.8 -0.9
     comp=Z,58nm,1.3s,mb5.7
ERUA La Rua            88.19 313  P     P        15 01 31.3 -1.0
     comp=Z,47nm,1.3s,mb5.6
SUMG Summit            88.30 347 eP     P        15 01 32.6 +0.5
     comp=Z,27nm,0.9s,mb5.5
ESPR Espera            88.80 308  P     P        15 01 36.0 +0.6
     comp=Z,62nm,1.0s,mb5.9
PVRL Vila Real         88.93 312 eP     P        15 01 37.9 +2.1
     comp=Z,107nm,1.6s,mb5.9
ELOB Lobios            89.00 313  P     P        15 01 37.3 +1.1
     comp=Z,107nm,1.1s,mb6.1
STS  Santiago          89.04 314  P     P        15 01 36.7 +0.3
     comp=Z,52nm,1.0s,mb5.8
MTE  Manteigas         89.06 311 eP     P        15 01 38.8 +2.3
     comp=Z,146nm,1.6s,mb6.1
EBAD Badajoz           89.14 310  P     P        15 01 37.4 +0.4
     comp=Z,94nm,1.2s,mb6.0
EMIN Mina Concepcio    89.17 309  P     P        15 01 36.9 -0.2
     comp=Z,86nm,1.5s,mb5.9
PCBR Castelo Branco    89.17 311 eP     P        15 01 38.8 +1.8
     comp=Z,110nm,1.7s,mb5.9
PVIS Viseu             89.22 312 eP     P        15 01 39.3 +2.1
     comp=Z,130nm,1.6s,mb6.0
EMAZ Mazaricos         89.32 314  P     P        15 01 38.7 +1.1
     comp=Z,82nm,1.1s,mb6.0
COLA College           89.48  22 eP     P        15 01 38.9 +1.0
COLA College           89.48  22 eP     P        15 01 37.6 -0.3
     comp=Z,41nm,1.4s,mb5.6
SPU  Mount Spurr       89.68  26 eP     P        15 01 39.6 +0.7
RSO  Redoubt South     89.72  27  P     P        15 01 39.2 +0.1
EGRO El Granado        89.85 309  P     P        15 01 40.6 +0.3
     comp=Z,212nm,1.6s,mb6.2
PALC Alcoutim          89.87 308 eP     P        15 01 42.0 +1.6
     comp=Z,174nm,1.4s,mb6.2
ILAR Eielson Array     89.88  22  P     P        15 01 41.0 +1.2
     comp=Z,11nm,1.0s,mb5.2,baz=294,slow=4.5,SNR=36
ILAR                              PKKPbc         15 19 12.2
     comp=Z,0.3nm,0.6s,baz=147,slow=2.1,SNR=5.5
PBEJ Beja              90.00 309 eP     P        15 01 42.9 +1.9
     comp=Z,86nm,1.4s,mb5.9
FIB  Fire Island       90.48  26 eP     P        15 01 44.3 +1.7
FIB                               LR    LR
     comp=Z,1µm,21.0s,MS5.2
SYO  Syowa Base        90.53 197⇓P      P        15 01 43.1 +0.4
SYO  Syowa Base        90.53 197⇑P      Px       15 02 02.6
PMR  Palmer            90.70  25 eP     P        15 01 44.5 +0.9
PTEO Sao Teotonio      90.79 309 eP     P        15 01 46.3 +1.7
     comp=Z,199nm,2.0s,mb6.1
SLKM Skilak Lake       90.79  26  P     P        15 01 45.1 +1.0
SLKM Skilak Lake       90.79  26 eP     P        15 01 44.6 +0.6
RPZ  Rata Peaks        90.94 135  P     P        15 01 46.7 +1.6
     comp=Z,21nm,0.8s,mb5.5,baz=136,slow=3.2,SNR=9.5
RPZ                               PKKP  PKKP     15 19 06.3 +7.0
     comp=Z,29nm,0.9s,baz=3.8,slow=6.2,SNR=6.5
KDAK Kodiak Island     91.04  29 eP     P        15 01 46.2 +0.9
     comp=Z,88nm,1.1s,mb6.0
KDAK                              LR    LR
     comp=Z,661nm,20.0s,MS5.1
THY  Trims Highway     91.05  23 eP     P        15 01 46.5 +1.4
INK  Inuvik            91.82  16  P     P        15 01 49.3 +0.7
     comp=Z,25nm,1.1s,mb5.4,baz=314,slow=4.9,SNR=29
INK  Inuvik            91.82  16  P     P        15 01 49.3 +0.7
INK                               pmax  pmax
     comp=Z,25nm,1.1s
MENT Mentasta          92.08  22 eP     P        15 01 52.2 +2.3
DIV  Divide            92.32  25 eP     P        15 01 52.4 +1.4
     comp=Z,156nm,1.3s,mb6.2
DIV                               LR    LR
     comp=Z,8µm,20.0s,MS6.2
EYAK Cordova Ski Ar    92.65  25 eP     P        15 01 54.2 +1.7
URZ  Urewera           93.84 128  P     P        15 01 57.6 -1.0
     comp=Z,41nm,1.0s,mb5.8,baz=192,slow=3.2,SNR=4.5
RAO  Raoul Island      95.83 119  PFAKE          15 02 20.0  +12
RAO                               LR    LR
     comp=Z,6µm,19.0s,MS6.1
DBIC Dimbokro          95.94 278  P     P        15 02 09.0 +0.1
     comp=Z,9.1nm,0.9s,mb5.2,baz=46,slow=4.3,SNR=8.2
DBIC Dimbokro          95.94 278  P     P        15 02 09.0 +0.1
DBIC                              pmax  pmax
     comp=Z,9.0nm,0.9s
DBIC Dimbokro          95.94 278 eP     P        15 02 08.4 -0.4
     comp=Z,16nm,1.0s,mb5.4
DBIC                              LR    LR
     comp=Z,3µm,21.0s,MS5.8
AFI  Afiamalu          98.24 102  PFAKE          15 02 30.0  +11
AFI                               LR    LR
     comp=Z,2µm,20.0s,MS5.7
VNDA Vanda             98.78 168  P     P        15 02 20.8 +0.6
     comp=Z,5.2nm,1.1s,mb5.0,baz=315,slow=3.7,SNR=5.8
VNDA Vanda             98.78 168  P     P        15 02 20.8 +0.6
VNDA                              LR    LR
     comp=Z,4µm,19.0s,MS5.9
SIT  Sitka             99.07  24  PFAKE          15 02 30.0 +8.1
SIT                               LR    LR
     comp=Z,2µm,22.0s,MS5.6
SBA  Scott Base        99.88 168  PFAKE          15 02 40.0  +15
SBA                               LR    LR
     comp=Z,3µm,20.0s,MS5.8
YKA  Yellowknife Ar   101.12  13  P     P        15 02 31.7 +0.7
     comp=Z,3.7nm,1.2s,baz=328,slow=4.5,SNR=15
YKA                               PKKPbc         15 18 43.5
     comp=Z,1.2nm,0.8s,baz=146,slow=2.4,SNR=5.3
YKA  Yellowknife Ar   101.12  13  P     P        15 02 31.7 +0.6
YKA                               pmax  pmax
     comp=Z,4.0nm,1.2s
YKA                               pmax  pmax
     comp=Z,1.0nm,0.8s
YKA  Yellowknife Ar   101.12  13  P     P        15 02 31.8 +0.7
YKA                               PKKPbc         15 18 43.5
QSPA South Pole Qui   103.50 180⇓iP     Pdif     15 02 59.5  +18
SCHQ Schefferville    109.67 348  PFAKE          15 07 20.0
SCHQ                              LR    LR
     comp=Z,3µm,21.0s,MS5.8
TRIS Tristan da Cun   110.17 235  PFAKE          15 07 30.0  +14
TRIS                              LR    LR
     comp=Z,4µm,20.0s,MS6.0
OCWA Octopus Mounta   110.52  26  PFAKE          15 07 30.0  +14
OCWA                              LR    LR
     comp=Z,3µm,20.0s,MS5.9
NEW  Newport          112.84  21  PFAKE          15 07 30.0 +9.2
NEW                               LR    LR
     comp=Z,2µm,19.0s,MS5.7
COR  Corvallis        113.37  27  PFAKE          15 07 30.0 +8.0
COR                               LR    LR
     comp=Z,3µm,22.0s,MS5.8
HUMO Hull Mountain    115.06  29  PFAKE          15 07 30.0 +4.7
HUMO                              LR    LR
     comp=Z,1µm,19.0s,MS5.6
MSO  Missoula         115.17  20  PFAKE          15 07 30.0 +4.6
MSO                               LR    LR
     comp=Z,2µm,20.0s,MS5.6
BMO  Blue Mountains   115.65  23  PFAKE          15 07 40.0  +14
BMO                               LR    LR
     comp=Z,1µm,20.0s,MS5.6
YBH  Yreka Blue Hor   115.86  29  PFAKE          15 07 40.0  +13
YBH                               LR    LR
     comp=Z,2µm,19.0s,MS5.6
ULM  Lac du Bonnet    115.93   6  PKP   PKPdf    15 07 24.9 -2.0
     comp=Z,6.2nm,1.0s,baz=347,slow=7.2,SNR=4.8
ULM                               PKKPbc         15 17 54.2
     comp=Z,2.4nm,0.8s,baz=144,slow=3.9,SNR=3.8
ULM                               PKKPab         15 17 59.6
     comp=Z,2.9nm,0.6s,baz=172,slow=6.0,SNR=5.7
ULM  Lac du Bonnet    115.93   6  PKP   PKPdf    15 07 24.9 -2.0
ULM                               PKKPbc         15 17 54.2
ULM                               PKKPab         15 17 59.6
ULM                               LR    LR
     comp=Z,2µm,20.0s,MS5.8
DGMT Dagmar           116.33  13  PFAKE          15 07 40.0  +12
DGMT                              LR    LR
     comp=Z,2µm,20.0s,MS5.7
MOD  Modoc            116.83  27 ePKPdf PKPdf    15 07 27.5 -1.3
MOD                               LR    LR
     comp=Z,2µm,21.0s,MS5.7
WDC  Whiskeytown Da   116.83  30  PFAKE          15 07 40.0  +11
WDC                               LR    LR
     comp=Z,2µm,22.0s,MS5.7
BOZ  Bozeman (W)      116.97  19  PFAKE          15 07 40.0  +11
BOZ                               LR    LR
     comp=Z,2µm,21.0s,MS5.8
LAO  LASA Array       117.54  15  PKPdf PKPdf    15 07 27.9 -2.1
LAO                               LR    LR
     comp=Z,2µm,22.0s,MS5.8
PQI  Presque Isle     117.58 345  PFAKE          15 07 40.0  +10
PQI                               LR    LR
     comp=Z,12µm,21.0s,MS6.5
HOPS Hopland          117.79  31  PFAKE          15 07 40.0 +9.3
HOPS                              LR    LR
     comp=Z,3µm,20.0s,MS5.9
HLID Hailey           117.84  22 ePKPdf PKPdf    15 07 29.1 -1.6
HLID                              LR    LR
     comp=Z,2µm,22.0s,MS5.8
LKWY Lake             118.32  19  PFAKE          15 07 40.0 +8.4
LKWY                              LR    LR
     comp=Z,3µm,20.0s,MS5.9
EYMN Ely              118.58   3  PFAKE          15 07 40.0 +8.0
EYMN                              LR    LR
     comp=Z,3µm,21.0s,MS5.8
LOHW Long Hollow      119.11  19 ePKPdf PKPdf    15 07 31.8 -1.4
WUWY Wally Ulrich     119.13  20 ePKPdf PKPdf    15 07 31.7 -1.5
WCN  Washoe City      119.16  29 ePKIKP PKPdf    15 07 37.7 +4.3
WCN  Washoe City      119.16  29 ePKPdf PKPdf    15 07 33.0 -0.4
SNOW Snow King Moun   119.20  20 ePKPdf PKPdf    15 07 32.0 -1.3
REDW Red Top Meadow   119.25  20 ePKPdf PKPdf    15 07 32.1 -1.4
BMN  Battle Mountai   119.37  26  PFAKE          15 07 40.0 +6.3
BMN                               LR    LR
     comp=Z,2µm,22.0s,MS5.8
AHID Auburn Hatcher   119.70  20  PFAKE          15 07 40.0 +5.7
AHID                              LR    LR
     comp=Z,2µm,22.0s,MS5.8
CMB  Columbia Colle   119.86  30  PFAKE          15 07 40.0 +5.3
CMB                               LR    LR
     comp=Z,3µm,22.0s,MS5.9
ELK  Elko             119.93  24  PFAKE          15 07 40.0 +5.2
ELK                               LR    LR
     comp=Z,2µm,22.0s,MS5.8
WVL  Waterville       119.95 346  PFAKE          15 07 40.0 +5.3
WVL                               LR    LR
     comp=Z,12µm,21.0s,MS6.5
BW06 Boulder Array    120.21  19  PFAKE          15 07 40.0 +4.7
BW06                              LR    LR
     comp=Z,2µm,22.0s,MS5.7
PDAR Pinedale Array   120.21  19  PKP   PKPdf    15 07 32.9 -2.5
     comp=Z,2.7nm,0.4s,baz=65,slow=3.3,SNR=24
PDAR                              PKKPab         15 17 45.2
     comp=Z,2.1nm,1.1s,baz=117,slow=3.3,SNR=3.2
PDAR Pinedale Array   120.21  19  PKP   PKPdf    15 07 32.9 -2.5
PDAR                              PKKPab         15 17 45.2
SAO  San Andreas Ge   120.32  32  PFAKE          15 07 40.0 +4.3
SAO                               LR    LR
     comp=Z,2µm,19.0s,MS5.8
NVAR Mina Array Bea   120.53  28  PKP   PKPdf    15 07 35.2 -0.9
     comp=Z,5.5nm,0.6s,baz=293,slow=2.4,SNR=6.6
NVAR Mina Array Bea   120.53  28  PKP   PKPdf    15 07 35.2 -0.9
HWUT Hardware Ranch   120.57  21  PFAKE          15 07 50.0  +14
HWUT                              LR    LR
     comp=Z,2µm,20.0s,MS5.8
MNV  Mina             120.60  28 ePKIKP PKPdf    15 07 35.4 -0.8
MNV  Mina             120.60  28 ePKPdf PKPdf    15 07 34.7 -1.5
MNV                               LR    LR
     comp=Z,2µm,21.0s,MS5.8
MTUM Tungsten Hills   121.28  29  PKPdf PKPdf    15 07 36.5 -1.0
TPH  Tonopah          121.31  28  PFAKE          15 07 50.0  +12
TPH                               LR    LR
     comp=Z,2µm,22.0s,MS5.7
SADO Sadowa           121.43 353  PKP   PKPdf    15 07 34.8 -2.9
     comp=Z,4.8nm,0.7s,baz=324,slow=9.6,SNR=5.4
NCB  Newcomb          121.49 349  PFAKE          15 07 50.0  +12
NCB                               LR    LR
     comp=Z,1µm,21.0s,MS5.6
TRCR Troy Canyon      121.81  26 ePKPdf PKPdf    15 07 36.7 -1.8
HRV  Harvard--Oak R   122.34 346  PFAKE          15 07 50.0  +11
HRV                               LR    LR
     comp=Z,2µm,20.0s,MS5.7
WES  Weston           122.41 346  PFAKE          15 07 50.0  +10
WES                               LR    LR
     comp=Z,2µm,19.0s,MS5.9
DAC  Darwin (Calif)   122.61  29  PFAKE          15 07 50.0  +10
DAC                               LR    LR
     comp=Z,2µm,21.0s,MS5.7
TPNV Topopah Spring   122.68  28  PFAKE          15 07 50.0  +10
TPNV                              LR    LR
     comp=Z,3µm,21.0s,MS6.0
TMUT Trail Mountain   122.74  22 ePKPdf PKPdf    15 07 39.1 -1.2
PHWY Pilot Hill       122.76  16 ePKPdf PKPdf    15 07 37.7 -2.5
MVU  Marysvale        123.05  23  PFAKE          15 07 50.0 +9.1
MVU                               LR    LR
     comp=Z,2µm,21.0s,MS5.8
MSU  Marysvale        123.06  23 ePKIKP PKPdf    15 07 40.4 -0.5
MSU  Marysvale        123.06  23 ePKPdf PKPdf    15 07 39.9 -1.0
BINY Binghamton       123.52 350  PFAKE          15 07 50.0 +8.2
BINY                              LR    LR
     comp=Z,3µm,20.0s,MS6.0
JFWS Jewell Farm      123.66   3  PFAKE          15 07 50.0 +8.0
JFWS                              LR    LR
     comp=Z,3µm,20.0s,MS5.9
ISCO Idaho Springs    124.11  17  PFAKE          15 07 50.0 +7.0
ISCO                              LR    LR
     comp=Z,2µm,21.0s,MS5.8
ERPA Erie             124.15 354  PFAKE          15 07 50.0 +7.0
ERPA                              LR    LR
     comp=Z,2µm,21.0s,MS5.7
AAM  Ann Arbor        124.26 357  PFAKE          15 07 50.0 +6.8
AAM                               LR    LR
     comp=Z,3µm,20.0s,MS5.9
NEN  Nelson           124.39  27 ePKPdf PKPdf    15 07 42.1 -1.5
PFO  Pinyon Flat Ob   125.31  30 ePKIKP PKPdf    15 07 45.2 -0.3
PFO  Pinyon Flat Ob   125.31  30 ePKPdf PKPdf    15 07 44.5 -1.0
PFO                               LR    LR
     comp=Z,654nm,21.0s,MS5.3
SSPA Standing Stone   125.34 351  PFAKE          15 07 50.0 +4.6
SSPA                              LR    LR
     comp=Z,2µm,21.0s,MS5.7
SDCO Great Sand Dun   126.05  18 ePKPdf PKPdf    15 07 44.7 -2.1
SDCO                              LR    LR
     comp=Z,3µm,20.0s,MS6.0
ACSO Alum Creek Sta   126.28 356  PFAKE          15 08 00.0  +13
ACSO                              LR    LR
     comp=Z,3µm,22.0s,MS5.9
PMSA Palmer Station   126.51 192  PFAKE          15 08 00.0  +13
PMSA                              LR    LR
     comp=Z,5µm,20.0s,MS6.2
MCWV Mont Chateau     126.56 353  PFAKE          15 08 00.0  +12
MCWV                              LR    LR
     comp=Z,3µm,21.0s,MS5.9
KSU1 Kansas State U   126.79   9 ePKPdf PKPdf    15 07 45.6 -2.5
CBN  Corbin           127.64 350  PFAKE          15 08 00.0  +10
CBN                               LR    LR
     comp=Z,3µm,19.0s,MS5.9
ANMO Albuquerque      128.30  20  PKP   PKPdf    15 07 50.2 -1.0
     comp=Z,5.8nm,0.7s,baz=332,slow=2.1,SNR=8.8
ANMO Albuquerque      128.30  20 ePKIKP PKPdf    15 07 50.3 -1.0
ANMO Albuquerque      128.30  20 ePKPdf PKPdf    15 07 49.7 -1.6
ANMO                              LR    LR
     comp=Z,2µm,21.0s,MS5.9
WCI  Wyandotte Cave   128.41 359  PFAKE          15 08 00.0 +8.6
WCI                               LR    LR
     comp=Z,2µm,20.0s,MS5.8
CCM  Cathedral Cave   128.44   4  PFAKE          15 08 00.0 +8.6
CCM                               LR    LR
     comp=Z,2µm,21.0s,MS5.9
TUC  Tucson           128.99  26 ePKPdf PKPdf    15 07 50.6 -2.0
TUC                               LR    LR
     comp=Z,2µm,19.0s,MS5.9
BLA  Blacksburg       129.04 353  PFAKE          15 08 00.0 +7.4
BLA                               LR    LR
     comp=Z,2µm,21.0s,MS5.8
RCBR Riachuelo        129.04 274  PFAKE          15 08 00.0 +6.8
RCBR                              LR    LR
     comp=Z,4µm,21.0s,MS6.1
ELN  Prospectdale     129.06 353 ePKPdf PKPdf    15 07 49.8 -2.8
BBSR BB Station       129.49 335  PFAKE          15 08 00.0 +6.4
BBSR                              LR    LR
     comp=Z,2µm,22.0s,MS5.7
AMTX Amarillo         129.80  16  PFAKE          15 08 00.0 +5.9
AMTX                              LR    LR
     comp=Z,3µm,21.0s,MS6.0
WVT  Waverly          130.50   1 ePKIKP PKPdf    15 07 52.6 -2.8
WVT  Waverly          130.50   1 ePKPdf PKPdf    15 07 52.5 -2.9
WVT                               LR    LR
     comp=Z,2µm,22.0s,MS5.7
WMOK Wichita Mounta   130.63  13  PKIKP PKPdf    15 07 53.7 -2.0
WMOK Wichita Mounta   130.63  13 ePKPdf PKPdf    15 07 53.6 -2.0
WMOK                              LR    LR
     comp=Z,2µm,21.0s,MS5.7
MNTX Cornudas Mount   131.63  21  PFAKE          15 08 10.0  +12
MNTX                              LR    LR
     comp=Z,2µm,21.0s,MS5.8
MIAR Mount Ida        131.69   7  PKIKP PKPdf    15 07 55.6 -2.1
MIAR Mount Ida        131.69   7 ePKPdf PKPdf    15 07 55.5 -2.2
MIAR                              LR    LR
     comp=Z,2µm,19.0s,MS5.9
OXF  Oxford           132.07   3  PFAKE          15 08 10.0  +12
OXF                               LR    LR
     comp=Z,2µm,22.0s,MS5.9
NHSC New Hope         133.06 352  PFAKE          15 08 10.0  +10
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NHSC				LR	LR		
	comp=Z,4µm,22.0s,MS6.1						
GOGA	Godfrey	133.09	356	PFAKE		15 08 10.0	+10
GOGA				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
LRAL	Lakeview Retre	133.60	360	PFAKE		15 08 10.0	+8.7
LRAL				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
NATX	Nacogdoches	134.29	9	PFAKE		15 08 10.0	+7.4
NATX				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
LTX	Lajitas	134.38	20	PKIKP	PKPdf	15 08 02.8	0.0
LTX	Lajitas	134.38	20	*e*PKPdf	PKPdf	15 08 01.2	-1.6
LTX				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
TXAR	Lajitas Array	134.38	20	PKP	PKPdf	15 08 01.9	-0.9
	comp=Z,3.6nm,0.5s,baz=163,slow=0.4,SNR=27						
JCT	Junction City	134.47	15	*e*PKIKP	PKPdf	15 08 02.5	-0.5
JCT	Junction City	134.47	15	*e*PKPdf	PKPdf	15 08 01.1	-1.8
JCT				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
EFI	East Falkland	135.45	206	PFAKE		15 08 10.0	+5.8
EFI				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
HKT	Hockley	135.86	11	PFAKE		15 08 10.0	+4.4
HKT				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
DWPF	Disney	138.15	353	PFAKE		15 08 20.0	+10
DWPF				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
BAO	Brasilia Array	142.16	262	PKP	PKPdf	15 08 10.0	-7.3
BAO				*i*		15 08 16.1	
BAO				*i*		15 08 23.2	
BAO				*e*		15 08 32.6	
BDFB	Brasilia	142.18	262	PKhKP		15 08 10.8	
	comp=Z,11nm,0.9s,baz=130,slow=2.9,SNR=8.0						
BDFB				PKP	PKPdf	15 08 15.7	-1.6
	comp=Z,14nm,0.7s,baz=174,slow=2.3,SNR=15						
BDFB	Brasilia	142.18	262	PKIKP	PKPdf	15 08 10.8	-6.5
BDFB						15 08 15.7	
BDFB				pmax	pmax		
	comp=Z,11nm,0.9s						
BDFB				pmax	pmax		
	comp=Z,14nm,0.7s						
SJG	San Juan	142.30	326	PFAKE		15 08 30.0	+13
SJG				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
LPA	La Plata	146.22	226	*ce*PKP	PKPdf	15 08 22.0	-1.8
TEIG	Tepich	146.33	2	*e*PKPdf	PKPdf	15 08 23.0	-1.4
TEIG				LR	LR		
	comp=Z,815nm,21.0s,MS5.5						
TRQA	Tornquist	147.00	218	*e*PKPdf	PKPdf	15 08 23.6	-1.5
TRQA				LR	LR		
	comp=Z,5µm,20.0s,MS6.3						
PCRV	Puerto La Cruz	147.51	316	PKPbc	PKPdf	15 08 25.6	-0.9
	comp=Z,60nm,0.8s,baz=164,slow=2.9,SNR=25						
SDV	Santo Domingo	152.30	323	PKP	PKPdf	15 08 31.3	-2.7
	comp=Z,6.9nm,0.9s,baz=152,slow=9.1,SNR=8.0						
SDV				PKPbc	PKPdf	15 08 37.0	+3.0
	comp=Z,15nm,0.6s,baz=19,slow=3.3,SNR=15						
SDV	Santo Domingo	152.30	323	*e*PKPdf	PKPdf	15 08 31.3	-2.6
SDV				*e*PKPbc	PKPdf	15 08 37.9	+4.0
SDV				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
RPN	Rapa Nui	155.25	126	PFAKE		15 08 50.0	+12
RPN				LR	LR		
	comp=Z,778nm,20.0s,MS5.5						
JTS	JuntasAbangare	156.14	355	PFAKE		15 08 50.0	+11
JTS				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
ROSC	El Rosal	157.69	325	PKP	PKPdf	15 08 38.6	-2.7
	comp=Z,16nm,1.1s,baz=90,slow=12,SNR=10						
ROSC				PKPab	PKPab	15 09 12.3	+0.5
	comp=Z,30nm,0.9s,baz=126,slow=19,SNR=12						
LVC	Limon Verde	160.57	240	PKP	PKPdf	15 08 43.0	-1.2
	comp=Z,4.2nm,0.9s,baz=102,slow=13,SNR=3.5						
LVC				PKPab	PKPab	15 09 23.8	-0.2
	comp=Z,21nm,0.9s,baz=244,slow=2.6,SNR=6.5						
LVC	Limon Verde	160.57	240	PKPdf	PKPdf	15 08 43.0	-1.2
LVC				LR	LR		
	comp=Z,3µm,20.0s						
LPAZ	La Paz	161.50	259	PKP	PKPdf	15 08 42.9	-2.5
	comp=Z,24nm,1.4s,baz=101,slow=0.6,SNR=7.8						
LPAZ				PKPab	PKPab	15 09 28.1	-0.1
	comp=Z,15nm,0.9s,baz=263,slow=12,SNR=3.6						
LPAZ	La Paz	161.50	259	PKIKP	PKPdf	15 08 42.9	-2.4
LPAZ						15 09 28.1	
LPAZ				pmax	pmax		
	comp=Z,24nm,1.4s						
LPAZ				pmax	pmax		
	comp=Z,15nm,0.9s						
LPAZ	La Paz	161.50	259	*e*PKPdf	PKPdf	15 08 42.6	-2.7
LPAZ				LR	LR		
	comp=Z,4µm,19.0s						
PAYG	Puerto Ayora	166.74	14	PFAKE		15 09 00.0	+10
PAYG				LR	LR		
	comp=Z,3µm,21.0s						
NNA	Nana	169.88	278	PFAKE		15 09 00.0	+7.8
NNA				LR	LR		
	comp=Z,944nm,19.0s						

IDC ***26*** *14:53:13.3±2.7, 19.53N×145.46E, h114^{km}±24^{km}, mb4.7/26, mb1 4.8/29, mb1mx4.7/34, MS4.8/2, Ms1 4.8/2, ms1mx3.8/32, Error ellipse: s-maj=14.8km s-min=8.5km az=89.0*

NEIC ***26*** *14:53:15.8±0.6, 19.49N×145.37E, h137^{km}±6^{km}, mb5.0/47, Error ellipse: s-maj=5.7km s-min=5.2km az=77.0*

BJI ***26*** *14:53:15.2, 19.90N×145.75E, h145^{km}, mb5.2*

ISC 26 14:53:14.7±0.8**, 19.51N**±0.04×**145.42E**±0.04**, h135**^{km}±7^{km}**, n156,** σ1^s**06**/150**, mb4.9**/74**, 5C-4D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SARN	Sarigan	2.81	173	⇑*i*P	P	14 53 59.2	-0.6
ANAT	Anatahan	3.15	176	⇑*i*P	P	14 54 04.2	-0.1
ANAT				*e*S	S	14 54 45.4	+3.4
ANA2	Anatahan	3.16	175	⇑*i*P	P	14 54 04.1	-0.4
GUMO	Guam	5.91	185	⇑*e*P	P	14 54 41.6	+0.6
	6µm,1.3s						
CBIJ	Chichi jima	8.11	339	P	P	14 55 08.2	-2.6
	46nm,0.3s,baz=123,slow=9.8,SNR=25						
CBIJ				S	S	14 56 34.4	-6.9
	121nm,0.3s,baz=298,slow=24,SNR=12						
CBIJ				LR	LR	14 58 09.8	
	comp=Z,758nm,20.7s,baz=15,slow=36						
JHJ	Hachijo jima 2	14.46	341	P	P	14 56 36.2	+2.3
	31nm,0.3s,baz=60,slow=23,SNR=6.9						
JOW	Kunigami	17.36	298	P	P	14 57 12.6	+2.5
MAT	Matsushiro	18.11	341	P	P	14 57 16.7	-2.1
MAT				S	S	15 00 35.4	+2.2
PALP	Palanan	21.96	267	*e*P	P	14 58 10.9	+13
CVP	Callao Caves	22.43	269	⇑*i*P	P	14 58 05.0	+2.1
	25µm,1.5s						
CAUP	Cauayan	22.55	267	*e*P	P	14 58 19.7	+15
APYP	Conner	22.96	270	*e*P	P	14 58 09.4	+1.3
TBP	Tagbilaran	23.00	248	*e*P	P	14 58 09.5	+0.9
BALP	Baler	23.02	264	*e*P	P	14 58 07.7	-1.1
KS15	Wonju Array Si	23.52	323	*e*P	P	14 58 13.2	-0.2
TGY	Tagaytay City	24.03	261	P	P	14 58 21.8	+3.3
	594nm,0.9s,baz=231,slow=0.5,SNR=12						
INCN	Inchon	24.27	321	*e*P	P	14 58 20.2	-0.4
	41nm,1.0s,mb4.9						
ASAJ	Asahikawa	24.65	355	P	P	14 58 24.4	+0.4
	54nm,0.9s,mb5.1,baz=84,slow=26,SNR=5.5						
LUBP	Lubang	24.78	260	*e*P	P	14 58 27.4	+1.8
QZH	Quanzhou	25.39	287	P	P	14 58 32.5	+1.3
PMG	Port Moresby	28.78	176	P	P	14 59 01.5	-0.7
	75nm,0.7s,mb5.5,baz=237,slow=4.9,SNR=5.8						
BJI	Beijing	32.37	316	P	P	14 59 32.3	-1.2
QIZ	Qiongzhong	33.55	275	P	P	14 59 45.5	+1.7
QIZ	Qiongzhong	33.55	275	*e*P	P	14 59 43.9	+0.1
	64nm,1.0s,mb5.3						
ENH	Enshi	34.18	295	*e*P	P	14 59 48.4	-0.7
	11nm,0.6s,mb4.8						
HIA	Hailar	36.12	331	*e*P	P	15 00 03.4	-2.0
	8.4nm,0.6s,mb4.5						
CTA	Charters Tower	39.36	179	P	P	15 00 31.2	-1.4
	15nm,0.6s,mb4.8,baz=1.7,slow=6.3,SNR=7.6						
CTAO	Charters Tower	39.36	179	*e*P	P	15 00 30.8	-1.8
	13nm,0.6s,mb4.7						
FX1	Attu Island--F	39.65	26	P	P	15 00 34.4	-0.2
	68nm,0.6s,mb5.5,baz=12,slow=5.0,SNR=5.4						
FX1	Attu Island--F	39.65	26	P	P	15 00 34.8	+0.2
KMI	Kunming	39.75	286	P	P	15 00 37.0	+1.2
KMI				AMB	AMB		
	comp=Z,35nm,1.3s,mb4.8						
LZH	Lanzhou	39.98	303	*e*P	P	15 00 38.3	+0.7
LZH				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.1						
MA2	Magadan	40.20	4	*e*P	P	15 00 38.8	-0.3
	comp=Z,45nm,1.3s,mb4.9						
WRAB	Tennant Creek	40.67	196	*e*P	P	15 00 42.9	-0.5
	comp=Z,107nm,0.6s,mb5.7						
WRA	Warramunga Arr	40.68	196	P	P	15 00 43.6	+0.1
	comp=Z,158nm,0.8s,mb5.7,baz=17,slow=9.0,SNR=97						
ULN	Ulaanbaatar	41.97	321	*e*P	P	15 00 53.0	-0.8
	comp=Z,21nm,0.6s,mb4.9						
SONM	Songino Array	42.35	321	P	P	15 00 56.7	-0.1
	comp=Z,23nm,0.6s,mb5.0,baz=139,slow=6.6,SNR=45						
GTA	Gaotai	43.85	307	P	P	15 01 10.0	+0.9
GTA				AMB	AMB		
	comp=Z,27nm,1.3s,mb4.7						
CM31	Chiang Mai Arr	43.86	277	*e*P	P	15 01 10.5	+1.1
	comp=Z,19nm,0.6s,mb4.9						
CMAR	Chiang Mai Arr	43.86	277	P	P	15 01 10.7	+1.2
	comp=Z,50nm,1.0s,mb5.1,baz=69,slow=6.6,SNR=31						
YAK	Yakutsk	43.88	349	*e*P	P	15 01 07.7	-1.4
	comp=Z,82nm,0.6s,mb5.5						
ASAR	Alice Springs	44.36	195	P	P	15 01 12.8	-0.6
	comp=Z,18nm,0.7s,mb4.8,baz=18,slow=8.0,SNR=13						
MBWA	Marble Bar	47.60	213	*e*P	P	15 01 38.5	-0.4
	comp=Z,13nm,0.7s,mb4.7						
LSA	Lhasa	49.99	293	*e*P	P	15 01 59.2	+1.9
	comp=Z,27nm,0.8s,mb4.9						
BILL	Bilibino	50.27	10	*e*P	P	15 01 58.1	-0.8
	comp=Z,34nm,0.8s,mb5.0						
STKA	Stephens Creek	51.22	184	P	P	15 02 04.7	-1.9
	comp=Z,9.7nm,0.6s,mb4.6,baz=8.6,slow=8.3,SNR=4.4						
STKA	Stephens Creek	51.22	184	*e*P	P	15 02 04.2	-2.4
WMQ	Urumqi	53.58	310	P	P	15 02 24.5	+0.6
WMQ				AMB	AMB		
	comp=Z,92nm,1.0s,mb5.5						
ANM	Nome	55.56	23	*e*P	P	15 02 37.5	-0.6
ZAL	Zalesovo	57.22	322	P	P	15 02 49.5	-0.5
	comp=Z,12nm,0.8s,mb4.8,baz=22,slow=7.4,SNR=16						
ZAL	Zalesovo	57.22	322	P	P	15 02 49.5	-0.5
NWAO	Narrogin (SRO)	58.69	208	P	P	15 02 59.4	-1.1
	comp=Z,11nm,0.5s,mb4.9,baz=35,slow=9.1,SNR=12						
NWAO	Narrogin (SRO)	58.69	208	*e*P	P	15 02 59.4	-1.1
	comp=Z,11nm,0.6s,mb4.8						
PWA	Palmer West	61.05	30	*e*P	P	15 03 14.9	-1.3
COLA	College	62.66	26	*e*P	P	15 03 24.9	-2.0
	comp=Z,7.6nm,0.7s,mb4.6						
ILAR	Eielson Array	63.04	26	P	P	15 03 27.0	-2.4
	comp=Z,8.3nm,0.7s,mb4.7,baz=254,slow=4.7,SNR=14						
THY	Trims Highway	63.27	28	*e*P	P	15 03 29.9	-1.0
URZ	Urewera	64.71	153	P	P	15 03 37.4	-3.4
	comp=Z,8.9nm,0.5s,mb4.8,baz=346,slow=8.9,SNR=7.6						
CHKZ	Chkalovo	65.55	321	*e*P	P	15 03 44.1	-1.7
	comp=Z,16nm,0.5s,mb5.1						
BVAR	Borovoye Array	65.68	320	P	P	15 03 45.6	-1.1
	comp=Z,36nm,0.5s,mb5.5,baz=100,slow=6.3,SNR=73						
BRVK	Borovoye	65.75	320	*e*P	P	15 03 46.1	-1.1
	comp=Z,57nm,0.8s,mb5.5						
RPZ	Rata Peaks	67.17	160	P	P	15 03 53.4	-2.8
	comp=Z,13nm,0.8s,mb4.8,baz=326,slow=3.6,SNR=5.9						
RAR	Rarotonga	67.18	124	P	P	15 03 55.7	-1.0
	comp=Z,11nm,0.4s,mb5.0,baz=161,slow=18,SNR=2.3						
INK	Inuvik	68.74	23	P	P	15 04 04.4	-1.1
	comp=Z,14nm,0.8s,mb4.8,baz=292,slow=6.0,SNR=9.1						
ARU	Arti	72.25	324	*e*P	P	15 04 25.5	-1.3
	comp=Z,64nm,1.3s,mb5.2						
YKA	Yellowknife Ar	77.40	28	P	P	15 04 55.3	-0.7
	comp=Z,18nm,0.6s,mb4.9,baz=289,slow=5.5,SNR=161						
HUMO	Hull Mountain	78.22	49	*e*P	P	15 05 01.5	+0.5
	comp=Z,13nm,0.7s,mb4.7						
TDH	Tom, Dick, Har	78.31	46	P	P	15 05 01.7	+0.3
TBM	Table Mountain	78.58	44	P	P	15 05 03.3	+0.5
YBH	Yreka Blue Hor	78.63	50	P	P	15 05 03.3	+0.1
	comp=Z,14nm,0.7s,mb4.7,baz=317,slow=2.8,SNR=34						
YBH	Yreka Blue Hor	78.63	50	*e*P	P	15 05 03.9	+0.7
	comp=Z,17nm,1.0s,mb4.6						
EBG	Ellensburg	78.67	44	P	P	15 05 04.0	+0.7
WTV	Waterville	78.85	43	P	P	15 05 04.3	0.0
EPH	Ephrata	79.18	44	P	P	15 05 06.1	+0.1
REDWA	Red Mountain	79.60	45	P	P	15 05 08.8	+0.5
WRD	Warden	79.64	44	P	P	15 05 08.8	+0.2
OD2	Odessa Site #2	79.75	43	P	P	15 05 09.1	0.0
LBCM	Butte Creek Ri	79.87	50	P	P	15 05 10.3	+0.4
OHCM	Honcut	80.21	52	*e*P	P	15 05 10.2	-1.5
MOD	Modoc	80.31	49	*e*P	P	15 05 12.3	0.0
	comp=Z,38nm,1.1s,mb4.9						
NEW	Newport	80.50	42	*e*P	P	15 05 12.7	-0.4
	comp=Z,22nm,0.8s,mb4.8						
SAO	San Andreas Ge	81.00	54	*e*P	P	15 05 14.8	-1.2
	comp=Z,12nm,0.8s,mb4.6						
KEV	Kevo	81.08	342	*e*p	P	15 05 15.0	-0.8
	comp=Z,17nm,0.8s,mb4.7						
CMB	Columbia Colle	81.42	53	⇓*i*P	P	15 05 18.2	+0.1
	comp=Z,44nm,0.7s,mb5.2						
LRV	Little Rabbit	81.43	54	*e*P	P	15 05 18.4	+0.2
BMO	Blue Mountains	81.47	46	*e*P	P	15 05 17.9	-0.4
	comp=Z,32nm,0.9s,mb5.0						
WCN	Washoe City	81.50	51	*e*P	P	15 05 18.9	+0.4
	comp=Z,18nm,0.8s,mb4.8						
ARCES	ARCESS Array B	81.64	342	P	P	15 05 18.2	-0.5
	comp=Z,17nm,0.7s,mb4.8,baz=59,slow=7.1,SNR=18						
OMM	Old Mammoth Mi	82.60	53	*e*P	P	15 05 25.2	+0.9
NVAR	Mina Array Bea	82.85	52	P	P	15 05 26.3	+0.8
	comp=Z,64nm,0.7s,mb5.5,baz=265,slow=5.6,SNR=237						
MNV	Mina	82.96	52	⇓*e*P	P	15 05 26.5	+0.4
	comp=Z,39nm,0.8s,mb5.2						
BMN	Battle Mountai	82.98	50	⇓*e*P	P	15 05 26.5	+0.4
	comp=Z,9.3nm,0.7s,mb4.6						
MTUM	Tungsten Hills	83.01	53	*e*P	P	15 05 26.4	+0.1
TPH	Tonopah	83.77	52	*e*P	P	15 05 30.6	+0.4
	comp=Z,37nm,0.7s,mb5.2						
HLID	Hailey	83.86	46	*e*P	P	15 05 31.0	+0.5
	comp=Z,11nm,1.1s,mb4.5						
ELK	Elko	84.29	49	*e*P	P	15 05 33.3	+0.6
	comp=Z,37nm,0.8s,mb5.2						
HRY	Holter Researc	84.40	42	*e*P	P	15 05 33.2	+0.1
TPNV	Topopah Spring	84.89	53	*e*P	P	15 05 36.2	+0.4
	comp=Z,45nm,0.7s,mb5.3						
BOZ	Bozeman (W)	84.94	43	*e*P	P	15 05 36.1	+0.3
	comp=Z,17nm,0.8s,mb4.8						
GNI	Garni	85.45	311	LR	LR	15 49 02.7	
	comp=Z,4µm,18.9s,baz=254,slow=39						
KAF	Kangasniemi	85.57	336	*e*p	P	15 05 36.5	-2.0
	comp=Z,9.8nm,1.0s,mb4.5						
HVU	Hansel Valley	85.64	47	*e*P	P	15 05 40.1	+0.7
YMR	Madison River	85.75	44	*e*P	P	15 05 41.4	+1.5
BGU	Big Grassy Mou	85.79	48	⇓*e*P	P	15 05 40.5	+0.4
PFO	Pinyon Flat Ob	85.89	56	*e*P	P	15 05 40.7	-0.1
	comp=Z,20nm,1.1s,mb4.8						
YNR	Norris Junctio	85.92	44	*e*P	P	15 05 42.9	+2.3
YFT	Old Faithful	85.92	44	*e*P	P	15 05 42.9	+2.3
FINES	FINESS Array B	86.04	335	P	P	15 05 39.1	-1.7
	comp=Z,4.6nm,0.4s,mb4.6,baz=68,slow=4.9,SNR=39						
SPUT	South Promonto	86.05	48	*e*P	P	15 05 42.0	+0.7
IMW	Indian Meadow	86.07	45	*e*P	P	15 05 42.6	+1.2
LKWY	Lake	86.16	44	*e*P	P	15 05 44.3	+2.5
	comp=Z,13nm,0.6s,mb4.8						
LKWY				*e*pP	pP	15 06 19.6	+3.3
TPAW	Teton Pass	86.22	45	*e*P	P	15 05 42.8	+0.6
MOOW	Moose Ponds	86.26	45	*e*P	P	15 05 43.1	+0.8
REDW	Red Top Meadow	86.34	45	*e*P	P	15 05 42.0	-0.8
WUWY	Wally Ulrich	86.34	45	*e*P	P	15 05 43.7	+1.0
SNOW	Snow King Moun	86.37	45	*e*P	P	15 05 43.6	+0.8
LOHW	Long Hollow	86.41	45	*e*P	P	15 05 43.6	+0.5
NEN	Nelson	86.41	54	*e*P	P	15 05 43.8	+0.5
AHID	Auburn Hatcher	86.41	46	*e*P	P	15 05 43.5	+0.4
	comp=Z,4.5nm,0.8s,mb4.2						
NOQ	North Oquirrh	86.53	48	*e*P	P	15 05 44.2	+0.5
HWUT	Hardware Ranch	86.55	47	*e*P	P	15 05 44.1	+0.3
	comp=Z,43nm,0.8s,mb5.3						
ARUT	Antelope Range	86.67	51	*e*P	P	15 05 45.2	+0.8
NLU	North Lily Min	86.83	49	*e*P	P	15 05 45.8	+0.6
MPU	Maple Canyon	87.12	49	*e*P	P	15 05 46.9	+0.3
DAU	Daniels Canyon	87.23	48	*e*P	P	15 05 47.9	+0.8
MVU	Marysvale	87.29	50	*e*P	P	15 05 47.8	+0.4
	comp=Z,12nm,0.9s,mb4.7						
MSU	Marysvale	87.31	50	*e*P	P	15 05 48.3	+0.8
BW06	Boulder Array	87.45	45	*e*P	P	15 05 47.4	-0.7
	comp=Z,3.8nm,0.6s,mb4.4						
PDAR	Pinedale Array	87.45	45	P	P	15 05 48.2	+0.2
	comp=Z,3.4nm,0.5s,mb4.4,baz=202,slow=0.8,SNR=34						
TMUT	Trail Mountain	87.70	49	*e*P	P	15 05 49.5	+0.1
SRU	San Rafael	88.26	49	*e*P	P	15 05 52.0	-0.1
PV10	Paradox Valley	89.62	49	*e*P	P	15 05 58.8	+0.3
PV01	Paradox Valley	90.06	49	*e*P	P	15 06 00.7	+0.1
AKASG	Malin Array Be	90.49	325	P	P	15 06 00.3	-1.9
	comp=Z,0.5nm,0.4s,baz=45,slow=5.2,SNR=4.8						
RW3	Ridgway	90.64	49	*e*P	P	15 06 04.1	+0.8
TUC	Tucson	90.80	55	*e*P	P	15 06 05.0	+0.8
	comp=Z,28nm,1.5s,mb5.1						
ISCO	Idaho Springs	91.41	47	*e*P	P	15 06 07.2	+0.4
	comp=Z,8.9nm,0.9s,mb4.8						
HFS	Hagfors	91.54	338	P	P	15 06 05.0	-1.8
	comp=Z,1.7nm,0.3s,mb4.5,baz=90,slow=4.6,SNR=15						
NB2	NORSAR Subarra	91.72	340	P	P	15 06 06.1	-1.6
	comp=Z,1.3nm,0.7s,mb4.1,baz=52,slow=4.8						
NOA	NORSAR Array B	91.72	340	P	P	15 06 06.1	-1.6
	comp=Z,2.0nm,0.8s,mb4.2,baz=46,slow=4.7,SNR=5.4						
ULM	Lac du Bonnet	92.08	34	P	P	15 06 09.8	+0.2
	comp=Z,5.4nm,0.9s,mb4.5,baz=311,slow=3.3,SNR=7.1						
SDCO	Great Sand Dun	92.41	49	*e*P	P	15 06 11.5	+0.1
	comp=Z,3.4nm,0.6s,mb4.5						
FRB	Frobisher Bay	92.90	14	P	P	15 06 12.5	-0.6
	comp=Z,7.2nm,0.8s,mb4.9,baz=336,slow=4.4,SNR=6.8						
ANMO	Albuquerque	92.96	51	P	P	15 06 14.7	+0.6
	comp=Z,7.9nm,1.0s,mb4.8,baz=274,slow=4.8,SNR=22						
ANMO	Albuquerque	92.96	51	*e*P	P	15 06 14.3	+0.2
	comp=Z,11nm,1.0s,mb5.0						
BRG	Berggiesshubel	97.99	331	*e*P	P	15 06 35.2	-1.3
	comp=Z,11nm,1.2s,mb5.2						
CLL	Collm	98.10	332	*e*P	P	15 06 35.0	-2.0
CLL	Collm	98.10	332	P	P	15 06 35.0	-2.0
SNAA	Sanae	124.66	192	PKP	PKPdf	15 11 56.7	-1.0
	comp=Z,0.7nm,0.8s,baz=136,slow=6.2,SNR=3.4						
SDV	Santo Domingo	134.64	55	PKP	PKPdf	15 12 17.8	-0.4
	comp=Z,15nm,0.8s,baz=341,slow=1.9,SNR=6.6						
SDV	Santo Domingo	134.64	55	*e*PKPdf	PKPdf	15 12 17.6	-0.6
DBIC	Dimbokro	140.84	309	PKhKP		15 12 33.9	
	comp=Z,4.1nm,0.7s,baz=56,slow=2.4,SNR=5.3						
ARE	Arequipa	144.81	91	*e*P	PKPdf	15 12 38.0	+1.7
LVC	Limon Verde	147.86	102	PKPbc	PKPdf	15 12 46.5	+5.2
	comp=Z,27nm,0.7s,baz=266,slow=3.3,SNR=45						
LPAZ	La Paz	147.94	90	PKP	PKPdf	15 12 43.3	+1.7
	comp=Z,18nm,1.0s,baz=267,slow=1.8,SNR=8.6						
LPAZ				PKPbc	PKPdf	15 12 47.1	+5.5
	comp=Z,11nm,0.7s,baz=281,slow=2.2,SNR=18						
LPAZ	La Paz	147.94	90	*e*PKPdf	PKPdf	15 12 43.4	+1.8
LPAZ				*e*PKPbc	PKPdf	15 12 46.9	+5.3

IDC ***26*** *14:55:49.2±0.6, 6.48N×92.73E, mb4.7/17, mb1 4.7/18, mb1mx4.6/25, ML4.3/1, Error ellipse: s-maj=29.0km s-min=14.2km az=33.0*

ISC 26 14:55:52.2±0.5**, 6.3N**±0.1×**92.70E**±0.10**, h33**^{km}**, n32,** σ0^s**88**/27**, mb4.7**/18**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.55	26	Pn	P	14 59 05.9	+1.3
	0.5nm,0.3s,baz=231,slow=14,SNR=9.9						
UCH	Uchtor	39.27	339	P	P	15 03 20.1	+0.7
	SNR=5.5						
KBK	Karagaybulak	39.49	339	P	P	15 03 21.6	+0.3
	SNR=8.8						
AML	Almayashu	39.49	338	P	P	15 03 21.3	+0.1
	SNR=9.4						
JOW	Kunigami	39.54	55	P	P	15 03 22.6	+0.7
	7.4nm,0.5s,mb4.7,baz=252,slow=24,SNR=4.7						
AAK	Ala-Archa	39.63	339	P	P	15 03 23.0	+0.6
	SNR=5.2						
USP	Ospenovka	40.18	339	P	P	15 03 26.7	-0.3
	SNR=8.9						
SONM	Songino Array	43.03	14	P	P	15 03 49.4	-1.0
	3.5nm,0.8s,mb4.2,baz=190,slow=6.8,SNR=3.9						
SONM				PcP	PcP	15 05 40.5	-0.3
	3.0nm,0.6s,baz=196,slow=4.3,SNR=4.6						
WRA	Warramunga Arr	48.54	123	P	P	15 04 34.3	-0.2
	6.4nm,0.7s,mb4.8,baz=303,slow=8.6,SNR=5.3						
ASAR	Alice Springs	50.03	128	P	P	15 04 46.2	+0.3
	12nm,0.9s,mb4.9,baz=304,slow=7.2,SNR=10						
KMBO	Kilima Mbogo	55.83	264	P	P	15 05 31.1	+2.0
	0.9nm,0.3s,mb4.3,baz=55,slow=23,SNR=5.0						
PMG	Port Moresby	56.46	106	P	P	15 05 32.5	-1.1
	4.3nm,0.5s,mb4.7,baz=318,slow=12,SNR=4.3						
STKA	Stephens Creek	60.07	132	P	P	15 05 59.0	+0.4
	6.8nm,0.7s,mb4.8,baz=326,slow=9.1,SNR=4.8						
BRTR	Keskin Array B	62.40	312	P	P	15 06 12.8	-1.5
	6.7nm,0.8s,mb4.8,baz=128,slow=7.5,SNR=19						
IDI	Anoyia	68.31	305	P	P	15 06 52.5	+0.2
	13nm,0.7s,mb5.0,baz=79,slow=10,SNR=12						
AKASG	Malin Array Be	68.52	322	P	P	15 06 50.7	-2.7
	4.0nm,0.7s,mb4.5,baz=82,slow=4.8,SNR=12						
MLR	Muntele Rosu	69.32	316	P	P	15 06 58.5	+0.2
	14nm,0.8s,mb4.9,baz=127,slow=3.4,SNR=12						
ZST	Bratislava	75.75	318	*e*	P	15 07 36.2	-0.2
ARCES	ARCESS Array B	76.28	341	P	P	15 07 38.0	-1.0
	7.2nm,1.0s,mb4.6,baz=90,slow=6.3,SNR=3.7						
DPC	Dobruska-Polom	76.50	320	*e*P	P	15 07 40.8	+0.2
GERES	GERESS Array B	78.06	318	P	P	15 07 49.3	0.0
	6.3nm,0.8s,mb4.6,baz=90,slow=5.3,SNR=23						
KHC	Kasperske Hory	78.16	319	*e*P	P	15 07 48.9	-1.0
HFS	Hagfors	79.11	330	P	P	15 07 53.8	-1.0
	1.8nm,0.5s,mb4.2,baz=90,slow=7.2,SNR=4.1						
DAVOX	Davos	80.54	316	P	P	15 08 03.6	+0.7
	14nm,0.7s,mb5.0,baz=128,slow=6.9,SNR=27						
LPG	La Plagne	82.72	315	*e*P	P	15 08 14.5	+0.3
	12nm,0.6s,mb4.8						
ESDC	Sonseca Array	91.14	310	P	P	15 08 56.3	+1.0
	1.9nm,0.6s,mb4.6,baz=60,slow=4.5,SNR=7.7						
INK	Inuvik	98.91	16	P	P	15 09 29.9	0.0
	0.8nm,0.7s,mb4.4,baz=265,slow=1.5,SNR=4.1						
ULM	Lac du Bonnet	123.22	7	PKP	PKPdf	15 14 47.8	+1.9
	0.8nm,0.4s,baz=68,slow=5.1,SNR=3.2						
NVAR	Mina Array Bea	127.02	30	PKP	PKPdf	15 14 56.7	+3.1
	2.0nm,0.6s,baz=17,slow=1.6,SNR=10						
PDAR	Pinedale Array	127.16	20	PKP	PKPdf	15 14 55.6	+1.9
	2.4nm,0.6s,baz=35,slow=1.2,SNR=16						
ANMO	Albuquerque	135.19	22	PKP	PKPdf	15 15 12.2	+3.1
	2.2nm,0.7s,baz=264,slow=0.9,SNR=10						
TXAR	Lajitas Array	141.25	23	PKhKP		15 15 24.9	
	1.6nm,0.5s,baz=60,slow=1.1,SNR=4.0						

IDC ***26*** *14:58:01.4±0.8, 4.92N×94.69E, mb4.7/17, mb1 4.7/18, mb1mx4.6/26, ML4.4/1, Error ellipse: s-maj=30.6km s-min=15.5km az=38.0*

ISC 26 14:58:05.1±0.7**, 5.0N**±0.2×**94.8E**±0.1**, h33**^{km}**, n25,** σ1^s**00**/23**, mb4.6**/17**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.00	16	Pn	P	15 01 29.3	+5.7
	0.6nm,0.3s,baz=210,slow=11,SNR=9.8						
JOW	Kunigami	38.61	52	P	P	15 05 28.9	+1.8
	20nm,0.6s,mb5.0,baz=218,slow=4.5,SNR=8.7						
SONM	Songino Array	43.85	11	P	P	15 06 10.1	0.0
	1.6nm,0.4s,mb4.1,baz=194,slow=9.3,SNR=8.6						
SONM				PcP	PcP	15 07 56.6	+0.1
	2.5nm,0.6s,baz=197,slow=3.6,SNR=7.2						
WRA	Warramunga Arr	46.05	124	P	P	15 06 28.4	+0.3
	13nm,0.7s,mb5.0,baz=302,slow=9.1,SNR=12						
ASAR	Alice Springs	47.56	128	P	P	15 06 40.0	+0.1
	4.4nm,0.5s,mb4.7,baz=299,slow=7.9,SNR=15						
ZAL	Zalesovo	49.51	352	P	P	15 06 54.6	+0.1
	7.3nm,0.6s,mb4.9,baz=300,slow=8.0,SNR=11						
BVAR	Borovoye Array	51.95	341	P	P	15 07 13.0	0.0
	26nm,1.1s,mb5.1,baz=135,slow=8.4,SNR=4.2						
PMG	Port Moresby	54.07	105	P	P	15 07 28.3	-1.1
	8.6nm,1.1s,mb4.6,baz=156,slow=19,SNR=2.9						
ASAJ	Asahikawa	57.19	39	P	P	15 07 49.1	-2.3
	2.1nm,0.3s,mb4.7,baz=151,slow=32,SNR=6.2						
BRTR	Keskin Array B	64.85	312	P	P	15 08 40.5	-2.8
	2.0nm,0.7s,mb4.3,baz=134,slow=8.2,SNR=4.0						
AKASG	Malin Array Be	70.85	322	P	P	15 09 19.2	-1.4
	1.7nm,0.5s,mb4.3,baz=81,slow=4.7,SNR=9.7						
MLR	Muntele Rosu	71.72	316	P	P	15 09 24.4	-1.5
	7.5nm,1.0s,mb4.6,baz=142,slow=5.9,SNR=3.3						
KOLS	Kolonicke sedl	74.84	319	*e*	P	15 09 45.4	+1.3
FINES	FINESS Array B	75.59	332	P	P	15 09 47.6	-0.5
	5.4nm,1.1s,mb4.4,baz=109,slow=5.6,SNR=5.2						
OJC	Ojcow	76.63	320	*e*P	P	15 09 55.0	+0.7
VYHS	Vyhne	77.02	319	*e*	P	15 09 57.0	+0.4
ZST	Bratislava	78.14	318	*e*	P	15 10 03.4	+0.7
ARCES	ARCESS Array B	78.22	340	P	P	15 10 03.0	+0.2
	2.4nm,0.5s,mb4.4,baz=95,slow=6.3,SNR=11						
FX1	Attu Island--F	79.03	37	P	P	15 10 07.6	+0.1
	13nm,0.5s,mb5.2,baz=246,slow=6.4,SNR=5.9						
GERES	GERESS Array B	80.44	319	P	P	15 10 16.2	+1.0
	5.4nm,0.8s,mb4.5,baz=90,slow=5.3,SNR=13						
KHC	Kasperske Hory	80.54	319	*e*P	P	15 10 16.0	+0.3

HFS	**Hagfors**	**81.30**	**330**	P	**P**	**15 10 19.3**	**-0.2**
	4.5nm,0.9s,mb4.4,baz=104,slow=6.1,SNR=5.3						
DAVOX	**Davos**	**82.95**	**316**	P	**P**	**15 10 29.2**	**+0.9**
	4.7nm,0.6s,mb4.7,baz=133,slow=8.6,SNR=5.9						
PDAR	**Pinedale Array**	**127.60**	**23**	PKP	PKPdf	15 17 09.2	+1.7
	0.4nm,0.6s,baz=87,slow=3.7,SNR=3.9						
TXAR	**Lajitas Array**	**141.55**	**26**	PKhKP		15 17 30.7	
	0.4nm,0.5s,baz=209,slow=0.8,SNR=3.8						
TXAR				PKP	PKPdf	15 17 37.4	+3.6
	0.6nm,0.7s,baz=8.9,slow=0.2,SNR=4.1						

IDC ***26*** *15:02:36.8±0.5, 5.53N×93.43E, mb4.6/23, mb1 4.7/24, mb1mx4.7/26, ML3.7/1, Error ellipse: s-maj=23.5km s-min=11.2km az=50.0*
NEIC ***26*** *15:02:41.2±0.2, 5.49N×93.44E, mb4.7/16, Error ellipse: s-maj=7.9km s-min=6.1km az=66.0*
BJI ***26*** *15:02:41.2, 5.50N×93.40E, h27^{km}, mb4.9*
ISC 26 15:02:39.0±0.3**, 5.49N**±0.05×**93.44E**±0.06**, h26^{km}, h26^{km}**±1.5^{km}**:pP-P, n69, σ1^{s}01**/58**, mb4.6**/40**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**12.78**	**279**	P	**P**	**15 05 41.4**	**-0.6**
CM31	**Chiang Mai Arr**	**13.96**	**22**	*e*P	**P**	**15 05 59.4**	**+1.6**
	37nm,0.9s						
CMAR	**Chiang Mai Arr**	**13.96**	**22**	Pn	**P**	**15 05 56.8**	**-0.9**
	0.1nm,0.3s,baz=222,slow=13,SNR=9.6						
COCO	**West Island**	**17.89**	**169**	*e*P	**P**	**15 06 49.1**	**+1.2**
QIZ	**Qiongzhong**	**20.90**	**48**	*e*P	**P**	**15 07 23.1**	**+1.0**
KMI	**Kunming**	**21.46**	**24**	P	**P**	**15 07 29.5**	**+1.7**
KMI				AMB	AMB		
	comp=Z,26nm,1.1s,mb4.5						
LSA	**Lhasa**	**24.18**	**355**	*e*P	**P**	**15 07 57.6**	**+3.1**
	comp=Z,68nm,1.4s,mb4.9						
GYA	**Guiyang**	**24.38**	**30**	⇑*i*P	**P**	**15 07 58.5**	**+2.0**
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
ENH	**Enshi**	**28.92**	**30**	*e*P	**P**	**15 08 37.4**	**-0.9**
	comp=Z,17nm,1.0s,mb4.7						
ENH				*e*pP	pP	15 08 44.6	-1.4
LZH	**Lanzhou**	**31.92**	**16**	*e*P	pP	15 09 12.0	-0.5
LZH				AP	tx	15 09 15.0	
LZH				XP	sP	15 09 16.8	+0.9
LZH				AMB	AMB		
	comp=Z,31nm,1.4s,mb5.0						
MBWA	**Marble Bar**	**36.97**	**137**	*e*P	**P**	**15 09 47.0**	**-1.4**
AAK	**Ala-Archa**	**40.63**	**338**	*e*P	**P**	**15 10 19.6**	**+1.0**
	comp=Z,13nm,1.3s,mb4.4						
SONM	**Songino Array**	**43.62**	**13**	P	**P**	**15 10 42.9**	**-0.2**
	comp=Z,3.7nm,1.0s,mb4.1,baz=198,slow=7.8,SNR=8.8						
SONM				PcP	PcP	15 12 30.8	0.0
	comp=Z,1.3nm,0.8s,baz=194,slow=5.9,SNR=3.2						
ULN	**Ulaanbaatar**	**43.80**	**13**	*e*P	**P**	**15 10 44.7**	**+0.2**
	comp=Z,2.9nm,0.9s,mb4.0						
NWAO	**Narrogin (SRO)**	**44.39**	**151**	P	**P**	**15 10 48.2**	**-1.3**
	comp=Z,7.2nm,0.9s,mb4.4,baz=288,slow=13,SNR=2.3						
WRA	**Warramunga Arr**	**47.50**	**123**	P	**P**	**15 11 14.0**	**-0.3**
	comp=Z,26nm,0.8s,mb5.2,baz=301,slow=9.0,SNR=95						
WRAB	**Tennant Creek**	**47.50**	**123**	*e*P	**P**	**15 11 14.0**	**-0.3**
	comp=Z,55nm,0.8s,mb5.6						
WRAB				*e*pP	pP	15 11 23.4	+1.2
ZAL	**Zalesovo**	**48.81**	**353**	P	**P**	**15 11 23.3**	**-0.7**
	comp=Z,14nm,1.2s,mb4.8,baz=292,slow=8.3,SNR=12						
ASAR	**Alice Springs**	**48.97**	**128**	P	**P**	**15 11 25.5**	**-0.1**
	comp=Z,9.5nm,0.9s,mb4.8,baz=306,slow=7.3,SNR=30						
ASAR				PcP	PcP	15 12 48.4	-1.4
	comp=Z,3.4nm,1.0s,baz=320,slow=4.1,SNR=5.4						
HIA	**Hailar**	**48.97**	**23**	*e*P	**P**	**15 11 25.3**	**0.0**
	comp=Z,7.6nm,1.0s,mb4.7						
BVAR	**Borovoye Array**	**51.02**	**342**	P	**P**	**15 11 40.5**	**-0.4**
	comp=Z,5.1nm,0.7s,mb4.6,baz=141,slow=9.5,SNR=13						
BRVK	**Borovoye**	**51.08**	**342**	*e*P	**P**	**15 11 40.7**	**-0.7**
	comp=Z,9.8nm,1.1s,mb4.7						
CHKZ	**Chkalovo**	**51.52**	**343**	*e*P	**P**	**15 11 44.6**	**-0.1**
	comp=Z,17nm,1.0s,mb4.9						
PMG	**Port Moresby**	**55.54**	**105**	P	**P**	**15 12 14.5**	**-0.5**
	comp=Z,6.5nm,0.7s,mb4.8,baz=332,slow=3.2,SNR=5.1						
PMG	**Port Moresby**	**55.54**	**105**	*e*P	**P**	**15 12 14.3**	**-0.7**
	comp=Z,5.9nm,0.8s,mb4.7						
GNI	**Garni**	**55.62**	**316**	P	**P**	**15 12 14.5**	**-0.6**
	comp=Z,1.4nm,0.4s,mb4.4,baz=124,slow=3.6,SNR=2.7						
KMBO	**Kilima Mbogo**	**56.49**	**265**	P	**P**	**15 12 21.7**	**-0.1**
	comp=Z,3.8nm,0.9s,mb4.4,baz=38,slow=9.0,SNR=6.3						
KMBO	**Kilima Mbogo**	**56.49**	**265**	P	**P**	**15 12 21.7**	**-0.2**
CTA	**Charters Tower**	**57.79**	**118**	P	**P**	**15 12 29.1**	**-1.8**
	comp=Z,6.1nm,1.0s,mb4.6,baz=66,slow=5.0,SNR=3.9						
CTAO	**Charters Tower**	**57.79**	**118**	*e*P	**P**	**15 12 29.5**	**-1.4**
ARU	**Arti**	**57.81**	**338**	*e*P	**P**	**15 12 29.7**	**-0.8**
ARU				*e*pP	pP	15 12 37.2	-1.4
STKA	**Stephens Creek**	**59.00**	**132**	P	**P**	**15 12 38.9**	**-0.3**
	comp=Z,8.6nm,0.8s,mb4.8,baz=317,slow=5.4,SNR=12						
STKA	**Stephens Creek**	**59.00**	**132**	P	**P**	**15 12 38.9**	**-0.3**
YAK	**Yakutsk**	**62.46**	**18**	*e*P	**P**	**15 13 01.3**	**-1.0**
	comp=Z,20nm,1.1s,mb5.2						
BRTR	**Keskin Array B**	**63.47**	**312**	P	**P**	**15 13 07.8**	**-1.4**
	comp=Z,4.1nm,1.2s,mb4.4,baz=143,slow=6.2,SNR=4.8						
IDI	**Anoyia**	**69.36**	**306**	P	**P**	**15 13 46.2**	**-0.6**
	comp=Z,6.2nm,0.8s,mb4.6,baz=135,slow=7.1,SNR=3.7						
AKASG	**Malin Array Be**	**69.59**	**322**	P	**P**	**15 13 46.1**	**-1.9**
	comp=Z,2.4nm,0.7s,mb4.2,baz=82,slow=4.6,SNR=8.8						
MLR	**Muntele Rosu**	**70.39**	**316**	P	**P**	**15 13 52.8**	**-0.2**
	comp=Z,5.9nm,0.7s,mb4.6,baz=144,slow=7.0,SNR=7.7						
LBTB	**Lobatse**	**72.50**	**242**	*e*P	**P**	**15 14 06.4**	**+0.3**
	comp=Z,5.4nm,0.9s,mb4.5						
BOSA	**Boshof**	**73.74**	**238**	*e*P	**P**	**15 14 14.1**	**+0.9**
	comp=Z,3.5nm,0.7s,mb4.4						
FINES	**FINESS Array B**	**74.49**	**333**	P	**P**	**15 14 16.3**	**-0.6**
	comp=Z,4.2nm,0.7s,mb4.5,baz=106,slow=5.0,SNR=14						
FINES	**FINESS Array B**	**74.49**	**333**	P	**P**	**15 14 16.3**	**-0.6**
KAF	**Kangasniemi**	**74.59**	**333**	*e*p	**P**	**15 14 16.3**	**-1.1**
	comp=Z,5.7nm,0.8s,mb4.5						
OJC	**Ojcow**	**75.35**	**320**	*e*P	**P**	**15 14 22.5**	**+0.5**
MAW	**Mawson**	**76.07**	**192**	P	**P**	**15 14 27.6**	**+1.8**
	comp=Z,17nm,0.3s,mb5.4,baz=20,slow=5.9,SNR=4.5						
ZST	**Bratislava**	**76.82**	**318**	*e*P	**P**	**15 14 30.9**	**+0.5**
ZST				*e*pP	pP	15 14 38.7	+0.1
ARCES	**ARCESS Array B**	**77.26**	**340**	P	**P**	**15 14 32.8**	**+0.4**
	comp=Z,1.8nm,0.5s,mb4.3,baz=100,slow=7.1,SNR=17						
SUR	**Sutherland**	**78.41**	**236**	*e*P	**P**	**15 14 41.9**	**+2.4**
	comp=Z,16nm,1.0s,mb4.9						
GERES	**GERESS Array B**	**79.13**	**319**	P	**P**	**15 14 43.9**	**+0.9**
	comp=Z,7.6nm,1.0s,mb4.6,baz=92,slow=5.5,SNR=24						
KHC	**Kasperske Hory**	**79.23**	**319**	*e*P	**P**	**15 14 44.0**	**+0.4**
CLL	**Collm**	**79.76**	**321**	*e*P	**P**	**15 14 45.0**	**-1.4**
CLL	**Collm**	**79.76**	**321**	P	**P**	**15 14 45.0**	**-1.4**
NB2	**NORSAR Subarra**	**81.45**	**331**	P	**P**	**15 14 55.0**	**-0.2**
	comp=Z,4.1nm,1.0s,mb4.3,baz=90,slow=5.3						
NOA	**NORSAR Array B**	**81.45**	**331**	P	**P**	**15 14 54.7**	**-0.4**
	comp=Z,1.4nm,0.7s,mb4.0,baz=93,slow=5.5,SNR=4.1						
NOA	**NORSAR Array B**	**81.45**	**331**	P	**P**	**15 14 54.7**	**-0.4**
DAVOX	**Davos**	**81.62**	**316**	P	**P**	**15 14 56.9**	**+0.5**
	comp=Z,9.6nm,0.6s,mb4.9,baz=104,slow=3.8,SNR=16						
LPG	**La Plagne**	**83.80**	**315**	*e*P	**P**	**15 15 08.4**	**+0.8**
	comp=Z,27nm,1.1s,mb5.0						
VNDA	**Vanda**	**90.75**	**168**	P	**P**	**15 15 41.8**	**+1.2**
	comp=Z,1.4nm,0.9s,mb4.3,baz=342,slow=7.9,SNR=2.7						
ESDC	**Sonseca Array**	**92.21**	**310**	P	**P**	**15 15 48.9**	**+0.8**
	comp=Z,0.9nm,0.7s,mb4.2,baz=77,slow=6.9,SNR=3.6						
ELK	**Elko**	**127.00**	**27**	*e*PKPdf	PKPdf	15 21 44.4	-1.7
NVAR	**Mina Array Bea**	**127.31**	**31**	PKP	PKPdf	15 21 45.5	-1.2
	comp=Z,1.7nm,0.6s,baz=271,slow=3.1,SNR=8.7						
MNV	**Mina**	**127.38**	**31**	*e*PKPdf	PKPdf	15 21 44.8	-2.1
PDAR	**Pinedale Array**	**127.63**	**21**	PKP	PKPdf	15 21 44.8	-2.5
	comp=Z,2.3nm,0.8s,baz=1.0,slow=0.6,SNR=11						
PV10	**Paradox Valley**	**131.62**	**24**	*e*PKPdf	PKPdf	15 21 54.3	-0.7
ANMO	**Albuquerque**	**135.62**	**24**	PKP	PKPdf	15 21 59.8	-2.7
	comp=Z,2.2nm,0.8s,baz=163,slow=1.4,SNR=7.5						
TUC	**Tucson**	**135.91**	**30**	P	PKPdf	15 22 02.8	-0.3
TXAR	**Lajitas Array**	**141.67**	**24**	PKhKP		15 22 05.7	
	comp=Z,0.2nm,0.6s,slow=0.9,SNR=2.9						
TXAR				PKP	PKPdf	15 22 12.0	-1.7
	comp=Z,1.3nm,0.7s,baz=164,slow=0.2,SNR=14						
TXAR	**Lajitas Array**	**141.67**	**24**	PKP	PKPdf	15 22 05.7	-8.0
TXAR				PKP	PKPdf	15 22 12.0	-1.7
JCT	**Junction City**	**142.05**	**19**	*e*PKPdf	PKPdf	15 22 12.2	-2.2

IDC ***26*** *15:06:30.4±0.4, 3.63N×94.03E, mb4.8/28, mb1 4.8/29, mb1mx4.8/30, MS5.8/18, Ms1 5.8/18, ms1mx5.5/32, Error ellipse: s-maj=15.7km s-min=10.3km az=46.0*
BJI ***26*** *15:06:32.3, 3.58N×94.20E, h22^{km}, mB6.1, mb5.1, Ms6.3, Msz6.1*
NEIC ***26*** *15:06:33.2±0.2, 3.65N×94.09E, mb5.6/61, MS6.1/135, Error ellipse: s-maj=5.9km s-min=4.7km az=217.0*
HRVD ***26*** *15:06:33.2±0.4, 3.47N×94.17E, h12^{km}, MW6.0/58, Centroid moment Tensor Solution. LP body waves: s23,c33;Mantle waves: s58,c118; Half duration: 2^{s}3 Moment tensor: Scale 10^{18}Nm; M_{rr}0.56±.03; $M_{\theta\theta}$-0.44±.02; $M_{\phi\phi}$-0.12±.03; $M_{r\theta}$0.25±.08; $M_{\theta\phi}$0.62±.02; $M_{\phi r}$0.69±.09; Best double couple: $M_0$1.07×10^{18} NP1:ϕ_s96°, δ48°, λ33°. NP2:ϕ_s343°, δ67°, λ133°. Principal axes: T 1.18, Plg49°, Azm300°; N -.22, Plg39°, Azm143°; P -.96, Plg11°, Azm44°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
MOS ***26*** *15:06:34.0±1.0, 3.72N×94.05E, h33^{km}, mb5.7/46, MS5.8/11 Error ellipse: s-maj=11.2km s-min=5.9km az=114.0*
CSEM ***26*** *15:06:38.6, 4.66N×94.07E, h33^{km}, mb6.0*
ISC 26 15:06:31.6±0.2**, 3.65N**±0.03×**94.11E**±0.03**, h18^{km}, h18^{km}**±.7^{km}**:pP-P, n519, σ1^{s}05**/405**, mb5.4**/121**, MS6.0**/167**, 54C-14D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	**Nakhon Sawan**	**13.34**	**26**	P	**P**	**15 09 43.2**	**+0.5**
PALK	**Pallekele**	**13.82**	**286**	*e*P	**P**	**15 09 49.4**	**+0.1**
CM31	**Chiang Mai Arr**	**15.46**	**17**	*e*P	**P**	**15 10 13.4**	**+2.8**
	248nm,1.0s						
CMAR	**Chiang Mai Arr**	**15.46**	**17**	Pn	**P**	**15 10 08.8**	**-1.9**
	baz=220,slow=12,SNR=9.2						
CMAR				LR	LR	15 17 10.9	
	comp=Z,29µm,18.5s,baz=205,slow=41						
UBT	**Ubonrachathani**	**15.75**	**42**	⇓P	**P**	**15 10 19.0**	**+4.5**
CHG	**Chiang Mai**	**15.79**	**17**	⇓P	**P**	**15 10 14.4**	**-0.6**
	150nm,1.1s						
COCO	**West Island**	**15.97**	**170**	P	**P**	**15 10 19.5**	**+2.2**
	335nm,1.1s						
MDRS	**Chennai**	**16.59**	**305**	⇑*e*P	**P**	**15 10 28.4**	**+3.3**
MDRS				*e*		15 13 41.3	
VIS	**Vishakhapatnam**	**17.53**	**324**	⇑*e*P	**P**	**15 10 35.4**	**-1.5**
VIS				*e*		15 10 49.5	
	comp=Z,602nm,1.5s						
VIS				*e*S	**S**	**15 14 02.9**	**+13**
TRD	**Trivandrum**	**17.72**	**287**	⇑*e*P	**P**	**15 10 38.0**	**-1.4**
TRD				*e*		15 10 50.9	
	comp=Z,246nm,1.1s						
TRD				*e*S	**S**	**15 14 03.3**	**+9.3**
HYB	**Hyderabad**	**20.49**	**313**	*e*P	**P**	**15 11 12.0**	**+0.5**
	comp=Z,1µm,1.6s						
HYB	**Hyderabad**	**20.49**	**313**	*i* P	**P**	**15 11 12.0**	**+0.5**
	comp=Z,1µm,1.6s						
BOK	**Bokaro**	**21.55**	**339**	⇑*i*P	**P**	**15 11 22.6**	**+0.5**
BOK				*e*		15 11 29.2	
	comp=Z,704nm,1.3s						
BOK				*e*S	**S**	**15 15 23.9**	**+8.7**
QIZ	**Qiongzhong**	**21.68**	**44**	P	**P**	**15 11 24.0**	**+0.4**
QIZ				S	**S**	**15 15 19.5**	**+1.7**
QIZ				LR	LR		
	comp=N,42µm,14.1s,MS6.2						
QIZ				LR	LR		
	comp=E,43µm,13.2s,MS6.2						
QIZ				LR	LR		
	comp=Z,42µm,18.0s,MS5.9						
QIZ	**Qiongzhong**	**21.68**	**44**	P	**P**	**15 11 24.4**	**+0.9**
	comp=Z,308nm,1.4s,mb5.5						
QIZ				LR	LR		
	comp=Z,43µm,20.0s,MS5.8						
BLSP	**Bilaspur**	**21.74**	**329**	⇑*e*P	**P**	**15 11 24.7**	**+0.5**
BLSP				*e*S	**S**	**15 15 31.6**	**+13**
SHL	**Shillong**	**21.90**	**355**	*e*P	**P**	**15 11 22.2**	**-3.5**
SHL				*e*		15 11 37.4	
	comp=Z,539nm,1.3s						
SHL				*e*S	**S**	**15 15 30.9**	**+9.1**
KMI	**Kunming**	**22.91**	**20**	P	**P**	**15 11 37.5**	**+1.7**
KMI				AP		15 11 40.3	
KMI				PP	PP	15 12 07.5	+2.1
KMI				PPP	PPP	15 12 17.5	+2.1
KMI				S	**S**	**15 15 44.0**	**+3.8**
KMI				SS	SS	15 16 28.3	+3.9
KMI				SSS	SSS	15 16 43.5	+3.8
KMI				AMB	AMB		
	comp=Z,125nm,1.4s,mb5.2						
KMI				AMB	AMB		
	comp=Z,6µm,6.5s						
KMI				LR	LR		
	comp=N,62µm,14.0s,MS6.3						
KMI				LR	LR		
	comp=E,43µm,10.9s,MS6.3						
KMI				LR	LR		
	comp=Z,58µm,14.3s,MS6.2						
GOA	**Goa**	**23.18**	**302**	⇑*e*P	**P**	**15 11 41.8**	**+3.3**
GOA				*e*		15 11 53.5	
	comp=Z,344nm,1.6s						
KELI	**Kelakatan**	**23.50**	**120**	*e*P	**P**	**15 11 50.8**	**+9.2**
AKL	**Akola**	**23.76**	**317**	⇑*e*P	**P**	**15 11 42.6**	**-1.5**
AKL				*e*		15 11 57.0	
	comp=Z,243nm,1.5s						
AKL				*e*	S	15 16 18.2	+23
KAD	**Karad**	**23.80**	**306**	⇑*e*P	**P**	**15 11 44.9**	**+0.4**
KAD				*e*S	**S**	**15 16 08.1**	**+12**
DGAR	**Diego Garcia**	**24.25**	**243**	PFAKE		15 12 00.0	+11
DGAR				LR	LR		
	comp=Z,8µm,20.0s,MS5.2						
ALBI	**Allahabad**	**24.57**	**332**	*e*	**P**	**15 12 03.0**	**+11**
POO	**Poona**	**24.73**	**308**	⇑*e*P	**P**	**15 11 55.3**	**+1.8**
POO				*e*S	**S**	**15 16 25.4**	**+14**
PKI	**Pulchoki**	**25.20**	**342**	*e*P	**P**	**15 11 58.7**	**+0.8**
BHPL	**Bhopal**	**25.30**	**322**	⇑*e*P	**P**	**15 11 59.7**	**+0.8**
BHPL				*e*		15 16 10.9	
BHPL				*e*		15 25 30.1	
	comp=Z,14µm,12.1s						
DMN	**Daman**	**25.33**	**341**	*e*P	**P**	**15 11 59.4**	**+0.2**
GUN	**Gumba**	**25.37**	**343**	*e*P	**P**	**15 11 59.5**	**-0.1**
	comp=Z,1µm,1.2s,mb6.2						
KKN	**Kakani**	**25.44**	**342**	*e*P	**P**	**15 12 00.9**	**+0.7**
	comp=Z,566nm,1.1s,mb6.0						
GYA	**Guiyang**	**25.67**	**27**	⇑*i*P	**P**	**15 12 02.3**	**-0.1**
GYA				AP	pP	15 12 06.8	-0.9
GYA				XP	sP	15 12 09.8	-0.2
GYA				PP	PP	15 12 43.0	+0.6
GYA				S	**S**	**15 16 36.3**	**+8.8**
GYA				AMB	AMB		
	comp=Z,150nm,1.2s,mb5.4						
GYA				AMB	AMB		
	comp=Z,3µm,7.5s						
GYA				LR	LR		
	comp=N,67µm,16.2s,MS6.3						
GYA				LR	LR		
	comp=E,33µm,15.6s,MS6.3						
GYA				LR	LR		
	comp=Z,64µm,15.3s,MS6.3						
BOM	**Bombay**	**25.75**	**308**	⇓*e*P	**P**	**15 12 05.7**	**+2.5**
GKN	**Gorkha**	**25.85**	**340**	*e*P	**P**	**15 12 04.2**	**+0.2**
	comp=Z,1µm,1.4s,mb6.3						
KOLN	**Koldanda**	**26.00**	**338**	*e*P	**P**	**15 12 05.7**	**+0.3**
LSA	**Lhasa**	**26.06**	**354**	P	**P**	**15 12 07.5**	**+1.5**
LSA				S	**S**	**15 16 39.3**	**+5.4**
LSA				AMB	AMB		
	comp=Z,210nm,1.2s,mb5.5						
LSA				AMB	AMB		
	comp=Z,6µm,5.2s						
LSA				LR	LR		
	comp=N,14µm,16.7s,MS5.9						
LSA				LR	LR		
	comp=E,31µm,20.5s,MS5.9						
LSA				LR	LR		
	comp=Z,30µm,18.6s,MS5.9						
LSA	**Lhasa**	**26.06**	**354**	*e*P	**P**	**15 12 07.9**	**+2.0**
	comp=Z,588nm,1.0s,mb6.1						
LSA				LR	LR		
	comp=Z,21µm,20.0s,MS5.7						
TGY	**Tagaytay City**	**28.43**	**67**	P	**P**	**15 12 29.1**	**+1.5**
	comp=Z,50nm,0.3s,mb5.6,baz=214,slow=8.2,SNR=2.5						
TGY				LR	LR	15 25 05.9	
	comp=Z,18µm,18.2s,MS5.7,baz=98,slow=39						
CD2	**Chengdu**	**28.60**	**18**	P	**P**	**15 12 33.0**	**+3.9**
CD2				S	**S**	**15 17 20.0**	**+4.8**
CD2				AMB	AMB		
	comp=Z,110nm,1.1s,mb5.5						
CD2				LR	LR		
	comp=N,52µm,14.4s						
CD2				LR	LR		
	comp=Z,42µm,10.2s,MS6.3						
AJM	**Ajmer**	**29.38**	**322**	⇓*e*P	**P**	**15 12 36.3**	**+0.1**
AJM				*e*		15 12 45.5	
	comp=Z,140nm,1.6s						
AYAN	**Aya Nagar**	**29.52**	**329**	*e*P	**P**	**15 12 37.4**	**0.0**
NDI	**New Delhi**	**29.63**	**329**	⇑*e*P	**P**	**15 12 35.6**	**-2.8**
NDI				*e*		15 12 44.7	
	comp=Z,162nm,0.8s						
KHET	**Khetri**	**29.90**	**326**	*e*P	**P**	**15 12 40.5**	**-0.4**
TBP	**Tagbilaran**	**30.14**	**77**	*e*P	**P**	**15 12 45.0**	**+1.9**
ENH	**Enshi**	**30.21**	**27**	*e*P	**P**	**15 12 41.8**	**-1.7**
	comp=Z,60nm,1.2s,mb5.2						
ENH				LR	LR		
	comp=Z,43µm,21.0s,MS6.1						
DDI	**Dehra Dun**	**30.57**	**332**	*e*P	**P**	**15 12 45.7**	**-1.0**
BHJ	**Bhuj**	**30.64**	**312**	⇑*e*P	**P**	**15 12 45.6**	**-1.8**
BHJ				*e*		15 13 04.2	
	comp=Z,135nm,1.7s						
KKR	**Kurukshetra**	**30.87**	**330**	*e*P	**P**	**15 12 49.4**	**+0.1**
KLP	**Kalpa**	**31.50**	**333**	*e*P	**P**	**15 12 54.9**	**+0.1**
WHN	**Wuhan**	**32.88**	**33**	⇑P	**P**	**15 13 06.5**	**-0.4**
WHN				S	**S**	**15 18 19.0**	**-3.5**
WHN				LR	LR		
	comp=N,46µm,14.6s,MS6.8						
WHN				LR	LR		
	comp=E,146µm,15.0s,MS6.8						
WHN				LR	LR		
	comp=Z,200µm,15.0s,MS6.9						
XAN	**Xi'an**	**33.23**	**23**	P	**P**	**15 13 08.3**	**-1.7**
XAN				AMB	AMB		
	comp=Z,43nm,1.1s,mb5.3						
THN	**Thein Dam**	**33.43**	**331**	*e*P	**P**	**15 13 10.7**	**-1.0**
LZH	**Lanzhou**	**33.51**	**14**	*e*P	**P**	**15 13 12.0**	**-0.3**
LZH				PP	PP	15 14 24.5	-0.2
LZH				S	**S**	**15 18 35.0**	**+2.8**
LZH				SS	SS	15 20 38.0	+1.8
LZH				SCS	ScS	15 23 37.3	+1.9
LZH				AMB	AMB		
	comp=Z,180nm,1.2s,mb5.9						
LZH				AMB	AMB		
	comp=Z,1µm,5.9s						
LZH				LR	LR		
	comp=E,18µm,14.5s						
LZH				LR	LR		
	comp=Z,25µm,15.3s,MS6.0						
TATO	**Taipei**	**33.81**	**49**	PFAKE		15 13 30.0	+15
TATO				LR	LR		
	comp=Z,29µm,22.0s,MS6.0						
MBWA	**Marble Bar**	**35.19**	**136**	*e*P	**P**	**15 13 26.7**	**-0.2**
	comp=Z,74nm,1.3s,mb5.5						
MBWA				LR	LR		
	comp=Z,17µm,19.0s,MS5.8						
GTA	**Gaotai**	**35.97**	**8**	⇑*i*P	**P**	**15 13 33.0**	**-0.4**
GTA				AP	pP	15 13 38.3	-0.5
GTA				XP	sP	15 13 41.8	+0.7
GTA				PCP	PcP	15 16 02.0	+1.7
GTA				AMB	AMB		
	comp=Z,72nm,1.0s,mb5.6						
GTA				AMB	AMB		
	comp=Z,4µm,10.3s						
GTA				LR	LR		
	comp=N,12µm,17.1s,MS5.8						
GTA				LR	LR		
	comp=E,8µm,21.3s,MS5.8						
GTA				LR	LR		
	comp=Z,10µm,27.0s						
NJ2	**Nanjing**	**36.58**	**37**	*e*P	**P**	**15 13 39.5**	**+0.9**
NJ2				AP	pP	15 13 45.0	+1.1
NJ2				XP	sP	15 13 47.8	+1.6
NJ2				PP	PP	15 15 05.0	+1.8
NJ2				S	**S**	**15 19 23.0**	**+3.3**
NJ2				XS		15 19 30.0	
NJ2				AMB	AMB		
	comp=Z,150nm,0.9s,mb5.8						
NJ2				AMB	AMB		
	comp=Z,1µm,5.0s						
NJ2				LR	LR		
	comp=N,11µm,15.0s,MS5.9						
NJ2				LR	LR		
	comp=E,12µm,16.8s,MS5.9						
NJ2				LR	LR		
	comp=Z,23µm,15.8s,MS6.0						
SSE	**Sheshan**	**37.37**	**40**	*e*P	**P**	**15 13 45.8**	**+0.6**
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,3µm,9.9s						
TIA	**Tai'an**	**38.73**	**30**	*e*P	**P**	**15 14 00.5**	**+3.9**
TIA				S	**S**	**15 19 57.3**	**+4.8**
TIA				LR	LR		
	comp=N,32µm,17.0s,MS6.4						
TIA				LR	LR		
	comp=E,33µm,17.0s,MS6.4						
KSH	**Kashi**	**39.31**	**338**	*e*P	**P**	**15 14 06.5**	**+5.1**
KSH				AP	pP	15 14 14.5	+7.7
KSH				XP	sP	15 14 19.5	+10
KSH				PP	PP	15 15 40.5	+4.8
KSH				PPP	PPP	15 16 05.0	+5.4
KSH				PCP	PcP	15 16 15.5	+4.9
KSH				SCP		15 20 01.0	
KSH				*e*PCS		15 20 03.0	
KSH				S	**S**	**15 20 04.0**	**+2.8**
KSH				XS		15 20 20.0	
KSH				SS	SS	15 22 50.0	+2.6
KSH				AMB	AMB		
	comp=Z,1µm,7.2s						
KSH				LR	LR		
	comp=N,17µm,15.8s,MS6.1						
KSH				LR	LR		
	comp=E,16µm,15.2s,MS6.1						
JOW	**Kunigami**	**39.98**	**51**	P	**P**	**15 14 07.7**	**+0.6**
	comp=E,17nm,0.9s,mb4.8,baz=231,slow=6.5,SNR=3.8						
JOW				LR	LR	15 30 09.5	
	comp=E,22µm,21.8s,MS6.0,baz=228,slow=35						
HHC	**Hu-ho-hao-te**	**40.23**	**21**	*e*P	**P**	**15 14 09.5**	**+0.5**
HHC				AP	pP	15 14 19.0	+4.6
HHC				XP	sP	15 14 23.5	+6.8
HHC				PP	PP	15 15 46.5	+1.2
HHC				PCP	PcP	15 16 13.3	-0.2
HHC				PCS		15 20 02.8	
HHC				S	**S**	**15 20 13.3**	**-1.7**
HHC				XS		15 20 30.0	
HHC				SCS	ScS	15 24 10.5	-2.2
HHC				AMB	AMB		
	comp=Z,18nm,0.7s,mb4.9						
HHC				AMB	AMB		
	comp=Z,5µm,8.8s						
HHC				LR	LR		
	comp=N,26µm,15.5s,MS6.6						
HHC				LR	LR		
	comp=E,65µm,16.7s,MS6.6						
HHC				LR	LR		
	comp=Z,26µm,19.0s,MS6.1						
WMQ	**Urumqi**	**40.41**	**353**	⇑P	**P**	**15 14 11.5**	**+1.1**
WMQ				AP	pP	15 14 16.0	+0.2
WMQ				XP	sP	15 14 18.5	+0.5
WMQ				PP	PP	15 15 48.5	+1.5
WMQ				PPP	PPP	15 16 14.5	+0.3
WMQ				*e*S	**S**	**15 20 18.5**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,41nm,0.9s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,2µm,8.3s						
WMQ				LR	LR		
	comp=N,8µm,25.6s,MS5.8						
WMQ				LR	LR		
	comp=E,16µm,24.6s,MS5.8						
WMQ				LR	LR		
	comp=Z,8µm,27.4s,MS5.4						
BJT	**Baijiatuau**	**41.34**	**26**	P	**P**	**15 14 19.3**	**+1.2**
BJT				pmax	pmax		
	comp=Z,120nm,1.3s						
BJT	**Baijiatuau**	**41.34**	**26**	*e*P	**P**	**15 14 18.9**	**+0.8**
	comp=Z,123nm,1.0s,mb5.5						
BJT				LR	LR		
	comp=Z,31µm,20.0s,MS6.2						
BJI	**Beijing**	**41.36**	**26**	P	**P**	**15 14 19.0**	**+0.7**
BJI				AMB	AMB		
	comp=Z,61nm,1.4s,mb5.0						
ULHL	**Ulahol**	**41.61**	**340**	P	**P**	**15 14 27.4**	**+7.0**
	SNR=6.5						
UCH	**Uchtor**	**42.21**	**338**	P	**P**	**15 14 26.6**	**+1.3**
	SNR=33						
KBK	**Karagaybulak**	**42.43**	**339**	P	**P**	**15 14 28.5**	**+1.4**
	SNR=44						
TKM2	**Tokmak 2**	**42.43**	**340**	P	**P**	**15 14 28.0**	**+0.9**
	SNR=24						
AML	**Almayashu**	**42.44**	**337**	P	**P**	**15 14 28.5**	**+1.4**

	SNR=36						
NWAO	Narrogin (SRO)	42.46	151	P	P	15 14 27.5	0.0
	comp=Z,7.5nm,0.7s,mb4.4,baz=316,slow=9.2,SNR=4.7						
NWAO	Narrogin (SRO)	42.46	151	P	P	15 14 27.5	0.0
NWAO				LR	LR		
	comp=Z,10µm,20.0s,MS5.7						
AAK	Ala-Archa	42.57	339	P	P	15 14 29.5	+1.2
	SNR=16						
AAK	Ala-Archa	42.57	339⇑	eP	P	15 14 28.4	+0.1
AAK				i *SP	sP	15 14 37.7	+1.8
AAK				pmax	pmax		
	comp=Z,79nm,1.6s,mb5.2						
AAK	Ala-Archa	42.57	339⇑	eP	P	15 14 28.4	+0.1
AAK				LR	LR		
	comp=Z,4µm,22.0s,MS5.2						
FRU	Bishkek	42.70	339	eP	P	15 14 31.0	+1.7
FRU				i	pP	15 14 37.0	+2.3
FRU				pmax	pmax		
	comp=Z,160nm,1.8s						
FRU				MLR	MLR		
	comp=Z,2µm,18.0s						
CHMS	Chumysh	42.80	339	P	P	15 14 31.0	+0.9
	SNR=12						
EKS2	Erkin-Say	42.86	338	P	P	15 14 31.8	+1.2
	SNR=23						
DL2	Dalian	43.10	32	P	P	15 14 38.0	+5.4
DL2				S	S	15 20 52.5	-5.0
DL2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
DL2				AMB	AMB		
	comp=Z,2µm,7.6s						
DL2				LR	LR		
	comp=N,17µm,16.7s,MS6.1						
DL2				LR	LR		
	comp=E,13µm,17.6s,MS6.1						
DL2				LR	LR		
	comp=Z,18µm,18.8s,MS6.0						
USP	Ospenovka	43.12	339	P	P	15 14 33.2	+0.5
	SNR=44						
MKAR	Makanchi Array	44.19	348	i P	P	15 14 41.5	+0.2
MKAR				pmax	pmax		
	comp=Z,173nm,0.8s						
MKAR	Makanchi Array	44.19	348	i P	P	15 14 41.6	+0.3
INCN	Inchon	44.95	37	PFAKE		15 15 00.0	+12
INCN				LR	LR		
	comp=Z,29µm,20.0s,MS6.2						
SONM	Songino Array	45.27	12	P	P	15 14 49.7	-0.3
	comp=Z,19nm,0.9s,mb4.9,baz=198,slow=7.8,SNR=36						
ULN	Ulaanbaatar	45.44	12	P	P	15 14 50.8	-0.5
ULN				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.3						
ULN	Ulaanbaatar	45.44	12	eP	P	15 14 50.6	-0.7
	comp=Z,47nm,1.2s,mb5.2						
ULN				e	pP	15 14 56.1	-0.6
ULN				LR	LR		
	comp=Z,9µm,20.0s,MS5.7						
KS15	Wonju Array Si	45.69	38	P	P	15 14 54.0	+0.5
WRA	Warramunga Arr	45.94	122	P	P	15 14 54.5	-1.1
	comp=Z,44nm,1.1s,mb5.3,baz=299,slow=9.1,SNR=42						
WRAB	Tennant Creek	45.95	122c	iP	P	15 14 55.3	-0.4
WRAB	Tennant Creek	45.95	122	eP	P	15 14 55.1	-0.6
	comp=Z,150nm,1.0s,mb5.9						
WRAB				LR	LR		
	comp=Z,4µm,19.0s,MS5.3						
SNY	Shenyang	46.26	31	⇑P	P	15 15 02.3	+4.4
SNY				AMB	AMB		
	comp=Z,50nm,2.4s,mb5.0						
ZAK	Zakamensk	47.21	8	eP	P	15 15 04.7	-0.6
ASAR	Alice Springs	47.32	127	P	P	15 15 05.8	-0.8
	comp=Z,8.2nm,0.6s,mb4.8,baz=302,slow=7.4,SNR=27						
HASS	Wahat al Ahsa’	47.73	301	P	P	15 15 10.9	+1.2
MOY	Mondy	48.20	6	eP	P	15 15 12.8	-0.2
TLY	Talaya	48.53	8	P	P	15 15 16.7	+1.2
	comp=Z,151nm,0.9s,mb6.0,SNR=16						
TLY	Talaya	48.53	8c	iP	P	15 15 16.1	+0.6
TLY				pmax	pmax		
	comp=Z,42nm,1.6s,mb5.2						
TLY	Talaya	48.53	8⇑	iP	P	15 15 16.1	+0.6
TLY				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
IRK	Irkutsk	49.16	8	eP	P	15 15 20.5	+0.1
IRK				e		15 16 48.7	
IRK				e		15 22 16.1	
LBOS		49.25	285	eP	P	15 15 23.3	+1.7
HIA	Hailar	50.42	22	P	P	15 15 31.1	+1.0
HIA				pmax	pmax		
	comp=Z,54nm,1.1s						
HIA	Hailar	50.42	22	eP	P	15 15 29.2	-0.9
	comp=Z,54nm,1.1s,mb5.5						
HIA				LR	LR		
	comp=Z,46µm,20.0s,MS6.5						
ZAL	Zalesovo	50.71	353	P	P	15 15 31.5	-0.7
	comp=Z,14nm,0.3s,mb5.3,baz=292,slow=6.4,SNR=24						
ZAL	Zalesovo	50.71	353	P	P	15 15 31.5	-0.7
KAMS	Al Khamasin	50.97	293	P	P	15 15 34.5	-0.1
GUMO	Guam	51.05	76	PFAKE		15 15 50.0	+15
GUMO				LR	LR		
	comp=Z,8µm,21.0s,MS5.7						
MZLS	Mizel	51.29	298	P	P	15 15 37.7	+0.7
MDJ	Mudanjiang	51.34	32	P	P	15 15 37.3	+0.1
MDJ				AP	pP	15 15 40.5	-2.2
MDJ				PCP	PcP	15 16 51.5	-0.6
MDJ				PP	PP	15 17 31.3	-3.8
MDJ				SCP		15 20 49.0	
MDJ				S	S	15 22 57.5	+3.4
MDJ				AMB	AMB		
	comp=Z,57nm,2.0s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,2µm,9.3s						
MDJ				LR	LR		
	comp=N,21µm,19.2s,MS6.3						
MDJ				LR	LR		
	comp=E,20µm,18.2s,MS6.3						
MDJ				LR	LR		
	comp=Z,23µm,18.2s,MS6.2						
MDJ	Mudanjiang	51.34	32	P	P	15 15 36.5	-0.7
	comp=Z,247nm,2.0s,mb5.8						
MDJ				LR	LR		
	comp=Z,23µm,19.0s,MS6.2						
CBIJ	Chichi jima	51.45	58	LR	LR	15 35 42.2	
	comp=Z,8µm,21.3s,MS5.7,baz=247,slow=34						
NVS	Novosibirsk	51.79	352	i P	P	15 15 38.8	-1.6
NVS				eS	S	15 23 01.7	+1.6
NVS				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.6						
NVS				pmax	pmax		
	comp=N,89nm,1.5s						
NVS				smax			
	comp=E,161nm,2.2s						
TATS	Tathlith	51.83	292	P	P	15 15 41.7	+0.5
MAJO	Matsushiro	52.07	45	PFAKE		15 15 50.0	+7.2
MAJO				LR	LR		
	comp=Z,24µm,19.0s,MS6.2						
MAT	Matsushiro	52.07	45	P	P	15 15 40.7	-2.1
MAT				S	S	15 23 03.0	-1.2
MAT	Matsushiro	52.07	45	eP	P	15 15 41.0	-1.8
MAT				eS	S	15 23 03.0	-1.2
BVA0	Borovoye Array	52.97	342	P	P	15 15 48.1	-1.2
BVA0				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
BVAR	Borovoye Array	52.97	342	P	P	15 15 48.3	-1.0
	comp=Z,18nm,0.9s,mb5.0,baz=143,slow=7.4,SNR=39						
BRVK	Borovoye	53.03	342	P	P	15 15 48.4	-1.3
BRVK				pmax	pmax		
	comp=Z,93nm,1.0s,mb5.7						
BRVK	Borovoye	53.03	342⇑	iP	P	15 15 48.8	-0.9
BRVK				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
AFFS	‘Afif	53.21	297	P	P	15 15 52.4	+0.9
CHKZ	Chkalovo	53.46	343	i P	P	15 15 52.3	-0.6
CHKZ				pmax	pmax		
	comp=Z,189nm,1.1s,mb5.9						
CHKZ	Chkalovo	53.46	343	eP	P	15 15 52.2	-0.7
	comp=Z,292nm,1.2s,mb6.1						
ARSS	Ar Rass	53.50	300	P	P	15 15 53.8	+0.2
PMG	Port Moresby	54.43	104	P	P	15 16 01.8	+1.3
	comp=Z,9.9nm,0.8s,mb4.8,baz=4.4,slow=6.7,SNR=5.1						
PMG	Port Moresby	54.43	104	eP	P	15 16 02.9	+2.4
PMG				pmax	pmax		
	comp=Z,22nm,1.0s						
PMG	Port Moresby	54.43	104	eP	P	15 16 02.2	+1.7
	comp=Z,22nm,0.9s,mb5.1						
PMG				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
HILS	Ha’il	55.15	301	P	P	15 16 06.6	+0.9
KLR	Kul’dur	55.54	29	eP	P	15 16 04.0	-4.2
BOD	Bodaibo	56.24	13	eP	P	15 16 11.5	-1.6
CTA	Charters Tower	56.35	117	P	P	15 16 13.7	-0.7
	comp=Z,13nm,0.8s,mb5.0,baz=295,slow=9.7,SNR=8.3						
CTA				LR	LR	15 44 49.8	
	comp=Z,11µm,18.3s,MS6.0,baz=289,slow=41						
CTAO	Charters Tower	56.35	117	P	P	15 16 14.2	-0.2
CTAO				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
CTAO	Charters Tower	56.35	117	eP	P	15 16 13.4	-1.0
	comp=Z,26nm,0.9s,mb5.3						
CTAO				LR	LR		
	comp=Z,10µm,19.0s,MS5.9						
MAK	Makhachkala	56.89	320	eP	P	15 16 12.0	-6.0
KBRS	Khaybar	56.95	298	P	P	15 16 20.1	+1.4
KMBO	Kilima Mbogo	57.02	266	P	P	15 16 19.0	-0.4
	comp=Z,8.2nm,1.1s,mb4.7,baz=55,slow=10,SNR=16						
KMBO	Kilima Mbogo	57.02	266	P	P	15 16 19.6	+0.3
KMBO				pmax	pmax		
	comp=Z,37nm,1.1s						
KMBO	Kilima Mbogo	57.02	266	eP	P	15 16 19.2	-0.1
	comp=Z,37nm,1.1s,mb5.3						
KMBO				LR	LR		
	comp=Z,10µm,20.0s,MS5.9						
STKA	Stephens Creek	57.28	132	P	P	15 16 19.4	-1.5
	comp=Z,11nm,0.6s,mb5.1,baz=317,slow=8.5,SNR=23						
STKA				LR	LR	15 42 17.9	
	comp=Z,10µm,18.7s,MS6.0,baz=298,slow=38						
STKA	Stephens Creek	57.28	132	eP	P	15 16 19.6	-1.3
GNI	Garni	57.40	316	eP	P	15 16 21.6	0.0
GNI	Garni	57.40	316	P	P	15 16 20.9	-0.7
	comp=Z,16nm,0.7s,mb5.2,baz=326,slow=22,SNR=12						
GNI	Garni	57.40	316	P	P	15 16 21.3	-0.3
GNI				pmax	pmax		
	comp=Z,110nm,1.2s						
TVAN	Van	57.66	314	P	P	15 16 30.9	+7.5
YNBS	Yanbu‘ al Bahr	57.77	296	P	P	15 16 25.1	+0.7
TI2	Plekhanov	58.10	318	eP	P	15 16 25.2	-1.3
CLNS	Chul’man	58.40	19	eP	P	15 16 38.2	+10
CLNS				e*PP	pP	15 16 44.7	+11
CLNS				e		15 18 41.0	
CLNS				ePPP	PPP	15 20 06.5	+3.9
CLNS				eS	S	15 24 48.7	+20
CLNS				e		15 26 08.8	
CLNS				pmax	pmax		
	comp=N,53nm,1.4s						
CLNS				pmax	pmax		
	comp=E,29nm,1.4s						
CLNS				pmax	pmax		
	comp=Z,92nm,1.4s,mb5.6						
CLNS				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
CLNS				pmax	pmax		
	comp=N,17nm,1.0s						
CLNS				pmax	pmax		
	comp=E,12nm,1.0s						
CLNS				smax			
	comp=E,711nm,13.5s						
CLNS				smax			
	comp=Z,4µm,17.2s						
CLNS				smax			
	comp=N,3µm,14.5s						
CLNS				MLR	MLR		
	comp=Z,33µm,19.0s,MS6.5						
CLNS				MLR	MLR		
	comp=N,14µm,15.0s,MS6.2						
CLNS				MLR	MLR		
	comp=E,5µm,16.0s,MS6.2						
ASAJ	Asahikawa	58.65	39	P	P	15 16 31.1	+0.8
	comp=E,9.2nm,0.9s,mb4.8,baz=202,slow=5.4,SNR=2.0						
ASAJ				LR	LR	15 42 17.6	
	comp=E,18µm,19.4s,MS6.2,baz=243,slow=37						
BTMT	Batman	58.91	313	eP	P	15 16 32.1	-0.1
BEST	Besiri	58.96	313	P	P	15 16 32.5	0.0
ZEI	Tsey	59.13	319	eP	P	15 16 32.0	-1.7
ZEI				i *PP	pP	15 16 48.1	+8.8
ZEI				i		15 18 51.1	
ZEI				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.4						
VRT	Varto	59.24	314	eP	P	15 16 34.7	+0.2
SVE	Sverdlovsk	59.30	339⇑	iP	P	15 16 33.6	-1.1
SVE				e		15 17 23.4	
SVE				e		15 20 11.0	
SVE				pmax	pmax		
	comp=Z,400nm,1.8s,mb6.2						
ERZM	Erzurum	59.66	315	i P	P	15 16 37.6	+0.3
EZM	Erzurum	59.66	315	eP	P	15 16 38.3	+0.9
ARU	Arti	59.76	338⇑	iP	P	15 16 36.2	-1.6
ARU				i		15 17 19.7	
ARU				e		15 18 47.4	
ARU				ePPP	PPP	15 20 11.2	-6.0
ARU				eS	S	15 24 46.6	+0.4
ARU				i		15 26 24.0	
ARU				eSS	SS	15 28 46.2	+2.6
ARU				pmax	pmax		
	comp=Z,154nm,1.1s,mb6.0						
ARU	Arti	59.76	338⇑	iP	P	15 16 36.2	-1.6
ARU				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
TBKS	Tabuk	59.86	301	P	P	15 16 40.6	+1.7
BINT	Bingol	59.90	313	P	P	15 16 44.8	+5.8
BCA	Borcka	60.09	317	eP	P	15 16 44.7	+4.4
YSS	Yuzh-Sakhalins	60.15	36	P	P	15 16 37.0	-3.6
YSS				e	pP	15 16 44.2	-2.0
YSS				e		15 16 53.2	
YSS				MLR	MLR		
	comp=N,9µm,18.0s,MS6.1						
YSS				MLR	MLR		
	comp=Z,10µm,18.0s,MS6.0						
YSS				MLR	MLR		
	comp=E,10µm,16.0s,MS6.1						
YSS	Yuzh-Sakhalins	60.15	36	PFAKE		15 16 50.0	+9.4
YSS				LR	LR		
	comp=Z,10µm,20.0s,MS6.0						
KIV	Kislovodsk	60.45	320	P	P	15 16 41.5	-1.2
	comp=Z,378nm,1.1s,mb6.3,SNR=25						
KIV	Kislovodsk	60.45	320c	iP	P	15 16 41.7	-1.0
KIV				e		15 18 51.0	
KIV				eS	S	15 25 00.4	+5.1
KIV				pmax	pmax		
	comp=N,23nm,1.3s						
KIV				pmax	pmax		
	comp=E,47nm,1.3s						
KIV				pmax	pmax		
	comp=Z,84nm,1.3s,mb5.6						
KIV	Kislovodsk	60.45	320⇑	iP	P	15 16 41.7	-1.0
KIV				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
ASF	Jabal al Asfar	60.54	305	P	P	15 16 43.9	+0.4
	comp=Z,7.6nm,0.8s,mb4.8,baz=5.4,slow=5.1,SNR=11						
ASF				LR	LR	15 43 03.8	
	comp=Z,8µm,18.9s,MS5.9,baz=329,slow=36						
JMQS	Jabal Moqyreh	60.58	301	P	P	15 16 44.8	+0.9
URFA	Urfa	60.62	311	eP	P	15 16 44.6	+0.7
YUK	Yuzh-Kuril’sk	60.70	41	eP	P	15 16 51.0	+6.6
YUK				pmax	pmax		
	comp=Z,3µm,5.0s						
YUK				MLR	MLR		
	comp=N,6µm,15.0s,MS6.5						
YUK				MLR	MLR		
	comp=E,23µm,15.0s,MS6.5						
YUK				MLR	MLR		
	comp=Z,18µm,15.0s,MS6.3						
PTK	Pertek	60.70	313	eP	P	15 16 45.1	+0.6
EZC	Erzincan	60.70	314	eP	P	15 16 47.2	+2.8
GOF	Gofitskoye	60.72	321⇑	iP	P	15 16 43.0	-1.5
GOF				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.6						
ELZG	Elazig	60.86	313	i P	P	15 16 46.1	+0.6
GUMT	Gumushane	61.21	315	eP	P	15 16 53.8	+6.0
MALT	Malatya	61.21	312	eP	P	15 16 48.2	+0.3
MALT	Malatya	61.21	312	P	P	15 16 47.7	-0.2
MALT				pmax	pmax		
	comp=Z,140nm,1.2s,mb6.0						
DUSS	Damascus Unive	61.39	306	i P	P	15 16 50.9	+1.6
DUSS				i P		15 16 51.0	
DUSS				i P		15 16 51.0	
DUSS				e		15 17 02.5	
	baz=104,slow=6.9						
DUSS				eS	S	15 25 17.9	+10
DUSS				AMS	AMS	15 44 31.9	
	comp=N,201µm,16.0s						
DUSS				AMS	AMS	15 47 01.5	
	comp=E,164µm,14.6s						
DUSS				AMS	AMS	15 48 01.1	
	comp=Z,171µm,18.9s						
GZT	Gaziantep	61.54	311	i P	P	15 16 50.7	+0.6
EIL	Elat	61.55	302	eP	P	15 16 49.9	-0.4
	comp=Z,86nm,1.1s,mb5.8						
EIL				e	pP	15 16 56.4	+0.4
GAZ	Gaziantep	61.75	311	eP	P	15 16 52.2	+0.6
KAHT	Ahir Dag	62.15	311	P	P	15 16 55.0	+0.7
SOC	Sochi	62.25	318	i P	P	15 16 51.7	-3.2
SOC				e		15 17 28.0	
SOC				e		15 19 07.0	
SOC				eS	S	15 25 17.9	-0.2
SOC				pmax	pmax		
	comp=Z,72nm,1.0s,mb5.8						
SOC				pmax	pmax		
	comp=N,32nm,1.2s						
SOC				pmax	pmax		
	comp=E,21nm,1.2s						
SOC				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.6						
SOC				MLR	MLR		
	comp=N,4µm,21.0s,MS5.6						
SOC				MLR	MLR		
	comp=E,2µm,20.0s,MS5.6						
COBT	Iskenderun	62.28	310	P	P	15 16 55.0	-0.1
SVST	Sivas	62.78	313	P	P	15 16 58.9	+0.5
CEYT	Ceyhan	62.81	310	eP	P	15 16 59.5	+0.9
TOKT	Tokat	63.26	314	eP	P	15 17 01.0	-0.5
BNN	Bunyan	63.30	312	eP	P	15 17 01.9	+0.1
MBAR	Mbarara	63.47	268⇑	eP	P	15 17 02.8	-0.6
MBAR	Mbarara	63.47	268	eP	P	15 17 01.2	-2.2
	comp=E,45nm,1.4s,mb5.4						
MBAR				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
MEST	Erdemli	63.92	309	P	P	15 17 05.4	-0.7
YAK	Yakutsk	63.99	18	eP	P	15 17 04.3	-1.8
YAK				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.6						
YAK				pmax	pmax		
	comp=N,30nm,1.2s						
YAK				pmax	pmax		
	comp=E,27nm,1.3s						
YAK	Yakutsk	63.99	18	eP	P	15 17 04.1	-2.0
	comp=E,174nm,1.2s,mb6.0						
YAK				LR	LR		
	comp=Z,16µm,21.0s,MS6.2						
NIG	Nigde	64.00	311	eP	P	15 17 06.8	+0.2
AVNT	Avonos	64.01	312	P	P	15 17 06.2	-0.5
CSS	Prodhromos	64.14	307	eP	P	15 17 06.8	-0.7
	comp=Z,140nm,1.3s,mb5.8						
ANN	Anapa	64.23	319	eP	P	15 16 59.1	-8.9
ANN				i *PP	pP	15 17 11.7	-1.9
ANN				eS	S	15 25 39.6	-3.4
ANN				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.3						
CORM	Corum	64.60	313	eP	P	15 17 10.7	+0.3
CTKT	Corum	64.62	314	P	P	15 17 10.7	+0.1
BOYT	Boyabat	64.79	314	P	P	15 17 10.9	-0.7
KAMT	Kaman	65.03	312	eP	P	15 17 12.9	-0.3
BR131	Keskin Array S	65.19	312	PFAKE		15 17 30.0	+16
BR131				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
BRTR	Keskin Array B	65.19	312	P	P	15 17 12.5	-1.7
	comp=Z,7.4nm,0.8s,mb4.8,baz=127,slow=6.2,SNR=39						
BRTR				PcP	PcP	15 17 47.0	+0.3
	comp=Z,12nm,0.9s,baz=110,slow=5.0,SNR=5.8						
TOS	Tosya	65.30	314	eP	P	15 17 14.4	-0.5
HDMB	Hadim	65.31	309	eP	P	15 17 19.8	+4.7
CANT	Cankiri	65.47	313	eP	P	15 17 15.7	-0.3
ELDT	Eldivan	65.57	313	P	P	15 17 15.9	-0.7
KONT	Konya--Tatoy	65.66	310	eP	P	15 17 17.2	-0.1
ANTO	Ankara	65.86	312	eP	P	15 17 17.4	-1.1
LOD	Lodumlu	65.88	312	eP	P	15 17 18.0	-0.7
BALT	Daday	65.91	314	P	P	15 17 18.8	0.0
KIZT	Kizilcal	66.27	311	eP	P	15 17 19.7	-1.5
SAFT	Safranbolu	66.33	314	eP	P	15 17 20.8	-0.7
SIM	Simferopol’	66.49	318	eP	P	15 17 21.8	-0.7
SIM				pmax	pmax		
	comp=Z,90nm,0.9s,mb5.8						
SGKT	Sivrigoynuk	66.60	313	P	P	15 17 22.4	-0.8
ISP	Isparta	67.05	310	eP	P	15 17 23.5	-2.7
ISP	Isparta	67.05	310⇑	eP	P	15 17 25.0	-1.2
MDU	Mudurnu	67.18	313	eP	P	15 17 26.3	-0.6
ESKT	Eskisehir	67.21	311	eP	P	15 17 27.2	0.0
ESKT	Eskisehir	67.21	311	P	P	15 17 26.0	-1.1
ELL	Elmali	67.26	308	eP	P	15 17 27.2	-0.3
HENT	Hendek	67.51	313	P	P	15 17 28.3	-0.7
ALT	Altintas	67.65	311	eP	P	15 17 29.3	-0.6
FETY	Fethiye	67.89	308	eP	P	15 17 30.9	-0.6
LSZ	Lusaka	67.89	252	P	P	15 17 31.8	0.0
LSZ				pmax	pmax		
	comp=Z,140nm,1.8s,mb5.7						
LSZ	Lusaka	67.89	252	eP	P	15 17 31.4	-0.4
	comp=Z,138nm,1.8s,mb5.7						
LSZ				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
DALT	Dalyan (Mudla)	68.26	308	eP	P	15 17 34.8	+1.0
HRT	Hereke	68.41	313	eP	P	15 17 32.9	-1.8
HRT	Hereke	68.41	313	eP	P	15 17 34.5	-0.2
HRT	Hereke	68.41	313	P	P	15 17 34.5	-0.2
YLV	Yalova	68.57	312	eP	P	15 17 32.4	-3.2
ULDT	Uludag	68.64	312	P	P	15 17 35.4	-0.7
MOS	Moscow	68.67	330κ	iP	P	15 17 34.8	-1.2
MOS				e		15 18 01.1	
MOS				e		15 20 06.4	
MOS				pmax	pmax		
	comp=Z,261nm,1.4s,mb6.0						
MOS				MLR	MLR		
	comp=E,11µm,21.8s						
MOS				MLR	MLR		
	comp=Z,10µm,21.8s,MS6.0						
MANT	Manisa	68.70	310	P	P	15 17 36.4	0.0
OBN	Obninsk	68.93	329⇑	iP	P	15 17 36.2	-1.4
OBN				e		15 20 10.0	
OBN				eS	S	15 26 38.5	-1.2
OBN				i SS	SS	15 31 05.6	-1.5
OBN				pmax	pmax		
	comp=Z,151nm,1.4s,mb5.7						
OBN				MLR	MLR		
	comp=Z,4µm,24.0s,MS5.6						
OBN	Obninsk	68.93	329⇑	eP	P	15 17 36.2	-1.4
OBN				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
AKS	Akhisar	69.35	310	eP	P	15 17 40.6	+0.1
BTOK	Tokmak	69.38	311	P	P	15 17 40.2	-0.5
KDAG	Bornova	69.67	310	P	P	15 17 42.6	+0.2
SKR	Severo-Kuril’s	69.71	37	eP	P	15 17 39.0	-3.4
SKR				pmax	pmax		
	comp=N,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s,mb5.9						
SKR				pmax	pmax		
	comp=Z,4µm,6.0s						
SKR				pmax	pmax		
	comp=E,2µm,4.0s						
SKR				MLR	MLR		
	comp=N,9µm,18.0s,MS6.1						
SKR				MLR	MLR		
	comp=E,5µm,18.0s,MS6.1						
SKR				MLR	MLR		
	comp=Z,9µm,18.0s,MS6.0						
MA2	Magadan	70.51	27	eP	P	15 17 45.7	-1.5
MA2				e		15 27 47.3	
MA2				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.3						
MA2				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
MA2	Magadan	70.51	27⇓	iP	P	15 17 45.2	-2.0
MA2				LR	LR		
	comp=Z,5µm,22.0s,MS5.7						
CFR	Carcaliu	70.61	317⇑	iP	P	15 17 46.8	-1.2
CFR	Carcaliu	70.61	317⇑	iP	P	15 17 46.8	-1.2
CASY	Casey	70.76	173	PFAKE		15 18 00.0	+11
CASY				LR	LR		
	comp=Z,8µm,20.0s,MS6.0						
IDI	Anoyia	70.97	306	P	P	15 17 50.3	-0.1
	comp=Z,70nm,1.0s,mb5.6,baz=111,slow=4.6,SNR=9.6						
TIXI	Tiksi	71.36	11⇓	eP	P	15 17 51.0	-1.1
TIXI				pmax	pmax		
	comp=Z,60nm,1.9s,mb5.2						
TIXI	Tiksi	71.36	11⇓	eP	P	15 17 51.1	-1.0
TIXI				LR	LR		
	comp=Z,13µm,19.0s,MS6.2						
AKASG	Malin Array Be	71.45	323	P	P	15 17 50.8	-2.2
	comp=Z,5.7nm,0.8s,mb4.5,baz=90,slow=4.3,SNR=26						

AKASG PP PP 15 20 33.5 -0.1
comp=Z,5.1nm,0.8s,baz=104,slow=6.3,SNR=4.5
VRI Vrincioaia 71.74 317⇑iP P 15 17 54.5 -0.3
VRI Vrincioaia 71.74 317⇑iP P 15 17 54.5 -0.3
PET Petropavlovsk 71.97 35 eP P 15 17 54.6 -1.5
PET pmax pmax
comp=Z,36nm,1.0s,mb5.3
PET Petropavlovsk 71.97 35 PFAKE 15 18 10.0 +14
PET LR LR
comp=Z,9µm,20.0s,MS6.0
MLR Muntele Rosu 72.18 317 P P 15 17 57.5 0.0
comp=Z,25nm,1.1s,mb5.1,baz=88,slow=2.4,SNR=18
MLR LR LR 15 52 46.3
comp=Z,5µm,21.4s,MS5.8,baz=72,slow=38
MLR Muntele Rosu 72.18 317⇑iP P 15 17 58.0 +0.6
MLR Muntele Rosu 72.18 317⇑iP P 15 17 58.0 +0.5
LBTB Lobatse 72.24 242 P P 15 17 58.7 +0.6
LBTB pmax pmax
comp=Z,34nm,1.0s,mb5.2
LBTB Lobatse 72.24 242 eP P 15 17 57.0 -1.1
comp=Z,34nm,1.0s,mb5.2
LBTB LR LR
comp=Z,21µm,20.0s,MS6.4
WAKE Wake Island 72.33 71 PFAKE 15 18 10.0 +11
WAKE LR LR
comp=Z,50µm,22.0s,MS6.7
SEY Seymchan 72.76 24 eP P 15 17 59.5 -1.1
SEY e 15 18 13.5
SEY pmax pmax
comp=N,20nm,1.3s
SEY pmax pmax
comp=E,40nm,1.3s
SEY pmax pmax
comp=Z,80nm,1.3s,mb5.5
BOSA Boshof 73.36 239 P P 15 18 04.2 -0.6
BOSA pmax pmax
comp=Z,130nm,1.8s,mb5.6
BOSA Boshof 73.36 239 eP P 15 18 03.8 -1.0
comp=Z,126nm,1.8s,mb5.5
BOSA LR LR
comp=Z,12µm,19.0s,MS6.2
MNK Minsk 73.41 326 eP P 15 18 02.0 -2.5
PUL Pulkovo 73.89 332⇓eP P 15 18 12.8 +5.7
PUL pmax pmax
comp=Z,156nm,1.0s,mb5.9
PUL pmax pmax
comp=N,74nm,0.7s
PUL MLR MLR
comp=Z,7µm,21.0s,MS6.0
PUL MLR MLR
comp=N,8µm,18.0s,MS6.0
PUL MLR MLR
comp=E,3µm,20.0s,MS6.0
MAW Mawson 74.42 192 P P 15 18 11.1 +1.0
comp=E,8.8nm,1.2s,mb4.6,baz=327,slow=6.2,SNR=3.6
MAW LR LR 15 47 24.3
comp=E,9µm,18.4s,MS6.1,baz=9.6,slow=33
MAW Mawson 74.42 192 eP P 15 18 11.1 +1.0
MAW pmax pmax
comp=Z,100nm,1.6s
MAW Mawson 74.42 192 eP P 15 18 11.1 +1.0
comp=Z,102nm,1.6s,mb5.5
VSU Vasula 75.19 330c iP P 15 18 13.8 -0.9
VSU Vasula 75.19 330⇑iP P 15 18 13.9 -0.8
KWP Kalwaria 75.23 320 eP P 15 18 14.5 -0.6
KWP e 15 18 25.8
KOLS Kolonicke sedl 75.36 320 eP P 15 18 16.2 +0.3
KOLS epP pP 15 18 21.7 +0.1
LVZ Lovozero 75.50 340⇑eP P 15 18 15.4 -0.9
LVZ pmax pmax
comp=Z,96nm,2.1s,mb5.4
LVZ Lovozero 75.50 340⇑eP P 15 18 15.5 -0.8
APA Apatity 75.77 340⇑iP P 15 18 17.6 -0.3
APA i 15 18 29.3
APA pmax pmax
comp=Z,49nm,1.0s,mb5.4
CRVS Cervenica-Dubn 75.88 320 eP P 15 18 22.3 +3.4
SUW Suwalki 75.91 325 eP P 15 18 17.6 -1.3
SUW e pP 15 18 23.2 -1.4
FINES FINESS Array B 76.42 333 P P 15 18 21.2 -0.4
comp=Z,10nm,0.8s,mb4.8,baz=117,slow=8.5,SNR=16
FINES LR LR 15 57 16.6
comp=Z,3µm,18.8s,MS5.6,baz=273,slow=40
FINES FINESS Array B 76.42 333 i P P 15 18 21.2 -0.4
FINES pmax pmax
comp=Z,10.0nm,0.8s
KECS Kecovo 76.44 319 eP P 15 18 21.8 -0.2
KECS epP pP 15 18 26.8 -0.9
KAF Kangasniemi 76.52 333 ep P 15 18 21.8 -0.4
comp=Z,56nm,0.9s,mb5.5
KAF Kangasniemi 76.52 333 eP P 15 18 21.8 -0.4
KAF pmax pmax
comp=Z,56nm,0.9s,mb5.5
NIE Niedzica 76.72 320 eP P 15 18 24.3 +0.8
PSZ Piszkesteto 76.74 318 P P 15 18 23.5 -0.2
PSZ pmax pmax
comp=Z,150nm,1.8s,mb5.6
PSZ Piszkesteto 76.74 318 eP P 15 18 23.3 -0.4
comp=Z,153nm,1.8s,mb5.6
OJC Ojcow 77.19 321 eP P 15 18 26.0 -0.1
OJC eS Sx 15 27 35.7
OJC LR LR
comp=Z,4µm,18.4s,MS5.8
VYHS Vyhne 77.53 319 eP P 15 18 28.2 +0.2
VYHS epP pP 15 18 33.2 -0.6
RHK1 Bakonya 77.70 316 eP P 15 18 33.4 +4.3
SRO Srobarova 77.78 318 eP P 15 18 29.9 +0.5
SUR Sutherland 77.94 236 PFAKE 15 18 40.0 +9.4
SUR LR LR
comp=Z,2µm,19.0s,MS5.4
OKC Ostrava-Krasne 78.18 320 eP P 15 18 32.2 +0.6
OKC epP pP 15 18 37.1 -0.2
OKC AMS AMS 16 01 40.0
comp=Z,2µm,16.3s
SMOL Smolenice 78.46 319 eP P 15 18 38.9 +5.8
SMOL Smolenice 78.46 319 epP pP 15 18 38.9 0.0
MORC Moravsky Berou 78.56 320 P P 15 18 33.8 +0.1
MORC pmax pmax
comp=Z,98nm,1.5s,mb5.5
MORC Moravsky Berou 78.56 320 eP P 15 18 33.4 -0.2
comp=Z,98nm,1.5s,mb5.5
ZST Bratislava 78.63 318 eP P 15 18 34.4 +0.3
ZST epP pP 15 18 39.4 -0.4
KEV Kevo 78.79 341 ep P 15 18 33.7 -0.9
comp=Z,26nm,0.9s,mb5.2
KEV Kevo 78.79 341 eP P 15 18 33.7 -0.9
KEV pmax pmax
comp=Z,26nm,0.9s,mb5.2
ARCES ARCESS Array B 79.21 341 P P 15 18 36.8 -0.1
comp=Z,30nm,0.9s,mb5.2,baz=91,slow=5.5,SNR=18
ARCES LR LR 16 01 21.8
comp=Z,9µm,18.6s,MS6.1,baz=111,slow=42
ARE0 ARCESS Array S 79.21 341 eP P 15 18 36.9 0.0
GKP Gorka Klasztor 79.24 323 eP P 15 18 36.8 -0.5
GKP e pP 15 18 42.8 -0.3
DPC Dobruska-Polom 79.41 320 eP P 15 18 38.9 +0.6
DPC AMS AMS 16 04 20.0
comp=Z,4µm,16.4s
KSP Ksiaz 79.49 321 eP P 15 18 39.0 +0.3
KSP epP pP 15 18 44.0 -0.5
KSP Ksiaz 79.49 321 eP P 15 18 39.3 +0.6
KSP e 15 18 49.5
ARSA Arzberg 79.58 317⇑iP P 15 18 39.5 +0.2
comp=Z,55nm,1.4s,mb5.3
UPC Upice 79.63 321 eP P 15 18 40.1 +0.6
UPC epP pP 15 18 45.6 +0.4
BILL Bilibino 80.00 21⇓eP P 15 18 41.0 -0.2
BILL pmax pmax
comp=Z,14nm,1.5s,mb4.7
BILL Bilibino 80.00 21⇓eP P 15 18 41.1 -0.1
BILL LR LR
comp=Z,16µm,20.0s,MS6.4
OBKA Obir 80.18 316⇑iP P 15 18 42.3 -0.2
comp=Z,82nm,1.4s,mb5.5
MOA Molln 80.49 318⇓iP P 15 18 44.6 +0.5
comp=Z,34nm,1.3s,mb5.1
FX1 Attu Island--F 80.49 37 LR LR 15 53 57.2
comp=Z,194nm,19.3s,baz=292,slow=35
FX1 Attu Island--F 80.49 37 eP P 15 18 43.9 -0.2
PRU Pruhonice 80.51 320 eP P 15 18 44.9 +0.7
PRU epP pP 15 18 50.1 +0.2
PRU AMS AMS 16 05 30.0
comp=Z,3µm,16.2s
PVCC Panska Ves 80.54 320 eP P 15 18 44.8 +0.4
AQU L'Aquila 80.69 312 P P 15 18 45.7 +0.4
AQU pmax pmax
comp=Z,63nm,1.0s,mb5.5
AQU L'Aquila 80.69 312 P P 15 18 45.7 +0.4
comp=Z,63nm,1.0s,mb5.5
BSD Bornholm Skovb 80.84 325 i P P 15 18 51.1 +5.3
BSD pmax pmax
comp=Z,60nm,1.0s,mb5.5
BSD Bornholm Skovb 80.84 325 i P P 15 18 51.1 +5.3
comp=Z,60nm,1.0s,mb5.5
GERES GERESS Array B 80.95 319 P P 15 18 46.9 +0.3
comp=Z,10nm,0.8s,mb4.8,baz=104,slow=5.5,SNR=53
BRG Berggiesshubel 80.97 321 i P P 15 18 47.2 +0.6
BRG i pP 15 18 52.8 +0.4
BRG pmax pmax
comp=Z,526nm,1.1s,mb6.4
BRG Berggiesshubel 80.97 321 i P P 15 18 47.2 +0.6
comp=Z,526nm,1.1s,mb6.4
BRG i pP 15 18 52.8 +0.4
PTCC Patocco-Chiusa 80.99 316 eP P 15 18 47.4 +0.6
SMY Shemya 81.04 37 PFAKE 15 19 00.0 +13
SMY LR LR
comp=Z,9µm,22.0s,MS6.1
KHC Kasperske Hory 81.06 319 eP P 15 18 46.4 -0.7
KHC AMS AMS 16 00 40.0
comp=Z,4µm,20.9s
ARV Arcevia 81.09 313 eP P 15 18 43.4 -4.0
MNS Montasola 81.22 312 eP P 15 18 48.1 0.0
FSSB Fossombrone 81.22 313 eP P 15 18 49.2 +1.2
RUE Ruedersdorf 81.23 322 eP P 15 18 48.5 +0.6
comp=Z,104nm,1.1s,mb5.7
RUE epP pP 15 18 53.8 +0.2
SYO Syowa Base 81.39 197 ⇑P P 15 18 49.0 +0.6
SYO Syowa Base 81.39 197 ⇑P sP 15 19 01.0 +4.9
FVI Forni Avoltri 81.40 316 eP P 15 18 49.9 +1.0
CLL Collm 81.60 321 i P P 15 18 49.8 -0.1
CLL i pP 15 18 55.2 -0.4
CLL pmax pmax
comp=Z,21nm,1.2s,mb4.9
CLL MLR MLR
comp=Z,4µm,18.2s,MS5.8
CLL Collm 81.60 321 i P P 15 18 49.8 -0.1
comp=Z,21nm,1.2s,mb4.9
CLL i pP 15 18 55.2 -0.4
CLL LR LR
comp=Z,4µm,18.2s,MS5.8
CLL Collm 81.60 321 P P 15 18 49.8 -0.1
comp=Z,logA/T=1.2,mb4.9
CLL i *PP pP 15 18 55.2 -0.4
CLL ePP PP 15 22 07.0 +8.2
NKC Novy Kostel 81.87 320 eP P 15 18 51.9 +0.6
NKC AMS AMS 16 09 00.0
comp=Z,4µm,17.8s
SFI Santa Sofia 81.91 314 eP P 15 18 53.5 +1.9
PGD Poggio Sodo 82.00 314 eP P 15 18 54.0 +1.9
VMG Vicchio 82.13 314 eP P 15 18 55.1 +2.4
CTI Castel Tesino 82.15 316 eP P 15 18 54.0 +1.1
WTTA Wattenberg 82.22 317⇑iP P 15 18 53.5 +0.3
comp=Z,56nm,1.0s,mb5.5
SEI Scarperia 82.27 314 eP P 15 18 55.2 +1.7
WATA Walderalm 82.27 317⇑iP P 15 18 53.3 -0.1
comp=Z,39nm,1.1s,mb5.2
MOX Moxa 82.43 320 eP P 15 18 55.0 +0.8
MOX Moxa 82.43 320 i P P 15 18 55.0 +0.8
SQTA Sankt Quirin 82.51 317⇑iP P 15 18 55.2 +0.5
comp=Z,36nm,1.0s,mb5.4
MOTA Moosalm 82.59 317⇑iP P 15 18 55.5 +0.4
comp=Z,22nm,0.9s,mb5.2
GRA1 Grafenberg Arr 82.63 319 eP P 15 18 55.9 +0.6
comp=Z,71nm,1.1s,mb5.6
GRA1 epP pP 15 19 01.4 +0.4
GRF Grafenberg Arr 82.63 319 eP P 15 18 55.9 +0.6
GRF e*PP pP 15 19 01.4 +0.4
GRF pmax pmax
comp=Z,71nm,1.1s,mb5.6
GRF Grafenberg Arr 82.63 319 eP P 15 18 55.9 +0.6
comp=Z,71nm,1.1s,mb5.6
GRF epP pP 15 19 01.4 +0.4
BRMO Bormio 83.06 316 eP P 15 18 58.4 +0.9
RPZ Rata Peaks 83.11 135 P P 15 18 58.3 +0.4
comp=Z,10nm,0.9s,mb4.8,baz=333,slow=2.3,SNR=2.5
RPZ LR LR 15 53 57.3
comp=Z,6µm,20.8s,MS5.9,baz=293,slow=34
NB2 NORSAR Subarra 83.38 331 P P 15 18 58.2 -0.7
comp=Z,42nm,1.1s,mb5.4,baz=94,slow=5.3
NB2 NORSAR Subarra 83.38 331 P P 15 18 58.2 -0.7
baz=94,slow=5.3
NOA NORSAR Array B 83.38 331 P P 15 18 58.9 +0.1
comp=Z,15nm,0.9s,mb5.0,baz=94,slow=5.5,SNR=11
NOA PP PP 15 22 01.3 -11
comp=Z,1.3nm,0.7s,baz=89,slow=6.3,SNR=3.5
NOA LR LR 15 59 49.5
comp=Z,4µm,20.7s,MS5.7,baz=70,slow=38
DAVA Damuels 83.42 317⇓iP P 15 19 00.4 +1.0
comp=Z,78nm,1.2s,mb5.6
NAO01 NORSAR Array S 83.52 331 eP P 15 18 59.4 -0.3
comp=Z,28nm,1.0s,mb5.3
NAO01 LR LR
comp=Z,5µm,21.0s,MS5.9
STU Stuttgart 83.92 318 P P 15 19 01.7 -0.2
STU pmax pmax
comp=Z,92nm,1.6s,mb5.7
STU Stuttgart 83.92 318 P P 15 19 01.7 -0.2
comp=Z,92nm,1.6s,mb5.7
PGF Pioggiola 83.95 312 eP P 15 19 01.0 -1.2
comp=Z,61nm,1.0s,mb5.4
KONO Kongsberg 84.09 329 PFAKE 15 19 10.0 +7.5
KONO LR LR
comp=Z,4µm,20.0s,MS5.8
MUD Monsted U'grnd 84.18 326 eP P 15 19 06.7 +3.7
MUD pmax pmax
comp=Z,29nm,0.9s,mb5.4
MUD Monsted U'grnd 84.18 326 eP P 15 19 06.7 +3.7
comp=Z,29nm,0.9s,mb5.4
MUD Monsted U'grnd 84.18 326 i P P 15 19 06.7 +3.7
comp=Z,29nm,0.9s,mb5.4
SPAK Spaichingen 84.18 318 eP P 15 19 03.9 +0.7
FELD Feldberg 84.70 318 eP P 15 19 06.9 +1.0
LANF Langenberg 84.84 319 eP P 15 19 06.4 -0.1
LIBD Limburg 84.97 318 eP P 15 19 07.1 -0.1
ABH Alteburg 85.01 320 eP P 15 19 06.2 -1.2
SBF Sospel 85.09 314 eP P 15 19 06.6 -1.3
comp=Z,72nm,0.8s,mb5.6
AUTN L'Aution 85.10 314 eP P 15 19 09.5 +1.6
CDF Champ du Feu 85.19 318 eP P 15 19 07.0 -1.3
comp=Z,60nm,1.3s,mb5.3
ECH Echery 85.27 318 eP P 15 19 08.1 -0.6
MOF Molkenrain 85.29 318 eP P 15 19 08.3 -0.5
MBDF Montbardon 85.56 314 eP P 15 19 08.7 -1.5
comp=Z,73nm,1.3s,mb5.5
LPG La Plagne 85.57 315 eP P 15 19 08.9 -1.3
comp=Z,79nm,1.1s,mb5.6
HAU Haudompre 85.81 318 eP P 15 19 09.9 -1.5
comp=Z,92nm,1.2s,mb5.6
WLF Walferdange 85.92 319 eP P 15 19 10.8 -1.1
WLF pmax pmax
comp=Z,75nm,1.5s,mb5.7
WLF Walferdange 85.92 319 eP P 15 19 10.8 -1.1
comp=Z,75nm,1.5s,mb5.7
THEF They Montfort 86.05 318 eP P 15 19 12.3 -0.3
URZ Urewera 86.75 128 LR LR 15 58 32.3
comp=Z,6µm,18.7s,MS6.0,baz=101,slow=36
MIDW Midway 86.99 62 PFAKE 15 19 30.0 +12
MIDW LR LR
comp=Z,5µm,21.0s,MS5.9
BAIF Baives 87.17 320 eP P 15 19 17.4 -0.6
comp=Z,88nm,1.3s,mb5.5
PLDF La Plantade 87.75 316 eP P 15 19 22.1 +1.2
SSF Saint Saulge 87.77 317 eP P 15 19 20.2 -0.8
comp=Z,59nm,1.3s,mb5.3
LBL Lubilhac 88.05 315 eP P 15 19 24.0 +1.7
AGO Saint Agoulin 88.08 316 eP P 15 19 26.1 +3.6
PYM Petit Puy Mans 88.18 316 eP P 15 19 25.4 +2.4
BGF Bois d'Agland 88.25 316 eP P 15 19 22.1 -1.2
comp=Z,34nm,0.9s,mb5.3
VNDA Vanda 88.82 168 P P 15 19 25.9 +0.6
comp=Z,5.2nm,1.2s,mb4.7,baz=345,slow=8.0,SNR=3.0
VNDA LR LR 15 54 41.2
comp=Z,4µm,19.1s,MS5.8,baz=294,slow=32
RJF Les Rejaudoux 89.26 315 eP P 15 19 26.4 -1.7
comp=Z,154nm,1.8s,mb5.7
SBA Scott Base 89.93 168 PFAKE 15 19 40.0 +9.4
SBA LR LR
comp=Z,3µm,20.0s,MS5.8
RAO Raoul Island 89.99 119 PFAKE 15 19 40.0 +8.0
RAO LR LR
comp=Z,6µm,19.0s,MS6.1
FLN La Foliniere 90.31 319 eP P 15 19 31.3 -1.7
comp=Z,165nm,1.5s,mb5.8
ETSF Etsaut 90.97 313 eP P 15 19 34.8 -1.3
comp=Z,60nm,1.3s,mb5.5
ESK Eskdalemuir 91.19 325 PFAKE 15 19 50.0 +13
ESK LR LR
comp=Z,964nm,20.0s,MS5.2
UNV Unalaska Valle 92.61 36 PFAKE 15 20 00.0 +17
UNV LR LR
comp=Z,14µm,21.0s,MS6.4
QSPA South Pole Qui 93.58 180 PFAKE 15 20 00.0 +13
QSPA LR LR
comp=Z,16µm,20.0s,MS6.5
ESDC Sonseca Array 93.90 310 P P 15 19 50.0 +0.3
comp=Z,2.4nm,0.8s,mb4.7,baz=56,slow=4.2,SNR=5.1
ESLA Sonseca Array 93.90 310 PFAKE 15 20 00.0 +10
ESLA LR LR
comp=Z,14µm,19.0s,MS6.4
AFI Afiamalu 94.85 104 PFAKE 15 20 10.0 +15
AFI LR LR
comp=Z,2µm,19.0s,MS5.6
IMA Indian Mountai 95.52 22 P P 15 19 58.0 +1.5
IMA pmax pmax
comp=Z,210nm,1.6s,mb6.3
IMA Indian Mountai 95.52 22 eP P 15 19 57.6 +1.1
comp=Z,213nm,1.6s,mb6.3
IMA epP pP 15 20 04.3 +2.0
SNAA Sanae 95.63 198 P P 15 19 58.2 +1.3
comp=Z,0.7nm,1.1s,baz=111,slow=17,SNR=2.5
BORG Borgarnes 97.28 337 PFAKE 15 20 20.0 +16
BORG LR LR
comp=Z,1µm,19.0s,MS5.4
COLA College 98.23 22 PFAKE 15 20 20.0 +11
COLA LR LR
comp=Z,4µm,19.0s,MS6.0
DBIC Dimbokro 98.47 277 PFAKE 15 20 20.0 +9.0
DBIC LR LR
comp=Z,4µm,21.0s,MS5.9
ILAR Eielson Array 98.64 22 P P 15 20 12.8 +2.1
comp=Z,0.7nm,0.9s,baz=333,slow=4.9,SNR=5.5
ILAR PP PP 15 23 52.1 -22
comp=Z,4.2nm,1.3s,baz=295,slow=5.4,SNR=4.6
ILAR LR LR 16 07 40.9
comp=Z,5µm,22.0s,baz=136,slow=37
FIB Fire Island 98.89 26 PFAKE 15 20 20.0 +8.2
FIB LR LR
comp=Z,3µm,20.0s,MS5.8
KDAK Kodiak Island 99.10 30 PFAKE 15 20 20.0 +7.2
KDAK LR LR
comp=Z,1µm,20.0s,MS5.5
DIV Divide 100.82 25 PFAKE 15 20 30.0 +9.4
DIV LR LR
comp=Z,24µm,19.0s,MS6.7
INK Inuvik 101.03 16 P P 15 20 23.1 +1.7
comp=Z,9.6nm,1.4s,baz=309,slow=4.3,SNR=2.7
TRIS Tristan da Cun 105.29 233 PFAKE 15 25 10.0
TRIS LR LR
comp=Z,4µm,20.0s,MS6.0
SIT Sitka 107.56 26 PFAKE 15 25 10.0
SIT LR LR
comp=Z,6µm,19.0s,MS6.2
YKA Yellowknife Ar 110.51 14 Pdiff Pdif 15 21 10.6 +7.2
comp=Z,0.5nm,0.9s,baz=331,slow=3.4,SNR=3.6
YKA PP PP 15 25 37.9 -5.4
comp=Z,0.8nm,0.8s,baz=331,slow=6.4,SNR=5.0
YKA PKKPbc 15 36 04.7
comp=Z,0.2nm,0.7s,baz=157,slow=3.9,SNR=3.9
YKA Yellowknife Ar 110.51 14 Pdif Pdif 15 21 10.6 +7.2
YKA PP PP 15 25 37.9 -5.4
YKA PKKPbc 15 36 04.7
PMSA Palmer Station 117.01 190 PFAKE 15 25 30.0 +11
PMSA LR LR
comp=Z,5µm,20.0s,MS6.1
OCWA Octopus Mounta 118.81 29 PFAKE 15 25 30.0 +6.9
OCWA LR LR
comp=Z,4µm,21.0s,MS6.1
SCHQ Schefferville 119.62 347 PFAKE 15 25 30.0 +5.6
SCHQ LR LR
comp=Z,4µm,19.0s,MS6.0
COR Corvallis 121.48 31 PFAKE 15 25 40.0 +12
COR LR LR
comp=Z,5µm,22.0s,MS6.1
NEW Newport 121.55 24 PFAKE 15 25 40.0 +12
NEW LR LR
comp=Z,8µm,20.0s,MS6.4
HUMO Hull Mountain 123.04 32 PFAKE 15 25 40.0 +8.7
HUMO LR LR
comp=Z,3µm,19.0s,MS5.9
YBH Yreka Blue Hor 123.78 33 PFAKE 15 25 40.0 +7.1
YBH LR LR
comp=Z,3µm,19.0s,MS6.0
MSO Missoula 123.97 23 PFAKE 15 25 40.0 +6.9
MSO LR LR
comp=Z,3µm,20.0s,MS6.0
BMO Blue Mountains 124.15 27 PFAKE 15 25 40.0 +6.5
BMO LR LR
comp=Z,5µm,22.0s,MS6.1
WDC Whiskeytown Da 124.67 34 PFAKE 15 25 40.0 +5.3
WDC LR LR
comp=Z,4µm,20.0s,MS6.0
HRY Holter Researc 124.87 22 PKP PKPdf 15 25 33.2 -1.6
MOD Modoc 124.93 31 PFAKE 15 25 40.0 +4.9
MOD LR LR
comp=Z,4µm,19.0s,MS6.1
HOPS Hopland 125.45 35 PFAKE 15 25 50.0 +14
HOPS LR LR
comp=Z,3µm,20.0s,MS6.0
ULM Lac du Bonnet 125.63 8 PKhKP 15 25 27.8
comp=Z,1.3nm,0.8s,baz=356,slow=4.1,SNR=3.0
ULM PKP PKPdf 15 25 34.0 -2.2
comp=Z,4.2nm,0.9s,baz=334,slow=6.4,SNR=4.8
ULM Lac du Bonnet 125.63 8 PKP 15 25 27.8
ULM PKP PKPdf 15 25 34.0 -2.2
ULM LR LR
comp=Z,10µm,20.0s,MS6.5
DGMT Dagmar 125.69 15 PFAKE 15 25 50.0 +14
DGMT LR LR
comp=Z,6µm,22.0s,MS6.2
BOZ Bozeman (W) 125.84 22 PFAKE 15 25 50.0 +13
BOZ LR LR
comp=Z,9µm,19.0s,MS6.5
HLID Hailey 126.44 26 PFAKE 15 25 50.0 +12
HLID LR LR
comp=Z,4µm,20.0s,MS6.1
LAO LASA Array 126.75 17 ePKPdf PKPdf 15 25 37.6 -0.8
LAO LR LR
comp=Z,7µm,20.0s,MS6.3
EFI East Falkland 126.80 201 PFAKE 15 25 50.0 +12
EFI LR LR
comp=Z,1µm,22.0s,MS5.5
LKWY Lake 127.22 22 PFAKE 15 25 50.0 +11
LKWY LR LR
comp=Z,10µm,20.0s,MS6.5
PQI Presque Isle 127.46 345 PFAKE 15 25 50.0 +10
PQI LR LR
comp=Z,18µm,19.0s,MS6.8
BMN Battle Mountai 127.58 30 PFAKE 15 25 50.0 +10
BMN LR LR
comp=Z,2µm,22.0s,MS5.8
IMW Indian Meadow 127.58 23 ePKP PKPdf 15 25 38.6 -1.6
CMB Columbia Colle 127.64 34 PFAKE 15 25 50.0 +10
CMB LR LR
comp=Z,3µm,20.0s,MS6.0
SAO San Andreas Ge 127.90 36 PFAKE 15 25 50.0 +9.0
SAO LR LR
comp=Z,2µm,20.0s,MS5.8
ELK Elko 128.31 28 PFAKE 15 25 50.0 +8.3
ELK LR LR
comp=Z,5µm,22.0s,MS6.2
EYMN Ely 128.39 5 PFAKE 15 25 50.0 +8.4
EYMN LR LR
comp=Z,5µm,22.0s,MS6.2
AHID Auburn Hatcher 128.47 24 PFAKE 15 25 50.0 +8.1
AHID LR LR
comp=Z,7µm,20.0s,MS6.4
NVAR Mina Array Bea 128.50 33 PKP PKPdf 15 25 40.7 -1.4
comp=Z,2.2nm,0.8s,baz=293,slow=1.8,SNR=11
MNV Mina 128.58 32 PFAKE 15 25 50.0 +7.7
MNV LR LR
comp=Z,2µm,20.0s,MS5.9
BW06 Boulder Array 129.07 22 PFAKE 15 25 50.0 +6.9
BW06 LR LR
comp=Z,5µm,19.0s,MS6.3
PDAR Pinedale Array 129.07 22 PKP PKPdf 15 25 40.9 -2.2
comp=Z,4.3nm,1.1s,baz=270,slow=1.5,SNR=16

HWUT	**Hardware Ranch**	**129.25**	**25**	PFAKE		15 25 50.0	+6.5
HWUT				LR	LR		
	comp=Z,5μm,19.0s,MS6.2						
TPH	**Tonopah**	**129.34**	**32**	PFAKE		15 25 50.0	+6.3
TPH				LR	LR		
	comp=Z,3μm,21.0s,MS5.9						
WVL	**Waterville**	**129.85**	**345**	PFAKE		15 25 50.0	+5.5
WVL				LR	LR		
	comp=Z,14μm,21.0s,MS6.6						
RCBR	**Riachuelo**	**130.15**	**265**	PFAKE		15 25 50.0	+4.1
RCBR				LR	LR		
	comp=Z,4μm,21.0s,MS6.1						
DAC	**Darwin (Calif)**	**130.46**	**34**	PFAKE		15 26 00.0	+14
DAC				LR	LR		
	comp=Z,2μm,20.0s,MS5.8						
TPNV	**Topopah Spring**	**130.69**	**32**	PFAKE		15 26 00.0	+14
TPNV				LR	LR		
	comp=Z,3μm,21.0s,MS6.0						
SADO	**Sadowa**	**131.42**	**354**	PKP	PKPdf	15 25 45.1	-2.4
	comp=Z,10.0nm,0.9s,baz=162,slow=6.7,SNR=4.3						
NCB	**Newcomb**	**131.45**	**349**	PFAKE		15 26 00.0	+12
NCB				LR	LR		
	comp=Z,3μm,20.0s,MS6.0						
MVU	**Marysvale**	**131.50**	**28**	PFAKE		15 26 00.0	+12
MVU				LR	LR		
	comp=Z,3μm,22.0s,MS6.0						
MSU	**Marysvale**	**131.51**	**28**	PKIKP	PKPdf	15 25 47.3	-0.5
MSU	**Marysvale**	**131.51**	**28**	*e*PKPdf	PKPdf	15 25 46.1	-1.7
HRV	**Harvard--Oak R**	**132.26**	**346**	PFAKE		15 26 00.0	+11
HRV				LR	LR		
	comp=Z,3μm,21.0s,MS6.0						
WES	**Weston**	**132.31**	**345**	PFAKE		15 26 00.0	+11
WES				LR	LR		
	comp=Z,4μm,20.0s,MS6.1						
NEN	**Nelson**	**132.42**	**32**	*e*PKPdf	PKPdf	15 25 48.4	-1.3
PV10	**Paradox Valley**	**133.01**	**25**	*e*PKPdf	PKPdf	15 25 49.2	-1.5
PFO	**Pinyon Flat Ob**	**133.03**	**35**	PFAKE		15 26 00.0	+9.2
PFO				LR	LR		
	comp=Z,654nm,21.0s,MS5.3						
ISCO	**Idaho Springs**	**133.11**	**21**	PFAKE		15 26 00.0	+9.2
ISCO				LR	LR		
	comp=Z,6μm,21.0s,MS6.3						
JFWS	**Jewell Farm**	**133.49**	**4**	PFAKE		15 26 00.0	+8.6
JFWS				LR	LR		
	comp=Z,5μm,20.0s,MS6.3						
BINY	**Binghamton**	**133.49**	**350**	PFAKE		15 26 00.0	+8.6
BINY				LR	LR		
	comp=Z,5μm,20.0s,MS6.2						
ERPA	**Erie**	**134.13**	**354**	PFAKE		15 26 00.0	+7.4
ERPA				LR	LR		
	comp=Z,6μm,20.0s,MS6.3						
AAM	**Ann Arbor**	**134.22**	**358**	PFAKE		15 26 00.0	+7.3
AAM				LR	LR		
	comp=Z,4μm,19.0s,MS6.2						
SDCO	**Great Sand Dun**	**134.97**	**22**	PFAKE		15 26 00.0	+5.7
SDCO				LR	LR		
	comp=Z,7μm,21.0s,MS6.4						
SSPA	**Standing Stone**	**135.32**	**351**	PFAKE		15 26 00.0	+5.1
SSPA				LR	LR		
	comp=Z,5μm,20.0s,MS6.2						
ACSO	**Alum Creek Sta**	**136.25**	**357**	PFAKE		15 26 10.0	+13
ACSO				LR	LR		
	comp=Z,5μm,22.0s,MS6.2						
MCWV	**Mont Chateau**	**136.55**	**353**	PFAKE		15 26 10.0	+13
MCWV				LR	LR		
	comp=Z,5μm,20.0s,MS6.2						
ANMO	**Albuquerque**	**137.01**	**25**	PKP	PKPdf	15 25 56.5	-1.5
	comp=Z,3.7nm,0.9s,baz=194,slow=0.6,SNR=10						
ANMO	**Albuquerque**	**137.01**	**25**	PKP	PKPdf	15 25 56.5	-1.5
ANMO				LR	LR		
	comp=Z,5μm,19.0s,MS6.3						
TUC	**Tucson**	**137.13**	**32**	PKIKP	PKPdf	15 26 03.2	+4.8
TUC	**Tucson**	**137.13**	**32**	PKPdf	PKPdf	15 25 56.6	-1.7
TUC				LR	LR		
	comp=Z,3μm,20.0s,MS6.1						
CBN	**Corbin**	**137.62**	**350**	PFAKE		15 26 10.0	+11
CBN				LR	LR		
	comp=Z,9μm,20.0s,MS6.5						
CCM	**Cathedral Cave**	**138.21**	**6**	PFAKE		15 26 10.0	+10
CCM				LR	LR		
	comp=Z,4μm,19.0s,MS6.2						
WCI	**Wyandotte Cave**	**138.33**	**0**	PFAKE		15 26 10.0	+10
WCI				LR	LR		
	comp=Z,4μm,20.0s,MS6.2						
AMTX	**Amarillo**	**138.90**	**20**	PFAKE		15 26 10.0	+8.4
AMTX				LR	LR		
	comp=Z,7μm,21.0s,MS6.4						
BBSR	**BB Station**	**138.91**	**332**	PFAKE		15 26 10.0	+8.3
BBSR				LR	LR		
	comp=Z,3μm,20.0s,MS6.0						
BLA	**Blacksburg**	**139.03**	**353**	PFAKE		15 26 10.0	+8.2
BLA				LR	LR		
	comp=Z,6μm,20.0s,MS6.3						
TRQA	**Tornquist**	**139.38**	**209**	PFAKE		15 26 10.0	+7.6
TRQA				LR	LR		
	comp=Z,5μm,20.0s,MS6.3						
LPA	**La Plata**	**139.51**	**216**	*ce*P	Pdif	15 23 15.0	+3.3
LPA				PKIKP	PKPdf	15 26 02.0	-0.7
	comp=Z,4μm,18.0s						
WMOK	**Wichita Mounta**	**139.94**	**17**	PFAKE		15 26 10.0	+6.5
WMOK				LR	LR		
	comp=Z,5μm,21.0s,MS6.2						
GLAT	**Glass**	**140.16**	**4**	PKPpre		15 25 51.5	
MNTX	**Cornudas Mount**	**140.25**	**26**	*e*PKPpre		15 25 58.8	
MNTX				LR	LR		
	comp=Z,5μm,19.0s,MS6.3						
WVT	**Waverly**	**140.39**	**2**	PFAKE		15 26 10.0	+5.8
WVT				LR	LR		
	comp=Z,5μm,21.0s,MS6.2						
BAO	**Brasilia Array**	**140.87**	**250**	PKP		15 26 00.5	
BDFB	**Brasilia**	**140.89**	**250**	PKhKP		15 25 57.6	
	comp=Z,3.0nm,1.0s,baz=56,slow=7.3,SNR=3.4						
MIAR	**Mount Ida**	**141.33**	**10**	PFAKE		15 26 20.0	+14
MIAR				LR	LR		
	comp=Z,6μm,20.0s,MS6.4						
MYNC	**Murphy**	**141.45**	**358**	PFAKE		15 26 20.0	+14
MYNC				LR	LR		
	comp=Z,6μm,20.0s,MS6.4						
OXF	**Oxford**	**141.90**	**5**	PFAKE		15 26 20.0	+13
OXF				LR	LR		
	comp=Z,5μm,20.0s,MS6.3						
LTX	**Lajitas**	**143.04**	**26**	*e*PKIKP	PKPdf	15 26 10.7	+1.6
LTX				*e*		15 26 25.3	
LTX	**Lajitas**	**143.04**	**26**	PFAKE		15 26 20.0	+17
LTX				LR	LR		
	comp=Z,4μm,21.0s,MS6.2						
TXAR	**Lajitas Array**	**143.04**	**26**	PKhKP		15 26 03.0	
	comp=Z,7.1nm,1.3s,baz=270,slow=2.5,SNR=10						
TXAR	**Lajitas Array**	**143.04**	**26**	PKP		15 26 03.0	
NHSC	**New Hope**	**143.05**	**352**	PFAKE		15 26 20.0	+17
NHSC				LR	LR		
	comp=Z,6μm,19.0s,MS6.4						
GOGA	**Godfrey**	**143.07**	**357**	PFAKE		15 26 20.0	+17
GOGA				LR	LR		
	comp=Z,5μm,20.0s,MS6.3						
LRAL	**Lakeview Retre**	**143.50**	**2**	PFAKE		15 26 20.0	+16
LRAL				LR	LR		
	comp=Z,5μm,20.0s,MS6.2						
JCT	**Junction City**	**143.55**	**20**	*e*PKPpre		15 26 04.2	
JCT				LR	LR		
	comp=Z,3μm,20.0s,MS6.1						
NATX	**Nacogdoches**	**143.81**	**13**	*e*PKPpre		15 26 05.5	
NATX				LR	LR		
	comp=Z,6μm,21.0s,MS6.3						
HKT	**Hockley**	**145.26**	**15**	PKIKP	PKPdf	15 26 11.5	-1.4
HKT	**Hockley**	**145.26**	**15**	*e*PKPdf	PKPdf	15 26 10.4	-2.5
HKT				LR	LR		
	comp=Z,4μm,20.0s,MS6.2						
FCH	**Farellones**	**147.07**	**204**	⇑*i*P	PKPdf	15 26 19.5	+3.6
RPN	**Rapa Nui**	**147.64**	**139**	PFAKE		15 26 30.0	+13
RPN				LR	LR		
	comp=Z,778nm,20.0s,MS5.5						
DWPF	**Disney**	**148.13**	**353**	PFAKE		15 26 30.0	+12
DWPF				LR	LR		
	comp=Z,8μm,20.0s,MS6.5						
SJG	**San Juan**	**150.91**	**319**	PKPbc	PKPdf	15 26 26.2	+3.8
	comp=Z,12nm,0.8s,baz=7.9,slow=5.9,SNR=2.8						
SJG	**San Juan**	**150.91**	**319**	PKPbc	PKPdf	15 26 26.2	+3.8
SJG				LR	LR		
	comp=Z,3μm,22.0s,MS6.0						
PCRV	**Puerto La Cruz**	**154.77**	**303**	PKPbc	PKPdf	15 26 33.7	+5.8
	baz=34,slow=7.3						
LVC	**Limon Verde**	**154.98**	**220**	PKPbc	PKPdf	15 26 33.3	+5.3
	comp=Z,1.7nm,0.8s,baz=279,slow=4.6,SNR=2.9						
LVC				PKPab	PKPab	15 26 50.4	-0.4
	comp=Z,6.5nm,0.9s,baz=110,slow=7.1,SNR=5.9						
LVC	**Limon Verde**	**154.98**	**220**	*e*PKPbc	PKPdf	15 26 35.1	+7.1
LVC				PKPab	PKPab	15 26 50.2	-0.6
LVC				LR	LR		
	comp=Z,3μm,20.0s,MS6.1						
TEIG	**Tepich**	**156.16**	**6**	PFAKE		15 26 40.0	+10
TEIG				LR	LR		
	comp=Z,2μm,22.0s,MS5.8						
LPAZ	**La Paz**	**158.50**	**233**	PKP	PKPdf	15 26 30.0	-2.7
	comp=Z,5.0nm,1.2s,baz=5.9,slow=4.1,SNR=6.2						
LPAZ				PKPab	PKPab	15 27 06.4	+0.3
	comp=Z,2.0nm,0.6s,baz=81,slow=3.7,SNR=4.2						
LPAZ	**La Paz**	**158.50**	**233**	PKP	PKPdf	15 26 30.0	-2.7
LPAZ				PKPab	PKPab	15 27 06.4	+0.3
LPAZ				LR	LR		
	comp=Z,4μm,19.0s,MS6.3						
SDV	**Santo Domingo**	**160.34**	**309**	PKP	PKPdf	15 26 31.7	-3.2
	comp=Z,0.8nm,0.5s,baz=129,slow=7.4,SNR=1.6						
SDV				PKPab	PKPab	15 27 13.2	-0.9
	comp=Z,3.4nm,0.8s,baz=47,slow=4.9,SNR=3.0						
SDV	**Santo Domingo**	**160.34**	**309**	PKP	PKPdf	15 26 31.7	-3.2
SDV				PKPab	PKPab	15 27 13.2	-0.9
SDV				*e*PKPab	PKPab	15 27 13.5	-0.6
SDV				LR	LR		
	comp=Z,3μm,20.0s						
ROSC	**El Rosal**	**165.69**	**306**	PKP	PKPdf	15 26 38.1	-2.1
	comp=Z,3.3nm,0.4s,baz=293,slow=20,SNR=3.9						
JTS	**JuntasAbangare**	**166.12**	**356**	PFAKE		15 26 50.0	+10
JTS				LR	LR		
	comp=Z,1μm,21.0s						
NNA	**Nana**	**167.80**	**227**	PFAKE		15 26 50.0	+8.4
NNA				LR	LR		
	comp=Z,943nm,19.0s						
PAYG	**Puerto Ayora**	**174.71**	**56**	PFAKE		15 26 50.0	+4.8
PAYG				LR	LR		
	comp=Z,3μm,21.0s						

*IDC **26** 15:12:18.3±0.4, 6.76N×93.00E, mb5.0/33, mb1 5.1/34, mb1mx5.1/35, MS5.9/2, Ms1 5.9/2, ms1mx4.5/32, Error ellipse: s-maj=15.9km s-min=9.9km az=42.0*

*BJI **26** 15:12:19.9, 6.42N×92.96E, h32^{km}, mB5.9, mb5.1, Ms6.3, Msz6.1*

*MOS **26** 15:12:21.7±1.1, 6.69N×93.11E, h33^{km}, mb5.6/28, Error ellipse: s-maj=12.8km s-min=7.2km az=115.5*

*NEIC **26** 15:12:21.6±3.2, 6.73N×92.98E, h19^{km}±19^{km}, mb5.3/56, Error ellipse: s-maj=7.5km s-min=5.7km az=216.0*

*SYO **26** 15:12:22.6, 6.70N×92.99E, h20^{km}, MB5.5*

ISC 26 15:12:19.6±0.2**, 6.62N**±0.04×**92.99E**±0.03**, h18**^{km}**, h18**^{km}±1.3^{km}**:pP-P, n258,** σ1^{s}**16**/229**, mb5.3**/106**, MS6.0**/12**, 11C-11D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	**Pallekele**	**12.22**	**274**	*e*P	**P**	**15 15 13.0**	**-2.8**
	104nm,0.8s						
CM31	**Chiang Mai Arr**	**13.12**	**26**	P	**P**	**15 15 29.6**	**+1.7**
	204nm,1.0s						
CMAR	**Chiang Mai Arr**	**13.12**	**26**	Pn	**P**	**15 15 25.8**	**-2.1**
	baz=219,slow=13,SNR=3.2						
MDRS	**Chennai**	**14.10**	**298**	*e*P	**P**	**15 15 39.5**	**-1.3**
MDRS				*e*S	S	15 17 57.4	-20
VIS	**Vishakhapatnam**	**14.52**	**320**	*e*P	**P**	**15 15 44.3**	**-2.1**
VIS				*e*		15 15 59.2	
	comp=Z,497nm,1.2s						
TRD	**Trivandrum**	**16.00**	**278**	*e*P	**P**	**15 16 07.4**	**+1.7**
TRD				*e*		15 16 20.3	
	comp=Z,265nm,1.6s						
HYB	**Hyderabad**	**17.72**	**309**	*e*P	**P**	**15 16 29.0**	**+1.7**
	comp=Z,120nm,1.0s						
HYB				*e*S	**S**	**15 19 31.0**	**-11**
HYB	**Hyderabad**	**17.72**	**309**	*i* P	**P**	**15 16 29.0**	**+1.7**
HYB				*e*S	**S**	**15 19 31.0**	**-11**
BOK	**Bokaro**	**18.39**	**339**	*e*P	**P**	**15 16 37.7**	**+2.0**
BOK				*e*		15 16 50.3	
	comp=Z,263nm,1.1s						
BLSP	**Bilaspur**	**18.65**	**327**	*e*P	**P**	**15 16 37.6**	**-1.2**
BLSP				*e*		15 16 44.2	
	comp=Z,306nm,1.4s						
SHL	**Shillong**	**18.87**	**357**	*e*P	**P**	**15 16 43.9**	**+2.4**
SHL				*e*		15 16 47.3	
	comp=Z,208nm,1.5s						
COCO	**West Island**	**19.07**	**168**	*e*P	**P**	**15 16 45.8**	**+1.9**
	comp=Z,614nm,1.4s						
QIZ	**Qiongzhong**	**20.52**	**51**	P	**P**	**15 17 00.0**	**+0.3**
QIZ	**Qiongzhong**	**20.52**	**51**	*e*P	**P**	**15 16 59.8**	**0.0**
	comp=Z,517nm,1.1s						
KMI	**Kunming**	**20.63**	**26**	P	**P**	**15 17 01.8**	**+0.9**
KMI				AMB	AMB		
	comp=Z,182nm,1.2s						
GOA	**Goa**	**20.76**	**297**	*e*	**P**	**15 17 07.9**	**+5.7**
GOA				*e*		15 17 23.9	
	comp=Z,215nm,1.3s						
AKL	**Akola**	**20.88**	**314**	*e*P	**P**	**15 17 04.2**	**+0.8**
AKL				*e*		15 17 16.8	
	comp=Z,283nm,1.0s						
KAD	**Karad**	**21.22**	**302**	*e*P	**P**	**15 17 07.3**	**+0.3**
KAD				*e*		15 17 13.1	
	comp=Z,180nm,1.8s						
ALBI	**Allahabad**	**21.45**	**331**	*e*P	**P**	**15 17 10.6**	**+1.5**
PKI	**Pulchoki**	**22.05**	**342**	*e*P	**P**	**15 17 17.5**	**+2.3**
	comp=Z,584nm,1.1s,mb5.9						
POO	**Poona**	**22.09**	**304**	*e*P	**P**	**15 17 18.8**	**+3.1**
DMN	**Daman**	**22.18**	**341**	*e*P	**P**	**15 17 19.4**	**+2.9**
GUN	**Gumba**	**22.23**	**343**	*e*P	**P**	**15 17 18.4**	**+1.5**
	comp=Z,2μm,1.7s,mb6.2						
KKN	**Kakani**	**22.29**	**342**	*e*P	**P**	**15 17 19.0**	**+1.4**
	comp=Z,458nm,1.2s,mb5.8						
BHPL	**Bhopal**	**22.31**	**319**	*e*P	**P**	**15 17 17.2**	**-0.6**
BHPL				*e*		15 17 22.1	
	comp=Z,258nm,1.7s						
BHPL				*e*	**S**	**15 21 31.9**	**+15**
GKN	**Gorkha**	**22.70**	**341**	*e*P	**P**	**15 17 23.7**	**+2.0**
	comp=Z,292nm,0.7s,mb5.8						
KOLN	**Koldanda**	**22.85**	**338**	*e*P	**P**	**15 17 27.5**	**+4.3**
	comp=Z,707nm,1.4s,mb5.9						
LSA	**Lhasa**	**23.03**	**356**	P	**P**	**15 17 24.6**	**-0.3**
LSA	**Lhasa**	**23.03**	**356**	P	**P**	**15 17 23.4**	**-1.5**
GYA	**Guiyang**	**23.64**	**32**	P	**P**	**15 17 31.5**	**+0.6**
GYA				AP		15 17 36.8	
GYA				XP		15 17 40.0	
GYA				PP	PP	15 18 06.5	+2.8
GYA				S	**S**	**15 21 45.5**	**+4.4**
GYA				AMB	AMB		
	comp=Z,230nm,1.0s,mb5.6						
GYA				AMB	AMB		
	comp=Z,1μm,4.2s						
GYA				LR	LR		
	comp=N,23μm,15.4s,MS6.0						
GYA				LR	LR		
	comp=E,28μm,16.0s,MS6.0						
GYA				LR	LR		
	comp=Z,34μm,17.2s,MS5.9						
AGRA	**Agra**	**25.00**	**327**	*e*	**P**	**15 17 50.0**	**+6.0**
PTH	**Pithoragarh**	**25.80**	**334**	*e*P	**P**	**15 17 50.2**	**-1.3**
CD2	**Chengdu**	**26.19**	**21**	P	**P**	**15 17 54.3**	**-0.8**
CD2				S	**S**	**15 22 27.8**	**+3.8**
CD2				AMB	AMB		
	comp=Z,230nm,1.1s,mb5.6						
CD2				LR	LR		
	comp=N,39μm,9.6s						
CD2				LR	LR		
	comp=Z,42μm,10.8s,MS6.2						
AJM	**Ajmer**	**26.38**	**321**	*e*P	**P**	**15 17 58.3**	**+1.4**
AJM				*e*	pP	15 18 03.3	+1.0
	comp=Z,74nm,1.3s						
NDI	**New Delhi**	**26.54**	**328**	*e*P	**P**	**15 18 00.8**	**+2.4**
NDI				*e*	pP	15 18 06.9	+3.2
	comp=Z,118nm,1.6s						
KHET	**Khetri**	**26.84**	**325**	*e*P	**P**	**15 18 05.5**	**+4.3**
KHET				*e*		15 18 07.7	
	comp=Z,87nm,1.5s						
DDI	**Dehra Dun**	**27.44**	**331**	*e*P	**P**	**15 18 06.7**	**+0.1**
ENH	**Enshi**	**28.18**	**31**	*e*P	**P**	**15 18 12.1**	**-1.2**
	comp=Z,131nm,1.1s,mb5.5						
KLP	**Kalpa**	**28.36**	**333**	*e*P	**P**	**15 18 14.8**	**-0.2**
KLP				*e*	pP	15 18 21.5	+1.2
	comp=Z,99nm,1.8s						
TGY	**Tagaytay City**	**28.45**	**73**	P	**P**	**15 18 16.5**	**+0.6**
	comp=Z,206nm,0.8s,mb5.8,baz=217,slow=5.1,SNR=6.6						
QZH	**Quanzhou**	**30.54**	**51**	P	**P**	**15 18 35.5**	**+1.1**
TBP	**Tagbilaran**	**30.70**	**82**	*e*P	**P**	**15 18 29.0**	**-6.9**
LZH	**Lanzhou**	**30.97**	**17**	⇑P	**P**	**15 18 38.3**	**+0.2**
LZH				PP	PP	15 19 40.0	-0.2
LZH				*e*S	**S**	**15 23 41.3**	**+0.6**
LZH				AMB	AMB		
	comp=Z,123nm,1.2s,mb5.6						
LZH				AMB	AMB		
	comp=Z,603nm,4.8s						
LZH				LR	LR		
	comp=E,16μm,13.6s						
LZH				LR	LR		
	comp=Z,22μm,15.1s,MS5.9						
WHN	**Wuhan**	**31.12**	**37**	⇓P	**P**	**15 18 39.0**	**-0.5**
GTA	**Gaotai**	**33.22**	**10**	P	**P**	**15 18 58.3**	**+0.5**
GTA				AP	pP	15 19 04.8	+1.6
GTA				XP	sP	15 19 07.0	+1.4
GTA				S	**S**	**15 24 10.8**	**-4.9**
GTA				SCS	ScS	15 29 23.5	+1.7
GTA				AMB	AMB		
	comp=Z,36nm,1.4s,mb5.1						
GTA				AMB	AMB		
	comp=Z,1μm,10.3s						
GTA				LR	LR		
	comp=N,7μm,17.9s,MS5.8						
GTA				LR	LR		
	comp=E,13μm,16.7s,MS5.8						
GTA				LR	LR		
	comp=Z,10μm,17.9s,MS5.6						
NJ2	**Nanjing**	**34.96**	**40**	*e*P	**P**	**15 19 13.8**	**+0.9**
NJ2				AP	pP	15 19 17.5	-0.8
NJ2				PP	PP	15 20 31.5	+0.4
NJ2				S	**S**	**15 24 44.0**	**+1.3**
NJ2				AMB	AMB		
	comp=Z,340nm,1.0s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,240nm,5.4s						
NJ2				LR	LR		
	comp=N,10μm,17.4s,MS5.8						
NJ2				LR	LR		
	comp=E,11μm,16.0s,MS5.8						
NJ2				LR	LR		
	comp=Z,13μm,15.8s,MS5.8						
SSE	**Sheshan**	**35.91**	**44**	*e*P	**P**	**15 19 21.0**	**0.0**
SSE				S	**S**	**15 24 58.3**	**+0.8**
SSE				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.2						
SSE				AMB	AMB		
	comp=Z,1μm,6.6s						
SSE				LR	LR		
	comp=N,9μm,15.0s,MS6.3						
SSE				LR	LR		
	comp=E,37μm,15.1s,MS6.3						
SSE				LR	LR		
	comp=Z,44μm,14.6s,MS6.4						
KSH	**Kashi**	**36.16**	**337**	P	**P**	**15 19 22.8**	**-0.2**
KSH				AP	pP	15 19 28.3	-0.1
KSH				*e*PP	PP	15 20 42.5	-3.2
KSH				*e*PPP	PPP	15 21 03.5	-2.2
KSH				PCP	PcP	15 21 50.0	+1.2
KSH				*e*S	**S**	**15 24 58.0**	**-3.2**
KSH				SCP		15 25 33.0	
KSH				PCS		15 25 35.0	
KSH				SCS	ScS	15 29 38.5	+1.1
KSH				AMB	AMB		
	comp=Z,940nm,4.0s						
KSH				LR	LR		
	comp=N,17μm,15.8s,MS6.0						
KSH				LR	LR		
	comp=E,16μm,15.2s,MS6.0						
WMQ	**Urumqi**	**37.35**	**354**	⇑P	**P**	**15 19 34.3**	**+1.4**
WMQ				AP	pP	15 19 38.8	+0.5
WMQ				XP	sP	15 19 41.3	+0.6
WMQ				PP	PP	15 21 01.5	+0.8
WMQ				PPP	PPP	15 21 22.0	+0.7
WMQ				*e*S	**S**	**15 25 20.5**	**+1.2**
WMQ				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,751nm,8.8s						
WMQ				LR	LR		
	comp=N,8μm,25.6s,MS5.8						
WMQ				LR	LR		
	comp=E,16μm,23.8s,MS5.8						
WMQ				LR	LR		
	comp=Z,8μm,26.6s,MS5.4						
HHC	**Hu-ho-hao-te**	**37.91**	**23**	*e*P	**P**	**15 19 37.3**	**-0.4**
HHC				AMB	AMB		
	comp=Z,35nm,1.2s,mb5.0						
HHC				AMB	AMB		
	comp=Z,1μm,7.3s						
HHC				LR	LR		
	comp=N,14μm,9.5s						
HHC				LR	LR		
	comp=E,13μm,13.1s						
HHC				LR	LR		
	comp=Z,18μm,13.1s,MS6.0						
MBWA	**Marble Bar**	**38.09**	**137**	*e*P	**P**	**15 19 39.9**	**+0.6**
	comp=Z,18nm,0.9s,mb4.8						
UCH	**Uchtor**	**39.06**	**338**	P	**P**	**15 19 48.0**	**+0.7**
	SNR=11						
JOW	**Kunigami**	**39.10**	**55**	P	**P**	**15 19 48.1**	**+0.3**
	comp=Z,109nm,0.9s,mb5.6,baz=267,slow=10,SNR=20						
BJT	**Baijiatuau**	**39.22**	**29**	P	**P**	**15 19 49.3**	**+0.6**
BJT				pmax	pmax		
	comp=Z,120nm,1.0s						
BJT	**Baijiatuau**	**39.22**	**29**	*e*P	**P**	**15 19 48.9**	**+0.2**
	comp=Z,116nm,1.0s,mb5.6						
BJI	**Beijing**	**39.24**	**29**	P	**P**	**15 19 48.8**	**-0.1**
BJI				AMB	AMB		
	comp=Z,98nm,1.1s,mb5.5						
KBK	**Karagaybulak**	**39.28**	**339**	P	**P**	**15 19 49.8**	**+0.7**
	SNR=25						
AML	**Almayashu**	**39.29**	**337**	P	**P**	**15 19 50.2**	**+1.0**
	SNR=34						
AAK	**Ala-Archa**	**39.42**	**338**	P	**P**	**15 19 51.4**	**+1.1**
	SNR=14						
AAK	**Ala-Archa**	**39.42**	**338**	*e*P	**P**	**15 19 50.4**	**+0.1**
AAK				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.5						
AAK	**Ala-Archa**	**39.42**	**338**	*e*P	**P**	**15 19 50.1**	**-0.2**
	comp=Z,146nm,1.4s,mb5.5						
CHMS	**Chumysh**	**39.65**	**339**	P	**P**	**15 19 52.5**	**+0.3**
	SNR=9.7						
EKS2	**Erkin-Say**	**39.71**	**338**	P	**P**	**15 19 53.6**	**+0.9**
	SNR=8.3						
USP	**Ospenovka**	**39.97**	**339**	P	**P**	**15 19 54.9**	**+0.1**
	SNR=10						
DL2	**Dalian**	**41.24**	**35**	P	**P**	**15 20 06.8**	**+1.5**
DL2				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.1						
SONM	**Songino Array**	**42.63**	**13**	P	**P**	**15 20 15.8**	**-0.9**
	comp=Z,4.7nm,0.4s,mb4.5,baz=207,slow=9.3,SNR=17						
SONM				PcP	PcP	15 22 09.0	-0.2
	comp=Z,5.4nm,0.5s,baz=199,slow=3.3,SNR=10						
SNY	**Shenyang**	**44.34**	**33**	⇑P	**P**	**15 20 29.5**	**-1.1**
SNY				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.3						
SNY				LR	LR		
	comp=N,14μm,15.9s,MS6.2						
SNY				LR	LR		
	comp=E,20μm,16.5s,MS6.2						
SNY				LR	LR		
	comp=Z,35μm,16.0s,MS6.4						
ZAK	**Zakamensk**	**44.46**	**9**	*e*P	**P**	**15 20 31.5**	**0.0**
ZAK				*e*		15 22 15.0	
NWAO	**Narrogin (SRO)**	**45.58**	**151**	P	**P**	**15 20 41.7**	**+1.1**
	comp=Z,44nm,1.2s,mb5.3,baz=303,slow=10,SNR=7.1						
NWAO	**Narrogin (SRO)**	**45.58**	**151**	P	**P**	**15 20 41.7**	**+1.0**
ZAL	**Zalesovo**	**47.65**	**353**	P	**P**	**15 20 56.2**	**-0.5**
	comp=Z,12nm,0.4s,mb5.3,baz=302,slow=6.6,SNR=19						
ZAL				LR	LR	15 42 17.0	
	comp=Z,8μm,19.0s,MS5.7,baz=291,slow=38						
ZAL	**Zalesovo**	**47.65**	**353**	P	**P**	**15 20 56.2**	**-0.5**
ZAL				LR	LR	15 42 17.0	
HIA	**Hailar**	**48.12**	**23**	*e*P	**P**	**15 20 59.1**	**-1.3**
HIA				pmax	pmax		
	comp=Z,81nm,1.2s						
HIA	**Hailar**	**48.12**	**23**	*e*P	**P**	**15 20 58.6**	**-1.8**
	comp=Z,81nm,1.2s,mb5.6						
WRA	**Warramunga Arr**	**48.49**	**124**	P	**P**	**15 21 03.0**	**-0.6**
	comp=Z,42nm,0.9s,mb5.5,baz=305,slow=8.4,SNR=22						
WRAB	**Tennant Creek**	**48.49**	**124**	*e*P	**P**	**15 21 02.9**	**-0.7**
WRAB				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.9						
WRAB	**Tennant Creek**	**48.49**	**124**	*e*P	**P**	**15 21 02.1**	**-1.5**
	comp=Z,132nm,1.0s,mb5.9						
MDJ	**Mudanjiang**	**49.48**	**34**	P	**P**	**15 21 11.3**	**+0.4**
MDJ				AMB	AMB		
	comp=Z,53nm,1.5s,mb5.3						

MDJ	Mudanjiang	49.48	34	eP	P	15 21 12.0	+1.1
	comp=Z,76nm,1.2s,mb5.6						
BVAR	Borovoye Array	49.82	342	P	P	15 21 11.9	-1.5
	comp=Z,6.0nm,0.6s,mb4.8,baz=146,slow=11,SNR=10						
BRVK	Borovoye	49.88	342	eP	P	15 21 13.0	-0.9
BRVK				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
BRVK	Borovoye	49.88	342	eP	P	15 21 12.2	-1.6
	comp=Z,30nm,1.0s,mb5.3						
ASAR	Alice Springs	50.01	128	P	P	15 21 14.1	-1.2
	comp=Z,27nm,1.0s,mb5.2,baz=303,slow=6.9,SNR=20						
CHKZ	Chkalovo	50.32	343	eP	P	15 21 16.1	-1.1
CHKZ	Chkalovo	50.32	343	eP	P	15 21 15.9	-1.3
MAT	Matsushiro	50.84	47	P	P	15 21 20.3	-1.2
MAT	Matsushiro	50.84	47	eP	P	15 21 20.0	-1.5
CBIJ	Chichi jima	50.90	60	P	P	15 21 21.1	-1.0
	comp=Z,72nm,0.7s,mb5.7						
KLR	Kul'dur	53.54	31	eP	P	15 21 38.0	-3.5
KLR				pmax	pmax		
	comp=E,180nm,2.8s						
KLR				pmax	pmax		
	comp=Z,230nm,2.8s,mb5.6						
BOD	Bodaibo	53.63	14	eP	P	15 21 40.5	-1.5
GNI	Garni	54.51	315	P	P	15 21 49.5	+0.8
	comp=Z,14nm,0.9s,mb5.0,baz=276,slow=1.7,SNR=7.3						
GNI	Garni	54.51	315	eP	P	15 21 50.4	+1.7
GNI				pmax	pmax		
	comp=Z,78nm,1.3s						
GNI	Garni	54.51	315	P	P	15 21 49.0	+0.3
	comp=Z,78nm,1.4s,mb5.5						
CLNS	Chul'man	56.00	21	eP	P	15 22 00.0	+0.7
CLNS				pmax	pmax		
	comp=Z,94nm,1.0s,mb5.8						
CLNS				pmax	pmax		
	comp=N,55nm,1.1s						
CLNS				pmax	pmax		
	comp=E,38nm,1.0s						
SVE	Sverdlovsk	56.15	339	⇑eP	P	15 21 58.5	-1.9
SVE				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
KMBO	Kilima Mbogo	56.16	264	P	P	15 22 02.2	+1.2
	comp=Z,9.7nm,0.8s,mb4.9,baz=50,slow=11,SNR=8.9						
KMBO	Kilima Mbogo	56.16	264	eP	P	15 22 02.9	+1.8
KMBO				pmax	pmax		
	comp=Z,37nm,1.2s						
KMBO	Kilima Mbogo	56.16	264	eP	P	15 22 02.6	+1.6
	comp=Z,37nm,1.3s,mb5.2						
ZEI	Tsey	56.19	318	eP	P	15 21 59.5	-1.4
ZEI				i *PP	pP	15 22 11.3	+4.8
ZEI				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
PMG	Port Moresby	56.27	106	P	P	15 22 00.8	-1.1
	comp=Z,43nm,0.8s,mb5.5,baz=284,slow=4.0,SNR=20						
PMG	Port Moresby	56.27	106	P	P	15 22 00.9	-1.0
PMG				pmax	pmax		
	comp=Z,55nm,0.9s						
PMG	Port Moresby	56.27	106	eP	P	15 22 00.4	-1.4
	comp=Z,55nm,0.8s,mb5.6						
ARU	Arti	56.61	338	eP	P	15 22 03.0	-0.7
ARU	Arti	56.61	338	eP	P	15 22 00.1	-3.6
	comp=Z,2.0nm,1.4s						
KIV	Kislovodsk	57.49	319	eP	P	15 22 10.2	0.0
KIV				pmax	pmax		
	comp=E,21nm,1.2s						
KIV				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.2						
KIV	Kislovodsk	57.49	319	eP	P	15 22 10.3	+0.1
	comp=Z,30nm,1.0s,mb5.3						
GOF	Gofitskoye	57.74	320	⇓iP	P	15 22 12.0	+0.1
GOF				pmax	pmax		
	comp=Z,100nm,1.6s,mb5.6						
ASF	Jabal al Asfar	57.95	304	P	P	15 22 13.7	+0.2
	comp=Z,6.1nm,0.6s,mb4.8,baz=336,slow=6.7,SNR=6.8						
MALT	Malatya	58.41	311	eP	P	15 22 17.7	+1.0
MALT				pmax	pmax		
	comp=Z,22nm,1.4s,mb5.0						
MALT	Malatya	58.41	311	eP	P	15 22 17.7	+1.0
	comp=Z,22nm,1.4s,mb5.0						
YSS	Yuzh-Sakhalins	58.47	38	e	P	15 22 18.0	+1.1
YSS	Yuzh-Sakhalins	58.47	38	eP	P	15 22 17.4	+0.5
	comp=Z,113nm,1.2s,mb5.8						
CTA	Charters Tower	58.71	118	P	P	15 22 18.2	-0.7
	comp=Z,34nm,1.0s,mb5.3,baz=292,slow=8.0,SNR=11						
CTAO	Charters Tower	58.71	118	P	P	15 22 18.6	-0.4
CTAO				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.7						
CTAO	Charters Tower	58.71	118	P	P	15 22 18.6	-0.3
	comp=Z,80nm,1.2s,mb5.6						
EIL	Elat	59.07	301	eP	P	15 22 21.0	-0.4
	comp=Z,64nm,1.3s,mb5.5						
STKA	Stephens Creek	60.08	133	P	P	15 22 27.8	-0.6
	comp=Z,35nm,1.0s,mb5.3,baz=305,slow=6.8,SNR=17						
STKA	Stephens Creek	60.08	133	eP	P	15 22 27.6	-0.7
CSS	Prodhromos	61.48	306	eP	P	15 22 38.4	+0.6
	comp=Z,96nm,1.5s,mb5.7						
YAK	Yakutsk	61.54	19	eP	P	15 22 35.6	-2.2
YAK				pmax	pmax		
	comp=Z,190nm,1.1s,mb6.1						
YAK	Yakutsk	61.54	19	eP	P	15 22 35.3	-2.5
	comp=Z,186nm,1.1s,mb6.1						
BRTR	Keskin Array B	62.39	312	P	P	15 22 42.0	-1.9
	comp=Z,6.5nm,0.8s,mb4.8,baz=131,slow=7.0,SNR=10						
MBAR	Mbarara	62.53	266	eP	P	15 22 45.3	+0.2
MBAR				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.4						
MBAR	Mbarara	62.53	266	eP	P	15 22 45.1	0.0
	comp=Z,43nm,1.4s,mb5.4						
ISP	Isparta	64.32	309	eP	P	15 22 57.3	+0.7
ISP				pmax	pmax		
	comp=Z,99nm,1.5s,mb5.6						
ISP	Isparta	64.32	309	P	P	15 22 57.3	+0.7
	comp=Z,99nm,1.5s,mb5.6						
MOS	Moscow	65.56	329	eP	P	15 23 04.7	+0.4
MOS				pmax	pmax		
	comp=Z,128nm,1.6s,mb5.7						
OBN	Obninsk	65.83	328	eP	P	15 23 06.2	+0.1
OBN				pmax	pmax		
	comp=Z,60nm,1.3s,mb5.5						
LSZ	Lusaka	67.78	251	eP	P	15 23 18.2	-0.9
	comp=Z,13nm,1.0s,mb4.9						
SKR	Severo-Kuril's	68.04	38	eP	P	15 23 15.7	-4.4
SKR				e		15 23 29.5	
SKR				pmax	pmax		
	comp=E,180nm,1.0s						
SKR				pmax	pmax		
	comp=Z,450nm,1.0s						
IDI	Anoyia	68.35	305	P	P	15 23 22.2	-0.1
	comp=Z,14nm,0.7s,mb5.1,baz=92,slow=9.9,SNR=10						
AKASG	Malin Array Be	68.43	322	P	P	15 23 19.6	-3.0
	comp=Z,3.3nm,0.6s,mb4.5,baz=82,slow=4.8,SNR=16						
MLR	Muntele Rosu	69.28	316	P	P	15 23 27.0	-0.8
	comp=Z,23nm,0.9s,mb5.1,baz=67,slow=4.4,SNR=15						
MLR	Muntele Rosu	69.28	316	P	P	15 23 27.0	-0.8
PET	Petropavlovsk	70.21	36	eP	P	15 23 33.7	+0.3
PET				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
SEY	Seymchan	70.54	25	eP	P	15 23 34.5	-0.7
KWP	Kalwaria	72.25	320	eP	P	15 23 44.7	-1.0
	comp=Z,2.6nm,1.7s						
KWP				e	pP	15 23 48.8	-2.7
KOLS	Kolonicke sedl	72.40	319	eP	P	15 23 47.0	+0.3
KOLS				e		15 24 05.6	
APA	Apatity	72.62	340	⇑iP	P	15 23 47.1	-0.5
APA				i	pP	15 23 53.4	+0.1
APA				pmax	pmax		
	comp=Z,64nm,1.3s,mb5.4						
SUW	Suwalki	72.86	325	eP	P	15 23 48.3	-0.9
CRVS	Cervenica-Dubn	72.92	319	eP	sP	15 23 57.5	0.0
CRVS	Cervenica-Dubn	72.92	319	esP	sP	15 23 57.5	0.0
FINES	FINESS Array B	73.29	333	P	P	15 23 49.9	-1.7
	comp=Z,8.1nm,0.6s,mb4.8,baz=102,slow=6.8,SNR=20						
FINES	FINESS Array B	73.29	333	P	P	15 23 49.9	-1.7
KAF	Kangasniemi	73.39	333	ep	P	15 23 51.1	-1.1
	comp=Z,26nm,1.1s,mb5.1						
KAF	Kangasniemi	73.39	333	eP	P	15 23 51.1	-1.1
KAF				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.1						
BOSA	Boshof	73.96	238	P	P	15 23 55.8	-0.4
BOSA				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
BOSA	Boshof	73.96	238	eP	P	15 23 56.8	+0.6
	comp=Z,44nm,1.1s,mb5.3						
OJC	Ojcow	74.20	320	eP	P	15 23 56.0	-1.1
VYHS	Vyhne	74.58	318	eP	P	15 23 59.2	-0.2
OKC	Ostrava-Krasne	75.20	320	eP	P	15 24 02.3	-0.6
MORC	Moravsky Berou	75.58	320	eP	P	15 24 04.5	-0.6
MORC				pmax	pmax		
	comp=Z,81nm,1.8s,mb5.3						
MORC	Moravsky Berou	75.58	320	eP	P	15 24 03.4	-1.7
	comp=Z,81nm,1.8s,mb5.3						
KEV	Kevo	75.64	341	ep	P	15 24 04.3	-0.7
	comp=Z,29nm,1.0s,mb5.2						
KEV	Kevo	75.64	341	eP	P	15 24 04.3	-0.7
KEV				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
ZST	Bratislava	75.69	318	eP	P	15 24 06.9	+1.1
ZST				epP	pP	15 24 13.0	+1.4
ZST				eS	S	15 33 54.0	+9.1
ARCES	ARCESS Array B	76.06	340	P	P	15 24 06.6	-0.8
	comp=Z,24nm,1.1s,mb5.1,baz=89,slow=5.6,SNR=16						
DPC	Dobruska-Polom	76.43	320	eP	P	15 24 10.6	+0.7
KSP	Ksiaz	76.50	321	eP	P	15 24 09.6	-0.7
KSP	Ksiaz	76.50	321	eP	P	15 24 10.0	-0.3
KSP				e		15 24 13.0	
UPC	Upice	76.64	320	eP	P	15 24 11.2	+0.1
ARSA	Arzberg	76.67	317	⇓iP	P	15 24 14.0	+2.7
	comp=Z,32nm,1.3s,mb5.1						
MAW	Mawson	77.08	191	P	P	15 24 15.6	+2.5
	comp=Z,5.8nm,0.7s,mb4.6,baz=346,slow=4.8,SNR=5.0						
OBKA	Obir	77.28	316	⇑iP	P	15 24 18.3	+3.6
	comp=Z,37nm,1.8s,mb5.0						
PRU	Pruhonice	77.54	320	eP	P	15 24 15.3	-0.7
MOA	Molln	77.56	317	⇓iP	P	15 24 17.8	+1.6
	comp=Z,18nm,1.2s,mb4.9						
PVCC	Panska Ves	77.56	320	eP	P	15 24 18.5	+2.3
BILL	Bilibino	77.67	22	eP	P	15 24 16.2	-0.2
BILL				pmax	pmax		
	comp=Z,61nm,1.4s,mb5.3						
BILL	Bilibino	77.67	22	eP	P	15 24 16.0	-0.4
	comp=Z,61nm,1.4s,mb5.3						
BSD	Bornholm Skovb	77.78	325	eP	P	15 24 15.1	-2.2
BSD	Bornholm Skovb	77.78	325	i P	P	15 24 15.1	-2.2
BRG	Berggiesshubel	77.99	321	i P	P	15 24 18.2	-0.3
BRG				pmax	pmax		
	comp=Z,70nm,2.0s,mb5.2						
BRG	Berggiesshubel	77.99	321	i P	P	15 24 18.2	-0.3
	comp=Z,70nm,2.0s,mb5.2						
BRG				i		15 24 45.8	
GERES	GERESS Array B	78.00	318	P	P	15 24 18.5	-0.1
	comp=Z,7.4nm,0.8s,mb4.7,baz=80,slow=6.2,SNR=18						
KHC	Kasperske Hory	78.10	319	eP	P	15 24 19.2	+0.1
KBA	Koelnbreinsper	78.14	317	⇑iP	PcP	15 24 28.8	-0.6
	comp=Z,22nm,1.4s						
CLL	Collm	78.61	321	eP	P	15 24 24.0	+2.1
CLL				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
CLL	Collm	78.61	321	P	P	15 24 24.0	+2.1
	comp=Z,17nm,1.2s,mb4.8						
CLL				e		15 24 49.0	
CLL	Collm	78.61	321	P	P	15 24 24.0	+2.1
	comp=Z,logA/T=1.2,mb4.9						
CLL				e		15 24 49.0	
SUR	Sutherland	78.68	235	eP	P	15 24 24.2	+1.5
	comp=Z,32nm,0.9s,mb5.3						
FX1	Attu Island--F	78.82	37	P	P	15 24 23.7	+0.7
	comp=Z,21nm,0.6s,mb5.2,baz=5.0,slow=13,SNR=5.3						
WTTA	Wattenberg	79.31	317	⇑iP	P	15 24 26.7	+0.9
	comp=Z,40nm,1.3s,mb5.2						
WATA	Walderalm	79.35	317	⇓iP	P	15 24 25.2	-0.8
	comp=Z,7.4nm,0.6s,mb4.8						
MOX	Moxa	79.45	320	eP	P	15 24 26.0	-0.5
SQTA	Sankt Quirin	79.60	317	⇓iP	P	15 24 26.8	-0.6
	comp=Z,8.7nm,0.7s,mb4.8						
GRA1	Grafenberg Arr	79.67	319	eP	P	15 24 28.0	+0.3
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	79.67	319	eP	P	15 24 28.0	+0.3
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	79.67	319	eP	P	15 24 28.0	+0.3
	comp=Z,15nm,0.9s,mb4.9						
MOTA	Moosalm	79.67	317	⇑iP	P	15 24 28.5	+0.7
	comp=Z,11nm,0.9s,mb4.8						
NB2	NORSAR Subarra	80.26	331	P	P	15 24 29.5	-1.1
	comp=Z,16nm,1.1s,mb4.9,baz=93,slow=5.6						
NOA	NORSAR Array B	80.26	331	P	P	15 24 29.1	-1.5
	comp=Z,3.7nm,0.9s,mb4.3,baz=101,slow=5.2,SNR=4.1						
DAVOX	Davos	80.50	316	P	P	15 24 32.0	-0.2
	comp=Z,12nm,0.6s,mb5.0,baz=76,slow=3.3						
DAVA	Damuels	80.50	317	⇑iP	P	15 24 31.9	-0.3
	comp=Z,30nm,0.8s,mb5.3						
PGF	Pioggiola	81.14	312	eP	P	15 24 35.0	-0.7
	comp=Z,478nm,1.8s,mb5.8						
CDF	Champ du Feu	82.25	318	eP	P	15 24 40.5	-0.8
	comp=Z,39nm,1.4s,mb4.9						
SBF	Sospel	82.26	313	eP	P	15 24 41.1	-0.3
	comp=Z,82nm,1.0s,mb5.3						
LPG	La Plagne	82.69	315	eP	P	15 24 43.2	-0.4
	comp=Z,36nm,0.9s,mb5.1						
MBDF	Montbardon	82.71	314	eP	P	15 24 43.2	-0.5
	comp=Z,56nm,1.3s,mb5.1						
HAU	Haudompre	82.88	317	eP	P	15 24 43.9	-0.7
	comp=Z,102nm,1.4s,mb5.4						
SYO	Syowa Base	83.88	197	⇓P	P	15 24 52.2	+3.0
SYO	Syowa Base	83.88	197	⇓PcP	PcP	15 24 55.1	+1.4
BAIF	Baives	84.20	320	eP	P	15 24 50.3	-0.9
	comp=Z,68nm,1.5s,mb5.3						
SSF	Saint Saulge	84.86	317	eP	P	15 24 53.7	-0.9
	comp=Z,148nm,1.8s,mb5.5						
BGF	Bois d'Agland	85.35	316	eP	P	15 24 56.2	-0.9
	comp=Z,21nm,0.8s,mb5.0						
RPZ	Rata Peaks	85.98	135	P	P	15 25 01.3	+1.0
	comp=Z,41nm,1.1s,mb5.6,baz=267,slow=0.7,SNR=4.3						
RJF	Les Rejaudoux	86.39	315	eP	P	15 25 01.1	-1.2
	comp=Z,151nm,1.6s,mb5.7						
FLN	La Foliniere	87.36	319	eP	P	15 25 06.4	-0.5
EKA	Eskdalemuir Ar	88.10	325	P	P	15 25 10.2	-0.1
	comp=Z,4.2nm,0.5s,mb4.9,baz=94,slow=5.8,SNR=20						
ETSF	Etsaut	88.14	313	eP	P	15 25 09.9	-0.9
DAG	Danmarks Havn	88.45	348	⇓eP	P	15 25 10.6	-1.0
DAG				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.9						
DAG	Danmarks Havn	88.45	348	⇓eP	P	15 25 10.6	-1.0
	comp=Z,2.5nm,0.4s,mb4.8						
DAG	Danmarks Havn	88.45	348	⇓iP	P	15 25 10.6	-1.0
	comp=Z,2.5nm,0.4s,mb4.8						
ANM	Nome	89.04	25	eP	P	15 25 17.9	+3.3
URZ	Urewera	89.45	128	P	P	15 25 17.3	+0.1
	comp=Z,34nm,1.1s,mb5.6,baz=40,slow=7.7,SNR=6.6						
ESDC	Sonseca Array	91.15	310	P	P	15 25 25.3	+0.3
	comp=Z,2.2nm,0.6s,mb4.7,baz=64,slow=4.0,SNR=16						
VNDA	Vanda	91.94	168	P	P	15 25 29.3	+1.5
	comp=Z,5.0nm,1.2s,mb4.7,baz=335,slow=4.5,SNR=2.9						
IMA	Indian Mountai	93.21	22	P	P	15 25 35.1	+1.3
IMA				pmax	pmax		
	comp=Z,170nm,1.2s,mb6.3						
IMA	Indian Mountai	93.21	22	eP	P	15 25 36.1	+2.3
	comp=Z,0.2nm,1.0s						
BORG	Borgarnes	94.13	337	P	P	15 25 36.1	-2.0
	comp=Z,42nm,1.1s,mb5.8,baz=28,slow=1.6,SNR=2.3						
COLA	College	95.92	22	P	P	15 25 48.5	+2.2
	comp=Z,4.3nm,1.0s,mb4.8						
ILAR	Eielson Array	96.33	22	P	P	15 25 46.6	-1.5
	comp=Z,1.6nm,0.7s,mb4.6,baz=299,slow=3.3,SNR=7.4						
ILAR				PP	PP	15 29 36.2	-8.0
	comp=Z,0.7nm,0.9s,baz=298,slow=7.0,SNR=4.1						
INK	Inuvik	98.51	16	P	P	15 25 57.9	0.0
	comp=Z,11nm,1.2s,mb5.3,baz=326,slow=4.7,SNR=10						
INK				LR	LR	16 13 19.0	
	comp=Z,8µm,19.4s,MS6.2,baz=296,slow=37						
YKA	Yellowknife Ar	107.90	13	Pdiff	Pdif	15 26 37.2	-2.7
	comp=Z,1.4nm,1.0s,baz=336,slow=6.9,SNR=4.0						
MSO	Missoula	121.66	21	ePKPdf	PKPdf	15 31 13.5	-3.1
BMO	Blue Mountains	121.98	25	PKIKP	PKPdf	15 31 17.1	-0.2
ULM	Lac du Bonnet	122.85	7	PKP	PKPdf	15 31 17.0	-1.7
	comp=Z,3.4nm,0.6s,baz=217,slow=0.8,SNR=7.0						
MOD	Modoc	122.94	29	ePKPdf	PKPdf	15 31 18.6	-0.6
LAO	LASA Array	124.25	16	ePKPdf	PKPdf	15 31 19.9	-1.7
YMR	Madison River	124.58	21	ePKPdf	PKPdf	15 31 20.3	-2.1
YFT	Old Faithful	124.82	21	ePKPdf	PKPdf	15 31 21.6	-1.2
LKWY	Lake	124.87	20	PKIKP	PKPdf	15 31 23.7	+0.8
LKWY	Lake	124.87	20	ePKPdf	PKPdf	15 31 21.8	-1.1
LOHW	Long Hollow	125.63	21	ePKPdf	PKPdf	15 31 22.3	-2.1
WUWY	Wally Ulrich	125.64	21	PKPdf	PKPdf	15 31 22.7	-1.8
SNOW	Snow King Moun	125.71	21	ePKPdf	PKPdf	15 31 21.6	-2.9
REDW	Red Top Meadow	125.76	21	ePKPdf	PKPdf	15 31 22.9	-1.7
NVAR	Mina Array Bea	126.57	31	PKP	PKPdf	15 31 24.7	-1.6
	comp=Z,12nm,1.1s,baz=314,slow=2.2,SNR=10						
PDAR	Pinedale Array	126.74	21	PKP	PKPdf	15 31 23.4	-3.1
	comp=Z,3.6nm,0.7s,baz=124,slow=1.5,SNR=20						
PDAR	Pinedale Array	126.74	21	PKP	PKPdf	15 31 23.4	-3.1
TRCR	Troy Canyon	127.97	28	ePKPdf	PKPdf	15 31 27.9	-1.2
MVU	Marysvale	129.37	26	ePKPdf	PKPdf	15 31 31.3	-0.5
MSU	Marysvale	129.37	26	PKIKP	PKPdf	15 31 31.6	-0.2
MSU	Marysvale	129.37	26	ePKPdf	PKPdf	15 31 31.3	-0.5
NEN	Nelson	130.47	30	ePKPdf	PKPdf	15 31 33.1	-0.8
ANMO	Albuquerque	134.76	23	PKP	PKPdf	15 31 41.3	-0.7
	comp=Z,4.7nm,0.8s,baz=230,slow=2.2,SNR=9.3						
BDFB	Brasilia	140.76	253	PKP	PKPdf	15 31 51.5	-2.1
	comp=Z,2.1nm,0.6s,baz=135,slow=1.4,SNR=2.3						
TXAR	Lajitas Array	140.83	23	PKhKP		15 31 45.9	
	comp=Z,1.4nm,1.0s,baz=56,slow=0.5,SNR=7.1						
TXAR				PKP	PKPdf	15 31 52.1	-1.2
	comp=Z,2.5nm,0.5s,baz=43,slow=0.6,SNR=22						
JCT	Junction City	141.13	18	PKPdf	PKPdf	15 31 53.1	-0.7
SJG	San Juan	147.94	320	PKPbc	PKPdf	15 32 03.3	-2.4
	comp=Z,6.8nm,0.3s,baz=329,slow=14,SNR=6.2						
SJG	San Juan	147.94	320	ePKIKP	PKPdf	15 32 04.0	-1.7
FCH	Farellones	149.22	208	⇑iP	PKPdf	15 32 09.9	+2.5
PCRV	Puerto La Cruz	152.16	307	PKPbc	PKPdf	15 32 15.8	+3.5
	baz=339,slow=4.6						
LVC	Limon Verde	156.39	226	PKP	PKPdf	15 32 15.8	-2.0
	comp=Z,1.0nm,0.6s,baz=74,slow=7.4,SNR=2.1						
LVC				PKPab	PKPab	15 32 46.2	+1.3
	comp=Z,9.6nm,0.9s,baz=101,slow=1.2,SNR=6.7						
SDV	Santo Domingo	157.56	313	PKP	PKPdf	15 32 16.8	-2.8
	comp=Z,2.3nm,0.6s,baz=327,slow=3.9,SNR=3.0						
SDV	Santo Domingo	157.56	313	PKPdf	PKPdf	15 32 18.4	-1.2
SDV				e		15 32 24.9	
LPAZ	La Paz	159.17	241	PKP	PKPdf	15 32 19.9	-1.6
	comp=Z,2.7nm,0.9s,baz=253,slow=2.0,SNR=4.5						
LPAZ	La Paz	159.17	241	ePKPdf	PKPdf	15 32 21.3	-0.2
ROSC	El Rosal	162.97	312	PKP	PKPdf	15 32 22.4	-3.1
	comp=Z,3.6nm,0.4s,baz=86,slow=19,SNR=3.1						

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*IDC **26** 15:13:16.1±0.8, 5.39N×93.36E, mb4.8/15, mb1 4.9/16, mb1mx4.8/24, Error ellipse: s-maj=42.0km s-min=14.6km az=45.0*

*NEIC **26** 15:13:20.8±3.7, 5.37N×93.43E, h31^{km}±25^{km}, mb5.4/5, Error ellipse: s-maj=16.8km s-min=8.2km az=67.0*

ISC 26 15:13:19.0±0.4, **5.39N**±0.07×**93.39E**±0.08, **h33**^{km}, **n46, σ1§01**/40, **mb4.9**/19, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	12.74	279	P	P	15 16 17.4	-3.3
CM31	Chiang Mai Arr	14.07	22	P	P	15 16 37.9	-0.4
CMAR	Chiang Mai Arr	14.07	22	Pn	P	15 16 38.8	+0.6
	baz=222,slow=14,SNR=2.0						
MDRS	Chennai	15.04	301	eP	P	15 16 47.5	-3.5
MDRS	Chennai	15.04	301	e	P	15 16 49.9	-1.1
	comp=Z,50µm,17.2s						
COCO	West Island	17.80	169	eP	P	15 17 25.8	-0.2
BOK	Bokaro	19.67	339	i	S	15 21 19.0	-3.8
	comp=Z,28µm,21.2s						
BLSP	Bilaspur	19.89	328	e	S	15 21 46.2	+19
	comp=Z,24µm,18.8s						
SHL	Shillong	20.11	356	e	P	15 17 48.3	-4.6
QIZ	Qiongzhong	21.00	48	P	P	15 18 03.3	+1.2
GOA	Goa	21.68	299	eP	P	15 18 08.8	0.0
AKL	Akola	22.01	315	eP	P	15 18 05.2	-7.0
KAD	Karad	22.21	304	e	P	15 18 18.7	+4.5
BHPL	Bhopal	23.50	321	eP	P	15 18 18.5	-8.4
BHPL				e		15 18 22.2	
	comp=Z,108nm,1.7s						
LSA	Lhasa	24.27	355	P	P	15 18 38.3	+3.9
ENH	Enshi	29.03	30	eP	P	15 19 16.7	-1.6
SONM	Songino Array	43.73	13	P	P	15 21 23.1	+0.1
	comp=Z,11nm,1.1s,mb4.5,baz=192,slow=7.9,SNR=7.0						
WRA	Warramunga Arr	47.48	123	P	P	15 21 52.4	-0.7
	comp=Z,29nm,0.7s,mb5.3,baz=301,slow=9.3,SNR=5.2						
WRAB	Tennant Creek	47.49	123	eP	P	15 21 52.5	-0.6
	comp=Z,76nm,0.9s,mb5.6						
ASAR	Alice Springs	48.95	128	P	P	15 22 05.0	+0.6
	comp=Z,9.8nm,0.8s,mb4.9,baz=301,slow=7.2,SNR=2.3						
HIA	Hailar	49.09	23	eP	P	15 22 04.6	-0.5
	comp=Z,14nm,0.7s,mb5.1						
BVAR	Borovoye Array	51.10	342	P	P	15 22 19.6	-0.8
	comp=Z,5.4nm,0.6s,mb4.6,baz=141,slow=9.2,SNR=3.1						
BRVK	Borovoye	51.16	342	eP	P	15 22 21.0	+0.1
CHKZ	Chkalovo	51.60	343	eP	P	15 22 24.3	+0.1
	comp=Z,95nm,1.7s,mb5.5						
PMG	Port Moresby	55.57	105	P	P	15 22 54.3	+0.4
	comp=Z,17nm,0.7s,mb5.2,baz=293,slow=7.7,SNR=2.9						
PMG	Port Moresby	55.57	105	P	P	15 22 54.3	+0.3
CTA	Charters Tower	57.79	118	P	P	15 23 08.7	-1.1
	comp=Z,14nm,0.9s,mb5.0,baz=296,slow=5.4,SNR=4.3						
CTAO	Charters Tower	57.79	118	eP	P	15 23 07.6	-2.1
	comp=Z,19nm,0.9s,mb5.1						
STKA	Stephens Creek	58.97	132	P	P	15 23 18.5	+0.6
	comp=Z,11nm,0.7s,mb5.0,baz=246,slow=12,SNR=3.2						
YAK	Yakutsk	62.57	18	eP	P	15 23 40.7	-1.2
	comp=Z,33nm,0.8s,mb5.5						
AKASG	Malin Array Be	69.64	322	P	P	15 24 25.9	-1.1
	comp=Z,1.8nm,0.5s,mb4.2,baz=86,slow=4.6,SNR=4.1						
MLR	Muntele Rosu	70.43	316	P	P	15 24 33.1	+1.2
	comp=Z,14nm,1.1s,mb4.8,baz=312,slow=21,SNR=2.9						
FINES	FINESS Array B	74.55	333	P	P	15 24 56.3	+0.3
	comp=Z,5.9nm,0.6s,mb4.7,baz=89,slow=4.9,SNR=4.0						
ARCES	ARCESS Array B	77.34	340	P	P	15 25 12.3	+0.6
	comp=Z,11nm,1.0s,mb4.8,baz=97,slow=6.5,SNR=5.8						
ARCES	ARCESS Array B	77.34	340	P	P	15 25 12.3	+0.6
GERES	GERESS Array B	79.17	319	P	P	15 25 23.2	+1.0
	comp=Z,4.6nm,0.7s,mb4.5,baz=81,slow=6.2,SNR=5.2						
KHC	Kasperske Hory	79.28	319	eP	P	15 25 24.5	+1.7
CLL	Collm	79.80	321	e*PP	pP	15 25 37.0	+1.0
NOA	NORSAR Array B	81.52	331	P	P	15 25 34.7	+0.3
	comp=Z,0.9nm,0.6s,mb3.9,baz=102,slow=5.1,SNR=2.2						
DAVOX	Davos	81.65	316	P	P	15 25 37.1	+1.7
	comp=Z,10nm,0.6s,mb4.9,baz=124,slow=3.6,SNR=3.2						
EKA	Eskdalemuir Ar	89.33	325	P	P	15 26 13.7	+0.5
	comp=Z,2.7nm,0.6s,mb4.8,baz=93,slow=5.1,SNR=3.8						
ELK	Elko	127.11	27	ePKPdf	PKPdf	15 32 21.5	+1.1
NVAR	Mina Array Bea	127.42	31	PKP	PKPdf	15 32 25.1	+4.0
	comp=Z,3.6nm,0.7s,baz=291,slow=3.0,SNR=7.5						
MNV	Mina	127.49	31	ePKPdf	PKPdf	15 32 25.0	+3.7
PDAR	Pinedale Array	127.74	21	PKP	PKPdf	15 32 24.2	+2.6
	comp=Z,1.4nm,0.6s,baz=194,slow=2.2,SNR=6.7						
TXAR	Lajitas Array	141.78	24	PKP	PKPdf	15 32 52.3	+4.4
	comp=Z,1.4nm,0.5s,baz=236,slow=0.2,SNR=9.4						

IDC 26 15:17:24.1±2.0, **19.93S**×**134.06E, mb1 3.6**/2, **mb1mx3.5**/9, **ML3.2**/2, **Error ellipse: s-maj=11.2km s-min=2.1km az=93.0, Northern Territory**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	0.26	92	Pg	Pg	15 17 29.2	-0.1
	7.6nm,0.3s,baz=272,slow=31,SNR=27						
WRA				Lg		15 17 32.6	
	14nm,0.3s,baz=274,slow=31,SNR=31						
ASAR	Alice Springs	3.72	182	Pn	Pn	15 18 24.2	+0.1
	0.5nm,0.3s,baz=12,slow=14,SNR=1.7						
ASAR				Sn	Sn	15 19 06.7	-2.5
	0.3nm,0.3s,baz=3.8,slow=27,SNR=2.2						
ASAR				Lg		15 19 19.4	
	0.8nm,0.3s,baz=3.6,slow=29,SNR=3.9						
STKA	Stephens Creek	13.68	152	Pn	P	15 20 40.0	-1.9
	0.3nm,0.3s,baz=332,slow=8.6,SNR=2.5						

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*IDC **26** 15:19:13.3±0.6, 15.74N×61.63W, mb4.3/12, mb1 4.4/16, mb1mx4.2/27, ML4.0/4, Error ellipse: s-maj=11.5km s-min=9.0km az=122.0*

*NEIC **26** 15:19:14.7±0.5, 15.69N×61.68W, h10^{km}, mb4.5/3, Error ellipse: s-maj=11.7km s-min=8.1km az=138.0*

*TRN **26** 15:19:14.2, 15.77N×61.51W, h25^{km}, MD4.2*

ISC 26 15:19:15.5±0.4, **15.72N**±0.03×**61.66W**±0.04, **h27**^{km}±4^{km}, **n45, σ1§07**/58, **mb4.3**/14, **3C-6D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	Barber's Block	0.27	137	i P	Pb	15 19 21.2	-1.1
BBL	Barber's Block	0.27	137	⇓iP	Pb	15 19 23.2	+0.9
BBL				eS	Sb	15 19 26.5	-0.4
DWS	Wesley	0.37	115	⇑eP	Pb	15 19 23.1	-0.6
DWS				eS	Sb	15 19 27.9	-1.4
MGG	Marie-Galante	0.38	60	⇓iP	Pb	15 19 22.1	-1.8
MDN	Morne-Daniel	0.48	147	i P	Pb	15 19 26.3	+0.9
MDN				eS	Sb	15 19 33.5	+1.2
DBCT	Belle View Cho	0.54	146	eP	Pb	15 19 27.3	+0.8
DSHT	Scott's Head	0.58	151	⇓iP	Pb	15 19 28.1	+1.0
DSHT				eS	Sb	15 19 35.4	+0.4
DSTT	Stowe	0.58	144	eP	Pb	15 19 27.7	+0.5

SEG	Port Louis	0.69	12⇑	*e*P	Pb	15 19 28.2	-0.7
DEG	La Desirade	0.82	44⇑	*i*P	Pb	15 19 28.9	-2.2
FDF	Fort de France	1.10	153⇓	*e*P	Pn	15 19 35.0	-0.3
FDF				*e*S	Sb	15 19 50.9	+1.1
MLYT		1.12	333	*e*P	Pn	15 19 36.9	+1.3
MLYT				*e*S	Sb	15 19 52.4	+2.1
MLYT		1.12	333	*e*P	Pn	15 19 36.6	+1.1
MBWH		1.13	333	*e*P	Pn	15 19 36.9	+1.0
MBGB		1.14	332	*e*P	Pn	15 19 37.1	+1.2
MBGB				*e*S	Sn	15 19 53.1	+2.3
CRM	Caravelle	1.20	143⇓	*e*P	Pn	15 19 36.5	-0.3
CRM				*e*S	Sn	15 19 52.6	+0.3
BIM	Bigot	1.33	155⇓	*e*P	Pn	15 19 38.6	0.0
BIM				*e*S	Sn	15 19 59.0	+3.5
GRW	Mount Saint Ca	3.54	180	*e*P	Pn	15 20 10.5	+0.3
SJG	San Juan	4.91	300	Pn	Pn	15 20 29.8	+0.2
	35nm,0.3s,baz=136,slow=8.0,SNR=81						
SJG				Sn	Sn	15 21 23.8	-2.5
	7.6nm,0.3s,baz=357,slow=21,SNR=2.7						
SJG	San Juan	4.91	300	*e*Pn	Pn	15 20 29.4	-0.2
SJG				Sn	Sn	15 21 23.8	-2.5
TRN	Trinidad (W)	5.05	177	*e*P	Pn	15 20 31.0	-0.6
TRN				*e*S	Sn	15 21 30.0	+0.2
PCRV	Puerto La Cruz	6.23	208	Pn	Pn	15 20 47.0	-1.2
	1.6nm,0.3s,baz=138,slow=7.0,SNR=7.0						
PCRV				Sn	Sn	15 21 58.7	-0.6
	1.1nm,0.3s,baz=74,slow=16,SNR=2.7						
SDV	Santo Domingo	11.09	233	Pn	P	15 21 53.0	-2.7
	0.6nm,0.3s,baz=72,slow=9.6,SNR=6.2						
ROSC	El Rosal	16.48	230	Pn	P	15 23 05.5	-1.2
	0.6nm,0.3s,baz=79,slow=22,SNR=2.8						
WVT	Waverly	30.93	316	*e*P	P	15 25 32.6	+0.2
	5.6nm,0.9s,mb4.4						
MIAR	Mount Ida	34.23	309	*e*P	P	15 25 58.0	-3.2
	5.4nm,0.7s,mb4.6						
HKT	Hockley	34.38	300	P	P	15 26 03.0	+0.4
ULM	Lac du Bonnet	44.13	329	P	P	15 27 24.5	+1.0
	6.3nm,0.7s,mb4.5,baz=135,slow=7.3,SNR=6.6						
PDAR	Pinedale Array	48.88	314	P	P	15 28 01.9	+0.9
	2.8nm,0.6s,mb4.5,baz=120,slow=9.9,SNR=15						
DBIC	Dimbokro	56.30	92	P	P	15 28 56.1	-0.6
	10nm,1.2s,mb4.8,baz=220,slow=5.4,SNR=5.0						
EKA	Eskdalemuir Ar	59.43	34	P	P	15 29 16.8	-1.4
	2.4nm,0.8s,mb4.3,baz=252,slow=5.3,SNR=4.8						
YKA	Yellowknife Ar	59.47	335	P	P	15 29 17.5	-0.8
	2.8nm,0.5s,mb4.5,baz=104,slow=7.5,SNR=52						
DLBC	Dease Lake	65.43	327	P	P	15 29 57.6	-0.4
	3.8nm,0.9s,mb4.4,baz=80,slow=5.9,SNR=5.1						
NB2	NORSAR Subarra	68.08	30	P	P	15 30 15.6	+0.8
	3.6nm,0.9s,mb4.4,baz=261,slow=6.2						
NOA	NORSAR Array B	68.08	30	P	P	15 30 14.6	-0.2
	2.3nm,0.8s,mb4.3,baz=262,slow=6.4,SNR=7.5						
CLL	Collm	68.31	41	*e*P	P	15 30 17.0	+0.6
CLL	Collm	68.31	41	P	P	15 30 17.0	+0.6
GERES	GERESS Array B	68.72	43	P	P	15 30 19.0	+0.1
	0.7nm,0.7s,mb3.7,baz=270,slow=4.0,SNR=4.2						
INK	Inuvik	68.81	338	P	P	15 30 18.7	-0.5
	6.7nm,1.0s,mb4.5,baz=103,slow=6.3,SNR=8.2						
INK	Inuvik	68.81	338	P	P	15 30 18.7	-0.5
BRG	Berggiesshubel	68.89	41	*e*P	P	15 30 19.9	-0.1
ILAR	Eielson Array	73.88	334	P	P	15 30 49.8	+0.2
	1.4nm,0.7s,mb4.0,baz=77,slow=5.6,SNR=17						
FINES	FINESS Array B	75.26	30	P	P	15 30 58.1	+0.5
	5.5nm,1.1s,mb4.4,baz=207,slow=4.3,SNR=3.6						
AKASG	Malin Array Be	78.56	40	P	P	15 31 16.9	+0.7
	1.0nm,0.7s,mb3.9,baz=265,slow=6.1,SNR=4.5						
KMBO	Kilima Mbogo	98.88	89	P	P	15 32 50.8	-4.6

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*BJI **26** 15:22:58.9, 6.82N×93.88E, h17^{km}, mb4.5*
*IDC **26** 15:23:05.0±0.6, 7.55N×94.22E, h16^{km}±2^{km}, mb4.2/22, mb1 4.3/23, mb1mx4.3/26, ML3.8/1, Error ellipse: s-maj=23.9km s-min=12.2km az=43.0*
*NEIC **26** 15:23:05.3±0.4, 7.44N×94.22E, mb5.0/9, Error ellipse: s-maj=12.0km s-min=10.0km az=54.0*
ISC 26 15:23:03.6±0.5**, 7.50N**±0.07×**94.29E**±0.08**, h18^{km}, h18^{km}**±.8^{km}**:pP-P, n64,** σ**0^{s}97**/52**, mb4.7**/38**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.80	22	*e*P	P	15 25 54.9	+0.7
	10nm,0.8s						
CMAR	Chiang Mai Arr	11.80	22	Pn	P	15 25 53.3	-0.9
	0.2nm,0.3s,baz=213,slow=12,SNR=3.3						
KMI	Kunming	19.30	24	P	P	15 27 36.5	+6.0
KMI				AMB	AMB		
	comp=Z,11nm,0.8s						
PKI	Pulchoki	21.66	338	*e*P	P	15 27 56.0	+0.6
	comp=Z,44nm,0.6s,mb5.0						
GUN	Gumba	21.81	340	*e*P	P	15 27 56.6	-0.2
	comp=Z,100nm,0.8s,mb5.3						
DMN	Daman	21.81	338	*e*P	P	15 27 57.0	+0.2
KKN	Kakani	21.91	338	*e*P	P	15 27 57.8	0.0
	comp=Z,62nm,0.8s,mb5.1						
GYA	Guiyang	22.23	31	P	P	15 28 05.0	+4.0
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
LSA	Lhasa	22.28	353	P	P	15 27 59.0	-2.5
LSA	Lhasa	22.28	353	*e*P	P	15 28 04.0	+2.5
	comp=Z,55nm,0.6s,mb5.2						
GKN	Gorkha	22.35	337	*e*P	P	15 28 02.3	+0.1
	comp=Z,101nm,1.0s,mb5.2						
KOLN	Koldanda	22.56	335	*e*P	P	15 28 05.5	+1.1
	comp=Z,46nm,0.7s,mb5.0						
ENH	Enshi	26.77	30	*e*P	P	15 28 47.3	+2.8
ENH				*e*pP	pP	15 28 57.2	+7.6
GTA	Gaotai	32.16	8	P	P	15 29 32.0	-0.6
GTA				AP	pP	15 29 38.0	+0.2
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.3						
WMQ	Urumqi	36.64	352	P	P	15 30 17.0	+6.0
WMQ				AP	pP	15 30 21.5	+5.3
WMQ				XP	sP	15 30 24.0	+5.5
WMQ				AMB	AMB		
	comp=Z,19nm,0.8s,mb5.0						
UCH	Uchtor	38.75	336	P	pP	15 30 34.1	+0.1
	SNR=5.7						
KBK	Karagaybulak	38.95	337	P	pP	15 30 36.3	+0.7
	SNR=7.2						
AML	Almayashu	39.01	335	P	pP	15 30 36.5	+0.4
	SNR=8.0						
AAK	Ala-Archa	39.10	337	P	pP	15 30 38.0	+1.0
	SNR=5.2						
CHMS	Chumysh	39.31	337	P	pP	15 30 38.4	-0.3
	SNR=5.6						
USP	Ospenovka	39.64	337	P	pP	15 30 41.3	-0.1
	SNR=6.3						
SONM	Songino Array	41.50	12	P	P	15 30 51.7	+0.3
	comp=Z,3.2nm,0.9s,mb4.0,baz=196,slow=6.5,SNR=9.9						
ZAL	Zalesovo	46.94	352	P	P	15 31 34.6	-0.5
	comp=Z,9.1nm,0.7s,mb4.8,baz=306,slow=4.3,SNR=17						
WRA	Warramunga Arr	47.92	125	P	P	15 31 42.1	-1.2
	comp=Z,1.9nm,0.8s,mb4.2,baz=300,slow=9.9,SNR=8.6						
WRA				pP	pP	15 31 49.3	+0.6
	comp=Z,1.4nm,0.5s,baz=304,slow=8.8,SNR=5.0						
BVAR	Borovoye Array	49.39	341	P	P	15 31 53.5	-0.6
	comp=Z,8.5nm,0.8s,mb4.8,baz=143,slow=7.4,SNR=11						
BVAR				pP	pP	15 31 58.6	-0.9
	comp=Z,8.8nm,0.9s,baz=145,slow=9.9,SNR=20						
BVAR	Borovoye Array	49.39	341	P	P	15 31 53.5	-0.6
BVAR				pP	pP	15 31 58.6	-0.9
BRVK	Borovoye	49.45	341	*e*P	P	15 31 54.1	-0.5
	comp=Z,14nm,1.0s,mb4.9						
ASAR	Alice Springs	49.56	130	P	P	15 31 55.9	0.0
	comp=Z,2.5nm,1.1s,mb4.2,baz=309,slow=7.2,SNR=5.8						
CHKZ	Chkalovo	49.87	342	*e*P	P	15 31 57.2	-0.7
	comp=Z,41nm,0.9s,mb5.5						
GNI	Garni	54.80	314	P	P	15 32 35.1	+0.2
	comp=Z,1.5nm,0.5s,mb4.3,baz=176,slow=18,SNR=2.5						
PMG	Port Moresby	55.28	107	P	P	15 32 38.8	0.0
	comp=Z,2.7nm,0.6s,mb4.5,baz=319,slow=9.3,SNR=3.6						
ARU	Arti	56.29	337	*e*P	P	15 32 46.8	+1.4
	comp=Z,17nm,0.8s,mb5.1						
KMBO	Kilima Mbogo	57.53	264	P	P	15 32 55.6	+0.8
	comp=Z,2.9nm,1.0s,mb4.3,baz=35,slow=24,SNR=4.8						
KMBO	Kilima Mbogo	57.53	264	P	P	15 32 55.6	+0.8
KIV	Kislovodsk	57.69	318	*e*P	P	15 32 55.0	-0.6
	comp=Z,15nm,0.9s,mb5.0						
STKA	Stephens Creek	59.74	134	P	P	15 33 11.1	+1.1
	comp=Z,1.9nm,0.9s,mb4.1,baz=302,slow=9.5,SNR=2.7						
YAK	Yakutsk	60.30	18	*e*P	P	15 33 11.8	-1.6
BRTR	Keskin Array B	62.78	311	P	P	15 33 28.6	-1.9
	comp=Z,4.1nm,0.5s,mb4.8,baz=126,slow=6.8,SNR=16						
BRTR				pP	pP	15 33 33.9	-2.1
	comp=Z,4.3nm,0.6s,baz=131,slow=6.8,SNR=16						
AKASG	Malin Array Be	68.54	322	P	P	15 34 05.5	-1.7
	comp=Z,1.2nm,0.5s,mb4.1,baz=84,slow=4.4,SNR=4.7						
AKASG				pP	pP	15 34 10.1	-2.6
	comp=Z,0.8nm,0.4s,baz=275,slow=12,SNR=5.0						
IDI	Anoyia	68.90	305	P	P	15 34 08.5	-1.2
	comp=Z,5.3nm,0.6s,mb4.6,baz=98,slow=9.7,SNR=4.0						
IDI				pP	pP	15 34 14.2	-1.1
	comp=Z,12nm,0.5s,baz=68,slow=8.4,SNR=5.4						
MLR	Muntele Rosu	69.54	316	P	P	15 34 13.2	-0.3
	comp=Z,10.0nm,0.9s,mb4.8,baz=110,slow=5.3,SNR=9.1						
KWP	Kalwaria	72.41	320	*e*P	P	15 34 32.1	+1.4
FINES	FINESS Array B	73.11	332	P	P	15 34 33.8	-0.8
	comp=Z,9.5nm,1.0s,mb4.7,baz=98,slow=5.5,SNR=21						
FINES				pP	pP	15 34 39.3	-0.9
	comp=Z,12nm,0.6s,baz=94,slow=5.5,SNR=11						
KAF	Kangasniemi	73.19	333	*e*p	P	15 34 35.1	0.0
	comp=Z,8.8nm,0.6s,mb4.9						
OJC	Ojcow	74.35	320	*e*P	P	15 34 44.5	+2.4
VYHS	Vyhne	74.78	318	*e*pP	pP	15 34 49.5	-0.6
KEV	Kevo	75.24	341	*e*p	P	15 34 46.5	-0.3
	comp=Z,6.4nm,0.6s,mb4.7						
ARCES	ARCESS Array B	75.67	340	P	P	15 34 49.2	-0.1
	comp=Z,0.9nm,0.4s,mb4.0,baz=102,slow=6.6,SNR=12						
ARCES				pP	pP	15 34 54.4	-0.4
	comp=Z,8.7nm,0.9s,baz=88,slow=5.6,SNR=4.4						
ARCES	ARCESS Array B	75.67	340	P	P	15 34 49.2	-0.1
ARCES				pP	pP	15 34 54.4	-0.4
ZST	Bratislava	75.91	318	*e*pP	pP	15 34 56.4	-0.2
DPC	Dobruska-Polom	76.59	320	*e*P	pP	15 35 00.6	+0.2
PRU	Pruhonice	77.70	319	*e*P	P	15 35 06.3	+5.3
GERES	GERESS Array B	78.20	318	P	P	15 35 03.9	+0.2
	comp=Z,3.1nm,0.6s,mb4.5,baz=92,slow=4.0,SNR=16						
GERES				pP	pP	15 35 09.2	-0.2
	comp=Z,5.6nm,0.8s,baz=95,slow=5.1,SNR=18						
KHC	Kasperske Hory	78.29	319	*e*P	pP	15 35 09.3	-0.5
HFS	Hagfors	78.85	330	P	P	15 35 06.7	-0.4
	comp=Z,9.0nm,0.5s,mb5.0,baz=108,slow=4.7,SNR=27						
HFS				pP	pP	15 35 12.1	-0.6
	comp=Z,10nm,0.4s,baz=82,slow=10,SNR=20						
NB2	NORSAR Subarra	80.13	331	P	P	15 35 13.8	-0.1
	comp=Z,6.5nm,0.6s,mb4.7,baz=96,slow=5.0						
NOA	NORSAR Array B	80.13	331	P	P	15 35 13.4	-0.6
	comp=Z,0.7nm,0.5s,mb3.8,baz=109,slow=5.2,SNR=6.9						
NOA				pP	pP	15 35 18.9	-0.7
	comp=Z,5.8nm,0.6s,baz=95,slow=5.1,SNR=13						
DAVOX	Davos	80.76	316	P	P	15 35 17.1	-0.5
	comp=Z,1.7nm,0.5s,mb4.3,baz=144,slow=9.8,SNR=4.4						
DAVOX				pP	pP	15 35 23.0	-0.2
	comp=Z,5.1nm,0.5s,baz=102,slow=7.0,SNR=7.1						
LPG	La Plagne	82.98	315	*e*P	P	15 35 30.3	+1.1
	comp=Z,20nm,0.9s,mb4.9						
EKA	Eskdalemuir Ar	88.11	325	P	P	15 35 54.8	+0.4
	comp=Z,4.8nm,0.6s,mb4.9,baz=90,slow=5.3,SNR=11						
EKA				pP	pP	15 36 00.5	+0.4
	comp=Z,5.2nm,0.6s,baz=94,slow=5.5,SNR=7.0						
ESDC	Sonseca Array	91.57	310	P	P	15 36 11.9	+1.0
	comp=Z,1.5nm,0.5s,mb4.6,baz=63,slow=4.3,SNR=10						
ESDC				pP	pP	15 36 16.5	-0.1
	comp=Z,1.5nm,0.5s,baz=64,slow=4.4,SNR=7.2						
ILAR	Eielson Array	95.04	22	P	P	15 36 26.4	+0.2
	comp=Z,0.3nm,0.7s,mb3.9,baz=292,slow=4.9,SNR=3.6						
ILAR				pP	pP	15 36 32.0	0.0
	comp=Z,1.1nm,1.1s,baz=305,slow=4.9,SNR=4.5						
PDAR	Pinedale Array	125.46	21	PKP	PKPdf	15 42 05.0	-3.1
	comp=Z,0.5nm,0.9s,baz=63,slow=2.0,SNR=3.2						
TXAR	Lajitas Array	139.51	24	PKP	PKPdf	15 42 33.3	-1.5
	comp=Z,0.2nm,0.5s,slow=1.8,SNR=3.5						

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*IDC **26** 15:23:03.9±8.6, 10.69N×92.89E, mb4.0/6, mb1 4.0/7, mb1mx3.8/20, ML3.3/1, Error ellipse: s-maj=202.0km s-min=62.9km az=146.0*
*NEIC **26** 15:23:08.0±0.6, 10.57N×92.72E, mb4.6/4, Error ellipse: s-maj=15.7km s-min=13.3km az=98.0*
ISC 26 15:23:06.4±0.8**, 10.6N**±0.1×**92.8E**±0.1**, h30^{km}, n14,** σ**1^{s}02**/13**, mb4.1**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	9.80	37	P	P	15 25 27.5	-1.1
CMAR	Chiang Mai Arr	9.80	37	Pn	P	15 25 29.7	+1.2
	0.1nm,0.3s,baz=222,slow=11,SNR=2.9						
SONM	Songino Array	38.81	15	P	P	15 30 29.8	-0.5
	1.3nm,0.9s,mb3.7,baz=188,slow=7.8,SNR=5.4						
BVAR	Borovoye Array	45.95	341	P	P	15 31 28.7	+0.4
	0.9nm,0.6s,mb3.9,baz=149,slow=8.6,SNR=5.9						
CHKZ	Chkalovo	46.44	342	*e*P	P	15 31 30.7	-1.5
	1.0nm,0.6s,mb3.9						
WRAB	Tennant Creek	50.98	127	*e*P	P	15 32 08.0	+0.2
	12nm,0.7s,mb4.9						
FINES	FINESS Array B	69.64	332	P	P	15 34 13.6	-1.2
	2.0nm,0.8s,mb4.1,baz=112,slow=10,SNR=6.2						
PSZ	Piszkesteto	70.70	317	*e*P	P	15 34 26.4	+5.0
	4.4nm,0.8s,mb4.4						
ARCES	ARCESS Array B	72.22	340	P	P	15 34 30.9	+0.7
	2.7nm,0.9s,mb4.2,baz=90,slow=4.5,SNR=3.0						
LBTB	Lobatse	74.40	240	*e*P	P	15 34 44.4	+0.5
	6.3nm,1.0s,mb4.5						
GERES	GERESS Array B	74.88	318	P	P	15 34 47.0	+1.0
	0.1nm,0.4s,mb3.1,baz=100,slow=6.0,SNR=4.2						
HFS	Hagfors	75.40	329	P	P	15 34 50.4	+1.6
	2.2nm,0.9s,mb4.1,baz=104,slow=5.9,SNR=2.2						
BOSA	Boshof	75.92	237	*e*P	P	15 34 51.1	-1.4
MNV	Mina	123.28	29	*e*P	PKPdf	15 42 01.4	-4.6

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*IDC **26** 15:23:31.2±0.6, 5.84N×93.01E, h30^{km}±3^{km}, mb4.4/18, mb1 4.5/19, mb1mx4.4/25, ML4.5/1, Error ellipse: s-maj=28.6km s-min=12.1km az=47.0*
*NEIC **26** 15:23:31.8±1.9, 5.67N×92.81E, h39^{km}±14^{km}, mb4.7/3, Error ellipse: s-maj=17.7km s-min=12.4km az=173.0*
ISC 26 15:23:29.3±0.5**, 5.8N**±0.1×**93.04E**±0.09**, h32^{km}, h32^{km}**±.9^{km}**:pP-P, n46,** σ**0^{s}89**/40**, mb4.6**/21**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	12.35	277	*e*P	P	15 26 19.9	-6.1
CM31	Chiang Mai Arr	13.84	24	*e*P	P	15 26 49.7	+4.0
CMAR	Chiang Mai Arr	13.84	24	Pn	P	15 26 50.6	+4.9
	0.8nm,0.3s,baz=230,slow=14,SNR=20						
MDRS	Chennai	14.54	301	*e*P	P	15 26 56.4	+1.4
VIS	Vishakhapatnam	15.18	322	*e*P	P	15 27 02.6	-0.8
HYB	Hyderabad	18.28	310	*e*P	P	15 27 43.0	+0.5
QIZ	Qiongzhong	21.00	50	P	P	15 28 12.9	+0.2
POO	Poona	22.59	306	*e*		15 28 50.2	
POO				*e*		15 28 52.2	
	comp=Z,43nm,1.6s						
BHPL	Bhopal	22.96	321	*e*P		15 28 44.5	
BHPL				*e*P	x	15 28 47.5	
BHPL				*e*		15 28 50.7	
	comp=Z,34nm,1.4s						
LSA	Lhasa	23.84	356	P	P	15 28 42.6	+1.9
ENH	Enshi	28.85	31	*e*P	pP	15 29 38.6	+2.0
SONM	Songino Array	43.41	13	P	P	15 31 30.6	-0.2
	comp=Z,3.7nm,0.8s,mb4.2,baz=192,slow=8.3,SNR=7.4						
SONM				pP	pP	15 31 41.0	+0.6
	comp=Z,2.9nm,0.8s,baz=195,slow=8.1,SNR=3.1						
ULN	Ulaanbaatar	43.59	14	*e*P	P	15 31 32.3	0.0
	comp=Z,3.9nm,1.0s,mb4.1						
WRA	Warramunga Arr	47.99	123	P	P	15 32 07.9	+0.3
	comp=Z,7.1nm,0.8s,mb4.8,baz=303,slow=8.8,SNR=14						
WRA				pP	pP	15 32 16.8	-0.5
	comp=Z,10nm,0.8s,baz=302,slow=9.1,SNR=8.3						
ZAL	Zalesovo	48.46	353	P	P	15 32 10.7	-0.1
	comp=Z,7.6nm,0.7s,mb4.8,baz=311,slow=7.0,SNR=7.5						
HIA	Hailar	48.84	23	*e*P	P	15 32 13.6	-0.2
ASAR	Alice Springs	49.47	128	P	P	15 32 19.0	0.0
	comp=Z,4.5nm,0.9s,mb4.5,baz=301,slow=8.3,SNR=13						
ASAR				pP	pP	15 32 28.6	-0.1
	comp=Z,5.4nm,0.8s,baz=302,slow=7.6,SNR=6.7						
BVAR	Borovoye Array	50.61	342	P	P	15 32 26.1	-1.1
	comp=Z,6.3nm,0.8s,mb4.6,baz=141,slow=9.5,SNR=11						
BVAR				pP	pP	15 32 36.1	-0.9
	comp=Z,3.9nm,0.8s,baz=169,slow=15,SNR=3.9						
BRVK	Borovoye	50.67	342	*e*P	P	15 32 27.3	-0.4
	comp=Z,6.7nm,0.7s,mb4.7						
CHKZ	Chkalovo	51.11	343	*e*P	P	15 32 30.5	-0.6
PMG	Port Moresby	56.00	105	P	P	15 33 07.5	-0.2
	comp=Z,3.9nm,0.6s,mb4.6,baz=350,slow=7.6,SNR=3.3						
PMG	Port Moresby	56.00	105	P	P	15 33 07.5	-0.2
ARU	Arti	57.38	338	P	P	15 33 13.8	-3.1
KIV	Kislovodsk	58.14	319	*e*P	P	15 33 22.1	-0.3
	comp=Z,11nm,0.8s,mb4.9						
STKA	Stephens Creek	59.50	132	P	P	15 33 32.1	+0.1
	comp=Z,1.9nm,0.8s,mb4.2,baz=260,slow=6.2,SNR=4.0						
BRTR	Keskin Array B	62.97	312	P	P	15 33 54.4	-1.0
	comp=Z,3.1nm,0.7s,mb4.5,baz=125,slow=6.9,SNR=7.9						
IDI	Anoyia	68.86	306	P	P	15 34 33.3	+0.1
	comp=Z,7.2nm,0.5s,mb4.8,baz=103,slow=13,SNR=4.3						
AKASG	Malin Array Be	69.11	322	P	P	15 34 32.8	-1.6
	comp=Z,2.8nm,0.5s,mb4.4,baz=92,slow=4.3,SNR=6.9						
MLR	Muntele Rosu	69.90	316	P	P	15 34 39.7	+0.4
	comp=Z,12nm,0.9s,mb4.8,baz=100,slow=1.2,SNR=8.7						
KOLS	Kolonicke sedl	73.05	319	*e*P	P	15 34 55.9	-2.3
CRVS	Cervenica-Dubn	73.57	319	*e*P	P	15 35 01.2	0.0
FINES	FINESS Array B	74.03	333	P	P	15 35 03.2	-0.4
	comp=Z,6.3nm,0.8s,mb4.6,baz=121,slow=11,SNR=6.3						
ZST	Bratislava	76.33	318	*e*P	P	15 35 17.9	+0.8
ARCES	ARCESS Array B	76.84	341	P	P	15 35 19.7	+0.2
	comp=Z,4.3nm,0.7s,mb4.5,baz=98,slow=8.6,SNR=5.6						
DPC	Dobruska-Polom	77.08	320	*e*P	P	15 35 22.5	+1.3
DPC	Dobruska-Polom	77.08	320	*e*pP	P	15 35 22.5	+1.3
GERES	GERESS Array B	78.64	319	P	P	15 35 30.4	+0.6
	comp=Z,5.8nm,0.6s,mb4.7,baz=92,slow=5.1,SNR=19						
GERES				pP	pP	15 35 40.3	+0.4
	comp=Z,2.9nm,0.7s,baz=93,slow=4.4,SNR=4.9						
KHC	Kasperske Hory	78.74	319	*e*P	P	15 35 31.0	+0.6
KHC	Kasperske Hory	78.74	319	*e*pP	P	15 35 30.7	+0.3
HFS	Hagfors	79.69	330	P	P	15 35 35.2	0.0
	comp=Z,1.9nm,0.4s,mb4.3,baz=108,slow=9.1,SNR=2.4						
NOA	NORSAR Array B	81.00	331	P	P	15 35 41.6	-0.6
	comp=Z,1.4nm,0.7s,mb4.0,baz=94,slow=5.8,SNR=2.5						
DAVOX	Davos	81.12	316	P	P	15 35 44.2	+1.1
	comp=Z,14nm,0.7s,mb5.0,baz=125,slow=5.0,SNR=14						
EKA	Eskdalemuir Ar	88.80	325	P	P	15 36 21.6	+0.4
	comp=Z,2.8nm,0.7s,mb4.7,baz=102,slow=5.7,SNR=4.8						
PDAR	Pinedale Array	127.48	21	PKP	PKPdf	15 42 34.1	-2.8
	comp=Z,0.7nm,0.7s,SNR=4.6						
PDAR				pPKP		15 42 42.6	
	comp=Z,1.0nm,0.9s,baz=45,slow=2.1,SNR=3.7						
TXAR	Lajitas Array	141.55	24	PKP	PKPdf	15 43 02.1	-1.3
	comp=Z,0.3nm,0.7s,baz=119,slow=11,SNR=8.0						
TXAR				pPKP		15 43 11.4	
	comp=Z,0.5nm,0.6s,baz=202,slow=1.4,SNR=3.3						
CPUP	Villa Florida	145.13	231	PKPbc	PKPbc	15 43 06.4	+1.7
	comp=Z,0.0nm,0.7s,baz=154,slow=14,SNR=1.8						
CPUP				pPKPbc		15 43 14.3	
	comp=Z,0.0nm,0.5s,baz=235,slow=13,SNR=1.4						

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*IDC **26** 15:24:08.5±0.8, 7.53N×94.19E, h16^{km}±2^{km}, mb4.5/17, mb1 4.6/17, mb1mx4.5/22, Error ellipse: s-maj=25.5km s-min=18.8km az=59.0*
*NEIC **26** 15:24:08.9±0.4, 7.56N×94.23E, mb4.9/4, Error ellipse: s-maj=15.0km s-min=10.3km az=85.0*
*NDI **26** 15:24:47.8±6.0, 9.92N×88.87E, h10^{km}, mb4.7*
ISC 26 15:24:07.0±0.6**, 7.52N**±0.09×**94.2E**±0.1**, h17^{km}, h17^{km}**±.4^{km}**:pP-P, n42,** σ**0^{s}85**/35**, mb4.5**/21**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	22.24	353	*e*P	P	15 29 04.6	-0.1
SONM	Songino Array	41.50	12	P	P	15 31 55.5	+0.6
	3.1nm,0.8s,mb4.0,baz=193,slow=7.5,SNR=5.4						
SONM				pP	pP	15 32 00.6	+0.7
	7.4nm,0.9s,baz=198,slow=7.8,SNR=5.5						
ULN	Ulaanbaatar	41.67	13	*e*P	P	15 31 57.1	+0.9
NWAO	Narrogin (SRO)	45.82	153	P	P	15 32 30.2	+0.2
	6.9nm,0.7s,mb4.7,baz=339,slow=9.2,SNR=3.6						
NWAO	Narrogin (SRO)	45.82	153	P	P	15 32 30.2	+0.2
NWAO				*e*P		15 32 31.7	
ZAL	Zalesovo	46.90	352	P	P	15 32 38.5	+0.2
	8.1nm,0.4s,mb5.0,baz=306,slow=5.4,SNR=6.3						
ZAL				pP	pP	15 32 43.4	0.0
	11nm,0.6s,baz=305,slow=7.2,SNR=5.0						
BVAR	Borovoye Array	49.33	341	P	P	15 32 57.4	+0.2
	7.1nm,0.7s,mb4.8,baz=143,slow=7.4,SNR=7.0						
BRVK	Borovoye	49.39	341	*e*P	P	15 32 56.8	-0.9
ASAR	Alice Springs	49.67	130	P	P	15 32 59.1	-1.1
	5.2nm,0.8s,mb4.6,baz=310,slow=7.8,SNR=5.1						
CHKZ	Chkalovo	49.81	342	*e*P	P	15 33 01.1	+0.2
	81nm,1.2s,mb5.6						
ARU	Arti	56.22	337	P	P	15 33 47.4	-1.1
KMBO	Kilima Mbogo	57.42	264	P	P	15 33 58.4	+0.8
	4.9nm,1.0s,mb4.5,baz=55,slow=10.0,SNR=4.8						
KIV	Kislovodsk	57.60	318	P	P	15 33 58.5	0.0
YAK	Yakutsk	60.31	18	P	P	15 34 16.7	-0.3
BRTR	Keskin Array B	62.68	311	P	P	15 34 31.6	-1.8
	2.6nm,0.8s,mb4.4,baz=133,slow=6.4,SNR=3.8						
BRTR				pP	pP	15 34 37.2	-1.4
	1.7nm,0.5s,baz=126,slow=6.6,SNR=2.6						
AKASG	Malin Array Be	68.45	322	P	P	15 35 08.4	-1.8
	1.1nm,0.7s,mb4.0,baz=87,slow=4.6,SNR=2.7						
AKASG				pP	pP	15 35 14.2	-1.3
	2.9nm,0.6s,baz=89,slow=4.7,SNR=3.7						
IDI	Anoyia	68.79	305	P	P	15 35 11.6	-1.0
	6.5nm,0.6s,mb4.8,baz=69,slow=6.8,SNR=2.2						
FINES	FINESS Array B	73.03	332	P	P	15 35 37.2	-0.5
	3.1nm,0.5s,mb4.5,baz=116,slow=8.0,SNR=7.5						
FINES				pP	pP	15 35 42.5	-0.6
	7.8nm,0.6s,baz=104,slow=7.9,SNR=6.2						
FINES	FINESS Array B	73.03	332	P	P	15 35 37.2	-0.5
FINES				pP	pP	15 35 42.5	-0.6
KAF	Kangasniemi	73.12	333	*e*p	P	15 35 38.3	+0.1
	16nm,1.0s,mb4.9						
LBTB	Lobatse	74.11	241	*e*P	P	15 35 43.6	-1.0
KEV	Kevo	75.18	341	*e*p	P	15 35 55.8	+5.8
	1.8nm,0.5s,mb4.3						
BOSA	Boshof	75.43	238	*e*P	P	15 35 53.4	+1.1
ARCES	ARCESS Array B	75.61	340	P	P	15 35 53.1	+0.7
	5.8nm,1.0s,mb4.5,baz=101,slow=7.1,SNR=9.7						
ARCES				pP	pP	15 35 58.0	+0.2
	6.5nm,0.8s,baz=97,slow=6.6,SNR=3.6						
ARCES	ARCESS Array B	75.61	340	P	P	15 35 53.1	+0.7
ARCES				pP	pP	15 35 58.0	+0.2
ZST	Bratislava	75.81	318	*e*pP	pP	15 36 00.0	+0.6
GERES	GERESS Array B	78.11	318	P	P	15 36 07.6	+0.9
	2.7nm,0.8s,mb4.2,baz=90,slow=4.0,SNR=4.3						
GERES				pP	pP	15 36 12.8	+0.7
	7.0nm,1.0s,baz=90,slow=4.2,SNR=3.3						
KHC	Kasperske Hory	78.20	319	*e*P	P	15 36 14.0	+6.8
CLL	Collm	78.65	321	*e**PP	pP	15 36 16.0	+0.9
HFS	Hagfors	78.77	330	P	P	15 36 10.6	+0.4
	4.2nm,0.4s,mb4.7,baz=110,slow=3.7,SNR=12						
HFS				pP	pP	15 36 15.6	+0.1
	7.9nm,0.5s,baz=117,slow=6.6,SNR=5.2						
NB2	NORSAR Subarra	80.05	331	P	P	15 36 16.7	-0.3
	6.6nm,0.7s,mb4.7,baz=92,slow=5.8						
NOA	NORSAR Array B	80.05	331	P	P	15 36 16.6	-0.4
	2.1nm,0.6s,mb4.2,baz=102,slow=5.1,SNR=5.2						
NOA				pP	pP	15 36 22.6	+0.2
	5.1nm,0.7s,baz=95,slow=5.2,SNR=5.4						
SUR	Sutherland	80.16	235	*e*P	P	15 36 22.0	+3.7
DAVOX	Davos	80.66	316	P	P	15 36 21.3	+0.7
	8.5nm,1.0s,mb4.6,baz=99,slow=5.8,SNR=3.4						
DAVOX				pP	pP	15 36 26.9	+0.8
	5.6nm,0.9s,baz=131,slow=10,SNR=3.2						
EKA	Eskdalemuir Ar	88.03	325	P	P	15 36 58.5	+1.0
	3.5nm,0.8s,mb4.7,baz=97,slow=6.7,SNR=4.8						
EKA				pP	pP	15 37 04.0	+1.0
	4.7nm,0.7s,baz=96,slow=5.3,SNR=4.5						
ESDC	Sonseca Array	91.47	310	P	P	15 37 15.0	+1.0
	0.5nm,0.5s,mb4.1,baz=60,slow=3.4,SNR=3.4						
ESDC				pP	pP	15 37 20.9	+1.4
	0.8nm,0.7s,baz=62,slow=3.7,SNR=5.1						
ILAR	Eielson Array	95.06	22	P	P	15 37 30.1	+0.2
	0.7nm,1.0s,mb4.1,baz=301,slow=5.3,SNR=3.7						
ILAR				pP	pP	15 37 34.8	-0.5
	0.5nm,0.7s,baz=288,slow=4.7,SNR=2.9						
NVAR	Mina Array Bea	125.20	31	PKP	PKPdf	15 43 07.9	-3.3
	0.5nm,0.3s,baz=315,slow=3.8,SNR=4.1						
PDAR	Pinedale Array	125.48	21	PKP	PKPdf	15 43 08.2	-3.3
	1.4nm,1.1s,baz=270,slow=1.8,SNR=2.3						
WMOK	Wichita Mounta	136.22	15	P	PKPdf	15 43 31.7	-0.4
CPUP	Villa Florida	147.07	232	PKPbc	PKPdf	15 43 52.2	+0.7
	0.0nm,0.3s,baz=249,slow=16,SNR=2.1						
CPUP	Villa Florida	147.07	232	PKPbc	PKPdf	15 43 52.2	+0.7

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*IDC **26** 15:28:59.8±0.6, 7.25N×92.81E, mb4.3/14, mb1 4.4/15, mb1mx4.2/22, ML4.0/1, Error ellipse: s-maj=27.8km s-min=14.9km az=51.0*
*NEIC **26** 15:29:05.0±0.4, 7.38N×92.98E, h30^{km}, mb4.3/4, Error ellipse: s-maj=16.2km s-min=10.7km az=48.0*
ISC 26 15:29:03.0±0.5**, 7.29N**±0.10×**93.0E**±0.1**, h30^{km}, n26,** σ**1^{s}07**/20**, mb4.3**/17**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.53	27	Pn	P	15 32 05.6	+3.3
	0.3nm,0.3s,baz=230,slow=14,SNR=9.3						
JOW	Kunigami	38.74	56	P	P	15 36 26.9	+0.3
	9.9nm,0.9s,mb4.5,baz=238,slow=19,SNR=2.1						
SONM	Songino Array	41.99	14	P	P	15 36 53.5	+0.3
	0.4nm,0.4s,mb3.4,baz=196,slow=10,SNR=3.3						
SONM				PcP	PcP	15 38 48.0	-0.6
	1.0nm,0.6s,baz=180,slow=2.9,SNR=4.0						
ZAL	Zalesovo	46.98	353	P	P	15 37 33.0	-0.1
	1.2nm,0.4s,mb4.2,baz=341,slow=2.8,SNR=3.6						
WRA	Warramunga Arr	48.89	124	P	P	15 37 47.9	-0.6
	3.6nm,0.7s,mb4.5,baz=305,slow=8.9,SNR=15						
WRAB	Tennant Creek	48.89	124	*e*P	P	15 37 48.8	+0.3
	8.8nm,0.7s,mb4.9						
BVAR	Borovoye Array	49.17	342	PP	PP	15 39 39.2	-5.0
	0.6nm,0.7s,baz=157,slow=11,SNR=2.2						
ASAR	Alice Springs	50.45	129	P	P	15 38 00.4	0.0
	2.8nm,0.4s,mb4.6,baz=304,slow=7.8,SNR=21						
PMG	Port Moresby	56.48	106	P	P	15 38 44.7	-0.5
	2.3nm,0.8s,mb4.2,baz=301,slow=22,SNR=5.6						
STKA	Stephens Creek	60.56	133	P	P	15 39 12.9	-0.5
	2.1nm,0.6s,mb4.5,baz=334,slow=4.7,SNR=7.9						
STKA	Stephens Creek	60.56	133	*e*P	P	15 39 13.1	-0.2
BRTR	Keskin Array B	61.93	311	P	P	15 39 20.3	-2.2
	1.2nm,0.9s,mb4.0,baz=108,slow=7.8,SNR=4.5						
FINES	FINESS Array B	72.68	332	P	P	15 40 28.6	-1.2
	1.3nm,0.6s,mb4.0,baz=124,slow=14,SNR=4.1						
LBTB	Lobatse	72.94	241	*e*P	P	15 40 34.0	+2.0
	1.8nm,0.7s,mb4.1						
BOSA	Boshof	74.29	238	*e*P	P	15 40 42.0	+2.2
	2.9nm,0.9s,mb4.2						
GERES	GERESS Array B	77.48	318	P	P	15 40 57.5	0.0
	1.5nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=9.3						
MAW	Mawson	77.73	191	P	P	15 40 57.8	-0.7
	5.1nm,0.2s,mb5.0,baz=86,slow=13,SNR=7.5						
HFS	Hagfors	78.37	330	P	P	15 41 01.7	-0.3
	3.5nm,0.9s,mb4.3,baz=101,slow=7.3,SNR=4.5						
NB2	NORSAR Subarra	79.66	331	P	P	15 41 08.9	-0.2
	0.9nm,0.6s,mb3.9,baz=97,slow=5.0						
NOA	NORSAR Array B	79.66	331	P	P	15 41 07.7	-1.4
	1.3nm,0.6s,mb4.0,baz=93,slow=5.7,SNR=4.3						
DAVOX	Davos	80.00	316	P	P	15 41 11.9	+0.7
	1.2nm,0.4s,mb4.2,baz=115,slow=6.9,SNR=3.6						
NVAR	Mina Array Bea	126.01	30	PKP	PKPdf	15 48 05.8	-2.2
	0.3nm,0.3s,baz=304,slow=3.3,SNR=2.6						
PDAR	Pinedale Array	126.12	20	PKP	PKPdf	15 48 04.6	-3.5
	0.6nm,0.7s,baz=45,slow=2.1,SNR=5.5						
ANMO	Albuquerque	134.16	22	PKP	PKPdf	15 48 21.5	-2.0
	1.0nm,0.9s,baz=21,slow=4.1,SNR=4.8						
ANMO	Albuquerque	134.16	22	PKP	PKPdf	15 48 21.5	-2.1
TXAR	Lajitas Array	140.22	23	PKhKP		15 48 26.8	
	0.1nm,0.3s,baz=9.5,slow=5.5,SNR=2.6						

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*IDC **26** 15:34:23.0±1.5, 7.56N×91.57E, mb3.9/5, mb1 4.2/6, mb1mx3.9/19, Error ellipse: s-maj=53.0km s-min=23.1km az=58.0*

*NEIC **26** 15:34:27.4±0.9, 7.66N×91.68E, h30^{km}, mb4.3/1, Error ellipse: s-maj=27.7km s-min=14.6km az=72.0*

ISC 26 15:34:26.0±1.2, **7.7N**±0.1×**91.8E**±0.2, **h30^{km}, n8,** σ**0$\overset{s}{.}$87**/7, **mb3.9**/6, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.75	32	Pn	P	15 37 27.8	-0.5
	baz=232,slow=14,SNR=6.3						
LSA	Lhasa	21.88	359	P	P	15 39 17.7	-0.8
	12nm,0.9s,mb4.3						
SONM	Songino Array	41.87	15	P	P	15 42 17.1	+1.9
	0.4nm,0.5s,mb3.3,baz=197,slow=8.0,SNR=4.9						
BVAR	Borovoye Array	48.42	343	P	P	15 43 07.5	+0.1
	0.8nm,0.8s,mb3.8,baz=170,slow=8.8,SNR=3.3						
WRA	Warramunga Arr	50.10	124	P	P	15 43 20.0	-0.8
	2.9nm,0.8s,mb4.3,baz=303,slow=9.1,SNR=10						
ASAR	Alice Springs	51.63	128	P	P	15 43 33.0	+0.6
	2.0nm,0.8s,mb4.1,baz=301,slow=7.5,SNR=7.0						
GERES	GERESS Array B	76.38	318	P	P	15 46 14.0	-0.3
	0.5nm,0.6s,mb3.7,baz=104,slow=5.5,SNR=3.6						
TXAR	Lajitas Array	140.28	21	PKP	PKPdf	15 53 53.6	-4.4
	0.2nm,0.4s,baz=341,slow=0.8,SNR=8.0						

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*IDC **26** 15:34:54.3±1.2, 4.38N×95.03E, mb4.2/11, mb1 4.3/11, mb1mx4.2/20, Error ellipse: s-maj=52.8km s-min=27.0km az=52.0*

*NEIC **26** 15:34:59.6±0.4, 4.53N×95.25E, h30^{km}, mb4.4/5, Error ellipse: s-maj=17.3km s-min=11.0km az=64.0*

ISC 26 15:34:57.6±0.6, **4.6N**±0.1×**95.3E**±0.2, **h30^{km}, n18,** σ**0$\overset{s}{.}$65**/18, **mb4.2**/16, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	44.17	11	P	P	15 43 06.4	+0.9
	0.6nm,0.7s,mb3.4,baz=189,slow=11,SNR=2.5						
WRAB	Tennant Creek	45.45	124	*e*P	P	15 43 15.9	-0.2
	5.0nm,0.6s,mb4.5						
ZAL	Zalesovo	49.98	352	P	P	15 43 51.4	+0.4
	2.0nm,0.5s,mb4.5,baz=317,slow=3.5,SNR=6.1						
BVAR	Borovoye Array	52.48	341	P	P	15 44 09.4	-0.6
	4.0nm,0.7s,mb4.5,baz=141,slow=9.5,SNR=14						
BRVK	Borovoye	52.55	341	*e*P	P	15 44 10.5	0.0
	2.3nm,0.6s,mb4.3						
CHKZ	Chkalovo	52.97	342	*e*P	P	15 44 14.1	+0.4
	11nm,0.7s,mb4.9						
STKA	Stephens Creek	57.01	133	P	P	15 44 42.6	-0.7
	2.0nm,0.6s,mb4.3,baz=47,slow=22,SNR=5.4						
STKA	Stephens Creek	57.01	133	*e*P	P	15 44 43.1	-0.2
BRTR	Keskin Array B	65.47	312	P	P	15 45 39.3	-1.0
	1.5nm,0.7s,mb4.2,baz=127,slow=7.0,SNR=7.0						
AKASG	Malin Array Be	71.46	322	P	P	15 46 15.7	-1.6
	1.4nm,0.4s,mb4.3,baz=80,slow=4.7,SNR=23						
MLR	Muntele Rosu	72.34	316	P	P	15 46 22.8	+0.1
	1.2nm,0.6s,mb4.0,baz=252,slow=23,SNR=5.2						
LBTB	Lobatse	73.69	242	*e*P	P	15 46 31.9	+0.9
	2.0nm,0.8s,mb4.1						
BOSA	Boshof	74.82	239	P	P	15 46 37.9	+0.4
	3.8nm,1.0s,mb4.3						
FINES	FINESS Array B	76.17	332	P	P	15 46 44.2	-0.3
	2.1nm,0.7s,mb4.2,baz=95,slow=7.1,SNR=9.7						
FINES	FINESS Array B	76.17	332	P	P	15 46 44.2	-0.3
ARCES	ARCESS Array B	78.76	340	P	P	15 46 59.3	+0.6
	4.5nm,0.9s,mb4.4,baz=99,slow=7.3,SNR=5.8						
GERES	GERESS Array B	81.05	319	P	P	15 47 11.2	-0.1
	0.9nm,0.6s,mb3.9,baz=126,slow=4.9,SNR=7.2						
HFS	Hagfors	81.89	330	P	P	15 47 15.8	+0.4
	6.1nm,1.1s,mb4.5,baz=112,slow=8.0,SNR=4.5						

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*IDC **26** 15:35:10.9±1.1, 2.81N×94.11E, h23^{km}±4^{km}, mb4.2/12, mb1 4.3/13, mb1mx4.2/20, ML4.6/1, Error ellipse: s-maj=38.1km s-min=15.8km az=49.0*

*NEIC **26** 15:35:11.2±0.6, 2.71N×94.13E, mb4.5/3, Error ellipse: s-maj=19.1km s-min=11.2km az=66.0*

*BJI **26** 15:35:14.5, 2.79N×93.34E, h23^{km}, mb4.8*

ISC 26 15:35:08.9±0.7, **2.7N**±0.1×**94.1E**±0.1, **h22^{km}, h22^{km}**±2.3^{km}**:pP-P, n28,** σ**1$\overset{s}{.}$11**/27, **mb4.3**/17, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	16.32	16	*e*P	P	15 38 59.5	+0.9
	8.3nm,0.6s						
CMAR	Chiang Mai Arr	16.32	16	Pn	P	15 38 59.0	+0.3
	0.9nm,0.3s,baz=214,slow=12,SNR=11						
LSA	Lhasa	26.97	354	*e*P	P	15 40 53.8	+2.7
	9.3nm,0.7s,mb4.4						
HHC	Hu-ho-hao-te	41.08	20	*e*P	P	15 43 00.5	+7.8
HHC				AP	pP	15 43 05.3	+5.9
HHC				XP	sP	15 43 08.5	+6.3
HHC				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.4						
WMQ	Urumqi	41.31	353	P	P	15 43 03.5	+8.9
WMQ				AP	pP	15 43 08.0	+6.7
WMQ				XP	sP	15 43 10.5	+6.4
WMQ				AMB	AMB		
	comp=Z,3.0nm,0.9s,mb3.9						
WRA	Warramunga Arr	45.45	122	P	P	15 43 28.5	0.0
	comp=Z,4.4nm,0.9s,mb4.3,baz=308,slow=9.0,SNR=8.4						
WRA	Warramunga Arr	45.45	122	P	P	15 43 28.5	0.0
SONM	Songino Array	46.16	11	P	P	15 43 33.2	-0.6
	comp=Z,2.1nm,0.7s,mb4.2,baz=191,slow=7.8,SNR=9.5						
SONM				pP	pP	15 43 40.2	-0.3
	comp=Z,7.5nm,0.7s,baz=190,slow=8.4,SNR=19						
ASAR	Alice Springs	46.77	126	P	P	15 43 39.0	+0.1
	comp=Z,3.6nm,0.8s,mb4.3,baz=303,slow=7.8,SNR=8.0						
ASAR	Alice Springs	46.77	126	P	P	15 43 39.0	+0.1
ZAL	Zalesovo	51.61	353	P	P	15 44 14.6	-1.2
	comp=Z,3.9nm,0.4s,mb4.7,baz=320,slow=6.6,SNR=9.3						
ZAL				pP	pP	15 44 22.4	-0.3
	comp=Z,5.5nm,0.4s,baz=305,slow=6.5,SNR=6.7						
ZAL	Zalesovo	51.61	353	P	P	15 44 14.6	-1.2
ZAL				pP	pP	15 44 22.4	-0.3
BVAR	Borovoye Array	53.84	342	P	P	15 44 31.4	-1.0
	comp=Z,2.4nm,0.5s,mb4.4,baz=146,slow=10.0,SNR=7.4						
BVAR				pP	pP	15 44 38.7	-0.5
	comp=Z,4.1nm,0.6s,baz=143,slow=7.4,SNR=7.7						
BRVK	Borovoye	53.90	342	*e*P	P	15 44 25.3	-7.5
CHKZ	Chkalovo	54.34	343	*e*P	P	15 44 28.9	-7.2
STKA	Stephens Creek	56.66	131	P	P	15 44 54.0	+0.7
	comp=Z,3.1nm,0.7s,mb4.4,baz=293,slow=4.9,SNR=6.8						
STKA	Stephens Creek	56.66	131	*e*P	P	15 44 53.1	-0.1
YAK	Yakutsk	64.86	18	*e*P	P	15 45 46.6	-1.8
	comp=Z,6.9nm,0.9s,mb4.7						
BRTR	Keskin Array B	65.82	313	P	P	15 45 55.0	+0.1
	comp=Z,1.3nm,0.9s,mb4.0,baz=135,slow=8.7,SNR=4.8						
AKASG	Malin Array Be	72.18	323	P	P	15 46 31.7	-2.4
	comp=Z,0.5nm,0.6s,mb3.7,baz=84,slow=4.7,SNR=4.1						
MLR	Muntele Rosu	72.85	317	P	P	15 46 38.8	+0.6
	comp=Z,3.0nm,0.7s,mb4.3,baz=115,slow=7.0,SNR=5.5						
FINES	FINESS Array B	77.24	333	P	P	15 47 02.9	0.0
	comp=Z,1.5nm,0.7s,mb4.0,baz=101,slow=7.1,SNR=2.8						
FINES				pP	pP	15 47 09.4	-0.5
	comp=Z,5.9nm,1.1s,baz=117,slow=4.3,SNR=2.9						
VYHS	Vyhne	78.22	319	*e*P	P	15 47 12.5	+3.9
ZST	Bratislava	79.32	318	*e*P	P	15 47 15.9	+1.3
ARCES	ARCESS Array B	80.07	341	P	P	15 47 14.4	-3.8
	comp=Z,3.0nm,0.9s,mb4.2,baz=100,slow=5.5,SNR=3.2						
ARCES				pP	pP	15 47 25.2	-0.1
	comp=Z,1.3nm,0.7s,baz=79,slow=6.2,SNR=1.4						
GERES	GERESS Array B	81.64	319	P	P	15 47 27.7	+0.9
	comp=Z,1.6nm,0.7s,mb4.1,baz=101,slow=6.8,SNR=8.0						
HFS	Hagfors	82.87	330	P	P	15 47 33.1	+0.1
	comp=Z,2.6nm,0.7s,mb4.3,baz=112,slow=7.8,SNR=2.7						
TXAR	Lajitas Array	143.84	27	PKP	PKPdf	15 54 43.6	-4.0
	comp=Z,0.8nm,0.7s,baz=252,slow=0.6,SNR=7.1						

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*IDC **26** 15:36:48.2±0.4, 4.12N×93.82E, mb4.6/25, mb1 4.7/26, mb1mx4.6/29, ML4.1/1, Error ellipse: s-maj=22.2km s-min=11.0km az=46.0*

*BJI **26** 15:36:52.7, 4.25N×93.94E, h28^{km}, mb5.2, Ms5.2, Msz5.0*

*NEIC **26** 15:36:54.0±2.4, 4.13N×93.85E, h39^{km}±21^{km}, mb4.9/15, Error ellipse: s-maj=13.7km s-min=6.8km az=47.0*

*CSEM **26** 15:36:57.1, 4.68N×93.48E, h33^{km}, mb5.5*

ISC 26 15:36:49.9±0.3, **4.04N**±0.05×**93.88E**±0.06, **h22^{km}, h22^{km}**±3.0^{km}**:pP-P, n98,** σ**1$\overset{s}{.}$06**/85, **mb4.9**/53, **2C-2D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.16	19	*e*P	P	15 40 28.9	+4.3
	39nm,0.6s						
CMAR	Chiang Mai Arr	15.16	19	Pn	P	15 40 24.2	-0.5
	0.3nm,0.3s,baz=215,slow=13,SNR=4.2						
IMP	Imphal	20.62	0	*e*	P	15 41 28.3	-2.3
KMI	Kunming	22.62	21	P	P	15 41 53.3	+2.5
KMI				XP		15 42 01.0	
KMI				AMB	AMB		
	comp=Z,32nm,1.1s,mb4.7						
PKI	Pulchoki	24.75	342	*e*P	P	15 42 12.4	+0.9
DMN	Daman	24.89	341	*e*P	P	15 42 13.7	+0.9
GUN	Gumba	24.93	343	*e*P	P	15 42 14.5	+1.3
	comp=Z,74nm,0.8s,mb5.3						
KKN	Kakani	25.00	342	*e*P	P	15 42 14.6	+0.7
	comp=Z,46nm,0.8s,mb5.1						
GKN	Gorkha	25.40	341	*e*P	P	15 42 17.9	+0.2
	comp=Z,93nm,0.6s,mb5.5						
KOLN	Koldanda	25.55	338	*e*P	P	15 42 19.5	+0.4
	comp=Z,157nm,0.9s,mb5.5						
LSA	Lhasa	25.65	355	P	P	15 42 17.0	-3.0
LSA	Lhasa	25.65	355	*e*P	P	15 42 21.8	+1.8
	comp=Z,64nm,0.6s,mb5.3						
CD2	Chengdu	28.30	18	P	P	15 42 44.3	+0.1
CD2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.0						
ENH	Enshi	29.97	28	*e*P	P	15 42 58.1	-1.1
WHN	Wuhan	32.68	34	⇑P	P	15 43 21.0	-2.0
XAN	Xi’an	32.97	23	P	P	15 43 23.5	-1.9
XAN				AP	pP	15 43 32.0	+0.1
XAN				AMB	AMB		
	comp=Z,21nm,1.3s,mb4.9						
LZH	Lanzhou	33.19	15	*e*P	P	15 43 26.5	-0.8
LZH				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.9						
GTA	Gaotai	35.61	8	P	P	15 43 48.0	-0.2
GTA				AP	pP	15 44 03.0	+8.3
GTA				AMB	AMB		
	comp=Z,55nm,0.6s,mb5.7						
KSH	Kashi	38.86	338	*e*P	P	15 44 16.0	+0.5
KSH				*e*AP	pP	15 44 21.0	-1.0
KSH				*e*XP	sP	15 44 25.0	+0.3
HHC	Hu-ho-hao-te	39.95	21	*e*P	P	15 44 25.8	+1.3
HHC				AP	pP	15 44 31.3	+0.3
HHC				XP	sP	15 44 34.5	+0.8
HHC				AMB	AMB		
	comp=Z,19nm,0.9s,mb4.8						
WMQ	Urumqi	39.99	353	P	P	15 44 26.5	+1.7
WMQ				AP	pP	15 44 31.0	-0.3
WMQ				XP	sP	15 44 33.5	-0.5
WMQ				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.0						
BJI	Beijing	41.11	26	P	P	15 44 36.0	+2.0
BJI				AMB	AMB		
	comp=Z,35nm,0.8s,mb5.0						
UCH	Uchtor	41.77	338	P	P	15 44 40.5	+1.1
	SNR=11						
KBK	Karagaybulak	41.98	339	P	P	15 44 41.7	+0.5
	SNR=11						
TKM2	Tokmak 2	41.99	340	P	P	15 44 42.6	+1.4
	SNR=7.8						
AML	Almayashu	41.99	337	P	P	15 44 43.1	+1.9
	SNR=11						
AAK	Ala-Archa	42.12	339	P	P	15 44 44.4	+2.0
	SNR=6.7						
EKS2	Erkin-Say	42.41	338	P	P	15 44 45.8	+1.0
	SNR=11						
USP	Ospenovka	42.67	339	P	P	15 44 46.9	0.0
	SNR=12						
NWAO	Narrogin (SRO)	42.92	151	P	P	15 44 49.6	+0.6
	comp=Z,4.6nm,0.6s,mb4.4,baz=351,slow=17,SNR=9.0						
SONM	Songino Array	44.94	12	P	P	15 45 05.3	+0.1
	comp=Z,35nm,0.6s,mb5.3,baz=193,slow=8.3,SNR=81						
WRA	Warramunga Arr	46.34	122	P	P	15 45 17.3	+0.7
	comp=Z,9.1nm,0.4s,mb5.1,baz=301,slow=9.1,SNR=43						
WRAB	Tennant Creek	46.35	122	*e*P	P	15 45 17.3	+0.7
	comp=Z,22nm,0.4s,mb5.5						
ASAR	Alice Springs	47.74	127	P	P	15 45 28.0	+0.4
	comp=Z,3.1nm,0.6s,mb4.5,baz=302,slow=7.5,SNR=14						
QRN	Al-Qurain	50.03	305	*e*P	P	15 45 45.9	+0.8
HIA	Hailar	50.14	22	*e*P	P	15 45 45.6	-0.1
	comp=Z,20nm,0.7s,mb5.2						
ZAL	Zalesovo	50.29	353	P	P	15 45 46.7	-0.1
	comp=Z,34nm,0.4s,mb5.7,baz=305,slow=5.9,SNR=58						
RDF	Al-Radifah	50.39	305	*e*P	P	15 45 48.5	+0.6
RDF				AMb	AMB	15 45 50.8	
	comp=Z,83nm,1.0s,mb5.7						
RST	Umm Al-Ruwaisa	51.05	305	*e*P	P	15 45 52.9	0.0
RST				AMb	AMB	15 45 55.5	
	comp=Z,64nm,1.2s,mb5.4						
BVAR	Borovoye Array	52.52	342	P	P	15 46 02.8	-0.9
	comp=Z,8.4nm,0.7s,mb4.8,baz=141,slow=9.5,SNR=16						
CHKZ	Chkalovo	53.02	343	*e*P	P	15 46 06.7	-0.7
	comp=Z,44nm,1.0s,mb5.3						
PMG	Port Moresby	54.75	104	P	P	15 46 18.8	-1.9
	comp=Z,6.8nm,0.6s,mb4.8,baz=147,slow=4.9,SNR=7.9						
CTA	Charters Tower	56.73	117	P	P	15 46 35.3	+0.4
	comp=Z,5.6nm,0.8s,mb4.7,baz=312,slow=13,SNR=3.6						
KMBO	Kilima Mbogo	56.82	266	P	P	15 46 35.5	-0.1
	comp=Z,2.1nm,0.6s,mb4.3,baz=67,slow=16,SNR=5.7						
GNI	Garni	56.96	316	P	P	15 46 35.4	-0.8
	comp=Z,4.7nm,0.8s,mb4.6,baz=206,slow=7.4,SNR=3.6						
STKA	Stephens Creek	57.71	132	P	P	15 46 41.4	-0.3
	comp=Z,2.4nm,0.6s,mb4.4,baz=333,slow=13,SNR=5.6						
ASF	Jabal al Asfar	60.13	305	P	P	15 46 58.6	+0.2
	comp=Z,2.3nm,0.5s,mb4.5,baz=89,slow=3.4,SNR=4.5						
MALT	Malatya	60.77	312	*e*P	P	15 47 02.8	0.0
EIL	Elat	61.15	302	P	P	15 47 05.1	-0.3
	comp=Z,6.0nm,0.8s,mb4.8,baz=271,slow=8.7,SNR=5.8						
MBAR	Mbarara	63.26	267	*e*P	P	15 47 19.4	-0.3
	comp=Z,8.2nm,1.3s,mb4.7						
YAK	Yakutsk	63.69	18	*e*P	P	15 47 19.0	-2.9
	comp=Z,33nm,0.8s,mb5.4						
BRTR	Keskin Array B	64.76	312	P	P	15 47 27.8	-1.5
	comp=Z,6.7nm,0.8s,mb4.7,baz=128,slow=6.8,SNR=19						
IDI	Anoyia	70.56	306	P	P	15 48 04.4	-1.2
	comp=Z,13nm,0.6s,mb5.1,baz=97,slow=6.5,SNR=12						
AKASG	Malin Array Be	71.00	323	P	P	15 48 05.9	-2.1
	comp=Z,1.2nm,0.3s,mb4.2,baz=82,slow=4.1,SNR=10						
MLR	Muntele Rosu	71.74	317	P	P	15 48 12.3	-0.3
	comp=Z,13nm,1.0s,mb4.8,baz=174,slow=2.5,SNR=10						
LBTB	Lobatse	72.22	242	*e*P	P	15 48 15.9	+0.1
KWP	Kalwaria	74.78	320	*e*P	P	15 48 29.4	-0.9
KOLS	Kolonicke sedl	74.92	320	*i* P	P	15 48 32.0	+0.9
KOLS				*e*	pP	15 48 38.6	+0.6
KOLS				*e*pP	pP	15 48 43.1	+5.1
CRVS	Cervenica-Dubn	75.44	319	*e*	P	15 48 38.1	+4.0
SUW	Suwalki	75.46	325	*e*P	P	15 48 31.0	-3.1
FINES	FINESS Array B	75.97	333	P	P	15 48 35.9	-0.9
	comp=Z,3.7nm,0.5s,mb4.5,baz=93,slow=5.5,SNR=15						
KECS	Kecovo	76.00	319	*e*P	P	15 48 39.3	+2.0
KECS				*e*	pP	15 48 47.5	+3.4
KAF	Kangasniemi	76.07	333	*e*p	P	15 48 36.0	-1.4
	comp=Z,13nm,1.0s,mb4.8						
OJC	Ojcow	76.74	321	*e*P	P	15 48 40.8	-0.6
VYHS	Vyhne	77.08	319	*e*P	P	15 48 43.4	+0.1
OKC	Ostrava-Krasne	77.73	320	*e*P	P	15 48 47.7	+0.8
ZST	Bratislava	78.19	318	*e*P	P	15 48 49.7	+0.3
KEV	Kevo	78.34	341	*e*p	P	15 48 49.0	-0.8
	comp=Z,8.0nm,0.8s,mb4.7						
ARCES	ARCESS Array B	78.76	341	P	P	15 48 51.2	-0.9
	comp=Z,6.4nm,0.8s,mb4.6,baz=102,slow=5.5,SNR=19						
DPC	Dobruska-Polom	78.96	320	*e*P	P	15 48 53.3	-0.3
FX1	Attu Island--F	80.32	37	P	P	15 49 01.0	+0.2
	comp=Z,14nm,0.7s,mb5.0,baz=14,slow=17,SNR=4.5						
GERES	GERESS Array B	80.50	319	P	P	15 49 02.0	+0.1
	comp=Z,3.0nm,0.6s,mb4.4,baz=90,slow=5.3,SNR=13						
BRG	Berggiesshubel	80.53	321	*e*P	P	15 49 02.2	+0.2
	comp=Z,11nm,1.2s,mb4.7						
KHC	Kasperske Hory	80.61	319	*e*P	P	15 49 02.3	-0.2
CLL	Collm	81.15	321	P	P	15 49 06.0	+0.7
HFS	Hagfors	81.62	330	P	P	15 49 06.5	-1.0
	comp=Z,2.4nm,0.5s,mb4.4,baz=104,slow=6.1,SNR=11						
WATA	Walderalm	81.83	317	⇑*i*P	P	15 49 08.4	-0.5
	comp=Z,6.6nm,0.8s,mb4.6						
SQTA	Sankt Quirin	82.07	317	⇓*i*P	P	15 49 08.9	-1.2
	comp=Z,8.0nm,0.6s,mb4.8						
MOTA	Moosalm	82.15	317	⇓*i*P	P	15 49 08.9	-1.6
	comp=Z,2.7nm,0.7s,mb4.3						
NB2	NORSAR Subarra	82.93	331	P	P	15 49 13.7	-0.6
	comp=Z,1.2nm,0.6s,mb4.1,baz=98,slow=5.0						
NOA	NORSAR Array B	82.93	331	P	P	15 49 13.7	-0.6
	comp=Z,2.1nm,0.8s,mb4.2,baz=95,slow=5.7,SNR=5.5						
RPZ	Rata Peaks	83.55	135	P	P	15 49 18.6	+0.7
	comp=Z,6.6nm,0.8s,mb4.8,baz=260,slow=6.1,SNR=3.4						
LPL	La Plagne	85.14	315	*e*P	P	15 49 25.7	-0.1
	comp=Z,14nm,0.7s,mb4.9						
VNDA	Vanda	89.25	168	P	P	15 49 46.6	+1.5
	comp=Z,2.6nm,1.1s,mb4.5,baz=320,slow=6.5,SNR=4.9						
ESDC	Sonseca Array	93.47	310	P	P	15 50 05.4	0.0
	comp=Z,0.8nm,0.5s,mb4.4,baz=63,slow=4.3,SNR=5.7						
ULM	Lac du Bonnet	125.27	8	PKP	PKPdf	15 55 51.4	-2.2
	comp=Z,4.1nm,0.9s,baz=6.2,slow=3.0,SNR=6.7						
ULM	Lac du Bonnet	125.27	8	PKP	PKPdf	15 55 51.4	-2.2
NVAR	Mina Array Bea	128.30	32	PKP	PKPdf	15 55 58.4	-1.5
	comp=Z,1.9nm,0.7s,baz=321,slow=1.6,SNR=8.9						
MNV	Mina	128.37	32	*e*PKPdf	PKPdf	15 55 58.6	-1.3
PDAR	Pinedale Array	128.80	22	PKP	PKPdf	15 55 58.8	-1.8
	comp=Z,1.9nm,0.9s,baz=157,slow=0.3,SNR=10						
MSU	Marysvale	131.27	27	*e*PKPdf	PKPdf	15 56 02.2	-3.2
ANMO	Albuquerque	136.75	25	PKP	PKPdf	15 56 14.6	-1.0
	comp=Z,4.2nm,1.1s,baz=197,slow=2.2,SNR=7.3						
BDFB	Brasilia	140.81	250	PKP	PKPdf	15 56 21.8	-1.9
	comp=Z,1.9nm,0.7s,baz=126,slow=7.7,SNR=2.1						
TXAR	Lajitas Array	142.78	26	PKhKP		15 56 21.6	
	comp=Z,0.4nm,0.4s,baz=354,slow=1.2,SNR=12						
JCT	Junction City	143.26	20	*e*PKPdf	PKPdf	15 56 22.9	-4.6
CPUP	Villa Florida	144.63	228	PKP	PKPdf	15 56 26.7	-3.3
	comp=Z,0.0nm,0.3s,baz=256,slow=12,SNR=1.7						
LPAZ	La Paz	158.54	234	PKP	PKPdf	15 56 49.2	-1.7
	comp=Z,0.8nm,0.6s,baz=268,slow=3.8,SNR=4.6						
LPAZ				PKPab	PKPab	15 57 23.8	-0.1
	comp=Z,1.1nm,0.5s,baz=86,slow=5.0,SNR=5.4						
LPAZ	La Paz	158.54	234	PKP	PKPdf	15 56 49.2	-1.7
LPAZ				PKPab	PKPab	15 57 23.8	-0.1

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*TIR **26** 15:38:27.1, 41.11N×20.19E, h14^{km}, Ml2.4*

*CSEM **26** 15:38:28.1±0.2, 41.18N×20.28E, ML3.2, Error ellipse: s-maj=4.9km s-min=2.6km az=40.0*

*PDG **26** 15:38:29.4±0.2, 41.18N×20.18E, h7^{km}*

*NEIC **26** 15:38:29.4, 41.18N×20.18E, h7^{km}, MD2.8(PDG), After PDG.*

*THE **26** 15:38:30.4, 41.16N×20.35E, h2^{km}, ML3.2*

ISC 26 15:38:28.4±0.4, **41.12N**±0.03×**20.22E**±0.03, **h10^{km}, n29,** σ**1$\overset{s}{.}$27**/53, **3C-5D, Albania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TIR	Tirane	0.35	311	*e*Pg	Pg	15 38 34.5	-1.1
TIR				*i* Sg	Sg	15 38 39.5	-0.9
OHR	Ohrid	0.44	91	*i* Pg	Pg	15 38 36.9	-0.5
OHR				*i* Sg	Sg	15 38 44.3	+0.9
QSH	Qafa e Shtames	0.46	330	*i* Pg	Pg	15 38 37.6	-0.3
QSH				*i* Sg	Sg	15 38 46.0	+1.9
PRZA	Preza	0.51	307	*i* pg?	Pg	15 38 40.0	+1.1
LACI	Lac	0.64	324	*i* Pg	Pg	15 38 39.8	-1.5
LACI				*i* Sg	Sg	15 38 49.9	-0.1
KBN	Korca	0.66	139	*i* Pg	Pg	15 38 40.7	-1.0
KBN				*i* Sg	Sg	15 38 52.0	+1.4
BIA	Bitola	0.84	97	*i* Pg	Pg	15 38 44.6	-0.8
BIA				⇑*i*Sg	Sg	15 38 56.4	-0.3
FNA	Florina	0.94	111	*e*Pg	Pg	15 38 45.7	-1.6
FNA				*e*Sg	Sg	15 38 59.9	-0.1
PUK	Puka	0.95	345	*i* Pg	Pg	15 38 46.2	-1.3
PUK				*i* Sg	Sg	15 39 01.7	+1.4
PUK	Puka	0.95	345	*e*Pg	Pg	15 38 46.2	-1.3
PUK				*i* Sg	Sg	15 39 01.7	+1.4
ULC	Ulcinj	1.11	320	⇓*i*Pg	Pg	15 38 48.6	-2.1
ULC				*e*Sg	Sg	15 39 05.2	-0.3
SKO	Skopje	1.25	47	*i* Pn	Pn	15 38 52.0	0.0
SKO				*i* Sn	Sn	15 39 10.0	+1.0
PVY	Plav	1.48	353	⇑*i*Pg	Pg	15 38 55.5	-2.6
PVY				*e*Sg	Sg	15 39 17.8	-0.1
TTG	Podgorica	1.49	332	⇑*i*Pg	Pg	15 38 55.8	-2.4
TTG				*e*Sg	Sg	15 39 18.1	0.0
BUM	Brajici-Budva	1.54	321	⇓*i*Pg	Pg	15 38 57.0	-2.2
BUM				*e*Sg	Sg	15 39 20.0	+0.3
BUM	Brajici-Budva	1.54	321	*e*Sg	Sg	15 39 20.0	+0.3
IGT	Igoumenitsa	1.59	177	*e*Pb	Pb	15 38 59.0	+1.5
IGT				*e*Sb	Sb	15 39 21.9	+4.4
GRG	Griva	1.66	95	*e*Pb	Pb	15 38 58.0	-0.7
GRG				*e*Sb	Sb	15 39 20.5	+0.9
GRG	Griva	1.66	95	*e*Pb	Pb	15 38 58.0	-0.7
GRG				*e*Sb	Sb	15 39 20.5	+0.9
IVA	Berane	1.77	352	⇓*i*Pn	Pn	15 39 00.7	+1.3
IVA				*e*Sn	Sn	15 39 25.1	+3.1
NKY	Niksic	1.92	332	⇓*i*Pn	Pn	15 39 02.6	+1.0
NKY				*e*Sn	Sn	15 39 29.3	+3.3
LIT	Litokhoron	2.01	120	*e*Pb	Pb	15 39 02.8	-1.8
LIT				*e*Sb	Sb	15 39 29.5	-0.2
KNT	Kendrikon	2.03	88	*e*Pb	Pb	15 39 03.8	-1.1
KNT				*e*Sb	Sb	15 39 28.8	-1.4
THE	Thessaloniki	2.14	102	*e*Pn	Pn	15 39 05.6	+0.9
BRY	Bratogost	2.17	326	⇓*i*Pn	Pn	15 39 06.7	+1.5
BRY				*e*Sn	Sn	15 39 35.1	+2.7
SRS	Serrai	2.55	89	*e*Pn	Pn	15 39 11.3	+0.7
SRS				*e*Sn	Sn	15 39 41.9	-0.1
SRS	Serrai	2.55	89	*e*Sn	Sn	15 39 41.9	-0.1
XOR	Xorichti	2.88	127	*e*Pn	Pn	15 39 16.9	+1.7
XOR				*e*Sn	Sn	15 39 51.4	+1.1
XOR	Xorichti	2.88	127	*e*Sn	Sn	15 39 51.4	+1.2

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*IDC **26** 15:41:45.2±0.7, 4.80N×94.94E, mb4.4/14, mb1 4.5/14, mb1mx4.4/20, Error ellipse: s-maj=26.8km s-min=16.0km az=45.0*

*NEIC **26** 15:41:49.6±0.4, 4.78N×95.00E, h30^{km}, mb4.6/3, Error ellipse: s-maj=21.6km s-min=10.0km az=52.0*

*BJI **26** 15:41:49.5, 4.80N×95.00E, h30^{km}, mb5.1*

ISC 26 15:41:47.7±0.6,**4.7N**±0.1×**94.9E**±0.1,**h30^{km},n27,**
σ**0^{s}92**/22,**mb4.4**/18,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GTA	Gaotai	34.81	7	P	P	15 48 38.0	0.0
GTA				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.8						
NJ2	Nanjing	35.24	37	*e*P	P	15 48 43.3	+1.5
NJ2				AMB	AMB		
	comp=Z,190nm,0.8s						
SONM	Songino Array	44.07	11	P	P	15 49 54.3	-0.5
	comp=Z,2.2nm,0.9s,mb3.9,baz=190,slow=8.8,SNR=2.5						
SONM				PcP	PcP	15 51 40.6	+0.3
	comp=Z,1.7nm,1.0s,baz=185,slow=3.0,SNR=3.3						
WRA	Warramunga Arr	45.86	124	P	P	15 50 09.8	+0.4
	comp=Z,10nm,0.7s,mb4.9,baz=302,slow=9.2,SNR=20						
WRAB	Tennant Creek	45.86	124	*e*P	P	15 50 08.7	-0.8
	comp=Z,22nm,0.8s,mb5.1						
ASAR	Alice Springs	47.35	128	P	P	15 50 20.9	-0.4
	comp=Z,3.7nm,0.6s,mb4.5,baz=299,slow=8.0,SNR=15						
ZAL	Zalesovo	49.75	352	P	P	15 50 39.3	-0.1
	comp=Z,3.8nm,0.7s,mb4.6,baz=288,slow=7.9,SNR=7.7						
JHJ	Hachijo jima 2	50.41	50	P	P	15 50 44.9	+0.1
	comp=Z,217nm,0.9s,baz=244,slow=16,SNR=2.4						
BVAR	Borovoye Array	52.20	342	P	P	15 50 58.0	+0.1
	comp=Z,2.1nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=4.5						
BRVK	Borovoye	52.26	341	P	P	15 50 56.6	-1.8
	comp=Z,2.0nm,0.8s,mb4.1						
CHKZ	Chkalovo	52.68	342	*e*P	P	15 51 02.1	+0.5
	comp=Z,3.2nm,0.5s,mb4.5						
STKA	Stephens Creek	57.41	133	P	P	15 51 35.8	-0.4
	comp=Z,2.6nm,0.8s,mb4.3,baz=298,slow=6.5,SNR=4.1						
KMBO	Kilima Mbogo	57.89	266	P	P	15 51 41.4	+1.6
	comp=Z,4.7nm,1.0s,mb4.5,baz=235,slow=24,SNR=8.5						
KMBO	Kilima Mbogo	57.89	266	P	P	15 51 41.4	+1.6
BRTR	Keskin Array B	65.07	312	P	P	15 52 26.3	-1.5
	comp=Z,2.8nm,0.6s,mb4.5,baz=126,slow=7.5,SNR=9.1						
AKASG	Malin Array Be	71.09	322	P	P	15 53 04.2	-0.9
	comp=Z,1.9nm,0.7s,mb4.2,baz=86,slow=4.6,SNR=7.3						
FINES	FINESS Array B	75.83	332	P	P	15 53 31.7	-1.0
	comp=Z,2.0nm,0.8s,mb4.1,baz=104,slow=7.9,SNR=3.7						
FINES	FINESS Array B	75.83	332	P	P	15 53 31.7	-1.0
ARCES	ARCESS Array B	78.47	340	P	P	15 53 47.6	+0.4
	comp=Z,2.1nm,0.7s,mb4.2,baz=79,slow=6.2,SNR=4.3						
FX1	Attu Island--F	79.16	37	P	P	15 53 51.8	+0.6
	comp=Z,19nm,0.7s,mb5.1,baz=295,slow=4.1,SNR=3.8						
GERES	GERESS Array B	80.67	319	P	P	15 54 01.2	+1.8
	comp=Z,1.4nm,0.9s,mb3.9,baz=102,slow=5.6,SNR=4.2						
HFS	Hagfors	81.54	330	P	P	15 54 04.2	+0.4
	comp=Z,1.3nm,0.5s,mb4.1,baz=129,slow=9.2,SNR=3.3						
NVAR	Mina Array Bea	127.17	33	PKP	PKPdf	16 00 51.0	-3.9
	comp=Z,0.5nm,0.5s,baz=284,slow=4.7,SNR=4.1						
PDAR	Pinedale Array	127.78	23	PKhKP		16 00 47.5	
	comp=Z,0.3nm,0.5s,slow=1.5,SNR=3.5						
TXAR	Lajitas Array	141.72	27	PKP	PKPdf	16 01 18.1	-4.1
	comp=Z,0.5nm,0.9s,baz=31,slow=1.7,SNR=4.6						
CPUP	Villa Florida	145.85	228	PKPbc	PKPbc	16 01 26.7	+1.5
	comp=Z,0.0nm,0.3s,baz=147,slow=4.8,SNR=1.6						
CPUP	Villa Florida	145.85	228	PKPbc	PKPbc	16 01 26.7	+1.5

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*IDC **26** 15:41:52.2±0.8,11.90N×92.04E,mb4.2/17,mb1 4.4/17, mb1mx4.3/22,Error ellipse: s-maj=38.4km s-min=16.7km az=48.0*

*BJI **26** 15:41:55.0,11.65N×92.43E,h41^{km},mb4.7*

*NEIC **26** 15:41:57.1±0.5,11.96N×92.17E,h30^{km},mb4.4/5,Error ellipse: s-maj=16.5km s-min=11.6km az=66.0*

ISC 26 15:41:55.0±0.5,**11.92N**±0.07×**92.20E**±0.08,**h30^{km},n48,**
σ**1^{s}06**/48,**mb4.3**/23,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	9.20	44	*e*P	P	15 44 16.7	+7.9
	12nm,0.4s						
VIS	Vishakhapatnam	10.33	305	*e*P	P	15 44 23.9	-0.6
VIS				*e*S	S	15 46 05.6	-15
VIS				*e*		15 46 10.4	
	comp=N,304nm,0.8s						
VIS				*e*		15 46 10.6	
	comp=Z,109nm,0.7s						
PKI	Pulchoki	16.82	339	*e*P	P	15 45 50.0	-0.1
	comp=Z,18nm,0.4s						
DMN	Daman	16.96	338	*e*P	P	15 45 51.8	-0.1
GUN	Gumba	16.97	341	*e*P	P	15 45 50.6	-1.4
	comp=Z,26nm,0.7s						
KKN	Kakani	17.07	339	*e*P	P	15 45 53.4	+0.2
	comp=Z,34nm,0.6s						
GKN	Gorkha	17.50	337	*e*P	P	15 46 00.1	+1.5
	comp=Z,56nm,0.3s						
KOLN	Koldanda	17.71	334	*e*P	P	15 46 02.7	+1.5
	comp=Z,50nm,0.6s						
LSA	Lhasa	17.72	357	*e*P	P	15 46 04.2	+2.9
	comp=Z,6.8nm,0.6s						
BHPL	Bhopal	18.01	311	*e*	P	15 46 14.7	+10
CD2	Chengdu	21.72	28	P	P	15 46 45.0	-0.7
DDI	Dehra Dun	22.52	327	*e*P	P	15 46 56.7	+2.8
ENH	Enshi	24.31	39	*e*P	P	15 47 10.7	-0.5
	comp=Z,54nm,0.8s,mb5.0						
LZH	Lanzhou	26.26	22	*e*P	P	15 47 30.3	+0.7
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.5						
GTA	Gaotai	28.20	13	P	P	15 47 47.8	+0.6
GTA				XP	sP	15 47 58.5	-1.4
GTA				PCP	PcP	15 51 03.0	+2.3
GTA				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.5						
NJ2	Nanjing	31.67	47	*e*P	P	15 48 16.5	-1.6
HHC	Hu-ho-hao-te	33.47	27	*e*P	P	15 48 33.8	0.0
HHC				AP	pP	15 48 44.0	+1.4
HHC				XP	sP	15 48 47.5	+1.0
HHC				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
SONM	Songino Array	37.73	16	P	P	15 49 09.8	0.0
	comp=Z,7.2nm,1.0s,mb4.3,baz=206,slow=7.6,SNR=11						
ZAL	Zalesovo	42.32	354	P	P	15 49 47.5	-0.3
	comp=Z,1.8nm,0.8s,mb3.8,baz=284,slow=10.0,SNR=4.0						
ZAL	Zalesovo	42.32	354	P	P	15 49 47.5	-0.3
BVAR	Borovoye Array	44.57	341	P	P	15 50 06.5	+0.5
	comp=Z,0.8nm,0.5s,mb3.8,baz=141,slow=9.5,SNR=5.3						
CHKZ	Chkalovo	45.06	342	*e*P	P	15 50 10.5	+0.5
	comp=Z,4.6nm,0.7s,mb4.4						
GNI	Garni	50.28	313	P	P	15 50 48.7	-2.1
	comp=Z,3.9nm,0.7s,mb4.6,baz=36,slow=22,SNR=2.2						
WRA	Warramunga Arr	52.19	127	P	P	15 51 05.8	+0.2
	comp=Z,3.7nm,0.6s,mb4.5,baz=301,slow=9.8,SNR=4.7						
WRAB	Tennant Creek	52.19	127	P	P	15 51 05.9	+0.3
ASAR	Alice Springs	53.98	131	P	P	15 51 18.9	+0.2
	comp=Z,2.1nm,0.9s,mb4.1,baz=306,slow=7.0,SNR=4.0						
ASAR	Alice Springs	53.98	131	P	P	15 51 18.9	+0.2
YAK	Yakutsk	56.83	20	*e*P	P	15 51 37.8	-1.1
BRTR	Keskin Array B	58.37	309	P	P	15 51 48.6	-1.5
	comp=Z,1.7nm,0.8s,mb4.1,baz=135,slow=8.7,SNR=6.0						
AKASG	Malin Array Be	63.82	321	P	P	15 52 26.1	-0.7
	comp=Z,1.4nm,0.7s,mb4.1,baz=88,slow=5.0,SNR=6.9						
STKA	Stephens Creek	64.28	134	P	P	15 52 30.5	+0.4
	comp=Z,3.9nm,0.8s,mb4.5,baz=278,slow=7.4,SNR=4.6						
STKA	Stephens Creek	64.28	134	P	P	15 52 30.5	+0.4
MLR	Muntele Rosu	64.97	315	P	P	15 52 32.1	-2.2
	comp=Z,4.4nm,0.8s,mb4.5,baz=255,slow=22,SNR=4.8						
FINES	FINESS Array B	68.26	332	P	P	15 52 54.5	-0.5
	comp=Z,1.7nm,0.6s,mb4.2,baz=90,slow=7.6,SNR=6.3						
FINES	FINESS Array B	68.26	332	P	P	15 52 54.5	-0.5
ARCES	ARCESS Array B	70.83	340	P	P	15 53 10.7	+0.1
	comp=Z,3.1nm,0.7s,mb4.3,baz=90,slow=7.3,SNR=7.9						
GERES	GERESS Array B	73.56	318	P	P	15 53 27.6	+0.5
	comp=Z,1.2nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=7.0						
HFS	Hagfors	74.02	329	P	P	15 53 29.4	-0.1
	comp=Z,1.6nm,0.5s,mb4.2,baz=79,slow=7.3,SNR=6.5						
LBTB	Lobatse	74.55	240	*e*P	P	15 53 36.4	+3.1
	comp=Z,2.7nm,0.6s,mb4.3						
NB2	NORSAR Subarra	75.29	330	P	P	15 53 37.2	+0.4
	comp=Z,1.6nm,0.8s,mb4.0,baz=96,slow=5.0						
NOA	NORSAR Array B	75.29	330	P	P	15 53 37.2	+0.3
	comp=Z,3.5nm,0.9s,mb4.3,baz=91,slow=5.7,SNR=6.1						
NOA	NORSAR Array B	75.29	330	P	P	15 53 37.2	+0.3
BOSA	Boshof	76.15	236	P	P	15 53 44.1	+1.7
SUR	Sutherland	81.08	234	P	P	15 54 07.9	-1.3
ILAR	Eielson Array	91.73	22	P	P	15 55 00.8	+0.2
	comp=Z,0.6nm,0.6s,mb4.1,baz=275,slow=5.6,SNR=8.7						
INK	Inuvik	93.64	15	P	P	15 55 10.3	+1.0
	comp=Z,0.7nm,0.6s,mb4.3,baz=320,slow=7.9,SNR=2.8						
INK	Inuvik	93.64	15	P	P	15 55 10.3	+1.0
YKA	Yellowknife Ar	102.94	12	Pdiff	Pdif	15 55 51.3	-0.2
	comp=Z,0.3nm,0.7s,baz=330,slow=7.2,SNR=4.6						

IDC 26 15:46:03.0±1.7,**9.98N**×**94.44E,mb4.0**/6,**mb1 4.2**/6,
mb1mx3.8/18,**Error ellipse: s-maj=179.0km s-min=22.2km az=48.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	49.26	127	P	P	15 54 54.3	-1.5
	0.6nm,0.3s,baz=304,slow=9.0,SNR=8.1						
ASAR	Alice Springs	51.05	131	P	P	15 55 06.9	-2.5
	0.8nm,0.5s,baz=306,slow=7.1,SNR=6.8						
FINES	FINESS Array B	71.01	332	P	P	15 57 21.4	-3.0
	1.2nm,0.5s,baz=117,slow=8.5,SNR=4.6						
ARCES	ARCESS Array B	73.40	340	P	P	15 57 36.4	-2.1
	2.7nm,0.9s,baz=90,slow=4.9,SNR=3.7						
GERES	GERESS Array B	76.47	318	P	P	15 57 56.1	-0.4
	0.6nm,0.6s,baz=90,slow=5.3,SNR=4.4						
HFS	Hagfors	76.81	330	P	P	15 57 56.8	-1.3
	5.5nm,1.1s,baz=112,slow=7.8,SNR=4.1						

IDC 26 15:46:54.4±1.4,**5.28N**×**94.39E,mb3.8**/7,**mb1 4.1**/8,
mb1mx3.8/19,**ML4.2**/1,**Error ellipse: s-maj=68.5km s-min=21.1km az=53.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.83	18	Pn	P	15 50 17.2	+2.9
	0.4nm,0.3s,baz=213,slow=12,SNR=5.0						
SONM	Songino Array	43.63	12	P	P	15 55 00.4	-1.8
	0.7nm,0.7s,baz=189,slow=8.2,SNR=3.8						
WRA	Warramunga Arr	46.59	124	P	P	15 55 24.4	-1.9
	2.3nm,0.6s,baz=301,slow=9.2,SNR=9.0						
ASAR	Alice Springs	48.09	128	P	P	15 55 36.1	-2.0
	0.7nm,0.5s,baz=303,slow=7.2,SNR=5.6						
ZAL	Zalesovo	49.13	353	P	P	15 55 44.4	-1.4
	1.1nm,0.7s,baz=292,slow=3.3,SNR=3.9						
BVAR	Borovoye Array	51.51	342	P	P	15 56 01.4	-2.5
	0.7nm,0.6s,baz=143,slow=7.2,SNR=4.6						
FINES	FINESS Array B	75.11	332	P	P	15 58 37.6	-2.2
	1.4nm,0.6s,baz=124,slow=6.9,SNR=5.2						
GERES	GERESS Array B	79.92	319	P	P	15 59 05.8	-1.0
	0.3nm,0.7s,baz=104,slow=4.0,SNR=3.5						
KHC	Kasperske Hory	80.02	319	*e*P	P	15 59 20.0	+13

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*IDC **26** 15:48:12.2±1.5,3.08N×93.77E,mb4.0/7,mb1 4.2/8, mb1mx4.0/19,ML3.8/1,Error ellipse: s-maj=60.5km s-min=20.2km az=58.0*

ISC 26 15:48:15.2±1.2,**3.1N**±0.1×**93.8E**±0.2,**h33^{km},n8,**σ**0^{s}67**/8,
mb4.0/7,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	16.09	18	Pn	P	15 52 01.2	+0.5
	0.1nm,0.3s,baz=214,slow=12,SNR=5.8						
SONM	Songino Array	45.89	12	P	P	15 56 35.9	-0.5
	0.8nm,0.7s,mb3.8,baz=198,slow=8.8,SNR=5.2						
WRA	Warramunga Arr	45.91	122	P	P	15 56 37.3	+0.3
	2.2nm,0.6s,mb4.3,baz=299,slow=8.9,SNR=6.8						
ASAR	Alice Springs	47.24	126	P	P	15 56 47.2	-0.1
	1.4nm,0.7s,mb4.0,baz=300,slow=8.5,SNR=5.4						
ZAL	Zalesovo	51.23	353	P	P	15 57 17.9	+0.3
	1.5nm,0.4s,mb4.2,baz=277,slow=3.5,SNR=5.5						
BVAR	Borovoye Array	53.41	343	P	P	15 57 32.7	-1.3
	0.6nm,0.6s,mb3.7,baz=162,slow=4.6,SNR=3.8						
STKA	Stephens Creek	57.14	131	P	P	15 58 01.1	-0.3
	2.5nm,1.0s,mb4.2,baz=321,slow=12,SNR=2.8						
GERES	GERESS Array B	81.16	319	P	P	16 00 30.2	+1.1
	0.7nm,0.6s,mb3.7,baz=104,slow=5.5,SNR=5.5						

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*IDC **26** 15:50:43.1±1.1,6.53N×93.55E,h23^{km}±4^{km},mb3.8/7, mb1 4.0/7,mb1mx3.8/16,Error ellipse: s-maj=73.5km s-min=15.4km az=49.0*

*NEIC **26** 15:50:44.8±0.6,6.78N×93.98E,mb4.3/2,Error ellipse: s-maj=22.6km s-min=11.3km az=60.0*

ISC 26 15:50:42.6±0.8,**6.8N**±0.1×**94.1E**±0.2,**h29^{km},**
h29^{km}±2.9^{km}**:pP-P,n15,**σ**0^{s}67**/11,**mb4.0**/9,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.49	22	P	P	15 53 41.8	+0.3
SONM	Songino Array	42.19	12	pP	pP	15 58 45.9	+2.8
	1.0nm,0.7s,baz=189,slow=9.7,SNR=5.9						
ZAL	Zalesovo	47.56	353	P	P	15 59 17.3	-0.2
	0.9nm,0.6s,mb4.0,baz=307,slow=7.5,SNR=3.7						
ZAL				pP	pP	15 59 27.3	+1.0
	1.4nm,0.4s,baz=297,slow=4.7,SNR=4.6						
WRA	Warramunga Arr	47.73	125	P	P	15 59 19.0	-0.4
	0.9nm,0.8s,mb3.9,baz=302,slow=9.7,SNR=6.6						
WRA				pP	pP	15 59 28.1	+0.1
	2.2nm,0.8s,baz=302,slow=9.2,SNR=9.6						
WRAB	Tennant Creek	47.74	125	*e*P	P	15 59 19.6	+0.2
	3.3nm,0.7s,mb4.5						
WRAB				*e*pP	pP	15 59 30.3	+2.2
ASAR	Alice Springs	49.32	129	P	P	15 59 31.6	+0.1
	0.9nm,0.8s,mb3.9,baz=294,slow=6.5,SNR=5.2						
ASAR				pP	pP	15 59 41.3	+1.0
	1.5nm,1.1s,baz=309,slow=7.7,SNR=5.0						
BVAR	Borovoye Array	49.94	342	pP	pP	15 59 45.0	+0.3
	2.0nm,0.8s,baz=220,slow=35,SNR=3.9						
CHKZ	Chkalovo	50.43	342	P	P	15 59 38.6	-1.0
	1.1nm,0.6s,mb4.1						
CHKZ				*e*pP	pP	15 59 49.1	+0.7
AKASG	Malin Array Be	68.91	322	pP	pP	16 01 51.1	-4.8
	0.4nm,0.5s,baz=84,slow=4.5,SNR=2.9						
MLR	Muntele Rosu	69.85	316	pP	pP	16 01 58.5	-3.4
	2.0nm,0.7s,baz=70,slow=21,SNR=2.7						
FINES	FINESS Array B	73.58	332	P	P	16 02 13.7	-1.1
	1.8nm,0.9s,mb4.0,baz=104,slow=5.7,SNR=2.7						
FINES				pP	pP	16 02 21.2	-2.6
	1.9nm,0.7s,baz=90,slow=5.7,SNR=2.4						
ARCES	ARCESS Array B	76.21	340	P	P	16 02 30.7	+0.9
	1.7nm,0.8s,mb4.0,baz=94,slow=6.3,SNR=9.5						
ARCES				pP	pP	16 02 36.7	-2.1
	39nm,1.6s,baz=90,slow=4.9,SNR=0.9						
ARCES	ARCESS Array B	76.21	340	P	P	16 02 30.7	+0.9
ARCES				pP	pP	16 02 36.7	-2.1
GERES	GERESS Array B	78.54	318	P	P	16 02 44.0	+1.0
	0.3nm,0.6s,mb3.4,baz=76,slow=4.0,SNR=3.3						
GERES				pP	pP	16 02 48.4	-3.7
	1.3nm,0.7s,baz=90,slow=5.3,SNR=8.1						
HFS	Hagfors	79.31	330	P	P	16 02 47.3	+0.3
	11nm,1.3s,mb4.6,baz=98,slow=10,SNR=3.3						

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*IDC **26** 15:53:31.5±1.1,32.75S×177.91W,mb4.7/4,mb1 4.8/6, mb1mx4.3/15,ML4.3/2,Error ellipse: s-maj=42.7km s-min=22.0km az=139.0*

*NEIC **26** 15:53:33.3±0.6,32.66S×178.01W,h10^{km},mb4.9/6,Error ellipse: s-maj=16.2km s-min=9.2km az=106.0*

ISC 26 15:53:32.6±1.2,**32.77S**±0.05×**178.2W**±0.2,**h10^{km},n53,**
σ**1^{s}15**/43,**mb4.8**/8,**2C-2D,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	5.57	210	P	Pn	15 54 58.9	+1.3
MXZ				S	Sn	15 56 05.2	+2.8
MXZ	Matakaoa Point	5.57	210	*e*P	Pn	15 54 56.0	-1.6
MXZ				S	Sn	15 56 03.9	+1.5
MXZ				T		16 01 02.8	
PUZ	Puketiti	6.03	208	*e*P	Pn	15 55 04.5	+0.5
PUZ	Puketiti	6.03	208	*e*P	Pn	15 55 02.6	-1.4
PUZ				S	Sn	15 56 15.0	+1.1
MWZ	Matawai	6.55	211	*e*P	Pn	15 55 11.4	0.0
MWZ	Matawai	6.55	211	*e*P	Pn	15 55 10.3	-1.1
MWZ				S	Sn	15 56 27.7	+0.7
URZ	Urewera	6.68	213	Pn	Pn	15 55 13.5	+0.3
	5.6nm,0.3s,baz=49,slow=4.1,SNR=22						
URZ				Sn	Sn	15 56 29.9	-0.2
	20nm,0.3s,baz=159,slow=17,SNR=14						
URZ	Urewera	6.68	213	*e*P	Pn	15 55 14.2	+1.0
URZ	Urewera	6.68	213	*e*P	Pn	15 55 13.9	+0.7
WCZ	Waipu Caves	6.92	241	*e*P	Pn	15 55 22.6	+6.0
KNZ	Kokohu	7.08	207	*e*P	Pn	15 55 19.1	+0.3
OUZ	Omahuta	7.23	248	*e*P	Pn	15 55 26.0	+5.1
OUZ	Omahuta	7.23	248	*e*P	Pn	15 55 25.8	+4.9
BKZ	Black Stump Fm	7.69	212	*e*P	Pn	15 55 26.3	-1.2
BKZ	Black Stump Fm	7.69	212	*e*P	Pn	15 55 26.8	-0.7
BKZ				S	Sn	15 56 54.2	-1.4
MRZ	Mangatainoka R	9.32	211	S	Sn	15 57 29.0	-7.0
THZ	Tophouse	11.43	216	*e*P	P	15 56 17.9	-1.0
THZ				S	S	15 58 19.4	-8.3
KHZ	Kahutara	11.64	212	S	S	15 58 22.7	-10
MQZ	McQueen's Vall	13.06	211	S	S	15 58 53.5	-14
RPZ	Rata Peaks	13.79	214	Pn	P	15 56 48.6	-1.9
	1.5nm,0.3s,baz=322,slow=18,SNR=8.6						
RPZ				Sn	S	15 59 13.4	-11
DZM	Mont Dzumac	17.27	304	*e*P	P	15 57 36.0	+0.5
DZM	Mont Dzumac	17.27	304	*e*P	P	15 57 36.0	+0.5
AFI	Afiamalu	19.67	19	*e*P	P	15 57 58.7	-5.9
	35nm,0.7s						
STKA	Stephens Creek	33.83	260	P	P	16 00 19.1	+1.9
	3.8nm,0.9s,mb4.3,baz=105,slow=12,SNR=4.2						
CTA	Charters Tower	34.07	283	P	P	16 00 20.6	+1.3
	9.4nm,0.7s,mb4.8,baz=117,slow=11						
CTAO	Charters Tower	34.07	283	*e*P	P	16 00 20.4	+1.0
	9.8nm,0.7s,mb4.8						
ASAR	Alice Springs	42.85	270	P	P	16 01 32.9	+0.1
	12nm,0.8s,mb4.7,baz=109,slow=7.6,SNR=111						
WRAB	Tennant Creek	44.05	275	*e*P	P	16 01 41.7	-0.8
	15nm,0.6s,mb4.9						
WRAB				*e*P		16 01 42.1	
WRA	Warramunga Arr	44.05	275	P	P	16 01 42.2	-0.3
	12nm,0.6s,mb4.8,baz=114,slow=7.7,SNR=99						
MBWA	Marble Bar	55.82	265	*e*P	P	16 03 10.7	-1.8
	7.1nm,0.7s,mb4.8						
QSPA	South Pole Qui	57.35	180	P	P	16 03 24.4	+1.7
	22nm,0.7s,mb5.3						
SNAA	Sanae	75.80	178		P	16 05 31.3	+11
SNAA	Sanae	75.80	178	P	P	16 05 19.4	-0.4
	12nm,1.1s,mb4.8						
VNA3	Neumayer Olymp	75.97	176		P	16 05 36.4	+16
VNA2	Neumayer--Watz	76.39	177	⇑*i*	P	16 05 39.4	+16
BBL	Barber's Block	120.58	91	⇓*i*P	PKPdf	16 12 34.6	+6.4
MGG	Marie-Galante	120.90	90	⇑*e*P	PKPdf	16 12 36.0	+7.1
SEG	Port Louis	120.97	90	⇓*i*P	PKPdf	16 12 42.7	+14
BVAR	Borovoye Array	127.95	315	PKP	PKPdf	16 12 39.4	-2.2
	1.1nm,0.5s,baz=88,slow=1.7,SNR=7.0						
ARCES	ARCESS Array B	140.85	347	PKhKP		16 12 53.3	
	1.3nm,0.8s,baz=22,slow=4.9,SNR=3.0						
GNI	Garni	144.94	295	PKPbc	PKPbc	16 13 12.0	+1.9
	1.7nm,0.4s,baz=300,slow=1.5,SNR=2.3						
KAF	Kangasniemi	146.70	339	*e*p	PKPbc	16 13 14.5	+0.9
	9.9nm,0.7s						
OBN	Obninsk	146.97	323	*e*PKPbc	PKPbc	16 13 15.5	+1.0
FINES	FINESS Array B	147.29	339	PKPbc	PKPdf	16 13 16.5	+0.3
	11nm,0.7s,baz=61,slow=4.4,SNR=23						
NB2	NORSAR Subarra	151.05	351	PKP	PKPdf	16 13 25.7	+3.6
	2.1nm,0.8s,baz=32,slow=2.6						
NOA	NORSAR Array B	151.05	351	PKPbc	PKPdf	16 13 25.6	+3.5
	0.5nm,0.6s,baz=22,slow=2.8,SNR=4.2						
NOA				PKPab	PKPab	16 13 32.9	-2.0
	2.0nm,0.8s,baz=22,slow=2.7,SNR=6.9						
HFS	Hagfors	151.51	347	PKPbc	PKPdf	16 13 25.5	+2.6
	4.7nm,0.9s,baz=153,slow=3.3,SNR=6.2						
HFS				PKPab	PKPab	16 13 34.4	-2.5
	4.4nm,0.6s,baz=63,slow=3.3,SNR=6.1						
EIL	Elat	151.53	273	PKPbc	PKPdf	16 13 28.9	+5.0
	12nm,0.8s,baz=14,slow=6.6,SNR=10						
AKASG	Malin Array Be	153.02	320	PKPbc	PKPdf	16 13 30.1	+4.8
	0.9nm,0.5s,baz=48,slow=2.4,SNR=11						
BRTR	Keskin Array B	153.48	294	PKPbc	PKPdf	16 13 32.0	+5.7
	3.2nm,1.0s,baz=146,slow=4.5,SNR=9.7						
CLL	Collm	159.73	339	*e*PKP2	PKPab	16 14 10.0	-2.1
KHC	Kasperske Hory	161.42	335	*e*P	PKPab	16 14 17.5	-2.0
GERES	GERESS Array B	161.62	334	PKPab	PKPab	16 14 17.6	-2.7
	0.9nm,0.8s,baz=45,slow=3.8,SNR=4.2						

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*IDC **26** 15:54:15.1±1.1,10.86N×91.62E,mb3.8/8,mb1 3.9/9, mb1mx3.8/19,Error ellipse: s-maj=40.1km s-min=20.6km az=54.0*

*NEIC **26** 15:54:20.2±0.9,10.89N×91.79E,h30^{km},mb4.1/2,Error ellipse: s-maj=24.5km s-min=14.0km az=65.0*

ISC 26 15:54:17.2±1.0,**10.7N**±0.2×**91.5E**±0.2,**h30^{km},n14,**
σ**0^{s}67**/13,**mb3.8**/9,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.58	42	Pn	P	15 56 43.6	-6.5
	baz=237,slow=13,SNR=2.6						
LSA	Lhasa	18.92	359	*e*P	P	15 58 39.4	+1.2
	2.3nm,0.6s						
SONM	Songino Array	39.10	16	P	P	16 01 42.8	-0.8
	1.5nm,0.8s,mb3.8,baz=196,slow=9.0,SNR=9.8						
ZAL	Zalesovo	43.46	354	P	P	16 02 19.4	+0.1
	0.7nm,0.5s,mb3.6,baz=246,slow=5.0,SNR=4.3						
BVAR	Borovoye Array	45.51	342	P	P	16 02 35.3	-0.4
	0.6nm,0.9s,mb3.5,baz=135,slow=10,SNR=2.5						
WRA	Warramunga Arr	52.04	126	P	P	16 03 26.4	-0.3
	3.8nm,0.9s,mb4.3,baz=302,slow=8.7,SNR=7.3						
WRAB	Tennant Creek	52.04	126	*e*P	P	16 03 26.9	+0.1
	7.4nm,0.9s,mb4.6						
ASAR	Alice Springs	53.74	130	P	P	16 03 39.8	+0.5
	1.8nm,0.9s,mb4.0,baz=311,slow=7.5,SNR=4.9						
AKASG	Malin Array Be	64.32	321	P	P	16 04 51.7	-0.6
	0.1nm,0.4s,mb3.2,baz=50,slow=3.0,SNR=4.2						
ARCES	ARCESS Array B	71.74	340	P	P	16 05 37.7	-0.6
	0.8nm,0.7s,mb3.8,baz=101,slow=6.2,SNR=5.0						
ARCES	ARCESS Array B	71.74	340	P	P	16 05 37.7	-0.6
GERES	GERESS Array B	73.98	318	P	P	16 05 52.7	+1.0
	0.4nm,0.8s,mb3.4,baz=117,slow=2.2,SNR=3.6						
CLL	Collm	74.52	320	*e**SP	Px	16 06 10.0	
THY	Trims Highway	94.30	22	*e*P	P	16 07 34.7	0.0

DJA 26 15:54:55.6±0.9,**9.82S**×**114.17E,h33^{km},MD5.0**/4,
ML4.3/2,**1C-3D,Error ellipse: s-maj=18.7km s-min=10.2km az=25.0,South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	Scrawed	1.33	359	⇑*e*Pn	Pn	15 55 16.5	-1.7
	388nm,0.2s						
SRDI				*e*Sn	Sn	15 55 31.9	-3.1
KELI	Kelakatan	1.62	11	⇓*e*Pn	Pn	15 55 21.4	-1.0
	220nm,0.1s						
KELI	Kelakatan	1.62	11	*e*P	P	15 55 22.3	+0.1
KELI				*e*Sn	Sn	15 55 40.5	-1.9
RATI	Rata	1.73	51	⇓*e*Pn	Pn	15 55 22.3	-1.6
RATI				*e*Sn	Sn	15 55 41.4	-3.7
KEDI	Kedomdong	2.33	56	⇓*e*Pn	Pn	15 55 31.0	-1.5
KEDI				*e*Sn	Sn	15 55 56.5	-3.9

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*IDC **26** 15:56:46.0±0.6,13.95N×93.17E,mb4.2/20,mb1 4.3/21, mb1mx4.3/25,ML4.7/1,Error ellipse: s-maj=23.8km s-min=14.0km az=50.0*

*NEIC **26** 15:56:47.8±6.2,13.96N×93.22E,h10^{km}±38^{km},mb4.4/6, Error ellipse: s-maj=14.8km s-min=8.8km az=50.0*

*BJI **26** 15:56:47.7,14.00N×93.20E,h10^{km},mb4.4,Ms5.5*

ISC 26 15:56:49.2±0.4,**13.98N**±0.06×**93.21E**±0.06,**h33^{km},n49,**
σ**1^{s}09**/49,**mb4.2**/26,**1C,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	Nakhon Sawan	6.90	75	P	P	15 58 31.2	+0.6
CM31	Chiang Mai Arr	7.08	50	*e*P	P	15 58 32.1	-1.0
	19nm,0.4s						
CMAR	Chiang Mai Arr	7.08	50	Pn	Pn	15 58 31.8	-1.5
	3.3nm,0.3s,baz=241,slow=15,SNR=34						
CMAR				Sn	Sn	15 59 48.8	-4.7
	1.3nm,0.3s,baz=238,slow=29,SNR=2.7						
VIS	Vishakhapatnam	10.21	293	*e*P	P	15 59 13.2	-3.4
VIS				*e*S	S	16 00 58.5	-12
VIS				*e*		16 01 03.7	
	comp=N,229nm,0.2s						
VIS				*e*		16 01 04.2	
	comp=E,188nm,0.5s						
IMP	Imphal	10.77	4	*e*	P	15 59 22.3	-1.9
PKI	Pulchoki	15.35	333	*e*P	P	16 00 25.2	0.0
	comp=E,8.9nm,0.3s						
GUN	Gumba	15.45	335	*e*P	P	16 00 27.1	+0.7
	comp=E,30nm,0.7s						
DMN	Daman	15.52	332	*e*P	P	16 00 26.7	-0.7
	comp=E,11nm,0.3s						
KKN	Kakani	15.60	333	*e*P	P	16 00 28.3	-0.1
	comp=E,16nm,0.5s						
LSA	Lhasa	15.76	353	*e*P	P	16 00 34.8	+4.5
	comp=E,12nm,0.6s						
GKN	Gorkha	16.07	332	*e*P	P	16 00 33.4	-1.0
	comp=E,15nm,0.3s						
KOLN	Koldanda	16.38	328	*e*P	P	16 00 37.8	-0.5
	comp=E,19nm,0.5s						
BHPL	Bhopal	17.55	304	*e*P	P	16 00 46.4	-6.7
BHPL				*e*	S	16 04 01.3	-4.0
GYA	Guiyang	17.69	43	⇑*i*P	P	16 00 56.8	+2.1

GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s						
DDI	Dehra Dun	21.44	322	*e*P	P	16 01 38.5	+1.8
ENH	Enshi	22.09	40	*e*P	P	16 01 41.7	-1.5
	comp=Z,18nm,0.9s,mb4.5						
LZH	Lanzhou	23.99	22	*e*P	P	16 02 02.5	+0.7
LZH				AP		16 02 05.5	
LZH				XP		16 02 07.3	
LZH				AMB	AMB		
	comp=Z,53nm,1.7s,mb4.7						
GTA	Gaotai	25.99	12	P	P	16 02 20.8	0.0
GTA				AP	pP	16 02 28.0	-2.2
GTA				XP	sP	16 02 32.0	-2.1
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.2						
SONM	Songino Array	35.49	15	P	P	16 03 44.9	+0.2
	comp=Z,1.3nm,0.5s,mb4.1,baz=208,slow=6.9,SNR=6.4						
ZAL	Zalesovo	40.41	352	P	P	16 04 25.8	0.0
	comp=Z,2.9nm,0.5s,mb4.2,baz=295,slow=7.0,SNR=12						
BVAR	Borovoye Array	42.96	340	P	P	16 04 47.1	+0.3
	comp=Z,0.7nm,0.7s,mb3.5,baz=145,slow=9.7,SNR=4.6						
BRVK	Borovoye	43.02	340	*e*P	P	16 04 49.6	+2.3
CHKZ	Chkalovo	43.43	341	*e*P	P	16 04 50.2	-0.4
	comp=Z,3.1nm,0.6s,mb4.2						
GNI	Garni	49.64	311	P	P	16 05 41.3	+1.6
	comp=Z,4.2nm,0.7s,mb4.6,baz=24,slow=9.8,SNR=4.6						
ASAJ	Asahikawa	51.56	44	P	P	16 05 55.4	+1.1
	comp=Z,7.9nm,1.0s,mb4.6,baz=169,slow=6.0,SNR=2.2						
NWAO	Narrogin (SRO)	51.99	154	P	P	16 05 56.3	-1.3
	comp=Z,8.7nm,0.9s,mb4.7,baz=294,slow=12,SNR=2.6						
WRA	Warramunga Arr	52.66	129	P	P	16 06 02.4	-0.4
	comp=Z,1.2nm,0.5s,mb4.1,baz=300,slow=9.5,SNR=4.9						
WRA				PcP	PcP	16 07 12.7	+0.2
	comp=Z,0.7nm,0.6s,baz=323,slow=3.2,SNR=5.0						
WRAB	Tennant Creek	52.67	129	*e*P	P	16 06 03.0	+0.1
ASAR	Alice Springs	54.62	133	P	P	16 06 16.2	-1.0
	comp=Z,1.5nm,0.5s,mb4.3,baz=306,slow=6.7,SNR=13						
KMBO	Kilima Mbogo	57.41	260	P	P	16 06 37.3	-0.1
	comp=Z,0.3nm,0.2s,mb3.9,baz=64,slow=16,SNR=1.8						
BRTR	Keskin Array B	57.86	308	P	P	16 06 40.4	+0.2
	comp=Z,1.4nm,0.7s,mb4.1,baz=122,slow=6.6,SNR=6.7						
AKASG	Malin Array Be	62.87	320	P	P	16 07 13.0	-1.3
	comp=Z,0.3nm,0.5s,mb3.7,baz=90,slow=3.7,SNR=4.5						
MBAR	Mbarara	63.50	262	*e*P	P	16 07 18.1	-1.0
	comp=Z,4.9nm,1.0s,mb4.5						
MLR	Muntele Rosu	64.24	314	P	P	16 07 23.2	-0.1
	comp=Z,4.6nm,0.9s,mb4.5,baz=14,slow=1.0,SNR=4.8						
STKA	Stephens Creek	65.02	135	P	P	16 07 29.3	+0.7
	comp=Z,3.5nm,1.1s,mb4.3,baz=341,slow=14,SNR=2.8						
FINES	FINESS Array B	66.93	331	P	P	16 07 39.5	-0.7
	comp=Z,5.6nm,1.1s,mb4.5,baz=124,slow=6.9,SNR=5.5						
FINES	FINESS Array B	66.93	331	P	P	16 07 39.5	-0.7
ARCES	ARCESS Array B	69.25	340	P	P	16 07 54.2	-0.4
	comp=Z,1.8nm,0.8s,mb4.1,baz=108,slow=3.8,SNR=4.6						
MORC	Moravsky Berou	70.21	318	*e*P	P	16 08 02.0	+1.3
GERES	GERESS Array B	72.72	317	P	P	16 08 16.2	+0.4
	comp=Z,1.2nm,0.6s,mb4.0,baz=86,slow=6.4,SNR=10						
HFS	Hagfors	72.77	329	P	P	16 08 15.8	0.0
	comp=Z,3.4nm,0.8s,mb4.3,baz=135,slow=2.1,SNR=7.6						
NB2	NORSAR Subarra	74.01	330	P	P	16 08 22.1	-0.9
	comp=Z,2.5nm,0.8s,mb4.2,baz=91,slow=4.8						
NOA	NORSAR Array B	74.01	330	P	P	16 08 22.5	-0.5
	comp=Z,0.8nm,0.7s,mb3.8,baz=95,slow=5.6,SNR=5.4						
LPG	La Plagne	77.71	314	*e*P	P	16 08 46.5	+2.0
	comp=Z,30nm,1.1s,mb4.8						
ILAR	Eielson Array	89.46	22	P	P	16 09 43.9	+0.2
	comp=Z,0.3nm,0.7s,mb3.8,baz=293,slow=3.9,SNR=8.5						
INK	Inuvik	91.41	16	P	P	16 09 55.5	+2.7
	comp=Z,0.9nm,0.6s,mb4.3,baz=276,slow=4.9,SNR=2.5						
PDAR	Pinedale Array	119.78	19	PKP	PKPdf	16 15 39.0	+2.5
	comp=Z,0.6nm,0.9s,baz=45,slow=2.6,SNR=2.5						
NVAR	Mina Array Bea	120.09	28	PKP	PKPdf	16 15 39.6	+2.5
	comp=Z,0.2nm,0.3s,baz=288,slow=2.9,SNR=2.4						
TXAR	Lajitas Array	133.96	21	PKP	PKPdf	16 16 06.9	+2.9
	comp=Z,0.1nm,0.3s,baz=180,slow=1.3,SNR=3.8						

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*IDC **26** 15:59:17.8±0.6, 7.22N×92.58E, mb4.2/19, mb1 4.4/20,*
mb1mx4.3/23, ML4.5/1, Error ellipse: s-maj=27.6km
s-min=14.3km az=53.0
*NEIC **26** 15:59:23.4±4.2, 7.24N×92.48E, h34^{km}±30^{km}, mb4.4/5,*
Error ellipse: s-maj=13.7km s-min=11.2km az=51.0
ISC 26 15:59:21.3±0.4, **7.22N**±0.08×**92.49E**±0.09, **h33^{km}, n29,**
σ**1^{s}19**/28, **mb4.2**/25, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	11.70	271	P	P	16 02 06.8	-2.1
CMAR	Chiang Mai Arr	12.81	29	Pn	P	16 02 25.0	+1.1
	0.8nm,0.3s,baz=232,slow=14,SNR=7.0						
SONM	Songino Array	42.17	14	P	P	16 07 12.6	+0.2
	0.6nm,0.7s,mb3.3,baz=198,slow=9.1,SNR=3.1						
NWAO	Narrogin (SRO)	46.35	151	P	P	16 07 46.4	+0.2
	13nm,0.9s,mb4.8,baz=312,slow=14,SNR=3.1						
ZAL	Zalesovo	46.99	354	P	P	16 07 49.9	-1.2
	1.5nm,0.9s,mb3.9,baz=313,slow=7.0,SNR=3.8						
BVAR	Borovoye Array	49.10	342	P	P	16 08 05.9	-1.5
	6.6nm,1.1s,mb4.6,baz=143,slow=7.4,SNR=6.7						
BRVK	Borovoye	49.16	342	*e*P	P	16 08 07.2	-0.7
	3.0nm,0.7s,mb4.4						
WRA	Warramunga Arr	49.23	124	P	P	16 08 07.6	-1.3
	2.7nm,0.6s,mb4.4,baz=303,slow=8.7,SNR=3.4						
WRAB	Tennant Creek	49.24	124	*e*P	P	16 08 11.7	+2.7
	5.8nm,0.6s,mb4.8						
CHKZ	Chkalovo	49.60	343	*e*P	P	16 08 09.5	-1.8
	4.5nm,0.7s,mb4.6						
ASAR	Alice Springs	50.77	128	P	P	16 08 19.8	-0.9
	1.3nm,0.7s,mb4.0,baz=304,slow=7.3,SNR=4.3						
KMBO	Kilima Mbogo	55.73	264	P	P	16 08 58.5	+1.0
	1.0nm,0.5s,mb4.1,baz=54,slow=19,SNR=3.1						
KMBO	Kilima Mbogo	55.73	264	P	P	16 08 58.5	+1.0
EIL	Elat	58.34	300	P	P	16 09 16.0	+0.2
	2.2nm,0.5s,mb4.5,baz=131,slow=22,SNR=4.6						
STKA	Stephens Creek	60.85	133	P	P	16 09 32.3	-0.8
	1.5nm,0.8s,mb4.2,baz=318,slow=8.0,SNR=3.2						
BRTR	Keskin Array B	61.62	311	P	P	16 09 37.2	-0.9
	0.8nm,0.7s,mb4.0,baz=125,slow=6.3,SNR=3.2						
AKASG	Malin Array Be	67.66	322	P	P	16 10 16.2	-0.8
	0.3nm,0.6s,mb3.5,baz=81,slow=4.4,SNR=4.3						
MLR	Muntele Rosu	68.50	316	P	P	16 10 22.7	+0.3
	4.8nm,1.1s,mb4.4,baz=152,slow=7.2,SNR=3.7						
LBTB	Lobatse	72.50	241	*e*P	P	16 10 50.2	+3.2
	2.2nm,1.0s,mb4.0						
FINES	FINESS Array B	72.53	333	P	P	16 10 46.8	+0.3
	4.0nm,1.0s,mb4.3,baz=124,slow=6.9,SNR=3.6						
ARCES	ARCESS Array B	75.33	340	P	P	16 11 03.0	+0.4
	1.2nm,0.6s,mb4.0,baz=104,slow=5.0,SNR=4.6						
GERES	GERESS Array B	77.22	318	P	P	16 11 14.9	+1.1
	3.7nm,0.9s,mb4.3,baz=90,slow=5.3,SNR=11						
MAW	Mawson	77.58	191	P	P	16 11 13.7	-1.7
	3.6nm,0.6s,mb4.5,baz=252,slow=18,SNR=5.3						
HFS	Hagfors	78.20	330	P	P	16 11 19.8	+0.9
	3.3nm,0.9s,mb4.3,baz=135,slow=2.0,SNR=3.7						
SUR	Sutherland	78.62	235	P	P	16 11 23.4	+1.5
	1.5nm,0.6s,mb4.1						
NOA	NORSAR Array B	79.50	331	P	P	16 11 26.6	+0.6
	0.7nm,0.6s,mb3.8,baz=93,slow=5.7,SNR=3.3						
DAVOX	Davos	79.72	316	P	P	16 11 29.2	+1.7
	3.8nm,0.5s,mb4.6,baz=136,slow=7.9,SNR=13						
ESDC	Sonseca Array	90.38	310	P	P	16 12 21.8	+1.0
	0.8nm,0.6s,mb4.3,baz=64,slow=3.6,SNR=4.6						
TXAR	Lajitas Array	140.47	22	PKhKP		16 18 40.9	
	0.4nm,1.0s,baz=315,slow=1.3,SNR=3.3						

IDC 26 15:59:34.5±1.3, **6.64N×92.44E, mb4.0**/11, **mb1 4.2**/11,
mb1mx4.0/20, **Error ellipse: s-maj=46.8km**
s-min=27.2km az=46.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	42.74	14	P	P	16 07 32.3	-2.9
	0.5nm,0.5s,baz=191,slow=7.3,SNR=3.6						
ZAL	Zalesovo	47.56	354	P	P	16 08 12.7	-0.9
	2.1nm,0.4s,baz=297,slow=7.1,SNR=5.1						
BVAR	Borovoye Array	49.63	343	P	P	16 08 28.5	-1.2
	1.5nm,0.8s,baz=135,slow=8.2,SNR=3.3						
ASAR	Alice Springs	50.45	128	P	P	16 08 34.5	-1.8
	2.1nm,0.6s,baz=306,slow=7.0,SNR=5.4						
BRTR	Keskin Array B	61.97	312	P	P	16 09 56.4	-2.3
	0.8nm,0.9s,baz=127,slow=7.2,SNR=2.8						
AKASG	Malin Array Be	68.08	322	P	P	16 10 35.7	-2.4
	0.5nm,0.6s,baz=88,slow=3.9,SNR=3.8						
MLR	Muntele Rosu	68.88	316	P	P	16 10 41.4	-1.8
	2.5nm,0.6s,baz=216,slow=12,SNR=4.1						
FINES	FINESS Array B	73.02	333	P	P	16 11 06.4	-1.4
	2.7nm,0.9s,baz=117,slow=4.3,SNR=4.6						
ARCES	ARCESS Array B	75.85	341	P	P	16 11 22.6	-1.4
	1.2nm,0.6s,baz=101,slow=6.2,SNR=4.3						
GERES	GERESS Array B	77.62	318	P	P	16 11 32.6	-1.7
	1.5nm,1.0s,baz=117,slow=4.4,SNR=3.4						
HFS	Hagfors	78.67	330	P	P	16 11 37.9	-1.9
	3.6nm,1.1s,baz=141,slow=9.5,SNR=4.0						

IDC 26 16:00:27.9±1.0, **4.95N×94.36E, mb4.1**/9, **mb1 4.3**/10,
mb1mx4.1/20, **ML4.4**/1, **Error ellipse: s-maj=47.4km**
s-min=17.7km az=48.0, Off west coast of northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.15	18	Pn	P	16 03 50.0	-2.1
	0.6nm,0.3s,baz=210,slow=11,SNR=8.6						
SONM	Songino Array	43.96	12	P	P	16 08 37.9	-0.5
	0.9nm,0.8s,baz=217,slow=5.0,SNR=3.3						
WRA	Warramunga Arr	46.44	123	P	P	16 08 57.0	-1.6
	3.5nm,0.7s,baz=306,slow=9.2,SNR=4.7						
ASAR	Alice Springs	47.92	128	P	P	16 09 08.2	-2.0
	4.7nm,0.6s,baz=300,slow=7.5,SNR=12						
PMG	Port Moresby	54.52	105	P	P	16 09 56.3	-3.9
	4.3nm,0.7s,baz=325,slow=12,SNR=3.1						
STKA	Stephens Creek	57.96	133	P	P	16 10 24.2	-0.6
	1.7nm,0.7s,baz=346,slow=8.3,SNR=3.4						
AKASG	Malin Array Be	70.58	322	P	P	16 11 44.7	-2.2
	1.1nm,0.5s,baz=81,slow=4.8,SNR=8.4						
FINES	FINESS Array B	75.38	333	P	P	16 12 12.0	-2.9
	3.3nm,1.0s,baz=90,slow=1.9,SNR=3.7						
GERES	GERESS Array B	80.14	319	P	P	16 12 41.0	-0.4
	0.9nm,0.8s,baz=104,slow=5.5,SNR=4.2						
HFS	Hagfors	81.08	330	P	P	16 12 44.5	-1.7
	1.5nm,0.7s,baz=98,slow=10,SNR=3.7						

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*IDC **26** 16:06:17.7±0.6, 4.85N×93.25E, mb4.5/13, mb1 4.6/14,*
mb1mx4.4/22, ML4.0/1, Error ellipse: s-maj=31.0km
s-min=14.0km az=50.0
*BJI **26** 16:06:20.6, 4.49N×93.44E, h54^{km}, mB5.5, mb4.7*
*NEIC **26** 16:06:22.2±0.5, 4.89N×93.28E, h30^{km}, mb4.6/8, Error*
ellipse: s-maj=15.0km s-min=9.7km az=66.0
ISC 26 16:06:20.1±0.6, **4.86N**±0.08×**93.32E**±0.10, **h30^{km}, n42,**
σ**1^{s}00**/35, **mb4.6**/29, **1C, Off west coast of northern**
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	14.59	22	*e*P	P	16 09 44.3	-2.2
CMAR	Chiang Mai Arr	14.59	22	Pn	P	16 09 47.0	+0.4
	0.2nm,0.3s,baz=221,slow=14,SNR=9.6						
IMP	Imphal	19.82	2	*e*	P	16 10 50.8	-0.6
QIZ	Qiongzhong	21.41	47	*e*P	P	16 11 10.3	+2.5
GUN	Gumba	23.99	344	*e*P	P	16 11 34.2	+0.9
	39nm,1.0s,mb4.8						
KKN	Kakani	24.05	342	*e*P	P	16 11 34.4	+0.5
	21nm,0.9s,mb4.6						
GKN	Gorkha	24.45	341	*e*P	P	16 11 38.7	+0.9
	55nm,1.0s,mb5.0						
KOLN	Koldanda	24.59	339	*e*P	P	16 11 40.0	+0.9
	34nm,1.0s,mb4.8						
LSA	Lhasa	24.79	355	P	P	16 11 44.0	+3.0
LSA	Lhasa	24.79	355	*e*P	P	16 11 43.2	+2.2
	17nm,1.1s,mb4.5						
GYA	Guiyang	24.98	29	⇑*i*P	P	16 11 43.5	+0.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
ENH	Enshi	29.52	29	*e*P	P	16 12 23.0	-1.3
	comp=Z,1.8nm,0.5s,mb4.1						
XAN	Xi’an	32.45	25	P	P	16 12 48.0	-2.0
XAN				AMB	AMB		
	comp=Z,18nm,0.8s,mb5.0						
GTA	Gaotai	34.89	9	P	P	16 13 11.5	+0.4
GTA				AMB	AMB		
	comp=Z,8.0nm,0.7s,mb4.8						
HHC	Hu-ho-hao-te	39.40	22	*e*P	P	16 13 50.3	+1.3
HHC				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,364nm,5.2s						
SONM	Songino Array	44.26	13	P	P	16 14 29.2	+0.4
	comp=Z,4.8nm,0.8s,mb4.3,baz=194,slow=8.2,SNR=30						
SONM				PcP	PcP	16 16 14.2	+0.9
	comp=Z,2.0nm,0.7s,baz=204,slow=3.2,SNR=7.5						
WRA	Warramunga Arr	47.25	123	P	P	16 14 52.5	-0.3
	comp=Z,19nm,0.8s,mb5.1,baz=300,slow=9.0,SNR=72						
WRAB	Tennant Creek	47.26	123	*e*P	P	16 14 52.9	0.0
	comp=Z,38nm,0.9s,mb5.3						
ASAR	Alice Springs	48.68	127	P	P	16 15 04.0	+0.1
	comp=Z,4.2nm,0.7s,mb4.6,baz=298,slow=7.8,SNR=25						
ASAR				PcP	PcP	16 16 29.7	+0.5
	comp=Z,1.2nm,0.6s,baz=304,slow=3.5,SNR=6.7						
ZAL	Zalesovo	49.42	353	P	P	16 15 09.5	+0.3
	comp=Z,2.0nm,0.6s,mb4.3,baz=291,slow=6.4,SNR=11						
HIA	Hailar	49.60	23	*e*P	P	16 15 11.1	+0.4
	comp=Z,7.2nm,0.9s,mb4.7						
BVAR	Borovoye Array	51.58	343	P	P	16 15 25.2	-0.5
	comp=Z,2.7nm,0.7s,mb4.3,baz=149,slow=8.6,SNR=11						
BVAR				PcP	PcP	16 16 39.9	+0.4
	comp=Z,0.9nm,0.7s,baz=124,slow=5.2,SNR=2.6						
BRVK	Borovoye	51.64	342	*e*P	P	16 15 25.6	-0.5
	comp=Z,5.0nm,1.1s,mb4.4						
CHKZ	Chkalovo	52.08	343	*e*P	P	16 15 28.3	-1.2
	comp=Z,5.8nm,0.7s,mb4.6						
PMG	Port Moresby	55.49	105	P	P	16 15 54.5	-0.7
	comp=Z,3.8nm,0.7s,mb4.5,baz=213,slow=3.2,SNR=4.2						
CTA	Charters Tower	57.60	117	P	P	16 16 11.0	+0.9
	comp=Z,5.9nm,1.0s,mb4.6,baz=291,slow=12,SNR=5.0						
ARU	Arti	58.35	338	*e*P	P	16 16 13.8	-1.0
	comp=Z,6.3nm,1.0s,mb4.6						
STKA	Stephens Creek	58.67	132	P	P	16 16 17.6	+0.3
	comp=Z,8.0nm,0.6s,mb4.9,baz=309,slow=7.1,SNR=21						
STKA	Stephens Creek	58.67	132	*e*P	P	16 16 17.5	+0.2
YAK	Yakutsk	63.09	18	*e*P	P	16 16 45.9	-1.0
	comp=Z,20nm,0.9s,mb5.2						
BRTR	Keskin Array B	63.80	312	P	P	16 16 50.9	-1.1
	comp=Z,1.5nm,0.7s,mb4.2,baz=124,slow=7.5,SNR=7.2						
BRTR				PcP	PcP	16 17 28.5	+1.0
	comp=Z,0.9nm,0.7s,baz=130,slow=7.1,SNR=3.0						
ARCES	ARCESS Array B	77.81	341	P	P	16 18 15.1	-0.8
	comp=Z,6.8nm,1.1s,mb4.5,baz=31,slow=5.3,SNR=3.1						
GERES	GERESS Array B	79.53	319	P	P	16 18 26.7	+1.0
	comp=Z,1.9nm,0.8s,mb4.1,baz=104,slow=5.5,SNR=16						
DAVOX	Davos	81.99	316	P	P	16 18 39.1	+0.4
	comp=Z,3.2nm,0.5s,mb4.5,baz=124,slow=6.2,SNR=7.7						
ILAR	Eielson Array	97.83	22	P	P	16 19 53.2	-0.4
	comp=Z,0.2nm,0.7s,mb3.7,baz=274,slow=4.4,SNR=4.5						
ILAR				PP	PP	16 23 54.1	-0.8
	comp=Z,0.3nm,0.8s,baz=270,slow=5.4,SNR=3.3						
YKA	Yellowknife Ar	109.53	13	PP	PP	16 25 15.7	-7.3
	comp=Z,0.6nm,1.0s,baz=330,slow=7.5,SNR=4.8						
ULM	Lac du Bonnet	124.54	7	PKP	PKPdf	16 25 20.6	-1.3
	comp=Z,1.1nm,0.7s,baz=352,slow=4.9,SNR=3.2						
NVAR	Mina Array Bea	127.90	31	PKP	PKPdf	16 25 28.2	-0.6
	comp=Z,0.8nm,0.7s,baz=65,slow=1.6,SNR=4.2						
PDAR	Pinedale Array	128.25	21	PKP	PKPdf	16 25 27.5	-1.8
	comp=Z,1.7nm,1.1s,slow=3.0,SNR=7.3						
TXAR	Lajitas Array	142.29	25	PKP	PKPdf	16 25 52.8	-2.8
	comp=Z,0.9nm,1.0s,baz=247,slow=1.7,SNR=4.9						
CPUP	Villa Florida	144.75	230	PKP	PKPdf	16 25 56.4	-3.6
	comp=Z,0.0nm,0.3s,baz=200,slow=14,SNR=1.5						
LPAZ	La Paz	158.55	237	PKPab	PKPab	16 26 53.5	+0.6
	comp=Z,1.1nm,0.8s,baz=149,slow=3.6,SNR=4.8						

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*BJI **26** 16:10:36.4, 7.05N×93.54E, h30^{km}, mb4.6*
*IDC **26** 16:10:39.0±0.5, 7.84N×93.98E, mb4.5/20, mb1 4.6/20,*
mb1mx4.5/23, Error ellipse: s-maj=22.2km s-min=13.0km
az=57.0
*NEIC **26** 16:10:43.5±0.3, 7.84N×94.11E, h30^{km}, mb4.7/14, Error*
ellipse: s-maj=14.5km s-min=8.2km az=62.0
ISC 26 16:10:41.8±0.4, **7.79N**±0.06×**94.06E**±0.09, **h30^{km}, n55,**
σ**1^{s}13**/50, **mb4.6**/38, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.62	24	*e*P	P	16 13 36.7	+7.9
PKI	Pulchoki	21.31	338	*e*P	P	16 15 28.6	+0.1
GUN	Gumba	21.46	340	*e*P	P	16 15 32.5	+2.5
DMN	Daman	21.46	338	*e*P	P	16 15 28.9	-1.1
	23nm,0.6s,mb4.7						
KKN	Kakani	21.56	338	*e*P	P	16 15 30.3	-0.7
LSA	Lhasa	21.96	353	P	P	16 15 36.5	+1.4
LSA	Lhasa	21.96	353	*e*P	P	16 15 35.2	+0.1
	19nm,0.6s,mb4.7						
GKN	Gorkha	21.99	337	*e*P	P	16 15 34.7	-0.6
KOLN	Koldanda	22.20	335	*e*P	P	16 15 37.8	+0.4
	55nm,0.8s,mb5.1						
DDI	Dehra Dun	26.97	328	*e*	P	16 16 26.6	+3.6
XAN	Xi’an	29.50	26	P	P	16 16 49.0	+3.2
XAN				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.7						
LZH	Lanzhou	29.55	16	*e*P	P	16 16 50.3	+4.1
LZH				AP	pP	16 16 53.3	-1.7
LZH				AMB	AMB		
	comp=Z,23nm,1.6s,mb4.7						
GTA	Gaotai	31.90	8	P	P	16 17 07.3	+0.4
GTA				AMB	AMB		
	comp=Z,3.0nm,1.1s,mb4.0						
MBWA	Marble Bar	38.25	139	P	P	16 18 02.4	+1.0
	comp=Z,7.8nm,0.9s,mb4.4						
SONM	Songino Array	41.26	13	P	P	16 18 27.0	+1.1
	comp=Z,3.6nm,0.8s,mb4.0,baz=197,slow=9.5,SNR=8.5						
NWAO	Narrogin (SRO)	46.11	153	P	P	16 19 05.6	+0.2
	comp=Z,9.1nm,0.7s,mb4.8,baz=347,slow=8.5,SNR=5.1						
ZAL	Zalesovo	46.62	352	P	P	16 19 09.3	+0.3
	comp=Z,6.2nm,0.4s,mb4.9,baz=302,slow=5.5,SNR=13						
WRA	Warramunga Arr	48.28	125	P	P	16 19 21.4	-1.2
	comp=Z,3.3nm,0.6s,mb4.6,baz=306,slow=8.5,SNR=11						
WRAB	Tennant Creek	48.28	125	*e*P	P	16 19 20.6	-2.0
	comp=Z,8.1nm,0.6s,mb4.9						
BVAR	Borovoye Array	49.04	341	P	P	16 19 25.9	-2.2
	comp=Z,0.7nm,0.5s,mb4.0,baz=272,slow=40,SNR=3.5						
BRVK	Borovoye	49.10	341	*e*P	P	16 19 28.8	+0.2
	comp=Z,1.3nm,0.8s,mb4.0						
CHKZ	Chkalovo	49.53	342	*e*P	P	16 19 30.4	-1.4
	comp=Z,5.8nm,0.8s,mb4.7						
ASAR	Alice Springs	49.92	130	P	P	16 19 34.2	-1.0
	comp=Z,4.6nm,0.5s,mb4.7,baz=301,slow=7.2,SNR=18						
GNI	Garni	54.44	314	*e*P	P	16 20 10.7	+1.9
	comp=Z,21nm,1.4s,mb4.9						
ASAJ	Asahikawa	55.53	41	P	P	16 20 17.6	+1.0
	comp=Z,7.7nm,0.7s,mb4.9,baz=152,slow=17,SNR=5.5						
ARU	Arti	55.93	337	*e*P	P	16 20 19.4	0.0
	comp=Z,7.6nm,1.0s,mb4.7						
KMBO	Kilima Mbogo	57.34	264	P	P	16 20 30.4	+0.3
	comp=Z,1.7nm,0.6s,mb4.2,baz=48,slow=22,SNR=5.4						
EIL	Elat	59.40	300	P	P	16 20 44.8	+0.5
	comp=Z,2.8nm,0.4s,mb4.7,baz=90,slow=12,SNR=4.4						
STKA	Stephens Creek	60.10	134	P	P	16 20 49.5	+0.5
	comp=Z,1.7nm,0.6s,mb4.3,baz=301,slow=7.8,SNR=5.3						
BRTR	Keskin Array B	62.42	311	P	P	16 21 02.1	-2.5
	comp=Z,1.7nm,0.6s,mb4.4,baz=126,slow=7.4,SNR=5.4						
AKASG	Malin Array Be	68.17	322	P	P	16 21 39.0	-2.4
	comp=Z,1.7nm,0.7s,mb4.2,baz=88,slow=4.6,SNR=8.2						
IDI	Anoyia	68.55	305	P	P	16 21 43.1	-1.0
	comp=Z,8.2nm,0.7s,mb4.8,baz=25,slow=18,SNR=4.8						
LSZ	Lusaka	69.17	250	*e*P	P	16 21 48.2	0.0
	comp=Z,4.6nm,0.6s,mb4.6						
FINES	FINESS Array B	72.75	332	P	P	16 22 08.0	-1.0
	comp=Z,9.6nm,0.7s,mb4.8,baz=96,slow=5.6,SNR=19						
FINES	FINESS Array B	72.75	332	P	P	16 22 08.0	-1.0
KAF	Kangasniemi	72.83	333	*e*p	P	16 22 08.6	-0.8
	comp=Z,3.5nm,0.5s,mb4.5						
OJC	Ojcow	73.99	320	*e*P	P	16 22 18.5	+2.1
LBTB	Lobatse	74.14	241	*e*P	P	16 22 18.0	+0.2
	comp=Z,8.1nm,0.8s,mb4.7						
KEV	Kevo	74.89	341	*e*p	P	16 22 20.9	-0.3
ARCES	ARCESS Array B	75.32	340	P	P	16 22 23.6	0.0
	comp=Z,4.9nm,1.0s,mb4.4,baz=92,slow=5.2,SNR=8.9						
BOSA	Boshof	75.48	238	*e*P	P	16 22 25.5	+0.1
	comp=Z,7.5nm,0.7s,mb4.7						
GERES	GERESS Array B	77.84	318	P	P	16 22 37.9	-0.3
	comp=Z,2.8nm,0.6s,mb4.4,baz=86,slow=6.2,SNR=16						
KHC	Kasperske Hory	77.93	319	*e*P	P	16 22 40.0	+1.3
MAW	Mawson	78.44	192	P	P	16 22 42.3	+1.2
	comp=Z,4.5nm,0.4s,mb4.8,baz=102,slow=23,SNR=15						
HFS	Hagfors	78.49	330	P	P	16 22 41.0	-0.6
	comp=Z,3.6nm,0.6s,mb4.5,baz=112,slow=8.0,SNR=7.4						
NB2	NORSAR Subarra	79.76	331	P	P	16 22 47.4	-1.0
	comp=Z,1.9nm,0.7s,mb4.1,baz=91,slow=5.8						
NOA	NORSAR Array B	79.76	331	P	P	16 22 47.8	-0.6
	comp=Z,2.7nm,0.8s,mb4.3,baz=93,slow=5.6,SNR=8.6						
SUR	Sutherland	80.22	235	*e*P	P	16 22 52.7	+1.2
	comp=Z,6.5nm,0.7s,mb4.7						
LPL	La Plagne	82.63	315	*e*P	P	16 23 03.7	-0.1
	comp=Z,24nm,0.9s,mb4.9						
ESDC	Sonseca Array	91.21	310	P	P	16 23 45.7	0.0
	comp=Z,2.2nm,0.7s,mb4.6,baz=70,slow=4.0,SNR=5.8						
YKA	Yellowknife Ar	106.52	13	Pdiff	Pdif	16 24 52.7	-1.4
	comp=Z,0.2nm,0.7s,baz=258,slow=31,SNR=4.7						
PDAR	Pinedale Array	125.27	21	PKP	PKPdf	16 29 44.6	-0.7
	comp=Z,0.8nm,0.8s,SNR=5.4						
TXAR	Lajitas Array	139.33	24	PKP	PKPdf	16 30 11.1	-0.9
	comp=Z,0.2nm,0.4s,baz=281,slow=0.5,SNR=5.4						
CPUP	Villa Florida	147.15	232	PKPbc	PKPdf	16 30 24.1	-1.7
	comp=Z,0.0nm,0.3s,baz=120,slow=14,SNR=1.6						
LPAZ	La Paz	160.66	242	PKPab	PKPab	16 31 25.6	+2.0
	comp=Z,1.0nm,0.8s,baz=97,slow=8.0,SNR=3.7						

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*IDC **26** 16:12:51.8±0.7, 13.87N×93.27E, mb4.3/15, mb1 4.5/16,*
mb1mx4.4/22, ML4.6/1, Error ellipse: s-maj=31.2km
s-min=15.6km az=55.0
*BJI **26** 16:12:51.2, 13.64N×93.29E, h21^{km}, mB5.5, mb4.5, Ms4.8,*
Msz4.6
*NEIC **26** 16:12:53.0±3.8, 13.94N×93.31E, h5^{km}±23^{km}, mb4.8/10,*
Error ellipse: s-maj=10.3km s-min=8.2km az=209.0
ISC 26 16:12:55.0±2.5, **13.95N**±0.07×**93.32E**±0.05, **h31^{km}**±18^{km},
h24^{km}±6.2^{km}**:pP-P, n57,** σ**1^{s}14**/56, **mb4.5**/27, **MS4.7**/2,
1C-1D, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	Nakhon Sawan	6.81	75	P	Pn	16 14 37.0	+1.5
CM31	Chiang Mai Arr	7.02	50	*e*P	Pn	16 14 37.5	-0.9
	39nm,0.6s						
CMAR	Chiang Mai Arr	7.02	50	Pn	Pn	16 14 37.8	-0.6
	2.5nm,0.3s,baz=241,slow=15,SNR=30						
CMAR				Sn	Sn	16 15 56.2	-1.8
	baz=242,slow=18,SNR=4.1						
CHG	Chiang Mai	7.25	47	⇓P	Pn	16 14 41.0	-0.6
	68nm,0.6s						
NANT	Nan	8.57	55	P	P	16 15 01.0	+1.0
VIS	Vishakhapatnam	10.32	293	*e*P	P	16 15 20.7	-3.5
VIS				*e*S	S	16 17 06.2	-14
VIS				*e*		16 17 13.8	
	comp=N,591nm,0.7s						
VIS				*e*		16 17 14.0	
	comp=E,356nm,0.5s						
HYB	Hyderabad	14.63	286	*i* P	P	16 16 20.0	-1.9
	comp=E,50nm,1.0s						
HYB				*e*S	S	16 19 02.0	-1.8
LSA	Lhasa	15.80	353	P	P	16 16 40.3	+3.2
LSA	Lhasa	15.80	353	*e*P	P	16 16 37.8	+0.6
	comp=E,42nm,1.0s						
GYA	Guiyang	17.64	43	⇑*i*P	P	16 17 02.8	+2.6
GYA				AMB	AMB		
	comp=Z,20nm,0.9s						
BHPL	Bhopal	17.66	304	*e*P	P	16 17 01.1	+0.5
BHPL				*e*		16 17 05.1	
	comp=Z,35nm,1.5s						
BHPL				*e*		16 20 06.4	
AJM	Ajmer	21.47	308	*i* P	P	16 17 44.0	+0.8
DDI	Dehra Dun	21.53	322	*e*P	P	16 17 44.6	+0.8
DDI				*e*S	S	16 21 40.8	+5.0
ENH	Enshi	22.05	40	*e*P	P	16 17 48.0	-1.0
	comp=Z,46nm,1.0s,mb4.9						
LZH	Lanzhou	23.98	21	*e*P	P	16 18 09.0	+1.1
LZH				AP		16 18 12.0	
LZH				AMB	AMB		
	comp=Z,97nm,1.5s,mb5.0						
LZH				LR	LR		
	comp=E,1µm,12.2s						
LZH				LR	LR		
	comp=Z,2µm,14.5s,MS4.7						
GTA	Gaotai	26.00	12	P	P	16 18 27.8	+0.8
GTA				AP	pP	16 18 39.5	+3.5
GTA				XP	sP	16 18 43.0	+2.9
GTA				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.1						
WMQ	Urumqi	30.16	352	P	P	16 19 04.0	-0.6
WMQ				AP	pP	16 19 08.5	-5.2
WMQ				XP	sP	16 19 11.0	-6.7
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.2						
HHC	Hu-ho-hao-te	31.18	27	*e*P	P	16 19 14.5	+0.9
HHC				AP	pP	16 19 21.5	-1.2
HHC				XP	sP	16 19 26.5	-0.2
HHC				PP	PP	16 20 20.3	+3.6

HHC				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.6						
HHC				AMB	AMB		
	comp=Z,837nm,9.3s						
HHC				LR	LR		
	comp=N,895nm,11.9s,MS4.7						
HHC				LR	LR		
	comp=E,565nm,13.1s,MS4.7						
BJT	**Baijiatuau**	**32.80**	**33**	P	**P**	**16 19 27.7**	**-0.1**
SONM	**Songino Array**	**35.49**	**15**	P	**P**	**16 19 51.7**	**+0.7**
	comp=E,6.9nm,1.1s,mb4.5,baz=203,slow=9.4,SNR=9.5						
ZAL	**Zalesovo**	**40.46**	**352**	P	**P**	**16 20 32.5**	**+0.2**
	comp=E,9.7nm,1.1s,mb4.5,baz=304,slow=8.0,SNR=8.5						
HIA	**Hailar**	**41.36**	**26**	P	**P**	**16 20 39.1**	**-0.7**
BVAR	**Borovoye Array**	**43.03**	**340**	P	**P**	**16 20 51.7**	**-1.7**
	comp=E,1.5nm,0.5s,mb4.0,baz=153,slow=10,SNR=6.1						
BRVK	**Borovoye**	**43.09**	**340**	*e*P	**P**	**16 20 53.6**	**-0.3**
MBWA	**Marble Bar**	**43.47**	**143**	P	**P**	**16 20 58.2**	**+0.7**
CHKZ	**Chkalovo**	**43.50**	**341**	*e*P	**P**	**16 20 55.9**	**-1.4**
	comp=E,4.7nm,0.6s,mb4.4						
GNI	**Garni**	**49.74**	**311**	P	**P**	**16 21 50.3**	**+3.7**
	comp=E,9.4nm,0.9s,mb4.8,baz=8.7,slow=12,SNR=4.8						
NWAO	**Narrogin (SRO)**	**51.91**	**154**	P	**P**	**16 22 01.9**	**-1.3**
	comp=E,10.0nm,0.6s,mb4.9,baz=319,slow=8.8,SNR=7.1						
NWAO	**Narrogin (SRO)**	**51.91**	**154**	P	**P**	**16 22 01.9**	**-1.3**
KIV	**Kislovodsk**	**52.38**	**315**	*e*P	**P**	**16 22 07.4**	**+0.8**
	comp=E,12nm,0.8s,mb4.9						
WRA	**Warramunga Arr**	**52.56**	**129**	P	**P**	**16 22 06.9**	**-1.3**
	comp=E,2.5nm,0.6s,mb4.3,baz=307,slow=8.4,SNR=6.3						
WRAB	**Tennant Creek**	**52.56**	**129**	*e*P	**P**	**16 22 00.8**	**-7.5**
ASAR	**Alice Springs**	**54.52**	**133**	P	**P**	**16 22 21.4**	**-1.2**
	comp=E,3.2nm,0.5s,mb4.6,baz=307,slow=6.8,SNR=11						
YAK	**Yakutsk**	**54.56**	**20**	*e*P	**P**	**16 22 20.8**	**-1.6**
	comp=E,7.6nm,0.7s,mb4.8						
BRTR	**Keskin Array B**	**57.96**	**308**	P	**P**	**16 22 46.8**	**-0.3**
	comp=E,3.4nm,0.8s,mb4.4,baz=118,slow=6.6,SNR=6.6						
AKASG	**Malin Array Be**	**62.96**	**320**	P	**P**	**16 23 21.8**	**+0.8**
	comp=E,4.2nm,1.0s,mb4.5,baz=81,slow=4.3,SNR=4.3						
STKA	**Stephens Creek**	**64.92**	**135**	*e*P	**P**	**16 23 27.0**	**-7.2**
FINES	**FINESS Array B**	**67.01**	**331**	P	**P**	**16 23 46.3**	**-0.7**
	comp=E,1.7nm,0.6s,mb4.2,baz=91,slow=8.9,SNR=4.7						
ARCES	**ARCESS Array B**	**69.32**	**340**	P	**P**	**16 24 01.4**	**+0.1**
	comp=E,1.7nm,0.6s,mb4.2,baz=79,slow=6.2,SNR=4.3						
MORC	**Moravsky Berou**	**70.31**	**318**	*e*P	**P**	**16 24 07.9**	**+0.4**
	comp=E,5.8nm,1.0s,mb4.5						
LSZ	**Lusaka**	**70.65**	**248**	*e*P	**P**	**16 24 11.2**	**+1.0**
	comp=E,4.9nm,0.8s,mb4.5						
PRU	**Pruhonice**	**72.25**	**318**	*e*P	**P**	**16 24 27.0**	**+7.8**
PRU				*e*x	x	16 24 37.8	
GERES	**GERESS Array B**	**72.82**	**317**	P	**P**	**16 24 23.0**	**+0.4**
	comp=E,1.8nm,0.7s,mb4.1,baz=86,slow=5.9,SNR=13						
HFS	**Hagfors**	**72.85**	**329**	P	**P**	**16 24 22.2**	**-0.4**
	comp=E,2.2nm,0.5s,mb4.3,baz=104,slow=6.1,SNR=7.2						
KHC	**Kasperske Hory**	**72.89**	**317**	*e*P	**P**	**16 24 24.0**	**+0.9**
CLL	**Collm**	**73.20**	**320**	*e*P	**P**	**16 24 27.0**	**+2.2**
CLL	**Collm**	**73.20**	**320**	P	**P**	**16 24 27.0**	**+2.2**
NB2	**NORSAR Subarra**	**74.09**	**330**	P	**P**	**16 24 22.4**	**-7.4**
	comp=E,1.5nm,0.6s,mb4.1,baz=89,slow=5.8						
NOA	**NORSAR Array B**	**74.09**	**330**	P	**P**	**16 24 28.9**	**-0.8**
	comp=E,1.3nm,0.6s,mb4.0,baz=90,slow=5.7,SNR=4.9						
LPL	**La Plagne**	**77.82**	**314**	*e*P	**P**	**16 24 53.5**	**+2.3**
	comp=E,45nm,1.1s,mb5.0						
BOSA	**Boshof**	**78.18**	**236**	*e*P	**P**	**16 24 54.4**	**+0.9**
	comp=E,18nm,1.1s,mb4.9						
ILAR	**Eielson Array**	**89.45**	**22**	P	**P**	**16 25 50.0**	**0.0**
	comp=E,1.1nm,0.7s,mb4.3,baz=300,slow=4.8,SNR=12						
PDAR	**Pinedale Array**	**119.78**	**19**	PKP	PKPdf	16 31 44.5	-3.1
	comp=E,0.7nm,0.9s,baz=18,slow=2.1,SNR=4.2						
NVAR	**Mina Array Bea**	**120.07**	**28**	PKP	PKPdf	16 31 46.7	-1.6
	comp=E,1.4nm,0.7s,baz=264,slow=2.9,SNR=6.2						
MSU	**Marysvale**	**122.61**	**24**	*e*P	PKPdf	16 31 52.2	-1.0
TXAR	**Lajitas Array**	**133.95**	**21**	PKP	PKPdf	16 32 12.8	-2.4
	comp=E,1.3nm,1.0s,baz=148,slow=0.9,SNR=8.4						
JCT	**Junction City**	**134.06**	**16**	*e*P	PKPdf	16 32 13.2	-2.1

IDC ***26*** *16:13:15.0±0.5,7.82N×94.13E,h20^{km}±3^{km},mb4.2/14, mb1 4.3/14,mb1mx4.3/20,Error ellipse: s-maj=22.3km s-min=12.0km az=50.0*

NEIC ***26*** *16:13:15.3±0.5,7.82N×94.17E,mb4.7/7,Error ellipse: s-maj=16.2km s-min=10.1km az=66.0*

ISC 26 16:13:13.2±0.5,**7.7N**±0.1×**94.1E**±0.1,**h20**^{km}**, h20**^{km}±.3^{km}**:pP-P,n28,**σ0.^{s}**82**/25,**mb4.5**/20,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**11.65**	**23**	*e*P	**P**	**16 15 57.3**	**-4.3**
LSA	**Lhasa**	**22.03**	**353**	*e*P	**P**	**16 18 08.9**	**+0.6**
	41nm,0.6s,mb5.0						
PTH	**Pithoragarh**	**25.33**	**331**	*e*	pP	16 18 43.2	-3.1
SONM	**Songino Array**	**41.31**	**13**	P	**P**	**16 20 59.6**	**+0.5**
	1.5nm,0.5s,mb3.9,baz=201,slow=8.2,SNR=5.4						
SONM				pP	pP	16 21 05.4	+0.4
	2.6nm,0.5s,baz=195,slow=9.2,SNR=2.5						
NWAO	**Narrogin (SRO)**	**46.04**	**153**	P	**P**	**16 21 39.2**	**+1.6**
	28nm,1.3s,mb5.0,baz=96,slow=16,SNR=4.5						
NWAO	**Narrogin (SRO)**	**46.04**	**153**	P	**P**	**16 21 39.2**	**+1.6**
HIA	**Hailar**	**46.67**	**23**	*e*P	**P**	**16 21 43.6**	**+1.3**
	3.1nm,0.5s,mb4.5						
ZAL	**Zalesovo**	**46.68**	**352**	P	**P**	**16 21 42.7**	**+0.3**
	4.9nm,0.5s,mb4.7,baz=303,slow=3.8,SNR=8.2						
ZAL				pP	pP	16 21 48.6	+0.3
	7.9nm,0.5s,baz=304,slow=6.9,SNR=4.1						
ZAL	**Zalesovo**	**46.68**	**352**	P	**P**	**16 21 42.7**	**+0.3**
ZAL				pP	pP	16 21 48.6	+0.3
WRA	**Warramunga Arr**	**48.21**	**125**	P	**P**	**16 21 54.7**	**-0.1**
	1.4nm,0.5s,mb4.3,baz=306,slow=8.6,SNR=9.0						
WRA				pP	pP	16 22 00.9	+0.1
	3.5nm,0.7s,baz=306,slow=8.7,SNR=6.4						
WRAB	**Tennant Creek**	**48.21**	**125**	*e*P	**P**	**16 21 54.2**	**-0.7**
	3.6nm,0.6s,mb4.6						
CHKZ	**Chkalovo**	**49.60**	**342**	P	**P**	**16 22 05.6**	**+0.5**
	6.6nm,0.8s,mb4.7						
ASAR	**Alice Springs**	**49.85**	**130**	P	**P**	**16 22 07.2**	**-0.2**
	1.5nm,0.5s,mb4.3,baz=301,slow=7.8,SNR=6.9						
ASAR				pP	pP	16 22 13.4	-0.1
	5.4nm,0.6s,baz=307,slow=7.4,SNR=14						
PMG	**Port Moresby**	**55.52**	**107**	P	**P**	**16 22 49.0**	**-0.9**
	5.1nm,0.8s,mb4.6,baz=322,slow=9.1,SNR=3.3						
KMBO	**Kilima Mbogo**	**57.37**	**264**	P	**P**	**16 23 03.9**	**+0.8**
	2.7nm,1.0s,mb4.2,baz=50,slow=22,SNR=5.4						
KMBO				pP	pP	16 23 10.3	+1.1
	6.6nm,0.9s,baz=50,slow=9.7,SNR=8.6						
AKASG	**Malin Array Be**	**68.24**	**322**	P	**P**	**16 24 12.6**	**-2.1**
	0.5nm,0.5s,mb3.8,baz=86,slow=5.0,SNR=3.2						
FINES	**FINESS Array B**	**72.82**	**332**	P	**P**	**16 24 41.6**	**-0.6**
	9.3nm,1.0s,mb4.7,baz=88,slow=5.4,SNR=8.1						
FINES				pP	pP	16 24 48.1	-0.3
	5.2nm,0.6s,baz=103,slow=6.9,SNR=5.0						
KAF	**Kangasniemi**	**72.90**	**333**	*e*p	**P**	**16 24 42.3**	**-0.4**
	3.2nm,0.4s,mb4.6						
KEV	**Kevo**	**74.96**	**341**	*e*p	**P**	**16 24 54.0**	**-0.5**
	9.2nm,1.0s,mb4.7						
ARCES	**ARCESS Array B**	**75.39**	**340**	P	**P**	**16 24 56.9**	**-0.1**
	2.4nm,0.7s,mb4.3,baz=109,slow=3.9,SNR=7.7						
GERES	**GERESS Array B**	**77.91**	**318**	P	**P**	**16 25 11.3**	**-0.1**
	2.6nm,0.7s,mb4.3,baz=97,slow=3.5,SNR=4.2						
GERES				pP	pP	16 25 17.4	-0.2
	1.5nm,0.5s,baz=92,slow=5.8,SNR=2.1						
HFS	**Hagfors**	**78.56**	**330**	P	**P**	**16 25 14.8**	**0.0**
	2.2nm,0.5s,mb4.3,baz=180,slow=40,SNR=3.7						
HFS				pP	pP	16 25 20.7	-0.3
	8.7nm,0.9s,baz=124,slow=5.3,SNR=3.2						
NB2	**NORSAR Subarra**	**79.84**	**331**	P	**P**	**16 25 20.5**	**-1.2**
	5.2nm,0.8s,mb4.5,baz=93,slow=5.8						
NOA	**NORSAR Array B**	**79.84**	**331**	P	**P**	**16 25 21.0**	**-0.6**
	2.1nm,0.9s,mb4.1,baz=208,slow=18,SNR=2.9						
NOA				pP	pP	16 25 27.5	-0.5
	3.0nm,0.8s,baz=93,slow=5.6,SNR=4.1						
NOA	**NORSAR Array B**	**79.84**	**331**	P	**P**	**16 25 21.0**	**-0.7**
NOA				pP	pP	16 25 27.5	-0.5
ESDC	**Sonseca Array**	**91.28**	**310**	P	**P**	**16 26 19.6**	**+0.7**
	0.6nm,0.5s,mb4.2,baz=62,slow=4.2,SNR=5.7						
ESDC				pP	pP	16 26 25.6	+0.3
	2.6nm,0.9s,baz=66,slow=3.9,SNR=3.1						
CPUP	**Villa Florida**	**147.15**	**232**	PKPbc	PKPdf	16 32 56.7	-1.0
	0.0nm,0.4s,baz=153,slow=12,SNR=1.8						
CPUP				pPKPbc		16 33 03.9	
	0.0nm,0.3s,baz=240,slow=9.7,SNR=1.6						
CPUP	**Villa Florida**	**147.15**	**232**	PKPbc	PKPdf	16 32 56.7	-1.0
CPUP				pPKPbc		16 33 03.9	

IDC 26 16:14:42.0±1.2,**10.59N**×**93.12E,mb4.2**/6,**mb1 4.5**/6, **mb1mx4.0**/17,**Error ellipse: s-maj=61.1km s-min=22.1km az=57.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**38.77**	**14**	P	P	16 22 08.2	-1.8
	0.8nm,0.3s,baz=203,slow=9.1,SNR=6.0						
WRA	**Warramunga Arr**	**50.67**	**127**	P	P	16 23 43.3	-2.3
	1.8nm,0.4s,baz=300,slow=10,SNR=14						
ASAR	**Alice Springs**	**52.44**	**131**	P	P	16 23 56.5	-2.4
	2.8nm,0.5s,baz=321,slow=4.8,SNR=9.9						
STKA	**Stephens Creek**	**62.71**	**134**	P	P	16 25 09.5	-1.9
	2.2nm,0.4s,baz=273,slow=9.4,SNR=4.5						
GERES	**GERESS Array B**	**75.14**	**318**	P	P	16 26 26.3	-1.6
	1.0nm,0.5s,baz=90,slow=5.9,SNR=3.7						
ILAR	**Eielson Array**	**92.62**	**22**	P	P	16 27 55.8	-0.7
	1.2nm,1.0s,baz=299,slow=4.6,SNR=5.2						
PDAR	**Pinedale Array**	**122.99**	**20**	PKP	PKPdf	16 33 40.9	-1.5
	0.3nm,0.6s,baz=94,slow=1.9,SNR=4.0						
TXAR	**Lajitas Array**	**137.13**	**22**	PKP	PKPdf	16 34 07.5	-2.1
	0.2nm,0.4s,baz=286,slow=0.4,SNR=3.8						

IDC 26 16:18:13.9±1.4,**9.70N**×**91.75E,mb4.1**/6,**mb1 4.2**/7, **mb1mx3.9**/19,**MS4.5**/1,**Ms1 4.5**/1,**ms1mx3.3**/24,**Error ellipse: s-maj=52.3km s-min=28.3km az=51.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.15**	**38**	Pn	P	16 21 00.6	+2.9
	baz=212,slow=12,SNR=2.8						
SONM	**Songino Array**	**39.97**	**15**	P	P	16 25 49.6	-2.2
	3.5nm,0.9s,baz=196,slow=9.0,SNR=11						
BVAR	**Borovoye Array**	**46.52**	**342**	P	P	16 26 44.0	-0.8
	2.3nm,1.1s,baz=149,slow=8.6,SNR=4.5						
CBIJ	**Chichi jima**	**50.53**	**63**	LR	LR	16 47 12.1	
	comp=Z,511nm,20.3s,baz=278,slow=34						
ASAR	**Alice Springs**	**52.89**	**130**	P	P	16 27 32.0	-2.1
	0.5nm,0.4s,baz=311,slow=7.3,SNR=5.4						
BRTR	**Keskin Array B**	**59.45**	**311**	P	P	16 28 18.5	-2.5
	1.4nm,1.0s,baz=117,slow=8.3,SNR=3.6						
ARCES	**ARCESS Array B**	**72.76**	**340**	P	P	16 29 44.8	-0.7
	4.6nm,1.0s,baz=231,slow=7.8,SNR=3.9						
GERES	**GERESS Array B**	**74.90**	**318**	P	P	16 29 55.9	-2.4
	1.4nm,0.9s,baz=90,slow=5.3,SNR=6.7						

IDC 26 16:20:43.4±1.3,**23.06N**×**143.85E,mb3.4**/3,**mb1 3.7**/4, **mb1mx3.6**/21,**ML3.2**/1,**Error ellipse: s-maj=65.7km s-min=22.2km az=93.0,Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**4.29**	**340**	Pn	Pn	16 21 49.2	-2.3
	2.6nm,0.3s,baz=149,slow=12,SNR=2.0						
CBIJ				Sn	Sn	16 22 43.5	+0.4
	4.2nm,0.3s,baz=290,slow=21,SNR=3.5						
WRA	**Warramunga Arr**	**43.73**	**193**	P	P	16 28 50.6	-1.8
	0.2nm,0.4s,baz=16,slow=8.9,SNR=4.6						
ASAR	**Alice Springs**	**47.44**	**192**	P	P	16 29 19.9	-2.1
	0.3nm,0.7s,baz=13,slow=9.2,SNR=3.6						
ILAR	**Eielson Array**	**60.55**	**27**	P	P	16 30 55.4	-2.2
	0.5nm,0.8s,baz=248,slow=5.7,SNR=4.8						

MOS ***26*** *16:21:24.7±0.9,5.25N×94.41E,h33^{km},mb5.5/37, MS4.8/4,Error ellipse: s-maj=12.3km s-min=5.8km az=119.4*

CSEM ***26*** *16:21:25.5,5.39N×94.55E,h33^{km},mb5.7*

BJI ***26*** *16:21:25.1,4.98N×94.29E,h50^{km},mB5.6,mb5.3,Ms4.9, Msz4.7*

IDC ***26*** *16:21:27.8±0.4,5.19N×94.34E,h40^{km}±2^{km},mb4.8/27, mb1 4.8/28,mb1mx4.8/28,ML4.9/1,MS4.7/9,Ms1 4.7/9, ms1mx4.3/29,Error ellipse: s-maj=13.2km s-min=8.5km az=48.0*

NEIC ***26*** *16:21:27.4±0.1,5.15N×94.32E,mb5.4/62,Error ellipse: s-maj=4.8km s-min=4.1km az=48.0*

DJA ***26*** *16:21:49.7±4.6,4.23N×96.38E,h72^{km},mb4.8/2,Error ellipse: s-maj=190.9km s-min=36.4km az=90.0*

ISC 26 16:21:25.5±0.2,**5.13N**±0.03×**94.35E**±0.03,**h40**^{km}**, h40**^{km}±1.0^{km}**:pP-P,n384,**σ0.^{s}**96**/359,**mb5.3**/126,**MS4.8**/17, **21C-43D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**6.56**	**72**	P	**P**	**16 23 04.0**	**+2.1**
	560nm,1.0s						
NST	**Nakhon Sawan**	**11.92**	**28**	P	**P**	**16 24 17.7**	**+1.9**
CM31	**Chiang Mai Arr**	**13.99**	**18**	*e*P	**P**	**16 24 44.2**	**+0.9**
	195nm,0.9s						
CMAR	**Chiang Mai Arr**	**13.99**	**18**	P	**P**	**16 24 44.2**	**+0.9**
	2.0nm,0.3s,baz=214,slow=14,SNR=32						
CMAR				S	**S**	**16 27 22.5**	**+4.3**
	1.1nm,0.3s,baz=118,slow=30,SNR=4.3						
CMAR				LR	LR	16 30 07.7	
	comp=Z,1µm,18.2s,baz=200,slow=37						
CMAR	**Chiang Mai Arr**	**13.99**	**18**	P	**P**	**16 24 44.3**	**+1.0**
CMAR				S	**S**	**16 27 22.5**	**+4.3**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,1µm,18.2s						
CHG	**Chiang Mai**	**14.32**	**18**	⇑P	**P**	**16 24 48.8**	**+1.1**
	comp=Z,150nm,1.0s						
NANT	**Nan**	**14.94**	**24**	⇑P	**P**	**16 25 00.0**	**+4.3**
	comp=Z,240nm,1.0s						
PENI	**Pendagan**	**15.15**	**134**	⇓*e*P	**P**	**16 24 54.1**	**-4.5**
	comp=Z,136nm,0.4s						
CHRT	**Chiangrai**	**15.58**	**19**	⇓P	**P**	**16 25 05.0**	**+1.0**
	comp=Z,760nm,0.9s						
COCO	**West Island**	**17.38**	**172**	*e*P	**P**	**16 25 28.0**	**+1.2**
	comp=Z,422nm,1.5s						
HYB	**Hyderabad**	**19.70**	**310**	*e*P	**P**	**16 25 54.0**	**-0.4**
	comp=Z,100nm,1.0s						
HYB				*e*S	**S**	**16 29 30.0**	**+0.9**
HYB	**Hyderabad**	**19.70**	**310**	*i* P	**P**	**16 25 54.0**	**-0.4**
	comp=Z,100nm,1.0s						
SHL	**Shillong**	**20.46**	**354**	*e*P	**P**	**16 25 59.2**	**-3.2**
SHL				*e*		16 26 05.7	
	comp=Z,2.4nm,0.1s						
SHL				*e*S	**S**	**16 29 47.1**	**+2.8**
QIZ	**Qiongzhong**	**20.48**	**46**	P	**P**	**16 26 04.0**	**+1.4**
QIZ				S	**S**	**16 29 50.0**	**+5.3**
QIZ				AMB	AMB		
	comp=Z,57nm,1.4s						
QIZ				LR	LR		
	comp=N,3µm,16.8s,MS4.7						
QIZ				LR	LR		
	comp=E,2µm,19.1s,MS4.7						
QIZ				LR	LR		
	comp=Z,3µm,19.5s,MS4.7						
QIZ	**Qiongzhong**	**20.48**	**46**	*e*P	**P**	**16 26 03.2**	**+0.6**
	comp=Z,105nm,1.1s						
MNGI	**Mangalore**	**20.77**	**293**	*e*	**P**	**16 26 01.1**	**-4.6**
KMI	**Kunming**	**21.45**	**21**	P	**P**	**16 26 14.5**	**+2.0**
KMI				AMB	AMB		
	comp=Z,105nm,1.1s,mb5.1						
KMI				LR	LR		
	comp=N,2µm,15.0s,MS4.7						
KMI				LR	LR		
	comp=E,2µm,15.0s,MS4.7						
KMI				LR	LR		
	comp=Z,1µm,16.3s,MS4.4						
GOA	**Goa**	**22.64**	**299**	*e*	**P**	**16 26 32.7**	**+8.2**
GOA				*e*		16 26 34.7	
	comp=Z,150nm,1.2s						
GOA				*e*	**S**	**16 30 30.8**	**+5.7**
AKL	**Akola**	**22.87**	**314**	*e*	**P**	**16 26 30.3**	**+3.5**
AKL				*e*		16 26 45.1	
	comp=Z,215nm,1.8s						
KAD	**Karad**	**23.16**	**303**	*i*	**P**	**16 26 30.2**	**+0.7**
ALBI	**Allahabad**	**23.40**	**330**	*e*P	**P**	**16 26 30.5**	**-1.3**
PKI	**Pulchoki**	**23.89**	**340**	*e*P	**P**	**16 26 36.5**	**0.0**
	comp=Z,80nm,0.8s,mb5.2						
SRDI	**Scrawed**	**23.92**	**124**	*e*P	**P**	**16 26 36.5**	**-0.5**
DMN	**Daman**	**24.03**	**340**	*e*P	**P**	**16 26 38.3**	**+0.4**
	comp=Z,131nm,0.7s,mb5.5						
GUN	**Gumba**	**24.05**	**341**	*e*P	**P**	**16 26 38.2**	**+0.1**
	comp=Z,146nm,0.7s,mb5.5						
KELI	**Kelakatan**	**24.07**	**123**	*e*pP		16 26 54.7	
KELI	**Kelakatan**	**24.07**	**123**	⇓*e*P	**P**	**16 26 38.8**	**+0.4**
	comp=Z,61nm,0.3s,mb5.3						
KKN	**Kakani**	**24.13**	**340**	*e*P	**P**	**16 26 39.0**	**+0.1**
GYA	**Guiyang**	**24.26**	**28**	⇓*i*P	**P**	**16 26 41.0**	**+0.8**
GYA				PP	PP	16 27 15.8	0.0
GYA				S	**S**	**16 30 56.5**	**+3.2**
GYA				AMB	AMB		
	comp=Z,190nm,0.8s,mb5.6						
GYA				AMB	AMB		
	comp=Z,870nm,4.6s						
GYA				LR	LR		
	comp=N,2µm,16.8s,MS4.8						
GYA				LR	LR		
	comp=E,1µm,17.6s,MS4.8						
GYA				LR	LR		
	comp=Z,3µm,18.0s,MS4.8						
GKN	**Gorkha**	**24.55**	**339**	*e*P	**P**	**16 26 43.3**	**+0.3**
	comp=Z,491nm,1.0s,mb6.0						
LSA	**Lhasa**	**24.63**	**353**	*e*P	**P**	**16 26 43.9**	**+0.2**
	comp=Z,136nm,0.8s,mb5.5						
KOLN	**Koldanda**	**24.73**	**337**	*e*P	**P**	**16 26 45.2**	**+0.5**
	comp=Z,375nm,0.9s,mb5.9						
BOM	**Bombay**	**25.07**	**305**	*e*P	**P**	**16 26 49.8**	**+1.7**
BOM				*e*		16 26 54.1	
	comp=Z,124nm,1.8s						
RATI	**Rata**	**25.21**	**123**	⇑*i*P	**P**	**16 26 49.8**	**+0.4**
KEDI	**Kedomdong**	**25.57**	**122**	⇓*e*P	**P**	**16 26 51.0**	**-1.8**
TANI	**Tanete Lipujan**	**26.41**	**108**	⇓*e*P	**P**	**16 27 00.7**	**0.0**
CD2	**Chengdu**	**27.13**	**18**	⇓*i*P	**P**	**16 27 06.3**	**-0.8**
CD2				AMB	AMB		
	comp=Z,130nm,1.0s,mb5.4						
TGY	**Tagaytay City**	**27.66**	**69**	P	**P**	**16 27 13.5**	**+1.4**
	comp=Z,474nm,1.1s,mb6.0,baz=247,slow=2.3,SNR=9.3						
NDI	**New Delhi**	**28.51**	**327**	*e*P	**P**	**16 27 18.9**	**-0.6**
NDI				*e*		16 27 19.4	
	comp=Z,38nm,0.5s						
ENH	**Enshi**	**28.80**	**28**	⇓*e*P	**P**	**16 27 20.8**	**-1.3**
	comp=Z,43nm,0.7s,mb5.3						
DDI	**Dehra Dun**	**29.39**	**330**	*e*P	**P**	**16 27 26.7**	**-0.7**
SDNR	**Sundarnagar**	**30.89**	**330**	*e*P	**P**	**16 27 40.5**	**-0.2**
WHN	**Wuhan**	**31.53**	**34**	⇓P	**P**	**16 27 46.5**	**+0.2**
XAN	**Xi’an**	**31.79**	**23**	P	**P**	**16 27 47.3**	**-1.3**
XAN				AP	pP	16 27 58.3	-1.3
XAN				AMB	AMB		
	comp=Z,153nm,0.7s,mb5.9						
LZH	**Lanzhou**	**32.03**	**15**	*e*P	**P**	**16 27 50.0**	**-0.6**
LZH				AMB	AMB		
	comp=Z,76nm,1.0s,mb5.5						
LZH				LR	LR		
	comp=E,1µm,14.5s						
LZH				LR	LR		
	comp=Z,1µm,17.5s,MS4.7						
THN	**Thein Dam**	**32.27**	**330**	*e*P	**P**	**16 27 50.6**	**-2.2**
	comp=Z,23nm,0.6s,mb5.2						
THN				*e*		16 30 40.2	
GTA	**Gaotai**	**34.48**	**7**	⇓*i*P	**P**	**16 28 11.5**	**-0.3**
GTA				AP	pP	16 28 20.5	-2.4
GTA				SCS	ScS	16 38 31.5	+2.8
GTA				AMB	AMB		
	comp=Z,104nm,0.9s,mb5.8						
NJ2	**Nanjing**	**35.26**	**38**	*e*P	**P**	**16 28 19.0**	**+0.4**
NJ2				AP	pP	16 28 26.5	-3.1
NJ2				AMB	AMB		
	comp=Z,650nm,5.8s						
MBWA	**Marble Bar**	**36.09**	**137**	*e*P	**P**	**16 28 24.9**	**-0.7**
SSE	**Sheshan**	**36.10**	**41**	*e*P	**P**	**16 28 23.5**	**-2.1**
SSE				S	**S**	**16 34 03.8**	**+2.2**
SSE				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.8						
SSE				AMB	AMB		
	comp=Z,403nm,10.7s						
SSE				LR	LR		
	comp=N,721nm,20.1s,MS4.5						
SSE				LR	LR		
	comp=E,291nm,20.0s,MS4.5						
SSE				LR	LR		
	comp=Z,946nm,21.1s,MS4.5						
TIA	**Tai’an**	**37.35**	**31**	P	**P**	**16 28 36.5**	**+0.4**
TIA				AMB	AMB		
	comp=Z,32nm,1.1s,mb5.1						
BTO	**Baotou**	**38.03**	**20**	*e*P	**P**	**16 28 41.0**	**-0.7**
BTO				AMB	AMB		
	comp=Z,31nm,0.8s,mb5.1						
KSH	**Kashi**	**38.05**	**337**	*e*P	**P**	**16 28 42.3**	**+0.3**
KSH				AMB	AMB		
	comp=Z,190nm,7.3s						
HHC	**Hu-ho-hao-te**	**38.78**	**21**	*e*P	**P**	**16 28 49.0**	**+1.0**
HHC				S	**S**	**16 34 32.5**	**-10**
HHC				AMB	AMB		
	comp=Z,56nm,0.9s,mb5.3						
HHC				AMB	AMB		
	comp=Z,1µm,8.9s						
HHC				LR	LR		
	comp=N,911nm,16.7s,MS4.9						
HHC				LR	LR		
	comp=E,1µm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,2µm,17.8s,MS5.0						
JOW	**Kunigami**	**38.89**	**53**	P	**P**	**16 28 50.3**	**+1.3**
	comp=Z,31nm,0.6s,mb5.2,baz=237,slow=9.0,SNR=13						
JOW				LR	LR	16 47 18.5	
	comp=Z,1µm,18.7s,MS4.7,baz=59,slow=40						
JOW	**Kunigami**	**38.89**	**53**	P	**P**	**16 28 50.3**	**+1.3**
JOW				LR	LR	16 47 18.5	
WMQ	**Urumqi**	**38.98**	**352**	P	**P**	**16 28 50.5**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,76nm,0.8s,mb5.5						
BJT	**Baijiatuau**	**39.92**	**26**	*e*P	**P**	**16 28 58.6**	**+1.2**
	comp=Z,125nm,1.3s,mb5.5						
BJI	**Beijing**	**39.94**	**26**	P	**P**	**16 28 58.8**	**+1.2**
BJI				AMB	AMB		
	comp=Z,64nm,1.0s,mb5.3						
KZA	**Kyzart**	**40.54**	**338**	P	**P**	**16 29 03.5**	**+1.0**
	SNR=11						
UCH	**Uchtor**	**40.94**	**337**	P	**P**	**16 29 07.0**	**+1.0**
	SNR=27						
TKM2	**Tokmak 2**	**41.14**	**339**	P	**P**	**16 29 08.2**	**+0.7**
	SNR=10.0						
KBK	**Karagaybulak**	**41.15**	**338**	P	**P**	**16 29 08.5**	**+0.9**
	SNR=39						
AML	**Almayashu**	**41.18**	**337**	P	**P**	**16 29 09.1**	**+1.2**
	SNR=38						
AAK	**Ala-Archa**	**41.30**	**338**	P	**P**	**16 29 10.2**	**+1.4**
	SNR=21						
AAK	**Ala-Archa**	**41.30**	**338**	*d i*P	**P**	**16 29 08.4**	**-0.4**
AAK				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.7						
AAK	**Ala-Archa**	**41.30**	**338**	*i* Pr	**P**	**16 29 08.5**	**-0.3**
FRU	**Bishkek**	**41.42**	**338**	*e*P	**P**	**16 29 11.0**	**+1.1**
FRU				*e*		16 29 27.0	
FRU				pmax	pmax		
	comp=Z,80nm,1.8s,mb5.0						
CHMS	**Chumysh**	**41.52**	**338**	P	**P**	**16 29 11.3**	**+0.6**
	SNR=9.5						
EKS2	**Erkin-Say**	**41.60**	**337**	P	**P**	**16 29 12.2**	**+0.8**
	SNR=18						
DL2	**Dalian**	**41.73**	**32**	P	**P**	**16 29 14.0**	**+1.5**
DL2				AMB	AMB		
	comp=Z,50nm,1.3s,mb5.0						
USP	**Ospenovka**	**41.84**	**338**	P	**P**	**16 29 13.6**	**+0.3**
	SNR=29						
MKAR	**Makanchi Array**	**42.80**	**348**	*i* P	**P**	**16 29 21.1**	**0.0**
MKAR				pmax	pmax		
	comp=Z,158nm,1.2s						
NWAO	**Narrogin (SRO)**	**43.63**	**152**	P	**P**	**16 29 27.8**	**-0.4**
	comp=Z,12nm,1.0s,mb4.6,baz=337,slow=5.7,SNR=5.8						
NWAO	**Narrogin (SRO)**	**43.63**	**152**	P	**P**	**16 29 27.8**	**-0.3**
NWAO				pmax	pmax		
	comp=Z,12nm,1.0s						
NWAO	**Narrogin (SRO)**	**43.63**	**152**	P	**P**	**16 29 28.1**	**-0.1**
	comp=Z,1.8nm,0.4s						
SONM	**Songino Array**	**43.79**	**12**	P	**P**	**16 29 28.9**	**-0.2**
	comp=Z,46nm,0.8s,mb5.2,baz=193,slow=8.3,SNR=162						
SONM				pP	pP	16 29 39.7	-0.7
	comp=Z,29nm,0.8s,baz=196,slow=5.1,SNR=9.7						
SONM				PcP	PcP	16 31 16.1	+0.3
	comp=Z,7.9nm,0.7s,baz=180,slow=2.5,SNR=4.0						
ULN	**Ulaanbaatar**	**43.95**	**12**	*e*P	**P**	**16 29 29.8**	**-0.6**
	comp=Z,2.1nm,0.4s						
KS15	**Wonju Array Si**	**44.39**	**39**	*e*P	**P**	**16 29 34.4**	**+0.2**
SNY	**Shenyang**	**44.88**	**31**	⇑P	**P**	**16 29 37.5**	**-0.5**
SNY				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.1						
ZAK	**Zakamensk**	**45.72**	**8**	*e*P	**P**	**16 29 43.6**	**-1.0**
WRA	**Warramunga Arr**	**46.54**	**124**	P	**P**	**16 29 51.4**	**0.0**
	comp=Z,69nm,0.7s,mb5.7,baz=302,slow=9.1,SNR=291						
WRA				pP	pP	16 30 03.7	+1.0
	comp=Z,53nm,0.7s,baz=301,slow=9.2,SNR=9.2						
WRA	**Warramunga Arr**	**46.54**	**124**	P	**P**	**16 29 51.4**	**0.0**
WRA				*PP	pP	16 30 03.7	+1.0
WRA				pmax	pmax		

	comp=Z,69nm,0.7s						
WRA				pmax	pmax		
	comp=Z,53nm,0.7s						
WRAB	**Tennant Creek**	46.55	124	d *i*P	P	16 29 51.5	0.0
WRAB	**Tennant Creek**	46.55	124	⇓*i*P	P	16 29 51.6	+0.1
	comp=Z,181nm,0.8s,mb6.0						
MOY	**Mondy**	46.72	6	*e*P	P	16 29 52.3	-0.1
TLY	**Talaya**	47.04	8	P	P	16 29 55.7	+0.8
	comp=Z,159nm,0.9s,mb6.0,SNR=12						
TLY	**Talaya**	47.04	8	d *i*P	P	16 29 55.2	+0.3
TLY				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
TLY	**Talaya**	47.04	8	*i* Pr		16 29 55.2	
HASS	**Wahat al Ahsa’**	47.19	300	P	P	16 29 57.6	+1.0
CN2	**Changchun**	47.25	31	*e*P	P	16 29 56.3	-0.4
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
ASAR	**Alice Springs**	48.03	128	P	P	16 30 02.9	-0.3
	comp=Z,26nm,0.7s,mb5.4,baz=299,slow=7.7,SNR=165						
ASAR				PcP	PcP	16 31 30.9	-0.1
	comp=Z,8.7nm,0.7s,baz=311,slow=3.6,SNR=4.7						
ASAR				LR	LR	16 49 36.3	
	comp=Z,557nm,20.1s,MS4.5,baz=305,slow=35						
HIA	**Hailar**	48.97	22	*e*P	P	16 30 09.2	-0.8
	comp=Z,50nm,1.0s,mb5.5						
ZAL	**Zalesovo**	49.28	353	P	P	16 30 12.1	-0.2
	comp=Z,30nm,0.9s,mb5.3,baz=298,slow=6.4,SNR=100						
ZAL				pP	pP	16 30 24.6	+1.0
	comp=Z,34nm,0.8s,baz=296,slow=6.3,SNR=15						
ZAL	**Zalesovo**	49.28	353	P	P	16 30 12.1	-0.2
ZAL				*PP	pP	16 30 24.6	+1.0
ZAL				pmax	pmax		
	comp=Z,30nm,1.0s						
ZAL				pmax	pmax		
	comp=Z,34nm,0.9s						
RYDS	**Riyadh**	49.59	297	P	P	16 30 16.8	+1.6
QRN	**Al-Qurain**	49.81	304	*e*P	P	16 30 17.7	+1.0
MDJ	**Mudanjiang**	49.98	33	P	P	16 30 18.0	+0.2
MDJ				AMB	AMB		
	comp=Z,43nm,1.3s,mb5.3						
MDJ	**Mudanjiang**	49.98	33	*e*P	P	16 30 17.8	0.0
	comp=Z,59nm,1.2s,mb5.5						
RDF	**Al-Radifah**	50.17	304	*e*P	P	16 30 20.4	+0.8
RDF				AMb	AMB	16 30 22.5	
	comp=Z,196nm,1.4s,mb5.9						
NVS	**Novosibirsk**	50.37	352	*i* P	P	16 30 19.3	-1.4
NVS				*e*	pP	16 30 28.7	-3.4
NVS				*e*S	S	16 37 24.3	-5.4
NVS				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.7						
NVS				pmax	pmax		
	comp=N,80nm,1.5s						
NVS				pmax	pmax		
	comp=E,27nm,1.3s						
NVS				smax			
	comp=N,46nm,1.6s						
CBIJ	**Chichi jima**	50.49	59	P	P	16 30 20.4	-1.5
	comp=N,62nm,0.5s,mb5.9,baz=287,slow=20,SNR=4.2						
RST	**Umm Al-Ruwaisa**	50.82	304	*e*P	P	16 30 24.9	+0.4
RST				AMb	AMB	16 30 26.7	
	comp=Z,136nm,1.0s,mb5.8						
MZLS	**Mizel**	50.82	297	P	P	16 30 25.4	+0.9
MAT	**Matsushiro**	50.88	46	P	P	16 30 23.9	-0.9
MAT	**Matsushiro**	50.88	46	*e*P	P	16 30 24.0	-0.8
	comp=Z,20nm,1.2s,mb4.9						
TATS	**Tathlith**	51.51	291	P	P	16 30 30.0	+0.2
BVA0	**Borovoye Array**	51.64	342	P	P	16 30 29.4	-0.9
BVA0				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
BVAR	**Borovoye Array**	51.64	342	P	P	16 30 29.6	-0.7
	comp=Z,40nm,0.9s,mb5.3,baz=143,slow=7.4,SNR=106						
BVAR				PcP	PcP	16 31 43.7	-0.1
	comp=Z,8.2nm,0.7s,baz=207,slow=3.3,SNR=4.5						
BRVK	**Borovoye**	51.70	342	*i* Pr		16 30 29.9	
CHKZ	**Chkalovo**	52.13	342	*i* P	P	16 30 33.7	-0.3
CHKZ				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.7						
CHKZ	**Chkalovo**	52.13	342	⇓*i*P	P	16 30 33.5	-0.4
	comp=Z,90nm,0.9s,mb5.7						
NAMS	**An Nimas**	52.64	290	P	P	16 30 40.1	+1.8
AFFS	**‘Afif**	52.77	296	P	P	16 30 40.1	+1.0
ARSS	**Ar Rass**	53.00	299	P	P	16 30 41.1	+0.2
KLR	**Kul’dur**	54.15	29	*e*P	P	16 30 44.9	-4.1
PMG	**Port Moresby**	54.57	105	P	P	16 30 51.8	-0.8
	comp=Z,14nm,0.6s,mb5.1,baz=271,slow=3.6,SNR=16						
PMG				pP	pP	16 31 05.1	+1.0
	comp=Z,28nm,0.6s,baz=346,slow=3.2,SNR=10						
PMG	**Port Moresby**	54.57	105	P	P	16 30 51.8	-0.8
PMG				*PP	pP	16 31 05.1	+1.0
PMG				pmax	pmax		
	comp=Z,14nm,0.6s						
PMG				pmax	pmax		
	comp=Z,28nm,0.6s						
HILS	**Ha’il**	54.61	300	P	P	16 30 53.8	+1.0
BOD	**Bodaibo**	54.76	13	*e*P	P	16 30 51.8	-1.6
KBRS	**Khaybar**	56.47	298	P	P	16 31 07.3	+1.2
GNI	**Garni**	56.51	316	P	P	16 31 06.1	-0.1
	comp=Z,26nm,0.8s,mb5.3,baz=293,slow=2.1,SNR=20						
GNI	**Garni**	56.51	316	P	P	16 31 06.1	-0.1
GNI				pmax	pmax		
	comp=Z,26nm,0.9s						
CTA	**Charters Tower**	56.82	118	P	P	16 31 07.8	-0.8
	comp=Z,9.7nm,0.9s,mb4.8,baz=264,slow=7.8,SNR=7.5						
CTA				pP	pP	16 31 21.2	+1.0
	comp=Z,18nm,0.7s,baz=300,slow=8.6,SNR=7.6						
CTA				LR	LR	16 56 40.1	
	comp=Z,735nm,19.6s,MS4.8,baz=298,slow=37						
CTA	**Charters Tower**	56.82	118	P	P	16 31 07.9	-0.8
CTA				*PP	pP	16 31 21.3	+1.0
CTA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
CTA				pmax	pmax		
	comp=Z,18nm,0.7s						
CTA				MLR	MLR		
	comp=Z,735nm,19.7s						
CTAO	**Charters Tower**	56.82	118	*e*P	P	16 31 08.0	-0.7
	comp=Z,17nm,1.1s,mb5.0						
TI2	**Plekhanov**	57.18	317	*i* P	P	16 31 10.2	-0.8
YNBS	**Yanbu‘ al Bahr**	57.33	296	P	P	16 31 13.2	+0.9
ASAJ	**Asahikawa**	57.36	40	P	P	16 31 12.4	+0.2
	comp=Z,9.8nm,0.5s,mb5.1,baz=266,slow=12,SNR=10						
ASAJ				LR	LR	16 57 17.7	
	comp=Z,759nm,18.2s,MS4.8,baz=116,slow=38						
ASAJ	**Asahikawa**	57.36	40	P	P	16 31 12.5	+0.3
ASAJ				pmax	pmax		
	comp=Z,10.0nm,0.5s						
ASAJ				MLR	MLR		
	comp=Z,759nm,18.2s						
KMBO	**Kilima Mbogo**	57.37	265	P	P	16 31 13.9	+1.2
	comp=Z,12nm,0.9s,mb4.9,baz=57,slow=11,SNR=18						
KMBO				LR	LR	16 54 25.6	
	comp=Z,1µm,18.4s,MS5.0,baz=98,slow=34						
KMBO	**Kilima Mbogo**	57.37	265	P	P	16 31 13.9	+1.2
KMBO				pmax	pmax		
	comp=Z,12nm,0.9s						
KMBO				MLR	MLR		
	comp=Z,1µm,18.4s						
KMBO	**Kilima Mbogo**	57.37	265	*e*P	P	16 31 13.6	+0.9
	comp=Z,21nm,1.0s,mb5.1						
SVE	**Sverdlovsk**	58.02	339	⇓*i*P	P	16 31 15.8	-0.8
SVE				*e*		16 33 31.0	
SVE				MLR	MLR		
	comp=Z,100µm,17.0s						
STKA	**Stephens Creek**	58.09	133	P	P	16 31 16.9	-0.5
	comp=Z,12nm,0.7s,mb5.0,baz=308,slow=7.4,SNR=16						
STKA				pP	pP	16 31 29.8	+0.7
	comp=Z,14nm,0.8s,baz=297,slow=5.5,SNR=8.3						
STKA				LR	LR	16 57 13.2	
	comp=Z,720nm,18.6s,MS4.8,baz=298,slow=37						
STKA	**Stephens Creek**	58.09	133	*e*P	P	16 31 16.4	-1.1
BTMT	**Batman**	58.09	312	*e*P	P	16 31 16.7	-0.8
UMJS	**Umm Lajj**	58.10	296	P	P	16 31 19.0	+1.4
ZEI	**Tsey**	58.19	318	*e*P	P	16 31 17.6	-0.4
ZEI				*i* *PP	pP	16 31 32.7	+3.1
ZEI				*i*		16 33 27.4	
ZEI				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.4						
VRT	**Varto**	58.40	313	*e*P	P	16 31 19.0	-0.5
ARU	**Arti**	58.49	338	⇓*i*P	P	16 31 18.7	-1.2
ARU				*e*		16 32 08.7	
ARU				*e*		16 33 24.9	
ARU				*e*PPP	PPP	16 34 47.6	-7.3
ARU				*e*S	S	16 39 21.7	+3.0
ARU				*e*		16 41 01.9	
ARU				*e*SS	SS	16 43 09.7	-3.4
ARU				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.7						
ARU	**Arti**	58.49	338	*i* Pr		16 31 18.7	
ERZM	**Erzurum**	58.80	314	*i* P	P	16 31 22.4	0.0
EZM	**Erzurum**	58.80	314	*e*P	P	16 31 22.4	0.0
YSS	**Yuzh-Sakhalins**	58.83	37	⇑*i*P	P	16 31 21.6	-0.8
YSS				*e*	pP	16 31 33.4	-0.6
YSS				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.8						
TBKS	**Tabuk**	59.33	300	P	P	16 31 27.3	+1.2
KIV	**Kislovodsk**	59.49	319	P	P	16 31 26.9	-0.2
	comp=Z,352nm,0.8s,mb6.4,SNR=14						
KIV	**Kislovodsk**	59.49	319	d *i*P	P	16 31 25.9	-1.2
KIV				*e*		16 32 13.8	
KIV				*e*S	S	16 39 29.0	-3.0
KIV				pmax	pmax		
	comp=N,35nm,1.1s						
KIV				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.6						
KIV	**Kislovodsk**	59.49	319	*i* Pr		16 31 25.9	
DBAS	**Duba**	59.63	298	P	P	16 31 29.1	+0.9
GOF	**Gofitskoye**	59.74	320	⇑*i*P	P	16 31 27.0	-1.8
GOF				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.3						
PTK	**Pertek**	59.88	312	*e*P	P	16 31 28.6	-1.2
ASF	**Jabal al Asfar**	59.90	304	LR	LR	16 59 53.8	
	comp=Z,1µm,18.6s,MS5.0,baz=142,slow=38						
JMQS	**Jabal Moqyreh**	60.04	300	P	P	16 31 31.7	+0.7
ELZG	**Elazig**	60.05	312	*i* P	P	16 31 30.2	-0.8
GUMT	**Gumushane**	60.35	314	*e*P	P	16 31 31.3	-1.7
MALT	**Malatya**	60.41	311	*e*P	P	16 31 33.0	-0.5
	comp=Z,24nm,1.0s,mb5.2						
AYUS	**‘Aynunah**	60.43	299	P	P	16 31 34.3	+0.6
JMOS	**Jabal al Moall**	60.75	301	P	P	16 31 36.2	+0.3
GZT	**Gaziantep**	60.76	310	*i* P	P	16 31 36.1	+0.2
HAQS	**Haql**	60.88	300	P	P	16 31 37.5	+0.7
GAZ	**Gaziantep**	60.98	310	*e*P	P	16 31 37.4	+0.1
EIL	**Elat**	60.99	301	*e*P	P	16 31 37.3	-0.2
	comp=Z,40nm,1.3s,mb5.4						
SOC	**Sochi**	61.32	318	*i* P	P	16 31 37.3	-2.2
SOC				*e*		16 32 26.5	
SOC				*e*		16 33 59.9	
SOC				*e*S	S	16 39 53.6	-1.8
SOC				pmax	pmax		
	comp=Z,42nm,0.7s,mb5.7						
SOC				pmax	pmax		
	comp=N,5.0nm,0.8s						
SOC				pmax	pmax		
	comp=E,14nm,1.1s						
SOC				MLR	MLR		
	comp=Z,489nm,18.0s,MS4.7						
SOC				MLR	MLR		
	comp=N,233nm,17.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,207nm,16.0s,MS4.5						
COBT	**Iskenderun**	61.53	309	*i* P	P	16 31 41.5	+0.4
YAK	**Yakutsk**	62.52	18	*e*P	P	16 31 44.0	-3.3
YAK				*e*	pP	16 31 56.7	-2.3
YAK				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.7						
YAK				pmax	pmax		
	comp=N,23nm,1.2s						
YAK				pmax	pmax		
	comp=E,18nm,1.2s						
YAK				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.5						
YAK				pmax	pmax		
	comp=N,20nm,1.1s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.1s						
YAK	**Yakutsk**	62.52	18	*e*P	P	16 31 45.5	-1.9
	comp=E,89nm,0.9s,mb5.9						
AVNT	**Avonos**	63.22	311	*i* P	P	16 31 51.6	-0.7
NIG	**Nigde**	63.22	310	*e*P	P	16 31 52.1	-0.3
ANN	**Anapa**	63.29	318	*e*P	P	16 31 49.9	-2.8
ANN				*e*	pP	16 32 02.3	-2.1
ANN				*e*S	S	16 40 22.7	+2.6
ANN				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.4						
CSS	**Prodhromos**	63.45	307	*e*P	P	16 31 53.1	-0.8
	comp=Z,56nm,1.3s,mb5.5						
MBAR	**Mbarara**	63.78	267	d *i*P	P	16 31 56.2	-0.2
MBAR	**Mbarara**	63.78	267	*e*P	P	16 31 56.0	-0.4
	comp=Z,28nm,1.3s,mb5.1						
CTKT	**Corum**	63.79	313	*i* P	P	16 31 55.5	-0.5
BOYT	**Boyabat**	63.94	314	*i* P	P	16 31 56.5	-0.5
KAMT	**Kaman**	64.23	311	*e*P	P	16 31 57.5	-1.5
BRTR	**Keskin Array B**	64.39	312	P	P	16 31 58.6	-1.2
	comp=Z,21nm,0.7s,mb5.3,baz=121,slow=7.2,SNR=87						
BRTR	**Keskin Array B**	64.39	312	P	P	16 31 58.7	-1.2
BRTR				pmax	pmax		
	comp=Z,21nm,0.7s						
ELDT	**Eldivan**	64.75	313	*i* P	P	16 32 01.8	-0.4
BALT	**Daday**	65.06	314	*i* P	P	16 32 03.9	-0.3
KIZT	**Kizilcal**	65.49	310	*e*P	P	16 32 05.2	-1.9
SAFT	**Safranbolu**	65.49	313	*e*P	P	16 32 05.4	-1.6
SGKT	**Sivrigoynuk**	65.78	312	*i* P	P	16 32 08.2	-0.7
ISP	**Isparta**	66.30	309	⇑*e*P	P	16 32 11.4	-0.8
ISP	**Isparta**	66.30	309	*e*P	P	16 32 11.1	-1.1
	comp=Z,46nm,1.0s,mb5.5						
MDU	**Mudurnu**	66.37	312	*e*P	P	16 32 11.5	-1.1
ESKT	**Eskisehir**	66.42	311	*i* P	P	16 32 11.8	-1.1
HENT	**Hendek**	66.69	312	*i* P	P	16 32 13.8	-0.9
MOS	**Moscow**	67.52	329	*e*P	P	16 32 18.6	-1.0
MOS				*e*		16 32 46.7	
MOS				*e*		16 34 47.8	
MOS				*e*PPP	PPP	16 36 28.9	+1.3
MOS				pmax	pmax		
	comp=Z,308nm,1.6s,mb6.1						
MOS				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
OBN	**Obninsk**	67.80	328	d *i*P	P	16 32 19.8	-1.6
OBN				*i* *PP	pP	16 32 32.0	-1.2
OBN				*e*		16 32 47.7	
OBN				*e*SS	SS	16 45 39.5	+1.1
OBN				pmax	pmax		
	comp=Z,148nm,1.1s,mb5.9						
OBN				MLR	MLR		
	comp=Z,400nm,16.0s,MS4.7						
OBN	**Obninsk**	67.80	328	*i* Pr	P	16 32 19.8	-1.6
ULDT	**Uludag**	67.84	311	*i* P	P	16 32 21.5	-0.4
SKR	**Severo-Kuril’s**	68.39	37	*e*P	P	16 32 21.0	-4.1
SKR				*e*		16 32 28.2	
SKR				*e*	pP	16 32 34.1	-2.9
SKR				pmax	pmax		
	comp=Z,80nm,0.5s,mb6.0						
SKR				pmax	pmax		
	comp=E,130nm,1.0s						
LSZ	**Lusaka**	68.57	251	*e*P	P	16 32 27.1	+0.2
	comp=E,29nm,1.1s,mb5.1						
KDAG	**Bornova**	68.92	309	*i* P	P	16 32 28.6	0.0
MA2	**Magadan**	69.10	27	⇓*e*P	P	16 32 28.9	-0.4
MA2				pmax	pmax		
	comp=Z,78nm,1.4s,mb5.5						
MA2	**Magadan**	69.10	27	⇓*e*P	P	16 32 28.0	-1.3
KIS	**Kishinev**	69.69	318	*e*P	P	16 32 32.0	-1.2
KIS				*e*	pP	16 32 44.0	-1.0
CFR	**Carcaliu**	69.70	316	⇑*i*P	P	16 32 32.7	-0.6
TIXI	**Tiksi**	69.87	11	⇓*i*P	P	16 32 32.7	-1.2
TIXI				pmax	pmax		
	comp=Z,91nm,0.8s,mb5.8						
TIXI	**Tiksi**	69.87	11	⇓*e*P	P	16 32 32.6	-1.3
IDI	**Anoyia**	70.31	306	P	P	16 32 37.5	+0.4
	comp=Z,20nm,0.9s,mb5.1,baz=103,slow=8.3,SNR=5.6						
AKASG	**Malin Array Be**	70.43	322	P	P	16 32 35.9	-1.7
	comp=Z,6.2nm,0.8s,mb4.6,baz=90,slow=4.2,SNR=46						
AKASG				pP	pP	16 32 49.4	-0.1
	comp=Z,5.1nm,0.6s,baz=87,slow=4.3,SNR=5.8						
AKASG	**Malin Array Be**	70.43	322	P	P	16 32 35.9	-1.7
AKASG				*PP	pP	16 32 49.4	-0.1
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.8s						
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
PET	**Petropavlovsk**	70.63	35	*e*P	P	16 32 37.8	-1.0
PET				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.4						
PET	**Petropavlovsk**	70.63	35	⇑*i*P	P	16 32 38.0	-0.8
VRI	**Vrincioaia**	70.82	317	⇓*i*P	P	16 32 40.1	0.0
RZN	**Rozhen**	71.43	312	P	P	16 32 43.0	-0.8
PGB	**Panagyurishte**	71.98	313	P	P	16 32 46.0	-1.0
MMB	**Musomiste**	72.14	312	P	P	16 32 47.0	-1.0
MNK	**Minsk**	72.32	326	⇑*e*P	P	16 32 46.0	-2.8
KKB	**Krupnik**	72.66	312	P	P	16 32 49.0	-2.1
VTS	**Vitosha**	72.69	313	P	P	16 32 50.0	-1.3
PUL	**Pulkovo**	72.71	332	*e*P	P	16 32 51.1	+0.1
PUL				pmax	pmax		
	comp=Z,108nm,0.7s,mb5.9						
PUL				pmax	pmax		
	comp=N,82nm,0.8s						
PUL				pmax	pmax		
	comp=E,109nm,0.9s						
PUL	**Pulkovo**	72.71	332	⇓*e*P	P	16 32 50.9	-0.1
LBTB	**Lobatse**	73.13	242	*e*P	P	16 32 54.1	-0.2
	comp=E,48nm,1.0s,mb5.4						
VSU	**Vasula**	74.04	330	d *i*P	P	16 32 58.1	-0.8
VSU	**Vasula**	74.04	330	*i* Pr	P	16 32 58.1	-0.8
BOSA	**Boshof**	74.32	239	*e*P	P	16 33 01.2	+0.1
	comp=E,53nm,1.1s,mb5.4						
BOSA				*e*	pP	16 33 12.2	-0.8
KOLS	**Kolonicke sedl**	74.40	319	*i* P	P	16 33 01.8	+0.6
KOLS				*e*		16 33 07.9	
APA	**Apatity**	74.48	340	⇑*i*P	P	16 33 00.3	-0.9
APA				*i*		16 33 05.3	
APA				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.2						
SUW	**Suwalki**	74.85	325	*e*P	P	16 33 02.3	-1.3
CRVS	**Cervenica-Dubn**	74.92	319	*e*P	P	16 33 05.5	+1.3
FINES	**FINESS Array B**	75.22	333	P	P	16 33 05.1	-0.5
	comp=Z,29nm,0.7s,mb5.3,baz=98,slow=6.6,SNR=108						
FINES				pP	pP	16 33 16.8	-0.7
	comp=Z,33nm,0.9s,baz=94,slow=5.8,SNR=14						
FINES	**FINESS Array B**	75.22	333	P	P	16 33 05.1	-0.5
FINES				*PP	pP	16 33 16.8	-0.7
FINES				pmax	pmax		
	comp=Z,29nm,0.7s						
FINES				pmax	pmax		
	comp=Z,33nm,0.9s						
KAF	**Kangasniemi**	75.32	333	*e*p	P	16 33 05.7	-0.5
	comp=Z,45nm,1.1s,mb5.3						
KAF	**Kangasniemi**	75.32	333	*e*P	P	16 33 05.7	-0.5
KAF				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.3						
KECS	**Kecovo**	75.50	319	*e*P	P	16 33 07.2	-0.3
NIE	**Niedzica**	75.75	320	*e*P	P	16 33 09.5	+0.6
PSZ	**Piszkesteto**	75.80	318	*e*P	P	16 33 08.8	-0.4
	comp=Z,18nm,0.9s,mb5.0						
MAW	**Mawson**	75.90	192	P	P	16 33 10.8	+1.4
	comp=Z,7.1nm,0.8s,mb4.6,baz=23,slow=6.0,SNR=6.7						
MAW	**Mawson**	75.90	192	P	P	16 33 10.8	+1.4
MAW				pmax	pmax		
	comp=Z,7.0nm,0.8s						
MAW	**Mawson**	75.90	192	*e*P	P	16 33 10.5	+1.1
	comp=Z,22nm,1.3s,mb4.9						
OJC	**Ojcow**	76.20	320	*e*P	P	16 33 11.5	+0.1
VYHS	**Vyhne**	76.58	319	*i* P	P	16 33 13.5	-0.1
VYHS				*e*pP	pP	16 33 24.4	-1.2
OKC	**Ostrava-Krasne**	77.20	320	*e*P	P	16 33 17.5	+0.4
OKC				*e*pP	pP	16 33 27.3	-1.8
KEV	**Kevo**	77.48	341	*e*p	P	16 33 17.9	-0.4
	comp=Z,22nm,0.9s,mb5.1						
KEV	**Kevo**	77.48	341	*e*P	P	16 33 17.9	-0.4
KEV				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
MORC	**Moravsky Berou**	77.59	320	*e*P	P	16 33 18.6	-0.7
	comp=Z,79nm,1.4s,mb5.5						
ZST	**Bratislava**	77.70	318	*i* P	P	16 33 19.9	0.0
ZST				*e*pP	pP	16 33 32.1	+0.3
ARCES	**ARCESS Array B**	77.91	340	P	P	16 33 20.6	0.0
	comp=Z,16nm,0.9s,mb4.9,baz=101,slow=6.2,SNR=16						
ARCES				pP	pP	16 33 33.7	+1.1
	comp=Z,6.5nm,0.7s,baz=90,slow=5.1,SNR=4.0						
ARCES	**ARCESS Array B**	77.91	340	P	P	16 33 20.6	0.0
ARCES				*PP	pP	16 33 33.7	+1.2
ARCES				pmax	pmax		
	comp=Z,16nm,1.0s						
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ARE0	**ARCESS Array S**	77.91	340	*e*P	P	16 33 20.2	-0.3
SOP	**Sopron**	78.01	318	⇑*e*P	P	16 33 22.0	+0.4
DPC	**Dobruska-Polom**	78.43	320	*e*P	P	16 33 24.8	+1.0
DPC				*e*pP	pP	16 33 34.3	-1.5
KSP	**Ksiaz**	78.50	321	⇓*e*P	P	16 33 24.6	+0.4
KSP				*e*pP	pP	16 33 35.9	-0.3
KSP	**Ksiaz**	78.50	321	*e*P	P	16 33 24.8	+0.6
KTK1	**Kautokeino**	78.52	340	*e*P	P	16 33 24.9	+0.9
KTK1				AMb	AMB	16 33 27.5	
	comp=Z,60nm,1.5s,mb5.3						
KTK1	**Kautokeino**	78.52	340	*e*P	P	16 33 24.9	+0.9
	comp=Z,60nm,1.5s,mb5.3						
BILL	**Bilibino**	78.55	21	d *i*P	P	16 33 23.1	-1.0
BILL				pmax	pmax		
	comp=Z,40nm,1.8s,mb5.0						
BILL	**Bilibino**	78.55	21	*i* Pr		16 33 23.2	
UPC	**Upice**	78.64	320	⇓*e*P	P	16 33 25.5	+0.5
ARSA	**Arzberg**	78.67	317	⇑*i*P	P	16 33 26.0	+0.8
	comp=Z,52nm,1.4s,mb5.3						
SUR	**Sutherland**	78.96	236	*e*P	P	16 33 28.3	+1.2
	comp=Z,116nm,1.4s,mb5.6						
OBKA	**Obir**	79.28	316	⇑*i*P	P	16 33 29.4	+0.8
	comp=Z,30nm,1.3s,mb5.1						
PRU	**Pruhonice**	79.54	320	⇓*e*P	P	16 33 30.1	+0.2
	comp=Z,49nm,1.3s,mb5.3						
PRU				*e*pP	pP	16 33 41.8	-0.1
MOA	**Molln**	79.56	318	⇑*i*P	P	16 33 30.4	+0.3
	comp=Z,28nm,1.0s,mb5.2						
PVCC	**Panska Ves**	79.56	320	⇓*e*P	P	16 33 30.9	+0.9
PVCC				*e*pP	pP	16 33 40.1	-1.9
BSD	**Bornholm Skovb**	79.77	325	⇓*i*P	P	16 33 30.4	-0.6
BSD				*i*	pP	16 33 42.4	-0.6
BSD				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.3						
BSD	**Bornholm Skovb**	79.77	325	⇓*i*P	P	16 33 30.4	-0.6
	comp=Z,38nm,0.9s,mb5.3						
BSD				*i*	pP	16 33 42.4	-0.6
BRG	**Berggiesshubel**	79.99	321	*i* P	P	16 33 32.5	+0.2
BRG				*i*	pP	16 33 44.5	+0.2
BRG				pmax	pmax		
	comp=Z,83nm,1.5s,mb5.4						
BRG	**Berggiesshubel**	79.99	321	*i* P	P	16 33 32.5	+0.2
	comp=Z,83nm,1.5s,mb5.4						
BRG				*i*	pP	16 33 44.5	+0.2
GERES	**GERESS Array B**	80.00	319	P	P	16 33 32.9	+0.5
	comp=Z,21nm,0.8s,mb5.1,baz=90,slow=5.3,SNR=113						
GERES				pP	pP	16 33 45.2	+0.7
	comp=Z,38nm,1.0s,baz=102,slow=3.9,SNR=13						
GERES	**GERESS Array B**	80.00	319	P	P	16 33 32.9	+0.5
GERES				*PP	pP	16 33 45.2	+0.8
GERES				pmax	pmax		
	comp=Z,21nm,0.9s						
GERES				pmax	pmax		
	comp=Z,38nm,1.0s						
PTCC	**Patocco-Chiusa**	80.10	316	*e*P	P	16 33 32.9	-0.1
KHC	**Kasperske Hory**	80.10	319	d *i*P	P	16 33 33.0	+0.1
KHC	**Kasperske Hory**	80.10	319	*e*P	P	16 33 33.2	+0.3
KHC				*e**PP	pP	16 33 45.2	+0.2
KHC	**Kasperske Hory**	80.10	319	*e*P	P	16 33 33.2	+0.3
KHC				*e*pP	pP	16 33 45.2	+0.2
KBA	**Koelnbreinsper**	80.14	317	⇑*i*P	P	16 33 33.3	+0.1
	comp=Z,18nm,1.0s,mb5.0						
TRO	**Tromso**	80.16	340	*e*P	P	16 33 31.2	-1.6
RUE	**Ruedersdorf**	80.21	322	*e*P	P	16 33 33.7	+0.3
	comp=Z,160nm,1.3s,mb5.8						
ARV	**Arcevia**	80.26	313	*e*P	P	16 33 34.5	+0.6
FSSB	**Fossombrone**	80.39	313	*e*P	P	16 33 35.2	+0.6
CLL	**Collm**	80.61	321	⇓*i*P	P	16 33 36.2	+0.6
CLL				*i*	pP	16 33 47.2	-0.4
CLL				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.2						
CLL	**Collm**	80.61	321	⇓*i*P	P	16 33 36.2	+0.6
	comp=Z,46nm,1.3s,mb5.2						
CLL				*i*	pP	16 33 47.2	-0.4
CLL	**Collm**	80.61	321	⇓P	P	16 33 36.2	+0.6
	comp=Z,logA/T=1.5,mb5.2						
CLL				*i* *PP	pP	16 33 47.2	-0.4
NKC	**Novy Kostel**	80.90	320	*e*P	P	16 33 37.9	+0.8
NKC				*e*pP	pP	16 33 49.6	+0.4
SFI	**Santa Sofia**	81.07	313	*e*P	P	16 33 39.6	+1.5
PGD	**Poggio Sodo**	81.16	313	*e*P	P	16 33 40.1	+1.5
COP	**Copenhagen**	81.23	325	⇓*e*P	P	16 33 39.1	+0.3
COP				*i*	pP	16 33 51.1	+0.3
COP				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
COP	**Copenhagen**	81.23	325	⇓*e*P	P	16 33 39.1	+0.3
	comp=Z,18nm,0.6s,mb5.2						
COP				*i*	pP	16 33 51.1	+0.3
COP	**Copenhagen**	81.23	325	⇓*i*P	P	16 33 39.1	+0.3
	comp=Z,18nm,0.6s,mb5.2						

COP				*i*	pP	16 33 51.1	+0.3
MOR8	**Moi Rana**	**81.26**	**336**	*e*P	**P**	**16 33 37.8**	**-0.9**
MOR8				AMb	AMB	16 33 41.1	
	comp=Z,58nm,2.0s,mb5.2						
MOR8				*e*pP	pP	16 33 50.9	+0.1
MOR8	**Moi Rana**	**81.26**	**336**	*e*P	**P**	**16 33 37.8**	**-0.9**
	comp=Z,58nm,2.0s,mb5.2						
CTI	**Castel Tesino**	**81.27**	**316**	*e*P	**P**	**16 33 39.6**	**+0.5**
VMG	**Vicchio**	**81.29**	**314**	*e*P	**P**	**16 33 40.9**	**+1.6**
WTTA	**Wattenberg**	**81.31**	**317**	⇑*i*P	**P**	**16 33 39.3**	**-0.1**
	comp=Z,54nm,1.3s,mb5.3						
WATA	**Walderalm**	**81.36**	**317**	⇑*i*P	**P**	**16 33 39.4**	**-0.2**
	comp=Z,14nm,0.7s,mb5.0						
SEI	**Scarperia**	**81.42**	**314**	*e*P	**P**	**16 33 41.3**	**+1.3**
MOX	**Moxa**	**81.45**	**320**	*i* P	**P**	**16 33 40.2**	**+0.2**
MOX	**Moxa**	**81.45**	**320**	*e*P	**P**	**16 33 40.2**	**+0.2**
SQTA	**Sankt Quirin**	**81.60**	**317**	⇑*i*P	**P**	**16 33 41.0**	**+0.1**
	comp=Z,23nm,0.7s,mb5.2						
GRA1	**Grafenberg Arr**	**81.67**	**319**	*e*P	**P**	**16 33 41.8**	**+0.6**
	comp=Z,122nm,1.6s,mb5.6						
GRA1				*e*pP	pP	16 33 53.7	+0.5
GRF	**Grafenberg Arr**	**81.67**	**319**	*e*P	**P**	**16 33 41.8**	**+0.6**
GRF				*e**PP	pP	16 33 53.7	+0.5
GRF				pmax	pmax		
	comp=Z,122nm,1.6s,mb5.6						
GRF	**Grafenberg Arr**	**81.67**	**319**	*e*P	**P**	**16 33 41.8**	**+0.6**
	comp=Z,122nm,1.6s,mb5.6						
GRF				*e*pP	pP	16 33 53.7	+0.5
MOTA	**Moosalm**	**81.68**	**317**	⇑*i*P	**P**	**16 33 41.4**	**+0.1**
	comp=Z,43nm,1.2s,mb5.3						
GSCL	**Gusciola**	**81.98**	**314**	*e*P	**P**	**16 33 44.5**	**+1.6**
NSS	**Namsos**	**82.12**	**334**	*e*P	**P**	**16 33 41.6**	**-1.6**
NSS				AMb	AMB	16 33 50.4	
	comp=Z,100nm,1.7s,mb5.5						
NSS	**Namsos**	**82.12**	**334**	*e*P	**P**	**16 33 41.6**	**-1.6**
	comp=Z,100nm,1.7s,mb5.5						
BRMO	**Bormio**	**82.16**	**316**	*e*P	**P**	**16 33 44.4**	**+0.6**
NB2	**NORSAR Subarra**	**82.21**	**331**	P	**P**	**16 33 43.0**	**-0.7**
	comp=Z,19nm,0.9s,mb5.0,baz=98,slow=5.3						
NB2	**NORSAR Subarra**	**82.21**	**331**	P	**P**	**16 33 43.0**	**-0.7**
	baz=98,slow=5.6						
NOA	**NORSAR Array B**	**82.21**	**331**	P	**P**	**16 33 43.5**	**-0.2**
	comp=Z,8.7nm,0.8s,mb4.8,baz=95,slow=5.4,SNR=22						
NOA				pP	pP	16 33 56.4	+0.6
	comp=Z,7.8nm,0.7s,baz=95,slow=5.4,SNR=10						
NOA				LR	LR	17 15 18.1	
	comp=Z,298nm,19.6s,MS4.7,baz=100,slow=39						
NOA	**NORSAR Array B**	**82.21**	**331**	P	**P**	**16 33 43.5**	**-0.2**
NOA				*PP	pP	16 33 56.4	+0.6
NOA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
NOA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
NOA				MLR	MLR		
	comp=Z,298nm,19.6s						
DAVA	**Damuels**	**82.51**	**317**	⇑*i*P	**P**	**16 33 46.4**	**+0.9**
	comp=Z,38nm,1.1s,mb5.3						
SYO	**Syowa Base**	**82.86**	**197**	⇓P	**P**	**16 33 47.8**	**+0.9**
SYO	**Syowa Base**	**82.86**	**197**	⇓P	sP	16 34 06.4	+3.1
MUD	**Monsted U’grnd**	**83.09**	**326**	*i* P	**P**	**16 33 49.4**	**+1.1**
MUD				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.4						
MUD	**Monsted U’grnd**	**83.09**	**326**	*i* P	**P**	**16 33 49.4**	**+1.1**
	comp=Z,41nm,1.0s,mb5.4						
PGF	**Pioggiola**	**83.14**	**312**	*e*P	**P**	**16 33 48.1**	**-0.7**
	comp=Z,465nm,1.8s,mb5.9						
SPAK	**Spaichingen**	**83.25**	**318**	*e*P	**P**	**16 33 50.0**	**+0.7**
VAI	**Varese**	**83.27**	**315**	*e*P	**P**	**16 33 49.3**	**-0.1**
FIN	**Finale Ligure**	**83.69**	**314**	*e*P	**P**	**16 33 52.1**	**+0.4**
FELD	**Feldberg**	**83.78**	**317**	*e*P	**P**	**16 33 50.8**	**-1.2**
MCGN	**Macugnaga**	**83.82**	**316**	*e*P	**P**	**16 33 53.7**	**+1.4**
LANF	**Langenberg**	**83.90**	**319**	*e*P	**P**	**16 33 52.7**	**+0.1**
LIBD	**Limburg**	**84.04**	**318**	*e*P	**P**	**16 33 54.4**	**+1.1**
ABH	**Alteburg**	**84.05**	**320**	*e*P	**P**	**16 33 53.8**	**+0.5**
BBS	**Basel-Blauen**	**84.12**	**317**	*e*P	**P**	**16 33 52.9**	**-0.8**
WLS	**Welschbruch**	**84.20**	**318**	*e*P	**P**	**16 33 54.6**	**+0.5**
CDF	**Champ du Feu**	**84.26**	**318**	*e*P	**P**	**16 33 54.0**	**-0.4**
	comp=Z,18nm,0.9s,mb4.9						
SBF	**Sospel**	**84.26**	**313**	*e*P	**P**	**16 33 53.4**	**-1.1**
	comp=Z,105nm,0.9s,mb5.7						
ECH	**Echery**	**84.34**	**318**	*e*P	**P**	**16 33 55.6**	**+0.8**
MOF	**Molkenrain**	**84.36**	**317**	*e*P	**P**	**16 33 52.0**	**-3.0**
RUP	**Ruppelstein**	**84.37**	**319**	*e*P	**P**	**16 33 54.0**	**-0.9**
LPG	**La Plagne**	**84.69**	**315**	*e*P	**P**	**16 33 56.8**	**+0.1**
	comp=Z,64nm,0.9s,mb5.5						
MBDF	**Montbardon**	**84.71**	**314**	*e*P	**P**	**16 33 56.1**	**-0.7**
	comp=Z,24nm,0.8s,mb5.1						
BNI	**Bardonecchia**	**84.76**	**315**	*e*P	**P**	**16 33 56.2**	**-0.8**
	comp=Z,20nm,0.8s,mb5.3						
HAU	**Haudompre**	**84.89**	**318**	*e*P	**P**	**16 33 57.1**	**-0.5**
	comp=Z,80nm,1.1s,mb5.5						
THEF	**They Montfort**	**85.12**	**318**	*e*P	**P**	**16 33 58.6**	**-0.1**
BAIF	**Baives**	**86.20**	**320**	*e*P	**P**	**16 34 04.2**	**+0.2**
	comp=Z,60nm,1.1s,mb5.4						
PLDF	**La Plantade**	**86.86**	**316**	*e*P	**P**	**16 34 09.2**	**+1.9**
LBL	**Lubilhac**	**87.18**	**315**	*e*P	**P**	**16 34 08.5**	**-0.4**
AGO	**Saint Agoulin**	**87.19**	**316**	*e*P	**P**	**16 34 09.2**	**+0.3**
PYM	**Petit Puy Mans**	**87.30**	**316**	*e*P	**P**	**16 34 07.8**	**-1.7**
BGF	**Bois d’Agland**	**87.35**	**316**	*e*P	**P**	**16 34 09.4**	**-0.3**
	comp=Z,118nm,1.3s,mb5.7						
RJF	**Les Rejaudoux**	**88.39**	**315**	*e*P	**P**	**16 34 14.8**	**+0.1**
	comp=Z,188nm,1.7s,mb5.7						
FLN	**La Foliniere**	**89.37**	**319**	*e*P	**P**	**16 34 18.7**	**-0.5**
	comp=Z,44nm,1.0s,mb5.4						
ANM	**Nome**	**89.81**	**25**	*e*P	**P**	**16 34 21.8**	**+0.9**
ETSF	**Etsaut**	**90.14**	**313**	*e*P	**P**	**16 34 21.8**	**-1.2**
	comp=Z,16nm,0.8s,mb5.1						
VNDA	**Vanda**	**90.21**	**168**	P	**P**	**16 34 24.1**	**+1.5**
	comp=Z,4.8nm,0.9s,mb4.8,baz=276,slow=6.4,SNR=8.6						
VNDA				pP	pP	16 34 35.3	+0.4
	comp=Z,7.8nm,0.9s,baz=5.6,slow=3.0,SNR=5.7						
VNDA	**Vanda**	**90.21**	**168**	P	**P**	**16 34 24.1**	**+1.5**
VNDA				*PP	pP	16 34 35.3	+0.4
VNDA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
VNDA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
VNDA	**Vanda**	**90.21**	**168**	*e*P	**P**	**16 34 22.4**	**-0.2**
	comp=Z,24nm,1.4s,mb5.3						
ESDC	**Sonseca Array**	**93.14**	**310**	P	**P**	**16 34 37.8**	**+0.9**
	comp=Z,2.2nm,0.7s,mb4.7,baz=61,slow=4.8,SNR=8.0						
ESDC				pP	pP	16 34 51.2	+1.9
	comp=Z,1.7nm,0.7s,baz=57,slow=6.0,SNR=5.1						
IMA	**Indian Mountai**	**94.07**	**22**	*e*P	**P**	**16 34 41.8**	**+1.3**
	comp=Z,0.1nm,1.4s						
SNAA	**Sanae**	**97.10**	**198**	P	**P**	**16 34 56.3**	**+2.1**
	comp=Z,1.2nm,1.2s,baz=309,slow=7.1,SNR=3.1						
SNAA	**Sanae**	**97.10**	**198**	P	**P**	**16 34 56.3**	**+2.0**
SNAA				pmax	pmax		
	comp=Z,1.0nm,1.2s						
ILAR	**Eielson Array**	**97.19**	**22**	P	**P**	**16 34 54.8**	**0.0**
	comp=Z,0.9nm,0.8s,mb4.3,baz=302,slow=4.1,SNR=15						
ILAR				pP	pP	16 35 07.4	+0.3
	comp=Z,1.0nm,0.6s,baz=301,slow=3.7,SNR=5.7						
ILAR				PP	PP	16 38 54.1	+0.1
	comp=Z,2.1nm,1.0s,baz=303,slow=7.5,SNR=5.7						
ILAR	**Eielson Array**	**97.19**	**22**	P	**P**	**16 34 54.8**	**0.0**
ILAR				*PP	pP	16 35 07.4	+0.3
ILAR						16 38 54.2	
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.0s						
PWA	**Palmer West**	**97.40**	**26**	*e*P	**P**	**16 34 55.7**	**-0.1**
DBIC	**Dimbokro**	**98.51**	**277**	P	**P**	**16 35 03.5**	**+1.5**
	comp=Z,3.0nm,0.8s,mb4.9,baz=53,slow=9.2,SNR=3.9						
DBIC	**Dimbokro**	**98.51**	**277**	P	**P**	**16 35 03.5**	**+1.6**
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.8s						
DBIC	**Dimbokro**	**98.51**	**277**	P	**P**	**16 35 03.5**	**+1.5**
RAR	**Rarotonga**	**106.63**	**111**	Pdiff	Pdif	16 35 40.9	+3.0
	comp=Z,16nm,0.4s,baz=330,slow=1.9,SNR=3.5						
RAR				PP	PP	16 40 07.2	+0.7
	comp=Z,19nm,0.4s,baz=64,slow=11,SNR=4.4						
RAR	**Rarotonga**	**106.63**	**111**	P	Pdif	16 35 40.9	+3.0
RAR						16 40 07.2	
RAR				pmax	pmax		
	comp=Z,16nm,0.4s						
RAR				pmax	pmax		
	comp=Z,19nm,0.4s						
RAR	**Rarotonga**	**106.63**	**111**	Pdif	Pdif	16 35 40.9	+3.0
RAR				PP	PP	16 40 07.2	+0.7
YKA	**Yellowknife Ar**	**109.03**	**14**	Pdiff	Pdif	16 35 50.3	+2.8
	comp=Z,0.4nm,1.0s,baz=326,slow=3.6,SNR=4.3						
YKA				PKiKP		16 39 50.8	
	comp=Z,0.4nm,0.7s,baz=336,slow=1.8,SNR=5.9						
YKA				PP	PP	16 40 17.8	-5.9
	comp=Z,1.7nm,0.7s,baz=335,slow=7.9,SNR=12						
YKA	**Yellowknife Ar**	**109.03**	**14**	P	Pdif	16 35 50.3	+2.8
YKA						16 40 17.8	
YKA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
SCHQ	**Schefferville**	**118.23**	**348**	PKP	PKPdf	16 40 10.4	+1.9
	comp=Z,5.0nm,1.1s,baz=211,slow=2.3,SNR=4.0						
SCHQ				PP	PP	16 41 21.0	-8.4
	comp=Z,3.2nm,0.9s,baz=6.2,slow=3.2,SNR=2.2						
ULM	**Lac du Bonnet**	**124.14**	**8**	PKP	PKPdf	16 40 22.5	+2.4
	comp=Z,3.7nm,0.6s,baz=7.0,slow=3.0,SNR=7.8						
ULM				pPKP		16 40 35.2	
	comp=Z,5.1nm,0.7s,baz=4.9,slow=2.7,SNR=5.0						
ULM				PP	PP	16 42 03.0	-6.7
	comp=Z,3.2nm,0.8s,baz=21,slow=4.2,SNR=3.2						
ULM	**Lac du Bonnet**	**124.14**	**8**	PKP	PKPdf	16 40 22.5	+2.4
ULM				pPKP		16 40 35.2	
ULM				PP	PP	16 42 03.0	-6.7
MCMT	**McKenzie Canyo**	**124.61**	**23**	*e*PKPdf	PKPdf	16 40 23.4	+2.3
LAO	**LASA Array**	**125.28**	**17**	*e*PKPdf	PKPdf	16 40 25.0	+2.6
NVAR	**Mina Array Bea**	**127.14**	**32**	PKP	PKPdf	16 40 29.2	+3.0
	comp=Z,3.6nm,0.7s,baz=285,slow=2.2,SNR=16						
NVAR				pPKP		16 40 41.7	
	comp=Z,2.8nm,0.7s,baz=3.6,slow=2.5,SNR=5.9						
NVAR	**Mina Array Bea**	**127.14**	**32**	PKP	PKPdf	16 40 29.2	+3.0
NVAR				pPKP		16 40 41.7	
PDAR	**Pinedale Array**	**127.63**	**22**	PKP	PKPdf	16 40 29.0	+2.0
	comp=Z,4.0nm,0.9s,baz=68,slow=1.8,SNR=22						
PDAR				pPKP		16 40 40.9	
	comp=Z,4.3nm,0.9s,slow=1.5,SNR=9.3						
MTUM	**Tungsten Hills**	**127.79**	**33**	PKPdf	PKPdf	16 40 29.1	+1.6
MSU	**Marysvale**	**130.10**	**27**	*e*PKPdf	PKPdf	16 40 34.5	+2.6
NEN	**Nelson**	**131.05**	**32**	*e*PKPdf	PKPdf	16 40 36.8	+3.0
PV10	**Paradox Valley**	**131.58**	**25**	*e*PKPdf	PKPdf	16 40 36.0	+1.3
ANMO	**Albuquerque**	**135.58**	**25**	PKhKP		16 40 38.1	
	comp=Z,2.0nm,1.1s,baz=314,slow=4.8,SNR=2.1						
ANMO				PKP	PKPdf	16 40 45.7	+3.5
	comp=Z,4.3nm,0.8s,baz=224,slow=0.9,SNR=3.7						
ANMO	**Albuquerque**	**135.58**	**25**	PKP	PKPdf	16 40 38.1	-4.1
ANMO				PKP	PKPdf	16 40 45.7	+3.5
MNTX	**Cornudas Mount**	**138.83**	**26**	*e*PKPdf	PKPdf	16 40 50.1	+1.9
BAO	**Brasilia Array**	**141.58**	**251**	PKP	PKPdf	16 40 49.7	-3.9
BDFB	**Brasilia**	**141.60**	**251**	PKhKP		16 40 52.2	
	comp=Z,4.3nm,0.9s,baz=49,slow=5.6,SNR=3.4						
BDFB				PKP	PKPdf	16 40 57.3	+3.6
	comp=Z,3.1nm,0.7s,baz=2.3,slow=1.5,SNR=5.1						
BDFB	**Brasilia**	**141.60**	**251**	PKIKP	PKPdf	16 40 52.2	-1.5
BDFB						16 40 57.3	
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.7s						
TXAR	**Lajitas Array**	**141.61**	**26**	PKhKP		16 40 49.3	
	comp=Z,5.4nm,1.2s,baz=220,slow=1.6,SNR=14						
TXAR				PKP	PKPdf	16 40 56.5	+3.2
	comp=Z,1.8nm,0.5s,baz=241,slow=0.5,SNR=15						
TXAR				pPKP		16 41 07.7	
	comp=Z,2.0nm,0.5s,baz=172,slow=0.9,SNR=8.1						
TXAR				PP	PP	16 44 00.1	-1.0
	comp=Z,1.0nm,0.8s,baz=37,slow=6.3,SNR=5.4						
JCT	**Junction City**	**142.09**	**20**	*e*PKPdf	PKPdf	16 40 50.0	-4.2
CPUP	**Villa Florida**	**145.69**	**229**	PKPbc	PKPbc	16 41 01.7	+0.5
	comp=Z,0.0nm,0.4s,baz=45,slow=11,SNR=1.6						
SJG	**San Juan**	**149.94**	**321**	*e*PKPbc	PKPdf	16 41 13.8	+6.1
SJG				*e*		16 41 19.1	
LVC	**Limon Verde**	**156.25**	**221**	PKP	PKPdf	16 41 18.6	+2.3
	comp=Z,4.3nm,1.1s,baz=241,slow=7.2,SNR=3.0						
LVC				PKPab	PKPab	16 41 47.3	+0.4
	comp=Z,7.1nm,0.7s,baz=78,slow=2.3,SNR=10						
LPAZ	**La Paz**	**159.54**	**236**	PKP	PKPdf	16 41 23.9	+3.2
	comp=Z,3.8nm,0.9s,baz=66,slow=1.6,SNR=11						
LPAZ				PKPab	PKPab	16 42 02.1	+0.9
	comp=Z,4.4nm,0.8s,baz=99,slow=6.1,SNR=8.6						
LPAZ	**La Paz**	**159.54**	**236**	PKIKP	PKPdf	16 41 23.9	+3.3
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ROSC	**El Rosal**	**164.96**	**311**	PKP	PKPdf	16 41 29.6	+3.4
	comp=Z,6.7nm,0.7s,baz=90,slow=9.5,SNR=7.7						

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*NEIC **26** 16:27:09.1±0.5, 7.86N×92.72E, h30^{km}, mb4.7/4, Error ellipse: s-maj=16.1km s-min=8.2km az=54.0*

*BJI **26** 16:27:09.1, 7.90N×92.70E, h30^{km}, mb4.6*

*IDC **26** 16:27:10.0±0.8, 7.83N×92.66E, h39^{km}±6^{km}, mb4.1/14, mb1 4.2/15, mb1mx4.1/21, ML4.3/1, Error ellipse: s-maj=35.6km s-min=12.0km az=47.0*

ISC 26 16:27:08.1±0.5**, 7.80N**±0.06×**92.68E**±0.08**, h40^{km}, h40^{km}**±3.7^{km}**:pP-P, n33,** σ1^{s}**25**/34**, mb4.5**/19**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.22**	**29**	Pn	**P**	**16 30 01.4**	**-1.0**
	0.5nm,0.3s,baz=228,slow=15,SNR=4.8						
CMAR				Sn	**S**	**16 32 19.9**	**+1.6**
	0.2nm,0.3s,baz=196,slow=40,SNR=3.6						
LSA	**Lhasa**	**21.84**	**356**	*e*P	**P**	**16 31 55.0**	**-3.9**
GYA	**Guiyang**	**22.83**	**34**	⇑*i*P	**P**	**16 32 11.0**	**+2.1**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
ENH	**Enshi**	**27.35**	**33**	*e*P	**P**	**16 32 50.3**	**-1.4**
GTA	**Gaotai**	**32.12**	**10**	P	**P**	**16 33 33.0**	**-1.1**
GTA				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.7						
MBWA	**Marble Bar**	**39.16**	**138**	P	**P**	**16 34 36.4**	**+2.4**
SONM	**Songino Array**	**41.57**	**14**	P	**P**	**16 34 53.6**	**0.0**
	comp=Z,4.4nm,0.7s,mb4.2,baz=198,slow=8.3,SNR=9.6						
ZAL	**Zalesovo**	**46.45**	**354**	P	**P**	**16 35 31.9**	**-1.0**
	comp=Z,1.3nm,0.8s,mb3.9,baz=274,slow=11,SNR=3.0						
HIA	**Hailar**	**47.16**	**24**	P	**P**	**16 35 38.5**	**-0.1**
BVAR	**Borovoye Array**	**48.61**	**342**	P	**P**	**16 35 48.6**	**-1.2**
	comp=Z,2.5nm,0.8s,mb4.3,baz=244,slow=38,SNR=4.7						
BRVK	**Borovoye**	**48.67**	**342**	P	**P**	**16 35 48.7**	**-1.6**
CHKZ	**Chkalovo**	**49.11**	**343**	*e*P	**P**	**16 35 52.1**	**-1.5**
WRA	**Warramunga Arr**	**49.40**	**125**	P	**P**	**16 35 55.5**	**-0.9**
	comp=Z,5.3nm,0.4s,mb5.0,baz=303,slow=9.2,SNR=18						
WRA				pP	pP	16 36 08.1	+0.5
	comp=Z,2.5nm,0.5s,baz=307,slow=8.4,SNR=3.2						
WRAB	**Tennant Creek**	**49.40**	**125**	*e*P	**P**	**16 35 55.2**	**-1.1**
	comp=Z,17nm,0.8s,mb5.1						
ASAR	**Alice Springs**	**50.98**	**129**	P	**P**	**16 36 07.8**	**-0.6**
	comp=Z,2.5nm,0.4s,mb4.5,baz=304,slow=7.8,SNR=13						
ASAR				pP	pP	16 36 20.8	+1.0
	comp=Z,3.4nm,0.5s,baz=304,slow=8.3,SNR=5.8						
PMG	**Port Moresby**	**56.89**	**107**	P	**P**	**16 36 52.9**	**+1.0**
	comp=Z,6.3nm,0.7s,mb4.8,baz=300,slow=6.7,SNR=6.9						
CTA	**Charters Tower**	**59.53**	**119**	P	**P**	**16 37 10.3**	**0.0**
	comp=Z,3.4nm,0.7s,mb4.5,baz=305,slow=12,SNR=4.8						
CTAO	**Charters Tower**	**59.53**	**119**	*e*P	**P**	**16 37 10.6**	**+0.3**
	comp=Z,4.3nm,0.8s,mb4.5						
STKA	**Stephens Creek**	**61.10**	**133**	P	**P**	**16 37 20.1**	**-0.7**
	comp=Z,1.8nm,0.8s,mb4.3,baz=264,slow=12,SNR=3.3						
BRTR	**Keskin Array B**	**61.39**	**311**	P	**P**	**16 37 22.0**	**-0.7**
	comp=Z,1.9nm,0.7s,mb4.3,baz=135,slow=8.7,SNR=5.5						
AKASG	**Malin Array Be**	**67.32**	**322**	P	**P**	**16 37 59.6**	**-1.5**
	comp=Z,1.4nm,0.6s,mb4.2,baz=84,slow=4.1,SNR=5.2						
CRVS	**Cervenica-Dubn**	**71.84**	**319**	*e*P	**P**	**16 38 31.7**	**+3.0**
FINES	**FINESS Array B**	**72.11**	**332**	P	**P**	**16 38 30.1**	**0.0**
	comp=Z,3.5nm,0.7s,mb4.4,baz=115,slow=7.1,SNR=7.4						
KAF	**Kangasniemi**	**72.20**	**333**	*e*p	**P**	**16 38 30.7**	**+0.1**
KEV	**Kevo**	**74.43**	**341**	*e*p	**P**	**16 38 43.9**	**+0.3**
ARCES	**ARCESS Array B**	**74.85**	**340**	P	**P**	**16 38 46.6**	**+0.6**
	comp=Z,12nm,1.1s,mb4.7,baz=90,slow=3.6,SNR=6.0						
BRG	**Berggiesshubel**	**76.89**	**320**	*i* P	**P**	**16 38 59.9**	**+1.9**
	comp=Z,14nm,1.6s,mb4.6						
GERES	**GERESS Array B**	**76.92**	**318**	P	**P**	**16 38 59.9**	**+1.7**
	comp=Z,5.7nm,1.0s,mb4.4,baz=90,slow=6.4,SNR=11						
GERES				pP	pP	16 39 10.3	+0.2
	comp=Z,1.9nm,1.0s,baz=90,slow=4.0,SNR=4.3						
CLL	**Collm**	**77.51**	**321**	*e*P	**P**	**16 39 02.0**	**+0.6**
CLL	**Collm**	**77.51**	**321**	P	**P**	**16 39 02.0**	**+0.6**
NOA	**NORSAR Array B**	**79.09**	**331**	P	**P**	**16 39 10.1**	**+0.2**
	comp=Z,1.5nm,0.7s,mb4.1,baz=94,slow=5.8,SNR=4.3						
NOA				pP	pP	16 39 20.9	-0.9
	comp=Z,0.9nm,0.8s,baz=218,slow=22,SNR=1.8						
NOA	**NORSAR Array B**	**79.09**	**331**	P	**P**	**16 39 10.1**	**+0.3**
NOA				pP	pP	16 39 20.9	-0.9
LPL	**La Plagne**	**81.66**	**315**	*e*P	**P**	**16 39 26.5**	**+2.6**
	comp=Z,14nm,0.7s,mb4.7						

IDC 26 16:31:04.4±1.5**, 5.44N**×**93.59E, mb3.8**/4**, mb1 4.1**/4**, mb1mx3.8**/17**, Error ellipse: s-maj=64.2km s-min=29.0km az=45.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.65**	**12**	P	P	16 39 10.9	-1.5
	1.2nm,0.8s,baz=192,slow=8.7,SNR=4.8						
WRA	**Warramunga Arr**	**47.34**	**123**	P	P	16 39 40.5	-1.8
	4.2nm,0.7s,baz=301,slow=9.1,SNR=12						
BRTR	**Keskin Array B**	**63.62**	**312**	P	P	16 41 39.1	-0.6
	0.4nm,0.7s,baz=127,slow=7.2,SNR=2.4						
GERES	**GERESS Array B**	**79.27**	**319**	P	P	16 43 10.4	-2.9
	0.4nm,0.7s,baz=90,slow=5.3,SNR=3.6						

IDC 26 16:33:29.8±1.4**, 9.39N**×**94.08E, h24^{km}**±5^{km}**, mb3.7**/5**, mb1 3.9**/5**, mb1mx3.6**/18**, Error ellipse: s-maj=76.1km s-min=26.7km az=46.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	**Borovoye Array**	**47.54**	**341**	P	P	16 42 01.8	-3.3
	0.4nm,0.6s,baz=241,slow=34,SNR=1.9						
BVAR				pP	pP	16 42 09.9	-2.7
	0.6nm,0.5s,baz=143,slow=7.2,SNR=3.6						
WRA	**Warramunga Arr**	**49.19**	**127**	P	P	16 42 16.0	-2.4
	2.5nm,0.7s,baz=303,slow=8.9,SNR=5.8						
BRTR	**Keskin Array B**	**61.41**	**310**	P	P	16 43 42.9	-3.7
	0.3nm,0.4s,baz=135,slow=5.2,SNR=2.7						
BRTR				pP	pP	16 43 52.1	-2.0
	0.8nm,0.7s,baz=90,slow=5.8,SNR=3.5						
FINES	**FINESS Array B**	**71.35**	**332**	P	P	16 44 48.9	-0.6
	2.6nm,0.8s,baz=135,slow=12,SNR=2.9						
GERES	**GERESS Array B**	**76.67**	**318**	P	P	16 45 19.9	-0.6
	0.5nm,0.8s,baz=98,slow=6.9,SNR=3.3						
GERES				pP	pP	16 45 27.3	-0.9
	0.7nm,0.7s,baz=90,slow=4.0,SNR=5.6						

IDC 26 16:34:47.6±1.2**, 6.15N**×**94.97E, mb4.0**/7**, mb1 4.2**/8**, mb1mx4.0**/18**, ML4.5**/1**, Error ellipse: s-maj=65.9km s-min=20.6km az=52.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.84**	**17**	Pn	P	16 37 47.8	-6.4
	0.8nm,0.3s,baz=333,slow=17,SNR=4.1						
SONM	**Songino Array**	**42.67**	**11**	P	P	16 42 47.2	-0.5
	1.2nm,0.8s,baz=207,slow=5.5,SNR=3.6						
WRA	**Warramunga Arr**	**46.60**	**125**	P	P	16 43 16.2	-3.5
	0.7nm,0.5s,baz=298,slow=9.5,SNR=3.9						
ASAR	**Alice Springs**	**48.19**	**129**	P	P	16 43 31.4	-0.7
	1.3nm,0.4s,baz=313,slow=7.3,SNR=17						
ZAL	**Zalesovo**	**48.36**	**352**	P	P	16 43 29.6	-3.4
	2.6nm,0.4s,baz=306,slow=5.7,SNR=5.5						
FINES	**FINESS Array B**	**74.61**	**332**	P	P	16 46 28.2	-2.1
	1.6nm,0.5s,baz=90,slow=5.7,SNR=6.6						
GERES	**GERESS Array B**	**79.66**	**318**	P	P	16 46 57.1	-1.5
	0.3nm,0.6s,baz=117,slow=4.4,SNR=3.7						
NB2	**NORSAR Subarra**	**81.63**	**331**	P	P	16 47 07.8	-1.0
	1.2nm,0.7s,baz=92,slow=5.8						
NOA	**NORSAR Array B**	**81.63**	**331**	P	P	16 47 08.5	-0.3
	0.8nm,0.6s,baz=99,slow=5.1,SNR=3.7						

IDC 26 16:36:41.8±1.1**, 5.54N**×**94.96E, mb4.1**/7**, mb1 4.3**/8**, mb1mx4.1**/18**, ML3.6**/1**, Error ellipse: s-maj=69.7km s-min=20.8km az=47.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.41**	**17**	Pn	P	16 40 01.6	+5.5
	0.1nm,0.3s,baz=214,slow=11,SNR=7.7						
SONM	**Songino Array**	**43.26**	**11**	P	P	16 44 45.2	-1.5
	1.2nm,0.9s,baz=188,slow=7.3,SNR=3.6						
WRA	**Warramunga Arr**	**46.27**	**124**	P	P	16 45 09.0	-2.2
	3.6nm,1.0s,baz=305,slow=9.1,SNR=7.7						
ASAR	**Alice Springs**	**47.81**	**129**	P	P	16 45 21.7	-1.7
	3.0nm,0.7s,baz=309,slow=7.9,SNR=12						
AKASG	**Malin Array Be**	**70.48**	**322**	P	P	16 47 58.1	-2.0
	2.1nm,0.7s,baz=88,slow=5.0,SNR=7.4						
FINES	**FINESS Array B**	**75.14**	**332**	P	P	16 48 25.8	-1.7
	7.8nm,1.2s,baz=117,slow=4.3,SNR=3.3						
GERES	**GERESS Array B**	**80.10**	**318**	P	P	16 48 54.2	-0.9
	1.8nm,0.8s,baz=90,slow=5.3,SNR=9.4						
CLL	**Collm**	**80.67**	**321**	P	P	16 48 57.0	-1.1
NOA	**NORSAR Array B**	**82.15**	**331**	P	P	16 49 04.0	-1.7
	0.8nm,0.9s,baz=101,slow=5.6,SNR=2.5						

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*IDC **26** 16:37:43.2±1.3, 9.14N×93.48E, mb4.1/10, mb1 4.3/10, mb1mx4.1/18, Error ellipse: s-maj=47.1km s-min=28.1km az=50.0*

*NEIC **26** 16:37:47.6±0.8, 9.06N×93.45E, h30^{km}, mb4.6/5, Error ellipse: s-maj=29.3km s-min=17.2km az=58.0*

*BJI **26** 16:37:47.8, 9.08N×93.68E, h40^{km}, mb4.8*

ISC 26 16:37:45.5±1.0**, 9.0N**±0.2×**93.6E**±0.2**, h30^{km}, n23,** σ1^{s}**00**/23**, mb4.2**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	**Pulchoki**	**20.05**	**338**	*e*P	**P**	**16 42 20.2**	**+0.9**
GUN	**Gumba**	**20.20**	**340**	*e*P	**P**	**16 42 21.7**	**+0.8**
	69nm,0.8s						
DMN	**Daman**	**20.20**	**338**	*e*P	**P**	**16 42 21.9**	**+1.0**
KKN	**Kakani**	**20.30**	**338**	*e*P	**P**	**16 42 22.9**	**+1.0**
	41nm,0.9s						
GKN	**Gorkha**	**20.73**	**337**	*e*P	**P**	**16 42 26.8**	**+0.4**
	82nm,0.8s						
LSA	**Lhasa**	**20.76**	**354**	P	**P**	**16 42 27.0**	**+0.4**
LSA				AMB	AMB		
	comp=Z,30nm,0.7s						
LSA	**Lhasa**	**20.76**	**354**	*e*P	**P**	**16 42 26.7**	**+0.1**
	comp=Z,19nm,0.5s						
KOLN	**Koldanda**	**20.95**	**335**	*e*P	**P**	**16 42 29.6**	**+1.1**
	comp=Z,41nm,0.7s						
SONM	**Songino Array**	**40.24**	**13**	P	**P**	**16 45 20.2**	**-1.1**
	comp=Z,1.0nm,0.9s,mb3.5,baz=202,slow=7.8,SNR=4.1						
ZAL	**Zalesovo**	**45.41**	**353**	P	**P**	**16 46 03.2**	**-0.1**
	comp=Z,6.8nm,0.4s,mb4.8,baz=302,slow=6.1,SNR=14						
ZAL	**Zalesovo**	**45.41**	**353**	P	**P**	**16 46 03.2**	**-0.1**
BVAR	**Borovoye Array**	**47.79**	**341**	P	**P**	**16 46 21.7**	**-0.4**
	comp=Z,1.1nm,0.3s,mb4.3,baz=145,slow=9.1,SNR=8.2						
BRVK	**Borovoye**	**47.85**	**341**	P	**P**	**16 46 21.2**	**-1.3**
	comp=Z,2.2nm,0.6s,mb4.4						
CHKZ	**Chkalovo**	**48.27**	**342**	*e*P	**P**	**16 46 25.5**	**-0.3**
	comp=Z,3.2nm,0.5s,mb4.6						
ASAR	**Alice Springs**	**51.04**	**130**	P	**P**	**16 46 49.5**	**+2.1**
	comp=Z,0.8nm,0.9s,mb3.7,baz=308,slow=5.9,SNR=3.9						
BRTR	**Keskin Array B**	**61.30**	**310**	P	**P**	**16 47 59.8**	**-1.0**
	comp=Z,1.2nm,0.8s,mb4.1,baz=121,slow=7.2,SNR=5.5						
FINES	**FINESS Array B**	**71.50**	**332**	P	**P**	**16 49 02.8**	**-2.5**
	comp=Z,1.8nm,0.8s,mb4.0,baz=97,slow=5.6,SNR=7.7						
ARCES	**ARCESS Array B**	**74.06**	**340**	P	**P**	**16 49 19.1**	**-1.0**
	comp=Z,4.8nm,1.1s,mb4.3,baz=98,slow=6.6,SNR=6.7						
GERES	**GERESS Array B**	**76.65**	**318**	P	**P**	**16 49 35.9**	**+0.5**
	comp=Z,1.4nm,0.6s,mb4.0,baz=76,slow=5.5,SNR=8.7						
NB2	**NORSAR Subarra**	**78.52**	**331**	P	**P**	**16 49 44.3**	**-1.1**
	comp=Z,1.0nm,0.5s,mb4.0,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**78.52**	**331**	P	**P**	**16 49 44.9**	**-0.5**
	comp=Z,1.0nm,0.5s,mb4.0,baz=91,slow=5.8,SNR=4.6						
LPG	**La Plagne**	**81.46**	**315**	*e*P	**P**	**16 50 02.1**	**+0.7**
	comp=Z,17nm,0.9s,mb4.7						
ILAR	**Eielson Array**	**93.96**	**22**	P	**P**	**16 51 00.8**	**-0.6**
	comp=Z,0.5nm,0.8s,mb4.0,baz=290,slow=3.7,SNR=5.6						

IDC 26 16:39:03.6±1.5**, 5.23N**×**92.79E, mb4.0**/6**, mb1 4.2**/7**, mb1mx3.9**/19**, Error ellipse: s-maj=48.8km s-min=27.6km az=50.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.45**	**24**	Pn	P	16 42 31.2	-0.4
	baz=225,slow=14,SNR=3.9						
SONM	**Songino Array**	**44.02**	**13**	P	P	16 47 12.8	-1.8
	0.6nm,0.6s,baz=207,slow=8.3,SNR=3.2						
WRA	**Warramunga Arr**	**47.90**	**123**	P	P	16 47 43.8	-2.0
	2.7nm,0.6s,baz=301,slow=9.0,SNR=7.2						
ZAL	**Zalesovo**	**48.99**	**354**	P	P	16 47 51.5	-2.3
	3.5nm,0.4s,baz=311,slow=5.0,SNR=9.4						
BVAR	**Borovoye Array**	**51.07**	**343**	P	P	16 48 06.9	-2.8
	1.0nm,0.6s,baz=146,slow=10,SNR=4.2						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRTR	**Keskin Array B**	**63.16**	**312**	P	P	16 49 33.7	-2.0
	0.8nm,0.8s,baz=149,slow=8.4,SNR=3.9						
GERES	**GERESS Array B**	**78.89**	**319**	P	P	16 51 09.7	-0.7
	1.2nm,0.8s,baz=90,slow=5.3,SNR=4.6						

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*BJI **26** 16:43:05.8, 8.32N×92.27E, h36^{km}, mb4.4*
*IDC **26** 16:43:14.5±0.7, 8.94N×92.50E, h34^{km}±4^{km}, mb3.9/9, mb1 4.1/9, mb1mx3.9/18, Error ellipse: s-maj=33.7km s-min=13.0km az=52.0*
*NEIC **26** 16:43:15.0±0.5, 9.06N×92.62E, mb4.6/6, Error ellipse: s-maj=22.4km s-min=8.8km az=58.0*
ISC 26 16:43:12.5±0.7**, 8.94N**±0.09×**92.5E**±0.1**, h37**^{km}**, h37**^{km}±1.4^{km}**:pP-P, n23,** σ**0**^{s}**80**/19**, mb4.3**/16**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.34**	**33**	P	**P**	**16 45 56.6**	**+1.3**
	5.1nm,0.4s						
LSA	**Lhasa**	**20.69**	**357**	P	**P**	**16 47 52.3**	**+0.2**
GYA	**Guiyang**	**22.00**	**36**	⇑*i*P	**P**	**16 48 05.5**	**+0.2**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
ENH	**Enshi**	**26.51**	**35**	*e*P	**P**	**16 48 47.2**	**-1.5**
	comp=Z,4.0nm,0.7s,mb4.1						
GTA	**Gaotai**	**31.04**	**11**	P	**P**	**16 49 29.0**	**-0.3**
GTA				AP	pP	16 49 41.0	+1.4
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
SONM	**Songino Array**	**40.51**	**14**	P	**P**	**16 50 49.6**	**-0.1**
	comp=Z,3.3nm,0.8s,mb4.0,baz=198,slow=8.7,SNR=16						
SONM				pP	pP	16 51 00.9	+0.7
	comp=Z,2.0nm,0.6s,baz=201,slow=6.2,SNR=8.2						
SONM				PcP	PcP	16 52 53.3	+0.9
	comp=Z,1.3nm,0.6s,baz=206,slow=3.3,SNR=5.0						
SONM				pPcP		16 53 04.3	
	comp=Z,0.6nm,0.5s,baz=205,slow=5.1,SNR=3.6						
ZAL	**Zalesovo**	**45.30**	**354**	P	**P**	**16 51 28.1**	**-0.5**
	comp=Z,0.9nm,0.6s,mb3.8,baz=310,slow=9.1,SNR=5.0						
BVAR	**Borovoye Array**	**47.47**	**342**	P	**P**	**16 51 45.5**	**-0.2**
	comp=Z,3.1nm,1.0s,mb4.2,baz=143,slow=7.4,SNR=7.6						
BVAR				pP	pP	16 51 57.2	+0.8
	comp=Z,0.7nm,0.6s,baz=146,slow=11,SNR=3.6						
BRVK	**Borovoye**	**47.53**	**342**	*e*P	**P**	**16 51 46.2**	**0.0**
	comp=Z,1.9nm,0.8s,mb4.2						
NWAO	**Narrogin (SRO)**	**47.85**	**152**	*e*P	**P**	**16 51 50.5**	**+1.5**
	comp=Z,7.5nm,0.9s,mb4.7						
CHKZ	**Chkalovo**	**47.96**	**343**	*e*P	**P**	**16 51 49.4**	**-0.2**
	comp=Z,6.7nm,0.9s,mb4.7						
CHKZ				*e*pP	pP	16 51 59.0	-1.2
WRA	**Warramunga Arr**	**50.21**	**125**	P	**P**	**16 52 06.7**	**-0.5**
	comp=Z,3.5nm,0.6s,mb4.6,baz=306,slow=8.4,SNR=21						
WRA				pP	pP	16 52 17.2	-0.7
	comp=Z,1.2nm,0.4s,baz=302,slow=9.1,SNR=9.3						
WRA				PcP	PcP	16 53 25.8	-0.5
	comp=Z,0.9nm,0.7s,baz=303,slow=8.9,SNR=3.1						
WRAB	**Tennant Creek**	**50.21**	**125**	*e*P	**P**	**16 52 06.3**	**-1.0**
	comp=Z,6.3nm,0.7s,mb4.8						
ASAR	**Alice Springs**	**51.85**	**130**	P	**P**	**16 52 19.1**	**-0.6**
	comp=Z,3.1nm,0.7s,mb4.4,baz=306,slow=6.9,SNR=20						
ASAR				pP	pP	16 52 29.7	-0.7
	comp=Z,0.6nm,0.6s,baz=302,slow=8.0,SNR=5.5						
ASAR				PcP	PcP	16 53 33.5	+1.2
	comp=Z,0.8nm,0.7s,baz=310,slow=4.0,SNR=4.1						
CTA	**Charters Tower**	**60.25**	**119**	P	**P**	**16 53 20.4**	**+0.4**
	comp=Z,5.4nm,0.8s,mb4.6,baz=307,slow=5.8,SNR=4.6						
CTAO	**Charters Tower**	**60.25**	**119**	*e*P	**P**	**16 53 20.7**	**+0.7**
	comp=Z,11nm,1.0s,mb4.8						
BRTR	**Keskin Array B**	**60.50**	**311**	P	**P**	**16 53 20.6**	**-0.9**
	comp=Z,3.0nm,1.1s,mb4.2,baz=130,slow=9.6,SNR=5.2						
BRTR				pP	pP	16 53 31.7	-0.7
	comp=Z,1.6nm,0.7s,baz=121,slow=7.2,SNR=8.1						
FINES	**FINESS Array B**	**71.01**	**332**	pP	pP	16 54 39.5	0.0
	comp=Z,3.1nm,0.9s,baz=108,slow=6.0,SNR=4.9						
GERES	**GERESS Array B**	**75.95**	**318**	P	**P**	**16 54 58.7**	**+1.2**
	comp=Z,0.3nm,0.3s,mb3.6,baz=243,slow=3.0,SNR=4.7						
GERES				pP	pP	16 55 08.7	+0.1
	comp=Z,2.3nm,1.0s,baz=90,slow=4.0,SNR=6.4						
ILAR	**Eielson Array**	**94.37**	**22**	P	**P**	**16 56 30.1**	**+0.8**
	comp=Z,0.5nm,0.7s,mb4.1,baz=304,slow=4.6,SNR=9.5						
ILAR				pP	pP	16 56 40.9	0.0
	comp=Z,0.3nm,0.6s,baz=301,slow=4.6,SNR=4.5						
PDAR	**Pinedale Array**	**124.74**	**20**	PKP	PKPdf	17 02 11.7	+2.8
	comp=Z,0.6nm,0.7s,slow=1.5,SNR=5.6						
NVAR	**Mina Array Bea**	**124.82**	**29**	PKP	PKPdf	17 02 12.9	+3.8
	comp=Z,0.6nm,0.6s,baz=262,slow=2.2,SNR=4.3						
TXAR	**Lajitas Array**	**138.88**	**22**	PKP	PKPdf	17 02 38.6	+2.7
	comp=Z,0.3nm,0.6s,baz=15,slow=1.3,SNR=5.8						

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*IDC **26** 16:44:19.5±0.6, 13.55N×92.66E, h22^{km}±2^{km}, mb4.1/16, mb1 4.2/16, mb1mx4.1/20, Error ellipse: s-maj=29.7km s-min=11.2km az=54.0*
*NEIC **26** 16:44:19.8±0.3, 13.63N×92.75E, mb4.4/4, Error ellipse: s-maj=14.7km s-min=7.7km az=63.0*
ISC 26 16:44:17.9±0.5**, 13.62N**±0.09×**92.8E**±0.1**, h23**^{km}**, h23**^{km}±.7^{km}**:pP-P, n26,** σ**0**^{s}**75**/24**, mb4.2**/18**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	**Lhasa**	**16.07**	**355**	*e*P	**P**	**16 48 05.1**	**+0.8**
	9.4nm,0.5s						
SONM	**Songino Array**	**35.94**	**16**	P	**P**	**16 51 20.3**	**+1.6**
	2.0nm,1.0s,mb4.0,baz=203,slow=7.2,SNR=2.8						
SONM				pP	pP	16 51 27.1	+1.7
	0.8nm,0.6s,baz=215,slow=5.6,SNR=2.2						
ZAL	**Zalesovo**	**40.71**	**353**	P	**P**	**16 51 58.2**	**-0.2**
	2.8nm,0.9s,mb3.9,baz=300,slow=6.4,SNR=8.7						
ZAL				pP	pP	16 52 05.8	+0.5
	0.9nm,0.5s,baz=272,slow=10,SNR=4.0						
BVAR	**Borovoye Array**	**43.16**	**340**	P	**P**	**16 52 18.9**	**+0.4**
	0.7nm,0.5s,mb3.7,baz=153,slow=9.9,SNR=3.7						
BVAR				pP	pP	16 52 25.7	+0.4
	0.7nm,0.5s,baz=142,slow=11,SNR=2.9						
CHKZ	**Chkalovo**	**43.64**	**341**	*e*P	**P**	**16 52 21.9**	**-0.5**
CHKZ				*e*pP	pP	16 52 29.0	-0.2
WRA	**Warramunga Arr**	**52.74**	**128**	P	**P**	**16 53 33.2**	**-0.4**
	3.5nm,0.5s,mb4.5,baz=306,slow=8.0,SNR=19						
WRA				pP	pP	16 53 39.7	-1.0
	7.1nm,0.6s,baz=306,slow=8.1,SNR=26						
WRA				PcP	PcP	16 54 43.2	+0.1
	1.2nm,0.5s,baz=321,slow=3.3,SNR=7.4						
WRA				pPcP		16 54 49.5	
	0.8nm,0.5s,baz=323,slow=3.2,SNR=4.9						
WRAB	**Tennant Creek**	**52.75**	**128**	*e*P	**P**	**16 53 33.2**	**-0.5**
	7.4nm,0.6s,mb4.8						
WRAB				*e*pP	pP	16 53 39.0	-1.6
WRAB				*e*	pP	16 53 39.2	-1.5
ASAR	**Alice Springs**	**54.66**	**132**	P	**P**	**16 53 47.4**	**-0.3**
	2.1nm,0.5s,mb4.5,baz=308,slow=6.8,SNR=30						
ASAR				pP	pP	16 53 53.8	-0.9
	3.1nm,0.5s,baz=315,slow=6.5,SNR=13						
BRTR	**Keskin Array B**	**57.78**	**308**	P	**P**	**16 54 08.5**	**-1.3**
	1.5nm,0.7s,mb4.1,baz=121,slow=7.7,SNR=5.1						
BRTR				pP	pP	16 54 15.8	-1.1
	1.3nm,0.6s,baz=127,slow=8.8,SNR=4.5						
CTAO	**Charters Tower**	**62.33**	**122**	P	**P**	**16 54 41.0**	**-0.2**
STKA	**Stephens Creek**	**65.04**	**135**	P	**P**	**16 54 58.9**	**0.0**
	1.9nm,0.7s,mb4.2,baz=221,slow=3.3,SNR=3.9						
STKA	**Stephens Creek**	**65.04**	**135**	P	**P**	**16 54 58.9**	**0.0**
FINES	**FINESS Array B**	**67.06**	**331**	P	**P**	**16 55 10.5**	**-0.8**
	1.7nm,0.5s,mb4.3,baz=102,slow=6.7,SNR=14						
FINES				pP	pP	16 55 16.7	-1.8
	1.9nm,0.8s,baz=127,slow=9.5,SNR=3.9						
ARCES	**ARCESS Array B**	**69.45**	**340**	P	**P**	**16 55 25.3**	**-0.8**
	2.7nm,0.8s,mb4.2,baz=89,slow=7.1,SNR=8.0						
ARCES				pP	pP	16 55 32.0	-1.2
	5.5nm,1.2s,baz=103,slow=6.2,SNR=5.8						
GERES	**GERESS Array B**	**72.72**	**317**	P	**P**	**16 55 46.0**	**-0.1**
	1.8nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=8.8						
GERES				pP	pP	16 55 53.4	+0.1
	1.0nm,0.7s,baz=90,slow=5.3,SNR=4.5						
HFS	**Hagfors**	**72.87**	**329**	P	**P**	**16 55 46.5**	**-0.3**
	2.4nm,0.7s,mb4.3,baz=135,slow=10,SNR=4.2						
NB2	**NORSAR Subarra**	**74.12**	**330**	P	**P**	**16 55 52.3**	**-1.7**
	1.5nm,0.6s,mb4.1,baz=91,slow=5.8						
NOA	**NORSAR Array B**	**74.12**	**330**	P	**P**	**16 55 53.4**	**-0.7**
	1.1nm,0.6s,mb4.0,baz=90,slow=5.7,SNR=4.5						
NOA				pP	pP	16 56 00.8	-0.4
	0.6nm,0.7s,baz=90,slow=5.7,SNR=2.7						
LBTB	**Lobatse**	**75.92**	**240**	*e*P	**P**	**16 56 05.9**	**+0.8**
BOSA	**Boshof**	**77.59**	**236**	*e*P	**P**	**16 56 14.9**	**+0.5**
	4.6nm,0.7s,mb4.5						
EKA	**Eskdalemuir Ar**	**82.28**	**325**	P	**P**	**16 56 39.2**	**+0.4**
	1.8nm,0.7s,mb4.1,baz=100,slow=5.1,SNR=4.6						
MAW	**Mawson**	**83.88**	**191**	P	**P**	**16 56 48.1**	**+1.3**
	1.9nm,0.4s,mb4.5,baz=265,slow=22,SNR=3.7						
ESDC	**Sonseca Array**	**86.54**	**310**	P	**P**	**16 57 01.4**	**+0.7**
	0.6nm,0.6s,mb4.0,baz=58,slow=5.0,SNR=4.3						
ILAR	**Eielson Array**	**89.93**	**22**	P	**P**	**16 57 16.8**	**+0.5**
	0.4nm,0.7s,mb3.9,baz=301,slow=4.6,SNR=7.0						
ILAR				pP	pP	16 57 25.9	+2.3
	0.4nm,0.8s,baz=315,slow=4.6,SNR=4.2						
PDAR	**Pinedale Array**	**120.25**	**19**	PKP	PKPdf	17 03 09.2	-2.7
	0.5nm,0.7s,baz=135,slow=4.2,SNR=4.2						
PDAR				pPKP		17 03 18.4	
	0.1nm,0.4s,baz=106,slow=42,SNR=2.9						
TXAR	**Lajitas Array**	**134.43**	**20**	PKP	PKPdf	17 03 38.6	-0.8
	0.3nm,0.6s,baz=196,slow=1.6,SNR=3.4						

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*IDC **26** 16:47:20.0±1.1, 5.57N×94.39E, mb4.1/10, mb1 4.3/11, mb1mx4.1/20, ML4.6/1, Error ellipse: s-maj=55.6km s-min=19.7km az=51.0*
*NEIC **26** 16:47:23.4±0.8, 5.27N×94.12E, h30^{km}, mb4.4/4, Error ellipse: s-maj=27.6km s-min=13.5km az=60.0*
ISC 26 16:47:21.1±0.8**, 5.2N**±0.1×**94.0E**±0.2**, h30**^{km}**, n19,** σ**1**^{s}**08**/16**, mb4.2**/14**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.00**	**20**	Pn	**P**	**16 50 40.9**	**+0.9**
	1.1nm,0.3s,baz=208,slow=14,SNR=7.0						
CHRT	**Chiangrai**	**15.60**	**21**	PG	**P**	**16 51 01.5**	**+0.7**
CHRT				SG	Px	16 51 29.0	
LSA	**Lhasa**	**24.50**	**354**	*e*P	**P**	**16 52 39.1**	**-0.1**
	2.5nm,0.6s,mb3.8						
SONM	**Songino Array**	**43.76**	**12**	P	**P**	**16 55 24.3**	**-1.4**
	0.8nm,0.6s,mb3.6,baz=199,slow=7.7,SNR=5.3						
WRA	**Warramunga Arr**	**46.86**	**123**	P	**P**	**16 55 52.2**	**+1.4**
	2.0nm,0.5s,mb4.3,baz=304,slow=9.3,SNR=9.9						
WRAB	**Tennant Creek**	**46.86**	**123**	*e*P	**P**	**16 55 49.3**	**-1.5**
	2.8nm,0.6s,mb4.4						
ASAR	**Alice Springs**	**48.34**	**128**	P	**P**	**16 56 02.2**	**-0.1**
	1.0nm,0.5s,mb4.1,baz=298,slow=7.8,SNR=7.9						
ZAL	**Zalesovo**	**49.15**	**353**	P	**P**	**16 56 07.3**	**-0.9**
	1.7nm,0.4s,mb4.5,baz=315,slow=6.1,SNR=7.0						
BVAR	**Borovoye Array**	**51.45**	**342**	P	**P**	**16 56 25.4**	**-0.3**
	1.8nm,0.5s,mb4.3,baz=137,slow=13,SNR=13						
BRVK	**Borovoye**	**51.52**	**342**	*e*P	**P**	**16 56 24.9**	**-1.4**
	2.3nm,0.5s,mb4.4						
CHKZ	**Chkalovo**	**51.95**	**343**	*e*P	**P**	**16 56 29.3**	**-0.2**
	5.6nm,0.5s,mb4.8						
FINES	**FINESS Array B**	**74.99**	**333**	P	**P**	**16 59 01.5**	**+0.1**
	3.9nm,1.1s,mb4.3,baz=108,slow=6.4,SNR=6.5						
ARCES	**ARCESS Array B**	**77.71**	**340**	P	**P**	**16 59 16.4**	**0.0**
	4.0nm,1.0s,mb4.3,baz=97,slow=6.3,SNR=6.4						
GERES	**GERESS Array B**	**79.72**	**319**	P	**P**	**16 59 30.3**	**+2.5**
	0.7nm,0.5s,mb3.8,baz=90,slow=5.3,SNR=7.8						
DAVOX	**Davos**	**82.22**	**316**	P	**P**	**16 59 44.2**	**+3.3**
	1.2nm,0.4s,mb4.2,baz=108,slow=1.0,SNR=6.0						
ILAR	**Eielson Array**	**97.23**	**22**	P	**P**	**17 00 52.2**	**+0.2**
	0.1nm,0.5s,mb3.5,baz=308,slow=4.8,SNR=4.2						
YKA	**Yellowknife Ar**	**109.01**	**14**	Pdiff	Pdif	17 01 42.5	-1.8
	0.2nm,0.8s,baz=330,slow=7.9,SNR=3.9						
YKA	**Yellowknife Ar**	**109.01**	**14**	Pdif	Pdif	17 01 42.5	-1.9
TXAR	**Lajitas Array**	**141.66**	**25**	PKP	PKPdf	17 06 52.8	-2.8
	0.0nm,0.3s,baz=357,slow=0.6,SNR=5.5						

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*IDC **26** 16:48:17.6±0.4, 7.36N×93.11E, mb4.7/27, mb1 4.8/28, mb1mx4.8/29, ML5.0/1, Error ellipse: s-maj=22.4km s-min=11.4km az=48.0*
*BJI **26** 16:48:21.8, 7.19N×92.93E, h51^{km}, mB5.8, mb4.9, Ms4.8, Msz4.4*
*NEIC **26** 16:48:24.1±0.2, 7.22N×93.03E, mb4.9/25, Error ellipse: s-maj=6.9km s-min=6.0km az=217.0*
ISC 26 16:48:20.6±0.3**, 7.18N**±0.04×**93.06E**±0.04**, h33**^{km}**, n169,** σ**1**^{s}**02**/159**, mb4.9**/58**, MS4.3**/1**, 3C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**12.26**	**271**	*e*P	**P**	**16 51 14.0**	**-1.9**
	108nm,0.9s						
CM31	**Chiang Mai Arr**	**12.59**	**26**	*e*P	**P**	**16 51 26.0**	**+5.7**
	61nm,0.9s						
CMAR	**Chiang Mai Arr**	**12.59**	**26**	Pn	**P**	**16 51 21.6**	**+1.3**
	2.8nm,0.3s,baz=230,slow=14,SNR=28						
CMAR	**Chiang Mai Arr**	**12.59**	**26**	Pn	**P**	**16 51 21.6**	**+1.3**
CHG	**Chiang Mai**	**12.90**	**26**	⇓P	**P**	**16 51 26.2**	**+1.8**
	30nm,0.9s						
NANT	**Nan**	**13.74**	**32**	⇑P	**P**	**16 51 44.0**	**+8.6**
	62nm,1.0s						
TRD	**Trivandrum**	**16.01**	**276**	*e*S	**P**	**16 52 03.0**	**-2.0**
HYB	**Hyderabad**	**17.44**	**307**	*e*P	**P**	**16 52 23.0**	**0.0**
HYB	**Hyderabad**	**17.44**	**307**	*i* P	**P**	**16 52 23.0**	**0.0**
IMP	**Imphal**	**17.53**	**3**	*e*	**P**	**16 52 22.3**	**-1.8**
IMP				*e*	**S**	**16 55 33.8**	**-2.3**
KMI	**Kunming**	**20.10**	**26**	P	**P**	**16 52 55.5**	**+1.2**
KMI				AMB	AMB		
	comp=Z,62nm,1.1s						
KMI				LR	LR		
	comp=N,1μm,17.5s,MS4.4						
KMI				LR	LR		
	comp=E,703nm,14.5s,MS4.4						
KMI				LR	LR		
	comp=Z,736nm,13.6s,MS4.2						
QIZ	**Qiongzhong**	**20.12**	**53**	P	**P**	**16 52 55.5**	**+0.9**
QIZ	**Qiongzhong**	**20.12**	**53**	*e*P	**P**	**16 52 55.1**	**+0.5**
	comp=Z,67nm,1.0s						
PKI	**Pulchoki**	**21.54**	**341**	*e*P	**P**	**16 53 09.4**	**+0.3**
DMN	**Daman**	**21.68**	**341**	*e*P	**P**	**16 53 11.4**	**+1.0**
	comp=Z,89nm,1.0s,mb5.2						
GUN	**Gumba**	**21.72**	**343**	*e*P	**P**	**16 53 11.1**	**+0.3**
	comp=Z,139nm,0.8s,mb5.4						
KKN	**Kakani**	**21.79**	**341**	*e*P	**P**	**16 53 11.6**	**+0.1**
	comp=Z,122nm,0.9s,mb5.3						
GKN	**Gorkha**	**22.20**	**340**	*e*P	**P**	**16 53 16.5**	**+0.9**
	comp=Z,175nm,0.8s,mb5.5						
KOLN	**Koldanda**	**22.36**	**337**	*e*P	**P**	**16 53 17.9**	**+0.7**
LSA	**Lhasa**	**22.48**	**356**	P	**P**	**16 53 14.5**	**-3.9**
LSA	**Lhasa**	**22.48**	**356**	*e*P	**P**	**16 53 19.9**	**+1.5**
	comp=Z,16nm,0.6s,mb4.6						
GYA	**Guiyang**	**23.14**	**32**	⇑*i*P	**P**	**16 53 26.0**	**+1.0**
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
LGTI	**Lohaghat**	**25.23**	**333**	*e*	**P**	**16 53 46.0**	**+0.8**
CD2	**Chengdu**	**25.65**	**22**	P	**P**	**16 53 49.0**	**-0.1**
CD2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.2						
DDI	**Dehra Dun**	**26.99**	**330**	*e*	**P**	**16 54 02.1**	**+0.6**
ENH	**Enshi**	**27.67**	**32**	*e*P	**P**	**16 54 06.5**	**-1.2**
TGY	**Tagaytay City**	**28.23**	**74**	P	**P**	**16 54 14.9**	**+2.1**
	comp=Z,46nm,0.3s,mb5.6,baz=180,slow=7.1,SNR=3.4						
LZH	**Lanzhou**	**30.42**	**17**	*e*P	**P**	**16 54 31.5**	**-0.7**
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
XAN	**Xi’an**	**30.48**	**27**	P	**P**	**16 54 31.0**	**-1.8**
XAN				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.0						
WHN	**Wuhan**	**30.64**	**38**	⇓P	**P**	**16 54 34.5**	**+0.3**
NJ2	**Nanjing**	**34.49**	**41**	*e*P	**P**	**16 55 09.0**	**+1.3**
KSH	**Kashi**	**35.68**	**337**	*e*P	**P**	**16 55 17.8**	**0.0**
KSH				AMB	AMB		
	comp=Z,150nm,4.8s						
WMQ	**Urumqi**	**36.80**	**354**	P	**P**	**16 55 27.5**	**+0.3**
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.5s,mb4.5						
KZA	**Kyzart**	**38.17**	**338**	P	**P**	**16 55 39.5**	**+0.8**
	SNR=7.4						
MBWA	**Marble Bar**	**38.45**	**138**	*e*P	**P**	**16 55 39.0**	**-2.2**
UCH	**Uchtor**	**38.57**	**338**	P	**P**	**16 55 43.3**	**+1.3**
	SNR=13						
BJT	**Baijiatuau**	**38.70**	**29**	*e*P	**P**	**16 55 44.0**	**+0.8**
	comp=Z,16nm,0.8s,mb4.8						
KBK	**Karagaybulak**	**38.78**	**339**	P	**P**	**16 55 45.0**	**+1.2**
	SNR=11						
AML	**Almayashu**	**38.81**	**337**	P	**P**	**16 55 45.4**	**+1.4**
	SNR=22						
AAK	**Ala-Archa**	**38.93**	**338**	P	**P**	**16 55 46.9**	**+1.9**
	SNR=10.0						
AAK	**Ala-Archa**	**38.93**	**338**	*e*P	**P**	**16 55 44.9**	**-0.1**
	comp=Z,28nm,1.1s,mb4.9						
CHMS	**Chumysh**	**39.15**	**339**	P	**P**	**16 55 47.4**	**+0.5**
	SNR=7.5						
EKS2	**Erkin-Say**	**39.23**	**337**	P	**P**	**16 55 48.6**	**+1.2**
	SNR=11						
USP	**Ospenovka**	**39.48**	**339**	P	**P**	**16 55 50.0**	**+0.4**
	SNR=12						
SONM	**Songino Array**	**42.08**	**13**	P	**P**	**16 56 11.0**	**0.0**
	comp=Z,2.8nm,0.8s,mb4.0,baz=196,slow=9.9,SNR=9.5						
SONM				PcP	PcP	16 58 06.4	+0.4
	comp=Z,1.3nm,0.6s,baz=194,slow=4.2,SNR=4.2						
SONM	**Songino Array**	**42.08**	**13**	P	**P**	**16 56 11.0**	**0.0**
SONM				PcP	PcP	16 58 06.4	+0.4
ULN	**Ulaanbaatar**	**42.26**	**14**	*e*P	**P**	**16 56 11.3**	**-1.1**
	comp=Z,7.6nm,0.9s,mb4.3						
KS15	**Wonju Array Si**	**43.66**	**41**	*e*P	**P**	**16 56 20.0**	**-4.0**
HASS	**Wahat al Ahsa’**	**45.09**	**299**	P	**P**	**16 56 36.6**	**+0.9**
NWAO	**Narrogin (SRO)**	**46.03**	**151**	P	**P**	**16 56 45.7**	**+2.6**
	comp=Z,4.5nm,0.3s,mb4.8,baz=302,slow=7.6,SNR=2.8						
NWAO	**Narrogin (SRO)**	**46.03**	**151**	P	**P**	**16 56 41.2**	**-1.9**
	comp=Z,12nm,0.7s,mb4.9						
CN2	**Changchun**	**46.19**	**33**	⇓P	**P**	**16 56 44.5**	**+0.4**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAL	**Zalesovo**	**47.10**	**353**	P	**P**	**16 56 51.0**	**-0.2**
	comp=Z,3.8nm,0.3s,mb4.7,baz=308,slow=7.2,SNR=14						
ZAL	**Zalesovo**	**47.10**	**353**	P	**P**	**16 56 51.0**	**-0.2**
HIA	**Hailar**	**47.58**	**23**	*e*P	**P**	**16 56 55.3**	**+0.3**
	comp=Z,10nm,0.8s,mb4.9						
KAMS	**Al Khamasin**	**48.69**	**291**	P	**P**	**16 57 03.8**	**-0.2**
WRA	**Warramunga Arr**	**48.74**	**124**	P	**P**	**16 57 03.9**	**-0.6**
	comp=Z,23nm,0.7s,mb5.3,baz=306,slow=9.0,SNR=44						
WRA	**Warramunga Arr**	**48.74**	**124**	P	**P**	**16 57 03.9**	**-0.6**
WRAB	**Tennant Creek**	**48.74**	**124**	*e*P	**P**	**16 57 03.9**	**-0.6**
	comp=Z,39nm,0.8s,mb5.5						
MZLS	**Mizel**	**48.77**	**296**	P	**P**	**16 57 05.3**	**+0.7**
MDJ	**Mudanjiang**	**48.98**	**34**	P	**P**	**16 57 06.5**	**+0.6**
MDJ				AMB	AMB		
	comp=Z,13nm,0.9s,mb5.0						
MDJ	**Mudanjiang**	**48.98**	**34**	*e*P	**P**	**16 57 06.2**	**+0.3**
BVAR	**Borovoye Array**	**49.31**	**342**	P	**P**	**16 57 07.3**	**-1.0**
	comp=Z,2.0nm,0.8s,mb4.2,baz=153,slow=6.6,SNR=6.3						
BVAR				PcP	PcP	16 58 30.3	-0.7
	comp=Z,2.8nm,0.7s,baz=166,slow=6.1,SNR=4.2						
BVAR	**Borovoye Array**	**49.31**	**342**	P	**P**	**16 57 07.3**	**-1.0**
BVAR				PcP	PcP	16 58 30.3	-0.7
BRVK	**Borovoye**	**49.37**	**342**	*e*P	**P**	**16 57 06.3**	**-2.6**
TATS	**Tathlith**	**49.61**	**289**	P	**P**	**16 57 11.5**	**+0.4**
CHKZ	**Chkalovo**	**49.81**	**343**	*e*P	**P**	**16 57 11.4**	**-0.8**
ASAR	**Alice Springs**	**50.30**	**129**	P	**P**	**16 57 15.8**	**-0.5**
	comp=Z,8.7nm,0.6s,mb5.0,baz=304,slow=8.0,SNR=25						
ASAR	**Alice Springs**	**50.30**	**129**	P	**P**	**16 57 15.8**	**-0.5**
MAJO	**Matsushiro**	**50.42**	**48**	*e*P	**P**	**16 57 16.1**	**-1.0**
	comp=Z,5.2nm,0.6s,mb4.7						
MAT	**Matsushiro**	**50.42**	**48**	P	**P**	**16 57 16.4**	**-0.7**
MAT	**Matsushiro**	**50.42**	**48**	*e*P	**P**	**16 57 16.0**	**-1.1**
AFFS	**‘Afif**	**50.73**	**295**	P	**P**	**16 57 20.7**	**+1.0**
ARSS	**Ar Rass**	**50.91**	**298**	P	**P**	**16 57 21.2**	**+0.3**
HILS	**Ha’il**	**52.50**	**299**	P	**P**	**16 57 34.0**	**+1.1**
GNI	**Garni**	**54.16**	**315**	P	**P**	**16 57 44.9**	**-0.1**
	comp=Z,11nm,0.8s,mb4.8,baz=62,slow=2.4,SNR=12						
GNI	**Garni**	**54.16**	**315**	*e*P	**P**	**16 57 44.8**	**-0.3**
	comp=Z,39nm,1.3s,mb5.2						
KBRS	**Khaybar**	**54.41**	**297**	P	**P**	**16 57 48.3**	**+1.3**
ARU	**Arti**	**56.12**	**338**	*e*P	**P**	**16 57 57.5**	**-1.5**
	comp=Z,20nm,0.9s,mb5.1						
KMBO	**Kilima Mbogo**	**56.28**	**264**	P	**P**	**16 58 01.7**	**+0.9**
	comp=Z,16nm,1.1s,mb4.9,baz=54,slow=9.2,SNR=16						
KMBO	**Kilima Mbogo**	**56.28**	**264**	P	**P**	**16 58 01.7**	**+0.9**
KIV	**Kislovodsk**	**57.12**	**319**	*e*P	**P**	**16 58 05.2**	**-1.2**
TBKS	**Tabuk**	**57.22**	**299**	P	**P**	**16 58 08.5**	**+1.3**
ASF	**Jabal al Asfar**	**57.70**	**304**	P	**P**	**16 58 11.2**	**+0.5**
	comp=Z,24nm,1.2s,mb5.1,baz=134,slow=2.1,SNR=9.6						
JMQS	**Jabal Moqyreh**	**57.91**	**300**	P	**P**	**16 58 13.0**	**+0.9**
JMOS	**Jabal al Moall**	**58.62**	**300**	P	**P**	**16 58 17.5**	**+0.4**
ALWS	**Ilw as Safayha**	**58.69**	**300**	P	**P**	**16 58 18.1**	**+0.6**
EIL	**Elat**	**58.85**	**300**	P	**P**	**16 58 18.9**	**+0.3**
	comp=Z,30nm,0.9s,mb5.3,baz=96,slow=4.4,SNR=22						
CTA	**Charters Tower**	**58.91**	**119**	P	**P**	**16 58 18.5**	**-0.7**
	comp=Z,11nm,1.0s,mb4.8,baz=280,slow=4.7,SNR=7.1						
CTA	**Charters Tower**	**58.91**	**119**	P	**P**	**16 58 18.5**	**-0.7**
CTAO	**Charters Tower**	**58.91**	**119**	*e*P	**P**	**16 58 18.8**	**-0.4**
	comp=Z,21nm,1.1s,mb5.1						
STKA	**Stephens Creek**	**60.41**	**133**	P	**P**	**16 58 29.4**	**0.0**
	comp=Z,5.9nm,0.8s,mb4.7,baz=318,slow=8.7,SNR=7.0						
STKA	**Stephens Creek**	**60.41**	**133**	*e*P	**P**	**16 58 28.9**	**-0.5**
YAK	**Yakutsk**	**60.99**	**19**	P	**P**	**16 58 30.1**	**-2.8**
	comp=Z,30nm,0.9s,mb5.4						
BRTR	**Keskin Array B**	**62.08**	**311**	P	**P**	**16 58 38.7**	**-1.8**
	comp=Z,5.2nm,0.8s,mb4.7,baz=125,slow=7.0,SNR=22						
BRTR	**Keskin Array B**	**62.08**	**311**	P	**P**	**16 58 38.7**	**-1.8**
OBN	**Obninsk**	**65.40**	**328**	P	**P**	**16 58 58.5**	**-3.5**
LSZ	**Lusaka**	**68.03**	**250**	*e*P	**P**	**16 59 19.8**	**+0.6**
	comp=Z,17nm,1.1s,mb5.0						
AKASG	**Malin Array Be**	**68.04**	**322**	P	**P**	**16 59 16.4**	**-2.4**
	comp=Z,3.5nm,0.6s,mb4.6,baz=88,slow=4.5,SNR=15						
IDI	**Anoyia**	**68.09**	**305**	P	**P**	**16 59 19.3**	**-0.1**
	comp=Z,29nm,0.6s,mb5.5,baz=87,slow=7.6,SNR=30						
IDI	**Anoyia**	**68.09**	**305**	P	**P**	**16 59 19.3**	**-0.1**
VRI	**Vrincioaia**	**68.46**	**317**	⇑*i*P	**P**	**16 59 21.4**	**-0.1**
KOLS	**Kolonicke sedl**	**72.03**	**319**	*i* P	**P**	**16 59 42.8**	**-0.2**
CRVS	**Cervenica-Dubn**	**72.55**	**319**	*e*P	**P**	**16 59 48.2**	**+2.1**
FINES	**FINESS Array B**	**72.83**	**332**	P	**P**	**16 59 46.3**	**-1.3**
	comp=Z,11nm,0.7s,mb4.9,baz=105,slow=7.4,SNR=25						
FINES	**FINESS Array B**	**72.83**	**332**	P	**P**	**16 59 46.3**	**-1.3**
KAF	**Kangasniemi**	**72.92**	**333**	*e*p	**P**	**16 59 46.7**	**-1.4**
	comp=Z,6.9nm,0.6s,mb4.8						
LBTB	**Lobatse**	**72.97**	**241**	*e*P	**P**	**16 59 48.5**	**-0.7**
KECS	**Kecovo**	**73.12**	**318**	*e*P	**P**	**16 59 49.3**	**-0.3**
PSZ	**Piszkesteto**	**73.44**	**318**	*e*P	**P**	**16 59 50.7**	**-0.7**
	comp=Z,6.9nm,0.9s,mb4.6						
OJC	**Ojcow**	**73.82**	**320**	*e*P	**P**	**16 59 52.8**	**-0.8**
VYHS	**Vyhne**	**74.21**	**318**	*e*P	**P**	**16 59 55.2**	**-0.7**
BOSA	**Boshof**	**74.31**	**238**	*e*P	**P**	**16 59 57.7**	**+0.8**
	comp=Z,25nm,1.2s,mb5.0						
OKC	**Ostrava-Krasne**	**74.82**	**320**	*e*P	**P**	**16 59 59.0**	**-0.4**
KEV	**Kevo**	**75.14**	**341**	*e*p	**P**	**17 00 00.0**	**-0.8**
	comp=Z,6.8nm,0.6s,mb4.8						
ZST	**Bratislava**	**75.33**	**318**	*e*P	**P**	**17 00 01.9**	**-0.5**
ARCES	**ARCESS Array B**	**75.56**	**340**	P	**P**	**17 00 02.9**	**-0.4**
	comp=Z,6.1nm,0.5s,mb4.8,baz=99,slow=5.0,SNR=23						
ARCES	**ARCESS Array B**	**75.56**	**340**	P	**P**	**17 00 02.9**	**-0.4**
ARE0	**ARCESS Array S**	**75.56**	**340**	*e*P	**P**	**17 00 02.8**	**-0.5**
VRAC	**Vranov**	**75.77**	**319**	P	**P**	**17 00 05.0**	**+0.1**
	comp=Z,1.8nm,0.7s,mb4.1,baz=148,slow=5.0,SNR=3.9						
DPC	**Dobruska-Polom**	**76.05**	**320**	*e*P	**P**	**17 00 06.4**	**0.0**
KSP	**Ksiaz**	**76.12**	**321**	*e*P	**P**	**17 00 06.7**	**-0.1**
UPC	**Upice**	**76.26**	**320**	*e*P	**P**	**17 00 07.3**	**-0.3**
BILL	**Bilibino**	**77.13**	**22**	*e*P	**P**	**17 00 12.1**	**-0.1**
PRU	**Pruhonice**	**77.16**	**320**	*e*P	**P**	**17 00 12.5**	**-0.2**
BRG	**Berggiesshubel**	**77.60**	**320**	*i* P	**P**	**17 00 15.0**	**-0.2**
	comp=Z,27nm,1.7s,mb4.9						
GERES	**GERESS Array B**	**77.63**	**318**	P	**P**	**17 00 15.1**	**-0.2**
	comp=Z,5.2nm,0.6s,mb4.7,baz=88,slow=5.6,SNR=34						
GERES	**GERESS Array B**	**77.63**	**318**	P	**P**	**17 00 15.1**	**-0.2**
MAW	**Mawson**	**77.64**	**191**	P	**P**	**17 00 17.1**	**+2.0**
	comp=Z,8.2nm,0.7s,mb4.8,baz=13,slow=6.8,SNR=8.0						
MAW	**Mawson**	**77.64**	**191**	*e*P	**P**	**17 00 16.7**	**+1.6**
KHC	**Kasperske Hory**	**77.73**	**319**	*e*P	**P**	**17 00 15.1**	**-0.8**
CLL	**Collm**	**78.22**	**321**	*i* P	**P**	**17 00 17.8**	**-0.7**
CLL	**Collm**	**78.22**	**321**	P	**P**	**17 00 17.8**	**-0.7**
HFS	**Hagfors**	**78.52**	**330**	P	**P**	**17 00 19.1**	**-0.9**
	comp=Z,4.5nm,0.5s,mb4.6,baz=104,slow=6.1,SNR=14						
HFS	**Hagfors**	**78.52**	**330**	P	**P**	**17 00 19.1**	**-0.9**
NKC	**Novy Kostel**	**78.52**	**320**	*e*P	**P**	**17 00 19.4**	**-0.8**
SUR	**Sutherland**	**79.06**	**235**	*e*P	**P**	**17 00 24.8**	**+1.2**
	comp=Z,11nm,0.8s,mb4.8						
MOX	**Moxa**	**79.07**	**320**	*i* P	**P**	**17 00 22.3**	**-0.9**
MOX	**Moxa**	**79.07**	**320**	*e*P	**P**	**17 00 22.3**	**-0.9**
GRA1	**Grafenberg Arr**	**79.29**	**319**	*e*P	**P**	**17 00 24.7**	**+0.3**
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	**Grafenberg Arr**	**79.29**	**319**	*e*P	**P**	**17 00 24.7**	**+0.3**
	comp=Z,8.0nm,0.8s,mb4.7						
NB2	**NORSAR Subarra**	**79.81**	**331**	P	**P**	**17 00 25.5**	**-1.5**
	comp=Z,7.8nm,0.8s,mb4.7,baz=98,slow=5.6						
NOA	**NORSAR Array B**	**79.81**	**331**	P	**P**	**17 00 26.0**	**-1.0**
	comp=Z,5.0nm,0.7s,mb4.5,baz=94,slow=5.5,SNR=15						
NOA	**NORSAR Array B**	**79.81**	**331**	P	**P**	**17 00 26.0**	**-1.0**
DAVOX	**Davos**	**80.15**	**316**	P	**P**	**17 00 29.4**	**+0.3**
	comp=Z,12nm,0.7s,mb5.0,baz=124,slow=6.4,SNR=22						
DAVOX	**Davos**	**80.15**	**316**	P	**P**	**17 00 29.4**	**+0.3**
LPL	**La Plagne**	**82.36**	**315**	*e*P	**P**	**17 00 40.6**	**-0.1**
	comp=Z,30nm,0.8s,mb5.0						
EKA	**Eskdalemuir Ar**	**87.69**	**325**	P	**P**	**17 01 07.2**	**+0.2**
	comp=Z,8.0nm,0.8s,mb5.0,baz=96,slow=5.4,SNR=18						
EKA	**Eskdalemuir Ar**	**87.69**	**325**	P	**P**	**17 01 07.2**	**+0.2**
ESDC	**Sonseca Array**	**90.85**	**310**	P	**P**	**17 01 22.8**	**+0.5**
	comp=Z,3.3nm,0.6s,mb4.9,baz=67,slow=4.0,SNR=22						
ESDC	**Sonseca Array**	**90.85**	**310**	P	**P**	**17 01 22.8**	**+0.5**
ESLA	**Sonseca Array**	**90.85**	**310**	*e*P	**P**	**17 01 21.8**	**-0.5**
ILAR	**Eielson Array**	**95.79**	**22**	P	**P**	**17 01 46.2**	**+2.0**

	comp=Z,0.7nm,0.8s,mb4.2,baz=301,slow=4.2,SNR=7.8						
ILAR	Eielson Array	95.79	22	P	P	17 01 46.2	+2.0
DBIC	Dimbokro	96.98	278	P	P	17 01 52.0	+1.1
	comp=Z,4.0nm,1.1s,mb4.8,baz=106,slow=7.4,SNR=3.2						
DBIC	Dimbokro	96.98	278	P	P	17 01 52.0	+1.1
QSPA	South Pole Qui	97.08	180	P	P	17 01 52.7	+2.8
	comp=Z,0.9nm,0.5s,mb4.5						
SNAA	Sanae	98.63	199	*e*P	P	17 01 56.6	-0.4
ULM	Lac du Bonnet	122.29	7	PKP	PKPdf	17 07 14.7	+2.2
	comp=Z,1.4nm,0.6s,baz=32,slow=4.0,SNR=4.1						
NVAR	Mina Array Bea	126.06	30	PKP	PKPdf	17 07 23.3	+3.3
	comp=Z,0.8nm,0.8s,baz=274,slow=2.8,SNR=4.6						
MNV	Mina	126.13	30	P	PKPdf	17 07 23.6	+3.4
PDAR	Pinedale Array	126.19	21	PKP	PKPdf	17 07 22.1	+1.9
	comp=Z,1.5nm,0.8s,baz=202,slow=8.0,SNR=3.6						
TXAR	Lajitas Array	140.29	23	PKP	PKPdf	17 07 49.1	+2.2
	comp=Z,0.3nm,0.4s,baz=292,slow=0.8,SNR=7.3						
JCT	Junction City	140.58	18	*e*PKPdf	PKPdf	17 07 49.5	+2.0
BDFB	Brasilia	140.99	254	PKP	PKPdf	17 07 51.3	+2.7
	comp=Z,4.4nm,0.8s,baz=53,slow=1.6,SNR=6.6						
SDV	Santo Domingo	157.23	314	*e*PKPdf	PKPdf	17 08 19.9	+6.1
LPAZ	La Paz	159.50	242	PKP	PKPdf	17 08 20.0	+3.5
	comp=Z,2.7nm,0.8s,baz=101,slow=2.2,SNR=8.6						
LPAZ	La Paz	159.50	242	PKP	PKPdf	17 08 20.0	+3.5
ROSC	El Rosal	162.65	313	PKP	PKPdf	17 08 23.1	+3.2
	comp=Z,3.2nm,0.7s,baz=87,slow=22,SNR=2.5						

*IDC **26** 16:48:28.6±0.7,6.97N×92.97E,mb4.6/20,mb1 4.7/21,mb1mx4.6/27,ML4.8/1,MS4.4/1,Ms1 4.4/1,ms1mx3.4/27,Error ellipse: s-maj=39.1km s-min=15.1km az=49.0*

ISC 26 16:48:31.6±0.5,6.86N±0.08×92.90E±0.09,h33^{km},n55,σ1^{s}02/50,mb4.6/20,MS4.5/1,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.94	26	*e*	P	16 51 37.0	+1.0
CMAR	Chiang Mai Arr	12.94	26	Pn	P	16 51 37.4	+1.4
	1.5nm,0.3s,baz=223,slow=14,SNR=9.5						
CMAR	Chiang Mai Arr	12.94	26	Pn	P	16 51 37.4	+1.4
ENH	Enshi	28.02	32	*e*	P	16 54 19.2	-2.7
BJT	Baijiatuau	39.06	29	*e*	P	16 55 58.5	+1.4
SONM	Songino Array	42.42	13	P	P	16 56 23.1	-1.8
	6.8nm,0.9s,mb4.3,baz=190,slow=7.5,SNR=5.6						
SONM	Songino Array	42.42	13	P	P	16 56 23.1	-1.8
NWAO	Narrogin (SRO)	45.83	151	P	P	16 56 53.4	+0.8
	4.6nm,0.3s,mb4.9,baz=12,slow=4.6,SNR=3.5						
NWAO	Narrogin (SRO)	45.83	151	P	P	16 56 53.4	+0.8
ZAL	Zalesovo	47.40	353	P	P	16 57 04.8	+0.2
	8.0nm,0.5s,mb4.9,baz=322,slow=7.6,SNR=7.1						
ZAL	Zalesovo	47.40	353	P	P	16 57 04.8	+0.2
HIA	Hailar	47.93	23	*e*	P	16 57 07.5	-1.4
WRA	Warramunga Arr	48.69	124	P	P	16 57 15.1	0.0
	16nm,0.7s,mb5.2,baz=299,slow=10,SNR=12						
WRA	Warramunga Arr	48.69	124	P	P	16 57 15.1	0.0
WRAB	Tennant Creek	48.70	124	*e*	P	16 57 14.8	-0.3
MDJ	Mudanjiang	49.33	34	*e*	P	16 57 19.3	-0.5
BVAR	Borovoye Array	49.56	342	P	P	16 57 21.3	-0.1
	2.9nm,0.7s,mb4.4,baz=149,slow=8.6,SNR=4.7						
BVAR	Borovoye Array	49.56	342	P	P	16 57 21.3	-0.1
ASAR	Alice Springs	50.23	128	P	P	16 57 26.8	-0.1
	20nm,0.9s,mb5.2,baz=312,slow=7.7,SNR=13						
ASAR	Alice Springs	50.23	128	P	P	16 57 26.8	-0.1
GNI	Garni	54.28	315	P	P	16 57 58.1	+1.1
	6.8nm,0.8s,mb4.6,baz=356,slow=18,SNR=4.7						
GNI	Garni	54.28	315	P	P	16 57 58.1	+1.1
ASAJ	Asahikawa	56.98	41	LR	LR	17 22 30.5	
	comp=Z,392nm,21.8s,MS4.5,baz=52,slow=36						
CTA	Charters Tower	58.90	118	P	P	16 58 28.9	-1.2
	10.0nm,1.1s,mb4.8,baz=328,slow=7.4,SNR=3.1						
CTA	Charters Tower	58.90	118	P	P	16 58 28.9	-1.2
STKA	Stephens Creek	60.31	133	*e*	P	16 58 40.6	+0.9
YAK	Yakutsk	61.34	19	*e*	P	16 58 45.8	-0.5
YAK				*e*		17 02 15.0	
BRTR	Keskin Array B	62.17	311	P	P	16 58 52.7	+0.5
	2.1nm,0.7s,mb4.4,baz=127,slow=6.2,SNR=4.3						
BRTR	Keskin Array B	62.17	311	P	P	16 58 52.7	+0.5
IDI	Anoyia	68.14	305	P	P	16 59 30.2	-0.5
	9.2nm,0.6s,mb5.0,baz=43,slow=10,SNR=2.8						
IDI	Anoyia	68.14	305	P	P	16 59 30.2	-0.5
FINES	FINESS Array B	73.04	332	P	P	16 59 59.0	-0.9
	6.3nm,0.9s,mb4.5,baz=112,slow=10,SNR=3.5						
FINES	FINESS Array B	73.04	332	P	P	16 59 59.0	-0.9
ARCES	ARCESS Array B	75.80	340	P	P	17 00 14.4	-1.3
	3.6nm,0.7s,mb4.4,baz=112,slow=6.5,SNR=3.7						
ARCES	ARCESS Array B	75.80	340	P	P	17 00 14.4	-1.3
BILL	Bilibino	77.48	22	*e*	P	17 00 26.0	+0.8
GERES	GERESS Array B	77.77	318	P	P	17 00 26.1	-1.1
	2.3nm,0.8s,mb4.2,baz=90,slow=5.3,SNR=6.5						
GERES	GERESS Array B	77.77	318	P	P	17 00 26.1	-1.1
HFS	Hagfors	78.71	330	P	P	17 00 32.2	+0.1
	3.7nm,0.7s,mb4.4,baz=90,slow=10,SNR=3.2						
HFS	Hagfors	78.71	330	P	P	17 00 32.2	+0.1
NOA	NORSAR Array B	80.01	331	P	P	17 00 38.3	-0.8
	2.2nm,0.7s,mb4.2,baz=93,slow=5.7,SNR=5.4						
NOA	NORSAR Array B	80.01	331	P	P	17 00 38.3	-0.8
DAVOX	Davos	80.27	316	P	P	17 00 41.5	+0.6
	3.8nm,0.5s,mb4.6,baz=325,slow=23,SNR=3.6						
DAVOX	Davos	80.27	316	P	P	17 00 41.5	+0.6
EKA	Eskdalemuir Ar	87.86	325	P	P	17 01 19.9	+1.0
	2.1nm,0.7s,mb4.5,baz=106,slow=6.3,SNR=3.7						
EKA	Eskdalemuir Ar	87.86	325	P	P	17 01 19.9	+1.0
ESDC	Sonseca Array	90.93	310	P	P	17 01 37.2	+3.4
	1.3nm,0.6s,mb4.4,baz=61,slow=4.0,SNR=5.0						
ESDC	Sonseca Array	90.93	310	P	P	17 01 37.2	+3.4
ILAR	Eielson Array	96.14	22	P	P	17 01 57.6	+0.7
	1.4nm,1.1s,mb4.3,baz=291,slow=4.3,SNR=4.2						
ILAR	Eielson Array	96.14	22	P	P	17 01 57.6	+0.7
INK	Inuvik	98.30	16	P	P	17 02 07.5	+0.9
	3.8nm,1.1s,mb4.8,baz=256,slow=2.1,SNR=5.7						
ULM	Lac du Bonnet	122.62	7	PKP	PKPdf	17 07 26.8	+2.6
	2.4nm,0.7s,baz=82,slow=1.8,SNR=3.9						
NVAR	Mina Array Bea	126.41	30	PKP	PKPdf	17 07 36.5	+4.7
	1.5nm,0.7s,baz=277,slow=2.2,SNR=7.0						
PDAR	Pinedale Array	126.55	21	PKP	PKPdf	17 07 35.4	+3.4
	1.5nm,0.7s,baz=16,slow=2.5,SNR=6.6						
TXAR	Lajitas Array	140.64	23	PKP	PKPdf	17 08 01.4	+2.7
	0.7nm,0.6s,baz=27,slow=1.7,SNR=4.6						

IDC 26 16:51:03.1±1.6,9.27S×157.03E,mb4.0/4,mb1 4.3/5,mb1mx4.0/14,ML3.5/1,MS4.2/1,Ms1 4.2/1,ms1mx3.0/23,Error ellipse: s-maj=82.7km s-min=29.1km az=142.0,Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	14.97	223	Pn	P	16 54 36.3	-1.6
	0.1nm,0.3s,baz=29,slow=11,SNR=3.1						
WRA	Warramunga Arr	24.36	242	P	P	16 56 23.3	-0.7
	3.2nm,0.8s,baz=68,slow=9.7,SNR=12						
ASAR	Alice Springs	26.34	234	P	P	16 56 41.5	-1.2
	1.1nm,0.7s,baz=68,slow=10,SNR=5.3						
STKA	Stephens Creek	26.67	210	P	P	16 56 43.0	-2.7
	4.0nm,0.8s,baz=29,slow=10,SNR=8.1						
RPZ	Rata Peaks	36.42	163	LR	LR	17 11 13.6	
	comp=Z,368nm,19.8s,baz=194,slow=33						
NVAR	Mina Array Bea	91.55	51	P	P	17 04 11.7	-1.6
	0.8nm,0.8s,baz=215,slow=6.1,SNR=3.5						
BDFB	Brasilia	144.96	135	PKP	PKPdf	17 10 44.1	-1.0
	2.2nm,0.8s,baz=189,slow=8.8,SNR=3.2						

*IDC **26** 16:51:49.8±0.6,7.19N×92.95E,h26^{km}±3^{km},mb4.4/21,mb1 4.5/22,mb1mx4.4/26,ML5.0/1,Error ellipse: s-maj=20.0km s-min=11.1km az=38.0*

ISC 26 16:51:48.0±0.5,7.13N±0.09×92.99E±0.08,h28^{km},h28^{km}±1.3^{km}:pP-P,n37,σ0^{s}97/33,mb4.6/27,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.66	27	Pn	P	16 54 49.8	+0.6
	2.9nm,0.3s,baz=232,slow=14,SNR=31						
PKI	Pulchoki	21.56	341	*e*P	P	16 56 38.8	+1.3
GUN	Gumba	21.74	343	*e*P	P	16 56 39.0	-0.2
	90nm,1.0s,mb5.2						
KKN	Kakani	21.81	341	*e*P	P	16 56 41.9	+2.0
	66nm,0.9s,mb5.0						
GKN	Gorkha	22.21	340	*e*P	P	16 56 42.2	-1.8
	114nm,0.9s,mb5.3						
KOLN	Koldanda	22.37	338	*e*P	P	16 56 44.5	-1.1
TGY	Tagaytay City	28.30	74	P	P	16 57 42.4	+0.7
	107nm,0.8s,mb5.5,baz=294,slow=6.1,SNR=5.1						
JOW	Kunigami	38.81	55	P	P	16 59 14.1	+1.7
	10nm,0.7s,mb4.7,baz=120,slow=25,SNR=5.7						
SONM	Songino Array	42.14	13	P	P	16 59 38.7	-0.9
	2.3nm,0.5s,mb4.1,baz=204,slow=8.1,SNR=6.7						
SONM				PcP	PcP	17 01 34.4	-0.1
	2.3nm,0.7s,baz=195,slow=4.1,SNR=4.3						
ZAL	Zalesovo	47.14	353	P	P	17 00 19.7	0.0
	8.7nm,0.9s,mb4.7,baz=304,slow=4.2,SNR=10						
WRA	Warramunga Arr	48.77	124	P	P	17 00 31.9	-0.9
	13nm,0.7s,mb5.1,baz=305,slow=8.9,SNR=13						
WRA				pP	pP	17 00 41.5	+0.2
	13nm,0.7s,baz=304,slow=8.4,SNR=8.1						
WRAB	Tennant Creek	48.78	124	*e*pP	pP	17 00 41.9	+0.5
BVAR	Borovoye Array	49.33	342	P	P	17 00 36.9	+0.2
	1.6nm,0.7s,mb4.1,baz=121,slow=8.6,SNR=4.0						
BVAR				pP	pP	17 00 43.1	-2.1
	0.9nm,0.7s,baz=127,slow=8.7,SNR=1.9						
ASAR	Alice Springs	50.33	129	P	P	17 00 44.0	-0.8
	5.2nm,0.6s,mb4.7,baz=303,slow=7.9,SNR=11						
ASAR				pP	pP	17 00 54.5	+1.1
	7.6nm,0.9s,baz=310,slow=7.5,SNR=6.9						
MAT	Matsushiro	50.50	48	P	P	17 00 44.4	-1.5
GNI	Garni	54.15	315	P	P	17 01 14.4	+1.3
	1.4nm,0.3s,mb4.3,baz=165,slow=13,SNR=3.7						
KMBO	Kilima Mbogo	56.21	264	P	P	17 01 29.8	+1.3
	5.1nm,1.0s,mb4.5,baz=48,slow=9.8,SNR=8.1						
ASAJ	Asahikawa	56.72	41	P	P	17 01 32.1	+0.5
	26nm,1.2s,mb5.1,baz=159,slow=11,SNR=3.5						
EIL	Elat	58.81	300	P	P	17 01 47.1	+0.5
	7.6nm,0.9s,mb4.7,baz=9.8,slow=15,SNR=5.5						
CTA	Charters Tower	58.95	118	P	P	17 01 48.0	+0.4
	5.6nm,0.8s,mb4.6,baz=294,slow=13,SNR=4.1						
STKA	Stephens Creek	60.43	133	P	P	17 01 58.3	+0.6
	1.9nm,0.6s,mb4.3,baz=315,slow=6.4,SNR=3.7						
AKASG	Malin Array Be	68.03	322	P	P	17 02 45.0	-2.1
	0.4nm,0.5s,mb3.7,baz=29,slow=26,SNR=3.2						
IDI	Anoyia	68.06	305	P	P	17 02 47.0	-0.5
	20nm,1.1s,mb5.1,baz=74,slow=8.9,SNR=3.6						
FINES	FINESS Array B	72.83	332	P	P	17 03 15.7	-0.3
	2.4nm,0.8s,mb4.2,baz=102,slow=7.2,SNR=4.2						
FINES				pP	pP	17 03 24.4	-0.3
	4.3nm,0.6s,baz=108,slow=6.0,SNR=5.8						
ARCES	ARCESS Array B	75.58	340	P	P	17 03 31.8	+0.1
	21nm,1.3s,mb4.9,baz=101,slow=6.2,SNR=4.4						
ARCES				pP	pP	17 03 40.2	-0.3
	3.5nm,0.9s,baz=90,slow=6.1,SNR=2.5						
GERES	GERESS Array B	77.62	318	P	P	17 03 44.0	+0.6
	1.8nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=6.0						
GERES				pP	pP	17 03 52.3	0.0
	2.8nm,0.8s,baz=90,slow=4.9,SNR=7.7						
KHC	Kasperske Hory	77.72	319	*e*P	P	17 03 44.0	0.0
KHC				*e*x	x	17 03 52.5	
HFS	Hagfors	78.52	330	P	P	17 03 47.2	-1.0
	4.1nm,1.0s,mb4.3,baz=135,slow=2.0,SNR=4.0						
HFS				pP	pP	17 03 55.2	-1.8
	3.6nm,0.6s,baz=104,slow=6.1,SNR=3.0						
NB2	NORSAR Subarra	79.82	331	P	P	17 03 53.4	-1.8
	13nm,1.4s,mb4.7,baz=94,slow=5.8						
NOA	NORSAR Array B	79.82	331	P	P	17 03 53.7	-1.5
	1.1nm,0.8s,mb3.8,baz=57,slow=7.1,SNR=3.4						
NOA				pP	pP	17 04 03.3	-0.7
	1.7nm,0.6s,baz=94,slow=5.5,SNR=4.9						
DAVOX	Davos	80.13	316	P	P	17 03 57.2	0.0
	8.0nm,1.2s,mb4.5,baz=45,slow=9.1,SNR=3.7						
DAVOX				pP	pP	17 04 06.3	+0.3
	5.2nm,0.7s,baz=160,slow=7.5,SNR=4.9						
LPG	La Plagne	82.33	315	*e*P	P	17 04 09.3	+0.6
	29nm,1.1s,mb4.8						
ESDC	Sonseca Array	90.82	310	P	P	17 04 50.7	+0.3
	0.5nm,0.5s,mb4.1,baz=44,slow=4.6,SNR=3.9						
ILAR	Eielson Array	95.85	22	P	P	17 05 12.8	-0.1
	0.9nm,0.9s,mb4.2,baz=303,slow=5.5,SNR=6.3						
NVAR	Mina Array Bea	126.13	30	PKP	PKPdf	17 10 51.0	-2.3
	0.7nm,0.6s,baz=274,slow=1.1,SNR=4.0						
PDAR	Pinedale Array	126.26	21	PKP	PKPdf	17 10 50.4	-3.0
	1.0nm,0.7s,baz=90,slow=1.5,SNR=7.0						
TXAR	Lajitas Array	140.35	23	PKP	PKPdf	17 11 18.6	-1.5
	0.6nm,0.5s,baz=154,slow=0.3,SNR=7.5						

IDC 26 16:51:58.4±0.8,7.00N×92.28E,mb4.5/14,mb1 4.7/15,mb1mx4.5/21,ML4.8/1,Error ellipse: s-maj=36.0km s-min=16.7km az=49.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.11	29	Pn	P	16 55 04.8	-3.8
	1.6nm,0.3s,baz=224,slow=14,SNR=7.0						
SONM	Songino Array	42.43	14	P	P	16 59 54.4	-2.2
	5.7nm,0.9s,baz=197,slow=8.1,SNR=5.5						
ZAL	Zalesovo	47.19	354	P	P	17 00 32.9	-1.8
	5.1nm,0.5s,baz=280,slow=5.9,SNR=5.8						
HIA	Hailar	48.05	24	*e*	P	17 00 38.0	-3.5
BVAR	Borovoye Array	49.24	343	P	P	17 00 48.6	-2.0
	2.4nm,0.7s,baz=149,slow=8.6,SNR=4.9						
WRA	Warramunga Arr	49.29	124	P	P	17 00 48.6	-2.8
	8.5nm,0.8s,baz=302,slow=8.5,SNR=6.6						
MDJ	Mudanjiang	49.56	35	*e*pP	P	17 00 50.1	-3.1
ASAR	Alice Springs	50.80	128	P	P	17 01 01.1	-1.9
	5.0nm,0.7s,baz=317,slow=7.7,SNR=5.5						
EIL	Elat	58.26	301	P	P	17 01 55.8	-1.6
	5.0nm,0.7s,baz=91,slow=11,SNR=5.7						
STKA	Stephens Creek	60.87	132	P	P	17 02 12.0	-3.4
	9.1nm,1.0s,baz=318,slow=8.9,SNR=5.7						
BRTR	Keskin Array B	61.61	312	P	P	17 02 16.5	-3.8
	1.9nm,0.8s,baz=140,slow=6.4,SNR=4.0						
FINES	FINESS Array B	72.62	333	P	P	17 03 26.8	-2.7
	3.7nm,0.7s,baz=104,slow=7.9,SNR=4.8						
ARCES	ARCESS Array B	75.46	340	P	P	17 03 43.6	-2.2
	4.1nm,0.8s,baz=90,slow=3.6,SNR=4.9						
GERES	GERESS Array B	77.24	318	P	P	17 03 55.6	-0.6
	2.6nm,0.7s,baz=90,slow=4.9,SNR=9.2						
HFS	Hagfors	78.28	330	P	P	17 03 60.0	-1.6
	3.0nm,0.7s,baz=104,slow=6.1,SNR=5.5						
NOA	NORSAR Array B	79.58	331	P	P	17 04 06.3	-2.5
	2.0nm,0.6s,baz=98,slow=5.2,SNR=7.5						
ILAR	Eielson Array	96.24	22	P	P	17 05 30.0	+0.4
	0.8nm,0.7s,baz=294,slow=4.3,SNR=5.9						
ULM	Lac du Bonnet	122.55	6	PKP	PKPdf	17 10 56.5	-1.3
	1.6nm,0.6s,baz=299,slow=6.7,SNR=3.4						
NVAR	Mina Array Bea	126.60	30	PKP	PKPdf	17 11 06.4	+0.4
	1.2nm,0.8s,baz=278,slow=1.7,SNR=5.5						
PDAR	Pinedale Array	126.63	20	PKP	PKPdf	17 11 05.8	-0.1
	1.2nm,0.8s,SNR=5.4						
TXAR	Lajitas Array	140.75	22	PKP	PKPdf	17 11 34.2	+1.4
	0.9nm,0.7s,baz=74,slow=0.7,SNR=4.8						

*IDC **26** 16:54:11.0±0.8,8.47N×92.57E,mb4.1/10,mb1 4.3/10,mb1mx4.1/19,MS4.9/1,Ms1 4.9/1,ms1mx3.4/23,Error ellipse: s-maj=33.5km s-min=20.1km az=45.0*

ISC 26 16:54:14.4±0.8,8.5N±0.2×92.6E±0.2,h33^{km},n11,σ0^{s}92/10,mb4.1/10,MS4.9/1,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	40.89	14	P	P	17 01 54.1	-0.9
	3.2nm,0.8s,mb4.0,baz=187,slow=3.3,SNR=5.0						
BVAR	Borovoye Array	47.91	342	P	P	17 02 52.1	+0.7
	1.3nm,0.7s,mb4.1,baz=135,slow=8.4,SNR=2.9						
WRA	Warramunga Arr	49.86	125	P	P	17 03 06.5	-0.3
	1.5nm,0.6s,mb4.2,baz=304,slow=8.5,SNR=4.6						
ASAR	Alice Springs	51.48	129	P	P	17 03 19.3	+0.2
	0.9nm,0.5s,mb4.0,baz=306,slow=7.5,SNR=3.9						
KMBO	Kilima Mbogo	56.00	263	P	P	17 03 52.9	+0.4
	1.6nm,0.7s,mb4.2,baz=59,slow=15,SNR=4.2						
KMBO				LR	LR	17 27 47.1	
	comp=Z,973nm,18.4s,MS4.9,baz=96,slow=36						
EIL	Elat	57.80	300	P	P	17 04 03.4	-1.7
	7.7nm,1.0s,mb4.7,baz=6.8,slow=6.4,SNR=3.3						
BRTR	Keskin Array B	60.87	311	P	P	17 04 25.1	-1.2
	1.1nm,0.7s,mb4.1,baz=114,slow=6.1,SNR=3.9						
FINES	FINESS Array B	71.45	332	P	P	17 05 33.6	+0.4
	2.6nm,0.8s,mb4.2,baz=90,slow=7.6,SNR=4.5						
GERES	GERESS Array B	76.35	318	P	P	17 06 03.0	+1.1
	1.8nm,0.8s,mb4.0,baz=90,slow=4.0,SNR=5.9						
NOA	NORSAR Array B	78.44	331	P	P	17 06 14.5	+1.2
	0.4nm,0.6s,mb3.6,baz=110,slow=5.1,SNR=3.1						
CPUP	Villa Florida	146.44	234	PKPbc	PKPbc	17 13 52.0	-0.8
	0.0nm,0.3s,baz=225,slow=17,SNR=1.9						

*MOS **26** 16:55:15.7±0.9,3.97N×94.67E,h33^{km},mb5.6/27,MS4.9/5,Error ellipse: s-maj=16.5km s-min=7.1km az=114.0*

*BJI **26** 16:55:15.5,3.78N×94.60E,h35^{km},mB5.3,mb5.3,Ms5.2,Msz5.0*

*CSEM **26** 16:55:16.7,4.15N×94.78E,h33^{km},mb5.6*

*IDC **26** 16:55:17.3±0.3,3.90N×94.57E,h29^{km}±2^{km},mb4.9/30,mb1 4.9/31,mb1mx4.9/33,ML4.8/1,MS4.8/4,Ms1 4.9/4,ms1mx4.1/20,Error ellipse: s-maj=14.1km s-min=8.2km az=47.0*

*NEIC **26** 16:55:17.3±0.2,3.86N×94.50E,mb5.3/57,Error ellipse: s-maj=4.8km s-min=4.1km az=220.0*

*HRVD **26** 16:55:17.3±1.3,3.61N×94.32E,h26^{km}±2^{km},MW5.4/29,Centroid moment Tensor Solution. LP body waves: s12,c12;Mantle waves: s29,c45; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.69±.29; M$_{\theta\theta}$1.45±.17; M$_{\phi\phi}$0.23±.18; M$_{r\theta}$-0.54±.29; M$_{\theta\phi}$-0.20±.13; M$_{\phi r}$-0.30±.49; Best double couple: M$_{0}$1.7×10^{17} NP1: ϕ_{s}289°,δ37°,λ-73°. NP2:ϕ_{s}88°,δ55°,λ-102°. Principal axes: T 1.56, Plg9°, Azm187°; N .27, Plg10°, Azm95°; P -1.83, Plg77°, Azm317°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 16:55:15.4±0.2,3.88N±0.04×94.54E±0.03,h29^{km},h29^{km}±.8^{km}:pP-P,n280,σ0^{s}96/274,mb5.3/120,MS5.0/17,11C-39D,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	14.18	284	*e*P	P	16 58 34.7	-2.0
CM31	Chiang Mai Arr	15.12	16	*e*P	P	16 58 49.4	+0.4
	119nm,0.9s						
CMAR	Chiang Mai Arr	15.12	16	Pn	P	16 58 50.2	+1.3
	1.4nm,0.3s,baz=205,slow=12,SNR=23						
CMAR				Sn	S	17 01 49.3	+13
	baz=197,slow=27,SNR=1.8						
CMAR				LR	LR	17 04 59.5	
	comp=Z,2μm,18.7s,baz=205,slow=39						
CMAR	Chiang Mai Arr	15.12	16	*i* P	P	16 58 50.3	+1.3
CMAR				pmax	pmax		
	comp=Z,70nm,0.8s						
CHG	Chiang Mai	15.46	16	⇓P	P	16 58 53.4	0.0
	comp=Z,112nm,1.0s						
NANT	Nan	16.01	22	⇑P	P	16 59 00.0	-0.4
	comp=Z,100nm,0.8s						
COCO	West Island	16.12	172	*e*P	P	16 59 05.5	+3.7
	comp=Z,154nm,0.9s						
CHRT	Chiangrai	16.70	17	⇓P	P	16 59 09.5	+0.3
	comp=Z,445nm,1.0s						
MDRS	Chennai	16.82	304	*e*P	P	16 59 08.2	-2.4
MDRS				*e*S	S	17 02 02.7	-13
VIS	Vishakhapatnam	17.61	322	*e*P	P	16 59 19.4	-1.1
VIS				*e*S	S	17 02 20.8	-13
TRD	Trivandrum	18.07	286	*e*P	P	16 59 24.5	-1.9
TRD				*e*		16 59 31.9	
	comp=Z,189nm,1.8s						
BWNR	Bhubaneshwar	18.41	333	*e*	P	16 59 20.0	-10
BWNR				*e*		17 02 20.0	
CAL	Calcutta	19.50	343	*e*P	P	16 59 36.5	-6.9
HYB	Hyderabad	20.66	312	*i* P	P	16 59 56.0	+0.4
	comp=Z,110nm,1.0s						
QIZ	Qiongzhong	21.22	44	P	P	17 00 01.3	-0.1
QIZ				S	S	17 03 51.3	+0.5
QIZ				AMB	AMB		
	comp=Z,32nm,1.6s,mb4.4						
QIZ				LR	LR		
	comp=N,6μm,17.1s						
QIZ				LR	LR		
	comp=Z,3μm,19.3s,MS4.7						
QIZ	Qiongzhong	21.22	44	*e*P	P	17 00 01.5	+0.1
	comp=Z,56nm,1.1s,mb4.8						
MNGI	Mangalore	21.46	296	*e*P	P	17 00 01.8	-2.0
SHL	Shillong	21.72	354	*e*P	P	17 00 04.4	-1.9
SHL				*e*		17 00 10.3	
	comp=Z,288nm,0.7s						
SHL				*e*S	S	17 04 04.9	+4.9
KMI	Kunming	22.55	20	P	P	17 00 16.0	+1.3
KMI				AMB	AMB		
	comp=Z,95nm,1.0s,mb5.2						
KMI				LR	LR		
	comp=N,5μm,14.0s,MS5.2						
KMI				LR	LR		
	comp=E,4μm,15.1s,MS5.2						
KMI				LR	LR		
	comp=Z,5μm,14.7s,MS5.1						
GOA	Goa	23.42	301	*e*	P	17 00 30.4	+7.2
GOA				*e*		17 00 35.1	
	comp=Z,192nm,1.6s						
AKL	Akola	23.89	316	*e*P	P	17 00 30.8	+3.1
AKL				*e*		17 00 35.9	
	comp=Z,119nm,1.5s						
KAD	Karad	24.01	305	⇓*i*P	P	17 00 31.0	+2.0
ALBI	Allahabad	24.57	331	⇓*i*P	P	17 00 35.4	+1.0
POO	Poona	24.93	307	*e*P	P	17 00 39.7	+1.9
POO				*e*		17 00 43.8	
	comp=Z,55nm,1.6s						
PKI	Pulchoki	25.12	341	*e*P	P	17 00 40.4	+0.8
	comp=Z,245nm,1.1s,mb5.7						
DMN	Daman	25.26	340	*e*P	P	17 00 41.0	+0.1
GYA	Guiyang	25.28	26	⇓*i*P	P	17 00 41.3	+0.2
GYA				AP	pP	17 00 46.0	-3.7
GYA				PP	PP	17 01 23.3	+3.5
GYA				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.2						
GYA				AMB	AMB		
	comp=Z,970nm,4.2s						
GYA				LR	LR		
	comp=N,2μm,16.8s,MS5.0						
GYA				LR	LR		
	comp=E,3μm,17.0s,MS5.0						
GYA				LR	LR		
	comp=Z,4μm,18.2s,MS5.0						
GUN	Gumba	25.29	342	*e*P	P	17 00 41.6	+0.5
	comp=Z,324nm,0.9s,mb5.9						
KKN	Kakani	25.37	341	*e*P	P	17 00 42.3	+0.4
	comp=Z,323nm,0.9s,mb5.8						
BHPL	Bhopal	25.39	321	*e*P	P	17 00 40.7	-1.4
BHPL				*e*	pP	17 00 47.4	-3.2
	comp=Z,125nm,1.7s						
GKN	Gorkha	25.78	340	*e*P	P	17 00 45.8	0.0
	comp=Z,284nm,0.8s,mb5.8						
LSA	Lhasa	25.89	353	⇓*e*P	P	17 00 48.5	+1.8
	comp=Z,295nm,0.8s,mb5.9						
KOLN	Koldanda	25.95	337	*e*P	P	17 00 47.7	+0.3
	comp=Z,151nm,0.8s,mb5.6						
BOM	Bombay	25.95	307	*e*P	P	17 00 49.1	+1.7
BOM				*e*		17 00 53.0	
	comp=Z,238nm,1.4s						
TGY	Tagaytay City	27.95	67	P	P	17 01 06.1	+0.4
	comp=Z,146nm,1.0s,mb5.6,baz=157,slow=7.0,SNR=3.4						
CD2	Chengdu	28.26	17	P	P	17 01 07.5	-0.9
CD2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.2						
PTH	Pithoragarh	28.92	334	*e*P	P	17 01 13.8	-0.5
NDI	New Delhi	29.66	328	⇑*i*P	P	17 01 20.8	-0.2
NDI				*e*		17 01 21.6	
	comp=Z,68nm,1.0s						
ENH	Enshi	29.82	27	*e*P	P	17 01 20.7	-1.7
	comp=Z,53nm,0.9s,mb5.3						
DDI	Dehra Dun	30.57	331	*e*P	P	17 01 28.0	-1.0
SDNR	Sundarnagar	32.07	331	*e*P	P	17 01 42.5	+0.3
WHN	Wuhan	32.46	33	⇑*i*P	P	17 01 46.8	+1.2
XAN	Xi’an	32.87	22	P	P	17 01 47.8	-1.3
XAN				AP	pP	17 01 56.0	-1.8
XAN				AMB	AMB		
	comp=Z,145nm,1.0s,mb5.9						
LZH	Lanzhou	33.19	14	*e*P	P	17 01 50.5	-1.3
LZH				PP	PP	17 02 58.5	-4.8
LZH				*e*S	S	17 07 04.0	-4.5
LZH				AMB	AMB		
	comp=Z,46nm,1.6s,mb5.2						
LZH				AMB	AMB		
	comp=Z,107nm,5.8s						
LZH				LR	LR		
	comp=E,2μm,14.9s						
LZH				LR	LR		
	comp=Z,3μm,16.0s,MS5.1						
THN	Thein Dam	33.44	330	*e*P	P	17 01 53.3	-0.8
	comp=Z,25nm,0.7s,mb5.2						
MBWA	Marble Bar	35.05	136	*e*P	P	17 02 07.6	-0.5
	comp=Z,18nm,0.9s,mb5.0						
GTA	Gaotai	35.70	7	⇓*i*P	P	17 02 13.0	-0.4
GTA				AP	pP	17 02 21.8	-0.3
GTA				XP	sP	17 02 24.8	-1.0
GTA				PCP	PcP	17 04 42.8	+1.3
GTA				SCP		17 08 20.5	
GTA				AMB	AMB		
	comp=Z,81nm,0.9s,mb5.7						
GTA				AMB	AMB		

	comp=Z,353nm,8.7s						
GTA				LR	LR		
	comp=N,1µm,19.0s,MS4.8						
GTA				LR	LR		
	comp=E,1µm,14.1s,MS4.8						
GTA				LR	LR		
	comp=Z,1µm,22.0s						
NJ2	**Nanjing**	**36.14**	**36**	*e*P	**P**	**17 02 17.8**	**+0.6**
NJ2				AP	pP	17 02 27.5	+1.5
NJ2				XP	sP	17 02 29.3	-0.4
NJ2				PP	PP	17 03 38.8	-1.2
NJ2				S	**S**	**17 07 52.0**	**-2.4**
NJ2				XS		17 08 08.0	
NJ2				AMB	AMB		
	comp=Z,230nm,0.6s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,1µm,5.4s						
NJ2				LR	LR		
	comp=N,11µm,15.4s,MS5.9						
NJ2				LR	LR		
	comp=E,10µm,16.0s,MS5.9						
NJ2				LR	LR		
	comp=Z,11µm,15.1s,MS5.8						
SSE	**Sheshan**	**36.92**	**40**	*e*P	**P**	**17 02 23.0**	**-0.8**
SSE				XP	sP	17 02 36.0	-0.2
SSE				S	**S**	**17 08 08.5**	**+2.3**
SSE				AMB	AMB		
	comp=Z,18nm,0.8s,mb5.0						
SSE				LR	LR		
	comp=N,1µm,18.1s,MS4.7						
SSE				LR	LR		
	comp=E,277nm,18.0s,MS4.7						
SSE				LR	LR		
	comp=Z,1µm,19.6s,MS4.7						
TIA	**Tai'an**	**38.33**	**30**	*e*P	**P**	**17 02 35.3**	**-0.2**
BTO	**Baotou**	**39.14**	**19**	P	**P**	**17 02 41.5**	**-0.8**
BTO				AMB	AMB		
	comp=Z,19nm,0.7s,mb4.9						
KSH	**Kashi**	**39.27**	**337**	*i* PR		17 02 44.0	
KSH				*e*AP	pP	17 02 56.5	+4.3
KSH				*e*PP	PP	17 04 16.3	-1.1
KSH				*e*PPP	PPP	17 04 37.5	-4.0
KSH				S	**S**	**17 08 39.5**	**-2.4**
KSH				*e*PCS		17 08 45.3	
KSH				*e*SCS	ScS	17 12 50.5	+2.6
KSH				AMB	AMB		
	comp=Z,470nm,2.7s,mb5.7						
KSH				LR	LR		
	comp=N,2µm,18.0s						
KSH				LR	LR		
	comp=E,820nm,11.0s						
JOW	**Kunigami**	**39.51**	**51**	P	**P**	**17 02 46.6**	**+1.2**
	comp=E,34nm,0.9s,mb5.1,baz=274,slow=5.2,SNR=6.1						
JOW				sP	sP	17 02 57.4	-0.6
	comp=E,45nm,1.0s,baz=251,slow=7.0,SNR=5.8						
HHC	**Hu-ho-hao-te**	**39.87**	**20**	⇓P	**P**	**17 02 49.3**	**+0.9**
HHC				AP	pP	17 02 56.8	-0.4
HHC				XP	sP	17 03 00.5	-0.3
HHC				PP	PP	17 04 25.5	+1.7
HHC				S	**S**	**17 08 54.0**	**+3.1**
HHC				XS		17 09 06.3	
HHC				SS	SS	17 11 44.0	+2.5
HHC				SCS	ScS	17 12 52.0	+0.7
HHC				AMB	AMB		
	comp=Z,66nm,0.9s,mb5.4						
HHC				AMB	AMB		
	comp=Z,479nm,10.0s						
HHC				LR	LR		
	comp=N,4µm,15.5s,MS5.5						
HHC				LR	LR		
	comp=E,2µm,13.1s,MS5.5						
HHC				LR	LR		
	comp=Z,4µm,15.5s,MS5.4						
WMQ	**Urumqi**	**40.24**	**352**	P	**P**	**17 02 52.3**	**+1.0**
WMQ				AP	pP	17 02 56.8	-3.3
WMQ				AMB	AMB		
	comp=Z,36nm,1.2s,mb5.0						
BJT	**Baijiatuau**	**40.95**	**26**	*e*P	**P**	**17 02 58.5**	**+1.3**
	comp=Z,114nm,0.9s,mb5.5						
BJT				*e*	pP	17 03 06.4	+0.4
BJI	**Beijing**	**40.97**	**26**	P	**P**	**17 02 58.5**	**+1.1**
BJI				AMB	AMB		
	comp=Z,140nm,0.8s,mb5.6						
BJI				LR	LR		
	comp=N,2µm,18.6s,MS5.1						
BJI				LR	LR		
	comp=E,2µm,15.6s,MS5.1						
BJI				LR	LR		
	comp=Z,1µm,22.7s						
ULHL	**Ulahol**	**41.55**	**339**	P	**P**	**17 03 03.3**	**+1.1**
	SNR=10						
KZA	**Kyzart**	**41.76**	**338**	P	**P**	**17 03 05.6**	**+1.7**
	SNR=28						
UCH	**Uchtor**	**42.17**	**338**	P	**P**	**17 03 08.9**	**+1.7**
	SNR=62						
TKM2	**Tokmak 2**	**42.37**	**339**	P	**P**	**17 03 10.1**	**+1.2**
	SNR=42						
KBK	**Karagaybulak**	**42.38**	**338**	P	**P**	**17 03 10.7**	**+1.7**
	SNR=62						
AML	**Almayashu**	**42.40**	**337**	P	**P**	**17 03 10.9**	**+1.8**
	SNR=34						
NWAO	**Narrogin (SRO)**	**42.45**	**151**	P	**P**	**17 03 10.2**	**+0.6**
	comp=Z,12nm,1.1s,mb4.4,baz=327,slow=17,SNR=1.9						
AAK	**Ala-Archa**	**42.52**	**338**	P	**P**	**17 03 11.6**	**+1.5**
	SNR=29						
AAK	**Ala-Archa**	**42.52**	**338**	*d* *i*P	**P**	**17 03 10.4**	**+0.3**
AAK				pmax	pmax		
	comp=Z,93nm,1.0s,mb5.5						
AAK	**Ala-Archa**	**42.52**	**338**	*e*P	**P**	**17 03 10.0**	**-0.1**
	comp=Z,127nm,1.1s,mb5.6						
AAK				*i* Pr		17 03 10.4	
FRU	**Bishkek**	**42.65**	**338**	*i* P	**P**	**17 03 12.0**	**+0.8**
FRU				*e*		17 03 23.0	
FRU				pmax	pmax		
	comp=Z,220nm,2.0s,mb5.5						
DL2	**Dalian**	**42.69**	**32**	P	**P**	**17 03 12.3**	**+0.8**
DL2				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.3						
CHMS	**Chumysh**	**42.74**	**339**	P	**P**	**17 03 12.5**	**+0.6**
	SNR=21						
EKS2	**Erkin-Say**	**42.82**	**337**	P	**P**	**17 03 14.2**	**+1.6**
	SNR=44						
USP	**Ospenovka**	**43.07**	**338**	P	**P**	**17 03 15.6**	**+1.0**
	SNR=72						
MKAR	**Makanchi Array**	**44.05**	**348**	*i* P	**P**	**17 03 22.8**	**+0.3**
MKAR				pmax	pmax		
	comp=Z,66nm,0.8s						
SONM	**Songino Array**	**44.97**	**11**	P	**P**	**17 03 29.7**	**-0.2**
	comp=Z,27nm,0.8s,mb5.1,baz=193,slow=7.3,SNR=46						
SONM				pP	pP	17 03 37.9	-0.8
	comp=Z,11nm,0.8s,baz=188,slow=8.7,SNR=6.4						
SONM				sP	sP	17 03 42.7	+0.4
	comp=Z,6.3nm,0.8s,baz=198,slow=7.2,SNR=6.5						
SONM				PcP	PcP	17 05 11.4	+0.2
	comp=Z,11nm,0.8s,baz=198,slow=3.9,SNR=5.3						
ULN	**Ulaanbaatar**	**45.13**	**12**	*e*P	**P**	**17 03 30.0**	**-1.1**
	comp=Z,14nm,0.8s,mb4.9						
WRA	**Warramunga Arr**	**45.70**	**123**	P	**P**	**17 03 35.8**	**-0.2**
	comp=Z,48nm,0.8s,mb5.5,baz=300,slow=9.0,SNR=44						
WRA				pP	pP	17 03 44.0	-0.9
	comp=Z,57nm,0.9s,baz=302,slow=8.9,SNR=22						
WRAB	**Tennant Creek**	**45.71**	**123**	*d* *i*P	**P**	**17 03 35.8**	**-0.3**
WRAB	**Tennant Creek**	**45.71**	**123**	*e*P	**P**	**17 03 35.9**	**-0.2**
	comp=Z,125nm,1.1s,mb5.8						
WRAB				*e*		17 03 42.6	
SNY	**Shenyang**	**45.85**	**30**	⇑P	**P**	**17 03 35.5**	**-1.4**
SNY				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
ZAK	**Zakamensk**	**46.93**	**8**	*e*P	**P**	**17 03 45.0**	**-0.3**
ZAK				*e*		17 05 17.9	
ASAR	**Alice Springs**	**47.12**	**127**	P	**P**	**17 03 46.8**	**-0.4**
	comp=Z,9.1nm,0.6s,mb4.9,baz=295,slow=7.8,SNR=26						
ASAR				pP	pP	17 03 55.2	-0.9
	comp=Z,17nm,0.8s,baz=307,slow=7.7,SNR=15						
ASAR				PcP	PcP	17 05 18.5	-0.6
	comp=Z,6.7nm,0.9s,baz=302,slow=4.2,SNR=5.3						
MOY	**Mondy**	**47.94**	**5**	*e*P	**P**	**17 03 53.3**	**+0.1**
CN2	**Changchun**	**48.23**	**30**	*e*P	**P**	**17 03 55.3**	**-0.3**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.1						
TLY	**Talaya**	**48.25**	**8**	*e*P	**P**	**17 03 55.9**	**+0.3**
TLY				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
TLY				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.0						
TLY	**Talaya**	**48.25**	**8**	*i* Pr	**P**	**17 03 56.1**	**+0.5**
IRK	**Irkutsk**	**48.88**	**8**	*e*P	**P**	**17 03 53.8**	**-6.7**
HIA	**Hailar**	**50.05**	**21**	*e*P	**P**	**17 04 09.2**	**-0.3**
	comp=Z,56nm,1.1s,mb5.5						
HIA				*e*	pP	17 04 17.7	-0.9
ZAL	**Zalesovo**	**50.54**	**353**	P	**P**	**17 04 12.9**	**-0.3**
	comp=Z,16nm,0.5s,mb5.2,baz=301,slow=6.1,SNR=31						
ZAL				pP	pP	17 04 21.1	-1.1
	comp=Z,12nm,0.7s,baz=294,slow=5.6,SNR=6.6						
ZAL				LR	LR	17 30 57.2	
	comp=Z,1µm,18.4s,MS4.9,baz=289,slow=42						
QRN	**Al-Qurain**	**50.66**	**304**	*e*P	**P**	**17 04 15.8**	**+1.3**
MDJ	**Mudanjiang**	**50.93**	**32**	P	**P**	**17 04 16.3**	**0.0**
MDJ				AMB	AMB		
	comp=Z,24nm,1.5s,mb4.9						
MDJ	**Mudanjiang**	**50.93**	**32**	*e*P	**P**	**17 04 16.4**	**+0.1**
MDJ				*e*	pP	17 04 25.1	-0.2
RDF	**Al-Radifah**	**51.03**	**304**	*e*P	**P**	**17 04 18.4**	**+1.1**
RDF				AMb	AMB	17 04 20.1	
	comp=Z,464nm,0.9s						
KAMS	**Al Khamasin**	**51.27**	**293**	P	**P**	**17 04 18.8**	**-0.4**
MZLS	**Mizel**	**51.56**	**298**	P	**P**	**17 04 22.2**	**+0.9**
NVS	**Novosibirsk**	**51.63**	**352**	*i* P	**P**	**17 04 19.4**	**-2.1**
NVS				*e*S	**S**	**17 11 45.2**	**+6.1**
NVS				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.4						
NVS				pmax	pmax		
	comp=N,47nm,1.5s						
NVS				smax			
	comp=E,50nm,2.1s						
NVS				smax			
	comp=N,55nm,2.3s						
RST	**Umm Al-Ruwaisa**	**51.68**	**305**	*e*P	**P**	**17 04 22.9**	**+0.8**
RST				AMb	AMB	17 04 24.7	
	comp=Z,238nm,0.9s,mb6.1						
TATS	**Tathlith**	**52.14**	**292**	P	**P**	**17 04 26.2**	**+0.4**
BVA0	**Borovoye Array**	**52.88**	**342**	P	**P**	**17 04 30.1**	**-0.8**
BVA0				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
BVAR	**Borovoye Array**	**52.88**	**342**	P	**P**	**17 04 30.2**	**-0.7**
	comp=Z,32nm,0.7s,mb5.3,baz=143,slow=7.4,SNR=75						
BVAR				pP	pP	17 04 38.5	-1.4
	comp=Z,12nm,0.8s,baz=69,slow=13,SNR=13						
BRVK	**Borovoye**	**52.95**	**342**	*i* Pr	**P**	**17 04 30.6**	**-0.8**
CHKZ	**Chkalovo**	**53.38**	**343**	*i* P	**P**	**17 04 34.1**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,79nm,0.9s,mb5.6						
CHKZ	**Chkalovo**	**53.38**	**343**	⇓*i*P	**P**	**17 04 34.1**	**-0.4**
	comp=Z,98nm,0.9s,mb5.7						
AFFS	**'Afif**	**53.49**	**297**	P	**P**	**17 04 36.8**	**+1.0**
ARSS	**Ar Rass**	**53.77**	**299**	P	**P**	**17 04 37.9**	**+0.2**
KLR	**Kul'dur**	**55.14**	**29**	*e*P	**P**	**17 04 42.8**	**-4.7**
KLR				pmax	pmax		
	comp=E,50nm,2.0s						
KLR				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.4						
HILS	**Ha'il**	**55.41**	**301**	P	**P**	**17 04 50.9**	**+1.1**
BOD	**Bodaibo**	**55.93**	**12**	*e*P	**P**	**17 04 51.3**	**-1.8**
CTA	**Charters Tower**	**56.08**	**117**	P	**P**	**17 04 54.5**	**-0.2**
	comp=Z,9.3nm,0.9s,mb4.8,baz=271,slow=10,SNR=5.5						
CTA				pP	pP	17 05 02.2	-1.5
	comp=Z,8.1nm,0.9s,baz=292,slow=9.0,SNR=5.5						
CTAO	**Charters Tower**	**56.08**	**117**	*e*P	**P**	**17 04 53.9**	**-0.7**
	comp=Z,16nm,1.0s,mb5.0						
STKA	**Stephens Creek**	**57.11**	**132**	P	**P**	**17 05 01.4**	**-0.5**
	comp=Z,14nm,1.0s,mb5.0,baz=309,slow=6.2,SNR=8.0						
STKA				pP	pP	17 05 09.1	-1.9
	comp=Z,12nm,0.9s,baz=294,slow=5.3,SNR=7.0						
STKA	**Stephens Creek**	**57.11**	**132**	*e*P	**P**	**17 05 01.2**	**-0.7**
STKA				*e*	pP	17 05 08.7	-2.3
KBRS	**Khaybar**	**57.22**	**298**	P	**P**	**17 05 03.9**	**+1.1**
KMBO	**Kilima Mbogo**	**57.47**	**266**	P	**P**	**17 05 05.2**	**+0.5**
	comp=Z,6.5nm,0.8s,mb4.7,baz=53,slow=9.7,SNR=15						
KMBO				pP	pP	17 05 13.5	-0.2
	comp=Z,8.0nm,0.9s,baz=61,slow=11,SNR=9.1						
GNI	**Garni**	**57.53**	**316**	P	**P**	**17 05 04.8**	**0.0**
	comp=Z,17nm,1.1s,mb5.0,baz=355,slow=6.0,SNR=8.2						
GNI	**Garni**	**57.53**	**316**	⇑*i*P	**P**	**17 05 03.8**	**-1.0**
GNI				pmax	pmax		
	comp=Z,41nm,1.8s						
TI2	**Plekhanov**	**58.22**	**318**	*i* P	**P**	**17 05 09.2**	**-0.3**
UMJS	**Umm Lajj**	**58.83**	**297**	P	**P**	**17 05 15.5**	**+1.5**
ZEI	**Tsey**	**59.25**	**319**	*e*P	**P**	**17 05 15.8**	**-0.9**
ZEI				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
SVE	**Sverdlovsk**	**59.25**	**339**	⇓*e*P	**P**	**17 05 14.0**	**-2.5**
SVE				*e*		17 05 57.0	
SVE				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
ARU	**Arti**	**59.71**	**338**	*e*P	**P**	**17 05 18.1**	**-1.6**
ARU				*e*		17 06 02.7	
ARU				*e*		17 07 32.6	
ARU				*e*S	**S**	**17 13 29.0**	**+2.3**
ARU	**Arti**	**59.71**	**338**	*i* Pr	**P**	**17 05 18.3**	**-1.4**
YSS	**Yuzh-Sakhalins**	**59.71**	**36**	*e*P	**P**	**17 05 16.0**	**-3.8**
ERZM	**Erzurum**	**59.81**	**315**	*i* P	**P**	**17 05 19.3**	**-1.2**
TBKS	**Tabuk**	**60.11**	**300**	P	**P**	**17 05 24.0**	**+1.2**
KIV	**Kislovodsk**	**60.56**	**319**	*e*P	**P**	**17 05 24.4**	**-1.2**
KIV				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.3						
KIV				pmax	pmax		
	comp=N,5.0nm,0.6s						
KIV				pmax	pmax		
	comp=E,11nm,0.9s						
KIV	**Kislovodsk**	**60.56**	**319**	*i* Pr	**P**	**17 05 24.5**	**-1.1**
	comp=E,2.1nm,0.8s,mb4.3						
ASF	**Jabal al Asfar**	**60.76**	**305**	LR	LR	17 34 04.4	
	comp=E,787nm,18.5s,MS4.9,baz=74,slow=38						
JMQS	**Jabal Moqyreh**	**60.83**	**301**	P	**P**	**17 05 28.5**	**+0.8**
ELZG	**Elazig**	**61.02**	**312**	*i* P	**P**	**17 05 29.2**	**+0.3**
MALT	**Malatya**	**61.38**	**312**	*e*P	**P**	**17 05 30.6**	**-0.7**
	comp=E,23nm,1.1s,mb5.2						
GZT	**Gaziantep**	**61.71**	**311**	*i* P	**P**	**17 05 34.3**	**+0.8**
EIL	**Elat**	**61.79**	**302**	P	**P**	**17 05 34.7**	**+0.4**
	comp=E,23nm,0.8s,mb5.3,baz=80,slow=6.4,SNR=19						
EIL	**Elat**	**61.79**	**302**	*e*P	**P**	**17 05 34.4**	**+0.1**
	comp=E,12nm,0.7s,mb5.1						
SOC	**Sochi**	**62.37**	**318**	*i* P	**P**	**17 05 32.5**	**-5.4**
SOC				*e*S	**S**	**17 13 58.5**	**-2.2**
SOC				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.3						
SOC				pmax	pmax		
	comp=N,18nm,0.9s						
SOC				pmax	pmax		
	comp=E,9.0nm,1.0s						
SOC				MLR	MLR		
	comp=N,424nm,19.0s,MS4.7						
SOC				MLR	MLR		
	comp=Z,313nm,19.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,271nm,24.0s,MS4.7						
COBT	**Iskenderun**	**62.46**	**309**	*i* P	**P**	**17 05 38.6**	**0.0**
YAK	**Yakutsk**	**63.65**	**18**	*e*P	**P**	**17 05 43.0**	**-3.0**
YAK				*e*S	**S**	**17 14 28.8**	**+12**
YAK				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.3						
YAK				pmax	pmax		
	comp=N,13nm,1.1s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.1s						
YAK				MLR	MLR		
	comp=N,783nm,14.0s,MS5.1						
YAK				MLR	MLR		
	comp=Z,1µm,14.0s,MS5.2						
YAK				MLR	MLR		
	comp=E,525nm,13.0s,MS5.1						
YAK	**Yakutsk**	**63.65**	**18**	*e*P	**P**	**17 05 44.3**	**-1.7**
	comp=E,61nm,1.0s,mb5.6						
YAK				*e*	pP	17 05 53.8	-1.4
MBAR	**Mbarara**	**63.91**	**267**	*d* *i*P	**P**	**17 05 48.0**	**-0.6**
MBAR	**Mbarara**	**63.91**	**267**	*e*P	**P**	**17 05 47.9**	**-0.7**
	comp=E,28nm,1.5s,mb5.1						
MBAR				*e*	pP	17 05 58.2	+0.5
MEST	**Erdemli**	**64.11**	**309**	*i* P	**P**	**17 05 48.9**	**-0.7**
AVNT	**Avonos**	**64.18**	**311**	*i* P	**P**	**17 05 49.2**	**-0.8**
CSS	**Prodhromos**	**64.34**	**307**	*e*P	**P**	**17 05 50.7**	**-0.4**
	comp=E,30nm,1.4s,mb5.1						
ANN	**Anapa**	**64.35**	**318**	*e*P	**P**	**17 05 40.6**	**-10**
ANN				pmax	pmax		
	comp=Z,39nm,1.6s,mb5.2						
CTKT	**Corum**	**64.78**	**313**	*i* P	**P**	**17 05 53.6**	**-0.2**
BOYT	**Boyabat**	**64.94**	**314**	*i* P	**P**	**17 05 54.1**	**-0.7**
BRTR	**Keskin Array B**	**65.36**	**312**	P	**P**	**17 05 56.2**	**-1.3**
	comp=Z,8.9nm,0.7s,mb4.9,baz=130,slow=7.3,SNR=35						
BRTR				pP	pP	17 06 06.5	-0.2
	comp=Z,6.5nm,0.9s,baz=122,slow=7.0,SNR=7.5						
ELDT	**Eldivan**	**65.73**	**313**	*i* P	**P**	**17 05 59.0**	**-0.8**
BALT	**Daday**	**66.06**	**314**	*i* P	**P**	**17 06 01.2**	**-0.8**
SGKT	**Sivrigoynuk**	**66.76**	**313**	*i* P	**P**	**17 06 05.5**	**-0.9**
ISP	**Isparta**	**67.24**	**309**	*d* *i*P	**P**	**17 06 08.4**	**-1.1**
ESKT	**Eskisehir**	**67.38**	**311**	*i* P	**P**	**17 06 09.7**	**-0.7**
LSZ	**Lusaka**	**68.36**	**252**	*e*P	**P**	**17 06 16.4**	**-0.5**
	comp=Z,14nm,1.4s,mb4.8						
MOS	**Moscow**	**68.69**	**329**	κ *i*P	**P**	**17 06 17.2**	**-1.1**
MOS				*e*		17 06 40.2	
MOS				*e*		17 08 46.7	
MOS				*e*PPP	PPP	17 10 28.3	-1.6
MOS				*e*S	S	17 15 19.3	+1.4
MOS				*e*		17 16 14.3	
MOS				*e*SS	SS	17 19 47.2	+2.9
MOS				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
MOS				pmax	pmax		
	comp=N,44nm,0.8s						
OBN	**Obninsk**	**68.96**	**329**	*d* *i*P	**P**	**17 06 18.6**	**-1.4**
OBN				*e*		17 06 42.1	
OBN				pmax	pmax		
	comp=Z,98nm,1.5s,mb5.5						
OBN				MLR	MLR		
	comp=Z,600nm,20.0s,MS4.8						
OBN	**Obninsk**	**68.96**	**329**	*i* Pr	**P**	**17 06 18.7**	**-1.3**
BTOK	**Tokmak**	**69.55**	**311**	*i* P	**P**	**17 06 24.3**	**+0.4**
KDAG	**Bornova**	**69.86**	**309**	*i* P	**P**	**17 06 26.1**	**+0.4**
MA2	**Magadan**	**70.12**	**27**	⇓*e*P	**P**	**17 06 26.6**	**-0.4**
MA2				pmax	pmax		
	comp=Z,93nm,2.1s,mb5.3						
MA2	**Magadan**	**70.12**	**27**	⇓*e*P	**P**	**17 06 26.7**	**-0.3**
KIS	**Kishinev**	**70.75**	**319**	*e*P	**P**	**17 06 29.0**	**-2.0**
TIXI	**Tiksi**	**71.06**	**11**	⇓*e*P	**P**	**17 06 31.2**	**-1.3**
TIXI				pmax	pmax		
	comp=Z,121nm,1.5s,mb5.6						
TIXI	**Tiksi**	**71.06**	**11**	⇓*e*P	**P**	**17 06 31.3**	**-1.2**
IDI	**Anoyia**	**71.19**	**306**	P	**P**	**17 06 33.0**	**-0.8**
	comp=Z,27nm,0.7s,mb5.3,baz=98,slow=6.2,SNR=13						
AKASG	**Malin Array Be**	**71.53**	**322**	P	**P**	**17 06 34.0**	**-1.7**
	comp=Z,7.1nm,0.7s,mb4.7,baz=90,slow=4.7,SNR=29						
AKASG				pP	pP	17 06 45.5	+0.6
	comp=Z,4.2nm,0.7s,baz=90,slow=4.8,SNR=8.2						
PET	**Petropavlovsk**	**71.54**	**35**	*e*P	**P**	**17 06 33.9**	**-1.8**
PET				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.4						
LBTB	**Lobatse**	**72.72**	**242**	*e*P	**P**	**17 06 43.0**	**-0.3**
	comp=Z,10nm,0.8s,mb4.8						
LBTB				*e*	pP	17 06 51.3	-1.2
BOSA	**Boshof**	**73.84**	**239**	*e*P	**P**	**17 06 49.3**	**-0.4**
	comp=Z,10nm,1.1s,mb4.7						
BOSA				*e*	pP	17 06 59.0	0.0
PUL	**Pulkovo**	**73.89**	**332**	⇑*e*P	**P**	**17 06 48.0**	**-1.3**
PUL				pmax	pmax		
	comp=E,41nm,0.8s						
PUL				pmax	pmax		
	comp=Z,77nm,0.8s,mb5.7						
PUL	**Pulkovo**	**73.89**	**332**	⇓*e*P	**P**	**17 06 49.1**	**-0.2**
MAW	**Mawson**	**74.73**	**192**	P	**P**	**17 06 55.1**	**+1.0**
	comp=Z,3.1nm,0.6s,mb4.4,baz=356,slow=6.7,SNR=5.0						
MAW				pP	pP	17 07 03.7	+0.4
	comp=Z,5.7nm,0.7s,baz=28,slow=6.0,SNR=3.9						
MAW	**Mawson**	**74.73**	**192**	*e*P	**P**	**17 06 54.6**	**+0.6**
VSU	**Vasula**	**75.21**	**330**	*d* *i*P	**P**	**17 06 56.3**	**-0.7**
VSU	**Vasula**	**75.21**	**330**	*i* Pr	**P**	**17 06 56.3**	**-0.7**
KWP	**Kalwaria**	**75.33**	**320**	⇓*e*P	**P**	**17 06 57.8**	**-0.1**
	comp=Z,176nm,1.8s,mb5.7						
LVZ	**Lovozero**	**75.43**	**340**	*e*P	**P**	**17 06 57.8**	**-0.3**
LVZ				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.3						
LVZ	**Lovozero**	**75.43**	**340**	*i* Pr	**P**	**17 06 57.4**	**-0.7**
KOLS	**Kolonicke sedl**	**75.47**	**320**	*i* P	**P**	**17 06 58.8**	**+0.1**
APA	**Apatity**	**75.71**	**340**	⇓*i*P	**P**	**17 06 59.3**	**-0.4**
APA				*i*		17 07 06.3	
APA				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.4						
SUW	**Suwalki**	**75.97**	**325**	*e*P	**P**	**17 07 00.0**	**-1.4**
	comp=Z,148nm,0.9s,mb5.9						
SUW				*e*	pP	17 07 10.5	-0.2
CRVS	**Cervenica-Dubn**	**75.99**	**319**	*e*P	**P**	**17 07 04.3**	**+2.7**
FINES	**FINESS Array B**	**76.42**	**333**	P	**P**	**17 07 03.2**	**-0.6**
	comp=Z,24nm,0.8s,mb5.2,baz=117,slow=8.5,SNR=41						
FINES				pP	pP	17 07 13.3	+0.3
	comp=Z,13nm,0.8s,baz=111,slow=6.2,SNR=11						
FINES	**FINESS Array B**	**76.42**	**333**	*i* P	**P**	**17 07 13.3**	**+10**
FINES				pmax	pmax		
	comp=Z,13nm,0.8s						
FINES	**FINESS Array B**	**76.42**	**333**	P	**P**	**17 07 03.2**	**-0.6**
FINES				pP	pP	17 07 13.3	+0.3
KAF	**Kangasniemi**	**76.51**	**333**	*e*p	**P**	**17 07 03.9**	**-0.4**
	comp=Z,41nm,0.9s,mb5.4						
KAF	**Kangasniemi**	**76.51**	**333**	*e*P	**P**	**17 07 03.9**	**-0.4**
KAF				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.4						
KECS	**Kecovo**	**76.56**	**319**	*e*P	**P**	**17 07 04.8**	**0.0**
NIE	**Niedzica**	**76.82**	**320**	*e*P	**P**	**17 07 06.6**	**+0.3**
OJC	**Ojcow**	**77.28**	**321**	*e*P	**P**	**17 07 08.9**	**+0.1**
VYHS	**Vyhne**	**77.64**	**319**	*i* P	**P**	**17 07 10.8**	**0.0**
OKC	**Ostrava-Krasne**	**78.28**	**320**	*e*P	**P**	**17 07 14.5**	**+0.2**
OKC				*e*pP	pP	17 07 25.2	+1.6
SUR	**Sutherland**	**78.42**	**236**	*e*P	**P**	**17 07 16.7**	**+1.3**
MORC	**Moravsky Berou**	**78.66**	**320**	*e*P	**P**	**17 07 16.7**	**+0.3**
	comp=Z,120nm,2.0s,mb5.5						
KEV	**Kevo**	**78.72**	**341**	*e*p	**P**	**17 07 16.1**	**-0.2**
	comp=Z,33nm,0.9s,mb5.3						
KEV	**Kevo**	**78.72**	**341**	*e*P	**P**	**17 07 16.1**	**-0.2**
KEV				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
ZST	**Bratislava**	**78.75**	**318**	*i* P	**P**	**17 07 17.3**	**+0.4**
ARCES	**ARCESS Array B**	**79.14**	**340**	P	**P**	**17 07 18.9**	**+0.2**
	comp=Z,26nm,0.8s,mb5.2,baz=117,slow=5.4,SNR=39						
ARCES				pP	pP	17 07 27.9	0.0
	comp=Z,12nm,0.8s,baz=135,slow=6.9,SNR=6.1						
ARCES				LR	LR	17 47 40.1	
	comp=Z,905nm,19.4s,MS5.1,baz=263,slow=40						
ARE0	**ARCESS Array S**	**79.14**	**340**	*e*P	**P**	**17 07 18.6**	**-0.1**
VRAC	**Vranov**	**79.21**	**319**	P	**P**	**17 07 20.0**	**+0.6**
	comp=Z,4.5nm,0.8s,mb4.5,baz=89,slow=7.5,SNR=6.9						
VRAC				pP	pP	17 07 29.3	+0.5
	comp=Z,4.3nm,1.0s,baz=136,slow=7.2,SNR=3.9						
DPC	**Dobruska-Polom**	**79.51**	**320**	*e*P	**P**	**17 07 21.4**	**+0.4**
DPC				*e*pP	pP	17 07 32.7	+2.4
KSP	**Ksiaz**	**79.58**	**321**	⇓*e*P	**P**	**17 07 21.9**	**+0.5**
BILL	**Bilibino**	**79.64**	**21**	*d* *i*P	**P**	**17 07 20.7**	**-0.7**
BILL				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
BILL	**Bilibino**	**79.64**	**21**	*i* Pr	**P**	**17 07 20.7**	**-0.7**
ARSA	**Arzberg**	**79.71**	**317**	⇓*i*P	**P**	**17 07 22.6**	**+0.5**
	comp=Z,44nm,1.3s,mb5.2						
UPC	**Upice**	**79.72**	**321**	*e*P	**P**	**17 07 22.8**	**+0.6**
UPC				*e*pP	pP	17 07 33.8	+2.3
FX1	**Attu Island--F**	**80.06**	**37**	P	**P**	**17 07 24.2**	**+0.4**
	comp=Z,29nm,0.7s,mb5.3,baz=24,slow=4.5,SNR=5.2						
OBKA	**Obir**	**80.31**	**316**	⇑*i*P	**P**	**17 07 24.0**	**-1.4**
	comp=Z,40nm,1.4s,mb5.2						
MOA	**Molln**	**80.61**	**318**	⇑*i*P	**P**	**17 07 26.9**	**0.0**
	comp=Z,13nm,1.1s,mb4.8						
PRU	**Pruhonice**	**80.61**	**320**	*e*P	**P**	**17 07 27.3**	**+0.4**
PRU				*e*pP	pP	17 07 38.2	+2.0
PVCC	**Panska Ves**	**80.64**	**320**	*e*P	**P**	**17 07 27.7**	**+0.7**
BSD	**Bornholm Skovb**	**80.90**	**325**	⇓*i*P	**P**	**17 07 27.7**	**-0.6**
BSD				*i*	pP	17 07 38.9	+1.3
BSD				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
BSD	**Bornholm Skovb**	**80.90**	**325**	⇓*i*P	**P**	**17 07 27.7**	**-0.6**
	comp=Z,33nm,0.9s,mb5.3						
BSD				*i*	pP	17 07 38.9	+1.3
GERES	**GERESS Array B**	**81.06**	**319**	P	**P**	**17 07 29.8**	**+0.5**
	comp=Z,22nm,0.9s,mb5.1,baz=90,slow=5.3,SNR=70						
GERES				pP	pP	17 07 40.6	+1.9
	comp=Z,5.7nm,0.7s,baz=109,slow=2.6,SNR=7.5						
BRG	**Berggiesshubel**	**81.07**	**321**	*i* P	**P**	**17 07 29.9**	**+0.6**
BRG				*e*	pP	17 07 40.5	+1.9
BRG				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.2						
BRG	**Berggiesshubel**	**81.07**	**321**	*i* P	**P**	**17 07 29.9**	**+0.6**
	comp=Z,35nm,1.1s,mb5.2						
BRG				*e*	pP	17 07 40.5	+1.9
KHC	**Kasperske Hory**	**81.17**	**319**	*e*P	**P**	**17 07 29.8**	**0.0**
KHC				*e*pP	pP	17 07 40.4	+1.2
KBA	**Koelnbreinsper**	**81.18**	**317**	⇓*i*P	**P**	**17 07 29.9**	**0.0**
	comp=Z,20nm,1.2s,mb4.9						
ARV	**Arcevia**	**81.25**	**313**	*e*P	**P**	**17 07 31.1**	**+0.7**
RUE	**Ruedersdorf**	**81.31**	**322**	*e*P	**P**	**17 07 30.9**	**+0.4**
	comp=Z,50nm,1.0s,mb5.4						

CLL	Collm	81.69	321	⇓iP	P	17 07 32.4	-0.1
CLL				e		17 07 39.0	
CLL				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
CLL	Collm	81.69	321	⇓iP	P	17 07 32.4	-0.1
	comp=Z,31nm,1.2s,mb5.1						
CLL				e		17 07 39.0	
CLL	Collm	81.69	321	⇓P	P	17 07 32.4	-0.1
	comp=Z,logA/T=1.4,mb5.1						
CLL				e*PP	pP	17 07 39.0	-2.9
CLL				e*SP	sP	17 07 43.0	-2.0
NKC	Novy Kostel	81.97	320	eP	P	17 07 34.7	+0.7
SFI	Santa Sofia	82.06	314	eP	P	17 07 36.5	+1.9
HFS	Hagfors	82.09	330	P	P	17 07 34.4	0.0
	comp=Z,23nm,1.1s,mb5.0,baz=146,slow=5.3,SNR=12						
VMG	Vicchio	82.28	314	eP	P	17 07 37.8	+2.1
CTI	Castel Tesino	82.29	316	eP	P	17 07 36.6	+0.9
WTTA	Wattenberg	82.35	317	⇓iP	P	17 07 36.0	0.0
	comp=Z,38nm,1.0s,mb5.3						
WATA	Walderalm	82.39	317	⇓iP	P	17 07 35.9	-0.3
	comp=Z,23nm,1.1s,mb5.0						
SEI	Scarperia	82.42	314	eP	P	17 07 37.5	+1.1
MOX	Moxa	82.53	320	eP	P	17 07 37.3	+0.4
MOX	Moxa	82.53	320	i P	P	17 07 37.3	+0.4
SQTA	Sankt Quirin	82.64	317	⇓iP	P	17 07 37.6	+0.1
	comp=Z,11nm,0.7s,mb5.0						
MOTA	Moosalm	82.72	317	⇓iP	P	17 07 37.7	-0.2
	comp=Z,20nm,0.9s,mb5.1						
GRA1	Grafenberg Arr	82.73	319	eP	P	17 07 38.6	+0.6
	comp=Z,45nm,1.1s,mb5.4						
GRF	Grafenberg Arr	82.73	319	eP	P	17 07 38.6	+0.6
GRF				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.4						
GRF	Grafenberg Arr	82.73	319	eP	P	17 07 38.6	+0.6
	comp=Z,45nm,1.1s,mb5.4						
RPZ	Rata Peaks	82.97	135	P	P	17 07 39.8	+0.5
	comp=Z,13nm,0.8s,mb5.0,baz=30,slow=4.5,SNR=4.3						
RPZ				pP	pP	17 07 48.3	-0.4
	comp=Z,21nm,0.8s,baz=79,slow=6.5,SNR=6.1						
BRMO	Bormio	83.19	316	eP	P	17 07 41.2	+0.9
NB2	NORSAR Subarra	83.39	331	P	P	17 07 40.6	-0.5
	comp=Z,21nm,0.9s,mb5.2,baz=98,slow=5.0						
NB2	NORSAR Subarra	83.39	331	P	P	17 07 40.6	-0.5
	baz=98,slow=5.1						
NOA	NORSAR Array B	83.39	331	P	P	17 07 40.8	-0.3
	comp=Z,10nm,0.8s,mb4.9,baz=94,slow=5.4,SNR=23						
NOA				pP	pP	17 07 50.9	+0.4
	comp=Z,4.4nm,0.8s,baz=95,slow=5.4,SNR=6.8						
DAVOX	Davos	83.53	316	P	P	17 07 43.0	+0.8
	comp=Z,28nm,0.8s,mb5.5,baz=122,slow=6.5,SNR=32						
DAVA	Damuels	83.55	317	⇓iP	P	17 07 42.7	+0.5
	comp=Z,39nm,1.1s,mb5.5						
PGF	Pioggiola	84.11	312	eP	P	17 07 44.3	-0.9
	comp=Z,128nm,1.2s,mb5.6						
SBF	Sospel	85.25	314	eP	P	17 07 50.8	0.0
	comp=Z,98nm,1.0s,mb5.6						
CDF	Champ du Feu	85.31	318	eP	P	17 07 50.4	-0.6
	comp=Z,28nm,1.2s,mb5.0						
LPG	La Plagne	85.71	315	eP	P	17 07 53.3	+0.2
	comp=Z,32nm,0.9s,mb5.3						
MBDF	Montbardon	85.71	314	eP	P	17 07 51.6	-1.5
	comp=Z,28nm,1.0s,mb5.1						
HAU	Haudompre	85.94	318	eP	P	17 07 53.6	-0.6
	comp=Z,65nm,1.1s,mb5.5						
URZ	Urewera	86.55	129	P	P	17 07 57.3	-0.2
	comp=Z,21nm,1.1s,mb5.3,baz=22,slow=5.8,SNR=5.3						
BAIF	Baives	87.27	320	eP	P	17 08 00.8	+0.2
	comp=Z,36nm,0.9s,mb5.3						
SSF	Saint Saulge	87.90	317	eP	P	17 08 03.5	-0.2
	comp=Z,21nm,1.1s,mb5.0						
BGF	Bois d'Agland	88.38	316	eP	P	17 08 06.3	+0.3
	comp=Z,45nm,1.1s,mb5.3						
RJF	Les Rejaudoux	89.40	315	eP	P	17 08 10.5	-0.4
FLN	La Foliniere	90.43	319	eP	P	17 08 15.0	-0.6
	comp=Z,123nm,1.2s,mb5.8						
ETSF	Etsaut	91.12	313	eP	P	17 08 18.4	-0.6
	comp=Z,30nm,0.9s,mb5.3						
EKA	Eskdalemuir Ar	91.22	326	P	P	17 08 19.7	+0.6
	comp=Z,9.9nm,0.8s,mb5.2,baz=93,slow=6.1,SNR=14						
DAG	Danmarks Havn	91.44	348	⇑iP	P	17 08 19.8	+0.1
DAG				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.9						
DAG	Danmarks Havn	91.44	348	⇑iP	P	17 08 19.8	+0.1
	comp=Z,4.1nm,0.7s,mb4.9						
ESDC	Sonseca Array	94.08	310	P	P	17 08 33.8	+1.1
	comp=Z,3.4nm,0.8s,mb4.8,baz=59,slow=4.3,SNR=10						
ESDC				pP	pP	17 08 43.9	+1.9
	comp=Z,1.8nm,0.9s,baz=65,slow=4.0,SNR=4.6						
IMA	Indian Mountai	95.15	22	eP	P	17 08 38.2	+1.3
	comp=Z,37nm,1.1s,mb5.7						
ILAR	Eielson Array	98.27	22	P	P	17 08 50.9	-0.2
	comp=Z,0.4nm,0.6s,baz=303,slow=4.2,SNR=6.3						
YKA	Yellowknife Ar	110.19	14	PP	PP	17 14 15.4	-7.7
	comp=Z,1.2nm,1.0s,baz=334,slow=8.0,SNR=5.0						
SCHQ	Schefferville	119.49	348	PKP	PKPdf	17 14 03.1	-4.2
	comp=Z,3.2nm,0.8s,baz=312,slow=3.0,SNR=4.0						
ULM	Lac du Bonnet	125.35	8	PKP	PKPdf	17 14 16.3	-2.5
	comp=Z,5.1nm,0.8s,baz=352,slow=4.9,SNR=9.9						
ULM				pPKP		17 14 25.1	
	comp=Z,4.9nm,0.8s,baz=356,slow=4.1,SNR=8.0						
WUWY	Wally Ulrich	127.59	23	ePKPdf	PKPdf	17 14 20.4	-3.0
NVAR	Mina Array Bea	128.09	33	PKP	PKPdf	17 14 22.7	-1.8
	comp=Z,3.1nm,0.8s,baz=259,slow=3.1,SNR=11						
NVAR				pPKP		17 14 31.1	
	comp=Z,2.6nm,0.8s,baz=286,slow=1.1,SNR=7.3						
PDAR	Pinedale Array	128.71	23	PKP	PKPdf	17 14 22.6	-2.9
	comp=Z,2.5nm,0.9s,slow=1.5,SNR=14						
PDAR				pPKP		17 14 32.8	
	comp=Z,9.7nm,1.3s,slow=3.0,SNR=8.3						
PV10	Paradox Valley	132.63	25	ePKPdf	PKPdf	17 14 30.9	-2.3
BDFB	Brasilia	141.37	250	PKP	PKPdf	17 14 47.2	-2.6
	comp=Z,3.4nm,0.8s,baz=103,slow=6.6,SNR=4.9						
TXAR	Lajitas Array	142.65	27	PKhKP		17 14 44.5	
	comp=Z,1.5nm,0.7s,baz=256,slow=1.1,SNR=8.6						
JCT	Junction City	143.19	21	ePKPpre		17 14 45.8	
TLL	Tololo Astrono	150.40	206	eP	PKPdf	17 15 06.9	+2.5
TLL	Tololo Astrono	150.40	206	⇑iP	PKPdf	17 15 06.8	+2.3
LVC	Limon Verde	155.43	219	PKP	PKPdf	17 15 09.1	-2.6
	comp=Z,2.6nm,1.1s,baz=18,slow=18,SNR=2.4						
LVC				pPKP		17 15 19.5	
	comp=Z,2.5nm,0.8s,baz=130,slow=2.6,SNR=4.1						
LPAZ	La Paz	158.97	233	PKP	PKPdf	17 15 14.4	-2.0
	comp=Z,1.9nm,0.9s,baz=26,slow=2.0,SNR=5.3						
LPAZ	La Paz	158.97	233	eP	PKPdf	17 15 13.9	-2.6
SDV	Santo Domingo	160.53	311	PKP	PKPdf	17 15 15.4	-2.8
	comp=Z,0.9nm,0.4s,baz=331,slow=13,SNR=3.7						
SDV				PKPab	PKPab	17 15 56.6	-0.3
	comp=Z,9.2nm,0.8s,baz=50,slow=3.0,SNR=9.9						
SDV				pPKPab		17 16 06.6	
	comp=Z,3.9nm,0.7s,baz=324,slow=2.2,SNR=5.0						
SDV	Santo Domingo	160.53	311	ePKPdf	PKPdf	17 15 13.9	-4.3
ROSC	El Rosal	165.90	308	PKP	PKPdf	17 15 21.4	-2.1
	comp=Z,4.7nm,0.8s,baz=90,slow=22,SNR=6.1						
ROSC				pPKP		17 15 30.6	
	comp=Z,6.2nm,0.8s,baz=100,slow=20,SNR=5.2						
ROSC				PKPab	PKPab	17 16 19.9	-0.4
	comp=Z,2.7nm,0.5s,baz=274,slow=22,SNR=2.5						

IDC 26 17:01:50.1±10.0**, 5.49N**×**94.53E, h100**^{km}±93^{km}**, mb3.7**/8**, mb1 3.9**/9**, mb1mx3.6**/20**, ML4.2**/1**, Error ellipse: s-maj=74.8km s-min=17.0km az=56.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.59	18	P	P	17 04 59.6	-0.4
	0.4nm,0.3s,baz=214,slow=12,SNR=6.0						
SONM	Songino Array	43.40	12	P	P	17 09 42.5	-1.9
	0.4nm,0.4s,baz=210,slow=4.5,SNR=4.1						
WRA	Warramunga Arr	46.59	124	P	P	17 10 08.5	-1.7
	1.5nm,0.8s,baz=303,slow=9.1,SNR=13						
ASAR	Alice Springs	48.11	129	P	P	17 10 19.9	-2.1
	0.6nm,0.5s,baz=301,slow=8.1,SNR=9.1						
ZAL	Zalesovo	48.95	352	P	P	17 10 26.0	-2.1
	3.0nm,0.3s,baz=316,slow=4.4,SNR=6.9						
BVAR	Borovoye Array	51.36	342	P	P	17 10 44.0	-2.5
	1.5nm,0.6s,baz=139,slow=10,SNR=6.8						
ARCES	ARCESS Array B	77.63	340	P	P	17 13 35.4	-1.3
	2.2nm,0.8s,baz=103,slow=6.8,SNR=5.7						
GERES	GERESS Array B	79.86	319	P	P	17 13 48.0	-1.3
	0.5nm,0.6s,baz=98,slow=5.2,SNR=5.0						
DAVOX	Davos	82.37	316	P	P	17 14 01.4	-1.1
	1.0nm,0.4s,baz=190,slow=5.0,SNR=5.0						
PDAR	Pinedale Array	127.23	22	PKP	PKPdf	17 20 43.8	+0.5
	0.4nm,0.7s,baz=90,slow=4.4,SNR=3.5						

DJA 26 17:02:34.7±0.9**, 9.15S**×**113.50E, h33**^{km}**, ML3.9**/3**, 6C-2D, Error ellipse: s-maj=18.7km s-min=16.1km az=54.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	0.92	44	⇑ePg	P	17 02 50.1	-1.1
	220nm,0.2s						
SRDI				⇑eSg	S	17 02 59.3	-4.0
KELI	Kelakatan	1.35	47	⇑ePn	Pn	17 02 57.5	0.0
	83nm,0.2s						
KELI				⇓eSn	Sn	17 03 11.4	-3.0
RATI	Rata	2.05	78	⇓ePn	Pn	17 03 07.4	-0.2
	93nm,0.2s						
RATI				⇑eSn	Sn	17 03 29.6	-2.6
KEDI	Kedomdong	2.66	76	⇑ePn	Pn	17 03 11.7	-4.6
KEDI				⇑eSn	Sn	17 03 45.5	-2.3

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*BJI **26** 17:07:13.2, 8.48N×93.64E, h25^{km}, mB5.1, mb4.7*

*IDC **26** 17:07:19.9±0.7, 9.09N×93.83E, h23^{km}±3^{km}, mb4.2/17, mb1 4.4/18, mb1mx4.3/24, ML4.3/1, Error ellipse: s-maj=27.5km s-min=15.1km az=47.0*

*NEIC **26** 17:07:20.7±0.4, 9.13N×93.87E, mb4.7/15, Error ellipse: s-maj=10.5km s-min=9.4km az=79.0*

ISC 26 17:07:18.8±0.5**, 9.07N**±0.07×**93.85E**±0.07**, h26**^{km}**, h26**^{km}±.7^{km}**:pP-P, n70,** σ**1**$\overset{s}{.}$**02**/65**, mb4.5**/38**, 1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.55	27	P	P	17 09 57.8	+6.1
	4.8nm,0.5s						
CMAR	Chiang Mai Arr	10.55	27	Pn	P	17 09 51.6	-0.1
	0.7nm,0.3s,baz=212,slow=15,SNR=8.9						
IMP	Imphal	15.62	0	e	P	17 11 04.3	+5.2
HYB	Hyderabad	17.04	301	eP	P	17 11 18.0	+0.9
HYB	Hyderabad	17.04	301	i P	P	17 11 18.0	+0.9
KMI	Kunming	18.07	27	P	P	17 11 33.0	+3.0
KMI				AMB	AMB		
	comp=Z,21nm,1.2s						
PKI	Pulchoki	20.05	338	eP	P	17 11 52.7	-0.3
	comp=Z,82nm,1.1s						
GUN	Gumba	20.19	339	eP	P	17 11 53.9	-0.6
	comp=Z,142nm,1.3s						
DMN	Daman	20.20	337	eP	P	17 11 54.6	0.0
	comp=Z,27nm,0.8s						
KKN	Kakani	20.30	338	eP	P	17 11 55.0	-0.6
	comp=Z,71nm,1.1s						
LSA	Lhasa	20.68	353	eP	P	17 11 58.7	-0.8
	comp=Z,36nm,1.0s						
GKN	Gorkha	20.74	336	eP	P	17 11 59.9	-0.3
	comp=Z,90nm,0.8s						
KOLN	Koldanda	20.96	334	eP	P	17 12 02.5	0.0
	comp=Z,66nm,1.0s						
GYA	Guiyang	21.13	33	⇓iP	P	17 12 04.3	+0.1
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.3						
CD2	Chengdu	23.61	22	P	P	17 12 29.5	+0.8
CD2				AMB	AMB		
	comp=Z,80nm,1.2s,mb5.0						
ENH	Enshi	25.66	33	eP	P	17 12 46.6	-1.8
	comp=Z,25nm,1.2s,mb4.6						
DDI	Dehra Dun	25.78	327	e	P	17 12 50.7	+1.1
DDI	Dehra Dun	25.78	327	e	P	17 12 50.7	+1.1
LZH	Lanzhou	28.39	17	eP	P	17 13 13.5	+0.2
LZH				AMB	AMB		
	comp=Z,33nm,1.5s,mb4.7						
XAN	Xi'an	28.45	27	P	P	17 13 12.0	-1.8
XAN				AMB	AMB		
	comp=Z,28nm,1.3s,mb4.7						
GTA	Gaotai	30.68	9	P	P	17 13 33.5	-0.2
GTA				AP	pP	17 13 42.8	+1.6
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.5						
HHC	Hu-ho-hao-te	35.33	24	eP	P	17 14 15.0	+0.9
HHC				AP	pP	17 14 22.0	+0.3
HHC				XP	sP	17 14 26.5	+1.5
HHC				AMB	AMB		
	comp=Z,19nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,282nm,7.8s						
BJT	Baijiatuau	36.67	29	eP	P	17 14 26.6	+1.1
	comp=Z,20nm,0.9s,mb5.0						
BJI	Beijing	36.70	29	P	P	17 14 26.8	+1.2
BJI				AMB	AMB		
	comp=Z,24nm,0.9s,mb5.0						
KBK	Karagaybulak	37.34	337	P	P	17 14 31.9	+1.0
	SNR=6.2						
AML	Almayashu	37.40	335	P	P	17 14 32.5	+1.0
	SNR=11						
AAK	Ala-Archa	37.50	336	P	P	17 14 33.6	+1.3
	SNR=5.3						
AAK	Ala-Archa	37.50	336	eP	P	17 14 32.0	-0.3
	comp=Z,8.3nm,0.9s,mb4.6						
CHMS	Chumysh	37.70	337	P	P	17 14 34.5	+0.5
	SNR=5.7						
EKS2	Erkin-Say	37.81	336	P	P	17 14 36.2	+1.3
	SNR=6.1						
USP	Ospenovka	38.03	337	P	P	17 14 37.1	+0.3
	SNR=7.2						
SONM	Songino Array	40.06	13	P	P	17 14 53.3	-0.4
	comp=Z,2.9nm,1.0s,mb4.0,baz=198,slow=7.4,SNR=10						
CN2	Changchun	44.18	33	eP	P	17 15 28.5	+1.1
CN2				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.8						
ZAL	Zalesovo	45.33	352	P	P	17 15 36.2	-0.2
	comp=Z,3.4nm,0.7s,mb4.3,baz=299,slow=7.4,SNR=14						
ZAL	Zalesovo	45.33	352	P	P	17 15 36.2	-0.2
HIA	Hailar	45.54	24	eP	P	17 15 38.7	+0.6
	comp=Z,7.7nm,0.8s,mb4.7						
NWAO	Narrogin (SRO)	47.34	153	P	P	17 15 54.2	+1.5
	comp=Z,10.0nm,1.0s,mb4.7						
BVAR	Borovoye Array	47.77	341	P	P	17 15 54.5	-1.2
	comp=Z,1.2nm,0.6s,mb4.1,baz=153,slow=9.9,SNR=5.6						
BRVK	Borovoye	47.83	341	P	P	17 15 49.9	-6.3
	comp=Z,3.5nm,0.8s,mb4.4						
CHKZ	Chkalovo	48.25	342	eP	P	17 15 58.5	-0.9
	comp=Z,5.9nm,0.7s,mb4.7						
WRA	Warramunga Arr	49.19	126	P	P	17 16 05.3	-1.8
	comp=Z,1.5nm,0.6s,mb4.2,baz=306,slow=8.9,SNR=4.7						
WRA				pP	pP	17 16 13.4	-1.6
	comp=Z,3.7nm,0.7s,baz=302,slow=9.1,SNR=4.5						
ASAR	Alice Springs	50.90	131	P	P	17 16 20.1	0.0
	comp=Z,2.6nm,0.8s,mb4.2,baz=301,slow=7.7,SNR=7.0						
YAK	Yakutsk	58.95	19	eP	P	17 17 16.1	-2.2
	comp=Z,11nm,0.8s,mb4.9						
YAK				epP	pP	17 17 24.7	-1.6
BRTR	Keskin Array B	61.44	310	P	P	17 17 33.5	-2.0
	comp=Z,2.3nm,0.9s,mb4.3,baz=121,slow=7.2,SNR=8.8						
AKASG	Malin Array Be	67.04	321	P	P	17 18 09.6	-2.3
	comp=Z,2.0nm,0.8s,mb4.2,baz=88,slow=4.6,SNR=7.3						
AKASG				pP	pP	17 18 17.6	-2.4
	comp=Z,1.1nm,0.7s,baz=89,slow=5.2,SNR=4.2						
MLR	Muntele Rosu	68.12	315	P	P	17 18 18.9	+0.2
	comp=Z,6.1nm,1.0s,mb4.6,baz=114,slow=9.1,SNR=6.0						
MLR	Muntele Rosu	68.12	315	P	P	17 18 18.9	+0.2
FINES	FINESS Array B	71.52	332	P	P	17 18 38.2	-1.1
	comp=Z,4.7nm,0.8s,mb4.5,baz=90,slow=7.6,SNR=9.8						
FINES				pP	pP	17 18 46.1	-1.2
	comp=Z,6.9nm,1.0s,baz=124,slow=6.9,SNR=3.8						
KAF	Kangasniemi	71.60	333	ep	P	17 18 38.6	-1.1
	comp=Z,2.5nm,0.7s,mb4.2						
OJC	Ojcow	72.88	320	eP	P	17 18 47.5	0.0
KEV	Kevo	73.62	341	ep	P	17 18 51.4	0.0
	comp=Z,6.1nm,0.7s,mb4.6						
ARCES	ARCESS Array B	74.05	340	P	P	17 18 54.0	+0.1
	comp=Z,8.6nm,1.1s,mb4.6,baz=97,slow=9.8,SNR=6.5						
LBTB	Lobatse	74.57	241	eP	P	17 18 56.6	-1.3
	comp=Z,5.5nm,1.1s,mb4.4						
BOSA	Boshof	75.98	238	eP	P	17 19 08.3	+2.4
	comp=Z,3.4nm,0.9s,mb4.3						
GERES	GERESS Array B	76.75	318	P	P	17 19 10.0	+0.3
	comp=Z,3.1nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=25						
GERES				pP	pP	17 19 17.7	-0.2
	comp=Z,1.8nm,0.7s,baz=90,slow=5.3,SNR=9.6						
KHC	Kasperske Hory	76.84	318	eP	P	17 19 10.0	-0.2
HFS	Hagfors	77.28	330	P	P	17 19 12.0	-0.5
	comp=Z,3.6nm,0.6s,mb4.5,baz=101,slow=7.6,SNR=9.1						
HFS				pP	pP	17 19 20.0	-0.6
	comp=Z,2.8nm,0.6s,baz=90,slow=4.4,SNR=3.3						
NB2	NORSAR Subarra	78.55	330	P	P	17 19 18.7	-0.7
	comp=Z,4.6nm,0.8s,mb4.5,baz=92,slow=5.8						
NOA	NORSAR Array B	78.55	330	P	P	17 19 19.0	-0.4
	comp=Z,3.3nm,0.8s,mb4.3,baz=91,slow=5.7,SNR=8.5						
NOA				pP	pP	17 19 27.0	-0.6
	comp=Z,3.1nm,0.8s,baz=94,slow=5.4,SNR=7.1						
DAVOX	Davos	79.33	316	P	P	17 19 24.9	+0.9
	comp=Z,2.9nm,0.7s,mb4.3,baz=119,slow=9.8,SNR=5.1						
LPG	La Plagne	81.58	315	⇑iP	P	17 19 36.9	+1.0
	comp=Z,36nm,1.2s,mb4.9						
EKA	Eskdalemuir Ar	86.58	325	P	P	17 20 02.2	+1.2
	comp=Z,4.2nm,0.8s,mb4.7,baz=98,slow=6.2,SNR=6.9						
ILAR	Eielson Array	93.75	22	P	P	17 20 34.0	-0.3
	comp=Z,1.2nm,0.8s,mb4.4,baz=298,slow=4.6,SNR=18						
ILAR				pP	pP	17 20 41.5	-1.1
	comp=Z,0.4nm,0.4s,baz=223,slow=12,SNR=6.7						
INK	Inuvik	95.92	16	P	P	17 20 44.4	+0.1
	comp=Z,1.9nm,0.7s,mb4.7,baz=339,slow=6.0,SNR=6.5						
INK	Inuvik	95.92	16	P	P	17 20 44.4	+0.1
YKA	Yellowknife Ar	105.33	13	Pdiff	Pdif	17 21 27.5	+1.0
	comp=Z,0.2nm,0.7s,baz=336,slow=5.0,SNR=4.1						
NVAR	Mina Array Bea	124.04	30	PKP	PKPdf	17 26 18.4	-1.7
	comp=Z,0.4nm,0.3s,baz=266,slow=2.3,SNR=5.0						
PDAR	Pinedale Array	124.16	21	PKP	PKPdf	17 26 17.5	-2.8
	comp=Z,0.8nm,0.8s,baz=50,slow=2.3,SNR=6.2						
PDAR				pPKP		17 26 24.9	
	comp=Z,0.2nm,0.5s,baz=140,slow=25,SNR=3.1						
TXAR	Lajitas Array	138.25	23	PKP	PKPdf	17 26 45.5	-1.7
	comp=Z,0.5nm,0.9s,baz=108,slow=4.0,SNR=3.4						
TXAR				pPKP		17 26 52.8	
	comp=Z,0.2nm,0.5s,baz=358,slow=2.0,SNR=3.1						
LPAZ	La Paz	161.03	246	PKP	PKPdf	17 27 20.4	-1.7
	comp=Z,1.5nm,1.0s,baz=44,slow=0.9,SNR=4.9						
LPAZ				PKPab	PKPab	17 28 03.4	+0.5
	comp=Z,0.7nm,0.5s,baz=67,slow=4.8,SNR=4.7						

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*IDC **26** 17:07:24.0±0.6, 4.12N×93.82E, h19^{km}±3^{km}, mb4.5/15, mb1 4.6/16, mb1mx4.4/23, Error ellipse: s-maj=28.0km s-min=13.2km az=53.0*

*NEIC **26** 17:07:24.4±0.4, 4.07N×93.79E, mb4.6/6, Error ellipse: s-maj=12.9km s-min=8.5km az=54.0*

*BJI **26** 17:07:25.1, 4.66N×93.84E, h9^{km}, mb5.1*

ISC 26 17:07:22.5±0.6**, 4.08N**±0.09×**93.81E**±0.10**, h23**^{km}**, h23**^{km}±1.5^{km}**:pP-P, n30,** σ**0**$\overset{s}{.}$**57**/27**, mb4.6**/23**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.14	19	Pn	P	17 10 57.0	0.0
	baz=220,slow=12,SNR=4.1						
CMAR				pP		17 11 01.9	
	0.9nm,0.3s,baz=219,slow=12,SNR=8.4						
WHN	Wuhan	32.69	34	eP	P	17 13 55.5	0.0
GTA	Gaotai	35.59	8	P	P	17 14 20.5	+0.1
GTA				AP	pP	17 14 26.8	-0.3
GTA				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.2						
BJT	Baijiatuau	41.08	26	eP	P	17 15 07.4	+1.2
	comp=Z,5.4nm,0.6s,mb4.3						
BJI	Beijing	41.10	26	P	P	17 15 07.3	+0.9
BJI				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.7						
SONM	Songino Array	44.91	12	P	P	17 15 37.3	-0.1
	comp=Z,18nm,0.8s,mb4.9,baz=193,slow=8.2,SNR=38						
SONM				sP	sP	17 15 45.5	-1.5
	comp=Z,7.9nm,0.7s,baz=193,slow=8.4,SNR=8.5						
ULN	Ulaanbaatar	45.08	13	eP	P	17 15 38.7	0.0
	comp=Z,11nm,0.8s,mb4.7						
ULN				epP	pP	17 15 47.2	+1.7
WRA	Warramunga Arr	46.42	122	P	P	17 15 49.6	0.0
	comp=Z,5.5nm,0.5s,mb4.7,baz=300,slow=9.1,SNR=19						
WRA				pP	pP	17 15 55.7	-0.8
	comp=Z,6.2nm,0.7s,baz=300,slow=9.0,SNR=16						
WRA				sP	sP	17 15 58.1	-1.2
	comp=Z,6.6nm,0.8s,baz=299,slow=9.0,SNR=14						
WRAB	Tennant Creek	46.43	122	eP	P	17 15 49.3	-0.4
	comp=Z,16nm,1.1s,mb4.9						
ASAR	Alice Springs	47.82	127	P	P	17 16 00.6	-0.1
	comp=Z,2.6nm,0.7s,mb4.4,baz=303,slow=7.4,SNR=12						
ASAR				pP	pP	17 16 06.7	-0.8
	comp=Z,2.6nm,0.7s,baz=298,slow=8.1,SNR=9.9						
ASAR				sP	sP	17 16 09.1	-1.2
	comp=Z,2.9nm,0.8s,baz=302,slow=7.4,SNR=8.3						
ASAR				PcP	PcP	17 17 29.8	0.0
	comp=Z,1.2nm,0.8s,baz=296,slow=3.4,SNR=4.5						
HIA	Hailar	50.13	22	eP	P	17 16 17.6	-0.5
	comp=Z,4.8nm,0.6s,mb4.7						
ZAL	Zalesovo	50.24	353	P	P	17 16 18.7	-0.2
	comp=Z,14nm,0.5s,mb5.3,baz=299,slow=5.6,SNR=32						
ZAL				pP	pP	17 16 25.8	-0.1
	comp=Z,3.1nm,0.4s,baz=286,slow=11,SNR=3.3						
ZAL	Zalesovo	50.24	353	P	P	17 16 18.7	-0.2
ZAL				pP	pP	17 16 25.8	-0.1
BVAR	Borovoye Array	52.47	342	P	P	17 16 34.8	-1.0
	comp=Z,4.8nm,0.7s,mb4.5,baz=143,slow=7.4,SNR=9.7						
BRVK	Borovoye	52.53	342	P	P	17 16 35.8	-0.4
	comp=Z,3.5nm,0.8s,mb4.3						
CHKZ	Chkalovo	52.97	343	eP	P	17 16 39.2	-0.3
	comp=Z,5.7nm,0.6s,mb4.7						
KMBO	Kilima Mbogo	56.76	266	P	P	17 17 08.3	+0.7
	comp=Z,0.4nm,0.3s,mb4.0,baz=56,slow=19,SNR=3.7						
ARU	Arti	59.25	338	eP	P	17 17 19.8	-4.7
BRTR	Keskin Array B	64.68	312	P	P	17 18 00.3	-0.9
	comp=Z,3.7nm,0.7s,mb4.5,baz=126,slow=7.0,SNR=9.6						
IDI	Anoyia	70.48	306	P	P	17 18 38.2	+0.6
	comp=Z,12nm,0.6s,mb5.0,baz=105,slow=6.6,SNR=10						
MLR	Muntele Rosu	71.66	317	P	P	17 18 44.3	-0.2
	comp=Z,6.9nm,0.8s,mb4.6,baz=175,slow=2.4,SNR=7.4						
FINES	FINESS Array B	75.90	333	P	P	17 19 08.3	-0.6
	comp=Z,3.0nm,0.7s,mb4.3,baz=92,slow=7.6,SNR=6.6						
ARCES	ARCESS Array B	78.70	341	P	P	17 19 24.7	+0.4
	comp=Z,5.2nm,0.9s,mb4.5,baz=95,slow=5.9,SNR=5.7						
GERES	GERESS Array B	80.43	319	P	P	17 19 34.6	+0.6
	comp=Z,1.2nm,0.6s,mb4.0,baz=108,slow=5.4,SNR=6.3						
HFS	Hagfors	81.55	330	P	P	17 19 39.5	-0.2
	comp=Z,1.6nm,0.6s,mb4.1,baz=101,slow=7.6,SNR=4.3						
NOA	NORSAR Array B	82.86	331	P	P	17 19 45.9	-0.6
	comp=Z,2.5nm,0.9s,mb4.2,baz=91,slow=5.9,SNR=2.7						
DAVOX	Davos	82.89	316	P	P	17 19 48.1	+1.2
	comp=Z,7.3nm,0.6s,mb4.9,baz=98,slow=3.1,SNR=15						
ULM	Lac du Bonnet	125.24	8	PKP	PKPdf	17 26 23.4	-2.7
	comp=Z,1.8nm,0.6s,baz=309,slow=13,SNR=3.8						
NVAR	Mina Array Bea	128.30	32	PKP	PKPdf	17 26 31.8	-0.6
	comp=Z,1.6nm,0.8s,baz=286,slow=3.0,SNR=5.6						
PDAR	Pinedale Array	128.79	22	PKP	PKPdf	17 26 31.1	-2.1
	comp=Z,1.0nm,0.8s,baz=45,slow=2.1,SNR=7.3						
PDAR				sPKP		17 26 39.4	
	comp=Z,0.7nm,0.7s,baz=63,slow=3.3,SNR=4.1						

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*MOS **26** 17:08:05.3±1.2, 49.02N×156.50E, h33^{km}, mb4.1/4, Error ellipse: s-maj=37.5km s-min=15.9km az=70.9*

*IDC **26** 17:08:07.7±2.5, 48.92N×156.50E, h37^{km}±8^{km}, mb3.4/5, mb1 3.9/7, mb1mx3.6/25, ML4.0/2, Error ellipse: s-maj=69.5km s-min=21.4km az=166.0*

ISC 26 17:08:05.9±0.9**, 49.04N**±0.08×**156.5E**±0.2**, h39**^{km}**, h39**^{km}±3.6^{km}**:pP-P, n14,** σ**1**$\overset{s}{.}$**16**/15**, mb3.7**/5**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	1.66	352	ePN	P	17 08 30.7	-2.4
SKR				i S	S	17 08 53.5	+0.1
SKR				pmax	pmax		
	comp=N,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=N,480nm,0.5s						
SKR				smax			
	comp=E,420nm,0.5s						
SKR				smax			
	comp=Z,170nm,0.5s						
PET	Petropavlovsk	4.23	18	ePN	P	17 09 10.4	+0.9
PET				pmax	pmax		
	comp=Z,36nm,0.6s						
ASAJ	Asahikawa	10.73	248	Pn	P	17 10 39.5	-0.5
	comp=Z,3.0nm,0.3s,baz=74,slow=13,SNR=18						
ASAJ	Asahikawa	10.73	248	PN	P	17 10 39.5	-0.5
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
FX1	Attu Island--F	11.21	64	Pn	P	17 10 44.1	-2.4
	comp=Z,1.4nm,0.3s,baz=299,slow=22,SNR=12						
FX1	Attu Island--F	11.21	64	PN	P	17 10 44.1	-2.4
FX1				pmax	pmax		
	comp=Z,1.0nm,0.3s						
ILAR	Eielson Array	33.35	41	P	P	17 14 41.8	-0.2
	comp=Z,0.4nm,0.9s,mb3.4,baz=248,slow=7.9,SNR=5.5						
ILAR				pP	pP	17 14 54.0	+1.2
	comp=Z,0.4nm,0.8s,baz=247,slow=8.5,SNR=2.7						

INK	Inuvik	38.51	34	P	P	17 15 26.9	+1.3
	comp=Z,1.1nm,0.6s,mb3.8,baz=282,slow=6.1,SNR=3.6						
INK	Inuvik	38.51	34	P	P	17 15 26.9	+1.3
INK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	47.74	39	P	P	17 16 40.9	+0.6
	comp=Z,0.5nm,0.7s,mb3.7,baz=295,slow=7.3,SNR=4.9						
YKA				pP	pP	17 16 52.0	+0.6
	comp=Z,0.2nm,0.6s,baz=296,slow=7.1,SNR=3.9						
YKA	Yellowknife Ar	47.74	39	P	P	17 16 40.9	+0.6
YKA				*PP	pP	17 16 52.0	+0.6
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
PDAR	Pinedale Array	61.59	57	P	P	17 18 21.6	+0.2
	comp=Z,0.9nm,1.1s,mb3.8,baz=307,slow=4.5,SNR=2.9						
EKA	Eskdalemuir Ar	74.61	348	P	P	17 19 43.2	+1.2
	comp=Z,0.7nm,0.7s,mb3.7,baz=11,slow=3.6,SNR=2.6						
EKA				pP	pP	17 19 53.6	-0.1
	comp=Z,1.0nm,0.5s,baz=8.1,slow=5.0,SNR=2.5						
EKA	Eskdalemuir Ar	74.61	348	P	P	17 19 43.2	+1.2
EKA				*PP	pP	17 19 53.6	-0.1
EKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA				pmax	pmax		
	comp=Z,1.0nm,0.5s						

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*IDC **26** 17:12:56.0±1.0, 3.39N×94.31E, mb4.2/11, mb1 4.3/12, mb1mx4.2/21, ML4.5/1, Error ellipse: s-maj=36.9km s-min=18.1km az=49.0*

*NEIC **26** 17:13:00.3±0.5, 3.38N×94.33E, h30^{km}, mb4.6/8, Error ellipse: s-maj=13.5km s-min=10.1km az=81.0*

*BJI **26** 17:13:00.3, 3.40N×94.30E, h30^{km}, mb4.6*

ISC 26 17:12:58.9±4.5**, 3.4N**±0.1×**94.3E**±0.1**, h33**^{km}±39^{km}**, n24, σ0^{s}96**/24**, mb4.4**/20**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.65	16	*e*P	P	17 16 38.6	-0.1
	22nm,0.8s						
CMAR	Chiang Mai Arr	15.65	16	Pn	P	17 16 38.8	0.0
	0.6nm,0.3s,baz=208,slow=13,SNR=11						
IMP	Imphal	21.28	359	*e*	P	17 17 43.7	-1.1
KMI	Kunming	23.09	20	P	P	17 18 05.3	+2.5
KMI				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.3						
LSA	Lhasa	26.34	354	*e*P	P	17 18 35.6	+1.6
	comp=Z,34nm,0.8s,mb4.9						
GTA	Gaotai	36.21	7	P	P	17 20 01.0	+0.4
GTA				AP	pP	17 20 07.0	-3.3
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
JOW	Kunigami	39.99	51	P	P	17 20 32.3	0.0
	comp=Z,9.6nm,1.0s,mb4.5,baz=89,slow=24,SNR=2.1						
SONM	Songino Array	45.49	11	P	P	17 21 16.8	-0.1
	comp=Z,2.4nm,0.8s,mb4.1,baz=193,slow=8.1,SNR=7.1						
WRA	Warramunga Arr	45.63	122	P	P	17 21 18.3	-0.1
	comp=Z,2.8nm,0.7s,mb4.3,baz=300,slow=8.9,SNR=8.2						
ASAR	Alice Springs	47.00	127	P	P	17 21 29.1	0.0
	comp=Z,1.6nm,0.8s,mb4.0,baz=296,slow=8.0,SNR=4.9						
HIA	Hailar	50.59	21	*e*P	P	17 21 56.2	-0.3
	comp=Z,7.3nm,0.8s,mb4.7						
ZAL	Zalesovo	50.99	353	P	P	17 21 59.5	0.0
	comp=Z,1.7nm,0.7s,mb4.1,baz=288,slow=6.0,SNR=6.2						
BVAR	Borovoye Array	53.28	342	P	P	17 22 16.8	+0.1
	comp=Z,2.2nm,0.8s,mb4.2,baz=146,slow=5.3,SNR=5.8						
BRVK	Borovoye	53.34	342	*e*P	P	17 22 15.7	-1.5
	comp=Z,2.8nm,0.8s,mb4.2						
CHKZ	Chkalovo	53.78	343	*e*P	P	17 22 20.4	0.0
	comp=Z,6.8nm,0.9s,mb4.6						
STKA	Stephens Creek	56.95	132	P	P	17 22 44.3	+0.7
	comp=Z,1.2nm,0.7s,mb4.0,baz=248,slow=16,SNR=2.0						
ARU	Arti	60.08	338	*e*P	P	17 23 04.7	-0.4
	comp=Z,7.2nm,1.0s,mb4.7						
YAK	Yakutsk	64.18	18	*e*P	P	17 23 29.7	-2.7
	comp=Z,8.0nm,0.7s,mb4.9						
BRTR	Keskin Array B	65.52	312	P	P	17 23 42.0	+0.6
	comp=Z,2.5nm,1.1s,mb4.2,baz=112,slow=6.7,SNR=5.1						
LBTB	Lobatse	72.30	243	*e*P	P	17 24 24.2	+0.8
	comp=Z,2.9nm,1.0s,mb4.2						
SUR	Sutherland	77.96	236	P	P	17 24 54.5	-1.3
ARCES	ARCESS Array B	79.53	341	P	P	17 25 04.4	+0.7
	comp=Z,3.3nm,1.0s,mb4.2,baz=90,slow=6.1,SNR=4.7						
GERES	GERESS Array B	81.28	319	P	P	17 25 13.0	-0.4
	comp=Z,2.2nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=12						
DAVOX	Davos	83.74	317	P	P	17 25 27.8	+1.8
	comp=Z,3.7nm,1.0s,mb4.5,baz=104,slow=15,SNR=5.6						

IDC 26 17:15:33.4±1.4**, 4.67N×95.47E, mb4.0**/8**, mb1 4.1**/8**, mb1mx3.9**/19**, Error ellipse: s-maj=76.7km s-min=22.5km az=51.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	44.02	11	P	P	17 23 42.1	-2.3
	0.4nm,0.3s,baz=202,slow=8.7,SNR=3.6						
WRA	Warramunga Arr	45.36	124	P	P	17 23 54.7	-1.0
	2.1nm,0.6s,baz=302,slow=9.3,SNR=4.0						
ASAR	Alice Springs	46.88	129	P	P	17 24 05.0	-2.6
	1.4nm,0.6s,baz=297,slow=7.9,SNR=5.0						
BVAR	Borovoye Array	52.43	341	P	P	17 24 48.2	-1.6
	1.4nm,0.4s,baz=142,slow=9.8,SNR=4.3						
FINES	FINESS Array B	76.14	332	P	P	17 27 22.9	-1.8
	2.1nm,1.0s,baz=112,slow=4.8,SNR=5.7						
ARCES	ARCESS Array B	78.71	340	P	P	17 27 37.9	-1.0
	3.9nm,1.1s,baz=85,slow=3.8,SNR=6.4						
GERES	GERESS Array B	81.08	319	P	P	17 27 50.3	-1.7
	0.3nm,0.6s,baz=135,slow=4.2,SNR=3.0						
HFS	Hagfors	81.87	330	P	P	17 27 54.3	-1.5
	1.6nm,0.9s,baz=108,slow=9.4,SNR=3.6						

IDC 26 17:16:40.4±1.2**, 13.18N×92.21E, mb4.0**/8**, mb1 4.2**/9**, mb1mx4.0**/19**, ML4.1**/1**, Error ellipse: s-maj=50.1km s-min=24.9km az=37.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.34	50	Pn	P	17 18 42.0	-3.4
	0.7nm,0.3s,baz=224,slow=15,SNR=6.6						
WRA	Warramunga Arr	52.93	128	P	P	17 25 58.7	-2.3
	0.6nm,0.5s,baz=304,slow=10,SNR=2.5						
WRA				pP	pP	17 26 07.0	+6.0
	0.6nm,0.5s,baz=306,slow=8.1,SNR=4.2						
BRTR	Keskin Array B	57.59	309	P	P	17 26 32.3	-2.3
	0.8nm,0.7s,baz=127,slow=7.2,SNR=4.0						
AKASG	Malin Array Be	62.86	320	P	P	17 27 07.4	-3.0
	0.6nm,0.4s,baz=86,slow=5.0,SNR=4.8						
FINES	FINESS Array B	67.17	332	P	P	17 27 36.0	-2.1
	3.7nm,1.0s,baz=102,slow=6.1,SNR=7.8						
ARCES	ARCESS Array B	69.66	340	P	P	17 27 51.2	-2.2
	1.9nm,0.8s,baz=99,slow=6.8,SNR=5.0						
GERES	GERESS Array B	72.65	317	P	P	17 28 09.2	-2.6
	0.9nm,0.6s,baz=104,slow=5.5,SNR=4.8						
HFS	Hagfors	72.95	329	P	P	17 28 12.3	-1.0
	1.5nm,0.7s,baz=124,slow=5.3,SNR=5.0						
NOA	NORSAR Array B	74.21	330	P	P	17 28 20.2	-0.4
	1.0nm,0.8s,baz=56,slow=20,SNR=3.1						

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*IDC **26** 17:21:28.0±1.0, 3.72N×93.52E, mb4.1/9, mb1 4.3/10, mb1mx4.0/20, ML4.3/1, Error ellipse: s-maj=44.0km s-min=21.0km az=46.0*

*NEIC **26** 17:21:32.4±0.7, 3.60N×93.45E, h30^{km}, mb4.3/3, Error ellipse: s-maj=20.4km s-min=13.2km az=64.0*

ISC 26 17:21:30.9±0.8**, 3.7N**±0.1×**93.6E**±0.2**, h30**^{km}**, n14, σ0^{s}64**/14**, mb4.1**/11**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.57	19	*e*P	P	17 25 14.3	+4.2
	9.3nm,0.8s						
CMAR	Chiang Mai Arr	15.57	19	Pn	P	17 25 09.8	-0.4
	0.4nm,0.3s,baz=292,slow=25,SNR=4.2						
LSA	Lhasa	25.95	355	*e*P	P	17 27 04.0	+1.3
	10nm,0.6s,mb4.5						
LSA				*e*pP	pP	17 27 11.4	0.0
SONM	Songino Array	45.32	12	P	P	17 29 47.7	-0.4
	1.3nm,0.8s,mb3.8,baz=197,slow=5.7,SNR=5.7						
WRA	Warramunga Arr	46.43	122	P	P	17 29 57.2	0.0
	2.8nm,0.8s,mb4.2,baz=300,slow=9.0,SNR=7.6						
WRAB	Tennant Creek	46.44	122	*e*P	P	17 29 57.3	+0.1
	2.8nm,0.8s,mb4.2						
ASAR	Alice Springs	47.79	127	P	P	17 30 07.8	0.0
	0.9nm,0.8s,mb3.9,baz=311,slow=6.9,SNR=4.1						
ZAL	Zalesovo	50.58	353	P	P	17 30 28.3	-0.6
	1.6nm,0.7s,mb4.1,baz=285,slow=4.1,SNR=6.0						
ZAL	Zalesovo	50.58	353	P	P	17 30 28.3	-0.6
BRTR	Keskin Array B	64.75	312	P	P	17 32 08.1	-1.0
	1.5nm,1.1s,mb3.9,baz=153,slow=5.5,SNR=4.3						
MLR	Muntele Rosu	71.77	317	P	P	17 32 53.3	+0.8
	4.9nm,1.1s,mb4.3						
FINES	FINESS Array B	76.12	333	P	P	17 33 17.0	-0.4
	1.0nm,0.7s,mb3.9,baz=151,slow=20,SNR=2.8						
GERES	GERESS Array B	80.55	319	P	P	17 33 42.0	0.0
	0.7nm,0.7s,mb3.7,baz=108,slow=4.2,SNR=6.0						
DAVOX	Davos	82.99	317	P	P	17 33 55.1	+0.4
	2.9nm,0.7s,mb4.4,baz=129,slow=11,SNR=7.3						

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*IDC **26** 17:24:47.6±0.9, 4.82N×93.38E, mb4.3/11, mb1 4.4/12, mb1mx4.2/21, ML4.1/1, Error ellipse: s-maj=38.9km s-min=19.0km az=48.0*

*BJI **26** 17:24:49.8, 4.88N×93.71E, h20^{km}, mb4.4*

*NEIC **26** 17:24:52.4±0.6, 4.85N×93.49E, h30^{km}, mb4.6/6, Error ellipse: s-maj=17.9km s-min=11.4km az=57.0*

ISC 26 17:24:50.9±0.7**, 4.8N**±0.1×**93.6E**±0.1**, h30**^{km}**, n24, σ1^{s}16**/24**, mb4.4**/17**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.51	21	Pn	P	17 28 16.8	+0.5
	0.3nm,0.3s,baz=213,slow=13,SNR=4.6						
LSA	Lhasa	24.83	355	*e*P	P	17 30 14.7	+2.5
	19nm,0.8s,mb4.7						
ENH	Enshi	29.41	29	*e*P	P	17 30 51.9	-2.2
	3.8nm,0.6s,mb4.3						
GTA	Gaotai	34.87	8	P	P	17 31 41.5	-0.2
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.4						
UCH	Uchtor	40.92	338	P	P	17 32 33.6	+1.4
	SNR=6.9						
KBK	Karagaybulak	41.13	339	P	P	17 32 36.0	+2.0
	SNR=8.0						
AML	Almayashu	41.14	337	P	P	17 32 35.8	+1.7
	SNR=9.9						
EKS2	Erkin-Say	41.57	338	P	P	17 32 39.3	+1.7
	SNR=5.4						
USP	Ospenovka	41.83	339	P	P	17 32 40.5	+0.7
	SNR=5.9						
SONM	Songino Array	44.22	12	P	P	17 32 58.5	-0.7
	comp=Z,3.5nm,0.9s,mb4.1,baz=195,slow=7.9,SNR=13						
SONM				PcP	PcP	17 34 41.7	-2.3
	comp=Z,0.6nm,0.5s,baz=180,slow=2.9,SNR=4.1						
WRA	Warramunga Arr	47.02	123	P	P	17 33 22.3	+0.4
	comp=Z,2.9nm,0.5s,mb4.5,baz=299,slow=9.1,SNR=19						
WRAB	Tennant Creek	47.03	123	P	P	17 33 22.1	+0.2
	comp=Z,3.8nm,0.6s,mb4.5						
ASAR	Alice Springs	48.46	128	P	P	17 33 34.2	+1.2
	comp=Z,1.5nm,0.8s,mb4.0,baz=310,slow=7.6,SNR=5.3						
ZAL	Zalesovo	49.47	353	P	P	17 33 40.4	0.0
	comp=Z,6.2nm,0.4s,mb5.0,baz=314,slow=5.5,SNR=22						
HIA	Hailar	49.52	22	*e*P	P	17 33 39.4	-1.4
	comp=Z,4.2nm,0.9s,mb4.5						
BVAR	Borovoye Array	51.68	342	P	P	17 33 56.5	-0.7
	comp=Z,4.2nm,0.6s,mb4.5,baz=141,slow=9.5,SNR=17						
BRVK	Borovoye	51.74	342	*e*P	P	17 33 57.2	-0.5
	comp=Z,5.7nm,0.7s,mb4.6						
CHKZ	Chkalovo	52.18	343	*e*P	P	17 34 00.5	-0.5
	comp=Z,9.3nm,0.6s,mb4.9						
BRTR	Keskin Array B	64.01	312	P	P	17 35 22.4	-1.7
	comp=Z,1.0nm,0.4s,mb4.2,baz=146,slow=6.8,SNR=7.3						
MLR	Muntele Rosu	70.96	317	P	P	17 36 07.3	-0.4
	comp=Z,1.6nm,0.7s,mb4.1,baz=101,slow=18,SNR=2.9						
FINES	FINESS Array B	75.12	333	P	P	17 36 30.4	-1.3
	comp=Z,2.1nm,0.7s,mb4.2,baz=112,slow=10,SNR=6.1						
ARCES	ARCESS Array B	77.92	341	P	P	17 36 46.3	-0.9
	comp=Z,1.5nm,0.7s,mb4.0,baz=76,slow=5.0,SNR=8.2						
GERES	GERESS Array B	79.71	319	P	P	17 36 56.4	-1.1
	comp=Z,0.1nm,0.3s,baz=104,slow=5.5,SNR=8.0						
DAVOX	Davos	82.18	316	P	P	17 37 10.4	-0.1
	comp=Z,2.4nm,0.5s,mb4.4,baz=206,slow=4.8,SNR=9.7						

IDC 26 17:25:43.9±1.2**, 4.60N×94.93E, mb4.0**/9**, mb1 4.2**/9**, mb1mx4.0**/19**, Error ellipse: s-maj=102.0km s-min=20.8km az=44.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	45.77	124	P	P	17 34 07.4	-2.0
	1.3nm,0.4s,baz=300,slow=9.7,SNR=5.7						
ASAR	Alice Springs	47.25	128	P	P	17 34 19.2	-1.8
	0.6nm,0.5s,baz=299,slow=7.9,SNR=4.2						
BVAR	Borovoye Array	52.32	342	P	P	17 34 57.9	-1.6
	1.9nm,0.7s,baz=141,slow=9.5,SNR=4.2						
BRTR	Keskin Array B	65.17	312	P	P	17 36 26.2	-3.0
	0.6nm,0.5s,baz=134,slow=7.0,SNR=3.7						
AKASG	Malin Array Be	71.20	322	P	P	17 37 04.1	-2.6
	1.6nm,0.5s,baz=86,slow=5.0,SNR=7.4						
MLR	Muntele Rosu	72.06	316	P	P	17 37 11.3	-0.6
	1.7nm,0.7s						
FINES	FINESS Array B	75.96	332	P	P	17 37 31.8	-2.4
	2.0nm,0.8s,baz=110,slow=7.9,SNR=9.6						
ARCES	ARCESS Array B	78.59	340	P	P	17 37 47.1	-1.6
	2.3nm,0.8s,baz=98,slow=7.1,SNR=7.7						
GERES	GERESS Array B	80.78	319	P	P	17 38 00.5	-0.4
	0.4nm,0.3s,baz=114,slow=5.7,SNR=6.8						

IDC 26 17:26:44.8±10.0**, 3.14N×95.19E, mb3.9**/5**, mb1 4.1**/6**, mb1mx3.8**/18**, ML4.3**/1**, Error ellipse: s-maj=293.0km s-min=61.5km az=133.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.66	13	Pn	P	17 30 29.3	+0.6
	0.4nm,0.3s,baz=210,slow=11,SNR=3.5						
SONM	Songino Array	45.57	11	P	P	17 35 06.4	-1.9
	0.4nm,0.4s,baz=188,slow=9.6,SNR=3.0						
ZAL	Zalesovo	51.35	352	P	P	17 35 49.9	-3.2
	0.9nm,0.5s,baz=346,slow=4.9,SNR=3.4						
FINES	FINESS Array B	77.37	333	P	P	17 38 41.3	-1.7
	1.0nm,0.5s,baz=100,slow=6.2,SNR=7.3						
ARCES	ARCESS Array B	80.05	340	P	P	17 38 56.2	-1.3
	2.0nm,0.9s,baz=90,slow=4.5,SNR=2.9						
GERES	GERESS Array B	82.05	319	P	P	17 39 07.9	-0.5
	0.2nm,0.3s,baz=104,slow=5.5,SNR=4.1						

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*IDC **26** 17:30:19.6±0.5, 8.60N×93.72E, mb4.3/18, mb1 4.5/19, mb1mx4.4/23, ML4.9/1, Error ellipse: s-maj=32.6km s-min=13.0km az=53.0*

*NEIC **26** 17:30:24.5±0.5, 8.52N×93.73E, h30^{km}, mb4.6/10, Error ellipse: s-maj=14.4km s-min=11.1km az=68.0*

*BJI **26** 17:30:24.5, 8.50N×93.70E, h30^{km}, mb4.3*

ISC 26 17:30:22.6±0.4**, 8.53N**±0.06×**93.70E**±0.08**, h30**^{km}**, n51, σ1^{s}27**/48**, mb4.5**/31**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.11	27	*e*P	P	17 33 03.9	+1.3
	7.4nm,0.3s						
CMAR	Chiang Mai Arr	11.11	27	Pn	P	17 33 04.1	+1.4
	2.5nm,0.3s,baz=212,slow=15,SNR=28						
IMP	Imphal	16.17	1	*e*	P	17 34 11.3	+1.8
HYB	Hyderabad	17.19	302	*e*P	P	17 34 25.0	+2.6
HYB	Hyderabad	17.19	302	*i* P	P	17 34 25.0	+2.6
PKI	Pulchoki	20.50	339	*e*P	P	17 35 00.0	-1.0
DMN	Daman	20.65	338	*e*P	P	17 35 00.9	-1.6
	26nm,0.7s						
GUN	Gumba	20.65	340	*e*P	P	17 35 02.2	-0.3
	34nm,0.6s						
KKN	Kakani	20.75	339	*e*P	P	17 35 02.8	-0.7
	20nm,0.5s						
GKN	Gorkha	21.18	337	*e*P	P	17 35 07.7	-0.2
	44nm,0.5s,mb5.0						
LSA	Lhasa	21.20	354	*e*P	P	17 35 07.1	-1.0
	12nm,0.4s,mb4.6						
KOLN	Koldanda	21.39	335	*e*P	P	17 35 09.9	-0.1
	38nm,0.7s,mb4.9						
GYA	Guiyang	21.67	33	⇑*i*P	P	17 35 15.5	+2.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.2						
GTA	Gaotai	31.23	9	P	P	17 36 41.8	0.0
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.4						
SONM	Songino Array	40.63	13	P	P	17 38 01.4	-0.1
	comp=Z,0.7nm,0.4s,mb3.7,baz=192,slow=9.2,SNR=5.8						
SONM				PcP	PcP	17 40 04.3	+0.6
	comp=Z,0.7nm,0.4s,baz=206,slow=2.9,SNR=6.2						
ZAL	Zalesovo	45.85	353	P	P	17 38 43.2	-0.5
	comp=Z,4.0nm,0.4s,mb4.7,baz=305,slow=5.5,SNR=18						
ZAL	Zalesovo	45.85	353	P	P	17 38 43.2	-0.5
NWAO	Narrogin (SRO)	46.92	153	P	P	17 38 53.5	+1.0
	comp=Z,13nm,0.8s,mb5.0,baz=322,slow=7.7,SNR=8.6						
BVAR	Borovoye Array	48.23	341	P	P	17 39 01.4	-1.1
	comp=Z,1.0nm,0.3s,mb4.3,baz=139,slow=8.5,SNR=15						
CHKZ	Chkalovo	48.72	342	*e*P	P	17 39 05.1	-1.2
	comp=Z,5.8nm,0.4s,mb5.0						
WRA	Warramunga Arr	48.99	126	P	P	17 39 07.2	-1.6
	comp=Z,2.7nm,0.6s,mb4.5,baz=306,slow=8.5,SNR=25						
WRA				PcP	PcP	17 40 32.5	-0.4
	comp=Z,0.7nm,0.5s,baz=314,slow=3.0,SNR=5.9						
WRAB	Tennant Creek	49.00	126	*e*P	P	17 39 06.7	-2.1
	comp=Z,4.3nm,0.5s,mb4.7						
ASAR	Alice Springs	50.67	130	P	P	17 39 19.9	-1.7
	comp=Z,1.8nm,0.6s,mb4.2,baz=303,slow=6.9,SNR=21						
ASAR				PcP	PcP	17 40 39.0	0.0
	comp=Z,1.7nm,0.6s,baz=304,slow=3.6,SNR=10						
STKA	Stephens Creek	60.87	134	P	P	17 40 35.2	+0.2
	comp=Z,1.0nm,0.5s,mb4.2,baz=228,slow=9.7,SNR=3.9						
STKA	Stephens Creek	60.87	134	P	P	17 40 35.2	+0.2
AKASG	Malin Array Be	67.38	322	P	P	17 41 15.0	-2.2
	comp=Z,1.2nm,0.5s,mb4.2,baz=87,slow=4.7,SNR=9.5						
IDI	Anoyia	67.84	305	P	P	17 41 19.4	-1.0
	comp=Z,6.4nm,0.8s,mb4.7,baz=316,slow=23,SNR=3.9						
MLR	Muntele Rosu	68.40	316	P	P	17 41 23.9	+0.2
	comp=Z,3.2nm,0.5s,mb4.6,baz=186,slow=15,SNR=5.0						
FINES	FINESS Array B	71.93	332	P	P	17 41 43.9	-1.0
	comp=Z,1.7nm,0.7s,mb4.1,baz=94,slow=5.8,SNR=14						
KAF	Kangasniemi	72.02	333	*e*p	P	17 41 44.4	-1.0
	comp=Z,2.0nm,0.4s,mb4.4						
LBTB	Lobatse	74.17	241	*e*P	P	17 42 01.0	+2.2
	comp=Z,4.1nm,0.7s,mb4.5						
ARCES	ARCESS Array B	74.51	340	P	P	17 42 00.0	+0.2
	comp=Z,2.4nm,0.7s,mb4.3,baz=98,slow=7.0,SNR=14						
BOSA	Boshof	75.56	238	*e*P	P	17 42 08.8	+2.2
	comp=Z,6.2nm,0.9s,mb4.5						
BRG	Berggiesshubel	76.97	320	*e*P	P	17 42 15.9	+1.8
	comp=Z,11nm,1.8s,mb4.5						
GERES	GERESS Array B	77.05	318	P	P	17 42 14.4	-0.2
	comp=Z,2.1nm,0.7s,mb4.2,baz=83,slow=5.1,SNR=18						
KHC	Kasperske Hory	77.14	318	*e*P	P	17 42 10.0	-5.1
CLL	Collm	77.58	321	*e*P	P	17 42 16.0	-1.5
CLL	Collm	77.58	321	P	P	17 42 16.0	-1.5
NB2	NORSAR Subarra	78.95	331	P	P	17 42 24.2	-0.6
	comp=Z,2.1nm,0.6s,mb4.2,baz=97,slow=5.0						
NOA	NORSAR Array B	78.95	331	P	P	17 42 23.9	-0.9
	comp=Z,1.8nm,0.5s,mb4.2,baz=93,slow=5.7,SNR=12						
NAO01	NORSAR Array S	79.10	330	*e*P	P	17 42 25.2	-0.5
DAVOX	Davos	79.62	316	P	P	17 42 28.8	+0.1
	comp=Z,2.0nm,0.4s,mb4.4,baz=122,slow=7.9,SNR=6.8						
SUR	Sutherland	80.34	235	*e*P	P	17 42 36.0	+3.1
	comp=Z,8.0nm,0.8s,mb4.7						
LPL	La Plagne	81.86	315	*e*P	P	17 42 41.3	+0.7
	comp=Z,23nm,1.0s,mb4.8						
EKA	Eskdalemuir Ar	86.94	325	P	P	17 43 06.9	+1.0
	comp=Z,2.4nm,0.6s,mb4.6,baz=93,slow=5.7,SNR=10.0						
ESDC	Sonseca Array	90.47	310	P	P	17 43 23.7	+0.7
	comp=Z,1.1nm,0.9s,mb4.2,baz=59,slow=5.1,SNR=4.7						
IMA	Indian Mountai	91.19	22	*e*P	P	17 43 27.8	+2.1
ILAR	Eielson Array	94.31	22	P	P	17 43 40.6	+0.5
	comp=Z,0.7nm,0.8s,mb4.2,baz=297,slow=5.6,SNR=10						
TXAR	Lajitas Array	138.81	23	PKP	PKPdf	17 49 49.4	-2.4
	comp=Z,0.3nm,0.4s,baz=353,SNR=10.0						
LPAZ	La Paz	160.66	245	PKP	PKPdf	17 50 24.2	-1.2
	comp=Z,0.5nm,0.5s,baz=218,slow=5.6,SNR=3.9						
LPAZ				PKPab	PKPab	17 51 05.9	+1.5
	comp=Z,1.3nm,0.6s,baz=268,slow=1.0,SNR=6.7						
LPAZ	La Paz	160.66	245	PKP	PKPdf	17 50 24.2	-1.2
LPAZ				PKPab	PKPab	17 51 05.9	+1.5

IDC 26 17:31:15.4±9.4**, 4.01N×93.59E, mb4.1**/2**, mb1 4.2**/3**, mb1mx3.7**/18**, ML4.0**/1**, Error ellipse: s-maj=227.0km s-min=52.3km az=83.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.29	20	Pn	P	17 34 53.1	-1.3
	0.2nm,0.3s,baz=212,slow=12,SNR=4.1						
WRA	Warramunga Arr	46.57	122	P	P	17 39 45.2	-2.0
	2.8nm,0.6s,baz=300,slow=9.0,SNR=7.6						
ASAR	Alice Springs	47.95	127	P	P	17 39 56.2	-1.9
	0.8nm,0.8s,baz=310,slow=7.1,SNR=4.0						

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*IDC **26** 17:32:19.7±1.1, 3.05N×93.64E, mb4.2/8, mb1 4.3/9, mb1mx4.2/19, ML5.3/1, Error ellipse: s-maj=46.3km s-min=18.0km az=53.0*

*NEIC **26** 17:32:23.2±0.6, 2.93N×93.48E, h30^{km}, mb4.6/6, Error ellipse: s-maj=17.7km s-min=9.0km az=65.0*

ISC 26 17:32:21.8±0.7**, 2.97N**±0.10×**93.6E**±0.1**, h30**^{km}**, n21, σ0^{s}85**/20**, mb4.4**/14**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	16.26	18	*e*P	P	17 36 10.3	+0.5
	26nm,0.5s						
CMAR	Chiang Mai Arr	16.26	18	Pn	P	17 36 10.2	+0.3
	4.3nm,0.3s,baz=217,slow=12,SNR=35						
LSA	Lhasa	26.68	355	*e*P	P	17 38 01.9	+1.5
	25nm,0.6s,mb4.9						
WRA	Warramunga Arr	46.02	121	P	P	17 40 45.4	+0.5
	4.6nm,0.7s,mb4.5,baz=300,slow=8.9,SNR=8.9						
WRAB	Tennant Creek	46.03	121	*e*P	P	17 40 43.8	-1.1
	7.5nm,0.7s,mb4.7						
SONM	Songino Array	46.04	12	P	P	17 40 44.3	-0.3
	2.7nm,0.7s,mb4.3,baz=194,slow=8.4,SNR=11						
ASAR	Alice Springs	47.33	126	P	P	17 40 55.9	+0.7
	2.0nm,0.7s,mb4.2,baz=296,slow=8.4,SNR=5.1						
HIA	Hailar	51.23	22	*e*P	P	17 41 23.9	-0.9
	4.6nm,0.6s,mb4.6						
ZAL	Zalesovo	51.31	353	P	P	17 41 24.7	-0.7
	4.0nm,0.5s,mb4.6,baz=310,slow=6.1,SNR=8.6						
ZAL	Zalesovo	51.31	353	P	P	17 41 24.7	-0.7
BVAR	Borovoye Array	53.45	343	P	P	17 41 41.0	-0.4
	2.1nm,0.7s,mb4.2,baz=141,slow=9.5,SNR=7.4						
BRVK	Borovoye	53.51	343	*e*P	P	17 41 41.0	-0.8
	1.9nm,0.7s,mb4.1						
CHKZ	Chkalovo	53.96	343	*e*P	P	17 41 44.8	-0.3
	3.9nm,0.7s,mb4.5						
STKA	Stephens Creek	57.22	131	P	P	17 42 09.1	+0.2
	2.1nm,0.7s,mb4.3,baz=325,slow=8.1,SNR=4.8						
BRTR	Keskin Array B	65.27	313	P	P	17 43 04.4	+1.2
	1.1nm,0.7s,mb4.0,baz=135,slow=7.8,SNR=6.3						
BRTR	Keskin Array B	65.27	313	P	P	17 43 04.4	+1.2
AKASG	Malin Array Be	71.67	323	P	P	17 43 42.4	-0.5
	0.7nm,0.5s,mb3.8,baz=88,slow=3.8,SNR=5.5						
MLR	Muntele Rosu	72.32	317	P	P	17 43 45.5	-1.2
	3.2nm,0.9s,mb4.2,baz=77,slow=21,SNR=3.2						
MLR	Muntele Rosu	72.32	317	P	P	17 43 45.5	-1.2
KHC	Kasperske Hory	81.23	319	*e*P	P	17 44 38.0	+1.6
TXAR	Lajitas Array	143.87	26	PKP	PKPdf	17 51 56.1	-3.8
	0.3nm,0.7s,baz=180,slow=2.5,SNR=3.6						

IDC 26 17:32:40.2±2.4**, 8.36N×93.87E, mb4.1**/10**, mb1 4.3**/10**, mb1mx4.1**/19**, Error ellipse: s-maj=62.3km s-min=42.3km az=126.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	Zalesovo	46.03	353	P	P	17 41 06.8	-0.5
	2.3nm,0.5s,baz=295,slow=6.5,SNR=6.0						
BVAR	Borovoye Array	48.44	341	P	P	17 41 24.5	-1.7
	0.7nm,0.7s,baz=143,slow=7.2,SNR=2.3						
KMBO	Kilima Mbogo	57.21	263	P	P	17 42 31.3	-0.7
	1.1nm,0.7s,baz=50,slow=14,SNR=3.5						
BRTR	Keskin Array B	61.91	311	P	P	17 43 01.2	-2.9
	1.0nm,0.6s,baz=120,slow=7.0,SNR=4.5						
BRTR	Keskin Array B	61.91	311	P	P	17 43 01.2	-2.9
AKASG	Malin Array Be	67.60	322	P	P	17 43 37.4	-3.6
	1.5nm,0.7s,baz=87,slow=4.2,SNR=5.3						
FINES	FINESS Array B	72.15	332	P	P	17 44 06.7	-1.8
	2.5nm,0.7s,baz=124,slow=5.0,SNR=6.0						
ARCES	ARCESS Array B	74.72	340	P	P	17 44 21.9	-1.4
	2.0nm,0.7s,baz=101,slow=6.2,SNR=4.6						
GERES	GERESS Array B	77.28	318	P	P	17 44 37.1	-1.1
	1.4nm,0.5s,baz=90,slow=5.3,SNR=10						

NB2	NORSAR Subarra	79.17	331	P	P	17 44 46.2	-2.1
	1.4nm,0.6s,baz=97,slow=5.0						
NOA	NORSAR Array B	79.17	331	P	P	17 44 46.5	-1.8
	1.7nm,0.6s,baz=92,slow=5.6,SNR=6.1						
NVAR	Mina Array Bea	124.64	31	PKP	PKPdf	17 51 41.7	-2.5
	0.4nm,0.4s,baz=270,slow=1.8,SNR=3.8						
TXAR	Lajitas Array	138.89	24	PKP	PKPdf	17 52 09.8	-1.5
	0.4nm,0.6s,baz=326,slow=3.3,SNR=4.1						

IDC 26 17:37:06.6±1.5**, 5.82N×92.72E, mb3.9**/7**, mb1 4.1**/8**, mb1mx3.8**/19**, Error ellipse: s-maj=61.1km s-min=27.5km az=52.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.95	25	Pn	P	17 40 28.7	+0.7
	baz=232,slow=15,SNR=2.4						
SONM	Songino Array	43.47	13	P	P	17 45 11.6	-1.6
	0.6nm,0.8s,baz=192,slow=9.4,SNR=2.8						
WRA	Warramunga Arr	48.27	123	P	P	17 45 49.8	-1.9
	2.2nm,0.8s,baz=302,slow=8.9,SNR=7.0						
ZAL	Zalesovo	48.40	354	P	P	17 45 50.1	-2.2
	0.5nm,0.6s,baz=288,slow=10,SNR=3.2						
BVAR	Borovoye Array	50.49	343	P	P	17 46 07.1	-1.3
	3.1nm,1.1s,baz=141,slow=9.5,SNR=7.1						
FINES	FINESS Array B	73.87	333	P	P	17 48 42.0	-2.9
	4.1nm,1.0s,baz=90,slow=5.6,SNR=4.5						
ARCES	ARCESS Array B	76.72	341	P	P	17 48 59.0	-2.0
	1.9nm,0.7s,baz=101,slow=4.6,SNR=4.6						
GERES	GERESS Array B	78.42	319	P	P	17 49 10.1	-0.7
	1.0nm,0.7s,baz=90,slow=5.3,SNR=8.2						
TXAR	Lajitas Array	141.66	23	PKP	PKPdf	17 56 40.7	-1.9
	0.2nm,0.6s,SNR=3.9						

*IDC **26** 17:42:30.7±0.8, 4.84N×94.89E, mb4.3/12, mb1 4.4/13, mb1mx4.3/20, ML4.3/1, Error ellipse: s-maj=26.9km s-min=17.4km az=40.0*

*BJI **26** 17:42:33.3, 4.43N×94.84E, h47^{km}, mb4.9*

*NEIC **26** 17:42:34.8±0.4, 4.73N×94.88E, h30^{km}, mb4.5/12, Error ellipse: s-maj=12.8km s-min=10.2km az=64.0*

ISC 26 17:42:33.2±0.5**, 4.70N**±0.07×**94.93E**±0.08**, h30^{km}, n45, σ1^{s}04**/44**, mb4.5**/32**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.22	16	Pn	P	17 45 58.6	+3.6
	0.4nm,0.3s,baz=206,slow=9.1,SNR=3.6						
GYA	Guiyang	24.37	26	⇑iP	P	17 47 51.3	+1.2
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.5						
PKI	Pulchoki	24.49	339	eP	P	17 47 52.2	+1.0
	comp=Z,9.8nm,0.5s,mb4.5						
GUN	Gumba	24.64	340	eP	P	17 47 53.3	+0.6
	comp=Z,14nm,0.6s,mb4.7						
KKN	Kakani	24.73	339	eP	P	17 47 53.5	-0.1
	comp=Z,15nm,0.8s,mb4.6						
LSA	Lhasa	25.12	352	eP	P	17 47 55.5	-1.8
	comp=Z,6.4nm,0.5s,mb4.4						
GKN	Gorkha	25.16	338	eP	P	17 47 57.9	+0.3
KOLN	Koldanda	25.35	336	eP	P	17 47 59.7	+0.2
	comp=Z,30nm,0.9s,mb4.8						
ENH	Enshi	28.91	27	eP	P	17 48 30.6	-1.3
	comp=Z,11nm,0.8s,mb4.7						
XAN	Xi'an	31.96	22	P	P	17 48 57.5	-1.4
XAN				AMB	AMB		
	comp=Z,27nm,0.8s,mb5.1						
GTA	Gaotai	34.83	7	P	P	17 49 23.0	-0.7
GTA				AP	pP	17 49 35.0	+2.4
GTA				XP	sP	17 49 41.8	+5.3
GTA				AMB	AMB		
	comp=Z,17nm,0.8s,mb5.0						
JOW	Kunigami	38.69	52	P	P	17 49 56.8	+0.4
BJT	Baijiatuau	40.04	26	eP	P	17 50 09.1	+1.6
	comp=Z,6.0nm,0.5s,mb4.6						
BJI	Beijing	40.06	26	P	P	17 50 09.0	+1.4
BJI				AMB	AMB		
	comp=Z,17nm,1.2s,mb4.7						
UCH	Uchtor	41.56	337	P	P	17 50 21.0	+1.0
	SNR=7.1						
KBK	Karagaybulak	41.76	338	P	P	17 50 23.0	+1.5
	SNR=10						
AML	Almayashu	41.80	336	P	P	17 50 23.2	+1.3
	SNR=9.8						
AAK	Ala-Archa	41.91	337	eP	P	17 50 23.8	+1.0
	comp=Z,3.1nm,0.7s,mb4.0						
EKS2	Erkin-Say	42.22	337	P	P	17 50 26.7	+1.4
	SNR=5.3						
USP	Ospenovka	42.45	338	P	P	17 50 28.1	+0.9
	SNR=6.1						
SONM	Songino Array	44.09	11	P	P	17 50 39.7	-0.7
	comp=Z,1.4nm,0.4s,mb4.0,baz=192,slow=8.8,SNR=19						
WRA	Warramunga Arr	45.82	124	P	P	17 50 55.6	+1.0
	comp=Z,3.7nm,0.5s,mb4.5,baz=300,slow=9.5,SNR=22						
WRAB	Tennant Creek	45.83	124	eP	P	17 50 54.1	-0.6
	comp=Z,7.1nm,0.6s,mb4.8						
ASAR	Alice Springs	47.31	128	P	P	17 51 07.0	+0.6
	comp=Z,1.9nm,0.8s,mb4.1,baz=303,slow=7.2,SNR=14						
HIA	Hailar	49.15	21	eP	P	17 51 19.6	-0.6
	comp=Z,3.8nm,0.6s,mb4.6						
ZAL	Zalesovo	49.78	352	P	P	17 51 24.1	-1.0
	comp=Z,5.4nm,0.7s,mb4.7,baz=302,slow=6.1,SNR=25						
BVAR	Borovoye Array	52.23	341	P	P	17 51 42.7	-1.0
	comp=Z,2.2nm,0.4s,mb4.4,baz=138,slow=12,SNR=24						
BRVK	Borovoye	52.29	341	eP	P	17 51 43.2	-1.0
	comp=Z,4.1nm,0.7s,mb4.5						
CHKZ	Chkalovo	52.72	342	eP	P	17 51 46.6	-0.7
	comp=Z,12nm,0.8s,mb4.9						
STKA	Stephens Creek	57.37	133	eP	P	17 52 21.2	-0.2
KMBO	Kilima Mbogo	57.91	266	P	P	17 52 26.2	+0.8
	comp=Z,1.5nm,0.6s,mb4.2,baz=60,slow=9.2,SNR=6.0						
ARU	Arti	59.10	337	P	P	17 52 32.4	-0.8
	comp=Z,3.4nm,0.9s,mb4.4						
BRTR	Keskin Array B	65.10	312	P	P	17 53 12.3	-1.2
	comp=Z,0.8nm,0.4s,mb4.1,baz=123,slow=6.6,SNR=5.1						
AKASG	Malin Array Be	71.12	322	P	P	17 53 49.0	-1.8
	comp=Z,1.0nm,0.5s,mb4.0,baz=80,slow=4.5,SNR=5.3						
LBTB	Lobatse	73.45	242	P	P	17 54 01.8	-3.4
	comp=Z,2.9nm,0.8s,mb4.3						
BOSA	Boshof	74.60	239	eP	P	17 54 11.4	-0.4
	comp=Z,1.9nm,0.7s,mb4.1						
FINES	FINESS Array B	75.87	332	P	P	17 54 17.6	-0.8
	comp=Z,2.2nm,0.8s,mb4.2,baz=103,slow=7.9,SNR=12						
KAF	Kangasniemi	75.96	333	ep	P	17 54 18.2	-0.7
	comp=Z,2.8nm,0.7s,mb4.3						
KEV	Kevo	78.07	341	ep	P	17 54 30.5	+0.1
ARCES	ARCESS Array B	78.50	340	P	P	17 54 32.6	-0.1
	comp=Z,1.3nm,0.4s,mb4.2,baz=94,slow=6.0,SNR=18						
FX1	Attu Island--F	79.17	37	P	P	17 54 36.6	-0.1
	comp=Z,18nm,0.8s,mb5.0,baz=88,slow=14,SNR=5.8						
FX1	Attu Island--F	79.17	37	eP	P	17 54 34.9	-1.9
SUR	Sutherland	79.20	236	eP	P	17 54 38.6	+1.2
GERES	GERESS Array B	80.71	319	P	P	17 54 45.8	+0.7
	comp=Z,2.8nm,1.0s,mb4.1,baz=108,slow=4.2,SNR=10						
NVAR	Mina Array Bea	127.18	33	PKP	PKPdf	18 01 37.6	-2.9
	comp=Z,0.3nm,0.4s,baz=280,slow=26,SNR=2.7						

IDC 26 17:43:33.3±1.2**, 6.30N×94.70E, mb4.2**/6**, mb1 4.4**/7**, mb1mx4.1**/18**, ML4.3**/1**, Error ellipse: s-maj=53.4km s-min=22.0km az=54.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.78	19	Pn	P	17 46 36.9	-2.2
	0.5nm,0.3s,baz=209,slow=13,SNR=10						
SONM	Songino Array	42.58	12	P	P	17 51 30.9	-1.8
	1.2nm,0.7s,baz=196,slow=9.5,SNR=3.6						
WRA	Warramunga Arr	46.90	125	P	P	17 52 05.8	-1.8
	5.1nm,1.1s,baz=304,slow=9.0,SNR=2.8						
ASAR	Alice Springs	48.49	129	P	P	17 52 18.0	-2.0
	3.8nm,0.8s,baz=308,slow=7.3,SNR=6.4						
FINES	FINESS Array B	74.36	332	P	P	17 55 12.3	-2.1
	1.3nm,0.4s,baz=104,slow=5.9,SNR=6.2						
ARCES	ARCESS Array B	76.93	340	P	P	17 55 27.3	-1.6
	4.3nm,1.0s,baz=107,slow=6.4,SNR=6.0						
GERES	GERESS Array B	79.37	318	P	P	17 55 41.8	-0.9
	0.9nm,0.7s,baz=76,slow=4.0,SNR=3.2						

*BJI **26** 17:44:50.7, 8.70N×93.86E, h35^{km}, mB5.5, mb5.2, Ms5.0, Msz4.9*

*CSEM **26** 17:44:52.5, 8.99N×94.14E, h33^{km}, mb5.5*

*IDC **26** 17:44:52.7±0.6, 8.96N×93.98E, h22^{km}±3^{km}, mb4.6/26, mb1 4.7/27, mb1mx4.7/28, ML4.8/1, MS4.6/2, Ms1 4.6/2, ms1mx3.5/22, Error ellipse: s-maj=18.5km s-min=10.9km az=54.0*

*MOS **26** 17:44:52.3±0.8, 8.95N×94.01E, h33^{km}, mb5.3/33, MS4.7/4, Error ellipse: s-maj=12.6km s-min=6.3km az=116.3*

*NEIC **26** 17:44:52.8±0.2, 8.93N×93.97E, mb5.2/45, MS4.9/1, Error ellipse: s-maj=5.6km s-min=5.0km az=224.0*

ISC 26 17:44:51.1±0.3**, 8.91N**±0.04×**94.03E**±0.03**, h24^{km}, h24^{km}**±.7^{km}**:pP-P, n279, σ1^{s}00**/256**, mb5.1**/95**, MS4.8**/13**, 21C-14D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.62	26	eP	P	17 47 24.9	-0.1
	9.0nm,0.4s						
CMAR	Chiang Mai Arr	10.62	26	Pn	P	17 47 25.4	+0.3
	2.3nm,0.3s,baz=213,slow=15,SNR=11						
CMAR	Chiang Mai Arr	10.62	26	P	P	17 47 25.4	+0.3
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
VIS	Vishakhapatnam	13.60	311	eP	P	17 48 02.6	-2.6
VIS				e		17 48 21.6	
	comp=Z,201nm,1.0s						
VIS				eS	S	17 50 23.1	-13
MDRS	Chennai	14.15	288	eP	P	17 48 12.4	0.0
MDRS				e		17 48 17.8	
	comp=Z,311nm,1.3s						
CAL	Calcutta	14.61	339	e	P	17 48 26.3	+7.8
CAL				e	S	17 51 21.4	+21
SHL	Shillong	16.69	353	eP	P	17 48 46.6	+1.4
SHL				e		17 48 46.7	
TRD	Trivandrum	16.88	270	eP	P	17 48 44.8	-2.9
TRD				e		17 48 58.2	
	comp=Z,74nm,1.8s						
HYB	Hyderabad	17.27	301	eP	P	17 48 50.0	-2.5
HYB	Hyderabad	17.27	301	i P	P	17 48 50.0	-2.5
KMI	Kunming	18.13	26	P	P	17 49 06.3	+3.0
KMI				PP	PP	17 49 23.5	+5.3
KMI				AMB	AMB		
	comp=Z,47nm,1.3s						
KMI				AMB	AMB		
	comp=Z,916nm,5.1s						
KMI				LR	LR		
	comp=N,3μm,14.0s						
KMI				LR	LR		
	comp=E,4μm,18.0s						
KMI				LR	LR		
	comp=Z,3μm,12.0s						
QIZ	Qiongzhong	18.33	55	P	P	17 49 07.0	+1.3
QIZ				PP	PP	17 49 22.3	+1.3
QIZ				S	S	17 52 26.3	0.0
QIZ				AMB	AMB		
	comp=Z,32nm,1.6s						
QIZ				AMB	AMB		
	comp=Z,653nm,5.7s						
QIZ				LR	LR		
	comp=N,7μm,13.1s						
QIZ				LR	LR		
	comp=Z,2μm,13.5s						
MNGI	Mangalore	19.28	284	eP	P	17 49 18.6	+1.5
	comp=Z,121nm,1.4s						
MNGI				e		17 54 13.1	
AKL	Akola	20.18	307	eP	P	17 49 30.1	+3.1
PKI	Pulchoki	20.27	337	eP	P	17 49 27.4	-0.4
	comp=Z,496nm,1.2s						
GUN	Gumba	20.40	339	eP	P	17 49 29.1	-0.1
	comp=Z,1μm,1.4s						
DMN	Daman	20.42	337	eP	P	17 49 29.1	-0.3
	comp=Z,412nm,1.4s						
KKN	Kakani	20.51	337	eP	P	17 49 29.8	-0.6
	comp=Z,362nm,1.2s						
GOA	Goa	20.80	290	e		17 49 42.3	
LSA	Lhasa	20.86	353	eP	P	17 49 33.9	0.0
GKN	Gorkha	20.95	336	eP	P	17 49 34.6	-0.3
	comp=Z,470nm,1.0s						
KAD	Karad	21.04	295	eP	P	17 49 38.5	+2.7
GYA	Guiyang	21.16	33	⇑iP	P	17 49 36.8	-0.3
GYA				S	S	17 53 37.5	+11
GYA				AMB	AMB		
	comp=Z,60nm,1.2s,mb4.8						
GYA				AMB	AMB		
	comp=Z,970nm,5.2s						
GYA				LR	LR		
	comp=N,2μm,16.8s,MS4.7						
GYA				LR	LR		
	comp=E,1μm,16.0s,MS4.7						
GYA				LR	LR		
	comp=Z,3μm,17.0s,MS4.8						
KOLN	Koldanda	21.18	334	eP	P	17 49 37.7	+0.4
BHPL	Bhopal	21.36	314	⇑iP	P	17 49 40.5	+1.5
BHPL				eS	S	17 53 34.8	+4.8
POO	Poona	21.79	298	eP	P	17 49 44.3	+0.8
POO				e		17 49 58.3	
	comp=Z,90nm,0.9s						
BOM	Bombay	22.84	298	eP	P	17 49 54.4	+0.5
BOM				e		17 50 11.8	
	comp=Z,132nm,1.5s						
CD2	Chengdu	23.69	21	P	P	17 50 03.8	+1.7
CD2				AMB	AMB		
	comp=Z,350nm,1.2s,mb5.7						
PTH	Pithoragarh	24.27	330	eP	P	17 50 08.2	+0.4
NDI	New Delhi	25.24	323	i P	P	17 50 17.9	+0.8
NDI				e		17 50 27.6	
	comp=Z,137nm,1.4s						
NDI				e	S	17 54 47.0	+8.6
AJM	Ajmer	25.36	316	i P	P	17 50 20.0	+1.8
ENH	Enshi	25.70	32	eP	P	17 50 20.7	-0.6
	comp=Z,60nm,1.3s,mb5.0						
TGY	Tagaytay City	26.85	76	LR	LR	18 00 45.9	
	comp=Z,1μm,18.7s,MS4.5,baz=118,slow=35						
LZH	Lanzhou	28.49	17	eP	P	17 50 47.5	+0.8
LZH				AMB	AMB		
	comp=Z,183nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,603nm,5.1s						
LZH				LR	LR		
	comp=E,2μm,16.5s						
LZH				LR	LR		
	comp=Z,3μm,19.0s,MS4.9						
XAN	Xi'an	28.51	27	P	P	17 50 46.3	-0.7
XAN				AP	pP	17 50 55.5	+1.5
XAN				AMB	AMB		
	comp=Z,52nm,1.3s,mb5.1						
WHN	Wuhan	28.69	39	⇑P	P	17 50 49.5	+0.9
THN	Thein Dam	28.91	327	eP	P	17 50 49.1	-1.5
GTA	Gaotai	30.80	9	P	P	17 51 07.5	+0.1
GTA				AP	pP	17 51 15.5	+1.1
GTA				XP	sP	17 51 19.5	+1.9
GTA				PCP	PcP	17 54 05.3	+0.9
GTA				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.0						
GTA				AMB	AMB		
	comp=Z,1μm,9.5s						
GTA				LR	LR		
	comp=N,804nm,17.5s,MS4.5						
GTA				LR	LR		
	comp=E,437nm,16.7s,MS4.5						
GTA				LR	LR		
	comp=Z,2μm,19.4s,MS4.7						
NJ2	Nanjing	32.56	41	eP	P	17 51 22.5	-0.3
NJ2				AP	pP	17 51 31.0	+1.1
NJ2				XP	sP	17 51 35.5	+2.5
NJ2				PP	PP	17 52 31.0	-0.7
NJ2				S	S	17 56 34.0	-1.7
NJ2				XS		17 56 49.0	
NJ2				AMB	AMB		
	comp=Z,1μm,5.2s						
NJ2				LR	LR		
	comp=N,240nm,15.0s,MS4.7						
NJ2				LR	LR		
	comp=E,1μm,16.8s,MS4.7						
NJ2				LR	LR		
	comp=Z,2μm,15.8s,MS5.0						
SSE	Sheshan	33.56	45	eP	P	17 51 29.5	-2.0
SSE				XP	sP	17 51 42.0	+0.3
SSE				S	S	17 56 52.0	+0.8
SSE				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,154nm,4.7s						
SSE				LR	LR		
	comp=N,2μm,23.7s,MS4.7						
SSE				LR	LR		
	comp=E,486nm,23.6s,MS4.7						
SSE				LR	LR		
	comp=Z,968nm,24.1s,MS4.4						
KSH	Kashi	34.49	335	i PR		17 51 40.0	
KSH				AP	pP	17 51 51.0	+4.4
KSH				eSCS	ScS	18 01 51.3	-7.0
KSH				AMB	AMB		
	comp=Z,280nm,3.8s						
KSH				LR	LR		
	comp=N,2μm,17.3s,MS5.1						
KSH				LR	LR		
	comp=E,2μm,20.1s,MS5.1						
BTO	Baotou	34.61	22	eP	P	17 51 40.0	-0.5
BTO				AMB	AMB		
	comp=Z,32nm,1.1s,mb5.2						
WMQ	Urumqi	35.21	352	P	P	17 51 46.0	+0.4
WMQ				AP	pP	17 51 50.5	-2.2
WMQ				AMB	AMB		
	comp=Z,61nm,0.8s,mb5.6						
HHC	Hu-ho-hao-te	35.41	23	eP	P	17 51 48.0	+0.7
HHC				AP	pP	17 51 55.3	+0.8
HHC				XP	sP	17 51 59.0	+1.5
HHC				PP	PP	17 53 13.0	+5.8
HHC				AMB	AMB		
	comp=Z,64nm,1.0s,mb5.5						
HHC				AMB	AMB		
	comp=Z,517nm,4.4s						
HHC				LR	LR		
	comp=N,912nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=E,1μm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,828nm,13.1s,MS4.7						
BJT	Baijiatuau	36.73	29	eP	P	17 52 00.4	+1.9
	comp=Z,21nm,0.6s,mb5.2						
BJI	Beijing	36.75	29	P	P	17 52 00.5	+1.9
BJI				AMB	AMB		
	comp=Z,59nm,1.0s,mb5.4						
KZA	Kyzart	36.95	336	P	P	17 52 01.4	+1.1
	SNR=19						
UCH	Uchtor	37.37	336	P	P	17 52 04.5	+0.7
	SNR=22						
TKM2	Tokmak 2	37.53	338	P	P	17 52 05.5	+0.4
	SNR=11						
KBK	Karagaybulak	37.55	337	P	P	17 52 06.0	+0.7
	SNR=35						
AML	Almayashu	37.62	335	P	P	17 52 07.4	+1.5
	SNR=6.2						
AAK	Ala-Archa	37.72	336	P	P	17 52 07.6	+0.9
	SNR=31						
AAK	Ala-Archa	37.72	336	deP	P	17 52 06.3	-0.4
AAK				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.2						
AAK	Ala-Archa	37.72	336	eP	P	17 52 05.9	-0.8
AAK				ePr		17 52 06.3	
FRU	Bishkek	37.84	337	eP	P	17 52 08.0	+0.3
FRU				pmax	pmax		
	comp=Z,80nm,1.8s,mb5.2						
CHMS	Chumysh	37.92	337	P	P	17 52 08.9	+0.5
	SNR=30						
EKS2	Erkin-Say	38.03	336	P	P	17 52 10.7	+1.3
	SNR=19						
USP	Ospenovka	38.25	337	P	P	17 52 11.3	+0.2
	SNR=37						
SONM	Songino Array	40.18	13	P	P	17 52 25.7	-1.5
	comp=Z,5.0nm,1.0s,mb4.2,baz=196,slow=9.0,SNR=13						
SONM				PcP	PcP	17 54 32.4	+0.6
	comp=Z,5.0nm,0.6s,baz=198,slow=3.8,SNR=13						
SONM				pPcP		17 54 40.0	
	comp=Z,1.2nm,0.7s,baz=199,slow=3.6,SNR=4.3						
ULN	Ulaanbaatar	40.36	14	eP	P	17 52 28.7	+0.1
	comp=Z,26nm,1.6s,mb4.7						
SNY	Shenyang	41.87	34	⇓P	P	17 52 42.0	+0.9
SNY				AMB	AMB		
	comp=Z,60nm,1.4s,mb5.0						
ZAK	Zakamensk	42.05	9	eP	P	17 52 42.3	-0.2
ZAK				e		17 54 37.8	
TLY	Talaya	43.36	9	⇓eP	P	17 52 54.2	+1.0
CN2	Changchun	44.21	33	eP	P	17 53 01.0	+0.8
CN2				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.1						
ZAL	Zalesovo	45.51	352	P	P	17 53 10.1	-0.4
	comp=Z,49nm,1.1s,mb5.3,baz=302,slow=7.4,SNR=37						
ZAL	Zalesovo	45.51	352	P	P	17 53 10.1	-0.3
ZAL				pmax	pmax		
	comp=Z,49nm,1.1s						
HIA	Hailar	45.61	23	eP	P	17 53 11.4	+0.1
	comp=Z,83nm,1.4s,mb5.5						
NVS	Novosibirsk	46.61	351	i P	P	17 53 17.9	-1.2
NVS				pmax	pmax		
	comp=Z,75nm,1.2s,mb5.5						
NVS				pmax	pmax		
	comp=N,67nm,1.3s						
NVS				pmax	pmax		
	comp=E,42nm,1.2s						
MDJ	Mudanjiang	47.01	35	P	P	17 53 23.5	+1.0
MDJ				AMB	AMB		
	comp=Z,39nm,1.6s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,268nm,7.0s						
MDJ	Mudanjiang	47.01	35	eP	P	17 53 23.2	+0.8
	comp=Z,66nm,1.3s,mb5.4						
NWAO	Narrogin (SRO)	47.12	153	P	P	17 53 22.9	-0.6
	comp=Z,18nm,0.7s,mb5.2,baz=322,slow=10.0,SNR=11						
NWAO	Narrogin (SRO)	47.12	153	P	P	17 53 22.9	-0.6
NWAO				pmax	pmax		
	comp=Z,18nm,0.7s						
NWAO	Narrogin (SRO)	47.12	153	eP	P	17 53 23.1	-0.4
RDF	Al-Radifah	47.90	301	eP	P	17 53 29.9	+0.2
RDF				AMb	AMB	17 53 31.9	
	comp=Z,63nm,0.8s,mb5.7						
BVAR	Borovoye Array	47.98	341	P	P	17 53 28.9	-1.1
	comp=Z,5.0nm,0.7s,mb4.7,baz=149,slow=8.6,SNR=14						
BVAR				PcP	PcP	17 54 58.2	0.0
	comp=Z,4.6nm,0.6s,baz=146,slow=5.3,SNR=4.9						
BVAR				pPcP		17 55 05.7	
	comp=Z,4.2nm,0.9s,baz=160,slow=4.3,SNR=3.2						
BRVK	Borovoye	48.04	341	i Pr	P	17 53 29.2	-1.2
MIB	Mutribah	48.30	302	eP	P	17 53 33.1	+0.3
MIB				AMb	AMB	17 53 46.7	
	comp=Z,66nm,0.8s,mb5.7						
CHKZ	Chkalovo	48.46	342	eP	P	17 53 33.0	-0.7
	comp=Z,82nm,1.2s,mb5.6						
RST	Umm Al-Ruwaisa	48.51	302	eP	P	17 53 32.6	-1.7
MAT	Matsushiro	48.55	48	P	P	17 53 34.2	-0.4
MAT	Matsushiro	48.55	48	eP	P	17 53 34.0	-0.6
MZLS	Mizel	48.92	294	P	P	17 53 39.3	+1.7
WRA	Warramunga Arr	48.95	126	P	P	17 53 37.2	-0.7
	comp=Z,7.0nm,0.6s,mb4.8,baz=307,slow=8.8,SNR=15						
WRA				PcP	PcP	17 55 02.2	0.0
	comp=Z,12nm,1.3s,baz=314,slow=3.1,SNR=3.7						
WRA	Warramunga Arr	48.95	126	P	P	17 53 37.2	-0.7
WRA						17 55 02.2	
WRA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,12nm,1.3s						
WRAB	Tennant Creek	48.96	126	d iP	P	17 53 37.2	-0.7
WRAB	Tennant Creek	48.96	126	eP	P	17 53 37.0	-0.9
	comp=Z,14nm,0.7s,mb5.1						
KAMS	Al Khamasin	49.01	289	P	P	17 53 40.1	+1.8
ASAR	Alice Springs	50.66	131	P	P	17 53 49.6	-1.3
	comp=Z,3.1nm,0.7s,mb4.4,baz=306,slow=7.2,SNR=6.1						
ASAR				PcP	PcP	17 55 09.0	+0.6
	comp=Z,5.2nm,1.0s,baz=315,slow=3.8,SNR=7.0						
AFFS	‘Afif	50.90	294	P	P	17 53 54.4	+1.7
ARSS	Ar Rass	50.99	296	P	P	17 53 54.0	+0.6
BOD	Bodaibo	51.17	14	eP	P	17 53 53.3	-1.0
HILS	Ha'il	52.52	298	P	P	17 54 06.1	+1.1
GNI	Garni	53.64	314	P	P	17 54 11.9	-1.2
	comp=Z,15nm,1.0s,mb4.9,baz=163,slow=10,SNR=8.1						
GNI	Garni	53.64	314	P	P	17 54 11.9	-1.2
GNI				pmax	pmax		
	comp=Z,15nm,1.0s						
TI2	Plekhanov	54.23	316	i P	P	17 54 17.6	+0.3
SVE	Sverdlovsk	54.40	338	⇓eP	P	17 54 17.5	-0.9
SVE				MLR	MLR		
	comp=Z,1μm,18.5s,MS4.9						
KBRS	Khaybar	54.52	295	P	P	17 54 21.3	+1.6
ASAJ	Asahikawa	54.71	41	P	P	17 54 20.8	-0.1
	comp=Z,46nm,1.3s,mb5.3,baz=228,slow=12,SNR=3.1						
ASAJ	Asahikawa	54.71	41	P	P	17 54 20.8	0.0
ASAJ				pmax	pmax		
	comp=Z,46nm,1.3s						
ARU	Arti	54.90	337	d iP	P	17 54 20.7	-1.4

ARU				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.3						
ARU	Arti	54.90	337	*i* Pr	P	17 54 20.8	-1.3
ZEI	Tsey	55.21	317	*e*P	P	17 54 24.6	0.0
ZEI				*i* *PP	pP	17 54 40.6	+8.7
ZEI				*i*		17 56 28.4	
ZEI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
ERZM	Erzurum	55.99	312	*i* P	P	17 54 31.3	+1.1
UMJS	Umm Lajj	56.20	294	P	P	17 54 34.7	+2.8
KIV	Kislovodsk	56.48	317	P	P	17 54 33.3	-0.4
	comp=Z,145nm,1.1s,mb5.9,SNR=9.9						
KIV	Kislovodsk	56.48	317	*e*P	P	17 54 32.9	-0.8
KIV				pmax	pmax		
	comp=N,16nm,1.1s						
KIV				pmax	pmax		
	comp=E,13nm,1.1s						
KIV				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.2						
KIV	Kislovodsk	56.48	317	*i* Pr	P	17 54 32.0	-1.7
GOF	Gofitskoye	56.68	319⇓	*i*P	P	17 54 34.0	-1.1
GOF				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.2						
TBKS	Tabuk	57.24	298	P	P	17 54 40.6	+1.3
ELZG	Elazig	57.34	310	*i* P	P	17 54 38.5	-1.4
KMBO	Kilima Mbogo	57.44	263	P	P	17 54 42.8	+1.9
	comp=Z,3.1nm,0.7s,mb4.5,baz=63,slow=11,SNR=8.0						
KMBO	Kilima Mbogo	57.44	263	P	P	17 54 42.8	+1.9
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KMBO	Kilima Mbogo	57.44	263	*e*P	P	17 54 42.8	+1.9
	comp=Z,11nm,1.0s,mb4.8						
ASF	Jabal al Asfar	57.57	302	P	P	17 54 41.6	+0.1
	comp=Z,8.7nm,1.2s,mb4.7,baz=320,slow=6.9,SNR=4.4						
MALT	Malatya	57.72	310	*e*P	P	17 54 40.4	-2.1
	comp=Z,14nm,1.3s,mb4.8						
JMQS	Jabal Moqyreh	57.92	298	P	P	17 54 44.7	+0.7
GZT	Gaziantep	58.13	309	*i* P	P	17 54 44.7	-0.7
SOC	Sochi	58.36	316	*e*P	P	17 54 45.4	-1.5
SOC				*e*PPP	PPP	17 58 16.4	-4.8
SOC				*e*S	S	18 02 43.0	-3.3
SOC				pmax	pmax		
	comp=N,17nm,0.9s						
SOC				pmax	pmax		
	comp=Z,22nm,1.4s,mb5.0						
SOC				pmax	pmax		
	comp=E,12nm,0.8s						
SOC				MLR	MLR		
	comp=Z,531nm,20.0s,MS4.7						
SOC				MLR	MLR		
	comp=E,555nm,23.0s						
JMOS	Jabal al Moall	58.62	299	P	P	17 54 49.8	+0.9
EIL	Elat	58.82	299	P	P	17 54 50.1	-0.2
	comp=E,8.2nm,0.9s,mb4.8,baz=133,slow=6.6,SNR=6.7						
CTA	Charters Tower	58.91	120	P	P	17 54 50.9	-0.2
	comp=E,12nm,1.0s,mb4.9,baz=296,slow=8.3,SNR=5.8						
CTA				LR	LR	18 25 03.3	
	comp=E,435nm,19.5s,MS4.6,baz=291,slow=41						
CTA	Charters Tower	58.91	120	P	P	17 54 50.9	-0.2
CTA				pmax	pmax		
	comp=Z,12nm,1.0s						
CTA				MLR	MLR		
	comp=Z,435nm,19.5s						
CTAO	Charters Tower	58.91	120	*e*P	P	17 54 51.0	-0.1
COBT	Iskenderun	58.96	307	*i* P	P	17 54 50.8	-0.4
YAK	Yakutsk	59.05	19	*e*P	P	17 54 50.6	-0.9
	comp=Z,9.0nm,0.6s,mb5.0						
ANN	Anapa	60.31	317	*e*P	P	17 55 13.7	+13
ANN				*e*		17 55 23.8	
ANN				*e*S	S	18 03 44.5	+33
ANN				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.4						
AVNT	Avonos	60.55	310	*i* P	P	17 55 00.2	-1.9
STKA	Stephens Creek	60.90	134	P	P	17 55 03.6	-0.9
	comp=Z,3.2nm,0.8s,mb4.5,baz=280,slow=3.6,SNR=3.7						
BOYT	Boyabat	61.13	313	*i* P	P	17 55 02.4	-3.7
BRTR	Keskin Array B	61.68	310	P	P	17 55 07.5	-2.2
	comp=Z,10nm,1.1s,mb4.9,baz=127,slow=6.2,SNR=18						
BRTR	Keskin Array B	61.68	310	P	P	17 55 07.5	-2.2
BRTR				pmax	pmax		
	comp=Z,10.0nm,1.1s						
ELDT	Eldivan	62.00	311	*i* P	P	17 55 10.1	-1.9
BALT	Daday	62.27	312	*i* P	P	17 55 12.4	-1.3
SGKT	Sivrigoynuk	63.04	311	*i* P	P	17 55 17.9	-0.9
ISP	Isparta	63.72	308*c*	*i*P	P	17 55 21.7	-1.6
ISP	Isparta	63.72	308	*e*P	P	17 55 21.0	-2.3
	comp=Z,5.6nm,0.8s,mb4.7						
ISP				*e*	pP	17 55 30.1	-0.8
MBAR	Mbarara	63.74	265*d*	*i*P	P	17 55 24.7	+0.8
MBAR	Mbarara	63.74	265	*e*P	P	17 55 24.7	+0.8
	comp=Z,34nm,1.7s,mb5.1						
ESKT	Eskisehir	63.74	310	*i* P	P	17 55 21.4	-2.1
MOS	Moscow	64.14	328	*e*P	P	17 55 24.7	-1.1
MOS				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.5						
OBN	Obninsk	64.45	328⇑	*i*P	P	17 55 26.8	-1.0
OBN				*e*	pP	17 55 35.9	+0.6
OBN				*e*		17 55 59.4	
OBN				*e*		17 57 46.9	
OBN				*e*S	S	18 04 04.1	+0.6
OBN				pmax	pmax		
	comp=Z,67nm,1.4s,mb5.5						
OBN				MLR	MLR		
	comp=Z,600nm,20.0s,MS4.8						
OBN	Obninsk	64.45	328⇑	*e*P	P	17 55 26.8	-1.0
MA2	Magadan	65.90	28	*e*P	P	17 55 37.5	+0.5
MA2				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.2						
MA2	Magadan	65.90	28⇑	*e*P	P	17 55 37.7	+0.7
TIXI	Tiksi	66.24	11⇑	*i*P	P	17 55 38.0	-1.0
TIXI				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.3						
TIXI	Tiksi	66.24	11⇓	*e*P	P	17 55 37.6	-1.4
AKASG	Malin Array Be	67.28	321	P	P	17 55 43.9	-2.1
	comp=Z,3.0nm,0.6s,mb4.5,baz=86,slow=4.5,SNR=25						
AKASG				PP	PP	17 58 05.9	-10
	comp=Z,0.3nm,0.5s,baz=99,slow=8.1,SNR=3.6						
ISR	Istrita	67.88	315⇓	*i*P	P	17 55 44.6	-5.3
VRI	Vrincioaia	67.88	316⇑	*i*P	P	17 55 49.5	-0.4
LSZ	Lusaka	69.52	250	*e*P	P	17 56 01.4	+0.9
	comp=Z,11nm,0.9s,mb4.8						
LVZ	Lovozero	70.55	340*c*	*i*P	P	17 56 05.5	-0.4
LVZ	Lovozero	70.55	340⇑	*i*P	P	17 56 05.6	-0.3
APA	Apatity	70.84	339⇓	*i*P	P	17 56 07.1	-0.6
APA				*i*	pP	17 56 14.1	-1.1
APA				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.3						
APA				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.3						
KWP	Kalwaria	71.18	319	*e*P	P	17 56 09.0	-1.0
KWP				*e*P		17 56 09.9	
KWP	Kalwaria	71.18	319	*e*P	P	17 56 09.9	-0.1
KOLS	Kolonicke sedl	71.36	319	*e*P	P	17 56 09.5	-1.6
KOLS				*e*pP	pP	17 56 17.3	-1.3
SUW	Suwalki	71.61	324	*e*P	P	17 56 11.4	-1.1
FINES	FINESS Array B	71.75	332	P	P	17 56 12.7	-0.5
	comp=Z,7.4nm,0.5s,mb4.9,baz=95,slow=6.3,SNR=44						
FINES	FINESS Array B	71.75	332	P	P	17 56 12.7	-0.5
FINES				pmax	pmax		
	comp=Z,7.0nm,0.5s						
KAF	Kangasniemi	71.82	333	*e*p	P	17 56 12.8	-0.9
	comp=Z,12nm,0.5s,mb5.1						
KAF	Kangasniemi	71.82	333	*e*P	P	17 56 12.8	-0.9
KAF				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.1						
CRVS	Cervenica-Dubn	71.88	319	*e*P	P	17 56 15.6	+1.4
CRVS				*e*sP	sP	17 56 25.4	+0.9
PSZ	Piszkesteto	72.81	317	*e*P	P	17 56 18.8	-0.9
OJC	Ojcow	73.12	320	*e*P	P	17 56 20.7	-0.8
VYHS	Vyhne	73.57	318	*i* P	P	17 56 23.8	-0.4
SRO2	Moca	73.80	317	*e*P	pP	17 56 31.9	-1.2
SRO2	Moca	73.80	317	*e*pP	pP	17 56 31.9	-1.2
KEV	Kevo	73.83	341	*e*p	P	17 56 24.9	-0.3
	comp=Z,20nm,0.9s,mb5.1						
KEV	Kevo	73.83	341	*e*P	P	17 56 24.9	-0.3
KEV				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
OKC	Ostrava-Krasne	74.14	319	*e*P	P	17 56 26.6	-0.8
OKC				*e*pP	pP	17 56 34.3	-0.7
ARCES	ARCESS Array B	74.26	340	P	P	17 56 27.8	0.0
	comp=Z,9.4nm,0.6s,mb4.9,baz=87,slow=4.7,SNR=18						
ARCES	ARCESS Array B	74.26	340	P	P	17 56 27.8	+0.1
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ARCES	ARCESS Array B	74.26	340	P	P	17 56 27.8	0.0
MORC	Moravsky Berou	74.52	319	*e*P	P	17 56 29.6	-0.1
	comp=Z,34nm,1.2s,mb5.2						
LBTB	Lobatse	74.65	241	*e*P	P	17 56 31.7	+0.8
	comp=Z,23nm,1.0s,mb5.1						
ZST	Bratislava	74.70	317	*i* P	P	17 56 31.1	+0.4
ZST				*e*pP	pP	17 56 38.0	-0.3
KTK1	Kautokeino	74.89	339	*e*P	P	17 56 32.3	+0.9
KTK1				AMb	AMB	17 56 33.5	
	comp=Z,74nm,1.4s,mb5.4						
GKP	Gorka Klasztor	75.01	323	*e*P	P	17 56 31.7	-0.7
BILL	Bilibino	75.17	22⇑	*e*P	P	17 56 33.0	0.0
BILL	Bilibino	75.17	22	*e*P	P	17 56 32.8	-0.2
BILL			⇑	*e*P		17 56 33.1	
DPC	Dobruska-Polom	75.35	320	*e*P	P	17 56 34.9	+0.5
DPC				*e*pP	pP	17 56 41.7	-0.3
KSP	Ksiaz	75.40	320⇑	*e*P	P	17 56 34.9	+0.2
KSP	Ksiaz	75.40	320	*e*P	P	17 56 34.5	-0.2
UPC	Upice	75.56	320	*e*P	P	17 56 35.4	-0.2
ARSA	Arzberg	75.71	316⇑	*i*P	P	17 56 36.6	+0.1
	comp=Z,17nm,1.3s,mb4.8						
BOSA	Boshof	76.05	238	*e*P	P	17 56 39.7	+0.9
	comp=Z,36nm,1.1s,mb5.2						
FX1	Attu Island--F	76.39	38	P	P	17 56 41.8	+1.6
	comp=Z,16nm,0.7s,mb5.0,baz=2.2,slow=16,SNR=3.4						
FX1	Attu Island--F	76.39	38	P	P	17 56 41.8	+1.6
FX1				pmax	pmax		
	comp=Z,16nm,0.7s						
PRU	Pruhonice	76.47	319	*e*P	P	17 56 40.7	-0.1
PRU				*e*pP	pP	17 56 48.1	-0.3
PVCC	Panska Ves	76.48	320	*e*P	P	17 56 40.8	0.0
TRO	Tromso	76.52	340	*e*P	P	17 56 39.5	-1.2
TRO				*e*pP	pP	17 56 48.3	+0.1
MOA	Molln	76.58	317⇑	*i*P	P	17 56 41.0	-0.4
	comp=Z,18nm,1.2s,mb4.9						
BRG	Berggiesshubel	76.89	320	*i* P	P	17 56 43.3	+0.2
BRG				*i*	pP	17 56 50.4	-0.3
BRG				pmax	pmax		
	comp=Z,34nm,1.7s,mb5.0						
BRG	Berggiesshubel	76.89	320	*i* P	P	17 56 43.3	+0.2
	comp=Z,34nm,1.7s,mb5.0						
BRG				*i*	pP	17 56 50.4	-0.3
GERES	GERESS Array B	76.99	318	P	P	17 56 43.8	+0.2
	comp=Z,8.1nm,0.6s,mb4.8,baz=87,slow=5.9,SNR=38						
GERES				pP	pP	17 56 50.8	-0.5
	comp=Z,6.3nm,0.8s,baz=90,slow=4.0,SNR=9.4						
GERES	GERESS Array B	76.99	318	P	P	17 56 43.8	+0.2
GERES				*PP	pP	17 56 50.8	-0.5
GERES				pmax	pmax		
	comp=Z,8.0nm,0.6s						
GERES				pmax	pmax		
	comp=Z,6.0nm,0.8s						
RUE	Ruedersdorf	77.05	322	*e*P	P	17 56 44.0	+0.1
	comp=Z,29nm,0.8s,mb5.2						
KHC	Kasperske Hory	77.07	318	*e*P	P	17 56 43.9	-0.2
KHC				*e*pP	pP	17 56 51.0	-0.7
PTCC	Patocco-Chiusa	77.18	316	*e*P	P	17 56 44.7	-0.1
KBA	Koelnbreinsper	77.19	316⇑	*i*P	P	17 56 44.8	0.0
	comp=Z,16nm,1.2s,mb4.8						
CLL	Collm	77.50	321⇓	*i*P	P	17 56 45.8	-0.6
CLL				*i*	pP	17 56 53.0	-1.0
CLL				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.9						
CLL	Collm	77.50	321⇓	*i*P	P	17 56 45.8	-0.6
	comp=Z,22nm,1.4s,mb4.9						
CLL				*i*	pP	17 56 53.0	-1.0
CLL	Collm	77.50	321	⇓P	P	17 56 45.8	-0.6
	comp=Z,logA/T=1.2,mb4.9						
CLL				*i* *PP	pP	17 56 53.0	-1.0
MOR8	Moi Rana	77.69	336	*e*P	P	17 56 47.0	-0.2
NKC	Novy Kostel	77.83	319	*e*P	P	17 56 48.8	+0.6
NKC				*e*pP	pP	17 56 55.6	-0.3
SFI	Santa Sofia	78.26	313	*e*P	P	17 56 53.0	+2.2
PGD	Poggio Sodo	78.35	313	*e*P	P	17 56 52.4	+1.1
WTTA	Wattenberg	78.36	316⇑	*i*P	P	17 56 51.2	0.0
	comp=Z,18nm,0.6s,mb5.2						
MOX	Moxa	78.36	320	*e*P	P	17 56 51.0	-0.2
CTI	Castel Tesino	78.36	315	*e*P	P	17 56 51.6	+0.3
VMG	Vicchio	78.48	313	*e*P	P	17 56 53.5	+1.5
SEI	Scarperia	78.61	313	*e*P	P	17 56 54.6	+1.9
GRA1	Grafenberg Arr	78.62	319	*e*P	P	17 56 53.0	+0.4
	comp=Z,54nm,1.4s,mb5.3						
GRA1				*e*pP	pP	17 56 59.8	-0.4
GRF	Grafenberg Arr	78.62	319	*e*P	P	17 56 53.0	+0.4
GRF				*e**PP	pP	17 56 59.8	-0.4
GRF				pmax	pmax		
	comp=Z,54nm,1.4s,mb5.3						
GRF	Grafenberg Arr	78.62	319	*e*P	P	17 56 53.0	+0.4
	comp=Z,54nm,1.4s,mb5.3						
GRF				*e*pP	pP	17 56 59.8	-0.4
SQTA	Sankt Quirin	78.65	316⇑	*i*P	P	17 56 52.8	0.0
	comp=Z,10nm,0.5s,mb5.0						
MOTA	Moosalm	78.72	317⇑	*i*P	P	17 56 53.0	-0.2
	comp=Z,20nm,1.2s,mb4.9						
NB2	NORSAR Subarra	78.78	331	P	P	17 56 52.4	-0.8
	comp=Z,64nm,1.4s,mb5.4,baz=95,slow=5.0						
NB2	NORSAR Subarra	78.78	331	P	P	17 56 52.4	-0.8
	baz=95,slow=5.3						
NOA	NORSAR Array B	78.78	331	P	P	17 56 52.4	-0.8
	comp=Z,7.3nm,0.7s,mb4.8,baz=92,slow=5.7,SNR=25						
NOA				pP	pP	17 56 59.9	-1.0
	comp=Z,5.7nm,0.9s,baz=92,slow=5.6,SNR=5.7						
NOA	NORSAR Array B	78.78	331	P	P	17 56 52.4	-0.8
NOA				*PP	pP	17 56 59.9	-1.0
NOA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NOA				pmax	pmax		
	comp=Z,6.0nm,0.9s						
NOA	NORSAR Array B	78.78	331	P	P	17 56 52.4	-0.8
NOA				pP	pP	17 56 59.9	-1.0
BRMO	Bormio	79.24	316	*e*P	P	17 56 56.7	+0.6
MAW	Mawson	79.52	192	P	P	17 56 57.8	+0.7
	comp=Z,5.9nm,0.7s,mb4.6,baz=349,slow=8.0,SNR=7.2						
MAW	Mawson	79.52	192	P	P	17 56 57.8	+0.6
MAW				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MAW	Mawson	79.52	192	*e*P	P	17 56 57.5	+0.3
	comp=Z,33nm,1.3s,mb5.1						
DAVA	Damuels	79.56	316⇑	*i*P	P	17 56 58.2	+0.4
	comp=Z,35nm,1.2s,mb5.2						
DAVOX	Davos	79.57	316	P	P	17 56 58.0	+0.1
	comp=Z,11nm,0.6s,mb5.0,baz=152,slow=1.4,SNR=18						
VAI	Varese	80.38	315	*e*P	P	17 57 01.8	-0.4
PGF	Pioggiola	80.39	312	*e*P	P	17 57 02.2	-0.1
	comp=Z,362nm,1.8s,mb5.7						
SUR	Sutherland	80.83	235	*e*P	P	17 57 05.6	+0.7
	comp=Z,34nm,0.8s,mb5.3						
SUR				*e*	pP	17 57 14.8	+2.3
CDF	Champ du Feu	81.25	318	*e*P	P	17 57 06.1	-0.6
	comp=Z,11nm,0.8s,mb4.5						
SBF	Sospel	81.45	313	*e*P	P	17 57 07.5	-0.4
	comp=Z,59nm,0.9s,mb5.2						
LPG	La Plagne	81.81	315	*e*P	P	17 57 09.8	+0.1
	comp=Z,51nm,0.9s,mb5.2						
MBDF	Montbardon	81.86	314	*e*P	P	17 57 09.7	-0.3
	comp=Z,11nm,0.6s,mb4.6						
BNI	Bardonecchia	81.90	314	*e*P	P	17 57 10.1	0.0
	comp=Z,32nm,1.1s,mb5.2						
HAU	Haudompre	81.90	317	*e*P	P	17 57 09.5	-0.6
	comp=Z,60nm,1.1s,mb5.1						
HAU				*e*R			
	comp=Z,563nm,19.2s						
BAIF	Baives	83.13	320	*e*P	P	17 57 16.5	+0.1
	comp=Z,107nm,1.3s,mb5.4						
SSF	Saint Saulge	83.91	317	*e*P	P	17 57 20.1	-0.4
	comp=Z,38nm,1.2s,mb5.1						
BGF	Bois d'Agland	84.42	316	*e*P	P	17 57 23.1	0.0
RJF	Les Rejaudoux	85.50	315	*e*P	P	17 57 28.4	-0.1
RJF				*e*R			
	comp=Z,558nm,22.2s						
FLN	La Foliniere	86.33	319	*e*P	P	17 57 31.9	-0.6
	comp=Z,297nm,1.7s,mb6.0						
FLN				*e*R			
	comp=Z,680nm,22.5s						
ETSF	Etsaut	87.35	313	*e*P	P	17 57 37.7	+0.1
	comp=Z,19nm,0.9s,mb5.0						
ESDC	Sonseca Array	90.47	310	P	P	17 57 53.1	+0.6
	comp=Z,4.5nm,0.7s,mb4.9,baz=58,slow=4.4,SNR=14						
ESDC				pP	pP	17 58 00.0	-0.2
	comp=Z,4.1nm,0.8s,baz=55,slow=4.2,SNR=7.3						
IMA	Indian Mountai	90.71	22	*e*P	P	17 57 54.9	+1.9
	comp=Z,164nm,1.4s						
SPU	Mount Spurr	93.41	26	*e*P	P	17 58 06.1	+0.7
ILAR	Eielson Array	93.83	22	P	P	17 58 07.7	+0.3
	comp=Z,3.4nm,1.1s,mb4.7,baz=12,slow=5.3,SNR=4.6						
ILAR				pP	pP	17 58 15.8	+0.7
	comp=Z,1.3nm,0.7s,baz=322,slow=5.9,SNR=6.9						
ILAR	Eielson Array	93.83	22	P	P	17 58 07.7	+0.4
ILAR				*PP	pP	17 58 15.8	+0.8
ILAR				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
VNDA	Vanda	93.96	168	P	P	17 58 08.1	+0.4
	comp=Z,1.8nm,1.0s,mb4.5,baz=16,slow=22,SNR=3.4						
VNDA	Vanda	93.96	168	P	P	17 58 08.1	+0.4
VNDA				pmax	pmax		
	comp=Z,2.0nm,1.0s						
INK	Inuvik	96.03	16	P	P	17 58 18.1	+0.7
	comp=Z,11nm,1.0s,mb5.2,baz=340,slow=5.3,SNR=16						
INK	Inuvik	96.03	16	P	P	17 58 18.1	+0.7
INK				pmax	pmax		
	comp=Z,11nm,1.0s						
YKA	Yellowknife Ar	105.44	13	Pdiff	Pdif	17 59 01.2	+1.6
	comp=Z,0.9nm,1.0s,baz=327,slow=4.8,SNR=8.1						
YKA				PP	PP	18 03 18.9	-5.4
	comp=Z,0.5nm,1.0s,baz=329,slow=7.8,SNR=4.5						
YKA	Yellowknife Ar	105.44	13	P	Pdif	17 59 01.2	+1.6
YKA						18 03 18.9	
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA				pmax	pmax		
	comp=Z,1.0nm,1.0s						
YKA	Yellowknife Ar	105.44	13	Pdif	Pdif	17 59 01.2	+1.6
YKA				PP	PP	18 03 18.9	-5.4
ULM	Lac du Bonnet	120.45	7	PKP	PKPdf	18 03 42.9	-2.4
	comp=Z,1.6nm,0.6s,baz=187,slow=14,SNR=2.9						
REDW	Red Top Meadow	123.26	22	*e*PKPdf	PKPdf	18 03 48.7	-2.2
NVAR	Mina Array Bea	124.08	30	PKP	PKPdf	18 03 51.1	-1.6
	comp=Z,2.8nm,0.7s,baz=294,slow=2.6,SNR=15						
NVAR				pPKP		18 03 59.0	
	comp=Z,4.8nm,1.1s,baz=303,slow=2.1,SNR=5.1						
PDAR	Pinedale Array	124.24	21	PKP	PKPdf	18 03 50.4	-2.5
	comp=Z,2.7nm,0.8s,baz=103,slow=0.2,SNR=18						
TRCR	Troy Canyon	125.47	28	*e*PKPdf	PKPdf	18 03 53.9	-1.5
MSU	Marysvale	126.87	26	*e*PKPdf	PKPdf	18 03 56.5	-1.5
NEN	Nelson	127.98	30	*e*PKPdf	PKPdf	18 03 57.7	-2.7
PFO	Pinyon Flat Ob	128.74	33	*e*PKPdf	PKPdf	18 03 59.3	-2.5
MNTX	Cornudas Mount	135.55	24	*e*PKPdf	PKPdf	18 04 12.0	-2.7
TXAR	Lajitas Array	138.32	24	PKP	PKPdf	18 04 17.6	-2.2
	comp=Z,1.1nm,0.6s,baz=20,slow=0.3,SNR=13						
JCT	Junction City	138.64	18	PKPdf	PKPdf	18 04 17.8	-2.6
BDFB	Brasilia	142.36	256	PKP	PKPdf	18 04 25.5	-1.8
	comp=Z,5.8nm,1.0s,baz=18,slow=4.4,SNR=4.4						
BDFB	Brasilia	142.36	256	PKIKP	PKPdf	18 04 25.5	-1.9
BDFB				pmax	pmax		
	comp=Z,6.0nm,1.0s						
SJG	San Juan	146.78	324	PKPbc	PKPbc	18 04 33.0	+1.1
	comp=Z,5.8nm,0.4s,baz=114,slow=2.7,SNR=4.1						
SJG	San Juan	146.78	324	PKP2	PKPab	18 04 33.0	-2.5
SJG				pmax	pmax		
	comp=Z,6.0nm,0.4s						
PCRV	Puerto La Cruz	151.53	311	PKPbc	PKPdf	18 04 44.6	+2.1
	comp=Z,7.0nm,0.5s,baz=287,slow=3.4,SNR=10						
SDV	Santo Domingo	156.63	319	PKP	PKPdf	18 04 46.7	-2.8
	comp=Z,6.5nm,1.0s,baz=256,slow=20,SNR=4.2						
SDV				PKPab	PKPab	18 05 16.5	-0.2
	comp=Z,21nm,1.1s,baz=252,slow=3.5,SNR=8.4						
SDV	Santo Domingo	156.63	319	*e*PKPdf	PKPdf	18 04 47.1	-2.5
LVC	Limon Verde	158.71	228	PKP	PKPdf	18 04 49.1	-2.8
	comp=Z,2.5nm,0.9s,baz=238,slow=8.0,SNR=3.1						
LVC				PKPab	PKPab	18 05 26.4	+1.1
	comp=Z,15nm,1.2s,baz=70,slow=6.1,SNR=7.8						
LVC				pPKPab		18 05 33.5	
	comp=Z,8.4nm,0.8s,baz=96,slow=2.0,SNR=8.5						
LVC	Limon Verde	158.71	228	*e*PKPdf	PKPdf	18 04 48.7	-3.3
LPAZ	La Paz	161.12	245	PKP	PKPdf	18 04 53.5	-1.1
	comp=Z,1.6nm,0.8s,baz=338,slow=1.1,SNR=6.5						
LPAZ				PKPab	PKPab	18 05 36.8	+0.9
	comp=Z,4.6nm,0.9s,baz=92,slow=6.5,SNR=7.3						
LPAZ				pPKPab		18 05 43.7	
	comp=Z,7.1nm,0.9s,baz=66,slow=4.3,SNR=12						
LPAZ	La Paz	161.12	245	PKIKP	PKPdf	18 04 53.6	-1.1
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.9s						
LPAZ	La Paz	161.12	245	*e*PKPdf	PKPdf	18 04 53.5	-1.1
ROSC	El Rosal	162.06	319	PKP	PKPdf	18 04 54.7	-1.1
	comp=Z,5.5nm,0.8s,baz=104,slow=20,SNR=3.7						
ROSC				PKPab	PKPab	18 05 40.0	-0.2
	comp=Z,2.6nm,0.4s,baz=111,slow=23,SNR=3.6						

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*BJI **26** 17:50:11.3, 13.35N×92.91E, h41^{km}, mB5.3, mb4.9, Ms5.0, Msz4.7*

*IDC **26** 17:50:12.4±0.4, 13.61N×92.84E, h26^{km}±2^{km}, mb4.5/25, mb1 4.6/25, mb1mx4.5/28, ML5.1/1, MS4.6/3, Ms1 4.6/3, ms1mx4.0/22, Error ellipse: s-maj=15.9km s-min=10.1km az=44.0*

*NEIC **26** 17:50:12.6±0.2, 13.60N×92.85E, mb5.0/30, Error ellipse: s-maj=7.3km s-min=5.5km az=190.0*

ISC 26 17:50:10.8±0.3, **13.61N**±0.05×**92.83E**±0.03, **h26^{km}, h26^{km}**±.4^{km}**:pP-P, n176,** σ1^{s}06/143, **mb4.9**/67, **MS4.7**/5, **8C-2D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	6.80	98	P	Sn	17 53 12.0	+3.1
CMAR	Chiang Mai Arr	7.60	50	Pn	Pn	17 52 01.2	-1.6
	7.6nm,0.3s,baz=128,slow=51,SNR=1.1						
CMAR				Sn	Sn	17 53 23.9	-5.0
	24nm,0.3s,baz=243,slow=22,SNR=3.0						
CMAR				LR	LR	17 55 34.7	
	comp=Z,3µm,21.5s,baz=230,slow=42						
CHG	Chiang Mai	7.83	48	⇑P	Pn	17 52 16.5	+11
	150nm,0.8s						
CAL	Calcutta	9.86	335	*e*		17 52 38.3	
AGT	Agartala	10.33	352⇓	*i*	P	17 52 53.0	+12
AGT				*i*		17 54 14.0	
SHL	Shillong	11.93	356	*e*	P	17 53 04.1	+1.7
PALK	Pallekele	13.48	243	*e*P	P	17 53 19.4	-3.5
	22nm,0.8s						
HYB	Hyderabad	14.27	287	*e*P	P	17 53 32.0	-1.4
HYB	Hyderabad	14.27	287	*i* P	P	17 53 32.5	-0.9
PKI	Pulchoki	15.53	335	*e*P	P	17 53 48.1	-1.7
GUN	Gumba	15.64	337	*e*P	P	17 53 49.2	-2.0
DMN	Daman	15.69	334	*e*P	P	17 53 50.6	-1.2
	239nm,0.8s						
KKN	Kakani	15.77	335	*e*P	P	17 53 51.7	-1.2
LSA	Lhasa	16.09	355	*e*P	P	17 53 58.8	+1.8
	37nm,0.7s						
GKN	Gorkha	16.23	333	*e*P	P	17 53 57.0	-1.8
	68nm,0.5s						
KOLN	Koldanda	16.51	330	*e*P	P	17 54 00.1	-2.3
	330nm,1.0s						
QIZ	Qiongzhong	17.19	69	*e*P	P	17 54 12.2	+1.3
BHPL	Bhopal	17.46	305	*i*		17 54 24.9	
	82nm,1.4s						
GYA	Guiyang	18.21	43⇑	*i*P	P	17 54 24.5	+0.8
GYA				AP		17 54 29.5	
GYA				AMB	AMB		
	comp=Z,50nm,1.4s						
GYA				AMB	AMB		
	comp=Z,670nm,4.2s						
GYA				LR	LR		
	comp=N,2µm,16.0s						
GYA				LR	LR		
	comp=E,3µm,16.8s						
GYA				LR	LR		
	comp=Z,2µm,17.0s						
KAD	Karad	18.34	284	*i*	P	17 54 25.6	+0.3
PTH	Pithoragarh	19.70	326	*e*	P	17 54 46.2	+5.0
PTH				*e*	S	17 58 05.1	-11
BOM	Bombay	19.92	288	*e*	P	17 54 45.8	+2.2
BOM				*e*	S	17 58 22.2	+1.4
CD2	Chengdu	19.95	29	P	P	17 54 44.3	+0.4
CD2				AMB	AMB		
	comp=Z,90nm,1.0s						
NDI	New Delhi	20.87	318	*e*	P	17 54 55.0	+1.6
DDI	Dehra Dun	21.51	323	*e*	P	17 54 59.5	-0.4
DDI				*e*		17 59 56.9	
ENH	Enshi	22.62	40	*e*P	P	17 55 09.7	-1.3
	comp=Z,234nm,1.0s,mb5.6						
PONG	Pong	23.93	323	*e*	P	17 55 34.0	+10
THN	Thein Dam	24.41	323	*e*	P	17 55 28.3	-0.1
LZH	Lanzhou	24.48	22	*e*P	P	17 55 32.0	+3.0

LZH				AMB	AMB		
	comp=Z,131nm,1.3s,mb5.2						
LZH				AMB	AMB		
	comp=Z,612nm,5.4s						
LZH				LR	LR		
	comp=E,2μm,16.5s						
LZH				LR	LR		
	comp=Z,3μm,19.0s,MS4.8						
WHN	**Wuhan**	**26.03**	**46**	P	**P**	**17 55 45.0**	**+1.3**
GTA	**Gaotai**	**26.43**	**12**	P	**P**	**17 55 47.8**	**+0.5**
GTA				AP	pP	17 55 55.0	-0.1
GTA				SCS	ScS	18 06 40.3	+1.9
GTA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
GTA				AMB	AMB		
	comp=Z,269nm,9.1s						
GTA				LR	LR		
	comp=N,1μm,18.6s,MS4.6						
GTA				LR	LR		
	comp=E,974nm,16.4s,MS4.6						
GTA				LR	LR		
	comp=Z,1μm,19.8s,MS4.5						
NJ2	**Nanjing**	**30.07**	**48**	*e*P	**P**	**17 56 19.5**	**-0.8**
NJ2				AP	pP	17 56 28.3	+0.2
NJ2				XP	sP	17 56 31.5	0.0
NJ2				AMB	AMB		
	comp=Z,1μm,8.8s						
HHC	**Hu-ho-hao-te**	**31.70**	**28**	*e*P	**P**	**17 56 36.3**	**+1.8**
HHC				AP	pP	17 56 43.0	+0.7
HHC				XP	sP	17 56 48.0	+2.2
HHC				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.7						
HHC				LR	LR		
	comp=N,1μm,17.8s,MS4.8						
HHC				LR	LR		
	comp=E,1μm,15.5s,MS4.8						
HHC				LR	LR		
	comp=Z,1μm,15.5s,MS4.7						
KZA	**Kyzart**	**32.21**	**335**	P	pP	17 56 49.0	+2.2
	SNR=5.6						
UCH	**Uchtor**	**32.64**	**334**	P	pP	17 56 52.6	+2.1
	SNR=9.1						
TKM2	**Tokmak 2**	**32.78**	**336**	P	pP	17 56 52.2	+0.5
	SNR=7.0						
KBK	**Karagaybulak**	**32.81**	**335**	P	pP	17 56 54.9	+2.9
	SNR=8.6						
AML	**Almayashu**	**32.91**	**333**	P	pP	17 56 54.0	+1.1
	SNR=9.7						
AAK	**Ala-Archa**	**32.98**	**335**	P	pP	17 56 55.8	+2.3
	SNR=7.4						
AAK	**Ala-Archa**	**32.98**	**335**	*e*P	**P**	**17 56 45.3**	**-0.4**
CHMS	**Chumysh**	**33.18**	**335**	P	pP	17 56 57.1	+1.8
	SNR=9.0						
EKS2	**Erkin-Say**	**33.31**	**334**	P	pP	17 56 57.2	+0.8
	SNR=8.9						
BJT	**Baijiatuau**	**33.35**	**34**	*e*P	**P**	**17 56 49.4**	**+0.5**
BJI	**Beijing**	**33.37**	**34**	P	**P**	**17 56 49.0**	**-0.1**
BJI				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.9						
USP	**Ospenovka**	**33.50**	**335**	P	pP	17 56 58.1	+0.1
	SNR=12						
JOW	**Kunigami**	**35.64**	**63**	P	**P**	**17 57 08.9**	**+0.2**
	baz=260,slow=6.6,SNR=14						
SONM	**Songino Array**	**35.95**	**16**	P	**P**	**17 57 11.5**	**+0.4**
	comp=Z,7.1nm,1.0s,mb4.5,baz=198,slow=7.8,SNR=15						
SONM				pP	pP	17 57 19.6	+0.6
	comp=Z,9.0nm,0.7s,baz=205,slow=6.3,SNR=16						
SONM				PcP	PcP	17 59 37.8	-0.1
	comp=Z,1.0nm,0.5s,baz=207,slow=4.7,SNR=4.9						
TLY	**Talaya**	**38.97**	**11**	*e*P	**P**	**17 57 39.5**	**+3.1**
	comp=Z,7.1nm,0.8s,mb4.5						
ZAL	**Zalesovo**	**40.73**	**353**	P	**P**	**17 57 50.5**	**-0.4**
	comp=Z,5.2nm,0.6s,mb4.3,baz=307,slow=8.2,SNR=12						
ZAL				pP	pP	17 57 58.3	-0.6
	comp=Z,24nm,0.6s,baz=298,slow=8.5,SNR=31						
CN2	**Changchun**	**41.05**	**36**	*e*P	**P**	**17 57 53.8**	**+0.2**
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.6						
HIA	**Hailar**	**41.88**	**26**	*e*P	**P**	**17 58 00.3**	**-0.2**
	comp=Z,11nm,0.9s,mb4.5						
BVAR	**Borovoye Array**	**43.19**	**340**	P	**P**	**17 58 09.4**	**-1.6**
	comp=Z,2.5nm,0.6s,mb4.1,baz=141,slow=9.5,SNR=10						
BVAR				pP	pP	17 58 18.4	-0.5
	comp=Z,3.2nm,0.5s,baz=135,slow=6.3,SNR=13						
BRVK	**Borovoye**	**43.25**	**340**	*e*P	**P**	**17 58 11.2**	**-0.4**
	comp=Z,5.9nm,0.8s,mb4.4						
RDF	**Al-Radifah**	**44.58**	**297**	*e*P	**P**	**17 58 23.3**	**+0.6**
RDF				AMb	AMB	17 58 27.9	
	comp=Z,62nm,1.2s,mb5.3						
MIB	**Mutribah**	**44.92**	**299**	*e*P	**P**	**17 58 25.6**	**+0.1**
MIB				AMb	AMB	17 58 34.1	
	comp=Z,38nm,0.8s,mb5.3						
RST	**Umm Al-Ruwaisa**	**45.16**	**298**	*e*P	**P**	**17 58 27.8**	**+0.4**
RST				AMb	AMB	17 58 38.3	
	comp=Z,33nm,0.6s,mb5.3						
MAJO	**Matsushiro**	**46.48**	**52**	*e*P	**P**	**17 58 37.5**	**-0.1**
MAJO				*e*pP	pP	17 58 45.8	+0.1
MAT	**Matsushiro**	**46.48**	**52**	P	**P**	**17 58 36.7**	**-1.0**
MAT				*e*S	**S**	**18 05 35.0**	**+12**
MAT	**Matsushiro**	**46.48**	**52**	*e*P	**P**	**17 58 37.0**	**-0.7**
	comp=Z,26nm,1.0s,mb5.1						
MAT				S	**S**	**18 05 35.0**	**+12**
GNI	**Garni**	**49.61**	**312**	P	**P**	**17 59 03.6**	**+1.6**
	comp=Z,4.9nm,0.5s,mb4.8,baz=168,slow=7.6,SNR=9.7						
GNI				LR	LR	18 23 28.3	
	comp=Z,712nm,19.2s,MS4.7,baz=104,slow=40						
ARU	**Arti**	**50.15**	**336**	*e*P	**P**	**17 59 05.2**	**-0.7**
	comp=Z,4.5nm,0.5s,mb4.8						
ARU				*e*pP	pP	17 59 13.2	-0.8
NWAO	**Narrogin (SRO)**	**51.81**	**154**	P	**P**	**17 59 18.4**	**-0.5**
	comp=Z,19nm,0.5s,mb5.3,baz=322,slow=7.3,SNR=48						
NWAO	**Narrogin (SRO)**	**51.81**	**154**	P	**P**	**17 59 18.4**	**-0.5**
KIV	**Kislovodsk**	**52.29**	**316**	P	**P**	**17 59 23.4**	**+1.1**
	comp=Z,98nm,0.8s,mb5.8,SNR=10						
KIV	**Kislovodsk**	**52.29**	**316**	*e*P	**P**	**17 59 22.6**	**+0.3**
	comp=Z,9.4nm,0.6s,mb4.9						
KIV				*e*pP	pP	17 59 30.5	+0.1
WRA	**Warramunga Arr**	**52.72**	**128**	P	**P**	**17 59 24.3**	**-1.5**
	comp=Z,42nm,0.6s,mb5.5,baz=307,slow=8.2,SNR=27						
WRA				PcP	PcP	18 00 35.2	-0.1
	comp=Z,8.1nm,0.6s,baz=315,slow=3.3,SNR=7.1						
WRA				pPcP		18 00 43.4	
	comp=Z,5.9nm,0.5s,baz=317,slow=3.1,SNR=4.9						
YSS	**Yuzh-Sakhalins**	**53.20**	**41**	*e*P	**P**	**17 59 29.7**	**+0.7**
	comp=Z,32nm,1.0s,mb5.2						
MALT	**Malatya**	**53.88**	**308**	*e*P	**P**	**17 59 34.1**	**0.0**
	comp=Z,34nm,1.4s,mb5.1						
ASAR	**Alice Springs**	**54.64**	**132**	P	**P**	**17 59 39.1**	**-0.8**
	comp=Z,26nm,0.6s,mb5.4,baz=307,slow=6.7,SNR=30						
ASAR				PcP	PcP	18 00 42.7	+0.2
	comp=Z,5.5nm,0.8s,baz=316,slow=4.0,SNR=4.1						
YAK	**Yakutsk**	**55.04**	**20**	*e*P	**P**	**17 59 40.5**	**-1.9**
	comp=Z,38nm,0.6s,mb5.6						
EIL	**Elat**	**55.59**	**297**	P	**P**	**17 59 46.4**	**-0.4**
	comp=Z,3.1nm,0.6s,mb4.5,baz=89,slow=19,SNR=3.3						
KMBO	**Kilima Mbogo**	**56.98**	**260**	P	**P**	**17 59 58.1**	**+1.2**
	comp=Z,0.8nm,0.6s,mb4.0,baz=51,slow=20,SNR=4.0						
BRTR	**Keskin Array B**	**57.80**	**308**	P	**P**	**18 00 01.3**	**-1.0**
	comp=Z,5.3nm,0.7s,mb4.7,baz=121,slow=7.7,SNR=20						
BRTR				pP	pP	18 00 09.0	-1.5
	comp=Z,11nm,0.7s,baz=121,slow=6.9,SNR=19						
ISP	**Isparta**	**59.97**	**306**	*e*P	**P**	**18 00 15.9**	**-1.5**
	comp=Z,122nm,1.8s,mb5.6						
CTA	**Charters Tower**	**62.31**	**122**	P	**P**	**18 00 33.0**	**-0.4**
	comp=Z,8.4nm,0.8s,mb4.9,baz=326,slow=6.7,SNR=5.4						
CFR	**Carcaliu**	**62.66**	**314**	⇑*i*P	**P**	**18 00 35.1**	**-0.4**
AKASG	**Malin Array Be**	**62.92**	**320**	P	**P**	**18 00 35.1**	**-1.9**
	comp=Z,1.1nm,0.5s,mb4.2,baz=91,slow=5.1,SNR=7.2						
AKASG				pP	pP	18 00 44.0	-1.4
	comp=Z,9.2nm,0.8s,baz=78,slow=5.5,SNR=12						
MBAR	**Mbarara**	**63.09**	**262**	*e*P	**P**	**18 00 36.7**	**-2.0**
MBAR				*e*pP	pP	18 00 47.4	+0.4
VRI	**Vrincioaia**	**63.74**	**315**	⇑*i*P	**P**	**18 00 43.3**	**+0.7**
IDI	**Anoyia**	**64.33**	**303**	P	**P**	**18 00 45.7**	**-0.9**
	comp=Z,8.2nm,0.6s,mb4.9,baz=72,slow=9.2,SNR=9.5						
STKA	**Stephens Creek**	**65.02**	**135**	P	**P**	**18 00 48.7**	**-2.4**
	comp=Z,13nm,0.8s,mb5.0,baz=316,slow=8.4,SNR=5.6						
STKA	**Stephens Creek**	**65.02**	**135**	P	**P**	**18 00 48.7**	**-2.4**
KWP	**Kalwaria**	**66.89**	**318**	*e*P	**P**	**18 01 02.4**	**-0.4**
	comp=Z,40nm,1.0s,mb5.4						
KWP				*e*pP	pP	18 01 10.5	-0.5
FINES	**FINESS Array B**	**67.08**	**331**	P	**P**	**18 01 03.0**	**-0.8**
	comp=Z,5.1nm,0.8s,mb4.6,baz=101,slow=6.6,SNR=16						
FINES				pP	pP	18 01 11.3	-0.7
	comp=Z,17nm,0.6s,baz=105,slow=7.6,SNR=20						
KOLS	**Kolonicke sedl**	**67.10**	**318**	*e*P	**P**	**18 01 04.4**	**+0.3**
KOLS				*e*pP	pP	18 01 11.8	-0.6
KAF	**Kangasniemi**	**67.14**	**332**	*e*p	**P**	**18 01 05.6**	**+1.4**
	comp=Z,20nm,1.1s,mb5.0						
SUW	**Suwalki**	**67.15**	**323**	*e*P	**P**	**18 01 03.6**	**-0.8**
SUW				*e*	pP	18 01 12.3	-0.4
CRVS	**Cervenica-Dubn**	**67.63**	**317**	*e*P	**P**	**18 01 10.0**	**+2.5**
CRVS				*e*pP	pP	18 01 17.4	+1.7
NIE	**Niedzica**	**68.42**	**318**	*e*P	**P**	**18 01 13.0**	**+0.6**
PSZ	**Piszkesteto**	**68.60**	**316**	*e*P	**P**	**18 01 13.4**	**-0.1**
	comp=Z,9.5nm,1.0s,mb4.7						
OJC	**Ojcow**	**68.81**	**319**	*e*P	**P**	**18 01 14.3**	**-0.5**
KEV	**Kevo**	**69.04**	**340**	*e*p	**P**	**18 01 15.6**	**-0.3**
	comp=Z,25nm,1.0s,mb5.1						
VYHS	**Vyhne**	**69.33**	**317**	*e*P	**P**	**18 01 16.8**	**-1.3**
VYHS				*e*pP	pP	18 01 25.8	-0.5
ARCES	**ARCESS Array B**	**69.47**	**340**	P	**P**	**18 01 19.4**	**+0.8**
	comp=Z,4.3nm,0.7s,mb4.5,baz=89,slow=6.6,SNR=31						
ARCES				pP	pP	18 01 27.1	+0.2
	comp=Z,12nm,0.7s,baz=90,slow=6.1,SNR=15						
SRO2	**Moca**	**69.60**	**316**	*e*pP	pP	18 01 28.1	+0.1
SRO	**Srobarova**	**69.66**	**316**	*e*P	pP	18 01 29.5	+1.2
SRO	**Srobarova**	**69.66**	**316**	*e*pP	pP	18 01 29.5	+1.2
OKC	**Ostrava-Krasne**	**69.85**	**318**	*e*P	**P**	**18 01 21.4**	**+0.2**
OKC				*e*pP	pP	18 01 28.6	-0.8
LSZ	**Lusaka**	**70.08**	**248**	*e*P	**P**	**18 01 23.6**	**+0.5**
	comp=Z,32nm,1.4s,mb5.1						
LSZ				*e*pP	pP	18 01 32.7	+1.3
MORC	**Moravsky Berou**	**70.24**	**318**	*e*P	**P**	**18 01 23.0**	**-0.6**
	comp=Z,161nm,0.8s,mb6.0						
ZST	**Bratislava**	**70.48**	**317**	*e*P	**P**	**18 01 25.3**	**+0.2**
ZST				*e*	pP	18 01 31.8	-1.5
DPC	**Dobruska-Polom**	**71.05**	**319**	*e*P	**P**	**18 01 28.8**	**+0.4**
DPC				*e*pP	pP	18 01 36.4	-0.3
KSP	**Ksiaz**	**71.08**	**319**	*e*P	pP	18 01 36.6	-0.3
KSP	**Ksiaz**	**71.08**	**319**	*e*P	**P**	**18 01 28.7**	**+0.1**
KSP				*e*	pP	18 01 36.7	-0.2
KSP				*e*		18 01 45.4	
UPC	**Upice**	**71.25**	**319**	*e*P	pP	18 01 37.2	-0.7
UPC				*e*pP	Px	18 01 44.8	
UPC	**Upice**	**71.25**	**319**	*e*pP	pP	18 01 37.2	-0.7
UPC				*e*x	x	18 01 44.8	
BILL	**Bilibino**	**71.29**	**22**	*e*P	**P**	**18 01 28.8**	**-0.8**
	comp=Z,5.5nm,0.6s,mb4.7						
TRO	**Tromso**	**71.74**	**339**	*e*P	**P**	**18 01 31.4**	**-0.9**
TRO				*e*pP	pP	18 01 39.1	-1.5
TRO				AMb	AMB	18 01 42.2	
	comp=Z,39nm,1.7s,mb5.0						
PVCC	**Panska Ves**	**72.17**	**319**	*e*P	pP	18 01 44.4	+0.9
PVCC	**Panska Ves**	**72.17**	**319**	*e*pP	pP	18 01 44.4	+0.9
PRU	**Pruhonice**	**72.19**	**318**	*e*P	**P**	**18 01 35.4**	**+0.1**
PRU				*e*pP	pP	18 01 43.1	-0.5
MOA	**Molln**	**72.38**	**316**	⇑*i*P	**P**	**18 01 36.5**	**0.0**
	comp=Z,20nm,1.7s,mb4.8						
BRG	**Berggiesshubel**	**72.57**	**319**	*i* P	**P**	**18 01 37.7**	**+0.2**
	comp=Z,26nm,1.6s,mb4.9						
BRG				*i*	pP	18 01 46.0	+0.2
RUE	**Ruedersdorf**	**72.67**	**321**	*e*P	**P**	**18 01 38.5**	**+0.4**
	comp=Z,37nm,0.8s,mb5.4						
GERES	**GERESS Array B**	**72.74**	**317**	P	**P**	**18 01 38.7**	**+0.1**
	comp=Z,4.4nm,0.7s,mb4.5,baz=89,slow=5.6,SNR=26						
GERES				pP	pP	18 01 47.3	+0.4
	comp=Z,14nm,0.7s,baz=86,slow=5.5,SNR=25						
KHC	**Kasperske Hory**	**72.82**	**318**	*e*P	**P**	**18 01 38.7**	**-0.3**
KHC				*e*pP	pP	18 01 47.2	-0.1
HFS	**Hagfors**	**72.90**	**329**	P	**P**	**18 01 38.7**	**-0.5**
	comp=Z,8.7nm,0.9s,mb4.7,baz=90,slow=5.9,SNR=9.2						
HFS				pP	pP	18 01 47.5	0.0
	comp=Z,21nm,0.7s,baz=90,slow=5.9,SNR=19						
MOR8	**Moi Rana**	**72.96**	**335**	*e*P	**P**	**18 01 39.6**	**+0.1**
MOR8				*e*pP	pP	18 01 47.6	-0.2
MOR8				AMb	AMB	18 01 52.3	
	comp=Z,66nm,1.8s,mb5.2						
PTCC	**Patocco-Chiusa**	**73.04**	**315**	*e*P	**P**	**18 01 40.3**	**-0.1**
CLL	**Collm**	**73.16**	**320**	*i* P	**P**	**18 01 40.4**	**-0.6**
CLL				*i*	pP	18 01 48.4	-0.9
CLL	**Collm**	**73.16**	**320**	P	**P**	**18 01 40.4**	**-0.6**
CLL				*i* *PP	pP	18 01 48.4	-0.9
CLL				*e**SP	sP	18 01 55.0	+2.8
CLL				*i*		18 02 05.8	
FX1	**Attu Island--F**	**73.45**	**39**	P	**P**	**18 01 41.5**	**-1.2**
	comp=Z,14nm,0.5s,mb5.2,baz=118,slow=15,SNR=6.9						
FX1	**Attu Island--F**	**73.45**	**39**	*e*P	**P**	**18 01 42.2**	**-0.4**
LOF	**Lofoten**	**73.47**	**337**	*e*P	**P**	**18 01 45.0**	**+2.5**
LOF				AMb	AMB	18 01 49.2	
	comp=Z,142nm,1.6s,mb5.7						
LOF				*e*pP	pP	18 01 53.1	+2.3
NKC	**Novy Kostel**	**73.53**	**319**	*e*P	**P**	**18 01 43.4**	**+0.3**
NKC				*e*pP	pP	18 01 51.2	-0.3
MOX	**Moxa**	**74.05**	**319**	*i* P	**P**	**18 01 46.7**	**+0.6**
MOX	**Moxa**	**74.05**	**319**	*e*P	**P**	**18 01 46.7**	**+0.6**
NB2	**NORSAR Subarra**	**74.14**	**330**	P	**P**	**18 01 45.8**	**-0.7**
	comp=Z,13nm,0.8s,mb4.9,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**74.14**	**330**	P	**P**	**18 01 45.8**	**-0.7**
	baz=91,slow=5.9						
NOA	**NORSAR Array B**	**74.14**	**330**	P	**P**	**18 01 46.0**	**-0.5**
	comp=Z,2.5nm,0.7s,mb4.3,baz=90,slow=5.7,SNR=9.8						
NOA				pP	pP	18 01 54.5	-0.3
	comp=Z,20nm,1.0s,baz=90,slow=5.7,SNR=19						
NOA	**NORSAR Array B**	**74.14**	**330**	P	**P**	**18 01 46.0**	**-0.5**
NOA				pP	pP	18 01 54.5	-0.3
WTTA	**Wattenberg**	**74.18**	**316**	⇑*i*P	**P**	**18 01 46.5**	**-0.5**
	comp=Z,13nm,0.6s,mb5.0						
CTI	**Castel Tesino**	**74.24**	**314**	*e*P	**P**	**18 01 47.6**	**+0.3**
PGD	**Poggio Sodo**	**74.33**	**312**	*e*P	**P**	**18 01 48.9**	**+1.0**
GRA1	**Grafenberg Arr**	**74.34**	**318**	*e*P	**P**	**18 01 48.9**	**+1.0**
	comp=Z,14nm,0.8s,mb4.9						
GRA1				*e*pP	pP	18 01 57.1	+0.9
GRF	**Grafenberg Arr**	**74.34**	**318**	*e*P	**P**	**18 01 48.9**	**+1.0**
	comp=Z,14nm,0.8s,mb4.9						
GRF				*e*pP	pP	18 01 57.1	+0.9
VMG	**Vicchio**	**74.45**	**312**	*e*P	**P**	**18 01 52.3**	**+3.7**
SQTA	**Sankt Quirin**	**74.48**	**316**	⇑*i*P	**P**	**18 01 48.2**	**-0.5**
	comp=Z,3.5nm,0.5s,mb4.5						
SQTA				*i*	pP	18 01 57.2	+0.2
	comp=Z,12nm,0.6s						
MOTA	**Moosalm**	**74.54**	**316**	⇑*i*P	**P**	**18 01 48.4**	**-0.7**
	comp=Z,2.3nm,0.7s,mb4.2						
SEI	**Scarperia**	**74.58**	**312**	*e*P	**P**	**18 01 51.4**	**+2.0**
GSCL	**Gusciola**	**75.11**	**313**	*e*P	**P**	**18 01 56.0**	**+3.6**
DAVA	**Damuels**	**75.38**	**316**	⇓*i*P	**P**	**18 01 53.9**	**0.0**
	comp=Z,34nm,0.9s,mb5.3						
DAVOX	**Davos**	**75.41**	**315**	P	**P**	**18 01 54.3**	**+0.2**
	comp=Z,5.7nm,0.8s,mb4.5,baz=145,slow=8.9,SNR=9.1						
DAVOX				pP	pP	18 02 03.0	+0.6
	comp=Z,10.0nm,0.7s,baz=117,slow=7.0,SNR=9.1						
LBTB	**Lobatse**	**75.93**	**240**	*e*P	**P**	**18 01 59.1**	**+1.6**
	comp=Z,7.2nm,1.0s,mb4.6						
VAI	**Varese**	**76.26**	**314**	*e*P	**P**	**18 02 00.4**	**+1.5**
BOSA	**Boshof**	**77.60**	**236**	*e*P	**P**	**18 02 08.0**	**+1.3**
	comp=Z,6.3nm,0.6s,mb4.7						
BOSA				*e*pP	pP	18 02 16.9	+1.8
LPG	**La Plagne**	**77.70**	**314**	*e*P	**P**	**18 02 07.3**	**+0.4**
	comp=Z,104nm,0.8s,mb5.5						
BNI	**Bardonecchia**	**77.81**	**314**	*e*P	**P**	**18 02 07.5**	**0.0**
	comp=Z,19nm,0.8s,mb5.1						
MAW	**Mawson**	**83.86**	**191**	LR	LR	18 32 40.5	
	comp=Z,404nm,21.6s,MS4.8,baz=175,slow=30						
ESDC	**Sonseca Array**	**86.57**	**310**	P	**P**	**18 02 53.5**	**+0.3**
	comp=Z,4.7nm,1.1s,mb4.6,baz=62,slow=4.6,SNR=6.6						
ESDC				pP	pP	18 03 02.0	+0.3
	comp=Z,5.6nm,0.8s,baz=60,slow=4.2,SNR=14						
SUMG	**Summit**	**88.30**	**347**	P	**P**	**18 03 02.3**	**+1.5**
SPU	**Mount Spurr**	**89.74**	**26**	*e*P	**P**	**18 03 06.9**	**-0.9**
ILAR	**Eielson Array**	**89.94**	**22**	P	**P**	**18 03 08.5**	**-0.2**
	comp=Z,2.1nm,0.7s,mb4.6,baz=309,slow=7.4,SNR=23						
ILAR				pP	pP	18 03 18.1	+1.0
	comp=Z,3.0nm,0.7s,baz=309,slow=4.6,SNR=9.6						
ILAR				PP	PP	18 06 44.5	+0.6
	comp=Z,0.8nm,0.9s,baz=279,slow=6.4,SNR=3.7						
PWA	**Palmer West**	**90.42**	**25**	*e*P	**P**	**18 03 11.2**	**+0.2**
PMR	**Palmer**	**90.76**	**25**	*e*P	**P**	**18 03 13.0**	**+0.5**
RPZ	**Rata Peaks**	**90.98**	**135**	P	**P**	**18 03 13.4**	**-0.5**
	comp=Z,3.6nm,0.5s,mb5.0,baz=63,slow=15,SNR=2.8						
INK	**Inuvik**	**91.86**	**16**	P	**P**	**18 03 18.0**	**+0.6**
	comp=Z,2.7nm,0.7s,mb4.7,baz=298,slow=5.6,SNR=11						
URZ	**Urewera**	**93.89**	**128**	P	**P**	**18 03 26.9**	**-0.6**
	comp=Z,10.0nm,0.8s,mb5.3,baz=12,slow=2.5,SNR=5.4						
DLBC	**Dease Lake**	**100.14**	**21**	PP	PP	18 08 03.7	0.0
	comp=Z,1.4nm,0.9s,baz=161,slow=20,SNR=2.2						
YKA	**Yellowknife Ar**	**101.17**	**13**	pP		18 04 09.0	
	comp=Z,0.5nm,0.8s,baz=328,slow=5.0,SNR=5.0						
YKA				PP	PP	18 08 05.2	-6.4
	comp=Z,0.7nm,1.0s,baz=326,slow=5.7,SNR=3.0						
ELK	**Elko**	**119.99**	**24**	*e*PKPdf	PKPdf	18 09 02.1	-2.0
PDAR	**Pinedale Array**	**120.26**	**19**	PKP	PKPdf	18 09 01.5	-3.1
	comp=Z,0.6nm,0.5s,baz=96,slow=1.7,SNR=7.6						
PDAR				pPKP		18 09 10.9	
	comp=Z,1.7nm,0.9s,baz=331,slow=1.6,SNR=9.2						
NVAR	**Mina Array Bea**	**120.60**	**28**	PKP	PKPdf	18 09 03.8	-1.7
	comp=Z,1.0nm,0.6s,baz=281,slow=1.8,SNR=4.9						
MVU	**Marysvale**	**123.11**	**23**	*e*PKPdf	PKPdf	18 09 08.8	-1.4
MSU	**Marysvale**	**123.12**	**23**	*e*PKPdf	PKPdf	18 09 07.5	-2.7
ANMO	**Albuquerque**	**128.36**	**20**	*e*PKPdf	PKPdf	18 09 18.0	-2.6
ANMO				*e*pP		18 09 28.9	
TXAR	**Lajitas Array**	**134.44**	**20**	PKP	PKPdf	18 09 30.7	-1.5
	comp=Z,0.6nm,0.6s,baz=178,slow=0.6,SNR=5.8						
TXAR	**Lajitas Array**	**134.44**	**20**	PKP	PKPdf	18 09 30.7	-1.5
JCT	**Junction City**	**134.51**	**15**	*e*PKPdf	PKPdf	18 09 30.4	-1.9
BDFB	**Brasilia**	**142.09**	**262**	PKP	PKPdf	18 09 44.6	-1.8
	comp=Z,3.3nm,0.6s,baz=116,slow=3.3,SNR=4.7						
TEIG	**Tepich**	**146.36**	**2**	*e*PKPbc	PKPbc	18 09 53.0	+2.9
PCRV	**Puerto La Cruz**	**147.47**	**315**	PKPbc	PKPdf	18 09 53.4	-2.2
	comp=Z,12nm,0.8s,baz=6.5,slow=14,SNR=3.3						
SDV	**Santo Domingo**	**152.27**	**323**	PKPbc	PKPdf	18 10 06.5	+3.4
	comp=Z,3.1nm,0.5s,baz=63,slow=3.1,SNR=5.6						
SDV				pPKPbc		18 10 15.9	
	comp=Z,9.8nm,0.8s,baz=201,slow=0.9,SNR=7.0						
ROSC	**El Rosal**	**157.66**	**324**	PKPbc	PKPdf	18 10 17.7	+7.3
	comp=Z,3.0nm,0.3s,baz=122,slow=22,SNR=5.8						
ROSC				PKPab	PKPab	18 10 41.0	+0.7
	comp=Z,2.5nm,0.3s,baz=96,slow=21,SNR=1.9						
ROSC				pPKPab		18 10 49.5	
	comp=Z,9.2nm,0.9s,baz=105,slow=22,SNR=7.8						
LVC	**Limon Verde**	**160.49**	**240**	PKPab	PKPab	18 10 52.5	+0.3
	comp=Z,1.0nm,0.5s,baz=53,slow=16,SNR=2.5						
LPAZ	**La Paz**	**161.41**	**259**	PKPab	PKPab	18 10 56.6	+0.3
	comp=Z,1.7nm,0.8s,baz=77,slow=7.3,SNR=3.2						

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*BJI **26** 17:52:28.6, 1.06N×126.11E, h61^{km}, mB5.2, mb5.0, Ms5.3, Msz4.8*

*NEIC **26** 17:52:30.9±1.4, 1.29N×126.24E, h50^{km}±13^{km}, mb4.9/13, Error ellipse: s-maj=15.6km s-min=5.5km az=72.0*

*IDC **26** 17:52:32.9±3.0, 1.34N×126.37E, h68^{km}±26^{km}, mb4.4/19, mb1 4.5/20, mb1mx4.4/23, Error ellipse: s-maj=31.2km s-min=9.4km az=70.0*

ISC 26 17:52:28.8±1.1**, 1.34N**±0.05×**126.3E**±0.1**, h45**^{km}±10^{km}**, n71,** σ1^{s}06/71**, mb4.9**/38**, 1C-1D, Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MATI	**Mati**	**5.57**	**359**	*e*P	**P**	**17 53 50.2**	**-1.1**
MATI				*e*S	**S**	**17 54 48.5**	**-6.4**
KCP	**Kidapawan**	**5.77**	**348**	⇓*e*P	**P**	**17 53 59.6**	**+5.6**
BUKP	**Musuan**	**6.62**	**349**	*e*P	**P**	**17 54 07.4**	**+1.4**
PAGZ	**Pagadian**	**7.10**	**336**	*e*P	**P**	**17 54 11.6**	**-1.2**
PAGZ				*e*S	S	17 54 25.6	-67
IPIL	**Ipil**	**7.42**	**330**	*e*P	**P**	**17 54 16.7**	**-0.4**
BUTP	**Butuan**	**7.61**	**355**	*e*P	**P**	**17 54 20.9**	**+1.1**
SCPH	**Surigao**	**8.43**	**354**	*e*P	**P**	**17 54 32.7**	**+1.6**
SCPH				*e*S		17 54 42.1	
MSLP	**Maasin**	**8.86**	**351**	*e*P	**P**	**17 54 37.3**	**+0.3**
TGY	**Tagaytay City**	**13.76**	**337**	P	**P**	**17 55 44.2**	**+0.8**
	6.4nm,0.3s,baz=229,slow=14,SNR=2.5						
WRAB	**Tennant Creek**	**22.56**	**160**	*e*P	**P**	**17 57 26.0**	**-0.5**
	91nm,0.7s,mb5.3						
WRA	**Warramunga Arr**	**22.56**	**160**	P	**P**	**17 57 26.1**	**-0.4**
	60nm,0.7s,mb5.1,baz=339,slow=10,SNR=120						
WRA				S	**S**	**18 01 30.0**	**+3.9**
	12nm,1.2s,baz=335,slow=18,SNR=5.0						
MBWA	**Marble Bar**	**23.27**	**196**	*e*P	**P**	**17 57 33.5**	**+0.1**
	17nm,0.8s,mb4.5						
QIZ	**Qiongzhong**	**23.88**	**318**	*e*P	**P**	**17 57 39.3**	**0.0**
JOW	**Kunigami**	**25.42**	**4**	P	**P**	**17 57 55.7**	**+1.6**
	71nm,0.9s,mb5.2,baz=169,slow=7.3,SNR=9.6						
ASAR	**Alice Springs**	**25.92**	**164**	P	**P**	**17 57 58.8**	**0.0**
	19nm,0.9s,mb4.6,baz=344,slow=8.1,SNR=65						
ASAR				PcP	PcP	18 01 26.4	-0.8
	1.7nm,0.4s,baz=356,slow=2.1,SNR=5.7						
ASAR				S	**S**	**18 02 25.2**	**+1.7**
	2.0nm,0.8s,baz=354,slow=26,SNR=3.3						
CTA	**Charters Tower**	**28.90**	**138**	P	**P**	**17 58 26.0**	**+0.1**
	11nm,1.0s,mb4.5,baz=318,slow=9.1,SNR=6.8						
CTA	**Charters Tower**	**28.90**	**138**	P	**P**	**17 58 26.0**	**+0.1**
CTAO	**Charters Tower**	**28.90**	**138**	*e*P	**P**	**17 58 25.5**	**-0.3**
	14nm,1.0s,mb4.6						
NJ2	**Nanjing**	**31.35**	**348**	*e*P	**P**	**17 58 47.0**	**-0.5**
ENH	**Enshi**	**32.92**	**333**	*e*P	**P**	**17 58 59.4**	**-1.9**
NWAO	**Narrogin (SRO)**	**35.14**	**193**	*e*P	**P**	**17 59 18.2**	**-2.1**
STKA	**Stephens Creek**	**36.07**	**158**	P	**P**	**17 59 28.0**	**-0.1**
	18nm,0.6s,mb5.1,baz=336,slow=8.9,SNR=40						
STKA	**Stephens Creek**	**36.07**	**158**	P	**P**	**17 59 28.0**	**-0.1**
DL2	**Dalian**	**37.64**	**354**	P	**P**	**17 59 41.5**	**+0.2**
DL2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.1						
BJT	**Baijiatuau**	**39.59**	**348**	*e*P	**P**	**17 59 55.8**	**-1.8**
	comp=Z,12nm,0.8s,mb4.7						
BJI	**Beijing**	**39.61**	**348**	P	**P**	**17 59 57.0**	**-0.7**
SNY	**Shenyang**	**40.38**	**357**	⇑P	**P**	**18 00 04.5**	**+0.4**
SNY				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
HHC	**Hu-ho-hao-te**	**41.54**	**343**	*e*P	**P**	**18 00 17.8**	**+4.2**
HHC				PP	PP	18 01 54.3	+1.3
HHC				AMB	AMB		
	comp=Z,156nm,6.1s						
MDJ	**Mudanjiang**	**43.19**	**3**	*e*P	**P**	**18 00 28.2**	**+1.0**
	comp=Z,15nm,0.9s,mb4.7						
GTA	**Gaotai**	**44.95**	**331**	P	**P**	**18 00 40.5**	**-0.8**
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.4						
ASAJ	**Asahikawa**	**44.98**	**17**	P	**P**	**18 00 41.0**	**-0.5**
	comp=Z,10nm,0.9s,mb4.6,baz=268,slow=16,SNR=2.3						
HIA	**Hailar**	**48.08**	**354**	*e*P	**P**	**18 01 06.8**	**+0.9**
	comp=Z,31nm,1.4s,mb5.2						
ULN	**Ulaanbaatar**	**49.26**	**343**	*e*P	**P**	**18 01 14.9**	**-0.2**
SONM	**Songino Array**	**49.43**	**342**	P	**P**	**18 01 15.7**	**-0.6**
	comp=Z,3.7nm,0.7s,mb4.5,baz=164,slow=7.7,SNR=6.7						
TLY	**Talaya**	**53.67**	**343**	*e*P	**P**	**18 01 47.5**	**-0.7**
	comp=Z,4.8nm,0.8s,mb4.5						
WMQ	**Urumqi**	**54.46**	**326**	P	**P**	**18 01 55.3**	**+1.2**
WMQ				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.9						
RPZ	**Rata Peaks**	**60.06**	**144**	P	**P**	**18 02 33.7**	**-0.1**
	comp=Z,8.4nm,0.8s,mb4.8,baz=35,slow=14,SNR=2.3						
YAK	**Yakutsk**	**60.60**	**2**	*e*P	**P**	**18 02 36.0**	**-1.1**
ZAL	**Zalesovo**	**62.53**	**334**	P	**P**	**18 02 48.4**	**-1.9**
	comp=Z,3.4nm,0.5s,mb4.7,baz=337,slow=5.2,SNR=9.9						
BVAR	**Borovoye Array**	**69.10**	**328**	P	**P**	**18 03 31.5**	**-0.7**
	comp=Z,2.4nm,0.4s,mb4.5,baz=80,slow=5.5,SNR=18						
BRVK	**Borovoye**	**69.17**	**328**	*e*P	**P**	**18 03 31.2**	**-1.5**
	comp=Z,41nm,1.1s,mb5.3						
CHKZ	**Chkalovo**	**69.28**	**328**	*e*P	**P**	**18 03 32.7**	**-0.6**
	comp=Z,8.0nm,0.8s,mb4.7						
ARU	**Arti**	**76.73**	**328**	*e*P	**P**	**18 04 16.1**	**-0.9**
	comp=Z,11nm,0.6s,mb5.0						
QRN	**Al-Qurain**	**79.19**	**299**	*e*P	**P**	**18 04 32.2**	**+1.0**
RDF	**Al-Radifah**	**79.53**	**299**	*e*P	**P**	**18 04 33.4**	**+0.4**
RDF				AMb	AMB	18 04 45.2	
	comp=Z,90nm,0.5s,mb5.9						
MIB	**Mutribah**	**79.78**	**300**	*e*P	**P**	**18 04 33.6**	**-0.7**
MIB				AMb	AMB	18 04 48.2	
	comp=Z,67nm,0.7s,mb5.7						
RST	**Umm Al-Ruwaisa**	**80.05**	**300**	*e*P	**P**	**18 04 35.4**	**-0.4**
RST				AMb	AMB	18 04 49.5	
	comp=Z,79nm,0.6s,mb5.8						
VNDA	**Vanda**	**81.12**	**173**	P	**P**	**18 04 40.9**	**+0.4**
	comp=Z,4.0nm,0.7s,mb4.4,baz=309,slow=7.2,SNR=22						
VNDA	**Vanda**	**81.12**	**173**	*e*P	**P**	**18 04 40.7**	**+0.1**
KIV	**Kislovodsk**	**84.49**	**314**	P	**P**	**18 04 59.0**	**+0.6**
BEST	**Besiri**	**85.28**	**308**	*i* P	**P**	**18 05 03.2**	**+0.8**
ELZG	**Elazig**	**87.09**	**308**	*i* P	**P**	**18 05 13.2**	**+1.9**
ILAR	**Eielson Array**	**87.42**	**25**	P	**P**	**18 05 11.2**	**-1.1**
	comp=Z,0.6nm,0.6s,mb4.0,baz=252,slow=4.8,SNR=6.9						
MALT	**Malatya**	**87.53**	**308**	*e*P	**P**	**18 05 14.7**	**+1.3**
	comp=Z,26nm,1.1s,mb5.4						
GZT	**Gaziantep**	**88.21**	**307**	*i* P	**P**	**18 05 17.5**	**+0.8**
ASF	**Jabal al Asfar**	**88.81**	**302**	P	**P**	**18 05 21.4**	**+1.7**
	comp=Z,13nm,0.9s,mb5.3,baz=296,slow=0.8,SNR=9.6						
KMBO	**Kilima Mbogo**	**89.10**	**269**	P	**P**	**18 05 23.4**	**+2.0**
	comp=Z,5.4nm,1.0s,mb4.8,baz=53,slow=7.0,SNR=7.0						
BOYT	**Boyabat**	**90.19**	**311**	*i* P	**P**	**18 05 27.7**	**+1.8**
AVNT	**Avonos**	**90.32**	**309**	*i* P	**P**	**18 05 16.0**	**-11**
BRTR	**Keskin Array B**	**91.22**	**310**	P	**P**	**18 05 30.5**	**-0.4**
	comp=Z,0.5nm,0.5s,mb4.1,baz=124,slow=5.2,SNR=3.2						
QSPA	**South Pole Qui**	**91.26**	**180**	*e*P	**P**	**18 05 31.0**	**+0.8**
	comp=Z,4.2nm,1.0s,mb4.7						
BALT	**Daday**	**91.33**	**311**	*i* P	**P**	**18 05 27.9**	**-3.4**
INK	**Inuvik**	**92.52**	**21**	P	**P**	**18 05 37.0**	**+0.8**
	comp=Z,2.6nm,1.1s,mb4.6,baz=277,slow=8.4,SNR=3.0						
ARCES	**ARCESS Array B**	**92.54**	**340**	P	**P**	**18 05 36.3**	**+0.1**
	comp=Z,3.0nm,0.8s,mb4.8,baz=86,slow=5.4,SNR=6.1						

ESKT	Eskisehir	93.39	310	i P	P	18 05 38.2	-2.5
AKASG	Malin Array Be	93.48	321	P	P	18 05 40.6	-0.3
	comp=Z,2.7nm,0.8s,mb4.8,baz=60,slow=4.6,SNR=9.1						
KAF	Kangasniemi	93.52	332	ep	P	18 05 44.9	+4.1
	comp=Z,3.7nm,0.7s,mb4.9						
FINES	FINESS Array B	93.73	332	P	P	18 05 41.6	-0.2
	comp=Z,1.8nm,0.9s,mb4.5,baz=72,slow=4.4,SNR=4.0						
YKA	Yellowknife Ar	101.83	24	P	P	18 06 18.2	-0.2
	comp=Z,1.3nm,1.2s,baz=294,slow=4.1,SNR=4.6						
TXAR	Lajitas Array	123.36	53	PKP	PKPdf	18 11 23.6	+1.8
	comp=Z,0.6nm,0.6s,baz=214,slow=1.5,SNR=3.7						
LVC	Limon Verde	154.18	146	PKP	PKPdf	18 12 17.9	+1.7
	comp=Z,1.9nm,0.8s,baz=226,slow=7.8,SNR=2.4						

ORF ***26*** *17:56:23.4, 10.97N×93.07E, h30^{km}, mb5.5*
IDC ***26*** *17:56:29.2±0.4, 12.82N×92.39E, mb4.9/29, mb1 4.9/30, mb1mx4.9/32, Error ellipse: s-maj=16.7km s-min=10.9km az=40.0*
MOS ***26*** *17:56:32.6±0.7, 12.87N×92.50E, h33^{km}, mb5.4/10, Error ellipse: s-maj=16.7km s-min=7.7km az=121.1*
NEIC ***26*** *17:56:35.8±1.0, 12.86N×92.48E, h45^{km}±8^{km}, mb5.1/29, Error ellipse: s-maj=7.1km s-min=5.2km az=203.0*
BJI ***26*** *17:56:35.0, 13.15N×92.37E, h27^{km}, mB5.4, mb4.6, Ms4.9, Msz4.6*
ISC 26 17:56:30.0±2.2**, 12.84N**±0.06×**92.41E**±0.04**, h15**^{km}±14^{km}**, h26**^{km}±2.3^{km}**:pP-P, n167, σ0^{s}90**/160**, mb5.0**/64**, MS5.0**/3**, 7C-11D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.41	48	Pn	P	17 58 33.3	-1.0
	baz=238,slow=15,SNR=4.4						
CMAR				Sn	Sn	18 00 01.4	-8.5
	3.8nm,0.3s,baz=237,slow=28,SNR=5.1						
VIS	Vishakhapatnam	10.02	300	eP	P	17 58 53.7	-2.8
VIS				eS	S	18 00 35.8	-14
SHL	Shillong	12.67	358	eP	P	17 59 31.4	-1.1
SHL				eS	S	18 01 40.0	-14
HYB	Hyderabad	14.13	291	eP	P	17 59 55.0	+3.1
HYB				eS	S	18 02 15.0	-14
HYB	Hyderabad	14.13	291	i P	P	17 59 55.0	+3.1
KMI	Kunming	15.63	37	P	P	18 00 13.5	+2.0
KMI				AMB	AMB		
	comp=Z,29nm,1.1s						
TRD	Trivandrum	15.78	256	eP	P	18 00 09.9	-3.5
TRD				AMb	AMB	18 00 21.0	
	comp=Z,120nm,0.8s						
TRD				eS	S	18 02 58.2	-10
PKI	Pulchoki	16.06	337	eP	P	18 00 15.6	-1.4
	comp=Z,60nm,0.6s						
PKI				eS	S	18 03 03.4	-11
GUN	Gumba	16.19	339	eP	P	18 00 18.0	-0.7
DMN	Daman	16.21	336	eP	P	18 00 18.6	-0.3
	comp=Z,89nm,0.6s						
KKN	Kakani	16.30	337	eP	P	18 00 20.4	+0.3
GKN	Gorkha	16.75	335	eP	P	18 00 25.9	+0.2
	comp=Z,75nm,0.4s						
LSA	Lhasa	16.82	356	eP	P	18 00 30.3	+3.7
	comp=Z,47nm,0.8s						
KOLN	Koldanda	16.99	332	eP	P	18 00 28.1	-0.7
	comp=Z,154nm,0.7s						
BHPL	Bhopal	17.59	308	e	P	18 00 38.0	+1.7
BHPL				AMb	AMB	18 00 41.0	
	comp=Z,92nm,1.2s						
BHPL				eS	S	18 03 51.6	+1.6
POO	Poona	18.74	290	eS	S	18 04 13.3	-2.6
GYA	Guiyang	19.05	43	⇑iP	P	18 00 53.8	-0.4
GYA				AMB	AMB		
	comp=Z,20nm,1.2s						
CD2	Chengdu	20.82	28	P	P	18 01 13.0	-0.4
CD2				AMB	AMB		
	comp=Z,60nm,0.7s						
DDI	Dehra Dun	21.89	325	e	P	18 01 13.7	-11
GZH	Guangzhou	22.34	60	P	P	18 01 34.3	+5.4
GZH				LR	LR		
	comp=N,3μm,15.2s,MS4.9						
GZH				LR	LR		
	comp=E,2μm,14.6s,MS4.9						
GZH				LR	LR		
	comp=Z,2μm,15.2s,MS4.6						
SDNR	Sundarnagar	23.39	325	e	P	18 01 41.5	+2.4
ENH	Enshi	23.47	40	eP	P	18 01 39.5	-0.4
	comp=Z,165nm,1.2s,mb5.3						
GTA	Gaotai	27.27	13	P	P	18 02 16.5	+0.8
GTA				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.4						
KSH	Kashi	30.29	334	eP	P	18 02 42.3	-0.5
KSH				eAP	pP	18 02 48.5	+1.2
KSH				ePP	PP	18 03 39.5	-2.5
KSH				ePCP	PcP	18 05 45.5	+2.2
KSH				AMB	AMB		
	comp=Z,170nm,2.7s,mb5.3						
NJ2	Nanjing	30.89	47	eP	P	18 02 47.5	-0.7
NJ2				AP	pP	18 02 57.3	+4.6
NJ2				PP	PP	18 03 45.5	-4.4
NJ2				S	S	18 07 43.5	-7.0
NJ2				AMB	AMB		
	comp=Z,510nm,5.6s						
NJ2				LR	LR		
	comp=N,10μm,15.4s,MS5.7						
NJ2				LR	LR		
	comp=E,6μm,16.0s,MS5.7						
NJ2				LR	LR		
	comp=Z,9μm,15.6s,MS5.5						
HHC	Hu-ho-hao-te	32.57	28	eP	P	18 03 09.3	+6.5
HHC				AP	pP	18 03 16.8	+9.5
HHC				XP	sP	18 03 21.5	+12
HHC				AMB	AMB		
	comp=Z,24nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,251nm,6.7s						
HHC				LR	LR		
	comp=N,567nm,13.1s,MS4.7						
HHC				LR	LR		
	comp=E,917nm,17.8s,MS4.7						
AAK	Ala-Archa	33.51	336	eP	P	18 03 11.3	+0.3
	comp=E,19nm,0.9s,mb5.0						
MKAR	Makanchi Array	34.91	348	i P	P	18 03 23.1	+0.1
MKAR				pmax	pmax		
	comp=Z,24nm,0.9s						
JOW	Kunigami	36.35	62	P	P	18 03 36.0	+0.5
	comp=Z,8.5nm,0.4s,mb5.0						
SONM	Songino Array	36.80	16	P	P	18 03 39.8	+0.8
	comp=Z,14nm,1.1s,mb4.7,baz=208,slow=6.9,SNR=17						
SONM				PcP	PcP	18 06 01.4	-0.1
	comp=Z,2.1nm,0.7s,baz=199,slow=3.7,SNR=4.3						
ZAK	Zakamensk	38.48	11	eP	P	18 03 49.0	-4.1
ZAK				e		18 06 00.5	
MOY	Mondy	39.35	8	eP	P	18 04 01.9	+1.6
ZAL	Zalesovo	41.44	353	P	P	18 04 17.5	0.0
	comp=Z,15nm,1.0s,mb4.6,baz=307,slow=7.9,SNR=17						
CN2	Changchun	41.90	36	eP	P	18 04 21.8	+0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
BVAR	Borovoye Array	43.77	341	P	P	18 04 36.4	-0.1
	comp=Z,6.8nm,0.9s,mb4.4,baz=143,slow=7.4,SNR=5.8						
BVAR				PcP	PcP	18 06 23.4	-0.5
	comp=Z,7.4nm,1.1s,baz=153,slow=6.4,SNR=3.8						
CHKZ	Chkalovo	44.26	342	P	P	18 04 40.5	0.0
CHKZ				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.8						
CHKZ	Chkalovo	44.26	342	eP	P	18 04 40.5	0.0
	comp=Z,36nm,0.9s,mb5.1						
MAT	Matsushiro	47.27	52	P	P	18 05 04.3	-0.4
MAT	Matsushiro	47.27	52	eP	P	18 05 04.0	-0.7
	comp=Z,30nm,1.1s,mb5.1						
BOD	Bodaibo	47.79	15	eP	P	18 05 08.5	0.0
GNI	Garni	49.82	312	P	P	18 05 25.9	+1.6
	comp=Z,45nm,0.9s,mb5.5,baz=293,slow=2.4,SNR=19						
GNI	Garni	49.82	312	P	P	18 05 26.0	+1.6
ZEI	Tsey	51.31	315	eP	P	18 05 36.5	+0.8
ZEI				i *PP	pP	18 05 44.3	+4.0
ZEI				i		18 07 28.0	
ZEI				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.2						
NWAO	Narrogin (SRO)	51.31	153	P	P	18 05 35.1	-0.7
	comp=Z,20nm,0.8s,mb5.1,baz=317,slow=8.6,SNR=7.7						
ERZM	Erzurum	52.21	311	i P	P	18 05 44.0	+1.5
KIV	Kislovodsk	52.55	316	P	P	18 05 46.4	+1.4
	comp=Z,423nm,0.9s,SNR=16						
KIV	Kislovodsk	52.55	316	eP	P	18 05 46.0	+1.0
KIV	Kislovodsk	52.55	316	eP	P	18 05 46.0	+1.0
	comp=Z,98nm,1.1s,mb5.7						
WRA	Warramunga Arr	52.57	128	P	P	18 05 44.2	-1.3
	comp=Z,8.1nm,0.8s,mb4.7,baz=306,slow=8.3,SNR=19						
GOF	Gofitskoye	52.71	317	i P	P	18 05 46.0	-0.2
GOF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
ASAJ	Asahikawa	52.92	44	P	P	18 05 49.4	+1.5
	comp=Z,14nm,0.8s,mb4.9,baz=194,slow=8.1,SNR=4.1						
ASF	Jabal al Asfar	54.17	300	P	P	18 05 56.9	-0.2
	comp=Z,20nm,1.1s,mb5.0,baz=334,slow=2.5,SNR=6.0						
ASAR	Alice Springs	54.43	132	P	P	18 05 57.9	-1.2
	comp=Z,4.1nm,0.6s,mb4.5,baz=309,slow=6.6,SNR=17						
ASAR				PcP	PcP	18 07 03.4	+0.7
	comp=Z,5.0nm,0.9s,baz=321,slow=3.4,SNR=3.1						
SOC	Sochi	54.47	315	⇑iP	P	18 05 59.2	+0.1
SOC				ePPP	PPP	18 09 20.7	+6.9
SOC				eS	S	18 13 32.4	-3.2
SOC				pmax	pmax		
	comp=N,22nm,1.2s						
SOC				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.4						
SOC				pmax	pmax		
	comp=E,5.0nm,0.7s						
MKRJ	Makawir	55.16	300	P	P	18 06 04.7	+0.3
COBT	Iskenderun	55.36	306	i P	P	18 06 05.0	-0.8
DRGI	Dragot	55.38	300	P	P	18 06 06.3	+0.3
ZFRI	Zfri	55.46	298	P	P	18 06 06.6	0.0
EIL	Elat	55.58	297	P	P	18 06 07.3	-0.1
	comp=E,17nm,0.7s,mb5.2,baz=96,slow=3.7,SNR=16						
EIL	Elat	55.58	297	P	P	18 06 07.3	-0.1
PRNI	Paran	55.59	298	P	P	18 06 07.7	+0.2
SLTI	Sal’it	55.75	300	P	P	18 06 08.9	+0.3
KMTI	Karmit	55.81	298	P	P	18 06 08.9	-0.2
OFRI	‘Ofer	55.84	301	P	P	18 06 09.4	+0.1
KMBO	Kilima Mbogo	56.44	260	P	P	18 06 14.7	+0.8
	comp=E,3.0nm,0.8s,mb4.4,baz=57,slow=12,SNR=5.0						
MEST	Erdemli	57.05	305	i P	P	18 06 16.9	-1.1
BRTR	Keskin Array B	57.96	309	P	P	18 06 23.2	-1.1
	comp=E,23nm,0.8s,mb5.2,baz=121,slow=7.4,SNR=61						
ELDT	Eldivan	58.26	310	i P	P	18 06 25.6	-0.7
SIM	Simferopol’	58.71	315	d iP	P	18 06 29.3	-0.1
SIM				pmax	pmax		
	comp=Z,53nm,0.7s,mb5.7						
SGKT	Sivrigoynuk	59.30	310	i P	P	18 06 33.3	-0.3
ISP	Isparta	60.10	306	eP	P	18 06 37.8	-1.3
	comp=Z,56nm,1.3s,mb5.4						
HENT	Hendek	60.21	310	i P	P	18 06 37.6	-2.3
OBN	Obninsk	60.31	327	⇓iP	P	18 06 39.4	-0.9
OBN				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.3						
ULDT	Uludag	61.45	309	i P	P	18 06 47.7	-0.6
CTA	Charters Tower	62.26	121	P	P	18 06 53.1	-0.9
	comp=Z,9.8nm,0.9s,mb4.9,baz=291,slow=6.5,SNR=6.1						
MBAR	Mbarara	62.58	263	eP	P	18 06 56.9	+0.7
	comp=Z,28nm,1.3s,mb5.2						
KIS	Kishinev	62.75	316	eP	P	18 06 55.0	-1.9
CFR	Carcaliu	62.90	314	⇓iP	P	18 06 57.5	-0.4
AKASG	Malin Array Be	63.25	321	P	P	18 06 58.2	-1.9
	comp=Z,16nm,0.8s,mb5.2,baz=81,slow=4.9,SNR=47						
VRI	Vrincioaia	63.99	315	⇓iP	P	18 07 05.7	+0.6
IDI	Anoyia	64.40	303	P	P	18 07 07.0	-0.9
	comp=Z,12nm,0.9s,mb4.9,baz=94,slow=9.7,SNR=3.7						
STKA	Stephens Creek	64.76	135	P	P	18 07 09.9	-0.5
	comp=Z,5.0nm,0.9s,mb4.5,baz=322,slow=5.5,SNR=5.0						
STKA	Stephens Creek	64.76	135	eP	P	18 07 09.4	-1.0
KWP	Kalwaria	67.19	319	eP	P	18 07 25.5	-0.1
KOLS	Kolonicke sedl	67.39	318	i P	P	18 07 27.2	+0.4
KOLS				e		18 07 35.7	
SUW	Suwalki	67.52	323	eP	P	18 07 26.7	-0.9
FINES	FINESS Array B	67.56	332	P	P	18 07 26.9	-0.8
	comp=Z,12nm,0.7s,mb5.1,baz=103,slow=7.0,SNR=31						
FINES	FINESS Array B	67.56	332	P	P	18 07 26.9	-0.8
KAF	Kangasniemi	67.63	332	ep	P	18 07 27.7	-0.4
	comp=Z,12nm,0.9s,mb4.9						
KAF	Kangasniemi	67.63	332	eP	P	18 07 27.7	-0.4
KAF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
CRVS	Cervenica-Dubn	67.92	318	i P	P	18 07 31.3	+1.1
KECS	Kecovo	68.52	317	eP	P	18 07 33.5	-0.4
KECS				e		18 07 44.1	
NIE	Niedzica	68.72	318	eP	P	18 07 36.1	+1.0
OJC	Ojcow	69.12	319	⇓iP	P	18 07 37.4	-0.2
OJC	Ojcow	69.12	319	i P	P	18 07 37.4	-0.2
LSZ	Lusaka	69.42	248	eP	P	18 07 41.2	+1.3
	comp=Z,50nm,1.6s,mb5.2						
VYHS	Vyhne	69.62	317	eP	P	18 07 40.5	-0.2
KEV	Kevo	69.62	340	ep	P	18 07 39.7	-0.6
	comp=Z,12nm,0.7s,mb4.9						
KEV	Kevo	69.62	340	eP	P	18 07 39.7	-0.6
KEV				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
SRO2	Moca	69.87	316	eP	P	18 07 42.5	+0.3
SRO	Srobarova	69.93	316	eP	P	18 07 43.2	+0.6
ARCES	ARCESS Array B	70.05	340	P	P	18 07 42.9	0.0
	comp=Z,14nm,0.7s,mb5.0,baz=85,slow=7.4,SNR=23						
OKC	Ostrava-Krasne	70.15	319	eP	P	18 07 44.0	+0.1
MORC	Moravsky Berou	70.54	318	eP	P	18 07 46.0	-0.2
	comp=Z,26nm,0.8s,mb5.2						
SMOL	Smolenice	70.55	317	eP	P	18 07 46.2	-0.2
ZST	Bratislava	70.76	317	eP	P	18 07 47.6	0.0
ZST				e		18 07 55.1	
DPC	Dobruska-Polom	71.35	319	eP	P	18 07 51.8	+0.6
KSP	Ksiaz	71.39	320	⇓eP	P	18 07 51.7	+0.3
KSP	Ksiaz	71.39	320	eP	P	18 07 51.8	+0.4
UPC	Upice	71.56	319	eP	P	18 07 52.6	+0.2
ARSA	Arzberg	71.80	316	⇑iP	P	18 07 54.1	+0.2
	comp=Z,10nm,0.8s,mb4.8						
BILL	Bilibino	72.15	22	eP	P	18 07 55.2	-0.4
	comp=Z,3.8nm,0.7s,mb4.4						
PVCC	Panska Ves	72.48	319	eP	P	18 07 58.0	+0.1
PRU	Pruhonice	72.49	319	eP	P	18 07 58.0	+0.1
BRG	Berggiesshubel	72.88	319	i P	P	18 08 00.9	+0.7
BRG				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
BRG	Berggiesshubel	72.88	319	i P	P	18 08 00.9	+0.7
	comp=Z,18nm,0.9s,mb5.0						
GERES	GERESS Array B	73.03	317	P	P	18 08 01.4	+0.2
	comp=Z,18nm,0.7s,mb5.1,baz=90,slow=5.3,SNR=101						
KHC	Kasperske Hory	73.11	318	eP	P	18 08 01.8	+0.2
HFS	Hagfors	73.34	329	P	P	18 08 02.5	-0.3
	comp=Z,21nm,0.9s,mb5.1,baz=90,slow=5.9,SNR=22						
CLL	Collm	73.48	320	⇓iP	P	18 08 03.6	-0.1
CLL				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
CLL	Collm	73.48	320	⇓iP	P	18 08 03.6	-0.1
	comp=Z,18nm,1.0s,mb5.0						
CLL	Collm	73.48	320	⇓P	P	18 08 03.6	-0.1
	comp=Z,logA/T=1.3,mb5.0						
NKC	Novy Kostel	73.84	319	eP	P	18 08 06.0	+0.2
FX1	Attu Island--F	74.30	38	P	P	18 08 08.7	+0.3
	comp=Z,19nm,0.7s,mb5.1,baz=323,slow=18,SNR=4.1						
FX1	Attu Island--F	74.30	38	P	P	18 08 09.2	+0.8
MOX	Moxa	74.36	319	i P	P	18 08 09.2	+0.4
MOX	Moxa	74.36	319	eP	P	18 08 09.2	+0.4
WTTA	Wattenberg	74.45	316	⇑iP	P	18 08 08.8	-0.6
	comp=Z,23nm,0.8s,mb5.2						
WATA	Walderalm	74.48	316	⇓iP	P	18 08 08.8	-0.8
	comp=Z,7.7nm,0.7s,mb4.7						
NB2	NORSAR Subarra	74.60	330	P	P	18 08 09.4	-0.6
	comp=Z,12nm,0.8s,mb4.9,baz=90,slow=5.6						
NB2	NORSAR Subarra	74.60	330	P	P	18 08 09.4	-0.6
	baz=90,slow=5.9						
NOA	NORSAR Array B	74.60	330	P	P	18 08 09.5	-0.5
	comp=Z,8.2nm,0.7s,mb4.8,baz=91,slow=5.7,SNR=28						
GRA1	Grafenberg Arr	74.64	318	eP	P	18 08 11.0	+0.5
	comp=Z,26nm,0.9s,mb5.2						
GRF	Grafenberg Arr	74.64	318	eP	P	18 08 11.0	+0.5
GRF				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
GRF	Grafenberg Arr	74.64	318	eP	P	18 08 11.0	+0.5
	comp=Z,26nm,0.9s,mb5.2						
SQTA	Sankt Quirin	74.74	316	⇑iP	P	18 08 10.6	-0.5
	comp=Z,16nm,0.7s,mb5.1						
MOTA	Moosalm	74.81	316	⇑iP	P	18 08 10.9	-0.6
	comp=Z,9.4nm,0.7s,mb4.8						
LBTB	Lobatse	75.19	240	eP	P	18 08 15.6	+1.5
	comp=Z,12nm,1.0s,mb4.8						
DAVA	Damuels	75.64	316	⇑iP	P	18 08 16.1	-0.2
	comp=Z,30nm,0.8s,mb5.3						
DAVOX	Davos	75.67	315	P	P	18 08 16.4	0.0
	comp=Z,9.0nm,0.7s,mb4.8,baz=112,slow=7.9,SNR=16						
DAVOX	Davos	75.67	315	P	P	18 08 16.4	0.0
BOSA	Boshof	76.83	236	eP	P	18 08 24.8	+1.5
	comp=Z,14nm,0.8s,mb4.9						
LPL	La Plagne	77.96	314	⇓iP	P	18 08 29.7	+0.5
	comp=Z,102nm,0.7s,mb5.5						
BNI	Bardonecchia	78.04	314	eP	P	18 08 29.6	-0.1
	comp=Z,22nm,0.8s,mb5.2						
ESDC	Sonseca Array	86.74	310	P	P	18 09 15.4	+0.4
	comp=Z,5.7nm,0.6s,mb5.0,baz=61,slow=4.4,SNR=34						
IMA	Indian Mountai	87.69	22	eP	P	18 09 20.8	+2.0
	comp=Z,25nm,0.9s,mb5.4						
SPU	Mount Spurr	90.61	26	eP	P	18 09 34.0	+1.2
ILAR	Eielson Array	90.80	22	P	P	18 09 33.4	-0.2
	comp=Z,2.3nm,0.9s,mb4.5,baz=310,slow=6.1,SNR=6.8						
INK	Inuvik	92.71	16	P	P	18 09 43.0	+0.8
	comp=Z,1.8nm,0.7s,mb4.6,baz=329,slow=3.3,SNR=9.6						
URZ	Urewera	93.74	128	P	P	18 09 48.0	+0.3
	comp=Z,5.1nm,0.6s,mb5.1,baz=0.1,slow=8.7,SNR=3.5						
DBIC	Dimbokro	95.57	278	P	P	18 09 57.2	+0.6
	comp=Z,2.2nm,0.6s,mb4.8,baz=35,slow=3.6,SNR=4.2						
YKA	Yellowknife Ar	102.00	12	PP	PP	18 14 33.2	-5.2
	comp=Z,0.4nm,0.8s,baz=334,slow=8.1,SNR=4.1						
PDAR	Pinedale Array	121.11	19	PKP	PKPdf	18 15 24.1	-2.1
	comp=Z,0.9nm,0.6s,baz=76,slow=0.2,SNR=8.4						
NVAR	Mina Array Bea	121.46	28	PKP	PKPdf	18 15 25.9	-1.0
	comp=Z,1.6nm,0.5s,baz=313,slow=1.9,SNR=8.7						
MVU	Marysvale	123.97	23	ePKPdf	PKPdf	18 15 31.8	-0.1
MSU	Marysvale	123.98	23	ePKPdf	PKPdf	18 15 31.5	-0.4
TXAR	Lajitas Array	135.30	20	PKhKP		18 15 47.9	
	comp=Z,0.5nm,0.9s,baz=349,slow=6.4,SNR=2.8						
TXAR				PKP	PKPdf	18 15 53.5	-0.1
	comp=Z,0.7nm,0.5s,baz=200,slow=0.2,SNR=11						
JCT	Junction City	135.36	15	ePKPdf	PKPdf	18 15 52.1	-1.6
BDFB	Brasilia	141.57	261	PKP	PKPdf	18 16 03.9	-1.5
	comp=Z,3.2nm,0.7s,baz=251,slow=4.3,SNR=4.9						
TRQA	Tornquist	146.08	218	ePKPdf	PKPdf	18 16 11.3	-1.3
TEIG	Tepich	147.14	1	PKPdf	PKPdf	18 16 11.2	-3.6
PCRV	Puerto La Cruz	147.72	314	PKPbc	PKPdf	18 16 14.2	-1.7
	comp=Z,33nm,1.2s,baz=269,slow=21,SNR=5.7						
SDV	Santo Domingo	152.62	321	PKP	PKPdf	18 16 20.8	-2.6
	comp=Z,0.9nm,0.3s,baz=299,slow=20,SNR=2.8						
SDV				PKPbc	PKPdf	18 16 28.3	+4.9
	comp=Z,5.7nm,0.7s,baz=341,slow=8.6,SNR=11						
ROSC	El Rosal	158.03	322	PKPab	PKPab	18 17 03.9	+1.0
	comp=Z,5.5nm,0.4s,baz=278,slow=17,SNR=5.9						
LVC	Limon Verde	159.75	239	PKPab	PKPab	18 17 11.3	+1.3
	comp=Z,4.7nm,0.8s,baz=125,slow=4.8,SNR=6.0						
LPAZ	La Paz	160.86	257	PKPab	PKPab	18 17 15.6	+0.6
	comp=Z,4.5nm,0.9s,baz=69,slow=6.3,SNR=9.7						
LPAZ	La Paz	160.86	257	ePKPab	PKPab	18 17 15.2	+0.3

IDC ***26*** *17:58:60.0±0.6, 8.25N×93.86E, mb4.4/22, mb1 4.6/23, mb1mx4.5/26, ML4.3/1, MS4.6/2, Ms1 4.6/2, ms1mx3.9/26, Error ellipse: s-maj=30.5km s-min=14.3km az=54.0*
NEIC ***26*** *17:59:00.5±6.8, 8.31N×93.95E, h1^{km}±41^{km}, mb4.8/18, Error ellipse: s-maj=13.4km s-min=10.2km az=64.0*
BJI ***26*** *17:59:00.7, 8.26N×93.44E, h8^{km}, mB5.5, mb4.6*
ISC 26 17:59:02.2±0.4**, 8.27N**±0.06×**93.93E**±0.08**, h24**^{km}**, h24**^{km}±5.4^{km}**:pP-P, n63, σ1^{s}31**/51**, mb4.6**/42**, MS4.6**/2**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.24	25	P	P	18 01 42.9	-1.7
CMAR	Chiang Mai Arr	11.24	25	Pn	P	18 01 47.1	+2.5
	0.6nm,0.3s,baz=213,slow=14,SNR=5.1						
VIS	Vishakhapatnam	13.95	313	e	P	18 02 16.4	-4.6
KMI	Kunming	18.75	26	P	P	18 03 26.5	+4.6
KMI				XP		18 03 30.8	
KMI				AMB	AMB		
	comp=Z,31nm,2.0s						
LSA	Lhasa	21.48	353	eP	P	18 03 49.4	-1.9
	comp=Z,27nm,0.8s,mb4.6						
GYA	Guiyang	21.76	32	⇑iP	P	18 03 56.8	+2.6
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
LGTI	Lohaghat	24.68	330	e	P	18 04 14.0	-8.8
ENH	Enshi	26.29	32	P	P	18 04 38.1	+0.1
	comp=Z,12nm,0.8s,mb4.5						
TGY	Tagaytay City	27.11	75	LR	LR	18 14 49.4	
	comp=Z,1μm,18.0s,MS4.5,baz=279,slow=35						
GTA	Gaotai	31.45	9	P	P	18 05 23.3	-0.9
GTA				AP	pP	18 05 34.0	+2.9
GTA				XP	sP	18 05 39.0	+4.8
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.3						
WMQ	Urumqi	35.83	352	P	P	18 06 02.5	+0.5
WMQ				AP	pP	18 06 07.0	-2.0
WMQ				XP	sP	18 06 09.5	-2.5
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.8						
HHC	Hu-ho-hao-te	36.04	23	eP	P	18 06 05.8	+2.1
HHC				AP	pP	18 06 12.5	+1.7
HHC				XP	sP	18 06 16.0	+2.2
HHC				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.6						
HHC				AMB	AMB		
	comp=Z,483nm,4.6s						
AAK	Ala-Archa	38.26	337	eP	P	18 06 23.2	+0.8
	comp=Z,38nm,1.5s,mb4.9						
SONM	Songino Array	40.82	13	P	P	18 06 43.8	+0.2
	comp=Z,2.8nm,0.8s,mb3.9,baz=197,slow=6.2,SNR=4.0						
ZAL	Zalesovo	46.13	353	P	P	18 07 26.0	-0.5
	comp=Z,8.0nm,0.4s,mb5.0,baz=293,slow=6.5,SNR=14						
HIA	Hailar	46.24	23	P	P	18 07 28.0	+0.6
	comp=Z,5.3nm,0.8s,mb4.5						
NWAO	Narrogin (SRO)	46.59	153	P	P	18 07 30.0	-0.5
	comp=Z,8.5nm,0.7s,mb4.8,baz=346,slow=5.8,SNR=5.4						
BVAR	Borovoye Array	48.55	341	P	P	18 07 44.1	-1.4
	comp=Z,1.3nm,0.4s,mb4.3,baz=144,slow=8.3,SNR=6.5						
BRVK	Borovoye	48.61	341	eP	P	18 07 44.0	-1.9
	comp=Z,3.7nm,0.6s,mb4.6						
WRA	Warramunga Arr	48.66	126	P	P	18 07 45.5	-1.3
	comp=Z,6.7nm,0.6s,mb4.8,baz=302,slow=9.2,SNR=6.9						
JHJ	Hachijo jima 2	48.99	53	LR	LR	18 27 03.5	
	comp=Z,807nm,21.0s,MS4.7,baz=228,slow=34						
CHKZ	Chkalovo	49.03	342	eP	P	18 07 48.0	-1.1
	comp=Z,4.9nm,0.4s,mb4.9						
ASAR	Alice Springs	50.33	130	P	P	18 07 58.7	-0.9
	comp=Z,5.0nm,0.5s,mb4.8,baz=299,slow=7.8,SNR=8.2						
ARU	Arti	55.44	337	P	P	18 08 36.3	-0.8
	comp=Z,9.5nm,0.9s,mb4.8						
KIV	Kislovodsk	56.88	318	eP	P	18 08 44.5	-3.2
	comp=Z,7.4nm,0.7s,mb4.8						
KMBO	Kilima Mbogo	57.26	263	P	P	18 08 53.0	+2.3
	comp=Z,3.3nm,0.7s,mb4.5,baz=55,slow=13,SNR=9.1						
STKA	Stephens Creek	60.53	134	P	P	18 09 12.3	-0.8
	comp=Z,8.4nm,1.2s,mb4.8,baz=274,slow=4.5,SNR=3.0						
BRTR	Keskin Array B	62.01	311	P	P	18 09 21.1	-2.1
	comp=Z,1.3nm,0.6s,mb4.2,baz=130,slow=7.2,SNR=4.6						
MBAR	Mbarara	63.58	265	eP	P	18 09 35.3	+1.4
	comp=Z,7.0nm,1.1s,mb4.6						
AKASG	Malin Array Be	67.71	322	P	P	18 09 57.4	-2.5
	comp=Z,1.2nm,0.4s,mb4.3,baz=81,slow=4.7,SNR=5.1						
IDI	Anoyia	68.17	305	P	P	18 10 02.3	-0.7
	comp=Z,4.9nm,0.6s,mb4.7,baz=54,slow=8.6,SNR=4.1						
MLR	Muntele Rosu	68.74	316	P	P	18 10 06.5	+0.1
	comp=Z,3.7nm,0.7s,mb4.4,baz=147,slow=5.5,SNR=2.6						
LSZ	Lusaka	69.20	250	eP	P	18 10 10.4	+0.8
	comp=Z,3.7nm,0.7s,mb4.4						
KOLS	Kolonicke sedl	71.77	319	e	pP	18 10 32.8	+0.7
FINES	FINESS Array B	72.26	332	P	P	18 10 26.8	-0.7
	comp=Z,2.3nm,0.5s,mb4.4,baz=115,slow=7.1,SNR=9.9						
KAF	Kangasniemi	72.34	333	ep	P	18 10 28.1	+0.2
	comp=Z,5.3nm,0.5s,mb4.7						
OJC	Ojcow	73.54	320	eP	P	18 10 37.4	+2.3
LBTB	Lobatse	74.25	241	eP	P	18 10 38.9	-0.8
	comp=Z,6.8nm,0.8s,mb4.6						
KEV	Kevo	74.39	341	ep	P	18 10 42.4	+2.8
ARCES	ARCESS Array B	74.82	340	P	P	18 10 42.6	+0.4
	comp=Z,1.4nm,0.5s,mb4.2,baz=90,slow=6.3,SNR=9.7						
ZST	Bratislava	75.10	318	e	pP	18 10 50.1	-1.5
BOSA	Boshof	75.62	238	eP	P	18 10 48.6	+1.1
	comp=Z,6.4nm,0.8s,mb4.6						
BILL	Bilibino	75.80	22	P	P	18 10 45.7	-2.1
	comp=Z,5.5nm,0.6s,mb4.7						
BILL				e	sP	18 10 56.1	-1.6
PRU	Pruhonice	76.89	319	eP	sP	18 11 02.4	-1.8
GERES	GERESS Array B	77.39	318	P	P	18 10 56.2	-0.8
	comp=Z,1.7nm,0.7s,mb4.1,baz=76,slow=5.5,SNR=5.7						
KHC	Kasperske Hory	77.48	318	eP	pP	18 11 02.5	-2.5
HFS	Hagfors	78.01	330	P	P	18 11 00.1	0.0
	comp=Z,3.0nm,0.4s,mb4.6,baz=99,slow=4.0,SNR=23						
NB2	NORSAR Subarra	79.28	331	P	P	18 11 06.8	-0.3
	comp=Z,8.1nm,0.7s,mb4.8,baz=95,slow=5.0						
NOA	NORSAR Array B	79.28	331	P	P	18 11 06.4	-0.7
	comp=Z,1.9nm,0.6s,mb4.2,baz=95,slow=5.1,SNR=9.5						
NAO01	NORSAR Array S	79.44	330	eP	P	18 11 07.3	-0.6
	comp=Z,7.5nm,0.6s,mb4.8						
DAVOX	Davos	79.96	316	P	P	18 11 12.0	+1.0

	comp=Z,2.8nm,0.5s,mb4.5,baz=73,slow=1.8,SNR=6.4						
LPL	**La Plagne**	**82.20**	**315**	*e*P	**P**	**18 11 23.1**	**+0.2**
	comp=Z,25nm,0.7s,mb5.0						
EKA	**Eskdalemuir Ar**	**87.28**	**325**	P	**P**	**18 11 48.6**	**+0.6**
	comp=Z,2.1nm,0.7s,mb4.5,baz=96,slow=5.5,SNR=6.5						
ESDC	**Sonseca Array**	**90.80**	**310**	P	**P**	**18 12 06.1**	**+0.9**
	comp=Z,0.9nm,0.5s,mb4.4,baz=57,slow=4.0,SNR=8.7						
IMA	**Indian Mountai**	**91.34**	**22**	*e*P	**P**	**18 12 08.9**	**+2.0**
	comp=Z,23nm,0.6s						
ILAR	**Eielson Array**	**94.46**	**22**	P	**P**	**18 12 22.4**	**+1.0**
	comp=Z,0.5nm,0.7s,mb4.0,baz=300,slow=5.3,SNR=4.7						
INK	**Inuvik**	**96.67**	**16**	P	**P**	**18 12 33.0**	**+1.6**
	comp=Z,0.6nm,0.5s,mb4.3,baz=327,slow=1.7,SNR=4.1						
ULM	**Lac du Bonnet**	**121.10**	**7**	PKP	PKPdf	18 17 56.0	-1.7
	comp=Z,1.1nm,0.6s,baz=153,slow=4.5,SNR=2.2						
NVAR	**Mina Array Bea**	**124.69**	**31**	PKP	PKPdf	18 18 03.4	-1.6
	comp=Z,0.4nm,0.5s,baz=313,slow=4.2,SNR=2.3						
PDAR	**Pinedale Array**	**124.88**	**21**	PKP	PKPdf	18 18 02.5	-2.8
	comp=Z,1.5nm,0.9s,baz=270,slow=0.9,SNR=9.0						
SDV	**Santo Domingo**	**157.04**	**318**	PKPab	PKPab	18 19 29.2	-0.3
	comp=Z,1.7nm,0.5s,baz=31,slow=11,SNR=3.5						
LVC	**Limon Verde**	**158.20**	**227**	PKPab	PKPab	18 19 35.3	+1.1
	comp=Z,2.9nm,0.7s,baz=251,slow=1.3,SNR=5.4						
LPAZ	**La Paz**	**160.75**	**244**	PKPab	PKPab	18 19 44.0	-1.4
	comp=Z,2.0nm,0.8s,baz=119,slow=4.8,SNR=3.1						

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*BJI **26** 18:00:59.7, 8.46N×93.40E, h22^{km}, mb4.5*
*IDC **26** 18:01:07.9±0.9, 9.07N×93.71E, h23^{km}±4^{km}, mb4.3/10, mb1 4.4/11, mb1mx4.1/22, ML4.5/1, Error ellipse: s-maj=34.5km s-min=22.4km az=69.0*
*NEIC **26** 18:01:08.3±0.6, 9.13N×93.82E, mb4.6/5, Error ellipse: s-maj=21.8km s-min=13.0km az=114.0*
ISC 26 18:01:08.3±1.1**, 9.5N**±0.2×**93.5E**±0.2**, h23^{km}, h23^{km}**±.7^{km}**:pP-P, n28,** σ**0^{s}69**/22**, mb4.4**/16**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.38**	**30**	Pn	**P**	**18 03 38.5**	**-0.7**
	1.0nm,0.3s,baz=212,slow=14,SNR=4.3						
CMAR	**Chiang Mai Arr**	**10.38**	**30**	Pn	**P**	**18 03 38.5**	**-0.7**
HHC	**Hu-ho-hao-te**	**35.12**	**24**	*e*P	**P**	**18 08 02.0**	**-0.3**
HHC				AP	pP	18 08 09.0	0.0
HHC				XP	sP	18 08 13.5	+1.6
HHC				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.9						
SONM	**Songino Array**	**39.77**	**14**	P	**P**	**18 08 42.6**	**+1.3**
	comp=Z,2.7nm,0.8s,mb4.0,baz=195,slow=11,SNR=3.8						
CN2	**Changchun**	**44.05**	**33**	*e*P	**P**	**18 09 17.0**	**+0.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.4						
HIA	**Hailar**	**45.33**	**24**	P	**P**	**18 09 25.7**	**-0.8**
	comp=Z,22nm,1.3s,mb4.8						
NWAO	**Narrogin (SRO)**	**47.83**	**153**	P	**P**	**18 09 39.8**	**-6.7**
	comp=Z,6.4nm,0.6s,mb4.9,baz=318,slow=12,SNR=3.8						
NWAO	**Narrogin (SRO)**	**47.83**	**153**	P	**P**	**18 09 39.4**	**-7.1**
AKASG	**Malin Array Be**	**66.53**	**321**	P	**P**	**18 11 58.4**	**-0.2**
	comp=Z,0.2nm,0.3s,mb3.6,baz=102,slow=7.5,SNR=2.5						
FINES	**FINESS Array B**	**71.03**	**332**	P	**P**	**18 12 25.7**	**-0.6**
	comp=Z,1.7nm,0.6s,mb4.2,baz=104,slow=5.8,SNR=3.7						
ARCES	**ARCESS Array B**	**73.57**	**340**	P	**P**	**18 12 41.5**	**+0.4**
	comp=Z,4.1nm,0.9s,mb4.3,baz=90,slow=6.3,SNR=2.8						
ARCES				pP	pP	18 12 49.2	+0.8
	comp=Z,8.6nm,1.0s,baz=100,slow=7.4,SNR=4.8						
ARCES	**ARCESS Array B**	**73.57**	**340**	P	**P**	**18 12 41.5**	**+0.4**
ARCES				pP	pP	18 12 49.2	+0.8
LBTB	**Lobatse**	**74.45**	**241**	*e*P	**P**	**18 12 46.1**	**-1.0**
	comp=Z,3.9nm,0.7s,mb4.5						
BOSA	**Boshof**	**75.90**	**237**	*e*P	**P**	**18 12 54.9**	**-0.5**
	comp=Z,3.4nm,0.8s,mb4.3						
GERES	**GERESS Array B**	**76.23**	**318**	P	**P**	**18 12 57.4**	**+0.5**
	comp=Z,2.9nm,1.0s,mb4.2,baz=112,slow=5.3,SNR=2.6						
GERES				pP	pP	18 13 04.2	+0.1
	comp=Z,2.3nm,0.7s,baz=90,slow=4.0,SNR=3.8						
HFS	**Hagfors**	**76.78**	**330**	P	**P**	**18 12 59.4**	**-0.3**
	comp=Z,2.7nm,0.4s,mb4.5,baz=90,slow=4.4,SNR=6.7						
NB2	**NORSAR Subarra**	**78.05**	**330**	P	**P**	**18 13 05.9**	**-0.7**
	comp=Z,3.8nm,1.0s,mb4.3,baz=90,slow=5.3						
NOA	**NORSAR Array B**	**78.05**	**330**	P	**P**	**18 13 06.2**	**-0.4**
	comp=Z,0.5nm,0.7s,mb3.6,baz=125,slow=4.1,SNR=3.4						
SUR	**Sutherland**	**80.72**	**235**	*e*P	**P**	**18 13 22.8**	**+1.1**
	comp=Z,9.4nm,1.0s,mb4.7						
EKA	**Eskdalemuir Ar**	**86.07**	**325**	P	**P**	**18 13 49.4**	**+0.9**
	comp=Z,3.0nm,0.7s,mb4.6,baz=85,slow=5.9,SNR=3.9						
EKA				pP	pP	18 13 56.5	+0.6
	comp=Z,4.7nm,0.9s,baz=98,slow=5.9,SNR=4.2						
IMA	**Indian Mountai**	**90.40**	**22**	*e*P	**P**	**18 14 09.1**	**+0.2**
INK	**Inuvik**	**95.65**	**16**	P	**P**	**18 14 32.9**	**-0.2**
	comp=Z,4.3nm,1.2s,mb4.8,baz=284,slow=1.9,SNR=3.7						
NVAR	**Mina Array Bea**	**123.88**	**30**	PKP	PKPdf	18 20 05.7	-3.9
	comp=Z,0.8nm,0.6s,baz=288,slow=2.9,SNR=2.5						
NVAR				pPKP		18 20 13.4	
	comp=Z,0.7nm,0.5s,baz=297,slow=4.4,SNR=2.7						
NVAR	**Mina Array Bea**	**123.88**	**30**	PKP	PKPdf	18 20 05.7	-3.9
NVAR				pPKP		18 20 13.4	
PDAR	**Pinedale Array**	**123.92**	**20**	PKP	PKPdf	18 20 04.8	-4.8
	comp=Z,1.0nm,1.0s,baz=45,slow=3.8,SNR=3.6						
PDAR				pPKP		18 20 12.7	
	comp=Z,1.1nm,0.9s,baz=56,slow=3.3,SNR=4.2						
TXAR	**Lajitas Array**	**138.03**	**23**	PKP	PKPdf	18 20 33.7	-2.9
	comp=Z,0.8nm,0.9s,baz=180,slow=0.9,SNR=4.2						
SDV	**Santo Domingo**	**155.88**	**319**	PKPab	PKPab	18 21 31.7	+0.8
	comp=Z,3.2nm,1.0s,baz=54,slow=8.7,SNR=3.1						
LPAZ	**La Paz**	**160.86**	**247**	PKPab	PKPab	18 21 51.3	-0.8
	comp=Z,1.2nm,0.6s,baz=92,slow=2.2,SNR=3.0						

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*BJI **26** 18:10:35.5, 8.22N×93.88E, h25^{km}, mB5.4, mb4.9*
*NEIC **26** 18:10:43.2±0.2, 8.95N×94.04E, mb5.0/32, Error ellipse: s-maj=7.2km s-min=6.0km az=65.0*
*IDC **26** 18:10:45.9±0.7, 9.05N×94.09E, h45^{km}±6^{km}, mb4.4/28, mb1 4.5/29, mb1mx4.5/31, ML4.8/1, Error ellipse: s-maj=19.5km s-min=9.8km az=52.0*
ISC 26 18:10:41.5±0.3**, 8.94N**±0.05×**94.06E**±0.05**, h26^{km}, h26^{km}**±1.2^{km}**:pP-P, n170,** σ**0^{s}93**/146**, mb4.8**/69**, 6C-8D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**10.59**	**26**	*e*P	**P**	**18 13 15.1**	**+0.3**
CM31				*e*P		18 13 15.6	
CMAR	**Chiang Mai Arr**	**10.59**	**26**	P	**P**	**18 13 15.2**	**+0.4**
	2.1nm,0.3s,baz=213,slow=15,SNR=22						
CHG	**Chiang Mai**	**10.90**	**25**	⇑P	**P**	**18 13 28.3**	**+9.1**
	22nm,1.1s						
VIS	**Vishakhapatnam**	**13.61**	**311**	*e*P	**P**	**18 14 01.2**	**+5.8**
VIS				*e*		18 16 13.7	
VIS				*e*		18 16 19.4	
	comp=E,109nm,0.8s						
VIS				*e*	**S**	**18 16 19.7**	**-7.1**
	comp=N,102nm,1.1s						
MDRS	**Chennai**	**14.17**	**288**	*e*	**P**	**18 14 05.9**	**+3.0**
SHL	**Shillong**	**16.67**	**353**	*e*P	**P**	**18 14 34.5**	**-0.7**
SHL				*e*		18 14 39.3	
	comp=Z,115nm,1.4s						
TRD	**Trivandrum**	**16.91**	**270**	*e*P	**P**	**18 14 46.3**	**+8.0**
TRD				*e*		18 14 47.8	
	comp=E,94nm,1.5s						
KMI	**Kunming**	**18.10**	**26**	P	**P**	**18 14 56.5**	**+3.4**
KMI				AMB	AMB		
	comp=Z,25nm,1.4s						
AKL	**Akola**	**20.18**	**307**	*e*P	**P**	**18 15 21.8**	**+4.6**
PKI	**Pulchoki**	**20.26**	**337**	*e*P	**P**	**18 15 17.6**	**-0.3**
	comp=Z,396nm,1.4s						
GUN	**Gumba**	**20.39**	**339**	*e*P	**P**	**18 15 19.2**	**-0.1**
	comp=Z,296nm,1.2s						
DMN	**Daman**	**20.41**	**337**	*e*P	**P**	**18 15 18.6**	**-0.9**
	comp=Z,74nm,0.9s						
KKN	**Kakani**	**20.50**	**337**	*e*P	**P**	**18 15 19.7**	**-0.8**
	comp=Z,168nm,1.1s						
GOA	**Goa**	**20.81**	**290**	*e*P	**P**	**18 15 27.1**	**+3.4**
GOA				*e*		18 15 40.0	
	comp=Z,0.9nm,0.2s						
LSA	**Lhasa**	**20.84**	**353**	⇓*e*P	**P**	**18 15 23.6**	**-0.3**
	comp=Z,54nm,0.6s						
GKN	**Gorkha**	**20.95**	**336**	*e*P	**P**	**18 15 25.0**	**0.0**
	comp=Z,260nm,1.1s						
GYA	**Guiyang**	**21.13**	**33**	⇑*i*P	**P**	**18 15 27.5**	**+0.6**
GYA				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.6						
COCO	**West Island**	**21.17**	**172**	*e*P	**P**	**18 15 31.9**	**+4.6**
	comp=Z,13nm,0.4s,mb4.6						
KOLN	**Koldanda**	**21.18**	**334**	*e*P	**P**	**18 15 27.2**	**-0.1**
	comp=Z,102nm,0.9s,mb5.2						
BHPL	**Bhopal**	**21.36**	**314**	*e*P	**P**	**18 15 31.0**	**+1.8**
BHPL				*e*		18 15 37.2	
	comp=Z,41nm,1.3s						
POO	**Poona**	**21.80**	**298**	*e*P	**P**	**18 15 40.0**	**+6.3**
BOM	**Bombay**	**22.85**	**298**	*e*	**P**	**18 15 43.3**	**-0.9**
CD2	**Chengdu**	**23.66**	**21**	⇓*i*P	**P**	**18 15 54.0**	**+2.1**
CD2				AMB	AMB		
	comp=Z,120nm,1.1s,mb5.2						
PTH	**Pithoragarh**	**24.27**	**330**	*e*P	**P**	**18 15 58.7**	**+0.8**
NDI	**New Delhi**	**25.24**	**323**	*e*P	**P**	**18 16 07.8**	**+0.6**
	comp=Z,3.1nm,0.2s,mb4.5						
NDI				*e*		18 16 11.4	
	comp=Z,111nm,1.5s						
ENH	**Enshi**	**25.66**	**32**	*e*P	**P**	**18 16 11.0**	**-0.1**
	comp=Z,27nm,0.9s,mb4.8						
LZH	**Lanzhou**	**28.46**	**17**	*e*P	**P**	**18 16 37.5**	**+0.9**
LZH				AP	pP	18 16 40.5	-3.7
LZH				AMB	AMB		
	comp=Z,101nm,1.7s,mb5.2						
GTA	**Gaotai**	**30.78**	**9**	P	**P**	**18 16 57.3**	**0.0**
GTA				AP	pP	18 17 08.0	+3.1
GTA				XP	sP	18 17 11.8	+3.6
GTA				AMB	AMB		
	comp=Z,11nm,1.7s,mb4.4						
NJ2	**Nanjing**	**32.53**	**41**	*e*P	**P**	**18 17 10.5**	**-2.2**
NJ2				AP	pP	18 17 20.3	0.0
NJ2				XP	sP	18 17 23.8	+0.2
NJ2				PP	PP	18 18 18.0	-3.4
NJ2				S	**S**	**18 22 20.5**	**-4.6**
NJ2				AMB	AMB		
	comp=Z,1µm,5.8s						
SSE	**Sheshan**	**33.53**	**45**	*e*P	**P**	**18 17 20.0**	**-1.4**
SSE				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,510nm,7.7s						
KSH	**Kashi**	**34.48**	**335**	P	**P**	**18 17 29.5**	**-0.1**
KSH				AP	pP	18 17 35.5	-1.7
KSH				*e*XP	sP	18 17 41.0	+0.5
KSH				AMB	AMB		
	comp=Z,200nm,3.6s						
WMQ	**Urumqi**	**35.19**	**352**	P	**P**	**18 17 36.3**	**+0.7**
WMQ				AP	pP	18 17 40.8	-2.4
WMQ				XP	sP	18 17 43.3	-3.2
WMQ				AMB	AMB		
	comp=Z,16nm,0.7s,mb5.1						
HHC	**Hu-ho-hao-te**	**35.38**	**23**	⇓P	**P**	**18 17 38.3**	**+1.1**
HHC				AP	pP	18 17 42.3	-2.6
HHC				XP	sP	18 17 45.8	-2.3
HHC				AMB	AMB		
	comp=Z,25nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,532nm,6.4s						
BJT	**Baijiatuau**	**36.70**	**29**	*e*P	**P**	**18 17 49.6**	**+1.3**
	comp=Z,23nm,0.9s,mb5.0						
BJI	**Beijing**	**36.72**	**29**	P	**P**	**18 17 50.0**	**+1.5**
BJI				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
KZA	**Kyzart**	**36.94**	**336**	P	**P**	**18 17 51.3**	**+1.0**
	SNR=5.9						
UCH	**Uchtor**	**37.36**	**336**	P	**P**	**18 17 54.6**	**+0.8**
	SNR=9.1						
TKM2	**Tokmak 2**	**37.52**	**338**	P	**P**	**18 17 55.4**	**+0.2**
	SNR=7.9						
KBK	**Karagaybulak**	**37.55**	**337**	P	**P**	**18 17 56.2**	**+0.8**
	SNR=28						
AML	**Almayashu**	**37.62**	**335**	P	**P**	**18 17 57.0**	**+1.0**
	SNR=32						
AAK	**Ala-Archa**	**37.71**	**336**	P	**P**	**18 17 58.0**	**+1.3**
	SNR=12						
AAK	**Ala-Archa**	**37.71**	**336**	*e*P	**P**	**18 17 56.1**	**-0.7**
	comp=Z,36nm,0.8s,mb5.2						
AAK				*e*		18 18 07.8	
CHMS	**Chumysh**	**37.91**	**337**	P	**P**	**18 17 58.6**	**+0.1**
	SNR=13						
EKS2	**Erkin-Say**	**38.02**	**335**	P	**P**	**18 18 00.2**	**+0.8**
	SNR=13						
USP	**Ospenovka**	**38.24**	**337**	P	**P**	**18 18 01.2**	**0.0**
	SNR=16						
SNY	**Shenyang**	**41.83**	**34**	⇓P	**P**	**18 18 32.3**	**+1.3**
SNY				AMB	AMB		
	comp=Z,20nm,1.7s,mb4.5						
TLY	**Talaya**	**43.34**	**9**	P	**P**	**18 18 36.2**	**-6.9**
	comp=Z,76nm,0.4s,mb5.8,SNR=17						
CN2	**Changchun**	**44.18**	**33**	*e*P	**P**	**18 18 51.5**	**+1.4**
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.7						
ZAL	**Zalesovo**	**45.49**	**352**	P	**P**	**18 18 59.9**	**-0.5**
	comp=Z,7.7nm,0.6s,mb4.7,baz=302,slow=7.2,SNR=36						
HIA	**Hailar**	**45.58**	**23**	*e*P	**P**	**18 19 01.5**	**+0.3**
	comp=Z,17nm,0.9s,mb5.0						
NWAO	**Narrogin (SRO)**	**47.12**	**153**	P	**P**	**18 19 14.1**	**+0.4**
	comp=Z,9.7nm,0.6s,mb4.9,baz=350,slow=5.7,SNR=3.6						
NWAO	**Narrogin (SRO)**	**47.12**	**153**	P	**P**	**18 19 13.7**	**0.0**
	comp=Z,11nm,0.9s,mb4.8						
BVAR	**Borovoye Array**	**47.97**	**341**	P	**P**	**18 19 18.9**	**-1.1**
	comp=Z,4.1nm,0.8s,mb4.5,baz=149,slow=8.6,SNR=18						
BVAR				pP	pP	18 19 30.3	+2.5
	comp=Z,7.3nm,0.8s,baz=143,slow=7.4,SNR=14						
BVAR				PcP	PcP	18 20 48.5	+0.2
	comp=Z,1.7nm,0.8s,baz=162,slow=4.6,SNR=4.7						
BRVK	**Borovoye**	**48.03**	**341**	*e*P	**P**	**18 19 18.7**	**-1.8**
	comp=Z,9.1nm,0.7s,mb4.9						
BRVK				*e*		18 19 30.5	
CHKZ	**Chkalovo**	**48.45**	**342**	*e*P	**P**	**18 19 22.8**	**-0.8**
	comp=Z,28nm,0.8s,mb5.3						
CHKZ				*e*		18 19 34.0	
WRA	**Warramunga Arr**	**48.94**	**126**	P	**P**	**18 19 27.3**	**-0.6**
	comp=Z,5.4nm,0.7s,mb4.7,baz=307,slow=8.7,SNR=34						
WRA				pP	pP	18 19 42.6	+6.8
	comp=Z,4.4nm,0.8s,baz=306,slow=8.7,SNR=9.2						
WRA				PcP	PcP	18 20 51.9	-0.4
	comp=Z,2.4nm,0.8s,baz=312,slow=3.5,SNR=5.4						
WRA	**Warramunga Arr**	**48.94**	**126**	P	**P**	**18 19 34.7**	**+6.7**
	comp=Z,1.8nm,0.7s,mb4.2,baz=306,slow=8.8,SNR=7.4						
WRA	**Warramunga Arr**	**48.94**	**126**	P	**P**	**18 19 27.3**	**-0.6**
WRA				P	pP	18 19 34.7	-1.1
WRA				pP	pP	18 19 42.6	+6.8
WRA				PcP	PcP	18 20 51.9	-0.4
WRAB	**Tennant Creek**	**48.95**	**126**	*e*P	**P**	**18 19 27.1**	**-0.8**
ASAR	**Alice Springs**	**50.66**	**131**	P	**P**	**18 19 39.5**	**-1.5**
	comp=Z,2.1nm,0.7s,mb4.2,baz=306,slow=7.0,SNR=23						
ASAR				pP	pP	18 19 53.8	+4.8
	comp=Z,2.5nm,0.6s,baz=310,slow=7.3,SNR=10						
ASAR				PcP	PcP	18 20 58.2	-0.2
	comp=Z,2.9nm,0.9s,baz=310,slow=3.5,SNR=7.3						
ASAR	**Alice Springs**	**50.66**	**131**	PcP	Px	18 21 07.6	
	comp=Z,2.0nm,1.0s,baz=315,slow=4.1,SNR=4.1						
GNI	**Garni**	**53.65**	**314**	P	**P**	**18 20 03.6**	**+0.4**
	comp=Z,2.3nm,0.5s,mb4.4,baz=15,slow=14,SNR=7.4						
ASAJ	**Asahikawa**	**54.67**	**41**	P	**P**	**18 20 10.6**	**-0.2**
	comp=Z,7.1nm,0.9s,mb4.7,baz=263,slow=17,SNR=2.7						
ARU	**Arti**	**54.89**	**337**	*e*P	**P**	**18 20 10.7**	**-1.4**
	comp=Z,10nm,0.8s,mb4.9						
KIV	**Kislovodsk**	**56.48**	**317**	P	**P**	**18 20 23.5**	**-0.3**
	comp=Z,114nm,1.1s,mb5.8,SNR=7.9						
KIV	**Kislovodsk**	**56.48**	**317**	*e*P	**P**	**18 20 21.3**	**-2.5**
	comp=Z,19nm,0.8s,mb5.2						
KMBO	**Kilima Mbogo**	**57.47**	**263**	P	**P**	**18 20 33.2**	**+2.0**
	comp=Z,3.6nm,0.9s,mb4.4,baz=50,slow=11,SNR=8.6						
KMBO	**Kilima Mbogo**	**57.47**	**263**	P	**P**	**18 20 33.2**	**+2.0**
ASF	**Jabal al Asfar**	**57.58**	**302**	P	**P**	**18 20 32.3**	**+0.6**
	comp=Z,1.3nm,0.4s,mb4.3,baz=327,slow=8.8,SNR=3.6						
ASF	**Jabal al Asfar**	**57.58**	**302**	P	pP	18 20 40.7	+1.0
	comp=Z,7.5nm,1.0s,baz=9.4,slow=2.1,SNR=3.7						
ASF	**Jabal al Asfar**	**57.58**	**302**	P	**P**	**18 20 32.3**	**+0.6**
ASF				P	pP	18 20 40.7	+1.0
MALT	**Malatya**	**57.72**	**310**	*e*P	**P**	**18 20 31.5**	**-1.2**
	comp=Z,1.6nm,0.8s,mb4.1						
EIL	**Elat**	**58.84**	**299**	*e*P	**P**	**18 20 39.6**	**-0.9**
	comp=Z,18nm,0.9s,mb5.1						
CTA	**Charters Tower**	**58.90**	**120**	P	**P**	**18 20 41.0**	**-0.1**
	comp=Z,3.8nm,0.8s,mb4.5,baz=298,slow=9.9,SNR=4.0						
CTA				pP	pP	18 20 53.5	+4.4
	comp=Z,7.9nm,1.0s,baz=295,slow=8.7,SNR=4.6						
YAK	**Yakutsk**	**59.02**	**19**	*e*P	**P**	**18 20 40.5**	**-0.9**
	comp=Z,12nm,0.7s,mb5.0						
STKA	**Stephens Creek**	**60.89**	**134**	P	**P**	**18 20 54.0**	**-0.6**
	comp=Z,2.1nm,0.8s,mb4.3,baz=306,slow=13,SNR=3.8						
STKA	**Stephens Creek**	**60.89**	**134**	*e*P	**P**	**18 20 53.1**	**-1.5**
BRTR	**Keskin Array B**	**61.68**	**310**	P	**P**	**18 20 57.8**	**-2.1**
	comp=Z,4.6nm,0.9s,mb4.6,baz=121,slow=7.2,SNR=23						
BRTR	**Keskin Array B**	**61.68**	**310**	P	pP	18 21 07.2	-0.7
	comp=Z,5.5nm,0.8s,baz=117,slow=7.4,SNR=12						
BRTR	**Keskin Array B**	**61.68**	**310**	P	**P**	**18 20 57.8**	**-2.1**
BRTR				P	pP	18 21 07.2	-0.7
MBAR	**Mbarara**	**63.77**	**265**	*e*P	**P**	**18 21 15.3**	**+1.1**
	comp=Z,20nm,1.3s,mb5.0						
AKASG	**Malin Array Be**	**67.28**	**321**	P	**P**	**18 21 33.8**	**-2.3**
	comp=Z,3.3nm,0.7s,mb4.5,baz=91,slow=4.3,SNR=19						
AKASG				PP	PP	18 24 02.9	-3.2
	comp=Z,1.5nm,0.9s,baz=105,slow=7.5,SNR=5.5						
AKASG	**Malin Array Be**	**67.28**	**321**	P	pP	18 21 41.3	-2.9
	comp=Z,1.7nm,0.6s,baz=92,slow=4.5,SNR=7.6						
VRI	**Vrincioaia**	**67.89**	**316**	⇑*i*P	**P**	**18 21 39.8**	**-0.2**
IDI	**Anoyia**	**67.90**	**304**	P	**P**	**18 21 39.1**	**-1.3**
	comp=Z,2.7nm,0.6s,mb4.5,baz=90,slow=14,SNR=3.6						
MLR	**Muntele Rosu**	**68.36**	**315**	P	**P**	**18 21 42.7**	**-0.3**
	comp=Z,12nm,0.9s,mb4.9,baz=82,slow=3.6,SNR=12						
MLR	**Muntele Rosu**	**68.36**	**315**	P	pP	18 21 51.5	+0.5
	comp=Z,33nm,1.2s,baz=32,slow=1.9,SNR=7.7						
MLR	**Muntele Rosu**	**68.36**	**315**	P	**P**	**18 21 42.7**	**-0.3**
MLR				P	pP	18 21 51.5	+0.5
LSZ	**Lusaka**	**69.55**	**250**	*e*P	**P**	**18 21 51.6**	**+0.8**
	comp=Z,7.0nm,0.7s,mb4.7						
KOLS	**Kolonicke sedl**	**71.36**	**319**	*e*P	**P**	**18 22 00.3**	**-0.9**
KOLS				*e*pP	pP	18 22 09.5	+0.2
FINES	**FINESS Array B**	**71.74**	**332**	P	**P**	**18 22 02.4**	**-0.9**
	comp=Z,4.4nm,0.5s,mb4.6,baz=96,slow=6.3,SNR=72						
FINES	**FINESS Array B**	**71.74**	**332**	P	pP	18 22 09.4	-2.0
	comp=Z,6.2nm,0.9s,baz=90,slow=1.9,SNR=4.4						
FINES	**FINESS Array B**	**71.74**	**332**	P	**P**	**18 22 02.4**	**-0.9**
FINES				P	pP	18 22 09.4	-2.0
KAF	**Kangasniemi**	**71.82**	**333**	*e*p	**P**	**18 22 03.0**	**-0.7**
	comp=Z,6.0nm,0.5s,mb4.8						
CRVS	**Cervenica-Dubn**	**71.89**	**319**	*e*P	**P**	**18 22 04.7**	**+0.3**
OJC	**Ojcow**	**73.12**	**320**	*e*P	**P**	**18 22 10.8**	**-0.8**
VYHS	**Vyhne**	**73.57**	**318**	*e*P	**P**	**18 22 13.8**	**-0.5**
VYHS				*e*pP	pP	18 22 22.4	0.0
KEV	**Kevo**	**73.81**	**341**	*e*p	**P**	**18 22 15.0**	**-0.3**
	comp=Z,9.2nm,0.7s,mb4.8						
OKC	**Ostrava-Krasne**	**74.14**	**319**	*e*P	**P**	**18 22 17.4**	**-0.1**
OKC				*e*pP	pP	18 22 24.1	-1.6
ARCES	**ARCESS Array B**	**74.25**	**340**	P	**P**	**18 22 17.7**	**-0.1**
	comp=Z,6.8nm,0.7s,mb4.7,baz=95,slow=6.9,SNR=44						
ARCES	**ARCESS Array B**	**74.25**	**340**	P	pP	18 22 24.7	-1.2
	comp=Z,2.5nm,0.5s,baz=71,slow=3.9,SNR=6.7						
ARCES	**ARCESS Array B**	**74.25**	**340**	P	**P**	**18 22 17.7**	**-0.1**
ARCES				P	pP	18 22 24.7	-1.2
LBTB	**Lobatse**	**74.68**	**241**	⇓*e*P	**P**	**18 22 22.3**	**+1.1**
	comp=Z,24nm,0.9s,mb5.1						
ZST	**Bratislava**	**74.70**	**317**	*e*P	**P**	**18 22 20.5**	**-0.3**
ZST				*e*pP	pP	18 22 29.1	+0.1
VRAC	**Vranov**	**75.11**	**319**	P	**P**	**18 22 23.2**	**+0.1**
	comp=Z,2.5nm,0.6s,mb4.3,baz=81,slow=7.3,SNR=4.4						
DPC	**Dobruska-Polom**	**75.35**	**320**	*e*P	**P**	**18 22 24.6**	**+0.1**
DPC				*e*pP	pP	18 22 30.8	-1.9
KSP	**Ksiaz**	**75.40**	**320**	⇓*e*P	**P**	**18 22 24.6**	**-0.2**
KSP				*e*pP	pP	18 22 30.9	-2.0
UPC	**Upice**	**75.56**	**320**	*e*P	**P**	**18 22 26.0**	**+0.3**
UPC				*e*pP	pP	18 22 33.3	-0.5
ARSA	**Arzberg**	**75.72**	**316**	⇑*i*P	**P**	**18 22 26.7**	**0.0**
	comp=Z,17nm,1.6s,mb4.7						
BOSA	**Boshof**	**76.08**	**238**	*e*P	**P**	**18 22 29.9**	**+0.8**
	comp=Z,14nm,0.7s,mb5.0						
PRU	**Pruhonice**	**76.47**	**319**	*e*P	**P**	**18 22 30.8**	**-0.1**
PRU				*e*pP	pP	18 22 39.9	+0.9
PVCC	**Panska Ves**	**76.48**	**320**	*e*P	**P**	**18 22 29.0**	**-1.9**
BSD	**Bornholm Skovb**	**76.52**	**325**	*e*P	**P**	**18 22 22.1**	**-8.9**
	comp=Z,22nm,0.4s,mb5.4						
BSD	**Bornholm Skovb**	**76.52**	**325**	*i* P	**P**	**18 22 22.1**	**-8.9**
	comp=Z,22nm,0.4s,mb5.4						
BRG	**Berggiesshubel**	**76.89**	**320**	*i* P	**P**	**18 22 33.2**	**0.0**
	comp=Z,38nm,1.6s,mb5.1						
GERES	**GERESS Array B**	**76.99**	**318**	P	**P**	**18 22 33.6**	**-0.2**
	comp=Z,8.5nm,0.8s,mb4.7,baz=88,slow=5.6,SNR=72						
GERES	**GERESS Array B**	**76.99**	**318**	P	pP	18 22 41.6	-0.3
	comp=Z,4.8nm,0.8s,baz=104,slow=5.5,SNR=10						
GERES	**GERESS Array B**	**76.99**	**318**	P	**P**	**18 22 33.6**	**-0.2**
GERES				P	pP	18 22 41.6	-0.3
KHC	**Kasperske Hory**	**77.08**	**318**	*e*P	**P**	**18 22 33.7**	**-0.5**
CLL	**Collm**	**77.50**	**321**	*i* P	**P**	**18 22 35.7**	**-0.8**
	comp=Z,14nm,1.3s,mb4.7						
CLL				*e*	pP	18 22 45.0	+0.3
CLL	**Collm**	**77.50**	**321**	P	**P**	**18 22 35.7**	**-0.8**
	comp=Z,logA/T=1.0,mb4.7						
CLL				*e**SP	sP	18 22 45.0	-2.5
HFS	**Hagfors**	**77.51**	**330**	P	**P**	**18 22 36.0**	**-0.3**
	comp=Z,6.4nm,0.4s,mb4.9,baz=104,slow=6.1,SNR=59						
HFS	**Hagfors**	**77.51**	**330**	P	**P**	**18 22 36.0**	**-0.3**
NKC	**Novy Kostel**	**77.83**	**319**	*e*P	**P**	**18 22 34.2**	**-4.2**
WTTA	**Wattenberg**	**78.36**	**316**	⇑*i*P	**P**	**18 22 40.9**	**-0.5**
	comp=Z,15nm,0.7s,mb5.0						
MOX	**Moxa**	**78.36**	**320**	*i* P	**P**	**18 22 41.5**	**+0.2**
MOX	**Moxa**	**78.36**	**320**	*e*P	**P**	**18 22 41.5**	**+0.2**
GRA1	**Grafenberg Arr**	**78.62**	**319**	*e*P	**P**	**18 22 42.8**	**+0.1**
	comp=Z,17nm,1.2s,mb4.8						
GRA1				*e*pP	pP	18 22 52.9	+2.0
GRF	**Grafenberg Arr**	**78.62**	**319**	*e*P	**P**	**18 22 42.8**	**+0.1**
	comp=Z,17nm,1.2s,mb4.8						
GRF				*e*pP	pP	18 22 52.9	+2.0
MOTA	**Moosalm**	**78.72**	**317**	⇑*i*P	**P**	**18 22 42.7**	**-0.6**
	comp=Z,17nm,1.2s,mb4.9						
NB2	**NORSAR Subarra**	**78.77**	**331**	P	**P**	**18 22 42.6**	**-0.7**
	comp=Z,38nm,1.4s,mb5.1,baz=95,slow=5.0						
NB2	**NORSAR Subarra**	**78.77**	**331**	P	**P**	**18 22 42.6**	**-0.7**
	baz=95,slow=5.3						
NOA	**NORSAR Array B**	**78.77**	**331**	P	**P**	**18 22 42.8**	**-0.5**
	comp=Z,8.5nm,0.9s,mb4.7,baz=92,slow=5.7,SNR=22						
NOA	**NORSAR Array B**	**78.77**	**331**	P	pP	18 22 50.2	-1.3
	comp=Z,2.0nm,0.6s,baz=93,slow=5.7,SNR=4.6						
NOA	**NORSAR Array B**	**78.77**	**331**	P	**P**	**18 22 42.8**	**-0.5**
NOA				P	pP	18 22 50.2	-1.3
MAW	**Mawson**	**79.55**	**192**	P	**P**	**18 22 48.8**	**+1.3**
	comp=Z,5.2nm,1.0s,mb4.4,baz=25,slow=10,SNR=4.0						
MAW	**Mawson**	**79.55**	**192**	P	pP	18 22 55.5	-0.1
	comp=Z,1.9nm,0.3s,baz=84,slow=9.4,SNR=4.7						
MAW	**Mawson**	**79.55**	**192**	P	**P**	**18 22 48.8**	**+1.3**
MAW				P	pP	18 22 55.5	-0.1
DAVA	**Damuels**	**79.56**	**316**	⇓*i*P	**P**	**18 22 47.8**	**-0.1**
	comp=Z,10nm,0.8s,mb4.8						
DAVOX	**Davos**	**79.58**	**316**	P	**P**	**18 22 48.1**	**+0.1**
	comp=Z,8.1nm,0.5s,mb4.9,baz=106,slow=5.8,SNR=25						
DAVOX	**Davos**	**79.58**	**316**	P	pP	18 22 56.8	+0.6
	comp=Z,7.3nm,0.7s,baz=140,slow=17,SNR=7.4						
DAVOX	**Davos**	**79.58**	**316**	P	**P**	**18 22 48.1**	**+0.1**
DAVOX				P	pP	18 22 56.8	+0.6
MUD	**Monsted U’grnd**	**79.79**	**326**	*e*P	**P**	**18 22 49.7**	**+0.8**
	comp=Z,16nm,0.7s,mb5.0						
MUD	**Monsted U’grnd**	**79.79**	**326**	*i* P	**P**	**18 22 49.7**	**+0.8**
	comp=Z,16nm,0.7s,mb5.0						
LPL	**La Plagne**	**81.83**	**315**	⇓*i*P	**P**	**18 23 00.2**	**+0.3**
	comp=Z,40nm,0.7s,mb5.1						
JMIC	**Jan Mayen**	**85.68**	**341**	P	**P**	**18 23 19.4**	**+0.5**
	comp=Z,91nm,0.9s,baz=181,slow=13,SNR=3.1						
EKA	**Eskdalemuir Ar**	**86.81**	**325**	P	**P**	**18 23 25.4**	**+0.6**
	comp=Z,7.7nm,0.7s,mb5.0,baz=94,slow=5.6,SNR=25						
EKA	**Eskdalemuir Ar**	**86.81**	**325**	P	pP	18 23 33.0	0.0
	comp=Z,6.3nm,0.8s,baz=90,slow=5.8,SNR=4.2						
EKA	**Eskdalemuir Ar**	**86.81**	**325**	P	**P**	**18 23 25.4**	**+0.6**
EKA				P	pP	18 23 33.0	0.0
ESDC	**Sonseca Array**	**90.48**	**310**	P	**P**	**18 23 43.4**	**+0.8**
	comp=Z,4.0nm,0.7s,mb4.8,baz=62,slow=4.2,SNR=17						
ESDC	**Sonseca Array**	**90.48**	**310**	P	pP	18 23 50.4	-0.5
	comp=Z,2.0nm,0.8s,baz=72,slow=4.7,SNR=5.5						
ESDC	**Sonseca Array**	**90.48**	**310**	P	**P**	**18 23 43.4**	**+0.8**
ESDC				P	pP	18 23 50.4	-0.5
IMA	**Indian Mountai**	**90.68**	**22**	*e*P	**P**	**18 23 42.7**	**-0.2**
	comp=Z,236nm,1.8s						
ILAR	**Eielson Array**	**93.80**	**22**	P	**P**	**18 23 57.5**	**+0.2**
	comp=Z,1.2nm,0.7s,mb4.4,baz=303,slow=4.3,SNR=18						
ILAR	**Eielson Array**	**93.80**	**22**	P	pP	18 24 06.5	+0.9
	comp=Z,1.0nm,0.7s,baz=297,slow=4.1,SNR=7.1						
ILAR	**Eielson Array**	**93.80**	**22**	P	**P**	**18 23 57.5**	**+0.2**
ILAR				P	pP	18 24 06.5	+0.9
VNDA	**Vanda**	**93.98**	**168**	P	**P**	**18 23 59.0**	**+1.2**
	comp=Z,2.5nm,1.0s,mb4.6,baz=221,slow=9.9,SNR=3.5						
INK	**Inuvik**	**96.00**	**16**	P	**P**	**18 24 08.2**	**+0.9**
	comp=Z,4.1nm,0.9s,mb4.9,baz=332,slow=5.8,SNR=9.7						
NVAR	**Mina Array Bea**	**124.05**	**30**	PKP	PKPdf	18 29 40.6	-2.3
	comp=Z,1.9nm,0.7s,baz=274,slow=2.5,SNR=8.2						
PDAR	**Pinedale Array**	**124.21**	**21**	PKP	PKPdf	18 29 40.0	-3.1
	comp=Z,1.6nm,0.7s,baz=31,slow=1.1,SNR=14						
TXAR	**Lajitas Array**	**138.29**	**24**	PKhKP		18 29 59.7	
	comp=Z,0.2nm,0.6s,baz=2.5,slow=0.7,SNR=3.5						
TXAR				PKP	PKPdf	18 30 07.9	-2.2
	comp=Z,0.8nm,0.6s,baz=357,slow=0.3,SNR=15						
TXAR	**Lajitas Array**	**138.29**	**24**	PKP	PKPdf	18 30 15.8	+5.8
	comp=Z,0.4nm,0.6s,baz=359,slow=1.8,SNR=6.2						
TXAR	**Lajitas Array**	**138.29**	**24**	PKP	PKPdf	18 29 59.7	-10
TXAR				PKP	PKPdf	18 30 07.9	-2.2

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR				PKP	PKPdf	18 30 15.8	+5.8
JCT	Junction City	138.61	18	*e*PKP	PKPdf	18 30 08.1	-2.5
BDFB	Brasilia	142.39	256	PKP	PKPdf	18 30 16.0	-1.7
	comp=Z,2.1nm,0.7s,baz=316,slow=7.3,SNR=3.7						
PCRV	Puerto La Cruz	151.54	311	PKPbc	PKPdf	18 30 34.5	+1.7
	comp=Z,16nm,0.9s,baz=237,slow=2.1,SNR=6.7						
LVC	Limon Verde	158.74	228	PKPab	PKPab	18 31 16.2	+0.7
	comp=Z,4.5nm,0.8s,baz=352,slow=1.3,SNR=7.0						
LVC	Limon Verde	158.74	228	PKPab	PKPab	18 31 23.6	+8.1
	comp=Z,4.0nm,0.8s,baz=43,slow=4.6,SNR=3.3						
LPAZ	La Paz	161.16	245	PKP	PKPdf	18 30 42.1	-2.9
	comp=Z,0.5nm,0.4s,baz=227,slow=1.2,SNR=4.2						
LPAZ				PKPab	PKPab	18 31 26.5	+0.4
	comp=Z,2.8nm,0.8s,baz=95,slow=7.4,SNR=7.1						
ROSC	El Rosal	162.06	319	PKPab	PKPab	18 31 30.5	+0.3
	comp=Z,1.3nm,0.3s,baz=89,slow=23,SNR=3.6						

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*IDC **26** 18:14:45.2±0.6, 4.72N×93.92E, mb4.5/17, mb1 4.6/18, mb1mx4.5/25, ML4.4/1, Error ellipse: s-maj=28.4km s-min=15.0km az=44.0*
*NEIC **26** 18:14:49.5±0.4, 4.81N×94.09E, h30km, mb4.8/10, Error ellipse: s-maj=12.1km s-min=9.4km az=69.0*
*BJI **26** 18:14:49.0, 4.65N×93.84E, h41km, mb4.7*
ISC 26 18:14:47.6±0.4**, 4.63N**±0.08×**93.93E**±0.09**, h30km, n40, σ0ˢ73**/37**, mb4.6**/29**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.59	19	*e*P	P	18 18 08.6	-5.5
	13nm,0.6s						
CMAR	Chiang Mai Arr	14.59	19	Pn	P	18 18 08.7	-5.5
	0.5nm,0.3s,baz=231,slow=14,SNR=20						
CMAR	Chiang Mai Arr	14.59	19	Pn	P	18 18 08.7	-5.5
KMI	Kunming	22.06	22	P	P	18 19 45.3	+3.4
KMI				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.5						
GYA	Guiyang	24.89	28⇑	*i*P	P	18 20 10.8	+1.3
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.8						
ENH	Enshi	29.43	28	*e*P	P	18 20 49.9	-1.1
	comp=Z,11nm,0.6s,mb4.8						
AAK	Ala-Archa	41.60	338	*e*P	P	18 22 35.1	+0.4
WRA	Warramunga Arr	46.62	123	P	P	18 23 15.9	+0.5
	comp=Z,6.6nm,0.7s,mb4.7,baz=300,slow=9.0,SNR=15						
WRAB	Tennant Creek	46.62	123	*e*P	P	18 23 15.4	0.0
	comp=Z,16nm,0.9s,mb5.0						
CN2	Changchun	47.88	31	*e*P	P	18 23 25.3	+0.2
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
ASAR	Alice Springs	48.06	128	P	P	18 23 26.8	+0.1
	comp=Z,3.2nm,0.7s,mb4.4,baz=297,slow=7.6,SNR=12						
ASAR				PcP	PcP	18 24 55.5	+0.9
	comp=Z,1.6nm,0.7s,baz=293,slow=4.8,SNR=5.0						
HIA	Hailar	49.58	22	*e*P	P	18 23 32.1	-5.9
	comp=Z,11nm,0.7s,mb5.0						
ZAL	Zalesovo	49.71	353	P	P	18 23 39.7	+0.7
	comp=Z,3.6nm,0.6s,mb4.6,baz=306,slow=7.6,SNR=9.4						
ZAL	Zalesovo	49.71	353	P	P	18 23 39.7	+0.7
BVAR	Borovoye Array	51.98	342	P	P	18 23 55.9	-0.3
	comp=Z,6.4nm,0.7s,mb4.7,baz=149,slow=8.6,SNR=16						
BVAR				PcP	PcP	18 25 09.2	+0.8
	comp=Z,1.7nm,0.7s,baz=143,slow=7.2,SNR=2.7						
BRVK	Borovoye	52.04	342	*e*P	P	18 23 56.3	-0.4
	comp=Z,7.8nm,0.8s,mb4.7						
CHKZ	Chkalovo	52.48	343	*e*P	P	18 23 59.5	-0.4
	comp=Z,181nm,1.6s,mb5.8						
KMBO	Kilima Mbogo	56.92	266	P	P	18 24 33.6	+0.7
	comp=Z,4.5nm,1.1s,mb4.4,baz=48,slow=9.4,SNR=7.4						
CTA	Charters Tower	56.96	117	P	P	18 24 33.1	0.0
	comp=Z,7.3nm,0.9s,mb4.7,baz=304,slow=5.7,SNR=5.1						
CTAO	Charters Tower	56.96	117	P	P	18 24 32.5	-0.6
	comp=Z,22nm,1.4s,mb5.0						
MALT	Malatya	60.42	312	*e*P	P	18 24 57.4	+0.5
YAK	Yakutsk	63.12	18	*e*P	P	18 25 13.6	-1.1
	comp=Z,5.6nm,0.6s,mb4.9						
BRTR	Keskin Array B	64.40	312	P	P	18 25 22.4	-1.0
	comp=Z,1.7nm,0.7s,mb4.2,baz=134,slow=7.7,SNR=7.4						
IDI	Anoyia	70.26	306	P	P	18 26 00.3	-0.1
	comp=Z,6.9nm,0.8s,mb4.7,baz=68,slow=5.9,SNR=5.0						
AKASG	Malin Array Be	70.56	322	P	P	18 26 00.1	-1.8
	comp=Z,0.9nm,0.5s,mb4.0,baz=85,slow=5.1,SNR=7.5						
MLR	Muntele Rosu	71.35	317	P	P	18 26 06.9	+0.1
	comp=Z,3.6nm,0.8s,mb4.3,baz=190,slow=11,SNR=4.1						
LBTB	Lobatse	72.53	242	*e*P	P	18 26 14.7	+0.4
	comp=Z,4.2nm,0.8s,mb4.4						
LBTB				*e*pP	pP	18 26 23.3	-0.4
BOSA	Boshof	73.71	239	*e*P	P	18 26 21.3	+0.2
	comp=Z,2.2nm,0.8s,mb4.1						
FINES	FINESS Array B	75.47	333	P	P	18 26 30.2	-0.3
	comp=Z,7.6nm,1.0s,mb4.6,baz=127,slow=9.5,SNR=8.1						
KAF	Kangasniemi	75.57	333	*e*p	P	18 26 30.8	-0.3
	comp=Z,5.2nm,0.8s,mb4.5						
ARCES	ARCESS Array B	78.23	340	P	P	18 26 45.8	+0.1
	comp=Z,3.4nm,0.8s,mb4.3,baz=102,slow=7.1,SNR=8.5						
FX1	Attu Island--F	79.82	37	P	P	18 26 55.3	+0.6
	comp=Z,18nm,0.6s,mb5.2,baz=109,slow=9.8,SNR=4.6						
GERES	GERESS Array B	80.10	319	P	P	18 26 56.7	+0.4
	comp=Z,2.0nm,0.8s,mb4.1,baz=90,slow=3.9,SNR=4.2						
NOA	NORSAR Array B	82.44	331	P	P	18 27 08.3	+0.1
	comp=Z,4.0nm,1.1s,mb4.2,baz=96,slow=5.4,SNR=3.6						
DAVOX	Davos	82.57	316	P	P	18 27 10.5	+1.2
	comp=Z,5.3nm,0.6s,mb4.7,baz=112,slow=5.7,SNR=11						
VNDA	Vanda	89.82	168	P	P	18 27 43.1	-1.2
EKA	Eskdalemuir Ar	90.26	325	P	P	18 27 47.2	+0.5
	comp=Z,2.6nm,0.9s,mb4.6,baz=86,slow=12,SNR=4.0						
TXAR	Lajitas Array	142.23	26	PKP	PKPdf	18 34 18.5	-4.6
	comp=Z,0.4nm,0.8s,baz=180,slow=0.9,SNR=3.3						
LVC	Limon Verde	155.61	221	PKPab	PKPab	18 35 08.6	+1.0
	comp=Z,2.0nm,0.6s,baz=32,slow=2.4,SNR=4.3						
LPAZ	La Paz	158.93	235	PKPab	PKPab	18 35 22.9	+0.9
	comp=Z,1.9nm,0.9s,baz=87,slow=7.5,SNR=4.6						

IDC 26 18:14:54.2±0.8**, 4.50N**×**94.03E, mb4.4**/8**, mb1 4.6**/9**, mb1mx4.3**/21**, ML4.8**/1**, Error ellipse: s-maj=37.4km s-min=19.8km az=43.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.68	19	Pn	P	18 18 19.3	-6.0
	1.4nm,0.3s,baz=215,slow=12,SNR=25						
CMAR	Chiang Mai Arr	14.68	19	Pn	P	18 18 19.3	-6.0
WRA	Warramunga Arr	46.46	123	P	P	18 23 22.6	-2.5
	6.5nm,0.8s,baz=301,slow=9.0,SNR=10						
ASAR	Alice Springs	47.90	128	P	P	18 23 35.0	-1.4
	2.6nm,0.8s,baz=308,slow=7.8,SNR=6.1						
ZAL	Zalesovo	49.86	353	P	P	18 23 49.2	-1.9
	2.7nm,0.5s,baz=289,slow=11,SNR=5.1						
BVAR	Borovoye Array	52.14	342	P	P	18 24 06.3	-2.1
	6.7nm,1.0s,baz=135,slow=8.4,SNR=5.3						
KMBO	Kilima Mbogo	57.00	266	P	P	18 24 42.5	-2.0
	6.3nm,1.0s,baz=56,slow=9.9,SNR=8.3						
BRTR	Keskin Array B	64.57	312	P	P	18 25 32.8	-2.9
	1.3nm,0.6s,baz=132,slow=8.2,SNR=5.9						
MLR	Muntele Rosu	71.51	317	P	P	18 26 17.6	-1.3
	3.1nm,0.9s,baz=163,slow=12,SNR=3.7						
DAVOX	Davos	82.74	316	P	P	18 27 20.6	-0.8
	4.2nm,0.6s,baz=155,slow=2.6,SNR=8.3						
LPAZ	La Paz	158.93	235	PKPab	PKPab	18 35 32.0	-1.4
	2.1nm,0.8s,baz=99,slow=8.7,SNR=5.1						

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*IDC **26** 18:15:59.7±1.0, 3.95N×95.61E, mb4.3/10, mb1 4.5/10, mb1mx4.2/22, Error ellipse: s-maj=52.6km s-min=17.3km az=47.0*
ISC 26 18:16:02.9±0.9**, 4.0N**±0.2×**95.7E**±0.3**, h33km, n10, σ0ˢ86**/10**, mb4.4**/10**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	44.63	10	P	P	18 24 14.4	+0.3
	3.2nm,0.8s,mb4.2,baz=206,slow=9.5,SNR=2.8						
WRA	Warramunga Arr	44.80	124	P	P	18 24 15.8	0.0
	4.5nm,0.5s,mb4.6,baz=303,slow=9.3,SNR=8.1						
ASAR	Alice Springs	46.28	128	P	P	18 24 27.2	-0.3
	9.8nm,1.2s,mb4.6,baz=302,slow=7.9,SNR=6.8						
ZAL	Zalesovo	50.57	352	P	P	18 25 00.0	-0.4
	4.6nm,0.5s,mb4.7,baz=6.3,slow=3.1,SNR=7.5						
BVAR	Borovoye Array	53.13	341	P	P	18 25 18.7	-0.9
	2.4nm,0.7s,mb4.2,baz=155,slow=7.5,SNR=4.1						
CTA	Charters Tower	55.11	118	P	P	18 25 34.8	+0.1
	9.4nm,0.9s,mb4.8,baz=285,slow=6.4,SNR=5.7						
BRTR	Keskin Array B	66.13	312	P	P	18 26 48.6	-0.8
	3.0nm,1.0s,mb4.3,baz=124,slow=7.1,SNR=4.9						
AKASG	Malin Array Be	72.14	322	P	P	18 27 25.1	-0.9
	3.4nm,1.0s,mb4.2,baz=85,slow=4.6,SNR=8.1						
FINES	FINESS Array B	76.84	332	P	P	18 27 54.9	+1.8
	2.0nm,0.8s,mb4.1,baz=124,slow=5.0,SNR=2.7						
GERES	GERESS Array B	81.73	319	P	P	18 28 21.1	+1.3
	0.9nm,0.5s,mb4.0,baz=114,slow=5.8,SNR=9.6						

IDC 26 18:16:09.9±0.9**, 2.67N**×**94.34E, mb4.2**/8**, mb1 4.4**/9**, mb1mx4.2**/19**, ML4.7**/1**, Error ellipse: s-maj=60.5km s-min=19.9km az=46.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.33	16	Pn	P	18 19 53.6	-8.7
	1.0nm,0.3s,baz=213,slow=14,SNR=5.6						
WRA	Warramunga Arr	45.23	122	P	P	18 24 30.9	-0.2
	4.9nm,0.6s,baz=302,slow=9.3,SNR=11						
ASAR	Alice Springs	46.56	126	P	P	18 24 38.6	-2.9
	1.6nm,0.4s,baz=307,slow=7.2,SNR=9.5						
BVAR	Borovoye Array	53.97	342	P	P	18 25 34.0	-3.6
	2.1nm,0.6s,baz=149,slow=11,SNR=5.5						
BRTR	Keskin Array B	66.02	313	P	P	18 26 59.9	-0.8
	1.1nm,0.6s,baz=135,slow=7.1,SNR=4.0						
AKASG	Malin Array Be	72.36	323	P	P	18 27 39.0	-0.7
	2.6nm,0.7s,baz=81,slow=4.6,SNR=7.3						
FINES	FINESS Array B	77.39	333	P	P	18 28 06.0	-2.2
	1.2nm,0.6s,baz=107,slow=6.3,SNR=5.9						
ARCES	ARCESS Array B	80.21	341	P	P	18 28 21.2	-2.2
	2.6nm,0.8s,baz=100,slow=7.4,SNR=6.0						
GERES	GERESS Array B	81.83	319	P	P	18 28 32.4	0.0
	0.6nm,0.5s,baz=117,slow=4.4,SNR=4.1						
LPAZ	La Paz	158.07	231	PKPab	PKPab	18 36 42.1	-3.3
	0.9nm,0.6s,baz=94,slow=4.9,SNR=4.2						

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*IDC **26** 18:16:51.9±0.7, 3.41N×94.04E, mb4.6/14, mb1 4.7/15, mb1mx4.6/21, Error ellipse: s-maj=32.1km s-min=15.7km az=59.0*
*NEIC **26** 18:16:56.0±6.5, 3.37N×94.10E, h28km±45km, mb4.8/9, Error ellipse: s-maj=22.6km s-min=8.8km az=59.0*
*BJI **26** 18:16:55.2, 3.15N×94.02E, h42km, mb5.0*
ISC 26 18:16:54.7±0.5**, 3.34N**±0.07×**94.05E**±0.10**, h33km, n33, σ0ˢ98**/32**, mb4.7**/25**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.78	17	*e*P	P	18 20 36.2	0.0
	22nm,0.7s						
CMAR	Chiang Mai Arr	15.78	17	Pn	P	18 20 34.9	-1.2
	baz=213,slow=12,SNR=5.9						
GYA	Guiyang	25.98	27⇑	*i*P	P	18 22 28.0	+1.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.3						
LSA	Lhasa	26.36	354	P	P	18 22 29.8	-0.1
	comp=Z,52nm,0.9s,mb5.1						
ENH	Enshi	30.52	27	*e*P	P	18 23 06.0	-1.3
	comp=Z,8.9nm,0.7s,mb4.7						
WHN	Wuhan	33.17	33	*e*P	P	18 23 31.8	+1.3
MBWA	Marble Bar	35.01	135	*e*P	P	18 23 45.8	-0.6
	comp=Z,10nm,1.1s,mb4.7						
BJT	Baijiatuau	41.65	26	*e*P	P	18 24 41.2	-0.5
	comp=Z,16nm,0.8s,mb4.7						
BJI	Beijing	41.67	26	P	P	18 24 40.0	-1.8
BJI				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.8						
SONM	Songino Array	45.59	12	P	P	18 25 15.0	+1.5
	comp=Z,18nm,1.1s,mb4.9,baz=195,slow=8.9,SNR=6.6						
WRA	Warramunga Arr	45.83	122	P	P	18 25 15.5	-0.3
	comp=Z,8.7nm,0.7s,mb4.8,baz=300,slow=8.9,SNR=4.9						
WRAB	Tennant Creek	45.84	122	*e*P	P	18 25 15.7	-0.1
	comp=Z,14nm,0.7s,mb5.0						
ASAR	Alice Springs	47.19	127	P	P	18 25 25.9	-0.4
	comp=Z,5.5nm,0.8s,mb4.5,baz=297,slow=7.9,SNR=6.5						
CN2	Changchun	48.94	30	*e*P	P	18 25 41.0	+1.2
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.0						
HIA	Hailar	50.73	22	*e*P	P	18 25 54.6	+1.2
	comp=Z,18nm,0.8s,mb5.0						
ZAL	Zalesovo	51.01	353	P	P	18 25 56.2	+0.8
	comp=Z,8.6nm,0.5s,mb5.0,baz=299,slow=4.8,SNR=8.3						
ZAL	Zalesovo	51.01	353	P	P	18 25 56.2	+0.8
BVAR	Borovoye Array	53.24	342	P	P	18 26 12.1	-0.1
	comp=Z,6.4nm,0.7s,mb4.7,baz=143,slow=7.4,SNR=8.9						
BRVK	Borovoye	53.30	342	*e*P	P	18 26 12.1	-0.6
	comp=Z,5.8nm,0.7s,mb4.6						
CHKZ	Chkalovo	53.74	343	*e*P	P	18 26 15.2	-0.6
	comp=Z,14nm,0.8s,mb5.0						
STKA	Stephens Creek	57.12	132	P	P	18 26 40.5	-0.1
	comp=Z,3.3nm,0.7s,mb4.5,baz=328,slow=12,SNR=4.3						
STKA	Stephens Creek	57.12	132	*e*P	P	18 26 39.9	-0.7
MALT	Malatya	61.37	312	*e*P	P	18 27 09.2	-0.6
BRTR	Keskin Array B	65.35	312	P	P	18 27 35.6	-0.5
	comp=Z,2.2nm,0.8s,mb4.2,baz=128,slow=7.0,SNR=5.5						
AKASG	Malin Array Be	71.66	323	P	P	18 28 13.6	-1.3
	comp=Z,2.1nm,0.7s,mb4.2,baz=90,slow=4.4,SNR=5.9						
MLR	Muntele Rosu	72.36	317	P	P	18 28 18.8	-0.4
	comp=Z,3.8nm,0.8s,mb4.4,baz=218,slow=4.2,SNR=3.5						
MLR	Muntele Rosu	72.36	317	P	P	18 28 18.8	-0.4
MAW	Mawson	74.10	192	P	P	18 28 31.7	+2.7
	comp=Z,10nm,0.3s,mb5.2,baz=197,slow=11,SNR=25						
FINES	FINESS Array B	76.67	333	P	P	18 28 43.4	-0.4
	comp=Z,3.9nm,1.0s,mb4.3,baz=117,slow=6.2,SNR=3.2						
ARCES	ARCESS Array B	79.48	341	P	P	18 28 59.2	+0.1
	comp=Z,3.1nm,0.8s,mb4.3,baz=101,slow=6.2,SNR=4.1						
GERES	GERESS Array B	81.14	319	P	P	18 29 09.1	+0.7
	comp=Z,4.0nm,0.8s,mb4.4,baz=104,slow=5.5,SNR=10						
DAVOX	Davos	83.59	317	P	P	18 29 22.6	+1.6
	comp=Z,3.8nm,0.6s,mb4.7,baz=83,slow=5.8,SNR=5.6						
TXAR	Lajitas Array	143.34	26	PKP	PKPdf	18 36 27.0	+0.7
	comp=Z,0.4nm,0.6s,baz=197,slow=1.5,SNR=3.5						

IDC 26 18:16:54.9±2.5**, 44.83N**×**102.78E, mb3.6**/4**, mb1 3.9**/5**, mb1mx3.6**/21**, ML4.2**/1**, Error ellipse: s-maj=50.6km s-min=20.6km az=154.0, Mongolia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	3.92	38	Pn	Pn	18 17 57.6	+0.1
	3.7nm,0.3s,baz=223,slow=15,SNR=113						
SONM				Pg	Pg	18 18 06.9	-6.2
	44nm,0.3s,baz=222,slow=18,SNR=94						
SONM				Sn	Sn	18 18 42.7	-2.2
	40nm,0.3s,baz=218,slow=26,SNR=10						
SONM				Lg		18 18 59.0	
	114nm,0.3s,baz=225,slow=32,SNR=22						
BVAR	Borovoye Array	22.65	303	P	P	18 21 56.9	-1.6
	1.7nm,0.6s,baz=105,slow=10,SNR=6.9						
FINES	FINESS Array B	45.99	319	P	P	18 25 20.1	-0.9
	0.9nm,0.8s,baz=90,slow=9.5,SNR=3.6						
ILAR	Eielson Array	58.08	28	P	P	18 26 49.1	-2.5
	0.7nm,0.8s,baz=290,slow=5.9,SNR=8.2						
YKA	Yellowknife Ar	68.92	18	P	P	18 28 00.6	-2.4
	0.4nm,0.7s,baz=331,slow=6.4,SNR=4.7						

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*KRSC **26** 18:19:42.8±0.0, 50.44N×153.45E, h455km±12km, ML4.0*
*IDC **26** 18:19:51.9±4.0, 51.63N×152.70E, h403km±59km, mb3.0/7, mb1 3.2/8, mb1mx3.0/24, Error ellipse: s-maj=49.8km s-min=20.6km az=172.0*
ISC 26 18:19:48.9±0.8**, 51.4N**±0.1×**152.9E**±0.2**, h398km**±10km**, n27, σ1ˢ28**/31**, mb3.2**/7**, Northwest of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	2.12	107	*e*P	P	18 20 41.1	-4.7
SKR				*e*S	S	18 21 28.2	-2.3
RUS	Russkaya	3.62	71	*e*P	P	18 20 57.8	+0.1
RUS				*e*S	S	18 21 48.2	-3.6
GNL	Ganaly	3.85	51	*e*P	P	18 20 59.2	-0.6
KOK	Koryaka	4.00	59	*e*P	P	18 21 01.4	+0.2
AVH	Avacha	4.04	60	*e*P	P	18 21 02.3	+0.6
UGLR	Uglovaya	4.06	61	*e*P	P	18 21 03.0	+1.1
SMAR	Somma	4.07	60	*e*P	P	18 21 02.3	+0.3
SDLR	Sedlovina	4.12	60	*e*P	P	18 21 03.3	+0.8
SPN	Mys Shipunski	4.69	65	*e*P	P	18 21 07.0	-1.2
SPN				*e*S	S	18 22 05.7	-4.7
TUMR	Tumrok	5.84	45	*e*P	P	18 21 21.9	+1.7
KMNR	Kamenistaya	6.19	42	*e*P	P	18 21 25.3	+1.2
SRDR	Sredinnyy	6.38	36	*e*P	P	18 21 26.4	+0.1
LGNR	Loginova	6.60	41	P	P	18 21 27.6	-1.1
ZLN	Zelenaya	6.60	42	*e*P	P	18 21 29.9	+1.2
CIRR	Tsirk	6.64	41	*e*P	P	18 21 29.9	+0.7
KLY	Klyuchi	6.74	40	*e*P	P	18 21 32.1	+1.8
SVLR	Shiveluch	7.15	40	*e*P	P	18 21 36.1	+1.1
KBG	Krutoberegovo	7.58	46	*e*P	P	18 21 38.2	-1.7
KBTR	Krutoberegovo	7.60	46	*e*P	P	18 21 37.7	-2.4
KBTR				*e*S	S	18 23 04.3	-3.5
ASAJ	Asahikawa	10.04	228	P	P	18 22 10.6	+2.2
	0.6nm,0.3s,baz=57,slow=19,SNR=4.3						
INK	Inuvik	37.89	35	P	P	18 26 30.6	+0.2
	0.8nm,0.3s,mb3.5,baz=298,slow=9.3,SNR=12						
YKA	Yellowknife Ar	47.35	39	P	P	18 27 45.6	-0.1
	0.4nm,0.5s,mb3.0,baz=302,slow=7.4,SNR=8.0						
BVAR	Borovoye Array	47.94	306	P	P	18 27 49.5	-0.8
	0.4nm,0.3s,mb3.2,baz=68,slow=7.4,SNR=4.4						
FINES	FINESS Array B	59.83	334	P	P	18 29 13.7	-1.6
	1.2nm,0.5s,mb3.6,baz=44,slow=6.7,SNR=6.0						
NOA	NORSAR Array B	63.83	340	P	P	18 29 40.7	-0.5
	0.8nm,0.8s,mb3.3,baz=19,slow=7.4,SNR=2.9						
AKASG	Malin Array Be	67.67	325	P	P	18 30 04.0	-1.5
	0.4nm,0.4s,mb3.4,baz=31,slow=6.1,SNR=4.1						
TXAR	Lajitas Array	75.35	61	P	P	18 30 52.7	+1.7
	0.1nm,0.6s,mb2.6,baz=298,slow=3.5,SNR=4.3						

IDC 26 18:20:56.8±1.8**, 4.33S**×**142.19E, mb4.3**/2**, mb1 4.6**/3**, mb1mx4.0**/11**, ML3.8**/1**, Error ellipse: s-maj=278.0km s-min=31.0km az=113.0, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	17.30	206	P	P	18 24 59.4	-2.1
	0.3nm,0.3s,baz=25,slow=13,SNR=7.9						
ASAR	Alice Springs	20.82	202	P	P	18 25 40.4	-2.2
	11nm,0.7s,baz=33,slow=7.4,SNR=14						
ILAR	Eielson Array	85.88	24	P	P	18 33 38.3	-1.2
	2.6nm,1.2s,baz=266,slow=4.1,SNR=6.3						

IDC 26 18:26:13.1±1.0**, 7.58N**×**93.70E, mb4.1**/9**, mb1 4.2**/10**, mb1mx4.0**/18**, Error ellipse: s-maj=41.0km s-min=20.2km az=52.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.95	25	Pn	P	18 29 06.6	-1.3
	baz=211,slow=14,SNR=5.3						
SONM	Songino Array	41.54	13	P	P	18 34 01.9	-2.0
	2.3nm,1.0s,baz=195,slow=8.9,SNR=9.2						
ZAL	Zalesovo	46.78	353	P	P	18 34 43.6	-2.4
	3.1nm,0.4s,baz=310,slow=4.6,SNR=13						
WRA	Warramunga Arr	48.45	125	P	P	18 34 57.0	-2.6
	1.1nm,0.5s,baz=305,slow=8.4,SNR=8.0						
ASAR	Alice Springs	50.06	129	P	P	18 35 10.6	-1.4
	0.7nm,0.6s,baz=304,slow=6.7,SNR=5.5						
BRTR	Keskin Array B	62.29	311	P	P	18 36 37.0	-2.6
	0.8nm,0.9s,baz=146,slow=5.2,SNR=3.5						
FINES	FINESS Array B	72.77	332	P	P	18 37 43.2	-1.8
	3.2nm,0.6s,baz=95,slow=5.3,SNR=18						
KAF	Kangasniemi	72.85	333	*e*p	P	18 37 43.8	-1.7
	5.1nm,0.8s						
ARCES	ARCESS Array B	75.39	340	P	P	18 37 58.6	-1.4
	2.4nm,0.8s,baz=79,slow=12,SNR=4.6						
GERES	GERESS Array B	77.75	318	P	P	18 38 12.8	-0.8
	0.5nm,0.5s,baz=90,slow=5.3,SNR=7.8						
NB2	NORSAR Subarra	79.77	331	P	P	18 38 22.5	-1.9
	1.4nm,0.7s,baz=98,slow=5.0						
NOA	NORSAR Array B	79.77	331	P	P	18 38 23.1	-1.4
	1.8nm,0.8s,baz=94,slow=5.4,SNR=6.4						
PDAR	Pinedale Array	125.60	21	PKP	PKPdf	18 45 17.2	-1.5
	0.3nm,0.6s,baz=180,slow=1.5,SNR=3.5						

IDC 26 18:26:17.0±2.1**, 3.98S**×**104.14E, mb4.1**/5**, mb1 4.3**/5**, mb1mx3.9**/15**, Error ellipse: s-maj=99.5km s-min=25.3km az=53.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	33.43	121	P	P	18 32 58.1	-1.8
	0.2nm,0.4s,baz=301,slow=9.0,SNR=5.1						
ASAR	Alice Springs	34.75	127	P	P	18 33 08.8	-2.4
	1.1nm,0.9s,baz=299,slow=7.5,SNR=3.8						
SONM	Songino Array	51.64	2	P	P	18 35 25.9	-1.6
	2.5nm,0.8s,baz=192,slow=8.6,SNR=12						
FINES	FINESS Array B	87.79	332	P	P	18 39 08.3	-0.7
	1.8nm,0.8s,baz=117,slow=8.5,SNR=3.8						
ARCES	ARCESS Array B	89.74	340	P	P	18 39 15.9	-2.2
	3.7nm,1.1s,baz=76,slow=3.7,SNR=2.4						

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*IDC **26** 18:29:27.3±0.7, 8.12N×92.27E, mb4.2/18, mb1 4.3/19, mb1mx4.3/22, ML4.6/1, MS4.5/1, Ms1 4.7/1, ms1mx3.3/27, Error ellipse: s-maj=29.2km s-min=15.5km az=45.0*
*NEIC **26** 18:29:31.8±0.4, 8.06N×92.20E, h30km, mb5.0/18, Error ellipse: s-maj=11.6km s-min=9.5km az=201.0*
*BJI **26** 18:29:33.0, 8.10N×92.20E, h30km, mB5.3, mb4.8, Ms4.9, Msz4.6*
ISC 26 18:29:29.9±0.4**, 8.04N**±0.06×**92.19E**±0.05**, h30km, n91, σ1ˢ15**/91**, mb4.7**/41**, MS4.7**/3**, 1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.26	32	P	P	18 32 25.7	+0.1
	6.4nm,0.8s						
CMAR	Chiang Mai Arr	12.26	32	Pn	P	18 32 28.4	+2.8
	1.0nm,0.3s,baz=229,slow=13,SNR=15						
CMAR				Sn	S	18 34 34.3	-8.0
	5.5nm,0.3s,baz=280,slow=9.7,SNR=12						
CMAR				LR	LR	18 37 28.9	
	comp=Z,2µm,18.7s,baz=210,slow=40						
VIS	Vishakhapatnam	12.93	319	*e*P	P	18 32 31.4	-3.1
	comp=Z,189nm,1.4s						
VIS				*e*S	S	18 34 44.4	-14
CAL	Calcutta	14.89	346	*e*P	P	18 33 00.7	+0.4
CAL				*e*		18 34 53.8	
CAL				*e*		18 36 59.0	
CAL				*e*		18 38 29.8	
TRD	Trivandrum	15.09	273	*e*P	P	18 33 09.0	+6.1
TRD				*e*		18 33 12.3	
	comp=Z,76nm,1.6s						
HYB	Hyderabad	16.24	306	*e*P	P	18 33 20.0	+2.3
HYB	Hyderabad	16.24	306	*i* P	P	18 33 20.0	+2.3
HYB				*e*S	S	18 36 00.0	-16
SHL	Shillong	17.44	359	*e*P	P	18 33 29.7	-3.1
SHL				*e*P		18 33 30.0	
SHL				*e*		18 33 41.0	
	comp=Z,79nm,0.9s						
MNGI	Mangalore	17.76	287	*i* P	P	18 33 38.2	+1.4
MNGI				*i* S	S	18 36 58.8	+7.5
AKL	Akola	19.34	312	*e*P	P	18 33 59.7	+3.8
AKL				*e*		18 34 05.1	
	comp=Z,112nm,1.6s						
GOA	Goa	19.44	294	*e*P	P	18 33 58.6	+1.5
KMI	Kunming	19.75	29	P	P	18 34 03.5	+3.0
KMI				AP		18 34 06.5	
KMI				S	S	18 37 29.5	-6.3
KMI				AMB	AMB		
	comp=Z,49nm,1.1s						
KMI				AMB	AMB		
	comp=Z,553nm,3.7s						
KMI				LR	LR		
	comp=N,2µm,14.7s						
KMI				LR	LR		
	comp=E,2µm,12.4s						
KMI				LR	LR		
	comp=Z,2µm,17.1s						
KAD	Karad	19.82	299	*e*P	P	18 34 00.0	-1.4
QIZ	Qiongzhong	20.32	56	P	P	18 34 13.3	+6.8
QIZ	Qiongzhong	20.32	56	*e*P	P	18 34 05.8	-0.7
	comp=Z,55nm,1.1s						
PKI	Pulchoki	20.46	343	*e*P	P	18 34 06.8	-1.2
	comp=Z,616nm,1.5s						
DMN	Daman	20.59	342	*e*P	P	18 34 08.4	-0.9
	comp=Z,431nm,1.3s						
GUN	Gumba	20.65	344	*e*P	P	18 34 09.3	-0.6
	comp=Z,143nm,0.8s						
POO	Poona	20.66	302	*e*P	P	18 34 10.3	+0.4
POO				*e*		18 34 13.7	
	comp=Z,76nm,1.5s						
KKN	Kakani	20.71	342	*e*P	P	18 34 09.5	-1.0
	comp=Z,263nm,1.4s						
BHPL	Bhopal	20.73	319	*e*P	P	18 34 10.9	+0.2
BHPL				*e*		18 34 13.9	
	comp=Z,77nm,1.8s						

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GKN   Gorkha            21.11 341   eP      P       18 34 13.8  -0.7
      comp=Z,318nm,1.1s,mb5.5
KOLN  Koldanda          21.25 339   eP      P       18 34 15.4  -0.5
      comp=Z,143nm,0.7s,mb5.4
LSA   Lhasa             21.57 358   eP      P       18 34 19.6  +0.4
      comp=Z,166nm,1.4s,mb5.3
BOM   Bombay            21.70 302   eP      P       18 34 18.4  -2.1
BOM                                 eP              18 34 19.1
BOM                                 e               18 34 32.1
      comp=Z,101nm,1.6s
GYA   Guiyang           22.91  35⇑iP      P       18 34 33.5  +0.9
GYA                                  S      S       18 38 34.5  -1.5
GYA                                  AMB    AMB
      comp=Z,70nm,0.8s,mb5.1
GYA                                  AMB    AMB
      comp=Z,1µm,6.2s
GYA                                  LR     LR
      comp=N,2µm,16.4s,MS4.9
GYA                                  LR     LR
      comp=E,3µm,17.0s,MS4.9
GYA                                  LR     LR
      comp=Z,2µm,16.0s,MS4.6
AJM   Ajmer             24.79 320   eP      P       18 34 52.9  +2.1
NDI   New Delhi         24.92 327   eP      P       18 34 52.7  +0.6
NDI                                 e               18 34 57.0
      comp=Z,62nm,1.5s
CD2   Chengdu           25.20  24⇓iP      P       18 35 01.0  +6.4
CD2                                  AMB    AMB
      comp=Z,80nm,0.8s,mb5.3
DDI   Dehra Dun         25.83 331   eP      P       18 35 00.5   0.0
ENH   Enshi             27.42  34   eP      P       18 35 14.0  -1.1
      comp=Z,48nm,0.8s,mb5.1
LZH   Lanzhou           29.88  19   eP      P       18 35 37.8  +0.5
LZH                                  AMB    AMB
      comp=Z,32nm,1.0s,mb5.0
WHN   Wuhan             30.51  40   eP      P       18 35 48.8  +5.9
GTA   Gaotai            31.98  11    P      P       18 35 55.5  -0.2
GTA                                  AP     pP      18 36 02.5  -2.1
GTA                                  XP     sP      18 36 06.5  -1.9
GTA                                  PP     PP      18 37 03.0  +0.8
GTA                                  S      S       18 41 05.3  +1.3
GTA                                  AMB    AMB
      comp=Z,21nm,1.1s,mb4.9
GTA                                  AMB    AMB
      comp=Z,337nm,7.6s
GTA                                  LR     LR
      comp=N,429nm,12.5s,MS4.5
GTA                                  LR     LR
      comp=E,552nm,16.0s,MS4.5
GTA                                  LR     LR
      comp=Z,728nm,10.3s
NJ2   Nanjing           34.42  42   eP      P       18 36 22.5  +5.5
HHC   Hu-ho-hao-te      36.95  25   eP      P       18 36 39.8  +1.6
HHC                                  AMB    AMB
      comp=Z,15nm,0.5s,mb5.1
HHC                                  AMB    AMB
      comp=Z,392nm,6.3s
HHC                                  LR     LR
      comp=N,747nm,13.1s,MS4.8
HHC                                  LR     LR
      comp=E,813nm,14.3s,MS4.8
HHC                                  LR     LR
      comp=Z,447nm,22.6s
UCH   Uchtor            37.46 338    P      P       18 36 43.3  +0.8
      SNR=10
KBK   Karagaybulak      37.68 339    P      P       18 36 45.3  +0.9
      SNR=11
AML   Almayashu         37.69 337    P      P       18 36 45.5  +1.0
      SNR=16
TKM2  Tokmak 2          37.69 340    P      P       18 36 44.8  +0.4
      SNR=5.8
AAK   Ala-Archa         37.82 339    P      P       18 36 46.2  +0.6
      SNR=12
AAK   Ala-Archa         37.82 339   eP      P       18 36 44.9  -0.7
      comp=Z,69nm,1.4s,mb5.2
EKS2  Erkin-Say         38.11 338    P      P       18 36 49.3  +1.3
      SNR=9.0
USP   Ospenovka         38.37 339    P      P       18 36 50.8  +0.6
      SNR=12
BJT   Baijiatuau        38.38  30    P      P       18 36 51.9  +1.5
      comp=Z,16nm,0.9s,mb4.7
JOW   Kunigami          38.97  57    P      P       18 36 59.3  +3.9
      comp=Z,16nm,0.5s,mb5.0,baz=268,slow=7.0,SNR=8.3
SONM  Songino Array     41.46  14    P      P       18 37 15.7  +0.1
      comp=Z,3.6nm,0.7s,mb4.1,baz=198,slow=7.8,SNR=12
ULN   Ulaanbaatar       41.65  15   eP      P       18 37 18.4  +1.1
      comp=Z,14nm,1.0s,mb4.5
CN2   Changchun         45.94  34   eP      P       18 37 57.3  +5.3
CN2                                  AMB    AMB
      comp=Z,10.0nm,1.0s,mb4.7
ZAL   Zalesovo          46.16 354    P      P       18 37 53.3  -0.2
      comp=Z,3.8nm,0.8s,mb4.3,baz=299,slow=7.8,SNR=8.2
HIA   Hailar            47.15  24   eP      P       18 38 00.8  -0.7
      comp=Z,9.6nm,0.9s,mb4.7
BVAR  Borovoye Array    48.24 342    P      P       18 38 09.1  -0.8
      comp=Z,2.2nm,0.8s,mb4.3,baz=104,slow=5.9,SNR=8.2
BRVK  Borovoye          48.30 342   eP      P       18 38 07.5  -2.8
BRVK                                epP     pP      18 38 20.1  +0.6
WRA   Warramunga Arr    49.93 124    P      P       18 38 22.7  -0.7
      comp=Z,1.1nm,0.4s,mb4.2,baz=302,slow=9.0,SNR=16
WRAB  Tennant Creek     49.94 124   eP      P       18 38 22.8  -0.6
      comp=Z,9.7nm,0.8s,mb4.9
ASAR  Alice Springs     51.51 129    P      P       18 38 34.2  -1.1
      comp=Z,2.6nm,0.7s,mb4.3,baz=308,slow=6.9,SNR=11
GNI   Garni             52.95 315    P      P       18 38 45.4  -0.6
      comp=Z,2.2nm,0.5s,mb4.3,baz=184,slow=15,SNR=5.1
GNI   Garni             52.95 315   eP      P       18 38 45.9  -0.1
      comp=Z,9.2nm,0.9s,mb4.7
ARU   Arti              55.00 338   eP      P       18 38 59.7  -1.1
      comp=Z,31nm,1.0s,mb5.3
KMBO  Kilima Mbogo      55.53 263    P      P       18 39 06.6  +1.4
      comp=Z,1.1nm,0.8s,mb3.9,baz=47,slow=20,SNR=5.7
KMBO  Kilima Mbogo      55.53 263    P      P       18 39 06.6  +1.4
KIV   Kislovodsk        55.91 318   eP      P       18 39 06.5  -1.0
MALT  Malatya           56.89 311   eP      P       18 39 13.3  -1.4
      comp=Z,9.2nm,1.4s,mb4.6
EIL   Elat              57.67 300    P      P       18 39 21.1  +0.9
      comp=Z,2.5nm,0.5s,mb4.5,baz=149,slow=24,SNR=4.5
YAK   Yakutsk           60.47  19   eP      P       18 39 38.1  -1.0
      comp=Z,13nm,0.9s,mb5.0
BRTR  Keskin Array B    60.87 311    P      P       18 39 41.5  -0.6
      comp=Z,1.8nm,0.7s,mb4.3,baz=123,slow=6.7,SNR=9.9
STKA  Stephens Creek    61.62 133    P      P       18 39 48.5  +1.2
      comp=Z,2.9nm,0.8s,mb4.4,baz=333,slow=12,SNR=3.5
MBAR  Mbarara           61.85 265   eP      P       18 39 49.6  +0.4
      comp=Z,22nm,1.8s,mb5.0
ISP   Isparta           62.83 308    P      P       18 39 54.3  -1.1
      comp=Z,50nm,1.8s,mb5.3
AKASG Malin Array Be    66.84 322    P      P       18 40 19.8  -1.3
      comp=Z,0.8nm,0.7s,mb3.9,baz=92,slow=4.8,SNR=6.1
SUW   Suwalki           71.25 324    P      P       18 40 49.6  +1.3
      comp=Z,12nm,0.8s,mb4.9
FINES FINESS Array B    71.67 332    P      P       18 40 50.3  -0.4
      comp=Z,1.7nm,0.9s,mb4.0,baz=117,slow=8.5,SNR=5.7
MORC  Moravsky Berou    74.00 319    P      P       18 41 03.6  -1.0
ARCES ARCESS Array B    74.47 340    P      P       18 41 07.5  +0.7
      comp=Z,2.8nm,0.8s,mb4.3,baz=90,slow=6.1,SNR=4.0
DPC   Dobruska-Polom    74.84 320   eP      P       18 41 07.4  -2.0
BRG   Berggiesshubel    76.40 320   eP      P       18 41 18.7  +0.5
      comp=Z,21nm,1.8s,mb4.8
GERES GERESS Array B    76.42 318    P      P       18 41 18.1  -0.4
      comp=Z,1.5nm,0.7s,mb4.0,baz=89,slow=5.0,SNR=12
KHC   Kasperske Hory    76.52 319   epP     pP      18 41 29.8  +1.4
CLL   Collm             77.02 321   e*PP    pP      18 41 33.0  +1.8
NB2   NORSAR Subarra    78.65 331    P      P       18 41 28.4  -2.0
      comp=Z,32nm,1.7s,mb5.0,baz=95,slow=5.3
NB2   NORSAR Subarra    78.65 331    P      P       18 41 28.4  -2.0
      baz=95,slow=5.3
NOA   NORSAR Array B    78.65 331    P      P       18 41 30.1  -0.4
      comp=Z,1.9nm,0.9s,mb4.0,baz=94,slow=5.6,SNR=3.8
LPL   La Plagne         81.15 315   eP      P       18 41 44.2   0.0
      comp=Z,63nm,1.4s,mb5.1
ESDC  Sonseca Array     89.64 310    P      P       18 42 28.4  +1.9
      comp=Z,0.3nm,0.5s,mb3.9,baz=62,slow=3.9,SNR=4.3
IMA   Indian Mountai    92.20  22    P      P       18 42 37.3  -0.4
ILAR  Eielson Array     95.31  22    P      P       18 42 53.3  +1.2
      comp=Z,0.4nm,0.9s,mb3.9,baz=307,slow=4.8,SNR=5.0
YKA   Yellowknife Ar   106.70  13    PP     PP      18 48 08.5  -3.3
      comp=Z,0.4nm,0.8s,baz=335,slow=8.4,SNR=6.6
PDAR  Pinedale Array   125.69  20    PKP    PKPdf   18 48 31.0  -3.1
      comp=Z,0.8nm,0.8s,baz=270,slow=1.5,SNR=5.7
NVAR  Mina Array Bea   125.75  29    PKP    PKPdf   18 48 29.7  -4.7
      comp=Z,0.3nm,0.3s,baz=328,slow=45,SNR=2.6
ANMO  Albuquerque      133.76  21    PKP    PKPdf   18 48 48.1  -1.6
      comp=Z,0.7nm,0.6s,baz=40,slow=8.4,SNR=4.0
TXAR  Lajitas Array    139.83  22    PKP    PKPdf   18 48 59.5  -1.4
      comp=Z,0.3nm,0.4s,baz=27,slow=2.8,SNR=3.5
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*IDC **26** 18:31:38.8±0.4, 6.36N×93.40E, mb5.0/23, mb1 5.1/23, mb1mx5.0/24, Error ellipse: s-maj=19.2km s-min=11.7km az=49.0*

*BJI **26** 18:31:41.6, 5.94N×93.33E, h49km, mB5.3, mb5.0, Ms5.0, Msz4.9*

*MOS **26** 18:31:42.1±0.8, 6.42N×93.43E, h33km, mb5.4/28, Error ellipse: s-maj=17.9km s-min=6.8km az=120.0*

*NEIC **26** 18:31:43.5±0.1, 6.32N×93.32E, mb5.3/54, MS4.6/7, Error ellipse: s-maj=5.8km s-min=3.9km az=221.0*

ISC 26 18:31:41.7±0.2**, 6.29N**±0.04×**93.36E**±0.03**, h30km, h30km**±1.3km**:pP-P, n254,** σ0.s**96**/232**, mb5.3**/92**, MS4.7**/11**, 13C-25D, Nicobar Islands region**

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Code  Station Name       Δ°   AZ°   Phase ID              Time      Res
                                    Op      ISC        h  m  s     ISC
TSI   Tuntungan          5.88 118   eP      Pn      18 33 09.0  -0.2
CM31  Chiang Mai Arr    13.26  24    P      P       18 34 52.3  +1.6
      22nm,0.4s
UBT   Ubonrachathani    14.50  51   ⇓P      P       18 35 15.0  +8.0
PENI  Pendagan          16.67 135   eP      P       18 35 29.6  -5.4
      436nm,0.8s
COCO  West Island       18.68 169    P      P       18 35 49.5   -10
SHL   Shillong          19.22 356   e       P       18 36 02.3  -4.0
QIZ   Qiongzhong        20.44  50    P      P       18 36 19.8  +0.3
QIZ                                  S      S       18 40 01.0  -0.8
QIZ                                  AMB    AMB
      comp=Z,121nm,1.4s
QIZ                                  LR     LR
      comp=Z,5µm,14.9s,MS5.0
QIZ   Qiongzhong        20.44  50   eP      P       18 36 20.3  +0.8
      comp=Z,301nm,1.6s
KMI   Kunming           20.77  25    P      P       18 36 24.8  +1.9
KMI                                  AMB    AMB
      comp=Z,55nm,0.9s
KMI                                  AMB    AMB
      comp=Z,478nm,4.9s
KMI                                  LR     LR
      comp=N,4µm,14.5s,MS5.2
KMI                                  LR     LR
      comp=E,7µm,17.2s,MS5.2
KMI                                  LR     LR
      comp=Z,5µm,17.0s,MS5.0
KAD   Karad             21.70 302   i       P       18 36 33.0  +0.6
PKI   Pulchoki          22.47 341   eP      P       18 36 41.1  +1.2
      comp=Z,546nm,0.9s,mb6.0
DMN   Daman             22.60 341   eP      P       18 36 41.6  +0.3
      comp=Z,426nm,0.8s,mb5.9
GUN   Gumba             22.64 343   eP      P       18 36 42.0  +0.3
      comp=Z,243nm,0.6s,mb5.8
KKN   Kakani            22.71 341   eP      P       18 36 43.0  +0.6
      comp=Z,201nm,0.7s,mb5.7
GKN   Gorkha            23.12 340   eP      P       18 36 47.3  +0.9
      comp=Z,917nm,0.9s,mb6.2
KOLN  Koldanda          23.28 338   eP      P       18 36 49.2  +1.2
      comp=Z,472nm,1.1s,mb5.8
LSA   Lhasa             23.38 355   eP      P       18 36 49.9  +1.0
      comp=Z,172nm,0.8s,mb5.5
GYA   Guiyang           23.73  31⇑iP      P       18 36 54.0  +1.7
GYA                                  PP     PP      18 37 30.3  +4.7
GYA                                  AMB    AMB
      comp=Z,40nm,0.8s,mb4.9
GYA                                  LR     LR
      comp=N,1µm,16.8s,MS4.8
GYA                                  LR     LR
      comp=E,2µm,15.0s,MS4.8
GYA                                  LR     LR
      comp=Z,2µm,16.0s,MS4.6
SRDI  Scrawed           25.39 125    P      P       18 37 09.5  +1.1
SRDI  Scrawed           25.39 125⇑eP      P       18 37 09.4  +1.0
KELI  Kelakatan         25.53 124⇓eP      P       18 37 11.5  +1.8
CD2   Chengdu           26.36  20⇑iP      P       18 37 17.3   0.0
CD2                                  AMB    AMB
      comp=Z,70nm,1.0s,mb5.2
RATI  Rata              26.67 124⇓eP      P       18 37 21.6  +1.4
      comp=Z,114nm,0.3s,mb5.6
KEDI  Kedomdong         27.02 123⇓eP      P       18 37 25.2  +1.7
TANI  Tanete Lipujan    27.73 110⇓eP      P       18 37 30.4  +0.6
ENH   Enshi             28.27  30   eP      P       18 37 33.5  -1.1
      comp=Z,35nm,0.9s,mb5.0
ENH                                  LR     LR
      comp=Z,3µm,21.0s,MS4.8
NINI  Niniconang        28.42 111⇓eP      P       18 37 35.6  -0.6
NINI  Niniconang        28.42 111⇓eP      P       18 37 36.3  +0.1
BUNI  Buntu Taipa       28.68 109⇓eP      P       18 37 40.0  +1.5
THN   Thein Dam         30.77 330   e       P       18 37 55.7  -1.2
      comp=Z,38nm,0.9s,mb5.2
LZH   Lanzhou           31.18  17   eP      P       18 37 58.5  -1.9
LZH                                  AMB    AMB
      comp=Z,21nm,1.0s,mb4.9
GTA   Gaotai            33.48   9    P      P       18 38 20.0  -0.5
GTA                                  AP     pP      18 38 31.5  +2.0
GTA                                  XP     sP      18 38 35.0  +1.6
GTA                                  AMB    AMB
      comp=Z,11nm,1.0s,mb4.7
NJ2   Nanjing           34.97  40   eP      P       18 38 33.5   0.0
NJ2                                  AMB    AMB
      comp=Z,190nm,0.8s,mb6.1
KSH   Kashi             36.60 337   i PR    P       18 38 47.8  +0.7
KSH                                  AMB    AMB
      comp=Z,210nm,3.2s
MBWA  Marble Bar        37.61 137   eP      P       18 38 54.3  -1.5
      comp=Z,55nm,1.3s,mb5.1
WMQ   Urumqi            37.71 353    P      P       18 38 57.3  +0.9
WMQ                                  AMB    AMB
      comp=Z,76nm,1.0s,mb5.4
HHC   Hu-ho-hao-te      38.07  23   eP      P       18 39 00.5  +1.0
HHC                                  AP     pP      18 39 08.0  -0.5
HHC                                  PP     PP      18 40 29.8  -0.2
HHC                                  S      S       18 44 52.0  +2.3
HHC                                  SS     SS      18 47 27.8   0.0
HHC                                  AMB    AMB
      comp=Z,27nm,0.8s,mb5.0
HHC                                  LR     LR
      comp=Z,2µm,20.2s,MS4.8
ULHL  Ulahol            38.89 340    P      P       18 39 07.0  +0.7
      SNR=8.8
JOW   Kunigami          38.99  54    P      P       18 39 07.3   0.0
      comp=Z,5.2nm,0.4s,mb4.6,baz=236,slow=15,SNR=4.4
KZA   Kyzart            39.10 338    P      P       18 39 09.8  +1.7
      SNR=16
BJT   Baijiatuau        39.34  28   eP      P       18 39 10.9  +0.8
      comp=Z,38nm,0.9s,mb5.1
BJI   Beijing           39.36  28    P      P       18 39 11.0  +0.7
UCH   Uchtor            39.50 338    P      P       18 39 12.7  +1.3
      SNR=20
KBK   Karagaybulak      39.71 339    P      P       18 39 14.5  +1.4
      SNR=22
TKM2  Tokmak 2          39.71 339    P      P       18 39 14.0  +0.8
      SNR=14
AML   Almayashu         39.73 337    P      P       18 39 15.0  +1.7
      SNR=7.2
AAK   Ala-Archa         39.86 338    P      P       18 39 16.1  +1.7
      SNR=15
AAK   Ala-Archa         39.86 338   eP      P       18 39 14.3  -0.1
      comp=Z,71nm,1.0s,mb5.3
AAK                                  LR     LR
      comp=Z,334nm,21.0s,MS4.2
CHMS  Chumysh           40.08 339    P      P       18 39 16.8  +0.6
      SNR=12
EKS2  Erkin-Say         40.15 337    P      P       18 39 18.2  +1.4
      SNR=18
USP   Ospenovka         40.40 339    P      P       18 39 19.5  +0.6
      SNR=25
MKAR  Makanchi Array    41.46 349   i P     P       18 39 27.5   0.0
MKAR                                 pmax   pmax
      comp=Z,36nm,0.7s
SONM  Songino Array     42.87  13    P      P       18 39 39.2  +0.2
      comp=Z,6.5nm,0.8s,mb4.4,baz=189,slow=7.9,SNR=12
ULN   Ulaanbaatar       43.05  14    P      P       18 39 40.0  -0.4
      comp=Z,6.6nm,0.8s,mb4.4
ULN                                  LR     LR
      comp=Z,967nm,22.0s,MS4.7
SNY   Shenyang          44.41  33   ⇑P      P       18 39 49.5  -2.1
SNY                                  AMB    AMB
      comp=Z,10.0nm,0.9s,mb4.5
NWAO  Narrogin (SRO)    45.12 151    P      P       18 39 56.9  -0.5
      comp=Z,11nm,0.9s,mb4.7,baz=337,slow=9.6,SNR=3.3
NWAO  Narrogin (SRO)    45.12 151    P      P       18 39 56.9  -0.5
NWAO                                 pmax   pmax
      comp=Z,11nm,0.9s
NWAO  Narrogin (SRO)    45.12 151   eP      P       18 39 57.5  +0.1
      comp=Z,8.3nm,0.7s,mb4.7
HASS  Wahat al Ahsa’    45.77 299    P      P       18 40 03.9  +1.3
CN2   Changchun         46.77  32   eP      P       18 40 10.0  -0.3
CN2                                  AMB    AMB
      comp=Z,20nm,0.8s,mb5.1
WRA   Warramunga Arr    48.00 124    P      P       18 40 19.6  -0.7
      comp=Z,13nm,0.6s,mb5.1,baz=303,slow=9.1,SNR=28
WRA   Warramunga Arr    48.00 124    P      P       18 40 19.6  -0.7
WRA                                  pmax   pmax
      comp=Z,13nm,0.6s
WRAB  Tennant Creek     48.01 124   eP      P       18 40 19.1  -1.3
      comp=Z,25nm,0.6s,mb5.4
WRAB                                 LR     LR
      comp=Z,427nm,21.0s,MS4.4
ZAL   Zalesovo          48.01 353    P      P       18 40 20.0  +0.1
      comp=Z,64nm,1.0s,mb5.6,baz=300,slow=6.3,SNR=75
ZAL   Zalesovo          48.01 353    P      P       18 40 20.0  +0.1
ZAL                                  pmax   pmax
      comp=Z,64nm,1.0s
RYDS  Riyadh            48.18 297    P      P       18 40 23.6  +2.0
HIA   Hailar            48.27  23   eP      P       18 40 22.0   0.0
      comp=Z,13nm,0.9s,mb5.0
QRN   Al-Qurain         48.35 303   eP      P       18 40 23.9  +1.0
RDF   Al-Radifah        48.71 303   eP      P       18 40 26.6  +0.9
RDF                                  AMb    AMB     18 41 04.1
      comp=Z,194nm,1.1s,mb6.1
NVS   Novosibirsk       49.09 352   i P     P       18 40 27.3  -0.9
NVS                                 e       pP      18 40 36.0  -1.4
NVS                                 eS      S       18 47 30.4  +0.4
NVS                                  pmax   pmax
      comp=Z,100nm,1.0s,mb5.8
NVS                                  pmax   pmax
      comp=N,90nm,1.2s
NVS                                  smax
      comp=N,91nm,1.7s
NVS                                  smax
      comp=E,125nm,1.5s
KAMS  Al Khamasin       49.28 291    P      P       18 40 29.9  -0.2
RST   Umm Al-Ruwaisa    49.35 304   eP      P       18 40 31.2  +0.6
RST                                  AMb    AMB     18 40 32.9
      comp=Z,122nm,1.0s,mb5.9
MZLS  Mizel             49.42 296    P      P       18 40 32.2  +1.0
ASAR  Alice Springs     49.52 128    P      P       18 40 30.8  -1.2
      comp=Z,20nm,0.9s,mb5.2,baz=301,slow=8.0,SNR=48
MDJ   Mudanjiang        49.55  34   eP      P       18 40 29.3  -2.6
      comp=Z,20nm,1.0s,mb5.1
TATS  Tathlith          50.19 290    P      P       18 40 37.5  +0.4
BVA0  Borovoye Array    50.24 342    P      P       18 40 36.3  -0.7
BVA0                                 pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.5
BVAR  Borovoye Array    50.24 342    P      P       18 40 36.4  -0.7
      comp=Z,25nm,0.8s,mb5.3,baz=135,slow=8.4,SNR=38
BRVK  Borovoye          50.30 342   eP      P       18 40 36.8  -0.7
      comp=Z,42nm,1.0s,mb5.4
CHKZ  Chkalovo          50.73 343   eP      P       18 40 40.6  -0.2
      comp=Z,79nm,0.9s,mb5.6
AFFS  ‘Afif             51.37 296    P      P       18 40 47.2  +1.1
ARSS  Ar Rass           51.58 298    P      P       18 40 48.1  +0.5
HILS  Ha’il             53.18 300    P      P       18 41 00.9  +1.3
KLR   Kul’dur           53.63  30   eP      P       18 41 03.2  +0.6
BOD   Bodaibo           53.86  14   eP      P       18 41 03.1  -1.0
GNI   Garni             54.99 315    P      P       18 41 12.3  -0.5
      comp=Z,29nm,0.9s,mb5.3,baz=336,slow=2.3,SNR=10
GNI   Garni             54.99 315    P      P       18 41 12.3  -0.5
GNI                                  pmax   pmax
      comp=Z,29nm,0.9s
GNI   Garni             54.99 315   eP      P       18 41 11.5  -1.2
      comp=Z,58nm,1.1s,mb5.5
KBRS  Khaybar           55.06 297    P      P       18 41 14.5  +1.1
TI2   Plekhanov         55.66 317   i P     P       18 41 17.4  -0.1
KMBO  Kilima Mbogo      56.49 264    P      P       18 41 24.6  +0.8
      comp=Z,15nm,0.8s,mb5.1,baz=62,slow=10,SNR=29
KMBO  Kilima Mbogo      56.49 264   eP      P       18 41 24.6  +0.7
      comp=Z,17nm,0.9s,mb5.1
KMBO                                 LR     LR
      comp=Z,1µm,19.0s,MS5.0
SVE   Sverdlovsk        56.59 339⇑iP      P       18 41 23.0  -0.9
ZEI   Tsey              56.67 318   eP      P       18 41 22.9  -1.9
ZEI                                 i *PP   pP      18 41 32.9  -1.2
ZEI                                  pmax   pmax
      comp=Z,16nm,0.9s,mb5.0
ARU   Arti              57.04 338⇓iP      P       18 41 26.0  -1.2
ARU                                 e               18 42 20.4
ARU                                 eS      S       18 49 17.7  -0.2
ARU                                 eSS     SS      18 53 06.3  -1.7
ARU                                  pmax   pmax
      comp=Z,82nm,0.9s,mb5.8
ARU   Arti              57.04 338   eP      P       18 41 25.1  -2.1
      comp=Z,92nm,1.0s,mb5.8
KIV   Kislovodsk        57.98 319    P      P       18 41 33.6  -0.3
      comp=Z,218nm,1.3s,mb6.0,SNR=11
KIV   Kislovodsk        57.98 319d iP     P       18 41 32.9  -1.0
KIV                                  pmax   pmax
      comp=N,26nm,1.0s
KIV                                  pmax   pmax
      comp=Z,45nm,1.0s,mb5.5
KIV   Kislovodsk        57.98 319   eP      P       18 41 32.3  -1.6
      comp=Z,49nm,1.1s,mb5.5
KIV                                  LR     LR
      comp=Z,186nm,19.0s,MS4.2
GOF   Gofitskoye        58.22 320⇓iP      P       18 41 34.0  -1.6
GOF                                  pmax   pmax
      comp=Z,37nm,1.6s,mb5.2
CTA   Charters Tower    58.23 118    P      P       18 41 35.9  -0.2
      comp=Z,4.5nm,0.8s,mb4.5,baz=360,slow=6.6,SNR=4.4
CTA   Charters Tower    58.23 118    P      P       18 41 35.9  -0.1
CTA                                  pmax   pmax
      comp=Z,5.0nm,0.8s
CTAO  Charters Tower    58.23 118   eP      P       18 41 35.3  -0.8
      comp=Z,29nm,1.2s,mb5.2
ELZG  Elazig            58.54 312   i P     P       18 41 37.2  -0.8
MALT  Malatya           58.90 311   eP      P       18 41 39.8  -0.7
      comp=Z,22nm,1.2s,mb5.1
GZT   Gaziantep         59.26 310   i P     P       18 41 42.7  -0.3
MKRJ  Makawir           59.34 303    P      P       18 41 44.2  +0.6
KSHT  Keshet            59.51 305    P      P       18 41 46.0  +1.2
ZFRI  Zfri              59.52 302    P      P       18 41 45.5  +0.6
EIL   Elat              59.55 301    P      P       18 41 45.5  +0.5
      comp=Z,25nm,0.9s,mb5.2,baz=200,slow=3.7,SNR=15
EIL   Elat              59.55 301    P      P       18 41 45.6  +0.5
EIL   Elat              59.55 301   eP      P       18 41 44.9  -0.2
      comp=Z,45nm,1.1s,mb5.4
DRGI  Dragot            59.55 303    P      P       18 41 45.9  +0.8
STKA  Stephens Creek    59.60 133    P      P       18 41 44.5  -0.8
      comp=Z,7.1nm,0.5s,mb5.0,baz=308,slow=4.8,SNR=18
STKA  Stephens Creek    59.60 133   eP      P       18 41 44.3  -1.0
MBH   Mount Berech      59.60 301    P      P       18 41 46.2  +0.8
PRNI  Paran             59.63 301    P      P       18 41 46.4  +0.8
MMLI  Mount Malkishu    59.71 304    P      P       18 41 47.3  +1.1
SLTI  Sal’it            59.98 304    P      P       18 41 48.9  +0.9
COBT  Iskenderun        60.04 309   i P     P       18 41 48.7  +0.4
OFRI  ‘Ofer             60.11 304    P      P       18 41 49.7  +0.8
KZIT  Kziot             60.25 302    P      P       18 41 50.5  +0.6
PHNC  Paralimni         61.41 306    P      P       18 41 57.1  -0.6
AVNT  Avonos            61.72 311   i P     P       18 41 59.0  -0.8
YAK   Yakutsk           61.73  18   eP      P       18 41 56.9  -2.6
YAK                                 e               18 42 45.5
YAK                                  pmax   pmax
      comp=Z,31nm,0.9s,mb5.4
YAK                                  pmax   pmax
      comp=N,15nm,1.2s
YAK                                  pmax   pmax
      comp=E,12nm,1.2s
YAK                                  pmax   pmax
      comp=Z,21nm,0.8s,mb5.3
YAK                                  pmax   pmax
      comp=N,7.0nm,0.9s
YAK                                  pmax   pmax
      comp=E,6.0nm,1.1s
YAK   Yakutsk           61.73  18   eP      P       18 41 57.8  -1.7
      comp=E,68nm,0.9s,mb5.8
CSS   Prodhromos        61.97 306   eP      P       18 42 00.8  -0.6
      comp=E,100nm,1.4s,mb5.8
MAMC  Mammari           62.10 306    P      P       18 42 02.7  +0.3
CTKT  Corum             62.28 313   i P     P       18 42 02.0  -1.5
SZAC  Souni-Zanaja      62.28 306   ⇓P      P       18 42 03.6   0.0
SZAC  Souni-Zanaja      62.28 306⇓eP      P       18 42 03.6   0.0
BOYT  Boyabat           62.43 314   i P     P       18 42 04.1  -0.3
ALFC  Alevga            62.59 306   ⇓P      P       18 42 05.1  -0.5
      comp=E,1.0nm,0.7s
ALFC  Alevga            62.59 306⇓eP      P       18 42 05.1  -0.5
AKMC  Akamas            62.78 306    P      P       18 42 06.2  -0.7
MBAR  Mbarara           62.87 266   eP      P       18 42 07.6  -0.1
      comp=E,34nm,1.3s,mb5.3
BRTR  Keskin Array B    62.88 312    P      P       18 42 06.0  -1.4
      comp=E,18nm,0.8s,mb5.3,baz=122,slow=7.4,SNR=54
BRTR  Keskin Array B    62.88 312    P      P       18 42 06.0  -1.4
BRTR                                 pmax   pmax
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	comp=Z,18nm,0.8s						
ELDT	Eldivan	63.24	312	*i* P	P	18 42 08.7	-1.1
BALT	Daday	63.55	313	*i* P	P	18 42 10.9	-1.0
SGKT	Sivrigoynuk	64.27	312	*i* P	P	18 42 15.6	-1.0
ISP	Isparta	64.81	309	*e*P	P	18 42 19.0	-1.2
	comp=Z,90nm,1.4s,mb5.6						
ESKT	Eskisehir	64.92	311	*i* P	P	18 42 19.7	-1.1
MOS	Moscow	66.03	329	*e*P	P	18 42 24.1	-3.5
MOS				pmax	pmax		
	comp=Z,131nm,1.4s,mb5.8						
OBN	Obninsk	66.30	328	⇓*i*P	P	18 42 27.2	-2.2
OBN				*i*		18 42 42.0	
OBN				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.5						
OBN	Obninsk	66.30	328	*e*P	P	18 42 27.6	-1.8
ULDT	Uludag	66.34	311	*i* P	P	18 42 27.8	-2.1
LSZ	Lusaka	68.01	251	*e*P	P	18 42 39.9	-1.0
	comp=Z,16nm,1.0s,mb5.0						
LSZ				*e*	pP	18 42 50.4	+0.1
KIS	Kishinev	68.17	318	*e*P	P	18 42 40.0	-1.3
IDI	Anoyia	68.83	305	P	P	18 42 45.7	+0.1
	comp=Z,33nm,0.8s,mb5.3,baz=74,slow=7.5,SNR=15						
AKASG	Malin Array Be	68.91	322	P	P	18 42 43.5	-2.4
	comp=Z,14nm,0.7s,mb5.0,baz=89,slow=4.9,SNR=57						
AKASG	Malin Array Be	68.91	322	P	P	18 42 43.5	-2.4
AKASG				pmax	pmax		
	comp=Z,14nm,0.7s						
VRI	Vrincioaia	69.31	317	⇑*i*P	P	18 42 48.5	+0.1
LBTB	Lobatse	72.81	242	*e*P	P	18 43 10.0	+0.1
	comp=Z,56nm,1.3s,mb5.3						
LBTB				*e*	pP	18 43 19.3	-0.1
LBTB				LR	LR		
	comp=Z,1μm,19.0s,MS5.2						
KOLS	Kolonicke sedl	72.88	319	*e*P	P	18 43 09.7	-0.1
KOLS				*e*pP	pP	18 43 17.6	-1.7
APA	Apatity	73.05	340	⇓*i*P	P	18 43 10.1	-0.4
APA				*i*		18 43 16.0	
APA				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.4						
SUW	Suwalki	73.33	325	*e*P	P	18 43 10.9	-1.5
	comp=Z,108nm,1.0s,mb5.7						
CRVS	Cervenica-Dubn	73.40	319	*e*P	P	18 43 12.8	-0.1
FINES	FINESS Array B	73.74	333	P	P	18 43 13.8	-0.8
	comp=Z,25nm,0.6s,mb5.3,baz=104,slow=7.9,SNR=56						
FINES	FINESS Array B	73.74	333	P	P	18 43 13.8	-0.8
FINES				pmax	pmax		
	comp=Z,25nm,0.6s						
KAF	Kangasniemi	73.84	333	*e*p	P	18 43 14.4	-0.7
	comp=Z,51nm,1.0s,mb5.4						
KAF	Kangasniemi	73.84	333	*e*P	P	18 43 14.4	-0.7
KAF				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
KECS	Kecovo	73.97	319	*e*P	P	18 43 14.8	-1.4
BOSA	Boshof	74.09	238	*e*P	P	18 43 17.2	-0.1
	comp=Z,61nm,1.2s,mb5.4						
BOSA				*e*	pP	18 43 27.3	+0.5
PSZ	Piszkesteto	74.28	318	*e*P	P	18 43 17.2	-0.8
	comp=Z,6.2nm,0.7s,mb4.7						
OJC	Ojcow	74.68	320	⇓*i*P	P	18 43 19.8	-0.5
OJC	Ojcow	74.68	320	*i* P	P	18 43 19.8	-0.5
VYHS	Vyhne	75.06	318	*i* P	P	18 43 21.7	-0.8
OKC	Ostrava-Krasne	75.68	320	*e*P	P	18 43 25.9	-0.1
KEV	Kevo	76.06	341	*e*p	P	18 43 27.3	-0.5
	comp=Z,28nm,0.7s,mb5.3						
KEV	Kevo	76.06	341	*e*P	P	18 43 27.3	-0.5
KEV				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.3						
MORC	Moravsky Berou	76.07	320	*e*P	P	18 43 27.8	-0.4
	comp=Z,50nm,1.5s,mb5.2						
ZST	Bratislava	76.18	318	*i* P	P	18 43 28.8	0.0
ARCES	ARCESS Array B	76.48	340	P	P	18 43 30.2	+0.1
	comp=Z,14nm,0.5s,mb5.2,baz=98,slow=6.5,SNR=156						
ARCES	ARCESS Array B	76.48	340	P	P	18 43 30.2	+0.1
ARCES				pmax	pmax		
	comp=Z,14nm,0.5s						
ARE0	ARCESS Array S	76.48	340	*e*P	P	18 43 30.1	0.0
MAW	Mawson	76.84	192	P	P	18 43 33.6	+1.5
	comp=Z,14nm,0.9s,mb4.9,baz=32,slow=7.3,SNR=10.0						
MAW	Mawson	76.84	192	P	P	18 43 33.6	+1.5
MAW				pmax	pmax		
	comp=Z,14nm,1.0s						
MAW	Mawson	76.84	192	*e*P	P	18 43 33.5	+1.4
	comp=Z,26nm,1.3s,mb5.0						
DPC	Dobruska-Polom	76.91	320	*e*P	P	18 43 33.3	+0.4
KSP	Ksiaz	76.98	321	*e*P	P	18 43 33.4	+0.1
KTK1	Kautokeino	77.09	340	*e*P	P	18 43 34.5	+0.9
KTK1				AMb	AMB	18 43 35.7	
	comp=Z,75nm,0.9s,mb5.6						
KTK1				*e*pP	pP	18 43 43.3	+0.2
KTK1	Kautokeino	77.09	340	*e*P	P	18 43 34.5	+0.9
	comp=Z,75nm,0.9s,mb5.6						
UPC	Upice	77.12	320	*e*P	P	18 43 34.3	+0.2
ARSA	Arzberg	77.15	317	⇓*i*P	P	18 43 34.5	+0.2
	comp=Z,36nm,1.2s,mb5.2						
PRU	Pruhonice	78.02	320	*e*P	P	18 43 39.3	+0.3
PVCC	Panska Ves	78.04	320	*e*P	P	18 43 39.1	0.0
BSD	Bornholm Skovb	78.26	325	*i* P	P	18 43 39.2	-1.0
BSD				pmax	pmax		
	comp=Z,30nm,0.7s,mb5.3						
BSD	Bornholm Skovb	78.26	325	*i* P	P	18 43 39.2	-1.0
	comp=Z,30nm,0.7s,mb5.3						
BRG	Berggiesshubel	78.47	321	*i* P	P	18 43 41.6	+0.2
BRG				pmax	pmax		
	comp=Z,77nm,1.8s,mb5.3						
BRG	Berggiesshubel	78.47	321	*i* P	P	18 43 41.6	+0.2
	comp=Z,77nm,1.8s,mb5.3						
GERES	GERESS Array B	78.48	318	P	P	18 43 41.9	+0.3
	comp=Z,21nm,0.8s,mb5.1,baz=90,slow=5.3,SNR=64						
GERES	GERESS Array B	78.48	318	P	P	18 43 41.9	+0.3
GERES				pmax	pmax		
	comp=Z,21nm,0.8s						
KHC	Kasperske Hory	78.58	319	*e*P	P	18 43 42.2	+0.1
KBA	Koelnbreinsper	78.62	317	⇑*i*P	P	18 43 42.0	-0.4
	comp=Z,34nm,1.6s,mb5.0						
TRO	Tromso	78.73	340	*e*P	P	18 43 41.1	-1.5
TRO				AMb	AMB	18 43 42.3	
	comp=Z,43nm,1.3s,mb5.2						
TRO	Tromso	78.73	340	*e*P	P	18 43 41.1	-1.5
	comp=Z,43nm,1.3s,mb5.2						
SUR	Sutherland	78.80	235	*e*P	P	18 43 45.1	+1.4
	comp=Z,149nm,1.4s,mb5.7						
SUR				*e*	pP	18 43 54.5	+1.3
CLL	Collm	79.09	321	⇓*i*P	P	18 43 44.5	-0.3
CLL				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
CLL	Collm	79.09	321	⇓*i*P	P	18 43 44.5	-0.3
	comp=Z,21nm,1.2s,mb4.9						
CLL	Collm	79.09	321	⇓P	P	18 43 44.5	-0.3
	comp=Z,logA/T=1.2,mb4.9						
CLL	Collm	79.09	321	P	sP	18 44 02.0	+4.4
NKC	Novy Kostel	79.38	320	*e*P	P	18 43 46.3	-0.1
WTTA	Wattenberg	79.79	317	⇑*i*P	P	18 43 47.9	-0.8
	comp=Z,52nm,1.1s,mb5.4						
MOR8	Moi Rana	79.80	336	*e*P	P	18 43 47.5	-0.8
MOR8				AMb	AMB	18 43 50.4	
	comp=Z,90nm,2.0s,mb5.4						
MOR8	Moi Rana	79.80	336	*e*P	P	18 43 47.5	-0.8
	comp=Z,90nm,2.0s,mb5.3						
WATA	Walderalm	79.84	317	⇓*i*P	P	18 43 48.2	-0.8
	comp=Z,18nm,0.9s,mb5.0						
MOX	Moxa	79.93	320	*e*P	P	18 43 49.6	+0.2
MOX	Moxa	79.93	320	*i* P	P	18 43 49.6	+0.2
SQTA	Sankt Quirin	80.08	317	⇓*i*P	P	18 43 50.0	-0.3
	comp=Z,18nm,0.7s,mb5.1						
GRA1	Grafenberg Arr	80.15	319	*e*P	P	18 43 51.3	+0.7
	comp=Z,46nm,1.0s,mb5.4						
GRF	Grafenberg Arr	80.15	319	*e*P	P	18 43 51.3	+0.7
GRF				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
GRF	Grafenberg Arr	80.15	319	*e*P	P	18 43 51.3	+0.7
	comp=Z,46nm,1.0s,mb5.4						
MOTA	Moosalm	80.16	317	⇑*i*P	P	18 43 50.4	-0.3
	comp=Z,33nm,1.0s,mb5.2						
NB2	NORSAR Subarra	80.72	331	P	P	18 43 52.6	-0.8
	comp=Z,19nm,0.9s,mb5.0,baz=97,slow=5.0						
NB2	NORSAR Subarra	80.72	331	P	P	18 43 52.6	-0.8
	baz=97,slow=5.3						
NOA	NORSAR Array B	80.72	331	P	P	18 43 52.8	-0.5
	comp=Z,12nm,0.9s,mb4.8,baz=94,slow=5.5,SNR=17						
NOA	NORSAR Array B	80.72	331	P	P	18 43 52.8	-0.6
NOA				pmax	pmax		
	comp=Z,12nm,0.9s						
DAVA	Damuels	80.99	317	⇑*i*P	P	18 43 55.2	+0.1
	comp=Z,46nm,1.3s,mb5.2						
LPL	La Plagne	83.19	315	⇓*i*P	P	18 44 06.9	+0.4
	comp=Z,76nm,1.0s,mb5.4						
DAG	Danmarks Havn	88.85	348	⇑*e*P	P	18 44 33.8	0.0
DAG				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.1						
DAG	Danmarks Havn	88.85	348	⇑*e*P	P	18 44 33.8	0.0
	comp=Z,9.2nm,0.9s,mb5.1						
DAG	Danmarks Havn	88.85	348	⇑*i*P	P	18 44 33.8	0.0
	comp=Z,9.2nm,0.9s,mb5.1						
VNDA	Vanda	91.55	168	P	P	18 44 47.1	+0.8
	comp=Z,1.0nm,0.7s,mb4.2						
ESDC	Sonseca Array	91.64	310	P	P	18 44 48.5	+1.0
	comp=Z,10nm,0.9s,mb5.2,baz=59,slow=4.4,SNR=21						
ILAR	Eielson Array	96.49	22	P	P	18 45 08.1	-1.1
	comp=Z,0.5nm,0.8s,baz=278,slow=3.6,SNR=5.5						
ILAR	Eielson Array	96.49	22	P	P	18 45 08.1	-1.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
DBIC	Dimbokro	97.38	278	P	P	18 45 15.6	+1.1
	comp=Z,1.7nm,0.6s,mb4.6,baz=104,slow=5.7,SNR=3.8						
DBIC	Dimbokro	97.38	278	P	P	18 45 15.6	+1.2
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ULM	Lac du Bonnet	123.12	7	PKP	PKPdf	18 50 37.1	-3.6
	comp=Z,8.4nm,0.8s,baz=356,slow=5.0,SNR=14						
LAO	LASA Array	124.46	16	*e*PKPdf	PKPdf	18 50 40.8	-2.6
LKWY	Lake	125.05	21	*e*PKPdf	PKPdf	18 50 42.8	-1.8
SNOW	Snow King Moun	125.88	22	*e*PKPdf	PKPdf	18 50 43.3	-3.0
SNOW				*e*		18 50 51.3	
REDW	Red Top Meadow	125.93	22	*e*PKPdf	PKPdf	18 50 43.2	-3.2
ELK	Elko	126.33	27	*e*PKPdf	PKPdf	18 50 44.6	-2.6
NVAR	Mina Array Bea	126.67	31	PKP	PKPdf	18 50 45.3	-2.6
	comp=Z,3.0nm,0.8s,baz=268,slow=3.1,SNR=8.8						
NVAR	Mina Array Bea	126.67	31	PKP	PKPdf	18 50 45.3	-2.6
MNV	Mina	126.74	31	*e*PKPdf	PKPdf	18 50 45.1	-2.9
PDAR	Pinedale Array	126.91	21	PKP	PKPdf	18 50 44.8	-3.5
	comp=Z,4.7nm,0.9s,baz=31,slow=1.5,SNR=22						
TRCR	Troy Canyon	128.08	29	*e*PKPdf	PKPdf	18 50 47.5	-3.2
TMUT	Trail Mountain	129.26	25	*e*PKPdf	PKPdf	18 50 50.0	-2.9
ANMO	Albuquerque	134.92	23	PKP	PKPdf	18 51 02.0	-1.7
	comp=Z,4.9nm,0.9s,baz=217,slow=0.9,SNR=15						
TXAR	Lajitas Array	140.98	24	PKP	PKPdf	18 51 11.7	-3.2
	comp=Z,1.6nm,0.8s,SNR=7.9						
BDFB	Brasilia	141.02	253	PKP	PKPdf	18 51 12.4	-3.0
	comp=Z,3.8nm,0.8s,baz=116,slow=5.2,SNR=4.6						
BDFB	Brasilia	141.02	253	PKIKP	PKPdf	18 51 12.4	-2.9
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.8s						
JCT	Junction City	141.32	18	*e*PKPdf	PKPdf	18 51 11.5	-4.0
HKT	Hockley	142.90	13	*e*PKPdf	PKPdf	18 51 14.7	-3.5
MDZ	Mendoza	148.79	210	*e*P	PKPdf	18 51 30.3	+2.3
LVC	Limon Verde	156.42	225	PKPab	PKPab	18 52 04.9	-0.3
	comp=Z,8.2nm,0.8s,baz=126,slow=4.2,SNR=6.8						
LVC	Limon Verde	156.42	225	PKPab	PKPab	18 52 04.9	-0.3
SDV	Santo Domingo	158.04	313	PKPdf	PKPdf	18 51 38.4	-3.2
LPAZ	La Paz	159.33	240	PKP	PKPdf	18 51 41.2	-1.8
	comp=Z,4.1nm,0.9s,baz=72,slow=2.9,SNR=9.0						
LPAZ				PKPab	PKPab	18 52 17.5	-0.2
	comp=Z,6.6nm,0.9s,baz=135,slow=3.0,SNR=6.6						
LPAZ	La Paz	159.33	240	PKIKP	PKPdf	18 51 41.3	-1.7
LPAZ						18 52 17.5	
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.9s						
LPAZ	La Paz	159.33	240	*e*PKPdf	PKPdf	18 51 40.0	-3.1

IDC ***26*** *18:32:03.7±0.7, 3.86N×93.28E, mb4.8/14, mb1 4.9/15, mb1mx4.9/22, Error ellipse: s-maj=31.3km s-min=16.3km az=45.0*

MOS ***26*** *18:32:06.7±1.0, 3.87N×93.28E, h33*^{km}*, mb5.1/11, Error ellipse: s-maj=19.5km s-min=11.6km az=105.6*

NEIC ***26*** *18:32:07.9±0.4, 3.84N×93.32E, mb5.1/4, Error ellipse: s-maj=13.6km s-min=11.2km az=56.0*

ISC 26 18:32:06.1±0.5**, 3.88N**±0.09×**93.30E**±0.09**, h27**^{km}**, h27**^{km}±.9^{km}**:pP-P, n57,** σ**0**^{s}**88**/49**, mb5.0**/18**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.50	20	Pn	P	18 35 44.0	-0.9
	baz=225,slow=13,SNR=1.8						
LSA	Lhasa	25.76	356	*e*P	P	18 37 40.3	+3.8
BJT	Baijiatuau	41.49	27	*e*P	P	18 39 53.3	+0.6
BJT				*e*	pP	18 40 02.5	+1.8
NWAO	Narrogin (SRO)	43.07	150	P	P	18 40 05.0	-0.7
	12nm,0.8s,mb4.7,baz=295,slow=12,SNR=4.2						
NWAO	Narrogin (SRO)	43.07	150	P	P	18 40 05.1	-0.6
NWAO				pmax	pmax		
	comp=Z,12nm,0.8s						
NWAO	Narrogin (SRO)	43.07	150	P	P	18 40 05.0	-0.7
SONM	Songino Array	45.22	12	P	P	18 40 23.0	+0.1
	comp=Z,10nm,0.8s,mb4.7,baz=196,slow=9.0,SNR=7.1						
WRA	Warramunga Arr	46.76	122	P	P	18 40 35.3	-0.1
	comp=Z,87nm,0.9s,mb5.7,baz=300,slow=8.8,SNR=19						
WRA	Warramunga Arr	46.76	122	P	P	18 40 35.3	-0.1
WRA				pmax	pmax		
	comp=Z,87nm,0.9s						
ZAK	Zakamensk	47.10	9	*e*P	P	18 40 38.6	+0.9
ASAR	Alice Springs	48.11	127	P	P	18 40 46.5	+0.4
	comp=Z,30nm,0.8s,mb5.4,baz=302,slow=7.8,SNR=10						
HIA	Hailar	50.51	22	*e*P	P	18 41 04.3	+0.3
BVAR	Borovoye Array	52.50	343	P	P	18 41 19.5	+0.4
	comp=Z,12nm,0.8s,mb4.9,baz=135,slow=10,SNR=5.4						
BRVK	Borovoye	52.56	343	*e*P	P	18 41 18.8	-0.7
CHKZ	Chkalovo	53.01	343	*e*P	P	18 41 23.2	+0.4
KLR	Kul'dur	55.74	30	*e*P	P	18 41 38.7	-4.2
KMBO	Kilima Mbogo	56.23	266	P	P	18 41 46.5	-0.4
	comp=Z,9.4nm,1.0s,mb4.8,baz=60,slow=13,SNR=4.4						
KMBO	Kilima Mbogo	56.23	266	P	P	18 41 46.5	-0.4
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KMBO	Kilima Mbogo	56.23	266	P	P	18 41 46.5	-0.4
SVE	Sverdlovsk	58.80	340	*e*P	P	18 42 04.0	-0.5
KIV	Kislovodsk	59.75	320	*e*P	P	18 42 11.3	+0.1
KIV				pmax	pmax		
	comp=N,13nm,1.0s						
KIV				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
YSS	Yuzh-Sakhalins	60.45	37	P	P	18 42 15.9	0.0
MALT	Malatya	60.45	312	*e*P	P	18 42 15.2	-0.9
	comp=Z,35nm,1.1s,mb5.3						
EIL	Elat	60.73	302	P	P	18 42 18.0	-0.1
	comp=Z,15nm,0.7s,mb5.2,baz=50,slow=4.1,SNR=6.9						
SOC	Sochi	61.53	318	*e*P	P	18 42 20.7	-2.6
SOC				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
SOC				pmax	pmax		
	comp=N,21nm,1.1s						
SOC				pmax	pmax		
	comp=E,10.0nm,1.0s						
YAK	Yakutsk	64.02	18	*e*P	P	18 42 38.3	-1.3
YAK				*e*pP	pP	18 42 46.4	-1.4
BRTR	Keskin Array B	64.43	312	P	P	18 42 42.6	0.0
	comp=E,4.9nm,0.8s,mb4.6,baz=135,slow=7.0,SNR=4.7						
BRTR	Keskin Array B	64.43	312	P	P	18 42 42.7	+0.1
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KIS	Kishinev	69.92	319	*e*P	P	18 43 15.0	-2.0
IDI	Anoyia	70.18	306	P	P	18 43 18.5	-0.4
	comp=Z,20nm,0.9s,mb5.0,baz=123,slow=6.0,SNR=4.2						
AKASG	Malin Array Be	70.77	323	P	P	18 43 21.0	-1.2
	comp=Z,4.4nm,0.6s,mb4.5,baz=86,slow=5.3,SNR=5.6						
AKASG	Malin Array Be	70.77	323	P	P	18 43 21.0	-1.2
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
KOLS	Kolonicke sedl	74.66	320	*e*P	P	18 43 46.3	+1.2
KOLS				*e*pP	pP	18 43 54.5	+1.0
CRVS	Cervenica-Dubn	75.18	320	*e*P	P	18 43 53.0	+4.9
CRVS				*e*	pP	18 44 00.2	+3.7
KECS	Kecovo	75.73	319	*e*P	P	18 43 52.2	+0.9
KECS				*e*pP	pP	18 44 00.4	+0.7
FINES	FINESS Array B	75.84	333	P	P	18 43 52.2	+0.6
	comp=Z,6.4nm,0.7s,mb4.6,baz=104,slow=7.9,SNR=2.5						
FINES	FINESS Array B	75.84	333	P	P	18 43 52.2	+0.6
FINES				pmax	pmax		
	comp=Z,6.0nm,0.7s						
FINES	FINESS Array B	75.84	333	P	P	18 43 52.2	+0.6
VYHS	Vyhne	76.82	319	*e*P	P	18 43 58.0	+0.6
VYHS				*e*	pP	18 44 06.3	+0.5
ZST	Bratislava	77.92	318	*e*P	P	18 44 03.6	+0.2
ZST				*e*	pP	18 44 12.8	+0.9
GERES	GERESS Array B	80.24	319	P	P	18 44 16.9	+0.9
	comp=Z,8.8nm,0.7s,mb4.8,baz=109,slow=5.1,SNR=9.9						
GERES	GERESS Array B	80.24	319	P	P	18 44 16.9	+0.9
GERES				pmax	pmax		
	comp=Z,9.0nm,0.7s						
BRG	Berggiesshubel	80.28	321	*i* P	P	18 44 17.5	+1.3
BRG				pmax	pmax		
	comp=Z,37nm,1.6s,mb5.1						
BRG	Berggiesshubel	80.28	321	*i* P	P	18 44 17.5	+1.3
	comp=Z,37nm,1.6s,mb5.1						
CLL	Collm	80.91	321	*e*P	sP	18 44 29.0	-1.8
CLL	Collm	80.91	321	P	P	18 44 20.0	+0.5
CLL				*e**SP	sP	18 44 29.0	-1.8
NB2	NORSAR Subarra	82.78	331	P	P	18 44 27.4	-1.6
	comp=Z,13nm,1.0s,mb4.9,baz=94,slow=5.3						
NOA	NORSAR Array B	82.78	331	P	P	18 44 29.4	+0.3
	comp=Z,4.9nm,1.1s,mb4.5,baz=97,slow=5.5,SNR=2.5						
NOA	NORSAR Array B	82.78	331	P	P	18 44 29.4	+0.4
NOA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
ESDC	Sonseca Array	93.12	310	P	P	18 45 20.4	+1.0
	comp=Z,1.9nm,0.8s,mb4.5,baz=60,slow=4.4,SNR=2.8						
QSPA	South Pole Qui	93.81	180	⇓*i*P	pP	18 45 30.5	+0.4
	comp=Z,4.6nm,1.0s						
LAO	LASA Array	126.77	17	*e*P	PKPdf	18 51 08.5	-3.9
PDAR	Pinedale Array	129.17	22	PKP	PKPdf	18 51 12.1	-5.2
	comp=Z,2.5nm,0.9s,slow=1.5,SNR=5.2						
ANMO	Albuquerque	137.14	24	PKP	PKPdf	18 51 28.4	-3.9
	comp=Z,2.4nm,0.8s,baz=215,slow=2.1,SNR=5.7						
ANMO	Albuquerque	137.14	24	PKP	PKPdf	18 51 28.4	-3.9
NATX	Nacogdoches	143.76	12	*e*PKPdf	PKPdf	18 51 37.0	-7.2
NATX				*e*		18 51 46.2	
LVC	Limon Verde	154.63	221	*e*PKPdf	PKPdf	18 52 01.0	-0.5

IDC ***26*** *18:33:49.5±0.7, 9.63N×93.66E, mb4.6/12, mb1 4.8/13, mb1mx4.7/19, ML5.0/1, Error ellipse: s-maj=43.2km s-min=17.0km az=52.0*

BJI ***26*** *18:33:53.5, 9.07N×93.84E, h68*^{km}*, mB5.3, mb5.2, Ms5.1, Msz4.9*

NEIC ***26*** *18:33:55.6±1.4, 9.43N×93.66E, h47*^{km}*±12*^{km}*, mb5.1/15, Error ellipse: s-maj=11.1km s-min=7.2km az=72.0*

ISC 26 18:33:52.6±0.4**, 9.46N**±0.06×**93.65E**±0.07**, h33**^{km}**, n65,** σ**0**^{s}**79**/56**, mb4.9**/30**, 1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.31	29	*e*P	P	18 36 21.1	-0.2
CMAR	Chiang Mai Arr	10.31	29	Pn	P	18 36 21.8	+0.4
	3.2nm,0.3s,baz=211,slow=15,SNR=5.8						
LSA	Lhasa	20.27	354	P	P	18 38 27.4	-0.7
COCO	West Island	21.74	172	P	P	18 38 40.5	-2.7
	330nm,1.5s,mb5.5						
CD2	Chengdu	23.33	22	P	P	18 38 59.8	+1.0
CD2				AMB	AMB		
	comp=Z,210nm,1.2s,mb5.4						
LZH	Lanzhou	28.08	18	*e*P	P	18 39 43.5	+0.1
LZH				AMB	AMB		
	comp=Z,61nm,1.1s,mb5.1						
HHC	Hu-ho-hao-te	35.06	24	*e*P	P	18 40 44.8	+0.3
HHC				XS		18 46 46.0	
HHC				AMB	AMB		
	comp=Z,39nm,1.1s,mb5.2						
HHC				AMB	AMB		
	comp=Z,351nm,6.5s						
BJT	Baijiatuau	36.44	30	*e*P	P	18 40 57.0	+0.8
	comp=Z,30nm,0.9s,mb5.2						
SONM	Songino Array	39.74	13	P	P	18 41 23.6	0.0
	comp=Z,7.1nm,1.0s,mb4.4,baz=197,slow=8.1,SNR=2.0						
SNY	Shenyang	41.63	34	⇑P	P	18 41 38.3	-1.1
SNY				AMB	AMB		
	comp=Z,40nm,1.4s,mb4.9						
CN2	Changchun	43.97	33	*e*P	P	18 41 57.5	-0.9
CN2				AMB	AMB		
	comp=Z,40nm,1.3s,mb5.0						
HIA	Hailar	45.27	24	*e*P	P	18 42 09.0	+0.2
	comp=Z,17nm,0.7s,mb5.0						
MDJ	Mudanjiang	46.78	35	*e*P	P	18 42 21.0	+0.2
	comp=Z,31nm,1.2s,mb5.1						
NWAO	Narrogin (SRO)	47.77	153	P	P	18 42 30.4	+1.6
	comp=Z,8.7nm,0.7s,mb4.9,baz=342,slow=7.1,SNR=6.4						
NWAO	Narrogin (SRO)	47.77	153	*e*P	P	18 42 28.7	-0.1
	comp=Z,5.5nm,0.6s,mb4.8						
CHKZ	Chkalovo	47.82	342	*e*P	P	18 42 29.3	+0.4
WRA	Warramunga Arr	49.58	126	P	P	18 42 44.7	+1.8
	comp=Z,8.0nm,1.0s,mb4.7,baz=303,slow=9.2,SNR=4.0						
ASAR	Alice Springs	51.31	131	P	P	18 42 55.7	-0.3
	comp=Z,4.5nm,0.9s,mb4.4,baz=315,slow=7.7,SNR=2.1						
YSS	Yuzh-Sakhalins	55.85	39	*e*P	P	18 43 26.8	-2.4
	comp=Z,83nm,1.3s,mb5.6						
BRTR	Keskin Array B	61.03	310	P	P	18 44 05.2	-0.3
	comp=Z,3.9nm,0.9s,mb4.5,baz=120,slow=7.9,SNR=2.7						
OBN	Obninsk	63.78	327	*e*P	P	18 44 22.9	-0.7
AKASG	Malin Array Be	66.61	321	P	P	18 44 40.5	-1.4
	comp=Z,9.9nm,1.1s,mb4.8,baz=90,slow=4.9,SNR=4.7						
KWP	Kalwaria	70.51	319	*e*P	P	18 45 05.8	-0.2
	comp=Z,23nm,1.1s,mb5.0						
FINES	FINESS Array B	71.09	332	P	P	18 45 08.6	-0.7
	comp=Z,5.3nm,0.7s,mb4.6,baz=96,slow=6.5,SNR=5.2						
CRVS	Cervenica-Dubn	71.22	318	*e*P	P	18 45 10.8	+0.5
CRVS	Cervenica-Dubn	71.22	318	*e*	P	18 45 10.8	+0.5
OJC	Ojcow	72.45	320	*e*P	P	18 45 17.3	-0.2
VYHS	Vyhne	72.91	318	*e*P	P	18 45 19.9	-0.4
VYHS	Vyhne	72.91	318	*e*	P	18 45 19.9	-0.4
OKC	Ostrava-Krasne	73.48	319	*e*P	P	18 45 23.7	+0.1
ARCES	ARCESS Array B	73.62	340	P	P	18 45 24.4	+0.4
	comp=Z,8.1nm,0.8s,mb4.7,baz=117,slow=5.4,SNR=5.7						
MORC	Moravsky Berou	73.86	319	*e*P	P	18 45 25.5	-0.3
	comp=Z,19nm,1.2s,mb4.9						
ZST	Bratislava	74.04	317	*e*P	P	18 45 27.1	+0.2
ZST				*e*	pP	18 45 38.8	+1.6
ZST	Bratislava	74.04	317	*e*	P	18 45 27.1	+0.2
ZST				*e*	pP	18 45 38.8	+1.6
LBTB	Lobatse	74.58	241	*e*P	P	18 45 30.4	-0.1
	comp=Z,8.3nm,0.9s,mb4.7						
DPC	Dobruska-Polom	74.69	320	*e*P	P	18 45 31.5	+0.9
UPC	Upice	74.89	320	*e*P	P	18 45 32.7	+0.9
PRU	Pruhonice	75.81	319	*e*P	P	18 45 37.8	+0.7
BOSA	Boshof	76.02	237	*e*P	P	18 45 38.5	-0.2
	comp=Z,11nm,1.2s,mb4.7						
BRG	Berggiesshubel	76.23	320	*i* P	P	18 45 40.0	+0.6
	comp=Z,32nm,1.6s,mb5.0						
GERES	GERESS Array B	76.33	318	P	P	18 45 40.6	+0.5
	comp=Z,9.4nm,1.0s,mb4.7,baz=90,slow=5.3,SNR=3.8						
KHC	Kasperske Hory	76.41	318	*e*P	P	18 45 40.5	0.0
CLL	Collm	76.83	320	*i* P	P	18 45 42.8	-0.1
CLL				*e*	pP	18 45 55.0	+1.8
CLL	Collm	76.83	320	P	P	18 45 42.8	-0.1
CLL				*e**PP	pP	18 45 55.0	+1.8
MOX	Moxa	77.70	320	*e*P	P	18 45 48.0	+0.3
NB2	NORSAR Subarra	78.12	330	P	P	18 45 49.0	-0.8
	comp=Z,22nm,1.1s,mb5.0,baz=94,slow=5.6						
NB2	NORSAR Subarra	78.12	330	P	P	18 45 49.0	-0.8
	baz=94,slow=5.6						
NOA	NORSAR Array B	78.12	330	P	P	18 45 49.2	-0.5
	comp=Z,11nm,1.0s,mb4.7,baz=93,slow=5.5,SNR=6.9						
NOA	NORSAR Array B	78.12	330	P	P	18 45 49.2	-0.5
MAW	Mawson	79.98	191	*e*P	P	18 45 59.4	-0.3
	comp=Z,11nm,0.9s,mb4.8						
SUR	Sutherland	80.83	235	*e*P	P	18 45 57.4	-7.7
LPL	La Plagne	81.17	315	⇓*i*P	P	18 46 06.7	+0.2
	comp=Z,68nm,1.1s,mb5.2						
ESDC	Sonseca Array	89.83	310	P	P	18 46 50.3	+0.8
	comp=Z,14nm,1.4s,mb5.1,baz=53,slow=5.0,SNR=4.6						
IMA	Indian Mountai	90.35	22	*e*P	P	18 46 52.3	+1.0
	comp=Z,48nm,1.1s,mb5.7						
ILAR	Eielson Array	93.47	22	P	P	18 47 04.3	-1.4
	comp=Z,1.2nm,0.8s,mb4.4,baz=301,slow=5.5,SNR=6.1						
VNDA	Vanda	94.57	168	*e*P	P	18 47 11.2	+0.7
NVAR	Mina Array Bea	123.81	30	PKP	PKPdf	18 52 48.9	+1.2
	comp=Z,1.2nm,0.6s,baz=295,slow=0.7,SNR=3.9						
PDAR	Pinedale Array	123.87	20	PKP	PKPdf	18 52 47.7	0.0
	comp=Z,2.4nm,1.0s,baz=45,slow=2.1,SNR=4.2						
MNV	Mina	123.88	30	*e*PKPdf	PKPdf	18 52 48.8	+1.0
PV10	Paradox Valley	127.91	23	*e*PKPdf	PKPdf	18 52 56.4	+0.8
PV01	Paradox Valley	128.30	22	*e*PKPdf	PKPdf	18 52 57.0	+0.6
TUC	Tucson	132.36	28	*e*PKPdf	PKPdf	18 53 06.2	+1.9
TXAR	Lajitas Array	137.97	23	PKP	PKPdf	18 53 16.2	+1.5
	comp=Z,0.8nm,0.5s,SNR=4.2						
BDFB	Brasilia	142.12	257	PKP	PKPdf	18 53 23.3	+0.8
	comp=Z,4.2nm,1.0s,baz=108,slow=3.7,SNR=3.1						
TEIG	Tepich	150.44	4	*e*PKPbc	PKPdf	18 53 42.1	+5.9

IDC ***26*** *18:39:50.5±1.1, 8.80N×93.74E, mb3.8/8, mb1 4.1/9, mb1mx3.9/18, ML4.2/1, Error ellipse: s-maj=43.6km* *s-min=21.0km az=53.0*

ISC 26 18:39:54.5±0.9**,8.9N**±0.1×**94.0E**±0.2**,h33^{km},n9,**σ1^{s}**12**/9**,**
mb3.8/8**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.61**	**26**	Pn	**P**	**18 42 26.2**	**-1.1**
	0.5nm,0.3s,baz=212,slow=15,SNR=9.3						
SONM	**Songino Array**	**40.16**	**13**	P	**P**	**18 47 30.3**	**+1.2**
	0.4nm,0.7s,mb3.3,baz=214,slow=10,SNR=2.1						
WRA	**Warramunga Arr**	**49.00**	**126**	P	**P**	**18 48 41.2**	**+0.9**
	1.5nm,0.5s,mb4.3,baz=300,slow=9.0,SNR=7.9						
ASAR	**Alice Springs**	**50.71**	**131**	P	**P**	**18 48 52.0**	**-1.4**
	0.8nm,0.6s,mb3.9,baz=296,slow=7.8,SNR=7.5						
FINES	**FINESS Array B**	**71.70**	**332**	P	**P**	**18 51 13.4**	**-1.3**
	2.0nm,0.9s,mb4.0,baz=135,slow=5.4,SNR=11						
ARCES	**ARCESS Array B**	**74.22**	**340**	P	**P**	**18 51 30.6**	**+1.2**
	1.9nm,0.8s,mb4.0,baz=104,slow=5.0,SNR=4.1						
GERES	**GERESS Array B**	**76.94**	**318**	P	**P**	**18 51 45.3**	**-0.1**
	0.3nm,0.7s,mb3.4,baz=79,slow=5.0,SNR=3.9						
NOA	**NORSAR Array B**	**78.73**	**331**	P	**P**	**18 51 54.2**	**-0.9**
	1.0nm,0.9s,mb3.8,baz=97,slow=5.4,SNR=2.6						
ILAR	**Eielson Array**	**93.81**	**22**	P	**P**	**18 53 10.6**	**+1.4**
	0.2nm,0.8s,mb3.6,baz=298,slow=4.7,SNR=4.0						

IDC 26 18:40:58.3±1.7**,13.61N**×**96.96E,mb4.1**/3**,mb1 4.1**/4**,**
mb1mx3.6/18**,ML3.2**/1**,Error ellipse: s-maj=64.6km**
s-min=27.0km az=62.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**5.18**	**21**	Pn	Pn	18 42 15.1	-3.9
	0.2nm,0.3s,baz=214,slow=12,SNR=6.0						
WRA	**Warramunga Arr**	**49.65**	**131**	P	P	18 49 52.7	-1.3
	1.6nm,0.7s,baz=305,slow=9.2,SNR=9.5						
ASAR	**Alice Springs**	**51.75**	**135**	P	P	18 50 06.9	-3.1
	1.1nm,0.6s,baz=308,slow=6.7,SNR=7.5						
FINES	**FINESS Array B**	**69.02**	**331**	P	P	18 52 06.2	-1.3
	2.9nm,1.1s,baz=90,slow=5.7,SNR=3.8						

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*IDC **26** 18:42:39.8±0.4, 13.05N×93.21E, h26^{km}±2^{km}, mb4.4/21, mb1 4.5/22, mb1mx4.5/25, ML4.8/1, MS4.8/6, Ms1 4.8/6, ms1mx4.2/26, Error ellipse: s-maj=17.0km s-min=10.2km az=42.0*

*BJI **26** 18:42:42.2, 13.82N×92.87E, h22^{km}, mB5.4, mb4.8, Ms5.2, Msz5.0*

*CSEM **26** 18:42:43.4, 13.91N×93.27E, h33^{km}, mb5.6*

*MOS **26** 18:42:43.0±0.8, 13.73N×93.00E, h33^{km}, mb5.3/29, MS4.9/4, Error ellipse: s-maj=13.6km s-min=6.6km az=114.8*

*SYO **26** 18:42:43.6, 13.75N×92.97E, h24^{km}, MB5.3, MS4.7*

*NEIC **26** 18:42:43.9±0.2, 13.71N×92.95E, mb5.3/80, MS4.7/12, Error ellipse: s-maj=6.4km s-min=5.0km az=177.0*

*HRVD **26** 18:42:43.9±0.5, 13.77N×92.94E, h20^{km}±3^{km}, MW5.4/50, Centroid moment Tensor Solution. LP body waves: s12,c13;Mantle waves: s50,c78; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.09±.13; $M_{\theta\theta}$-1.42±.10; $M_{\phi\phi}$1.50±.09; $M_{r\theta}$-0.36±.19; $M_{\theta\phi}$0.54±.07; $M_{\phi r}$-0.59±.22; Best double couple: $M_0$1.69×10^{17} NP1: ϕ_s144°,δ69°,λ174°. NP2:ϕ_s236°,δ84°,λ21°. Principal axes: T 1.82, Plg19°, Azm102°; N -.26, Plg68°, Azm250°; P -1.56, Plg11°, Azm8°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 18:42:42.4±0.2**,13.74N**±0.04×**92.93E**±0.03**,h26^{km},**
h26^{km}±.4^{km}**:pP-P,n378,**σ1^{s}**07**/312**,mb5.1**/119**,MS4.9**/29**,**
19C-25D,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	**Nakhon Sawan**	**7.23**	**74**	P	**Pn**	**18 44 29.0**	**-0.1**
CM31	**Chiang Mai Arr**	**7.44**	**50**	*e*P	**Pn**	**18 44 31.3**	**-0.8**
	3.5nm,0.4s						
CMAR	**Chiang Mai Arr**	**7.44**	**50**	Pn	**Pn**	**18 44 32.1**	**-0.1**
	3.8nm,0.3s,baz=242,slow=16,SNR=20						
CMAR				LR	LR	18 47 37.0	
	comp=Z,4µm,21.1s,baz=230,slow=39						
CMAR	**Chiang Mai Arr**	**7.44**	**50**	P	**Pn**	**18 44 32.1**	**0.0**
CMAR				pmax	pmax		
	comp=Z,4.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,4µm,21.1s						
CAL	**Calcutta**	**9.78**	**334**	*e*P	**P**	**18 45 02.1**	**-2.6**
CAL				*e*	**Sn**	**18 46 59.4**	**+4.8**
KKTK	**Khon Kaen**	**9.90**	**74**	P	**P**	**18 45 08.0**	**+1.7**
	comp=Z,2µm,0.5s						
VIS	**Vishakhapatnam**	**10.05**	**294**	*e*P	**P**	**18 45 05.0**	**-3.4**
VIS				*e*S	rx	18 46 45.1	
VIS				*e*	**S**	**18 47 05.5**	**+4.1**
	comp=N,939nm,0.7s						
VIS				*e*		18 47 07.7	
	comp=E,646nm,0.4s						
AGT	**Agartala**	**10.21**	**351**	⇑*i*P	**P**	**18 45 07.0**	**-3.6**
AGT				*i*		18 46 03.0	
SHL	**Shillong**	**11.80**	**355**	*e*	**P**	**18 45 24.5**	**-7.8**
SHL				*e*		18 45 39.7	
	comp=Z,292nm,1.5s						
PALK	**Pallekele**	**13.63**	**243**	*e*P	**P**	**18 45 57.7**	**+1.0**
	comp=Z,146nm,0.9s						
HYB	**Hyderabad**	**14.32**	**287**	*e*P	**P**	**18 46 05.0**	**-0.8**
HYB	**Hyderabad**	**14.32**	**287**	*i* P	**P**	**18 46 05.0**	**-0.8**
PKI	**Pulchoki**	**15.45**	**334**	*e*P	**P**	**18 46 18.5**	**-1.9**
	comp=Z,273nm,0.8s						
ALBI	**Allahabad**	**15.55**	**319**	*e*P	**P**	**18 46 23.2**	**+1.4**
GUN	**Gumba**	**15.55**	**336**	*e*P	**P**	**18 46 21.1**	**-0.7**
	comp=Z,201nm,0.7s						
DMN	**Daman**	**15.61**	**333**	*e*P	**P**	**18 46 20.6**	**-1.9**
	comp=Z,212nm,0.6s						
KKN	**Kakani**	**15.69**	**334**	*e*P	**P**	**18 46 21.8**	**-1.8**
	comp=Z,130nm,0.8s						
LSA	**Lhasa**	**15.96**	**354**	*e*P	**P**	**18 46 25.1**	**-2.0**
	comp=Z,78nm,0.7s						
GKN	**Gorkha**	**16.16**	**333**	*e*P	**P**	**18 46 28.0**	**-1.5**
	comp=Z,134nm,0.3s						
KOLN	**Koldanda**	**16.45**	**330**	*e*P	**P**	**18 46 31.5**	**-1.7**
	comp=Z,585nm,0.9s						
TRD	**Trivandrum**	**16.51**	**253**	*e*P	**P**	**18 46 38.2**	**+4.1**
TRD				*e*		18 46 41.2	
	comp=Z,145nm,1.6s						
AKL	**Akola**	**16.70**	**297**	*e*P	**P**	**18 46 36.7**	**+0.3**
AKL				⇓*i*		18 46 37.8	
AKL				*e*		18 46 47.5	
	comp=Z,490nm,1.4s						
QIZ	**Qiongzhong**	**17.05**	**70**	P	**P**	**18 46 42.0**	**+1.1**
QIZ				S	**S**	**18 49 48.0**	**-0.2**
QIZ				AMB	AMB		
	comp=Z,41nm,1.7s						
QIZ				LR	LR		
	comp=E,7µm,15.2s						
QIZ				LR	LR		
	comp=Z,9µm,15.1s						
QIZ	**Qiongzhong**	**17.05**	**70**	*e*P	**P**	**18 46 40.7**	**-0.2**
BHPL	**Bhopal**	**17.46**	**305**	*e*P	**P**	**18 46 47.3**	**+1.3**
BHPL				*e*		18 46 56.0	
	comp=Z,312nm,0.6s						
MNGI	**Mangalore**	**17.64**	**270**	*e*P	**P**	**18 46 48.6**	**+0.3**
GYA	**Guiyang**	**18.04**	**43**	⇑*i*P	**P**	**18 46 53.5**	**+0.3**
GYA				AP		18 46 58.5	
GYA				XP		18 47 01.3	
GYA				PP	PP	18 47 11.3	+3.3
GYA				AMB	AMB		
	comp=Z,70nm,1.2s						
GYA				AMB	AMB		
	comp=Z,180nm,6.2s						
GYA				LR	LR		
	comp=N,4µm,16.8s						
GYA				LR	LR		
	comp=E,4µm,15.0s						
GYA				LR	LR		
	comp=Z,3µm,13.5s						
KAD	**Karad**	**18.41**	**284**	*e*P	**P**	**18 46 57.3**	**-0.5**
KAD				*i*		18 49 02.8	
	comp=Z,194nm,1.5s						
GOA	**Goa**	**18.57**	**278**	*e*P	**P**	**18 46 58.5**	**-1.2**
GOA				*e*		18 47 20.0	
	comp=Z,206nm,1.5s						
POO	**Poona**	**18.93**	**287**	*e*P	**P**	**18 47 04.5**	**+0.4**
POO				*e*		18 47 07.1	
	comp=Z,176nm,1.4s						
PTH	**Pithoragarh**	**19.65**	**325**	*e*P	**P**	**18 47 12.4**	**+0.2**
PTH				*e*	S	18 51 09.3	+23
CD2	**Chengdu**	**19.78**	**28**	P	**P**	**18 47 13.5**	**-0.2**
CD2				AMB	AMB		
	comp=Z,60nm,0.8s						
BOM	**Bombay**	**19.97**	**288**	*e*P	**P**	**18 47 13.8**	**-2.1**
BOM				*e*		18 47 17.1	
BOM				*e*		18 47 29.0	
	comp=Z,363nm,1.3s						
BOM				*e*		18 50 35.2	
BOM				*e*S	**S**	**18 50 54.1**	**+0.5**
NDI	**New Delhi**	**20.84**	**318**	*e*P	**P**	**18 47 24.2**	**-0.5**
NDI				*e*		18 47 49.5	
	comp=Z,293nm,1.5s						
NDI				*e*		18 47 50.0	
NDI				*e*S	**S**	**18 51 09.2**	**-1.7**
NDI				*e*		18 51 19.0	
AJM	**Ajmer**	**21.31**	**309**	*e*P	**P**	**18 47 30.2**	**+0.7**
AJM				*e*		18 47 41.4	
	comp=Z,341nm,1.1s						
GZH	**Guangzhou**	**21.46**	**61**	P	**P**	**18 47 35.5**	**+4.4**
GZH				LR	LR		
	comp=N,2µm,14.3s,MS4.9						
GZH				LR	LR		
	comp=E,3µm,14.5s,MS4.9						
GZH				LR	LR		
	comp=Z,3µm,12.8s,MS4.8						
DDI	**Dehra Dun**	**21.46**	**323**	*e*P	**P**	**18 47 30.9**	**-0.2**
DDI				*e*S	**S**	**18 51 21.9**	**-0.8**
ENH	**Enshi**	**22.45**	**40**	⇑*e*P	**P**	**18 47 40.0**	**-0.9**
	comp=Z,71nm,0.8s,mb5.2						
ENH				LR	LR		
	comp=Z,4µm,19.0s,MS4.9						
SMLA	**Simla**	**22.57**	**323**	⇑*i*P	**P**	**18 47 57.3**	**+15**
SMLA				*i* S	**S**	**18 51 59.0**	**+16**
SDNR	**Sundarnagar**	**22.96**	**323**	*e*P	**P**	**18 47 47.9**	**+1.9**
BHK	**Bhakra**	**23.23**	**322**	*e*	**P**	**18 48 01.3**	**+13**
PONG	**Pong**	**23.89**	**322**	*e*P	**P**	**18 47 57.0**	**+2.1**
LZH	**Lanzhou**	**24.31**	**22**	⇓P	**P**	**18 48 00.3**	**+1.2**
LZH				AP		18 48 03.3	
LZH				PP	PP	18 48 36.5	+2.1
LZH				S	**S**	**18 52 18.0**	**+4.5**
LZH				AMB	AMB		
	comp=Z,222nm,1.2s,mb5.5						
LZH				AMB	AMB		
	comp=Z,870nm,5.2s						
LZH				LR	LR		
	comp=E,3µm,11.8s						
LZH				LR	LR		
	comp=Z,4µm,14.0s,MS5.1						
THN	**Thein Dam**	**24.37**	**323**	*e*P	**P**	**18 47 59.4**	**-0.2**
	comp=Z,50nm,0.7s,mb5.0						
WHN	**Wuhan**	**25.86**	**46**	*e*P	**P**	**18 48 15.0**	**+1.1**
WHN				LR	LR		
	comp=N,2µm,8.7s						
WHN				LR	LR		
	comp=E,7µm,12.4s						
WHN				LR	LR		
	comp=Z,10µm,13.2s,MS5.5						
GTA	**Gaotai**	**26.28**	**12**	P	**P**	**18 48 18.3**	**+0.7**
GTA				AP	pP	18 48 28.3	+3.0
GTA				XP	sP	18 48 31.8	+3.0
GTA				PP	PP	18 49 04.3	+4.1
GTA				XS		18 53 02.3	
GTA				SCS	ScS	18 59 11.8	+2.4
GTA				AMB	AMB		
	comp=Z,57nm,1.4s,mb4.9						
GTA				AMB	AMB		
	comp=Z,932nm,9.1s						
GTA				LR	LR		
	comp=N,1µm,22.4s,MS4.6						
GTA				LR	LR		
	comp=E,2µm,24.7s,MS4.6						
GTA				LR	LR		
	comp=Z,3µm,28.1s,MS4.7						
QZH	**Quanzhou**	**26.60**	**61**	⇓*i*P	**P**	**18 48 21.0**	**+0.3**
TGY	**Tagaytay City**	**27.18**	**86**	LR	LR	19 00 00.3	
	comp=Z,1µm,18.7s,MS4.6,baz=273,slow=39						
KSH	**Kashi**	**29.70**	**333**	P	**P**	**18 48 49.3**	**+0.7**
KSH				AP	pP	18 48 59.0	+2.6
KSH				XP	sP	18 49 03.0	+3.2
KSH				*e*PP	PP	18 49 45.5	0.0
KSH				*e*PPP	PPP	18 49 59.0	-0.2
KSH				PCP	PcP	18 51 53.0	+0.5
KSH				*e*S	**S**	**18 53 41.5**	**-0.1**
KSH				XS		18 53 55.8	
KSH				SS	SS	18 55 15.5	-1.1
KSH				*e*SCP		18 55 31.3	
KSH				*e*PCS		18 55 35.3	
KSH				*e*SCS	ScS	18 59 25.5	+0.6
KSH				AMB	AMB		
	comp=Z,260nm,6.1s						
KSH				LR	LR		
	comp=N,2µm,12.0s,MS5.3						
KSH				LR	LR		
	comp=E,4µm,12.0s,MS5.3						
NJ2	**Nanjing**	**29.91**	**48**	*e*P	**P**	**18 48 50.0**	**-0.5**
NJ2				AP	pP	18 48 57.0	-1.3
NJ2				XP	sP	18 49 01.0	-0.7
NJ2				PP	PP	18 49 43.5	-4.7
NJ2				S	**S**	**18 53 39.0**	**-5.9**
NJ2				AMB	AMB		
	comp=Z,1µm,5.6s						
NJ2				LR	LR		
	comp=Z,21µm,15.4s,MS5.9						
WMQ	**Urumqi**	**30.31**	**352**	⇓P	**P**	**18 48 55.0**	**+1.1**
WMQ				AP	pP	18 48 59.5	-2.2
WMQ				XP	sP	18 49 02.0	-3.1
WMQ				PP	PP	18 49 54.0	+0.7
WMQ				PPP	PPP	18 50 08.0	+0.4
WMQ				*e*S	**S**	**18 53 53.0**	**+1.9**
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.2s,mb4.4						
WMQ				AMB	AMB		
	comp=Z,148nm,7.7s						
WMQ				LR	LR		
	comp=N,2µm,27.0s,MS5.0						
WMQ				LR	LR		
	comp=E,3µm,22.0s,MS5.0						
WMQ				LR	LR		
	comp=Z,2µm,23.6s,MS4.6						
KZA	**Kyzart**	**32.13**	**335**	P	**P**	**18 49 11.2**	**+1.3**
	SNR=10						
UCH	**Uchtor**	**32.56**	**334**	P	**P**	**18 49 15.0**	**+1.3**
	SNR=7.8						
TKM2	**Tokmak 2**	**32.69**	**336**	P	**P**	**18 49 15.8**	**+0.9**
	SNR=7.1						
KBK	**Karagaybulak**	**32.73**	**335**	P	**P**	**18 49 16.4**	**+1.2**
	SNR=8.2						
AML	**Almayashu**	**32.83**	**333**	P	**P**	**18 49 17.7**	**+1.6**
	SNR=13						
AAK	**Ala-Archa**	**32.90**	**335**	P	**P**	**18 49 17.7**	**+1.0**
	SNR=12						
AAK	**Ala-Archa**	**32.90**	**335**	*d i*P	**P**	**18 49 16.5**	**-0.1**
AAK				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.1						
AAK	**Ala-Archa**	**32.90**	**335**	*e*P	**P**	**18 49 16.4**	**-0.2**
	comp=Z,35nm,1.3s,mb5.1						
AAK				LR	LR		
	comp=Z,384nm,19.0s,MS4.1						
FRU	**Bishkek**	**33.02**	**335**	*e*P	**P**	**18 49 18.0**	**+0.4**
FRU				*e*	pP	18 49 27.0	+1.5
FRU				pmax	pmax		
	comp=Z,60nm,1.6s,mb5.3						
CHMS	**Chumysh**	**33.10**	**335**	P	**P**	**18 49 19.1**	**+0.7**
	SNR=12						
BJT	**Baijiatuau**	**33.18**	**34**	*e*P	**P**	**18 49 19.8**	**+0.7**
	comp=Z,23nm,0.9s,mb5.1						
BJT				*e*pP	pP	18 49 28.5	+1.5
BJI	**Beijing**	**33.20**	**34**	P	**P**	**18 49 20.5**	**+1.2**
BJI				AMB	AMB		
	comp=Z,27nm,0.9s,mb5.2						
EKS2	**Erkin-Say**	**33.23**	**334**	P	**P**	**18 49 21.1**	**+1.6**
	SNR=9.9						
USP	**Ospenovka**	**33.42**	**335**	P	**P**	**18 49 21.9**	**+0.7**
	SNR=22						
MKAR	**Makanchi Array**	**34.14**	**347**	*i* P	**P**	**18 49 27.2**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,52nm,1.0s						
JOW	**Kunigami**	**35.49**	**63**	P	**P**	**18 49 35.2**	**-3.9**
	comp=Z,9.7nm,0.3s,mb5.2,baz=170,slow=12,SNR=5.0						
JOW				LR	LR	19 07 18.7	
	comp=Z,2µm,18.6s,MS4.9,baz=52,slow=42						
JOW	**Kunigami**	**35.49**	**63**	P	**P**	**18 49 35.2**	**-3.9**
JOW				LR	LR	19 07 18.7	
SONM	**Songino Array**	**35.79**	**16**	P	**P**	**18 49 41.8**	**+0.3**
	comp=Z,17nm,1.1s,mb4.9,baz=196,slow=9.0,SNR=36						
SONM				pP	pP	18 49 51.0	+1.7
	comp=Z,27nm,1.1s,baz=203,slow=9.4,SNR=15						
ULN	**Ulaanbaatar**	**35.99**	**16**	⇓*e*P	**P**	**18 49 43.1**	**0.0**
	comp=Z,27nm,1.4s,mb5.0						
ULN				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
ZAK	**Zakamensk**	**37.50**	**11**	*e*P	**P**	**18 49 56.2**	**+0.4**
MOY	**Mondy**	**38.38**	**8**	*e*P	**P**	**18 50 04.7**	**+1.5**
SNY	**Shenyang**	**38.59**	**38**	⇑P	**P**	**18 50 00.8**	**-4.2**
SNY				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.8						
TLY	**Talaya**	**38.81**	**11**	*i* P	**P**	**18 50 20.1**	**+13**
ZAL	**Zalesovo**	**40.61**	**353**	P	**P**	**18 50 21.6**	**0.0**
	comp=Z,21nm,1.1s,mb4.7,baz=298,slow=8.2,SNR=37						
ZAL				pP	pP	18 50 30.2	+0.6
	comp=Z,16nm,0.9s,baz=287,slow=8.2,SNR=13						
ZAL				LR	LR	19 11 03.0	
	comp=Z,3µm,20.1s,MS5.1,baz=288,slow=41						
ZAL	**Zalesovo**	**40.61**	**353**	P	**P**	**18 50 21.6**	**0.0**
ZAL				*PP	pP	18 50 30.2	+0.7
ZAL				pmax	pmax		
	comp=Z,21nm,1.1s						
ZAL				pmax	pmax		
	comp=Z,16nm,0.9s						
ZAL				MLR	MLR		
	comp=Z,3µm,20.1s						
ZAL	**Zalesovo**	**40.61**	**353**	P	**P**	**18 50 21.6**	**0.0**
ZAL				pP	pP	18 50 30.2	+0.6
ZAL				LR	LR	19 11 03.0	
CN2	**Changchun**	**40.88**	**36**	*e*P	**P**	**18 50 24.5**	**+0.6**
CN2				*e*S	**S**	**18 56 35.3**	**+1.8**
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.6						
CN2				AMB	AMB		
	comp=Z,300nm,4.0s						
CN2				LR	LR		
	comp=N,1µm,16.0s,MS5.1						
CN2				LR	LR		
	comp=E,2µm,16.0s,MS5.1						
CN2				LR	LR		
	comp=Z,2µm,17.0s,MS5.0						
NVS	**Novosibirsk**	**41.70**	**352**	*e*P	**P**	**18 50 29.5**	**-1.0**
HIA	**Hailar**	**41.71**	**26**	*e*P	**P**	**18 50 31.3**	**+0.6**
	comp=Z,11nm,1.1s,mb4.4						
HIA				LR	LR		
	comp=Z,2µm,21.0s,MS4.9						
BVA0	**Borovoye Array**	**43.09**	**340**	P	**P**	**18 50 42.0**	**+0.1**
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.0s						
BVAR	**Borovoye Array**	**43.09**	**340**	P	**P**	**18 50 42.2**	**+0.2**
	comp=Z,6.1nm,0.7s,mb4.4,baz=143,slow=7.4,SNR=23						
BVAR				pP	pP	18 50 50.5	+0.7
	comp=Z,14nm,1.0s,baz=180,slow=3.0,SNR=13						
BRVK	**Borovoye**	**43.15**	**340**	*e*P	**P**	**18 50 42.3**	**-0.2**
	comp=Z,16nm,1.0s,mb4.7						
BRVK				*e*pP	pP	18 50 50.4	0.0
BRVK				LR	LR		
	comp=Z,410nm,21.0s,MS4.3						
MBWA	**Marble Bar**	**43.54**	**142**	*e*P	**P**	**18 50 45.1**	**-0.9**
	comp=Z,49nm,1.3s,mb5.1						
MBWA				LR	LR		
	comp=Z,894nm,19.0s,MS4.7						
CHKZ	**Chkalovo**	**43.57**	**341**	*i* P	**P**	**18 50 45.8**	**0.0**
CHKZ				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.1						
CHKZ	**Chkalovo**	**43.57**	**341**	*e*P	**P**	**18 50 45.6**	**-0.2**
	comp=Z,26nm,0.8s,mb5.0						
MDJ	**Mudanjiang**	**43.78**	**38**	P	**P**	**18 50 46.8**	**-0.9**
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.2						
QRN	**Al-Qurain**	**44.26**	**297**	*e*P	pP	18 50 60.0	+0.2
RDF	**Al-Radifah**	**44.61**	**297**	*e*P	pP	18 51 03.3	+0.8
RDF				AMb	AMB	18 51 05.8	
	comp=Z,248nm,0.6s,mb6.2						
RST	**Umm Al-Ruwaisa**	**45.19**	**298**	*e*P	pP	18 51 07.4	+0.3
RST				AMb	AMB	18 51 10.1	
	comp=Z,166nm,0.7s,mb6.0						
MZLS	**Mizel**	**46.11**	**290**	P	**P**	**18 51 07.3**	**+0.7**
LBOS		**46.24**	**276**	*e*P	**P**	**18 51 10.0**	**+2.3**
MAJO	**Matsushiro**	**46.32**	**52**	*e*P	**P**	**18 51 07.1**	**-1.0**
	comp=Z,34nm,0.9s,mb5.3						
MAJO				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
MAT	**Matsushiro**	**46.32**	**52**	P	**P**	**18 51 07.6**	**-0.5**
MAT				S	**S**	**18 57 50.0**	**-2.8**
MAT	**Matsushiro**	**46.32**	**52**	*e*P	**P**	**18 51 08.0**	**-0.1**
	comp=Z,35nm,1.0s,mb5.2						
MAT				*e*S	**S**	**18 57 51.0**	**-1.8**
KAMS	**Al Khamasin**	**46.56**	**285**	P	**P**	**18 51 10.5**	**+0.3**
BOD	**Bodaibo**	**46.79**	**15**	*e*P	**P**	**18 51 10.2**	**-1.3**
KLR	**Kul'dur**	**47.58**	**34**	*e*P	**P**	**18 51 21.9**	**+4.1**
AFFS	**'Afif**	**48.12**	**290**	P	**P**	**18 51 24.6**	**+2.2**
NAMS	**An Nimas**	**48.81**	**284**	P	**P**	**18 51 30.0**	**+2.3**
HILS	**Ha'il**	**49.45**	**294**	P	**P**	**18 51 33.8**	**+1.2**
SVE	**Sverdlovsk**	**49.55**	**337**	⇓*i*P	**P**	**18 51 32.5**	**-0.5**
SVE				*e*		18 54 17.0	
SVE				pmax	pmax		
	comp=Z,140nm,2.0s,mb5.7						
SVE				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.2						
GNI	**Garni**	**49.59**	**311**	P	**P**	**18 51 34.5**	**+1.0**
	comp=Z,26nm,0.9s,mb5.2,baz=350,slow=3.7,SNR=16						
GNI				pP	pP	18 51 42.3	+0.7
	comp=Z,155nm,1.1s,baz=341,slow=5.6,SNR=23						
GNI				LR	LR	19 16 52.6	
	comp=Z,756nm,18.8s,MS4.7,baz=104,slow=41						
GNI	**Garni**	**49.59**	**311**	P	**P**	**18 51 34.5**	**+1.0**
GNI				*PP	pP	18 51 42.3	+0.7
GNI				pmax	pmax		
	comp=Z,27nm,1.0s						
GNI				pmax	pmax		
	comp=Z,155nm,1.1s						
GNI				MLR	MLR		
	comp=Z,756nm,18.8s						
GNI	**Garni**	**49.59**	**311**	*e*P	**P**	**18 51 35.2**	**+1.6**
	comp=Z,32nm,0.8s,mb5.4						
GNI				LR	LR		
	comp=Z,937nm,20.0s,MS4.8						
ARU	**Arti**	**50.07**	**336**	*d i*P	**P**	**18 51 36.3**	**-0.6**
ARU				pmax	pmax		
	comp=Z,71nm,2.6s,mb5.2						
ARU	**Arti**	**50.07**	**336**	*e*P	**P**	**18 51 36.2**	**-0.7**
	comp=Z,79nm,1.6s,mb5.5						
ARU				*e*pP	pP	18 51 43.6	-1.4
ARU				LR	LR		
	comp=Z,309nm,20.0s,MS4.3						
ZEI	**Tsey**	**51.03**	**314**	*e*P	**P**	**18 51 45.2**	**+0.7**
ZEI				*i* *PP	pP	18 51 55.2	+2.6
ZEI				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
KBRS	**Khaybar**	**51.60**	**292**	P	**P**	**18 51 51.8**	**+2.8**
NWAO	**Narrogin (SRO)**	**51.89**	**154**	*e*P	**P**	**18 51 49.5**	**-1.6**
	comp=Z,68nm,1.0s,mb5.5						
KIV	**Kislovodsk**	**52.26**	**315**	P	**P**	**18 51 54.6**	**+0.9**
	comp=Z,426nm,0.8s,SNR=12						
KIV	**Kislovodsk**	**52.26**	**315**	*e*P	**P**	**18 51 54.2**	**+0.5**
KIV				pmax	pmax		
	comp=N,107nm,1.0s						
KIV				pmax	pmax		
	comp=E,72nm,1.0s						
KIV				pmax	pmax		
	comp=Z,194nm,1.0s,mb6.0						
KIV				MLR	MLR		
	comp=N,374nm,17.0s,MS4.8						
KIV				MLR	MLR		
	comp=E,609nm,17.0s,MS4.8						
KIV				MLR	MLR		
	comp=Z,681nm,17.0s,MS4.8						
KIV	**Kislovodsk**	**52.26**	**315**	*e*P	**P**	**18 51 54.4**	**+0.6**
	comp=Z,60nm,0.9s,mb5.5						
KIV				*e*pP	pP	18 52 01.8	-0.1
KIV				LR	LR		
	comp=Z,199nm,20.0s,MS4.2						
GOF	**Gofitskoye**	**52.40**	**317**	*i* P	**P**	**18 51 55.0**	**+0.2**
GOF				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.8						
WRA	**Warramunga Arr**	**52.73**	**129**	P	**P**	**18 51 47.5**	**-10**
	comp=Z,2.5nm,0.5s,mb4.4,baz=307,slow=8.7,SNR=22						
WRA				pP	pP	18 51 55.9	-10
	comp=Z,34nm,0.6s,baz=306,slow=8.2,SNR=105						
WRA	**Warramunga Arr**	**52.73**	**129**	P	**P**	**18 51 47.5**	**-10**
WRA				*PP	pP	18 51 55.9	-10
WRA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
WRA				pmax	pmax		
	comp=Z,34nm,0.6s						
WRAB	**Tennant Creek**	**52.73**	**129**	*c i*P	**P**	**18 51 56.0**	**-1.6**

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WRAB  Tennant Creek     52.73 129 eP      P       18 51 55.7 -1.8
      comp=Z,69nm,0.6s,mb5.8
YSS   Yuzh-Sakhalins    53.03  41 eP      pP      18 52 08.2 +0.7
YSS                               pmax    pmax
      comp=Z,60nm,1.0s,mb5.5
YSS   Yuzh-Sakhalins    53.03  41 eP      P       18 51 59.7 +0.2
YSS                               LR      LR
      comp=Z,1µm,20.0s,MS4.9
ELZG  Elazig            53.48 308 i P     P       18 52 03.5 +0.6
MALT  Malatya           53.87 308 eP      P       18 52 05.7  0.0
      comp=Z,76nm,1.0s,mb5.6
MALT                              epP     pP      18 52 13.0 -0.8
ASF   Jabal al Asfar    54.16 300 P       P       18 52 08.4 +0.5
      comp=Z,1.6nm,0.6s,mb4.1,baz=302,slow=9.5,SNR=3.1
ASF                               pP      pP      18 52 15.3 -0.7
      comp=Z,14nm,1.0s,baz=331,slow=4.3,SNR=9.2
SOC   Sochi             54.20 314 i P     pP      18 52 15.4 -0.7
SOC                               e               18 53 13.2
SOC                               eS      S       18 59 55.3 +14
SOC                               pmax    pmax
      comp=Z,83nm,1.2s,mb5.5
SOC                               pmax    pmax
      comp=N,25nm,1.3s
SOC                               pmax    pmax
      comp=E,11nm,0.9s
SOC                               MLR     MLR
      comp=N,459nm,20.0s,MS4.9
SOC                               MLR     MLR
      comp=Z,679nm,20.0s,MS4.7
SOC                               MLR     MLR
      comp=E,814nm,19.0s,MS4.9
GZT   Gaziantep         54.36 306 i P     P       18 52 09.7 +0.4
ASAR  Alice Springs     54.66 133 pP      P       18 52 10.3 -1.4
      comp=E,22nm,0.6s,baz=313,slow=7.2,SNR=90
JMQS  Jabal Moqyreh     54.77 296 P       pP      18 52 18.9 -1.7
YAK   Yakutsk           54.88  20 eP      P       18 52 11.6 -1.2
YAK                               e       pP      18 52 20.4 -0.5
YAK                               pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.8
YAK                               pmax    pmax
      comp=Z,15nm,0.9s,mb5.0
YAK                               pmax    pmax
      comp=N,11nm,1.0s
YAK                               pmax    pmax
      comp=E,13nm,1.2s
YAK   Yakutsk           54.88  20 eP      P       18 52 11.5 -1.4
      comp=E,26nm,0.8s,mb5.3
KAHT  Ahir Dag          54.95 306 i P     P       18 52 13.7  0.0
COBT  Iskenderun        55.26 305 i P     P       18 52 16.4 +0.5
AYUS  ‘Aynunah          55.27 295 P       P       18 52 22.0 +5.8
EIL   Elat              55.62 297 LR      LR      19 17 31.4
      comp=E,766nm,20.0s,MS4.8,baz=95,slow=37
EIL   Elat              55.62 297 eP      P       18 52 17.4 -1.2
      comp=E,20nm,0.9s,mb5.2
EIL                               epP     pP      18 52 25.1 -1.6
ANN   Anapa             56.11 315 eP      pP      18 52 33.4 +3.4
ANN                               e               18 52 43.9
ANN                               eS      S       19 00 23.4 +16
ANN                               pmax    pmax
      comp=Z,88nm,1.3s,mb5.6
AVNT  Avonos            56.71 307 i P     P       18 52 24.9 -1.5
PHNC  Paralimni         56.85 303 P       P       18 52 32.9 +5.5
CTKT  Corum             57.08 310 i P     pP      18 52 35.8 -1.3
KMBO  Kilima Mbogo      57.10 260 P       P       18 52 26.1 -3.3
      comp=Z,1.2nm,0.6s,mb4.1,baz=58,slow=15,SNR=2.8
KMBO  Kilima Mbogo      57.10 260 P       P       18 52 26.2 -3.3
KMBO                              pmax    pmax
      comp=Z,1.0nm,0.6s
KMBO  Kilima Mbogo      57.10 260 P       P       18 52 26.1 -3.3
KMBO                              epP     pP      18 52 38.6 +1.0
KMBO                              LR      LR
      comp=Z,1µm,21.0s,MS4.9
BOYT  Boyabat           57.14 311 i P     P       18 52 29.4  0.0
CSS   Prodhromos        57.42 303 eP      P       18 52 30.8 -0.6
      comp=Z,22nm,0.9s,mb5.2
SZAC  Souni-Zanaja      57.76 302 P       P       18 52 33.4 -0.4
BRTR  Keskin Array B    57.79 308 P       P       18 52 33.0 -1.0
      comp=Z,14nm,0.8s,mb5.0,baz=120,slow=7.4,SNR=39
BRTR                              pP      pP      18 52 41.1 -1.0
      comp=Z,44nm,0.8s,baz=119,slow=6.8,SNR=33
BRTR  Keskin Array B    57.79 308 P       P       18 52 33.0 -1.0
BRTR                              *PP     pP      18 52 41.2 -0.9
BRTR                              pmax    pmax
      comp=Z,14nm,0.8s
BRTR                              pmax    pmax
      comp=Z,44nm,0.8s
ALFC  Alevga            58.03 303 ⇓P      P       18 52 34.6 -1.1
      comp=Z,1.6nm,0.8s,mb4.1
ALFC  Alevga            58.03 303⇓iP      P       18 52 34.6 -1.1
ELDT  Eldivan           58.08 309 i P     P       18 52 35.8 -0.1
AKMC  Akamas            58.24 303 P       P       18 52 35.0 -2.1
BALT  Daday             58.28 310 i P     P       18 52 37.7 +0.3
SIM   Simferopol’       58.43 315 eP      pP      18 52 46.8 +0.3
SIM                               eS      S       19 00 32.0 -6.0
SIM                               pmax    pmax
      comp=Z,358nm,0.9s
SGKT  Sivrigoynuk       59.12 309 i P     P       18 52 41.7 -1.6
MOS   Moscow            59.50 327 eP      pP      18 52 52.7 -1.1
MOS                               e               18 53 37.5
MOS                               ePPP    PPP     18 56 29.7 +5.6
MOS                               eS      S       19 01 03.5 +12
MOS                               eSS     SS      19 04 54.9 +6.4
MOS                               pmax    pmax
      comp=Z,57nm,0.9s,mb5.6
MOS                               MLR     MLR
      comp=Z,2µm,21.9s,MS5.1
OBN   Obninsk           59.84 326⇑eP      P       18 52 47.2 -0.7
OBN                               e       pP      18 52 55.3 -0.9
OBN                               e               18 53 33.1
OBN                               eS      S       19 01 01.1 +5.1
OBN                               pmax    pmax
      comp=Z,39nm,1.5s,mb5.2
OBN   Obninsk           59.84 326 eP      P       18 52 46.0 -2.0
      comp=Z,6.6nm,0.5s,mb4.9
ESKT  Eskisehir         59.90 308 i P     P       18 52 47.3 -1.3
ISP   Isparta           59.98 306⇓eP      P       18 52 47.7 -1.4
ISP   Isparta           59.98 306 eP      P       18 52 46.7 -2.4
      comp=Z,50nm,1.1s,mb5.5
ULDT  Uludag            61.28 308 i P     P       18 52 56.8 -1.2
TIXI  Tiksi             61.76  12 eP      P       18 52 59.6 -1.2
TIXI                              pmax    pmax
      comp=Z,82nm,1.5s,mb5.6
TIXI                              MLR     MLR
      comp=Z,1µm,14.0s,MS5.1
TIXI  Tiksi             61.76  12⇑eP      P       18 53 00.1 -0.7
MA2   Magadan           62.19  29 eP      P       18 53 06.8 +2.9
MA2                               e               18 55 25.7
MA2                               e               19 01 29.6
MA2                               pmax    pmax
      comp=Z,60nm,2.3s,mb5.3
CTAO  Charters Tower    62.29 122 eP      P       18 53 03.8 -1.3
      comp=Z,31nm,1.3s,mb5.3
KIS   Kishinev          62.45 316 eP      pP      18 53 15.0 +1.0
KIS                               e       sP      18 53 25.0 +8.0
CFR   Carcaliu          62.64 314⇑iP      pP      18 53 12.8 -2.5
AKASG Malin Array Be    62.88 320 P       P       18 53 07.1 -1.4
      comp=Z,4.9nm,0.8s,mb4.7,baz=86,slow=5.1,SNR=19
AKASG                             pP      pP      18 53 15.4 -1.3
      comp=Z,15nm,0.8s,baz=82,slow=5.6,SNR=27
AKASG Malin Array Be    62.88 320 P       P       18 53 07.1 -1.4
AKASG                             *PP     pP      18 53 15.5 -1.2
AKASG                             pmax    pmax
      comp=Z,5.0nm,0.8s
AKASG                             pmax    pmax
      comp=Z,15nm,0.8s
MBAR  Mbarara           63.20 262d iP     P       18 53 11.2 +0.1
MBAR  Mbarara           63.20 262 eP      P       18 53 11.3 +0.1
      comp=Z,27nm,0.9s,mb5.4
MBAR                              epP     pP      18 53 19.3 -0.1
VRI   Vrincioaia        63.72 315⇑iP      P       18 53 14.9 +0.8
VRI   Vrincioaia        63.72 315⇑iP      P       18 53 14.9 +0.8
ISR   Istrita           63.75 314⇑iP      pP      18 53 23.7 +1.1
ISR   Istrita           63.75 314⇑iP      pP      18 53 23.7 +1.1
IDI   Anoyia            64.34 303 P       P       18 53 17.3 -1.1
      comp=Z,34nm,1.2s,mb5.2,baz=108,slow=5.5,SNR=5.8
IDI                               pP      pP      18 53 25.7 -1.0
      comp=Z,21nm,0.6s,baz=102,slow=12,SNR=6.0
MNK   Minsk             64.51 324 eP      pP      18 53 25.0 -2.4
PUL   Pulkovo           64.55 330⇓eP      pP      18 53 26.9 -0.6
PUL                               pmax    pmax
      comp=Z,58nm,0.7s,mb5.7
PUL                               pmax    pmax
      comp=N,81nm,0.8s
PUL   Pulkovo           64.55 330 i P     P       18 53 19.8 +0.5
STKA  Stephens Creek    65.04 135 P       P       18 53 12.0 -11
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      comp=N,2.2nm,0.8s,mb4.2,baz=246,slow=10.0,SNR=3.0
STKA  Stephens Creek    65.04 135 eP      P       18 53 21.7 -1.3
STKA                              epP     pP      18 53 30.2 -1.0
PAIG  Paliouri          65.44 308 eP      P       18 53 25.5 +0.1
SRS   Serrai            65.56 309 eP      P       18 53 27.2 +1.0
LVZ   Lovozero          65.68 339⇓eP      pP      18 53 37.2 +2.5
LVZ                               eS      S       19 02 25.6 +17
LVZ                               pmax    pmax
      comp=Z,34nm,1.1s,mb5.3
LVZ                               pmax    pmax
      comp=N,4.0nm,0.8s
LVZ                               pmax    pmax
      comp=E,7.0nm,1.0s
SOH   Sokhos            65.73 309 eP      P       18 53 27.0 -0.3
APA   Apatity           65.98 339⇓iP      P       18 53 26.3 -2.0
APA                               i               18 53 44.0
APA                               pmax    pmax
      comp=Z,39nm,1.0s,mb5.4
APA                               MLR     MLR
      comp=Z,2µm,15.0s,MS5.3
THE   Thessaloniki      66.02 309 eP      P       18 53 27.5 -1.6
KNT   Kendrikon         66.09 309 eP      P       18 53 28.6 -1.0
LIT   Litokhoron        66.36 308 eP      P       18 53 28.9 -2.3
GRG   Griva             66.46 309 eP      P       18 53 29.6 -2.2
KWP   Kalwaria          66.85 318 eP      P       18 53 33.8 -0.5
      comp=Z,35nm,1.1s,mb5.3
KWP                               epP     pP      18 53 41.7 -0.7
BOLS  Boljevac          66.91 312 eP      P       18 53 39.1 +4.4
FINES FINESS Array B    67.01 331 P       P       18 53 34.2 -0.8
      comp=Z,5.0nm,0.5s,mb4.8,baz=112,slow=10,SNR=16
FINES                             pP      pP      18 53 43.0 -0.3
      comp=Z,20nm,0.7s,baz=101,slow=7.1,SNR=14
FINES                             PP      PP      18 56 01.6 -2.7
      comp=Z,14nm,1.1s,baz=96,slow=5.8,SNR=3.6
FINES FINESS Array B    67.01 331 P       P       18 53 34.2 -0.8
FINES                             *PP     pP      18 53 43.0 -0.3
FINES                                             18 56 01.6
FINES                             pmax    pmax
      comp=Z,5.0nm,0.5s
FINES                             pmax    pmax
      comp=Z,21nm,0.7s
FINES                             pmax    pmax
      comp=Z,14nm,1.1s
KOLS  Kolonicke sedl    67.06 317 eP      pP      18 53 43.5 -0.3
KOLS  Kolonicke sedl    67.06 317 epP     pP      18 53 43.5 -0.3
KAF   Kangasniemi       67.07 332 ep      P       18 53 34.7 -0.7
      comp=Z,27nm,1.0s,mb5.2
KAF   Kangasniemi       67.07 332 eP      P       18 53 34.7 -0.7
KAF                               pmax    pmax
      comp=Z,27nm,1.0s,mb5.2
SUW   Suwalki           67.10 323 eP      P       18 53 34.9 -0.9
      comp=Z,67nm,1.0s,mb5.6
SUW                               epP     pP      18 53 42.8 -1.2
CRVS  Cervenica-Dubn    67.59 317 eP      P       18 53 40.1 +1.1
CRVS                              epP     pP      18 53 48.0 +0.8
GRUS  Gruza             67.81 312⇓iP      pP      18 53 47.5 -1.2
KECS  Kecovo            68.21 317 eP      P       18 53 42.6 -0.2
KECS                              epP     pP      18 53 50.4 -0.6
NIE   Niedzica          68.39 318 eP      P       18 53 44.7 +0.8
NIE                               ePcP    pP      18 53 52.8 +0.7
PSZ   Piszkesteto       68.57 316 eP      P       18 53 43.8 -1.3
      comp=Z,30nm,1.0s,mb5.2
PSZ                               epP     pP      18 53 52.5 -0.7
OJC   Ojcow             68.78 319 eP      P       18 53 45.7 -0.6
OJC                               ePcP    pP      18 53 53.9 -0.6
KEV   Kevo              68.94 340 ep      P       18 53 46.4 -0.6
      comp=Z,15nm,0.9s,mb4.9
KEV   Kevo              68.94 340 eP      P       18 53 46.4 -0.6
KEV                               pmax    pmax
      comp=Z,15nm,0.9s,mb4.9
VYHS  Vyhne             69.31 317 eP      P       18 53 49.5 -0.1
VYHS                              e       pP      18 53 56.7 -1.1
PKSM  Moragy            69.36 314⇑eP      P       18 53 49.7 -0.2
ARCES ARCESS Array B    69.38 340 P       P       18 53 49.8 +0.1
      comp=Z,26nm,1.1s,mb5.1,baz=100,slow=7.5,SNR=24
ARCES                             pP      pP      18 53 57.9  0.0
      comp=Z,20nm,0.9s,baz=96,slow=5.7,SNR=11
ARCES ARCESS Array B    69.38 340 P       P       18 53 49.8 +0.1
ARCES                             *PP     pP      18 53 57.9  0.0
ARCES                             pmax    pmax
      comp=Z,26nm,1.1s
ARCES                             pmax    pmax
      comp=Z,20nm,0.9s
ARCES ARCESS Array B    69.38 340 P       P       18 53 49.8 +0.1
ARCES                             pP      pP      18 53 57.9  0.0
SRO   Srobarova         69.63 316 eP      pP      18 54 00.1 +0.3
SRO   Srobarova         69.63 316 epP     pP      18 54 00.1 +0.3
RHK1  Bakonya           69.75 314 eP      pP      18 54 00.4 -0.1
OKC   Ostrava-Krasne    69.82 318 eP      P       18 53 53.1 +0.5
OKC                               epP     pP      18 54 00.4 -0.5
MORC  Moravsky Berou    70.20 318 eP      P       18 53 54.6 -0.5
      comp=Z,76nm,1.2s,mb5.5
MORC                              epP     pP      18 54 02.8 -0.4
LSZ   Lusaka            70.22 248 eP      P       18 53 56.0 +0.3
      comp=Z,25nm,0.9s,mb5.1
LSZ                               epP     pP      18 54 05.8 +1.9
SMOL  Smolenice         70.24 317 epP     pP      18 54 03.8 +0.3
ZST   Bratislava        70.45 316 eP      P       18 53 56.3 -0.2
ZST                               epP     pP      18 54 04.7 -0.1
SOP   Sopron            70.81 316 epP     pP      18 54 06.8 -0.2
SOP   Sopron            70.81 316 eP      pP      18 54 06.9 -0.1
DPC   Dobruska-Polom    71.01 319 eP      P       18 54 00.7 +0.8
DPC                               epP     pP      18 54 08.3 +0.1
KSP   Ksiaz             71.04 319 eP      P       18 54 00.0 -0.1
KSP                               epP     pP      18 54 07.1 -1.2
BILL  Bilibino          71.12  22⇓eP      pP      18 54 09.5 +0.9
BILL  Bilibino          71.12  22 eP      P       18 54 00.5 +0.2
      comp=Z,65nm,1.6s,mb5.3
BILL                              epP     pP      18 54 08.5  0.0
UPC   Upice             71.21 319 eP      P       18 54 01.7 +0.6
UPC                               epP     pP      18 54 08.9 -0.5
ARSA  Arzberg           71.51 315⇑iP      P       18 54 05.0 +2.0
      comp=Z,28nm,1.0s,mb5.2
PVCC  Panska Ves        72.13 319 eP      P       18 54 06.9 +0.3
PRU   Pruhonice         72.15 318 eP      P       18 54 06.9 +0.2
PRU                               epP     pP      18 54 14.5 -0.5
OBKA  Obir              72.19 315⇑iP      P       18 54 11.1 +4.1
      comp=Z,52nm,1.1s,mb5.4
MOA   Molln             72.36 316⇓iP      P       18 54 08.5 +0.5
      comp=Z,36nm,1.1s,mb5.2
BRG   Berggiesshubel    72.53 319 i P     P       18 54 09.7 +0.7
BRG                               i       pP      18 54 17.5 +0.3
BRG                               pmax    pmax
      comp=Z,43nm,1.0s,mb5.3
BRG   Berggiesshubel    72.53 319 i P     P       18 54 09.7 +0.7
      comp=Z,43nm,1.0s,mb5.3
BRG                               i       pP      18 54 17.5 +0.3
RUE   Ruedersdorf       72.62 321 eP      P       18 54 09.6 +0.1
      comp=Z,44nm,1.1s,mb5.3
RUE                               epP     pP      18 54 16.8 -1.0
GERES GERESS Array B    72.71 317 P       P       18 54 10.2 +0.2
      comp=Z,8.4nm,0.8s,mb4.7,baz=90,slow=5.3,SNR=60
GERES                             pP      pP      18 54 18.6 +0.2
      comp=Z,34nm,0.9s,baz=90,slow=4.9,SNR=36
GERES GERESS Array B    72.71 317 P       P       18 54 10.2 +0.1
GERES                             *PP     pP      18 54 18.6 +0.2
GERES                             pmax    pmax
      comp=Z,8.0nm,0.8s
GERES                             pmax    pmax
      comp=Z,34nm,0.9s
KHC   Kasperske Hory    72.79 317 eP      P       18 54 10.3 -0.2
KHC                               epP     pP      18 54 17.5 -1.3
KBA   Koelnbreinsper    73.00 315⇓iP      P       18 54 13.8 +2.0
      comp=Z,31nm,0.9s,mb5.2
PTCC  Patocco-Chiusa    73.02 315 eP      P       18 54 11.8 -0.1
GMNA  Gemona            73.11 315 eP      pP      18 54 20.7  0.0
CLL   Collm             73.12 320 i P     P       18 54 12.4  0.0
CLL                               i       pP      18 54 20.6 -0.1
CLL                               pmax    pmax
      comp=Z,9.0nm,1.0s,mb4.7
CLL   Collm             73.12 320 i P     P       18 54 12.4  0.0
      comp=Z,9.0nm,1.0s,mb4.7
CLL                               i       pP      18 54 20.6 -0.1
CLL   Collm             73.12 320 P       P       18 54 12.4  0.0
      comp=Z,logA/T=1.0,mb4.7
CLL                               i *PP   pP      18 54 20.6 -0.1
CLL                               i               18 54 38.4
FX1   Attu Island--F    73.28  39 P       P       18 54 13.5 +0.2
      comp=Z,20nm,0.7s,mb5.2,baz=68,slow=5.4,SNR=3.2
FX1   Attu Island--F    73.28  39 P       P       18 54 13.5 +0.2
FX1                               pmax    pmax
      comp=Z,20nm,0.7s
NKC   Novy Kostel       73.49 319 eP      P       18 54 15.3 +0.7
NKC                               epP     pP      18 54 22.8 -0.1
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MOX   Moxa              74.01 319 eP      P       18 54 18.1 +0.5
MOX   Moxa              74.01 319 i P     P       18 54 18.1 +0.5
NB2   NORSAR Subarra    74.08 330 P       P       18 54 17.0 -0.7
      comp=Z,19nm,0.8s,mb5.1,baz=91,slow=5.8
NB2   NORSAR Subarra    74.08 330 P       P       18 54 17.0 -0.7
      baz=91,slow=5.9
NOA   NORSAR Array B    74.08 330 P       P       18 54 17.4 -0.3
      comp=Z,5.2nm,0.7s,mb4.6,baz=90,slow=5.8,SNR=18
NOA                               pP      pP      18 54 26.6 +0.6
      comp=Z,10.0nm,0.8s,baz=96,slow=5.5,SNR=13
NOA   NORSAR Array B    74.08 330 P       P       18 54 17.4 -0.3
NOA                               *PP     pP      18 54 26.6 +0.5
NOA                               pmax    pmax
      comp=Z,5.0nm,0.7s
NOA                               pmax    pmax
      comp=Z,10.0nm,0.8s
WTTA  Wattenberg        74.16 316⇓iP      P       18 54 17.8 -0.7
      comp=Z,11nm,1.0s,mb4.8
WTTA                              i       pP      18 54 26.2 -0.6
      comp=Z,58nm,1.2s
WATA  Walderalm         74.19 316⇑iP      P       18 54 18.2 -0.5
      comp=Z,31nm,1.1s,mb5.1
CTI   Castel Tesino     74.22 314 eP      P       18 54 19.3 +0.4
SFI   Santa Sofia       74.22 312 eP      pP      18 54 28.2 +1.0
NAO01 NORSAR Array S    74.24 330 eP      P       18 54 18.0 -0.7
      comp=Z,12nm,0.8s,mb4.9
NAO01                             epP     pP      18 54 26.8 -0.2
GRA1  Grafenberg Arr    74.31 318 eP      P       18 54 20.2 +0.9
      comp=Z,62nm,1.1s,mb5.5
GRA1                              epP     pP      18 54 28.3 +0.7
GRF   Grafenberg Arr    74.31 318 eP      P       18 54 20.2 +0.9
GRF                               e*PP    pP      18 54 28.3 +0.7
GRF                               pmax    pmax
      comp=Z,62nm,1.1s,mb5.5
GRF   Grafenberg Arr    74.31 318 eP      P       18 54 20.2 +0.9
      comp=Z,62nm,1.1s,mb5.5
GRF                               epP     pP      18 54 28.3 +0.7
PGD   Poggio Sodo       74.31 312 eP      pP      18 54 28.0 +0.2
VMG   Vicchio           74.43 312 eP      P       18 54 21.3 +1.1
SQTA  Sankt Quirin      74.45 316⇓iP      P       18 54 19.8 -0.4
      comp=Z,11nm,0.6s,mb5.0
MOTA  Moosalm           74.51 316⇑iP      P       18 54 19.9 -0.7
      comp=Z,3.6nm,0.8s,mb4.3
SEI   Scarperia         74.56 312 eP      pP      18 54 30.3 +1.1
ZCCA  Zocca             74.81 313 eP      pP      18 54 32.9 +2.2
BRMO  Bormio            75.07 315 eP      pP      18 54 32.0 -0.1
GSCL  Gusciola          75.09 313 eP      P       18 54 25.3 +1.4
BDI   Bagni Di Lucca    75.11 312 eP      P       18 54 25.1 +1.0
MAIM                    75.19 312 P       pP      18 54 31.7 -1.2
ERBM  Eremo             75.21 313 eP      pP      18 54 34.6 +1.6
MUD   Monsted U’grnd    75.23 325 eP      pP      18 54 32.5 -0.3
MUD                               pmax    pmax
      comp=Z,72nm,1.2s,mb5.5
MUD   Monsted U’grnd    75.23 325 eP      pP      18 54 32.5 -0.3
      comp=Z,72nm,1.2s
MUD   Monsted U’grnd    75.23 325 i P     pP      18 54 32.5 -0.3
      comp=Z,72nm,1.2s
DAVA  Damuels           75.35 316⇓iP      P       18 54 25.3 -0.1
DAVA                              i       pP      18 54 33.7  0.0
      comp=Z,79nm,1.1s
DAVA  Damuels           75.35 316⇓iP      P       18 54 25.3 -0.1
      comp=Z,79nm,1.1s,mb5.6
DAVA                              i       pP      18 54 33.7  0.0
GRAM                    75.45 313 P       pP      18 54 33.9 -0.5
LBTB  Lobatse           76.09 240 eP      P       18 54 30.6 +0.5
      comp=Z,47nm,1.4s,mb5.2
LBTB                              epP     pP      18 54 39.7 +1.3
VAI   Varese            76.24 314 eP      P       18 54 30.0 -0.4
PGF   Pioggiola         76.41 311 eP      P       18 54 31.9 +0.4
      comp=Z,226nm,1.3s,mb5.6
PCP   Pian Castagno     76.53 313 P       pP      18 54 40.1 -0.4
FELD  Feldberg          76.56 316 eP      P       18 54 29.3 -2.9
LANF  Langenberg        76.59 318 eP      P       18 54 26.3 -6.0
MCGN  Macugnaga         76.77 314 eP      pP      18 54 42.9 +1.1
FIN   Finale Ligure     76.80 313 P       pP      18 54 42.0  0.0
ORX   Oropa             76.81 314 P       pP      18 54 40.6 -1.4
ORO   Oropa             76.81 314 eP      pP      18 54 41.1 -0.9
WLS   Welschbruch       76.94 317 eP      P       18 54 29.4 -4.9
CDF   Champ du Feu      76.99 317 eP      P       18 54 34.9 +0.3
      comp=Z,76nm,1.3s,mb5.2
ROB   Roburent          77.03 313 P       pP      18 54 43.2 -0.1
ECH   Echery            77.09 317 eP      P       18 54 30.8 -4.4
RSP   Reno Superiore    77.37 314 P       pP      18 54 44.3 -0.8
AUTN  L’Aution          77.39 312 eP      pP      18 54 43.5 -1.7
SBF   Sospel            77.40 312 eP      P       18 54 37.3 +0.4
      comp=Z,112nm,1.2s,mb5.4
BHB   Bricherasio       77.40 313 P       pP      18 54 42.9 -2.4
LSD   Ceresole Reale    77.40 314 P       pP      18 54 45.2 -0.1
LOMF  Lomont            77.41 316 eP      P       18 54 34.0 -2.9
TOUF  Mont Tournerai    77.51 313 eP      pP      18 54 44.6 -1.3
FENE  Fenestrelle       77.52 314 P       pP      18 54 45.2 -0.7
MVIF  Mont Vial         77.60 312 eP      pP      18 54 45.0 -1.4
OG01  Vacheresse        77.63 315 eP      P       18 54 38.3 +0.1
HAU   Haudompre         77.66 317 eP      P       18 54 38.3  0.0
      comp=Z,94nm,1.2s,mb5.3
LPG   La Plagne         77.68 314 eP      P       18 54 39.2 +0.7
      comp=Z,125nm,0.9s,mb5.5
RRL   Cesana Torines    77.73 313 P       pP      18 54 46.8 -0.3
RSL   Roselend          77.75 314 eP      P       18 54 40.4 +1.6
BOSA  Boshof            77.76 236 eP      P       18 54 40.0 +0.8
      comp=Z,29nm,0.8s,mb5.3
BOSA                              epP     pP      18 54 49.1 +1.5
MBDF  Montbardon        77.76 313 eP      P       18 54 38.8 -0.1
      comp=Z,92nm,1.2s,mb5.3
BNI   Bardonecchia      77.79 314 eP      P       18 54 40.2 +1.2
      comp=Z,54nm,1.0s,mb5.4
BNI                               epP     pP      18 54 47.6 +0.1
THEF  They Montfort     77.87 317 eP      P       18 54 33.8 -5.6
OG05  Jujurieux         78.51 315 eP      P       18 54 41.9 -1.1
BAIF  Baives            78.79 319 eP      P       18 54 44.2 -0.2
      comp=Z,86nm,1.1s,mb5.3
SSF   Saint Saulge      79.69 316 eP      P       18 54 49.5 +0.1
      comp=Z,113nm,1.3s,mb5.3
PLDF  La Plantade       79.79 315 eP      P       18 54 48.1 -1.8
LBL   Lubilhac          80.17 314 eP      P       18 54 51.3 -0.7
BGF   Bois d’Agland     80.22 316 eP      P       18 54 52.5 +0.2
      comp=Z,54nm,1.1s,mb5.1
PYM   Petit Puy Mans    80.25 315 eP      P       18 54 50.6 -1.8
RJF   Les Rejaudoux     81.36 314 eP      P       18 54 58.8 +0.5
      comp=Z,84nm,1.1s,mb5.3
FLN   La Foliniere      82.03 318 eP      P       18 55 02.2 +0.5
      comp=Z,346nm,1.9s,mb5.7
EPOB  Poblet            82.43 311 P       P       18 55 02.7 -1.2
      comp=Z,116nm,2.4s,mb5.4
SUR   Sutherland        82.72 234 eP      P       18 55 05.7 +0.1
      comp=Z,17nm,0.9s,mb5.1
EBIE  Bielsa            82.84 312 P       P       18 55 04.8 -1.2
      comp=Z,42nm,1.6s,mb5.2
ERTA  Horta de San J    83.06 310 P       P       18 55 05.8 -1.4
      comp=Z,126nm,2.4s,mb5.5
ETSF  Etsaut            83.30 312 eP      P       18 55 09.1 +0.7
      comp=Z,129nm,1.3s,mb5.5
EMOS  Mosqueruela       83.79 310 P       P       18 55 10.7 -0.3
      comp=Z,57nm,1.3s,mb5.5
MAW   Mawson            84.02 191 P       P       18 55 10.5 -1.0
      comp=Z,22nm,1.2s,mb5.2
EVIA  Vianos            85.72 309 P       P       18 55 22.1 +1.4
      comp=Z,7.8nm,0.8s,mb5.0
GUD   Guadarrama        86.45 311 P       P       18 55 24.9 +0.7
      comp=Z,9.4nm,0.9s,mb5.0
EARI  Arriondas         86.51 314 P       P       18 55 23.9 -0.6
      comp=Z,425nm,2.2s
ESDC  Sonseca Array     86.56 310 P       P       18 55 24.9 +0.1
      comp=Z,1.5nm,0.6s,mb4.4,baz=52,slow=4.9,SNR=9.5
ESDC                              pP      pP      18 55 33.7 +0.4
      comp=Z,12nm,0.9s,baz=58,slow=4.4,SNR=21
ESDC  Sonseca Array     86.56 310 P       P       18 55 25.1 +0.3
      comp=Z,3.7nm,0.9s,mb4.6
IMA   Indian Mountai    86.67  22 eP      P       18 55 25.7 +1.0
      comp=Z,36nm,0.8s,mb5.7
EADA  Adamuz            87.41 309 P       P       18 55 28.4 -0.5
      comp=Z,15nm,1.2s,mb5.1
EMIJ  Mijas             87.99 307 P       P       18 55 34.6 +2.9
      comp=Z,73nm,2.1s,mb5.5
EMIN  Mina Concepcio    89.11 309 P       P       18 55 39.3 +2.2
      comp=Z,33nm,1.6s,mb5.4
COLA  College           89.37  22 eP      P       18 55 37.8 +0.2
      comp=Z,12nm,1.1s,mb5.2
SPU   Mount Spurr       89.58  26 eP      P       18 55 38.7  0.0
ILAR  Eielson Array     89.78  22 P       P       18 55 38.9 -0.7
      comp=Z,1.2nm,0.7s,mb4.3,baz=295,slow=4.7,SNR=14
ILAR  Eielson Array     89.78  22 P       P       18 55 38.9 -0.7
ILAR                              pmax    pmax
      comp=Z,1.0nm,0.7s
PWA   Palmer West       90.26  25 eP      P       18 55 43.9 +2.0
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FIB	Fire Island	90.38	26	*e*P	P	18 55 43.2	+0.7
SYO	Syowa Base	90.64	197	⇓P	P	18 55 44.3	+0.8
SYO	Syowa Base	90.64	197	⇑pP	pP	18 55 53.2	+1.2
SYO	Syowa Base	90.64	197	⇓PP	PP	18 59 21.6	+0.5
SLKM	Skilak Lake	90.69	26	*e*P	P	18 55 44.9	+1.0
KDAK	Kodiak Island	90.94	29	*e*P	P	18 55 45.0	-0.1
	comp=Z,25nm,1.0s,mb5.5						
THY	Trims Highway	90.94	23	P	P	18 55 43.3	-1.7
INK	Inuvik	91.71	16	P	P	18 55 48.5	+0.1
	comp=Z,3.0nm,1.0s,mb4.6,baz=1.6,slow=7.4,SNR=4.9						
INK	Inuvik	91.71	16	P	P	18 55 48.5	+0.1
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
MENT	Mentasta	91.97	22	*e*P	P	18 55 52.1	+2.4
VNDA	Vanda	98.88	168	P	P	18 56 22.9	+1.9
	comp=Z,0.5nm,0.7s,mb4.2						
LAO	LASA Array	117.43	15	PKPdf	PKPdf	19 01 27.8	-2.8
LAO				*e*pPKPdf		19 01 37.6	
HLID	Hailey	117.73	22	PKPdf	PKPdf	19 01 28.9	-2.4
LOHW	Long Hollow	119.00	19	*e*PKPdf	PKPdf	19 01 30.9	-2.9
SNOW	Snow King Moun	119.09	20	PKPdf	PKPdf	19 01 30.4	-3.6
REDW	Red Top Meadow	119.14	20	*e*PKPdf	PKPdf	19 01 31.2	-2.9
PDAR	Pinedale Array	120.10	19	PKP	PKPdf	19 01 31.2	-4.7
	comp=Z,0.3nm,0.4s,baz=84,slow=3.0,SNR=7.1						
NVAR	Mina Array Bea	120.43	28	PKP	PKPdf	19 01 32.0	-4.7
	comp=Z,0.4nm,0.4s,baz=227,slow=17,SNR=2.8						
HWUT	Hardware Ranch	120.46	21	PKPdf	PKPdf	19 01 35.0	-1.8
MNV	Mina	120.50	28	*e*PKPdf	PKPdf	19 01 33.0	-3.9
MVU	Marysvale	122.94	23	*e*PKPdf	PKPdf	19 01 39.3	-2.3
MSU	Marysvale	122.95	23	*e*PKPdf	PKPdf	19 01 40.2	-1.3
PV10	Paradox Valley	124.22	21	*e*PKPdf	PKPdf	19 01 39.5	-4.6
NEN	Nelson	124.28	27	*e*PKPdf	PKPdf	19 01 42.5	-1.8
KSU1	Kansas State U	126.68	9	PKPdf	PKPdf	19 01 43.5	-5.3
ANMO	Albuquerque	128.19	20	*e*PKPdf	PKPdf	19 01 47.6	-4.3
TUC	Tucson	128.89	26	*e*PKPdf	PKPdf	19 01 51.3	-1.9
TUC				*e*pPKPdf		19 02 01.2	
LTX	Lajitas	134.27	20	*e*PKPdf	PKPdf	19 01 59.9	-3.6
TXAR	Lajitas Array	134.27	20	PKP	PKPdf	19 01 57.4	-6.1
	comp=Z,0.6nm,0.7s,slow=2.7,SNR=2.8						
JCT	Junction City	134.36	15	*e*PKPdf	PKPdf	19 02 00.5	-3.1
JCT				*e*pPKPdf		19 02 10.5	
BAO	Brasilia Array	142.19	262	PKP	PKPdf	19 02 10.4	-7.8
BAO				*e*		19 02 22.2	
BAO				*e*		19 02 26.5	
BAO				*e*		19 02 29.1	
BAO				*e*		19 02 39.5	
BAO				*e*		19 02 47.0	
BDFB	Brasilia	142.21	262	PKP	PKPdf	19 02 10.4	-7.8
	comp=Z,1.9nm,0.5s,baz=84,slow=0.9,SNR=3.9						
BDFB				pPKP		19 02 19.9	
	comp=Z,8.9nm,0.8s,baz=58,slow=4.1,SNR=7.3						
BDFB	Brasilia	142.21	262	PKIKP	PKPdf	19 02 10.4	-7.8
BDFB						19 02 19.9	
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.5s						
BDFB				pmax	pmax		
	comp=Z,9.0nm,0.8s						
TEIG	Tepich	146.22	2	*e*PKPbc	PKPbc	19 02 23.2	+1.8
TEIG				*e*pPKPdf		19 02 31.9	
TRQA	Tornquist	147.10	218	*e*PKPbc	PKPdf	19 02 24.8	-1.3
TRQA				*e*pPKPdf		19 02 34.9	
PCRV	Puerto La Cruz	147.44	316	PKPbc	PKPdf	19 02 24.1	-3.1
	comp=Z,16nm,1.0s,baz=153,slow=2.3,SNR=3.0						
PCRV				pPKPbc		19 02 32.7	
	comp=Z,53nm,1.0s,baz=153,slow=0.8,SNR=6.3						
SDV	Santo Domingo	152.22	323	PKPbc	PKPdf	19 02 37.1	+2.4
	comp=Z,6.9nm,0.9s,baz=331,slow=2.8,SNR=7.0						
SDV				pPKPbc		19 02 45.0	
	comp=Z,32nm,0.8s,baz=35,slow=2.0,SNR=21						
SDV	Santo Domingo	152.22	323	*e*PKPbc	PKPdf	19 02 37.4	+2.8
SDV				*e*pPKPdf		19 02 47.1	
LPAZ	La Paz	161.53	260	*e*PKPdf	PKPdf	19 02 43.7	-2.4

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*IDC **26** 18:47:52.6±0.4, 7.76N×94.15E, mb4.7/24, mb1 4.8/25, mb1mx4.8/27, ML5.3/1, Error ellipse: s-maj=20.7km s-min=11.6km az=48.0*

*MOS **26** 18:47:55.7±1.0, 7.71N×94.06E, h33^{km}, mb5.0/23, Error ellipse: s-maj=16.8km s-min=8.2km az=115.2*

*BJI **26** 18:47:58.3, 7.66N×93.58E, h59^{km}, mB5.5, mb4.9, Ms5.1, Msz5.0*

*NEIC **26** 18:47:59.5±1.5, 7.74N×94.08E, h47^{km}±13^{km}, mb4.7/26, Error ellipse: s-maj=10.2km s-min=7.3km az=49.0*

ISC 26 18:47:57.3±2.8**, 7.68N**±0.07×**94.04E**±0.07**, h45**^{km}±24^{km}**, n121, σ1**$\overset{s}{.}$**00**/105**, mb4.8**/54**, 4C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.73	24	*e*P	P	18 50 41.9	-2.9
	33nm,0.5s						
CMAR	Chiang Mai Arr	11.73	24	Pn	P	18 50 45.4	+0.5
	5.5nm,0.3s,baz=211,slow=14,SNR=53						
CMAR	Chiang Mai Arr	11.73	24	P	P	18 50 45.4	+0.6
CMAR				pmax	pmax		
	comp=Z,6.0nm,0.3s						
KMI	Kunming	19.24	25	P	P	18 52 23.0	+2.3
KMI				AMB	AMB		
	comp=Z,36nm,1.4s						
LSA	Lhasa	22.07	353	*e*P	P	18 52 49.7	-0.3
	comp=Z,85nm,0.6s,mb5.3						
GYA	Guiyang	22.20	31	P	P	18 52 53.3	+2.0
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
GTA	Gaotai	32.02	8	P	P	18 54 22.0	+0.2
GTA				PCP	PcP	18 57 11.8	+0.9
GTA				AMB	AMB		
	comp=Z,22nm,1.0s,mb4.9						
NJ2	Nanjing	33.48	40	*e*P	P	18 54 41.0	+6.4
WMQ	Urumqi	36.43	352	P	P	18 55 00.5	+0.9
HHC	Hu-ho-hao-te	36.54	23	*e*P	P	18 55 01.8	+1.3
HHC				PP	PP	18 56 29.8	+4.2
HHC				S	S	19 00 49.5	+10
HHC				XS		19 01 02.8	
HHC				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.1						
HHC				AMB	AMB		
	comp=Z,854nm,7.2s						
BJT	Baijiatuau	37.80	28	*e*P	P	18 55 13.2	+2.0
	comp=Z,16nm,1.0s,mb4.7						
BJI	Beijing	37.83	28	P	P	18 55 13.0	+1.7
BJI				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.8						
AAK	Ala-Archa	38.84	337	*e*P	P	18 55 19.3	-0.5
	comp=Z,5.6nm,0.7s,mb4.4						
SONM	Songino Array	41.38	13	P	P	18 55 41.0	+0.4
	comp=Z,9.7nm,0.8s,mb4.5,baz=194,slow=9.2,SNR=16						
SONM				PcP	PcP	18 57 39.4	+0.5
	comp=Z,4.6nm,0.6s,baz=200,slow=3.6,SNR=15						
ULN	Ulaanbaatar	41.55	13	*e*P	P	18 55 42.2	0.0
	comp=Z,8.7nm,0.8s,mb4.4						
ZAK	Zakamensk	43.26	9	*e*P	P	18 55 55.9	-0.2
ZAK				*e*		18 57 45.5	
NWAO	Narrogin (SRO)	46.02	153	P	P	18 56 18.2	-0.3
	comp=Z,9.8nm,0.7s,mb4.9,baz=333,slow=8.6,SNR=5.8						
NWAO	Narrogin (SRO)	46.02	153	P	P	18 56 18.2	-0.3
NWAO				pmax	pmax		
	comp=Z,10.0nm,0.7s						
NWAO	Narrogin (SRO)	46.02	153	P	P	18 56 18.2	-0.3
ZAL	Zalesovo	46.73	353	P	P	18 56 23.5	-0.2
	comp=Z,14nm,0.4s,mb5.2,baz=308,slow=6.6,SNR=32						
ZAL	Zalesovo	46.73	353	P	P	18 56 23.5	-0.2
ZAL				pmax	pmax		
	comp=Z,14nm,0.4s						
HIA	Hailar	46.74	23	*e*P	P	18 56 24.4	+0.6
	comp=Z,12nm,0.6s,mb5.0						
NVS	Novosibirsk	47.82	352	*e*P	P	18 56 30.6	-1.7
NVS				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=N,29nm,1.2s						
WRA	Warramunga Arr	48.23	125	P	P	18 56 34.1	-1.9
	comp=N,2.7nm,0.4s,mb4.6,baz=304,slow=9.0,SNR=17						
WRA				PcP	PcP	18 58 02.1	-0.9
	comp=N,2.1nm,0.6s,baz=313,slow=2.7,SNR=6.1						
WRA	Warramunga Arr	48.23	125	P	P	18 56 34.1	-1.9
WRA						18 58 02.1	
WRA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
BVAR	Borovoye Array	49.14	341	P	P	18 56 41.7	-0.8
	comp=Z,1.3nm,0.6s,mb4.2,baz=142,slow=9.6,SNR=6.5						
BVAR				PcP	PcP	18 58 06.0	+0.3
	comp=Z,4.7nm,0.6s,baz=197,slow=3.2,SNR=12						
ASAR	Alice Springs	49.87	130	P	P	18 56 46.7	-1.9
	comp=Z,2.9nm,0.8s,mb4.4,baz=302,slow=7.6,SNR=7.7						
ASAR				PcP	PcP	18 58 08.6	-0.2
	comp=Z,3.8nm,0.6s,baz=309,slow=3.4,SNR=8.9						
BOD	Bodaibo	52.36	13	*e*P	P	18 57 05.6	-1.3
GNI	Garni	54.50	314	P	P	18 57 22.7	-0.3
	comp=Z,3.4nm,0.4s,mb4.6,baz=4.1,slow=2.8,SNR=4.2						
GNI	Garni	54.50	314	P	P	18 57 22.7	-0.3
GNI				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ARU	Arti	56.03	337	*e*P	P	18 57 31.8	-2.0
ARU	Arti	56.03	337	*e*P	P	18 57 32.9	-0.9
	comp=Z,5.2nm,2.0s,mb4.2						
KMBO	Kilima Mbogo	57.30	264	P	P	18 57 45.9	+2.4
	comp=Z,12nm,1.1s,mb4.8,baz=55,slow=11,SNR=12						
KMBO	Kilima Mbogo	57.30	264	P	P	18 57 45.9	+2.4
KMBO				pmax	pmax		
	comp=Z,12nm,1.1s						
KIV	Kislovodsk	57.39	318	*e*P	P	18 57 42.4	-1.3
KIV				pmax	pmax		
	comp=N,6.0nm,1.0s						
KIV				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
KIV	Kislovodsk	57.39	318	*e*P	P	18 57 42.4	-1.3
	comp=Z,13nm,0.8s,mb5.0						
ASF	Jabal al Asfar	58.24	303	P	P	18 57 50.4	+0.6
	comp=Z,4.5nm,0.8s,mb4.6,baz=21,slow=8.6,SNR=6.2						
CTA	Charters Tower	58.30	119	P	P	18 57 50.1	-0.3
	comp=Z,3.0nm,0.7s,mb4.5,baz=297,slow=4.5,SNR=3.4						
CTA	Charters Tower	58.30	119	P	P	18 57 50.1	-0.3
CTA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MALT	Malatya	58.51	310	*e*P	P	18 57 50.7	-0.9
	comp=Z,2.4nm,0.6s,mb4.4						
STKA	Stephens Creek	60.05	134	P	P	18 58 01.3	-1.0
	comp=Z,2.7nm,0.7s,mb4.4,baz=17,slow=14,SNR=4.0						
BRTR	Keskin Array B	62.48	311	P	P	18 58 16.7	-1.9
	comp=Z,5.3nm,0.5s,mb4.9,baz=131,slow=7.1,SNR=17						
BRTR	Keskin Array B	62.48	311	P	P	18 58 16.7	-1.9
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.5s						
MBAR	Mbarara	63.64	266	*e*P	P	18 58 27.9	+1.1
	comp=Z,5.6nm,1.0s,mb4.5						
OBN	Obninsk	65.49	328	⇓*i*P	P	18 58 36.8	-1.2
OBN				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.4						
AKASG	Malin Array Be	68.24	322	P	P	18 58 53.4	-2.0
	comp=Z,2.0nm,0.5s,mb4.4,baz=88,slow=5.2,SNR=18						
AKASG	Malin Array Be	68.24	322	P	P	18 58 53.4	-2.0
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
IDI	Anoyia	68.59	305	P	P	18 58 58.1	+0.2
	comp=Z,16nm,0.6s,mb5.2,baz=80,slow=8.6,SNR=17						
LSZ	Lusaka	69.11	250	*e*P	P	18 59 02.6	+1.3
	comp=Z,5.9nm,0.9s,mb4.5						
KOLS	Kolonicke sedl	72.28	319	*e*P	P	18 59 15.4	-4.5
CRVS	Cervenica-Dubn	72.81	319	*e*P	P	18 59 23.4	+0.3
FINES	FINESS Array B	72.83	332	P	P	18 59 22.6	-0.4
	comp=Z,15nm,0.6s,mb5.1,baz=96,slow=6.2,SNR=86						
FINES	FINESS Array B	72.83	332	P	P	18 59 22.6	-0.4
FINES				pmax	pmax		
	comp=Z,15nm,0.6s						
KAF	Kangasniemi	72.92	333	*e*p	P	18 59 23.1	-0.4
	comp=Z,12nm,0.5s,mb5.1						
KAF	Kangasniemi	72.92	333	*e*P	P	18 59 23.1	-0.4
KAF				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.1						
OJC	Ojcow	74.06	320	*e*P	P	18 59 30.0	-0.4
LBTB	Lobatse	74.06	241	*e*P	P	18 59 32.3	+1.4
	comp=Z,11nm,0.9s,mb4.8						
VYHS	Vyhne	74.48	318	*e*P	P	18 59 31.0	-1.9
KEV	Kevo	74.98	341	*e*p	P	18 59 35.3	0.0
	comp=Z,6.2nm,0.5s,mb4.8						
KEV	Kevo	74.98	341	*e*P	P	18 59 35.3	0.0
KEV				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
OKC	Ostrava-Krasne	75.07	319	*e*P	P	18 59 35.6	-0.6
BOSA	Boshof	75.39	238	*e*P	P	18 59 39.9	+1.3
	comp=Z,6.1nm,0.7s,mb4.6						
ARCES	ARCESS Array B	75.41	340	P	P	18 59 38.1	+0.3
	comp=Z,5.4nm,0.6s,mb4.7,baz=89,slow=6.7,SNR=35						
ARCES	ARCESS Array B	75.41	340	P	P	18 59 38.1	+0.3
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
MORC	Moravsky Berou	75.46	319	*e*P	P	18 59 38.1	-0.3
	comp=Z,14nm,1.1s,mb4.8						
ZST	Bratislava	75.61	318	*e*P	P	18 59 38.5	-0.8
DPC	Dobruska-Polom	76.29	320	*e*P	P	18 59 43.7	+0.6
BILL	Bilibino	76.31	22	*e*P	P	18 59 42.1	-0.8
	comp=Z,7.9nm,0.8s,mb4.7						
KSP	Ksiaz	76.35	320	*e*P	P	18 59 43.7	+0.2
UPC	Upice	76.50	320	*e*P	P	18 59 44.6	+0.3
FX1	Attu Island--F	77.36	38	P	P	18 59 49.1	0.0
	comp=Z,11nm,0.6s,mb5.0,baz=110,slow=22,SNR=5.3						
FX1	Attu Island--F	77.36	38	P	P	18 59 49.1	0.0
FX1				pmax	pmax		
	comp=Z,11nm,0.6s						
PRU	Pruhonice	77.41	319	*e*P	P	18 59 49.8	+0.4
BRG	Berggiesshubel	77.84	320	*e*P	P	18 59 52.4	+0.6
BRG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BRG	Berggiesshubel	77.84	320	*e*P	P	18 59 52.4	+0.6
	comp=Z,6.8nm,0.9s,mb4.6						
GERES	GERESS Array B	77.90	318	P	P	18 59 52.5	+0.3
	comp=Z,7.1nm,0.8s,mb4.7,baz=83,slow=6.4,SNR=36						
GERES	GERESS Array B	77.90	318	P	P	18 59 52.5	+0.3
GERES				pmax	pmax		
	comp=Z,7.0nm,0.8s						
KHC	Kasperske Hory	78.00	319	*e*P	P	18 59 52.6	-0.1
CLL	Collm	78.45	321	*e*P	P	18 59 55.0	-0.1
CLL	Collm	78.45	321	P	P	18 59 55.0	-0.1
WTTA	Wattenberg	79.25	317	⇑*i*P	P	18 59 59.2	-0.4
	comp=Z,9.9nm,0.6s,mb4.9						
WATA	Walderalm	79.30	317	⇑*i*P	P	18 59 59.3	-0.6
	comp=Z,4.4nm,0.5s,mb4.6						
MOX	Moxa	79.31	320	*i* P	P	19 00 00.2	+0.4
MOX	Moxa	79.31	320	*e*P	P	19 00 00.2	+0.4
SQTA	Sankt Quirin	79.55	317	⇓*i*P	P	19 00 00.8	-0.4
	comp=Z,6.0nm,0.5s,mb4.8						
GRA1	Grafenberg Arr	79.55	319	*e*P	P	19 00 02.1	+0.9
	comp=Z,6.0nm,0.8s,mb4.6						
GRF	Grafenberg Arr	79.55	319	*e*P	P	19 00 02.1	+0.9
GRF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
GRF	Grafenberg Arr	79.55	319	*e*P	P	19 00 02.1	+0.9
	comp=Z,6.0nm,0.8s,mb4.6						
MOTA	Moosalm	79.62	317	⇑*i*P	P	19 00 01.2	-0.4
	comp=Z,12nm,1.1s,mb4.7						
NB2	NORSAR Subarra	79.85	331	P	P	19 00 01.9	-0.7
	comp=Z,7.7nm,0.6s,mb4.8,baz=97,slow=5.0						
NOA	NORSAR Array B	79.85	331	P	P	19 00 02.3	-0.2
	comp=Z,6.5nm,0.7s,mb4.7,baz=95,slow=5.2,SNR=20						
NOA	NORSAR Array B	79.85	331	P	P	19 00 02.3	-0.3
NOA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
DAVA	Damuels	80.45	317	⇑*i*P	P	19 00 06.4	+0.4
	comp=Z,7.8nm,0.7s,mb4.8						
DAVOX	Davos	80.46	316	P	P	19 00 06.7	+0.6
	comp=Z,12nm,0.6s,mb5.0,baz=121,slow=6.9,SNR=18						
LPL	La Plagne	82.69	315	⇓*i*P	P	19 00 18.4	+0.7
	comp=Z,31nm,0.8s,mb5.1						
ESDC	Sonseca Array	91.27	310	P	P	19 01 00.8	+1.2
	comp=Z,2.5nm,0.6s,mb4.8,baz=64,slow=4.2,SNR=16						
IMA	Indian Mountai	91.84	22	*e*P	P	19 01 03.0	+1.4
	comp=Z,35nm,0.6s						
VNDA	Vanda	92.76	168	P	P	19 01 06.5	+0.9
	comp=Z,2.9nm,1.1s,mb4.6,baz=44,slow=5.5,SNR=4.6						
VNDA	Vanda	92.76	168	P	P	19 01 06.6	+1.0
VNDA				pmax	pmax		
	comp=Z,3.0nm,1.1s						
SPU	Mount Spurr	94.50	26	*e*P	P	19 01 14.4	+0.6
ILAR	Eielson Array	94.96	22	P	P	19 01 15.8	0.0
	comp=Z,1.2nm,0.7s,mb4.4,baz=298,slow=4.3,SNR=20						
ILAR	Eielson Array	94.96	22	P	P	19 01 15.9	+0.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	Inuvik	97.21	16	P	P	19 01 25.0	-1.0
	comp=Z,1.8nm,0.5s,mb4.8,baz=299,slow=4.0,SNR=9.0						
INK	Inuvik	97.21	16	P	P	19 01 25.0	-1.0
INK				pmax	pmax		
	comp=Z,2.0nm,0.5s						
ULM	Lac du Bonnet	121.67	7	PKP	PKPdf	19 06 49.4	+2.9
	comp=Z,2.9nm,0.5s,baz=337,slow=3.6,SNR=6.0						
YFT	Old Faithful	123.46	21	*e*P	PKPdf	19 06 53.5	+3.4
NVAR	Mina Array Bea	125.14	31	PKP	PKPdf	19 06 57.0	+3.5
	comp=Z,2.1nm,0.6s,baz=285,slow=2.5,SNR=8.7						
PDAR	Pinedale Array	125.39	21	PKP	PKPdf	19 06 55.7	+1.9
	comp=Z,2.6nm,0.7s,baz=44,slow=0.5,SNR=16						
ANMO	Albuquerque	133.39	23	PKP	PKPdf	19 07 12.2	+2.8
	comp=Z,2.1nm,0.8s,baz=45,slow=1.6,SNR=5.7						
TXAR	Lajitas Array	139.44	24	PKhKP		19 07 16.4	
	comp=Z,0.3nm,0.4s,baz=345,slow=0.8,SNR=8.6						
TXAR				PKP	PKPdf	19 07 23.2	+2.7
	comp=Z,1.3nm,0.6s,baz=203,slow=0.7,SNR=9.6						
JCT	Junction City	139.80	19	*e*PKPdf	PKPdf	19 07 23.6	+2.4
BDFB	Brasilia	142.05	254	PKP	PKPdf	19 07 28.8	+3.2
	comp=Z,3.7nm,0.5s,baz=90,slow=6.0,SNR=4.3						
BDFB	Brasilia	142.05	254	PKIKP	PKPdf	19 07 28.8	+3.2
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.5s						
SJG	San Juan	147.76	323	PKPbc	PKPdf	19 07 39.6	+4.3
	comp=Z,16nm,0.6s,baz=84,slow=4.7,SNR=6.8						
SJG	San Juan	147.76	323	PKP2	PKPab	19 07 39.6	-3.1
SJG				pmax	pmax		
	comp=Z,16nm,0.6s						
SJG	San Juan	147.76	323	*e*PKPbc	PKPdf	19 07 40.0	+4.7
PCRV	Puerto La Cruz	152.33	310	PKPbc	PKPdf	19 07 50.1	+7.6
	comp=Z,17nm,0.5s,baz=222,slow=1.6,SNR=12						
SDV	Santo Domingo	157.55	317	PKPab	PKPab	19 08 24.6	+0.6
	comp=Z,3.6nm,0.9s,baz=326,slow=9.2,SNR=4.1						
LVC	Limon Verde	157.87	226	PKPab	PKPab	19 08 26.4	+1.3
	comp=Z,3.9nm,0.7s,baz=99,slow=5.3,SNR=4.9						
LPAZ	La Paz	160.59	242	PKPab	PKPab	19 08 37.6	+0.7
	comp=Z,0.9nm,0.6s,baz=110,slow=13,SNR=2.6						
LPAZ	La Paz	160.59	242	PKP2	PKPab	19 08 37.6	+0.7
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.6s						

IDC 26 18:51:00.9±1.5**, 7.18N**×**94.15E, mb4.1**/6**, mb1 4.3**/6**, mb1mx4.0**/18**, Error ellipse: s-maj=55.3km s-min=27.0km az=51.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	41.83	12	P	P	18 58 52.6	-1.5
	1.3nm,0.8s,baz=199,slow=7.9,SNR=3.1						
ZAL	Zalesovo	47.23	352	P	P	18 59 35.5	-2.0
	3.9nm,0.6s,baz=285,slow=8.9,SNR=9.9						
WRA	Warramunga Arr	47.86	125	P	P	18 59 40.8	-2.0
	4.8nm,1.1s,baz=305,slow=8.6,SNR=7.1						
BVAR	Borovoye Array	49.64	341	P	P	18 59 54.0	-2.2
	4.3nm,1.1s,baz=158,slow=8.0,SNR=4.1						
BRTR	Keskin Array B	62.88	311	P	P	19 01 29.2	-2.0
	0.6nm,0.5s,baz=117,slow=6.8,SNR=3.5						
FINES	FINESS Array B	73.32	332	P	P	19 02 34.2	-1.8
	1.9nm,0.6s,baz=101,slow=9.7,SNR=4.0						

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*IDC **26** 18:55:15.3±1.4, 12.04N×92.20E, mb4.0/8, mb1 4.2/9, mb1mx3.9/19, ML3.6/1, Error ellipse: s-maj=74.1km s-min=18.2km az=59.0*

ISC 26 18:55:19.6±0.9**, 12.5N**±0.1×**92.9E**±0.2**, h33**^{km}**, n10, σ0**$\overset{s}{.}$**99**/9**, mb4.0**/8**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.37	44	Pn	P	18 57 21.2	-0.2
	0.2nm,0.3s,baz=231,slow=14,SNR=6.7						
SONM	Songino Array	37.05	15	P	P	19 02 32.6	+4.3
	1.0nm,0.9s,mb3.6,baz=197,slow=7.4,SNR=4.1						
ZAL	Zalesovo	41.87	353	P	P	19 03 09.2	+0.9
	0.7nm,0.8s,mb3.4,baz=274,slow=15,SNR=2.8						
BVAR	Borovoye Array	44.28	341	P	P	19 03 26.1	-1.7
	0.6nm,0.7s,mb3.5,baz=143,slow=7.2,SNR=3.1						
WRA	Warramunga Arr	51.99	128	P	P	19 04 29.4	+1.2
	2.3nm,0.6s,mb4.3,baz=303,slow=9.1,SNR=8.5						
ASAR	Alice Springs	53.85	132	P	P	19 04 40.6	-1.4
	2.9nm,0.7s,mb4.3,baz=307,slow=7.1,SNR=7.8						
STKA	Stephens Creek	64.18	135	P	P	19 05 53.6	+0.1
	1.2nm,0.5s,mb4.2,baz=320,slow=9.9,SNR=2.8						
FINES	FINESS Array B	68.11	332	P	P	19 06 18.0	0.0
	0.7nm,0.6s,mb3.9,baz=90,slow=2.8,SNR=3.1						
ARCES	ARCESS Array B	70.56	340	P	P	19 06 33.7	+0.8
	10nm,1.3s,mb4.6,baz=90,slow=6.1,SNR=3.7						
TXAR	Lajitas Array	135.50	21	PKP	PKPdf	19 14 39.2	+2.0
	0.2nm,0.4s,baz=27,slow=2.0,SNR=3.4						

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*NEIC **26** 18:55:46.1±0.3, 11.98N×91.97E, h30^{km}, mb4.9/15, Error ellipse: s-maj=11.7km s-min=6.6km az=56.0*

*BJI **26** 18:55:46.6, 11.79N×91.52E, h49^{km}, mB5.5, mb4.7*

*IDC **26** 18:55:49.0±5.4, 11.89N×91.81E, h56^{km}±47^{km}, mb4.2/16, mb1 4.4/17, mb1mx4.3/22, ML4.1/1, Error ellipse: s-maj=36.0km s-min=12.1km az=47.0*

ISC 26 18:55:44.0±0.4**, 11.85N**±0.07×**91.85E**±0.08**, h30**^{km}**, n54, σ1**$\overset{s}{.}$**13**/47**, mb4.6**/34**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	9.49	45	P	P	18 58 04.9	+3.1
	0.6nm,0.3s,baz=238,slow=15,SNR=4.8						
KMI	Kunming	16.75	36	P	P	18 59 43.5	+5.3
KMI				AMB	AMB		
	comp=Z,23nm,1.3s						
LSA	Lhasa	17.78	358	*e*P	P	18 59 51.6	+0.6
	comp=Z,64nm,1.3s						
GYA	Guiyang	20.15	42	⇑*i*P	P	19 00 17.8	-0.9
GYA				AMB	AMB		
	comp=Z,20nm,1.2s						
CD2	Chengdu	21.94	28	P	P	19 00 39.8	+2.9
CD2				AMB	AMB		
	comp=Z,40nm,0.5s,mb5.1						
DDI	Dehra Dun	22.40	327	*e*	P	19 00 41.8	+0.3
SDNR	Sundarnagar	23.90	327	*e*	P	19 00 57.5	+1.3
ENH	Enshi	24.57	39	*e*P	P	19 01 00.7	-2.0
	comp=Z,48nm,0.9s,mb5.0						
LZH	Lanzhou	26.46	22	*e*P	P	19 01 20.8	+0.5
LZH				AMB	AMB		
	comp=Z,29nm,1.6s,mb4.6						
GTA	Gaotai	28.35	13	P	P	19 01 37.8	+0.3
GTA				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.4						
WMQ	Urumqi	32.06	354	P	P	19 02 10.0	-0.4
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.3						
HHC	Hu-ho-hao-te	33.69	27	*e*P	P	19 02 27.0	+2.4
HHC				AP	pP	19 02 36.0	+2.5
HHC				XP	sP	19 02 44.0	+6.6
HHC				AMB	AMB		
	comp=Z,14nm,0.5s,mb5.2						
HHC				AMB	AMB		
	comp=Z,743nm,9.0s						
AAK	Ala-Archa	34.19	337	*e*P	P	19 02 27.3	-1.6
	comp=Z,14nm,1.4s,mb4.7						
BJI	Beijing	35.36	33	P	P	19 02 44.5	+5.6
BJI				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.0						
SONM	Songino Array	37.89	16	P	P	19 03 00.6	+0.4
	comp=Z,4.5nm,0.7s,mb4.3,baz=205,slow=6.8,SNR=14						
ZAL	Zalesovo	42.36	354	P	P	19 03 36.3	-0.7
	comp=Z,2.6nm,0.8s,mb3.9,baz=292,slow=10.0,SNR=6.3						
MBWA	Marble Bar	42.73	140	*e*P	P	19 03 39.8	-0.8
	comp=Z,23nm,0.9s,mb4.9						
CN2	Changchun	43.02	36	*e*P	P	19 03 44.0	+1.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
BVAR	Borovoye Array	44.53	342	P	P	19 03 53.8	-0.9
	comp=Z,5.1nm,0.9s,mb4.3,baz=153,slow=6.6,SNR=9.6						
BRVK	Borovoye	44.59	342	*e*P	P	19 03 54.6	-0.6
	comp=Z,9.6nm,1.1s,mb4.5						
CHKZ	Chkalovo	45.02	342	*e*P	P	19 03 58.0	-0.6
	comp=Z,20nm,1.0s,mb4.9						
GNI	Garni	50.08	313	P	P	19 04 39.2	+1.0
	comp=Z,3.4nm,0.5s,mb4.6,baz=110,slow=7.3,SNR=9.2						
ARU	Arti	51.37	337	*e*P	P	19 04 46.7	-1.2
	comp=Z,9.6nm,1.0s,mb4.7						
WRA	Warramunga Arr	52.41	127	P	P	19 04 55.9	-0.4
	comp=Z,25nm,0.6s,mb5.3,baz=307,slow=8.1,SNR=68						
WRAB	Tennant Creek	52.42	127	*e*P	P	19 04 55.7	-0.5
	comp=Z,38nm,0.5s						
KIV	Kislovodsk	52.88	317	*e*P	P	19 04 59.8	+0.4
	comp=Z,32nm,1.2s,mb5.1						
ASAR	Alice Springs	54.19	131	P	P	19 05 09.1	-0.2
	comp=Z,8.1nm,0.7s,mb4.8,baz=307,slow=6.7,SNR=22						
ASAR				PcP	PcP	19 06 14.2	+0.8
	comp=Z,2.6nm,0.7s,baz=325,slow=3.4,SNR=5.5						
YAK	Yakutsk	57.02	20	*e*P	P	19 05 27.2	-2.0
	comp=Z,16nm,0.8s,mb5.1						
BRTR	Keskin Array B	58.16	309	P	P	19 05 36.0	-1.5

	comp=Z,3.2nm,0.8s,mb4.4,baz=121,slow=7.2,SNR=13						
CTA	**Charters Tower**	**62.23**	**120**	P	**P**	**19 06 05.8**	**+0.2**
	comp=Z,21nm,1.1s,mb5.2,baz=293,slow=6.7,SNR=7.6						
CTA	**Charters Tower**	**62.23**	**120**	P	**P**	**19 06 05.8**	**+0.1**
CTAO	**Charters Tower**	**62.23**	**120**	*e*P	**P**	**19 06 05.8**	**+0.1**
	comp=Z,17nm,1.1s,mb5.1						
AKASG	**Malin Array Be**	**63.66**	**321**	P	**P**	**19 06 13.1**	**-1.6**
	comp=Z,2.3nm,0.7s,mb4.3,baz=88,slow=4.8,SNR=9.9						
STKA	**Stephens Creek**	**64.47**	**134**	P	**P**	**19 06 20.2**	**-0.1**
	comp=Z,4.7nm,0.9s,mb4.5,baz=268,slow=4.7,SNR=5.7						
STKA	**Stephens Creek**	**64.47**	**134**	*e*P	**P**	**19 06 19.9**	**-0.4**
MLR	**Muntele Rosu**	**64.78**	**315**	P	**P**	**19 06 22.6**	**+0.5**
	comp=Z,11nm,1.0s,mb4.8,baz=118,slow=5.0,SNR=8.1						
FINES	**FINESS Array B**	**68.17**	**332**	P	**P**	**19 06 42.5**	**-0.8**
	comp=Z,5.4nm,0.8s,mb4.6,baz=100,slow=7.6,SNR=9.7						
BILL	**Bilibino**	**73.27**	**22**	*e*P	**P**	**19 07 14.4**	**+0.4**
BRG	**Berggiesshubel**	**73.28**	**320**	*e*P	**P**	**19 07 15.0**	**+0.6**
	comp=Z,7.8nm,1.2s,mb4.5						
GERES	**GERESS Array B**	**73.38**	**318**	P	**P**	**19 07 15.1**	**+0.1**
	comp=Z,2.5nm,0.9s,mb4.1,baz=90,slow=4.0,SNR=7.5						
CLL	**Collm**	**73.88**	**320**	P	pP	19 07 24.0	-3.3
CLL	**Collm**	**73.88**	**320**	*e**PP	pP	19 07 24.0	-3.3
LBTB	**Lobatse**	**74.22**	**240**	*e*P	**P**	**19 07 22.8**	**+2.4**
	comp=Z,4.4nm,0.8s,mb4.4						
NB2	**NORSAR Subarra**	**75.18**	**330**	P	**P**	**19 07 24.3**	**-0.9**
	comp=Z,4.1nm,0.9s,mb4.4,baz=92,slow=5.6						
NOA	**NORSAR Array B**	**75.18**	**330**	P	**P**	**19 07 24.9**	**-0.3**
	comp=Z,5.2nm,1.1s,mb4.4,baz=92,slow=6.0,SNR=4.5						
BOSA	**Boshof**	**75.83**	**236**	*e*P	**P**	**19 07 31.9**	**+2.3**
LPL	**La Plagne**	**78.25**	**314**	*e*P	**P**	**19 07 48.0**	**+5.4**
	comp=Z,44nm,1.2s,mb5.0						
ESDC	**Sonseca Array**	**86.95**	**310**	P	**P**	**19 08 28.3**	**+0.5**
	comp=Z,0.9nm,0.8s,mb4.1,baz=48,slow=5.1,SNR=3.6						
ILAR	**Eielson Array**	**91.92**	**22**	P	**P**	**19 08 50.5**	**0.0**
	comp=Z,0.8nm,0.8s,mb4.1,baz=298,slow=3.9,SNR=11						
ILAR				PP	PP	19 12 34.6	+2.1
	comp=Z,0.6nm,1.0s,baz=294,slow=6.7,SNR=3.8						
NVAR	**Mina Array Bea**	**122.59**	**28**	PKP	PKPdf	19 14 40.0	-2.2
	comp=Z,0.7nm,0.5s,baz=288,slow=2.9,SNR=2.9						
TXAR	**Lajitas Array**	**136.41**	**20**	PKP	PKPdf	19 15 06.6	-2.1
	comp=Z,0.5nm,0.8s,baz=270,slow=1.3,SNR=3.5						
TXAR	**Lajitas Array**	**136.41**	**20**	PKP	PKPdf	19 15 06.6	-2.2
PCRV	**Puerto La Cruz**	**147.99**	**312**	PKPbc	PKPdf	19 15 29.2	-0.3
	comp=Z,18nm,0.7s,baz=48,slow=2.3,SNR=5.6						
SDV	**Santo Domingo**	**153.03**	**319**	PKPbc	PKPdf	19 15 41.8	+4.7
	comp=Z,2.3nm,0.8s,baz=317,slow=14,SNR=3.3						

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*IDC **26** 18:57:06.7±2.8, 5.71N×93.23E, h34^{km}±6^{km}, mb4.2/9, mb1 4.3/9, mb1mx4.0/20, Error ellipse: s-maj=71.9km s-min=51.7km az=135.0*

ISC 26 18:57:05.2±5.8**, 5.8N**±0.8×**93.3E**±0.7**, h35^{km}, h35^{km}**±1.4^{km}**:pP-P, n12, σ0^s.49**/10**, mb4.3**/10**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.38**	**13**	P	**P**	**19 05 06.3**	**+0.1**
	1.2nm,0.8s,mb3.7,baz=203,slow=6.4,SNR=2.5						
ZAL	**Zalesovo**	**48.50**	**353**	P	**P**	**19 05 47.2**	**+0.6**
	2.2nm,0.4s,mb4.6,baz=301,slow=6.9,SNR=6.5						
BVAR	**Borovoye Array**	**50.69**	**342**	P	**P**	**19 06 03.4**	**-0.1**
	2.9nm,0.7s,mb4.3,baz=143,slow=7.4,SNR=5.6						
MLR	**Muntele Rosu**	**70.06**	**316**	P	**P**	**19 08 15.7**	**-0.1**
	4.4nm,0.9s,mb4.4,baz=162,slow=13,SNR=2.9						
FINES	**FINESS Array B**	**74.15**	**333**	P	**P**	**19 08 39.0**	**-0.7**
	3.3nm,0.8s,mb4.3,baz=98,slow=5.4,SNR=8.1						
FINES				pP	pP	19 08 50.2	-0.2
	1.2nm,0.5s,baz=90,slow=5.7,SNR=1.9						
KAF	**Kangasniemi**	**74.25**	**333**	*e*p	**P**	**19 08 39.9**	**-0.4**
	1.6nm,0.4s,mb4.3						
ARCES	**ARCESS Array B**	**76.93**	**340**	P	**P**	**19 08 55.1**	**-0.5**
	12nm,1.3s,mb4.7,baz=99,slow=7.3,SNR=6.1						
GERES	**GERESS Array B**	**78.80**	**319**	P	**P**	**19 09 06.7**	**+0.4**
	4.0nm,1.0s,mb4.3,baz=92,slow=5.8,SNR=8.3						
GERES				pP	pP	19 09 17.7	+0.7
	1.5nm,0.8s,baz=112,slow=4.3,SNR=4.7						
NOA	**NORSAR Array B**	**81.12**	**331**	P	**P**	**19 09 18.2**	**-0.2**
	0.6nm,0.8s,mb3.6,baz=102,slow=5.1,SNR=2.8						
DAVOX	**Davos**	**81.29**	**316**	P	**P**	**19 09 20.6**	**+0.9**
	4.6nm,0.6s,mb4.6,baz=133,slow=6.9,SNR=8.6						
DAVOX				pP	pP	19 09 30.6	+0.2
	1.8nm,0.5s,baz=132,slow=13,SNR=2.7						
PDAR	**Pinedale Array**	**127.42**	**21**	PKP	PKPdf	19 16 08.7	+1.7
	0.3nm,0.6s,baz=180,slow=0.9,SNR=2.6						
TXAR	**Lajitas Array**	**141.48**	**24**	PKP	PKPdf	19 16 35.1	+1.5
	0.3nm,0.6s,baz=180,slow=0.9,SNR=3.1						

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*BJI **26** 18:59:19.0, 4.91N×94.72E, h31^{km}, mB5.6, mb4.9*

*NEIC **26** 18:59:22.8±0.5, 4.83N×94.57E, mb4.6/8, Error ellipse: s-maj=16.0km s-min=12.1km az=59.0*

*IDC **26** 18:59:23.1±0.7, 5.01N×94.69E, h43^{km}±4^{km}, mb4.3/16, mb1 4.4/17, mb1mx4.3/23, ML4.3/1, Error ellipse: s-maj=26.9km s-min=12.5km az=42.0*

ISC 26 18:59:21.5±0.5**, 4.93N**±0.09×**94.73E**±0.08**, h45^{km}, h45^{km}**±2.2^{km}**:pP-P, n53, σ1^s.10**/50**, mb4.6**/28**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**14.06**	**17**	*e*P	**P**	**19 02 43.6**	**+3.5**
	20nm,0.8s						
CMAR	**Chiang Mai Arr**	**14.06**	**17**	P	**P**	**19 02 42.4**	**+2.3**
	0.5nm,0.3s,baz=210,slow=12,SNR=14						
GYA	**Guiyang**	**24.25**	**27**	⇑*i*P	**P**	**19 04 36.5**	**+0.8**
GYA				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.0						
TGY	**Tagaytay City**	**27.37**	**69**	P	**P**	**19 05 04.9**	**-0.1**
	comp=Z,53nm,0.5s,mb5.3,baz=243,slow=9.3,SNR=3.6						
ENH	**Enshi**	**28.79**	**27**	*e*P	**P**	**19 05 13.8**	**-3.8**
XAN	**Xi'an**	**31.82**	**23**	P	**P**	**19 05 41.0**	**-3.4**
XAN				AP	pP	19 05 54.0	-2.4
XAN				AMB	AMB		
	comp=Z,28nm,1.1s,mb5.0						
LZH	**Lanzhou**	**32.12**	**14**	*e*P	**P**	**19 05 45.3**	**-1.7**
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.8						
GTA	**Gaotai**	**34.63**	**7**	P	**P**	**19 06 06.5**	**-2.1**
GTA				AP	pP	19 06 19.8	-0.9
GTA				XP	sP	19 06 25.0	-1.4
GTA				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.9						
JOW	**Kunigami**	**38.70**	**52**	P	**P**	**19 06 43.6**	**+0.6**
	comp=Z,12nm,0.7s,mb4.8,baz=288,slow=20,SNR=3.4						
HHC	**Hu-ho-hao-te**	**38.82**	**21**	*e*P	**P**	**19 06 44.3**	**+0.4**
HHC				AP	pP	19 06 50.8	-5.3
HHC				XP	sP	19 06 56.5	-5.1
HHC				AMB	AMB		
	comp=Z,14nm,0.7s,mb4.8						
HHC				AMB	AMB		
	comp=Z,792nm,8.3s						
BJT	**Baijiatuau**	**39.92**	**26**	*e*P	**P**	**19 06 53.6**	**+0.5**
	comp=Z,15nm,0.8s,mb4.8						
BJT				*e*pP	pP	19 07 04.9	-0.3
UCH	**Uchtor**	**41.27**	**337**	P	**P**	**19 07 05.2**	**+1.0**
	SNR=9.6						
KBK	**Karagaybulak**	**41.47**	**338**	P	**P**	**19 07 06.9**	**+1.1**
	SNR=12						
AML	**Almayashu**	**41.51**	**336**	P	**P**	**19 07 07.2**	**+1.0**
	SNR=15						
AAK	**Ala-Archa**	**41.62**	**337**	P	**P**	**19 07 09.0**	**+1.9**
	SNR=6.2						
EKS2	**Erkin-Say**	**41.93**	**337**	P	**P**	**19 07 10.3**	**+0.7**
	SNR=6.2						
USP	**Ospenovka**	**42.16**	**338**	P	**P**	**19 07 11.8**	**+0.2**
	SNR=12						
SONM	**Songino Array**	**43.90**	**11**	P	**P**	**19 07 24.6**	**-1.0**
	comp=Z,6.0nm,0.8s,mb4.4,baz=190,slow=8.4,SNR=22						
SONM				PcP	PcP	19 09 11.0	-0.7
	comp=Z,3.2nm,0.9s,baz=192,slow=3.8,SNR=7.2						
WRA	**Warramunga Arr**	**46.12**	**124**	P	**P**	**19 07 43.5**	**-0.1**
	comp=Z,13nm,0.7s,mb4.9,baz=303,slow=9.0,SNR=17						
WRA				pP	pP	19 07 54.9	-1.1
	comp=Z,4.9nm,0.6s,baz=301,slow=9.3,SNR=6.0						
ASAR	**Alice Springs**	**47.61**	**128**	P	**P**	**19 07 55.2**	**-0.2**
	comp=Z,4.2nm,0.7s,mb4.6,baz=299,slow=7.8,SNR=13						
ZAL	**Zalesovo**	**49.52**	**352**	P	**P**	**19 08 07.8**	**-1.9**
	comp=Z,7.4nm,0.7s,mb4.9,baz=301,slow=6.5,SNR=24						
BVAR	**Borovoye Array**	**51.95**	**342**	P	**P**	**19 08 27.0**	**-1.1**
	comp=Z,9.8nm,0.8s,mb4.8,baz=141,slow=9.5,SNR=30						
BVAR				pP	pP	19 08 39.7	-0.9
	comp=Z,5.7nm,0.9s,baz=157,slow=11,SNR=6.3						
BVAR				sP	sP	19 08 44.7	-1.1
	comp=Z,3.7nm,0.7s,baz=141,slow=9.5,SNR=5.1						
STKA	**Stephens Creek**	**57.67**	**133**	P	**P**	**19 09 11.4**	**+1.2**
	comp=Z,1.2nm,0.6s,mb4.1,baz=335,slow=8.6,SNR=4.4						
YAK	**Yakutsk**	**62.59**	**18**	*e*P	**P**	**19 09 40.7**	**-2.6**
	comp=Z,6.4nm,0.4s,mb5.1						
BRTR	**Keskin Array B**	**64.80**	**312**	P	**P**	**19 09 57.0**	**-1.1**
	comp=Z,2.6nm,0.7s,mb4.3,baz=136,slow=7.5,SNR=10						
BRTR				pP	pP	19 10 10.6	-0.4
	comp=Z,2.0nm,1.0s,baz=129,slow=7.9,SNR=5.5						
AKASG	**Malin Array Be**	**70.82**	**322**	P	**P**	**19 10 33.6**	**-1.8**
	comp=Z,1.6nm,0.5s,mb4.2,baz=88,slow=5.2,SNR=16						
AKASG				sP	sP	19 10 51.7	-1.7
	comp=Z,0.4nm,0.4s,baz=86,slow=4.6,SNR=4.0						
MLR	**Muntele Rosu**	**71.68**	**316**	P	**P**	**19 10 40.2**	**-0.5**
	comp=Z,5.7nm,0.9s,mb4.5,baz=217,slow=2.0,SNR=5.2						
KOLS	**Kolonicke sedl**	**74.80**	**319**	*e*P	**P**	**19 11 00.2**	**+1.3**
FINES	**FINESS Array B**	**75.57**	**332**	P	**P**	**19 11 02.2**	**-0.9**
	comp=Z,2.0nm,0.7s,mb4.2,baz=107,slow=5.6,SNR=9.9						
FINES	**FINESS Array B**	**75.57**	**332**	P	**P**	**19 11 02.2**	**-0.9**
KAF	**Kangasniemi**	**75.66**	**333**	*e*p	**P**	**19 11 03.1**	**-0.5**
	comp=Z,1.1nm,0.5s,mb4.0						
OJC	**Ojcow**	**76.60**	**320**	*e*P	**P**	**19 11 08.5**	**-0.7**
VYHS	**Vyhne**	**76.98**	**319**	*e*P	**P**	**19 11 11.3**	**-0.1**
KEV	**Kevo**	**77.79**	**341**	*e*p	**P**	**19 11 14.7**	**-0.7**
ZST	**Bratislava**	**78.09**	**318**	*e*P	**P**	**19 11 13.8**	**-3.7**
ZST				*e*		19 11 18.1	
ARCES	**ARCESS Array B**	**78.22**	**340**	P	**P**	**19 11 18.3**	**+0.5**
	comp=Z,2.8nm,0.7s,mb4.3,baz=88,slow=5.6,SNR=10						
ARCES				pP	pP	19 11 31.1	+0.2
	comp=Z,3.0nm,0.7s,baz=97,slow=5.5,SNR=2.9						
ARCES	**ARCESS Array B**	**78.22**	**340**	P	**P**	**19 11 18.3**	**+0.5**
ARCES				pP	pP	19 11 31.1	+0.2
FX1	**Attu Island--F**	**79.10**	**37**	P	**P**	**19 11 23.0**	**0.0**
	comp=Z,11nm,0.5s,mb5.1,baz=5.7,slow=10,SNR=4.6						
PRU	**Pruhonice**	**79.93**	**320**	*e*P	**P**	**19 11 28.2**	**+0.7**
BRG	**Berggiesshubel**	**80.38**	**321**	*e*P	**P**	**19 11 29.7**	**-0.2**
	comp=Z,4.3nm,0.9s,mb4.4						
GERES	**GERESS Array B**	**80.40**	**319**	P	**P**	**19 11 30.7**	**+0.6**
	comp=Z,5.6nm,0.7s,mb4.6,baz=90,slow=5.3,SNR=38						
KHC	**Kasperske Hory**	**80.50**	**319**	*e*P	**P**	**19 11 31.0**	**+0.4**
CLL	**Collm**	**81.00**	**321**	P	**P**	**19 11 33.0**	**-0.1**
MOX	**Moxa**	**81.84**	**320**	*e*P	**P**	**19 11 38.0**	**+0.5**
GRA1	**Grafenberg Arr**	**82.06**	**319**	*e*P	**P**	**19 11 39.6**	**+0.9**
	comp=Z,6.0nm,0.8s,mb4.6						
GRF	**Grafenberg Arr**	**82.06**	**319**	*e*P	**P**	**19 11 39.6**	**+0.9**
	comp=Z,6.0nm,0.8s,mb4.6						
NB2	**NORSAR Subarra**	**82.57**	**331**	P	**P**	**19 11 40.0**	**-1.0**
	comp=Z,1.0nm,0.8s,mb3.9,baz=96,slow=5.3						
NOA	**NORSAR Array B**	**82.57**	**331**	P	**P**	**19 11 40.1**	**-1.0**
	comp=Z,1.4nm,0.8s,mb4.0,baz=95,slow=4.9,SNR=4.1						
DAVOX	**Davos**	**82.91**	**316**	P	**P**	**19 11 43.9**	**+0.8**
	comp=Z,7.0nm,0.6s,mb4.9,baz=130,slow=5.2,SNR=17						
LPG	**La Plagne**	**85.10**	**315**	*e*P	**P**	**19 11 54.9**	**+0.7**
	comp=Z,16nm,1.0s,mb4.8						
NVAR	**Mina Array Bea**	**127.09**	**32**	PKP	PKPdf	19 18 24.6	+3.0
	comp=Z,0.3nm,0.3s,baz=225,slow=2.6,SNR=3.1						
PDAR	**Pinedale Array**	**127.66**	**22**	PKP	PKPdf	19 18 23.5	+0.9
	comp=Z,3.1nm,1.4s,baz=14,slow=3.7,SNR=3.5						
TXAR	**Lajitas Array**	**141.62**	**26**	PKP	PKPdf	19 18 48.8	-0.1
	comp=Z,0.5nm,0.6s,baz=325,slow=0.4,SNR=4.7						

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*IDC **26** 19:00:53.5±4.5, 24.19S×67.11W, h171^{km}±23^{km}, mb3.4/2, mb1 3.7/5, mb1mx3.5/15, Error ellipse: s-maj=72.7km s-min=26.9km az=8.0*

ISC 26 19:00:52.3±3.5**, 24.3S**±0.4×**67.1W**±0.2**, h179^{km}**±20^{km}**, n7, σ1^s.07**/8**, mb3.5**/2**, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**2.34**	**315**	P	**P**	**19 01 34.4**	**+0.8**
	58nm,0.3s,baz=143,slow=5.8,SNR=706						
LVC				S	**S**	**19 02 04.6**	**-0.8**
	75nm,0.3s,baz=287,slow=18,SNR=20						
LPAZ	**La Paz**	**8.01**	**353**	P	**P**	**19 02 47.2**	**+0.6**
	0.8nm,0.3s,baz=159,slow=9.4,SNR=9.5						
LPAZ	**La Paz**	**8.01**	**353**	P	**P**	**19 02 47.2**	**+0.6**
BDFB	**Brasilia**	**19.89**	**68**	P	**P**	**19 05 11.1**	**-0.6**
	0.8nm,0.3s,baz=253,slow=8.9,SNR=4.5						
TXAR	**Lajitas Array**	**63.84**	**325**	P	**P**	**19 11 07.1**	**-0.8**
	0.5nm,1.0s,mb3.3,baz=158,slow=6.9,SNR=3.8						
YKA	**Yellowknife Ar**	**94.35**	**340**	P	**P**	**19 13 52.9**	**+0.9**
	0.3nm,0.5s,mb3.7,baz=136,slow=4.4,SNR=5.8						
YKA	**Yellowknife Ar**	**94.35**	**340**	P	**P**	**19 13 52.9**	**+0.9**

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*IDC **26** 19:03:24.4±0.7, 6.17N×93.41E, h28^{km}±4^{km}, mb4.0/11, mb1 4.1/12, mb1mx4.0/18, ML3.4/1, Error ellipse: s-maj=27.0km s-min=16.2km az=54.0*

*NEIC **26** 19:03:24.2±0.4, 6.15N×93.34E, mb4.4/10, Error ellipse: s-maj=9.5km s-min=8.9km az=112.0*

*BJI **26** 19:03:24.1, 6.20N×93.30E, h29^{km}, mb4.6*

ISC 26 19:03:22.3±0.5**, 6.14N**±0.06×**93.32E**±0.06**, h29^{km}, h29^{km}**±1.4^{km}**:pP-P, n40, σ1^s.16**/35**, mb4.3**/22**, 1C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NST	**Nakhon Sawan**	**11.60**	**35**	P	**P**	**19 06 08.0**	**-1.1**
PALK	**Pallekele**	**12.58**	**276**	P	**P**	**19 06 21.9**	**-0.5**
CM31	**Chiang Mai Arr**	**13.42**	**24**	*e*P	**P**	**19 06 32.9**	**-0.6**
	16nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.42**	**24**	Pn	**P**	**19 06 31.6**	**-1.8**
	0.1nm,0.3s,baz=210,slow=18,SNR=2.6						
CMAR				pP		19 06 37.1	
	0.5nm,0.3s,baz=210,slow=14,SNR=13						
CMAR				sP		19 06 40.6	
	0.4nm,0.3s,baz=212,slow=14,SNR=14						
CHG	**Chiang Mai**	**13.74**	**23**	⇓P	**P**	**19 06 43.2**	**+5.4**
	150nm,0.7s						
NANT	**Nan**	**14.50**	**29**	⇑P	**P**	**19 07 04.0**	**+16**
	250nm,1.0s						
CHRT	**Chiangrai**	**15.03**	**24**	⇓P	**P**	**19 06 56.8**	**+2.2**
	684nm,1.2s						
QIZ	**Qiongzhong**	**20.57**	**50**	P	**P**	**19 08 03.0**	**+1.4**
GOA	**Goa**	**21.26**	**297**	*e*	**S**	**19 11 59.7**	**+1.3**
LSA	**Lhasa**	**23.53**	**355**	*e*P	**P**	**19 08 32.1**	**+1.1**
	9.4nm,0.8s,mb4.3						
GYA	**Guiyang**	**23.88**	**31**	⇓*i*P	**P**	**19 08 36.5**	**+1.9**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
ENH	**Enshi**	**28.42**	**30**	*e*P	**P**	**19 09 15.0**	**-1.8**
BJT	**Baijiatuau**	**39.49**	**28**	*e*P	**P**	**19 10 54.2**	**+2.0**
	comp=Z,6.2nm,0.6s,mb4.5						
AAK	**Ala-Archa**	**39.98**	**338**	P	**P**	**19 10 54.2**	**-2.0**
	comp=Z,11nm,1.2s,mb4.5						
SONM	**Songino Array**	**43.02**	**13**	P	**P**	**19 11 21.9**	**+0.9**
	comp=Z,1.2nm,0.8s,mb3.7,baz=192,slow=7.9,SNR=5.6						
WRA	**Warramunga Arr**	**47.95**	**124**	P	**P**	**19 11 60.0**	**-0.7**
	comp=Z,8.6nm,0.7s,mb4.9,baz=303,slow=9.0,SNR=33						
WRAB	**Tennant Creek**	**47.96**	**124**	*e*P	**P**	**19 12 00.4**	**-0.4**
	comp=Z,14nm,0.7s,mb5.1						
ZAL	**Zalesovo**	**48.16**	**353**	P	**P**	**19 12 02.2**	**+0.4**
	comp=Z,1.8nm,0.5s,mb4.4,baz=318,slow=7.2,SNR=8.6						
ZAL				pP	pP	19 12 09.7	-1.0
	comp=Z,6.6nm,0.7s,baz=312,slow=6.8,SNR=14						
ZAL				sP	sP	19 12 12.7	-1.5
	comp=Z,6.6nm,0.7s,baz=302,slow=6.5,SNR=14						
ZAL	**Zalesovo**	**48.16**	**353**	P	**P**	**19 12 02.2**	**+0.4**
ZAL				pP	pP	19 12 09.7	-1.0
ZAL				sP	sP	19 12 12.7	-1.5
HIA	**Hailar**	**48.43**	**23**	P	**P**	**19 12 04.1**	**+0.1**
ASAR	**Alice Springs**	**49.46**	**128**	P	**P**	**19 12 11.7**	**-0.6**
	comp=Z,7.1nm,0.8s,mb4.7,baz=297,slow=7.6,SNR=30						
BVAR	**Borovoye Array**	**50.37**	**342**	P	**P**	**19 12 18.2**	**-0.6**
	comp=Z,0.7nm,0.5s,mb3.9,baz=141,slow=9.5,SNR=3.6						
BVAR				pP	pP	19 12 27.8	+0.1
	comp=Z,1.3nm,0.7s,baz=140,slow=12,SNR=5.8						
BRVK	**Borovoye**	**50.43**	**342**	P	**P**	**19 12 13.6**	**-5.7**
	comp=Z,4.0nm,1.2s,mb4.3						
CHKZ	**Chkalovo**	**50.87**	**343**	*e*P	**P**	**19 12 21.6**	**-0.9**
	comp=Z,3.7nm,1.0s,mb4.3						
GNI	**Garni**	**55.07**	**315**	pP	pP	19 13 03.9	+0.9
	comp=Z,1.8nm,0.5s,baz=308,slow=11,SNR=2.6						
GNI	**Garni**	**55.07**	**315**	*e*P	**P**	**19 12 53.9**	**-0.2**
	comp=Z,3.2nm,0.9s,mb4.3						
KMBO	**Kilima Mbogo**	**56.43**	**265**	P	**P**	**19 13 05.0**	**+0.8**
	comp=Z,1.2nm,0.6s,mb4.1,baz=58,slow=14,SNR=4.6						
ARU	**Arti**	**57.17**	**338**	P	**P**	**19 13 07.5**	**-1.4**
	comp=Z,13nm,1.1s,mb4.9						
STKA	**Stephens Creek**	**59.52**	**133**	P	**P**	**19 13 25.5**	**-0.2**
	comp=Z,3.2nm,0.9s,mb4.4,baz=314,slow=17,SNR=3.3						
YAK	**Yakutsk**	**61.89**	**18**	*e*P	**P**	**19 13 40.3**	**-1.0**
YAK				*e*pP	pP	19 13 48.6	-1.8
BRTR	**Keskin Array B**	**62.95**	**312**	P	**P**	**19 13 47.7**	**-1.0**
	comp=Z,0.9nm,0.8s,mb4.0,baz=139,slow=8.6,SNR=3.9						
BRTR				pP	pP	19 13 57.4	-0.3
	comp=Z,3.1nm,0.9s,baz=117,slow=7.2,SNR=9.7						
AKASG	**Malin Array Be**	**69.01**	**322**	pP	pP	19 14 35.6	-0.8
	comp=Z,0.3nm,0.4s,baz=90,slow=4.4,SNR=7.8						
MLR	**Muntele Rosu**	**69.84**	**316**	pP	pP	19 14 43.0	+1.5
	comp=Z,7.4nm,1.0s,baz=150,slow=14,SNR=5.6						
LBTB	**Lobatse**	**72.70**	**242**	*e*P	**P**	**19 14 49.9**	**-0.2**
	comp=Z,1.7nm,0.7s,mb4.1						
FINES	**FINESS Array B**	**73.86**	**333**	pP	pP	19 15 06.1	+0.9
	comp=Z,4.9nm,1.0s,baz=108,slow=8.8,SNR=3.2						
BOSA	**Boshof**	**73.98**	**238**	*e*P	**P**	**19 14 57.2**	**-0.2**
	comp=Z,1.8nm,0.7s,mb4.1						
ARCES	**ARCESS Array B**	**76.61**	**340**	P	**P**	**19 15 12.6**	**+0.9**
	comp=Z,6.2nm,1.2s,mb4.4,baz=117,slow=4.0,SNR=3.5						
ARCES				pP	pP	19 15 22.6	+1.8
	comp=Z,7.5nm,0.9s,baz=101,slow=6.1,SNR=4.6						
GERES	**GERESS Array B**	**78.57**	**318**	P	**P**	**19 15 24.3**	**+1.5**
	comp=Z,0.6nm,0.8s,mb3.6,baz=124,slow=4.8,SNR=4.4						
GERES				pP	pP	19 15 33.5	+1.4
	comp=Z,3.4nm,0.8s,baz=90,slow=5.3,SNR=18						
KHC	**Kasperske Hory**	**78.67**	**319**	*e*pP	pP	19 15 34.0	+1.4
VNDA	**Vanda**	**91.41**	**168**	P	**P**	**19 16 28.3**	**+1.9**
	comp=Z,0.6nm,0.5s,mb4.2,baz=288,slow=6.4,SNR=6.1						

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*BJI **26** 19:03:47.5, 3.96N×94.31E, h36^{km}, mB5.5, mb5.3, Ms5.7, Msz5.4*

*IDC **26** 19:03:49.9±0.4, 4.13N×94.30E, h33^{km}±2^{km}, mb5.0/25, mb1 5.1/26, mb1mx5.0/28, ML4.7/1, Error ellipse: s-maj=16.5km s-min=9.1km az=49.0*

*MOS **26** 19:03:49.3±1.0, 4.29N×94.02E, h33^{km}, mb5.8/46, MS5.5/6, Error ellipse: s-maj=12.2km s-min=6.1km az=111.8*

*NEIC **26** 19:03:49.2±0.1, 4.09N×94.22E, h30^{km}, mb5.5/58, Error ellipse: s-maj=5.5km s-min=4.3km az=219.0*

*HRVD **26** 19:03:49.2±0.9, 3.83N×94.11E, h20^{km}±1^{km}, MW5.5/38, Centroid moment Tensor Solution. LP body waves: s16,c20;Mantle waves: s38,c68; Half duration: 1^s.4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-2.28±.25; M$_{\theta\theta}$1.54±.15; M$_{\phi\phi}$0.74±.17; M$_{r\theta}$-0.47±.33; M$_{\theta\phi}$-1.08±.10; M$_{\phi r}$0.36±.38; Best double couple: M$_0$2.36×10^{17} NP1: ϕ_s304°, δ38°, λ-91°. NP2:ϕ_s126°, δ52°, λ-89°. Principal axes: T 2.37, Plg7°, Azm215°; N -.01, Plg1°, Azm305°; P -2.36, Plg83°, Azm41°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CSEM **26** 19:03:51.9, 4.73N×94.05E, h33^{km}, mb5.7*

*DJA **26** 19:04:12.0±4.2, 3.03N×96.58E, h33^{km}, ML6.2/1, Error ellipse: s-maj=178.8km s-min=32.9km az=81.0*

ISC 26 19:03:47.6±0.2**, 4.06N**±0.03×**94.29E**±0.03**, h33^{km}, h33^{km}**±.6^{km}**:pP-P, n396, σ1^s.00**/360**, mb5.5**/123**, MS5.5**/17**, 22C-42D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PALK	**Pallekele**	**13.89**	**284**	P	**P**	**19 07 04.7**	**-0.1**
	118nm,1.2s						
PENI	**Pendagan**	**14.47**	**131**	⇑*e*Pn	**P**	**19 07 06.6**	**-5.8**
	240nm,0.5s						
CM31	**Chiang Mai Arr**	**15.02**	**17**	*e*P	**P**	**19 07 20.6**	**+1.1**
CMAR	**Chiang Mai Arr**	**15.02**	**17**	Pn	**P**	**19 07 19.6**	**0.0**
	1.1nm,0.3s,baz=213,slow=12,SNR=35						
COCO	**West Island**	**16.34**	**171**	P	**P**	**19 07 39.6**	**+3.1**
	123nm,0.8s						
COCO				*e*		19 07 48.5	
MDRS	**Chennai**	**16.51**	**304**	*e*P	**P**	**19 07 38.7**	**0.0**
MDRS				*e*		19 07 44.2	
	comp=Z,298nm,1.4s						
MDRS				*e*		19 10 25.9	
VIS	**Vishakhapatnam**	**17.31**	**322**	*e*P	**P**	**19 07 46.5**	**-2.2**
VIS				*e*		19 07 59.0	
	comp=Z,268nm,1.7s						
VIS				*e*		19 10 46.4	
VIS				*e*	**S**	**19 11 01.0**	**+2.6**
TRD	**Trivandrum**	**17.78**	**285**	⇓*i*P	**P**	**19 07 55.6**	**+1.0**
TRD				*e*		19 07 59.0	
	comp=Z,249nm,1.5s						
TRD				*e*		19 10 50.5	
CAL	**Calcutta**	**19.26**	**343**	*e*P	**P**	**19 08 10.4**	**-2.0**
HYB	**Hyderabad**	**20.35**	**312**	*e*P	**P**	**19 08 24.5**	**+0.2**
HYB	**Hyderabad**	**20.35**	**312**	*i* P	**P**	**19 08 24.5**	**+0.2**
MNGI	**Mangalore**	**21.16**	**296**	*e*P	**P**	**19 08 32.5**	**-0.1**
BOK	**Bokaro**	**21.23**	**338**	*e*P	**P**	**19 08 30.1**	**-3.2**
BOK				*e*		19 08 38.0	
	comp=Z,716nm,1.3s						
BOK				*e*S	**S**	**19 12 22.2**	**-0.3**
QIZ	**Qiongzhong**	**21.27**	**44**	*e*P	**P**	**19 08 34.3**	**+0.7**
QIZ				S	**S**	**19 12 23.3**	**+0.2**
QIZ				AMB	AMB		
	comp=Z,63nm,1.5s,mb4.7						
QIZ				LR	LR		
	comp=N,9µm,16.4s,MS5.3						
QIZ				LR	LR		
	comp=E,7µm,17.4s,MS5.3						
QIZ				LR	LR		
	comp=Z,11µm,16.9s,MS5.3						
QIZ	**Qiongzhong**	**21.27**	**44**	*e*P	**P**	**19 08 34.2**	**+0.6**
	comp=Z,170nm,1.4s,mb5.2						
BLSP	**Bilaspur**	**21.49**	**328**	⇓*i*P	**P**	**19 08 33.2**	**-2.6**
BLSP				*e*		19 08 40.9	
	comp=Z,464nm,1.3s						
BLSP				*e*S	**S**	**19 12 27.7**	**+0.4**
SHL	**Shillong**	**21.51**	**354**	*e*P	**P**	**19 08 35.9**	**-0.2**
SHL				*e*		19 11 58.0	
KMI	**Kunming**	**22.47**	**20**	P	**P**	**19 08 46.8**	**+1.2**
KMI				S	**S**	**19 12 46.5**	**+1.3**
KMI				SS	SS	19 13 33.5	+6.4
KMI				SSS	SSS	19 13 48.5	+6.2
KMI				AMB	AMB		
	comp=Z,209nm,1.2s,mb5.4						
KMI				AMB	AMB		
	comp=Z,1µm,5.6s						
KMI				LR	LR		
	comp=N,9µm,14.7s,MS5.5						
KMI				LR	LR		
	comp=E,10µm,13.2s,MS5.5						
KMI				LR	LR		
	comp=Z,9µm,14.3s,MS5.3						
GOA	**Goa**	**23.12**	**301**	*e*P	**P**	**19 08 56.0**	**+3.9**
GOA				⇓*e*		19 08 59.6	
	comp=Z,213nm,1.4s						
SRDI	**Scrawed**	**23.39**	**122**	⇓*e*Pn	**P**	**19 08 54.7**	**0.0**
KELI	**Kelakatan**	**23.55**	**121**	⇑*e*Pn	**P**	**19 08 56.2**	**-0.1**
AKL	**Akola**	**23.59**	**316**	*e*P	**P**	**19 08 58.6**	**+2.1**
KAD	**Karad**	**23.71**	**305**	*e*P	**P**	**19 08 57.8**	**0.0**
KAD				*e*		19 09 02.4	
	comp=Z,274nm,1.6s						
KAD				*e*S	**S**	**19 13 09.8**	**+2.6**
ALBI	**Allahabad**	**24.30**	**332**	*e*P	**P**	**19 09 01.3**	**-2.2**
POO	**Poona**	**24.63**	**307**	⇓*i*P	**P**	**19 09 07.6**	**+0.8**
POO				*e*		19 09 11.8	
	comp=Z,172nm,1.6s						
POO				*e*S	**S**	**19 13 28.3**	**+5.4**
PKI	**Pulchoki**	**24.87**	**341**	*e*P	**P**	**19 09 07.9**	**-1.1**
DMN	**Daman**	**25.01**	**340**	*e*P	**P**	**19 09 09.7**	**-0.6**
GUN	**Gumba**	**25.04**	**342**	*e*P	**P**	**19 09 11.6**	**+1.0**
	comp=Z,1µm,1.3s,mb6.2						
KEDI	**Kedomdong**	**25.08**	**120**	⇑*e*Pn	**P**	**19 09 09.9**	**-1.2**
BHPL	**Bhopal**	**25.09**	**321**	*e*P	**P**	**19 09 09.7**	**-1.4**
BHPL				*e*		19 09 15.7	
	comp=Z,189nm,1.1s						
BHPL				*e*S	**S**	**19 13 31.6**	**+0.9**
KKN	**Kakani**	**25.12**	**341**	*e*P	**P**	**19 09 11.5**	**+0.2**
	comp=Z,228nm,0.9s,mb5.7						
GYA	**Guiyang**	**25.23**	**27**	⇑*i*P	**P**	**19 09 12.8**	**+0.4**
GYA				AP	pP	19 09 17.8	-4.1
GYA				PP	PP	19 09 49.5	-1.5
GYA				S	**S**	**19 13 37.5**	**+4.5**
GYA				AMB	AMB		
	comp=Z,210nm,1.1s,mb5.6						
GYA				AMB	AMB		
	comp=Z,3µm,6.8s						
GYA				LR	LR		
	comp=N,4µm,16.5s,MS5.2						
GYA				LR	LR		
	comp=E,5µm,18.2s,MS5.2						
GYA				LR	LR		
	comp=Z,4µm,16.8s,MS5.0						
GKN	**Gorkha**	**25.53**	**340**	*e*P	**P**	**19 09 15.9**	**+0.7**
	comp=Z,900nm,1.2s,mb6.2						
BOM	**Bombay**	**25.65**	**307**	*e*P	**P**	**19 09 16.1**	**-0.3**
LSA	**Lhasa**	**25.68**	**354**	⇓*i*P	**P**	**19 09 18.8**	**+2.2**
LSA				pmax	pmax		
	comp=Z,140nm,0.7s,mb5.6						
LSA	**Lhasa**	**25.68**	**354**	⇓*i*P	**P**	**19 09 18.8**	**+2.3**

	comp=Z,136nm,0.7s,mb5.6						
KOLN	**Koldanda**	25.69	338	*e*P	P	19 09 17.1	+0.4
	comp=Z,813nm,1.4s,mb6.1						
TANI	**Tanete Lipujan**	26.16	106⇓	*e*Pn	P	19 09 21.6	+0.5
TGY	**Tagaytay City**	28.11	67	P	P	19 09 40.2	+1.3
	comp=Z,112nm,0.5s,mb5.7,baz=256,slow=3.0,SNR=5.4						
CD2	**Chengdu**	28.16	17⇓	*i*P	P	19 09 38.5	-0.8
CD2				S	S	19 14 27.3	+6.4
CD2				AMB	AMB		
	comp=Z,130nm,1.1s,mb5.5						
CD2				LR	LR		
	comp=N,8µm,14.4s						
CD2				LR	LR		
	comp=Z,10µm,12.0s,MS5.6						
PTH	**Pithoragarh**	28.65	334	*e*P	P	19 09 40.2	-3.4
AJM	**Ajmer**	29.17	322	*e*P	P	19 09 49.3	+0.9
AJM				*e*		19 09 53.2	
	comp=Z,139nm,1.9s						
NDI	**New Delhi**	29.38	328	*e*P	P	19 09 47.6	-2.7
ENH	**Enshi**	29.77	27	*e*P	P	19 09 52.0	-1.8
	comp=Z,63nm,1.1s,mb5.3						
DDI	**Dehra Dun**	30.30	331	*e*	P	19 09 56.6	-1.8
QZH	**Quanzhou**	31.26	46	P	P	19 10 07.3	+0.4
QZH				AMB	AMB		
	comp=Z,230nm,1.4s,mb5.8						
WHN	**Wuhan**	32.44	33⇑	*i*P	P	19 10 18.0	+0.8
WHN				AP	pP	19 10 28.5	+1.7
XAN	**Xi’an**	32.79	23	P	P	19 10 19.0	-1.2
XAN				AP	pP	19 10 29.0	-0.8
XAN				AMB	AMB		
	comp=Z,122nm,1.4s,mb5.6						
LZH	**Lanzhou**	33.07	14	*e*P	P	19 10 21.8	-0.8
LZH				PP	PP	19 11 32.8	-0.9
LZH				*e*S	S	19 15 39.0	+0.8
LZH				SS	SS	19 17 40.5	+1.0
LZH				AMB	AMB		
	comp=Z,97nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,531nm,8.0s						
LZH				LR	LR		
	comp=E,7µm,14.6s						
LZH				LR	LR		
	comp=Z,9µm,15.3s,MS5.6						
THN	**Thein Dam**	33.16	330	*e*P	P	19 10 22.0	-1.5
MBWA	**Marble Bar**	35.35	136	*e*P	P	19 10 42.2	-0.3
	comp=Z,145nm,1.6s,mb5.7						
GTA	**Gaotai**	35.55	7⇓	*i*P	P	19 10 44.0	+0.1
GTA				AP	pP	19 10 52.0	-1.6
GTA				XP	sP	19 10 54.8	-2.9
GTA				PP	PP	19 12 02.5	-1.9
GTA				PPP	PPP	19 12 22.3	-1.2
GTA				PCP	PcP	19 13 14.3	+1.6
GTA				S	S	19 16 15.0	-1.6
GTA				PCS		19 16 59.5	
GTA				SCS	ScS	19 21 00.8	+2.6
GTA				AMB	AMB		
	comp=Z,121nm,1.2s,mb5.7						
GTA				AMB	AMB		
	comp=Z,615nm,10.3s						
GTA				LR	LR		
	comp=N,2µm,16.0s,MS5.0						
GTA				LR	LR		
	comp=E,1µm,15.6s,MS5.0						
GTA				LR	LR		
	comp=Z,2µm,24.7s						
NJ2	**Nanjing**	36.15	37	*e*P	P	19 10 49.5	+0.5
NJ2				AP	pP	19 10 56.3	-2.4
NJ2				XP	sP	19 10 58.8	-4.0
NJ2				PP	PP	19 12 15.0	+3.2
NJ2				S	S	19 16 32.0	+6.1
NJ2				AMB	AMB		
	comp=Z,840nm,5.4s						
NJ2				LR	LR		
	comp=N,10µm,15.0s,MS5.8						
NJ2				LR	LR		
	comp=E,9µm,16.8s,MS5.8						
NJ2				LR	LR		
	comp=Z,11µm,15.6s,MS5.7						
SSE	**Sheshan**	36.94	40	*e*P	P	19 10 56.3	+0.6
SSE				S	S	19 16 42.8	+4.8
SSE				AMB	AMB		
	comp=Z,37nm,1.4s,mb5.0						
SSE				AMB	AMB		
	comp=Z,335nm,11.7s						
SSE				LR	LR		
	comp=N,3µm,13.0s,MS5.6						
SSE				LR	LR		
	comp=E,7µm,13.0s,MS5.6						
SSE				LR	LR		
	comp=Z,10µm,13.2s,MS5.8						
TIA	**Tai’an**	38.29	30	⇑P	P	19 11 07.5	+0.5
KSH	**Kashi**	39.01	337	*i* PR		19 11 13.0	
KSH				*e*AP	pP	19 11 21.5	-1.2
KSH				PP	PP	19 12 46.5	+0.1
KSH				*e*PPP	PPP	19 13 09.3	-0.6
KSH				PCP	PcP	19 13 26.3	+3.0
KSH				S	S	19 17 05.0	-4.4
KSH				*e*SCP		19 17 11.0	
KSH				*e*PCS		19 17 14.0	
KSH				SCS	ScS	19 21 20.0	+2.4
KSH				AMB	AMB		
	comp=Z,400nm,2.2s,mb5.8						
KSH				LR	LR		
	comp=N,9µm,11.7s						
KSH				LR	LR		
	comp=E,21µm,18.4s						
BTO	**Baotou**	39.05	19	*e*P	P	19 11 12.5	-0.8
BTO				AMB	AMB		
	comp=Z,22nm,0.8s,mb4.9						
HHC	**Hu-ho-hao-te**	39.79	21	*e*P	P	19 11 20.3	+0.9
HHC				AP	pP	19 11 30.0	+0.8
HHC				XP	sP	19 11 33.5	+0.2
HHC				PP	PP	19 12 56.8	+2.2
HHC				PCP	PcP	19 13 25.8	0.0
HHC				PCS		19 17 16.0	
HHC				S	S	19 17 23.8	+2.6
HHC				XS		19 17 38.0	
HHC				SS	SS	19 20 12.5	+1.3
HHC				SCS	ScS	19 21 22.3	+0.1
HHC				AMB	AMB		
	comp=Z,66nm,1.2s,mb5.2						
HHC				AMB	AMB		
	comp=Z,313nm,5.1s						
HHC				LR	LR		
	comp=N,13µm,15.5s,MS5.9						
HHC				LR	LR		
	comp=E,7µm,16.7s,MS5.9						
HHC				LR	LR		
	comp=Z,7µm,11.9s,MS5.7						
WMQ	**Urumqi**	40.03	353	⇑P	P	19 11 23.3	+2.0
WMQ				AP	pP	19 11 27.8	-3.3
WMQ				PP	PP	19 12 59.5	+2.4
WMQ				PPP	PPP	19 13 24.8	+1.6
WMQ				S	S	19 17 28.3	+3.6
WMQ				AMB	AMB		
	comp=Z,73nm,1.2s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,596nm,7.5s						
WMQ				LR	LR		
	comp=N,4µm,20.1s,MS5.2						
WMQ				LR	LR		
	comp=E,1µm,20.4s,MS5.2						
WMQ				LR	LR		
	comp=Z,4µm,19.2s,MS5.3						
BJT	**Baijiatuau**	40.90	26	*e*P	P	19 11 30.2	+1.7
BJT				pmax	pmax		
	comp=Z,190nm,1.1s						
BJT	**Baijiatuau**	40.90	26	*e*P	P	19 11 30.0	+1.5
	comp=Z,191nm,1.1s,mb5.6						
BJI	**Beijing**	40.92	26	P	P	19 11 29.8	+1.1
BJI				AMB	AMB		
	comp=Z,153nm,1.4s,mb5.4						
ULHL	**Ulahol**	41.30	340	P	P	19 11 33.0	+1.2
	SNR=11						
KZA	**Kyzart**	41.50	338	P	P	19 11 35.0	+1.5
	SNR=24						
UCH	**Uchtor**	41.91	338	P	P	19 11 38.4	+1.6
	SNR=34						
KBK	**Karagaybulak**	42.12	339	P	P	19 11 40.2	+1.6
	SNR=29						
TKM2	**Tokmak 2**	42.12	339	P	P	19 11 39.7	+1.2
	SNR=34						
AML	**Almayashu**	42.14	337	P	P	19 11 40.2	+1.5
	SNR=8.0						
AAK	**Ala-Archa**	42.26	338	P	P	19 11 41.2	+1.5
	SNR=19						
AAK	**Ala-Archa**	42.26	338	*e*P	P	19 11 40.2	+0.4
AAK				pmax	pmax		
	comp=Z,140nm,1.4s,mb5.4						
AAK	**Ala-Archa**	42.26	338	*i* Pr	P	19 11 40.1	+0.3
FRU	**Bishkek**	42.39	338	*i* P	P	19 11 32.0	-8.8
FRU				pmax	pmax		
	comp=Z,440nm,2.0s,mb5.7						
CHMS	**Chumysh**	42.49	339	P	P	19 11 42.2	+0.6
	SNR=22						
EKS2	**Erkin-Say**	42.56	338	P	P	19 11 43.6	+1.5
	SNR=18						
DL2	**Dalian**	42.66	32	P	P	19 11 44.5	+1.4
DL2				AMB	AMB		
	comp=Z,40nm,1.4s,mb5.0						
NWAO	**Narrogin (SRO)**	42.73	151	P	P	19 11 43.9	+0.2
	comp=Z,9.9nm,0.7s,mb4.7,baz=279,slow=18,SNR=8.8						
NWAO				pP	pP	19 11 54.4	+0.9
	comp=Z,8.3nm,0.6s,baz=280,slow=19,SNR=2.7						
USP	**Ospenovka**	42.81	339	P	P	19 11 45.1	+0.9
	SNR=35						
MKAR	**Makanchi Array**	43.83	348	*e*P	P	19 11 53.0	+0.6
MKAR				pmax	pmax		
	comp=Z,154nm,0.9s						
SONM	**Songino Array**	44.84	12	P	P	19 12 00.6	0.0
	comp=Z,52nm,0.9s,mb5.4,baz=193,slow=8.5,SNR=95						
SONM				PcP	PcP	19 13 42.2	-0.3
	comp=Z,12nm,0.8s,baz=203,slow=3.5,SNR=4.0						
ULN	**Ulaanbaatar**	45.00	12	P	P	19 12 01.8	-0.1
ULN				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.2						
ULN				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.3						
ULN	**Ulaanbaatar**	45.00	12⇓	*i*P	P	19 12 01.8	-0.1
	comp=Z,41nm,1.0s,mb5.2						
ULN				*e*PcP	PcP	19 13 43.6	+0.6
KS15	**Wonju Array Si**	45.26	38	*e*P	P	19 12 03.8	-0.3
SNY	**Shenyang**	45.82	31	⇓P	P	19 12 08.3	-0.1
SNY				AMB	AMB		
	comp=Z,40nm,1.4s,mb5.2						
WRA	**Warramunga Arr**	46.01	123	P	P	19 12 10.5	+0.3
	comp=Z,78nm,0.9s,mb5.7,baz=301,slow=9.3,SNR=104						
WRAB	**Tennant Creek**	46.01	123⇓	*i*P	P	19 12 10.5	+0.3
WRAB				pmax	pmax		
	comp=Z,230nm,1.0s,mb6.1						
WRAB				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.4						
WRAB	**Tennant Creek**	46.01	123⇓	*i*P	P	19 12 10.5	+0.2
	comp=Z,225nm,1.1s,mb6.0						
YOMI	**Yo Moklole**	46.72	97⇑	*e*Pn	P	19 12 13.5	-2.4
ZAK	**Zakamensk**	46.78	8	*e*P	P	19 12 16.0	+0.1
ZAK				*e*		19 13 49.5	
ASAR	**Alice Springs**	47.42	127	P	P	19 12 21.4	0.0
	comp=Z,24nm,0.8s,mb5.2,baz=299,slow=6.9,SNR=56						
ASAR				PcP	PcP	19 13 51.8	0.0
	comp=Z,9.4nm,0.8s,baz=303,slow=4.0,SNR=5.8						
HASS	**Wahat al Ahsa’**	47.68	301	P	P	19 12 24.6	+1.2
MOY	**Mondy**	47.78	6	*e*P	P	19 12 24.3	+0.5
TLY	**Talaya**	48.10	8	P	P	19 12 27.9	+1.6
	comp=Z,475nm,0.9s,mb6.5,SNR=17						
TLY	**Talaya**	48.10	8	*e*P	P	19 12 27.2	+0.9
TLY				pmax	pmax		
	comp=Z,87nm,1.0s,mb5.7						
TLY				MLR	MLR		
	comp=Z,3µm,12.0s,MS5.5						
TLY	**Talaya**	48.10	8	*i* Pr		19 12 26.9	
CN2	**Changchun**	48.20	30	*e*P	P	19 12 26.5	-0.6
CN2				*e*S	S	19 19 24.8	+1.7
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb5.0						
CN2				AMB	AMB		
	comp=Z,1µm,8.0s						
CN2				LR	LR		
	comp=N,7µm,13.0s,MS6.1						
CN2				LR	LR		
	comp=E,10µm,13.0s,MS6.1						
CN2				LR	LR		
	comp=Z,10µm,15.0s,MS5.9						
IRK	**Irkutsk**	48.74	8	*e*P	P	19 12 31.4	+0.2
HIA	**Hailar**	49.98	22	P	P	19 12 40.8	+0.1
HIA				pmax	pmax		
	comp=Z,47nm,1.0s						
HIA	**Hailar**	49.98	22	*e*P	P	19 12 40.4	-0.3
	comp=Z,47nm,0.9s,mb5.5						
ZAL	**Zalesovo**	50.33	353	P	P	19 12 43.1	-0.2
	comp=Z,22nm,0.6s,mb5.4,baz=304,slow=7.3,SNR=21						
QRN	**Al-Qurain**	50.36	304	*e*P	P	19 12 45.2	+1.2
RDF	**Al-Radifah**	50.72	304	*e*P	P	19 12 47.8	+1.1
RDF				AMb	AMB	19 12 59.1	
	comp=Z,484nm,0.9s,mb6.4						
MDJ	**Mudanjiang**	50.91	32	P	P	19 12 48.3	+0.5
MDJ				AMB	AMB		
	comp=Z,43nm,1.9s,mb5.0						
MDJ	**Mudanjiang**	50.91	32	*e*P	P	19 12 48.3	+0.5
	comp=Z,80nm,1.4s,mb5.5						
MDJ				*e*	pP	19 12 59.2	+1.4
KAMS	**Al Khamasin**	50.97	293	P	P	19 12 48.4	-0.3
MZLS	**Mizel**	51.26	298	P	P	19 12 51.4	+0.6
RST	**Umm Al-Ruwaisa**	51.38	305	*e*P	P	19 12 52.3	+0.7
RST				AMb	AMB	19 13 03.7	
	comp=Z,348nm,1.0s,mb6.2						
NVS	**Novosibirsk**	51.42	352	*i* P	P	19 12 50.2	-1.4
NVS				*e*	pP	19 13 01.5	-0.1
NVS				*e*S	S	19 20 06.6	-1.0
NVS				pmax	pmax		
	comp=Z,106nm,1.3s,mb5.6						
NVS				pmax	pmax		
	comp=N,131nm,1.7s						
NVS				pmax	pmax		
	comp=E,60nm,1.3s						
NVS				smax			
	comp=N,96nm,1.8s						
MAT	**Matsushiro**	51.66	45	P	P	19 12 52.1	-1.6
MAT	**Matsushiro**	51.66	45	*e*P	P	19 12 52.0	-1.7
TATS	**Tathlith**	51.85	292	P	P	19 12 55.4	+0.1
BVA0	**Borovoye Array**	52.64	342	P	P	19 13 00.2	-0.6
BVA0				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
BVAR	**Borovoye Array**	52.64	342	P	P	19 13 00.3	-0.5
	comp=Z,44nm,0.8s,mb5.4,baz=143,slow=7.4,SNR=82						
BRVK	**Borovoye**	52.70	342	*i* P	P	19 13 00.8	-0.5
BRVK	**Borovoye**	52.70	342	*i* Pr	P	19 13 00.8	-0.5
CHKZ	**Chkalovo**	53.13	343	P	P	19 13 04.5	0.0
CHKZ				pmax	pmax		
	comp=Z,380nm,1.2s,mb6.2						
CHKZ	**Chkalovo**	53.13	343	*e*P	P	19 13 04.1	-0.3
	comp=Z,380nm,1.3s,mb6.2						
AFFS	**‘Afif**	53.19	297	P	P	19 13 05.8	+0.5
ARSS	**Ar Rass**	53.46	299	P	P	19 13 07.1	-0.1
KLR	**Kul’dur**	55.10	29	*e*P	P	19 13 16.0	-3.0
KLR				pmax	pmax		
	comp=N,45nm,2.0s						
KLR				pmax	pmax		
	comp=E,80nm,2.0s						
KLR				pmax	pmax		
	comp=Z,90nm,2.0s,mb5.5						
HILS	**Ha’il**	55.10	301	P	P	19 13 20.3	+1.0
BOD	**Bodaibo**	55.81	13	*e*P	P	19 13 22.9	-1.1
CTA	**Charters Tower**	56.38	117	P	P	19 13 28.4	-0.2
	comp=Z,33nm,1.0s,mb5.3,baz=290,slow=8.1,SNR=19						
CTAO	**Charters Tower**	56.38	117	P	P	19 13 28.7	+0.2
CTAO				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.6						
CTAO	**Charters Tower**	56.38	117	*e*P	P	19 13 28.0	-0.5
	comp=Z,80nm,1.3s,mb5.6						
MAK	**Makhachkala**	56.69	320	*e*P	pP	19 13 42.0	+1.4
KBRS	**Khaybar**	56.92	298	P	P	19 13 33.1	+0.8
KMBO	**Kilima Mbogo**	57.23	266	P	P	19 13 34.9	+0.2
	comp=Z,16nm,1.1s,mb5.0,baz=59,slow=8.8,SNR=20						
KMBO	**Kilima Mbogo**	57.23	266	P	P	19 13 35.2	+0.4
KMBO				pmax	pmax		
	comp=Z,33nm,1.1s						
KMBO	**Kilima Mbogo**	57.23	266	*e*P	P	19 13 34.6	-0.2
	comp=Z,32nm,1.1s,mb5.3						
KMBO				*e*	pP	19 13 44.9	0.0
GNI	**Garni**	57.23	316	P	P	19 13 34.1	-0.3
	comp=Z,9.0nm,0.8s,mb4.8,baz=177,slow=10,SNR=15						
GNI	**Garni**	57.23	316	*e*P	P	19 13 33.8	-0.6
GNI				pmax	pmax		
	comp=Z,130nm,1.5s						
STKA	**Stephens Creek**	57.41	132	P	P	19 13 35.4	-0.4
	comp=Z,13nm,0.8s,mb5.0,baz=306,slow=8.2,SNR=13						
STKA	**Stephens Creek**	57.41	132	*e*P	P	19 13 35.2	-0.6
YNBS	**Yanbu‘ al Bahr**	57.75	296	P	P	19 13 39.2	+1.0
ZEI	**Tsey**	58.95	319	*e*P	P	19 13 42.4	-3.9
ZEI				*i* *PP	pP	19 13 47.8	-8.7
ZEI				*i*		19 15 51.7	
ZEI				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
SVE	**Sverdlovsk**	58.99	339⇓	*e*P	P	19 13 45.2	-1.2
ARU	**Arti**	59.45	338⇓	*i*P	P	19 13 48.3	-1.3
ARU				*e*		19 14 36.3	
ARU				*e*		19 16 04.0	
ARU				*i* S	S	19 21 55.8	+1.0
ARU				*e*SS	SS	19 25 49.0	-2.4
ARU				pmax	pmax		
	comp=Z,152nm,1.6s,mb5.8						
ARU	**Arti**	59.45	338	*i* Pr	P	19 13 48.3	-1.3
ERZM	**Erzurum**	59.50	315	*i* P	P	19 13 45.4	-4.8
YSS	**Yuzh-Sakhalins**	59.71	36	*e*P	pP	19 14 02.2	+0.5
YSS				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.5						
YSS	**Yuzh-Sakhalins**	59.71	36	P	P	19 13 51.5	-0.1
	comp=Z,68nm,1.3s,mb5.5						
KIV	**Kislovodsk**	60.26	319	P	P	19 13 54.7	-0.7
	comp=Z,253nm,1.3s,mb6.1,SNR=15						
KIV	**Kislovodsk**	60.26	319	*e*P	P	19 13 54.1	-1.3
KIV				pmax	pmax		
	comp=Z,57nm,1.2s,mb5.5						
KIV	**Kislovodsk**	60.26	319	*i* Pr	P	19 13 54.1	-1.3
ASF	**Jabal al Asfar**	60.46	305	P	P	19 13 57.2	+0.4
	comp=Z,17nm,1.0s,mb5.0,baz=22,slow=3.7,SNR=18						
ASF				pP	pP	19 14 08.0	+1.0
	comp=Z,25nm,1.0s,baz=32,slow=0.8,SNR=12						
GOF	**Gofitskoye**	60.53	321⇓	*i*P	P	19 13 55.0	-2.1
GOF				pmax	pmax		
	comp=Z,51nm,1.2s,mb5.5						
ELZG	**Elazig**	60.72	312	*i* P	P	19 13 58.3	-0.2
MALT	**Malatya**	61.07	312	P	P	19 14 00.5	-0.4
MALT				pmax	pmax		
	comp=Z,110nm,1.6s,mb5.7						
MALT	**Malatya**	61.07	312	*e*P	P	19 14 00.3	-0.6
	comp=Z,112nm,1.6s,mb5.7						
MALT				*e*	pP	19 14 10.4	-0.7
MKRJ	**Makawir**	61.34	304	P	P	19 14 03.3	+0.5
GZT	**Gaziantep**	61.41	311	*i* P	P	19 14 03.1	-0.1
AQBJ	**Aqaba**	61.42	302	P	P	19 14 03.6	+0.2
EIL	**Elat**	61.49	302	P	P	19 14 04.2	+0.3
	comp=Z,21nm,0.8s,mb5.3,baz=90,slow=5.1,SNR=21						
EIL				pP	pP	19 14 14.7	+0.6
	comp=Z,44nm,0.9s,baz=87,slow=5.8,SNR=15						
EIL	**Elat**	61.49	302	*e*P	P	19 14 03.7	-0.2
	comp=Z,69nm,1.0s,mb5.7						
EIL				*e*	pP	19 14 14.2	+0.1
ZFRI	**Zfri**	61.49	303	P	P	19 14 04.2	+0.3
MZDA	**Masada**	61.51	303	P	P	19 14 04.5	+0.5
MBH	**Mount Berech**	61.55	302	P	P	19 14 04.8	+0.5
KSHT	**Keshet**	61.55	305	P	P	19 14 05.2	+0.9
DRGI	**Dragot**	61.55	304	P	P	19 14 04.8	+0.5
PRNI	**Paran**	61.59	302	P	P	19 14 05.0	+0.4
MMLI	**Mount Malkishu**	61.73	305	P	P	19 14 06.3	+0.8
SLTI	**Sal’it**	62.00	304	P	P	19 14 07.8	+0.5
RTMM	**Retamin**	62.02	303	P	P	19 14 07.5	0.0
SOC	**Sochi**	62.07	318	*i* P	P	19 14 04.9	-2.7
SOC				*e*		19 16 17.0	
SOC				*e*S	S	19 22 25.9	-2.5
SOC				pmax	pmax		
	comp=N,24nm,1.1s						
SOC				pmax	pmax		
	comp=E,16nm,1.1s						
SOC				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.6						
HNTI	**Hanita**	62.09	305	P	P	19 14 08.7	+0.8
OFRI	**‘Ofer**	62.13	305	P	P	19 14 08.7	+0.5
HAF	**Haifa**	62.14	305	P	P	19 14 08.8	+0.5
COBT	**Iskenderun**	62.16	309	*i* P	P	19 14 08.4	+0.1
KZIT	**Kziot**	62.23	303	P	P	19 14 09.1	+0.2
YAK	**Yakutsk**	63.55	18*d*	*i*P	P	19 14 15.8	-1.3
YAK				*e*	pP	19 14 26.2	-1.1
YAK				*e*S	S	19 22 45.8	-1.0
YAK				*e*		19 23 02.5	
YAK				pmax	pmax		
	comp=Z,79nm,1.0s,mb5.7						
YAK				pmax	pmax		
	comp=N,39nm,1.1s						
YAK				pmax	pmax		
	comp=E,38nm,1.3s						
YAK				pmax	pmax		
	comp=Z,3.0nm,1.1s						
YAK				pmax	pmax		
	comp=N,8.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.2s						
YAK				smax			
	comp=N,16nm,1.1s						
YAK				smax			
	comp=Z,3.0nm,1.0s						
YAK				smax			
	comp=E,18nm,1.3s						
YAK				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.5						
YAK				MLR	MLR		
	comp=N,2µm,15.0s,MS5.5						
YAK				MLR	MLR		
	comp=E,2µm,13.0s,MS5.5						
YAK	**Yakutsk**	63.55	18	*e*P	P	19 14 15.8	-1.3
	comp=E,183nm,1.1s,mb6.0						
MBAR	**Mbarara**	63.67	267*d*	*i*P	P	19 14 18.3	-0.4
MBAR	**Mbarara**	63.67	267⇓	*i*P	P	19 14 18.1	-0.6
	comp=E,76nm,1.7s,mb5.5						
MEST	**Erdemli**	63.81	309	*i* P	P	19 14 17.8	-1.5
AVNT	**Avonos**	63.88	311	*i* P	P	19 14 18.0	-1.7
CSS	**Prodhromos**	64.04	307	*e*P	P	19 14 19.7	-1.1
	comp=E,110nm,1.3s,mb5.7						
CSS				*e*	pP	19 14 30.6	-0.4
ANN	**Anapa**	64.05	318	*e*P	P	19 14 16.9	-3.8
ANN				*e*		19 14 29.2	
ANN				*e*S	S	19 22 55.0	+1.8
ANN				pmax	pmax		
	comp=Z,69nm,1.3s,mb5.5						
CTKT	**Corum**	64.47	313	*i* P	P	19 14 18.6	-5.0
BOYT	**Boyabat**	64.64	314	*i* P	P	19 14 23.1	-1.5
BRTR	**Keskin Array B**	65.05	312	P	P	19 14 25.9	-1.4
	comp=Z,11nm,0.9s,mb4.9,baz=126,slow=6.8,SNR=33						
BRTR				pP	pP	19 14 36.5	-1.0
	comp=Z,22nm,0.8s,baz=125,slow=7.3,SNR=18						
ELDT	**Eldivan**	65.43	313	*i* P	P	19 14 27.0	-2.7
BALT	**Daday**	65.76	314	*i* P	P	19 14 25.9	-5.9
SIM	**Simferopol’**	66.31	318*d*	*i*P	P	19 14 34.0	-1.2
SIM				*i* S	S	19 23 23.0	+2.0
SIM				pmax	pmax		
	comp=Z,173nm,1.5s,mb5.9						
ISP	**Isparta**	66.93	309	P	P	19 14 38.0	-1.3
ISP				pmax	pmax		
	comp=Z,230nm,1.8s,mb5.9						
ISP	**Isparta**	66.93	309	*e*P	P	19 14 37.8	-1.5
	comp=Z,231nm,1.8s,mb5.9						
LSZ	**Lusaka**	68.19	252	P	P	19 14 47.3	-0.2
LSZ				pmax	pmax		
	comp=Z,53nm,1.4s,mb5.4						
LSZ	**Lusaka**	68.19	252⇓	*i*P	P	19 14 47.2	-0.3
	comp=Z,53nm,1.4s,mb5.4						
MOS	**Moscow**	68.41	329κ	*i*P	P	19 14 47.1	-1.2
MOS				*e*		19 15 11.5	
MOS				*e*		19 17 17.6	
MOS				*e*PPP	PPP	19 18 58.0	-0.8
MOS				pmax	pmax		
	comp=Z,700nm,1.9s,mb6.4						
MOS				pmax	pmax		
	comp=Z,382nm,1.8s,mb6.1						
OBN	**Obninsk**	68.68	329⇓	*i*P	P	19 14 48.4	-1.6
OBN				*i* *PP	pP	19 14 59.6	-0.5
OBN				*i*		19 17 23.2	
OBN				*e*S	S	19 23 49.7	+0.5
OBN				pmax	pmax		
	comp=Z,252nm,1.8s,mb5.8						
OBN	**Obninsk**	68.68	329	*i* Pr	P	19 14 48.4	-1.6
SKR	**Severo-Kuril’s**	69.28	37	*e*P	P	19 14 50.0	-3.7
SKR				*e*		19 14 57.5	
SKR				pmax	pmax		
	comp=Z,90nm,0.7s,mb5.8						
MA2	**Magadan**	70.07	27*c*	*i*P	P	19 14 57.8	-0.6
MA2				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.4						
MA2	**Magadan**	70.07	27⇑	*i*P	P	19 14 57.8	-0.6
KIS	**Kishinev**	70.45	319	*e*P	P	19 15 00.0	-0.9
KIS				*e*		19 15 28.0	
IDI	**Anoyia**	70.88	306	P	P	19 15 03.7	-0.1
	comp=Z,23nm,0.5s,mb5.4,baz=100,slow=8.0,SNR=26						

IDI				pP	pP	19 15 14.7	+0.8
	comp=Z,61nm,0.8s,baz=103,slow=6.3,SNR=13						
TIXI	**Tiksi**	**70.92**	**11**	⇓*e*P	**P**	**19 15 02.4**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,291nm,2.3s,mb5.8						
TIXI	**Tiksi**	**70.92**	**11**	⇓*e*P	**P**	**19 15 02.5**	**-0.9**
AKASG	**Malin Array Be**	**71.24**	**322**	P	**P**	**19 15 04.2**	**-1.4**
	comp=Z,3.4nm,0.5s,mb4.5,baz=89,slow=4.4,SNR=35						
AKASG				pP	pP	19 15 14.8	-1.0
	comp=Z,7.6nm,0.7s,baz=91,slow=4.3,SNR=12						
PET	**Petropavlovsk**	**71.53**	**35**	*e*P	**P**	**19 15 02.5**	**-4.9**
PET				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.4						
MLR	**Muntele Rosu**	**72.01**	**317**	P	**P**	**19 15 10.3**	**0.0**
	comp=Z,31nm,1.0s,mb5.2,baz=89,slow=2.1,SNR=27						
MLR				pP	pP	19 15 21.0	+0.5
	comp=Z,57nm,1.1s,baz=48,slow=4.0,SNR=13						
MLR	**Muntele Rosu**	**72.01**	**317**	P	**P**	**19 15 10.3**	**0.0**
MLR				pP	pP	19 15 21.0	+0.4
LBTB	**Lobatse**	**72.58**	**242**	P	**P**	**19 15 14.7**	**+0.5**
LBTB				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.2						
LBTB	**Lobatse**	**72.58**	**242**	⇓*e*P	**P**	**19 15 14.2**	**0.0**
	comp=Z,43nm,1.4s,mb5.2						
MNK	**Minsk**	**73.17**	**326**	*e*P	**P**	**19 15 14.0**	**-3.0**
PUL	**Pulkovo**	**73.61**	**332**	⇑*e*P	**P**	**19 15 19.3**	**-0.2**
PUL				pmax	pmax		
	comp=Z,64nm,0.7s,mb5.7						
PUL				pmax	pmax		
	comp=N,24nm,0.6s						
PUL				MLR	MLR		
	comp=Z,2µm,13.0s,MS5.7						
PUL				MLR	MLR		
	comp=E,2µm,14.0s						
BOSA	**Boshof**	**73.72**	**239**	P	**P**	**19 15 21.0**	**+0.2**
BOSA				pmax	pmax		
	comp=Z,62nm,1.3s,mb5.4						
BOSA	**Boshof**	**73.72**	**239**	*e*P	**P**	**19 15 20.3**	**-0.4**
	comp=Z,62nm,1.3s,mb5.4						
BOSA				*e*	pP	19 15 28.8	-2.2
MAW	**Mawson**	**74.85**	**192**	P	**P**	**19 15 28.2**	**+1.7**
	comp=Z,8.7nm,0.9s,mb4.7,baz=35,slow=7.6,SNR=6.0						
MAW				pP	pP	19 15 37.6	+0.8
	comp=Z,16nm,0.9s,baz=52,slow=5.2,SNR=7.6						
MAW	**Mawson**	**74.85**	**192**	P	**P**	**19 15 28.4**	**+1.9**
MAW				pmax	pmax		
	comp=Z,51nm,1.3s						
MAW	**Mawson**	**74.85**	**192**	*e*P	**P**	**19 15 27.9**	**+1.4**
	comp=Z,51nm,1.3s,mb5.3						
VSU	**Vasula**	**74.93**	**330**	*d* *i*P	**P**	**19 15 26.4**	**-0.7**
VSU	**Vasula**	**74.93**	**330**	*i* Pr	**P**	**19 15 26.4**	**-0.7**
KWP	**Kalwaria**	**75.03**	**320**	*e*P	**P**	**19 15 27.6**	**-0.3**
DZM	**Mont Dzumac**	**75.09**	**114**	*e*P	**P**	**19 15 29.6**	**+0.8**
DZM	**Mont Dzumac**	**75.09**	**114**	*e*P	**P**	**19 15 29.6**	**+0.8**
KOLS	**Kolonicke sedl**	**75.17**	**320**	*i* P	**P**	**19 15 29.0**	**+0.3**
KOLS				*e*pP	pP	19 15 39.8	+0.8
LVZ	**Lovozero**	**75.18**	**340**	⇑*e*P	**P**	**19 15 28.4**	**0.0**
APA	**Apatity**	**75.45**	**340**	⇑*i*P	**P**	**19 15 28.7**	**-1.3**
APA				*i*	pP	19 15 39.9	-0.3
APA				pmax	pmax		
	comp=Z,150nm,1.5s,mb5.7						
APA				MLR	MLR		
	comp=Z,6µm,14.0s,MS6.0						
SUW	**Suwalki**	**75.68**	**325**	*e*P	**P**	**19 15 30.2**	**-1.3**
CRVS	**Cervenica-Dubn**	**75.69**	**319**	*e*P	**P**	**19 15 35.2**	**+3.5**
CRVS				*e*	pP	19 15 46.6	+4.6
CRVS				*e*S	S	19 25 07.0	-2.5
FINES	**FINESS Array B**	**76.14**	**333**	P	**P**	**19 15 33.4**	**-0.6**
	comp=Z,18nm,0.8s,mb5.0,baz=98,slow=5.6,SNR=25						
FINES				pP	pP	19 15 43.7	-0.6
	comp=Z,13nm,0.6s,baz=104,slow=7.9,SNR=8.4						
KAF	**Kangasniemi**	**76.24**	**333**	*e*p	**P**	**19 15 34.0**	**-0.5**
	comp=Z,40nm,0.9s,mb5.3						
KAF	**Kangasniemi**	**76.24**	**333**	*e*P	**P**	**19 15 34.0**	**-0.5**
KAF				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
KECS	**Kecovo**	**76.26**	**319**	*e*P	**P**	**19 15 34.5**	**-0.4**
KECS				*e*pP	pP	19 15 45.3	+0.1
NIE	**Niedzica**	**76.53**	**320**	*e*P	**P**	**19 15 36.8**	**+0.4**
PSZ	**Piszkesteto**	**76.56**	**318**	P	**P**	**19 15 36.4**	**-0.2**
PSZ				pmax	pmax		
	comp=Z,76nm,1.6s,mb5.4						
PSZ	**Piszkesteto**	**76.56**	**318**	⇓*e*P	**P**	**19 15 36.3**	**-0.3**
OJC	**Ojcow**	**76.99**	**321**	⇓*i*P	**P**	**19 15 38.7**	**-0.2**
OJC	**Ojcow**	**76.99**	**321**	*i* P	**P**	**19 15 38.7**	**-0.2**
VYHS	**Vyhne**	**77.34**	**319**	*e*P	**P**	**19 15 41.4**	**+0.5**
VYHS				*e*pP	pP	19 15 51.4	+0.2
RHK1	**Bakonya**	**77.54**	**316**	⇑*i*P	**P**	**19 15 41.8**	**-0.2**
SRO	**Srobarova**	**77.59**	**318**	*e*P	**P**	**19 15 43.6**	**+1.3**
OKC	**Ostrava-Krasne**	**77.98**	**320**	*e*P	**P**	**19 15 44.7**	**+0.3**
OKC				*e*pP	pP	19 15 55.4	+0.7
SMOL	**Smolenice**	**78.27**	**319**	*e*P	**P**	**19 15 46.6**	**+0.6**
MORC	**Moravsky Berou**	**78.36**	**320**	P	**P**	**19 15 46.9**	**+0.4**
MORC				pmax	pmax		
	comp=Z,150nm,1.8s,mb5.6						
MORC	**Moravsky Berou**	**78.36**	**320**	*e*P	**P**	**19 15 46.6**	**+0.1**
	comp=Z,151nm,1.8s,mb5.6						
ZST	**Bratislava**	**78.45**	**318**	*e*P	**P**	**19 15 47.3**	**+0.3**
ZST				*e*pP	pP	19 15 57.5	+0.2
KEV	**Kevo**	**78.47**	**341**	*e*p	**P**	**19 15 46.7**	**0.0**
	comp=Z,17nm,1.0s,mb4.9						
KEV	**Kevo**	**78.47**	**341**	*e*P	**P**	**19 15 46.7**	**0.0**
KEV				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
ARCES	**ARCESS Array B**	**78.89**	**340**	P	**P**	**19 15 49.3**	**+0.3**
	comp=Z,20nm,0.9s,mb5.0,baz=127,slow=6.1,SNR=20						
GKP	**Gorka Klasztor**	**79.02**	**323**	*e*P	**P**	**19 15 49.4**	**-0.6**
DPC	**Dobruska-Polom**	**79.21**	**320**	*e*P	**P**	**19 15 51.9**	**+0.8**
DPC				*e*pP	pP	19 16 02.5	+1.0
KSP	**Ksiaz**	**79.29**	**321**	*e*P	**P**	**19 15 51.9**	**+0.4**
KSP				*e*pP	pP	19 15 57.2	-4.7
KSP	**Ksiaz**	**79.29**	**321**	*e*P	**P**	**19 15 51.7**	**+0.2**
ARSA	**Arzberg**	**79.41**	**317**	⇓*i*P	**P**	**19 15 52.9**	**+0.7**
	comp=Z,92nm,1.5s,mb5.5						
UPC	**Upice**	**79.43**	**321**	*e*P	**P**	**19 15 52.5**	**+0.2**
BOJS	**Bojanci**	**79.44**	**315**	*i* P	**P**	**19 15 52.6**	**+0.2**
BOJS				*i*	pP	19 16 03.4	+0.6
BILL	**Bilibino**	**79.56**	**21**	*d* *i*P	**P**	**19 15 52.3**	**-0.4**
BILL				pmax	pmax		
	comp=Z,79nm,2.1s,mb5.3						
BILL	**Bilibino**	**79.56**	**21**	*i* Pr	**P**	**19 15 52.3**	**-0.4**
OBKA	**Obir**	**80.01**	**316**	⇓*i*P	**P**	**19 15 56.0**	**+0.5**
	comp=Z,74nm,1.4s,mb5.4						
FX1	**Attu Island--F**	**80.06**	**37**	P	**P**	**19 15 56.0**	**+0.4**
	comp=Z,64nm,0.5s,mb5.8,baz=293,slow=3.1,SNR=25						
FX1	**Attu Island--F**	**80.06**	**37**	*e*P	**P**	**19 15 55.8**	**+0.2**
MOA	**Molln**	**80.31**	**318**	⇓*i*P	**P**	**19 15 57.2**	**+0.1**
	comp=Z,40nm,1.6s,mb5.1						
PRU	**Pruhonice**	**80.31**	**320**	*e*P	**P**	**19 15 57.3**	**+0.3**
	comp=Z,60nm,1.5s,mb5.3						
PRU				*e*pP	pP	19 16 08.0	+0.6
PVCC	**Panska Ves**	**80.35**	**320**	*e*P	**P**	**19 15 58.1**	**+0.9**
PVCC				*e*pP	pP	19 16 08.6	+1.0
BSD	**Bornholm Skovb**	**80.61**	**325**	*e*P	**P**	**19 15 57.2**	**-1.3**
BSD				*i*	pP	19 16 08.1	-0.8
BSD				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
BSD	**Bornholm Skovb**	**80.61**	**325**	*e*P	**P**	**19 15 57.2**	**-1.3**
	comp=Z,37nm,0.9s,mb5.3						
BSD				*i*	pP	19 16 08.1	-0.8
BSD	**Bornholm Skovb**	**80.61**	**325**	*i* P	**P**	**19 15 57.2**	**-1.3**
	comp=Z,37nm,0.9s,mb5.3						
BSD				*i*	pP	19 16 08.1	-0.8
GERES	**GERESS Array B**	**80.77**	**319**	P	**P**	**19 15 59.9**	**+0.5**
	comp=Z,19nm,0.9s,mb5.0,baz=90,slow=5.3,SNR=50						
GERES				pP	pP	19 16 10.6	+0.8
	comp=Z,23nm,0.9s,baz=108,slow=4.2,SNR=14						
BRG	**Berggiesshubel**	**80.77**	**321**	*i* P	**P**	**19 16 00.0**	**+0.6**
BRG				*i*	pP	19 16 09.9	+0.1
BRG				pmax	pmax		
	comp=Z,116nm,1.7s,mb5.5						
BRG	**Berggiesshubel**	**80.77**	**321**	*i* P	**P**	**19 16 00.0**	**+0.6**
	comp=Z,116nm,1.7s,mb5.5						
BRG				*i*	pP	19 16 09.9	+0.1
PTCC	**Patocco-Chiusa**	**80.83**	**316**	*e*P	**P**	**19 16 00.3**	**+0.5**
KHC	**Kasperske Hory**	**80.87**	**319**	*d* *i*P	**P**	**19 16 00.1**	**+0.1**
KHC	**Kasperske Hory**	**80.87**	**319**	*e*P	**P**	**19 16 00.1**	**+0.1**
KHC				*e*pP	pP	19 16 10.6	+0.2
KBA	**Koelnbreinsper**	**80.88**	**317**	⇓*i*P	**P**	**19 16 00.0**	**-0.1**
	comp=Z,25nm,1.4s,mb5.0						
ARV	**Arcevia**	**80.95**	**313**	*e*P	**P**	**19 16 01.2**	**+0.7**
RUE	**Ruedersdorf**	**81.02**	**322**	*e*P	**P**	**19 16 00.9**	**+0.3**
	comp=Z,213nm,1.6s,mb5.8						
FVI	**Forni Avoltri**	**81.23**	**316**	*e*P	**P**	**19 16 02.6**	**+0.7**
CLL	**Collm**	**81.40**	**321**	⇓*i*P	**P**	**19 16 02.6**	**-0.1**
CLL				*i*	pP	19 16 13.5	+0.4
CLL				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.2						
CLL	**Collm**	**81.40**	**321**	⇓*i*P	**P**	**19 16 02.6**	**-0.1**
	comp=Z,38nm,1.2s,mb5.2						
CLL				*i*	pP	19 16 13.5	+0.4
CLL	**Collm**	**81.40**	**321**	⇓P	**P**	**19 16 02.6**	**-0.1**
	comp=Z,logA/T=1.5,mb5.2						
CLL				*i* *PP	pP	19 16 13.5	+0.4
NKC	**Novy Kostel**	**81.68**	**320**	*e*P	**P**	**19 16 04.6**	**+0.4**
SFI	**Santa Sofia**	**81.76**	**314**	*e*P	**P**	**19 16 06.2**	**+1.5**
SYO	**Syowa Base**	**81.83**	**197**	⇑P	**P**	**19 16 05.8**	**+1.2**
SYO	**Syowa Base**	**81.83**	**197**	⇑P	pP	19 16 16.9	+1.9
PGD	**Poggio Sodo**	**81.85**	**314**	*e*P	**P**	**19 16 06.8**	**+1.6**
VMG	**Vicchio**	**81.98**	**314**	*e*P	**P**	**19 16 06.9**	**+1.1**
CTI	**Castel Tesino**	**81.99**	**316**	*e*P	**P**	**19 16 06.7**	**+0.8**
WTTA	**Wattenberg**	**82.05**	**317**	⇑*i*P	**P**	**19 16 06.0**	**-0.2**
	comp=Z,78nm,1.6s,mb5.4						
WATA	**Walderalm**	**82.09**	**317**	⇓*i*P	**P**	**19 16 05.9**	**-0.5**
	comp=Z,18nm,0.8s,mb5.0						
SEI	**Scarperia**	**82.12**	**314**	*e*P	**P**	**19 16 07.5**	**+0.9**
MOX	**Moxa**	**82.23**	**320**	*e*P	**P**	**19 16 07.8**	**+0.8**
MOX	**Moxa**	**82.23**	**320**	*i* P	**P**	**19 16 07.8**	**+0.8**
SQTA	**Sankt Quirin**	**82.34**	**317**	⇑*i*P	**P**	**19 16 07.7**	**0.0**
	comp=Z,17nm,0.8s,mb5.0						
MOTA	**Moosalm**	**82.42**	**317**	⇓*i*P	**P**	**19 16 07.9**	**-0.2**
	comp=Z,21nm,1.0s,mb5.0						
GRA1	**Grafenberg Arr**	**82.44**	**319**	*e*P	**P**	**19 16 09.0**	**+0.9**
	comp=Z,173nm,1.7s,mb5.7						
GRA1				*e*pP	pP	19 16 19.0	+0.4
GRF	**Grafenberg Arr**	**82.44**	**319**	*e*P	**P**	**19 16 09.0**	**+0.9**
GRF				*e**PP	pP	19 16 19.0	+0.4
GRF				pmax	pmax		
	comp=Z,173nm,1.7s,mb5.7						
GRF	**Grafenberg Arr**	**82.44**	**319**	*e*P	**P**	**19 16 09.0**	**+0.9**
	comp=Z,173nm,1.7s,mb5.7						
GRF				*e*pP	pP	19 16 19.0	+0.4
MABI	**Malga Bissina**	**82.78**	**316**	*e*P	**P**	**19 16 10.6**	**+0.6**
BRMO	**Bormio**	**82.89**	**316**	*e*P	**P**	**19 16 11.3**	**+0.7**
NB2	**NORSAR Subarra**	**83.11**	**331**	P	**P**	**19 16 10.7**	**-0.7**
	comp=Z,98nm,1.7s,mb5.6,baz=95,slow=5.0						
NB2	**NORSAR Subarra**	**83.11**	**331**	P	**P**	**19 16 10.7**	**-0.7**
	baz=95,slow=5.3						
NOA	**NORSAR Array B**	**83.11**	**331**	P	**P**	**19 16 11.1**	**-0.3**
	comp=Z,9.6nm,0.9s,mb4.8,baz=94,slow=5.6,SNR=14						
NOA				pP	pP	19 16 22.0	+0.2
	comp=Z,9.6nm,0.9s,baz=94,slow=5.4,SNR=8.5						
DAVA	**Damuels**	**83.25**	**317**	⇑*i*P	**P**	**19 16 12.7**	**+0.3**
	comp=Z,70nm,1.4s,mb5.5						
STU	**Stuttgart**	**83.74**	**318**	P	**P**	**19 16 15.5**	**+0.6**
STU	**Stuttgart**	**83.74**	**318**	*e*P	**P**	**19 16 14.8**	**-0.1**
PGF	**Pioggiola**	**83.81**	**312**	*e*P	**P**	**19 16 14.5**	**-0.9**
	comp=Z,250nm,1.5s,mb5.8						
MUD	**Monsted U’grnd**	**83.94**	**326**	*i* P	**P**	**19 16 16.4**	**+0.7**
MUD				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.4						
MUD	**Monsted U’grnd**	**83.94**	**326**	*i* P	**P**	**19 16 16.4**	**+0.7**
	comp=Z,30nm,0.9s,mb5.4						
SPAK	**Spaichingen**	**84.00**	**318**	*e*P	**P**	**19 16 15.6**	**-0.6**
TOD	**Tromm**	**84.01**	**319**	*e*P	**P**	**19 16 16.7**	**+0.5**
KTD	**Kalmit**	**84.47**	**319**	*e*P	**P**	**19 16 18.6**	**+0.1**
FELD	**Feldberg**	**84.52**	**318**	*e*P	**P**	**19 16 17.2**	**-1.6**
LANF	**Langenberg**	**84.66**	**319**	*e*P	**P**	**19 16 18.9**	**-0.6**
STR	**Strasbourg**	**84.68**	**318**	*e*P	**P**	**19 16 19.1**	**-0.5**
LIBD	**Limburg**	**84.79**	**318**	*e*P	**P**	**19 16 21.3**	**+1.1**
ABH	**Alteburg**	**84.82**	**320**	*e*P	**P**	**19 16 19.8**	**-0.5**
BBS	**Basel-Blauen**	**84.86**	**317**	*e*P	**P**	**19 16 19.3**	**-1.2**
SBF	**Sospel**	**84.95**	**314**	*e*P	**P**	**19 16 20.6**	**-0.4**
	comp=Z,76nm,0.9s,mb5.5						
AUTN	**L’Aution**	**84.95**	**314**	*e*P	**P**	**19 16 17.0**	**-4.1**
CDF	**Champ du Feu**	**85.01**	**318**	*e*P	**P**	**19 16 20.4**	**-0.8**
	comp=Z,38nm,1.2s,mb5.1						
ECH	**Echery**	**85.09**	**318**	*e*P	**P**	**19 16 20.1**	**-1.5**
MOF	**Molkenrain**	**85.11**	**318**	*e*P	**P**	**19 16 22.2**	**+0.4**
MVIF	**Mont Vial**	**85.15**	**314**	*e*P	**P**	**19 16 19.8**	**-2.3**
LOMF	**Lomont**	**85.32**	**317**	*e*P	**P**	**19 16 20.1**	**-2.7**
LPG	**La Plagne**	**85.41**	**315**	*e*P	**P**	**19 16 23.2**	**-0.1**
	comp=Z,128nm,1.4s,mb5.6						
MBDF	**Montbardon**	**85.41**	**314**	*e*P	**P**	**19 16 22.4**	**-0.9**
	comp=Z,36nm,1.2s,mb5.1						
BNI	**Bardonecchia**	**85.47**	**315**	P	**P**	**19 16 27.2**	**+3.6**
BNI				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.1						
BNI	**Bardonecchia**	**85.47**	**315**	*e*P	**P**	**19 16 23.6**	**0.0**
	comp=Z,19nm,1.1s,mb5.1						
HAU	**Haudompre**	**85.64**	**318**	*e*P	**P**	**19 16 23.5**	**-0.9**
	comp=Z,154nm,1.5s,mb5.7						
THEF	**They Montfort**	**85.87**	**318**	*e*P	**P**	**19 16 24.1**	**-1.5**
URZ	**Urewera**	**86.86**	**129**	P	**P**	**19 16 30.4**	**-0.2**
	comp=Z,30nm,0.9s,mb5.5,baz=352,slow=3.2,SNR=9.2						
BAIF	**Baives**	**86.97**	**320**	*e*P	**P**	**19 16 30.6**	**-0.3**
	comp=Z,136nm,1.5s,mb5.7						
PLDF	**La Plantade**	**87.58**	**316**	*e*P	**P**	**19 16 35.0**	**+1.1**
SSF	**Saint Saulge**	**87.60**	**317**	*e*P	**P**	**19 16 33.3**	**-0.7**
	comp=Z,41nm,1.2s,mb5.2						
AGO	**Saint Agoulin**	**87.92**	**316**	*e*P	**P**	**19 16 36.7**	**+1.2**
PYM	**Petit Puy Mans**	**88.02**	**316**	*e*P	**P**	**19 16 35.0**	**-1.0**
BGF	**Bois d’Agland**	**88.08**	**316**	*e*P	**P**	**19 16 35.0**	**-1.3**
	comp=Z,144nm,1.4s,mb5.7						
RJF	**Les Rejaudoux**	**89.10**	**315**	*e*P	**P**	**19 16 40.7**	**-0.5**
	comp=Z,193nm,1.6s,mb5.9						
VNDA	**Vanda**	**89.18**	**168**	P	**P**	**19 16 42.0**	**+1.0**
	comp=Z,4.2nm,0.9s,mb4.8,baz=292,slow=5.8,SNR=6.0						
VNDA	**Vanda**	**89.18**	**168**	*e*P	**P**	**19 16 42.1**	**+1.2**
VNDA				pmax	pmax		
	comp=Z,23nm,1.3s						
VNDA	**Vanda**	**89.18**	**168**	*e*P	**P**	**19 16 41.8**	**+0.8**
	comp=Z,23nm,1.4s,mb5.3						
FLN	**La Foliniere**	**90.13**	**319**	*e*P	**P**	**19 16 44.8**	**-1.1**
	comp=Z,350nm,1.8s,mb6.1						
ANM	**Nome**	**90.80**	**25**	*e*P	**P**	**19 16 49.8**	**+1.2**
ETSF	**Etsaut**	**90.82**	**313**	*e*P	**P**	**19 16 48.1**	**-1.2**
DAG	**Danmarks Havn**	**91.21**	**348**	⇑*e*P	**P**	**19 16 50.2**	**-0.2**
DAG				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.5						
DAG	**Danmarks Havn**	**91.21**	**348**	⇑*e*P	**P**	**19 16 50.2**	**-0.2**
	comp=Z,33nm,1.4s,mb5.5						
DAG	**Danmarks Havn**	**91.21**	**348**	⇑*i*P	**P**	**19 16 50.2**	**-0.2**
	comp=Z,32nm,1.4s,mb5.5						
	comp=Z,8µm,18.0s						
ESDC	**Sonseca Array**	**93.78**	**310**	P	**P**	**19 17 03.8**	**+0.9**
	comp=Z,2.9nm,0.8s,mb4.8,baz=60,slow=3.8,SNR=10						
ESDC				pP	pP	19 17 14.5	+1.1
	comp=Z,3.5nm,0.8s,baz=60,slow=3.7,SNR=7.2						
IMA	**Indian Mountai**	**95.08**	**22**	P	**P**	**19 17 09.9**	**+1.6**
IMA				pmax	pmax		
	comp=Z,210nm,1.6s,mb6.3						
IMA	**Indian Mountai**	**95.08**	**22**	*e*P	**P**	**19 17 09.4**	**+1.1**
SPU	**Mount Spurr**	**97.61**	**27**	*e*P	**P**	**19 17 20.2**	**+0.3**
INK	**Inuvik**	**100.59**	**16**	P	P	19 17 33.1	-0.2
	comp=Z,3.2nm,1.1s,baz=228,slow=5.6,SNR=4.3						
SCHQ	**Schefferville**	**119.26**	**348**	PKP	PKPdf	19 22 34.9	-4.0
	baz=27,slow=6.8,SNR=3.6						
BMO	**Blue Mountains**	**123.71**	**27**	PKIKP	PKPdf	19 22 44.8	-3.0
BMO	**Blue Mountains**	**123.71**	**27**	*e*PKPdf	PKPdf	19 22 43.5	-4.3
CHMT	**Chamberlain Mo**	**123.72**	**22**	*e*PKPdf	PKPdf	19 22 43.6	-4.2
HRY	**Holter Researc**	**124.42**	**22**	*e*PKPdf	PKPdf	19 22 45.6	-3.6
ULM	**Lac du Bonnet**	**125.20**	**8**	PKP	PKPdf	19 22 48.0	-2.5
	comp=Z,5.7nm,0.8s,baz=332,slow=1.8,SNR=8.9						
BOZ	**Bozeman (W)**	**125.40**	**22**	PKIKP	PKPdf	19 22 48.5	-2.6
BOZ	**Bozeman (W)**	**125.40**	**22**	*e*PKPdf	PKPdf	19 22 48.0	-3.0
HLID	**Hailey**	**126.00**	**26**	*e*PKPdf	PKPdf	19 22 49.7	-2.6
QLMT	**Earthquake Lak**	**126.17**	**22**	*e*PKPdf	PKPdf	19 22 50.3	-2.2
LAO	**LASA Array**	**126.31**	**17**	*e*PKPdf	PKPdf	19 22 50.3	-2.4
YMR	**Madison River**	**126.48**	**22**	*e*PKPdf	PKPdf	19 22 50.7	-2.4
LKWY	**Lake**	**126.78**	**22**	PKIKP	PKPdf	19 22 53.1	-0.6
LKWY	**Lake**	**126.78**	**22**	*e*PKPdf	PKPdf	19 22 52.9	-0.8
MOOW	**Moose Ponds**	**127.34**	**23**	*e*PKPdf	PKPdf	19 22 52.3	-2.6
TPAW	**Teton Pass**	**127.48**	**23**	*e*PKPdf	PKPdf	19 22 52.6	-2.5
SNOW	**Snow King Moun**	**127.58**	**23**	*e*PKPdf	PKPdf	19 22 52.9	-2.5
REDW	**Red Top Meadow**	**127.63**	**23**	*e*PKPdf	PKPdf	19 22 52.8	-2.6
ELK	**Elko**	**127.86**	**28**	PKIKP	PKPdf	19 22 53.9	-2.1
ELK	**Elko**	**127.86**	**28**	*e*PKPdf	PKPdf	19 22 53.5	-2.5
NVAR	**Mina Array Bea**	**128.07**	**33**	PKP	PKPdf	19 22 54.5	-2.0
	comp=Z,3.8nm,0.8s,baz=279,slow=2.6,SNR=14						
PDAR	**Pinedale Array**	**128.63**	**22**	PKP	PKPdf	19 22 54.1	-3.2
	comp=Z,4.5nm,0.9s,SNR=29						
MTUM	**Tungsten Hills**	**128.71**	**34**	PKPdf	PKPdf	19 22 55.1	-2.6
BGU	**Big Grassy Mou**	**128.73**	**26**	*e*PKPdf	PKPdf	19 22 54.8	-2.8
TRCR	**Troy Canyon**	**129.54**	**31**	*e*PKPdf	PKPdf	19 22 57.0	-2.2
TRCR				*e*		19 23 05.4	
TPNV	**Topopah Spring**	**130.26**	**32**	PKIKP	PKPdf	19 22 59.2	-1.5
TPNV	**Topopah Spring**	**130.26**	**32**	*e*PKPdf	PKPdf	19 22 57.9	-2.8
MSU	**Marysvale**	**131.07**	**28**	PKIKP	PKPdf	19 23 00.7	-1.5
MSU				*e*		19 23 13.0	
MSU	**Marysvale**	**131.07**	**28**	*e*PKPdf	PKPdf	19 23 00.3	-1.8
NEN	**Nelson**	**131.98**	**32**	*e*PKPdf	PKPdf	19 23 01.6	-2.3
PV10	**Paradox Valley**	**132.57**	**25**	*e*PKPdf	PKPdf	19 23 03.7	-1.3
PV01	**Paradox Valley**	**132.97**	**25**	*e*PKPdf	PKPdf	19 23 01.9	-3.8
PV01				*e*		19 23 12.9	
ANMO	**Albuquerque**	**136.57**	**25**	PKP	PKPdf	19 23 10.5	-2.0
	comp=Z,6.3nm,0.9s,baz=284,slow=0.7,SNR=12						
ANMO	**Albuquerque**	**136.57**	**25**	PKIKP	PKPdf	19 23 09.9	-2.5
ANMO	**Albuquerque**	**136.57**	**25**	*e*PKPdf	PKPdf	19 23 09.7	-2.8
BAO	**Brasilia Array**	**141.18**	**250**	PKP	PKPdf	19 23 18.4	-3.0
BDFB	**Brasilia**	**141.20**	**250**	PKP	PKPdf	19 23 18.2	-3.2
	comp=Z,7.3nm,1.0s,baz=124,slow=2.7,SNR=7.1						
LTX	**Lajitas**	**142.59**	**26**	PKIKP	PKPdf	19 23 21.1	-2.4
LTX	**Lajitas**	**142.59**	**26**	*e*PKPdf	PKPdf	19 23 20.4	-3.0
TXAR	**Lajitas Array**	**142.59**	**26**	PKhKP		19 23 17.0	
	comp=Z,1.5nm,0.5s,baz=11,slow=1.0,SNR=10						
TXAR				PP	PP	19 26 23.6	-6.4
	comp=Z,1.2nm,1.0s,baz=342,slow=7.9,SNR=3.5						
JCT	**Junction City**	**143.11**	**20**	PKIKP	PKPdf	19 23 18.2	-6.1
JCT	**Junction City**	**143.11**	**20**	*e*PKPdf	PKPdf	19 23 17.4	-7.0
NATX	**Nacogdoches**	**143.38**	**13**	*e*PKPpre		19 23 18.4	
HKT	**Hockley**	**144.82**	**15**	PKIKP	PKPdf	19 23 22.8	-4.5
HKT	**Hockley**	**144.82**	**15**	*e*PKPdf	PKPdf	19 23 22.3	-5.1
SJG	**San Juan**	**150.72**	**319**	PKPbc	PKPdf	19 23 38.6	+1.4
	comp=Z,6.9nm,0.5s,baz=33,slow=6.3,SNR=4.7						
SJG	**San Juan**	**150.72**	**319**	PKPbc	PKPdf	19 23 38.6	+1.3
LVC	**Limon Verde**	**155.41**	**220**	*e*PKPdf	PKPdf	19 23 41.6	-2.1
LPAZ	**La Paz**	**158.88**	**234**	PKP	PKPdf	19 23 46.5	-1.8
	comp=Z,4.8nm,1.0s,baz=65,slow=4.8,SNR=18						
LPAZ				PKPab	PKPab	19 24 22.6	+1.2
	comp=Z,2.9nm,0.6s,baz=124,slow=5.6,SNR=6.7						
LPAZ	**La Paz**	**158.88**	**234**	PKIKP	PKPdf	19 23 46.3	-2.0
LPAZ	**La Paz**	**158.88**	**234**	*e*PKPdf	PKPdf	19 23 46.2	-2.1
SDV	**Santo Domingo**	**160.22**	**311**	*e*PKPdf	PKPdf	19 23 46.2	-3.7
ROSC	**El Rosal**	**165.59**	**308**	PKP	PKPdf	19 23 52.2	-3.0
	comp=Z,7.0nm,0.8s,baz=91,slow=21,SNR=13						

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*IDC **26** 19:10:42.3±9.6, 9.55N×92.37E, mb3.8/6, mb1 4.0/7, mb1mx3.8/19, ML4.0/1, Error ellipse: s-maj=223.0km s-min=51.7km az=151.0*

ISC 26 19:10:52.8±4.0**, 10.6N**±0.5×**92.2E**±0.3**, h33^{km}, n8, σ0^{s}90**/8**, mb3.7**/6**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.22**	**39**	Pn	**P**	**19 13 20.3**	**-0.1**
	0.3nm,0.3s,baz=211,slow=14,SNR=4.9						
DDI	**Dehra Dun**	**23.62**	**328**	*e*	**P**	**19 16 01.7**	**-0.2**
SONM	**Songino Array**	**39.02**	**15**	P	**P**	**19 18 18.3**	**+0.4**
	0.9nm,1.0s,mb3.5,baz=198,slow=7.0,SNR=2.5						
BVAR	**Borovoye Array**	**45.82**	**342**	P	**P**	**19 19 13.6**	**+0.3**
	0.7nm,0.5s,mb3.8,baz=135,slow=6.1,SNR=3.9						
FINES	**FINESS Array B**	**69.42**	**332**	P	**P**	**19 21 59.4**	**+0.1**
	0.9nm,0.9s,mb3.7,baz=90,slow=9.7,SNR=3.2						
ARCES	**ARCESS Array B**	**72.07**	**340**	P	**P**	**19 22 15.0**	**-0.1**
	2.1nm,1.0s,mb4.0,baz=97,slow=7.3,SNR=4.8						
GERES	**GERESS Array B**	**74.52**	**318**	P	**P**	**19 22 31.2**	**+1.3**
	0.6nm,0.8s,mb3.6,baz=90,slow=5.3,SNR=4.0						
NOA	**NORSAR Array B**	**76.43**	**330**	P	**P**	**19 22 38.0**	**-2.6**
	0.8nm,0.7s,mb3.8,baz=91,slow=5.7,SNR=3.5						

IDC 26 19:12:02.6±5.4**, 5.75N**×**93.16E, mb4.0**/5**, mb1 4.2**/6**, mb1mx3.9**/19**, ML3.4**/1**, Error ellipse: s-maj=134.0km s-min=55.0km az=138.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.83**	**24**	Pn	P	19 15 22.1	-0.5
	0.1nm,0.3s,baz=222,slow=14,SNR=4.6						
SONM	**Songino Array**	**43.44**	**13**	P	P	19 20 06.7	-2.2
	0.5nm,0.7s,baz=194,slow=10,SNR=3.6						
ZAL	**Zalesovo**	**48.52**	**353**	P	P	19 20 46.9	-2.3
	3.0nm,1.0s,baz=278,slow=7.0,SNR=3.9						
BVAR	**Borovoye Array**	**50.69**	**342**	P	P	19 21 03.8	-2.1
	3.1nm,1.1s,baz=149,slow=8.4,SNR=2.8						
ARCES	**ARCESS Array B**	**76.92**	**340**	P	P	19 23 56.3	-1.9
	2.6nm,1.1s,baz=98,slow=6.4,SNR=4.8						
GERES	**GERESS Array B**	**78.75**	**319**	P	P	19 24 07.9	-0.8
	0.9nm,0.8s,baz=108,slow=4.2,SNR=5.0						
TXAR	**Lajitas Array**	**141.55**	**24**	PKP	PKPdf	19 31 36.9	-1.5
	0.2nm,0.4s,slow=0.9,SNR=3.7						

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*IDC **26** 19:14:01.0±6.9, 8.58N×92.32E, h34^{km}±7^{km}, mb3.9/4, mb1 4.1/5, mb1mx3.8/17, ML4.0/1, Error ellipse: s-maj=160.0km s-min=38.0km az=148.0*

ISC 26 19:13:58.9±2.8**, 8.6N**±0.3×**92.3E**±0.2**, h33^{km}, (h33^{km}**±.7^{km}**:pP-P), n13, σ0^{s}40**/11**, mb3.9**/4**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.78**	**33**	Pn	**P**	**19 16 48.0**	**+0.3**
	0.3nm,0.3s,baz=232,slow=14,SNR=5.8						
PKI	**Pulchoki**	**20.01**	**342**	*e*P	**P**	**19 18 31.5**	**-0.2**
	71nm,1.1s						
DMN	**Daman**	**20.14**	**341**	*e*P	**P**	**19 18 32.9**	**-0.2**
	45nm,0.9s						
GUN	**Gumba**	**20.19**	**343**	*e*P	**P**	**19 18 33.3**	**-0.3**
	30nm,0.7s						
KKN	**Kakani**	**20.25**	**342**	*e*P	**P**	**19 18 34.3**	**0.0**
	28nm,0.9s						
GKN	**Gorkha**	**20.65**	**341**	*e*P	**P**	**19 18 38.7**	**+0.2**
KOLN	**Koldanda**	**20.80**	**338**	*e*P	**P**	**19 18 40.4**	**+0.4**
	35nm,0.6s						
SONM	**Songino Array**	**40.94**	**15**	P	**P**	**19 21 39.6**	**-0.4**
	1.5nm,0.9s,mb3.6,baz=191,slow=8.5,SNR=5.5						
SONM				pP	pP	19 21 49.6	-0.2
	1.7nm,0.7s,baz=196,slow=7.8,SNR=6.1						
BVAR	**Borovoye Array**	**47.78**	**342**	P	**P**	**19 22 34.8**	**0.0**
	1.9nm,0.9s,mb4.1,baz=153,slow=3.3,SNR=4.0						
BVAR				pP	pP	19 22 44.4	-0.3
	1.6nm,0.8s,baz=149,slow=8.6,SNR=5.0						
BRTR	**Keskin Array B**	**60.60**	**311**	pP	pP	19 24 17.0	-2.0
	0.7nm,0.5s,baz=133,slow=7.6,SNR=3.4						
FINES	**FINESS Array B**	**71.26**	**332**	P	**P**	**19 25 15.9**	**-0.7**
	3.0nm,1.1s,mb4.1,baz=153,slow=8.5,SNR=3.7						
GERES	**GERESS Array B**	**76.10**	**318**	P	**P**	**19 25 45.9**	**+0.8**
	1.1nm,0.9s,mb3.8,baz=90,slow=5.3,SNR=6.4						
GERES				pP	pP	19 25 56.5	+1.1
	1.2nm,0.8s,baz=108,slow=4.2,SNR=6.9						
ILAR	**Eielson Array**	**94.81**	**22**	pP	pP	19 27 28.1	-0.7
	0.4nm,0.7s,baz=291,slow=3.4,SNR=3.4						

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*IDC **26** 19:15:13.8±0.5, 1.50S×138.88E, mb5.0/19, mb1 5.1/21, mb1mx5.1/22, ML5.4/2, MS5.0/5, Ms1 4.9/5, ms1mx4.4/22, Error ellipse: s-maj=21.2km s-min=9.9km az=83.0*

*MOS **26** 19:15:16.7±1.1, 1.56S×138.88E, h33^{km}, mb5.3/12, Error ellipse: s-maj=20.2km s-min=9.1km az=105.8*

*BJI **26** 19:15:16.5, 1.35S×139.29E, h35^{km}, mB5.7, mb5.0, Ms6.6, Msz6.0*

*NEIC **26** 19:15:18.3±0.2, 1.53S×138.77E, h30^{km}, mb5.4/27, Error ellipse: s-maj=9.3km s-min=4.9km az=83.0*

*HRVD **26** 19:15:18.3±0.6, 1.36S×138.79E, h13^{km}±2^{km}, MW5.7/42, Centroid moment Tensor Solution. LP body waves: s10,c12;Mantle waves: s42,c61; Half duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M_{rr}2.52±.33; $M_{\theta\theta}$-1.72±.20; $M_{\phi\phi}$-0.81±.22; $M_{r\theta}$-2.60±.76; $M_{\theta\phi}$0.77±.12; $M_{\phi r}$1.53±.73; Best double couple: $M_0$3.82×10^{17} NP1: ϕ_s119°,δ19°,λ89°. NP2:ϕ_s300°,δ71°,λ90°. Principal axes: T 4, Plg64°, Azm211°; N -.37, Plg0°, Azm120°; P -3.64, Plg26°, Azm30°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 26 19:15:16.4±0.2**, 1.60S**±0.04×**138.83E**±0.05**, h30^{km}, n153, σ1^{s}15**/140**, mb5.3**/67**, MS5.6**/7**, 6C-12D, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOMI	**Yo Moklole**	**2.02**	**121**	*e*P	**Pn**	**19 15 48.0**	**-1.1**
	4µm,0.6s						
DAV	**Davao City (W)**	**15.78**	**303**	*e*P	**P**	**19 19 00.0**	**+1.6**
BUNI	**Buntu Taipa**	**18.60**	**263**	⇓*e*P	**P**	**19 19 34.6**	**+0.9**
TBP	**Tagbilaran**	**18.65**	**307**	*e*P	**P**	**19 19 33.9**	**-0.5**
WRAB	**Tennant Creek**	**18.74**	**193**	*e*P	**P**	**19 19 34.7**	**-0.7**
	230nm,0.5s						

WRA	Warramunga Arr	18.75	193	P	P	19 19 33.4	-2.1
	9.0nm,0.3s,baz=14,slow=12,SNR=206						
WRA				S	S	19 22 57.7	-2.4
	1.2nm,0.3s,baz=12,slow=22,SNR=5.2						
WRA	Warramunga Arr	18.75	193	P	P	19 19 33.4	-2.1
WRA				S	S	19 22 57.7	-2.4
WRA				pmax	pmax		
	comp=Z,9.0nm,0.3s						
NINI	Niniconang	19.25	261	⇑*e*P	P	19 19 42.0	+0.6
CTA	Charters Tower	19.76	159	P	P	19 19 46.6	-0.4
	comp=Z,10nm,0.3s,baz=338,slow=11,SNR=152						
CTA	Charters Tower	19.76	159	P	P	19 19 46.6	-0.5
CTA				pmax	pmax		
	comp=Z,10.0nm,0.3s						
CTAO	Charters Tower	19.76	159	*e*P	P	19 19 48.3	+1.3
	comp=Z,65nm,0.5s						
ASAR	Alice Springs	22.45	192	P	P	19 20 15.3	+0.8
	comp=Z,282nm,1.1s,mb5.6,baz=24,slow=10,SNR=350						
ASAR				S	S	19 24 25.1	+11
	comp=Z,30nm,0.9s,baz=15,slow=24,SNR=5.4						
ASAR				LR	LR	19 30 01.6	
	comp=Z,6µm,18.6s,MS5.0,baz=106,slow=39						
SJMP	San Jose	22.46	309	*e*P	P	19 20 13.7	-0.9
BOAC	Boac	22.53	312	*e*P	P	19 20 14.2	-1.2
PPR	Puerto Princes	22.98	300	⇑*e*P	P	19 20 22.0	+2.1
ENPP	El Nido	23.11	304	*e*P	P	19 20 22.2	+1.0
POLP	Polilio Island	23.30	315	*e*P	P	19 20 28.9	+6.0
BATP	Bataraza	23.36	297	*e*P	P	19 20 25.0	+1.4
TGY	Tagaytay City	23.61	312	P	P	19 20 27.2	+1.2
	comp=Z,131nm,0.7s,mb5.5,baz=330,slow=5.7,SNR=15						
TGY	Tagaytay City	23.61	312	P	P	19 20 27.2	+1.2
TGY				pmax	pmax		
	comp=Z,131nm,0.7s						
KEDI	Kedomdong	23.62	252	P	P	19 20 24.9	-1.2
	comp=Z,440nm,0.8s,mb5.7						
LUBP	Lubang	23.91	310	*e*P	P	19 20 29.6	+0.8
RATI	Rata	24.24	252	⇓*e*P	P	19 20 30.9	-1.2
	comp=Z,276nm,0.7s,mb5.5						
BALP	Baler	24.24	316	*e*P	P	19 20 32.8	+0.7
CAUP	Cauayan	24.92	318	*e*P	P	19 20 43.0	+4.4
KELI	Kelakatan	25.11	254	⇓*e*P	P	19 20 39.0	-1.5
	comp=Z,147nm,0.9s,mb5.2						
SRDI	Scrawed	25.51	254	⇓*e*P	P	19 20 41.0	-3.2
	comp=Z,145nm,0.9s,mb5.2						
SGCP	Mt. Cagua	25.72	321	*e*P	P	19 20 46.5	+0.4
MBWA	Marble Bar	26.92	222	*e*P	P	19 20 57.3	+0.1
	comp=Z,66nm,0.6s,mb5.3						
CBIJ	Chichi jima	28.71	6	LR	LR	19 32 36.3	
	comp=Z,4µm,18.4s,MS5.0,baz=164,slow=36						
JOW	Kunigami	30.04	341	P	P	19 21 24.1	-1.1
	comp=Z,30nm,0.9s,mb5.0,baz=167,slow=7.7,SNR=7.4						
STKA	Stephens Creek	30.23	175	P	P	19 21 26.7	-0.2
	comp=Z,36nm,0.7s,mb5.2,baz=345,slow=8.6,SNR=113						
STKA				LR	LR	19 34 23.5	
	comp=Z,5µm,21.2s,MS5.1,baz=343,slow=38						
STKA	Stephens Creek	30.23	175	P	P	19 21 26.7	-0.2
QZH	Quanzhou	32.88	325	P	P	19 21 48.8	-1.4
QZH				AMB	AMB		
	comp=Z,160nm,1.2s,mb5.8						
JHJ	Hachijo jima 2	34.55	1	LR	LR	19 33 39.0	
	comp=Z,3µm,18.5s,MS5.1,baz=288,slow=32						
NWAO	Narrogin (SRO)	37.18	211	P	P	19 22 27.6	+0.8
	comp=Z,34nm,0.9s,mb5.2,baz=41,slow=9.4,SNR=13						
NWAO	Narrogin (SRO)	37.18	211	P	P	19 22 27.7	+0.9
NWAO				pmax	pmax		
	comp=Z,34nm,0.9s						
MAJO	Matsushiro	37.95	359	*e*P	P	19 22 31.6	-1.6
	comp=Z,13nm,0.6s,mb4.8						
MAT	Matsushiro	37.95	359	P	P	19 22 30.1	-3.1
MAT	Matsushiro	37.95	359	*e*P	P	19 22 30.0	-3.2
NJ2	Nanjing	38.45	332	*e*P	P	19 22 38.5	+1.0
WHN	Wuhan	39.57	326	⇓P	P	19 22 49.0	+2.2
GYA	Guiyang	41.73	314	⇑*i*P	P	19 23 05.5	+0.8
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.8						
ENH	Enshi	42.27	321	*e*P	P	19 23 08.4	-0.8
	comp=Z,63nm,1.0s,mb5.2						
TIA	Tai'an	42.71	334	⇓P	P	19 23 13.8	+1.2
KMI	Kunming	43.90	310	P	P	19 23 24.0	+1.6
KMI				AMB	AMB		
	comp=Z,29nm,1.5s,mb4.8						
CM31	Chiang Mai Arr	44.00	299	*e*Pn	P	19 23 22.0	-1.3
	comp=Z,30nm,0.9s,mb5.0						
CMAR	Chiang Mai Arr	44.00	299	P	P	19 23 23.3	0.0
	comp=Z,15nm,0.8s,mb4.8,baz=118,slow=6.3,SNR=43						
CMAR	Chiang Mai Arr	44.00	299	P	P	19 23 23.3	0.0
CMAR				pmax	pmax		
	comp=Z,15nm,0.8s						
CHG	Chiang Mai	44.14	299	⇑P	P	19 23 23.6	-0.8
	comp=Z,46nm,1.4s,mb5.0						
XAN	Xi'an	45.24	324	P	P	19 23 30.0	-3.1
XAN				AMB	AMB		
	comp=Z,56nm,4.5s						
SNY	Shenyang	45.38	344	⇓P	P	19 23 32.5	-1.6
SNY				AMB	AMB		
	comp=Z,30nm,1.5s,mb4.9						
ASAJ	Asahikawa	45.64	4	P	P	19 23 34.6	-1.5
	comp=Z,21nm,0.9s,mb5.1,baz=191,slow=22,SNR=5.3						
ASAJ	Asahikawa	45.64	4	P	P	19 23 34.6	-1.5
ASAJ				pmax	pmax		
	comp=Z,21nm,0.9s						
BJT	Baijiatuau	46.32	336	⇓*e*P	P	19 23 40.0	-1.6
	comp=Z,69nm,1.1s,mb5.5						
BJI	Beijing	46.34	336	P	P	19 23 40.8	-0.8
BJI				AMB	AMB		
	comp=Z,53nm,1.4s,mb5.3						
MDJ	Mudanjiang	46.75	351	*e*P	P	19 23 44.0	-0.9
	comp=Z,29nm,1.0s,mb5.2						
CN2	Changchun	46.76	347	*e*P	P	19 23 44.3	-0.7
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
YSS	Yuzh-Sakhalins	48.48	4	*e*P	P	19 23 56.4	-1.9
YSS				*e*		19 24 08.2	
YSS	Yuzh-Sakhalins	48.48	4	*e*P	P	19 23 57.0	-1.3
	comp=Z,31nm,0.6s,mb5.5						
HHC	Hu-ho-hao-te	49.01	333	*e*P	P	19 24 02.8	+0.3
HHC				AP	pP	19 24 12.5	+0.9
HHC				XP	sP	19 24 16.3	+1.1
HHC				AMB	AMB		
	comp=Z,24nm,1.3s,mb5.1						
HHC				LR	LR		
	comp=N,16µm,19.0s,MS6.6						
HHC				LR	LR		
	comp=E,54µm,16.6s,MS6.6						
HHC				LR	LR		
	comp=Z,13µm,27.4s						
BTO	Baotou	49.54	331	*e*P	P	19 24 05.8	-0.8
BTO				AMB	AMB		
	comp=Z,35nm,1.6s,mb5.1						
LZH	Lanzhou	49.67	322	*e*P	P	19 24 08.3	+0.6
LZH				AMB	AMB		
	comp=Z,123nm,1.2s,mb5.8						
LZH				AMB	AMB		
	comp=Z,610nm,4.0s						
LZH				LR	LR		
	comp=E,32µm,15.0s						
LZH				LR	LR		
	comp=Z,44µm,15.8s,MS6.6						
URZ	Urewera	50.59	141	P	P	19 24 15.1	+0.4
	comp=Z,14nm,1.0s,mb4.8,baz=338,slow=5.4,SNR=3.4						
RPZ	Rata Peaks	50.78	150	P	P	19 24 16.7	+0.6
	comp=Z,13nm,0.6s,mb5.0,baz=1.6,slow=7.4,SNR=7.1						
IMP	Imphal	50.79	304	*e*	P	19 24 14.6	-1.8
KLR	Kul'dur	51.00	354	*e*P	P	19 24 12.6	-5.0
KLR				pmax	pmax		
	comp=Z,76nm,1.8s,mb5.3						
HIA	Hailar	53.28	345	*e*P	P	19 24 33.0	-1.8
	comp=Z,20nm,0.9s,mb5.0						
GTA	Gaotai	54.26	323	P	P	19 24 41.8	-0.2
GTA				AMB	AMB		
	comp=Z,29nm,1.3s,mb5.0						
LSA	Lhasa	55.12	308	*e*P	P	19 24 49.3	+0.8
	comp=Z,24nm,0.8s,mb5.3						
ULN	Ulaanbaatar	56.52	335	⇓*e*P	P	19 24 57.3	-1.0
	comp=Z,43nm,1.1s,mb5.4						
SONM	Songino Array	56.77	334	P	P	19 24 59.9	-0.3
	comp=Z,5.9nm,1.0s,mb4.6,baz=152,slow=7.7,SNR=21						
GUN	Gumba	58.66	304	*e*P	P	19 25 13.8	+0.1
	comp=Z,331nm,1.5s,mb6.2						
PKI	Pulchoki	58.93	304	*e*P	P	19 25 12.5	-3.1
	comp=Z,336nm,1.4s,mb6.2						
KKN	Kakani	59.12	304	*e*P	P	19 25 16.0	-0.8
	comp=Z,72nm,0.9s,mb5.7						
DMN	Daman	59.20	304	*e*P	P	19 25 14.8	-2.6
	comp=Z,136nm,1.2s,mb5.9						
GKN	Gorkha	59.72	304	*e*P	P	19 25 20.7	-0.3
	comp=Z,280nm,1.4s,mb6.1						
ZAK	Zakamensk	60.04	335	⇓*i*P	P	19 25 21.4	-1.5
KOLN	Koldanda	60.51	303	*e*P	P	19 25 26.3	-0.1
	comp=Z,811nm,1.7s						
TLY	Talaya	60.86	336	*e*P	P	19 25 28.6	+0.2
TLY				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.6						
TLY	Talaya	60.86	336	*e*P	P	19 25 27.7	-0.8
	comp=Z,50nm,0.9s,mb5.6						
IRK	Irkutsk	61.03	337	*e*P	P	19 25 30.2	+0.6
FX1	Attu Island--F	61.44	23	LR	LR	19 48 50.8	
	comp=Z,125nm,18.9s,baz=203,slow=33						
MOY	Mondy	61.97	334	*e*P	P	19 25 36.0	0.0
JBP	Jabalpur	62.28	297	⇑*e*	sP	19 25 49.3	-1.9
JBP				*e*		19 30 12.5	
BOD	Bodaibo	62.48	345	*e*P	P	19 25 37.4	-1.9
YAK	Yakutsk	63.84	355	*e*P	P	19 25 46.6	-1.5
	comp=Z,48nm,0.6s,mb5.7						
WMQ	Urumqi	64.22	321	⇑P	P	19 25 51.5	+0.5
WMQ				AMB	AMB		
	comp=Z,46nm,1.0s,mb5.5						
WMQ				LR	LR		
	comp=N,7µm,18.2s,MS6.1						
WMQ				LR	LR		
	comp=E,10µm,17.0s,MS6.1						
WMQ				LR	LR		
	comp=Z,7µm,17.5s,MS5.9						
MKAR	Makanchi Array	68.99	322	*i* P	P	19 26 21.2	0.0
MKAR				pmax	pmax		
	comp=Z,186nm,1.5s						
KSH	Kashi	70.42	313	*e*P	P	19 26 32.0	+2.0
KSH				*e*AP	pP	19 26 40.5	+1.1
KSH				*e*XP	sP	19 26 45.3	+2.6
KSH				AMB	AMB		
	comp=Z,320nm,5.4s						
ZAL	Zalesovo	71.05	330	P	P	19 26 32.2	-1.4
	comp=Z,4.1nm,0.8s,mb4.4,baz=8.9,slow=6.3,SNR=23						
ZAL	Zalesovo	71.05	330	P	P	19 26 32.2	-1.4
ZAL				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ZAL	Zalesovo	71.05	330	P	P	19 26 32.2	-1.4
KZA	Kyzart	71.78	315	P	P	19 26 40.0	+1.8
	SNR=29						
TKM2	Tokmak 2	71.83	316	P	P	19 26 39.1	+0.7
	SNR=11						
BILL	Bilibino	72.06	10	*e*P	P	19 26 40.1	+0.7
BILL	Bilibino	72.06	10	*e*P	P	19 26 40.1	+0.7
	comp=Z,17nm,1.2s,mb4.8						
KBK	Karagaybulak	72.19	316	P	P	19 26 42.3	+1.7
	SNR=7.9						
NVS	Novosibirsk	72.30	330	*i* P	P	19 26 40.0	-1.0
NVS				pmax	pmax		
	comp=Z,107nm,1.6s,mb5.5						
NVS				pmax	pmax		
	comp=N,70nm,1.7s						
NVS				pmax	pmax		
	comp=E,69nm,1.5s						
UCH	Uchtor	72.35	315	P	P	19 26 43.2	+1.7
	SNR=25						
CHMS	Chumysh	72.44	316	P	P	19 26 42.0	-0.1
	SNR=13						
AAK	Ala-Archa	72.50	316	P	P	19 26 44.9	+2.5
	SNR=8.3						
AAK	Ala-Archa	72.50	316	*e*P	P	19 26 41.7	-0.7
	comp=E,38nm,1.3s,mb5.2						
USP	Ospenovka	72.70	316	P	P	19 26 44.1	+0.5
	SNR=23						
AML	Almayashu	72.89	315	P	P	19 26 46.3	+1.5
	SNR=22						
EKS2	Erkin-Say	73.00	316	P	P	19 26 46.4	+1.0
	SNR=16						
VNDA	Vanda	76.87	175	P	P	19 27 08.3	+1.4
	comp=E,5.1nm,0.6s,mb4.7,baz=317,slow=6.7,SNR=35						
VNDA	Vanda	76.87	175	P	P	19 27 08.3	+1.4
VNDA				pmax	pmax		
	comp=Z,5.0nm,0.6s						
VNDA	Vanda	76.87	175	*e*P	P	19 27 08.0	+1.0
	comp=Z,6.2nm,0.8s,mb4.6						
ANM	Nome	77.43	21	*e*P	P	19 27 10.5	+0.3
BVA0	Borovoye Array	78.48	325	P	P	19 27 16.5	+0.3
BVA0				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BVAR	Borovoye Array	78.48	325	P	P	19 27 16.6	+0.4
	comp=Z,44nm,1.0s,mb5.3,baz=117,slow=6.3,SNR=69						
BRVK	Borovoye	78.55	325	*e*P	P	19 27 16.7	+0.2
	comp=Z,44nm,0.7s,mb5.5						
CHKZ	Chkalovo	78.56	326	P	P	19 27 16.7	+0.1
CHKZ				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.4						
CHKZ	Chkalovo	78.56	326	*e*P	P	19 27 16.8	+0.2
	comp=Z,27nm,0.8s,mb5.2						
KDAK	Kodiak Island	80.09	30	*e*P	P	19 27 25.8	+1.0
	comp=Z,35nm,0.8s,mb5.3						
RSO	Redoubt South	80.90	28	*e*P	P	19 27 28.4	-0.7
SLKM	Skilak Lake	82.11	28	*e*P	P	19 27 35.7	+0.4
IMA	Indian Mountai	82.49	22	*e*P	P	19 27 38.8	+1.6
	comp=Z,335nm,1.8s,mb6.0						
PWA	Palmer West	82.61	27	*e*P	P	19 27 37.9	0.0
PMR	Palmer	82.93	27	*e*P	P	19 27 39.7	+0.1
MAW	Mawson	83.19	202	P	P	19 27 42.7	+1.9
	comp=Z,12nm,0.8s,mb5.0,baz=82,slow=7.6,SNR=11						
MAW	Mawson	83.19	202	*e*P	P	19 27 42.3	+1.5
	comp=Z,46nm,1.5s,mb5.3						
DIV	Divide	84.38	28	*e*P	P	19 27 48.1	+1.2
	comp=Z,162nm,0.9s,mb6.2						
COLA	College	84.41	24	*e*P	P	19 27 46.4	-0.6
	comp=Z,11nm,1.0s,mb4.9						
ILAR	Eielson Array	84.78	24	P	P	19 27 48.3	-0.6
	comp=Z,5.2nm,0.9s,mb4.7,baz=260,slow=4.8,SNR=24						
SVE	Sverdlovsk	84.88	327	⇓*e*P	P	19 27 49.0	-0.5
SVE				pmax	pmax		
	comp=Z,180nm,2.4s,mb5.8						
THY	Trims Highway	84.93	26	*e*P	P	19 27 50.2	+0.6
MENT	Mentasta	85.72	27	*e*P	P	19 27 55.2	+1.6
ARU	Arti	85.94	327	*e*P	P	19 27 55.1	+0.3
ARU	Arti	85.94	327	*e*P	P	19 27 54.5	-0.3
	comp=Z,28nm,0.8s,mb5.5						
ARU				*e*		19 28 01.3	
QSPA	South Pole Qui	88.34	180	*e*P	P	19 28 07.8	+1.8
	comp=Z,34nm,1.0s,mb5.5						
INK	Inuvik	90.60	22	P	P	19 28 16.4	-0.4
	comp=Z,3.9nm,1.0s,mb4.7,baz=251,slow=4.6,SNR=5.9						
INK	Inuvik	90.60	22	P	P	19 28 16.4	-0.4
DLBC	Dease Lake	91.95	32	P	P	19 28 24.9	+1.7
	comp=Z,4.3nm,1.0s,mb4.7,baz=268,slow=10,SNR=4.2						
DLBC	Dease Lake	91.95	32	P	P	19 28 24.9	+1.7
OBN	Obninsk	98.32	325	⇓*i*P	P	19 28 53.0	+0.6
OBN				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.6						
YKA	Yellowknife Ar	99.03	27	P	P	19 28 55.9	+0.6
	comp=Z,1.1nm,0.8s,mb4.4,baz=290,slow=4.6,SNR=14						
YKA	Yellowknife Ar	99.03	27	P	P	19 28 55.9	+0.5
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	99.03	27	P	P	19 28 55.9	+0.6
ARCES	ARCESS Array B	99.51	341	P	P	19 28 58.6	+1.2
	comp=Z,4.0nm,0.7s,mb4.9,baz=78,slow=4.1,SNR=6.8						
AKASG	Malin Array Be	103.57	322	Pdiff	Pdif	19 29 15.4	-0.6
	comp=Z,3.3nm,1.1s,baz=51,slow=3.9,SNR=8.2						
AKASG	Malin Array Be	103.57	322	P	Pdif	19 29 15.4	-0.6
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.1s						
SUW	Suwalki	106.13	326	P	Pdif	19 29 27.9	+0.8
	comp=Z,24nm,0.9s						
DBIC	Dimbokro	143.44	279	PKP	PKPdf	19 34 48.8	-5.5
	comp=Z,14nm,0.6s,baz=70,slow=4.3,SNR=21						
LVC	Limon Verde	143.80	133	*e*PKPdf	PKPdf	19 34 51.8	-2.8
ARE	Arequipa	145.10	122	*e*P	PKPbc	19 34 55.0	+2.8
ROSC	El Rosal	146.74	84	PKPbc	PKPbc	19 34 58.9	+2.6
	comp=Z,15nm,0.6s,baz=105,slow=13,SNR=8.5						
LPAZ	La Paz	147.99	125	PKPbc	PKPdf	19 35 01.4	-0.5
	comp=Z,5.1nm,0.7s,baz=231,slow=3.8,SNR=15						
SDV	Santo Domingo	149.80	75	*e*PKPdf	PKPdf	19 35 02.8	-2.1
SJG	San Juan	150.50	55	*e*PKPbc	PKPdf	19 35 08.9	+3.1
BDFB	Brasilia	161.58	159	PKP	PKPdf	19 35 18.6	-1.5
	comp=Z,2.6nm,0.9s,baz=148,slow=8.2,SNR=3.2						
BDFB				PKPab	PKPab	19 36 03.5	+1.2
	comp=Z,2.3nm,0.7s,baz=126,slow=7.3,SNR=3.6						
BAO	Brasilia Array	161.59	159	PKP	PKPdf	19 35 18.0	-2.1

IDC ***26*** *19:19:51.2±0.4,2.94N×94.28E,mb4.8/30,mb1 4.9/31, mb1mx4.9/33,ML5.0/1,MS6.0/24,Ms1 6.0/24, ms1mx5.9/26,Error ellipse: s-maj=21.4km s-min=11.3km az=46.0*

MOS ***26*** *19:19:54.4±1.0,2.83N×94.19E,h33^{km},mb5.6/41, MS6.0/48,Error ellipse: s-maj=11.0km s-min=6.5km az=115.0*

NEIC ***26*** *19:19:55.6±0.2,2.79N×94.16E,h30^{km},mb5.5/59, MS6.2/132,Error ellipse: s-maj=7.9km s-min=6.7km az=222.0*

BJI ***26*** *19:19:55.1,2.42N×93.95E,h51^{km},mB6.3,mb5.1,Ms6.6, Msz6.4*

HRVD ***26*** *19:19:55.6±0.2,2.59N×94.04E,h12^{km},MW6.1/72, Centroid moment Tensor Solution. LP body waves: s68,c133;Mantle waves: s72,c156; Half duration: $2^{s}7$ Moment tensor: Scale 10^{18}Nm; M_{rr}1.01±.02; $M_{\theta\theta}$-0.59±.02; $M_{\phi\phi}$-0.42±.02; $M_{r\theta}$1.10±.06; $M_{\theta\phi}$1.06±.02; $M_{\phi r}$-0.20±.06; Best double couple: $M_0$1.76×10^{18} NP1: ϕ_s342°,δ34°,λ139°. NP2:ϕ_s108°,δ68°,λ63°. Principal axes: T 1.62, Plg58°, Azm341°; N .27, Plg25°, Azm119°; P -1.89, Plg19°, Azm218°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

CSEM ***26*** *19:19:56.3,2.74N×93.93E,h33^{km},mb6.0*

ISC 26 19:19:53.8±0.2,**2.67N**±0.04×**94.03E**±0.03,**h29^{km}, h29^{km}**±1.7^{km}**:pP-P,n453,**σ**$1^{s}39$**/327,**mb5.3**/109,**MS6.2**/194, 35C-19D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	7.94	55	P	Pn	19 21 45.0	-5.3
	640nm,1.0s						
PALK	Pallekele	14.04	289	P	P	19 23 12.1	-1.1
	71nm,0.9s						
COCO	West Island	15.03	169	P	P	19 23 27.7	+1.6
	250nm,1.1s						
CM31	Chiang Mai Arr	16.41	17	Pn	P	19 23 42.2	-1.7
CMAR	Chiang Mai Arr	16.41	17	Pn	P	19 23 42.6	-1.2
	2.3nm,0.3s,baz=213,slow=11,SNR=41						
CMAR				LR	LR	19 29 57.8	
	comp=Z,39µm,20.0s,baz=205,slow=38						
CMAR	Chiang Mai Arr	16.41	17	P	P	19 23 42.6	-1.3
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,39µm,20.0s						
MDRS	Chennai	17.11	308	⇑*i*P	P	19 23 51.9	-0.8
MDRS				*e*		19 24 16.7	
	comp=Z,331nm,1.9s						
MDRS				*e*	S	19 27 10.3	+10
TRD	Trivandrum	17.94	290	*e*P	P	19 24 02.1	-1.0
TRD				*e*		19 24 22.1	
	comp=Z,187nm,1.6s						
TRD				*e*S	S	19 27 24.0	+4.5
VIS	Vishakhapatnam	18.27	326	*e*P	P	19 24 06.6	-0.6
VIS				*e*		19 24 24.9	
	comp=Z,691nm,1.8s						
VIS				*e*S	S	19 27 31.8	+4.9
CAL	Calcutta	20.51	345	⇓*e*P	P	19 24 32.3	-0.1
CAL				*e*S	S	19 28 18.2	+2.9
HYB	Hyderabad	21.11	315	*e*P	P	19 24 38.0	-0.6
HYB				*e*S	S	19 28 10.0	-17
HYB	Hyderabad	21.11	315	*i* P	P	19 24 38.0	-0.6
HYB				*e*S	S	19 28 10.0	-17
AGT	Agartala	21.26	353	⇑*i*	P	19 24 30.0	-10
AGT				*i*		19 25 43.0	
MNGI	Mangalore	21.57	299	*e*P	P	19 24 46.9	+3.6
	comp=Z,235nm,1.5s,mb5.4						
MNGI				*i*	S	19 28 53.1	+18
BOK	Bokaro	22.43	340	⇑*e*P	P	19 24 50.9	-0.8
BOK				*e*		19 25 10.8	
	comp=Z,821nm,1.8s						
BOK				*e*S	S	19 28 56.8	+5.4
QIZ	Qiongzhong	22.45	42	P	P	19 24 51.0	-1.0
QIZ				S	S	19 28 55.0	+3.3
QIZ				LR	LR		
	comp=E,100µm,15.5s						
QIZ				LR	LR		
	comp=Z,84µm,17.3s,MS6.2						
QIZ	Qiongzhong	22.45	42	*e*P	P	19 24 49.0	-2.9
	comp=Z,182nm,1.3s,mb5.3						
QIZ				LR	LR		
	comp=Z,77µm,21.0s,MS6.1						
BLSP	Bilaspur	22.53	330	⇑*e*P	P	19 24 53.0	+0.1
BLSP				*e*S	S	19 28 56.7	+3.3
BLSP				*e*		19 33 49.0	
	comp=Z,35µm,18.9s						
SHL	Shillong	22.86	355	⇑*i*P	P	19 24 56.6	+0.5
SHL				*e*S	S	19 29 04.0	+4.8
SHL				*e*	AMS	19 36 08.0	
	comp=Z,25µm,19.7s,MS5.7						
GOA	Goa	23.63	304	⇓*e*P	P	19 25 09.4	+5.7
GOA				⇑*e*		19 25 09.4	
GOA				*e*		19 25 39.5	
	comp=Z,202nm,1.8s						
GOA				*e*S	S	19 29 19.7	+6.8
DGAR	Diego Garcia	23.75	245	P	P	19 25 10.0	+5.2
DGAR				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.0						
DGAR				MLR	MLR		
	comp=Z,14µm,21.0s,MS5.4						
DGAR	Diego Garcia	23.75	245	P	P	19 25 10.0	+5.2
	comp=Z,1µm,2.0s,mb6.1						
DGAR				LR	LR		
	comp=Z,14µm,21.0s,MS5.4						
KMI	Kunming	23.85	20	P	P	19 25 06.3	+0.6
KMI				S	S	19 29 23.3	+6.8
KMI				SS	SS	19 30 17.0	+10
KMI				SSS	SSS	19 30 33.0	+9.5
KMI				AMB	AMB		
	comp=Z,206nm,1.7s,mb5.3						
KMI				AMB	AMB		
	comp=Z,18µm,9.7s						
KMI				LR	LR		
	comp=N,86µm,11.7s,MS6.6						
KMI				LR	LR		
	comp=E,92µm,13.7s,MS6.6						
KMI				LR	LR		
	comp=Z,86µm,12.6s,MS6.4						
KAD	Karad	24.32	308	⇑*i*P	P	19 25 15.0	+4.7
KAD				*e*		19 25 46.3	
	comp=Z,205nm,2.1s						
KAD				*e*S	S	19 29 27.5	+3.0
KAD				*i*		19 34 19.5	
	comp=Z,39µm,20.4s						
BATP	Bataraza	24.41	75	*e*P	P	19 25 13.2	+1.9
AKL	Akola	24.42	318	⇑*e*P	P	19 25 14.5	+3.2
AKL				*e*		19 25 36.4	
	comp=Z,293nm,1.9s						
AKL	Akola	24.42	318	*i*	AMS	19 34 36.1	
	comp=Z,30µm,18.3s,MS5.8						
KEDI	Kedomdong	24.65	117	⇑*e*S	P	19 25 13.2	-0.4
POO	Poona	25.28	310	⇑*e*P	P	19 25 22.7	+3.2
POO				*e*S	S	19 29 48.0	+7.2
POO	Poona	25.28	310	*i*	AMS	19 34 46.9	
	comp=Z,44µm,18.4s,MS6.0						
ALBI	Allahabad	25.40	333	⇑*e*P	P	19 25 25.0	+4.5
PPR	Puerto Princes	25.53	73	⇓*e*P	P	19 25 24.9	+2.9
BHPL	Bhopal	26.02	323	*e*P	P	19 25 28.7	+2.4
BHPL				*e*		19 25 48.5	
	comp=Z,283nm,1.6s						
BHPL				*e*S	S	19 29 54.7	+1.7
BHPL				*i*		19 35 58.3	
	comp=Z,29µm,16.3s						
BOM	Bombay	26.29	309	*e*P	P	19 25 29.4	+0.5
BOM				*e*		19 26 01.4	
	comp=Z,259nm,1.1s						
BOM				*e*	S	19 30 19.5	+22
ENPP	El Nido	26.57	70	*e*P	P	19 25 32.6	+1.1
GYA	Guiyang	26.58	26	⇑*i*P	P	19 25 36.0	+4.5
GYA				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.2						
GYA				AMB	AMB		
	comp=Z,12µm,8.7s						
GYA				LR	LR		
	comp=N,60µm,16.7s,MS6.5						
GYA				LR	LR		
	comp=E,84µm,13.5s,MS6.5						
GYA				LR	LR		
	comp=Z,95µm,17.3s,MS6.4						
LSA	Lhasa	27.02	354	PFAKE		19 25 50.0	+14
LSA				LR	LR		
	comp=Z,35µm,19.0s,MS5.9						
GZH	Guangzhou	27.61	41	P	P	19 25 46.5	+5.6
GZH				LR	LR		
	comp=N,108µm,14.9s,MS6.6						
GZH				LR	LR		
	comp=E,49µm,14.6s,MS6.6						

GZH				LR	LR		
	comp=Z,100µm,13.4s,MS6.6						
SJMP	**San Jose**	**28.53**	**69**	*e*P	**P**	**19 25 51.7**	**+2.4**
TGY	**Tagaytay City**	**28.90**	**65**	LR	LR	19 37 47.8	
	comp=Z,22µm,19.2s,MS5.8,baz=64,slow=38						
OTRP	**Odiongan**	**29.34**	**69**	*e*P	**P**	**19 25 52.7**	**-3.9**
BOAC	**Boac**	**29.51**	**67**	*e*P	**P**	**19 25 58.4**	**+0.2**
CD2	**Chengdu**	**29.55**	**17**	⇑*i*P	pP	19 26 04.5	-2.5
CD2				S	**S**	**19 30 56.5**	**+6.4**
CD2				AMB	AMB		
	comp=Z,130nm,1.3s,mb5.5						
PAGZ	**Pagadian**	**29.67**	**79**	*e*P	pP	19 26 07.2	-0.9
AJM	**Ajmer**	**30.11**	**324**	⇑*i*P	**P**	**19 26 05.0**	**+1.7**
AJM				*e*		19 26 24.3	
	comp=Z,171nm,1.6s						
AJM				*e*S	**S**	**19 30 59.2**	**+0.4**
NDI	**New Delhi**	**30.43**	**330**	⇑*e*P	**P**	**19 26 05.8**	**-0.4**
NDI				*e*S	**S**	**19 31 05.8**	**+2.0**
LLP	**Lapu-Lapu**	**30.68**	**74**	*e*P	**P**	**19 26 09.9**	**+1.5**
ENH	**Enshi**	**31.11**	**27**	*e*P	**P**	**19 26 11.0**	**-1.2**
	comp=Z,39nm,1.2s,mb5.1						
ENH				LR	LR		
	comp=Z,82µm,19.0s,MS6.4						
BHJ	**Bhuj**	**31.24**	**313**	⇑*e*P	**P**	**19 26 18.3**	**+4.9**
BHJ				*e*S	**S**	**19 31 17.5**	**+0.8**
BUKP	**Musuan**	**31.32**	**79**	*e*P	**P**	**19 26 13.6**	**-0.6**
DAV	**Davao City (W)**	**31.73**	**81**	*e*P	**P**	**19 26 22.0**	**+4.2**
QZH	**Quanzhou**	**32.41**	**45**	P	**P**	**19 26 27.0**	**+3.4**
QZH				AMB	AMB		
	comp=Z,210nm,1.3s,mb5.8						
QZH				LR	LR		
	comp=N,124µm,12.6s,MS6.8						
QZH				LR	LR		
	comp=E,63µm,13.6s,MS6.8						
QZH				LR	LR		
	comp=Z,90µm,16.9s,MS6.5						
BHK	**Bhakra**	**33.07**	**332**	*e*	**P**	**19 26 45.1**	**+16**
WHN	**Wuhan**	**33.74**	**33**	*e*P	**P**	**19 26 38.0**	**+2.9**
WHN				LR	LR		
	comp=N,30µm,10.7s,MS6.9						
WHN				LR	LR		
	comp=E,135µm,12.3s,MS6.9						
WHN				LR	LR		
	comp=Z,104µm,15.3s,MS6.7						
XAN	**Xi'an**	**34.16**	**22**	P	**P**	**19 26 35.8**	**-2.9**
XAN				S	**S**	**19 32 01.0**	**-1.1**
XAN				AMB	AMB		
	comp=Z,21nm,1.3s,mb4.9						
XAN				AMB	AMB		
	comp=Z,4µm,8.3s						
XAN				LR	LR		
	comp=N,28µm,14.8s,MS6.5						
XAN				LR	LR		
	comp=E,55µm,14.8s,MS6.5						
XAN				LR	LR		
	comp=Z,62µm,17.6s,MS6.4						
LZH	**Lanzhou**	**34.47**	**14**	*e*P	**P**	**19 26 44.0**	**+2.7**
LZH				PP	PP	19 27 59.8	+2.3
LZH				*e*S	**S**	**19 32 09.0**	**+2.2**
LZH				SS	SS	19 34 22.3	+3.9
LZH				AMB	AMB		
	comp=Z,389nm,1.4s,mb6.1						
LZH				AMB	AMB		
	comp=Z,2µm,6.6s						
LZH				LR	LR		
	comp=E,31µm,15.0s						
LZH				LR	LR		
	comp=Z,43µm,16.3s,MS6.3						
TATO	**Taipei**	**34.52**	**48**	PFAKE		19 26 50.0	+8.1
TATO				LR	LR		
	comp=Z,41µm,19.0s,MS6.2						
MBWA	**Marble Bar**	**34.56**	**134**	PFAKE		19 26 50.0	+7.7
MBWA				LR	LR		
	comp=Z,22µm,19.0s,MS5.9						
GTA	**Gaotai**	**36.95**	**7**	P	**P**	**19 27 01.0**	**-1.3**
GTA				S	**S**	**19 32 43.8**	**-1.1**
GTA				PCS		19 33 14.3	
GTA				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.1						
GTA				AMB	AMB		
	comp=Z,6µm,8.4s						
GTA				LR	LR		
	comp=N,17µm,18.6s,MS6.0						
GTA				LR	LR		
	comp=E,13µm,18.2s,MS6.0						
GTA				LR	LR		
	comp=Z,18µm,19.0s,MS5.9						
NJ2	**Nanjing**	**37.41**	**36**	*e*P	**P**	**19 27 04.0**	**-2.2**
NJ2				PP	PP	19 28 33.5	-0.9
NJ2				S	**S**	**19 32 53.0**	**+0.9**
NJ2				AMB	AMB		
	comp=Z,1µm,5.6s						
NJ2				LR	LR		
	comp=N,41µm,15.4s,MS6.5						
NJ2				LR	LR		
	comp=E,51µm,16.0s,MS6.5						
NJ2				LR	LR		
	comp=Z,82µm,15.1s,MS6.7						
SSE	**Sheshan**	**38.16**	**39**	P	**P**	**19 27 15.0**	**+2.4**
SSE				S	**S**	**19 33 11.0**	**+7.4**
SSE				AMB	AMB		
	comp=Z,41nm,0.9s,mb5.2						
SSE				AMB	AMB		
	comp=Z,4µm,10.6s						
SSE				LR	LR		
	comp=N,48µm,14.0s,MS6.6						
SSE				LR	LR		
	comp=E,38µm,14.0s,MS6.6						
SSE				LR	LR		
	comp=Z,53µm,14.1s,MS6.5						
TIA	**Tai'an**	**39.61**	**30**	P	**P**	**19 27 28.3**	**+3.7**
TIA				S	**S**	**19 33 34.0**	**+8.5**
TIA				LR	LR		
	comp=N,14µm,13.8s,MS6.3						
TIA				LR	LR		
	comp=E,24µm,12.9s,MS6.3						
KSH	**Kashi**	**40.18**	**338**	P	**P**	**19 27 34.5**	**+5.2**
KSH				*e*AP	pP	19 27 45.0	+7.0
KSH				*e*XP	sP	19 27 47.5	+5.8
KSH				*e*PP	PP	19 29 11.5	+6.2
KSH				S	**S**	**19 33 40.0**	**+6.1**
KSH				XS		19 33 54.3	
KSH				SS	SS	19 36 31.3	+4.7
KSH				AMB	AMB		
	comp=Z,3µm,5.4s						
KSH				LR	LR		
	comp=N,23µm,16.7s,MS6.4						
KSH				LR	LR		
	comp=E,32µm,12.9s,MS6.4						
JOW	**Kunigami**	**40.66**	**51**	P	**P**	**19 27 34.4**	**+1.1**
	comp=E,22nm,0.7s,mb4.9,baz=251,slow=11,SNR=7.3						
JOW				LR	LR	19 46 30.3	
	comp=E,18µm,18.8s,MS6.0,baz=236,slow=40						
HHC	**Hu-ho-hao-te**	**41.17**	**20**	⇓P	**P**	**19 27 37.0**	**-0.4**
HHC				AP	pP	19 27 46.8	+0.7
HHC				PP	PP	19 29 13.0	-2.4
HHC				S	**S**	**19 33 41.0**	**-7.6**
HHC				SCS	ScS	19 37 40.0	+2.6
HHC				AMB	AMB		
	comp=Z,7µm,6.1s						
HHC				LR	LR		
	comp=N,31µm,15.4s,MS6.7						
HHC				LR	LR		
	comp=E,72µm,15.3s,MS6.7						
HHC				LR	LR		
	comp=Z,50µm,13.0s,MS6.6						
WMQ	**Urumqi**	**41.36**	**353**	⇑P	**P**	**19 27 40.3**	**+1.4**
WMQ				PP	PP	19 29 18.8	+1.4
WMQ				PPP	PPP	19 29 48.3	+0.3
WMQ				S	**S**	**19 33 53.3**	**+1.9**
WMQ				AMB	AMB		
	comp=Z,23nm,0.7s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,4µm,8.9s						
WMQ				LR	LR		
	comp=N,24µm,22.1s,MS6.1						
WMQ				LR	LR		
	comp=E,9µm,19.0s,MS6.1						
NWAO	**Narrogin (SRO)**	**41.66**	**150**	PFAKE		19 27 50.0	+8.5
NWAO				LR	LR		
	comp=Z,16µm,19.0s,MS5.9						
BJT	**Baijiatuau**	**42.25**	**25**	*e*P	**P**	**19 27 44.7**	**-1.6**
BJT				pmax	pmax		
	comp=Z,140nm,1.2s						
BJT				MLR	MLR		
	comp=Z,33µm,20.0s						
BJT	**Baijiatuau**	**42.25**	**25**	*e*P	**P**	**19 27 44.7**	**-1.6**
	comp=Z,136nm,1.3s,mb5.4						
BJT				LR	LR		
	comp=Z,33µm,20.0s,MS6.2						
BJI	**Beijing**	**42.27**	**25**	P	**P**	**19 27 46.5**	**0.0**
BJI				AMB	AMB		
	comp=Z,22nm,1.8s,mb4.5						
BJI				LR	LR		
	comp=N,31µm,19.1s,MS6.4						
BJI				LR	LR		
	comp=E,33µm,17.3s,MS6.4						
BJI				LR	LR		
	comp=Z,25µm,23.0s						
AAK	**Ala-Archa**	**43.45**	**339**	*c i*P	**P**	**19 27 56.2**	**+0.2**
AAK				pmax	pmax		
	comp=Z,58nm,1.9s,mb5.0						
AAK				MLR	MLR		
	comp=Z,16µm,19.0s,MS5.9						
AAK	**Ala-Archa**	**43.45**	**339**	⇑*i*P	**P**	**19 27 56.2**	**+0.2**
AAK				LR	LR		
	comp=Z,5µm,20.0s,MS5.4						
DL2	**Dalian**	**43.97**	**31**	P	**P**	**19 28 02.3**	**+2.0**
DL2				S	**S**	**19 34 37.0**	**+7.3**
DL2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
DL2				AMB	AMB		
	comp=Z,3µm,7.1s						
DL2				LR	LR		
	comp=N,17µm,19.0s,MS6.2						
DL2				LR	LR		
	comp=E,16µm,16.4s,MS6.2						
DL2				LR	LR		
	comp=Z,15µm,20.4s,MS5.9						
WRA	**Warramunga Arr**	**45.50**	**121**	P	**P**	**19 28 11.8**	**-1.0**
	comp=Z,31nm,0.8s,mb5.2,baz=298,slow=9.0,SNR=9.2						
WRA	**Warramunga Arr**	**45.50**	**121**	P	**P**	**19 28 11.8**	**-1.0**
WRA				pmax	pmax		
	comp=Z,31nm,0.8s						
WRAB	**Tennant Creek**	**45.51**	**121**	P	**P**	**19 28 12.7**	**-0.1**
WRAB				MLR	MLR		
	comp=Z,6µm,19.0s,MS5.5						
WRAB	**Tennant Creek**	**45.51**	**121**	*e*P	**P**	**19 28 12.1**	**-0.8**
	comp=Z,342nm,1.4s,mb6.1						
WRAB				LR	LR		
	comp=Z,6µm,19.0s,MS5.5						
INCN	**Inchon**	**45.77**	**37**	P	**P**	**19 28 15.1**	**+0.3**
	comp=Z,280nm,1.6s,mb5.9						
INCN				LR	LR		
	comp=Z,24µm,19.0s,MS6.2						
SONM	**Songino Array**	**46.24**	**12**	P	**P**	**19 28 15.8**	**-2.5**
	comp=Z,14nm,0.7s,mb5.0,baz=190,slow=8.0,SNR=19						
ULN	**Ulaanbaatar**	**46.40**	**12**	*e*P	**P**	**19 28 18.8**	**-0.8**
ULN				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
ULN				MLR	MLR		
	comp=Z,21µm,20.0s,MS6.1						
ULN	**Ulaanbaatar**	**46.40**	**12**	*e*P	**P**	**19 28 16.8**	**-2.8**
	comp=Z,23nm,0.8s,mb5.2						
ULN				LR	LR		
	comp=Z,21µm,20.0s,MS6.1						
KS15	**Wonju Array Si**	**46.50**	**38**	*e*P	**P**	**19 28 20.6**	**+0.1**
ASAR	**Alice Springs**	**46.81**	**126**	P	**P**	**19 28 22.9**	**-0.2**
	comp=Z,18nm,0.8s,mb5.0,baz=301,slow=7.2,SNR=6.8						
ASAR				PcP	PcP	19 29 55.9	-0.5
	comp=Z,4.7nm,0.7s,baz=270,slow=3.6,SNR=3.1						
ASAR				LR	LR	19 47 47.8	
	comp=Z,10µm,20.6s,MS5.8,baz=302,slow=36						
SNY	**Shenyang**	**47.14**	**30**	⇑P	**P**	**19 28 24.3**	**-1.2**
SNY				AMB	AMB		
	comp=Z,20nm,1.9s,mb4.7						
SNY				LR	LR		
	comp=N,30µm,15.5s,MS6.5						
SNY				LR	LR		
	comp=E,21µm,15.5s,MS6.5						
SNY				LR	LR		
	comp=Z,22µm,20.0s,MS6.1						
ZAK	**Zakamensk**	**48.18**	**8**	*e*P	**P**	**19 28 33.1**	**-0.4**
ZAK				*e*		19 35 39.0	
MOY	**Mondy**	**49.17**	**6**	*e*P	**P**	**19 28 46.5**	**+5.4**
TLY	**Talaya**	**49.50**	**8**	*e*P	**P**	**19 28 43.8**	**+0.1**
TLY				*e*PPP	PPP	19 31 36.5	+3.2
TLY				*e*S	**S**	**19 35 51.2**	**+3.1**
TLY				pmax	pmax		
	comp=Z,198nm,2.2s,mb5.8						
TLY				MLR	MLR		
	comp=Z,18µm,20.0s,MS6.1						
TLY	**Talaya**	**49.50**	**8**	⇑*i*P	**P**	**19 28 45.6**	**+1.9**
CN2	**Changchun**	**49.52**	**30**	*e*P	**P**	**19 28 45.0**	**+1.1**
CN2				*e*S	**S**	**19 35 50.8**	**+2.3**
CN2				AMB	AMB		
	comp=Z,20nm,1.3s,mb5.0						
CN2				LR	LR		
	comp=N,40µm,12.0s,MS6.8						
CN2				LR	LR		
	comp=E,40µm,12.0s,MS6.8						
CN2				LR	LR		
	comp=Z,34µm,15.0s,MS6.5						
IRK	**Irkutsk**	**50.14**	**8**	*e*P	**P**	**19 28 48.4**	**-0.1**
HIA	**Hailar**	**51.35**	**21**	*e*P	**P**	**19 28 57.1**	**-0.7**
HIA				pmax	pmax		
	comp=Z,27nm,0.9s						
HIA				MLR	MLR		
	comp=Z,68µm,19.0s						
HIA	**Hailar**	**51.35**	**21**	P	**P**	**19 28 54.5**	**-3.3**
	comp=Z,27nm,0.8s,mb5.2						
HIA				LR	LR		
	comp=Z,68µm,19.0s,MS6.7						
GUMO	**Guam**	**51.38**	**75**	PFAKE		19 29 10.0	+12
GUMO				LR	LR		
	comp=Z,19µm,19.0s,MS6.1						
ZAL	**Zalesovo**	**51.66**	**353**	P	**P**	**19 28 57.6**	**-2.5**
	comp=Z,13nm,0.7s,mb5.0,baz=305,slow=6.1,SNR=16						
ZAL	**Zalesovo**	**51.66**	**353**	P	**P**	**19 28 57.6**	**-2.5**
ZAL				pmax	pmax		
	comp=Z,13nm,0.7s						
MDJ	**Mudanjiang**	**52.21**	**32**	P	**P**	**19 29 03.8**	**-0.6**
MDJ				PCP	PcP	19 30 15.3	-0.4
MDJ				PP	PP	19 31 01.0	-2.6
MDJ				S	**S**	**19 36 29.0**	**+3.4**
MDJ				SCS	ScS	19 38 51.3	+2.5
MDJ				SS	SS	19 40 06.3	+4.9
MDJ				AMB	AMB		
	comp=Z,83nm,1.4s,mb5.5						
MDJ				AMB	AMB		
	comp=Z,6µm,10.8s						
MDJ				LR	LR		
	comp=N,22µm,21.0s,MS6.4						
MDJ				LR	LR		
	comp=E,30µm,19.3s,MS6.4						
MDJ				LR	LR		
	comp=Z,22µm,21.4s,MS6.2						
MDJ	**Mudanjiang**	**52.21**	**32**	*e*P	**P**	**19 29 03.3**	**-1.1**
	comp=Z,151nm,1.5s,mb5.7						
MDJ				LR	LR		
	comp=Z,23µm,20.0s,MS6.2						
NVS	**Novosibirsk**	**52.74**	**352**	*e*P	**P**	**19 29 05.9**	**-2.3**
NVS				*e*		19 36 32.7	
MAJO	**Matsushiro**	**52.81**	**45**	⇑*e*P	**P**	**19 29 12.4**	**+3.4**
MAJO				pmax	pmax		
	comp=Z,200nm,1.9s,mb5.7						
MAJO				MLR	MLR		
	comp=Z,34µm,21.0s,MS6.4						
MAJO	**Matsushiro**	**52.81**	**45**	P	**P**	**19 29 04.9**	**-4.1**
	comp=Z,203nm,1.9s,mb5.7						
MAJO				LR	LR		
	comp=Z,34µm,21.0s,MS6.4						
MAT	**Matsushiro**	**52.81**	**45**	P	pP	19 29 15.7	-2.3
MAT				S	**S**	**19 36 21.0**	**-13**
MAT	**Matsushiro**	**52.81**	**45**	*e*P	pP	19 29 16.0	-2.0
	comp=Z,67nm,1.5s						
MAT				*e*S	**S**	**19 36 22.0**	**-12**
MAT				LR	LR		
	comp=Z,34µm,20.0s,MS6.4						
BVAR	**Borovoye Array**	**53.87**	**343**	P	**P**	**19 29 15.7**	**-0.8**
	comp=Z,11nm,0.6s,mb5.0,baz=146,slow=7.7,SNR=5.9						
BRVK	**Borovoye**	**53.93**	**342**	⇓*e*P	**P**	**19 29 16.7**	**-0.2**
BRVK				LR	LR		
	comp=Z,3µm,21.0s,MS5.4						
PMG	**Port Moresby**	**54.28**	**104**	PFAKE		19 29 30.0	+10
PMG				LR	LR		
	comp=Z,14µm,19.0s,MS6.0						
CHKZ	**Chkalovo**	**54.37**	**343**	P	**P**	**19 29 19.4**	**-0.7**
CHKZ				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.7						
CHKZ	**Chkalovo**	**54.37**	**343**	*e*P	**P**	**19 29 18.6**	**-1.5**
	comp=Z,89nm,0.9s,mb5.7						
CTA	**Charters Tower**	**55.99**	**116**	P	**P**	**19 29 30.7**	**-1.7**
	comp=Z,21nm,1.0s,mb5.2,baz=275,slow=6.1,SNR=4.1						
CTA				LR	LR	19 55 16.0	
	comp=Z,19µm,18.2s,MS6.2,baz=286,slow=38						
CTA	**Charters Tower**	**55.99**	**116**	P	**P**	**19 29 30.7**	**-1.7**
CTA				pmax	pmax		
	comp=Z,21nm,1.0s						
CTA				MLR	MLR		
	comp=Z,19µm,18.2s						
CTA	**Charters Tower**	**55.99**	**116**	P	**P**	**19 29 30.7**	**-1.7**
CTA				LR	LR	19 55 16.0	
CTAO	**Charters Tower**	**55.99**	**116**	P	**P**	**19 29 30.1**	**-2.3**
CTAO				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.8						
CTAO				MLR	MLR		
	comp=Z,21µm,21.0s,MS6.2						
CTAO	**Charters Tower**	**55.99**	**116**	P	**P**	**19 29 30.1**	**-2.3**
	comp=Z,141nm,1.5s,mb5.8						
CTAO				LR	LR		
	comp=Z,21µm,21.0s,MS6.2						
KLR	**Kul'dur**	**56.43**	**29**	*e*P	**P**	**19 29 30.2**	**-5.0**
KLR				*e*		19 32 58.0	
KLR				*e*S	**S**	**19 37 28.8**	**+6.5**
KLR				pmax	pmax		
	comp=E,72nm,2.0s						
KLR				pmax	pmax		
	comp=Z,90nm,2.0s,mb5.5						
KLR				pmax	pmax		
	comp=N,3µm,9.5s						
KLR				pmax	pmax		
	comp=E,2µm,9.5s						
KLR				pmax	pmax		
	comp=Z,8µm,9.5s						
KLR				smax			
	comp=E,3.0nm,5.0s						
KLR				smax			
	comp=N,1µm,5.0s						
STKA	**Stephens Creek**	**56.70**	**131**	P	**P**	**19 29 36.9**	**-0.4**
	comp=N,15nm,0.7s,mb5.1,baz=299,slow=8.3,SNR=11						
STKA				LR	LR	19 54 43.9	
	comp=N,15µm,19.1s,MS6.1,baz=286,slow=37						
STKA	**Stephens Creek**	**56.70**	**131**	*e*P	**P**	**19 29 36.1**	**-1.2**
KMBO	**Kilima Mbogo**	**56.88**	**267**	P	**P**	**19 29 40.8**	**+1.9**
	comp=N,7.0nm,0.9s,mb4.7,baz=62,slow=11,SNR=20						
KMBO				LR	LR	19 50 31.4	
	comp=N,17µm,18.9s,MS6.2,baz=88,slow=32						
KMBO	**Kilima Mbogo**	**56.88**	**267**	P	**P**	**19 29 40.4**	**+1.5**
KMBO				pmax	pmax		
	comp=Z,100nm,1.8s						
KMBO				MLR	MLR		
	comp=Z,17µm,19.0s						
KMBO	**Kilima Mbogo**	**56.88**	**267**	*e*P	**P**	**19 29 40.3**	**+1.3**
	comp=Z,102nm,1.8s,mb5.5						
KMBO				LR	LR		
	comp=Z,17µm,19.0s,MS6.2						
BOD	**Bodaibo**	**57.21**	**13**	*e*P	**P**	**19 29 38.6**	**-2.0**
MAK	**Makhachkala**	**57.59**	**321**	*e*P	pP	19 29 49.0	-3.5
MAK				*e*		19 30 35.0	
MAK				*e*S	**S**	**19 37 45.0**	**+7.4**
MAK				pmax	pmax		
	comp=N,2µm,9.0s						
MAK				pmax	pmax		
	comp=E,2µm,9.0s						
MAK				pmax	pmax		
	comp=Z,5µm,9.0s						
MAK				smax			
	comp=N,6µm,10.0s						
MAK				smax			
	comp=E,6µm,10.0s						
MAK				MLR	MLR		
	comp=Z,8µm,15.0s,MS6.0						
MAK				MLR	MLR		
	comp=N,10µm,20.0s,MS6.2						
MAK				MLR	MLR		
	comp=E,13µm,15.0s,MS6.2						
GNI	**Garni**	**58.05**	**317**	P	**P**	**19 29 48.3**	**+1.5**
	comp=E,2.0nm,0.5s,mb4.5,baz=350,slow=22,SNR=6.1						
GNI				LR	LR	19 56 03.0	
	comp=E,9µm,20.7s,MS5.9,baz=350,slow=37						
GNI	**Garni**	**58.05**	**317**	*e*P	**P**	**19 29 46.6**	**-0.1**
GNI				pmax	pmax		
	comp=Z,180nm,1.7s						
GNI				MLR	MLR		
	comp=Z,10µm,22.0s						
GNI	**Garni**	**58.05**	**317**	*e*P	**P**	**19 29 46.6**	**-0.2**
	comp=Z,183nm,1.8s,mb5.8						
GNI				LR	LR		
	comp=Z,10µm,22.0s,MS5.9						
TI2	**Plekhanov**	**58.77**	**318**	*e*P	**P**	**19 29 51.6**	**-0.2**
TI2				*e*S	**S**	**19 38 01.4**	**+8.2**
TI2				MLR	MLR		
	comp=N,4µm,15.0s,MS5.8						
TI2				MLR	MLR		
	comp=E,4µm,15.0s,MS5.8						
TI2				MLR	MLR		
	comp=Z,5µm,15.0s,MS5.8						
CLNS	**Chul'man**	**59.34**	**19**	*e*P	**P**	**19 29 57.8**	**+2.3**
CLNS				*e*		19 30 44.4	
CLNS				*e*		19 32 05.6	
CLNS				*e*S	**S**	**19 37 55.5**	**-4.8**
CLNS				pmax	pmax		
	comp=Z,98nm,1.3s,mb5.7						
CLNS				pmax	pmax		
	comp=N,57nm,1.2s						
CLNS				pmax	pmax		
	comp=E,42nm,1.3s						
CLNS				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
CLNS				pmax	pmax		
	comp=N,23nm,1.1s						
CLNS				pmax	pmax		
	comp=E,17nm,1.3s						
CLNS				smax			
	comp=N,2µm,10.6s						
CLNS				smax			
	comp=Z,3µm,13.0s						
CLNS				smax			
	comp=E,1µm,11.0s						
CLNS				MLR	MLR		
	comp=Z,62µm,17.0s,MS6.8						
CLNS				MLR	MLR		
	comp=N,36µm,15.0s,MS6.6						
CLNS				MLR	MLR		
	comp=E,9µm,17.0s,MS6.6						
ASAJ	**Asahikawa**	**59.45**	**39**	P	**P**	**19 29 55.1**	**-1.3**
	comp=E,9.3nm,0.8s,mb4.9,baz=234,slow=18,SNR=4.8						
ASAJ				LR	LR	19 55 47.0	
	comp=E,24µm,21.2s,MS6.3,baz=241,slow=36						
ASAJ	**Asahikawa**	**59.45**	**39**	P	**P**	**19 29 55.2**	**-1.3**
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ASAJ				MLR	MLR		
	comp=Z,24µm,21.2s						
ZEI	**Tsey**	**59.81**	**319**	*e*P	**P**	**19 29 59.3**	**+0.4**
ZEI				*i* *PP	pP	19 30 08.5	+0.4
ZEI				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
SVE	**Sverdlovsk**	**60.19**	**340**	*e*P	**P**	**19 30 01.0**	**-0.3**
SVE				*e*		19 30 51.0	
SVE				*i* S	**S**	**19 38 15.0**	**+3.8**
SVE				pmax	pmax		
	comp=Z,330nm,2.3s,mb6.0						
SVE				smax			
	comp=N,3µm,13.0s						
SVE				smax			
	comp=E,5µm,13.0s						
SVE				MLR	MLR		
	comp=Z,11µm,19.5s,MS6.0						
ARU	**Arti**	**60.63**	**338**	*e*P	**P**	**19 30 03.8**	**-0.5**
ARU				*e*		19 30 45.9	
ARU				*e*		19 32 15.5	
ARU				*e*PPP	PPP	19 33 44.1	-3.1
ARU				*i* S	**S**	**19 38 18.8**	**+1.9**
ARU				*e*SS	SS	19 42 19.0	+2.3
ARU				MLR	MLR		
	comp=Z,8µm,20.0s,MS5.9						
ARU				MLR	MLR		
	comp=E,8µm,19.0s						
ARU	**Arti**	**60.63**	**338**	*i* Pr		19 30 03.8	
YSS	**Yuzh-Sakhalins**	**60.98**	**36**	⇓*e*P	**P**	**19 30 10.0**	**+3.2**
YSS				*e*S	**S**	**19 38 30.0**	**+8.5**
YSS				*e*PS	PS	19 38 46.0	+5.1
YSS				pmax	pmax		
	comp=N,1µm,8.0s						
YSS				pmax	pmax		

	comp=E,2µm,8.0s						
YSS				pmax	pmax		
	comp=Z,4µm,8.0s						
YSS				pmax	pmax		
	comp=Z,240nm,1.5s,mb6.1						
YSS				smax			
	comp=N,2µm,10.0s						
YSS				smax			
	comp=E,3µm,10.0s						
YSS				MLR	MLR		
	comp=E,24µm,17.0s						
YSS				MLR	MLR		
	comp=Z,21µm,17.0s,MS6.4						
YSS	**Yuzh-Sakhalins**	**60.98**	**36**	*e*P	**P**	**19 30 12.0**	**+5.2**
ASF	**Jabal al Asfar**	**61.03**	**305**	P	**P**	**19 30 08.8**	**+1.4**
	comp=Z,9.7nm,0.8s,mb5.0,baz=357,slow=6.4,SNR=9.3						
ASF				LR	LR	19 56 11.9	
	comp=Z,12µm,19.7s,MS6.0,baz=212,slow=36						
KIV	**Kislovodsk**	**61.14**	**320**	*c* *i*P	**P**	**19 30 06.8**	**-1.2**
KIV				*e*		19 32 19.0	
KIV				*i* S	**S**	**19 38 24.3**	**+0.7**
KIV				*e*SS	SS	19 42 30.4	+5.3
KIV				pmax	pmax		
	comp=E,26nm,1.1s						
KIV				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.4						
KIV				smax			
	comp=N,2µm,8.1s						
KIV				smax			
	comp=E,1µm,8.1s						
KIV				MLR	MLR		
	comp=Z,8µm,22.0s,MS5.8						
KIV				MLR	MLR		
	comp=N,972nm,15.0s						
KIV				MLR	MLR		
	comp=E,2µm,15.0s						
KIV	**Kislovodsk**	**61.14**	**320**	⇓*e*P	**P**	**19 30 07.2**	**-0.8**
GOF	**Gofitskoye**	**61.43**	**321**	⇑*i*P	**P**	**19 30 09.0**	**-0.9**
GOF				pmax	pmax		
	comp=Z,16nm,1.3s,mb5.0						
GOF				pmax	pmax		
	comp=Z,4µm,10.0s						
GOF				MLR	MLR		
	comp=Z,11µm,14.0s,MS6.2						
YUK	**Yuzh-Kuril'sk**	**61.49**	**40**	*e*P	**P**	**19 30 15.0**	**+4.7**
YUK				*e*		19 32 25.0	
YUK				*e*PPP	PPP	19 33 57.0	+0.6
YUK				*e*S	**S**	**19 38 34.0**	**+5.9**
YUK				pmax	pmax		
	comp=Z,5µm,8.0s						
YUK				smax			
	comp=N,3µm,10.0s						
YUK				smax			
	comp=E,8µm,10.0s						
YUK				MLR	MLR		
	comp=E,26µm,16.0s						
YUK				MLR	MLR		
	comp=Z,22µm,16.0s,MS6.4						
MALT	**Malatya**	**61.80**	**313**	P	**P**	**19 30 13.0**	**+0.5**
MALT				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.4						
MALT	**Malatya**	**61.80**	**313**	*e*P	**P**	**19 30 12.3**	**-0.2**
	comp=Z,29nm,0.9s,mb5.4						
DUSS	**Damascus Unive**	**61.91**	**307**	*i* P	**P**	**19 30 17.5**	**+4.2**
DUSS				*i* P		19 30 18.3	
DUSS				*i* P		19 30 18.3	
DUSS				*e*		19 30 20.4	
	baz=106,slow=3.7						
DUSS				*e*S	**S**	**19 38 43.0**	**+9.5**
DUSS				AMS	AMS	19 57 48.0	
	comp=N,354µm,16.9s						
DUSS				AMS	AMS	20 00 00.1	
	comp=Z,156µm,14.6s						
DUSS				AMS	AMS	20 00 04.3	
	comp=E,182µm,19.2s						
EIL	**Elat**	**61.99**	**302**	P	**P**	**19 30 15.2**	**+1.2**
	comp=E,42nm,1.3s,mb5.4,baz=69,slow=6.5,SNR=4.7						
EIL				LR	LR	19 57 53.2	
	comp=E,24µm,18.2s,MS6.4,baz=110,slow=37						
EIL	**Elat**	**61.99**	**302**	P	**P**	**19 30 12.8**	**-1.2**
EIL	**Elat**	**61.99**	**302**	*e*P	**P**	**19 30 14.5**	**+0.6**
	comp=E,53nm,1.3s,mb5.5						
ZFRI	**Zfri**	**62.02**	**303**	P	**P**	**19 30 12.9**	**-1.2**
MBH	**Mount Berech**	**62.05**	**302**	P	**P**	**19 30 13.3**	**-1.1**
MZDA	**Masada**	**62.06**	**304**	P	**P**	**19 30 15.8**	**+1.4**
DRGI	**Dragot**	**62.11**	**304**	P	**P**	**19 30 14.8**	**+0.1**
PRNI	**Paran**	**62.12**	**303**	P	**P**	**19 30 13.8**	**-1.0**
KSHT	**Keshet**	**62.14**	**306**	P	**P**	**19 30 14.2**	**-0.7**
MMLI	**Mount Malkishu**	**62.31**	**305**	P	**P**	**19 30 15.2**	**-0.8**
OFRI	**'Ofer**	**62.71**	**305**	P	**P**	**19 30 17.1**	**-1.6**
KZIT	**Kziot**	**62.76**	**303**	P	**P**	**19 30 18.5**	**-0.5**
SOC	**Sochi**	**62.92**	**318**	*e*P	**P**	**19 30 17.7**	**-2.1**
SOC				*e*		19 30 56.3	
SOC				*e*		19 32 33.0	
SOC				*i* S	**S**	**19 38 50.6**	**+4.5**
SOC				pmax	pmax		
	comp=Z,111nm,1.7s,mb5.7						
SOC				pmax	pmax		
	comp=N,13nm,1.0s						
SOC				pmax	pmax		
	comp=E,21nm,1.1s						
SOC				MLR	MLR		
	comp=Z,8µm,21.0s,MS5.9						
SOC				MLR	MLR		
	comp=N,4µm,22.0s,MS5.9						
SOC				MLR	MLR		
	comp=E,8µm,22.0s,MS5.9						
MBAR	**Mbarara**	**63.35**	**268**	⇓*e*P	**P**	**19 30 23.8**	**+0.7**
MBAR	**Mbarara**	**63.35**	**268**	*e*P	**P**	**19 30 22.6**	**-0.6**
	comp=E,57nm,1.8s,mb5.4						
MBAR				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
CSS	**Prodhromos**	**64.66**	**308**	*e*P	**P**	**19 30 31.9**	**+0.4**
	comp=Z,58nm,1.1s,mb5.5						
ANN	**Anapa**	**64.91**	**319**	*e*P	**P**	**19 30 38.6**	**+5.7**
ANN				*e*		19 30 55.1	
ANN				*e*		19 31 06.3	
ANN				*e*SSS	SSS	19 46 11.1	-4.5
ANN				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.5						
YAK	**Yakutsk**	**64.94**	**18**	*e*P	**P**	**19 30 31.0**	**-1.8**
YAK				pmax	pmax		
	comp=Z,79nm,1.0s,mb5.7						
YAK				MLR	MLR		
	comp=Z,30µm,20.0s,MS6.5						
YAK	**Yakutsk**	**64.94**	**18**	*e*P	**P**	**19 30 30.3**	**-2.5**
	comp=Z,79nm,0.9s,mb5.7						
YAK				LR	LR		
	comp=Z,30µm,20.0s,MS6.5						
BRTR	**Keskin Array B**	**65.79**	**313**	P	**P**	**19 30 37.0**	**-1.6**
	comp=Z,5.9nm,0.9s,mb4.6,baz=127,slow=6.2,SNR=15						
BRTR	**Keskin Array B**	**65.79**	**313**	P	**P**	**19 30 37.1**	**-1.5**
BRTR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
PECR	**Pechory**	**66.63**	**332**	*e*P	pP	19 30 51.0	-1.9
PECR				*e*S	S	19 39 30.0	-1.6
PECR				pmax	pmax		
	comp=N,2µm,11.0s						
PECR				smax			
	comp=N,4µm,12.0s						
PECR				smax			
	comp=E,5µm,13.0s						
PECR				MLR	MLR		
	comp=E,10µm,16.0s						
PECR				MLR	MLR		
	comp=E,4µm,18.0s						
SIM	**Simferopol'**	**67.16**	**318**	*d* *i*P	**P**	**19 30 52.4**	**+5.1**
SIM				*i* S	S	19 39 44.0	+5.9
SIM				pmax	pmax		
	comp=Z,192µm,0.9s						
LSZ	**Lusaka**	**67.51**	**252**	P	**P**	**19 30 51.0**	**+1.0**
LSZ				pmax	pmax		
	comp=Z,19nm,1.3s,mb5.0						
LSZ				MLR	MLR		
	comp=Z,10µm,22.0s,MS6.0						
LSZ	**Lusaka**	**67.51**	**252**	*e*P	**P**	**19 30 49.9**	**-0.1**
	comp=Z,19nm,1.3s,mb5.0						
LSZ				LR	LR		
	comp=Z,10µm,22.0s,MS6.0						
ISP	**Isparta**	**67.61**	**310**	P	**P**	**19 30 50.5**	**+0.2**
ISP				pmax	pmax		
	comp=Z,120nm,1.7s,mb5.7						
ISP	**Isparta**	**67.61**	**310**	*e*P	**P**	**19 30 49.5**	**-0.7**
	comp=Z,124nm,1.8s,mb5.6						
MOS	**Moscow**	**69.46**	**330**	*e*P	**P**	**19 31 05.7**	**+4.3**
MOS				*e*		19 31 25.2	
MOS				*e*PP	PP	19 33 33.6	-3.4
MOS				*e*S	S	19 40 07.8	+2.4
OBN	**Obninsk**	**69.72**	**329**	*e*P	**P**	**19 31 01.5**	**-1.5**
OBN				*e*		19 31 20.3	
OBN				*e*S	S	19 40 04.7	-3.7
OBN				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
OBN				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.8						
OBN	**Obninsk**	**69.72**	**329**	⇑*i*P	**P**	**19 31 04.2**	**+1.2**
CASY	**Casey**	**69.81**	**173**	PFAKE		19 31 20.0	+17
CASY				LR	LR		
	comp=Z,12µm,20.0s,MS6.2						
SKR	**Severo-Kuril's**	**70.54**	**37**	*e*P	**P**	**19 31 04.9**	**-3.1**
SKR				*e*		19 31 31.0	
SKR				*e*		19 33 38.0	
SKR				*e*PPP	PPP	19 35 25.0	-1.8
SKR				*e*S	S	19 40 21.0	+2.9
SKR				*e*PS	PS	19 40 54.0	+4.7
SKR				*e*SS	SS	19 44 50.0	-1.3
SKR				pmax	pmax		
	comp=E,2µm,6.0s						
SKR				pmax	pmax		
	comp=Z,5µm,6.0s						
SKR				pmax	pmax		
	comp=N,3µm,8.0s						
SKR				pmax	pmax		
	comp=N,70nm,0.9s						
SKR				pmax	pmax		
	comp=E,130nm,0.9s						
SKR				pmax	pmax		
	comp=Z,160nm,0.9s,mb6.0						
SKR				smax			
	comp=N,3µm,10.0s						
SKR				smax			
	comp=E,15µm,10.0s						
CFR	**Carcaliu**	**71.26**	**317**	⇓*i*P	**P**	**19 31 11.5**	**-1.0**
CFR	**Carcaliu**	**71.26**	**317**	⇓*i*P	**P**	**19 31 11.5**	**-1.0**
KIS	**Kishinev**	**71.31**	**319**	*e*P	pP	19 31 19.0	-2.9
KIS				*i*		19 31 36.0	
KIS				*i* S	S	19 40 30.0	+2.8
KIS				*i* PS	PS	19 41 00.0	+0.3
KIS				pmax	pmax		
	comp=Z,300nm,2.0s,mb5.9						
KIS				pmax	pmax		
	comp=Z,2µm,7.0s						
KIS				smax			
	comp=N,3µm,13.0s						
KIS				smax			
KIS				MLR	MLR		
	comp=N,4µm,20.0s,MS5.8						
KIS				MLR	MLR		
	comp=E,3µm,20.0s,MS5.8						
KIS				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.7						
MA2	**Magadan**	**71.42**	**27**	*e*P	**P**	**19 31 13.7**	**+0.5**
MA2				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
MA2				MLR	MLR		
	comp=Z,16µm,20.0s,MS6.3						
MA2	**Magadan**	**71.42**	**27**	*e*P	**P**	**19 31 13.7**	**+0.5**
	comp=Z,41nm,1.0s,mb5.3						
MA2				LR	LR		
	comp=Z,16µm,20.0s,MS6.3						
IDI	**Anoyia**	**71.48**	**306**	P	**P**	**19 31 15.2**	**+1.1**
	comp=Z,11nm,0.7s,mb4.9,baz=106,slow=9.7,SNR=5.3						
LBTB	**Lobatse**	**71.72**	**243**	*e*P	**P**	**19 31 16.6**	**+1.0**
LBTB				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.5						
LBTB				MLR	MLR		
	comp=Z,27µm,22.0s,MS6.5						
LBTB	**Lobatse**	**71.72**	**243**	*e*P	**P**	**19 31 16.6**	**+1.0**
	comp=Z,56nm,1.0s,mb5.4						
LBTB				LR	LR		
	comp=Z,27µm,22.0s,MS6.5						
AKASG	**Malin Array Be**	**72.17**	**323**	P	**P**	**19 31 16.5**	**-1.4**
	comp=Z,1.8nm,0.6s,baz=89,slow=4.1,SNR=12						
AKASG	**Malin Array Be**	**72.17**	**323**	P	**P**	**19 31 16.5**	**-1.4**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
TIXI	**Tiksi**	**72.33**	**11**	*e*P	**P**	**19 31 15.9**	**-2.5**
TIXI				*e*SS	SS	19 45 16.2	-2.4
TIXI				pmax	pmax		
	comp=Z,97nm,1.7s,mb5.5						
TIXI				MLR	MLR		
	comp=N,13µm,15.0s,MS6.7						
TIXI				MLR	MLR		
	comp=E,29µm,15.0s,MS6.7						
TIXI				MLR	MLR		
	comp=Z,24µm,15.0s,MS6.6						
TIXI	**Tiksi**	**72.33**	**11**	⇓*e*P	**P**	**19 31 20.0**	**+1.6**
TIXI				LR	LR		
	comp=Z,19µm,22.0s,MS6.3						
ISR	**Istrita**	**72.33**	**317**	⇓*i*P	PcP	19 31 37.7	+0.8
VRI	**Vrincioaia**	**72.39**	**317**	⇓*i*P	**P**	**19 31 19.3**	**+0.1**
VRI	**Vrincioaia**	**72.39**	**317**	⇓*i*P	**P**	**19 31 19.3**	**0.0**
WAKE	**Wake Island**	**72.72**	**71**	PFAKE		19 31 30.0	+8.2
WAKE				LR	LR		
	comp=Z,112µm,22.0s,MS7.1						
BOSA	**Boshof**	**72.79**	**239**	*e*P	**P**	**19 31 22.5**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.4						
BOSA				MLR	MLR		
	comp=Z,10µm,20.0s,MS6.1						
BOSA	**Boshof**	**72.79**	**239**	*e*P	**P**	**19 31 22.5**	**+0.5**
	comp=Z,63nm,1.3s,mb5.4						
BOSA				LR	LR		
	comp=Z,10µm,20.0s,MS6.1						
PET	**Petropavlovsk**	**72.81**	**35**	*e*P	pP	19 31 28.3	-2.5
PET				*e*		19 31 45.2	
PET				*e*PS	PS	19 41 30.0	+10
PET				pmax	pmax		
	comp=Z,3µm,7.7s						
PET				pmax	pmax		
	comp=Z,3µm,19.5s						
PET				pmax	pmax		
	comp=Z,3µm,13.0s						
PET				pmax	pmax		
	comp=Z,2µm,12.0s						
PET				pmax	pmax		
	comp=Z,2µm,15.9s						
PET				pmax	pmax		
	comp=Z,2µm,13.3s						
PET				MLR	MLR		
	comp=Z,22µm,19.0s,MS6.5						
PET				MLR	MLR		
	comp=Z,19µm,17.0s						
PET	**Petropavlovsk**	**72.81**	**35**	PFAKE		19 31 30.0	+8.4
PET				LR	LR		
	comp=Z,20µm,19.0s,MS6.4						
MLR	**Muntele Rosu**	**72.83**	**317**	P	**P**	**19 31 21.8**	**-0.1**
	comp=Z,19nm,1.0s,mb5.0,baz=161,slow=2.5,SNR=11						
MLR				LR	LR	20 04 44.9	
	comp=Z,7µm,20.8s,MS5.9,baz=283,slow=37						
MLR	**Muntele Rosu**	**72.83**	**317**	P	**P**	**19 31 21.8**	**-0.1**
MLR				pmax	pmax		
	comp=Z,19nm,1.0s						
MLR				MLR	MLR		
	comp=Z,7µm,20.8s						
MAW	**Mawson**	**73.45**	**192**	P	**P**	**19 31 27.7**	**+2.7**
	comp=Z,2.8nm,0.5s,mb4.4,baz=26,slow=7.6,SNR=4.0						
MAW				LR	LR	19 57 19.4	
	comp=Z,7µm,20.5s,MS5.9,baz=27,slow=30						
MAW	**Mawson**	**73.45**	**192**	P	**P**	**19 31 27.7**	**+2.7**
MAW				pmax	pmax		
	comp=Z,3.0nm,0.5s						
MAW				MLR	MLR		
	comp=Z,7µm,20.5s						
MAW	**Mawson**	**73.45**	**192**	*e*P	**P**	**19 31 25.4**	**+0.3**
	comp=Z,98nm,1.6s,mb5.5						
SEY	**Seymchan**	**73.68**	**24**	*e*P	**P**	**19 31 30.5**	**+4.0**
SEY				*SP	sP	19 31 36.7	-2.2
SEY						19 31 48.0	
SEY						19 34 09.6	
SEY				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.4						
SEY				MLR	MLR		
	comp=Z,46µm,21.0s,MS6.7						
SEY				MLR	MLR		
	comp=N,10µm,12.0s						
SEY				MLR	MLR		
	comp=E,7µm,12.0s						
MNK	**Minsk**	**74.17**	**326**	*e*P	**P**	**19 31 26.0**	**-3.4**
PUL	**Pulkovo**	**74.70**	**332**	*de*P	pP	19 31 41.4	-0.2
PUL				*e*		19 31 56.7	
PUL				*e*		19 34 25.9	
PUL				*e*PPP	PPP	19 36 11.2	+4.6
PUL				*e*S	S	19 41 10.8	+5.5
PUL				*e*		19 41 43.9	
PUL				*e*		19 41 48.2	
PUL				pmax	pmax		
	comp=Z,2µm,8.7s						
PUL				pmax	pmax		
	comp=N,195nm,7.4s						
PUL				smax			
	comp=N,821nm,3.3s						
PUL				MLR	MLR		
	comp=Z,10µm,23.0s,MS6.1						
PUL				MLR	MLR		
	comp=N,9µm,21.0s						
LVV	**L'vov**	**75.13**	**321**	*e*P	pP	19 31 42.7	-1.6
KWP	**Kalwaria**	**75.92**	**321**	*e*P	**P**	**19 31 38.7**	**-0.9**
	comp=N,1.7nm,0.8s						
KOLS	**Kolonicke sedl**	**76.05**	**320**	*e*P	**P**	**19 31 41.2**	**+0.8**
KOLS				*e*		19 31 47.4	
LVZ	**Lovozero**	**76.38**	**340**	⇑*e*P	pP	19 31 51.6	+0.5
LVZ				*e*		19 32 06.5	
LVZ				*e*S	S	19 41 29.8	+6.2
LVZ				*e*		19 42 05.2	
LVZ				*e*SS	SS	19 46 18.7	-2.5
LVZ				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
LVZ				pmax	pmax		
	comp=N,6.0nm,0.9s						
LVZ				pmax	pmax		
	comp=E,11nm,1.7s						
LVZ				smax			
	comp=N,3µm,7.7s						
LVZ				smax			
	comp=E,5µm,10.2s						
LVZ				MLR	MLR		
	comp=Z,10µm,17.0s,MS6.2						
LVZ				MLR	MLR		
	comp=E,11µm,19.0s						
CRVS	**Cervenica-Dubn**	**76.57**	**320**	*e*P	**P**	**19 31 49.2**	**+5.9**
CRVS				*e*		19 31 55.3	
CRVS				*e*S	S	19 41 37.9	+12
CRVS	**Cervenica-Dubn**	**76.57**	**320**	*e*	pP	19 31 49.2	-3.3
CRVS				*e*	PcP	19 31 55.3	+0.2
CRVS				*e*S	S	19 41 37.9	+12
APA	**Apatity**	**76.66**	**340**	⇓*i*P	**P**	**19 31 44.3**	**+0.9**
APA				*i*		19 31 58.3	
APA				*i* PPP	PP	19 34 37.0	-0.3
APA				*i* S	S	19 41 33.0	+6.4
APA				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.3						
APA				MLR	MLR		
	comp=Z,15µm,17.0s,MS6.4						
SUW	**Suwalki**	**76.66**	**325**	*e*P	**P**	**19 31 42.6**	**-1.0**
KECS	**Kecovo**	**77.12**	**319**	*e*P	**P**	**19 31 50.5**	**+4.2**
KECS				*e*pP	pP	19 32 00.3	+4.7
FINES	**FINESS Array B**	**77.24**	**333**	P	**P**	**19 31 46.1**	**-0.7**
	comp=Z,7.6nm,0.9s,mb4.6,baz=106,slow=6.7,SNR=7.0						
FINES				LR	LR	20 09 52.5	
	comp=Z,7µm,21.9s,MS5.9,baz=267,slow=39						
FINES	**FINESS Array B**	**77.24**	**333**	P	**P**	**19 31 46.1**	**-0.6**
FINES				pmax	pmax		
	comp=Z,8.0nm,0.9s						
FINES				MLR	MLR		
	comp=Z,7µm,21.9s						
SUR	**Sutherland**	**77.33**	**236**	PFAKE		19 32 00.0	+12
SUR				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
KAF	**Kangasniemi**	**77.35**	**334**	*e*p	**P**	**19 31 46.8**	**-0.5**
	comp=Z,28nm,1.0s,mb5.2						
KAF	**Kangasniemi**	**77.35**	**334**	*e*P	**P**	**19 31 46.8**	**-0.5**
KAF				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
NIE	**Niedzica**	**77.41**	**320**	*e*P	**P**	**19 31 48.5**	**+0.6**
PSZ	**Piszkesteto**	**77.41**	**318**	P	**P**	**19 31 49.6**	**+1.7**
PSZ				pmax	pmax		
	comp=Z,170nm,1.8s,mb5.7						
PSZ	**Piszkesteto**	**77.41**	**318**	*e*P	**P**	**19 31 47.7**	**-0.2**
	comp=Z,168nm,1.8s,mb5.7						
OJC	**Ojcow**	**77.88**	**321**	*e*P	**P**	**19 31 51.9**	**+1.4**
OJC	**Ojcow**	**77.88**	**321**	*e*P	**P**	**19 31 50.3**	**-0.2**
OJC				*e*S	S	19 41 47.7	+7.5
OJC				MLR	MLR	20 11 51.4	
	comp=Z,4µm,18.9s,MS5.8						
PKSM	**Moragy**	**77.98**	**317**	*e*P	**P**	**19 31 50.3**	**-0.8**
VYHS	**Vyhne**	**78.21**	**319**	*e*P	**P**	**19 31 51.9**	**-0.4**
VYHS				*e*		19 31 57.8	
VYHS				*e*S	S	19 41 52.4	+8.7
KOLL	**Kolacno**	**78.50**	**319**	*e*P	pP	19 32 01.9	-1.3
KOLL	**Kolacno**	**78.50**	**319**	*e*pP	pP	19 32 01.9	-1.3
OKC	**Ostrava-Krasne**	**78.87**	**320**	*e*P	**P**	**19 31 56.4**	**+0.5**
OKC				*e*S	S	19 41 59.3	+8.6
OKC				AMS	AMS	20 20 00.0	
	comp=Z,4µm,15.4s						
SMOL	**Smolenice**	**79.13**	**319**	*e*P	**P**	**19 31 59.3**	**+1.9**
MORC	**Moravsky Berou**	**79.25**	**320**	P	**P**	**19 31 57.9**	**-0.1**
MORC				pmax	pmax		
	comp=Z,110nm,1.8s,mb5.5						
MORC	**Moravsky Berou**	**79.25**	**320**	*e*P	**P**	**19 31 57.1**	**-0.9**
	comp=Z,113nm,1.8s,mb5.5						
ZST	**Bratislava**	**79.30**	**318**	*e*P	**P**	**19 31 58.4**	**+0.1**
ZST				*e*		19 32 05.1	
ZST				*e*S	S	19 42 04.4	+9.0
VRAC	**Vranov**	**79.79**	**320**	P	**P**	**19 32 01.9**	**+0.9**
	comp=Z,2.6nm,1.1s,baz=83,slow=8.1,SNR=2.5						
VRAC	**Vranov**	**79.79**	**320**	P	**P**	**19 32 01.9**	**+1.0**
VRAC				pmax	pmax		
	comp=Z,3.0nm,1.1s						
GKP	**Gorka Klasztor**	**79.97**	**324**	*e*P	pP	19 32 09.7	-1.4
ARCES	**ARCESS Array B**	**80.10**	**341**	P	**P**	**19 32 00.5**	**-1.7**
	comp=Z,8.6nm,0.9s,mb4.7,baz=117,slow=8.1,SNR=5.6						
ARCES				LR	LR	20 11 01.8	
	comp=Z,10µm,20.7s,MS6.1,baz=217,slow=38						
ARCES	**ARCESS Array B**	**80.10**	**341**	P	**P**	**19 32 00.5**	**-1.7**
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.9s						
ARCES				MLR	MLR		
	comp=Z,10µm,20.7s						
ARCES	**ARCESS Array B**	**80.10**	**341**	P	**P**	**19 32 00.5**	**-1.7**
ARCES				LR	LR	20 11 01.8	
ARE0	**ARCESS Array S**	**80.10**	**341**	*e*P	**P**	**19 32 00.5**	**-1.7**
DPC	**Dobruska-Polom**	**80.11**	**321**	*e*P	**P**	**19 32 02.3**	**-0.3**
DPC				*e*S	S	19 42 09.9	+6.2
DPC				AMS	AMS	20 15 20.0	
	comp=Z,5µm,17.0s						
KSP	**Ksiaz**	**80.19**	**321**	*e*P	**P**	**19 32 03.0**	**0.0**
KSP				*e*pP	pP	19 32 10.7	-1.6
KSP				*e*S	S	19 42 12.5	+7.9
KSP				*e*SS	SS	19 47 20.0	+1.3
KSP				LR	LR		
	comp=Z,8µm,24.7s,MS6.0						
KSP	**Ksiaz**	**80.19**	**321**	*e*P	**P**	**19 32 03.1**	**+0.1**
KSP				*e*	pP	19 32 11.6	-0.7
ARSA	**Arzberg**	**80.24**	**317**	⇑*i*P	**P**	**19 32 03.2**	**-0.2**
	comp=Z,60nm,1.4s,mb5.3						
UPC	**Upice**	**80.32**	**321**	*e*P	**P**	**19 32 04.2**	**+0.5**
OBKA	**Obir**	**80.83**	**317**	⇑*i*P	**P**	**19 32 07.9**	**+1.4**
	comp=Z,61nm,1.8s,mb5.2						
BILL	**Bilibino**	**80.94**	**21**	PFAKE		19 32 20.0	+13
BILL				LR	LR		
	comp=Z,30µm,19.0s,MS6.7						
MOA	**Molln**	**81.15**	**318**	⇑*i*P	**P**	**19 32 08.7**	**+0.5**
	comp=Z,31nm,1.3s,mb5.1						
PRU	**Pruhonice**	**81.20**	**320**	*e*P	**P**	**19 32 09.2**	**+0.9**
PRU				*e*S	S	19 42 22.9	+7.8
PRU				AMS	AMS	20 20 20.0	
	comp=Z,5µm,14.9s						
PVCC	**Panska Ves**	**81.24**	**321**	*e*P	pP	19 32 15.3	-2.6
PVCC				*e*S	S	19 42 26.0	+11
PVCC				AMS	AMS	20 22 00.0	
	comp=Z,5µm,15.7s						
AQU	**L'Aquila**	**81.28**	**312**	P	pP	19 32 16.7	-1.5
AQU				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.5						
AQU	**L'Aquila**	**81.28**	**312**	*e*P	**P**	**19 32 09.3**	**+0.4**
	comp=Z,54nm,0.9s,mb5.5						
FX1	**Attu Island--F**	**81.32**	**37**	P	**P**	**19 32 08.2**	**-0.7**
	comp=Z,18nm,0.6s,mb5.2,baz=244,slow=20,SNR=5.4						
FX1	**Attu Island--F**	**81.32**	**37**	P	**P**	**19 32 08.2**	**-0.7**
FX1				pmax	pmax		
	comp=Z,18nm,0.6s						
BSD	**Bornholm Skovb**	**81.59**	**325**	*e*P	pP	19 32 18.8	-0.8
	comp=Z,33nm,0.9s						
BSD	**Bornholm Skovb**	**81.59**	**325**	*i* P	pP	19 32 18.8	-0.8
	comp=Z,33nm,0.9s						

GERES	**GERESS Array B**	81.63	319	P	P	19 32 11.0	+0.4
	comp=Z,9.0nm,0.9s,mb4.7,baz=108,slow=4.2,SNR=23						
GERES	**GERESS Array B**	81.63	319	P	P	19 32 11.0	+0.4
GERES				pmax	pmax		
	comp=Z,9.0nm,0.9s						
PTCC	**Patocco-Chiusa**	81.64	316	*e*P	P	19 32 14.7	+4.0
BRG	**Berggiesshubel**	81.67	321	*i* P	P	19 32 11.4	+0.6
BRG				*i*	pP	19 32 20.9	+0.8
BRG				pmax	pmax		
	comp=Z,163nm,2.3s,mb5.5						
BRG	**Berggiesshubel**	81.67	321	*i* P	P	19 32 11.4	+0.6
	comp=Z,163nm,2.3s,mb5.5						
BRG				*i*	pP	19 32 20.9	+0.8
BRG				*e*S	S	19 42 31.0	+11
ARV	**Arcevia**	81.70	313	*e*P	P	19 32 11.9	+0.9
KBA	**Koelnbreinsper**	81.70	317⇑	*i*P	P	19 32 11.7	+0.7
	comp=Z,34nm,1.5s,mb5.0						
KHC	**Kasperske Hory**	81.73	319	*e*P	P	19 32 14.1	+3.0
KHC				*e*S	S	19 42 27.5	+6.9
KHC				MLR	MLR		
	comp=Z,4µm,14.9s,MS6.0						
KHC	**Kasperske Hory**	81.73	319	*e*P	P	19 32 14.1	+3.0
KHC				x	x	19 32 28.5	
KHC				*e*S	S	19 42 27.5	+6.9
KHC				AMS	AMS	20 20 50.0	
	comp=Z,4µm,14.9s						
FSSB	**Fossombrone**	81.83	314	*e*P	P	19 32 14.7	+2.9
SMY	**Shemya**	81.86	37	PFAKE		19 32 20.0	+8.3
SMY				LR	LR		
	comp=Z,11µm,22.0s,MS6.2						
RUE	**Ruedersdorf**	81.95	322	*e*P	P	19 32 12.3	+0.2
	comp=Z,21nm,0.8s,mb5.1						
FVI	**Forni Avoltri**	82.05	317	*e*P	P	19 32 16.0	+3.2
CLL	**Collm**	82.31	321	*e*P	P	19 32 14.0	-0.1
CLL				*e*		19 32 21.0	
CLL				MLR	MLR		
	comp=Z,6µm,15.6s,MS6.0						
CLL	**Collm**	82.31	321	*e*P	P	19 32 14.0	-0.1
CLL				*e*		19 32 21.0	
CLL				*e*S	S	19 42 37.0	+11
CLL				LR	LR		
	comp=Z,6µm,15.6s,MS6.0						
CLL	**Collm**	82.31	321	P	P	19 32 14.0	-0.1
CLL				e*PP	pP	19 32 21.0	-2.4
CLL				*e*		19 32 29.0	
CLL				*e*PP	PP	19 35 39.0	+14
CLL				*e*S	S	19 42 37.0	+11
CLL				*e*PS	PS	19 43 21.0	+0.7
CLL				*e*SS	SS	19 48 06.0	+16
TRO	**Tromso**	82.34	340	*e*P	P	19 32 09.9	-4.0
TRO				*e*PP	PP	19 35 19.2	-5.6
TRO				*e*S	S	19 42 25.6	-0.8
TRO				*e*SS	SS	19 47 47.6	-2.9
TRO				AMS	AMS	20 13 18.3	
	comp=Z,7µm,22.7s,MS6.0						
RPZ	**Rata Peaks**	82.49	135	P	P	19 32 15.9	+0.7
	comp=Z,17nm,0.8s,mb5.0,baz=94,slow=6.4,SNR=5.2						
RPZ				LR	LR	20 08 27.7	
	comp=Z,11µm,20.5s,MS6.2,baz=198,slow=35						
SFI	**Santa Sofia**	82.52	314	*e*P	P	19 32 17.7	+2.3
NKC	**Novy Kostel**	82.56	320	*e*P	P	19 32 16.3	+0.9
NKC				MLR	MLR		
	comp=Z,4µm,18.5s,MS5.8						
NKC	**Novy Kostel**	82.56	320	*e*P	P	19 32 16.3	+0.9
NKC				*e*S	S	19 42 39.5	+10
NKC				AMS	AMS	20 17 00.0	
	comp=Z,4µm,18.5s						
PGD	**Poggio Sodo**	82.61	314	*e*P	P	19 32 18.9	+3.1
VMG	**Vicchio**	82.74	314	*e*P	P	19 32 20.7	+4.2
HFS	**Hagfors**	82.88	330	P	P	19 32 16.9	+0.1
	comp=Z,12nm,1.1s,mb4.9,baz=135,slow=6.3,SNR=5.2						
HFS	**Hagfors**	82.88	330	P	P	19 32 16.9	+0.1
HFS				pmax	pmax		
	comp=Z,13nm,1.1s						
WTTA	**Wattenberg**	82.88	317⇑	*i*P	P	19 32 17.5	+0.4
	comp=Z,33nm,1.3s,mb5.2						
SEI	**Scarperia**	82.88	314	*e*P	P	19 32 20.9	+3.7
WATA	**Walderalm**	82.92	317⇑	*i*P	P	19 32 17.4	0.0
	comp=Z,0.9nm,0.5s						
MOX	**Moxa**	83.13	321	*e*P	pP	19 32 29.0	+1.3
MOX	**Moxa**	83.13	321	*i* P	pP	19 32 29.0	+1.3
SQTA	**Sankt Quirin**	83.17	317⇓	*i*P	P	19 32 19.3	+0.7
	comp=Z,15nm,0.9s,mb5.0						
MOTA	**Moosalm**	83.25	317⇑	*i*P	P	19 32 18.8	-0.2
	comp=Z,28nm,1.0s,mb5.2						
GRA1	**Grafenberg Arr**	83.31	320	*e*P	P	19 32 20.0	+0.7
	comp=Z,17nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	83.31	320	*e*P	P	19 32 20.0	+0.7
GRF				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	83.31	320	*e*P	P	19 32 20.0	+0.7
	comp=Z,17nm,1.0s,mb5.0						
BJO	**Bjornoya**	83.41	345	*e*P	P	19 32 17.0	-2.4
BJO				*e*PP	PP	19 35 30.5	-2.8
BJO				AMS	AMS	20 13 43.1	
	comp=Z,5µm,23.4s,MS5.8						
BRMO	**Bormio**	83.70	316	*e*P	P	19 32 22.7	+1.4
DAVOX	**Davos**	84.05	317	P	P	19 32 23.2	+0.1
	comp=Z,8.1nm,0.6s,mb5.0,baz=133,slow=4.1,SNR=13						
DAVA	**Damuels**	84.07	317⇓	*i*P	P	19 32 23.9	+0.6
	comp=Z,58nm,1.3s,mb5.5						
NSS	**Namsos**	84.18	335	*e*P	P	19 32 17.0	-6.4
NSS				*e*PP	PP	19 35 36.8	-2.8
NSS				*e*S	S	19 42 41.6	-3.4
NSS				AMS	AMS	20 16 58.3	
	comp=Z,6µm,20.3s,MS6.0						
NB2	**NORSAR Subarra**	84.19	331	P	P	19 32 22.2	-1.3
	comp=Z,43nm,1.4s,mb5.4,baz=93,slow=5.0						
NB2	**NORSAR Subarra**	84.19	331	P	P	19 32 22.2	-1.3
	baz=92,slow=5.3						
NOA	**NORSAR Array B**	84.19	331	P	P	19 32 22.0	-1.5
	comp=Z,2.4nm,0.8s,mb4.4,baz=98,slow=5.6,SNR=7.2						
NOA				LR	LR	20 13 34.2	
	comp=Z,6µm,19.1s,MS6.0,baz=65,slow=38						
NOA	**NORSAR Array B**	84.19	331	P	P	19 32 22.0	-1.5
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
NOA				MLR	MLR		
	comp=Z,6µm,19.1s						
NOA	**NORSAR Array B**	84.19	331	P	P	19 32 22.0	-1.5
NOA				LR	LR	20 13 34.2	
NAO01	**NORSAR Array S**	84.33	331	PFAKE		19 32 40.0	+16
NAO01				LR	LR		
	comp=Z,8µm,20.0s,MS6.1						
PGF	**Pioggiola**	84.54	312	*e*P	P	19 32 23.4	-2.3
	comp=Z,112nm,1.3s,mb5.5						
KONO	**Kongsberg**	84.89	330	PFAKE		19 32 40.0	+13
KONO				LR	LR		
	comp=Z,10µm,20.0s,MS6.2						
MUD	**Monsted U'grnd**	84.94	326	*e*P	pP	19 32 37.6	+0.9
MUD				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.3						
MUD	**Monsted U'grnd**	84.94	326	*i* P	pP	19 32 37.6	+0.9
	comp=Z,23nm,0.9s						
SBF	**Sospel**	85.70	314	*e*P	P	19 32 29.5	-2.0
	comp=Z,65nm,1.0s,mb5.5						
CDF	**Champ du Feu**	85.86	318	*e*P	P	19 32 29.6	-2.5
	comp=Z,76nm,1.6s,mb5.4						
MBDF	**Montbardon**	86.18	314	*e*P	P	19 32 31.4	-2.4
	comp=Z,65nm,1.4s,mb5.4						
LPG	**La Plagne**	86.20	315	*e*P	P	19 32 31.8	-2.1
	comp=Z,118nm,1.5s,mb5.6						
URZ	**Urewera**	86.21	128	P	P	19 32 33.4	-0.7
	comp=Z,30nm,0.9s,mb5.5,baz=337,slow=0.6,SNR=9.2						
URZ				LR	LR	20 09 12.8	
	comp=Z,8µm,19.4s,MS6.1,baz=108,slow=34						
HAU	**Haudompre**	86.48	318	*e*P	P	19 32 32.3	-2.9
	comp=Z,38nm,1.0s,mb5.3						
HAU				*e*R			
	comp=Z,5µm,19.8s						
MIDW	**Midway**	87.52	62	PFAKE		19 32 50.0	+9.3
MIDW				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
BAIF	**Baives**	87.86	320	*e*P	P	19 32 39.3	-2.5
	comp=Z,43nm,1.2s,mb5.3						
VNDA	**Vanda**	87.89	168	P	P	19 32 43.3	+1.9
	comp=Z,2.8nm,0.9s,mb4.5,baz=274,slow=5.6,SNR=3.1						
VNDA				LR	LR	20 08 12.6	
	comp=Z,7µm,18.1s,MS6.1,baz=297,slow=33						
VNDA	**Vanda**	87.89	168	P	P	19 32 43.3	+1.9
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA				MLR	MLR		
	comp=Z,7µm,18.1s						
VNDA	**Vanda**	87.89	168	*e*P	P	19 32 43.3	+1.9
	comp=Z,36nm,1.4s,mb5.4						
VNDA				LR	LR		
	comp=Z,9µm,19.0s,MS6.2						
SSF	**Saint Saulge**	88.42	317	*e*P	P	19 32 42.3	-2.3
	comp=Z,72nm,1.5s,mb5.4						
BGF	**Bois d'Agland**	88.89	316	*e*P	P	19 32 43.7	-3.2
	comp=Z,57nm,1.1s,mb5.5						
SBA	**Scott Base**	88.99	168	PFAKE		19 33 00.0	+13
SBA				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
RAO	**Raoul Island**	89.59	119	PFAKE		19 33 00.0	+9.4
RAO				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
RJF	**Les Rejaudoux**	89.89	315	*e*P	P	19 32 49.1	-2.5
RJF				*e*R			
	comp=Z,3µm,17.0s						
NVL	**N'lazarevskaya**	89.93	199⇑	*e*P	pP	19 32 59.0	-1.6
NVL				*e*		19 49 57.0	
NVL				pmax	pmax		
	comp=Z,1µm,5.7s						
NVL				MLR	MLR		
	comp=Z,6µm,14.0s,MS6.2						
FLN	**La Foliniere**	90.99	319	*e*P	P	19 32 53.5	-3.1
	comp=Z,332nm,1.8s,mb6.1						
FLN				*e*R			
	comp=Z,4µm,18.5s						
ETSF	**Etsaut**	91.56	313	*e*P	P	19 32 56.6	-2.8
	comp=Z,51nm,1.2s,mb5.4						
JMIC	**Jan Mayen**	91.57	341	LR	LR	20 22 14.0	
	comp=Z,4µm,20.1s,MS5.9,baz=81,slow=41						
JMIC	**Jan Mayen**	91.57	341	*e*P	P	19 32 57.6	-1.1
JMIC				*e*PP	PP	19 36 33.5	-6.0
JMIC				*e*		19 43 48.8	
JMIC				AMS	AMS	20 18 04.2	
	comp=Z,4µm,9.3s						
EKA	**Eskdalemuir Ar**	91.92	325	P	P	19 33 01.4	+0.7
	comp=Z,1.9nm,0.8s,mb4.5,baz=97,slow=5.7,SNR=3.5						
EKA	**Eskdalemuir Ar**	91.92	325	P	P	19 33 01.4	+0.7
EKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ESK	**Eskdalemuir**	91.94	325	PFAKE		19 33 10.0	+9.2
ESK				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
ANM	**Nome**	92.15	25	*e*P	pP	19 33 10.1	-0.8
QSPA	**South Pole Qui**	92.61	180	*e*P	P	19 33 06.0	+2.6
	comp=Z,34nm,1.4s,mb5.6						
QSPA				LR	LR		
	comp=Z,21µm,20.0s,MS6.6						
UNV	**Unalaska Valle**	93.44	36	PFAKE		19 33 20.0	+12
UNV				LR	LR		
	comp=Z,17µm,20.0s,MS6.5						
ESLA	**Sonseca Array**	94.46	310	PFAKE		19 33 20.0	+7.2
ESLA				LR	LR		
	comp=Z,22µm,20.0s,MS6.6						
SNAA	**Sanae**	94.69	198	LR	LR	20 10 36.3	
	comp=Z,3µm,18.4s,MS5.7,baz=90,slow=32						
AFI	**Afiamalu**	94.70	104	PFAKE		19 33 30.0	+16
AFI				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
IMA	**Indian Mountai**	96.45	22	P	P	19 33 23.2	+2.0
IMA				pmax	pmax		
	comp=Z,240nm,1.9s,mb6.3						
IMA	**Indian Mountai**	96.45	22	P	P	19 33 20.5	-0.8
	comp=Z,236nm,1.9s,mb6.3						
IMA				*e*P		19 33 27.5	
BORG	**Borgarnes**	98.14	337	LR	LR	20 25 03.1	
	comp=Z,5µm,18.9s,MS6.0,baz=62,slow=40						
BORG	**Borgarnes**	98.14	337	PFAKE		19 33 40.0	+11
BORG				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
DBIC	**Dimbokro**	98.51	277	LR	LR	20 12 49.7	
	comp=Z,7µm,21.9s,MS6.1,baz=70,slow=32						
DBIC	**Dimbokro**	98.51	277	PFAKE		19 33 40.0	+8.3
DBIC				LR	LR		
	comp=Z,8µm,22.0s,MS6.2						
COLA	**College**	99.16	22	PFAKE		19 33 40.0	+6.6
COLA				LR	LR		
	comp=Z,10µm,21.0s,MS6.3						
ILAR	**Eielson Array**	99.57	22	PP	PP	19 37 25.0	-17
	comp=Z,0.5nm,0.8s,baz=290,slow=7.3,SNR=4.2						
ILAR				LR	LR	20 21 40.1	
	comp=Z,10µm,21.2s,MS6.3,baz=318,slow=37						
FIB	**Fire Island**	99.80	26	PFAKE		19 33 50.0	+14
FIB				LR	LR		
	comp=Z,4µm,22.0s,MS5.9						
KDAK	**Kodiak Island**	99.98	30	PFAKE		19 33 50.0	+13
KDAK				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
DIV	**Divide**	101.73	25	PFAKE		19 34 00.0	+15
DIV				LR	LR		
	comp=Z,21µm,19.0s,MS6.7						
TRIS	**Tristan da Cun**	104.63	232	PFAKE		19 34 10.0	+11
TRIS				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
KIP	**Kipapa**	105.67	67	PFAKE		19 38 30.0	
KIP				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
RAR	**Rarotonga**	106.06	111	PFAKE		19 38 30.0	
RAR				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
SIT	**Sitka**	108.47	26	PFAKE		19 38 30.0	
SIT				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
YKA	**Yellowknife Ar**	111.47	14	PP	PP	19 39 02.4	-8.1
	comp=Z,0.6nm,0.8s,baz=332,slow=7.7,SNR=4.7						
TBI	**Tubuai**	115.34	114	*e*PS	PS	19 49 11.3	-3.9
TBI				*e*LR	LR	20 14 01.2	
	comp=Z,4µm,23.2s						
PPT	**Papeete**	115.95	108	*e*PS	PS	19 49 16.9	-3.8
PPT				*e*LR	LR	20 13 54.9	
	comp=Z,6µm,26.0s						
PMSA	**Palmer Station**	116.04	190	PFAKE		19 38 50.0	+11
PMSA				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
OCWA	**Octopus Mounta**	119.71	29	PFAKE		19 38 50.0	+3.7
OCWA				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
SCHQ	**Schefferville**	120.55	347	PFAKE		19 39 00.0	+12
SCHQ				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
COR	**Corvallis**	122.36	31	PFAKE		19 39 00.0	+8.5
COR				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
NEW	**Newport**	122.47	24	PFAKE		19 39 00.0	+8.4
NEW				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
HUMO	**Hull Mountain**	123.91	32	PFAKE		19 39 00.0	+5.4
HUMO				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
YBH	**Yreka Blue Hor**	124.64	33	PFAKE		19 39 00.0	+3.9
YBH				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
MSO	**Missoula**	124.90	23	*e*PKPdf	PKPdf	19 38 51.9	-4.6
MSO				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
BMO	**Blue Mountains**	125.06	27	PFAKE		19 39 00.0	+3.2
BMO				LR	LR		
	comp=Z,5µm,22.0s,MS6.1						
WDC	**Whiskeytown Da**	125.53	34	PFAKE		19 39 10.0	+12
WDC				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
MOD	**Modoc**	125.80	31	PFAKE		19 39 10.0	+12
MOD				LR	LR		
	comp=Z,5µm,21.0s,MS6.1						
EFI	**East Falkland**	125.87	201	PFAKE		19 39 10.0	+12
EFI				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
HOPS	**Hopland**	126.29	36	PFAKE		19 39 10.0	+11
HOPS				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
ULM	**Lac du Bonnet**	126.60	8	PKP	PKPdf	19 38 55.9	-3.6
	comp=Z,1.6nm,0.8s,baz=227,slow=3.5,SNR=3.7						
ULM	**Lac du Bonnet**	126.60	8	PKP	PKPdf	19 38 55.9	-3.6
ULM				LR	LR		
	comp=Z,14µm,20.0s,MS6.6						
DGMT	**Dagmar**	126.65	15	PFAKE		19 39 10.0	+10
DGMT				LR	LR		
	comp=Z,13µm,19.0s,MS6.6						
BOZ	**Bozeman (W)**	126.77	22	*e*PKPdf	PKPdf	19 38 56.1	-4.0
BOZ				LR	LR		
	comp=Z,9µm,19.0s,MS6.5						
HLID	**Hailey**	127.35	26	*e*PKPdf	PKPdf	19 38 57.6	-3.7
HLID				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
LAO	**LASA Array**	127.70	18	*e*PKPdf	PKPdf	19 38 57.6	-4.3
LAO				LR	LR		
	comp=Z,9µm,19.0s,MS6.5						
LKWY	**Lake**	128.15	22	PFAKE		19 39 10.0	+7.2
LKWY				LR	LR		
	comp=Z,14µm,22.0s,MS6.6						
PQI	**Presque Isle**	128.38	344	PFAKE		19 39 10.0	+6.8
PQI				LR	LR		
	comp=Z,23µm,21.0s,MS6.8						
RKT	**Rikitea**	128.42	118	*e*SS	SS	19 58 19.8	+0.8
RKT				*e*LR	LR	20 19 48.3	
	comp=Z,4µm,26.2s						
BMN	**Battle Mountai**	128.46	30	PFAKE		19 39 10.0	+6.5
BMN				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
CMB	**Columbia Colle**	128.49	35	PFAKE		19 39 10.0	+6.4
CMB				LR	LR		
	comp=Z,5µm,21.0s,MS6.2						
SAO	**San Andreas Ge**	128.73	37	PFAKE		19 39 10.0	+5.9
SAO				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
LOHW	**Long Hollow**	128.88	23	*e*PKPdf	PKPdf	19 39 01.3	-3.0
SNOW	**Snow King Moun**	128.95	23	*e*PKPdf	PKPdf	19 39 01.5	-2.9
REDW	**Red Top Meadow**	129.00	23	*e*PKPdf	PKPdf	19 39 00.7	-3.7
ELK	**Elko**	129.20	29	PFAKE		19 39 10.0	+5.1
ELK				LR	LR		
	comp=Z,6µm,22.0s,MS6.3						
EYMN	**Ely**	129.36	5	PFAKE		19 39 10.0	+5.0
EYMN				LR	LR		
	comp=Z,10µm,19.0s,MS6.5						
NVAR	**Mina Array Bea**	129.37	33	PKP	PKPdf	19 39 03.0	-2.2
	comp=Z,1.1nm,0.8s,baz=251,slow=1.3,SNR=4.8						
AHID	**Auburn Hatcher**	129.40	24	PFAKE		19 39 10.0	+4.8
AHID				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
MNV	**Mina**	129.44	33	PKPdf	PKPdf	19 39 01.5	-4.0
MNV				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
RCBR	**Riachuelo**	129.98	265	PFAKE		19 39 20.0	+13
RCBR				LR	LR		
	comp=Z,5µm,21.0s,MS6.2						
BW06	**Boulder Array**	130.00	23	PFAKE		19 39 10.0	+3.6
BW06				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
PDAR	**Pinedale Array**	130.00	23	PKP	PKPdf	19 39 02.9	-3.5
	comp=Z,2.2nm,1.1s,slow=1.5,SNR=7.1						
HWUT	**Hardware Ranch**	130.17	25	PFAKE		19 39 10.0	+3.3
HWUT				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
TPH	**Tonopah**	130.21	32	PFAKE		19 39 10.0	+3.1
TPH				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
WVL	**Waterville**	130.76	345	PFAKE		19 39 20.0	+12
WVL				LR	LR		
	comp=Z,15µm,19.0s,MS6.7						
TRCR	**Troy Canyon**	130.86	31	PKPdf	PKPdf	19 39 05.0	-3.2
DAC	**Darwin (Calif)**	131.31	34	PFAKE		19 39 20.0	+11
DAC				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
TPNV	**Topopah Spring**	131.56	33	PFAKE		19 39 20.0	+11
TPNV				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
NCB	**Newcomb**	132.38	349	PFAKE		19 39 20.0	+9.1
NCB				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
MVU	**Marysvale**	132.40	28	PFAKE		19 39 20.0	+8.9
MVU				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
MSU	**Marysvale**	132.41	28	*e*PKIKP	PKPdf	19 39 09.3	-1.8
HRV	**Harvard--Oak R**	133.18	345	PFAKE		19 39 20.0	+7.6
HRV				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
WES	**Weston**	133.23	345	PFAKE		19 39 20.0	+7.5
WES				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
NEN	**Nelson**	133.28	33	PKPdf	PKPdf	19 39 09.4	-3.3
PFO	**Pinyon Flat Ob**	133.86	36	PFAKE		19 39 20.0	+6.1
PFO				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
PV10	**Paradox Valley**	133.93	25	*e*PKPdf	PKPdf	19 39 11.8	-2.1
ISCO	**Idaho Springs**	134.05	21	PFAKE		19 39 20.0	+6.0
ISCO				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
BINY	**Binghamton**	134.43	350	PFAKE		19 39 20.0	+5.3
BINY				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
JFWS	**Jewell Farm**	134.46	4	PFAKE		19 39 20.0	+5.3
JFWS				LR	LR		
	comp=Z,8µm,22.0s,MS6.4						
ERPA	**Erie**	135.09	354	PFAKE		19 39 20.0	+4.0
ERPA				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
SDCO	**Great Sand Dun**	135.90	22	PFAKE		19 39 30.0	+12
SDCO				LR	LR		
	comp=Z,10µm,19.0s,MS6.6						
SSPA	**Standing Stone**	136.27	351	PFAKE		19 39 30.0	+12
SSPA				LR	LR		
	comp=Z,5µm,22.0s,MS6.2						
ACSO	**Alum Creek Sta**	137.22	357	PFAKE		19 39 30.0	+10
ACSO				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
MCWV	**Mont Chateau**	137.50	353	PFAKE		19 39 30.0	+10
MCWV				LR	LR		
	comp=Z,10µm,21.0s,MS6.5						
ANMO	**Albuquerque**	137.93	25	PKP	PKPdf	19 39 19.0	-2.4
	comp=Z,2.1nm,0.7s,baz=18,slow=3.5,SNR=7.2						
ANMO	**Albuquerque**	137.93	25	PKIKP	PKPdf	19 39 20.7	-0.7
ANMO				MLR	MLR		
	comp=Z,6µm,19.0s						
ANMO	**Albuquerque**	137.93	25	*e*PKPdf	PKPdf	19 39 18.1	-3.2
ANMO				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
TUC	**Tucson**	138.00	32	PFAKE		19 39 30.0	+8.4
TUC				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
TRQA	**Tornquist**	138.49	209	PFAKE		19 39 30.0	+7.7
TRQA				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
CBN	**Corbin**	138.56	350	PFAKE		19 39 30.0	+7.6
CBN				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
LPA	**La Plata**	138.68	216	*ce*PKP	PKPdf	19 39 17.0	-5.7
LPA				*e*PKS	PKS	19 43 03.0	+10
LPA				*e*PKKS		19 52 23.0	
	comp=Z,9µm,22.0s						
CCM	**Cathedral Cave**	139.18	6	PFAKE		19 39 30.0	+6.5
CCM				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
WCI	**Wyandotte Cave**	139.30	0	PFAKE		19 39 30.0	+6.3
WCI				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
BBSR	**BB Station**	139.73	332	PFAKE		19 39 30.0	+5.3
BBSR				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
AMTX	**Amarillo**	139.84	20	PFAKE		19 39 30.0	+5.2
AMTX				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						
BLA	**Blacksburg**	139.99	353	PFAKE		19 39 30.0	+5.0
BLA				LR	LR		
	comp=Z,7µm,20.0s,MS6.4						
BDFB	**Brasilia**	140.47	249	PKP	PKPdf	19 39 23.5	-2.9
	comp=Z,3.2nm,0.9s,baz=185,slow=11,SNR=2.5						
BDFB	**Brasilia**	140.47	249	PKIKP	PKPdf	19 39 23.5	-2.9
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.9s						
WMOK	**Wichita Mounta**	140.89	17	PFAKE		19 39 30.0	+3.2
WMOK				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
MNTX	**Cornudas Mount**	141.16	27	*e*PKPpre		19 39 18.1	
MNTX				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
WVT	**Waverly**	141.36	2	PFAKE		19 39 40.0	+12
WVT				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
MIAR	**Mount Ida**	142.30	10	PKIKP	PKPdf	19 39 29.1	-0.1
MIAR				MLR	MLR		
	comp=Z,530nm,19.0s,MS5.3						
MIAR	**Mount Ida**	142.30	10	*e*PKPdf	PKPdf	19 39 24.8	-4.4
MIAR				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
OXF	**Oxford**	142.87	5	PFAKE		19 39 40.0	+10
OXF				LR	LR		
	comp=Z,7µm,21.0s,MS6.4						
LTX	**Lajitas**	143.94	27	PKIKP	PKPdf	19 39 27.1	-5.0
LTX				MLR	MLR		
	comp=Z,6µm,20.0s,MS6.4						
LTX	**Lajitas**	143.94	27	*e*PKPpre		19 39 25.4	

LTX				LR	LR		
	comp=Z,6µm,20.0s,MS6.4						
TXAR	**Lajitas Array**	143.94	27	PKP	PKPdf	19 39 26.6	-5.5
	comp=Z,1.7nm,0.6s,baz=252,slow=1.4,SNR=14						
NHSC	**New Hope**	144.00	352	PFAKE		19 39 40.0	+14
NHSC				LR	LR		
	comp=Z,8µm,19.0s,MS6.5						
GOGA	**Godfrey**	144.03	356	PFAKE		19 39 40.0	+14
GOGA				LR	LR		
	comp=Z,7µm,20.0s,MS6.5						
LRAL	**Lakeview Retre**	144.47	1	PFAKE		19 39 40.0	+12
LRAL				LR	LR		
	comp=Z,9µm,19.0s,MS6.6						
JCT	**Junction City**	144.49	21	PKIKP	PKPdf	19 39 28.0	-5.1
JCT				MLR	MLR		
	comp=Z,340nm,19.0s						
JCT	**Junction City**	144.49	21	*e*PKP	PKPdf	19 39 27.8	-5.3
JCT				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
NATX	**Nacogdoches**	144.78	13	*e*PKPdf	PKPdf	19 39 28.2	-5.4
NATX				LR	LR		
	comp=Z,6µm,20.0s,MS6.4						
FCH	**Farellones**	146.15	204	*e*P	PKPbc	19 39 31.0	-0.9
CLCH	**Cerro Calan**	146.19	204	*e*P	PKPbc	19 39 31.7	-0.3
HKT	**Hockley**	146.22	16	PKP2	PKPab	19 39 33.4	-1.5
HKT				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.3						
HKT	**Hockley**	146.22	16	*e*PKPdf	PKPdf	19 39 32.9	-3.2
HKT				LR	LR		
	comp=Z,5µm,20.0s,MS6.3						
RPN	**Rapa Nui**	146.96	140	PFAKE		19 39 50.0	+16
RPN				LR	LR		
	comp=Z,907nm,20.0s,MS5.5						
DWPF	**Disney**	149.09	352	PFAKE		19 39 50.0	+9.2
DWPF				LR	LR		
	comp=Z,9µm,19.0s,MS6.6						
SJG	**San Juan**	151.58	317	PFAKE		19 39 50.0	+5.1
SJG				LR	LR		
	comp=Z,5µm,21.0s,MS6.3						
LVC	**Limon Verde**	154.18	218	PFAKE		19 40 00.0	+12
LVC				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
TEIG	**Tepich**	157.13	6	PFAKE		19 40 00.0	+7.6
TEIG				LR	LR		
	comp=Z,3µm,21.0s,MS6.1						
LPAZ	**La Paz**	157.84	231	PKP	PKPdf	19 39 52.3	-1.1
	comp=Z,1.2nm,0.7s,baz=90,slow=2.0,SNR=3.3						
LPAZ	**La Paz**	157.84	231	PKIKP	PKPdf	19 39 52.3	-1.1
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ	**La Paz**	157.84	231	*e*PKPdf	PKPdf	19 39 50.0	-3.4
LPAZ				LR	LR		
	comp=Z,5µm,21.0s,MS6.4						
SDV	**Santo Domingo**	160.88	307	PFAKE		19 40 10.0	+13
SDV				LR	LR		
	comp=Z,5µm,20.0s						
ROSC	**El Rosal**	166.17	303	PKP	PKPdf	19 40 00.3	-1.9
	comp=Z,2.3nm,0.3s,baz=106,slow=20,SNR=2.6						
NNA	**Nana**	167.06	224	PFAKE		19 40 10.0	+7.4
NNA				LR	LR		
	comp=Z,2µm,22.0s						
JTS	**JuntasAbangare**	167.08	356	PFAKE		19 40 10.0	+7.3
JTS				LR	LR		
	comp=Z,1µm,22.0s						

IDC 26 19:19:58.2±1.4**, 11.01N**×**92.21E, mb4.1**/6**, mb1 4.3**/7**, mb1mx4.0**/18**, ML3.7**/1**, Error ellipse: s-maj=41.0km s-min=28.8km az=43.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	9.86	41	Pn	P	19 22 20.7	-3.8
	0.2nm,0.3s,baz=236,slow=14,SNR=4.8						
SONM	**Songino Array**	38.60	15	P	P	19 27 23.5	-1.3
	1.5nm,0.6s,baz=206,slow=8.5,SNR=7.6						
WRA	**Warramunga Arr**	51.63	126	P	P	19 29 07.1	-1.9
	11nm,0.7s,baz=300,slow=10.0,SNR=6.2						
BRTR	**Keskin Array B**	58.96	310	P	P	19 29 58.8	-3.2
	0.8nm,0.9s,baz=142,slow=4.0,SNR=2.2						
ARCES	**ARCESS Array B**	71.69	340	P	P	19 31 22.4	-1.3
	2.4nm,0.9s,baz=99,slow=6.7,SNR=11						
GERES	**GERESS Array B**	74.24	318	P	P	19 31 37.8	-1.2
	0.3nm,0.4s,baz=104,slow=5.5,SNR=4.2						
GERES				pP	pP	19 31 47.4	+8.4
	0.8nm,0.7s,baz=90,slow=5.3,SNR=4.4						
ILAR	**Eielson Array**	92.57	22	P	P	19 33 10.3	-2.2
	0.6nm,0.7s,baz=289,slow=4.0,SNR=5.8						

IDC 26 19:27:20.0±24.0**, 20.79S**×**177.04W, h437**^{km}±207^{km}**, mb3.4**/4**, mb1 3.6**/4**, mb1mx3.4**/14**, Error ellipse: s-maj=270.0km s-min=46.0km az=134.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	34.36	265	P	P	19 33 28.9	-1.1
	1.6nm,0.4s,baz=86,slow=15,SNR=4.6						
ASAR	**Alice Springs**	45.33	257	P	P	19 34 57.9	-1.2
	3.1nm,0.8s,baz=84,slow=7.7,SNR=16						
ASAR				PcP	PcP	19 36 29.1	-1.2
	0.8nm,0.8s,baz=108,slow=3.9,SNR=4.3						
WRA	**Warramunga Arr**	45.45	262	P	P	19 34 58.0	-2.1
	1.0nm,0.3s,baz=97,slow=7.3,SNR=27						
ILAR	**Eielson Array**	88.40	12	P	P	19 39 23.9	-0.8
	0.5nm,0.6s,baz=227,slow=5.1,SNR=8.4						
AKASG	**Malin Array Be**	143.70	332	PKP	PKPdf	19 46 01.3	-2.4
	1.2nm,0.4s,baz=39,slow=4.5,SNR=17						
BRTR	**Keskin Array B**	147.70	313	PKPbc	PKPdf	19 46 14.7	+3.9
	0.7nm,0.5s,baz=135,slow=3.5,SNR=4.4						
CLL	**Collm**	148.54	348	P	PKPdf	19 46 16.7	+5.0
GERES	**GERESS Array B**	150.72	345	PKPbc	PKPdf	19 46 22.0	+6.8
	0.4nm,0.7s,slow=1.3,SNR=4.0						

IDC 26 19:27:49.4±12.0**, 5.79N**×**93.30E, mb4.1**/5**, mb1 4.2**/5**, mb1mx3.8**/19**, Error ellipse: s-maj=354.0km s-min=110.5km az=118.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	**Borovoye Array**	50.70	342	P	P	19 36 50.8	-2.0
	1.2nm,0.7s,baz=149,slow=8.4,SNR=3.3						
FINES	**FINESS Array B**	74.16	333	P	P	19 39 27.2	-2.2
	1.6nm,0.8s,baz=117,slow=8.5,SNR=3.8						
ARCES	**ARCESS Array B**	76.94	340	P	P	19 39 43.6	-1.5
	1.4nm,0.6s,baz=117,slow=5.4,SNR=4.1						
GERES	**GERESS Array B**	78.82	319	P	P	19 39 54.6	-1.3
	0.7nm,0.6s,baz=104,slow=5.5,SNR=4.3						
DAVOX	**Davos**	81.31	316	P	P	19 40 08.3	-0.9
	2.8nm,0.8s,baz=107,slow=15,SNR=4.8						

IDC 26 19:29:11.7±2.2**, 2.52N**×**93.85E, mb4.1**/6**, mb1 4.3**/7**, mb1mx4.1**/19**, ML4.6**/1**, Error ellipse: s-maj=87.4km s-min=21.2km az=62.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	16.61	17	Pn	P	19 33 07.0	-0.7
	0.9nm,0.3s,baz=214,slow=11,SNR=11						
WRA	**Warramunga Arr**	45.57	121	P	P	19 37 33.5	-2.1
	2.9nm,0.9s,baz=299,slow=9.0,SNR=4.3						
SONM	**Songino Array**	46.42	12	P	P	19 37 39.7	-2.2
	1.6nm,0.7s,baz=195,slow=8.0,SNR=3.7						
ASAR	**Alice Springs**	46.86	126	P	P	19 37 43.8	-2.0
	2.2nm,0.9s,baz=303,slow=7.5,SNR=4.8						
ZAL	**Zalesovo**	51.79	353	P	P	19 38 21.1	-2.2
	2.3nm,0.8s,baz=279,slow=6.3,SNR=6.0						
BVAR	**Borovoye Array**	53.96	343	P	P	19 38 37.3	-2.1
	6.1nm,1.1s,baz=149,slow=8.6,SNR=5.8						
STKA	**Stephens Creek**	56.73	131	P	P	19 38 58.2	-1.7
	1.4nm,0.6s,baz=315,slow=7.1,SNR=2.9						
TXAR	**Lajitas Array**	144.16	27	PKP	PKPdf	19 48 48.7	-3.3
	0.5nm,0.8s,baz=270,slow=2.7,SNR=3.7						

IDC 26 19:29:19.2±1.0**, 2.42N**×**93.57E, mb4.3**/7**, mb1 4.5**/8**, mb1mx4.2**/19**, ML4.7**/1**, Error ellipse: s-maj=34.3km s-min=22.2km az=54.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	16.79	18	Pn	P	19 33 14.8	-2.7
	0.9nm,0.3s,baz=212,slow=12,SNR=8.5						
WRA	**Warramunga Arr**	45.76	121	P	P	19 37 43.1	-1.4
	4.3nm,1.0s,baz=300,slow=9.0,SNR=4.9						
SONM	**Songino Array**	46.58	12	P	P	19 37 47.6	-3.0
	3.0nm,0.7s,baz=192,slow=8.3,SNR=6.3						
ASAR	**Alice Springs**	47.03	126	P	P	19 37 52.5	-2.0
	3.3nm,1.0s,baz=304,slow=7.1,SNR=5.4						
ZAL	**Zalesovo**	51.86	353	P	P	19 38 29.5	-1.8
	4.8nm,0.5s,baz=320,slow=6.2,SNR=9.2						
BVAR	**Borovoye Array**	53.97	343	P	P	19 38 45.3	-1.7
	5.6nm,0.9s,baz=135,slow=8.4,SNR=8.2						
KMBO	**Kilima Mbogo**	56.42	267	P	P	19 39 02.6	-2.7
	2.3nm,0.9s,baz=60,slow=12,SNR=5.5						
FINES	**FINESS Array B**	77.26	333	P	P	19 41 16.0	-0.8
	1.0nm,0.7s,baz=90,slow=5.7,SNR=3.5						
TXAR	**Lajitas Array**	144.37	26	PKP	PKPdf	19 48 57.5	-2.4
	0.9nm,0.8s,baz=342,slow=2.9,SNR=5.1						

IDC ***26*** *19:29:47.2±0.7, 12.48N×92.52E, h25^{km}±3^{km}, mb3.9/12, mb1 4.1/13, mb1mx3.9/20, ML4.1/1, Error ellipse: s-maj=28.4km s-min=13.4km az=49.0*

NEIC ***26*** *19:29:47.4±0.6, 12.48N×92.60E, mb4.4/7, Error ellipse: s-maj=14.4km s-min=13.4km az=222.0*

ISC 26 19:29:45.4±0.6**, 12.50N**±0.09×**92.65E**±0.09**, h26**^{km}**, h26**^{km}±.6^{km}**:pP-P, n25,** σ**0**^{s}**98**/23**, mb4.1**/17**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	8.48	45	*e*P	**P**	**19 31 50.0**	**+0.3**
	4.0nm,0.5s						
CMAR	**Chiang Mai Arr**	8.48	45	Pn	**P**	**19 31 49.9**	**+0.2**
	0.6nm,0.3s,baz=238,slow=15,SNR=6.4						
LSA	**Lhasa**	17.17	356	P	**P**	**19 33 48.6**	**+3.2**
	5.3nm,0.6s						
ENH	**Enshi**	23.58	39	*e*P	**P**	**19 34 54.1**	**-1.0**
	12nm,0.6s,mb4.5						
SONM	**Songino Array**	37.05	15	P	**P**	**19 36 56.8**	**+1.7**
	1.0nm,0.7s,mb3.7,baz=197,slow=5.7,SNR=3.8						
SONM				pP	pP	19 37 02.8	-0.1
	3.1nm,0.8s,baz=198,slow=8.5,SNR=7.2						
ZAL	**Zalesovo**	41.80	353	pP	pP	19 37 42.1	-0.1
	1.6nm,0.7s,baz=291,slow=9.3,SNR=3.4						
BVAR	**Borovoye Array**	44.16	341	P	**P**	**19 37 52.9**	**-0.8**
	0.6nm,0.5s,mb3.5,baz=135,slow=8.2,SNR=3.9						
BVAR				pP	pP	19 38 01.2	-0.3
	0.7nm,0.5s,baz=136,slow=10,SNR=2.5						
BRVK	**Borovoye**	44.22	341	*e*P	**P**	**19 37 48.6**	**-5.7**
	2.3nm,0.9s,mb3.9						
CHKZ	**Chkalovo**	44.65	341	*e*P	**P**	**19 37 57.0**	**-0.7**
	4.8nm,0.7s,mb4.4						
CHKZ				*e*pP	pP	19 38 05.0	-0.4
GNI	**Garni**	50.21	312	P	**P**	**19 38 43.0**	**+1.7**
	2.7nm,0.6s,mb4.5,baz=20,slow=4.7,SNR=3.1						
WRA	**Warramunga Arr**	52.19	128	P	**P**	**19 38 56.6**	**0.0**
	4.9nm,0.7s,mb4.5,baz=308,slow=8.4,SNR=14						
WRA				pP	pP	19 39 04.3	-0.1
	1.2nm,0.5s,baz=301,slow=10.0,SNR=3.4						
WRA				PcP	PcP	19 40 09.0	+0.9
	1.1nm,0.7s,baz=324,slow=3.2,SNR=3.8						
WRA				pPcP		19 40 16.8	
	1.8nm,0.7s,baz=315,slow=3.4,SNR=6.5						
WRAB	**Tennant Creek**	52.19	128	*e*P	**P**	**19 38 56.0**	**-0.6**
	8.5nm,0.7s,mb4.8						
ASAR	**Alice Springs**	54.04	132	P	**P**	**19 39 10.3**	**+0.1**
	3.9nm,1.0s,mb4.3,baz=308,slow=6.8,SNR=8.7						
ASAR				pP	pP	19 39 18.0	-0.1
	1.2nm,0.5s,baz=307,slow=7.0,SNR=3.6						
ASAR				pPcP		19 40 24.0	
	1.2nm,0.6s,baz=319,slow=3.1,SNR=5.4						
BRTR	**Keskin Array B**	58.35	309	P	**P**	**19 39 39.4**	**-1.6**
	0.9nm,0.8s,mb3.9,baz=109,slow=7.0,SNR=3.8						
BRTR				pP	pP	19 39 47.8	-1.1
	1.5nm,0.6s,baz=121,slow=7.9,SNR=7.4						
FINES	**FINESS Array B**	67.96	332	P	**P**	**19 40 43.2**	**-0.9**
	2.0nm,0.8s,mb4.2,baz=315,slow=2.7,SNR=4.0						
FINES				pP	pP	19 40 51.7	-0.5
	2.2nm,0.8s,baz=90,slow=9.5,SNR=2.6						
FINES	**FINESS Array B**	67.96	332	P	**P**	**19 40 43.2**	**-0.9**
FINES				pP	pP	19 40 51.7	-0.5
ARCES	**ARCESS Array B**	70.44	340	P	**P**	**19 40 58.9**	**-0.3**
	1.3nm,0.6s,mb4.0,baz=80,slow=10,SNR=2.9						
ARCES				pP	pP	19 41 07.3	0.0
	0.8nm,0.5s,baz=90,slow=7.3,SNR=1.8						
ARCES	**ARCESS Array B**	70.44	340	P	**P**	**19 40 58.9**	**-0.3**
ARCES				pP	pP	19 41 07.3	0.0
GERES	**GERESS Array B**	73.43	317	P	**P**	**19 41 17.4**	**+0.1**
	1.0nm,0.9s,mb3.8,baz=76,slow=5.5,SNR=3.7						
GERES				pP	pP	19 41 25.9	+0.5
	1.1nm,0.7s,baz=76,slow=5.5,SNR=5.4						
HFS	**Hagfors**	73.75	329	P	**P**	**19 41 18.9**	**0.0**
	1.7nm,0.7s,mb4.1,baz=90,slow=5.8,SNR=3.7						
HFS				pP	pP	19 41 27.2	+0.1
	2.9nm,0.9s,baz=135,slow=10,SNR=2.9						
NB2	**NORSAR Subarra**	75.01	330	P	**P**	**19 41 25.3**	**-0.9**
	2.6nm,0.9s,mb4.2,baz=99,slow=5.0						
NOA	**NORSAR Array B**	75.01	330	P	**P**	**19 41 25.6**	**-0.7**
	0.7nm,0.6s,mb3.8,baz=90,slow=5.8,SNR=3.4						
NOA				pP	pP	19 41 34.0	-0.4
	0.9nm,0.7s,baz=91,slow=5.7,SNR=3.1						
LBTB	**Lobatse**	75.22	240	*e*P	**P**	**19 41 29.9**	**+1.7**
	3.6nm,0.9s,mb4.3						
ILAR	**Eielson Array**	91.03	22	P	**P**	**19 42 48.7**	**+0.3**
	0.5nm,0.8s,mb3.9,baz=292,slow=3.4,SNR=3.8						
ILAR				pP	pP	19 42 56.5	-0.3
	0.7nm,0.7s,baz=297,slow=4.4,SNR=5.1						
TXAR	**Lajitas Array**	135.53	20	PKP	PKPdf	19 49 07.6	-1.3
	0.4nm,0.8s,baz=27,slow=2.0,SNR=3.5						

IDC 26 19:30:58.4±1.6**, 3.70N**×**95.59E, mb4.2**/3**, mb1 4.5**/4**, mb1mx3.9**/18**, ML4.2**/1**, Error ellipse: s-maj=81.5km s-min=28.1km az=48.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	15.03	12	Pn	P	19 34 33.0	-1.1
	0.3nm,0.3s,baz=200,slow=11,SNR=4.8						
WRA	**Warramunga Arr**	44.73	123	P	P	19 39 13.4	-2.2
	6.1nm,0.5s,baz=302,slow=9.1,SNR=22						
ASAR	**Alice Springs**	46.19	128	P	P	19 39 25.8	-1.4
	2.2nm,0.4s,baz=303,slow=7.9,SNR=14						
GERES	**GERESS Array B**	81.88	319	P	P	19 43 19.8	-1.3
	0.5nm,0.5s,baz=112,slow=5.3,SNR=6.2						

IDC ***26*** *19:31:59.2±1.5, 8.32N×92.04E, h26^{km}±6^{km}, mb3.7/6, mb1 4.0/7, mb1mx3.8/17, ML4.3/1, Error ellipse: s-maj=49.1km s-min=18.9km az=62.0*

ISC 26 19:31:57.3±1.1**, 8.3N**±0.1×**92.1E**±0.2**, h27**^{km}**, h27**^{km}±.9^{km}**:pP-P, n9,** σ**0**^{s}**62**/8**, mb3.9**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	12.10	33	Pn	**P**	**19 34 51.1**	**0.0**
	0.5nm,0.3s,baz=229,slow=14,SNR=7.3						
SONM	**Songino Array**	41.23	15	P	**P**	**19 39 41.5**	**-0.1**
	2.1nm,0.8s,mb3.9,baz=195,slow=8.3,SNR=4.9						
SONM				pP	pP	19 39 50.0	+0.4
	3.7nm,0.7s,baz=196,slow=8.5,SNR=8.7						
ZAL	**Zalesovo**	45.88	354	P	**P**	**19 40 18.2**	**-1.0**
	1.1nm,0.5s,mb4.1,baz=245,slow=3.2,SNR=2.8						
BVAR	**Borovoye Array**	47.94	343	P	**P**	**19 40 36.9**	**+1.4**
	1.4nm,0.8s,mb4.0,baz=149,slow=8.6,SNR=4.1						
WRA	**Warramunga Arr**	50.18	125	P	**P**	**19 40 53.4**	**+0.2**
	0.4nm,0.4s,mb3.8,baz=288,slow=7.1,SNR=3.6						
WRA				pP	pP	19 41 01.7	+0.3
	2.8nm,0.6s,baz=305,slow=8.6,SNR=7.8						
ASAR	**Alice Springs**	51.77	129	P	**P**	**19 41 05.0**	**-0.2**
	1.3nm,0.7s,mb3.9,baz=310,slow=7.5,SNR=4.6						
BRTR	**Keskin Array B**	60.60	311	pP	pP	19 42 15.9	-0.6
	1.1nm,0.6s,baz=128,slow=7.0,SNR=3.2						
AKASG	**Malin Array Be**	66.55	322	P	**P**	**19 42 46.7**	**-0.5**
	0.5nm,0.5s,mb3.9,baz=84,slow=5.2,SNR=4.7						
ILAR	**Eielson Array**	95.11	22	P	**P**	**19 45 19.2**	**+0.2**
	0.3nm,0.8s,mb3.8,baz=291,slow=5.1,SNR=4.1						
ILAR				pP	pP	19 45 27.2	-0.4
	1.2nm,1.1s,baz=297,slow=4.8,SNR=5.9						

CSEM ***26*** *19:34:34.7, 38.34N×41.65E, h5^{km}, MD3.5, After ISK*

ISK 26 19:34:34.7, 38.34N×**41.65E, h5**^{km}**, MD3.5, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BTMT	**Batman**	0.19	221	*i* PG	Pg	19 34 42.0	+3.4
BEST	**Besiri**	0.53	214	*i* P	Pg	19 34 49.3	+3.9
BEST				*i* S	Sg	19 35 00.7	+8.2
VRT	**Varto**	0.80	354	PG	Pg	19 34 50.8	+0.1
VRT				SG	Sg	19 35 03.4	+2.0
BINT	**Bingol**	1.05	301	PG	Pg	19 34 55.7	-0.1
BINT				SG	Sg	19 35 11.4	+1.6
DIY	**Diyarbakir**	1.20	249	PN	Pn	19 34 59.6	+1.5
DIY				SN	Sn	19 35 16.3	+1.3
EZM	**Erzurum**	1.58	352	PN	Pn	19 35 05.1	+1.5
PTK	**Pertek**	1.85	288	PN	Pn	19 35 08.9	+1.5
EZC	**Erzincan**	2.00	315	PN	Pn	19 35 14.1	+4.5
ELZG	**Elazig**	2.10	275	*i* P	Pn	19 35 11.4	+0.4
ELZG				*i* S	Sn	19 35 38.4	+0.7
URFA	**Urfa**	2.41	249	*e*PN	Pn	19 35 16.0	+0.6
MALT	**Malatya**	2.53	271	*e*PN	Pn	19 35 19.2	+2.1
MYA	**Malataya**	2.53	271	*e*PN	Pn	19 35 18.3	+1.1
GZT	**Gaziantep**	3.38	254	*i* P	Pn	19 35 35.9	+6.7
GZT				*i* S	Sn	19 36 24.6	+14
GAZ	**Gaziantep**	3.70	253	*e*PN	Pn	19 35 35.8	+2.0

IDC ***26*** *19:36:31.6±1.5, 4.50N×93.79E, mb3.9/6, mb1 4.1/6, mb1mx3.9/17, Error ellipse: s-maj=66.3km s-min=23.5km az=54.0*

ISC 26 19:36:35.1±1.4**, 4.6N**±0.3×**93.9E**±0.4**, h33**^{km}**, n6,** σ**0**^{s}**42**/6**, mb3.9**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	44.43	12	P	**P**	**19 44 44.9**	**+0.2**
	0.7nm,0.8s,mb3.5,baz=180,slow=7.2,SNR=3.2						
WRA	**Warramunga Arr**	46.60	123	P	**P**	**19 45 02.6**	**+0.4**
	2.7nm,1.2s,mb4.0,baz=300,slow=8.8,SNR=5.2						
ASAR	**Alice Springs**	48.03	128	P	**P**	**19 45 13.1**	**-0.4**
	0.9nm,1.0s,mb3.8,baz=315,slow=8.9,SNR=4.3						
ZAL	**Zalesovo**	49.79	353	P	**P**	**19 45 26.2**	**-0.4**
	1.6nm,0.4s,mb4.4,baz=309,slow=5.5,SNR=9.0						
ARCES	**ARCESS Array B**	78.29	340	P	**P**	**19 48 33.1**	**0.0**
	3.6nm,1.0s,mb4.3,baz=72,slow=7.7,SNR=3.5						
GERES	**GERESS Array B**	80.14	319	P	**P**	**19 48 43.8**	**+0.2**
	0.2nm,0.5s,mb3.4,baz=27,slow=3.0,SNR=2.8						
GERES				pP	pP	19 48 51.7	-2.3
	0.5nm,0.8s,baz=117,slow=4.4,SNR=3.7						

IDC ***26*** *19:36:59.3±1.0, 6.86N×92.96E, mb3.9/11, mb1 4.1/11, mb1mx3.9/20, Error ellipse: s-maj=48.7km s-min=20.2km az=50.0*

ISC 26 19:37:02.6±0.9**, 6.9N**±0.2×**93.0E**±0.2**, h33**^{km}**, n13,** σ**0**^{s}**59**/11**, mb4.0**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	42.37	13	P	**P**	**19 44 54.6**	**-0.8**
	2.2nm,0.7s,mb3.9,baz=192,slow=9.1,SNR=11						
SONM				pP	pP	19 45 04.0	-1.3
	2.9nm,0.8s,baz=191,slow=9.1,SNR=9.0						
ZAL	**Zalesovo**	47.39	353	P	**P**	**19 45 36.3**	**+0.9**
	2.2nm,0.5s,mb4.4,baz=308,slow=4.6,SNR=7.4						
WRA	**Warramunga Arr**	48.60	124	P	**P**	**19 45 45.9**	**+0.5**
	0.5nm,0.5s,mb3.8,baz=305,slow=8.6,SNR=5.5						
BVAR	**Borovoye Array**	49.58	342	P	**P**	**19 45 52.6**	**+0.2**
	0.6nm,0.5s,mb3.9,baz=143,slow=7.2,SNR=2.9						
ASAR	**Alice Springs**	50.15	129	P	**P**	**19 45 56.7**	**-0.5**
	0.5nm,0.7s,mb3.6,baz=300,slow=7.3,SNR=3.0						
BRTR	**Keskin Array B**	62.24	311	P	**P**	**19 47 22.6**	**-1.1**
	0.7nm,0.6s,mb4.0,baz=117,slow=8.3,SNR=3.6						
FINES	**FINESS Array B**	73.07	332	P	**P**	**19 48 30.6**	**-0.4**
	1.4nm,0.7s,mb4.0,baz=45,slow=2.7,SNR=2.3						
ARCES	**ARCESS Array B**	75.82	340	P	**P**	**19 48 47.0**	**+0.2**
	2.3nm,1.1s,mb4.0,baz=100,slow=7.4,SNR=0.9						
GERES	**GERESS Array B**	77.83	318	P	**P**	**19 48 58.9**	**+0.4**
	0.9nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=5.4						
HFS	**Hagfors**	78.75	330	P	**P**	**19 49 03.1**	**-0.2**
	2.3nm,0.9s,mb4.1,baz=135,slow=4.2,SNR=1.7						
DAVOX	**Davos**	80.33	316	P	**P**	**19 49 12.8**	**+0.7**
	1.8nm,0.6s,mb4.2,baz=123,slow=6.2,SNR=3.2						
PDAR	**Pinedale Array**	126.48	21	PKP	PKPdf	19 56 05.2	+2.4
	0.4nm,0.7s,slow=1.5,SNR=3.7						
TXAR	**Lajitas Array**	140.57	23	PKP	PKPdf	19 56 33.9	+4.4
	0.2nm,0.5s,baz=309,slow=0.4,SNR=5.4						

CSEM ***26*** *19:37:41.5, 31.20N×56.30E, h14^{km}, ML3.7, After THR*

THR 26 19:37:41.5±0.7**, 31.20N**×**56.30E, h14**^{km}±7^{km}**, ML3.7, Northern and central Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KRBR	**Kerman**	1.27	162	*e*PG	Pg	19 38 05.0	-2.0
KRBR				*e*SG	Sg	19 38 22.8	-1.3
KRBR				AMP		19 38 27.5	
	comp=N,1µm,0.2s						
KRBR				AMP		19 38 29.8	
	comp=E,1µm,0.2s						
KRBR	**Kerman**	1.27	162	*e*Pg	Pg	19 38 05.0	-2.0
KRBR				*e*Sg	Sg	19 38 22.8	-1.2
	comp=E,1µm,0.2s						
NASN	**Na’in**	3.37	299	*e*PN	Pn	19 38 36.2	+1.3
NASN				*e*SG	Sg	19 39 26.7	-7.1
NASN				AMP		19 39 30.7	
	comp=N,255nm,0.6s						
NASN				AMP		19 39 31.8	
	comp=E,234nm,0.5s						
NASN	**Na’in**	3.37	299	*e*Pn	Pn	19 38 36.2	+1.3
NASN				*e*Sg	Sg	19 39 26.7	-7.2
	comp=E,234nm,0.5s						
BNDS	**Bandar-Abbas**	3.78	182	*e*PN	Pn	19 38 41.9	+1.1
BNDS				AMP		19 39 48.1	
	comp=E,106nm,0.5s						
BNDS				AMP		19 39 50.9	
	comp=N,93nm,0.6s						
BNDS	**Bandar-Abbas**	3.78	182	*e*Pn	Pn	19 38 41.9	+1.2
	comp=N,93nm,0.6s						
DAMV	**Damavand**	5.72	322	*e*PN	Pn	19 39 08.6	+0.5
ASAO	**Ashtian**	6.25	304	*e*PN	Pn	19 39 15.5	-0.1

IDC ***26*** *19:39:40.9±1.1, 6.06N×92.69E, h31^{km}±5^{km}, mb3.8/9, mb1 4.0/10, mb1mx3.8/20, Error ellipse: s-maj=39.9km s-min=16.9km az=54.0*

ISC 26 19:39:39.0±0.9**, 6.0N**±0.1×**92.7E**±0.2**, h32**^{km}**, h32**^{km}±1.6^{km}**:pP-P, n10,** σ**0**^{s}**62**/10**, mb4.0**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	13.82	26	Pn	**P**	**19 42 55.8**	**+0.5**
	baz=215,slow=13,SNR=3.7						
SONM	**Songino Array**	43.32	13	P	**P**	**19 47 38.9**	**-0.8**
	1.0nm,0.7s,mb3.6,baz=195,slow=8.7,SNR=5.9						
SONM				pP	pP	19 47 47.2	-2.1
	1.2nm,0.8s,baz=196,slow=7.7,SNR=7.0						
ZAL	**Zalesovo**	48.23	354	P	**P**	**19 48 19.0**	**+0.3**
	3.6nm,0.4s,mb4.7,baz=313,slow=6.0,SNR=20						
WRA	**Warramunga Arr**	48.42	123	P	**P**	**19 48 21.3**	**+0.7**
	2.1nm,0.9s,mb4.2,baz=301,slow=9.2,SNR=6.4						
ASAR	**Alice Springs**	49.88	128	P	**P**	**19 48 31.1**	**-0.7**
	0.6nm,0.7s,mb3.7,baz=292,slow=7.8,SNR=3.9						
ASAR				pP	pP	19 48 42.0	+0.4
	0.8nm,0.9s,baz=302,slow=8.0,SNR=3.0						
BVAR	**Borovoye Array**	50.31	343	P	**P**	**19 48 34.2**	**-0.5**
	1.7nm,0.9s,mb4.1,baz=100,slow=9.0,SNR=6.0						
BVAR				pP	pP	19 48 44.6	+0.1
	0.9nm,0.7s,baz=129,slow=9.5,SNR=4.6						
FINES	**FINESS Array B**	73.69	333	P	**P**	**19 51 10.5**	**-0.8**
	0.8nm,0.7s,mb3.8,baz=90,slow=5.6,SNR=2.7						
ARCES	**ARCESS Array B**	76.53	341	P	**P**	**19 51 27.4**	**0.0**
	2.8nm,0.9s,mb4.2,baz=98,slow=8.6,SNR=4.1						
ARCES				pP	pP	19 51 37.2	-0.4
	2.0nm,0.7s,baz=45,slow=3.4,SNR=2.1						
GERES	**GERESS Array B**	78.25	319	P	**P**	**19 51 37.9**	**+0.6**
	1.1nm,0.7s,mb3.9,baz=76,slow=5.5,SNR=11						
DAVOX	**Davos**	80.72	316	P	**P**	**19 51 51.5**	**+0.7**
	1.6nm,0.6s,mb4.2,baz=138,slow=16,SNR=6.7						

IDC ***26*** *19:42:45.1±0.9, 6.74N×92.83E, mb4.0/11, mb1 4.1/12, mb1mx4.0/21, ML3.9/1, Error ellipse: s-maj=42.5km s-min=19.7km az=50.0*

ISC 26 19:42:48.3±0.8**, 6.8N**±0.1×**92.9E**±0.2**, h33**^{km}**, n15,**

σ0^{s}62/12**,mb4.0**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.00	26	Pn	P	19 45 53.6	+0.1
	0.2nm,0.3s,baz=217,slow=14,SNR=3.7						
SONM	Songino Array	42.49	13	P	P	19 50 42.0	-0.1
	0.5nm,0.6s,mb3.3,baz=198,slow=9.0,SNR=3.2						
ZAL	Zalesovo	47.48	353	P	P	19 51 22.6	+0.6
	1.6nm,0.4s,mb4.3,baz=300,slow=8.3,SNR=6.4						
WRA	Warramunga Arr	48.63	124	P	P	19 51 31.7	+0.3
	1.1nm,0.8s,mb4.0,baz=302,slow=9.2,SNR=6.2						
BVAR	Borovoye Array	49.64	342	P	P	19 51 37.9	-0.9
	0.7nm,0.6s,mb3.8,baz=146,slow=11,SNR=4.2						
ASAR	Alice Springs	50.16	128	P	P	19 51 42.6	-0.5
	3.2nm,1.1s,mb4.3,baz=298,slow=7.2,SNR=7.6						
BRTR	Keskin Array B	62.23	311	P	P	19 53 08.7	-0.6
	0.5nm,0.5s,mb3.9,baz=121,slow=7.2,SNR=3.7						
FINES	FINESS Array B	73.11	333	P	P	19 54 16.6	-0.4
	1.2nm,0.7s,mb4.0,baz=100,slow=12,SNR=4.8						
ARCES	ARCESS Array B	75.88	340	P	P	19 54 33.0	+0.1
	3.9nm,0.9s,mb4.3,baz=104,slow=5.0,SNR=5.3						
GERES	GERESS Array B	77.83	318	P	P	19 54 45.1	+0.8
	0.7nm,0.6s,mb3.8,baz=90,slow=5.3,SNR=7.9						
HFS	Hagfors	78.79	330	P	P	19 54 48.5	-0.7
	1.6nm,0.8s,mb4.0,baz=27,slow=9.7,SNR=3.2						
DAVOX	Davos	80.34	316	P	P	19 54 59.1	+1.2
	1.3nm,0.5s,mb4.1,baz=118,slow=7.8,SNR=6.1						
NVAR	Mina Array Bea	126.47	30	PKP	PKPdf	20 01 52.2	+3.5
	0.4nm,0.4s,baz=45,slow=1.3,SNR=2.5						
PDAR	Pinedale Array	126.61	21	PKP	PKPdf	20 01 50.9	+2.1
	0.6nm,0.7s,slow=1.5,SNR=5.6						
TXAR	Lajitas Array	140.71	23	PKP	PKPdf	20 02 20.1	+4.6
	0.3nm,0.5s,baz=123,slow=0.7,SNR=6.4						

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*BJI **26** 19:42:59.4,6.24N×93.16E,h55^{km},mb4.5*

*IDC **26** 19:43:00.7±0.6,6.67N×92.80E,h23^{km}±3^{km},mb4.0/17, mb1 4.2/18,mb1mx4.1/24,ML3.9/1,Error ellipse: s-maj=28.5km s-min=13.5km az=44.0*

*NEIC **26** 19:43:01.8±0.4,6.65N×92.86E,h30^{km},mb4.6/8,Error ellipse: s-maj=11.0km s-min=9.5km az=98.0*

ISC 26 19:42:59.7±0.4**,6.69N**±0.07×**92.93E**±0.08**,h31**^{km}**, h31**^{km}±2.0^{km}**:pP-P,n40,**σ**1^{s}09**/37**,mb4.3**/27**,1C,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.09	26	P	P	19 46 08.6	+2.3
	25nm,1.0s						
CMAR	Chiang Mai Arr	13.09	26	Pn	P	19 46 08.4	+2.1
	0.2nm,0.3s,baz=231,slow=13,SNR=4.5						
LSA	Lhasa	22.95	356	P	P	19 48 03.4	+0.6
	12nm,0.6s,mb4.5						
GYA	Guiyang	23.62	32⇑	*i*P	P	19 48 09.5	+0.3
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.6						
ENH	Enshi	28.15	32	*e*P	P	19 48 48.8	-2.8
HHC	Hu-ho-hao-te	37.87	23	*e*P	P	19 50 14.5	-1.3
HHC				PP	PP	19 51 47.5	+1.9
HHC				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.3						
BJT	Baijiatuau	39.19	29	*e*P	P	19 50 27.3	+0.4
BJT				*e*pP	pP	19 50 37.6	+1.6
SONM	Songino Array	42.58	13	P	P	19 50 55.8	+1.1
	comp=Z,1.2nm,0.7s,mb3.7,baz=203,slow=9.4,SNR=4.0						
CN2	Changchun	46.67	32	*e*P	P	19 51 26.0	-1.5
ZAL	Zalesovo	47.57	353	P	P	19 51 35.4	+0.9
	comp=Z,3.0nm,0.6s,mb4.5,baz=300,slow=7.1,SNR=16						
HIA	Hailar	48.08	23	*e*P	P	19 51 38.9	+0.4
	comp=Z,4.4nm,0.9s,mb4.5						
WRA	Warramunga Arr	48.58	124	P	P	19 51 43.5	+0.8
	comp=Z,1.7nm,0.5s,mb4.4,baz=304,slow=8.5,SNR=8.4						
WRA				sP	sP	19 51 53.7	-2.0
	comp=Z,8.8nm,0.7s,baz=303,slow=9.0,SNR=13						
WRAB	Tennant Creek	48.58	124	P	P	19 51 41.0	-1.8
	comp=Z,19nm,0.8s,mb5.2						
BVAR	Borovoye Array	49.73	342	P	P	19 51 50.6	-0.6
	comp=Z,1.1nm,0.7s,mb4.0,baz=149,slow=8.6,SNR=6.2						
BRVK	Borovoye	49.79	342	*e*P	P	19 51 51.5	-0.2
ASAR	Alice Springs	50.10	128	P	P	19 51 55.0	+0.6
	comp=Z,1.4nm,0.5s,mb4.2,baz=300,slow=7.5,SNR=9.0						
CHKZ	Chkalovo	50.23	343	P	P	19 51 53.9	-1.1
	comp=Z,3.9nm,0.7s,mb4.5						
GNI	Garni	54.41	315	P	P	19 52 27.5	+1.0
	comp=Z,5.7nm,0.8s,mb4.6,baz=180,slow=16,SNR=4.5						
KMBO	Kilima Mbogo	56.10	264	P	P	19 52 39.7	+0.6
	comp=Z,1.4nm,0.8s,mb4.0,baz=59,slow=14,SNR=4.0						
KMBO	Kilima Mbogo	56.10	264	P	P	19 52 39.7	+0.6
EIL	Elat	58.98	301	P	P	19 52 59.3	+0.1
	comp=Z,6.7nm,1.0s,mb4.6,baz=90,slow=7.1,SNR=4.7						
STKA	Stephens Creek	60.18	133	P	P	19 53 06.8	-0.5
	comp=Z,1.3nm,0.9s,mb4.0,baz=352,slow=7.1,SNR=4.0						
STKA	Stephens Creek	60.18	133	P	P	19 53 06.8	-0.5
BRTR	Keskin Array B	62.30	312	P	P	19 53 20.1	-1.5
	comp=Z,3.0nm,0.9s,mb4.4,baz=121,slow=7.2,SNR=9.6						
MBAR	Mbarara	62.47	266	*e*P	P	19 53 23.9	+0.8
	comp=Z,6.4nm,1.2s,mb4.6						
AKASG	Malin Array Be	68.34	322	P	P	19 53 57.9	-2.4
	comp=Z,1.3nm,0.9s,mb4.0,baz=86,slow=4.0,SNR=7.5						
AKASG				pP	pP	19 54 07.7	-2.2
	comp=Z,0.9nm,0.6s,baz=87,slow=4.8,SNR=5.0						
MLR	Muntele Rosu	69.18	316	P	P	19 54 04.9	-0.7
	comp=Z,3.6nm,0.8s,mb4.4,baz=141,slow=6.5,SNR=3.7						
LBTB	Lobatse	72.62	241	*e*P	P	19 54 27.6	+0.8
	comp=Z,6.1nm,1.0s,mb4.5						
FINES	FINESS Array B	73.20	333	P	P	19 54 28.3	-1.1
	comp=Z,1.1nm,0.6s,mb4.0,baz=90,slow=7.6,SNR=5.8						
FINES				pP	pP	19 54 36.6	-2.4
	comp=Z,3.9nm,0.9s,baz=105,slow=8.5,SNR=8.5						
KAF	Kangasniemi	73.30	333	*e*p	P	19 54 28.9	-1.1
BOSA	Boshof	73.94	238	*e*P	P	19 54 34.6	+0.2
	comp=Z,3.2nm,0.8s,mb4.3						
ARCES	ARCESS Array B	75.97	340	P	P	19 54 45.2	-0.1
	comp=Z,3.6nm,1.0s,mb4.3,baz=100,slow=5.5,SNR=6.3						
ARCES	ARCESS Array B	75.97	340	P	P	19 54 45.2	-0.1
GERES	GERESS Array B	77.91	318	P	P	19 54 56.4	0.0
	comp=Z,1.6nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=13						
GERES				sP	sP	19 55 06.8	-2.6
	comp=Z,1.1nm,0.7s,baz=90,slow=5.3,SNR=6.2						
SUR	Sutherland	78.67	235	*e*P	P	19 55 02.6	+1.6
	comp=Z,9.5nm,0.9s,mb4.7						
DAVOX	Davos	80.41	316	P	P	19 55 10.4	+0.4
	comp=Z,2.5nm,0.6s,mb4.4,baz=117,slow=9.7,SNR=7.6						
EKA	Eskdalemuir Ar	88.01	325	P	P	19 55 48.5	+0.3
	comp=Z,2.2nm,1.0s,mb4.3,baz=117,slow=5.6,SNR=3.4						
EKA				sP	sP	19 55 59.0	-2.1
	comp=Z,1.4nm,0.8s,baz=90,slow=5.8,SNR=3.6						
NVAR	Mina Array Bea	126.55	30	PKP	PKPdf	20 02 03.3	-2.4
	comp=Z,0.7nm,0.6s,baz=333,slow=4.0,SNR=3.8						
PDAR	Pinedale Array	126.70	21	PKP	PKPdf	20 02 02.8	-3.0
	comp=Z,0.5nm,0.7s,baz=90,slow=1.5,SNR=4.0						
TXAR	Lajitas Array	140.79	23	PKP	PKPdf	20 02 31.4	-1.2
	comp=Z,0.5nm,0.8s,baz=81,slow=1.5,SNR=4.7						

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*IDC **26** 19:47:44.3±1.0,9.34N×94.23E,mb4.0/9,mb1 4.1/10, mb1mx3.9/20,ML3.9/1,Error ellipse: s-maj=48.9km s-min=21.0km az=49.0*

ISC 26 19:47:48.3±0.9**,9.6N**±0.1×**94.6E**±0.2**,h33**^{km}**,n10,** σ**0^{s}94**/10**,mb4.0**/9**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.79	25	Pn	P	19 50 09.3	-0.5
	0.3nm,0.3s,baz=242,slow=14,SNR=11						
ZAL	Zalesovo	44.95	352	P	P	19 56 02.9	+1.0
	2.3nm,0.4s,mb4.4,baz=328,slow=6.1,SNR=3.9						
WRA	Warramunga Arr	48.87	127	P	P	19 56 34.5	+1.4
	1.5nm,0.6s,mb4.2,baz=303,slow=9.0,SNR=7.6						
ASAR	Alice Springs	50.64	131	P	P	19 56 45.2	-1.4
	0.6nm,0.6s,mb3.7,baz=297,slow=7.7,SNR=4.3						
BRTR	Keskin Array B	61.71	310	P	P	19 58 02.0	-3.7
	1.1nm,0.7s,mb4.1,baz=120,slow=6.8,SNR=5.0						
FINES	FINESS Array B	71.45	332	P	P	19 59 06.9	-0.2
	1.6nm,0.9s,mb4.0,baz=90,slow=1.9,SNR=6.2						
GERES	GERESS Array B	76.90	318	P	P	19 59 38.2	-0.8
	0.5nm,0.7s,mb3.5,baz=90,slow=4.0,SNR=4.0						
HFS	Hagfors	77.25	330	P	P	19 59 40.5	-0.2
	1.7nm,0.7s,mb4.1,baz=90,slow=4.4,SNR=4.7						
NOA	NORSAR Array B	78.51	330	P	P	19 59 48.0	+0.4
	0.9nm,0.6s,mb3.9,baz=91,slow=5.7,SNR=3.6						
EKA	Eskdalemuir Ar	86.61	325	P	P	20 00 30.1	+0.7
	1.5nm,0.7s,mb4.3,baz=114,slow=7.0,SNR=3.9						

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*IDC **26** 19:49:27.9±0.9,8.56N×92.39E,h29^{km}±5^{km},mb3.7/5, mb1 3.9/6,mb1mx3.8/16,ML4.1/1,Error ellipse: s-maj=34.5km s-min=15.5km az=54.0*

*NEIC **26** 19:49:28.0±0.7,8.56N×92.54E,h30^{km},mb4.4/6,Error ellipse: s-maj=19.4km s-min=10.8km az=63.0*

ISC 26 19:49:26.0±0.9**,8.6N**±0.1×**92.6E**±0.2**,h29**^{km}**, h29**^{km}±2.0^{km}**:pP-P,n15,**σ**0^{s}83**/12**,mb4.2**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.57	32	Pn	P	19 52 11.4	-1.2
	0.3nm,0.3s,baz=215,slow=12,SNR=5.8						
LSA	Lhasa	21.03	356	*e*P	P	19 54 11.9	+1.9
	22nm,1.1s,mb4.4						
ENH	Enshi	26.73	34	*e*P	P	19 55 05.1	0.0
	5.4nm,0.7s,mb4.2						
SONM	Songino Array	40.81	14	P	P	19 57 08.1	+1.5
	1.4nm,0.7s,mb3.7,baz=190,slow=7.7,SNR=8.0						
SONM				pP	pP	19 57 16.6	+1.3
	3.8nm,1.0s,baz=192,slow=8.2,SNR=8.1						
ZAL	Zalesovo	45.64	354	pP	pP	19 57 54.1	-0.3
	1.5nm,0.9s,baz=310,slow=12,SNR=3.6						
BVAR	Borovoye Array	47.82	342	P	P	19 58 02.9	-0.1
	0.8nm,0.5s,mb4.0,baz=135,slow=8.4,SNR=5.7						
BVAR				pP	pP	19 58 10.1	-1.6
	3.3nm,1.0s,baz=146,slow=5.3,SNR=5.7						
BRVK	Borovoye	47.88	342	*e*P	P	19 58 03.2	-0.2
	4.5nm,1.1s,mb4.4						
CHKZ	Chkalovo	48.32	343	*e*P	P	19 58 06.0	-0.8
	3.5nm,0.7s,mb4.5						
CHKZ				*e*pP	pP	19 58 13.1	-2.4
WRA	Warramunga Arr	49.93	125	P	P	19 58 19.7	+0.1
	1.0nm,0.5s,mb4.1,baz=302,slow=8.8,SNR=7.5						
WRA				pP	pP	19 58 29.1	+0.7
	1.9nm,0.7s,baz=305,slow=8.6,SNR=5.5						
WRAB	Tennant Creek	49.93	125	P	P	19 58 19.9	+0.3
	2.7nm,0.8s,mb4.3						
ASAR	Alice Springs	51.55	129	P	P	19 58 31.8	-0.2
	1.0nm,0.5s,mb4.0,baz=303,slow=6.9,SNR=8.1						
ASAR				pP	pP	19 58 43.2	+2.5
	1.7nm,0.7s,baz=310,slow=7.3,SNR=5.8						
ARU	Arti	54.63	338	*e*P	P	19 58 53.4	-0.9
	4.5nm,0.9s,mb4.5						
BRTR	Keskin Array B	60.80	311	pP	pP	19 59 45.0	-1.9
	1.6nm,0.8s,baz=112,slow=6.7,SNR=5.5						
AKASG	Malin Array Be	66.64	322	pP	pP	20 00 24.1	-1.0
	0.6nm,0.7s,baz=87,slow=3.9,SNR=2.8						
GERES	GERESS Array B	76.27	318	P	P	20 01 13.8	-0.1
	0.7nm,0.8s,mb3.6,baz=101,slow=5.0,SNR=3.5						
GERES				pP	pP	20 01 23.0	+0.1
	1.9nm,0.9s,baz=104,slow=5.5,SNR=6.2						

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*IDC **26** 19:50:06.7±1.0,6.70N×93.25E,mb4.1/10,mb1 4.3/11, mb1mx4.1/21,ML4.2/1,Error ellipse: s-maj=48.4km s-min=20.4km az=47.0*

ISC 26 19:50:10.1±0.9**,6.7N**±0.2×**93.3E**±0.2**,h33**^{km}**,n11,** σ**0^{s}55**/11**,mb4.0**/10**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.88	25	Pn	P	19 53 20.1	+6.5
	0.4nm,0.3s,baz=231,slow=14,SNR=12						
SONM	Songino Array	42.45	13	P	P	19 58 03.8	+0.2
	1.2nm,0.8s,mb3.6,baz=197,slow=9.6,SNR=2.3						
ZAL	Zalesovo	47.58	353	P	P	19 58 44.3	-0.2
	2.6nm,0.8s,mb4.3,baz=304,slow=8.2,SNR=6.1						
WRA	Warramunga Arr	48.26	124	P	P	19 58 50.4	+0.1
	1.2nm,0.4s,mb4.2,baz=300,slow=10,SNR=7.0						
ASAR	Alice Springs	49.81	129	P	P	19 59 01.9	-0.3
	1.5nm,0.7s,mb4.1,baz=302,slow=7.9,SNR=6.3						
BRTR	Keskin Array B	62.58	311	P	P	20 00 32.6	-0.8
	0.9nm,0.6s,mb4.1,baz=140,slow=6.0,SNR=3.2						
FINES	FINESS Array B	73.35	332	P	P	20 01 39.6	-0.6
	1.3nm,0.6s,mb4.0,baz=90,slow=3.8,SNR=6.7						
GERES	GERESS Array B	78.15	318	P	P	20 02 08.3	+0.6
	0.2nm,0.4s,mb3.4,baz=104,slow=4.0,SNR=6.2						
HFS	Hagfors	79.04	330	P	P	20 02 11.8	-0.6
	1.5nm,0.6s,mb4.1,baz=90,slow=5.9,SNR=4.6						
DAVOX	Davos	80.66	316	P	P	20 02 21.9	+0.6
	3.0nm,0.9s,mb4.2,baz=90,slow=6.1,SNR=4.1						
EKA	Eskdalemuir Ar	88.21	325	P	P	20 02 59.9	+0.9
	1.4nm,0.7s,mb4.3,baz=90,slow=6.4,SNR=5.2						

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*IDC **26** 19:51:46.0±4.8,20.14S×178.05W,h506^{km}±51^{km}, mb3.4/10,mb1 3.7/10,mb1mx3.5/16,Error ellipse: s-maj=70.2km s-min=18.6km az=154.0*

*NEIC **26** 19:51:47.5±3.4,20.29S×178.09W,h530^{km}±38^{km},mb4.1/5, Error ellipse: s-maj=29.2km s-min=13.9km az=150.0*

ISC 26 19:51:46.8±0.6**,20.2S**±0.2×**178.1W**±0.2**,h530**^{km}**,n35,** σ**0^{s}68**/20**,mb3.9**/15**,1C,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	33.41	264	P	P	19 57 43.4	+0.8
	3.5nm,0.4s,mb4.2,baz=90,slow=11,SNR=14						
CTA	Charters Tower	33.41	264	P	P	19 57 43.4	+0.7
STKA	Stephens Creek	37.80	244	P	P	19 58 19.3	+0.5
	2.7nm,0.8s,mb3.8,baz=45,slow=5.7,SNR=4.2						
ASAR	Alice Springs	44.47	256	P	P	19 59 12.4	+0.1
	5.3nm,0.9s,mb4.1,baz=86,slow=8.3,SNR=28						
ASAR				PcP	PcP	20 00 44.9	+0.2
	1.9nm,0.6s,baz=95,slow=3.7,SNR=7.3						
WRA	Warramunga Arr	44.53	262	P	P	19 59 12.6	-0.2
	0.7nm,0.3s,mb3.6,baz=97,slow=6.8,SNR=14						
MBWA	Marble Bar	57.80	257	*e*P	P	20 00 45.6	-3.7
QSPA	South Pole Qui	69.82	180⇑	*i*P	P	20 02 04.0	-0.8
	4.1nm,0.8s,mb4.0						
YBH	Yreka Blue Hor	80.16	39	P	P	20 03 03.2	+0.5
	1.9nm,0.6s,mb3.6,baz=137,slow=16,SNR=7.0						
NVAR	Mina Array Bea	80.92	43	P	P	20 03 07.2	+0.4
	1.4nm,0.7s,mb3.5,baz=214,slow=7.5,SNR=5.6						
MNV	Mina	81.01	44	*e*P	P	20 03 07.4	+0.1
	3.8nm,1.0s,mb3.8						
TPNV	Topopah Spring	81.44	46	*e*P	P	20 03 09.6	+0.2
TUC	Tucson	82.91	52	*e*P	P	20 03 17.8	+0.8
	4.8nm,1.0s,mb4.0						
ELK	Elko	84.17	43	P	P	20 03 22.9	-0.1
LTX	Lajitas	87.01	57	P	P	20 03 37.3	+0.4
TXAR	Lajitas Array	87.01	57	P	P	20 03 37.3	+0.4
	1.4nm,0.7s,mb3.7,baz=221,slow=6.6,SNR=18						
ANMO	Albuquerque	87.33	51	P	P	20 03 38.2	0.0
	1.1nm,0.7s,mb3.6,baz=232,slow=5.4,SNR=4.5						
COLA	College	87.98	12	*e*P	P	20 03 38.5	-2.1
	6.0nm,0.8s,mb4.4						
ILAR	Eielson Array	88.09	13	P	P	20 03 40.5	-0.6
	1.0nm,0.5s,mb3.8,baz=226,slow=5.1,SNR=15						
PDAR	Pinedale Array	88.85	43	P	P	20 03 45.0	-0.3
	1.3nm,0.7s,mb3.9,baz=236,slow=1.8,SNR=9.4						
BOZ	Bozeman (W)	88.99	40	*e*P	P	20 03 45.9	+0.1
	3.2nm,0.9s,mb4.2						
BVAR	Borovoye Array	118.81	320	PKP	PKPdf	20 09 34.9	+0.5
	1.2nm,0.5s,baz=120,slow=2.0,SNR=5.8						
BOSA	Boshof	126.44	206	*e*PKPdf	PKPdf	20 09 49.9	+0.1
FINES	FINESS Array B	135.50	344	PKP	PKPdf	20 10 08.9	+3.0
	2.1nm,0.7s,baz=90,slow=3.8,SNR=3.7						
HFS	Hagfors	139.27	351	PKhKP		20 10 06.6	
	1.4nm,0.5s,baz=63,slow=3.3,SNR=6.6						
AKASG	Malin Array Be	142.74	331	PKhKP		20 10 17.5	
	5.1nm,0.5s,baz=38,slow=4.2,SNR=36						
EKA	Eskdalemuir Ar	144.76	5	PKP	PKPdf	20 10 24.0	+1.5
	2.2nm,0.7s,baz=346,slow=3.6,SNR=6.8						
KWP	Kalwaria	146.30	335	*e*PKPbc	PKPbc	20 10 29.4	+2.3
BRTR	Keskin Array B	146.59	313	PKPbc	PKPbc	20 10 30.3	+2.3
	2.8nm,0.8s,baz=137,slow=4.2,SNR=7.7						
UPC	Upice	147.79	343	*e*PKPbc	PKPdf	20 10 33.3	+5.7
DPC	Dobruska-Polom	147.85	343	*e*PKPbc	PKPdf	20 10 33.9	+6.2
PRU	Pruhonice	148.66	344	*e*PKPbc	PKPdf	20 10 35.5	+6.5
EIL	Elat	148.68	294	PKPbc	PKPdf	20 10 36.4	+6.8
	6.6nm,1.0s,baz=86,slow=15,SNR=4.0						
NKC	Novy Kostel	148.92	347	*e*PKPbc	PKPdf	20 10 36.3	+6.9
KHC	Kasperske Hory	149.69	345	*e*PKPbc	PKPdf	20 10 37.8	+7.1
GERES	GERESS Array B	149.93	344	PKPbc	PKPdf	20 10 38.5	+7.4
	1.5nm,0.8s,slow=2.7,SNR=6.6						

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*IDC **26** 19:55:14.7±0.6,11.55N×92.21E,h24^{km}±3^{km},mb4.3/21, mb1 4.4/22,mb1mx4.4/25,ML4.1/1,MS5.2/1,Ms1 5.2/1, ms1mx3.7/27,Error ellipse: s-maj=23.0km s-min=10.6km az=49.0*

*NEIC **26** 19:55:14.9±0.3,11.62N×92.32E,mb4.7/16,Error ellipse: s-maj=8.4km s-min=7.2km az=56.0*

*BJI **26** 19:55:14.0,12.01N×91.94E,h2^{km},mb4.6*

ISC 26 19:55:13.1±0.4**,11.62N**±0.05×**92.33E**±0.06**,h26**^{km}**, h26**^{km}±.4^{km}**:pP-P,n78,**σ**0^{s}81**/73**,mb4.5**/37**,MS5.2**/1**,1C-1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	9.33	42	*e*P	P	19 57 26.1	-2.9
	7.5nm,0.6s						
CMAR	Chiang Mai Arr	9.33	42	Pn	P	19 57 29.5	+0.4
	0.6nm,0.3s,baz=236,slow=14,SNR=7.2						
PKI	Pulchoki	17.15	339	*e*P	P	19 59 12.0	-0.7
	62nm,0.7s						
DMN	Daman	17.29	338	*e*P	P	19 59 13.7	-0.8
	36nm,0.6s						
GUN	Gumba	17.30	340	*e*P	P	19 59 14.9	+0.3
	63nm,0.8s						
KKN	Kakani	17.39	339	*e*P	P	19 59 15.6	-0.2
GKN	Gorkha	17.82	337	*e*P	P	19 59 20.5	-0.7
LSA	Lhasa	18.02	357	*e*P	P	19 59 24.4	+0.7
	4.8nm,0.6s						
KOLN	Koldanda	18.03	334	*e*P	P	19 59 23.5	-0.3
	41nm,0.8s						
GYA	Guiyang	20.01	40⇑	*i*P	P	19 59 47.3	+0.4
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
ENH	Enshi	24.46	38	*e*P	P	20 00 30.7	-0.7
	comp=Z,12nm,0.7s,mb4.4						
ENH				*e*pP		20 00 38.3	
GTA	Gaotai	28.46	12	P	P	20 01 09.3	+1.1
GTA				AP	pP	20 01 16.5	+0.7
GTA				XP	sP	20 01 20.0	+0.9
GTA				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.1						
KSH	Kashi	31.34	335	*e*P	P	20 01 33.0	-0.9
KSH				*e*AP	pP	20 01 41.3	-0.1
KSH				*e*XP	sP	20 01 46.0	+1.2
HHC	Hu-ho-hao-te	33.68	27	*e*P	P	20 02 01.0	+6.8
HHC				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
KBK	Karagaybulak	34.42	337	P	P	20 02 02.2	+1.6
	SNR=5.2						
AML	Almayashu	34.48	335	P	P	20 02 02.0	+0.9
	SNR=7.1						
AAK	Ala-Archa	34.58	337	P	P	20 02 03.3	+1.3
	SNR=5.3						
EKS2	Erkin-Say	34.89	336	P	P	20 02 05.6	+1.1
	SNR=8.3						
USP	Ospenovka	35.12	337	P	P	20 02 07.3	+0.8
	SNR=12						
SONM	Songino Array	37.98	15	P	P	20 02 31.6	+1.0
	comp=Z,1.7nm,0.9s,mb3.8,baz=200,slow=8.1,SNR=7.2						
SONM				pP	pP	20 02 38.8	+0.5
	comp=Z,3.4nm,0.9s,baz=196,slow=9.0,SNR=11						
ULN	Ulaanbaatar	38.18	16	*e*P	P	20 02 32.7	+0.4
	comp=Z,1.2nm,0.5s,mb3.9						
MBWA	Marble Bar	42.26	140	*e*P	P	20 03 06.2	-0.2
	comp=Z,36nm,1.3s,mb4.8						
ZAL	Zalesovo	42.63	353	P	P	20 03 08.6	-0.4
	comp=Z,3.1nm,0.8s,mb4.1,baz=300,slow=7.7,SNR=13						
ZAL				pP	pP	20 03 16.5	-0.2
	comp=Z,1.6nm,0.5s,baz=288,slow=8.5,SNR=4.8						
CN2	Changchun	42.93	36	*e*P	P	20 03 12.0	+0.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
BVAR	Borovoye Array	44.89	341	P	P	20 03 26.8	-0.5
	comp=Z,2.3nm,0.7s,mb4.1,baz=149,slow=8.6,SNR=15						
BVAR				pP	pP	20 03 35.0	0.0
	comp=Z,3.6nm,1.0s,baz=135,slow=8.4,SNR=5.5						
BRVK	Borovoye	44.95	341	*e*P	P	20 03 27.4	-0.4
	comp=Z,8.5nm,1.1s,mb4.5						
CHKZ	Chkalovo	45.38	342	*e*P	P	20 03 30.8	-0.3
	comp=Z,21nm,1.0s,mb4.9						
NWAO	Narrogin (SRO)	50.27	153	*e*P	P	20 04 04.0	-5.6
	comp=Z,16nm,1.2s,mb4.9						
GNI	Garni	50.58	313	P	P	20 04 13.3	+1.5
	comp=Z,8.4nm,0.8s,mb4.7,baz=295,slow=0.7,SNR=8.2						
ARU	Arti	51.77	337	*e*P	P	20 04 20.1	-0.5
	comp=Z,3.9nm,0.8s,mb4.4						
WRA	Warramunga Arr	51.90	127	P	P	20 04 21.6	-0.5
	comp=Z,6.3nm,0.4s,mb4.9,baz=301,slow=10,SNR=70						
WRA				pP	pP	20 04 29.4	-0.5
	comp=Z,16nm,0.8s,baz=304,slow=8.7,SNR=22						
WRAB	Tennant Creek	51.91	127	*e*P	P	20 04 21.2	-0.9
	comp=Z,11nm,0.5s,mb5.0						
WRAB				*e*pP	pP	20 04 29.3	-0.7
KIV	Kislovodsk	53.37	317	P	P	20 04 33.0	+0.2
	comp=Z,106nm,0.9s,mb5.8,SNR=8.7						
KIV	Kislovodsk	53.37	317	*e*P	P	20 04 32.9	+0.1
	comp=Z,22nm,1.0s,mb5.0						
ASAR	Alice Springs	53.69	131	P	P	20 04 34.9	-0.5
	comp=Z,2.7nm,0.6s,mb4.3,baz=307,slow=6.6,SNR=20						
ASAR				pP	pP	20 04 42.4	-0.8
	comp=Z,13nm,1.1s,baz=308,slow=7.0,SNR=15						
KMBO	Kilima Mbogo	56.16	261	P	P	20 04 50.9	-2.6
	comp=Z,0.7nm,0.6s,mb3.9,baz=52,slow=19,SNR=2.7						
KMBO				LR	LR	20 28 51.4	
	comp=Z,2μm,18.2s,MS5.2,baz=92,slow=36						
KMBO	Kilima Mbogo	56.16	261	P	P	20 04 50.9	-2.6
KMBO				LR	LR	20 28 51.4	
BRTR	Keskin Array B	58.66	310	P	P	20 05 09.5	-1.3
	comp=Z,6.5nm,1.1s,mb4.6,baz=121,slow=7.2,SNR=12						
OBN	Obninsk	61.28	327	*e*P	P	20 05 27.7	-0.8
CTA	Charters Tower	61.71	120	P	P	20 05 32.9	+1.0
	comp=Z,5.9nm,1.0s,mb4.7,baz=305,slow=5.5,SNR=4.4						
CTA	Charters Tower	61.71	120	P	P	20 05 32.9	+1.0
STKA	Stephens Creek	63.98	134	P	P	20 05 46.9	0.0
	comp=Z,7.0nm,0.9s,mb4.7,baz=297,slow=5.1,SNR=7.6						
STKA	Stephens Creek	63.98	134	*e*P	P	20 05 46.7	-0.1
AKASG	Malin Array Be	64.13	321	P	P	20 05 46.3	-1.2
	comp=Z,6.0nm,1.0s,mb4.6,baz=86,slow=4.5,SNR=12						
MLR	Muntele Rosu	65.27	315	P	P	20 05 55.1	+0.1
	comp=Z,11nm,0.9s,mb4.9,baz=240,slow=1.0,SNR=9.9						
KWP	Kalwaria	68.04	319	*e*P	P	20 06 12.4	-0.1
KOLS	Kolonicke sedl	68.23	318	*e*P	P	20 06 13.9	+0.2
FINES	FINESS Array B	68.59	332	P	P	20 06 15.4	-0.3
	comp=Z,6.7nm,0.7s,mb4.7,baz=112,slow=10,SNR=18						
KAF	Kangasniemi	68.66	333	*e*p	P	20 06 15.8	-0.4
	comp=Z,7.9nm,0.8s,mb4.7						
OJC	Ojcow	69.98	319	*e*P	P	20 06 24.1	-0.3
VYHS	Vyhne	70.45	317	*e*P	P	20 06 27.1	-0.2
KEV	Kevo	70.73	340	*e*p	P	20 06 27.9	-0.8
OKC	Ostrava-Krasne	71.01	319	*e*P	P	20 06 30.1	-0.6
ARCES	ARCESS Array B	71.16	340	P	P	20 06 31.4	+0.2
	comp=Z,11nm,1.0s,mb4.8,baz=87,slow=6.1,SNR=16						
ARCES				pP	pP	20 06 39.0	-0.3
	comp=Z,3.6nm,0.8s,baz=90,slow=2.4,SNR=3.6						
DPC	Dobruska-Polom	72.22	319	*e*P	P	20 06 38.2	+0.3
PRU	Pruhonice	73.34	319	*e*P	P	20 06 43.9	-0.6
GERES	GERESS Array B	73.87	318	P	P	20 06 47.9	+0.3
	comp=Z,3.7nm,0.7s,mb4.4,baz=88,slow=5.3,SNR=36						
GERES				pP	pP	20 06 55.8	+0.1
	comp=Z,1.6nm,0.7s,baz=91,slow=5.9,SNR=7.7						
KHC	Kasperske Hory	73.95	318	*e*P	P	20 06 48.2	+0.1
HFS	Hagfors	74.34	329	P	P	20 06 50.2	+0.1
	comp=Z,5.9nm,0.8s,mb4.5,baz=90,slow=5.9,SNR=9.1						
HFS				pP	pP	20 06 58.3	+0.1
	comp=Z,5.1nm,0.9s,baz=100,slow=9.0,SNR=3.6						
CLL	Collm	74.35	320	*i* P	P	20 06 50.1	-0.3
CLL				*e*	pP	20 06 59.0	+0.6
CLL	Collm	74.35	320	P	P	20 06 50.1	-0.3
CLL				*e**PP	pP	20 06 59.0	+0.6
LBTB	Lobatse	74.51	240	*e*P	P	20 06 53.8	+1.9
GRA1	Grafenberg Arr	75.49	318	*e*P	P	20 06 57.9	+1.0
	comp=Z,6.0nm,0.8s,mb4.6						
GRA1				*e*pP	pP	20 07 06.0	+1.0
GRF	Grafenberg Arr	75.49	318	*e*P	P	20 06 57.9	+1.0
	comp=Z,6.0nm,0.8s,mb4.6						
GRF				*e*pP	pP	20 07 06.0	+1.0
NB2	NORSAR Subarra	75.61	330	P	P	20 06 56.0	-1.4
	comp=Z,3.8nm,0.8s,mb4.4,baz=91,slow=5.8						
NOA	NORSAR Array B	75.61	330	P	P	20 06 56.9	-0.5
	comp=Z,2.6nm,0.7s,mb4.3,baz=92,slow=5.7,SNR=8.3						
BOSA	Boshof	76.10	237	*e*P	P	20 07 02.1	+1.3
DAVOX	Davos	76.48	316	P	P	20 07 03.0	+0.5
	comp=Z,2.7nm,0.6s,mb4.3,baz=113,slow=7.7,SNR=8.0						
LPL	La Plagne	78.74	314⇓	*i*P	P	20 07 15.4	+0.3
	comp=Z,34nm,0.9s,mb5.0						
SUR	Sutherland	81.02	234	*e*P	P	20 07 27.5	-0.1
	comp=Z,8.0nm,1.0s,mb4.6						
EKA	Eskdalemuir Ar	83.64	325	P	P	20 07 41.5	+0.8
	comp=Z,4.4nm,0.9s,mb4.6,baz=102,slow=6.0,SNR=10						
ESDC	Sonseca Array	87.46	310	P	P	20 07 59.6	-0.4
	comp=Z,0.7nm,0.6s,mb4.1,baz=68,slow=4.2,SNR=5.7						
ILAR	Eielson Array	91.95	22	P	P	20 08 21.1	+0.7
	comp=Z,0.6nm,0.7s,mb4.0,baz=307,slow=7.1,SNR=4.8						
ILAR				pP	pP	20 08 28.4	-0.2
	comp=Z,1.4nm,0.8s,baz=316,slow=4.0,SNR=7.9						
PDAR	Pinedale Array	122.28	19	pPKP		20 14 16.4	

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=Z,0.4nm,0.6s,baz=63,slow=3.3,SNR=3.5						
NVAR	Mina Array Bea	122.57	28	pPKP		20 14 17.9	
	comp=Z,0.5nm,0.4s,baz=330,slow=3.2,SNR=3.2						
PMSA	Palmer Station	124.44	192	*e*PKPdf	PKPdf	20 14 09.4	-5.2
TXAR	Lajitas Array	136.46	20	PKP	PKPdf	20 14 37.2	-1.0
	comp=Z,0.3nm,0.8s,baz=108,slow=2.9,SNR=2.4						
TXAR	Lajitas Array	136.46	20	PKP	PKPdf	20 14 37.2	-1.0

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*NEIC **26** 19:55:52.9±0.7, 4.54N×93.49E, mb4.0/3, Error ellipse: s-maj=17.3km s-min=13.3km az=109.0*

*BJI **26** 19:55:52.1, 4.60N×94.03E, h10^{km}, mb4.4*

*IDC **26** 19:55:54.7±1.3, 4.76N×93.22E, h20^{km}±5^{km}, mb4.1/8, mb1 4.3/9, mb1mx4.1/20, ML4.9/1, MS3.2/1, Ms1 3.2/1, ms1mx2.8/26, Error ellipse: s-maj=36.3km s-min=24.2km az=50.0*

ISC 26 19:55:52.8±1.0**, 4.8N**±0.1×**93.3E**±0.1**, h20**^{km}**, h20**^{km}±2.7^{km}**:pP-P, n20,** σ**0^{s}72**/19**, mb4.2**/14**, MS3.2**/1**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.71	22	*e*P	P	19 59 21.3	-0.5
	13nm,0.6s						
CMAR	Chiang Mai Arr	14.71	22	Pn	P	19 59 21.4	-0.5
	1.6nm,0.3s,baz=208,slow=11,SNR=6.3						
KMI	Kunming	22.20	23	P	P	20 00 50.5	+0.8
KMI				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.4						
LSA	Lhasa	24.89	356	*e*P	P	20 01 18.1	+2.2
GYA	Guiyang	25.10	29	⇑*i*P	P	20 01 18.5	+0.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
LZH	Lanzhou	32.67	16	*e*P	P	20 02 25.5	-0.4
LZH				AP	pP	20 02 28.3	-3.6
LZH				XP	sP	20 02 30.0	-4.5
GTA	Gaotai	35.00	9	P	P	20 02 46.3	+0.2
GTA				AP	pP	20 02 54.8	+2.7
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.6						
WMQ	Urumqi	39.21	354	P	P	20 03 29.5	+8.1
NWAO	Narrogin (SRO)	43.84	150	LR	LR	20 20 53.1	
	comp=Z,29nm,20.1s,MS3.2,baz=316,slow=34						
SONM	Songino Array	44.38	13	P	P	20 04 03.7	0.0
	comp=Z,4.9nm,0.8s,mb4.3,baz=195,slow=8.1,SNR=8.2						
SONM				pP	pP	20 04 10.2	+0.4
	comp=Z,3.8nm,0.7s,baz=193,slow=8.4,SNR=7.0						
ULN	Ulaanbaatar	44.55	13	P	P	20 04 03.9	-1.3
	comp=Z,1.3nm,0.7s,mb3.9						
ASAR	Alice Springs	48.67	127	P	P	20 04 38.0	+0.1
	comp=Z,5.7nm,0.7s,mb4.7,baz=305,slow=7.0,SNR=21						
ZAL	Zalesovo	49.51	353	P	P	20 04 44.2	+0.2
	comp=Z,2.0nm,0.5s,mb4.4,baz=325,slow=9.1,SNR=4.6						
BVAR	Borovoye Array	51.66	343	P	P	20 04 59.5	-0.8
	comp=Z,0.6nm,0.5s,mb3.8,baz=128,slow=9.5,SNR=2.5						
BRVK	Borovoye	51.72	343	P	P	20 05 01.5	+0.7
	comp=Z,1.2nm,0.6s,mb4.0						
CHKZ	Chkalovo	52.16	343	P	P	20 05 03.8	-0.4
	comp=Z,2.0nm,0.4s,mb4.4						
BRTR	Keskin Array B	63.82	312	P	P	20 06 26.1	-0.1
	comp=Z,0.9nm,0.8s,mb3.9,baz=111,slow=5.9,SNR=2.0						
BRTR				pP	pP	20 06 32.1	-0.4
	comp=Z,3.3nm,1.1s,baz=107,slow=5.4,SNR=2.6						
MLR	Muntele Rosu	70.80	317	P	P	20 07 09.6	-0.4
	comp=Z,3.5nm,0.8s,mb4.3,baz=176,slow=16,SNR=3.6						
ARCES	ARCESS Array B	77.89	341	P	P	20 07 49.9	-0.6
	comp=Z,3.4nm,1.0s,mb4.2,baz=97,slow=7.3,SNR=3.8						
GERES	GERESS Array B	79.56	319	P	P	20 08 00.5	+0.5
	comp=Z,0.9nm,0.7s,mb3.8,baz=79,slow=5.0,SNR=2.3						
GERES				pP	pP	20 08 07.0	+0.6
	comp=Z,1.5nm,0.8s,baz=90,slow=5.3,SNR=2.5						

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*IDC **26** 19:58:06.1±1.1, 6.32N×92.94E, mb3.9/7, mb1 4.1/8, mb1mx4.0/19, ML4.1/1, Error ellipse: s-maj=47.5km s-min=19.9km az=51.0*

ISC 26 19:58:09.2±0.9**, 6.3N**±0.1×**93.0E**±0.2**, h33**^{km}**, n10,** σ**0^{s}68**/8**, mb4.1**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.38	25	Pn	P	20 01 19.6	+0.2
	0.3nm,0.3s,baz=232,slow=14,SNR=4.6						
SONM	Songino Array	42.91	13	P	P	20 06 06.6	+0.2
	0.8nm,0.6s,mb3.6,baz=192,slow=7.6,SNR=3.4						
WRA	Warramunga Arr	48.36	124	P	P	20 06 50.7	+0.6
	1.6nm,0.4s,mb4.4,baz=305,slow=8.7,SNR=6.6						
ASAR	Alice Springs	49.86	128	P	P	20 07 00.9	-0.7
	2.9nm,0.8s,mb4.3,baz=313,slow=7.5,SNR=5.0						
BVAR	Borovoye Array	50.07	342	P	P	20 07 01.5	-1.4
	1.7nm,0.8s,mb4.1,baz=153,slow=9.7,SNR=2.4						
STKA	Stephens Creek	59.92	132	P	P	20 08 14.7	0.0
	3.0nm,0.9s,mb4.3,baz=333,slow=6.8,SNR=3.0						
BRTR	Keskin Array B	62.55	312	P	P	20 08 32.4	+0.1
	0.6nm,0.6s,mb3.9,baz=108,slow=9.1,SNR=3.1						
AKASG	Malin Array Be	68.64	322	P	P	20 09 12.1	+1.0
	0.8nm,0.6s,mb3.9,baz=77,slow=4.1,SNR=4.3						
PDAR	Pinedale Array	127.01	21	PKP	PKPdf	20 17 10.8	+0.3
	0.4nm,0.9s,baz=90,slow=3.0,SNR=4.2						
TXAR	Lajitas Array	141.09	23	PKP	PKPdf	20 17 40.3	+3.2
	0.2nm,0.6s,baz=4.7,slow=1.0,SNR=4.6						

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*IDC **26** 19:58:56.3±2.6, 9.93N×92.08E, mb4.1/4, mb1 4.3/5, mb1mx3.9/20, ML3.8/1, Error ellipse: s-maj=66.5km s-min=51.3km az=142.0*

ISC 26 19:59:02.4±1.7**, 10.4N**±0.2×**91.96E**±0.10**, h33**^{km}**, n18,** σ**1^{s}08**/13**, mb4.1**/4**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.45	40	Pn	P	20 01 32.5	-0.6
	0.2nm,0.3s,baz=232,slow=14,SNR=3.1						
VIS	Vishakhapatnam	11.06	312	*e*P	P	20 01 42.0	+0.6
VIS				*e*S	S	20 03 44.9	-0.1
VIS				*e*		20 03 51.4	
	comp=N,252nm,0.6s						
VIS				*e*		20 03 51.4	
	comp=E,166nm,0.4s						
MDRS	Chennai	11.76	284	*e*P	P	20 01 42.3	-8.6
MDRS				*e*S	S	20 03 45.2	-17
PKI	Pulchoki	18.12	341	*e*P		20 03 23.6	
	comp=E,143nm,0.6s						
DMN	Daman	18.25	340	*e*P		20 03 26.1	
	comp=E,62nm,0.4s						
GUN	Gumba	18.29	343	*e*P		20 03 26.3	
	comp=E,112nm,0.7s						
KKN	Kakani	18.36	341	*e*P		20 03 27.8	
	comp=E,63nm,0.5s						
GKN	Gorkha	18.77	339	*e*P		20 03 32.9	
	comp=E,113nm,0.3s						
BHPL	Bhopal	18.83	314	*e*P	P	20 03 25.6	+3.4
BHPL				*e*		20 03 33.9	
	comp=Z,44nm,1.8s						
BHPL				*e*S	S	20 07 00.3	+13
KOLN	Koldanda	18.95	337	*e*P		20 03 35.1	
	comp=Z,93nm,0.6s						
POO	Poona	19.28	297	*e*P	P	20 03 26.3	-1.0
POO				*e*		20 03 46.2	
	comp=Z,42nm,0.9s						
DDI	Dehra Dun	23.64	329	*e*	P	20 04 10.0	-1.7
SONM	Songino Array	39.20	15	P	P	20 06 29.5	+0.4
	comp=Z,3.3nm,0.8s,mb4.1,baz=198,slow=7.7,SNR=5.2						
BVAR	Borovoye Array	45.89	342	P	P	20 07 25.6	+2.1
	comp=Z,0.8nm,0.7s,mb3.8,baz=135,slow=8.2,SNR=2.9						
ARCES	ARCESS Array B	72.14	340	P	P	20 10 25.0	-0.1
	comp=Z,1.8nm,0.8s,mb4.1,baz=104,slow=3.7,SNR=2.8						
EKA	Eskdalemuir Ar	84.40	325	P	P	20 11 32.6	0.0
	comp=Z,2.4nm,1.0s,mb4.3,baz=113,slow=5.4,SNR=2.4						
NVAR	Mina Array Bea	123.77	28	PKP	PKPdf	20 17 57.7	+0.2
	comp=Z,0.7nm,0.6s,baz=297,slow=2.0,SNR=3.8						
TXAR	Lajitas Array	137.68	20	PKP	PKPdf	20 18 24.2	+0.2
	comp=Z,0.4nm,0.5s,baz=220,slow=1.0,SNR=3.5						

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*IDC **26** 20:01:09.6±0.6, 10.30N×93.71E, mb4.4/20, mb1 4.5/20, mb1mx4.4/25, Error ellipse: s-maj=35.1km s-min=13.4km az=48.0*

*BJI **26** 20:01:12.6, 10.19N×93.72E, h38^{km}, mb4.7*

*NEIC **26** 20:01:14.2±0.3, 10.30N×93.74E, h30^{km}, mb4.6/9, Error ellipse: s-maj=11.0km s-min=8.5km az=53.0*

ISC 26 20:01:11.8±0.4**, 10.27N**±0.07×**93.79E**±0.07**, h26**^{km}**, h26**^{km}±1.1^{km}**:pP-P, n50,** σ**0^{s}88**/49**, mb4.5**/35**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	9.55	31	P	P	20 03 31.9	+1.0
	17nm,0.4s						
ENH	Enshi	24.70	34	*e*P	P	20 06 31.5	-0.8
	7.8nm,0.7s,mb4.3						
LZH	Lanzhou	27.28	18	*e*P	P	20 06 56.0	-0.2
LZH				AMB	AMB		
	comp=Z,40nm,1.5s,mb4.7						
XAN	Xi'an	27.43	28	P	P	20 06 56.0	-1.6
XAN				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.5						
GTA	Gaotai	29.52	10	P	P	20 07 16.8	+0.4
GTA				AP	pP	20 07 24.5	+0.4
GTA				AMB	AMB		
	comp=Z,8.0nm,1.4s,mb4.3						
KSH	Kashi	33.17	334	*e*P	P	20 07 49.8	+1.3
KSH				*e*AP	pP	20 07 57.0	+0.7
KSH				*e*XP	sP	20 08 01.0	+1.3
WMQ	Urumqi	33.85	352	P	P	20 07 53.5	-0.8
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.8						
HHC	Hu-ho-hao-te	34.28	24	*e*P	P	20 07 58.0	0.0
HHC				AP	pP	20 08 06.5	+0.7
HHC				XP	sP	20 08 12.3	+3.1
HHC				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
TKM2	Tokmak 2	36.20	337	P	P	20 08 15.0	+0.7
	SNR=5.5						
KBK	Karagaybulak	36.23	336	P	P	20 08 16.1	+1.5
	SNR=8.4						
AML	Almayashu	36.31	334	P	P	20 08 16.8	+1.5
	SNR=8.6						
AAK	Ala-Archa	36.39	336	P	P	20 08 17.3	+1.3
	SNR=6.3						
AAK	Ala-Archa	36.39	336	*e*P	P	20 08 15.5	-0.4
	comp=Z,4.1nm,0.8s,mb4.4						
CHMS	Chumysh	36.59	336	P	P	20 08 18.1	+0.5
	SNR=6.1						
EKS2	Erkin-Say	36.71	335	P	P	20 08 19.7	+1.1
	SNR=7.1						
USP	Ospenovka	36.92	336	P	P	20 08 20.8	+0.4
	SNR=9.3						
SONM	Songino Array	38.93	14	P	P	20 08 38.0	+0.8
	comp=Z,2.6nm,0.9s,mb4.0,baz=211,slow=7.2,SNR=5.3						
CN2	Changchun	43.22	34	*e*P	P	20 09 13.5	+0.9
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
ZAL	Zalesovo	44.15	352	P	P	20 09 19.7	-0.2
	comp=Z,5.1nm,0.5s,mb4.5,baz=303,slow=7.2,SNR=13						
ZAL	Zalesovo	44.15	352	P	P	20 09 19.7	-0.3
BVAR	Borovoye Array	46.63	341	P	P	20 09 38.7	-1.0
	comp=Z,1.9nm,0.7s,mb4.1,baz=135,slow=10,SNR=5.2						
BVAR	Borovoye Array	46.63	341	P	P	20 09 38.7	-1.0
BRVK	Borovoye	46.69	341	*e*P	P	20 09 38.6	-1.6
CHKZ	Chkalovo	47.11	341	*e*P	P	20 09 42.7	-0.8
	comp=Z,26nm,1.3s,mb5.0						
WRA	Warramunga Arr	49.95	127	P	P	20 10 06.0	+0.1
	comp=Z,9.9nm,0.7s,mb5.0,baz=304,slow=8.8,SNR=14						
WRAB	Tennant Creek	49.95	127	*e*P	P	20 10 05.8	-0.1
	comp=Z,13nm,0.5s,mb5.2						
ASAR	Alice Springs	51.72	131	P	P	20 10 19.2	-0.1
	comp=Z,3.9nm,0.6s,mb4.5,baz=305,slow=6.6,SNR=10						
GNI	Garni	52.54	313	P	P	20 10 26.1	+0.8
	comp=Z,4.7nm,0.8s,mb4.5,baz=202,slow=15,SNR=5.8						
KIV	Kislovodsk	55.33	317	P	P	20 10 46.0	+0.2
	comp=Z,155nm,0.8s,SNR=11						
KIV	Kislovodsk	55.33	317	*e*P	P	20 10 45.5	-0.3
	comp=Z,47nm,1.2s,mb5.4						
KMBO	Kilima Mbogo	57.38	262	P	P	20 11 02.8	+1.9
	comp=Z,1.4nm,0.8s,mb4.1,baz=44,slow=21,SNR=4.0						
EIL	Elat	57.97	299	P	P	20 11 05.0	+0.3
	comp=Z,2.9nm,0.6s,mb4.5,baz=128,slow=14,SNR=3.0						
CTA	Charters Tower	59.79	120	P	P	20 11 18.4	+0.8
	comp=Z,10nm,1.1s,mb4.8,baz=294,slow=8.0,SNR=4.6						
BRTR	Keskin Array B	60.63	310	P	P	20 11 21.4	-1.5
	comp=Z,2.6nm,0.7s,mb4.5,baz=129,slow=7.2,SNR=8.8						
STKA	Stephens Creek	62.01	134	P	P	20 11 32.4	0.0
	comp=Z,5.1nm,0.7s,mb4.8,baz=308,slow=4.3,SNR=8.7						
STKA	Stephens Creek	62.01	134	P	P	20 11 32.4	0.0
AKASG	Malin Array Be	66.08	321	P	P	20 11 56.9	-1.9
	comp=Z,2.3nm,0.8s,mb4.3,baz=82,slow=4.8,SNR=6.6						
MLR	Muntele Rosu	67.24	315	P	P	20 12 06.4	+0.2
	comp=Z,7.9nm,0.9s,mb4.7,baz=190,slow=3.6,SNR=5.7						
LSZ	Lusaka	69.76	250	*e*P	P	20 12 21.5	-0.7
	comp=Z,2.5nm,0.6s,mb4.3						
FINES	FINESS Array B	70.45	332	P	P	20 12 24.6	-1.2
	comp=Z,2.5nm,0.8s,mb4.2,baz=104,slow=7.9,SNR=7.2						
ARCES	ARCESS Array B	72.91	340	P	P	20 12 40.0	-0.2
	comp=Z,2.1nm,0.6s,mb4.3,baz=100,slow=6.3,SNR=10						
MORC	Moravsky Berou	73.35	319	*e*P	P	20 12 42.1	-1.1
	comp=Z,4.5nm,1.0s,mb4.3						
LBTB	Lobatse	75.09	241	*e*P	P	20 12 54.2	+0.4
	comp=Z,3.2nm,0.7s,mb4.4						
GERES	GERESS Array B	75.83	318	P	P	20 12 57.7	+0.2
	comp=Z,1.7nm,0.7s,mb4.1,baz=86,slow=5.7,SNR=8.2						
HFS	Hagfors	76.23	329	P	P	20 12 59.1	-0.5
	comp=Z,1.4nm,0.6s,mb4.1,baz=127,slow=7.4,SNR=3.4						
NOA	NORSAR Array B	77.49	330	P	P	20 13 05.9	-0.6
	comp=Z,1.3nm,0.8s,mb3.9,baz=97,slow=8.4,SNR=3.6						
DAVOX	Davos	78.44	316	P	P	20 13 11.3	-0.8
	comp=Z,1.5nm,0.5s,mb4.2,baz=103,slow=9.3,SNR=4.2						
LPL	La Plagne	80.71	315	*e*P	P	20 13 24.6	+0.3
	comp=Z,10nm,0.8s,mb4.5						
EKA	Eskdalemuir Ar	85.57	325	P	P	20 13 49.0	+0.1
	comp=Z,3.2nm,0.8s,mb4.6,baz=106,slow=5.4,SNR=7.9						
CPUP	Villa Florida	148.38	236	PKPbc	PKPdf	20 20 58.0	+0.2
	comp=Z,0.0nm,0.5s,baz=226,slow=17,SNR=1.7						

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*IDC **26** 20:02:20.9±1.6, 7.44N×92.72E, mb4.1/6, mb1 4.2/7, mb1mx3.9/19, Error ellipse: s-maj=54.9km s-min=27.3km az=57.0*

*NEIC **26** 20:02:25.1±0.9, 7.46N×92.67E, h30^{km}, mb4.4/3, Error ellipse: s-maj=18.9km s-min=17.3km az=207.0*

ISC 26 20:02:23.5±1.1**, 7.5N**±0.1×**92.7E**±0.1**, h30**^{km}**, n15,** σ**0^{s}81**/15**, mb4.2**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.48	29	Pn	P	20 05 21.6	-0.5
	baz=232,slow=14,SNR=5.2						
ENH	Enshi	27.60	33	*e*P	P	20 08 09.9	-0.5
	7.3nm,0.8s,mb4.4						
OCLP	Ormoc	31.72	81	*e*P	P	20 08 48.2	+1.0
AAK	Ala-Archa	38.47	338	P	P	20 09 44.2	-0.4
SONM	Songino Array	41.85	14	P	P	20 10 13.3	+0.8
	2.4nm,0.8s,mb3.9,baz=200,slow=7.4,SNR=7.7						
ZAL	Zalesovo	46.72	354	P	P	20 10 50.9	-0.7
	0.9nm,0.5s,mb4.0,baz=322,slow=16,SNR=2.7						
ZAL	Zalesovo	46.72	354	P	P	20 10 50.9	-0.7
BVAR	Borovoye Array	48.87	342	P	P	20 11 09.0	+0.6
	1.4nm,0.7s,mb4.1,baz=153,slow=6.6,SNR=3.5						
BRVK	Borovoye	48.93	342	*e*P	P	20 11 07.6	-1.2
	1.6nm,0.7s,mb4.2						
WRA	Warramunga Arr	49.26	124	P	P	20 11 10.9	-0.9
	1.1nm,0.7s,mb4.0,baz=306,slow=8.7,SNR=3.1						
CHKZ	Chkalovo	49.37	343	*e*P	P	20 11 12.2	0.0
	2.6nm,0.4s,mb4.6						
EIL	Elat	58.33	300	P	P	20 12 17.8	-0.6
FINES	FINESS Array B	72.34	332	P	P	20 13 49.2	+1.0
	1.5nm,0.8s,mb4.0,baz=112,slow=7.5,SNR=2.7						
ARCES	ARCESS Array B	75.11	340	P	P	20 14 05.6	+1.4
	3.9nm,1.0s,mb4.3,baz=90,slow=6.3,SNR=3.5						
ARCES	ARCESS Array B	75.11	340	P	P	20 14 05.6	+1.4

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*BJI **26** 20:05:46.9, 5.13N×93.30E, h30^{km}, mb4.6*

*NEIC **26** 20:05:48.9±0.3, 5.21N×93.25E, mb4.2/4, Error ellipse: s-maj=8.2km s-min=7.8km az=192.0*

*IDC **26** 20:05:49.4±0.6, 5.33N×93.30E, h27^{km}±3^{km}, mb4.1/14, mb1 4.3/15, mb1mx4.2/21, ML3.7/1, Error ellipse: s-maj=20.6km s-min=12.9km az=51.0*

ISC 26 20:05:47.0±0.6**, 5.19N**±0.08×**93.22E**±0.08**, h26**^{km}**, h26**^{km}±.8^{km}**:pP-P, n35,** σ**0^{s}85**/32**, mb4.3**/23**, 1C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	12.61	280	P	P	20 08 47.6	-0.1
CM31	Chiang Mai Arr	14.32	23	*e*P	P	20 09 09.9	-0.4
	12nm,0.9s						
CMAR	Chiang Mai Arr	14.32	23	Pn	P	20 09 10.2	-0.1
	0.1nm,0.3s,baz=221,slow=13,SNR=14						
QIZ	Qiongzhong	21.26	48	P	P	20 10 32.8	-0.9
QIZ	Qiongzhong	21.26	48	*e*P	P	20 10 32.7	-1.0
	81nm,1.4s,mb4.9						
KMI	Kunming	21.83	24	P	P	20 10 42.3	+3.0
KMI				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.4						
LSA	Lhasa	24.46	356	*e*P	P	20 11 06.1	+1.0
	comp=Z,3.5nm,0.6s,mb4.0						
GYA	Guiyang	24.75	30	⇓*i*P	P	20 11 08.5	+0.5
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
GTA	Gaotai	34.59	9	P	P	20 12 35.5	-0.4
GTA				AP	pP	20 12 43.3	-0.4
GTA				AMB	AMB		
	comp=Z,8.0nm,0.7s,mb4.8						
WMQ	Urumqi	38.78	354	⇑P	P	20 13 12.8	+1.6
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.4						
AAK	Ala-Archa	40.82	339	*e*P	P	20 13 28.0	-0.1
SONM	Songino Array	43.97	13	P	P	20 13 53.8	+0.1
	comp=Z,4.8nm,0.8s,mb4.3,baz=194,slow=8.4,SNR=22						
SONM				pP	pP	20 14 00.8	-0.8
	comp=Z,3.8nm,0.8s,baz=201,slow=6.2,SNR=11						
WRA	Warramunga Arr	47.52	123	P	P	20 14 22.0	-0.3
	comp=Z,21nm,0.8s,mb5.2,baz=301,slow=9.0,SNR=62						
WRA				pP	pP	20 14 31.5	+1.2
	comp=Z,7.4nm,0.9s,baz=301,slow=9.0,SNR=7.8						
ASAR	Alice Springs	48.96	128	P	P	20 14 33.2	-0.3
	comp=Z,4.3nm,0.8s,mb4.5,baz=305,slow=7.5,SNR=17						
ZAL	Zalesovo	49.08	353	P	P	20 14 34.1	+0.1
	comp=Z,1.8nm,0.6s,mb4.3,baz=316,slow=6.7,SNR=8.4						
ZAL				pP	pP	20 14 41.8	-0.2
	comp=Z,2.4nm,0.8s,baz=304,slow=7.3,SNR=6.0						
BVAR	Borovoye Array	51.24	343	P	P	20 14 49.9	-0.6
	comp=Z,1.5nm,0.7s,mb4.0,baz=153,slow=6.6,SNR=7.3						
BVAR				pP	pP	20 14 58.4	-0.1
	comp=Z,2.9nm,1.0s,baz=166,slow=6.1,SNR=5.0						
BRVK	Borovoye	51.30	342	*e*P	P	20 14 50.1	-0.9
	comp=Z,1.5nm,0.7s,mb4.0						
CHKZ	Chkalovo	51.74	343	*e*P	P	20 14 53.4	-0.9
	comp=Z,3.6nm,0.8s,mb4.3						
CHKZ				*e*	pP	20 15 01.2	-1.1
KMBO	Kilima Mbogo	56.25	265	P	P	20 15 28.8	+0.9
	comp=Z,0.9nm,0.8s,mb3.9,baz=61,slow=21,SNR=2.4						
KMBO				pP	pP	20 15 37.7	+1.7
	comp=Z,1.5nm,0.8s,baz=226,slow=23,SNR=3.5						
STKA	Stephens Creek	58.96	132	P	P	20 15 47.3	+0.5
	comp=Z,4.5nm,0.8s,mb4.6,baz=303,slow=9.1,SNR=6.3						
EIL	Elat	59.99	301	P	P	20 15 52.8	-1.1
BRTR	Keskin Array B	63.51	312	P	P	20 16 17.2	-0.3
	comp=Z,0.6nm,0.9s,mb3.6,baz=135,slow=12,SNR=2.7						
BRTR				pP	pP	20 16 24.7	-0.9
	comp=Z,1.0nm,1.0s,baz=127,slow=6.2,SNR=2.7						
AKASG	Malin Array Be	69.69	322	P	P	20 16 54.8	-1.8
	comp=Z,1.1nm,1.0s,mb3.8,baz=87,slow=4.3,SNR=4.2						
MLR	Muntele Rosu	70.46	316	P	P	20 17 01.5	+0.2
	comp=Z,3.6nm,0.8s,mb4.3,baz=204,slow=8.5,SNR=4.1						
FINES	FINESS Array B	74.65	333	P	P	20 17 25.3	-0.4
	comp=Z,2.2nm,0.7s,mb4.2,baz=135,slow=11,SNR=7.0						
FINES				pP	pP	20 17 32.7	-1.2
	comp=Z,1.2nm,0.8s,baz=90,slow=5.7,SNR=1.3						
FINES	FINESS Array B	74.65	333	P	P	20 17 25.3	-0.4
FINES				pP	pP	20 17 32.7	-1.3
ARCES	ARCESS Array B	77.47	341	P	P	20 17 41.2	-0.3
	comp=Z,1.3nm,0.5s,mb4.1,baz=101,slow=7.0,SNR=11						
ARCES				pP	pP	20 17 49.9	+0.1
	comp=Z,7.0nm,1.2s,baz=79,slow=6.2,SNR=1.7						
ARCES	ARCESS Array B	77.47	341	P	P	20 17 41.2	-0.3
ARCES				pP	pP	20 17 49.9	+0.1
GERES	GERESS Array B	79.21	319	P	P	20 17 52.3	+0.8
	comp=Z,1.8nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=13						
GERES				pP	pP	20 18 01.3	+1.6
	comp=Z,1.2nm,0.9s,baz=90,slow=5.3,SNR=4.1						
HFS	Hagfors	80.30	330	P	P	20 17 57.2	+0.2
	comp=Z,2.1nm,0.8s,mb4.1,baz=90,slow=10,SNR=3.5						
HFS	Hagfors	80.30	330	P	P	20 17 57.2	+0.2
DAVOX	Davos	81.68	316	P	P	20 18 06.4	+1.8
	comp=Z,1.8nm,0.6s,mb4.2,baz=114,slow=7.5,SNR=5.8						
DAVOX				pP	pP	20 18 13.8	+0.9
	comp=Z,5.3nm,1.2s,baz=158,slow=17,SNR=2.9						
PDAR	Pinedale Array	127.98	21	PKP	PKPdf	20 24 52.2	-3.7
	comp=Z,0.9nm,0.8s,baz=90,slow=1.5,SNR=4.2						
PDAR				pPKP		20 25 02.0	
	comp=Z,0.4nm,0.9s,baz=123,slow=22,SNR=2.7						
TXAR	Lajitas Array	142.03	24	PKP	PKPdf	20 25 17.6	-4.7
	comp=Z,0.2nm,0.5s,slow=1.3,SNR=3.3						
CPUP	Villa Florida	144.88	230	PKPbc	PKPbc	20 25 24.6	+2.0
	comp=Z,0.0nm,0.4s,baz=12,slow=14,SNR=1.7						
CPUP				pPKPbc		20 25 33.6	
	comp=Z,0.0nm,0.3s,baz=214,slow=14,SNR=1.3						

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*MAN **26** 20:08:32.4, 14.44N×119.74E, h39^{km}, mb5.5, ML4.5, MS4.7*

*CSEM **26** 20:08:33.0, 15.01N×120.07E, h33^{km}, mb5.5*

*BJI **26** 20:08:33.5, 14.29N×120.17E, h84^{km}, mb4.5*

*NEIC **26** 20:08:34.6±0.3, 14.47N×120.05E, mb4.8/14, Error ellipse: s-maj=11.6km s-min=6.1km az=57.0*

NEIC Felt [III PIVS] at Bataan.

*IDC **26** 20:08:35.7±0.6, 14.62N×119.90E, h59^{km}±5^{km}, mb4.4/28, mb1 4.5/28, mb1mx4.5/30, Error ellipse: s-maj=18.6km s-min=6.7km az=38.0*

ISC 26 20:08:34.5±0.5**, 14.45N**±0.03×**119.95E**±0.06**, h68**^{km}±5^{km}**, h60**^{km}±3.2^{km}**:pP-P, n116,** σ**1^{s}06**/119**, mb4.6**/42**, 4C-5D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	Lubang	0.77	158	*e*P	P	20 08 49.0	-1.1
LUBP				*e*S	S	20 09 01.9	+0.2
LUBP	Lubang	0.77	158	⇓*e*P	P	20 08 48.9	-1.2
TGY	Tagaytay City	1.02	110	P	P	20 08 54.3	+1.0
	6µm,0.3s,baz=288,slow=2.3,SNR=702						
TGY				S	S	20 09 10.8	+3.5
	10µm,0.3s,baz=114,slow=21,SNR=12						
QVPH	Quezon City--P	1.09	79	⇑*i*P	P	20 08 45.1	-9.2
QVPH				*i* S	S	20 08 56.3	-13
SCZP	Santa Cruz	1.32	358	*e*P	P	20 08 54.0	-3.5
PCPH	Palayan	1.56	45	⇑*i*P	P	20 08 59.8	-0.9
PCPH				*i* S	S	20 09 20.5	+0.3
LQP	Lukban	1.58	102	⇓*e*P	P	20 09 01.6	+0.6
POLP	Polilio Island	1.94	82	*e*P	P	20 09 06.5	+0.6
BCPH	Baguio City Da	2.01	17	⇓*e*P	P	20 09 05.6	-1.3
BCPH				*e*S	S	20 09 29.9	-0.9
BALP	Baler	2.03	51	*e*P	P	20 09 06.3	-0.8
BOAC	Boac	2.08	118	*e*P	P	20 09 07.4	-0.5
SJMP	San Jose	2.28	150	*e*P	P	20 09 10.4	-0.3
GQP	Guinayangan	2.48	102	⇓*e*P	P	20 09 15.2	+1.7
AUQP	San Andres	2.87	113	*e*P	P	20 09 21.7	+2.7
OTRP	Odiongan	2.89	136	*e*P	P	20 09 19.0	-0.3
CAUP	Cauayan	3.06	36	*e*P	P	20 09 20.2	-1.5
ABRA	Dolores	3.26	13	*e*P	P	20 09 24.0	-0.5
ENPP	El Nido	3.27	189	*e*P	P	20 09 21.6	-3.0
APYP	Conner	3.61	20	*e*P	P	20 09 29.1	-0.2
CVP	Callao Caves	3.70	29	*e*P	P	20 09 31.5	+0.9
CUYO	Cuyo Island	3.73	164	*e*P	P	20 09 28.9	-2.1
PVCP	Virac	4.17	101	*e*P	P	20 09 38.2	+1.1
SGCP	Mt. Cagua	4.27	28	*e*P	P	20 09 39.9	+1.3
GUIM	Jordan	4.59	146	*e*P	P	20 09 43.7	+0.6
PPR	Puerto Princes	4.80	195	⇑*e*P	S	20 10 33.3	-7.5
CNP	Catarman	4.97	112	*e*P	P	20 09 53.8	+5.5
BBP	Basco	6.26	18	*e*P	P	20 10 06.7	+0.6
MSLP	Maasin	6.43	131	*e*P	P	20 10 10.4	+1.8
IPIL	Ipil	7.10	159	*e*P	P	20 10 17.5	-0.4
PAGZ	Pagadian	7.37	152	*e*P	P	20 10 24.9	+3.2
BUKP	Musuan	8.23	142	*e*P	P	20 10 33.6	+0.2
QIZ	Qiongzhong	10.70	297	*e*P	P	20 11 02.4	-4.8
	43nm,1.1s						
QIZ				*e*S	S	20 12 54.0	-12
GYA	Guiyang	17.24	316	⇑*i*P	P	20 12 34.0	+1.8
GYA				AMB	AMB		
	comp=Z,10.0nm,1.2s						
ENH	Enshi	18.46	330	*e*P	P	20 12 47.3	+0.1
	comp=Z,8.3nm,0.5s						
ENH				*e*		20 12 52.3	
CM31	Chiang Mai Arr	20.54	284	*e*P	P	20 13 10.3	+0.5
	comp=Z,27nm,0.8s						
CMAR	Chiang Mai Arr	20.54	284	P	P	20 13 10.2	+0.5
	comp=Z,19nm,0.8s,baz=92,slow=9.3,SNR=9.5						
CMAR				PcP	PcP	20 17 19.6	+0.7
	comp=Z,1.6nm,0.6s,baz=55,slow=0.6,SNR=6.7						
CD2	Chengdu	22.12	320	P	P	20 13 26.5	+0.9
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb4.8						
BJT	Baijiatuau	25.69	353	*e*P	P	20 13 59.6	-0.3

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            comp=Z,7.1nm,0.6s,mb4.3
LZH   Lanzhou          25.93 329  eP      P       20 14 02.0 -0.2
LZH                               AMB     AMB
            comp=Z,39nm,1.5s,mb4.6
HHC   Hu-ho-hao-te     27.30 346  eP      P       20 14 14.5 -0.3
HHC                               AMB     AMB
            comp=Z,5.0nm,0.7s,mb4.2
GTA   Gaotai           30.52 328  P       P       20 14 42.5 -1.1
GTA                               AMB     AMB
            comp=Z,4.0nm,1.2s,mb4.0
SONM  Songino Array    35.14 344  P       P       20 15 22.7 -0.8
            comp=Z,2.7nm,0.6s,mb4.3,baz=167,slow=8.5,SNR=12
SONM                              pP      pP      20 15 38.3 -1.8
            comp=Z,1.6nm,0.5s,baz=175,slow=5.4,SNR=5.0
MBWA  Marble Bar       35.39 180  eP      P       20 15 24.5 -1.4
            comp=Z,14nm,0.8s,mb4.8
WRAB  Tennant Creek    36.99 157  eP      P       20 15 37.1 -2.2
WRA   Warramunga Arr   36.99 157  P       P       20 15 37.1 -2.3
            comp=Z,4.6nm,0.5s,mb4.7,baz=336,slow=9.6,SNR=18
WRA                               pP      pP      20 15 55.3 -0.9
            comp=Z,4.8nm,0.7s,baz=336,slow=9.4,SNR=5.6
ASAR  Alice Springs    40.27 160  P       P       20 16 05.2 -1.3
            comp=Z,6.6nm,0.6s,mb4.7,baz=336,slow=6.8,SNR=32
CTA   Charters Tower   42.98 142  P       P       20 16 29.5 +0.5
            comp=Z,9.3nm,1.0s,mb4.5,baz=345,slow=9.3,SNR=6.0
CTAO  Charters Tower   42.98 142  eP      P       20 16 28.1 -0.9
            comp=Z,14nm,1.1s,mb4.6
KSH   Kashi            45.86 312  eP      P       20 16 53.0 +1.2
ULHL  Ulahol           46.68 315  P       P       20 16 59.0 +0.7
            SNR=7.6
NWAO  Narrogin (SRO)   47.18 183  P       P       20 17 02.4  0.0
            comp=Z,8.5nm,0.6s,mb4.7,baz=23,slow=6.8,SNR=9.4
KZA   Kyzart           47.30 315  P       P       20 17 04.1 +0.9
            SNR=15
TKM2  Tokmak 2         47.38 316  P       P       20 17 04.1 +0.3
            SNR=7.9
KBK   Karagaybulak     47.72 315  P       P       20 17 07.3 +0.9
            SNR=14
UCH   Uchtor           47.86 314  P       P       20 17 08.9 +1.4
            SNR=15
CHMS  Chumysh          47.99 316  P       P       20 17 08.5  0.0
            SNR=6.5
YAK   Yakutsk          48.02   6  eP      P       20 17 06.5 -2.0
AAK   Ala-Archa        48.02 315  eP      P       20 17 08.6 -0.2
            comp=Z,4.1nm,0.7s,mb4.4
ZAL   Zalesovo         48.06 333  P       P       20 17 07.6 -1.4
            comp=Z,4.9nm,0.5s,mb4.6,baz=348,slow=4.5,SNR=18
ZAL   Zalesovo         48.06 333  P       P       20 17 07.6 -1.4
USP   Ospenovka        48.26 316  P       P       20 17 10.8 +0.2
            SNR=7.3
AML   Almayashu        48.40 314  P       P       20 17 13.0 +1.4
            SNR=9.7
EKS2  Erkin-Say        48.53 315  P       P       20 17 13.4 +0.7
            SNR=8.9
STKA  Stephens Creek   50.52 156  P       P       20 17 28.8 +0.6
            comp=Z,4.3nm,0.7s,mb4.6,baz=360,slow=9.5,SNR=6.6
STKA  Stephens Creek   50.52 156  eP      P       20 17 25.3 -2.8
BVAR  Borovoye Array   54.75 326  P       P       20 17 58.6 -0.7
            comp=Z,7.1nm,0.7s,mb4.8,baz=117,slow=9.9,SNR=28
BRVK  Borovoye         54.82 326  eP      P       20 17 59.1 -0.7
            comp=Z,26nm,1.0s,mb5.2
BILL  Bilibino         61.22  18  eP      P       20 18 42.8 -1.6
            comp=Z,2.7nm,0.5s,mb4.5
ARU   Arti             62.36 327  eP      P       20 18 50.4 -1.8
            comp=Z,8.8nm,0.6s,mb5.0
ARU                               e       pP      20 19 05.8 -4.2
RDF   Al-Radifah       67.91 296  eP      P       20 19 28.1 -0.2
RDF                               AMb     AMB     20 19 29.0
            comp=Z,80nm,1.0s,mb5.5
MIB   Mutribah         68.02 297  eP      P       20 19 28.2 -0.8
MIB                               AMb     AMB     20 19 28.9
            comp=Z,48nm,0.6s,mb5.5
RST   Umm Al-Ruwaisa   68.34 296  eP      P       20 19 30.3 -0.7
RST                               AMb     AMB     20 19 32.5
            comp=Z,35nm,0.9s,mb5.2
GNI   Garni            69.58 308  P       P       20 19 39.3 +0.8
            comp=Z,7.2nm,0.8s,mb4.5,baz=151,slow=11,SNR=9.7
GNI   Garni            69.58 308  eP      P       20 19 38.9 +0.4
            comp=Z,15nm,0.9s,mb4.8
KIV   Kislovodsk       70.99 312  P       P       20 19 47.1 +0.2
            comp=Z,379nm,0.7s,SNR=11
KIV   Kislovodsk       70.99 312  eP      P       20 19 46.9  0.0
            comp=Z,48nm,0.8s,mb5.4
ASF   Jabal al Asfar   76.66 300  P       P       20 20 21.5 +1.4
            comp=Z,14nm,0.9s,mb4.7,baz=329,slow=2.0,SNR=15
BRTR  Keskin Array B   78.12 308  P       P       20 20 27.2 -0.8
            comp=Z,2.5nm,0.8s,mb4.0,baz=124,slow=4.5,SNR=10
BRTR  Keskin Array B   78.12 308  P       P       20 20 27.2 -0.8
ARCES ARCESS Array B   78.13 339  P       P       20 20 27.4 -0.1
            comp=Z,11nm,0.8s,mb4.7,baz=74,slow=7.0,SNR=54
ILAR  Eielson Array    78.40  26  P       P       20 20 27.3 -1.7
            comp=Z,0.7nm,0.7s,baz=268,slow=4.8,SNR=9.9
EIL   Elat             78.72 298  P       P       20 20 32.1 +0.6
            comp=Z,20nm,1.0s,mb4.9,baz=34,slow=3.3,SNR=12
FINES FINESS Array B   79.28 331  P       P       20 20 33.5 -0.4
            comp=Z,8.1nm,0.6s,mb4.8,baz=59,slow=6.4,SNR=62
FINES                             pP      pP      20 20 49.2 -3.3
            comp=Z,3.5nm,0.6s,baz=64,slow=5.5,SNR=5.6
AKASG Malin Array Be   79.42 320  P       P       20 20 34.1 -0.8
            comp=Z,6.3nm,0.8s,mb4.5,baz=62,slow=4.7,SNR=29
AKASG                             pP      pP      20 20 49.9 -3.6
            comp=Z,3.2nm,0.7s,baz=63,slow=4.5,SNR=4.5
VRI   Vrincioaia       81.99 315⇓iP      P       20 20 49.1 +0.5
SUW   Suwalki          82.37 324  eP      P       20 20 50.1 -0.3
MLR   Muntele Rosu     82.61 315  P       P       20 20 52.5 +0.7
            comp=Z,5.6nm,0.6s,mb4.6,baz=304,slow=4.9,SNR=15
MLR   Muntele Rosu     82.61 315  P       P       20 20 52.5 +0.7
INK   Inuvik           82.66  21  P       P       20 20 52.2 +0.6
            comp=Z,2.8nm,0.9s,mb4.1,baz=318,slow=6.2,SNR=6.7
KMBO  Kilima Mbogo     83.21 267  P       P       20 20 57.5 +2.0
            comp=Z,4.9nm,0.8s,mb4.4,baz=49,slow=10,SNR=13
KWP   Kalwaria         83.74 320  eP      P       20 20 57.7 +0.3
KOLS  Kolonicke sedl   84.20 319  eP      P       20 20 58.6 -1.1
CRVS  Cervenica-Dubn   84.72 319  eP      P       20 21 03.8 +1.5
NIE   Niedzica         85.30 320  eP      P       20 21 06.3 +1.1
OJC   Ojcow            85.39 321  eP      P       20 21 05.9 +0.3
KECS  Kecovo           85.46 319  eP      P       20 21 00.2 -5.8
KECS                              e               20 21 05.8
KECS  Kecovo           85.46 319  e       P       20 21 00.2 -5.8
KECS  Kecovo           85.46 319  eP      P       20 21 05.8 -0.2
HFS   Hagfors          85.47 331  P       P       20 21 05.2 -0.5
            comp=Z,4.3nm,0.6s,mb4.5,baz=108,slow=4.7,SNR=8.9
IDI   Anoyia           85.83 305  P       P       20 21 08.7 +0.6
            comp=Z,7.7nm,0.8s,mb4.7,baz=330,slow=14,SNR=4.5
NB2   NORSAR Subarra   86.26 332  P       P       20 21 07.8 -1.8
            comp=Z,0.6nm,0.7s,mb3.6,baz=72,slow=5.6
NOA   NORSAR Array B   86.26 332  P       P       20 21 09.1 -0.5
            comp=Z,9.3nm,1.1s,mb4.7,baz=68,slow=4.9,SNR=13
NOA   NORSAR Array B   86.26 332  P       P       20 21 09.1 -0.5
KSP   Ksiaz            87.32 322  eP      P       20 21 15.9 +0.9
VRAC  Vranov           87.65 320  P       P       20 21 17.8 +1.1
            comp=Z,2.4nm,0.5s,mb4.5,baz=83,slow=6.5,SNR=6.8
BRG   Berggiesshubel   88.71 322  eP      P       20 21 22.1 +0.5
            comp=Z,9.0nm,1.0s,mb4.8
CLL   Collm            89.10 323  i P     P       20 21 23.5  0.0
            comp=Z,9.0nm,1.1s,mb4.7
CLL   Collm            89.10 323  P       P       20 21 23.5  0.0
            comp=Z,logA/T=0.9,mb4.7
GERES GERESS Array B   89.59 321  P       P       20 21 26.2 +0.3
            comp=Z,2.1nm,0.8s,mb4.3,baz=56,slow=4.8,SNR=13
MAW   Mawson           91.56 199  P       P       20 21 35.6 +1.0
            comp=Z,2.5nm,0.6s,mb4.6,baz=60,slow=5.9,SNR=3.8
YKA   Yellowknife Ar   92.36  22  P       P       20 21 38.5 +0.1
            comp=Z,0.4nm,0.5s,mb3.9,baz=308,slow=4.4,SNR=16
YKA   Yellowknife Ar   92.36  22  P       P       20 21 38.5 +0.1
DAVOX Davos            92.77 320  P       P       20 21 40.2 -0.4
            comp=Z,6.9nm,1.1s,mb4.9,baz=161,slow=4.4,SNR=6.4
TXAR  Lajitas Array   119.44  44  PKP     PKPdf   20 27 19.5 +2.6
            comp=Z,0.5nm,1.0s,baz=312,slow=0.4,SNR=3.9
DBIC  Dimbokro        121.38 287  PKP     PKPdf   20 27 22.7 +1.7
            comp=Z,2.4nm,0.6s,baz=227,slow=2.7,SNR=5.1
SDV   Santo Domingo   154.55  25  ePKPdf  PKPdf   20 28 22.2 +2.5
SDV                               ePKPbc  PKPdf   20 28 29.9  +10
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IDC ***26*** *20:10:43.0±1.3, 10.65N×92.47E, mb4.1/6, mb1 4.2/7, mb1mx3.8/21, ML4.3/1, Error ellipse: s-maj=51.9km s-min=27.1km az=42.0*

ISC 26 20:10:46.6±1.1**, 10.8N**±0.2×**92.7E**±0.2**, h33**^{km}**, n13, σ0**^{s}**12**/7**, mb4.0**/6**, Andaman Islands region**

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Code  Station Name      Δ°   AZ°    Phase ID           Time     Res
                                  Op      ISC        h  m  s    ISC
CMAR  Chiang Mai Arr    9.72  38  Pn      P       20 13 07.2  0.0
            0.7nm,0.3s,baz=214,slow=14,SNR=22
PKI   Pulchoki         18.04 339  eP              20 15 09.0
            66nm,1.2s
DMN   Daman            18.18 338  eP              20 15 10.3
            32nm,0.8s
GUN   Gumba            18.19 340  eP              20 15 10.1
            57nm,0.8s
KKN   Kakani           18.29 339  eP              20 15 11.2
            71nm,1.3s
GKN   Gorkha           18.71 337  eP              20 15 15.7
            45nm,0.8s
KOLN  Koldanda         18.93 334  eP              20 15 18.5
            25nm,0.7s
WRA   Warramunga Arr   51.12 127  P       P       20 19 48.7  0.0
            0.6nm,0.6s,mb3.7,baz=301,slow=8.8,SNR=3.4
FINES FINESS Array B   69.48 332  P       P       20 21 53.5  0.0
            0.9nm,0.6s,mb3.9,baz=98,slow=9.8,SNR=2.4
ARCES ARCESS Array B   72.05 340  P       P       20 22 08.8 -0.1
            2.3nm,0.9s,mb4.1,baz=102,slow=8.3,SNR=2.0
GERES GERESS Array B   74.71 318  P       P       20 22 24.8 -0.1
            0.7nm,0.6s,mb3.8,baz=90,slow=6.7,SNR=5.1
HFS   Hagfors          75.23 329  P       P       20 22 27.8 +0.3
            2.3nm,0.8s,mb4.2,baz=90,slow=4.4,SNR=4.8
DAVOX Davos            77.31 316  P       P       20 22 39.5 -0.1
            1.7nm,0.6s,mb4.2,baz=153,slow=2.6,SNR=2.7
```

IDC ***26*** *20:11:53.6±1.2, 10.89N×92.53E, mb4.0/8, mb1 4.1/8, mb1mx3.9/19, Error ellipse: s-maj=60.3km s-min=22.0km az=53.0*

NEIC ***26*** *20:11:58.1±0.7, 10.87N×92.62E, h30*^{km}*, mb4.2/2, Error ellipse: s-maj=25.1km s-min=11.7km az=54.0*

ISC 26 20:11:56.1±0.9**, 10.8N**±0.2×**92.6E**±0.2**, h30**^{km}**, n12, σ0**^{s}**65**/11**, mb4.0**/10**, Andaman Islands region**

```
Code  Station Name      Δ°   AZ°    Phase ID           Time     Res
                                  Op      ISC        h  m  s    ISC
HYB   Hyderabad        15.11 297  eP              20 15 44.0
ENH   Enshi            24.91  37  eP      P       20 17 18.2 -0.1
            4.1nm,0.4s,mb4.3
SONM  Songino Array    38.66  15  P       P       20 19 18.6 -0.3
            0.6nm,0.5s,mb3.6,baz=207,slow=8.5,SNR=4.1
WRA   Warramunga Arr   51.22 127  P       P       20 21 00.4 +1.0
            1.2nm,0.7s,mb4.0,baz=306,slow=8.7,SNR=4.9
WRAB  Tennant Creek    51.22 127  P       P       20 20 58.2 -1.2
ASAR  Alice Springs    52.97 131  P       P       20 21 12.5 -0.1
            1.6nm,0.9s,mb3.9,baz=304,slow=6.9,SNR=6.2
FINES FINESS Array B   69.40 332  P       P       20 23 02.6 -0.5
            0.8nm,0.4s,mb4.0,baz=118,slow=8.5,SNR=9.2
KAF   Kangasniemi      69.48 333  ep      P       20 23 03.3 -0.3
            0.4nm,0.3s,mb3.8
ARCES ARCESS Array B   71.99 340  P       P       20 23 18.9 +0.2
            0.9nm,0.5s,mb3.9,baz=90,slow=5.4,SNR=4.4
HFS   Hagfors          75.15 329  P       P       20 23 36.7 -0.5
            1.1nm,0.5s,mb4.0,baz=80,slow=8.8,SNR=3.0
EKA   Eskdalemuir Ar   84.44 325  P       P       20 24 27.9 +0.9
            1.1nm,0.7s,mb4.1,baz=98,slow=5.0,SNR=3.8
ILAR  Eielson Array    92.58  22  P       P       20 25 06.6 +0.9
            0.4nm,0.8s,mb3.9,baz=308,slow=5.1,SNR=5.3
```

IDC 26 20:12:16.8±2.2**, 8.99N**×**91.19E, mb3.7**/4**, mb1 4.0**/5**, mb1mx3.7**/19**, ML4.0**/1**, Error ellipse: s-maj=57.5km s-min=36.3km az=131.0, Nicobar Islands region**

```
Code  Station Name      Δ°   AZ°    Phase ID           Time     Res
                                  Op      ISC        h  m  s    ISC
CMAR  Chiang Mai Arr   12.05  38  Pn      P       20 15 10.3 -2.5
            0.3nm,0.3s,baz=233,slow=14,SNR=4.6
SONM  Songino Array    40.80  16  P       P       20 19 58.8 -2.7
            0.7nm,0.7s,baz=197,slow=7.5,SNR=3.6
BVAR  Borovoye Array   47.03 343  P       P       20 20 51.4 -0.3
            1.1nm,0.9s,baz=124,slow=10,SNR=2.8
BRTR  Keskin Array B   59.49 311  P       P       20 22 21.9 -2.2
            0.7nm,0.8s,baz=135,slow=8.2,SNR=2.8
GERES GERESS Array B   75.05 318  P       P       20 23 59.6 -2.5
            1.8nm,1.1s,baz=76,slow=5.5,SNR=4.2
CPUP  Villa Florida   145.54 236  PKPbc   PKPbc   20 31 57.3 -1.0
            0.0nm,0.3s,baz=219,slow=14,SNR=2.0
```

DJA ***26*** *20:14:07.4±2.4, 4.47S×98.21E, h14*^{km}*, mb5.0/5, Error ellipse: s-maj=91.1km s-min=8.2km az=54.0*

BJI ***26*** *20:14:46.3, 3.88S×101.67E, h75*^{km}*, mB5.6, mb5.2, Ms5.8, Msz5.4*

IDC ***26*** *20:14:50.5±0.4, 3.33S×101.57E, h51*^{km}*±3*^{km}*, mb4.4/25, mb1 4.5/25, mb1mx4.5/26, MS3.8/1, Ms1 4.0/1, ms1mx2.9/23, Error ellipse: s-maj=16.5km s-min=10.3km az=53.0*

NEIC ***26*** *20:14:50.1±0.2, 3.36S×101.55E, mb5.0/13, Error ellipse: s-maj=11.3km s-min=7.1km az=56.0*

ISC 26 20:14:48.5±0.3**, 3.35S**±0.06×**101.63E**±0.05**, h53**^{km}**, h53**^{km}±1.8^{km}**:pP-P, n95, σ1**^{s}**09**/74**, mb4.9**/42**, 5C-4D, Southern Sumatera**

```
Code  Station Name      Δ°   AZ°    Phase ID           Time     Res
                                  Op      ISC        h  m  s    ISC
PENI  Pendagan          4.16 122⇓eP      P       20 15 51.6 +0.5
PULI  Pulasari          5.25 125⇑eP      P       20 16 06.3 -0.1
            630nm,0.2s
SINI  Singah            6.88 122⇓eP      P       20 16 28.1 -1.2
            4.6nm,0.3s
COCO  West Island       9.98 208  eP      P       20 17 03.6 -8.4
            174nm,0.6s
SRDI  Scrawed          13.44 113⇓eP      P       20 17 58.4 -0.1
KELI  Kelakatan        13.67 111⇑eP      P       20 18 01.9 +0.3
            177nm,0.2s
RATI  Rata             14.81 112  epP             20 18 16.8
RATI  Rata             14.81 112⇑eP      P       20 18 13.4 -3.1
            403nm,0.2s
KEDI  Kedomdong        15.28 110⇑eP      P       20 18 22.3 -0.2
            109nm,0.3s
TANI  Tanete Lipujan   17.72  91⇑eP      P       20 18 56.2 +2.9
NINI  Niniconang       18.11  94⇓eP      P       20 18 57.4 -0.8
CMAR  Chiang Mai Arr   21.83 353  P       P       20 19 39.6 +1.5
            5.1nm,0.5s,mb4.2,baz=183,slow=8.7,SNR=19
CMAR                              LR      LR      20 28 18.2
            comp=Z,234nm,18.4s,baz=218,slow=37
MBWA  Marble Bar       24.97 137  eP      P       20 20 08.6 -0.2
            12nm,0.8s,mb4.5
TGY   Tagaytay City    25.83  47  P       P       20 20 19.2 +2.2
            101nm,0.4s,mb5.7,baz=155,slow=16,SNR=4.1
NWAO  Narrogin (SRO)   32.85 155  P       P       20 21 19.9 +0.4
            4.2nm,0.7s,mb4.5,baz=201,slow=12,SNR=3.2
ENH   Enshi            34.27  12  eP      P       20 21 31.1 -0.7
ENH                               epP     pP      20 21 41.8 -3.7
WRA   Warramunga Arr   35.91 120  P       P       20 21 46.3 +0.5
            15nm,0.7s,mb5.1,baz=310,slow=8.9,SNR=47
WRAB  Tennant Creek    35.91 120  eP      P       20 21 45.7 -0.2
            28nm,0.6s,mb5.4
ASAR  Alice Springs    37.15 126  P       P       20 21 56.8 +0.5
            18nm,0.6s,mb5.1,baz=298,slow=8.2,SNR=70
LGTI  Lohaghat         38.52 329  eP      P       20 22 08.5 +0.9
JOW   Kunigami         39.53  39  P       P       20 22 21.2 +5.2
            11nm,0.5s,mb4.8,baz=293,slow=6.6,SNR=5.7
DDI   Dehra Dun        40.36 328  e       P       20 22 24.9 +2.0
SDNR  Sundarnagar      41.86 328  eP      P       20 22 35.3  0.0
GTA   Gaotai           42.58 358  P       P       20 22 42.3 +1.2
GTA                               AMB     AMB
            comp=Z,15nm,1.1s,mb4.6
CTA   Charters Tower   46.55 115  P       P       20 23 13.9 +0.7
            comp=Z,52nm,0.8s,mb5.5,baz=291,slow=9.6,SNR=48
STKA  Stephens Creek   47.04 132  P       P       20 23 17.7 +0.8
            comp=Z,8.9nm,0.6s,mb4.9,baz=320,slow=9.0,SNR=19
STKA  Stephens Creek   47.04 132  P       P       20 23 17.7 +0.8
WMQ   Urumqi           48.60 347  P       P       20 23 29.5 +0.6
WMQ                               AMB     AMB
            comp=Z,79nm,0.7s,mb5.8
KSH   Kashi            48.75 334  eP      P       20 23 30.5 +0.4
KSH                               AMB     AMB
            comp=Z,200nm,4.7s
CBIJ  Chichi jima      49.47  50  P       P       20 23 35.5 -0.3
            comp=Z,93nm,0.9s,mb5.8,baz=242,slow=17,SNR=4.2
SONM  Songino Array    51.14   4  P       P       20 23 49.3 +1.0
            comp=Z,33nm,0.8s,mb5.3,baz=186,slow=9.5,SNR=69
CN2   Changchun        51.59  22  eP      P       20 23 51.0 -0.7
CN2                               AMB     AMB
            comp=Z,50nm,0.8s,mb5.5
AAK   Ala-Archa        51.94 335  eP      P       20 23 53.1 -1.2
            comp=Z,5.6nm,0.8s,mb4.5
MAT   Matsushiro       52.32  37  P       P       20 23 55.9 -1.4
MAT   Matsushiro       52.32  37  eP      P       20 23 56.0 -1.3
ZAL   Zalesovo         58.79 348  P       P       20 24 42.5 -1.2
            comp=Z,14nm,0.5s,mb5.3,baz=315,slow=7.3,SNR=27
ZAL   Zalesovo         58.79 348  P       P       20 24 42.5 -1.2
ASAJ  Asahikawa        59.82  33  P       P       20 24 51.3 +0.4
            comp=Z,10nm,0.4s,mb5.2,baz=222,slow=6.7,SNR=17
YSS   Yuzh-Sakhalins   61.78  31  eP      P       20 25 03.7 -0.5
            comp=Z,28nm,0.6s,mb5.6
BVAR  Borovoye Array   62.01 339  P       P       20 25 03.9 -1.7
            comp=Z,5.7nm,0.5s,mb5.0,baz=142,slow=10,SNR=34
BVAR                              pP      pP      20 25 18.1 -2.2
            comp=Z,13nm,0.7s,baz=135,slow=8.4,SNR=11
BRVK  Borovoye         62.08 339  eP      P       20 25 03.9 -2.1
            comp=Z,4.9nm,0.4s,mb5.0
BRVK                              epP     pP      20 25 17.8 -2.9
CHKZ  Chkalovo         62.46 340  eP      P       20 25 06.8 -1.8
CHKZ                              eP              20 25 07.1
CHKZ                              epP     pP      20 25 20.1 -3.2
KMBO  Kilima Mbogo     64.36 270  P       P       20 25 21.2 -0.5
            comp=Z,2.4nm,0.8s,mb4.3,baz=54,slow=10,SNR=6.1
KMBO                              pP      pP      20 25 36.6 +0.1
            comp=Z,2.7nm,0.8s,baz=54,slow=11,SNR=4.5
GNI   Garni            67.62 316  P       P       20 25 43.6 +1.6
            comp=Z,1.5nm,0.4s,mb4.3,baz=346,slow=10,SNR=3.0
YAK   Yakutsk          68.64  14  eP      P       20 25 46.1 -2.0
            comp=Z,23nm,0.6s,mb5.3
ARU   Arti             69.09 336  eP      P       20 25 48.9 -2.1
            comp=Z,12nm,0.9s,mb4.8
ARU                               epP     pP      20 26 03.4 -2.5
MAW   Mawson           69.39 195  P       P       20 25 53.2 +0.6
            comp=Z,3.7nm,1.0s,mb4.3,baz=58,slow=13,SNR=4.0
KIV   Kislovodsk       70.62 319  eP      P       20 25 59.3 -1.2
            comp=Z,17nm,1.0s,mb4.9
KIV                               epP     pP      20 26 14.3 -1.1
ASF   Jabal al Asfar   70.69 306  P       P       20 26 02.7 +1.6
            comp=Z,4.2nm,1.0s,mb4.3,baz=37,slow=5.1,SNR=3.2
EIL   Elat             71.62 303  P       P       20 26 07.5 +0.8
            comp=Z,2.8nm,0.8s,mb4.2,baz=34,slow=31,SNR=2.8
EIL                               pP      pP      20 26 21.6 -0.1
            comp=Z,28nm,1.1s,baz=56,slow=3.2,SNR=10
EIL   Elat             71.62 303  P       P       20 26 07.5 +0.8
EIL                               pP      pP      20 26 21.6 -0.1
RPZ   Rata Peaks       72.88 135  P       P       20 26 14.1 +0.2
            comp=Z,7.8nm,0.9s,mb4.7,baz=304,slow=7.3,SNR=4.4
LSZ   Lusaka           73.16 255  eP      P       20 26 14.6 -1.5
            comp=Z,11nm,1.3s,mb4.6
LSZ                               epP     pP      20 26 29.8 -1.3
LBTB  Lobatse          75.94 245  eP      P       20 26 30.6 -1.4
            comp=Z,4.0nm,0.6s,mb4.5
VNDA  Vanda            80.53 169  P       P       20 26 56.4 +0.2
            comp=Z,2.2nm,1.0s,mb4.1,baz=305,slow=8.9,SNR=4.2
AKASG Malin Array Be   81.54 322  P       P       20 27 01.0 -1.0
            comp=Z,2.3nm,0.7s,mb4.2,baz=86,slow=4.2,SNR=11
AKASG                             pP      pP      20 27 16.2 -1.0
            comp=Z,7.9nm,0.9s,baz=82,slow=4.1,SNR=6.0
MLR   Muntele Rosu     82.39 317  P       P       20 27 06.8 +0.3
            comp=Z,15nm,1.3s,mb4.8,baz=142,slow=3.3,SNR=6.3
MLR                               pP      pP      20 27 23.1 +1.4
            comp=Z,14nm,0.8s,baz=82,slow=9.0,SNR=9.3
KOLS  Kolonicke sedl   85.53 319  eP      P       20 27 23.3 +1.1
KOLS                              e       pP      20 27 41.3 +3.8
KOLS  Kolonicke sedl   85.53 319  e       P       20 27 23.3 +1.1
KOLS                              e       pP      20 27 41.3 +3.8
SUW   Suwalki          85.92 325  eP      P       20 27 23.4 -0.6
            comp=Z,55nm,1.3s,mb5.6
SUW                               epP     pP      20 27 38.8 -0.6
FINES FINESS Array B   86.06 332  P       P       20 27 24.9 +0.5
            comp=Z,2.9nm,0.9s,mb4.5,baz=95,slow=5.1,SNR=11
FINES FINESS Array B   86.06 332  P       P       20 27 24.9 +0.5
QSPA  South Pole Qui   86.62 180  eP      pP      20 27 42.8 +0.6
VYHS  Vyhne            87.71 319  eP      P       20 27 32.9 +0.1
VYHS                              epP     pP      20 27 48.1 -0.1
VYHS  Vyhne            87.71 319  e       P       20 27 32.9 +0.1
VYHS                              e       pP      20 27 48.1 -0.1
ARCES ARCESS Array B   88.29 340  P       P       20 27 34.5 -0.6
            comp=Z,5.2nm,0.8s,mb4.8,baz=90,slow=3.6,SNR=15
ARCES                             pP      pP      20 27 49.4 -1.2
            comp=Z,12nm,1.0s,baz=102,slow=4.5,SNR=5.7
ARCES ARCESS Array B   88.29 340  P       P       20 27 34.5 -0.6
ARCES                             pP      pP      20 27 49.4 -1.2
ZST   Bratislava       88.82 318  eP      P       20 27 38.8 +0.7
ZST                               e       sP      20 27 58.6 -0.5
ZST   Bratislava       88.82 318  e       P       20 27 38.8 +0.7
ZST                               esP     sP      20 27 58.6 -0.5
DPC   Dobruska-Polom   89.56 320  eP      P       20 27 43.0 +1.5
PRU   Pruhonice        90.67 320  eP      P       20 27 47.8 +1.0
BRG   Berggiesshubel   91.11 321  i P     P       20 27 49.8 +1.0
            comp=Z,33nm,1.9s,mb5.3
BRG                               i       pP      20 28 09.5 +5.2
GERES GERESS Array B   91.13 319  P       P       20 27 49.4 +0.4
            comp=Z,1.3nm,0.8s,mb4.3,baz=108,slow=4.2,SNR=3.6
CLL   Collm            91.73 321  eP      pP      20 28 10.0 +2.8
CLL   Collm            91.73 321  e*SP    pP      20 28 10.0 +2.8
HFS   Hagfors          91.85 330  P       P       20 27 52.3 +0.3
            comp=Z,3.0nm,0.9s,mb4.6,baz=135,slow=2.1,SNR=4.6
HFS   Hagfors          91.85 330  P       P       20 27 52.3 +0.3
NB2   NORSAR Subarra   93.11 331  P       P       20 27 54.8 -3.0
            comp=Z,5.6nm,1.1s,mb4.9,baz=91,slow=4.8
NVAR  Mina Array Bea  129.58  41  PKP     PKPdf   20 33 55.6 +3.3
            comp=Z,1.3nm,0.5s,baz=308,slow=2.3,SNR=6.2
NVAR                              pPKP            20 34 10.0
            comp=Z,2.4nm,0.9s,baz=258,slow=1.8,SNR=3.8
NVAR                              SKPbc           20 37 11.3
            comp=Z,1.5nm,0.9s,baz=272,slow=4.5,SNR=5.5
NVAR  Mina Array Bea  129.58  41  PKP     PKPdf   20 33 55.6 +3.3
NVAR                              pPKP            20 34 10.0
NVAR                              SKPbc           20 37 11.3
ULM   Lac du Bonnet   130.98  15  PKP     PKPdf   20 33 57.2 +2.6
            comp=Z,1.1nm,0.5s,baz=24,slow=3.8,SNR=5.6
ULM   Lac du Bonnet   130.98  15  PKP     PKPdf   20 33 57.2 +2.6
PDAR  Pinedale Array  131.93  31  PKP     PKPdf   20 33 58.9 +2.3
            comp=Z,0.8nm,0.7s,baz=188,slow=1.2,SNR=8.0
PDAR                              pPKP            20 34 13.6
            comp=Z,0.8nm,0.6s,baz=301,slow=0.3,SNR=4.6
PDAR                              SKPbc           20 37 19.1
            comp=Z,3.1nm,0.9s,baz=358,slow=1.3,SNR=15
CPUP  Villa Florida   144.15 213  PKP     PKPdf   20 34 18.8 -0.3
            comp=Z,0.0nm,0.4s,baz=190,slow=12,SNR=1.6
BAO   Brasilia Array  144.51 237  PKP     PKPdf   20 34 20.2 +0.2
BAO                               e               20 34 36.8
BDFB  Brasilia        144.53 237  PKP     PKPdf   20 34 20.6 +0.6
            comp=Z,2.3nm,0.6s,baz=104,slow=8.9,SNR=4.9
BDFB                              pPKP            20 34 37.0
            comp=Z,5.6nm,0.5s,baz=35,slow=4.9,SNR=6.9
LTX   Lajitas         144.73  40  ePKP    PKPdf   20 34 21.3 +1.2
TXAR  Lajitas Array   144.73  40  PKP     PKPdf   20 34 21.9 +1.8
            comp=Z,17nm,0.6s,baz=275,slow=0.9,SNR=274
TXAR                              sPKP            20 34 41.9
            comp=Z,8.5nm,0.7s,baz=300,slow=0.8,SNR=7.9
TXAR                              SKPbc           20 37 57.0
            comp=Z,2.1nm,0.8s,baz=182,slow=0.6,SNR=4.9
TXAR  Lajitas Array   144.73  40  PKP     PKPdf   20 34 21.9 +1.8
TXAR                              sPKP            20 34 41.9
TXAR                              SKPbc           20 37 57.0
MIAR  Mount Ida       145.89  23  ePKP    PKPdf   20 34 23.8 +1.8
WVT   Waverly         146.23  14  ePKP    PKPdf   20 34 24.4 +1.9
JCT   Junction City   146.26  35  ePKP    PKPdf   20 34 24.8 +2.1
OXF   Oxford          147.34  17  ePKP    PKPdf   20 34 26.3 +1.9
LVC   Limon Verde     152.59 199  PKPbc   PKPdf   20 34 43.3  +10
            comp=Z,1.4nm,0.6s,baz=229,slow=4.2,SNR=4.2
LVC                               pPKPbc          20 34 58.4
            comp=Z,6.5nm,0.7s,baz=265,slow=0.7,SNR=7.8
LPAZ  La Paz          158.02 207  PKP     PKPdf   20 34 43.6 +3.4
            comp=Z,0.4nm,0.3s,baz=239,slow=4.3,SNR=3.2
LPAZ                              sPKP            20 35 02.8
            comp=Z,0.7nm,0.5s,baz=161,slow=1.8,SNR=4.8
```

IDC ***26*** *20:15:10.7±7.1, 2.58N×95.42E, mb4.3/5, mb1 4.5/6, mb1mx4.2/17, ML4.4/1, Error ellipse: s-maj=176.0km s-min=59.4km az=137.0*

NEIC ***26*** *20:15:16.4±3.6, 2.81N×95.73E, h30*^{km}*, mb4.5/2, Error ellipse: s-maj=78.4km s-min=37.0km az=156.0*

BJI ***26*** *20:15:16.3, 2.80N×95.70E, h30*^{km}*, mb4.7, Ms5.5, Msz5.4*

ISC 26 20:15:12.6±2.6**, 2.5N**±0.3×**95.6E**±0.3**, h30**^{km}**, n16, σ0**^{s}**95**/17**, mb4.4**/12**, MS5.4**/1**, 1C, Off west coast of northern Sumatera**

```
Code  Station Name      Δ°   AZ°    Phase ID           Time     Res
                                  Op      ISC        h  m  s    ISC
CMAR  Chiang Mai Arr   16.19  12  Pn      P       20 19 00.8 +1.0
            0.5nm,0.3s,baz=201,slow=11,SNR=26
GYA   Guiyang          26.09  23⇑iP      P       20 20 45.5 -0.3
GYA                               AMB     AMB
            comp=Z,10.0nm,0.8s,mb4.4
LSA   Lhasa            27.36 352  eP      P       20 20 57.5 +0.1
            comp=Z,6.3nm,0.7s,mb4.2
ENH   Enshi            30.61  24  eP      P       20 21 24.3 -2.2
LZH   Lanzhou          34.28  12  eP      P       20 22 04.0 +5.6
LZH                               AMB     AMB
            comp=Z,20nm,1.6s,mb4.8
```

NJ2	**Nanjing**	36.66	34	*e*P	**P**	**20 22 24.5**	**+5.8**
HHC	**Hu-ho-hao-te**	40.81	19	*e*P	**P**	**20 22 54.3**	**+1.1**
HHC				XP	sP	20 23 12.8	+6.9
HHC				S	**S**	**20 28 55.0**	**-7.0**
HHC				SS	SS	20 31 58.5	-0.4
HHC				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.6						
HHC				LR	LR		
	comp=N,3µm,13.1s,MS5.4						
HHC				LR	LR		
	comp=E,2µm,11.9s,MS5.4						
HHC				LR	LR		
	comp=Z,3µm,13.1s,MS5.4						
BJI	**Beijing**	41.78	24	P	**P**	**20 23 01.5**	**+0.3**
BJI				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.0						
SONM	**Songino Array**	46.11	10	P	**P**	**20 23 35.8**	**-0.2**
	comp=Z,3.5nm,0.6s,mb4.5,baz=190,slow=9.2,SNR=22						
ZAL	**Zalesovo**	52.02	352	P	**P**	**20 24 21.0**	**-0.5**
	comp=Z,5.2nm,0.6s,mb4.7,baz=309,slow=5.9,SNR=24						
BVAR	**Borovoye Array**	54.49	342	P	**P**	**20 24 38.9**	**-0.8**
	comp=Z,2.9nm,0.7s,mb4.3,baz=143,slow=7.4,SNR=17						
CHKZ	**Chkalovo**	54.98	342	*e*P	**P**	**20 24 42.5**	**-0.9**
	comp=Z,5.7nm,0.7s,mb4.7						
AKASG	**Malin Array Be**	73.22	323	P	**P**	**20 26 42.3**	**-0.5**
	comp=Z,1.1nm,0.9s,mb3.8,baz=99,slow=4.1,SNR=3.1						
FINES	**FINESS Array B**	78.08	333	P	**P**	**20 27 11.0**	**+0.9**
	comp=Z,2.7nm,1.0s,mb4.2,baz=80,slow=8.5,SNR=3.1						
ARCES	**ARCESS Array B**	80.76	340	P	**P**	**20 27 26.0**	**+1.6**
	comp=Z,0.8nm,0.7s,mb3.8,baz=102,slow=5.8,SNR=3.8						
ARCES	**ARCESS Array B**	80.76	340	P	**P**	**20 27 26.0**	**+1.6**

*IDC **26** 20:21:23.8±0.9, 5.15N×93.17E, mb4.1/11, mb1 4.3/12, mb1mx4.1/19, Error ellipse: s-maj=42.6km s-min=17.0km az=51.0*

*NEIC **26** 20:21:28.5±0.5, 5.19N×93.25E, h30^{km}, mb4.6/4, Error ellipse: s-maj=15.5km s-min=8.5km az=62.0*

ISC 26 20:21:26.6±0.7**, 5.2N**±0.1×**93.3E**±0.1**, h30^{km}, n19,** σ**0^{s}70**/17**, mb4.2**/14**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	14.32	22	Pn	**P**	**20 24 50.1**	**+0.6**
	baz=220,slow=13,SNR=6.3						
COCO	**West Island**	17.61	168	P	**P**	**20 25 25.7**	**-5.9**
	91nm,0.4s						
LSA	**Lhasa**	24.48	356	P	**P**	**20 26 45.0**	**+0.5**
	3.4nm,0.6s,mb4.0						
ENH	**Enshi**	29.27	30	P	**P**	**20 27 27.0**	**-1.6**
	2.4nm,0.5s,mb4.2						
SONM	**Songino Array**	43.97	13	P	**P**	**20 29 33.2**	**+0.3**
	2.2nm,0.7s,mb4.0,baz=196,slow=8.0,SNR=7.4						
WRA	**Warramunga Arr**	47.45	123	P	**P**	**20 30 01.7**	**+0.7**
	8.4nm,0.7s,mb4.8,baz=301,slow=9.0,SNR=14						
WRAB	**Tennant Creek**	47.46	123	*e*P	**P**	**20 30 01.0**	**0.0**
	11nm,0.6s,mb5.0						
ASAR	**Alice Springs**	48.90	128	P	**P**	**20 30 12.3**	**+0.2**
	1.8nm,0.7s,mb4.2,baz=313,slow=7.6,SNR=4.0						
ZAL	**Zalesovo**	49.11	353	P	**P**	**20 30 13.4**	**+0.1**
	1.6nm,0.5s,mb4.3,baz=299,slow=9.8,SNR=6.8						
CTA	**Charters Tower**	57.78	118	P	**P**	**20 31 18.1**	**+0.2**
	14nm,1.4s,mb4.8,baz=284,slow=8.3,SNR=3.3						
STKA	**Stephens Creek**	58.90	132	P	**P**	**20 31 24.8**	**-0.8**
	1.9nm,0.7s,mb4.3,baz=292,slow=11,SNR=2.9						
STKA	**Stephens Creek**	58.90	132	P	**P**	**20 31 24.8**	**-0.8**
BRTR	**Keskin Array B**	63.56	312	P	**P**	**20 31 56.6**	**-0.4**
	0.6nm,0.9s,mb3.6,baz=111,slow=8.2,SNR=2.7						
FINES	**FINESS Array B**	74.70	333	P	**P**	**20 33 03.8**	**-1.3**
	1.6nm,0.7s,mb4.0,baz=109,slow=6.3,SNR=5.2						
ARCES	**ARCESS Array B**	77.51	341	P	**P**	**20 33 20.8**	**0.0**
	1.5nm,0.5s,mb4.2,baz=88,slow=5.1,SNR=9.4						
GERES	**GERESS Array B**	79.27	319	P	**P**	**20 33 32.0**	**+1.2**
	0.9nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=6.7						
NOA	**NORSAR Array B**	81.66	331	P	**P**	**20 33 43.3**	**+0.1**
	1.9nm,1.1s,mb4.0,baz=90,slow=18,SNR=2.5						
PDAR	**Pinedale Array**	127.98	21	PKP	PKPdf	20 40 31.8	-3.5
	0.4nm,0.9s,baz=18,slow=4.7,SNR=2.8						
CPUP	**Villa Florida**	144.91	230	PKP	PKPdf	20 41 04.2	-2.5
	0.0nm,0.3s,baz=204,slow=20,SNR=1.5						

*IDC **26** 20:24:12.1±0.8, 10.26N×93.59E, mb4.2/15, mb1 4.3/16, mb1mx4.2/23, ML3.4/1, Error ellipse: s-maj=36.8km s-min=14.6km az=50.0*

*NEIC **26** 20:24:16.8±0.4, 10.25N×93.62E, h30^{km}, mb4.7/5, Error ellipse: s-maj=14.9km s-min=7.8km az=55.0*

ISC 26 20:24:14.8±0.6**, 10.28N**±0.10×**93.7E**±0.1**, h30^{km}, n23,** σ**0^{s}70**/23**, mb4.3**/19**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	9.60	31	Pn	**P**	**20 26 34.6**	**+0.4**
	0.1nm,0.3s,baz=222,slow=13,SNR=2.9						
LSA	**Lhasa**	19.47	353	*e*P	**P**	**20 28 41.7**	**-0.5**
	14nm,0.7s						
AAK	**Ala-Archa**	36.33	336	*e*P	**P**	**20 31 18.2**	**+0.3**
	4.2nm,0.9s,mb4.4						
SONM	**Songino Array**	38.94	14	P	**P**	**20 31 40.4**	**+0.6**
	1.0nm,0.8s,mb3.6,baz=190,slow=7.5,SNR=3.7						
ZAL	**Zalesovo**	44.12	352	P	**P**	**20 32 21.8**	**-0.4**
	4.0nm,0.4s,mb4.5,baz=305,slow=6.4,SNR=15						
BVAR	**Borovoye Array**	46.58	341	P	**P**	**20 32 39.7**	**-2.1**
	2.0nm,0.8s,mb4.1,baz=222,slow=36,SNR=6.3						
CHKZ	**Chkalovo**	47.06	341	*e*P	**P**	**20 32 45.3**	**-0.3**
	13nm,1.1s,mb4.8						
WRA	**Warramunga Arr**	50.04	127	P	**P**	**20 33 09.2**	**+0.1**
	3.8nm,0.7s,mb4.6,baz=306,slow=8.7,SNR=20						
WRAB	**Tennant Creek**	50.04	127	*e*P	**P**	**20 33 08.7**	**-0.4**
	5.3nm,0.5s,mb4.8						
ASAR	**Alice Springs**	51.81	131	P	**P**	**20 33 22.5**	**0.0**
	2.8nm,0.9s,mb4.2,baz=302,slow=7.4,SNR=11						
KIV	**Kislovodsk**	55.25	317	*e*P	**P**	**20 33 47.9**	**+0.3**
	21nm,1.3s,mb5.0						
CTA	**Charters Tower**	59.89	120	P	**P**	**20 34 20.9**	**+0.2**
	5.8nm,1.0s,mb4.5,baz=317,slow=6.7,SNR=3.2						
BRTR	**Keskin Array B**	60.53	310	P	**P**	**20 34 24.4**	**-0.4**
	3.6nm,1.1s,mb4.4,baz=124,slow=7.0,SNR=7.5						
STKA	**Stephens Creek**	62.09	134	P	**P**	**20 34 35.0**	**-0.5**
	2.7nm,0.7s,mb4.5,baz=292,slow=12,SNR=4.3						
STKA	**Stephens Creek**	62.09	134	P	**P**	**20 34 35.0**	**-0.5**
AKASG	**Malin Array Be**	66.00	321	P	**P**	**20 34 59.7**	**-1.0**
	2.8nm,1.1s,mb4.2,baz=88,slow=4.7,SNR=4.8						
MLR	**Muntele Rosu**	67.15	315	P	**P**	**20 35 08.8**	**+0.7**
	4.6nm,0.9s,mb4.5,baz=127,slow=5.1,SNR=4.2						
FINES	**FINESS Array B**	70.39	332	P	**P**	**20 35 27.6**	**-0.2**
	1.0nm,0.5s,mb4.0,baz=121,slow=11,SNR=5.6						
ARCES	**ARCESS Array B**	72.86	340	P	**P**	**20 35 42.7**	**+0.2**
	1.0nm,0.4s,mb4.1,baz=92,slow=6.1,SNR=14						
ARCES	**ARCESS Array B**	72.86	340	P	**P**	**20 35 42.7**	**+0.2**
GERES	**GERESS Array B**	75.75	318	P	**P**	**20 36 00.5**	**+1.0**
	3.0nm,1.2s,mb4.1,baz=90,slow=4.0,SNR=8.8						
HFS	**Hagfors**	76.16	329	P	**P**	**20 36 01.7**	**+0.1**
	0.9nm,0.5s,mb4.0,baz=108,slow=4.7,SNR=5.3						
EKA	**Eskdalemuir Ar**	85.50	325	P	**P**	**20 36 52.5**	**+1.6**
	1.6nm,0.9s,mb4.2,baz=83,slow=6.7,SNR=3.4						

*IDC **26** 20:29:57.7±0.9, 8.99N×93.56E, h33^{km}±3^{km}, mb3.7/13, mb1 3.8/13, mb1mx3.7/20, Error ellipse: s-maj=38.4km s-min=18.6km az=47.0*

*NEIC **26** 20:29:57.8±0.5, 8.94N×93.59E, mb4.4/5, Error ellipse: s-maj=27.0km s-min=10.4km az=53.0*

ISC 26 20:29:55.5±0.7**, 8.8N**±0.1×**93.5E**±0.2**, h35^{km}, h35^{km}**±1.0^{km}**:pP-P, n30,** σ**0^{s}84**/28**, mb4.0**/17**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	**Pulchoki**	20.14	339	*e*P	**P**	**20 34 29.4**	**-0.1**
	15nm,0.6s						
DMN	**Daman**	20.29	338	*e*P	**P**	**20 34 30.9**	**-0.2**
	27nm,0.7s						
GUN	**Gumba**	20.29	340	*e*P	**P**	**20 34 32.3**	**+1.2**
	58nm,0.9s						
KKN	**Kakani**	20.39	339	*e*P	**P**	**20 34 32.0**	**-0.1**
	17nm,0.7s						
GKN	**Gorkha**	20.82	337	*e*P	**P**	**20 34 36.5**	**-0.1**
LSA	**Lhasa**	20.87	354	P	**P**	**20 34 38.4**	**+1.2**
	5.2nm,0.4s						
KOLN	**Koldanda**	21.02	335	*e*P	**P**	**20 34 38.5**	**-0.2**
	65nm,1.1s,mb4.9						
AAK	**Ala-Archa**	37.57	337	*e*P	**P**	**20 37 08.6**	**+0.1**
	5.8nm,1.0s,mb4.3						
ZAL	**Zalesovo**	45.52	353	P	**P**	**20 38 13.0**	**-0.5**
	0.8nm,0.8s,mb3.7,baz=239,slow=9.7,SNR=3.2						
ZAL				pP	pP	20 38 23.6	-0.2
	2.8nm,1.0s,baz=294,slow=6.2,SNR=4.9						
BVAR	**Borovoye Array**	47.88	341	P	**P**	**20 38 31.6**	**-0.5**
	0.9nm,0.8s,mb3.8,baz=104,slow=6.1,SNR=2.3						
BVAR				pP	pP	20 38 42.9	+0.6
	1.7nm,1.0s,baz=149,slow=8.6,SNR=2.8						
CHKZ	**Chkalovo**	48.37	342	*e*P	**P**	**20 38 34.8**	**-1.1**
	2.4nm,0.6s,mb4.4						
WRA	**Warramunga Arr**	49.34	126	P	**P**	**20 38 43.0**	**-0.8**
	0.3nm,0.3s,mb3.7,baz=300,slow=10,SNR=6.2						
WRAB	**Tennant Creek**	49.34	126	P	**P**	**20 38 43.2**	**-0.6**
ASAR	**Alice Springs**	51.02	130	P	**P**	**20 38 58.7**	**+2.2**
	0.4nm,0.8s,mb3.4,baz=304,slow=7.1,SNR=2.9						
GNI	**Garni**	53.31	314	P	**P**	**20 39 14.6**	**+1.1**
	1.0nm,0.3s,mb4.2,baz=199,slow=15,SNR=2.9						
KIV	**Kislovodsk**	56.18	318	*e*P	**P**	**20 39 35.2**	**+0.8**
	4.4nm,0.7s,mb4.6						
BRTR	**Keskin Array B**	61.32	311	P	**P**	**20 40 09.6**	**-0.6**
	3.5nm,1.1s,mb4.4,baz=116,slow=7.5,SNR=8.3						
BRTR				pP	pP	20 40 20.1	-0.6
	2.6nm,0.8s,baz=120,slow=7.3,SNR=12						
AKASG	**Malin Array Be**	67.01	322	P	**P**	**20 40 44.8**	**-2.2**
	0.2nm,0.4s,mb3.5,baz=90,slow=4.6,SNR=3.5						
AKASG				pP	pP	20 40 56.1	-1.7
	0.8nm,0.5s,baz=86,slow=4.3,SNR=7.6						
FINES	**FINESS Array B**	71.57	332	P	**P**	**20 41 14.5**	**-0.3**
	1.8nm,0.9s,mb4.0,baz=79,slow=9.7,SNR=3.8						
FINES				pP	pP	20 41 26.3	+0.7
	0.8nm,0.5s,baz=90,slow=3.8,SNR=1.7						
FINES	**FINESS Array B**	71.57	332	P	**P**	**20 41 14.5**	**-0.3**
FINES				pP	pP	20 41 26.3	+0.7
ARCES	**ARCESS Array B**	74.15	340	P	**P**	**20 41 29.2**	**-0.7**
	3.5nm,1.0s,mb4.2,baz=90,slow=4.9,SNR=7.2						
ARCES				pP	pP	20 41 40.2	-0.5
	1.7nm,0.8s,baz=63,slow=2.7,SNR=1.4						
ARCES	**ARCESS Array B**	74.15	340	P	**P**	**20 41 29.2**	**-0.6**
ARCES				pP	pP	20 41 40.2	-0.5
MORC	**Moravsky Berou**	74.23	319	*e*P	**P**	**20 41 31.2**	**+0.5**
MORC				*e*pP	pP	20 41 41.5	0.0
GERES	**GERESS Array B**	76.69	318	P	**P**	**20 41 45.6**	**+0.8**
	0.9nm,0.8s,mb3.8,baz=76,slow=5.5,SNR=7.9						
GERES				pP	pP	20 41 55.4	-0.2
	2.4nm,0.9s,baz=90,slow=5.3,SNR=9.6						
KHC	**Kasperske Hory**	76.78	318	*e*pP	pP	20 41 56.5	+0.4
HFS	**Hagfors**	77.31	330	P	**P**	**20 41 48.1**	**0.0**
	0.6nm,0.4s,mb3.9,baz=90,slow=5.9,SNR=4.7						
HFS				pP	pP	20 41 58.2	-0.6
	1.1nm,0.5s,baz=90,slow=5.9,SNR=2.6						
NB2	**NORSAR Subarra**	78.59	331	P	**P**	**20 41 51.1**	**-4.0**
	6.0nm,1.2s,mb4.4,baz=90,slow=5.6						
NOA	**NORSAR Array B**	78.59	331	P	**P**	**20 41 55.3**	**+0.2**
	0.5nm,0.7s,mb3.6,baz=98,slow=4.6,SNR=2.7						
NOA				pP	pP	20 42 05.4	-0.5
	1.5nm,0.7s,baz=90,slow=5.8,SNR=5.1						
ILAR	**Eielson Array**	94.10	22	P	**P**	**20 43 11.2**	**0.0**
	0.4nm,0.8s,mb3.9,baz=303,slow=4.4,SNR=5.9						
ILAR				pP	pP	20 43 22.3	-0.1
	0.4nm,0.7s,baz=304,slow=5.2,SNR=5.0						
CPUP	**Villa Florida**	147.32	234	PKPbc	PKPdf	20 49 39.5	+5.6
	0.0nm,0.3s,baz=94,slow=3.2,SNR=1.9						

*BJI **26** 20:34:28.6, 7.05N×93.53E, h21^{km}, mb4.5*

*IDC **26** 20:34:37.1±0.7, 7.87N×93.90E, h20^{km}±3^{km}, mb4.0/12, mb1 4.2/13, mb1mx4.0/20, ML3.9/1, Error ellipse: s-maj=31.0km s-min=14.0km az=52.0*

*NEIC **26** 20:34:37.0±0.4, 7.84N×93.85E, mb4.3/5, Error ellipse: s-maj=13.5km s-min=8.3km az=59.0*

ISC 26 20:34:35.1±0.6**, 7.78N**±0.09×**93.9E**±0.1**, h22^{km}, h22^{km}**±1.1^{km}**:pP-P, n32,** σ**0^{s}80**/31**, mb4.3**/23**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	11.70	24	P	**P**	**20 37 23.0**	**-1.0**
	32nm,1.2s						
CMAR	**Chiang Mai Arr**	11.70	24	Pn	**P**	**20 37 24.8**	**+0.9**
	0.2nm,0.3s,baz=214,slow=14,SNR=26						
PKI	**Pulchoki**	21.25	339	*e*P	**P**	**20 39 23.0**	**+0.9**
	21nm,0.6s,mb4.6						
DMN	**Daman**	21.39	338	*e*P	**P**	**20 39 25.0**	**+1.4**
	30nm,0.7s,mb4.7						
GUN	**Gumba**	21.40	340	*e*P	**P**	**20 39 23.0**	**-0.6**
	32nm,0.7s,mb4.8						
KKN	**Kakani**	21.50	339	*e*P	**P**	**20 39 25.5**	**+0.9**
	17nm,0.7s,mb4.5						
GKN	**Gorkha**	21.93	338	*e*P	**P**	**20 39 28.0**	**-0.9**
	30nm,0.6s,mb4.9						
LSA	**Lhasa**	21.95	354	*e*P	**P**	**20 39 28.5**	**-0.7**
KOLN	**Koldanda**	22.13	335	*e*P	**P**	**20 39 32.3**	**+1.4**
	28nm,1.0s,mb4.7						
GTA	**Gaotai**	31.94	9	P	**P**	**20 41 01.8**	**+0.3**
GTA				AP	pP	20 41 10.5	+2.4
GTA				XP	sP	20 41 14.5	+3.5
GTA				AMB	AMB		
	comp=Z,6.0nm,1.3s,mb4.3						
AAK	**Ala-Archa**	38.68	337	*e*P	**P**	**20 41 57.7**	**-1.3**
	comp=Z,2.8nm,1.0s,mb4.0						
SONM	**Songino Array**	41.31	13	P	**P**	**20 42 20.9**	**+0.2**
	comp=Z,1.9nm,0.7s,mb3.8,baz=196,slow=9.1,SNR=13						
SONM				pP	pP	20 42 26.5	-0.9
	comp=Z,1.8nm,0.9s,baz=203,slow=9.1,SNR=6.2						
ZAL	**Zalesovo**	46.60	353	P	**P**	**20 43 03.1**	**-0.1**
	comp=Z,4.2nm,0.5s,mb4.7,baz=310,slow=5.4,SNR=21						
ZAL				pP	pP	20 43 10.2	+0.1
	comp=Z,2.7nm,0.7s,baz=299,slow=8.3,SNR=6.0						
WRA	**Warramunga Arr**	48.43	125	P	**P**	**20 43 18.6**	**+0.5**
	comp=Z,0.4nm,0.3s,mb3.9,baz=301,slow=9.8,SNR=8.9						
WRA				pP	pP	20 43 24.6	-0.3
	comp=Z,1.3nm,1.0s,baz=304,slow=9.0,SNR=4.1						
WRAB	**Tennant Creek**	48.43	125	*e*P	**P**	**20 43 17.6**	**-0.5**
BVAR	**Borovoye Array**	48.99	341	P	**P**	**20 43 21.1**	**-0.8**
	comp=Z,0.6nm,0.7s,mb3.7,baz=144,slow=13,SNR=4.3						
CHKZ	**Chkalovo**	49.48	342	*e*P	**P**	**20 43 24.6**	**-1.1**
	comp=Z,1.6nm,0.6s,mb4.2						
ASAR	**Alice Springs**	50.06	130	P	**P**	**20 43 30.6**	**0.0**
	comp=Z,0.4nm,0.6s,mb3.6,baz=302,slow=7.4,SNR=6.0						
ASAR				pP	pP	20 43 37.2	-0.2
	comp=Z,0.7nm,0.5s,baz=303,slow=7.4,SNR=4.6						
KIV	**Kislovodsk**	57.20	318	*e*P	**P**	**20 44 22.1**	**-0.9**
	comp=Z,2.4nm,0.5s,mb4.5						
BRTR	**Keskin Array B**	62.28	311	P	**P**	**20 44 56.8**	**-1.2**
	comp=Z,0.7nm,0.5s,mb4.0,baz=126,slow=7.9,SNR=5.7						
BRTR				pP	pP	20 45 04.2	-0.8
	comp=Z,0.7nm,0.6s,baz=128,slow=8.9,SNR=3.7						
FINES	**FINESS Array B**	72.67	332	P	**P**	**20 46 02.4**	**-0.4**
	comp=Z,2.2nm,0.6s,mb4.3,baz=105,slow=6.7,SNR=19						
FINES				pP	pP	20 46 08.8	-1.1
	comp=Z,2.4nm,0.8s,baz=102,slow=6.0,SNR=2.7						
FINES	**FINESS Array B**	72.67	332	P	**P**	**20 46 02.4**	**-0.4**
FINES				pP	pP	20 46 08.8	-1.1
KAF	**Kangasniemi**	72.75	333	*e*p	**P**	**20 46 03.2**	**-0.1**
	comp=Z,1.7nm,0.4s,mb4.3						
ARCES	**ARCESS Array B**	75.26	340	P	**P**	**20 46 18.2**	**+0.5**
	comp=Z,3.6nm,0.9s,mb4.3,baz=101,slow=6.8,SNR=5.8						
MORC	**Moravsky Berou**	75.27	319	P	**P**	**20 46 18.2**	**0.0**
GERES	**GERESS Array B**	77.71	318	P	**P**	**20 46 32.8**	**+0.9**
	comp=Z,1.5nm,0.8s,mb4.0,baz=90,slow=4.7,SNR=12						
GERES				pP	pP	20 46 39.5	+0.6
	comp=Z,1.2nm,1.0s,baz=90,slow=2.7,SNR=3.8						
HFS	**Hagfors**	78.40	330	P	**P**	**20 46 35.8**	**+0.4**
	comp=Z,5.2nm,0.8s,mb4.5,baz=108,slow=4.7,SNR=18						
NB2	**NORSAR Subarra**	79.68	331	P	**P**	**20 46 42.3**	**0.0**
	comp=Z,1.8nm,0.6s,mb4.2,baz=97,slow=4.8						
NOA	**NORSAR Array B**	79.68	331	P	**P**	**20 46 42.5**	**+0.1**
	comp=Z,1.3nm,0.6s,mb4.0,baz=95,slow=5.1,SNR=8.4						
NOA				pP	pP	20 46 50.1	+0.7
	comp=Z,1.2nm,0.6s,baz=96,slow=5.2,SNR=3.3						
NOA	**NORSAR Array B**	79.68	331	P	**P**	**20 46 42.5**	**+0.1**
NOA				pP	pP	20 46 50.1	+0.7
ESDC	**Sonseca Array**	91.07	310	P	**P**	**20 47 40.5**	**+1.1**
	comp=Z,0.5nm,0.6s,mb4.0,baz=78,slow=2.2,SNR=4.2						
CPUP	**Villa Florida**	146.99	233	PKPbc	PKPbc	20 54 20.1	+3.7
	comp=Z,0.0nm,0.4s,baz=239,slow=18,SNR=2.3						

*IDC **26** 20:37:07.5±1.2, 12.58N×92.43E, h21^{km}±4^{km}, mb3.9/12, mb1 4.0/13, mb1mx3.9/21, ML3.5/1, MS4.5/1, Ms1 4.5/1, ms1mx3.1/25, Error ellipse: s-maj=36.3km s-min=24.0km az=46.0*

*NEIC **26** 20:37:09.7±0.5, 12.96N×92.36E, mb4.2/3, Error ellipse: s-maj=11.3km s-min=9.8km az=49.0*

ISC 26 20:37:07.9±0.6**, 12.99N**±0.08×**92.47E**±0.07**, h23^{km}, h23^{km}**±.7^{km}**:pP-P, n23,** σ**0^{s}98**/23**, mb4.0**/15**, MS4.5**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	8.27	48	P	**P**	**20 39 08.4**	**-1.1**
CMAR	**Chiang Mai Arr**	8.27	48	Pn	**P**	**20 39 10.5**	**+1.0**
	0.2nm,0.3s,baz=244,slow=15,SNR=4.2						
CMAR				Sn	**Sn**	**20 40 41.9**	**-1.4**
	0.2nm,0.3s,baz=238,slow=27,SNR=8.0						
LSA	**Lhasa**	16.67	356	*e*P	**P**	**20 41 03.2**	**+1.3**
ENH	**Enshi**	23.31	40	*e*P	**P**	**20 42 16.7**	**+1.4**
	8.0nm,0.8s,mb4.2						
AAK	**Ala-Archa**	33.39	336	P	**P**	**20 43 45.3**	**-1.5**
SONM	**Songino Array**	36.63	16	P	**P**	**20 44 16.3**	**+1.8**
	1.6nm,0.8s,mb3.9,baz=205,slow=7.3,SNR=6.4						
ZAL	**Zalesovo**	41.29	353	P	**P**	**20 44 53.5**	**+0.3**
	1.1nm,0.7s,mb3.6,baz=283,slow=7.2,SNR=3.1						
CHKZ	**Chkalovo**	44.13	341	*e*P	**P**	**20 45 16.0**	**-0.4**
	1.6nm,0.5s,mb4.0						
CBIJ	**Chichi jima**	48.47	65	LR	LR	21 06 41.1	
	comp=Z,502nm,18.3s,MS4.5,baz=264,slow=36						
NWAO	**Narrogin (SRO)**	51.43	153	P	**P**	**20 46 13.6**	**0.0**
	4.5nm,0.7s,mb4.5,baz=124,slow=16,SNR=6.8						
NWAO	**Narrogin (SRO)**	51.43	153	P	**P**	**20 46 13.6**	**0.0**
WRA	**Warramunga Arr**	52.62	128	P	**P**	**20 46 22.8**	**+0.1**
	0.6nm,0.3s,mb3.9,baz=308,slow=9.6,SNR=11						
WRAB	**Tennant Creek**	52.62	128	*e*P	**P**	**20 46 22.4**	**-0.3**
	3.2nm,0.8s,mb4.3						
ASAR	**Alice Springs**	54.49	132	P	**P**	**20 46 31.9**	**-4.6**
	1.1nm,0.6s,mb4.0,baz=306,slow=6.8,SNR=10						
MLR	**Muntele Rosu**	64.41	314	P	**P**	**20 47 45.0**	**+0.4**
	3.3nm,0.8s,mb4.4,baz=144,slow=5.5,SNR=3.8						
FINES	**FINESS Array B**	67.45	332	P	**P**	**20 48 03.1**	**-0.8**
	1.6nm,0.8s,mb4.1,baz=108,slow=8.8,SNR=3.4						
FINES				pP	pP	20 48 10.6	-0.3
	1.4nm,0.7s,baz=135,slow=2.7,SNR=2.0						
FINES	**FINESS Array B**	67.45	332	P	**P**	**20 48 03.1**	**-0.8**
FINES				pP	pP	20 48 10.6	-0.3
ARCES	**ARCESS Array B**	69.92	340	P	**P**	**20 48 19.1**	**+0.1**
	1.4nm,0.6s,mb4.0,baz=82,slow=8.6,SNR=5.1						
ARCES				pP	pP	20 48 25.9	-0.1
	2.3nm,0.8s,baz=67,slow=9.2,SNR=1.7						
MORC	**Moravsky Berou**	70.46	318	*e*P	**P**	**20 48 20.9**	**-1.6**
GERES	**GERESS Array B**	72.95	317	P	**P**	**20 48 37.3**	**-0.2**
	0.6nm,0.7s,mb3.7,baz=90,slow=4.0,SNR=4.5						
GERES				pP	pP	20 48 44.7	+0.1
	0.9nm,0.9s,baz=90,slow=6.7,SNR=4.6						
HFS	**Hagfors**	73.24	329	P	**P**	**20 48 38.9**	**0.0**
	1.5nm,0.7s,mb4.0,baz=90,slow=12,SNR=4.8						
NOA	**NORSAR Array B**	74.50	330	P	**P**	**20 48 45.9**	**-0.3**
	0.8nm,0.8s,mb3.7,baz=191,slow=7.6,SNR=2.5						
NOA				pP	pP	20 48 52.5	-0.8
	0.9nm,0.8s,baz=193,slow=20,SNR=1.8						
ILAR	**Eielson Array**	90.64	22	P	**P**	**20 50 11.1**	**+1.5**
	0.3nm,0.6s,mb3.8,baz=283,slow=3.2,SNR=4.7						

*IDC **26** 20:40:33.3±0.6, 5.18N×93.22E, h23^{km}±2^{km}, mb4.0/14, mb1 4.2/15, mb1mx4.0/22, ML4.0/1, MS4.5/2, Ms1 4.5/2, ms1mx3.3/27, Error ellipse: s-maj=28.3km s-min=11.3km az=50.0*

*NEIC **26** 20:40:33.2±0.3, 5.18N×93.29E, mb4.3/7, Error ellipse: s-maj=10.8km s-min=7.9km az=66.0*

*BJI **26** 20:40:33.1, 5.20N×93.30E, h24^{km}, mb4.6*

ISC 26 20:40:30.9±0.5**, 5.14N**±0.08×**93.27E**±0.09**, h23^{km}, h23^{km}**±1.0^{km}**:pP-P, n40,** σ**0^{s}92**/36**, mb4.3**/26**, MS4.6**/2**, 2C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	14.35	22	*e*P	**P**	**20 43 54.4**	**-0.5**
	3.7nm,0.8s						
CMAR	**Chiang Mai Arr**	14.35	22	Pn	**P**	**20 43 55.1**	**+0.3**
	0.2nm,0.3s,baz=220,slow=14,SNR=17						
CHG	**Chiang Mai**	14.67	22	⇑P	**P**	**20 44 04.6**	**+5.5**
	22nm,1.0s						
KMI	**Kunming**	21.85	24	P	**P**	**20 45 27.0**	**+3.2**
KMI				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.2						
LSA	**Lhasa**	24.51	356	*e*P	**P**	**20 45 50.8**	**+0.9**
	comp=Z,33nm,1.4s,mb4.7						
GYA	**Guiyang**	24.76	30	⇑*i*P	**P**	**20 45 53.0**	**+0.6**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
ENH	**Enshi**	29.30	30	*e*P	**P**	**20 46 31.9**	**-2.0**
	comp=Z,3.0nm,0.8s,mb4.1						
LZH	**Lanzhou**	32.30	16	*e*P	**P**	**20 47 07.3**	**+7.0**
LZH				AP	pP	20 47 10.3	+3.1
LZH				XP	sP	20 47 12.0	+1.7
LZH				AMB	AMB		
	comp=Z,36nm,1.7s,mb4.9						
GTA	**Gaotai**	34.62	9	P	**P**	**20 47 20.5**	**0.0**
GTA				AP	pP	20 47 28.8	+1.4
GTA				XP	sP	20 47 32.3	+1.9
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.3						
WMQ	**Urumqi**	38.83	354	P	**P**	**20 47 54.8**	**-1.1**
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.5s,mb4.5						
AAK	**Ala-Archa**	40.88	339	*e*P	**P**	**20 48 13.3**	**+0.5**
	comp=Z,5.3nm,1.1s,mb4.1						
SONM	**Songino Array**	44.00	13	P	**P**	**20 48 38.3**	**0.0**
	comp=Z,2.5nm,0.7s,mb4.0,baz=193,slow=8.0,SNR=14						
SONM				pP	pP	20 48 46.3	+1.0
	comp=Z,7.7nm,0.9s,baz=191,slow=6.6,SNR=24						
WRA	**Warramunga Arr**	47.45	123	P	**P**	**20 49 06.1**	**0.0**
	comp=Z,12nm,0.7s,mb4.9,baz=301,slow=9.0,SNR=60						
WRA				pP	pP	20 49 15.1	+1.9
	comp=Z,5.7nm,0.6s,baz=300,slow=9.2,SNR=11						
WRAB	**Tennant Creek**	47.45	123	*e*P	**P**	**20 49 05.7**	**-0.4**
	comp=Z,19nm,0.8s,mb5.1						
ASAR	**Alice Springs**	48.89	128	P	**P**	**20 49 17.3**	**+0.1**
	comp=Z,2.0nm,0.6s,mb4.3,baz=304,slow=7.5,SNR=16						
ASAR				pP	pP	20 49 25.4	+1.0
	comp=Z,1.8nm,0.6s,baz=305,slow=7.2,SNR=9.6						
ASAR				LR	LR	21 08 50.0	
	comp=Z,446nm,20.0s,MS4.5,baz=164,slow=35						
ZAL	**Zalesovo**	49.13	353	P	**P**	**20 49 18.9**	**+0.2**
	comp=Z,1.3nm,0.5s,mb4.2,baz=267,slow=5.5,SNR=6.8						
ZAL				pP	pP	20 49 26.2	+0.4
	comp=Z,3.1nm,0.7s,baz=277,slow=5.6,SNR=7.8						
ZAL	**Zalesovo**	49.13	353	P	**P**	**20 49 18.9**	**+0.2**
ZAL				pP	pP	20 49 26.2	+0.4
BVAR	**Borovoye Array**	51.30	342	P	**P**	**20 49 35.3**	**+0.1**
	comp=Z,1.1nm,0.7s,mb3.9,baz=135,slow=8.4,SNR=7.2						
BVAR				pP	pP	20 49 42.1	-0.3
	comp=Z,1.9nm,0.7s,baz=135,slow=8.4,SNR=8.6						
BRVK	**Borovoye**	51.36	342	*e*P	**P**	**20 49 34.5**	**-1.1**
	comp=Z,1.5nm,0.9s,mb3.9						
CHKZ	**Chkalovo**	51.80	343	*e*P	**P**	**20 49 38.2**	**-0.8**
	comp=Z,1.9nm,0.7s,mb4.1						
CHKZ				*e*pP	pP	20 49 44.6	-1.6
ARU	**Arti**	58.07	338	*e*P	**P**	**20 50 23.5**	**-1.1**
KIV	**Kislovodsk**	58.78	319	P	**P**	**20 50 29.3**	**-0.3**
STKA	**Stephens Creek**	58.89	132	P	**P**	**20 50 31.0**	**+0.4**
	comp=Z,2.2nm,0.6s,mb4.4,baz=262,slow=11,SNR=5.5						
STKA				pP	pP	20 50 38.6	+0.7
	comp=Z,2.3nm,0.6s,baz=290,slow=11,SNR=3.1						
STKA				LR	LR	21 19 55.2	
	comp=Z,514nm,18.6s,MS4.7,baz=297,slow=40						
STKA	**Stephens Creek**	58.89	132	P	**P**	**20 50 31.0**	**+0.4**
STKA				pP	pP	20 50 38.6	+0.7
STKA				LR	LR	21 19 55.1	
BRTR	**Keskin Array B**	63.57	312	P	**P**	**20 51 01.4**	**-0.8**
	comp=Z,1.0nm,0.7s,mb4.0,baz=135,slow=7.0,SNR=5.2						
BRTR				pP	pP	20 51 08.7	-0.8
	comp=Z,1.0nm,0.6s,baz=112,slow=6.7,SNR=4.9						
LSZ	**Lusaka**	67.56	251	P	**P**	**20 51 27.3**	**-0.9**
AKASG	**Malin Array Be**	69.76	322	P	**P**	**20 51 39.9**	**-1.3**
	comp=Z,2.0nm,0.9s,mb4.1,baz=77,slow=3.5,SNR=4.8						
MLR	**Muntele Rosu**	70.52	316	P	**P**	**20 51 47.3**	**+1.4**
	comp=Z,4.1nm,0.9s,mb4.4,baz=178,slow=4.1,SNR=3.5						
MLR				pP	pP	20 51 53.6	+0.3
	comp=Z,6.2nm,0.8s,baz=192,slow=1.0,SNR=5.7						
FINES	**FINESS Array B**	74.72	333	P	**P**	**20 52 10.3**	**-0.1**
	comp=Z,2.6nm,0.7s,mb4.3,baz=135,slow=8.1,SNR=8.9						
FINES				pP	pP	20 52 17.4	-0.4
	comp=Z,2.7nm,0.8s,baz=117,slow=4.3,SNR=2.6						
FINES	**FINESS Array B**	74.72	333	P	**P**	**20 52 10.3**	**-0.1**
FINES				pP	pP	20 52 17.4	-0.4
KAF	**Kangasniemi**	74.82	333	*e*p	**P**	**20 52 11.1**	**+0.1**
	comp=Z,2.7nm,0.5s,mb4.4						
MORC	**Moravsky Berou**	76.88	320	P	**P**	**20 52 22.9**	**0.0**
MORC				*e*pP	pP	20 52 30.8	+0.5
ARCES	**ARCESS Array B**	77.53	341	P	**P**	**20 52 26.7**	**+0.6**

	comp=Z,1.0nm,0.5s,mb4.0,baz=95,slow=5.3,SNR=12						
ARCES				pP	pP	20 52 34.4	+0.8
	comp=Z,5.1nm,1.0s,baz=135,slow=1.7,SNR=3.5						
GERES	**GERESS Array B**	**79.28**	**319**	P	**P**	**20 52 37.6**	**+1.5**
	comp=Z,1.0nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=8.1						
GERES				pP	pP	20 52 44.2	+0.6
	comp=Z,2.3nm,0.9s,baz=90,slow=5.3,SNR=9.1						
HFS	**Hagfors**	**80.37**	**330**	P	**P**	**20 52 42.2**	**+0.5**
	comp=Z,5.6nm,1.2s,mb4.4,baz=135,slow=10,SNR=3.8						
HFS				pP	pP	20 52 49.6	+0.5
	comp=Z,1.6nm,0.6s,baz=121,slow=8.6,SNR=2.6						
DAVOX	**Davos**	**81.75**	**316**	P	**P**	**20 52 51.3**	**+2.1**
	comp=Z,1.7nm,0.8s,mb4.0						
PDAR	**Pinedale Array**	**128.01**	**21**	PKP	PKPdf	20 59 38.3	-1.7
	comp=Z,0.4nm,0.7s						
PDAR				pPKP		20 59 46.5	
	comp=Z,0.6nm,0.9s,baz=225,slow=2.1,SNR=3.0						
TXAR	**Lajitas Array**	**142.06**	**24**	PKP	PKPdf	21 00 05.9	-0.5
	comp=Z,0.4nm,0.6s,baz=207,slow=2.8,SNR=5.5						
CPUP	**Villa Florida**	**144.89**	**230**	PKP	PKPdf	21 00 09.8	-1.5
	comp=Z,0.0nm,0.3s						
CPUP				pPKP		21 00 17.4	
	comp=Z,0.0nm,0.3s,baz=246,slow=20,SNR=1.1						
CPUP	**Villa Florida**	**144.89**	**230**	PKP	PKPdf	21 00 09.8	-1.5
CPUP				pPKP		21 00 17.4	

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*IDC **26** 20:43:48.7±0.6, 2.65N×94.29E, h27^{km}±3^{km}, mb3.9/14, mb1 4.0/15, mb1mx4.0/21, ML4.4/1, Error ellipse: s-maj=24.1km s-min=14.0km az=58.0*

*NEIC **26** 20:43:48.7±0.3, 2.68N×94.32E, mb4.2/7, Error ellipse: s-maj=9.6km s-min=7.1km az=77.0*

ISC 26 20:43:46.8±0.5**, 2.69N**±0.07×**94.32E**±0.09**, h28^{km}, h28^{km}**±.6^{km}**:pP-P, n31, σ0^{s}77**/29**, mb4.1**/20**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**16.31**	**16**	*e*P	**P**	**20 47 35.8**	**0.0**
	7.4nm,0.8s						
CMAR	**Chiang Mai Arr**	**16.31**	**16**	Pn	**P**	**20 47 36.3**	**+0.5**
	0.5nm,0.3s,baz=212,slow=11,SNR=13						
LSA	**Lhasa**	**27.03**	**354**	*e*P	**P**	**20 49 28.5**	**-0.3**
	8.4nm,0.9s,mb4.3						
ENH	**Enshi**	**30.97**	**26**	*e*P	**P**	**20 50 03.9**	**-0.2**
	4.0nm,0.7s,mb4.4						
AAK	**Ala-Archa**	**43.54**	**339**	*e*P	**P**	**20 51 50.2**	**+0.2**
	4.3nm,1.0s,mb4.1						
WRA	**Warramunga Arr**	**45.26**	**122**	P	**P**	**20 52 04.5**	**+0.4**
	1.3nm,0.7s,mb3.8,baz=302,slow=8.7,SNR=5.0						
WRAB	**Tennant Creek**	**45.27**	**122**	P	**P**	**20 52 03.9**	**-0.2**
SONM	**Songino Array**	**46.17**	**11**	P	**P**	**20 52 11.7**	**+0.8**
	1.0nm,0.7s,mb3.9,baz=198,slow=7.8,SNR=3.9						
SONM				pP	pP	20 52 20.1	+0.7
	2.5nm,0.8s,baz=192,slow=8.2,SNR=9.8						
ASAR	**Alice Springs**	**46.59**	**126**	P	**P**	**20 52 15.0**	**+0.4**
	1.5nm,1.0s,mb3.9,baz=299,slow=7.4,SNR=4.3						
ZAL	**Zalesovo**	**51.68**	**353**	P	**P**	**20 52 52.7**	**-0.7**
	1.0nm,0.6s,mb3.9,baz=302,slow=9.8,SNR=4.4						
ZAL				pP	pP	20 53 02.0	0.0
	3.6nm,1.0s,baz=286,slow=7.8,SNR=9.1						
ZAL	**Zalesovo**	**51.68**	**353**	P	**P**	**20 52 52.7**	**-0.7**
ZAL				pP	pP	20 53 02.0	0.0
BVAR	**Borovoye Array**	**53.94**	**342**	P	**P**	**20 53 10.1**	**-0.1**
	1.2nm,0.6s,mb4.0,baz=143,slow=7.4,SNR=8.8						
BVAR				pP	pP	20 53 18.4	-0.5
	3.2nm,0.7s,baz=141,slow=9.5,SNR=14						
BRVK	**Borovoye**	**54.00**	**342**	*e*P	**P**	**20 53 08.5**	**-2.1**
	2.5nm,1.0s,mb4.1						
CHKZ	**Chkalovo**	**54.44**	**343**	*e*P	**P**	**20 53 13.3**	**-0.6**
	59nm,1.3s						
STKA	**Stephens Creek**	**56.49**	**131**	P	**P**	**20 53 27.9**	**-1.1**
	3.2nm,1.0s,mb4.3,baz=283,slow=16,SNR=3.3						
STKA				pP	pP	20 53 37.5	-0.3
	2.7nm,0.7s,baz=226,slow=5.2,SNR=3.0						
STKA	**Stephens Creek**	**56.49**	**131**	P	**P**	**20 53 27.9**	**-1.1**
STKA				pP	pP	20 53 37.5	-0.3
KMBO	**Kilima Mbogo**	**57.18**	**267**	P	**P**	**20 53 34.7**	**+0.5**
	1.5nm,0.8s,mb4.1,baz=54,slow=12,SNR=5.5						
KMBO	**Kilima Mbogo**	**57.18**	**267**	P	**P**	**20 53 34.7**	**+0.5**
MALT	**Malatya**	**62.01**	**312**	*e*P	**P**	**20 54 07.0**	**-0.1**
MALT				*e*pP	pP	20 54 15.6	-0.4
BRTR	**Keskin Array B**	**65.99**	**313**	P	**P**	**20 54 32.4**	**-0.7**
	1.3nm,0.9s,mb4.0,baz=135,slow=8.7,SNR=5.2						
BRTR				pP	pP	20 54 41.9	-0.1
	1.0nm,0.8s,baz=127,slow=6.2,SNR=3.3						
LSZ	**Lusaka**	**67.80**	**252**	*e*P	**P**	**20 54 44.8**	**-0.2**
	1.5nm,0.8s,mb4.1						
LBTB	**Lobatse**	**71.98**	**243**	*e*P	**P**	**20 55 10.3**	**-0.1**
	2.5nm,0.8s,mb4.2						
LBTB				*e*pP	pP	20 55 18.7	-0.6
AKASG	**Malin Array Be**	**72.33**	**323**	P	**P**	**20 55 10.7**	**-1.3**
	0.1nm,0.3s,mb3.2,baz=83,slow=5.2,SNR=5.0						
AKASG				pP	pP	20 55 19.4	-1.6
	0.7nm,0.7s,baz=92,slow=4.3,SNR=3.3						
MAW	**Mawson**	**73.53**	**192**	P	**P**	**20 55 18.5**	**-0.1**
	3.4nm,0.3s,mb4.8,baz=257,slow=22,SNR=9.3						
FINES	**FINESS Array B**	**77.36**	**333**	P	**P**	**20 55 41.1**	**+0.5**
	1.0nm,0.7s,mb3.9,baz=190,slow=23,SNR=3.2						
FINES				pP	pP	20 55 49.4	-0.2
	1.7nm,0.8s,baz=124,slow=6.9,SNR=2.2						
MORC	**Moravsky Berou**	**79.42**	**320**	*e*P	**P**	**20 55 52.0**	**-0.1**
GERES	**GERESS Array B**	**81.81**	**319**	P	**P**	**20 56 06.0**	**+1.3**
	1.2nm,0.8s,mb3.9,baz=104,slow=5.5,SNR=7.9						
GERES				pP	pP	20 56 14.7	+0.9
	1.1nm,0.8s,baz=90,slow=5.3,SNR=5.0						
HFS	**Hagfors**	**83.01**	**330**	P	**P**	**20 56 12.0**	**+1.3**
	2.0nm,0.8s,mb4.2,baz=90,slow=13,SNR=3.2						
DAVOX	**Davos**	**84.24**	**317**	P	**P**	**20 56 18.7**	**+1.5**
	1.2nm,0.5s,mb4.3,baz=147,slow=3.5,SNR=5.6						
DAVOX				pP	pP	20 56 28.4	+2.0
	2.2nm,0.6s,baz=10,slow=4.0,SNR=3.3						
TXAR	**Lajitas Array**	**143.79**	**27**	PKP	PKPdf	21 03 20.5	-4.5
	0.2nm,0.6s,baz=225,slow=1.8,SNR=4.2						
TXAR				pPKP		21 03 29.1	
	0.7nm,0.9s,slow=1.3,SNR=4.6						
CPUP	**Villa Florida**	**144.04**	**227**	PKP	PKPdf	21 03 21.4	-4.1
	0.0nm,0.3s,baz=276,slow=7.6,SNR=1.5						
CPUP				pPKP		21 03 29.6	
	0.0nm,0.3s,baz=63,slow=7.1,SNR=1.6						

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*IDC **26** 20:46:34.7±0.7, 6.09N×93.00E, h34^{km}±3^{km}, mb4.0/18, mb1 4.2/19, mb1mx4.1/23, ML4.1/1, Error ellipse: s-maj=24.6km s-min=15.9km az=49.0*

*NEIC **26** 20:46:34.5±0.3, 6.08N×92.99E, mb4.7/4, Error ellipse: s-maj=9.0km s-min=7.2km az=64.0*

ISC 26 20:46:32.5±0.5**, 6.07N**±0.08×**92.93E**±0.06**, h33^{km}, h33^{km}**±1.3^{km}**:pP-P, n41, σ0^{s}89**/42**, mb4.3**/22**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**13.64**	**25**	*e*P	**P**	**20 49 46.0**	**0.0**
	6.0nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.64**	**25**	Pn	**P**	**20 49 50.8**	**+4.7**
	0.3nm,0.3s,baz=231,slow=14,SNR=12						
MDRS	**Chennai**	**14.30**	**300**	*e*P	**P**	**20 49 53.9**	**-0.9**
MDRS				*e*S	**S**	**20 52 32.6**	**-0.6**
VIS	**Vishakhapatnam**	**14.90**	**322**	*e*P	**P**	**20 50 02.6**	**-0.1**
TRD	**Trivandrum**	**16.03**	**280**	*i* P	**P**	**20 50 15.5**	**-1.6**
TRD				AMb	AMB	20 50 26.3	
	comp=Z,53nm,1.4s						
TRD				*e*		20 52 46.5	
TRD				*e*S	**S**	**20 53 18.2**	**+4.7**
LSA	**Lhasa**	**23.56**	**356**	*e*P	**P**	**20 51 42.6**	**+1.6**
ENH	**Enshi**	**28.68**	**31**	*e*P	**P**	**20 52 27.9**	**-0.7**
BOAC	**Boac**	**29.40**	**73**	*e*P	**P**	**20 52 39.8**	**+4.6**
SONM	**Songino Array**	**43.18**	**13**	P	**P**	**20 54 32.9**	**+1.0**
	comp=Z,0.8nm,0.9s,mb3.4,baz=198,slow=7.8,SNR=2.7						
SONM				pP	pP	20 54 42.0	+0.2
	comp=Z,0.6nm,0.5s,baz=203,slow=7.1,SNR=2.3						
ZAL	**Zalesovo**	**48.18**	**354**	P	**P**	**20 55 12.0**	**+0.4**
	comp=Z,5.7nm,0.4s,mb4.9,baz=306,slow=5.0,SNR=23						
ZAL				pP	pP	20 55 22.2	+0.7
	comp=Z,4.0nm,0.8s,baz=304,slow=6.1,SNR=6.2						
WRA	**Warramunga Arr**	**48.24**	**123**	P	**P**	**20 55 10.7**	**-1.7**
	comp=Z,2.6nm,0.7s,mb4.4,baz=302,slow=9.8,SNR=6.6						
WRAB	**Tennant Creek**	**48.24**	**123**	*e*P	**P**	**20 55 11.8**	**-0.6**
	comp=Z,5.0nm,0.6s,mb4.7						
ASAR	**Alice Springs**	**49.72**	**128**	P	**P**	**20 55 23.2**	**-0.6**
	comp=Z,1.4nm,0.9s,mb4.0,baz=298,slow=8.0,SNR=5.8						
BVAR	**Borovoye Array**	**50.32**	**342**	P	**P**	**20 55 27.7**	**-0.3**
	comp=Z,2.3nm,0.7s,mb4.3,baz=141,slow=9.5,SNR=9.4						
BRVK	**Borovoye**	**50.38**	**342**	*e*P	**P**	**20 55 27.5**	**-0.9**
	comp=Z,2.6nm,0.6s,mb4.4						
CHKZ	**Chkalovo**	**50.82**	**343**	*e*P	**P**	**20 55 31.0**	**-0.8**
	comp=Z,5.0nm,0.4s,mb4.8						
GNI	**Garni**	**54.85**	**316**	*e*P	**P**	**20 56 01.6**	**-0.4**
KMBO	**Kilima Mbogo**	**56.04**	**265**	P	**P**	**20 56 12.2**	**+1.2**
	comp=Z,4.5nm,1.2s,mb4.4,baz=61,slow=17,SNR=3.4						
ARU	**Arti**	**57.09**	**338**	*e*P	**P**	**20 56 15.9**	**-2.0**
KIV	**Kislovodsk**	**57.86**	**319**	*e*P	**P**	**20 56 22.8**	**-0.7**
STKA	**Stephens Creek**	**59.76**	**132**	P	**P**	**20 56 37.0**	**+0.1**
	comp=Z,2.6nm,0.8s,mb4.3,baz=284,slow=8.3,SNR=3.3						
STKA	**Stephens Creek**	**59.76**	**132**	P	**P**	**20 56 37.0**	**+0.1**
BRTR	**Keskin Array B**	**62.71**	**312**	P	**P**	**20 56 56.0**	**-0.6**
	comp=Z,2.4nm,0.9s,mb4.3,baz=131,slow=7.0,SNR=8.3						
BRTR				pP	pP	20 57 06.2	-0.6
	comp=Z,1.1nm,0.7s,baz=112,slow=6.7,SNR=5.0						
LSZ	**Lusaka**	**67.54**	**251**	*e*P	**P**	**20 57 28.8**	**+0.7**
LSZ				*e*pP	pP	20 57 35.6	-2.9
AKASG	**Malin Array Be**	**68.83**	**322**	P	**P**	**20 57 34.8**	**-0.7**
	comp=Z,1.7nm,0.8s,mb4.0,baz=92,slow=3.9,SNR=5.4						
AKASG				pP	pP	20 57 45.9	-0.1
	comp=Z,0.3nm,0.4s,baz=90,slow=30,SNR=3.1						
MLR	**Muntele Rosu**	**69.62**	**316**	P	**P**	**20 57 41.7**	**+1.1**
	comp=Z,2.9nm,0.7s,mb4.3,baz=178,slow=13,SNR=3.2						
MLR				pP	pP	20 57 51.0	0.0
	comp=Z,3.6nm,0.9s,baz=122,slow=10,SNR=3.2						
LBTB	**Lobatse**	**72.33**	**241**	*e*P	**P**	**20 57 58.1**	**+0.9**
FINES	**FINESS Array B**	**73.74**	**333**	P	**P**	**20 58 04.4**	**-0.4**
	comp=Z,2.5nm,0.7s,mb4.3,baz=108,slow=6.0,SNR=15						
KAF	**Kangasniemi**	**73.84**	**333**	*e*p	**P**	**20 58 05.3**	**-0.1**
	comp=Z,5.0nm,0.8s,mb4.5						
MORC	**Moravsky Berou**	**75.96**	**320**	*e*P	**P**	**20 58 17.9**	**+0.1**
MORC				*e*pP	pP	20 58 26.8	-1.4
KEV	**Kevo**	**76.13**	**341**	*e*p	**P**	**20 58 18.3**	**-0.1**
ARCES	**ARCESS Array B**	**76.55**	**340**	P	**P**	**20 58 21.4**	**+0.6**
	comp=Z,2.8nm,0.6s,mb4.3,baz=90,slow=5.4,SNR=13						
ARCES				pP	pP	20 58 32.0	+0.8
	comp=Z,1.2nm,0.6s,baz=90,slow=3.6,SNR=1.6						
GERES	**GERESS Array B**	**78.37**	**319**	P	**P**	**20 58 32.3**	**+1.0**
	comp=Z,3.7nm,0.8s,mb4.4,baz=93,slow=5.2,SNR=25						
GERES				pP	pP	20 58 42.8	+1.0
	comp=Z,2.2nm,0.7s,baz=90,slow=5.3,SNR=9.1						
KHC	**Kasperske Hory**	**78.47**	**319**	*e*P	**P**	**20 58 32.7**	**+0.9**
KHC				*e*pP	pP	20 58 43.7	+1.4
HFS	**Hagfors**	**79.40**	**330**	P	**P**	**20 58 36.4**	**-0.3**
	comp=Z,1.4nm,0.5s,mb4.2,baz=101,slow=7.6,SNR=14						
HFS				pP	pP	20 58 47.7	+0.5
	comp=Z,2.5nm,0.9s,baz=104,slow=6.1,SNR=1.7						
NOA	**NORSAR Array B**	**80.70**	**331**	P	**P**	**20 58 44.1**	**+0.5**
	comp=Z,0.9nm,0.7s,mb3.8,baz=115,slow=5.0,SNR=3.3						
NOA				pP	pP	20 58 54.6	+0.4
	comp=Z,1.0nm,0.8s,baz=284,slow=17,SNR=2.5						
NOA	**NORSAR Array B**	**80.70**	**331**	P	**P**	**20 58 44.1**	**+0.5**
NOA				pP	pP	20 58 54.6	+0.4
DAVOX	**Davos**	**80.85**	**316**	P	**P**	**20 58 46.0**	**+1.3**
	comp=Z,6.6nm,0.7s,mb4.7,baz=127,slow=5.8,SNR=17						
DAVOX				pP	pP	20 58 57.7	+2.4
	comp=Z,2.4nm,0.6s,baz=326,slow=21,SNR=3.3						
EKA	**Eskdalemuir Ar**	**88.51**	**325**	P	**P**	**20 59 24.1**	**+1.4**
	comp=Z,4.1nm,1.0s,mb4.7,baz=90,slow=6.0,SNR=7.8						
EKA				pP	pP	20 59 35.8	+2.3
	comp=Z,1.8nm,0.7s,baz=100,slow=5.1,SNR=3.3						
ESDC	**Sonseca Array**	**91.45**	**310**	P	**P**	**20 59 37.8**	**+0.8**
	comp=Z,0.3nm,0.5s,mb3.9,baz=46,slow=4.1,SNR=4.9						
ESDC				pP	pP	20 59 49.8	+2.1
	comp=Z,1.1nm,0.8s,baz=168,slow=35,SNR=2.6						
CPUP	**Villa Florida**	**145.21**	**231**	PKPbc	PKPbc	21 06 09.7	+1.9
	comp=Z,0.0nm,0.2s,baz=231,slow=9.3,SNR=2.1						

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*CSEM **26** 20:50:22.7, 6.47N×127.05E, h33^{km}, mb6.0*

*SYO **26** 20:50:32.4, 6.36N×126.89E, h103^{km}, MB5.8*

*MOS **26** 20:50:33.2±1.0, 6.36N×127.03E, h127^{km}, mb5.4/39, Error ellipse: s-maj=13.1km s-min=5.7km az=114.3*

*BJI **26** 20:50:33.0, 6.48N×126.99E, h116^{km}, mB5.7, mb5.6*

*IDC **26** 20:50:34.6±2.2, 6.32N×126.96E, h124^{km}±19^{km}, mb5.0/31, mb1 5.0/32, mb1mx5.0/33, MS4.3/2, Ms1 4.3/2, ms1mx3.6/24, Error ellipse: s-maj=15.7km s-min=8.4km az=75.0*

*NEIC **26** 20:50:34.8±0.8, 6.32N×126.92E, h127^{km}±7^{km}, mb5.6/45, Error ellipse: s-maj=5.8km s-min=4.0km az=84.0*

NEIC Felt [III PIVS] at Davao.

*HRVD **26** 20:50:34.8±0.5, 6.20N×126.85E, h124^{km}±7^{km}, MW5.5/54, Centroid moment Tensor Solution. LP body waves: s9,c9; Mantle waves: s54,c88; Half duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.55±.12; M$_{\theta\theta}$0.39±.10; M$_{\phi\phi}$-1.93±.12; M$_{r\theta}$-0.09±.09; M$_{\theta\phi}$0.62±.12; M$_{\phi r}$1.09±.11; Best double couple: M$_0$2.13×10^{17} NP1:φ$_s$157°, δ30°, λ76°. NP2:φ$_s$353°, δ61°, λ98°. Principal axes: T 1.87, Plg73°, Azm282°; N .52, Plg7°, Azm169°; P -2.38, Plg15°, Azm77°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MAN **26** 20:50:37.1, 6.37N×126.56E, h143^{km}, mb5.9, ML5.0, MS5.4*

ISC 26 20:50:32.8±0.5**, 6.28N**±0.03×**126.98E**±0.04**, h124^{km}**±3^{km}**, h111^{km}**±6.0^{km}**:pP-P, n383, σ0^{s}99**/365**, mb5.6**/104**, 64C-22D, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MATI	**Mati**	**0.98**	**313**	*e*P	**P**	**20 51 00.0**	**+4.8**
DAV	**Davao City (W)**	**1.60**	**300**	*i* P	**P**	**20 51 02.0**	**0.0**
BIPH	**Bislig**	**1.99**	**342**	*e*P	**P**	**20 51 06.7**	**-0.1**
BIPH				*i* S	**S**	**20 51 30.2**	**-2.3**
KCP	**Kidapawan**	**2.01**	**291**	⇑*i*P	**P**	**20 51 10.9**	**+3.9**
KCP				*i* S	**S**	**20 51 35.8**	**+2.9**
BUKP	**Musuan**	**2.48**	**310**	*e*P	**P**	**20 51 13.3**	**+0.1**
BUKP				*e*S	**S**	**20 51 43.8**	**0.0**
BUTP	**Butuan**	**2.99**	**333**	*e*P	**P**	**20 51 21.7**	**+1.7**
BUTP				*e*S	**S**	**20 51 58.7**	**+2.8**
CGP	**Cagayan de Oro**	**3.13**	**314**	*i* P	**P**	**20 51 22.3**	**+0.5**
CGP				*i* S	**S**	**20 51 59.5**	**+0.4**
SCPH	**Surigao**	**3.78**	**337**	*e*P	**P**	**20 51 31.2**	**+0.6**
SCPH				*e*S	**S**	**20 52 14.1**	**-0.6**
PAGZ	**Pagadian**	**3.89**	**294**	*e*P	**P**	**20 51 30.9**	**-1.1**
MSLP	**Maasin**	**4.37**	**331**	*e*P	**P**	**20 51 38.2**	**-0.2**
TBP	**Tagbilaran**	**4.58**	**318**	*e*P	**P**	**20 51 40.8**	**-0.5**
TBP				*e*S	**S**	**20 52 29.0**	**-5.0**
IPIL	**Ipil**	**4.62**	**289**	*e*P	**P**	**20 51 41.2**	**-0.7**
SNPH	**Sibulan**	**4.80**	**310**	⇑*e*P	**P**	**20 51 44.5**	**+0.3**
LLP	**Lapu-Lapu**	**5.00**	**324**	*e*P	**P**	**20 51 47.4**	**+0.5**
LLP				*i* S	**S**	**20 52 41.9**	**-2.1**
PLP	**Palo**	**5.24**	**338**	*e*P	**P**	**20 51 49.7**	**-0.5**
PLP				*e*S	**S**	**20 52 43.3**	**-6.6**
OCLP	**Ormoc**	**5.29**	**334**	*e*P	**P**	**20 51 52.4**	**+1.6**
BESP	**Borongan**	**5.50**	**344**	*e*P	**P**	**20 51 53.6**	**-0.1**
BESP				*e*S	**S**	**20 52 49.7**	**-6.6**
GUIM	**Jordan**	**6.12**	**315**	*e*P	**P**	**20 52 01.7**	**-0.4**
CNP	**Catarman**	**6.60**	**340**	*e*P	**P**	**20 52 10.6**	**+2.0**
CNP				*e*S	**S**	**20 53 18.4**	**-4.5**
RCP	**Roxas**	**6.71**	**322**	⇑*e*P	**P**	**20 52 11.2**	**+1.0**
CUYO	**Cuyo Island**	**7.44**	**308**	*e*P	**P**	**20 52 18.9**	**-1.1**
OTRP	**Odiongan**	**7.78**	**321**	*e*P	**P**	**20 52 25.7**	**+1.2**
PVCP	**Virac**	**7.79**	**339**	*e*P	**P**	**20 52 24.5**	**-0.2**
SJMP	**San Jose**	**8.44**	**317**	*e*P	**P**	**20 52 34.4**	**+1.1**
PPR	**Puerto Princes**	**8.87**	**294**	⇑*e*P	**P**	**20 52 39.0**	**-0.2**
ENPP	**El Nido**	**8.93**	**304**	*e*P	**P**	**20 52 39.4**	**-0.5**
BATP	**Bataraza**	**9.43**	**286**	*e*P	**P**	**20 52 44.5**	**-2.2**
LQP	**Lukban**	**9.45**	**326**	⇓*e*P	**P**	**20 52 49.4**	**+2.5**
TGY	**Tagaytay City**	**9.79**	**323**	P	**P**	**20 52 53.6**	**+2.1**
	25nm,0.3s,baz=196,slow=6.1,SNR=8.9						
TGY	**Tagaytay City**	**9.79**	**323**	P	**P**	**20 52 53.6**	**+2.1**
TGY				pmax	pmax		
	comp=Z,25nm,0.3s						
LUBP	**Lubang**	**9.94**	**319**	*e*P	**P**	**20 52 55.1**	**+1.6**
BALP	**Baler**	**10.79**	**331**	*e*P	**P**	**20 53 08.2**	**+3.3**
PCPH	**Palayan**	**10.88**	**328**	⇓*e*P	**P**	**20 53 09.2**	**+3.2**
CAUP	**Cauayan**	**11.74**	**335**	*e*P	**P**	**20 53 13.4**	**-3.9**
BCPH	**Baguio City Da**	**11.84**	**329**	⇑*e*P	**P**	**20 53 25.6**	**+7.0**
BUNI	**Buntu Taipa**	**11.89**	**214**	⇑*e*P	**P**	**20 53 16.8**	**-2.6**
TANI	**Tanete Lipujan**	**12.27**	**218**	*e*P	**P**	**20 53 24.5**	**+0.2**
CVP	**Callao Caves**	**12.42**	**337**	*i* P	**P**	**20 53 33.0**	**+6.7**
APYP	**Conner**	**12.80**	**335**	*e*P	**P**	**20 53 34.0**	**+2.7**
NINI	**Niniconang**	**12.84**	**214**	⇑*e*P	**P**	**20 53 31.7**	**-0.1**
ABRA	**Dolores**	**12.85**	**332**	*e*P	**P**	**20 53 32.2**	**+0.2**
YOMI	**Yo Moklole**	**16.20**	**123**	⇓*e*P	**P**	**20 54 17.0**	**+2.4**
KEDI	**Kedomdong**	**18.23**	**217**	*e*P	**P**	**20 54 37.3**	**-1.8**
	comp=Z,1μm,0.8s						
RATI	**Rata**	**18.77**	**218**	⇓*e*P	**P**	**20 54 44.3**	**-0.6**
KELI	**Kelakatan**	**19.03**	**221**	⇓*e*P	**P**	**20 54 48.4**	**+0.6**
SRDI	**Scrawed**	**19.46**	**221**	⇓*e*P	**P**	**20 54 52.1**	**-0.1**
JOW	**Kunigami**	**20.48**	**3**	P	**P**	**20 55 02.8**	**+0.1**
	comp=Z,73nm,0.5s,baz=188,slow=8.5,SNR=28						
QIZ	**Qiongzhong**	**20.95**	**309**	P	**P**	**20 55 05.0**	**-2.4**
QIZ				S	**S**	**20 58 49.5**	**+0.9**
QIZ	**Qiongzhong**	**20.95**	**309**	*e*P	**P**	**20 55 05.3**	**-2.2**
	comp=Z,111nm,0.8s						
PULI	**Pulasari**	**24.42**	**239**	⇓*e*P	**P**	**20 55 37.5**	**-3.8**
PENI	**Pendagan**	**24.74**	**242**	⇓*e*P	**P**	**20 55 40.4**	**-4.0**
	comp=Z,604nm,0.8s,mb5.8						
CBIJ	**Chichi jima**	**25.26**	**33**	P	**P**	**20 55 48.5**	**-0.7**
	comp=Z,275nm,0.5s,mb5.9,baz=247,slow=4.4,SNR=33						
SSE	**Sheshan**	**25.28**	**348**	*e*P	**P**	**20 55 49.3**	**0.0**
SSE				AMB	AMB		
	comp=Z,47nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,807nm,10.8s						
NJ2	**Nanjing**	**26.74**	**345**	*e*P	**P**	**20 56 02.3**	**-0.5**
NJ2				PP	PP	20 56 49.0	-3.1
NJ2				AMB	AMB		
	comp=Z,420nm,0.5s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,1μm,5.2s						
NJ2				LR	LR		
	comp=N,21μm,16.4s						
NJ2				LR	LR		
	comp=E,11μm,16.2s						
NJ2				LR	LR		
	comp=Z,20μm,15.6s						
WHN	**Wuhan**	**26.90**	**335**	P	**P**	**20 56 04.5**	**+0.3**
WRAB	**Tennant Creek**	**27.04**	**165**	⇓*e*P	**P**	**20 56 05.2**	**-0.3**
WRAB	**Tennant Creek**	**27.04**	**165**	*e*P	**P**	**20 56 05.0**	**-0.5**
	comp=Z,26nm,0.6s,mb4.9						
WRA	**Warramunga Arr**	**27.04**	**165**	P	**P**	**20 56 04.7**	**-0.9**
	comp=Z,15nm,0.5s,mb4.8,baz=345,slow=10,SNR=34						
WRA				PcP	PcP	20 59 22.9	-1.2
	comp=Z,5.1nm,0.5s,baz=334,slow=2.5,SNR=4.5						
WRA	**Warramunga Arr**	**27.04**	**165**	P	**P**	**20 56 04.7**	**-0.9**
WRA						20 59 22.9	
WRA				pmax	pmax		
	comp=Z,15nm,0.5s						
WRA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
GYA	**Guiyang**	**27.89**	**318**	⇑*i*P	**P**	**20 56 13.0**	**-0.3**
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.1						
GYA				LR	LR		
	comp=N,970nm,15.6s						
GYA				LR	LR		
	comp=E,1μm,16.0s						
GYA				LR	LR		
	comp=Z,1μm,16.2s						
MBWA	**Marble Bar**	**28.18**	**194**	*e*P	**P**	**20 56 14.9**	**-0.9**
	comp=Z,207nm,1.5s,mb5.4						
ENH	**Enshi**	**28.99**	**328**	⇑*i*P	**P**	**20 56 22.4**	**-0.6**
	comp=Z,385nm,1.0s,mb6.0						
JHJ	**Hachijo jima 2**	**29.25**	**22**	LR	LR	21 07 12.9	
	comp=Z,677nm,18.3s,baz=182,slow=34						
KMI	**Kunming**	**29.82**	**312**	P	**P**	**20 56 31.0**	**+0.5**
KMI				AMB	AMB		
	comp=Z,279nm,1.2s,mb5.8						
CMAR	**Chiang Mai Arr**	**29.88**	**296**	P	**P**	**20 56 30.6**	**-0.6**
	comp=Z,26nm,0.7s,mb5.0,baz=128,slow=7.8,SNR=32						
CMAR				PcP	PcP	20 59 30.4	-0.7
	comp=Z,10.0nm,0.8s,baz=109,slow=0.9,SNR=7.9						
CMAR	**Chiang Mai Arr**	**29.88**	**296**	P	**P**	**20 56 30.6**	**-0.5**
CMAR						20 59 30.4	
CMAR				pmax	pmax		
	comp=Z,26nm,0.7s						
CMAR				pmax	pmax		
	comp=Z,10.0nm,0.8s						
ASAR	**Alice Springs**	**30.52**	**167**	P	**P**	**20 56 35.9**	**-0.8**
	comp=Z,7.5nm,0.6s,mb4.6,baz=346,slow=6.6,SNR=66						
ASAR				PcP	PcP	20 59 32.9	+0.2
	comp=Z,17nm,0.7s,baz=344,slow=2.4,SNR=13						
ASAR				ScP		21 03 04.7	
	comp=Z,5.2nm,0.7s,baz=0.9,slow=3.2,SNR=9.1						
KS15	**Wonju Array Si**	**31.03**	**1**	*e*P	**P**	**20 56 39.8**	**-1.3**
TIA	**Tai'an**	**31.13**	**344**	⇓P	**P**	**20 56 41.0**	**-1.0**
MAJO	**Matsushiro**	**31.83**	**17**	*e*P	**P**	**20 56 45.8**	**-2.2**
MAJO				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.0						
MAJO	**Matsushiro**	**31.83**	**17**	*e*P	**P**	**20 56 45.8**	**-2.3**
	comp=Z,24nm,0.8s,mb5.0						
MAT	**Matsushiro**	**31.83**	**17**	P	**P**	**20 56 45.2**	**-2.8**
MAT	**Matsushiro**	**31.83**	**17**	*e*P	**P**	**20 56 45.0**	**-3.0**
	comp=Z,20nm,1.0s,mb4.8						
CTA	**Charters Tower**	**32.34**	**145**	P	**P**	**20 56 53.2**	**+0.6**
	comp=Z,11nm,0.9s,mb4.6,baz=326,slow=11,SNR=5.3						
CTA	**Charters Tower**	**32.34**	**145**	P	**P**	**20 56 53.3**	**+0.7**
CTA				pmax	pmax		
	comp=Z,11nm,0.9s						
CD2	**Chengdu**	**32.78**	**321**	⇑*i*P	**P**	**20 56 56.0**	**-0.3**
CD2				AMB	AMB		
	comp=Z,380nm,0.6s,mb6.4						
DL2	**Dalian**	**32.84**	**352**	*e*P	**P**	**20 56 56.3**	**-0.5**
DL2				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.2						
BJT	**Baijiatuau**	**34.97**	**345**	⇑*i*P	**P**	**20 57 14.2**	**-0.7**
BJT				pmax	pmax		
	comp=Z,260nm,1.0s						
BJT	**Baijiatuau**	**34.97**	**345**	⇑*i*P	**P**	**20 57 14.2**	**-0.8**
	comp=Z,257nm,0.9s,mb6.1						
BJI	**Beijing**	**34.99**	**345**	P	**P**	**20 57 14.3**	**-0.8**
BJI				AMB	AMB		
	comp=Z,216nm,0.9s,mb6.0						
LZH	**Lanzhou**	**36.47**	**328**	⇑P	**P**	**20 57 28.8**	**+1.2**
LZH				AP	pP	20 57 50.8	-4.7
LZH				XP	sP	20 58 03.0	-7.2
LZH				PP	PP	20 58 56.0	+1.2
LZH				PCP	PcP	20 59 50.3	+1.0
LZH				S	**S**	**21 03 03.0**	**+3.4**
LZH				SCP		21 03 26.3	
LZH				PCS		21 03 38.0	
LZH				XS		21 03 42.0	
LZH				SS	SS	21 05 34.0	+0.9
LZH				AMB	AMB		
	comp=Z,472nm,1.1s,mb6.3						
LZH				AMB	AMB		
	comp=Z,2μm,4.0s						
LZH				LR	LR		
	comp=E,1μm,10.9s						
LZH				LR	LR		
	comp=Z,2μm,12.3s						
IMP	**Imphal**	**36.61**	**304**	⇓*i*P	**P**	**20 57 27.7**	**-1.2**
HHC	**Hu-ho-hao-te**	**37.08**	**340**	⇑*i*P	**P**	**20 57 33.3**	**+0.6**
HHC				AP	pP	20 57 56.0	-4.6
HHC				XP	sP	20 58 08.5	-6.8
HHC				PP	PP	20 59 03.5	+1.6
HHC				PCP	PcP	20 59 51.0	-0.1
HHC				S	**S**	**21 03 11.0**	**+2.1**
HHC				PCS		21 03 39.5	
HHC				SS	SS	21 05 45.5	-0.9
HHC				SCS	ScS	21 07 35.0	+3.4
HHC				AMB	AMB		
	comp=Z,59nm,1.0s,mb5.5						
HHC				AMB	AMB		
	comp=Z,1μm,5.5s						
CN2	**Changchun**	**37.40**	**358**	⇓P	**P**	**20 57 35.5**	**+0.2**
CN2				*e*XP	sP	20 58 10.0	-8.0
CN2				*e*S	**S**	**21 03 16.8**	**+3.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
CN2				AMB	AMB		
	comp=Z,400nm,5.0s						
BTO	**Baotou**	**37.41**	**339**	*e*P	**P**	**20 57 34.5**	**-0.9**
MDJ	**Mudanjiang**	**38.26**	**3**	P	**P**	**20 57 42.5**	**0.0**
MDJ				PP	PP	20 59 11.8	-2.9
MDJ				PCP	PcP	20 59 54.8	+0.1
MDJ				S	**S**	**21 03 33.8**	**+7.1**
MDJ				XS		21 04 07.5	
MDJ				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,881nm,11.4s						
MDJ				LR	LR		
	comp=N,784nm,12.3s						
MDJ				LR	LR		
	comp=E,506nm,12.8s						
MDJ				LR	LR		
	comp=Z,1μm,13.3s						
MDJ	**Mudanjiang**	**38.26**	**3**	*e*P	**P**	**20 57 42.5**	**0.0**
	comp=Z,25nm,0.8s,mb5.1						
SHL	**Shillong**	**38.62**	**304**	⇑*i*P	**P**	**20 57 45.0**	**-0.7**
NWAO	**Narrogin (SRO)**	**40.07**	**193**	P	**P**	**20 57 58.4**	**+0.9**
	comp=Z,160nm,0.9s,mb5.9,baz=23,slow=10,SNR=59						
NWAO	**Narrogin (SRO)**	**40.07**	**193**	P	**P**	**20 57 58.4**	**+0.8**

NWAO				pmax	pmax		
	comp=Z,160nm,0.9s						
NWAO	**Narrogin (SRO)**	**40.07**	**193**	*e*P	**P**	**20 57 58.2**	**+0.6**
	comp=Z,163nm,0.9s,mb5.9						
ASAJ	**Asahikawa**	**40.10**	**18**	P	**P**	**20 57 58.4**	**+0.7**
	comp=Z,19nm,0.5s,mb5.2,baz=235,slow=11,SNR=16						
ASAJ				LR	LR	21 14 58.6	
	comp=Z,385nm,20.3s,baz=68,slow=36						
ASAJ	**Asahikawa**	**40.10**	**18**	P	**P**	**20 57 58.4**	**+0.7**
ASAJ				pmax	pmax		
	comp=Z,19nm,0.5s						
ASAJ				MLR	MLR		
	comp=Z,385nm,20.3s						
STKA	**Stephens Creek**	**40.42**	**161**	P	**P**	**20 58 01.1**	**+0.6**
	comp=Z,19nm,0.6s,mb5.1,baz=334,slow=8.3,SNR=37						
STKA	**Stephens Creek**	**40.42**	**161**	*e*P	**P**	**20 58 00.9**	**+0.4**
LSA	**Lhasa**	**40.99**	**309**	P	**P**	**20 58 05.8**	**+0.7**
LSA				pmax	pmax		
	comp=Z,520nm,1.6s,mb6.1						
LSA	**Lhasa**	**40.99**	**309**	*e*P	**P**	**20 58 05.9**	**+0.7**
	comp=Z,518nm,1.6s,mb6.1						
LSA				*e*PcP	PcP	21 00 04.4	+0.8
GTA	**Gaotai**	**41.07**	**327**	⇑*i*P	**P**	**20 58 06.8**	**+1.1**
GTA				AP	pP	20 58 30.5	-3.5
GTA				XP	sP	20 58 43.3	-5.3
GTA				PP	PP	20 59 45.5	+0.4
GTA				PCP	PcP	21 00 04.5	+0.8
GTA				PPP	PPP	21 00 18.8	+1.2
GTA				SCP		21 03 43.0	
GTA				PCS		21 03 56.3	
GTA				S	**S**	**21 04 11.0**	**+2.3**
GTA				SCS	ScS	21 07 58.5	+3.7
GTA				AMB	AMB		
	comp=Z,212nm,1.0s,mb5.9						
GTA				AMB	AMB		
	comp=Z,1µm,11.4s						
GTA				LR	LR		
	comp=N,862nm,10.7s						
GTA				LR	LR		
	comp=E,978nm,12.2s						
GTA				LR	LR		
	comp=Z,1µm,12.9s						
YSS	**Yuzh-Sakhalins**	**42.74**	**16**	⇑*i*P	**P**	**20 58 18.5**	**-0.8**
YSS				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.1						
YSS	**Yuzh-Sakhalins**	**42.74**	**16**	*e*P	**P**	**20 58 19.2**	**-0.1**
	comp=Z,38nm,0.8s,mb5.2						
KLR	**Kul'dur**	**43.00**	**5**	*e*P	**P**	**20 58 18.0**	**-3.3**
KLR				*e*	pP	20 58 46.0	-3.7
HIA	**Hailar**	**43.28**	**353**	P	**P**	**20 58 23.3**	**-0.3**
HIA				pmax	pmax		
	comp=Z,29nm,1.0s						
HIA	**Hailar**	**43.28**	**353**	*e*P	**P**	**20 58 23.1**	**-0.5**
	comp=Z,29nm,0.9s,mb5.0						
VIS	**Vishakhapatnam**	**44.07**	**289**	*e*P	**P**	**20 58 30.1**	**-0.4**
GUN	**Gumba**	**44.48**	**304**	*e*P	**P**	**20 58 33.1**	**-0.5**
	comp=Z,544nm,0.9s,mb6.3						
PKI	**Pulchoki**	**44.75**	**303**	*e*P	**P**	**20 58 34.6**	**-1.1**
	comp=Z,465nm,1.3s,mb6.0						
KKN	**Kakani**	**44.93**	**303**	*e*P	**P**	**20 58 36.3**	**-0.9**
	comp=Z,374nm,1.0s,mb6.1						
SONM	**Songino Array**	**44.99**	**340**	P	**P**	**20 58 37.4**	**0.0**
	comp=Z,56nm,1.0s,mb5.3,baz=158,slow=8.1,SNR=62						
DMN	**Daman**	**45.01**	**303**	*e*P	**P**	**20 58 36.9**	**-0.9**
	comp=Z,472nm,1.1s,mb6.1						
GKN	**Gorkha**	**45.54**	**303**	*e*P	**P**	**20 58 40.7**	**-1.3**
	comp=Z,401nm,1.3s,mb6.0						
KOLN	**Koldanda**	**46.32**	**303**	*e*P	**P**	**20 58 47.6**	**-0.6**
	comp=Z,532nm,0.9s,mb6.3						
MDRS	**Chennai**	**46.50**	**282**	*e*P	**P**	**20 58 49.7**	**0.0**
MDRS				*e*		21 00 25.0	
MDRS				*e*		21 01 15.0	
MDRS				*e*		21 03 48.0	
ZAK	**Zakamensk**	**48.23**	**340**	*e*P	**P**	**20 59 01.9**	**-0.8**
HYB	**Hyderabad**	**48.54**	**288**	*e*P	**P**	**20 59 05.0**	**-0.6**
	comp=Z,170nm,1.0s,mb5.9						
HYB				*e*		20 59 39.0	
HYB	**Hyderabad**	**48.54**	**288**	⇑*i*P	**P**	**20 59 05.0**	**-0.6**
	comp=Z,140nm,1.0s,mb5.8						
HYB				*e*pP	pP	20 59 39.0	+4.6
TLY	**Talaya**	**49.21**	**341**	P	**P**	**20 59 10.4**	**+0.1**
	comp=Z,362nm,0.6s,mb6.5,SNR=21						
TLY	**Talaya**	**49.21**	**341**	*e*P	**P**	**20 59 10.5**	**+0.2**
TLY				*e*		20 59 49.5	
TLY				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.5						
TLY	**Talaya**	**49.21**	**341**	⇑*e*P	**P**	**20 59 10.7**	**+0.4**
IRK	**Irkutsk**	**49.49**	**342**	*e*P	**P**	**20 59 10.3**	**-2.1**
PTH	**Pithoragarh**	**49.71**	**304**	*e*P	**P**	**20 59 12.1**	**-2.3**
MOY	**Mondy**	**50.10**	**339**	*e*P	**P**	**20 59 17.5**	**+0.5**
CLNS	**Chul'man**	**50.45**	**359**	*e*P	**P**	**20 59 19.1**	**-0.6**
CLNS				pmax	pmax		
	comp=Z,35nm,0.7s,mb5.4						
CLNS				pmax	pmax		
	comp=N,39nm,0.8s						
CLNS				pmax	pmax		
	comp=E,10.0nm,0.8s						
BHPL	**Bhopal**	**50.52**	**295**	*e*P	**P**	**20 59 19.7**	**-1.0**
BHPL				*e*		20 59 20.6	
	comp=Z,182nm,1.0s						
WMQ	**Urumqi**	**50.81**	**324**	⇑P	**P**	**20 59 23.0**	**+0.4**
WMQ				AP	pP	20 59 46.0	-5.7
WMQ				PCP	PcP	21 00 39.5	+1.7
WMQ				PP	PP	21 01 21.5	+0.9
WMQ				S	**S**	**21 06 29.0**	**+1.7**
WMQ				AMB	AMB		
	comp=Z,202nm,1.0s,mb6.1						
WMQ				AMB	AMB		
	comp=Z,493nm,5.7s						
WMQ				LR	LR		
	comp=N,973nm,22.0s						
WMQ				LR	LR		
	comp=E,645nm,18.3s						
WMQ				LR	LR		
	comp=Z,525nm,22.0s						
DDI	**Dehra Dun**	**51.73**	**304**	*e*P	**P**	**20 59 28.8**	**-0.9**
NDI	**New Delhi**	**51.97**	**302**	*i* P	**P**	**20 59 28.0**	**-3.5**
BOD	**Bodaibo**	**52.40**	**351**	*e*P	**P**	**20 59 33.1**	**-1.2**
KAD	**Karad**	**52.67**	**287**	*e*P	**P**	**20 59 34.6**	**-2.3**
KAD				*e*		20 59 36.2	
	comp=Z,107nm,1.2s						
SDNR	**Sundarnagar**	**52.97**	**305**	*e*P	**P**	**20 59 38.3**	**-0.7**
PET	**Petropavlovsk**	**53.30**	**23**	*e*P	**P**	**20 59 39.1**	**-2.0**
PET				pmax	pmax		
	comp=Z,53nm,1.4s,mb5.4						
PET	**Petropavlovsk**	**53.30**	**23**	*e*P	**P**	**20 59 40.2**	**-0.9**
	comp=Z,62nm,1.1s,mb5.5						
PONG	**Pong**	**53.94**	**305**	*e*P	**P**	**20 59 45.0**	**-1.0**
PONG				*e*		21 00 50.0	
DLH	**Dalhousie**	**54.10**	**306**	*e*	**P**	**20 59 40.0**	**-7.2**
DLH				*e*		20 59 48.0	
THN	**Thein Dam**	**54.27**	**306**	*e*P	**P**	**20 59 45.6**	**-2.8**
	comp=Z,87nm,0.5s,mb6.0						
MKAR	**Makanchi Array**	**55.63**	**324**	*i* P	**P**	**20 59 58.0**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,183nm,0.5s						
YAK	**Yakutsk**	**55.67**	**2**	*e*P	**P**	**20 59 56.9**	**-1.3**
YAK				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
YAK				pmax	pmax		
	comp=N,18nm,1.0s						
YAK				pmax	pmax		
	comp=E,7.0nm,0.9s						
YAK	**Yakutsk**	**55.67**	**2**	*e*P	**P**	**20 59 56.8**	**-1.4**
	comp=E,126nm,0.8s,mb6.0						
MA2	**Magadan**	**56.19**	**14**	*e*P	**P**	**21 00 01.4**	**-0.6**
KSH	**Kashi**	**56.45**	**314**	⇑*i*P	**P**	**21 00 04.5**	**+0.5**
KSH				AP	pP	21 00 27.8	-5.9
KSH				PCP	PcP	21 01 01.8	+2.6
KSH				PP	PP	21 02 12.5	+0.1
KSH				PPP	PPP	21 03 30.0	-1.4
KSH				SCP		21 04 50.0	
KSH				PCS		21 05 00.0	
KSH				S	**S**	**21 07 44.0**	**+0.7**
KSH				PS	PS	21 08 11.3	-4.9
KSH				SCS	ScS	21 09 40.0	+3.0
KSH				SS	SS	21 11 33.0	+0.1
KSH				AMB	AMB		
	comp=Z,2µm,11.1s						
KSH				LR	LR		
	comp=N,3µm,13.2s						
KSH				LR	LR		
	comp=E,4µm,15.3s						
ULHL	**Ulahol**	**57.32**	**317**	P	**P**	**21 00 10.7**	**+0.6**
	SNR=13						
BHJ	**Bhuj**	**57.57**	**293**	*e*P	**P**	**21 00 11.5**	**-0.6**
BHJ				*e*		21 00 12.5	
	comp=Z,244nm,1.1s						
KZA	**Kyzart**	**57.93**	**316**	P	**P**	**21 00 15.2**	**+0.8**
	SNR=157						
TKM2	**Tokmak 2**	**58.03**	**317**	P	**P**	**21 00 15.1**	**0.0**
	SNR=101						
KBK	**Karagaybulak**	**58.37**	**317**	P	**P**	**21 00 17.6**	**+0.2**
	SNR=101						
ZAL	**Zalesovo**	**58.46**	**332**	P	**P**	**21 00 16.6**	**-1.3**
	comp=Z,33nm,0.5s,mb5.6,baz=349,slow=5.6,SNR=133						
ZAL	**Zalesovo**	**58.46**	**332**	P	**P**	**21 00 16.6**	**-1.3**
ZAL				pmax	pmax		
	comp=Z,33nm,0.5s						
UCH	**Uchtor**	**58.50**	**316**	P	**P**	**21 00 19.2**	**+0.8**
	SNR=333						
CHMS	**Chumysh**	**58.63**	**317**	P	**P**	**21 00 18.8**	**-0.5**
	SNR=73						
AAK	**Ala-Archa**	**58.66**	**317**	P	**P**	**21 00 19.5**	**0.0**
	SNR=55						
AAK	**Ala-Archa**	**58.66**	**317**	⇑*i*P	**P**	**21 00 18.4**	**-1.1**
AAK				pmax	pmax		
	comp=Z,55nm,0.8s,mb5.6						
AAK	**Ala-Archa**	**58.66**	**317**	⇑*i*P	**P**	**21 00 18.4**	**-1.1**
	comp=Z,55nm,0.8s,mb5.6						
USP	**Ospenovka**	**58.91**	**317**	P	**P**	**21 00 20.5**	**-0.7**
	SNR=185						
AML	**Almayashu**	**59.02**	**316**	P	**P**	**21 00 22.7**	**+0.7**
	SNR=10						
EKS2	**Erkin-Say**	**59.16**	**317**	P	**P**	**21 00 22.9**	**0.0**
	SNR=145						
NVS	**Novosibirsk**	**59.73**	**332**	*i* P	**P**	**21 00 25.0**	**-1.7**
NVS				*e*S	**S**	**21 08 26.2**	**+0.3**
NVS				pmax	pmax		
	comp=Z,213nm,1.3s,mb6.0						
NVS				pmax	pmax		
	comp=N,165nm,1.4s						
NVS				pmax	pmax		
	comp=E,174nm,1.4s						
NVS				smax			
	comp=N,105nm,2.1s						
NVS				smax			
	comp=E,67nm,1.8s						
FX1	**Attu Island--F**	**59.77**	**30**	P	**P**	**21 00 27.0**	**+0.1**
	comp=E,50nm,0.9s,mb5.6,baz=310,slow=4.2,SNR=4.8						
FX1	**Attu Island--F**	**59.77**	**30**	P	**P**	**21 00 27.0**	**0.0**
FX1				pmax	pmax		
	comp=Z,50nm,0.9s						
FX1	**Attu Island--F**	**59.77**	**30**	*e*P	**P**	**21 00 27.1**	**+0.1**
RPZ	**Rata Peaks**	**63.70**	**146**	P	**P**	**21 00 54.6**	**+1.2**
	comp=Z,4.4nm,0.5s,mb4.5,baz=6.5,slow=7.6,SNR=5.0						
KIWB	**Kanaga Island**	**64.46**	**35**	P	**P**	**21 00 56.9**	**-1.3**
TIXI	**Tiksi**	**65.31**	**1**	*e*P	**P**	**21 01 01.2**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.2						
TIXI	**Tiksi**	**65.31**	**1**	⇑*e*P	**P**	**21 01 01.5**	**-1.9**
BVA0	**Borovoye Array**	**65.34**	**326**	P	**P**	**21 01 03.4**	**-0.5**
BVA0				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.3						
BVAR	**Borovoye Array**	**65.34**	**326**	P	**P**	**21 01 03.5**	**-0.4**
	comp=Z,318nm,0.8s,mb6.2,baz=121,slow=8.6,SNR=973						
BRVK	**Borovoye**	**65.41**	**326**	P	**P**	**21 01 04.1**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,570nm,1.0s,mb6.4						
BRVK	**Borovoye**	**65.41**	**326**	⇑*i*P	**P**	**21 01 04.1**	**-0.3**
CHKZ	**Chkalovo**	**65.49**	**327**	*i* P	**P**	**21 01 04.1**	**-0.7**
CHKZ				pmax	pmax		
	comp=Z,269nm,1.3s,mb5.9						
CHKZ	**Chkalovo**	**65.49**	**327**	⇑*i*P	**P**	**21 01 03.9**	**-0.9**
	comp=Z,389nm,1.3s,mb6.1						
BILL	**Bilibino**	**67.05**	**15**	⇑*e*P	**P**	**21 01 13.5**	**-1.0**
BILL				pmax	pmax		
	comp=Z,31nm,1.7s,mb4.9						
BILL	**Bilibino**	**67.05**	**15**	*e*P	**P**	**21 01 13.1**	**-1.3**
	comp=Z,129nm,2.1s,mb5.4						
UNV	**Unalaska Valle**	**71.21**	**35**	*e*P	**P**	**21 01 40.0**	**-0.1**
	comp=Z,61nm,0.6s,mb5.6						
SVE	**Sverdlovsk**	**71.94**	**328**	⇑*i*P	**P**	**21 01 44.0**	**-0.3**
SVE				*e*		21 04 33.5	
SVE				*e*S	S	21 10 55.0	+1.2
ARU	**Arti**	**72.94**	**327**	⇑*i*P	**P**	**21 01 49.7**	**-0.5**
ARU				*e*		21 02 04.8	
ARU				*e*S	S	21 11 04.6	-0.5
ARU				*e*		21 11 40.8	
ARU				*e*SS	SS	21 15 48.4	-2.2
ARU				pmax	pmax		
	comp=Z,261nm,1.5s,mb5.8						
ARU	**Arti**	**72.94**	**327**	⇑*i*P	**P**	**21 01 49.6**	**-0.6**
	comp=Z,142nm,0.6s,mb6.0						
HASS	**Wahat al Ahsa'**	**75.86**	**294**	P	**P**	**21 02 07.0**	**-0.6**
QRN	**Al-Qurain**	**77.43**	**298**	*e*P	**P**	**21 02 16.4**	**0.0**
QRN				AMb	AMB	21 02 17.6	
	comp=Z,264nm,0.9s,mb6.0						
RDF	**Al-Radifah**	**77.75**	**298**	*e*P	**P**	**21 02 17.8**	**-0.3**
RDF				AMb	AMB	21 02 19.2	
	comp=Z,264nm,1.0s,mb5.9						
MIB	**Mutribah**	**77.93**	**299**	*e*P	**P**	**21 02 18.1**	**-1.0**
MIB				AMb	AMB	21 02 19.6	
	comp=Z,424nm,0.7s,mb6.3						
MAK	**Makhachkala**	**78.05**	**312**	⇓*i*P	**P**	**21 02 19.8**	**+0.4**
MAK				pmax	pmax		
	comp=Z,330nm,1.1s,mb6.0						
RST	**Umm Al-Ruwaisa**	**78.23**	**299**	*e*P	**P**	**21 02 20.2**	**-0.5**
RST				AMb	AMB	21 02 21.5	
	comp=Z,375nm,1.1s,mb6.0						
RYDS	**Riyadh**	**78.66**	**293**	P	**P**	**21 02 22.5**	**-0.7**
IMA	**Indian Mountai**	**79.97**	**24**	*e*P	**P**	**21 02 29.8**	**+0.4**
IMA				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.4						
IMA	**Indian Mountai**	**79.97**	**24**	*e*P	**P**	**21 02 30.5**	**+1.1**
MZLS	**Mizel**	**79.97**	**293**	P	**P**	**21 02 30.2**	**-0.1**
GNI	**Garni**	**80.05**	**310**	P	**P**	**21 02 31.7**	**+1.3**
	comp=Z,34nm,0.9s,mb5.2,baz=312,slow=1.4,SNR=52						
GNI	**Garni**	**80.05**	**310**	P	**P**	**21 02 31.5**	**+1.1**
GNI				pmax	pmax		
	comp=Z,440nm,1.6s						
TI2	**Plekhanov**	**80.06**	**311**	*i* P	**P**	**21 02 31.0**	**+0.6**
TI2				pmax	pmax		
	comp=Z,440nm,1.0s,mb6.2						
ZEI	**Tsey**	**80.69**	**312**	*e*P	**P**	**21 02 34.4**	**+0.7**
ZEI				pmax	pmax		
	comp=Z,208nm,1.3s,mb5.8						
KAMS	**Al Khamasin**	**80.74**	**290**	P	**P**	**21 02 33.7**	**-0.7**
SLKM	**Skilak Lake**	**81.03**	**30**	P	**P**	**21 02 36.0**	**+0.9**
SLKM	**Skilak Lake**	**81.03**	**30**	*e*P	**P**	**21 02 34.8**	**-0.3**
PWA	**Palmer West**	**81.25**	**29**	*e*P	**P**	**21 02 35.5**	**-0.8**
GOF	**Gofitskoye**	**81.32**	**315**	⇑*i*P	**P**	**21 02 37.0**	**+0.1**
GOF				pmax	pmax		
	comp=Z,167nm,1.6s,mb5.6						
KIV	**Kislovodsk**	**81.57**	**313**	P	**P**	**21 02 38.3**	**0.0**
	comp=Z,901nm,0.8s,SNR=61						
KIV	**Kislovodsk**	**81.57**	**313**	*c i*P	**P**	**21 02 38.6**	**+0.3**
KIV				pmax	pmax		
	comp=Z,139nm,1.0s,mb5.7						
KIV	**Kislovodsk**	**81.57**	**313**	⇑*i*P	**P**	**21 02 38.7**	**+0.4**
PMR	**Palmer**	**81.61**	**29**	*e*P	**P**	**21 02 38.5**	**+0.4**
ARSS	**Ar Rass**	**81.67**	**295**	P	**P**	**21 02 39.2**	**0.0**
TATS	**Tathlith**	**81.82**	**289**	P	**P**	**21 02 40.5**	**+0.4**
AFFS	**'Afif**	**82.00**	**293**	P	**P**	**21 02 41.2**	**+0.3**
COLA	**College**	**82.31**	**25**	⇓*e*P	**P**	**21 02 42.0**	**+0.4**
COLA	**College**	**82.31**	**25**	*e*P	**P**	**21 02 41.3**	**-0.3**
	comp=Z,10.0nm,0.9s,mb4.7						
ILAR	**Eielson Array**	**82.72**	**26**	P	**P**	**21 02 42.8**	**-0.9**
	comp=Z,12nm,1.1s,mb4.6,baz=270,slow=4.3,SNR=26						
ILAR	**Eielson Array**	**82.72**	**26**	P	**P**	**21 02 42.8**	**-0.9**
ILAR				pmax	pmax		
	comp=Z,12nm,1.1s						
HILS	**Ha'il**	**82.88**	**297**	P	**P**	**21 02 46.3**	**+0.9**
NAMS	**An Nimas**	**83.04**	**289**	P	**P**	**21 02 47.8**	**+1.5**
THY	**Trims Highway**	**83.21**	**27**	*e*P	**P**	**21 02 47.6**	**+1.4**
DIV	**Divide**	**83.22**	**29**	*e*P	**P**	**21 02 47.5**	**+1.2**
	comp=Z,168nm,1.1s,mb5.8						
SOC	**Sochi**	**83.73**	**313**	*e*P	**P**	**21 02 47.2**	**-2.1**
SOC				*e*S	S	21 12 52.4	-7.7
SOC				pmax	pmax		
	comp=N,13nm,0.6s						
SOC				pmax	pmax		
	comp=Z,72nm,0.6s,mb5.7						
SOC				pmax	pmax		
	comp=E,8.0nm,0.5s						
MENT	**Mentasta**	**84.14**	**27**	*e*P	**P**	**21 02 52.9**	**+2.0**
MOS	**Moscow**	**84.50**	**325**	α *i*P	**P**	**21 02 53.0**	**+0.2**
MOS				*e*S	S	21 13 05.1	-2.2
MOS				pmax	pmax		
	comp=Z,800nm,2.0s,mb6.2						
MOS				pmax	pmax		
	comp=Z,277nm,1.0s,mb6.0						
ELZG	**Elazig**	**84.57**	**308**	*i* P	**P**	**21 03 09.7**	**+16**
MALT	**Malatya**	**85.02**	**308**	P	**P**	**21 02 57.1**	**+1.2**
MALT				pmax	pmax		
	comp=Z,190nm,1.2s,mb5.9						
MALT	**Malatya**	**85.02**	**308**	⇑*i*P	**P**	**21 02 57.2**	**+1.4**
	comp=Z,194nm,1.2s,mb5.9						
OBN	**Obninsk**	**85.14**	**325**	*d i*P	**P**	**21 02 56.0**	**0.0**
OBN				pmax	pmax		
	comp=Z,395nm,1.4s,mb6.2						
OBN	**Obninsk**	**85.14**	**325**	⇑*i*P	**P**	**21 02 56.3**	**+0.3**
	comp=Z,267nm,1.0s,mb6.1						
KBRS	**Khaybar**	**85.25**	**295**	P	**P**	**21 02 58.6**	**+1.3**
ANN	**Anapa**	**85.30**	**314**	*i* P	**P**	**21 02 56.0**	**-1.1**
ANN				pmax	pmax		
	comp=Z,571nm,0.7s,mb6.6						
ANN				pmax	pmax		
	comp=N,131nm,0.6s						
ANN				pmax	pmax		
	comp=E,76nm,0.7s						
APA	**Apatity**	**85.61**	**337**	⇑*e*P	**P**	**21 02 57.8**	**-0.3**
APA				*i*	pP	21 03 27.3	-2.8
APA				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
VNDA	**Vanda**	**85.90**	**173**	P	**P**	**21 03 00.1**	**+0.7**
	comp=Z,18nm,1.1s,mb4.9,baz=320,slow=5.1,SNR=21						
VNDA	**Vanda**	**85.90**	**173**	⇑*i*P	**P**	**21 03 00.3**	**+0.9**
VNDA				pmax	pmax		
	comp=Z,23nm,1.0s						
VNDA	**Vanda**	**85.90**	**173**	⇑*i*P	**P**	**21 03 00.3**	**+0.9**
	comp=Z,23nm,1.1s,mb5.0						
MAW	**Mawson**	**86.21**	**200**	P	**P**	**21 03 02.0**	**+1.0**
	comp=Z,17nm,0.3s,mb5.4,baz=49,slow=5.5,SNR=26						
MAW	**Mawson**	**86.21**	**200**	*e*P	**P**	**21 03 02.1**	**+1.1**
MAW				pmax	pmax		
	comp=Z,20nm,0.4s						
MAW	**Mawson**	**86.21**	**200**	*e*P	**P**	**21 03 01.4**	**+0.4**
	comp=Z,20nm,0.4s,mb5.4						
YNBS	**Yanbu' al Bahr**	**86.53**	**294**	P	**P**	**21 03 04.7**	**+1.1**
ASF	**Jabal al Asfar**	**86.77**	**302**	P	**P**	**21 03 06.3**	**+1.8**
	comp=Z,155nm,0.8s,mb6.0,baz=326,slow=1.2,SNR=169						
UMJS	**Umm Lajj**	**87.06**	**295**	P	**P**	**21 03 07.3**	**+1.2**
TBKS	**Tabuk**	**87.45**	**298**	P	**P**	**21 03 09.2**	**+1.3**
KEV	**Kevo**	**87.60**	**340**	*e*p	**P**	**21 03 07.6**	**-0.1**
	comp=Z,18nm,1.1s,mb5.0						
KEV	**Kevo**	**87.60**	**340**	*e*P	**P**	**21 03 07.6**	**-0.1**
KEV				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
KSHT	**Keshet**	**87.60**	**303**	P	**P**	**21 03 09.8**	**+1.2**
HRI	**Mount Hermon**	**87.64**	**303**	P	**P**	**21 03 09.6**	**+0.9**
SIM	**Simferopol'**	**87.64**	**315**	*c i*P	**P**	**21 03 08.5**	**+0.1**
SIM				pmax	pmax		
	comp=Z,287nm,0.7s,mb6.4						
INK	**Inuvik**	**87.72**	**22**	P	**P**	**21 03 08.7**	**+0.4**
	comp=Z,15nm,1.2s,mb4.9,baz=280,slow=7.0,SNR=12						
INK	**Inuvik**	**87.72**	**22**	P	**P**	**21 03 08.7**	**+0.4**
INK				pmax	pmax		
	comp=Z,15nm,1.2s						
MKRJ	**Makawir**	**87.89**	**301**	P	**P**	**21 03 10.8**	**+0.8**
JMQS	**Jabal Moqyreh**	**87.97**	**299**	P	**P**	**21 03 11.6**	**+1.2**
PUL	**Pulkovo**	**87.98**	**330**	*e*P	**P**	**21 03 09.0**	**-0.7**
PUL				pmax	pmax		
	comp=Z,91nm,0.9s,mb5.8						
PUL				pmax	pmax		
	comp=N,36nm,0.6s						
PUL	**Pulkovo**	**87.98**	**330**	*i* Pr	**P**	**21 03 10.1**	**+0.4**
MMLI	**Mount Malkishu**	**87.98**	**302**	P	**P**	**21 03 11.7**	**+1.3**
DRGI	**Dragot**	**88.10**	**301**	P	**P**	**21 03 11.7**	**+0.7**
HNTI	**Hanita**	**88.12**	**303**	P	**P**	**21 03 11.7**	**+0.7**
MZDA	**Masada**	**88.16**	**301**	P	**P**	**21 03 11.8**	**+0.6**
ARCES	**ARCESS Array B**	**88.16**	**340**	P	**P**	**21 03 10.1**	**-0.3**
	comp=N,8.5nm,0.5s,mb5.0,baz=87,slow=5.4,SNR=44						
ARCES	**ARCESS Array B**	**88.16**	**340**	P	**P**	**21 03 10.1**	**-0.2**
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.5s						
ARCES	**ARCESS Array B**	**88.16**	**340**	P	**P**	**21 03 10.1**	**-0.3**
ARE0	**ARCESS Array S**	**88.16**	**340**	*e*P	**P**	**21 03 10.0**	**-0.4**
SLTI	**Sal'it**	**88.33**	**302**	P	**P**	**21 03 12.9**	**+0.9**
OFRI	**'Ofer**	**88.33**	**302**	P	**P**	**21 03 12.7**	**+0.7**
ZFRI	**Zfri**	**88.39**	**300**	P	**P**	**21 03 13.1**	**+0.7**
PRNI	**Paran**	**88.56**	**300**	P	**P**	**21 03 14.1**	**+0.9**
BALT	**Daday**	**88.57**	**311**	*i* P	**P**	**21 03 13.2**	**+0.3**
MEST	**Erdemli**	**88.57**	**306**	*i* P	**P**	**21 03 13.1**	**+0.1**
AYUS	**'Aynunah**	**88.57**	**298**	P	**P**	**21 03 14.0**	**+0.7**
AQBJ	**Aqaba**	**88.59**	**300**	P	**P**	**21 03 14.3**	**+0.9**
BRTR	**Keskin Array B**	**88.60**	**310**	P	**P**	**21 03 12.9**	**-0.2**
	comp=Z,18nm,0.7s,mb5.2,baz=114,slow=4.3,SNR=82						
BRTR	**Keskin Array B**	**88.60**	**310**	P	**P**	**21 03 12.9**	**-0.2**
BRTR				pmax	pmax		
	comp=Z,18nm,0.7s						
JMOS	**Jabal al Moall**	**88.61**	**299**	P	**P**	**21 03 14.5**	**+1.1**
ALWS	**Ilw as Safayha**	**88.63**	**299**	P	**P**	**21 03 14.7**	**+1.2**
ELDT	**Eldivan**	**88.67**	**310**	*i* P	**P**	**21 03 13.5**	**+0.1**
MASH	**Mash'abbe Sade**	**88.68**	**301**	P	**P**	**21 03 14.1**	**+0.4**
EIL	**Elat**	**88.69**	**300**	P	**P**	**21 03 14.6**	**+0.8**
EIL	**Elat**	**88.69**	**300**	⇑*e*P	**P**	**21 03 14.3**	**+0.5**
	comp=Z,120nm,1.1s,mb5.8						
BDAS	**Al Bad'**	**88.69**	**298**	P	**P**	**21 03 14.5**	**+0.7**
MBH	**Mount Berech**	**88.70**	**300**	P	**P**	**21 03 14.6**	**+0.7**
RTMM	**Retamin**	**88.76**	**301**	P	**P**	**21 03 14.3**	**+0.2**
HAQS	**Haql**	**88.78**	**299**	P	**P**	**21 03 15.3**	**+1.1**
CSS	**Prodhromos**	**89.42**	**305**	⇑*i*P	**P**	**21 03 17.1**	**0.0**
	comp=Z,93nm,0.9s,mb5.8						
KAF	**Kangasniemi**	**89.47**	**332**	*e*p	**P**	**21 03 16.0**	**-0.6**
	comp=Z,11nm,0.7s,mb5.0						
KAF	**Kangasniemi**	**89.47**	**332**	*e*P	**P**	**21 03 16.0**	**-0.6**
KAF				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
MAMC	**Mammari**	**89.49**	**305**	P	**P**	**21 03 17.8**	**+0.4**
SGKT	**Sivrigoynuk**	**89.69**	**311**	*i* P	**P**	**21 03 18.0**	**-0.2**
FINES	**FINESS Array B**	**89.72**	**332**	P	**P**	**21 03 17.6**	**-0.2**
	comp=Z,14nm,0.7s,mb5.2,baz=81,slow=5.5,SNR=38						
FINES	**FINESS Array B**	**89.72**	**332**	P	**P**	**21 03 17.6**	**-0.2**
FINES				pmax	pmax		
	comp=Z,14nm,0.7s						
SZAC	**Souni-Zanaja**	**89.82**	**305**	⇑P	**P**	**21 03 18.9**	**-0.1**
SZAC	**Souni-Zanaja**	**89.82**	**305**	⇑*i*P	**P**	**21 03 18.9**	**-0.1**
KMBO	**Kilima Mbogo**	**89.85**	**269**	P	**P**	**21 03 20.4**	**+0.9**
	comp=Z,27nm,1.1s,mb5.3,baz=61,slow=5.8,SNR=54						
KMBO	**Kilima Mbogo**	**89.85**	**269**	P	**P**	**21 03 20.5**	**+0.9**
KMBO				pmax	pmax		
	comp=Z,27nm,1.1s						
KMBO	**Kilima Mbogo**	**89.85**	**269**	⇑*e*P	**P**	**21 03 20.2**	**+0.7**
	comp=Z,68nm,1.3s,mb5.6						
ALFC	**Alevga**	**90.00**	**305**	⇑P	**P**	**21 03 19.5**	**-0.3**
	comp=Z,1.4nm,1.1s						
ALFC	**Alevga**	**90.00**	**305**	⇑*e*P	**P**	**21 03 19.5**	**-0.3**
VSU	**Vasula**	**90.03**	**329**	*c i*P	**P**	**21 03 19.0**	**-0.4**
VSU	**Vasula**	**90.03**	**329**	⇑*i*P	**P**	**21 03 19.1**	**-0.3**
AKASG	**Malin Array Be**	**90.08**	**321**	P	**P**	**21 03 19.4**	**-0.4**
	comp=Z,39nm,0.9s,mb5.5,baz=64,slow=3.9,SNR=89						
AKASG				PP	PP	21 06 55.8	-1.1
	comp=Z,6.5nm,0.8s,baz=68,slow=7.6,SNR=7.4						
AKASG	**Malin Array Be**	**90.08**	**321**	P	**P**	**21 03 19.4**	**-0.4**
AKASG						21 06 55.8	
AKASG				pmax	pmax		
	comp=Z,39nm,0.9s						
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.8s						
AKMC	**Akamas**	**90.23**	**305**	⇑P	**P**	**21 03 20.2**	**-0.7**
AKMC	**Akamas**	**90.23**	**305**	⇑*i*P	**P**	**21 03 20.2**	**-0.7**
PPCY	**Paphos**	**90.24**	**305**	⇑P	**P**	**21 03 20.4**	**-0.5**
PPCY	**Paphos**	**90.24**	**305**	⇑*e*P	**P**	**21 03 20.4**	**-0.5**
HENT	**Hendek**	**90.52**	**311**	*i* P	**P**	**21 03 18.9**	**-3.2**
ESKT	**Eskisehir**	**90.76**	**310**	*i* P	**P**	**21 03 22.7**	**-0.5**
KIS	**Kishinev**	**91.00**	**317**	*e*P	**P**	**21 03 23.0**	**-1.2**
ISP	**Isparta**	**91.28**	**308**	P	**P**	**21 03 24.6**	**-1.1**
ISP				pmax	pmax		
	comp=Z,170nm,1.5s,mb6.0						
ISP	**Isparta**	**91.28**	**308**	⇑*e*P	**P**	**21 03 24.2**	**-1.5**
	comp=Z,174nm,1.5s,mb6.0						
CFR	**Carcaliu**	**91.79**	**316**	⇑*i*P	**P**	**21 03 27.7**	**-0.3**
CFR	**Carcaliu**	**91.79**	**316**	⇑*i*P	**P**	**21 03 27.7**	**-0.2**
ULDT	**Uludag**	**91.96**	**311**	*i* P	**P**	**21 03 28.3**	**-0.5**
HARR	**Harsova**	**92.03**	**315**	⇑*i*P	**P**	**21 03 29.3**	**+0.3**
HARR	**Harsova**	**92.03**	**315**	⇑*i*P	**P**	**21 03 29.3**	**+0.3**
VRI	**Vrincioaia**	**92.63**	**317**	⇓*i*P	**P**	**21 03 32.6**	**+0.9**
VRI	**Vrincioaia**	**92.63**	**317**	⇓*i*P	**P**	**21 03 32.6**	**+0.9**
SUW	**Suwalki**	**93.00**	**325**	*e*P	**P**	**21 03 32.9**	**-0.3**
MLR	**Muntele Rosu**	**93.25**	**316**	P	**P**	**21 03 34.7**	**+0.1**
	comp=Z,19nm,0.7s,mb5.6,baz=351,slow=2.4,SNR=27						
MLR	**Muntele Rosu**	**93.25**	**316**	P	**P**	**21 03 34.7**	**+0.1**
MLR				pmax	pmax		

	comp=Z,19nm,0.7s						
SART	Tekirdag	93.33	311	iP	P	21 03 33.6	-1.5
KDAG	Bornova	93.70	309	iP	P	21 03 36.5	-0.3
KWP	Kalwaria	94.41	321	eP	P	21 03 40.2	+0.5
DAG	Danmarks Havn	94.78	353	⇓eP	P	21 03 40.2	-0.7
DAG				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.9						
DAG	Danmarks Havn	94.78	353	⇓eP	P	21 03 40.2	-0.7
	comp=Z,5.0nm,0.9s,mb4.9						
DAG	Danmarks Havn	94.78	353	⇓iP	P	21 03 40.2	-0.7
	comp=Z,5.0nm,0.9s,mb4.9						
KOLS	Kolonicke sedl	94.86	320	eP	P	21 03 41.3	-0.5
KOLS				e		21 06 46.2	
SYO	Syowa Base	94.87	201	⇓P	P	21 03 42.3	+0.9
SYO	Syowa Base	94.87	201	⇓pP	pP	21 04 08.1	-5.7
CRVS	Cervenica-Dubn	95.39	320	eP	P	21 03 45.8	+1.6
CRVS				e		21 03 52.2	
HFS	Hagfors	95.89	332	P	P	21 03 45.5	-0.7
	comp=Z,14nm,0.8s,mb5.5,baz=117,slow=3.3,SNR=23						
HFS	Hagfors	95.89	332	P	P	21 03 45.5	-0.7
HFS				pmax	pmax		
	comp=Z,14nm,0.8s						
NIE	Niedzica	95.97	321	eP	P	21 03 47.7	+0.9
OJC	Ojcow	96.05	322	eP	P	21 03 47.6	+0.5
KECS	Kecovo	96.12	320	eP	P	21 03 48.1	+0.6
KECS				e		21 07 13.0	
QSPA	South Pole Qui	96.16	180	⇑iP	P	21 03 48.8	+1.7
	comp=Z,32nm,1.1s,mb5.7						
QSPA				i		21 04 12.9	
IDI	Anoyia	96.19	306	P	P	21 03 47.6	-0.6
	comp=Z,21nm,1.0s,mb5.5,baz=125,slow=8.6,SNR=7.7						
MBAR	Mbarara	96.27	270	c iP	P	21 03 47.8	-1.2
NB2	NORSAR Subarra	96.63	334	P	P	21 03 48.4	-1.1
	comp=Z,16nm,0.9s,mb5.5,baz=64,slow=4.5						
NB2	NORSAR Subarra	96.63	334	P	P	21 03 48.4	-1.1
	baz=64,slow=4.6						
NOA	NORSAR Array B	96.63	334	P	P	21 03 48.9	-0.7
	comp=Z,9.1nm,0.8s,mb5.2,baz=65,slow=4.6,SNR=23						
NOA	NORSAR Array B	96.63	334	P	P	21 03 48.9	-0.6
NOA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
YKA	Yellowknife Ar	97.09	24	P	P	21 03 51.9	+0.2
	comp=Z,1.6nm,0.8s,mb4.5,baz=300,slow=4.2,SNR=28						
YKA	Yellowknife Ar	97.09	24	P	P	21 03 51.9	+0.2
YKA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
VYHS	Vyhne	97.17	320	eP	P	21 03 52.5	+0.2
VYHS				ePP	PP	21 07 52.2	-0.1
OKC	Ostrava-Krasne	97.18	322	eP	P	21 03 52.8	+0.4
MORC	Moravsky Berou	97.57	322	P	P	21 03 54.9	+0.8
MORC				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.6						
MORC	Moravsky Berou	97.57	322	eP	P	21 03 54.6	+0.5
	comp=Z,28nm,1.5s,mb5.6						
DIVS	Divcibare	97.70	316	⇑iP	P	21 03 51.8	-3.0
KSP	Ksiaz	97.97	323	eP	P	21 03 55.5	-0.4
KSP				epP	pP	21 04 23.3	-5.0
KSP	Ksiaz	97.97	323	eP	P	21 03 56.6	+0.7
DPC	Dobruska-Polom	98.12	323	eP	P	21 03 56.9	+0.3
DPC				epP	pP	21 04 31.0	+2.0
UPC	Upice	98.25	323	eP	P	21 03 57.7	+0.5
UPC				epP	pP	21 04 42.8	+13
VRAC	Vranov	98.31	322	P	P	21 03 58.4	+1.0
	comp=Z,14nm,0.9s,mb5.5,baz=67,slow=5.3,SNR=20						
VRAC	Vranov	98.31	322	P	P	21 03 58.4	+0.9
VRAC				pmax	pmax		
	comp=Z,14nm,0.9s						
PVCC	Panska Ves	99.11	323	eP	P	21 04 01.6	+0.5
PRU	Pruhonice	99.32	323	ePDIF	P	21 04 02.4	+0.3
PRU				epP	pP	21 04 38.9	+4.4
BRG	Berggiesshubel	99.35	324	iP	P	21 04 03.1	+0.9
BRG				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.6						
BRG	Berggiesshubel	99.35	324	iP	P	21 04 03.1	+0.9
	comp=Z,18nm,1.0s,mb5.6						
BRG				i	pP	21 04 40.0	+5.4
CLL	Collm	99.73	324	iP	P	21 04 03.8	-0.1
CLL				pmax	pmax		
	comp=Z,22nm,1.4s,mb5.6						
CLL	Collm	99.73	324	iP	P	21 04 03.8	-0.1
	comp=Z,22nm,1.4s,mb5.6						
CLL				i		21 04 07.9	
CLL	Collm	99.73	324	P	P	21 04 03.8	-0.1
	comp=Z,logA/T=1.2,mb5.6						
CLL				i		21 04 07.9	
CLL				i *SP	sP	21 04 42.0	-7.8
CLL				e		21 08 04.0	
CLL				i PP	PP	21 08 10.3	-1.3
LSZ	Lusaka	100.08	256	P	P	21 04 04.4	-1.9
LSZ				pmax	pmax		
	comp=Z,54nm,1.4s						
LSZ	Lusaka	100.08	256	eP	P	21 04 05.3	-1.0
	comp=Z,54nm,1.4s						
KHC	Kasperske Hory	100.22	322	ePDIF	P	21 04 06.2	+0.1
KHC				epP		21 04 41.9	
GERES	GERESS Array B	100.25	322	P	P	21 04 07.0	+0.7
	comp=Z,6.7nm,0.9s,baz=56,slow=4.8,SNR=38						
GERES	GERESS Array B	100.25	322	P	P	21 04 07.0	+0.7
GERES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MOA	Molln	100.27	321	⇑iP	P	21 04 07.0	+0.6
	comp=Z,28nm,1.3s						
NKC	Novy Kostel	100.47	324	ePDIF	P	21 04 08.0	+0.7
GRA1	Grafenberg Arr	101.42	323	ePdif	P	21 04 12.6	+1.1
	comp=Z,4.0nm,0.7s						
GRF	Grafenberg Arr	101.42	323	eP	P	21 04 12.6	+1.1
GRF				pmax	pmax		
	comp=Z,4.0nm,0.7s						
GRF	Grafenberg Arr	101.42	323	ePdif	P	21 04 12.6	+1.1
	comp=Z,4.0nm,0.7s						
WTTA	Wattenberg	102.14	321	⇑iP	Pdif	21 04 14.9	+0.2
	comp=Z,17nm,1.0s						
DAVOX	Davos	103.43	321	Pdiff	Pdif	21 04 20.9	+0.4
	comp=Z,5.6nm,0.8s,baz=141,slow=14,SNR=7.1						
LPL	La Plagne	105.95	321	eP		21 08 49.0	
	comp=Z,120nm,1.4s						
VNA2	Neumayer--Watz	109.33	194			21 08 53.1	
VNA2	Neumayer--Watz	109.33	194	⇑i		21 09 23.9	
PV10	Paradox Valley	111.69	45	ePKiKP		21 08 55.3	
ESDC	Sonseca Array	115.70	320	PKP	PKPdf	21 09 03.2	+2.5
	comp=Z,0.6nm,0.6s,baz=15,slow=2.8,SNR=5.2						
MNTX	Cornudas Mount	117.44	50	ePKPdf	PKPdf	21 09 07.2	+3.0
TXAR	Lajitas Array	119.84	51	PKP	PKPdf	21 09 12.6	+3.6
	comp=Z,1.0nm,0.8s,baz=315,slow=1.8,SNR=6.4						
JCT	Junction City	122.20	48	PKIKP	PKPdf	21 09 16.2	+2.7
JCT	Junction City	122.20	48	ePKPdf	PKPdf	21 09 15.5	+2.0
DBIC	Dimbokro	130.24	284	PKP	PKPdf	21 09 31.9	+2.4
	comp=Z,12nm,0.7s,baz=79,slow=2.6,SNR=16						
DBIC	Dimbokro	130.24	284	PKIKP	PKPdf	21 09 32.0	+2.5
DBIC				pmax	pmax		
	comp=Z,12nm,0.7s						
DBIC	Dimbokro	130.24	284	ePKPdf	PKPdf	21 09 31.5	+1.9
JTS	JuntasAbangare	144.20	63	PKIKP	PKPdf	21 10 02.4	+7.5
JTS	JuntasAbangare	144.20	63	ePKPdf	PKPdf	21 09 57.4	+2.5
TRQA	Tornquist	147.33	167	ePKPbc	PKPdf	21 10 04.5	+4.9
MDZ	Mendoza	149.70	153	eP	PKPdf	21 10 11.0	+7.5
ROSC	El Rosal	156.03	63	PKP	PKPdf	21 10 16.5	+3.6
	comp=Z,3.5nm,0.6s,baz=102,slow=23,SNR=6.9						
SDV	Santo Domingo	156.87	50	ePKPdf	PKPdf	21 10 16.6	+2.5
LPAZ	La Paz	162.17	125	PKP	PKPdf	21 10 23.4	+3.5
	comp=Z,3.0nm,0.8s,baz=4.8,slow=1.9,SNR=13						
LPAZ	La Paz	162.17	125	PKIKP	PKPdf	21 10 23.4	+3.5
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LPAZ	La Paz	162.17	125	PKP	PKPdf	21 10 23.4	+3.5
BAO	Brasilia Array	169.47	208	PKP	PKPdf	21 10 27.8	+1.9
BDFB	Brasilia	169.47	207	PKP	PKPdf	21 10 28.5	+2.6
	comp=Z,7.9nm,1.1s,baz=340,slow=4.1,SNR=5.8						
BDFB	Brasilia	169.47	207	PKIKP	PKPdf	21 10 28.5	+2.6
BDFB				pmax	pmax		
	comp=Z,8.0nm,1.1s						

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*IDC **26** 20:59:08.4±1.0, 5.13N×93.23E, h27^{km}±4^{km}, mb3.7/8, mb1 3.9/9, mb1mx3.8/18, Error ellipse: s-maj=38.1km s-min=20.2km az=52.0*

*NEIC **26** 20:59:08.3±0.7, 5.17N×93.26E, mb4.4/4, Error ellipse: s-maj=18.6km s-min=13.5km az=87.0*

ISC 26 20:59:06.4±0.7, **5.2N**±0.1×**93.2E**±0.1, **h28**^{km}, **h28**^{km}±.8^{km}**:pP-P, n18,** σ**1**^{s}**10**/17, **mb4.0**/12, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.34	22	eP	P	21 02 27.1	-2.7
CMAR	Chiang Mai Arr	14.34	22	Pn	P	21 02 29.5	-0.4
	baz=221,slow=14,SNR=4.8						
LSA	Lhasa	24.49	356	eP	P	21 04 27.0	+2.3
	11nm,0.9s,mb4.3						
AAK	Ala-Archa	40.86	339	P	P	21 06 46.2	-1.4
SONM	Songino Array	43.99	13	P	P	21 07 13.2	+0.1
	1.5nm,0.7s,mb3.8,baz=193,slow=8.2,SNR=4.2						
SONM				pP	pP	21 07 22.1	+0.7
	3.8nm,0.8s,baz=190,slow=9.9,SNR=8.9						
WRA	Warramunga Arr	47.48	123	P	P	21 07 41.5	+0.3
	2.7nm,0.9s,mb4.2,baz=302,slow=9.1,SNR=4.6						
WRA				pP	pP	21 07 49.3	-0.3
	2.7nm,0.6s,baz=301,slow=9.1,SNR=5.7						
WRAB	Tennant Creek	47.48	123	eP	P	21 07 41.6	+0.3
	5.2nm,0.6s,mb4.6						
ZAL	Zalesovo	49.12	353	P	P	21 07 54.3	+0.8
	0.9nm,0.5s,mb4.1,baz=334,slow=10.0,SNR=2.8						
BVAR	Borovoye Array	51.28	342	P	P	21 08 10.2	+0.2
	0.4nm,0.6s,mb3.6,baz=231,slow=38,SNR=2.0						
BVAR				pP	pP	21 08 19.0	+0.6
	1.5nm,0.8s,baz=146,slow=11,SNR=3.8						
BRVK	Borovoye	51.34	342	eP	P	21 08 11.0	+0.5
	1.7nm,0.6s,mb4.2						
CHKZ	Chkalovo	51.78	343	eP	P	21 08 13.7	-0.1
	2.5nm,0.5s,mb4.4						
AKASG	Malin Array Be	69.73	322	P	P	21 10 14.9	-1.0
	0.7nm,0.7s,mb3.7,baz=76,slow=3.8,SNR=3.0						
AKASG				pP	pP	21 10 23.6	-1.0
	0.5nm,0.5s,baz=81,slow=4.7,SNR=2.6						
LBTB	Lobatse	72.17	242	P	P	21 10 29.3	-1.8
FINES	FINESS Array B	74.69	333	P	P	21 10 44.8	-0.3
	1.1nm,0.8s,mb3.8,baz=45,slow=7.9,SNR=2.1						
FINES				pP	pP	21 10 54.5	+0.6
	5.0nm,1.1s,baz=90,slow=7.6,SNR=3.2						
MORC	Moravsky Berou	76.85	320	eP	P	21 10 58.0	+0.4
MORC				epP	pP	21 11 05.9	-0.5
ARCES	ARCESS Array B	77.51	341	P	P	21 11 01.1	+0.3
	4.1nm,1.0s,mb4.3,baz=98,slow=6.4,SNR=3.1						
ARCES				pP	pP	21 11 10.3	+0.7
	4.1nm,1.1s,baz=106,slow=5.6,SNR=1.9						
GERES	GERESS Array B	79.25	319	P	P	21 11 12.8	+2.0
	0.5nm,0.7s,mb3.5,baz=101,slow=5.0,SNR=3.2						
GERES				pP	pP	21 11 20.8	+1.2
	0.9nm,0.7s,baz=117,slow=6.0,SNR=3.6						
CPUP	Villa Florida	144.88	230	PKP	PKPdf	21 18 43.3	-3.3
	0.0nm,0.4s,baz=264,slow=19,SNR=2.4						

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*IDC **26** 21:01:00.9±0.8, 33.35N×138.11E, h293^{km}±8^{km}, mb3.4/10, mb1 3.6/11, mb1mx3.4/25, Error ellipse: s-maj=22.7km s-min=15.0km az=65.0*

*NEIC **26** 21:01:00.7±1.1, 33.40N×138.07E, h289^{km}±8^{km}, mb4.1/4, Error ellipse: s-maj=20.0km s-min=14.5km az=217.0*

ISC 26 21:00:59.5±0.7, **33.35N**±0.09×**138.0E**±0.2, **h293**^{km}±7^{km}, **n22,** σ**0**^{s}**66**/25, **mb3.7**/13, **Near south coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	1.53	98	P	P	21 01 43.0	+0.6
	68nm,0.3s,baz=266,slow=18,SNR=16						
JHJ				S	S	21 02 16.9	+0.9
	22nm,0.3s,baz=66,slow=19,SNR=3.8						
MAJO	Matsushiro	3.19	3	eP	P	21 01 57.2	0.0
MAT	Matsushiro	3.19	3	P	P	21 01 57.4	+0.2
MAT				S	S	21 02 41.0	-1.1
MAT	Matsushiro	3.19	3	eP	P	21 01 57.0	-0.2
MAT				eS	S	21 02 41.0	-1.1
CBIJ	Chichi jima	7.21	149	P	P	21 02 42.6	-1.5
	9.9nm,0.3s,baz=227,slow=15,SNR=6.1						
CBIJ				S	S	21 03 57.8	-8.4
	20nm,0.3s,baz=103,slow=23,SNR=8.4						
HIA	Hailar	20.91	325	eP	P	21 05 20.0	-0.1
	12nm,1.1s						
SONM	Songino Array	27.78	311	P	P	21 06 24.8	+1.0
	1.3nm,0.5s,mb3.6,baz=117,slow=9.8,SNR=9.3						
CHKZ	Chkalovo	50.84	315	eP	P	21 09 32.0	-0.3
	3.5nm,0.6s,mb3.9						
BVAR	Borovoye Array	51.04	314	P	P	21 09 34.2	+0.4
	1.5nm,0.3s,mb3.7,baz=99,slow=8.2,SNR=16						
BRVK	Borovoye	51.10	314	eP	P	21 09 34.2	+0.1
	2.3nm,0.6s,mb3.7						
WRA	Warramunga Arr	53.10	184	P	P	21 09 49.0	-0.4
	1.1nm,0.3s,mb3.6,baz=0.3,slow=7.7,SNR=12						
YKA	Yellowknife Ar	68.39	28	P	P	21 11 29.6	-1.3
	0.3nm,0.4s,mb3.3,baz=304,slow=6.3,SNR=5.7						
KAF	Kangasniemi	70.27	332	ep	P	21 11 42.2	-0.2
	1.4nm,0.3s,mb4.2						
FINES	FINESS Array B	70.74	332	P	P	21 11 45.2	-0.1
	1.3nm,0.4s,mb3.9,baz=60,slow=6.9,SNR=14						
FINES	FINESS Array B	70.74	332	P	P	21 11 45.2	-0.1
AKASG	Malin Array Be	75.46	322	P	P	21 12 12.9	0.0
	0.8nm,0.4s,mb3.7,baz=49,slow=5.7,SNR=8.0						
HFS	Hagfors	76.25	335	P	P	21 12 17.2	+0.1
	0.8nm,0.4s,mb3.7,baz=45,slow=8.2,SNR=4.1						
NOA	NORSAR Array B	76.46	336	P	P	21 12 18.3	+0.1
	0.4nm,0.6s,mb3.2,baz=66,slow=6.7,SNR=2.9						
NVAR	Mina Array Bea	79.47	51	P	P	21 12 35.7	+0.7
	0.5nm,0.4s,mb3.6,baz=292,slow=4.9,SNR=3.5						
NVAR	Mina Array Bea	79.47	51	P	P	21 12 35.7	+0.7
TXAR	Lajitas Array	94.61	50	P	P	21 13 49.3	+0.8
	0.5nm,0.6s,mb3.8,baz=311,slow=3.6,SNR=4.2						
LPAZ	La Paz	150.97	61	PKPbc	PKPdf	21 20 21.2	+9.4
	1.5nm,0.7s,baz=54,slow=10,SNR=3.9						

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*CSEM **26** 21:02:21.7±0.1, 44.04N×11.11E, h10^{km}, ML2.5, Error ellipse: s-maj=2.5km s-min=1.3km az=11.0*

*ROM **26** 21:02:22.5±0.1, 44.06N×11.13E, h7^{km}±1^{km}, MD2.2/5, ML1.7/3, Error ellipse: s-maj=1.5km s-min=1.0km az=0.0*

*NEIC **26** 21:02:22.5, 44.06N×11.13E, h7^{km}, MD2.2(ROM), ML2.5(GEN), After ROM.*

*GEN **26** 21:02:22.3, 44.08N×11.20E, h7^{km}, ML2.5*

ISC 26 21:02:23.0±0.4, **44.06N**±0.03×**11.11E**±0.03, **h7**^{km}**, n37,** σ**0**^{s}**77**/59, **2C-2D, Northern Italy**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FNVD	Fontana Vidola	0.11	4	⇑iPg	Pg	21 02 25.4	-0.3
FNVD				eSg	Sg	21 02 27.4	-0.1
FNVD	Fontana Vidola	0.11	4	⇑iPg	Pg	21 02 25.4	-0.3
FNVD				eSg	Sg	21 02 27.4	0.0
SEI	Scarperia	0.18	90	⇓iPg	Pg	21 02 26.3	-0.5
SEI				eSg	Sg	21 02 29.6	+0.3
SEI	Scarperia	0.18	90	⇓iPg	Pg	21 02 26.3	-0.5
SEI				eSg	Sg	21 02 29.6	+0.3
ZCCA	Zocca	0.31	342	ePg	Pg	21 02 30.1	+0.7
ZCCA				eSg	Sg	21 02 35.2	+1.6
ZCCA	Zocca	0.31	342	ePg	Pg	21 02 30.1	+0.7
ZCCA				eSg	Sg	21 02 35.2	+1.5
VMG	Vicchio	0.33	106	ePG	Pg	21 02 28.8	-0.9
	47nm,0.3s						
VMG	Vicchio	0.33	106	ePg	Pg	21 02 28.8	-0.9
BDI	Bagni Di Lucca	0.37	271	ePG	Pg	21 02 31.1	+0.5
BDI				SG	Sg	21 02 37.0	+1.4
	75nm,0.3s						
BDI	Bagni Di Lucca	0.37	271	ePg	Pg	21 02 31.1	+0.5
BDI				eSg	Sg	21 02 37.0	+1.4
BDI	Bagni Di Lucca	0.37	271	ePg	Pg	21 02 31.1	+0.5
BDI				eSg	Sg	21 02 37.0	+1.4
MAIM		0.47	253	P	Pg	21 02 32.3	-0.2
MAIM				S	Sg	21 02 39.2	+0.3
MAIM		0.47	253	S	Sg	21 02 39.2	+0.4
MAIM		0.47	253	P	Pg	21 02 32.3	-0.2
GSCL	Gusciola	0.48	308	ePg	Pg	21 02 32.6	-0.1
GSCL				eSg	Sg	21 02 40.7	+1.5
GSCL	Gusciola	0.48	308	ePg	Pg	21 02 32.6	-0.1
GSCL				eSg	Sg	21 02 40.7	+1.5
PII	Pisa	0.54	232	ePG	Pg	21 02 34.3	+0.4
PII				SG	Sg	21 02 41.7	+0.6
	54nm,0.2s						
PII	Pisa	0.54	232	ePg	Pg	21 02 34.3	+0.4
PII				eSg	Sg	21 02 41.7	+0.6
PII	Pisa	0.54	232	ePg	Pg	21 02 34.3	+0.4
PII				eSg	Sg	21 02 41.7	+0.6
SFI	Santa Sofia	0.55	106	ePG	Pg	21 02 33.9	-0.2
SFI				SG	Sg	21 02 42.1	+0.6
	34nm,0.3s						
SFI	Santa Sofia	0.55	106	ePg	Pg	21 02 33.9	-0.3
SFI				eSg	Sg	21 02 42.1	+0.6
SFI	Santa Sofia	0.55	106	ePg	Pg	21 02 33.9	-0.2
SFI				eSg	Sg	21 02 42.1	+0.6
CSNT	Castellina Chi	0.60	167	ePG	Pg	21 02 36.0	+1.0
	26nm,0.3s						
CSNT	Castellina Chi	0.60	167	ePg	Pg	21 02 36.0	+1.0
VALM		0.69	296	P	Pg	21 02 36.0	-0.9
VALM				S	Sg	21 02 45.2	-0.8
VALM		0.69	296	P	Pg	21 02 36.0	-0.8
VALM				S	Sg	21 02 45.2	-0.9
VINC	Vinca	0.70	277	P	Pg	21 02 36.4	-0.7
VINC				S	Sg	21 02 45.8	-0.6
VINC	Vinca	0.70	277	S	Sg	21 02 45.8	-0.6
VINC	Vinca	0.70	277	P	Pg	21 02 36.3	-0.7
VINC	Vinca	0.70	277	P	Pg	21 02 36.3	-0.7
BACM		0.78	287	P	Pb	21 02 37.6	-0.9
BACM				S	Sb	21 02 48.2	-0.9
BACM		0.78	287	S	Sb	21 02 48.2	-0.8
BACM		0.78	287	P	Pb	21 02 37.6	-0.9
GRAM		0.87	301	P	Pb	21 02 39.2	-0.8
GRAM		0.87	301	P	Pb	21 02 39.2	-0.8
CODM		0.97	291	P	Pb	21 02 40.9	-0.8
CODM		0.97	291	P	Pb	21 02 40.9	-0.8

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*IDC **26** 21:03:41.2±1.5, 5.03N×93.45E, mb4.0/7, mb1 4.1/8, mb1mx3.9/19, Error ellipse: s-maj=63.2km s-min=20.1km az=57.0*

*NEIC **26** 21:03:45.9±0.7, 5.06N×93.54E, h30^{km}, mb4.5/3, Error ellipse: s-maj=20.1km s-min=10.7km az=71.0*

ISC 26 21:03:43.9±1.0, **5.1N**±0.1×**93.6E**±0.2, **h30**^{km}**, n12,** σ**0**^{s}**76**/12, **mb4.2**/10, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.30	21	P	P	21 07 06.5	-0.1
CMAR	Chiang Mai Arr	14.30	21	Pn	P	21 07 08.0	+1.3
	baz=217,slow=14,SNR=4.9						
ENH	Enshi	29.21	29	eP	P	21 09 43.8	-1.7
	4.2nm,0.4s,mb4.5						
SONM	Songino Array	44.00	12	P	P	21 11 50.7	+0.3
	1.0nm,0.7s,mb3.6,baz=196,slow=8.2,SNR=6.6						
WRA	Warramunga Arr	47.18	123	P	P	21 12 16.3	+0.2
	5.0nm,0.7s,mb4.5,baz=302,slow=9.0,SNR=23						
WRAB	Tennant Creek	47.18	123	eP	P	21 12 16.0	-0.1
	11nm,0.8s,mb4.8						
ASAR	Alice Springs	48.63	128	P	P	21 12 27.5	+0.1
	1.5nm,0.9s,mb4.0,baz=309,slow=8.4,SNR=7.4						
ZAL	Zalesovo	49.23	353	P	P	21 12 31.2	-0.3
	1.7nm,0.7s,mb4.2,baz=283,slow=6.1,SNR=8.7						
BVAR	Borovoye Array	51.44	342	P	P	21 12 47.7	-0.8
	1.8nm,0.9s,mb4.0,baz=141,slow=9.5,SNR=7.0						
CHKZ	Chkalovo	51.94	343	eP	P	21 12 51.9	-0.4
	1.4nm,0.5s,mb4.2						
FINES	FINESS Array B	74.90	333	P	P	21 15 23.9	+0.3
	1.4nm,0.8s,mb3.9,baz=112,slow=10,SNR=5.0						
ARCES	ARCESS Array B	77.68	340	P	P	21 15 40.3	+1.2
	1.1nm,0.6s,mb4.0,baz=101,slow=6.2,SNR=6.6						

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*DJA **26** 21:06:38.4±1.2, 3.67N×95.19E, h15^{km}, mb5.7/3, Error ellipse: s-maj=37.5km s-min=20.0km az=136.0*

*IDC **26** 21:06:44.4±0.4, 4.83N×96.65E, mb5.1/31, mb1 5.2/32, mb1mx5.2/32, ML4.3/1, MS5.0/13, Ms1 5.1/13, ms1mx5.1/15, Error ellipse: s-maj=21.9km s-min=10.0km az=50.0*

*MOS **26** 21:06:47.8±0.9, 4.72N×96.53E, h33^{km}, mb5.5/41, MS5.3/25, Error ellipse: s-maj=12.9km s-min=5.6km az=121.8*

*BJI **26** 21:06:47.6, 4.04N×95.93E, h59^{km}, mB5.8, mb5.4, Ms5.7, Msz5.5*

*NEIC **26** 21:06:48.8±0.1, 4.47N×96.34E, h30^{km}, mb5.5/80, Error ellipse: s-maj=6.2km s-min=4.1km az=220.0*

*SYO **26** 21:06:51.6, 4.59N×96.37E, h45^{km}, MB5.6*

*CSEM **26** 21:06:53.0, 5.35N×96.01E, h33^{km}, mb5.7*

ISC 26 21:06:48.0±0.2, **4.52N**±0.03×**96.35E**±0.03, **h33**^{km}, **h33**^{km}±4.9^{km}**:pP-P, n456,** σ**1**^{s}**15**/427, **mb5.4**/144, **MS5.4**/38, **41C-15D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSI	Tuntungan	2.43	115	ePn	P	21 07 27.0	+0.9
PSI	Prapat	3.14	125	ePn	P	21 07 38.8	+2.5
SNG	Songkhla	5.00	58	P	P	21 08 00.2	-2.4
	450nm,1.0s						
NST	Nakhon Sawan	11.69	18	P	P	21 09 36.8	+1.3
PENI	Pendagan	13.34	139	⇓eP	P	21 09 50.4	-7.2
	540nm,0.6s						
UBT	Ubonrachathani	13.65	38	⇓P	P	21 10 03.0	+1.3
CM31	Chiang Mai Arr	14.08	10	ePn	P	21 10 08.5	+1.1
	121nm,0.8s						
CMAR	Chiang Mai Arr	14.08	10	Pn	P	21 10 09.6	+2.2
	0.5nm,0.3s,baz=200,slow=13,SNR=51						
CMAR				LR	LR	21 16 25.9	
	comp=Z,14µm,18.1s,baz=180,slow=42						
CMAR	Chiang Mai Arr	14.08	10	P	P	21 10 09.6	+2.2
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,14µm,18.1s						
CHG	Chiang Mai	14.43	10	⇑P	P	21 10 13.8	+1.8
	comp=Z,150nm,1.2s						
CHRT	Chiangrai	15.62	12	⇑P	P	21 10 30.0	+2.5
	comp=Z,816nm,1.3s						
PALK	Pallekele	15.81	281	P	P	21 10 32.9	+2.9
	comp=Z,747nm,1.4s						
COCO	West Island	16.61	178	eP	P	21 10 39.6	-0.4
	comp=Z,879nm,1.3s						
MDRS	Chennai	18.03	299	eP	P	21 11 00.2	+2.4
MDRS				e		21 11 08.6	
	comp=Z,438nm,1.8s						
MDRS				eS	S	21 14 22.9	+8.0
VIS	Vishakhapatnam	18.30	317	eP	P	21 11 01.4	+0.2
VIS				e		21 11 07.3	
	comp=Z,465nm,1.3s						
VIS				eS	S	21 14 27.0	+6.0
QIZ	Qiongzhong	19.53	41	P	P	21 11 16.3	+0.7
QIZ				LR	LR		
	comp=N,22µm,16.7s						
QIZ				LR	LR		
	comp=E,15µm,17.3s						
QIZ				LR	LR		
	comp=Z,12µm,16.8s						
QIZ	Qiongzhong	19.53	41	eP	P	21 11 16.3	+0.7
	comp=Z,273nm,1.3s						
TRD	Trivandrum	19.67	283	eP	P	21 11 19.0	+1.8
TRD				e		21 14 50.8	
AGT	Agartala	19.87	346	⇑iP	P	21 11 21.0	+1.7
AGT				i		21 12 02.0	
IMP	Imphal	20.28	354	e	P	21 11 16.8	-6.9
SHL	Shillong	21.36	349	eP	P	21 11 34.0	-0.7
KMI	Kunming	21.38	16	P	P	21 11 38.3	+3.3
KMI				PPP	PPP	21 12 13.0	+4.4
KMI				S	S	21 15 36.3	+11
KMI				SSS	SSS	21 16 28.5	+13
KMI				AMB	AMB		
	comp=Z,357nm,1.3s,mb5.5						
KMI				AMB	AMB		
	comp=Z,3µm,3.4s						
KMI				LR	LR		
	comp=N,12µm,13.8s,MS5.5						
KMI				LR	LR		
	comp=E,9µm,13.0s,MS5.5						
KMI				LR	LR		
	comp=Z,14µm,13.8s,MS5.5						
HYB	Hyderabad	21.64	308	eP	P	21 11 33.5	-4.1
	comp=Z,420nm,1.0s,mb5.8						
HYB				e		21 11 39.0	
HYB				eS	S	21 15 41.0	+11
HYB	Hyderabad	21.64	308	iP	P	21 11 33.5	-4.1
	comp=Z,420nm,1.0s,mb5.8						
HYB				e		21 11 39.0	
HYB				eS	S	21 15 41.0	+11
BOK	Bokaro	21.66	333	e	P	21 11 35.1	-2.6
SRDI	Scrawed	21.94	126	⇑eP	P	21 11 40.1	-0.5
KELI	Kelakatan	22.08	125	⇑eP	P	21 11 42.3	+0.4
BLSP	Bilaspur	22.28	323	eP	P	21 11 42.8	-1.1
BLSP				e		21 11 53.4	
	comp=Z,233nm,1.2s						
LKP	Lekhapani	22.69	359	eP	P	21 11 47.0	-1.0
LKP				e		21 11 52.0	
RATI	Rata	23.21	125	⇑eP	P	21 11 51.1	-2.2
	comp=Z,282nm,0.5s,mb5.7						
MNCY	Minicoy	23.47	280	⇓i	P	21 12 04.0	+8.2
MNCY				i		21 13 30.0	

KEDI	**Kedomdong**	**23.56**	**123**	*e*P	**P**	**21 11 51.9**	**-4.8**
	comp=Z,418nm,0.8s,mb5.6						
KEDI				*e*S	**S**	**21 16 10.1**	**+5.0**
GYA	**Guiyang**	**23.94**	**23**	⇑*i*P	**P**	**21 12 02.3**	**+2.1**
GYA				PP	PP	21 12 39.5	+5.0
GYA				S	**S**	**21 16 23.8**	**+12**
GYA				AMB	AMB		
	comp=Z,280nm,1.3s,mb5.5						
GYA				AMB	AMB		
	comp=Z,670nm,6.2s						
GYA				LR	LR		
	comp=N,6µm,14.4s,MS5.4						
GYA				LR	LR		
	comp=E,7µm,12.0s,MS5.4						
GYA				LR	LR		
	comp=Z,11µm,10.8s,MS5.6						
TANI	**Tanete Lipujan**	**24.33**	**109**	⇓*e*P	**P**	**21 12 03.9**	**-0.3**
GZH	**Guangzhou**	**24.70**	**40**	P		21 12 14.3	
GZH				LR	LR		
	comp=N,7µm,19.6s,MS5.4						
GZH				LR	LR		
	comp=E,10µm,20.5s,MS5.4						
GZH				LR	LR		
	comp=Z,13µm,16.8s,MS5.5						
ALBI	**Allahabad**	**24.95**	**327**	*e*P	**P**	**21 12 09.0**	**-1.0**
KAD	**Karad**	**25.16**	**302**	*e*P	**P**	**21 12 14.9**	**+2.8**
KAD				*i*		21 17 02.9	
	comp=Z,151nm,0.7s						
PKI	**Pulchoki**	**25.18**	**337**	*e*P	**P**	**21 12 10.2**	**-2.0**
	comp=Z,163nm,1.2s,mb5.4						
GUN	**Gumba**	**25.31**	**338**	*e*P	**P**	**21 12 13.1**	**-0.3**
	comp=Z,166nm,0.7s,mb5.7						
DMN	**Daman**	**25.34**	**336**	*e*P	**P**	**21 12 11.4**	**-2.3**
	comp=Z,90nm,0.8s,mb5.4						
KKN	**Kakani**	**25.43**	**337**	*e*P	**P**	**21 12 13.5**	**-1.1**
	comp=Z,130nm,0.9s,mb5.4						
LSA	**Lhasa**	**25.52**	**349**	*e*P	**P**	**21 12 17.0**	**+1.6**
	comp=Z,179nm,0.8s,mb5.7						
GKN	**Gorkha**	**25.88**	**336**	*e*P	**P**	**21 12 18.5**	**-0.3**
	comp=Z,401nm,1.0s,mb5.9						
POO	**Poona**	**26.03**	**304**	*e*P	**P**	**21 12 21.1**	**+0.9**
POO				*e*		21 12 36.5	
	comp=Z,150nm,1.4s						
TGY	**Tagaytay City**	**26.03**	**67**	P	**P**	**21 12 22.1**	**+1.8**
	comp=Z,59nm,0.4s,mb5.4,baz=270,slow=11,SNR=2.4						
TGY				LR	LR	21 22 28.6	
	comp=Z,3µm,19.1s,MS4.8,baz=14,slow=37						
TGY	**Tagaytay City**	**26.03**	**67**	P	**P**	**21 12 22.1**	**+1.8**
TGY				pmax	pmax		
	comp=Z,59nm,0.4s						
TGY				MLR	MLR		
	comp=Z,3µm,19.1s						
BHPL	**Bhopal**	**26.09**	**317**	*e*P	**P**	**21 12 20.9**	**+0.2**
BHPL				*e*	pP	21 12 29.4	-0.7
	comp=Z,164nm,1.1s						
KOLN	**Koldanda**	**26.12**	**334**	*e*P	**P**	**21 12 20.7**	**-0.3**
	comp=Z,345nm,0.9s,mb5.9						
LQP	**Lukban**	**26.59**	**67**	*e*P	**P**	**21 12 27.0**	**+1.6**
BOM	**Bombay**	**27.06**	**304**	*e*	pP	21 12 38.8	-0.4
BOM				*e*S	**S**	**21 17 11.4**	**+7.9**
	comp=Z,784nm,1.5s						
CD2	**Chengdu**	**27.16**	**14**	⇓*i*P	**P**	**21 12 31.8**	**+1.3**
CD2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.1						
ENH	**Enshi**	**28.46**	**24**	⇑*e*P	**P**	**21 12 41.3**	**-1.0**
	comp=Z,236nm,1.5s,mb5.6						
LGTI	**Lohaghat**	**29.11**	**330**	*e*P	**P**	**21 12 48.5**	**+0.4**
PTH	**Pithoragarh**	**29.21**	**330**	*e*P	**P**	**21 12 47.2**	**-1.7**
PTH				*e*S	**S**	**21 17 40.2**	**+2.3**
QZH	**Quanzhou**	**29.48**	**44**	P	pP	21 12 57.5	-3.5
QZH				AMB	AMB		
	comp=Z,350nm,1.4s,mb5.9						
QZH				LR	LR		
	comp=N,25µm,17.0s,MS6.0						
QZH				LR	LR		
	comp=E,15µm,17.0s,MS6.0						
QZH				LR	LR		
	comp=Z,17µm,17.8s,MS5.7						
AJM	**Ajmer**	**30.13**	**319**	*e*P	**P**	**21 13 00.0**	**+2.9**
AJM				*e*		21 13 04.7	
	comp=Z,98nm,1.3s						
DDI	**Dehra Dun**	**30.93**	**328**	*e*P	**P**	**21 13 06.8**	**+2.5**
DDI				*e*		21 18 12.8	
WHN	**Wuhan**	**30.95**	**31**	P	**P**	**21 13 05.8**	**+1.4**
LZH	**Lanzhou**	**32.16**	**11**	*e*P	**P**	**21 13 16.0**	**+1.0**
LZH				SCS	ScS	21 23 40.3	-0.4
LZH				AMB	AMB		
	comp=Z,153nm,1.2s,mb5.7						
LZH				AMB	AMB		
	comp=Z,732nm,5.0s						
LZH				LR	LR		
	comp=E,6µm,14.5s						
LZH				LR	LR		
	comp=Z,8µm,16.0s,MS5.5						
SDNR	**Sundarnagar**	**32.43**	**328**	*e*P	**P**	**21 13 17.1**	**-0.3**
BHK	**Bhakra**	**32.66**	**327**	*e*	pP	21 13 27.0	-2.1
THN	**Thein Dam**	**33.83**	**328**	*e*P	**P**	**21 13 28.1**	**-1.3**
	comp=Z,55nm,0.8s,mb5.5						
THN				*e*		21 19 00.0	
MBWA	**Marble Bar**	**34.30**	**139**	*e*P	**P**	**21 13 31.2**	**-2.5**
	comp=Z,24nm,1.0s,mb5.1						
NJ2	**Nanjing**	**34.57**	**35**	*e*P	**P**	**21 13 36.3**	**+0.5**
NJ2				S	**S**	**21 19 01.0**	**-0.7**
NJ2				AMB	AMB		
	comp=Z,1µm,5.0s						
NJ2				LR	LR		
	comp=N,20µm,15.4s,MS6.0						
NJ2				LR	LR		
	comp=E,14µm,16.0s,MS6.0						
NJ2				LR	LR		
	comp=Z,21µm,15.1s,MS6.0						
GTA	**Gaotai**	**34.87**	**5**	P	**P**	**21 13 38.5**	**+0.1**
GTA				S	**S**	**21 18 59.8**	**-6.6**
GTA				SCS	ScS	21 23 54.0	-0.8
GTA				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
GTA				AMB	AMB		
	comp=Z,962nm,4.6s						
GTA				LR	LR		
	comp=N,4µm,18.2s,MS5.2						
GTA				LR	LR		
	comp=E,2µm,17.5s,MS5.2						
GTA				LR	LR		
	comp=Z,5µm,16.3s,MS5.3						
TIA	**Tai'an**	**36.88**	**29**	*e*P	**P**	**21 13 56.0**	**+0.6**
JOW	**Kunigami**	**37.70**	**51**	P	**P**	**21 14 01.8**	**-0.6**
	comp=Z,28nm,0.6s,mb5.2,baz=260,slow=8.1,SNR=11						
BTO	**Baotou**	**37.97**	**17**	*e*P	**P**	**21 14 06.0**	**+1.5**
BTO				S	**S**	**21 20 02.5**	**+8.6**
BTO				AMB	AMB		
	comp=Z,76nm,2.3s,mb5.0						
BTO				LR	LR		
	comp=N,3µm,11.3s						
BTO				LR	LR		
	comp=E,8µm,20.1s						
HHC	**Hu-ho-hao-te**	**38.67**	**19**	*e*P	**P**	**21 14 12.3**	**+2.0**
HHC				AP	pP	21 14 24.0	+3.9
HHC				XP	sP	21 14 30.0	+5.7
HHC				PP	PP	21 15 46.0	+3.2
HHC				S	**S**	**21 20 04.5**	**0.0**
HHC				PCS		21 20 12.3	
HHC				SCS	ScS	21 24 16.5	+0.6
HHC				AMB	AMB		
	comp=Z,96nm,1.6s,mb5.3						
HHC				AMB	AMB		
	comp=Z,1µm,5.4s						
BJT	**Baijiatuau**	**39.61**	**24**	*e*P	**P**	**21 14 19.9**	**+1.8**
	comp=Z,138nm,1.0s,mb5.6						
BJI	**Beijing**	**39.63**	**24**	P	**P**	**21 14 19.8**	**+1.5**
BJI				AMB	AMB		
	comp=Z,78nm,1.0s,mb5.4						
WMQ	**Urumqi**	**39.88**	**350**	P	**P**	**21 14 19.5**	**-0.8**
WMQ				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.5						
WMQ				AMB	AMB		
	comp=Z,222nm,6.7s						
WMQ				LR	LR		
	comp=N,3µm,23.5s,MS5.1						
WMQ				LR	LR		
	comp=E,1µm,22.3s,MS5.1						
WMQ				LR	LR		
	comp=Z,2µm,26.2s,MS4.8						
DL2	**Dalian**	**41.20**	**30**	P	**P**	**21 14 32.8**	**+1.4**
DL2				S	**S**	**21 20 55.0**	**+12**
DL2				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.3						
DL2				LR	LR		
	comp=N,2µm,23.8s,MS5.2						
DL2				LR	LR		
	comp=E,3µm,22.7s,MS5.2						
DL2				LR	LR		
	comp=Z,2µm,24.9s,MS4.8						
NWAO	**Narrogin (SRO)**	**42.18**	**153**	P	**P**	**21 14 40.0**	**+0.5**
	comp=Z,88nm,0.8s,baz=314,slow=8.6,SNR=46						
NWAO				LR	LR	21 33 46.4	
	comp=Z,12nm,18.5s,baz=316,slow=38						
NWAO	**Narrogin (SRO)**	**42.18**	**153**	P	**P**	**21 14 40.0**	**+0.5**
NWAO				pmax	pmax		
	comp=Z,88nm,0.8s						
NWAO				MLR	MLR		
	comp=Z,12nm,18.5s						
NWAO	**Narrogin (SRO)**	**42.18**	**153**	*e*P	**P**	**21 14 39.7**	**+0.2**
	comp=Z,45nm,0.7s,mb5.2						
AAK	**Ala-Archa**	**42.64**	**336**	*i* P	**P**	**21 14 43.6**	**+0.5**
AAK				MLR	MLR		
	comp=Z,5µm,24.0s,MS5.4						
AAK	**Ala-Archa**	**42.64**	**336**	P	**P**	**21 14 41.8**	**-1.3**
	comp=Z,22nm,0.8s,mb4.9						
AAK				*i* P		21 14 43.6	
KS15	**Wonju Array Si**	**43.64**	**37**	*e*P	**P**	**21 14 52.1**	**+0.7**
MKAR	**Makanchi Array**	**43.84**	**346**	*i* P	**P**	**21 14 51.3**	**-1.5**
MKAR				pmax	pmax		
	comp=Z,78nm,1.1s						
SONM	**Songino Array**	**44.01**	**10**	P	**P**	**21 14 54.0**	**-0.2**
	comp=Z,43nm,1.2s,mb5.1,baz=191,slow=8.5,SNR=68						
SONM				PcP	PcP	21 16 38.2	-1.7
	comp=Z,14nm,0.9s,baz=210,slow=3.5,SNR=5.7						
SONM				ScP		21 20 30.4	
	comp=Z,2.7nm,1.1s,baz=180,slow=8.6,SNR=3.5						
SNY	**Shenyang**	**44.39**	**29**	⇑P	**P**	**21 14 57.0**	**-0.3**
SNY				S	**S**	**21 21 36.8**	**+7.7**
SNY				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.2						
SNY				AMB	AMB		
	comp=Z,1µm,10.7s						
SNY				LR	LR		
	comp=N,4µm,16.0s,MS5.6						
SNY				LR	LR		
	comp=E,4µm,14.3s,MS5.6						
SNY				LR	LR		
	comp=Z,5µm,15.5s,MS5.5						
WRA	**Warramunga Arr**	**44.55**	**124**	P	**P**	**21 14 57.7**	**-1.1**
	comp=Z,120nm,0.8s,mb5.8,baz=301,slow=9.3,SNR=181						
WRA	**Warramunga Arr**	**44.55**	**124**	P	**P**	**21 14 57.7**	**-1.2**
WRA				pmax	pmax		
	comp=Z,120nm,0.8s						
WRAB	**Tennant Creek**	**44.55**	**124**	*d* *i*P	**P**	**21 14 57.9**	**-1.0**
WRAB	**Tennant Creek**	**44.55**	**124**	*e*P	**P**	**21 14 57.8**	**-1.1**
	comp=Z,414nm,1.1s,mb6.2						
ZAK	**Zakamensk**	**46.07**	**6**	*e*P	**P**	**21 15 10.8**	**+0.2**
ASAR	**Alice Springs**	**46.10**	**129**	P	**P**	**21 15 10.3**	**-0.8**
	comp=Z,52nm,0.8s,mb5.5,baz=298,slow=8.0,SNR=226						
CN2	**Changchun**	**46.78**	**29**	*e*P	**P**	**21 15 16.3**	**0.0**
CN2				*e*XP	sP	21 15 34.5	+4.2
CN2				*e*S	**S**	**21 22 02.5**	**-0.8**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
CN2				AMB	AMB		
	comp=Z,600nm,5.0s						
CN2				LR	LR		
	comp=N,4µm,21.0s,MS5.5						
CN2				LR	LR		
	comp=E,4µm,21.0s,MS5.5						
CN2				LR	LR		
	comp=Z,3µm,22.0s,MS5.2						
MOY	**Mondy**	**47.15**	**4**	*e*P	**P**	**21 15 23.5**	**+4.5**
TLY	**Talaya**	**47.39**	**6**	*e*P	**P**	**21 15 21.2**	**+0.2**
TLY				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.2						
TLY				MLR	MLR		
	comp=Z,3µm,14.0s,MS5.3						
TLY	**Talaya**	**47.39**	**6**	*i* P	**P**	**21 15 21.5**	**+0.5**
HIA	**Hailar**	**48.81**	**20**	*e*P	**P**	**21 15 32.6**	**+0.6**
	comp=Z,42nm,1.3s,mb5.3						
HASS	**Wahat al Ahsa'**	**49.23**	**300**	P	**P**	**21 15 36.8**	**+1.2**
MDJ	**Mudanjiang**	**49.44**	**31**	P	**P**	**21 15 40.0**	**+3.1**
MDJ				PCP	PcP	21 16 55.5	-3.6
MDJ				PP	PP	21 17 37.0	+5.5
MDJ				S	**S**	**21 22 44.8**	**+4.2**
MDJ				AMB	AMB		
	comp=Z,42nm,1.3s,mb5.3						
MDJ				AMB	AMB		
	comp=Z,289nm,4.6s						
MDJ				LR	LR		
	comp=N,3µm,23.3s,MS5.4						
MDJ				LR	LR		
	comp=E,3µm,22.2s,MS5.4						
MDJ				LR	LR		
	comp=Z,3µm,18.2s,MS5.3						
MDJ	**Mudanjiang**	**49.44**	**31**	P	**P**	**21 15 37.8**	**+0.9**
	comp=Z,56nm,1.2s,mb5.5						
MAJO	**Matsushiro**	**49.88**	**45**	*e*P	**P**	**21 15 41.8**	**+1.4**
	comp=Z,28nm,0.9s,mb5.3						
MAT	**Matsushiro**	**49.88**	**45**	P	**P**	**21 15 41.6**	**+1.2**
MAT				S	**S**	**21 22 55.0**	**+8.1**
MAT	**Matsushiro**	**49.88**	**45**	*e*P	**P**	**21 15 42.0**	**+1.6**
	comp=Z,13nm,0.8s,mb5.0						
MAT				*e*S	**S**	**21 22 56.0**	**+9.1**
ZAL	**Zalesovo**	**50.16**	**351**	P	**P**	**21 15 40.5**	**-1.8**
	comp=Z,18nm,1.0s,mb5.1,baz=299,slow=6.3,SNR=45						
ZAL				LR	LR	21 41 03.5	
	comp=Z,2µm,19.9s,MS5.1,baz=289,slow=41						
ZAL	**Zalesovo**	**50.16**	**351**	P	**P**	**21 15 40.6**	**-1.7**
ZAL				pmax	pmax		
	comp=Z,18nm,1.0s						
ZAL				MLR	MLR		
	comp=Z,2µm,19.9s						
LBOS		**51.20**	**284**	⇑*e*P	**P**	**21 15 54.3**	**+3.6**
NVS	**Novosibirsk**	**51.28**	**350**	*e*P	**P**	**21 15 48.0**	**-2.8**
NVS				*e*		21 23 09.5	
NVS				pmax	pmax		
	comp=N,23nm,1.1s						
NVS				pmax	pmax		
	comp=E,18nm,1.1s						
NVS				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
RYDS	**Riyadh**	**51.64**	**297**	P	**P**	**21 15 55.7**	**+1.7**
QRN	**Al-Qurain**	**51.81**	**303**	*e*P	**P**	**21 15 56.3**	**+1.1**
QRN				AMb	AMB	21 16 06.9	
	comp=Z,123nm,0.9s,mb5.8						
RDF	**Al-Radifah**	**52.17**	**303**	*e*P	**P**	**21 15 58.4**	**+0.5**
RDF				AMb	AMB	21 16 13.2	
	comp=Z,303nm,1.1s,mb6.2						
TRBA	**At Turbah**	**52.24**	**283**	⇑*e*P	**P**	**21 16 01.2**	**+2.7**
MIB	**Mutribah**	**52.62**	**304**	*e*P	**P**	**21 16 00.8**	**-0.4**
MIB				AMb	AMB	21 16 15.8	
	comp=Z,245nm,1.2s,mb6.0						
KAMS	**Al Khamasin**	**52.70**	**292**	P	**P**	**21 16 03.0**	**+1.1**
RST	**Umm Al-Ruwaisa**	**52.81**	**304**	*e*P	**P**	**21 16 02.4**	**-0.3**
RST				AMb	AMB	21 16 11.3	
	comp=Z,115nm,1.0s,mb5.8						
BVA0	**Borovoye Array**	**52.86**	**341**	P	**P**	**21 16 00.1**	**-2.5**
BVA0				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
BVAR	**Borovoye Array**	**52.86**	**341**	P	**P**	**21 16 00.4**	**-2.2**
	comp=Z,13nm,0.7s,mb5.0,baz=139,slow=8.6,SNR=49						
MZLS	**Mizel**	**52.88**	**297**	P	**P**	**21 16 04.1**	**+0.9**
BRVK	**Borovoye**	**52.92**	**341**	⇑*i*P	**P**	**21 16 01.0**	**-2.1**
CHKZ	**Chkalovo**	**53.33**	**341**	*i* P	**P**	**21 16 03.4**	**-2.8**
CHKZ				pmax	pmax		
	comp=Z,107nm,1.0s,mb5.7						
CHKZ	**Chkalovo**	**53.33**	**341**	⇓*e*P	**P**	**21 16 03.6**	**-2.5**
	comp=Z,48nm,0.8s,mb5.5						
TATS	**Tathlith**	**53.59**	**291**	P	**P**	**21 16 09.4**	**+0.8**
KLR	**Kul'dur**	**53.71**	**28**	*e*P	**P**	**21 16 06.2**	**-2.8**
KLR				pmax	pmax		
	comp=E,52nm,1.4s						
KLR				pmax	pmax		
	comp=Z,76nm,1.4s,mb5.4						
NAMS	**An Nimas**	**54.73**	**290**	P	**P**	**21 16 18.7**	**+1.9**
CTA	**Charters Tower**	**54.77**	**118**	P	**P**	**21 16 15.5**	**-1.7**
	comp=Z,24nm,0.8s,mb5.2,baz=299,slow=7.7,SNR=20						
CTA	**Charters Tower**	**54.77**	**118**	P	**P**	**21 16 15.5**	**-1.7**
CTA				pmax	pmax		
	comp=Z,24nm,0.9s						
CTAO	**Charters Tower**	**54.77**	**118**	*e*P	**P**	**21 16 15.2**	**-2.0**
	comp=Z,50nm,1.4s,mb5.3						
AFFS	**'Afif**	**54.82**	**296**	P	**P**	**21 16 18.4**	**+0.9**
BOD	**Bodaibo**	**54.93**	**11**	*e*P	**P**	**21 16 15.9**	**-2.0**
ARSS	**Ar Rass**	**55.04**	**298**	P	**P**	**21 16 20.3**	**+1.2**
STKA	**Stephens Creek**	**56.22**	**133**	P	**P**	**21 16 26.5**	**-1.0**
	comp=Z,39nm,0.8s,mb5.5,baz=300,slow=7.8,SNR=49						
STKA				LR	LR	21 44 52.1	
	comp=Z,2µm,18.4s,MS5.3,baz=298,slow=41						
STKA	**Stephens Creek**	**56.22**	**133**	*e*P	**P**	**21 16 26.2**	**-1.2**
HILS	**Ha'il**	**56.65**	**300**	P	**P**	**21 16 31.7**	**+1.1**
CLNS	**Chul'man**	**56.85**	**18**	*e*P	**P**	**21 16 31.3**	**-0.4**
CLNS				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.4						
CLNS				pmax	pmax		
	comp=N,23nm,0.9s						
CLNS				pmax	pmax		
	comp=E,19nm,0.9s						
MAK	**Makhachkala**	**57.67**	**319**	*e*P	**P**	**21 16 54.0**	**+16**
MAK				*e*		21 24 36.0	
MAK				MLR	MLR		
	comp=E,3µm,14.0s						
MAK				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.3						
YSS	**Yuzh-Sakhalins**	**58.13**	**36**	⇑*e*P	**P**	**21 16 43.0**	**+2.2**
YSS				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.8						
YSS				MLR	MLR		
	comp=N,2µm,18.0s,MS5.5						
YSS				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.4						
YSS				MLR	MLR		
	comp=E,2µm,20.0s,MS5.5						
YSS	**Yuzh-Sakhalins**	**58.13**	**36**	*e*P	**P**	**21 16 40.5**	**-0.4**
	comp=E,111nm,1.3s,mb5.7						
GNI	**Garni**	**58.34**	**315**	P	**P**	**21 16 41.5**	**-0.9**
	comp=E,20nm,1.0s,mb5.1,baz=155,slow=4.4,SNR=9.6						
GNI	**Garni**	**58.34**	**315**	P	**P**	**21 16 41.5**	**-0.9**
GNI				pmax	pmax		
	comp=Z,20nm,1.0s						
TI2	**Plekhanov**	**58.98**	**317**	*e*P	**P**	**21 16 46.2**	**-0.6**
KMBO	**Kilima Mbogo**	**59.31**	**266**	P	**P**	**21 16 52.2**	**+2.6**
	comp=Z,15nm,1.0s,mb5.0,baz=60,slow=8.5,SNR=19						
KMBO	**Kilima Mbogo**	**59.31**	**266**	P	**P**	**21 16 52.2**	**+2.6**
KMBO				pmax	pmax		
	comp=Z,15nm,1.0s						
KMBO	**Kilima Mbogo**	**59.31**	**266**	⇓*e*P	**P**	**21 16 51.9**	**+2.4**
	comp=Z,58nm,1.0s,mb5.6						
ARU	**Arti**	**59.82**	**337**	⇑*e*P	**P**	**21 16 49.8**	**-2.6**
ARU				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
ARU				MLR	MLR		
	comp=Z,6µm,24.0s,MS5.7						
ZEI	**Tsey**	**59.98**	**318**	*e*P	**P**	**21 16 52.6**	**-1.1**
ZEI				*i* *PP	pP	21 17 08.0	+4.1
ZEI				*i*		21 19 08.0	
ZEI				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
ERZM	**Erzurum**	**60.66**	**314**	*i* P	**P**	**21 16 58.4**	**0.0**
KIV	**Kislovodsk**	**61.27**	**318**	P	**P**	**21 17 01.4**	**-1.1**
	comp=Z,127nm,0.7s,mb6.2,SNR=12						
KIV	**Kislovodsk**	**61.27**	**318**	*e*P	**P**	**21 17 01.0**	**-1.5**
KIV				*e*		21 17 42.0	
KIV				*e*		21 19 14.7	
KIV				*i* S	**S**	**21 25 19.1**	**+0.6**
KIV				pmax	pmax		
	comp=E,17nm,1.0s						
KIV				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.6						
KIV				smax			
	comp=N,440nm,3.1s						
KIV				MLR	MLR		
	comp=Z,1µm,23.0s,MS5.1						
KIV				MLR	MLR		
	comp=N,625nm,17.0s						
KIV				MLR	MLR		
	comp=E,1µm,17.0s						
KIV	**Kislovodsk**	**61.27**	**318**	⇑*e*P	**P**	**21 17 01.0**	**-1.5**
GOF	**Gofitskoye**	**61.49**	**320**	⇑*i*P	**P**	**21 17 04.0**	**+0.1**
GOF				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.3						
ASF	**Jabal al Asfar**	**61.89**	**304**	P	**P**	**21 17 07.0**	**+0.2**
	comp=Z,9.6nm,0.5s,mb5.2,baz=336,slow=6.1,SNR=16						
ELZG	**Elazig**	**61.94**	**312**	*i* P	**P**	**21 17 06.5**	**-0.5**
MALT	**Malatya**	**62.30**	**311**	*e*P	**P**	**21 17 08.3**	**-1.2**
	comp=Z,26nm,1.1s,mb5.3						
YAK	**Yakutsk**	**62.50**	**17**	*e*P	**P**	**21 17 09.8**	**-0.6**
YAK				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.3						
YAK				pmax	pmax		
	comp=N,9.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,5.0nm,0.9s						
YAK				MLR	MLR		
	comp=N,2µm,14.0s,MS5.5						
YAK				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.5						
YAK				MLR	MLR		
	comp=E,1µm,13.0s,MS5.5						
YAK	**Yakutsk**	**62.50**	**17**	*e*P	**P**	**21 17 07.7**	**-2.8**
	comp=E,46nm,0.8s,mb5.7						
GZT	**Gaziantep**	**62.68**	**310**	*i* P	**P**	**21 17 10.4**	**-1.6**
EIL	**Elat**	**63.01**	**301**	P	**P**	**21 17 14.3**	**0.0**
	comp=E,25nm,0.6s,mb5.5,baz=111,slow=8.6,SNR=14						
EIL				LR	LR	21 45 39.6	
	comp=E,2µm,18.2s,MS5.2,baz=285,slow=37						
EIL	**Elat**	**63.01**	**301**	*e*P	**P**	**21 17 14.7**	**+0.4**
	comp=E,90nm,1.2s,mb5.8						
SOC	**Sochi**	**63.12**	**317**	*e*P	**P**	**21 17 13.2**	**-1.6**
SOC				*e*		21 17 45.2	
SOC				*e*		21 19 37.8	
SOC				*e*S	**S**	**21 25 45.6**	**+3.8**
SOC				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.8						
SOC				pmax	pmax		
	comp=N,47nm,1.2s						
SOC				pmax	pmax		
	comp=E,28nm,0.9s						
SOC				MLR	MLR		
	comp=N,1µm,18.0s,MS5.2						
SOC				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.1						
SOC				MLR	MLR		
	comp=E,1µm,20.0s,MS5.2						
SOC	**Sochi**	**63.12**	**317**	*i* P	**P**	**21 17 12.9**	**-1.9**
COBT	**Iskenderun**	**63.47**	**309**	*i* P	**P**	**21 17 17.2**	**-0.1**
PHNC	**Paralimni**	**64.86**	**307**	P	**P**	**21 17 26.1**	**-0.2**
ANN	**Anapa**	**65.08**	**318**	*e*P	**P**	**21 17 24.1**	**-3.5**
ANN				*e**PP	pP	21 17 34.4	-3.5
ANN				*e*S	S	21 26 04.9	-1.2
ANN				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
ANN				MLR	MLR		
	comp=Z,1µm,18.0s,MS5.1						
ANN				MLR	MLR		
	comp=N,2µm,19.0s,MS5.4						
ANN				MLR	MLR		
	comp=E,1µm,18.0s,MS5.4						
AVNT	**Avonos**	**65.12**	**311**	*i* P	**P**	**21 17 26.7**	**-1.3**
MEST	**Erdemli**	**65.13**	**308**	*i* P	**P**	**21 17 27.0**	**-1.0**
CSS	**Prodhromos**	**65.41**	**306**	P	**P**	**21 17 29.5**	**-0.4**
MAMC	**Mammari**	**65.55**	**307**	P	**P**	**21 17 30.9**	**+0.1**
CTKT	**Corum**	**65.66**	**313**	*i* P	**P**	**21 17 29.2**	**-2.2**
SZAC	**Souni-Zanaja**	**65.73**	**306**	P	**P**	**21 17 31.7**	**-0.2**
MBAR	**Mbarara**	**65.75**	**267**	*c* *i*P	**P**	**21 17 33.1**	**+0.7**
MBAR	**Mbarara**	**65.75**	**267**	*e*P	**P**	**21 17 32.7**	**+0.3**
	comp=E,282nm,1.8s,mb6.0						
BOYT	**Boyabat**	**65.80**	**314**	*i* P	**P**	**21 17 30.6**	**-1.7**
ALFC	**Alevga**	**66.04**	**306**	P	**P**	**21 17 33.2**	**-0.7**
	comp=E,1.6nm,0.7s						
PPCY	**Paphos**	**66.19**	**306**	⇓P	**P**	**21 17 34.9**	**0.0**
AKMC	**Akamas**	**66.23**	**306**	P	**P**	**21 17 34.4**	**-0.7**
BRTR	**Keskin Array B**	**66.28**	**312**	P	**P**	**21 17 34.1**	**-1.2**
	comp=E,14nm,0.5s,mb5.2,baz=130,slow=7.4,SNR=92						
BRTR	**Keskin Array B**	**66.28**	**312**	P	**P**	**21 17 34.1**	**-1.2**
BRTR				pmax	pmax		
	comp=Z,14nm,0.5s						
ELDT	**Eldivan**	**66.63**	**312**	*i* P	**P**	**21 17 37.0**	**-0.5**
BALT	**Daday**	**66.93**	**313**	*i* P	**P**	**21 17 38.1**	**-1.3**
SIM	**Simferopol'**	**67.36**	**317**	*e*P	**P**	**21 17 41.5**	**-0.6**
SIM				pmax	pmax		
	comp=Z,194nm,0.7s,mb6.2						
SGKT	**Sivrigoynuk**	**67.66**	**312**	*i* P	**P**	**21 17 43.6**	**-0.4**
SKR	**Severo-Kuril's**	**67.68**	**36**	*e*P	**P**	**21 17 40.9**	**-3.1**
SKR				*e*		21 18 04.0	
SKR				*e*		21 20 18.0	
SKR				*e*PPP	PPP	21 21 52.0	-0.2
SKR				*e*S	S	21 26 41.0	+3.5
SKR				*e*PS	PS	21 27 14.0	+8.2
SKR				*e*		21 27 27.0	
SKR				pmax	pmax		
	comp=E,2µm,4.0s						

SKR				pmax	pmax		
	comp=Z,2µm,4.0s						
SKR				pmax	pmax		
	comp=N,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,60nm,0.5s,mb5.9						
SKR				smax			
	comp=E,2µm,14.0s						
ISP	Isparta	68.23	309	*c i*P	P	21 17 46.7	-1.0
HENT	Hendek	68.58	312	*i* P	P	21 17 49.1	-0.6
MOS	Moscow	69.07	329	*e*P	P	21 17 51.6	-0.9
MOS				*e*		21 18 18.7	
MOS				*e*		21 20 27.2	
MOS				*e*PPP	PPP	21 22 07.0	+1.3
MOS				*e*S	S	21 26 55.5	+1.5
MOS				*e*		21 27 46.8	
MOS				*e*SS	SS	21 31 21.9	-0.1
MOS				pmax	pmax		
	comp=Z,112nm,1.4s,mb5.6						
MOS				smax			
	comp=N,1µm,4.0s						
MOS				MLR	MLR		
	comp=Z,3µm,21.5s,MS5.5						
OBN	Obninsk	69.37	328	⇓*e*P	P	21 17 53.3	-1.1
OBN				*e*	pP	21 18 01.5	-3.2
OBN						21 20 27.1	
OBN				*i*		21 26 54.5	
OBN				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.4						
OBN				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
ULDT	Uludag	69.74	311	*i* P	P	21 17 54.3	-2.6
PET	Petropavlovsk	69.98	35	*e*P	P	21 17 55.4	-2.7
PET				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
TIXI	Tiksi	70.09	10	*e*P	P	21 17 56.2	-2.3
TIXI				*e*S	S	21 27 07.2	+1.4
TIXI				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,3µm,15.0s,MS5.7						
TIXI	Tiksi	70.09	10	⇑*e*P	P	21 17 56.5	-2.0
LSZ	Lusaka	70.28	252	*e*P	P	21 18 02.0	+1.5
	comp=Z,179nm,1.7s,mb5.7						
KDAG	Bornova	70.85	309	*i* P	P	21 18 02.5	-1.2
AYVA	Ayvalik	71.45	310	*i* P	P	21 18 10.3	+3.1
KIS	Kishinev	71.47	318	*e*P	P	21 18 07.0	-0.2
CFR	Carcaliu	71.52	316	⇑*i*P	P	21 18 07.7	+0.1
HARR	Harsova	71.56	316	P	P	21 18 08.3	+0.5
HARR	Harsova	71.56	316	⇑*i*P	P	21 18 08.2	+0.4
HARR	Harsova	71.56	316	⇑*i*P	P	21 18 08.2	+0.4
PRD	Provadia	71.63	314	P	P	21 18 08.0	-0.2
JMB	Yambol	72.08	313	*e*P	P	21 18 11.0	+0.1
AKASG	Malin Array Be	72.13	322	P	P	21 18 09.0	-2.1
	comp=Z,4.1nm,0.4s,mb4.7,baz=84,slow=4.7,SNR=43						
AKASG	Malin Array Be	72.13	322	P	P	21 18 09.0	-2.1
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.4s						
IDI	Anoyia	72.28	305	P	P	21 18 12.2	-0.1
	comp=Z,35nm,0.6s,mb5.5,baz=87,slow=7.6,SNR=29						
VRI	Vrincioaia	72.63	317	P	P	21 18 15.5	+1.3
VRI	Vrincioaia	72.63	317	⇑*i*P	P	21 18 14.1	-0.1
VRI	Vrincioaia	72.63	317	⇑*i*P	P	21 18 14.1	-0.1
DIM	Dimitrovgrad	72.77	313	P	P	21 18 14.0	-1.1
KDZ	Kurdzhali	72.79	312	P	P	21 18 15.0	-0.2
MLR	Muntele Rosu	73.09	316	P	P	21 18 16.0	-1.0
	comp=Z,61nm,1.1s,mb5.4,baz=163,slow=1.2,SNR=17						
MLR	Muntele Rosu	73.09	316	P	P	21 18 16.0	-1.0
MLR				pmax	pmax		
	comp=Z,61nm,1.1s						
MLR	Muntele Rosu	73.09	316	⇑*i*P	P	21 18 18.2	+1.3
MLR	Muntele Rosu	73.09	316	⇑*i*P	P	21 18 18.2	+1.2
PVL	Pavlikeni	73.11	314	*e*P	P	21 18 18.0	+0.9
RZN	Rozhen	73.31	312	P	P	21 18 27.2	+8.9
PGB	Panagyurishte	73.85	313	P	P	21 18 21.8	+0.4
MNK	Minsk	73.95	326	*e*P	P	21 18 20.0	-1.7
MMB	Musomiste	74.03	312	P	P	21 18 21.8	-0.7
SRS	Serrai	74.07	311	*e*P	P	21 18 21.4	-1.3
PUL	Pulkovo	74.19	331	⇑*e*P	P	21 18 25.9	+2.9
PUL				pmax	pmax		
	comp=Z,58nm,0.7s,mb5.6						
PUL				pmax	pmax		
	comp=N,48nm,0.8s						
PUL				pmax	pmax		
	comp=E,159nm,1.6s						
SOH	Sokhos	74.20	311	*e*P	P	21 18 23.6	+0.1
THE	Thessaloniki	74.47	311	*e*P	P	21 18 23.5	-1.5
KKB	Krupnik	74.55	312	P	P	21 18 24.0	-1.5
VTS	Vitosha	74.56	313	P	P	21 18 25.0	-0.5
LBTB	Lobatse	74.62	243	*e*P	P	21 18 27.6	+1.4
	comp=E,60nm,1.2s,mb5.4						
AGG	Agios Georgios	74.76	309	*e*P	P	21 18 24.8	-2.0
LIT	Litokhoron	74.77	310	*e*P	P	21 18 25.2	-1.5
GRG	Griva	74.94	311	*e*P	P	21 18 27.9	+0.1
LVZ	Lovozero	75.44	340	*e*P	P	21 18 30.9	+0.8
LVZ				pmax	pmax		
	comp=Z,48nm,1.5s,mb5.2						
LVZ				pmax	pmax		
	comp=N,17nm,1.4s						
LVZ				pmax	pmax		
	comp=E,4.0nm,0.9s						
LVZ				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.8						
LVZ				MLR	MLR		
	comp=N,1µm,23.0s,MS5.7						
LVZ				MLR	MLR		
	comp=E,3µm,20.0s,MS5.7						
VSU	Vasula	75.58	329	⇓*e*P	P	21 18 33.3	+2.3
BOSA	Boshof	75.72	239	*e*P	P	21 18 34.1	+1.7
	comp=E,86nm,1.4s,mb5.5						
MAW	Mawson	75.74	193	P	P	21 18 33.6	+1.8
	comp=E,17nm,0.8s,mb5.0,baz=23,slow=7.5,SNR=15						
MAW	Mawson	75.74	193	P	P	21 18 33.6	+1.8
MAW				pmax	pmax		
	comp=Z,17nm,0.8s						
MAW	Mawson	75.74	193	*e*P	P	21 18 32.9	+1.1
	comp=Z,72nm,1.5s,mb5.4						
APA	Apatity	75.74	339	⇓*i*P	P	21 18 30.8	-1.0
APA				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.3						
APA				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.8						
SKO	Skopje	75.78	312	*e*Pn	P	21 18 32.0	-0.5
KWP	Kalwaria	76.00	320	*e*P	P	21 18 32.9	-0.7
	comp=Z,3.5nm,1.2s						
KOLS	Kolonicke sedl	76.16	319	*i* P	P	21 18 34.9	+0.4
KOLS	Kolonicke sedl	76.16	319	*i* P	P	21 18 34.9	+0.4
KOLS				*e*		21 18 38.9	
SUW	Suwalki	76.50	324	*e*P	P	21 18 34.8	-1.5
FINES	FINESS Array B	76.68	332	P	P	21 18 36.3	-0.9
	comp=Z,6.0nm,0.8s,mb4.6,baz=94,slow=5.1,SNR=29						
FINES				LR	LR	21 58 51.4	
	comp=Z,1µm,18.8s,MS5.2,baz=289,slow=41						
FINES	FINESS Array B	76.68	332	P	P	21 18 36.3	-1.0
FINES				pmax	pmax		
	comp=Z,6.0nm,0.8s						
FINES				MLR	MLR		
	comp=Z,1µm,18.8s						
CRVS	Cervenica-Dubn	76.69	319	*e*P	P	21 18 37.7	+0.2
CRVS				*e*		21 18 43.8	
KAF	Kangasniemi	76.76	333	*e*p	P	21 18 37.4	-0.3
	comp=Z,21nm,1.0s,mb5.0						
KAF	Kangasniemi	76.76	333	*e*P	P	21 18 37.4	-0.3
KAF				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
KECS	Kecovo	77.27	319	*e*P	P	21 18 41.4	+0.6
KECS				*e*		21 18 43.8	
NIE	Niedzica	77.50	320	*e*P	P	21 18 41.8	-0.3
PSZ	Piszkesteto	77.59	318	P	P	21 18 42.5	-0.1
PSZ	Piszkesteto	77.59	318	⇑*e*P	P	21 18 42.3	-0.3
OJC	Ojcow	77.94	320	*e*P	P	21 18 44.0	-0.5
PKSM	Moragy	78.25	316	*e*P	P	21 18 45.9	-0.3
VYHS	Vyhne	78.36	318	*i* P	P	21 18 46.7	-0.1
VYHS				*e*		21 18 50.0	
BILL	Bilibino	78.39	21	⇑*e*P	P	21 18 47.1	+0.5
BILL				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
BILL				MLR	MLR		
	comp=Z,5µm,16.0s,MS6.0						
RHK1	Bakonya	78.63	316	⇑*e*P	P	21 18 48.0	-0.4
SRO	Srobarova	78.63	318	*e*P	P	21 18 49.0	+0.7
SRO				*e*		21 18 52.5	
KEV	Kevo	78.71	341	*e*p	P	21 18 47.6	-0.7
	comp=Z,21nm,0.9s,mb5.1						
KEV	Kevo	78.71	341	*e*P	P	21 18 47.6	-0.7
KEV				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
OKC	Ostrava-Krasne	78.95	320	*e*P	P	21 18 49.6	-0.5
OKC				*e*pP	pP	21 19 07.7	+7.3
OKC				AMS	AMS	21 59 10.0	
	comp=Z,900nm,15.7s						
ARCES	ARCESS Array B	79.14	340	P	P	21 18 49.8	-0.9
	comp=Z,3.9nm,0.4s,mb4.7,baz=99,slow=6.6,SNR=82						
ARCES				LR	LR	21 57 01.4	
	comp=Z,5µm,19.8s,MS5.8,baz=114,slow=38						
ARCES	ARCESS Array B	79.14	340	P	P	21 18 49.8	-0.9
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.4s						
ARCES				MLR	MLR		
	comp=Z,5µm,19.8s						
SMOL	Smolenice	79.29	318	*e*P	P	21 18 55.1	+3.2
MORC	Moravsky Berou	79.34	320	P	P	21 18 51.9	-0.2
MORC	Moravsky Berou	79.34	320	*e*P	P	21 18 51.6	-0.6
	comp=Z,51nm,1.2s,mb5.3						
ZST	Bratislava	79.48	318	*e*P	P	21 18 52.8	-0.1
ZST				*e*		21 18 56.6	
KTK1	Kautokeino	79.78	339	*e*P	P	21 18 55.1	+1.0
KTK1				AMb	AMB	21 19 05.4	
	comp=Z,72nm,1.1s,mb5.5						
KTK1	Kautokeino	79.78	339	*e*P	P	21 18 55.1	+1.0
	comp=Z,72nm,1.1s,mb5.5						
SOP	Sopron	79.80	317	*e*P	P	21 18 54.5	-0.2
GKP	Gorka Klasztor	79.88	323	*e*P	P	21 18 55.1	+0.1
VRAC	Vranov	79.91	319	P	P	21 18 54.4	-0.8
	comp=Z,3.9nm,0.6s,mb4.5,baz=94,slow=7.9,SNR=5.3						
VRAC	Vranov	79.91	319	P	P	21 18 54.4	-0.8
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.6s						
DPC	Dobruska-Polom	80.17	320	*e*P	P	21 18 56.4	-0.2
DPC				AMS	AMS	22 00 10.0	
	comp=Z,1µm,18.1s						
KSP	Ksiaz	80.23	321	⇑*e*P	P	21 18 56.9	0.0
KSP				*e*pP	pP	21 18 59.8	-7.6
KSP	Ksiaz	80.23	321	*e*P	P	21 18 56.9	0.0
SUR	Sutherland	80.28	236	⇑*e*P	P	21 18 59.6	+2.1
	comp=Z,85nm,1.0s,mb5.6						
UPC	Upice	80.38	320	*e*P	P	21 18 57.8	+0.1
ARSA	Arzberg	80.47	317	⇑*i*P	P	21 18 58.4	+0.1
	comp=Z,38nm,1.1s,mb5.2						
BOJS	Bojanci	80.55	315	*e*P	P	21 18 58.7	0.0
BOJS				*e*PcP	PcP	21 19 04.0	-1.9
LJU	Ljubljana	81.09	316	*e*P	P	21 19 01.6	0.0
OBKA	Obir	81.10	316	⇓*i*P	P	21 19 01.8	+0.2
	comp=Z,31nm,0.8s,mb5.3						
PRU	Pruhonice	81.29	320	*e*P	P	21 19 02.6	+0.1
PRU				AMS	AMS	22 00 50.0	
	comp=Z,1µm,18.3s						
PVCC	Panska Ves	81.30	320	*e*P	P	21 19 02.1	-0.5
MOA	Molln	81.36	318	⇑*i*P	P	21 19 02.9	0.0
	comp=Z,47nm,1.6s,mb5.2						
TRO	Tromso	81.41	340	*e*P	P	21 19 01.5	-1.2
VOY	Vojsko	81.53	316	*e*P	P	21 19 03.7	-0.2
VOY				*e*		21 19 07.9	
BRG	Berggiesshubel	81.72	321	*e*P	P	21 19 05.0	+0.3
BRG				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.2						
BRG	Berggiesshubel	81.72	321	*e*P	P	21 19 05.0	+0.3
	comp=Z,43nm,1.4s,mb5.2						
BRG				*i*		21 19 08.7	
PTQR	Pietraquaria	81.76	312	*e*P	P	21 19 05.4	+0.3
AQU	L'Aquila	81.77	312	P	P	21 19 07.1	+1.9
AQU	L'Aquila	81.77	312	*e*P	P	21 19 05.6	+0.4
GERES	GERESS Array B	81.78	319	P	P	21 19 05.1	+0.1
	comp=Z,9.4nm,0.5s,mb5.0,baz=109,slow=4.8,SNR=125						
GERES	GERESS Array B	81.78	319	P	P	21 19 05.1	0.0
GERES				pmax	pmax		
	comp=Z,9.0nm,0.5s						
ROBS	Robic	81.80	316	*e*P	P	21 19 05.1	-0.2
KHC	Kasperske Hory	81.87	319	*e*P	P	21 19 04.9	-0.7
KHC				AMS	AMS	22 01 30.0	
	comp=Z,800nm,16.3s						
RUE	Ruedersdorf	81.91	322	*e*P	P	21 19 05.6	-0.1
	comp=Z,45nm,0.6s,mb5.6						
PTCC	Patocco-Chiusa	81.92	316	*e*P	P	21 19 05.8	-0.1
CING	Cingoli	81.94	313	*e*P	P	21 19 07.5	+1.4
KBA	Koelnbreinsper	81.95	317	⇑*i*P	P	21 19 06.6	+0.6
	comp=Z,34nm,1.1s,mb5.2						
NRCA	Norcia	81.99	312	*e*P	P	21 19 07.5	+1.2
GMNA	Gemona	81.99	316	*e*P	P	21 19 06.4	+0.1
SNTG	Esanatoglia	82.12	313	*e*P	P	21 19 07.3	+0.3
ARV	Arcevia	82.13	313	*e*P	P	21 19 07.7	+0.7
RPZ	Rata Peaks	82.14	135	P	P	21 19 07.0	-0.1
	comp=Z,34nm,0.9s,mb5.3,baz=140,slow=2.3,SNR=8.8						
FSSB	Fossombrone	82.25	313	*e*P	P	21 19 08.6	+1.0
MNS	Montasola	82.30	312	*e*P	P	21 19 07.5	-0.4
CLL	Collm	82.33	321	*i* P	P	21 19 07.5	-0.4
CLL				*i*		21 19 24.7	
CLL				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
CLL	Collm	82.33	321	*i* P	P	21 19 07.5	-0.4
	comp=Z,29nm,1.2s,mb5.1						
CLL				*i*		21 19 11.0	
CLL				*i*		21 19 24.7	
CLL	Collm	82.33	321	P	P	21 19 07.5	-0.4
	comp=Z,logA/T=1.4,mb5.1						
CLL				*i* *PP	pP	21 19 11.0	-7.4
CLL				*i*		21 19 24.7	
CLL				*e*		21 19 35.0	
NKC	Novy Kostel	82.65	320	*e*P	P	21 19 09.6	+0.1
NKC				AMS	AMS	22 01 50.0	
	comp=Z,2µm,18.2s						
SYO	Syowa Base	82.89	198	⇑P	P	21 19 12.4	+2.1
SYO	Syowa Base	82.89	198	⇓PcP	PcP	21 19 16.6	+1.1
SFI	Santa Sofia	82.93	314	*e*P	P	21 19 12.7	+1.6
PGD	Poggio Sodo	83.02	313	*e*P	P	21 19 13.3	+1.8
CTI	Castel Tesino	83.09	316	*e*P	P	21 19 12.3	+0.4
WTTA	Wattenberg	83.12	317	⇑*i*P	P	21 19 11.5	-0.5
	comp=Z,60nm,1.2s,mb5.5						
VMG	Vicchio	83.15	314	*e*P	P	21 19 13.8	+1.6
WATA	Walderalm	83.16	317	⇑*i*P	P	21 19 11.5	-0.7
	comp=Z,26nm,0.7s,mb5.4						
MOX	Moxa	83.19	320	*e*P	P	21 19 12.0	-0.3
SEI	Scarperia	83.28	314	*e*P	P	21 19 13.8	+0.9
SQTA	Sankt Quirin	83.41	317	⇑*i*P	P	21 19 13.0	-0.4
	comp=Z,40nm,0.6s,mb5.6						
GRA1	Grafenberg Arr	83.43	319	*e*P	P	21 19 13.7	+0.2
	comp=Z,67nm,1.2s,mb5.5						
GRF	Grafenberg Arr	83.43	319	*e*P	P	21 19 13.7	+0.2
GRF				pmax	pmax		
	comp=Z,67nm,1.2s,mb5.5						
GRF	Grafenberg Arr	83.43	319	*e*P	P	21 19 13.7	+0.2
	comp=Z,67nm,1.2s,mb5.5						
MOTA	Moosalm	83.48	317	⇑*i*P	P	21 19 13.3	-0.5
	comp=Z,14nm,0.6s,mb5.2						
NSS	Namsos	83.53	334	*e*P	P	21 19 13.2	-0.4
NSS				AMb	AMB	21 19 21.7	
	comp=Z,89nm,1.6s,mb5.7						
NSS	Namsos	83.53	334	*e*P	P	21 19 13.2	-0.4
	comp=Z,89nm,1.6s,mb5.7						
ZCCA	Zocca	83.56	314	*e*P	P	21 19 16.5	+2.2
NB2	NORSAR Subarra	83.71	331	P	P	21 19 10.8	-3.9
	comp=Z,35nm,1.2s,mb5.4,baz=91,slow=4.8						
NB2	NORSAR Subarra	83.71	331	P	P	21 19 10.8	-3.9
	baz=91,slow=5.1						
NOA	NORSAR Array B	83.71	331	P	P	21 19 14.7	0.0
	comp=Z,3.4nm,0.7s,mb4.6,baz=95,slow=4.9,SNR=11						
NOA				LR	LR	22 01 32.0	
	comp=Z,2µm,19.1s,MS5.4,baz=100,slow=39						
NOA	NORSAR Array B	83.71	331	P	P	21 19 14.7	0.0
NOA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NOA				MLR	MLR		
	comp=Z,2µm,19.1s						
BDI	Bagni Di Lucca	83.83	314	*e*P	P	21 19 15.6	-0.1
GSCL	Gusciola	83.84	314	*e*P	P	21 19 18.1	+2.4
SAL	Salo	83.88	315	*e*P	P	21 19 18.0	+2.1
MABI	Malga Bissina	83.88	316	*e*P	P	21 19 17.3	+1.4
MAIM		83.91	314	P	P	21 19 15.8	-0.3
ERBM	Eremo	83.96	314	*e*P	P	21 19 15.8	-0.6
BRMO	Bormio	83.98	316	*e*P	P	21 19 16.8	+0.4
BACM		84.21	314	P	P	21 19 17.7	0.0
DAVA	Damuels	84.31	317	⇑*i*P	P	21 19 18.3	+0.2
	comp=Z,59nm,1.1s,mb5.6						
DAVOX	Davos	84.32	316	P	P	21 19 18.4	+0.3
	comp=Z,51nm,0.5s,mb5.9,baz=118,slow=5.8,SNR=146						
CODM		84.37	314	P	P	21 19 18.3	-0.1
BOB	Bobbio (Coli)	84.65	314	*e*P	P	21 19 21.6	+1.8
MUD	Monsted U'grnd	84.70	326	*e*P	P	21 19 19.7	-0.1
MUD				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.5						
MUD	Monsted U'grnd	84.70	326	*e*P	P	21 19 19.7	-0.1
	comp=Z,46nm,1.1s,mb5.5						
MUD	Monsted U'grnd	84.70	326	*i* P	P	21 19 19.7	-0.1
	comp=Z,46nm,1.1s,mb5.5						
STU	Stuttgart	84.75	318	P	P	21 19 20.0	-0.2
	comp=Z,22nm,0.7s,mb5.4						
TOD	Tromm	85.00	319	*e*P	P	21 19 21.9	+0.5
PGF	Pioggiola	85.02	312	*e*P	P	21 19 22.2	+0.5
	comp=Z,177nm,1.2s,mb5.8						
SPAK	Spaichingen	85.04	318	*e*P	P	21 19 21.7	0.0
VAI	Varese	85.10	316	*e*P	P	21 19 22.4	+0.4
PCP	Pian Castagno	85.30	314	P	P	21 19 23.2	+0.2
URZ	Urewera	85.54	129	P	P	21 19 23.8	-0.6
	comp=Z,32nm,0.9s,mb5.5,baz=269,slow=1.1,SNR=14						
FIN	Finale Ligure	85.55	314	*e*P	P	21 19 24.3	+0.1
FELD	Feldberg	85.57	318	*e*P	P	21 19 23.6	-0.7
MCGN	Macugnaga	85.64	316	*e*P	P	21 19 26.1	+1.4
ORX	Oropa	85.66	315	P	P	21 19 23.6	-1.2
LANF	Langenberg	85.67	319	*e*P	P	21 19 24.6	-0.1
ROB	Roburent	85.79	314	P	P	21 19 25.4	-0.1
ABH	Alteburg	85.81	320	*e*P	P	21 19 26.6	+1.2
BBS	Basel-Blauen	85.92	317	*e*P	P	21 19 24.0	-2.0
WLS	Welschbruch	85.99	318	*e*P	P	21 19 24.3	-2.0
CDF	Champ du Feu	86.04	318	*e*P	P	21 19 26.4	-0.1
	comp=Z,17nm,0.6s,mb5.2						
AUTN	L'Aution	86.12	314	*e*P	P	21 19 27.9	+0.8
SBF	Sospel	86.12	314	*e*P	P	21 19 27.5	+0.4
	comp=Z,125nm,0.7s,mb6.0						
ECH	Echery	86.12	318	*e*P	P	21 19 26.0	-1.0
MOF	Molkenrain	86.16	318	*e*P	P	21 19 24.3	-2.8
RSP	Reno Superiore	86.19	315	P	P	21 19 27.0	-0.4
WTSB	Winterswijk	86.20	322	*e*P	P	21 19 27.5	+0.2
	comp=Z,41nm,0.8s,mb5.7						
BHB	Bricherasio	86.20	315	P	P	21 19 25.8	-1.6
WIT	Witteveen	86.24	323	*e*P	P	21 19 28.8	+1.4
	comp=Z,151nm,0.5s						
LSD	Ceresole Reale	86.25	315	P	P	21 19 28.1	+0.4
TOUF	Mont Tournerai	86.25	314	*e*P	P	21 19 27.7	0.0
FENE	Fenestrelle	86.33	315	P	P	21 19 27.6	-0.4
LOMF	Lomont	86.39	317	*e*P	P	21 19 28.1	-0.2
LPG	La Plagne	86.53	315	*e*P	P	21 19 29.7	+0.7
	comp=Z,75nm,0.7s,mb5.7						
OG01	Vacheresse	86.54	316	*e*P	P	21 19 28.1	-0.9
RRL	Cesana Torines	86.54	315	P	P	21 19 28.2	-0.9
MBDF	Montbardon	86.56	314	*e*P	P	21 19 29.8	+0.6
	comp=Z,62nm,0.9s,mb5.5						
BNI	Bardonecchia	86.60	315	*e*P	P	21 19 29.8	+0.4
	comp=Z,26nm,0.8s,mb5.5						
RSL	Roselend	86.61	315	*e*P	P	21 19 29.8	+0.4
HAU	Haudompre	86.68	318	*e*P	P	21 19 29.6	-0.1
	comp=Z,67nm,0.7s,mb5.7						
THEF	They Montfort	86.91	318	*e*P	P	21 19 30.4	-0.4
OG05	Jujurieux	87.40	316	*e*P	P	21 19 33.7	+0.4
BAIF	Baives	87.95	320	*e*P	P	21 19 36.4	+0.6
	comp=Z,63nm,0.8s,mb5.6						
SSF	Saint Saulge	88.67	317	*e*P	P	21 19 40.2	+0.9
	comp=Z,29nm,0.9s,mb5.3						
PLDF	La Plantade	88.68	316	*e*P	P	21 19 40.5	+1.1
LBL	Lubilhac	89.01	315	*e*P	P	21 19 41.9	+0.9
AGO	Saint Agoulin	89.02	316	*e*P	P	21 19 42.3	+1.3
PYM	Petit Puy Mans	89.13	316	*e*P	P	21 19 42.8	+1.2
BGF	Bois d'Agland	89.16	316	*e*P	P	21 19 42.4	+0.7
	comp=Z,138nm,1.3s,mb5.8						
VNDA	Vanda	89.22	169	P	P	21 19 43.0	+1.6
	comp=Z,6.6nm,0.8s,mb5.0,baz=302,slow=6.7,SNR=24						
VNDA				LR	LR	21 56 17.9	
	comp=Z,1µm,19.6s,MS5.3,baz=36,slow=33						
VNDA	Vanda	89.22	169	P	P	21 19 43.0	+1.7
VNDA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
VNDA				MLR	MLR		
	comp=Z,1µm,19.6s						
VNDA	Vanda	89.22	169	*e*P	P	21 19 42.8	+1.4
	comp=Z,80nm,1.8s,mb5.8						
EJON	La Jonquera	89.54	312	P	P	21 19 38.3	-5.2
	comp=Z,4.9nm,0.6s,mb5.0						
RJF	Les Rejaudoux	90.22	315	*e*P	P	21 19 47.7	+1.0
	comp=Z,26nm,0.7s,mb5.4						
JMIC	Jan Mayen	90.57	342	LR	LR	22 02 11.8	
	comp=Z,2µm,20.5s,MS5.5,baz=278,slow=37						
EPOB	Poblet	91.00	311	P	P	21 19 45.1	-5.3
	comp=Z,12nm,1.0s,mb5.2						
FLN	La Foliniere	91.14	319	*e*P	P	21 19 50.8	-0.1
	comp=Z,147nm,1.1s,mb5.9						
DAG	Danmarks Havn	91.20	348	*e*P	P	21 19 50.0	-0.6
DAG				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.8						
DAG	Danmarks Havn	91.20	348	*e*P	P	21 19 50.0	-0.6
	comp=Z,2.7nm,0.6s,mb4.8						
DAG	Danmarks Havn	91.20	348	*i* P	P	21 19 50.0	-0.6
	comp=Z,2.7nm,0.6s,mb4.8						
EBIE	Bielsa	91.53	313	P	P	21 19 51.0	-1.9
	comp=Z,9.7nm,0.6s,mb5.3						
ERTA	Horta de San J	91.61	311	P	P	21 19 48.6	-4.6
	comp=Z,13nm,1.0s,mb5.2						
ETSF	Etsaut	92.01	313	*e*P	P	21 19 55.5	+0.5
	comp=Z,70nm,0.9s,mb5.7						
EMOS	Mosqueruela	92.29	311	P	P	21 19 52.8	-3.6
	comp=Z,25nm,0.8s,mb5.6						
EBEN	Beniarda	92.33	309	P	P	21 19 52.5	-4.1
	comp=Z,19nm,1.0s,mb5.4						
EALK	Alkurruntz	92.65	314	P	P	21 19 56.6	-1.4
	comp=Z,13nm,0.8s,mb5.4						
IMA	Indian Mountai	93.86	23	*e*P	P	21 20 03.4	+0.4
	comp=Z,80nm,1.3s,mb6.0						
EVIA	Vianos	94.10	309	P	P	21 20 02.6	-2.0
	comp=Z,18nm,0.9s,mb5.5						
DCN	Croghan	94.48	324	*e*P	P	21 20 07.7	+1.6
EQES	Quesada	94.68	308	P	P	21 20 06.6	-0.8
	comp=Z,7.6nm,0.8s,mb5.2						
GUD	Guadarrama	95.02	311	P	P	21 20 08.2	-0.7
	comp=Z,10nm,0.8s,mb5.3						
ESDC	Sonseca Array	95.05	310	P	P	21 20 09.4	+0.4
	comp=Z,1.7nm,0.6s,mb4.7,baz=57,slow=4.1,SNR=17						
ESDC	Sonseca Array	95.05	310	P	P	21 20 09.0	0.0
	comp=Z,8.0nm,1.0s,mb5.1						
EADA	Adamuz	95.79	309	P	P	21 20 11.1	-1.2
	comp=Z,6.0nm,0.8s,mb5.1						
ILAR	Eielson Array	96.99	23	P	P	21 20 16.2	-1.0
	comp=Z,0.4nm,0.8s,baz=299,slow=3.9,SNR=6.0						
ILAR				PKKPbc		21 36 58.4	
	comp=Z,1.0nm,0.7s,baz=137,slow=2.9,SNR=7.9						
SNAA	Sanae	97.16	198	LR	LR	21 56 42.9	
	comp=Z,340nm,21.1s,MS4.8,baz=11,slow=31						
INK	Inuvik	99.57	17	P	P	21 20 28.2	-0.6
	comp=Z,1.1nm,0.7s,mb4.4,baz=200,slow=6.1,SNR=5.1						
INK				PKKPbc		21 36 50.3	
	comp=Z,1.8nm,0.8s,baz=91,slow=4.2,SNR=4.5						
INK				LR	LR	22 12 20.8	
	comp=Z,1µm,18.2s,MS5.5,baz=269,slow=40						
INK	Inuvik	99.57	17	P	P	21 20 28.2	-0.6
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK				pmax	pmax		
	comp=Z,2.0nm,0.8s						
INK				MLR	MLR		
	comp=Z,1µm,18.3s						
DBIC	Dimbokro	100.57	278	P	P	21 20 35.7	+1.1
	comp=Z,3.1nm,0.8s,baz=102,slow=15,SNR=4.9						
DBIC	Dimbokro	100.57	278	P	P	21 20 35.7	+1.0
DBIC				pmax	pmax		
	comp=Z,3.0nm,0.8s						
YKA	Yellowknife Ar	109.12	15	PP	PP	21 25 40.8	-6.9
	comp=Z,1.7nm,1.1s,baz=327,slow=7.2,SNR=6.7						
YKA				PKKPbc		21 36 22.4	
	comp=Z,1.0nm,0.7s,baz=151,slow=2.7,SNR=21						
SCHQ	Schefferville	119.23	349	PKP	PKPdf	21 25 34.7	+0.8
	comp=Z,2.8nm,0.7s,baz=224,slow=4.9,SNR=4.9						
YBH	Yreka Blue Hor	121.83	34	PKKPbc		21 35 38.4	
	comp=Z,2.3nm,0.8s,baz=96,slow=6.5,SNR=3.7						
MSO	Missoula	122.28	24	*e*PKPdf	PKPdf	21 25 40.4	+0.4
CHMT	Chamberlain Mo	122.49	24	*e*PKPdf	PKPdf	21 25 40.1	-0.3
BOZ	Bozeman (W)	124.18	23	*e*PKPdf	PKPdf	21 25 44.3	+0.7
MCMT	McKenzie Canyo	124.35	25	PKPdf	PKPdf	21 25 45.5	+1.5
ULM	Lac du Bonnet	124.44	9	PKP	PKPdf	21 25 45.5	+1.5
	comp=Z,8.6nm,0.6s,baz=354,slow=2.0,SNR=20						
ULM	Lac du Bonnet	124.44	9	*e*PKPdf	PKPdf	21 25 45.5	+1.4
QLMT	Earthquake Lak	124.93	24	PKPdf	PKPdf	21 25 47.6	+2.5
LAO	LASA Array	125.23	19	*e*PKPdf	PKPdf	21 25 47.5	+1.8
TPAW	Teton Pass	126.23	24	*e*PKPdf	PKPdf	21 25 49.6	+1.9
SNOW	Snow King Moun	126.33	24	*e*PKPdf	PKPdf	21 25 49.6	+1.7
REDW	Red Top Meadow	126.38	24	*e*PKPdf	PKPdf	21 25 49.3	+1.3
NVAR	Mina Array Bea	126.56	34	PKP	PKPdf	21 25 50.3	+1.8
	comp=Z,3.8nm,0.8s,baz=254,slow=2.6,SNR=8.7						

PDAR	Pinedale Array	127.40	24	PKP	PKPdf	21 25 51.4	+1.4
	comp=Z,4.2nm,1.1s,baz=90,slow=1.5,SNR=9.6						
TRCR	Troy Canyon	128.08	32	*e*PKPdf	PKPdf	21 25 53.3	+1.9
TMUT	Trail Mountain	129.52	28	*e*PKPdf	PKPdf	21 25 55.8	+1.7
MSU	Marysvale	129.69	29	*e*PKPdf	PKPdf	21 25 57.4	+2.9
SADO	Sadowa	130.77	356	PKP	PKPdf	21 25 56.9	+0.5
	comp=Z,5.1nm,0.6s,baz=334,slow=3.4,SNR=5.4						
MDV	Middlebury	130.79	350	*e*PKPdf	PKPdf	21 25 58.0	+1.5
PV01	Paradox Valley	131.67	26	*e*PKPdf	PKPdf	21 26 00.9	+2.6
ANMO	Albuquerque	135.25	27	*e*PKPdf	PKPdf	21 26 06.8	+1.8
MIAR	Mount Ida	140.03	13	*e*PKPpre		21 26 06.5	
LTX	Lajitas	141.24	29	*e*PKPpre		21 26 15.9	
TXAR	Lajitas Array	141.24	29	PKP	PKPdf	21 26 16.0	-0.1
	comp=Z,1.5nm,0.6s,baz=289,slow=0.9,SNR=14						
JCT	Junction City	141.92	23	*e*PKPpre		21 26 13.7	
BAO	Brasilia Array	143.27	250	PKP	PKPdf	21 26 19.4	-0.4
BDFB	Brasilia	143.29	250	PKhKP		21 26 19.1	
	comp=Z,12nm,0.7s,baz=118,slow=2.8,SNR=16						
BDFB	Brasilia	143.29	250	PKIKP	PKPdf	21 26 19.1	-0.8
BDFB				pmax	pmax		
	comp=Z,13nm,0.7s						
MDZ	Mendoza	148.58	204	*e*P	PKPdf	21 26 35.1	+6.7
FCH	Farellones	148.75	202	⇓*i*P	PKPdf	21 26 35.0	+6.3
SJG	San Juan	151.65	323	PKPbc	PKPdf	21 26 41.7	+8.1
	comp=Z,17nm,0.6s,baz=161,slow=2.4,SNR=8.1						
SJG				PKPab	PKPab	21 26 50.3	-0.7
	comp=Z,31nm,0.6s,baz=153,slow=2.3,SNR=8.7						
SJG	San Juan	151.65	323	PKIKP	PKPdf	21 26 41.7	+8.1
SJG						21 26 50.3	
SJG				pmax	pmax		
	comp=Z,17nm,0.6s						
SJG				pmax	pmax		
	comp=Z,31nm,0.6s						
SJG	San Juan	151.65	323	*e*PKPbc	PKPdf	21 26 41.1	+7.5
LVC	Limon Verde	157.05	217	PKP	PKPdf	21 26 44.3	+3.5
	comp=Z,4.5nm,0.9s,baz=320,slow=3.9,SNR=4.2						
LVC				PKPab	PKPab	21 27 15.5	+1.8
	comp=Z,27nm,0.8s,baz=144,slow=1.9,SNR=20						
LVC	Limon Verde	157.05	217	*e*PKPdf	PKPdf	21 26 43.9	+3.1
LPAZ	La Paz	160.80	231	PKP	PKPdf	21 26 48.6	+3.3
	comp=Z,6.3nm,1.0s,baz=26,slow=0.7,SNR=17						
LPAZ				PKPab	PKPab	21 27 31.9	+1.9
	comp=Z,8.4nm,0.8s,baz=127,slow=6.7,SNR=12						
LPAZ	La Paz	160.80	231	PKIKP	PKPdf	21 26 48.6	+3.3
LPAZ				pmax	pmax		
	comp=Z,6.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,8.0nm,0.8s						
LPAZ	La Paz	160.80	231	*e*PKPdf	PKPdf	21 26 48.5	+3.1
SDV	Santo Domingo	161.41	316	PKPab	PKPab	21 27 33.3	+0.6
	comp=Z,86nm,1.3s,baz=58,slow=3.8,SNR=4.6						

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*CSEM **26** 21:11:15.3±0.1, 36.03N×28.17E, h94^{km}±1^{km}, mb4.0/6, Mw3.7, Error ellipse: s-maj=1.9km s-min=1.2km az=37.0*

*IDC **26** 21:11:17.4±2.0, 36.39N×27.77E, h51^{km}±27^{km}, mb3.5/2, mb1 3.8/5, mb1mx3.5/20, ML3.3/3, Error ellipse: s-maj=52.9km s-min=9.8km az=148.0*

*NEIC **26** 21:11:17.4, 36.08N×27.98E, h82^{km}, mb3.9/6, After ATH.*

*ATH **26** 21:11:17.3, 36.05N×28.03E, h82^{km}±3^{km}*

*ISK **26** 21:11:17.4, 36.17N×27.94E, h88^{km}, MD3.8, ML3.8*

*NIC **26** 21:11:22.4±0.3, 36.02N×28.42E, h25^{km}, mb4.4, ML4.0, MW3.4*

ISC 26 21:11:16.3±0.2**, 36.05N**±0.03×**28.07E**±0.03**, h97**^{km}±4^{km}**, n113, σ1^{s}13**/143**, mb3.6**/3**, 1C-1D, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARG	Arkhangelos	0.17	17	*e*P	P	21 11 30.0	-0.1
DALT	Dalyan (Mudla)	0.85	33	*i* PG	P	21 11 36.7	+1.5
DALT				*i* SG	S	21 11 48.9	-0.3
DALT	Dalyan (Mudla)	0.85	33	*i* Pg	P	21 11 36.7	+1.5
DALT				Sg	S	21 11 49.7	+0.5
KARP	Karpathos	0.89	236	⇓*i*P	P	21 11 35.7	+0.2
FETY	Fethiye	1.01	54	*i* PG	P	21 11 37.6	+0.8
BDRM	Kayabasi	1.13	334	*i* P	P	21 11 37.9	-0.4
BDRM				*i* S	S	21 11 52.2	-2.6
KSL	Kastellorizon	1.23	85	*e*P	P	21 11 41.2	+1.6
KSL				*e*S	S	21 11 57.2	+0.2
MLSB	Milas	1.27	350	PN	P	21 11 39.8	-0.2
MLSB				SN	S	21 11 55.3	-2.4
MLSB	Milas	1.27	350	Pn	P	21 11 40.1	+0.1
MLSB				Sg	S	21 11 55.1	-2.5
MLSB	Milas	1.27	350	Sg	S	21 11 55.1	-2.6
MLSB				*e*Sn	S	21 11 55.3	-2.4
MLSB	Milas	1.27	350	Pn	P	21 11 40.1	+0.1
AYDN	Tasoluk	1.61	355	*i* P	P	21 11 44.7	+0.4
AYDN				*i* S	S	21 12 03.6	-1.3
ELL	Elmali	1.64	64	PN	P	21 11 47.0	+2.4
DNZL	Cakiroluk	1.82	25	*i* P	P	21 11 47.8	+1.0
DNZL				*i* S	S	21 12 09.3	-0.1
DENT	Denizli	1.87	24	PN	P	21 11 48.2	+0.7
DENT	Denizli	1.87	24	Pn	P	21 11 48.4	+0.9
SANT	Santorini	2.13	279	*e*Pn	P	21 11 50.8	-0.3
SANT	Santorini	2.13	279	*e*Pn	P	21 11 50.8	-0.2
NPS	Neapolis	2.15	249	*e*P	P	21 11 51.5	+0.3
ANTB	Antalya	2.25	67	*e*PN	P	21 11 55.6	+2.9
XRY	Khrisi	2.26	239	*e*P	P	21 11 53.7	+0.9
APE	Apeiranthos	2.28	297	*e*P	P	21 11 53.5	+0.4
IZM	Izmir	2.43	345	PN	P	21 11 54.5	-0.7
IZM	Izmir	2.43	345	Pn	P	21 11 55.0	-0.2
IZM	Izmir	2.43	345	Pn	P	21 11 55.0	-0.2
KDAG	Bornova	2.43	345	*i* P	P	21 11 54.9	-0.4
KDAG				*i* S	S	21 12 21.5	-2.7
BCK	Bucak	2.47	54	PN	P	21 11 57.8	+2.1
BCK	Bucak	2.47	54	Pn	P	21 11 57.5	+1.8
BCK	Bucak	2.47	54	Pn	P	21 11 57.5	+1.8
MANT	Manisa	2.47	9	*i* P	P	21 11 55.6	-0.1
MANT				*i* S	S	21 12 23.1	-1.9
KHL	Karahalli	2.55	27	*e*PN	P	21 11 57.4	+0.6
KHL	Karahalli	2.55	27	Pn	P	21 11 57.4	+0.6
ISP	Isparta	2.65	47	PN	P	21 11 58.8	+0.6
ISP	Isparta	2.65	47	Pn	P	21 11 59.4	+1.1
IDI	Anoyia	2.69	255	P	P	21 11 58.6	-0.2
	12nm,0.3s,baz=62,slow=16,SNR=99						
IDI				S	S	21 12 27.5	-3.1
	28nm,0.3s,baz=319,slow=22,SNR=21						
VAM	Vamos	3.21	260	*e*P	P	21 12 07.3	+1.4
ALT	Altintas	3.41	28	*e*PN	P	21 12 09.3	+0.6
ALT	Altintas	3.41	28	Pn	P	21 12 09.4	+0.7
DST	Dursunbey	3.58	7	*e*PN	P	21 12 10.6	-0.3
DST	Dursunbey	3.58	7	Pn	P	21 12 10.7	-0.3
DST	Dursunbey	3.58	7	Pn	P	21 12 10.7	-0.2
BALB	Balikesir	3.59	358	*e*PN	P	21 12 10.6	-0.5
BALB	Balikesir	3.59	358	Pn	P	21 12 10.7	-0.4
BALB	Balikesir	3.59	358	Pn	P	21 12 10.7	-0.4
AKMC	Akamas	3.62	105	P	P	21 12 11.8	+0.2
HDMB	Hadim	3.68	74	*e*PN	P	21 12 14.8	+2.5
PPCY	Paphos	3.68	107	P	P	21 12 12.8	+0.5
BTOK	Tokmak	3.71	360	*i* P	P	21 12 12.3	-0.4
BTOK				*i* S	S	21 12 52.9	-2.6
ALFC	Alevga	3.80	102	P	P	21 12 13.7	-0.3
	13nm,0.2s						
ALFC				S	S	21 12 55.0	-2.8
KONT	Konya--Tatoy	3.92	60	*e*PN	P	21 12 17.7	+2.0
LEF	Lefka	4.04	102	*e*PN	P	21 12 19.0	+1.7
LEF	Lefka	4.04	102	Pn	P	21 12 18.4	+1.1
ORLT	Orhaneli	4.04	9	*e*PN	P	21 12 16.3	-1.0
ORLT	Orhaneli	4.04	9	Pn	P	21 12 16.3	-1.0
ESKT	Eskisehir	4.11	32	*i* P	P	21 12 18.8	+0.7
ESKT				*i* S	S	21 13 02.3	-3.1
ESKT	Eskisehir	4.11	32	*e*Pn	P	21 12 18.6	+0.4
SZAC	Souni-Zanaja	4.14	107	P	P	21 12 18.9	+0.2
	10nm,0.3s						
SZAC				S	S	21 13 03.6	-2.6
KIZT	Kizilcal	4.15	46	*e*PN	P	21 12 20.1	+1.4
KIZT	Kizilcal	4.15	46	Pn	P	21 12 20.1	+1.4
VLI	Veliai	4.19	281	*e*P	P	21 12 20.6	+1.3
MAMC	Mammari	4.29	100	P	P	21 12 21.2	+0.5
BNT	Bandirma	4.30	359	*e*PN	P	21 12 20.4	-0.4
BNT	Bandirma	4.30	359	Pn	P	21 12 20.4	-0.4
BNT	Bandirma	4.30	359	Pn	P	21 12 20.5	-0.3
CSS	Prodhromos	4.43	103	P	P	21 12 23.5	+0.9
CSS				S	S	21 13 10.6	-2.8
CSS	Prodhromos	4.43	103	S	S	21 13 10.6	-2.8
IKL	Isikli	4.55	86	*e*PN	P	21 12 25.7	+1.4
IKL	Isikli	4.55	86	Pn	P	21 12 25.8	+1.5
MEST	Erdemli	4.94	82	*i* P	P	21 12 31.6	+2.0
MEST				*i* S	S	21 13 26.5	+0.6
PHNC	Paralimni	4.98	100	⇑P	P	21 12 32.9	+2.8
KAMT	Kaman	5.57	52	*e*PN	P	21 12 39.2	+1.1
KAMT	Kaman	5.57	52	Pn	P	21 12 39.3	+1.2
BRTR	Keskin Array B	5.74	49	P	P	21 12 41.5	+1.1
	2.1nm,0.3s,baz=228,slow=16,SNR=32						
BRTR				S	S	21 13 44.0	-1.5
	0.6nm,0.3s,baz=227,slow=26,SNR=3.9						
HNTI	Hanita	6.57	115	Pn	P	21 12 51.8	-0.1
HNTI				Sn	S	21 14 00.8	-5.1
OFRI	‘Ofer	6.67	119	Pn	P	21 12 51.8	-1.5
OFRI				Sn	S	21 14 03.1	-5.2
KSDI	Kefar Szold	6.88	112	Pn	P	21 12 55.8	-0.4
KSDI				Sn	S	21 14 09.1	-4.4
HRI	Mount Hermon	6.90	112	Pn	P	21 12 56.0	-0.6
HRI				Sn	S	21 14 09.3	-4.8
SLTI	Sal’it	6.92	121	Pn	P	21 12 55.6	-1.2
SLTI				Sn	S	21 14 08.7	-5.8
MMLI	Mount Malkishu	7.08	118	Pn	P	21 12 58.6	-0.3
MMLI				Sn	S	21 14 12.7	-5.7
KSHT	Keshet	7.09	113	Pn	P	21 12 59.1	0.0
KSHT				Sn	S	21 14 13.5	-5.1
KZIT	Kziot	7.37	132	Pn	P	21 13 02.1	-0.8
KZIT				Sn	S	21 14 19.3	-6.2
RTMM	Retamin	7.44	130	Pn	P	21 13 03.0	-0.9
RTMM				Sn	S	21 14 21.0	-6.3
MASH	Mash‘abbe Sade	7.54	130	Pn	P	21 13 04.4	-0.9
MASH				Sn	S	21 14 24.0	-5.7
MASH	Mash‘abbe Sade	7.54	130	Sn	S	21 14 24.0	-5.7
DRGI	Dragot	7.54	124	Pn	P	21 13 04.5	-0.8
MZDA	Masada	7.70	126	Pn	P	21 13 07.0	-0.5
MZDA				Sn	S	21 14 28.3	-5.4
MKRJ	Makawir	7.74	123	Pn	P	21 13 07.6	-0.3
PRNI	Paran	8.13	132	Pn	P	21 13 12.1	-1.1
PRNI				Sn	S	21 14 37.6	-6.5
MBH	Mount Berech	8.49	135	Sn	S	21 14 46.7	-6.2
EIL	Elat	8.60	136	Sn	S	21 14 48.6	-7.1
AQBJ	Aqaba	8.61	135	Sn	S	21 14 49.2	-6.8
ALWS	Ilw as Safayha	8.94	137	P	P	21 13 24.7	+0.5
HAQS	Haql	9.06	138	P	P	21 13 25.4	-0.4
JMOS	Jabal al Moall	9.07	137	S	S	21 14 60.0	-7.2
JMOS				P		21 13 25.3	
MLR	Muntele Rosu	9.57	351	P	P	21 13 25.9	-6.8
	0.0nm,0.3s,baz=138,slow=16,SNR=2.0						
BDAS	Al Bad‘	9.65	140	P	P	21 13 32.7	-1.1
AYUS	‘Aynunah	9.93	140	P	P	21 13 37.3	-0.3
PGF	Pioggiola	16.11	300	*e*P	P	21 14 57.4	-0.7
SBF	Sospel	17.61	303	*e*P	P	21 15 16.8	+0.1
MBDF	Montbardon	18.35	305	*e*P	P	21 15 24.5	-1.0
	22nm,0.7s						
LPG	La Plagne	18.65	307	*e*P	P	21 15 28.9	+0.1
	5.6nm,0.5s						
LPL	La Plagne	18.67	307	*e*P	P	21 15 27.9	-1.2
	7.6nm,0.5s						
ORIF	Oris-en-Rattie	19.01	305	*e*P	P	21 15 32.1	-0.7
CABF	La Chapelle	19.53	309	*e*P	P	21 15 38.6	+0.3
	28nm,0.7s						
CDF	Champ du Feu	19.66	315	*e*P	P	21 15 40.3	+0.6
HAU	Haudompre	20.00	313	*e*P	P	21 15 43.6	+0.4
SMF	Signal de Mont	20.96	308	*e*P	P	21 15 52.4	-0.7
	5.9nm,0.4s						
MEZF	Maizieres J’vi	21.00	313	*e*P	P	21 15 53.6	+0.2
SSF	Saint Saulge	21.33	309	*e*P	P	21 15 57.6	+0.8
	1.6nm,0.5s,mb3.6						
EBR	Ebro Roquetas	22.07	291	*e*PCP	PcP	21 20 03.7	+3.9
FINES	FINESS Array B	25.45	358	P	P	21 16 36.9	+0.5
	4.0nm,1.1s,mb3.8,baz=173,slow=11,SNR=3.5						
FINES	FINESS Array B	25.45	358	P	P	21 16 36.8	+0.5
ESDC	Sonseca Array	25.47	288	P	P	21 16 37.9	+1.1
	0.7nm,0.5s,mb3.4,baz=82,slow=9.4,SNR=9.6						

NEIC 26 21:13:44.9, 39.81N×120.79W, h4^{km}**, ML3.8**(NCEDC)**, After NCEDC., Northern California**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OHCM	Honcut	0.72	229	*e*P	Pg	21 13 57.2	-2.1
WCN	Washoe City	0.95	122	*e*P	Pb	21 14 01.8	-1.7
PAHR	Pah Rah Range	1.09	95	*e*P	Pb	21 14 04.2	-1.8
WDC	Whiskeytown Da	1.55	300	*e*P	Pn	21 14 10.9	-2.5
CMB	Columbia Colle	1.80	170	*e*P	Pn	21 14 16.0	-1.1
NSHM	Saint Helena R	1.92	228	*e*P	Pn	21 14 16.6	-2.0
HOPS	Hopland	1.95	246	*e*Pn	Pn	21 14 17.9	-1.2
MOD	Modoc	2.12	10	*e*Pn	Pn	21 14 21.2	-0.4
YBH	Yreka Blue Hor	2.41	323	*e*Pn	Pn	21 14 25.8	+0.1
MNV	Mina	2.47	123	*e*Pn	Pn	21 14 25.0	-1.6
KHMM	Horse Mountain	2.49	296	*e*Pn	Pn	21 14 26.8	0.0
SAC	San Andreas	2.57	210	*e*Pn	Pn	21 14 26.8	-1.2
OMM	Old Mammoth Mi	2.60	147	*e*Pn	Pn	21 14 28.2	-0.3
BMN	Battle Mountai	2.80	76	*e*Pn	Pn	21 14 28.2	-3.2
MTUM	Tungsten Hills	3.01	144	*e*Pn	Pn	21 14 33.6	-0.7
SAO	San Andreas Ge	3.09	190	*e*Pn	Pn	21 14 33.4	-2.1
HUMO	Hull Mountain	3.23	330	*e*Pn	Pn	21 14 37.9	+0.3
TPH	Tonopah	3.28	121	*e*Pn	Pn	21 14 36.0	-2.1
TRCR	Troy Canyon	4.30	108	*e*Pn	Pn	21 14 50.8	-1.9
ELK	Elko	4.34	76	*e*Pn	Pn	21 14 50.1	-3.2
TPNV	Topopah Spring	4.57	127	*e*Pn	Pn	21 14 54.7	-1.8
BMO	Blue Mountains	5.66	26	Pn	Pn	21 15 10.9	-0.9
HLID	Hailey	6.07	50	Pn	Pn	21 15 15.0	-2.6
ARUT	Antelope Range	6.08	107	Pn	Pn	21 15 14.9	-3.0
NEN	Nelson	6.28	130	Pn	Pn	21 15 17.1	-3.6
SPUT	South Promonto	6.52	74	Pn	Pn	21 15 22.2	-1.9
MVU	Marysvale	6.79	98	*e*Pn	Pn	21 15 24.2	-3.7
MSU	Marysvale	6.82	98	*e*Pn	Pn	21 15 25.4	-2.8
TMUT	Trail Mountain	7.42	91	*e*Pn	Pn	21 15 33.6	-3.1
MCMT	McKenzie Canyo	7.72	47	Pn	Pn	21 15 39.5	-1.4
SRU	San Rafael	7.97	92	Pn	Pn	21 15 37.7	-6.7

IDC 26 21:16:37.1±3.0**, 1.08N×93.74E, mb4.1**/3**, mb1 4.3**/3**, mb1mx3.7**/16**, Error ellipse: s-maj=328.0km s-min=32.5km az=43.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	46.12	125	P	P	21 25 03.5	-1.8
	3.0nm,0.9s,baz=290,slow=6.5,SNR=6.2						
FINES	FINESS Array B	78.52	333	P	P	21 28 39.8	-1.9
	2.6nm,1.0s,baz=108,slow=4.4,SNR=4.3						
GERES	GERESS Array B	82.63	319	P	P	21 29 02.9	-0.8
	0.5nm,0.6s,baz=104,slow=5.5,SNR=5.6						

IDC 26 21:17:44.5±11.0**, 23.94S×179.79E, h525**^{km}±134^{km}**, mb3.7**/5**, mb1 4.0**/5**, mb1mx3.6**/13**, Error ellipse: s-maj=83.8km s-min=51.3km az=163.0, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	31.29	270	P	P	21 23 22.6	-0.1
	28nm,0.6s,baz=93,slow=10,SNR=64						
STKA	Stephens Creek	34.53	248	P	P	21 23 48.4	-1.6
	4.5nm,0.7s,baz=97,slow=9.7,SNR=11						
ASAR	Alice Springs	41.84	261	P	P	21 24 48.2	-1.4
	2.4nm,0.5s,baz=96,slow=7.1,SNR=33						
WRA	Warramunga Arr	42.21	266	P	P	21 24 51.0	-1.7
	6.0nm,0.4s,baz=99,slow=8.3,SNR=86						
TXAR	Lajitas Array	90.61	58	P	P	21 29 50.9	-0.9
	2.4nm,0.8s,baz=243,slow=2.0,SNR=8.5						
AKASG	Malin Array Be	144.90	327	PKP	PKPdf	21 36 21.6	+0.6
	0.3nm,0.3s,baz=47,slow=3.8,SNR=4.6						

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*IDC **26** 21:18:23.2±1.4, 3.95N×94.66E, mb3.8/7, mb1 4.0/8, mb1mx3.8/19, ML3.8/1, Error ellipse: s-maj=70.7km s-min=22.2km az=52.0*

*NEIC **26** 21:18:27.8±0.6, 3.97N×94.72E, h30^{km}, mb4.3/2, Error ellipse: s-maj=23.3km s-min=10.7km az=58.0*

ISC 26 21:18:25.8±0.8**, 3.9N**±0.1×**94.7E**±0.2**, h30**^{km}**, n14, σ0^{s}91**/13**, mb3.9**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.01	16	P	P	21 21 57.5	-0.4
CMAR	Chiang Mai Arr	15.01	16	Pn	P	21 22 01.4	+3.5
	0.1nm,0.3s,baz=210,slow=11,SNR=6.3						
AAK	Ala-Archa	42.52	338	P	P	21 26 20.1	-0.4
SONM	Songino Array	44.87	11	P	P	21 26 39.8	+0.3
	0.5nm,1.0s,mb3.3,baz=199,slow=6.9,SNR=2.4						
WRA	Warramunga Arr	45.60	123	P	P	21 26 46.2	+0.7
	1.8nm,0.7s,mb4.1,baz=302,slow=9.1,SNR=7.2						
WRAB	Tennant Creek	45.60	123	*e*P	P	21 26 45.0	-0.5
	3.9nm,0.7s,mb4.5						
ASAR	Alice Springs	47.03	128	P	P	21 26 56.3	-0.5
	0.7nm,0.7s,mb3.7,baz=302,slow=8.2,SNR=5.0						
BVAR	Borovoye Array	52.87	342	P	P	21 27 39.3	-1.9
	0.9nm,0.8s,mb3.7,baz=166,slow=5.9,SNR=4.2						
CHKZ	Chkalovo	53.36	342	*e*P	P	21 27 44.1	-0.6
	1.4nm,0.7s,mb4.0						
FINES	FINESS Array B	76.43	333	P	P	21 30 14.2	0.0
	2.1nm,0.9s,mb4.0,baz=117,slow=8.5,SNR=6.0						
MORC	Moravsky Berou	78.72	320	*e*P	P	21 30 27.1	+0.1
ARCES	ARCESS Array B	79.13	340	P	P	21 30 30.1	+1.1
	1.0nm,0.7s,mb3.9,baz=101,slow=9.2,SNR=2.5						
GERES	GERESS Array B	81.12	319	P	P	21 30 41.1	+1.2
	0.6nm,0.8s,mb3.6,baz=108,slow=4.2,SNR=4.2						
TXAR	Lajitas Array	142.51	27	PKP	PKPdf	21 37 59.6	-2.1
	1.2nm,1.1s,baz=146,slow=4.5,SNR=3.6						

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*IDC **26** 21:19:26.1±0.5, 4.26N×97.84E, mb4.6/21, mb1 4.7/22, mb1mx4.7/24, ML3.7/1, Error ellipse: s-maj=24.5km s-min=11.4km az=50.0*

*NEIC **26** 21:19:30.8±0.3, 4.23N×97.81E, h30^{km}, mb4.9/14, Error ellipse: s-maj=9.6km s-min=7.0km az=68.0*

*BJI **26** 21:19:30.5, 4.52N×97.09E, h16^{km}, mB5.4, mb4.7, Ms5.3, Msz5.0*

ISC 26 21:19:28.6±2.9**, 4.17N**±0.06×**97.82E**±0.06**, h25**^{km}±20^{km}**, h15**^{km}±2.7^{km}**:pP-P, n78, σ1^{s}26**/75**, mb4.7**/43**, MS5.2**/1**, 2C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	4.08	43	P	Pn	21 20 34.0	+2.9
	2µm,1.0s						
CM31	Chiang Mai Arr	14.25	4	*e*P	P	21 22 47.2	-3.9
CMAR	Chiang Mai Arr	14.25	4	Pn	P	21 22 49.4	-1.8
	0.1nm,0.3s,baz=229,slow=14,SNR=5.4						
PALK	Pallekele	17.31	281	*e*P	P	21 23 29.4	-1.1
GYA	Guiyang	23.73	20	⇑*i*P	P	21 24 42.3	+2.4
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
LSA	Lhasa	26.17	347	*e*P	P	21 25 03.6	+0.6
	comp=Z,41nm,0.9s,mb5.0						
ENH	Enshi	28.21	22	*e*P	P	21 25 21.1	-0.5
	comp=Z,20nm,0.7s,mb4.9						
LZH	Lanzhou	32.25	9	*e*P	P	21 25 58.0	+0.6
LZH				AP	pP	21 26 01.0	-3.8
LZH				AMB	AMB		
	comp=Z,37nm,1.6s,mb5.0						
GTA	Gaotai	35.13	3	P	P	21 26 19.8	-2.5
GTA				AP	pP	21 26 26.0	-3.7
GTA				XP	sP	21 26 30.0	-2.9
GTA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
HHC	Hu-ho-hao-te	38.56	17	*e*P	P	21 26 54.3	+3.1
HHC				AP	pP	21 26 58.5	-0.1
HHC				XP	sP	21 27 02.3	+0.5
HHC				PP	PP	21 28 29.5	+6.3
HHC				S	S	21 32 44.5	-0.7
HHC				XS		21 33 02.3	
HHC				AMB	AMB		
	comp=Z,18nm,1.2s,mb4.7						
HHC				AMB	AMB		
	comp=Z,695nm,9.6s						
HHC				LR	LR		
	comp=N,2µm,10.9s,MS5.2						
HHC				LR	LR		
	comp=E,2µm,15.9s,MS5.2						
BJT	Baijiatuau	39.35	22	*e*P	P	21 26 57.6	-0.2
	comp=E,56nm,0.8s,mb5.3						
BJI	Beijing	39.37	22	P	P	21 27 00.5	+2.5
BJI				AMB	AMB		
	comp=Z,21nm,1.1s,mb4.8						
NWAO	Narrogin (SRO)	41.23	155	P	P	21 27 12.8	-0.5
	comp=Z,19nm,1.0s,mb4.7,baz=330,slow=13,SNR=3.3						
NWAO	Narrogin (SRO)	41.23	155	P	P	21 27 12.8	-0.5
WRA	Warramunga Arr	43.14	125	P	P	21 27 29.1	-0.1
	comp=Z,36nm,0.5s,mb5.3,baz=301,slow=9.2,SNR=73						
WRAB	Tennant Creek	43.15	125	*e*P	P	21 27 28.9	-0.3
	comp=Z,128nm,0.9s,mb5.7						
AAK	Ala-Archa	43.57	335	*e*P	P	21 27 31.3	-1.0
	comp=Z,6.2nm,1.1s,mb4.2						
SNY	Shenyang	44.00	28	⇑P	P	21 27 37.8	+1.9
SNY				AMB	AMB		
	comp=Z,10.0nm,1.9s,mb4.2						
SONM	Songino Array	44.12	8	P	P	21 27 37.5	+0.7
	comp=Z,6.8nm,0.6s,mb4.6,baz=193,slow=7.8,SNR=19						
ASAR	Alice Springs	44.74	130	P	P	21 27 42.0	-0.2
	comp=Z,8.5nm,0.6s,mb4.7,baz=300,slow=6.8,SNR=30						
CN2	Changchun	46.40	28	*e*P	P	21 27 59.8	+4.8
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
HASS	Wahat al Ahsa’	50.68	299	P	P	21 28 29.1	+0.7
ZAL	Zalesovo	50.75	350	P	P	21 28 26.1	-2.5
	comp=Z,5.4nm,1.2s,mb4.4,baz=299,slow=7.5,SNR=5.1						
RYDS	Riyadh	53.10	297	P	P	21 28 47.9	+1.1
CTA	Charters Tower	53.32	119	P	P	21 28 46.6	-1.7
	comp=Z,6.7nm,0.8s,mb4.6,baz=279,slow=5.8,SNR=7.0						
BVAR	Borovoye Array	53.68	340	P	P	21 28 48.0	-2.6
	comp=Z,6.8nm,0.8s,mb4.6,baz=135,slow=8.4,SNR=16						
BRVK	Borovoye	53.75	340	*e*P	P	21 28 49.6	-1.4
	comp=Z,6.6nm,0.8s,mb4.6						
CHKZ	Chkalovo	54.15	340	*e*P	P	21 28 53.3	-0.6
	comp=Z,3.4nm,1.0s,mb4.2						
KAMS	Al Khamasin	54.19	292	P	P	21 28 54.0	-0.7
MZLS	Mizel	54.34	297	P	P	21 28 56.6	+0.8
STKA	Stephens Creek	54.91	134	P	P	21 28 58.2	-1.7
	comp=Z,16nm,0.6s,mb5.2,baz=308,slow=6.6,SNR=36						
AFFS	‘Afif	56.30	296	P	P	21 29 10.9	+1.0
ARSS	Ar Rass	56.50	298	P	P	21 29 11.5	+0.1
HILS	Ha’il	58.09	300	P	P	21 29 23.7	+1.1
KBRS	Khaybar	59.98	297	P	P	21 29 37.0	+1.3
KMBO	Kilima Mbogo	60.75	266	P	P	21 29 42.0	+0.9
	comp=Z,6.6nm,0.9s,mb4.8,baz=63,slow=9.1,SNR=8.6						
KMBO				PcP	PcP	21 30 25.9	+1.2
	comp=Z,3.8nm,0.9s,baz=51,slow=8.5,SNR=4.2						
UMJS	Umm Lajj	61.62	296	P	P	21 29 48.8	+1.8
YAK	Yakutsk	62.42	16	*e*P	P	21 29 52.2	+0.5
TBKS	Tabuk	62.81	300	P	P	21 29 56.2	+1.5
ASF	Jabal al Asfar	63.30	304	P	P	21 29 56.6	-1.3
	comp=Z,6.8nm,0.9s,mb4.8,baz=12,slow=2.5,SNR=6.1						
JMQS	Jabal Moqyreh	63.51	300	P	P	21 30 00.4	+0.9
AYUS	‘Aynunah	63.91	299	P	P	21 30 03.1	+1.0
BDAS	Al Bad‘	64.10	300	P	P	21 30 04.0	+0.7
JMOS	Jabal al Moall	64.22	300	P	P	21 30 04.8	+0.7
ALWS	Ilw as Safayha	64.28	300	P	P	21 30 05.2	+0.7
HAQS	Haql	64.36	300	P	P	21 30 05.7	+0.6
EIL	Elat	64.45	301	P	P	21 30 04.0	-1.6
	comp=Z,31nm,1.0s,mb5.3,baz=80,slow=4.2,SNR=17						
MBAR	Mbarara	67.20	268	*e*P	P	21 30 23.2	-0.3
	comp=Z,12nm,1.3s,mb4.8						
BRTR	Keskin Array B	67.61	311	P	P	21 30 24.2	-1.4
	comp=Z,6.0nm,0.8s,mb4.7,baz=126,slow=6.5,SNR=18						
ISP	Isparta	69.60	309	*e*P	P	21 30 36.9	-1.0
	comp=Z,11nm,1.0s,mb4.8						
LSZ	Lusaka	71.57	252	*e*P	P	21 30 49.5	-0.8
	comp=Z,1.8nm,0.6s,mb4.2						
AKASG	Malin Array Be	73.31	322	P	P	21 30 58.2	-1.8
	comp=Z,4.7nm,0.8s,mb4.5,baz=87,slow=4.3,SNR=18						
IDI	Anoyia	73.68	305	P	P	21 31 00.9	-1.5
	comp=Z,20nm,0.9s,mb5.0,baz=78,slow=9.3,SNR=3.2						
MLR	Muntele Rosu	74.36	316	P	P	21 31 04.8	-1.4
	comp=Z,9.0nm,1.0s,mb4.7,baz=92,slow=11,SNR=5.0						
MAW	Mawson	75.72	193	P	P	21 31 15.0	+1.5
	comp=Z,3.8nm,0.8s,mb4.4,baz=358,slow=10,SNR=3.6						
LBTB	Lobatse	75.77	243	*e*P	P	21 31 13.9	-0.8
	comp=Z,8.8nm,0.7s,mb4.8						
BOSA	Boshof	76.80	239	*e*P	P	21 31 19.7	-0.7
	comp=Z,11nm,1.2s,mb4.7						
KOLS	Kolonicke sedl	77.39	319	*e*P	P	21 31 25.5	+2.3
SUW	Suwalki	77.63	324	*e*P	P	21 31 23.4	-1.1
	comp=Z,44nm,0.9s,mb5.4						
FINES	FINESS Array B	77.68	332	P	P	21 31 25.1	+0.5
	comp=Z,3.5nm,0.8s,mb4.3,baz=117,slow=4.3,SNR=7.5						
KAF	Kangasniemi	77.74	333	*e*p	P	21 31 25.6	+0.7
OJC	Ojcow	79.15	320	*e*P	P	21 31 29.8	-3.1
ARCES	ARCESS Array B	79.97	340	P	P	21 31 38.2	+1.2
	comp=Z,2.7nm,0.7s,mb4.3,baz=100,slow=6.5,SNR=5.5						
ARCES	ARCESS Array B	79.97	340	P	P	21 31 38.2	+1.3
MORC	Moravsky Berou	80.56	320	*e*P	P	21 31 39.7	-0.7
RPZ	Rata Peaks	80.85	135	P	P	21 31 43.0	+0.9
	comp=Z,9.7nm,0.9s,mb4.7,baz=232,slow=8.4,SNR=5.1						
SUR	Sutherland	81.30	237	*e*P	P	21 31 46.2	+1.5
GERES	GERESS Array B	83.01	319	P	P	21 31 53.3	+0.1
	comp=Z,2.1nm,0.8s,mb4.2,baz=108,slow=4.1,SNR=7.9						
KHC	Kasperske Hory	83.10	319	*e*P	P	21 31 57.0	+3.3
NOA	NORSAR Array B	84.73	331	P	P	21 32 00.8	-0.8

	comp=Z,2.9nm,1.1s,mb4.3,baz=89,slow=5.8,SNR=3.5						
NOA	NORSAR Array B	84.73	331	P	P	21 32 00.8	-0.8
LPG	La Plagne	87.81	315	eP	P	21 32 16.6	-0.5
	comp=Z,27nm,0.9s,mb5.2						
VNDA	Vanda	88.59	169	P	P	21 32 20.8	+0.6
	comp=Z,1.8nm,1.0s,mb4.3,baz=20,slow=6.6,SNR=5.1						
VNDA	Vanda	88.59	169	P	P	21 32 20.8	+0.6
TXAR	Lajitas Array	140.82	30	PKP	PKPdf	21 39 00.0	-1.8
	comp=Z,0.5nm,0.8s,baz=180,slow=1.3,SNR=3.3						
BAO	Brasilia Array	144.51	249	PKP	PKPdf	21 39 05.6	-2.9
BDFB	Brasilia	144.53	249	PKP	PKPdf	21 39 06.0	-2.6
	comp=Z,6.1nm,0.7s,baz=123,slow=3.5,SNR=9.1						
SDV	Santo Domingo	162.66	318	PKPab	PKPab	21 40 20.4	+0.3
	comp=Z,6.6nm,0.8s,baz=48,slow=2.7,SNR=10.0						

*IDC **26** 21:19:50.7±2.6, 8.04N×92.07E, mb4.1/7, mb1 4.3/7, mb1mx4.0/19, Error ellipse: s-maj=72.3km s-min=53.7km az=17.0*

*NEIC **26** 21:19:55.5±1.2, 8.08N×92.09E, h30^{km}, mb4.4/3, Error ellipse: s-maj=30.7km s-min=27.3km az=59.0*

ISC 26 21:19:54.3±2.2**, 8.1N**±0.3×**92.0E**±0.3**, h30^{km}, n14, σ0^{s}73**/13**, mb4.2**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	Kunming	19.78	30	P	P	21 24 19.8	-5.4
KMI				AMB	AMB		
	comp=Z,25nm,1.4s						
LSA	Lhasa	21.48	358	eP	P	21 24 43.4	+0.8
	comp=Z,12nm,0.8s,mb4.3						
AAK	Ala-Archa	37.66	339	eP	P	21 27 08.8	+0.3
	comp=Z,6.6nm,1.1s,mb4.3						
ZAL	Zalesovo	46.05	354	P	P	21 28 16.6	-0.5
	comp=Z,1.7nm,0.6s,mb4.2,baz=288,slow=9.5,SNR=5.5						
BVAR	Borovoye Array	48.08	343	P	P	21 28 32.8	-0.3
	comp=Z,0.6nm,0.6s,mb3.8,baz=135,slow=6.1,SNR=2.7						
CHKZ	Chkalovo	48.59	343	P	P	21 28 35.5	-1.4
KIV	Kislovodsk	55.70	318	eP	P	21 29 30.9	+0.5
	comp=Z,3.4nm,0.7s,mb4.5						
BRTR	Keskin Array B	60.64	311	P	P	21 30 05.0	0.0
	comp=Z,2.5nm,1.1s,mb4.3,baz=129,slow=7.9,SNR=5.2						
ARCES	ARCESS Array B	74.31	340	P	P	21 31 30.9	+0.6
	comp=Z,2.3nm,0.8s,mb4.2,baz=90,slow=5.4,SNR=3.8						
ARCES	ARCESS Array B	74.31	340	P	P	21 31 30.9	+0.6
GERES	GERESS Array B	76.21	318	P	P	21 31 41.4	-0.2
	comp=Z,1.2nm,0.8s,mb3.9,baz=90,slow=4.0,SNR=7.4						
ILAR	Eielson Array	95.31	22	P	P	21 33 15.6	-0.8
	comp=Z,0.4nm,0.7s,mb4.0,baz=301,slow=4.7,SNR=4.6						
INK	Inuvik	97.33	16	P	P	21 33 26.6	+1.0
	comp=Z,1.3nm,0.8s,mb4.4,baz=296,slow=6.1,SNR=4.8						
PDAR	Pinedale Array	125.68	19	PKP	PKPdf	21 38 55.0	-3.5
	comp=Z,0.8nm,0.9s,baz=125,slow=3.5,SNR=4.2						

*IDC **26** 21:20:37.7±0.6, 8.56N×92.08E, mb4.7/22, mb1 4.8/23, mb1mx4.8/24, ML4.7/1, Error ellipse: s-maj=22.7km s-min=16.0km az=58.0*

*BJI **26** 21:20:41.1, 8.27N×92.05E, h42^{km}, mB5.5, mb5.1, Ms5.4, Msz5.4*

*NEIC **26** 21:20:42.3±0.3, 8.58N×92.14E, h30^{km}, mb4.9/16, Error ellipse: s-maj=8.1km s-min=7.1km az=80.0*

*MOS **26** 21:20:44.2±0.7, 8.99N×91.85E, h33^{km}, mb5.0/10, Error ellipse: s-maj=32.3km s-min=10.9km az=116.5*

ISC 26 21:20:40.7±0.4**, 8.58N**±0.06×**92.04E**±0.06**, h30^{km}, h30^{km}**±1.0^{km}**:pP-P, n83, σ0^{s}99**/79**, mb4.8**/40**, MS5.3**/1**, 3C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.89	34	P	P	21 23 28.4	-3.1
CMAR	Chiang Mai Arr	11.89	34	Pn	P	21 23 32.4	+0.9
	1.4nm,0.3s,baz=232,slow=14,SNR=13						
VIS	Vishakhapatnam	12.43	318	eP	P	21 23 36.8	-1.8
VIS				e		21 23 40.1	
	comp=Z,77nm,0.4s						
VIS				eS	S	21 25 46.0	-11
VIS				e		21 25 50.4	
	comp=N,93nm,0.3s						
VIS				e		21 25 51.7	
	comp=E,117nm,0.3s						
HYB	Hyderabad	15.80	305	eP	P	21 24 28.0	+5.0
	comp=E,80nm,1.0s						
HYB	Hyderabad	15.80	305	i P	P	21 24 28.0	+5.0
	comp=E,80nm,1.0s						
SHL	Shillong	16.90	360	eP	P	21 24 23.5	-13
SHL				eS	S	21 27 39.0	-3.4
KMI	Kunming	19.36	31	P	P	21 25 09.0	+2.0
KMI				AMB	AMB		
	comp=Z,50nm,1.5s						
QIZ	Qiongzhong	20.15	57	P	P	21 25 15.0	-0.6
BHPL	Bhopal	20.22	318	eP	P	21 25 10.1	-6.2
LSA	Lhasa	21.03	358	eP	P	21 25 23.2	-1.4
PTH	Pithoragarh	23.63	334	eP	P	21 25 40.1	-10
DDI	Dehra Dun	25.28	331	e	P	21 26 06.8	+0.5
ENH	Enshi	27.06	35	eP	P	21 26 21.8	-1.0
	comp=Z,56nm,0.8s,mb5.1						
WHN	Wuhan	30.20	41	P	P	21 26 51.3	+0.3
GTA	Gaotai	31.48	12	P	P	21 27 03.5	+1.3
GTA				AP	pP	21 27 11.8	+0.8
GTA				AMB	AMB		
	comp=Z,66nm,1.1s,mb5.4						
KSH	Kashi	34.00	337	eP	P	21 27 25.8	+1.7
KSH				eAP	pP	21 27 35.0	+2.1
KSH				eXP	sP	21 27 41.5	+4.8
NJ2	Nanjing	34.13	43	eP	P	21 27 26.3	+1.0
NJ2				AP	pP	21 27 35.8	+1.7
NJ2				XP	sP	21 27 39.3	+1.4
NJ2				PP	PP	21 28 46.0	+5.9
NJ2				S	S	21 32 52.0	+3.6
NJ2				XS		21 33 08.0	
NJ2				AMB	AMB		
	comp=Z,420nm,6.0s						
NJ2				LR	LR		
	comp=N,1µm,14.2s,MS5.3						
NJ2				LR	LR		
	comp=E,4µm,16.0s,MS5.3						
NJ2				LR	LR		
	comp=Z,5µm,14.2s,MS5.4						
WMQ	Urumqi	35.31	355	⇑P	P	21 27 36.5	+1.2
WMQ				AMB	AMB		
	comp=Z,26nm,1.1s,mb5.1						
AAK	Ala-Archa	37.26	338	eP	P	21 27 51.9	+0.1
	comp=Z,23nm,1.0s,mb5.0						
SONM	Songino Array	40.97	15	P	P	21 28 23.7	+1.2
	comp=Z,11nm,0.9s,mb4.5,baz=196,slow=9.0,SNR=8.4						
SONM				PP	PP	21 30 01.2	+1.2
	comp=Z,2.1nm,0.7s,baz=225,slow=7.0,SNR=4.0						
SONM				PcP	PcP	21 30 23.3	+0.3
	comp=Z,3.7nm,0.7s,baz=200,slow=3.6,SNR=4.4						
ZAK	Zakamensk	42.71	11	eP	P	21 28 37.9	+1.2
ZAL	Zalesovo	45.61	354	P	P	21 28 59.6	-0.4
	comp=Z,9.7nm,0.8s,mb4.8,baz=322,slow=4.8,SNR=11						
NVS	Novosibirsk	46.67	353	eP	P	21 29 07.4	-1.0
NVS				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=N,24nm,1.2s						
BVAR	Borovoye Array	47.68	342	P	P	21 29 16.3	-0.2
	comp=N,5.2nm,0.7s,mb4.7,baz=135,slow=8.4,SNR=4.6						
BRVK	Borovoye	47.74	342	eP	P	21 29 16.6	-0.3
	comp=N,6.5nm,0.8s,mb4.7						
CHKZ	Chkalovo	48.18	343	eP	P	21 29 19.6	-0.7
	comp=N,22nm,0.8s,mb5.2						
WRA	Warramunga Arr	50.36	125	P	P	21 29 35.6	-2.0
	comp=N,6.8nm,0.8s,mb4.7,baz=302,slow=9.3,SNR=5.5						
WRA	Warramunga Arr	50.36	125	P	P	21 29 35.6	-2.0
WRAB	Tennant Creek	50.37	125	eP	P	21 29 34.5	-3.1
	comp=N,15nm,0.9s,mb5.0						
ASAR	Alice Springs	51.96	129	P	P	21 29 47.5	-2.1
	comp=N,7.2nm,0.8s,mb4.7,baz=306,slow=7.7,SNR=5.2						
BOD	Bodaibo	51.97	15	eP	P	21 29 49.0	-0.3
GNI	Garni	52.46	315	P	P	21 29 53.4	+0.3
	comp=N,7.9nm,0.7s,mb4.8,baz=176,slow=3.4,SNR=7.0						
GNI	Garni	52.46	315	P	P	21 29 53.5	+0.3
TI2	Plekhanov	53.11	317	i P	P	21 29 59.0	+1.1
SVE	Sverdlovsk	54.00	339	eP	P	21 30 04.0	-0.2
ARU	Arti	54.45	338	eP	P	21 30 07.2	-0.3
ARU	Arti	54.45	338	eP	P	21 30 07.0	-0.6
	comp=N,19nm,0.8s,mb5.1						
ARU				epP	pP	21 30 15.5	-1.2
KIV	Kislovodsk	55.41	318	eP	P	21 30 14.4	-0.4
KIV				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KMBO	Kilima Mbogo	55.44	263	P	P	21 30 15.5	0.0
	comp=Z,4.2nm,0.8s,mb4.5,baz=56,slow=9.2,SNR=6.0						
BRTR	Keskin Array B	60.40	311	P	P	21 30 48.9	-1.0
	comp=Z,5.1nm,0.6s,mb4.7,baz=120,slow=6.3,SNR=5.4						
AKASG	Malin Array Be	66.32	322	P	P	21 31 27.0	-1.7
	comp=Z,6.5nm,0.9s,mb4.7,baz=90,slow=4.9,SNR=8.1						
IDI	Anoyia	66.46	305	P	P	21 31 29.9	0.0
	comp=Z,10nm,0.8s,mb4.9,baz=72,slow=7.2,SNR=4.4						
MLR	Muntele Rosu	67.22	316	P	P	21 31 33.8	-0.7
	comp=Z,15nm,0.9s,mb5.0,baz=160,slow=3.4,SNR=8.7						
KOLS	Kolonicke sedl	70.31	319	epP	pP	21 32 03.9	+1.1
APA	Apatity	70.47	340	⇑iP	P	21 31 53.6	-0.6
APA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
FINES	FINESS Array B	71.12	332	P	P	21 31 57.5	-0.8
	comp=Z,5.5nm,0.8s,mb4.5,baz=90,slow=3.8,SNR=7.2						
LBTB	Lobatse	72.77	241	eP	P	21 32 08.4	-0.4
	comp=Z,5.8nm,0.8s,mb4.6						
MORC	Moravsky Berou	73.49	319	eP	P	21 32 12.2	-0.3
	comp=Z,4.7nm,0.7s,mb4.5						
ZST	Bratislava	73.62	318	eP	P	21 32 14.0	+0.8
ARCES	ARCESS Array B	73.91	340	P	P	21 32 13.9	-0.6
	comp=Z,7.1nm,0.9s,mb4.6,baz=90,slow=4.9,SNR=6.2						
DPC	Dobruska-Polom	74.33	320	eP	P	21 32 18.0	+0.7
KSP	Ksiaz	74.40	320	⇑eP	P	21 32 18.3	+0.6
KSP				e		21 32 23.6	
UPC	Upice	74.54	320	eP	P	21 32 18.7	+0.2
PRU	Pruhonice	75.44	319	eP	P	21 32 23.6	-0.1
BRG	Berggiesshubel	75.89	320	eP	P	21 32 26.2	0.0
BRG				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
BRG	Berggiesshubel	75.89	320	eP	P	21 32 26.2	0.0
	comp=Z,12nm,1.3s,mb4.7						
GERES	GERESS Array B	75.92	318	P	P	21 32 26.9	+0.5
	comp=Z,6.9nm,0.9s,mb4.6,baz=90,slow=5.3,SNR=13						
KHC	Kasperske Hory	76.02	318	eP	P	21 32 26.8	-0.2
CLL	Collm	76.50	321	i P	P	21 32 29.4	-0.3
CLL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
CLL	Collm	76.50	321	i P	P	21 32 29.4	-0.3
	comp=Z,7.0nm,1.0s,mb4.5						
CLL	Collm	76.50	321	P	P	21 32 29.4	-0.3
	comp=Z,logA/T=0.8,mb4.5						
HFS	Hagfors	76.81	330	P	P	21 32 30.8	-0.4
	comp=Z,2.7nm,0.7s,mb4.3,baz=117,slow=3.2,SNR=2.6						
MOX	Moxa	77.35	320	i P	P	21 32 34.6	+0.2
MOX	Moxa	77.35	320	eP	P	21 32 34.6	+0.2
GRA1	Grafenberg Arr	77.58	319	eP	P	21 32 36.7	+1.0
	comp=Z,9.0nm,0.9s,mb4.7						
GRF	Grafenberg Arr	77.58	319	eP	P	21 32 36.7	+1.0
GRF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
GRF	Grafenberg Arr	77.58	319	eP	P	21 32 36.7	+1.0
	comp=Z,9.0nm,0.9s,mb4.7						
NB2	NORSAR Subarra	78.10	331	P	P	21 32 34.1	-4.2
	comp=Z,6.4nm,1.0s,mb4.5,baz=95,slow=5.0						
NOA	NORSAR Array B	78.10	331	P	P	21 32 37.9	-0.4
	comp=Z,3.4nm,0.8s,mb4.3,baz=92,slow=5.9,SNR=6.4						
MAW	Mawson	78.81	191	P	P	21 32 42.0	0.0
	comp=Z,2.9nm,0.7s,mb4.3,baz=36,slow=8.7,SNR=3.4						
LPL	La Plagne	80.66	315	eP	P	21 32 53.2	+0.7
	comp=Z,39nm,0.8s,mb5.1						
ESDC	Sonseca Array	89.18	310	P	P	21 33 36.2	+1.0
	comp=Z,1.0nm,0.5s,mb4.4,baz=64,slow=4.1,SNR=6.0						
IMA	Indian Mountai	91.75	22	eP	P	21 33 47.6	+1.1
	comp=Z,20nm,0.8s,mb5.5						
VNDA	Vanda	94.04	168	P	P	21 33 57.2	+0.4
	comp=Z,0.8nm,0.7s,mb4.3,baz=333,slow=9.0,SNR=2.0						
ILAR	Eielson Array	94.87	22	P	P	21 34 01.1	+0.2
	comp=Z,2.0nm,0.8s,mb4.6,baz=303,slow=4.0,SNR=16						
ILAR				PP	PP	21 37 48.0	-4.0
	comp=Z,1.2nm,1.0s,baz=280,slow=6.6,SNR=5.3						
DBIC	Dimbokro	95.79	278	P	P	21 34 07.9	+1.6
	comp=Z,4.7nm,0.7s,mb5.0,baz=96,slow=2.9,SNR=7.1						
INK	Inuvik	96.89	16	P	P	21 34 11.2	+1.2
	comp=Z,4.7nm,0.7s,mb5.0,baz=324,slow=4.6,SNR=13						
YKA	Yellowknife Ar	106.21	13	PP	PP	21 39 13.1	-5.6
	comp=Z,1.7nm,0.9s,baz=336,slow=7.8,SNR=11						
ULM	Lac du Bonnet	121.01	6	PKP	PKPdf	21 39 32.4	-3.4
	comp=Z,3.3nm,0.9s,baz=172,slow=1.7,SNR=4.2						
PDAR	Pinedale Array	125.23	19	PKP	PKPdf	21 39 40.9	-3.2
	comp=Z,4.2nm,1.1s,baz=97,slow=1.0,SNR=9.5						
NVAR	Mina Array Bea	125.35	29	PKP	PKPdf	21 39 42.8	-1.6
	comp=Z,2.8nm,0.6s,baz=298,slow=2.6,SNR=7.3						
LVC	Limon Verde	156.99	230	PKPab	PKPab	21 41 07.0	+0.4
	comp=Z,5.4nm,0.7s,baz=114,slow=1.2,SNR=6.1						
LPAZ	La Paz	159.19	246	PKPab	PKPab	21 41 16.7	+0.5
	comp=Z,3.7nm,0.9s,baz=66,slow=4.4,SNR=5.4						

*IDC **26** 21:20:44.4±1.1, 8.30N×91.69E, mb5.1/7, mb1 5.1/8, mb1mx4.7/20, ML4.8/1, Error ellipse: s-maj=37.7km s-min=23.5km az=64.0*

ISC 26 21:20:48.6±0.8**, 8.5N**±0.1×**91.8E**±0.1**, h33^{km}, n23, σ1^{s}08**/21**, mb4.9**/9**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.10	34	Pn	P	21 23 41.1	-0.6
	1.8nm,0.3s,baz=232,slow=14,SNR=16						
CMAR	Chiang Mai Arr	12.10	34	P	P	21 23 41.1	-0.6
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PKI	Pulchoki	19.95	343	eP	P	21 25 19.5	-1.3
	comp=Z,91nm,0.7s						
DMN	Daman	20.08	342	eP	P	21 25 21.0	-1.1
	comp=Z,44nm,0.4s						
GUN	Gumba	20.15	345	eP	P	21 25 24.1	+1.3
KKN	Kakani	20.20	343	eP	P	21 25 22.3	-1.1
	comp=Z,81nm,0.8s						
GKN	Gorkha	20.59	342	eP	P	21 25 28.5	+1.0
	comp=Z,77nm,0.3s						
JOW	Kunigami	39.03	57	P	P	21 28 15.1	+1.0
	comp=Z,50nm,1.0s,mb5.2,baz=272,slow=12,SNR=7.4						
SONM	Songino Array	41.14	15	P	P	21 28 32.4	+1.1
	comp=Z,14nm,0.6s,mb4.8,baz=198,slow=8.4,SNR=5.6						
ZAL	Zalesovo	45.70	354	P	P	21 29 09.3	+1.1
	comp=Z,10nm,0.6s,mb5.0,baz=291,slow=6.6,SNR=8.0						
ZAL	Zalesovo	45.70	354	P	P	21 29 09.3	+1.1
ZAL				pmax	pmax		
	comp=Z,10.0nm,0.6s						
WRA	Warramunga Arr	50.47	124	P	P	21 29 43.9	-1.8
	comp=Z,9.1nm,0.9s,mb4.8,baz=303,slow=8.8,SNR=5.3						
WRA	Warramunga Arr	50.47	124	P	P	21 29 43.9	-1.8
WRA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
GOF	Gofitskoye	55.60	320	⇓iP	P	21 30 24.5	+1.0
GOF				pmax	pmax		
	comp=Z,18nm,1.6s,mb4.8						
AKASG	Malin Array Be	66.28	322	P	P	21 31 34.6	-1.2
	comp=Z,2.5nm,0.6s,mb4.4,baz=87,slow=4.6,SNR=5.7						
AKASG	Malin Array Be	66.28	322	P	P	21 31 34.6	-1.2
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
VYHS	Vyhne	72.45	318	e	P	21 32 13.8	+0.2
RPZ	Rata Peaks	88.08	135	P	P	21 33 38.4	+1.3
	comp=Z,32nm,1.0s,mb5.5,baz=100,slow=2.7,SNR=5.8						
URZ	Urewera	91.49	128	P	P	21 33 53.6	+0.2
	comp=Z,8.3nm,0.7s,mb5.2,baz=202,slow=5.2,SNR=3.7						
ILAR	Eielson Array	95.05	22	P	P	21 34 07.9	-1.1
	comp=Z,2.0nm,0.7s,mb4.7,baz=307,slow=4.8,SNR=12						
ILAR	Eielson Array	95.05	22	P	P	21 34 07.9	-1.1
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
PDAR	Pinedale Array	125.41	19	PKP	PKPdf	21 39 47.0	+0.3
	comp=Z,2.0nm,0.9s,baz=30,slow=3.3,SNR=6.1						
NVAR	Mina Array Bea	125.55	29	PKP	PKPdf	21 39 49.3	+2.2
	comp=Z,4.0nm,0.7s,baz=172,slow=0.5,SNR=5.9						

*IDC **26** 21:21:30.8±1.4, 4.10N×92.43E, mb4.7/8, mb1 4.8/9, mb1mx4.4/20, ML4.9/1, MS4.6/1, Ms1 4.6/1, ms1mx3.5/26, Error ellipse: s-maj=52.0km s-min=28.7km az=45.0*

*BJI **26** 21:21:32.0, 4.10N×92.60E, h30^{km}, mb4.5*

*NEIC **26** 21:21:34.1±1.0, 4.05N×92.64E, h30^{km}, mb4.7/4, Error ellipse: s-maj=25.5km s-min=19.7km az=59.0*

ISC 26 21:21:33.6±0.8**, 4.2N**±0.1×**92.8E**±0.1**, h30^{km}, n26, σ1^{s}37**/23**, mb4.6**/12**, MS4.5**/1**, 3C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.44	23	eP	P	21 25 11.7	+0.5
CMAR	Chiang Mai Arr	15.44	23	Pn	P	21 25 13.4	+2.2
	1.6nm,0.3s,baz=231,slow=14,SNR=7.4						
LSA	Lhasa	25.45	357	eP	P	21 27 01.1	+0.4
	19nm,0.8s,mb4.7						
TGY	Tagaytay City	29.48	69	LR	LR	21 38 07.4	
	comp=Z,1µm,18.5s,MS4.5,baz=261,slow=33						
WHN	Wuhan	33.22	35	P	P	21 28 08.0	-2.3
WMQ	Urumqi	39.75	354	⇑P	P	21 29 05.5	+0.1
AAK	Ala-Archa	41.62	340	P	P	21 29 19.4	-1.4
	3.9nm,0.7s,mb4.2						
WRA	Warramunga Arr	47.35	122	P	P	21 30 08.5	+1.3
	10nm,0.8s,mb4.8,baz=299,slow=8.7,SNR=4.8						
WRAB	Tennant Creek	47.36	122	eP	P	21 30 05.8	-1.4
	16nm,0.7s,mb5.1						
ZAL	Zalesovo	50.04	354	P	P	21 30 27.6	+0.1
	8.7nm,0.4s,mb5.1,baz=311,slow=4.8,SNR=11						
BVAR	Borovoye Array	52.08	343	P	P	21 30 41.4	-1.6
	7.7nm,0.7s,mb4.7,baz=135,slow=8.4,SNR=5.8						
BRVK	Borovoye	52.14	343	eP	P	21 30 40.5	-2.9
	8.9nm,0.8s,mb4.8						
ARU	Arti	58.79	339	eP	P	21 31 30.3	-1.1
BRTR	Keskin Array B	63.85	312	P	P	21 32 02.7	-3.2
	2.2nm,0.7s,mb4.3,baz=127,slow=7.2,SNR=2.0						
CFR	Carcaliu	69.31	317	⇑iP	P	21 32 36.0	-4.4
VRI	Vrincioaia	70.45	317	⇑iP	P	21 32 48.5	+1.2
KOLS	Kolonicke sedl	74.11	320	eP	P	21 33 09.8	+0.9
KOLS	Kolonicke sedl	74.11	320	e	P	21 33 09.8	+0.9
CRVS	Cervenica-Dubn	74.62	320	esP	sP	21 33 23.0	-1.6
FINES	FINESS Array B	75.35	333	P	P	21 33 15.1	-0.7
	4.1nm,0.9s,mb4.4,baz=117,slow=6.2,SNR=3.1						
ZST	Bratislava	77.36	318	eP	P	21 33 27.6	+0.2
ARCES	ARCESS Array B	78.28	341	P	P	21 33 31.8	-0.2
	3.4nm,0.8s,mb4.3,baz=101,slow=6.2,SNR=3.7						
GERES	GERESS Array B	79.68	319	P	P	21 33 40.8	+0.8
	3.1nm,0.7s,mb4.3,baz=104,slow=5.5,SNR=5.0						
KHC	Kasperske Hory	79.79	319	eP	P	21 33 42.5	+1.9
CLL	Collm	80.36	321	i PP	pP	21 33 51.3	-1.9
DAVOX	Davos	82.11	316	P	P	21 33 54.8	+1.9
	10nm,0.6s,mb5.0,baz=124,slow=9.4						

*IDC **26** 21:25:28.8±0.6, 4.73N×94.81E, mb4.7/19, mb1 4.8/19, mb1mx4.7/24, Error ellipse: s-maj=25.4km s-min=13.4km az=48.0*

*BJI **26** 21:25:31.9, 4.48N×94.51E, h46^{km}, mB5.8, mb5.2, Ms5.6*

*NEIC **26** 21:25:33.1±0.3, 4.75N×94.85E, h30^{km}, mb5.0/6, Error ellipse: s-maj=13.7km s-min=8.2km az=57.0*

ISC 26 21:25:31.5±0.4**, 4.71N**±0.08×**94.81E**±0.09**, h30^{km}, n43, σ1^{s}05**/35**, mb4.7**/27**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GYA	Guiyang	24.42	26	⇑iP	P	21 30 50.5	+1.6
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
LSA	Lhasa	25.10	352	eP	P	21 30 55.0	-0.3
	comp=Z,32nm,0.4s,mb5.2						
ENH	Enshi	28.96	27	P	P	21 31 29.6	-1.0
BJI	Beijing	40.11	26	P	P	21 33 08.0	+1.7
BJI				AMB	AMB		
	comp=Z,32nm,0.9s,mb5.0						
AAK	Ala-Archa	41.86	337	eP	P	21 33 20.1	-0.5
	comp=Z,9.2nm,0.7s,mb4.5						
NWAO	Narrogin (SRO)	43.05	152	P	P	21 33 31.2	+0.6
	comp=Z,8.0nm,0.8s,mb4.5,baz=342,slow=11,SNR=3.8						
NWAO	Narrogin (SRO)	43.05	152	P	P	21 33 31.2	+0.6
SONM	Songino Array	44.10	11	P	P	21 33 38.4	-0.5
	comp=Z,7.3nm,0.6s,mb4.6,baz=190,slow=7.6,SNR=11						
SONM				PcP	PcP	21 35 24.8	+0.6
	comp=Z,3.8nm,0.5s,baz=198,slow=3.8,SNR=9.3						
WRA	Warramunga Arr	45.93	124	P	P	21 33 53.4	-0.5
	comp=Z,19nm,0.7s,mb5.1,baz=302,slow=9.1,SNR=30						
WRAB	Tennant Creek	45.93	124	eP	P	21 33 53.2	-0.6
	comp=Z,22nm,0.6s,mb5.3						
ASAR	Alice Springs	47.41	128	P	P	21 34 05.0	-0.5
	comp=Z,9.8nm,0.8s,mb4.8,baz=303,slow=7.6,SNR=19						
ZAL	Zalesovo	49.75	352	P	P	21 34 22.4	-0.8
	comp=Z,14nm,0.4s,mb5.3,baz=301,slow=6.2,SNR=22						
BVAR	Borovoye Array	52.18	342	P	P	21 34 40.8	-0.9
	comp=Z,6.8nm,0.7s,mb4.7,baz=140,slow=9.9,SNR=12						
BRVK	Borovoye	52.24	342	eP	P	21 34 40.4	-1.7
	comp=Z,7.1nm,0.6s,mb4.8						
CHKZ	Chkalovo	52.67	342	eP	P	21 34 43.8	-1.5
	comp=Z,15nm,0.6s,mb5.1						
CTA	Charters Tower	56.22	118	P	P	21 35 11.2	-0.5
	comp=Z,7.3nm,0.9s,mb4.7,baz=284,slow=11,SNR=4.5						
ASAJ	Asahikawa	57.39	39	P	P	21 35 19.9	+0.1
	comp=Z,4.8nm,0.5s,mb4.8,baz=311,slow=8.2,SNR=4.3						
STKA	Stephens Creek	57.47	133	P	P	21 35 20.4	0.0
	comp=Z,7.1nm,0.8s,mb4.7,baz=333,slow=6.8,SNR=6.6						
KMBO	Kilima Mbogo	57.79	266	P	P	21 35 22.5	-0.4
	comp=Z,1.5nm,0.9s,mb4.0,baz=45,slow=11,SNR=2.5						
BOYT	Boyabat	64.56	314	i P	P	21 36 03.5	-4.8
BALT	Daday	65.68	314	i P	P	21 36 10.7	-4.8
IDI	Anoyia	70.92	306	P	P	21 36 48.5	+0.2
	comp=Z,6.4nm,0.6s,mb4.8,baz=112,slow=12,SNR=7.0						
AKASG	Malin Array Be	71.04	322	P	P	21 36 47.4	-1.4
	comp=Z,3.0nm,0.6s,mb4.4,baz=82,slow=4.7,SNR=16						
LBTB	Lobatse	73.34	242	eP	P	21 37 04.3	+1.5
	comp=Z,2.7nm,0.8s,mb4.2						
BOSA	Boshof	74.50	239	eP	P	21 37 07.5	-2.0
FINES	FINESS Array B	75.81	332	P	P	21 37 15.8	-0.6
	comp=Z,3.2nm,0.7s,mb4.3,baz=114,slow=6.1,SNR=8.7						
KAF	Kangasniemi	75.90	333	ep	P	21 37 16.1	-0.7
OJC	Ojcow	76.82	320	eP	P	21 37 22.9	+0.7
ARCES	ARCESS Array B	78.45	340	P	P	21 37 31.3	+0.5
	comp=Z,4.2nm,0.8s,mb4.4,baz=101,slow=7.0,SNR=17						
GERES	GERESS Array B	80.62	319	P	P	21 37 44.5	+1.6
	comp=Z,12nm,0.8s,mb4.9,baz=101,slow=5.0,SNR=25						
KHC	Kasperske Hory	80.72	319	eP	P	21 37 44.0	+0.5
DAVOX	Davos	83.12	316	P	P	21 37 58.0	+2.0
	comp=Z,15nm,0.6s,mb5.2,baz=102,slow=5.0,SNR=31						
ESDC	Sonseca Array	93.75	310	P	P	21 38 49.0	+1.9
	comp=Z,0.6nm,0.6s,mb4.2,baz=59,slow=4.8,SNR=4.0						
ILAR	Eielson Array	97.41	22	P	P	21 39 03.9	+0.7
	comp=Z,0.8nm,0.6s,mb4.3,baz=290,slow=4.7,SNR=14						
INK	Inuvik	99.83	16	P	P	21 39 15.2	+1.1
	comp=Z,2.3nm,0.8s,mb4.7,baz=319,slow=3.6,SNR=4.3						
ULM	Lac du Bonnet	124.49	8	PKP	PKPdf	21 44 28.1	-5.1
	comp=Z,2.1nm,0.8s,baz=252,slow=3.2,SNR=2.0						
NVAR	Mina Array Bea	127.25	33	PKP	PKPdf	21 44 34.4	-4.4
	comp=Z,1.3nm,0.7s,baz=333,slow=2.4,SNR=2.8						
PDAR	Pinedale Array	127.84	23	PKP	PKPdf	21 44 37.7	-2.2
	comp=Z,1.0nm,0.6s,baz=137,slow=3.2,SNR=7.9						
ANMO	Albuquerque	135.76	25	PKP	PKPdf	21 44 50.7	-4.3
	comp=Z,0.3nm,0.4s,baz=51,slow=5.0,SNR=2.5						
ANMO	Albuquerque	135.76	25	PKP	PKPdf	21 44 50.7	-4.3
TXAR	Lajitas Array	141.79	27	PKP	PKPdf	21 45 01.2	-5.0
	comp=Z,0.5nm,0.4s,baz=58,slow=1.2,SNR=7.8						
TXAR	Lajitas Array	141.79	27	PKP	PKPdf	21 45 01.2	-5.0
BDFB	Brasilia	141.90	251	PKP	PKPdf	21 45 02.6	-4.1
	comp=Z,0.8nm,0.4s,baz=153,slow=6.8,SNR=2.2						

*IDC **26** 21:25:38.7±1.3, 4.30N×95.03E, mb4.5/8, mb1 4.7/8, mb1mx4.4/18, Error ellipse: s-maj=65.6km s-min=20.5km az=50.0*

*NEIC **26** 21:25:43.2±0.9, 4.33N×95.07E, h30^{km}, mb4.8/2, Error ellipse: s-maj=49.5km s-min=12.1km az=51.0*

ISC 26 21:25:41.4±1.0**, 4.4N**±0.3×**95.1E**±0.3**, h30^{km}, n13, σ0^{s}81**/13**, mb4.6**/11**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	44.36	11	P	P	21 33 51.0	+0.1
	3.4nm,0.8s,mb4.2,baz=198,slow=8.4,SNR=3.2						
WRA	Warramunga Arr	45.51	123	P	P	21 34 00.7	+0.3
	18nm,0.6s,mb5.2,baz=304,slow=9.1,SNR=35						
WRA	Warramunga Arr	45.51	123	P	P	21 34 00.7	+0.3
WRAB	Tennant Creek	45.51	123	eP	P	21 34 00.2	-0.2
	38nm,0.5s,mb5.6						
ASAR	Alice Springs	46.98	128	P	P	21 34 11.8	-0.3
	3.1nm,0.4s,mb4.6,baz=297,slow=7.7,SNR=18						
ASAR	Alice Springs	46.98	128	P	P	21 34 11.8	-0.3
BVAR	Borovoye Array	52.58	341	P	P	21 34 54.8	+0.3
	8.7nm,0.8s,mb4.8,baz=141,slow=9.5,SNR=8.0						
BRVK	Borovoye	52.64	341	eP	P	21 34 54.3	-0.7
	6.2nm,0.4s,mb4.9						
ARU	Arti	59.46	337	P	P	21 35 42.1	-1.7
	4.8nm,0.6s,mb4.7						
AKASG	Malin Array Be	71.47	322	P	P	21 37 00.7	-0.5
	0.6nm,0.4s,mb3.9,baz=78,slow=4.8,SNR=4.6						
FINES	FINESS Array B	76.23	332	P	P	21 37 30.0	+1.4
	6.8nm,0.9s,mb4.6,baz=94,slow=6.5,SNR=4.9						
ARCES	ARCESS Array B	78.85	340	P	P	21 37 44.2	+1.3
	2.0nm,0.5s,mb4.3,baz=97,slow=6.0,SNR=4.3						
GERES	GERESS Array B	81.06	319	P	P	21 37 55.2	0.0

4.9nm,1.0s,mb4.4,baz=104,slow=5.5,SNR=3.7

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*IDC **26** 21:26:03.6±0.6, 13.76N×93.05E, mb4.4/16, mb1 4.5/17, mb1mx4.4/23, ML4.7/1, Error ellipse: s-maj=40.9km s-min=13.2km az=54.0*
*NEIC **26** 21:26:08.3±0.4, 13.81N×93.20E, h30^{km}, mb4.6/11, Error ellipse: s-maj=17.5km s-min=8.9km az=55.0*
*BJI **26** 21:26:08.3, 13.80N×93.20E, h30^{km}, mB5.3, mb4.7, Ms4.8, Msz4.4*
ISC 26 21:26:06.3±0.5, 13.78N±0.08×93.12E±0.09, h30^{km}, n51, σ1^{s}29/52, mb4.5/26, 1C, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.28	49	Pn	Pn	21 27 58.6	+5.1
	3.5nm,0.3s,baz=240,slow=15,SNR=6.4						
CMAR				Sn	Sn	21 29 27.2	+11
	5.1nm,0.3s,baz=239,slow=30,SNR=6.0						
SHL	Shillong	11.79	355	eP	P	21 29 02.0	+6.4
SHL				eS	S	21 30 56.0	-11
PKI	Pulchoki	15.50	334	eP	P	21 29 42.6	-2.1
	70nm,0.6s						
DMN	Daman	15.66	333	eP	P	21 29 44.8	-2.0
	74nm,0.6s						
LSA	Lhasa	15.95	354	eP	P	21 29 49.7	-0.8
	23nm,0.5s						
GKN	Gorkha	16.21	332	eP	P	21 29 52.2	-1.6
	70nm,0.5s						
KOLN	Koldanda	16.51	329	eP	P	21 29 55.5	-2.1
	62nm,0.6s						
CD2	Chengdu	19.66	28	P	P	21 30 36.5	+0.6
CD2				AMB	AMB		
	comp=Z,30nm,0.6s						
DDI	Dehra Dun	21.55	322	e	P	21 30 57.8	+2.4
DDI				e	S	21 34 50.0	+2.4
ENH	Enshi	22.30	40	eP	P	21 31 04.0	+1.0
	comp=Z,52nm,1.1s,mb4.9						
LZH	Lanzhou	24.21	22	⇑P	P	21 31 24.5	+2.9
LZH				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.0						
AAK	Ala-Archa	32.95	334	P	P	21 32 39.9	-0.6
	comp=Z,5.0nm,1.0s,mb4.4						
SONM	Songino Array	35.71	15	P	P	21 33 04.6	+0.4
	comp=Z,11nm,1.2s,mb4.7,baz=207,slow=8.3,SNR=6.2						
ZAL	Zalesovo	40.60	352	P	P	21 33 44.2	-0.8
	comp=Z,3.2nm,0.8s,mb4.0,baz=300,slow=8.5,SNR=4.7						
ZAL	Zalesovo	40.60	352	P	P	21 33 44.2	-0.8
CN2	Changchun	40.74	36	eP	P	21 33 53.0	+6.8
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
BVAR	Borovoye Array	43.12	340	P	P	21 34 05.3	-0.3
	comp=Z,5.1nm,1.1s,mb4.2,baz=121,slow=8.4,SNR=4.1						
CHKZ	Chkalovo	43.60	341	eP	P	21 34 09.3	-0.2
	comp=Z,8.0nm,0.7s,mb4.6						
GNI	Garni	49.71	311	P	P	21 35 00.6	+2.8
	comp=Z,3.3nm,0.6s,mb4.6,baz=24,slow=8.0,SNR=5.4						
NWAO	Narrogin (SRO)	51.84	154	P	P	21 35 13.6	-0.6
	comp=Z,21nm,1.1s,mb5.0,baz=337,slow=6.9,SNR=4.6						
ERZM	Erzurum	52.13	310	i P	P	21 35 21.1	+4.8
KIV	Kislovodsk	52.37	315	P	P	21 35 17.3	-0.6
	comp=Z,10nm,0.9s,mb4.8						
WRA	Warramunga Arr	52.60	129	P	P	21 35 20.2	+0.1
	comp=Z,9.5nm,0.8s,mb4.8,baz=295,slow=9.5,SNR=6.8						
WRA				PcP	PcP	21 36 29.8	-0.1
	comp=Z,2.8nm,0.4s,baz=320,slow=3.1,SNR=8.7						
WRAB	Tennant Creek	52.60	129	eP	P	21 35 17.8	-2.3
MALT	Malatya	54.00	307	eP	P	21 35 32.4	+2.3
	comp=Z,5.5nm,1.0s,mb4.4						
GZT	Gaziantep	54.49	306	i P	P	21 35 38.7	+5.0
ASAR	Alice Springs	54.54	133	P	P	21 35 33.5	-0.7
	comp=Z,6.7nm,0.4s,mb5.0,baz=310,slow=7.1,SNR=14						
KAHT	Ahir Dag	55.08	306	i P	P	21 35 38.1	0.0
COBT	Iskenderun	55.39	305	i P	P	21 35 40.4	+0.1
BRTR	Keskin Array B	57.92	308	P	P	21 35 57.8	-0.4
	comp=Z,2.0nm,0.7s,mb4.3,baz=117,slow=6.2,SNR=6.4						
ELDT	Eldivan	58.20	309	i P	P	21 36 05.0	+4.7
AKASG	Malin Array Be	62.97	320	P	P	21 36 31.1	-1.4
	comp=Z,0.5nm,0.5s,mb3.9,baz=83,slow=5.7,SNR=3.9						
MLR	Muntele Rosu	64.33	314	P	P	21 36 41.9	+0.3
	comp=Z,4.6nm,0.8s,mb4.5,baz=94,slow=3.6,SNR=3.4						
STKA	Stephens Creek	64.93	135	P	P	21 36 45.8	+0.1
	comp=Z,2.7nm,0.8s,mb4.3,baz=303,slow=7.7,SNR=2.0						
FINES	FINESS Array B	67.07	331	P	P	21 36 58.7	-0.1
	comp=Z,3.0nm,0.8s,mb4.4,baz=105,slow=8.3,SNR=13						
KEV	Kevo	68.98	340	ep	P	21 37 10.7	+0.1
ARCES	ARCESS Array B	69.41	340	P	P	21 37 13.6	+0.3
	comp=Z,2.7nm,0.7s,mb4.3,baz=96,slow=5.9,SNR=9.9						
MORC	Moravsky Berou	70.31	318	eP	P	21 37 19.0	0.0
	comp=Z,4.7nm,0.9s,mb4.4						
PRU	Pruhonice	72.25	318	eP	P	21 37 33.5	+2.8
BRG	Berggiesshubel	72.62	319	eP	P	21 37 38.3	+5.4
	comp=Z,8.5nm,1.3s,mb4.5						
GERES	GERESS Array B	72.81	317	P	P	21 37 34.2	+0.1
	comp=Z,2.8nm,0.7s,mb4.3,baz=72,slow=4.2,SNR=9.5						
KHC	Kasperske Hory	72.89	317	eP	P	21 37 37.0	+2.5
HFS	Hagfors	72.90	329	P	P	21 37 34.5	+0.2
	comp=Z,4.0nm,0.7s,mb4.4,baz=124,slow=5.3,SNR=8.5						
HFS	Hagfors	72.90	329	P	P	21 37 34.5	+0.2
CLL	Collm	73.21	320	eP	P	21 37 40.0	+3.6
CLL	Collm	73.21	320	P	P	21 37 40.0	+3.6
NB2	NORSAR Subarra	74.14	330	P	P	21 37 39.4	-2.1
	comp=Z,5.3nm,0.9s,mb4.5,baz=90,slow=5.8						
NOA	NORSAR Array B	74.14	330	P	P	21 37 41.3	-0.3
	comp=Z,1.3nm,0.6s,mb4.0,baz=90,slow=5.8,SNR=5.5						
LPG	La Plagne	77.79	314	eP	P	21 38 03.4	+0.9
	comp=Z,17nm,0.7s,mb4.8						
PDAR	Pinedale Array	120.00	19	PKP	PKPdf	21 44 56.7	-2.8
	comp=Z,0.5nm,0.8s,baz=135,slow=2.1,SNR=3.6						
SDV	Santo Domingo	152.31	324	PKPbc	PKPdf	21 46 03.1	+4.6
	comp=Z,2.6nm,0.6s,baz=82,slow=2.1,SNR=5.4						
SDV				PKPab	PKPab	21 46 11.4	-1.1
	comp=Z,5.3nm,0.9s,baz=199,slow=1.6,SNR=5.0						

WEL 26 21:29:46.5±0.4, 37.02S×177.00E, h202^{km}±5^{km}, ML3.6/7, Error ellipse: s-maj=6.6km s-min=5.5km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	1.18	118	PN	P	21 30 17.6	-0.4
MXZ				SN	S	21 30 41.5	-0.9
URZ	Urewera	1.25	176	PN	P	21 30 18.5	-0.1
URZ				SN	S	21 30 43.7	+0.3
MWZ	Matawai	1.38	163	ePN	P	21 30 19.6	-0.1
MWZ				SN	S	21 30 45.3	-0.1
PUZ	Puketiti	1.45	137	PN	P	21 30 20.1	-0.2
PUZ				SN	S	21 30 45.5	-1.0
KNZ	Kokohu	2.07	165	ePN	P	21 30 26.1	-0.2
BKZ	Black Stump Fm	2.19	190	ePN	P	21 30 27.2	-0.4
BKZ				SN	S	21 30 57.6	-1.6
BFZ	Birch Farm	3.71	189	ePN	P	21 30 43.8	-1.6
MRZ	Mangatainoka R	3.81	197	ePN	P	21 30 44.4	-2.2
MRZ				SN	S	21 31 30.5	-2.6
KIW	Kapiti Island	4.17	202	ePN	P	21 30 48.5	-2.7
MTW	Mount Morrison	4.30	195	ePN	P	21 30 50.0	-2.8
CAW	Cannon Point	4.36	200	ePN	P	21 30 50.4	-3.0
CAW				SN	S	21 31 43.2	-2.1
MRW	Makara Radio	4.57	202	ePN	P	21 30 52.6	-3.5
MSWZ	Moikau Station	4.60	197	ePN	P	21 30 52.3	-4.2
BHW	Baring Head	4.69	200	ePN	P	21 30 54.3	-3.4
TUWZ	Tuamarina	5.01	207	ePN	P	21 30 58.3	-3.4
NNZ	Nelson	5.05	213	SN	S	21 31 59.0	-2.2
THZ	Tophouse	5.71	213	ePN	P	21 31 06.9	-3.8
THZ				SN	S	21 32 12.6	-3.6
MQZ	McQueen's Vall	7.46	205	SN	S	21 32 48.7	-8.4

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*IDC **26** 21:33:07.5±0.6, 8.74N×92.35E, mb4.3/17, mb1 4.4/18, mb1mx4.4/24, ML4.0/1, Error ellipse: s-maj=31.5km s-min=14.5km az=47.0*
*NEIC **26** 21:33:12.4±0.3, 8.81N×92.47E, h30^{km}, mb4.6/9, Error ellipse: s-maj=10.5km s-min=7.4km az=51.0*
*BJI **26** 21:33:20.0, 9.78N×92.12E, h30^{km}, mb4.6*
ISC 26 21:33:10.7±6.1, 8.7N±0.1×92.4E±0.1, h33^{km}±42^{km}, n49, σ0^{s}86/47, mb4.4/28, 1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.61	33	eP	P	21 35 53.1	-4.1
	12nm,0.8s						
CMAR	Chiang Mai Arr	11.61	33	Pn	P	21 35 57.1	0.0
	0.3nm,0.3s,baz=231,slow=14,SNR=8.5						
KMI	Kunming	19.09	30	P	P	21 37 34.3	+0.9
KMI				AMB	AMB		
	comp=Z,25nm,0.8s						
PKI	Pulchoki	19.89	342	eP	P	21 37 42.1	-0.2
	comp=Z,119nm,1.2s						
DMN	Daman	20.02	341	eP	P	21 37 43.6	-0.1
	comp=Z,111nm,0.8s						
GUN	Gumba	20.07	343	eP	P	21 37 44.6	+0.4
	comp=Z,51nm,0.7s						
KKN	Kakani	20.14	341	eP	P	21 37 45.3	+0.4
	comp=Z,43nm,1.0s						
GKN	Gorkha	20.55	340	eP	P	21 37 49.5	+0.4
KOLN	Koldanda	20.70	338	eP	P	21 37 51.7	+0.9
	comp=Z,58nm,0.8s						
LSA	Lhasa	20.92	357	eP	P	21 37 52.9	-0.1
	comp=Z,20nm,0.8s						
GYA	Guiyang	22.26	36	⇑iP	P	21 38 08.5	+2.1
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.4						
CD2	Chengdu	24.52	24	P	P	21 38 26.0	-2.5
CD2				AMB	AMB		
	comp=Z,20nm,0.4s,mb5.0						
ENH	Enshi	26.77	34	eP	P	21 38 47.9	-1.7
	comp=Z,15nm,0.9s,mb4.5						
GTA	Gaotai	31.30	11	P	P	21 39 30.8	+0.7
GTA				AP	pP	21 39 38.0	-1.7
GTA				XP	sP	21 39 42.0	-2.1
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.5						
AAK	Ala-Archa	37.27	338	eP	P	21 40 21.8	+0.5
	comp=Z,9.2nm,1.0s,mb4.6						
SONM	Songino Array	40.77	14	P	P	21 40 50.8	+0.4
	comp=Z,1.9nm,0.7s,mb3.8,baz=198,slow=6.4,SNR=8.6						
ZAL	Zalesovo	45.52	354	P	P	21 41 28.8	-0.2
	comp=Z,1.0nm,0.5s,mb4.0,baz=169,slow=0.6,SNR=4.3						
BVAR	Borovoye Array	47.66	342	P	P	21 41 45.2	-0.6
	comp=Z,0.7nm,0.6s,mb3.9,baz=142,slow=17,SNR=4.5						
CHKZ	Chkalovo	48.16	343	eP	P	21 41 49.0	-0.7
	comp=Z,6.7nm,0.9s,mb4.7						
CHKZ				e	pP	21 41 58.1	-1.4
WRA	Warramunga Arr	50.16	125	P	P	21 42 05.1	-0.4
	comp=Z,5.2nm,0.6s,mb4.7,baz=305,slow=8.6,SNR=12						
WRAB	Tennant Creek	50.16	125	eP	P	21 42 04.8	-0.7
ASAR	Alice Springs	51.78	129	P	P	21 42 17.4	-0.3
	comp=Z,2.4nm,0.6s,mb4.3,baz=303,slow=7.7,SNR=11						
ASAR				PcP	PcP	21 43 31.0	+0.3
	comp=Z,1.7nm,0.6s,baz=304,slow=3.2,SNR=4.5						
ARU	Arti	54.46	338	eP	P	21 42 36.6	-0.5
	comp=Z,7.2nm,0.7s,mb4.7						
KIV	Kislovodsk	55.54	318	eP	P	21 42 44.2	-0.9
	comp=Z,7.5nm,0.7s,mb4.8						
KMBO	Kilima Mbogo	55.79	263	P	P	21 42 47.9	+0.5
	comp=Z,1.7nm,0.9s,mb4.1,baz=57,slow=11,SNR=4.6						
KMBO	Kilima Mbogo	55.79	263	P	P	21 42 47.9	+0.5
MALT	Malatya	56.60	310	eP	P	21 42 52.8	-0.1
	comp=Z,5.0nm,1.4s,mb4.3						
CTA	Charters Tower	60.23	119	P	P	21 43 18.6	+0.2
	comp=Z,6.3nm,1.0s,mb4.6,baz=351,slow=2.4,SNR=4.1						
BRTR	Keskin Array B	60.57	311	P	P	21 43 19.1	-1.4
	comp=Z,1.4nm,1.0s,mb4.0,baz=101,slow=6.3,SNR=6.5						
AKASG	Malin Array Be	66.43	322	P	P	21 43 56.8	-2.0
	comp=Z,0.1nm,0.3s,mb3.4,baz=91,slow=4.2,SNR=4.4						
MLR	Muntele Rosu	67.37	316	P	P	21 44 04.8	+0.1
	comp=Z,3.6nm,1.1s,mb4.3,baz=330,slow=22,SNR=3.6						
FINES	FINESS Array B	71.17	332	P	P	21 44 27.5	-0.4
	comp=Z,1.3nm,0.8s,mb3.9,baz=90,slow=5.7,SNR=7.4						
KAF	Kangasniemi	71.27	333	ep	P	21 44 28.2	-0.3
ARCES	ARCESS Array B	73.91	340	P	P	21 44 44.1	+0.2
	comp=Z,1.5nm,0.7s,mb4.0,baz=99,slow=5.0,SNR=5.8						
GERES	GERESS Array B	76.05	318	P	P	21 44 57.0	+0.4
	comp=Z,1.6nm,0.9s,mb4.0,baz=90,slow=6.7,SNR=9.7						
KHC	Kasperske Hory	76.15	318	eP	P	21 44 58.0	+0.8
CLL	Collm	76.62	321	eP	P	21 45 00.0	+0.2
CLL	Collm	76.62	321	P	P	21 45 00.0	+0.2
HFS	Hagfors	76.87	330	P	P	21 45 00.8	-0.3
	comp=Z,1.6nm,0.6s,mb4.1,baz=104,slow=6.1,SNR=5.8						
NB2	NORSAR Subarra	78.16	331	P	P	21 45 07.2	-1.0
	comp=Z,4.4nm,0.8s,mb4.4,baz=93,slow=5.8						
NOA	NORSAR Array B	78.16	331	P	P	21 45 07.7	-0.5
	comp=Z,2.8nm,1.0s,mb4.1,baz=100,slow=5.4,SNR=3.5						
DAVOX	Davos	78.59	316	P	P	21 45 12.0	+1.2
	comp=Z,6.5nm,1.2s,mb4.4,baz=326,slow=10,SNR=3.8						
DAVOX	Davos	78.59	316	P	P	21 45 12.0	+1.2
LPG	La Plagne	80.80	315	eP	P	21 45 24.2	+1.4
	comp=Z,61nm,1.5s,mb5.0						
RPZ	Rata Peaks	87.86	135	P	P	21 45 59.3	+1.1
	comp=Z,12nm,0.8s,mb5.1,baz=74,slow=7.4,SNR=3.4						
INK	Inuvik	96.68	16	P	P	21 46 39.5	+1.1
	comp=Z,1.0nm,0.6s,mb4.5,baz=280,slow=4.3,SNR=6.0						
INK	Inuvik	96.68	16	P	P	21 46 39.5	+1.1
TXAR	Lajitas Array	139.15	22	PKP	PKPdf	21 52 38.5	+3.5
	comp=Z,0.3nm,0.8s,baz=312,slow=0.6,SNR=6.7						
BDFB	Brasilia	140.72	256	PKP	PKPdf	21 52 42.0	+3.7
	comp=Z,2.6nm,1.0s,slow=1.0,SNR=3.5						

IDC 26 21:33:18.5±1.6, 9.07N×92.21E, mb4.5/13, mb1 4.6/13, mb1mx4.4/22, Error ellipse: s-maj=46.6km s-min=32.7km az=5.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LZH	Lanzhou	28.90	20	eP	P	21 39 18.3	-3.0
LZH				AP	pP	21 39 21.0	-0.3
LZH				XP	sP	21 39 23.0	+1.7
LZH				AMB	AMB		
	comp=Z,20nm,1.3s						
SONM	Songino Array	40.46	15	P	P	21 40 58.0	-2.4
	comp=Z,4.6nm,0.7s,baz=196,slow=6.1,SNR=15						
SONM				PcP	PcP	21 43 01.6	-2.3
	comp=Z,1.5nm,0.5s,baz=203,slow=4.0,SNR=9.3						
CN2	Changchun	45.07	34	eP	P	21 41 36.3	-1.8
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s						
ZAL	Zalesovo	45.14	354	P	P	21 41 37.7	-0.8
	comp=Z,2.7nm,0.9s,baz=322,slow=6.8,SNR=7.0						
GNI	Garni	52.24	314	P	P	21 42 33.1	-0.6
	comp=Z,3.9nm,0.8s,baz=186,slow=20,SNR=6.8						
BRTR	Keskin Array B	60.21	311	P	P	21 43 28.1	-2.8
	comp=Z,3.7nm,0.9s,baz=118,slow=6.1,SNR=13						
AKASG	Malin Array Be	66.04	322	P	P	21 44 06.0	-3.2
	comp=Z,1.5nm,0.6s,baz=85,slow=4.8,SNR=6.9						
MLR	Muntele Rosu	66.99	316	P	P	21 44 14.0	-1.4
	comp=Z,7.1nm,0.9s,baz=130,slow=6.6,SNR=8.2						
FINES	FINESS Array B	70.77	332	P	P	21 44 35.5	-2.9
	comp=Z,5.5nm,0.9s,baz=91,slow=5.8,SNR=11						
OJC	Ojcow	71.84	320	eP	P	21 44 43.3	-1.8
ARCES	ARCESS Array B	73.50	340	P	P	21 44 54.3	-0.3
	comp=Z,5.4nm,1.0s,baz=94,slow=4.0,SNR=6.0						
GERES	GERESS Array B	75.67	318	P	P	21 45 06.2	-1.3
	comp=Z,4.3nm,0.9s,baz=90,slow=5.3,SNR=15						
KHC	Kasperske Hory	75.76	318	ex	P	21 45 06.0	-2.0
HFS	Hagfors	76.47	330	P	P	21 45 10.6	-1.1
	comp=Z,3.5nm,0.7s,baz=108,slow=4.7,SNR=8.4						
NOA	NORSAR Array B	77.76	331	P	P	21 45 16.1	-2.7
	comp=Z,2.6nm,0.7s,baz=94,slow=5.7,SNR=7.0						
DAVOX	Davos	78.21	316	P	P	21 45 20.2	-1.4
	comp=Z,3.8nm,0.8s,baz=154,slow=9.5,SNR=7.7						
INK	Inuvik	96.37	16	P	P	21 46 49.2	-0.9
	comp=Z,3.8nm,0.8s,baz=343,slow=6.6,SNR=11						
PDAR	Pinedale Array	124.71	19	PKP	PKPdf	21 52 19.4	-3.0
	comp=Z,1.2nm,1.0s,baz=270,slow=1.5,SNR=4.3						
NVAR	Mina Array Bea	124.84	29	PKP	PKPdf	21 52 21.1	-1.7
	comp=Z,1.7nm,0.7s,baz=304,slow=4.9,SNR=4.6						
ANMO	Albuquerque	132.79	21	PKP	PKPdf	21 52 37.5	-0.7
	comp=Z,0.7nm,0.6s,baz=324,slow=2.8,SNR=4.5						
TXAR	Lajitas Array	138.86	21	PKP	PKPdf	21 52 49.1	-0.3
	comp=Z,0.6nm,0.6s,baz=183,slow=0.1,SNR=6.4						
BDFB	Brasilia	140.65	256	PKP	PKPdf	21 52 51.3	-1.8
	comp=Z,4.3nm,0.8s,baz=198,slow=2.2,SNR=6.2						

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*IDC **26** 21:33:55.6±0.6, 10.87S×161.99E, mb4.5/11, mb1 4.7/12, mb1mx4.6/16, ML4.6/1, Error ellipse: s-maj=30.5km s-min=17.4km az=128.0*
*NEIC **26** 21:34:04.3±3.5, 10.90S×161.96E, h63^{km}±30^{km}, mb4.6/6, Error ellipse: s-maj=19.7km s-min=14.0km az=113.0*
*BJI **26** 21:34:04.3, 10.90S×162.00E, h63^{km}, mb4.4*
ISC 26 21:34:03.5±6.7, 11.0S±0.1×161.9E±0.2, h67^{km}±58^{km}, n36, σ1^{s}06/22, mb4.3/16, Bougainville - Solomon Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	Charters Tower	17.58	237	P	P	21 38 05.8	+0.1
	1.4nm,0.3s,baz=64,slow=12,SNR=15						
CTAO	Charters Tower	17.58	237	eP	P	21 38 07.1	+1.4
	22nm,0.8s						
WRAB	Tennant Creek	27.98	248	eP	P	21 39 50.3	+0.1
	7.7nm,0.7s,mb4.3						
WRA	Warramunga Arr	27.99	248	P	P	21 39 49.4	-0.9
	3.2nm,0.5s,mb4.1,baz=76,slow=8.9,SNR=8.7						
STKA	Stephens Creek	28.02	219	P	P	21 39 49.8	-0.7
	15nm,1.0s,mb4.5,baz=39,slow=9.5,SNR=8.9						
ASAR	Alice Springs	29.49	241	P	P	21 40 02.5	-1.2
	3.9nm,0.7s,mb4.1,baz=68,slow=9.9,SNR=12						
ASAR				PcP	PcP	21 43 06.4	-1.4
	1.8nm,0.7s,baz=90,slow=2.9,SNR=7.4						
MBWA	Marble Bar	41.66	251	eP	P	21 41 49.4	+2.2
	5.8nm,0.5s,mb4.6						
VNDA	Vanda	66.56	180	P	P	21 44 48.0	-0.2
	4.5nm,0.9s,mb4.3,baz=336,slow=5.7,SNR=7.7						
VNDA	Vanda	66.56	180	eP	P	21 44 47.6	-0.6
	7.0nm,0.9s,mb4.5						
CMAR	Chiang Mai Arr	68.62	295	P	P	21 45 00.7	-1.3
	5.2nm,0.8s,mb4.4,baz=117,slow=4.8,SNR=6.9						
HIA	Hailar	70.47	332	eP	P	21 45 09.8	-3.0
	7.3nm,0.8s,mb4.6						
GTA	Gaotai	76.30	315	P	P	21 45 48.5	+1.5
GTA				AMB	AMB		
	comp=Z,3.0nm,1.3s,mb3.9						
SONM	Songino Array	76.39	325	P	P	21 45 48.3	+0.9
	comp=Z,5.8nm,1.0s,mb4.3,baz=139,slow=5.5,SNR=15						
QSPA	South Pole Qui	79.05	180	eP	P	21 46 01.7	+0.2
MAW	Mawson	83.38	202	P	P	21 46 25.0	+0.7
	comp=Z,3.7nm,0.9s,mb4.2,baz=119,slow=8.5,SNR=3.6						
IMA	Indian Mountai	83.47	17	eP	P	21 46 25.9	+1.1
COLA	College	84.41	19	eP	P	21 46 29.6	0.0
	comp=Z,9.6nm,0.8s,mb4.7						
ILAR	Eielson Array	84.66	20	P	P	21 46 29.9	-0.9
	comp=Z,1.4nm,0.7s,mb4.0,baz=259,slow=4.2,SNR=17						
YBH	Yreka Blue Hor	86.55	47	P	P	21 46 40.7	+0.1
	comp=Z,2.6nm,0.8s,mb4.2,baz=71,slow=6.1,SNR=3.9						
NVAR	Mina Array Bea	88.87	51	P	P	21 46 52.5	+0.6
	comp=Z,2.2nm,0.8s,mb4.3,baz=225,slow=6.1,SNR=5.5						
YKA	Yellowknife Ar	96.64	28	P	P	21 47 25.8	-1.1
	comp=Z,0.7nm,0.6s,mb4.3,baz=257,slow=4.8,SNR=7.7						
YKA	Yellowknife Ar	96.64	28	P	P	21 47 25.8	-1.1
ARCES	ARCESS Array B	115.26	344	PKP	PKPdf	21 52 38.3	+1.3
	comp=Z,0.9nm,0.5s,slow=1.2,SNR=9.4						
FINES	FINESS Array B	120.26	337	PKP	PKPdf	21 52 47.9	+1.0
	comp=Z,2.3nm,0.9s,baz=67,slow=2.2,SNR=3.6						
AKASG	Malin Array Be	124.68	325	PKP	PKPdf	21 52 56.6	+1.0
	comp=Z,2.5nm,0.8s,baz=46,slow=1.9,SNR=9.9						
ASF	Jabal al Asfar	125.29	302	PKP	PKPdf	21 52 59.5	+2.2
	comp=Z,3.3nm,0.7s,slow=3.0,SNR=6.4						
NB2	NORSAR Subarra	125.56	343	PKPdf	PKPdf	21 52 55.6	-1.4
	comp=Z,3.1nm,1.0s,baz=40,slow=1.8						
NOA	NORSAR Array B	125.56	343	PKP	PKPdf	21 52 57.7	+0.7
	comp=Z,1.4nm,0.8s,baz=38,slow=1.9,SNR=4.1						
NOA	NORSAR Array B	125.56	343	PKP	PKPdf	21 52 57.7	+0.7
BRTR	Keskin Array B	126.09	311	PKP	PKPdf	21 52 59.9	+1.3
	comp=Z,1.8nm,1.0s,baz=236,slow=1.4,SNR=7.3						
EIL	Elat	127.35	299	PKP	PKPdf	21 53 02.9	+1.5
	comp=Z,3.8nm,0.7s,baz=32,slow=2.1,SNR=4.2						
SDV	Santo Domingo	128.27	87	ePKP	PKPdf	21 53 03.6	+0.1
BRG	Berggiesshubel	132.33	333	eP	PKPdf	21 53 13.9	+3.6
CLL	Collm	132.43	334	ePKIKP	PKPdf	21 53 12.0	+1.6
GERES	GERESS Array B	133.87	331	PKP	PKPdf	21 53 14.4	+1.3
	comp=Z,0.8nm,0.8s,baz=45,slow=1.9,SNR=5.2						
ESDC	Sonseca Array	148.76	339	PKPbc	PKPdf	21 53 45.5	+5.9
	comp=Z,0.7nm,0.6s,baz=28,slow=2.3,SNR=4.6						

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*IDC **26** 21:34:21.2±2.7, 3.73N×97.18E, mb4.3/7, mb1 4.3/8, mb1mx4.1/19, ML3.7/1, MS4.7/1, Ms1 4.6/1, ms1mx3.0/28, Error ellipse: s-maj=75.5km s-min=54.5km az=164.0*
*NEIC **26** 21:34:25.6±0.8, 3.66N×97.20E, h30^{km}, mb4.6/5, Error ellipse: s-maj=23.2km s-min=15.1km az=113.0*
*BJI **26** 21:34:25.4, 3.83N×96.58E, h23^{km}, mb4.6*
ISC 26 21:34:24.8±7.2, 3.6N±0.4×97.1E±0.3, h37^{km}±49^{km}, n24, σ1^{s}08/20, mb4.4/13, MS4.7/1, 1C, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	14.89	7	eP	P	21 37 53.2	-1.5
	28nm,1.0s						
CMAR	Chiang Mai Arr	14.89	7	Pn	P	21 37 55.5	+0.8
	0.1nm,0.3s,baz=190,slow=11,SNR=4.4						
IMP	Imphal	21.31	352	eP	P	21 39 12.4	+1.7
SHL	Shillong	22.44	347	eP	P	21 39 24.0	+2.0
GYA	Guiyang	24.51	21	⇑iP	P	21 39 43.0	+0.7
GYA				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.8						
LSA	Lhasa	26.59	348	P	P	21 40 00.5	-1.3
AAK	Ala-Archa	43.81	336	P	P	21 42 28.3	-0.8
	comp=Z,1.0nm,0.6s,mb3.7						
SONM	Songino Array	44.80	9	P	P	21 42 36.0	-1.0
	comp=Z,1.1nm,0.8s,mb3.7,baz=196,slow=7.7,SNR=2.6						
CHKZ	Chkalovo	54.47	341	eP	P	21 43 50.5	-0.5
	comp=Z,3.2nm,0.7s,mb4.4						
STKA	Stephens Creek	55.01	133	LR	LR	22 12 11.4	
	comp=Z,658nm,18.3s,MS4.7,baz=268,slow=41						
KIV	Kislovodsk	62.48	319	eP	P	21 44 46.0	-1.0
	comp=Z,5.3nm,0.8s,mb4.7						
MALT	Malatya	63.51	311	eP	P	21 44 54.2	+0.3
	comp=Z,8.5nm,1.4s,mb4.6						
MBAR	Mbarara	66.49	268	eP	P	21 45 13.2	-0.3
BRTR	Keskin Array B	67.48	312	P	P	21 45 19.6	+0.2
	comp=Z,3.8nm,0.8s,mb4.5,baz=129,slow=7.5,SNR=11						
AKASG	Malin Array Be	73.35	322	P	P	21 45 54.5	-0.3
	comp=Z,1.8nm,0.7s,mb4.1,baz=90,slow=4.4,SNR=7.1						
FINES	FINESS Array B	77.88	332	P	P	21 46 18.1	-2.2
	comp=Z,3.4nm,1.1s,mb4.2,baz=108,slow=6.0,SNR=3.8						
MORC	Moravsky Berou	80.56	320	eP	P	21 46 34.9	-0.2
GERES	GERESS Array B	83.00	319	P	P	21 46 48.3	+0.5
	comp=Z,4.6nm,1.2s,mb4.4,baz=101,slow=6.8,SNR=6.8						
HFS	Hagfors	83.64	330	P	P	21 46 51.0	+0.2
	comp=Z,3.8nm,0.9s,mb4.5,baz=288,slow=4.7,SNR=3.9						
DAVOX	Davos	85.53	316	P	P	21 47 01.4	+0.8
	comp=Z,4.0nm,0.7s,mb4.7,baz=89,slow=8.2,SNR=6.1						
LPG	La Plagne	87.74	315	eP	P	21 47 13.2	+1.9
	comp=Z,12nm,0.9s,mb4.8						
NVAR	Mina Array Bea	126.89	35	PKP	PKPdf	21 53 27.4	+1.8
	comp=Z,2.7nm,0.9s,baz=314,slow=1.5,SNR=4.3						
TXAR	Lajitas Array	141.67	30	PKP	PKPdf	21 53 55.1	+1.8
	comp=Z,0.8nm,0.8s,baz=298,slow=1.2,SNR=5.6						
JCT	Junction City	142.46	24	ePKP	PKPdf	21 53 55.5	+1.0

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*IDC **26** 21:36:38.0±1.0, 8.17N×92.58E, mb4.2/11, mb1 4.4/11, mb1mx4.3/18, Error ellipse: s-maj=49.8km s-min=21.0km az=44.0*
*NEIC **26** 21:36:42.4±0.7, 8.29N×92.65E, h30^{km}, mb4.4/6, Error ellipse: s-maj=31.0km s-min=13.6km az=49.0*
ISC 26 21:36:40.4±0.7, 8.3N±0.2×92.7E±0.2, h30^{km}, n24, σ1^{s}24/24, mb4.2/17, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	Lhasa	21.34	356	P	P	21 41 27.3	-0.1
AAK	Ala-Archa	37.76	338	P	P	21 43 55.1	-0.5
	3.4nm,0.8s,mb4.1						
SONM	Songino Array	41.08	14	P	P	21 44 25.1	+2.0
	2.6nm,0.8s,mb3.9,baz=204,slow=8.3,SNR=6.0						
CHKZ	Chkalovo	48.63	343	eP	P	21 45 21.8	-1.7
	3.0nm,0.6s,mb4.5						
WRA	Warramunga Arr	49.67	125	P	P	21 45 31.3	-0.6
	1.3nm,0.6s,mb4.1,baz=307,slow=8.9,SNR=6.0						
WRA	Warramunga Arr	49.67	125	P	P	21 45 31.3	-0.6
WRAB	Tennant Creek	49.68	125	P	P	21 45 31.2	-0.8
ASAR	Alice Springs	51.29	129	P	P	21 45 44.4	+0.1
	1.4nm,0.8s,mb3.9,baz=310,slow=7.0,SNR=4.7						
ARU	Arti	54.95	338	eP	P	21 46 08.4	-2.6
	1.3nm,0.7s,mb4.1						
KIV	Kislovodsk	56.05	318	eP	P	21 46 18.1	-0.9
	3.1nm,0.6s,mb4.5						
MALT	Malatya	57.10	310	eP	P	21 46 26.1	-0.6
AKASG	Malin Array Be	66.94	322	P	P	21 47 31.0	-1.3
	1.2nm,0.7s,mb4.0,baz=77,slow=4.8,SNR=4.4						
MLR	Muntele Rosu	67.87	316	P	P	21 47 39.2	+0.9
	6.8nm,0.9s,mb4.7,baz=168,slow=5.7,SNR=5.1						
FINES	FINESS Array B	71.67	332	P	P	21 48 01.1	-0.1
	2.6nm,0.6s,mb4.3,baz=104,slow=7.9,SNR=7.7						
MORC	Moravsky Berou	74.12	319	eP	P	21 48 14.8	-1.0
ARCES	ARCESS Array B	74.38	340	P	P	21 48 16.9	0.0
	5.3nm,1.0s,mb4.4,baz=117,slow=5.4,SNR=4.3						
GERES	GERESS Array B	76.56	318	P	P	21 48 31.0	+1.3
	2.1nm,0.6s,mb4.2,baz=92,slow=6.7,SNR=11						
KHC	Kasperske Hory	76.65	318	eP	P	21 48 32.0	+1.7
NB2	NORSAR Subarra	78.66	331	P	P	21 48 36.9	-4.2
	2.6nm,1.0s,mb4.1,baz=94,slow=5.3						

DAVOX	Davos	79.09	316	P	P	21 48 44.5	+0.7
	2.5nm,0.4s,mb4.5,baz=104,slow=5.2,SNR=8.0						
DAVOX	Davos	79.09	316	P	P	21 48 44.5	+0.7
LPL	La Plagne	81.32	315	eP	P	21 48 56.3	+0.7
	27nm,0.9s,mb4.9						
ESDC	Sonseca Array	89.85	310	P	P	21 49 41.0	+2.9
	0.5nm,0.5s,mb4.1,baz=66,slow=4.7,SNR=6.5						
ILAR	Eielson Array	94.89	22	P	P	21 50 03.8	+3.2
	0.4nm,0.9s,mb3.8,baz=285,slow=3.3,SNR=4.3						

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*IDC **26** 21:39:30.5±1.1, 12.68N×92.45E, mb3.8/6, mb1 3.9/7, mb1mx3.8/18, ML3.5/1, Error ellipse: s-maj=49.8km s-min=21.3km az=41.0*

*NEIC **26** 21:39:35.3±0.7, 12.76N×92.54E, h30^{km}, mb4.2/3, Error ellipse: s-maj=14.2km s-min=12.0km az=58.0*

ISC 26 21:39:33.1±0.8, 12.8N±0.1×92.6E±0.1, h30^{km}, n12, σ0^{s}94/12, mb4.0/9, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	8.35	46	eP	P	21 41 34.9	-0.3
CMAR	Chiang Mai Arr	8.35	46	Pn	P	21 41 34.8	-0.4
	0.2nm,0.3s,baz=237,slow=15,SNR=3.3						
LSA	Lhasa	16.91	356	P	P	21 43 28.6	-0.8
ENH	Enshi	23.43	39	eP	P	21 44 43.6	+2.8
	10nm,0.8s,mb4.3						
CHKZ	Chkalovo	44.38	341	eP	P	21 47 43.5	+0.9
	1.5nm,0.6s,mb3.9						
WRA	Warramunga Arr	52.40	128	P	P	21 48 44.6	-0.6
	1.5nm,1.1s,mb3.8,baz=305,slow=8.4,SNR=5.3						
WRAB	Tennant Creek	52.40	128	eP	P	21 48 45.1	-0.2
	1.7nm,0.5s,mb4.2						
ASAR	Alice Springs	54.26	132	P	P	21 48 59.4	+0.4
	1.2nm,1.1s,mb3.7,baz=308,slow=6.7,SNR=4.4						
BRTR	Keskin Array B	58.13	309	P	P	21 49 25.9	-0.6
	0.9nm,0.8s,mb3.8,baz=115,slow=7.1,SNR=4.7						
AKASG	Malin Array Be	63.41	321	P	P	21 50 00.6	-1.5
	0.2nm,0.3s,mb3.7,baz=201,slow=8.7,SNR=3.2						
FINES	FINESS Array B	67.70	332	P	P	21 50 30.0	+0.5
	6.6nm,1.2s,mb4.5,baz=124,slow=5.0,SNR=3.0						
GERES	GERESS Array B	73.19	317	P	P	21 51 04.1	+1.1
	0.4nm,0.7s,mb3.5,baz=106,slow=7.1,SNR=3.7						

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*IDC **26** 21:43:53.4±1.1, 6.46N×94.36E, mb3.9/8, mb1 4.0/9, mb1mx3.9/18, ML3.8/1, MS3.8/1, Ms1 4.0/1, ms1mx3.1/30, Error ellipse: s-maj=50.6km s-min=21.4km az=50.0*

*NEIC **26** 21:43:57.8±1.0, 6.49N×94.29E, h30^{km}, mb4.3/4, Error ellipse: s-maj=24.3km s-min=18.5km az=55.0*

ISC 26 21:43:55.4±0.8, 6.6N±0.1×94.3E±0.1, h30^{km}, n25, σ1^{s}74/25, mb4.2/17, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.63	21	P	P	21 46 56.4	+0.5
	28nm,0.9s						
CMAR	Chiang Mai Arr	12.63	21	Pn	P	21 46 50.4	-5.6
	0.2nm,0.3s,baz=232,slow=14,SNR=5.1						
CMAR				LR	LR	21 52 30.9	
	comp=Z,400nm,20.5s,baz=210,slow=41						
SHL	Shillong	18.98	353	eP	P	21 48 12.5	-4.7
QIZ	Qiongzhong	19.55	49	P	P	21 48 23.5	-0.3
PKI	Pulchoki	22.47	339	eP	P	21 48 50.9	-2.8
	7.9nm,0.4s,mb4.5						
DMN	Daman	22.62	338	eP	P	21 48 51.8	-3.4
GUN	Gumba	22.62	340	eP	P	21 48 53.3	-1.9
	13nm,0.4s,mb4.7						
KKN	Kakani	22.72	339	eP	P	21 48 53.1	-3.1
GKN	Gorkha	23.14	338	eP	P	21 48 58.8	-1.5
	21nm,0.3s,mb5.0						
LSA	Lhasa	23.15	353	eP	P	21 49 03.0	+2.6
	6.6nm,0.4s,mb4.4						
KOLN	Koldanda	23.34	336	eP	P	21 49 01.5	-0.8
	31nm,0.8s,mb4.8						
AAK	Ala-Archa	39.90	337	eP	P	21 51 27.8	-0.6
	2.1nm,0.8s,mb3.9						
SONM	Songino Array	42.36	12	P	P	21 51 50.4	+1.8
	0.7nm,0.4s,mb3.6,baz=197,slow=9.2,SNR=12						
WRA	Warramunga Arr	47.45	125	P	P	21 52 28.9	-0.8
	0.3nm,0.6s,mb3.4,baz=301,slow=9.2,SNR=4.7						
HIA	Hailar	47.63	22	P	P	21 52 34.6	+3.9
ZAL	Zalesovo	47.80	352	P	P	21 52 32.7	+0.7
	6.8nm,0.3s,mb5.1,baz=305,slow=4.3,SNR=34						
ASAR	Alice Springs	49.03	129	P	P	21 52 40.6	-1.3
	0.5nm,0.5s,mb3.8,baz=304,slow=7.7,SNR=4.5						
CHKZ	Chkalovo	50.70	342	eP	P	21 52 52.5	-1.7
	3.5nm,0.8s,mb4.3						
BRTR	Keskin Array B	63.34	311	P	P	21 54 24.4	+0.2
	0.9nm,0.8s,mb4.0,baz=140,slow=6.4,SNR=4.1						
FINES	FINESS Array B	73.87	332	P	P	21 55 31.0	+2.0
	1.3nm,0.5s,mb4.1,baz=97,slow=5.8,SNR=21						
FINES	FINESS Array B	73.87	332	P	P	21 55 31.0	+2.0
KAF	Kangasniemi	73.96	333	ep	P	21 55 31.7	+2.2
	1.1nm,0.4s,mb4.1						
ARCES	ARCESS Array B	76.48	340	P	P	21 55 46.8	+2.9
	1.3nm,0.5s,mb4.1,baz=91,slow=5.8,SNR=17						
GERES	GERESS Array B	78.84	318	P	P	21 56 00.0	+2.8
	0.5nm,0.6s,mb3.7,baz=91,slow=6.0,SNR=8.5						
HFS	Hagfors	79.60	330	P	P	21 56 04.2	+3.1
	1.0nm,0.4s,mb4.1,baz=117,slow=6.6,SNR=9.2						

IDC 26 21:44:06.7±2.0, 7.18N×94.05E, mb4.1/3, mb1 4.4/4, mb1mx3.8/18, ML4.4/1, Error ellipse: s-maj=73.0km s-min=28.2km az=60.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.19	23	Pn	P	21 47 00.9	-3.7
	0.6nm,0.3s,baz=214,slow=14,SNR=42						
WRA	Warramunga Arr	47.94	125	P	P	21 52 47.2	-2.1
	1.2nm,0.7s,baz=301,slow=9.8,SNR=8.7						
ASAR	Alice Springs	49.54	129	P	P	21 52 59.8	-1.9
	1.3nm,0.7s,baz=306,slow=7.2,SNR=9.3						
ARCES	ARCESS Array B	75.89	340	P	P	21 55 55.1	-1.4
	3.5nm,1.0s,baz=112,slow=6.5,SNR=4.5						

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*IDC **26** 21:44:33.6±0.7, 7.00N×92.53E, mb4.5/16, mb1 4.6/17, mb1mx4.5/22, ML5.0/1, Error ellipse: s-maj=34.3km s-min=13.7km az=45.0*

*BJI **26** 21:44:36.0, 6.94N×92.59E, h33^{km}, mB5.1, mb4.6, Ms4.8, Msz4.7*

*NEIC **26** 21:44:38.2±0.3, 7.04N×92.56E, h30^{km}, mb4.8/10, Error ellipse: s-maj=8.8km s-min=6.4km az=223.0*

ISC 26 21:44:36.2±0.4, 6.97N±0.07×92.60E±0.06, h30^{km}, (h29^{km}±2.3^{km}:pP-P), n60, σ1^{s}10/56, mb4.6/28, 1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.98	28	Pn	P	21 47 44.2	+2.7
	2.6nm,0.3s,baz=232,slow=14,SNR=29						
MDRS	Chennai	13.58	297	eP	P	21 47 57.9	+8.4
VIS	Vishakhapatnam	13.99	321	eP	P	21 47 52.8	-2.1
VIS				e		21 48 09.6	
	comp=Z,128nm,2.4s						
TRD	Trivandrum	15.57	277	eP	P	21 48 26.3	+11
HYB	Hyderabad	17.19	308	eP	P	21 48 38.0	+1.9
HYB	Hyderabad	17.19	308	i P	P	21 48 38.0	+1.9
KMI	Kunming	20.49	27	P	P	21 49 15.0	+0.4
KMI				AMB	AMB		
	comp=Z,19nm,0.8s						
QIZ	Qiongzhong	20.61	53	P	P	21 49 15.3	-0.5
	comp=Z,208nm,1.6s						
BHPL	Bhopal	21.78	320	eP	P	21 49 18.0	-10
BHPL				e		21 49 30.4	
	comp=Z,16nm,1.2s						
LSA	Lhasa	22.65	357	eP	P	21 49 37.0	+0.7
	comp=Z,21nm,1.1s,mb4.5						
GYA	Guiyang	23.56	33	⇑iP	P	21 49 45.0	-0.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
CD2	Chengdu	26.01	22	P	P	21 50 07.5	-1.0
CD2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
GTA	Gaotai	32.94	10	P	P	21 51 09.5	-0.9
GTA				AP	pP	21 51 19.8	+0.5
GTA				XP	sP	21 51 26.0	+2.9
GTA				PCP	PcP	21 53 55.8	+1.5
GTA				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.5						
KSH	Kashi	35.69	338	eP	P	21 51 35.0	+1.0
KSH				eAP	pP	21 51 44.5	+1.6
KSH				eXP	sP	21 51 49.0	+2.3
KSH				AMB	AMB		
	comp=Z,240nm,6.8s						
UCH	Uchtor	38.59	338	P	P	21 51 59.9	+1.6
	SNR=6.3						
KBK	Karagaybulak	38.81	339	P	P	21 52 02.2	+2.0
	SNR=7.5						
AML	Almayashu	38.81	337	P	P	21 52 02.3	+2.1
	SNR=10						
AAK	Ala-Archa	38.95	339	eP	P	21 52 00.5	-0.9
	comp=Z,8.6nm,0.9s,mb4.5						
JOW	Kunigami	39.23	56	P	P	21 52 04.8	+0.9
	comp=Z,13nm,0.7s,mb4.8,baz=197,slow=11,SNR=3.9						
EKS2	Erkin-Say	39.24	338	P	P	21 52 05.6	+1.8
	SNR=5.8						
USP	Ospenovka	39.50	339	P	P	21 52 06.9	+1.0
	SNR=7.5						
SONM	Songino Array	42.38	14	P	P	21 52 29.2	-0.4
	comp=Z,0.9nm,0.5s,mb3.6,baz=195,slow=7.8,SNR=5.0						
ULN	Ulaanbaatar	42.57	14	P	P	21 52 30.8	-0.3
CN2	Changchun	46.61	33	eP	P	21 53 02.3	-1.2
ZAL	Zalesovo	47.25	354	P	P	21 53 08.4	-0.1
	comp=Z,1.8nm,0.4s,mb4.3,baz=313,slow=3.7,SNR=5.4						
WRA	Warramunga Arr	49.01	124	P	P	21 53 22.9	+0.3
	comp=Z,18nm,0.7s,mb5.2,baz=304,slow=8.8,SNR=63						
WRAB	Tennant Creek	49.02	124	eP	P	21 53 22.6	-0.1
	comp=Z,39nm,0.8s,mb5.5						
WRAB				e	pP	21 53 30.7	-1.1
BVAR	Borovoye Array	49.36	342	P	P	21 53 23.9	-1.0
	comp=Z,2.3nm,0.7s,mb4.3,baz=135,slow=8.4,SNR=8.6						
BRVK	Borovoye	49.42	342	eP	P	21 53 24.0	-1.4
	comp=Z,3.5nm,0.6s,mb4.6						
CHKZ	Chkalovo	49.86	343	eP	P	21 53 28.2	-0.6
	comp=Z,3.1nm,0.5s,mb4.6						
CHKZ				e	pP	21 53 35.4	-2.5
ASAR	Alice Springs	50.54	128	P	P	21 53 34.4	+0.1
	comp=Z,19nm,0.9s,mb5.0,baz=301,slow=8.0,SNR=45						
GNI	Garni	53.98	315	eP	P	21 53 59.3	-0.4
ARU	Arti	56.13	338	eP	P	21 54 13.8	-1.5
	comp=Z,14nm,1.3s,mb4.8						
KIV	Kislovodsk	56.97	319	eP	P	21 54 20.7	-0.7
MALT	Malatya	57.88	311	P	P	21 54 25.7	-2.2
EIL	Elat	58.55	300	eP	P	21 54 30.5	-2.2
CTA	Charters Tower	59.22	118	P	P	21 54 36.8	-0.7
	comp=Z,25nm,1.3s,mb5.1,baz=305,slow=8.3,SNR=4.9						
STKA	Stephens Creek	60.61	133	P	P	21 54 47.1	+0.3
	comp=Z,13nm,0.7s,mb5.2,baz=291,slow=6.3,SNR=23						
BRTR	Keskin Array B	61.86	311	P	P	21 54 54.7	-0.5
	comp=Z,1.3nm,0.7s,mb4.2,baz=130,slow=7.1,SNR=6.8						
LSZ	Lusaka	67.52	250	eP	P	21 55 32.7	+0.4
IDI	Anoyia	67.82	305	P	P	21 55 33.1	-0.9
	comp=Z,8.4nm,0.7s,mb4.9,baz=104,slow=8.3,SNR=5.2						
AKASG	Malin Array Be	67.91	322	P	P	21 55 32.7	-1.5
	comp=Z,0.4nm,0.4s,mb3.9,baz=81,slow=4.6,SNR=5.9						
LBTB	Lobatse	72.47	241	eP	P	21 56 01.4	-0.9
FINES	FINESS Array B	72.79	333	P	P	21 56 03.4	-0.3
	comp=Z,3.2nm,0.8s,mb4.3,baz=121,slow=11,SNR=6.2						
BOSA	Boshof	73.81	238	eP	P	21 56 11.9	+1.7
	comp=Z,25nm,1.5s,mb4.9						
MORC	Moravsky Berou	75.06	320	eP	P	21 56 16.4	-0.6
ARCES	ARCESS Array B	75.59	340	P	P	21 56 19.6	0.0
	comp=Z,2.0nm,0.7s,mb4.2,baz=104,slow=5.0,SNR=5.3						
DPC	Dobruska-Polom	75.91	320	eP	P	21 56 22.5	+0.7
PRU	Pruhonice	77.01	320	eP	P	21 56 28.9	+0.9
GERES	GERESS Array B	77.47	318	P	P	21 56 31.7	+1.1
	comp=Z,3.4nm,0.7s,mb4.4,baz=90,slow=5.6,SNR=24						
KHC	Kasperske Hory	77.58	319	eP	P	21 56 31.6	+0.5
HFS	Hagfors	78.46	330	P	P	21 56 36.0	+0.3
	comp=Z,1.8nm,0.7s,mb4.1,baz=90,slow=7.2,SNR=4.8						
NB2	NORSAR Subarra	79.76	331	P	P	21 56 42.1	-0.7
	comp=Z,25nm,1.7s,mb4.9,baz=92,slow=5.3						
NOA	NORSAR Array B	79.76	331	P	P	21 56 42.5	-0.3
	comp=Z,1.7nm,0.9s,mb4.0,baz=94,slow=5.6,SNR=3.3						
LPG	La Plagne	82.16	315	eP	P	21 56 57.0	+1.2
	comp=Z,11nm,0.8s,mb4.6						
ESDC	Sonseca Array	90.62	310	P	P	21 57 38.6	+1.2
	comp=Z,1.2nm,0.7s,mb4.4,baz=74,slow=4.0,SNR=7.0						
NVAR	Mina Array Bea	126.47	30	PKP	PKPdf	22 03 39.8	-2.2
	comp=Z,2.1nm,0.7s,baz=302,slow=2.1,SNR=6.8						
PDAR	Pinedale Array	126.55	20	PKP	PKPdf	22 03 40.0	-2.1
	comp=Z,1.6nm,0.8s,baz=5.0,slow=1.1,SNR=13						
TXAR	Lajitas Array	140.66	23	PKP	PKPdf	22 04 08.7	-0.2
	comp=Z,0.7nm,0.5s,baz=77,slow=0.6,SNR=12						
JCT	Junction City	140.91	17	ePKPdf	PKPdf	22 04 06.3	-3.0

MEX 26 21:44:47.4±0.5, 16.25N×98.23W, h9^{km}±5^{km}, MD3.5, Near coast of Guerrero

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PNIG	Pinotepa	0.17	33	i P	Pg	21 44 50.7	-0.5
PNIG				eS	Sg	21 44 53.3	-0.4
VHO	Vista Hermosa	1.65	60	i P	Pn	21 45 12.7	-4.1
VHO				eS	Sn	21 45 33.5	-4.8

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*IDC **26** 21:50:57.7±1.2, 6.77N×92.60E, mb4.0/7, mb1 4.2/8, mb1mx4.0/20, ML4.2/1, Error ellipse: s-maj=62.4km s-min=22.4km az=48.0*

*NEIC **26** 21:51:02.4±0.5, 6.83N×92.69E, h30^{km}, mb4.3/3, Error ellipse: s-maj=15.3km s-min=9.1km az=61.0*

ISC 26 21:51:00.8±0.8, 6.9N±0.1×92.8E±0.1, h30^{km}, n15, σ0^{s}50/15, mb4.0/10, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.02	27	eP	P	21 54 06.0	-0.5
	19nm,0.8s						
CMAR	Chiang Mai Arr	13.02	27	Pn	P	21 54 10.9	+4.4
	0.4nm,0.3s,baz=232,slow=14,SNR=17						
LSA	Lhasa	22.78	356	eP	P	21 56 02.5	+0.3
	3.6nm,0.7s,mb3.9						
ENH	Enshi	28.11	32	P	P	21 56 52.4	+0.1
AAK	Ala-Archa	39.12	338	eP	P	21 58 28.0	+0.6
	11nm,1.5s,mb4.4						
SONM	Songino Array	42.47	14	P	P	21 58 55.7	+0.8
	0.7nm,0.8s,mb3.3,baz=203,slow=9.4,SNR=3.6						
WRA	Warramunga Arr	48.80	124	P	P	21 59 45.5	-0.1
	1.4nm,0.9s,mb4.0,baz=305,slow=8.7,SNR=4.7						
WRAB	Tennant Creek	48.81	124	P	P	21 59 45.5	-0.1
BVAR	Borovoye Array	49.53	342	P	P	21 59 50.3	-0.5
	1.4nm,0.9s,mb4.0,baz=129,slow=9.5,SNR=3.7						
CHKZ	Chkalovo	50.03	343	eP	P	21 59 53.6	-1.0
	1.6nm,0.5s,mb4.3						
ASAR	Alice Springs	50.33	128	P	P	21 59 57.4	+0.1
	1.3nm,0.7s,mb4.1,baz=300,slow=6.8,SNR=6.2						
GERES	GERESS Array B	77.68	318	P	P	22 02 56.5	+0.3
	1.4nm,0.8s,mb3.9,baz=104,slow=5.5,SNR=8.4						
NOA	NORSAR Array B	79.95	331	P	P	22 03 08.3	-0.1
	0.6nm,0.8s,mb3.6,baz=95,slow=7.5,SNR=2.6						
DAVOX	Davos	80.18	316	P	P	22 03 09.8	-0.1
	2.9nm,0.8s,mb4.2,baz=255,slow=6.0,SNR=4.6						
DAVOX	Davos	80.18	316	P	P	22 03 09.8	-0.1

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*IDC **26** 21:53:23.3±5.4, 7.63N×93.97E, mb3.9/6, mb1 4.0/6, mb1mx3.8/19, Error ellipse: s-maj=131.0km s-min=109.5km az=147.0*

NEIC 26 21:53:29.3±1.9, 7.71N×93.73E, h30^{km}, mb4.4/1, Error ellipse: s-maj=69.2km s-min=47.0km az=52.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BVAR	Borovoye Array	49.01	342	P	P	22 02 13.9	-1.3
	1.0nm,0.7s,baz=156,slow=6.0,SNR=3.9						
CHKZ	Chkalovo	49.50	342	eP	P	22 02 17.4	-1.7
	2.9nm,0.7s						
BRTR	Keskin Array B	62.23	311	P	P	22 03 49.0	-1.7
	0.5nm,0.7s,baz=121,slow=6.7,SNR=4.2						
FINES	FINESS Array B	72.67	332	P	P	22 04 52.6	-3.3
	2.4nm,1.0s,baz=106,slow=6.2,SNR=3.2						
ARCES	ARCESS Array B	75.28	340	P	P	22 05 08.6	-2.4
	1.5nm,0.8s,baz=90,slow=6.1,SNR=4.9						
GERES	GERESS Array B	77.67	318	P	P	22 05 23.8	-1.0
	0.7nm,0.6s,baz=90,slow=4.0,SNR=6.7						
HFS	Hagfors	78.39	330	P	P	22 05 26.1	-2.3
	1.0nm,0.7s,baz=90,slow=5.8,SNR=4.4						
TXAR	Lajitas Array	139.54	24	PKP	PKPdf	22 12 55.3	-4.6
	0.4nm,0.7s,baz=197,slow=0.6,SNR=4.3						

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*IDC **26** 21:55:06.5±1.4, 10.78N×91.53E, mb4.0/6, mb1 4.1/6, mb1mx3.8/17, Error ellipse: s-maj=95.6km s-min=22.7km az=47.0*

*NEIC **26** 21:55:10.9±0.8, 10.73N×91.54E, h30^{km}, mb4.5/2, Error ellipse: s-maj=31.4km s-min=14.6km az=50.0*

ISC 26 21:55:08.7±1.0, 10.7N±0.2×91.5E±0.2, h30^{km}, n8, σ0^{s}75/8, mb4.0/8, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ENH	Enshi	25.70	38	eP	P	22 00 37.9	-0.3
	6.5nm,0.4s,mb4.5						
WRA	Warramunga Arr	52.00	126	P	P	22 04 17.0	-0.9
	0.7nm,0.4s,mb3.9,baz=304,slow=8.5,SNR=5.0						
WRAB	Tennant Creek	52.00	126	eP	P	22 04 17.3	-0.7
	3.4nm,0.7s,mb4.4						
ASAR	Alice Springs	53.70	130	P	P	22 04 31.9	+1.4
	0.7nm,0.9s,mb3.6,baz=309,slow=6.6,SNR=3.2						
BRTR	Keskin Array B	58.64	310	P	P	22 05 05.5	-0.3
	0.4nm,0.4s,mb3.8,baz=100,slow=8.8,SNR=4.0						
FINES	FINESS Array B	69.04	332	P	P	22 06 13.2	-0.3
	1.7nm,0.9s,mb4.0,baz=104,slow=5.7,SNR=3.8						
ARCES	ARCESS Array B	71.77	340	P	P	22 06 30.0	0.0
	1.0nm,0.7s,mb3.9,baz=97,slow=7.3,SNR=2.7						
ILAR	Eielson Array	93.13	21	P	P	22 08 21.9	+1.0
	0.4nm,0.8s,mb3.9,baz=301,slow=5.3,SNR=3.9						

IDC 26 22:01:50.3±2.1, 3.16N×95.51E, mb3.8/3, mb1 4.1/3, mb1mx3.6/17, Error ellipse: s-maj=77.7km s-min=31.7km az=54.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	44.51	123	P	P	22 10 03.9	-1.8
	1.6nm,0.7s,baz=301,slow=9.2,SNR=10						
SONM	Songino Array	45.49	10	P	P	22 10 11.5	-1.7
	1.3nm,0.9s,baz=202,slow=7.4,SNR=8.3						
GERES	GERESS Array B	82.23	319	P	P	22 14 13.6	-1.2
	0.4nm,0.7s,baz=90,slow=2.0,SNR=3.8						

IDC 26 22:06:50.1±3.2, 7.33N×92.38E, mb3.6/3, mb1 3.8/4, mb1mx3.5/18, ML3.6/1, Error ellipse: s-maj=95.0km s-min=30.9km az=69.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.78	29	Pn	P	22 09 51.9	-4.0
	0.1nm,0.3s,baz=222,slow=13,SNR=5.6						
SONM	Songino Array	42.09	14	P	P	22 14 44.5	-0.9
	0.6nm,0.7s,baz=206,slow=7.0,SNR=4.5						
ZAL	Zalesovo	46.88	354	P	P	22 15 21.4	-2.3
	0.6nm,0.3s,baz=352,slow=12,SNR=3.4						
WRA	Warramunga Arr	49.39	124	P	P	22 15 41.8	-2.0
	0.7nm,0.6s,baz=301,slow=9.1,SNR=4.1						

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*ROM **26** 22:06:58.8±0.1, 44.05N×11.11E, h4^{km}±2^{km}, MD2.6/2, ML1.9/5, Error ellipse: s-maj=1.2km s-min=0.9km az=0.0*

*NEIC **26** 22:06:58.9, 44.05N×11.11E, h4^{km}, MD2.6(ROM), ML2.4(GEN), After ROM.*

*CSEM **26** 22:06:58.5±0.1, 44.06N×11.09E, h8^{km}, ML1.9/5, Error ellipse: s-maj=1.4km s-min=1.0km az=19.0*

*GEN **26** 22:06:58.8, 44.08N×11.20E, h6^{km}, ML2.4*

ISC 26 22:06:59.3±0.6, 44.08N±0.04×11.15E±0.04, h15^{km}±4^{km}, n38, σ0^{s}72/59, 2C, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
FNVD	Fontana Vidola	0.09	349	⇑iPG	Pg	22 07 01.8	-0.7
FNVD				SG	Sg	22 07 03.7	-1.0
FNVD	Fontana Vidola	0.09	349	⇑iPg	Pg	22 07 01.8	-0.8
FNVD				eSg	Sg	22 07 03.6	-1.0
SEI	Scarperia	0.15	99	ePG	Pg	22 07 03.0	-0.4
SEI				SG	Sg	22 07 06.6	+0.5
SEI	Scarperia	0.15	99	ePg	Pg	22 07 03.0	-0.4
SEI				eSg	Sg	22 07 06.6	+0.5
ZCCA	Zocca	0.30	336	ePG	Pg	22 07 06.3	+0.5
	157nm,0.5s						
ZCCA	Zocca	0.30	336	ePg	Pg	22 07 06.3	+0.5
ZCCA	Zocca	0.30	336	ePg	Pg	22 07 06.3	+0.5
	157nm,0.5s						
VMG	Vicchio	0.31	112	ePG	Pg	22 07 05.5	-0.6
VMG	Vicchio	0.31	112	ePg	Pg	22 07 05.5	-0.6
BDI	Bagni Di Lucca	0.40	268	ePG	Pg	22 07 06.9	-0.8
BDI				SG	Sg	22 07 13.4	+0.1
BDI	Bagni Di Lucca	0.40	268	ePg	Pg	22 07 06.9	-0.8
BDI				eSg	Sg	22 07 13.4	+0.2
PGD	Poggio Sodo	0.46	116	ePG	Pg	22 07 09.5	+0.5
	58nm,0.4s						
PGD	Poggio Sodo	0.46	116	ePg	Pg	22 07 09.5	+0.5
PGD	Poggio Sodo	0.46	116	ePg	Pg	22 07 09.5	+0.5
	58nm,0.4s						
GSCL	Gusciola	0.48	304	ePG	Pg	22 07 09.0	-0.4
GSCL				SG	Sg	22 07 16.7	+0.6
	40nm,0.3s						
GSCL	Gusciola	0.48	304	ePg	Pg	22 07 09.0	-0.3
GSCL				eSg	Sg	22 07 16.7	+0.7
GSCL	Gusciola	0.48	304	ePg	Pg	22 07 09.0	-0.4
	40nm,0.3s						
GSCL				Sg	Sg	22 07 16.7	+0.6
MAIM		0.50	251	P	Pb	22 07 09.0	-0.3
MAIM				S	Sb	22 07 15.8	-0.3
MAIM		0.50	251	S	Sb	22 07 15.8	-0.3
MAIM		0.50	251	P	Pb	22 07 09.0	-0.3
SFI	Santa Sofia	0.54	109	ePG	Pg	22 07 10.2	-0.2
	58nm,0.4s						
SFI	Santa Sofia	0.54	109	ePg	Pg	22 07 10.2	-0.1
SFI	Santa Sofia	0.54	109	ePg	Pg	22 07 10.2	-0.2
	58nm,0.4s						
VLC	Villacollemand	0.55	279	eP	Pb	22 07 09.7	-0.5
VLC	Villacollemand	0.55	279	eP	Pb	22 07 09.7	-0.5
PII	Pisa	0.57	232	ePG	Pg	22 07 10.1	-1.0
PII				SG	Sg	22 07 18.4	-0.6
	241nm,0.3s						
PII	Pisa	0.57	232	ePg	Pg	22 07 10.1	-1.0
PII				eSg	Sg	22 07 18.4	-0.6
PII	Pisa	0.57	232	ePg	Pg	22 07 10.1	-1.0
	241nm,0.3s						
PII				Sg	Sg	22 07 18.4	-0.6
CSNT	Castellina Chi	0.62	170	ePG	Pg	22 07 12.2	+0.3
CSNT				SG	Sg	22 07 22.0	+1.7
CSNT	Castellina Chi	0.62	170	ePg	Pg	22 07 12.2	+0.3
CSNT				eSg	Sg	22 07 22.0	+1.7
ERBM	Eremo	0.63	303	ePG	Pg	22 07 13.2	+1.1
ERBM				SG	Sg	22 07 22.6	+1.9
ERBM	Eremo	0.63	303	ePg	Pg	22 07 13.2	+1.0
ERBM				eSg	Sg	22 07 22.6	+1.9
VINC	Vinca	0.72	275	P	Pb	22 07 12.9	-0.1
VINC				S	Sb	22 07 22.4	0.0
VINC	Vinca	0.72	275	P	Pb	22 07 12.9	-0.1
VINC	Vinca	0.72	275	P	Pb	22 07 12.9	-0.1
VINC				S	Sb	22 07 22.4	0.0
VINC				S	Sb	22 07 22.4	0.0
BACM		0.80	285	P	Pb	22 07 14.4	0.0
BACM				S	Sb	22 07 24.7	0.0
BACM		0.80	285	S	Sb	22 07 24.7	0.0
BACM		0.80	285	P	Pb	22 07 14.4	0.0

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*IDC **26** 22:08:55.6±0.9, 2.64N×95.43E, h20^{km}±3^{km}, mb3.7/8, mb1 4.0/9, mb1mx3.8/21, ML3.6/1, Error ellipse: s-maj=36.2km s-min=14.8km az=51.0*

*NEIC **26** 22:08:55.9±0.6, 2.64N×95.47E, mb4.4/5, Error ellipse: s-maj=19.4km s-min=9.8km az=63.0*

*BJI **26** 22:08:59.5, 3.42N×95.79E, h22^{km}, mb4.5*

ISC 26 22:08:54.5±0.7, 2.71N±0.10×95.6E±0.1, h23^{km}, h23^{km}±.6^{km}:pP-P, n25, σ1^{s}24/25, mb4.3/20, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.98	11	eP	P	22 12 40.9	+1.1
CMAR	Chiang Mai Arr	15.98	11	Pn	P	22 12 42.0	+2.1
	0.1nm,0.3s,baz=202,slow=11,SNR=16						
SHL	Shillong	23.01	351	eP	P	22 13 57.0	-2.1
GYA	Guiyang	25.88	23	P	P	22 14 26.3	-0.3
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.8						
PKI	Pulchoki	26.59	339	eP	P	22 14 34.0	+0.9
	comp=Z,9.7nm,0.6s,mb4.5						
DMN	Daman	26.73	339	eP	P	22 14 34.8	+0.4

	comp=Z,9.7nm,0.8s,mb4.4						
GUN	Gumba	26.74	341	*e*P	P	22 14 36.3	+1.8
	comp=Z,30nm,0.6s,mb5.0						
KKN	Kakani	26.83	339	*e*P	P	22 14 36.2	+0.9
	comp=Z,14nm,0.8s,mb4.5						
LSA	Lhasa	27.18	351	*e*P	P	22 14 39.4	+0.9
	comp=Z,5.6nm,0.6s,mb4.3						
GKN	Gorkha	27.26	338	*e*P	P	22 14 40.2	+1.0
KOLN	Koldanda	27.45	336	*e*P	P	22 14 42.7	+1.7
	comp=Z,21nm,0.9s,mb4.7						
ENH	Enshi	30.39	24	*e*P	P	22 15 06.2	-1.2
	comp=Z,4.2nm,0.6s,mb4.3						
XAN	Xi'an	33.55	20	P	P	22 15 33.0	-1.9
XAN				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.0						
BJI	Beijing	41.56	24	P	P	22 16 40.0	-2.2
AAK	Ala-Archa	44.01	337	*e*P	P	22 17 01.6	-0.5
	comp=Z,2.2nm,0.8s,mb3.9						
WRA	Warramunga Arr	44.16	122	P	P	22 17 04.3	+0.6
	comp=Z,2.9nm,0.7s,mb4.2,baz=301,slow=9.0,SNR=6.9						
WRA				pP	pP	22 17 10.6	+0.1
	comp=Z,3.2nm,0.9s,baz=302,slow=9.0,SNR=3.8						
WRAB	Tennant Creek	44.16	122	*e*P	P	22 17 04.2	+0.5
	comp=Z,6.4nm,0.8s,mb4.4						
ASAR	Alice Springs	45.55	127	P	P	22 17 15.5	+0.8
	comp=Z,1.1nm,0.6s,mb4.0,baz=298,slow=8.1,SNR=5.7						
ASAR				pP	pP	22 17 21.6	+0.1
	comp=Z,2.4nm,1.0s,baz=296,slow=8.1,SNR=4.1						
SONM	Songino Array	45.90	10	P	P	22 17 16.7	-0.5
	comp=Z,2.6nm,0.9s,mb4.2,baz=196,slow=8.1,SNR=12						
SONM				pP	pP	22 17 23.9	-0.2
	comp=Z,2.4nm,0.7s,baz=188,slow=8.4,SNR=11						
ZAL	Zalesovo	51.83	352	P	P	22 18 02.7	-0.3
	comp=Z,2.6nm,0.6s,mb4.4,baz=310,slow=6.0,SNR=13						
ZAL				pP	pP	22 18 09.4	-0.5
	comp=Z,2.9nm,0.5s,baz=285,slow=5.6,SNR=8.0						
BVAR	Borovoye Array	54.33	342	P	P	22 18 20.6	-0.9
	comp=Z,1.5nm,0.7s,mb4.0,baz=143,slow=7.4,SNR=7.3						
BVAR				pP	pP	22 18 27.5	-0.9
	comp=Z,2.5nm,0.7s,baz=149,slow=8.6,SNR=8.9						
CHKZ	Chkalovo	54.81	342	*e*P	P	22 18 23.9	-1.2
	comp=Z,4.0nm,0.7s,mb4.6						
CHKZ				*e*pP	pP	22 18 30.8	-1.3
BRTR	Keskin Array B	66.95	312	P	P	22 19 45.9	-1.8
	comp=Z,0.2nm,0.4s,mb3.5,baz=113,slow=11,SNR=2.8						
BRTR				pP	pP	22 19 53.8	-1.0
	comp=Z,2.1nm,1.1s,baz=121,slow=7.2,SNR=4.4						
AKASG	Malin Array Be	73.12	322	P	P	22 20 23.4	-1.6
	comp=Z,0.1nm,0.3s,mb3.3,baz=84,slow=4.5,SNR=3.3						
AKASG				pP	pP	22 20 31.0	-1.2
	comp=Z,2.6nm,0.9s,baz=87,slow=4.6,SNR=4.8						
GERES	GERESS Array B	82.66	319	P	P	22 21 18.6	+1.0
	comp=Z,0.3nm,0.7s,mb3.4,baz=127,slow=4.9,SNR=2.5						
GERES				sP	sP	22 21 25.5	-1.7
	comp=Z,1.5nm,0.9s,baz=90,slow=5.3,SNR=7.9						

IDC 26 22:10:42.4±3.3,**32.63S×178.31W,mb3.6**/2,**mb1 3.9**/3, **mb1mx3.6**/13,**ML3.2**/1,**Error ellipse: s-maj=74.9km s-min=37.1km az=113.0,South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	6.75	212	Pn	Pn	22 12 22.5	-2.7
	0.4nm,0.3s,baz=158,slow=19,SNR=4.5						
URZ				Sn	Sn	22 13 39.9	-3.8
	1.3nm,0.3s,baz=327,slow=23,SNR=9.9						
ASAR	Alice Springs	42.77	269	P	P	22 18 42.0	-1.4
	0.4nm,0.5s,baz=113,slow=7.9,SNR=4.8						
WRA	Warramunga Arr	43.97	275	P	P	22 18 51.5	-1.7
	0.3nm,0.3s,baz=114,slow=7.9,SNR=11						
FINES	FINESS Array B	147.13	339	PKPbc	PKPdf	22 30 25.7	-0.6
	2.3nm,1.0s,baz=56,slow=5.0,SNR=3.6						

*IDC **26** 22:13:15.9±1.4,7.91N×93.81E,mb3.9/7,mb1 4.1/7, mb1mx3.8/18,Error ellipse: s-maj=100.0km s-min=22.1km az=50.0*

*NEIC **26** 22:13:20.6±0.8,7.98N×93.90E,h30^{km},mb4.1/4,Error ellipse: s-maj=43.0km s-min=10.8km az=55.0*

ISC 26 22:13:18.7±1.0,**8.0N**±0.3×**93.9E**±0.3,**h30^{km},n14, σ0^{s}78**/14,**mb4.0**/10,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	21.77	354	*e*P	P	22 18 10.8	+0.7
	6.8nm,0.6s,mb4.2						
ZAL	Zalesovo	46.42	353	P	P	22 21 44.7	+0.2
	1.6nm,0.5s,mb4.2,baz=308,slow=7.3,SNR=7.7						
ZAL	Zalesovo	46.42	353	P	P	22 21 44.7	+0.2
WRA	Warramunga Arr	48.51	125	P	P	22 22 01.1	-0.1
	0.7nm,0.6s,mb3.9,baz=304,slow=8.6,SNR=5.6						
WRAB	Tennant Creek	48.51	125	P	P	22 22 01.4	+0.1
	2.0nm,0.7s,mb4.3						
CHKZ	Chkalovo	49.31	342	*e*P	P	22 22 05.2	-1.8
	0.9nm,0.5s,mb4.1						
ASAR	Alice Springs	50.15	130	P	P	22 22 13.9	0.0
	0.4nm,0.5s,mb3.7,baz=300,slow=8.1,SNR=5.1						
FINES	FINESS Array B	72.52	332	P	P	22 24 44.2	-0.3
	2.1nm,0.8s,mb4.1,baz=104,slow=7.9,SNR=3.9						
FINES	FINESS Array B	72.52	332	P	P	22 24 44.2	-0.3
GERES	GERESS Array B	77.60	318	P	P	22 25 14.4	+0.6
	0.5nm,0.8s,mb3.5,baz=90,slow=4.9,SNR=4.5						
HFS	Hagfors	78.26	330	P	P	22 25 17.9	+0.8
	3.5nm,0.9s,mb4.3,baz=90,slow=2.9,SNR=7.8						
NB2	NORSAR Subarra	79.53	331	P	P	22 25 21.3	-2.8
	0.7nm,0.6s,mb3.8,baz=97,slow=5.0						
NOA	NORSAR Array B	79.53	331	P	P	22 25 24.3	+0.2
	0.8nm,0.6s,mb3.8,baz=92,slow=5.7,SNR=4.5						
NOA	NORSAR Array B	79.53	331	P	P	22 25 24.3	+0.2

*NEIC **26** 22:14:04.4±0.5,5.18N×94.27E,mb4.6/3,Error ellipse: s-maj=18.1km s-min=10.0km az=55.0*

*IDC **26** 22:14:05.0±1.0,5.35N×94.42E,h54^{km}±6^{km},mb3.9/12, mb1 4.1/13,mb1mx3.9/21,Error ellipse: s-maj=36.5km s-min=17.4km az=48.0*

*BJI **26** 22:14:06.4,5.80N×94.00E,h33^{km},mb4.4*

ISC 26 22:14:02.8±0.6,**5.2N**±0.1×**94.3E**±0.1,**h53^{km}, h53^{km}**±2.1^{km}**:pP-P,n23,σ0^{s}85**/21,**mb4.2**/16,**1D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.93	19	P	P	22 17 21.1	+1.8
	1.2nm,0.3s,baz=208,slow=14,SNR=12						
SHL	Shillong	20.37	354	*e*S	P	22 18 35.0	-2.7
LSA	Lhasa	24.54	353	*e*P	P	22 19 19.1	+0.2
	6.1nm,0.4s,mb4.5						
WMQ	Urumqi	38.89	352	⇓P	P	22 21 26.0	+1.2
WMQ				AP	pP	22 21 30.5	-8.2
WMQ				AMB	AMB		
	comp=Z,3.0nm,0.5s,mb4.3						
AAK	Ala-Archa	41.20	338	P	P	22 21 43.4	-0.5
SONM	Songino Array	43.72	12	P	P	22 22 03.6	-0.9
	comp=Z,1.5nm,0.7s,mb3.8,baz=188,slow=9.4,SNR=11						
SONM				pP	pP	22 22 17.1	-1.5
	comp=Z,1.9nm,0.9s,baz=192,slow=8.3,SNR=6.7						
WRA	Warramunga Arr	46.65	124	P	P	22 22 28.0	-0.2
	comp=Z,3.2nm,0.7s,mb4.4,baz=303,slow=9.1,SNR=14						
WRAB	Tennant Creek	46.65	124	*e*P	P	22 22 28.1	-0.2
	comp=Z,5.4nm,0.7s,mb4.6						
ASAR	Alice Springs	48.14	128	P	P	22 22 39.9	0.0
	comp=Z,1.4nm,0.9s,mb4.0,baz=312,slow=7.8,SNR=5.8						
ZAL	Zalesovo	49.19	353	P	P	22 22 46.9	-0.7
	comp=Z,4.1nm,0.4s,mb4.8,baz=308,slow=6.2,SNR=14						
BVAR	Borovoye Array	51.54	342	P	P	22 23 05.2	-0.3
	comp=Z,2.1nm,0.6s,mb4.2,baz=144,slow=10,SNR=14						
BVAR				pP	pP	22 23 18.5	-1.2
	comp=Z,1.1nm,0.5s,baz=153,slow=3.3,SNR=5.1						
CHKZ	Chkalovo	52.03	342	*e*P	P	22 23 08.5	-0.7
	comp=Z,4.5nm,0.6s,mb4.6						
MALT	Malatya	60.30	311	*e*P	P	22 24 08.7	+0.2
BRTR	Keskin Array B	64.28	312	P	P	22 24 35.1	+0.1
	comp=Z,1.2nm,0.8s,mb4.0,baz=127,slow=6.7,SNR=5.9						
AKASG	Malin Array Be	70.32	322	P	P	22 25 11.7	-1.1
	comp=Z,0.7nm,0.4s,mb3.9,baz=80,slow=4.7,SNR=10						
FINES	FINESS Array B	75.12	333	P	P	22 25 41.0	+0.1
	comp=Z,2.4nm,0.9s,mb4.1,baz=135,slow=5.4,SNR=5.3						
FINES				pP	pP	22 25 57.9	+2.0
	comp=Z,2.7nm,1.0s,baz=90,slow=1.9,SNR=1.4						
MORC	Moravsky Berou	77.48	320	P	P	22 25 54.8	+0.5
ARCES	ARCESS Array B	77.80	340	P	P	22 25 56.0	+0.3
	comp=Z,1.5nm,0.8s,mb4.0,baz=72,slow=3.8,SNR=5.7						
ARCES				pP	pP	22 26 11.5	+0.5
	comp=Z,3.0nm,1.0s,baz=82,slow=8.6,SNR=1.9						
GERES	GERESS Array B	79.90	319	P	P	22 26 08.8	+1.2
	comp=Z,1.5nm,0.6s,mb4.1,baz=102,slow=5.3,SNR=16						
GERES				pP	pP	22 26 23.3	+0.5
	comp=Z,0.9nm,0.7s,baz=104,slow=5.5,SNR=4.9						
CLL	Collm	80.50	321	*e*P	pP	22 26 31.0	+5.0
CLL				*e*	sP	22 26 41.0	+9.1
DAVOX	Davos	82.39	316	P	P	22 26 21.7	+0.9
	comp=Z,3.8nm,0.6s,mb4.5,baz=127,slow=7.3,SNR=13						
EKA	Eskdalemuir Ar	89.98	325	P	P	22 26 57.8	+0.1
	comp=Z,0.8nm,0.6s,mb4.2,baz=129,slow=5.3,SNR=3.5						
TXAR	Lajitas Array	141.57	26	PKP	PKPdf	22 33 28.6	-0.3
	comp=Z,0.1nm,0.5s,baz=31,slow=0.7,SNR=3.8						

*IDC **26** 22:14:57.1±7.1,7.43N×94.21E,mb4.0/4,mb1 4.1/5, mb1mx3.7/19,ML4.3/1,Error ellipse: s-maj=181.0km s-min=61.2km az=135.0*

*NEIC **26** 22:15:06.5±3.4,8.13N×93.77E,h30^{km},mb4.1/2,Error ellipse: s-maj=76.3km s-min=19.0km az=140.0*

ISC 26 22:15:04.0±4.7,**8.1N**±0.6×**94.0E**±0.5,**h30^{km},n10, σ0^{s}70**/10,**mb4.0**/6,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.39	25	P	P	22 17 46.7	-1.2
CMAR	Chiang Mai Arr	11.39	25	Pn	P	22 17 49.0	+1.1
	0.6nm,0.3s,baz=212,slow=14,SNR=7.1						
LSA	Lhasa	21.67	353	P	P	22 19 54.7	+0.5
	5.6nm,0.9s,mb4.0						
ZAL	Zalesovo	46.32	353	P	P	22 23 28.9	+0.1
	1.1nm,0.7s,mb3.9,baz=300,slow=8.1,SNR=2.3						
CHKZ	Chkalovo	49.22	342	P	P	22 23 50.8	-0.8
	1.7nm,0.6s,mb4.2						
FINES	FINESS Array B	72.45	332	P	P	22 26 29.3	-0.1
	2.2nm,0.8s,mb4.1,baz=112,slow=7.5,SNR=3.8						
FINES	FINESS Array B	72.45	332	P	P	22 26 29.3	-0.1
HFS	Hagfors	78.19	330	P	P	22 27 02.7	+0.6
	1.2nm,0.4s,mb4.2,baz=90,slow=4.4,SNR=8.1						
NOA	NORSAR Array B	79.47	331	P	P	22 27 08.8	-0.2
	0.8nm,1.0s,mb3.6,baz=85,slow=5.1,SNR=2.4						
NOA	NORSAR Array B	79.47	331	P	P	22 27 08.8	-0.2

*IDC **26** 22:17:12.2±2.4,53.04N×174.26W,h203^{km}±26^{km},mb3.5/8, mb1 3.7/10,mb1mx3.4/26,Error ellipse: s-maj=29.0km s-min=12.7km az=2.0*

*NEIC **26** 22:17:12.8±0.3,52.72N×174.27W,h222^{km}±4^{km},mb4.3/12, Error ellipse: s-maj=11.3km s-min=5.7km az=167.0*

ISC 26 22:17:11.5±0.3,**52.86N**±0.09×**174.28W**±0.07, **h220^{km}**±5^{km}**,n42,σ0^{s}99**/48,**mb3.7**/15,**Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	0.66	176	P	P	22 17 41.7	-0.1
ATKA				S	S	22 18 04.4	-0.9
GSTR	Great Sitkin T	1.33	236	P	P	22 17 46.7	+0.7
GSIG	Igitkin Island	1.33	230	P	P	22 17 46.3	+0.3
GSMY	Great Sitkin M	1.36	234	P	P	22 17 46.4	+0.2
GSTD	Great Sitkin T	1.40	236	P	P	22 17 47.2	+0.7
GSTD				S	S	22 18 12.4	-1.2
ADAG	Mount Adagdak	1.67	239	P	P	22 17 49.5	+0.6
ADK	Adak	1.77	238	P	P	22 17 50.1	+0.4
ADK				S	S	22 18 18.4	-0.8
KIKV	Kanaga Island	2.03	242	P	P	22 17 53.2	+1.0
KIWB	Kanaga Island	2.03	241	P	P	22 17 53.1	+0.9
KIMD	Kanaga Island	2.12	240	P	P	22 17 53.7	+0.6
KIMD				S	S	22 18 24.3	-0.9
UNV	Unalaska Valle	4.76	75	P	P	22 18 24.9	+0.8
UNV				S	S	22 19 18.4	-2.1
FX1	Attu Island--F	7.60	275	P	P	22 19 02.1	+1.7
	2.8nm,0.3s,baz=157,slow=1.6,SNR=40						
FX1				S	S	22 20 23.8	-1.7
	1.5nm,0.3s,baz=222,slow=13,SNR=7.8						
FX1	Attu Island--F	7.60	275	*e*P	P	22 19 02.0	+1.6
KDAK	Kodiak Island	13.28	60	*e*P	P	22 20 12.0	-0.5
	31nm,0.3s						
RSO	Redoubt South	14.02	49	*e*P	P	22 20 24.7	+3.1
SLKM	Skilak Lake	15.21	50	*e*P	P	22 20 37.3	+1.1
PWA	Palmer West	15.78	46	*e*P	P	22 20 45.3	+2.2
	6.6nm,0.4s						
SML	Sawmill	16.52	47	*e*P	P	22 20 51.4	-0.5
IMA	Indian Mountai	16.76	30	*e*P	P	22 20 56.4	+1.8
	25nm,0.3s						
MCK	McKinley	17.07	40	*e*P	P	22 20 56.7	-1.4
	12nm,0.5s						
DIV	Divide	17.47	50	*e*P	P	22 21 03.2	+0.8
	20nm,0.5s						
BILL	Bilibino	17.86	336	*e*P	P	22 21 06.8	+0.5
COLA	College	18.03	38	*e*P	P	22 21 07.3	-0.9
	6.7nm,0.6s						
THY	Trims Highway	18.22	43	*e*P	P	22 21 09.8	-0.4
ILAR	Eielson Array	18.34	39	P	P	22 21 08.6	-2.8
	0.4nm,0.3s,baz=239,slow=9.9,SNR=51						
INK	Inuvik	24.64	36	P	P	22 22 12.3	-0.5
	2.2nm,0.3s,mb4.2,baz=230,slow=6.0,SNR=41						
INK	Inuvik	24.64	36	P	P	22 22 12.3	-0.5
YKA	Yellowknife Ar	32.18	49	P	P	22 23 19.7	-0.4
	1.0nm,0.7s,mb3.5,baz=285,slow=7.5,SNR=14						
NVAR	Mina Array Bea	40.65	88	P	P	22 24 32.8	+1.4
	1.2nm,0.7s,mb3.4,baz=280,slow=9.0,SNR=4.3						
TPNV	Topopah Spring	42.85	88	*e*P	P	22 24 49.5	+0.3
	3.0nm,0.8s,mb3.8						
BW06	Boulder Array	43.23	76	*e*P	P	22 24 52.0	-0.1
	2.7nm,0.4s,mb4.0						
PDAR	Pinedale Array	43.23	76	P	P	22 24 52.6	+0.5
	2.6nm,0.4s,mb4.0,baz=320,slow=3.0,SNR=37						
ULN	Ulaanbaatar	48.08	297	*e*P	P	22 25 30.2	0.0
	0.6nm,0.6s,mb3.1						
SONM	Songino Array	48.45	298	P	P	22 25 32.8	-0.2
	0.4nm,0.7s,mb2.8,baz=53,slow=6.7,SNR=4.0						
SDCO	Great Sand Dun	48.80	79	P	P	22 25 35.7	-0.1
FRB	Frobisher Bay	50.28	34	P	P	22 25 45.8	-0.8
	2.4nm,0.8s,mb3.6,baz=309,slow=6.7,SNR=7.0						
MNTX	Cornudas Mount	52.99	85	*e*P	P	22 26 06.8	-0.5
	0.9nm,0.6s,mb3.4						
WMOK	Wichita Mounta	54.82	77	*e*P	P	22 26 19.2	-1.3
	0.9nm,0.5s,mb3.6						
TXAR	Lajitas Array	55.71	85	P	P	22 26 26.9	0.0
	1.0nm,0.8s,mb3.4,baz=301,slow=5.4,SNR=10						
ENH	Enshi	58.42	279	P	P	22 26 41.6	-4.4
	8.6nm,0.9s,mb4.4						
BVAR	Borovoye Array	61.51	322	P	P	22 27 06.6	0.0
	1.8nm,0.4s,mb4.0,baz=55,slow=5.9,SNR=24						
AAK	Ala-Archa	68.00	312	*e*P	P	22 27 47.5	-0.8
	1.1nm,0.4s,mb3.8						

*IDC **26** 22:19:16.8±1.7,8.28N×92.14E,mb3.7/5,mb1 3.9/6, mb1mx3.6/19,Error ellipse: s-maj=53.4km s-min=29.3km az=54.0*

*NEIC **26** 22:19:20.9±0.8,8.28N×92.21E,h30^{km},mb4.1/3,Error ellipse: s-maj=20.5km s-min=12.4km az=59.0*

ISC 26 22:19:19.0±1.0,**8.3N**±0.1×**92.3E**±0.2,**h30^{km},n12, σ0^{s}56**/12,**mb3.9**/8,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.99	32	Pn	P	22 22 11.2	+0.1
	baz=229,slow=14,SNR=4.5						
LSA	Lhasa	21.31	357	*e*P	P	22 24 05.1	-0.5
	4.1nm,0.5s,mb4.0						
AAK	Ala-Archa	37.60	338	*e*P	P	22 26 32.6	-0.2
	1.3nm,0.6s,mb3.8						
SONM	Songino Array	41.17	14	P	P	22 27 02.7	+0.2
	1.0nm,0.9s,mb3.4,baz=192,slow=9.0,SNR=5.2						
BVAR	Borovoye Array	48.00	342	P	P	22 27 57.3	+0.1
	0.6nm,0.6s,mb3.8,baz=158,slow=8.0,SNR=3.9						
CHKZ	Chkalovo	48.50	343	*e*P	P	22 28 00.6	-0.5
	1.3nm,0.4s,mb4.3						
WRA	Warramunga Arr	50.02	125	P	P	22 28 14.0	+0.8
	0.4nm,0.4s,mb3.8,baz=302,slow=9.0,SNR=5.3						
WRAB	Tennant Creek	50.03	125	P	P	22 28 12.2	-1.0
OBN	Obninsk	64.03	328	P	P	22 29 51.7	-0.4
FINES	FINESS Array B	71.47	332	P	P	22 30 39.0	+0.4
	1.3nm,0.8s,mb3.9,baz=104,slow=5.7,SNR=2.9						
FINES	FINESS Array B	71.47	332	P	P	22 30 39.0	+0.4
ARCES	ARCESS Array B	74.23	340	P	P	22 30 55.6	+1.0
	0.7nm,0.6s,mb3.8,baz=117,slow=6.0,SNR=3.1						

*IDC **26** 22:20:36.2±0.8,5.25N×93.38E,h28^{km}±3^{km},mb3.8/12, mb1 3.9/12,mb1mx3.8/21,Error ellipse: s-maj=46.1km s-min=14.2km az=44.0*

*NEIC **26** 22:20:36.2±0.5,5.21N×93.35E,mb4.4/6,Error ellipse: s-maj=21.5km s-min=9.5km az=47.0*

ISC 26 22:20:34.2±0.7,**5.2N**±0.1×**93.3E**±0.1,**h29^{km}, h29^{km}**±.4^{km}**:pP-P,n29,σ0^{s}92**/29,**mb4.2**/19,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DDI	Dehra Dun	28.83	332	*e*	P	22 26 37.6	+5.2
DDI				*e*		22 29 58.8	
BJT	Baijiatuau	40.34	27	*e*P	P	22 28 10.7	-0.4
	5.8nm,0.8s,mb4.4						
BJI	Beijing	40.36	27	P	P	22 28 13.3	+2.1
BJI				AMB	AMB		
	comp=Z,18nm,0.8s,mb4.8						
KBK	Karagaybulak	40.71	339	P	P	22 28 19.2	+5.1
	SNR=9.9						
AML	Almayashu	40.72	338	P	P	22 28 19.7	+5.6
	SNR=10						
AAK	Ala-Archa	40.85	339	P	P	22 28 20.8	+5.5
	SNR=5.9						
AAK	Ala-Archa	40.85	339	*e*P	P	22 28 15.5	+0.3
	comp=Z,5.0nm,0.7s,mb4.2						
CHMS	Chumysh	41.08	339	P	P	22 28 21.6	+4.5
	SNR=7.0						
USP	Ospenovka	41.40	339	P	P	22 28 24.2	+4.4
	SNR=7.1						
SONM	Songino Array	43.95	13	P	P	22 28 40.3	-0.2
	comp=Z,1.4nm,0.8s,mb3.8,baz=198,slow=6.2,SNR=9.5						
WRA	Warramunga Arr	47.45	123	P	P	22 29 08.2	-0.5
	comp=Z,1.4nm,0.6s,mb4.1,baz=302,slow=9.1,SNR=13						
WRA				pP	pP	22 29 17.5	+0.1
	comp=Z,4.9nm,0.7s,baz=301,slow=9.1,SNR=17						
WRAB	Tennant Creek	47.46	123	*e*P	P	22 29 09.1	+0.3
	comp=Z,6.3nm,1.1s,mb4.5						
WRAB				*e*pP	pP	22 29 17.3	-0.1
ASAR	Alice Springs	48.90	128	P	P	22 29 19.4	-0.5
	comp=Z,0.5nm,0.7s,mb3.6,baz=297,slow=8.1,SNR=3.6						
ASAR				pP	pP	22 29 28.1	-0.5
	comp=Z,1.3nm,0.8s,baz=308,slow=8.0,SNR=6.4						
BVAR	Borovoye Array	51.26	342	P	P	22 29 36.9	-0.7
	comp=Z,2.5nm,0.8s,mb4.2,baz=135,slow=8.2,SNR=4.6						
BRVK	Borovoye	51.32	342	*e*P	P	22 29 36.6	-1.4
	comp=Z,1.6nm,0.6s,mb4.1						
CHKZ	Chkalovo	51.76	343	*e*P	P	22 29 40.9	-0.4
	comp=Z,7.2nm,0.6s,mb4.8						
ARU	Arti	58.03	338	*e*P	P	22 30 25.4	-1.5
	comp=Z,2.3nm,0.6s,mb4.4						
MALT	Malatya	59.58	312	*e*P	P	22 30 37.6	-0.2
BRTR	Keskin Array B	63.56	312	P	P	22 31 04.2	-0.5
	comp=Z,1.1nm,0.6s,mb4.1,baz=128,slow=7.7,SNR=10						
AKASG	Malin Array Be	69.74	322	P	P	22 31 42.5	-1.2
	comp=Z,0.7nm,0.5s,mb3.8,baz=83,slow=4.8,SNR=4.7						
MLR	Muntele Rosu	70.51	316	P	P	22 31 50.0	+1.5
	comp=Z,4.7nm,0.8s,mb4.5,baz=134,slow=15,SNR=6.3						
FINES	FINESS Array B	74.69	333	P	P	22 32 12.8	0.0
	comp=Z,2.0nm,0.9s,mb4.1,baz=123,slow=4.3,SNR=7.0						
FINES				pP	pP	22 32 21.5	-0.2
	comp=Z,2.7nm,0.6s,baz=89,slow=5.5,SNR=4.8						
FINES				sP	sP	22 32 24.8	-0.1
	comp=Z,2.7nm,0.6s,baz=89,slow=5.2,SNR=4.7						
FINES	FINESS Array B	74.69	333	P	P	22 32 12.8	0.0
FINES				pP	pP	22 32 21.5	-0.3
FINES				sP	sP	22 32 24.8	-0.1
KAF	Kangasniemi	74.79	333	*e*p	P	22 32 13.3	-0.1
ARCES	ARCESS Array B	77.50	341	P	P	22 32 29.1	+0.6
	comp=Z,1.9nm,0.8s,mb4.1,baz=100,slow=6.7,SNR=11						
ARCES				pP	pP	22 32 38.0	+0.5
	comp=Z,7.5nm,1.1s,baz=90,slow=7.3,SNR=2.7						
ARCES	ARCESS Array B	77.50	341	P	P	22 32 29.1	+0.6
ARCES				pP	pP	22 32 38.0	+0.4
GERES	GERESS Array B	79.26	319	P	P	22 32 39.3	+0.7
	comp=Z,1.2nm,0.8s,mb3.9,baz=101,slow=6.8,SNR=8.5						
GERES				pP	pP	22 32 48.5	+0.8
	comp=Z,0.5nm,0.6s,baz=90,slow=5.3,SNR=4.1						
HFS	Hagfors	80.34	330	P	P	22 32 44.7	+0.6
	comp=Z,0.6nm,0.6s,mb3.7,baz=127,slow=7.2,SNR=2.5						
DAVOX	Davos	81.73	316	P	P	22 32 53.3	+1.7
	comp=Z,0.8nm,0.6s,mb3.9,baz=132,slow=16,SNR=6.2						
DAVOX				pP	pP	22 33 02.5	+1.7
	comp=Z,2.5nm,0.5s,baz=153,slow=8.0,SNR=4.3						

*IDC **26** 22:21:00.9±1.9,9.00N×94.06E,mb4.4/15,mb1 4.6/16, mb1mx4.4/25,ML3.7/1,Error ellipse: s-maj=50.3km s-min=35.3km az=149.0*

*NEIC **26** 22:21:04.7±0.5,8.88N×94.19E,h30^{km},mb4.5/8,Error ellipse: s-maj=11.9km s-min=9.3km az=127.0*

*BJI **26** 22:21:04.6,8.90N×94.20E,h30^{km},mb4.7*

ISC 26 22:21:02.9±0.6,**8.71N**±0.08×**94.00E**±0.10,**h30^{km},n44, σ1^{s}06**/43,**mb4.5**/26,**1C,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.81	26	P	P	22 23 33.6	-5.4
CMAR	Chiang Mai Arr	10.81	26	Pn	P	22 23 40.4	+1.3
	0.2nm,0.3s,baz=216,slow=15,SNR=4.8						
SHL	Shillong	16.89	353	*e*P	P	22 25 01.0	+2.1
PKI	Pulchoki	20.45	338	*e*P	P	22 25 40.9	+0.1
	36nm,0.8s						
GUN	Gumba	20.58	339	*e*P	P	22 25 42.2	0.0
	102nm,1.1s						
DMN	Daman	20.60	337	*e*P	P	22 25 42.4	+0.1
	40nm,0.8s						
KKN	Kakani	20.69	338	*e*P	P	22 25 43.2	-0.1
	48nm,0.9s						
LSA	Lhasa	21.06	353	*e*P	P	22 25 45.8	-1.2
	29nm,0.9s,mb4.6						
GKN	Gorkha	21.13	336	*e*P	P	22 25 48.1	+0.3
	69nm,0.8s,mb5.1						
GYA	Guiyang	21.35	33	⇑*i*P	P	22 25 51.3	+1.2
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.6						
KOLN	Koldanda	21.36	334	*e*P	P	22 25 50.7	+0.6
	comp=Z,46nm,0.7s,mb4.9						
CD2	Chengdu	23.89	21	P	P	22 26 17.0	+1.9
CD2				AMB	AMB		
	comp=Z,40nm,1.3s,mb4.7						
ENH	Enshi	25.89	32	*e*P	P	22 26 32.8	-1.3
	comp=Z,8.6nm,0.9s,mb4.3						
ZAL	Zalesovo	45.71	352	P	P	22 29 22.7	-0.3
	comp=Z,7.1nm,0.7s,mb4.7,baz=298,slow=9.7,SNR=32						
ZAL	Zalesovo	45.71	352	P	P	22 29 22.7	-0.3
BVAR	Borovoye Array	48.16	341	P	P	22 29 41.1	-1.2
	comp=Z,1.4nm,0.6s,mb4.2,baz=141,slow=9.2,SNR=8.9						
BVAR	Borovoye Array	48.16	341	P	P	22 29 41.1	-1.2
BRVK	Borovoye	48.22	341	*e*P	P	22 29 41.8	-1.0
	comp=Z,2.0nm,0.5s,mb4.4						
CHKZ	Chkalovo	48.65	342	*e*P	P	22 29 45.0	-1.0
	comp=Z,7.2nm,0.6s,mb4.9						
WRAB	Tennant Creek	48.86	126	P	P	22 29 46.7	-1.4
	comp=Z,4.3nm,0.8s,mb4.5						
ARU	Arti	55.08	337	*e*P	P	22 30 31.8	-2.5
KMBO	Kilima Mbogo	57.38	263	P	P	22 30 54.1	+2.6
	comp=Z,1.1nm,0.7s,mb4.0,baz=53,slow=14,SNR=4.2						
MALT	Malatya	57.83	310	*e*P	P	22 30 52.6	-1.6
	comp=Z,1.4nm,0.8s,mb4.0						
BRTR	Keskin Array B	61.79	310	P	P	22 31 19.9	-1.6
	comp=Z,2.7nm,0.8s,mb4.4,baz=119,slow=7.5,SNR=13						
AKASG	Malin Array Be	67.42	321	P	P	22 31 55.7	-2.1
	comp=Z,1.3nm,0.6s,mb4.1,baz=85,slow=4.7,SNR=7.9						
MLR	Muntele Rosu	68.48	315	P	P	22 32 04.4	-0.2
	comp=Z,3.3nm,0.8s,mb4.4,baz=202,slow=1.7,SNR=6.2						
LSZ	Lusaka	69.42	250	*e*P	P	22 32 11.4	+0.6
OJC	Ojcow	73.25	320	*e*P	P	22 32 33.1	-0.1
OKC	Ostrava-Krasne	74.28	319	*e*P	P	22 32 39.5	+0.3
LBTB	Lobatse	74.52	241	*e*P	P	22 32 42.4	+1.3
VRAC	Vranov	75.24	319	P	P	22 32 44.9	+0.2
	comp=Z,5.0nm,0.8s,mb4.5,baz=217,slow=13,SNR=6.4						
DPC	Dobruska-Polom	75.49	320	*e*P	P	22 32 46.5	+0.4
GERES	GERESS Array B	77.12	318	P	P	22 32 55.7	+0.4
	comp=Z,3.0nm,0.7s,mb4.3,baz=88,slow=5.2,SNR=24						
KHC	Kasperske Hory	77.21	318	*e*P	P	22 32 55.6	-0.2
HFS	Hagfors	77.67	330	P	P	22 32 58.3	+0.1
	comp=Z,2.6nm,0.5s,mb4.4,baz=117,slow=6.6,SNR=11						
NB2	NORSAR Subarra	78.94	331	P	P	22 33 04.8	-0.3
	comp=Z,1.9nm,0.6s,mb4.2,baz=96,slow=5.0						
NOA	NORSAR Array B	78.94	331	P	P	22 33 05.0	-0.1
	comp=Z,1.7nm,0.6s,mb4.2,baz=94,slow=5.1,SNR=8.0						
DAVOX	Davos	79.70	316	P	P	22 33 10.2	+0.7
	comp=Z,3.1nm,0.6s,mb4.4,baz=99,slow=4.6,SNR=9.8						
LPG	La Plagne	81.94	315	*e*P	P	22 33 21.7	+0.4
	comp=Z,24nm,1.1s,mb4.8						
EKA	Eskdalemuir Ar	86.96	325	P	P	22 33 47.2	+0.8
	comp=Z,3.7nm,0.7s,mb4.7,baz=100,slow=5.1,SNR=13						
ESDC	Sonseca Array	90.58	310	P	P	22 34 04.8	+0.8

	comp=Z,1.3nm,0.7s,mb4.4,baz=62,slow=4.1,SNR=6.7						
ILAR	Eielson Array	94.03	22	P	P	22 34 18.9	-0.3
	comp=Z,0.8nm,0.8s,mb4.2,baz=262,slow=3.8,SNR=7.0						
INK	Inuvik	96.23	16	P	P	22 34 29.6	+0.4
	comp=Z,3.7nm,1.1s,mb4.7,baz=357,slow=4.9,SNR=8.4						
PDAR	Pinedale Array	124.44	21	PKP	PKPdf	22 40 01.4	-3.3
	comp=Z,0.7nm,0.8s,baz=302,slow=0.9,SNR=4.9						

*IDC **26** 22:22:05.6±1.2, 8.65N×92.22E, h23^{km}±5^{km}, mb3.7/6, mb1 3.8/7, mb1mx3.7/19, Error ellipse: s-maj=41.7km s-min=16.4km az=60.0*
*NEIC **26** 22:22:05.1±0.5, 8.61N×92.14E, mb4.4/5, Error ellipse: s-maj=11.1km s-min=8.3km az=48.0*
*BJI **26** 22:22:05.2, 8.77N×92.42E, h23^{km}, mb4.2*
ISC 26 22:22:03.2±0.8, 8.64N±0.10×92.20E±0.08, h23^{km}, h23^{km}±1.1^{km}:pP-P, n17, $\sigma0\overset{s}{.}58$/18, mb4.1/10, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.75	33	P	P	22 24 51.5	-1.1
CMAR	Chiang Mai Arr	11.75	33	Pn	P	22 24 52.3	-0.4
	baz=225,slow=14,SNR=2.8						
HYB	Hyderabad	15.90	305	*i* P	P	22 25 46.0	-1.3
HYB				*e*S	S	22 28 43.0	+0.1
LSA	Lhasa	20.98	357	*e*P	P	22 26 47.5	+0.2
	24nm,0.8s						
ENH	Enshi	26.92	35	P	P	22 27 44.9	+0.2
	4.6nm,0.6s,mb4.2						
GTA	Gaotai	31.39	11	P	P	22 28 25.5	+0.8
GTA				AP	pP	22 28 32.0	+0.4
GTA				XP	sP	22 28 35.5	+0.9
GTA				PP	PP	22 29 28.0	-0.6
AAK	Ala-Archa	37.27	338	*e*P	P	22 29 15.6	+0.5
	5.2nm,0.9s,mb4.4						
SONM	Songino Array	40.88	15	P	P	22 29 45.7	+0.7
	2.7nm,1.0s,mb3.8,baz=204,slow=8.3,SNR=5.4						
SONM				pP	pP	22 29 52.2	+0.1
	2.6nm,0.7s,baz=199,slow=7.1,SNR=6.5						
ZAL	Zalesovo	45.57	354	P	P	22 30 23.7	+0.7
	1.0nm,0.8s,mb3.8,baz=309,slow=14,SNR=1.6						
ZAL				pP	pP	22 30 31.2	+1.1
	2.3nm,0.9s,baz=299,slow=9.6,SNR=2.8						
ZAL	Zalesovo	45.57	354	P	P	22 30 23.7	+0.7
ZAL				pP	pP	22 30 31.2	+1.1
BVAR	Borovoye Array	47.67	342	P	P	22 30 39.5	-0.2
	2.0nm,0.9s,mb4.2,baz=149,slow=8.6,SNR=5.0						
BRVK	Borovoye	47.73	342	*e*P	P	22 30 39.8	-0.4
	2.2nm,0.7s,mb4.3						
CHKZ	Chkalovo	48.17	343	*e*P	P	22 30 43.8	+0.2
	237nm,1.2s						
WRA	Warramunga Arr	50.26	125	P	P	22 31 00.5	+0.4
	0.7nm,0.8s,mb3.7,baz=304,slow=8.6,SNR=3.1						
WRA				pP	pP	22 31 07.0	-0.3
	2.3nm,0.8s,baz=302,slow=9.1,SNR=5.9						
WRAB	Tennant Creek	50.27	125	*e*P	P	22 30 59.5	-0.6
	4.4nm,0.6s,mb4.7						
ASAR	Alice Springs	51.87	129	P	P	22 31 12.2	-0.1
	0.5nm,0.6s,mb3.6,baz=303,slow=7.0,SNR=2.6						
ASAR				pP	pP	22 31 20.5	+1.1
	1.5nm,0.6s,baz=302,slow=7.4,SNR=4.7						
BRTR	Keskin Array B	60.48	311	P	P	22 32 14.0	+0.3
	1.9nm,1.1s,mb4.0,baz=123,slow=9.3,SNR=2.7						

*IDC **26** 22:25:04.7±2.0, 6.52S×103.41E, mb4.2/7, mb1 4.4/7, mb1mx4.0/16, Error ellipse: s-maj=93.9km s-min=21.3km az=54.0*
*NEIC **26** 22:25:09.8±0.9, 6.33S×103.67E, h30^{km}, mb4.4/3, Error ellipse: s-maj=39.1km s-min=9.7km az=52.0*
ISC 26 22:25:08.6±1.0, 6.2S±0.2×103.9E±0.2, h30^{km}, n22, $\sigma0\overset{s}{.}89$/21, mb4.5/14, Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	25.01	349	*e*P	P	22 30 30.0	-1.7
	6.5nm,0.7s,mb4.3						
CMAR	Chiang Mai Arr	25.01	349	P	P	22 30 31.7	0.0
	5.7nm,0.5s,mb4.3,baz=181,slow=8.9,SNR=39						
WRA	Warramunga Arr	32.55	118	P	P	22 31 39.7	+0.2
	1.0nm,0.6s,mb3.9,baz=293,slow=10,SNR=3.6						
WRAB	Tennant Creek	32.56	118	P	P	22 31 39.6	0.0
ENH	Enshi	36.68	8	*e*P	P	22 32 15.2	+0.3
	2.3nm,0.4s,mb4.4						
LSA	Lhasa	37.76	342	*e*P	P	22 32 24.2	+0.3
PKI	Pulchoki	38.06	333	*e*P	P	22 32 27.0	+0.5
GUN	Gumba	38.14	334	*e*P	P	22 32 28.3	+1.2
	32nm,0.6s,mb5.2						
DMN	Daman	38.23	332	*e*P	P	22 32 28.8	+0.9
KKN	Kakani	38.31	333	*e*P	P	22 32 29.5	+1.0
	17nm,0.5s,mb5.0						
GKN	Gorkha	38.78	332	*e*P	P	22 32 33.3	+0.8
	14nm,0.4s,mb5.1						
KOLN	Koldanda	39.08	331	*e*P	P	22 32 36.0	+1.0
	14nm,0.7s,mb4.8						
STKA	Stephens Creek	43.45	131	P	P	22 33 11.2	+0.3
	1.9nm,0.5s,mb4.1,baz=291,slow=14,SNR=4.5						
SONM	Songino Array	53.87	2	P	P	22 34 32.5	+1.2
	2.6nm,0.7s,mb4.3,baz=179,slow=9.1,SNR=18						
AAK	Ala-Archa	55.50	334	*e*P	P	22 34 41.9	-1.4
ZAL	Zalesovo	62.06	347	P	P	22 35 28.1	-0.6
	1.5nm,0.4s,mb4.5,baz=318,slow=6.6,SNR=6.5						
BVAR	Borovoye Array	65.49	338	P	P	22 35 49.8	-1.4
	3.0nm,0.6s,mb4.5,baz=144,slow=9.0,SNR=17						
BRVK	Borovoye	65.56	338	*e*P	P	22 35 50.4	-1.2
	1.7nm,0.4s,mb4.4						
CHKZ	Chkalovo	65.93	339	*e*P	P	22 35 53.0	-0.9
ARU	Arti	72.62	336	*e*P	P	22 36 34.2	-0.9
FINES	FINESS Array B	89.64	332	P	P	22 38 04.9	+0.2
	1.0nm,0.6s,mb4.3,baz=153,slow=8.5,SNR=4.1						
TXAR	Lajitas Array	145.29	45	PKPbc	PKPbc	22 44 46.8	+2.2
	1.7nm,0.6s,baz=296,slow=1.3,SNR=25						

*IDC **26** 22:27:28.9±2.6, 0.88N×96.28E, mb3.4/4, mb1 3.6/5, mb1mx3.5/17, Error ellipse: s-maj=95.6km s-min=24.1km az=60.0*
*NEIC **26** 22:27:32.7±1.6, 1.04N×96.60E, mb4.0/2, Error ellipse: s-maj=51.4km s-min=12.5km az=66.0*
ISC 26 22:27:30.5±1.8, 1.0N±0.2×96.5E±0.4, h16^{km}, n8, $\sigma0\overset{s}{.}89$/8, mb3.6/6, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	17.50	8	P	P	22 31 34.9	-0.8
CMAR	Chiang Mai Arr	17.50	8	P	P	22 31 36.0	+0.4
	baz=214,slow=11,SNR=6.1						
LSA	Lhasa	28.98	350	*e*P	P	22 33 32.5	+0.9
	1.4nm,0.4s,mb4.0						
WRA	Warramunga Arr	42.52	121	P	P	22 35 26.3	-0.9
	0.7nm,0.6s,mb3.6,baz=299,slow=9.7,SNR=8.7						
WRA				pP	pP	22 35 30.9	-1.3
	0.7nm,0.6s,baz=300,slow=9.7,SNR=3.8						
WRAB	Tennant Creek	42.53	121	P	P	22 35 26.7	-0.6
	1.6nm,0.6s,mb3.9						
ASAR	Alice Springs	43.84	126	P	P	22 35 39.4	+1.5
	0.1nm,0.3s,mb3.0,baz=304,slow=7.9,SNR=2.9						
ASAR				pP	pP	22 35 44.7	+1.9
	0.4nm,0.4s,baz=305,slow=7.0,SNR=3.4						
SONM	Songino Array	47.42	9	P	P	22 36 06.5	+0.4
	0.3nm,0.9s,mb3.2,baz=202,slow=9.0,SNR=2.6						
BVAR	Borovoye Array	56.20	341	P	P	22 37 11.0	-1.0
	0.8nm,0.8s,mb3.8,baz=141,slow=9.2,SNR=3.5						

*IDC **26** 22:29:41.6±1.0, 5.63N×92.96E, h31^{km}±6^{km}, mb3.6/9, mb1 3.8/10, mb1mx3.7/20, ML3.6/1, Error ellipse: s-maj=38.9km s-min=17.1km az=52.0*
*NEIC **26** 22:29:41.8±0.5, 5.67N×93.03E, mb4.3/3, Error ellipse: s-maj=13.9km s-min=9.4km az=65.0*
ISC 26 22:29:39.7±0.7, 5.70N±0.10×93.0E±0.1, h32^{km}, h32^{km}±.1^{km}:pP-P, n16, $\sigma0\overset{s}{.}81$/16, mb4.0/12, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.93	24	P	P	22 32 56.8	-0.6
CMAR	Chiang Mai Arr	13.93	24	Pn	P	22 32 58.1	+0.7
	0.1nm,0.3s,baz=219,slow=13,SNR=6.1						
SHL	Shillong	19.79	357	*e*P	P	22 34 10.0	-0.6
AAK	Ala-Archa	40.29	339	*e*P	P	22 37 16.0	+0.2
	1.9nm,0.8s,mb3.9						
SONM	Songino Array	43.52	13	P	P	22 37 42.6	+0.5
	2.3nm,0.9s,mb3.9,baz=191,slow=8.3,SNR=12						
WRA	Warramunga Arr	47.94	123	P	P	22 38 17.9	+0.1
	0.7nm,0.7s,mb3.8,baz=302,slow=9.1,SNR=6.7						
WRA				pP	pP	22 38 27.4	+0.1
	2.0nm,0.7s,baz=301,slow=9.0,SNR=11						
WRAB	Tennant Creek	47.95	123	P	P	22 38 17.6	-0.1
	3.2nm,0.7s,mb4.5						
ZAL	Zalesovo	48.56	354	P	P	22 38 22.8	+0.8
	1.9nm,0.8s,mb4.2,baz=292,slow=8.3,SNR=10						
ZAL	Zalesovo	48.56	354	P	P	22 38 22.8	+0.8
ASAR	Alice Springs	49.41	128	P	P	22 38 28.6	-0.4
	0.3nm,0.8s,mb3.4,baz=319,slow=8.3,SNR=3.2						
ASAR				pP	pP	22 38 38.2	-0.4
	0.8nm,0.7s,baz=294,slow=7.8,SNR=6.5						
BVAR	Borovoye Array	50.70	343	P	P	22 38 38.2	-0.3
	1.3nm,0.7s,mb4.0,baz=143,slow=7.4,SNR=6.7						
BVAR				pP	pP	22 38 47.9	-0.2
	1.3nm,0.9s,baz=141,slow=9.5,SNR=4.2						
ARU	Arti	57.47	338	*e*P	P	22 39 27.3	-0.8
	2.2nm,0.8s,mb4.2						
BRTR	Keskin Array B	63.03	312	P	P	22 40 05.8	-0.5
	1.1nm,1.0s,mb3.9,baz=140,slow=9.6,SNR=4.1						
AKASG	Malin Array Be	69.19	322	P	P	22 40 43.5	-1.8
	1.0nm,0.7s,mb3.9,baz=81,slow=4.4,SNR=5.1						
GERES	GERESS Array B	78.72	319	P	P	22 41 41.8	+1.2
	1.0nm,0.7s,mb3.9,baz=76,slow=5.5,SNR=9.2						
DAVOX	Davos	81.19	316	P	P	22 41 55.5	+1.5
	2.4nm,0.5s,mb4.3,baz=149,slow=5.1,SNR=5.9						

IDC 26 22:32:11.6±3.1, 8.04N×92.87E, mb3.7/3, mb1 3.9/4, mb1mx3.6/18, ML3.8/1, Error ellipse: s-maj=91.0km s-min=32.9km az=69.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.92	29	Pn	P	22 35 01.8	-4.2
	0.2nm,0.3s,baz=223,slow=14,SNR=4.9						
SONM	Songino Array	41.29	14	P	P	22 39 59.8	-0.6
	0.3nm,0.5s,baz=196,slow=9.8,SNR=3.5						
ZAL	Zalesovo	46.23	353	P	P	22 40 38.0	-2.3
	0.7nm,0.3s,baz=302,slow=11,SNR=3.8						
WRA	Warramunga Arr	49.38	125	P	P	22 41 03.1	-2.2
	0.5nm,0.8s,baz=305,slow=8.5,SNR=4.1						

IDC 26 22:34:05.7±6.6, 3.72N×95.34E, mb3.7/3, mb1 4.0/4, mb1mx3.8/18, Error ellipse: s-maj=206.0km s-min=27.8km az=71.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.07	13	Pn	P	22 37 42.1	+0.4
	baz=202,slow=9.7,SNR=5.9						
WRA	Warramunga Arr	44.95	123	P	P	22 42 22.2	-2.4
	1.5nm,0.4s,baz=302,slow=9.0,SNR=12						
SONM	Songino Array	44.97	11	P	P	22 42 22.2	-2.2
	0.3nm,0.8s,baz=192,slow=8.8,SNR=3.0						
ASAR	Alice Springs	46.40	128	P	P	22 42 35.0	-1.1
	0.9nm,0.5s,baz=303,slow=8.0,SNR=6.6						

*IDC **26** 22:34:50.7±0.7, 4.42S×68.96E, mb4.2/15, mb1 4.2/15, mb1mx4.1/22, MS4.4/13, Ms1 4.4/13, ms1mx4.3/16, Error ellipse: s-maj=32.2km s-min=16.3km az=51.0*
*NEIC **26** 22:34:51.5±0.4, 4.63S×68.91E, h10^{km}, mb4.8/10, Error ellipse: s-maj=13.8km s-min=9.1km az=48.0*
*BJI **26** 22:34:51.5, 4.60S×68.90E, h10^{km}, mB5.3, mb4.6*
ISC 26 22:34:49.9±0.5, 4.61S±0.09×68.82E±0.09, h10^{km}, n67, $\sigma1\overset{s}{.}06$/39, mb4.4/29, MS4.5/13, Chagos Archipelago region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DGAR	Diego Garcia	4.56	128	*e*P	Pn	22 35 56.7	-3.9
HYB	Hyderabad	23.90	23	*e*P	P	22 39 55.0	-10
KMBO	Kilima Mbogo	31.71	275	LR	LR	22 51 21.2	
	comp=Z,1μm,21.8s,MS4.6,baz=93,slow=31						
SHL	Shillong	37.43	36	*e*S	P	22 42 10.0	+4.8
CMAR	Chiang Mai Arr	37.51	51	LR	LR	22 55 45.3	
	comp=Z,894nm,19.5s,MS4.6,baz=225,slow=34						
MBAR	Mbarara	38.24	275	*e*P	P	22 42 12.4	+0.3
	9.4nm,1.4s,mb4.3						
LSA	Lhasa	40.28	31	P	P	22 42 29.1	+0.2
	21nm,1.4s,mb4.7						
LSZ	Lusaka	41.32	252	P	P	22 42 39.5	+1.9
EIL	Elat	47.07	319	LR	LR	23 00 20.8	
	comp=Z,411nm,18.6s,MS4.4,baz=317,slow=32						
AAK	Ala-Archa	47.30	6	*e*P	P	22 43 25.2	-0.4
	39nm,1.4s,mb5.2						
ASF	Jabal al Asfar	47.53	323	LR	LR	23 00 20.2	
	comp=Z,376nm,21.8s,MS4.3,baz=185,slow=32						
CD2	Chengdu	48.58	41	P	P	22 43 37.5	+1.8
CD2				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.8						
GNI	Garni	49.73	336	P	P	22 43 43.6	-0.9
	comp=Z,2.5nm,0.8s,mb4.3,baz=278,slow=2.9,SNR=2.6						
GNI				LR	LR	23 03 58.0	
	comp=Z,295nm,20.7s,MS4.3,baz=230,slow=35						
WMQ	Urumqi	51.12	18	P	P	22 43 56.5	+1.5
WMQ				AP	pP	22 44 01.0	+3.0
WMQ				XP	sP	22 44 03.5	+4.3
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.6						
MALT	Malatya	51.16	329	*e*P	P	22 43 56.6	+1.2
	comp=Z,4.0nm,0.9s,mb4.3						
ENH	Enshi	52.12	46	*e*P	P	22 44 03.1	+0.4
	comp=Z,19nm,1.0s,mb5.0						
GTA	Gaotai	52.30	30	P	P	22 44 06.0	+2.0
GTA				XP	sP	22 44 16.8	+8.6
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.3						
XAN	Xi’an	53.94	41	P	P	22 44 16.5	+0.4
XAN				AP	pP	22 44 19.5	+0.3
BRTR	Keskin Array B	54.72	327	P	P	22 44 21.4	-0.5
	comp=Z,3.1nm,1.2s,mb4.2,baz=135,slow=4.1,SNR=6.9						
BVAR	Borovoye Array	57.43	1	P	P	22 44 40.0	-1.2
	comp=Z,2.2nm,0.9s,mb4.2,baz=207,slow=3.3,SNR=8.4						
BRVK	Borovoye	57.46	1	*e*P	P	22 44 41.2	-0.2
	comp=Z,11nm,1.3s,mb4.7						
CHKZ	Chkalovo	58.09	1	*e*P	P	22 44 44.0	-1.7
	comp=Z,8.2nm,0.8s,mb4.8						
ZAL	Zalesovo	59.85	11	P	P	22 44 57.0	-1.0
	comp=Z,2.5nm,0.6s,mb4.4,baz=286,slow=8.7,SNR=11						
ZAL	Zalesovo	59.85	11	P	P	22 44 57.0	-1.0
ARU	Arti	61.41	354	*e*P	P	22 45 07.6	-0.9
	comp=Z,22nm,1.4s,mb5.1						
SONM	Songino Array	61.75	28	P	P	22 45 10.5	-0.5
	comp=Z,7.6nm,1.1s,mb4.7,baz=218,slow=6.1,SNR=14						
BJI	Beijing	62.14	40	P	P	22 45 15.0	+1.3
BJI				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb5.0						
MAW	Mawson	63.02	183	LR	LR	23 05 46.9	
	comp=Z,416nm,21.8s,MS4.6,baz=169,slow=29						
AKASG	Malin Array Be	64.73	333	P	P	22 45 28.6	-2.0
	comp=Z,0.6nm,0.6s,mb3.8,baz=135,slow=4.9,SNR=3.3						
ASAR	Alice Springs	65.36	114	P	P	22 45 34.5	-0.6
	comp=Z,3.2nm,0.8s,mb4.4,baz=283,slow=6.1,SNR=14						
WRA	Warramunga Arr	65.44	110	P	P	22 45 35.4	-0.3
	comp=Z,6.5nm,0.8s,mb4.7,baz=285,slow=6.3,SNR=17						
WRAB	Tennant Creek	65.45	110	*e*P	P	22 45 35.5	-0.2
	comp=Z,16nm,0.9s,mb5.0						
CASY	Casey	68.04	163	P	P	22 45 50.6	-0.8
BRG	Berggiesshubel	72.44	327	P	P	22 46 27.3	+8.9
	comp=Z,9.8nm,1.7s,mb4.5						
DAVOX	Davos	72.81	322	P	P	22 46 21.6	+0.9
	comp=Z,2.3nm,0.7s,mb4.2,baz=155,slow=14						
STKA	Stephens Creek	72.96	122	P	P	22 46 21.9	0.0
	comp=Z,1.6nm,0.5s,mb4.2,baz=305,slow=8.6,SNR=6.0						
CLL	Collm	73.17	327	P	P	22 46 28.0	+5.3
CLL	Collm	73.17	327	P	P	22 46 27.0	+4.3
FINES	FINESS Array B	73.63	340	LR	LR	23 17 55.3	
	comp=Z,207nm,21.6s,MS4.4,baz=149,slow=35						
DBIC	Dimbokro	74.39	278	LR	LR	23 18 00.3	
	comp=Z,307nm,19.6s,MS4.6,baz=54,slow=35						
HFS	Hagfors	77.51	335	P	P	22 46 46.9	-0.3
	comp=Z,2.2nm,0.8s,mb4.2,baz=90,slow=7.2,SNR=3.6						
NOA	NORSAR Array B	79.03	335	P	P	22 46 56.8	+1.2
	comp=Z,0.9nm,0.8s,mb3.7,baz=108,slow=5.3,SNR=2.5						
NOA				LR	LR	23 24 39.3	
	comp=Z,120nm,18.1s,MS4.3,baz=85,slow=38						
ARCES	ARCESS Array B	79.61	346	P	P	22 46 57.9	-0.7
	comp=Z,2.1nm,0.9s,mb4.1,baz=72,slow=8.6,SNR=2.4						
ESDC	Sonseca Array	79.80	311	P	P	22 46 59.6	-0.6
	comp=Z,0.2nm,0.4s,mb3.4,baz=101,slow=4.5,SNR=2.8						
ESDC	Sonseca Array	79.80	311	P	P	22 46 59.6	-0.6
SNAA	Sanae	79.92	198	P	P	22 47 04.0	+3.8
	comp=Z,0.9nm,0.8s,mb3.7,baz=134,slow=4.3,SNR=4.1						
SNAA				LR	LR	23 13 55.7	
	comp=Z,116nm,20.5s,MS4.2,baz=24,slow=29						
VNDA	Vanda	86.19	167	LR	LR	23 21 15.5	
	comp=Z,248nm,19.9s,MS4.6,baz=264,slow=32						
JMIC	Jan Mayen	90.22	341	LR	LR	23 29 06.2	
	comp=Z,275nm,18.3s,MS4.7,baz=266,slow=36						
RPZ	Rata Peaks	95.64	135	LR	LR	23 23 15.8	
	comp=Z,155nm,19.7s,MS4.5,baz=221,slow=30						
YKA	Yellowknife Ar	122.19	2	PKP	PKPdf	22 53 46.0	-1.9
	comp=Z,0.5nm,0.9s,baz=349,slow=2.3,SNR=8.2						
YKA				PP	PP	22 55 18.7	-5.7
	comp=Z,0.5nm,0.9s,baz=354,slow=6.9,SNR=7.4						
YKA	Yellowknife Ar	122.19	2	PKP	PKPdf	22 53 46.0	-1.9
YKA				PP	PP	22 55 18.8	-5.7
PDAR	Pinedale Array	141.97	358	PKP	PKPdf	22 54 27.1	+1.5
	comp=Z,0.4nm,0.7s,baz=53,slow=4.5,SNR=2.9						
TMUT	Trail Mountain	145.47	0	*e*PKP	PKPdf	22 54 30.9	-0.7
CMB	Columbia Colle	145.69	13	*e*PKP	PKPdf	22 54 31.5	-0.6
NVAR	Mina Array Bea	145.72	10	PKPbc	PKPbc	22 54 34.3	+4.4
	comp=Z,5.0nm,0.9s,baz=18,slow=2.5,SNR=9.7						
MNV	Mina	145.74	10	*e*PKP	PKPdf	22 54 30.4	-1.8
MIAR	Mount Ida	146.03	333	PKP	PKPdf	22 54 31.7	-1.1
MSU	Marysvale	146.24	1	*e*PKP	PKPdf	22 54 37.1	+4.1
PV10	Paradox Valley	146.33	357	*e*PKPdf	PKPdf	22 54 32.7	-0.5
RW3	Ridgway	146.36	355	PKP	PKPdf	22 54 32.6	-0.7
PV01	Paradox Valley	146.54	356	*e*PKP	PKPdf	22 54 35.6	+2.0
MTUM	Tungsten Hills	146.72	11	*e*PKP	PKPdf	22 54 36.8	+2.9
NEN	Nelson	148.93	6	PKP	PKPdf	22 54 40.7	+3.2
ANMO	Albuquerque	149.49	352	PKPbc	PKPdf	22 54 42.7	+4.3
	comp=Z,1.0nm,0.8s,baz=60,slow=1.7,SNR=3.9						
ANMO	Albuquerque	149.49	352	*e*PKP	PKPdf	22 54 42.6	+4.2
ANMO				PKPbc	PKPdf	22 54 42.7	+4.3
MNTX	Cornudas Mount	152.51	349	*e*PKPbc	PKPdf	22 54 47.8	+4.7
TXAR	Lajitas Array	154.40	345	PKPbc	PKPdf	22 54 55.2	+10
	comp=Z,0.3nm,0.6s,baz=90,slow=2.5,SNR=4.2						

*IDC **26** 22:38:04.2±1.4, 3.42N×94.90E, mb4.1/7, mb1 4.3/8, mb1mx4.0/19, ML4.0/1, Error ellipse: s-maj=57.2km s-min=22.4km az=54.0*
*NEIC **26** 22:38:08.5±0.6, 3.42N×94.86E, h30^{km}, mb4.5/5, Error ellipse: s-maj=17.3km s-min=9.7km az=61.0*
*BJI **26** 22:38:08.4, 3.40N×94.90E, h30^{km}, mb4.8*
ISC 26 22:38:06.7±0.7, 3.4N±0.1×94.9E±0.1, h30^{km}, n21, $\sigma1\overset{s}{.}05$/21, mb4.2/13, 1C, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.44	15	*e*P	P	22 41 44.2	0.0
	19nm,0.8s						
CMAR	Chiang Mai Arr	15.44	15	Pn	P	22 41 44.1	-0.1
	0.2nm,0.3s,baz=213,slow=11,SNR=15						
GYA	Guiyang	25.51	25	⇑*i*P	P	22 43 32.0	-2.4
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.8						
LSA	Lhasa	26.35	353	*e*P	P	22 43 44.2	+2.0
	comp=Z,20nm,0.7s,mb4.8						
ENH	Enshi	30.04	26	P	P	22 44 15.8	+0.3
GTA	Gaotai	36.08	6	P	P	22 45 09.3	+1.5
GTA				XP	sP	22 45 22.8	+2.3
GTA				AMB	AMB		
	comp=Z,13nm,0.7s,mb5.0						
AAK	Ala-Archa	43.05	338	*e*P	P	22 46 05.8	+0.2
	comp=Z,1.5nm,0.7s,mb3.8						
WRA	Warramunga Arr	45.17	123	P	P	22 46 22.7	-0.3
	comp=Z,3.5nm,0.7s,mb4.3,baz=304,slow=8.9,SNR=5.5						
WRAB	Tennant Creek	45.18	123	*e*P	P	22 46 23.2	+0.2
	comp=Z,5.6nm,0.7s,mb4.5						
SONM	Songino Array	45.32	11	P	P	22 46 23.8	0.0
	comp=Z,1.8nm,0.9s,mb3.9,baz=194,slow=6.9,SNR=4.4						
ASAR	Alice Springs	46.58	127	P	P	22 46 34.2	+0.2
	comp=Z,0.9nm,0.7s,mb3.8,baz=308,slow=8.0,SNR=3.0						
ZAL	Zalesovo	51.01	352	P	P	22 47 08.5	+0.6
	comp=Z,1.6nm,0.5s,mb4.2,baz=295,slow=9.0,SNR=5.3						
BVAR	Borovoye Array	53.40	342	P	P	22 47 25.3	-0.6
	comp=Z,1.1nm,0.7s,mb3.9,baz=141,slow=9.5,SNR=5.0						
BRVK	Borovoye	53.46	342	P	P	22 47 25.6	-0.7
CHKZ	Chkalovo	53.89	342	*e*P	P	22 47 29.1	-0.3
	comp=Z,2.1nm,0.5s,mb4.3						
ARU	Arti	60.24	338	*e*P	P	22 48 12.5	-1.9
KIV	Kislovodsk	61.12	319	P	P	22 48 18.4	-2.2
FINES	FINESS Array B	76.96	333	P	P	22 49 58.5	+0.6
	comp=Z,1.0nm,0.5s,mb4.0,baz=124,slow=6.9,SNR=11						
KAF	Kangasniemi	77.06	333	*e*p	P	22 49 59.3	+0.8
GERES	GERESS Array B	81.62	319	P	P	22 50 24.6	+1.3
	comp=Z,1.5nm,0.9s,mb3.9,baz=104,slow=5.5,SNR=8.3						
GERES	GERESS Array B	81.62	319	P	P	22 50 24.6	+1.3

IDC 26 22:38:15.3±2.7, 6.47S×103.64E, mb4.2/5, mb1 4.3/5, mb1mx4.0/16, Error ellipse: s-maj=111.0km s-min=21.4km az=53.0, Southwest of Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	25.20	349	P	P	22 43 42.2	-2.2
	5.1nm,0.5s,baz=187,slow=8.6,SNR=15						
WRA	Warramunga Arr	32.67	117	P	P	22 44 48.4	-3.1
	1.2nm,0.6s,baz=289,slow=10,SNR=7.6						
ASAR	Alice Springs	33.73	124	P	P	22 44 59.3	-1.5
	0.6nm,0.5s,baz=304,slow=7.3,SNR=5.3						
SONM	Songino Array	54.13	2	P	P	22 47 42.6	-1.7
	5.3nm,1.0s,baz=178,slow=9.1,SNR=5.8						
BVAR	Borovoye Array	65.62	339	P	P	22 49 01.1	-2.2
	4.0nm,0.7s,baz=141,slow=9.7,SNR=12						
TXAR	Lajitas Array	145.65	45	PKPbc	PKPbc	22 57 56.6	-0.4
	1.8nm,0.6s,baz=297,slow=1.2,SNR=18						

*IDC **26** 22:39:14.0±7.1, 7.82N×92.58E, mb4.3/8, mb1 4.5/8, mb1mx4.2/20, Error ellipse: s-maj=186.0km s-min=143.1km az=168.0*
NEIC 26 22:39:20.6±3.5, 8.04N×92.32E, h30^{km}, mb4.6/3, Error ellipse: s-maj=100.0km s-min=43.3km az=110.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAK	Ala-Archa	37.87	338	*e*P	P	22 46 33.9	-2.8
	6.0nm,0.9s						
CHKZ	Chkalovo	48.77	343	P	P	22 48 03.3	-1.5
	3.7nm,0.5s						
ARU	Arti	55.05	338	*e*P	P	22 48 50.0	-1.9
	4.7nm,0.8s						
BRTR	Keskin Array B	60.96	311	P	P	22 49 31.6	-1.9
	0.9nm,0.6s,baz=133,slow=7.3,SNR=3.9						
AKASG	Malin Array Be	66.91	322	P	P	22 50 09.5	-2.8
	0.5nm,0.3s,baz=94,slow=4.0,SNR=7.3						
MLR	Muntele Rosu	67.80	316	P	P	22 50 16.8	-1.3
	6.4nm,0.9s,baz=124,slow=6.1,SNR=5.6						
FINES	FINESS Array B	71.73	332	P	P	22 50 39.4	-2.4
	2.4nm,0.8s,baz=144,slow=16,SNR=4.1						
GERES	GERESS Array B	76.50	318	P	P	22 51 08.2	-1.5
	2.3nm,0.9s,baz=90,slow=4.0,SNR=7.1						
HFS	Hagfors	77.41	330	P	P	22 51 13.2	-1.2
	2.5nm,1.0s,baz=90,slow=7.2,SNR=4.1						
DAVOX	Davos	79.02	316	P	P	22 51 21.7	-1.9
	4.0nm,0.7s,baz=135,slow=7.8,SNR=5.4						
EKA	Eskdalemuir Ar	86.56	325	P	P	22 52 00.8	-1.3
	1.2nm,0.7s,baz=106,slow=5.2,SNR=4.5						
ESDC	Sonseca Array	89.73	310	P	P	22 52 15.9	-1.8
	0.5nm,0.8s,baz=117,slow=12,SNR=3.2						

*IDC **26** 22:39:21.5±0.9, 6.97N×92.50E, mb4.3/13, mb1 4.5/14, mb1mx4.3/22, ML4.6/1, Error ellipse: s-maj=39.3km s-min=18.1km az=51.0*
*NEIC **26** 22:39:25.8±0.5, 6.96N×92.52E, h30^{km}, mb4.6/4, Error ellipse: s-maj=17.5km s-min=9.6km az=59.0*
ISC 26 22:39:24.2±0.6, 7.0N±0.1×92.6E±0.1, h30^{km}, n19, $\sigma0\overset{s}{.}88$/19, mb4.3/17, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.98	28	Pn	P	22 42 30.2	+0.8
	1.0nm,0.3s,baz=233,slow=13,SNR=13						
LSA	Lhasa	22.64	357	*e*P	P	22 44 24.1	-0.1
	9.8nm,0.7s,mb4.3						
AAK	Ala-Archa	38.94	339	*e*P	P	22 46 49.3	0.0
	3.6nm,0.7s,mb4.2						
SONM	Songino Array	42.38	14	P	P	22 47 17.7	+0.1

	4.3nm,1.0s,mb4.0,baz=195,slow=8.3,SNR=5.2						
SONM				PcP	PcP	22 49 11.2	+0.1
	0.4nm,0.7s,baz=199,slow=4.8,SNR=3.7						
ZAL	Zalesovo	47.24	354	P	P	22 47 56.2	-0.2
	1.3nm,0.4s,mb4.2,baz=296,slow=8.7,SNR=4.4						
WRA	Warramunga Arr	49.02	124	P	P	22 48 10.7	+0.1
	12nm,1.1s,mb4.8,baz=304,slow=8.8,SNR=9.6						
WRAB	Tennant Creek	49.02	124	*e*P	P	22 48 09.1	-1.7
	11nm,0.7s,mb5.0						
CHKZ	Chkalovo	49.86	343	P	P	22 48 14.8	-1.8
	5.3nm,0.6s,mb4.8						
ASAR	Alice Springs	50.55	128	P	P	22 48 22.6	+0.2
	2.5nm,0.5s,mb4.4,baz=303,slow=7.7,SNR=12						
ARU	Arti	56.12	338	*e*P	P	22 49 01.2	-2.0
STKA	Stephens Creek	60.62	133	P	P	22 49 35.3	+0.4
	4.2nm,0.9s,mb4.6,baz=277,slow=5.9,SNR=3.3						
FINES	FINESS Array B	72.78	333	P	P	22 50 50.9	-0.7
	6.9nm,1.2s,mb4.5,baz=104,slow=7.9,SNR=3.3						
GERES	GERESS Array B	77.47	318	P	P	22 51 19.2	+0.7
	1.7nm,0.9s,mb4.0,baz=94,slow=4.9,SNR=6.2						
HFS	Hagfors	78.45	330	P	P	22 51 23.4	-0.3
	2.0nm,0.8s,mb4.1,baz=101,slow=7.6,SNR=4.3						
DAVOX	Davos	79.96	316	P	P	22 51 33.3	+1.1
	2.0nm,0.5s,mb4.3,baz=162,slow=3.2,SNR=4.0						
EKA	Eskdalemuir Ar	87.58	325	P	P	22 52 11.0	+0.4
	1.2nm,0.6s,mb4.3,baz=98,slow=5.9,SNR=4.6						
ESDC	Sonseca Array	90.61	310	P	P	22 52 26.6	+1.3
	0.3nm,0.5s,mb3.9,baz=50,slow=4.4,SNR=5.2						
ILAR	Eielson Array	96.14	22	P	P	22 52 50.5	+0.4
	0.6nm,0.9s,mb4.0,baz=285,slow=5.1,SNR=6.0						
INK	Inuvik	98.27	16	P	P	22 53 00.4	+0.8
	1.1nm,0.9s,mb4.4,baz=264,slow=4.7,SNR=3.5						

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*IDC **26** 22:42:29.9±1.1, 5.81N×94.69E, mb3.9/9, mb1 4.2/10, mb1mx4.0/19, ML4.7/1, Error ellipse: s-maj=47.6km s-min=21.9km az=52.0*

*NEIC **26** 22:42:34.6±0.7, 5.90N×94.79E, h30^{km}, mb4.1/3, Error ellipse: s-maj=18.4km s-min=12.4km az=69.0*

ISC 26 22:42:32.9±0.8**, 5.9N**±0.1×**94.8E**±0.1**, h30^{km}, n17, σ0ˢ93**/17**, mb4.0**/12**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.07	17	*e*P	P	22 45 38.9	-0.5
CMAR	Chiang Mai Arr	13.07	17	Pn	P	22 45 39.3	-0.1
	1.2nm,0.3s,baz=209,slow=15,SNR=14						
LSA	Lhasa	23.89	352	P	P	22 47 45.4	+0.3
AAK	Ala-Archa	40.75	337	*e*P	P	22 50 13.0	+0.1
	2.2nm,0.7s,mb3.9						
SONM	Songino Array	42.90	11	P	P	22 50 31.1	+0.6
	2.6nm,0.9s,mb4.0,baz=194,slow=8.6,SNR=4.0						
WRA	Warramunga Arr	46.58	125	P	P	22 51 01.3	+0.9
	0.8nm,0.5s,mb3.9,baz=304,slow=9.0,SNR=3.7						
ASAR	Alice Springs	48.15	129	P	P	22 51 11.4	-1.3
	1.3nm,0.8s,mb4.0,baz=310,slow=7.8,SNR=4.1						
ZAL	Zalesovo	48.55	352	P	P	22 51 15.2	-0.1
	0.7nm,0.3s,mb4.1,baz=306,slow=8.9,SNR=2.7						
BVAR	Borovoye Array	51.04	341	P	P	22 51 34.2	-0.2
	0.8nm,0.7s,mb3.8,baz=135,slow=4.1,SNR=3.5						
CHKZ	Chkalovo	51.52	342	*e*P	P	22 51 38.0	0.0
	1.8nm,0.6s,mb4.2						
ARU	Arti	57.94	337	*e*P	P	22 52 22.9	-1.8
BRTR	Keskin Array B	64.22	311	P	P	22 53 05.6	-1.9
	0.5nm,0.6s,mb3.7,baz=63,slow=3.2,SNR=3.7						
FINES	FINESS Array B	74.74	332	P	P	22 54 11.8	+0.2
	1.4nm,0.5s,mb4.1,baz=109,slow=6.5,SNR=17						
FINES	FINESS Array B	74.74	332	P	P	22 54 11.8	+0.2
KAF	Kangasniemi	74.82	333	*e*p	P	22 54 13.1	+1.0
	1.5nm,0.6s,mb4.1						
ARCES	ARCESS Array B	77.31	340	P	P	22 54 27.2	+1.2
	1.5nm,0.6s,mb4.1,baz=104,slow=5.0,SNR=11						
GERES	GERESS Array B	79.73	318	P	P	22 54 40.9	+1.3
	1.1nm,0.9s,mb3.8,baz=90,slow=5.3,SNR=4.7						

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*IDC **26** 22:44:04.9±1.9, 5.91N×94.76E, mb4.0/6, mb1 4.1/6, mb1mx3.8/17, Error ellipse: s-maj=90.3km s-min=24.3km az=56.0*

ISC 26 22:44:08.3±1.7**, 6.0N**±0.3×**94.8E**±0.5**, h33^{km}, n6, σ0ˢ67**/6**, mb4.0**/6**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	42.89	11	P	P	22 52 05.8	+0.4
	0.6nm,0.5s,mb3.5,baz=211,slow=7.2,SNR=3.7						
WRA	Warramunga Arr	46.59	125	P	P	22 52 34.8	-0.6
	1.5nm,0.6s,mb4.1,baz=305,slow=9.2,SNR=3.8						
ASAR	Alice Springs	48.16	129	P	P	22 52 48.1	+0.5
	0.8nm,0.6s,mb3.9,baz=298,slow=7.3,SNR=4.0						
ZAL	Zalesovo	48.54	352	P	P	22 52 49.5	-0.7
	2.6nm,1.1s,mb4.2,baz=291,slow=7.6,SNR=3.1						
FINES	FINESS Array B	74.73	332	P	P	22 55 46.2	-0.1
	1.8nm,0.9s,mb4.0,baz=101,slow=7.1,SNR=4.1						
ARCES	ARCESS Array B	77.30	340	P	P	22 56 01.3	+0.5
	1.2nm,0.6s,mb4.0,baz=100,slow=5.5,SNR=6.4						

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*IDC **26** 22:45:00.1±0.9, 12.22N×92.75E, mb4.2/14, mb1 4.3/15, mb1mx4.2/21, ML4.5/1, Error ellipse: s-maj=45.1km s-min=17.1km az=52.0*

*NEIC **26** 22:45:04.5±0.3, 12.22N×92.70E, h30^{km}, Error ellipse: s-maj=13.3km s-min=8.4km az=52.0*

*BJI **26** 22:45:04.3, 12.10N×92.77E, h35^{km}, mB4.9, mb4.6*

ISC 26 22:45:03.9±3.7**, 12.17N**±0.10×**92.7E**±0.1**, h41^{km}**±32^{km}**, n34, σ0ˢ87**/32**, mb4.3**/21**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.71	43	Pn	P	22 47 10.4	+0.2
	1.5nm,0.3s,baz=239,slow=16,SNR=8.9						
GYA	Guiyang	19.38	41	⇑*i*P	P	22 49 29.5	+0.3
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
ENH	Enshi	23.83	38	*e*P	P	22 50 14.5	+0.3
	comp=Z,21nm,0.5s,mb4.8						
LZH	Lanzhou	25.86	21	*e*P	P	22 50 38.0	+4.3
LZH				AP	pP	22 50 41.0	-3.5
LZH				AMB	AMB		
	comp=Z,17nm,1.5s,mb4.3						
HHC	Hu-ho-hao-te	33.05	27	*e*P	P	22 51 38.3	+0.5
HHC				XP	sP	22 51 48.0	-6.2
HHC				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,176nm,8.5s						
AAK	Ala-Archa	34.21	336	*e*P	P	22 51 47.5	-0.3
	comp=Z,2.1nm,0.8s,mb4.1						
SONM	Songino Array	37.37	15	P	P	22 52 15.0	+0.5
	comp=Z,1.9nm,0.7s,mb4.0,baz=198,slow=6.3,SNR=6.1						
SONM	Songino Array	37.37	15	P	P	22 52 15.0	+0.5
ZAL	Zalesovo	42.13	353	P	P	22 52 53.9	+0.1
	comp=Z,2.2nm,0.9s,mb3.8,baz=289,slow=8.4,SNR=4.6						
ZAL	Zalesovo	42.13	353	P	P	22 52 53.9	+0.1
BRVK	Borovoye	44.54	341	*e*P	P	22 53 12.5	-1.0
	comp=Z,1.7nm,0.6s,mb4.0						
CHKZ	Chkalovo	44.97	342	*e*P	P	22 53 15.4	-1.4
	comp=Z,3.1nm,0.6s,mb4.3						
GNI	Garni	50.45	312	P	P	22 54 02.8	+3.0
	comp=Z,5.5nm,0.9s,mb4.6,baz=344,slow=5.8,SNR=3.5						
WRA	Warramunga Arr	51.97	127	P	P	22 54 11.2	-0.4
	comp=Z,6.8nm,0.7s,mb4.7,baz=304,slow=8.5,SNR=19						
WRAB	Tennant Creek	51.97	127	*e*P	P	22 54 10.8	-0.8
	comp=Z,11nm,0.6s,mb5.0						
KIV	Kislovodsk	53.20	316	P	P	22 54 19.3	-1.2
ASAR	Alice Springs	53.80	131	P	P	22 54 24.9	-0.2
	comp=Z,2.4nm,0.7s,mb4.2,baz=311,slow=6.6,SNR=7.9						
MALT	Malatya	54.63	308	P	P	22 54 30.2	-0.8
BRTR	Keskin Array B	58.57	309	P	P	22 55 00.7	+1.6
	comp=Z,1.6nm,0.8s,mb4.1,baz=122,slow=7.8,SNR=5.9						
STKA	Stephens Creek	64.12	135	P	P	22 55 36.5	-0.1
	comp=Z,2.6nm,0.8s,mb4.3,baz=303,slow=16,SNR=2.8						
FINES	FINESS Array B	68.26	332	P	P	22 56 02.4	0.0
	comp=Z,1.6nm,0.8s,mb4.1,baz=104,slow=7.9,SNR=4.3						
FINES	FINESS Array B	68.26	332	P	P	22 56 02.4	0.0
LSZ	Lusaka	69.40	248	*e*P	P	22 56 10.8	+0.6
LSZ				*e*		22 56 17.1	
ARCES	ARCESS Array B	70.76	340	P	P	22 56 17.6	-0.1
	comp=Z,1.8nm,0.7s,mb4.1,baz=106,slow=6.8,SNR=5.6						
MORC	Moravsky Berou	71.20	319	*e*P	P	22 56 19.0	-1.6
GERES	GERESS Array B	73.69	318	P	P	22 56 36.6	+1.3
	comp=Z,1.3nm,0.9s,mb3.9,baz=90,slow=5.3,SNR=5.3						
HFS	Hagfors	74.04	329	P	P	22 56 36.4	-0.7
	comp=Z,2.1nm,0.7s,mb4.2,baz=124,slow=5.3,SNR=4.0						
LBTB	Lobatse	75.07	240	*e*P	P	22 56 44.8	+1.0
LBTB				*e*		22 56 51.2	
NB2	NORSAR Subarra	75.30	330	P	P	22 56 44.2	-0.2
	comp=Z,0.9nm,0.6s,mb3.9,baz=95,slow=5.0						
NOA	NORSAR Array B	75.30	330	P	P	22 56 44.2	-0.1
	comp=Z,0.9nm,0.6s,mb3.9,baz=90,slow=5.7,SNR=3.4						
ILAR	Eielson Array	91.33	22	P	P	22 58 06.4	+0.1
	comp=Z,1.2nm,0.7s,mb4.3,baz=299,slow=4.3,SNR=5.5						
INK	Inuvik	93.28	16	P	P	22 58 16.2	+1.0
	comp=Z,0.5nm,0.6s,mb4.1,baz=281,slow=5.8,SNR=4.1						
PDAR	Pinedale Array	121.66	19	PKP	PKPdf	23 03 55.5	+1.7
	comp=Z,0.4nm,0.8s,baz=90,slow=3.0,SNR=3.4						
TXAR	Lajitas Array	135.83	21	PKP	PKPdf	23 04 23.4	+2.3
	comp=Z,0.1nm,0.4s,baz=46,slow=1.1,SNR=3.8						

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*BJI **26** 22:46:09.4, 8.96N×92.47E, h40^{km}, mB5.3, mb4.9, Ms4.6, Msz4.2*

*IDC **26** 22:46:11.2±0.5, 8.99N×92.51E, h38^{km}±3^{km}, mb4.3/23, mb1 4.4/24, mb1mx4.4/28, ML3.9/1, MS4.3/2, Ms1 4.4/2, ms1mx3.4/23, Error ellipse: s-maj=23.7km s-min=10.5km az=48.0*

*NEIC **26** 22:46:11.1±0.3, 8.99N×92.51E, Error ellipse: s-maj=8.4km s-min=7.1km az=49.0*

ISC 26 22:46:09.1±0.4**, 8.95N**±0.06×**92.54E**±0.06**, h36^{km}, h36^{km}**±1.5^{km}**: pP-P, n96, σ0ˢ95**/94**, mb4.8**/42**, MS4.5**/6**, 1C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.31	33	*e*P	P	22 48 46.0	-5.4
CMAR	Chiang Mai Arr	11.31	33	Pn	P	22 48 51.8	+0.3
	0.3nm,0.3s,baz=225,slow=14,SNR=3.8						
VIS	Vishakhapatnam	12.50	315	*e*P	P	22 49 03.3	-4.1
VIS				*e*		22 49 03.5	
	baz=132,slow=12						
VIS				*e*S	S	22 51 08.3	-18
VIS				*e*		22 51 15.0	
	comp=E,120nm,0.7s						
VIS				*e*		22 51 15.3	
	comp=N,93nm,0.5s						
NANT	Nan	12.59	38	P	P	22 49 08.0	-0.7
CHRT	Chiangrai	12.92	32	⇓P	P	22 49 13.5	+0.4
	comp=N,403nm,1.2s						
IMP	Imphal	15.80	5	*e*P	P	22 49 49.3	-1.4
HYB	Hyderabad	16.00	303	*e*P	P	22 49 57.5	+4.2
HYB	Hyderabad	16.00	303	*i* P	P	22 49 57.0	+3.7
SHL	Shillong	16.54	358	*e*P	P	22 49 58.0	-2.0
SHL				*e*S	S	22 52 50.0	-12
KMI	Kunming	18.79	30	P	P	22 50 30.0	+1.8
KMI				AMB	AMB		
	comp=Z,46nm,0.9s						
PKI	Pulchoki	19.71	341	*e*P	P	22 50 38.4	0.0
	comp=Z,362nm,1.3s						
DMN	Daman	19.84	340	*e*P	P	22 50 39.7	-0.2
	comp=Z,261nm,1.1s						
GUN	Gumba	19.88	342	*e*P	P	22 50 40.0	-0.3
	comp=Z,311nm,1.1s						
KKN	Kakani	19.95	341	*e*P	P	22 50 40.8	-0.3
GKN	Gorkha	20.36	340	*e*P	P	22 50 45.5	+0.1
	comp=Z,228nm,0.9s						
KOLN	Koldanda	20.53	337	*e*P	P	22 50 47.2	0.0
	comp=Z,149nm,0.8s						
LSA	Lhasa	20.68	357	*e*P	P	22 50 48.0	-0.7
	comp=Z,87nm,0.9s						
GYA	Guiyang	21.97	36	⇑*i*P	P	22 51 02.0	+0.3
GYA				S	S	22 55 03.3	+6.3
GYA				AMB	AMB		
	comp=Z,40nm,0.9s,mb4.8						
GYA				AMB	AMB		
	comp=Z,640nm,3.2s						
GYA				LR	LR		
	comp=N,2μm,16.2s,MS4.8						
GYA				LR	LR		
	comp=E,2μm,15.8s,MS4.8						
GYA				LR	LR		
	comp=Z,3μm,16.0s,MS4.8						
CD2	Chengdu	24.23	24	⇓*i*P	P	22 51 24.5	+0.7
CD2				AMB	AMB		
	comp=Z,80nm,0.6s,mb5.3						
ENH	Enshi	26.48	34	*e*P	P	22 51 43.8	-1.3
	comp=Z,20nm,0.8s,mb4.7						
LZH	Lanzhou	28.91	19	*e*P	P	22 52 07.0	-0.1
LZH				AMB	AMB		
	comp=Z,50nm,1.5s,mb5.0						
XAN	Xi’an	29.17	29	P	P	22 52 07.5	-1.9
XAN				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.8						
GTA	Gaotai	31.02	11	⇓*i*P	P	22 52 26.5	+0.7
GTA				AP	pP	22 52 35.5	-0.5
GTA				XP	sP	22 52 40.0	-0.6
GTA				S	S	22 57 28.5	+1.4
GTA				AMB	AMB		
	comp=Z,63nm,0.9s,mb5.5						
GTA				AMB	AMB		
	comp=Z,314nm,9.5s						
GTA				LR	LR		
	comp=N,315nm,18.2s,MS4.2						
GTA				LR	LR		
	comp=E,335nm,19.0s,MS4.2						
GTA				LR	LR		
	comp=Z,606nm,14.1s,MS4.4						
NJ2	Nanjing	33.53	43	*e*P	P	22 52 48.8	+1.1
KSH	Kashi	33.85	337	*e*P	P	22 52 49.5	-0.9
KSH				*e*AP	pP	22 52 57.5	-3.2
KSH				*e*XP	sP	22 53 03.8	-1.5
KSH				AMB	AMB		
	comp=Z,240nm,3.9s						
KSH				LR	LR		
	comp=N,620nm,11.9s,MS4.7						
KSH				LR	LR		
	comp=E,710nm,11.9s,MS4.7						
WMQ	Urumqi	34.99	354	P	P	22 53 00.5	+0.3
WMQ				AMB	AMB		
	comp=Z,19nm,0.6s,mb5.2						
HHC	Hu-ho-hao-te	35.98	25	*e*P	P	22 53 08.5	-0.1
HHC				AP	pP	22 53 15.0	-3.9
HHC				XP	sP	22 53 20.0	-3.5
HHC				AMB	AMB		
	comp=Z,23nm,0.8s,mb5.2						
HHC				AMB	AMB		
	comp=Z,408nm,8.7s						
HHC				LR	LR		
	comp=N,265nm,16.7s,MS4.4						
HHC				LR	LR		
	comp=E,409nm,13.1s,MS4.4						
HHC				LR	LR		
	comp=Z,661nm,16.7s,MS4.5						
KZA	Kyzart	36.34	338	P	P	22 53 13.1	+1.5
	SNR=8.7						
UCH	Uchtor	36.75	337	P	P	22 53 16.7	+1.6
	SNR=13						
TKM2	Tokmak 2	36.95	339	P	P	22 53 17.9	+1.2
	SNR=12						
KBK	Karagaybulak	36.96	338	P	P	22 53 18.6	+1.8
	SNR=26						
AML	Almayashu	36.98	336	P	P	22 53 18.9	+1.9
	SNR=43						
AAK	Ala-Archa	37.10	338	P	P	22 53 19.2	+1.2
	SNR=21						
AAK	Ala-Archa	37.10	338	*e*P	P	22 53 18.2	+0.1
	comp=Z,26nm,0.9s,mb5.1						
AAK				*e*pP	pP	22 53 28.1	-0.3
CHMS	Chumysh	37.33	338	P	P	22 53 20.7	+0.8
	SNR=18						
EKS2	Erkin-Say	37.40	337	P	P	22 53 22.4	+1.9
	SNR=25						
BJT	Baijiatuau	37.43	30	*e*P	P	22 53 21.0	+0.2
	comp=Z,16nm,0.9s,mb4.9						
BJT				*e*pP	pP	22 53 30.4	-0.7
BJI	Beijing	37.45	30	P	P	22 53 22.0	+1.0
BJI				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.8						
USP	Ospenovka	37.65	338	P	P	22 53 23.7	+1.1
	SNR=34						
SONM	Songino Array	40.49	14	P	P	22 53 46.9	+0.7
	comp=Z,26nm,1.0s,mb4.9,baz=199,slow=7.2,SNR=48						
SONM				pP	pP	22 53 55.6	-1.0
	comp=Z,11nm,0.9s,baz=196,slow=9.0,SNR=8.2						
ULN	Ulaanbaatar	40.69	15	*e*P	P	22 53 47.4	-0.5
	comp=Z,14nm,0.9s,mb4.6						
CN2	Changchun	45.00	34	*e*P	P	22 54 23.0	+0.1
ZAL	Zalesovo	45.29	354	P	P	22 54 24.9	-0.3
	comp=Z,9.0nm,0.7s,mb4.7,baz=295,slow=8.4,SNR=28						
HIA	Hailar	46.18	25	*e*P	P	22 54 31.8	-0.5
HIA				*e*pP	pP	22 54 41.8	-0.9
BVAR	Borovoye Array	47.48	342	P	P	22 54 42.1	-0.3
	comp=Z,8.9nm,0.7s,mb4.8,baz=143,slow=7.4,SNR=30						
BRVK	Borovoye	47.54	342	*e*P	P	22 54 42.0	-0.9
	comp=Z,14nm,0.9s,mb5.0						
NWAO	Narrogin (SRO)	47.83	152	P	P	22 54 47.2	+1.7
	comp=Z,6.4nm,0.6s,mb4.8,baz=319,slow=8.2,SNR=11						
NWAO	Narrogin (SRO)	47.83	152	P	P	22 54 47.2	+1.7
CHKZ	Chkalovo	47.97	343	*e*P	P	22 54 45.8	-0.5
	comp=Z,40nm,0.9s,mb5.4						
CHKZ				*e*pP	pP	22 54 56.1	-0.7
WRA	Warramunga Arr	50.17	125	P	P	22 55 03.0	-0.7
	comp=Z,2.5nm,0.5s,mb4.5,baz=307,slow=8.4,SNR=13						
WRA				pP	pP	22 55 13.6	-0.6
	comp=Z,7.3nm,1.1s,baz=300,slow=9.8,SNR=4.5						
WRA	Warramunga Arr	50.17	125	P	P	22 55 03.0	-0.7
WRA				pP	pP	22 55 13.6	-0.6
ASAR	Alice Springs	51.82	130	P	P	22 55 15.8	-0.3
	comp=Z,2.9nm,0.7s,mb4.3,baz=303,slow=6.9,SNR=7.4						
ASAR				pP	pP	22 55 25.9	-0.7
	comp=Z,4.3nm,0.8s,baz=307,slow=6.9,SNR=7.7						
ASAR				sP	sP	22 55 33.7	+2.8
	comp=Z,2.6nm,0.6s,baz=305,slow=7.0,SNR=4.2						
GNI	Garni	52.55	314	P	P	22 55 22.1	+0.8
	comp=Z,8.6nm,0.9s,mb4.7,baz=19,slow=6.1,SNR=6.0						
ARU	Arti	54.29	338	*e*P	P	22 55 32.6	-1.4
	comp=Z,20nm,0.9s,mb5.0						
KIV	Kislovodsk	55.46	318	P	P	22 55 42.9	+0.2
	comp=Z,125nm,0.8s,SNR=9.1						
KIV	Kislovodsk	55.46	318	*e*P	P	22 55 41.7	-1.0
	comp=Z,17nm,0.8s,mb5.1						
KMBO	Kilima Mbogo	55.98	263	LR	LR	23 19 12.1	
	comp=Z,160nm,18.5s,MS4.1,baz=276,slow=35						
MALT	Malatya	56.56	310	*e*P	P	22 55 49.0	-1.7
	comp=Z,4.5nm,1.1s,mb4.4						
MALT				*e*pP	pP	22 56 00.7	-0.7
EIL	Elat	57.52	299	P	P	22 55 57.7	+0.1
	comp=Z,5.1nm,0.9s,mb4.6,baz=57,slow=16,SNR=5.9						
YAK	Yakutsk	59.50	19	*e*P	P	22 56 09.2	-1.7
BRTR	Keskin Array B	60.53	311	P	P	22 56 17.1	-1.2
	comp=Z,7.6nm,0.9s,mb4.8,baz=121,slow=7.2,SNR=23						
BRTR				pP	pP	22 56 27.8	-1.3
	comp=Z,1.9nm,0.7s,baz=135,slow=7.0,SNR=4.0						
STKA	Stephens Creek	61.99	133	P	P	22 56 26.7	-1.6
	comp=Z,2.6nm,0.8s,mb4.4,baz=346,slow=12,SNR=2.2						
STKA	Stephens Creek	61.99	133	P	P	22 56 26.7	-1.6
AKASG	Malin Array Be	66.33	322	P	P	22 56 54.3	-2.0
	comp=Z,2.4nm,0.6s,mb4.4,baz=89,slow=4.5,SNR=11						
AKASG				pP	pP	22 57 07.2	0.0
	comp=Z,1.3nm,0.7s,baz=93,slow=4.1,SNR=3.4						
MLR	Muntele Rosu	67.30	316	P	P	22 57 01.7	-0.7
	comp=Z,13nm,0.8s,mb5.0,baz=134,slow=3.3,SNR=14						
KWP	Kalwaria	70.19	320	*e*P	P	22 57 19.6	-0.6
SUW	Suwalki	70.71	324	*e*P	P	22 57 22.4	-0.9
FINES	FINESS Array B	71.03	332	P	P	22 57 24.3	-0.8
	comp=Z,9.8nm,1.1s,mb4.6,baz=121,slow=11,SNR=7.6						
FINES				pP	pP	22 57 36.2	+0.1
	comp=Z,2.9nm,0.7s,baz=114,slow=6.9,SNR=3.8						
OJC	Ojcow	72.14	320	*e*P	P	22 57 32.0	+0.1
OKC	Ostrava-Krasne	73.15	319	*e*P	P	22 57 38.0	+0.1
LBTB	Lobatse	73.37	241	*e*P	P	22 57 40.8	+1.0
MORC	Moravsky Berou	73.53	319	*e*P	P	22 57 39.8	-0.4
ARCES	ARCESS Array B	73.72	340	P	P	22 57 40.8	-0.1
	comp=Z,4.7nm,0.8s,mb4.5,baz=90,slow=6.1,SNR=7.8						
VRAC	Vranov	74.10	319	P	P	22 57 43.0	-0.5
	comp=Z,4.1nm,1.1s,mb4.3,baz=130,slow=3.9,SNR=3.8						
DPC	Dobruska-Polom	74.37	320	*e*P	P	22 57 45.4	+0.4
DPC				*e*pP	pP	22 57 56.1	+0.2
KSP	Ksiaz	74.43	320	*e*P	P	22 57 45.8	+0.5
UPC	Upice	74.58	320	*e*P	P	22 57 46.6	+0.4
UPC				*e*pP	pP	22 57 57.9	+0.7
PRU	Pruhonice	75.48	319	*e*P	P	22 57 51.7	+0.3
PRU				*e*pP	pP	22 58 02.6	+0.2
BRG	Berggiesshubel	75.92	320	*e*P	P	22 57 54.1	+0.2
	comp=Z,7.5nm,1.1s,mb4.5						
GERES	GERESS Array B	75.97	318	P	P	22 57 53.9	-0.3
	comp=Z,4.6nm,0.8s,mb4.5,baz=90,slow=4.0,SNR=22						
GERES				pP	pP	22 58 05.4	+0.2
	comp=Z,2.7nm,0.9s,baz=90,slow=5.3,SNR=4.5						
KHC	Kasperske Hory	76.06	318	*e*P	P	22 57 54.8	0.0
KHC				*e*pP	pP	22 58 04.1	-1.6
HFS	Hagfors	76.73	330	P	P	22 57 57.8	-0.6
	comp=Z,1.7nm,0.6s,mb4.2,baz=104,slow=6.1,SNR=4.3						
HFS				pP	pP	22 58 10.5	+1.2
	comp=Z,2.9nm,0.7s,baz=104,slow=6.1,SNR=3.7						
NB2	NORSAR Subarra	78.02	331	P	P	22 58 03.7	-1.8
	comp=Z,1.8nm,0.8s,mb4.0,baz=96,slow=5.3						
NOA	NORSAR Array B	78.02	331	P	P	22 58 04.1	-1.4
	comp=Z,1.9nm,0.8s,mb4.1,baz=94,slow=5.5,SNR=5.3						
NOA				pP	pP	22 58 17.4	+0.9
	comp=Z,2.7nm,0.8s,baz=95,slow=5.7,SNR=6.0						
NOA	NORSAR Array B	78.02	331	P	P	22 58 04.1	-1.4
NOA				pP	pP	22 58 17.4	+0.9
DAVOX	Davos	78.52	316	P	P	22 58 09.0	+0.5
	comp=Z,3.7nm,0.5s,mb4.6,baz=111,slow=7.1,SNR=7.7						
LPL	La Plagne	80.75	315	*e*P	P	22 58 21.1	+0.5
	comp=Z,30nm,0.8s,mb5.0						
EKA	Eskdalemuir Ar	85.94	325	P	P	22 58 47.1	+0.4
	comp=Z,3.1nm,0.7s,mb4.6,baz=94,slow=6.0,SNR=7.2						
EKA				pP	pP	22 59 00.4	+2.6
	comp=Z,3.1nm,0.7s,baz=101,slow=5.5,SNR=6.4						
ESDC	Sonseca Array	89.31	310	P	P	22 59 04.3	+0.9
	comp=Z,1.8nm,0.9s,mb4.4,baz=39,slow=5.5,SNR=5.1						
ILAR	Eielson Array	94.35	22	P	P	22 59 26.2	+0.3
	comp=Z,1.2nm,0.6s,mb4.5,baz=300,slow=4.3,SNR=9.6						
ILAR				LR	LR	23 46 03.3	
	comp=Z,216nm,18.9s,MS4.6,baz=342,slow=38						
INK	Inuvik	96.40	16	P	P	22 59 36.5	+1.3
	comp=Z,3.9nm,0.8s,mb4.9,baz=345,slow=4.1,SNR=12						
YKA	Yellowknife Ar	105.75	13	PP	PP	23 04 36.0	-6.8
	comp=Z,0.6nm,0.7s,baz=335,slow=7.6,SNR=7.4						
PDAR	Pinedale Array	124.72	20	PKP	PKPdf	23 05 07.3	+1.8
	comp=Z,0.5nm,0.8s,baz=4.1,slow=0.5,SNR=4.5						
PDAR				pPKP		23 05 20.4	
	comp=Z,0.7nm,0.6s,baz=142,slow=0.3,SNR=4.9						
NVAR	Mina Array Bea	124.79	29	PKP	PKPdf	23 05 08.6	+2.8
	comp=Z,0.5nm,0.3s,slow=5.4,SNR=3.3						
NVAR				pPKP		23 05 21.5	
	comp=Z,1.6nm,0.7s,baz=318,slow=2.8,SNR=4.0						
NVAR	Mina Array Bea	124.79	29	PKP	PKPdf	23 05 08.6	+2.8
NVAR				pPKP		23 05 21.5	
TXAR	Lajitas Array	138.86	22	PKP	PKPdf	23 05 35.6	+3.1
	comp=Z,0.4nm,0.7s,baz=143,slow=0.9,SNR=4.1						

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*IDC **26** 22:48:08.7±1.1, 5.39N×93.32E, mb4.2/9, mb1 4.3/10, mb1mx4.1/20, ML4.0/1, MS4.7/1, Ms1 4.7/1, ms1mx3.6/21, Error ellipse: s-maj=51.3km s-min=18.5km az=54.0*

*NEIC **26** 22:48:13.7±0.5, 5.57N×93.52E, h30^{km}, Error ellipse: s-maj=15.6km s-min=7.7km az=59.0*

ISC 26 22:48:11.6±0.7**, 5.52N**±0.10×**93.5E**±0.1**, h30^{km}, n20, σ0ˢ84**/19**, mb4.3**/13**, MS4.8**/1**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.92	22	*e*P	P	22 51 28.2	-1.2
CMAR	Chiang Mai Arr	13.92	22	Pn	P	22 51 31.3	+2.0
	0.2nm,0.3s,baz=213,slow=13,SNR=6.5						
LSA	Lhasa	24.16	355	*e*P	P	22 53 27.4	+1.0
ENH	Enshi	28.87	30	P	P	22 54 08.8	-1.2
AAK	Ala-Archa	40.62	338	P	P	22 55 49.7	-0.8
SONM	Songino Array	43.59	13	P	P	22 56 15.5	+0.7
	1.8nm,0.6s,mb4.0,baz=202,slow=4.6,SNR=3.6						
WRA	Warramunga Arr	47.47	123	P	P	22 56 46.3	+0.2
	9.8nm,0.7s,mb4.9,baz=302,slow=9.1,SNR=12						
WRAB	Tennant Creek	47.47	123	*e*P	P	22 56 46.3	+0.2
	13nm,0.6s,mb5.0						
ASAR	Alice Springs	48.94	128	P	P	22 56 57.8	+0.3
	3.7nm,0.8s,mb4.5,baz=306,slow=5.9,SNR=4.7						
BVAR	Borovoye Array	51.01	342	P	P	22 57 12.8	0.0
	1.2nm,0.6s,mb4.0,baz=131,slow=12,SNR=4.1						
BRVK	Borovoye	51.07	342	*e*P	P	22 57 12.5	-0.8
	2.4nm,0.6s,mb4.3						
CHKZ	Chkalovo	51.51	343	*e*P	P	22 57 15.9	-0.7
	6.1nm,0.7s,mb4.6						
CHKZ				*e*pP	pP	22 57 23.0	-2.8
ARU	Arti	57.81	338	*e*P	P	22 58 01.6	-0.9
	3.2nm,0.8s,mb4.4						
STKA	Stephens Creek	58.98	132	P	P	22 58 10.2	-0.8
	3.8nm,0.6s,mb4.6,baz=229,slow=3.0,SNR=5.1						
FINES	FINESS Array B	74.49	333	P	P	22 59 48.3	-0.5
	1.4nm,0.8s,mb4.0,baz=124,slow=6.9,SNR=3.4						
KAF	Kangasniemi	74.59	333	*e*p	P	22 59 50.1	+0.7
ARCES	ARCESS Array B	77.25	340	P	P	23 00 05.0	+0.6
	0.9nm,0.8s,mb3.8,baz=90,slow=4.9,SNR=4.8						
GERES	GERESS Array B	79.15	319	P	P	23 00 16.2	+1.0

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	1.0nm,0.6s,mb3.9,baz=90,slow=6.7,SNR=4.0						
HFS	Hagfors	80.16	330	P	P	23 00 20.9	+0.6
	1.0nm,0.5s,mb4.0,baz=101,slow=7.3,SNR=4.6						
RPZ	Rata Peaks	84.85	135	LR	LR	23 38 00.6	
	comp=Z,375nm,18.0s,MS4.8,baz=260,slow=35						

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*IDC **26** 22:51:37.5±1.3, 3.94N×94.10E, h22^{km}±3^{km}, mb3.8/7, mb1 4.0/7, mb1mx3.7/17, Error ellipse: s-maj=60.9km s-min=15.6km az=56.0*

*NEIC **26** 22:51:37.5±0.8, 3.88N×94.06E, Error ellipse: s-maj=37.7km s-min=10.3km az=54.0*

ISC 26 22:51:35.7±1.1**, 3.9N**±0.2×**94.1E**±0.3**, h22^{km}, h22^{km}**±1.2^{km}**:pP-P, n11, σ0^{s}.78**/11**, mb4.0**/10**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	25.80	354	eP	P	22 57 08.6	+1.5
	3.4nm,0.5s,mb4.1						
SONM	Songino Array	45.03	12	P	P	22 59 51.2	-0.3
	1.2nm,0.8s,mb3.8,baz=193,slow=7.1,SNR=4.7						
SONM				sP	sP	23 00 00.9	-0.1
	1.5nm,0.9s,baz=197,slow=8.9,SNR=4.4						
WRA	Warramunga Arr	46.09	122	P	P	23 00 00.2	-0.2
	2.0nm,0.9s,mb4.0,baz=299,slow=9.2,SNR=5.9						
WRA				pP	pP	23 00 07.5	+0.5
	2.1nm,0.5s,baz=299,slow=9.1,SNR=7.9						
WRA				sP	sP	23 00 10.0	+0.2
	2.7nm,0.7s,baz=299,slow=9.1,SNR=9.1						
WRAB	Tennant Creek	46.10	122	eP	P	23 00 00.5	+0.2
ASAR	Alice Springs	47.49	127	P	P	23 00 11.4	0.0
	1.0nm,0.8s,mb3.8,baz=298,slow=7.5,SNR=4.2						
ASAR				pP	pP	23 00 18.4	+0.3
	1.3nm,0.7s,baz=299,slow=7.4,SNR=5.4						
ASAR				sP	sP	23 00 20.5	-0.4
	1.0nm,0.6s,baz=296,slow=7.8,SNR=5.5						
ZAL	Zalesovo	50.45	353	P	P	23 00 33.6	-0.1
	0.8nm,0.4s,mb4.1,baz=270,slow=6.1,SNR=3.7						
ZAL				sP	sP	23 00 43.4	+0.1
	1.1nm,0.5s,baz=354,slow=3.7,SNR=3.2						
CHKZ	Chkalovo	53.21	343	eP	P	23 00 54.0	-0.5
	1.7nm,0.4s,mb4.3						
ARU	Arti	59.51	338	eP	P	23 01 37.8	-1.7
	1.4nm,0.7s,mb4.1						
FINES	FINESS Array B	76.18	333	P	P	23 03 23.5	-0.2
	2.8nm,1.0s,mb4.2,baz=117,slow=3.1,SNR=3.4						
ARCES	ARCESS Array B	78.96	341	P	P	23 03 39.1	+0.1
	2.8nm,1.0s,mb4.1,baz=106,slow=6.6,SNR=2.7						
ARCES				pP	pP	23 03 45.4	-0.7
	2.0nm,0.8s,baz=90,slow=6.1,SNR=1.9						
GERES	GERESS Array B	80.75	319	P	P	23 03 50.1	+1.2
	0.1nm,0.4s,mb3.1,baz=127,slow=6.7,SNR=3.7						

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*IDC **26** 22:57:26.7±1.1, 10.23N×91.59E, h28^{km}±6^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.5/17, ML3.4/1, Error ellipse: s-maj=32.5km s-min=22.9km az=46.0*

*NEIC **26** 22:57:26.6±0.8, 10.16N×91.51E, Error ellipse: s-maj=16.9km s-min=13.0km az=71.0*

ISC 26 22:57:24.7±0.9**, 10.2N**±0.1×**91.6E**±0.1**, h29^{km}, h29^{km}**±1.9^{km}**:pP-P, n11, σ0^{s}.84**/10**, mb3.8**/6**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.86	40	P	P	23 00 01.7	+0.2
CMAR	Chiang Mai Arr	10.86	40	Pn	P	23 00 02.1	+0.5
	0.1nm,0.3s,baz=209,slow=9.7,SNR=4.3						
LSA	Lhasa	19.40	359	P	P	23 01 49.7	-1.8
	3.4nm,0.7s						
SONM	Songino Array	39.53	16	P	P	23 04 54.4	-0.4
	1.3nm,0.7s,mb3.7,baz=193,slow=8.0,SNR=10						
SONM				pP	pP	23 05 03.2	-0.2
	1.3nm,0.8s,baz=196,slow=7.9,SNR=8.2						
ZAL	Zalesovo	43.95	354	pP	pP	23 05 38.0	-1.5
	0.7nm,0.4s,baz=8.8,slow=22,SNR=2.5						
CHKZ	Chkalovo	46.50	343	eP	P	23 05 52.6	+1.4
	2.2nm,0.9s,mb4.1						
WRA	Warramunga Arr	51.66	125	P	P	23 06 31.2	-0.2
	1.8nm,0.8s,mb4.0,baz=301,slow=9.5,SNR=9.1						
WRAB	Tennant Creek	51.66	125	eP	P	23 06 31.1	-0.3
ASAR	Alice Springs	53.33	130	P	P	23 06 44.0	+0.1
	0.8nm,0.8s,mb3.7,baz=300,slow=7.6,SNR=4.1						
BRTR	Keskin Array B	59.01	310	P	P	23 07 23.6	-0.7
	0.5nm,0.6s,mb3.7,baz=113,slow=7.3,SNR=3.2						
BRTR				pP	pP	23 07 33.7	+0.4
	0.8nm,0.9s,baz=127,slow=6.2,SNR=3.5						
GERES	GERESS Array B	74.42	318	P	P	23 09 02.9	+1.0
	0.8nm,0.8s,mb3.7,baz=135,slow=3.8,SNR=5.3						
GERES				pP	pP	23 09 10.8	-0.2
	0.5nm,0.8s,baz=90,slow=1.3,SNR=2.8						

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*IDC **26** 22:57:29.8±1.1, 6.04N×93.15E, mb3.9/8, mb1 4.1/9, mb1mx3.9/19, ML3.8/1, Error ellipse: s-maj=43.7km s-min=19.8km az=51.0*

*NEIC **26** 22:57:32.8±0.8, 5.96N×92.91E, h30^{km}, Error ellipse: s-maj=26.5km s-min=14.0km az=58.0*

ISC 26 22:57:31.3±0.8**, 6.0N**±0.1×**93.0E**±0.2**, h30^{km}, n15, σ1^{s}.10**/15**, mb4.1**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.62	25	Pn	P	23 00 45.0	-0.2
	0.2nm,0.3s,baz=235,slow=14,SNR=7.5						
AAK	Ala-Archa	39.97	339	eP	P	23 05 04.5	-0.4
	3.6nm,0.9s,mb4.1						
SONM	Songino Array	43.19	13	P	P	23 05 33.6	+2.4
	0.6nm,0.7s,mb3.4,baz=195,slow=9.6,SNR=3.3						
WRA	Warramunga Arr	48.13	123	P	P	23 06 10.3	-0.7
	1.4nm,0.6s,mb4.2,baz=303,slow=8.7,SNR=18						
WRAB	Tennant Creek	48.14	123	eP	P	23 06 10.6	-0.5
	2.3nm,0.5s,mb4.5						
ZAL	Zalesovo	48.22	353	P	P	23 06 11.2	0.0
	0.5nm,0.4s,mb3.9,baz=309,slow=11,SNR=3.8						
ASAR	Alice Springs	49.62	128	P	P	23 06 23.2	+0.8
	1.0nm,0.6s,mb4.0,baz=303,slow=7.4,SNR=9.6						
BVAR	Borovoye Array	50.38	342	P	P	23 06 27.3	-0.5
	2.0nm,0.8s,mb4.2,baz=153,slow=6.6,SNR=7.5						
CHKZ	Chkalovo	50.88	343	eP	P	23 06 30.8	-0.8
	6.1nm,1.0s,mb4.5						
ARU	Arti	57.16	338	eP	P	23 07 17.0	-0.6
	3.6nm,0.8s,mb4.5						
BRTR	Keskin Array B	62.80	312	P	P	23 07 57.2	+0.7
	1.0nm,1.0s,mb3.9,baz=108,slow=3.9,SNR=3.9						
GERES	GERESS Array B	78.46	319	P	P	23 09 34.4	+3.3
	1.4nm,0.8s,mb3.9,baz=90,slow=4.0,SNR=9.0						
CLL	Collm	79.08	321	eP	P	23 09 32.0	-2.5
CLL	Collm	79.08	321	P	P	23 09 34.0	-0.5
ESDC	Sonseca Array	91.55	310	P	P	23 10 40.5	+3.8
	0.8nm,0.6s,mb4.2,baz=76,slow=6.1,SNR=4.3						

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*BJI **26** 22:59:20.5, 3.08N×94.27E, h12^{km}, mB4.9, mb4.4*

*NEIC **26** 22:59:22.7±0.3, 2.92N×93.89E, Error ellipse: s-maj=10.2km s-min=7.8km az=73.0*

*IDC **26** 22:59:23.0±0.6, 2.94N×93.87E, h27^{km}±2^{km}, mb4.1/13, mb1 4.2/14, mb1mx4.2/19, ML4.5/1, Error ellipse: s-maj=25.6km s-min=11.2km az=48.0*

ISC 26 22:59:20.7±0.5**, 2.93N**±0.08×**93.88E**±0.09**, h27^{km}, h27^{km}**±.4^{km}**:pP-P, n29, σ0^{s}.84**/27**, mb4.4**/21**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	16.21	17	eP	P	23 03 07.1	-1.3
	9.8nm,0.8s						
CMAR	Chiang Mai Arr	16.21	17	Pn	P	23 03 08.0	-0.5
	0.6nm,0.3s,baz=214,slow=11,SNR=15						
LSA	Lhasa	26.75	355	eP	P	23 05 02.2	+1.9
	13nm,0.9s,mb4.5						
ENH	Enshi	30.95	27	eP	pP	23 05 44.5	-1.3
	7.0nm,0.9s						
XAN	Xi'an	33.98	23	P	P	23 06 03.0	-1.4
XAN				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.7						
AAK	Ala-Archa	43.16	339	eP	P	23 07 21.0	+0.1
WRA	Warramunga Arr	45.76	122	P	P	23 07 42.3	+0.2
	comp=Z,9.3nm,0.8s,mb4.8,baz=300,slow=8.9,SNR=19						
WRA				pP	pP	23 07 50.7	+0.5
	comp=Z,7.1nm,0.7s,baz=301,slow=8.7,SNR=12						
WRAB	Tennant Creek	45.76	122	eP	P	23 07 41.8	-0.3
	comp=Z,16nm,0.8s,mb5.0						
WRAB				epP	pP	23 07 49.5	-0.7
SONM	Songino Array	46.02	12	P	P	23 07 44.3	+0.5
	comp=Z,2.1nm,0.7s,mb4.2,baz=192,slow=8.7,SNR=9.9						
SONM				pP	pP	23 07 52.5	+0.7
	comp=Z,6.2nm,0.8s,baz=195,slow=7.2,SNR=17						
ULN	Ulaanbaatar	46.19	12	eP	P	23 07 45.6	+0.6
	comp=Z,3.4nm,0.9s,mb4.3						
ULN				epP	pP	23 07 53.1	0.0
ASAR	Alice Springs	47.08	126	P	P	23 07 52.7	+0.2
	comp=Z,6.4nm,0.7s,mb4.7,baz=295,slow=7.8,SNR=22						
ASAR				pP	pP	23 08 01.4	+0.8
	comp=Z,6.9nm,0.5s,baz=294,slow=7.7,SNR=13						
ASAR				PcP	PcP	23 09 25.0	+0.4
	comp=Z,2.6nm,1.0s,baz=297,slow=3.4,SNR=4.5						
ASAR				pPcP		23 09 33.5	
	comp=Z,1.1nm,0.5s,baz=304,slow=3.0,SNR=4.2						
HIA	Hailar	51.17	22	eP	P	23 08 24.3	+0.7
	comp=Z,7.4nm,0.5s,mb4.9						
HIA				epP	pP	23 08 31.7	-0.2
ZAL	Zalesovo	51.39	353	P	P	23 08 25.4	+0.2
	comp=Z,2.3nm,0.5s,mb4.3,baz=292,slow=6.5,SNR=11						
ZAL				pP	pP	23 08 33.8	+0.4
	comp=Z,3.5nm,0.5s,baz=298,slow=4.2,SNR=7.9						
BVAR	Borovoye Array	53.58	343	P	P	23 08 41.5	-0.1
	comp=Z,2.1nm,0.7s,mb4.2,baz=135,slow=15,SNR=7.2						
BVAR				pP	pP	23 08 49.8	0.0
	comp=Z,2.7nm,0.6s,baz=145,slow=11,SNR=6.4						
CHKZ	Chkalovo	54.08	343	eP	P	23 08 45.4	+0.1
	comp=Z,3.8nm,1.2s,mb4.2						
KMBO	Kilima Mbogo	56.75	267	P	P	23 09 05.6	+0.4
	comp=Z,2.3nm,1.1s,mb4.1,baz=46,slow=11,SNR=5.8						
STKA	Stephens Creek	56.97	131	P	P	23 09 06.8	+0.2
	comp=Z,3.2nm,0.7s,mb4.5,baz=325,slow=5.3,SNR=5.5						
STKA				pP	pP	23 09 14.7	-0.1
	comp=Z,2.9nm,0.6s,baz=302,slow=4.2,SNR=3.5						
ARU	Arti	60.34	338	eP	P	23 09 29.2	-0.4
	comp=Z,2.6nm,0.7s,mb4.4						
MALT	Malatya	61.52	313	eP	P	23 09 37.3	-0.6
	comp=Z,4.4nm,1.0s,mb4.5						
BRTR	Keskin Array B	65.51	313	P	P	23 10 04.1	0.0
	comp=Z,1.6nm,0.7s,mb4.1,baz=128,slow=7.0,SNR=11						
BRTR				pP	pP	23 10 12.6	+0.1
	comp=Z,1.1nm,0.8s,baz=106,slow=3.6,SNR=4.8						
LSZ	Lusaka	67.45	252	P	P	23 10 15.8	-1.1
LBTB	Lobatse	71.70	243	P	P	23 10 42.2	-0.5
AKASG	Malin Array Be	71.88	323	P	P	23 10 42.1	-1.3
	comp=Z,1.3nm,0.7s,mb4.0,baz=95,slow=4.3,SNR=7.2						
AKASG				pP	pP	23 10 51.3	-0.5
	comp=Z,1.3nm,0.7s,baz=89,slow=4.1,SNR=3.5						
FINES	FINESS Array B	76.95	333	P	P	23 11 12.9	+0.6
	comp=Z,0.9nm,0.8s,mb3.8,baz=297,slow=17,SNR=3.9						
FINES				pP	pP	23 11 21.0	+0.1
	comp=Z,3.6nm,1.0s,baz=98,slow=4.5,SNR=2.5						
ARCES	ARCESS Array B	79.81	341	P	P	23 11 28.6	+0.7
	comp=Z,3.5nm,0.8s,mb4.3,baz=22,slow=13,SNR=5.0						
ARCES				pP	pP	23 11 37.3	+0.9
	comp=Z,1.0nm,0.6s,baz=72,slow=3.8,SNR=1.5						
GERES	GERESS Array B	81.34	319	P	P	23 11 38.2	+1.8
	comp=Z,2.2nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=17						
GERES				pP	pP	23 11 46.7	+1.8
	comp=Z,1.5nm,0.5s,baz=106,slow=5.6,SNR=8.9						
GERES				sP	sP	23 11 49.6	+1.9
	comp=Z,2.1nm,0.7s,baz=112,slow=7.2,SNR=8.1						
NB2	NORSAR Subarra	83.89	331	P	P	23 11 46.3	-3.0
	comp=Z,6.6nm,1.4s,mb4.6,baz=91,slow=4.8						
NOA	NORSAR Array B	83.89	331	P	P	23 11 49.5	+0.3
	comp=Z,0.8nm,0.8s,mb3.9,baz=76,slow=7.1,SNR=3.1						
NOA				pP	pP	23 11 58.3	+0.4
	comp=Z,1.2nm,0.8s,baz=100,slow=5.0,SNR=3.1						
TXAR	Lajitas Array	143.78	26	PKP	PKPdf	23 18 55.6	-3.3
	comp=Z,0.2nm,0.5s,baz=225,slow=2.6,SNR=3.6						

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*MOS **26** 23:04:24.9±0.9, 9.32N×92.01E, h33^{km}, mb5.2/31, Error ellipse: s-maj=12.9km s-min=6.5km az=116.0*

*BJI **26** 23:04:24.7, 8.94N×92.00E, h49^{km}, mB5.1, mb4.9, Ms4.5, Msz4.2*

*IDC **26** 23:04:26.8±0.4, 9.36N×92.03E, h29^{km}±2^{km}, mb4.7/25, mb1 4.8/26, mb1mx4.8/26, ML4.4/1, Error ellipse: s-maj=15.5km s-min=8.9km az=55.0*

*NEIC **26** 23:04:26.6±0.2, 9.29N×91.97E, mb5.1/27, Error ellipse: s-maj=5.8km s-min=4.9km az=55.0*

ISC 26 23:04:24.8±0.3**, 9.30N**±0.04×**91.99E**±0.03**, h31^{km}, h31^{km}**±.9^{km}**:pP-P, n229, σ0^{s}.97**/209**, mb5.0**/70**, MS4.3**/4**, 7C-17D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.33	36	eP	P	23 07 07.1	-0.7
	7.2nm,0.7s						
CMAR	Chiang Mai Arr	11.33	36	Pn	P	23 07 08.2	+0.3
	0.8nm,0.3s,baz=233,slow=15,SNR=16						
CMAR				Sn	S	23 09 04.5	-10
	0.5nm,0.3s,baz=234,slow=16,SNR=3.7						
CMAR	Chiang Mai Arr	11.33	36	P	P	23 07 08.2	+0.3
CMAR						23 09 04.5	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
VIS	Vishakhapatnam	11.87	316	eP	P	23 07 12.3	-2.8
	comp=Z,86nm,1.0s						
VIS				eS	S	23 09 10.4	-17
VIS				e		23 09 16.9	
	comp=N,370nm,0.4s						
VIS				e		23 09 17.0	
	comp=E,318nm,0.5s						
TRD	Trivandrum	14.87	268	eP	P	23 07 50.6	-4.3
TRD				e		23 08 08.3	
	comp=Z,66nm,1.6s						
TRD				eS	S	23 10 24.4	-15
HYB	Hyderabad	15.35	303	eP	P	23 08 07.0	+5.9
HYB	Hyderabad	15.35	303	i P	P	23 08 07.0	+5.9
SHL	Shillong	16.18	360	⇑iP	P	23 08 14.7	+3.0
SHL				e		23 08 16.1	
	comp=Z,111nm,0.8s						
MNGI	Mangalore	17.22	284	eP	P	23 08 22.9	-2.0
AKL	Akola	18.36	310	eP	P	23 08 40.0	+1.0
AKL				e		23 08 44.8	
	comp=Z,43nm,1.0s						
ALBI	Allahabad	18.64	330	eP	P	23 08 41.1	-1.2
GOA	Goa	18.77	291	eP	P	23 08 42.7	-1.3
KMI	Kunming	18.77	32	P	P	23 08 44.5	+0.5
KMI				AMB	AMB		
	comp=Z,11nm,0.7s						
PKI	Pulchoki	19.21	342	eP	P	23 08 49.2	+0.1
DMN	Daman	19.34	341	eP	P	23 08 50.6	0.0
	comp=Z,100nm,0.6s						
GUN	Gumba	19.39	344	eP	P	23 08 51.4	+0.2
	comp=Z,102nm,0.7s						
KKN	Kakani	19.45	342	eP	P	23 08 51.9	0.0
	comp=Z,110nm,0.9s						
BHPL	Bhopal	19.66	317	eP	P	23 08 54.4	+0.2
BHPL				e		23 08 55.6	
	comp=Z,33nm,0.6s						
BHPL				eS	S	23 12 23.6	-4.9
QIZ	Qiongzhong	19.82	59	P	P	23 08 56.3	+0.3
POO	Poona	19.83	299	eP	P	23 08 55.6	-0.6
GKN	Gorkha	19.85	341	eP	P	23 08 56.2	-0.2
	comp=Z,90nm,0.5s						
KOLN	Koldanda	20.00	338	eP	P	23 08 57.7	-0.2
	comp=Z,75nm,0.5s						
LSA	Lhasa	20.31	358	eP	P	23 09 01.8	+0.7
	comp=Z,62nm,0.6s						
BOM	Bombay	20.88	299	eP	P	23 09 06.0	-1.0
GYA	Guiyang	22.02	37	⇑iP	P	23 09 19.3	+0.9
GYA				S	S	23 13 17.5	+3.0
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
GYA				AMB	AMB		
	comp=Z,680nm,4.6s						
GYA				LR	LR		
	comp=N,1µm,15.8s,MS4.7						
GYA				LR	LR		
	comp=E,2µm,16.2s,MS4.7						
GYA				LR	LR		
	comp=Z,3µm,16.0s,MS4.8						
NDI	New Delhi	23.76	326	eP	P	23 09 36.9	+1.3
NDI				e		23 09 50.0	
	comp=Z,49nm,0.7s						
CD2	Chengdu	24.14	25	P	P	23 09 40.0	+0.7
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
DDI	Dehra Dun	24.63	330	eP	P	23 09 43.3	-0.7
ENH	Enshi	26.51	36	eP	P	23 10 00.8	-0.8
	comp=Z,65nm,0.8s,mb5.2						
LZH	Lanzhou	28.77	20	eP	P	23 10 22.3	+0.3
LZH				AMB	AMB		
	comp=Z,33nm,1.1s,mb5.0						
WHN	Wuhan	29.70	42	eP	P	23 10 30.3	-0.1
GTA	Gaotai	30.79	12	P	P	23 10 40.8	+0.8
GTA				AP	pP	23 10 50.0	+0.8
GTA				PCP	PcP	23 13 37.8	+0.9
GTA				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.2						
KSH	Kashi	33.32	337	eP	P	23 11 02.8	+0.7
KSH				eAP	pP	23 11 12.0	+0.6
KSH				eXP	sP	23 11 16.3	+0.9
KSH				AMB	AMB		
	comp=Z,130nm,3.3s						
NJ2	Nanjing	33.65	44	eP	P	23 11 05.5	+0.5
NJ2				AP	pP	23 11 14.0	-0.4
NJ2				PP	PP	23 12 17.3	-0.7
NJ2				S	S	23 16 23.0	-1.7
NJ2				AMB	AMB		
	comp=Z,1µm,8.0s						
WMQ	Urumqi	34.59	355	P	P	23 11 14.0	+0.9
WMQ				AMB	AMB		
	comp=Z,24nm,1.2s,mb5.0						
SSE	Sheshan	34.76	47	eP	P	23 11 11.5	-3.1
SSE				AMB	AMB		
	comp=Z,42nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,327nm,12.0s						
TIA	Tai'an	35.21	37	eP	P	23 11 18.8	+0.4
HHC	Hu-ho-hao-te	35.90	26	eP	P	23 11 24.5	+0.3
HHC				AMB	AMB		
	comp=Z,15nm,0.7s,mb5.0						
HHC				AMB	AMB		
	comp=Z,274nm,9.9s						
HHC				LR	LR		
	comp=N,303nm,15.5s,MS4.2						
HHC				LR	LR		
	comp=E,161nm,15.5s,MS4.2						
HHC				LR	LR		
	comp=Z,221nm,17.8s,MS4.0						
AML	Almayashu	36.45	337	P	P	23 11 30.9	+2.1
	SNR=15						
AAK	Ala-Archa	36.58	338	d iP	P	23 11 30.5	+0.6
AAK				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.1						
AAK				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.2						
AAK	Ala-Archa	36.58	338	i Pr	P	23 11 30.5	+0.6
BJT	Baijiatuau	37.41	31	eP	P	23 11 37.9	+1.0
	comp=Z,18nm,0.6s,mb5.1						
BJI	Beijing	37.43	31	P	P	23 11 37.8	+0.7
BJI				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
MKAR	Makanchi Array	38.27	349	i P	P	23 11 44.6	+0.6
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
SONM	Songino Array	40.30	15	P	P	23 12 01.8	+0.9
	comp=Z,21nm,0.8s,mb4.9,baz=198,slow=8.3,SNR=131						
SONM				pP	pP	23 12 10.3	0.0
	comp=Z,6.9nm,0.8s,baz=198,slow=8.1,SNR=6.9						
SONM				PcP	PcP	23 14 05.3	+0.7
	comp=Z,9.5nm,0.8s,baz=207,slow=3.6,SNR=10						
MBWA	Marble Bar	40.73	138	eP	P	23 12 03.9	-0.8
ZAK	Zakamensk	42.01	11	eP	P	23 12 16.0	+1.1
SNY	Shenyang	42.69	35	⇑P	P	23 12 18.8	-1.8
SNY				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
TLY	Talaya	43.33	11	eP	P	23 12 27.5	+1.9
TLY				e		23 12 40.1	
TLY				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
TLY	Talaya	43.33	11	i Pr	P	23 12 27.0	+1.4
ZAL	Zalesovo	44.89	354	P	P	23 12 38.3	+0.1
	comp=Z,13nm,0.5s,mb5.1,baz=304,slow=6.4,SNR=57						
ZAL				pP	pP	23 12 47.7	0.0
	comp=Z,6.2nm,0.6s,baz=293,slow=9.1,SNR=7.9						
ZAL	Zalesovo	44.89	354	P	P	23 12 38.3	+0.1
ZAL				*PP	pP	23 12 47.7	0.0
ZAL				pmax	pmax		
	comp=Z,13nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ZAL	Zalesovo	44.89	354	P	P	23 12 38.3	+0.1
ZAL				pP	pP	23 12 47.7	0.0
CN2	Changchun	45.02	34	eP	P	23 12 39.5	+0.1
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
RYDS	Riyadh	45.66	295	P	P	23 12 46.4	+1.6
NVS	Novosibirsk	45.95	353	eP	P	23 12 45.8	-0.8
NVS				e	pP	23 12 54.9	-1.2
NVS				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.2						
NVS				pmax	pmax		
	comp=N,41nm,1.5s						
HIA	Hailar	46.10	25	eP	P	23 12 48.2	+0.3
	comp=N,9.0nm,0.8s,mb4.8						
MZLS	Mizel	46.92	294	P	P	23 12 56.1	+1.4
KAMS	Al Khamasin	46.97	289	P	P	23 12 55.5	+0.4
BVA0	Borovoye Array	46.98	342	P	P	23 12 54.5	-0.3
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
BVAR	Borovoye Array	46.98	342	P	P	23 12 54.8	+0.1
	comp=Z,16nm,1.0s,mb4.9,baz=143,slow=7.4,SNR=28						
BVAR				pP	pP	23 13 04.1	-0.2
	comp=Z,6.4nm,0.7s,baz=143,slow=7.4,SNR=9.8						
BVAR				PcP	PcP	23 14 27.1	-0.1
	comp=Z,3.8nm,0.7s,baz=135,slow=6.3,SNR=4.0						
BRVK	Borovoye	47.04	342	i Pr	P	23 12 55.2	0.0
CHKZ	Chkalovo	47.48	343	P	P	23 12 59.0	+0.3
CHKZ				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
CHKZ	Chkalovo	47.48	343	eP	P	23 12 59.0	+0.2
	comp=Z,30nm,0.8s,mb5.3						
CHKZ				e	pP	23 13 08.0	-0.2
NWAO	Narrogin (SRO)	48.40	151	P	P	23 13 05.8	-0.3
	comp=Z,22nm,0.6s,mb5.4,baz=312,slow=7.8,SNR=19						
NWAO				pP	pP	23 13 16.2	+0.5
	comp=Z,27nm,0.9s,baz=15,slow=2.5,SNR=5.1						
NWAO	Narrogin (SRO)	48.40	151	P	P	23 13 05.8	-0.3
NWAO				*PP	pP	23 13 16.3	+0.6
NWAO				pmax	pmax		
	comp=Z,22nm,0.6s						
NWAO				pmax	pmax		
	comp=Z,27nm,0.9s						
NWAO	Narrogin (SRO)	48.40	151	eP	P	23 13 06.2	+0.1
AFFS	'Afif	48.89	294	P	P	23 13 11.8	+1.7
ARSS	Ar Rass	49.01	296	P	P	23 13 11.8	+0.9
HILS	Ha'il	50.56	298	P	P	23 13 24.5	+1.7
WRA	Warramunga Arr	50.82	125	P	P	23 13 23.6	-1.3
	comp=Z,4.8nm,0.4s,mb4.8,baz=302,slow=9.0,SNR=73						
WRA				PcP	PcP	23 14 41.5	0.0
	comp=Z,6.1nm,0.6s,baz=311,slow=2.9,SNR=9.5						
WRA	Warramunga Arr	50.82	125	P	P	23 13 23.6	-1.3
WRA						23 14 41.5	
WRA				pmax	pmax		
	comp=Z,5.0nm,0.4s						
WRA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
WRAB	Tennant Creek	50.82	125	⇓eP	P	23 13 22.9	-2.0
WRAB	Tennant Creek	50.82	125	eP	P	23 13 23.3	-1.6
	comp=Z,12nm,0.5s,mb5.1						
WRAB				ePcP	PcP	23 14 41.5	0.0
BOD	Bodaibo	51.30	15	eP	P	23 13 27.0	-1.0
GNI	Garni	51.92	314	P	P	23 13 34.1	+1.1
	comp=Z,23nm,0.8s,mb5.2,baz=282,slow=0.4,SNR=27						
GNI	Garni	51.92	314	P	P	23 13 34.1	+1.1
GNI				pmax	pmax		
	comp=Z,23nm,0.8s						
ASAR	Alice Springs	52.46	129	P	P	23 13 36.1	-1.1
	comp=Z,9.2nm,0.8s,mb4.7,baz=310,slow=7.3,SNR=49						
ASAR				PcP	PcP	23 14 47.8	+0.2
	comp=Z,7.3nm,0.6s,baz=306,slow=3.4,SNR=14						
KBRS	Khaybar	52.52	295	P	P	23 13 39.7	+1.9
SVE	Sverdlovsk	53.31	339	⇓iP	P	23 13 42.5	-0.6
SVE				e		23 13 57.5	
ZEI	Tsey	53.55	317	eP	P	23 13 45.7	+0.7
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ARU	Arti	53.76	338	⇓iP	P	23 13 46.2	-0.2
ARU				e		23 14 51.2	
ARU				ePPP	PPP	23 16 54.7	-3.2
ARU				eS	S	23 21 21.0	+4.0
ARU				e		23 23 29.9	
ARU				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
ARU	Arti	53.76	338	i Pr	P	23 13 46.2	-0.2
UMJS	Umm Lajj	54.20	294	P	P	23 13 52.3	+2.3

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ERZM  Erzurum             54.25 313  i P     P       23 13 50.7 +0.6
KIV   Kislovodsk          54.84 318    P     P       23 13 54.0 -0.5
        comp=Z,219nm,0.9s,SNR=18
KIV   Kislovodsk          54.84 318d iP      P       23 13 54.2 -0.3
KIV                                  pmax    pmax
        comp=Z,37nm,0.9s,mb5.4
KIV   Kislovodsk          54.84 318  i Pr    P       23 13 54.2 -0.3
GOF   Gofitskoye          55.06 319  eP      P       23 13 55.0 -1.1
GOF                                  pmax    pmax
        comp=Z,20nm,1.0s,mb5.1
KMBO  Kilima Mbogo        55.48 262    P     P       23 14 00.6 +1.0
        comp=Z,4.9nm,1.0s,mb4.5,baz=56,slow=9.4,SNR=9.0
KMBO                                 pP      pP      23 14 08.3 -0.9
        comp=Z,8.4nm,1.3s,baz=46,slow=11,SNR=3.7
KMBO                                 PcP     PcP     23 15 00.9 +1.7
        comp=Z,2.1nm,0.8s,baz=68,slow=8.1,SNR=4.3
KMBO  Kilima Mbogo        55.48 262    P     P       23 14 00.6 +1.0
KMBO                                 *PP     pP      23 14 08.3 -0.9
KMBO                                                 23 15 00.9
KMBO                                 pmax    pmax
        comp=Z,5.0nm,1.0s
KMBO                                 pmax    pmax
        comp=Z,8.0nm,1.3s
KMBO                                 pmax    pmax
        comp=Z,2.0nm,0.8s
KMBO  Kilima Mbogo        55.48 262  eP      P       23 14 00.7 +1.1
        comp=Z,6.5nm,1.2s,mb4.5
ELZG  Elazig              55.56 311  i P     P       23 13 59.4 -0.3
MALT  Malatya             55.92 310⇓eP       P       23 14 01.9 -0.4
        comp=Z,18nm,1.0s,mb5.1
GZT   Gaziantep           56.32 309  i P     P       23 14 05.0 -0.3
MKRJ  Makawir             56.59 302    P     P       23 14 08.0 +0.7
DRGI  Dragot              56.81 302    P     P       23 14 09.5 +0.6
ZFRI  Zfri                56.82 300    P     P       23 14 09.5 +0.6
EIL   Elat                56.87 299    P     P       23 14 10.1 +0.7
        comp=Z,17nm,0.7s,mb5.2,baz=41,slow=1.7,SNR=19
EIL   Elat                56.87 299    P     P       23 14 09.9 +0.5
EIL   Elat                56.87 299  eP      P       23 14 09.7 +0.3
        comp=Z,25nm,1.0s,mb5.2
KAHT  Ahir Dag            56.92 309  i P     P       23 14 09.5 -0.1
PRNI  Paran               56.93 300    P     P       23 14 10.5 +0.7
COBT  Iskenderun          57.12 308  i P     P       23 14 11.0  0.0
SLTI  Sal'it              57.22 302    P     P       23 14 12.5 +0.7
HAF   Haifa               57.33 303    P     P       23 14 13.1 +0.6
OFRI  'Ofer               57.33 303    P     P       23 14 13.1 +0.5
ANN   Anapa               58.65 317  eP      pP      23 14 30.3 -1.1
ANN                                  i               23 14 46.5
ANN                                  pmax    pmax
        comp=Z,63nm,1.3s,mb5.5
AVNT  Avonos              58.75 310  i P     P       23 14 19.2 -3.2
MEST  Erdemli             58.79 307  i P     P       23 14 21.7 -1.0
YAK   Yakutsk             59.35  20  eP      P       23 14 24.6 -1.6
YAK                                  pmax    pmax
        comp=Z,16nm,1.0s,mb5.0
YAK                                  pmax    pmax
        comp=N,9.0nm,1.2s
YAK                                  pmax    pmax
        comp=E,6.0nm,1.2s
BOYT  Boyabat             59.39 313  i P     P       23 14 25.8 -1.0
BRTR  Keskin Array B      59.89 311    P     P       23 14 28.8 -1.5
        comp=E,16nm,0.7s,mb5.1,baz=123,slow=7.7,SNR=91
BRTR                                 pP      pP      23 14 38.8 -1.3
        comp=E,4.7nm,0.8s,baz=100,slow=7.5,SNR=6.4
BRTR  Keskin Array B      59.89 311    P     P       23 14 28.8 -1.4
BRTR                                 *PP     pP      23 14 38.8 -1.3
BRTR                                 pmax    pmax
        comp=Z,16nm,0.7s
BRTR                                 pmax    pmax
        comp=Z,5.0nm,0.8s
ELDT  Eldivan             60.23 311  i P     P       23 14 31.4 -1.1
BALT  Daday               60.52 313  i P     P       23 14 28.6 -5.9
CTA   Charters Tower      60.86 119    P     P       23 14 36.4 -0.7
        comp=Z,12nm,0.8s,mb5.0,baz=303,slow=8.4,SNR=8.7
CTA                                  pP      pP      23 14 45.8 -1.1
        comp=Z,10nm,1.0s,baz=267,slow=11,SNR=3.3
CTA   Charters Tower      60.86 119    P     P       23 14 36.4 -0.7
CTA                                  *PP     pP      23 14 45.8 -1.1
CTA                                  pmax    pmax
        comp=Z,12nm,0.9s
CTA                                  pmax    pmax
        comp=Z,10.0nm,1.0s
CTA   Charters Tower      60.86 119    P     P       23 14 36.4 -0.7
CTA                                  pP      pP      23 14 45.8 -1.1
CTAO  Charters Tower      60.86 119  eP      P       23 14 37.1  0.0
SIM   Simferopol'         60.94 317  eP      P       23 14 36.0 -1.3
SGKT  Sivrigoynuk         61.27 311  i P     P       23 14 38.6 -0.9
MBAR  Mbarara             61.76 264d iP      P       23 14 43.3  0.0
MBAR  Mbarara             61.76 264  eP      P       23 14 43.6 +0.3
ISP   Isparta             61.89 308d iP      P       23 14 42.4 -1.4
ISP   Isparta             61.89 308  eP      P       23 14 42.5 -1.3
        comp=Z,24nm,1.0s,mb5.3
ESKT  Eskisehir           61.95 310  i P     P       23 14 42.4 -1.9
STKA  Stephens Creek      62.63 133    P     P       23 14 48.8  0.0
        comp=Z,19nm,0.6s,mb5.4,baz=311,slow=5.7,SNR=48
STKA  Stephens Creek      62.63 133  eP      P       23 14 48.5 -0.4
MOS   Moscow              62.76 329  eP      P       23 14 47.2 -2.2
MOS                                  pmax    pmax
        comp=Z,55nm,1.6s,mb5.4
OBN   Obninsk             63.05 328c iP      P       23 14 50.5 -0.7
OBN                                  e               23 15 28.7
OBN                                  e               23 17 08.8
OBN                                  pmax    pmax
        comp=Z,100nm,14.7s
OBN                                  MLR     MLR
        comp=Z,100nm,15.0s,MS4.1
OBN   Obninsk             63.05 328⇑iP       P       23 14 50.5 -0.7
KIS   Kishinev            65.04 318  eP      P       23 15 00.0 -4.4
AKASG Malin Array Be      65.72 322    P     P       23 15 07.0 -1.7
        comp=Z,4.5nm,0.8s,mb4.6,baz=87,slow=4.7,SNR=19
AKASG                                pP      pP      23 15 16.4 -2.2
        comp=Z,0.7nm,0.5s,baz=88,slow=5.1,SNR=4.6
AKASG Malin Array Be      65.72 322    P     P       23 15 07.0 -1.7
AKASG                                *PP     pP      23 15 16.4 -2.1
AKASG                                pmax    pmax
        comp=Z,5.0nm,0.8s
AKASG                                pmax    pmax
        comp=Z,1.0nm,0.5s
IDI   Anoyia              66.01 304    P     P       23 15 10.7 -0.1
        comp=Z,12nm,0.6s,mb5.1,baz=87,slow=9.3,SNR=10
VRI   Vrincioaia          66.20 316⇓iP       P       23 15 11.5 -0.4
TIXI  Tiksi               66.28  12⇓eP       P       23 15 11.2 -0.7
TIXI                                 pmax    pmax
        comp=Z,46nm,1.2s,mb5.4
LSZ   Lusaka              67.75 249  eP      P       23 15 22.5 +0.3
        comp=Z,10nm,1.0s,mb4.8
KWP   Kalwaria            69.57 320  eP      P       23 15 32.6 -0.3
KOLS  Kolonicke sedl      69.73 319  eP      P       23 15 33.7 -0.2
SUW   Suwalki             70.11 324  eP      P       23 15 34.9 -1.2
CRVS  Cervenica-Dubn      70.26 319  eP      P       23 15 37.0 -0.1
CRVS                                 ePP     PP      23 18 02.1  -12
FINES FINESS Array B      70.47 332    P     P       23 15 37.6 -0.5
        comp=Z,5.1nm,0.6s,mb4.6,baz=93,slow=5.6,SNR=33
FINES                                pP      pP      23 15 47.8 -0.2
        comp=Z,2.8nm,0.6s,baz=104,slow=7.9,SNR=3.7
FINES FINESS Array B      70.47 332    P     P       23 15 37.6 -0.5
FINES                                *PP     pP      23 15 47.8 -0.1
FINES                                pmax    pmax
        comp=Z,5.0nm,0.6s
FINES                                pmax    pmax
        comp=Z,3.0nm,0.6s
KAF   Kangasniemi         70.56 333  ep      P       23 15 38.2 -0.5
        comp=Z,3.3nm,0.5s,mb4.5
KAF   Kangasniemi         70.56 333  eP      P       23 15 38.2 -0.5
KAF                                  pmax    pmax
        comp=Z,3.0nm,0.5s,mb4.5
KECS  Kecovo              70.84 318  eP      pP      23 15 47.2 -3.3
KECS  Kecovo              70.84 318  epP     pP      23 15 47.2 -3.3
OJC   Ojcow               71.52 320  eP      P       23 15 43.8 -0.9
VYHS  Vyhne               71.93 318  eP      P       23 15 46.8 -0.4
OKC   Ostrava-Krasne      72.53 319  eP      P       23 15 49.6 -1.1
OKC                                  epP     pP      23 15 58.8 -1.8
KEV   Kevo                72.80 341  ep      P       23 15 51.4 -0.5
MORC  Moravsky Berou      72.91 319  eP      P       23 15 51.5 -1.4
ZST   Bratislava          73.05 318  eP      P       23 15 50.4 -3.4
ZST                                  e               23 15 53.7
LBTB  Lobatse             73.07 240  eP      P       23 15 55.0 +0.6
        comp=Z,23nm,1.3s,mb5.0
LBTB                                 e       pP      23 16 05.2 +1.0
ARCES ARCESS Array B      73.21 340    P     P       23 15 54.5 +0.1
        comp=Z,5.4nm,0.7s,mb4.6,baz=95,slow=5.0,SNR=16
ARCES                                pP      pP      23 16 02.6 -1.6
        comp=Z,6.2nm,0.8s,baz=90,slow=4.9,SNR=4.8
ARCES ARCESS Array B      73.21 340    P     P       23 15 54.5 +0.2
ARCES                                *PP     pP      23 16 02.6 -1.6
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ARCES                                pmax    pmax
        comp=Z,5.0nm,0.7s
ARCES                                pmax    pmax
        comp=Z,6.0nm,0.9s
DPC   Dobruska-Polom      73.75 320  eP      P       23 15 57.9 +0.1
KSP   Ksiaz               73.81 320⇓eP       P       23 15 58.1 -0.1
KSP                                  epP     pP      23 16 07.1 -0.9
KSP   Ksiaz               73.81 320  eP      P       23 15 58.1 -0.1
UPC   Upice               73.96 320  eP      P       23 15 59.3 +0.3
UPC                                  epP     pP      23 16 08.8 -0.1
ARSA  Arzberg             74.04 316⇓iP       P       23 15 59.4 -0.2
        comp=Z,8.2nm,0.9s,mb4.7
BOSA  Boshof              74.55 237  eP      P       23 16 03.5 +0.6
        comp=Z,22nm,1.0s,mb5.0
PRU   Pruhonice           74.86 319  eP      P       23 16 04.1 -0.2
PRU                                  epP     pP      23 16 14.6 +0.4
BRG   Berggiesshubel      75.30 320  i P     P       23 16 07.1 +0.4
BRG                                  pmax    pmax
        comp=Z,12nm,0.6s,mb5.0
BRG   Berggiesshubel      75.30 320  i P     P       23 16 07.1 +0.4
        comp=Z,12nm,0.6s,mb5.0
GERES GERESS Array B      75.35 318    P     P       23 16 07.1  0.0
        comp=Z,7.6nm,0.8s,mb4.7,baz=89,slow=5.6,SNR=60
GERES                                pP      pP      23 16 17.9 +0.9
        comp=Z,3.8nm,0.8s,baz=90,slow=5.3,SNR=7.7
GERES GERESS Array B      75.35 318    P     P       23 16 07.1  0.0
GERES                                *PP     pP      23 16 17.9 +0.9
GERES                                pmax    pmax
        comp=Z,8.0nm,0.8s
GERES                                pmax    pmax
        comp=Z,4.0nm,0.8s
KHC   Kasperske Hory      75.44 318  eP      P       23 16 07.1 -0.5
KHC                                  epP     pP      23 16 16.9 -0.6
BILL  Bilibino            75.56  22⇓eP       P       23 16 07.7 -0.2
BILL                                 pmax    pmax
        comp=Z,12nm,1.2s,mb4.7
BILL  Bilibino            75.56  22⇓eP       P       23 16 07.8 -0.1
CLL   Collm               75.92 321  i P     P       23 16 09.9 -0.3
        comp=Z,25nm,1.5s,mb4.9
CLL   Collm               75.92 321    P     P       23 16 09.9 -0.3
        comp=Z,logA/T=1.2,mb4.9
HFS   Hagfors             76.16 330    P     P       23 16 11.2 -0.2
        comp=Z,6.1nm,0.7s,mb4.7,baz=104,slow=6.1,SNR=23
HFS                                  pP      pP      23 16 21.4  0.0
        comp=Z,5.2nm,0.8s,baz=108,slow=4.7,SNR=4.4
HFS   Hagfors             76.16 330    P     P       23 16 11.2 -0.2
HFS                                  *PP     pP      23 16 21.4  0.0
HFS                                  pmax    pmax
        comp=Z,6.0nm,0.7s
HFS                                  pmax    pmax
        comp=Z,5.0nm,0.8s
NKC   Novy Kostel         76.22 319  eP      P       23 16 12.1 +0.1
NKC                                  epP     pP      23 16 21.6 -0.3
WATA  Walderalm           76.73 316⇓iP       P       23 16 14.0 -0.9
        comp=Z,6.8nm,0.8s,mb4.6
MOX   Moxa                76.77 320  i P     P       23 16 14.9 -0.1
MOX   Moxa                76.77 320  eP      P       23 16 14.9 -0.1
SQTA  Sankt Quirin        76.98 316⇑iP       P       23 16 15.8 -0.5
        comp=Z,12nm,0.7s,mb4.9
GRA1  Grafenberg Arr      77.00 319  eP      P       23 16 17.1 +0.8
        comp=Z,26nm,1.1s,mb5.1
GRA1                                 epP     pP      23 16 31.4 +5.1
GRF   Grafenberg Arr      77.00 319  eP      P       23 16 17.1 +0.8
GRF                                  e*PP    pP      23 16 31.4 +5.1
GRF                                  pmax    pmax
        comp=Z,26nm,1.1s,mb5.1
GRF   Grafenberg Arr      77.00 319  eP      P       23 16 17.1 +0.8
        comp=Z,26nm,1.1s,mb5.1
GRF                                  epP     pP      23 16 31.4 +5.1
MOTA  Moosalm             77.05 316⇑iP       P       23 16 16.1 -0.6
        comp=Z,8.9nm,0.8s,mb4.8
NB2   NORSAR Subarra      77.45 331    P     P       23 16 17.9 -0.7
        comp=Z,2.3nm,0.6s,mb4.3,baz=98,slow=5.0
NOA   NORSAR Array B      77.45 331    P     P       23 16 18.1 -0.5
        comp=Z,4.2nm,0.8s,mb4.4,baz=94,slow=5.5,SNR=11
NOA                                  pP      pP      23 16 28.1 -0.5
        comp=Z,1.9nm,0.7s,baz=94,slow=5.6,SNR=3.7
NOA   NORSAR Array B      77.45 331    P     P       23 16 18.1 -0.5
NOA                                  *PP     pP      23 16 28.1 -0.4
NOA                                  pmax    pmax
        comp=Z,4.0nm,0.8s
NOA                                  pmax    pmax
        comp=Z,2.0nm,0.7s
DAVA  Damuels             77.89 316⇓iP       P       23 16 21.1 -0.2
        comp=Z,18nm,0.8s,mb5.1
SUR   Sutherland          79.40 235  eP      P       23 16 31.9 +2.1
MAW   Mawson              79.50 191    P     P       23 16 31.5 +1.8
        comp=Z,6.8nm,0.7s,mb4.7,baz=11,slow=5.0,SNR=10
MAW                                  pP      pP      23 16 39.9 +0.2
        comp=Z,5.7nm,0.9s,baz=294,slow=4.7,SNR=5.1
MAW   Mawson              79.50 191    P     P       23 16 31.5 +1.8
MAW                                  *PP     pP      23 16 39.9 +0.2
MAW                                  pmax    pmax
        comp=Z,7.0nm,0.7s
MAW                                  pmax    pmax
        comp=Z,6.0nm,0.9s
LPG   La Plagne           80.11 315⇓iP       P       23 16 33.8 +0.4
        comp=Z,38nm,0.9s,mb5.0
ESDC  Sonseca Array       88.67 310    P     P       23 17 17.6 +0.9
        comp=Z,4.3nm,0.7s,mb4.9,baz=64,slow=4.1,SNR=19
IMA   Indian Mountai      91.11  22  eP      P       23 17 29.5 +2.1
        comp=Z,36nm,0.6s,mb5.9
MCK   McKinley            94.00  23  eP      P       23 17 41.4 +0.7
        comp=Z,5.0nm,1.0s,mb4.9
MCK                                  e       pP      23 17 53.1 +2.3
ILAR  Eielson Array       94.22  22    P     P       23 17 42.0 +0.2
        comp=Z,4.4nm,0.7s,mb5.0,baz=303,slow=4.2,SNR=47
ILAR                                 pP      pP      23 17 51.9  0.0
        comp=Z,2.2nm,0.7s,baz=298,slow=4.8,SNR=7.4
ILAR                                 PP      PP      23 21 22.4 -9.0
        comp=Z,0.5nm,0.8s,baz=303,slow=7.8,SNR=4.8
ILAR  Eielson Array       94.22  22    P     P       23 17 42.0 +0.3
ILAR                                 *PP     pP      23 17 51.9  0.0
ILAR                                 pmax    pmax
        comp=Z,4.0nm,0.7s
ILAR                                 pmax    pmax
        comp=Z,2.0nm,0.7s
ILAR                                 pmax    pmax
        comp=Z,1.0nm,0.8s
VNDA  Vanda               94.75 168    P     P       23 17 45.2 +1.3
        comp=Z,1.2nm,0.8s,mb4.4,baz=293,slow=6.7,SNR=8.5
VNDA  Vanda               94.75 168    P     P       23 17 45.2 +1.3
VNDA                                 pmax    pmax
        comp=Z,1.0nm,0.8s
VNDA  Vanda               94.75 168    P     P       23 17 45.2 +1.3
DBIC  Dimbokro            95.64 278    P     P       23 17 51.1 +1.6
        comp=Z,5.9nm,0.8s,mb5.1,baz=73,slow=5.5,SNR=8.6
DBIC  Dimbokro            95.64 278    P     P       23 17 51.1 +1.6
DBIC                                 pmax    pmax
        comp=Z,6.0nm,0.8s
INK   Inuvik              96.21  15    P     P       23 17 51.8 +1.0
        comp=Z,8.2nm,0.7s,mb5.3,baz=345,slow=5.2,SNR=44
INK                                  pP      pP      23 18 01.4 +0.5
        comp=Z,3.1nm,0.7s,baz=280,slow=14,SNR=4.5
INK   Inuvik              96.21  15    P     P       23 17 51.8 +1.0
INK                                  *PP     pP      23 18 01.4 +0.5
INK                                  pmax    pmax
        comp=Z,8.0nm,0.7s
INK                                  pmax    pmax
        comp=Z,3.0nm,0.7s
YKA   Yellowknife Ar     105.53  12  Pdiff   Pdif    23 18 33.2 +0.8
        comp=Z,0.3nm,0.7s,baz=332,slow=4.9,SNR=6.1
YKA                                  PP      PP      23 22 51.4 -6.1
        comp=Z,1.4nm,0.8s,baz=334,slow=7.8,SNR=12
YKA   Yellowknife Ar     105.53  12  P       Pdif    23 18 33.2 +0.7
YKA                                                  23 22 51.4
YKA                                  pmax    pmax
        comp=Z,1.0nm,0.8s
YKA   Yellowknife Ar     105.53  12  Pdif    Pdif    23 18 33.2 +0.8
YKA                                  PP      PP      23 22 51.4 -6.1
MSO   Missoula           119.53  20  ePKPdf  PKPdf   23 23 13.3 -3.6
ULM   Lac du Bonnet      120.31   6  PKP     PKPdf   23 23 13.8 -4.5
        comp=Z,0.9nm,0.5s,baz=355,slow=4.0,SNR=3.9
HLID  Hailey             122.17  22  ePKPdf  PKPdf   23 23 19.7 -2.4
PDAR  Pinedale Array     124.58  19  PKP     PKPdf   23 23 23.2 -3.6
        comp=Z,1.6nm,0.5s,baz=27,slow=3.3,SNR=9.1
PDAR                                 pPKP            23 23 32.8
        comp=Z,2.5nm,1.0s,baz=45,slow=2.1,SNR=3.2
NVAR  Mina Array Bea     124.75  29  PKP     PKPdf   23 23 25.6 -1.7
        comp=Z,5.3nm,0.7s,baz=293,slow=2.0,SNR=18
NVAR                                 pPKP            23 23 34.6
        comp=Z,3.5nm,0.9s,baz=317,slow=3.3,SNR=4.3
MSU   Marysvale          127.37  24  ePKPdf  PKPdf   23 23 30.8 -1.5
NEN   Nelson             128.63  28  ePKPdf  PKPdf   23 23 32.5 -2.3
ANMO  Albuquerque        132.66  21  PKP     PKPdf   23 23 40.0 -2.6
        comp=Z,1.9nm,0.6s,baz=301,slow=1.1,SNR=9.4
```

```
ANMO  Albuquerque        132.66  21  PKP     PKPdf   23 23 40.0 -2.6
TXAR  Lajitas Array      138.74  21  PKhKP           23 23 42.3
        comp=Z,0.5nm,0.5s,baz=196,slow=1.3,SNR=8.7
TXAR                                 PKP     PKPdf   23 23 50.0 -3.8
        comp=Z,1.2nm,0.5s,baz=119,SNR=9.8
TXAR                                 PP      PP      23 26 37.9 -6.3
        comp=Z,0.7nm,0.9s,baz=31,slow=7.3,SNR=3.4
JCT   Junction City      138.86  16  ePKPdf  PKPdf   23 23 51.0 -3.1
BDFB  Brasilia           140.49 257  PKhKP           23 23 49.1
        comp=Z,3.0nm,1.0s,baz=284,slow=3.6,SNR=3.2
BDFB                                 PKP     PKPdf   23 23 55.5 -1.8
        comp=Z,2.1nm,0.6s,baz=142,slow=7.4,SNR=4.1
BDFB  Brasilia           140.49 257  PKIKP   PKPdf   23 23 49.1 -8.2
BDFB                                                 23 23 55.5
BDFB                                 pmax    pmax
        comp=Z,3.0nm,1.0s
BDFB                                 pmax    pmax
        comp=Z,2.0nm,0.6s
SJG   San Juan           145.25 322  PKPbc   PKPbc   23 24 01.6 +0.9
        comp=Z,17nm,0.9s,baz=45,slow=2.0,SNR=5.7
SJG   San Juan           145.25 322  PKIKP   PKPdf   23 24 01.6 -4.0
SJG                                  pmax    pmax
        comp=Z,17nm,0.9s
SJG   San Juan           145.25 322  PKPbc   PKPbc   23 24 01.6 +0.9
TEIG  Tepich             150.66   1  ePKPbc  PKPdf   23 24 16.7 +2.4
SDV   Santo Domingo      154.98 316  PKPbc   PKPdf   23 24 26.2 +5.6
LVC   Limon Verde        157.40 232  PKPab   PKPab   23 24 53.8 +1.6
        comp=Z,8.7nm,0.7s,baz=78,slow=1.9,SNR=12
LPAZ  La Paz             159.41 248  PKP     PKPdf   23 24 23.9 -2.3
        comp=Z,0.3nm,0.5s,baz=135,slow=3.7,SNR=5.7
LPAZ                                 PKPab   PKPab   23 25 02.0 +1.0
        comp=Z,8.6nm,0.8s,baz=128,slow=3.7,SNR=25
LPAZ  La Paz             159.41 248  ePKPdf  PKPdf   23 24 24.0 -2.1
```

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*IDC **26** 23:09:08.0±1.2, 2.56N×95.98E, mb4.0/9, mb1 4.2/10, mb1mx4.1/18, ML4.2/1, Error ellipse: s-maj=53.6km s-min=22.0km az=52.0*

*BJI **26** 23:09:10.4, 2.37N×96.20E, h40^{km}, mB4.8, mb4.8*

*NEIC **26** 23:09:12.4±0.7, 2.61N×96.10E, h30^{km}, Error ellipse: s-maj=24.3km s-min=10.4km az=54.0*

ISC 26 23:09:10.1±0.8**, 2.5N**±0.1×**96.0E**±0.1**, h30^{km}, n24, σ0^{s}93**/24**, mb4.3**/19**, 1C, Northern Sumatera**

```
Code  Station Name         Δ°   AZ°    Phase ID           Time      Res
                                     Op      ISC        h  m  s     ISC
CMAR  Chiang Mai Arr      16.10  10  Pn      P       23 12 58.5 +2.3
        0.3nm,0.3s,baz=197,slow=11,SNR=15
GYA   Guiyang             25.91  22⇑iP       P       23 14 41.5 -0.1
GYA                                  AMB     AMB
        comp=Z,10.0nm,0.8s,mb4.4
LSA   Lhasa               27.42 351  eP      P       23 14 55.9 +0.5
        comp=Z,8.1nm,0.7s,mb4.4
ENH   Enshi               30.41  23  eP      P       23 15 20.0 -2.3
GTA   Gaotai              36.88   5    P     P       23 16 17.8 -0.2
GTA                                  PP      PP      23 17 41.8 -2.3
GTA                                  AMB     AMB
        comp=Z,14nm,0.9s,mb4.8
HHC   Hu-ho-hao-te        40.66  18  eP      P       23 16 50.3 +0.9
HHC                                  AP      pP      23 16 59.0 +0.6
HHC                                  XP      sP      23 17 02.0 -0.2
HHC                                  PP      PP      23 18 24.5 -1.8
HHC                                  AMB     AMB
        comp=Z,12nm,0.8s,mb4.6
HHC                                  AMB     AMB
        comp=Z,160nm,10.6s
BJT   Baijiatuau          41.57  24  eP      P       23 16 57.3 +0.4
        comp=Z,15nm,0.7s,mb4.7
BJI   Beijing             41.59  24    P     P       23 16 57.5 +0.4
BJI                                  AMB     AMB
        comp=Z,21nm,0.8s,mb4.8
WRA   Warramunga Arr      43.75 122    P     P       23 17 15.0  0.0
        comp=Z,0.9nm,0.4s,mb3.9,baz=299,slow=9.2,SNR=5.1
WRAB  Tennant Creek       43.75 122  eP      P       23 17 14.3 -0.7
AAK   Ala-Archa           44.32 337    P     P       23 17 19.8 +0.4
        comp=Z,1.5nm,0.7s,mb3.8
SONM  Songino Array       46.02  10    P     P       23 17 32.9 +0.1
        comp=Z,5.9nm,0.8s,mb4.6,baz=190,slow=8.8,SNR=23
CN2   Changchun           48.69  28  eP      P       23 17 52.5 -1.3
CN2                                  AMB     AMB
        comp=Z,10.0nm,0.6s,mb5.0
ZAL   Zalesovo            52.07 352    P     P       23 18 19.3 -0.1
        comp=Z,5.8nm,0.6s,mb4.7,baz=298,slow=5.6,SNR=22
BVAR  Borovoye Array      54.62 341    P     P       23 18 38.1 -0.2
        comp=Z,1.8nm,0.7s,mb4.2,baz=141,slow=9.5,SNR=7.0
BRVK  Borovoye            54.68 341  eP      P       23 18 37.8 -0.9
CHKZ  Chkalovo            55.10 342  eP      P       23 18 41.2 -0.6
        comp=Z,4.2nm,0.7s,mb4.6
STKA  Stephens Creek      55.12 132    P     P       23 18 43.5 +1.2
        comp=Z,2.1nm,0.8s,mb4.2,baz=335,slow=14,SNR=3.1
KMBO  Kilima Mbogo        58.85 267    P     P       23 19 17.0 +8.1
        comp=Z,0.9nm,0.7s,mb3.9,baz=88,slow=6.6,SNR=4.0
KMBO  Kilima Mbogo        58.85 267    P     P       23 19 17.0 +8.1
ARU   Arti                61.51 337  eP      P       23 19 25.3 -1.3
        comp=Z,2.5nm,0.7s,mb4.5
BRTR  Keskin Array B      67.34 312    P     P       23 20 04.5 -0.3
        comp=Z,0.4nm,0.5s,mb3.7,baz=121,slow=7.2,SNR=3.5
AKASG Malin Array Be      73.49 322    P     P       23 20 42.0 +0.1
        comp=Z,0.6nm,0.4s,mb3.9,baz=86,slow=5.0,SNR=4.3
GERES GERESS Array B      83.04 319    P     P       23 21 35.8 +1.7
        comp=Z,0.4nm,0.7s,mb3.6,baz=76,slow=5.5,SNR=5.1
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*IDC **26** 23:11:22.5±0.8, 8.35N×93.48E, mb4.1/11, mb1 4.2/12, mb1mx4.1/19, ML4.4/1, Error ellipse: s-maj=40.1km s-min=16.9km az=57.0*

*NEIC **26** 23:11:27.1±0.4, 8.44N×93.58E, h30^{km}, Error ellipse: s-maj=16.6km s-min=9.4km az=61.0*

ISC 26 23:11:24.8±0.6**, 8.32N**±0.08×**93.5E**±0.1**, h30^{km}, n32, σ0^{s}93**/30**, mb4.2**/17**, Nicobar Islands region**

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Code  Station Name         Δ°   AZ°    Phase ID           Time      Res
                                     Op      ISC        h  m  s     ISC
CMAR  Chiang Mai Arr      11.40  27  Pn      P       23 14 10.4 +1.6
        0.7nm,0.3s,baz=213,slow=15,SNR=9.0
PKI   Pulchoki            20.61 339  eP      P       23 16 03.8 -0.5
        55nm,1.2s
DMN   Daman               20.75 339  eP      P       23 16 06.1 +0.3
        23nm,0.8s
GUN   Gumba               20.76 341  eP      P       23 16 06.3 +0.4
        57nm,0.8s
KKN   Kakani              20.85 339  eP      P       23 16 07.2 +0.3
        35nm,1.0s
GKN   Gorkha              21.28 338  eP      P       23 16 11.6 +0.4
        44nm,0.7s,mb4.9
KOLN  Koldanda            21.48 336  eP      P       23 16 13.0 -0.2
        20nm,0.7s,mb4.6
ENH   Enshi               26.49  32    P     P       23 17 00.5 -1.1
AAK   Ala-Archa           38.03 337  eP      P       23 18 41.8 -0.5
        2.3nm,0.8s,mb4.0
SONM  Songino Array       40.88  13    P     P       23 19 06.1 +0.3
        1.5nm,0.6s,mb3.8,baz=195,slow=9.3,SNR=3.8
ULN   Ulaanbaatar         41.06  14  eP      P       23 19 07.1 -0.2
ZAL   Zalesovo            46.02 353    P     P       23 19 48.0 +0.7
        1.4nm,0.4s,mb4.2,baz=306,slow=7.3,SNR=4.0
NWAO  Narrogin (SRO)      46.85 152    P     P       23 19 54.4 +0.2
        10nm,0.6s,mb4.9,baz=130,slow=22,SNR=6.8
NWAO  Narrogin (SRO)      46.85 152    P     P       23 19 54.4 +0.2
BRVK  Borovoye            48.42 341    P     P       23 20 05.3 -0.9
CHKZ  Chkalovo            48.84 342  eP      P       23 20 08.1 -1.4
        2.1nm,0.5s,mb4.4
WRA   Warramunga Arr      49.06 125    P     P       23 20 11.4 -0.3
        1.0nm,0.6s,mb4.1,baz=304,slow=8.5,SNR=10
WRAB  Tennant Creek       49.07 125  eP      P       23 20 11.1 -0.6
        1.7nm,0.5s,mb4.3
ASAR  Alice Springs       50.71 130    P     P       23 20 23.8 -0.4
        1.3nm,0.6s,mb4.0,baz=301,slow=7.2,SNR=8.2
ARU   Arti                55.22 337    P     P       23 20 55.5 -1.7
BRTR  Keskin Array B      61.63 311    P     P       23 21 41.2 -1.1
        1.3nm,1.0s,mb4.0,baz=115,slow=6.9,SNR=4.3
FINES FINESS Array B      72.01 332    P     P       23 22 47.2 -0.4
        0.8nm,0.5s,mb3.9,baz=82,slow=4.2,SNR=9.3
KAF   Kangasniemi         72.09 333  ep      P       23 22 47.9 -0.2
LBTB  Lobatse             73.87 241  eP      P       23 23 02.2 +3.0
        3.0nm,0.8s,mb4.3
MORC  Moravsky Berou      74.60 319  eP      P       23 23 03.3 +0.4
ARCES ARCESS Array B      74.62 340    P     P       23 23 03.1 +0.5
        0.8nm,0.4s,mb4.0,baz=100,slow=5.5,SNR=9.8
GERES GERESS Array B      77.05 318    P     P       23 23 18.3 +1.4
        1.2nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=7.3
NB2   NORSAR Subarra      79.02 331    P     P       23 23 27.2 -0.2
        0.9nm,0.5s,mb4.0,baz=98,slow=4.8
NOA   NORSAR Array B      79.02 331    P     P       23 23 27.4  0.0
        1.3nm,0.8s,mb3.9,baz=95,slow=5.1,SNR=3.4
ILAR  Eielson Array       94.58  22    P     P       23 24 46.2 +2.6
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	0.4nm,0.9s,mb3.9,baz=294,slow=5.4,SNR=4.1						
TXAR	**Lajitas Array**	**139.09**	**23**	PKP	PKPdf	23 30 52.1	-2.4
	0.1nm,0.4s,baz=265,slow=0.9,SNR=4.2						
CPUP	**Villa Florida**	**147.00**	**234**	PKPbc	PKPdf	23 31 08.8	+0.3
	0.0nm,0.4s,baz=247,slow=17,SNR=1.8						

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*IDC **26** 23:13:35.3±0.8, 5.22N×93.33E, h25^{km}±4^{km}, mb3.8/9, mb1 4.0/10, mb1mx3.8/19, ML3.8/1, Error ellipse: s-maj=36.4km s-min=13.9km az=51.0*

*NEIC **26** 23:13:35.3±0.5, 5.22N×93.36E, Error ellipse: s-maj=18.8km s-min=8.8km az=60.0*

ISC 26 23:13:33.3±0.8, 5.2N±0.1×93.4E±0.2, h26^{km}, h26^{km}±1.0^{km}:pP-P, n16, σ0^{s}74/16, mb4.1/13, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.24**	**22**	Pn	**P**	**23 16 55.5**	**-0.3**
	0.2nm,0.3s,baz=219,slow=13,SNR=4.4						
SHL	**Shillong**	**20.29**	**356**	*e*P	**P**	**23 18 15.2**	**+5.1**
	118nm,0.6s						
LSA	**Lhasa**	**24.45**	**355**	*e*P	**P**	**23 18 53.1**	**+1.6**
	9.0nm,0.9s,mb4.2						
SONM	**Songino Array**	**43.91**	**13**	P	**P**	**23 21 40.2**	**+0.4**
	0.6nm,0.6s,mb3.5,baz=194,slow=8.0,SNR=3.6						
SONM				pP	pP	23 21 48.9	+1.5
	0.5nm,0.6s,baz=196,slow=8.2,SNR=3.4						
SONM				PcP	PcP	23 23 25.4	-0.7
	0.5nm,0.6s,baz=200,slow=3.7,SNR=3.9						
WRA	**Warramunga Arr**	**47.40**	**123**	P	**P**	**23 22 08.4**	**+0.5**
	4.7nm,0.7s,mb4.5,baz=301,slow=9.1,SNR=21						
WRA				pP	pP	23 22 15.7	+0.1
	4.8nm,0.8s,baz=301,slow=9.3,SNR=10						
WRAB	**Tennant Creek**	**47.41**	**123**	*e*P	**P**	**23 22 07.5**	**-0.5**
	8.1nm,0.8s,mb4.7						
ASAR	**Alice Springs**	**48.85**	**128**	P	**P**	**23 22 18.6**	**-0.5**
	0.8nm,0.5s,mb4.0,baz=298,slow=7.6,SNR=5.9						
ASAR				pP	pP	23 22 27.4	+0.5
	1.4nm,0.8s,baz=306,slow=7.5,SNR=4.6						
ZAL	**Zalesovo**	**49.08**	**353**	P	**P**	**23 22 20.1**	**-0.3**
	0.8nm,0.5s,mb4.0,baz=253,slow=4.2,SNR=3.9						
ZAL				pP	pP	23 22 27.5	-0.7
	1.0nm,0.5s,baz=281,slow=7.0,SNR=2.7						
ZAL	**Zalesovo**	**49.08**	**353**	P	**P**	**23 22 20.1**	**-0.3**
ZAL				pP	pP	23 22 27.5	-0.7
BVAR	**Borovoye Array**	**51.26**	**342**	P	**P**	**23 22 36.2**	**-0.9**
	1.0nm,0.6s,mb3.9,baz=135,slow=6.3,SNR=4.6						
BRVK	**Borovoye**	**51.32**	**342**	*e*P	**P**	**23 22 37.8**	**+0.2**
	1.3nm,0.6s,mb4.0						
CHKZ	**Chkalovo**	**51.76**	**343**	*e*P	**P**	**23 22 39.6**	**-1.3**
	1.9nm,0.5s,mb4.3						
STKA	**Stephens Creek**	**58.86**	**132**	P	**P**	**23 23 33.1**	**+0.5**
	2.3nm,0.8s,mb4.3,baz=329,slow=14,SNR=3.2						
BRTR	**Keskin Array B**	**63.60**	**312**	P	**P**	**23 24 04.8**	**+0.2**
	0.4nm,0.6s,mb3.6,baz=118,slow=8.0,SNR=4.3						
BRTR				pP	pP	23 24 12.2	-0.3
	0.6nm,0.7s,baz=153,slow=4.9,SNR=3.1						
FINES	**FINESS Array B**	**74.70**	**333**	P	**P**	**23 25 11.8**	**-0.7**
	2.6nm,0.7s,mb4.2,baz=207,slow=4.3,SNR=4.2						
GERES	**GERESS Array B**	**79.30**	**319**	P	**P**	**23 25 39.3**	**+1.0**
	1.0nm,0.7s,mb3.9,baz=104,slow=5.5,SNR=9.2						
GERES				pP	pP	23 25 46.7	+0.3
	1.6nm,0.8s,baz=104,slow=5.5,SNR=8.5						

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*IDC **26** 23:18:10.2±1.8, 6.19N×93.10E, mb3.6/4, mb1 3.9/5, mb1mx3.7/18, ML4.0/1, Error ellipse: s-maj=71.2km s-min=27.6km az=56.0*

*NEIC **26** 23:18:14.7±1.2, 6.14N×93.09E, h30^{km}, Error ellipse: s-maj=53.0km s-min=15.4km az=55.0*

ISC 26 23:18:12.9±1.4, 6.2N±0.3×93.2E±0.4, h30^{km}, n7, σ0^{s}56/7, mb3.7/6, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.45**	**24**	Pn	**P**	**23 21 32.5**	**+8.2**
	0.3nm,0.3s,baz=208,slow=12,SNR=5.3						
SONM	**Songino Array**	**43.02**	**13**	P	**P**	**23 26 11.8**	**+0.3**
	1.1nm,1.2s,mb3.5,baz=180,slow=4.3,SNR=3.3						
WRA	**Warramunga Arr**	**48.11**	**124**	P	**P**	**23 26 51.9**	**-0.5**
	0.9nm,0.5s,mb4.1,baz=304,slow=9.2,SNR=6.7						
WRAB	**Tennant Creek**	**48.11**	**124**	*e*P	**P**	**23 26 51.8**	**-0.6**
	1.5nm,0.6s,mb4.2						
ASAR	**Alice Springs**	**49.61**	**128**	P	**P**	**23 27 05.0**	**+1.0**
	0.5nm,0.5s,mb3.8,baz=299,slow=6.6,SNR=4.2						
CHKZ	**Chkalovo**	**50.78**	**343**	P	**P**	**23 27 12.1**	**-0.4**
	0.4nm,0.6s,mb3.5						
GERES	**GERESS Array B**	**78.44**	**318**	P	**P**	**23 30 12.7**	**+0.2**
	0.2nm,0.7s,mb3.1,baz=51,slow=8.5,SNR=3.7						

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*IDC **26** 23:21:44.8±0.7, 8.65N×93.29E, mb4.1/13, mb1 4.2/14, mb1mx4.1/21, ML4.1/1, Error ellipse: s-maj=32.2km s-min=15.2km az=48.0*

*BJI **26** 23:21:48.4, 8.70N×93.30E, h20^{km}, mb4.3*

*NEIC **26** 23:21:49.4±0.4, 8.70N×93.32E, h30^{km}, Error ellipse: s-maj=17.6km s-min=9.2km az=53.0*

ISC 26 23:21:47.3±0.5, 8.79N±0.09×93.3E±0.1, h30^{km}, n28, σ1^{s}27/28, mb4.2/18, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.05**	**29**	Pn	**P**	**23 24 30.9**	**+4.3**
	0.4nm,0.3s,baz=228,slow=15,SNR=5.6						
SHL	**Shillong**	**16.74**	**355**	*e*P	**P**	**23 25 38.0**	**-3.4**
SHL				*e*S	**S**	**23 28 38.0**	**-7.3**
PKI	**Pulchoki**	**20.12**	**339**	*e*P	**P**	**23 26 17.5**	**-4.2**
	36nm,0.5s						
DMN	**Daman**	**20.26**	**339**	*e*P	**P**	**23 26 19.7**	**-3.5**
	34nm,0.6s						
GUN	**Gumba**	**20.27**	**341**	*e*P	**P**	**23 26 18.5**	**-4.8**
	30nm,0.6s						
KKN	**Kakani**	**20.37**	**339**	*e*P	**P**	**23 26 21.3**	**-3.0**
	26nm,0.7s						
GKN	**Gorkha**	**20.79**	**338**	*e*P	**P**	**23 26 27.0**	**-1.7**
KOLN	**Koldanda**	**20.99**	**335**	*e*P	**P**	**23 26 30.0**	**-0.7**
	18nm,0.4s						
ENH	**Enshi**	**26.17**	**33**	*e*P	**P**	**23 27 21.9**	**+0.7**
	2.2nm,0.5s,mb3.9						
GTA	**Gaotai**	**31.04**	**10**	P	**P**	**23 28 11.8**	**+7.0**
GTA				AP	pP	23 28 16.3	+2.7
GTA				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.4						
AAK	**Ala-Archa**	**37.55**	**337**	*e*P	**P**	**23 29 01.1**	**+0.5**
	comp=Z,2.8nm,0.8s,mb4.0						
SONM	**Songino Array**	**40.45**	**14**	P	**P**	**23 29 24.7**	**-0.1**
	comp=Z,1.4nm,0.8s,mb3.8,baz=200,slow=11,SNR=5.3						
SONM				PcP	PcP	23 31 29.9	+2.0
	comp=Z,0.8nm,0.8s,baz=199,slow=7.1,SNR=2.3						
ZAL	**Zalesovo**	**45.54**	**353**	P	**P**	**23 30 07.5**	**+1.5**
	comp=Z,1.0nm,0.4s,mb4.1,baz=314,slow=10,SNR=4.7						
NWAO	**Narrogin (SRO)**	**47.33**	**152**	P	**P**	**23 30 20.6**	**+0.1**
	comp=Z,11nm,0.8s,mb4.8,baz=283,slow=3.9,SNR=3.1						
CHKZ	**Chkalovo**	**48.35**	**342**	*e*P	**P**	**23 30 28.7**	**+0.5**
	comp=Z,6.7nm,1.2s,mb4.5						
WRA	**Warramunga Arr**	**49.45**	**126**	P	**P**	**23 30 37.0**	**0.0**
	comp=Z,0.7nm,0.5s,mb4.0,baz=302,slow=9.0,SNR=11						
WRA				PcP	PcP	23 31 58.6	-0.6
	comp=Z,0.4nm,0.8s,baz=315,slow=2.7,SNR=2.7						
WRAB	**Tennant Creek**	**49.45**	**126**	*e*P	**P**	**23 30 37.5**	**+0.4**
ASAR	**Alice Springs**	**51.12**	**130**	P	**P**	**23 30 48.8**	**-1.0**
	comp=Z,1.4nm,0.8s,mb4.0,baz=308,slow=7.1,SNR=9.3						
ARU	**Arti**	**54.73**	**337**	*e*P	**P**	**23 31 16.4**	**+0.2**
	comp=Z,2.2nm,0.7s,mb4.3						
KMBO	**Kilima Mbogo**	**56.73**	**263**	P	**P**	**23 31 30.4**	**-0.8**
	comp=Z,1.2nm,0.9s,mb3.9,baz=58,slow=11,SNR=5.4						
BRTR	**Keskin Array B**	**61.22**	**311**	P	**P**	**23 32 01.5**	**-0.4**
	comp=Z,1.6nm,0.8s,mb4.2,baz=122,slow=8.1,SNR=7.3						
STKA	**Stephens Creek**	**61.32**	**134**	P	**P**	**23 32 01.4**	**-1.4**
	comp=Z,3.8nm,1.0s,mb4.5,baz=328,slow=13,SNR=4.1						
IDI	**Anoyia**	**67.39**	**304**	P	**P**	**23 32 42.9**	**+0.6**
	comp=Z,8.5nm,0.8s,mb4.8,baz=152,slow=23,SNR=2.6						
MLR	**Muntele Rosu**	**67.95**	**316**	P	**P**	**23 32 47.2**	**+1.5**
	comp=Z,8.7nm,1.3s,mb4.6,baz=256,slow=6.6,SNR=4.7						
FINES	**FINESS Array B**	**71.53**	**332**	P	**P**	**23 33 09.3**	**+2.1**
	comp=Z,1.1nm,0.9s,mb3.8,baz=135,slow=8.1,SNR=3.8						
ARCES	**ARCESS Array B**	**74.13**	**340**	P	**P**	**23 33 24.8**	**+2.5**
	comp=Z,1.7nm,0.8s,mb4.0,baz=45,slow=8.6,SNR=3.2						
GERES	**GERESS Array B**	**76.61**	**318**	P	**P**	**23 33 37.0**	**+0.2**
	comp=Z,3.5nm,1.1s,mb4.2,baz=90,slow=4.0,SNR=8.9						
TXAR	**Lajitas Array**	**138.71**	**23**	PKhKP		23 41 09.8	
	comp=Z,0.2nm,0.5s,baz=133,slow=2.2,SNR=3.7						

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*IDC **26** 23:21:58.4±0.8, 8.38N×93.73E, mb4.2/12, mb1 4.3/13, mb1mx4.2/19, ML4.4/1, Error ellipse: s-maj=29.8km s-min=18.4km az=51.0*

*NEIC **26** 23:22:02.5±0.4, 8.32N×93.67E, h30^{km}, Error ellipse: s-maj=11.9km s-min=9.6km az=67.0*

ISC 26 23:22:00.8±0.5, 8.37N±0.09×93.8E±0.1, h30^{km}, n25, σ0^{s}87/23, mb4.2/17, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.23**	**26**	Pn	**P**	**23 24 41.3**	**-1.2**
	0.7nm,0.3s,baz=230,slow=14,SNR=7.9						
ENH	**Enshi**	**26.31**	**32**	P	**P**	**23 27 35.2**	**-0.7**
AAK	**Ala-Archa**	**38.10**	**337**	*e*P	**P**	**23 29 18.9**	**+0.1**
	1.5nm,0.5s,mb4.0						
SONM	**Songino Array**	**40.77**	**13**	P	**P**	**23 29 41.4**	**+0.5**
	1.8nm,0.9s,mb3.7,baz=202,slow=8.5,SNR=6.8						
ZAL	**Zalesovo**	**46.01**	**353**	P	**P**	**23 30 24.5**	**+1.2**
	3.5nm,0.5s,mb4.6,baz=300,slow=6.4,SNR=12						
BVAR	**Borovoye Array**	**48.40**	**341**	P	**P**	**23 30 43.2**	**+1.2**
	1.1nm,0.7s,mb4.0,baz=162,slow=9.4,SNR=4.5						
WRA	**Warramunga Arr**	**48.86**	**126**	P	**P**	**23 30 47.1**	**+1.1**
	2.2nm,0.7s,mb4.3,baz=306,slow=8.7,SNR=11						
WRAB	**Tennant Creek**	**48.87**	**126**	P	**P**	**23 30 46.2**	**+0.1**
	4.3nm,0.6s,mb4.7						
CHKZ	**Chkalovo**	**48.89**	**342**	*e*P	**P**	**23 30 45.7**	**-0.1**
	4.5nm,0.7s,mb4.6						
ASAR	**Alice Springs**	**50.53**	**130**	P	**P**	**23 30 58.5**	**-0.3**
	1.6nm,0.6s,mb4.1,baz=304,slow=6.9,SNR=8.9						
KMBO	**Kilima Mbogo**	**57.09**	**263**	P	**P**	**23 31 49.0**	**+1.7**
	1.3nm,0.6s,mb4.1,baz=103,slow=6.7,SNR=4.7						
BRTR	**Keskin Array B**	**61.81**	**311**	P	**P**	**23 32 18.4**	**-1.1**
	1.4nm,0.9s,mb4.1,baz=128,slow=8.0,SNR=4.3						
AKASG	**Malin Array Be**	**67.53**	**322**	P	**P**	**23 32 56.1**	**-0.3**
	1.3nm,0.9s,mb4.0,baz=84,slow=4.2,SNR=5.0						
LSZ	**Lusaka**	**69.07**	**250**	P	**P**	**23 33 05.6**	**-0.9**
FINES	**FINESS Array B**	**72.10**	**332**	P	**P**	**23 33 24.0**	**-0.1**
	3.3nm,0.7s,mb4.4,baz=90,slow=5.7,SNR=9.2						
LBTB	**Lobatse**	**74.14**	**241**	*e*P	**P**	**23 33 34.8**	**-2.0**
	0.9nm,0.5s,mb4.0						
ARCES	**ARCESS Array B**	**74.67**	**340**	P	**P**	**23 33 39.0**	**0.0**
	3.0nm,0.8s,mb4.3,baz=90,slow=8.5,SNR=5.8						
MORC	**Moravsky Berou**	**74.75**	**319**	*e*P	**P**	**23 33 39.4**	**-0.4**
GERES	**GERESS Array B**	**77.20**	**318**	P	**P**	**23 33 54.4**	**+0.7**
	1.0nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=7.0						
HFS	**Hagfors**	**77.84**	**330**	P	**P**	**23 33 57.4**	**+0.5**
	2.0nm,0.6s,mb4.3,baz=104,slow=6.1,SNR=8.4						
NB2	**NORSAR Subarra**	**79.11**	**331**	P	**P**	**23 34 03.6**	**-0.3**
	1.1nm,0.6s,mb4.0,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**79.11**	**331**	P	**P**	**23 34 03.9**	**0.0**
	1.3nm,0.7s,mb4.0,baz=94,slow=5.2,SNR=4.4						
NOA	**NORSAR Array B**	**79.11**	**331**	P	**P**	**23 34 03.9**	**0.0**
PDAR	**Pinedale Array**	**124.85**	**21**	PKP	PKPdf	23 40 59.0	-4.4
	0.3nm,0.7s,baz=90,slow=3.0,SNR=3.5						
TXAR	**Lajitas Array**	**138.93**	**23**	PKhKP		23 41 22.7	
	0.2nm,0.7s,baz=50,slow=1.2,SNR=4.2						

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*BJI **26** 23:23:31.2, 11.21N×92.77E, h46^{km}, mb4.1*

*IDC **26** 23:23:33.3±0.9, 11.68N×92.76E, h21^{km}±3^{km}, mb3.9/15, mb1 4.1/16, mb1mx4.0/23, ML3.9/1, Error ellipse: s-maj=33.6km s-min=17.6km az=42.0*

*NEIC **26** 23:23:33.1±0.6, 11.79N×92.87E, Error ellipse: s-maj=21.4km s-min=13.3km az=55.0*

ISC 26 23:23:31.0±0.6, 11.68N±0.09×92.75E±0.09, h22^{km}, h22^{km}±.7^{km}:pP-P, n29, σ1^{s}28/31, mb4.1/20, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.01**	**41**	Pn	**P**	**23 25 43.4**	**+0.4**
	0.4nm,0.3s,baz=238,slow=15,SNR=3.2						
CMAR				Sn	**Sn**	**23 27 17.0**	**-7.8**
	0.8nm,0.3s,baz=346,slow=30,SNR=5.2						
CMAR	**Chiang Mai Arr**	**9.01**	**41**	Pn	**P**	**23 25 43.4**	**+0.4**
CMAR				Sn	**Sn**	**23 27 17.0**	**-7.8**
VIS	**Vishakhapatnam**	**10.91**	**304**	*e*S	**P**	**23 26 02.3**	**-7.0**
LSA	**Lhasa**	**17.99**	**355**	*e*P	**P**	**23 27 39.9**	**-1.7**
	9.7nm,0.7s						
ENH	**Enshi**	**24.16**	**37**	*e*P	**P**	**23 28 46.4**	**-0.5**
	17nm,0.8s,mb4.5						
LZH	**Lanzhou**	**26.29**	**21**	*e*P	**P**	**23 29 09.5**	**+2.6**
LZH				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.5						
AAK	**Ala-Archa**	**34.69**	**336**	*e*P	**P**	**23 30 19.0**	**-2.4**
	comp=Z,1.1nm,0.5s,mb4.0						
SONM	**Songino Array**	**37.81**	**15**	P	**P**	**23 30 47.8**	**+0.1**
	comp=Z,0.8nm,0.6s,mb3.6,baz=202,slow=7.8,SNR=3.0						
ZAL	**Zalesovo**	**42.62**	**353**	P	**P**	**23 31 28.2**	**+0.8**
	comp=Z,1.0nm,0.7s,mb3.7,baz=290,slow=11,SNR=3.2						
ZAL	**Zalesovo**	**42.62**	**353**	P	**P**	**23 31 28.2**	**+0.8**
CN2	**Changchun**	**42.64**	**35**	*e*P	**P**	**23 31 28.5**	**+0.8**
BVAR	**Borovoye Array**	**44.97**	**341**	P	**P**	**23 31 45.2**	**-1.2**
	comp=Z,1.8nm,1.0s,mb3.9,baz=127,slow=7.4,SNR=3.6						
CHKZ	**Chkalovo**	**45.45**	**342**	*e*P	**P**	**23 31 47.6**	**-2.7**
	comp=Z,4.6nm,0.7s,mb4.4						
GNI	**Garni**	**50.84**	**313**	P	**P**	**23 32 34.0**	**+1.7**
	comp=Z,6.7nm,0.9s,mb4.5,baz=46,slow=0.8,SNR=6.2						
WRA	**Warramunga Arr**	**51.61**	**127**	P	**P**	**23 32 37.5**	**-0.9**
	comp=Z,3.6nm,0.7s,mb4.4,baz=303,slow=9.1,SNR=12						
WRAB	**Tennant Creek**	**51.61**	**127**	*e*P	**P**	**23 32 36.6**	**-1.8**
	comp=Z,4.1nm,0.5s,mb4.6						
ASAR	**Alice Springs**	**53.42**	**131**	P	**P**	**23 32 52.5**	**+0.7**
	comp=Z,0.8nm,0.6s,mb3.8,baz=306,slow=8.0,SNR=4.8						
BRTR	**Keskin Array B**	**58.95**	**309**	P	**P**	**23 33 30.9**	**-0.4**
	comp=Z,1.7nm,0.7s,mb4.2,baz=127,slow=7.9,SNR=7.1						
AKASG	**Malin Array Be**	**64.35**	**321**	P	**P**	**23 34 06.5**	**-0.9**
	comp=Z,0.2nm,0.3s,mb3.6,baz=91,slow=4.0,SNR=6.0						
MLR	**Muntele Rosu**	**65.52**	**315**	P	**P**	**23 34 16.9**	**+1.7**
	comp=Z,7.9nm,1.1s,mb4.7,baz=318,slow=1.3,SNR=4.1						
MLR	**Muntele Rosu**	**65.52**	**315**	P	**P**	**23 34 16.9**	**+1.7**
FINES	**FINESS Array B**	**68.73**	**332**	P	**P**	**23 34 34.8**	**-0.4**
	comp=Z,2.0nm,0.9s,mb4.1,baz=146,slow=6.9,SNR=4.0						
FINES				pP	pP	23 34 41.4	-0.5
	comp=Z,3.6nm,0.8s,baz=90,slow=7.6,SNR=3.3						
LSZ	**Lusaka**	**69.31**	**249**	*e*P	**P**	**23 34 39.5**	**+0.1**
ARCES	**ARCESS Array B**	**71.24**	**340**	P	**P**	**23 34 50.5**	**+0.1**
	comp=Z,4.4nm,1.2s,mb4.3,baz=192,slow=17,SNR=3.6						
ARCES				pP	pP	23 34 58.0	+0.9
	comp=Z,1.7nm,0.8s,baz=76,slow=5.0,SNR=1.6						
GERES	**GERESS Array B**	**74.10**	**318**	P	**P**	**23 35 09.1**	**+1.7**
	comp=Z,1.3nm,0.8s,mb3.9,baz=76,slow=5.5,SNR=6.4						
GERES				pP	pP	23 35 16.1	+1.8
	comp=Z,0.7nm,0.7s,baz=90,slow=5.3,SNR=3.5						
HFS	**Hagfors**	**74.50**	**329**	P	**P**	**23 35 09.6**	**+0.1**
	comp=Z,2.3nm,0.9s,mb4.1,baz=108,slow=4.7,SNR=4.1						
HFS				pP	pP	23 35 16.9	+0.4
	comp=Z,1.4nm,0.7s,baz=90,slow=4.4,SNR=2.0						
NB2	**NORSAR Subarra**	**75.77**	**330**	P	**P**	**23 35 16.5**	**-0.3**
	comp=Z,4.0nm,1.2s,mb4.2,baz=91,slow=5.8						
NOA	**NORSAR Array B**	**75.77**	**330**	P	**P**	**23 35 17.2**	**+0.4**
	comp=Z,0.7nm,0.7s,mb3.7,baz=98,slow=5.6,SNR=2.6						
NOA				pP	pP	23 35 23.2	-0.5
	comp=Z,0.8nm,0.7s,baz=91,slow=5.7,SNR=2.5						
ILAR	**Eielson Array**	**91.75**	**22**	P	**P**	**23 36 40.3**	**+2.3**
	comp=Z,0.3nm,0.8s,mb3.7,baz=300,slow=5.2,SNR=4.7						
ILAR				pP	pP	23 36 47.1	+2.2
	comp=Z,0.4nm,0.8s,baz=305,slow=5.0,SNR=4.1						

IDC 26 23:23:43.9±1.4, 11.61N×93.09E, mb4.1/4, mb1 4.4/5, mb1mx4.0/18, ML4.3/1, Error ellipse: s-maj=38.5km s-min=24.9km az=69.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.85**	**39**	Pn	P	23 25 52.8	-3.2
	1.0nm,0.3s,baz=237,slow=15,SNR=7.1						
CMAR				Sn	Sn	23 27 35.9	-1.8
	0.8nm,0.3s,baz=239,slow=30,SNR=5.6						
SONM	**Songino Array**	**37.80**	**15**	P	P	23 31 01.7	-1.9
	2.7nm,1.2s,baz=199,slow=7.7,SNR=4.4						
WRA	**Warramunga Arr**	**51.30**	**127**	P	P	23 32 50.2	-2.0
	3.8nm,0.7s,baz=304,slow=8.6,SNR=9.5						
ASAR	**Alice Springs**	**53.12**	**131**	P	P	23 33 03.6	-2.3
	2.3nm,0.8s,baz=308,slow=7.1,SNR=7.0						
GERES	**GERESS Array B**	**74.38**	**318**	P	P	23 35 24.0	-1.4
	1.3nm,0.8s,baz=90,slow=5.3,SNR=5.7						

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*BJI **26** 23:29:07.7, 8.66N×92.88E, h29^{km}, mb4.4*

*IDC **26** 23:29:09.7±0.6, 8.92N×92.27E, h29^{km}±3^{km}, mb3.7/14, mb1 3.9/15, mb1mx3.9/21, ML3.7/1, MS4.4/2, Ms1 4.4/2, ms1mx3.5/24, Error ellipse: s-maj=25.5km s-min=13.6km az=49.0*

*NEIC **26** 23:29:09.2±0.5, 8.87N×92.30E, Error ellipse: s-maj=12.3km s-min=11.2km az=84.0*

ISC 26 23:29:07.0±0.6, 8.83N±0.09×92.34E±0.09, h30^{km}, h30^{km}±1.0^{km}:pP-P, n39, σ0^{s}85/34, mb4.1/21, MS4.4/2, 1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.52**	**33**	Pn	**P**	**23 31 52.9**	**+0.2**
	0.1nm,0.3s,baz=227,slow=14,SNR=5.8						
CMAR				Sn	**S**	**23 34 12.4**	**+11**
	0.5nm,0.3s,baz=237,slow=16,SNR=3.2						
PKI	**Pulchoki**	**19.76**	**342**	*e*P	**P**	**23 33 38.7**	**+1.0**
GUN	**Gumba**	**19.93**	**343**	*e*P	**P**	**23 33 39.8**	**+0.1**
	27nm,0.7s						
KKN	**Kakani**	**20.00**	**341**	*e*P	**P**	**23 33 41.2**	**+0.9**
KOLN	**Koldanda**	**20.57**	**337**	*e*P	**P**	**23 33 46.4**	**+0.2**
LSA	**Lhasa**	**20.79**	**357**	*e*P	**P**	**23 33 48.1**	**-0.4**
	7.4nm,0.7s						
GYA	**Guiyang**	**22.18**	**36⇑**	*i*P	**P**	**23 34 02.8**	**+0.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
ENH	**Enshi**	**26.69**	**35**	*e*P	**P**	**23 34 44.4**	**-1.3**
	comp=Z,10nm,0.9s,mb4.4						
AAK	**Ala-Archa**	**37.14**	**338**	*e*P	**P**	**23 36 17.1**	**+0.1**
	comp=Z,3.5nm,0.7s,mb4.3						
SONM	**Songino Array**	**40.66**	**15**	P	**P**	**23 36 46.6**	**+0.3**
	comp=Z,1.3nm,0.7s,mb3.7,baz=200,slow=6.4,SNR=9.1						
SONM				pP	pP	23 36 55.8	+0.6
	comp=Z,2.7nm,0.9s,baz=200,slow=7.3,SNR=12						
ULN	**Ulaanbaatar**	**40.85**	**15**	*e*P	**P**	**23 36 47.9**	**0.0**
ZAL	**Zalesovo**	**45.39**	**354**	P	**P**	**23 37 24.6**	**-0.1**
	comp=Z,0.9nm,0.8s,mb3.7,baz=330,slow=5.6,SNR=4.2						
ZAL				pP	pP	23 37 33.2	-0.3
	comp=Z,1.0nm,0.8s,baz=306,slow=6.6,SNR=3.4						
ZAL	**Zalesovo**	**45.39**	**354**	P	**P**	**23 37 24.6**	**-0.1**
ZAL				pP	pP	23 37 33.2	-0.3
BVAR	**Borovoye Array**	**47.53**	**342**	P	**P**	**23 37 41.5**	**-0.1**
	comp=Z,0.3nm,0.4s,mb3.6,baz=117,slow=6.4,SNR=3.0						
BVAR				pP	pP	23 37 50.3	-0.3
	comp=Z,0.9nm,0.6s,baz=141,slow=9.5,SNR=6.3						
CHKZ	**Chkalovo**	**48.03**	**343**	*e*P	**P**	**23 37 44.2**	**-1.3**
	comp=Z,2.1nm,0.9s,mb4.2						
CHKZ				*e*pP	pP	23 37 52.4	-2.1
WRA	**Warramunga Arr**	**50.26**	**125**	P	**P**	**23 38 02.8**	**-0.3**
	comp=Z,1.6nm,0.7s,mb4.2,baz=308,slow=8.4,SNR=8.8						
WRA				pP	pP	23 38 14.9	+2.7
	comp=Z,0.6nm,0.6s,baz=305,slow=8.6,SNR=4.6						
ASAR	**Alice Springs**	**51.89**	**129**	P	**P**	**23 38 15.7**	**+0.3**
	comp=Z,1.1nm,0.7s,mb3.9,baz=309,slow=6.4,SNR=6.5						
ASAR				pP	pP	23 38 26.5	+2.0
	comp=Z,0.6nm,0.6s,baz=306,slow=6.0,SNR=3.5						
GNI	**Garni**	**52.50**	**314**	*e*P	**P**	**23 38 17.9**	**-1.9**
	comp=Z,2.6nm,0.6s,mb4.3						
ARU	**Arti**	**54.33**	**338**	*e*P	**P**	**23 38 31.3**	**-1.7**
	comp=Z,3.0nm,0.6s,mb4.4						
KMBO	**Kilima Mbogo**	**55.77**	**263**	LR	LR	00 01 29.4	
	comp=Z,237nm,19.7s,MS4.3,baz=285,slow=35						
MALT	**Malatya**	**56.49**	**310**	*e*P	**P**	**23 38 48.3**	**-0.6**
BRTR	**Keskin Array B**	**60.46**	**311**	P	**P**	**23 39 15.8**	**-0.7**
	comp=Z,1.4nm,0.7s,mb4.1,baz=132,slow=7.0,SNR=7.2						
BRTR				pP	pP	23 39 25.1	-0.7
	comp=Z,1.4nm,0.7s,baz=125,slow=6.7,SNR=6.2						
AKASG	**Malin Array Be**	**66.30**	**322**	P	**P**	**23 39 53.5**	**-1.4**
	comp=Z,0.5nm,0.5s,mb3.9,baz=83,slow=4.7,SNR=4.5						
AKASG				pP	pP	23 40 03.1	-1.0
	comp=Z,0.2nm,0.3s,baz=81,slow=4.5,SNR=4.0						
MLR	**Muntele Rosu**	**67.25**	**316**	P	**P**	**23 40 00.8**	**-0.2**
	comp=Z,3.0nm,0.7s,mb4.5,baz=112,slow=5.9,SNR=6.4						
MLR				pP	pP	23 40 11.3	+1.1
	comp=Z,4.0nm,0.8s,baz=190,slow=5.1,SNR=4.3						
MLR	**Muntele Rosu**	**67.25**	**316**	P	**P**	**23 40 00.8**	**-0.2**
MLR				pP	pP	23 40 11.3	+1.1
FINES	**FINESS Array B**	**71.04**	**332**	P	**P**	**23 40 24.8**	**+0.7**
	comp=Z,1.0nm,0.7s,mb3.9,baz=90,slow=5.7,SNR=5.2						
FINES				pP	pP	23 40 32.5	-0.9
	comp=Z,1.2nm,0.5s,baz=104,slow=7.6,SNR=2.0						
KAF	**Kangasniemi**	**71.13**	**333**	*e*p	pP	23 40 33.6	-0.3
LBTB	**Lobatse**	**73.15**	**241**	*e*P	**P**	**23 40 37.2**	**-0.1**
ARCES	**ARCESS Array B**	**73.77**	**340**	P	**P**	**23 40 41.8**	**+1.8**
	comp=Z,1.1nm,0.7s,mb3.9,baz=117,slow=2.7,SNR=3.6						
ARCES				pP	pP	23 40 49.6	+0.3
	comp=Z,1.5nm,0.6s,baz=79,slow=6.2,SNR=2.2						
BRG	**Berggiesshubel**	**75.88**	**320**	*e*P	pP	23 41 02.9	+1.0
GERES	**GERESS Array B**	**75.93**	**318**	P	**P**	**23 40 53.6**	**+0.8**
	comp=Z,5.0nm,1.1s,mb4.3,baz=90,slow=5.3,SNR=11						
GERES				pP	pP	23 41 02.3	+0.1
	comp=Z,1.8nm,0.6s,baz=87,slow=6.0,SNR=11						
KHC	**Kasperske Hory**	**76.02**	**318**	*e*P	**P**	**23 40 54.0**	**+0.6**
KHC				*e*pP	pP	23 41 03.0	+0.3
HFS	**Hagfors**	**76.74**	**330**	P	**P**	**23 40 57.1**	**-0.1**
	comp=Z,1.2nm,0.5s,mb4.1,baz=98,slow=10,SNR=3.8						
HFS				pP	pP	23 41 06.2	-0.3
	comp=Z,0.9nm,0.5s,baz=106,slow=11,SNR=2.3						
NOA	**NORSAR Array B**	**78.03**	**331**	P	**P**	**23 41 04.2**	**0.0**
	comp=Z,0.9nm,0.8s,mb3.8,baz=100,slow=5.0,SNR=2.8						
NOA				pP	pP	23 41 13.8	+0.2
	comp=Z,0.6nm,0.6s,baz=94,slow=5.7,SNR=2.5						
LPL	**La Plagne**	**80.70**	**315**	*e*P	**P**	**23 41 19.8**	**+0.8**
	comp=Z,14nm,0.7s,mb4.7						
JMIC	**Jan Mayen**	**85.23**	**341**	LR	LR	00 24 15.7	
	comp=Z,215nm,18.3s,MS4.6,baz=23,slow=39						
ESDC	**Sonseca Array**	**89.24**	**310**	P	**P**	**23 42 03.8**	**+1.9**
	comp=Z,0.5nm,0.6s,mb4.0,baz=70,slow=5.0,SNR=4.4						
ESDC				pP	pP	23 42 12.6	+1.2
	comp=Z,0.4nm,0.5s,baz=57,slow=4.8,SNR=3.3						
TXAR	**Lajitas Array**	**139.04**	**22**	PKP	PKPdf	23 48 35.4	-1.3
	comp=Z,0.4nm,1.0s,baz=90,slow=1.3,SNR=3.2						
TXAR				pPKP		23 48 44.5	
	comp=Z,0.2nm,0.6s,baz=205,slow=0.5,SNR=3.4						
CPUP	**Villa Florida**	**146.39**	**235**	PKPbc	PKPbc	23 48 49.2	+3.4
	comp=Z,0.0nm,0.3s,baz=64,slow=20,SNR=1.9						

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*IDC **26** 23:31:45.7±0.4, 9.04N×92.35E, h29^{km}±2^{km}, mb4.3/23, mb1 4.4/24, mb1mx4.4/27, ML4.4/1, MS4.2/9, Ms1 4.2/9, ms1mx3.9/25, Error ellipse: s-maj=21.1km s-min=9.4km az=48.0*

*NEIC **26** 23:31:45.6±0.2, 9.02N×92.38E, Error ellipse: s-maj=7.3km s-min=5.3km az=52.0*

*BJI **26** 23:31:45.3, 9.24N×92.03E, h22^{km}, mB5.0, mb4.8, Ms4.5, Msz4.3*

ISC 26 23:31:43.8±0.3, 8.92N±0.05×92.24E±0.05, h30^{km}, h30^{km}±.7^{km}:pP-P, n102, σ0^{s}98/100, mb4.6/43, MS4.4/11, 5C-1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.50**	**34**	*e*P	**P**	**23 34 25.2**	**-4.0**
CMAR	**Chiang Mai Arr**	**11.50**	**34**	Pn	**P**	**23 34 29.6**	**+0.4**
	0.8nm,0.3s,baz=229,slow=14,SNR=13						
CMAR				Sn	**S**	**23 36 28.9**	**-8.7**
	1.0nm,0.3s,baz=220,slow=14,SNR=3.9						
CMAR				LR	LR	23 39 12.6	
	comp=Z,208nm,20.1s,baz=215,slow=39						
VIS	**Vishakhapatnam**	**12.31**	**316**	*e*P	**P**	**23 34 38.1**	**-2.0**
VIS				*e*S	**S**	**23 36 44.3**	**-13**
VIS				*e*		23 37 02.7	
	comp=E,96nm,0.6s						
VIS				*e*		23 37 02.9	
	comp=N,83nm,0.5s						
MDRS	**Chennai**	**12.47**	**290**	*e*P	**P**	**23 34 41.0**	**-1.2**
MDRS				*e*		23 36 44.0	
TRD	**Trivandrum**	**15.11**	**270**	*e*P	**P**	**23 35 16.2**	**-0.9**
TRD				*e*		23 35 17.3	
	comp=Z,59nm,1.1s						
TRD				*e*S	**S**	**23 37 46.5**	**-17**
HYB	**Hyderabad**	**15.76**	**304**	*e*P	**P**	**23 35 30.0**	**+4.4**
HYB	**Hyderabad**	**15.76**	**304**	*i* P	**P**	**23 35 30.0**	**+4.4**
IMP	**Imphal**	**15.86**	**6**	*e*	**P**	**23 35 25.3**	**-1.4**
SHL	**Shillong**	**16.56**	**359**	*e*	**P**	**23 35 33.2**	**-2.4**
SHL				*e*		23 37 45.0	
KMI	**Kunming**	**18.97**	**31**	P	**P**	**23 36 07.5**	**+2.1**
KMI				AMB	AMB		
	comp=Z,14nm,0.9s						
GOA	**Goa**	**19.13**	**292⇑**	*e*	**P**	**23 36 13.6**	**+6.2**
PKI	**Pulchoki**	**19.64**	**342**	*e*P	**P**	**23 36 12.9**	**-0.2**
	comp=Z,159nm,1.0s						
DMN	**Daman**	**19.77**	**341**	*e*P	**P**	**23 36 14.2**	**-0.4**
	comp=Z,69nm,0.6s						
GUN	**Gumba**	**19.82**	**343**	*e*P	**P**	**23 36 14.8**	**-0.3**
	comp=Z,108nm,0.7s						
KKN	**Kakani**	**19.88**	**342**	*e*P	**P**	**23 36 14.8**	**-1.0**
	comp=Z,70nm,0.8s						
BHPL	**Bhopal**	**20.10**	**317**	*e*P	**P**	**23 36 18.5**	**+0.4**

Code	Station Name	Δ°	AZ°	Op	ISC	Time	Res
BHPL				e		23 36 22.6	
	comp=Z,100nm,1.5s						
POO	Poona	20.23	300	eP	P	23 36 20.0	+0.5
POO				e		23 36 23.7	
	comp=Z,88nm,1.8s						
GKN	Gorkha	20.29	340	eP	P	23 36 19.7	-0.3
KOLN	Koldanda	20.44	338	eP	P	23 36 21.5	-0.1
	comp=Z,80nm,0.8s						
LSA	Lhasa	20.70	357	eP	P	23 36 23.4	-0.8
GYA	Guiyang	22.17	36	⇑iP	P	23 36 39.5	+0.4
GYA				AP		23 36 43.8	
GYA				XP		23 36 46.5	
GYA				S	S	23 40 38.3	+1.8
GYA				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.0						
GYA				AMB	AMB		
	comp=Z,540nm,3.2s						
GYA				LR	LR		
	comp=N,1µm,16.2s,MS4.6						
GYA				LR	LR		
	comp=E,1µm,17.0s,MS4.6						
GYA				LR	LR		
	comp=Z,2µm,16.0s,MS4.5						
CD2	Chengdu	24.37	25	P	P	23 37 01.0	+0.3
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.5						
GZH	Guangzhou	24.65	53	P	P	23 37 09.3	+5.9
GZH				LR	LR		
	comp=N,776nm,16.5s,MS4.4						
GZH				LR	LR		
	comp=E,583nm,14.7s,MS4.4						
GZH				LR	LR		
	comp=Z,597nm,13.1s,MS4.3						
ENH	Enshi	26.67	35	eP	P	23 37 20.7	-1.5
	comp=Z,5.8nm,0.4s,mb4.5						
TGY	Tagaytay City	28.58	77	LR	LR	23 48 55.3	
	comp=Z,627nm,18.5s,MS4.2,baz=90,slow=36						
LZH	Lanzhou	29.04	20	eP	P	23 37 44.3	+0.7
LZH				AP	pP	23 37 47.0	-5.3
LZH				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.9						
GTA	Gaotai	31.11	11	P	P	23 38 02.5	+0.6
GTA				AP	pP	23 38 11.0	+0.3
GTA				XP	sP	23 38 14.3	-0.3
GTA				S	S	23 43 03.0	-1.3
GTA				SCS	ScS	23 48 34.0	+2.0
GTA				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.9						
GTA				AMB	AMB		
	comp=Z,862nm,7.6s						
GTA				LR	LR		
	comp=N,277nm,19.4s						
GTA				LR	LR		
	comp=E,241nm,14.1s						
GTA				LR	LR		
	comp=Z,874nm,17.5s,MS4.5						
NJ2	Nanjing	33.75	43	eP	P	23 38 26.3	+1.2
WMQ	Urumqi	34.99	354	eP	P	23 38 35.5	-0.1
KZA	Kyzart	36.26	338	P	P	23 38 47.6	+1.2
	SNR=6.6						
UCH	Uchtor	36.66	338	P	P	23 38 51.3	+1.5
	SNR=9.0						
KBK	Karagaybulak	36.87	339	P	P	23 38 53.4	+1.9
	SNR=28						
TKM2	Tokmak 2	36.87	339	P	P	23 38 52.7	+1.2
	SNR=14						
AML	Almayashu	36.89	337	P	P	23 38 53.6	+2.0
	SNR=23						
AAK	Ala-Archa	37.02	338	P	P	23 38 54.4	+1.7
	SNR=13						
AAK	Ala-Archa	37.02	338	eP	P	23 38 52.9	+0.2
	comp=Z,31nm,1.2s,mb5.0						
CHMS	Chumysh	37.24	339	P	P	23 38 55.9	+1.3
	SNR=9.7						
EKS2	Erkin-Say	37.31	337	P	P	23 38 57.0	+1.9
	SNR=16						
USP	Ospenovka	37.56	339	P	P	23 38 58.5	+1.1
	SNR=30						
JOW	Kunigami	38.46	58	LR	LR	23 56 42.0	
	comp=Z,385nm,18.2s,MS4.3,baz=4.2,slow=39						
SONM	Songino Array	40.59	15	P	P	23 39 22.1	-0.4
	comp=Z,3.5nm,0.7s,mb4.1,baz=203,slow=8.5,SNR=18						
SONM				PcP	PcP	23 41 24.5	-0.3
	comp=Z,1.1nm,0.7s,baz=209,slow=4.9,SNR=2.6						
ULN	Ulaanbaatar	40.79	15	eP	P	23 39 23.5	-0.6
	comp=Z,3.8nm,0.9s,mb4.0						
ZAL	Zalesovo	45.29	354	P	P	23 40 00.6	0.0
	comp=Z,2.3nm,0.4s,mb4.3,baz=300,slow=4.9,SNR=8.6						
ZAL				pP	pP	23 40 09.1	-0.5
	comp=Z,3.8nm,0.4s,baz=303,slow=6.6,SNR=9.1						
BVAR	Borovoye Array	47.41	342	P	P	23 40 17.2	-0.2
	comp=Z,2.3nm,0.6s,mb4.3,baz=143,slow=7.4,SNR=12						
BVAR				pP	pP	23 40 25.5	-0.9
	comp=Z,1.9nm,0.7s,baz=151,slow=10.0,SNR=5.1						
BVAR				PcP	PcP	23 41 47.7	-0.2
	comp=Z,1.0nm,0.5s,baz=180,slow=5.9,SNR=4.2						
BRVK	Borovoye	47.47	342	eP	P	23 40 16.7	-1.1
	comp=Z,4.2nm,0.8s,mb4.4						
CHKZ	Chkalovo	47.91	343	eP	P	23 40 20.6	-0.6
	comp=Z,15nm,0.9s,mb5.0						
NWAO	Narrogin (SRO)	47.95	151	P	P	23 40 23.1	+1.2
	comp=Z,12nm,0.5s,mb5.2,baz=309,slow=11,SNR=14						
WRA	Warramunga Arr	50.40	125	P	P	23 40 39.3	-1.5
	comp=Z,8.0nm,0.8s,mb4.8,baz=306,slow=8.5,SNR=69						
WRA				pP	pP	23 40 48.7	-1.3
	comp=Z,6.5nm,0.8s,baz=304,slow=8.7,SNR=11						
WRAB	Tennant Creek	50.41	125	eP	P	23 40 38.8	-2.1
	comp=Z,8.8nm,0.4s,mb5.1						
CBIJ	Chichi jima	50.46	62	LR	LR	00 03 40.1	
	comp=Z,147nm,18.5s,MS4.0,baz=311,slow=38						
ASAR	Alice Springs	52.03	129	P	P	23 40 51.4	-1.8
	comp=Z,6.7nm,0.7s,mb4.7,baz=302,slow=6.9,SNR=42						
ASAR				pP	pP	23 41 02.0	-0.3
	comp=Z,3.9nm,0.8s,baz=302,slow=7.6,SNR=7.7						
ASAR				PcP	PcP	23 42 06.0	+0.8
	comp=Z,1.0nm,0.5s,baz=294,slow=5.1,SNR=4.1						
ASAR				LR	LR	00 06 07.4	
	comp=Z,141nm,19.0s,MS4.0,baz=302,slow=40						
GNI	Garni	52.36	314	P	P	23 40 56.4	+0.9
	comp=Z,3.8nm,0.6s,mb4.5,baz=153,slow=5.5,SNR=7.4						
ARU	Arti	54.20	338	eP	P	23 41 08.0	-0.7
	comp=Z,14nm,0.8s,mb5.0						
KMBO	Kilima Mbogo	55.68	263	P	P	23 41 21.9	+1.8
	comp=Z,3.3nm,1.1s,mb4.3,baz=81,slow=10,SNR=5.1						
KMBO				pP	pP	23 41 30.6	+1.3
	comp=Z,1.6nm,0.6s,baz=65,slow=12,SNR=4.7						
MALT	Malatya	56.35	310	eP	P	23 41 23.4	-1.3
MALT				epP	pP	23 41 31.7	-2.1
BRTR	Keskin Array B	60.32	311	P	P	23 41 50.9	-1.5
	comp=Z,3.6nm,0.9s,mb4.4,baz=124,slow=6.7,SNR=14						
BRTR				pP	pP	23 42 00.6	-1.1
	comp=Z,2.4nm,0.7s,baz=118,slow=7.9,SNR=8.8						
CTA	Charters Tower	60.46	119	P	P	23 41 53.7	+0.1
	comp=Z,9.4nm,0.8s,mb4.9,baz=310,slow=8.9,SNR=8.2						
CTA	Charters Tower	60.46	119	P	P	23 41 53.7	+0.1
STKA	Stephens Creek	62.19	133	P	P	23 42 04.7	-0.5
	comp=Z,7.7nm,0.9s,mb4.8,baz=311,slow=11,SNR=7.6						
STKA				LR	LR	00 13 20.6	
	comp=Z,313nm,20.2s,MS4.5,baz=212,slow=40						
AKASG	Malin Array Be	66.17	322	P	P	23 42 28.9	-1.9
	comp=Z,1.1nm,0.5s,mb4.2,baz=88,slow=4.5,SNR=10						
AKASG				pP	pP	23 42 38.6	-1.5
	comp=Z,0.7nm,0.6s,baz=92,slow=4.5,SNR=2.7						
IDI	Anoyia	66.42	305	P	P	23 42 33.3	+0.6
	comp=Z,6.9nm,0.7s,mb4.8,baz=87,slow=20,SNR=5.7						
MLR	Muntele Rosu	67.11	316	P	P	23 42 37.2	+0.4
	comp=Z,6.9nm,0.7s,mb4.8,baz=343,slow=5.9,SNR=10						
MLR				pP	pP	23 42 46.3	+0.1
	comp=Z,8.2nm,0.9s,baz=193,slow=8.0,SNR=5.1						
LSZ	Lusaka	67.85	250	eP	P	23 42 42.4	+0.4
	comp=Z,9.8nm,1.1s,mb4.8						
FINES	FINESS Array B	70.91	332	P	P	23 42 59.1	-0.9
	comp=Z,1.9nm,0.5s,mb4.3,baz=110,slow=7.5,SNR=25						
FINES				pP	pP	23 43 09.6	+0.2
	comp=Z,5.2nm,0.8s,baz=84,slow=6.0,SNR=5.5						
FINES				LR	LR	00 19 42.4	
	comp=Z,256nm,18.6s,MS4.5,baz=167,slow=41						
KAF	Kangasniemi	71.01	333	ep	P	23 42 59.9	-0.7
	comp=Z,1.6nm,0.4s,mb4.3						
OJC	Ojcow	71.96	320	eP	P	23 43 06.0	-0.5
OKC	Ostrava-Krasne	72.97	319	eP	P	23 43 13.0	+0.5
LBTB	Lobatse	73.10	241	eP	P	23 43 14.8	+1.1
LBTB				epP	pP	23 43 23.4	+0.3
KEV	Kevo	73.23	341	ep	P	23 43 12.7	-0.9
MORC	Moravsky Berou	73.36	319	eP	P	23 43 14.5	-0.2
ARCES	ARCESS Array B	73.65	340	P	P	23 43 16.0	0.0
	comp=Z,3.1nm,0.6s,mb4.4,baz=98,slow=5.4,SNR=24						
ARCES				LR	LR	00 18 03.0	
	comp=Z,451nm,20.4s,MS4.7,baz=146,slow=38						
ARCES	ARCESS Array B	73.65	340	P	P	23 43 16.0	0.0
ARCES				LR	LR	00 18 03.0	
DPC	Dobruska-Polom	74.19	320	eP	P	23 43 20.0	+0.4
DPC				epP	pP	23 43 31.0	+2.1
KSP	Ksiaz	74.26	320	eP	P	23 43 20.0	+0.1
KSP				epP	pP	23 43 28.3	-1.0
UPC	Upice	74.41	320	eP	P	23 43 21.0	+0.2
PRU	Pruhonice	75.31	319	eP	P	23 43 25.7	-0.3
BRG	Berggiesshubel	75.75	320	eP	P	23 43 29.5	+1.0
	comp=Z,25nm,1.9s,mb4.8						
BRG				i	pP	23 43 37.5	-0.4
GERES	GERESS Array B	75.79	318	P	P	23 43 29.0	+0.3
	comp=Z,3.6nm,0.8s,mb4.3,baz=92,slow=6.4,SNR=31						
GERES				pP	pP	23 43 38.1	-0.1
	comp=Z,2.6nm,0.6s,baz=93,slow=5.5,SNR=10						
KHC	Kasperske Hory	75.89	318	eP	P	23 43 29.2	-0.1
CLL	Collm	76.36	321	eP	P	23 43 32.0	+0.1
CLL	Collm	76.36	321	P	P	23 43 32.0	+0.1
HFS	Hagfors	76.61	330	P	P	23 43 32.8	-0.3
	comp=Z,2.5nm,0.4s,mb4.5,baz=101,slow=7.6,SNR=20						
HFS				pP	pP	23 43 42.7	+0.1
	comp=Z,2.3nm,0.5s,baz=101,slow=7.6,SNR=3.8						
WTTA	Wattenberg	77.13	316	⇑iP	P	23 43 36.1	-0.2
	comp=Z,8.9nm,0.9s,mb4.7						
MOX	Moxa	77.21	320	i P	P	23 43 37.2	+0.5
MOX	Moxa	77.21	320	eP	P	23 43 37.2	+0.5
SQTA	Sankt Quirin	77.42	316	⇑iP	P	23 43 37.7	-0.2
	comp=Z,5.7nm,0.6s,mb4.7						
GRA1	Grafenberg Arr	77.44	319	eP	P	23 43 38.8	+0.8
	comp=Z,5.0nm,0.7s,mb4.5						
GRF	Grafenberg Arr	77.44	319	eP	P	23 43 38.8	+0.8
	comp=Z,5.0nm,0.7s,mb4.5						
MOTA	Moosalm	77.49	317	⇑iP	P	23 43 37.9	-0.4
	comp=Z,3.4nm,0.7s,mb4.4						
NB2	NORSAR Subarra	77.90	331	P	P	23 43 39.5	-0.7
	comp=Z,1.0nm,0.5s,mb4.0,baz=97,slow=5.0						
NOA	NORSAR Array B	77.90	331	P	P	23 43 39.5	-0.7
	comp=Z,1.9nm,0.8s,mb4.1,baz=94,slow=5.7,SNR=6.1						
NOA				pP	pP	23 43 48.7	-0.9
	comp=Z,1.8nm,0.6s,baz=94,slow=5.6,SNR=5.4						
NOA				LR	LR	00 24 37.5	
	comp=Z,153nm,18.9s,MS4.3,baz=75,slow=41						
NOA	NORSAR Array B	77.90	331	P	P	23 43 39.5	-0.7
NOA				pP	pP	23 43 48.7	-1.0
NOA				LR	LR	00 24 37.5	
DAVA	Damuels	78.33	316	⇓iP	P	23 43 43.0	+0.1
	comp=Z,15nm,1.0s,mb4.9						
LPG	La Plagne	80.55	315	eP	P	23 43 55.3	+0.4
	comp=Z,30nm,0.9s,mb4.9						
RPZ	Rata Peaks	88.12	135	P	P	23 44 34.1	+1.0
	comp=Z,27nm,1.0s,mb5.4,baz=65,slow=5.1,SNR=4.9						
ESDC	Sonseca Array	89.10	310	P	P	23 44 38.6	+0.7
	comp=Z,0.7nm,0.5s,mb4.2,baz=63,slow=4.1,SNR=8.7						
ESDC				pP	pP	23 44 49.0	+1.5
	comp=Z,1.4nm,0.7s,baz=73,slow=3.6,SNR=4.7						
ILAR	Eielson Array	94.48	22	P	P	23 45 01.4	-0.7
	comp=Z,0.4nm,0.7s,mb4.0,baz=301,slow=5.9,SNR=5.0						
ILAR				pP	pP	23 45 11.9	+0.3
	comp=Z,1.1nm,0.8s,baz=299,slow=4.6,SNR=8.6						
INK	Inuvik	96.50	16	P	P	23 45 11.3	0.0
	comp=Z,5.7nm,1.3s,mb4.8,baz=352,slow=6.6						
YKA	Yellowknife Ar	105.84	13	PP	PP	23 50 12.6	-6.3
	comp=Z,0.5nm,0.8s,baz=334,slow=7.6,SNR=4.8						
PDAR	Pinedale Array	124.85	19	PKP	PKPdf	23 50 43.1	-3.2
	comp=Z,1.0nm,1.0s,baz=135,slow=2.1,SNR=4.7						
TXAR	Lajitas Array	139.00	21	PKP	PKPdf	23 51 10.4	-3.0
	comp=Z,0.3nm,0.7s,baz=29,slow=0.5,SNR=5.4						
PCRV	Puerto La Cruz	150.17	309	PKPbc	PKPdf	23 51 34.0	+1.2
	comp=Z,4.9nm,0.5s,baz=330,slow=9.4,SNR=5.6						

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*NIC **26** 23:33:18.7±0.2, 36.08N×30.84E, h41^{km}, ML3.6, MW3.2*
*NEIC **26** 23:33:18.7, 36.08N×30.84E, h41^{km}, After NIC.*
ISC 26 23:33:26.2±0.6, **35.76N**±0.05×**31.18E**±0.05, **h33**^{km}, **n14**, σ**1^{s}61**/24, **3C, Cyprus region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKMC	Akamas	1.19	127	⇑iP	P	23 33 44.6	-1.9
PPCY	Paphos	1.29	132	P	P	23 33 46.4	-1.5
ALFC	Alevga	1.30	117	⇑iP	P	23 33 46.0	-2.2
	6.5nm,0.3s						
ALFC				S	S	23 34 07.1	+2.4
SZAC	Souni-Zanaja	1.72	125	⇑iP	P	23 33 56.5	+2.4
	2.2nm,0.4s						
SZAC				S	S	23 34 17.8	+2.8
MAMC	Mammari	1.77	109	P	P	23 33 52.1	-2.7
CSS	Prodhromos	1.93	114	P	P	23 33 54.7	-2.4
CSS				S	S	23 34 23.1	+2.6
PHNC	Paralimni	2.45	107	P	P	23 34 05.3	+0.7
MEST	Erdemli	2.54	70	i P	P	23 34 06.9	+1.0
MEST				i S	S	23 34 34.6	-1.4
DNZL	Cakiroluk	2.58	319	i P	P	23 34 15.3	+8.8
DNZL				i S	S	23 34 45.1	+8.1
BDRM	Kayabasi	3.28	295	i P	P	23 34 17.1	+0.7
BDRM				i S	S	23 34 54.2	-0.7
MANT	Manisa	3.44	323	i P	P	23 34 18.9	+0.2
MANT				i S	S	23 35 00.5	+1.6
ESKT	Eskisehir	3.77	356	i P	P	23 34 24.1	+0.7
ESKT				i S	S	23 35 05.1	-2.0
COBT	Iskenderun	4.18	78	i P	P	23 34 29.1	-0.1
COBT				i S	S	23 35 11.5	-6.1
SGKT	Sivrigoynuk	4.86	8	i P	P	23 34 38.4	-0.5
SGKT				i S	S	23 35 36.0	+1.3

IDC 26 23:37:11.1±1.7, **17.48S**×**69.37W**, **h162**^{km}±14^{km}, **mb3.3**/2, **mb1 3.4**/3, **mb1mx3.1**/15, **Error ellipse: s-maj=38.9km s-min=12.3km az=102.0, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	1.68	45	P	P	23 37 45.1	+1.4
	24nm,0.3s,baz=228,slow=5.7,SNR=694						
LPAZ				S	S	23 38 09.3	+0.4
	3.8nm,0.3s,baz=331,slow=19,SNR=4.9						
LVC	Limon Verde	5.12	175	P	P	23 38 26.8	-0.2
	1.9nm,0.3s,baz=347,slow=8.3,SNR=35						
LVC				S	S	23 39 25.6	-0.3
	1.6nm,0.3s,baz=339,slow=7.4,SNR=5.1						
BDFB	Brasilia	20.55	88	P	P	23 41 37.5	-1.1
	1.1nm,0.3s,baz=254,slow=11,SNR=4.9						
YKA	Yellowknife Ar	87.27	341	P	P	23 49 38.7	-1.3
	0.3nm,0.5s,baz=132,slow=4.7,SNR=14						

IDC 26 23:37:44.9±4.3, **8.23N**×**91.48E**, **mb3.6**/2, **mb1 3.9**/3, **mb1mx3.5**/18, **ML4.1**/1, **Error ellipse: s-maj=110.0km s-min=35.0km az=77.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.49	35	Pn	P	23 40 43.5	-3.4
	0.3nm,0.3s,baz=232,slow=15,SNR=8.7						
SONM	Songino Array	41.45	15	P	P	23 45 33.8	-1.2
	0.9nm,0.6s,baz=194,slow=7.6,SNR=5.0						
WRA	Warramunga Arr	50.62	124	P	P	23 46 45.9	-2.3
	0.4nm,0.5s,baz=305,slow=9.1,SNR=7.0						

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*IDC **26** 23:39:11.4±0.7, 7.92N×94.14E, mb4.1/17, mb1 4.3/18, mb1mx4.3/21, ML4.0/1, Error ellipse: s-maj=31.9km s-min=17.1km az=48.0*
*NEIC **26** 23:39:15.9±0.4, 7.87N×94.17E, h30^{km}, mb4.4/6, Error ellipse: s-maj=12.1km s-min=9.9km az=79.0*
ISC 26 23:39:13.8±0.5, **7.90N**±0.06×**94.15E**±0.08, **h30**^{km}, **n44**, σ**1^{s}25**/43, **mb4.4**/27, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.49	23	eP	P	23 41 57.7	-1.4
CMAR	Chiang Mai Arr	11.49	23	Pn	P	23 41 58.8	-0.3
	0.3nm,0.3s,baz=212,slow=13,SNR=7.0						
CMAR				Sn	S	23 43 57.9	-10
	0.4nm,0.3s,baz=280,slow=38,SNR=4.4						
PALK	Pallekele	13.34	268	eP	P	23 42 21.7	-2.2
SHL	Shillong	17.70	353	eP	P	23 43 18.0	-2.0
PKI	Pulchoki	21.25	338	eP	P	23 44 00.7	+0.8
	38nm,0.6s,mb4.9						
GUN	Gumba	21.39	340	eP	P	23 44 01.9	+0.6
	85nm,1.2s,mb5.0						
DMN	Daman	21.39	338	eP	P	23 44 01.6	+0.2
	57nm,0.8s,mb4.9						
KKN	Kakani	21.49	338	eP	P	23 44 03.0	+0.6
LSA	Lhasa	21.87	353	eP	P	23 44 07.8	+1.6
	20nm,0.8s,mb4.6						
GKN	Gorkha	21.93	337	eP	P	23 44 04.3	-2.4
	55nm,0.9s,mb5.0						
KOLN	Koldanda	22.14	335	eP	P	23 44 07.0	-1.9
	27nm,0.8s,mb4.7						
ENH	Enshi	26.50	31	P	P	23 44 52.2	+1.5
AAK	Ala-Archa	38.69	337	eP	P	23 46 37.6	+0.8
	2.5nm,0.8s,mb4.0						
SONM	Songino Array	41.14	13	P	P	23 46 56.6	-0.4
	2.0nm,1.1s,mb3.7,baz=201,slow=3.0,SNR=4.4						
ULN	Ulaanbaatar	41.31	13	P	P	23 46 57.8	-0.6
ZAL	Zalesovo	46.53	352	P	P	23 47 40.0	-0.4
	2.7nm,0.5s,mb4.4,baz=299,slow=8.6,SNR=7.0						
WRA	Warramunga Arr	48.27	126	P	P	23 47 53.4	-1.1
	2.7nm,0.7s,mb4.4,baz=301,slow=9.0,SNR=9.5						
WRAB	Tennant Creek	48.27	126	eP	P	23 47 53.3	-1.3
	5.1nm,0.6s,mb4.7						
BVAR	Borovoye Array	48.97	341	P	P	23 47 58.2	-1.3
	2.3nm,1.0s,mb4.2,baz=135,slow=6.3,SNR=4.3						
BRVK	Borovoye	49.03	341	eP	P	23 48 01.4	+1.4
	2.8nm,0.9s,mb4.3						
CHKZ	Chkalovo	49.45	342	eP	P	23 48 01.7	-1.6
	10nm,1.1s,mb4.8						
ASAR	Alice Springs	49.92	130	P	P	23 48 06.2	-1.1
	0.5nm,0.5s,mb3.8,baz=293,slow=7.6,SNR=4.1						
ARU	Arti	55.87	337	eP	P	23 48 50.5	-0.5
KMBO	Kilima Mbogo	57.43	264	P	P	23 49 03.1	+0.4
	2.9nm,1.0s,mb4.3,baz=46,slow=10,SNR=6.1						
MALT	Malatya	58.45	310	P	P	23 49 10.0	+0.5
STKA	Stephens Creek	60.12	134	P	P	23 49 22.3	+1.2
	1.1nm,0.7s,mb4.0,baz=333,slow=9.0,SNR=3.2						
BRTR	Keskin Array B	62.42	311	P	P	23 49 34.5	-2.1
	0.7nm,0.6s,mb4.0,baz=105,slow=6.3,SNR=5.3						
OBN	Obninsk	65.36	328	P	P	23 49 56.8	+1.2
AKASG	Malin Array Be	68.14	322	P	P	23 50 11.9	-1.3
	0.9nm,0.7s,mb3.9,baz=81,slow=3.9,SNR=4.9						
LSZ	Lusaka	69.28	250	P	P	23 50 20.8	-0.1
FINES	FINESS Array B	72.69	332	P	P	23 50 41.4	+0.8
	4.6nm,1.0s,mb4.4,baz=63,slow=4.3,SNR=5.4						
FINES	FINESS Array B	72.69	332	P	P	23 50 41.4	+0.8
LBTB	Lobatse	74.26	241	eP	P	23 50 50.5	0.0
ARCES	ARCESS Array B	75.25	340	P	P	23 50 56.6	+1.3
	14nm,1.3s,mb4.7,baz=101,slow=6.2,SNR=5.8						
MORC	Moravsky Berou	75.36	319	eP	P	23 50 57.4	+1.1
GERES	GERESS Array B	77.81	318	P	P	23 51 10.9	+0.8
	1.5nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=7.8						
HFS	Hagfors	78.44	330	P	P	23 51 14.5	+1.2
	1.6nm,0.5s,mb4.2,baz=90,slow=4.4,SNR=6.2						
NB2	NORSAR Subarra	79.72	331	P	P	23 51 19.0	-1.2
	2.9nm,0.9s,mb4.2,baz=91,slow=5.8						
NOA	NORSAR Array B	79.72	331	P	P	23 51 19.6	-0.6
	1.4nm,0.7s,mb4.0,baz=92,slow=5.7,SNR=4.9						
ESDC	Sonseca Array	91.21	310	P	P	23 52 20.6	+2.9
	1.5nm,0.9s,mb4.3,slow=1.5,SNR=4.3						
ILAR	Eielson Array	94.72	22	P	P	23 52 35.8	+2.5
	0.8nm,1.1s,mb4.0,baz=310,slow=6.0,SNR=4.6						
INK	Inuvik	96.97	16	P	P	23 52 44.9	+1.5
	1.8nm,1.1s,mb4.4,baz=333,slow=2.3,SNR=2.7						
ULM	Lac du Bonnet	121.44	8	PKP	PKPdf	23 58 07.2	-2.4
	0.9nm,0.3s,baz=62,slow=4.0,SNR=3.8						
PDAR	Pinedale Array	125.14	21	PKP	PKPdf	23 58 15.4	-1.6
	0.5nm,0.9s,baz=117,slow=3.3,SNR=3.9						

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*IDC **26** 23:42:22.9±0.9, 5.02N×93.17E, mb4.1/12, mb1 4.3/13, mb1mx4.2/20, ML4.2/1, Error ellipse: s-maj=40.7km s-min=16.3km az=50.0*
*NEIC **26** 23:42:27.6±0.4, 5.08N×93.26E, h30^{km}, Error ellipse: s-maj=12.4km s-min=7.4km az=63.0*
*BJI **26** 23:42:27.5, 5.10N×93.30E, h30^{km}, mb4.7*
ISC 26 23:42:25.7±0.6, **5.05N**±0.09×**93.3E**±0.1, **h30**^{km}, **n31**, σ**1^{s}17**/31, **mb4.3**/22, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.41	22	eP	P	23 45 49.5	-0.5
CMAR	Chiang Mai Arr	14.41	22	Pn	P	23 45 50.1	+0.2
	0.4nm,0.3s,baz=220,slow=13,SNR=6.4						
SHL	Shillong	20.45	356	eS	P	23 47 01.0	-2.6
PKI	Pulchoki	23.63	342	eP	P	23 47 37.8	+2.4
	29nm,0.8s,mb4.8						
DMN	Daman	23.76	342	eP	P	23 47 38.6	+1.9
	17nm,0.7s,mb4.6						
GUN	Gumba	23.81	344	eP	P	23 47 39.3	+2.1
	56nm,1.1s,mb4.9						
KKN	Kakani	23.88	342	eP	P	23 47 40.1	+2.3
	15nm,0.8s,mb4.5						
GKN	Gorkha	24.28	341	eP	P	23 47 42.5	+0.8
KOLN	Koldanda	24.42	339	eP	P	23 47 43.8	+0.7
	25nm,0.8s,mb4.7						
LSA	Lhasa	24.61	355	eP	P	23 47 45.6	+0.7
	3.8nm,0.6s,mb4.1						
GYA	Guiyang	24.82	30	P	P	23 47 46.5	-0.4
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
AAK	Ala-Archa	40.99	339	P	P	23 50 07.0	-0.7
	comp=Z,1.7nm,0.7s,mb3.8						
SONM	Songino Array	44.08	13	P	P	23 50 32.9	0.0
	comp=Z,1.9nm,0.8s,mb3.9,baz=194,slow=7.4,SNR=9.5						
ULN	Ulaanbaatar	44.26	13	eP	P	23 50 33.5	-0.9
WRA	Warramunga Arr	47.35	123	P	P	23 50 59.9	+0.6
	comp=Z,5.8nm,0.7s,mb4.6,baz=301,slow=9.0,SNR=27						
WRAB	Tennant Creek	47.36	123	eP	P	23 50 59.7	+0.4
	comp=Z,12nm,0.8s,mb4.9						
ASAR	Alice Springs	48.79	128	P	P	23 51 10.9	+0.5
	comp=Z,1.6nm,0.6s,mb4.2,baz=302,slow=7.6,SNR=11						
ZAL	Zalesovo	49.23	353	P	P	23 51 13.3	-0.1
	comp=Z,1.3nm,0.5s,mb4.3,baz=308,slow=4.9,SNR=6.9						
ZAL	Zalesovo	49.23	353	P	P	23 51 13.3	-0.1
BVAR	Borovoye Array	51.40	342	P	P	23 51 29.0	-0.9
	comp=Z,1.9nm,0.9s,mb4.0,baz=129,slow=9.5,SNR=5.4						
BRVK	Borovoye	51.46	342	P	P	23 51 29.0	-1.4
CHKZ	Chkalovo	51.91	343	eP	P	23 51 32.4	-1.3
	comp=Z,9.6nm,1.3s,mb4.6						
ARU	Arti	58.17	338	eP	P	23 52 17.9	-1.3
STKA	Stephens Creek	58.79	132	P	P	23 52 23.6	-0.2
	comp=Z,1.5nm,0.6s,mb4.2,baz=113,slow=21,SNR=4.6						
BRTR	Keskin Array B	63.68	312	P	P	23 52 56.1	-0.7
	comp=Z,1.2nm,0.6s,mb4.1,baz=127,slow=7.2,SNR=8.8						
AKASG	Malin Array Be	69.87	322	P	P	23 53 33.4	-2.4
	comp=Z,0.6nm,0.5s,mb3.8,baz=87,slow=4.3,SNR=4.6						
MLR	Muntele Rosu	70.63	317	P	P	23 53 39.8	-0.7
	comp=Z,3.6nm,0.8s,mb4.3,baz=133,slow=7.2,SNR=4.3						
MLR	Muntele Rosu	70.63	317	P	P	23 53 39.8	-0.7
FINES	FINESS Array B	74.82	333	P	P	23 54 04.5	-0.4
	comp=Z,3.4nm,0.9s,mb4.3,baz=112,slow=10,SNR=5.9						
ARCES	ARCESS Array B	77.64	341	P	P	23 54 21.2	+0.7
	comp=Z,3.7nm,1.0s,mb4.3,baz=104,slow=5.0,SNR=6.2						
GERES	GERESS Array B	79.39	319	P	P	23 54 32.1	+1.5
	comp=Z,1.8nm,1.1s,mb3.9,baz=104,slow=5.5,SNR=6.4						

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*NEIC **26** 23:44:21.9±0.6, 3.94N×94.15E, Error ellipse: s-maj=21.9km s-min=11.0km az=61.0*
*IDC **26** 23:44:22.3±1.1, 3.90N×94.11E, h27^{km}±5^{km}, mb3.8/6, mb1 4.0/7, mb1mx3.8/19, ML4.0/1, Error ellipse: s-maj=44.9km s-min=17.0km az=56.0*
ISC 26 23:44:19.8±0.9, **3.9N**±0.1×**94.1E**±0.2, **h28**^{km}, **h28**^{km}±1.2^{km}**:pP-P**, **n13**, σ**1^{s}01**/12, **mb4.1**/10, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.19	18	Pn	P	23 47 54.2	-0.2
	0.2nm,0.3s,baz=231,slow=12,SNR=3.1						
LSA	Lhasa	25.78	354	P	P	23 49 51.3	+1.0
	5.0nm,0.7s,mb4.2						
SONM	Songino Array	45.00	12	P	P	23 52 35.6	+0.9
	1.8nm,0.9s,mb3.9,baz=191,slow=9.1,SNR=5.2						
SONM				pP	pP	23 52 44.5	+1.4
	2.6nm,0.8s,baz=192,slow=7.7,SNR=8.1						
WRA	Warramunga Arr	46.09	123	P	P	23 52 44.7	+1.1
	2.2nm,0.8s,mb4.2,baz=303,slow=9.1,SNR=5.3						
WRA				pP	pP	23 52 52.5	+0.4
	5.2nm,0.8s,baz=301,slow=9.0,SNR=11						
WRAB	Tennant Creek	46.09	122	eP	P	23 52 43.1	-0.5
	7.3nm,0.7s,mb4.7						
ASAR	Alice Springs	47.49	127	P	P	23 52 54.0	-0.7
	1.1nm,0.9s,mb3.8,baz=310,slow=7.0,SNR=3.0						
ASAR				pP	pP	23 53 03.3	+0.1
	1.9nm,0.7s,baz=303,slow=7.9,SNR=6.8						
BVAR	Borovoye Array	52.70	342	P	P	23 53 34.3	+0.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	2.7nm,0.9s,mb4.2,baz=146,slow=11,SNR=6.1						
BVAR				pP	pP	23 53 42.2	-0.5
	0.6nm,0.6s,baz=173,slow=12,SNR=3.2						
BRVK	Borovoye	52.76	342	P	P	23 53 34.0	-0.6
	1.6nm,0.6s,mb4.1						
CHKZ	Chkalovo	53.20	343	*e*P	P	23 53 36.0	-1.8
	3.7nm,0.8s,mb4.4						
ARU	Arti	59.50	338	P	P	23 54 21.4	-1.4
BRTR	Keskin Array B	65.01	312	P	P	23 55 00.0	+0.2
	0.8nm,0.8s,mb3.8,baz=124,slow=7.8,SNR=3.7						
GERES	GERESS Array B	80.74	319	P	P	23 56 34.0	+1.8
	0.5nm,0.8s,mb3.5,baz=72,slow=4.2,SNR=4.6						
CPUP	Villa Florida	144.73	228	PKP	PKPdf	00 03 57.3	-2.4
	0.0nm,0.3s,baz=234,slow=12,SNR=1.8						

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*IDC **26** 23:47:37.3±0.9, 4.91N×93.41E, mb4.1/11, mb1 4.2/12, mb1mx4.1/19, ML4.0/1, Error ellipse: s-maj=53.1km s-min=16.2km az=50.0*

*NEIC **26** 23:47:42.1±0.8, 5.10N×93.58E, h30^{km}, Error ellipse: s-maj=40.7km s-min=11.8km az=54.0*

ISC 26 23:47:39.9±0.8, **5.0N**±0.2×**93.5E**±0.2, **h30**^{km}, **n20**, σ**0^{s}94**/18, **mb4.1**/15, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.35	21	Pn	P	23 51 11.2	+7.9
	0.2nm,0.3s,baz=214,slow=12,SNR=6.1						
LSA	Lhasa	24.64	355	P	P	23 52 58.3	-1.1
	7.1nm,0.6s,mb4.4						
AAK	Ala-Archa	41.09	339	P	P	23 55 22.6	0.0
	2.6nm,0.9s,mb3.9						
SONM	Songino Array	44.05	12	P	P	23 55 47.9	+1.1
	0.9nm,0.7s,mb3.6,baz=195,slow=8.3,SNR=3.9						
WRA	Warramunga Arr	47.17	123	P	P	23 56 12.3	+0.4
	12nm,0.7s,mb5.0,baz=301,slow=9.1,SNR=47						
WRAB	Tennant Creek	47.17	123	*e*P	P	23 56 11.7	-0.3
	18nm,0.6s,mb5.2						
ASAR	Alice Springs	48.61	128	P	P	23 56 23.4	+0.2
	2.4nm,0.7s,mb4.3,baz=304,slow=7.2,SNR=13						
ZAL	Zalesovo	49.27	353	P	P	23 56 28.9	+1.1
	2.2nm,0.7s,mb4.3,baz=301,slow=2.7,SNR=8.5						
ZAL	Zalesovo	49.27	353	P	P	23 56 28.9	+1.1
BVAR	Borovoye Array	51.48	342	P	P	23 56 44.0	-0.7
	1.0nm,0.7s,mb3.8,baz=135,slow=6.3,SNR=3.5						
CHKZ	Chkalovo	51.98	343	*e*P	P	23 56 45.6	-2.9
	2.2nm,0.5s,mb4.3						
ARU	Arti	58.27	338	P	P	23 57 33.0	-1.0
STKA	Stephens Creek	58.62	132	P	P	23 57 36.1	-0.8
	2.4nm,0.5s,mb4.5,baz=285,slow=3.2,SNR=8.3						
BRTR	Keskin Array B	63.84	312	P	P	23 58 11.8	-0.3
	0.5nm,0.7s,mb3.6,baz=121,slow=8.4,SNR=2.6						
AKASG	Malin Array Be	70.01	322	P	P	23 58 50.5	-0.2
	0.1nm,0.3s,mb3.3,baz=344,slow=4.3,SNR=4.1						
FINES	FINESS Array B	74.94	333	P	P	23 59 20.1	+0.4
	2.0nm,0.8s,mb4.1,baz=135,slow=11,SNR=4.4						
ARCES	ARCESS Array B	77.72	341	P	P	23 59 36.4	+1.2
	0.7nm,0.4s,mb3.9,baz=90,slow=6.1,SNR=9.6						
GERES	GERESS Array B	79.54	319	P	P	23 59 47.1	+1.5
	1.4nm,1.0s,mb3.9,baz=146,slow=4.8,SNR=5.3						
PDAR	Pinedale Array	128.02	22	PKP	PKPdf	00 06 46.5	-2.1
	0.5nm,0.7s,baz=135,slow=2.1,SNR=4.7						
TXAR	Lajitas Array	142.05	25	PKP	PKPdf	00 07 13.5	-1.4
	0.3nm,0.8s,baz=345,slow=1.3,SNR=5.1						

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*IDC **26** 23:51:28.4±1.0, 7.46N×94.14E, mb3.9/12, mb1 4.1/13, mb1mx4.0/19, ML4.3/1, Error ellipse: s-maj=41.5km s-min=20.6km az=51.0*

*NEIC **26** 23:51:32.9±0.6, 7.51N×94.24E, h30^{km}, Error ellipse: s-maj=17.3km s-min=11.2km az=65.0*

ISC 26 23:51:31.1±0.7, **7.55N**±0.10×**94.3E**±0.1, **h30**^{km}, **n27**, σ**1^{s}12**/23, **mb3.9**/14, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.75	22	P	P	23 54 19.4	-0.6
CMAR	Chiang Mai Arr	11.75	22	Pn	P	23 54 19.6	-0.3
	0.5nm,0.3s,baz=215,slow=14,SNR=4.2						
LSA	Lhasa	22.23	353	*e*P	P	23 56 28.6	+1.6
	9.3nm,0.9s,mb4.2						
AAK	Ala-Archa	39.06	337	P	P	23 58 56.8	-0.3
	1.4nm,0.7s,mb3.8						
SONM	Songino Array	41.45	12	P	P	23 59 17.4	+0.6
	0.7nm,0.7s,mb3.4,baz=199,slow=6.3,SNR=4.1						
SONM				PcP	PcP	00 01 17.1	+2.2
	0.5nm,0.5s,baz=198,slow=4.5,SNR=4.4						
ULN	Ulaanbaatar	41.62	13	*e*P	P	23 59 18.7	+0.5
ZAL	Zalesovo	46.89	352	P	P	00 00 00.2	-0.2
	2.3nm,0.8s,mb4.2,baz=288,slow=6.8,SNR=9.5						
WRA	Warramunga Arr	47.96	125	P	P	00 00 10.7	+1.3
	1.0nm,0.7s,mb4.0,baz=305,slow=9.2,SNR=5.0						
WRAB	Tennant Creek	47.96	125	P	P	00 00 09.3	-0.1
BVAR	Borovoye Array	49.34	341	P	P	00 00 18.8	-0.8
	0.6nm,0.5s,mb3.9,baz=240,slow=39,SNR=3.5						
BRVK	Borovoye	49.40	341	P	P	00 00 18.2	-1.9
ASAR	Alice Springs	49.60	130	P	P	00 00 20.1	-1.8
	0.7nm,0.6s,mb3.9,baz=302,slow=4.0,SNR=4.3						
ARU	Arti	56.24	337	*e*P	P	00 01 09.7	-1.2
KMBO	Kilima Mbogo	57.53	264	P	P	00 01 25.4	+4.7
	1.6nm,0.7s,mb4.2,baz=53,slow=8.2,SNR=7.6						
KMBO	Kilima Mbogo	57.53	264	P	P	00 01 25.4	+4.7
BRTR	Keskin Array B	62.75	311	P	P	00 01 55.0	-1.0
	0.7nm,0.6s,mb4.0,baz=124,slow=8.9,SNR=4.4						
AKASG	Malin Array Be	68.50	322	P	P	00 02 31.2	-1.5
	0.4nm,0.5s,mb3.7,baz=76,slow=4.6,SNR=4.5						
FINES	FINESS Array B	73.06	332	P	P	00 03 00.2	+0.1
	1.7nm,0.7s,mb4.1,baz=117,slow=4.3,SNR=6.7						
FINES	FINESS Array B	73.06	332	P	P	00 03 00.2	+0.1
KAF	Kangasniemi	73.14	333	*e*p	P	00 03 01.9	+1.4
ARCES	ARCESS Array B	75.62	340	P	P	00 03 16.4	+1.7
	3.5nm,0.9s,mb4.3,baz=90,slow=6.1,SNR=5.4						
GERES	GERESS Array B	78.16	318	P	P	00 03 30.9	+1.6
	0.8nm,0.6s,mb3.8,baz=90,slow=5.3,SNR=7.9						
NOA	NORSAR Array B	80.08	331	P	P	00 03 40.1	+0.7
	1.1nm,0.7s,mb3.9,baz=95,slow=5.1,SNR=3.7						
PDAR	Pinedale Array	125.42	21	PKP	PKPdf	00 10 35.9	+1.1
	0.5nm,0.8s,SNR=5.0						
PDAR	Pinedale Array	125.42	21	PKP	PKPdf	00 10 35.9	+1.0
TXAR	Lajitas Array	139.46	24	PKP	PKPdf	00 11 03.9	+2.4
	0.2nm,0.6s,baz=192,slow=0.3,SNR=3.5						
TXAR	Lajitas Array	139.46	24	PKP	PKPdf	00 11 03.9	+2.4

IDC 26 23:53:15.3±7.7, **31.72S**×**174.76W**, **mb3.4**/2, **mb1 3.7**/2, **mb1mx3.5**/13, **Error ellipse: s-maj=355.0km s-min=63.1km az=157.0, Low Confidence, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	45.81	267	P	P	00 01 38.9	-2.0
	0.2nm,0.6s,baz=109,slow=7.9,SNR=4.2						
WRA	Warramunga Arr	46.92	272	P	P	00 01 48.1	-1.6
	0.2nm,0.3s,baz=112,slow=8.0,SNR=5.5						
FINES	FINESS Array B	147.31	342	PKPbc	PKPdf	00 12 59.2	-0.2
	1.2nm,0.8s,baz=90,slow=1.9,SNR=3.4						

IDC 26 23:54:29.7±2.8, **1.47N**×**98.97E**, **mb3.9**/4, **mb1 4.1**/4, **mb1mx3.7**/16, **Error ellipse: s-maj=120.0km s-min=26.4km az=59.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	40.69	123	P	P	00 02 12.1	-1.7
	1.0nm,0.4s,baz=302,slow=9.2,SNR=9.0						
ASAR	Alice Springs	42.16	129	P	P	00 02 24.4	-1.5
	0.7nm,0.7s,baz=301,slow=7.9,SNR=7.1						
SONM	Songino Array	46.63	7	P	P	00 02 59.9	-1.7
	0.9nm,0.8s,baz=202,slow=7.7,SNR=5.3						
ARCES	ARCESS Array B	82.88	340	P	P	00 06 55.9	-1.3
	1.8nm,0.8s,baz=124,slow=4.4,SNR=3.8						

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*IDC **26** 23:55:03.8±1.3, 8.32N×92.27E, mb3.9/7, mb1 4.1/7, mb1mx3.8/18, Error ellipse: s-maj=68.3km s-min=20.7km az=52.0*

*NEIC **26** 23:55:08.0±0.9, 8.19N×92.16E, h30^{km}, Error ellipse: s-maj=37.7km s-min=13.0km az=57.0*

ISC 26 23:55:06.6±1.1, **8.2N**±0.2×**92.2E**±0.3, **h33**^{km}, **n12**, σ**0^{s}85**/12, **mb4.0**/10, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	21.41	358	*e*P	P	23 59 55.3	+1.5
	4.4nm,0.6s,mb4.0						
AAK	Ala-Archa	37.67	338	*e*P	P	00 02 20.7	+0.2
	2.4nm,0.9s,mb3.9						
SONM	Songino Array	41.30	15	P	P	00 02 50.0	-0.6
	0.3nm,0.5s,mb3.2,baz=207,slow=5.5,SNR=4.1						
SONM	Songino Array	41.30	15	P	P	00 02 50.0	-0.6
BVAR	Borovoye Array	48.08	342	P	P	00 03 44.7	-0.2
	0.9nm,0.7s,mb3.9,baz=104,slow=6.1,SNR=4.0						
CHKZ	Chkalovo	48.58	343	*e*P	P	00 03 47.9	-0.8
	3.0nm,0.4s,mb4.7						
WRA	Warramunga Arr	50.03	125	P	P	00 04 00.4	+0.1
	1.2nm,0.5s,mb4.2,baz=302,slow=9.0,SNR=14						
ASAR	Alice Springs	51.61	129	P	P	00 04 12.4	+0.1
	0.7nm,0.5s,mb3.9,baz=302,slow=8.0,SNR=8.1						
ARU	Arti	54.85	338	*e*P	P	00 04 35.2	-0.7
FINES	FINESS Array B	71.53	332	P	P	00 06 24.5	-1.4
	1.7nm,0.8s,mb4.0,baz=100,slow=12,SNR=4.8						
ARCES	ARCESS Array B	74.31	340	P	P	00 06 42.6	+0.5
	1.9nm,0.7s,mb4.1,baz=90,slow=2.4,SNR=5.6						
GERES	GERESS Array B	76.30	318	P	P	00 06 55.3	+1.4
	1.5nm,1.0s,mb3.9,baz=104,slow=5.5,SNR=5.8						

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*BJI **26** 23:58:04.7, 2.61N×93.73E, h60^{km}, mB4.9, mb4.7, Ms4.8*

*IDC **26** 23:58:06.6±0.6, 3.16N×93.56E, h27^{km}±3^{km}, mb4.1/14, mb1 4.2/15, mb1mx4.1/21, MS4.0/2, Ms1 4.0/2, ms1mx3.2/23, Error ellipse: s-maj=30.5km s-min=11.1km az=50.0*

*NEIC **26** 23:58:06.3±0.3, 3.19N×93.66E, Error ellipse: s-maj=11.2km s-min=8.1km az=64.0*

ISC 26 23:58:04.5±0.5, **3.19N**±0.07×**93.71E**±0.08, **h28**^{km}, **h28**^{km}±.3^{km}**:pP-P**, **n47**, σ**0^{s}88**/45, **mb4.5**/30, **MS4.1**/1, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.02	18	Pn	P	00 01 49.0	-0.7
	baz=215,slow=13,SNR=14						
CMAR				Sn	S	00 04 37.0	-9.2
	1.0nm,0.3s,baz=330,slow=28,SNR=6.2						
CMAR				LR	LR	00 09 06.4	
	comp=Z,268nm,18.0s,baz=200,slow=41						
IMP	Imphal	21.47	1	*e*	P	00 02 46.7	-6.4
SHL	Shillong	22.32	356	*e*P	P	00 03 01.0	-0.6
SHL				*e*S	S	00 07 09.0	+8.6
PKI	Pulchoki	25.51	343	*e*P	P	00 03 33.3	+0.8
DMN	Daman	25.64	342	*e*P	P	00 03 34.7	+1.0
GUN	Gumba	25.70	344	*e*P	P	00 03 34.7	+0.5
	34nm,0.9s,mb4.9						
KKN	Kakani	25.76	343	*e*P	P	00 03 35.4	+0.6
	18nm,0.8s,mb4.7						
GKN	Gorkha	26.15	342	*e*P	P	00 03 38.4	-0.1
	16nm,0.8s,mb4.6						
GYA	Guiyang	26.26	27	P	P	00 03 39.5	0.0
GYA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.3						
KOLN	Koldanda	26.28	339	*e*P	P	00 03 40.2	+0.5
	comp=Z,38nm,1.0s,mb4.9						
LSA	Lhasa	26.48	355	*e*P	P	00 03 43.1	+1.7
	comp=Z,56nm,0.6s,mb5.3						
LSA				*e*pP	pP	00 03 50.9	+1.2
CD2	Chengdu	29.16	18	P	P	00 04 04.8	-1.0
ENH	Enshi	30.80	27	*e*P	P	00 04 18.6	-1.7
LZH	Lanzhou	34.05	15	*e*P	P	00 04 48.0	-0.6
LZH				AMB	AMB		
	comp=Z,23nm,1.6s,mb4.9						
GTA	Gaotai	36.48	8	*e*P	P	00 05 09.5	+0.3
GTA				AMB	AMB		
	comp=Z,7.0nm,1.8s,mb4.3						
JOW	Kunigami	40.58	51	LR	LR	00 21 44.2	
	comp=Z,312nm,21.0s,MS4.1,baz=122,slow=35						
HHC	Hu-ho-hao-te	40.80	21	*e*P	P	00 05 46.0	+0.7
HHC				XP	sP	00 06 03.5	+6.2
HHC				PP	PP	00 07 23.5	+1.1
HHC				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
HHC				AMB	AMB		
	comp=Z,203nm,10.1s						
WMQ	Urumqi	40.81	353	P	P	00 05 47.0	+1.7
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.4						
AAK	Ala-Archa	42.86	339	*e*P	P	00 06 01.8	-0.3
	comp=Z,6.7nm,1.3s,mb4.2						
SONM	Songino Array	45.80	12	P	P	00 06 26.3	+0.6
	comp=Z,5.0nm,0.8s,mb4.5,baz=193,slow=8.7,SNR=38						
SONM				pP	pP	00 06 34.8	+0.5
	comp=Z,6.6nm,0.8s,baz=194,slow=7.9,SNR=21						
SONM				PcP	PcP	00 08 04.2	+0.8
	comp=Z,1.6nm,0.7s,baz=194,slow=5.1,SNR=3.8						
ULN	Ulaanbaatar	45.97	12	*e*P	P	00 06 26.5	-0.6
	comp=Z,3.8nm,0.9s,mb4.3						
WRA	Warramunga Arr	46.04	122	P	P	00 06 28.6	+0.6
	comp=Z,5.6nm,0.6s,mb4.6,baz=299,slow=8.8,SNR=36						
WRA				pP	pP	00 06 37.4	+0.9
	comp=Z,4.8nm,0.7s,baz=299,slow=9.0,SNR=16						
WRAB	Tennant Creek	46.04	122	*e*P	P	00 06 27.8	-0.2
	comp=Z,6.6nm,0.8s,mb4.6						
ASAR	Alice Springs	47.37	126	P	P	00 06 39.2	+0.7
	comp=Z,2.5nm,0.8s,mb4.2,baz=294,slow=8.1,SNR=19						
ASAR				pP	pP	00 06 47.8	+0.8
	comp=Z,2.1nm,0.6s,baz=304,slow=7.6,SNR=11						
ASAR				PcP	PcP	00 08 10.2	+0.9
	comp=Z,1.1nm,0.6s,baz=312,slow=3.3,SNR=5.1						
HIA	Hailar	50.99	22	*e*P	P	00 07 05.7	-0.3
	comp=Z,7.2nm,0.6s,mb4.8						
HIA				*e*pP	pP	00 07 14.6	0.0
ZAL	Zalesovo	51.11	353	P	P	00 07 07.1	+0.3
	comp=Z,7.2nm,0.4s,mb4.9,baz=306,slow=5.7,SNR=40						
ZAL				pP	pP	00 07 16.0	+0.5
	comp=Z,4.9nm,0.5s,baz=286,slow=4.3,SNR=11						
BVAR	Borovoye Array	53.28	343	P	P	00 07 22.6	-0.5
	comp=Z,3.5nm,0.7s,mb4.4,baz=143,slow=7.4,SNR=5.3						
BVAR				pP	pP	00 07 31.2	-0.5
	comp=Z,3.4nm,0.8s,baz=117,slow=6.6,SNR=5.9						
BRVK	Borovoye	53.34	343	*e*P	P	00 07 22.1	-1.5
CHKZ	Chkalovo	53.78	343	*e*P	P	00 07 25.9	-0.9
	comp=Z,14nm,1.4s,mb4.7						
CHKZ				*e*pP	pP	00 07 34.5	-0.9
STKA	Stephens Creek	57.27	131	P	P	00 07 52.5	+0.2
	comp=Z,2.7nm,0.6s,mb4.5,baz=267,slow=6.8,SNR=6.5						
STKA				pP	pP	00 08 02.0	+0.9
	comp=Z,2.9nm,0.8s,baz=198,slow=6.4,SNR=3.2						
GNI	Garni	57.46	317	P	P	00 07 53.5	0.0
	comp=Z,2.3nm,0.8s,mb4.3,baz=359,slow=9.7,SNR=2.3						
ARU	Arti	60.03	338	*e*P	P	00 08 09.1	-2.1
ARU				*e*pP	pP	00 08 18.0	-2.0
ASF	Jabal al Asfar	60.48	305	P	P	00 08 16.1	+1.5
	comp=Z,1.3nm,0.6s,mb4.2,baz=337,slow=8.4,SNR=2.7						
MALT	Malatya	61.22	312	*e*P	P	00 08 18.5	-1.0
	comp=Z,5.7nm,1.5s,mb4.5						
MALT				*e*pP	pP	00 08 27.9	-0.5
BRTR	Keskin Array B	65.21	313	P	P	00 08 45.6	-0.2
	comp=Z,0.9nm,0.7s,mb3.9,baz=141,slow=7.9,SNR=5.8						
BRTR				pP	pP	00 08 54.1	-0.5
	comp=Z,2.1nm,0.9s,baz=142,slow=6.9,SNR=6.9						
BRTR				PcP	PcP	00 09 15.8	-2.2
	comp=Z,1.5nm,0.9s,baz=108,slow=7.8,SNR=4.3						
LSZ	Lusaka	67.37	252	*e*P	P	00 08 59.0	-1.0
AKASG	Malin Array Be	71.57	323	P	P	00 09 24.2	-1.0
	comp=Z,1.2nm,0.6s,mb4.0,baz=89,slow=4.4,SNR=6.9						
AKASG				pP	pP	00 09 32.8	-1.3
	comp=Z,0.3nm,0.5s,baz=85,slow=5.4,SNR=4.1						
LBTB	Lobatse	71.67	242	*e*P	P	00 09 25.1	-1.1
FINES	FINESS Array B	76.64	333	P	P	00 09 54.0	-0.3
	comp=Z,1.5nm,0.6s,mb4.1,baz=108,slow=6.0,SNR=8.3						
FINES				pP	pP	00 10 02.6	-0.6
	comp=Z,3.1nm,1.0s,baz=117,slow=4.3,SNR=2.3						
MORC	Moravsky Berou	78.65	320	*e*P	P	00 10 05.9	+0.3
ARCES	ARCESS Array B	79.51	341	P	P	00 10 10.7	+0.8
	comp=Z,1.8nm,0.8s,mb4.0,baz=90,slow=6.1,SNR=7.8						
ARCES				pP	pP	00 10 19.6	+0.8
	comp=Z,4.3nm,1.0s,baz=135,slow=1.7,SNR=2.7						
GERES	GERESS Array B	81.03	319	P	P	00 10 19.9	+1.5
	comp=Z,3.0nm,0.7s,mb4.3,baz=104,slow=5.5,SNR=30						
KHC	Kasperske Hory	81.14	319	*e*P	P	00 10 20.0	+1.0
NOA	NORSAR Array B	83.59	331	P	P	00 10 31.2	-0.1
	comp=Z,1.2nm,0.8s,mb4.1,baz=92,slow=6.2,SNR=3.4						
NOA				pP	pP	00 10 39.9	-0.6
	comp=Z,2.1nm,0.9s,baz=102,slow=5.3,SNR=3.2						
YKA	Yellowknife Ar	111.05	14	PP	PP	00 17 15.3	-3.1
	comp=Z,0.1nm,0.7s,baz=18,slow=7.3,SNR=4.8						
TXAR	Lajitas Array	143.62	26	PKP	PKPdf	00 17 38.6	-3.8
	comp=Z,0.3nm,0.6s,baz=176,slow=1.1,SNR=9.5						
CPUP	Villa Florida	143.94	228	PKP	PKPdf	00 17 38.8	-4.3
	comp=Z,0.0nm,0.4s,baz=20,slow=17,SNR=2.0						

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*IDC **26** 23:59:58.1±1.4, 5.35N×94.32E, mb4.1/8, mb1 4.3/9, mb1mx4.0/20, ML4.4/1, Error ellipse: s-maj=91.1km s-min=22.3km az=49.0*

*NEIC **27** 00:00:02.7±0.7, 5.47N×94.48E, h30^{km}, Error ellipse: s-maj=27.0km s-min=10.8km az=53.0*

ISC 27 00:00:01.1±0.9, **5.5N**±0.2×**94.5E**±0.2, **h30**^{km}, **n14**, σ**0^{s}65**/14, **mb4.1**/11, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.57	18	Pn	P	00 03 21.2	+7.0
	0.6nm,0.3s,baz=211,slow=13,SNR=2.6						
ENH	Enshi	28.37	28	P	P	00 05 55.2	+0.3
AAK	Ala-Archa	41.02	337	*e*P	P	00 07 41.9	-1.4
	1.7nm,0.7s,mb3.8						
ULN	Ulaanbaatar	43.54	12	P	P	00 08 04.1	+0.2
WRA	Warramunga Arr	46.60	124	P	P	00 08 28.9	+0.2
	1.7nm,0.9s,mb4.0,baz=303,slow=8.8,SNR=4.3						
WRAB	Tennant Creek	46.60	124	*e*P	P	00 08 28.0	-0.7
	2.2nm,0.6s,mb4.3						
ASAR	Alice Springs	48.12	129	P	P	00 08 40.7	+0.1
	0.6nm,0.5s,mb3.9,baz=299,slow=7.7,SNR=4.3						
ZAL	Zalesovo	48.93	352	P	P	00 08 46.8	+0.4
	2.5nm,0.4s,mb4.6,baz=335,slow=4.8,SNR=3.7						
BVAR	Borovoye Array	51.34	342	P	P	00 09 04.5	-0.4
	1.4nm,0.6s,mb4.1,baz=146,slow=11,SNR=3.5						
CHKZ	Chkalovo	51.83	342	*e*P	P	00 09 08.1	-0.4
	3.0nm,0.5s,mb4.5						
FINES	FINESS Array B	74.97	332	P	P	00 11 40.5	-0.6
	2.0nm,0.9s,mb4.0,baz=117,slow=6.2,SNR=2.5						
ARCES	ARCESS Array B	77.61	340	P	P	00 11 57.0	+1.2
	2.3nm,0.9s,mb4.1,baz=114,slow=8.9,SNR=3.4						
GERES	GERESS Array B	79.84	319	P	P	00 12 08.9	+0.5
	0.8nm,0.6s,mb3.8,baz=90,slow=4.0,SNR=3.8						
DAVOX	Davos	82.36	316	P	P	00 12 22.2	+0.6
	2.1nm,0.7s,mb4.2						

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*IDC **27** 00:02:51.8±1.1, 6.47N×93.70E, mb4.2/9, mb1 4.3/9, mb1mx4.1/18, Error ellipse: s-maj=52.7km s-min=19.7km az=51.0*

*NEIC **27** 00:02:56.6±1.0, 6.47N×93.79E, h30^{km}, mb4.3/4, Error ellipse: s-maj=40.4km s-min=14.6km az=57.0*

ISC 27 00:02:54.9±0.8, **6.5N**±0.2×**93.9E**±0.2, **h30**^{km}, **n15**, σ**0^{s}99**/15, **mb4.1**/14, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	23.18	354	P	P	00 08 03.9	+3.7
AAK	Ala-Archa	39.81	338	*e*P	P	00 10 32.1	+4.9
	1.9nm,0.8s,mb3.9						
SONM	Songino Array	42.52	12	P	P	00 10 48.9	-0.4
	0.7nm,0.5s,mb3.6,baz=190,slow=8.9,SNR=5.7						
ULN	Ulaanbaatar	42.69	13	*e*P	P	00 10 49.8	-1.0
	1.0nm,0.6s,mb3.7						
WRA	Warramunga Arr	47.73	124	P	P	00 11 32.0	+0.6
	3.4nm,0.7s,mb4.5,baz=300,slow=9.0,SNR=9.6						
WRAB	Tennant Creek	47.73	124	*e*P	P	00 11 31.8	+0.3
	5.4nm,0.6s,mb4.8						
ZAL	Zalesovo	47.82	353	P	P	00 11 33.0	+1.3
	3.2nm,0.4s,mb4.7,baz=296,slow=4.6,SNR=18						
ASAR	Alice Springs	49.29	129	P	P	00 11 42.9	-0.6
	1.1nm,0.7s,mb4.0,baz=294,slow=7.4,SNR=6.6						
BVAR	Borovoye Array	50.16	342	P	P	00 11 48.5	-1.2
	1.5nm,0.7s,mb4.2,baz=217,slow=37,SNR=5.5						
CHKZ	Chkalovo	50.65	342	*e*P	P	00 11 55.6	+2.3
	4.4nm,0.4s,mb4.7						
AKASG	Malin Array Be	69.02	322	P	P	00 13 59.2	-0.6
	0.2nm,0.3s,mb3.5,baz=304,slow=35,SNR=3.6						
FINES	FINESS Array B	73.75	332	P	P	00 14 27.1	-0.8
	1.6nm,0.7s,mb4.0,baz=124,slow=6.9,SNR=4.5						
ARCES	ARCESS Array B	76.42	340	P	P	00 14 42.5	-0.5
	4.8nm,1.1s,mb4.3,baz=106,slow=6.5,SNR=9.9						
GERES	GERESS Array B	78.63	318	P	P	00 14 56.2	+0.6
	0.5nm,0.5s,mb3.7,baz=116,slow=5.4,SNR=7.9						
DAVOX	Davos	81.15	316	P	P	00 15 09.0	-0.1
	1.7nm,0.4s,mb4.4,baz=188,slow=12,SNR=8.6						

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*IDC **27** 00:03:05.6±1.1, 4.96N×93.48E, mb4.1/10, mb1 4.3/11, mb1mx4.1/21, ML4.6/1, Error ellipse: s-maj=53.2km s-min=20.3km az=48.0*

*NEIC **27** 00:03:09.4±0.6, 4.65N×93.17E, h30^{km}, mb4.5/3, Error ellipse: s-maj=19.3km s-min=12.6km az=61.0*

ISC 27 00:03:07.6±0.7, **4.7N**±0.1×**93.2E**±0.1, **h30**^{km}, **n16**, σ**1^{s}00**/15, **mb4.2**/13, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.82	22	Pn	P	00 06 38.4	+1.2
	1.0nm,0.3s,baz=218,slow=12,SNR=7.8						
SONM	Songino Array	44.48	13	P	P	00 11 15.7	-2.3
	1.2nm,0.7s,mb3.7,baz=195,slow=8.5,SNR=6.5						
WRA	Warramunga Arr	47.27	123	P	P	00 11 40.0	-0.5
	4.7nm,0.9s,mb4.4,baz=300,slow=9.0,SNR=7.3						
WRA	Warramunga Arr	47.27	123	P	P	00 11 40.0	-0.5
WRAB	Tennant Creek	47.27	123	*e*P	P	00 11 40.8	+0.2
	6.0nm,0.7s,mb4.6						
ASAR	Alice Springs	48.67	127	P	P	00 11 52.1	+0.7
	4.0nm,1.2s,mb4.3,baz=310,slow=7.6,SNR=5.1						
ZAL	Zalesovo	49.60	354	P	P	00 11 57.0	-1.1
	0.6nm,0.4s,mb4.0,baz=268,slow=8.2,SNR=3.3						
BVAR	Borovoye Array	51.73	343	P	P	00 12 13.6	-0.6
	1.8nm,0.6s,mb4.2,baz=129,slow=9.5,SNR=7.0						
CHKZ	Chkalovo	52.23	343	*e*P	P	00 12 17.8	-0.3
	4.1nm,0.5s,mb4.6						
GNI	Garni	56.03	316	P	P	00 12 47.9	+1.8
	1.6nm,0.6s,mb4.2,baz=337,slow=10,SNR=2.4						
BOSA	Boshof	73.09	238	*e*P	P	00 14 36.4	-1.0
	0.5nm,0.6s,mb3.6						
FINES	FINESS Array B	75.10	333	P	P	00 14 48.0	-0.3
	1.5nm,0.8s,mb4.0,baz=79,slow=7.1,SNR=5.3						
ARCES	ARCESS Array B	77.95	341	P	P	00 15 04.1	0.0
	3.7nm,1.1s,mb4.2,baz=100,slow=5.3,SNR=6.0						
GERES	GERESS Array B	79.58	319	P	P	00 15 14.6	+1.1
	1.0nm,0.8s,mb3.8,baz=104,slow=5.5,SNR=6.1						
DAVOX	Davos	82.03	316	P	P	00 15 27.0	+0.5
	1.7nm,0.5s,mb4.2,baz=150,slow=8.1,SNR=5.1						
TXAR	Lajitas Array	142.53	25	PKP	PKPdf	00 22 39.9	-3.6
	0.2nm,0.4s,baz=306,slow=0.8,SNR=4.1						

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*IDC **27** 00:07:02.3±1.0, 15.86N×93.16E, mb3.8/9, mb1 3.9/10, mb1mx3.8/19, ML4.2/1, Error ellipse: s-maj=34.1km s-min=18.8km az=49.0*

*NEIC **27** 00:07:05.8±0.6, 15.75N×93.19E, h30^{km}, mb4.4/3, Error ellipse: s-maj=17.3km s-min=14.1km az=225.0*

ISC 27 00:07:03.9±0.6, **15.7N**±0.1×**93.16E**±0.07, **h30**^{km}, **n15**, σ**1^{s}06**/17, **mb3.9**/12, **Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	6.15	63	Pn	Pn	00 08 33.3	-1.9
	1.4nm,0.3s,baz=240,slow=11,SNR=2.3						
CMAR				Sn	Sn	00 09 46.4	+1.0
	1.7nm,0.3s,baz=272,slow=20,SNR=7.7						
SHL	Shillong	9.86	353	*e*P	P	00 09 20.0	-6.9
SHL				*e*S	Sn	00 11 02.0	-16
SONM	Songino Array	33.83	16	P	P	00 13 45.1	-0.6
	0.9nm,1.1s,mb3.6,baz=207,slow=6.4,SNR=3.2						
ZAL	Zalesovo	38.68	352	P	P	00 14 26.5	-0.1
	1.5nm,0.5s,mb4.0,baz=319,slow=9.4,SNR=5.1						
BVAR	Borovoye Array	41.31	339	P	P	00 14 48.4	0.0
	0.6nm,0.4s,mb3.6,baz=227,slow=42,SNR=3.1						
CHKZ	Chkalovo	41.78	340	*e*P	P	00 14 52.4	+0.2
	3.9nm,0.4s,mb4.4						
WRA	Warramunga Arr	53.80	130	P	P	00 16 28.1	+1.7
	0.4nm,0.8s,mb3.4,baz=300,slow=9.5,SNR=3.6						
ASAR	Alice Springs	55.84	134	P	P	00 16 42.1	+0.8
	0.3nm,0.8s,mb3.4,baz=310,slow=7.0,SNR=3.0						
PMG	Port Moresby	59.01	111	*e*P	P	00 17 01.6	-2.1
	8.9nm,0.8s,mb4.8						
FINES	FINESS Array B	65.39	331	P	P	00 17 45.8	+0.1
	1.3nm,0.8s,mb4.0,baz=124,slow=6.9,SNR=4.5						
ARCES	ARCESS Array B	67.60	339	P	P	00 18 00.2	+0.6
	2.0nm,0.9s,mb4.1,baz=84,slow=8.2,SNR=3.4						
HFS	Hagfors	71.25	329	P	P	00 18 22.4	+0.2
	1.5nm,0.6s,mb4.1,baz=101,slow=7.6,SNR=7.2						
GERES	GERESS Array B	71.42	317	P	P	00 18 24.1	+0.7
	0.5nm,0.5s,mb3.7,baz=76,slow=5.5,SNR=5.2						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LBTB	**Lobatse**	**77.28**	**239**	P	**P**	**00 18 55.6**	**-2.1**
	0.5nm,0.6s,mb3.6						
BOSA	**Boshof**	**79.04**	**236**	P	**P**	**00 19 07.7**	**+0.5**

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*NEIC **27** 00:07:40.8, 38.02S×176.42E, h147^{km}, After WEL.*

WEL 27 00:07:40.7±0.2**, 38.02S×176.46E, h150^{km}**±2^{km}**, ML3.9**/5**, 10C, Error ellipse: s-maj=1.3km s-min=1.0km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIRZ	**Lichensteins R**	**0.06**	**287**	P	P	00 08 01.2	+0.2
LIRZ	**Lichensteins R**	**0.06**	**287**	PN	P	00 08 01.1	+0.1
MARZ	**Manawahe**	**0.17**	**78**	P	P	00 08 01.2	-0.1
MARZ	**Manawahe**	**0.17**	**78**	PN	P	00 08 01.2	-0.1
TAZ	**Tarawera**	**0.21**	**169**	P	P	00 08 01.6	+0.2
TAZ	**Tarawera**	**0.21**	**169**	PN	P	00 08 01.6	+0.3
EDRZ	**Edgecumbe**	**0.24**	**111**	P	P	00 08 01.3	-0.1
EDRZ	**Edgecumbe**	**0.24**	**111**	PN	P	00 08 01.2	-0.2
UTU	**Utuhina**	**0.26**	**233**	P	P	00 08 01.7	+0.2
UTU	**Utuhina**	**0.26**	**233**	PN	P	00 08 01.7	+0.1
URZ	**Urewera**	**0.57**	**115**	P	P	00 08 02.2	-0.6
URZ	**Urewera**	**0.57**	**115**	⇑PN	P	00 08 02.2	-0.6
URZ				SN	S	00 08 18.5	-1.2
WIZ	**White Island**	**0.76**	**50**	PN	P	00 08 02.6	-1.3
MWZ	**Matawai**	**0.90**	**111**	P	P	00 08 04.8	0.0
MWZ				S	S	00 08 22.8	-0.6
MWZ	**Matawai**	**0.90**	**111**	PN	P	00 08 04.5	-0.3
MWZ				SN	S	00 08 22.6	-0.7
KATZ	**Kakaramea**	**1.12**	**212**	PN	P	00 08 06.7	-0.1
BKZ	**Black Stump Fm**	**1.14**	**179**	P	P	00 08 06.7	-0.2
BKZ				S	S	00 08 26.4	-0.8
BKZ	**Black Stump Fm**	**1.14**	**179**	PN	P	00 08 06.6	-0.3
BKZ				SN	S	00 08 26.2	-1.0
MGZ	**Maungaku**	**1.22**	**216**	PN	P	00 08 07.7	0.0
WTVZ	**West Tongariro**	**1.29**	**212**	P	P	00 08 08.2	-0.2
WTVZ	**West Tongariro**	**1.29**	**212**	⇑PN	P	00 08 08.1	-0.2
OTVZ	**Oturere**	**1.30**	**208**	⇑PN	P	00 08 08.6	+0.1
TWVZ	**Taurewa**	**1.32**	**217**	P	P	00 08 08.4	-0.3
TWVZ	**Taurewa**	**1.32**	**217**	PN	P	00 08 08.4	-0.3
NGZ	**Ngauruhoe**	**1.33**	**210**	P	P	00 08 08.7	-0.1
NGZ	**Ngauruhoe**	**1.33**	**210**	PN	P	00 08 08.6	-0.2
MKAZ	**Moumakai**	**1.37**	**311**	P	P	00 08 08.7	-0.5
MKAZ	**Moumakai**	**1.37**	**311**	PN	P	00 08 08.8	-0.5
CNZ	**Chateau**	**1.38**	**211**	P	P	00 08 08.0	-1.3
CNZ	**Chateau**	**1.38**	**211**	PN	P	00 08 08.9	-0.4
KNZ	**Kokohu**	**1.38**	**137**	P	P	00 08 09.2	-0.1
KNZ	**Kokohu**	**1.38**	**137**	PN	P	00 08 09.2	-0.2
KNZ				SN	S	00 08 30.7	-0.7
WPVZ	**Whakapapa**	**1.38**	**211**	PN	P	00 08 09.3	0.0
TUVZ	**Tukino**	**1.40**	**207**	P	P	00 08 09.3	-0.2
TUVZ	**Tukino**	**1.40**	**207**	⇑PN	P	00 08 09.4	-0.1
TUVZ				SN	S	00 08 31.7	0.0
FWVZ	**Far West T-bar**	**1.42**	**210**	P	P	00 08 09.4	-0.3
FWVZ	**Far West T-bar**	**1.42**	**210**	PN	P	00 08 09.4	-0.4
FWVZ				SN	S	00 08 31.9	-0.2
PUZ	**Puketiti**	**1.42**	**93**	P	P	00 08 09.2	-0.6
PUZ	**Puketiti**	**1.42**	**93**	PN	P	00 08 09.2	-0.5
PUZ				SN	S	00 08 30.7	-1.4
WNVZ	**Wahianoa**	**1.47**	**207**	P	P	00 08 09.8	-0.4
MOVZ	**Moawhango**	**1.49**	**202**	P	P	00 08 09.6	-0.9
MOVZ	**Moawhango**	**1.49**	**202**	⇑PN	P	00 08 09.6	-0.8
MOVZ				SN	S	00 08 31.5	-1.9
MXZ	**Matakaoa Point**	**1.54**	**73**	P	P	00 08 10.7	-0.2
MXZ	**Matakaoa Point**	**1.54**	**73**	PN	P	00 08 10.5	-0.4
MXZ				SN	S	00 08 33.4	-0.9
OTAZ	**Otara**	**1.62**	**311**	P	P	00 08 11.4	-0.5
OTAZ	**Otara**	**1.62**	**311**	PN	P	00 08 11.3	-0.5
MTAZ	**Motutapu**	**1.74**	**315**	P	P	00 08 12.6	-0.6
MTAZ	**Motutapu**	**1.74**	**315**	PN	P	00 08 12.6	-0.6
KAAZ	**Kauri Point**	**1.84**	**310**	P	P	00 08 14.3	0.0
WTAZ	**Waiatarua**	**1.85**	**305**	P	P	00 08 12.8	-1.6
WTAZ	**Waiatarua**	**1.85**	**305**	PN	P	00 08 13.5	-0.9
PWZ	**Pawanui**	**2.03**	**171**	P	P	00 08 15.7	-0.8
PWZ	**Pawanui**	**2.03**	**171**	⇑PN	P	00 08 15.7	-0.8
PWZ				SN	S	00 08 42.5	-1.5
TSZ	**Takapari Road**	**2.07**	**191**	P	P	00 08 15.7	-1.3
TSZ	**Takapari Road**	**2.07**	**191**	PN	P	00 08 15.7	-1.3
TSZ				SN	S	00 08 42.6	-2.3
WAZ	**Wanganui**	**2.08**	**213**	P	P	00 08 16.2	-0.9
WAZ	**Wanganui**	**2.08**	**213**	PN	P	00 08 16.2	-0.9
BFZ	**Birch Farm**	**2.66**	**183**	P	P	00 08 22.2	-2.2
BFZ	**Birch Farm**	**2.66**	**183**	PN	P	00 08 22.2	-2.2
BFZ				*e*SN	S	00 08 54.1	-3.7
MRZ	**Mangatainoka R**	**2.72**	**194**	P	P	00 08 22.7	-2.5
MRZ	**Mangatainoka R**	**2.72**	**194**	PN	P	00 08 22.7	-2.5
MRZ				SN	S	00 08 55.1	-4.1
KIW	**Kapiti Island**	**3.08**	**202**	P	P	00 08 26.4	-3.4
KIW	**Kapiti Island**	**3.08**	**202**	PN	P	00 08 26.3	-3.5
KIW				SN	S	00 09 02.8	-4.5
MTW	**Mount Morrison**	**3.22**	**193**	P	P	00 08 28.0	-3.6
MTW	**Mount Morrison**	**3.22**	**193**	⇑PN	P	00 08 28.0	-3.6
CAW	**Cannon Point**	**3.26**	**199**	P	P	00 08 28.7	-3.5
CAW	**Cannon Point**	**3.26**	**199**	PN	P	00 08 28.7	-3.5
PAWZ	**Paruwai Farm**	**3.45**	**193**	⇑PN	P	00 08 30.8	-3.8
MRW	**Makara Radio**	**3.48**	**202**	P	P	00 08 31.1	-3.9
MRW	**Makara Radio**	**3.48**	**202**	PN	P	00 08 30.9	-4.1
MRW				*e*SN	S	00 09 11.6	-4.9
WEL	**Wellington**	**3.51**	**201**	P	P	00 08 31.6	-3.8
WEL	**Wellington**	**3.51**	**201**	PN	P	00 08 31.4	-4.0
MSWZ	**Moikau Station**	**3.52**	**195**	P	P	00 08 31.5	-3.9
MSWZ	**Moikau Station**	**3.52**	**195**	⇑PN	P	00 08 31.4	-4.0
BHW	**Baring Head**	**3.60**	**199**	⇑PN	P	00 08 32.3	-4.2
TUWZ	**Tuamarina**	**3.92**	**209**	PN	P	00 08 36.2	-4.5
NNZ	**Nelson**	**3.98**	**216**	*e*P	P	00 08 36.9	-4.6
NNZ	**Nelson**	**3.98**	**216**	PN	P	00 08 37.2	-4.3
NNZ				SN	S	00 09 23.1	-5.2
QRZ	**Quartz Range**	**4.13**	**226**	*e*P	P	00 08 38.7	-4.9
QRZ	**Quartz Range**	**4.13**	**226**	PN	P	00 08 38.7	-4.9
BSWZ	**Blackbirch Sta**	**4.19**	**207**	P	P	00 08 40.0	-4.3
BSWZ	**Blackbirch Sta**	**4.19**	**207**	PN	P	00 08 39.9	-4.4
THZ	**Tophouse**	**4.63**	**215**	*e*P	P	00 08 45.8	-4.3
THZ	**Tophouse**	**4.63**	**215**	PN	P	00 08 45.7	-4.4
KHZ	**Kahutara**	**4.92**	**206**	P	P	00 08 49.0	-5.0
KHZ	**Kahutara**	**4.92**	**206**	PN	P	00 08 49.0	-5.1
KHZ				SN	S	00 09 43.4	-7.2
LTZ	**Lake Taylor**	**5.73**	**213**	*e*P	P	00 08 59.5	-5.1
LTZ	**Lake Taylor**	**5.73**	**213**	PN	P	00 08 59.5	-5.2
MQZ	**McQueen’s Vall**	**6.37**	**206**	*e*P	P	00 09 06.3	-7.0
MQZ	**McQueen’s Vall**	**6.37**	**206**	*e*PN	P	00 09 06.2	-7.0
MQZ				SN	S	00 10 13.8	-11
ODZ	**Otahua Downs**	**8.26**	**210**	*e*P	P	00 09 32.5	-6.0
ODZ	**Otahua Downs**	**8.26**	**210**	*e*PN	P	00 09 32.2	-6.3

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*IDC **27** 00:09:08.3±1.1, 6.25N×94.57E, h40^{km}±7^{km}, mb3.7/8, mb1 4.0/9, mb1mx3.8/19, ML4.5/1, Error ellipse: s-maj=44.2km s-min=15.3km az=57.0*

*NEIC **27** 00:09:08.4±0.8, 6.30N×94.62E, mb4.3/4, Error ellipse: s-maj=25.8km s-min=13.3km az=59.0*

ISC 27 00:09:06.7±0.8**, 6.3N**±0.1×**94.7E**±0.2**, h40^{km}, h40^{km}**±1.5^{km}**:pP-P, n15, σ1^{s}17**/14**, mb4.0**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.77**	**19**	Pn	**P**	**00 12 07.6**	**-0.8**
	0.8nm,0.3s,baz=203,slow=16,SNR=3.1						
CMAR	**Chiang Mai Arr**	**12.77**	**19**	Pn	**P**	**00 12 07.6**	**-0.8**
LSA	**Lhasa**	**23.50**	**352**	*e*P	**P**	**00 14 15.3**	**+1.4**
	7.5nm,0.7s,mb4.2						
LSA				*e*		00 14 26.3	
AAK	**Ala-Archa**	**40.34**	**337**	P	**P**	**00 16 43.3**	**+1.1**
	2.4nm,1.1s,mb3.8						
SONM	**Songino Array**	**42.57**	**12**	P	**P**	**00 17 02.5**	**+2.0**
	0.2nm,0.5s,mb3.1,baz=193,slow=7.8,SNR=3.5						
SONM				pP	pP	00 17 12.6	+0.8
	1.7nm,0.9s,baz=192,slow=8.7,SNR=5.9						
ULN	**Ulaanbaatar**	**42.74**	**12**	*e*P	pP	00 17 16.4	+3.2
WRA	**Warramunga Arr**	**46.93**	**125**	P	**P**	**00 17 35.7**	**+0.1**
	3.1nm,0.8s,mb4.3,baz=302,slow=9.0,SNR=13						
WRA				pP	pP	00 17 47.7	+0.6
	2.5nm,0.7s,baz=303,slow=9.0,SNR=8.6						
WRAB	**Tennant Creek**	**46.94**	**125**	*e*P	**P**	**00 17 35.9**	**+0.2**
	4.2nm,0.6s,mb4.5						
WRAB				*e*pP	pP	00 17 48.3	+1.2
ZAL	**Zalesovo**	**48.16**	**352**	P	**P**	**00 17 44.0**	**-0.8**
	0.9nm,0.5s,mb4.0,baz=279,slow=2.1,SNR=6.8						
ZAL				pP	pP	00 17 55.8	-0.5
	1.4nm,0.4s,baz=314,slow=6.0,SNR=4.5						
ASAR	**Alice Springs**	**48.51**	**129**	P	**P**	**00 17 47.9**	**-0.1**
	1.9nm,0.8s,mb4.2,baz=309,slow=7.9,SNR=12						
ASAR				pP	pP	00 17 58.7	-0.7
	1.6nm,0.6s,baz=299,slow=7.6,SNR=6.9						
CHKZ	**Chkalovo**	**51.12**	**342**	*e*P	**P**	**00 18 04.9**	**-2.6**
	1.7nm,0.5s,mb4.2						
CHKZ				*e*pP	pP	00 18 16.4	-2.7
BRTR	**Keskin Array B**	**63.85**	**311**	P	**P**	**00 19 37.5**	**-0.1**
	0.7nm,0.7s,mb3.8,baz=56,slow=5.2,SNR=2.3						
ARCES	**ARCESS Array B**	**76.91**	**340**	P	**P**	**00 20 54.3**	**-2.0**
	2.4nm,0.9s,mb4.2,baz=100,slow=5.5,SNR=4.5						
VRAC	**Vranov**	**77.47**	**319**	P	**P**	**00 20 59.7**	**-0.1**
	2.8nm,0.3s,mb4.7,baz=305,slow=19,SNR=2.5						
GERES	**GERESS Array B**	**79.34**	**318**	P	**P**	**00 21 11.0**	**+1.0**
	0.3nm,0.8s,mb3.3,baz=191,slow=5.0,SNR=2.8						

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*NEIC **27** 00:10:49.5±0.3, 2.73N×94.12E, h30^{km}, mb4.5/8, Error ellipse: s-maj=9.8km s-min=7.0km az=62.0*

*IDC **27** 00:10:51.4±7.0, 2.79N×94.14E, h44^{km}±65^{km}, mb4.0/14, mb1 4.1/15, mb1mx4.0/21, ML4.4/1, Error ellipse: s-maj=29.6km s-min=13.8km az=48.0*

ISC 27 00:10:47.5±0.5**, 2.72N**±0.08×**94.11E**±0.09**, h30^{km}, n26, σ0^{s}75**/24**, mb4.2**/22**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**16.34**	**17**	*e*Pn	**P**	**00 14 37.2**	**+0.5**
	14nm,0.8s						
CMAR	**Chiang Mai Arr**	**16.34**	**17**	P	**P**	**00 14 37.7**	**+1.1**
	0.5nm,0.3s,baz=210,slow=9.3,SNR=11						
LSA	**Lhasa**	**26.98**	**354**	*e*P	**P**	**00 16 30.0**	**+1.3**
	9.7nm,0.7s,mb4.4						
JHNI	**Jhansi**	**27.13**	**328**	⇓*i*	Px	00 13 33.0	
JHNI				*i*		00 16 44.0	
JOW	**Kunigami**	**40.56**	**51**	P	**P**	**00 18 26.4**	**+0.2**
	8.9nm,0.6s,mb4.5,baz=170,slow=11,SNR=2.9						
WRA	**Warramunga Arr**	**45.46**	**122**	P	**P**	**00 19 06.0**	**-0.1**
	4.6nm,0.9s,mb4.3,baz=298,slow=9.0,SNR=9.2						
WRAB	**Tennant Creek**	**45.46**	**121**	*e*P	**P**	**00 19 06.3**	**+0.1**
	5.7nm,0.7s,mb4.5						
SONM	**Songino Array**	**46.17**	**11**	P	**P**	**00 19 11.4**	**0.0**
	2.3nm,0.8s,mb4.2,baz=189,slow=8.4,SNR=18						
SONM				PcP	PcP	00 20 47.4	0.0
	0.7nm,0.6s,baz=180,slow=1.4,SNR=3.6						
ULN	**Ulaanbaatar**	**46.34**	**12**	*e*P	**P**	**00 19 11.7**	**-1.0**
	2.0nm,0.8s,mb4.1						
ASAR	**Alice Springs**	**46.78**	**126**	P	**P**	**00 19 16.9**	**+0.4**
	2.8nm,0.9s,mb4.2,baz=298,slow=7.1,SNR=10						
ASAR				PcP	PcP	00 20 50.4	+0.5
	1.5nm,1.0s,baz=313,slow=3.7,SNR=5.7						
ZAL	**Zalesovo**	**51.62**	**353**	P	**P**	**00 19 53.0**	**-0.5**
	5.2nm,0.4s,mb4.8,baz=308,slow=5.1,SNR=16						
BVAR	**Borovoye Array**	**53.84**	**342**	P	**P**	**00 20 09.3**	**-0.6**
	2.6nm,0.6s,mb4.4,baz=138,slow=12,SNR=13						
BRVK	**Borovoye**	**53.90**	**342**	*e*P	**P**	**00 20 09.3**	**-1.1**
	2.6nm,0.5s,mb4.4						
CHKZ	**Chkalovo**	**54.34**	**343**	*e*P	**P**	**00 20 12.8**	**-0.8**
	6.3nm,0.7s,mb4.7						
CTA	**Charters Tower**	**55.94**	**116**	P	**P**	**00 20 25.2**	**-0.4**
	3.6nm,0.9s,mb4.4,baz=247,slow=15,SNR=2.5						
STKA	**Stephens Creek**	**56.67**	**131**	P	**P**	**00 20 30.5**	**-0.3**
	1.5nm,0.6s,mb4.2,baz=326,slow=22,SNR=4.6						
KMBO	**Kilima Mbogo**	**56.97**	**267**	P	**P**	**00 20 34.0**	**+0.8**
	0.5nm,0.8s,mb3.6,baz=43,slow=21,SNR=4.1						
KIV	**Kislovodsk**	**61.15**	**320**	P	**P**	**00 21 01.1**	**-0.6**
	2.6nm,0.7s,mb4.5						
BRTR	**Keskin Array B**	**65.81**	**313**	P	**P**	**00 21 32.2**	**-0.2**
	0.9nm,0.8s,mb3.9,baz=129,slow=7.9,SNR=6.3						
LBTB	**Lobatse**	**71.81**	**243**	*e*P	**P**	**00 22 10.3**	**+0.5**
	1.9nm,0.5s,mb4.3						
AKASG	**Malin Array Be**	**72.18**	**323**	P	**P**	**00 22 10.3**	**-1.2**
	0.7nm,0.6s,mb3.8,baz=89,slow=4.8,SNR=5.2						
FINES	**FINESS Array B**	**77.23**	**333**	P	**P**	**00 22 40.0**	**-0.3**
	0.8nm,0.7s,mb3.8,baz=106,slow=10,SNR=4.8						
ARCES	**ARCESS Array B**	**80.08**	**341**	P	**P**	**00 22 55.3**	**-0.4**
	1.9nm,0.8s,mb4.1,baz=108,slow=3.8,SNR=3.9						
GERES	**GERESS Array B**	**81.64**	**319**	P	**P**	**00 23 05.4**	**+1.1**
	1.0nm,0.7s,mb3.9,baz=104,slow=5.5,SNR=9.7						
DAVOX	**Davos**	**84.07**	**317**	P	**P**	**00 23 18.5**	**+1.6**
	2.5nm,0.6s,mb4.5,baz=100,slow=3.7,SNR=6.7						
TXAR	**Lajitas Array**	**143.86**	**27**	PKP	PKPdf	00 30 21.5	-4.2
	0.3nm,0.5s,baz=320,slow=1.3,SNR=7.4						

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*IDC **27** 00:15:34.7±0.6, 2.01N×95.91E, mb4.3/19, mb1 4.4/20, mb1mx4.4/24, ML4.5/1, Error ellipse: s-maj=27.1km s-min=12.6km az=47.0*

*BJI **27** 00:15:36.9, 1.98N×96.22E, h35^{km}, mB5.4, mb5.0*

*NEIC **27** 00:15:39.2±0.4, 2.09N×96.09E, h30^{km}, mb4.4/14, Error ellipse: s-maj=14.3km s-min=9.1km az=64.0*

ISC 27 00:15:38.1±0.4**, 2.18N**±0.06×**96.28E**±0.08**, h30^{km}, n58, σ1^{s}04**/58**, mb4.6**/43**, 2C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**16.32**	**289**	P	**P**	**00 19 30.9**	**+3.8**
	20nm,0.9s						
CM31	**Chiang Mai Arr**	**16.39**	**9**	*e*P	**P**	**00 19 29.1**	**+1.2**
	12nm,0.8s						
CMAR	**Chiang Mai Arr**	**16.39**	**9**	Pn	**P**	**00 19 29.1**	**+1.2**
	0.6nm,0.3s,baz=197,slow=10,SNR=34						
IMP	**Imphal**	**22.59**	**354**	*e*	**P**	**00 20 35.8**	**-1.9**
KMI	**Kunming**	**23.65**	**15**	P	**P**	**00 20 50.0**	**+2.0**
KMI				AMB	AMB		
	comp=Z,19nm,1.1s,mb4.4						
GYA	**Guiyang**	**26.12**	**22**	⇓P	**P**	**00 21 11.5**	**-0.1**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
PKI	**Pulchoki**	**27.31**	**339**	*e*P	**P**	**00 21 22.8**	**+0.4**
	comp=Z,44nm,0.9s,mb5.0						
GUN	**Gumba**	**27.45**	**340**	*e*P	**P**	**00 21 23.9**	**+0.2**
	comp=Z,90nm,0.7s,mb5.4						
DMN	**Daman**	**27.46**	**338**	*e*P	**P**	**00 21 24.4**	**+0.6**
	comp=Z,19nm,0.6s,mb4.8						
KKN	**Kakani**	**27.56**	**339**	*e*P	**P**	**00 21 24.5**	**-0.2**
	comp=Z,79nm,1.0s,mb5.3						
LSA	**Lhasa**	**27.80**	**350**	⇑*i*P	**P**	**00 21 27.2**	**+0.3**
	comp=Z,32nm,0.9s,mb4.9						
GKN	**Gorkha**	**27.99**	**338**	*e*P	**P**	**00 21 28.4**	**-0.2**
	comp=Z,55nm,0.8s,mb5.2						
KOLN	**Koldanda**	**28.19**	**336**	*e*P	**P**	**00 21 30.4**	**0.0**
	comp=Z,35nm,0.7s,mb5.1						
CD2	**Chengdu**	**29.44**	**13**	⇓*i*P	**P**	**00 21 40.5**	**-1.2**
CD2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
ENH	**Enshi**	**30.62**	**23**	*e*P	**P**	**00 21 50.4**	**-1.7**
	comp=Z,17nm,0.8s,mb4.9						
ENH				*e*		00 21 55.8	
XAN	**Xi’an**	**33.83**	**19**	P	**P**	**00 22 18.8**	**-1.3**
XAN				AMB	AMB		
	comp=Z,34nm,0.8s,mb5.3						
LZH	**Lanzhou**	**34.46**	**11**	*e*P	**P**	**00 22 24.5**	**-1.0**
LZH				AMB	AMB		
	comp=Z,31nm,1.2s,mb5.1						
GTA	**Gaotai**	**37.20**	**5**	*e*P	**P**	**00 22 48.3**	**-0.4**
GTA				AP	pP	00 22 55.8	-1.8
GTA				XP	sP	00 22 59.5	-1.9
GTA				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
NWAO	**Narrogin (SRO)**	**40.14**	**152**	P	**P**	**00 23 12.2**	**-1.1**
	comp=Z,9.7nm,1.0s,mb4.5,baz=51,slow=14,SNR=2.2						
HHC	**Hu-ho-hao-te**	**40.90**	**18**	*e*P	**P**	**00 23 20.5**	**+1.1**
HHC				AP	pP	00 23 26.5	-1.9
HHC				XP	sP	00 23 32.3	+0.1
HHC				S	**S**	**00 29 21.8**	**-7.0**
HHC				AMB	AMB		
	comp=Z,19nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,199nm,6.2s						
BJT	**Baijiatuau**	**41.77**	**23**	*e*P	**P**	**00 23 27.7**	**+1.1**
	comp=Z,35nm,0.6s,mb5.2						
BJI	**Beijing**	**41.80**	**23**	P	**P**	**00 23 27.8**	**+1.0**
WMQ	**Urumqi**	**42.16**	**351**	*e*P	**P**	**00 23 30.0**	**+0.2**
WRA	**Warramunga Arr**	**43.33**	**122**	P	**P**	**00 23 40.9**	**+1.3**
	comp=Z,3.5nm,0.8s,mb4.2,baz=302,slow=9.0,SNR=15						
WRAB	**Tennant Creek**	**43.34**	**122**	*e*P	**P**	**00 23 37.4**	**-2.3**
	comp=Z,8.8nm,0.9s,mb4.5						
UCH	**Uchtor**	**44.40**	**337**	P	**P**	**00 23 48.8**	**+0.8**
	SNR=8.9						
KBK	**Karagaybulak**	**44.59**	**338**	P	**P**	**00 23 50.6**	**+1.1**
	SNR=8.3						
AML	**Almayashu**	**44.64**	**336**	P	**P**	**00 23 51.0**	**+1.0**
	SNR=6.5						
ASAR	**Alice Springs**	**44.71**	**127**	P	**P**	**00 23 52.1**	**+1.4**
	comp=Z,1.7nm,0.6s,mb4.0,baz=301,slow=8.0,SNR=13						
AAK	**Ala-Archa**	**44.75**	**337**	*e*P	**P**	**00 23 50.8**	**0.0**
	comp=Z,6.5nm,1.0s,mb4.4						
EKS2	**Erkin-Say**	**45.05**	**336**	P	**P**	**00 23 54.1**	**+0.9**
	SNR=6.4						
USP	**Ospenovka**	**45.28**	**338**	P	**P**	**00 23 55.5**	**+0.4**
	SNR=13						
SONM	**Songino Array**	**46.32**	**9**	P	**P**	**00 24 03.1**	**-0.1**
	comp=Z,6.3nm,0.5s,mb4.8,baz=190,slow=9.2,SNR=55						
SONM				PcP	PcP	00 25 38.6	+0.1
	comp=Z,1.3nm,0.6s,baz=190,slow=3.3,SNR=4.6						
ULN	**Ulaanbaatar**	**46.46**	**10**	*e*P	**P**	**00 24 03.6**	**-0.6**
	comp=Z,4.3nm,0.8s,mb4.4						
CN2	**Changchun**	**48.87**	**28**	*e*P	**P**	**00 24 23.0**	**-0.1**
ZAL	**Zalesovo**	**52.45**	**351**	P	**P**	**00 24 49.4**	**-0.9**
	comp=Z,10nm,0.6s,mb4.9,baz=306,slow=5.6,SNR=57						
CTA	**Charters Tower**	**53.76**	**117**	P	**P**	**00 25 01.3**	**+0.9**
	comp=Z,4.3nm,0.9s,mb4.4,baz=300,slow=8.5,SNR=3.4						
STKA	**Stephens Creek**	**54.69**	**132**	P	**P**	**00 25 06.2**	**-0.8**
	comp=Z,2.8nm,0.8s,mb4.3,baz=262,slow=8.0,SNR=4.1						
BVAR	**Borovoye Array**	**55.03**	**341**	P	**P**	**00 25 07.9**	**-1.4**
	comp=Z,6.2nm,0.7s,mb4.8,baz=141,slow=9.5,SNR=37						
BRVK	**Borovoye**	**55.10**	**341**	*e*P	**P**	**00 25 08.3**	**-1.5**
	comp=Z,3.7nm,0.6s,mb4.6						
CHKZ	**Chkalovo**	**55.52**	**342**	⇑*i*P	**P**	**00 25 11.6**	**-1.2**
	comp=Z,12nm,0.7s,mb5.0						
KMBO	**Kilima Mbogo**	**59.11**	**267**	P	**P**	**00 25 34.4**	**-4.3**
	comp=Z,0.3nm,0.5s,mb3.5,baz=332,slow=17,SNR=2.1						
KMBO	**Kilima Mbogo**	**59.11**	**267**	*e*P	**P**	**00 25 34.0**	**-4.7**
	comp=Z,2.3nm,1.0s,mb4.2						
KMBO				*e*		00 25 47.8	
ASF	**Jabal al Asfar**	**63.15**	**305**	P	**P**	**00 26 04.0**	**-1.8**
	comp=Z,2.0nm,0.9s,mb4.2,baz=83,slow=8.1,SNR=3.0						
EIL	**Elat**	**64.16**	**302**	P	**P**	**00 26 08.9**	**-3.7**
	comp=Z,3.9nm,1.0s,mb4.4,baz=173,slow=16,SNR=2.7						
BRTR	**Keskin Array B**	**67.78**	**312**	P	**P**	**00 26 34.1**	**-1.4**
	comp=Z,1.2nm,0.7s,mb4.0,baz=136,slow=7.7,SNR=9.7						
LSZ	**Lusaka**	**69.51**	**253**	P	**P**	**00 26 47.6**	**+1.1**
	comp=Z,1.0nm,0.8s,mb3.8						
LBTB	**Lobatse**	**73.50**	**243**	*e*P	**P**	**00 27 11.5**	**+1.1**
	comp=Z,2.3nm,0.9s,mb4.1						
AKASG	**Malin Array Be**	**73.93**	**322**	P	**P**	**00 27 11.1**	**-1.3**
	comp=Z,1.9nm,0.6s,mb4.2,baz=88,slow=4.9,SNR=12						
BOSA	**Boshof**	**74.47**	**240**	*e*P	**P**	**00 27 16.2**	**+0.3**
	comp=Z,1.6nm,1.0s,mb3.9						
FINES	**FINESS Array B**	**78.71**	**333**	P	**P**	**00 27 38.9**	**-0.1**
	comp=Z,2.9nm,0.6s,mb4.4,baz=92,slow=8.5,SNR=15						
FINES	**FINESS Array B**	**78.71**	**333**	P	**P**	**00 27 38.9**	**-0.1**
ARCES	**ARCESS Array B**	**81.31**	**340**	P	**P**	**00 27 53.5**	**+0.6**
	comp=Z,2.2nm,0.5s,mb4.3,baz=94,slow=4.9,SNR=22						
GERES	**GERESS Array B**	**83.48**	**319**	P	**P**	**00 28 05.4**	**+1.0**
	comp=Z,1.6nm,0.9s,mb4.1,baz=104,slow=5.5,SNR=12						
HFS	**Hagfors**	**84.42**	**330**	P	**P**	**00 28 09.2**	**+0.3**
	comp=Z,2.2nm,1.0s,mb4.2,baz=72,slow=9.4,SNR=1.9						
NOA	**NORSAR Array B**	**85.71**	**331**	P	**P**	**00 28 15.4**	**+0.1**
	comp=Z,0.9nm,0.7s,mb4.1,baz=276,slow=18,SNR=3.3						
DAVOX	**Davos**	**85.96**	**317**	P	**P**	**00 28 17.7**	**+0.8**
	comp=Z,3.4nm,0.8s,mb4.6,baz=121,slow=5.9						
TXAR	**Lajitas Array**	**143.31**	**30**	PKP	PKPdf	00 35 10.4	-5.0
	comp=Z,0.4nm,0.6s,baz=345,slow=1.9,SNR=6.3						

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*IDC **27** 00:18:49.3±1.0, 4.09N×93.07E, mb4.0/11, mb1 4.2/12, mb1mx4.0/21, ML4.0/1, Error ellipse: s-maj=51.8km s-min=20.0km az=46.0*

*NEIC **27** 00:18:52.5±0.5, 4.06N×93.10E, mb4.4/3, Error ellipse: s-maj=19.8km s-min=10.3km az=52.0*

ISC 27 00:18:52.4±0.7**, 4.1N**±0.1×**93.1E**±0.2**, h33^{km}, n17, σ0^{s}74**/16**, mb4.1**/14**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.35**	**21**	Pn	**P**	**00 22 29.0**	**+0.5**
	0.2nm,0.3s,baz=214,slow=13,SNR=3.7						
WRA	**Warramunga Arr**	**47.01**	**122**	P	**P**	**00 27 22.3**	**-0.4**
	1.4nm,0.7s,mb4.0,baz=303,slow=9.3,SNR=5.7						
WRAB	**Tennant Creek**	**47.01**	**122**	*e*P	**P**	**00 27 22.0**	**-0.8**
	2.8nm,0.7s,mb4.3						
ASAR	**Alice Springs**	**48.37**	**127**	P	**P**	**00 27 34.5**	**+1.1**
	0.6nm,0.8s,mb3.7,baz=149,slow=8.0,SNR=5.2						
ZAL	**Zalesovo**	**50.14**	**354**	P	**P**	**00 27 46.8**	**+0.1**
	2.3nm,0.4s,mb4.5,baz=296,slow=4.9,SNR=7.3						
BVAR	**Borovoye Array**	**52.24**	**343**	P	**P**	**00 28 02.1**	**-0.4**
	1.4nm,0.6s,mb4.1,baz=147,slow=11,SNR=5.8						
BRVK	**Borovoye**	**52.30**	**343**	*e*P	**P**	**00 28 02.5**	**-0.5**
	2.4nm,0.9s,mb4.1						
BRVK				*e*pP	pP	00 28 09.1	-3.8
CHKZ	**Chkalovo**	**52.75**	**343**	*e*P	**P**	**00 28 05.8**	**-0.4**
	3.0nm,0.4s,mb4.6						
CHKZ				*e*pP	pP	00 28 12.8	-3.4
BRTR	**Keskin Array B**	**64.17**	**312**	P	**P**	**00 29 25.7**	**-0.5**
	0.5nm,0.8s,mb3.6,baz=123,slow=8.2,SNR=5.2						
MLR	**Muntele Rosu**	**71.18**	**317**	P	**P**	**00 30 10.1**	**+0.1**
	1.3nm,0.6s,mb4.0,baz=133,slow=4.1,SNR=3.0						
MLR	**Muntele Rosu**	**71.18**	**317**	P	**P**	**00 30 10.1**	**+0.1**
FINES	**FINESS Array B**	**75.57**	**333**	P	**P**	**00 30 34.4**	**-1.0**
	1.6nm,1.0s,mb3.9,baz=72,slow=6.0,SNR=3.6						
ARCES	**ARCESS Array B**	**78.46**	**341**	P	**P**	**00 30 51.4**	**0.0**
	1.4nm,0.9s,mb3.9,baz=96,slow=8.2,SNR=3.4						
GERES	**GERESS Array B**	**79.97**	**319**	P	**P**	**00 31 00.7**	**+0.7**
	1.0nm,0.7s,mb3.9,baz=104,slow=5.5,SNR=7.7						
HFS	**Hagfors**	**81.20**	**330**	P	**P**	**00 31 06.2**	**-0.1**
	1.2nm,0.9s,mb3.8,baz=178,slow=40,SNR=4.2						
DAVOX	**Davos**	**82.41**	**316**	P	**P**	**00 31 14.9**	**+2.1**
	3.1nm,0.6s,mb4.4,baz=173,slow=2.5,SNR=13						
TXAR	**Lajitas Array**	**143.04**	**25**	PKP	PKPdf	00 38 24.4	+0.8
	0.2nm,0.7s,baz=333,slow=2.8,SNR=4.2						

SKHL 27 00:19:08.5±0.2**, 53.83N×125.78E, h7^{km}**±1^{km}**, mb4.1**/6**, 1D, Priamurye-Northeastern China border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZEA	**Zeya**	**0.88**	**95**	⇓*i*Pg	Pg	00 19 24.9	-1.2
ZEA				AMB	AMB	00 19 25.8	
	74nm,0.3s						
ZEA				AMB	AMB	00 19 25.8	
	95nm,0.3s						
ZEA				AMB	AMB	00 19 25.8	
	130nm,0.3s						
ZEA				pPg		00 19 26.8	
ZEA				sPg		00 19 29.3	
ZEA				*i* Sg	Sg	00 19 36.9	-0.9
ZEA				A		00 19 38.0	
	400nm,1.0s						
ZEA				A		00 19 38.2	
	140nm,0.3s						
ZEA				A		00 19 38.2	
	350nm,0.3s						
ZEA				A		00 19 38.2	
	180nm,0.3s						
KROS	**Kirovskiy**	**0.93**	**49**	*i* Pg	Pg	00 19 25.0	-2.0
KROS				AMB	AMB	00 19 25.9	
	72nm,0.2s						
KROS				AMB	AMB	00 19 25.9	
	86nm,0.2s						
KROS				AMB	AMB	00 19 25.9	
	110nm,0.2s						
KROS				sPg		00 19 29.7	
KROS				*i* Sg	Sg	00 19 37.0	-2.4
KROS				A		00 19 38.5	
	470nm,0.5s						
KROS				A		00 19 38.5	
	240nm,0.5s						
YASR	**Yasnyy**	**1.42**	**112**	*i* Pg	Pg	00 19 34.0	-2.9
YASR				AMB	AMB	00 19 34.5	
	58nm,0.3s						
YASR				AMB	AMB	00 19 34.5	
	16nm,0.4s						
YASR				AMB	AMB	00 19 34.5	
	20nm,0.4s						
YASR				sPg		00 19 37.1	
YASR				*i* Sg	Sg	00 19 53.0	-2.8
YASR				A		00 19 59.0	
	300nm,0.6s						
YASR				A		00 19 59.0	
	90nm,0.6s						
BMKR	**Bomnak**	**2.00**	**63**	*e*Pn	Pn	00 19 43.4	+0.3
BMKR				*e*Pg	Pg	00 19 45.0	-3.5
BMKR				AMB	AMB	00 19 46.0	
	26nm,0.4s						
BMKR				AMB	AMB	00 19 46.0	
	50nm,0.4s						
BMKR				AMB	AMB	00 19 46.0	
	55nm,0.4s						

BMKR				*e*Sn	Sn	00 20 09.5	+0.8
BMKR				*i* Sg	Sg	00 20 11.4	-3.8
BMKR				A		00 20 12.0	
	240nm,0.5s						
BMKR				A		00 20 12.0	
	160nm,0.5s						
TUP	**Tupik**	3.48	282	*e*Pn	Pn	00 20 06.0	+1.8
TUP				*e*Pg	Pg	00 20 13.8	-4.2
TUP				*e*rx	rx	00 20 15.2	
TUP				AMB	AMB	00 20 16.7	
	12nm,0.2s						
TUP				*e*Sn	Sn	00 20 44.0	-2.2
TUP				*e*Sg	Sg	00 20 58.0	-6.4
TUP				A		00 21 05.8	
	59nm,0.6s						
EKMR	**Ekimchan**	4.35	97	*e*Pn	Pn	00 20 16.4	-0.2
EKMR				*e*Pg	Pg	00 20 27.0	-8.4
EKMR				AMB	AMB	00 20 31.0	
	14nm,0.3s						
EKMR				*e*Sg	Sg	00 21 24.5	-9.0
EKMR				A		00 21 39.1	
	32nm,0.6s						
EKMR				A		00 21 39.1	
	8.0nm,0.6s						
EKMR				A		00 21 39.1	
	16nm,0.6s						
CRS	**Chara**	5.27	309	*e*Pn	Pn	00 20 31.7	+2.0
CRS				*e*Sg	Sg	00 21 55.6	-8.5
GRNR	**Gornyy**	7.21	111	*e*Sg	Sg	00 22 53.0	-16

*IDC **27** 00:21:03.3±1.1, 8.28N×93.46E, mb3.9/9, mb1 4.1/10, mb1mx3.9/19, ML4.3/1, Error ellipse: s-maj=61.9km s-min=18.3km az=56.0*
*BJI **27** 00:21:05.2, 8.10N×93.20E, h30^{km}, mb4.5*
*NEIC **27** 00:21:07.2±0.7, 8.06N×93.20E, h30^{km}, mb4.4/2, Error ellipse: s-maj=25.7km s-min=12.6km az=63.0*
ISC 27 00:21:04.9±0.8,**8.1N**±0.1×**93.2E**±0.2,**h30^{km},n19, σ0^{s}82**/15,**mb4.1**/13,**1D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	11.73	28	P	**P**	**00 23 54.2**	**+0.7**
CMAR	**Chiang Mai Arr**	11.73	28	Pn	**P**	**00 23 59.7**	**+6.2**
	0.7nm,0.3s,baz=219,slow=14,SNR=6.0						
CD2	**Chengdu**	24.77	22	⇓*i*P	**P**	**00 26 26.5**	**+0.9**
CD2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.8						
GTA	**Gaotai**	31.77	10	*e*P	**P**	**00 27 28.3**	**-0.6**
GTA				AP	pP	00 27 33.0	-4.7
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.3						
SONM	**Songino Array**	41.18	13	P	**P**	**00 28 48.1**	**-0.4**
	comp=Z,0.6nm,0.5s,mb3.5,baz=204,slow=8.5,SNR=5.2						
ZAL	**Zalesovo**	46.24	353	P	**P**	**00 29 28.5**	**-0.8**
	comp=Z,1.8nm,0.7s,mb4.1,baz=292,slow=7.8,SNR=6.0						
BVAR	**Borovoye Array**	48.52	342	P	**P**	**00 29 46.3**	**-0.8**
	comp=Z,0.6nm,0.7s,mb3.8,baz=198,slow=4.6,SNR=3.8						
CHKZ	**Chkalovo**	49.01	342	*e*P	**P**	**00 29 49.9**	**-1.0**
	comp=Z,1.3nm,0.4s,mb4.3						
WRA	**Warramunga Arr**	49.11	125	P	**P**	**00 29 51.6**	**-0.6**
	comp=Z,0.7nm,0.5s,mb4.0,baz=304,slow=8.8,SNR=5.8						
WRAB	**Tennant Creek**	49.12	125	P	**P**	**00 29 51.3**	**-0.9**
	comp=Z,4.4nm,0.8s,mb4.5						
ASAR	**Alice Springs**	50.74	129	P	**P**	**00 30 04.9**	**+0.4**
	comp=Z,1.3nm,0.6s,mb4.0,baz=308,slow=7.3,SNR=7.0						
STKA	**Stephens Creek**	60.90	133	P	**P**	**00 31 18.3**	**+0.7**
	comp=Z,2.9nm,0.8s,mb4.5,baz=350,slow=5.9,SNR=3.9						
FINES	**FINESS Array B**	72.12	332	P	**P**	**00 32 28.4**	**+0.1**
	comp=Z,3.0nm,1.1s,mb4.2,baz=162,slow=4.4,SNR=3.8						
ARCES	**ARCESS Array B**	74.78	340	P	**P**	**00 32 44.2**	**+0.5**
	comp=Z,1.1nm,0.7s,mb3.9,baz=104,slow=5.0,SNR=4.0						
GERES	**GERESS Array B**	77.08	318	P	**P**	**00 32 59.2**	**+2.1**
	comp=Z,0.4nm,0.8s,mb3.4,baz=72,slow=3.1,SNR=3.3						
NVAR	**Mina Array Bea**	125.22	30	PKP	PKPdf	00 40 06.6	-1.8
	comp=Z,0.6nm,0.5s,baz=305,slow=2.0,SNR=4.0						
PDAR	**Pinedale Array**	125.31	20	PKP	PKPdf	00 40 06.1	-2.3
	comp=Z,0.4nm,0.7s,slow=3.0,SNR=4.5						
TXAR	**Lajitas Array**	139.41	23	PKP	PKPdf	00 40 34.7	-0.6
	comp=Z,0.1nm,0.4s,baz=208,slow=1.1,SNR=5.1						
TXAR	**Lajitas Array**	139.41	23	PKP	PKPdf	00 40 34.7	-0.6

IDC 27 00:22:36.0±1.1,**4.41N**×**94.61E,mb4.2**/8,**mb1 4.4**/8, **mb1mx4.1**/17,**Error ellipse: s-maj=61.3km s-min=17.8km az=52.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	44.44	11	P	P	00 30 48.1	-2.4
	1.4nm,1.0s,baz=208,slow=3.2,SNR=5.1						
ZAL	**Zalesovo**	50.02	352	P	P	00 31 32.7	-1.5
	1.5nm,0.3s,baz=306,slow=5.5,SNR=4.5						
BVAR	**Borovoye Array**	52.40	342	P	P	00 31 49.8	-2.5
	0.6nm,0.5s,baz=140,slow=12,SNR=4.7						
AKASG	**Malin Array Be**	71.15	322	P	P	00 33 56.4	-2.2
	0.7nm,0.7s,baz=97,slow=4.8,SNR=3.4						
FINES	**FINESS Array B**	75.98	333	P	P	00 34 25.4	-1.1
	3.5nm,1.0s,baz=135,slow=5.4,SNR=3.8						
GERES	**GERESS Array B**	80.71	319	P	P	00 34 51.4	-1.2
	0.9nm,0.7s,baz=90,slow=5.3,SNR=6.2						

*IDC **27** 00:22:42.9±2.7, 3.53N×94.37E, mb4.1/9, mb1 4.2/10, mb1mx4.1/20, ML4.5/1, Error ellipse: s-maj=72.9km s-min=36.7km az=121.0*
*NEIC **27** 00:22:46.4±0.7, 3.46N×94.69E, mb4.6/7, Error ellipse: s-maj=21.5km s-min=15.7km az=83.0*
ISC 27 00:22:44.0±0.5,**3.4N**±0.1×**94.7E**±0.1,**h30^{km},n24, σ1^{s}00**/23,**mb4.3**/19,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	15.49	15	Pn	**P**	**00 26 27.9**	**+5.6**
	0.6nm,0.3s,baz=212,slow=10,SNR=8.4						
LSA	**Lhasa**	26.34	353	*e*P	**P**	**00 28 18.4**	**-1.0**
	14nm,0.8s,mb4.5						
AAK	**Ala-Archa**	43.00	338	P	**P**	**00 30 42.3**	**-0.2**
	3.3nm,1.0s,mb4.0						
WRA	**Warramunga Arr**	45.31	122	P	**P**	**00 31 01.6**	**+0.2**
	4.5nm,0.7s,mb4.4,baz=300,slow=9.0,SNR=11						
WRAB	**Tennant Creek**	45.31	122	*e*P	**P**	**00 31 01.9**	**+0.4**
	5.9nm,0.6s,mb4.6						
SONM	**Songino Array**	45.36	11	P	**P**	**00 31 02.6**	**+1.1**
	1.1nm,0.5s,mb4.0,baz=194,slow=8.0,SNR=5.6						
ASAR	**Alice Springs**	46.70	127	P	**P**	**00 31 12.8**	**+0.4**
	1.9nm,0.5s,mb4.3,baz=295,slow=7.9,SNR=14						
ZAL	**Zalesovo**	50.99	352	P	**P**	**00 31 44.0**	**-1.1**
	1.2nm,0.5s,mb4.1,baz=302,slow=6.6,SNR=5.8						
BVAR	**Borovoye Array**	53.36	342	P	**P**	**00 32 03.5**	**+0.5**
	3.5nm,0.7s,mb4.4,baz=143,slow=7.4,SNR=16						
BRVK	**Borovoye**	53.42	342	*e*P	**P**	**00 32 03.6**	**+0.2**
	5.5nm,0.9s,mb4.5						
CHKZ	**Chkalovo**	53.85	342	*e*P	**P**	**00 32 07.0**	**+0.5**
	9.5nm,0.8s,mb4.8						
CHKZ				*e*pP	pP	00 32 16.0	+0.5
STKA	**Stephens Creek**	56.68	132	P	**P**	**00 32 25.1**	**-2.2**
	3.0nm,0.9s,mb4.3,baz=135,slow=4.5,SNR=3.4						
ARU	**Arti**	60.19	338	*e*P	**P**	**00 32 51.3**	**-0.1**
	6.5nm,0.9s,mb4.7						
MALT	**Malatya**	61.81	312	*e*P	**P**	**00 33 03.3**	**+0.6**
MALT				*e*pP	pP	00 33 12.5	+0.5
EIL	**Elat**	62.19	302	P	**P**	**00 33 03.4**	**-2.0**
	2.6nm,0.7s,mb4.5,baz=80,slow=3.5,SNR=2.9						
BRTR	**Keskin Array B**	65.79	312	P	**P**	**00 33 28.6**	**-0.2**
	1.4nm,0.9s,mb4.0,baz=127,slow=6.2,SNR=4.8						
AKASG	**Malin Array Be**	71.99	323	P	**P**	**00 34 05.8**	**-1.1**
	0.5nm,0.4s,mb3.8,baz=89,slow=4.8,SNR=7.1						
LBTB	**Lobatse**	72.69	243	*e*P	**P**	**00 34 11.0**	**-0.6**
	1.8nm,0.8s,mb4.0						
FINES	**FINESS Array B**	76.89	333	P	**P**	**00 34 35.6**	**+0.7**
	0.9nm,0.5s,mb4.0,baz=90,slow=4.7,SNR=9.0						
SUR	**Sutherland**	78.33	236	P	**P**	**00 34 45.6**	**+2.1**
ARCES	**ARCESS Array B**	79.61	340	P	**P**	**00 34 50.6**	**+0.8**
	2.4nm,0.8s,mb4.2,baz=90,slow=6.1,SNR=6.3						
GERES	**GERESS Array B**	81.52	319	P	**P**	**00 35 01.8**	**+1.6**
	1.5nm,0.9s,mb3.9,baz=90,slow=6.7,SNR=6.3						
CLL	**Collm**	82.15	321	P	**P**	**00 35 03.0**	**-0.4**
LPAZ	**La Paz**	158.86	232	PKPab	PKPab	00 43 19.0	+0.9
	0.9nm,0.6s,baz=137,slow=2.4,SNR=5.2						

IDC 27 00:23:06.1±4.9,**12.91N**×**92.88E,mb3.9**/2,**mb1 4.1**/3, **mb1mx3.6**/18,**ML3.8**/1,**Error ellipse: s-maj=102.0km s-min=45.6km az=98.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	8.04	46	Pn	P	00 25 03.1	-3.7
	0.4nm,0.3s,baz=237,slow=15,SNR=5.1						
WRA	**Warramunga Arr**	52.25	128	P	P	00 32 19.2	-2.4
	1.2nm,0.6s,baz=301,slow=10.0,SNR=5.5						
ASAR	**Alice Springs**	54.14	132	P	P	00 32 33.8	-1.7
	1.1nm,0.7s,baz=307,slow=7.0,SNR=5.1						

*IDC **27** 00:24:28.6±0.4, 4.50N×93.86E, mb5.1/32, mb1 5.1/33, mb1mx5.1/33, Error ellipse: s-maj=17.4km s-min=9.8km az=46.0*
*BJI **27** 00:24:28.8, 4.26N×93.84E, h27^{km}, mB5.3, mb5.0, Ms5.2, Msz4.9*
*SYO **27** 00:24:29.9, 4.47N×93.76E, h10^{km}, MB5.4*
*NEIC **27** 00:24:30.8±1.9, 4.47N×93.81E, h15^{km}±11^{km}, mb5.3/61, Error ellipse: s-maj=4.5km s-min=3.5km az=225.0*
*HRVD **27** 00:24:30.8±1.0, 4.37N×93.76E, h12^{km}, MW5.2/36, Centroid moment Tensor Solution. LP body waves: s11,c11;Mantle waves: s36,c52; Half duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}-5.23±.62; $M_{\theta\theta}$4.62±.41; $M_{\phi\phi}$0.61±.62; $M_{r\theta}$1.28±1.43; $M_{\theta\phi}$-3.16±.45; $M_{\phi r}$-4.05±2.02; Best double couple: $M_0$7.25×10^{16} NP1: ϕ_s96°, δ36°, λ-131°. NP2: ϕ_s323°, δ64°, λ-65°. Principal axes: T 7.19, Plg15°, Azm34°; N .12, Plg23°, Azm131°; P -7.31, Plg62°, Azm273°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS **27** 00:24:32.0±0.9, 4.57N×93.84E, h33^{km}, mb5.5/48 Error ellipse: s-maj=9.6km s-min=5.2km az=119.9*
*CSEM **27** 00:24:35.7, 5.44N×93.94E, h33^{km}, mb5.5*
ISC 27 00:24:29.9±0.2,**4.47N**±0.03×**93.87E**±0.03,**h20^{km}, h20^{km}**±1.3^{km}**:pP-P,n338,σ0^{s}91**/309,**mb5.2**/114,**MS5.0**/6, **12C-33D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	7.23	68	P	**Pn**	**00 26 19.0**	**+1.8**
	650nm,1.1s						
PALK	**Pallekele**	13.39	283	*e*P	**P**	**00 27 39.3**	**-2.3**
CM31	**Chiang Mai Arr**	14.76	19	*e*P	**P**	**00 28 00.5**	**+0.9**
	74nm,0.8s						
CMAR	**Chiang Mai Arr**	14.76	19	Pn	**P**	**00 27 60.0**	**+0.4**
	baz=215,slow=12,SNR=22						
CMAR				PcP	PcP	00 33 11.9	+0.5
	0.5nm,0.3s,baz=225,slow=2.6,SNR=4.8						
CHG	**Chiang Mai**	15.09	19	⇓P	**P**	**00 28 03.9**	**-0.1**
	46nm,1.3s						
UBT	**Ubonrachathani**	15.33	45	P	**P**	**00 28 20.0**	**+13**
MDRS	**Chennai**	15.94	303	*e*P	**P**	**00 28 12.4**	**-2.5**
CHRT	**Chiangrai**	16.36	20	PG	**P**	**00 28 21.0**	**+0.8**
CHRT				SG	Px	00 28 27.5	
VIS	**Vishakhapatnam**	16.73	323	*e*	**P**	**00 28 30.6**	**+5.6**
	comp=Z,234nm,1.3s						
VIS				*e*		00 31 15.3	
VIS				*e*S	**S**	**00 31 17.1**	**-12**
COCO	**West Island**	16.81	170	*e*P	**P**	**00 28 24.3**	**-1.7**
	comp=Z,315nm,1.3s						
KOD	**Kodaikanal**	17.24	290	*e*P	**P**	**00 28 33.5**	**+2.1**
KOD				*e*		00 28 35.0	
TRD	**Trivandrum**	17.27	284	*e*P	**P**	**00 28 33.0**	**+1.2**
TRD				*e*		00 28 38.2	
	comp=Z,106nm,1.4s						
HYB	**Hyderabad**	19.77	312	*e*P	**P**	**00 29 01.5**	**-0.4**
HYB	**Hyderabad**	19.77	312	*i* P	**P**	**00 29 01.5**	**-0.4**
BOK	**Bokaro**	20.70	339	*e*P	**P**	**00 29 11.8**	**+0.2**
BLSP	**Bilaspur**	20.92	328	*e*P	**P**	**00 29 13.4**	**-0.5**
BLSP				*e*		00 29 19.0	
	comp=Z,230nm,1.3s						
BLSP				*e*S	**S**	**00 32 58.2**	**-3.1**
SHL	**Shillong**	21.06	355	*e*P	**P**	**00 29 12.8**	**-2.5**
SHL				*e*P		00 29 13.0	
SHL				*e*		00 29 15.4	
	comp=Z,82nm,1.4s						
SHL				*e*S	**S**	**00 33 03.0**	**-1.0**
QIZ	**Qiongzhong**	21.27	46	P	**P**	**00 29 18.5**	**+1.1**
QIZ				S	**S**	**00 33 07.3**	**-0.6**
QIZ				AMB	AMB		
	comp=Z,43nm,1.3s,mb4.6						
QIZ	**Qiongzhong**	21.27	46	*e*P	**P**	**00 29 18.0**	**+0.6**
	comp=Z,100nm,1.2s,mb5.0						
KMI	**Kunming**	22.23	22	P	**P**	**00 29 28.8**	**+1.7**
KMI				XP		00 29 35.0	
KMI				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.1						
KMI				LR	LR		
	comp=N,800nm,12.9s,MS4.4						
KMI				LR	LR		
	comp=E,550nm,12.1s,MS4.4						
KMI				LR	LR		
	comp=Z,658nm,17.6s						
GOA	**Goa**	22.55	300	*e*P	**P**	**00 29 36.2**	**+5.9**
GOA				*e*		00 29 41.1	
	comp=Z,232nm,1.6s						
AKL	**Akola**	23.00	316	*e*P	**P**	**00 29 36.5**	**+1.8**
POO	**Poona**	24.05	307	*e*P	**P**	**00 29 47.3**	**+2.4**
POO				*e*		00 29 49.1	
	comp=Z,125nm,1.3s						
POO				*e*S	**S**	**00 33 58.2**	**+0.3**
PKI	**Pulchoki**	24.35	342	*e*P	**P**	**00 29 48.9**	**+1.1**
	comp=Z,56nm,0.7s,mb5.1						
DMN	**Daman**	24.48	341	*e*P	**P**	**00 29 49.6**	**+0.5**
	comp=Z,84nm,1.0s,mb5.1						
BHPL	**Bhopal**	24.51	321	*e*P	**P**	**00 29 51.9**	**+2.5**
BHPL				*e*		00 29 53.0	
	comp=Z,101nm,1.2s						
BHPL				*e*S	**S**	**00 34 06.2**	**+0.4**
GUN	**Gumba**	24.52	343	*e*P	**P**	**00 29 50.3**	**+0.8**
	comp=Z,74nm,0.5s,mb5.4						
KKN	**Kakani**	24.59	341	*e*P	**P**	**00 29 50.8**	**+0.6**
	comp=Z,162nm,1.2s,mb5.5						
GKN	**Gorkha**	25.00	340	*e*P	**P**	**00 29 54.3**	**+0.2**
	comp=Z,307nm,1.0s,mb5.8						
GYA	**Guiyang**	25.06	28	⇑*i*P	**P**	**00 29 55.5**	**+0.9**
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.1						
BOM	**Bombay**	25.07	307	*e*P	**P**	**00 29 57.5**	**+2.8**
BOM				*e*		00 30 01.2	
	comp=Z,152nm,1.6s						
KOLN	**Koldanda**	25.15	338	*e*P	**P**	**00 29 56.1**	**+0.6**
	comp=Z,471nm,1.0s,mb6.0						
LSA	**Lhasa**	25.23	354	*e*P	**P**	**00 29 57.1**	**+0.9**
	comp=Z,141nm,0.8s,mb5.5						
CD2	**Chengdu**	27.90	18	P	**P**	**00 30 19.5**	**-1.3**
CD2				S	**S**	**00 35 02.0**	**+0.4**
CD2				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.2						
CD2				LR	LR		
	comp=N,6µm,10.2s						
CD2				LR	LR		
	comp=Z,4µm,16.2s						
TGY	**Tagaytay City**	28.34	68	P	**P**	**00 30 25.5**	**+0.7**
	comp=Z,109nm,0.4s,mb5.9,baz=268,slow=5.2,SNR=3.3						
AJM	**Ajmer**	28.59	322	*i* P	**P**	**00 30 28.0**	**+1.0**
NDI	**New Delhi**	28.81	328	*e*P	**P**	**00 30 28.7**	**-0.3**
NDI				*e*		00 30 30.9	
	comp=Z,78nm,1.3s						
ENH	**Enshi**	29.60	28	*e*P	**P**	**00 30 34.3**	**-1.8**
	comp=Z,29nm,0.8s,mb5.1						
DDI	**Dehra Dun**	29.74	332	*e*P	**P**	**00 30 36.2**	**-1.1**
WHN	**Wuhan**	32.34	34	⇑P	**P**	**00 31 00.8**	**+0.6**
WHN				AP	pP	00 31 07.5	+1.3
XAN	**Xi'an**	32.58	24	P	**P**	**00 31 01.5**	**-0.8**
XAN				AMB	AMB		
	comp=Z,27nm,0.9s,mb5.2						
LZH	**Lanzhou**	32.78	15	*e*P	**P**	**00 31 03.5**	**-0.5**
LZH				AP	pP	00 31 08.5	-1.5
LZH				AMB	AMB		
	comp=Z,33nm,1.2s,mb5.1						
GTA	**Gaotai**	35.20	8	*e*P	**P**	**00 31 25.3**	**+0.5**
GTA				AP	pP	00 31 29.8	-1.1
GTA				XP	sP	00 31 32.5	-0.9
GTA				PP	PP	00 32 40.0	-3.9
GTA				PCP	PcP	00 33 57.0	+1.0
GTA				S	**S**	**00 36 55.0**	**-1.1**
GTA				AMB	AMB		
	comp=Z,48nm,1.2s,mb5.3						
GTA				AMB	AMB		
	comp=Z,184nm,4.6s						
GTA				LR	LR		
	comp=N,3µm,23.2s,MS5.1						
GTA				LR	LR		
	comp=E,2µm,22.4s,MS5.1						
GTA				LR	LR		
	comp=Z,4µm,24.7s,MS5.1						
MBWA	**Marble Bar**	35.94	136	*e*P	**P**	**00 31 31.3**	**0.0**
	comp=Z,126nm,1.5s,mb5.6						
NJ2	**Nanjing**	36.07	38	*e*P	**P**	**00 31 31.3**	**-1.0**
NJ2				AP	pP	00 31 40.0	+1.7
NJ2				XP	sP	00 31 44.0	+3.1
NJ2				PP	PP	00 32 50.5	-4.1
NJ2				S	**S**	**00 37 02.0**	**-7.7**
NJ2				AMB	AMB		
	comp=Z,2µm,5.8s						
NJ2				LR	LR		
	comp=N,12µm,20.4s,MS5.8						
NJ2				LR	LR		
	comp=E,10µm,17.8s,MS5.8						
NJ2				LR	LR		
	comp=Z,11µm,16.8s,MS5.7						
SSE	**Sheshan**	36.90	41	*e*P	**P**	**00 31 39.0**	**-0.3**
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,117nm,4.0s						
KSH	**Kashi**	38.47	338	*i* PR		00 31 52.0	
KSH				AP	pP	00 31 57.0	-1.5
KSH				PP	PP	00 33 20.0	-4.1
KSH				*e*PCP	PcP	00 34 03.5	-2.3
KSH				S	**S**	**00 37 46.5**	**+0.3**
KSH				AMB	AMB		
	comp=Z,190nm,2.9s,mb5.3						
BTO	**Baotou**	38.80	20	*e*P	**P**	**00 31 55.8**	**+0.7**
HHC	**Hu-ho-hao-te**	39.56	21	*e*P	**P**	**00 32 02.5**	**+1.1**
HHC				AP	pP	00 32 07.3	-0.2
HHC				XP	sP	00 32 09.8	-0.3
HHC				PP	PP	00 33 37.0	+0.8
HHC				PCS		00 37 58.8	
HHC				S	**S**	**00 38 05.0**	**+2.4**
HHC				SS	SS	00 40 51.3	+0.7
HHC				AMB	AMB		
	comp=Z,27nm,1.2s,mb4.8						
HHC				AMB	AMB		
	comp=Z,668nm,6.7s						
WMQ	**Urumqi**	39.57	353	⇓P	**P**	**00 32 01.8**	**+0.3**
WMQ				AP	pP	00 32 06.3	-1.3
WMQ				XP	sP	00 32 08.8	-1.3
WMQ				PP	PP	00 33 36.8	+0.5
WMQ				S	**S**	**00 38 02.8**	**0.0**
WMQ				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.6						
WMQ				LR	LR		
	comp=N,789nm,27.0s,MS4.5						
WMQ				LR	LR		
	comp=E,563nm,28.9s,MS4.5						
WMQ				LR	LR		
	comp=Z,545nm,27.6s,MS4.2						
JOW	**Kunigami**	39.66	52	P	**P**	**00 32 02.8**	**+0.3**
	comp=Z,32nm,0.2s,mb5.7,baz=307,slow=29,SNR=9.5						
BJT	**Baijiatuau**	40.71	27	*e*P	**P**	**00 32 12.1**	**+1.2**
BJT				pmax	pmax		
	comp=Z,46nm,1.1s						
BJT	**Baijiatuau**	40.71	27	*e*P	**P**	**00 32 12.1**	**+1.2**
	comp=Z,46nm,1.1s,mb5.0						
ULHL	**Ulahol**	40.77	340	P	**P**	**00 32 12.3**	**+0.9**
	SNR=15						
KZA	**Kyzart**	40.97	339	P	**P**	**00 32 14.0**	**+1.0**
	SNR=26						
UCH	**Uchtor**	41.37	338	P	**P**	**00 32 17.5**	**+1.2**
	SNR=62						
KBK	**Karagaybulak**	41.58	339	P	**P**	**00 32 19.1**	**+1.0**
	SNR=74						
TKM2	**Tokmak 2**	41.59	340	P	**P**	**00 32 18.8**	**+0.6**
	SNR=22						
AML	**Almayashu**	41.60	337	P	**P**	**00 32 19.3**	**+1.0**
	SNR=100						
AAK	**Ala-Archa**	41.73	338	P	**P**	**00 32 20.3**	**+1.0**
	SNR=32						
AAK	**Ala-Archa**	41.73	338	*e*P	**P**	**00 32 19.1**	**-0.2**
AAK				pmax	pmax		
	comp=Z,78nm,1.1s,mb5.2						
AAK	**Ala-Archa**	41.73	338	*e*P	**P**	**00 32 19.1**	**-0.2**
	comp=Z,78nm,1.1s,mb5.2						
CHMS	**Chumysh**	41.95	339	P	**P**	**00 32 21.5**	**+0.4**
	SNR=22						
EKS2	**Erkin-Say**	42.02	338	P	**P**	**00 32 22.7**	**+1.1**
	SNR=36						
USP	**Ospenovka**	42.28	339	P	**P**	**00 32 24.3**	**+0.5**
	SNR=58						
NWAO	**Narrogin (SRO)**	43.29	151	P	**P**	**00 32 32.1**	**-0.1**
	comp=Z,6.2nm,0.6s,mb4.5,baz=333,slow=9.1,SNR=6.0						
NWAO				PcP	PcP	00 34 19.7	-1.9
	comp=Z,9.0nm,0.8s,baz=72,slow=6.4,SNR=2.2						
NWAO	**Narrogin (SRO)**	43.29	151	P	**P**	**00 32 32.1**	**-0.1**
NWAO						00 34 19.7	
NWAO				pmax	pmax		
	comp=Z,6.0nm,0.6s						
NWAO				pmax	pmax		
	comp=Z,9.0nm,0.9s						
NWAO	**Narrogin (SRO)**	43.29	151	*e*P	**P**	**00 32 31.7**	**-0.5**
	comp=Z,8.0nm,0.7s,mb4.6						
MKAR	**Makanchi Array**	43.34	348	*i* P	**P**	**00 32 32.5**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,16nm,0.6s						
SONM	**Songino Array**	44.52	12	P	**P**	**00 32 42.5**	**+0.5**
	comp=Z,42nm,0.8s,mb5.3,baz=193,slow=8.4,SNR=114						
SONM				PcP	PcP	00 34 25.6	0.0
	comp=Z,8.2nm,0.8s,baz=193,slow=3.5,SNR=7.1						
ULN	**Ulaanbaatar**	44.69	13	*e*P	**P**	**00 32 42.9**	**-0.5**
ULN				*e*		00 34 26.0	
ULN				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.1						
ULN	**Ulaanbaatar**	44.69	13	*e*P	**P**	**00 32 42.9**	**-0.5**
	comp=Z,25nm,0.8s,mb5.1						
ULN				*e*PcP	PcP	00 34 26.0	-0.2
SNY	**Shenyang**	45.68	31	⇑P	**P**	**00 32 51.5**	**+0.2**
SNY				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.8						
ZAK	**Zakamensk**	46.44	8	⇓*i*P	**P**	**00 32 57.5**	**+0.4**
WRA	**Warramunga Arr**	46.58	123	P	**P**	**00 32 58.8**	**+0.1**
	comp=Z,47nm,0.6s,mb5.6,baz=300,slow=9.0,SNR=102						
WRAB	**Tennant Creek**	46.59	123	*e*P	**P**	**00 32 58.7**	**0.0**
WRAB				pmax	pmax		
	comp=Z,95nm,0.7s,mb5.8						
WRAB	**Tennant Creek**	46.59	123	*e*P	**P**	**00 32 58.7**	**0.0**
	comp=Z,95nm,0.7s,mb5.8						
HASS	**Wahat al Ahsa'**	47.11	300	P	**P**	**00 33 03.4**	**+0.6**
TLY	**Talaya**	47.75	8	*e*P	**P**	**00 33 08.0**	**+0.5**
TLY				*e*		00 33 18.3	
TLY				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
TLY	**Talaya**	47.75	8	*e*P	**P**	**00 33 07.3**	**-0.2**
	comp=Z,13nm,0.8s,mb5.0						
ASAR	**Alice Springs**	48.01	127	P	**P**	**00 33 09.8**	**-0.1**
	comp=Z,17nm,0.8s,mb5.2,baz=304,slow=7.6,SNR=45						
ASAR				PcP	PcP	00 34 38.5	+0.3
	comp=Z,14nm,0.7s,baz=303,slow=3.6,SNR=12						
CN2	**Changchun**	48.05	31	*e*P	**P**	**00 33 10.0**	**0.0**
CN2				*e*S	**S**	**00 40 07.8**	**+1.7**
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
CN2				AMB	AMB		
	comp=Z,300nm,5.0s						
CN2				LR	LR		
	comp=N,800nm,12.0s,MS5.1						
CN2				LR	LR		
	comp=E,800nm,12.0s,MS5.1						
CN2				LR	LR		
	comp=Z,1µm,14.0s,MS5.0						
HIA	**Hailar**	49.75	22	*e*P	**P**	**00 33 22.8**	**-0.1**
HIA				pmax	pmax		
	comp=Z,24nm,0.9s						
HIA	**Hailar**	49.75	22	*e*P	**P**	**00 33 22.8**	**-0.2**
	comp=Z,24nm,0.9s,mb5.2						
QRN	**Al-Qurain**	49.78	304	*e*P	**P**	**00 33 23.4**	**-0.1**
ZAL	**Zalesovo**	49.87	353	P	**P**	**00 33 23.9**	**+0.1**
	comp=Z,33nm,0.6s,mb5.6,baz=299,slow=6.5,SNR=95						
RDF	**Al-Radifah**	50.15	304	*e*P	**P**	**00 33 27.1**	**+0.8**
RDF				AMb	AMB	00 33 29.0	
	comp=Z,519nm,1.0s						
MZLS	**Mizel**	50.70	297	P	**P**	**00 33 31.0**	**+0.5**
MDJ	**Mudanjiang**	50.78	33	P	**P**	**00 33 29.8**	**-1.1**
MDJ				PCP	PcP	00 34 46.3	-1.7
MDJ				PP	PP	00 35 26.3	-1.7
MDJ				SCP		00 38 42.5	
MDJ				PCS		00 38 43.8	

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MDJ                                  S       S          00 40 46.8 +2.7
MDJ                                  SS      SS         00 44 21.0 +4.6
MDJ                                  AMB     AMB
      comp=Z,24nm,1.4s,mb4.9
MDJ                                  AMB     AMB
      comp=Z,308nm,8.7s
MDJ                                  LR      LR
      comp=N,2µm,18.6s,MS5.4
MDJ                                  LR      LR
      comp=E,4µm,22.5s,MS5.4
MDJ                                  LR      LR
      comp=Z,3µm,25.7s,MS5.2
MDJ   Mudanjiang        50.78  33   eP       P          00 33 31.4 +0.5
      comp=Z,40nm,1.3s,mb5.2
RST   Umm Al-Ruwaisa    50.80 305   eP       P          00 33 31.8 +0.6
RST                                  AMb     AMB        00 33 33.7
      comp=Z,335nm,1.1s,mb6.2
NVS   Novosibirsk       50.95 352⇓iP       P          00 33 30.7 -1.3
NVS                                 i S      S          00 40 45.7 -0.6
NVS                                  pmax    pmax
      comp=Z,94nm,1.1s,mb5.6
NVS                                  pmax    pmax
      comp=N,90nm,1.3s
NVS                                  smax
      comp=E,74nm,2.3s
NVS                                  smax
      comp=N,38nm,2.1s
TATS  Tathlith          51.31 291    P       P          00 33 35.1 -0.1
BVA0  Borovoye Array    52.12 342    P       P          00 33 40.0 -0.9
BVA0                                 pmax    pmax
      comp=Z,5.0nm,0.8s,mb4.5
BVAR  Borovoye Array    52.12 342    P       P          00 33 40.1 -0.8
      comp=Z,33nm,0.7s,mb5.4,baz=143,slow=7.4,SNR=96
BVAR                                 PcP     PcP        00 34 52.9 +0.1
      comp=Z,11nm,0.8s,baz=124,slow=5.2,SNR=2.7
BRVK  Borovoye          52.18 342   eP       P          00 33 39.9 -1.4
BRVK                                 pmax    pmax
      comp=Z,50nm,0.9s,mb5.4
BRVK  Borovoye          52.18 342   eP       P          00 33 39.9 -1.4
      comp=Z,50nm,0.9s,mb5.5
NAMS  An Nimas          52.42 291    P       P          00 33 44.8 +1.1
CHKZ  Chkalovo          52.62 343    P       P          00 33 44.2 -0.4
CHKZ                                 pmax    pmax
      comp=Z,116nm,1.1s,mb5.7
AFFS  ‘Afif             52.63 297    P       P          00 33 45.7 +0.6
ARSS  Ar Rass           52.90 299    P       P          00 33 47.1  0.0
HILS  Ha’il             54.53 301    P       P          00 33 59.9 +0.8
PMG   Port Moresby      54.86 105   eP       P          00 34 01.1 -0.6
PMG                                  pmax    pmax
      comp=Z,15nm,0.8s
PMG   Port Moresby      54.86 105   eP       P          00 34 01.1 -0.6
      comp=Z,15nm,0.8s,mb5.1
KLR   Kul’dur           54.95  29   eP       P          00 33 58.5 -3.4
BOD   Bodaibo           55.50  13   eP       P          00 34 05.0 -0.8
KBRS  Khaybar           56.36 298    P       P          00 34 13.6 +1.3
GNI   Garni             56.65 316    P       P          00 34 13.5 -0.7
      comp=Z,8.4nm,0.8s,mb4.8,baz=109,slow=1.5,SNR=17
GNI   Garni             56.65 316   eP       P          00 34 12.7 -1.5
GNI                                  pmax    pmax
      comp=Z,103nm,1.6s
GNI   Garni             56.65 316   eP       P          00 34 12.7 -1.6
      comp=Z,103nm,1.6s,mb5.6
KMBO  Kilima Mbogo      56.84 266    P       P          00 34 16.6 +0.5
      comp=Z,21nm,1.0s,mb5.1,baz=61,slow=10.0,SNR=39
KMBO  Kilima Mbogo      56.84 266⇓iP       P          00 34 16.4 +0.4
KMBO                                 pmax    pmax
      comp=Z,30nm,1.1s
KMBO  Kilima Mbogo      56.84 266⇓iP       P          00 34 16.4 +0.4
      comp=Z,30nm,1.1s,mb5.2
CTA   Charters Tower    56.94 117    P       P          00 34 16.3 -0.3
      comp=Z,19nm,0.9s,mb5.1,baz=288,slow=8.9,SNR=12
CTAO  Charters Tower    56.94 117   eP       P          00 34 16.4 -0.2
CTAO                                e        pP         00 34 23.0 +0.2
CTAO                                 pmax    pmax
      comp=Z,24nm,1.0s,mb5.2
CTAO  Charters Tower    56.94 117   eP       P          00 34 16.4 -0.2
      comp=Z,24nm,1.0s,mb5.2
CTAO                                e        pP         00 34 23.0 +0.2
YNBS  Yanbu‘ al Bahr    57.19 296    P       P          00 34 19.1 +0.7
TI2   Plekhanov         57.34 318   i P      P          00 34 18.4 -0.7
CLNS  Chul’man          57.71  20   eP       P          00 34 19.9 -1.6
CLNS                                 pmax    pmax
      comp=N,24nm,1.0s
CLNS                                 pmax    pmax
      comp=E,26nm,1.0s
CLNS                                 pmax    pmax
      comp=Z,47nm,1.0s,mb5.5
UMJS  Umm Lajj          57.97 297    P       P          00 34 25.1 +1.3
STKA  Stephens Creek    58.00 132    P       P          00 34 23.5 -0.4
      comp=Z,13nm,0.7s,mb5.1,baz=312,slow=6.8,SNR=22
STKA  Stephens Creek    58.00 132   eP       P          00 34 23.3 -0.6
STKA                                e        pP         00 34 30.1 -0.1
ZEI   Tsey              58.36 319   eP       P          00 34 25.1 -1.2
ZEI                                 i                   00 36 39.4
ZEI                                  pmax    pmax
      comp=Z,11nm,1.0s,mb4.8
SVE   Sverdlovsk        58.46 339⇓iP       P          00 34 26.0 -0.7
SVE                                 e                   00 35 10.0
ARU   Arti              58.91 338   eP       P          00 34 28.2 -1.7
ARU                                  pmax    pmax
      comp=Z,84nm,1.3s,mb5.6
ARU   Arti              58.91 338   eP       P          00 34 28.1 -1.8
      comp=Z,84nm,1.3s,mb5.6
ERZM  Erzurum           58.92 315   i P      P          00 34 28.7 -1.5
TBKS  Tabuk             59.24 300    P       P          00 34 34.3 +1.7
YSS   Yuzh-Sakhalins    59.63  37⇓eP       P          00 34 34.7 -0.3
YSS                                 e                   00 34 46.9
YSS                                  pmax    pmax
      comp=Z,30nm,0.9s,mb5.3
YSS   Yuzh-Sakhalins    59.63  37   eP       P          00 34 34.6 -0.4
KIV   Kislovodsk        59.68 319    P       P          00 34 34.7 -0.7
      comp=Z,184nm,1.0s,mb6.1,SNR=15
KIV   Kislovodsk        59.68 319   eP       P          00 34 34.0 -1.4
KIV                                  pmax    pmax
      comp=Z,51nm,1.3s,mb5.4
KIV   Kislovodsk        59.68 319   eP       P          00 34 34.0 -1.4
      comp=Z,51nm,1.3s,mb5.4
ASF   Jabal al Asfar    59.88 305    P       P          00 34 37.4 +0.5
      comp=Z,19nm,1.1s,mb5.1,baz=344,slow=5.0,SNR=18
GOF   Gofitskoye        59.94 321⇓iP       P          00 34 36.0 -1.2
GOF                                  pmax    pmax
      comp=Z,20nm,1.0s,mb5.1
JMQS  Jabal Moqyreh     59.96 301    P       P          00 34 38.1 +0.6
ELZG  Elazig            60.14 312   i P      P          00 34 37.7 -0.9
AYUS  ‘Aynunah          60.34 300    P       P          00 34 40.7 +0.6
MALT  Malatya           60.49 312   eP       P          00 34 40.5 -0.5
MALT                                 pmax    pmax
      comp=Z,51nm,1.4s,mb5.4
MALT  Malatya           60.49 312   eP       P          00 34 40.5 -0.5
      comp=Z,51nm,1.4s,mb5.4
BDAS  Al Bad‘           60.53 300    P       P          00 34 42.1 +0.7
JMOS  Jabal al Moall    60.68 301    P       P          00 34 43.1 +0.7
ALWS  Ilw as Safayha    60.75 301    P       P          00 34 43.1 +0.2
HAQS  Haql              60.81 301    P       P          00 34 44.0 +0.7
GZT   Gaziantep         60.83 311   i P      P          00 34 43.4 +0.1
AQBJ  Aqaba             60.85 302    P       P          00 34 43.7 +0.1
EIL   Elat              60.92 301    P       P          00 34 44.2 +0.1
      comp=Z,35nm,0.8s,mb5.6,baz=57,slow=3.7,SNR=32
EIL   Elat              60.92 301   eP       P          00 34 43.5 -0.5
      comp=Z,59nm,1.0s,mb5.7
DRGI  Dragot            60.98 304    P       P          00 34 44.6 +0.2
PRNI  Paran             61.02 302    P       P          00 34 45.2 +0.5
MMLI  Mount Malkishu    61.16 305    P       P          00 34 46.2 +0.6
SLTI  Sal’it            61.42 304    P       P          00 34 47.8 +0.4
HNTI  Hanita            61.52 305    P       P          00 34 48.5 +0.5
OFRI  ‘Ofer             61.56 305    P       P          00 34 48.6 +0.3
COBT  Iskenderun        61.58 309   i P      P          00 34 48.6 +0.2
MBAR  Mbarara           63.27 267⇓iP       P          00 34 59.2 -0.8
MBAR                                 pmax    pmax
      comp=Z,35nm,1.3s,mb5.3
MBAR  Mbarara           63.27 267⇓iP       P          00 34 59.2 -0.8
      comp=Z,35nm,1.3s,mb5.3
YAK   Yakutsk           63.29  18d iP      P          00 34 58.3 -1.1
YAK                                 e        pP         00 35 03.9 -1.9
YAK                                  pmax    pmax
      comp=N,32nm,1.0s
YAK                                  pmax    pmax
      comp=Z,101nm,1.0s,mb5.9
YAK                                  pmax    pmax
      comp=E,27nm,1.1s
YAK                                  pmax    pmax
      comp=Z,47nm,1.0s,mb5.6
YAK                                  pmax    pmax
      comp=N,22nm,0.9s
YAK                                  pmax    pmax
      comp=E,20nm,1.2s
YAK   Yakutsk           63.29  18   eP       P          00 34 58.4 -1.1
      comp=E,182nm,0.9s,mb6.2
AVNT  Avonos            63.29 311   i P      P          00 34 58.9 -0.9
CSS   Prodhromos        63.46 307   eP       P          00 35 00.8 -0.1
      comp=E,77nm,1.2s,mb5.7
BOYT  Boyabat           64.05 314   i P      P          00 35 04.0 -0.8
BRTR  Keskin Array B    64.47 312    P       P          00 35 06.2 -1.4
      comp=E,15nm,0.7s,mb5.2,baz=129,slow=7.4,SNR=76
ELDT  Eldivan           64.84 313   i P      P          00 35 08.3 -1.6
BALT  Daday             65.17 314   i P      P          00 35 10.6 -1.5
SGKT  Sivrigoynuk       65.87 313   i P      P          00 35 15.2 -1.3
ISP   Isparta           66.35 309   eP       P          00 35 18.4 -1.2
ISP                                  pmax    pmax
      comp=Z,39nm,1.0s,mb5.4
ISP   Isparta           66.35 309   eP       P          00 35 18.4 -1.3
      comp=Z,39nm,1.0s,mb5.4
ESKT  Eskisehir         66.49 311   i P      P          00 35 18.6 -1.9
HENT  Hendek            66.78 313   i P      P          00 35 19.2 -3.1
MOS   Moscow            67.84 329   eP       P          00 35 27.2 -1.6
MOS                                  pmax    pmax
      comp=Z,133nm,1.4s,mb5.8
LSZ   Lusaka            67.92 252   eP       P          00 35 29.5 -0.4
LSZ                                  pmax    pmax
      comp=Z,37nm,1.4s,mb5.2
LSZ   Lusaka            67.92 252   eP       P          00 35 29.4 -0.5
      comp=Z,37nm,1.4s,mb5.2
ULDT  Uludag            67.92 312   i P      P          00 35 24.6 -5.0
OBN   Obninsk           68.11 329deP       P          00 35 28.9 -1.6
OBN                                  pmax    pmax
      comp=Z,84nm,1.5s,mb5.5
OBN   Obninsk           68.11 329   eP       P          00 35 28.8 -1.7
      comp=Z,88nm,1.4s,mb5.6
KDAG  Bornova           68.97 309   i P      P          00 35 35.5 -0.6
KIS   Kishinev          69.86 319   eP       P          00 35 40.0 -1.4
KIS                                 e                   00 35 51.0
MA2   Magadan           69.89  27   eP       P          00 35 41.3  0.0
MA2                                  pmax    pmax
      comp=Z,64nm,1.3s,mb5.4
MA2   Magadan           69.89  27   eP       P          00 35 41.3  0.0
      comp=Z,64nm,1.3s,mb5.4
IDI   Anoyia            70.30 306    P       P          00 35 44.5 +0.3
      comp=Z,67nm,0.9s,mb5.6,baz=92,slow=7.2,SNR=32
TIXI  Tiksi             70.60  11⇓iP       P          00 35 44.3 -1.2
TIXI                                 pmax    pmax
      comp=Z,104nm,0.8s,mb5.8
AKASG Malin Array Be    70.66 322    P       P          00 35 44.5 -1.7
      comp=Z,3.5nm,0.5s,mb4.5,baz=85,slow=5.3,SNR=30
AKASG Malin Array Be    70.66 322    P       P          00 35 44.5 -1.7
AKASG                                pmax    pmax
      comp=Z,4.0nm,0.5s
VRI   Vrincioaia        70.98 317⇓iP       P          00 35 48.0 -0.2
MLR   Muntele Rosu      71.42 317    P       P          00 35 50.7 -0.2
      comp=Z,47nm,0.9s,mb5.4,baz=94,slow=2.6,SNR=45
LBTB  Lobatse           72.41 242   eP       P          00 35 57.1  0.0
LBTB                                 pmax    pmax
      comp=Z,45nm,1.1s,mb5.3
LBTB  Lobatse           72.41 242   eP       P          00 35 57.1  0.0
      comp=Z,45nm,1.1s,mb5.3
BOSA  Boshof            73.58 239   eP       P          00 36 03.6 -0.4
BOSA                                 pmax    pmax
      comp=Z,39nm,1.3s,mb5.2
BOSA  Boshof            73.58 239   eP       P          00 36 03.6 -0.3
      comp=Z,39nm,1.3s,mb5.2
KWP   Kalwaria          74.45 320   eP       P          00 36 07.5 -1.1
KWP                                  pmax    pmax
      comp=Z,66nm,1.2s,mb5.4
KWP   Kalwaria          74.45 320   eP       P          00 36 07.5 -1.1
      comp=Z,66nm,1.2s,mb5.4
KOLS  Kolonicke sedl    74.59 320   i P      P          00 36 09.8 +0.4
APA   Apatity           74.92 340⇓iP       P          00 36 10.1 -0.9
APA                                 i        pP         00 36 17.3 -0.1
APA                                  pmax    pmax
      comp=Z,52nm,1.0s,mb5.4
SUW   Suwalki           75.11 325⇓eP       P          00 36 10.7 -1.6
SUW                                  pmax    pmax
      comp=Z,126nm,1.1s,mb5.8
SUW   Suwalki           75.11 325⇓eP       P          00 36 10.7 -1.5
      comp=Z,126nm,1.1s,mb5.8
CRVS  Cervenica-Dubn    75.11 319   eP       P          00 36 15.6 +3.2
MAW   Mawson            75.17 192    P       P          00 36 13.2 +0.8
      comp=Z,4.1nm,0.8s,mb4.4,baz=32,slow=8.7,SNR=6.0
MAW   Mawson            75.17 192   eP       P          00 36 13.5 +1.1
MAW                                  pmax    pmax
      comp=Z,116nm,1.9s
MAW   Mawson            75.17 192   eP       P          00 36 13.5 +1.1
      comp=Z,116nm,1.9s,mb5.5
FINES FINESS Array B    75.59 333    P       P          00 36 14.4 -0.5
      comp=Z,15nm,0.7s,mb5.0,baz=89,slow=5.8,SNR=33
KECS  Kecovo            75.67 319   eP       P          00 36 15.5 -0.1
KAF   Kangasniemi       75.69 333   ep       P          00 36 14.6 -0.8
      comp=Z,42nm,1.0s,mb5.3
KAF   Kangasniemi       75.69 333   eP       P          00 36 14.6 -0.8
KAF                                  pmax    pmax
      comp=Z,42nm,1.0s,mb5.3
NIE   Niedzica          75.94 320   eP       P          00 36 17.6 +0.5
PSZ   Piszkesteto       75.97 318   eP       P          00 36 16.7 -0.6
PSZ                                  pmax    pmax
      comp=Z,11nm,0.8s,mb4.8
PSZ   Piszkesteto       75.97 318   eP       P          00 36 16.7 -0.7
      comp=Z,11nm,0.8s,mb4.8
OJC   Ojcow             76.41 321   eP       P          00 36 19.0 -0.7
VYHS  Vyhne             76.76 319   i P      P          00 36 21.5 -0.2
VYHS                                epP      pP         00 36 27.9 -0.3
RHK1  Bakonya           76.95 316⇑iP       P          00 36 22.3 -0.6
SRO   Srobarova         77.01 318   eP       P          00 36 23.4 +0.2
SRO                                 esP      sP         00 36 30.7 -1.1
OKC   Ostrava-Krasne    77.40 320   eP       P          00 36 24.8 -0.5
SMOL  Smolenice         77.69 319   eP       P          00 36 26.9  0.0
MORC  Moravsky Berou    77.78 320   eP       P          00 36 27.1 -0.2
MORC                                 pmax    pmax
      comp=Z,78nm,1.8s,mb5.3
MORC  Moravsky Berou    77.78 320   eP       P          00 36 27.1 -0.2
      comp=Z,78nm,1.8s,mb5.3
ZST   Bratislava        77.87 318   i P      P          00 36 28.1 +0.2
SUR   Sutherland        78.20 236   eP       P          00 36 30.9 +0.9
      comp=Z,28nm,1.1s,mb5.1
VRAC  Vranov            78.33 319    P       P          00 36 30.1 -0.3
      comp=Z,4.9nm,0.8s,mb4.5,baz=101,slow=7.1,SNR=11
ARCES ARCESS Array B    78.36 340    P       P          00 36 29.9 -0.3
      comp=Z,44nm,1.1s,mb5.3,baz=90,slow=5.4,SNR=30
DPC   Dobruska-Polom    78.63 320   eP       P          00 36 32.6 +0.6
KSP   Ksiaz             78.71 321   eP       P          00 36 32.6 +0.2
ARSA  Arzberg           78.82 317⇑iP       P          00 36 33.2 +0.1
      comp=Z,35nm,0.9s,mb5.3
UPC   Upice             78.85 320   eP       P          00 36 33.3 +0.1
BOJS  Bojanci           78.85 315   eP       P          00 36 33.0 -0.3
PERS  Pernice           79.04 316   eP       P          00 36 34.5 +0.1
BILL  Bilibino          79.33  21   eP       P          00 36 35.2 -0.3
BILL                                 pmax    pmax
      comp=Z,28nm,1.3s,mb5.0
BILL  Bilibino          79.33  21   eP       P          00 36 35.2 -0.3
      comp=Z,28nm,1.3s,mb5.0
OBKA  Obir              79.42 316⇑iP       P          00 36 36.8 +0.4
      comp=Z,34nm,1.5s,mb5.1
MOA   Molln             79.73 318⇑iP       P          00 36 38.1 +0.1
      comp=Z,13nm,0.9s,mb4.8
PRU   Pruhonice         79.73 320   eP       P          00 36 38.3 +0.3
      comp=Z,32nm,1.2s,mb5.1
PVCC  Panska Ves        79.77 320   eP       P          00 36 38.2  0.0
VOY   Vojsko            79.84 316   eP       P          00 36 38.7  0.0
FX1   Attu Island--F    79.99  37   eP       P          00 36 39.2 -0.1
BSD   Bornholm Skovb    80.03 325   i P      P          00 36 39.2 -0.3
BSD                                  pmax    pmax
      comp=Z,49nm,1.0s,mb5.4
BSD   Bornholm Skovb    80.03 325   i P      P          00 36 39.2 -0.3
      comp=Z,49nm,1.0s,mb5.4
GEC2  GERESS Array S    80.18 319   eP       P          00 36 40.6 +0.2
GERES GERESS Array B    80.18 319    P       P          00 36 40.6 +0.2
      comp=Z,16nm,0.7s,mb5.0,baz=104,slow=5.5,SNR=76
BRG   Berggiesshubel    80.19 321   i P      P          00 36 40.8 +0.4
BRG                                 i *PP    pP         00 36 48.6 +1.7
BRG                                  pmax    pmax
      comp=Z,21nm,0.9s,mb5.1
BRG   Berggiesshubel    80.19 321   i P      P          00 36 40.8 +0.4
      comp=Z,21nm,0.9s,mb5.1
BRG                                 i pP     pP         00 36 48.6 +1.7
PTCC  Patocco-Chiusa    80.24 316   eP       P          00 36 40.8  0.0
KHC   Kasperske Hory    80.28 319   eP       P          00 36 40.8 -0.2
KBA   Koelnbreinsper    80.29 317⇑iP       P          00 36 40.4 -0.7
      comp=Z,14nm,0.9s,mb4.9
KBA   Koelnbreinsper    80.29 317⇑iP       P          00 36 40.4 -0.7
KBA                                  pmax    pmax
      comp=Z,15nm,0.9s,mb4.9
RUE   Ruedersdorf       80.44 322   eP       P          00 36 40.5 -1.2
      comp=Z,62nm,1.1s,mb5.5
FVI   Forni Avoltri     80.65 316   eP       P          00 36 43.0 +0.1
WET   Wettzell          80.74 319   eP       P          00 36 43.5 +0.1
CLL   Collm             80.82 321   eP       P          00 36 43.0 -0.7
CLL                                  pmax    pmax
      comp=Z,24nm,1.0s,mb5.1
CLL   Collm             80.82 321   eP       P          00 36 43.0 -0.7
      comp=Z,24nm,1.0s,mb5.1
CLL   Collm             80.82 321    P       P          00 36 43.0 -0.7
      comp=Z,logA/T=1.4,mb5.1
SFI   Santa Sofia       81.17 314⇑iP       P          00 36 47.0 +1.2
HFS   Hagfors           81.25 330    P       P          00 36 45.8  0.0
      comp=Z,28nm,1.1s,mb5.1,baz=104,slow=6.1,SNR=23
VMG   Vicchio           81.39 314   eP       P          00 36 47.5 +0.6
WTTA  Wattenberg        81.47 317⇓iP       P          00 36 46.8 -0.4
      comp=Z,31nm,0.7s,mb5.3
WTTA  Wattenberg        81.47 317⇓iP       P          00 36 46.8 -0.4
WTTA                                 pmax    pmax
      comp=Z,31nm,0.7s,mb5.3
WATA  Walderalm         81.51 317⇓iP       P          00 36 47.1 -0.3
      comp=Z,13nm,0.7s,mb5.0
WATA  Walderalm         81.51 317⇓iP       P          00 36 47.1 -0.3
WATA                                 pmax    pmax
      comp=Z,13nm,0.7s,mb5.0
MOX   Moxa              81.65 320   eP       P          00 36 48.5 +0.4
MOX   Moxa              81.65 320   i P      P          00 36 48.5 +0.4
FUR   Furstenfeldbru    81.75 318   eP       P          00 36 48.2 -0.5
MOTA  Moosalm           81.83 317⇓iP       P          00 36 48.4 -0.7
      comp=Z,16nm,0.8s,mb5.0
MOTA  Moosalm           81.83 317⇓iP       P          00 36 48.4 -0.7
MOTA                                 pmax    pmax
      comp=Z,16nm,0.8s,mb5.0
GRA1  Grafenberg Arr    81.86 319   eP       P          00 36 49.6 +0.4
      comp=Z,47nm,1.1s,mb5.3
GRF   Grafenberg Arr    81.86 319   eP       P          00 36 49.6 +0.4
GRF                                  pmax    pmax
      comp=Z,47nm,1.1s,mb5.3
GRF   Grafenberg Arr    81.86 319   eP       P          00 36 49.6 +0.4
GRF                                  pmax    pmax
      comp=Z,47nm,1.1s,mb5.3
GRF   Grafenberg Arr    81.86 319   eP       P          00 36 49.6 +0.4
      comp=Z,47nm,1.1s,mb5.3
SYO   Syowa Base        82.09 197   ⇑P       P          00 36 51.5 +1.5
SYO   Syowa Base        82.09 197   ⇓PcP     PcP        00 36 57.7 +1.6
BRMO  Bormio            82.30 316   eP       P          00 36 52.0 +0.4
CLZ   Clausthal         82.49 322   eP       P          00 36 52.3 -0.1
      comp=Z,31nm,1.1s,mb5.2
NB2   NORSAR Subarra    82.55 331    P       P          00 36 51.5 -1.1
      comp=Z,24nm,1.0s,mb5.2,baz=98,slow=5.0
NB2   NORSAR Subarra    82.55 331    P       P          00 36 51.5 -1.1
      baz=98,slow=5.1
NB2   NORSAR Subarra    82.55 331    P       P          00 36 51.5 -1.1
NB2                                  pmax    pmax
      comp=Z,24nm,1.0s,mb5.2
NOA   NORSAR Array B    82.55 331    P       P          00 36 52.2 -0.3
      comp=Z,9.0nm,0.8s,mb4.8,baz=94,slow=5.5,SNR=19
BSEG  Bad Segeberg      82.61 324   eP       P          00 36 53.1 +0.1
DAVOX Davos             82.65 316    P       P          00 36 53.9 +0.5
      comp=Z,46nm,0.8s,mb5.5,baz=98,slow=4.5,SNR=82
DAVA  Damuels           82.66 317⇓iP       P          00 36 53.6 +0.2
      comp=Z,38nm,1.0s,mb5.4
BFO   Black Forest      83.72 318   eP       P          00 36 58.3 -0.6
BFO                                  pmax    pmax
      comp=Z,16nm,1.0s,mb5.1
BFO   Black Forest      83.72 318   eP       P          00 36 58.3 -0.6
      comp=Z,16nm,1.0s,mb5.1
RPZ   Rata Peaks        83.85 135    P       P          00 36 59.8 +0.2
      comp=Z,12nm,0.8s,mb5.1,baz=17,slow=22,SNR=4.3
LPL   La Plagne         84.84 315⇓iP       P          00 37 04.7 +0.2
      comp=Z,66nm,0.9s,mb5.5
LPL   La Plagne         84.84 315⇓iP       P          00 37 04.7 +0.2
LPL                                  pmax    pmax
      comp=Z,33nm,0.9s,mb5.5
URZ   Urewera           87.44 129    P       P          00 37 17.2 -0.4
      comp=Z,23nm,0.9s,mb5.4,baz=256,slow=3.1,SNR=9.8
VNDA  Vanda             89.67 168    P       P          00 37 27.8 +0.5
      comp=Z,2.3nm,0.8s,mb4.6,baz=289,slow=6.8,SNR=9.4
VNDA  Vanda             89.67 168   eP       P          00 37 27.7 +0.4
VNDA                                 pmax    pmax
      comp=Z,3.0nm,0.8s
VNDA  Vanda             89.67 168   eP       P          00 37 27.6 +0.3
      comp=Z,3.1nm,0.8s,mb4.7
EKA   Eskdalemuir Ar    90.36 325    P       P          00 37 31.4 +0.4
      comp=Z,8.9nm,0.7s,mb5.2,baz=98,slow=5.7,SNR=22
DAG   Danmarks Havn     90.72 348⇓iP       P          00 37 32.3 +0.1
DAG                                  pmax    pmax
      comp=Z,10.0nm,1.0s,mb5.1
DAG   Danmarks Havn     90.72 348⇓iP       P          00 37 32.3 +0.1
      comp=Z,10.0nm,1.0s,mb5.1
SBA   Scott Base        90.77 168   eP       P          00 37 34.2 +1.8
SBA                                  pmax    pmax
      comp=Z,32nm,1.3s,mb5.5
SBA   Scott Base        90.77 168   eP       P          00 37 34.2 +1.7
      comp=Z,32nm,1.3s,mb5.5
ESDC  Sonseca Array     93.19 310    P       P          00 37 45.4 +1.0
      comp=Z,2.8nm,0.7s,mb4.8,baz=60,slow=4.2,SNR=19
ESDC                                 PP      PP         00 41 32.6 +1.8
      comp=Z,1.5nm,0.8s,baz=80,slow=9.0,SNR=4.6
SNAA  Sanae             96.33 198⇓iP       P          00 37 59.4 +1.4
SNAA  Sanae             96.33 198   eP       P          00 37 59.0 +1.0
SNAA                                 pmax    pmax
      comp=Z,2.0nm,0.9s
SNAA  Sanae             96.33 198   eP       P          00 37 59.0 +1.0
      comp=Z,1.8nm,0.9s,mb4.5
SNAA                                e                   00 42 31.6
VNA2  Neumayer--Watz    97.88 199⇓iPdif    pP         00 38 11.7 +0.1
VNA2                                e                   00 38 21.6
VNA2                                e                   00 38 26.2
VNA2                                e                   00 42 43.4
ILAR  Eielson Array     97.98  22    P       P          00 38 10.3 +4.8
      comp=Z,0.7nm,0.9s,mb4.2,baz=296,slow=5.6,SNR=7.2
DBIC  Dimbokro          98.13 277    P       P          00 38 09.7 +2.2
      comp=Z,3.0nm,0.7s,mb4.9,baz=68,slow=2.6,SNR=5.2
VNA1  Neumayer--Stat    98.21 199⇓iPdif    pP         00 38 12.0 -1.1
VNA1                                e                   00 38 22.1
VNA1                                e                   00 38 26.5
VNA1                                e                   00 42 43.8
VNA3  Neumayer Olymp    98.56 199   e                   00 42 51.5
VNA3  Neumayer Olymp    98.56 199⇑iPdif    pP         00 38 19.8 +5.2
VNA3                                e        sP         00 38 29.6  +13
VNA3                                e                   00 38 33.8
VNA3                                e                   00 42 51.5
YKA   Yellowknife Ar   109.78  14    Pdiff   Pdif       00 38 60.0 +2.0
      comp=Z,0.2nm,0.8s,baz=316,slow=2.9,SNR=4.2
SCHQ  Schefferville    118.77 347    PKP     PKPdf      00 43 18.2 -2.8
      comp=Z,2.6nm,0.6s,baz=40,slow=7.9,SNR=6.4
SCHQ  Schefferville    118.77 347    PKP     PKPdf      00 43 18.2 -2.8
NEW   Newport          120.90  24   ePKIKP   PKPdf      00 43 23.5 -1.8
MSO   Missoula         123.31  23   ePKPdf   PKPdf      00 43 27.1 -2.9
MSO                                 e                   00 43 34.0
BMO   Blue Mountains   123.53  26   ePKIKP   PKPdf      00 43 27.1 -3.4
ULM   Lac du Bonnet    124.85   8    PKP     PKPdf      00 43 30.7 -2.2
      comp=Z,6.8nm,0.8s,baz=326,slow=1.9,SNR=16
ULM                                  PP      PP         00 45 15.6 -5.4
      comp=Z,3.1nm,0.9s,baz=4.0,slow=7.9,SNR=3.6
ULM   Lac du Bonnet    124.85   8    PKP     PKPdf      00 43 30.7 -2.2
ULM                                  PP      PP         00 45 15.6 -5.4
MCMT  McKenzie Canyo   125.40  23   ePKPdf   PKPdf      00 43 32.1 -2.0
HLID  Hailey           125.81  25   ePKPdf   PKPdf      00 43 33.3 -1.6
SNOW  Snow King Moun   127.36  22   ePKPdf   PKPdf      00 43 36.2 -1.7
REDW  Red Top Meadow   127.41  23   ePKPdf   PKPdf      00 43 36.0 -2.0
REDW                                e                   00 43 44.1
NVAR  Mina Array Bea   127.94  32    PKP     PKPdf      00 43 37.9 -1.4
      comp=Z,5.3nm,0.8s,baz=260,slow=2.2,SNR=22
MNV   Mina             128.02  32   ePKIKP   PKPdf      00 43 37.8 -1.6
PDAR  Pinedale Array   128.41  22    PKP     PKPdf      00 43 37.7 -2.3
      comp=Z,6.4nm,1.0s,baz=43,slow=1.2,SNR=36
TRCR  Troy Canyon      129.40  30   ePKPdf   PKPdf      00 43 40.5 -1.5
MVU   Marysvale        130.89  27   ePKPdf   PKPdf      00 43 43.8 -1.1
MSU   Marysvale        130.90  27   ePKIKP   PKPdf      00 43 43.7 -1.1
NEN   Nelson           131.85  32   ePKPdf   PKPdf      00 43 45.3 -1.4
PV10  Paradox Valley   132.37  24   ePKPdf   PKPdf      00 43 46.0 -1.7
SDCO  Great Sand Dun   134.30  22   ePKPdf   PKPdf      00 43 48.5 -2.7
ANMO  Albuquerque      136.37  24   ePKIKP   PKPdf      00 43 53.4 -1.7
WMOK  Wichita Mounta   139.22  16   ePKHKP              00 43 47.3
WMOK                                                    00 43 57.5
TRQA  Tornquist        139.97 210   ePKPdf   PKPdf      00 43 59.2 -2.4
BAO   Brasilia Array   140.92 251    PKP                00 43 52.0
BAO                                 i        PKPdf      00 44 01.9 -2.0
BDFB  Brasilia         140.94 251    PKhKP              00 43 54.8
      comp=Z,11nm,0.9s,baz=188,slow=13,SNR=3.4
BDFB                                 PKP     PKPdf      00 44 02.1 -1.9
      comp=Z,10nm,0.9s,baz=16,slow=2.2,SNR=12
LTX   Lajitas          142.41  26    PKIKP   PKPdf      00 44 04.0 -2.2
TXAR  Lajitas Array    142.41  26    PKhKP              00 43 59.3
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	comp=Z,1.1nm,0.6s,baz=15,slow=0.3,SNR=12						
TXAR				PKP	PKPdf	00 44 02.6	-3.5
	comp=Z,2.7nm,0.8s,baz=11,slow=0.1,SNR=13						
TXAR				PP	PP	00 47 10.3	-2.8
	comp=Z,2.5nm,0.9s,baz=342,slow=4.0,SNR=11						
JCT	**Junction City**	**142.87**	**20**	*e*PKIKP	PKPdf	00 44 00.1	-6.8
JCT				*e*		00 44 05.2	
HKT	**Hockley**	**144.53**	**15**	*e*PKIKP	PKPdf	00 44 05.6	-4.2
FCH	**Farellones**	**147.71**	**205**	*i* P	PKPdf	00 44 16.2	+1.1
TEIG	**Tepich**	**155.37**	**5**	*e*PKPab	PKPab	00 44 50.2	-0.2
LVC	**Limon Verde**	**155.45**	**221**	*e*PKPdf	PKPdf	00 44 25.5	-1.2
LPAZ	**La Paz**	**158.78**	**235**	PKP	PKPdf	00 44 30.1	-1.1
	comp=Z,5.6nm,0.9s,baz=56,slow=3.3,SNR=16						
LPAZ				PKPab	PKPab	00 45 06.0	+0.7
	comp=Z,8.7nm,0.8s,baz=112,slow=3.9,SNR=18						
LPAZ	**La Paz**	**158.78**	**235**	PKIKP	PKPdf	00 44 30.1	-1.1
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,9.0nm,0.8s						
LPAZ	**La Paz**	**158.78**	**235**	*e*PKPdf	PKPdf	00 44 30.0	-1.2
LPAZ				*e*PKPab	PKPab	00 45 05.7	+0.5
SDV	**Santo Domingo**	**159.64**	**311**	*e*PKPdf	PKPdf	00 44 28.7	-3.6
ROSC	**El Rosal**	**165.01**	**308**	PKP	PKPdf	00 44 36.5	-1.2
	comp=Z,16nm,1.0s,baz=123,slow=6.0,SNR=14						

GUC 27 00:31:13.8±0.5,29.59S×68.66W,h105^{km}±60^{km},MD3.8, ML4.1,San Juan Province

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TLL	**Tololo Astrono**	**1.95**	**252**	*e*P	P	00 31 46.7	+0.4
VACH	**Vallenar**	**2.10**	**298**	*e*P	P	00 32 00.4	+12
VACH				*i* S	S	00 32 26.7	+13
VACH				AMP		00 32 32.4	
	comp=E,763nm,0.3s						
CMCH	**Combarbala**	**2.56**	**232**	*e*P	P	00 31 54.9	+0.2
CMCH				*i* S	S	00 32 25.2	-0.1
PTCH	**Petorca**	**3.30**	**216**	*i* S	S	00 32 42.2	-1.0
PTCH				AMP		00 32 48.3	
	comp=E,508nm,0.5s						
PEL	**Peldehue**	**3.94**	**206**	*e*P	P	00 32 12.9	-0.6
PEL				*e*S	S	00 32 57.7	-1.2
FCH	**Farellones**	**3.97**	**200**	*e*P	P	00 32 13.8	-0.1
FCH				*e*S	S	00 33 00.1	+0.4
CLCH	**Cerro Calan**	**4.12**	**202**	*i* S	S	00 33 02.3	-0.9

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*IDC **27** 00:31:51.9±1.0,4.22N×93.65E,mb4.1/9,mb1 4.3/9, mb1mx4.1/20,Error ellipse: s-maj=63.3km s-min=20.0km az=45.0*

*NEIC **27** 00:31:56.9±0.5,4.33N×93.76E,h30^{km},mb4.3/6,Error ellipse: s-maj=20.8km s-min=12.4km az=56.0*

ISC 27 00:31:55.2±0.7,4.4N±0.1×93.8E±0.2,h30^{km},n17, σ1^{s}.17/17,mb4.2/15,1C,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LSA	**Lhasa**	**25.33**	**355**	*e*P	**P**	**00 37 22.8**	**+1.5**
	5.9nm,0.5s,mb4.4						
ULN	**Ulaanbaatar**	**44.81**	**13**	P	**P**	**00 40 09.4**	**+1.1**
	1.4nm,0.7s,mb3.9						
WRA	**Warramunga Arr**	**46.57**	**123**	P	**P**	**00 40 22.3**	**-0.3**
	0.9nm,0.8s,mb3.8,baz=303,slow=9.2,SNR=3.3						
ASAR	**Alice Springs**	**47.98**	**127**	P	**P**	**00 40 33.1**	**-0.5**
	1.0nm,0.9s,mb3.9,baz=305,slow=14,SNR=5.9						
ZAL	**Zalesovo**	**49.97**	**353**	P	**P**	**00 40 48.6**	**0.0**
	3.0nm,0.5s,mb4.6,baz=17,slow=4.0,SNR=15						
BVAR	**Borovoye Array**	**52.21**	**342**	P	**P**	**00 41 04.7**	**-0.8**
	1.8nm,0.6s,mb4.2,baz=141,slow=9.5,SNR=8.2						
BRVK	**Borovoye**	**52.27**	**342**	*e*P	**P**	**00 41 04.1**	**-1.9**
	1.6nm,0.6s,mb4.1						
CHKZ	**Chkalovo**	**52.70**	**343**	*e*P	**P**	**00 41 08.8**	**-0.5**
	3.4nm,0.5s,mb4.5						
MALT	**Malatya**	**60.52**	**312**	*e*P	**P**	**00 42 03.9**	**-1.2**
	2.7nm,1.1s,mb4.3						
ANN	**Anapa**	**63.51**	**319**	*e*P	**P**	**00 42 28.3**	**+3.2**
BRTR	**Keskin Array B**	**64.50**	**312**	P	**P**	**00 42 29.5**	**-2.2**
	1.1nm,0.7s,mb4.0,baz=130,slow=6.8,SNR=6.9						
MLR	**Muntele Rosu**	**71.47**	**317**	P	**P**	**00 43 14.6**	**-0.4**
	3.2nm,0.8s,mb4.3,baz=152,slow=5.9,SNR=4.6						
DIVS	**Divcibare**	**75.38**	**314**	⇑*i*P	**P**	**00 43 42.1**	**+4.1**
SUR	**Sutherland**	**78.09**	**236**	P	**P**	**00 43 54.4**	**+1.1**
	3.9nm,0.9s,mb4.3						
GERES	**GERESS Array B**	**80.23**	**319**	P	**P**	**00 44 05.0**	**+0.4**
	1.5nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=12						
DAVOX	**Davos**	**82.69**	**316**	P	**P**	**00 44 18.3**	**+0.8**
	3.1nm,0.7s,mb4.5,baz=132,slow=7.6,SNR=11						
ESDC	**Sonseca Array**	**93.22**	**310**	P	**P**	**00 45 09.4**	**+1.0**
	0.6nm,0.8s,mb4.0,baz=72,slow=4.2,SNR=4.8						

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*MOS **27** 00:32:15.1±0.8,5.60N×94.53E,h33^{km},mb6.2/106, MS5.4/24,Error ellipse: s-maj=7.7km s-min=3.5km az=126.3*

*BJI **27** 00:32:15.2,5.34N×94.33E,h43^{km},mB6.1,mb6.1,Ms5.6, Msz5.5*

*NEIC **27** 00:32:16.5±0.1,5.48N×94.47E,h33^{km},mb6.0/121,ME6.1, MS5.4/19,Error ellipse: s-maj=4.2km s-min=2.6km az=209.0,Depth from synthetics of broadband displacement seismograms. Energy computed from CMT mechanism.*

*HRVD **27** 00:32:16.5±0.2,5.36N×94.33E,h39^{km},MW5.7/66, Centroid moment Tensor Solution. LP body waves: s63,c119;Mantle waves: s66,c133; Half duration: 1^{s}.8 Moment tensor: Scale 10^{17}Nm; M_{rr}3.46±.10; $M_{\theta\theta}$-1.39±.07; $M_{\phi\phi}$-2.08±.08; $M_{r\theta}$1.96±.08; $M_{\theta\phi}$2.03±.06; $M_{\phi r}$-2.54±.09; Best double couple: $M_0$4.84×10^{17} NP1: ϕ_s318°,δ24°,λ87°. NP2:ϕ_s142°,δ66°,λ92°. Principal axes: T 4.68, Plg69°, Azm55°; N .32, Plg1°, Azm321°; P -5.01, Plg21°, Azm230°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **27** 00:32:16.4,5.47N×94.47E,h33^{km},MB6.0,MS5.1*

*IDC **27** 00:32:19.3±1.5,5.59N×94.54E,h52^{km}±12^{km},mb5.4/31, mb1 5.5/32,mb1mx5.5/32,ML6.0/1,MS5.2/2,Ms1 5.3/2, ms1mx4.1/20,Error ellipse: s-maj=13.6km s-min=7.8km az=40.0*

ISC 27 00:32:14.8±0.1,5.48N±0.03×94.44E±0.02,h32^{km}, h32^{km}±1.1^{km}:pP-P,n928,σ0^{s}.95/815,mb6.0/205,MS5.4/49, 261C-28D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**6.36**	**74**	P	**Pn**	**00 33 51.0**	**+2.0**
	2µm,1.0s						
NST	**Nakhon Sawan**	**11.56**	**28**	⇑P	**P**	**00 35 04.2**	**+3.2**
	188nm,0.4s						
KKTK	**Khon Kaen**	**13.56**	**37**	⇑P	**P**	**00 35 30.9**	**+3.2**
	6µm,0.6s						
CM31	**Chiang Mai Arr**	**13.62**	**18**	P	**P**	**00 35 30.8**	**+2.3**
	502nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.62**	**18**	P	**P**	**00 35 33.7**	**+5.2**
	22nm,0.3s,baz=201,slow=10,SNR=121						
CMAR				LR	LR	00 40 32.8	
	comp=Z,7µm,20.5s,baz=195,slow=37						
CMAR				ScP		00 44 22.9	
	baz=238,slow=2.6,SNR=9.6						
CMAR	**Chiang Mai Arr**	**13.62**	**18**	P	**P**	**00 35 33.7**	**+5.2**
CMAR				LR	LR	00 40 32.8	
CMAR				ScP		00 44 22.9	
PALK	**Pallekele**	**13.77**	**278**	*e*Pn	**P**	**00 35 28.9**	**-1.6**
	133nm,1.1s						
CHG	**Chiang Mai**	**13.96**	**18**	⇑P	**P**	**00 35 33.6**	**+0.7**
	150nm,1.2s						
CHG				S	S	00 38 31.1	+23
NANT	**Nan**	**14.58**	**24**	⇑P	**P**	**00 35 43.0**	**+2.0**
	1µm,1.0s						
CHRT	**Chiangrai**	**15.22**	**19**	⇓P	**P**	**00 35 51.5**	**+2.1**
	2µm,0.8s						
PENI	**Pendagan**	**15.34**	**136**	⇑*e*P	**P**	**00 35 46.0**	**-5.0**
MDRS	**Chennai**	**15.90**	**299**	*e*P	**P**	**00 35 56.7**	**-1.6**
MDRS				*e*P		00 35 58.0	
MDRS				*e*		00 36 08.8	
	comp=Z,434nm,1.4s						
VIS	**Vishakhapatnam**	**16.31**	**319**	*e*P	**P**	**00 36 04.2**	**+0.8**
VIS				*e*		00 36 13.1	
	comp=Z,411nm,0.9s						
VIS				*e*S	**S**	**00 38 53.2**	**-10**
PULI	**Pulasari**	**16.45**	**135**	⇑*e*P	**P**	**00 36 01.2**	**-4.0**
KOD	**Kodaikanal**	**17.46**	**287**	*e*P	**P**	**00 36 19.2**	**+1.3**
TRD	**Trivandrum**	**17.61**	**281**	*e*P	**P**	**00 36 21.8**	**+2.1**
TRD				*e*		00 36 25.7	
	comp=Z,650nm,1.8s						
COCO	**West Island**	**17.72**	**172**	*e*P	**P**	**00 36 20.0**	**-1.1**
	comp=Z,2µm,1.2s						
CAL	**Calcutta**	**17.96**	**341**	*e*P	**P**	**00 36 22.4**	**-1.6**
IMP	**Imphal**	**19.20**	**359**	*e*	**P**	**00 36 33.3**	**-5.7**
HYB	**Hyderabad**	**19.55**	**309**	*e*P	**P**	**00 36 44.0**	**+0.9**
HYB	**Hyderabad**	**19.55**	**309**	*i* P	**P**	**00 36 44.0**	**+0.9**
HYB				*e*S	**S**	**00 40 20.0**	**+3.8**
BOK	**Bokaro**	**19.98**	**336**	*e*P	**P**	**00 36 47.6**	**-0.2**
BOK				*e*		00 36 50.1	
	comp=Z,2µm,1.6s						
BOK				*e*S	**S**	**00 40 19.3**	**-6.1**
SHL	**Shillong**	**20.12**	**353**	*e*P	**P**	**00 36 46.4**	**-2.7**
SHL				*e*		00 36 57.1	
	comp=Z,273nm,1.7s						
QIZ	**Qiongzhong**	**20.17**	**47**	⇑*i*P	**P**	**00 36 50.5**	**+0.9**
QIZ				XP		00 37 04.5	
QIZ				SS	SS	00 40 59.5	+1.2
QIZ				AMB	AMB		
	comp=Z,757nm,1.1s						
QIZ				LR	LR		
	comp=N,12µm,18.7s,MS5.4						
QIZ				LR	LR		
	comp=E,11µm,18.9s,MS5.4						
QIZ				LR	LR		
	comp=Z,17µm,19.4s,MS5.4						
QIZ	**Qiongzhong**	**20.17**	**47**	⇑*i*P	**P**	**00 36 51.0**	**+1.4**
	comp=Z,686nm,1.0s						
BLSP	**Bilaspur**	**20.39**	**325**	*e*P	**P**	**00 36 52.5**	**+0.6**
BLSP				*e*		00 36 56.8	
	comp=Z,2µm,1.5s						
BLSP				*e*S	**S**	**00 40 34.0**	**+0.5**
MNGI	**Mangalore**	**20.72**	**292**	*i* P	**P**	**00 36 57.1**	**+1.7**
	comp=Z,268nm,1.5s						
KMI	**Kunming**	**21.09**	**21**	P	**P**	**00 37 01.5**	**+2.4**
KMI				S	**S**	**00 40 52.5**	**+5.4**
KMI				SS	SS	00 41 26.3	+5.8
KMI				AMB	AMB		
	comp=Z,723nm,1.2s,mb5.9						
KMI				AMB	AMB		
	comp=Z,2µm,3.1s						
KMI				LR	LR		
	comp=N,7µm,18.1s,MS5.3						
KMI				LR	LR		
	comp=E,9µm,16.2s,MS5.3						
KMI				LR	LR		
	comp=Z,9µm,21.8s						
MNCY	**Minicoy**	**21.43**	**279**	⇓*i*P	**P**	**00 37 05.0**	**+2.4**
NGP	**Nagpur**	**21.57**	**318**	⇑*e*P	**P**	**00 37 05.9**	**+2.0**
NGP				*e*	**S**	**00 41 00.0**	**+3.8**
GOA	**Goa**	**22.56**	**298**	*e*	**P**	**00 37 24.7**	**+11**
	comp=Z,177nm,1.3s,mb5.3						
GOA				*e*S	**S**	**00 41 21.9**	**+7.5**
AKL	**Akola**	**22.70**	**313**	*e*P	**P**	**00 37 18.5**	**+3.3**
AKL				*e*		00 37 23.3	
	comp=Z,669nm,1.5s						
AKL				*i*		00 41 38.7	
KAD	**Karad**	**23.04**	**302**	*e*P	**P**	**00 37 20.8**	**+2.1**
KAD				*e*		00 37 40.3	
	comp=Z,320nm,1.3s						
KAD				*e*S	**S**	**00 41 27.6**	**+4.5**
ALBI	**Allahabad**	**23.14**	**330**	*e*P	**P**	**00 37 19.5**	**0.0**
PKI	**Pulchoki**	**23.59**	**340**	*e*P	**P**	**00 37 24.0**	**+0.1**
	comp=Z,2µm,1.6s,mb6.3						
DMN	**Daman**	**23.73**	**339**	*e*P	**P**	**00 37 25.4**	**+0.2**
	comp=Z,566nm,0.8s,mb6.1						
GUN	**Gumba**	**23.74**	**341**	*e*P	**P**	**00 37 25.4**	**0.0**
	comp=Z,2µm,1.2s,mb6.5						
KKN	**Kakani**	**23.84**	**340**	*e*P	**P**	**00 37 26.2**	**-0.1**
	comp=Z,2µm,1.3s,mb6.5						
GYA	**Guiyang**	**23.90**	**28**	⇑*i*P	**P**	**00 37 28.5**	**+1.6**
GYA				AMB	AMB		
	comp=Z,2µm,2.4s,mb6.2						
GYA				LR	LR		
	comp=N,8µm,21.3s						
GYA				LR	LR		
	comp=E,7µm,16.2s						
GYA				LR	LR		
	comp=Z,13µm,20.1s,MS5.4						
POO	**Poona**	**23.92**	**305**	*e*P	**P**	**00 37 29.0**	**+1.9**
POO				*e*		00 37 50.3	
	comp=Z,380nm,1.1s						
POO				*e*S	**S**	**00 41 42.4**	**+4.1**
SRDI	**Scrawed**	**24.05**	**125**	⇑*e*P	**P**	**00 37 27.3**	**-1.2**
SRDI				pmax	pmax		
	comp=Z,209nm,1.0s,mb5.5						
SRDI	**Scrawed**	**24.05**	**125**	⇑*e*P	**P**	**00 37 27.3**	**-1.2**
	comp=Z,209nm,1.0s,mb5.5						
BHPL	**Bhopal**	**24.10**	**319**	*e*P	**P**	**00 37 31.6**	**+2.7**
BHPL				*e*		00 37 34.9	
	comp=Z,515nm,1.3s						
BHPL				*e*	**S**	**00 41 41.9**	**+0.5**
KELI	**Kelakatan**	**24.19**	**124**	⇓*e*P	**P**	**00 37 30.5**	**+0.7**
GKN	**Gorkha**	**24.26**	**338**	*e*P	**P**	**00 37 31.0**	**+0.6**
LSA	**Lhasa**	**24.29**	**353**	⇑*e*P	**P**	**00 37 30.9**	**+0.2**
LSA				pmax	pmax		
	comp=Z,966nm,1.2s,mb6.1						
LSA				MLR	MLR		
	comp=Z,4µm,21.0s,MS4.9						
LSA	**Lhasa**	**24.29**	**353**	⇑*e*P	**P**	**00 37 30.9**	**+0.2**
	comp=Z,966nm,1.2s,mb6.1						
LSA				LR	LR		
	comp=Z,4µm,21.0s,MS4.9						
PPR	**Puerto Princes**	**24.44**	**78**	⇓*e*P	**P**	**00 37 34.1**	**+1.8**
KOLN	**Koldanda**	**24.45**	**336**	*e*P	**P**	**00 37 33.3**	**+1.1**
	comp=Z,8µm,1.8s,mb6.8						
BOM	**Bombay**	**24.95**	**304**	*e*P	**P**	**00 37 39.9**	**+2.7**
BOM				*e*		00 37 57.3	
	comp=Z,385nm,2.2s						
BOM				*e*S	**S**	**00 42 02.4**	**+6.7**
	comp=Z,1µm,2.3s						
RATI	**Rata**	**25.32**	**124**	⇓*e*P	**P**	**00 37 39.5**	**-1.2**
DGAR	**Diego Garcia**	**25.41**	**240**	*e*P	**P**	**00 37 38.4**	**-3.1**
DGAR				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.2						
DGAR	**Diego Garcia**	**25.41**	**240**	*e*P	**P**	**00 37 39.0**	**-2.5**
	comp=Z,1µm,1.4s,mb6.2						
KEDI	**Kedomdong**	**25.68**	**123**	⇑*e*P	**P**	**00 37 42.3**	**-1.7**
KEDI				pmax	pmax		
	comp=Z,308nm,0.7s,mb5.9						
KEDI	**Kedomdong**	**25.68**	**123**	⇑*e*P	**P**	**00 37 42.3**	**-1.7**
	comp=Z,308nm,0.7s,mb5.9						
LUBP	**Lubang**	**26.71**	**70**	*e*P	**P**	**00 37 53.8**	**+0.4**
LUBP	**Lubang**	**26.71**	**70**	*e*P	**P**	**00 37 53.8**	**+0.4**
CD2	**Chengdu**	**26.77**	**18**	P	**P**	**00 37 53.5**	**-0.4**
CD2				S	**S**	**00 42 25.0**	**-0.8**
CD2				AMB	AMB		
	comp=Z,500nm,0.6s,mb6.2						
CD2				LR	LR		
	comp=N,6µm,17.4s						
CD2				LR	LR		
	comp=Z,7µm,11.9s						
SJMP	**San Jose**	**27.23**	**73**	*e*P	**P**	**00 37 58.6**	**+0.4**
LGTI	**Lohaghat**	**27.36**	**332**	*e*P	**P**	**00 38 00.0**	**+0.7**
TGY	**Tagaytay City**	**27.45**	**70**	P	**P**	**00 38 01.0**	**+0.8**
	comp=Z,2µm,0.8s,mb6.6,baz=223,slow=4.8,SNR=26						
PTH	**Pithoragarh**	**27.45**	**332**	*e*P	**P**	**00 37 59.9**	**-0.3**
PTH				*e*	**S**	**00 42 42.1**	**+5.2**
BCPH	**Baguio City Da**	**27.81**	**65**	⇓*i*P	**P**	**00 38 04.6**	**+1.0**
LQP	**Lukban**	**28.02**	**70**	⇑*i*P	**P**	**00 38 06.3**	**+0.9**
OTRP	**Odiongan**	**28.07**	**74**	*e*P	**P**	**00 38 06.3**	**+0.4**
AJM	**Ajmer**	**28.17**	**320**	*e*P	**P**	**00 38 07.6**	**+0.9**
AJM				*e*		00 38 10.9	
	comp=Z,204nm,1.2s						
AJM				*e*S	**S**	**00 42 47.5**	**-0.9**
KALP	**Kalibo**	**28.25**	**76**	⇓*e*P	**P**	**00 38 07.5**	**0.0**
NDI	**New Delhi**	**28.27**	**327**	*e*P	**P**	**00 38 07.3**	**-0.2**
NDI				*e*		00 38 25.5	
	comp=Z,240nm,1.2s						
GUIM	**Jordan**	**28.32**	**78**	*e*P	**P**	**00 38 08.4**	**+0.2**
ENH	**Enshi**	**28.44**	**28**	⇑*i*P	**P**	**00 38 08.0**	**-1.1**
	comp=Z,265nm,0.7s,mb6.0						
ENH				*i* PcP	PcP	00 41 19.9	-1.0
BALP	**Baler**	**28.51**	**67**	*i* P	**P**	**00 38 09.9**	**+0.1**
POLP	**Polilio Island**	**28.55**	**69**	*e*P	**P**	**00 38 10.5**	**+0.3**
RCP	**Roxas**	**28.62**	**76**	⇑*i*P	**P**	**00 38 12.0**	**+1.2**
SNPH	**Sibulan**	**28.80**	**81**	*e*P	**P**	**00 38 13.0**	**+0.5**
PAGZ	**Pagadian**	**28.84**	**84**	*e*P	**P**	**00 38 12.8**	**+0.1**
DDI	**Dehra Dun**	**29.13**	**330**	*e*P	**P**	**00 38 14.9**	**-0.4**
DDI				*e*	**S**	**00 43 08.9**	**+5.0**
CVP	**Callao Caves**	**29.39**	**63**	⇓*e*P	**P**	**00 38 18.0**	**+0.3**
TBP	**Tagbilaran**	**29.45**	**80**	⇑*e*P	**P**	**00 38 18.2**	**-0.1**
	comp=Z,406µm,1.0s						
LLP	**Lapu-Lapu**	**29.62**	**79**	⇑*e*P	**P**	**00 38 20.3**	**+0.5**
BHJ	**Bhuj**	**29.72**	**309**	*e*P	**P**	**00 38 21.9**	**+1.2**
BHJ				*e*		00 38 40.4	
	comp=Z,167nm,1.5s						
BHJ				*e*S	**S**	**00 43 17.5**	**+4.3**
QZH	**Quanzhou**	**30.18**	**48**	⇑*i*P	**P**	**00 38 25.5**	**+0.8**
QZH				S	**S**	**00 43 20.8**	**+0.2**
QZH				AMB	AMB		
	comp=Z,510nm,1.0s,mb6.2						
QZH				AMB	AMB		
	comp=Z,3µm,3.6s						
QZH				LR	LR		
	comp=N,11µm,14.0s,MS5.8						
QZH				LR	LR		
	comp=E,9µm,12.4s,MS5.8						
QZH				LR	LR		
	comp=Z,23µm,18.0s						
OCLP	**Ormoc**	**30.35**	**78**	*e*P	**P**	**00 38 27.1**	**+0.9**
PVCP	**Virac**	**30.36**	**72**	*e*P	**P**	**00 38 25.8**	**-0.6**
MSLP	**Maasin**	**30.48**	**79**	*e*P	**P**	**00 38 26.7**	**-0.7**
BUKP	**Musuan**	**30.50**	**84**	*e*P	**P**	**00 38 27.9**	**+0.3**
CNP	**Catarman**	**30.63**	**75**	*e*P	**P**	**00 38 29.7**	**+1.0**
SDNR	**Sundarnagar**	**30.63**	**330**	*e*P	**P**	**00 38 28.5**	**-0.1**
PLP	**Palo**	**30.72**	**77**	*i* P	**P**	**00 38 29.9**	**+0.3**
	comp=Z,266µm,0.5s						
BHK	**Bhakra**	**30.85**	**329**	*e*P	**P**	**00 38 29.2**	**-1.3**
DAV	**Davao City (W)**	**30.99**	**85**	*e*P	**P**	**00 38 33.0**	**+1.1**
WHN	**Wuhan**	**31.18**	**35**	⇑P	**P**	**00 38 34.0**	**+0.5**
WHN				LR	LR		
	comp=N,4µm,17.9s,MS5.7						
WHN				LR	LR		
	comp=E,14µm,15.0s,MS5.7						
WHN				LR	LR		
	comp=Z,22µm,16.2s,MS5.9						
XAN	**Xi’an**	**31.43**	**23**	P	**P**	**00 38 34.5**	**-1.1**
XAN				AP	pP	00 38 45.5	+0.5
XAN				PP	PP	00 39 44.5	+4.7
XAN				AMB	AMB		
	comp=Z,440nm,1.1s,mb6.2						
XAN				LR	LR		
	comp=N,4µm,26.3s,MS5.2						
XAN				LR	LR		
	comp=E,4µm,22.1s,MS5.2						
XAN				LR	LR		
	comp=Z,9µm,18.6s,MS5.5						
PONG	**Pong**	**31.51**	**329**	*e*	pP	00 38 51.0	+5.2
LZH	**Lanzhou**	**31.66**	**15**	⇑P	**P**	**00 38 37.0**	**-0.6**
LZH				PP	PP	00 39 42.0	-0.8
LZH				S	**S**	**00 43 44.0**	**+0.4**
LZH				SS	SS	00 45 36.0	+1.9
LZH				SCS	ScS	00 49 05.5	+0.2
LZH				AMB	AMB		
	comp=Z,660nm,1.5s,mb6.2						
LZH				AMB	AMB		
	comp=Z,2µm,4.0s						
LZH				LR	LR		
	comp=E,6µm,11.9s						
LZH				LR	LR		
	comp=Z,9µm,12.6s,MS5.6						
THN	**Thein Dam**	**32.01**	**329**	⇑*i*	**P**	**00 38 38.6**	**-2.2**
	comp=Z,29nm,0.7s,mb5.2						
THN				*e*	**S**	**00 43 55.6**	**+6.4**
GTA	**Gaotai**	**34.12**	**7**	⇑*i*P	**P**	**00 38 59.0**	**0.0**
GTA				AP	pP	00 39 08.5	0.0
GTA				XP	sP	00 39 12.5	0.0
GTA				PP	PP	00 40 14.5	+0.8
GTA				PCP	PcP	00 41 35.8	-0.1
GTA				S	**S**	**00 44 16.3**	**-5.6**
GTA				SCS	ScS	00 49 16.8	-1.2
GTA				AMB	AMB		
	comp=Z,381nm,1.1s,mb6.2						
GTA				AMB	AMB		
	comp=Z,2µm,4.0s						
GTA				LR	LR		
	comp=N,3µm,23.7s,MS5.0						
GTA				LR	LR		
	comp=E,2µm,27.1s,MS5.0						
GTA				LR	LR		
	comp=Z,4µm,24.1s,MS5.1						
NJ2	**Nanjing**	**34.93**	**38**	*e*P	**P**	**00 39 06.5**	**+0.5**
NJ2				PP	PP	00 40 25.0	+0.7
NJ2				S	**S**	**00 44 39.0**	**+4.6**
NJ2				SS	SS	00 46 53.0	+3.4
NJ2				AMB	AMB		
	comp=Z,2µm,1.0s,mb6.9						
NJ2				AMB	AMB		
	comp=Z,2µm,5.8s						
NJ2				LR	LR		
	comp=N,16µm,20.4s,MS6.0						
NJ2				LR	LR		
	comp=E,22µm,18.8s,MS6.0						
NJ2				LR	LR		
	comp=Z,21µm,15.8s,MS6.0						
SSE	**Sheshan**	**35.77**	**41**	P	**P**	**00 39 14.0**	**+0.8**
SSE				PP	PP	00 40 35.0	+0.6
SSE				S	**S**	**00 44 50.3**	**+2.8**
SSE				PCS		00 45 28.5	
SSE				AMB	AMB		
	comp=Z,233nm,0.8s,mb6.2						
SSE				AMB	AMB		
	comp=Z,697nm,6.5s						
SSE				LR	LR		
	comp=N,4µm,17.0s,MS5.4						
SSE				LR	LR		
	comp=E,5µm,17.0s,MS5.4						
SSE				LR	LR		
	comp=Z,9µm,14.5s,MS5.7						
TIY	**Taiyuan**	**36.03**	**25**	⇑P	**P**	**00 39 20.0**	**+4.7**
TIY				LR	LR		
	comp=N,11µm,17.0s						
TIY				LR	LR		
	comp=Z,2µm,10.0s						
MBWA	**Marble Bar**	**36.28**	**138**	⇑*e*P	**P**	**00 39 16.9**	**-0.7**
	comp=Z,321nm,1.7s,mb6.0						
MBWA				*e*PcP	PcP	00 41 42.1	-0.3
MBWA				LR	LR		
	comp=Z,2µm,21.0s,MS4.9						
TIA	**Tai’an**	**37.00**	**31**	⇑P	**P**	**00 39 24.0**	**+0.6**
TIA				PP	PP	00 40 52.0	+1.8
TIA				S	**S**	**00 45 04.5**	**-1.8**
TIA				AMB	AMB		
	comp=Z,364nm,1.3s,mb6.0						
TIA				LR	LR		
	comp=N,2µm,14.0s,MS5.3						
TIA				LR	LR		
	comp=E,4µm,17.0s,MS5.3						
BTO	**Baotou**	**37.66**	**20**	*e*P	**P**	**00 39 28.8**	**-0.2**
BTO				S	**S**	**00 45 14.8**	**-1.6**
BTO				AMB	AMB		
	comp=Z,194nm,0.6s,mb6.0						
BTO				LR	LR		
	comp=N,2µm,13.2s,MS5.5						
BTO				LR	LR		
	comp=E,5µm,14.7s,MS5.5						
KSH	**Kashi**	**37.77**	**336**	⇑*i*P	**P**	**00 39 30.0**	**+0.2**
KSH				AP	pP	00 39 39.8	+0.4
KSH				XP	sP	00 39 43.5	+0.1
KSH				PP	PP	00 40 58.3	-1.0
KSH				PCP	PcP	00 41 49.0	+2.2
KSH				S	**S**	**00 45 17.3**	**-0.6**
KSH				*e*SCP		00 45 32.3	
KSH				PCS		00 45 36.0	
KSH				SCS	ScS	00 49 38.8	+0.9
KSH				AMB	AMB		
	comp=Z,1µm,3.8s						
KSH				LR	LR		
	comp=N,970nm,11.4s						
KSH				LR	LR		
	comp=E,5µm,22.4s						
HHC	**Hu-ho-hao-te**	**38.41**	**21**	⇑*i*P	**P**	**00 39 36.3**	**+1.0**
HHC				AP	pP	00 39 46.0	+1.2
HHC				XP	sP	00 39 49.8	+1.0
HHC				PP	PP	00 41 07.3	+0.4
HHC				PCP	PcP	00 41 48.8	+0.1
HHC				S	**S**	**00 45 21.0**	**-6.7**
HHC				SCP		00 45 33.3	
HHC				PCS		00 45 36.5	
HHC				XS		00 45 44.8	
HHC				SS	SS	00 48 08.5	+0.2
HHC				SCS	ScS	00 49 42.5	+0.9
HHC				AMB	AMB		
	comp=Z,418nm,1.2s,mb6.0						
HHC				AMB	AMB		
	comp=Z,903nm,3.4s						

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HHC                                  LR      LR
      comp=N,7µm,17.5s
HHC                                  LR      LR
      comp=E,2µm,10.1s
HHC                                  LR      LR
      comp=Z,7µm,19.4s,MS5.5
JOW   Kunigami          38.60  53    P       P       00 39 37.6 +0.6
      comp=Z,278nm,0.8s,mb6.1,baz=249,slow=8.0,SNR=82
JOW                                  PcP     PcP     00 41 49.7 +0.2
      comp=Z,34nm,0.5s,baz=273,slow=6.7,SNR=5.3
JOW                                  ScP             00 45 33.9
      comp=Z,11nm,0.9s,baz=115,slow=28,SNR=3.6
WMQ   Urumqi            38.64 352 ⇑  P       P       00 39 38.0 +0.8
WMQ                                  PP      PP      00 41 10.0 +0.5
WMQ                                  S       S       00 45 33.5 +2.3
WMQ                                  AMB     AMB
      comp=Z,282nm,1.1s,mb5.9
WMQ                                  AMB     AMB
      comp=Z,508nm,10.5s
WMQ                                  LR      LR
      comp=N,3µm,28.1s,MS5.3
WMQ                                  LR      LR
      comp=E,6µm,29.8s,MS5.3
WMQ                                  LR      LR
      comp=Z,3µm,29.0s,MS5.0
BJT   Baijiatuau        39.56  27 ⇑ iP       P       00 39 46.3 +1.5
BJT                                  pmax    pmax
      comp=Z,1µm,1.3s
BJT   Baijiatuau        39.56  27 ⇑ iP       P       00 39 46.3 +1.5
      comp=Z,1µm,1.3s,mb6.5
BJI   Beijing           39.58  26    P       P       00 39 46.5 +1.5
BJI                                  PP      PP      00 41 21.0 +1.3
BJI                                  S       S       00 45 46.5 +1.1
BJI                                  AMB     AMB
      comp=Z,709nm,1.1s,mb6.3
BJI                                  AMB     AMB
      comp=Z,3µm,3.7s
BJI                                  LR      LR
      comp=N,5µm,18.9s,MS5.3
BJI                                  LR      LR
      comp=E,1µm,22.1s,MS5.3
BJI                                  LR      LR
      comp=Z,7µm,22.1s,MS5.4
ULHL  Ulahol            40.03 339    P       P       00 39 49.5 +0.8
      SNR=35
KZA   Kyzart            40.24 338    P       P       00 39 51.8 +1.3
      SNR=42
UCH   Uchtor            40.66 337    P       P       00 39 55.2 +1.4
      SNR=71
AAA   Alma-Ata          40.69 340   iP       P       00 39 53.0 -1.1
AAA                                 e                00 41 30.0
AAA                                 eS       S       00 46 01.0 -0.8
AAA                                  pmax    pmax
      comp=Z,3µm,4.0s
AAA                                  smax
      comp=N,2µm,6.0s
TKM2  Tokmak 2          40.85 339    P       P       00 39 56.3 +0.9
      SNR=54
KBK   Karagaybulak      40.86 338    P       P       00 39 56.8 +1.3
      SNR=100
AML   Almayashu         40.90 336    P       P       00 39 57.3 +1.5
      SNR=78
AAK   Ala-Archa         41.01 337    P       P       00 39 58.0 +1.3
      SNR=68
AAK   Ala-Archa         41.01 337    P       P       00 39 57.0 +0.3
AAK                                  pmax    pmax
      comp=Z,290nm,1.2s,mb5.8
AAK   Ala-Archa         41.01 337 ⇑ iP       P       00 39 56.8 +0.1
CHMS  Chumysh           41.23 338    P       P       00 39 59.0 +0.5
      SNR=71
EKS2  Erkin-Say         41.31 337    P       P       00 40 00.5 +1.3
      SNR=42
DL2   Dalian            41.38  33 ⇑ iP       P       00 40 00.8 +0.9
DL2                                  XP      sP      00 40 14.5 +1.1
DL2                                  PP      PP      00 41 40.8 +2.4
DL2                                  S       S       00 46 10.5 -1.8
DL2                                  SCS     ScS     00 49 55.5 -3.5
DL2                                  AMB     AMB
      comp=Z,490nm,1.0s,mb6.1
DL2                                  AMB     AMB
      comp=Z,600nm,3.5s
DL2                                  LR      LR
      comp=N,2µm,19.8s,MS5.2
DL2                                  LR      LR
      comp=E,1µm,17.4s,MS5.2
DL2                                  LR      LR
      comp=Z,3µm,21.6s,MS5.1
USP   Ospenovka         41.55 338    P       P       00 40 01.9 +0.7
      SNR=84
MKAR  Makanchi Array    42.47 348   iP       P       00 40 09.1 +0.4
MKAR                                 pmax    pmax
      comp=Z,692nm,0.8s
MKAR  Makanchi Array    42.47 348   iP       P       00 40 09.2 +0.5
INCN  Inchon            43.31  38 ⇑ iP       P       00 40 15.3 -0.4
      comp=Z,362nm,1.2s,mb6.0
SONM  Songino Array     43.42  12    P       P       00 40 16.4  0.0
      comp=Z,184nm,0.9s,mb5.8,baz=193,slow=7.2,SNR=42
SONM                                 PcP     PcP     00 42 05.1 +0.2
      comp=Z,52nm,0.8s,baz=195,slow=3.6,SNR=8.8
SONM                                 ScP             00 45 51.9
      comp=Z,27nm,0.9s,baz=198,slow=3.9,SNR=10
ULN   Ulaanbaatar       43.59  12 ⇑ iP       P       00 40 17.5 -0.3
ULN                                  pmax    pmax
      comp=Z,87nm,0.6s,mb5.7
ULN                                  MLR     MLR
      comp=Z,3µm,19.0s,MS5.2
ULN   Ulaanbaatar       43.59  12 ⇑ iP       P       00 40 17.4 -0.3
      comp=Z,87nm,0.6s,mb5.7
ULN                                 eScP             00 45 52.8
ULN                                  LR      LR
      comp=Z,3µm,19.0s,MS5.2
NWAO  Narrogin (SRO)    43.90 152    P       P       00 40 20.9 +0.4
      comp=Z,72nm,1.2s,mb5.3,baz=312,slow=10.0,SNR=9.9
NWAO  Narrogin (SRO)    43.90 152    P       P       00 40 21.1 +0.6
NWAO                                 pmax    pmax
      comp=Z,130nm,1.6s
NWAO  Narrogin (SRO)    43.90 152   eP       P       00 40 20.5  0.0
      comp=Z,128nm,1.6s,mb5.4
KS15  Wonju Array Si    44.06  39 ⇑ eP       P       00 40 21.4 -0.3
SNY   Shenyang          44.53  31 ⇑  P       P       00 40 25.5  0.0
SNY                                  XP      sP      00 40 39.3 +0.3
SNY                                  PP      PP      00 42 13.8 +3.3
SNY                                  AMB     AMB
      comp=Z,340nm,1.2s,mb6.0
SNY                                  LR      LR
      comp=N,4µm,18.0s,MS5.4
SNY                                  LR      LR
      comp=E,2µm,22.4s,MS5.4
SNY                                  LR      LR
      comp=Z,5µm,20.5s,MS5.4
ZAK   Zakamensk         45.36   8 ⇓ iP       P       00 40 31.6 -0.4
ZAK                                 e                00 42 10.0
MOY   Mondy             46.35   6   eP       P       00 40 39.0 -0.8
WRA   Warramunga Arr    46.66 124    P       P       00 40 42.4 -0.2
      comp=Z,265nm,0.8s,mb6.2,baz=304,slow=9.1,SNR=493
WRA                                  ScP             00 46 04.5
      comp=Z,9.9nm,1.0s,baz=298,slow=4.1,SNR=4.9
WRA                                  S       S       00 47 29.1  0.0
      comp=Z,23nm,1.0s,baz=300,slow=16,SNR=9.9
WRA   Warramunga Arr    46.66 124    P       P       00 40 42.4 -0.3
WRA                                  S       S       00 47 29.1 +0.1
WRAB  Tennant Creek     46.66 124    P       P       00 40 42.4 -0.3
WRAB                                 pmax    pmax
      comp=Z,730nm,1.0s,mb6.6
WRAB  Tennant Creek     46.66 124 ⇑ iP       P       00 40 42.5 -0.1
      comp=Z,731nm,0.9s,mb6.6
WRAB                                 LR      LR
      comp=Z,536nm,19.4s,MS4.5
TLY   Talaya            46.68   8    P       P       00 40 42.5 +0.1
      comp=Z,776nm,1.2s,mb6.5,SNR=28
TLY   Talaya            46.68   8   eP       P       00 40 42.4  0.0
TLY                                 e                00 42 34.8
TLY                                 eS       S       00 47 30.3 +1.4
TLY                                  pmax    pmax
      comp=Z,207nm,1.2s,mb5.9
TLY                                  MLR     MLR
      comp=Z,4µm,21.0s,MS5.3
TLY   Talaya            46.68   8   eP       P       00 40 42.5 +0.2
      comp=Z,200nm,1.2s,mb5.9
TLY                                 ePcP     PcP     00 42 14.9 -1.2
YOMI  Yo Moklole        46.77  99 ⇑ eP       P       00 40 40.1 -3.5
CN2   Changchun         46.90  31   eP       P       00 40 44.5 +0.3
CN2                                 eS       S       00 47 34.8 +2.7
CN2                                  AMB     AMB
      comp=Z,240nm,1.1s,mb6.0
CN2                                  AMB     AMB
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      comp=Z,2µm,3.0s
CN2                                  LR      LR
      comp=N,4µm,17.0s,MS5.6
CN2                                  LR      LR
      comp=E,4µm,17.0s,MS5.6
CN2                                  LR      LR
      comp=Z,4µm,18.0s,MS5.4
HASS  Wahat al Ahsa'    47.10 299    P       P       00 40 47.8 +1.7
IRK   Irkutsk           47.31   8   eP       P       00 40 47.0 -0.4
ASAR  Alice Springs     48.18 129    P       P       00 40 54.2 -0.4
      comp=Z,76nm,0.7s,mb5.8,baz=299,slow=7.5,SNR=232
ASAR                                 S       S       00 47 49.1 -1.3
      comp=Z,18nm,1.0s,baz=295,slow=12,SNR=8.8
HIA   Hailar            48.60  22 ⇑ iP       P       00 40 57.1 -0.4
HIA                                 e                00 42 22.4
HIA                                  pmax    pmax
      comp=Z,246nm,1.0s
HIA                                  MLR     MLR
      comp=Z,12µm,19.0s
HIA   Hailar            48.60  22 ⇑ iP       P       00 40 57.1 -0.4
      comp=Z,246nm,1.0s,mb6.2
HIA                                 ePcP     PcP     00 42 22.4 -0.7
HIA                                 eScP             00 46 14.2
HIA                                  LR      LR
      comp=Z,12µm,19.0s,MS5.9
ZAL   Zalesovo          48.94 352    P       P       00 40 60.0 -0.1
      comp=Z,225nm,0.8s,mb6.2,baz=300,slow=6.3,SNR=349
RYDS  Riyadh            49.51 297    P       P       00 41 07.0 +2.2
MDJ   Mudanjiang        49.63  33 ⇑ eP       P       00 41 05.7 +0.3
      comp=Z,550nm,1.2s,mb6.5
QRN   Al-Qurain         49.69 303   eP       P       00 41 06.8 +0.6
VLA   Vladivostok       49.96  36 ⇓ iP       P       00 41 08.0  0.0
VLA                                 i                00 43 04.0
VLA                                 i                00 48 08.0
VLA                                  pmax    pmax
      comp=Z,2µm,7.0s
NVS   Novosibirsk       50.04 352 ⇑ iP       P       00 41 07.3 -1.1
NVS                                  pmax    pmax
      comp=Z,798nm,1.2s,mb6.6
NVS                                  pmax    pmax
      comp=N,770nm,1.6s
NVS                                  pmax    pmax
      comp=E,326nm,1.3s
RDF   Al-Radifah        50.06 303   eP       P       00 41 09.9 +0.9
RDF                                  AMb     AMB     00 41 11.7
      comp=Z,387nm,1.0s,mb6.4
CBIJ  Chichi jima       50.22  59    P       P       00 41 09.0 -1.2
      comp=Z,293nm,0.7s,mb6.5,baz=283,slow=3.2,SNR=23
MAJO  Matsushiro        50.56  46 ⇑ eP       P       00 41 11.9 -0.8
MAJO                                e                00 42 29.8
MAJO                                 pmax    pmax
      comp=Z,427nm,1.6s,mb6.1
MAJO                                 MLR     MLR
      comp=Z,5µm,22.0s,MS5.5
MAJO  Matsushiro        50.56  46 ⇑ eP       P       00 41 11.9 -0.8
      comp=Z,427nm,1.6s,mb6.1
MAJO                                ePcP     PcP     00 42 29.8 -0.6
MAJO                                 LR      LR
      comp=Z,5µm,22.0s,MS5.5
MAT   Matsushiro        50.56  46    P       P       00 41 11.8 -0.9
MAT                                  S       S       00 48 30.0 +6.5
MAT   Matsushiro        50.56  46   eP       P       00 41 12.0 -0.7
MAT                                 eS       S       00 48 31.0 +7.5
MAT                                  pmax    pmax
      comp=Z,686nm,1.8s,mb6.3
MAT   Matsushiro        50.56  46   eP       P       00 41 12.0 -0.7
      comp=Z,686nm,1.8s,mb6.3
MAT                                 eS       S       00 48 31.0 +7.5
KAMS  Al Khamasin       50.58 292    P       P       00 41 14.7 +1.7
RST   Umm Al-Ruwaisa    50.70 304   eP       P       00 41 14.5 +0.7
RST                                  AMb     AMB     00 41 16.1
      comp=Z,299nm,0.9s,mb6.2
MZLS  Mizel             50.75 297    P       P       00 41 15.6 +1.4
BVA0  Borovoye Array    51.34 342    P       P       00 41 17.9 -0.4
BVA0                                 pmax    pmax
      comp=Z,23nm,0.8s,mb5.2
BVAR  Borovoye Array    51.34 342    P       P       00 41 17.8 -0.5
      comp=Z,143nm,0.6s,mb6.0,baz=143,slow=10.0,SNR=395
BRVK  Borovoye          51.40 342    P       P       00 41 17.6 -1.2
BRVK                                 pmax    pmax
      comp=Z,210nm,0.7s,mb6.2
BRVK  Borovoye          51.40 342 ⇑ iP       P       00 41 18.3 -0.4
      comp=Z,179nm,0.6s,mb6.2
TATS  Tathlith          51.48 291    P       P       00 41 20.7 +0.9
CHKZ  Chkalovo          51.83 342 ⇑ iP       P       00 41 22.0  0.0
CHKZ                                e*SP     sP      00 41 35.6 +0.1
CHKZ                                 pmax    pmax
      comp=Z,431nm,0.6s,mb6.6
CHKZ  Chkalovo          51.83 342 ⇑ iP       P       00 41 22.0  0.0
      comp=Z,431nm,0.6s,mb6.6
CHKZ                                esP      sP      00 41 35.6 +0.1
NAMS  An Nimas          52.61 290    P       P       00 41 30.3 +1.9
AFFS  ‘Afif             52.69 296    P       P       00 41 30.2 +1.3
ARSS  Ar Rass           52.91 298    P       P       00 41 31.6 +1.1
KLR   Kul’dur           53.79  30 κ iP       P       00 41 33.2 -3.5
KLR                                 eS       S       00 49 22.5  +15
KLR                                  pmax    pmax
      comp=N,900nm,9.0s
KLR                                  pmax    pmax
      comp=E,900nm,9.0s
KLR                                  pmax    pmax
      comp=Z,2µm,9.0s
KLR                                  pmax    pmax
      comp=N,250nm,2.0s
KLR                                  pmax    pmax
      comp=E,420nm,2.0s
KLR                                  pmax    pmax
      comp=Z,540nm,2.0s,mb6.1
BOD   Bodaibo           54.40  13 ⇓ iP       P       00 41 39.7 -1.3
BOD                                 eS       S       00 49 10.4 -5.1
HILS  Ha’il             54.52 300    P       P       00 41 43.7 +1.4
PMG   Port Moresby      54.58 106    P       P       00 41 42.2 -0.7
      comp=Z,177nm,0.8s,mb6.1,baz=316,slow=3.3,SNR=78
PMG                                  ScP             00 46 39.6
      comp=Z,35nm,1.1s,baz=321,slow=6.1,SNR=6.3
PMG                                  S       S       00 49 18.8 +0.3
      comp=Z,16nm,1.2s,baz=214,slow=15,SNR=4.3
PMG   Port Moresby      54.58 106    P       P       00 41 42.2 -0.7
PMG                                  S       S       00 49 18.8 +0.3
PMG                                  pmax    pmax
      comp=Z,177nm,0.8s
PMG   Port Moresby      54.58 106 ⇑ iP       P       00 41 41.9 -1.1
      comp=Z,268nm,0.9s,mb6.3
MAK   Makhachkala       55.71 320   eP       P       00 41 50.0 -0.8
MAK                                 i                00 42 50.0
MAK                                 i                00 43 58.0
MAK                                 eS       S       00 49 30.0 -3.2
MAK                                 ePS      PS      00 49 53.8 +4.8
MAK                                 e                00 51 33.0
MAK                                  pmax    pmax
      comp=Z,200nm,1.5s,mb5.9
MAK                                  pmax    pmax
      comp=Z,1µm,4.0s
MAK                                  smax
      comp=N,2µm,5.0s
MAK                                  MLR     MLR
      comp=N,2µm,14.0s,MS5.5
MAK                                  MLR     MLR
      comp=E,3µm,14.0s,MS5.5
MAK                                  MLR     MLR
      comp=Z,2µm,14.0s,MS5.3
GNI   Garni             56.33 315    P       P       00 41 54.8 -0.4
      comp=Z,41nm,0.8s,mb5.5,baz=171,slow=3.1,SNR=55
GNI   Garni             56.33 315 c iP       P       00 41 54.6 -0.6
GNI                                  pmax    pmax
      comp=Z,276nm,1.7s
KBRS  Khaybar           56.39 297    P       P       00 41 57.2 +1.3
CLNS  Chul’man          56.57  19   eP       P       00 41 54.2 -2.5
CLNS                                e                00 42 48.8
CLNS                                eS       S       00 49 42.9 -1.5
CLNS                                eSS      SS      00 53 31.8 -0.9
CLNS                                eSSS     SSS     00 55 33.8  -10
CLNS                                 pmax    pmax
      comp=N,78nm,1.1s
CLNS                                 pmax    pmax
      comp=E,62nm,1.1s
CLNS                                 pmax    pmax
      comp=Z,140nm,1.1s,mb5.9
CLNS                                 pmax    pmax
      comp=Z,17nm,1.2s,mb5.0
CLNS                                 pmax    pmax
      comp=N,25nm,1.0s
CLNS                                 pmax    pmax
      comp=E,27nm,1.1s
CLNS                                 smax
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      comp=N,273nm,11.9s
CLNS                                 smax
      comp=Z,189nm,10.5s
CLNS                                 smax
      comp=E,33nm,9.6s
CLNS                                 MLR     MLR
      comp=Z,5µm,20.0s,MS5.6
CLNS                                 MLR     MLR
      comp=N,4µm,19.0s,MS5.5
CLNS                                 MLR     MLR
      comp=E,600nm,17.0s,MS5.5
CTA   Charters Tower    56.90 118    P       P       00 41 58.7 -0.9
      comp=E,156nm,1.2s,mb5.9,baz=296,slow=8.2,SNR=43
CTA                                  ScP             00 46 49.5
      comp=E,25nm,1.1s,baz=293,slow=1.6,SNR=4.0
CTAO  Charters Tower    56.90 118 ⇑ eP       P       00 41 58.5 -1.1
CTAO                                 pmax    pmax
      comp=Z,245nm,1.3s,mb6.1
CTAO                                 MLR     MLR
      comp=Z,3µm,22.0s,MS5.3
CTAO  Charters Tower    56.90 118 ⇑ eP       P       00 41 58.5 -1.1
      comp=Z,245nm,1.3s,mb6.1
CTAO                                eScP             00 46 49.4
CTAO                                 LR      LR
      comp=Z,3µm,22.0s,MS5.3
TI2   Plekhanov         56.98 317 ⇑ iP       P       00 42 00.0 +0.1
TI2                                 i                00 42 14.0
TI2                                  pmax    pmax
      comp=Z,280nm,1.0s,mb6.2
YNBS  Yanbu‘ al Bahr    57.27 295    P       P       00 42 03.4 +1.2
KMBO  Kilima Mbogo      57.49 265    P       P       00 42 05.3 +1.5
      comp=Z,28nm,1.0s,mb5.2,baz=66,slow=7.6,SNR=41
KMBO  Kilima Mbogo      57.49 265 ⇓ eP       P       00 42 05.1 +1.2
KMBO                                 pmax    pmax
      comp=Z,79nm,1.4s
KMBO                                 MLR     MLR
      comp=Z,5µm,22.0s
KMBO  Kilima Mbogo      57.49 265 ⇓ eP       P       00 42 05.1 +1.2
      comp=Z,80nm,1.4s,mb5.5
KMBO                                 LR      LR
      comp=Z,5µm,22.0s,MS5.6
SVE   Sverdlovsk        57.72 339 ⇑ iP       P       00 42 04.0 -0.9
SVE                                 e                00 43 01.0
SVE                                 eS       S       00 50 00.0 +0.3
SVE                                  pmax    pmax
      comp=Z,1µm,2.0s,mb6.6
SVE                                  MLR     MLR
      comp=Z,3µm,21.5s,MS5.3
BTMT  Batman            57.93 312    P       P       00 42 04.9 -1.7
BEST  Besiri            57.98 312   iP       P       00 42 05.6 -1.4
ZEI   Tsey              57.99 318   eP       P       00 42 06.2 -0.8
ZEI                                 i*PP     pP      00 42 24.1 +7.3
ZEI                                  pmax    pmax
      comp=Z,49nm,0.9s,mb5.5
UMJS  Umm Lajj          58.02 296    P       P       00 42 09.3 +1.9
ARU   Arti              58.20 337 c iP       P       00 42 07.1 -1.1
ARU                                  pmax    pmax
      comp=Z,473nm,1.9s,mb6.2
ARU                                  MLR     MLR
      comp=Z,3µm,23.0s,MS5.4
ARU   Arti              58.20 337 ⇑ iP       P       00 42 07.2 -1.0
VRT   Varto             58.23 313    P       P       00 42 08.4 -0.3
STKA  Stephens Creek    58.26 133    P       P       00 42 08.4 -0.6
      comp=Z,94nm,1.0s,mb5.8,baz=309,slow=7.2,SNR=75
STKA  Stephens Creek    58.26 133 ⇑ eP       P       00 42 08.1 -0.9
YSS   Yuzh-Sakhalins    58.49  37 α eP       P       00 42 09.8 -0.6
YSS                                 e*SP     sP      00 42 22.1 -1.8
YSS                                 e                00 42 54.0
YSS                                 eS       S       00 50 06.0 -3.8
YSS                                 eSS      SS      00 54 05.0 +1.0
YSS                                  pmax    pmax
      comp=Z,310nm,1.0s,mb6.3
YSS                                  pmax    pmax
      comp=N,110nm,1.1s
YSS                                  pmax    pmax
      comp=E,60nm,1.0s
YSS                                  pmax    pmax
      comp=N,60nm,1.0s
YSS                                  pmax    pmax
      comp=E,60nm,1.0s
YSS                                  pmax    pmax
      comp=Z,190nm,1.0s,mb6.1
YSS                                  MLR     MLR
      comp=N,2µm,16.0s,MS5.3
YSS                                  MLR     MLR
      comp=E,800nm,16.0s,MS5.3
YSS                                  MLR     MLR
      comp=Z,2µm,16.0s,MS5.2
YSS   Yuzh-Sakhalins    58.49  37 ⇑ eP       P       00 42 09.6 -0.8
      comp=Z,490nm,1.1s,mb6.5
YSS                                  LR      LR
      comp=Z,3µm,20.0s,MS5.4
ERZM  Erzurum           58.62 314   iP       P       00 42 11.2 -0.3
EZM   Erzurum           58.63 314    P       P       00 42 12.0 +0.6
DIY   Diyarbakir        58.77 311    P       P       00 42 12.2 -0.3
BINT  Bingol            58.90 313    P       P       00 42 12.6 -0.8
BCA   Borcka            59.01 316    P       P       00 42 12.8 -1.4
YUK   Yuzh-Kuril’sk     59.10  41 ⇓ iP       P       00 42 12.9 -1.8
YUK                                  pmax    pmax
      comp=Z,3µm,2.0s,mb7.0
YUK                                  pmax    pmax
      comp=N,2µm,1.0s
TBKS  Tabuk             59.23 300    P       P       00 42 17.4 +1.6
KIV   Kislovodsk        59.29 319    P       P       00 42 14.8 -1.2
      comp=N,787nm,0.9s,mb6.7,SNR=61
KIV   Kislovodsk        59.29 319 c iP       P       00 42 14.8 -1.2
KIV                                  pmax    pmax
      comp=Z,353nm,1.9s,mb6.1
KIV   Kislovodsk        59.29 319 ⇑ iP       P       00 42 14.9 -1.1
GOF   Gofitskoye        59.53 320   iP       P       00 42 16.0 -1.7
GOF                                  pmax    pmax
      comp=Z,160nm,1.0s,mb6.0
GOF                                  pmax    pmax
      comp=Z,2µm,4.0s
URFA  Urfa              59.68 310    P       P       00 42 17.2 -1.6
EZC   Erzincan          59.69 313    P       P       00 42 19.4 +0.6
PTK   Pertek            59.71 312    P       P       00 42 18.0 -1.0
ELZG  Elazig            59.88 312   iP       P       00 42 19.4 -0.8
JMQS  Jabal Moqyreh     59.94 300    P       P       00 42 21.6 +0.9
GUMT  Gumushane         60.17 314    P       P       00 42 21.0 -1.1
MALT  Malatya           60.24 311    P       P       00 42 21.3 -1.3
MALT  Malatya           60.24 311 ⇑ iP       P       00 42 22.0 -0.6
MALT                                 pmax    pmax
      comp=Z,98nm,1.4s,mb5.7
MALT  Malatya           60.24 311 ⇑ iP       P       00 42 22.0 -0.7
      comp=Z,98nm,1.4s,mb5.7
MYA   Malataya          60.25 311    P       P       00 42 22.1 -0.6
AYUS  ‘Aynunah          60.34 299    P       P       00 42 24.5 +1.0
BDAS  Al Bad‘           60.53 300    P       P       00 42 25.3 +0.6
DUSS  Damascus Unive    60.59 305   iP       P       00 42 26.3 +1.2
DUSS                                iP               00 42 26.6
DUSS                                iP               00 42 27.0
DUSS                                e                00 42 27.1
      baz=103,slow=3.8
DUSS                                 AMb     AMB     00 42 30.8
      comp=Z,5µm,2.2s
DUSS                                eS       S       00 50 36.1 -1.1
GZT   Gaziantep         60.61 310   iP       P       00 42 24.9 -0.2
JMOS  Jabal al Moall    60.65 300    P       P       00 42 26.2 +0.6
MKRJ  Makawir           60.68 303    P       P       00 42 26.6 +0.9
ALWS  Ilw as Safayha    60.72 300    P       P       00 42 27.0 +1.0
HAQS  Haql              60.79 300    P       P       00 42 27.2 +0.7
AQBJ  Aqaba             60.81 301    P       P       00 42 27.1 +0.5
GAZ   Gaziantep         60.83 310    P       P       00 42 26.7 +0.1
MZDA  Masada            60.86 303    P       P       00 42 27.8 +0.9
ZFRI  Zfri              60.86 302    P       P       00 42 27.7 +0.7
EIL   Elat              60.88 301    P       P       00 42 27.6 +0.5
      comp=Z,20nm,0.6s,mb5.4,baz=91,slow=7.1,SNR=24
EIL   Elat              60.88 301    P       P       00 42 27.7 +0.6
EIL   Elat              60.88 301 ⇑ iP       P       00 42 27.4 +0.3
      comp=Z,163nm,1.4s,mb6.0
DRGI  Dragot            60.90 303    P       P       00 42 28.0 +0.8
MBH   Mount Berech      60.94 301    P       P       00 42 28.2 +0.7
PRNI  Paran             60.97 302    P       P       00 42 28.5 +0.8
HRI   Mount Hermon      60.99 305    P       P       00 42 28.8 +1.0
MMLI  Mount Malkishu    61.06 304    P       P       00 42 29.4 +1.2
SOC   Sochi             61.12 317   iP       P       00 42 26.5 -2.0
SOC                                 e                00 43 07.2
SOC                                 i                00 44 39.4
SOC                                 iS       S       00 50 38.6 -5.2
SOC                                 eSSS     SSS     00 57 24.2 +0.5
SOC                                  pmax    pmax
      comp=Z,144nm,1.0s,mb6.1
SOC                                  pmax    pmax
      comp=N,22nm,0.8s
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SOC                                pmax    pmax
       comp=E,43nm,1.1s
SOC                                MLR     MLR
       comp=N,1µm,20.0s,MS5.4
SOC                                MLR     MLR
       comp=Z,936nm,20.0s,MS4.9
SOC                                MLR     MLR
       comp=E,2µm,21.0s,MS5.4
SOKR   Solikamsk       61.12 339c iP     P       00 42 26.8 -1.5
SOKR                              iS     S       00 50 37.7 -5.9
SOKR                               pmax    pmax
       comp=Z,150nm,1.0s,mb6.1
SOKR                               MLR     MLR
       comp=Z,3µm,20.0s,MS5.4
KAHT   Ahir Dag        61.21 310  iP     P       00 42 28.9 -0.3
SLTI   Sal'it          61.33 304   P     P       00 42 31.0 +0.9
HTY    Hatay           61.37 308   P     P       00 42 30.0 -0.3
RTMM   Retamin         61.38 302   P     P       00 42 30.9 +0.5
COBT   Iskenderun      61.38 309  iP     P       00 42 30.4  0.0
HNTI   Hanita          61.40 305   P     P       00 42 31.7 +1.1
OFRI   'Ofer           61.46 304   P     P       00 42 31.8 +0.8
HAF    Haifa           61.46 304   P     P       00 42 31.8 +0.8
KZIT   Kziot           61.59 302   P     P       00 42 32.4 +0.5
CEYT   Ceyhan          61.91 309   P     P       00 42 33.6 -0.4
YAK    Yakutsk         62.16  18c iP     P       00 42 33.4 -1.9
YAK                               e*PP   pP      00 42 42.4 -2.8
YAK                               e              00 43 15.4
YAK                               e              00 44 51.4
YAK                               eS     S       00 50 51.7 -5.0
YAK                               e              00 52 14.0
YAK                               eSSS   SSS     00 57 42.1 -1.9
YAK                                pmax    pmax
       comp=Z,185nm,1.1s,mb6.1
YAK                                pmax    pmax
       comp=N,92nm,1.2s
YAK                                pmax    pmax
       comp=E,71nm,1.2s
YAK                                pmax    pmax
       comp=Z,19nm,0.9s,mb5.2
YAK                                pmax    pmax
       comp=N,6.0nm,0.8s
YAK                                pmax    pmax
       comp=E,14nm,1.3s
YAK                                smax
       comp=E,25nm,1.3s
YAK                                smax
       comp=Z,5.0nm,1.2s
YAK                                smax
       comp=N,9.0nm,1.0s
YAK                                MLR     MLR
       comp=Z,3µm,16.0s,MS5.5
YAK                                MLR     MLR
       comp=N,1µm,13.0s,MS5.4
YAK                                MLR     MLR
       comp=E,2µm,15.0s,MS5.4
YAK    Yakutsk         62.16  18⇑eP      P       00 42 33.1 -2.2
       comp=E,154nm,0.6s,mb6.3
YAK                                LR      LR
       comp=Z,4µm,19.0s,MS5.6
TOKT   Tokat           62.25 313   P     P       00 42 35.0 -1.2
BNN    Bunyan          62.33 311   P     P       00 42 35.6 -1.1
PHNC   Paralimni       62.76 307   P     P       00 42 38.5 -1.1
MEST   Erdemli         63.04 308  iP     P       00 42 40.9 -0.6
AVNT   Avonos          63.06 311  iP     P       00 42 40.7 -0.8
NIG    Nigde           63.07 310   P     P       00 42 41.1 -0.5
ANN    Anapa           63.09 318  e*PP   P       00 42 40.3 -1.4
CSS    Prodhromos      63.31 306   P     P       00 42 43.3  0.0
IKL    Isikli          63.32 308   P     P       00 42 41.5 -1.8
MAMC   Mammari         63.45 307 ⇑P      P       00 42 44.6 +0.4
MAMC   Mammari         63.45 307⇑eP      P       00 42 44.6 +0.4
CORM   Corum           63.61 312   P     P       00 42 43.9 -1.3
CTKT   Corum           63.62 313  iP     P       00 42 44.3 -1.0
SZAC   Souni-Zanaja    63.63 306 ⇑P      P       00 42 45.3 -0.1
SZAC   Souni-Zanaja    63.63 306⇑eP      P       00 42 45.3 -0.1
LEF    Lefka           63.70 306   P     P       00 42 45.5 -0.4
BOYT   Boyabat         63.76 314  iP     P       00 42 44.5 -1.7
BYBT   Boyabat         63.88 314   P     P       00 42 45.2 -1.7
MBAR   Mbarara         63.90 267  eP     P       00 42 47.6 +0.1
MBAR                               pmax    pmax
       comp=Z,56nm,1.3s,mb5.4
MBAR                               MLR     MLR
       comp=Z,1µm,20.0s,MS5.1
MBAR   Mbarara         63.90 267  eP     P       00 42 47.6 +0.1
       comp=Z,56nm,1.3s,mb5.4
MBAR                               LR      LR
       comp=Z,1µm,20.0s,MS5.1
ALFC   Alevga          63.94 306 ⇑P      P       00 42 47.0 -0.5
       comp=Z,3.8nm,0.7s
ALFC   Alevga          63.94 306⇑eP      P       00 42 47.0 -0.5
KAMT   Kaman           64.07 311   P     P       00 42 46.9 -1.4
PPCY   Paphos          64.09 306 ⇑P      P       00 42 47.9 -0.5
PPCY   Paphos          64.09 306⇑iP      P       00 42 47.9 -0.5
AKMC   Akamas          64.13 306 ⇑P      P       00 42 48.0 -0.7
AKMC   Akamas          64.13 306⇑iP      P       00 42 48.0 -0.7
BRTR   Keskin Array B  64.22 312   P     P       00 42 47.9 -1.3
       comp=Z,47nm,0.9s,mb5.5,baz=121,slow=7.2,SNR=139
TOS    Tosya           64.29 313   P     P       00 42 48.4 -1.3
PECR   Pechory         64.36 332  eP     P       00 42 48.4 -1.4
HDMB   Hadim           64.43 308   P     P       00 42 49.8 -0.8
CANT   Cankiri         64.47 313   P     P       00 42 50.0 -0.8
BZK    Bozkurt         64.56 314   P     P       00 42 50.5 -0.9
ELDT   Eldivan         64.58 312  iP     P       00 42 50.5 -1.0
KONT   Konya--Tatoy    64.75 309   P     P       00 42 52.1 -0.6
ANTO   Ankara          64.89 312   P     P       00 42 51.4 -2.1
BALT   Daday           64.89 313  iP     P       00 42 52.2 -1.3
LOD    Lodumlu         64.91 312   P     P       00 42 52.7 -1.0
SAFT   Safranbolu      65.32 313   P     P       00 42 55.1 -1.2
KIZT   Kizilcal        65.33 310   P     P       00 42 55.0 -1.4
SIM    Simferopol'     65.37 317c iP     P       00 42 55.3 -1.2
SIM                               eS     S       00 51 32.4 -4.4
SIM                                pmax    pmax
       comp=Z,119nm,1.4s,mb5.7
SGKT   Sivrigoynuk     65.61 312  iP     P       00 42 57.2 -1.0
BCK    Bucak           66.01 309   P     P       00 42 58.5 -2.2
ISP    Isparta         66.15 309   P     P       00 42 59.0 -2.7
ISP    Isparta         66.15 309⇑iP      P       00 43 00.3 -1.4
ISP                                pmax    pmax
       comp=Z,627nm,1.5s,mb6.4
ISP    Isparta         66.15 309⇑iP      P       00 43 00.3 -1.4
       comp=Z,627nm,1.5s,mb6.4
MDU    Mudurnu         66.20 312   P     P       00 43 00.7 -1.3
ESKT   Eskisehir       66.26 311   P     P       00 42 59.8 -2.5
ESKT   Eskisehir       66.26 311  iP     P       00 43 01.1 -1.2
ELL    Elmali          66.40 308   P     P       00 43 02.7 -0.6
HENT   Hendek          66.52 312  iP     P       00 43 02.7 -1.3
ALT    Altintas        66.72 310   P     P       00 43 04.2 -1.0
KHL    Karahalli       67.01 309   P     P       00 43 06.5 -0.7
FETY   Fethiye         67.03 307   P     P       00 43 06.1 -1.2
DNZL   Cakiroluk       67.26 309  iP     P       00 43 06.8 -1.9
MOS    Moscow          67.27 329α iP     P       00 43 07.5 -1.0
MOS                               i*PP   pP      00 43 25.9 +7.5
MOS                               e              00 43 36.2
MOS                               eS     S       00 51 56.9 -2.8
MOS                               e              00 52 18.3
MOS                                pmax    pmax
       comp=Z,2µm,1.7s,mb6.8
MOS                                pmax    pmax
       comp=Z,772nm,1.4s,mb6.5
DENT   Denizli         67.28 309   P     P       00 43 07.5 -1.3
DALT   Dalyan (Mudla)  67.41 308   P     P       00 43 09.2 -0.4
HRT    Hereke          67.43 312   P     P       00 43 08.5 -1.2
OBN    Obninsk         67.55 328c iP     P       00 43 09.0 -1.3
OBN                               eS     S       00 51 58.9 -4.2
OBN                                pmax    pmax
       comp=Z,682nm,1.5s,mb6.5
OBN    Obninsk         67.55 328⇑iP      P       00 43 08.8 -1.4
       comp=Z,6.3nm,0.4s,mb5.0
YLV    Yalova          67.60 312   P     P       00 43 08.7 -2.1
ULDT   Uludag          67.68 311  iP     P       00 43 10.6 -0.8
MANT   Manisa          67.79 309  iP     P       00 43 11.3 -0.8
ORLT   Orhaneli        67.84 311   P     P       00 43 11.5 -0.9
ISK    Istanbul-Kandi  67.94 312   P     P       00 43 11.6 -1.4
DST    Dursunbey       67.95 311   P     P       00 43 12.0 -1.1
SKR    Severo-Kuril's  68.06  37  eP     P       00 43 08.5 -5.0
SKR                               e              00 43 15.0
SKR                               e              00 43 23.0
SKR                               e              00 52 05.0
SKR                                pmax    pmax
       comp=E,180nm,1.0s
SKR                                pmax    pmax
       comp=Z,310nm,1.0s,mb6.3
AYDN   Tasoluk         68.16 308  iP     P       00 43 13.5 -0.9
AKS    Akhisar         68.44 310   P     P       00 43 15.2 -0.9
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BTOK   Tokmak          68.44 311  iP     P       00 43 14.4 -1.6
BALB   Balikesir       68.53 310   P     P       00 43 15.7 -0.9
BNT    Bandirma        68.64 311   P     P       00 43 16.5 -0.8
MA2    Magadan         68.74  27⇑eP      P       00 43 16.7 -0.9
MA2                                pmax    pmax
       comp=Z,242nm,1.1s,mb6.0
MA2    Magadan         68.74  27⇑eP      P       00 43 16.4 -1.2
       comp=Z,283nm,1.1s,mb6.1
KDAG   Bornova         68.77 309  iP     P       00 43 17.9 -0.3
IZM    Izmir           68.77 309   P     P       00 43 18.1 -0.1
LSZ    Lusaka          68.78 251  eP     P       00 43 18.9 +0.4
LSZ                                pmax    pmax
       comp=Z,104nm,1.3s,mb5.6
LSZ                                MLR     MLR
       comp=Z,6µm,20.0s,MS5.8
LSZ    Lusaka          68.78 251  eP     P       00 43 18.9 +0.4
       comp=Z,104nm,1.3s,mb5.6
LSZ                                LR      LR
       comp=Z,6µm,20.0s,MS5.8
MRMT   Marmara Adasi   68.93 311   P     P       00 43 17.9 -1.2
TIRR   Tirgusor        69.15 316   P     P       00 43 19.6 -0.8
SART   Tekirdag        69.25 311  iP     P       00 43 16.6 -4.5
AYVA   Ayvalik         69.37 310  iP     P       00 43 21.1 -0.7
KIS    Kishinev        69.49 318  eP     P       00 43 20.0 -2.4
KIS                               e              00 43 39.0
KIS                                pmax    pmax
       comp=Z,400nm,2.0s,mb6.0
TIXI   Tiksi           69.50  11⇑eP      P       00 43 20.5 -1.6
TIXI                               pmax    pmax
       comp=Z,1µm,2.1s,mb6.5
TIXI   Tiksi           69.50  11⇑eP      P       00 43 20.6 -1.5
PRD    Provadia        69.59 314   P     P       00 43 22.5 -0.6
SANT   Santorini       69.87 307  eP     P       00 43 22.8 -2.1
       comp=Z,345nm,1.1s,mb6.2
SANT                              e              00 43 37.7
BOZC   Bozcaada        69.95 310  iP     P       00 43 24.5 -0.9
JMB    Yambol          70.03 313   P     P       00 43 25.8  0.0
IDI    Anoyia          70.18 305   P     P       00 43 27.0 +0.2
       comp=Z,98nm,0.8s,mb5.8,baz=86,slow=6.9,SNR=82
AKASG  Malin Array Be  70.21 322   P     P       00 43 24.9 -1.8
       comp=Z,62nm,0.8s,mb5.6,baz=88,slow=5.0,SNR=220
AKASG  Malin Array Be  70.21 322   P     P       00 43 24.9 -1.8
AKASG                              pmax    pmax
       comp=Z,62nm,0.8s
PET    Petropavlovsk   70.29  35  eP     P       00 43 25.9 -1.3
PET                               e              00 43 46.3
PET                               e              00 45 56.0
PET                               eS     S       00 52 32.7 -2.9
PET                                pmax    pmax
       comp=Z,120nm,1.4s,mb5.6
PET                                pmax    pmax
       comp=Z,700nm,7.4s
PET                                pmax    pmax
       comp=Z,200nm,12.5s
PET                                pmax    pmax
       comp=Z,900nm,4.1s
PET                                pmax    pmax
       comp=Z,200nm,16.5s
PET                                smax
       comp=N,400nm,26.2s
PET                                MLR     MLR
       comp=Z,2µm,19.0s,MS5.5
PET                                MLR     MLR
       comp=Z,2µm,18.0s
PET    Petropavlovsk   70.29  35⇑iP      P       00 43 25.8 -1.4
VRI    Vrincioaia      70.63 317   P     P       00 43 29.5 +0.1
VRI    Vrincioaia      70.63 317⇑iP      P       00 43 29.4  0.0
SZH    Strazhica       70.66 314   P     P       00 43 29.0 -0.6
DIM    Dimitrovgrad    70.72 313   P     P       00 43 29.0 -1.0
KDZ    Kurdzhali       70.74 312   P     P       00 43 30.0 -0.1
GVD    Gavdhos         70.78 305  eP     P       00 43 28.8 -1.7
       comp=Z,92nm,1.0s,mb5.7
BUC1   Bucharest       70.80 315   P     P       00 43 30.7 +0.3
SEY    Seymchan        70.97  24  eP     P       00 43 29.6 -1.5
SEY                                *PP   pP      00 43 43.7 +2.6
SEY                                              00 43 48.9
SEY                               ePPP   PPP     00 47 51.9 +0.4
SEY                               eS     S       00 52 39.6 -3.7
SEY                                *SS           00 53 06.9
SEY                                pmax    pmax
       comp=E,60nm,0.7s
SEY                                pmax    pmax
       comp=Z,40nm,0.7s,mb5.5
SEY                                pmax    pmax
       comp=N,60nm,1.0s
SEY                                MLR     MLR
       comp=Z,14µm,21.0s,MS6.2
SEY                                MLR     MLR
       comp=N,8µm,20.0s,MS6.1
SEY                                MLR     MLR
       comp=E,8µm,24.0s,MS6.1
PVL    Pavlikeni       71.08 314   P     P       00 43 32.0 -0.1
MLR    Muntele Rosu    71.09 316   P     P       00 43 32.1  0.0
       comp=E,157nm,1.1s,mb5.9,baz=101,slow=1.7,SNR=94
MLR    Muntele Rosu    71.09 316   P     P       00 43 32.1  0.0
MLR                                pmax    pmax
       comp=Z,157nm,1.1s
MLR    Muntele Rosu    71.09 316   P     P       00 43 32.3 +0.2
RZN    Rozhen          71.26 312   P     P       00 43 32.5 -0.8
PLD    Plovdiv         71.34 313  eP     P       00 43 33.0 -0.7
MTUR   Matau           71.64 316   P     P       00 43 35.3 -0.2
MTUR   Matau           71.64 316⇑iP      P       00 43 35.0 -0.5
PGB    Panagyurishte   71.81 313   P     P       00 43 36.0 -0.5
MMB    Musomiste       71.98 312   P     P       00 43 36.0 -1.5
MNK    Minsk           72.08 326⇑iP      P       00 43 35.0 -2.9
MNK                                pmax    pmax
       comp=Z,2µm,1.0s,mb6.9
PUL    Pulkovo         72.44 331⇑iP      P       00 43 39.3 -0.7
KKB    Krupnik         72.50 312   P     P       00 43 39.0 -1.6
VTS    Vitosha         72.51 313   P     P       00 43 40.0 -0.7
VTS    Vitosha         72.51 313   P     P       00 43 40.2 -0.5
IDID   Didziasalis     72.92 326  iP     P       00 43 42.2 -0.6
IDID                               AMPb    AMB   00 43 44.4
       comp=Z,90nm,1.2s,mb5.6
IIGN   Ignalina        73.21 326  iP     P       00 43 44.0 -0.5
IIGN                               AMPb    AMB   00 43 46.1
       comp=Z,88nm,1.2s,mb5.6
IZAR   Zarasai         73.30 327  iP     P       00 43 44.5 -0.6
IZAR                               AMPb    AMB   00 43 46.6
       comp=Z,62nm,1.2s,mb5.4
ISAL   Salakas         73.32 327  iP     P       00 43 44.6 -0.6
ISAL                               AMPb    AMB   00 43 46.8
       comp=Z,68nm,1.2s,mb5.5
LBTB   Lobatse         73.38 242  eP     P       00 43 47.1 +0.9
LBTB                               pmax    pmax
       comp=Z,123nm,1.3s,mb5.7
LBTB                               MLR     MLR
       comp=Z,5µm,21.0s,MS5.8
LBTB   Lobatse         73.38 242  eP     P       00 43 47.1 +0.9
       comp=Z,123nm,1.3s,mb5.7
LBTB                               LR      LR
       comp=Z,5µm,21.0s,MS5.8
BOLS   Boljevac        73.60 314⇑iP      P       00 43 46.2 -0.9
SKO    Skopje          73.73 312⇑iP      P       00 43 45.5 -2.3
SKO                               i              00 44 02.0
SKO                                pmax    pmax
       comp=Z,53nm,0.9s,mb5.5
SKO    Skopje          73.73 312⇑iP      P       00 43 45.5 -2.3
       comp=Z,0.1nm,0.9s
SKO                               i              00 44 02.0
VSU    Vasula          73.79 330c iP     P       00 43 47.0 -0.8
VSU    Vasula          73.79 330⇑iP      P       00 43 47.1 -0.7
LVZ    Lovozero        73.89 340⇓eP      P       00 43 47.6 -0.7
LVZ                               eS     S       00 53 11.2 -5.3
LVZ                                pmax    pmax
       comp=Z,2µm,23.6s
LVZ                                pmax    pmax
       comp=E,28nm,1.5s
LVZ                                smax
       comp=N,571nm,4.7s
LVZ                                MLR     MLR
       comp=Z,2µm,24.0s,MS5.3
LVZ    Lovozero        73.89 340⇑eP      P       00 43 47.5 -0.8
KWP    Kalwaria        74.04 320⇑iP      P       00 43 49.5  0.0
KWP                               e              00 44 06.9
KWP    Kalwaria        74.04 320  iP     P       00 43 49.5  0.0
KWP                               e              00 44 06.9
APA    Apatity         74.18 340⇓iP      P       00 43 48.3 -1.6
APA                               i              00 44 05.0
APA                               i              00 46 37.3
APA                               eS     S       00 53 15.0 -4.7
APA                                pmax    pmax
       comp=Z,160nm,1.3s,mb5.8
APA                                MLR     MLR
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       comp=Z,2µm,17.0s,MS5.5
SVIS   Svilajnac       74.19 314⇑iP      P       00 43 49.6 -0.8
KOLS   Kolonicke sedl  74.19 319  iP     P       00 43 50.5 +0.1
KOLS                              epP    pP      00 44 01.5 +1.1
GRUS   Gruza           74.50 314⇓iP      P       00 43 51.6 -0.7
BOSA   Boshof          74.59 238⇓eP      P       00 43 53.4 +0.3
BOSA                               pmax    pmax
       comp=Z,154nm,1.3s,mb5.8
BOSA                               MLR     MLR
       comp=Z,3µm,21.7s,MS5.6
BOSA   Boshof          74.59 238⇓eP      P       00 43 53.4 +0.4
       comp=Z,154nm,1.3s,mb5.8
BOSA                               LR      LR
       comp=Z,3µm,21.7s,MS5.6
SUW    Suwalki         74.61 325⇑iP      P       00 43 51.8 -0.9
SUW    Suwalki         74.61 325  iP     P       00 43 51.8 -0.9
CRVS   Cervenica-Dubn  74.72 319  iP     P       00 43 54.4 +1.0
CRVS                              e              00 43 56.9
QSH    Qafa e Shtames  74.81 311  ep     P       00 43 54.4 +0.3
FINES  FINESS Array B  74.95 332   P     P       00 43 53.7 -0.8
       comp=Z,36nm,0.8s,mb5.4,baz=96,slow=5.6,SNR=71
KAF    Kangasniemi     75.04 333  ep     P       00 43 54.4 -0.6
       comp=Z,274nm,1.3s,mb6.0
KAF    Kangasniemi     75.04 333  eP     P       00 43 54.4 -0.6
KAF                                pmax    pmax
       comp=Z,274nm,1.3s,mb6.0
KECS   Kecovo          75.29 319  iP     P       00 43 56.3 -0.4
KECS                              esP    sP      00 44 11.8 +1.6
NOUC   Port Laguerre   75.41 114⇑eP      P       00 43 58.4 +0.5
PKSN   Nyarlorinc      75.48 317⇑iP      P       00 43 58.2 +0.3
DZM    Mont Dzumac     75.53 114⇑iP      P       00 43 59.5 +0.8
NIE    Niedzica        75.54 320  iP     P       00 43 58.6 +0.5
WAR    Warsaw          75.55 323⇑iP      P       00 43 57.9 -0.2
WAR                               e              00 44 16.1
WAR    Warsaw          75.55 323  iP     P       00 43 57.9 -0.2
WAR                               e              00 44 16.1
PSZ    Piszkesteto     75.60 318   P     P       00 43 58.5  0.0
PSZ                                pmax    pmax
       comp=Z,210nm,1.3s,mb5.9
PSZ    Piszkesteto     75.60 318⇑iP      P       00 43 58.6 +0.1
OJC    Ojcow           75.99 320⇑iP      P       00 44 00.3 -0.4
OJC    Ojcow           75.99 320  iP     P       00 44 00.3 -0.4
PENC   Penc            76.00 318⇑iP      P       00 44 01.0 +0.3
BUD    Budapest        76.13 317⇑iP      P       00 44 01.0 -0.5
PKSM   Moragy          76.24 316⇑iP      P       00 44 01.7 -0.4
MAW    Mawson          76.27 192   P     P       00 44 04.0 +2.1
       comp=Z,21nm,0.8s,mb5.1,baz=28,slow=7.5,SNR=17
MAW    Mawson          76.27 192  eP     P       00 44 03.0 +1.1
MAW                                pmax    pmax
       comp=Z,163nm,1.6s
MAW                                MLR     MLR
       comp=Z,3µm,20.1s
MAW    Mawson          76.27 192  eP     P       00 44 03.0 +1.2
       comp=Z,163nm,1.6s,mb5.7
MAW                                LR      LR
       comp=Z,3µm,20.1s,MS5.6
LIKS   Likavka         76.28 319  eP     P       00 44 02.1 -0.2
VYHS   Vyhne           76.38 318  iP     P       00 44 03.0 +0.1
VYHS                              esP    sP      00 44 17.4 +1.0
RHK1   Bakonya         76.62 316⇑eP      P       00 44 03.8 -0.5
SRO    Srobarova       76.65 318  iP     P       00 44 05.0 +0.6
SRO                               e      pP      00 44 13.4 -1.1
KOLL   Kolacno         76.68 319  iP     P       00 44 04.8 +0.3
OKC    Ostrava-Krasne  77.00 320⇑iP      P       00 44 06.6 +0.3
OKC                               epP    pP      00 44 20.3 +3.9
RAC    Raciborz        77.00 320  eP     P       00 44 06.9 +0.6
TIP    Timpagrande     77.01 309  eP     P       00 44 06.6  0.0
KEV    Kevo            77.18 341  ep     P       00 44 06.7 -0.2
       comp=Z,73nm,1.0s,mb5.6
KEV    Kevo            77.18 341  eP     P       00 44 06.7 -0.2
KEV                                pmax    pmax
       comp=Z,73nm,1.0s,mb5.6
GRI    Girifalco       77.25 308  eP     P       00 44 08.6 +0.6
SMOL   Smolenice       77.31 318  iP     P       00 44 08.2 +0.1
SMOL                              epP    pP      00 44 18.4 +0.2
MORC   Moravsky Berou  77.38 320⇑iP      P       00 44 08.7 +0.3
MORC                               pmax    pmax
       comp=Z,280nm,1.3s,mb6.0
MORC   Moravsky Berou  77.38 320⇑iP      P       00 44 08.7 +0.3
       comp=Z,280nm,1.3s,mb6.0
ZST    Bratislava      77.50 318  iP     P       00 44 09.6 +0.5
ZST                               esP    sP      00 44 24.8 +2.2
ARCES  ARCESS Array B  77.60 340   P     P       00 44 09.2 -0.1
       comp=Z,66nm,1.1s,mb5.5,baz=91,slow=5.7,SNR=102
ARE0   ARCESS Array S  77.60 340  eP     P       00 44 08.6 -0.7
SISC   Sisak           77.75 315  iP     P       00 44 10.9 +0.4
SOP    Sopron          77.81 317⇑iP      P       00 44 11.0 +0.2
VRAC   Vranov          77.94 319   P     P       00 44 11.9 +0.4
GKP    Gorka Klasztor  77.98 323⇑iP      P       00 44 11.7 +0.1
GKP                               e              00 44 30.3
GKP    Gorka Klasztor  77.98 323  iP     P       00 44 11.7 +0.1
GKP                               e              00 44 30.3
BILL   Bilibino        78.19  21   P     P       00 44 10.9 -1.6
BILL                               pmax    pmax
       comp=Z,160nm,1.2s,mb5.8
BILL   Bilibino        78.19  21⇑iP      P       00 44 11.5 -1.0
DPC    Dobruska-Polom  78.22 320  epP    pP      00 44 24.0 +0.9
DPC                               eS     SKS     00 54 23.0 -5.6
DPC    Dobruska-Polom  78.22 320  epP    pP      00 44 24.0 +0.9
KTK1   Kautokeino      78.22 340  eP     P       00 44 13.2 +0.6
KTK1                               AMb     AMB   00 44 15.7
       comp=Z,220nm,1.6s,mb5.8
KTK1   Kautokeino      78.22 340  eP     P       00 44 13.2 +0.6
       comp=Z,220nm,1.6s,mb5.8
KSP    Ksiaz           78.29 321⇑iP      P       00 44 13.9 +0.5
KSP                               e      pP      00 44 23.2 -0.3
KSP                               e*PP   pP      00 44 32.7 +9.2
KSP                               eS     S       00 54 02.0 -2.9
KSP    Ksiaz           78.29 321  iP     P       00 44 14.1 +0.7
KSP                               e              00 44 33.0
GCIS   Gornji Cirnik   78.30 316  eP     P       00 44 13.8 +0.3
GOLS   Golise          78.31 316  eP     P       00 44 13.9 +0.3
DOBS   Dobrina         78.43 316  eP     P       00 44 14.4 +0.1
GROS   Grobnik         78.43 316  eP     P       00 44 14.4 +0.2
UPC    Upice           78.43 320⇑iP      P       00 44 14.7 +0.5
ARSA   Arzberg         78.47 317⇑iP      P       00 44 15.0 +0.5
       comp=Z,300nm,1.4s,mb6.0
LEGS   Legarje         78.52 316  eP     P       00 44 15.0 +0.2
BOJS   Bojanci         78.53 315⇑iP      P       00 44 15.1 +0.2
       comp=Z,650nm,1.5s,mb6.3
BOJS                              i              00 44 29.5
BOJS                              e              00 44 34.2
PERS   Pernice         78.71 316⇑iP      P       00 44 16.2 +0.4
PDKS   Podkum          78.75 316  eP     P       00 44 16.4 +0.4
FX1    Attu Island--F  78.84  37  eP     P       00 44 15.3 -1.0
VISS   Visnje          78.84 315  iP     P       00 44 16.8 +0.2
DRV    Dumont d'Urvil  79.01 163   S     S       00 54 10.0 -2.3
CSLB   Castelbuono     79.07 307  eP     P       00 44 18.0  0.0
LJU    Ljubljana       79.08 316⇑eP      P       00 44 18.5 +0.7
OBKA   Obir            79.09 316⇑iP      P       00 44 18.4 +0.5
       comp=Z,221nm,1.2s,mb6.0
SUR    Sutherland      79.23 236  eP     P       00 44 20.6 +1.6
       comp=Z,112nm,1.0s,mb5.8
SUR                                LR      LR
       comp=Z,769nm,20.0s,MS5.0
PRU    Pruhonice       79.33 320⇑iP      P       00 44 19.4 +0.3
PRU                               epP    pP      00 44 27.8 -1.4
PRU                               eS     SKS     00 54 31.2 -5.3
PVCC   Panska Ves      79.35 320⇑iP      P       00 44 19.8 +0.6
PVCC                              epP    pP      00 44 29.4 +0.1
MOA    Molln           79.36 318⇑iP      P       00 44 19.4 +0.1
       comp=Z,144nm,1.6s,mb5.7
JAVS   Javornik        79.39 316⇑eP      P       00 44 19.4 -0.1
       comp=Z,880nm,2.4s,mb6.3
SMY    Shemya          79.39  37  eP     P       00 44 18.7 -0.7
SMY                                pmax    pmax
       comp=Z,440nm,1.2s,mb6.3
SMY    Shemya          79.39  37  eP     P       00 44 18.7 -0.7
       comp=Z,440nm,1.2s,mb6.3
PRA    Prague          79.41 320 ⇑P      P       00 44 20.0 +0.5
PRA                               ex     sP      00 44 37.0 +4.0
VOY    Vojsko          79.52 316  eP     P       00 44 20.2  0.0
VOY                               e      sP      00 44 34.8 +1.1
BSD    Bornholm Skovb  79.53 325⇑iP      P       00 44 19.3 -0.8
BSD                                pmax    pmax
       comp=Z,187nm,1.4s,mb5.8
BSD    Bornholm Skovb  79.53 325⇑iP      P       00 44 19.3 -0.8
       comp=Z,187nm,1.4s,mb5.8
TRI    Trieste         79.59 315  eP     P       00 44 20.0 -0.6
CADS   Cadrg           79.64 316  iP     P       00 44 20.8 -0.1
PTQR   Pietraquaria    79.70 312  eP     P       00 44 21.0 -0.3
AQU    L'Aquila        79.71 312  eP     P       00 44 21.7 +0.4
BRG    Berggiesshubel  79.77 321⇑iP      P       00 44 21.9 +0.4
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BRG				e	pP	00 44 33.1	+1.5
BRG				pmax	pmax		
	comp=Z,72nm,1.1s,mb5.5						
BRG	Berggiesshubel	79.77	321	⇑iP	P	00 44 21.9	+0.4
	comp=Z,72nm,1.1s,mb5.5						
BRG				e	pP	00 44 33.1	+1.5
BRG				e		00 44 41.5	
GEC2	GERESS Array S	79.80	319	eP	P	00 44 22.2	+0.6
GEC2				pmax	pmax		
	comp=Z,580nm,1.5s,mb6.3						
GEC2	GERESS Array S	79.80	319	eP	P	00 44 22.2	+0.6
	comp=Z,580nm,1.5s,mb6.3						
GERES	GERESS Array B	79.80	319	P	P	00 44 22.2	+0.5
	comp=Z,119nm,0.8s,mb5.9,baz=90,slow=4.0,SNR=65						
TRO	Tromso	79.86	340	eP	P	00 44 20.1	-1.4
TRO				AMb	AMB	00 44 22.3	
	comp=Z,132nm,1.6s,mb5.6						
TRO				epP	pP	00 44 31.1	-0.6
TRO	Tromso	79.86	340	eP	P	00 44 20.1	-1.4
	comp=Z,132nm,1.6s,mb5.6						
KHC	Kasperske Hory	79.90	319	⇑iP	P	00 44 22.5	+0.3
KHC				epP	pP	00 44 30.9	-1.4
KHC				eS	S	00 54 19.7	-2.3
PTCC	Patocco-Chiusa	79.91	316	eP	P	00 44 22.4	+0.1
NRCA	Norcia	79.94	312	eP	P	00 44 22.6	+0.1
KBA	Koelnbreinsper	79.95	317	⇑iP	P	00 44 22.5	0.0
	comp=Z,111nm,1.2s,mb5.7						
KBA	Koelnbreinsper	79.95	317	⇑iP	P	00 44 22.5	0.0
KBA				pmax	pmax		
	comp=Z,111nm,1.2s,mb5.7						
GMNA	Gemona	79.98	316	⇑iP	P	00 44 22.9	+0.2
RUE	Ruedersdorf	79.99	322	eP	P	00 44 22.5	0.0
	comp=Z,319nm,0.9s,mb6.2						
SNTG	Esanatoglia	80.08	313	⇑iP	P	00 44 23.3	+0.1
ARV	Arcevia	80.09	313	eP	P	00 44 19.4	-3.9
FSSB	Fossombrone	80.21	313	⇑iP	P	00 44 24.3	+0.3
MNS	Montasola	80.25	312	eP	P	00 44 23.7	-0.5
FVI	Forni Avoltri	80.31	316	⇑iP	P	00 44 24.5	+0.1
WET	Wettzell	80.36	319	eP	P	00 44 25.2	+0.6
CLL	Collm	80.39	321	⇑iP	P	00 44 24.7	0.0
CLL				eS	SKS	00 54 39.0	-5.1
CLL				pmax	pmax		
	comp=Z,162nm,1.3s,mb5.8						
CLL	Collm	80.39	321	⇑P	P	00 44 24.7	0.0
	comp=Z,logA/T=2.1,mb5.8						
CLL				e*PP	pP	00 44 34.0	-0.9
CLL				e*SP	sP	00 44 43.0	+4.7
CLL				eS	SKS	00 54 39.0	-5.1
CLL				eSS	SS	00 59 42.0	-0.1
RSM	Repubblica di	80.46	313	eP	P	00 44 26.4	+1.2
NKC	Novy Kostel	80.69	320	⇑iP	P	00 44 26.4	+0.1
BRSN	Barisano	80.73	314	eP	P	00 44 28.7	+2.0
SFI	Santa Sofia	80.89	313	⇑iP	P	00 44 28.9	+1.4
MOR8	Moi Rana	80.97	336	eP	P	00 44 26.3	-1.2
MOR8				AMb	AMB	00 44 29.2	
	comp=Z,145nm,1.6s,mb5.7						
MOR8	Moi Rana	80.97	336	eP	P	00 44 26.3	-1.2
	comp=Z,145nm,1.6s,mb5.7						
PGD	Poggio Sodo	80.98	313	⇑iP	P	00 44 29.3	+1.3
COP	Copenhagen	80.99	325	⇑iP	P	00 44 28.1	+0.3
COP				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.3						
COP	Copenhagen	80.99	325	⇑iP	P	00 44 28.1	+0.3
	comp=Z,22nm,0.6s,mb5.3						
CTI	Castel Tesino	81.08	316	⇑iP	P	00 44 29.1	+0.6
VMG	Vicchio	81.11	314	eP	P	00 44 30.0	+1.3
WTTA	Wattenberg	81.12	317	⇑iP	P	00 44 28.5	-0.2
	comp=Z,172nm,0.7s,mb6.1						
WTTA	Wattenberg	81.12	317	⇑iP	P	00 44 28.5	-0.2
WTTA				pmax	pmax		
	comp=Z,172nm,0.7s,mb6.1						
WATA	Walderalm	81.16	317	⇑iP	P	00 44 28.6	-0.3
	comp=Z,54nm,0.6s,mb5.7						
WATA	Walderalm	81.16	317	⇑iP	P	00 44 28.6	-0.3
WATA				pmax	pmax		
	comp=Z,54nm,0.6s,mb5.7						
MOX	Moxa	81.24	320	⇑eP	P	00 44 29.4	+0.2
MOX				eS	S	00 54 33.0	-2.9
MOX				pmax	pmax		
	comp=Z,244nm,1.6s,mb5.9						
MOX				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
MOX	Moxa	81.24	320	⇑iP	P	00 44 29.4	+0.2
	comp=Z,logA/T=2.2,mb5.9						
MOX				pP	pP	00 44 49.0	+10
MOX				S	S	00 54 33.0	-2.9
MOX				L		01 37 13.0	
MOX	Moxa	81.24	320	⇑eP	P	00 44 29.4	+0.2
	comp=Z,244nm,1.6s,mb5.9						
MOX				e		00 44 48.6	
MOX				eS	S	00 54 33.0	-2.9
MOX				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
SEI	Scarperia	81.25	314	eP	P	00 44 30.3	+0.9
CSNT	Castellina Chi	81.29	313	eP	P	00 44 28.3	-1.3
FUR	Furstenfeldbru	81.39	318	eP	P	00 44 30.1	+0.1
SQTA	Sankt Quirin	81.41	317	⇑iP	P	00 44 30.2	0.0
	comp=Z,118nm,0.6s,mb6.0						
SQTA	Sankt Quirin	81.41	317	⇑iP	P	00 44 30.2	0.0
SQTA				pmax	pmax		
	comp=Z,118nm,0.6s,mb6.0						
FNVD	Fontana Vidola	81.42	314	eP	P	00 44 31.7	+1.4
GRA1	Grafenberg Arr	81.46	319	eP	P	00 44 31.3	+0.9
	comp=Z,423nm,1.4s,mb6.2						
GRA1				e	pP	00 44 41.0	+0.4
GRF	Grafenberg Arr	81.46	319	eP	P	00 44 31.3	+0.9
GRF				e	pP	00 44 41.0	+0.4
GRF				pmax	pmax		
	comp=Z,423nm,1.4s,mb6.2						
GRF	Grafenberg Arr	81.46	319	eP	P	00 44 31.3	+0.9
GRF				e	pP	00 44 41.0	+0.4
GRF				pmax	pmax		
	comp=Z,423nm,1.4s,mb6.2						
GRF	Grafenberg Arr	81.46	319	eP	P	00 44 31.3	+0.9
	comp=Z,423nm,1.4s,mb6.2						
GRF				e	pP	00 44 41.0	+0.4
MOTA	Moosalm	81.48	317	⇑iP	P	00 44 30.4	-0.2
	comp=Z,96nm,0.8s,mb5.8						
MOTA	Moosalm	81.48	317	⇑iP	P	00 44 30.4	-0.2
MOTA				pmax	pmax		
	comp=Z,96nm,0.8s,mb5.8						
ZCCA	Zocca	81.53	314	⇑iP	P	00 44 32.8	+2.0
LOF	Lofoten	81.55	338	eP	P	00 44 32.5	+2.0
LOF				AMb	AMB	00 44 34.4	
	comp=Z,296nm,1.8s,mb5.9						
LOF	Lofoten	81.55	338	eP	P	00 44 32.5	+2.0
	comp=Z,296nm,1.8s,mb5.9						
BDI	Bagni Di Lucca	81.80	314	eP	P	00 44 31.8	-0.4
GSCL	Gusciola	81.80	314	⇑iP	P	00 44 33.6	+1.3
NSS	Namsos	81.84	334	eP	P	00 44 30.6	-1.4
PII	Pisa	81.85	313	eP	P	00 44 31.5	-1.0
SAL	Salo	81.86	315	eP	P	00 44 33.6	+1.1
MABI	Malga Bissina	81.87	316	⇑iP	P	00 44 33.1	+0.5
MAIM		81.87	313	P	P	00 44 32.0	-0.6
ERBM	Eremo	81.93	314	⇑iP	P	00 44 34.4	+1.5
VLC	Villacollemand	81.95	314	eP	P	00 44 32.5	-0.5
	comp=Z,179nm,1.5s,mb5.8						
NB2	NORSAR Subarra	81.95	331	P	P	00 44 31.9	-0.8
	comp=Z,66nm,1.1s,mb5.5,baz=92,slow=5.3						
NB2	NORSAR Subarra	81.95	331	P	P	00 44 31.9	-0.8
	baz=92,slow=5.6						
NB2	NORSAR Subarra	81.95	331	P	P	00 44 31.9	-0.8
NB2				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.5						
NOA	NORSAR Array B	81.95	331	P	P	00 44 31.9	-0.8
	comp=Z,18nm,0.9s,mb5.0,baz=95,slow=5.2,SNR=23						
BRMO	Bormio	81.97	316	⇑iP	P	00 44 33.8	+0.7
CLZ	Clausthal	82.05	321	eP	P	00 44 33.9	+0.5
	comp=Z,271nm,1.4s,mb6.0						
NAO01	NORSAR Array S	82.10	331	eP	P	00 44 32.3	-1.1
	comp=Z,45nm,1.2s,mb5.3						
HDH	Heidenheim	82.11	318	⇑eP	P	00 44 33.6	-0.1
VINC	Vinca	82.12	314	P	P	00 44 32.9	-1.0
BSEG	Bad Segeberg	82.14	324	eP	P	00 44 34.4	+0.6
UBR	Uberruh	82.16	317	⇑eP	P	00 44 34.1	0.0
BACM		82.17	314	P	P	00 44 33.5	-0.7
DAVOX	Davos	82.31	316	P	P	00 44 35.8	+0.9
	comp=Z,168nm,0.6s,mb6.1,baz=109,slow=4.6,SNR=252						
DAVA	Damuels	82.31	317	⇑iP	P	00 44 35.3	+0.4
	comp=Z,206nm,1.1s,mb6.0						
CODM		82.33	314	P	P	00 44 35.0	0.0
SIND	Sindeldorf	82.51	319	⇑eP	P	00 44 36.2	+0.4
BOB	Bobbio (Coli)	82.62	314	eP	P	00 44 37.4	+0.9
BUCH	Bad Urach	82.67	318	⇑eP	P	00 44 36.8	+0.1
VSL	Villasalto	82.74	309	eP	P	00 44 37.2	0.0
	comp=Z,155nm,1.3s,mb5.9						
STU	Stuttgart	82.78	318	eP	P	00 44 37.3	+0.1
STU				pmax	pmax		
	comp=Z,69nm,0.8s,mb5.7						
STU	Stuttgart	82.78	318	eP	P	00 44 37.3	0.0
	comp=Z,68nm,0.8s,mb5.7						
GUT	Gutenstein	82.83	318	⇑eP	P	00 44 37.5	0.0
MUD	Monsted U'grnd	82.85	326	i P	P	00 44 38.3	+0.9
MUD				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.6						
MUD	Monsted U'grnd	82.85	326	i P	P	00 44 38.3	+0.9
	comp=Z,80nm,1.2s,mb5.6						
PGF	Pioggiola	82.97	312	⇑iP	P	00 44 38.7	+0.3
	comp=Z,904nm,1.6s,mb6.2						
PGF	Pioggiola	82.97	312	⇑iP	P	00 44 38.7	+0.3
PGF				pmax	pmax		
	comp=Z,452nm,1.6s,mb6.2						
DOMB	Dombas	83.02	332	eP	P	00 44 38.3	+0.1
DOMB				AMb	AMB	00 44 40.6	
	comp=Z,81nm,1.9s,mb5.4						
DOMB	Dombas	83.02	332	eP	P	00 44 38.3	+0.1
	comp=Z,81nm,1.9s,mb5.4						
TOD	Tromm	83.03	319	⇑eP	P	00 44 38.9	+0.4
TOD	Tromm	83.03	319	eP	P	00 44 38.8	+0.3
LBG	Lerchenberg	83.04	318	⇑eP	P	00 44 38.7	+0.1
SPAK	Spaichingen	83.05	318	⇑eP	P	00 44 39.0	+0.3
SPAK	Spaichingen	83.05	318	eP	P	00 44 38.8	+0.1
VAI	Varese	83.09	315	⇑iP	P	00 44 38.4	-0.5
SWS	Schriesheim	83.10	319	⇑eP	P	00 44 39.0	+0.1
SYO	Syowa Base	83.22	197	⇓P	P	00 44 40.7	+1.6
SYO	Syowa Base	83.22	197	⇑sP	sP	00 44 55.2	+2.5
PCP	Pian Castagno	83.27	314	P	P	00 44 39.6	-0.2
BFO	Black Forest	83.36	318	eP	P	00 44 40.2	0.0
BFO				pmax	pmax		
	comp=Z,109nm,1.0s,mb5.8						
BFO	Black Forest	83.36	318	eP	P	00 44 40.2	0.0
	comp=Z,109nm,1.0s,mb5.8						
KTD	Kalmit	83.50	319	eP	P	00 44 41.2	+0.2
KTD	Kalmit	83.50	319	eP	P	00 44 41.6	+0.6
FIN	Finale Ligure	83.51	314	⇑iP	P	00 44 41.3	+0.1
FELD	Feldberg	83.58	317	⇑eP	P	00 44 41.4	0.0
MCGN	Macugnaga	83.63	316	eP	P	00 44 41.9	+0.2
KIZ	Kirchzarten	83.64	318	⇑eP	P	00 44 41.6	-0.1
ORX	Oropa	83.64	315	P	P	00 44 40.3	-1.5
ORO	Oropa	83.64	315	eP	P	00 44 40.6	-1.2
LANF	Langenberg	83.69	319	eP	P	00 44 42.1	+0.2
STR	Strasbourg	83.73	318	eP	P	00 44 42.1	0.0
IMI	Imperia	83.75	313	eP	P	00 44 43.1	+0.7
ROB	Roburent	83.75	314	P	P	00 44 42.6	+0.2
ABH	Alteburg	83.84	319	⇑eP	P	00 44 43.1	+0.4
ABH	Alteburg	83.84	319	eP	P	00 44 43.0	+0.3
MONE	Monesi	83.84	314	P	P	00 44 42.6	-0.3
LIBD	Limburg	83.84	318	⇑eP	P	00 44 43.3	+0.6
LIBD	Limburg	83.84	318	eP	P	00 44 43.1	+0.4
BBS	Basel-Blauen	83.92	317	⇑eP	P	00 44 43.1	-0.1
BBS	Basel-Blauen	83.92	317	eP	P	00 44 42.8	-0.4
WLS	Welschbruch	84.00	318	eP	P	00 44 43.6	+0.1
CDF	Champ du Feu	84.06	318	⇑iP	P	00 44 43.7	-0.1
	comp=Z,174nm,1.1s,mb5.8						
CDF	Champ du Feu	84.06	318	⇑iP	P	00 44 43.7	-0.1
CDF				pmax	pmax		
	comp=Z,87nm,1.1s,mb5.8						
ENR	Entracque	84.08	314	P	P	00 44 43.2	-0.8
SBF	Sospel	84.08	313	⇑iP	P	00 44 44.3	+0.3
	comp=Z,424nm,0.9s,mb6.3						
SBF	Sospel	84.08	313	⇑iP	P	00 44 44.3	+0.3
SBF				pmax	pmax		
	comp=Z,212nm,0.9s,mb6.3						
AUTN	L'Aution	84.08	314	eP	P	00 44 44.5	+0.5
REVF	Revere	84.13	313	eP	P	00 44 44.8	+0.5
ECH	Echery	84.14	318	eP	P	00 44 44.3	+0.1
STV	Sta Anna Valdi	84.15	314	P	P	00 44 43.4	-1.0
RPZ	Rata Peaks	84.16	135	P	P	00 44 44.5	+0.1
	comp=Z,33nm,0.8s,mb5.5,baz=162,slow=2.3,SNR=14						
RUP	Ruppelstein	84.16	319	⇑eP	P	00 44 44.9	+0.6
RUP	Ruppelstein	84.16	319	eP	P	00 44 44.7	+0.4
RSP	Reno Superiore	84.17	315	P	P	00 44 42.9	-1.5
MOF	Molkenrain	84.17	317	eP	P	00 44 44.3	-0.1
BHB	Bricherasio	84.17	314	P	P	00 44 43.0	-1.4
TOUF	Mont Tournerai	84.21	314	eP	P	00 44 45.2	+0.5
LSD	Ceresole Reale	84.23	315	P	P	00 44 45.1	+0.4
WTSB	Winterswijk	84.27	322	eP	P	00 44 45.2	+0.4
	comp=Z,194nm,1.3s,mb6.1						
MVIF	Mont Vial	84.28	313	eP	P	00 44 47.3	+2.2
BLS5	Blasjo	84.29	329	eP	P	00 44 46.3	+1.5
BLS5				AMb	AMB	00 44 48.4	
	comp=Z,59nm,1.6s,mb5.5						
BLS5				epP	pP	00 44 55.5	+0.6
BLS5	Blasjo	84.29	329	eP	P	00 44 46.3	+1.5
	comp=Z,59nm,1.6s,mb5.5						
PZZ	Prazzo	84.30	314	P	P	00 44 44.3	-0.8
FENE	Fenestrelle	84.31	315	P	P	00 44 44.9	-0.3
HINF	Hinteralfeld	84.36	317	⇑iP	P	00 44 44.8	-0.5
	comp=Z,45nm,0.9s,mb5.3						
HINF	Hinteralfeld	84.36	317	⇑iP	P	00 44 44.8	-0.5
HINF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.3						
LOMF	Lomont	84.39	317	eP	P	00 44 45.7	+0.2
SURF	Saint Ours	84.51	314	eP	P	00 44 47.0	+0.8
RRL	Cesana Torines	84.51	315	P	P	00 44 45.9	-0.3
LPG	La Plagne	84.51	315	⇑iP	P	00 44 46.8	+0.7
	comp=Z,297nm,0.9s,mb6.1						
LPG	La Plagne	84.51	315	⇑iP	P	00 44 46.8	+0.7
LPG				pmax	pmax		
	comp=Z,148nm,0.9s,mb6.1						
LPL	La Plagne	84.52	315	⇑iP	P	00 44 46.8	+0.6
	comp=Z,410nm,0.9s,mb6.2						
LPL	La Plagne	84.52	315	⇑iP	P	00 44 46.8	+0.6
LPL				pmax	pmax		
	comp=Z,205nm,0.9s,mb6.3						
MBDF	Montbardon	84.53	314	⇑iP	P	00 44 46.0	-0.2
	comp=Z,150nm,1.1s,mb5.7						
MBDF	Montbardon	84.53	314	⇑iP	P	00 44 46.0	-0.2
MBDF				pmax	pmax		
	comp=Z,75nm,1.1s,mb5.7						
OG01	Vacheresse	84.53	316	eP	P	00 44 45.3	-0.9
BNI	Bardonecchia	84.58	315	eP	P	00 44 46.2	-0.3
BNI				pmax	pmax		
	comp=Z,127nm,1.0s,mb6.0						
BNI	Bardonecchia	84.58	315	eP	P	00 44 46.2	-0.3
	comp=Z,127nm,1.0s,mb6.0						
FRF	La Foret Royal	84.66	313	⇑iP	P	00 44 47.4	+0.4
	comp=Z,980nm,1.4s,mb6.5						
FRF	La Foret Royal	84.66	313	⇑iP	P	00 44 47.4	+0.4
FRF				pmax	pmax		
	comp=Z,490nm,1.4s,mb6.4						
HAU	Haudompre	84.69	318	⇑iP	P	00 44 46.8	-0.2
	comp=Z,244nm,0.8s,mb6.1						
HAU	Haudompre	84.69	318	⇑iP	P	00 44 46.8	-0.2
HAU				pmax	pmax		
	comp=Z,122nm,0.8s,mb6.1						
KIWB	Kanaga Island	84.74	39	eP	P	00 44 46.2	-1.0
WLF	Walferdange	84.75	319	eP	P	00 44 47.8	+0.5
WLF				pmax	pmax		
	comp=Z,358nm,1.6s,mb6.2						
WLF	Walferdange	84.75	319	eP	P	00 44 47.8	+0.5
	comp=Z,358nm,1.6s,mb6.2						
LMR	La Mourre	84.77	313	⇑iP	P	00 44 47.8	+0.3
	comp=Z,549nm,1.3s,mb6.2						
LMR	La Mourre	84.77	313	⇑iP	P	00 44 47.8	+0.3
LMR				pmax	pmax		
	comp=Z,274nm,1.3s,mb6.2						
HGN	Heimansgroeve	84.85	320	eP	P	00 44 47.9	+0.2
	comp=Z,106nm,1.8s,mb5.7						
THEF	They Montfort	84.92	318	eP	P	00 44 48.0	-0.1
CABF	La Chapelle	84.93	316	⇑iP	P	00 44 48.7	+0.5
	comp=Z,423nm,1.2s,mb6.1						
CABF	La Chapelle	84.93	316	⇑iP	P	00 44 48.7	+0.5
CABF				pmax	pmax		
	comp=Z,212nm,1.2s,mb6.2						
GDM	Grand'Maison	84.97	315	eP	P	00 44 48.9	+0.5
OG25	Le Caire	85.04	314	eP	P	00 44 49.3	+0.5
ORIF	Oris-en-Rattie	85.15	315	⇑iP	P	00 44 49.6	+0.2
	comp=Z,118nm,0.8s,mb5.8						
ORIF	Oris-en-Rattie	85.15	315	⇑iP	P	00 44 49.6	+0.2
ORIF				pmax	pmax		
	comp=Z,59nm,0.8s,mb5.8						
GRN	Grenoble	85.23	315	eP	P	00 44 50.3	+0.6
OG05	Jujurieux	85.39	316	eP	P	00 44 50.8	+0.3
SMRF	Simiane la Rot	85.42	314	⇑iP	P	00 44 51.6	+0.9
	comp=Z,681nm,1.6s,mb6.2						
MEZF	Maizieres J'vi	85.53	318	⇑iP	P	00 44 51.3	+0.1
	comp=Z,286nm,1.3s,mb6.0						
OCF	Saint Nazaire	85.58	314	eP	P	00 44 52.4	+0.9
OG26	St.-Nazaire-De	85.58	314	eP	P	00 44 52.4	+0.9
GIVF	Givet	85.59	320	⇑iP	P	00 44 51.6	+0.2
	comp=Z,182nm,1.3s,mb5.8						
GIVF	Givet	85.59	320	⇑iP	P	00 44 51.6	+0.2
GIVF				pmax	pmax		
	comp=Z,91nm,1.3s,mb5.8						
BAIF	Baives	85.99	320	⇑iP	P	00 44 53.8	+0.4
	comp=Z,325nm,1.2s,mb6.1						
BAIF	Baives	85.99	320	⇑iP	P	00 44 53.8	+0.4
BAIF				pmax	pmax		
	comp=Z,162nm,1.2s,mb6.1						
VIVF	Saint-Julien-l	86.01	315	⇑iP	P	00 44 53.9	+0.2
	comp=Z,239nm,1.1s,mb6.0						
VIVF	Saint-Julien-l	86.01	315	⇑iP	P	00 44 53.9	+0.2
VIVF				pmax	pmax		
	comp=Z,120nm,1.1s,mb6.0						
SMF	Signal de Mont	86.47	316	⇑iP	P	00 44 55.8	-0.1
	comp=Z,415nm,1.2s,mb6.2						
SMF	Signal de Mont	86.47	316	⇑iP	P	00 44 55.8	-0.1
SMF				pmax	pmax		
	comp=Z,207nm,1.2s,mb6.2						
LASF	Ste Croix	86.65	314	⇑iP	P	00 44 57.4	+0.6
	comp=Z,560nm,1.5s,mb6.3						
COLF	Collangettes	86.66	315	eP	P	00 44 57.4	+0.6
SSF	Saint Saulge	86.67	317	⇑iP	P	00 44 57.0	+0.2
	comp=Z,306nm,1.3s,mb6.1						
SSF	Saint Saulge	86.67	317	⇑iP	P	00 44 57.0	+0.2
SSF				pmax	pmax		
	comp=Z,153nm,1.3s,mb6.1						
PLDF	La Plantade	86.67	316	eP	P	00 44 58.4	+1.5
LBL	Lubilhac	86.99	315	eP	P	00 45 00.0	+1.6
AGO	Saint Agoulin	87.01	316	eP	P	00 45 00.0	+1.5
PYM	Petit Puy Mans	87.12	316	eP	P	00 45 00.8	+1.8
BGF	Bois d'Agland	87.16	316	⇑iP	P	00 44 59.7	+0.5
	comp=Z,463nm,1.3s,mb6.3						
BGF	Bois d'Agland	87.16	316	⇑iP	P	00 44 59.7	+0.5
BGF				pmax	pmax		
	comp=Z,231nm,1.3s,mb6.2						
HYF	Humbligny	87.24	317	eP	P	00 45 00.2	+0.6
TCF	Toulx Ste Croi	87.62	316	⇑iP	P	00 45 01.9	+0.5
	comp=Z,276nm,1.6s,mb5.9						
TCF	Toulx Ste Croi	87.62	316	⇑iP	P	00 45 01.9	+0.5
TCF				pmax	pmax		
	comp=Z,138nm,1.6s,mb5.9						
URZ	Urewera	87.62	129	P	P	00 45 01.1	-0.6
	comp=Z,84nm,0.9s,mb6.0,baz=349,slow=2.2,SNR=36						
FILF	Fillols	87.72	312	eP	P	00 45 03.1	+1.1
CAF	Calviac	87.85	315	⇑iP	P	00 45 03.3	+0.7
	comp=Z,150nm,1.2s,mb5.8						
CAF	Calviac	87.85	315	⇑iP	P	00 45 03.3	+0.7
CAF				pmax	pmax		
	comp=Z,75nm,1.2s,mb5.8						
MTLF	Montolieu	87.90	313	⇑iP	P	00 45 03.4	+0.6
	comp=Z,234nm,1.2s,mb6.0						
MTLF	Montolieu	87.90	313	⇑iP	P	00 45 03.4	+0.6
MTLF				pmax	pmax		
	comp=Z,117nm,1.2s,mb6.0						
RJF	Les Rejaudoux	88.20	315	⇑iP	P	00 45 05.1	+0.9
	comp=Z,432nm,1.4s,mb6.2						
RJF	Les Rejaudoux	88.20	315	⇑iP	P	00 45 05.1	+0.9
RJF				pmax	pmax		
	comp=Z,216nm,1.4s,mb6.2						
LMK	Market Rasen	88.48	323	eP	P	00 45 06.1	+0.7
LFF	La Frestale	88.79	315	⇑iP	P	00 45 07.9	+0.8
	comp=Z,336nm,1.4s,mb6.2						
LFF	La Frestale	88.79	315	⇑iP	P	00 45 07.9	+0.8
LFF				pmax	pmax		
	comp=Z,168nm,1.4s,mb6.2						
LDF	La Druitiere	88.95	319	⇑iP	P	00 45 08.0	+0.3
	comp=Z,330nm,1.2s,mb6.2						
LDF	La Druitiere	88.95	319	⇑iP	P	00 45 08.0	+0.3
LDF				pmax	pmax		
	comp=Z,165nm,1.2s,mb6.2						
LCP	Cassop	88.98	325	⇑eP	P	00 45 08.0	+0.3
FLN	La Foliniere	89.16	319	⇑iP	P	00 45 09.0	+0.2
	comp=Z,333nm,1.2s,mb6.3						
FLN	La Foliniere	89.16	319	⇑iP	P	00 45 09.0	+0.2
FLN				pmax	pmax		
	comp=Z,166nm,1.2s,mb6.2						
HPK	Haverah Park	89.18	324	eP	P	00 45 09.3	+0.6
MFF	Saint Martin d	89.21	317	⇑iP	P	00 45 09.3	+0.3
	comp=Z,367nm,1.4s,mb6.2						
MFF	Saint Martin d	89.21	317	⇑iP	P	00 45 09.3	+0.3
MFF				pmax	pmax		
	comp=Z,183nm,1.4s,mb6.2						
KBI1	Birley Grange	89.22	323	⇑eP	P	00 45 05.0	-3.9
EPF	Esparros	89.30	313	⇑iP	P	00 45 09.5	0.0
RESF	Ens	89.32	313	eP	P	00 45 10.9	+1.2
LHO	Holmfirth	89.37	324	⇑eP	P	00 45 09.6	0.0
EBR	Ebro Roquetas	89.44	311	eP	P	00 45 09.2	-1.1
KWE	Weaver Farm	89.44	323	eP	P	00 45 05.5	-4.4
ANM	Nome	89.45	25	eP	P	00 45 10.3	+0.6
GRR	Gorron	89.46	318	⇑iP	P	00 45 10.5	+0.3
	comp=Z,328nm,1.4s,mb6.2						
GRR	Gorron	89.46	318	⇑iP	P	00 45 10.5	+0.3
GRR				pmax	pmax		
	comp=Z,164nm,1.4s,mb6.2						
NIKO	Nikolski	89.70	37	eP	P	00 45 10.5	-0.6
DAG	Danmarks Havn	89.86	348	⇓iP	P	00 45 10.8	-0.7
DAG				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.6						
DAG	Danmarks Havn	89.86	348	⇓iP	P	00 45 10.8	-0.7
	comp=Z,35nm,1.0s,mb5.6						
ESK	Eskdalemuir	89.88	325	⇑eP	P	00 45 12.1	+0.2
ESK				AMb	AMB	00 45 14.0	
	comp=Z,104nm,1.6s,mb5.9						
ETSF	Etsaut	89.97	313	⇑iP	P	00 45 13.7	+1.0
	comp=Z,108nm,0.9s,mb5.9						
ETSF	Etsaut	89.97	313	⇑iP	P	00 45 13.7	+1.0
ETSF				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.9						
EAB	Aberfoyle	90.36	326	⇑eP	P	00 45 14.3	+0.1
EAB				AMb	AMB	00 45 17.2	
	comp=Z,104nm,1.6s,mb5.9						
SJPF	Ste Jean	90.42	313	⇑iP	P	00 45 15.8	+1.0
	comp=Z,234nm,1.3s,mb6.0						
SJPF	Ste Jean	90.42	313	⇑iP	P	00 45 15.8	+1.0
SJPF				pmax	pmax		
	comp=Z,117nm,1.3s,mb6.0						
VNDA	Vanda	90.54	168	P	P	00 45 16.1	+1.5
	comp=Z,11nm,1.1s,mb5.1,baz=298,slow=6.8,SNR=12						
VNDA	Vanda	90.54	168	eP	P	00 45 14.7	+0.1
VNDA				pmax	pmax		
	comp=Z,93nm,1.7s						
VNDA	Vanda	90.54	168	eP	P	00 45 14.7	+0.2
	comp=Z,93nm,1.7s,mb5.8						
SGMF	Saint Gilles	90.60	318	⇑iP	P	00 45 15.8	+0.3
	comp=Z,355nm,1.4s,mb6.2						
SGMF	Saint Gilles	90.60	318	⇑iP	P	00 45 15.8	+0.3
SGMF				pmax	pmax		
	comp=Z,178nm,1.4s,mb6.2						
CART	Cartagena	91.00	308	P	P	00 45 17.6	+0.1
	comp=Z,114nm,1.1s,mb6.1						
QUIF	Quistinic	91.06	318	⇑iP	P	00 45 17.7	+0.1
	comp=Z,132nm,1.0s,mb5.9						
QUIF	Quistinic	91.06	318	⇑iP	P	00 45 17.7	+0.1
QUIF				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.9						
ROSF	Rostrenen	91.06	319	⇑iP	P	00 45 18.0	+0.4
	comp=Z,403nm,1.3s,mb6.3						
ROSF	Rostrenen	91.06	319	⇑iP	P	00 45 18.0	+0.4
ROSF				pmax	pmax		
	comp=Z,201nm,1.3s,mb6.3						
NVL	N'lazarevskaya	92.70	199	⇓eP	P	00 45 28.0	+3.4
NVL				eS	S	00 56 33.0	+8.7
NVL				pmax	pmax		
	comp=Z,222nm,2.9s,mb6.1						
ESDC	Sonseca Array	92.98	310	P	P	00 45 27.6	+1.0
	comp=Z,17nm,0.8s,mb5.5,baz=60,slow=4.1,SNR=61						
ESLA	Sonseca Array	92.98	310	eP	P	00 45 27.6	+1.0
	comp=Z,89nm,1.8s,mb5.9						
IMA	Indian Mountai	93.71	22	P	P	00 45 30.1	+0.8
IMA				pmax	pmax		
	comp=Z,2µm,1.7s						
IMA	Indian Mountai	93.71	22	eP	P	00 45 29.7	+0.4
RSO	Redoubt South	96.24	27	eP	P	00 45 40.4	-0.7
EVO	Evora	96.29	310	eP	P	00 45 42.4	+0.6
	comp=Z,69nm,1.3s,mb5.6						
COLA	College	96.42	22	eP	P	00 45 40.7	-1.1
COLA				e		00 49 35.1	
COLA				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.2						
COLA				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.5						

COLA	College	96.42	22	eP	P	00 45 40.7	-1.1
	comp=Z,9.2nm,0.9s,mb5.2						
COLA				ePP	PP	00 49 35.0	-3.1
COLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
MCK	McKinley	96.52	24	eP	P	00 45 41.6	-0.6
MCK				pmax	pmax		
	comp=Z,116nm,1.8s,mb6.0						
MCK	McKinley	96.52	24	eP	P	00 45 41.6	-0.6
	comp=Z,116nm,1.8s,mb6.0						
SUMG	Summit	96.53	347	eP	P	00 45 42.0	-0.1
	comp=Z,43nm,1.2s,mb5.8						
SUMG				ePP	PP	00 49 37.9	-0.9
ILAR	Eielson Array	96.83	22	P	P	00 45 42.0	-1.6
	comp=Z,9.5nm,0.6s,mb5.4,baz=307,slow=4.0,SNR=89						
KDAK	Kodiak Island	97.35	30	eP	P	00 45 45.9	-0.2
	comp=Z,136nm,1.4s,mb6.2						
PMR	Palmer	97.38	26	eP	P	00 45 45.9	-0.3
SNAA	Sanae	97.47	198	e	P	00 45 50.5	+4.1
SNAA	Sanae	97.47	198	e	P	00 45 52.4	+6.0
SNAA	Sanae	97.47	198	e	PP	00 49 43.2	-3.2
SNAA	Sanae	97.47	198	e		00 50 12.8	
SNAA	Sanae	97.47	198	P	P	00 45 49.2	+2.9
	comp=Z,1.0nm,0.9s,baz=110,slow=7.0,SNR=4.4						
SNAA	Sanae	97.47	198	⇓iP	P	00 45 46.3	-0.1
SNAA				e		00 45 52.4	
SNAA				e		00 49 43.2	
SNAA	Sanae	97.47	198	⇓iPdif	P	00 45 46.3	-0.1
SNAA				e		00 45 50.5	
SNAA				e		00 45 52.4	
SNAA				e		00 49 43.2	
SNAA				e		00 50 12.8	
SML	Sawmill	97.63	25	eP	P	00 45 47.3	0.0
THY	Trims Highway	97.92	23	eP	P	00 45 48.9	+0.3
DBIC	Dimbokro	98.56	278	P	P	00 45 54.5	+1.9
	comp=Z,3.6nm,0.9s,mb4.9,baz=59,slow=9.0,SNR=5.3						
DBIC	Dimbokro	98.56	278	eP	P	00 45 53.7	+1.1
DBIC				pmax	pmax		
	comp=Z,9.0nm,0.8s						
DBIC				MLR	MLR		
	comp=Z,1µm,19.0s						
DBIC	Dimbokro	98.56	278	eP	P	00 45 53.6	+1.0
	comp=Z,8.9nm,0.8s,mb5.3						
DBIC				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
MENT	Mentasta	98.96	23	eP	P	00 45 54.5	+1.2
VNA2	Neumayer--Watz	99.02	199	e	pP	00 46 02.0	-1.7
VNA2	Neumayer--Watz	99.02	199	e	pP	00 46 03.9	+0.2
VNA2	Neumayer--Watz	99.02	199	e	PP	00 49 53.8	-4.0
VNA2	Neumayer--Watz	99.02	199	e		00 50 23.9	
VNA2	Neumayer--Watz	99.02	199	⇑iPdif	P	00 45 58.0	+4.6
VNA2				e		00 46 02.0	
VNA2				e		00 46 03.9	
VNA2				e		00 49 53.8	
VNA2				e		00 50 23.9	
DIV	Divide	99.03	25	eP	P	00 45 53.4	-0.2
	comp=Z,431nm,2.0s,mb6.6						
INK	Inuvik	99.19	16	P	P	00 45 54.1	-0.1
	comp=Z,26nm,0.7s,mb5.9,baz=328,slow=5.0,SNR=157						
INK				LR	LR	01 37 46.5	
	comp=Z,2µm,20.3s,MS5.6,baz=290,slow=40						
VNA1	Neumayer--Stat	99.35	199	e	P	00 46 03.0	+8.1
VNA1	Neumayer--Stat	99.35	199	e	pP	00 46 04.9	-0.3
VNA1	Neumayer--Stat	99.35	199	e	PP	00 49 54.3	-6.2
VNA1	Neumayer--Stat	99.35	199	e		00 50 24.3	
VNA1	Neumayer--Stat	99.35	199	⇓iPdif	P	00 45 58.8	+3.9
VNA1				e		00 46 03.0	
VNA1				e		00 46 04.9	
VNA1				e		00 49 54.3	
VNA1				e		00 50 24.3	
VNA3	Neumayer Olymp	99.69	199	e	pP	00 46 04.1	-2.7
VNA3	Neumayer Olymp	99.69	199	e	pP	00 46 06.3	-0.5
VNA3	Neumayer Olymp	99.69	199	e	PP	00 49 56.1	-7.1
VNA3	Neumayer Olymp	99.69	199	e		00 50 26.5	
VNA3	Neumayer Olymp	99.69	199	⇑iPdif	P	00 46 00.3	+3.9
VNA3				e		00 46 04.1	
VNA3				e		00 46 06.3	
VNA3				e		00 49 56.1	
VNA3				e		00 50 26.5	
YKA	Yellowknife Ar	108.66	14	Pdiff	Pdif	00 46 37.3	+1.0
	comp=Z,2.8nm,0.7s,baz=326,slow=4.2,SNR=62						
YKA				PKiKP		00 50 41.2	
	comp=Z,1.8nm,0.6s,baz=327,slow=2.1,SNR=16						
YKA				PKKPbc		01 01 50.4	
	comp=Z,0.7nm,0.6s,baz=148,slow=3.5,SNR=12						
YKA	Yellowknife Ar	108.66	14	Pdif	Pdif	00 46 37.3	+1.0
YKA				PKPdf		00 50 41.2	
YKA				PKKPbc		01 01 50.4	
FRB	Frobisher Bay	109.78	352	PKiKP		00 50 42.5	
	comp=Z,10nm,1.1s,baz=52,slow=4.7,SNR=12						
TBI	Tubuai	116.09	113	ePP	PP	00 51 47.5	-18
TBI				ePS	PS	01 01 49.2	+6.6
TBI				eSS	SS	01 08 09.3	+7.2
TBI				eLR	LR	01 26 04.2	
	comp=Z,1µm,23.8s						
PPT	Papeete	116.39	107	ePP	PP	00 51 56.3	-11
PPT				ePS	PS	01 01 49.5	+4.1
PPT				eSS	SS	01 08 04.1	-1.9
PPT				eLR	LR	01 26 12.8	
	comp=Z,981nm,25.2s						
OOW	Octopus West	117.06	28	P	PKPdf	00 50 59.7	-2.4
SCHQ	Schefferville	117.91	348	PKP	PKPdf	00 50 60.0	-3.5
	comp=Z,9.3nm,0.8s,baz=29,slow=3.6,SNR=27						
SCHQ	Schefferville	117.91	348	PKP	PKPdf	00 50 60.0	-3.5
WRW	Wenatchee Ridg	118.48	26	P	PKPdf	00 51 01.2	-3.6
TBM	Table Mountain	119.12	27	P	PKPdf	00 51 02.7	-3.5
MXC	Moxie City	119.71	27	P	PKPdf	00 51 03.9	-3.3
NEW	Newport	119.75	24	ePKPdf	PKPdf	00 51 02.8	-4.4
VLL	Laurance Lake	119.90	29	P	PKPdf	00 51 04.7	-2.9
HUMO	Hull Mountain	121.32	32	eP	PKPdf	00 51 07.1	-3.4
HUMO				eSKPdf		00 54 38.9	
KHMM	Horse Mountain	122.11	34	ePKPdf	PKPdf	00 51 08.9	-3.2
MSO	Missoula	122.17	23	ePKPdf	PKPdf	00 51 07.5	-4.5
CHMT	Chamberlain Mo	122.36	22	ePKPdf	PKPdf	00 51 07.9	-4.5
CHMT				ePP	PP	00 52 43.0	-4.7
CHMT				eSKPdf		00 54 40.5	
BMO	Blue Mountains	122.37	26	ePKPdf	PKPdf	00 51 07.5	-4.9
WDC	Whiskeytown Da	122.97	33	ePKPdf	PKPdf	00 51 09.1	-4.6
HRY	Holter Researc	123.05	21	ePKPdf	PKPdf	00 51 09.4	-4.3
MOD	Modoc	123.19	31	ePKPdf	PKPdf	00 51 10.5	-3.6
ULM	Lac du Bonnet	123.78	8	PKP	PKPdf	00 51 11.8	-3.3
	comp=Z,46nm,0.8s,baz=355,slow=2.3,SNR=90						
ULM				PP	PP	00 52 50.8	-6.7
	comp=Z,17nm,0.8s,baz=330,slow=4.9,SNR=5.0						
ULM	Lac du Bonnet	123.78	8	ePKPdf	PKPdf	00 51 11.6	-3.5
DGMT	Dagmar	123.84	15	ePKPdf	PKPdf	00 51 11.9	-3.4
BOZ	Bozeman (W)	124.03	22	ePKPdf	PKPdf	00 51 12.0	-3.7
MCMT	McKenzie Canyo	124.25	23	ePKPdf	PKPdf	00 51 12.8	-3.4
NSHM	Saint Helena R	124.36	35	ePKPdf	PKPdf	00 51 12.4	-4.1
GCMT	Greycliff	124.61	20	ePKPdf	PKPdf	00 51 13.2	-3.7
HLID	Hailey	124.66	25	ePKPdf	PKPdf	00 51 13.4	-3.6
LAO	LASA Array	124.92	17	ePKPdf	PKPdf	00 51 14.2	-3.2
YMR	Madison River	125.11	22	ePKPdf	PKPdf	00 51 15.0	-2.8
YNR	Norris Junctio	125.17	22	ePKPdf	PKPdf	00 51 15.6	-2.3
YFT	Old Faithful	125.34	22	ePKPdf	PKPdf	00 51 16.1	-2.2
WCN	Washoe City	125.38	32	ePKPdf	PKPdf	00 51 15.4	-3.1
LKWY	Lake	125.41	22	ePKPdf	PKPdf	00 51 15.9	-2.5
IMW	Indian Meadow	125.78	22	ePKPdf	PKPdf	00 51 15.6	-3.5
BMN	Battle Mountai	125.83	30	ePKPdf	PKPdf	00 51 16.0	-3.3
CMB	Columbia Colle	125.95	34	ePKPdf	PKPdf	00 51 15.4	-4.1
MOOW	Moose Ponds	125.98	22	ePKPdf	PKPdf	00 51 15.7	-3.8
TPAW	Teton Pass	126.12	23	ePKPdf	PKPdf	00 51 16.3	-3.4
LOHW	Long Hollow	126.14	22	ePKPdf	PKPdf	00 51 16.2	-3.6
WUWY	Wally Ulrich	126.16	23	ePKPdf	PKPdf	00 51 16.4	-3.4
SNOW	Snow King Moun	126.22	23	ePKPdf	PKPdf	00 51 16.8	-3.2
REDW	Red Top Meadow	126.26	23	ePKPdf	PKPdf	00 51 16.6	-3.4
ELK	Elko	126.54	28	ePKPdf	PKPdf	00 51 16.9	-3.8
EYMN	Ely	126.54	5	ePKPdf	PKPdf	00 51 16.1	-4.3
AHID	Auburn Hatcher	126.67	23	ePKPdf	PKPdf	00 51 17.5	-3.3
LRV	Little Rabbit	126.72	36	ePKPdf	PKPdf	00 51 18.6	-2.5
NVAR	Mina Array Bea	126.79	32	PKP	PKPdf	00 51 18.8	-2.4
	comp=Z,52nm,0.8s,baz=283,slow=2.1,SNR=119						
NVAR	Mina Array Bea	126.79	32	PKP	PKPdf	00 51 18.8	-2.4
HVU	Hansel Valley	126.81	25	ePKPdf	PKPdf	00 51 17.3	-3.8
MNV	Mina	126.86	32	ePKPdf	PKPdf	00 51 17.7	-3.6
OMM	Old Mammoth Mi	127.01	33	ePKPdf	PKPdf	00 51 17.3	-4.3
BW06	Boulder Array	127.26	22	ePKPdf	PKPdf	00 51 17.7	-4.3
PDAR	Pinedale Array	127.26	22	PKP	PKPdf	00 51 18.4	-3.6
	comp=Z,34nm,0.9s,baz=108,slow=4.7,SNR=3.9						
SPUT	South Promonto	127.33	25	ePKPdf	PKPdf	00 51 18.0	-4.2
BGU	Big Grassy Mou	127.40	26	ePKPdf	PKPdf	00 51 18.7	-3.6
MTUM	Tungsten Hills	127.44	33	ePKPdf	PKPdf	00 51 19.9	-2.6
HWUT	Hardware Ranch	127.46	24	ePKPdf	PKPdf	00 51 18.4	-4.1
TPH	Tonopah	127.62	32	ePKPdf	PKPdf	00 51 19.4	-3.4
NOQ	North Oquirrh	128.01	26	ePKPdf	PKPdf	00 51 20.4	-3.2
TRCR	Troy Canyon	128.25	30	ePKPdf	PKPdf	00 51 20.0	-4.0
DAU	Daniels Canyon	128.58	25	ePKPdf	PKPdf	00 51 20.7	-3.9
NLU	North Lily Min	128.61	26	ePKPdf	PKPdf	00 51 21.3	-3.4
MPU	Maple Canyon	128.75	26	ePKPdf	PKPdf	00 51 21.3	-3.7
DAC	Darwin (Calif)	128.76	33	ePKPdf	PKPdf	00 51 21.8	-3.3
FRNY	Flat Rock	128.77	349	ePKPdf	PKPdf	00 51 20.0	-4.9
TPNV	Topopah Spring	128.97	32	ePKPdf	PKPdf	00 51 21.6	-3.9
RWWY	Rawlins	129.06	21	ePKPdf	PKPdf	00 51 21.2	-4.3
RKT	Rikitea	129.29	115	ePP	PP	00 53 17.2	-17
RKT				eLR	LR	01 32 43.6	
	comp=Z,1µm,31.5s						
MIV	Mineville/With	129.49	349	ePKPdf	PKPdf	00 51 21.7	-4.5
MDV	Middlebury	129.50	348	ePKPdf	PKPdf	00 51 22.1	-4.2
TMUT	Trail Mountain	129.53	26	ePKPdf	PKPdf	00 51 23.1	-3.3
NCB	Newcomb	129.72	349	ePKPdf	PKPdf	00 51 23.2	-3.5
MVU	Marysvale	129.73	27	ePKPdf	PKPdf	00 51 24.4	-2.5
MVU				eSKP		00 54 41.8	
ARUT	Antelope Range	129.73	29	ePKPdf	PKPdf	00 51 24.2	-2.7
MSU	Marysvale	129.74	27	ePKPdf	PKPdf	00 51 23.8	-3.1
MSU				ePP	PP	00 53 33.1	-3.8
MSU				eSKP		00 54 41.3	
SRU	San Rafael	129.98	25	ePKPdf	PKPdf	00 51 23.3	-4.0
PHWY	Pilot Hill	130.00	20	ePKPdf	PKPdf	00 51 23.2	-4.1
ACCN	Adirondack Com	130.19	349	ePKPdf	PKPdf	00 51 23.7	-3.9
ACCN				i SKPab		00 54 43.2	
RCBR	Riachuelo	130.60	267	ePKPdf	PKPdf	00 51 25.2	-3.9
RCBR				eSKPbc		00 54 45.2	
NEN	Nelson	130.70	32	ePKPdf	PKPdf	00 51 25.3	-3.5
PV10	Paradox Valley	131.22	25	ePKPdf	PKPdf	00 51 26.4	-3.4
PV10				i SKPbc		00 54 46.6	
ISCO	Idaho Springs	131.29	21	ePKPdf	PKPdf	00 51 25.2	-4.6
ISCO				ePP	PP	00 53 42.9	-4.3
ISCO				eSKPbc		00 54 46.8	
PFO	Pinyon Flat Ob	131.34	35	ePKPdf	PKPdf	00 51 27.2	-2.9
GENY	Geneseo	131.47	352	ePKPdf	PKPdf	00 51 25.5	-4.6
GENY				eSKPbc		00 54 47.5	
PV01	Paradox Valley	131.62	24	ePKPdf	PKPdf	00 51 26.4	-4.1
PV01				eSKPbc		00 54 47.5	
JFWS	Jewell Farm	131.64	5	ePKPdf	PKPdf	00 51 25.7	-4.6
JFWS				eSKPbc		00 54 48.2	
RW3	Ridgway	131.88	23	ePKPdf	PKPdf	00 51 27.6	-3.4
RW3				eSKPbc		00 54 48.8	
SDCO	Great Sand Dun	133.16	22	PKPpre		00 51 17.4	
SDCO				ePKPdf	PKPdf	00 51 29.7	-3.6
SDCO				eSKPbc		00 54 54.2	
SSPA	Standing Stone	133.57	352	ePKPdf	PKPdf	00 51 29.7	-4.3
ACSO	Alum Creek Sta	134.45	357	ePKPdf	PKPdf	00 51 31.2	-4.5
ACSO				eSKPbc		00 54 57.9	
KSU1	Kansas State U	134.48	12	ePKPdf	PKPdf	00 51 31.2	-4.5
KSU1				eSKPbc		00 54 58.0	
SDMD	Soldier's Deli	134.61	351	PKPdf	PKPdf	00 51 31.2	-4.8
SDMD				eSKPbc		00 54 58.5	
MCWV	Mont Chateau	134.78	354	ePKPdf	PKPdf	00 51 32.4	-3.9
MCWV				i SKPbc		00 54 59.6	
ANMO	Albuquerque	135.22	25	ePKPpre		00 51 20.3	
ANMO				ePKPdf	PKPdf	00 51 33.9	-3.4
ANMO				ePP	PP	00 54 02.6	-9.3
ANMO				eSKPbc		00 55 01.1	
TUC	Tucson	135.41	31	ePKPpre		00 51 24.4	
TUC				ePKPdf	PKPdf	00 51 34.5	-3.2
TUC				eSKPbc		00 55 01.0	
BLO	Bloomington	135.56	1	ePKPdf	PKPdf	00 51 32.7	-5.1
BLO				eSKPbc		00 55 00.8	
CCM	Cathedral Cave	136.36	7	ePKPdf	PKPdf	00 51 35.1	-4.1
CCM				eSKPbc		00 55 03.8	
WCI	Wyandotte Cave	136.51	1	ePKPdf	PKPdf	00 51 35.2	-4.3
WCI				eSKPbc		00 55 04.5	
FVM	French Village	136.52	6	ePKPdf	PKPdf	00 51 35.4	-4.2
FVM				eSKPbc		00 55 04.2	
USIN	University of	136.73	2	ePKPdf	PKPdf	00 51 35.5	-4.4
FWV	Forest Hill	136.93	354	ePKPdf	PKPdf	00 51 36.6	-3.7
WMOK	Wichita Mounta	138.10	16	ePKPpre		00 51 25.6	
GLAT	Glass	138.32	5	ePKPdf	PKPdf	00 51 39.2	-3.7
MNTX	Cornudas Mount	138.47	26	ePKPpre		00 51 29.6	
MNTX				i SKPbc		00 55 11.1	
WVT	Waverly	138.55	3	ePKPpre		00 51 27.5	
WVT				ePKPdf	PKPdf	00 51 39.2	-4.2
WVT				i SKPbc		00 55 10.6	
HBAR	Harrisburg	138.90	6	PKPdf	PKPdf	00 51 40.8	-3.2
UALR	University of	139.45	9	ePKPdf	PKPdf	00 51 41.0	-4.0
UALR				eSKPdf		00 55 13.1	
MIAR	Mount Ida	139.47	10	ePKPpre		00 51 30.9	
MIAR				ePKPdf	PKPdf	00 51 40.8	-4.2
MIAR				eSKPdf		00 55 12.9	
OXF	Oxford	140.06	5	ePKPpre		00 51 33.1	
OXF				eSKPdf		00 55 14.3	
JSC	Jenkinsville	140.24	354	ePKPdf	PKPdf	00 51 42.5	-4.0
TRQA	Tornquist	141.12	210	ePKPpre		00 51 36.8	
TRQA				eSKPdf		00 55 17.0	
LTX	Lajitas	141.25	26	ePKPpre		00 51 37.3	
LTX				ePKPdf	PKPdf	00 51 44.3	-4.1
LTX				eSKP		00 55 17.5	
TXAR	Lajitas Array	141.25	26	PKhKP		00 51 38.0	
	comp=Z,3.6nm,0.7s,baz=297,slow=2.8,SNR=32						
TXAR				PKP	PKPdf	00 51 44.5	-4.0
	comp=Z,23nm,0.7s,baz=179,slow=0.9,SNR=38						
TXAR	Lajitas Array	141.25	26	PKP	PKPdf	00 51 38.0	-10
TXAR				PKP	PKPdf	00 51 44.5	-4.0
LRAL	Lakeview Retre	141.67	2	ePKPpre		00 51 38.5	
JCT	Junction City	141.73	20	ePKPpre		00 51 38.6	
JCT				ePKPdf	PKPdf	00 51 45.5	-3.8
JCT				ePP	PP	00 54 47.9	-4.2
JCT				eSKPdf		00 55 18.4	
BAO	Brasilia Array	141.78	252	PKP	PKPdf	00 51 43.8	-5.9
BAO				i		00 51 52.8	
BAO				i		00 51 58.3	
BAO				i		00 52 04.4	
BDFB	Brasilia	141.80	252	PKhKP		00 51 42.0	
	comp=Z,12nm,0.9s,baz=28,slow=2.1,SNR=11						
NATX	Nacogdoches	141.96	13	ePKPpre		00 51 39.1	
NATX				eSKPbc		00 55 20.4	
HKT	Hockley	143.42	15	ePKPpre		00 51 43.6	
HKT				ePKPdf	PKPdf	00 51 48.6	-3.5
HKT				eSKPbc		00 55 24.3	
HKT				e		00 55 48.8	
DWPF	Disney	146.37	353	ePKPdf	PKPdf	00 51 54.6	-2.7
FDF	Fort de France	148.55	310	⇑eP	PKPdf	00 51 58.1	-3.0
MDZ	Mendoza	148.60	208	eP	PKPdf	00 52 04.3	+3.5
BIM	Bigot	148.62	310	⇑eP	PKPdf	00 52 01.5	+0.2
FCH	Farellones	148.87	205	i P	PKPdf	00 52 02.4	+1.2
SJG	San Juan	149.73	321	ePKPdf	PKPdf	00 51 59.1	-3.9
SJG				ePKPbc	PKPdf	00 52 03.8	+0.8
IIJ	Jocotitlan	151.32	29	eP	PKPdf	00 52 02.1	-3.3
IIC	Rita Coyotepec	151.52	28	i P	PKPdf	00 52 01.5	-4.1
MDVM	Presa Madin	151.72	28	eP	PKPdf	00 52 06.9	+0.9
PTVM	Pico Tres Padr	151.74	28	eP	PKPdf	00 52 01.2	-4.7
TLL	Tololo Astrono	151.78	208	i P	PKPdf	00 52 08.9	+3.1
IIO	Organos	151.92	27	eP	PKPdf	00 52 02.1	-4.2
IIZ	Mezontepec	152.03	28	eP	PKPdf	00 51 59.0	-7.5
CHVM	Chichinautzin	152.16	28	eP	PKPdf	00 52 03.5	-3.1
PPM	Popocatepetl	152.42	28	eP	PKPdf	00 52 02.6	-4.3
PPM				eP		00 52 04.3	
ACX	Acapulco	153.64	32	eP	PKPdf	00 52 11.4	+2.7
TEIG	Tepich	154.31	6	ePKPdf	PKPdf	00 52 06.1	-3.4
TEIG				ePKPbc	PKPdf	00 52 14.1	+4.6
LVC	Limon Verde	156.58	222	PKP	PKPdf	00 52 09.1	-3.4
	comp=Z,4.7nm,0.9s,baz=45,slow=1.4,SNR=3.1						
LVC				PKPbc	PKPdf	00 52 17.8	+5.4
	comp=Z,5.6nm,0.7s,baz=166,slow=4.7,SNR=3.8						
LVC				PKPab	PKPab	00 52 41.3	+2.6
	comp=Z,12nm,0.7s,baz=190,slow=2.8,SNR=6.0						
LVC	Limon Verde	156.58	222	ePKPdf	PKPdf	00 52 09.4	-3.1
SDV	Santo Domingo	159.38	314	ePKPdf	PKPdf	00 52 12.4	-3.9
SDV				ePKPab	PKPab	00 52 51.0	0.0
LPAZ	La Paz	159.82	236	PKP	PKPdf	00 52 14.6	-2.1
	comp=Z,8.8nm,1.0s,baz=50,slow=2.4,SNR=27						
LPAZ				PKPab	PKPab	00 52 51.3	-1.4
	comp=Z,18nm,1.1s,baz=140,slow=2.0,SNR=3.8						
LPAZ	La Paz	159.82	236	ePKPdf	PKPdf	00 52 14.2	-2.4
ROSC	El Rosal	164.80	312	PKP	PKPdf	00 52 19.3	-2.5
	comp=Z,33nm,0.8s,baz=128,slow=3.6,SNR=38						
ROSC				PKPab	PKPab	00 53 14.6	+0.1
	comp=Z,25nm,1.1s,baz=87,slow=6.4,SNR=2.4						

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*BJI **27** 00:36:08.0, 8.24N×92.38E, h46^{km}, mB5.1, mb5.4, Ms5.4, Msz5.0*

*NEIC **27** 00:36:09.4±0.3, 8.47N×92.39E, h30^{km}, mb4.9/12, Error ellipse: s-maj=9.1km s-min=7.5km az=67.0*

*HRVD **27** 00:36:09.4±1.1, 8.25N×92.29E, h34^{km}±2^{km}, MW5.5/24, Centroid moment Tensor Solution. LP body waves: s14,c17;Mantle waves: s24,c33; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.88±.28; $M_{\theta\theta}$0.61±.15; $M_{\phi\phi}$1.27±.17; $M_{r\theta}$-0.21±.28; $M_{\theta\phi}$-0.60±.10; $M_{\phi r}$-0.62±.23; Best double couple: $M_0$1.86×10^{17} NP1: ϕ_s139°, δ39°, λ-109°. NP2:ϕ_s342°, δ53°, λ-75°. Principal axes: T 1.68, Plg7°, Azm62°; N .36, Plg12°, Azm153°; P -2.04, Plg76°, Azm301°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **27** 00:36:12.2±5.1, 8.54N×92.46E, h51^{km}±46^{km}, mb4.5/18, mb1 4.6/19, mb1mx4.5/26, ML5.1/1 Error ellipse: s-maj=25.0km s-min=13.4km az=45.0*

ISC 27 00:36:07.7±0.4**, 8.47N**±0.06×**92.43E**±0.07**, h30^{km}, n44, σ0^{s}83**/39**, mb4.9**/30**, MS5.2**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.77	32	P	P	00 38 57.8	+1.0
CMAR	Chiang Mai Arr	11.77	32	P	P	00 38 55.9	-0.9
	3.6nm,0.3s,baz=231,slow=14,SNR=9.3						
KMI	Kunming	19.26	29	P	P	00 40 34.5	+1.8
KMI				AMB	AMB		
	comp=Z,55nm,0.9s						
QIZ	Qiongzhong	19.88	56	P	P	00 40 40.0	+0.2
LSA	Lhasa	21.15	357	eP	P	00 40 52.4	-0.3
	comp=Z,83nm,0.7s,mb5.2						
CD2	Chengdu	24.70	24	P	P	00 41 28.5	+0.8
CD2				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.5						
GTA	Gaotai	31.51	11	eP	P	00 42 29.8	+0.5
GTA				AP	pP	00 42 37.5	-0.7
GTA				AMB	AMB		
	comp=Z,52nm,0.7s,mb5.5						
GTA				AMB	AMB		
	comp=Z,198nm,6.5s						
GTA				LR	LR		
	comp=N,4µm,15.3s,MS5.3						
GTA				LR	LR		
	comp=E,2µm,13.0s,MS5.3						
GTA				LR	LR		
	comp=Z,3µm,17.2s,MS5.0						
JOW	Kunigami	38.53	57	P	P	00 43 29.8	+0.2
	comp=Z,10nm,0.5s,mb4.8,baz=213,slow=17,SNR=3.1						
MBWA	Marble Bar	39.83	138	eP	P	00 43 39.6	-0.7
	comp=Z,10nm,0.7s,mb4.7						
SONM	Songino Array	40.98	14	P	P	00 43 49.9	+0.4
	comp=Z,18nm,0.8s,mb4.7,baz=197,slow=11,SNR=5.8						
ULN	Ulaanbaatar	41.17	15	P	P	00 43 50.1	-1.0
	comp=Z,18nm,1.1s,mb4.6						
NWAO	Narrogin (SRO)	47.47	151	P	P	00 44 42.6	+0.6
	comp=Z,24nm,1.0s,mb5.0,baz=322,slow=11,SNR=3.6						
BVAR	Borovoye Array	47.89	342	P	P	00 44 44.1	-0.9
	comp=Z,14nm,0.8s,mb5.0,baz=135,slow=6.1,SNR=3.5						
BRVK	Borovoye	47.95	342	eP	P	00 44 44.7	-0.8
	comp=Z,13nm,0.8s,mb5.0						
CHKZ	Chkalovo	48.39	343	eP	P	00 44 47.6	-1.3
	comp=Z,50nm,0.9s,mb5.5						
WRA	Warramunga Arr	49.99	125	P	P	00 45 01.0	-0.6
	comp=Z,16nm,0.8s,mb5.1,baz=301,slow=9.7,SNR=8.8						
WRAB	Tennant Creek	49.99	125	eP	P	00 45 01.1	-0.5
	comp=Z,31nm,0.7s,mb5.5						
MAJO	Matsushiro	50.03	49	eP	P	00 45 01.1	-0.6
	comp=Z,14nm,0.8s,mb5.0						
ASAR	Alice Springs	51.60	129	P	P	00 45 13.1	-0.7
	comp=Z,12nm,0.6s,mb5.0,baz=308,slow=7.5,SNR=5.5						
KMBO	Kilima Mbogo	55.81	263	P	P	00 45 45.6	+0.7
	comp=Z,3.7nm,0.7s,mb4.6,baz=43,slow=6.9,SNR=5.6						
KMBO	Kilima Mbogo	55.81	263	eP	P	00 45 43.7	-1.3
	comp=Z,3.2nm,0.6s,mb4.5						
ASF	Jabal al Asfar	56.47	303	P	P	00 45 49.7	+0.2
	comp=Z,6.6nm,1.1s,mb4.6,baz=175,slow=12,SNR=2.0						
PMG	Port Moresby	57.33	107	P	P	00 45 56.3	+0.5
	comp=Z,14nm,0.7s,mb5.1,baz=309,slow=4.8,SNR=4.6						
EIL	Elat	57.66	300	P	P	00 45 59.2	+1.2
	comp=Z,9.3nm,0.9s,mb4.8,baz=352,slow=14,SNR=2.5						
EIL	Elat	57.66	300	P	P	00 45 59.2	+1.2
YAK	Yakutsk	59.98	19	eP	P	00 46 11.6	-2.0
	comp=Z,28nm,0.6s,mb5.5						
CTA	Charters Tower	60.08	119	P	P	00 46 15.4	+0.6
	comp=Z,8.8nm,0.8s,mb4.9,baz=288,slow=6.6,SNR=3.8						
CTAO	Charters Tower	60.08	119	P	P	00 46 13.5	-1.3
	comp=Z,8.7nm,0.7s,mb4.9						
STKA	Stephens Creek	61.75	133	P	P	00 46 26.1	0.0
	comp=Z,14nm,0.8s,mb5.2,baz=298,slow=7.4,SNR=4.6						
STKA	Stephens Creek	61.75	133	eP	P	00 46 25.7	-0.3
MBAR	Mbarara	62.12	265	eP	P	00 46 29.4	+0.6
LSZ	Lusaka	67.88	250	eP	P	00 47 05.7	-0.4
	comp=Z,4.6nm,0.7s,mb4.6						
ARCES	ARCESS Array B	74.13	340	P	P	00 47 42.7	0.0
	comp=Z,7.5nm,0.8s,mb4.7,baz=80,slow=5.5,SNR=3.5						
BOSA	Boshof	74.47	237	eP	P	00 47 45.7	+0.2
	comp=Z,6.4nm,0.8s,mb4.6						
BOSA				e	pP	00 47 53.8	-1.2
GERES	GERESS Array B	76.25	318	P	P	00 47 54.8	-0.5
	comp=Z,3.2nm,0.9s,mb4.3,baz=90,slow=4.9,SNR=3.8						
CLL	Collm	76.83	321	e*PP	pP	00 48 06.0	-1.9
CLL				e		00 48 27.0	
RPZ	Rata Peaks	87.67	135	P	P	00 48 55.8	+1.0
	comp=Z,31nm,0.8s,mb5.6,baz=295,slow=2.2,SNR=9.5						
ESDC	Sonseca Array	89.54	310	P	P	00 49 04.6	+0.8
	comp=Z,1.0nm,0.6s,mb4.3,baz=71,slow=4.0,SNR=4.6						
VNDA	Vanda	93.86	168	P	P	00 49 23.9	+0.9
	comp=Z,1.5nm,0.7s,mb4.6,baz=325,slow=9.1,SNR=3.1						
ILAR	Eielson Array	94.82	22	P	P	00 49 28.8	+1.2
	comp=Z,2.5nm,0.8s,mb4.7,baz=311,slow=5.1,SNR=5.2						
PCRV	Puerto La Cruz	150.60	309	PKPbc	PKPdf	00 55 58.2	+0.8
	comp=Z,10nm,0.6s,baz=48,slow=1.3,SNR=5.6						
SDV	Santo Domingo	155.87	315	PKPab	PKPab	00 56 26.2	-2.8
	comp=Z,3.3nm,0.7s,baz=291,slow=13,SNR=1.9						
LVC	Limon Verde	157.22	230	PKPab	PKPab	00 56 34.4	-0.2
	comp=Z,4.1nm,0.8s,baz=194,slow=5.7,SNR=3.6						
ROSC	El Rosal	161.30	315	PKPab	PKPab	00 56 53.0	+0.5
	comp=Z,5.7nm,0.3s,baz=99,slow=16,SNR=6.7						

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*MOS **27** 00:39:43.9±0.8, 9.31N×93.94E, h33^{km}, mb5.5/46, Error ellipse: s-maj=21.5km s-min=6.8km az=131.9*

*NEIC **27** 00:39:44.6±0.2, 9.09N×93.66E, mb5.3/58, Error ellipse: s-maj=6.7km s-min=5.2km az=221.0*

*HRVD **27** 00:39:44.6±0.6, 8.98N×93.69E, h16^{km}±2^{km}, MW5.3/36, Centroid moment Tensor Solution. LP body waves: s6,c6; Mantle waves: s36,c53; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.19±.20; $M_{\theta\theta}$0.11±.10; $M_{\phi\phi}$1.08±.12; $M_{r\theta}$-0.62±.42; $M_{\theta\phi}$0.23±.06; $M_{\phi r}$0.02±.20; Best double couple: $M_0$1.29×10^{17} NP1:ϕ_s173°, δ46°, λ-121°. NP2:ϕ_s34°, δ52°, λ-62°. Principal axes: T 1.14, Plg3°, Azm105°; N .3, Plg22°, Azm196°; P -1.44, Plg68°, Azm6°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **27** 00:39:44.6, 9.10N×93.70E, h21^{km}, mB5.7, mb4.8, Ms5.4*

*IDC **27** 00:39:50.5±3.8, 9.16N×93.77E, h68^{km}±33^{km}, mb4.6/29, mb1 4.6/30, mb1mx4.6/31, ML4.6/1, Error ellipse: s-maj=15.9km s-min=9.3km az=43.0*

ISC 27 00:39:43.2±0.2**, 9.10N**±0.04×**93.64E**±0.04**, h23^{km}, h23^{km}**±1.2^{km}**:pP-P, n262, σ1^{s}19**/235**, mb5.1**/82**, 16C-4D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.63	28	P	P	00 42 15.3	-2.1
CMAR	Chiang Mai Arr	10.63	28	P	P	00 42 20.1	+2.7
	1.3nm,0.3s,baz=214,slow=14,SNR=4.9						
KOD	Kodaikanal	15.99	275	eP	P	00 43 31.3	+2.7
SHL	Shillong	16.46	354	eP	P	00 43 32.0	-2.6
SHL				e		00 43 42.2	
	comp=Z,177nm,1.1s						
KMI	Kunming	18.14	27	P	P	00 44 00.0	+4.4
KMI				XP		00 44 03.8	
KMI				AMB	AMB		
	comp=Z,97nm,1.1s						
QIZ	Qiongzhong	18.54	56	P	P	00 44 03.3	+2.8
QIZ	Qiongzhong	18.54	56	eP	P	00 44 02.4	+1.9
	comp=Z,140nm,1.2s						
AKL	Akola	19.76	308	eP	P	00 44 12.5	-2.2
AKL				e		00 44 23.6	
	comp=Z,238nm,1.4s						
AKL				eS	S	00 47 48.2	-2.3
PKI	Pulchoki	19.95	338	eP	P	00 44 17.2	+0.4
	comp=Z,615nm,1.2s						

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GUN   Gumba             20.10 340  eP     P      00 44 19.1 +0.9
      comp=Z,447nm,0.8s
DMN   Daman             20.10 337  eP     P      00 44 19.1 +0.8
      comp=Z,393nm,0.9s
KKN   Kakani            20.20 338  eP     P      00 44 20.7 +1.4
LSA   Lhasa             20.63 354  eP     P      00 44 22.8 -1.0
      comp=Z,140nm,0.8s
GKN   Gorkha            20.64 337  eP     P      00 44 24.1 +0.3
      comp=Z,551nm,0.8s
KOLN  Koldanda          20.85 334  eP     P      00 44 26.5 +0.4
      comp=Z,337nm,0.7s
GYA   Guiyang           21.23  34⇑iP     P      00 44 31.5 +1.6
GYA                                 AMB    AMB
      comp=Z,30nm,1.6s,mb4.4
COCO  West Island       21.38 171  eP     P      00 44 29.5 -2.0
      comp=Z,296nm,1.3s,mb5.5
NDI   New Delhi         24.86 324  eP     P      00 45 05.5 -0.1
NDI                                e             00 45 16.4
      comp=Z,229nm,1.7s
ENPP  El Nido           25.46  83  eP     P      00 45 12.8 +1.4
ENH   Enshi             25.75  33  eP     P      00 45 13.1 -0.9
      comp=Z,32nm,0.8s,mb4.9
SDNR  Sundarnagar       27.15 328  e      P      00 45 28.5 +1.6
TGY   Tagaytay City     27.18  77   P     P      00 45 28.1 +0.8
      comp=Z,78nm,0.3s,mb5.7,baz=69,slow=8.2,SNR=4.3
BALP  Baler             28.05  74  eP     P      00 45 36.4 +1.3
PAGZ  Pagadian          29.44  90  eP     P      00 45 49.4 +1.7
BUKP  Musuan            31.09  90  i P    P      00 46 04.2 +1.9
BJT   Baijiatuau        36.76  29  eP     P      00 46 52.0 +1.1
BJT                                 pmax   pmax
      comp=Z,17nm,0.7s
BJT   Baijiatuau        36.76  29  eP     P      00 46 52.0 +1.1
      comp=Z,17nm,0.7s,mb5.0
JOW   Kunigami          37.19  57   P     P      00 46 55.8 +1.1
      comp=Z,7.0nm,0.6s,mb4.7,baz=270,slow=6.1,SNR=2.3
MBWA  Marble Bar        39.51 140   P     P      00 47 12.2 -1.9
      comp=Z,66nm,1.4s,mb5.2
SONM  Songino Array     40.09  13   P     P      00 47 20.0 +1.4
      comp=Z,11nm,1.1s,mb4.5,baz=196,slow=7.4,SNR=5.3
SONM                                PcP    PcP    00 49 23.1 -0.6
      comp=Z,3.1nm,0.7s,baz=202,slow=3.7,SNR=4.5
ZAK   Zakamensk         41.93   9  eP     P      00 47 36.6 +2.9
ZAL   Zalesovo          45.28 353   P     P      00 47 59.6 -1.2
      comp=Z,15nm,0.9s,mb4.8,baz=214,slow=22,SNR=16
HIA   Hailar            45.60  24  eP     P      00 48 03.4  0.0
HIA                                 pmax   pmax
      comp=Z,8.0nm,0.6s
HIA   Hailar            45.60  24  eP     P      00 48 03.4  0.0
      comp=Z,8.3nm,0.6s,mb4.8
RYDS  Riyadh            47.23 295   D            00 48 22.9
NWAO  Narrogin (SRO)    47.45 153   P     P      00 48 17.6 -0.7
      comp=Z,16nm,0.6s,mb5.2,baz=316,slow=7.1,SNR=26
NWAO  Narrogin (SRO)    47.45 153  eP     P      00 48 17.3 -1.0
NWAO                                pmax   pmax
      comp=Z,68nm,1.2s
NWAO  Narrogin (SRO)    47.45 153  eP     P      00 48 17.3 -1.0
      comp=Z,68nm,1.2s,mb5.5
BVAR  Borovoye Array    47.68 341   P     P      00 48 19.0 -0.8
      comp=Z,2.5nm,0.4s,mb4.6,baz=132,slow=8.4,SNR=8.0
BRVK  Borovoye          47.74 341  eP     P      00 48 19.3 -1.0
BRVK                                pmax   pmax
      comp=Z,25nm,0.9s,mb5.2
BRVK  Borovoye          47.74 341  eP     P      00 48 19.3 -1.0
      comp=Z,26nm,0.9s,mb5.2
CHKZ  Chkalovo          48.17 342  eP     P      00 48 22.7 -0.9
CHKZ                                pmax   pmax
      comp=Z,43nm,0.7s,mb5.6
CHKZ  Chkalovo          48.17 342  eP     P      00 48 22.7 -0.9
      comp=Z,43nm,0.7s,mb5.6
MZLS  Mizel             48.49 294   P     P      00 48 29.0 +2.5
KAMS  Al Khamasin       48.58 289   P     P      00 48 29.5 +2.3
MAJO  Matsushiro        48.72  49   P     P      00 48 29.2 +1.1
MAJO                               e*PP   pP     00 48 39.5 +4.4
MAT   Matsushiro        48.72  49   P     P      00 48 35.4 +7.3
MAT   Matsushiro        48.72  49  eP     pP     00 48 40.0 +4.9
CBIJ  Chichi jima       49.15  62   P     P      00 48 30.0 -1.5
      comp=Z,94nm,0.9s,mb5.8,baz=328,slow=14,SNR=2.3
WRA   Warramunga Arr    49.37 126   P     P      00 48 31.4 -1.9
      comp=Z,7.1nm,0.5s,mb4.9,baz=304,slow=8.9,SNR=11
WRA                                 PcP    PcP    00 49 55.1 -0.9
      comp=Z,1.6nm,0.5s,baz=320,slow=2.9,SNR=6.1
WRAB  Tennant Creek     49.37 126  eP     P      00 48 31.0 -2.3
WRAB                                pmax   pmax
      comp=Z,94nm,1.4s,mb5.6
WRAB  Tennant Creek     49.37 126  eP     P      00 48 31.0 -2.4
      comp=Z,94nm,1.4s,mb5.6
AFFS  ‘Afif             50.47 293   P     P      00 48 43.8 +2.1
ARSS  Ar Rass           50.57 296   P     P      00 48 44.3 +1.9
ASAR  Alice Springs     51.07 130   P     P      00 48 44.0 -2.2
      comp=Z,8.0nm,1.0s,mb4.6,baz=308,slow=8.2,SNR=7.0
ASAR                                PcP    PcP    00 50 01.6 -0.5
      comp=Z,4.8nm,0.8s,baz=311,slow=3.6,SNR=5.1
HILS  Ha’il             52.10 298   P     P      00 48 55.8 +1.8
GNI   Garni             53.24 314   P     P      00 49 03.7 +1.4
      comp=Z,16nm,0.7s,mb5.1,baz=168,slow=7.2,SNR=7.3
GNI   Garni             53.24 314  eP     P      00 49 02.8 +0.5
GNI                                 pmax   pmax
      comp=Z,47nm,0.9s
GNI   Garni             53.24 314  eP     P      00 49 02.8 +0.5
      comp=Z,47nm,0.9s,mb5.4
TI2   Plekhanov         53.83 316  i P    P      00 49 07.6 +1.0
KBRS  Khaybar           54.09 295   P     P      00 49 11.5 +2.8
ARU   Arti              54.58 337  eP     P      00 49 12.1 +0.2
ARU                                e*PP   pP     00 49 18.6 -0.4
ARU   Arti              54.58 337  eP     P      00 49 12.1 +0.1
ARU                                epP    pP     00 49 18.6 -0.4
ZEI   Tsey              54.82 317  eP     P      00 49 14.4 +0.5
ZEI                                 pmax   pmax
      comp=Z,25nm,1.0s,mb5.2
YNBS  Yanbu‘ al Bahr    55.06 293   P     P      00 49 17.6 +1.7
UMJS  Umm Lajj          55.77 294   P     P      00 49 23.2 +2.1
KIV   Kislovodsk        56.09 317   P     P      00 49 23.8 +0.8
      comp=Z,336nm,1.0s,mb6.3,SNR=18
KIV   Kislovodsk        56.09 317  eP     P      00 49 22.7 -0.3
KIV                                 pmax   pmax
      comp=Z,93nm,1.0s,mb5.8
KIV   Kislovodsk        56.09 317  eP     P      00 49 22.7 -0.4
      comp=Z,93nm,1.0s,mb5.8
YSS   Yuzh-Sakhalins    56.13  39  eP     P      00 49 24.5 +1.2
YSS                                 pmax   pmax
      comp=Z,36nm,0.9s,mb5.4
YSS   Yuzh-Sakhalins    56.13  39  eP     P      00 49 24.5 +1.2
      comp=Z,36nm,0.9s,mb5.4
GOF   Gofitskoye        56.29 319  i P    P      00 49 24.0 -0.5
GOF                                 pmax   pmax
      comp=Z,40nm,1.0s,mb5.4
PMG   Port Moresby      56.36 108   P     P      00 49 25.0 -0.4
      comp=Z,24nm,0.8s,mb5.3,baz=346,slow=7.6,SNR=11
PMG   Port Moresby      56.36 108  eP     P      00 49 24.6 -0.8
PMG                                 pmax   pmax
      comp=Z,30nm,0.9s
PMG   Port Moresby      56.36 108  eP     P      00 49 24.6 -0.8
      comp=Z,30nm,0.9s,mb5.3
TBKS  Tabuk             56.82 298   P     P      00 49 30.0 +1.5
ELZG  Elazig            56.93 310  i P    P      00 49 28.7 -0.5
KMBO  Kilima Mbogo      57.08 263   P     P      00 49 33.2 +2.7
      comp=Z,8.7nm,0.8s,mb4.8,baz=48,slow=9.1,SNR=14
KMBO  Kilima Mbogo      57.08 263  eP     P      00 49 32.5 +1.9
KMBO                                pmax   pmax
      comp=Z,21nm,1.2s
KMBO  Kilima Mbogo      57.08 263  eP     P      00 49 32.5 +2.0
      comp=Z,21nm,1.2s,mb5.0
ASF   Jabal al Asfar    57.15 302   P     P      00 49 31.6 +0.8
      comp=Z,16nm,1.1s,mb5.0,baz=4.9,slow=4.8,SNR=11
MALT  Malatya           57.30 310  eP     P      00 49 30.5 -1.3
MALT                                pmax   pmax
      comp=Z,27nm,1.1s,mb5.2
MALT  Malatya           57.30 310  eP     P      00 49 30.5 -1.3
      comp=Z,27nm,1.1s,mb5.2
JMQS  Jabal Moqyreh     57.49 298   P     P      00 49 34.6 +1.4
GZT   Gaziantep         57.72 309  i P    P      00 49 33.9 -0.9
AYUS  ‘Aynunah          57.93 298   P     P      00 49 37.7 +1.3
SOC   Sochi             57.96 316  i P    P      00 49 33.2 -3.1
SOC                                 pmax   pmax
      comp=Z,26nm,0.8s,mb5.3
SOC                                 pmax   pmax
      comp=N,15nm,0.9s
SOC                                 pmax   pmax
      comp=E,5.0nm,0.6s
BDAS  Al Bad‘           58.11 298   P     P      00 49 38.7 +1.2
KAHT  Ahir Dag          58.32 309  i P    P      00 49 38.1 -0.9
EIL   Elat              58.40 299   P     P      00 49 40.4 +0.8
      comp=E,23nm,1.1s,mb5.1,baz=120,slow=6.2,SNR=7.7
EIL   Elat              58.40 299   P     P      00 49 40.4 +0.8
COBT  Iskenderun        58.55 307  i P    P      00 49 40.2 -0.3
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YAK   Yakutsk           59.00  19  eP     P      00 49 41.6 -1.7
YAK                                 pmax   pmax
      comp=Z,44nm,0.7s,mb5.6
YAK   Yakutsk           59.00  19  eP     P      00 49 41.6 -1.8
      comp=Z,44nm,0.7s,mb5.6
CTA   Charters Tower    59.33 120   P     P      00 49 45.4 -0.8
      comp=Z,32nm,1.1s,mb5.2,baz=276,slow=8.8,SNR=10
CTAO  Charters Tower    59.33 120  eP     P      00 49 45.0 -1.2
CTAO                                pmax   pmax
      comp=Z,70nm,1.2s,mb5.6
CTAO  Charters Tower    59.33 120  eP     P      00 49 45.0 -1.2
      comp=Z,70nm,1.2s,mb5.6
MEST  Erdemli           60.22 307  i P    P      00 49 50.6 -1.4
BOYT  Boyabat           60.73 313  i P    P      00 49 54.6 -0.8
STKA  Stephens Creek    61.30 134   P     P      00 49 58.5 -1.0
      comp=Z,2.9nm,0.6s,mb4.6,baz=329,slow=13,SNR=4.1
STKA  Stephens Creek    61.30 134   P     P      00 49 59.3 -0.2
ELDT  Eldivan           61.59 311  i P    P      00 50 00.0 -1.3
BALT  Daday             61.86 312  i P    P      00 50 02.2 -0.9
SGKT  Sivrigoynuk       62.63 311  i P    P      00 50 07.0 -1.3
ISP   Isparta           63.30 308  eP     P      00 50 11.1 -1.6
ISP                                 pmax   pmax
      comp=Z,45nm,1.3s,mb5.4
ISP   Isparta           63.30 308  eP     P      00 50 11.1 -1.7
      comp=Z,45nm,1.3s,mb5.4
ESKT  Eskisehir         63.33 310  i P    P      00 50 11.0 -1.9
MBAR  Mbarara           63.38 265  eP     P      00 50 15.1 +1.6
MBAR                                pmax   pmax
      comp=Z,34nm,1.3s,mb5.3
MBAR  Mbarara           63.38 265  eP     P      00 50 15.1 +1.6
      comp=Z,34nm,1.3s,mb5.3
HENT  Hendek            63.54 311  i P    P      00 50 12.6 -1.7
OBN   Obninsk           64.09 328ceP      P      00 50 16.5 -1.2
OBN                                 pmax   pmax
      comp=Z,74nm,1.3s,mb5.6
OBN   Obninsk           64.09 328  eP     P      00 50 15.7 -2.0
      comp=Z,59nm,1.1s,mb5.5
KIS   Kishinev          66.29 317  eP     P      00 50 30.0 -2.0
CFR   Carcaliu          66.38 315⇑iP     P      00 50 30.6 -2.0
AKASG Malin Array Be    66.90 321   P     P      00 50 34.0 -1.8
      comp=Z,3.0nm,0.5s,mb4.6,baz=85,slow=5.4,SNR=14
AKASG Malin Array Be    66.90 321   P     P      00 50 34.0 -1.8
AKASG                               pmax   pmax
      comp=Z,3.0nm,0.5s
IDI   Anoyia            67.47 304   P     P      00 50 38.8 -0.9
      comp=Z,23nm,0.9s,mb5.2,baz=65,slow=7.2,SNR=9.6
VRI   Vrincioaia        67.48 316⇑iP     P      00 50 39.5 -0.1
MLR   Muntele Rosu      67.96 315   P     P      00 50 42.6  0.0
      comp=Z,25nm,0.9s,mb5.3,baz=77,slow=3.6,SNR=17
LSZ   Lusaka            69.22 250  eP     P      00 50 52.1 +1.3
LSZ                                 pmax   pmax
      comp=Z,20nm,1.0s,mb5.0
LSZ   Lusaka            69.22 250  eP     P      00 50 52.1 +1.3
      comp=Z,20nm,1.0s,mb5.0
APA   Apatity           70.54 339  eP     P      00 50 55.3 -2.7
APA                                i             00 51 04.7
APA                                i             00 51 09.4
APA                                 pmax   pmax
      comp=Z,36nm,1.1s,mb5.2
KWP   Kalwaria          70.79 319  eP     P      00 50 59.2 -0.6
KWP                                 pmax   pmax
      comp=Z,35nm,0.8s,mb5.3
KWP   Kalwaria          70.79 319  eP     P      00 50 59.2 -0.6
      comp=Z,35nm,0.8s,mb5.3
KOLS  Kolonicke sedl    70.97 319  eP     P      00 51 00.8 -0.1
KOLS                               epP    pP     00 51 06.3 -1.9
SUW   Suwalki           71.23 324  eP     P      00 51 01.0 -1.5
SUW                                 pmax   pmax
      comp=Z,94nm,1.0s,mb5.7
SUW   Suwalki           71.23 324  eP     P      00 51 01.0 -1.5
      comp=Z,94nm,1.0s,mb5.7
FINES FINESS Array B    71.41 332   P     P      00 51 02.9 -0.5
      comp=Z,3.0nm,0.5s,mb4.5,baz=100,slow=6.5,SNR=9.0
KAF   Kangasniemi       71.49 333  ep     P      00 51 01.9 -1.9
      comp=Z,5.7nm,0.7s,mb4.6
KAF   Kangasniemi       71.49 333  eP     P      00 51 01.9 -1.9
KAF                                 pmax   pmax
      comp=Z,6.0nm,0.7s,mb4.6
CRVS  Cervenica-Dubn    71.49 319  eP     P      00 51 05.1 +1.0
KECS  Kecovo            72.08 318  eP     P      00 51 07.4 -0.2
NIE   Niedzica          72.31 319  eP     P      00 51 09.2 +0.3
PSZ   Piszkesteto       72.42 317  eP     P      00 51 08.1 -1.5
PSZ                                 pmax   pmax
      comp=Z,101nm,1.8s,mb5.5
PSZ   Piszkesteto       72.42 317  eP     P      00 51 08.1 -1.5
      comp=Z,101nm,1.8s,mb5.5
OJC   Ojcow             72.73 320  eP     P      00 51 10.4 -1.0
VYHS  Vyhne             73.18 318  i P    P      00 51 13.8 -0.3
VYHS                               ePP    PP     00 53 50.8 -8.4
SRO   Srobarova         73.47 317  eP     P      00 51 16.3 +0.5
OKC   Ostrava-Krasne    73.75 319  eP     P      00 51 17.3 -0.1
OKC                                epP    pP     00 51 24.5 -0.1
ARCES ARCESS Array B    73.96 340   P     P      00 51 17.9 -0.3
      comp=Z,13nm,0.9s,mb4.8,baz=99,slow=7.1,SNR=29
SMOL  Smolenice         74.11 318  eP     P      00 51 20.3 +0.8
MORC  Moravsky Berou    74.14 319  eP     P      00 51 18.0 -1.6
MORC                                pmax   pmax
      comp=Z,39nm,1.0s,mb5.3
MORC  Moravsky Berou    74.14 319  eP     P      00 51 18.0 -1.6
      comp=Z,39nm,1.0s,mb5.3
TIP   Timpagrande       74.16 308   P     P      00 51 20.1 +0.1
ZST   Bratislava        74.31 317  i P    P      00 51 20.5 -0.1
ZST                                epP    pP     00 51 27.5 -0.4
LBTB  Lobatse           74.40 241  eP     P      00 51 22.0 +0.3
LBTB                                pmax   pmax
      comp=Z,25nm,0.9s,mb5.1
LBTB  Lobatse           74.40 241  eP     P      00 51 22.0 +0.3
      comp=Z,25nm,0.9s,mb5.1
KTK1  Kautokeino        74.58 339  eP     P      00 51 22.7 +0.8
KTK1                                AMb    AMB    00 51 27.2
      comp=Z,80nm,1.3s,mb5.5
KTK1  Kautokeino        74.58 339  eP     P      00 51 22.7 +0.8
      comp=Z,80nm,1.3s,mb5.5
SOP   Sopron            74.64 317⇑eP     P      00 51 22.1 -0.5
DPC   Dobruska-Polom    74.96 320  eP     P      00 51 24.9 +0.5
KSP   Ksiaz             75.02 320  eP     P      00 51 24.9 +0.2
UPC   Upice             75.17 320  eP     P      00 51 25.5 -0.1
UPC                                epP    pP     00 51 32.9  0.0
ARSA  Arzberg           75.32 316⇑iP     P      00 51 26.7 +0.2
      comp=Z,19nm,0.9s,mb5.0
BOJS  Bojanci           75.44 315  eP     P      00 51 26.9 -0.3
PERS  Pernice           75.57 316  eP     P      00 51 27.9 -0.1
BOSA  Boshof            75.82 237  eP     P      00 51 30.6 +0.9
BOSA                                pmax   pmax
      comp=Z,41nm,1.1s,mb5.3
BOSA  Boshof            75.82 237  eP     P      00 51 30.6 +0.9
      comp=Z,40nm,1.1s,mb5.3
OBKA  Obir              75.96 316⇓iP     P      00 51 30.9 +0.7
      comp=Z,32nm,1.0s,mb5.2
PRU   Pruhonice         76.08 319  eP     P      00 51 30.9 +0.1
PVCC  Panska Ves        76.09 320  eP     P      00 51 31.9 +1.1
PVCC                               epP    pP     00 51 38.3 +0.2
MOA   Molln             76.19 317⇑iP     P      00 51 31.1 -0.3
      comp=Z,28nm,1.1s,mb5.1
TRO   Tromso            76.22 340  eP     P      00 51 29.8 -1.4
TRO                                epP    pP     00 51 37.9 -0.5
TRO                                esP    sP     00 51 40.6 -0.3
VOY   Vojsko            76.40 315  eP     P      00 51 32.7  0.0
BRG   Berggiesshubel    76.50 320  eP     P      00 51 33.5 +0.4
BRG                                i      pP     00 51 40.9 +0.5
BRG                                 pmax   pmax
      comp=Z,46nm,1.4s,mb5.2
BRG   Berggiesshubel    76.50 320  eP     P      00 51 33.5 +0.4
      comp=Z,46nm,1.4s,mb5.2
BRG                                i             00 51 36.2
BRG                                i      pP     00 51 40.9 +0.5
BRG                                eS     PP     00 54 18.0 -8.8
GEC2  GERESS Array S    76.59 318  eP     P      00 51 33.8 +0.1
GEC2                                pmax   pmax
      comp=Z,40nm,1.1s,mb5.3
GEC2  GERESS Array S    76.59 318  eP     P      00 51 33.8 +0.1
      comp=Z,40nm,1.1s,mb5.3
GERES GERESS Array B    76.59 318   P     P      00 51 33.9 +0.2
      comp=Z,12nm,0.8s,mb4.9,baz=87,slow=5.9,SNR=40
KHC   Kasperske Hory    76.68 318  eP     P      00 51 34.0 -0.2
KHC                                epP    pP     00 51 41.5  0.0
KBA   Koelnbreinsper    76.80 316⇑iP     P      00 51 34.8  0.0
      comp=Z,23nm,1.1s,mb5.0
KBA   Koelnbreinsper    76.80 316⇑iP     P      00 51 34.8  0.0
KBA                                 pmax   pmax
      comp=Z,23nm,1.1s,mb5.0
CLL   Collm             77.11 321  eP     P      00 51 36.0 -0.5
CLL                                 pmax   pmax
      comp=Z,27nm,1.5s,mb5.0
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CLL   Collm             77.11 321  eP     P      00 51 36.0 -0.5
      comp=Z,27nm,1.5s,mb5.0
CLL   Collm             77.11 321   P     P      00 51 36.0 -0.5
      comp=Z,logA/T=1.3,mb5.0
CLL                                e*PP   pP     00 51 43.0 -0.8
WET   Wettzell          77.14 318  eP     P      00 51 36.9 +0.2
MOR8  Moi Rana          77.37 336  eP     P      00 51 37.0 -0.6
MOR8                                AMb    AMB    00 51 51.0
      comp=Z,48nm,1.9s,mb5.1
MOR8  Moi Rana          77.37 336  eP     P      00 51 37.0 -0.6
      comp=Z,48nm,1.9s,mb5.1
NKC   Novy Kostel       77.44 319  eP     P      00 51 38.5 +0.2
WTTA  Wattenberg        77.96 316⇑iP     P      00 51 40.9 -0.4
      comp=Z,55nm,1.2s,mb5.4
WTTA  Wattenberg        77.96 316⇑iP     P      00 51 40.9 -0.4
WTTA                                pmax   pmax
      comp=Z,55nm,1.2s,mb5.4
MOX   Moxa              77.98 320  eP     P      00 51 39.7 -1.6
MOX                                 pmax   pmax
      comp=Z,61nm,2.0s,mb5.2
MOX   Moxa              77.98 320  i P    P      00 51 39.7 -1.6
      comp=Z,logA/T=1.5,mb5.2
MOX   Moxa              77.98 320  eP     P      00 51 39.7 -1.6
      comp=Z,61nm,2.0s,mb5.2
WATA  Walderalm         78.00 316⇑iP     P      00 51 40.7 -0.8
      comp=Z,9.1nm,0.6s,mb4.9
WATA  Walderalm         78.00 316⇑iP     P      00 51 40.7 -0.8
WATA                                pmax   pmax
      comp=Z,9.0nm,0.6s,mb4.9
FUR   Furstenfeldbru    78.20 317  eP     P      00 51 42.5  0.0
GRA1  Grafenberg Arr    78.23 319  eP     P      00 51 43.5 +0.8
      comp=Z,34nm,1.1s,mb5.2
GRF   Grafenberg Arr    78.23 319  eP     P      00 51 43.5 +0.8
GRF                                 pmax   pmax
      comp=Z,34nm,1.1s,mb5.2
GRF   Grafenberg Arr    78.23 319  eP     P      00 51 43.5 +0.8
GRF                                 pmax   pmax
      comp=Z,34nm,1.1s,mb5.2
GRF   Grafenberg Arr    78.23 319  eP     P      00 51 43.5 +0.8
      comp=Z,34nm,1.1s,mb5.2
SQTA  Sankt Quirin      78.26 316⇓iP     P      00 51 42.9  0.0
      comp=Z,17nm,0.6s,mb5.2
SQTA  Sankt Quirin      78.26 316⇓iP     P      00 51 42.9  0.0
SQTA                                pmax   pmax
      comp=Z,17nm,0.6s,mb5.2
MOTA  Moosalm           78.33 316⇑iP     P      00 51 42.6 -0.6
      comp=Z,15nm,0.8s,mb5.0
MOTA  Moosalm           78.33 316⇑iP     P      00 51 42.6 -0.6
MOTA                                pmax   pmax
      comp=Z,15nm,0.8s,mb5.0
NB2   NORSAR Subarra    78.43 330   P     P      00 51 42.4 -1.1
      comp=Z,22nm,1.0s,mb5.0,baz=96,slow=5.0
NB2   NORSAR Subarra    78.43 330   P     P      00 51 42.4 -1.1
      baz=96,slow=5.1
NB2   NORSAR Subarra    78.43 330   P     P      00 51 42.4 -1.1
NB2                                 pmax   pmax
      comp=Z,22nm,1.0s,mb5.0
NOA   NORSAR Array B    78.43 330   P     P      00 51 43.1 -0.5
      comp=Z,5.1nm,0.7s,mb4.6,baz=95,slow=5.0,SNR=9.3
CLZ   Clausthal         78.76 321  eP     P      00 51 45.2 -0.3
BSEG  Bad Segeberg      78.78 323  eP     P      00 51 46.0 +0.4
DAVA  Damuels           79.16 316⇑iP     P      00 51 47.9 +0.1
      comp=Z,28nm,1.1s,mb5.1
MUD   Monsted U’grnd    79.43 326  eP     P      00 51 50.1 +1.0
MUD   Monsted U’grnd    79.43 326  i P    P      00 51 50.1 +1.0
STU   Stuttgart         79.57 318  eP     P      00 51 49.5 -0.5
STU                                 pmax   pmax
      comp=Z,26nm,1.0s,mb5.1
STU   Stuttgart         79.57 318  eP     P      00 51 49.5 -0.5
      comp=Z,26nm,1.0s,mb5.1
MAW   Mawson            79.62 191   P     P      00 51 51.7 +1.7
      comp=Z,8.5nm,0.8s,mb4.7,baz=18,slow=8.3,SNR=7.8
MAW   Mawson            79.62 191  eP     P      00 51 50.9 +1.0
MAW                                 pmax   pmax
      comp=Z,83nm,1.6s
MAW   Mawson            79.62 191  eP     P      00 51 50.9 +1.0
      comp=Z,83nm,1.6s,mb5.4
BFO   Black Forest      80.17 318  eP     P      00 51 52.8 -0.4
BFO                                 pmax   pmax
      comp=Z,18nm,1.2s,mb4.9
BFO   Black Forest      80.17 318  eP     P      00 51 52.8 -0.4
      comp=Z,18nm,1.2s,mb4.9
MOL   Molde             80.19 332  eP     P      00 51 56.6 +3.5
MOL                                 AMb    AMB    00 52 04.2
      comp=Z,82nm,1.8s,mb5.4
MOL   Molde             80.19 332  eP     P      00 51 56.6 +3.5
      comp=Z,82nm,1.8s,mb5.4
SUR   Sutherland        80.62 235  eP     P      00 51 58.4 +2.4
      comp=Z,23nm,0.8s,mb5.2
LPL   La Plagne         81.42 315  eP     P      00 52 00.5 +0.6
      comp=Z,98nm,0.9s,mb5.4
LPL   La Plagne         81.42 315  eP     P      00 52 00.5 +0.6
LPL                                 pmax   pmax
      comp=Z,49nm,0.9s,mb5.4
BNI   Bardonecchia      81.50 314  eP     P      00 52 00.2 -0.1
BNI                                 pmax   pmax
      comp=Z,93nm,1.5s,mb5.5
BNI   Bardonecchia      81.50 314  eP     P      00 52 00.2 -0.1
      comp=Z,93nm,1.5s,mb5.5
ANM   Nome              86.54  25  eP     P      00 52 26.4 +1.0
RPZ   Rata Peaks        87.25 135   P     P      00 52 28.3 -1.1
      comp=Z,11nm,0.8s,mb5.1,baz=14,slow=8.3,SNR=3.3
ESDC  Sonseca Array     90.06 310   P     P      00 52 43.8 +1.0
      comp=Z,6.2nm,1.0s,mb4.9,baz=58,slow=5.4,SNR=5.7
IMA   Indian Mountai    90.68  22  eP     P      00 52 46.5 +1.5
SUMG  Summit            92.85 347  eP     P      00 52 55.3 +0.4
      comp=Z,20nm,1.1s,mb5.5
COLA  College           93.39  22   P     P      00 52 58.1 +0.6
COLA                                pmax   pmax
      comp=Z,4.0nm,0.6s,mb5.0
COLA  College           93.39  22   P     P      00 52 58.1 +0.6
      comp=Z,4.5nm,0.6s,mb5.1
MCK   McKinley          93.54  23  eP     P      00 52 57.6 -0.6
MCK                                 pmax   pmax
      comp=Z,25nm,1.2s,mb5.5
MCK   McKinley          93.54  23  eP     P      00 52 57.6 -0.6
      comp=Z,25nm,1.2s,mb5.5
ILAR  Eielson Array     93.80  22   P     P      00 52 59.9 +0.5
      comp=Z,4.5nm,0.8s,mb5.0,baz=308,slow=4.6,SNR=8.0
PWA   Palmer West       94.14  25  eP     P      00 53 01.2 +0.2
VNDA  Vanda             94.22 168   P     P      00 53 01.3 +0.2
      comp=Z,2.7nm,1.1s,mb4.6,baz=357,slow=6.4,SNR=3.4
VNDA  Vanda             94.22 168   P     P      00 53 01.3 +0.2
SLKM  Skilak Lake       94.52  26  eP     P      00 53 02.9 +0.1
SML   Sawmill           94.71  25  eP     P      00 53 02.2 -1.5
INK   Inuvik            95.96  16   P     P      00 53 09.8 +0.5
      comp=Z,4.0nm,0.7s,mb5.0,baz=332,slow=6.2,SNR=8.2
INK   Inuvik            95.96  16   P     P      00 53 09.8 +0.5
DBIC  Dimbokro          97.29 278   P     P      00 53 17.4 +0.9
      comp=Z,5.4nm,1.1s,mb4.9,baz=88,slow=11,SNR=3.1
YMR   Madison River    122.05  21  eP     PKPdf  00 58 38.9 -1.8
ELK   Elko             123.70  26  eP     PKPdf  00 58 41.8 -2.2
NVAR  Mina Array Bea   124.12  30   PKP   PKPdf  00 58 42.2 -2.7
      comp=Z,2.2nm,0.8s,baz=287,slow=4.1,SNR=5.1
NVAR  Mina Array Bea   124.12  30   PKP   PKPdf  00 58 42.2 -2.7
MNV   Mina             124.19  30  eP     PKPdf  00 58 41.1 -4.0
PDAR  Pinedale Array   124.21  21   PKP   PKPdf  00 58 41.8 -3.2
      comp=Z,7.4nm,1.2s,slow=1.5,SNR=8.3
TPNV  Topopah Spring   126.29  30   P     PKPdf  00 58 46.4 -2.7
ANMO  Albuquerque      132.24  22   PKP   PKPdf  00 58 58.9 -1.7
      comp=Z,2.4nm,0.9s,baz=299,slow=4.8,SNR=4.8
ANMO  Albuquerque      132.24  22  eP     PKPdf  00 58 59.3 -1.3
TUC   Tucson           132.68  28  eP     PKPdf  00 58 59.5 -2.0
MNTX  Cornudas Mount   135.54  23  eP     PKPdf  00 59 05.6 -1.2
TXAR  Lajitas Array    138.31  23   PKP   PKPdf  00 59 10.2 -1.7
      comp=Z,1.4nm,0.8s,baz=223,slow=0.3,SNR=9.2
JCT   Junction City    138.59  18  eP     PKPdf  00 59 10.0 -2.4
HKT   Hockley          140.12  13  eP     PKPdf  00 59 11.2 -4.0
BDFB  Brasilia         142.03 256   PKP   PKPdf  00 59 17.8 -1.1
      comp=Z,3.2nm,0.7s,baz=154,slow=4.8,SNR=3.7
SJG   San Juan         146.40 324   PKPbc PKPbc  00 59 24.9 +1.7
      comp=Z,9.5nm,0.7s,baz=16,slow=7.4,SNR=3.9
SJG   San Juan         146.40 324  eP     PKPbc  00 59 24.3 +1.0
PCRV  Puerto La Cruz   151.12 311   PKPbc PKPdf  00 59 35.3 +1.2
      comp=Z,7.2nm,0.5s,baz=79,slow=5.4,SNR=8.5
MDZ   Mendoza          151.33 212  eP     PKPdf  00 59 38.8 +5.0
FCH   Farellones       151.70 209⇓iP     PKPdf  00 59 38.8 +4.4
SDV   Santo Domingo    156.25 318   PKP   PKPdf  00 59 38.4 -2.7
      comp=Z,3.0nm,1.0s,baz=301,slow=5.9,SNR=2.9
SDV   Santo Domingo    156.25 318   P     PKPdf  00 59 37.8 -3.4
LVC   Limon Verde      158.53 229   PKP   PKPdf  00 59 43.3 -0.6
      comp=Z,2.3nm,0.7s,baz=36,slow=2.6,SNR=3.2
LVC                                 PKPab  PKPab  01 00 17.6 +0.8
      comp=Z,7.9nm,0.8s,baz=142,slow=2.5,SNR=4.8
LPAZ  La Paz           160.85 246   PKPab  PKPab  01 00 27.8 +0.9
      comp=Z,3.6nm,0.9s,baz=245,slow=1.5,SNR=7.9
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Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	La Paz	160.85	246	PKP2	PKPab	01 00 27.8	+0.9
LPAZ				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ROSC	El Rosal	161.67	319	PKP	PKPdf	00 59 45.8	-1.6
	comp=Z,3.2nm,0.7s,baz=119,slow=19,SNR=3.6						

IDC 27 00:44:18.5±2.7, 2.85N×93.37E, mb4.2/5, mb1 4.3/6, mb1mx4.0/20, ML4.6/1, Error ellipse: s-maj=86.7km s-min=23.8km az=56.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.45	19	Pn	P	00 48 11.6	-0.8
	0.8nm,0.3s,baz=210,slow=12,SNR=4.1						
WRA	Warramunga Arr	46.16	121	P	P	00 52 45.9	-1.1
	2.1nm,0.6s,baz=301,slow=8.8,SNR=5.1						
SONM	Songino Array	46.20	12	P	P	00 52 45.6	-1.4
	2.0nm,0.8s,baz=190,slow=7.6,SNR=4.3						
ZAL	Zalesovo	51.41	354	P	P	00 53 25.1	-2.0
	0.8nm,0.5s,baz=324,slow=9.9,SNR=4.2						
BVAR	Borovoye Array	53.50	343	P	P	00 53 40.2	-2.7
	1.3nm,0.6s,baz=141,slow=9.2,SNR=3.5						
PMG	Port Moresby	54.96	103	P	P	00 53 51.1	-3.1
	5.0nm,0.8s,baz=252,slow=6.4,SNR=3.7						

IDC 27 00:48:22.4±5.1, 6.93N×93.15E, mb3.9/4, mb1 4.0/4, mb1mx3.6/18, Error ellipse: s-maj=511.0km s-min=25.8km az=47.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	48.53	124	P	P	00 57 07.4	-2.2
	0.4nm,0.5s,baz=306,slow=8.5,SNR=3.0						
ASAR	Alice Springs	50.09	129	P	P	00 57 19.8	-1.7
	0.4nm,0.5s,baz=299,slow=7.2,SNR=4.2						
FINES	FINESS Array B	73.08	332	P	P	00 59 54.2	-2.0
	4.8nm,1.1s,baz=117,slow=8.5,SNR=5.6						
HFS	Hagfors	78.77	330	P	P	01 00 27.0	-1.3
	0.5nm,0.4s,baz=90,slow=5.9,SNR=5.0						

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*IDC **27** 00:49:25.1±0.3, 12.98N×92.41E, mb5.7/36, mb1 5.7/37, mb1mx5.7/37, ML5.1/1, MS5.4/13, Ms1 5.4/13, ms1mx5.0/25, Error ellipse: s-maj=14.3km s-min=8.8km az=41.0*

*BJI **27** 00:49:26.8, 12.81N×92.35E, h34km, mB6.0, mb5.6, Ms5.7, Msz5.5*

*MOS **27** 00:49:28.8±1.0, 13.08N×92.36E, h33km, mb6.2/106, MS5.4/35, Error ellipse: s-maj=7.1km s-min=3.3km az=126.1*

*NEIC **27** 00:49:28.6±0.1, 12.98N×92.40E, mb6.0/146, ME6.1, MS5.5/22, Error ellipse: s-maj=4.3km s-min=2.8km az=207.0 Broadband fault plane solution: P waves. NP1: ϕ_s230°, δ55°, λ-80°. NP2: ϕ_s33°, δ36°, λ-104°. Principal axes: T Plg9°, Azm313°; N Plg0°, Azm0°; P Plg77°, Azm174°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*SYO **27** 00:49:28.1, 13.00N×92.43E, h19km, MB6.1*

*HRVD **27** 00:49:28.6±0.2, 13.05N×92.37E, h21km, MW5.7/68, Centroid moment Tensor Solution. LP body waves: s40,c64; Mantle waves: s68,c158; Half duration: 1s8 Moment tensor: Scale 10^{17}Nm; M_{rr}-3.62±.15; $M_{\theta\theta}$-0.21±.09; $M_{\phi\phi}$3.83±.10; $M_{r\theta}$2.25±.19; $M_{\theta\phi}$2.31±.06; $M_{\phi r}$0.50±.15; Best double couple: $M_0$4.95×10^{17} NP1: ϕ_s359°, δ42°, λ-132°. NP2: ϕ_s229°, δ60°, λ-59°. Principal axes: T 5.11, Plg10°, Azm297°; N -.33, Plg27°, Azm32°; P -4.78, Plg62°, Azm189°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 00:49:27.5±0.1, 12.97N±0.03×92.38E±0.02, h27km, h27km±.5km:pP-P, n901, σ1s00/796, mb5.9/245, MS5.5/61, 65C-143D, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	8.34	48	eP	P	00 51 27.8	-1.9
CM31				eS	Sn	00 52 57.0	-7.0
CMAR	Chiang Mai Arr	8.34	48	Pn	P	00 51 27.9	-1.8
	6.8nm,0.3s,baz=240,slow=15,SNR=28						
CMAR				Sn	Sn	00 52 57.2	-6.8
	7.1nm,0.3s,baz=238,slow=28,SNR=6.5						
CHG	Chiang Mai	8.57	47	PN	P	00 51 31.1	-1.8
CHG				SG	Sn	00 53 04.2	-5.5
VIS	Vishakhapatnam	9.93	300	⇑eP	P	00 51 48.3	-3.3
VIS				e	Sn	00 53 34.0	-9.2
	comp=E,11µm,0.8s						
VIS				e		00 53 34.3	
	comp=N,18µm,0.7s						
CAL	Calcutta	10.27	338	eP	P	00 51 55.1	-1.2
CAL				e	S	00 53 41.7	-10
AGT	Agartala	10.91	355	⇓i	P	00 51 55.0	-10
MDRS	Chennai	11.83	272	⇓eP	P	00 52 14.7	-2.9
MDRS				e	S	00 54 22.0	-7.7
	comp=N,3µm,0.4s						
MDRS				e		00 54 22.2	
	comp=E,3µm,0.4s						
IMP	Imphal	11.84	7	e	P	00 52 15.4	-2.3
BOK	Bokaro	12.40	331	⇓eP	P	00 52 22.3	-3.0
BOK				e		00 52 35.5	
	comp=Z,703nm,0.5s						
SHL	Shillong	12.54	358	⇓e	P	00 52 22.8	-4.3
SHL				eS	S	00 54 34.9	-12
PALK	Pallekele	12.82	245	eP	P	00 52 30.4	-0.4
BLSP	Bilaspur	13.35	314	⇓eP	P	00 52 34.2	-3.6
BLSP				e		00 52 38.3	
	comp=Z,2µm,0.7s						
KOD	Kodaikanal	14.87	261	⇑eP	P	00 52 57.1	-0.7
NGP	Nagpur	15.11	304	⇑eP	P	00 52 58.0	-3.0
NGP				e	S	00 55 36.9	-11
KMI	Kunming	15.54	37	P	P	00 53 09.3	+2.7
KMI				PP	PP	00 53 21.5	+2.6
KMI				S	S	00 56 03.5	+5.3
KMI				AMB	AMB		
	comp=Z,224nm,1.4s						
KMI				AMB	AMB		
	comp=Z,2µm,6.8s						
KMI				LR	LR		
	comp=N,19µm,14.9s						
KMI				LR	LR		
	comp=E,6µm,16.6s						
KMI				LR	LR		
	comp=Z,12µm,17.8s						
TRD	Trivandrum	15.79	255	⇑eP	P	00 53 09.4	-0.4
TRD				e		00 53 29.0	
	comp=Z,1µm,1.6s						
PKI	Pulchoki	15.92	337	eP	P	00 53 07.6	-3.9
	comp=Z,863nm,0.7s						
GUN	Gumba	16.06	339	eP	P	00 53 10.4	-2.8
DMN	Daman	16.07	336	eP	P	00 53 10.0	-3.4
	comp=Z,2µm,1.0s						
LATR	Latur	16.16	292	eP	P	00 53 16.0	+1.4
KKN	Kakani	16.17	337	eP	P	00 53 12.2	-2.4
	comp=Z,1µm,1.1s						
AKL	Akola	16.59	300	⇑eP	P	00 53 22.0	+2.1
AKL				e		00 53 37.9	
	comp=Z,2µm,1.5s						
GKN	Gorkha	16.61	335	eP	P	00 53 17.4	-2.8
	comp=Z,402nm,0.4s						
LSA	Lhasa	16.69	356	eP	P	00 53 19.4	-1.7
LSA				eS	S	00 56 16.3	-8.4
LSA				pmax	pmax		
	comp=Z,645nm,1.5s						
LSA	Lhasa	16.69	356	eP	P	00 53 19.4	-1.7
	comp=Z,645nm,1.5s						
LSA				eS	S	00 56 16.3	-8.4
KOLN	Koldanda	16.86	332	eP	P	00 53 19.2	-4.1
	comp=Z,1µm,0.6s						
MNGI	Mangalore	17.12	272	i P	P	00 53 25.8	-0.8
	comp=Z,317nm,1.5s						
BHPL	Bhopal	17.49	308	⇓eP	P	00 53 33.7	+2.5
BHPL				e		00 53 44.8	
	comp=Z,3µm,1.1s						
QIZ	Qiongzhong	17.82	68	P	P	00 53 36.8	+1.4
QIZ				S	S	00 56 53.0	+2.3
QIZ				LR	LR		
	comp=N,13µm,18.8s						
QIZ				LR	LR		
	comp=Z,84µm,18.4s						
QIZ	Qiongzhong	17.82	68	⇓eP	P	00 53 36.1	+0.7
	comp=Z,91nm,0.9s						
KAD	Karad	18.09	286	⇑eP	P	00 53 38.5	-0.3
KAD				e		00 53 54.0	
	comp=Z,1µm,1.9s						
GOA	Goa	18.16	280	⇑e	P	00 53 44.9	+5.1
	comp=Z,409nm,1.1s						
GOA				⇑e		00 56 59.2	
POO	Poona	18.67	290	⇑eP	P	00 53 45.1	-0.7
POO				e		00 53 57.4	
	comp=Z,765nm,1.6s						
GYA	Guiyang	18.97	43	⇓P	P	00 53 49.8	+0.4
GYA				S	S	00 57 18.0	+1.6
GYA				AMB	AMB		
	comp=Z,160nm,1.1s						
GYA				AMB	AMB		
	comp=Z,2µm,5.3s						
GYA				LR	LR		
	comp=N,8µm,16.2s						
GYA				LR	LR		
	comp=E,7µm,14.4s						
GYA				LR	LR		
	comp=Z,10µm,16.8s						
MNCY	Minicoy	19.58	258	⇓i	P	00 54 02.0	+5.5
BOM	Bombay	19.71	290	⇑eP	P	00 53 59.2	+1.3
BOM				e		00 54 10.9	
	comp=Z,2µm,1.7s						
LGTI	Lohaghat	19.89	327	eP	P	00 54 01.0	+1.1
LGTI				e	S	00 57 33.0	-3.8
PTH	Pithoragarh	19.99	328	eP	P	00 54 00.3	-0.6
CD2	Chengdu	20.71	29	⇓iP	P	00 54 07.5	-0.8
CD2				S	S	00 57 56.5	+3.2
CD2				AMB	AMB		
	comp=Z,410nm,1.0s						
CD2				LR	LR		
	comp=N,16µm,19.2s						
CD2				LR	LR		
	comp=Z,9µm,15.6s,MS5.2						
NDI	New Delhi	21.07	320	eP	P	00 54 11.5	-0.4
NDI				e		00 54 23.0	
	comp=Z,1µm,1.7s						
BHV	Bhavnagar	21.18	297	eP	P	00 54 15.0	+1.8
AJM	Ajmer	21.40	312	⇑eP	P	00 54 16.3	+0.9
AJM				e		00 54 29.6	
	comp=Z,2µm,1.6s						
DDI	Dehra Dun	21.77	325	eP	P	00 54 18.9	-0.1
DDI				e	S	00 58 10.9	-2.3
PENI	Pendagan	22.37	145	⇑eP	P	00 54 18.6	-6.6
PENI				pmax	pmax		
	comp=Z,79nm,0.5s,mb5.4						
PENI	Pendagan	22.37	145	⇑eP	P	00 54 18.6	-6.6
	comp=Z,79nm,0.5s,mb5.4						
SMLA	Simla	22.87	325	⇑i		00 54 46.0	
	comp=Z,4µm,1.5s						
SMLA				i	S	00 58 42.7	+9.2
	comp=Z,4µm,2.0s						
SDNR	Sundarnagar	23.26	325	eP	P	00 54 36.0	+2.2
SDNR				eS	S	00 58 45.1	+4.8
ENH	Enshi	23.38	40	⇓eP	P	00 54 34.7	-0.3
	comp=Z,937nm,1.3s,mb6.1						
ENH				ePcP	PcP	00 58 22.6	-0.2
ENH				eS	S	00 58 45.0	+2.7
BHK	Bhakra	23.52	324	eP	P	00 54 38.4	+2.1
BHK				e	S	00 58 33.6	-11
BHJ	Bhuj	23.87	299	⇓eP	P	00 54 44.1	+4.4
BHJ				e		00 55 06.0	
	comp=Z,1µm,1.5s						
PONG	Pong	24.18	324	eP	P	00 54 46.0	+3.2
DLH	Dalhousie	24.61	325	eP	P	00 54 49.0	+2.1
DLH				e		00 55 07.0	
THN	Thein Dam	24.67	324	eP	P	00 54 47.7	+0.2
THN				e	S	00 59 17.2	+13
LZH	Lanzhou	25.22	22	eP	P	00 54 53.8	+1.1
LZH				PP	PP	00 55 32.8	+1.6
LZH				S	S	00 59 20.3	+6.6
LZH				SS	SS	01 00 17.5	+2.5
LZH				AMB	AMB		
	comp=Z,439nm,1.2s,mb5.9						
LZH				AMB	AMB		
	comp=Z,2µm,5.0s						
LZH				LR	LR		
	comp=E,17µm,14.6s						
LZH				LR	LR		
	comp=Z,23µm,16.0s,MS5.8						
COCO	West Island	25.39	170	eP	P	00 54 54.1	-0.3
	comp=Z,1µm,1.3s,mb6.3						
XAN	Xi'an	25.81	33	P	P	00 54 56.5	-1.7
XAN				AMB	AMB		
	comp=Z,156nm,1.0s,mb5.5						
PPR	Puerto Princes	26.02	94	⇓eP	P	00 55 03.1	+2.8
ENPP	El Nido	26.50	91	i P	P	00 55 04.5	-0.2
WHN	Wuhan	26.78	46	P	P	00 55 06.5	-0.7
GTA	Gaotai	27.14	13	⇓iP	P	00 55 11.3	+0.9
GTA				AP	pP	00 55 20.3	+1.9
GTA				XP	sP	00 55 24.0	+2.0
GTA				PCP	PcP	00 58 32.3	+1.3
GTA				SCS	ScS	01 05 58.0	+0.1
GTA				AMB	AMB		
	comp=Z,234nm,1.5s,mb5.5						
GTA				AMB	AMB		
	comp=Z,3µm,8.4s						
GTA				LR	LR		
	comp=N,4µm,15.7s,MS5.1						
GTA				LR	LR		
	comp=E,2µm,16.1s,MS5.1						
GTA				LR	LR		
	comp=Z,4µm,16.8s,MS5.1						
QZH	Quanzhou	27.44	60	⇑iP	P	00 55 13.8	+0.5
QZH				AMB	AMB		
	comp=Z,720nm,1.4s,mb6.0						
QZH				LR	LR		
	comp=N,16µm,15.2s,MS5.8						
QZH				LR	LR		
	comp=E,7µm,12.9s,MS5.8						
QZH				LR	LR		
	comp=Z,20µm,16.8s,MS5.8						
TGY	Tagaytay City	27.78	84	P	P	00 55 15.9	-0.5
	comp=Z,227nm,0.6s,mb6.0,baz=240,slow=14,SNR=2.9						
TGY				LR	LR	01 06 11.3	
	comp=Z,4µm,18.1s,MS5.0,baz=93,slow=36						
SJMP	San Jose	28.03	88	eP	P	00 55 17.8	-0.9
GUIM	Jordan	29.65	91	eP	P	00 55 33.2	-0.1
KSH	Kashi	30.15	334	i PR	P	00 55 38.8	+1.3
KSH				AP	pP	00 55 44.0	-1.6
KSH				XP	sP	00 55 47.0	-2.2
KSH				PP	PP	00 56 36.5	+0.2
KSH				S	S	01 00 35.0	+1.5
KSH				AMB	AMB		
	comp=Z,580nm,2.1s,mb5.9						
KSH				LR	LR		
	comp=N,8µm,15.8s,MS5.7						
KSH				LR	LR		
	comp=E,8µm,13.1s,MS5.7						
SRDI	Scrawed	30.35	133	⇑eP	P	00 55 36.6	-2.9
SRDI				pmax	pmax		
	comp=Z,82nm,0.4s,mb5.8						
SRDI	Scrawed	30.35	133	⇑eP	P	00 55 36.6	-2.9
	comp=Z,82nm,0.4s,mb5.8						
KELI	Kelakatan	30.42	133	⇑eP	P	00 55 39.1	-1.0
NJ2	Nanjing	30.82	48	eP	P	00 55 43.5	+0.1
NJ2				PP	PP	00 56 44.5	-0.5
NJ2				S	S	01 00 45.0	+0.9
NJ2				SS	SS	01 02 28.0	+0.5
NJ2				AMB	AMB		
	comp=Z,1µm,6.9s						
NJ2				LR	LR		
	comp=N,20µm,20.4s,MS6.0						
NJ2				LR	LR		
	comp=E,28µm,18.8s,MS6.0						
NJ2				LR	LR		
	comp=Z,29µm,16.8s,MS6.0						
WMQ	Urumqi	31.00	353	⇓P	P	00 55 45.5	+0.5
WMQ				PP	PP	00 56 47.5	+0.2
WMQ				S	S	01 00 49.0	+2.1
WMQ				AMB	AMB		
	comp=Z,98nm,1.2s,mb5.5						
WMQ				LR	LR		
	comp=N,7µm,21.2s,MS5.5						
WMQ				LR	LR		
	comp=E,11µm,25.4s,MS5.5						
WMQ				LR	LR		
	comp=Z,6µm,23.7s,MS5.2						
TANI	Tanete Lipujan	31.38	120	⇓eP	P	00 55 47.9	-0.7
RATI	Rata	31.52	132	⇓eP	P	00 55 46.6	-3.2
BTO	Baotou	31.58	26	eP	P	00 55 49.0	-1.1
BTO				S	S	01 01 00.0	+4.1
BTO				AMB	AMB		
	comp=Z,114nm,1.1s,mb5.6						
BTO				LR	LR		
	comp=N,1µm,13.7s,MS5.5						
BTO				LR	LR		
	comp=E,8µm,18.1s,MS5.5						
KEDI	Kedomdong	31.78	131	⇓eP	P	00 55 49.4	-2.7
KEDI				pmax	pmax		
	comp=Z,439nm,0.5s,mb6.5						
KEDI	Kedomdong	31.78	131	⇓eP	P	00 55 49.4	-2.7
	comp=Z,439nm,0.5s,mb6.5						
MSLP	Maasin	31.93	92	i P	P	00 55 53.4	0.0
SSE	Sheshan	32.07	51	P	P	00 55 54.5	+0.1
SSE				S	S	01 01 06.0	+2.3
SSE				AMB	AMB		
	comp=Z,81nm,1.2s,mb5.4						
SSE				AMB	AMB		
	comp=Z,4µm,8.9s						
SSE				LR	LR		
	comp=N,7µm,12.1s,MS5.7						
SSE				LR	LR		
	comp=E,9µm,12.4s,MS5.7						
SSE				LR	LR		
	comp=Z,14µm,14.7s,MS5.8						
TIA	Tai'an	32.09	40	⇓P	P	00 55 54.0	-0.6
TIA				S	S	01 01 13.0	+9.0
TIA				AMB	AMB		
	comp=Z,200nm,1.5s,mb5.7						
TIA				LR	LR		
	comp=N,4µm,16.0s,MS5.7						
TIA				LR	LR		
	comp=E,14µm,20.0s,MS5.7						
NINI	Niniconang	32.22	121	eP	P	00 55 55.5	-0.4
BUNI	Buntu Taipa	32.29	119	⇑eP	P	00 55 58.0	+1.4
ULHL	Ulahol	32.36	337	P	P	00 55 58.8	+2.0
	SNR=5.1						
HHC	Hu-ho-hao-te	32.46	28	⇓iP	P	00 55 58.0	+0.3
HHC				AP	pP	00 56 05.0	-0.8
HHC				XP	sP	00 56 08.5	-0.9
HHC				PP	PP	00 57 05.0	-1.2
HHC				PCP	PcP	00 58 46.8	+2.2
HHC				S	S	01 01 08.3	-1.3
HHC				SS	SS	01 03 03.5	-2.7
HHC				SCS	ScS	01 06 24.5	+1.3
HHC				AMB	AMB		
	comp=Z,175nm,1.4s,mb5.7						
HHC				AMB	AMB		
	comp=Z,6µm,9.3s						
HHC				LR	LR		
	comp=N,5µm,13.1s,MS5.5						
HHC				LR	LR		
	comp=E,5µm,14.3s,MS5.5						
HHC				LR	LR		
	comp=Z,5µm,14.3s,MS5.4						
KZA	Kyzart	32.60	336	P	P	00 56 00.4	+1.4
	SNR=35						
AAA	Alma-Ata	33.00	339	eP	P	00 56 00.0	-2.4
AAA				eS	S	01 01 20.0	+2.0
AAA				pmax	pmax		
	comp=Z,1µm,4.0s						
AAA				smax			
	comp=N,2µm,9.0s						
AAA				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.1						
UCH	Uchtor	33.02	335	P	P	00 56 04.0	+1.4
	SNR=15						
TKM2	Tokmak 2	33.19	337	P	P	00 56 04.8	+0.8
	SNR=25						
KBK	Karagaybulak	33.21	336	P	P	00 56 05.8	+1.5
	SNR=32						
AML	Almayashu	33.28	334	P	P	00 56 06.5	+1.6
	SNR=36						
AAK	Ala-Archa	33.37	336	P	P	00 56 07.3	+1.6
	SNR=41						
AAK	Ala-Archa	33.37	336	eP	P	00 56 05.7	0.0
AAK				pmax	pmax		
	comp=Z,295nm,1.3s,mb6.1						
AAK	Ala-Archa	33.37	336	eP	P	00 56 05.7	+0.1
	comp=Z,295nm,1.3s,mb6.1						
FRU	Bishkek	33.49	336	eP	P	00 56 08.0	+1.3
FRU				e	pP	00 56 16.0	+1.2
FRU				pmax	pmax		
	comp=Z,1µm,3.0s						
CHMS	Chumysh	33.58	336	P	P	00 56 07.8	+0.4
	SNR=36						
EKS2	Erkin-Say	33.69	335	P	P	00 56 10.0	+1.6
	SNR=26						
USP	Ospenovka	33.90	336	P	P	00 56 10.7	+0.4
	SNR=60						
BJT	Baijiatuau	34.12	34	⇓eP	P	00 56 12.5	+0.4
BJT				e	pP	00 56 20.7	+0.4
BJT				e		00 58 49.0	
BJT				pmax	pmax		
	comp=Z,426nm,1.4s						
BJT	Baijiatuau	34.12	34	⇓eP	P	00 56 12.5	+0.4
	comp=Z,426nm,1.4s,mb6.2						
BJT				e	pP	00 56 20.7	+0.4
BJT				ePcP	PcP	00 58 49.0	-0.2
BJI	Beijing	34.14	33	P	P	00 56 12.5	+0.2
BJI				S	S	01 01 38.8	+3.2
BJI				AMB	AMB		
	comp=Z,189nm,1.2s,mb5.9						
BJI				LR	LR		
	comp=N,4µm,17.3s,MS5.6						
BJI				LR	LR		
	comp=E,9µm,17.3s,MS5.6						
BJI				LR	LR		
	comp=Z,7µm,19.3s,MS5.4						
MKAR	Makanchi Array	34.77	348	i P	P	00 56 17.7	0.0
MKAR				pmax	pmax		
	comp=Z,439nm,1.0s						
MKAR	Makanchi Array	34.77	348	i P	P	00 56 17.8	+0.1
JOW	Kunigami	36.31	62	P	P	00 56 31.8	+0.8
	comp=Z,25nm,0.3s,mb5.6,baz=215,slow=3.4,SNR=17						
JOW				PcP	PcP	00 58 56.0	+0.2
	comp=Z,70nm,1.1s,baz=298,slow=3.4,SNR=4.8						
JOW				LR	LR	01 12 19.8	
	comp=Z,6µm,20.9s,MS5.4,baz=251,slow=38						
DL2	Dalian	36.57	40	P	P	00 56 34.0	+1.0
DL2				eS	S	01 02 17.5	+4.3
DL2				AMB	AMB		
	comp=Z,90nm,1.3s,mb5.4						
DL2				LR	LR		
	comp=N,3µm,20.1s,MS5.3						
DL2				LR	LR		
	comp=E,4µm,19.8s,MS5.3						
DL2				LR	LR		
	comp=Z,3µm,18.2s,MS5.2						
SONM	Songino Array	36.67	16	P	P	00 56 34.5	+0.7
	comp=Z,656nm,1.4s,mb6.3,baz=198,slow=7.8,SNR=232						
SONM				PcP	PcP	00 58 57.0	+0.4
	comp=Z,20nm,0.8s,baz=195,slow=4.3,SNR=6.1						
ULN	Ulaanbaatar	36.88	17	eP	P	00 56 35.7	+0.2
ULN				pmax	pmax		
	comp=Z,204nm,1.3s,mb5.8						
ULN	Ulaanbaatar	36.88	17	eP	P	00 56 35.7	+0.2
	comp=Z,204nm,1.3s,mb5.8						
ZAK	Zakamensk	38.35	11	i P	P	00 56 49.1	+1.2
ZAK				e		00 59 01.8	
INCN	Inchon	39.09	45	eP	P	00 56 53.1	-1.0
	comp=Z,98nm,0.9s,mb5.5						
SNY	Shenyang	39.52	37	⇓P	P	00 56 57.5	-0.2
SNY				XP	sP	00 57 11.8	+2.5
SNY				AMB	AMB		
	comp=Z,190nm,1.9s,mb5.5						
SNY				LR	LR		
	comp=N,8µm,18.0s,MS5.6						
SNY				LR	LR		
	comp=E,3µm,19.0s,MS5.6						
SNY				LR	LR		
	comp=Z,5µm,16.6s,MS5.4						
TLY	Talaya	39.66	11	P	P	00 57 00.8	+2.0
	comp=Z,591nm,1.1s,mb6.2,SNR=31						
TLY	Talaya	39.66	11	eP	P	00 57 00.1	+1.3
TLY				pmax	pmax		
	comp=Z,236nm,1.2s,mb5.8						
TLY				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.1						
TLY	Talaya	39.66	11	eP	P	00 57 00.3	+1.5
	comp=Z,343nm,1.4s,mb5.9						
TLY				e	pP	00 57 09.1	+2.1
KS15	Wonju Array Si	39.94	46	eP	P	00 57 00.9	-0.4
IRK	Irkutsk	40.32	11	eP	P	00 57 05.1	+0.9
IRK				e	pP	00 57 14.1	+1.7
IRK				e		01 03 16.2	

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ZAL    Zalesovo           41.30 353   P       P       00 57 12.2   0.0
       comp=Z,45nm,0.9s,mb5.1,baz=298,slow=8.6,SNR=99
ZAL                                   LR      LR      01 15 50.2
       comp=Z,3µm,21.2s,MS5.2,baz=293,slow=38
CN2    Changchun          41.81  36  eP       P       00 57 16.8  +0.3
CN2                                  eS       S       01 03 33.5  +1.4
CN2                                   AMB     AMB
       comp=Z,240nm,1.3s,mb5.7
CN2                                   AMB     AMB
       comp=Z,2µm,6.0s
CN2                                   LR      LR
       comp=N,4µm,17.0s,MS5.6
CN2                                   LR      LR
       comp=E,6µm,17.0s,MS5.6
CN2                                   LR      LR
       comp=Z,8µm,18.0s,MS5.6
HASS   Wahat al Ahsa'     41.96 293   P       P       00 57 19.6  +1.5
HIA    Hailar             42.64  26⇓eP        P       00 57 23.2   0.0
HIA                                  e        pP      00 57 32.1  +0.7
HIA                                  e                00 59 15.3
HIA                                   pmax    pmax
       comp=Z,454nm,1.8s
HIA                                   MLR     MLR
       comp=Z,7µm,21.0s
HIA    Hailar             42.64  26⇓eP        P       00 57 23.2   0.0
       comp=Z,454nm,1.8s,mb5.9
HIA                                  e        pP      00 57 32.1  +0.6
HIA                                  ePcP     PcP     00 59 15.3  -0.3
HIA                                  e                00 59 24.7
HIA                                   LR      LR
       comp=Z,7µm,21.0s,MS5.5
MBWA   Marble Bar         43.27 141  eP       P       00 57 27.6  -1.2
       comp=Z,145nm,1.1s,mb5.6
MBWA                                 i PcP    PcP     00 59 18.0  -0.1
MBWA                                  LR      LR
       comp=Z,3µm,21.0s,MS5.2
BVA0   Borovoye Array     43.64 341   P       P       00 57 31.2  -0.1
BVA0                                  pmax    pmax
       comp=Z,15nm,1.1s
BVAR   Borovoye Array     43.64 341   P       P       00 57 31.3  +0.1
       comp=Z,51nm,1.1s,mb5.2,baz=143,slow=7.4,SNR=63
BRVK   Borovoye           43.70 341  eP       P       00 57 31.6  -0.2
BRVK                                  pmax    pmax
       comp=Z,131nm,1.1s,mb5.6
BRVK   Borovoye           43.70 341  eP       P       00 57 31.6  -0.2
       comp=Z,131nm,1.1s,mb5.6
CHKZ   Chkalovo           44.12 342⇓iP        P       00 57 35.7  +0.5
CHKZ                                 e        pP      00 57 44.4  +1.0
CHKZ                                  pmax    pmax
       comp=Z,120nm,0.7s,mb5.7
CHKZ   Chkalovo           44.12 342⇓iP        P       00 57 35.7  +0.5
       comp=Z,120nm,0.7s,mb5.7
CHKZ                                 e        pP      00 57 44.4  +0.9
QRN    Al-Qurain          44.14 298  eP       P       00 57 37.1  +1.4
RDF    Al-Radifah         44.49 298  eP       P       00 57 39.6  +1.0
RDF                                   AMb     AMB     00 57 49.8
       comp=Z,709nm,0.6s,mb6.5
RYDS   Riyadh             44.59 291   D               00 57 49.7
MDJ    Mudanjiang         44.72  38  eP       P       00 57 38.2  -2.0
       comp=Z,207nm,1.8s,mb5.7
RST    Umm Al-Ruwaisa     45.08 299  eP       P       00 57 43.9  +0.6
RST                                   AMb     AMB     00 57 54.1
       comp=Z,512nm,0.6s,mb6.5
MZLS   Mizel              45.88 291   P       P       00 57 50.8  +1.2
KAMS   Al Khamasin        46.25 286   P       P       00 57 53.4  +0.8
MAJO   Matsushiro         47.21  52  eP       P       00 57 59.5  -0.5
MAJO                                  pmax    pmax
       comp=Z,210nm,1.1s,mb6.0
MAJO   Matsushiro         47.21  52  eP       P       00 57 59.5  -0.5
       comp=Z,210nm,1.1s,mb6.0
MAT    Matsushiro         47.21  52   P       P       00 57 59.6  -0.4
MAT    Matsushiro         47.21  52  eP       P       00 58 00.0   0.0
MAT                                   pmax    pmax
       comp=Z,395nm,1.4s,mb6.2
MAT                                   MLR     MLR
       comp=Z,5µm,20.0s,MS5.4
MAT    Matsushiro         47.21  52  eP       P       00 58 00.0   0.0
       comp=Z,395nm,1.4s,mb6.2
MAT                                   LR      LR
       comp=Z,5µm,20.0s,MS5.4
TATS   Tathlith           47.28 285   P       P       00 58 01.8  +1.0
JHJ    Hachijo jima 2     47.54  57   LR      LR      01 21 34.6
       comp=Z,2µm,18.8s,MS5.2,baz=297,slow=41
BOD    Bodaibo            47.67  15⇑iP        P       00 58 03.3   0.0
BOD                                  e        pP      00 58 11.6  -0.1
ARSS   Ar Rass            47.84 293   P       P       00 58 05.3  +0.2
AFFS   'Afif              47.88 291   P       P       00 58 06.6  +1.1
NAMS   An Nimas           48.48 284   D               00 58 12.5
KLR    Kul'dur            48.51  34  eP       P       00 58 06.4  -3.6
KLR                                   pmax    pmax
       comp=N,42nm,1.8s
KLR                                   pmax    pmax
       comp=E,70nm,1.8s
KLR                                   pmax    pmax
       comp=Z,78nm,1.8s,mb5.4
KLR                                   MLR     MLR
       comp=N,7µm,15.0s
KLR                                   MLR     MLR
       comp=Z,9µm,15.0s,MS5.9
CBIJ   Chichi jima        48.55  65   P       P       00 58 11.1  +0.5
       comp=Z,78nm,0.7s,mb5.8,baz=100,slow=22,SNR=4.7
CBIJ                                  LR      LR      01 21 28.6
       comp=Z,1µm,18.4s,MS4.9,baz=27,slow=40
MAK    Makhachkala        48.81 317c iP       P       00 58 13.0  +0.6
MAK                                  e                00 59 41.0
MAK                                  eS       S       01 05 15.0  +2.3
MAK                                  i PS     PS      01 05 31.0  +6.5
MAK                                   pmax    pmax
       comp=Z,1µm,3.8s
MAK                                   smax
       comp=N,2µm,6.0s
MAK                                   smax
       comp=E,2µm,6.0s
HILS   Ha'il              49.28 295   P       P       00 58 17.3  +1.1
GNI    Garni              49.71 312   P       P       00 58 20.8  +1.5
GNI    Garni              49.71 312   P       P       00 58 21.3  +1.9
       comp=E,112nm,1.1s,mb5.8,baz=155,slow=2.9,SNR=91
GNI                                   LR      LR      01 22 24.3
       comp=E,4µm,19.6s,MS5.4,baz=281,slow=40
GNI    Garni              49.71 312  eP       P       00 58 20.7  +1.4
GNI                                   pmax    pmax
       comp=Z,752nm,1.2s
GNI    Garni              49.71 312  eP       P       00 58 20.7  +1.4
       comp=Z,752nm,1.2s,mb6.6
SVE    Sverdlovsk         50.06 338⇓iP        P       00 58 21.9  +0.2
SVE                                  e                01 01 17.0
SVE                                  eS       S       01 05 30.0  +0.2
SVE                                   MLR     MLR
       comp=Z,4µm,19.0s,MS5.4
TVAN   Van                50.19 310  i P      P       00 58 26.5  +3.4
TI2    Plekhanov          50.24 314⇓iP        P       00 58 25.0  +1.6
TI2                                  i S      S       01 05 36.4  +3.8
CLNS   Chul'man           50.35  23  eP       P       00 58 22.7  -1.3
CLNS                                  pmax    pmax
       comp=Z,284nm,1.0s,mb6.2
CLNS                                  pmax    pmax
       comp=N,157nm,1.1s
CLNS                                  pmax    pmax
       comp=E,156nm,1.1s
ARU    Arti               50.55 336⇓iP        P       00 58 25.2  -0.3
ARU                                  e                00 59 42.4
ARU                                  e                01 00 18.9
ARU                                  ePPP     PPP     01 01 18.6  -1.7
ARU                                  i S      S       01 05 37.5  +0.8
ARU                                   pmax    pmax
       comp=Z,270nm,1.4s,mb6.0
ARU    Arti               50.55 336  eP       P       00 58 24.8  -0.7
       comp=Z,241nm,1.2s,mb6.0
KARS   Kars               51.05 312   P       P       00 58 31.6  +2.1
ZEI    Tsey               51.20 315  eP       P       00 58 32.2  +1.6
ZEI                                  i *PP    pP      00 58 40.6  +1.6
ZEI                                   pmax    pmax
       comp=Z,89nm,1.4s,mb5.5
KBRS   Khaybar            51.40 293   P       P       00 58 33.9  +1.5
NWAO   Narrogin (SRO)     51.44 153   P       P       00 58 31.8  -0.8
       comp=Z,264nm,0.8s,mb6.2,baz=319,slow=8.7,SNR=87
NWAO   Narrogin (SRO)     51.44 153   P       P       00 58 31.8  -0.8
NWAO   Narrogin (SRO)     51.44 153  eP       P       00 58 31.4  -1.2
NWAO                                  pmax    pmax
       comp=Z,1µm,1.6s
NWAO   Narrogin (SRO)     51.44 153  eP       P       00 58 31.4  -1.3
       comp=Z,1µm,1.6s,mb6.6
BTMT   Batman             51.55 309   P       P       00 58 33.8  +0.5
BEST   Besiri             51.64 308  i P      P       00 58 34.1   0.0
VRT    Varto              51.77 310   P       P       00 58 36.5  +1.4
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ERZM   Erzurum            52.10 311  i P      P       00 58 38.8  +1.3
EZM    Erzurum            52.11 311   P       P       00 58 39.0  +1.5
BCA    Borcka             52.36 313   P       P       00 58 40.1  +0.6
KIV    Kislovodsk         52.44 316   P       P       00 58 40.9  +0.9
       comp=Z,1µm,1.1s,mb6.8,SNR=84
KIV    Kislovodsk         52.44 316  eP       P       00 58 40.6  +0.6
KIV                                   pmax    pmax
       comp=Z,327nm,1.2s,mb6.1
KIV    Kislovodsk         52.44 316  eP       P       00 58 40.6  +0.6
       comp=Z,327nm,1.2s,mb6.1
DIY    Diyarbakir         52.44 308   P       P       00 58 40.6  +0.5
YNBS   Yanbu' al Bahr     52.47 291   P       P       00 58 41.2  +0.7
BINT   Bingol             52.48 309   P       P       00 58 41.1  +0.7
GOF    Gofitskoye         52.60 317⇓iP        P       00 58 41.0  -0.2
GOF                                   pmax    pmax
       comp=Z,170nm,1.4s,mb5.8
GOF                                   pmax    pmax
       comp=Z,2µm,4.0s
WRA    Warramunga Arr     52.67 128   P       P       00 58 40.5  -1.5
       comp=Z,108nm,0.9s,mb5.8,baz=306,slow=8.3,SNR=190
WRA                                   PcP     PcP     00 59 51.3  -0.4
       comp=Z,66nm,0.6s,baz=318,slow=3.1,SNR=33
WRA                                   S       S       01 06 01.9  -4.3
       comp=Z,52nm,1.1s,baz=303,slow=15,SNR=23
WRAB   Tennant Creek      52.67 128  eP       P       00 58 40.3  -1.8
WRAB                                  pmax    pmax
       comp=Z,183nm,0.9s,mb6.0
WRAB   Tennant Creek      52.67 128  eP       P       00 58 40.3  -1.7
       comp=Z,183nm,0.9s,mb6.0
ASAJ   Asahikawa          52.84  44   LR      LR      01 24 06.2
       comp=Z,8µm,18.1s,MS5.8,baz=160,slow=39
UMJS   Umm Lajj           53.13 292   P       P       00 58 46.8  +1.5
EZC    Erzincan           53.21 310   P       P       00 58 49.2  +3.4
PTK    Pertek             53.32 309   P       P       00 58 46.7  +0.1
URFA   Urfa               53.43 307   P       P       00 58 46.6  -0.8
SOKR   Solikamsk          53.45 338⇓iP        P       00 58 44.7  -2.6
SOKR                                 e        pP      00 58 54.4  -1.3
SOKR                                  pmax    pmax
       comp=Z,230nm,1.2s,mb6.0
SOKR                                  MLR     MLR
       comp=Z,4µm,21.0s,MS5.5
ELZG   Elazig             53.54 308  i P      P       00 58 48.3  +0.1
GUMT   Gumushane          53.65 311   P       P       00 58 50.0  +1.0
MALT   Malatya            53.92 308   P       P       00 58 51.0   0.0
MALT   Malatya            53.92 308  eP       P       00 58 51.0   0.0
       comp=Z,196nm,1.2s,mb5.9
MYA    Malataya           53.92 308   P       P       00 58 51.5  +0.5
YSS    Yuzh-Sakhalins     53.96  41κeP        P       00 58 50.0  -1.1
YSS                                  e*SP     sP      00 58 59.0  -3.7
YSS                                  e                00 59 55.0
YSS                                  eS       S       01 06 22.0  -1.3
YSS                                   pmax    pmax
       comp=N,60nm,1.0s
YSS                                   pmax    pmax
       comp=E,60nm,1.0s
YSS                                   pmax    pmax
       comp=Z,190nm,1.0s,mb6.0
YSS                                   MLR     MLR
       comp=Z,4µm,19.0s,MS5.5
YSS                                   MLR     MLR
       comp=N,6µm,17.0s,MS5.7
YSS                                   MLR     MLR
       comp=E,3µm,18.0s,MS5.7
YSS    Yuzh-Sakhalins     53.96  41  eP       P       00 58 50.7  -0.4
       comp=E,261nm,1.1s,mb6.1
YSS                                   LR      LR
       comp=Z,5µm,19.0s,MS5.6
TBKS   Tabuk              53.99 295   P       P       00 58 52.7  +1.2
ASF    Jabal al Asfar     54.09 300   P       P       00 58 51.8  -0.4
       comp=Z,54nm,1.2s,mb5.3,baz=317,slow=1.8,SNR=24
ASF                                   LR      LR      01 25 52.3
       comp=Z,4µm,18.5s,MS5.5,baz=330,slow=40
SOC    Sochi              54.35 315  i P      P       00 58 53.5  -0.6
SOC                                  e                00 59 56.1
SOC                                  e                01 00 57.5
SOC                                  ePPP     PPP     01 02 09.7  +1.2
SOC                                  i S      S       01 06 30.7  +2.0
SOC                                   pmax    pmax
       comp=Z,220nm,0.9s,mb6.1
SOC                                   pmax    pmax
       comp=N,42nm,0.8s
SOC                                   pmax    pmax
       comp=E,73nm,1.2s
SOC                                   MLR     MLR
       comp=Z,2µm,16.0s,MS5.3
SOC                                   MLR     MLR
       comp=N,3µm,21.0s,MS5.5
SOC                                   MLR     MLR
       comp=E,2µm,21.0s,MS5.5
GZT    Gaziantep          54.39 307  i P      P       00 58 54.6  +0.1
ASAR   Alice Springs      54.54 132   P       P       00 58 54.3  -1.4
       comp=E,63nm,0.7s,mb5.8,baz=309,slow=7.2,SNR=172
ASAR                                  PcP     PcP     00 59 58.5  -0.2
       comp=E,74nm,0.7s,baz=309,slow=3.9,SNR=17
ASAR                                  S       S       01 06 27.6  -3.9
       comp=E,20nm,0.9s,baz=302,slow=14,SNR=17
JMQS   Jabal Moqyreh      54.62 296   P       P       00 58 56.8  +0.5
GAZ    Gaziantep          54.63 306   P       P       00 58 56.4  +0.2
KAHT   Ahir Dag           54.98 307  i P      P       00 58 59.1  +0.2
MKRJ   Makawir            55.07 299   P       P       00 58 59.8  +0.2
AYUS   'Aynunah           55.11 295   P       P       00 59 00.0  +0.1
BDAS   Al Bad'            55.27 296   P       P       00 59 01.5  +0.5
MZDA   Masada             55.28 299   P       P       00 59 01.1   0.0
DRGI   Dragot             55.29 299   P       P       00 59 01.2  +0.1
JMOS   Jabal al Moall     55.32 297   P       P       00 59 01.4   0.0
MMLI   Mount Malkishu     55.36 300   P       P       00 59 01.8  +0.2
ALWS   Ilw as Safayha     55.37 297   P       P       00 59 02.0  +0.3
ZFRI   Zfri               55.37 298   P       P       00 59 01.6  -0.1
AQBJ   Aqaba              55.41 297   P       P       00 59 01.8  -0.2
HAQS   Haql               55.47 296   P       P       00 59 02.5  +0.1
EIL    Elat               55.49 297   P       P       00 59 02.5  -0.1
EIL    Elat               55.49 297⇓eP        P       00 59 02.2  -0.4
       comp=E,97nm,0.8s,mb5.9
EIL                                  e        pP      00 59 11.4  +0.4
MBH    Mount Berech       55.53 297   P       P       00 59 03.0  +0.1
HNTI   Hanita             55.64 301   P       P       00 59 03.7  +0.1
SLTI   Sal'it             55.66 300   P       P       00 59 04.1  +0.3
HAF    Haifa              55.73 301   P       P       00 59 04.5  +0.2
OFRI   'Ofer              55.74 301   P       P       00 59 04.6  +0.2
CEYT   Ceyhan             55.75 306   P       P       00 59 03.9  -0.5
YAK    Yakutsk            55.78  20d iP       P       00 59 03.1  -1.2
YAK                                  e*PP     pP      00 59 10.7  -2.0
YAK                                  e                01 00 02.1
YAK                                  e                01 01 06.4
YAK                                  ePPP     PPP     01 02 19.4  -6.0
YAK                                  eS       S       01 06 46.3  -1.3
YAK                                  e                01 08 46.5
YAK                                  eSS      SS      01 10 31.3  -1.9
YAK                                   pmax    pmax
       comp=Z,159nm,0.9s,mb6.0
YAK                                   pmax    pmax
       comp=N,80nm,1.2s
YAK                                   pmax    pmax
       comp=E,66nm,1.1s
YAK                                   pmax    pmax
       comp=N,15nm,1.0s
YAK                                   pmax    pmax
       comp=E,8.0nm,1.0s
YAK                                   pmax    pmax
       comp=Z,13nm,1.0s,mb4.9
YAK                                   smax
       comp=E,5.0nm,1.2s
YAK                                   smax
       comp=N,4.0nm,1.1s
YAK                                   MLR     MLR
       comp=Z,3µm,15.0s,MS5.4
YAK                                   MLR     MLR
       comp=N,1µm,14.0s,MS5.3
YAK                                   MLR     MLR
       comp=E,1µm,14.0s,MS5.3
YAK    Yakutsk            55.78  20⇓eP        P       00 59 03.0  -1.2
       comp=E,350nm,0.8s,mb6.4
YAK                                  e        pP      00 59 11.6  -1.1
YAK                                   LR      LR
       comp=Z,5µm,20.0s,MS5.6
TOKT   Tokat              55.79 310   P       P       00 59 04.7  +0.1
RTMM   Retamin            55.84 299   P       P       00 59 05.0  -0.1
BNN    Bunyan             56.01 308   P       P       00 59 06.2  -0.1
KZIT   Kziot              56.07 299   P       P       00 59 06.6  -0.2
ANN    Anapa              56.28 316  eP       P       00 58 57.1   -11
ANN                                   pmax    pmax
       comp=Z,86nm,1.2s,mb5.7
KMBO   Kilima Mbogo       56.44 260   P       P       00 59 11.0  +1.4
       comp=Z,27nm,1.1s,mb5.2,baz=56,slow=8.9,SNR=50
KMBO                                  LR      LR      01 21 08.1
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       comp=Z,4µm,19.6s,MS5.5,baz=79,slow=34
KMBO   Kilima Mbogo       56.44 260⇓iP        P       00 59 10.8  +1.2
KMBO                                 e        pP      00 59 20.2  +2.1
KMBO                                  pmax    pmax
       comp=Z,115nm,1.5s
KMBO                                  MLR     MLR
       comp=Z,4µm,20.0s
KMBO   Kilima Mbogo       56.44 260⇓iP        P       00 59 10.8  +1.1
       comp=Z,115nm,1.5s,mb5.7
KMBO                                 e        pP      00 59 20.2  +2.1
KMBO                                  LR      LR
       comp=Z,4µm,20.0s,MS5.5
AVNT   Avonos             56.76 308  i P      P       00 59 10.7  -0.9
PHNC   Paralimni          56.82 303  ⇑P       P       00 59 11.5  -0.6
PHNC   Paralimni          56.82 303⇑iP        P       00 59 11.5  -0.6
NIG    Nigde              56.83 307   P       P       00 59 12.1  -0.1
PECR   Pechory            56.87 330  eP       P       00 59 12.7  +0.6
PECR                                 eS       S       01 07 01.4  -0.7
PECR                                 e                01 07 18.6
PECR                                  smax
       comp=N,1µm,9.0s
PECR                                  MLR     MLR
       comp=E,2µm,17.0s,MS5.7
PECR                                  MLR     MLR
       comp=N,4µm,15.0s,MS5.7
PECR                                  MLR     MLR
       comp=N,4µm,15.0s
PECR                                  MLR     MLR
       comp=E,4µm,19.0s
MEST   Erdemli            56.95 305  i P      P       00 59 12.0  -1.0
CTKT   Corum              57.16 310  i P      P       00 59 14.1  -0.3
CORM   Corum              57.19 310   P       P       00 59 13.1  -1.6
BOYT   Boyabat            57.24 311  i P      P       00 59 14.7  -0.2
BYBT   Boyabat            57.35 311   P       P       00 59 15.2  -0.6
CSS    Prodhromos         57.39 303  eP       P       00 59 14.7  -1.4
       comp=E,328nm,1.6s,mb6.1
CSS                                  e        pP      00 59 24.1  -0.4
MAMC   Mammari            57.51 303  ⇑P       P       00 59 16.9   0.0
MAMC   Mammari            57.51 303⇑iP        P       00 59 16.9   0.0
SZAC   Souni-Zanaja       57.73 303  ⇓P       P       00 59 18.0  -0.5
SZAC   Souni-Zanaja       57.73 303⇓iP        P       00 59 18.0  -0.5
KAMT   Kaman              57.74 308   P       P       00 59 17.2  -1.3
LEF    Lefka              57.77 303   P       P       00 59 18.4  -0.3
TOS    Tosya              57.81 310   P       P       00 59 18.8  -0.2
BRTR   Keskin Array B     57.86 309   P       P       00 59 18.2  -1.1
       comp=E,43nm,1.0s,mb5.4,baz=128,slow=5.8,SNR=101
ALFC   Alevga             58.01 303  ⇓P       P       00 59 19.4  -1.0
       comp=E,3.5nm,0.7s
ALFC   Alevga             58.01 303⇓eP        P       00 59 19.4  -1.0
BZK    Bozkurt            58.01 312   P       P       00 59 20.2  -0.2
CANT   Cankiri            58.03 310   P       P       00 59 20.2  -0.2
ELDT   Eldivan            58.15 310  i P      P       00 59 20.9  -0.4
PPCY   Paphos             58.18 303  ⇑P       P       00 59 21.0  -0.6
PPCY   Paphos             58.18 303⇑eP        P       00 59 21.0  -0.6
AKMC   Akamas             58.21 303  ⇓P       P       00 59 20.6  -1.2
AKMC   Akamas             58.21 303⇓iP        P       00 59 20.6  -1.2
HDMB   Hadim              58.32 305   P       P       00 59 20.4  -2.2
BALT   Daday              58.38 311  i P      P       00 59 22.6  -0.3
ANTO   Ankara             58.52 309   P       P       00 59 23.3  -0.7
LOD    Lodumlu            58.55 309   P       P       00 59 22.9  -1.2
KONT   Konya--Tatoy       58.56 307   P       P       00 59 23.6  -0.7
SIM    Simferopol'        58.59 315d iP       P       00 59 24.2  -0.2
SIM                                  eS       S       01 07 25.8  +0.9
SIM                                   pmax    pmax
       comp=Z,222nm,1.2s,mb6.1
PMG    Port Moresby       58.76 109   P       P       00 59 25.5  -0.4
       comp=Z,91nm,0.8s,mb5.8,baz=316,slow=4.1,SNR=59
PMG    Port Moresby       58.76 109  eP       P       00 59 25.4  -0.6
PMG                                   pmax    pmax
       comp=Z,179nm,1.1s
PMG    Port Moresby       58.76 109  eP       P       00 59 25.4  -0.5
       comp=Z,179nm,1.1s,mb6.0
SAFT   Safranbolu         58.84 310   P       P       00 59 25.6  -0.6
KIZT   Kizilcal           59.07 308   P       P       00 59 26.4  -1.3
SGKT   Sivrigoynuk        59.20 310  i P      P       00 59 28.0  -0.6
ANTB   Antalya            59.77 305   P       P       00 59 30.8  -1.8
MDU    Mudurnu            59.81 309   P       P       00 59 32.0  -0.9
MOS    Moscow             59.86 328κ iP       P       00 59 32.4  -0.6
MOS                                  i        pP      00 59 40.6  -1.0
MOS                                  e                01 03 18.3
MOS                                  eS       S       01 07 39.0  -2.2
MOS                                  e                01 07 58.1
MOS                                   pmax    pmax
       comp=Z,800nm,1.8s,mb6.5
MOS                                   pmax    pmax
       comp=Z,439nm,1.6s,mb6.2
MOS                                   pmax    pmax
       comp=E,144nm,1.4s
MOS                                   smax
       comp=N,1µm,5.0s
BCK    Bucak              59.89 306   P       P       00 59 30.3  -3.1
ESKT   Eskisehir          59.95 308   P       P       00 59 32.2  -1.7
ESKT   Eskisehir          59.95 308  i P      P       00 59 32.4  -1.4
ISP    Isparta            60.00 306⇓eP        P       00 59 32.8  -1.4
ISP                                  e        pP      00 59 41.5  -1.2
ISP                                   pmax    pmax
       comp=Z,294nm,1.3s,mb6.2
ISP    Isparta            60.00 306⇓eP        P       00 59 32.8  -1.4
       comp=Z,294nm,1.3s,mb6.2
ISP                                  e        pP      00 59 41.5  -1.2
HENT   Hendek             60.10 310  i P      P       00 59 33.8  -1.1
OBN    Obninsk            60.18 327⇓iP        P       00 59 34.1  -1.1
OBN                                  e                01 01 52.9
OBN                                  eS       S       01 07 34.7   -11
OBN                                   pmax    pmax
       comp=Z,417nm,1.6s,mb6.2
OBN                                   MLR     MLR
       comp=Z,5µm,16.0s,MS5.8
OBN    Obninsk            60.18 327  i Pr             00 59 34.1
OBN                                   LR      LR
       comp=Z,5µm,16.0s,MS5.8
ELL    Elmali             60.35 305   P       P       00 59 36.0  -0.6
ALT    Altintas           60.46 308   P       P       00 59 35.8  -1.5
FETY   Fethiye            61.00 305   P       P       00 59 40.0  -1.1
DNZL   Cakiroluk          61.13 306  i P      P       00 59 40.4  -1.5
DENT   Denizli            61.15 306   P       P       00 59 40.8  -1.2
ULDT   Uludag             61.34 309  i P      P       00 59 42.3  -1.0
DALT   Dalyan (Mudla)     61.37 305   P       P       00 59 42.9  -0.6
MANT   Manisa             61.60 307  i P      P       00 59 43.9  -1.2
DST    Dursunbey          61.66 308   P       P       00 59 44.2  -1.3
AYDN   Tasoluk            62.05 306  i P      P       00 59 47.3  -0.8
AKS    Akhisar            62.22 307   P       P       00 59 48.0  -1.2
CTA    Charters Tower     62.35 121   P       P       00 59 49.9  -0.4
       comp=Z,57nm,0.8s,mb5.7,baz=301,slow=7.2,SNR=47
CTA                                   PcP     PcP     01 00 30.2  +0.7
       comp=Z,50nm,0.9s,baz=262,slow=6.6,SNR=4.7
CTAO   Charters Tower     62.35 121⇓iP        P       00 59 49.8  -0.5
CTAO                                 e        pP      00 59 58.4  -0.5
CTAO                                 e                01 00 30.0
CTAO                                  pmax    pmax
       comp=Z,114nm,1.0s,mb6.0
CTAO                                  MLR     MLR
       comp=Z,2µm,20.0s,MS5.3
CTAO   Charters Tower     62.35 121⇓iP        P       00 59 49.8  -0.5
       comp=Z,114nm,1.0s,mb6.0
CTAO                                 e        pP      00 59 58.4  -0.5
CTAO                                 ePcP     PcP     01 00 30.0  +0.5
CTAO                                 eScP             01 04 28.9
CTAO                                  LR      LR
       comp=Z,2µm,20.0s,MS5.3
TIRR   Tirgusor           62.48 313   P       P       00 59 50.7  -0.2
MBAR   Mbarara            62.57 262⇓eP        P       00 59 52.5  +0.6
MBAR                                 e        pP      01 00 01.9  +1.4
MBAR                                  pmax    pmax
       comp=Z,327nm,1.5s,mb6.2
MBAR                                  MLR     MLR
       comp=Z,1µm,19.0s,MS5.0
MBAR   Mbarara            62.57 262⇓eP        P       00 59 52.5  +0.5
       comp=Z,327nm,1.5s,mb6.2
MBAR                                 e        pP      01 00 01.9  +1.4
MBAR                                  LR      LR
       comp=Z,1µm,19.0s,MS5.0
KDAG   Bornova            62.60 307  i P      P       00 59 50.9  -0.8
IZM    Izmir              62.60 307   P       P       00 59 50.6  -1.1
TIXI   Tiksi              62.62  12⇓iP        P       00 59 50.2  -1.3
TIXI                                  pmax    pmax
       comp=Z,491nm,1.3s,mb6.5
TIXI                                  pmax    pmax
       comp=N,131nm,1.5s
TIXI                                  pmax    pmax
       comp=E,110nm,1.5s
TIXI                                  pmax    pmax
       comp=Z,654nm,1.2s,mb6.6
TIXI                                  MLR     MLR
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           comp=Z,2µm,16.0s,MS5.4
TIXI  Tiksi              62.62  12  i Pr                  00 59 50.1
KIS   Kishinev           62.64 316α iP       P            00 59 51.0  -0.9
KIS                                 i S      S            01 08 16.0  -0.6
KIS                                 i PS     PS           01 08 34.0  -3.7
KIS                                   pmax   pmax
           comp=Z,500nm,1.2s,mb6.5
KIS                                   pmax   pmax
           comp=Z,600nm,2.0s,mb6.4
KIS                                   smax
           comp=N,2µm,4.0s
KIS                                   smax
           comp=E,2µm,8.0s
KIS                                   MLR    MLR
           comp=Z,2µm,19.0s,MS5.3
CFR   Carcaliu           62.79 314⇓iP        P            00 59 52.6  -0.3
PRD   Provadia           63.03 312   P       P            00 59 54.0  -0.5
MA2   Magadan            63.12  29   P       P            00 59 54.3  -0.6
MA2                                   pmax   pmax
           comp=Z,200nm,1.1s,mb6.2
MA2   Magadan            63.12  29  eP       P            00 59 54.0  -0.9
AKASG Malin Array Be     63.13 320   P       P            00 59 53.8  -1.2
           comp=Z,53nm,1.1s,mb5.6,baz=89,slow=4.8,SNR=114
IAS   Iasi               63.52 316   P       P            00 59 58.1  +0.4
JMB   Yambol             63.53 311   P       P            00 59 58.0  +0.1
BRD   Bordesti           63.62 315⇑iP        P            01 00 00.1  +1.7
VRI   Vrincioaia         63.88 315⇓iP        P            01 00 00.4  +0.3
IDI   Anoyia             64.31 303   P       P            01 00 02.3  -0.8
           comp=Z,28nm,1.0s,mb5.3,baz=119,slow=6.2,SNR=12
MLR   Muntele Rosu       64.37 314   P       P            01 00 03.7  +0.5
           comp=Z,268nm,1.1s,mb6.2,baz=102,slow=1.8,SNR=115
MLR   Muntele Rosu       64.37 314   P       P            01 00 04.0  +0.7
PVL   Pavlikeni          64.53 312   P       P            01 00 04.8  +0.4
MNK   Minsk              64.82 324  eP       P            01 00 03.0  -3.0
RZN   Rozhen             64.84 310   P       P            01 00 05.0  -1.4
STKA  Stephens Creek     64.88 135   P       P            01 00 06.1  -0.8
           comp=Z,103nm,0.8s,mb5.9,baz=306,slow=6.8,SNR=93
STKA                                  LR     LR           01 30 09.3
           comp=Z,3µm,21.7s,MS5.4,baz=289,slow=38
STKA  Stephens Creek     64.88 135⇓eP        P            01 00 05.9  -0.9
STKA                                e        pP           01 00 14.4  -1.0
PUL   Pulkovo            64.95 330⇓eP        P            01 00 06.5  -0.3
MTUR  Matau              64.95 314⇓iP        P            01 00 06.4  -0.7
PGB   Panagyurishte      65.32 311   P       P            01 00 09.0  -0.5
PET   Petropavlovsk      65.50  37⇑iP        P            01 00 10.2  -0.2
PET                                 e        pP           01 00 18.5  -0.5
MMB   Musomiste          65.57 310   P       P            01 00 09.2  -1.9
IDID  Didziasalis        65.62 325  i P      P            01 00 11.0  -0.2
IDID                                  AMPb   AMB          01 00 21.9
           comp=Z,94nm,1.3s,mb5.7
IIGN  Ignalina           65.91 325  i P      P            01 00 13.0  -0.1
IIGN                                  AMPb   AMB          01 00 23.9
           comp=Z,102nm,1.5s,mb5.6
IZAR  Zarasai            65.99 326  i P      P            01 00 13.3  -0.2
ISAL  Salakas            66.02 325  i P      P            01 00 13.4  -0.3
ISAL                                  AMPb   AMB          01 00 24.4
           comp=Z,71nm,1.3s,mb5.5
VTS   Vitosha            66.03 311   P       P            01 00 13.2  -0.8
VTS   Vitosha            66.03 311   P       P            01 00 13.8  -0.3
KKB   Krupnik            66.07 310   P       P            01 00 13.0  -1.3
LVZ   Lovozero           66.21 340⇑iP        P            01 00 13.5  -1.2
LVZ                                 eS       S            01 08 55.8  -4.6
LVZ                                 e                     01 09 38.5
LVZ                                   pmax   pmax
           comp=Z,6µm,19.3s
LVZ                                   pmax   pmax
           comp=N,24nm,1.4s
LVZ                                   pmax   pmax
           comp=E,49nm,1.3s
LVZ                                   smax
           comp=N,590nm,2.9s
LVZ                                   MLR    MLR
           comp=Z,6µm,19.0s,MS5.8
LVZ                                   MLR    MLR
           comp=E,3µm,20.0s
LVZ   Lovozero           66.21 340  i Pr                  01 00 13.8
VSU   Vasula             66.36 328  i P      P            01 00 15.3  -0.5
VSU   Vasula             66.36 328  i Pr                  01 00 15.3
APA   Apatity            66.50 339⇑iP        P            01 00 15.3  -1.3
APA                                 i        pP           01 00 24.9  -0.3
APA                                 i S      S            01 09 01.0  -2.9
APA                                   pmax   pmax
           comp=Z,120nm,1.0s,mb5.9
APA                                   MLR    MLR
           comp=Z,6µm,18.0s,MS5.9
BOLS  Boljevac           67.03 312⇓iP        P            01 00 19.8  -0.6
KWP   Kalwaria           67.07 319  eP       P            01 00 20.7  +0.2
           comp=Z,600nm,1.5s,mb6.4
KWP                                 epP      pP           01 00 27.1  -2.0
KWP                                 eS       S            01 09 11.2  +0.1
KWP                                 eSKS     SP           01 09 30.0  -3.8
KWP                                   MLR    MLR          01 37 01.4
           comp=Z,2µm,18.6s,MS5.4
KOLS  Kolonicke sedl     67.27 318  i P      P            01 00 21.3  -0.5
KOLS                                epP      pP           01 00 27.8  -2.6
SKO   Skopje             67.30 310  i P      P            01 00 21.0  -1.1
SKO                                 i        pP           01 00 30.0  -0.7
SKO                                   pmax   pmax
           comp=Z,56nm,0.8s,mb5.7
SKO   Skopje             67.30 310  i P      P            01 00 21.0  -1.1
           comp=Z,56nm,0.8s,mb5.7
SKO                                 i        pP           01 00 30.0  -0.7
SKO   Skopje             67.30 310  i P      P            01 00 21.0  -1.1
SKO                                 i        pP           01 00 30.0  -0.7
           comp=Z,0.1nm,0.8s
SUW   Suwalki            67.40 323  eP       P            01 00 21.7  -0.8
SUW                                 epP      pP           01 00 28.4  -2.7
SUW                                 ePcP     PcP          01 00 47.6  -2.3
SUW                                 eS       S            01 09 13.9  -1.0
SUW                                 esS                   01 09 28.4
SUW                                   MLR    MLR          01 34 54.0
           comp=Z,3µm,18.5s,MS5.6
FINES FINESS Array B     67.43 332   P       P            01 00 22.0  -0.6
           comp=Z,26nm,0.6s,mb5.4,baz=100,slow=6.4,SNR=161
KAF   Kangasniemi        67.50 332  ep       P            01 00 22.6  -0.4
           comp=Z,215nm,1.2s,mb6.0
KAF   Kangasniemi        67.50 332  eP       P            01 00 22.6  -0.4
KAF                                   pmax   pmax
           comp=Z,215nm,1.2s,mb6.0
CRVS  Cervenica-Dubn     67.80 318  i P      P            01 00 27.5  +2.3
GRUS  Gruza              67.93 312⇑iP        P            01 00 25.6  -0.4
KECS  Kecovo             68.41 317  eP       P            01 00 29.2  +0.3
KECS                                esP      sP           01 00 38.2  -2.4
WAR   Warsaw             68.44 321  eP       P            01 00 28.9  -0.2
WAR                                 e*PP     pP           01 00 35.3  -2.3
WAR                                 e                     01 00 55.1
WAR                                 eS       S            01 09 23.6  -3.8
WAR                                   pmax   pmax
           comp=Z,1.0nm,1.5s
WAR                                   MLR    MLR
           comp=Z,4µm,18.8s
WAR   Warsaw             68.44 321  eP       P            01 00 28.9  -0.2
           comp=Z,600nm,1.5s,mb6.4
WAR                                 epP      pP           01 00 35.3  -2.3
WAR                                 ePcP     PcP          01 00 55.1  +0.8
WAR                                 eS       S            01 09 23.6  -3.8
WAR                                 esS                   01 09 42.4
WAR                                   MLR    MLR          01 36 58.0
           comp=Z,4µm,18.8s,MS5.7
DIVS  Divcibare          68.46 312⇑iP        P            01 00 28.5  -0.9
NIE   Niedzica           68.60 318  eP       P            01 00 30.7  +0.6
PKSN  Nyarlorinc         68.70 315⇑eP        P            01 00 31.2  +0.4
PSZ   Piszkesteto        68.76 317   P       P            01 00 30.9  -0.2
PSZ                                   pmax   pmax
           comp=Z,140nm,1.2s,mb5.8
PSZ   Piszkesteto        68.76 317⇓e         P            01 00 31.0  -0.1
OJC   Ojcow              69.00 319⇓iP        P            01 00 32.3  -0.3
OJC                                 i PcP    PcP          01 00 41.2   -15
OJC                                 eS       S            01 09 33.2  -0.9
OJC                                   LR     LR
           comp=Z,2µm,20.1s,MS5.3
OJC   Ojcow              69.00 319  i P      P            01 00 32.3  -0.3
OJC                                 i PcP    PcP          01 00 41.2   -15
OJC                                 eS       S            01 09 33.2  -0.9
OJC                                   MLR    MLR          01 35 06.5
           comp=Z,2µm,20.1s,MS5.3
LIKS  Likavka            69.36 318  eP       P            01 00 34.5  -0.3
LSZ   Lusaka             69.44 248⇓eP        P            01 00 37.1  +1.3
LSZ                                 e        pP           01 00 46.2  +1.8
LSZ                                   pmax   pmax
           comp=Z,257nm,1.3s,mb6.0
LSZ                                   MLR    MLR
           comp=Z,7µm,19.0s,MS5.9
LSZ   Lusaka             69.44 248⇓eP        P            01 00 37.1  +1.3
           comp=Z,257nm,1.3s,mb6.0
LSZ                                 e        pP           01 00 46.2  +1.8
LSZ                                   LR     LR
           comp=Z,7µm,19.0s,MS5.9
KEV   Kevo               69.48 340  ep       P            01 00 35.0  -0.2
           comp=Z,319nm,1.4s,mb6.1
KEV   Kevo               69.48 340  eP       P            01 00 35.0  -0.2
KEV                                   pmax   pmax
           comp=Z,319nm,1.4s,mb6.1
VYHS  Vyhne              69.50 317  eP       P            01 00 35.3  -0.4
VYHS                                epP      pP           01 00 43.9  -0.3
PKSM  Moragy             69.51 315⇓eP        P            01 00 35.3  -0.5
KOLL  Kolacno            69.79 317  eP       P            01 00 37.1  -0.3
SRO   Srobarova          69.81 316  eP       P            01 00 37.7  +0.1
SRO                                 esP      sP           01 00 46.6  -2.6
RHK1  Bakonya            69.90 314⇓eP        P            01 00 37.5  -0.6
ARCES ARCESS Array B     69.92 340   P       P            01 00 37.9  +0.1
           comp=Z,44nm,0.8s,mb5.4,baz=88,slow=6.4,SNR=79
ARCES                                 LR     LR           01 34 30.1
           comp=Z,6µm,18.9s,MS5.9,baz=113,slow=39
ARE0  ARCESS Array S     69.92 340  eP       P            01 00 37.4  -0.4
ARE0                                e        pP           01 00 45.8  -0.5
RAC   Raciborz           70.02 319  eP       P            01 00 39.2  +0.4
OKC   Ostrava-Krasne     70.03 318⇓eP        P            01 00 39.1  +0.2
OKC                                 epP      pP           01 00 45.8  -1.6
OKC                                 eS       S            01 09 47.0  +0.7
OKC                                   AMS    AMS          01 38 00.0
           comp=Z,2µm,19.0s
MORC  Moravsky Berou     70.42 318⇓iP        P            01 00 41.5  +0.3
MORC                                e        pP           01 00 50.2  +0.4
MORC                                  pmax   pmax
           comp=Z,446nm,0.6s,mb6.6
MORC  Moravsky Berou     70.42 318⇓iP        P            01 00 41.5  +0.2
           comp=Z,446nm,0.6s,mb6.6
MORC                                e        pP           01 00 50.2  +0.4
SMOL  Smolenice          70.44 317  eP       P            01 00 41.3  -0.1
SMOL                                epP      pP           01 00 50.2  +0.3
KTK1  Kautokeino         70.54 339  eP       P            01 00 42.0  +0.3
KTK1                                esP      sP           01 00 51.3  -2.0
KTK1                                  AMb    AMB          01 00 52.7
           comp=Z,254nm,1.5s,mb5.9
ZST   Bratislava         70.64 317  i P      P            01 00 42.7  +0.1
ZST                                 esP      sP           01 00 51.3  -2.9
TIP   Timpagrande        70.83 307  eP       P            01 00 42.9  -1.0
GKP   Gorka Klasztor     70.83 322  eP       P            01 00 43.4  -0.3
GKP                                 e                     01 03 23.0
GKP                                 eS       S            01 09 55.0  -0.5
GKP                                 e                     01 10 41.4
GKP                                   pmax   pmax
           comp=Z,1.0nm,1.8s
GKP                                   MLR    MLR
           comp=Z,3µm,18.6s
GKP   Gorka Klasztor     70.83 322  eP       P            01 00 43.4  -0.3
           comp=Z,500nm,1.8s,mb6.1
GKP                                 epP      pP           01 00 47.0  -5.2
GKP                                 ePP      PP           01 03 23.0  +0.3
GKP                                 eS       S            01 09 55.0  -0.5
GKP                                 esS                   01 10 12.0
GKP                                 eSKS     SKS          01 10 41.4  -6.1
GKP                                   MLR    MLR          01 36 59.0
           comp=Z,3µm,18.6s,MS5.6
SOP   Sopron             70.99 316⇓eP        P            01 00 44.6  -0.2
SOP   Sopron             70.99 316⇓e         P            01 00 44.6  -0.2
VRAC  Vranov             71.02 318   P       P            01 00 45.0  +0.1
           comp=Z,14nm,1.0s,mb4.8,baz=97,slow=7.0,SNR=19
VRAC  Vranov             71.02 318   P       P            01 00 45.1  +0.2
GRI   Girifalco          71.10 307  eP       P            01 00 45.6   0.0
DPC   Dobruska-Polom     71.23 319⇓iP        P            01 00 46.8  +0.6
DPC                                 epP      pP           01 00 55.6  +0.8
DPC                                 eS       S            01 09 59.4  -0.9
DPC                                   AMS    AMS          01 40 10.0
           comp=Z,2µm,17.1s
KSP   Ksiaz              71.27 319⇓iP        P            01 00 46.8  +0.4
KSP                                 e        pP           01 00 55.6  +0.6
KSP                                   MLR    MLR
           comp=Z,4µm,21.3s,MS5.6
KSP   Ksiaz              71.27 319⇓iP        P            01 00 46.8  +0.4
KSP                                 epP      pP           01 00 52.3  -2.7
KSP                                 e        pP           01 00 55.6  +0.6
KSP                                 eS       S            01 09 48.0   -13
KSP                                   LR     LR
           comp=Z,4µm,21.3s,MS5.6
KSP   Ksiaz              71.27 319  eP       P            01 00 46.9  +0.5
           comp=Z,700nm,1.7s,mb6.3
KSP                                 epP      pP           01 00 52.8  -2.2
KSP                                 ePcP     PcP          01 01 08.4  +2.1
KSP                                 ePP      PP           01 03 24.6  -1.9
KSP                                 eS       S            01 10 00.3  -0.4
KSP                                 esS                   01 10 10.2
KSP                                   MLR    MLR          01 36 18.0
           comp=Z,3µm,21.3s,MS5.6
SOI   Samo               71.41 306  eP       P            01 00 47.3  -0.1
UPC   Upice              71.44 319⇓iP        P            01 00 47.7  +0.3
UPC                                 epP      pP           01 00 54.6  -1.4
ARSA  Arzberg            71.69 316⇓iP        P            01 00 49.1  +0.2
           comp=Z,101nm,1.6s,mb5.5
GROS  Grobnik            71.69 315  eP       P            01 00 48.8  -0.1
CRES  Cresnjev           71.72 314  eP       P            01 00 48.7  -0.5
BOJS  Bojanci            71.87 314⇓eP        P            01 00 49.5  -0.5
PERS  Pernice            71.96 315⇓iP        P            01 00 50.7  +0.1
BILL  Bilibino           72.04  22   P       P            01 00 49.8  -0.9
BILL                                  pmax   pmax
           comp=Z,170nm,1.2s,mb5.8
BILL  Bilibino           72.04  22  i Pr                  01 00 49.9
TRO   Tromso             72.17 339  eP       P            01 00 50.1  -1.4
TRO                                 epP      pP           01 00 59.0  -1.1
TRO                                   AMb    AMB          01 01 03.5
           comp=Z,218nm,1.2s,mb6.0
BSD   Bornholm Skovb     72.30 324⇓iP        P            01 00 51.6  -0.8
           comp=Z,53nm,1.0s,mb5.4
BSD                                 i        pP           01 01 01.4  +0.4
BSD                                 i S      S            01 10 06.2  -6.2
           comp=Z,2µm,16.0s
OBKA  Obir               72.35 315⇑iP        P            01 00 52.9   0.0
           comp=Z,123nm,1.3s,mb5.7
PVCC  Panska Ves         72.36 319⇓iP        P            01 00 53.3  +0.4
PVCC                                epP      pP           01 01 02.2  +0.7
PVCC                                  AMS    AMS          01 39 30.0
           comp=Z,2µm,17.0s
LJU   Ljubljana          72.37 314⇓eP        P            01 00 53.3  +0.3
LJU                                 e        pP           01 01 02.2  +0.6
PRU   Pruhonice          72.37 319⇓iP        P            01 00 53.2  +0.3
PRU                                 epP      pP           01 01 02.0  +0.5
PRU                                 eS       S            01 10 12.7  -0.6
PRU                                   AMS    AMS          01 40 00.0
           comp=Z,1µm,18.3s
PRA   Prague             72.44 319 ⇓P        P            01 00 53.0  -0.4
MOA   Molln              72.54 316⇑iP        P            01 00 53.7  -0.3
           comp=Z,73nm,1.3s,mb5.5
BRG   Berggiesshubel     72.76 319⇓iP        P            01 00 55.7  +0.5
BRG                                 i        pP           01 01 05.1  +1.2
BRG                                 i                     01 01 11.3
BRG                                   pmax   pmax
           comp=Z,374nm,1.8s,mb6.0
BRG                                   MLR    MLR
           comp=Z,3µm,24.9s,MS5.5
BRG   Berggiesshubel     72.76 319⇓iP        P            01 00 55.7  +0.5
           comp=Z,374nm,1.8s,mb6.0
BRG                                 i        pP           01 01 05.1  +1.2
BRG                                 i                     01 01 11.3
BRG                                   LR     LR
           comp=Z,3µm,24.9s,MS5.5
VOY   Vojsko             72.81 314  eP       P            01 00 55.3  -0.3
RUE   Ruedersdorf        72.89 321  eP       P            01 00 56.0   0.0
           comp=Z,266nm,0.8s,mb6.2
RUE                                 e        pP           01 01 04.8  +0.3
GEC2  GERESS Array S     72.91 317  eP       P            01 00 56.2   0.0
GEC2                                  pmax   pmax
           comp=Z,177nm,1.3s,mb5.8
GEC2  GERESS Array S     72.91 317  eP       P            01 00 56.2   0.0
           comp=Z,177nm,1.3s,mb5.8
GERES GERESS Array B     72.91 317   P       P            01 00 56.4  +0.2
           comp=Z,27nm,0.8s,mb5.2,baz=90,slow=5.3,SNR=127
CADS  Cadrg              72.92 315  eP       P            01 00 55.9  -0.3
KHC   Kasperske Hory     72.99 318⇓iP        P            01 00 56.7  +0.1
KHC                                 epP      pP           01 01 02.7  -2.5
KHC                                 eS       S            01 10 21.1  +0.7
KHC                                   AMS    AMS          01 37 10.0
           comp=Z,2µm,18.0s
KBA   Koelnbreinsper     73.17 315⇑iP        P            01 00 57.2  -0.5
           comp=Z,47nm,1.1s,mb5.3
KBA   Koelnbreinsper     73.17 315⇑iP        P            01 00 57.2  -0.5
KBA                                   pmax   pmax
           comp=Z,47nm,1.1s,mb5.3
PTCC  Patocco-Chiusa     73.18 315  eP       P            01 00 57.4  -0.4
RGN   Rugen              73.20 323   P       P            01 00 58.1  +0.4
           comp=Z,245nm,1.1s,mb6.0
HFS   Hagfors            73.22 329   P       P            01 00 57.5  -0.2
           comp=Z,24nm,0.5s,mb5.4,baz=124,slow=5.3,SNR=127
GMNA  Gemona             73.26 315  eP       P            01 00 57.9  -0.4
AQU   L'Aquila           73.27 311  eP       P            01 00 57.7  -0.7
AQU                                   pmax   pmax
           comp=Z,82nm,1.1s,mb5.6
AQU   L'Aquila           73.27 311  eP       P            01 00 58.1  -0.3
MOR8  Moi Rana           73.35 335  eP       P            01 00 57.3  -1.0
MOR8                                  AMb    AMB          01 01 07.4
           comp=Z,244nm,0.9s,mb6.1
CLL   Collm              73.36 320⇓iP        P            01 00 58.5  -0.2
CLL                                 eS       S            01 10 24.0  -0.5
CLL                                   pmax   pmax
           comp=Z,204nm,1.5s,mb5.8
CLL                                   MLR    MLR
           comp=Z,2µm,19.0s,MS5.4
CLL   Collm              73.36 320⇓iP        P            01 00 58.5  -0.2
           comp=Z,204nm,1.5s,mb5.8
CLL                                 eS       S            01 10 24.0  -0.5
CLL                                   LR     LR
           comp=Z,2µm,19.0s,MS5.4
CLL   Collm              73.36 320 ⇓P        P            01 00 58.5  -0.2
           comp=Z,logA/T=2.1,mb5.8
CLL                                 i *SP    sP           01 01 07.8  -2.5
CLL                                 eS       S            01 10 24.0  -0.5
CLL                                 eSS      SS           01 15 18.0  +8.8
WET   Wettzell           73.45 318  eP       P            01 00 59.4  +0.1
NRCA  Norcia             73.47 311  eP       P            01 00 59.1  -0.4
ARV   Arcevia            73.56 312  eP       P            01 00 59.9  -0.2
FVI   Forni Avoltri      73.57 315  eP       P            01 00 59.7  -0.3
SNTG  Esanatoglia        73.58 312  eP       P            01 00 59.7  -0.4
FSSB  Fossombrone        73.67 312  eP       P            01 01 00.4  -0.3
NKC   Novy Kostel        73.72 319⇓iP        P            01 01 01.3  +0.5
NKC                                   AMS    AMS          01 40 20.0
           comp=Z,3µm,16.5s
COP   Copenhagen         73.73 324⇓iP        P            01 01 01.2  +0.4
COP                                 i        pP           01 01 10.1  +0.7
COP                                 i S      S            01 10 24.1  -4.4
COP                                   pmax   pmax
           comp=Z,65nm,0.9s,mb5.6
COP   Copenhagen         73.73 324⇓iP        P            01 01 01.2  +0.4
           comp=Z,65nm,0.9s,mb5.6
COP                                 i        pP           01 01 10.1  +0.7
COP                                 i S      S            01 10 24.1  -4.4
LOF   Lofoten            73.89 338  eP       P            01 01 02.7  +1.2
LOF                                 epP      pP           01 01 09.0  -1.1
LOF                                 esP      sP           01 01 11.7  -1.4
LOF                                   AMb    AMB          01 01 12.7
           comp=Z,309nm,1.0s,mb6.2
FX1   Attu Island--F     74.21  38   P       P            01 01 03.4  -0.2
           comp=Z,72nm,0.7s,mb5.7,baz=271,slow=2.0,SNR=18
FX1   Attu Island--F     74.21  38  eP       P            01 01 03.2  -0.4
MOX   Moxa               74.24 319⇓eP        P            01 01 04.0  +0.2
MOX                                   pmax   pmax
           comp=Z,300nm,1.9s,mb5.9
MOX   Moxa               74.24 319⇓iP        P            01 01 04.0  +0.2
           comp=Z,logA/T=2.2,mb5.9
MOX   Moxa               74.24 319⇓eP        P            01 01 04.0  +0.2
           comp=Z,300nm,1.9s,mb5.9
NSS   Namsos             74.26 334  eP       P            01 01 01.9  -1.8
NSS                                 epP      pP           01 01 11.5  -0.8
NSS                                   AMb    AMB          01 01 12.1
           comp=Z,284nm,1.0s,mb6.2
WTTA  Wattenberg         74.33 316⇑iP        P            01 01 04.0  -0.4
           comp=Z,118nm,1.4s,mb5.6
WTTA  Wattenberg         74.33 316⇑iP        P            01 01 04.0  -0.4
WTTA                                  pmax   pmax
           comp=Z,118nm,1.4s,mb5.6
SFI   Santa Sofia        74.34 312  eP       P            01 01 05.4  +0.9
WATA  Walderalm          74.37 316⇑iP        P            01 01 03.9  -0.8
           comp=Z,37nm,1.0s,mb5.3
WATA  Walderalm          74.37 316⇑iP        P            01 01 03.9  -0.8
WATA                                  pmax   pmax
           comp=Z,37nm,1.0s,mb5.3
CTI   Castel Tesino      74.37 314  eP       P            01 01 04.7   0.0
PGD   Poggio Sodo        74.43 312  eP       P            01 01 05.7  +0.6
NB2   NORSAR Subarra     74.47 330   P       P            01 01 04.3  -0.7
           comp=Z,101nm,0.8s,mb5.8,baz=91,slow=4.8
NB2   NORSAR Subarra     74.47 330   P       P            01 01 04.3  -0.7
           baz=91,slow=5.1
NB2   NORSAR Subarra     74.47 330   P       P            01 01 04.3  -0.7
NB2                                   pmax   pmax
           comp=Z,101nm,0.8s,mb5.8
NOA   NORSAR Array B     74.47 330   P       P            01 01 04.4  -0.5
           comp=Z,134nm,1.2s,mb5.7,baz=92,slow=5.6,SNR=53
HSP   Hornsund           74.48 347  eP       P            01 01 05.0  +0.2
GRA1  Grafenberg Arr     74.52 318  eP       P            01 01 06.1  +0.6
           comp=Z,289nm,1.5s,mb6.0
GRA1                                epP      pP           01 01 15.0  +0.9
GRF   Grafenberg Arr     74.52 318  eP       P            01 01 06.1  +0.6
GRF                                 e*PP     pP           01 01 15.0  +0.9
GRF                                   pmax   pmax
           comp=Z,289nm,1.5s,mb6.0
GRF   Grafenberg Arr     74.52 318  eP       P            01 01 06.1  +0.6
GRF                                 e*PP     pP           01 01 15.0  +0.9
GRF                                   pmax   pmax
           comp=Z,289nm,1.5s,mb6.0
GRF   Grafenberg Arr     74.52 318  eP       P            01 01 06.1  +0.6
           comp=Z,289nm,1.5s,mb6.0
GRF                                 epP      pP           01 01 15.0  +0.9
FUR   Furstenfeldbru     74.54 317  eP       P            01 01 05.2  -0.4
VMG   Vicchio            74.55 312  eP       P            01 01 07.0  +1.2
SQTA  Sankt Quirin       74.62 316⇑iP        P            01 01 05.6  -0.5
           comp=Z,45nm,1.1s,mb5.3
SQTA  Sankt Quirin       74.62 316⇑iP        P            01 01 05.6  -0.5
SQTA                                  pmax   pmax
           comp=Z,45nm,1.1s,mb5.3
NAO01 NORSAR Array S     74.63 330  eP       P            01 01 05.6  -0.3
           comp=Z,73nm,1.0s,mb5.6
NAO01                               e        pP           01 01 14.1  -0.4
SEI   Scarperia          74.68 312  eP       P            01 01 07.2  +0.6
MOTA  Moosalm            74.69 316⇑iP        P            01 01 05.9  -0.6
           comp=Z,40nm,1.1s,mb5.3
MOTA  Moosalm            74.69 316⇑iP        P            01 01 05.9  -0.6
MOTA                                  pmax   pmax
           comp=Z,40nm,1.1s,mb5.3
OSL   Oslo               74.70 329  eP       P            01 01 06.5  +0.2
OSL                                   AMb    AMB          01 01 16.6
           comp=Z,336nm,1.3s,mb6.1
SMY   Shemya             74.78  39  eP       P            01 01 06.8  -0.1
SMY                                   pmax   pmax
           comp=Z,257nm,1.1s,mb6.1
SMY   Shemya             74.78  39  eP       P            01 01 06.8  -0.1
           comp=Z,257nm,1.1s,mb6.1
FNVD  Fontana Vidola     74.84 313  eP       P            01 01 08.3  +0.8
ZCCA  Zocca              74.94 313  eP       P            01 01 09.3  +1.2
BSEG  Bad Segeberg       74.96 323  eP       P            01 01 08.3  +0.3
CLZ   Clausthal          74.99 320  eP       P            01 01 08.3  +0.1
           comp=Z,261nm,1.4s,mb6.0
SAL   Salo               75.18 314  eP       P            01 01 09.8  +0.4
GSCL  Gusciola           75.22 313  eP       P            01 01 10.5  +0.9
BDI   Bagni Di Lucca     75.23 312  eP       P            01 01 09.0  -0.7
HDH   Heidenheim         75.23 317⇓eP        P            01 01 09.3  -0.3
BRMO  Bormio             75.24 315  eP       P            01 01 09.6  -0.1
LBTB  Lobatse            75.24 240   P       P            01 01 11.3  +1.2
LBTB                                  pP     pP           01 01 20.8  +2.0
LBTB  Lobatse            75.24 240⇓iP        P            01 01 11.4  +1.3
LBTB                                e        pP           01 01 20.6  +1.8
LBTB                                  pmax   pmax
           comp=Z,211nm,1.1s,mb6.0
LBTB                                  MLR    MLR
           comp=Z,4µm,20.0s,MS5.7
LBTB  Lobatse            75.24 240⇓iP        P            01 01 11.4  +1.3
           comp=Z,211nm,1.1s,mb6.0
LBTB                                e        pP           01 01 20.6  +1.8
LBTB                                  LR     LR
           comp=Z,4µm,20.0s,MS5.7
PII   Pisa               75.30 312  eP       P            01 01 08.6  -1.5
MAIM                     75.31 312   P       P            01 01 09.0  -1.2
ERBM  Eremo              75.34 313  eP       P            01 01 11.3  +1.1
UBR   Uberruh            75.35 316⇓eP        P            01 01 09.9  -0.4
VLC   Villacollemand     75.37 313  eP       P            01 01 10.3  -0.2
           comp=Z,52nm,0.9s,mb5.5
VLC                                 e        pP           01 01 18.8  -0.4
DOMB  Dombas             75.51 331  eP       P            01 01 10.5  -0.4
DOMB                                  AMb    AMB          01 01 13.2
           comp=Z,172nm,1.9s,mb5.7
DOMB                                epP      pP           01 01 19.8  +0.3
DAVA  Damuels            75.53 316⇑iP        P            01 01 11.2  -0.1
           comp=Z,149nm,1.3s,mb5.8
VINC  Vinca              75.54 313   P       P            01 01 10.5  -1.0
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MUD   Monsted U’grnd   75.55 325⇓iP   P      01 01 12.0 +0.7
MUD                              i    pP     01 01 21.1 +1.2
MUD                              pmax pmax
      comp=Z,135nm,1.1s,mb5.8
MUD   Monsted U’grnd   75.55 325⇓iP   P      01 01 12.0 +0.7
      comp=Z,135nm,1.1s,mb5.8
MUD                              i    pP     01 01 21.1 +1.2
DAVOX Davos            75.56 315  P   P      01 01 11.7 +0.2
      comp=Z,66nm,1.2s,mb5.4,baz=94,slow=3.8,SNR=26
SIND  Sindeldorf       75.59 318⇓eP   P      01 01 11.9 +0.3
BACM                   75.59 313  P   P      01 01 11.7 -0.1
CODM                   75.74 313  P   P      01 01 12.3 -0.3
BUCH  Bad Urach        75.81 317⇓eP   P      01 01 12.8 -0.1
STU   Stuttgart        75.89 317⇓eP   P      01 01 13.2 -0.2
STU                              pmax pmax
      comp=Z,252nm,1.8s,mb5.8
STU   Stuttgart        75.89 317⇓eP   P      01 01 13.2 -0.1
      comp=Z,252nm,1.8s,mb5.8
GUT   Gutenstein       75.99 317⇓eP   P      01 01 13.6 -0.3
BOB   Bobbio (Coli)    76.00 313 eP   P      01 01 14.5 +0.5
TOD   Tromm            76.10 318 eP   P      01 01 14.5  0.0
TOD   Tromm            76.10 318 eP   P      01 01 14.6 +0.1
LBG   Lerchenberg      76.16 317⇓eP   P      01 01 14.8 -0.1
SWS   Schriesheim      76.17 318⇓eP   P      01 01 15.1 +0.2
SPAK  Spaichingen      76.21 317⇓eP   P      01 01 15.1 -0.1
SPAK  Spaichingen      76.21 317 eP   P      01 01 14.9 -0.3
MOL   Molde            76.21 332 eP   P      01 01 18.3 +3.4
MOL                              AMb  AMB    01 01 20.5
      comp=Z,284nm,1.5s,mb6.0
VAI   Varese           76.39 314 eP   P      01 01 15.5 -0.7
BFO   Black Forest     76.50 317 eP   P      01 01 16.3 -0.5
BFO                              pmax pmax
      comp=Z,93nm,1.4s,mb5.5
BFO   Black Forest     76.50 317 eP   P      01 01 16.3 -0.5
      comp=Z,93nm,1.4s,mb5.5
PGF   Pioggiola        76.51 311 eP   P      01 01 15.4 -1.6
      comp=Z,503nm,1.6s,mb5.9
PGF   Pioggiola        76.51 311 eP   P      01 01 15.4 -1.6
PGF                              pmax pmax
      comp=Z,251nm,1.6s,mb5.9
KTD   Kalmit           76.58 318 eP   P      01 01 17.2  0.0
PCP   Pian Castagno    76.66 313  P   P      01 01 17.9 +0.1
FELD  Feldberg         76.75 317⇓eP   P      01 01 18.2  0.0
ODD1  Odda             76.76 329 eP   P      01 01 17.6 -0.4
ODD1                             epP  pP     01 01 26.6 -0.1
ODD1                             AMb  AMB    01 01 39.2
      comp=Z,116nm,1.5s,mb5.6
LANF  Langenberg       76.79 318 eP   P      01 01 18.4  0.0
KIZ   Kirchzarten      76.80 317⇓eP   P      01 01 18.4 -0.1
STR   Strasbourg       76.85 317 eP   P      01 01 19.1 +0.4
BLS5  Blasjo           76.88 328 eP   P      01 01 20.2 +1.6
BLS5                             esP  sP     01 01 29.8 -0.4
BLS5                             AMb  AMB    01 01 30.5
      comp=Z,111nm,1.6s,mb5.5
BOSA  Boshof           76.89 236⇓eP   P      01 01 20.6 +1.2
BOSA                             e    pP     01 01 29.3 +1.3
BOSA                             pmax pmax
      comp=Z,251nm,1.1s,mb6.1
BOSA                             MLR  MLR
      comp=Z,2µm,21.0s,MS5.4
BOSA  Boshof           76.89 236⇓eP   P      01 01 20.6 +1.2
      comp=Z,251nm,1.1s,mb6.1
BOSA                             e    pP     01 01 29.3 +1.3
BOSA                             LR   LR
      comp=Z,2µm,21.0s,MS5.4
ABH   Alteburg         76.89 319⇓eP   P      01 01 19.3 +0.4
ABH   Alteburg         76.89 319 eP   P      01 01 18.9  0.0
MCGN  Macugnaga        76.93 315 eP   P      01 01 18.7 -0.5
FIN   Finale Ligure    76.93 313 eP   P      01 01 19.2 -0.1
ORX   Oropa            76.96 314  P   P      01 01 17.9 -1.5
ORO   Oropa            76.96 314 eP   P      01 01 18.1 -1.3
LIBD  Limburg          77.00 317⇓eP   P      01 01 19.9 +0.4
LIBD  Limburg          77.00 317 eP   P      01 01 19.6 +0.1
BBS   Basel-Blauen     77.12 316⇓eP   P      01 01 20.0 -0.2
BBS   Basel-Blauen     77.12 316 eP   P      01 01 20.5 +0.3
WLS   Welschbruch      77.14 317 eP   P      01 01 20.3  0.0
ROB   Roburent         77.17 313  P   P      01 01 20.3 -0.3
IMI   Imperia          77.19 312  P   P      01 01 20.1 -0.6
CDF   Champ du Feu     77.19 317 eP   P      01 01 19.4 -1.2
      comp=Z,203nm,1.3s,mb5.6
CDF   Champ du Feu     77.19 317 eP   P      01 01 19.4 -1.2
CDF                              pmax pmax
      comp=Z,102nm,1.3s,mb5.6
WTSB  Winterswijk      77.19 321 eP   P      01 01 21.0 +0.5
      comp=Z,212nm,1.7s,mb5.8
WTSB                             ePcP PcP    01 01 30.0 -1.6
WIT   Witteveen        77.21 322 eP   P      01 01 21.4 +0.8
RUP   Ruppelstein      77.22 318⇓eP   P      01 01 21.4 +0.7
RUP   Ruppelstein      77.22 318 eP   P      01 01 20.7  0.0
MONE  Monesi           77.27 313  P   P      01 01 20.0 -1.1
ECH   Echery           77.29 317 eP   P      01 01 21.5 +0.4
MOF   Molkenrain       77.34 317 eP   P      01 01 20.8 -0.6
ENR   Entracque        77.49 313  P   P      01 01 21.8 -0.6
AUTN  L’Aution         77.51 313 eP   P      01 01 17.5 -5.0
RSP   Reno Superiore   77.51 314  P   P      01 01 21.8 -0.7
SBF   Sospel           77.52 312 eP   P      01 01 21.2 -1.3
      comp=Z,114nm,0.8s,mb5.5
SBF   Sospel           77.52 312 eP   P      01 01 21.2 -1.3
SBF                              pmax pmax
      comp=Z,57nm,0.8s,mb5.5
HINF  Hinteralfeld     77.53 317 eP   P      01 01 21.1 -1.4
      comp=Z,393nm,1.9s,mb5.7
HINF  Hinteralfeld     77.53 317 eP   P      01 01 21.1 -1.4
HINF                             pmax pmax
      comp=Z,196nm,1.9s,mb5.7
BHB   Bricherasio      77.54 313  P   P      01 01 20.6 -2.0
LSD   Ceresole Reale   77.56 314  P   P      01 01 22.9 +0.2
STV   Sta Anna Valdi   77.56 313  P   P      01 01 21.8 -0.9
DOI   San Damiano      77.59 313 eP   P      01 01 21.4 -1.5
LOMF  Lomont           77.59 316 eP   P      01 01 21.7 -1.1
FENE  Fenestrelle      77.66 314  P   P      01 01 22.8 -0.5
PZZ   Prazzo           77.69 313  P   P      01 01 21.9 -1.6
WLF   Walferdange      77.81 318⇓eP   P      01 01 24.5 +0.5
WLF                              pmax pmax
      comp=Z,342nm,1.8s,mb6.0
WLF   Walferdange      77.81 318⇓eP   P      01 01 24.5 +0.5
      comp=Z,342nm,1.8s,mb6.0
LPG   La Plagne        77.83 314 eP   P      01 01 23.7 -0.5
      comp=Z,482nm,1.0s,mb6.1
LPG   La Plagne        77.83 314 eP   P      01 01 23.7 -0.5
LPG                              pmax pmax
      comp=Z,241nm,1.0s,mb6.1
HGN   Heimansgroeve    77.84 320 eP   P      01 01 23.6 -0.5
      comp=Z,85nm,1.8s,mb5.4
HGN                              ePcP PcP    01 01 33.4 -1.0
LPL   La Plagne        77.84 314 eP   P      01 01 23.7 -0.6
      comp=Z,294nm,0.7s,mb6.0
LPL   La Plagne        77.84 314 eP   P      01 01 23.7 -0.6
LPL                              pmax pmax
      comp=Z,147nm,0.7s,mb6.0
HAU   Haudompre        77.85 317 eP   P      01 01 22.9 -1.3
      comp=Z,397nm,1.5s,mb5.8
HAU   Haudompre        77.85 317 eP   P      01 01 22.9 -1.3
HAU                              pmax pmax
      comp=Z,198nm,1.5s,mb5.8
RRL   Cesana Torines   77.87 314  P   P      01 01 24.0 -0.4
MBDF  Montbardon       77.90 313 eP   P      01 01 23.0 -1.6
      comp=Z,166nm,0.9s,mb5.7
MBDF  Montbardon       77.90 313 eP   P      01 01 23.0 -1.6
MBDF                             pmax pmax
      comp=Z,83nm,0.9s,mb5.7
BNI   Bardonecchia     77.93 314 eP   P      01 01 24.0 -0.8
BNI                              pmax pmax
      comp=Z,99nm,1.1s,mb5.7
BNI   Bardonecchia     77.93 314 eP   P      01 01 24.0 -0.8
      comp=Z,99nm,1.1s,mb5.7
THEF  They Montfort    78.06 317 eP   P      01 01 25.0 -0.4
FRF   La Foret Royal   78.12 312 eP   P      01 01 24.8 -1.0
      comp=Z,714nm,1.5s,mb6.1
FRF   La Foret Royal   78.12 312 eP   P      01 01 24.8 -1.0
FRF                              pmax pmax
      comp=Z,357nm,1.5s,mb6.1
CABF  La Chapelle      78.17 315 eP   P      01 01 25.4 -0.6
      comp=Z,610nm,1.6s,mb6.0
CABF  La Chapelle      78.17 315 eP   P      01 01 25.4 -0.6
CABF                             pmax pmax
      comp=Z,305nm,1.6s,mb6.0
LMR   La Mourre        78.25 312 eP   P      01 01 25.4 -1.1
      comp=Z,957nm,1.9s,mb6.1
LMR   La Mourre        78.25 312 eP   P      01 01 25.4 -1.1
LMR                              pmax pmax
      comp=Z,478nm,1.9s,mb6.1
GDM   Grand’Maison     78.31 314 eP   P      01 01 26.8  0.0
ORIF  Oris-en-Rattie   78.51 314 eP   P      01 01 26.8 -1.1

      comp=Z,125nm,0.9s,mb5.5
ORIF  Oris-en-Rattie   78.51 314 eP   P      01 01 26.8 -1.1
ORIF                             pmax pmax
      comp=Z,63nm,0.9s,mb5.5
GIVF  Givet            78.62 319 eP   P      01 01 27.6 -0.8
      comp=Z,389nm,1.7s,mb5.8
GIVF  Givet            78.62 319 eP   P      01 01 27.6 -0.8
GIVF                             pmax pmax
      comp=Z,194nm,1.7s,mb5.8
MEZF  Maizieres J’vi   78.65 317 eP   P      01 01 27.7 -0.9
      comp=Z,595nm,1.9s,mb5.9
SMRF  Simiane la Rot   78.84 313 eP   P      01 01 29.3 -0.5
      comp=Z,586nm,1.6s,mb6.0
BAIF  Baives           79.02 319 eP   P      01 01 29.9 -0.7
      comp=Z,267nm,1.2s,mb5.7
BAIF  Baives           79.02 319 eP   P      01 01 29.9 -0.7
BAIF                             pmax pmax
      comp=Z,134nm,1.2s,mb5.8
VIVF  Saint-Julien-l   79.37 314 eP   P      01 01 31.8 -0.8
      comp=Z,323nm,1.2s,mb5.8
VIVF  Saint-Julien-l   79.37 314 eP   P      01 01 31.8 -0.8
VIVF                             pmax pmax
      comp=Z,161nm,1.2s,mb5.8
SMF   Signal de Mont   79.70 316 eP   P      01 01 33.2 -1.2
      comp=Z,409nm,1.4s,mb5.8
SMF   Signal de Mont   79.70 316 eP   P      01 01 33.2 -1.2
SMF                              pmax pmax
      comp=Z,204nm,1.4s,mb5.9
SSF   Saint Saulge     79.87 316 eP   P      01 01 34.3 -1.0
      comp=Z,474nm,1.6s,mb5.9
SSF   Saint Saulge     79.87 316 eP   P      01 01 34.3 -1.0
SSF                              pmax pmax
      comp=Z,237nm,1.6s,mb5.9
PLDF  La Plantade      79.95 315 eP   P      01 01 36.7 +1.0
LASF  Ste Croix        80.06 313 eP   P      01 01 35.9 -0.4
      comp=Z,799nm,1.5s,mb6.1
AGO   Saint Agoulin    80.28 315 eP   P      01 01 38.3 +0.8
LBL   Lubilhac         80.32 314 eP   P      01 01 39.8 +2.1
NOUC  Port Laguerre    80.39 115⇑eP   P      01 01 40.0 +1.4
NOUC  Port Laguerre    80.39 115⇑eP   P      01 01 40.0 +1.4
BGF   Bois d’Agland    80.39 316 eP   P      01 01 37.3 -0.8
      comp=Z,537nm,1.7s,mb5.9
BGF   Bois d’Agland    80.39 316 eP   P      01 01 37.3 -0.8
BGF                              pmax pmax
      comp=Z,269nm,1.7s,mb5.9
PYM   Petit Puy Mans   80.41 315 eP   P      01 01 39.8 +1.6
HYF   Humbligny        80.43 316 eP   P      01 01 37.9 -0.3
DZM   Mont Dzumac      80.50 115 eP   P      01 01 39.6 +0.5
TCF   Toulx Ste Croi   80.87 315 eP   P      01 01 40.0 -0.6
      comp=Z,395nm,1.4s,mb5.8
TCF   Toulx Ste Croi   80.87 315 eP   P      01 01 40.0 -0.6
TCF                              pmax pmax
      comp=Z,197nm,1.4s,mb5.8
EJON  La Jonquera      81.01 311  P   P      01 01 41.8 +0.4
      comp=Z,67nm,1.9s,mb5.2
CAF   Calviac          81.19 314 eP   P      01 01 42.0 -0.3
      comp=Z,223nm,1.3s,mb5.6
CAF   Calviac          81.19 314 eP   P      01 01 42.0 -0.3
CAF                              pmax pmax
      comp=Z,112nm,1.3s,mb5.6
MTLF  Montolieu        81.35 312 eP   P      01 01 42.6 -0.6
      comp=Z,499nm,1.5s,mb5.9
MTLF  Montolieu        81.35 312 eP   P      01 01 42.6 -0.6
MTLF                             pmax pmax
      comp=Z,250nm,1.5s,mb5.9
RJF   Les Rejaudoux    81.51 314 eP   P      01 01 43.7 -0.3
      comp=Z,449nm,1.4s,mb5.9
RJF   Les Rejaudoux    81.51 314 eP   P      01 01 43.7 -0.3
RJF                              pmax pmax
      comp=Z,225nm,1.4s,mb5.9
VALF  Valcebollere     81.65 312 eP   P      01 01 45.3 +0.5
SUR   Sutherland       81.84 234⇓eP   P      01 01 48.5 +2.5
      comp=Z,286nm,1.0s,mb6.2
SUR                              e    pP     01 01 57.4 +2.7
SUR                              LR   LR
      comp=Z,914nm,19.0s,MS5.2
LDF   La Druitiere     82.04 318 eP   P      01 01 45.7 -0.9
      comp=Z,532nm,1.6s,mb5.9
LDF   La Druitiere     82.04 318 eP   P      01 01 45.7 -0.9
LDF                              pmax pmax
      comp=Z,266nm,1.6s,mb5.9
KBI1  Birley Grange    82.05 323 eP   P      01 01 43.9 -2.7
LFF   La Frestale      82.12 314 eP   P      01 01 46.8 -0.3
      comp=Z,496nm,1.6s,mb5.9
LFF   La Frestale      82.12 314 eP   P      01 01 46.8 -0.3
LFF                              pmax pmax
      comp=Z,248nm,1.6s,mb5.9
ESY   Stoneypath       82.15 326 eP   P      01 01 47.2 +0.2
ESY                              AMb  AMB    01 01 58.1
      comp=Z,156nm,1.4s,mb5.7
DAG   Danmarks Havn    82.16 347⇑eP   P      01 01 46.0 -0.7
DAG                              pmax pmax
      comp=Z,157nm,1.6s,mb5.7
DAG   Danmarks Havn    82.16 347⇑eP   P      01 01 46.0 -0.7
      comp=Z,157nm,1.6s,mb5.7
DAG   Danmarks Havn    82.16 347⇑iP   P      01 01 46.0 -0.7
      comp=Z,156nm,1.6s,mb5.7
LHO   Holmfirth        82.19 323 eP   P      01 01 47.1 -0.1
MLS   Moulis           82.22 312 eP   P      01 01 47.8 +0.1
FLN   La Foliniere     82.24 318 eP   P      01 01 46.8 -0.9
      comp=Z,248nm,1.2s,mb5.7
FLN   La Foliniere     82.24 318 eP   P      01 01 46.8 -0.9
FLN                              pmax pmax
      comp=Z,124nm,1.2s,mb5.7
KWE   Weaver Farm      82.28 323 eP   P      01 01 45.3 -2.5
MFF   Saint Martin d   82.42 316 eP   P      01 01 47.8 -0.9
      comp=Z,410nm,1.4s,mb5.9
MFF   Saint Martin d   82.42 316 eP   P      01 01 47.8 -0.9
MFF                              pmax pmax
      comp=Z,205nm,1.4s,mb5.9
EDI   Edinburgh        82.47 326 eP   P      01 01 47.0 -1.8
EDI                              AMb  AMB    01 01 51.7
      comp=Z,310nm,1.7s,mb6.0
EPOB  Poblet           82.53 311  P   P      01 01 50.1 +0.8
      comp=Z,190nm,1.3s,mb6.0
GRR   Gorron           82.56 318 eP   P      01 01 48.5 -0.8
      comp=Z,410nm,1.8s,mb5.8
GRR   Gorron           82.56 318 eP   P      01 01 48.5 -0.8
GRR                              pmax pmax
      comp=Z,205nm,1.8s,mb5.9
EKA   Eskdalemuir Ar   82.58 325  P   P      01 01 49.9 +0.6
      comp=Z,140nm,1.3s,mb5.8,baz=90,slow=5.8,SNR=36
ESK   Eskdalemuir      82.60 325 eP   P      01 01 49.4  0.0
ESK                              AMb  AMB    01 01 52.4
      comp=Z,147nm,1.9s,mb5.7
ESK   Eskdalemuir      82.60 325 eP   P      01 01 50.0 +0.6
ESK                              e    pP     01 01 58.8 +0.6
ESK                              pmax pmax
      comp=Z,127nm,1.2s,mb5.8
ESK   Eskdalemuir      82.60 325 eP   P      01 01 50.0 +0.5
      comp=Z,127nm,1.2s,mb5.8
ESK                              e    pP     01 01 58.8 +0.6
EAU   Auchinoon        82.63 326 eP   P      01 01 49.4 -0.1
EAU                              AMb  AMB    01 02 01.0
      comp=Z,260nm,1.4s,mb6.1
EPF   Esparros         82.75 312 eP   P      01 01 49.2 -1.3
      comp=Z,261nm,1.7s,mb5.7
EPF   Esparros         82.75 312 eP   P      01 01 49.2 -1.3
EPF                              pmax pmax
      comp=Z,130nm,1.7s,mb5.7
RESF  Ens              82.80 312 eP   P      01 01 51.4 +0.7
HAE   Alders End       82.90 322 eP   P      01 01 51.2 +0.1
HAE                              AMb  AMB    01 01 53.8
      comp=Z,307nm,1.5s,mb6.1
EBIE  Bielsa           82.96 312  P   P      01 01 52.4 +0.9
      comp=Z,106nm,1.5s,mb5.7
EAB   Aberfoyle        83.04 326 eP   P      01 01 51.8 +0.1
EAB                              AMb  AMB    01 01 54.9
      comp=Z,189nm,1.6s,mb5.9
EBR   Ebro Roquetas    83.06 310 eP   P      01 01 54.5 +2.4
HGH   Gray Hill        83.14 321 eP   P      01 01 52.1 -0.2
HGH                              AMb  AMB    01 01 54.9
      comp=Z,370nm,1.4s,mb6.2
ERTA  Horta de San J   83.15 310  P   P      01 01 53.4 +0.8
      comp=Z,224nm,1.4s,mb6.0
SSP1  Stoney Pound     83.16 322 eP   P      01 01 53.2 +0.8
MAW   Mawson           83.16 191  P   P      01 01 53.3 +1.3
      comp=Z,75nm,1.1s,mb5.7,baz=16,slow=6.7,SNR=44
MAW                              LR   LR     01 31 48.5
      comp=Z,2µm,19.6s,MS5.5,baz=28,slow=31
MAW   Mawson           83.16 191 eP   P      01 01 53.0 +0.9
MAW                              pmax pmax
      comp=Z,405nm,1.7s
MAW                              MLR  MLR
      comp=Z,3µm,19.4s
MAW   Mawson           83.16 191 eP   P      01 01 53.0 +1.0

      comp=Z,405nm,1.7s,mb6.2
MAW                              LR   LR
      comp=Z,3µm,19.4s,MS5.6
MCH1  Michaelchurch    83.18 322 eP   P      01 01 51.7 -0.8
ETSF  Etsaut           83.43 312 eP   P      01 01 53.7 -0.2
      comp=Z,352nm,1.6s,mb5.8
ETSF  Etsaut           83.43 312 eP   P      01 01 53.7 -0.2
ETSF                             pmax pmax
      comp=Z,176nm,1.6s,mb5.8
ANM   Nome             83.58  25 eP   P      01 01 55.3 +1.1
ESAC  San Caprasio     83.59 311  P   P      01 01 56.2 +1.4
      comp=Z,309nm,1.5s,mb6.2
YLL   Llanberis        83.63 323 eP   P      01 01 54.6 -0.2
YLL                              AMb  AMB    01 01 57.7
      comp=Z,139nm,1.5s,mb5.9
WME   Myndd Eilian     83.65 323 eP   P      01 01 55.9 +1.1
WME                              AMb  AMB    01 01 59.1
      comp=Z,161nm,1.6s,mb5.9
WIM   Isle of Man      83.69 324 eP   P      01 01 56.4 +1.3
WIM                              AMb  AMB    01 01 58.5
      comp=Z,202nm,1.7s,mb6.0
SGMF  Saint Gilles     83.70 318 eP   P      01 01 54.5 -0.7
      comp=Z,465nm,1.7s,mb6.0
SGMF  Saint Gilles     83.70 318 eP   P      01 01 54.5 -0.7
SGMF                             pmax pmax
      comp=Z,232nm,1.7s,mb6.0
LARF  Larrau           83.71 313 eP   P      01 01 56.6 +1.2
YRC   Rhoscolyn        83.84 323 eP   P      01 01 56.4 +0.6
YRC                              AMb  AMB    01 02 00.0
      comp=Z,224nm,1.8s,mb6.0
SJPF  Ste Jean         83.86 313 eP   P      01 01 55.9 -0.3
      comp=Z,511nm,1.6s,mb6.1
SJPF  Ste Jean         83.86 313 eP   P      01 01 55.9 -0.3
SJPF                             pmax pmax
      comp=Z,255nm,1.6s,mb6.1
EMOS  Mosqueruela      83.87 310  P   P      01 01 58.1 +1.8
      comp=Z,455nm,1.5s,mb6.4
EBEN  Beniarda         84.02 308  P   P      01 01 59.0 +1.9
      comp=Z,143nm,1.7s,mb5.8
EALK  Alkurruntz       84.04 313  P   P      01 01 57.9 +0.8
      comp=Z,113nm,1.2s,mb5.9
ROSF  Rostrenen        84.15 318 eP   P      01 01 56.7 -0.8
      comp=Z,545nm,1.6s,mb6.1
ROSF  Rostrenen        84.15 318 eP   P      01 01 56.7 -0.8
ROSF                             pmax pmax
      comp=Z,273nm,1.6s,mb6.1
QUIF  Quistinic        84.17 318 eP   P      01 01 55.3 -2.3
      comp=Z,168nm,1.3s,mb5.7
QUIF  Quistinic        84.17 318 eP   P      01 01 55.3 -2.3
QUIF                             pmax pmax
      comp=Z,84nm,1.3s,mb5.7
SBD   Saint Breward    84.53 321 eP   P      01 01 52.2 -7.2
CART  Cartagena        84.85 307 eP   P      01 02 01.8 +0.5
      comp=Z,137nm,1.0s,mb6.0
CART                             e    pP     01 02 11.2 +1.2
DLF   Lyons Farm       84.97 323⇓iP   pP     01 02 11.9 +1.6
DLF   Lyons Farm       84.97 323⇑iP   P      01 02 03.1 +1.7
DLF                             ⇓iP   pP     01 02 11.9 +1.6
EMUR  La Murta         84.98 308  P   P      01 02 03.0 +1.1
      comp=Z,124nm,1.7s,mb5.8
DMUB  Kingscourt       85.03 324⇓iP   pP     01 02 12.6 +2.1
DMUB  Kingscourt       85.03 324⇑iP   P      01 02 03.6 +1.9
DMUB                            ⇓iP   pP     01 02 12.6 +2.1
DCN   Croghan          85.39 324⇓iP   pP     01 02 14.4 +2.0
DCN   Croghan          85.39 324⇑iP   P      01 02 05.3 +1.8
DCN                             ⇓iP   pP     01 02 14.4 +2.0
SCO   Scoresbysund     85.69 342 i P  P      01 02 06.2 +1.5
      comp=Z,10nm,0.9s,mb5.1
EVIA  Vianos           85.78 309  P   P      01 02 07.4 +1.5
EVIA                             pmax pmax
      comp=Z,110nm,1.2s,mb6.0
EVIA  Vianos           85.78 309  P   P      01 02 07.4 +1.5
      comp=Z,110nm,1.2s,mb6.0
ENIJ  Nijar            85.92 307  P   P      01 02 07.8 +1.2
EQES  Quesada          86.40 308  P   P      01 02 07.3 -1.7
      comp=Z,83nm,1.4s,mb5.8
EBER  Berja            86.47 307  P   P      01 02 10.5 +1.2
      comp=Z,124nm,1.1s,mb6.0
GUD   Guadarrama       86.55 311  P   P      01 02 10.6 +1.0
GUD                              pmax pmax
      comp=Z,73nm,0.9s,mb5.9
GUD   Guadarrama       86.55 311  P   P      01 02 10.6 +1.0
      comp=Z,73nm,0.9s,mb5.9
ESDC  Sonseca Array    86.64 310  P   P      01 02 10.8 +0.7
      comp=Z,599nm,1.6s,mb6.6,baz=59,slow=4.3,SNR=55
ESDC  Sonseca Array    86.64 310  P   P      01 02 10.8 +0.7
      comp=Z,42nm,1.0s,mb5.6
ESLA  Sonseca Array    86.64 310 eP   P      01 02 10.6 +0.5
      comp=Z,29nm,1.3s,mb5.3
ESLA                             e    pP     01 02 19.4 +0.5
EBAN  Banos Encina     86.87 308  P   P      01 02 12.3 +1.1
EBAN                             pmax pmax
      comp=Z,130nm,1.4s,mb6.0
EBAN  Banos Encina     86.87 308  P   P      01 02 12.3 +1.1
      comp=Z,130nm,1.4s,mb6.0
ERON  Agron            87.16 307  P   P      01 02 13.4 +0.7
      comp=Z,2.0nm,0.4s
ELUQ  Luque            87.38 308  P   P      01 02 13.6 -0.1
ELUQ                             pmax pmax
      comp=Z,5.0nm,0.8s,mb4.8
ELUQ  Luque            87.38 308  P   P      01 02 13.6 -0.1
      comp=Z,4.8nm,0.8s,mb4.8
ELOJ  Sierra Loja      87.40 307  P   P      01 02 13.2 -0.6
ELOJ                             pmax pmax
      comp=Z,5.0nm,0.6s,mb4.9
ELOJ  Sierra Loja      87.40 307  P   P      01 02 13.2 -0.6
      comp=Z,4.5nm,0.6s,mb4.9
EADA  Adamuz           87.47 308  P   P      01 02 14.8 +0.7
      comp=Z,102nm,1.2s,mb5.9
IMA   Indian Mountai   87.58  22 eP   P      01 02 15.3 +1.3
EMIJ  Mijas            88.02 307  P   P      01 02 16.9 +0.1
      comp=Z,44nm,1.1s,mb5.6
BORG  Borgarnes        88.09 337  P   P      01 02 18.8 +2.4
      comp=Z,78nm,1.0s,mb5.9,baz=74,slow=3.6,SNR=4.5
ECAL  Calabor          88.10 313  P   P      01 02 18.4 +1.3
      comp=Z,125nm,1.6s,mb5.9
PBRG  Braganca         88.14 312 eP   P      01 02 18.7 +1.5
      comp=Z,99nm,1.4s,mb5.8
ERUA  La Rua           88.26 313  P   P      01 02 19.8 +2.0
ERUA                             pmax pmax
      comp=Z,114nm,1.7s,mb5.8
ERUA  La Rua           88.26 313  P   P      01 02 19.8 +2.0
      comp=Z,114nm,1.7s,mb5.8
ESPR  Espera           88.79 307  P   P      01 02 20.9 +0.5
      comp=Z,62nm,1.1s,mb5.8
SUMG  Summit           88.82 347 eP   P      01 02 20.5 +0.7
      comp=Z,113nm,1.3s,mb6.0
PVRL  Vila Real        88.98 312 eP   P      01 02 22.1 +0.8
      comp=Z,116nm,1.5s,mb6.0
ELOB  Lobios           89.07 313  P   P      01 02 23.1 +1.4
      comp=Z,74nm,1.2s,mb5.9
MTE   Manteigas        89.10 311 eP   P      01 02 23.3 +1.4
      comp=Z,212nm,1.5s,mb6.2
MTE   Manteigas        89.10 311 eP   P      01 02 23.1 +1.2
MTE                              e    pP     01 02 32.2 +1.5
STS   Santiago         89.12 314  P   P      01 02 23.9 +2.0
STS                              pmax pmax
      comp=Z,40nm,0.9s,mb5.8
STS   Santiago         89.12 314  P   P      01 02 23.9 +1.9
      comp=Z,40nm,0.9s,mb5.8
EBAD  Badajoz          89.16 310  P   P      01 02 23.3 +1.0
      comp=Z,86nm,1.4s,mb5.9
EMIN  Mina Concepcio   89.17 308  P   P      01 02 23.0 +0.7
      comp=Z,52nm,1.2s,mb5.7
PCBR  Castelo Branco   89.21 311 eP   P      01 02 23.7 +1.3
      comp=Z,178nm,1.5s,mb6.2
PVIS  Viseu            89.27 312 eP   P      01 02 24.3 +1.6
      comp=Z,156nm,1.5s,mb6.1
JCZ   Jackson Bay      89.37 136 eP   P      01 02 23.6 +0.5
EMAZ  Mazaricos        89.40 314  P   P      01 02 24.5 +1.3
      comp=Z,208nm,1.3s,mb6.3
EZAM  Zamans           89.44 313  P   P      01 02 24.5 +1.1
EZAM                             pmax pmax
      comp=Z,68nm,1.3s,mb5.8
EZAM  Zamans           89.44 313  P   P      01 02 24.5 +1.0
      comp=Z,68nm,1.3s,mb5.8
SYO   Syowa Base       89.75 197 ⇑P   P      01 02 25.7 +1.4
SYO   Syowa Base       89.75 197 ⇓pP  pP     01 02 34.7 +1.6
EGRO  El Granado       89.86 308  P   P      01 02 26.6 +1.1
      comp=Z,176nm,1.4s,mb6.2
PALC  Alcoutim         89.87 308 eP   P      01 02 27.0 +1.4
      comp=Z,249nm,1.6s,mb6.3
EVO   Evora            89.98 310 eP   P      01 02 26.6 +0.5
      comp=Z,327nm,1.6s,mb6.1
PBEJ  Beja             90.01 309 eP   P      01 02 27.8 +1.6
      comp=Z,164nm,1.5s,mb6.1
```

COLA	College	90.28	22	⇓iP	P	01 02 27.1	+0.3
COLA				e	pP	01 02 36.0	+0.4
COLA				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.6						
COLA				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.6						
COLA	College	90.28	22	⇓iP	P	01 02 27.1	+0.2
	comp=Z,32nm,1.0s,mb5.6						
COLA				e	pP	01 02 36.0	+0.4
COLA				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
MCK	McKinley	90.48	23	eP	P	01 02 27.7	-0.1
MCK				e	pP	01 02 37.0	+0.4
MCK				pmax	pmax		
	comp=Z,75nm,0.9s,mb6.0						
MCK	McKinley	90.48	23	eP	P	01 02 27.7	-0.1
	comp=Z,75nm,0.9s,mb6.0						
MCK				e	pP	01 02 37.0	+0.4
SPU	Mount Spurr	90.50	26	P	P	01 02 29.0	+1.1
RSO	Redoubt South	90.54	27	eP	P	01 02 28.9	+0.8
RSO				e	pP	01 02 39.0	+2.1
ILAR	Eielson Array	90.69	22	P	P	01 02 28.2	-0.5
	comp=Z,18nm,0.7s,mb5.5,baz=283,slow=4.5,SNR=149						
ILAR				PP	PP	01 06 04.9	-1.6
	comp=Z,14nm,1.1s,baz=296,slow=7.1,SNR=8.4						
ILAR				PKKPbc		01 19 55.0	
	comp=Z,1.9nm,0.7s,baz=148,slow=1.6,SNR=12						
PLOU	Loures	90.73	310	eP	P	01 02 31.6	+2.1
	comp=Z,351nm,1.6s,mb6.4						
PTEO	Sao Teotonio	90.80	309	eP	P	01 02 31.7	+1.8
	comp=Z,248nm,1.5s,mb6.3						
RPZ	Rata Peaks	90.84	135	P	P	01 02 30.3	+0.4
	comp=Z,45nm,0.9s,mb5.8,baz=244,slow=2.2,SNR=8.9						
FIB	Fire Island	91.30	25	eP	P	01 02 33.1	+1.5
PMR	Palmer	91.52	25	eP	P	01 02 33.4	+0.8
SLKM	Skilak Lake	91.61	26	eP	P	01 02 33.2	+0.2
SML	Sawmill	91.73	24	eP	P	01 02 34.5	+1.0
THY	Trims Highway	91.85	22	eP	P	01 02 34.9	+0.9
THY				e	pP	01 02 44.5	+1.6
KDAK	Kodiak Island	91.87	29	⇓eP	P	01 02 35.2	+0.9
	comp=Z,249nm,1.3s,mb6.4						
INK	Inuvik	92.59	16	P	P	01 02 37.9	+0.5
	comp=Z,195nm,1.3s,mb6.4,baz=318,slow=4.8,SNR=73						
INK				PKKPbc		01 19 50.6	
	comp=Z,2.8nm,0.8s,baz=149,slow=3.9,SNR=5.3						
MENT	Mentasta	92.88	22	eP	P	01 02 40.9	+2.1
DIV	Divide	93.13	24	⇓eP	P	01 02 41.2	+1.2
	comp=Z,205nm,0.9s,mb6.6						
DIV				e	pP	01 02 50.2	+1.4
EYAK	Cordova Ski Ar	93.47	25	eP	P	01 02 42.6	+1.1
URZ	Urewera	93.84	128	P	P	01 02 43.3	-0.5
	comp=Z,76nm,0.8s,mb6.2,baz=322,slow=1.4,SNR=31						
DBIC	Dimbokro	95.53	278	P	P	01 02 53.2	+1.1
	comp=Z,65nm,1.3s,mb5.9,baz=59,slow=5.6,SNR=18						
DBIC	Dimbokro	95.53	278	eP	P	01 02 52.7	+0.6
DBIC				e	pP	01 03 01.9	+0.9
DBIC				pmax	pmax		
	comp=Z,125nm,1.5s						
DBIC				MLR	MLR		
	comp=Z,1µm,18.4s						
DBIC	Dimbokro	95.53	278	eP	P	01 02 52.7	+0.6
	comp=Z,125nm,1.5s,mb6.1						
DBIC				e	pP	01 03 01.9	+0.9
DBIC				LR	LR		
	comp=Z,1µm,18.4s,MS5.5						
VNDA	Vanda	98.24	168	P	P	01 03 03.7	+0.7
	comp=Z,6.7nm,1.0s,mb5.1,baz=301,slow=5.7,SNR=8.2						
VNDA				LR	LR	01 43 59.8	
	comp=Z,2µm,19.5s,MS5.7,baz=297,slow=33						
VNDA	Vanda	98.24	168	eP	P	01 03 03.4	+0.4
VNDA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
VNDA	Vanda	98.24	168	eP	P	01 03 03.4	+0.4
	comp=Z,9.4nm,0.9s,mb5.3						
SBA	Scott Base	99.34	168	eP	P	01 03 09.3	+1.3
SBA				pmax	pmax		
	comp=Z,104nm,1.5s,mb6.1						
SBA	Scott Base	99.34	168	eP	P	01 03 09.3	+1.3
	comp=Z,104nm,1.5s,mb6.1						
DLBC	Dease Lake	100.89	21	P	P	01 03 16.9	+1.5
	comp=Z,9.5nm,1.1s,baz=291,slow=7.0,SNR=5.4						
DLBC				PKKPbc		01 19 27.6	
	comp=Z,3.6nm,0.8s,baz=144,slow=10,SNR=6.2						
YKA	Yellowknife Ar	101.88	12	P	P	01 03 19.9	+0.3
	comp=Z,3.5nm,0.9s,baz=330,slow=4.7,SNR=23						
YKA				PKKPab		01 19 46.4	
	comp=Z,2.3nm,0.7s,baz=152,slow=4.5,SNR=13						
YKA	Yellowknife Ar	101.88	12	P	P	01 03 19.9	+0.2
YKA				PKKPab		01 19 46.4	
SNAA	Sanae	103.87	199	⇑iP	PP	01 07 43.2	-4.7
SNAA	Sanae	103.87	199	⇓i		01 19 18.5	
SNAA	Sanae	103.87	199	PP	PP	01 07 42.9	-5.1
	comp=Z,3.7nm,1.2s,baz=100,slow=10,SNR=4.9						
SNAA				PKKPbc		01 19 19.2	
	comp=Z,1.5nm,0.7s,baz=292,slow=2.9,SNR=13						
SNAA	Sanae	103.87	199	eP	Pdif	01 03 29.6	+1.4
SNAA				pmax	pmax		
	comp=Z,7.0nm,1.3s						
SNAA	Sanae	103.87	199	ePdif	Pdif	01 03 29.6	+1.3
	comp=Z,7.0nm,1.3s						
SNAA	Sanae	103.87	199	eP		01 19 18.3	
VNA2	Neumayer--Watz	105.37	200	⇓iP	PP	01 07 51.8	-7.7
VNA2	Neumayer--Watz	105.37	200	⇓i		01 19 16.0	
VNA1	Neumayer--Stat	105.68	200	⇑iP	PP	01 07 48.4	-13
VNA3	Neumayer Olymp	106.08	199	⇑iP	PP	01 07 53.2	-11
VNA3	Neumayer Olymp	106.08	199	⇑i		01 19 14.7	
VNA3	Neumayer Olymp	106.08	199	e		01 19 31.7	
SCHQ	Schefferville	110.20	347	PP	PP	01 08 30.6	-5.0
	comp=Z,9.1nm,1.1s,baz=48,slow=6.5,SNR=3.7						
SCHQ				PKKPbc		01 18 58.7	
	comp=Z,5.4nm,0.6s,baz=205,slow=3.4,SNR=16						
SCHQ				PKKPab		01 19 09.9	
	comp=Z,3.5nm,0.6s,baz=151,slow=3.0,SNR=4.5						
HUMO	Hull Mountain	115.89	28	ePKPdf	PKPdf	01 08 10.3	-2.5
MSO	Missoula	115.96	20	ePKPdf	PKPdf	01 08 09.1	-3.8
BMO	Blue Mountains	116.46	23	ePKIKP	PKPdf	01 08 09.5	-4.4
ULM	Lac du Bonnet	116.64	6	PKiKP		01 08 11.0	
	comp=Z,3.3nm,0.5s,baz=353,slow=4.9,SNR=7.8						
ULM				PKKPbc		01 18 38.4	
	comp=Z,14nm,1.0s,baz=181,slow=4.1,SNR=15						
ULM				PKKPab		01 18 42.5	
	comp=Z,8.6nm,0.7s,baz=174,slow=3.6,SNR=16						
ULM	Lac du Bonnet	116.64	6	PKPdf	PKPdf	01 08 11.0	-3.1
ULM				PKKPbc		01 18 38.4	
ULM				PKKPab		01 18 42.5	
DGMT	Dagmar	117.08	12	ePKPdf	PKPdf	01 08 11.8	-3.2
MOD	Modoc	117.65	27	ePKPdf	PKPdf	01 08 13.6	-2.6
BOZ	Bozeman (W)	117.75	19	ePKIKP	PKPdf	01 08 13.0	-3.3
GCMT	Greycliff	118.22	17	ePKPdf	PKPdf	01 08 14.2	-3.0
HLID	Hailey	118.64	22	ePKPdf	PKPdf	01 08 14.4	-3.7
YMR	Madison River	118.84	19	ePKPdf	PKPdf	01 08 16.2	-2.3
YFT	Old Faithful	119.08	19	ePKPdf	PKPdf	01 08 17.2	-1.8
YFT				ePP	PP	01 09 33.9	-5.1
YFT				ePKKPbc		01 18 29.4	
LKWY	Lake	119.11	18	ePKIKP	PKPdf	01 08 17.9	-1.1
EYMN	Ely	119.26	3	ePKPdf	PKPdf	01 08 15.5	-3.6
IMW	Indian Meadow	119.54	19	ePKPdf	PKPdf	01 08 17.6	-2.2
IMW				ePKKPbc		01 18 27.7	
MOOW	Moose Ponds	119.73	19	ePKPdf	PKPdf	01 08 17.7	-2.5
MOOW				ePP	PP	01 09 41.4	-1.5
MOOW				ePKKPbc		01 18 26.3	
TPAW	Teton Pass	119.90	19	ePKPdf	PKPdf	01 08 17.9	-2.6
LOHW	Long Hollow	119.90	19	ePKPdf	PKPdf	01 08 17.6	-2.9
WUWY	Wally Ulrich	119.92	19	ePKPdf	PKPdf	01 08 17.9	-2.7
WCN	Washoe City	119.98	28	ePKIKP	PKPdf	01 08 18.7	-2.1
SNOW	Snow King Moun	119.99	19	ePKPdf	PKPdf	01 08 18.2	-2.5
REDW	Red Top Meadow	120.05	19	ePKPdf	PKPdf	01 08 16.6	-4.3
CMB	Columbia Colle	120.69	30	ePKIKP	PKPdf	01 08 18.7	-3.6
ELK	Elko	120.75	24	ePKIKP	PKPdf	01 08 19.7	-2.6
PDAR	Pinedale Array	120.99	19	PKP	PKPdf	01 08 19.2	-3.5
	comp=Z,10.0nm,0.9s,baz=76,slow=0.9,SNR=46						
PDAR				PP	PP	01 09 46.8	-4.7
	comp=Z,7.2nm,1.0s,slow=1.5,SNR=5.9						
PDAR				PKKPbc		01 18 21.4	
	comp=Z,2.8nm,0.7s,baz=142,slow=5.5,SNR=19						
NVAR	Mina Array Bea	121.36	28	PKP	PKPdf	01 08 21.6	-2.0
	comp=Z,19nm,0.7s,baz=298,slow=1.5,SNR=68						
NVAR				PKKPbc		01 18 19.2	
	comp=Z,4.5nm,0.9s,baz=137,slow=6.2,SNR=16						
HWUT	Hardware Ranch	121.37	21	ePKPdf	PKPdf	01 08 20.1	-3.4
HWUT				ePP	PP	01 09 49.4	-4.8
HWUT				ePKKPbc		01 18 20.4	
MNV	Mina	121.42	28	ePKIKP	PKPdf	01 08 21.3	-2.4
MIV	Mineville/With	121.80	348	ePKPdf	PKPdf	01 08 20.4	-3.9
MDV	Middlebury	121.80	348	ePKPdf	PKPdf	01 08 20.5	-3.8
NOQ	North Oquirrh	122.01	22	ePKPdf	PKPdf	01 08 21.4	-3.4
SADO	Sadowa	122.02	353	PKKPbc		01 18 17.9	
	comp=Z,7.6nm,1.0s,baz=214,slow=10,SNR=3.9						
MTUM	Tungsten Hills	122.10	29	ePKPdf	PKPdf	01 08 22.8	-2.1
TPH	Tonopah	122.14	27	ePKPdf	PKPdf	01 08 22.7	-2.4
TPH				ePKKPbc		01 18 18.6	
DAU	Daniels Canyon	122.54	21	ePKPdf	PKPdf	01 08 23.4	-2.3
DAU				ePP	PP	01 09 57.8	-4.6
DAU				ePKKPbc		01 18 16.7	
TRCR	Troy Canyon	122.62	26	ePKPdf	PKPdf	01 08 23.7	-2.2
NLU	North Lily Min	122.64	22	ePKPdf	PKPdf	01 08 22.9	-3.0
DAC	Darwin (Calif)	123.43	29	ePKIKP	PKPdf	01 08 25.2	-2.4
TPNV	Topopah Spring	123.50	27	ePKIKP	PKPdf	01 08 25.0	-2.7
PHWY	Pilot Hill	123.54	16	ePKPdf	PKPdf	01 08 24.0	-3.6
TMUT	Trail Mountain	123.54	22	ePKPdf	PKPdf	01 08 25.2	-2.6
TMUT				ePKKPbc		01 18 13.0	
GENY	Geneseo	123.81	351	ePKPdf	PKPdf	01 08 23.9	-4.3
MVU	Marysvale	123.86	23	ePKPdf	PKPdf	01 08 26.6	-1.8
MVU				e		01 08 36.2	
MSU	Marysvale	123.86	23	ePKIKP	PKPdf	01 08 26.7	-1.7
SRU	San Rafael	123.95	21	ePKPdf	PKPdf	01 08 25.2	-3.3
SRU				ePKKPbc		01 18 10.3	
ARUT	Antelope Range	123.99	25	ePKIKP	PKPdf	01 08 26.6	-2.1
ISCO	Idaho Springs	124.89	17	ePKIKP	PKPdf	01 08 26.9	-3.5
PV10	Paradox Valley	125.12	21	ePKPdf	PKPdf	01 08 28.4	-2.4
NEN	Nelson	125.21	27	ePKPdf	PKPdf	01 08 28.4	-2.7
PV01	Paradox Valley	125.50	20	ePKPdf	PKPdf	01 08 28.4	-3.2
RW3	Ridgway	125.69	19	ePKIKP	PKPdf	01 08 28.9	-3.0
PFO	Pinyon Flat Ob	126.14	30	ePKIKP	PKPdf	01 08 30.6	-2.3
PFO				e		01 08 39.6	
SDCO	Great Sand Dun	126.83	18	ePKPdf	PKPdf	01 08 31.0	-3.1
SDCO				ePP	PP	01 10 26.1	-4.6
KSU1	Kansas State U	127.52	9	ePKPdf	PKPdf	01 08 31.6	-3.8
BLO	Bloomington	128.12	359	ePKIKP	PKPdf	01 08 32.9	-3.7
BLO				e		01 08 41.8	
SLM	Saint Louis	128.61	3	ePKIKP	PKPdf	01 08 33.6	-4.0
ANMO	Albuquerque	129.10	20	PKP	PKPdf	01 08 36.4	-2.2
	comp=Z,21nm,0.9s,baz=283,slow=0.6,SNR=38						
ANMO	Albuquerque	129.10	20	ePKIKP	PKPdf	01 08 36.0	-2.6
FVM	French Village	129.25	3	ePKIKP	PKPdf	01 08 34.9	-3.9
FWV	Forest Hill	129.31	353	ePKPdf	PKPdf	01 08 35.4	-3.5
TUC	Tucson	129.81	26	ePKIKP	PKPdf	01 08 35.5	-4.5
MIAR	Mount Ida	132.41	7	ePKIKP	PKPdf	01 08 41.4	-3.5
MNTX	Cornudas Mount	132.43	21	ePKPdf	PKPdf	01 08 41.9	-3.1
JSC	Jenkinsville	132.62	353	ePKPdf	PKPdf	01 08 41.3	-4.0
LTX	Lajitas	135.18	20	ePKPdf	PKPdf	01 08 47.3	-2.9
TXAR	Lajitas Array	135.18	20	PKhKP		01 08 34.5	
	comp=Z,0.6nm,0.4s,baz=259,slow=0.2,SNR=17						
TXAR				PKP	PKPdf	01 08 47.6	-2.6
	comp=Z,9.2nm,0.7s,baz=179,slow=0.6,SNR=34						
TXAR				PP	PP	01 11 19.7	-5.3
	comp=Z,15nm,1.2s,baz=346,slow=5.2,SNR=7.8						
TXAR	Lajitas Array	135.18	20	PKP		01 08 34.5	
TXAR				PKP	PKPdf	01 08 47.6	-2.6
TXAR				PP	PP	01 11 19.7	-5.3
JCT	Junction City	135.24	15	PKHKP		01 08 38.7	
JCT	Junction City	135.24	15	ePKIKP	PKPdf	01 08 47.1	-3.2
JCT	Junction City	135.24	15	ePKPdf	PKPdf	01 08 47.1	-3.2
USHA	Ushuaia	135.61	196	PKP	PKPdf	01 08 47.7	-2.5
	comp=Z,5.9nm,0.8s,baz=35,slow=7.7,SNR=3.6						
HKT	Hockley	136.60	10	PKIKP	PKPdf	01 08 47.4	-5.3
HKT	Hockley	136.60	10	ePKPdf	PKPdf	01 08 50.1	-2.6
BAO	Brasilia Array	141.55	261	PKP	PKPdf	01 08 53.6	-8.4
BAO				i		01 08 59.2	
BAO				i		01 09 02.6	
BAO				i		01 09 25.5	
BDFB	Brasilia	141.57	261	PKhKP		01 08 53.9	
	comp=Z,8.7nm,0.9s,baz=173,slow=1.8,SNR=12						
BDFB				PKP	PKPdf	01 08 59.7	-2.4
	comp=Z,29nm,0.9s,baz=50,slow=1.2,SNR=18						
SJG	San Juan	142.55	325	PKP	PKPdf	01 09 01.5	-2.2
	comp=Z,20nm,1.0s,baz=136,slow=5.3,SNR=3.8						
SJG	San Juan	142.55	325	PKIKP	PKPdf	01 09 01.1	-2.7
SJG	San Juan	142.55	325	PKP	PKPdf	01 09 01.5	-2.2
CJM	Chamela	143.45	28	eP	PKPbc	01 08 54.7	-4.2
COLM	Colima	144.34	27	i P	PKPbc	01 09 02.8	+1.3
MOIG	Morelia	144.91	23	i P	PKPbc	01 09 04.7	+1.6
COYC	Coyhaique	144.93	199	⇓iP	PKPbc	01 09 03.4	+1.0
TRN	Trinidad (W)	144.96	311	eP	PKPbc	01 09 06.2	+2.8
TRN	Trinidad (W)	144.96	311	e	PKPbc	01 09 15.7	+12
TPP	Pointe-a-Pierr	145.21	310	eP	PKPbc	01 09 07.5	+3.5
TPP	Pointe-a-Pierr	145.21	310	e	PKPbc	01 09 16.5	+12
LPA	La Plata	145.40	226	cePKP	PKPdf	01 09 03.0	-5.2
LPA				esPKP		01 09 14.0	
IIC	Rita Coyotepec	145.51	20	⇓iP	PKPbc	01 09 05.8	+1.2
PTVM	Pico Tres Padr	145.72	19	eP	PKPbc	01 09 05.9	+0.8
MDVM	Presa Madin	145.73	20	eP	PKPbc	01 09 03.6	-1.6
IIO	Organos	145.84	19	⇓iP	PKPbc	01 09 06.9	+1.5
IIZ	Mezontepec	146.05	20	eP	PKPbc	01 09 05.9	0.0
TRQA	Tornquist	146.17	218	⇓ePKPdf	PKPdf	01 09 06.3	-3.2
PPM	Popocatepetl	146.37	19	ePKIKP	PKPdf	01 09 06.3	-4.0
PPM				e		01 09 08.5	
YAIG	Yautepec	146.41	20	i P	PKPbc	01 09 05.9	-0.9
PLIG	Platanillo	146.70	21	eP	PKPbc	01 09 09.1	+1.7
TEIG	Tepich	147.00	1	ePKPdf	PKPdf	01 09 08.3	-3.1
TEIG				ePKPbc		01 09 10.2	
GWJ	Greenwich	147.34	341	⇓eP	PKPdf	01 09 11.4	-0.6
STH	Stony Hill	147.36	341	⇑eP	PKPdf	01 09 09.7	-2.3
HOJ	Hope	147.41	341	⇓eP	PKPdf	01 09 11.5	-0.6
CVJ	Coleyville	147.44	342	⇑eP	PKPdf	01 09 11.1	-1.0
PCRV	Puerto La Cruz	147.60	314	PKPbc	PKPdf	01 09 10.8	-1.7
	comp=Z,62nm,0.6s,baz=13,slow=3.4,SNR=42						
CAIG	El Cayaco	147.66	23	i P	PKPdf	01 09 12.5	0.0
MCJ	Malvern	147.77	342	⇑eP	PKPdf	01 09 13.0	+0.3
ACX	Acapulco	147.96	23	eP	PKPdf	01 09 11.4	-1.6
VHO	Vista Hermosa	148.82	17	i P	PKPdf	01 09 16.2	+1.9
PNIG	Pinotepa	149.03	20	i P	PKPdf	01 09 16.3	+1.6
CMIG	Matias Romero	149.28	14	eP		01 08 58.2	
HUIG	Huatulco	150.23	17	i P	PKPdf	01 09 19.1	+2.5
CCIG	Comitan	150.59	9	eP	PKPdf	01 09 12.9	-4.2
SDV	Santo Domingo	152.50	321	PKP	PKPdf	01 09 16.9	-3.2
	comp=Z,32nm,1.1s,baz=18,slow=1.8,SNR=24						
SDV				PKPbc	PKPdf	01 09 23.4	+3.4
	comp=Z,88nm,1.0s,baz=6.9,slow=1.7,SNR=30						
SDV				PKPab	PKPab	01 09 33.5	-1.4
	comp=Z,87nm,1.0s,baz=281,slow=5.2,SNR=10						
SDV	Santo Domingo	152.50	321	ePKPdf	PKPdf	01 09 16.7	-3.4
SDV				ePKPbc	PKPdf	01 09 23.4	+3.3
SDV				e		01 09 33.0	
MDZ	Mendoza	153.79	218	ePKIKP	PKPdf	01 09 20.2	-1.1
FCH	Farellones	154.30	215	eP	PKPdf	01 09 19.4	-2.7
ROSC	El Rosal	157.91	322	PKP	PKPdf	01 09 25.3	-2.1
	comp=Z,42nm,1.0s,baz=118,slow=2.0,SNR=36						
ROSC				PKPab	PKPab	01 09 59.2	+1.2
	comp=Z,59nm,1.0s,baz=76,slow=4.2,SNR=12						
LVC	Limon Verde	159.79	239	PKP	PKPdf	01 09 27.8	-1.5
	comp=Z,21nm,1.1s,baz=117,slow=1.2,SNR=13						
LVC				PKPab	PKPab	01 10 07.2	+1.4
	comp=Z,62nm,1.0s,baz=122,slow=3.4,SNR=22						
LVC	Limon Verde	159.79	239	ePKPdf	PKPdf	01 09 26.7	-2.6
LVC				ePKPab	PKPab	01 10 06.2	+0.4
LPAZ	La Paz	160.86	258	PKP	PKPdf	01 09 28.4	-2.1
	comp=Z,21nm,1.1s,baz=56,slow=2.7,SNR=38						
LPAZ				PKPab	PKPab	01 10 11.2	+0.6
	comp=Z,47nm,1.1s,baz=64,slow=9.0,SNR=18						
LPAZ	La Paz	160.86	258	PKIKP	PKPdf	01 09 28.6	-1.9
LPAZ	La Paz	160.86	258	ePKPdf	PKPdf	01 09 28.2	-2.3
LPAZ				ePKPab	PKPab	01 10 10.7	+0.2
ARE	Arequipa	164.02	255	eP	PKPdf	01 09 33.0	-0.7
ARE				e		01 10 26.0	
NNA	Nana	169.43	274	ePKPdf	PKPdf	01 09 34.4	-3.4

IDC 27 01:00:06.6±1.2**,5.48N**×**93.46E,mb4.0**/6**,mb1 4.2**/7**,**
mb1mx3.9/18**,ML4.3**/1**,Error ellipse: s-maj=53.4km**
s-min=21.7km az=51.0,Off west coast of northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.97	22	Pn	P	01 03 27.4	-0.9
	0.5nm,0.3s,baz=232,slow=14,SNR=4.5						
MDRS	Chennai	15.06	301	e	P	01 03 54.0	+11
SONM	Songino Array	43.63	13	P	P	01 08 12.4	-2.1
	1.4nm,0.9s,baz=206,slow=8.1,SNR=4.2						
WRA	Warramunga Arr	47.47	123	P	P	01 08 43.3	-2.2
	1.6nm,0.4s,baz=305,slow=8.5,SNR=14						
ASAR	Alice Springs	48.94	128	P	P	01 08 55.2	-1.7
	2.2nm,0.6s,baz=302,slow=7.9,SNR=10						
FINES	FINESS Array B	74.51	333	P	P	01 11 46.5	-2.1
	1.5nm,0.7s,baz=135,slow=5.9,SNR=4.6						
GERES	GERESS Array B	79.16	319	P	P	01 12 13.9	-1.0
	0.9nm,1.0s,baz=112,slow=5.3,SNR=2.9						
NOA	NORSAR Array B	81.48	331	P	P	01 12 25.9	-1.1
	1.1nm,0.8s,baz=115,slow=8.0,SNR=3.2						

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*IDC **27** 01:04:46.5±0.4, 8.68N×93.72E, mb4.5/28, mb1 4.6/29,*
mb1mx4.6/31, ML5.0/1, Error ellipse: s-maj=18.8km
s-min=11.1km az=44.0
*MOS **27** 01:04:51.6±1.0, 8.84N×93.38E, h33^{km}, mb5.1/8, Error*
ellipse: s-maj=22.0km s-min=10.1km az=106.5
*NEIC **27** 01:04:51.0±0.2, 8.67N×93.75E, h30^{km}, mb4.7/18, Error*
ellipse: s-maj=8.2km s-min=5.2km az=50.0
*BJI **27** 01:04:51.6, 8.56N×93.57E, h40^{km}, mb4.8*
ISC 27 01:04:49.0±0.3**, 8.55N**±0.06×**93.69E**±0.06**, h30**^{km}**, n98,**
σ**1**^{s}**01**/84**, mb4.7**/56**, 3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.09	27	P	P	01 07 31.5	+2.6
CMAR	Chiang Mai Arr	11.09	27	Pn	P	01 07 30.1	+1.2
	2.9nm,0.3s,baz=211,slow=14,SNR=11						
IMP	Imphal	16.14	1	e	P	01 08 38.4	+2.8
PKI	Pulchoki	20.48	339	eP	P	01 09 26.6	-0.6
	295nm,1.3s						
DMN	Daman	20.62	338	eP	P	01 09 29.0	+0.3
GUN	Gumba	20.62	340	eP	P	01 09 28.6	-0.1
	110nm,0.5s						
KKN	Kakani	20.72	339	eP	P	01 09 30.7	+1.0
	227nm,1.1s						
GKN	Gorkha	21.15	337	eP	P	01 09 35.0	+0.9
	217nm,0.8s,mb5.5						
LSA	Lhasa	21.18	354	⇓eP	P	01 09 33.7	-0.6
	31nm,0.5s,mb4.9						
KOLN	Koldanda	21.36	335	eP	P	01 09 36.6	+0.4
	474nm,1.3s,mb5.7						
GYA	Guiyang	21.65	33	P	P	01 09 41.8	+2.7
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.3						
PTH	Pithoragarh	24.42	331	e	P	01 10 07.5	+1.2
ENH	Enshi	26.18	32	P	P	01 10 22.4	-0.5
	comp=Z,8.4nm,0.8s,mb4.3						
GTA	Gaotai	31.21	9	eP	P	01 11 08.0	-0.1
GTA				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.6						
KSH	Kashi	34.68	336	eP	P	01 11 42.0	+3.8
KSH				eAP	pP	01 11 48.0	+0.9
KSH				eXP	sP	01 11 50.3	-0.6
SONM	Songino Array	40.61	13	P	P	01 12 27.5	-0.3
	comp=Z,1.4nm,0.5s,mb3.9,baz=200,slow=8.5,SNR=9.1						
SONM				PcP	PcP	01 14 30.4	+0.4
	comp=Z,1.4nm,0.5s,baz=199,slow=3.8,SNR=10.0						
SONM				ScP		01 18 22.2	
	comp=Z,1.2nm,0.9s,baz=205,slow=3.0,SNR=5.1						
SONM	Songino Array	40.61	13	P	P	01 12 27.5	-0.3
SONM				PcP	PcP	01 14 30.4	+0.4
SONM				ScP		01 18 22.2	
ULN	Ulaanbaatar	40.79	14	eP	P	01 12 28.9	-0.3
	comp=Z,3.4nm,0.9s,mb4.0						
ZAK	Zakamensk	42.46	9	eP	P	01 12 41.8	-1.1
CN2	Changchun	44.70	33	eP	P	01 13 06.8	+5.6
ZAL	Zalesovo	45.82	353	P	P	01 13 09.2	-0.7
	comp=Z,6.2nm,0.5s,mb4.8,baz=294,slow=7.3,SNR=19						
HIA	Hailar	46.08	24	eP	P	01 13 10.8	-1.2
	comp=Z,12nm,1.0s,mb4.8						
NVS	Novosibirsk	46.91	352	eP	P	01 13 16.6	-2.0
NVS				pmax	pmax		
	comp=N,21nm,1.9s						
NVS				pmax	pmax		
	comp=Z,42nm,1.9s,mb5.0						
NWAO	Narrogin (SRO)	46.95	153	P	P	01 13 20.3	+1.1
	comp=Z,17nm,0.8s,mb5.0,baz=317,slow=8.4,SNR=7.6						
RDF	Al-Radifah	47.79	301	eP	P	01 13 27.4	+1.5
RDF				AMb	AMB	01 13 31.1	
	comp=Z,64nm,1.1s,mb5.5						
BVAR	Borovoye Array	48.21	341	P	P	01 13 27.7	-1.0
	comp=Z,2.0nm,0.4s,mb4.5,baz=137,slow=9.1,SNR=19						
MIB	Mutribah	48.21	302	eP	P	01 13 29.2	+0.1
MIB				AMb	AMB	01 13 33.7	
	comp=Z,42nm,0.8s,mb5.5						
BRVK	Borovoye	48.27	341	eP	P	01 13 28.3	-0.9
	comp=Z,4.3nm,0.6s,mb4.7						
RST	Umm Al-Ruwaisa	48.41	302	eP	P	01 13 31.3	+0.6
RST				AMb	AMB	01 13 34.6	
	comp=Z,39nm,0.6s,mb5.6						
CHKZ	Chkalovo	48.70	342	⇓iP	P	01 13 32.0	-0.5
	comp=Z,11nm,0.6s,mb5.0						
WRA	Warramunga Arr	49.01	126	P	P	01 13 34.8	-0.7
	comp=Z,3.2nm,0.9s,mb4.3,baz=306,slow=8.4,SNR=13						
WRAB	Tennant Creek	49.02	126	eP	P	01 13 35.0	-0.4
	comp=Z,6.3nm,0.6s,mb4.8						
CBIJ	Chichi jima	49.37	62	P	P	01 13 36.3	-1.8
	comp=Z,73nm,1.0s,mb5.7,baz=131,slow=14,SNR=2.3						
ASAR	Alice Springs	50.69	130	P	P	01 13 47.6	-0.5
	comp=Z,2.2nm,0.9s,mb4.1,baz=305,slow=6.8,SNR=14						
ASAR				PcP	PcP	01 15 05.9	+0.5
	comp=Z,1.4nm,0.6s,baz=308,slow=3.6,SNR=8.4						
GNI	Garni	53.65	314	P	P	01 14 09.4	-0.7
	comp=Z,4.1nm,0.8s,mb4.4,baz=181,slow=19,SNR=2.6						
GNI	Garni	53.65	314	P	P	01 14 09.5	-0.7
ARU	Arti	55.10	337	eP	P	01 14 23.1	+2.5
ZEI	Tsey	55.24	317	eP	P	01 14 22.2	+0.4
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
PMG	Port Moresby	56.16	107	P	P	01 14 29.5	+0.8
	comp=Z,4.1nm,0.5s,mb4.7,baz=300,slow=6.6,SNR=4.8						
KIV	Kislovodsk	56.52	318	eP	P	01 14 30.7	-0.3
	comp=Z,8.8nm,0.8s,mb4.8						
KMBO	Kilima Mbogo	57.06	263	P	P	01 14 36.0	+0.8
	comp=Z,0.6nm,0.6s,mb3.8,baz=220,slow=20,SNR=4.2						
ASF	Jabal al Asfar	57.48	303	P	P	01 14 37.7	-0.3
	comp=Z,7.6nm,1.1s,mb4.6,baz=307,slow=7.2,SNR=6.5						
MALT	Malatya	57.69	310	P	P	01 14 39.2	-0.1
	comp=Z,7.0nm,1.0s,mb4.7						
EIL	Elat	58.71	299	P	P	01 14 47.0	+0.4
	comp=Z,5.9nm,1.0s,mb4.6,baz=60,slow=11,SNR=3.6						
STKA	Stephens Creek	60.89	134	P	P	01 15 00.5	-1.0
	comp=Z,2.0nm,0.8s,mb4.3,baz=160,slow=20,SNR=2.2						
STKA	Stephens Creek	60.89	134	P	P	01 15 00.5	-1.0
BRTR	Keskin Array B	61.65	311	P	P	01 15 05.0	-1.5
	comp=Z,5.4nm,0.7s,mb4.8,baz=128,slow=7.4,SNR=24						
ISP	Isparta	63.67	308	eP	P	01 15 18.6	-1.5
	comp=Z,5.8nm,0.8s,mb4.7						
MOS	Moscow	64.27	329	eP	pP	01 15 37.6	+4.6
MOS				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.3						
OBN	Obninsk	64.57	328	deP	P	01 15 23.6	-2.0
OBN				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
AKASG	Malin Array Be	67.35	322	P	P	01 15 40.9	-2.5
	comp=Z,4.9nm,0.7s,mb4.7,baz=81,slow=5.2,SNR=22						
IDI	Anoyia	67.82	305	P	P	01 15 46.0	-0.6
	comp=Z,6.7nm,0.6s,mb4.8,baz=98,slow=9.4,SNR=5.7						
MLR	Muntele Rosu	68.38	316	P	P	01 15 49.7	-0.3
	comp=Z,8.3nm,0.7s,mb4.9,baz=193,slow=2.5,SNR=12						
KWP	Kalwaria	71.23	320	eP	P	01 16 06.4	-0.9
	comp=Z,6.8nm,0.6s,mb4.8						
FINES	FINESS Array B	71.91	332	P	P	01 16 10.6	-0.6
	comp=Z,3.4nm,0.6s,mb4.5,baz=100,slow=6.0,SNR=25						
KAF	Kangasniemi	71.99	333	ep	P	01 16 11.0	-0.7
	comp=Z,2.3nm,0.4s,mb4.5						
KAF	Kangasniemi	71.99	333	eP	P	01 16 11.0	-0.7
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
OJC	Ojcow	73.17	320	eP	P	01 16 18.6	-0.2
OKC	Ostrava-Krasne	74.19	319	eP	P	01 16 24.3	-0.4
ARCES	ARCESS Array B	74.48	340	P	P	01 16 26.4	+0.4
	comp=Z,2.3nm,0.5s,mb4.4,baz=93,slow=6.9,SNR=21						
ARCES	ARCESS Array B	74.48	340	P	P	01 16 26.4	+0.4
ARE0	ARCESS Array S	74.48	340	P	P	01 16 24.4	-1.7
MORC	Moravsky Berou	74.58	319	eP	P	01 16 27.3	+0.3
	comp=Z,4.8nm,0.8s,mb4.5						
VRAC	Vranov	75.16	319	P	P	01 16 30.4	+0.1
	comp=Z,2.0nm,0.8s,mb4.1,baz=104,slow=3.1,SNR=4.4						
DPC	Dobruska-Polom	75.41	320	eP	P	01 16 32.0	+0.3
BOSA	Boshof	75.57	238	eP	P	01 16 35.0	+1.9
	comp=Z,11nm,1.0s,mb4.8						
UPC	Upice	75.62	320	eP	P	01 16 33.4	+0.5
PRU	Pruhonice	76.53	319	eP	P	01 16 38.4	+0.3
FX1	Attu Island--F	76.88	38	P	P	01 16 41.0	+1.0
	comp=Z,12nm,0.6s,mb5.0,baz=77,slow=11,SNR=4.9						
BRG	Berggiesshubel	76.95	320	eP	P	01 16 41.0	+0.6
BRG				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
BRG	Berggiesshubel	76.95	320	eP	P	01 16 41.0	+0.6

	comp=Z,3.8nm,0.8s,mb4.4						
GERES	**GERESS Array B**	77.03	318	P	P	01 16 41.2	+0.3
	comp=Z,4.0nm,0.7s,mb4.5,baz=85,slow=5.9,SNR=19						
KHC	**Kasperske Hory**	77.12	318	*e*P	P	01 16 41.3	-0.1
CLL	**Collm**	77.56	321	*e**PP	pP	01 16 54.0	+0.8
HFS	**Hagfors**	77.65	330	P	P	01 16 43.9	-0.1
	comp=Z,4.6nm,0.3s,mb4.8,baz=104,slow=6.1,SNR=62						
NB2	**NORSAR Subarra**	78.93	331	P	P	01 16 50.4	-0.7
	comp=Z,3.7nm,0.5s,mb4.6,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	78.93	331	P	P	01 16 50.4	-0.7
	baz=97,slow=5.1						
NOA	**NORSAR Array B**	78.93	331	P	P	01 16 50.8	-0.2
	comp=Z,3.3nm,0.6s,mb4.5,baz=95,slow=5.1,SNR=22						
MUD	**Monsted U'grnd**	79.90	326	*i* P	P	01 16 57.3	+0.9
MUD				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
MUD	**Monsted U'grnd**	79.90	326	*i* P	P	01 16 57.3	+0.9
	comp=Z,8.4nm,0.6s,mb4.8						
LPG	**La Plagne**	81.83	315	*e*P	P	01 17 07.8	+1.0
	comp=Z,22nm,0.7s,mb4.9						
ESDC	**Sonseca Array**	90.44	310	P	P	01 17 50.0	+0.7
	comp=Z,2.3nm,0.8s,mb4.5,baz=63,slow=3.5,SNR=7.7						
VNDA	**Vanda**	93.68	168	P	P	01 18 04.6	+1.2
	comp=Z,2.4nm,1.1s,mb4.5,baz=177,slow=8.2,SNR=2.2						
ILAR	**Eielson Array**	94.29	22	P	P	01 18 06.7	+0.2
	comp=Z,1.8nm,0.8s,mb4.5,baz=296,slow=6.1,SNR=14						
INK	**Inuvik**	96.47	16	P	P	01 18 17.0	+0.7
	comp=Z,1.9nm,0.7s,mb4.7,baz=4.6,slow=7.1,SNR=7.1						
INK	**Inuvik**	96.47	16	P	P	01 18 17.0	+0.7
YKA	**Yellowknife Ar**	105.88	13	PP	PP	01 23 19.8	-4.6
	comp=Z,0.1nm,0.4s,baz=337,slow=8.0,SNR=7.0						
ULM	**Lac du Bonnet**	120.86	7	PKP	PKPdf	01 23 41.3	-2.4
	comp=Z,1.1nm,0.6s,baz=321,slow=11,SNR=3.6						
NVAR	**Mina Array Bea**	124.57	30	PKP	PKPdf	01 23 48.9	-2.3
	comp=Z,0.4nm,0.4s,baz=251,slow=1.7,SNR=3.8						
PDAR	**Pinedale Array**	124.70	21	PKP	PKPdf	01 23 48.5	-2.9
	comp=Z,0.8nm,0.8s,baz=201,slow=1.9,SNR=5.6						
PDAR				PKKPbc		01 33 29.1	
	comp=Z,0.2nm,0.5s,baz=145,slow=5.7,SNR=3.8						
ANMO	**Albuquerque**	132.73	23	PKP	PKPdf	01 24 02.7	-4.2
	comp=Z,0.6nm,0.6s,baz=166,slow=5.1,SNR=3.7						
TXAR	**Lajitas Array**	138.79	23	PKP	PKPdf	01 24 15.3	-2.9
	comp=Z,0.4nm,0.5s,baz=143,slow=0.7,SNR=14						
BDFB	**Brasilia**	141.94	256	PKP	PKPdf	01 24 22.4	-1.8
	comp=Z,2.2nm,0.8s,baz=63,slow=9.7,SNR=3.9						
SJG	**San Juan**	146.87	323	PKPbc	PKPbc	01 24 31.3	+2.3
	comp=Z,29nm,0.2s,baz=332,slow=19,SNR=5.1						
SJG	**San Juan**	146.87	323	PKPbc	PKPbc	01 24 31.3	+2.3
PCRV	**Puerto La Cruz**	151.51	310	PKPbc	PKPdf	01 24 41.9	+1.9
	comp=Z,8.4nm,0.5s,baz=147,slow=1.8,SNR=9.4						
LVC	**Limon Verde**	158.21	228	PKPab	PKPab	01 25 22.3	+2.2
	comp=Z,5.1nm,0.7s,baz=353,slow=1.8,SNR=8.6						
LPAZ	**La Paz**	160.66	245	PKP	PKPdf	01 24 51.2	-0.5
	comp=Z,1.4nm,0.7s,baz=299,slow=4.0,SNR=6.1						
LPAZ				PKPab	PKPab	01 25 32.2	+1.4
	comp=Z,2.2nm,0.8s,baz=221,slow=0.9,SNR=6.1						

IDC 27 01:09:35.4±1.2**,7.65N×93.79E,mb4.0**/8**,mb1 4.1**/9**, mb1mx3.9**/18**,ML3.7**/1**,Error ellipse: s-maj=61.1km s-min=20.7km az=53.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	11.85	25	Pn	P	01 12 29.8	+1.1
	0.2nm,0.3s,baz=217,slow=14,SNR=4.9						
SONM	**Songino Array**	41.45	13	P	P	01 17 23.8	-1.6
	1.2nm,0.7s,baz=200,slow=8.8,SNR=5.4						
ZAL	**Zalesovo**	46.72	353	P	P	01 18 06.0	-1.9
	2.8nm,0.3s,baz=312,slow=4.2,SNR=11						
WRA	**Warramunga Arr**	48.41	125	P	P	01 18 19.5	-2.1
	0.2nm,0.4s,baz=306,slow=8.5,SNR=4.6						
ASAR	**Alice Springs**	50.04	130	P	P	01 18 32.2	-1.9
	0.9nm,0.6s,baz=301,slow=5.3,SNR=6.8						
FINES	**FINESS Array B**	72.74	332	P	P	01 21 05.1	-2.0
	3.4nm,0.9s,baz=102,slow=7.2,SNR=8.3						
ARCES	**ARCESS Array B**	75.36	340	P	P	01 21 20.7	-1.4
	1.9nm,1.0s,baz=101,slow=6.2,SNR=4.5						
GERES	**GERESS Array B**	77.76	318	P	P	01 21 34.9	-1.1
	0.1nm,0.3s,baz=90,slow=4.0,SNR=5.1						
NOA	**NORSAR Array B**	79.75	331	P	P	01 21 44.9	-1.7
	1.2nm,0.8s,baz=126,slow=7.7,SNR=3.0						

*IDC **27** 01:11:06.5±0.8,6.06N×92.97E,mb4.1/13,mb1 4.3/14, mb1mx4.2/20,ML4.3/1,Error ellipse: s-maj=45.6km s-min=16.3km az=49.0*

*NEIC **27** 01:11:10.7±0.5,5.91N×92.93E,h30^{km},mb4.3/4,Error ellipse: s-maj=19.5km s-min=10.0km az=57.0*

ISC 27 01:11:08.7±0.7**,5.9N**±0.1×**92.9E**±0.1**,h30^{km},n22, σ1^{s}02**/20**,mb4.2**/17**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	13.79	25	Pn	P	01 14 25.1	+0.3
	0.5nm,0.3s,baz=234,slow=14,SNR=14						
LSA	**Lhasa**	23.73	356	P	P	01 16 21.4	+2.0
	6.7nm,0.9s,mb4.1						
AAK	**Ala-Archa**	40.06	339	*e*P	P	01 18 44.1	+1.1
	4.3nm,1.0s,mb4.1						
SONM	**Songino Array**	43.34	13	P	P	01 19 08.8	-1.1
	0.5nm,0.7s,mb3.4,baz=196,slow=6.9,SNR=3.1						
SONM				PcP	PcP	01 20 59.4	+0.6
	0.4nm,0.5s,baz=199,slow=4.7,SNR=3.2						
WRA	**Warramunga Arr**	48.15	123	P	P	01 19 48.8	+0.3
	2.9nm,0.7s,mb4.4,baz=303,slow=9.1,SNR=14						
WRAB	**Tennant Creek**	48.15	123	*e*P	P	01 19 46.6	-1.9
	4.3nm,0.5s,mb4.7						
ZAL	**Zalesovo**	48.35	354	P	P	01 19 49.0	-0.6
	5.7nm,0.3s,mb5.0,baz=309,slow=5.4,SNR=20						
ZAL	**Zalesovo**	48.35	354	P	P	01 19 49.0	-0.6
ASAR	**Alice Springs**	49.62	128	P	P	01 20 00.4	+0.6
	1.9nm,0.5s,mb4.4,baz=298,slow=7.4,SNR=13						
BVAR	**Borovoye Array**	50.48	343	P	P	01 20 05.2	-0.8
	1.0nm,0.6s,mb4.1,baz=135,slow=6.3,SNR=4.3						
CHKZ	**Chkalovo**	50.98	343	*e*P	P	01 20 08.9	-0.8
	2.8nm,0.6s,mb4.4						
STKA	**Stephens Creek**	59.65	132	P	P	01 21 13.8	+1.0
	2.4nm,0.8s,mb4.3,baz=63,slow=5.5,SNR=2.9						
BRTR	**Keskin Array B**	62.82	312	P	P	01 21 34.6	+0.6
	1.4nm,0.7s,mb4.2,baz=128,slow=7.6,SNR=9.5						
AKASG	**Malin Array Be**	68.96	322	P	P	01 22 11.7	-1.5
	1.0nm,0.7s,mb3.9,baz=86,slow=5.5,SNR=5.3						
MLR	**Muntele Rosu**	69.75	316	P	P	01 22 17.4	-0.7
	3.5nm,0.9s,mb4.3,baz=347,slow=2.8,SNR=4.1						
FINES	**FINESS Array B**	73.89	333	P	P	01 22 42.3	-0.2
	6.6nm,1.2s,mb4.5,baz=225,slow=2.7,SNR=3.4						
ARCES	**ARCESS Array B**	76.71	341	P	P	01 22 58.7	+0.2
	1.0nm,0.6s,mb4.0,baz=90,slow=3.6,SNR=5.5						
ARCES	**ARCESS Array B**	76.71	341	P	P	01 22 58.7	+0.2
GERES	**GERESS Array B**	78.49	319	P	P	01 23 10.5	+1.8
	1.0nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=7.6						
NOA	**NORSAR Array B**	80.85	331	P	P	01 23 20.9	-0.2
	0.7nm,0.8s,mb3.6,baz=309,slow=18,SNR=2.4						
PDAR	**Pinedale Array**	127.43	21	PKP	PKPdf	01 30 13.8	-2.5
	0.4nm,0.9s,baz=72,slow=4.7,SNR=3.5						
TXAR	**Lajitas Array**	141.51	24	PKP	PKPdf	01 30 43.0	+0.2
	0.3nm,0.6s,baz=322,slow=0.9,SNR=4.3						

*IDC **27** 01:11:41.4±1.7,3.26N×94.55E,mb4.0/5,mb1 4.2/5, mb1mx3.9/18,Error ellipse: s-maj=80.1km s-min=23.7km az=53.0*

NEIC 27 01:11:45.4±1.3**,3.21N×94.38E,h30^{km},mb4.1**/2**,Error ellipse: s-maj=61.5km s-min=14.5km az=52.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAK	**Ala-Archa**	43.07	338	P	P	01 19 41.5	-3.1
	2.4nm,1.2s						
WRA	**Warramunga Arr**	45.49	122	P	P	01 20 02.5	-1.7
	1.9nm,0.7s,baz=304,slow=8.9,SNR=5.6						
WRAB	**Tennant Creek**	45.49	122	*e*P	P	01 20 03.3	-0.9
	7.4nm,0.8s						
SONM	**Songino Array**	45.64	11	P	P	01 20 03.7	-1.5
	0.8nm,0.6s,baz=191,slow=8.8,SNR=3.8						
ASAR	**Alice Springs**	46.85	127	P	P	01 20 11.8	-3.1
	0.9nm,0.5s,baz=301,slow=8.1,SNR=7.2						
BVAR	**Borovoye Array**	53.46	342	P	P	01 21 02.7	-2.3
	1.1nm,0.6s,baz=150,slow=12,SNR=3.5						
CHKZ	**Chkalovo**	53.96	343	*e*P	P	01 21 06.2	-2.5
	2.1nm,0.5s						
CHKZ				*e*pP	pP	01 21 14.9	-2.9
GERES	**GERESS Array B**	81.45	319	P	P	01 24 01.2	-0.1
	0.8nm,0.7s,baz=90,slow=5.3,SNR=4.1						

*IDC **27** 01:18:32.8±1.2,8.51N×93.93E,mb4.0/10,mb1 4.2/10, mb1mx4.0/17,Error ellipse: s-maj=61.1km s-min=17.4km az=56.0*

ISC 27 01:18:36.3±0.8**,8.6N**±0.1×**94.1E**±0.2**,h33^{km},n12, σ0^{s}75**/12**,mb4.0**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHG	**Chiang Mai**	11.22	24	PG	P	01 21 16.9	-0.6
CHG				SG	Px	01 21 36.5	
SONM	**Songino Array**	40.49	13	P	P	01 26 14.7	+1.0
	0.5nm,0.6s,mb3.4,baz=207,slow=8.3,SNR=4.0						
ZAL	**Zalesovo**	45.84	352	P	P	01 26 56.5	-0.5
	3.0nm,0.9s,mb4.2,baz=292,slow=8.5,SNR=13						
BVAR	**Borovoye Array**	48.30	341	P	P	01 27 15.3	-1.0
	1.1nm,0.8s,mb3.9,baz=157,slow=11,SNR=3.2						
WRA	**Warramunga Arr**	48.73	126	P	P	01 27 20.0	-0.1
	0.9nm,0.5s,mb4.0,baz=301,slow=9.0,SNR=3.8						
ASAR	**Alice Springs**	50.42	130	P	P	01 27 33.0	-0.1
	0.8nm,0.5s,mb4.0,baz=315,slow=9.4,SNR=5.7						
STKA	**Stephens Creek**	60.64	134	P	P	01 28 46.2	-0.5
	3.4nm,0.9s,mb4.5,baz=202,slow=17,SNR=2.4						
FINES	**FINESS Array B**	72.06	332	P	P	01 29 59.2	+0.5
	3.2nm,1.0s,mb4.2,baz=149,slow=40,SNR=2.4						
ARCES	**ARCESS Array B**	74.58	340	P	P	01 30 12.9	-0.5
	4.3nm,0.9s,mb4.4,baz=56,slow=8.7,SNR=3.6						
GERES	**GERESS Array B**	77.26	318	P	P	01 30 29.2	+0.1
	1.2nm,0.8s,mb3.9,baz=124,slow=4.8,SNR=6.0						
NB2	**NORSAR Subarra**	79.09	331	P	P	01 30 43.8	+5.0
	2.4nm,0.9s,mb4.1,baz=91,slow=4.8						
ILAR	**Eielson Array**	94.12	22	P	P	01 31 54.1	+1.7
	0.3nm,0.7s,mb3.8,baz=307,slow=5.2,SNR=4.3						

*IDC **27** 01:19:26.9±0.9,13.98N×93.34E,mb4.1/11,mb1 4.3/12, mb1mx4.1/20,ML4.6/1,Error ellipse: s-maj=28.9km s-min=19.8km az=42.0*

ISC 27 01:19:30.0±0.8**,14.15N**±0.09×**93.24E**±0.07**,h33^{km},n19, σ1^{s}18**/19**,mb4.2**/11**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	6.95	51	Pn	Pn	01 21 12.4	+0.2
	3.0nm,0.3s,baz=242,slow=15,SNR=20						
CMAR				Sn	Sn	01 22 31.2	+0.2
	3.8nm,0.3s,baz=241,slow=28,SNR=6.1						
IMP	**Imphal**	10.60	3	*e*	P	01 22 01.6	-1.1
IMP				*e*		01 26 01.8	
PKI	**Pulchoki**	15.22	333	*e*P	P	01 23 03.3	-0.9
	26nm,0.6s						
GUN	**Gumba**	15.31	335	*e*P	P	01 23 06.0	+0.6
	28nm,0.6s						
DMN	**Daman**	15.39	332	*e*P	P	01 23 04.0	-2.4
	26nm,0.7s						
KKN	**Kakani**	15.46	333	*e*P	P	01 23 07.1	-0.3
KOLN	**Koldanda**	16.25	328	*e*P	P	01 23 17.4	-0.1
	18nm,0.6s						
JOW	**Kunigami**	35.04	63	P	P	01 26 22.3	+0.4
	7.0nm,0.5s,mb4.8,baz=116,slow=22,SNR=5.1						
SONM	**Songino Array**	35.32	15	P	P	01 26 23.8	-0.3
	1.2nm,0.6s,mb4.0,baz=203,slow=8.3,SNR=7.0						
WRA	**Warramunga Arr**	52.75	129	P	P	01 28 43.5	-0.7
	1.9nm,0.9s,mb4.0,baz=310,slow=8.0,SNR=3.4						
ASAR	**Alice Springs**	54.71	133	P	P	01 28 55.9	-2.8
	5.8nm,1.2s,mb4.5,baz=312,slow=6.6,SNR=6.4						
FINES	**FINESS Array B**	66.80	331	P	P	01 30 23.1	+2.9
	0.8nm,0.5s,mb4.0,baz=117,slow=8.5,SNR=3.3						
ARCES	**ARCESS Array B**	69.10	340	P	P	01 30 37.7	+3.3
	0.8nm,0.6s,mb3.8,baz=90,slow=6.1,SNR=4.8						
GERES	**GERESS Array B**	72.62	317	P	P	01 30 55.8	-0.1
	1.2nm,0.6s,mb4.0,baz=90,slow=5.3,SNR=5.1						
HFS	**Hagfors**	72.64	329	P	P	01 30 58.8	+3.0
	2.7nm,0.6s,mb4.3,baz=104,slow=5.9,SNR=6.9						
NOA	**NORSAR Array B**	73.88	330	P	P	01 31 03.8	+0.7
	1.0nm,0.7s,mb3.8,baz=96,slow=5.5,SNR=3.0						
ILAR	**Eielson Array**	89.29	22	P	P	01 32 23.9	+0.2
	0.5nm,0.6s,mb4.0,baz=301,slow=4.0,SNR=5.5						
INK	**Inuvik**	91.24	16	P	P	01 32 33.2	+0.4
	3.2nm,1.3s,mb4.5,baz=301,slow=2.7,SNR=2.4						
TXAR	**Lajitas Array**	133.79	21	PKP	PKPdf	01 38 49.0	+4.6
	0.3nm,0.6s,baz=342,slow=2.3,SNR=4.8						

*IDC **27** 01:22:17.1±0.6,3.39N×94.84E,mb4.7/14,mb1 4.8/15, mb1mx4.7/24,ML4.7/1,MS4.6/4,Ms1 4.7/4,ms1mx4.0/28, Error ellipse: s-maj=27.0km s-min=13.6km az=49.0*

*MOS **27** 01:22:20.3±1.6,3.33N×94.79E,h33^{km},mb5.3/26,Error ellipse: s-maj=13.7km s-min=7.8km az=115.6*

*NEIC **27** 01:22:24.1±0.3,3.35N×94.89E,mb5.0/16,Error ellipse: s-maj=8.9km s-min=6.4km az=55.0*

*BJI **27** 01:22:24.0,3.30N×94.90E,h47^{km},mb4.9,Ms5.2,Msz5.1*

*HRVD **27** 01:22:24.1±1.0,3.20N×94.95E,h29^{km}±2^{km},MW5.1/28, Centroid moment Tensor Solution. LP body waves: s5,c5; Mantle waves: s28,c44; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.72±1.24; $M_{\theta\theta}$-4.35±.70; $M_{\phi\phi}$-0.37±.71; $M_{r\theta}$1.81±.78; $M_{\theta\phi}$2.90±.43; $M_{\phi r}$-1.67±1.17; Best double couple: $M_0$5.86×10^{16} NP1:ϕ_s288°,δ34°,λ75°. NP2:ϕ_s126°, δ58°,λ100°. Principal axes: T 5.32, Plg75°, Azm63°; N 1.07, Plg8°, Azm301°; P -6.39, Plg12°, Azm209°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*DJA **27** 01:23:10.4±12.0,2.01N×98.81E,h100^{km},mb4.8/2 Error ellipse: s-maj=462.3km s-min=34.2km az=97.0*

ISC 27 01:22:22.7±0.3**,3.37N**±0.06×**94.89E**±0.06**,h50^{km}, h50^{km}**±1.9^{km}**:pP-P,n82,σ1^{s}15**/70**,mb4.9**/35**,MS4.8**/4**, 2C-4D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PENI	**Pendagan**	13.57	131⇑	*e*P	P	01 25 29.2	-5.4
	76nm,0.5s						
PALK	**Pallekele**	14.65	286	P	P	01 25 50.1	+1.4
	24nm,0.8s						
CM31	**Chiang Mai Arr**	15.51	15	P	P	01 26 01.8	+2.0
	114nm,1.1s						
CMAR	**Chiang Mai Arr**	15.51	15	Pn	P	01 26 01.3	+1.5
	1.1nm,0.3s,baz=211,slow=11,SNR=12						
CMAR				LR	LR	01 32 23.5	
	comp=Z,1μm,18.7s,baz=210,slow=39						
TRD	**Trivandrum**	18.55	287	*e*P	P	01 26 40.0	+2.2
TRD				*e*		01 26 40.7	
	comp=Z,82nm,1.3s						
SRDI	**Scrawed**	22.52	122⇑	*e*P	P	01 27 21.0	+1.4
	comp=Z,64nm,1.0s,mb4.7						
KELI	**Kelakatan**	22.69	121⇓	*e*P	P	01 27 24.6	+3.4
KMI	**Kunming**	22.91	19	P	P	01 27 24.3	+1.0
KMI				AMB	AMB		
	comp=Z,34nm,1.1s,mb4.7						
KEDI	**Kedomdong**	24.22	119⇓	*e*P	P	01 27 39.7	+3.6
TANI	**Tanete Lipujan**	25.39	105⇓	*e*P	P	01 27 49.1	+1.7
LSA	**Lhasa**	26.43	353	*e*P	P	01 27 56.9	+0.1
LSA				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.2						
LSA	**Lhasa**	26.43	353	*e*P	P	01 27 56.9	+0.1
	comp=Z,56nm,0.8s,mb5.1						
ENH	**Enshi**	30.11	26	P	P	01 28 30.2	+0.2
	comp=Z,44nm,1.0s,mb5.1						
LZH	**Lanzhou**	33.59	13	*e*P	P	01 29 03.5	+3.1
LZH				AMB	AMB		
	comp=Z,60nm,1.4s,mb5.3						
LZH				LR	LR		
	comp=E,2μm,14.5s						
LZH				LR	LR		
	comp=Z,2μm,16.0s,MS5.0						
WMQ	**Urumqi**	40.78	352	P	P	01 30 00.8	+0.1
WMQ				AMB	AMB		
	comp=Z,14nm,1.1s,mb4.5						
BJT	**Baijiatuau**	41.26	25	*e*P	P	01 30 05.2	+0.6
BJT				pmax	pmax		
	comp=Z,90nm,1.4s						
BJT	**Baijiatuau**	41.26	25	*e*P	P	01 30 05.2	+0.6
	comp=Z,90nm,1.4s,mb5.2						
NWAO	**Narrogin (SRO)**	41.84	151	P	P	01 30 08.6	-1.0
	comp=Z,16nm,1.0s,mb4.6,baz=1.1,slow=13,SNR=2.3						
AAK	**Ala-Archa**	43.12	338	*e*P	P	01 30 19.2	-0.8
AAK				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.6						
AAK	**Ala-Archa**	43.12	338	*e*P	P	01 30 19.2	-0.7
	comp=Z,14nm,1.1s,mb4.6						
FRU	**Bishkek**	43.25	338	*e*P	P	01 30 21.0	0.0
FRU				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.1						
WRA	**Warramunga Arr**	45.14	123	P	P	01 30 35.9	-0.6
	comp=Z,35nm,0.9s,mb5.2,baz=301,slow=8.9,SNR=31						
WRAB	**Tennant Creek**	45.14	122	*e*P	P	01 30 35.0	-1.5
WRAB				pmax	pmax		
	comp=Z,116nm,1.3s,mb5.5						
WRAB	**Tennant Creek**	45.14	122	*e*P	P	01 30 35.0	-1.5
	comp=Z,116nm,1.3s,mb5.5						
WRAB				*e*		01 30 38.1	
SONM	**Songino Array**	45.40	11	P	P	01 30 37.5	-0.7
	comp=Z,7.6nm,0.9s,mb4.5,baz=193,slow=8.5,SNR=6.6						
SONM				PcP	PcP	01 32 17.1	-0.2
	comp=Z,1.8nm,0.9s,baz=182,slow=3.8,SNR=3.5						
ULN	**Ulaanbaatar**	45.55	11	P	P	01 30 38.7	-0.7
ULN				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
ULN	**Ulaanbaatar**	45.55	11	P	P	01 30 38.7	-0.7
	comp=Z,10nm,1.1s,mb4.7						
SNY	**Shenyang**	46.11	30	⇓P	P	01 30 43.0	-0.9
SNY				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.8						
ASAR	**Alice Springs**	46.53	127	P	P	01 30 46.7	-0.8
	comp=Z,7.5nm,0.6s,mb4.8,baz=300,slow=7.0,SNR=22						
ASAR				PcP	PcP	01 32 20.3	-1.3
	comp=Z,2.4nm,0.8s,baz=297,slow=4.0,SNR=2.5						
HIA	**Hailar**	50.40	21	*e*P	P	01 31 16.4	-0.7
HIA				pmax	pmax		
	comp=Z,28nm,1.6s						
HIA	**Hailar**	50.40	21	*e*P	P	01 31 16.4	-0.7
	comp=Z,28nm,1.6s,mb5.0						
ZAL	**Zalesovo**	51.08	352	P	P	01 31 21.0	-1.2
	comp=Z,3.6nm,0.5s,mb4.5,baz=293,slow=6.0,SNR=7.1						
BVAR	**Borovoye Array**	53.47	342	P	P	01 31 38.3	-1.8
	comp=Z,4.6nm,0.6s,mb4.6,baz=137,slow=11,SNR=13						
BRVK	**Borovoye**	53.53	342	*e*P	P	01 31 38.8	-1.7
BRVK				*e**PP	pP	01 31 52.3	-2.0
BRVK				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.8						
BRVK	**Borovoye**	53.53	342	*e*P	P	01 31 38.8	-1.7
	comp=Z,16nm,1.3s,mb4.8						
BRVK				*e*pP	pP	01 31 52.2	-2.1
PMG	**Port Moresby**	53.61	104	P	P	01 31 40.5	-1.1
	comp=Z,21nm,0.9s,mb5.1,baz=280,slow=5.4,SNR=9.5						
CHKZ	**Chkalovo**	53.96	342	*e*P	P	01 31 42.4	-1.3
CHKZ				*e**PP	pP	01 31 55.5	-2.0
CHKZ				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
CHKZ	**Chkalovo**	53.96	342	*e*P	P	01 31 42.4	-1.3
	comp=Z,16nm,0.7s,mb5.1						
CHKZ				*e*pP	pP	01 31 55.5	-2.0
CTA	**Charters Tower**	55.53	117	P	P	01 31 56.1	+0.5
	comp=Z,25nm,1.1s,mb5.2,baz=281,slow=8.4,SNR=10						
CTA				LR	LR	01 56 45.0	
	comp=Z,693nm,20.6s,MS4.7,baz=288,slow=37						
CTAO	**Charters Tower**	55.53	117	*e*P	P	01 31 56.1	+0.5
CTAO				*e**PP	pP	01 32 08.2	-1.2
CTAO				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.5						
CTAO	**Charters Tower**	55.53	117	*e*P	P	01 31 56.0	+0.5
	comp=Z,58nm,1.3s,mb5.5						
CTAO				*e*pP	pP	01 32 08.2	-1.3
BOD	**Bodaibo**	56.35	12	*e*P	P	01 31 57.6	-3.3
STKA	**Stephens Creek**	56.51	132	P	P	01 32 01.9	-0.6
	comp=Z,14nm,1.1s,mb4.9,baz=285,slow=6.3,SNR=7.4						
KMBO	**Kilima Mbogo**	57.78	267	P	P	01 32 11.0	-0.7
	comp=Z,2.2nm,1.0s,mb4.1,baz=48,slow=14,SNR=4.4						
ASAJ	**Asahikawa**	58.38	39	LR	LR	01 58 34.4	
	comp=Z,676nm,19.0s,MS4.8,baz=272,slow=37						
ASF	**Jabal al Asfar**	61.34	305	LR	LR	01 59 51.8	
	comp=Z,518nm,18.6s,MS4.7,baz=86,slow=37						
YAK	**Yakutsk**	64.03	17	*e*P	pP	01 33 10.6	+3.2
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
YAK				pmax	pmax		
	comp=E,8.0nm,1.2s						
AVNT	**Avonos**	64.78	312	*i* P	P	01 32 56.3	-2.3
ELDT	**Eldivan**	66.33	313	*i* P	P	01 33 06.5	-2.0
IDI	**Anoyia**	71.77	306	P	P	01 33 42.0	0.0
	comp=E,9.3nm,0.7s,mb4.8,baz=356,slow=23,SNR=7.2						
AKASG	**Malin Array Be**	72.14	323	P	P	01 33 42.2	-1.7
	comp=E,3.2nm,0.6s,mb4.4,baz=84,slow=4.7,SNR=15						
AKASG	**Malin Array Be**	72.14	323	P	P	01 33 42.3	-1.6
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
LBTB	**Lobatse**	72.80	243	*e*P	P	01 33 48.5	+0.2
LBTB				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
LBTB	**Lobatse**	72.80	243	*e*P	P	01 33 48.5	+0.2
	comp=Z,20nm,1.0s,mb5.0						
KOLS	**Kolonicke sedl**	76.08	320	*e*P	P	01 34 08.0	+1.2
KOLS				*e*pP	pP	01 34 22.2	+1.0
CRVS	**Cervenica-Dubn**	76.60	319	*e*P	P	01 34 11.2	+1.5
NIE	**Niedzica**	77.43	320	*e*P	P	01 34 15.1	+0.7
OJC	**Ojcow**	77.89	321	*e*P	P	01 34 15.7	-1.2
VYHS	**Vyhne**	78.25	319	*i* P	P	01 34 19.0	+0.1
SUR	**Sutherland**	78.43	236	*e*P	P	01 34 20.8	+0.6
	comp=Z,19nm,1.0s,mb5.0						
OKC	**Ostrava-Krasne**	78.89	320	*e*P	P	01 34 22.7	+0.3
OKC				*e*pP	pP	01 34 37.4	+0.5
MORC	**Moravsky Berou**	79.27	320	*e*P	P	01 34 24.8	+0.3
MORC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MORC	**Moravsky Berou**	79.27	320	*e*P	P	01 34 24.8	+0.3
	comp=Z,10.0nm,1.0s,mb4.7						
ZST	**Bratislava**	79.36	318	*e*P	P	01 34 25.5	+0.5
ZST				*e*	pP	01 34 40.2	+0.7
BILL	**Bilibino**	79.98	21	*e*P	P	01 34 27.8	-0.1
BILL				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
BILL	**Bilibino**	79.98	21	*e*P	P	01 34 27.8	-0.2
	comp=Z,8.7nm,1.1s,mb4.6						
DPC	**Dobruska-Polom**	80.12	320	*e*P	P	01 34 29.7	+0.7
DPC				*e*pP	pP	01 34 45.4	+1.8
PRU	**Pruhonice**	81.22	320	*e*P	P	01 34 35.1	+0.2
BRG	**Berggiesshubel**	81.68	321	*i* P	P	01 34 37.9	+0.7
BRG				*e*	pP	01 34 53.6	+1.8
BRG				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
BRG	**Berggiesshubel**	81.68	321	*i* P	P	01 34 37.9	+0.7
	comp=Z,14nm,1.3s,mb4.7						
BRG				*e*	pP	01 34 53.6	+1.8
KHC	**Kasperske Hory**	81.78	319	*e*P	P	01 34 37.9	+0.2
URZ	**Urewera**	85.96	129	P	P	01 35 01.0	+1.9
	comp=Z,24nm,1.1s,mb5.3,baz=121,slow=4.8,SNR=4.1						
VNDA	**Vanda**	88.39	168	P	P	01 35 10.1	+0.1
	comp=Z,3.6nm,1.1s,mb4.5,baz=36,slow=9.5,SNR=2.5						
HLID	**Hailey**	126.35	26	PKPdf	PKPdf	01 41 23.2	+2.8
NVAR	**Mina Array Bea**	128.32	33	PKP	PKPdf	01 41 27.1	+2.7
	comp=Z,1.5nm,0.8s,baz=180,slow=1.8,SNR=3.5						
PDAR	**Pinedale Array**	129.03	23	PKP	PKPdf	01 41 26.2	+0.6
	comp=Z,5.0nm,1.3s,slow=3.0,SNR=7.7						
TXAR	**Lajitas Array**	142.93	27	PKhKP		01 41 50.3	
	comp=Z,0.5nm,0.8s,baz=283,slow=0.5,SNR=4.7						
JCT	**Junction City**	143.53	22	*e*PKIKP	PKPdf	01 41 54.9	+2.4
LVC	**Limon Verde**	155.25	218	*e*PKPdf	PKPdf	01 42 14.3	+3.4
LPAZ	**La Paz**	158.94	231	PKP	PKPdf	01 42 18.4	+2.5
	comp=Z,0.8nm,0.7s,baz=347,slow=9.7,SNR=3.2						
LPAZ				PKPab	PKPab	01 42 55.0	+0.4
	comp=Z,2.9nm,0.8s,baz=100,slow=6.7,SNR=8.2						
LPAZ	**La Paz**	158.94	231	PKIKP	PKPdf	01 42 18.4	+2.6
LPAZ						01 42 55.0	
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LPAZ	**La Paz**	158.94	231	*e*PKPdf	PKPdf	01 42 18.6	+2.8
LPAZ				*e*PKPab	PKPab	01 42 55.0	+0.4

*IDC **27** 01:23:05.8±0.5,13.08N×92.98E,mb4.6/24,mb1 4.7/25, mb1mx4.6/28,ML4.4/1,MS4.5/1,Ms1 4.5/1,ms1mx3.4/26, Error ellipse: s-maj=20.5km s-min=12.7km az=47.0*

*MOS **27** 01:23:09.3±1.1,13.15N×93.13E,h33^{km},mb5.1/23,Error ellipse: s-maj=11.9km s-min=6.6km az=112.6*

*BJI **27** 01:23:09.7,13.11N×93.06E,h44^{km},mB5.3,mb4.7,Ms4.8, Msz4.5*

*NEIC **27** 01:23:11.5±1.7,13.17N×93.13E,h36^{km}±15^{km},mb4.8/19, Error ellipse: s-maj=12.3km s-min=7.5km az=52.0*

ISC 27 01:23:09.4±0.3**,13.15N**±0.05×**93.12E**±0.04**,h33^{km}, (h28^{km}**±8.7^{km}**:pP-P),n124,σ1^{s}08**/127**,mb4.8**/55**,MS4.6**/6**, 6D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	7.69	46	*e*Pn	Pn	01 25 00.8	-1.2
CMAR	Chiang Mai Arr	7.69	46	Pn	Pn	01 25 00.9	-1.1
	1.5nm,0.3s,baz=238,slow=14,SNR=10						
CMAR				Sn	Sn	01 26 24.7	-4.2
	baz=217,slow=11,SNR=3.2						
VIS	Vishakhapatnam	10.48	297	*e*P	P	01 25 36.7	-3.8
VIS				*e*S	x	01 27 22.4	
VIS				*e*	S	01 27 31.6	-6.1
	comp=N,218nm,0.8s						
VIS				*e*		01 27 31.7	
	comp=E,127nm,0.9s						
BOK	Bokaro	12.61	328	*e*P	P	01 26 10.8	+1.5
BLSP	Bilaspur	13.76	312	*e*P	P	01 26 22.6	-1.9
BLSP				*e*		01 26 25.9	
	comp=Z,98nm,0.9s						
BLSP				*e*S	S	01 28 44.0	-13
PKI	Pulchoki	16.05	334	*e*P	P	01 26 53.9	-0.4
	comp=Z,137nm,1.1s						
GUN	Gumba	16.16	336	*e*P	P	01 26 55.0	-0.7
DMN	Daman	16.22	334	*e*P	P	01 26 55.3	-1.1
	comp=Z,126nm,0.8s						
KKN	Kakani	16.30	334	*e*P	P	01 26 56.2	-1.2
	comp=Z,51nm,0.8s						
LSA	Lhasa	16.57	354	*e*P	P	01 27 01.9	+1.1
LSA				pmax	pmax		
	comp=Z,49nm,1.1s						
LSA	Lhasa	16.57	354	*e*P	P	01 27 01.9	+1.1
	comp=Z,49nm,1.1s						
GKN	Gorkha	16.76	333	*e*P	P	01 27 02.7	-0.6
KOLN	Koldanda	17.05	330	*e*P	P	01 27 05.9	-0.9
	comp=Z,281nm,1.4s						
BHPL	Bhopal	17.96	306	*e*P	P	01 27 18.2	-0.1
BHPL				*e*		01 27 23.3	
	comp=Z,70nm,1.4s						
BHPL				*e*S	S	01 30 35.6	+1.0
GYA	Guiyang	18.35	42	⇓P	P	01 27 24.0	+0.8
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s						
GYA				AMB	AMB		
	comp=Z,370nm,11.1s						
GYA				LR	LR		
	comp=N,2µm,11.9s						
GYA				LR	LR		
	comp=E,2µm,11.9s						
GYA				LR	LR		
	comp=Z,2µm,13.1s						
POO	Poona	19.29	289	*e*P	P	01 27 32.0	-2.4
POO				*e*		01 27 36.6	
	comp=Z,30nm,1.2s						
CD2	Chengdu	20.21	27	P	P	01 27 45.0	+0.8
CD2				AMB	AMB		
	comp=Z,60nm,0.8s						
CD2				LR	LR		
	comp=N,2µm,17.4s						
CD2				LR	LR		
	comp=Z,1µm,15.6s,MS4.4						
PTH	Pithoragarh	20.23	326	*e*P	P	01 27 45.8	+1.3
DDI	Dehra Dun	22.04	323	*e*P	P	01 28 05.3	+2.4
DDI				*e*S	S	01 32 12.0	+13
ENH	Enshi	22.78	39	*e*P	P	01 28 09.5	-0.8
	comp=Z,84nm,1.0s,mb5.1						
LZH	Lanzhou	24.79	21	*e*P	P	01 28 31.3	+1.6
LZH				AMB	AMB		
	comp=Z,52nm,1.2s,mb4.9						
LZH				LR	LR		
	comp=E,2µm,14.5s						
LZH				LR	LR		
	comp=Z,2µm,16.0s,MS4.8						
XAN	Xi’an	25.27	32	P	P	01 28 33.0	-1.3
XAN				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.8						
GTA	Gaotai	26.81	12	*e*P	P	01 28 48.5	-0.1
GTA				AP	pP	01 28 55.5	-2.5
GTA				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.1						
GTA				AMB	AMB		
	comp=Z,518nm,10.8s						
GTA				LR	LR		
	comp=N,844nm,17.2s,MS4.4						
GTA				LR	LR		
	comp=E,636nm,18.7s,MS4.4						
GTA				LR	LR		
	comp=Z,877nm,19.9s,MS4.3						
NJ2	Nanjing	30.17	47	*e*P	P	01 29 19.3	+0.5
NJ2				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,1µm,6.0s						
KSH	Kashi	30.31	333	*e*P	P	01 29 22.0	+2.0
KSH				*e*AP	pP	01 29 26.5	-3.1
KSH				*e*PP	PP	01 30 19.0	-0.6
KSH				AMB	AMB		
	comp=Z,220nm,5.0s						
HHC	Hu-ho-hao-te	31.97	27	*e*P	P	01 29 34.5	-0.1
HHC				AP	pP	01 29 44.0	-0.3
HHC				XP	sP	01 29 52.5	+3.9
HHC				S	S	01 34 48.5	+5.9
HHC				XS		01 35 02.5	
HHC				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,538nm,9.2s						
HHC				LR	LR		
	comp=N,702nm,11.3s,MS4.7						
HHC				LR	LR		
	comp=E,633nm,13.7s,MS4.7						
AAK	Ala-Archa	33.51	335	*e*P	P	01 29 47.6	-0.4
AAK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
AAK	Ala-Archa	33.51	335	*e*P	P	01 29 47.6	-0.4
	comp=Z,15nm,1.1s,mb4.8						
BJT	Baijiatuau	33.57	33	*e*P	P	01 29 49.2	+0.7
BJT				pmax	pmax		
	comp=Z,11nm,1.0s						
BJT	Baijiatuau	33.57	33	*e*P	P	01 29 49.2	+0.7
	comp=Z,11nm,1.0s,mb4.8						
BJI	Beijing	33.59	33	P	P	01 29 49.3	+0.6
BJI				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.7						
JOW	Kunigami	35.59	62	P	P	01 30 06.3	+0.3
	comp=Z,27nm,1.0s,mb5.1						
JOW				LR	LR	01 48 11.7	
	comp=Z,695nm,18.9s,MS4.4,baz=63,slow=42						
SONM	Songino Array	36.31	15	P	P	01 30 11.9	+0.2
	comp=Z,10nm,1.1s,mb4.7,baz=196,slow=9.0,SNR=22						
SONM				ScP		01 36 23.3	
	comp=Z,0.8nm,0.9s,baz=180,slow=2.9,SNR=2.5						
ULN	Ulaanbaatar	36.51	16	*e*P	P	01 30 13.2	-0.3
ULN				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.5						
ULN	Ulaanbaatar	36.51	16	*e*P	P	01 30 13.2	-0.2
	comp=Z,9.6nm,1.2s,mb4.5						
ZAK	Zakamensk	38.04	11	*e*P	P	01 30 26.1	-0.2
ZAK				*e*		01 32 43.5	
ZAL	Zalesovo	41.22	353	P	P	01 30 52.5	-0.1
	comp=Z,6.6nm,1.0s,mb4.2,baz=295,slow=8.6,SNR=13						
CN2	Changchun	41.24	36	*e*P	P	01 30 53.5	+0.6
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.7						
CN2				LR	LR		
	comp=N,1µm,15.0s,MS5.0						
CN2				LR	LR		
	comp=E,1µm,15.0s,MS5.0						
CN2				LR	LR		
	comp=Z,1µm,16.0s,MS4.8						
HIA	Hailar	42.16	26	P	P	01 31 00.2	-0.2
HIA				pmax	pmax		
	comp=Z,24nm,2.0s						
HIA	Hailar	42.16	26	P	P	01 31 00.2	-0.2
	comp=Z,24nm,2.0s,mb4.5						
BVAR	Borovoye Array	43.71	340	P	P	01 31 12.7	-0.3
	comp=Z,7.2nm,1.0s,mb4.4,baz=153,slow=6.6,SNR=13						
BRVK	Borovoye	43.77	340	*e*P	P	01 31 12.6	-0.9
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
BRVK	Borovoye	43.77	340	*e*P	P	01 31 12.6	-0.9
	comp=Z,10nm,1.0s,mb4.5						
CHKZ	Chkalovo	44.18	341	*e*P	P	01 31 16.2	-0.6
CHKZ				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.9						
CHKZ	Chkalovo	44.18	341	*e*P	P	01 31 16.2	-0.6
	comp=Z,27nm,1.0s,mb4.9						
BOD	Bodaibo	47.31	15	*e*P	P	01 31 40.2	-1.3
KLR	Kul’dur	47.96	33	*e*P	P	01 31 47.5	+0.7
KLR				pmax	pmax		
	comp=E,63nm,2.0s						
KLR				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.4						
KLR	Kul’dur	47.96	33	*e*P	P	01 31 47.5	+0.7
KLR				pmax	pmax		
	comp=E,63nm,2.0s						
KLR				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.4						
GNI	Garni	50.12	312	P	P	01 32 04.1	+0.5
	comp=Z,21nm,1.0s,mb5.1,baz=45,slow=5.2,SNR=10						
SVE	Sverdlovsk	50.16	337	⇓*e*P	P	01 32 04.0	+0.3
SVE				*e*		01 33 17.0	
SVE				pmax	pmax		
	comp=Z,60nm,1.8s,mb5.3						
TI2	Plekhanov	50.63	314	*e*P	P	01 32 09.0	+1.5
TI2	Plekhanov	50.63	314	*e*P	P	01 32 09.0	+1.5
ARU	Arti	50.68	336	*e*P	P	01 32 08.8	+1.2
NWAO	Narrogin (SRO)	51.28	154	P	P	01 32 12.7	+0.2
	comp=Z,12nm,0.8s,mb4.9,baz=302,slow=5.1,SNR=3.6						
ZEI	Tsey	51.58	315	*e*P	P	01 32 15.9	+1.3
ZEI				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
ZEI	Tsey	51.58	315	*e*P	P	01 32 15.9	+1.3
ZEI				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
WRA	Warramunga Arr	52.22	128	P	P	01 32 19.3	-0.3
	comp=Z,3.4nm,0.7s,mb4.4,baz=306,slow=8.3,SNR=5.5						
WRAB	Tennant Creek	52.22	128	*e*P	P	01 32 19.1	-0.5
WRAB				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
WRAB	Tennant Creek	52.22	128	*e*P	P	01 32 19.1	-0.5
	comp=Z,5.9nm,0.6s,mb4.7						
ERZM	Erzurum	52.53	310	*i* P	P	01 32 23.9	+2.2
KIV	Kislovodsk	52.81	316	P	P	01 32 25.0	+1.2
	comp=Z,149nm,0.9s,mb5.9,SNR=10.0						
KIV	Kislovodsk	52.81	316	*e*P	P	01 32 24.6	+0.8
KIV				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.2						
KIV	Kislovodsk	52.81	316	*e*P	P	01 32 24.6	+0.8
KIV				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.2						
KIV	Kislovodsk	52.81	316	*e*P	P	01 32 24.6	+0.9
	comp=Z,23nm,0.8s,mb5.2						
GOF	Gofitskoye	52.95	317	*e*P	P	01 32 27.0	+2.2
GOF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
GOF	Gofitskoye	52.95	317	*e*P	P	01 32 27.0	+2.2
GOF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
YSS	Yuzh-Sakhalins	53.35	41	⇓*e*P	P	01 32 27.9	+0.2
YSS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.5						
YSS	Yuzh-Sakhalins	53.35	41	⇓*e*P	P	01 32 27.9	+0.2
YSS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.5						
ELZG	Elazig	53.99	308	*i* P	P	01 32 32.8	+0.2
ASAR	Alice Springs	54.12	132	P	P	01 32 33.0	-0.8
	comp=Z,2.7nm,0.6s,mb4.3,baz=307,slow=6.8,SNR=7.7						
MALT	Malatya	54.38	308	*e*P	P	01 32 36.1	+0.7
MALT				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
MALT	Malatya	54.38	308	*e*P	P	01 32 36.1	+0.7
MALT				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
MALT	Malatya	54.38	308	*e*P	P	01 32 36.1	+0.6
	comp=Z,14nm,1.1s,mb4.8						
ASF	Jabal al Asfar	54.62	300	P	P	01 32 36.8	-0.5
	comp=Z,3.4nm,0.9s,mb4.4,baz=202,slow=0.9,SNR=4.6						
BOYT	Boyabat	57.67	311	*i* P	P	01 32 58.4	-0.6
BRTR	Keskin Array B	58.30	309	P	P	01 33 02.7	-0.8
	comp=Z,6.6nm,0.8s,mb4.7,baz=119,slow=6.4,SNR=25						
BALT	Daday	58.81	311	*i* P	P	01 33 06.4	-0.5
SGKT	Sivrigoynuk	59.64	309	*i* P	P	01 33 13.0	+0.2
ESKT	Eskisehir	60.41	308	*i* P	P	01 33 16.7	-1.3
OBN	Obninsk	60.43	327	*de*P	P	01 33 16.9	-1.0
OBN				pmax	pmax		
	comp=Z,39nm,1.8s,mb5.1						
OBN	Obninsk	60.43	327	*de*P	P	01 33 16.9	-1.0
OBN				*e*S	S	01 41 32.3	+3.3
OBN				pmax	pmax		
	comp=Z,39nm,1.8s,mb5.1						
AKASG	Malin Array Be	63.45	320	P	P	01 33 36.4	-1.8
	comp=Z,2.1nm,0.5s,mb4.5,baz=82,slow=5.4,SNR=12						
AKASG	Malin Array Be	63.45	320	P	P	01 33 36.4	-1.8
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
STKA	Stephens Creek	64.49	135	P	P	01 33 45.5	+0.1
	comp=Z,2.4nm,0.7s,mb4.4,baz=321,slow=13,SNR=2.7						
MLR	Muntele Rosu	64.76	314	P	P	01 33 47.1	+0.3
	comp=Z,18nm,1.0s,mb5.0,baz=159,slow=2.6,SNR=13						
KWP	Kalwaria	67.41	318	*e*P	P	01 34 03.3	-0.3
KWP				*e*		01 34 21.5	
KWP				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
KWP	Kalwaria	67.41	318	*e*P	P	01 34 03.3	-0.3
KWP				*e*		01 34 21.5	
KWP				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
KWP	Kalwaria	67.41	318	*e*P	P	01 34 03.3	-0.3
	comp=Z,25nm,1.0s,mb5.2						
KWP				*e*		01 34 21.5	
FINES	FINESS Array B	67.61	331	P	P	01 34 04.1	-0.6
	comp=Z,4.8nm,0.6s,mb4.7,baz=106,slow=14,SNR=16						
KAF	Kangasniemi	67.67	332	*e*p	P	01 34 02.9	-2.1
SUW	Suwalki	67.69	323	*e*P	P	01 34 04.2	-1.0
SUW				*e*		01 34 21.0	
SUW				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.5						
SUW	Suwalki	67.69	323	*e*P	P	01 34 04.2	-1.0
SUW				*e*		01 34 21.0	
SUW				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.5						
SUW	Suwalki	67.69	323	*e*P	P	01 34 04.2	-1.0
	comp=Z,59nm,1.1s,mb5.5						
SUW				*e*		01 34 21.0	
KEV	Kevo	69.56	340	*e*p	P	01 34 13.0	-3.6
ARCES	ARCESS Array B	69.99	340	P	P	01 34 18.9	-0.4
	comp=Z,4.3nm,0.6s,mb4.5,baz=90,slow=3.6,SNR=14						
VRAC	Vranov	71.37	318	P	P	01 34 26.8	-1.1
	comp=Z,1.7nm,0.4s,mb4.3,baz=112,slow=10.0,SNR=4.7						
GERES	GERESS Array B	73.27	317	P	P	01 34 37.8	-1.4
	comp=Z,4.5nm,0.8s,mb4.5,baz=101,slow=5.4,SNR=24						
HFS	Hagfors	73.43	329	P	P	01 34 39.6	-0.3
	comp=Z,8.4nm,0.8s,mb4.7,baz=11,slow=7.6,SNR=9.3						
FX1	Attu Island--F	73.62	38	P	P	01 34 42.7	+1.5
	comp=Z,12nm,0.5s,mb5.0,baz=92,slow=18,SNR=5.2						
FX1	Attu Island--F	73.62	38	P	P	01 34 42.7	+1.5
FX1				pmax	pmax		
	comp=Z,12nm,0.5s						
FX1	Attu Island--F	73.62	38	P	P	01 34 42.7	+1.5
FX1				pmax	pmax		
	comp=Z,12nm,0.5s						
CLL	Collm	73.69	320	*e*P	P	01 34 43.0	+1.4
CLL				pmax	pmax		
	comp=Z,22nm,1.7s,mb4.8						
CLL	Collm	73.69	320	*e*P	P	01 34 43.0	+1.4
	comp=Z,22nm,1.7s,mb4.8						
CLL	Collm	73.69	320	P	P	01 34 41.0	-0.6
	comp=Z,logA/T=1.1,mb4.8						
CLL				*e**PP	pP	01 34 54.0	+2.1
CLL	Collm	73.69	320	P	P	01 34 41.8	+0.2
	comp=Z,logA/T=1.1,mb4.8						
CLL				*e**PP	pP	01 34 54.0	+2.1
NB2	NORSAR Subarra	74.68	330	P	P	01 34 46.7	-0.4
	comp=Z,2.1nm,0.6s,mb4.2,baz=90,slow=5.6						
NB2	NORSAR Subarra	74.68	330	P	P	01 34 46.7	-0.4
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	NORSAR Array B	74.68	330	P	P	01 34 46.4	-0.7
	comp=Z,1.9nm,0.6s,mb4.2,baz=90,slow=5.8,SNR=9.7						
LBTB	Lobatse	75.95	240	*e*P	P	01 34 56.5	+1.3
LBTB				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
LBTB	Lobatse	75.95	240	*e*P	P	01 34 56.5	+1.3
	comp=Z,6.6nm,0.9s,mb4.6						
LPG	La Plagne	78.22	314	*e*P	P	01 35 08.6	+1.2
	comp=Z,31nm,0.9s,mb4.9						
LPG	La Plagne	78.22	314	*e*P	P	01 35 08.6	+1.2
LPG				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
JMIC	Jan Mayen	81.42	341	P	P	01 35 22.3	-1.8
	comp=Z,56nm,0.4s,mb5.8,baz=203,slow=17,SNR=3.0						
SUR	Sutherland	82.53	234	*e*P	P	01 35 32.4	+1.8
	comp=Z,6.1nm,0.7s,mb4.7						
MAW	Mawson	83.48	191	P	P	01 35 33.2	-1.5
	comp=Z,1.6nm,0.3s,mb4.5,baz=270,slow=9.1,SNR=6.0						
ESDC	Sonseca Array	87.08	310	P	P	01 35 53.8	+0.6
	comp=Z,1.3nm,0.6s,mb4.3,baz=63,slow=4.0,SNR=10						
MCK	McKinley	90.03	23	*e*P	P	01 36 07.7	+1.0
MCK				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.5						
MCK	McKinley	90.03	23	*e*P	P	01 36 07.7	+1.1
	comp=Z,2.5nm,0.9s,mb4.5						
ILAR	Eielson Array	90.25	22	P	P	01 36 08.5	+0.8
	comp=Z,1.3nm,0.7s,mb4.4,baz=299,slow=5.0,SNR=14						
INK	Inuvik	92.22	16	P	P	01 36 18.6	+1.9
	comp=Z,12nm,1.3s,mb5.0,baz=306,slow=4.6,SNR=8.5						
YKA	Yellowknife Ar	101.54	13	PP	PP	01 41 08.4	-3.5
	comp=Z,0.4nm,1.0s,baz=308,slow=10,SNR=4.2						
TXAR	Lajitas Array	134.76	21	PKP	PKPdf	01 42 29.2	+3.7
	comp=Z,0.7nm,0.5s,baz=207,slow=2.8,SNR=4.5						
LPAZ	La Paz	161.60	258	PKP	PKPdf	01 43 07.2	-0.2
	comp=Z,1.4nm,0.9s,baz=351,slow=4.3,SNR=5.1						
LPAZ	La Paz	161.60	258	PKP	PKPdf	01 43 08.5	+1.1

IDC **27** *01:29:11.7±0.9, 13.57N×92.94E, mb4.0/10, mb1 4.2/11, mb1mx4.0/21, ML3.7/1, Error ellipse: s-maj=69.1km s-min=17.4km az=46.0*

NEIC **27** *01:29:16.3±0.6, 13.25N×92.59E, h30*^{km}*, mb4.3/3, Error ellipse: s-maj=17.7km s-min=11.8km az=220.0*

ISC 27 01:29:14.2±0.7**, 13.3N**±0.1×**92.6E**±0.1**, h30**^{km}**, n14,** σ**0**^{s}**70**/14**, mb4.1**/13**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.99	49	Pn	Pn	01 31 12.0	+0.8
	0.3nm,0.3s,baz=225,slow=18,SNR=2.5						
ULN	Ulaanbaatar	36.55	16	P	P	01 36 18.6	-0.5
	1.5nm,0.4s,mb4.2						
BVAR	Borovoye Array	43.45	341	P	P	01 37 15.0	-1.2
	0.5nm,0.6s,mb3.4,baz=134,slow=12,SNR=3.2						
CHKZ	Chkalovo	43.94	341	*e*P	P	01 37 20.1	+0.1
	2.9nm,0.5s,mb4.3						
WRA	Warramunga Arr	52.66	128	P	P	01 38 28.4	+0.1
	2.6nm,0.6s,mb4.3,baz=308,slow=7.9,SNR=16						
WRAB	Tennant Creek	52.66	128	*e*P	P	01 38 28.2	-0.1
	3.7nm,0.5s,mb4.6						
WRAB				*e*	pP	01 38 36.3	-1.2
ASAR	Alice Springs	54.55	132	P	P	01 38 41.7	-0.4
	1.2nm,0.5s,mb4.2,baz=308,slow=6.8,SNR=17						
BRTR	Keskin Array B	57.87	309	P	P	01 39 05.4	-0.4
	0.5nm,0.8s,mb3.6,baz=100,slow=7.5,SNR=3.4						
MLR	Muntele Rosu	64.34	314	P	P	01 39 50.2	+0.7
	2.2nm,0.9s,mb4.2,baz=154,slow=7.3,SNR=2.7						
IDI	Anoyia	64.36	303	P	P	01 39 51.3	+1.5
	15nm,1.1s,mb5.0,baz=335,slow=17,SNR=2.9						
FINES	FINESS Array B	67.30	331	P	P	01 40 07.5	-0.7
	1.9nm,0.9s,mb4.1,baz=45,slow=2.7,SNR=5.9						
ARCES	ARCESS Array B	69.74	340	P	P	01 40 23.1	0.0
	1.0nm,0.5s,mb4.0,baz=90,slow=7.3,SNR=7.4						
GERES	GERESS Array B	72.87	317	P	P	01 40 43.0	+0.8
	0.5nm,0.6s,mb3.7,baz=76,slow=5.5,SNR=5.7						
NOA	NORSAR Array B	74.35	330	P	P	01 40 49.9	-0.7
	1.2nm,0.8s,mb3.9,baz=39,slow=13,SNR=3.2						

BJI **27** *01:31:25.1, 3.96N×92.92E, h30*^{km}*, mB5.6, mb5.0*

IDC **27** *01:31:29.1±0.7, 4.80N×93.02E, mb4.3/15, mb1 4.5/16, mb1mx4.4/23, ML4.4/1, Error ellipse: s-maj=34.0km s-min=14.2km az=47.0*

NEIC **27** *01:31:33.5±0.4, 4.74N×93.01E, h30*^{km}*, mb4.7/8, Error ellipse: s-maj=9.4km s-min=7.8km az=77.0*

ISC 27 01:31:31.4±0.5**, 4.70N**±0.07×**93.04E**±0.08**, h30**^{km}**, n45,** σ**0**^{s}**92**/39**, mb4.5**/29**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	14.84	22	*e*P	P	01 35 00.2	-1.1
	38nm,1.0s						
CMAR	Chiang Mai Arr	14.85	22	Pn	P	01 35 00.1	-1.1
	0.6nm,0.3s,baz=219,slow=14,SNR=32						
PKI	Pulchoki	23.88	343	*e*P	P	01 36 45.7	+2.1
DMN	Daman	24.01	342	*e*P	P	01 36 46.7	+1.9
GUN	Gumba	24.07	344	*e*P	P	01 36 46.6	+1.2
	25nm,0.5s,mb4.9						
KKN	Kakani	24.13	343	*e*P	P	01 36 46.6	+0.6
GKN	Gorkha	24.52	342	*e*P	P	01 36 50.0	+0.2
KOLN	Koldanda	24.65	340	*e*P	P	01 36 51.4	+0.4
LSA	Lhasa	24.93	356	*e*P	P	01 36 55.3	+1.5
	22nm,0.9s,mb4.7						
GYA	Guiyang	25.26	30	P	P	01 36 57.0	+0.2
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
CD2	Chengdu	27.96	20	P	P	01 37 21.5	-0.1
ENH	Enshi	29.80	30	P	P	01 37 39.0	+0.8
	comp=Z,7.6nm,0.8s,mb4.5						
XAN	Xi’an	32.72	25	P	P	01 38 01.8	-1.9
XAN				AP	pP	01 38 16.8	+4.2
XAN				AMB	AMB		
	comp=Z,21nm,0.9s,mb5.1						
LZH	Lanzhou	32.79	16	*e*P	P	01 38 03.3	-1.0
LZH				AMB	AMB		
	comp=Z,31nm,1.2s,mb5.1						
GTA	Gaotai	35.10	9	*e*P	P	01 38 24.0	-0.2
GTA				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.3						
WMQ	Urumqi	39.25	354	*e*P	P	01 39 00.0	+0.9
BJT	Baijiatuau	40.89	27	*e*P	P	01 39 13.6	+1.0
	comp=Z,19nm,1.1s,mb4.6						
BJI	Beijing	40.91	27	P	P	01 39 13.5	+0.7
BJI				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.5						
AAK	Ala-Archa	41.22	339	*e*P	P	01 39 15.4	+0.1
	comp=Z,4.6nm,1.1s,mb4.0						
SONM	Songino Array	44.48	13	P	P	01 39 42.0	+0.1
	comp=Z,3.4nm,0.6s,mb4.2,baz=195,slow=8.1,SNR=21						
WRA	Warramunga Arr	47.40	122	P	P	01 40 05.8	+0.4
	comp=Z,7.8nm,0.7s,mb4.7,baz=300,slow=9.0,SNR=23						
WRAB	Tennant Creek	47.40	122	*e*P	P	01 40 05.7	+0.3
	comp=Z,11nm,0.9s,mb4.8						
ASAR	Alice Springs	48.80	127	P	P	01 40 16.6	+0.4
	comp=Z,2.0nm,0.7s,mb4.3,baz=302,slow=7.4,SNR=11						
ASAR				PcP	PcP	01 41 41.9	+0.8
	comp=Z,1.3nm,0.8s,baz=301,slow=3.4,SNR=5.5						
ZAL	Zalesovo	49.55	354	P	P	01 40 21.3	-0.2
	comp=Z,5.5nm,0.5s,mb4.8,baz=304,slow=6.3,SNR=27						
HIA	Hailar	49.86	23	*e*P	P	01 40 23.2	-0.8
	comp=Z,14nm,0.7s,mb5.1						
BVAR	Borovoye Array	51.65	343	P	P	01 40 36.8	-0.8
	comp=Z,3.2nm,0.7s,mb4.4,baz=143,slow=7.4,SNR=7.6						
CHKZ	Chkalovo	52.16	343	*e*P	P	01 40 40.5	-0.9
	comp=Z,5.8nm,0.4s,mb4.9						
GNI	Garni	55.91	316	P	P	01 41 08.0	-1.1
	comp=Z,1.3nm,0.4s,mb4.3,baz=332,slow=21,SNR=3.1						
STKA	Stephens Creek	58.77	132	P	P	01 41 29.8	+0.4
	comp=Z,5.2nm,0.6s,mb4.8,baz=294,slow=5.7,SNR=13						
EIL	Elat	60.10	302	P	P	01 41 39.2	+0.6
	comp=Z,8.3nm,1.2s,mb4.6,baz=25,slow=17,SNR=3.8						
BRTR	Keskin Array B	63.70	312	P	P	01 42 02.1	-0.6
	comp=Z,3.1nm,0.7s,mb4.5,baz=132,slow=7.0,SNR=23						
LSZ	Lusaka	67.20	251	*e*P	P	01 42 25.0	-0.6
	comp=Z,1.3nm,0.8s,mb4.0						
AKASG	Malin Array Be	69.98	323	P	P	01 42 40.1	-2.1
	comp=Z,0.3nm,0.4s,mb3.6,baz=82,slow=5.7,SNR=5.0						
MLR	Muntele Rosu	70.69	317	P	P	01 42 47.4	+0.7
	comp=Z,4.3nm,0.6s,mb4.5,baz=199,slow=5.3,SNR=12						
LBTB	Lobatse	71.78	242	P	P	01 42 53.5	0.0
FINES	FINESS Array B	75.01	333	P	P	01 43 10.7	-1.0
	comp=Z,4.3nm,0.9s,mb4.4,baz=135,slow=11,SNR=3.9						
ARCES	ARCESS Array B	77.87	341	P	P	01 43 26.9	-0.7
	comp=Z,1.6nm,0.7s,mb4.0,baz=101,slow=6.2,SNR=8.1						
GERES	GERESS Array B	79.47	319	P	P	01 43 37.1	+0.4
	comp=Z,1.4nm,0.6s,mb4.0,baz=101,slow=5.0,SNR=17						
HFS	Hagfors	80.64	330	P	P	01 43 42.1	-0.7
	comp=Z,1.8nm,0.8s,mb4.1,baz=121,slow=8.6,SNR=4.5						
ULM	Lac du Bonnet	124.74	7	PKP	PKPdf	01 50 30.9	-2.8
	comp=Z,1.7nm,0.7s,baz=43,slow=3.2,SNR=4.8						
PDAR	Pinedale Array	128.51	21	PKP	PKPdf	01 50 38.3	-2.8
	comp=Z,0.7nm,0.8s,baz=67,slow=0.7,SNR=6.4						
TXAR	Lajitas Array	142.55	24	PKhKP		01 51 00.3	
	comp=Z,0.2nm,0.6s,baz=196,slow=2.5,SNR=6.2						
TXAR				PKP	PKPdf	01 51 07.3	-0.1
	comp=Z,0.4nm,0.5s,baz=14,slow=0.3,SNR=11						
JCT	Junction City	142.93	19	*e*PKPpre		01 51 01.3	
SJG	San Juan	149.43	318	PKPbc	PKPdf	01 51 22.7	+3.5
	comp=Z,13nm,0.2s,baz=332,slow=19,SNR=12						
SJG	San Juan	149.43	318	PKPbc	PKPdf	01 51 22.7	+3.5

IDC ***27*** *01:33:60.0±0.5, 13.45N×93.46E, mb4.4/22, mb1 4.6/23, mb1mx4.5/27, ML5.4/1, Error ellipse: s-maj=26.6km s-min=11.8km az=47.0*
BJI ***27*** *01:34:02.5, 13.07N×93.44E, h53^{km}, mB5.2, mb5.0, Ms4.7, Msz4.5*
NEIC ***27*** *01:34:04.6±0.3, 13.37N×93.45E, h30^{km}, mb4.5/12, Error ellipse: s-maj=8.8km s-min=6.8km az=214.0*
ISC 27 01:34:02.7±0.4**, 13.38N**±0.06×**93.47E**±0.05**, h30^{km}, n68, σ0^{s}76**/62**, mb4.5**/37**, MS4.5**/2**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
						h m s	ISC
NST	Nakhon Sawan	6.84	70	P	Pn	01 35 45.5	+1.8
CM31	Chiang Mai Arr	7.29	45	*e*Pn	Pn	01 35 50.6	+0.5
CM31				*e*S	Sn	01 37 12.0	-0.7
CMAR	Chiang Mai Arr	7.29	45	Pn	Pn	01 35 50.6	+0.6
	17nm,0.3s,baz=238,slow=15,SNR=80						
CMAR				Sn	Sn	01 37 06.5	-6.3
	baz=240,slow=27,SNR=2.3						
NANT	Nan	8.79	51	⇑P	P	01 36 11.0	+0.1
	150nm,0.7s						
LSA	Lhasa	16.38	353	P	P	01 37 55.1	+2.8
	18nm,0.6s						
GYA	Guiyang	17.96	42	P	P	01 38 13.0	+1.0
GYA				AMB	AMB		
	comp=Z,20nm,0.8s						
CD2	Chengdu	19.86	27	P	P	01 38 33.8	-0.6
CD2				AMB	AMB		
	comp=Z,60nm,0.8s						
ENH	Enshi	22.40	39	*e*P	P	01 38 59.1	-1.1
	comp=Z,7.0nm,0.4s,mb4.4						
SDNR	Sundarnagar	23.56	323	*e*	P	01 39 15.5	+3.9
LZH	Lanzhou	24.46	21	*e*P	P	01 39 21.0	+0.7
LZH				AMB	AMB		
	comp=Z,42nm,1.0s,mb4.8						
XAN	Xi'an	24.90	32	P	P	01 39 23.0	-1.6
XAN				AMB	AMB		
	comp=Z,68nm,1.0s,mb5.1						
GTA	Gaotai	26.53	11	*e*P	P	01 39 40.0	+0.3
GTA				AMB	AMB		
	comp=Z,25nm,1.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,258nm,9.2s						
GTA				LR	LR		
	comp=N,490nm,15.7s,MS4.3						
GTA				LR	LR		
	comp=E,542nm,15.7s,MS4.3						
GTA				LR	LR		
	comp=Z,760nm,16.1s,MS4.3						
WMQ	Urumqi	30.74	352	*e*P	P	01 40 18.0	+0.5
HHC	Hu-ho-hao-te	31.62	27	*e*P	P	01 40 24.8	-0.5
HHC				PP	PP	01 41 33.5	+3.3
HHC				AMB	AMB		
	comp=Z,18nm,0.7s,mb5.0						
HHC				AMB	AMB		
	comp=Z,203nm,6.3s						
BJI	Beijing	33.22	33	P	P	01 40 39.3	0.0
BJI				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
JOW	Kunigami	35.19	62	P	P	01 40 56.2	-0.2
	comp=Z,10nm,0.4s,mb5.1,baz=107,slow=28,SNR=5.1						
SONM	Songino Array	36.00	15	P	P	01 41 03.1	+0.1
	comp=Z,7.1nm,0.9s,mb4.6,baz=203,slow=9.4,SNR=13						
SONM				PcP	PcP	01 43 29.2	-0.2
	comp=Z,1.5nm,0.8s,baz=195,slow=3.8,SNR=3.5						
KS15	Wonju Array Si	38.90	46	*e*P	P	01 41 27.0	-0.5
CN2	Changchun	40.86	36	*e*P	P	01 41 43.5	-0.1
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.8						
CN2				LR	LR		
	comp=N,770nm,15.0s,MS4.8						
CN2				LR	LR		
	comp=E,820nm,15.0s,MS4.8						
CN2				LR	LR		
	comp=Z,840nm,16.0s,MS4.7						
ZAL	Zalesovo	41.04	352	P	P	01 41 44.7	-0.2
	comp=Z,7.0nm,0.5s,mb4.5,baz=312,slow=7.3,SNR=13						
ZAL	Zalesovo	41.04	352	P	P	01 41 44.7	-0.2
HIA	Hailar	41.81	26	*e*P	P	01 41 51.5	+0.2
	comp=Z,11nm,0.7s,mb4.6						
BVAR	Borovoye Array	43.61	340	P	P	01 42 05.3	-0.7
	comp=Z,0.9nm,0.5s,mb3.8,baz=146,slow=9.2,SNR=4.2						
BVAR				PcP	PcP	01 43 53.6	0.0
	comp=Z,1.0nm,0.6s,baz=135,slow=2.1,SNR=3.7						
BRVK	Borovoye	43.67	340	*e*P	P	01 42 06.1	-0.4
	comp=Z,2.0nm,0.6s,mb4.0						
CHKZ	Chkalovo	44.08	341	*e*P	P	01 42 09.5	-0.3
	comp=Z,1.8nm,0.6s,mb4.0						
CHKZ				*e*		01 42 21.1	
GNI	Garni	50.23	311	P	P	01 43 00.6	+2.4
	comp=Z,3.0nm,0.6s,mb4.5,baz=150,slow=4.6,SNR=6.1						
GNI	Garni	50.23	311	*e*P	P	01 43 00.1	+2.0
	comp=Z,11nm,1.1s,mb4.8						
NWAO	Narrogin (SRO)	51.34	154	P	P	01 43 07.2	+0.5
	comp=Z,17nm,0.8s,mb5.0,baz=315,slow=9.7,SNR=8.7						
WRA	Warramunga Arr	52.09	129	P	P	01 43 12.6	+0.1
	comp=Z,2.0nm,0.8s,mb4.1,baz=307,slow=8.3,SNR=6.4						
WRA				PcP	PcP	01 44 24.4	+0.1
	comp=Z,1.1nm,0.6s,baz=318,slow=3.4,SNR=6.1						
WRAB	Tennant Creek	52.10	129	*e*P	P	01 43 12.4	-0.2
	comp=Z,5.5nm,0.9s,mb4.5						
ASAR	Alice Springs	54.03	133	P	P	01 43 26.9	+0.1
	comp=Z,2.5nm,0.5s,mb4.4,baz=307,slow=6.7,SNR=32						
PMG	Port Moresby	57.91	110	P	P	01 43 54.2	-0.6
	comp=Z,4.8nm,0.8s,mb4.6,baz=307,slow=3.6,SNR=3.3						
BRTR	Keskin Array B	58.43	309	P	P	01 43 57.8	-0.3
	comp=Z,3.3nm,0.8s,mb4.4,baz=121,slow=7.7,SNR=10.0						
AKASG	Malin Array Be	63.49	320	P	P	01 44 30.8	-1.5
	comp=Z,0.7nm,0.4s,mb4.2,baz=82,slow=5.7,SNR=9.5						
STKA	Stephens Creek	64.42	135	P	P	01 44 38.5	-0.2
	comp=Z,3.4nm,0.9s,mb4.4,baz=224,slow=5.1,SNR=3.0						
STKA	Stephens Creek	64.42	135	P	P	01 44 38.5	-0.2
MLR	Muntele Rosu	64.84	314	P	P	01 44 41.6	+0.4
	comp=Z,6.5nm,0.9s,mb4.7,baz=140,slow=4.5,SNR=4.9						
MLR	Muntele Rosu	64.84	314	P	P	01 44 41.6	+0.4
IDI	Anoyia	64.97	303	P	P	01 44 43.1	+0.8
	comp=Z,13nm,1.2s,mb4.9,baz=288,slow=20,SNR=4.5						
FINES	FINESS Array B	67.58	331	P	P	01 44 57.5	-0.9
	comp=Z,5.2nm,1.0s,mb4.5,baz=98,slow=6.1,SNR=9.1						
FINES	FINESS Array B	67.58	331	P	P	01 44 57.5	-0.9
KAF	Kangasniemi	67.63	332	*e*p	P	01 44 57.8	-0.9
	comp=Z,0.3nm,0.3s,mb3.8						
ARCES	ARCESS Array B	69.90	340	P	P	01 45 12.4	-0.1
	comp=Z,5.7nm,1.1s,mb4.4,baz=102,slow=6.5,SNR=9.1						
OKC	Ostrava-Krasne	70.43	318	*e*P	P	01 45 16.1	-0.1
MORC	Moravsky Berou	70.82	318	*e*P	P	01 45 18.7	+0.1
	comp=Z,3.5nm,0.7s,mb4.4						
VRAC	Vranov	71.43	318	P	P	01 45 21.2	-1.0
	comp=Z,1.3nm,0.5s,mb4.1,baz=86,slow=7.3,SNR=3.2						
DPC	Dobruska-Polom	71.62	319	*e*P	P	01 45 23.7	+0.3
BRG	Berggiesshubel	73.14	319	*e*P	P	01 45 32.9	+0.6
	comp=Z,5.6nm,0.8s,mb4.5						
BRG				*i*		01 45 34.1	
GERES	GERESS Array B	73.33	317	P	P	01 45 33.8	+0.3
	comp=Z,2.9nm,0.6s,mb4.4,baz=86,slow=6.0,SNR=20						
KHC	Kasperske Hory	73.41	318	*e*P	P	01 45 33.8	-0.1
HFS	Hagfors	73.41	329	P	P	01 45 33.3	-0.4
	comp=Z,4.7nm,0.7s,mb4.5,baz=117,slow=6.6,SNR=9.6						
HFS	Hagfors	73.41	329	P	P	01 45 33.3	-0.4
CLL	Collm	73.73	320	P	P	01 45 36.0	+0.3
NB2	NORSAR Subarra	74.65	330	P	P	01 45 40.1	-0.7
	comp=Z,2.5nm,0.8s,mb4.2,baz=91,slow=5.8						
NOA	NORSAR Array B	74.65	330	P	P	01 45 40.0	-0.8
	comp=Z,2.2nm,0.8s,mb4.1,baz=91,slow=5.7,SNR=8.2						
LPL	La Plagne	78.32	314	*e*P	P	01 46 02.6	+0.9
	comp=Z,10nm,0.6s,mb4.6						
IMA	Indian Mountai	86.81	22	*e*P	P	01 46 46.1	+1.0
ESDC	Sonseca Array	87.19	310	P	P	01 46 47.6	0.0
	comp=Z,0.3nm,0.5s,mb3.8,baz=70,slow=4.4,SNR=4.6						
ILAR	Eielson Array	89.92	22	P	P	01 46 59.4	-0.6
	comp=Z,1.7nm,0.7s,mb4.5,baz=296,slow=4.7,SNR=18						
SLKM	Skilak Lake	90.78	26	*e*P	P	01 47 04.0	-0.1
PDAR	Pinedale Array	120.27	19	PKP	PKPdf	01 52 52.9	-3.4
	comp=Z,1.2nm,0.8s,baz=51,slow=0.8,SNR=10						
NVAR	Mina Array Bea	120.50	29	PKP	PKPdf	01 52 54.5	-2.5
	comp=Z,0.5nm,0.3s,baz=324,slow=1.6,SNR=6.6						
NVAR	Mina Array Bea	120.50	29	PKP	PKPdf	01 52 54.5	-2.5
TXAR	Lajitas Array	134.43	21	PKP	PKPdf	01 53 21.2	-2.6
	comp=Z,0.8nm,0.5s,baz=169,slow=0.6,SNR=16						
JCT	Junction City	134.56	16	*e*PKPdf	PKPdf	01 53 21.7	-2.3
SJG	San Juan	142.81	327	PKP	PKPdf	01 53 38.0	-1.3
	comp=Z,12nm,0.9s,baz=343,slow=19,SNR=2.8						
TEIG	Tepich	146.56	3	*e*PKPdf	PKPdf	01 53 41.6	-4.1
SDV	Santo Domingo	152.82	324	PKPbc	PKPdf	01 53 58.0	+2.5
	comp=Z,3.8nm,0.2s,baz=231,slow=2.6,SNR=2.6						

IDC ***27*** *01:38:18.1±0.5, 6.75N×92.56E, mb4.5/25, mb1 4.6/26, mb1mx4.6/28, ML4.5/1, MS4.5/5, Ms1 4.4/5, ms1mx3.9/29, Error ellipse: s-maj=22.7km s-min=11.8km az=43.0*
BJI ***27*** *01:38:19.5, 6.48N×92.67E, h36^{km}, mB5.4, mb4.8, Ms4.9, Msz4.7*
MOS ***27*** *01:38:21.5±0.9, 6.79N×92.64E, h33^{km}, mb5.2/19, Error ellipse: s-maj=13.6km s-min=7.1km az=112.8*
NEIC ***27*** *01:38:21.8±0.2, 6.76N×92.58E, mb5.0/22, Error ellipse: s-maj=7.1km s-min=5.8km az=48.0*
HRVD ***27*** *01:38:21.8±1.0, 6.68N×92.73E, h17^{km}±3^{km}, MW5.0/25, Centroid moment Tensor Solution. LP body waves: s3,c4; Mantle waves: s25,c41; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$4.19±.88; M$_{\theta\theta}$-0.97±.45; M$_{\phi\phi}$-3.22±.52; M$_{r\theta}$1.16±1.47; M$_{\theta\phi}$1.26±.30; M$_{\phi r}$0.51±.92; Best double couple: M$_0$4.15×10^{16} NP1:φ$_s$350°,δ47°,λ110°. NP2: φ$_s$142°,δ47°,λ70°. Principal axes: T 4.52, Plg76°, Azm336°; N -.73, Plg14°, Azm156°; P -3.78, Plg0°, Azm246°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 27 01:38:20.1±0.3**, 6.77N**±0.05×**92.64E**±0.05**, h23^{km}, h23^{km}**±.8^{km}**:pP-P, n130, σ1^{s}03**/122**, mb4.8**/64**, MS4.6**/10**, 2C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time	Res
						h m s	ISC
CM31	Chiang Mai Arr	13.14	27	P	P	01 41 29.4	+1.2
	58nm,1.0s						
CMAR	Chiang Mai Arr	13.14	27	Pn	P	01 41 28.1	-0.1
	0.9nm,0.3s,baz=231,slow=13,SNR=29						
SHL	Shillong	18.71	358	*e*P	P	01 42 35.0	-4.4
KMI	Kunming	20.65	27	P	P	01 43 01.3	+0.3
KMI				AMB	AMB		
	comp=Z,43nm,1.5s						
KMI				LR	LR		
	comp=N,1μm,14.7s,MS4.7						
KMI				LR	LR		
	comp=E,2μm,12.2s,MS4.7						
KMI				LR	LR		
	comp=Z,1μm,13.5s,MS4.5						
QIZ	Qiongzhong	20.70	52	P	P	01 43 02.0	+0.5
QIZ				PP	PP	01 43 24.3	+0.9
QIZ				*e*S	S	01 46 54.0	+7.3
QIZ				LR	LR		
	comp=N,2μm,13.4s						
QIZ				LR	LR		
	comp=Z,3μm,12.5s,MS4.8						
QIZ	Qiongzhong	20.70	52	*e*P	P	01 43 01.8	+0.3
	comp=Z,166nm,1.2s						
PKI	Pulchoki	21.80	342	*e*P	P	01 43 12.2	-0.4
	comp=Z,150nm,1.2s,mb5.3						
DMN	Daman	21.93	342	*e*P	P	01 43 13.0	-0.9
	comp=Z,280nm,1.4s,mb5.5						
GUN	Gumba	21.98	344	*e*P	P	01 43 11.0	-3.4
	comp=Z,502nm,1.6s,mb5.7						
KKN	Kakani	22.04	342	*e*P	P	01 43 13.2	-1.8
	comp=Z,222nm,1.2s,mb5.5						
GKN	Gorkha	22.44	341	*e*P	P	01 43 17.2	-1.8
KOLN	Koldanda	22.58	339	*e*P	P	01 43 21.0	+0.6
	comp=Z,538nm,1.7s,mb5.7						
LSA	Lhasa	22.86	357	*e*P	P	01 43 25.3	+2.2
LSA				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.5						
LSA	Lhasa	22.86	357	*e*P	P	01 43 25.3	+2.2
	comp=Z,17nm,0.8s,mb4.5						
GYA	Guiyang	23.70	33	⇓P	P	01 43 32.5	+1.1
GYA				S	S	01 47 49.0	+7.4
GYA				AMB	AMB		
	comp=Z,50nm,1.4s,mb4.8						
GYA				LR	LR		
	comp=N,1μm,15.0s,MS4.7						
GYA				LR	LR		
	comp=E,2μm,12.9s,MS4.7						
GYA				LR	LR		
	comp=Z,2μm,17.7s,MS4.5						
ENH	Enshi	28.23	32	*e*P	P	01 44 11.7	-2.0
	comp=Z,33nm,1.1s,mb4.9						
LZH	Lanzhou	30.93	18	*e*P	P	01 44 36.5	-1.2
LZH				AMB	AMB		
	comp=Z,63nm,1.6s,mb5.2						
XAN	Xi'an	31.04	27	P	P	01 44 36.0	-2.6
XAN				AP	pP	01 44 43.5	-2.0
XAN				AMB	AMB		
	comp=Z,14nm,1.4s,mb4.6						
GTA	Gaotai	33.14	10	*e*P	P	01 44 57.0	+0.1
GTA				AP	pP	01 45 04.3	+0.5
GTA				XP	sP	01 45 07.0	+0.2
GTA				AMB	AMB		
	comp=Z,12nm,1.3s,mb4.7						
GTA				AMB	AMB		
	comp=Z,681nm,9.9s						
GTA				LR	LR		
	comp=N,743nm,15.3s,MS4.5						
GTA				LR	LR		
	comp=E,420nm,16.4s,MS4.5						
GTA				LR	LR		
	comp=Z,454nm,13.8s,MS4.3						
NJ2	Nanjing	35.07	41	*e*P	P	01 45 13.8	+0.1
NJ2				AP	pP	01 45 22.0	+1.4
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
KSH	Kashi	35.89	338	*i* P	P	01 45 21.3	+0.7
KSH				AP	pP	01 45 28.0	+0.5
KSH				XP	sP	01 45 31.5	+1.0
KSH				AMB	AMB		
	comp=Z,180nm,3.6s						
WMQ	Urumqi	37.16	354	P	P	01 45 32.0	+0.8
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.7						
HHC	Hu-ho-hao-te	37.91	24	*e*P	P	01 45 37.3	-0.2
HHC				AP	pP	01 45 44.8	+0.3
HHC				XP	sP	01 45 51.0	+3.6
HHC				PP	PP	01 47 12.0	+4.6
HHC				AMB	AMB		
	comp=Z,11nm,1.3s,mb4.4						
HHC				AMB	AMB		
	comp=Z,150nm,5.2s						
HHC				LR	LR		
	comp=N,480nm,10.7s						
HHC				LR	LR		
	comp=E,785nm,16.1s						
KZA	Kyzart	38.40	339	P	P	01 45 42.9	+1.3
	SNR=6.7						
UCH	Uchtor	38.80	338	P	P	01 45 46.4	+1.5
	SNR=9.8						
KBK	Karagaybulak	39.01	339	P	P	01 45 48.4	+1.6
	SNR=18						
AML	Almayashu	39.02	337	P	P	01 45 48.9	+2.1
	SNR=15						
AAK	Ala-Archa	39.16	339	P	P	01 45 49.9	+2.0
	SNR=10						
AAK	Ala-Archa	39.16	339	*e*P	P	01 45 47.0	-0.9
AAK				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.0						
AAK	Ala-Archa	39.16	339	*e*P	P	01 45 47.0	-0.9
	comp=Z,34nm,1.1s,mb5.0						
BJT	Baijiatuau	39.26	29	*e*P	P	01 45 49.7	+0.9
BJT				*e*	pP	01 45 57.9	+2.1
BJT				pmax	pmax		
	comp=Z,40nm,1.5s						
BJT	Baijiatuau	39.26	29	*e*P	P	01 45 49.7	+0.9
	comp=Z,40nm,1.5s,mb4.9						
BJT				*e*	pP	01 45 57.9	+2.0
BJI	Beijing	39.28	29	P	P	01 45 49.5	+0.5
BJI				AMB	AMB		
	comp=Z,19nm,1.6s,mb4.6						
BJI				AMB	AMB		
	comp=Z,452nm,7.5s						
FRU	Bishkek	39.29	339	*e*P	P	01 45 52.0	+3.0
FRU				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.1						
JOW	Kunigami	39.30	55	P	P	01 45 49.8	+0.5
	comp=Z,28nm,0.8s,mb5.0,baz=122,slow=24,SNR=5.1						
JOW				LR	LR	02 03 55.4	
	comp=Z,754nm,19.9s,MS4.5,baz=54,slow=39						
CHMS	Chumysh	39.38	339	P	P	01 45 50.4	+0.6
	SNR=6.3						
EKS2	Erkin-Say	39.44	338	P	P	01 45 51.8	+1.5
	SNR=6.0						
USP	Ospenovka	39.71	339	P	P	01 45 53.3	+0.8
	SNR=8.9						
SONM	Songino Array	42.57	14	P	P	01 46 15.3	-0.7
	comp=Z,2.6nm,0.8s,mb4.0,baz=198,slow=7.8,SNR=13						
ULN	Ulaanbaatar	42.76	14	*e*P	P	01 46 16.6	-0.9
ULN				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.3						
ULN	Ulaanbaatar	42.76	14	*e*P	P	01 46 16.6	-0.9
	comp=Z,2.6nm,0.5s,mb4.2						
ZAK	Zakamensk	44.37	10	*e*P	P	01 46 30.3	-0.3
SNY	Shenyang	44.40	33	⇓P	P	01 46 31.3	+0.4
SNY				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.7						
SNY				LR	LR		
	comp=N,770nm,14.5s,MS5.0						
SNY				LR	LR		
	comp=E,1μm,14.2s,MS5.0						
SNY				LR	LR		
	comp=Z,950nm,14.5s,MS4.8						
NWAO	Narrogin (SRO)	45.88	151	P	P	01 46 43.8	+1.0
NWAO				pmax	pmax		
	comp=Z,19nm,1.1s						
NWAO	Narrogin (SRO)	45.88	151	P	P	01 46 43.8	+1.0
	comp=Z,19nm,1.1s,mb4.9						
CN2	Changchun	46.75	33	*e*P	P	01 46 50.5	+1.0
CN2				AMB	AMB		
	comp=Z,10.0nm,1.5s,mb4.5						
ZAL	Zalesovo	47.46	354	P	P	01 46 54.2	-0.8
	comp=Z,2.1nm,0.5s,mb4.4,baz=296,slow=9.8,SNR=12						
HIA	Hailar	48.12	24	*e*P	P	01 46 59.7	-0.5
HIA				*e**PP	pP	01 47 07.7	+0.4
HIA				pmax	pmax		
	comp=Z,35nm,1.5s						
HIA	Hailar	48.12	24	*e*P	P	01 46 59.6	-0.6
	comp=Z,35nm,1.5s,mb5.2						
HIA				*e*pP	pP	01 47 07.7	+0.3
NVS	Novosibirsk	48.53	353	*e*P	P	01 47 07.7	+4.4
WRA	Warramunga Arr	48.86	124	P	P	01 47 05.9	-0.4
	comp=Z,35nm,1.1s,mb5.3,baz=302,slow=8.5,SNR=40						
WRA	Warramunga Arr	48.86	124	P	P	01 47 05.9	-0.4
WRAB	Tennant Creek	48.86	124	*e*P	P	01 47 06.0	-0.3
WRAB				pmax	pmax		
	comp=Z,68nm,1.0s,mb5.6						
WRAB	Tennant Creek	48.86	124	*e*P	P	01 47 06.0	-0.4
	comp=Z,68nm,1.0s,mb5.6						
BVAR	Borovoye Array	49.57	343	P	P	01 47 10.7	-0.7
	comp=Z,3.0nm,0.8s,mb4.3,baz=143,slow=7.4,SNR=10						
BRVK	Borovoye	49.63	342	*e*P	P	01 47 11.1	-0.7
BRVK				*e**PP	pP	01 47 17.2	-1.8
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
BRVK	Borovoye	49.63	342	*e*P	P	01 47 11.1	-0.7
	comp=Z,3.5nm,0.7s,mb4.5						
BRVK				*e*pP	pP	01 47 17.2	-1.8
CHKZ	Chkalovo	50.07	343	*e*P	P	01 47 15.0	-0.2
CHKZ				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.1						
CHKZ	Chkalovo	50.07	343	*e*P	P	01 47 15.0	-0.2
	comp=Z,30nm,1.4s,mb5.1						
ASAR	Alice Springs	50.37	128	P	P	01 47 17.7	-0.2
	comp=Z,18nm,0.8s,mb5.2,baz=303,slow=7.0,SNR=71						
ASAR				LR	LR	02 10 41.8	
	comp=Z,259nm,18.1s,MS4.3,baz=208,slow=38						
JHJ	Hachijo jima 2	50.91	52	LR	LR	02 09 26.5	
	comp=Z,492nm,21.2s,MS4.5,baz=101,slow=37						
BOD	Bodaibo	53.57	14	*e*P	P	01 47 39.8	-1.6
KLR	Kul'dur	53.59	31	*e*P	P	01 47 37.4	-4.3
GNI	Garni	54.16	315	P	P	01 47 45.3	-0.6
	comp=Z,0.9nm,0.4s,mb4.1,baz=56,slow=7.6,SNR=4.8						
GNI	Garni	54.16	315	P	P	01 47 45.3	-0.7
GNI				pmax	pmax		
	comp=Z,1.0nm,0.4s						
KMBO	Kilima Mbogo	55.83	264	P	P	01 47 55.7	-2.8
	comp=Z,1.0nm,0.4s,mb4.2,baz=250,slow=23,SNR=6.1						
KMBO				LR	LR	02 09 34.5	
	comp=Z,537nm,18.1s,MS4.7,baz=98,slow=34						
ZEI	Tsey	55.84	318	*e*P	P	01 47 57.6	-0.6
ZEI				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
SVE	Sverdlovsk	55.89	339	⇑*e*P	P	01 47 58.0	-0.4
SVE				pmax	pmax		
	comp=Z,100nm,1.8s,mb5.5						
CLNS	Chul'man	55.99	21	*e*P	P	01 47 55.5	-3.5
CLNS				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
CLNS				pmax	pmax		
	comp=N,14nm,1.1s						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.0s						
ARU	Arti	56.34	338	*e*P	P	01 48 00.5	-1.1
ARU				pmax	pmax		
	comp=Z,32nm,1.4s,mb5.2						
ARU	Arti	56.34	338	*e*P	P	01 48 00.5	-1.1
	comp=Z,32nm,1.4s,mb5.2						
PMG	Port Moresby	56.65	106	P	P	01 48 04.2	-0.1
	comp=Z,10nm,0.6s,mb5.0,baz=146,slow=16,SNR=9.1						
PMG	Port Moresby	56.65	106	*e*P	P	01 48 04.6	+0.2
PMG				pmax	pmax		
	comp=Z,12nm,0.6s						
PMG	Port Moresby	56.65	106	*e*P	P	01 48 04.6	+0.2
	comp=Z,12nm,0.6s,mb5.1						
GOF	Gofitskoye	57.40	320	*e*P	P	01 48 09.0	-0.3
GOF				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
CTA	Charters Tower	59.08	118	P	P	01 48 21.3	-0.1
	comp=Z,27nm,1.0s,mb5.2,baz=294,slow=8.6,SNR=12						
CTA	Charters Tower	59.08	118	P	P	01 48 21.3	-0.1
CTAO	Charters Tower	59.08	118	*e*P	P	01 48 21.3	-0.1
CTAO				*e**PP	pP	01 48 29.3	+0.6
CTAO				pmax	pmax		
	comp=Z,73nm,1.3s,mb5.5						
CTAO	Charters Tower	59.08	118	*e*P	P	01 48 21.3	-0.1
	comp=Z,73nm,1.3s,mb5.5						
CTAO				*e*pP	pP	01 48 29.3	+0.6
STKA	Stephens Creek	60.44	132	P	P	01 48 30.3	-0.3
	comp=Z,24nm,1.1s,mb5.2,baz=308,slow=8.6,SNR=14						
STKA	Stephens Creek	60.44	132	*e*P	P	01 48 30.5	0.0
STKA				*e*pP	pP	01 48 37.7	-0.1
YAK	Yakutsk	61.51	19	*e*P	P	01 48 36.0	-1.4
YAK				pmax	pmax		
	comp=Z,84nm,1.3s,mb5.7						
YAK	Yakutsk	61.51	19	*e*P	P	01 48 36.0	-1.5
	comp=Z,84nm,1.3s,mb5.7						
BRTR	Keskin Array B	62.03	312	P	P	01 48 40.1	-1.1
	comp=Z,2.3nm,1.0s,mb4.2,baz=133,slow=6.3,SNR=8.9						
ISP	Isparta	63.96	309	*e*P	P	01 48 53.3	-0.7
ISP				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.9						
ISP	Isparta	63.96	309	*e*P	P	01 48 53.3	-0.8
	comp=Z,19nm,1.4s,mb4.9						
OBN	Obninsk	65.53	328	*ce*P	P	01 49 02.5	-1.4
OBN				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.1						
AKASG	Malin Array Be	68.10	322	P	P	01 49 18.1	-2.2
	comp=Z,1.1nm,0.7s,mb4.0,baz=88,slow=5.1,SNR=11						
AKASG	Malin Array Be	68.10	322	P	P	01 49 18.1	-2.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.7s						
MLR	Muntele Rosu	68.93	316	P	P	01 49 25.8	+0.3
	comp=Z,34nm,1.3s,mb5.1,baz=101,slow=3.4,SNR=7.8						
LBTB	Lobatse	72.41	241	*e*P	P	01 49 46.5	-0.4
LBTB				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
LBTB	Lobatse	72.41	241	*e*P	P	01 49 46.5	-0.4
	comp=Z,16nm,1.4s,mb4.8						
FINES	FINESS Array B	73.00	333	P	P	01 49 49.0	-0.6
	comp=Z,3.4nm,0.8s,mb4.3,baz=117,slow=13,SNR=6.0						
OJC	Ojcow	73.87	320	*e*P	P	01 49 55.0	0.0
OKC	Ostrava-Krasne	74.86	320	*e*P	P	01 50 01.3	+0.5
OKC				*e*pP	pP	01 50 07.3	-0.8
MORC	Moravsky Berou	75.25	320	*e*P	P	01 50 02.8	-0.2
MORC				*e*	pP	01 50 10.2	-0.1
MORC				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.9						
MORC	Moravsky Berou	75.25	320	*e*P	P	01 50 02.8	-0.1
	comp=Z,26nm,1.5s,mb4.9						
MORC				*e*	pP	01 50 10.2	-0.2
ARCES	ARCESS Array B	75.80	340	P	P	01 50 05.8	+0.1
	comp=Z,3.4nm,0.9s,mb4.3,baz=20,slow=14,SNR=3.8						
VRAC	Vranov	75.81	319	P	P	01 50 06.3	+0.2
	comp=Z,1.1nm,0.8s,mb3.9,baz=126,slow=9.1,SNR=3.4						
DPC	Dobruska-Polom	76.09	320	*e*P	P	01 50 07.8	0.0
DPC				*e*pP	pP	01 50 15.2	+0.1
KSP	Ksiaz	76.17	321	*e*P	P	01 50 08.3	+0.1
KSP				*e**PP	pP	01 50 15.4	-0.1
UPC	Upice	76.31	320	*e*P	P	01 50 13.8	+4.8
MAW	Mawson	77.16	191	LR	LR	02 16 39.4	
	comp=Z,204nm,18.3s,MS4.5,baz=158,slow=30						

PRU	**Pruhonice**	**77.20**	**320**	*e*P	**P**	**01 50 14.5**	**+0.6**
PRU				*e*pP	pP	01 50 20.7	-0.6
BRG	**Berggiesshubel**	**77.65**	**321**	*e*P	**P**	**01 50 17.9**	**+1.5**
BRG				*e*	pP	01 50 24.1	+0.3
BRG				pmax	pmax		
	comp=Z,57nm,1.9s,mb5.2						
BRG	**Berggiesshubel**	**77.65**	**321**	*e*P	**P**	**01 50 17.9**	**+1.5**
	comp=Z,57nm,1.9s,mb5.2						
BRG				*e*	pP	01 50 24.1	+0.3
BRG				*e*		01 50 39.3	
GERES	**GERESS Array B**	**77.66**	**318**	P	**P**	**01 50 17.0**	**+0.5**
	comp=Z,2.8nm,0.8s,mb4.2,baz=90,slow=5.3,SNR=19						
KHC	**Kasperske Hory**	**77.76**	**319**	*e*P	**P**	**01 50 17.7**	**+0.7**
KHC				*e*pP	pP	01 50 24.6	+0.2
CLL	**Collm**	**78.27**	**321**	*e*P	**P**	**01 50 19.0**	**-0.8**
CLL				pmax	pmax		
	comp=Z,12nm,1.4s,mb4.6						
CLL	**Collm**	**78.27**	**321**	*e*P	**P**	**01 50 19.0**	**-0.8**
	comp=Z,12nm,1.4s,mb4.6						
CLL	**Collm**	**78.27**	**321**	P	**P**	**01 50 19.0**	**-0.8**
	comp=Z,logA/T=0.9,mb4.6						
CLL				*e**PP	pP	01 50 27.0	-0.2
HFS	**Hagfors**	**78.66**	**330**	P	**P**	**01 50 21.9**	**+0.1**
	comp=Z,2.2nm,0.7s,mb4.2,SNR=4.2						
NB2	**NORSAR Subarra**	**79.96**	**331**	P	**P**	**01 50 28.6**	**-0.2**
	comp=Z,6.8nm,1.2s,mb4.5,baz=94,slow=5.3						
NB2	**NORSAR Subarra**	**79.96**	**331**	P	**P**	**01 50 28.6**	**-0.2**
NB2				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.5						
NOA	**NORSAR Array B**	**79.96**	**331**	P	**P**	**01 50 28.4**	**-0.3**
	comp=Z,1.4nm,0.7s,mb4.0,baz=94,slow=5.7,SNR=5.2						
DAVOX	**Davos**	**80.15**	**316**	P	**P**	**01 50 31.2**	**+1.1**
	comp=Z,6.0nm,0.5s,mb4.8,baz=126,slow=8.3,SNR=28						
LPG	**La Plagne**	**82.34**	**315**	*e*P	**P**	**01 50 42.8**	**+1.2**
	comp=Z,21nm,0.9s,mb4.8						
LPG	**La Plagne**	**82.34**	**315**	*e*P	**P**	**01 50 42.8**	**+1.2**
LPG				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
EKA	**Eskdalemuir Ar**	**87.78**	**325**	P	**P**	**01 51 09.7**	**+1.1**
	comp=Z,2.6nm,0.7s,mb4.6,baz=98,slow=5.8,SNR=12						
ESDC	**Sonseca Array**	**90.79**	**310**	P	**P**	**01 51 24.6**	**+1.6**
	comp=Z,1.1nm,0.5s,mb4.4,baz=66,slow=4.0,SNR=14						
VNDA	**Vanda**	**92.15**	**168**	P	**P**	**01 51 29.2**	**+0.7**
	comp=Z,4.1nm,1.2s,mb4.6,baz=294,slow=1.5,SNR=2.8						
ILAR	**Eielson Array**	**96.32**	**22**	P	**P**	**01 51 47.4**	**-0.5**
	comp=Z,0.7nm,0.7s,mb4.2,baz=276,slow=4.7,SNR=4.9						
YKA	**Yellowknife Ar**	**107.84**	**13**	PP	PP	01 57 04.7	-6.5
	comp=Z,0.4nm,0.8s,baz=337,slow=7.9,SNR=5.9						
LOHW	**Long Hollow**	**125.61**	**21**	*e*PKPdf	PKPdf	01 57 22.6	-2.0
NVAR	**Mina Array Bea**	**126.62**	**30**	PKP	PKPdf	01 57 24.6	-2.0
	comp=Z,1.1nm,0.5s,baz=292,slow=0.7,SNR=7.1						
PDAR	**Pinedale Array**	**126.72**	**20**	PKP	PKPdf	01 57 24.0	-2.7
	comp=Z,8.2nm,1.3s,slow=1.5,SNR=11						
MSU	**Marysvale**	**129.39**	**25**	*e*PKPdf	PKPdf	01 57 31.8	-0.3
TXAR	**Lajitas Array**	**140.83**	**23**	PKP	PKPdf	01 57 48.0	-5.5
	comp=Z,1.2nm,1.1s,baz=223,slow=0.8,SNR=4.8						
TXAR				PP	PP	02 00 52.7	-0.6
	comp=Z,0.4nm,0.9s,SNR=3.6						
TXAR	**Lajitas Array**	**140.83**	**23**	PKP	PKPdf	01 57 48.0	-5.5
TXAR				PP	PP	02 00 52.7	-0.6
LPAZ	**La Paz**	**158.94**	**242**	PKP	PKPdf	01 58 20.4	-1.1
	comp=Z,1.0nm,0.8s,baz=38,slow=5.0,SNR=4.6						

IDC 27 01:42:04.9±1.4**, 7.79N**×**93.73E, mb4.0**/7**, mb1 4.2**/7**, mb1mx3.9**/18**, Error ellipse: s-maj=57.3km s-min=27.6km az=51.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**41.33**	**13**	P	P	01 49 52.4	-1.6
	0.7nm,0.6s,baz=197,slow=8.5,SNR=2.2						
ZAL	**Zalesovo**	**46.57**	**353**	P	P	01 50 34.8	-1.5
	1.7nm,0.5s,baz=315,slow=6.8,SNR=3.3						
WRA	**Warramunga Arr**	**48.55**	**125**	P	P	01 50 50.2	-2.0
	2.6nm,1.1s,baz=304,slow=8.8,SNR=3.3						
FINES	**FINESS Array B**	**72.59**	**332**	P	P	01 53 32.7	-3.1
	1.8nm,0.9s,baz=104,slow=7.9,SNR=4.1						
GERES	**GERESS Array B**	**77.61**	**318**	P	P	01 54 04.1	-0.6
	0.4nm,0.6s,baz=101,slow=5.0,SNR=3.5						
HFS	**Hagfors**	**78.32**	**330**	P	P	01 54 06.5	-1.9
	1.1nm,0.4s,baz=90,slow=7.4,SNR=5.3						
NB2	**NORSAR Subarra**	**79.60**	**331**	P	P	01 54 14.3	-1.0
	0.6nm,0.5s,baz=99,slow=4.8						
NOA	**NORSAR Array B**	**79.60**	**331**	P	P	01 54 14.1	-1.2
	1.0nm,0.6s,baz=97,slow=5.1,SNR=3.6						

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*IDC **27** 01:43:06.9±0.9, 13.68N×93.70E, h63^{km}±6^{km}, mb4.0/16, mb1 4.1/17, mb1mx4.0/24, MS4.4/1, Ms1 4.4/1, ms1mx3.3/26, Error ellipse: s-maj=19.0km s-min=14.5km az=38.0*

*NEIC **27** 01:43:06.8±0.4, 13.63N×93.66E, mb4.3/5, Error ellipse: s-maj=11.3km s-min=8.6km az=166.0*

ISC 27 01:43:05.1±0.6**, 13.65N**±0.09×**93.70E**±0.07**, h62**^{km}**, h62**^{km}±1.7^{km}**:pP-P, n33,** σ**0**^{s}**65**/29**, mb4.2**/21**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**6.95**	**46**	P	**P**	**01 44 47.9**	**+1.3**
CM31				S	**S**	**01 46 05.9**	**+1.0**
CMAR	**Chiang Mai Arr**	**6.95**	**46**	P	**P**	**01 44 46.5**	**-0.1**
	1.5nm,0.3s,baz=236,slow=15,SNR=7.2						
CMAR				S	**S**	**01 46 03.6**	**-1.3**
	0.6nm,0.3s,baz=239,slow=30,SNR=3.3						
SONM	**Songino Array**	**35.69**	**15**	P	**P**	**01 49 59.2**	**-0.1**
	1.9nm,0.8s,mb4.1,baz=190,slow=6.7,SNR=5.7						
SONM				PcP	PcP	01 52 27.6	+0.8
	0.9nm,0.8s,baz=203,slow=2.1,SNR=3.6						
SONM	**Songino Array**	**35.69**	**15**	P	**P**	**01 49 59.2**	**-0.1**
SONM				PcP	PcP	01 52 27.6	+0.8
ZAL	**Zalesovo**	**40.80**	**352**	P	**P**	**01 50 41.5**	**-0.4**
	3.9nm,0.5s,mb4.3,baz=304,slow=8.0,SNR=6.7						
ZAL				pP	pP	01 50 56.9	-0.7
	1.9nm,0.4s,baz=326,slow=7.4,SNR=2.9						
ZAL				LR	LR	02 10 44.0	
	comp=Z,479nm,19.2s,baz=194,slow=41						
ZAL	**Zalesovo**	**40.80**	**352**	P	**P**	**01 50 41.5**	**-0.4**
ZAL				pP	pP	01 50 56.9	-0.7
ZAL				LR	LR	02 10 44.0	
BVAR	**Borovoye Array**	**43.44**	**340**	PcP	PcP	01 52 50.9	-0.4
	2.1nm,0.9s,baz=162,slow=4.6,SNR=4.3						
GNI	**Garni**	**50.22**	**311**	P	**P**	**01 51 57.8**	**+0.9**
	5.1nm,0.5s,mb4.8,baz=196,slow=2.2,SNR=8.0						
WRA	**Warramunga Arr**	**52.09**	**129**	P	**P**	**01 52 11.1**	**-0.2**
	0.4nm,0.4s,mb3.7,baz=310,slow=9.9,SNR=3.3						
WRA				pP	pP	01 52 26.8	-0.6
	1.0nm,0.6s,baz=307,slow=8.0,SNR=3.4						
ASAR	**Alice Springs**	**54.05**	**133**	P	**P**	**01 52 25.4**	**-0.4**
	0.8nm,0.7s,mb3.8,baz=310,slow=7.1,SNR=4.6						
MALT	**Malatya**	**54.52**	**307**	*e*P	**P**	**01 52 29.3**	**+0.2**
	3.6nm,1.1s,mb4.3						
ASF	**Jabal al Asfar**	**54.85**	**300**	P	**P**	**01 52 31.6**	**0.0**
	3.6nm,0.9s,mb4.4,baz=337,slow=8.4,SNR=6.7						
MBAR	**Mbarara**	**63.93**	**263**	*e*P	**P**	**01 53 34.8**	**+0.4**
	3.6nm,1.1s,mb4.3						
MLR	**Muntele Rosu**	**64.81**	**314**	P	**P**	**01 53 39.6**	**-0.1**
	6.1nm,1.1s,mb4.6,baz=156,slow=5.9,SNR=4.5						
IDI	**Anoyia**	**65.02**	**303**	P	**P**	**01 53 40.3**	**-0.9**
	5.3nm,0.8s,mb4.6,baz=81,slow=15,SNR=3.5						
FINES	**FINESS Array B**	**67.45**	**331**	P	**P**	**01 53 54.4**	**-1.7**
	4.7nm,1.0s,mb4.5,baz=180,slow=30,SNR=2.8						
ARCES	**ARCESS Array B**	**69.73**	**340**	P	**P**	**01 54 09.9**	**-0.2**
	1.7nm,0.7s,mb4.1,baz=104,slow=7.1,SNR=5.6						
ARCES				pP	pP	01 54 27.8	+0.7
	1.8nm,0.9s,baz=90,slow=7.3,SNR=1.7						
ARCES	**ARCESS Array B**	**69.73**	**340**	P	**P**	**01 54 09.9**	**-0.2**
ARCES				pP	pP	01 54 27.8	+0.7
MORC	**Moravsky Berou**	**70.77**	**318**	*e*P	**P**	**01 54 17.1**	**+0.4**
	2.4nm,0.7s,mb4.2						
GERES	**GERESS Array B**	**73.29**	**317**	P	**P**	**01 54 31.8**	**+0.2**
	7.9nm,1.1s,mb4.6,baz=87,slow=5.5,SNR=14						
HFS	**Hagfors**	**73.29**	**329**	P	**P**	**01 54 31.1**	**-0.4**
	2.7nm,1.0s,mb4.2,baz=101,slow=7.6,SNR=3.2						
HFS	**Hagfors**	**73.29**	**329**	P	**P**	**01 54 31.1**	**-0.4**
DAVOX	**Davos**	**75.98**	**315**	P	**P**	**01 54 47.0**	**-0.3**
	2.7nm,0.8s,mb4.2,baz=349,slow=9.4,SNR=3.3						
LBTB	**Lobatse**	**76.68**	**240**	*e*P	**P**	**01 54 52.1**	**+0.5**
	1.9nm,0.7s,mb4.1						
LPL	**La Plagne**	**78.29**	**314**	*e*P	**P**	**01 54 59.8**	**-0.3**
	14nm,0.7s,mb4.7						
EKA	**Eskdalemuir Ar**	**82.75**	**325**	P	**P**	**01 55 24.2**	**+0.6**
	1.4nm,0.7s,mb4.1,baz=80,slow=5.1,SNR=5.7						
ESDC	**Sonseca Array**	**87.19**	**310**	P	**P**	**01 55 46.5**	**+0.5**
	0.1nm,0.3s,mb3.5,baz=70,slow=4.5,SNR=5.8						
ILAR	**Eielson Array**	**89.59**	**22**	P	**P**	**01 55 57.0**	**+0.2**
	1.1nm,0.7s,mb4.3,baz=303,slow=5.5,SNR=11						
ILAR				pP	pP	01 56 14.3	0.0
	1.1nm,0.8s,baz=296,slow=5.0,SNR=3.8						
PDAR	**Pinedale Array**	**119.94**	**20**	PKP	PKPdf	02 01 50.9	+2.0
	0.4nm,0.4s,baz=73,slow=2.0,SNR=7.9						
TXAR	**Lajitas Array**	**134.10**	**21**	PKP	PKPdf	02 02 19.1	+2.7
	0.6nm,0.5s,baz=92,slow=0.1,SNR=18						
TXAR	**Lajitas Array**	**134.10**	**21**	PKP	PKPdf	02 02 19.1	+2.7
PCRV	**Puerto La Cruz**	**148.02**	**317**	PKPbc	PKPdf	02 02 44.5	+3.1
	4.9nm,0.6s,baz=339,slow=3.4,SNR=4.2						
SDV	**Santo Domingo**	**152.74**	**324**	PKPbc	PKPdf	02 02 57.7	+9.1
	3.9nm,0.5s,baz=113,slow=2.6,SNR=5.6						

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*IDC **27** 01:43:41.2±9.3, 7.00S×125.62E, h471^{km}±103^{km}, mb3.8/4, mb1 3.8/6, mb1mx3.5/16, Error ellipse: s-maj=85.5km s-min=25.5km az=149.0*

*NEIC **27** 01:43:41.5±2.2, 6.95S×125.61E, h485^{km}±32^{km}, mb4.4/5, Error ellipse: s-maj=19.8km s-min=16.4km az=179.0*

ISC 27 01:43:41.1±1.1**, 6.9S**±0.1×**125.6E**±0.2**, h500**^{km}**, n14,** σ**0**^{s}**36**/14**, mb4.1**/5**, Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MBWA	**Marble Bar**	**15.24**	**201**	*e*P	**P**	**01 46 54.7**	**+0.6**
	12nm,0.5s						
WRAB	**Tennant Creek**	**15.49**	**147**	*e*P	**P**	**01 46 56.5**	**0.0**
	20nm,0.7s						
WRA	**Warramunga Arr**	**15.49**	**148**	P	**P**	**01 46 56.5**	**-0.1**
	3.4nm,0.3s,baz=335,slow=8.8,SNR=59						
WRA	**Warramunga Arr**	**15.49**	**148**	P	**P**	**01 46 56.5**	**-0.1**
ASAR	**Alice Springs**	**18.47**	**155**	P	**P**	**01 47 26.2**	**+0.3**
	3.3nm,0.3s,baz=337,slow=11,SNR=62						
ASAR	**Alice Springs**	**18.47**	**155**	P	**P**	**01 47 26.2**	**+0.3**
PMG	**Port Moresby**	**21.50**	**98**	P	**P**	**01 47 55.1**	**+0.6**
	2.9nm,0.6s,mb4.0,baz=304,slow=3.6,SNR=4.3						
PMG	**Port Moresby**	**21.50**	**98**	*e*P	**P**	**01 47 54.7**	**+0.2**
	4.4nm,0.6s,mb4.2						
CTA	**Charters Tower**	**23.95**	**125**	P	**P**	**01 48 16.5**	**-0.3**
	15nm,1.1s,mb4.3,baz=318,slow=11,SNR=7.5						
CTA	**Charters Tower**	**23.95**	**125**	P	**P**	**01 48 16.5**	**-0.3**
CTAO	**Charters Tower**	**23.95**	**125**	*e*P	**P**	**01 48 16.4**	**-0.4**
	3.8nm,0.5s,mb4.1						
NWAO	**Narrogin (SRO)**	**27.02**	**196**	P	**P**	**01 48 43.4**	**-0.6**
	20nm,0.9s,mb4.5,baz=28,slow=6.8,SNR=11						
STKA	**Stephens Creek**	**28.98**	**151**	P	**P**	**01 49 00.8**	**-0.3**
	9.4nm,0.5s,mb4.5,baz=341,slow=9.8,SNR=18						
ULN	**Ulaanbaatar**	**56.95**	**345**	*e*P	**P**	**01 52 39.9**	**-0.1**
	1.6nm,0.8s,mb3.4						

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*IDC **27** 01:45:55.7±0.5, 13.82N×93.19E, mb4.5/24, mb1 4.6/25, mb1mx4.6/29, ML4.8/1, Error ellipse: s-maj=22.0km s-min=11.0km az=46.0*

*MOS **27** 01:45:59.0±0.9, 13.84N×93.35E, h33^{km}, mb4.8/19, Error ellipse: s-maj=13.6km s-min=6.9km az=124.7*

*BJI **27** 01:46:00.7, 13.74N×93.30E, h53^{km}, mB5.4, mb4.7, Ms4.8, Msz4.5*

*NEIC **27** 01:46:02.1±1.5, 13.85N×93.30E, h42^{km}±12^{km}, mb4.6/22, Error ellipse: s-maj=11.0km s-min=6.0km az=222.0*

ISC 27 01:45:59.6±1.9**, 13.87N**±0.06×**93.36E**±0.06**, h37**^{km}±16^{km}**, n127,** σ**0**^{s}**96**/114**, mb4.6**/49**, MS4.5**/2**, 1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**7.04**	**49**	*e*P	**P**	**01 47 43.8**	**+0.9**
CM31				*e*S	**S**	**01 49 02.0**	**-0.5**
CMAR	**Chiang Mai Arr**	**7.04**	**49**	Pn	**P**	**01 47 43.5**	**+0.7**
	3.9nm,0.3s,baz=242,slow=15,SNR=17						
CMAR				Sn	**S**	**01 49 00.3**	**-2.2**
	0.6nm,0.3s,baz=238,slow=28,SNR=7.5						
CHG	**Chiang Mai**	**7.27**	**47**	PG	**P**	**01 47 46.6**	**+0.5**
CHG				SG	**S**	**01 49 07.0**	**-1.3**
CHRT	**Chiangrai**	**8.57**	**45**	PG	**P**	**01 48 03.0**	**-1.0**
CHRT				SG	**S**	**01 49 29.0**	**-12**
NANT	**Nan**	**8.58**	**54**	P	**P**	**01 48 05.0**	**+0.8**
KKTK	**Khon Kaen**	**9.46**	**74**	P	**P**	**01 48 20.8**	**+4.4**
	556nm,0.7s						
PKI	**Pulchoki**	**15.52**	**333**	*e*P	**P**	**01 49 30.3**	**-7.1**
	70nm,0.8s						
GUN	**Gumba**	**15.61**	**335**	*e*P	**P**	**01 49 30.5**	**-8.1**
	114nm,0.8s						
DMN	**Daman**	**15.69**	**332**	*e*P	**P**	**01 49 31.8**	**-7.8**
	107nm,0.8s						
KKN	**Kakani**	**15.77**	**333**	*e*P	**P**	**01 49 32.7**	**-7.9**
	54nm,0.6s						
LSA	**Lhasa**	**15.89**	**353**	*e*P	**P**	**01 49 45.8**	**+3.7**
LSA				pmax	pmax		
	comp=Z,18nm,0.6s						
LSA	**Lhasa**	**15.89**	**353**	*e*P	**P**	**01 49 45.8**	**+3.7**
	comp=Z,18nm,0.6s						
GKN	**Gorkha**	**16.24**	**331**	*e*P	**P**	**01 49 37.3**	**-9.3**
KOLN	**Koldanda**	**16.55**	**328**	*e*P	**P**	**01 49 40.3**	**-10**
	comp=Z,47nm,0.5s						
GYA	**Guiyang**	**17.67**	**43**	P	**P**	**01 50 07.5**	**+3.0**
GYA				AMB	AMB		
	comp=Z,20nm,1.5s						
CD2	**Chengdu**	**19.47**	**28**	P	**P**	**01 50 25.8**	**-0.3**
CD2				AMB	AMB		
	comp=Z,70nm,0.4s						
ENH	**Enshi**	**22.09**	**40**	*e*P	**P**	**01 50 53.0**	**-0.1**
	comp=Z,38nm,1.1s,mb4.7						
LZH	**Lanzhou**	**24.04**	**21**	*e*P	**P**	**01 51 14.5**	**+2.3**
LZH				AMB	AMB		
	comp=Z,82nm,1.3s,mb5.0						
LZH				LR	LR		
	comp=E,1µm,12.7s						
LZH				LR	LR		
	comp=Z,2µm,14.0s,MS4.8						
GTA	**Gaotai**	**26.07**	**11**	*e*P	**P**	**01 51 32.5**	**+1.0**
GTA				AMB	AMB		
	comp=Z,8.0nm,1.3s,mb4.1						
GTA				AMB	AMB		
	comp=Z,433nm,10.7s						
GTA				LR	LR		
	comp=N,554nm,14.9s,MS4.3						
GTA				LR	LR		
	comp=E,395nm,14.5s,MS4.3						
GTA				LR	LR		
	comp=Z,458nm,15.3s,MS4.1						
WMQ	**Urumqi**	**30.24**	**352**	P	**P**	**01 52 14.5**	**+5.4**
HHC	**Hu-ho-hao-te**	**31.23**	**27**	*e*P	**P**	**01 52 20.0**	**+2.1**
HHC				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,293nm,5.7s						
AAK	**Ala-Archa**	**32.97**	**334**	*e*P	**P**	**01 52 32.9**	**-0.2**
AAK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
AAK	**Ala-Archa**	**32.97**	**334**	*e*P	**P**	**01 52 32.9**	**-0.1**
	comp=Z,4.7nm,0.9s,mb4.4						
JOW	**Kunigami**	**35.06**	**63**	P	**P**	**01 52 52.8**	**+1.6**
	comp=Z,8.0nm,0.5s,mb4.9,baz=248,slow=19,SNR=4.1						
SONM	**Songino Array**	**35.56**	**15**	P	**P**	**01 52 55.4**	**+0.1**
	comp=Z,3.0nm,0.6s,mb4.4,baz=203,slow=9.4,SNR=17						
ULN	**Ulaanbaatar**	**35.76**	**16**	*e*P	**P**	**01 52 57.2**	**+0.3**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
ULN	**Ulaanbaatar**	**35.76**	**16**	*e*P	**P**	**01 52 57.2**	**+0.3**
	comp=Z,4.8nm,0.9s,mb4.4						
ZAK	**Zakamensk**	**37.30**	**10**	*e*P	**P**	**01 53 11.4**	**+1.5**
ZAK				*e*		01 55 30.2	
CN2	**Changchun**	**40.53**	**36**	*e*P	**P**	**01 53 37.5**	**+0.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
ZAL	**Zalesovo**	**40.54**	**352**	P	**P**	**01 53 36.4**	**-0.4**
	comp=Z,5.6nm,0.9s,mb4.2,baz=300,slow=9.6,SNR=12						
NVS	**Novosibirsk**	**41.64**	**351**	*e*P	**P**	**01 53 44.1**	**-1.7**
NVS				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.4						
BVAR	**Borovoye Array**	**43.12**	**340**	P	**P**	**01 53 57.1**	**-0.8**
	comp=Z,3.6nm,1.0s,mb4.1,baz=158,slow=8.0,SNR=5.9						
BRVK	**Borovoye**	**43.18**	**340**	*e*P	**P**	**01 53 55.7**	**-2.7**
BRVK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
BRVK	**Borovoye**	**43.18**	**340**	*e*P	**P**	**01 53 55.7**	**-2.8**
	comp=Z,8.5nm,1.1s,mb4.4						
BOD	**Bodaibo**	**46.56**	**15**	*e*P	**P**	**01 54 25.1**	**-0.3**
GNI	**Garni**	**49.83**	**311**	P	**P**	**01 54 48.2**	**-2.8**
	comp=Z,1.5nm,0.4s,mb4.3,baz=138,slow=23,SNR=2.7						
GNI	**Garni**	**49.83**	**311**	*e*P	**P**	**01 54 52.1**	**+1.1**
GNI				*e**PP	pP	01 55 00.8	-1.1
GNI				pmax	pmax		
	comp=Z,26nm,1.1s						
GNI	**Garni**	**49.83**	**311**	*e*P	**P**	**01 54 52.0**	**+1.0**
	comp=Z,26nm,1.1s,mb5.2						
GNI				*e*pP	pP	01 55 00.8	-1.1
ARU	**Arti**	**50.12**	**336**	*e*P	**P**	**01 54 52.5**	**-0.6**
ARU	**Arti**	**50.12**	**336**	*e*P	**P**	**01 54 52.2**	**-0.8**
	comp=Z,11nm,1.1s,mb4.8						
TI2	**Plekhanov**	**50.31**	**313**	*e*P	**P**	**01 54 56.4**	**+1.7**
ZEI	**Tsey**	**51.24**	**314**	*e*P	**P**	**01 55 02.0**	**+0.2**
ZEI				*i* *PP	pP	01 55 09.1	-3.6
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
NWAO	**Narrogin (SRO)**	**51.82**	**154**	P	**P**	**01 55 05.8**	**-0.4**
	comp=Z,13nm,0.4s,mb5.2,baz=307,slow=4.0,SNR=22						
KIV	**Kislovodsk**	**52.46**	**315**	*e*P	**P**	**01 55 10.6**	**-0.3**
KIV				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
KIV	**Kislovodsk**	**52.46**	**315**	*e*P	**P**	**01 55 10.6**	**-0.3**
	comp=Z,18nm,0.9s,mb5.0						
WRA	**Warramunga Arr**	**52.48**	**129**	P	**P**	**01 55 10.9**	**-0.4**
	comp=Z,11nm,0.9s,mb4.8,baz=311,slow=8.0,SNR=26						
WRA				PcP	PcP	01 56 21.7	0.0
	comp=Z,1.5nm,0.4s,baz=326,slow=3.4,SNR=12						
WRAB	**Tennant Creek**	**52.48**	**129**	*e*P	**P**	**01 55 10.7**	**-0.7**
WRAB				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
WRAB	**Tennant Creek**	**52.48**	**129**	*e*P	**P**	**01 55 10.7**	**-0.6**
	comp=Z,24nm,0.9s,mb5.1						
GOF	**Gofitskoye**	**52.59**	**317**	*e*P	**P**	**01 55 12.0**	**+0.2**
MALT	**Malatya**	**54.12**	**307**	*e*P	**P**	**01 55 23.2**	**-0.1**
MALT				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
MALT	**Malatya**	**54.12**	**307**	*e*P	**P**	**01 55 23.2**	**-0.1**
	comp=Z,5.8nm,1.1s,mb4.4						
ASAR	**Alice Springs**	**54.44**	**133**	P	**P**	**01 55 25.4**	**-0.3**
	comp=Z,12nm,0.8s,mb4.9,baz=311,slow=7.3,SNR=57						
EIL	**Elat**	**55.94**	**297**	P	**P**	**01 55 35.7**	**-0.9**
	comp=Z,6.2nm,0.9s,mb4.6,baz=89,slow=15,SNR=4.1						
BRTR	**Keskin Array B**	**58.04**	**308**	P	**P**	**01 55 50.5**	**-0.9**
	comp=Z,8.2nm,0.9s,mb4.8,baz=122,slow=6.3,SNR=29						
PMG	**Port Moresby**	**58.17**	**110**	P	**P**	**01 55 51.9**	**-0.8**
	comp=Z,6.8nm,0.7s,mb4.8,baz=298,slow=6.2,SNR=5.4						
OBN	**Obninsk**	**59.96**	**326**	*d i*P	**P**	**01 56 03.7**	**-0.8**
OBN				pmax	pmax		
	comp=Z,31nm,1.9s,mb5.0						
CTA	**Charters Tower**	**62.01**	**122**	P	**P**	**01 56 18.4**	**-0.4**
	comp=Z,4.7nm,0.9s,mb4.6,baz=50,slow=20,SNR=2.9						
AKASG	**Malin Array Be**	**63.05**	**320**	P	**P**	**01 56 22.6**	**-2.7**
	comp=Z,0.7nm,0.5s,mb4.1,baz=86,slow=5.5,SNR=7.1						
AKASG	**Malin Array Be**	**63.05**	**320**	P	**P**	**01 56 22.7**	**-2.6**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MBAR	**Mbarara**	**63.63**	**262**	*e*P	**P**	**01 56 29.8**	**0.0**
MBAR				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.5						
MBAR	**Mbarara**	**63.63**	**262**	*e*P	**P**	**01 56 29.8**	**0.0**
	comp=Z,4.5nm,1.1s,mb4.4						
MLR	**Muntele Rosu**	**64.43**	**314**	P	**P**	**01 56 33.2**	**-1.1**
	comp=Z,13nm,1.1s,mb4.9,baz=65,slow=4.4,SNR=6.8						
STKA	**Stephens Creek**	**64.84**	**135**	P	**P**	**01 56 37.0**	**-0.3**
	comp=Z,5.0nm,0.8s,mb4.6,baz=309,slow=7.6,SNR=6.1						
FINES	**FINESS Array B**	**67.10**	**331**	P	**P**	**01 56 50.5**	**-0.6**
	comp=Z,3.4nm,0.8s,mb4.4,baz=100,slow=7.1,SNR=12						
KAF	**Kangasniemi**	**67.15**	**332**	*e*p	**P**	**01 56 47.5**	**-4.0**
	comp=Z,5.5nm,1.0s,mb4.5						
KAF	**Kangasniemi**	**67.15**	**332**	*e*P	**P**	**01 56 47.5**	**-4.0**
KAF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
KOLS	**Kolonicke sedl**	**67.25**	**317**	*e*P	**P**	**01 56 58.0**	**+5.7**
KOLS	**Kolonicke sedl**	**67.25**	**317**	*e*	pP	01 56 58.0	-5.7
CRVS	**Cervenica-Dubn**	**67.78**	**317**	*e*P	**P**	**01 56 56.3**	**+0.6**
OJC	**Ojcow**	**68.95**	**319**	*e*P	**P**	**01 57 02.6**	**-0.3**
KEV	**Kevo**	**68.97**	**340**	*e*p	**P**	**01 57 01.3**	**-1.4**
	comp=Z,0.3nm,0.4s,mb3.6						
ARCES	**ARCESS Array B**	**69.41**	**340**	P	**P**	**01 57 05.3**	**-0.1**
	comp=Z,1.8nm,0.6s,mb4.2,baz=92,slow=6.0,SNR=11						
VYHS	**Vyhne**	**69.50**	**317**	*e*P	**P**	**01 57 05.8**	**-0.5**
SRO	**Srobarova**	**69.83**	**316**	*e*P	**P**	**01 57 08.6**	**+0.3**
SRO				*e*		01 57 14.3	
OKC	**Ostrava-Krasne**	**70.00**	**318**	*e*P	**P**	**01 57 09.8**	**+0.5**
MORC	**Moravsky Berou**	**70.39**	**318**	*e*P	**P**	**01 57 11.3**	**-0.4**
MORC				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
MORC	**Moravsky Berou**	**70.39**	**318**	*e*P	**P**	**01 57 11.3**	**-0.4**
	comp=Z,2.4nm,0.7s,mb4.2						
ZST	**Bratislava**	**70.65**	**316**	*e*P	**P**	**01 57 13.1**	**-0.2**
DPC	**Dobruska-Polom**	**71.19**	**319**	*e*P	**P**	**01 57 17.0**	**+0.5**
PRU	**Pruhonice**	**72.33**	**318**	*e*P	**P**	**01 57 23.3**	**0.0**
BRG	**Berggiesshubel**	**72.70**	**319**	*i* P	**P**	**01 57 26.2**	**+0.7**
BRG				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.8						
BRG	**Berggiesshubel**	**72.70**	**319**	*i* P	**P**	**01 57 26.2**	**+0.7**
	comp=Z,19nm,1.5s,mb4.8						
GEC2	**GERESS Array S**	**72.90**	**317**	*e*P	**P**	**01 57 27.2**	**+0.5**
GERES	**GERESS Array B**	**72.90**	**317**	P	**P**	**01 57 27.0**	**+0.3**
	comp=Z,4.7nm,0.6s,mb4.6,baz=89,slow=5.0,SNR=29						
HFS	**Hagfors**	**72.94**	**329**	P	**P**	**01 57 26.3**	**-0.4**
	comp=Z,4.2nm,0.5s,mb4.6,baz=117,slow=6.6,SNR=13						
KHC	**Kasperske Hory**	**72.98**	**317**	*e*P	**P**	**01 57 25.7**	**-1.5**
CLL	**Collm**	**73.29**	**320**	*e*P	**P**	**01 57 29.0**	**0.0**
CLL				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
CLL	**Collm**	**73.29**	**320**	*e*P	**P**	**01 57 29.0**	**0.0**
	comp=Z,11nm,1.3s,mb4.6						
CLL	**Collm**	**73.29**	**320**	P	**P**	**01 57 29.0**	**0.0**
	comp=Z,logA/T=0.9,mb4.6						
NB2	**NORSAR Subarra**	**74.18**	**330**	P	**P**	**01 57 33.3**	**-0.6**
	comp=Z,1.9nm,0.6s,mb4.2,baz=89,slow=5.6						
NB2	**NORSAR Subarra**	**74.18**	**330**	P	**P**	**01 57 33.3**	**-0.6**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	**NORSAR Array B**	**74.18**	**330**	P	**P**	**01 57 33.5**	**-0.4**
	comp=Z,2.7nm,0.7s,mb4.3,baz=90,slow=5.8,SNR=8.8						
MOX	**Moxa**	**74.19**	**319**	*e*P	**P**	**01 57 34.7**	**+0.5**
MOX	**Moxa**	**74.19**	**319**	*i* P	**P**	**01 57 34.7**	**+0.5**
GRA1	**Grafenberg Arr**	**74.49**	**318**	*e*P	**P**	**01 57 37.2**	**+1.2**
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	**Grafenberg Arr**	**74.49**	**318**	*e*P	**P**	**01 57 37.2**	**+1.2**
GRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	**Grafenberg Arr**	**74.49**	**318**	*e*P	**P**	**01 57 37.2**	**+1.2**
GRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	**Grafenberg Arr**	**74.49**	**318**	*e*P	**P**	**01 57 37.2**	**+1.2**
	comp=Z,8.0nm,0.9s,mb4.7						
BSEG	**Bad Segeberg**	**74.83**	**323**	*e*P	**P**	**01 57 38.4**	**+0.6**
CLZ	**Clausthal**	**74.91**	**320**	*e*P	**P**	**01 57 38.8**	**+0.5**
DAVOX	**Davos**	**75.59**	**315**	P	**P**	**01 57 42.4**	**+0.1**
	comp=Z,3.3nm,0.7s,mb4.4,baz=12,slow=19,SNR=6.3						
LBTB	**Lobatse**	**76.51**	**240**	*e*P	**P**	**01 57 48.3**	**+0.3**
LBTB				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
LBTB	**Lobatse**	**76.51**	**240**	*e*P	**P**	**01 57 48.3**	**+0.3**
	comp=Z,10nm,1.2s,mb4.6						
LPL	**La Plagne**	**77.90**	**314**	*e*P	**P**	**01 57 55.6**	**+0.2**
	comp=Z,38nm,0.8s,mb5.0						
LPL	**La Plagne**	**77.90**	**314**	*e*P	**P**	**01 57 55.6**	**+0.2**
LPL				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.1						
BOSA	**Boshof**	**78.17**	**236**	*e*P	**P**	**01 57 57.5**	**+0.3**
BOSA				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
BOSA	**Boshof**	**78.17**	**236**	*e*P	**P**	**01 57 57.5**	**+0.3**
	comp=Z,8.3nm,0.9s,mb4.7						
EKA	**Eskdalemuir Ar**	**82.39**	**325**	P	**P**	**01 58 19.4**	**+0.4**
	comp=Z,7.2nm,1.1s,mb4.5,baz=88,slow=5.0,SNR=5.2						
ESDC	**Sonseca Array**	**86.80**	**310**	P	**P**	**01 58 42.3**	**+0.8**
	comp=Z,1.0nm,0.8s,mb4.1,baz=53,slow=4.2,SNR=5.0						
ILAR	**Eielson Array**	**89.50**	**22**	P	**P**	**01 58 54.5**	**+0.6**
	comp=Z,1.7nm,0.7s,mb4.5,baz=301,slow=5.1,SNR=17						
SML	**Sawmill**	**90.52**	**25**	*e*P	**P**	**01 59 01.2**	**+2.6**
YKA	**Yellowknife Ar**	**100.80**	**13**	Pdiff	P	01 59 45.7	+0.3
	comp=Z,0.3nm,0.9s,baz=338,slow=4.5,SNR=4.6						
YKA				PP	PP	02 03 50.4	-5.8
	comp=Z,0.5nm,0.9s,baz=334,slow=8.1,SNR=3.6						
PDAR	**Pinedale Array**	**119.84**	**19**	PKP	PKPdf	02 04 48.8	+2.4
	comp=Z,1.0nm,0.8s,baz=92,slow=0.8,SNR=7.6						
NVAR	**Mina Array Bea**	**120.12**	**28**	PKP	PKPdf	02 04 50.7	+3.8
	comp=Z,2.4nm,0.9s,baz=333,slow=2.4,SNR=5.9						
NVAR	**Mina Array Bea**	**120.12**	**28**	PKP	PKPdf	02 04 50.7	+3.7
MSU	**Marysvale**	**122.67**	**24**	*e*PKIKP	PKPdf	02 04 55.9	+4.0
ANMO	**Albuquerque**	**127.93**	**21**	PKP	PKPdf	02 05 05.7	+3.5
	comp=Z,2.7nm,1.0s,baz=259,slow=0.8,SNR=7.7						
MNTX	**Cornudas Mount**	**131.26**	**21**	*e*PKPdf	PKPdf	02 05 11.4	+2.9
TXAR	**Lajitas Array**	**134.01**	**21**	PKP	PKPdf	02 05 16.3	+2.5

	comp=Z,1.7nm,1.1s,baz=169,slow=0.9,SNR=8.5						
TXAR	**Lajitas Array**	**134.01**	**21**	PKP	PKPdf	02 05 16.3	+2.5
JCT	**Junction City**	**134.12**	**16**	*e*PKIKP	PKPdf	02 05 16.0	+2.0
TEIG	**Tepich**	**146.08**	**3**	*e*PKPdf	PKPdf	02 05 39.1	+3.5
PCRV	**Puerto La Cruz**	**147.64**	**316**	PKP	PKPdf	02 05 39.2	+0.8
	comp=Z,14nm,0.9s,baz=113,slow=1.9,SNR=2.8						
PCRV				PKPbc	PKPdf	02 05 41.8	+3.5
	comp=Z,14nm,0.9s,baz=135,slow=1.4,SNR=4.6						
SDV	**Santo Domingo**	**152.37**	**324**	PKP	PKPdf	02 05 48.4	+2.7
	comp=Z,2.4nm,0.5s,baz=159,slow=2.4,SNR=3.7						
SDV				PKPbc	PKPdf	02 05 55.2	+9.5
	comp=Z,5.3nm,0.7s,baz=114,slow=1.9,SNR=4.2						
SDV				PKPab	PKPab	02 06 04.6	-0.5
	comp=Z,3.4nm,0.6s,baz=54,slow=7.8,SNR=4.3						
ROSC	**El Rosal**	**157.74**	**326**	PKP	PKPdf	02 05 55.8	+2.8
	comp=Z,4.7nm,0.9s,baz=108,slow=22,SNR=4.5						
LPAZ	**La Paz**	**161.97**	**260**	PKP	PKPdf	02 06 00.6	+3.2
	comp=Z,1.3nm,0.9s,baz=48,slow=9.2,SNR=5.1						
LPAZ				PKPab	PKPab	02 06 46.2	+0.2
	comp=Z,1.6nm,0.8s,baz=121,slow=7.3,SNR=4.9						
LPAZ	**La Paz**	**161.97**	**260**	PKP	PKPdf	02 06 00.6	+3.2
LPAZ				PKPab	PKPab	02 06 46.2	+0.2

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*IDC **27** 01:51:40.2±1.1, 4.50N×94.78E, mb3.9/11, mb1 4.1/12, mb1mx4.0/20, ML4.6/1, Error ellipse: s-maj=51.7km s-min=20.0km az=48.0*

*NEIC **27** 01:51:44.7±0.8, 4.45N×94.91E, h30^{km}, mb4.3/5, Error ellipse: s-maj=37.1km s-min=11.4km az=52.0*

ISC 27 01:51:42.8±0.8**, 4.5N**±0.2×**94.9E**±0.2**, h30^{km}, n18, σ0^{s}95**/18**, mb4.0**/16**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.48**	**16**	Pn	**P**	**01 55 13.8**	**+6.0**
	0.9nm,0.3s,baz=210,slow=11,SNR=11						
LSA	**Lhasa**	**25.36**	**352**	*e*P	**P**	**01 57 09.7**	**+0.6**
	5.4nm,0.7s,mb4.2						
AAK	**Ala-Archa**	**42.13**	**337**	P	**P**	**01 59 35.2**	**+1.0**
	2.4nm,0.7s,mb3.9						
SONM	**Songino Array**	**44.34**	**11**	P	**P**	**01 59 51.1**	**-1.0**
	0.7nm,0.5s,mb3.6,baz=191,slow=7.8,SNR=6.2						
WRA	**Warramunga Arr**	**45.72**	**123**	P	**P**	**02 00 04.7**	**+1.3**
	1.3nm,0.7s,mb4.0,baz=302,slow=9.1,SNR=6.9						
WRAB	**Tennant Creek**	**45.72**	**123**	*e*P	**P**	**02 00 01.4**	**-2.0**
	2.9nm,0.6s,mb4.4						
ASAR	**Alice Springs**	**47.19**	**128**	P	**P**	**02 00 15.6**	**+0.6**
	0.5nm,0.7s,mb3.6,baz=300,slow=7.6,SNR=5.3						
ZAL	**Zalesovo**	**50.02**	**352**	P	**P**	**02 00 36.0**	**-0.6**
	2.3nm,0.7s,mb4.3,baz=297,slow=3.4,SNR=11						
BVAR	**Borovoye Array**	**52.45**	**342**	P	**P**	**02 00 55.1**	**+0.1**
	1.9nm,0.6s,mb4.2,baz=141,slow=9.5,SNR=14						
BRVK	**Borovoye**	**52.52**	**342**	*e*P	**P**	**02 00 55.4**	**-0.1**
	2.7nm,0.6s,mb4.3						
CHKZ	**Chkalovo**	**52.94**	**342**	*e*P	**P**	**02 00 58.9**	**+0.3**
	5.1nm,0.6s,mb4.6						
BRTR	**Keskin Array B**	**65.24**	**312**	P	**P**	**02 02 22.4**	**-1.6**
	1.0nm,1.0s,mb3.8,baz=101,slow=7.3,SNR=3.3						
AKASG	**Malin Array Be**	**71.30**	**322**	P	**P**	**02 03 00.7**	**-0.9**
	0.2nm,0.3s,mb3.5,baz=78,slow=4.4,SNR=4.8						
FINES	**FINESS Array B**	**76.07**	**333**	P	**P**	**02 03 29.1**	**+0.1**
	1.0nm,0.6s,mb3.9,baz=90,slow=7.6,SNR=5.0						
ARCES	**ARCESS Array B**	**78.72**	**340**	P	**P**	**02 03 43.7**	**+0.1**
	1.4nm,0.8s,mb4.0,baz=90,slow=6.1,SNR=5.3						
ARCES	**ARCESS Array B**	**78.72**	**340**	P	**P**	**02 03 43.7**	**+0.1**
GERES	**GERESS Array B**	**80.87**	**319**	P	**P**	**02 03 57.0**	**+1.5**
	0.6nm,0.8s,mb3.6,baz=90,slow=5.3,SNR=5.1						
HFS	**Hagfors**	**81.78**	**330**	P	**P**	**02 04 00.2**	**+0.2**
	0.5nm,0.4s,mb3.8,baz=168,slow=41,SNR=3.2						

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*IDC **27** 01:53:36.1±1.0, 12.87N×92.36E, mb4.0/13, mb1 4.2/13, mb1mx4.1/20, Error ellipse: s-maj=41.7km s-min=18.7km az=51.0*

*NEIC **27** 01:53:40.8±0.5, 12.90N×92.43E, h30^{km}, mb4.5/4, Error ellipse: s-maj=15.8km s-min=9.6km az=55.0*

*BJI **27** 01:53:40.8, 12.90N×92.40E, h30^{km}, mb4.3*

ISC 27 01:53:38.8±0.7**, 12.86N**±0.09×**92.32E**±0.08**, h30^{km}, n31, σ0^{s}72**/35**, mb4.1**/17**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIS	**Vishakhapatnam**	**9.93**	**300**	*e*P	**P**	**01 56 00.9**	**-1.8**
VIS				*e*P		01 56 01.0	
VIS				*e*S	x	01 57 41.3	
VIS				*e*S	x	01 57 42.4	
VIS				*e*	**Sn**	**01 57 47.4**	**-6.7**
	comp=E,278nm,0.3s						
VIS				*e*		01 57 47.6	
	comp=N,331nm,0.3s						
BOK	**Bokaro**	**12.47**	**332**	*e*P	**P**	**01 56 36.3**	**-0.9**
BOK				*e*S	**S**	**01 58 46.8**	**-9.3**
SHL	**Shillong**	**12.65**	**358**	*e*P	**P**	**01 56 34.0**	**-5.6**
BLSP	**Bilaspur**	**13.39**	**315**	*e*P	**P**	**01 56 49.2**	**-0.2**
BLSP				*e*		01 56 50.7	
	comp=Z,25nm,1.0s						
BLSP				*e*S	**S**	**01 59 04.6**	**-13**
PKI	**Pulchoki**	**16.00**	**337**	*e*P	**P**	**01 57 23.1**	**-0.4**
GUN	**Gumba**	**16.14**	**339**	*e*P	**P**	**01 57 26.2**	**+0.9**
	comp=Z,23nm,0.4s						
DMN	**Daman**	**16.15**	**336**	*e*P	**P**	**01 57 24.5**	**-0.9**
	comp=Z,50nm,0.7s						
KKN	**Kakani**	**16.25**	**337**	*e*P	**P**	**01 57 26.4**	**-0.2**
GKN	**Gorkha**	**16.69**	**336**	*e*P	**P**	**01 57 31.9**	**-0.3**
LSA	**Lhasa**	**16.80**	**356**	P	**P**	**01 57 34.3**	**+0.7**
	comp=Z,17nm,0.8s						
KOLN	**Koldanda**	**16.93**	**333**	*e*P	**P**	**01 57 34.9**	**-0.3**
	comp=Z,40nm,0.6s						
BHPL	**Bhopal**	**17.51**	**308**	*e*P	**P**	**01 57 44.4**	**+1.9**
BHPL				*e*		01 57 49.7	
	comp=Z,8.5nm,0.3s						
BHPL				*e*S	**S**	**02 00 59.2**	**+4.8**
GYA	**Guiyang**	**19.10**	**43**	P	**P**	**01 58 01.3**	**-0.6**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
CD2	**Chengdu**	**20.84**	**29**	P	**P**	**01 58 20.3**	**-0.3**
CD2				AMB	AMB		
	comp=Z,40nm,0.5s						
ENH	**Enshi**	**23.51**	**40**	*e*P	**P**	**01 58 46.8**	**-0.4**
	comp=Z,21nm,0.9s,mb4.6						
GTA	**Gaotai**	**27.27**	**13**	*e*P	**P**	**01 59 23.5**	**+1.0**
GTA				AP	pP	01 59 30.8	-0.5
GTA				XP	sP	01 59 33.0	-2.2
GTA				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.2						
AAK	**Ala-Archa**	**33.45**	**336**	*e*P	**P**	**02 00 17.5**	**+0.2**
	comp=Z,5.1nm,1.1s,mb4.4						
SONM	**Songino Array**	**36.80**	**16**	P	**P**	**02 00 46.3**	**+0.5**
	comp=Z,4.5nm,0.7s,mb4.4,baz=206,slow=7.2,SNR=22						
ZAL	**Zalesovo**	**41.41**	**353**	P	**P**	**02 01 23.8**	**-0.2**
	comp=Z,3.0nm,0.7s,mb4.0,baz=296,slow=6.7,SNR=8.8						
BVAR	**Borovoye Array**	**43.72**	**341**	P	**P**	**02 01 42.9**	**0.0**
	comp=Z,0.8nm,0.6s,mb3.7,baz=135,slow=8.4,SNR=3.3						
CHKZ	**Chkalovo**	**44.21**	**342**	*e*P	**P**	**02 01 47.2**	**+0.3**
	comp=Z,6.2nm,0.6s,mb4.5						
WRA	**Warramunga Arr**	**52.66**	**128**	P	**P**	**02 02 53.1**	**+0.3**
	comp=Z,0.8nm,0.7s,mb3.8,baz=304,slow=9.0,SNR=4.5						
ASAR	**Alice Springs**	**54.51**	**132**	P	**P**	**02 03 05.2**	**-1.2**
	comp=Z,0.2nm,0.5s,mb3.4,baz=268,slow=22,SNR=5.3						
BRTR	**Keskin Array B**	**57.88**	**309**	P	**P**	**02 03 30.8**	**+0.4**
	comp=Z,0.7nm,0.8s,mb3.8,baz=112,slow=7.8,SNR=2.9						
FINES	**FINESS Array B**	**67.50**	**332**	P	**P**	**02 04 33.5**	**-0.5**
	comp=Z,1.5nm,0.6s,mb4.2,baz=107,slow=5.7,SNR=8.8						
ARCES	**ARCESS Array B**	**70.00**	**340**	P	**P**	**02 04 49.1**	**-0.1**
	comp=Z,2.4nm,0.7s,mb4.2,baz=90,slow=4.9,SNR=4.6						
GERES	**GERESS Array B**	**72.95**	**317**	P	**P**	**02 05 08.3**	**+1.0**
	comp=Z,0.4nm,0.6s,mb3.5,baz=90,slow=5.3,SNR=3.7						
HFS	**Hagfors**	**73.28**	**329**	P	**P**	**02 05 09.4**	**+0.4**
	comp=Z,1.5nm,0.5s,mb4.2,baz=121,slow=8.6,SNR=3.9						
NOA	**NORSAR Array B**	**74.54**	**330**	P	**P**	**02 05 16.3**	**+0.1**
	comp=Z,1.0nm,0.8s,mb3.8,baz=91,slow=5.8,SNR=3.3						
ILAR	**Eielson Array**	**90.82**	**22**	P	**P**	**02 06 40.4**	**+0.2**
	comp=Z,0.5nm,0.6s,mb4.0,baz=302,slow=5.0,SNR=9.0						
INK	**Inuvik**	**92.72**	**15**	P	**P**	**02 06 49.6**	**+0.8**
	comp=Z,2.4nm,1.3s,mb4.5,baz=266,slow=5.4,SNR=4.1						

IDC 27 01:54:26.3±4.5**, 29.70S**×**177.78W, mb4.0**/3**, mb1 4.2**/3**, mb1mx3.9**/12**, Error ellipse: s-maj=196.0km s-min=68.7km az=159.0, Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	**Stephens Creek**	**34.83**	**256**	P	P	02 01 19.2	-1.8
	3.2nm,0.8s,baz=91,slow=9.0,SNR=4.8						
ASAR	**Alice Springs**	**43.34**	**266**	P	P	02 02 30.1	-1.9
	0.5nm,0.5s,baz=108,slow=6.6,SNR=4.8						
WRA	**Warramunga Arr**	**44.27**	**271**	P	P	02 02 37.8	-1.8
	1.1nm,0.5s,baz=110,slow=8.0,SNR=9.9						
FINES	**FINESS Array B**	**144.56**	**340**	PKP	PKPdf	02 14 03.7	-2.2
	1.4nm,0.8s,baz=45,slow=3.9,SNR=7.9						

IDC 27 01:56:48.2±1.4**, 5.43N**×**94.02E, mb3.9**/6**, mb1 4.1**/7**, mb1mx3.9**/20**, ML4.2**/1**, Error ellipse: s-maj=52.7km s-min=28.4km az=44.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.81**	**20**	Pn	P	02 00 11.2	+3.4
	0.4nm,0.3s,baz=216,slow=14,SNR=5.1						
SHBG	**Sahibganj**	**20.59**	**343**	*e*	S	02 05 02.5	-15
SONM	**Songino Array**	**43.56**	**12**	P	P	02 04 52.9	-2.6
	1.4nm,0.8s,baz=193,slow=8.7,SNR=10						
WRA	**Warramunga Arr**	**46.98**	**124**	P	P	02 05 21.4	-1.8
	1.6nm,0.8s,baz=300,slow=9.0,SNR=5.7						
BVAR	**Borovoye Array**	**51.25**	**342**	P	P	02 05 55.2	-0.5
	1.1nm,0.7s,baz=141,slow=9.5,SNR=6.3						
BRTR	**Keskin Array B**	**63.94**	**312**	P	P	02 07 21.8	-3.7
	1.0nm,0.9s,baz=134,slow=5.5,SNR=5.0						
GERES	**GERESS Array B**	**79.56**	**319**	P	P	02 08 57.9	-0.8
	0.8nm,0.7s,baz=104,slow=5.5,SNR=7.4						
DAVOX	**Davos**	**82.06**	**316**	P	P	02 09 11.3	-0.6
	1.8nm,0.6s,baz=152,slow=9.2,SNR=10						

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*MOS **27** 02:04:20.6±1.0, 7.96N×94.17E, h33^{km}, mb5.2/32, Error ellipse: s-maj=11.8km s-min=5.7km az=120.7*

*BJI **27** 02:04:20.4, 7.57N×93.82E, h48^{km}, mB5.5, mb4.7, Ms5.0, Msz4.5*

*NEIC **27** 02:04:21.8±0.2, 7.85N×94.11E, h30^{km}, mb4.9/23, Error ellipse: s-maj=7.3km s-min=6.2km az=46.0*

*HRVD **27** 02:04:21.8±0.9, 8.07N×94.29E, h12^{km}, MW5.1/37, Centroid moment Tensor Solution. LP body waves: s1,c1; Mantle waves: s37,c47; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.31±.56; M$_{\theta\theta}$-1.65±.38; M$_{\phi\phi}$3.96±.31; M$_{r\theta}$3.26±1.60; M$_{\theta\phi}$1.11±.26; M$_{\phi r}$-3.96±.87; Best double couple: M$_{0}$6.25×10^{16} NP1:φ$_{s}$223°,δ32°,λ-23°. NP2: φ$_{s}$333°,δ78°,λ-120°. Principal axes: T 5.9, Plg27°, Azm86°; N .69, Plg29°, Azm339°; P -6.6, Plg48°, Azm211°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **27** 02:04:24.2±3.7, 7.93N×94.17E, h50^{km}±34^{km}, mb4.4/28, mb1 4.5/29, mb1mx4.5/31, ML5.1/1, MS4.3/7, Ms1 4.3/7, ms1mx3.9/27 Error ellipse: s-maj=19.0km s-min=10.6km az=49.0*

ISC 27 02:04:19.9±0.3**, 7.86N**±0.05×**94.10E**±0.04**, h30^{km}, n178, σ1^{s}00**/167**, mb4.9**/72**, MS4.4**/12**, 4C-12D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.54**	**24**	*e*P	**P**	**02 07 06.4**	**+0.5**
CMAR	**Chiang Mai Arr**	**11.54**	**24**	P	**P**	**02 07 06.7**	**+0.8**
	3.7nm,0.3s,baz=211,slow=14,SNR=87						
CMAR				LR	LR	02 11 42.1	
	comp=Z,1μm,19.1s,baz=39,slow=38						
VIS	**Vishakhapatnam**	**14.36**	**314**	*e*P	**P**	**02 07 41.7**	**-1.7**
VIS				*e*		02 07 48.0	
	comp=Z,77nm,0.9s						
VIS				*e*S	**S**	**02 10 10.7**	**-12**
AGT	**Agartala**	**16.17**	**351**	⇑*i*	Px	02 07 09.0	
AGT				*i*		02 08 02.0	
IMP	**Imphal**	**16.83**	**359**	*e*	**P**	**02 08 14.7**	**-0.5**
SHL	**Shillong**	**17.74**	**353**	*e*S	**S**	**02 11 54.0**	**+13**
HYB	**Hyderabad**	**17.88**	**304**	*e*P	**P**	**02 08 30.5**	**+2.1**
QIZ	**Qiongzhong**	**18.90**	**52**	P	**P**	**02 08 42.0**	**+1.2**
QIZ				S	**S**	**02 12 06.5**	**-0.4**
QIZ				LR	LR		
	comp=N,3μm,12.1s						
QIZ				LR	LR		
	comp=E,1μm,12.3s						
QIZ	**Qiongzhong**	**18.90**	**52**	P	**P**	**02 08 40.7**	**-0.1**
	comp=E,28nm,0.8s						
KMI	**Kunming**	**19.05**	**25**	P	**P**	**02 08 45.5**	**+2.9**
KMI				AMB	AMB		
	comp=Z,24nm,1.4s						
PKI	**Pulchoki**	**21.27**	**338**	*e*P	**P**	**02 09 05.9**	**-0.3**
	comp=Z,237nm,1.0s,mb5.5						
GUN	**Gumba**	**21.41**	**340**	*e*P	**P**	**02 09 07.2**	**-0.4**
	comp=Z,132nm,0.7s,mb5.3						
DMN	**Daman**	**21.41**	**338**	*e*P	**P**	**02 09 07.1**	**-0.5**
	comp=Z,214nm,0.8s,mb5.5						
KKN	**Kakani**	**21.51**	**338**	*e*P	**P**	**02 09 07.7**	**-0.9**
	comp=Z,130nm,0.9s,mb5.3						
KAD	**Karad**	**21.57**	**298**	*e*P	**P**	**02 09 09.7**	**+0.5**
KAD				*e*		02 09 14.6	
	comp=Z,69nm,1.1s						
LSA	**Lhasa**	**21.91**	**353**	*e*P	**P**	**02 09 12.6**	**0.0**
LSA				pmax	pmax		
	comp=Z,77nm,0.8s,mb5.2						
LSA	**Lhasa**	**21.91**	**353**	*e*P	**P**	**02 09 12.6**	**0.0**
	comp=Z,77nm,0.8s,mb5.2						
GKN	**Gorkha**	**21.95**	**337**	*e*P	**P**	**02 09 13.0**	**0.0**
	comp=Z,164nm,0.9s,mb5.5						
GYA	**Guiyang**	**22.02**	**31**	⇑*i*P	**P**	**02 09 17.8**	**+4.0**
GYA				AMB	AMB		
	comp=Z,30nm,0.9s,mb4.7						
GYA				AMB	AMB		
	comp=Z,150nm,2.8s,mb4.9						
GYA				LR	LR		
	comp=N,2μm,14.3s,MS4.8						
GYA				LR	LR		
	comp=E,3μm,17.0s,MS4.8						
GYA				LR	LR		
	comp=Z,1μm,14.5s,MS4.5						
BHPL	**Bhopal**	**22.14**	**316**	*e*P	**P**	**02 09 16.8**	**+1.8**
BHPL				*e*		02 09 17.8	
	comp=Z,81nm,0.8s						
KOLN	**Koldanda**	**22.16**	**335**	*e*P	**P**	**02 09 15.5**	**+0.4**
	comp=Z,140nm,0.8s,mb5.4						
GZH	**Guangzhou**	**23.90**	**49**	P	**P**	**02 09 39.0**	**+6.8**
GZH				LR	LR		
	comp=N,3μm,13.7s,MS4.9						
GZH				LR	LR		
	comp=E,1μm,13.7s,MS4.9						
GZH				LR	LR		
	comp=Z,1μm,15.5s,MS4.6						
CD2	**Chengdu**	**24.65**	**20**	P	**P**	**02 09 40.8**	**+1.3**
PTH	**Pithoragarh**	**25.22**	**331**	*e*	**P**	**02 09 44.4**	**-0.5**
NDI	**New Delhi**	**26.12**	**325**	*e*P	**P**	**02 09 52.0**	**-1.3**
NDI	**New Delhi**	**26.12**	**325**	*e*	**P**	**02 09 52.0**	**-1.3**
NDI				*e*P		02 14 53.0	
NDI				*e*		02 18 38.0	
ENH	**Enshi**	**26.56**	**31**	*e*P	**P**	**02 09 57.4**	**+0.1**
	comp=Z,29nm,1.1s,mb4.7						
XAN	**Xi’an**	**29.43**	**26**	P	**P**	**02 10 23.0**	**-0.3**
XAN				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.5						
WHN	**Wuhan**	**29.48**	**37**	P	**P**	**02 10 24.8**	**+1.1**
LZH	**Lanzhou**	**29.48**	**16**	*e*P	**P**	**02 10 25.3**	**+1.6**
LZH				AMB	AMB		
	comp=Z,19nm,1.5s,mb4.6						
GTA	**Gaotai**	**31.84**	**8**	*e*P	**P**	**02 10 44.8**	**+0.3**
GTA				AMB	AMB		
	comp=Z,4.0nm,1.1s,mb4.2						
NJ2	**Nanjing**	**33.31**	**40**	*e*P	**P**	**02 10 58.3**	**+0.9**
NJ2				AP	pP	02 11 07.5	+1.2
NJ2				XP	sP	02 11 11.8	+1.7
NJ2				PP	PP	02 12 09.5	+0.2
NJ2				S	**S**	**02 16 14.0**	**-0.9**
NJ2				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.7						
NJ2				AMB	AMB		
	comp=Z,800nm,7.3s						
NJ2				LR	LR		
	comp=N,2μm,20.1s						
NJ2				LR	LR		
	comp=E,3μm,14.2s						
NJ2				LR	LR		
	comp=Z,1μm,14.6s						
KSH	**Kashi**	**35.47**	**336**	*e*P	**P**	**02 11 16.3**	**+0.4**
KSH				*e*AP	pP	02 11 25.0	+0.2
KSH				*e*XP	sP	02 11 30.3	+1.7
KSH				AMB	AMB		
	comp=Z,200nm,4.7s						
WMQ	**Urumqi**	**36.26**	**352**	P	**P**	**02 11 23.5**	**+1.0**
WMQ				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.2						
JOW	**Kunigami**	**37.50**	**56**	LR	LR	02 28 21.5	
	comp=Z,483nm,18.1s,MS4.3,baz=290,slow=38						
BJI	**Beijing**	**37.64**	**28**	P	**P**	**02 11 35.5**	**+1.4**
BJI				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
BJI				AMB	AMB		
	comp=Z,203nm,4.3s						
BJI				LR	LR		
	comp=N,742nm,15.7s,MS4.7						
BJI				LR	LR		
	comp=E,701nm,15.7s,MS4.7						
BJI				LR	LR		
	comp=Z,225nm,17.3s,MS4.0						
UCH	**Uchtor**	**38.35**	**336**	P	**P**	**02 11 41.0**	**+0.9**
	SNR=18						
TKM2	**Tokmak 2**	**38.53**	**338**	P	**P**	**02 11 42.0**	**+0.4**
	SNR=9.5						
KBK	**Karagaybulak**	**38.55**	**337**	P	**P**	**02 11 42.6**	**+0.9**
	SNR=29						
AML	**Almayashu**	**38.60**	**335**	P	**P**	**02 11 43.1**	**+0.9**
	SNR=33						
AAK	**Ala-Archa**	**38.70**	**337**	P	**P**	**02 11 44.4**	**+1.4**
	SNR=13						
AAK	**Ala-Archa**	**38.70**	**337**	*d i*P	**P**	**02 11 42.8**	**-0.2**
AAK				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.8						
AAK	**Ala-Archa**	**38.70**	**337**	*e*P	**P**	**02 11 43.0**	**-0.1**
	comp=Z,12nm,0.7s,mb4.7						
FRU	**Bishkek**	**38.83**	**337**	*e*P	**P**	**02 11 42.0**	**-2.0**
CHMS	**Chumysh**	**38.91**	**337**	P	**P**	**02 11 44.8**	**0.0**
	SNR=12						
EKS2	**Erkin-Say**	**39.01**	**336**	P	**P**	**02 11 46.4**	**+0.8**
	SNR=16						
USP	**Ospenovka**	**39.24**	**337**	P	**P**	**02 11 47.4**	**-0.1**
	SNR=9.5						
SONM	**Songino Array**	**41.19**	**13**	P	**P**	**02 12 04.2**	**+0.8**
	comp=Z,5.1nm,0.9s,mb4.2,baz=194,slow=7.3,SNR=20						
ZAK	**Zakamensk**	**43.08**	**9**	*e*P	**P**	**02 12 14.4**	**-4.5**
ZAK				*e*		02 14 11.3	
CN2	**Changchun**	**45.07**	**32**	*e*P	**P**	**02 12 36.8**	**+1.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
CN2				LR	LR		
	comp=N,530nm,15.0s,MS4.7						
CN2				LR	LR		
	comp=E,430nm,15.0s,MS4.7						
CN2				LR	LR		
	comp=Z,390nm,14.0s,MS4.5						
NWAO	**Narrogin (SRO)**	**46.15**	**153**	P	**P**	**02 12 44.6**	**+0.8**
	comp=Z,12nm,0.6s,mb5.0,baz=326,slow=14,SNR=7.2						
HIA	**Hailar**	**46.55**	**23**	*e*P	**P**	**02 12 47.8**	**+1.0**
HIA				pmax	pmax		
	comp=Z,17nm,1.1s						
HIA	**Hailar**	**46.55**	**23**	*e*P	**P**	**02 12 47.8**	**+1.1**
	comp=Z,17nm,1.1s,mb4.9						
ZAL	**Zalesovo**	**46.56**	**352**	P	**P**	**02 12 46.6**	**-0.1**
	comp=Z,14nm,0.5s,mb5.2,baz=303,slow=6.2,SNR=80						
NVS	**Novosibirsk**	**47.66**	**352**	⇓*i*P	**P**	**02 12 53.8**	**-1.6**
NVS				*e*S	**S**	**02 19 36.9**	**-11**
NVS				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.3						
NVS				pmax	pmax		
	comp=N,14nm,0.8s						
NVS				smax			
	comp=E,20nm,1.8s						
WRA	**Warramunga Arr**	**48.28**	**125**	P	**P**	**02 12 58.9**	**-1.8**
	comp=E,5.6nm,0.9s,mb4.6,baz=305,slow=9.3,SNR=25						
WRAB	**Tennant Creek**	**48.29**	**125**	*e*P	**P**	**02 12 59.1**	**-1.7**
WRAB				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
WRAB	**Tennant Creek**	**48.29**	**125**	*e*P	**P**	**02 12 59.1**	**-1.6**
	comp=Z,12nm,0.8s,mb5.0						
BVAR	**Borovoye Array**	**48.99**	**341**	P	**P**	**02 13 05.0**	**-0.8**
	comp=Z,14nm,1.1s,mb4.9,baz=143,slow=7.4,SNR=38						
BRVK	**Borovoye**	**49.05**	**341**	*e*P	**P**	**02 13 05.2**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
BRVK	**Borovoye**	**49.05**	**341**	*e*P	**P**	**02 13 05.2**	**-1.0**
	comp=Z,11nm,0.9s,mb4.9						
CBIJ	**Chichi jima**	**49.34**	**61**	LR	LR	02 35 03.9	
	comp=Z,146nm,21.2s,MS4.0,baz=198,slow=37						
CHKZ	**Chkalovo**	**49.48**	**342**	*e*P	**P**	**02 13 08.9**	**-0.6**
CHKZ				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
CHKZ	**Chkalovo**	**49.48**	**342**	*e*P	**P**	**02 13 08.9**	**-0.6**
	comp=Z,29nm,1.0s,mb5.3						
ASAR	**Alice Springs**	**49.94**	**130**	P	**P**	**02 13 11.5**	**-1.9**
	comp=Z,5.0nm,0.9s,mb4.5,baz=306,slow=7.3,SNR=23						
BOD	**Bodaibo**	**52.18**	**13**	*e*P	**P**	**02 13 28.8**	**-1.1**
GNI	**Garni**	**54.42**	**314**	P	**P**	**02 13 46.9**	**+0.1**
	comp=Z,15nm,1.1s,mb4.8,baz=150,slow=17,SNR=9.4						
GNI	**Garni**	**54.42**	**314**	*d i*P	**P**	**02 13 46.7**	**0.0**
GNI				pmax	pmax		
	comp=Z,31nm,1.6s						
SVE	**Sverdlovsk**	**55.40**	**338**	⇓*e*P	**P**	**02 13 53.5**	**-0.2**
SVE				pmax	pmax		
	comp=Z,60nm,1.6s,mb5.4						
PMG	**Port Moresby**	**55.57**	**107**	P	**P**	**02 13 55.3**	**-0.2**
	comp=Z,19nm,0.8s,mb5.2,baz=274,slow=5.1,SNR=12						
ARU	**Arti**	**55.89**	**337**	⇓*i*P	**P**	**02 13 56.3**	**-0.9**
ARU				*e*S	**S**	**02 21 42.8**	**+1.8**
ARU				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
ARU	**Arti**	**55.89**	**337**	*i* Pr		02 13 56.4	
ZEI	**Tsey**	**56.02**	**317**	*e*P	**P**	**02 13 57.7**	**-0.7**
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
KIV	**Kislovodsk**	**57.30**	**318**	P	**P**	**02 14 07.2**	**-0.3**
	comp=Z,128nm,1.1s,mb5.9,SNR=7.2						
KIV	**Kislovodsk**	**57.30**	**318**	⇓*e*P	**P**	**02 14 06.6**	**-0.9**
KIV				pmax	pmax		
	comp=Z,39nm,1.6s,mb5.2						
KIV	**Kislovodsk**	**57.30**	**318**	⇓*e*P	**P**	**02 14 06.7**	**-0.8**
KMBO	**Kilima Mbogo**	**57.38**	**264**	P	**P**	**02 14 10.4**	**+2.0**
	comp=Z,7.4nm,0.9s,mb4.7,baz=51,slow=11,SNR=20						
KMBO	**Kilima Mbogo**	**57.38**	**264**	*e*P	**P**	**02 14 10.4**	**+2.0**
KMBO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KMBO	**Kilima Mbogo**	**57.38**	**264**	*e*P	**P**	**02 14 10.4**	**+2.0**
	comp=Z,8.1nm,0.9s,mb4.8						
ASF	**Jabal al Asfar**	**58.19**	**303**	P	**P**	**02 14 14.0**	**+0.2**
	comp=Z,6.4nm,1.1s,mb4.6,baz=271,slow=3.4,SNR=5.8						
ASF				LR	LR	02 41 46.9	
	comp=Z,196nm,20.3s,MS4.2,baz=113,slow=38						
MALT	**Malatya**	**58.44**	**310**	*e*P	**P**	**02 14 14.5**	**-1.0**
MALT				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
MALT	**Malatya**	**58.44**	**310**	*e*P	**P**	**02 14 14.5**	**-1.1**
	comp=Z,7.6nm,1.1s,mb4.6						
SOKR	**Solikamsk**	**58.80**	**339**	⇑*i*P	**P**	**02 14 16.8**	**-0.9**
SOKR				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
SOKR				MLR	MLR		
	comp=Z,320nm,21.0s,MS4.4						
SOC	**Sochi**	**59.16**	**317**	*e*P	**P**	**02 14 17.9**	**-2.6**
SOC				*e*S	**S**	**02 22 21.7**	**-2.5**
SOC				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.1						
SOC				pmax	pmax		
	comp=N,12nm,0.9s						
SOC				pmax	pmax		
	comp=E,13nm,0.9s						
EIL	**Elat**	**59.40**	**300**	P	**P**	**02 14 22.4**	**+0.1**
	comp=E,4.8nm,0.7s,mb4.7						
YAK	**Yakutsk**	**60.03**	**18**	*e*P	**P**	**02 14 24.5**	**-1.7**
YAK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
YAK				pmax	pmax		
	comp=N,5.0nm,1.3s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.2s						
STKA	**Stephens Creek**	**60.12**	**134**	P	**P**	**02 14 25.9**	**-1.3**
	comp=E,4.3nm,1.1s,mb4.4,baz=348,slow=11,SNR=4.4						
BRTR	**Keskin Array B**	**62.41**	**311**	P	**P**	**02 14 40.7**	**-1.9**
	comp=E,3.3nm,0.7s,mb4.6,baz=130,slow=7.2,SNR=26						
MBAR	**Mbarara**	**63.72**	**265**	*d i*P	**P**	**02 14 53.0**	**+1.3**
ISP	**Isparta**	**64.41**	**308**	⇓*e*P	**P**	**02 14 54.0**	**-1.9**
ISP	**Isparta**	**64.41**	**308**	*e*P	**P**	**02 14 53.8**	**-2.0**
	comp=E,29nm,1.5s,mb5.1						
MOS	**Moscow**	**65.07**	**329**	*e*P	**P**	**02 14 58.1**	**-1.7**
MOS				pmax	pmax		
	comp=Z,55nm,0.7s,mb5.7						
OBN	**Obninsk**	**65.37**	**328**	*c i*P	**P**	**02 15 00.8**	**-0.9**
OBN				*e*S	S	02 23 57.4	+15
OBN				pmax	pmax		

	comp=Z,60nm,1.5s,mb5.4						
OBN				MLR	MLR		
	comp=Z,200nm,19.0s,MS4.3						
OBN	**Obninsk**	65.37	328⇓	*e*P	**P**	**02 15 00.8**	**-0.9**
TIXI	**Tiksi**	67.26	11⇓	*e*P	**P**	**02 15 12.5**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,39nm,1.7s,mb5.2						
TIXI	**Tiksi**	67.26	11⇓	*e*P	**P**	**02 15 12.6**	**-0.9**
KIS	**Kishinev**	67.51	318	*e*P	**P**	**02 15 10.0**	**-5.5**
AKASG	**Malin Array Be**	68.14	322	P	**P**	**02 15 17.4**	**-2.0**
	comp=Z,5.1nm,0.8s,mb4.6,baz=89,slow=5.0,SNR=21						
AKASG	**Malin Array Be**	68.14	322	P	**P**	**02 15 17.4**	**-2.0**
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.8s						
IDI	**Anoyia**	68.54	305	P	**P**	**02 15 21.4**	**-0.8**
	comp=Z,13nm,0.6s,mb5.0,baz=60,slow=8.6,SNR=10						
MLR	**Muntele Rosu**	69.15	316	P	**P**	**02 15 25.7**	**0.0**
	comp=Z,18nm,1.1s,mb4.9,baz=135,slow=3.0,SNR=3.9						
LSZ	**Lusaka**	69.22	250	*e*P	**P**	**02 15 27.6**	**+1.0**
LSZ				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
LSZ	**Lusaka**	69.22	250	*e*P	**P**	**02 15 27.6**	**+1.0**
	comp=Z,6.7nm,1.0s,mb4.5						
KWP	**Kalwaria**	72.02	320	*e*P	**P**	**02 15 42.4**	**-0.6**
KWP				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
KWP	**Kalwaria**	72.02	320	*e*P	**P**	**02 15 42.4**	**-0.6**
	comp=Z,11nm,0.8s,mb4.8						
KOLS	**Kolonicke sedl**	72.19	319	*e*P	**P**	**02 15 44.2**	**+0.2**
SUW	**Suwalki**	72.50	324	*e*P	**P**	**02 15 44.6**	**-1.1**
FINES	**FINESS Array B**	72.71	332	P	**P**	**02 15 46.1**	**-0.7**
	comp=Z,15nm,0.8s,mb5.0,baz=105,slow=6.8,SNR=27						
FINES				LR	LR	02 51 50.6	
	comp=Z,166nm,19.2s,MS4.3,baz=160,slow=39						
CRVS	**Cervenica-Dubn**	72.71	319	*e*P	**P**	**02 15 50.7**	**+3.6**
KAF	**Kangasniemi**	72.79	333	*e*p	**P**	**02 15 46.7**	**-0.6**
	comp=Z,7.1nm,0.8s,mb4.7						
KAF	**Kangasniemi**	72.79	333	*e*P	**P**	**02 15 46.7**	**-0.6**
KAF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
NIE	**Niedzica**	73.53	319	*e*P	**P**	**02 15 52.1**	**+0.2**
OJC	**Ojcow**	73.96	320	*e*P	**P**	**02 15 54.2**	**-0.1**
LBTB	**Lobatse**	74.20	241	*e*P	**P**	**02 15 57.3**	**+1.1**
LBTB				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
LBTB	**Lobatse**	74.20	241	*e*P	**P**	**02 15 57.3**	**+1.1**
	comp=Z,9.5nm,0.9s,mb4.7						
VYHS	**Vyhne**	74.39	318	*e*P	**P**	**02 15 56.4**	**-0.5**
SRO	**Srobarova**	74.67	317	*e*P	**P**	**02 15 59.1**	**+0.6**
KEV	**Kevo**	74.84	341	*e*p	**P**	**02 15 58.1**	**-0.9**
	comp=Z,6.1nm,0.7s,mb4.6						
KEV	**Kevo**	74.84	341	*e*P	**P**	**02 15 58.1**	**-0.9**
KEV				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
OKC	**Ostrava-Krasne**	74.98	319	*e*P	**P**	**02 16 00.1**	**-0.1**
ARCES	**ARCESS Array B**	75.27	340	P	**P**	**02 16 01.6**	**0.0**
	comp=Z,7.4nm,0.9s,mb4.6,baz=95,slow=6.2,SNR=34						
ARCES				LR	LR	02 51 50.9	
	comp=Z,379nm,19.7s,MS4.7,baz=326,slow=38						
MORC	**Moravsky Berou**	75.36	319	*e*P	**P**	**02 16 02.1**	**-0.3**
MORC				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
MORC	**Moravsky Berou**	75.36	319	*e*P	**P**	**02 16 02.1**	**-0.3**
	comp=Z,14nm,1.0s,mb4.8						
ZST	**Bratislava**	75.52	318	*i* P	**P**	**02 16 03.5**	**+0.1**
BOSA	**Boshof**	75.54	238	*e*P	**P**	**02 16 05.0**	**+1.1**
BOSA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BOSA	**Boshof**	75.54	238	*e*P	**P**	**02 16 05.0**	**+1.1**
	comp=Z,8.1nm,0.8s,mb4.7						
VRAC	**Vranov**	75.94	319	P	**P**	**02 16 05.5**	**-0.2**
	comp=Z,2.1nm,0.7s,mb4.2,baz=72,slow=4.2,SNR=5.0						
BILL	**Bilibino**	76.12	22	*i* P	**P**	**02 16 06.2**	**-0.2**
BILL	**Bilibino**	76.12	22	*i* Pr		02 16 06.2	
DPC	**Dobruska-Polom**	76.19	320	*e*P	**P**	**02 16 07.7**	**+0.6**
KSP	**Ksiaz**	76.25	320	*e*P	**P**	**02 16 07.7**	**+0.3**
KSP	**Ksiaz**	76.25	320	*e*P	**P**	**02 16 08.0**	**+0.6**
UPC	**Upice**	76.40	320	*e*P	**P**	**02 16 08.7**	**+0.4**
PRU	**Pruhonice**	77.31	319	*e*P	**P**	**02 16 13.6**	**+0.2**
PVCC	**Panska Ves**	77.32	320	*e*P	**P**	**02 16 15.1**	**+1.7**
GEC2	**GERESS Array S**	77.81	318	*e*P	**P**	**02 16 16.7**	**+0.6**
GERES	**GERESS Array B**	77.81	318	P	**P**	**02 16 16.3**	**+0.2**
	comp=Z,5.3nm,0.7s,mb4.6,baz=90,slow=5.3,SNR=46						
KHC	**Kasperske Hory**	77.90	319	*e*P	**P**	**02 16 16.4**	**-0.2**
CLL	**Collm**	78.35	321	*e*P	**P**	**02 16 19.0**	**0.0**
CLL				pmax	pmax		
	comp=Z,32nm,1.7s,mb5.0						
CLL	**Collm**	78.35	321	*e*P	**P**	**02 16 19.0**	**0.0**
	comp=Z,32nm,1.7s,mb5.0						
CLL	**Collm**	78.35	321	P	**P**	**02 16 19.0**	**0.0**
	comp=Z,logA/T=1.3,mb5.0						
WET	**Wettzell**	78.36	319	*e*P	**P**	**02 16 19.6**	**+0.5**
HFS	**Hagfors**	78.45	330	P	**P**	**02 16 19.2**	**-0.2**
	comp=Z,8.2nm,0.6s,mb4.8,baz=104,slow=6.1,SNR=44						
MAW	**Mawson**	78.51	192	P	**P**	**02 16 21.9**	**+2.3**
	comp=Z,3.4nm,1.0s,mb4.2,baz=332,slow=11,SNR=2.6						
NKC	**Novy Kostel**	78.67	320	*e*P	**P**	**02 16 16.4**	**-4.4**
MOX	**Moxa**	79.21	320	*e*P	**P**	**02 16 24.5**	**+0.8**
MOX	**Moxa**	79.21	320	*i* P	**P**	**02 16 24.5**	**+0.8**
FUR	**Furstenfeldbru**	79.41	317	*e*P	**P**	**02 16 24.5**	**-0.4**
GRA1	**Grafenberg Arr**	79.45	319	*e*P	**P**	**02 16 26.0**	**+0.9**
	comp=Z,28nm,1.3s,mb5.0						
GRF	**Grafenberg Arr**	79.45	319	*e*P	**P**	**02 16 26.0**	**+0.9**
GRF				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
GRF	**Grafenberg Arr**	79.45	319	*e*P	**P**	**02 16 26.0**	**+0.9**
GRF				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
GRF	**Grafenberg Arr**	79.45	319	*e*P	**P**	**02 16 26.0**	**+0.9**
	comp=Z,28nm,1.3s,mb5.0						
NB2	**NORSAR Subarra**	79.73	331	P	**P**	**02 16 25.8**	**-0.5**
	comp=Z,10.0nm,0.8s,mb4.8,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	79.73	331	P	**P**	**02 16 25.8**	**-0.5**
NB2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
NOA	**NORSAR Array B**	79.73	331	P	**P**	**02 16 26.0**	**-0.3**
	comp=Z,6.2nm,0.8s,mb4.6,baz=95,slow=5.2,SNR=15						
NOA				LR	LR	02 59 25.0	
	comp=Z,152nm,18.2s,MS4.4,baz=90,slow=41						
NOA	**NORSAR Array B**	79.73	331	P	**P**	**02 16 26.0**	**-0.3**
NOA				LR	LR	02 59 25.0	
CLZ	**Clausthal**	80.00	321	*e*P	**P**	**02 16 28.5**	**+0.5**
BSEG	**Bad Segeberg**	80.04	323	*e*P	**P**	**02 16 29.0**	**+0.9**
DAVOX	**Davos**	80.37	316	P	**P**	**02 16 30.0**	**-0.1**
	comp=Z,9.6nm,0.9s,mb4.7						
BFO	**Black Forest**	81.38	318	*e*P	**P**	**02 16 35.8**	**+0.5**
LPL	**La Plagne**	82.61	315	*e*P	**P**	**02 16 42.5**	**+0.7**
	comp=Z,38nm,0.9s,mb5.1						
LPL	**La Plagne**	82.61	315	*e*P	**P**	**02 16 42.5**	**+0.7**
LPL				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
EKA	**Eskdalemuir Ar**	87.71	325	P	**P**	**02 17 07.8**	**+0.9**
	comp=Z,6.9nm,1.0s,mb4.8,baz=90,slow=5.0,SNR=6.8						
ESDC	**Sonseca Array**	91.20	310	P	**P**	**02 17 24.4**	**+0.6**
	comp=Z,2.2nm,0.9s,mb4.5,baz=71,slow=2.8,SNR=5.9						
ILAR	**Eielson Array**	94.78	22	P	**P**	**02 17 39.0**	**-0.6**
	comp=Z,0.6nm,0.7s,mb4.1,baz=310,slow=4.7,SNR=7.4						
INK	**Inuvik**	97.02	16	P	**P**	**02 17 50.7**	**+1.0**
	comp=Z,3.3nm,1.0s,mb4.7,baz=308,slow=3.8,SNR=5.9						
YKA	**Yellowknife Ar**	106.45	13	PKKPbc		02 34 04.8	
	comp=Z,0.2nm,0.6s,baz=152,slow=3.1,SNR=6.0						
ULM	**Lac du Bonnet**	121.49	7	PKP	PKPdf	02 23 13.8	-2.1
	comp=Z,1.5nm,0.5s,baz=356,slow=10,SNR=4.4						
SNOW	**Snow King Moun**	124.16	22	*e*PKPdf	PKPdf	02 23 18.9	-2.2
REDW	**Red Top Meadow**	124.21	22	*e*PKPdf	PKPdf	02 23 18.8	-2.5
NVAR	**Mina Array Bea**	124.96	31	PKP	PKPdf	02 23 20.7	-2.2
	comp=Z,2.9nm,0.9s,baz=254,slow=4.0,SNR=5.2						
PDAR	**Pinedale Array**	125.20	21	PKP	PKPdf	02 23 19.4	-3.8
	comp=Z,1.6nm,0.8s,baz=88,slow=1.1,SNR=12						
MSU	**Marysvale**	127.79	26	*e*PKIKP	PKPdf	02 23 24.6	-3.7
ANMO	**Albuquerque**	133.20	23	PKP	PKPdf	02 23 37.0	-1.7
	comp=Z,0.9nm,0.8s,baz=319,slow=5.4,SNR=3.2						
TXAR	**Lajitas Array**	139.26	24	PKP	PKPdf	02 23 45.7	-4.3
	comp=Z,0.9nm,0.8s,baz=341,slow=2.8,SNR=5.8						
JCT	**Junction City**	139.62	19	*e*PKIKP	PKPdf	02 23 47.3	-3.3
BDFB	**Brasilia**	142.16	255	PKP	PKPdf	02 23 54.0	-1.5
	comp=Z,4.6nm,1.0s,baz=126,slow=3.4,SNR=6.4						
LPAZ	**La Paz**	160.72	243	PKP	PKPdf	02 24 19.4	-3.4
	comp=Z,0.9nm,0.7s,baz=42,slow=8.6,SNR=3.7						

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*MOS **27** 02:05:29.9±0.8, 5.34N×94.42E, h33^{km}, mb5.0/8, Error ellipse: s-maj=28.4km s-min=13.6km az=120.0*

*BJI **27** 02:05:31.5, 5.20N×94.30E, h48^{km}, mb4.9*

*IDC **27** 02:05:33.6±0.9, 5.15N×94.22E, h51^{km}±7^{km}, mb4.1/12, mb1 4.2/13, mb1mx4.0/22, MS4.5/1, Ms1 4.5/1, ms1mx3.4/24, Error ellipse: s-maj=38.1km s-min=15.4km az=46.0*

*NEIC **27** 02:05:33.5±0.4, 5.19N×94.28E, mb4.8/8, Error ellipse: s-maj=13.3km s-min=9.2km az=67.0*

ISC 27 02:05:31.8±0.5**, 5.21N**±0.08×**94.3E**±0.1**, h49**^{km}**, h49**^{km}±2.3^{km}**:pP-P, n38, σ1^{s}02**/37**, mb4.5**/23**, MS4.5**/1**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	13.92	19	P	**P**	**02 08 50.2**	**+1.8**
	0.4nm,0.3s,baz=219,slow=13,SNR=2.5						
GYA	**Guiyang**	24.20	28⇑	*i*P	**P**	**02 10 46.8**	**+1.7**
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb4.9						
LSA	**Lhasa**	24.54	353	P	**P**	**02 10 49.1**	**+0.7**
LSA				pmax	pmax		
	comp=Z,19nm,0.8s,mb4.7						
LSA	**Lhasa**	24.54	353	P	**P**	**02 10 49.1**	**+0.7**
	comp=Z,19nm,0.8s,mb4.7						
XAN	**Xi'an**	31.73	23	P	**P**	**02 11 52.0**	**-1.5**
XAN				AMB	AMB		
	comp=Z,16nm,0.7s,mb5.0						
GTA	**Gaotai**	34.41	8	*e*P	**P**	**02 12 16.8**	**+0.2**
GTA				PP	PP	02 13 36.0	+2.7
GTA				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.6						
AAK	**Ala-Archa**	41.21	338	*e*P	**P**	**02 13 13.2**	**-0.3**
AAK				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.6						
AAK	**Ala-Archa**	41.21	338	*e*P	**P**	**02 13 13.2**	**-0.3**
	comp=Z,12nm,0.7s,mb4.6						
SONM	**Songino Array**	43.72	12	P	**P**	**02 13 34.1**	**+0.1**
	comp=Z,3.9nm,0.8s,mb4.2,baz=197,slow=8.7,SNR=8.9						
WRA	**Warramunga Arr**	46.62	124	P	**P**	**02 13 57.2**	**-0.2**
	comp=Z,4.3nm,0.6s,mb4.6,baz=302,slow=9.0,SNR=11						
WRA				pP	pP	02 14 11.3	+0.7
	comp=Z,21nm,0.8s,baz=303,slow=9.1,SNR=7.9						
WRAB	**Tennant Creek**	46.62	124	*e*P	**P**	**02 13 57.2**	**-0.3**
WRAB				*e**PP	pP	02 14 09.3	-1.4
WRAB				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.3						
WRAB	**Tennant Creek**	46.62	124	*e*P	**P**	**02 13 57.2**	**-0.2**
	comp=Z,38nm,0.9s,mb5.3						
WRAB				*e*pP	pP	02 14 09.3	-1.4
ASAR	**Alice Springs**	48.11	128	P	**P**	**02 14 08.9**	**-0.2**
	comp=Z,3.2nm,0.7s,mb4.5,baz=302,slow=7.4,SNR=10						
ZAL	**Zalesovo**	49.20	353	P	**P**	**02 14 17.1**	**0.0**
	comp=Z,2.3nm,0.3s,mb4.7,baz=302,slow=3.3,SNR=6.7						
ZAL				LR	LR	02 37 27.7	
	comp=Z,469nm,20.1s,MS4.5,baz=286,slow=39						
NVS	**Novosibirsk**	50.29	352	*e*P	**P**	**02 14 32.8**	**+7.3**
BVAR	**Borovoye Array**	51.55	342	P	**P**	**02 14 30.7**	**-4.3**
	comp=Z,1.8nm,0.5s,mb4.2,baz=149,slow=8.4,SNR=3.9						
BVAR				pP	pP	02 14 47.6	-0.8
	comp=Z,4.2nm,0.7s,baz=135,slow=8.4,SNR=4.3						
BRVK	**Borovoye**	51.62	342	P	**P**	**02 14 33.7**	**-1.8**
BRVK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
BRVK	**Borovoye**	51.62	342	P	**P**	**02 14 33.7**	**-1.8**
	comp=Z,11nm,0.9s,mb4.8						
CHKZ	**Chkalovo**	52.05	342	*e*P	**P**	**02 14 37.6**	**-1.1**
CHKZ				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
CHKZ	**Chkalovo**	52.05	342	*e*P	**P**	**02 14 37.6**	**-1.1**
	comp=Z,11nm,0.7s,mb4.9						
BOD	**Bodaibo**	54.69	13	*e*P	**P**	**02 14 55.7**	**-2.5**
BOD				*e*	pP	02 15 11.3	-0.4
BRTR	**Keskin Array B**	64.30	312	P	**P**	**02 16 03.9**	**-0.8**
	comp=Z,2.5nm,0.6s,mb4.4,baz=127,slow=7.7,SNR=6.2						
BRTR				pP	pP	02 16 17.9	-0.7
	comp=Z,1.7nm,0.8s,baz=135,slow=5.2,SNR=2.5						
AKASG	**Malin Array Be**	70.34	322	P	**P**	**02 16 40.9**	**-1.5**
	comp=Z,1.2nm,0.5s,mb4.1,baz=85,slow=5.1,SNR=5.3						
AKASG	**Malin Array Be**	70.34	322	P	**P**	**02 16 40.9**	**-1.5**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
LBTB	**Lobatse**	73.14	242	*e*P	**P**	**02 17 00.4**	**+0.8**
LBTB				*e**PP	pP	02 17 13.9	+0.3
LBTB				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
LBTB	**Lobatse**	73.14	242	*e*P	**P**	**02 17 00.4**	**+0.8**
	comp=Z,4.2nm,0.7s,mb4.5						
LBTB				*e*pP	pP	02 17 13.8	+0.2
BOSA	**Boshof**	74.33	239	*e*P	**P**	**02 17 06.9**	**+0.4**
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
BOSA	**Boshof**	74.33	239	*e*P	**P**	**02 17 06.9**	**+0.4**
	comp=Z,3.0nm,0.6s,mb4.4						
SUW	**Suwalki**	74.76	325	*e*P	**P**	**02 17 07.7**	**-0.7**
SUW				*e**PP	pP	02 17 21.3	-1.2
SUW				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
SUW	**Suwalki**	74.76	325	*e*P	**P**	**02 17 07.7**	**-0.7**
	comp=Z,18nm,1.0s,mb4.9						
SUW				*e*pP	pP	02 17 21.3	-1.2
FINES	**FINESS Array B**	75.14	333	P	**P**	**02 17 10.2**	**-0.3**
	comp=Z,1.3nm,0.4s,mb4.2,baz=95,slow=5.4,SNR=6.1						
MORC	**Moravsky Berou**	77.50	320	P	**P**	**02 17 25.1**	**+1.1**
MORC				*e*	pP	02 17 37.1	-1.1
ZST	**Bratislava**	77.61	318	*e*pP	pP	02 17 38.8	0.0
GERES	**GERESS Array B**	79.92	319	P	**P**	**02 17 38.0**	**+0.7**
	comp=Z,2.0nm,0.8s,mb4.1,baz=112,slow=5.3,SNR=3.5						
GERES				pP	pP	02 17 52.2	+0.8
	comp=Z,4.2nm,0.8s,baz=90,slow=5.3,SNR=6.7						
CLL	**Collm**	80.52	321	P	**P**	**02 17 41.0**	**+0.6**
CLL				*e**PP	pP	02 17 54.0	-0.6
HFS	**Hagfors**	80.83	330	P	**P**	**02 17 41.9**	**0.0**
	comp=Z,1.2nm,0.5s,mb4.1,baz=124,slow=5.3,SNR=4.1						
DAVOX	**Davos**	82.42	316	P	**P**	**02 17 51.7**	**+1.3**
	comp=Z,4.3nm,0.8s,mb4.4,baz=101,slow=10,SNR=2.7						
EKA	**Eskdalemuir Ar**	90.00	325	P	**P**	**02 18 28.3**	**+1.0**
	comp=Z,1.1nm,0.6s,mb4.4,baz=98,slow=5.9,SNR=4.2						

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*BJI **27** 02:10:06.4, 13.37N×93.09E, h44^{km}, mB5.0, mb4.5, Ms4.4, Msz4.2*

*NEIC **27** 02:10:07.8±0.3, 13.72N×93.12E, mb4.4/12, Error ellipse: s-maj=9.2km s-min=8.0km az=49.0*

*IDC **27** 02:10:09.8±5.6, 13.72N×93.11E, h39^{km}±49^{km}, mb4.1/19, mb1 4.2/20, mb1mx4.1/26, ML4.1/1, Error ellipse: s-maj=29.9km s-min=12.7km az=52.0*

ISC 27 02:10:06.3±0.4**, 13.72N**±0.05×**93.06E**±0.04**, h29**^{km}**, h29**^{km}±2.2^{km}**:pP-P, n61, σ1^{s}35**/65**, mb4.4**/33**, MS4.1**/1**, 2C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	7.36	49	*e*Pn	**Pn**	**02 11 53.0**	**-1.7**
CMAR	**Chiang Mai Arr**	7.36	49	Pn	**Pn**	**02 11 54.2**	**-0.4**
	0.9nm,0.3s,baz=242,slow=15,SNR=9.5						
CMAR				Sn	**Sn**	**02 13 17.0**	**-0.9**
	1.8nm,0.3s,baz=242,slow=28,SNR=3.3						
CHG	**Chiang Mai**	7.58	47	PG	**Pn**	**02 12 03.3**	**+5.5**
CHG				SG	**Sn**	**02 13 24.7**	**+1.0**
KKTK	**Khon Kaen**	9.78	73	⇑P	**P**	**02 12 34.0**	**+5.7**
	617nm,0.8s						
VIS	**Vishakhapatnam**	10.18	294	*e*P	**P**	**02 12 31.0**	**-2.8**
VIS				*e*S	x	02 14 15.7	
VIS				*e*	**S**	**02 14 20.5**	**-7.6**
	comp=E,64nm,0.3s						
VIS				*e*		02 14 20.5	
	comp=N,99nm,0.3s						
SHL	**Shillong**	11.84	355	*e*P	**P**	**02 12 54.0**	**-2.4**
BOK	**Bokaro**	12.10	327	*e*P	**P**	**02 12 58.0**	**-2.0**
BLSP	**Bilaspur**	13.34	310	*e*P	**P**	**02 13 17.3**	**+0.9**
BLSP				*e*S	**S**	**02 15 34.4**	**-10**
PKI	**Pulchoki**	15.52	334	*e*P	**P**	**02 13 41.9**	**-3.1**
	comp=N,38nm,0.6s						
GUN	**Gumba**	15.63	336	*e*P	**P**	**02 13 43.6**	**-2.7**
DMN	**Daman**	15.69	333	*e*P	**P**	**02 13 44.2**	**-2.9**
KKN	**Kakani**	15.77	334	*e*P	**P**	**02 13 46.0**	**-2.2**
LSA	**Lhasa**	16.00	354	*e*Pn	**P**	**02 13 51.2**	**+0.1**
	comp=N,15nm,0.6s						
LSA				*e*		02 13 55.8	
GKN	**Gorkha**	16.24	332	*e*P	**P**	**02 13 50.8**	**-3.3**
LATR	**Latur**	16.53	289	*e*P	**P**	**02 14 00.0**	**+2.1**
KOLN	**Koldanda**	16.53	329	*e*P	**P**	**02 13 55.5**	**-2.4**
	comp=N,54nm,0.7s						
TRD	**Trivandrum**	16.63	254	*e*P	**P**	**02 13 57.4**	**-1.7**
TRD				*e*		02 14 04.6	
	comp=Z,64nm,1.8s						
BHPL	**Bhopal**	17.58	305	*e*P	**P**	**02 14 13.8**	**+2.8**
BHPL				*e*		02 14 20.4	
	comp=Z,18nm,0.8s						
BHPL				*e*S	**S**	**02 17 27.0**	**+3.3**
GYA	**Guiyang**	17.97	43⇑	*i*P	**P**	**02 14 18.8**	**+2.9**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.7s						
POO	**Poona**	19.06	287	*e*S	**S**	**02 18 04.5**	**+7.1**
CD2	**Chengdu**	19.74	28	P	**P**	**02 14 37.0**	**+0.2**
PTH	**Pithoragarh**	19.74	325	*e*	**P**	**02 14 42.1**	**+5.3**
DDI	**Dehra Dun**	21.56	322	*e*P	**P**	**02 14 57.0**	**+1.4**
DDI				*e*S	**S**	**02 18 55.0**	**+7.1**
ENH	**Enshi**	22.38	40	*e*P	**P**	**02 15 03.5**	**-0.4**
	comp=Z,17nm,0.8s,mb4.5						
LZH	**Lanzhou**	24.29	22	*e*P	**P**	**02 15 24.5**	**+2.1**
LZH				AMB	AMB		
	comp=Z,81nm,1.5s,mb4.9						
LZH				LR	LR		
	comp=E,745nm,11.1s						
LZH				LR	LR		
	comp=Z,497nm,14.4s,MS4.1						
GTA	**Gaotai**	26.27	12	*e*P	**P**	**02 15 42.8**	**+1.7**
GTA				AP	pP	02 15 50.0	+0.5
GTA				AMB	AMB		
	comp=Z,8.0nm,1.6s,mb4.0						
WMQ	**Urumqi**	30.35	352	P	**P**	**02 16 19.0**	**+1.2**
HHC	**Hu-ho-hao-te**	31.49	27	*e*P	**P**	**02 16 29.3**	**+1.4**
HHC				AP	pP	02 16 40.0	+3.5
HHC				XP	sP	02 16 43.3	+3.1
HHC				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,236nm,9.8s						
AAK	**Ala-Archa**	32.98	334	*e*P	**P**	**02 16 41.0**	**+0.2**
	comp=Z,9.8nm,1.5s,mb4.5						
SONM	**Songino Array**	35.78	15	P	**P**	**02 17 05.7**	**+0.8**
	comp=Z,5.0nm,1.0s,mb4.4,baz=198,slow=7.8,SNR=12						
ZAL	**Zalesovo**	40.65	353	P	**P**	**02 17 45.5**	**+0.1**
	comp=Z,2.4nm,0.6s,mb4.0,baz=296,slow=7.1,SNR=6.0						
CN2	**Changchun**	40.82	36	*e*P	**P**	**02 17 47.3**	**+0.3**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
BVAR	**Borovoye Array**	43.16	340	P	**P**	**02 18 05.6**	**-0.4**
	comp=Z,1.7nm,0.9s,mb3.8,baz=164,slow=11,SNR=3.9						
BRVK	**Borovoye**	43.22	340	*e*P	**P**	**02 18 06.5**	**-0.1**
	comp=Z,2.7nm,0.9s,mb4.0						
CHKZ	**Chkalovo**	43.63	341	*e*P	**P**	**02 18 10.0**	**+0.2**
	comp=Z,9.9nm,1.0s,mb4.5						
GNI	**Garni**	49.71	311	P	**P**	**02 19 00.1**	**+2.2**
	comp=Z,1.8nm,0.4s,mb4.4,baz=327,slow=5.5,SNR=3.5						
NWAO	**Narrogin (SRO)**	51.82	154	P	**P**	**02 19 13.8**	**-0.3**
	comp=Z,3.1nm,0.4s,mb4.6,baz=156,slow=8.5,SNR=3.5						
WRA	**Warramunga Arr**	52.61	129	P	**P**	**02 19 19.8**	**-0.4**
	comp=Z,1.6nm,0.4s,mb4.3,baz=300,slow=9.8,SNR=13						
WRAB	**Tennant Creek**	52.62	129	*e*P	**P**	**02 19 18.6**	**-1.7**
	comp=Z,17nm,1.0s,mb4.9						
ASAR	**Alice Springs**	54.55	133	P	**P**	**02 19 33.4**	**-1.0**
	comp=Z,2.1nm,0.4s,mb4.5,baz=309,slow=7.0,SNR=40						
BRTR	**Keskin Array B**	57.91	308	P	**P**	**02 19 57.7**	**-0.6**
	comp=Z,6.1nm,1.2s,mb4.5,baz=123,slow=8.0,SNR=7.6						
MLR	**Muntele Rosu**	64.32	314	P	**P**	**02 20 43.6**	**+2.0**
	comp=Z,6.1nm,1.0s,mb4.6,baz=87,slow=5.2,SNR=4.5						
IDI	**Anoyia**	64.46	303	P	**P**	**02 20 42.5**	**-0.1**
	comp=Z,5.1nm,0.7s,mb4.6,baz=353,slow=10,SNR=6.8						
STKA	**Stephens Creek**	64.93	135	P	**P**	**02 20 45.8**	**0.0**
	comp=Z,2.4nm,0.8s,mb4.3,baz=0.3,slow=21,SNR=3.9						
FINES	**FINESS Array B**	67.09	331	P	**P**	**02 20 58.6**	**-0.4**
	comp=Z,1.5nm,0.6s,mb4.2,baz=102,slow=6.8,SNR=7.8						
ARCES	**ARCESS Array B**	69.44	340	P	**P**	**02 21 14.0**	**+0.4**
	comp=Z,2.0nm,0.5s,mb4.3,baz=90,slow=6.3,SNR=17						
MORC	**Moravsky Berou**	70.31	318	*e*P	**P**	**02 21 19.6**	**+0.4**
	comp=Z,2.1nm,0.7s,mb4.2						
LSZ	**Lusaka**	70.33	248	*e*P	**P**	**02 21 20.9**	**+1.1**
	comp=Z,2.5nm,1.0s,mb4.1						
LSZ				*e*pP	pP	02 21 29.1	+0.2
GERES	**GERESS Array B**	72.82	317	P	**P**	**02 21 34.9**	**+0.7**
	comp=Z,1.2nm,0.6s,mb4.0,baz=88,slow=5.7,SNR=13						
KHC	**Kasperske Hory**	72.89	317	*e*pP	pP	02 21 42.0	-1.7
HFS	**Hagfors**	72.92	329	P	**P**	**02 21 34.6**	**0.0**
	comp=Z,4.0nm,0.9s,mb4.3,baz=97,slow=12,SNR=4.7						
FX1	**Attu Island--F**	73.22	39	P	**P**	**02 21 33.9**	**-2.5**
FX1				*e*	pP	02 21 44.2	-1.3
NB2	**NORSAR Subarra**	74.16	330	P	**P**	**02 21 41.1**	**-0.6**
	comp=Z,1.8nm,0.7s,mb4.1,baz=90,slow=5.8						
NOA	**NORSAR Array B**	74.16	330	P	**P**	**02 21 41.6**	**-0.1**
	comp=Z,1.6nm,0.8s,mb4.0,baz=90,slow=5.8,SNR=5.6						
DAVOX	**Davos**	75.50	315	P	**P**	**02 21 49.5**	**-0.3**
	comp=Z,1.0nm,0.7s,mb3.8,baz=31,slow=17,SNR=2.5						
LPL	**La Plagne**	77.80	314	*e*P	**P**	**02 22 03.6**	**+1.0**
	comp=Z,14nm,0.7s,mb4.7						
BOSA	**Boshof**	77.85	236	*e*P	**P**	**02 22 02.6**	**-0.6**
	comp=Z,2.5nm,0.8s,mb4.2						
MCK	**McKinley**	89.54	23	P	**P**	**02 23 03.2**	**+1.2**
	comp=Z,4.4nm,1.0s,mb4.7						
MCK				*e*pP	pP	02 23 11.3	0.0
ILAR	**Eielson Array**	89.75	22	P	**P**	**02 23 03.6**	**+0.7**
	comp=Z,0.6nm,0.7s,mb4.0,baz=292,slow=4.4,SNR=6.4						
ILAR				PP	PP	02 26 37.4	-0.2
	comp=Z,0.5nm,0.9s,baz=293,slow=6.3,SNR=4.2						
INK	**Inuvik**	91.69	16	P	**P**	**02 23 12.4**	**+0.6**
	comp=Z,2.2nm,1.2s,mb4.4,baz=210,slow=0.7,SNR=4.9						
TXAR	**Lajitas Array**	134.25	21	PKP	PKPdf	02 29 26.0	-1.1
	comp=Z,0.2nm,0.5s,baz=177,slow=1.3,SNR=5.6						

IDC 27 02:10:58.7±6.7**, 3.31N**×**127.63E, mb4.1**/3**, mb1 4.3**/3**, mb1mx3.8**/17**, MS3.8**/1**, Ms1 3.8**/1**, ms1mx2.8**/25**, Error ellipse: s-maj=132.0km s-min=105.6km az=78.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TGY	**Tagaytay City**	12.59	329	LR	LR	02 19 53.2	
	comp=Z,501nm,20.8s,baz=63,slow=42						
WRA	**Warramunga Arr**	24.03	164	P	P	02 16 15.5	-0.9
	4.3nm,0.3s,baz=344,slow=10,SNR=22						
ASAR	**Alice Springs**	27.50	167	P	P	02 16 47.1	-1.9
	0.5nm,0.4s,baz=352,slow=7.7,SNR=6.4						
STKA	**Stephens Creek**	37.43	160	P	P	02 18 13.7	-1.8
	3.5nm,0.9s,baz=330,slow=8.4,SNR=4.4						

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*IDC **27** 02:17:43.8±0.8, 8.07N×92.73E, h38^{km}±4^{km}, mb4.1/14, mb1 4.2/15, mb1mx4.0/23, ML4.5/1, Error ellipse: s-maj=32.8km s-min=13.1km az=48.0*

*NEIC **27** 02:17:43.1±0.6, 7.95N×92.67E, mb4.5/8, Error ellipse: s-maj=17.7km s-min=11.3km az=57.0*

*BJI **27** 02:17:43.1, 8.00N×92.70E, h38^{km}, mb4.7*

ISC 27 02:17:41.9±0.7**, 8.1N**±0.1×**92.9E**±0.1**, h38**^{km}**, h38**^{km}±1.7^{km}**:pP-P, n35, σ0^{s}66**/33**, mb4.4**/25**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	11.88	29	*e*Pn	**P**	**02 20 36.3**	**+4.6**
CMAR	**Chiang Mai Arr**	11.88	29	Pn	**P**	**02 20 37.5**	**+5.8**
	0.9nm,0.3s,baz=230,slow=14,SNR=25						
PKI	**Pulchoki**	20.62	341	*e*P	**P**	**02 22 21.0**	**+0.3**
DMN	**Daman**	20.76	340	*e*P	**P**	**02 22 20.9**	**-1.2**
	31nm,0.8s						
GUN	**Gumba**	20.80	342	*e*P	**P**	**02 22 22.7**	**+0.3**
	21nm,0.6s						
KKN	**Kakani**	20.87	341	*e*P	**P**	**02 22 23.4**	**+0.2**
GKN	**Gorkha**	21.28	340	*e*P	**P**	**02 22 28.1**	**+0.7**
	23nm,0.6s,mb4.7						
KOLN	**Koldanda**	21.45	337	*e*P	**P**	**02 22 29.2**	**+0.1**
	17nm,0.7s,mb4.5						
LSA	**Lhasa**	21.56	356	P	**P**	**02 22 30.2**	**0.0**
	8.6nm,0.5s,mb4.4						
ENH	**Enshi**	27.00	33	*e*P	**P**	**02 23 21.2**	**-1.3**
	6.1nm,0.5s,mb4.4						
XAN	**Xi'an**	29.76	28	P	**P**	**02 23 46.3**	**-0.9**
XAN				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
GTA	**Gaotai**	31.80	10	P	**P**	**02 24 06.0**	**+0.8**
GTA				AP	pP	02 24 15.5	-0.3
GTA				XP	sP	02 24 19.3	-1.3
GTA				AMB	AMB		
	comp=Z,12nm,0.6s,mb4.9						
SONM	**Songino Array**	41.24	14	P	**P**	**02 25 25.7**	**+0.7**
	comp=Z,2.3nm,0.9s,mb3.8,baz=200,slow=7.2,SNR=13						
SONM				pP	pP	02 25 37.0	+1.3
	comp=Z,1.6nm,0.7s,baz=196,slow=7.6,SNR=7.5						
SONM				PcP	PcP	02 27 24.4	+0.4
	comp=Z,0.4nm,0.6s,baz=193,slow=4.8,SNR=3.8						
ULN	**Ulaanbaatar**	41.43	14	*e*P	**P**	**02 25 26.6**	**+0.1**
	comp=Z,1.4nm,0.7s,mb3.7						

ZAL	Zalesovo	46.18	353	P	P	02 26 04.5	-0.3
	comp=Z,1.8nm,0.4s,mb4.4,baz=293,slow=4.5,SNR=5.1						
HIA	Hailar	46.83	24	eP	P	02 26 10.4	+0.5
	comp=Z,7.1nm,1.0s,mb4.5						
BVAR	Borovoye Array	48.39	342	P	P	02 26 21.7	-0.4
	comp=Z,0.9nm,0.6s,mb4.0,baz=141,slow=9.5,SNR=8.1						
BVAR				pP	pP	02 26 32.0	-1.0
	comp=Z,0.7nm,0.6s,baz=143,slow=7.4,SNR=4.9						
BVAR	Borovoye Array	48.39	342	P	P	02 26 21.7	-0.4
BVAR				pP	pP	02 26 31.9	-1.0
BRVK	Borovoye	48.45	342	eP	P	02 26 21.7	-0.9
	comp=Z,1.4nm,0.6s,mb4.2						
CHKZ	Chkalovo	48.89	343	eP	P	02 26 25.7	-0.2
	comp=Z,3.1nm,0.5s,mb4.6						
CHKZ				epP	pP	02 26 34.3	-2.5
WRA	Warramunga Arr	49.41	125	P	P	02 26 30.2	-0.2
	comp=Z,6.8nm,0.7s,mb4.8,baz=306,slow=8.6,SNR=33						
WRAB	Tennant Creek	49.41	125	eP	P	02 26 30.1	-0.3
	comp=Z,12nm,0.6s,mb5.1						
WRAB				epP	pP	02 26 41.7	+0.4
ASAR	Alice Springs	51.02	129	P	P	02 26 42.3	-0.3
	comp=Z,1.8nm,0.5s,mb4.2,baz=312,slow=7.1,SNR=13						
ASAR				pP	pP	02 26 54.5	+1.0
	comp=Z,1.5nm,0.7s,baz=300,slow=6.6,SNR=8.5						
ASAR				PcP	PcP	02 27 59.2	+0.7
	comp=Z,1.2nm,0.5s,baz=311,slow=3.5,SNR=9.0						
PMG	Port Moresby	56.79	107	P	P	02 27 26.2	+1.0
	comp=Z,20nm,1.0s,mb5.1,baz=314,slow=3.1,SNR=8.2						
PMG	Port Moresby	56.79	107	eP	P	02 27 25.7	+0.5
	comp=Z,13nm,0.8s,mb5.0						
MLR	Muntele Rosu	68.14	316	P	P	02 28 40.4	+0.1
	comp=Z,2.0nm,0.7s,mb4.3,baz=121,slow=8.5,SNR=3.9						
FINES	FINESS Array B	71.94	332	P	P	02 29 02.0	-1.0
	comp=Z,2.1nm,0.7s,mb4.2,baz=104,slow=7.9,SNR=6.5						
FINES				pP	pP	02 29 14.2	-0.2
	comp=Z,3.0nm,0.8s,baz=117,slow=8.5,SNR=3.7						
GERES	GERESS Array B	76.83	318	P	P	02 29 31.9	+0.2
	comp=Z,2.5nm,1.0s,mb4.1,baz=90,slow=5.3,SNR=12						
GERES				pP	pP	02 29 43.2	+0.1
	comp=Z,0.9nm,0.7s,baz=117,slow=3.0,SNR=7.0						
NOA	NORSAR Array B	78.93	331	P	P	02 29 42.3	-0.7
	comp=Z,0.8nm,0.8s,mb3.7,baz=103,slow=5.2,SNR=3.1						
DAVOX	Davos	79.36	316	P	P	02 29 45.9	+0.2
	comp=Z,1.5nm,0.5s,mb4.2,baz=119,slow=5.9,SNR=7.3						
DAVOX				pP	pP	02 29 57.8	+0.6
	comp=Z,2.9nm,0.8s,baz=351,slow=23,SNR=3.6						
EKA	Eskdalemuir Ar	86.83	325	P	P	02 30 24.2	+0.7
	comp=Z,1.7nm,0.6s,mb4.4,baz=90,slow=5.0,SNR=4.8						
ILAR	Eielson Array	95.02	22	P	P	02 31 02.0	+0.5
	comp=Z,0.5nm,0.7s,mb4.0,baz=310,slow=5.4,SNR=11						
INK	Inuvik	97.13	16	P	P	02 31 12.4	+1.3
	comp=Z,0.7nm,0.7s,mb4.2,baz=75,slow=11,SNR=4.4						
PDAR	Pinedale Array	125.41	20	PKP	PKPdf	02 36 41.6	+2.2
	comp=Z,0.7nm,0.9s,baz=117,slow=3.3,SNR=6.1						
TXAR	Lajitas Array	139.53	23	PKhKP		02 37 11.4	
	comp=Z,0.3nm,0.5s,baz=128,slow=0.3,SNR=7.7						

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*IDC **27** 02:23:01.4±1.2, 6.84N×93.29E, h40^{km}±6^{km}, mb3.7/5, mb1 3.9/5, mb1mx3.6/17, Error ellipse: s-maj=57.5km s-min=17.3km az=52.0*

*NEIC **27** 02:23:01.4±0.9, 6.82N×93.33E, mb4.0/4, Error ellipse: s-maj=38.6km s-min=10.3km az=58.0*

ISC 27 02:22:59.6±1.2**, 6.8N**±0.2×**93.4E**±0.3**, h40^{km}, h40^{km}**±1.8^{km}**:pP-P, n10, σ0^{s}.25**/10**, mb4.0**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	18.71	356	eP	P	02 27 17.0	-0.3
LSA	Lhasa	22.86	355	P	P	02 28 01.0	+0.3
	7.3nm,0.9s,mb4.1						
AAK	Ala-Archa	39.38	338	P	P	02 30 27.3	+0.2
	1.9nm,0.9s,mb3.8						
SONM	Songino Array	42.37	13	P	P	02 30 51.7	+0.1
	0.3nm,0.5s,mb3.2,baz=187,slow=10.0,SNR=5.9						
ZAL	Zalesovo	47.50	353	P	P	02 31 32.9	+0.2
	1.4nm,0.9s,mb3.9,baz=306,slow=11,SNR=9.9						
WRA	Warramunga Arr	48.30	124	P	P	02 31 39.0	-0.3
	2.9nm,0.6s,mb4.5,baz=305,slow=9.4,SNR=18						
WRA				pP	pP	02 31 50.4	-0.2
	6.3nm,0.8s,baz=304,slow=9.1,SNR=16						
WRAB	Tennant Creek	48.30	124	eP	P	02 31 39.5	+0.1
	7.1nm,0.6s,mb4.9						
WRAB				epP	pP	02 31 51.3	+0.7
ASAR	Alice Springs	49.85	129	P	P	02 31 51.4	+0.2
	1.9nm,0.6s,mb4.3,baz=312,slow=7.5,SNR=16						
ASAR				pP	pP	02 32 04.0	+1.4
	1.6nm,0.7s,baz=307,slow=7.5,SNR=6.9						
ASAR				sP	sP	02 32 08.7	+1.4
	1.6nm,0.7s,baz=303,slow=7.2,SNR=4.8						
CHKZ	Chkalovo	50.24	343	eP	P	02 31 53.4	-0.4
	0.9nm,0.6s,mb4.0						
CHKZ				e	pP	02 32 04.0	-1.2
GERES	GERESS Array B	78.10	318	P	P	02 34 56.1	0.0
	0.4nm,0.8s,mb3.4,baz=108,slow=4.2,SNR=4.4						
GERES				pP	pP	02 35 07.0	-1.1
	0.5nm,0.6s,baz=76,slow=5.5,SNR=3.8						

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*NEIC **27** 02:23:43.2±0.6, 8.41N×93.60E, mb4.6/8, Error ellipse: s-maj=16.3km s-min=11.6km az=100.0*

*BJI **27** 02:23:43.1, 8.40N×93.60E, h22^{km}, mb4.5*

*IDC **27** 02:23:46.1±5.5, 8.38N×93.67E, h49^{km}±51^{km}, mb3.9/15, mb1 4.1/16, mb1mx4.0/24, ML4.9/1, Error ellipse: s-maj=42.0km s-min=18.2km az=59.0*

ISC 27 02:23:43.7±1.0**, 8.8N**±0.1×**93.3E**±0.1**, h21^{km}, h21^{km}**±1.3^{km}**:pP-P, n33, σ0^{s}.68**/33**, mb4.3**/22**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.08	29	P	P	02 26 23.9	-0.3
CMAR	Chiang Mai Arr	11.08	29	P	P	02 26 25.0	+0.8
	2.2nm,0.3s,baz=208,slow=15,SNR=11						
PKI	Pulchoki	20.15	339	eP	P	02 28 19.5	-0.1
	66nm,1.0s						
DMN	Daman	20.29	339	eP	P	02 28 20.6	-0.4
	55nm,0.8s						
GUN	Gumba	20.30	341	eP	P	02 28 20.5	-0.7
	118nm,1.0s						
KKN	Kakani	20.40	339	eP	P	02 28 21.7	-0.4
	84nm,1.0s						
GKN	Gorkha	20.82	338	eP	P	02 28 25.6	-0.9
	86nm,0.9s						
LSA	Lhasa	20.93	355	eP	P	02 28 28.4	+0.8
	25nm,0.8s						
KOLN	Koldanda	21.02	335	eP	P	02 28 28.0	-0.5
	69nm,1.0s,mb4.9						
PTH	Pithoragarh	24.06	331	eP	P	02 29 00.3	+1.6
GTA	Gaotai	31.07	10	eP	P	02 30 08.5	+5.8
GTA				AP	pP	02 30 14.3	+5.3
GTA				XP	sP	02 30 16.8	+5.1
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.2						
AAK	Ala-Archa	37.58	337	eP	P	02 30 59.4	+0.9
	comp=Z,9.6nm,1.1s,mb4.4						
SONM	Songino Array	40.49	14	P	P	02 31 22.4	-0.3
	comp=Z,0.5nm,0.7s,mb3.4,baz=191,slow=7.3,SNR=3.2						
ZAL	Zalesovo	45.57	353	P	P	02 32 04.5	+0.6
	comp=Z,6.7nm,0.7s,mb4.7,baz=292,slow=7.7,SNR=22						
NWAO	Narrogin (SRO)	47.30	152	P	P	02 32 12.1	-5.8
	comp=Z,15nm,0.8s,mb5.0,baz=293,slow=7.7,SNR=4.0						
NWAO	Narrogin (SRO)	47.30	152	eP	P	02 32 11.8	-6.1
	comp=Z,28nm,1.1s,mb5.1						
NWAO				epP	pP	02 32 19.5	-4.9
BVAR	Borovoye Array	47.90	342	P	P	02 32 22.2	-0.1
	comp=Z,1.7nm,0.8s,mb4.1,baz=143,slow=7.4,SNR=8.9						
BRVK	Borovoye	47.96	341	eP	P	02 32 22.2	-0.6
	comp=Z,2.5nm,0.9s,mb4.2						
CHKZ	Chkalovo	48.39	342	eP	P	02 32 25.7	-0.4
	comp=Z,8.3nm,0.9s,mb4.8						
ASAR	Alice Springs	51.10	130	P	P	02 32 39.2	-8.0
	comp=Z,1.0nm,0.7s,mb3.8,baz=311,slow=8.3,SNR=2.3						
BRTR	Keskin Array B	61.24	311	P	P	02 33 59.1	-0.6
	comp=Z,2.4nm,0.8s,mb4.4,baz=122,slow=7.4,SNR=14						
MLR	Muntele Rosu	67.98	316	P	P	02 34 44.6	+1.1
	comp=Z,2.7nm,0.8s,mb4.3,baz=77,slow=22,SNR=3.7						
FINES	FINESS Array B	71.56	332	P	P	02 35 04.9	-0.1
	comp=Z,4.3nm,1.1s,mb4.3,baz=117,slow=8.5,SNR=4.2						
LBTB	Lobatse	73.96	241	eP	P	02 35 20.1	+0.2
	comp=Z,5.1nm,0.8s,mb4.5						
LBTB				epP	pP	02 35 26.0	-0.6
LBTB				esP	sP	02 35 29.0	0.0
ARCES	ARCESS Array B	74.16	340	P	P	02 35 20.1	-0.1
	comp=Z,5.1nm,1.1s,mb4.3,baz=102,slow=7.3,SNR=6.7						
BOSA	Boshof	75.37	237	eP	P	02 35 27.8	-0.2
	comp=Z,4.8nm,0.9s,mb4.4						
BOSA				epP	pP	02 35 34.6	-0.1
GERES	GERESS Array B	76.63	318	P	P	02 35 35.0	+0.3
	comp=Z,0.7nm,0.7s,mb3.7,baz=90,slow=4.0,SNR=4.8						
HFS	Hagfors	77.29	330	P	P	02 35 38.1	0.0
	comp=Z,3.9nm,0.9s,mb4.3,baz=104,slow=6.1,SNR=7.4						
NB2	NORSAR Subarra	78.57	331	P	P	02 35 43.4	-1.7
	comp=Z,8.7nm,1.2s,mb4.6,baz=91,slow=5.8						
NOA	NORSAR Array B	78.57	331	P	P	02 35 44.8	-0.3
	comp=Z,1.5nm,0.8s,mb4.0,baz=94,slow=5.4,SNR=4.3						
DAVOX	Davos	79.19	316	P	P	02 35 49.2	+0.4
	comp=Z,1.6nm,0.8s,mb4.0,baz=238,slow=1.5,SNR=3.7						
EKA	Eskdalemuir Ar	86.54	325	P	P	02 36 27.1	+0.8
	comp=Z,2.0nm,0.8s,mb4.4,baz=100,slow=5.1,SNR=4.3						
ILAR	Eielson Array	94.23	22	P	P	02 37 01.4	-0.8
	comp=Z,0.2nm,0.5s,mb3.8,baz=292,slow=5.5,SNR=6.7						

GUC 27 02:23:55.3±0.3**, 30.10S**×**71.59W, h21^{km}**±3^{km}**, MD3.6, ML2.7, 2C-1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSCH	La Serena	0.36	57	⇑iP		02 25 28.3	
LSCH				iS		02 25 33.9	
LSCH				AMP		02 25 34.3	
	comp=N,1μm,0.3s						
TLL	Tololo Astrono	0.69	95	⇑iP	Pb	02 24 08.6	+0.2
TLL				iS	Sb	02 24 18.7	+1.2
TLL				AMP		02 24 23.4	
	comp=N,296nm,0.4s						
CMCH	Combarbala	1.18	155	⇓iP	Pn	02 24 16.1	-0.7
CMCH				iS	Sb	02 24 31.8	0.0
PTCH	Petorca	2.23	165	eP	Pn	02 24 31.9	+0.1
PTCH				iS	Sn	02 25 00.1	+1.2
PTCH				AMP		02 25 06.8	
	comp=E,181nm,0.2s						

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*NEIC **27** 02:27:59.8±2.3, 18.56N×146.51E, h43^{km}±23^{km}, mb4.6/1, Error ellipse: s-maj=35.1km s-min=18.0km az=101.0*

*IDC **27** 02:28:07.5±16.0, 18.57N×146.49E, h114^{km}±153^{km}, mb3.5/9, mb1 3.7/9, mb1mx3.5/21, Error ellipse: s-maj=36.0km s-min=23.2km az=87.0*

ISC 27 02:27:57.5±2.6**, 18.6N**±0.1×**146.6E**±0.3**, h37^{km}**±25^{km}**, n13, σ1^{s}.09**/14**, mb3.8**/10**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SARN	Sarigan	2.09	202	eP	P	02 28 31.1	+0.3
GUMO	Guam	5.29	199	eP	P	02 29 14.1	-2.1
GUMO				S	S	02 30 18.4	+1.5
WRA	Warramunga Arr	40.19	198	P	P	02 35 31.7	-0.5
	1.9nm,0.8s,mb3.9,baz=18,slow=9.4,SNR=7.0						
SONM	Songino Array	43.72	321	P	P	02 36 01.3	+0.4
	0.2nm,0.4s,mb3.2,baz=132,slow=8.6,SNR=3.9						
ASAR	Alice Springs	43.84	197	P	P	02 36 01.8	-0.3
	0.4nm,0.7s,mb3.3,baz=24,slow=9.2,SNR=4.6						
BILL	Bilibino	50.93	9	eP	P	02 36 59.4	+2.3
	5.0nm,0.7s,mb4.5						
ILAR	Eielson Array	63.32	26	P	P	02 38 23.8	-1.1
	0.8nm,0.9s,mb3.8,baz=257,slow=5.9,SNR=5.1						
BVAR	Borovoye Array	67.06	320	P	P	02 38 48.4	-0.6
	0.7nm,0.5s,mb4.0,baz=84,slow=7.7,SNR=7.6						
INK	Inuvik	69.09	23	P	P	02 39 01.9	+0.5
	1.4nm,1.0s,mb3.9,baz=273,slow=7.1,SNR=2.9						
YKA	Yellowknife Ar	77.64	28	P	P	02 39 51.9	+0.4
	0.3nm,0.6s,mb3.4,baz=286,slow=5.4,SNR=7.3						
YKA	Yellowknife Ar	77.64	28	P	P	02 39 51.9	+0.4
ARCES	ARCESS Array B	82.81	342	P	P	02 40 19.6	+0.7
	1.6nm,0.7s,mb4.2,baz=63,slow=5.4,SNR=6.2						
FINES	FINESS Array B	87.29	336	P	P	02 40 40.0	-1.3
	0.5nm,0.4s,mb4.1,baz=85,slow=6.7,SNR=5.2						

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*IDC **27** 02:28:35.3±1.1, 4.43N×96.16E, mb3.8/6, mb1 3.9/7, mb1mx3.8/18, ML3.5/1, Error ellipse: s-maj=51.8km s-min=20.2km az=49.0*

*NEIC **27** 02:28:39.7±0.7, 4.47N×96.21E, h30^{km}, mb4.3/2, Error ellipse: s-maj=24.6km s-min=10.8km az=59.0*

ISC 27 02:28:37.8±0.9**, 4.5N**±0.1×**96.2E**±0.2**, h30^{km}, n10, σ0^{s}.83**/10**, mb3.9**/8**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.12	11	Pn	P	02 31 58.2	0.0
	0.1nm,0.3s,baz=233,slow=14,SNR=4.3						
SONM	Songino Array	44.05	10	P	P	02 36 45.9	+1.2
	0.5nm,0.7s,mb3.4,baz=190,slow=10,SNR=3.2						
SONM				PcP	PcP	02 38 29.8	-0.5
	0.3nm,0.4s,baz=195,slow=3.1,SNR=6.3						
WRA	Warramunga Arr	44.65	124	P	P	02 36 50.0	0.0
	1.4nm,0.4s,mb4.2,baz=302,slow=9.2,SNR=12						
WRAB	Tennant Creek	44.65	124	eP	P	02 36 49.5	-0.5
	3.6nm,0.4s,mb4.5						
ASAR	Alice Springs	46.19	129	P	P	02 37 02.3	+0.2
	0.6nm,0.4s,mb3.9,baz=300,slow=7.9,SNR=10						
BVAR	Borovoye Array	52.83	341	P	P	02 37 52.3	-0.5
	0.5nm,0.5s,mb3.7,baz=127,slow=7.4,SNR=3.9						
BRVK	Borovoye	52.89	341	P	P	02 37 52.6	-0.7
CHKZ	Chkalovo	53.30	341	eP	P	02 37 55.0	-1.3
	1.1nm,0.6s,mb4.0						
BRTR	Keskin Array B	66.19	312	P	P	02 39 25.1	0.0
	0.6nm,0.5s,mb3.9,baz=137,slow=6.5,SNR=8.3						
GERES	GERESS Array B	81.70	319	P	P	02 40 56.7	+1.8
	0.5nm,0.4s,mb3.8,baz=101,slow=6.8,SNR=10						

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*IDC **27** 02:33:21.6±0.8, 3.82N×96.37E, mb4.3/16, mb1 4.4/17, mb1mx4.3/23, ML4.4/1, Error ellipse: s-maj=44.2km s-min=13.3km az=46.0*

*NEIC **27** 02:33:24.9±0.5, 3.75N×96.32E, mb4.6/9, Error ellipse: s-maj=17.8km s-min=8.6km az=53.0*

ISC 27 02:33:23.0±0.6**, 3.7N**±0.1×**96.3E**±0.1**, h22^{km}, n35, σ1^{s}.11**/34**, mb4.4**/25**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.86	10	Pn	P	02 36 51.6	-2.2
CMAR	Chiang Mai Arr	14.86	10	Pn	P	02 37 04.5	+11
	0.6nm,0.3s,baz=204,slow=12,SNR=14						
HYB	Hyderabad	22.10	309	eP	P	02 38 25.5	+6.7
HYB	Hyderabad	22.10	309	iP	P	02 38 25.5	+6.7
SHL	Shillong	22.12	349	eP	P	02 38 22.0	+3.1
LSA	Lhasa	26.29	350	eP	P	02 39 01.8	+2.8
	6.2nm,0.5s,mb4.4						
ENH	Enshi	29.18	24	P	P	02 39 26.1	+0.8
	4.5nm,0.4s,mb4.5						
WRA	Warramunga Arr	44.13	124	P	P	02 41 32.4	+0.3
	15nm,0.6s,mb4.9,baz=302,slow=9.2,SNR=74						
WRAB	Tennant Creek	44.14	124	⇑iP	P	02 41 32.4	+0.3
	22nm,0.6s,mb5.1						
SONM	Songino Array	44.78	10	P	P	02 41 37.2	+0.1
	2.8nm,0.6s,mb4.2,baz=189,slow=8.9,SNR=11						
ULN	Ulaanbaatar	44.92	10	eP	P	02 41 39.6	+1.4
	1.9nm,0.7s,mb4.0						
ASAR	Alice Springs	45.63	129	P	P	02 41 44.3	+0.3
	5.8nm,0.7s,mb4.6,baz=300,slow=7.9,SNR=48						
ZAL	Zalesovo	50.93	351	P	P	02 42 23.9	-0.8
	1.9nm,0.3s,mb4.5,baz=340,slow=3.6,SNR=3.5						
PMG	Port Moresby	52.31	105	P	P	02 42 34.4	-1.4
	21nm,0.8s,mb5.1,baz=305,slow=4.8,SNR=12						
BVAR	Borovoye Array	53.59	341	P	P	02 42 43.2	-1.5
	1.7nm,0.6s,mb4.2,baz=135,slow=8.4,SNR=5.5						
BRVK	Borovoye	53.65	341	eP	P	02 42 44.4	-0.7
	2.6nm,0.6s,mb4.3						
CHKZ	Chkalovo	54.06	341	eP	P	02 42 46.6	-1.6
	4.8nm,0.8s,mb4.5						
CTA	Charters Tower	54.43	118	P	P	02 42 51.1	-0.2
	8.1nm,1.1s,mb4.6,baz=229,slow=3.9,SNR=3.2						
CTA	Charters Tower	54.43	118	P	P	02 42 51.1	-0.2
STKA	Stephens Creek	55.70	133	P	P	02 43 00.6	+0.1
	10nm,1.0s,mb4.8,baz=313,slow=8.6,SNR=10.0						
STKA	Stephens Creek	55.70	133	P	P	02 43 00.6	+0.1
GNI	Garni	58.88	315	eP	P	02 43 21.8	-1.0
	7.2nm,1.0s,mb4.7						
GNI				epP	pP	02 43 29.2	-0.4
MALT	Malatya	62.80	311	P	P	02 43 49.2	-0.3
	4.5nm,1.1s,mb4.5						
MALT				epP	pP	02 43 55.2	-1.1
BRTR	Keskin Array B	66.78	312	P	P	02 44 14.3	-0.9
	1.1nm,0.7s,mb4.0,baz=142,slow=7.8,SNR=4.3						
AKASG	Malin Array Be	72.73	322	P	P	02 44 51.2	-0.3
	0.3nm,0.4s,mb3.6,baz=82,slow=4.7,SNR=7.5						
MLR	Muntele Rosu	73.64	316	P	P	02 44 58.0	+1.1
	1.8nm,1.0s,mb4.0,baz=116,slow=20,SNR=2.2						
FINES	FINESS Array B	77.36	332	P	P	02 45 17.2	-0.5
	1.1nm,0.8s,mb3.9,baz=153,slow=13,SNR=2.9						
ARCES	ARCESS Array B	79.87	340	P	P	02 45 31.5	+0.2
	3.5nm,1.1s,mb4.2,baz=100,slow=5.5,SNR=6.2						
ARCES	ARCESS Array B	79.87	340	P	P	02 45 31.5	+0.2
GERES	GERESS Array B	82.35	319	P	P	02 45 45.3	+0.7
	0.8nm,0.8s,mb3.7,baz=281,slow=28,SNR=2.9						
KHC	Kasperske Hory	82.44	319	eP	P	02 45 53.5	+8.3
HFS	Hagfors	83.10	330	P	P	02 45 48.7	+0.3
	1.4nm,0.7s,mb4.1,baz=176,slow=40,SNR=4.2						
DAVOX	Davos	84.86	316	P	P	02 45 59.3	+1.7
	1.2nm,0.6s,mb4.2,baz=261,slow=16,SNR=3.5						
LPG	La Plagne	87.06	315	eP	P	02 46 14.1	+5.6
	9.5nm,0.8s,mb4.8						
TXAR	Lajitas Array	141.94	29	PKP	PKPdf	02 52 55.2	-3.2
	0.3nm,0.4s,baz=2.8,slow=0.5,SNR=8.6						

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*IDC **27** 02:35:25.7±0.9, 7.93N×93.49E, mb4.1/11, mb1 4.2/11, mb1mx4.0/19, Error ellipse: s-maj=49.0km s-min=20.6km az=60.0*

*NEIC **27** 02:35:29.9±0.7, 7.92N×93.59E, h30^{km}, mb4.3/3, Error ellipse: s-maj=30.9km s-min=12.9km az=62.0*

ISC 27 02:35:28.3±0.7**, 7.9N**±0.1×**93.6E**±0.2**, h30^{km}, n17, σ1^{s}.05**/17**, mb4.0**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	21.77	354	eP	P	02 40 18.6	-1.0
	8.0nm,0.5s,mb4.4						
LUBP	Lubang	26.75	75	eP	P	02 41 14.1	+6.5
SONM	Songino Array	41.21	13	P	P	02 43 14.5	+2.5
	0.6nm,0.4s,mb3.5,baz=196,slow=7.8,SNR=3.5						
ULN	Ulaanbaatar	41.39	14	P	P	02 43 14.9	+1.4
	1.2nm,0.5s,mb3.8						
ZAL	Zalesovo	46.42	353	P	P	02 43 53.3	-0.7
	2.6nm,0.4s,mb4.6,baz=301,slow=6.0,SNR=3.5						
NWAO	Narrogin (SRO)	46.44	152	P	P	02 43 56.0	+1.5
	9.5nm,0.9s,mb4.7,baz=333,slow=11,SNR=3.0						
NWAO	Narrogin (SRO)	46.44	152	eP	P	02 43 55.1	+0.6
	4.2nm,0.9s,mb4.4						
WRA	Warramunga Arr	48.71	125	P	P	02 44 11.8	-0.6
	1.7nm,0.6s,mb4.2,baz=305,slow=8.6,SNR=6.1						
WRAB	Tennant Creek	48.72	125	P	P	02 44 11.3	-1.1
CHKZ	Chkalovo	49.26	342	P	P	02 44 14.9	-1.3
FINES	FINESS Array B	72.42	332	P	P	02 46 52.9	-0.7
	0.7nm,0.6s,mb3.8,baz=90,slow=7.6,SNR=4.4						
ARCES	ARCESS Array B	75.03	340	P	P	02 47 08.4	-0.1
	1.3nm,0.8s,mb3.9,baz=90,slow=7.2,SNR=3.6						
GERES	GERESS Array B	77.44	318	P	P	02 47 23.3	+0.8
	0.5nm,0.7s,mb3.5,baz=112,slow=5.3,SNR=2.8						
HFS	Hagfors	78.14	330	P	P	02 47 26.1	0.0
	1.5nm,0.6s,mb4.1,baz=108,slow=4.7,SNR=4.8						
NOA	NORSAR Array B	79.43	331	P	P	02 47 32.3	-0.8
	1.7nm,0.9s,mb4.0,baz=103,slow=5.0,SNR=2.6						
ESDC	Sonseca Array	90.79	310	P	P	02 48 31.7	+1.5
	0.1nm,0.4s,mb3.5,baz=65,slow=4.0,SNR=4.6						
ILAR	Eielson Array	94.88	22	P	P	02 48 48.3	-0.2
	0.4nm,0.9s,mb3.8,baz=277,slow=4.5,SNR=4.5						

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*BJI **27** 02:37:50.6, 13.42N×93.74E, h43^{km}, mB5.1, mb4.5*

*NEIC **27** 02:37:51.5±0.6, 13.71N×93.35E, h30^{km}, mb4.2/6, Error ellipse: s-maj=14.6km s-min=13.7km az=56.0*

*IDC **27** 02:37:53.3±6.2, 13.78N×93.29E, h40^{km}±52^{km}, mb3.8/12, mb1 4.0/13, mb1mx3.8/21, ML4.4/1, Error ellipse: s-maj=42.7km s-min=21.7km az=45.0*

ISC 27 02:37:50.1±0.7**, 13.79N**±0.10×**93.32E**±0.09**, h30^{km}, n23, σ1^{s}.01**/23**, mb4.1**/18**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.13	49	ePn	Pn	02 39 35.1	0.0
CMAR	Chiang Mai Arr	7.13	49	Pn	Pn	02 39 35.5	+0.3
	1.6nm,0.3s,baz=238,slow=15,SNR=16						
CMAR				Sn	Sn	02 41 00.9	+5.0
	0.5nm,0.3s,baz=246,slow=28,SNR=3.3						
LSA	Lhasa	15.96	353	P	P	02 41 32.7	-1.6
	9.7nm,0.6s						
LZH	Lanzhou	24.13	21	eP	P	02 43 06.3	+1.7
LZH				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.5						
AAK	Ala-Archa	33.02	334	P	P	02 44 25.0	+0.1
	comp=Z,2.4nm,0.8s,mb4.2						
SONM	Songino Array	35.65	15	P	P	02 44 47.6	+0.2
	comp=Z,1.8nm,0.7s,mb4.1,baz=200,slow=9.4,SNR=4.9						
CHKZ	Chkalovo	43.65	341	eP	P	02 45 53.1	-0.6
	comp=Z,2.0nm,0.5s,mb4.1						
GNI	Garni	49.85	311	P	P	02 46 43.9	+1.1
	comp=Z,1.5nm,0.4s,mb4.3,baz=126,slow=0.5,SNR=3.9						
WRA	Warramunga Arr	52.46	129	P	P	02 46 58.9	-3.8
	comp=Z,1.1nm,0.7s,mb3.9,baz=307,slow=8.2,SNR=4.6						
WRA				PcP	PcP	02 48 13.0	-0.2
	comp=Z,0.6nm,0.5s,baz=321,slow=3.0,SNR=9.2						
WRAB	Tennant Creek	52.46	129	eP	P	02 46 58.8	-4.0
	comp=Z,2.4nm,0.6s,mb4.3						
ASAR	Alice Springs	54.41	133	P	P	02 47 16.6	-0.5
	comp=Z,1.8nm,0.6s,mb4.2,baz=309,slow=6.9,SNR=17						
BRTR	Keskin Array B	58.06	308	P	P	02 47 42.1	-0.9
	comp=Z,1.7nm,0.9s,mb4.1,baz=127,slow=7.7,SNR=6.4						
FINES	FINESS Array B	67.15	331	P	P	02 48 42.1	-1.1
	comp=Z,0.7nm,0.4s,mb4.0,baz=112,slow=10,SNR=5.7						
ARCES	ARCESS Array B	69.47	340	P	P	02 48 57.5	+0.1
	comp=Z,1.2nm,0.8s,mb3.9,baz=101,slow=6.2,SNR=4.3						
GERES	GERESS Array B	72.94	317	P	P	02 49 18.8	+0.2
	comp=Z,0.7nm,0.5s,mb3.8,baz=85,slow=5.8,SNR=6.8						
GERES	GERESS Array B	72.94	317	P	P	02 49 18.8	+0.2
HFS	Hagfors	72.99	329	P	P	02 49 17.8	-0.9
	comp=Z,1.2nm,0.4s,mb4.2,baz=117,slow=6.6,SNR=5.7						
NOA	NORSAR Array B	74.23	330	P	P	02 49 25.9	+0.1
	comp=Z,0.7nm,0.6s,mb3.8,baz=92,slow=5.6,SNR=3.8						
LBTB	Lobatse	76.43	240	eP	P	02 49 40.3	+1.1
	comp=Z,0.8nm,0.6s,mb3.8						
BOSA	Boshof	78.09	236	eP	P	02 49 49.0	+0.7
	comp=Z,2.3nm,0.8s,mb4.2						
ILAR	Eielson Array	89.60	22	P	P	02 50 45.9	0.0
	comp=Z,0.4nm,0.8s,mb3.8,baz=281,slow=4.0,SNR=5.2						
INK	Inuvik	91.56	16	P	P	02 50 56.3	+1.4
	comp=Z,1.1nm,0.9s,mb4.2,baz=259,slow=6.0,SNR=3.9						
TXAR	Lajitas Array	134.10	21	PKP	PKPdf	02 57 08.7	-1.9
	comp=Z,0.2nm,0.5s,baz=314,slow=0.4,SNR=3.6						

CASC 27 02:38:33.1±1.3**, 10.62N**×**85.46W, h64^{km}**±3^{km}**, MD3.7, ML3.1, 12C-5D, Costa Rica**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LIM1	Limonal	0.21	69	iP	P	02 38 43.0	0.0
LIM1				iS	S	02 38 50.8	+0.5
FORC	Fortuna	0.79	101	⇓iP	P	02 38 48.9	+0.1
FORC				eS	S	02 39 01.9	+1.5
JCR	Jicaral	0.84	156	⇑eP	P	02 38 49.4	0.0
JCR				eS	S	02 39 01.5	0.0
CGA2	Cerro Gallo 2	1.15	122	⇓eP	P	02 38 53.5	0.0
CGA2				eS	S	02 39 09.1	+0.4
VPS2	Volcan Poas 2	1.28	110	eP	P	02 38 55.6	+0.3
PRS1	Puriscal	1.29	119	⇑iP	P	02 38 55.7	+0.2
PRS1				eS	S	02 39 12.8	+0.6
APON	Apoyo	1.42	335	⇑eP	P	02 38 57.0	-0.3
APON				eS	S	02 39 14.8	-0.4
LAJ	Bijagual	1.52	120	⇑eP	P	02 38 54.9	-3.8
LAJ				eS	S	02 39 11.4	-6.1
MASN	Masaya	1.52	333	eP	P	02 38 58.8	+0.1
SJS	Escuela Geolog	1.54	116	⇑eP	P	02 38 58.8	-0.2
SJS				eS	S	02 39 18.8	+0.7
CRUN	El Crucero	1.58	329	eP	P	02 38 59.0	-0.5
TICN	Ticuantepe	1.59	332	⇑eP	P	02 38 59.6	-0.1
TICN				eS	S	02 39 19.5	+0.1
LCR2	La Lucha 2	1.68	121	⇓eP	P	02 39 00.2	-0.6
LCR2				eS	S	02 39 21.6	+0.3
WILN	Americas 2	1.69	335	eP	P	02 39 00.6	-0.4
MGAN	Managua	1.70	333	eP	P	02 39 00.9	-0.2
MGAN				eS	S	02 39 22.2	+0.4
MGAN				i		02 39 23.1	
	comp=E,186nm,0.5s						
TRTC	Tortuguero	1.71	91	⇑iP	P	02 39 00.5	-0.8
TRTC				eS	S	02 39 21.9	-0.2
ICR	Volcan Irazu	1.72	112	⇓iP	P	02 39 01.6	+0.2
XAVN	Gruta Xavier	1.74	331	⇓eP	P	02 39 01.6	-0.1
APYN	Apoyeque	1.82	331	⇑eP	P	02 39 02.6	-0.2
APYN				eS	S	02 39 25.5	+0.7
URSC	Urasca	1.83	115	eP	P	02 39 03.1	+0.2

COPN	**Copaltepe**	1.91	324⇑	eP	P	02 39 03.5	-0.4
COPN				eS	S	02 39 25.6	-1.2
PYTN	**Playitas**	1.99	343	eP	P	02 39 04.8	-0.3
MOMJ	**Momotombo**	2.07	329⇑	eP	P	02 39 05.7	-0.5
MOMJ				eS	S	02 39 30.2	-0.6
MIRN	**Miramar**	2.18	326⇑	eP	P	02 39 07.7	-0.2
CNGN	**Cerro Negro**	2.23	327	eP	P	02 39 08.4	-0.1
LEON	**Leon**	2.27	322	eP	P	02 39 09.0	-0.1
LEON				eS	S	02 39 35.0	-0.9
TEL3	**Telica 3**	2.37	325	eP	P	02 39 10.4	-0.1
ACR	**Cerro Adams**	2.99	131⇑	eP	P	02 39 19.2	-0.1

IDC 27 02:42:50.4±1.1**, 8.38N**×**91.95E, mb3.6**/8**, mb1 3.9**/8**, mb1mx3.8**/19**, Error ellipse: s-maj=75.5km s-min=20.6km az=46.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ZAL	**Zalesovo**	45.79	354	P	P	02 51 13.3	-2.3
	0.6nm,0.6s,baz=138,slow=18,SNR=3.1						
BVAR	**Borovoye Array**	47.84	343	P	P	02 51 30.6	-1.2
	0.4nm,0.8s,baz=146,slow=10,SNR=2.5						
WRA	**Warramunga Arr**	50.33	125	P	P	02 51 49.8	-1.5
	0.4nm,0.8s,baz=303,slow=8.8,SNR=4.2						
ASAR	**Alice Springs**	51.91	129	P	P	02 52 00.8	-2.5
	0.3nm,0.6s,baz=301,slow=7.8,SNR=4.0						
BRTR	**Keskin Array B**	60.46	311	P	P	02 53 02.4	-2.1
	1.8nm,1.0s,baz=130,slow=7.4,SNR=7.6						
AKASG	**Malin Array Be**	66.42	322	P	P	02 53 39.9	-3.7
	0.3nm,0.5s,baz=87,slow=5.5,SNR=4.4						
MLR	**Muntele Rosu**	67.30	316	P	P	02 53 48.5	-0.7
	2.5nm,0.8s,baz=156,slow=8.7,SNR=3.6						
GERES	**GERESS Array B**	76.01	318	P	P	02 54 40.0	-1.3
	0.5nm,0.7s,baz=90,slow=5.3,SNR=5.2						

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*IDC **27** 02:46:07.7±1.1, 15.17N×94.07E, mb3.9/6, mb1 4.1/7, mb1mx3.8/18, ML4.2/1, Error ellipse: s-maj=33.2km s-min=20.3km az=58.0*

*NEIC **27** 02:46:12.4±0.7, 15.24N×94.19E, h30^{km}, mb3.8/2, Error ellipse: s-maj=15.1km s-min=12.4km az=55.0*

ISC 27 02:46:10.5±0.8**, 15.26N**±0.10×**94.26E**±0.09**, h30^{km}, n12, σ0^{s}61**/15**, mb3.9**/8**, Near south coast of Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	5.50	54	ePn	Pn	02 47 32.9	+0.4
CM31				eSn	Sn	02 48 34.8	-0.7
CMAR	**Chiang Mai Arr**	5.50	54	Pn	Pn	02 47 33.1	+0.6
	1.8nm,0.3s,baz=244,slow=15,SNR=55						
CMAR				Sn	Sn	02 48 41.6	+6.1
	1.0nm,0.3s,baz=243,slow=26,SNR=6.6						
CMAR	**Chiang Mai Arr**	5.50	54	Pn	Pn	02 47 33.1	+0.6
CMAR				Sn	Sn	02 48 41.6	+6.1
SHL	**Shillong**	10.49	348	eP	P	02 48 35.0	-7.1
SONM	**Songino Array**	34.00	15	P	P	02 52 54.8	+1.1
	0.8nm,1.0s,mb3.6,baz=206,slow=7.4,SNR=4.4						
ZAL	**Zalesovo**	39.29	351	P	P	02 53 37.4	-1.0
	1.2nm,0.5s,mb3.9,baz=294,slow=7.3,SNR=5.0						
CHKZ	**Chkalovo**	42.58	339	P	P	02 54 05.1	-0.3
	0.4nm,0.6s,mb3.3						
WRA	**Warramunga Arr**	52.70	130	P	P	02 55 24.5	-0.4
	1.3nm,0.4s,mb4.2,baz=312,slow=7.9,SNR=18						
WRAB	**Tennant Creek**	52.70	130	eP	P	02 55 24.9	0.0
	2.8nm,0.7s,mb4.3						
ASAR	**Alice Springs**	54.76	134	P	P	02 55 40.0	0.0
	0.6nm,0.5s,mb3.9,baz=310,slow=6.5,SNR=17						
ARCES	**ARCESS Array B**	68.41	339	P	P	02 57 12.0	+0.7
	1.0nm,0.7s,mb4.0,baz=90,slow=6.1,SNR=7.2						
GERES	**GERESS Array B**	72.48	317	P	P	02 57 35.9	-0.4
	0.6nm,0.6s,mb3.7,baz=90,slow=5.3,SNR=6.7						

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*NEIC **27** 02:48:36.5±0.5, 6.17N×92.44E, mb4.2/3, Error ellipse: s-maj=14.5km s-min=11.1km az=86.0*

*IDC **27** 02:48:37.4±1.2, 6.27N×92.61E, h41^{km}±7^{km}, mb3.6/6, mb1 3.9/7, mb1mx3.6/19, ML4.5/1, Error ellipse: s-maj=46.9km s-min=20.2km az=52.0*

ISC 27 02:48:34.5±0.6**, 6.17N**±0.09×**92.5E**±0.1**, h42^{km}, h42^{km}**±.9^{km}**:pP-P, n17, σ0^{s}70**/15**, mb4.0**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	13.75	27	P	P	02 51 48.5	-0.6
CMAR	**Chiang Mai Arr**	13.75	27	P	P	02 51 48.5	-0.6
	0.7nm,0.3s,baz=231,slow=14,SNR=7.8						
LATR	**Latur**	19.71	310	e	S	02 56 49.0	+11
AAK	**Ala-Archa**	39.64	339	eP	P	02 56 03.8	-0.1
	1.9nm,0.6s,mb4.0						
ZAL	**Zalesovo**	48.03	354	P	P	02 57 11.3	-0.2
	1.3nm,0.4s,mb4.3,baz=305,slow=8.3,SNR=6.7						
ZAL				pP	pP	02 57 23.5	+0.3
	1.9nm,0.4s,baz=278,slow=3.8,SNR=4.6						
ZAL	**Zalesovo**	48.03	354	P	P	02 57 11.3	-0.2
ZAL				pP	pP	02 57 23.5	+0.3
WRA	**Warramunga Arr**	48.68	123	P	P	02 57 17.0	+0.1
	0.8nm,0.5s,mb4.0,baz=307,slow=8.4,SNR=7.2						
WRAB	**Tennant Creek**	48.69	123	eP	P	02 57 17.3	+0.3
	2.2nm,0.6s,mb4.4						
BVAR	**Borovoye Array**	50.08	343	P	P	02 57 27.3	+0.1
	0.8nm,0.7s,mb3.9,baz=153,slow=6.6,SNR=4.1						
BVAR				pP	pP	02 57 39.0	-0.1
	0.4nm,0.5s,baz=158,slow=7.8,SNR=2.5						
ASAR	**Alice Springs**	50.15	128	P	P	02 57 28.7	+0.5
	0.9nm,0.6s,mb4.0,baz=298,slow=7.5,SNR=7.5						
CHKZ	**Chkalovo**	50.59	343	eP	P	02 57 31.4	+0.3
	1.5nm,0.5s,mb4.2						
BRTR	**Keskin Array B**	62.29	312	P	P	02 58 56.2	+1.4
	0.5nm,0.7s,mb3.8,baz=129,slow=7.9,SNR=4.1						
BRTR				pP	pP	02 59 08.1	+1.0
	0.8nm,0.8s,baz=135,slow=8.7,SNR=4.4						
LBTB	**Lobatse**	71.97	241	P	P	02 59 54.8	-1.2
BOSA	**Boshof**	73.27	238	P	P	03 00 02.8	-1.0
ARCES	**ARCESS Array B**	76.30	341	P	P	03 00 21.3	+1.0
	1.2nm,0.8s,mb3.9,baz=72,slow=3.8,SNR=3.9						
ARCES				pP	pP	03 00 33.9	+1.1
	1.4nm,0.7s,baz=90,slow=4.9,SNR=2.3						
PDAR	**Pinedale Array**	127.34	20	PKP	PKPdf	03 07 38.7	+3.5
	0.3nm,0.8s,baz=63,slow=3.3,SNR=3.6						
TXAR	**Lajitas Array**	141.44	23	PKP	PKPdf	03 08 07.9	+6.1
	0.1nm,0.4s,baz=263,slow=1.3,SNR=5.2						

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*NEIC **27** 02:51:14.5±0.7, 4.11N×93.72E, mb4.5/4, Error ellipse: s-maj=26.5km s-min=11.8km az=61.0*

*IDC **27** 02:51:15.7±1.2, 4.39N×94.01E, h35^{km}±6^{km}, mb3.8/8, mb1 4.0/9, mb1mx3.7/19, Error ellipse: s-maj=58.7km s-min=14.7km az=55.0*

ISC 27 02:51:12.8±0.9**, 4.1N**±0.1×**93.7E**±0.2**, h33^{km}, h33^{km}**±3.1^{km}**:pP-P, n16, σ0^{s}94**/14**, mb4.1**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	15.13	19	Pn	P	02 54 46.9	+1.0
	baz=212,slow=11,SNR=5.7						
LSA	**Lhasa**	25.55	355	eP	P	02 56 41.8	+1.4
	9.7nm,0.7s,mb4.4						
SONM	**Songino Array**	44.88	12	P	P	02 59 24.5	-1.5
	1.8nm,0.8s,mb3.9,baz=195,slow=8.2,SNR=10.0						
WRA	**Warramunga Arr**	46.53	122	P	P	02 59 39.3	-0.1
	3.6nm,0.6s,mb4.5,baz=300,slow=9.0,SNR=14						
WRA				pP	pP	02 59 49.7	+0.5
	2.2nm,0.7s,baz=300,slow=9.1,SNR=5.3						
WRAB	**Tennant Creek**	46.53	122	eP	P	02 59 39.5	+0.1
	7.0nm,0.7s,mb4.7						
ASAR	**Alice Springs**	47.92	127	P	P	02 59 50.5	+0.1
	1.3nm,0.7s,mb4.1,baz=299,slow=8.1,SNR=9.3						
ASAR				pP	pP	03 00 00.5	+0.3
	1.0nm,0.6s,baz=298,slow=7.4,SNR=6.4						
ASAR				PcP	PcP	03 01 19.5	+0.8
	0.4nm,0.5s,baz=317,slow=2.7,SNR=3.7						
ZAL	**Zalesovo**	50.18	353	P	P	03 00 06.3	-1.0
	0.7nm,0.6s,mb3.9,baz=312,slow=6.2,SNR=4.8						
ZAL				pP	pP	03 00 17.9	+0.6
	0.7nm,0.4s,baz=320,slow=12,SNR=3.6						
BVAR	**Borovoye Array**	52.39	342	P	P	03 00 22.8	-1.2
	1.3nm,0.7s,mb4.0,baz=143,slow=7.4,SNR=6.4						
BVAR				pP	pP	03 00 32.9	-1.0
	1.9nm,0.8s,baz=149,slow=8.6,SNR=7.3						
BRVK	**Borovoye**	52.45	342	eP	P	03 00 24.1	-0.3
	1.6nm,0.8s,mb4.0						
CHKZ	**Chkalovo**	52.89	343	eP	P	03 00 27.6	-0.1
	6.0nm,1.0s,mb4.5						
CHKZ				epP	pP	03 00 35.0	-2.8
FINES	**FINESS Array B**	75.82	333	P	P	03 02 57.4	+0.2
	1.3nm,0.8s,mb3.9,baz=90,slow=7.6,SNR=8.1						
ARCES	**ARCESS Array B**	78.63	341	P	P	03 03 12.3	-0.4
	1.7nm,0.8s,mb4.0,baz=90,slow=3.6,SNR=5.0						
ARCES	**ARCESS Array B**	78.63	341	P	P	03 03 12.3	-0.4
GERES	**GERESS Array B**	80.33	319	P	P	03 03 24.4	+2.1
	0.6nm,0.7s,mb3.7,baz=104,slow=5.5,SNR=5.9						
PDAR	**Pinedale Array**	128.78	22	PKP	PKPdf	03 10 19.2	+1.8
	0.5nm,0.8s,slow=1.5,SNR=4.0						
TXAR	**Lajitas Array**	142.78	26	PKP	PKPdf	03 10 43.3	-0.3
	0.5nm,1.0s,baz=225,slow=1.3,SNR=3.2						

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*MOS **27** 02:52:59.8±0.8, 5.46N×94.38E, h33^{km}, mb5.2/39, Error ellipse: s-maj=12.3km s-min=5.4km az=121.4*

*BJI **27** 02:53:00.5, 5.07N×94.21E, h71^{km}, mB5.2, mb5.2, Ms4.5, Msz4.3*

*NEIC **27** 02:53:02.8±0.2, 5.36N×94.32E, mb5.0/46, Error ellipse: s-maj=6.4km s-min=5.0km az=206.0*

*IDC **27** 02:53:03.5±0.5, 5.46N×94.35E, h48^{km}±3^{km}, mb4.6/22, mb1 4.6/23, mb1mx4.5/26, Error ellipse: s-maj=17.0km s-min=9.6km az=38.0*

*CSEM **27** 02:53:04.1, 6.24N×94.23E, h33^{km}, mb5.7*

ISC 27 02:53:01.0±0.3**, 5.36N**±0.05×**94.37E**±0.04**, h47^{km}, h47^{km}**±2.1^{km}**:pP-P, n215, σ0^{s}94**/206**, mb5.0**/81**, MS4.4**/6**, 20C-1D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	**Pallekele**	13.72	279	eP	P	02 56 12.6	-2.4
	16nm,0.6s						
CM31	**Chiang Mai Arr**	13.77	19	P	P	02 56 15.0	-0.5
CMAR	**Chiang Mai Arr**	13.77	19	P	P	02 56 18.1	+2.6
	4.7nm,0.3s,baz=208,slow=14,SNR=16						
HYB	**Hyderabad**	19.58	309	eP	P	02 57 28.0	0.0
HYB	**Hyderabad**	19.58	309	iP	P	02 57 28.0	0.0
SHL	**Shillong**	20.24	353	eP	P	02 57 30.4	-4.6
SHL				e		02 57 35.9	
	comp=Z,26nm,0.7s						
SHL				eS	S	03 01 21.7	+7.2
SHL	**Shillong**	20.24	353	eP	P	02 57 30.0	-5.0
QIZ	**Qiongzhong**	20.30	47	P	P	02 57 37.3	+1.6
QIZ				AP		02 57 54.3	
QIZ				S	S	03 01 15.8	0.0
QIZ				AMB	AMB		
	comp=Z,74nm,1.1s						
QIZ				LR	LR		
	comp=N,894nm,15.0s,MS4.3						
QIZ				LR	LR		
	comp=E,784nm,19.3s,MS4.3						
QIZ				LR	LR		
	comp=Z,932nm,18.6s,MS4.2						
QIZ	**Qiongzhong**	20.30	47	eP	P	02 57 37.0	+1.3
	comp=Z,42nm,0.8s						
KMI	**Kunming**	21.23	21	P	P	02 57 47.0	+1.8
KMI				AMB	AMB		
	comp=Z,43nm,0.9s,mb4.8						
GOA	**Goa**	22.55	298	eP	P	02 57 55.9	-2.6
GOA				eS	S	03 02 02.6	+4.7
AKL	**Akola**	22.73	314	eP	P	02 58 01.3	+1.1
AKL				e		02 58 18.9	
	comp=Z,48nm,1.3s						
AKL				eS	S	03 02 09.9	+8.8
PKI	**Pulchoki**	23.68	340	eP	P	02 58 09.1	-0.3
	comp=Z,58nm,0.7s,mb5.2						
DMN	**Daman**	23.82	339	eP	P	02 58 10.5	-0.2
	comp=Z,88nm,0.8s,mb5.3						
GUN	**Gumba**	23.84	341	eP	P	02 58 10.5	-0.4
	comp=Z,147nm,0.9s,mb5.4						
KKN	**Kakani**	23.93	340	eP	P	02 58 11.9	+0.2
	comp=Z,93nm,0.8s,mb5.3						
GYA	**Guiyang**	24.05	28⇑	iP	P	02 58 14.0	+1.1
GYA				AMB	AMB		
	comp=Z,210nm,0.7s,mb5.7						
GKN	**Gorkha**	24.35	339	eP	P	02 58 16.1	+0.2
	comp=Z,189nm,0.7s,mb5.6						
LSA	**Lhasa**	24.41	353	eP	P	02 58 16.5	+0.1
LSA				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.1						
LSA	**Lhasa**	24.41	353	eP	P	02 58 16.4	+0.1
	comp=Z,70nm,0.9s,mb5.1						
KOLN	**Koldanda**	24.53	336	eP	P	02 58 17.5	-0.2
	comp=Z,173nm,0.7s,mb5.7						
CD2	**Chengdu**	26.91	18⇑	iP	P	02 58 39.5	-0.4
NDI	**New Delhi**	28.33	327	eP	P	02 58 49.2	-3.6
NDI				e		02 58 52.4	
	comp=Z,14nm,0.6s						
ENH	**Enshi**	28.59	28	eP	P	02 58 53.4	-1.6
	comp=Z,35nm,0.7s,mb5.2						
WHN	**Wuhan**	31.33	35	⇑P	P	02 59 19.8	+0.4
XAN	**Xi’an**	31.57	23	P	P	02 59 20.0	-1.5
XAN				AMB	AMB		
	comp=Z,92nm,0.8s,mb5.7						
LZH	**Lanzhou**	31.80	15	eP	P	02 59 21.5	-1.9
LZH				AMB	AMB		
	comp=Z,41nm,1.4s,mb5.1						
GTA	**Gaotai**	34.26	7⇑	iP	P	02 59 44.5	-0.2
GTA				S	S	03 05 10.3	+2.9
GTA				AMB	AMB		
	comp=Z,44nm,0.8s,mb5.4						
GTA				AMB	AMB		
	comp=Z,178nm,6.5s						
GTA				LR	LR		
	comp=N,241nm,22.9s						
GTA				LR	LR		
	comp=E,193nm,17.6s						
GTA				LR	LR		
	comp=Z,406nm,20.3s,MS4.2						
MBWA	**Marble Bar**	36.24	137	eP	P	03 00 00.2	-1.5
	comp=Z,4.5nm,0.7s,mb4.5						
KSH	**Kashi**	37.85	337	eP	P	03 00 10.8	-4.3
KSH				AMB	AMB		
	comp=Z,80nm,3.4s						
HHC	**Hu-ho-hao-te**	38.55	21	eP	P	03 00 21.8	+0.9
HHC				PP	PP	03 01 54.8	+1.5
HHC				AMB	AMB		
	comp=Z,31nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,156nm,4.3s						
HHC				LR	LR		
	comp=N,302nm,14.3s,MS4.5						
HHC				LR	LR		
	comp=E,469nm,14.3s,MS4.5						
HHC				LR	LR		
	comp=Z,603nm,20.0s						
JOW	**Kunigami**	38.73	53	P	P	03 00 24.4	+1.9
	comp=Z,39nm,0.6s,mb5.3,baz=251,slow=8.5,SNR=14						
JOW				pP	pP	03 00 35.5	+0.4
	comp=Z,14nm,0.5s,baz=298,slow=27,SNR=5.4						
WMQ	**Urumqi**	38.76	352	P	P	03 00 23.5	+0.9
WMQ				AMB	AMB		
	comp=Z,37nm,0.9s,mb5.1						
BJT	**Baijiatuau**	39.70	27	eP	P	03 00 31.7	+1.3
BJT				pmax	pmax		
	comp=Z,57nm,1.0s						
BJT	**Baijiatuau**	39.70	27	eP	P	03 00 31.7	+1.3
	comp=Z,57nm,1.0s,mb5.2						
BJI	**Beijing**	39.72	26	P	P	03 00 32.0	+1.4
BJI				AMB	AMB		
	comp=Z,51nm,1.0s,mb5.2						
BJI				AMB	AMB		
	comp=Z,193nm,4.4s						
UCH	**Uchtor**	40.74	337	P	P	03 00 39.9	+0.8
	SNR=15						
TKM2	**Tokmak 2**	40.94	339	P	P	03 00 43.5	+2.8
	SNR=5.2						
KBK	**Karagaybulak**	40.95	338	P	P	03 00 41.9	+1.2
	SNR=20						
AML	**Almayashu**	40.98	336	P	P	03 00 42.1	+1.1
	SNR=9.9						
AAK	**Ala-Archa**	41.10	338	P	P	03 00 45.5	+3.6
	SNR=6.9						
AAK	**Ala-Archa**	41.10	338	eP	P	03 00 42.1	+0.1
AAK				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.7						
AAK	**Ala-Archa**	41.10	338	eP	P	03 00 42.1	+0.1
	comp=Z,13nm,0.7s,mb4.7						
FRU	**Bishkek**	41.22	338	eP	P	03 00 44.0	+1.0
EKS2	**Erkin-Say**	41.40	337	P	P	03 00 45.7	+1.3
	SNR=6.7						
USP	**Ospenovka**	41.64	338	P	P	03 00 47.1	+0.7
	SNR=8.8						
MKAR	**Makanchi Array**	42.58	348	iP	P	03 00 54.3	+0.2
MKAR				pmax	pmax		
	comp=Z,16nm,0.6s						
SONM	**Songino Array**	43.56	12	P	P	03 01 02.0	-0.1
	comp=Z,28nm,0.8s,mb5.0,baz=193,slow=7.9,SNR=78						
SONM				pP	pP	03 01 14.2	-0.6
	comp=Z,12nm,0.8s,baz=199,slow=7.8,SNR=8.4						
SONM				PcP	PcP	03 02 50.0	+0.3
	comp=Z,4.5nm,0.6s,baz=191,slow=3.6,SNR=7.9						
SONM				ScP		03 06 38.8	
	comp=Z,1.3nm,0.9s,baz=202,slow=3.0,SNR=4.7						
ULN	**Ulaanbaatar**	43.73	12	eP	P	03 01 02.7	-0.7
ULN				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
ULN	**Ulaanbaatar**	43.73	12	eP	P	03 01 02.7	-0.7
	comp=Z,16nm,0.9s,mb4.8						
SNY	**Shenyang**	44.67	31	⇑P	P	03 01 11.0	-0.1
SNY				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.1						
SNY				LR	LR		
	comp=N,400nm,16.9s						
SNY				LR	LR		
	comp=Z,410nm,16.9s,MS4.4						
ZAK	**Zakamensk**	45.49	8⇑	eP	P	03 01 17.3	-0.2
WRA	**Warramunga Arr**	46.65	124	P	P	03 01 27.3	+0.3
	comp=Z,22nm,0.6s,mb5.2,baz=302,slow=9.7,SNR=68						
WRA				pP	pP	03 01 40.4	+0.6
	comp=Z,44nm,0.9s,baz=303,slow=9.0,SNR=13						
WRAB	**Tennant Creek**	46.65	124	eP	P	03 01 27.4	+0.3
WRAB				pmax	pmax		
	comp=Z,75nm,0.9s,mb5.6						
WRAB	**Tennant Creek**	46.65	124	eP	P	03 01 27.4	+0.3
	comp=Z,75nm,0.9s,mb5.6						
TLY	**Talaya**	46.81	8	eP	P	03 01 27.9	0.0
TLY				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
TLY	**Talaya**	46.81	8	eP	P	03 01 27.9	0.0
	comp=Z,9.9nm,0.9s,mb4.7						
CN2	**Changchun**	47.04	31	eP	P	03 01 29.0	-0.9
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
CN2				AMB	AMB		
	comp=Z,220nm,9.0s						
CN2				LR	LR		
	comp=N,560nm,19.0s,MS4.6						
CN2				LR	LR		
	comp=E,410nm,19.0s,MS4.6						
CN2				LR	LR		
	comp=Z,300nm,20.0s,MS4.2						
ASAR	**Alice Springs**	48.16	128	P	P	03 01 39.0	+0.2
	comp=Z,10nm,0.7s,mb5.0,baz=304,slow=7.5,SNR=48						
ASAR				pP	pP	03 01 54.3	+2.7
	comp=Z,12nm,0.7s,baz=297,slow=7.7,SNR=13						
ASAR				PcP	PcP	03 03 06.5	+0.4
	comp=Z,3.2nm,0.7s,baz=306,slow=4.4,SNR=4.0						
HIA	**Hailar**	48.75	22	eP	P	03 01 42.5	-0.5
HIA				pmax	pmax		
	comp=Z,16nm,0.8s						
HIA	**Hailar**	48.75	22	eP	P	03 01 42.5	-0.5
	comp=Z,16nm,0.8s,mb5.1						
ZAL	**Zalesovo**	49.06	353	P	P	03 01 45.2	-0.2
	comp=Z,21nm,0.6s,mb5.4,baz=302,slow=5.6,SNR=66						
ZAL				sP	sP	03 02 02.9	-0.8
	comp=Z,6.1nm,0.7s,baz=301,slow=9.8,SNR=8.0						
NVS	**Novosibirsk**	50.15	352⇑	iP	P	03 01 52.5	-1.3
NVS				e	pP	03 02 04.3	-2.3
NVS				eS	S	03 09 00.8	0.0
NVS				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.4						
NVS				pmax	pmax		
	comp=N,42nm,1.4s						
NVS				pmax	pmax		
	comp=E,12nm,0.6s						
NVS				smax			
	comp=E,20nm,1.8s						
CBIJ	**Chichi jima**	50.35	59	P	P	03 01 55.0	-0.7
	comp=E,75nm,0.6s,mb5.9,baz=301,slow=6.0,SNR=8.1						
BVA0	**Borovoye Array**	51.43	342	P	P	03 02 02.7	-0.8
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BVAR	**Borovoye Array**	51.43	342	P	P	03 02 02.8	-0.7
	comp=Z,16nm,0.6s,mb5.1,baz=143,slow=10,SNR=52						
BVAR				pP	pP	03 02 17.1	+0.7
	comp=Z,13nm,0.7s,baz=143,slow=14,SNR=9.4						
BRVK	**Borovoye**	51.50	342⇑	iP	P	03 02 03.0	-1.0
BRVK				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
BRVK	**Borovoye**	51.50	342⇑	iP	P	03 02 03.0	-1.0
	comp=Z,17nm,0.6s,mb5.1						
CHKZ	**Chkalovo**	51.92	342⇑	iP	P	03 02 06.7	-0.5
CHKZ				e	pP	03 02 19.9	-0.2
CHKZ				pmax	pmax		
	comp=Z,47nm,0.7s,mb5.5						
CHKZ	**Chkalovo**	51.92	342⇑	iP	P	03 02 06.7	-0.4
	comp=Z,47nm,0.7s,mb5.5						
CHKZ				e	pP	03 02 19.9	-0.2
KLR	**Kul’dur**	53.93	29	eP	P	03 02 19.0	-3.2
BOD	**Bodaibo**	54.53	13⇓	iP	P	03 02 25.4	-1.1
PMG	**Port Moresby**	54.61	105	P	P	03 02 27.4	-0.2
	comp=Z,8.0nm,0.6s,mb4.9,baz=46,slow=1.2,SNR=6.4						
PMG	**Port Moresby**	54.61	105	eP	P	03 02 26.9	-0.7
PMG				pmax	pmax		
	comp=Z,8.0nm,0.7s						
PMG	**Port Moresby**	54.61	105	eP	P	03 02 26.9	-0.7
	comp=Z,8.2nm,0.7s,mb4.9						
GNI	**Garni**	56.37	315	P	P	03 02 40.4	+0.5
	comp=Z,7.6nm,0.8s,mb4.8,baz=154,slow=20,SNR=4.9						
GNI	**Garni**	56.37	315	eP	P	03 02 38.5	-1.4
GNI				pmax	pmax		
	comp=Z,9.0nm,1.0s						
GNI	**Garni**	56.37	315	eP	P	03 02 38.5	-1.4
	comp=Z,9.4nm,1.0s,mb4.8						
CTA	**Charters Tower**	56.90	118	P	P	03 02 41.6	-2.4
	comp=Z,11nm,1.0s,mb4.8,baz=289,slow=5.6,SNR=6.7						
CTAO	**Charters Tower**	56.90	118	eP	P	03 02 44.0	-0.1
CTAO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
CTAO	**Charters Tower**	56.90	118	eP	P	03 02 44.0	-0.1
	comp=Z,9.1nm,0.9s,mb4.8						
KMBO	**Kilima Mbogo**	57.41	265	P	P	03 02 49.4	+1.7
	comp=Z,1.3nm,0.8s,mb4.0,baz=71,slow=9.0,SNR=3.6						
KMBO				pP	pP	03 03 00.8	-0.1
	comp=Z,2.9nm,0.9s,baz=78,slow=9.2,SNR=7.8						
KMBO	**Kilima Mbogo**	57.41	265	P	P	03 02 48.1	+0.4
KMBO				e	pP	03 02 58.6	-2.3
KMBO				pmax	pmax		
	comp=Z,42nm,2.0s						
KMBO	**Kilima Mbogo**	57.41	265	P	P	03 02 48.1	+0.3
	comp=Z,42nm,2.0s,mb5.1						
KMBO				e	pP	03 02 58.6	-2.3
SVE	**Sverdlovsk**	57.81	339⇑	eP	P	03 02 49.0	-1.0
ZEI	**Tsey**	58.04	318	eP	P	03 02 50.3	-1.4
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
STKA	**Stephens Creek**	58.22	133	P	P	03 02 53.0	-0.1
	comp=Z,8.1nm,0.9s,mb4.8,baz=299,slow=7.6,SNR=10.0						
STKA				pP	pP	03 03 08.0	+1.6
	comp=Z,11nm,0.8s,baz=209,slow=10,SNR=6.0						
STKA	**Stephens Creek**	58.22	133	eP	P	03 02 52.9	-0.3
ARU	**Arti**	58.29	338	eP	P	03 02 51.6	-1.7
ARU				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
ARU	**Arti**	58.29	338	eP	P	03 02 51.6	-1.7
	comp=Z,12nm,1.0s,mb4.9						
YSS	**Yuzh-Sakhalins**	58.63	37⇑	eP	pP	03 03 09.4	+0.5
KIV	**Kislovodsk**	59.34	319	eP	P	03 02 59.4	-1.4
KIV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KIV	**Kislovodsk**	59.34	319	eP	P	03 02 59.4	-1.4
	comp=Z,9.0nm,0.8s,mb4.8						
ASF	**Jabal al Asfar**	59.79	304	P	P	03 03 04.1	0.0
	comp=Z,2.2nm,0.6s,mb4.4,baz=14,slow=7.0,SNR=5.8						
MALT	**Malatya**	60.27	311	eP	P	03 03 06.5	-0.8
MALT				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
MALT	**Malatya**	60.27	311	eP	P	03 03 06.5	-0.7
	comp=Z,3.4nm,0.9s,mb4.4						
EIL	**Elat**	60.89	301	eP	P	03 03 11.4	-0.1
	comp=Z,6.8nm,0.6s,mb5.0						
YAK	**Yakutsk**	62.30	18	eP	P	03 03 18.3	-2.3
YAK				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,5.0nm,0.9s						
CSS	**Prodhromos**	63.33	306	P	P	03 03 27.3	-0.5
	comp=E,15nm,1.0s,mb5.1						

BRTR	**Keskin Array B**	**64.25**	**312**	P	**P**	**03 03 32.3**	**-1.5**
	comp=E,6.3nm,0.7s,mb4.8,baz=128,slow=7.4,SNR=21						
BRTR				pP	pP	03 03 47.5	+0.4
	comp=E,3.4nm,0.7s,baz=125,slow=7.3,SNR=5.7						
ISP	**Isparta**	**66.18**	**309**	*e*P	**P**	**03 03 45.4**	**-0.8**
ISP				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
ISP	**Isparta**	**66.18**	**309**	*e*P	**P**	**03 03 45.4**	**-0.8**
	comp=Z,11nm,0.6s,mb5.1						
MOS	**Moscow**	**67.34**	**329**	*e*P	**P**	**03 03 46.8**	**-6.4**
OBN	**Obninsk**	**67.62**	**328*c***	*i*P	**P**	**03 03 53.6**	**-1.4**
OBN				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.3						
OBN	**Obninsk**	**67.62**	**328**	*e*P	**P**	**03 03 53.2**	**-1.7**
	comp=Z,8.0nm,0.5s,mb5.0						
TIXI	**Tiksi**	**69.64**	**11**	⇑*i*P	**P**	**03 04 05.7**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.4						
TIXI				MLR	MLR		
	comp=Z,324nm,15.0s,MS4.7						
IDI	**Anoyia**	**70.19**	**305**	P	**P**	**03 04 11.6**	**+0.4**
	comp=Z,12nm,0.6s,mb5.0,baz=89,slow=6.0,SNR=9.0						
AKASG	**Malin Array Be**	**70.27**	**322**	P	**P**	**03 04 09.5**	**-1.9**
	comp=Z,5.9nm,0.6s,mb4.7,baz=88,slow=4.8,SNR=33						
AKASG				pP	pP	03 04 25.5	+0.7
	comp=Z,1.7nm,0.5s,baz=86,slow=5.0,SNR=6.9						
AKASG	**Malin Array Be**	**70.27**	**322**	P	**P**	**03 04 09.5**	**-1.8**
AKASG				*PP	pP	03 04 25.5	+0.7
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
LBTB	**Lobatse**	**73.26**	**242**	P	**P**	**03 04 30.7**	**+1.0**
LBTB				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
LBTB	**Lobatse**	**73.26**	**242**	P	**P**	**03 04 30.7**	**+1.0**
	comp=Z,4.7nm,0.7s,mb4.5						
KWP	**Kalwaria**	**74.09**	**320**	*e*P	**P**	**03 04 33.9**	**-0.2**
KOLS	**Kolonicke sedl**	**74.25**	**319**	*e*P	**P**	**03 04 35.4**	**+0.4**
BOSA	**Boshof**	**74.46**	**238**	*e*P	**P**	**03 04 37.5**	**+0.8**
BOSA				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
BOSA	**Boshof**	**74.46**	**238**	*e*P	**P**	**03 04 37.5**	**+0.8**
	comp=Z,4.7nm,0.7s,mb4.5						
SUW	**Suwalki**	**74.67**	**325**	*e*P	**P**	**03 04 36.3**	**-1.0**
CRVS	**Cervenica-Dubn**	**74.77**	**319**	*e*P	**P**	**03 04 38.8**	**+0.8**
FINES	**FINESS Array B**	**75.03**	**332**	P	**P**	**03 04 38.7**	**-0.5**
	comp=Z,9.5nm,0.6s,mb4.9,baz=97,slow=6.5,SNR=40						
FINES				pP	pP	03 04 51.3	-1.5
	comp=Z,2.4nm,0.5s,baz=110,slow=6.1,SNR=8.1						
KAF	**Kangasniemi**	**75.12**	**333**	*e*p	**P**	**03 04 38.8**	**-1.0**
	comp=Z,8.5nm,0.6s,mb4.8						
KAF	**Kangasniemi**	**75.12**	**333**	*e*P	**P**	**03 04 38.8**	**-1.0**
KAF				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
KECS	**Kecovo**	**75.34**	**319**	*e*P	**P**	**03 04 40.4**	**-0.9**
OJC	**Ojcow**	**76.04**	**320**	⇑*i*P	**P**	**03 04 45.3**	**+0.1**
OJC				*e*PcP	PcP	03 04 54.7	-3.0
OJC	**Ojcow**	**76.04**	**320**	*i* P	**P**	**03 04 45.3**	**+0.1**
OJC				*e*PcP	PcP	03 04 54.7	-3.0
VYHS	**Vyhne**	**76.43**	**318**	*e*P	**P**	**03 04 46.9**	**-0.6**
VYHS				*e*		03 04 53.0	
SRO	**Srobarova**	**76.69**	**318**	*e*P	**P**	**03 04 49.7**	**+0.7**
OKC	**Ostrava-Krasne**	**77.05**	**320**	*e*P	**P**	**03 04 50.3**	**-0.6**
OKC				*e*pP	pP	03 05 01.6	-2.9
KEV	**Kevo**	**77.27**	**341**	*e*p	**P**	**03 04 50.9**	**-0.9**
	comp=Z,4.6nm,0.7s,mb4.5						
KEV	**Kevo**	**77.27**	**341**	*e*P	**P**	**03 04 50.9**	**-0.9**
KEV				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
MORC	**Moravsky Berou**	**77.43**	**320**	*e*P	**P**	**03 04 53.1**	**+0.1**
MORC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
MORC	**Moravsky Berou**	**77.43**	**320**	*e*P	**P**	**03 04 53.1**	**+0.1**
	comp=Z,9.3nm,0.8s,mb4.8						
ZST	**Bratislava**	**77.54**	**318**	*e*P	**P**	**03 04 53.8**	**+0.1**
ZST				*e*sP	sP	03 05 11.1	-1.4
ARCES	**ARCESS Array B**	**77.70**	**340**	P	**P**	**03 04 54.3**	**+0.1**
	comp=Z,2.4nm,0.7s,mb4.3,baz=124,slow=4.4,SNR=5.9						
ARCES				pP	pP	03 05 08.5	+0.7
	comp=Z,3.7nm,0.6s,baz=108,slow=3.8,SNR=10						
ARE0	**ARCESS Array S**	**77.70**	**340**	*e*P	**P**	**03 04 51.7**	**-2.4**
GKP	**Gorka Klasztor**	**78.04**	**323**	*e*P	**P**	**03 04 56.0**	**-0.3**
DPC	**Dobruska-Polom**	**78.27**	**320**	*e*P	**P**	**03 04 58.5**	**+0.8**
BILL	**Bilibino**	**78.33**	**21**	*e*P	**P**	**03 04 57.2**	**-0.4**
BILL				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
BILL	**Bilibino**	**78.33**	**21**	*e*P	**P**	**03 04 57.2**	**-0.4**
	comp=Z,5.5nm,0.6s,mb4.7						
KSP	**Ksiaz**	**78.34**	**321**	⇑*e*P	**P**	**03 04 58.5**	**+0.5**
KSP	**Ksiaz**	**78.34**	**321**	*e*P	**P**	**03 04 58.7**	**+0.7**
UPC	**Upice**	**78.48**	**320**	*e*P	**P**	**03 04 59.2**	**+0.4**
PERS	**Pernice**	**78.75**	**316**	*i* P	**P**	**03 05 00.6**	**+0.3**
FX1	**Attu Island--F**	**78.99**	**37**	*e*P	**P**	**03 05 00.4**	**-1.2**
LJU	**Ljubljana**	**79.12**	**316**	*e*P	**P**	**03 05 02.7**	**+0.3**
PRU	**Pruhonice**	**79.38**	**320**	*e*P	**P**	**03 05 04.1**	**+0.4**
PRU				*e*pP	pP	03 05 14.8	-2.6
GEC2	**GERESS Array S**	**79.85**	**319**	*e*P	**P**	**03 05 07.0**	**+0.7**
GEC2				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
GEC2	**GERESS Array S**	**79.85**	**319**	*e*P	**P**	**03 05 07.0**	**+0.7**
	comp=Z,24nm,0.9s,mb5.1						
GERES	**GERESS Array B**	**79.85**	**319**	P	**P**	**03 05 06.8**	**+0.5**
	comp=Z,14nm,0.7s,mb5.0,baz=90,slow=5.3,SNR=53						
GERES				pP	pP	03 05 20.7	+0.8
	comp=Z,7.9nm,0.7s,baz=115,slow=4.7,SNR=9.4						
GERES	**GERESS Array B**	**79.85**	**319**	P	**P**	**03 05 06.8**	**+0.5**
GERES				*PP	pP	03 05 20.8	+0.8
KHC	**Kasperske Hory**	**79.95**	**319**	*e*P	**P**	**03 05 06.8**	**0.0**
KHC				*e*pP	pP	03 05 20.0	-0.5
RUE	**Ruedersdorf**	**80.04**	**322**	*e*P	**P**	**03 05 07.1**	**-0.2**
	comp=Z,32nm,0.6s,mb5.4						
WET	**Wettzell**	**80.41**	**319**	*e*P	**P**	**03 05 09.8**	**+0.5**
CLL	**Collm**	**80.45**	**321**	⇑*i*P	**P**	**03 05 09.4**	**0.0**
CLL				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
CLL	**Collm**	**80.45**	**321**	⇑*i*P	**P**	**03 05 09.4**	**0.0**
	comp=Z,15nm,1.1s,mb4.8						
CLL	**Collm**	**80.45**	**321**	⇑P	**P**	**03 05 09.4**	**0.0**
	comp=Z,logA/T=1.1,mb4.8						
NKC	**Novy Kostel**	**80.74**	**320**	*e*P	**P**	**03 05 11.5**	**+0.5**
MOX	**Moxa**	**81.29**	**320**	*e*P	**P**	**03 05 14.1**	**+0.2**
MOX	**Moxa**	**81.29**	**320**	*i* P	**P**	**03 05 14.1**	**+0.2**
GRA1	**Grafenberg Arr**	**81.51**	**319**	*e*P	**P**	**03 05 16.2**	**+1.1**
	comp=Z,18nm,0.7s,mb5.1						
GRF	**Grafenberg Arr**	**81.51**	**319**	*e*P	**P**	**03 05 16.2**	**+1.1**
GRF				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
GRF	**Grafenberg Arr**	**81.51**	**319**	*e*P	**P**	**03 05 16.2**	**+1.1**
GRF				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
GRF	**Grafenberg Arr**	**81.51**	**319**	*e*P	**P**	**03 05 16.2**	**+1.1**
	comp=Z,18nm,0.7s,mb5.1						
NB2	**NORSAR Subarra**	**82.03**	**331**	P	**P**	**03 05 16.9**	**-0.6**
	comp=Z,2.2nm,0.6s,mb4.3,baz=98,slow=5.0						
NB2	**NORSAR Subarra**	**82.03**	**331**	P	**P**	**03 05 16.9**	**-0.6**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	**NORSAR Array B**	**82.03**	**331**	P	**P**	**03 05 16.7**	**-0.8**
	comp=Z,3.1nm,0.7s,mb4.3,baz=96,slow=5.4,SNR=7.9						
CLZ	**Clausthal**	**82.11**	**321**	*e*P	**P**	**03 05 18.6**	**+0.5**
	comp=Z,16nm,0.8s,mb5.0						
BSEG	**Bad Segeberg**	**82.20**	**324**	*e*P	**P**	**03 05 19.2**	**+0.7**
BFO	**Black Forest**	**83.40**	**318**	*e*P	**P**	**03 05 25.0**	**+0.2**
BFO				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
BFO	**Black Forest**	**83.40**	**318**	*e*P	**P**	**03 05 25.0**	**+0.2**
	comp=Z,11nm,1.1s,mb4.8						
CDF	**Champ du Feu**	**84.10**	**318**	*e*P	**P**	**03 05 28.4**	**+0.1**
	comp=Z,7.5nm,0.7s,mb4.6						
CDF	**Champ du Feu**	**84.10**	**318**	*e*P	**P**	**03 05 28.4**	**+0.1**
CDF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.7						
SBF	**Sospel**	**84.12**	**313**	*e*P	**P**	**03 05 28.9**	**+0.4**
	comp=Z,60nm,0.9s,mb5.5						
SBF	**Sospel**	**84.12**	**313**	*e*P	**P**	**03 05 28.9**	**+0.4**
SBF				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.4						
HINF	**Hinteralfeld**	**84.40**	**317**	*e*P	**P**	**03 05 29.8**	**0.0**
LPG	**La Plagne**	**84.55**	**315**	*e*P	**P**	**03 05 31.4**	**+0.8**
	comp=Z,24nm,0.9s,mb5.0						
LPG	**La Plagne**	**84.55**	**315**	*e*P	**P**	**03 05 31.4**	**+0.8**
LPG				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
LPL	**La Plagne**	**84.56**	**315**	*e*P	**P**	**03 05 31.5**	**+0.8**
	comp=Z,28nm,0.8s,mb5.1						
LPL	**La Plagne**	**84.56**	**315**	*e*P	**P**	**03 05 31.5**	**+0.8**
LPL				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
FRF	**La Foret Royal**	**84.70**	**313**	*e*P	**P**	**03 05 32.0**	**+0.6**
	comp=Z,33nm,0.8s,mb5.2						
FRF	**La Foret Royal**	**84.70**	**313**	*e*P	**P**	**03 05 32.0**	**+0.6**
FRF				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.2						
HAU	**Haudompre**	**84.74**	**318**	*e*P	**P**	**03 05 31.6**	**+0.1**
	comp=Z,28nm,0.8s,mb5.1						
HAU	**Haudompre**	**84.74**	**318**	*e*P	**P**	**03 05 31.6**	**+0.1**
HAU				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
LMR	**La Mourre**	**84.81**	**313**	*e*P	**P**	**03 05 32.4**	**+0.4**
ORIF	**Oris-en-Rattie**	**85.19**	**315**	*e*P	**P**	**03 05 34.7**	**+0.9**
MEZF	**Maizieres J'vi**	**85.58**	**318**	*e*P	**P**	**03 05 36.1**	**+0.5**
GIVF	**Givet**	**85.64**	**320**	*e*P	**P**	**03 05 36.4**	**+0.5**
BAIF	**Baives**	**86.04**	**320**	*e*P	**P**	**03 05 38.7**	**+0.8**
	comp=Z,23nm,0.8s,mb5.1						
BAIF	**Baives**	**86.04**	**320**	*e*P	**P**	**03 05 38.7**	**+0.8**
BAIF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.1						
VIVF	**Saint-Julien-l**	**86.05**	**315**	*e*P	**P**	**03 05 38.7**	**+0.7**
SMF	**Signal de Mont**	**86.51**	**316**	*e*P	**P**	**03 05 40.6**	**+0.3**
	comp=Z,10nm,0.6s,mb4.9						
SMF	**Signal de Mont**	**86.51**	**316**	*e*P	**P**	**03 05 40.6**	**+0.3**
SMF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.9						
SSF	**Saint Saulge**	**86.71**	**317**	*e*P	**P**	**03 05 41.5**	**+0.3**
BGF	**Bois d'Agland**	**87.20**	**316**	*e*P	**P**	**03 05 44.4**	**+0.8**
TCF	**Toulx Ste Croi**	**87.67**	**316**	*e*P	**P**	**03 05 46.1**	**+0.2**
MTLF	**Montolieu**	**87.93**	**313**	*e*P	**P**	**03 05 48.0**	**+0.8**
RJF	**Les Rejaudoux**	**88.24**	**315**	*e*P	**P**	**03 05 49.8**	**+1.1**
LDF	**La Druitiere**	**89.00**	**319**	*e*P	**P**	**03 05 52.7**	**+0.5**
FLN	**La Foliniere**	**89.21**	**319**	*e*P	**P**	**03 05 53.9**	**+0.7**
ESDC	**Sonseca Array**	**93.01**	**310**	P	**P**	**03 06 12.2**	**+1.1**
	comp=Z,0.8nm,0.6s,mb4.3,baz=63,slow=4.0,SNR=10.0						
ESDC				pP	pP	03 06 26.6	+1.5
	comp=Z,1.6nm,0.7s,baz=64,slow=3.9,SNR=8.0						
IMA	**Indian Mountai**	**93.85**	**22**	*e*P	**P**	**03 06 15.4**	**+1.2**
IMA				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.9						
IMA	**Indian Mountai**	**93.85**	**22**	*e*P	**P**	**03 06 15.4**	**+1.2**
	comp=Z,38nm,0.8s,mb5.9						
ILAR	**Eielson Array**	**96.97**	**22**	P	**P**	**03 06 29.0**	**+0.5**
	comp=Z,0.9nm,0.5s,mb4.4,baz=303,slow=4.3,SNR=20						
ULM	**Lac du Bonnet**	**123.91**	**8**	PKP	PKPdf	03 11 56.7	+2.4
	comp=Z,2.8nm,0.7s,baz=48,slow=1.5,SNR=7.3						
NVAR	**Mina Array Bea**	**126.93**	**32**	PKP	PKPdf	03 12 04.2	+3.7
	comp=Z,1.7nm,0.6s,baz=292,slow=1.6,SNR=6.1						
NVAR				pPKP		03 12 17.1	
	comp=Z,1.3nm,0.5s,baz=101,slow=2.0,SNR=6.1						
PDAR	**Pinedale Array**	**127.41**	**22**	PKP	PKPdf	03 12 03.5	+2.2
	comp=Z,1.8nm,0.7s,baz=69,slow=0.8,SNR=15						
SADO	**Sadowa**	**129.76**	**354**	PKP	PKPdf	03 12 07.5	+1.9
	comp=Z,4.6nm,0.9s,baz=116,slow=9.7,SNR=3.3						
MSU	**Marysvale**	**129.89**	**27**	*e*PKIKP	PKPdf	03 12 10.5	+4.4
NEN	**Nelson**	**130.84**	**32**	*e*PKPdf	PKPdf	03 12 11.2	+3.2
PV10	**Paradox Valley**	**131.36**	**25**	*e*PKPdf	PKPdf	03 12 12.4	+3.5
ANMO	**Albuquerque**	**135.36**	**25**	PKP	PKPdf	03 12 20.4	+3.9
	comp=Z,2.1nm,0.7s,baz=169,slow=0.9,SNR=10						
ANMO	**Albuquerque**	**135.36**	**25**	*e*PKIKP	PKPdf	03 12 18.7	+2.2
TXAR	**Lajitas Array**	**141.40**	**26**	PKhKP		03 12 26.3	
	comp=Z,0.9nm,0.6s,baz=218,slow=0.8,SNR=9.0						
TXAR	**Lajitas Array**	**141.40**	**26**	PKP	PKPdf	03 12 26.3	-1.4
JCT	**Junction City**	**141.87**	**20**	*e*PKHKP		03 12 24.4	
SJG	**San Juan**	**149.78**	**321**	PKPbc	PKPdf	03 12 48.5	+6.5
	comp=Z,15nm,0.8s,baz=223,slow=9.3,SNR=5.0						
LPAZ	**La Paz**	**159.69**	**236**	*e*PKIKP	PKPdf	03 12 58.4	+3.0

IDC 27 03:02:07.7±14.0,7.23N×93.57E,mb3.8/4,mb1 4.0/5, mb1mx3.8/18,ML4.3/1,Error ellipse: s-maj=343.0km s-min=56.9km az=143.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.32**	**25**	Pn	P	03 05 05.3	-2.2
	0.5nm,0.3s,baz=231,slow=12,SNR=7.0						
BRTR	**Keskin Array B**	**62.42**	**311**	P	P	03 12 33.8	-1.3
	0.7nm,0.7s,baz=124,slow=10,SNR=4.4						
AKASG	**Malin Array Be**	**68.31**	**322**	P	P	03 13 09.4	-3.4
	0.1nm,0.3s,baz=79,slow=4.1,SNR=4.2						
ARCES	**ARCESS Array B**	**75.68**	**340**	P	P	03 13 54.3	-2.0
	2.6nm,1.1s,baz=90,slow=3.6,SNR=4.3						
GERES	**GERESS Array B**	**77.92**	**318**	P	P	03 14 08.5	-0.7
	0.7nm,0.7s,baz=79,slow=6.8,SNR=6.1						

IDC 27 03:04:32.1±7.9,5.25N×93.01E,mb4.0/8,mb1 4.2/9, mb1mx4.0/20,ML3.8/1,Error ellipse: s-maj=189.0km s-min=43.4km az=143.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.35**	**23**	Pn	P	03 07 57.6	-1.2
	0.1nm,0.3s,baz=222,slow=13,SNR=4.3						
SONM	**Songino Array**	**43.96**	**13**	P	P	03 12 40.6	-2.1
	0.7nm,0.8s,baz=193,slow=8.4,SNR=4.9						
ZAL	**Zalesovo**	**49.00**	**354**	P	P	03 13 20.7	-1.7
	1.1nm,0.6s,baz=295,slow=9.3,SNR=3.9						
BVAR	**Borovoye Array**	**51.12**	**343**	P	P	03 13 36.4	-2.3
	0.4nm,0.7s,baz=146,slow=5.3,SNR=3.9						
BRTR	**Keskin Array B**	**63.31**	**312**	P	P	03 15 03.0	-2.3
	0.8nm,0.7s,baz=123,slow=7.6,SNR=5.9						
MLR	**Muntele Rosu**	**70.27**	**317**	P	P	03 15 47.9	-1.4
	2.4nm,0.9s,baz=82,slow=20,SNR=4.0						
FINES	**FINESS Array B**	**74.51**	**333**	P	P	03 16 11.6	-2.5
	2.3nm,0.9s,baz=108,slow=6.0,SNR=3.6						
ARCES	**ARCESS Array B**	**77.35**	**341**	P	P	03 16 28.7	-1.3
	4.3nm,1.1s,baz=72,slow=3.8,SNR=4.6						
GERES	**GERESS Array B**	**79.03**	**319**	P	P	03 16 38.9	-0.9
	1.2nm,0.8s,baz=104,slow=5.5,SNR=11						

BJI ***27*** *03:04:32.8, 4.62S×153.26E, h54^{km}, mB5.6, mb5.1, Ms5.1, Msz4.9*

MOS ***27*** *03:04:34.4±1.1, 4.16S×152.73E, h33^{km}, mb5.4/19, Error ellipse: s-maj=12.7km s-min=7.7km az=81.5*

NEIC ***27*** *03:04:34.1±0.2, 4.20S×152.80E, mb5.2/23, Error ellipse: s-maj=7.4km s-min=5.1km az=95.0*

NEIC Felt at Kokopo.

HRVD ***27*** *03:04:34.2±0.2, 4.27S×152.77E, h21^{km}, MW5.5/74, Centroid moment Tensor Solution. LP body waves: s39,c55;Mantle waves: s74,c148; Half duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.30±.07; M$_{\theta\theta}$0.47±.05; M$_{\phi\phi}$-1.77±.05; M$_{r\theta}$1.35±.11; M$_{\theta\phi}$1.29±.04; M$_{\phi r}$-0.04±.11; Best double couple: M$_0$2.45×10^{17} NP1:φ$_s$9°,δ49°,λ148°. NP2:φ$_s$122°,δ66°,λ46°. Principal axes: T 2.44, Plg48°, Azm344°; N .03, Plg40°, Azm143°; P -2.46, Plg10°, Azm242°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***27*** *03:04:36.8±1.5, 4.25S×152.68E, h47^{km}±13^{km}, mb4.9/21, mb1 4.9/23, mb1mx4.9/24, ML4.2/2, MS5.0/18, Ms1 5.0/18, ms1mx4.8/22 Error ellipse: s-maj=13.8km s-min=8.5km az=108.0*

SYO ***27*** *03:04:38.5, 4.25S×152.69E, h62^{km}, MB5.2*

ISC 27 03:04:32.7±0.2,4.17S±0.03×152.77E±0.05,h26^{km}, h26^{km}±1.4^{km}:pP-P,n200,σ1^{s}05/129,mb5.1/53,MS4.9/26, 7C-6D,New Britain region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**7.62**	**227**	P	**Pn**	**03 06 24.7**	**-0.2**
	17nm,0.3s,baz=41,slow=8.0,SNR=51						
PMG				S	**Sn**	**03 07 53.1**	**+1.8**
	23nm,0.3s,baz=193,slow=12,SNR=4.1						
PMG				LR	LR	03 08 56.6	
	comp=Z,7µm,19.6s,baz=177,slow=35						
PMG	**Port Moresby**	**7.62**	**227**	P	**Pn**	**03 06 24.7**	**-0.2**
PMG				S	**Sn**	**03 07 53.1**	**+1.8**
PMG				pmax	pmax		
	comp=Z,17nm,0.3s						
PMG				MLR	MLR		
	comp=Z,7µm,19.6s						
PMG	**Port Moresby**	**7.62**	**227**	⇓*e*Pn	**Pn**	**03 06 25.2**	**+0.3**
	comp=Z,529nm,1.1s						
PMG				S	**Sn**	**03 07 39.3**	**-12**
CTA	**Charters Tower**	**17.05**	**201**	P	**P**	**03 08 31.1**	**0.0**
	comp=Z,0.8nm,0.3s,baz=22,slow=14,SNR=12						
CTA				S	**S**	**03 11 42.9**	**+4.5**
	comp=Z,0.4nm,0.3s,baz=284,slow=10,SNR=1.5						
CTA				LR	LR	03 14 14.6	
	comp=Z,9µm,21.3s,baz=21,slow=34						
CTA	**Charters Tower**	**17.05**	**201**	P	**P**	**03 08 31.1**	**0.0**
CTA				S	**S**	**03 11 42.9**	**+4.5**
CTA				LR	LR	03 14 14.6	
CTAO	**Charters Tower**	**17.05**	**201**	*e*P	**P**	**03 08 31.8**	**+0.7**
CTAO				pmax	pmax		
	comp=Z,128nm,1.4s						
CTAO	**Charters Tower**	**17.05**	**201**	*e*P	**P**	**03 08 31.8**	**+0.7**
	comp=Z,128nm,1.4s						
GUMO	**Guam**	**19.30**	**336**	⇑*e*P	**P**	**03 09 00.4**	**+1.6**
NOUC	**Port Laguerre**	**22.14**	**145**	*e*P	**P**	**03 09 27.7**	**-0.5**
DZM	**Mont Dzumac**	**22.20**	**145**	*e*P	**P**	**03 09 28.1**	**-0.7**
DZM	**Mont Dzumac**	**22.20**	**145**	*e*P	**P**	**03 09 28.1**	**-0.7**
WRAB	**Tennant Creek**	**23.82**	**227**	⇓*i*P	**P**	**03 09 44.4**	**-0.4**
WRAB				*e*S	**S**	**03 13 55.2**	**-0.5**
WRAB				pmax	pmax		
	comp=Z,171nm,0.7s,mb5.6						
WRAB	**Tennant Creek**	**23.82**	**227**	⇓*i*P	**P**	**03 09 44.4**	**-0.4**
	comp=Z,171nm,0.7s,mb5.6						
WRAB				*e*S	**S**	**03 13 55.2**	**-0.4**
WRA	**Warramunga Arr**	**23.84**	**227**	P	**P**	**03 09 44.7**	**-0.3**
	comp=Z,93nm,0.8s,mb5.3,baz=50,slow=10,SNR=97						
WRA				S	**S**	**03 13 55.1**	**-0.8**
	comp=Z,6.8nm,0.9s,baz=52,slow=18,SNR=5.2						
WRA				ScP		03 17 04.4	
	comp=Z,9.0nm,0.9s,baz=45,slow=2.8,SNR=9.4						
ASAR	**Alice Springs**	**26.59**	**221**	P	**P**	**03 10 08.8**	**-2.1**
	comp=Z,22nm,0.9s,mb4.7,baz=55,slow=9.2,SNR=65						
ASAR				S	**S**	**03 14 38.8**	**-3.3**
	comp=Z,3.7nm,0.9s,baz=45,slow=15,SNR=2.9						
ASAR				ScP		03 17 12.3	
	comp=Z,9.4nm,1.0s,baz=50,slow=3.0,SNR=11						
ASAR				LR	LR	03 20 42.8	
	comp=Z,3µm,20.4s,MS4.8,baz=286,slow=36						
STKA	**Stephens Creek**	**29.49**	**200**	P	**P**	**03 10 35.2**	**-2.0**
	comp=Z,13nm,0.7s,mb4.8,baz=8.7,slow=7.6,SNR=23						
STKA				S	**S**	**03 15 28.9**	**+0.3**
	comp=Z,2.3nm,0.8s,baz=100,slow=18,SNR=1.5						
STKA				ScP		03 17 21.2	
	comp=Z,34nm,1.0s,baz=23,slow=5.2,SNR=13						
STKA				LR	LR	03 22 27.5	
	comp=Z,5µm,19.8s,MS5.1,baz=16,slow=36						
STKA	**Stephens Creek**	**29.49**	**200**	*e*P	**P**	**03 10 35.4**	**-1.8**
STKA				PcP	PcP	03 13 42.3	0.0
CBIJ	**Chichi jima**	**32.72**	**342**	P	**P**	**03 11 03.7**	**-1.8**
	comp=Z,53nm,0.5s,mb5.8,baz=290,slow=16,SNR=7.4						
CBIJ				LR	LR	03 24 11.5	
	comp=Z,742nm,18.5s,MS4.4,baz=359,slow=36						
MBWA	**Marble Bar**	**36.26**	**239**	*e*P	**P**	**03 11 34.0**	**-2.0**
	comp=Z,24nm,0.6s,mb5.3						
TGY	**Tagaytay City**	**36.42**	**300**	LR	LR	03 24 28.9	
	comp=Z,1µm,19.0s,MS4.7,baz=121,slow=33						
JOW	**Kunigami**	**38.87**	**324**	P	**P**	**03 11 59.0**	**+1.2**
	comp=Z,49nm,0.6s,mb5.4,baz=145,slow=12,SNR=29						
JOW				LR	LR	03 24 45.4	
	comp=Z,1µm,20.7s,MS4.7,baz=138,slow=31						
JHJ	**Hachijo jima 2**	**39.07**	**343**	LR	LR	03 26 57.6	
	comp=Z,1µm,18.6s,MS4.7,baz=116,slow=34						
URZ	**Urewera**	**40.55**	**150**	P	**P**	**03 12 11.4**	**-0.2**
	comp=Z,31nm,0.8s,mb5.0,baz=345,slow=4.1,SNR=16						
URZ				PcP	PcP	03 14 11.7	-2.6
	comp=Z,34nm,0.8s,baz=351,slow=2.7,SNR=5.7						
URZ				LR	LR	03 27 13.3	
	comp=Z,660nm,18.0s,MS4.5,baz=172,slow=34						
NNZ	**Nelson**	**41.27**	**156**	*e*P	**P**	**03 12 19.0**	**+1.5**
THZ	**Tophouse**	**41.54**	**157**	P	**P**	**03 12 19.9**	**+0.1**
MSZ	**Milford Sound**	**42.49**	**164**	*e*P	**P**	**03 12 30.6**	**+3.1**
RPZ	**Rata Peaks**	**42.58**	**160**	P	**P**	**03 12 28.6**	**+0.4**
	comp=Z,105nm,0.6s,mb5.7,baz=339,slow=3.9,SNR=50						
RPZ				LR	LR	03 27 52.4	
	comp=Z,6µm,21.1s,MS5.5,baz=356,slow=33						
MAT	**Matsushiro**	**42.72**	**343**	P	**P**	**03 12 29.6**	**+0.1**
MAT				S	**S**	**03 18 51.0**	**-0.2**
MAT	**Matsushiro**	**42.72**	**343**	*e*P	**P**	**03 12 30.0**	**+0.5**
MAT				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
MAT	**Matsushiro**	**42.72**	**343**	*e*P	**P**	**03 12 30.0**	**+0.5**
	comp=Z,7.5nm,0.8s,mb4.5						
MAT				*e*S	**S**	**03 19 03.0**	**+12**
MLZ	**Mavora Lakes**	**43.18**	**164**	*e*P	**P**	**03 12 34.2**	**+1.1**
ODZ	**Otahua Downs**	**43.63**	**162**	P	**P**	**03 12 37.2**	**+0.5**
NWAO	**Narrogin (SRO)**	**43.80**	**225**	P	**P**	**03 12 38.3**	**-0.1**
	comp=Z,6.7nm,0.6s,mb4.6,baz=45,slow=7.1,SNR=5.8						
TUZ	**Tuapeka**	**44.14**	**163**	*e*P	**P**	**03 12 40.9**	**0.0**
SSE	**Sheshan**	**46.23**	**322**	P	**P**	**03 13 01.0**	**+3.3**
SSE				XP	sP	03 13 23.3	+14
SSE				S	**S**	**03 19 41.5**	**-0.3**
SSE				XS		03 20 09.3	
SSE				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,329nm,5.7s						
SSE				LR	LR		
	comp=N,697nm,24.5s,MS4.6						
SSE				LR	LR		
	comp=E,331nm,24.0s,MS4.6						
SSE				LR	LR		
	comp=Z,923nm,23.4s,MS4.7						
INCN	**Inchon**	**48.04**	**332**	*e*P	**P**	**03 13 13.1**	**+1.1**
	comp=Z,161nm,1.0s,mb6.0						
QIZ	**Qiongzhong**	**48.12**	**300**	P	**P**	**03 13 12.8**	**0.0**
QIZ				S	**S**	**03 20 06.3**	**-2.5**
QIZ				LR	LR		
	comp=E,764nm,18.8s						
QIZ				LR	LR		
	comp=Z,1µm,21.3s,MS4.9						
QIZ	**Qiongzhong**	**48.12**	**300**	P	**P**	**03 13 11.2**	**-1.6**
	comp=Z,55nm,1.1s,mb5.5						
NJ2	**Nanjing**	**48.34**	**321**	*e*P	**P**	**03 13 17.5**	**+3.2**
NJ2				AP	pP	03 13 25.0	+2.7
NJ2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,1µm,11.2s						
NJ2				LR	LR		
	comp=N,2µm,17.4s						
NJ2				LR	LR		
	comp=E,3µm,24.5s						
NJ2				LR	LR		
	comp=Z,2µm,16.5s,MS5.2						
ASAJ	**Asahikawa**	**48.93**	**350**	P	**P**	**03 13 19.4**	**+0.7**
	comp=Z,25nm,0.8s,mb5.3,baz=188,slow=8.5,SNR=12						
ASAJ	**Asahikawa**	**48.93**	**350**	P	**P**	**03 13 19.4**	**+0.7**
ASAJ				pmax	pmax		
	comp=Z,25nm,0.8s						
RAR	**Rarotonga**	**49.07**	**114**	P	**P**	**03 13 20.6**	**+0.6**
	comp=Z,21nm,0.8s,mb5.2,baz=224,slow=5.1,SNR=3.6						
WHN	**Wuhan**	**50.38**	**316**	*e*P	**P**	**03 13 32.3**	**+2.3**
MDJ	**Mudanjiang**	**52.82**	**339**	*e*P	**P**	**03 13 48.3**	**+0.1**
	comp=Z,27nm,1.0s,mb5.1						
SNY	**Shenyang**	**52.93**	**333**	⇑P	**P**	**03 13 47.0**	**-2.1**
SNY				LR	LR		
	comp=N,700nm,18.0s,MS4.9						
SNY				LR	LR		
	comp=E,730nm,18.8s,MS4.9						
SNY				LR	LR		
	comp=Z,1µm,20.1s,MS4.9						
ENH	**Enshi**	**53.70**	**313**	*e*P	**P**	**03 13 55.1**	**+0.2**
	comp=Z,17nm,0.9s,mb5.0						
ENH				*e*pP	pP	03 14 02.9	0.0
CN2	**Changchun**	**53.71**	**336**	*e*P	**P**	**03 13 56.3**	**+1.5**
CN2				*e*AP	pP	03 14 12.0	+9.1
CN2				*e*S	**S**	**03 21 25.8**	**+0.2**
CN2				AMB	AMB		
	comp=Z,30nm,1.5s,mb5.0						
CN2				AMB	AMB		
	comp=Z,490nm,5.0s						
CN2				LR	LR		
	comp=N,540nm,18.0s,MS4.7						
CN2				LR	LR		
	comp=E,390nm,18.0s,MS4.7						
CN2				LR	LR		
	comp=Z,850nm,20.0s,MS4.8						
BJT	**Baijiatuau**	**55.34**	**326**	*e*P	**P**	**03 14 06.5**	**-0.3**
BJT				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BJT	**Baijiatuau**	**55.34**	**326**	*e*P	**P**	**03 14 06.5**	**-0.3**
	comp=Z,7.6nm,0.6s,mb4.9						
BJI	**Beijing**	**55.35**	**326**	P	**P**	**03 14 07.0**	**+0.1**
BJI				S	**S**	**03 21 46.0**	**-1.6**
BJI				AMB	AMB		
	comp=Z,19nm,1.9s,mb4.8						
BJI				AMB	AMB		
	comp=Z,589nm,5.9s						

BJI				LR	LR		
	comp=N,682nm,21.1s,MS4.9						
BJI				LR	LR		
	comp=E,876nm,21.1s,MS4.9						
BJI				LR	LR		
	comp=Z,1µm,24.1s,MS4.9						
XAN	Xi’an	56.14	316	P	P	03 14 12.8	+0.2
XAN				AMB	AMB		
	comp=Z,14nm,2.1s,mb4.6						
KLR	Kul’dur	56.23	344	eP	P	03 14 10.5	-2.6
KLR				eS	S	03 22 09.0	+10
KLR				pmax	pmax		
	comp=Z,70nm,1.8s,mb5.4						
PET	Petropavlovsk	57.20	4	eP	P	03 14 23.9	+4.0
PET				e		03 15 14.8	
PET				eS	S	03 22 17.9	+6.0
PET				pmax	pmax		
	comp=Z,400nm,18.4s						
PET				pmax	pmax		
	comp=Z,200nm,20.2s						
PET				smax			
	comp=N,800nm,25.5s						
PET				MLR	MLR		
	comp=Z,700nm,18.0s,MS4.8						
CMAR	Chiang Mai Arr	57.58	295	P	P	03 14 23.7	+0.6
	comp=Z,0.8nm,0.4s,mb4.1,baz=153,slow=44,SNR=1.2						
CMAR				LR	LR	03 39 55.2	
	comp=Z,1µm,18.1s,MS5.0,baz=270,slow=37						
PPT	Papeete	57.95	108	eS	S	03 22 31.8	+9.5
PPT				eLR	LR	03 31 24.9	
	comp=Z,529nm,21.0s						
HHC	Hu-ho-hao-te	58.52	324	eP	P	03 14 30.0	+0.7
HHC				AP	pP	03 14 45.8	+8.3
HHC				XP	sP	03 14 53.0	+13
HHC				PCP	PcP	03 15 19.8	+0.4
HHC				PP	PP	03 16 41.0	+0.5
HHC				PCS		03 19 20.0	
HHC				S	S	03 22 25.5	-4.0
HHC				XS		03 22 52.8	
HHC				SCS	ScS	03 24 10.0	-3.6
HHC				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.9						
HHC				AMB	AMB		
	comp=Z,216nm,6.3s						
HHC				LR	LR		
	comp=N,541nm,23.8s,MS4.7						
HHC				LR	LR		
	comp=E,429nm,22.6s,MS4.7						
HHC				LR	LR		
	comp=Z,1µm,23.8s,MS4.9						
TBI	Tubuai	58.85	115	eS	S	03 22 43.8	+10
TBI				eLQ		03 29 20.8	
TBI				eLR	LR	03 31 52.2	
	comp=Z,2µm,25.2s						
BTO	Baotou	59.28	323	eP	P	03 14 35.5	+0.9
FX1	Attu Island--F	59.39	14	eP	P	03 14 35.5	+0.2
HIA	Hailar	60.45	336	eP	P	03 14 41.4	-1.1
HIA				pmax	pmax		
	comp=Z,14nm,0.8s						
HIA	Hailar	60.45	336	eP	P	03 14 41.4	-1.1
	comp=Z,14nm,0.8s,mb5.1						
LZH	Lanzhou	60.76	316	eP	P	03 14 46.3	+1.5
LZH				AMB	AMB		
	comp=Z,73nm,1.6s,mb5.6						
MA2	Magadan	63.57	359	eP	P	03 15 03.0	-0.2
CLNS	Chul’man	64.89	344	eP	P	03 15 11.6	-0.3
CLNS				pmax	pmax		
	comp=N,10.0nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.3						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.0s						
GTA	Gaotai	65.17	317	eP	P	03 15 15.0	+1.0
GTA				AP	pP	03 15 31.5	+9.2
GTA				XP	sP	03 15 38.0	+13
GTA				PP	PP	03 17 40.3	+0.8
GTA				SCP		03 19 44.5	
GTA				S	S	03 23 55.0	+1.3
GTA				AMB	AMB		
	comp=Z,24nm,2.0s,mb4.9						
GTA				AMB	AMB		
	comp=Z,366nm,6.5s						
GTA				LR	LR		
	comp=N,422nm,18.6s,MS4.7						
GTA				LR	LR		
	comp=E,298nm,22.4s,MS4.7						
GTA				LR	LR		
	comp=Z,756nm,22.4s,MS4.8						
ULN	Ulaanbaatar	65.44	328	eP	P	03 15 16.4	+0.8
ULN				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.0						
ULN	Ulaanbaatar	65.44	328	eP	P	03 15 16.4	+0.8
	comp=Z,16nm,1.1s,mb5.0						
SONM	Songino Array	65.77	328	P	P	03 15 18.9	+1.2
	comp=Z,9.5nm,0.6s,mb5.0,baz=144,slow=5.3,SNR=77						
SONM				PKPPKP		03 43 55.7	
	comp=Z,0.6nm,0.6s,baz=307,slow=4.1,SNR=3.4						
YAK	Yakutsk	68.35	349	eP	P	03 15 33.9	+0.1
YAK				e	pP	03 15 43.2	+1.2
YAK				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
YAK				pmax	pmax		
	comp=N,6.0nm,0.8s						
YAK				pmax	pmax		
	comp=N,14nm,0.9s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
ZAK	Zakamensk	68.94	329	⇑eP	P	03 15 38.1	+0.5
BOD	Bodaibo	69.19	339	eP	P	03 15 36.6	-2.4
RKT	Rikitea	72.06	113	eLR	LR	03 37 56.6	
	comp=E,1µm,24.2s						
BILL	Bilibino	72.67	5	eP	P	03 15 59.2	-0.6
BILL				e*PP	pP	03 16 07.9	-0.2
BILL				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
BILL	Bilibino	72.67	5	eP	P	03 15 59.2	-0.6
	comp=Z,21nm,0.8s,mb5.1						
BILL				epP	pP	03 16 07.9	-0.2
VNDA	Vanda	73.46	178	P	P	03 16 04.5	+0.2
	comp=Z,33nm,0.8s,mb5.3,baz=334,slow=6.4,SNR=30						
VNDA				LR	LR	03 47 40.2	
	comp=Z,529nm,18.7s,MS4.8,baz=357,slow=35						
VNDA	Vanda	73.46	178	eP	P	03 16 04.7	+0.4
	comp=Z,42nm,0.9s,mb5.4						
SBA	Scott Base	74.00	177	eP	P	03 16 08.1	+0.7
SBA				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
SBA	Scott Base	74.00	177	eP	P	03 16 08.1	+0.7
	comp=Z,41nm,1.0s,mb5.3						
ANM	Nome	75.19	17	eP	P	03 16 15.4	+0.9
WMQ	Urumqi	75.26	317	⇑P	P	03 16 15.3	0.0
WMQ				PCP	PcP	03 16 28.8	-0.1
WMQ				AP	pP	03 16 31.8	+8.2
WMQ				XP	sP	03 16 38.8	+12
WMQ				PP	PP	03 19 06.3	+0.3
WMQ				S	S	03 25 47.8	-3.6
WMQ				AMB	AMB		
	comp=Z,16nm,0.9s,mb5.0						
WMQ				AMB	AMB		
	comp=Z,120nm,8.4s						
WMQ				LR	LR		
	comp=N,390nm,23.4s,MS4.8						
WMQ				LR	LR		
	comp=E,443nm,23.4s,MS4.8						
WMQ				LR	LR		
	comp=Z,538nm,21.6s,MS4.8						
BHPL	Bhopal	78.24	295	eP	pP	03 16 48.0	+7.3
BHPL				e		03 17 09.3	
	comp=Z,30nm,2.0s						
PMR	Palmer	79.13	24	eP	P	03 16 34.5	-1.9
SML	Sawmill	79.56	24	eP	P	03 16 38.9	+0.1
IMA	Indian Mountai	79.88	19	eP	P	03 16 41.1	+0.7
MCK	McKinley	80.30	23	eP	P	03 16 42.0	-0.7
MCK				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.2						
MCK	McKinley	80.30	23	eP	P	03 16 42.0	-0.6
	comp=Z,38nm,1.2s,mb5.2						
DIV	Divide	80.32	26	eP	P	03 16 43.2	+0.4
	comp=Z,65µm,1.2s						
ZAL	Zalesovo	80.62	326	P	P	03 16 44.4	-0.1
	comp=Z,4.1nm,0.4s,mb4.7,baz=2.7,slow=5.9,SNR=10						
ZAL				PKKPbc		03 35 26.3	
	comp=Z,1.5nm,0.8s,baz=295,slow=6.6,SNR=6.3						
ZAL				LR	LR	03 51 11.3	
	comp=Z,674nm,20.5s,MS5.0,baz=342,slow=35						
ZAL	Zalesovo	80.62	326	P	P	03 16 44.4	-0.1
ZAL				PKKPbc		03 35 26.3	
ZAL				LR	LR	03 51 11.3	
COLA	College	81.28	22	eP	P	03 16 46.9	-0.9
COLA				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.1						
COLA	College	81.28	22	eP	P	03 16 46.9	-0.9
	comp=Z,19nm,0.8s,mb5.1						
ILAR	Eielson Array	81.59	22	P	P	03 16 48.4	-1.1
	comp=Z,22nm,1.1s,mb5.0,baz=244,slow=6.0,SNR=88						
ILAR				PKiKP		03 22 12.3	
	comp=Z,0.3nm,0.5s,baz=274,slow=3.0,SNR=7.5						
ILAR				PKKPbc		03 35 21.7	
	comp=Z,1.0nm,0.8s,baz=11,slow=0.8,SNR=4.4						
ILAR				LR	LR	03 49 36.1	
	comp=Z,748nm,20.4s,MS5.0,baz=263,slow=33						
MENT	Mentasta	82.00	24	eP	P	03 16 52.5	+0.9
KZA	Kyzart	83.55	313	P	P	03 17 03.9	+3.8
	SNR=5.6						
AAK	Ala-Archa	84.21	313	eP	P	03 17 03.7	+0.3
AAK				e*PP	pP	03 17 11.3	-0.5
AAK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.8						
AAK	Ala-Archa	84.21	313	eP	P	03 17 03.7	+0.3
	comp=Z,5.5nm,0.6s,mb4.9						
AAK				epP	pP	03 17 11.3	-0.6
QSPA	South Pole Qui	85.79	180	eP	P	03 17 11.6	+1.1
	comp=Z,102nm,0.9s,mb6.0						
MAW	Mawson	86.14	203	P	P	03 17 12.2	-0.2
	comp=Z,18nm,0.5s,mb5.5,baz=99,slow=5.7,SNR=18						
MAW				LR	LR	03 52 04.6	
	comp=Z,1µm,21.9s,MS5.3,baz=84,slow=33						
MAW	Mawson	86.14	203	eP	P	03 17 12.2	-0.2
MAW				pmax	pmax		
	comp=Z,21nm,0.6s						
MAW	Mawson	86.14	203	eP	P	03 17 12.2	-0.3
	comp=Z,20nm,0.6s,mb5.5						
INK	Inuvik	87.88	21	P	P	03 17 20.4	-0.4
	comp=Z,13nm,0.8s,mb5.2,baz=251,slow=4.4,SNR=46						
INK				PKiKP		03 22 23.1	
	comp=Z,1.1nm,0.6s,baz=346,slow=1.9,SNR=4.5						
INK				PKKPbc		03 35 06.4	
	comp=Z,4.8nm,0.9s,baz=84,slow=3.4,SNR=12						
CHKZ	Chkalovo	88.68	324	eP	P	03 17 24.3	-0.7
CHKZ				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb5.1						
CHKZ	Chkalovo	88.68	324	eP	P	03 17 24.3	-0.7
	comp=Z,9.7nm,1.1s,mb5.0						
BVAR	Borovoye Array	88.72	323	P	P	03 17 24.7	-0.5
	comp=Z,4.9nm,0.7s,mb5.0,baz=99,slow=5.0,SNR=18						
BRVK	Borovoye	88.78	323	eP	P	03 17 24.1	-1.4
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
BRVK	Borovoye	88.78	323	eP	P	03 17 24.1	-1.4
	comp=Z,5.7nm,0.8s,mb5.0						
NVAR	Mina Array Bea	91.72	52	P	P	03 17 39.0	-0.5
	comp=Z,4.9nm,0.8s,mb4.9,baz=246,slow=3.2,SNR=15						
NVAR				LR	LR	03 53 12.4	
	comp=Z,2µm,18.8s,MS5.5,baz=320,slow=32						
BMO	Blue Mountains	92.86	45	eP	P	03 17 44.1	-0.5
BMO				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.4						
BMO	Blue Mountains	92.86	45	eP	P	03 17 44.1	-0.5
	comp=Z,17nm,1.1s,mb5.4						
NEW	Newport	93.16	42	eP	P	03 17 45.0	-0.9
NEW				pmax	pmax		
	comp=Z,10.0nm,1.0s						
NEW	Newport	93.16	42	eP	P	03 17 45.0	-0.9
	comp=Z,9.9nm,1.0s,mb5.2						
SYO	Syowa Base	94.25	199	⇓P	P	03 17 49.9	-0.5
SYO	Syowa Base	94.25	199	⇑pP	pP	03 18 07.9	+9.0
YKA	Yellowknife Ar	94.89	28	P	P	03 17 53.6	+0.1
	comp=Z,3.5nm,0.7s,mb4.9,baz=272,slow=4.9,SNR=87						
YKA				PKiKP		03 22 35.5	
	comp=Z,0.3nm,0.5s,baz=264,slow=1.1,SNR=13						
YKA				PKKPbc		03 34 48.8	
	comp=Z,0.4nm,0.5s,baz=90,slow=2.6,SNR=15						
YKA				LR	LR	03 56 26.3	
	comp=Z,1µm,21.0s,MS5.3,baz=255,slow=33						
PDAR	Pinedale Array	98.45	48	P	P	03 18 09.6	-0.5
	comp=Z,4.5nm,0.9s,mb5.0,baz=238,slow=3.0,SNR=23						
PDAR				PP	PP	03 22 12.4	-0.7
	comp=Z,0.7nm,1.0s,baz=270,slow=2.7,SNR=2.7						
PDAR				PKiKP		03 22 42.7	
	comp=Z,1.3nm,0.7s,baz=194,slow=2.0,SNR=8.0						
PDAR				LR	LR	03 57 06.5	
	comp=Z,1µm,19.5s,MS5.4,baz=273,slow=32						
ANMO	Albuquerque	101.21	55	PP	PP	03 22 31.9	-2.8
	comp=Z,0.7nm,0.8s,baz=301,slow=12,SNR=3.2						
SNAA	Sanae	102.64	188	⇑iP	Pdif	03 18 28.0	-0.3
SNAA	Sanae	102.64	188	PKiKP		03 22 48.1	
	comp=Z,1.3nm,1.0s,baz=169,slow=5.2,SNR=3.7						
SNAA				PKKPbc		03 34 27.1	
	comp=Z,0.4nm,0.6s,baz=25,slow=4.0,SNR=5.8						
VNA3	Neumayer Olymp	103.85	186	e	PP	03 22 53.1	-0.2
VNA3	Neumayer Olymp	103.85	186	⇓iPdif	Pdif	03 18 36.1	+2.5
VNA3				e		03 22 53.1	
TXAR	Lajitas Array	103.86	61	PP	PP	03 22 50.2	-4.1
	comp=Z,0.4nm,0.7s,baz=260,slow=7.6,SNR=4.1						
VNA2	Neumayer--Watz	103.90	187	e	PP	03 22 50.1	-3.6
VNA2	Neumayer--Watz	103.90	187	⇑iPdif	Pdif	03 18 32.7	-1.2
VNA2				e		03 22 50.1	
ARCES	ARCESS Array B	106.26	343	PKiKP		03 22 55.4	
	comp=Z,1.0nm,0.4s,baz=100,slow=1.6,SNR=20						
ARCES				PKKPbc		03 34 15.2	
	comp=Z,5.3nm,1.1s,baz=247,slow=2.6,SNR=11						
ULM	Lac du Bonnet	106.77	39	PKiKP		03 22 56.7	
	comp=Z,1.5nm,0.5s,baz=294,slow=1.6,SNR=5.0						
JCT	Junction City	107.12	60	ePKiKP		03 23 00.7	
EYMN	Ely	110.16	40	ePKiKP		03 23 03.8	
FINES	FINESS Array B	110.47	336	Pdiff	Pdif	03 19 03.1	+0.1
	comp=Z,0.5nm,0.5s,baz=104,slow=5.7,SNR=4.0						
FINES				PKiKP		03 23 04.2	
	comp=Z,1.5nm,0.6s,baz=85,slow=3.0,SNR=9.2						
FINES				PKKPbc		03 34 03.8	
	comp=Z,5.0nm,1.0s,baz=201,slow=1.8,SNR=18						
FINES	FINESS Array B	110.47	336	Pdif	Pdif	03 19 03.1	+0.1
FINES				PKPdf	PKPdf	03 23 04.2	-2.9
FINES				PKKPbc		03 34 03.8	
AKASG	Malin Array Be	113.96	325	PKiKP		03 23 09.7	
	comp=Z,3.0nm,0.5s,baz=49,slow=2.6,SNR=29						
AKASG				PKKPbc		03 33 52.6	
	comp=Z,2.9nm,0.6s,baz=262,slow=3.9,SNR=8.4						
AKASG	Malin Array Be	113.96	325	i PKIKP	PKPdf	03 23 09.7	-4.5
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
ASF	Jabal al Asfar	114.03	303	PKP	PKPdf	03 23 10.6	-4.3
	comp=Z,7.2nm,1.3s,baz=305,slow=13,SNR=2.6						
BRTR	Keskin Array B	114.86	312	PKP	PKPdf	03 23 12.1	-4.1
	comp=Z,0.9nm,0.5s,baz=148,slow=4.5,SNR=8.1						
BRTR				PKKPbc		03 33 50.2	
	comp=Z,0.6nm,0.8s,baz=207,slow=2.8,SNR=3.8						
SUW	Suwalki	115.68	330	ePKP	PKPdf	03 23 14.0	-3.5
HFS	Hagfors	116.08	339	PKP	PKPdf	03 23 14.0	-4.1
	comp=Z,2.1nm,0.5s,baz=90,slow=4.4,SNR=6.5						
HFS				PKKPbc		03 33 46.8	
	comp=Z,1.3nm,0.5s,baz=207,slow=3.3,SNR=4.5						
HFS	Hagfors	116.08	339	PKP	PKPdf	03 23 14.0	-4.1
HFS				PKKPbc		03 33 46.8	
EIL	Elat	116.14	301	PKP	PKPdf	03 23 14.2	-4.8
	comp=Z,2.5nm,0.6s,baz=75,slow=18,SNR=6.0						
BLO	Bloomington	116.19	48	ePKIKP	PKPdf	03 23 15.2	-3.7
NB2	NORSAR Subarra	116.31	340	PKPdf	PKPdf	03 23 14.4	-4.1
	comp=Z,1.1nm,0.6s,baz=45,slow=1.9						
NOA	NORSAR Array B	116.31	340	PKP	PKPdf	03 23 14.3	-4.2
	comp=Z,1.6nm,0.6s,baz=46,slow=1.9,SNR=7.9						
WCI	Wyandotte Cave	116.64	49	ePKIKP	PKPdf	03 23 15.7	-4.0
MLR	Muntele Rosu	118.15	320	PKP	PKPdf	03 23 18.6	-3.8
	comp=Z,3.1nm,0.7s,baz=313,slow=1.3,SNR=9.3						
MLR				PKKPbc		03 33 37.6	
	baz=292,slow=6.0						
MLR	Muntele Rosu	118.15	320	PKP	PKPdf	03 23 18.6	-3.8
MLR				PKKPbc		03 33 37.6	
KWP	Kalwaria	118.18	326	ePKP	PKPdf	03 23 19.4	-3.0
KOLS	Kolonicke sedl	118.77	325	ePKP	PKPdf	03 23 20.6	-3.0
KOLS				ePP	PP	03 24 44.8	+2.5
KOLS	Kolonicke sedl	118.77	325	e	PKPdf	03 23 20.6	-3.0
KOLS				e		03 24 44.8	
CRVS	Cervenica-Dubn	119.25	325	ePKP	PKPdf	03 23 22.7	-1.8
SADO	Sadowa	119.27	40	PKP	PKPdf	03 23 20.6	-4.0
	comp=Z,14nm,0.8s,baz=296,slow=1.8,SNR=13						
NIE	Niedzica	119.62	326	ePKP	PKPdf	03 23 23.3	-1.9
SCHQ	Schefferville	120.23	25	PKP	PKPdf	03 23 22.5	-3.7
	comp=Z,3.9nm,0.6s,baz=9.6,slow=6.0,SNR=9.8						
SCHQ	Schefferville	120.23	25	PKP	PKPdf	03 23 22.5	-3.7
PWV	Princeton	120.86	49	ePKPdf	PKPdf	03 23 24.9	-3.1
MORC	Moravsky Berou	120.93	328	ePKIKP	PKPdf	03 23 24.1	-3.7
VYHS	Vyhne	120.94	326	e	PKPdf	03 23 24.8	-3.0
VYHS	Vyhne	120.94	326	e	PKPdf	03 23 24.8	-3.0
KSP	Ksiaz	120.95	329	ePKP	PKPdf	03 23 24.8	-3.0
FWV	Forest Hill	120.95	48	ePKPdf	PKPdf	03 23 24.9	-3.2
DPC	Dobruska-Polom	121.23	329	ePKPdf	PKPdf	03 23 25.4	-3.0
VRAC	Vranov	121.70	328	PKP	PKPdf	03 23 27.7	-1.6
	comp=Z,1.5nm,0.5s,baz=66,slow=7.9,SNR=3.5						
BSEG	Bad Segeberg	121.72	335	ePKIKP	PKPdf	03 23 26.4	-2.8
LSZ	Lusaka	121.83	249	ePKIKP	PKPdf	03 23 27.3	-3.0
SSPA	Standing Stone	121.88	44	ePKPdf	PKPdf	03 23 26.4	-3.4
PVCC	Panska Ves	122.01	330	ePKPdf	PKPdf	03 23 27.2	-2.6
BRG	Berggiesshubel	122.11	330	i PKIKP	PKPdf	03 23 26.8	-3.2
CLL	Collm	122.28	331	ePKIKP	PKPdf	03 23 26.0	-4.3
	comp=Z,logA/T=1.2						
PKSM	Moragy	122.29	324	⇓iPKIKP	PKPdf	03 23 27.0	-3.4
PRU	Pruhonice	122.36	329	ePKPdf	PKPdf	03 23 26.6	-3.9
RHK1	Bakonya	122.68	324	⇑eP	PKPdf	03 23 27.6	-3.6
NCB	Newcomb	122.77	39	ePKPdf	PKPdf	03 23 27.9	-3.5
IDI	Anoyia	122.85	310	PKP	PKPdf	03 23 27.6	-4.2
	comp=Z,8.3nm,0.7s,baz=346,slow=6.5,SNR=14						
CLZ	Clausthal	123.15	333	ePKP	PKPdf	03 23 29.1	-2.9
NKC	Novy Kostel	123.25	331	ePKPdf	PKPdf	03 23 29.0	-3.2
KHC	Kasperske Hory	123.39	329	ePKPdf	PKPdf	03 23 29.4	-3.1
KHC				epPKP		03 23 38.0	
MDV	Middlebury	123.40	38	ePKPdf	PKPdf	03 23 29.4	-3.3
GEC2	GERESS Array S	123.50	329	ePKIKP	PKPdf	03 23 29.7	-3.1
GERES	GERESS Array B	123.50	329	PKP	PKPdf	03 23 29.3	-3.4
	comp=Z,4.3nm,0.5s,baz=77,slow=1.6,SNR=43						
GERES				PKKPbc		03 33 18.3	
	comp=Z,1.3nm,0.8s,baz=207,slow=3.0,SNR=8.4						
WET	Wettzell	123.73	329	ePKIKP	PKPdf	03 23 31.4	-1.8
GRA1	Grafenberg Arr	124.20	331	ePKP	PKPdf	03 23 31.5	-2.6
GRF	Grafenberg Arr	124.20	331	ePKIKP	PKPdf	03 23 31.5	-2.6
FUR	Furstenfeldbru	125.18	329	ePKIKP	PKPdf	03 23 33.8	-2.2
EKA	Eskdalemuir Ar	125.42	343	PKP	PKPdf	03 23 32.5	-3.7
	comp=Z,3.3nm,0.6s,baz=18,slow=2.7,SNR=16						
EKA				PKKPbc		03 33 10.3	
	comp=Z,0.9nm,0.8s,baz=225,slow=1.2,SNR=3.5						
STU	Stuttgart	125.81	331	ePKIKP	PKPdf	03 23 33.4	-3.8
DAVOX	Davos	126.80	329	PKP	PKPdf	03 23 36.5	-2.7
	comp=Z,16nm,0.7s,baz=218,slow=3.4,SNR=15						
TRQA	Tornquist	127.06	146	ePKPdf	PKPdf	03 23 36.2	-3.7
NNA	Nana	128.14	109	ePKPdf	PKPdf	03 23 39.2	-3.5
LPG	La Plagne	129.27	329	eP	PKPdf	03 23 41.6	-2.4
	comp=Z,17nm,0.8s						
LVC	Limon Verde	131.36	125	SKPab		03 27 11.2	
	comp=Z,22nm,0.7s,baz=264,slow=6.0,SNR=16						
LVC	Limon Verde	131.36	125	ePKPdf	PKPdf	03 23 46.2	-2.3
ARE	Arequipa	131.69	116	ePKIKP	PKPdf	03 23 48.0	-1.3
ROSC	El Rosal	133.05	87	PKP	PKPdf	03 23 49.5	-2.5
	comp=Z,10nm,0.4s,baz=96,slow=3.5,SNR=18						
ROSC				SKPab		03 27 18.4	
	comp=Z,6.5nm,0.7s,baz=265,slow=9.6,SNR=5.8						
LPAZ	La Paz	134.74	118	PKP	PKPdf	03 23 51.5	-3.6
	comp=Z,20nm,0.6s,baz=235,slow=3.2,SNR=25						
LPAZ				SKPab		03 27 23.6	
	comp=Z,23nm,1.2s,baz=326,slow=2.7,SNR=11						
LPAZ	La Paz	134.74	118	ePKPpre		03 23 38.4	
LPAZ				PKP	PKPdf	03 23 51.5	-3.6
LPAZ				SKPab		03 27 23.6	
SDV	Santo Domingo	136.65	82	PKP	PKPdf	03 23 55.8	-2.8
	comp=Z,28nm,0.8s,baz=329,slow=3.3,SNR=25						
SDV				SKPab		03 27 28.3	
	comp=Z,5.7nm,0.8s,baz=28,slow=18,SNR=11						
SDV	Santo Domingo	136.65	82	ePKPdf	PKPdf	03 23 55.9	-2.7
ESDC	Sonseca Array	138.86	332	PKP	PKPdf	03 23 59.3	-2.7
	comp=Z,0.9nm,0.6s,baz=2.2,slow=2.7,SNR=7.0						
SJG	San Juan	139.50	67	PKP	PKPdf	03 24 01.1	-2.5
	comp=Z,19nm,0.7s,baz=102,slow=6.4,SNR=7.2						
SJG	San Juan	139.50	67	ePKHKP		03 23 53.3	
SJG						03 24 01.1	
BDFB	Brasilia	151.53	134	PKP	PKPdf	03 24 21.0	-2.9
	comp=Z,14nm,0.8s,baz=201,slow=2.2,SNR=20						
BDFB				PKPbc	PKPdf	03 24 27.8	+3.9
	comp=Z,49nm,0.4s,baz=248,slow=2.4,SNR=134						
BAO	Brasilia Array	151.55	134	PKP	PKPdf	03 24 22.1	-1.8
BAO				e		03 24 27.7	
BAO				i		03 24 28.6	
BAO				i		03 24 30.1	
BAO				i		03 24 35.9	
DBIC	Dimbokro	157.58	277	PKP	PKPdf	03 24 29.0	-3.3
	comp=Z,2.9nm,1.0s,baz=113,slow=6.9,SNR=3.1						
DBIC				PKPab	PKPab	03 25 01.9	-0.1
	comp=Z,4.9nm,0.7s,baz=85,slow=4.5,SNR=4.1						

IDC 27 03:05:50.0±8.5**, 6.64N**×**94.43E, mb4.1**/8**, mb1 4.2**/8**, mb1mx4.1**/19**, Error ellipse: s-maj=206.0km s-min=55.0km az=148.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	42.30	12	P	P	03 13 44.9	-2.1
	0.8nm,0.7s,baz=203,slow=8.2,SNR=5.7						
BVAR	Borovoye Array	50.24	341	P	P	03 14 48.4	-1.5
	0.7nm,0.8s,baz=149,slow=8.6,SNR=3.5						
BRTR	Keskin Array B	63.45	311	P	P	03 16 21.9	-2.2
	1.1nm,0.6s,baz=134,slow=7.9,SNR=9.3						
AKASG	Malin Array Be	69.29	322	P	P	03 16 58.2	-2.9
	1.2nm,0.7s,baz=87,slow=4.2,SNR=4.9						
FINES	FINESS Array B	73.93	332	P	P	03 17 27.1	-1.6
	3.4nm,0.6s,baz=100,slow=5.9,SNR=33						
ARCES	ARCESS Array B	76.51	340	P	P	03 17 42.1	-1.2
	10nm,1.3s,baz=98,slow=6.6,SNR=7.9						
GERES	GERESS Array B	78.93	318	P	P	03 17 55.9	-1.1
	0.8nm,0.7s,baz=63,slow=6.0,SNR=5.5						
HFS	Hagfors	79.66	330	P	P	03 17 59.5	-1.3
	12nm,1.3s,baz=112,slow=8.0,SNR=4.3						

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*MOS **27** 03:08:54.8±0.9, 5.02N×93.80E, h33^{km}, mb5.0/27, Error ellipse: s-maj=12.8km s-min=6.7km az=123.1*

*BJI **27** 03:08:54.6, 4.95N×93.65E, h32^{km}, mB5.1, mb5.0, Ms4.5, Msz4.6*

*NEIC **27** 03:08:55.9±0.2, 4.96N×93.76E, mb4.9/24, Error ellipse: s-maj=6.2km s-min=4.4km az=223.0*

*IDC **27** 03:08:56.1±0.5, 5.00N×93.71E, h30^{km}±2^{km}, mb4.6/28, mb1 4.6/29, mb1mx4.6/31, ML4.5/1, Error ellipse: s-maj=16.1km s-min=10.1km az=39.0*

ISC 27 03:08:54.1±0.3**, 4.93N**±0.05×**93.77E**±0.05**, h28^{km}, h28^{km}**±.8^{km}**:pP-P, n153, σ0^{s}89**/146**, mb4.9**/63**, MS4.4**/2**, 4C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.36	20	P	P	03 12 18.3	+0.5
CMAR	Chiang Mai Arr	14.36	20	Pn	P	03 12 16.4	-1.4
	0.8nm,0.3s,baz=217,slow=14,SNR=38						
KKTK	Khon Kaen	14.40	37	P	P	03 12 27.0	+8.6
	2µm,0.6s						
CHG	Chiang Mai	14.70	20	⇓P	P	03 12 22.7	+0.5
	17nm,0.8s						
MDRS	Chennai	15.60	302	e	S	03 15 12.5	-14
VIS	Vishakhapatnam	16.31	322	eP	P	03 12 42.3	-0.7
VIS				e		03 12 44.2	
	comp=Z,59nm,0.2s						
VIS				eS	S	03 15 28.6	-14
HYB	Hyderabad	19.39	311	eP	P	03 13 28.0	+7.1
BOK	Bokaro	20.23	339	eP	P	03 13 30.1	+0.1
BOK				e		03 13 35.3	
	comp=Z,44nm,0.8s						
BOK				eS	S	03 17 08.5	-1.8
BLSP	Bilaspur	20.48	328	eP	P	03 13 33.4	+0.9
BLSP				e		03 13 37.3	
	comp=Z,33nm,0.6s						
BLSP				eS	S	03 17 14.5	-0.7
SHL	Shillong	20.60	355	e	P	03 13 33.0	-0.8
QIZ	Qiongzhong	21.03	47	P	P	03 13 39.3	+1.1
QIZ				S	S	03 17 22.0	-4.0
QIZ				LR	LR		
	comp=N,709nm,15.9s,MS4.2						
QIZ				LR	LR		

	comp=E,338nm,14.8s,MS4.2						
KMI	Kunming	21.85	22	P	P	03 13 48.0	+1.6
KMI				AMB	AMB		
	comp=Z,47nm,1.2s,mb4.8						
POO	Poona	23.69	306	e	PcP	03 17 52.0	+1.9
POO	Poona	23.69	306	e	P	03 14 05.0	+0.4
PKI	Pulchoki	23.88	341	eP	P	03 14 07.3	+0.9
	comp=Z,30nm,0.5s,mb5.0						
DMN	Daman	24.02	341	eP	P	03 14 08.2	+0.5
	comp=Z,69nm,0.8s,mb5.1						
GUN	Gumba	24.05	343	eP	P	03 14 09.0	+0.9
	comp=Z,69nm,0.7s,mb5.2						
BHPL	Bhopal	24.09	321	eP	P	03 14 11.1	+2.6
BHPL				e		03 14 11.8	
	comp=Z,22nm,0.8s						
BHPL				eS	S	03 18 20.2	-1.0
KKN	Kakani	24.13	341	eP	P	03 14 08.8	0.0
	comp=Z,40nm,0.7s,mb4.9						
GKN	Gorkha	24.53	340	eP	P	03 14 13.4	+0.6
	comp=Z,120nm,0.9s,mb5.5						
KOLN	Koldanda	24.69	338	eP	P	03 14 15.0	+0.7
	comp=Z,119nm,0.9s,mb5.4						
GYA	Guiyang	24.70	29	⇑iP	P	03 14 15.5	+1.1
GYA				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.0						
LSA	Lhasa	24.76	355	eP	P	03 14 16.2	+1.3
LSA				e*PP		03 14 24.3	
LSA				pmax	pmax		
	comp=Z,74nm,0.8s,mb5.3						
LSA	Lhasa	24.76	355	eP	P	03 14 16.2	+1.3
	comp=Z,74nm,0.8s,mb5.3						
LSA				epP		03 14 24.3	
GZH	Guangzhou	26.14	44	P	P	03 14 33.5	+5.6
GZH				LR	LR		
	comp=N,1μm,16.1s,MS4.5						
GZH				LR	LR		
	comp=E,565nm,19.2s,MS4.5						
GZH				LR	LR		
	comp=Z,1μm,14.6s,MS4.5						
CD2	Chengdu	27.50	19	P	P	03 14 40.0	-0.3
CD2				AMB	AMB		
	comp=Z,60nm,0.6s,mb5.3						
TGY	Tagaytay City	28.27	69	P	P	03 14 47.8	+0.4
	comp=Z,108nm,0.3s,mb5.9,baz=121,slow=15,SNR=2.6						
DDI	Dehra Dun	29.28	331	e	P	03 15 04.0	+7.6
WHN	Wuhan	32.02	35	⇑P	P	03 15 21.3	+0.8
XAN	Xi’an	32.20	24	P	P	03 15 20.5	-1.6
XAN				AMB	AMB		
	comp=Z,43nm,1.0s,mb5.2						
NJ2	Nanjing	35.77	38	eP	P	03 15 52.0	-0.9
NJ2				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.6						
MBWA	Marble Bar	36.34	136	eP	P	03 15 57.5	-0.3
	comp=Z,16nm,1.0s,mb4.9						
KSH	Kashi	38.01	337	eP	P	03 16 11.0	-0.6
KSH				eAP	pP	03 16 17.5	-2.6
KSH				eXP	sP	03 16 24.5	+0.8
JOW	Kunigami	39.47	53	P	P	03 16 24.5	+0.5
	comp=Z,15nm,0.4s,mb5.1,baz=228,slow=7.6,SNR=6.8						
UCH	Uchtor	40.91	338	P	P	03 16 37.1	+1.5
	SNR=12						
KBK	Karagaybulak	41.12	339	P	P	03 16 38.8	+1.4
	SNR=11						
TKM2	Tokmak 2	41.12	340	P	P	03 16 38.2	+0.8
	SNR=6.5						
AML	Almayashu	41.13	337	P	P	03 16 38.9	+1.4
	SNR=16						
AAK	Ala-Archa	41.26	338	P	P	03 16 40.6	+2.1
	SNR=5.0						
AAK	Ala-Archa	41.26	338	eP	P	03 16 38.7	+0.1
AAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
AAK	Ala-Archa	41.26	338	eP	P	03 16 38.7	+0.1
	comp=Z,9.7nm,0.9s,mb4.4						
FRU	Bishkek	41.39	339	eP	pP	03 16 50.0	+1.8
EKS2	Erkin-Say	41.56	338	P	P	03 16 42.1	+1.2
	SNR=8.5						
USP	Ospenovka	41.81	339	P	P	03 16 43.5	+0.4
	SNR=6.4						
SONM	Songino Array	44.10	12	P	P	03 17 01.2	-0.4
	comp=Z,5.5nm,0.6s,mb4.5,baz=193,slow=8.4,SNR=6.5						
SONM				pP	pP	03 17 11.2	+1.0
	comp=Z,8.0nm,0.9s,baz=197,slow=9.5,SNR=4.1						
SONM				sP	sP	03 17 13.8	0.0
	comp=Z,8.4nm,0.9s,baz=199,slow=8.0,SNR=4.1						
SONM				PcP	PcP	03 18 46.6	-0.5
	comp=Z,5.9nm,0.6s,baz=193,slow=3.7,SNR=11						
SONM				pPcP		03 18 56.7	
	comp=Z,1.4nm,0.5s,baz=205,slow=3.2,SNR=4.1						
ULN	Ulaanbaatar	44.27	13	P	P	03 17 03.0	-0.1
WRA	Warramunga Arr	46.92	123	P	P	03 17 24.8	+0.3
	comp=Z,46nm,0.7s,mb5.5,baz=301,slow=9.0,SNR=43						
WRA				PcP	PcP	03 18 57.4	+0.1
	comp=Z,2.4nm,0.6s,baz=307,slow=2.9,SNR=3.2						
WRAB	Tennant Creek	46.92	123	eP	P	03 17 24.9	+0.4
WRAB				pmax	pmax		
	comp=Z,59nm,0.6s,mb5.7						
WRAB	Tennant Creek	46.92	123	eP	P	03 17 24.9	+0.4
	comp=Z,59nm,0.6s,mb5.7						
CN2	Changchun	47.72	31	eP	P	03 17 29.5	-1.0
ASAR	Alice Springs	48.37	128	P	P	03 17 35.3	-0.5
	comp=Z,26nm,1.1s,mb5.2,baz=302,slow=8.0,SNR=17						
ASAR				PcP	PcP	03 19 02.2	-0.2
	comp=Z,6.3nm,0.8s,baz=307,slow=3.9,SNR=5.3						
HIA	Hailar	49.36	22	eP	P	03 17 43.1	0.0
HIA				pmax	pmax		
	comp=Z,14nm,0.7s						
HIA	Hailar	49.36	22	eP	P	03 17 43.1	0.0
	comp=Z,14nm,0.7s,mb5.1						
ZAL	Zalesovo	49.40	353	P	P	03 17 43.0	-0.3
	comp=Z,15nm,0.5s,mb5.3,baz=299,slow=5.9,SNR=15						
ZAL				pP	pP	03 17 51.1	-0.9
	comp=Z,12nm,0.6s,baz=323,slow=3.6,SNR=5.2						
NVS	Novosibirsk	50.49	352	eP	P	03 17 50.7	-0.9
NVS				e		03 25 10.4	
NVS				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=N,24nm,1.2s						
BOD	Bodaibo	55.08	13	eP	P	03 18 23.5	-2.3
BOD				e	pP	03 18 32.5	-2.0
PMG	Port Moresby	55.08	105	P	P	03 18 25.6	-0.8
	comp=N,5.5nm,0.5s,mb4.8,baz=270,slow=1.0,SNR=4.2						
PMG	Port Moresby	55.08	105	eP	P	03 18 25.5	-0.9
PMG				pmax	pmax		
	comp=Z,6.0nm,0.6s						
PMG	Port Moresby	55.08	105	eP	P	03 18 25.5	-0.9
	comp=Z,5.8nm,0.6s,mb4.8						
GNI	Garni	56.25	316	P	P	03 18 33.1	-1.3
	comp=Z,3.1nm,0.7s,mb4.5,baz=357,slow=18,SNR=2.3						
GNI	Garni	56.25	316	P	P	03 18 33.1	-1.3
GNI				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KMBO	Kilima Mbogo	56.78	265	P	P	03 18 38.4	-0.2
	comp=Z,4.9nm,1.1s,mb4.5,baz=52,slow=8.3,SNR=9.1						
KMBO				pP	pP	03 18 46.6	-0.8
	comp=Z,6.5nm,1.1s,baz=55,slow=7.9,SNR=5.9						
KMBO	Kilima Mbogo	56.78	265	P	P	03 18 38.4	-0.2
KMBO				*PP	pP	03 18 46.6	-0.8
KMBO				pmax	pmax		
	comp=Z,5.0nm,1.1s						
KMBO				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KMBO	Kilima Mbogo	56.78	265	eP	P	03 18 39.3	+0.7
	comp=Z,3.3nm,0.9s,mb4.4						
KMBO				epP	pP	03 18 47.3	-0.1
CTA	Charters Tower	57.24	118	P	P	03 18 41.1	-0.7
	comp=Z,14nm,0.9s,mb5.0,baz=282,slow=8.6,SNR=8.8						
CTAO	Charters Tower	57.24	118	eP	P	03 18 40.4	-1.4
CTAO				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
CTAO	Charters Tower	57.24	118	eP	P	03 18 40.4	-1.4
	comp=Z,15nm,0.9s,mb5.0						
ZEI	Tsey	57.95	318	eP	P	03 18 45.5	-1.0
ZEI				i *PP	pP	03 18 54.7	-0.6
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
STKA	Stephens Creek	58.38	132	P	P	03 18 48.8	-0.8
	comp=Z,7.9nm,0.7s,mb4.9,baz=295,slow=5.3,SNR=13						
ARU	Arti	58.45	338	eP	P	03 18 48.3	-1.4
ARU				e	pP	03 18 58.2	-0.4
ARU				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
ARU	Arti	58.45	338	eP	P	03 18 48.3	-1.4
	comp=Z,16nm,0.9s,mb5.0						
ARU				e	pP	03 18 58.2	-0.4
ASF	Jabal al Asfar	59.53	305	P	P	03 18 57.2	-0.4
	comp=Z,1.4nm,0.7s,mb4.1,baz=299,slow=15,SNR=2.7						
MALT	Malatya	60.10	312	eP	P	03 19 01.2	-0.2
MALT				e*PP	pP	03 19 10.9	+0.6
MALT				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
MALT	Malatya	60.10	312	eP	P	03 19 01.2	-0.2
	comp=Z,8.3nm,1.3s,mb4.6						
MALT				epP	pP	03 19 10.9	+0.6
EIL	Elat	60.59	301	P	P	03 19 03.1	-1.8
	comp=Z,5.1nm,0.7s,mb4.8,baz=120,slow=14,SNR=5.4						
MBAR	Mbarara	63.20	267	P	P	03 19 21.9	-0.6
MBAR				e*PP	pP	03 19 30.3	-1.1
MBAR				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.7						
MBAR	Mbarara	63.20	267	P	P	03 19 21.9	-0.6
	comp=Z,8.0nm,1.3s,mb4.7						
MBAR				epP	pP	03 19 30.3	-1.2
BRTR	Keskin Array B	64.08	312	P	P	03 19 26.5	-1.6
	comp=Z,3.8nm,0.8s,mb4.5,baz=132,slow=7.7,SNR=23						
BRTR				pP	pP	03 19 36.5	-0.4
	comp=Z,2.4nm,0.7s,baz=149,slow=6.4,SNR=7.8						
ISP	Isparta	65.98	309	eP	P	03 19 39.7	-0.6
ISP				e*PP	pP	03 19 48.0	-1.2
ISP				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ISP	Isparta	65.98	309	eP	P	03 19 39.7	-0.6
	comp=Z,10.0nm,0.9s,mb4.8						
ISP				epP	pP	03 19 48.0	-1.2
MOS	Moscow	67.40	329	eP	P	03 19 55.9	+6.9
MOS				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.5						
OBN	Obninsk	67.67	329	ceP	P	03 19 49.6	-1.2
OBN				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1						
IDI	Anoyia	69.95	306	P	P	03 20 04.7	-0.5
	comp=Z,16nm,0.6s,mb5.2,baz=85,slow=10,SNR=20						
AKASG	Malin Array Be	70.23	322	P	P	03 20 04.6	-2.0
	comp=Z,1.3nm,0.5s,mb4.2,baz=90,slow=4.6,SNR=13						
AKASG				pP	pP	03 20 14.5	-1.0
	comp=Z,1.0nm,0.5s,baz=90,slow=4.6,SNR=5.6						
AKASG	Malin Array Be	70.23	322	P	P	03 20 04.6	-2.0
AKASG				*PP	pP	03 20 14.5	-1.0
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MLR	Muntele Rosu	71.02	316	P	P	03 20 10.9	-0.6
	comp=Z,18nm,0.9s,mb5.0,baz=148,slow=3.0,SNR=21						
LBTB	Lobatse	72.53	242	eP	P	03 20 21.2	+0.2
LBTB				e*PP	pP	03 20 29.1	-0.8
LBTB				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.8						
LBTB	Lobatse	72.53	242	eP	P	03 20 21.2	+0.2
	comp=Z,18nm,1.3s,mb4.8						
LBTB				epP	pP	03 20 29.1	-0.8
KOLS	Kolonicke sedl	74.17	319	i P	P	03 20 30.4	+0.4
KOLS				e		03 20 40.1	
APA	Apatity	74.46	340	⇑iP	P	03 20 30.0	-1.3
APA				i	pP	03 20 40.2	-0.1
APA				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
SUW	Suwalki	74.67	325	eP	P	03 20 31.2	-1.6
SUW				e*PP	pP	03 20 39.2	-2.6
SUW				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.3						
SUW	Suwalki	74.67	325	eP	P	03 20 31.2	-1.6
	comp=Z,45nm,1.0s,mb5.4						
SUW				epP	pP	03 20 39.2	-2.6
FINES	FINESS Array B	75.13	333	P	P	03 20 34.6	-0.7
	comp=Z,10.0nm,0.8s,mb4.8,baz=104,slow=7.9,SNR=20						
FINES				pP	pP	03 20 44.7	+0.4
	comp=Z,7.0nm,0.6s,baz=93,slow=6.4,SNR=8.5						
KAF	Kangasniemi	75.23	333	ep	P	03 20 34.3	-1.6
	comp=Z,7.8nm,0.6s,mb4.8						
KAF	Kangasniemi	75.23	333	eP	P	03 20 34.3	-1.6
KAF				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
MAW	Mawson	75.59	192	P	P	03 20 39.6	+1.7
	comp=Z,7.2nm,0.8s,mb4.6,baz=38,slow=8.4,SNR=4.2						
OJC	Ojcow	75.98	320	eP	P	03 20 40.2	-0.2
VYHS	Vyhne	76.35	319	i P	P	03 20 42.7	+0.2
VYHS				e	pP	03 20 50.6	-0.9
OKC	Ostrava-Krasne	76.98	320	eP	P	03 20 46.5	+0.5
OKC				epP	pP	03 20 53.6	-1.4
MORC	Moravsky Berou	77.36	320	eP	P	03 20 48.3	+0.2
MORC				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.9						
MORC	Moravsky Berou	77.36	320	eP	P	03 20 48.3	+0.3
	comp=Z,23nm,1.6s,mb4.9						
ZST	Bratislava	77.45	318	i P	P	03 20 49.0	+0.4
ZST				epP	pP	03 20 58.4	+0.7
KEV	Kevo	77.47	341	ep	P	03 20 48.0	-0.3
ARCES	ARCESS Array B	77.89	340	P	P	03 20 50.2	-0.4
	comp=Z,4.5nm,0.5s,mb4.7,baz=93,slow=5.7,SNR=42						
ARCES				pP	pP	03 21 00.5	+0.8
	comp=Z,6.1nm,0.8s,baz=97,slow=5.7,SNR=5.7						
VRAC	Vranov	77.92	319	P	P	03 20 51.3	+0.2
	comp=Z,5.0nm,1.1s,mb4.3,baz=48,slow=16,SNR=2.9						
DPC	Dobruska-Polom	78.21	320	eP	P	03 20 53.6	+0.9
DPC				epP	pP	03 21 00.6	-1.2
UPC	Upice	78.43	320	eP	P	03 20 54.3	+0.4
BILL	Bilibino	78.94	21	eP	P	03 20 56.5	+0.1
BILL	Bilibino	78.94	21	eP	P	03 20 56.5	+0.1
PRU	Pruhonice	79.31	320	eP	P	03 20 59.4	+0.6
PRU				epP	pP	03 21 06.6	-1.2
FX1	Attu Island--F	79.69	37	eP	P	03 21 00.8	0.0
GEC2	GERESS Array S	79.77	319	eP	P	03 21 01.8	+0.6
GEC2				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
GEC2	GERESS Array S	79.77	319	eP	P	03 21 01.8	+0.6
	comp=Z,16nm,1.2s,mb4.8						
GERES	GERESS Array B	79.77	319	P	P	03 21 00.3	-0.9
	comp=Z,6.2nm,0.8s,mb4.6,baz=90,slow=4.3,SNR=41						
GERES				pP	pP	03 21 09.2	-1.1
	comp=Z,3.5nm,0.8s,baz=112,slow=7.2,SNR=9.3						
BRG	Berggiesshubel	79.77	321	i P	P	03 21 01.9	+0.7
BRG				i	pP	03 21 11.8	+1.5
BRG				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
BRG	Berggiesshubel	79.77	321	i P	P	03 21 01.9	+0.7
	comp=Z,6.2nm,0.7s,mb4.7						
BRG				i	pP	03 21 11.8	+1.5
KHC	Kasperske Hory	79.87	319	eP	P	03 21 01.9	+0.1
WET	Wettzell	80.33	319	eP	P	03 21 04.9	+0.7
CLL	Collm	80.40	321	eP	P	03 21 04.0	-0.6
CLL				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
CLL	Collm	80.40	321	eP	P	03 21 04.0	-0.6
	comp=Z,6.0nm,1.0s,mb4.5						
CLL	Collm	80.40	321	P	P	03 21 04.0	-0.6
	comp=Z,logA/T=0.8,mb4.5						
HFS	Hagfors	80.80	330	P	P	03 21 06.2	-0.3
	comp=Z,6.6nm,0.7s,mb4.7,baz=108,slow=4.7,SNR=20						
MOX	Moxa	81.23	320	eP	P	03 21 09.4	+0.4
MOX	Moxa	81.23	320	i P	P	03 21 09.4	+0.4
FUR	Furstenfeldbru	81.34	318	eP	P	03 21 09.9	+0.3
GRA1	Grafenberg Arr	81.44	319	eP	P	03 21 11.0	+0.9
	comp=Z,12nm,0.9s,mb4.8						
GRF	Grafenberg Arr	81.44	319	eP	P	03 21 11.0	+0.9
GRF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
GRF	Grafenberg Arr	81.44	319	eP	P	03 21 11.0	+0.9
GRF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
GRF	Grafenberg Arr	81.44	319	eP	P	03 21 11.0	+0.9
	comp=Z,12nm,0.9s,mb4.8						
CLZ	Clausthal	82.06	322	eP	P	03 21 13.7	+0.4
NB2	NORSAR Subarra	82.10	331	P	P	03 21 12.9	-0.3
	comp=Z,2.2nm,0.6s,mb4.3,baz=98,slow=5.0						
NB2	NORSAR Subarra	82.10	331	P	P	03 21 12.9	-0.3
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	NORSAR Array B	82.10	331	P	P	03 21 13.1	-0.1
	comp=Z,3.9nm,0.8s,mb4.4,baz=94,slow=5.5,SNR=12						
NOA				pP	pP	03 21 21.2	-1.2
	comp=Z,2.9nm,0.8s,baz=96,slow=5.4,SNR=5.9						
BSEG	Bad Segeberg	82.18	324	eP	P	03 21 14.5	+0.7
DAVOX	Davos	82.25	316	P	P	03 21 14.9	+0.6
	comp=Z,21nm,0.6s,mb5.2,baz=130,slow=6.9,SNR=62						
DAVOX				pP	pP	03 21 25.2	+1.8
	comp=Z,15nm,0.7s,baz=142,slow=5.1,SNR=9.7						
BFO	Black Forest	83.31	318	eP	P	03 21 20.2	+0.4
BFO				e*PP	pP	03 21 30.0	+1.1
BFO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
BFO	Black Forest	83.31	318	eP	P	03 21 20.2	+0.4
	comp=Z,3.0nm,0.8s,mb4.4						
BFO				epP	pP	03 21 30.0	+1.1
RPZ	Rata Peaks	84.25	135	P	P	03 21 24.5	-0.2
	comp=Z,7.3nm,0.7s,mb4.9,baz=70,slow=17,SNR=2.8						
LPG	La Plagne	84.42	315	eP	P	03 21 26.3	+0.8
	comp=Z,23nm,0.8s,mb5.1						
LPG	La Plagne	84.42	315	eP	P	03 21 26.3	+0.8
LPG				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
EKA	Eskdalemuir Ar	89.92	325	P	P	03 21 52.4	+0.4
	comp=Z,4.6nm,0.7s,mb4.9,baz=97,slow=5.4,SNR=13						
EKA				pP	pP	03 22 02.7	+1.6
	comp=Z,2.7nm,0.7s,baz=98,slow=5.7,SNR=4.5						
VNDA	Vanda	90.14	168	P	P	03 21 54.1	+1.6
	comp=Z,2.5nm,0.8s,mb4.6,baz=272,slow=6.3,SNR=6.7						
ESDC	Sonseca Array	92.82	310	P	P	03 22 05.7	+0.1
	comp=Z,0.8nm,0.6s,mb4.3,baz=58,slow=3.8,SNR=6.3						
ESDC				pP	pP	03 22 14.9	+0.1
	comp=Z,0.5nm,0.6s,baz=77,slow=4.8,SNR=2.8						
YKA	Yellowknife Ar	109.36	14	PKiKP		03 27 22.2	
	comp=Z,0.2nm,0.7s,baz=319,slow=2.0,SNR=5.0						
YKA				PKKPbc		03 38 28.4	
	comp=Z,0.2nm,0.6s,baz=151,slow=3.1,SNR=7.4						
ULM	Lac du Bonnet	124.41	7	PKP	PKPdf	03 27 52.9	-2.9
	comp=Z,1.8nm,0.4s,baz=270,slow=1.0,SNR=6.9						
NVAR	Mina Array Bea	127.61	32	PKP	PKPdf	03 28 00.8	-1.5
	comp=Z,2.6nm,0.6s,baz=292,slow=2.5,SNR=10						
NVAR				pPKP		03 28 09.9	
	comp=Z,1.7nm,0.6s,baz=272,slow=3.1,SNR=3.5						
NVAR	Mina Array Bea	127.61	32	PKP	PKPdf	03 28 00.8	-1.5
NVAR				pPKP		03 28 09.9	
PDAR	Pinedale Array	128.02	22	PKP	PKPdf	03 27 59.2	-3.8
	comp=Z,3.5nm,0.9s,baz=57,slow=1.4,SNR=20						
PDAR				pPKP		03 28 10.7	
	comp=Z,1.7nm,0.6s,baz=153,slow=3.3,SNR=7.0						
PDAR				PP	PP	03 30 01.3	-4.0
	comp=Z,0.7nm,1.0s,baz=270,slow=1.5,SNR=3.7						
MSU	Marysvale	130.54	27	ePKIKP	PKPdf	03 28 06.0	-1.9
NEN	Nelson	131.52	31	PKPdf	PKPdf	03 28 06.0	-3.9
TXAR	Lajitas Array	142.04	25	PKhKP		03 28 21.9	
	comp=Z,0.8nm,0.7s,baz=150,slow=0.4,SNR=12						
TXAR				PP	PP	03 31 30.6	-3.2
	comp=Z,0.4nm,0.9s,slow=7.5,SNR=4.0						
JCT	Junction City	142.47	19	ePKIKP	PKPdf	03 28 22.3	-7.7
JCT				e		03 28 27.4	
LPAZ	La Paz	158.96	236	PKPab	PKPab	03 29 29.4	+0.5
	comp=Z,3.4nm,0.7s,baz=87,slow=5.4,SNR=5.3						

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*IDC **27** 03:13:28.9±0.6, 9.37N×92.94E, mb4.5/20, mb1 4.6/21, mb1mx4.5/27, ML4.0/1, MS3.6/1, Ms1 3.8/1, ms1mx3.0/25, Error ellipse: s-maj=27.2km s-min=12.3km az=51.0*

*BJI **27** 03:13:31.7, 9.24N×93.12E, h37km, mB5.2, mb4.8*

*NEIC **27** 03:13:33.7±0.3, 9.38N×93.01E, h30km, mb4.8/11, Error ellipse: s-maj=11.7km s-min=6.8km az=57.0*

ISC 27 03:13:33.3±3.6, 9.35N±0.09×93.1E±0.1, h41km±31km, n51, σ0.96/47, mb4.6/33, 1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.67	31	Pn	P	03 16 06.2	-0.5
	0.3nm,0.3s,baz=194,slow=11,SNR=2.1						
CMAR				LR	LR	03 20 13.9	
	comp=Z,302nm,18.1s,baz=30,slow=38						
LSA	Lhasa	20.32	355	eP	P	03 18 07.9	-0.9
	16nm,0.4s						
GYA	Guiyang	21.31	35	⇑iP	P	03 18 19.0	+0.2
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.3						
ENH	Enshi	25.82	34	eP	P	03 19 01.5	-1.2
	comp=Z,9.7nm,0.5s,mb4.6						
GTA	Gaotai	30.52	10	P	P	03 19 45.0	-0.1
GTA				AP	pP	03 19 52.5	-3.7
GTA				XP	sP	03 19 56.0	-5.3
GTA				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.8						
HHC	Hu-ho-hao-te	35.37	24	eP	P	03 20 26.8	-0.3
HHC				AP	pP	03 20 34.5	-3.9
HHC				AMB	AMB		
	comp=Z,12nm,0.5s,mb5.1						
HHC				AMB	AMB		
	comp=Z,117nm,6.2s						
UCH	Uchtor	36.60	337	P	P	03 20 38.7	+1.3
	SNR=5.0						
TKM2	Tokmak 2	36.79	338	P	P	03 20 40.3	+1.3
	SNR=5.4						
KBK	Karagaybulak	36.80	337	P	P	03 20 41.2	+2.1
	SNR=12						
AML	Almayashu	36.85	336	P	P	03 20 41.1	+1.6
	SNR=20						
AAK	Ala-Archa	36.95	337	P	P	03 20 42.4	+2.0
	SNR=9.1						
AAK	Ala-Archa	36.95	337	eP	P	03 20 40.8	+0.3
	comp=Z,13nm,0.8s,mb4.8						
CHMS	Chumysh	37.17	338	P	P	03 20 43.4	+1.2
	SNR=5.8						
EKS2	Erkin-Say	37.26	336	P	P	03 20 44.7	+1.7
	SNR=14						
USP	Ospenovka	37.49	337	P	P	03 20 45.9	+1.0
	SNR=7.9						
SONM	Songino Array	39.96	14	P	P	03 21 05.5	0.0
	comp=Z,9.1nm,0.8s,mb4.5,baz=201,slow=8.9,SNR=16						
SONM				PcP	PcP	03 23 11.1	+0.2
	comp=Z,2.0nm,0.5s,baz=207,slow=3.6,SNR=8.5						
ULN	Ulaanbaatar	40.15	15	eP	P	03 21 06.9	-0.1
	comp=Z,6.1nm,0.8s,mb4.4						
CN2	Changchun	44.34	34	eP	P	03 21 41.8	+0.4
CN2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
ZAL	Zalesovo	44.96	353	P	P	03 21 45.1	-1.0
	comp=Z,1.8nm,0.4s,mb4.3,baz=281,slow=3.0,SNR=3.5						
HIA	Hailar	45.58	24	eP	P	03 21 50.4	-0.8
	comp=Z,8.4nm,0.9s,mb4.7						
BVAR	Borovoye Array	47.27	341	P	P	03 22 03.3	-1.2
	comp=Z,4.8nm,0.9s,mb4.5,baz=136,slow=8.4,SNR=6.9						
CHKZ	Chkalovo	47.76	342	eP	P	03 22 08.1	-0.3
	comp=Z,11nm,0.5s,mb5.1						
NWAO	Narrogin (SRO)	47.92	152	P	P	03 22 09.3	-0.6
	comp=Z,13nm,0.7s,mb5.0,baz=23,slow=5.2,SNR=5.7						
NWAO	Narrogin (SRO)	47.92	152	P	P	03 22 09.3	-0.6
WRA	Warramunga Arr	49.94	126	P	P	03 22 26.0	+0.4
	comp=Z,6.3nm,0.5s,mb4.9,baz=303,slow=8.9,SNR=25						
WRA				PcP	PcP	03 23 46.2	+0.6
	comp=Z,1.5nm,0.5s,baz=316,slow=2.9,SNR=8.8						
WRAB	Tennant Creek	49.95	126	eP	P	03 22 25.7	+0.1
	comp=Z,15nm,0.6s,mb5.2						
ASAR	Alice Springs	51.64	130	P	P	03 22 37.6	-0.7
	comp=Z,4.2nm,0.5s,mb4.6,baz=304,slow=7.2,SNR=27						
ASAR				PcP	PcP	03 23 52.9	+1.0
	comp=Z,3.0nm,0.6s,baz=309,slow=3.7,SNR=10						
GNI	Garni	52.69	314	P	P	03 22 45.3	-0.7
	comp=Z,1.4nm,0.5s,mb4.2,baz=150,slow=20,SNR=3.9						
ASAJ	Asahikawa	54.98	42	P	P	03 23 03.2	+0.4
	comp=Z,8.3nm,0.7s,mb4.9,baz=358,slow=8.6,SNR=4.3						
CTA	Charters Tower	59.91	120	P	P	03 23 39.0	+1.0
	comp=Z,12nm,1.0s,mb4.9,baz=306,slow=7.5,SNR=6.0						
CTAO	Charters Tower	59.91	120	P	P	03 23 39.2	+1.2
	comp=Z,10nm,0.9s,mb4.8						
BRTR	Keskin Array B	60.70	310	P	P	03 23 42.0	-1.2
	comp=Z,2.8nm,0.7s,mb4.5,baz=121,slow=6.6,SNR=9.8						
STKA	Stephens Creek	61.85	134	P	P	03 23 51.8	+0.8
	comp=Z,4.4nm,0.8s,mb4.6,baz=299,slow=9.9,SNR=4.7						
AKASG	Malin Array Be	66.37	321	P	P	03 24 18.2	-2.0
	comp=Z,0.8nm,0.4s,mb4.1,baz=87,slow=4.5,SNR=5.7						
MLR	Muntele Rosu	67.41	315	P	P	03 24 26.3	-0.5
	comp=Z,4.1nm,0.7s,mb4.6,baz=131,slow=7.0,SNR=3.5						
FINES	FINESS Array B	70.94	332	P	P	03 24 46.8	-1.4
	comp=Z,1.1nm,0.5s,mb4.0,baz=121,slow=11,SNR=3.7						
OJC	Ojcow	72.20	320	eP	P	03 24 55.8	-0.1
ARCES	ARCESS Array B	73.54	340	P	P	03 25 02.4	-1.0
	comp=Z,2.7nm,0.8s,mb4.2,baz=100,slow=7.7,SNR=5.6						
GERES	GERESS Array B	76.06	318	P	P	03 25 17.3	-1.0
	comp=Z,5.8nm,1.0s,mb4.5,baz=89,slow=5.8,SNR=5.6						
HFS	Hagfors	76.68	330	P	P	03 25 21.1	-0.5
	comp=Z,1.4nm,0.4s,mb4.2,baz=104,slow=6.1,SNR=9.0						
NB2	NORSAR Subarra	77.95	330	P	P	03 25 28.0	-0.7
	comp=Z,0.9nm,0.6s,mb3.9,baz=97,slow=5.0						
DAVOX	Davos	78.63	316	P	P	03 25 33.1	+0.4
	comp=Z,4.4nm,0.9s,mb4.4,baz=45,slow=10.0,SNR=4.2						
LPL	La Plagne	80.88	315	eP	P	03 25 45.5	+0.7
	comp=Z,22nm,0.8s,mb4.8						
IMA	Indian Mountai	90.64	22	eP	P	03 26 34.2	+1.7
	comp=Z,18nm,0.9s,mb5.4						
ILAR	Eielson Array	93.76	22	P	P	03 26 46.3	-0.5
	comp=Z,2.1nm,0.6s,mb4.7,baz=300,slow=3.8,SNR=18						

INK	Inuvik	95.86	16	P	P	03 26 56.7	+0.4
	comp=Z,4.4nm,0.6s,mb5.1,baz=332,slow=4.3,SNR=35						
INK	Inuvik	95.86	16	P	P	03 26 56.7	+0.4
YKA	Yellowknife Ar	105.22	13	Pdiff	Pdif	03 27 38.9	+0.5
	comp=Z,0.2nm,0.7s,baz=305,slow=1.3,SNR=4.0						
YKA	Yellowknife Ar	105.22	13	Pdif	Pdif	03 27 38.9	+0.5
PDAR	Pinedale Array	124.15	20	PKP	PKPdf	03 32 29.6	+1.6
	comp=Z,2.2nm,1.1s,baz=0.4,slow=0.7,SNR=7.3						
TXAR	Lajitas Array	138.27	22	PKP	PKPdf	03 32 59.0	+4.0
	comp=Z,0.4nm,0.4s,baz=242,slow=0.1,SNR=8.1						

*IDC **27** 03:18:04.2±1.2, 6.47N×91.58E, mb4.1/9, mb1 4.3/10, mb1mx4.1/21, ML4.1/1, Error ellipse: s-maj=37.0km s-min=27.3km az=40.0*

ISC 27 03:18:06.5±1.3, **6.2N**±0.2×**91.8E**±0.2, **h33**^{km}**, n19,** σ**1.^{s}73**/18, **mb4.5**/14, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.02	29	Pn	P	03 21 23.6	-1.6
	0.3nm,0.3s,baz=231,slow=14,SNR=7.7						
SHL	Shillong	19.23	0	*e*P	P	03 22 30.0	-0.8
PKI	Pulchoki	22.08	345	*e*P	P	03 23 03.7	+3.3
	75nm,0.6s,mb5.3						
DMN	Daman	22.20	344	*e*P	P	03 23 04.9	+3.4
	42nm,0.4s,mb5.2						
GUN	Gumba	22.29	346	*e*P	P	03 23 05.1	+2.7
	76nm,0.8s,mb5.2						
KKN	Kakani	22.32	345	*e*P	P	03 23 05.4	+2.6
	52nm,0.7s,mb5.1						
GKN	Gorkha	22.70	343	*e*P	P	03 23 09.2	+2.6
	51nm,0.3s						
KOLN	Koldanda	22.80	341	*e*P	P	03 23 10.3	+2.7
	84nm,0.6s,mb5.3						
SONM	Songino Array	43.30	14	P	P	03 26 06.2	-0.7
	1.6nm,0.6s,mb3.9,baz=196,slow=8.3,SNR=10						
SONM				PcP	PcP	03 27 53.5	-2.5
	0.5nm,0.6s,baz=201,slow=3.2,SNR=5.0						
ZAL	Zalesovo	47.91	354	P	P	03 26 42.2	-1.3
	2.0nm,0.6s,mb4.3,baz=320,slow=5.8,SNR=8.0						
BVAR	Borovoye Array	49.84	343	P	P	03 26 57.4	-1.0
	1.8nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=9.4						
ASAR	Alice Springs	50.72	127	P	P	03 27 09.2	+3.7
	0.7nm,0.8s,mb3.6,baz=307,slow=8.6,SNR=4.2						
BRTR	Keskin Array B	61.76	312	P	P	03 28 23.2	-1.1
	1.2nm,0.7s,mb4.1,baz=125,slow=7.6,SNR=8.6						
AKASG	Malin Array Be	68.01	323	P	P	03 29 02.5	-2.0
	0.5nm,0.3s,mb4.0,baz=76,slow=3.8,SNR=6.8						
MLR	Muntele Rosu	68.73	316	P	P	03 29 08.6	-0.5
	3.7nm,0.7s,mb4.4,baz=174,slow=8.4,SNR=5.8						
GERES	GERESS Array B	77.50	319	P	P	03 30 00.2	-0.3
	2.1nm,0.7s,mb4.2,baz=90,slow=4.0,SNR=18						
KHC	Kasperske Hory	77.60	319	*e*P	P	03 30 00.0	-1.2
DAVOX	Davos	79.95	316	P	P	03 30 14.0	0.0
	3.2nm,0.6s,mb4.4,baz=115,slow=8.0,SNR=10						
TXAR	Lajitas Array	141.65	22	PKhKP		03 37 29.6	
	0.0nm,0.4s,baz=143,slow=31,SNR=2.4						
TXAR				PKP	PKPdf	03 37 37.1	+1.8
	0.2nm,0.9s,baz=135,slow=1.3,SNR=3.8						

IDC 27 03:22:24.6±2.2**, 6.23N×93.16E, mb4.0**/5**, mb1 4.1**/6**, mb1mx3.8**/19**, ML4.3**/1**, Error ellipse: s-maj=78.2km s-min=22.0km az=63.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.40	24	Pn	P	03 25 37.2	-1.5
	0.5nm,0.3s,baz=232,slow=4.3,SNR=3.3						
SONM	Songino Array	42.98	13	P	P	03 30 24.8	-2.4
	1.2nm,0.8s,baz=199,slow=8.1,SNR=6.5						
ZAL	Zalesovo	48.05	353	P	P	03 31 06.2	-1.3
	1.7nm,0.4s,baz=309,slow=3.0,SNR=5.9						
WRA	Warramunga Arr	48.14	124	P	P	03 31 07.2	-1.5
	1.6nm,0.5s,baz=303,slow=9.1,SNR=7.4						
ASAR	Alice Springs	49.64	128	P	P	03 31 17.9	-2.4
	0.6nm,0.5s,baz=300,slow=7.7,SNR=7.8						
BVAR	Borovoye Array	50.24	342	P	P	03 31 21.9	-2.5
	0.9nm,0.6s,baz=149,slow=8.6,SNR=7.5						
KAF	Kangasniemi	73.81	333	*e*p	P	03 33 59.6	-2.9

*IDC **27** 03:27:09.9±8.6, 9.04N×93.32E, mb4.0/6, mb1 4.1/6, mb1mx3.8/19, Error ellipse: s-maj=204.0km s-min=97.0km az=137.0*

ISC 27 03:27:12.1±2.8, **8.9N**±0.3×**93.4E**±0.7, **h33**^{km}**, n13,** σ**0.^{s}64**/13, **mb4.0**/6, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	Pulchoki	20.07	339	*e*P	P	03 31 45.4	-0.2
	11nm,0.5s						
DMN	Daman	20.22	338	*e*P	P	03 31 46.3	-0.8
GUN	Gumba	20.22	340	*e*P	P	03 31 47.9	+0.7
	27nm,0.7s						
KKN	Kakani	20.32	339	*e*P	P	03 31 47.5	-0.7
	13nm,0.6s						
GKN	Gorkha	20.75	338	*e*P	P	03 31 53.3	+0.7
KOLN	Koldanda	20.95	335	*e*P	P	03 31 55.4	+0.7
	29nm,0.9s						
POO	Poona	21.27	299	*e*	P	03 32 24.0	+26
BVAR	Borovoye Array	47.81	341	P	P	03 35 47.8	-0.6
	0.5nm,0.5s,mb3.8,baz=143,slow=7.2,SNR=4.9						
BRTR	Keskin Array B	61.23	311	P	P	03 37 25.9	-0.6
	1.5nm,1.0s,mb4.1,baz=124,slow=7.7,SNR=8.5						
FINES	FINESS Array B	71.49	332	P	P	03 38 30.3	-0.9
	5.2nm,1.2s,mb4.3,baz=124,slow=5.0,SNR=3.3						
ARCES	ARCESS Array B	74.08	340	P	P	03 38 46.7	+0.4
	1.4nm,0.9s,mb3.9,baz=104,slow=5.0,SNR=4.7						
GERES	GERESS Array B	76.60	318	P	P	03 39 01.9	+0.7
	1.0nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=9.6						
HFS	Hagfors	77.23	330	P	P	03 39 05.0	+0.5
	1.3nm,0.6s,mb4.1,baz=74,slow=11,SNR=4.6						

*IDC **27** 03:29:11.9±8.6, 8.12N×92.33E, mb4.0/7, mb1 4.2/8, mb1mx3.9/19, ML4.6/1, Error ellipse: s-maj=198.0km s-min=40.9km az=148.0*

ISC 27 03:29:08.3±2.5, **7.3N**±0.3×**93.2E**±0.2, **h33**^{km}**, n15,** σ**1.^{s}18**/15, **mb4.3**/11, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.47	26	Pn	P	03 32 05.5	-0.8
	1.1nm,0.3s,baz=231,slow=15,SNR=18						
SHL	Shillong	18.25	356	*e*P	P	03 33 13.0	-7.9
PKI	Pulchoki	21.50	341	*e*P	P	03 33 55.8	-0.6
	23nm,0.5s,mb4.8						
DMN	Daman	21.64	340	*e*P	P	03 33 57.1	-0.7
	40nm,0.8s,mb4.9						
GUN	Gumba	21.67	342	*e*P	P	03 33 58.9	+0.8
	39nm,0.6s,mb5.0						
KKN	Kakani	21.75	341	*e*P	P	03 33 58.0	-0.9
GKN	Gorkha	22.16	340	*e*P	P	03 34 04.3	+1.3
KOLN	Koldanda	22.33	337	*e*P	P	03 34 06.8	+2.2
	28nm,0.6s,mb4.9						
SONM	Songino Array	41.98	13	P	P	03 36 59.7	+1.8
	1.9nm,0.7s,mb3.9,baz=197,slow=8.7,SNR=12						
ZAL	Zalesovo	47.04	353	P	P	03 37 37.1	-1.2
	1.2nm,0.2s,mb4.4,baz=335,slow=17,SNR=1.9						
BVAR	Borovoye Array	49.27	342	P	P	03 37 54.2	-1.6
	0.9nm,0.6s,mb4.0,baz=117,slow=6.6,SNR=3.9						
BRTR	Keskin Array B	62.10	311	P	P	03 39 26.9	-1.6
	0.6nm,0.8s,mb3.8,baz=122,slow=5.9,SNR=3.6						
FINES	FINESS Array B	72.81	332	P	P	03 40 35.6	+0.4
	1.4nm,0.8s,mb3.9,baz=169,slow=31,SNR=2.5						
ARCES	ARCESS Array B	75.52	340	P	P	03 40 51.9	+1.1
	7.8nm,1.2s,mb4.5,baz=82,slow=6.4,SNR=3.6						
GERES	GERESS Array B	77.64	318	P	P	03 41 03.4	+0.2
	0.4nm,0.8s,mb3.4,baz=72,slow=6.2,SNR=3.7						

*IDC **27** 03:29:50.0±0.5, 3.46N×94.23E, mb4.6/23, mb1 4.7/24, mb1mx4.7/27, ML4.7/1, Error ellipse: s-maj=21.5km s-min=11.5km az=48.0*

*BJI **27** 03:29:52.7, 3.43N×94.31E, h28^{km}, mB5.3, mb4.9, Ms4.7, Msz4.4*

*MOS **27** 03:29:53.3±0.9, 3.49N×94.32E, h33^{km}, mb4.9/17, Error ellipse: s-maj=15.3km s-min=7.9km az=113.9*

*NEIC **27** 03:29:54.5±0.3, 3.45N×94.27E, h30^{km}, mb4.8/14, Error ellipse: s-maj=9.1km s-min=6.2km az=56.0*

ISC 27 03:29:53.3±2.4, **3.45N**±0.07×**94.32E**±0.08, **h33**^{km}±20^{km}, **h15**^{km}±5.7^{km}**:pP-P, n99,** σ**0.^{s}88**/94, **mb4.7**/52, **MS4.5**/2, **9C-4D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	7.29	59	P	P	03 31 41.5	+1.4
	230nm,1.0s						
KKTK	Khon Kaen	15.30	33	P	P	03 33 35.0	+6.3
	679nm,0.6s						
CM31	Chiang Mai Arr	15.59	17	P	P	03 33 32.7	+0.3
CMAR	Chiang Mai Arr	15.59	17	Pn	P	03 33 31.4	-1.0
	1.0nm,0.3s,baz=206,slow=12,SNR=5.2						
CHG	Chiang Mai	15.93	16	⇓P	P	03 33 36.5	-0.3
	25nm,1.0s						
NANT	Nan	16.49	22	⇑P	P	03 33 43.0	-0.8
	52nm,1.0s						
CHRT	Chiangrai	17.18	18	⇑P	P	03 33 52.0	-0.5
	145nm,1.2s						
IMP	Imphal	21.22	359	*e*	P	03 34 46.4	+7.8
SHL	Shillong	22.12	354	*e*P	P	03 34 45.0	-2.6
POO	Poona	25.02	308	*e*P	S	03 39 22.0	-13
PKI	Pulchoki	25.45	341	*e*P	P	03 35 20.9	+0.8
	39nm,0.8s,mb5.0						
DMN	Daman	25.59	341	*e*P	P	03 35 21.9	+0.5
	36nm,0.8s,mb4.9						
GUN	Gumba	25.63	343	*e*P	P	03 35 22.3	+0.6
	48nm,0.5s,mb5.2						
KKN	Kakani	25.70	341	*e*P	P	03 35 22.5	+0.1
	69nm,1.1s,mb5.1						
GKN	Gorkha	26.11	340	*e*P	P	03 35 26.2	0.0
	167nm,1.3s,mb5.4						
KOLN	Koldanda	26.26	338	*e*P	P	03 35 27.4	-0.2
	22nm,0.6s,mb4.9						
LSA	Lhasa	26.28	354	⇑*e*P	P	03 35 29.6	+1.8
LSA				pmax	pmax		
	comp=Z,41nm,0.6s,mb5.1						
LSA	Lhasa	26.28	354	⇑*e*P	P	03 35 29.6	+1.8
	comp=Z,41nm,0.6s,mb5.1						
WHN	Wuhan	32.94	33	⇑P	P	03 36 28.5	+1.4
XAN	Xi’an	33.34	22	P	P	03 36 29.3	-1.3
XAN				AMB	AMB		
	comp=Z,22nm,1.0s,mb5.0						
GTA	Gaotai	36.15	7	P	P	03 36 54.8	+0.3
GTA				AP	pP	03 37 01.8	-2.4
GTA				XP	sP	03 37 05.0	-3.5
GTA				AMB	AMB		
	comp=Z,14nm,0.6s,mb5.1						
GTA				AMB	AMB		
	comp=Z,144nm,7.6s						
GTA				LR	LR		
	comp=N,456nm,15.7s,MS4.5						
GTA				LR	LR		
	comp=E,365nm,13.8s,MS4.5						
GTA				LR	LR		
	comp=Z,465nm,19.1s						
JOW	Kunigami	39.95	51	P	P	03 37 27.5	+1.1
	comp=Z,9.3nm,0.5s,mb4.8,baz=230,slow=7.9						
HHC	Hu-ho-hao-te	40.35	20	*e*P	P	03 37 30.5	+0.9
HHC				AP	pP	03 37 37.0	-2.4
HHC				XP	sP	03 37 42.5	-1.1
HHC				XS		03 43 47.3	
HHC				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,336nm,10.5s						
HHC				LR	LR		
	comp=N,410nm,11.3s,MS4.6						
HHC				LR	LR		
	comp=E,237nm,11.3s,MS4.6						
WMQ	Urumqi	40.63	353	P	P	03 37 33.0	+1.1
WMQ				AP	pP	03 37 37.5	-4.2
WMQ				XP	sP	03 37 40.0	-5.9
WMQ				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.2						
BJI	Beijing	41.45	26	P	P	03 37 39.3	+0.6
BJI				AMB	AMB		
	comp=Z,14nm,1.5s,mb4.4						
NWAO	Narrogin (SRO)	42.19	151	P	P	03 37 44.5	-0.4
	comp=Z,11nm,0.6s,mb4.7,baz=311,slow=6.3,SNR=10						
NWAO	Narrogin (SRO)	42.19	151	P	P	03 37 44.5	-0.4
NWAO				pmax	pmax		
	comp=Z,11nm,0.6s						
UCH	Uchtor	42.48	338	P	P	03 37 48.8	+1.7
	SNR=7.8						
KBK	Karagaybulak	42.69	339	P	P	03 37 50.2	+1.3
	SNR=8.8						
TKM2	Tokmak 2	42.69	340	P	P	03 37 49.9	+1.0
	SNR=7.0						
AML	Almayashu	42.70	337	P	P	03 37 50.5	+1.5
	SNR=7.7						
AAK	Ala-Archa	42.84	338	⇑*e*P	P	03 37 50.0	-0.1
AAK				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.7						
AAK	Ala-Archa	42.84	338	⇑*e*P	P	03 37 50.0	-0.1
	comp=Z,20nm,1.4s,mb4.7						
FRU	Bishkek	42.97	339	*e*P	P	03 37 53.0	+1.9
FRU				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.1						
EKS2	Erkin-Say	43.13	338	P	P	03 37 54.0	+1.5
	SNR=5.6						
USP	Ospenovka	43.38	339	P	P	03 37 55.1	+0.6
	SNR=5.6						
MKAR	Makanchi Array	44.42	348	*e*P	P	03 38 03.1	+0.3
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM	Songino Array	45.43	11	P	P	03 38 10.8	-0.1
	comp=Z,2.9nm,0.5s,mb4.4,baz=191,slow=8.6,SNR=14						
SONM				PcP	PcP	03 39 50.3	+0.1
	comp=Z,3.0nm,0.8s,baz=197,slow=3.7,SNR=4.6						
ULN	Ulaanbaatar	45.59	12	*e*P	P	03 38 11.8	-0.4
ULN				pmax	pmax		
	comp=Z,20nm,1.8s,mb4.8						
ULN	Ulaanbaatar	45.59	12	*e*P	P	03 38 11.8	-0.4
	comp=Z,20nm,1.8s,mb4.8						
WRA	Warramunga Arr	45.66	122	P	P	03 38 13.3	+0.2
	comp=Z,34nm,0.6s,mb5.5,baz=301,slow=9.0,SNR=117						
WRAB	Tennant Creek	45.67	122	⇓*i*P	P	03 38 13.5	+0.4
WRAB				pmax	pmax		
	comp=Z,48nm,0.6s,mb5.6						
WRAB	Tennant Creek	45.67	122	⇓*i*P	P	03 38 13.4	+0.3
	comp=Z,48nm,0.6s,mb5.6						
ASAR	Alice Springs	47.04	127	P	P	03 38 24.1	+0.2
	comp=Z,18nm,0.4s,mb5.3,baz=294,slow=7.8,SNR=237						
ASAR				PcP	PcP	03 39 56.5	+0.4
	comp=Z,3.9nm,0.6s,baz=303,slow=3.5,SNR=6.1						
HIA	Hailar	50.53	21	*e*P	P	03 38 50.8	+0.3
HIA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HIA	Hailar	50.53	21	*e*P	P	03 38 50.8	+0.3
	comp=Z,4.7nm,0.5s,mb4.7						
ZAL	Zalesovo	50.93	353	P	P	03 38 53.0	-0.5
	comp=Z,8.9nm,0.4s,mb5.1,baz=313,slow=4.6,SNR=31						
MIB	Mutribah	51.58	306	*e*P	P	03 38 59.3	+0.6
RST	Umm Al-Ruwaisa	51.74	305	*e*P	P	03 39 01.3	+1.3
NVS	Novosibirsk	52.02	352	*e*P	P	03 39 00.4	-1.3
NVS				*e*S	S	03 46 14.3	-7.2
NVS				pmax	pmax		
	comp=Z,30nm,2.0s,mb4.9						
NVS				pmax	pmax		
	comp=N,21nm,1.9s						
NVS				smax			
	comp=E,26nm,1.7s						
NVS				smax			
	comp=N,19nm,1.8s						
BVA0	Borovoye Array	53.22	342	P	P	03 39 10.2	-0.5
BVA0				pmax	pmax		
	comp=Z,6.0nm,2.2s,mb4.1						
BVAR	Borovoye Array	53.22	342	P	P	03 39 09.8	-0.9
	comp=Z,2.9nm,0.5s,mb4.5,baz=137,slow=11,SNR=19						
BRVK	Borovoye	53.28	342	*e*P	P	03 39 10.1	-1.0
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.7						
BRVK	Borovoye	53.28	342	*e*P	P	03 39 10.1	-1.0
	comp=Z,3.6nm,0.4s,mb4.7						
CHKZ	Chkalovo	53.72	343	⇑*e*P	P	03 39 13.9	-0.4
CHKZ				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
CHKZ	Chkalovo	53.72	343	⇑*e*P	P	03 39 13.9	-0.5
	comp=Z,13nm,0.9s,mb4.8						
PMG	Port Moresby	54.18	104	P	P	03 39 17.7	-0.6
	comp=Z,16nm,1.2s,mb4.8,baz=251,slow=2.7,SNR=3.1						
KLR	Kul’dur	55.62	29	*e*P	P	03 39 23.2	-5.1
CTA	Charters Tower	56.08	117	P	P	03 39 32.6	+0.7
	comp=Z,12nm,0.8s,mb5.0,baz=281,slow=8.7,SNR=9.5						
CTAO	Charters Tower	56.08	117	*e*P	P	03 39 32.1	+0.1
CTAO				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
CTAO	Charters Tower	56.08	117	*e*P	P	03 39 32.0	+0.1
	comp=Z,14nm,0.9s,mb5.0						
BOD	Bodaibo	56.40	13	*e*P	P	03 39 31.8	-1.9
STKA	Stephens Creek	56.99	132	P	P	03 39 37.8	-0.6
	comp=Z,11nm,0.5s,mb5.1,baz=278,slow=5.4,SNR=3.3						
KMBO	Kilima Mbogo	57.22	266	P	P	03 39 39.9	-0.3
	comp=Z,1.3nm,0.6s,mb4.1,baz=68,slow=14,SNR=6.7						
ZEI	Tsey	59.42	319	*e*P	P	03 39 55.4	+0.2
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
ASF	Jabal al Asfar	60.82	305	P	P	03 40 04.9	-0.1
	comp=Z,1.5nm,0.7s,mb4.2,baz=329,slow=7.1,SNR=3.9						
MALT	Malatya	61.49	312	*e*P	P	03 40 09.5	+0.1
MALT				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.5						
MALT	Malatya	61.49	312	*e*P	P	03 40 09.5	+0.1
	comp=Z,5.3nm,1.3s,mb4.5						
YAK	Yakutsk	64.12	18	*e*P	P	03 40 26.1	-0.3
YAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
YAK				pmax	pmax		
	comp=N,5.0nm,1.4s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
YAK	Yakutsk	64.12	18	*e*P	P	03 40 25.5	-0.9
	comp=E,47nm,1.0s,mb5.5						
BRTR	Keskin Array B	65.48	312	P	P	03 40 34.4	-1.2
	comp=E,2.1nm,0.9s,mb4.1,baz=128,slow=6.4,SNR=4.5						
OBN	Obninsk	69.21	329	*de*P	P	03 40 58.2	-0.5
OBN				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
AKASG	Malin Array Be	71.73	323	P	P	03 41 12.3	-1.7
	comp=Z,0.6nm,0.5s,mb3.8,baz=86,slow=5.5,SNR=5.3						
AKASG	Malin Array Be	71.73	323	P	P	03 41 12.3	-1.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
LBTB	Lobatse	72.33	243	*e*P	P	03 41 17.7	-0.3
LBTB				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
LBTB	Lobatse	72.33	243	*e*P	P	03 41 17.6	-0.3
	comp=Z,6.9nm,0.8s,mb4.6						
MLR	Muntele Rosu	72.47	317	P	P	03 41 17.6	-0.9
	comp=Z,3.1nm,0.9s,mb4.2,baz=69,slow=10,SNR=4.1						
FINES	FINESS Array B	76.69	333	P	P	03 41 42.1	-0.5
	comp=Z,2.4nm,0.8s,mb4.2,baz=72,slow=6.0,SNR=6.1						
KAF	Kangasniemi	76.80	333	*e*p	P	03 41 42.4	-0.8
	comp=Z,6.3nm,0.8s,mb4.6						
KAF	Kangasniemi	76.80	333	*e*P	P	03 41 42.4	-0.8
KAF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
OJC	Ojcow	77.47	321	*e*P	P	03 41 48.1	+0.9
ARCES	ARCESS Array B	79.47	341	P	P	03 41 58.2	+0.4
	comp=Z,3.5nm,0.7s,mb4.4,baz=112,slow=6.5,SNR=9.3						
GERES	GERESS Array B	81.24	319	P	P	03 42 08.3	+0.7
	comp=Z,3.2nm,0.7s,mb4.4,baz=104,slow=5.5,SNR=14						
BRG	Berggiesshubel	81.26	321	*e*P	P	03 42 08.0	+0.3
BRG				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
BRG	Berggiesshubel	81.26	321	*e*P	P	03 42 08.0	+0.3
	comp=Z,6.3nm,1.3s,mb4.4						
BRG				*e*		03 42 27.1	
KHC	Kasperske Hory	81.34	319	*e*pP	pP	03 42 19.0	+0.4
HFS	Hagfors	82.35	330	P	P	03 42 12.8	-0.3
	comp=Z,3.1nm,0.8s,mb4.3,baz=135,slow=6.3,SNR=4.4						
RPZ	Rata Peaks	82.82	135	P	P	03 42 16.6	+0.7
	comp=Z,8.2nm,0.6s,mb4.9,baz=247,slow=5.0,SNR=6.5						
NB2	NORSAR Subarra	83.66	331	P	P	03 42 19.9	+0.2
	comp=Z,1.4nm,0.7s,mb4.2,baz=95,slow=5.3						
NB2	NORSAR Subarra	83.66	331	P	P	03 42 19.9	+0.2
NB2				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
NOA	NORSAR Array B	83.66	331	P	P	03 42 19.6	-0.1
	comp=Z,6.6nm,1.2s,mb4.7,baz=94,slow=5.5,SNR=5.0						
DAVOX	Davos	83.69	317	P	P	03 42 20.5	+0.2
	comp=Z,11nm,1.0s,mb4.9,baz=104,slow=7.6,SNR=11						
VNDA	Vanda	88.58	168	P	P	03 42 44.6	+1.1
	comp=Z,1.8nm,0.6s,mb4.6,baz=303,slow=6.0,SNR=7.7						
ESDC	Sonseca Array	94.19	310	P	P	03 43 11.5	+1.1
	comp=Z,1.0nm,0.7s,mb4.4,baz=61,slow=3.8,SNR=6.3						
PDAR	Pinedale Array	129.18	23	PKP	PKPdf	03 49 01.2	+2.5
	comp=Z,1.4nm,1.1s,slow=3.0,SNR=5.5						
TXAR	Lajitas Array	143.12	27	PKP	PKPdf	03 49 24.1	-0.6
	comp=Z,0.5nm,0.6s,baz=111,slow=1.6,SNR=6.4						
JCT	Junction City	143.67	21	*e*PKIKP	PKPdf	03 49 25.1	-0.4
LPAZ	La Paz	158.54	232	PKPab	PKPab	03 50 26.3	+0.7
	comp=Z,2.3nm,0.5s,baz=80,slow=3.5,SNR=9.6						
LPAZ	La Paz	158.54	232	PKIKP	PKPdf	03 49 50.3	+2.1
LPAZ				*e*		03 50 26.1	

*IDC **27** 03:34:22.5±1.0, 4.26N×93.80E, mb4.2/9, mb1 4.3/9, mb1mx4.1/19, Error ellipse: s-maj=47.1km s-min=19.5km az=49.0*

*NEIC **27** 03:34:27.1±0.6, 4.20N×93.79E, h30^{km}, mb4.5/4, Error ellipse: s-maj=26.1km s-min=10.3km az=53.0*

ISC 27 03:34:25.1±0.9, **4.2N**±0.2×**93.8E**±0.2, **h30**^{km}**, n13,** σ**0.^{s}75**/13, **mb4.3**/13, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	25.49	355	*e*P	P	03 39 54.3	+1.7
	16nm,0.6s,mb4.7						
SONM	Songino Array	44.81	12	P	P	03 42 38.0	-0.2
	2.6nm,0.8s,mb4.1,baz=192,slow=8.3,SNR=10.0						
SONM				PcP	PcP	03 44 18.3	-1.9
	0.5nm,0.5s,baz=194,slow=5.9,SNR=3.0						
ULN	Ulaanbaatar	44.98	13	*e*P	P	03 42 38.9	-0.6
	1.4nm,0.7s,mb3.9						
WRA	Warramunga Arr	46.52	123	P	P	03 42 52.8	+0.7
	4.3nm,0.7s,mb4.5,baz=300,slow=9.0,SNR=8.0						
WRAB	Tennant Creek	46.53	123	*e*P	P	03 42 52.7	+0.6
	6.0nm,0.6s,mb4.7						
ASAR	Alice Springs	47.92	127	P	P	03 43 01.9	-1.2
	1.2nm,0.7s,mb4.0,baz=299,slow=7.7,SNR=4.6						
ASAR				PcP	PcP	03 44 32.5	+1.0
	1.1nm,0.7s,baz=304,slow=4.1,SNR=4.1						
ZAL	Zalesovo	50.12	353	P	P	03 43 19.2	-0.4
	1.6nm,0.5s,mb4.3,baz=288,slow=4.7,SNR=4.3						
BVAR	Borovoye Array	52.34	342	P	P	03 43 35.9	-0.6
	3.4nm,1.0s,mb4.2,baz=141,slow=9.5,SNR=5.5						
CHKZ	Chkalovo	52.84	343	*e*P	P	03 43 39.9	-0.3
	5.9nm,1.3s,mb4.4						
CHKZ				*e*	pP	03 43 50.6	+1.2
BRTR	Keskin Array B	64.57	312	P	P	03 45 01.2	-0.8
	0.7nm,0.5s,mb3.9,baz=121,slow=7.2,SNR=5.0						
IDI	Anoyia	70.38	306	P	P	03 45 39.4	+0.9
	6.5nm,0.7s,mb4.7,baz=346,slow=18,SNR=3.7						
FINES	FINESS Array B	75.78	333	P	P	03 46 09.7	-0.1
	2.4nm,0.7s,mb4.2,baz=72,slow=6.0,SNR=5.6						
ARCES	ARCESS Array B	78.58	341	P	P	03 46 25.6	+0.4
	1.6nm,0.9s,mb4.0,baz=96,slow=7.0,SNR=8.8						

*IDC **27** 03:37:41.5±0.6, 7.78N×92.27E, h25^{km}±2^{km}, mb4.1/17, mb1 4.2/18, mb1mx4.1/24, ML4.2/1, Error ellipse: s-maj=19.3km s-min=14.6km az=40.0*

*NEIC **27** 03:37:42.0±0.3, 7.69N×92.28E, mb4.6/13, Error ellipse: s-maj=8.5km s-min=7.8km az=112.0*

*BJI **27** 03:37:41.9, 7.70N×92.30E, h31^{km}, mB5.3, mb4.4*

ISC 27 03:37:40.0±0.5, **7.71N**±0.06×**92.31E**±0.07, **h30**^{km}**, h30**^{km}±.9^{km}**:pP-P, n45,** σ**0.^{s}83**/41, **mb4.3**/30, **2C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.48	30	P	P	03 40 37.2	-1.3
CM31				*e*S	S	03 42 56.7	-0.8
CMAR	Chiang Mai Arr	12.48	30	Pn	P	03 40 38.5	0.0
	0.4nm,0.3s,baz=230,slow=14,SNR=9.5						
VIS	Vishakhapatnam	13.25	320	*e*	P	03 40 45.0	-3.8
NANT	Nan	13.71	36	⇑P	S	03 43 26.0	-1.0
	75nm,0.7s						
SHL	Shillong	17.76	359	*e*P	P	03 41 48.0	+1.2
KMI	Kunming	19.97	29	P	P	03 42 14.5	+1.5
KMI				AMB	AMB		
	comp=Z,28nm,1.0s						
LSA	Lhasa	21.90	357	P	P	03 42 34.9	+2.3
	comp=Z,24nm,0.9s,mb4.6						
LSA				*e*		03 42 43.3	
GYA	Guiyang	23.10	34	⇑*i*P	P	03 42 46.5	+2.0
GYA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.2						
ENH	Enshi	27.62	33	*e*P	P	03 43 27.4	+0.4
	comp=Z,17nm,0.9s,mb4.7						
ENH				*e*pP	pP	03 43 36.1	+0.3

AAK	**Ala-Archa**	**38.16**	**339**	eP	**P**	**03 44 59.2**	**+0.7**
	comp=Z,7.4nm,0.9s,mb4.4						
AAK				epP	pP	03 45 09.2	+1.7
SONM	**Songino Array**	**41.74**	**14**	P	**P**	**03 45 29.0**	**+1.0**
	comp=Z,1.8nm,0.8s,mb3.7,baz=198,slow=6.8,SNR=4.5						
SONM				pP	pP	03 45 34.6	-2.4
	comp=Z,7.3nm,0.9s,baz=199,slow=7.0,SNR=14						
SONM				sP	sP	03 45 38.3	-2.5
	comp=Z,6.6nm,0.9s,baz=200,slow=8.2,SNR=17						
ULN	**Ulaanbaatar**	**41.93**	**15**	eP	**P**	**03 45 30.5**	**+0.9**
	comp=Z,4.3nm,1.0s,mb4.0						
ULN				epP	pP	03 45 39.5	+0.9
ZAL	**Zalesovo**	**46.49**	**354**	P	**P**	**03 46 06.6**	**+0.3**
	comp=Z,2.1nm,0.3s,mb4.5,baz=46,slow=13,SNR=4.3						
ZAL	**Zalesovo**	**46.49**	**354**	P	**P**	**03 46 06.6**	**+0.3**
BVAR	**Borovoye Array**	**48.58**	**342**	P	**P**	**03 46 22.3**	**-0.3**
	comp=Z,2.5nm,0.7s,mb4.3,baz=143,slow=7.4,SNR=11						
BRVK	**Borovoye**	**48.64**	**342**	eP	**P**	**03 46 22.8**	**-0.3**
	comp=Z,3.1nm,0.9s,mb4.3						
CHKZ	**Chkalovo**	**49.08**	**343**	eP	**P**	**03 46 26.3**	**-0.1**
	comp=Z,8.7nm,0.9s,mb4.8						
CHKZ				epP	pP	03 46 35.9	+0.3
WRA	**Warramunga Arr**	**49.65**	**124**	P	**P**	**03 46 31.1**	**-0.3**
	comp=Z,1.2nm,0.5s,mb4.2,baz=305,slow=8.6,SNR=6.1						
WRAB	**Tennant Creek**	**49.66**	**124**	eP	**P**	**03 46 31.2**	**-0.1**
	comp=Z,7.4nm,0.8s,mb4.8						
WRAB				epP	pP	03 46 41.0	+0.5
ASAR	**Alice Springs**	**51.21**	**129**	P	**P**	**03 46 43.1**	**0.0**
	comp=Z,0.9nm,0.5s,mb4.0,baz=300,slow=7.9,SNR=8.4						
ASAR				pP	pP	03 46 52.2	-0.1
	comp=Z,2.5nm,0.7s,baz=310,slow=7.2,SNR=12						
GNI	**Garni**	**53.26**	**315**	P	**P**	**03 46 58.2**	**-0.2**
	comp=Z,4.3nm,0.8s,mb4.4,baz=259,slow=8.7,SNR=4.6						
ARU	**Arti**	**55.34**	**338**	P	**P**	**03 47 12.1**	**-1.3**
	comp=Z,9.9nm,1.1s,mb4.8						
ARU				epP	pP	03 47 22.6	+0.1
KMBO	**Kilima Mbogo**	**55.61**	**263**	P	**P**	**03 47 15.8**	**0.0**
	comp=Z,2.5nm,0.8s,mb4.3,baz=37,slow=8.4,SNR=7.5						
KMBO				sP	sP	03 47 26.4	-2.1
	comp=Z,1.9nm,0.8s,baz=52,slow=11,SNR=4.3						
ASF	**Jabal al Asfar**	**56.79**	**303**	P	**P**	**03 47 24.1**	**0.0**
	comp=Z,2.7nm,0.8s,mb4.3,baz=312,slow=3.9,SNR=4.7						
EIL	**Elat**	**57.94**	**300**	P	**P**	**03 47 32.2**	**+0.1**
	comp=Z,4.4nm,0.7s,mb4.6,baz=91,slow=1.8,SNR=4.3						
EIL	**Elat**	**57.94**	**300**	P	**P**	**03 47 32.2**	**+0.1**
IDI	**Anoyia**	**67.17**	**305**	P	**P**	**03 48 32.5**	**-1.1**
	comp=Z,12nm,1.0s,mb4.9,baz=100,slow=12,SNR=6.6						
FINES	**FINESS Array B**	**72.01**	**332**	P	**P**	**03 49 01.7**	**-1.1**
	comp=Z,1.7nm,0.8s,mb4.0,baz=135,slow=8.1,SNR=3.9						
FINES				pP	pP	03 49 10.4	-1.8
	comp=Z,1.3nm,0.7s,baz=90,slow=5.7,SNR=2.4						
LBTB	**Lobatse**	**72.58**	**241**	eP	**P**	**03 49 07.2**	**+0.3**
	comp=Z,6.4nm,1.1s,mb4.5						
BOSA	**Boshof**	**73.97**	**237**	eP	**P**	**03 49 15.0**	**+0.1**
	comp=Z,2.3nm,0.6s,mb4.3						
BOSA				epP	pP	03 49 25.0	+0.7
MORC	**Moravsky Berou**	**74.32**	**319**	eP	**P**	**03 49 16.1**	**-0.3**
	comp=Z,5.5nm,1.3s,mb4.3						
ARCES	**ARCESS Array B**	**74.81**	**340**	P	**P**	**03 49 18.6**	**-0.3**
	comp=Z,4.2nm,1.0s,mb4.3,baz=79,slow=6.2,SNR=3.6						
BRG	**Berggiesshubel**	**76.72**	**320**	P	**P**	**03 49 31.2**	**+1.1**
	comp=Z,37nm,2.2s,mb4.9						
GERES	**GERESS Array B**	**76.74**	**318**	P	**P**	**03 49 29.9**	**-0.4**
	comp=Z,2.1nm,0.8s,mb4.1,baz=104,slow=5.5,SNR=14						
GERES				pP	pP	03 49 38.7	-1.0
	comp=Z,1.5nm,0.7s,baz=90,slow=5.3,SNR=8.7						
NB2	**NORSAR Subarra**	**78.98**	**331**	P	pP	03 49 51.7	-0.2
	comp=Z,0.9nm,0.7s,baz=97,slow=5.3						
NOA	**NORSAR Array B**	**78.98**	**331**	P	**P**	**03 49 41.5**	**-0.9**
	comp=Z,0.9nm,0.8s,mb3.8,baz=322,slow=18,SNR=2.8						
NOA				pP	pP	03 49 51.1	-0.7
	comp=Z,1.9nm,0.9s,baz=94,slow=5.4,SNR=3.7						
NOA	**NORSAR Array B**	**78.98**	**331**	P	**P**	**03 49 41.5**	**-0.9**
NOA				pP	pP	03 49 51.1	-0.7
DAVOX	**Davos**	**79.25**	**316**	P	**P**	**03 49 44.2**	**+0.1**
	comp=Z,3.0nm,0.7s,mb4.3,baz=359,slow=5.9,SNR=4.4						
DAVOX				pP	pP	03 49 53.7	+0.1
	comp=Z,2.6nm,0.7s,baz=301,slow=20,SNR=2.9						
EKA	**Eskdalemuir Ar**	**86.82**	**325**	P	**P**	**03 50 22.3**	**-0.5**
	comp=Z,2.1nm,0.8s,mb4.4,baz=112,slow=4.5,SNR=3.4						
MCK	**McKinley**	**95.32**	**23**	P	**P**	**03 51 01.6**	**-0.6**
ILAR	**Eielson Array**	**95.57**	**22**	P	**P**	**03 51 03.3**	**0.0**
	comp=Z,0.2nm,0.8s,mb3.6,baz=288,slow=2.9,SNR=3.7						
ILAR				pP	pP	03 51 12.9	0.0
	comp=Z,0.6nm,0.8s,baz=286,slow=3.8,SNR=4.9						
PDAR	**Pinedale Array**	**125.95**	**20**	PKP	PKPdf	03 56 41.7	-3.0
	comp=Z,0.3nm,0.8s,baz=333,slow=3.3,SNR=3.6						
NVAR	**Mina Array Bea**	**125.97**	**30**	PKP	PKPdf	03 56 43.6	-1.2
	comp=Z,0.8nm,0.6s,baz=207,slow=2.0,SNR=2.9						
TXAR	**Lajitas Array**	**140.08**	**22**	PKP	PKPdf	03 57 08.7	-2.8
	comp=Z,0.1nm,0.5s,baz=212,slow=0.9,SNR=4.8						
LPAZ	**La Paz**	**159.08**	**244**	PKPab	PKPab	03 58 15.4	+0.4
	comp=Z,2.0nm,0.9s,baz=88,slow=5.3,SNR=5.8						

IDC 27 03:45:42.5±6.5**, 6.02N**×**95.10E, mb3.9**/2**, mb1 4.2**/3**, mb1mx3.6**/18**, ML4.5**/1**, Error ellipse: s-maj=176.0km s-min=42.0km az=80.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.92**	**17**	Pn	P	03 48 47.4	-2.9
	0.8nm,0.3s,baz=229,slow=14,SNR=9.8						
WRA	**Warramunga Arr**	**46.42**	**125**	P	P	03 54 11.6	-1.5
	1.3nm,0.8s,baz=304,slow=9.3,SNR=4.7						
ASAR	**Alice Springs**	**48.00**	**129**	P	P	03 54 23.3	-2.3
	1.3nm,0.6s,baz=299,slow=7.4,SNR=11						
TXAR	**Lajitas Array**	**140.49**	**26**	PKP	PKPdf	04 05 14.3	-2.1
	0.2nm,0.6s,baz=55,slow=0.2,SNR=5.6						

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*MOS **27** 03:46:10.7±1.0, 5.37N×94.46E, h33^{km}, mb4.9/23, Error ellipse: s-maj=18.5km s-min=7.6km az=114.4*

*BJI **27** 03:46:11.4, 4.97N×94.50E, h68^{km}, mB5.1, mb4.8*

*IDC **27** 03:46:12.6±0.7, 5.26N×94.26E, h39^{km}±3^{km}, mb4.3/15, mb1 4.3/16, mb1mx4.2/22, ML4.2/1, Error ellipse: s-maj=26.2km s-min=14.2km az=44.0*

*NEIC **27** 03:46:13.6±0.3, 5.32N×94.45E, mb4.6/18, Error ellipse: s-maj=9.5km s-min=8.2km az=58.0*

ISC 27 03:46:11.9±0.5**, 5.32N**±0.07×**94.44E**±0.06**, h44**^{km}**, h44**^{km}±1.3^{km}**: pP-P, n97,** $\sigma 0^{s}$**97**/96**, mb4.6**/45**, 1C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**6.41**	**73**	P	**P**	**03 47 47.0**	**+0.8**
	360nm,1.0s						
CM31	**Chiang Mai Arr**	**13.78**	**18**	Pn	**P**	**03 49 28.4**	**+1.6**
CMAR	**Chiang Mai Arr**	**13.78**	**18**	Pn	**P**	**03 49 25.9**	**-0.9**
	0.4nm,0.3s,baz=230,slow=15,SNR=2.3						
CHG	**Chiang Mai**	**14.11**	**18**	⇓P	**P**	**03 49 36.4**	**+5.2**
	17nm,0.8s						
VIS	**Vishakhapatnam**	**16.43**	**320**	eP	**P**	**03 50 00.9**	**-0.2**
VIS				e		03 50 02.4	
	comp=Z,68nm,0.3s						
VIS				eS	Sx	03 52 28.5	
BOK	**Bokaro**	**20.13**	**337**	eP	**P**	**03 50 47.9**	**+2.8**
BOK				eS	**S**	**03 54 04.9**	**-19**
BOK				eS	**S**	**03 54 04.9**	**-19**
SHL	**Shillong**	**20.28**	**353**	eP	**P**	**03 51 00.0**	**+13**
BLSP	**Bilaspur**	**20.52**	**326**	eP	**P**	**03 50 50.1**	**+0.9**
BLSP				e		03 50 51.1	
	comp=Z,14nm,0.7s						
KAD	**Karad**	**23.13**	**303**	e	**S**	**03 55 19.0**	**-0.6**
PKI	**Pulchoki**	**23.74**	**340**	eP	**P**	**03 51 20.6**	**-0.6**
	comp=Z,19nm,0.4s,mb4.8						
DMN	**Daman**	**23.88**	**339**	eP	**P**	**03 51 23.0**	**+0.5**
	comp=Z,19nm,0.6s,mb4.7						
GUN	**Gumba**	**23.90**	**341**	eP	**P**	**03 51 22.4**	**-0.3**
	comp=Z,44nm,0.5s,mb5.2						
KKN	**Kakani**	**23.99**	**340**	eP	**P**	**03 51 23.1**	**-0.4**
	comp=Z,36nm,0.7s,mb4.9						
POO	**Poona**	**24.01**	**305**	eS	**S**	**03 55 22.7**	**-12**
POO				eS	**S**	**03 55 22.8**	**-12**
GYA	**Guiyang**	**24.05**	**28**	⇑iP	**P**	**03 51 26.0**	**+1.9**
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb4.9						
BHPL	**Bhopal**	**24.23**	**319**	eP	**P**	**03 51 28.3**	**+2.4**
BHPL				e		03 51 28.7	
	comp=Z,11nm,0.7s						
GKN	**Gorkha**	**24.41**	**339**	eP	**P**	**03 51 27.9**	**+0.2**
	comp=Z,30nm,0.3s,mb5.2						
LSA	**Lhasa**	**24.45**	**353**	eP	**P**	**03 51 28.8**	**+0.8**
LSA				pmax	pmax		
	comp=Z,27nm,0.6s,mb4.8						
LSA	**Lhasa**	**24.45**	**353**	eP	**P**	**03 51 28.8**	**+0.7**
	comp=Z,27nm,0.6s,mb4.9						
KOLN	**Koldanda**	**24.59**	**336**	eP	**P**	**03 51 29.9**	**+0.4**
	comp=Z,32nm,0.6s,mb5.0						
GTA	**Gaotai**	**34.28**	**7**	eP	**P**	**03 52 55.5**	**-0.7**
GTA				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
HHC	**Hu-ho-hao-te**	**38.56**	**21**	eP	**P**	**03 53 32.5**	**+0.3**
HHC				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,294nm,10.5s						
JOW	**Kunigami**	**38.70**	**53**	P	**P**	**03 53 34.5**	**+1.0**
	comp=Z,6.2nm,0.3s,mb4.8,baz=240,slow=10,SNR=5.5						
WMQ	**Urumqi**	**38.80**	**352**	P	**P**	**03 53 35.5**	**+1.3**
WMQ				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.7						
BJI	**Beijing**	**39.72**	**26**	P	**P**	**03 53 42.5**	**+0.6**
BJI				AMB	AMB		
	comp=Z,8.0nm,0.7s,mb4.6						
AAK	**Ala-Archa**	**41.16**	**338**	eP	**P**	**03 53 54.0**	**+0.3**
AAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.3						
AAK	**Ala-Archa**	**41.16**	**338**	eP	**P**	**03 53 54.0**	**+0.3**
	comp=Z,8.5nm,0.9s,mb4.4						
MKAR	**Makanchi Array**	**42.63**	**348**	i P	**P**	**03 54 06.2**	**+0.4**
MKAR				pmax	pmax		
	comp=Z,9.0nm,0.5s						
SONM	**Songino Array**	**43.58**	**12**	P	**P**	**03 54 12.7**	**-0.8**
	comp=Z,4.6nm,0.7s,mb4.3,baz=192,slow=8.4,SNR=29						
SONM				pP	pP	03 54 25.1	-0.5
	comp=Z,8.2nm,1.0s,baz=190,slow=7.5,SNR=10						
SONM				PcP	PcP	03 56 00.5	-0.5
	comp=Z,2.3nm,0.5s,baz=194,slow=3.7,SNR=11						
ULN	**Ulaanbaatar**	**43.75**	**12**	eP	**P**	**03 54 13.7**	**-1.1**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
ULN	**Ulaanbaatar**	**43.75**	**12**	eP	**P**	**03 54 13.7**	**-1.1**
	comp=Z,3.3nm,0.6s,mb4.2						
ZAK	**Zakamensk**	**45.52**	**8**	eP	**P**	**03 54 24.0**	**-5.0**
WRA	**Warramunga Arr**	**46.57**	**124**	P	**P**	**03 54 37.3**	**-0.4**
	comp=Z,14nm,0.8s,mb4.9,baz=308,slow=8.5,SNR=26						
WRA				pP	pP	03 54 50.1	+0.2
	comp=Z,9.0nm,0.6s,baz=302,slow=9.2,SNR=7.5						
WRAB	**Tennant Creek**	**46.57**	**124**	eP	**P**	**03 54 37.5**	**-0.2**
WRAB				e*PP	pP	03 54 50.1	+0.2
WRAB				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
WRAB	**Tennant Creek**	**46.57**	**124**	eP	**P**	**03 54 37.5**	**-0.2**
	comp=Z,21nm,0.8s,mb5.1						
WRAB				epP	pP	03 54 50.1	+0.2
CN2	**Changchun**	**47.04**	**31**	eP	**P**	**03 54 39.5**	**-1.6**
ASAR	**Alice Springs**	**48.08**	**128**	P	**P**	**03 54 49.0**	**-0.6**
	comp=Z,3.2nm,0.6s,mb4.5,baz=301,slow=8.1,SNR=14						
ZAL	**Zalesovo**	**49.10**	**352**	P	**P**	**03 54 56.4**	**-0.6**
	comp=Z,12nm,0.4s,mb5.3,baz=299,slow=5.3,SNR=29						
ZAL				pP	pP	03 55 07.7	-1.5
	comp=Z,3.7nm,0.6s,baz=326,slow=9.3,SNR=4.3						
NVS	**Novosibirsk**	**50.20**	**352**	eP	**P**	**03 55 03.8**	**-1.6**
NVS				e	pP	03 55 16.5	-1.1
NVS				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
NVS				pmax	pmax		
	comp=N,7.0nm,0.5s						
NVS				pmax	pmax		
	comp=E,5.0nm,0.5s						
BVA0	**Borovoye Array**	**51.49**	**342**	P	**P**	**03 55 14.6**	**-0.6**
BVAR	**Borovoye Array**	**51.49**	**342**	P	**P**	**03 55 14.6**	**-0.6**
	comp=E,6.6nm,0.7s,mb4.7,baz=141,slow=9.5,SNR=36						
BRVK	**Borovoye**	**51.55**	**342**	eP	**P**	**03 55 14.8**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
BRVK	**Borovoye**	**51.55**	**342**	eP	**P**	**03 55 14.8**	**-0.9**
	comp=Z,5.4nm,0.5s,mb4.7						
CHKZ	**Chkalovo**	**51.98**	**342**	eP	**P**	**03 55 18.6**	**-0.2**
CHKZ				e*PP	pP	03 55 31.1	0.0
CHKZ				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
CHKZ	**Chkalovo**	**51.98**	**342**	eP	**P**	**03 55 18.6**	**-0.2**
	comp=Z,14nm,0.6s,mb5.1						
CHKZ				epP	pP	03 55 31.1	0.0
BOD	**Bodaibo**	**54.55**	**13**	eP	**P**	**03 55 36.2**	**-1.7**
BOD				e	pP	03 55 46.2	-4.1
ZEI	**Tsey**	**58.11**	**318**	eP	**P**	**03 56 02.8**	**-0.7**
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
ARU	**Arti**	**58.35**	**338**	eP	**P**	**03 56 03.1**	**-1.8**
ARU				e	pP	03 56 17.1	-0.4
ARU				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.1						
ARU	**Arti**	**58.35**	**338**	eP	**P**	**03 56 03.1**	**-1.8**
	comp=Z,24nm,1.3s,mb5.1						
ARU				e	pP	03 56 17.1	-0.4
BRTR	**Keskin Array B**	**64.33**	**312**	P	**P**	**03 56 43.9**	**-1.7**
	comp=Z,2.8nm,0.8s,mb4.3,baz=123,slow=7.5,SNR=9.3						
BRTR				pP	pP	03 56 55.4	-2.9
	comp=Z,0.9nm,0.5s,baz=128,slow=7.5,SNR=3.0						
OBN	**Obninsk**	**67.69**	**328**	deP	**P**	**03 57 05.7**	**-1.0**
OBN				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
AKASG	**Malin Array Be**	**70.34**	**322**	P	**P**	**03 57 20.5**	**-2.5**
	comp=Z,2.0nm,0.4s,mb4.4,baz=84,slow=5.3,SNR=20						
AKASG				pP	pP	03 57 32.7	-3.2
	comp=Z,0.5nm,0.3s,baz=88,slow=5.2,SNR=3.3						
AKASG	**Malin Array Be**	**70.34**	**322**	P	**P**	**03 57 20.5**	**-2.5**
AKASG				*PP	pP	03 57 32.7	-3.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BOSA	**Boshof**	**74.50**	**239**	eP	**P**	**03 57 49.5**	**+1.3**
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
BOSA	**Boshof**	**74.50**	**239**	eP	**P**	**03 57 49.5**	**+1.4**
	comp=Z,3.1nm,0.9s,mb4.2						
SUW	**Suwalki**	**74.74**	**325**	eP	**P**	**03 57 48.1**	**-0.9**
SUW				e*PP	pP	03 58 01.8	-0.1
SUW				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
SUW	**Suwalki**	**74.74**	**325**	eP	**P**	**03 57 48.1**	**-0.9**
	comp=Z,20nm,1.0s,mb5.0						
SUW				epP	pP	03 58 01.8	-0.1
FINES	**FINESS Array B**	**75.10**	**332**	P	**P**	**03 57 49.9**	**-1.0**
	comp=Z,1.0nm,0.4s,mb4.1,baz=98,slow=6.0,SNR=12						
PSZ	**Piszkesteto**	**75.72**	**318**	P	**P**	**03 57 53.9**	**-0.9**
PSZ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
PSZ	**Piszkesteto**	**75.72**	**318**	P	**P**	**03 57 53.9**	**-0.9**
	comp=Z,3.5nm,0.8s,mb4.3						
OJC	**Ojcow**	**76.12**	**320**	eP	**P**	**03 57 56.9**	**0.0**
OKC	**Ostrava-Krasne**	**77.12**	**320**	eP	**P**	**03 58 02.7**	**+0.1**
MORC	**Moravsky Berou**	**77.50**	**320**	eP	**P**	**03 58 04.8**	**+0.1**
MORC				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
MORC	**Moravsky Berou**	**77.50**	**320**	eP	**P**	**03 58 04.8**	**+0.1**
	comp=Z,2.9nm,0.6s,mb4.4						
ARCES	**ARCESS Array B**	**77.76**	**340**	P	**P**	**03 58 06.2**	**+0.4**
	comp=Z,2.3nm,0.6s,mb4.3,baz=93,slow=5.8,SNR=18						
ARCES				pP	pP	03 58 18.6	-0.1
	comp=Z,2.1nm,0.5s,baz=90,slow=5.2,SNR=3.3						
DPC	**Dobruska-Polom**	**78.34**	**320**	eP	**P**	**03 58 10.2**	**+0.9**
PRU	**Pruhonice**	**79.45**	**320**	eP	**P**	**03 58 15.8**	**+0.4**
BRG	**Berggiesshubel**	**79.90**	**321**	i P	**P**	**03 58 18.5**	**+0.7**
BRG				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BRG	**Berggiesshubel**	**79.90**	**321**	i P	**P**	**03 58 18.5**	**+0.7**
	comp=Z,6.3nm,0.9s,mb4.5						
GEC2	**GERESS Array S**	**79.92**	**319**	eP	**P**	**03 58 18.8**	**+0.8**
GEC2				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
GEC2	**GERESS Array S**	**79.92**	**319**	eP	**P**	**03 58 18.8**	**+0.8**
	comp=Z,5.0nm,0.7s,mb4.5						
GERES	**GERESS Array B**	**79.92**	**319**	P	**P**	**03 58 18.4**	**+0.5**
	comp=Z,4.3nm,0.6s,mb4.6,baz=102,slow=5.2,SNR=36						
GERES				sP	sP	03 58 32.3	-3.5
	comp=Z,2.5nm,0.7s,baz=98,slow=5.0,SNR=7.4						
KHC	**Kasperske Hory**	**80.02**	**319**	eP	**P**	**03 58 19.0**	**+0.5**
KHC				epP	pP	03 58 33.5	+2.0
WET	**Wettzell**	**80.48**	**319**	eP	**P**	**03 58 21.7**	**+0.8**
CLL	**Collm**	**80.52**	**321**	eP	**P**	**03 58 19.0**	**-2.1**
CLL				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
CLL	**Collm**	**80.52**	**321**	eP	**P**	**03 58 19.0**	**-2.1**
	comp=Z,5.0nm,1.1s,mb4.4						
CLL	**Collm**	**80.52**	**321**	P	**P**	**03 58 20.0**	**-1.1**
	comp=Z,logA/T=0.7,mb4.4						
HFS	**Hagfors**	**80.80**	**330**	P	**P**	**03 58 21.8**	**-0.6**
	comp=Z,1.3nm,0.4s,mb4.2,baz=117,slow=6.4,SNR=10						
HFS				pP	pP	03 58 34.8	-0.6
	comp=Z,1.0nm,0.5s,baz=79,slow=7.3,SNR=1.8						
MOX	**Moxa**	**81.36**	**320**	eP	**P**	**03 58 26.0**	**+0.5**
MOX	**Moxa**	**81.36**	**320**	i P	**P**	**03 58 26.0**	**+0.5**
GRA1	**Grafenberg Arr**	**81.58**	**319**	eP	**P**	**03 58 27.7**	**+1.0**
	comp=Z,3.0nm,0.7s,mb4.3						
GRF	**Grafenberg Arr**	**81.58**	**319**	eP	**P**	**03 58 27.7**	**+1.0**
GRF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
GRF	**Grafenberg Arr**	**81.58**	**319**	eP	**P**	**03 58 27.7**	**+1.0**
GRF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
GRF	**Grafenberg Arr**	**81.58**	**319**	eP	**P**	**03 58 27.7**	**+1.0**
	comp=Z,3.0nm,0.7s,mb4.3						
NB2	**NORSAR Subarra**	**82.09**	**331**	P	pP	03 58 45.7	+3.5
	comp=Z,7.7nm,1.2s,baz=93,slow=5.3						
CLZ	**Clausthal**	**82.18**	**321**	eP	**P**	**03 58 30.3**	**+0.6**
BSEG	**Bad Segeberg**	**82.27**	**324**	eP	**P**	**03 58 30.9**	**+0.7**
BFO	**Black Forest**	**83.47**	**318**	eP	**P**	**03 58 36.9**	**+0.5**
BFO				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BFO	**Black Forest**	**83.47**	**318**	eP	**P**	**03 58 36.9**	**+0.5**
	comp=Z,2.0nm,0.6s,mb4.3						
LPG	**La Plagne**	**84.62**	**315**	eP	**P**	**03 58 43.2**	**+0.9**
	comp=Z,4.4nm,0.5s,mb4.5						
LPG	**La Plagne**	**84.62**	**315**	eP	**P**	**03 58 43.2**	**+0.9**
LPG				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.5						
ESDC	**Sonseca Array**	**93.08**	**310**	P	**P**	**03 59 23.7**	**+1.0**
	comp=Z,0.7nm,0.7s,mb4.2,baz=60,slow=3.6,SNR=4.8						
ILAR	**Eielson Array**	**96.98**	**22**	P	**P**	**03 59 39.7**	**-0.1**
	comp=Z,0.3nm,0.6s,mb3.9,baz=303,slow=3.7,SNR=7.8						
ILAR				pP	pP	03 59 52.8	-0.3
	comp=Z,0.3nm,0.5s,baz=287,slow=4.6,SNR=3.4						
INK	**Inuvik**	**99.35**	**16**	P	**P**	**03 59 51.0**	**+0.6**
	comp=Z,2.0nm,1.0s,mb4.6,baz=285,slow=2.5,SNR=9.0						
NVAR	**Mina Array Bea**	**126.93**	**32**	PKP	PKPdf	04 05 13.4	+1.7
	comp=Z,0.7nm,0.6s,baz=297,slow=4.0,SNR=3.6						
PDAR	**Pinedale Array**	**127.42**	**22**	PKP	PKPdf	04 05 12.9	+0.4
	comp=Z,0.7nm,0.7s,baz=63,slow=3.3,SNR=5.1						
TXAR	**Lajitas Array**	**141.40**	**26**	PKhKP		04 05 34.1	
	comp=Z,0.5nm,0.4s,baz=262,slow=0.6,SNR=13						

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*IDC **27** 03:50:25.9±1.2, 11.44N×92.61E, mb4.0/6, mb1 4.2/7, mb1mx3.9/19, ML4.3/1, Error ellipse: s-maj=41.3km s-min=21.7km az=52.0*

*NEIC **27** 03:50:31.0±0.9, 11.49N×92.73E, h30^{km}, mb4.4/3, Error ellipse: s-maj=25.7km s-min=15.3km az=66.0*

ISC 27 03:50:28.8±0.9**, 11.5N**±0.1×**92.7E**±0.1**, h30**^{km}**, n10,** $\sigma 0^{s}$**89**/10**, mb4.0**/9**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.14**	**40**	Pn	**P**	**03 52 41.8**	**-0.2**
	0.8nm,0.3s,baz=337,slow=16,SNR=4.2						
SONM	**Songino Array**	**37.98**	**15**	P	**P**	**03 57 45.7**	**-0.2**
	1.7nm,0.9s,mb3.8,baz=198,slow=7.8,SNR=4.2						
ULN	**Ulaanbaatar**	**38.18**	**16**	P	**P**	**03 57 46.9**	**-0.6**
	1.0nm,0.8s,mb3.6						
BVAR	**Borovoye Array**	**45.13**	**341**	P	**P**	**03 58 44.5**	**+0.2**
	0.5nm,0.5s,mb3.6,baz=264,slow=40,SNR=3.4						
CHKZ	**Chkalovo**	**45.62**	**342**	eP	**P**	**03 58 50.7**	**+2.5**
	4.6nm,0.9s,mb4.4						
WRA	**Warramunga Arr**	**51.51**	**127**	P	**P**	**03 59 35.1**	**+0.8**
	3.5nm,0.5s,mb4.5,baz=302,slow=9.1,SNR=9.1						
WRAB	**Tennant Creek**	**51.51**	**127**	eP	**P**	**03 59 34.9**	**+0.6**
	6.0nm,0.5s,mb4.8						
ASAR	**Alice Springs**	**53.31**	**131**	P	**P**	**03 59 46.6**	**-1.1**
	0.9nm,0.5s,mb4.0,baz=305,slow=7.0,SNR=6.9						
BRTR	**Keskin Array B**	**59.05**	**309**	P	**P**	**04 00 27.8**	**-0.9**
	0.7nm,0.5s,mb4.0,baz=116,slow=6.2,SNR=3.8						
GERES	**GERESS Array B**	**74.22**	**318**	P	**P**	**04 02 04.5**	**-0.3**
	0.7nm,0.7s,mb3.7,baz=108,slow=4.2,SNR=4.4						

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*IDC **27** 03:51:11.4±0.8, 9.52N×91.66E, mb4.3/12, mb1 4.4/13, mb1mx4.3/20, ML4.1/1, Error ellipse: s-maj=37.1km s-min=15.7km az=56.0*

*BJI **27** 03:51:13.6, 9.60N×91.71E, h14^{km}, mB5.1, mb4.6*

*NEIC **27** 03:51:14.0±0.4, 9.46N×91.70E, mb4.5/9, Error ellipse: s-maj=13.2km s-min=9.7km az=72.0*

ISC 27 03:51:11.8±0.5**, 9.38N**±0.08×**91.7E**±0.1**, h18**^{km}**, h18**^{km}±1.6^{km}**: pP-P, n35,** $\sigma 0^{s}$**99**/30**, mb4.4**/25**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.46**	**37**	Pn	**P**	**03 53 54.2**	**-3.6**
	0.4nm,0.3s,baz=240,slow=12,SNR=2.5						
SHL	**Shillong**	**16.10**	**1**	e	**P**	**03 55 02.0**	**+2.9**
LSA	**Lhasa**	**20.22**	**359**	eP	**P**	**03 55 46.2**	**-2.6**
	16nm,0.7s						
GYA	**Guiyang**	**22.15**	**38**	⇑iP	**P**	**03 56 12.3**	**+3.8**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
ENH	**Enshi**	**26.63**	**36**	eP	**P**	**03 56 49.9**	**-1.6**
	comp=Z,20nm,0.9s,mb4.6						
ENH				epP	pP	03 56 56.0	-0.7
LZH	**Lanzhou**	**28.80**	**21**	eP	**P**	**03 57 10.8**	**-0.3**
LZH				AP	pP	03 57 13.5	-2.8
LZH				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.6						
GTA	**Gaotai**	**30.78**	**12**	eP	**P**	**03 57 29.3**	**+0.6**
GTA				AP	pP	03 57 35.3	+1.4
GTA				XP	sP	03 57 38.5	+2.3
GTA				AMB	AMB		
	comp=Z,8.0nm,1.1s,mb4.5						
NJ2	**Nanjing**	**33.81**	**44**	eP	**P**	**03 58 00.8**	**+5.5**
NJ2				AMB	AMB		
	comp=Z,80nm,1.2s,mb5.5						
AAK	**Ala-Archa**	**36.38**	**338**	eP	**P**	**03 58 18.1**	**+1.0**
	comp=Z,4.8nm,0.9s,mb4.4						
SONM	**Songino Array**	**40.30**	**15**	P	**P**	**03 58 49.3**	**-0.4**
	comp=Z,2.5nm,0.7s,mb4.0,baz=200,slow=7.8,SNR=7.0						
SONM				PcP	PcP	04 00 54.8	+0.9
	comp=Z,0.9nm,0.7s,baz=197,slow=3.9,SNR=3.4						
ULN	**Ulaanbaatar**	**40.50**	**16**	eP	**P**	**03 58 52.2**	**+0.7**
	comp=Z,3.1nm,0.9s,mb3.9						
ZAL	**Zalesovo**	**44.77**	**354**	P	**P**	**03 59 25.7**	**-0.5**
	comp=Z,1.9nm,0.5s,mb4.2,baz=301,slow=7.7,SNR=4.3						
ZAL	**Zalesovo**	**44.77**	**354**	P	**P**	**03 59 25.7**	**-0.5**
CN2	**Changchun**	**45.13**	**35**	eP	**P**	**03 59 28.3**	**-0.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
BVAR	**Borovoye Array**	**46.80**	**343**	P	**P**	**03 59 42.0**	**-0.3**
	comp=Z,3.5nm,0.8s,mb4.3,baz=143,slow=7.4,SNR=7.6						
BRVK	**Borovoye**	**46.86**	**342**	eP	**P**	**03 59 43.7**	**+0.9**
	comp=Z,3.4nm,0.7s,mb4.4						
BRVK				epP	pP	03 59 49.3	+1.3
CHKZ	**Chkalovo**	**47.30**	**343**	eP	**P**	**03 59 47.5**	**+1.2**
	comp=Z,7.2nm,0.6s,mb4.8						
CHKZ				epP	pP	03 59 52.9	+1.3
WRA	**Warramunga Arr**	**51.13**	**125**	P	**P**	**04 00 16.0**	**-0.2**
	comp=Z,4.0nm,0.5s,mb4.6,baz=304,slow=8.6,SNR=7.5						
WRA				PcP	PcP	04 01 33.3	+1.4
	comp=Z,2.4nm,0.6s,baz=313,slow=2.8,SNR=7.9						
WRAB	**Tennant Creek**	**51.14**	**125**	eP	**P**	**04 00 16.6**	**+0.4**
	comp=Z,6.6nm,0.5s,mb4.8						
WRAB				epP	pP	04 00 22.0	+0.4
ASAR	**Alice Springs**	**52.77**	**129**	P	**P**	**04 00 28.7**	**+0.2**
	comp=Z,3.1nm,0.8s,mb4.3,baz=310,slow=7.3,SNR=5.7						
ASAR				PcP	PcP	04 01 39.3	+1.3
	comp=Z,3.1nm,0.6s,baz=306,slow=3.6,SNR=11						
BRTR	**Keskin Array B**	**59.59**	**311**	P	**P**	**04 01 16.2**	**-0.9**
	comp=Z,1.2nm,0.6s,mb4.1,baz=122,slow=8.0,SNR=5.7						
STKA	**Stephens Creek**	**62.92**	**133**	P	**P**	**04 01 40.5**	**+0.8**
	comp=Z,6.3nm,0.7s,mb4.9,baz=297,slow=7.9,SNR=13						
FINES	**FINESS Array B**	**70.24**	**332**	P	**P**	**04 02 25.9**	**+0.1**
	comp=Z,3.4nm,0.9s,mb4.3,baz=104,slow=7.9,SNR=5.5						
LBTB	**Lobatse**	**72.83**	**240**	P	**P**	**04 02 42.2**	**+0.2**
	comp=Z,1.6nm,0.8s,mb4.0						
ARCES	**ARCESS Array B**	**73.02**	**340**	P	**P**	**04 02 41.7**	**-0.5**
	comp=Z,1.8nm,0.6s,mb4.2,baz=90,slow=7.3,SNR=6.3						
ARCES	**ARCESS Array B**	**73.02**	**340**	P	**P**	**04 02 41.7**	**-0.5**
BOSA	**Boshof**	**74.32**	**237**	eP	**P**	**04 02 49.5**	**-1.1**
	comp=Z,2.8nm,0.8s,mb4.2						
GERES	**GERESS Array B**	**75.07**	**318**	P	**P**	**04 02 54.2**	**-0.3**
	comp=Z,1.2nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=5.4						
ILAR	**Eielson Array**	**94.27**	**22**	P	**P**	**04 04 30.9**	**-0.1**
	comp=Z,1.0nm,0.8s,mb4.3,baz=301,slow=4.2,SNR=15						
INK	**Inuvik**	**96.22**	**15**	P	**P**	**04 04 41.0**	**+1.1**
	comp=Z,0.9nm,0.8s,mb4.2,baz=307,slow=13,SNR=3.1						
PDAR	**Pinedale Array**	**124.60**	**19**	PKP	PKPdf	04 10 12.1	-2.7

	comp=Z,0.5nm,0.6s,baz=117,slow=2.1,SNR=5.2						
NVAR	Mina Array Bea	124.84	29	PKP	PKPdf	04 10 14.5	-0.8
	comp=Z,1.0nm,0.6s,baz=264,slow=3.2,SNR=3.7						
NVAR	Mina Array Bea	124.84	29	PKP	PKPdf	04 10 14.5	-0.8
TXAR	Lajitas Array	138.77	20	PKP	PKPdf	04 10 38.7	-3.0
	comp=Z,0.2nm,0.6s,SNR=2.2						
TXAR	Lajitas Array	138.77	20	PKP	PKPdf	04 10 38.7	-3.0

IDC 27 03:51:58.0±18.0,7.46N×92.59E,mb4.1/4,mb1 4.2/4, mb1mx3.9/17,MS3.8/1,Ms1 3.8/1,ms1mx2.8/28,Error ellipse: s-maj=461.0km s-min=189.5km az=159.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOW	Kunigami	38.96	56	LR	LR	04 19 46.0	
	comp=Z,111nm,18.7s,baz=277,slow=43						
BRTR	Keskin Array B	61.54	311	P	P	04 02 17.6	-1.8
	1.5nm,0.6s,baz=127,slow=6.6,SNR=5.1						
AKASG	Malin Array Be	67.53	322	P	P	04 02 55.6	-2.6
	1.3nm,0.6s,baz=87,slow=4.9,SNR=7.9						
FINES	FINESS Array B	72.36	332	P	P	04 03 26.0	-1.5
	1.7nm,0.6s,baz=79,slow=9.7,SNR=4.4						
GERES	GERESS Array B	77.11	318	P	P	04 03 53.5	-1.5
	1.8nm,0.7s,baz=104,slow=5.5,SNR=7.6						

IDC 27 03:57:47.2±1.6,5.67N×94.33E,mb3.7/3,mb1 3.9/4, mb1mx3.6/18,ML4.3/1,Error ellipse: s-maj=49.2km s-min=29.1km az=56.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.48	19	Pn	P	04 01 00.6	-1.8
	0.5nm,0.3s,baz=212,slow=14,SNR=4.3						
SONM	Songino Array	43.26	12	P	P	04 05 50.3	-1.9
	1.9nm,0.9s,baz=180,slow=9.9,SNR=10						
ASAR	Alice Springs	48.38	129	P	P	04 06 31.2	-2.0
	0.4nm,0.6s,baz=306,slow=7.8,SNR=3.8						
BRTR	Keskin Array B	64.01	312	P	P	04 08 23.1	-1.9
	0.6nm,0.9s,baz=105,slow=6.9,SNR=2.5						

IDC 27 03:59:58.8±50.0,6.00N×93.15E,mb4.0/3,mb1 4.1/3, mb1mx3.6/17,Error ellipse: s-maj=1301.0km s-min=91.9km az=148.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	43.20	13	P	P	04 08 01.6	-1.7
	0.9nm,1.0s,baz=198,slow=7.5,SNR=3.7						
FINES	FINESS Array B	73.91	333	P	P	04 11 35.6	-1.8
	5.0nm,1.2s,baz=129,slow=8.9,SNR=3.3						
ARCES	ARCESS Array B	76.69	340	P	P	04 11 51.6	-1.5
	2.0nm,0.9s,baz=100,slow=5.5,SNR=3.7						

IDC 27 04:04:43.3±2.8,19.36S×172.23W,mb3.7/5,mb1 4.1/5, mb1mx4.0/16,Error ellipse: s-maj=201.0km s-min=26.3km az=154.0,Tonga Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ASAR	Alice Springs	50.06	255	P	P	04 13 39.5	-2.5
	1.1nm,0.7s,baz=95,slow=6.7,SNR=9.0						
WRA	Warramunga Arr	50.14	260	P	P	04 13 41.4	-1.4
	0.5nm,0.4s,baz=97,slow=6.3,SNR=7.0						
TXAR	Lajitas Array	81.91	55	P	P	04 17 05.6	-0.8
	0.8nm,1.1s,baz=220,slow=9.8,SNR=4.2						
PDAR	Pinedale Array	84.47	41	P	P	04 17 18.4	-0.9
	0.6nm,0.8s,baz=235,slow=5.0,SNR=5.8						
YKA	Yellowknife Ar	93.27	23	P	P	04 17 58.7	-1.9
	0.2nm,0.8s,baz=228,slow=4.1,SNR=6.4						

IDC 27 04:04:58.6±1.6,9.07N×93.30E,mb3.8/5,mb1 4.0/5, mb1mx3.7/17,Error ellipse: s-maj=129.0km s-min=27.7km az=44.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	49.63	126	P	P	04 13 52.3	-2.0
	1.0nm,1.1s,baz=306,slow=9.0,SNR=3.3						
BRTR	Keskin Array B	61.02	310	P	P	04 15 13.9	-2.5
	0.8nm,1.0s,baz=115,slow=8.5,SNR=4.3						
FINES	FINESS Array B	71.27	332	P	P	04 16 20.3	-1.3
	2.4nm,0.8s,baz=129,slow=8.9,SNR=2.8						
ARCES	ARCESS Array B	73.86	340	P	P	04 16 34.7	-2.0
	12nm,1.4s,baz=90,slow=4.9,SNR=8.5						
GERES	GERESS Array B	76.38	318	P	P	04 16 50.3	-1.2
	0.4nm,0.6s,baz=72,slow=4.2,SNR=5.9						

MOS 27 04:06:12.5±1.1,4.87N×95.17E,h33^{km},mb4.8/14,Error ellipse: s-maj=18.9km s-min=8.6km az=108.3
BJI 27 04:06:14.3,4.69N×95.06E,h61^{km},mb5.1
NEIC 27 04:06:15.9±0.3,4.77N×95.13E,mb4.7/15,Error ellipse: s-maj=11.1km s-min=7.5km az=223.0
IDC 27 04:06:16.2±0.8,4.80N×95.11E,h51^{km}±6^{km},mb4.3/19, mb1 4.4/20,mb1mx4.3/26,Error ellipse: s-maj=25.5km s-min=14.1km az=40.0
ISC 27 04:06:14.1±0.5,4.72N±0.09×95.17E±0.08,h51^{km}, h51^{km}±2.4^{km}:pP-P,n91,σ0^{s}93/84,mb4.7/45,7C,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	14.14	15	eP	P	04 09 38.7	+5.3
	6.6nm,0.3s						
CM31				i		04 09 41.3	
CMAR	Chiang Mai Arr	14.14	15	P	P	04 09 39.6	+6.2
	2.2nm,0.3s,baz=208,slow=11,SNR=52						
GYA	Guiyang	24.25	26	P	P	04 11 28.5	+0.9
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
PKI	Pulchoki	24.55	339	eP	P	04 11 31.0	+0.4
	comp=Z,7.1nm,0.5s,mb4.5						
DMN	Daman	24.70	338	eP	P	04 11 32.7	+0.7
	comp=Z,14nm,0.8s,mb4.6						
GUN	Gumba	24.70	340	eP	P	04 11 32.3	+0.3
	comp=Z,20nm,0.4s,mb5.0						
KKN	Kakani	24.80	339	eP	P	04 11 32.9	-0.1
	comp=Z,13nm,0.6s,mb4.7						
LSA	Lhasa	25.13	352	eP	P	04 11 36.5	+0.4
LSA				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.5						
LSA	Lhasa	25.13	352	eP	P	04 11 36.5	+0.3
	comp=Z,9.5nm,0.7s,mb4.4						
GKN	Gorkha	25.23	338	eP	P	04 11 37.2	+0.1
	comp=Z,15nm,0.3s,mb5.0						
KOLN	Koldanda	25.43	336	eP	P	04 11 39.2	+0.2
	comp=Z,41nm,0.6s,mb5.2						
XAN	Xi'an	31.84	22	P	P	04 12 35.5	-1.1
XAN				AMB	AMB		
	comp=Z,42nm,0.7s,mb5.4						
GTA	Gaotai	34.78	6	eP	P	04 13 00.5	-1.4
GTA				AMB	AMB		
	comp=Z,3.0nm,0.6s,mb4.4						
JOW	Kunigami	38.49	52	P	P	04 13 34.8	+1.6
	comp=Z,14nm,0.7s,mb4.8,baz=236,slow=7.3,SNR=4.7						
BJT	Baijiatuau	39.92	25	eP	P	04 13 46.3	+1.3
BJT				pmax	pmax		
	comp=Z,10.0nm,0.8s						
BJT	Baijiatuau	39.92	25	eP	P	04 13 46.3	+1.3
	comp=Z,10nm,0.8s,mb4.6						
BJI	Beijing	39.94	25	P	P	04 13 46.5	+1.4
BJI				AMB	AMB		
	comp=Z,29nm,0.9s,mb5.0						
ULHL	Ulahol	40.99	338	P	P	04 13 53.5	-0.3
	SNR=5.8						
KZA	Kyzart	41.22	337	P	P	04 13 57.1	+1.4
	SNR=9.0						
UCH	Uchtor	41.63	337	P	P	04 14 00.6	+1.5
	SNR=25						
TKM2	Tokmak 2	41.81	338	P	P	04 14 01.5	+1.0
	SNR=14						
KBK	Karagaybulak	41.83	338	P	P	04 14 02.7	+2.0
	SNR=8.0						
AML	Almayashu	41.88	336	P	P	04 14 02.6	+1.5
	SNR=19						
AAK	Ala-Archa	41.98	337	P	P	04 14 03.7	+1.7
	SNR=11						
AAK	Ala-Archa	41.98	337	eP	P	04 14 02.2	+0.2
AAK				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.6						
AAK	Ala-Archa	41.98	337	eP	P	04 14 02.2	+0.2
	comp=Z,12nm,0.7s,mb4.6						
CHMS	Chumysh	42.20	338	P	P	04 14 04.7	+1.0
	SNR=7.5						
EKS2	Erkin-Say	42.29	336	P	P	04 14 05.6	+1.1
	SNR=9.0						
USP	Ospenovka	42.52	338	P	P	04 14 07.3	+0.9
	SNR=16						
MKAR	Makanchi Array	43.37	347	P	P	04 14 12.7	-0.5
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM	Songino Array	44.02	11	P	P	04 14 17.7	-0.8
	comp=Z,1.6nm,0.8s,mb3.8,baz=192,slow=8.9,SNR=11						
SONM				PcP	PcP	04 16 03.8	-0.1
	comp=Z,2.4nm,0.6s,baz=198,slow=3.6,SNR=12						
ULN	Ulaanbaatar	44.17	11	P	P	04 14 18.1	-1.7
ULN				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
ULN	Ulaanbaatar	44.17	11	P	P	04 14 18.1	-1.7
	comp=Z,1.0nm,0.5s,mb3.8						
WRA	Warramunga Arr	45.64	124	P	P	04 14 32.3	+0.5
	comp=Z,16nm,0.7s,mb5.1,baz=302,slow=9.1,SNR=53						
WRAB	Tennant Creek	45.64	124⇑	eP	P	04 14 32.3	+0.4
WRAB				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.2						
WRAB	Tennant Creek	45.64	124⇑	eP	P	04 14 32.3	+0.4
	comp=Z,21nm,0.6s,mb5.2						
ZAK	Zakamensk	46.01	7	eP	P	04 14 33.2	-1.2
ASAR	Alice Springs	47.14	128	P	P	04 14 43.8	+0.2
	comp=Z,4.2nm,0.8s,mb4.4,baz=299,slow=7.8,SNR=23						
ASAR				PcP	PcP	04 16 15.0	-0.1
	comp=Z,2.2nm,0.9s,baz=302,slow=4.8,SNR=4.2						
CN2	Changchun	47.19	30	eP	P	04 14 43.5	-0.2
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
HIA	Hailar	49.04	21	eP	P	04 14 57.6	-0.4
HIA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
HIA	Hailar	49.04	21	eP	P	04 14 57.6	-0.4
	comp=Z,5.7nm,0.5s,mb4.9						
ZAL	Zalesovo	49.79	352	P	P	04 15 02.6	-1.1
	comp=Z,5.0nm,0.3s,mb5.0,baz=317,slow=4.9,SNR=17						
BVA0	Borovoye Array	52.28	341	P	P	04 15 21.8	-0.8
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BVAR	Borovoye Array	52.28	341	P	P	04 15 22.0	-0.6
	comp=Z,17nm,0.7s,mb5.1,baz=141,slow=9.5,SNR=74						
BRVK	Borovoye	52.34	341⇑	eP	P	04 15 22.1	-0.9
BRVK				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
BRVK	Borovoye	52.34	341⇑	eP	P	04 15 22.1	-1.0
	comp=Z,17nm,0.6s,mb5.2						
CHKZ	Chkalovo	52.77	342⇑	eP	P	04 15 25.7	-0.5
CHKZ				e*PP	pP	04 15 38.1	-1.9
CHKZ				pmax	pmax		
	comp=Z,36nm,0.6s,mb5.5						
CHKZ	Chkalovo	52.77	342⇑	eP	P	04 15 25.7	-0.5
	comp=Z,36nm,0.6s,mb5.5						
CHKZ				epP	pP	04 15 38.1	-1.9
KLR	Kul'dur	54.09	29	eP	P	04 15 33.3	-2.8
BOD	Bodaibo	54.98	12	eP	P	04 15 39.4	-3.0
GNI	Garni	57.37	315	P	P	04 15 59.3	-0.5
	comp=Z,4.3nm,0.9s,mb4.5,baz=252,slow=12,SNR=3.5						
GNI	Garni	57.37	315	eP	P	04 15 59.7	-0.1
GNI				pmax	pmax		
	comp=Z,6.0nm,1.0s						
GNI	Garni	57.37	315	eP	P	04 15 59.6	-0.2
	comp=Z,5.6nm,1.0s,mb4.5						
ZEI	Tsey	59.04	318	eP	P	04 16 11.1	-0.3
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.7						
EIL	Elat	61.89	301	P	P	04 16 31.0	0.0
	comp=Z,4.2nm,0.8s,mb4.6,baz=19,slow=31,SNR=3.1						
EIL	Elat	61.89	301	P	P	04 16 31.0	0.0
BRTR	Keskin Array B	65.26	312	P	P	04 16 51.6	-1.4
	comp=Z,3.8nm,0.8s,mb4.5,baz=132,slow=7.0,SNR=22						
BRTR				pP	pP	04 17 06.4	-0.9
	comp=Z,1.6nm,0.8s,baz=129,slow=7.6,SNR=5.8						
IDI	Anoyia	71.21	306	P	P	04 17 29.6	-0.4
	comp=Z,5.7nm,0.7s,mb4.6,baz=202,slow=16,SNR=4.2						
AKASG	Malin Array Be	71.25	322	P	P	04 17 28.4	-1.6
	comp=Z,2.5nm,0.4s,mb4.5,baz=86,slow=5.1,SNR=36						
AKASG	Malin Array Be	71.25	322	P	P	04 17 28.4	-1.6
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.4s						
VRI	Vrincioaia	71.67	317⇑	iP	P	04 17 32.9	+0.3
MLR	Muntele Rosu	72.13	316	P	P	04 17 35.7	+0.4
	comp=Z,6.8nm,0.8s,mb4.6,baz=135,slow=19,SNR=6.7						
KWP	Kalwaria	75.08	320	eP	P	04 17 52.4	0.0
KWP				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
KWP	Kalwaria	75.08	320	eP	P	04 17 52.4	0.0
	comp=Z,7.1nm,0.5s,mb4.8						
FINES	FINESS Array B	75.96	332	P	P	04 17 56.5	-0.7
	comp=Z,3.4nm,0.3s,mb4.7,baz=107,slow=6.1,SNR=69						
FINES				pP	pP	04 18 11.1	-0.6
	comp=Z,3.2nm,0.4s,baz=103,slow=6.1,SNR=6.1						
KAF	Kangasniemi	76.04	333	ep	P	04 17 56.8	-0.9
	comp=Z,3.7nm,0.5s,mb4.6						
KAF	Kangasniemi	76.04	333	eP	P	04 17 56.8	-0.9
KAF				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
PSZ	Piszkesteto	76.65	318	eP	P	04 18 01.0	-0.4
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
PSZ	Piszkesteto	76.65	318	eP	P	04 18 01.0	-0.4
	comp=Z,4.1nm,0.7s,mb4.5						
OJC	Ojcow	77.03	320	eP	P	04 18 03.4	-0.1
KEV	Kevo	78.13	341	ep	P	04 18 07.9	-1.3
	comp=Z,3.3nm,0.5s,mb4.5						
KEV	Kevo	78.13	341	eP	P	04 18 07.9	-1.3
KEV				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
MORC	Moravsky Berou	78.42	320	eP	P	04 18 11.3	+0.1
MORC				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
MORC	Moravsky Berou	78.42	320	eP	P	04 18 11.3	+0.2
	comp=Z,2.1nm,0.6s,mb4.2						
ARCES	ARCESS Array B	78.56	340	P	P	04 18 11.5	-0.1
	comp=Z,3.7nm,0.4s,mb4.7,baz=93,slow=5.8,SNR=75						
FX1	Attu Island--F	79.00	37	eP	P	04 18 13.8	-0.5
GERES	GERESS Array B	80.85	319	P	P	04 18 24.8	+0.5
	comp=Z,2.5nm,0.5s,mb4.4,baz=123,slow=5.3,SNR=27						
GERES				pP	pP	04 18 40.0	+1.1
	comp=Z,1.6nm,0.5s,baz=107,slow=5.6,SNR=7.0						
KHC	Kasperske Hory	80.94	319	eP	P	04 18 19.0	-5.8
NB2	NORSAR Subarra	82.96	331	P	P	04 18 34.3	-0.6
	comp=Z,9.2nm,1.4s,mb4.6,baz=97,slow=4.8						
NB2	NORSAR Subarra	82.96	331	P	P	04 18 34.3	-0.6
NB2				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.6						
NOA	NORSAR Array B	82.96	331	P	P	04 18 34.6	-0.3
	comp=Z,1.5nm,0.8s,mb4.1,baz=95,slow=4.9,SNR=3.3						
DAVOX	Davos	83.36	316	P	P	04 18 37.8	+0.5
	comp=Z,6.6nm,0.4s,mb5.0,baz=268,slow=4.3,SNR=13						
ILAR	Eielson Array	97.25	22	P	P	04 19 43.2	+0.8
	comp=Z,0.4nm,1.0s,mb3.8,baz=284,slow=5.1,SNR=5.2						
INK	Inuvik	99.71	16	P	P	04 19 54.1	+0.6
	comp=Z,0.6nm,0.7s,mb4.1,baz=333,slow=2.3,SNR=3.8						
ULM	Lac du Bonnet	124.42	9	PKP	PKPdf	04 25 10.2	+2.3
	comp=Z,1.3nm,0.6s,baz=349,slow=5.2,SNR=3.1						
PDAR	Pinedale Array	127.68	23	PKP	PKPdf	04 25 16.0	+1.6
	comp=Z,1.7nm,1.2s,baz=90,slow=1.5,SNR=4.5						
TXAR	Lajitas Array	141.61	27	PKhKP		04 25 36.3	
	comp=Z,0.2nm,0.4s,baz=240,slow=1.3,SNR=8.0						
TXAR				PKP	PKPdf	04 25 43.5	+2.8
	comp=Z,0.5nm,0.4s,baz=330,slow=0.6,SNR=9.1						
JCT	Junction City	142.18	21	ePKIKP	PKPdf	04 25 41.5	-0.1
BDFB	Brasilia	142.25	251	PKP	PKPdf	04 25 44.5	+2.5
	comp=Z,1.3nm,0.7s,baz=216,slow=0.9,SNR=2.9						
CPUP	Villa Florida	146.04	228	PKPbc	PKPbc	04 25 51.2	+1.8
	comp=Z,0.0nm,0.5s,baz=280,slow=13,SNR=2.2						
CPUP	Villa Florida	146.04	228	PKPbc	PKPbc	04 25 51.2	+1.8

IDC 27 04:06:39.8±1.2,3.10N×94.57E,mb4.3/7,mb1 4.5/8, mb1mx4.2/19,ML4.7/1,Error ellipse: s-maj=55.7km s-min=27.0km az=65.0
BJI 27 04:06:41.9,2.54N×94.83E,h57^{km},mB4.9,mb4.7,Ms4.1, Msz4.0
NEIC 27 04:06:44.1±0.7,3.07N×94.56E,h30^{km},mb4.6/7,Error ellipse: s-maj=18.8km s-min=14.5km az=91.0
ISC 27 04:06:42.5±1.0,3.1N±0.1×94.5E±0.1,h30^{km},n25, σ0^{s}83/22,mb4.5/16,MS4.0/1,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.88	16	eP	P	04 10 26.7	+0.9
CMAR	Chiang Mai Arr	15.88	16	Pn	P	04 10 24.6	-1.1
	1.1nm,0.3s,baz=209,slow=11,SNR=8.7						
SHL	Shillong	22.50	354	eP	P	04 11 40.0	-1.0
KMI	Kunming	23.30	19	P	P	04 11 51.0	+2.0
KMI				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.6						
LSA	Lhasa	26.66	353	eP	P	04 12 25.1	+4.2
	comp=Z,28nm,0.6s,mb5.0						
WHN	Wuhan	33.13	32	eP	P	04 13 18.5	+0.1
GTA	Gaotai	36.48	7	P	P	04 13 46.8	-0.1
GTA				AMB	AMB		
	comp=Z,15nm,0.8s,mb5.0						
GTA				AMB	AMB		
	comp=Z,112nm,5.7s						
GTA				LR	LR		
	comp=N,111nm,16.8s,MS4.0						
GTA				LR	LR		
	comp=E,168nm,17.6s,MS4.0						
GTA				LR	LR		
	comp=Z,208nm,16.1s,MS4.0						
BJT	Baijiatuau	41.67	25	P	P	04 14 30.8	+0.7
	comp=Z,7.9nm,0.7s,mb4.5						
AAK	Ala-Archa	43.24	338	eP	P	04 14 43.0	+0.1
	comp=Z,5.0nm,0.8s,mb4.3						
SONM	Songino Array	45.74	11	P	P	04 15 02.5	-0.4
	comp=Z,1.9nm,0.6s,mb4.2,baz=193,slow=8.1,SNR=6.2						
SONM				PcP	PcP	04 16 40.9	0.0
	comp=Z,0.9nm,0.6s,baz=200,slow=4.2,SNR=3.5						
ULN	Ulaanbaatar	45.90	12	P	P	04 15 04.1	-0.1
	comp=Z,1.1nm,0.6s,mb4.0						
HIA	Hailar	50.79	21	eP	P	04 15 41.4	-0.7
	comp=Z,4.3nm,0.4s,mb4.7						
ZAL	Zalesovo	51.31	353	P	P	04 15 45.4	-0.6
	comp=Z,2.3nm,0.6s,mb4.3,baz=308,slow=5.4,SNR=4.9						
ZAL	Zalesovo	51.31	353	P	P	04 15 45.4	-0.6
BVAR	Borovoye Array	53.62	342	P	P	04 16 02.9	-0.3
	comp=Z,4.0nm,0.7s,mb4.5,baz=141,slow=9.5,SNR=4.3						
CHKZ	Chkalovo	54.12	343	eP	P	04 16 05.8	-1.1
	comp=Z,7.8nm,0.7s,mb4.8						
STKA	Stephens Creek	56.60	132	P	P	04 16 24.7	-0.5
	comp=Z,4.5nm,0.8s,mb4.6,baz=326,slow=6.1,SNR=5.4						
STKA	Stephens Creek	56.60	132	P	P	04 16 24.7	-0.6
GNI	Garni	58.09	316	P	P	04 16 35.6	0.0
	comp=Z,4.1nm,1.0s,mb4.4						
FINES	FINESS Array B	77.10	333	P	P	04 18 34.6	0.0
	comp=Z,1.9nm,0.7s,mb4.2,baz=100,slow=8.5,SNR=2.3						
ARCES	ARCESS Array B	79.87	341	P	P	04 18 50.6	+1.1
	comp=Z,3.6nm,0.9s,mb4.3,baz=135,slow=5.1,SNR=4.3						
GERES	GERESS Array B	81.64	319	P	P	04 19 00.5	+1.3
	comp=Z,1.3nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=4.9						
TXAR	Lajitas Array	143.36	27	PKP	PKPdf	04 26 14.6	-5.2
	comp=Z,0.4nm,0.6s,baz=219,slow=0.8,SNR=4.1						
CPUP	Villa Florida	144.46	227	PKP	PKPdf	04 26 17.9	-3.8
	comp=Z,0.0nm,0.4s,baz=264,slow=10.0,SNR=1.7						
CPUP	Villa Florida	144.46	227	PKP	PKPdf	04 26 17.9	-3.8

IDC 27 04:11:44.5±37.0,8.21N×93.44E,mb3.8/4,mb1 3.9/4, mb1mx3.7/16,Error ellipse: s-maj=954.0km s-min=63.3km az=147.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	40.99	13	P	P	04 19 29.1	-1.7
	0.4nm,0.6s,baz=196,slow=11,SNR=3.9						
FINES	FINESS Array B	72.09	332	P	P	04 23 10.2	-2.1
	0.9nm,0.6s,baz=90,slow=7.6,SNR=5.6						
ARCES	ARCESS Array B	74.71	340	P	P	04 23 26.2	-1.3
	1.0nm,0.7s,baz=90,slow=4.5,SNR=3.6						
GERES	GERESS Array B	77.11	318	P	P	04 23 40.0	-1.5
	0.5nm,0.7s,baz=104,slow=4.0,SNR=3.5						

IDC 27 04:11:53.5±0.9,5.47N×94.33E,mb4.1/12,mb1 4.3/13, mb1mx4.1/20,ML4.3/1,Error ellipse: s-maj=50.2km s-min=17.2km az=51.0
ISC 27 04:11:56.8±0.8,5.5N±0.2×94.4E±0.2,h33^{km},n13, σ0^{s}52/13,mb4.0/12,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.64	19	Pn	P	04 15 17.5	+7.1
	0.5nm,0.3s,baz=214,slow=12,SNR=5.0						
SONM	Songino Array	43.43	12	P	P	04 19 58.6	+0.3
	1.2nm,0.8s,mb3.7,baz=197,slow=7.4,SNR=6.0						
WRA	Warramunga Arr	46.68	124	P	P	04 20 24.5	-0.1
	2.3nm,0.8s,mb4.1,baz=303,slow=9.3,SNR=5.4						
ASAR	Alice Springs	48.20	129	P	P	04 20 36.1	-0.3
	1.2nm,0.6s,mb4.1,baz=306,slow=7.5,SNR=8.1						
ZAL	Zalesovo	48.94	352	P	P	04 20 41.8	0.0
	2.0nm,0.5s,mb4.4,baz=307,slow=5.2,SNR=5.2						
BVAR	Borovoye Array	51.33	342	P	P	04 20 59.3	-0.7
	0.8nm,0.5s,mb3.9,baz=153,slow=6.6,SNR=4.9						
STKA	Stephens Creek	58.28	133	P	P	04 21 51.1	+0.2
	2.0nm,0.8s,mb4.2,baz=315,slow=10.0,SNR=2.3						
MLR	Muntele Rosu	71.07	316	P	P	04 23 14.3	+0.6
	2.6nm,1.1s,mb4.1,baz=154,slow=20,SNR=2.5						
FINES	FINESS Array B	74.94	332	P	P	04 23 35.3	-0.9
	3.6nm,0.9s,mb4.3,baz=104,slow=4.3,SNR=6.5						
ARCES	ARCESS Array B	77.60	340	P	P	04 23 50.5	-0.6
	1.2nm,0.8s,mb3.9,baz=90,slow=5.4,SNR=2.5						
GERES	GERESS Array B	79.78	319	P	P	04 24 03.5	+0.1
	0.4nm,0.7s,mb3.5,baz=108,slow=4.2,SNR=6.1						
DAVOX	Davos	82.30	316	P	P	04 24 17.1	+0.5
	1.2nm,0.5s,mb4.0,baz=127,slow=8.1,SNR=6.4						
ILAR	Eielson Array	96.85	22	P	P	04 25 26.2	+0.9
	0.2nm,0.5s,mb3.8,baz=286,slow=4.2,SNR=4.0						

IDC 27 04:14:32.2±0.8,8.44N×91.98E,mb4.2/13,mb1 4.4/14, mb1mx4.2/21,ML4.6/1,MS3.4/1,Ms1 3.6/1,ms1mx2.8/26, Error ellipse: s-maj=33.5km s-min=15.8km az=49.0
BJI 27 04:14:34.6,8.15N×92.15E,h43^{km},mb4.8
NEIC 27 04:14:36.4±0.4,8.39N×92.01E,h30^{km},mb4.5/8,Error ellipse: s-maj=10.2km s-min=9.4km az=223.0
ISC 27 04:14:34.6±0.6,8.43N±0.08×92.08E±0.09,h30^{km},n37, σ0^{s}92/34,mb4.3/22,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	11.32	265	Pn	P	04 17 13.8	-3.8
PALK				eSn	S	04 19 08.2	-16
CM31	Chiang Mai Arr	12.00	33	ePn	P	04 17 26.3	-0.4
CMAR	Chiang Mai Arr	12.00	33	Pn	P	04 17 25.9	-0.8
	1.2nm,0.3s,baz=234,slow=14,SNR=18						
CMAR				LR	LR	04 22 45.2	
	comp=Z,164nm,18.2s,baz=215,slow=41						
SHL	Shillong	17.05	359	eP	P	04 18 31.5	-1.0
PKI	Pulchoki	20.06	343	eP	P	04 19 12.8	+4.4
	38nm,0.6s						
DMN	Daman	20.18	342	eP	P	04 19 14.0	+4.3
	77nm,0.9s						
GUN	Gumba	20.24	344	eP	P	04 19 10.3	0.0
	63nm,0.8s						
KKN	Kakani	20.30	342	eP	P	04 19 14.9	+4.0
GKN	Gorkha	20.70	341	eP	P	04 19 18.6	+3.6
KOLN	Koldanda	20.84	338	eP	P	04 19 22.1	+5.6
	36nm,0.6s						
LSA	Lhasa	21.18	358	eP	P	04 19 20.7	+0.7
	34nm,0.8s,mb4.7						
GTA	Gaotai	31.62	11	eP	P	04 20 57.8	+0.6
GTA				AP	pP	04 21 05.0	-1.1
GTA				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.8						
AAK	Ala-Archa	37.41	338	eP	P	04 21 46.2	-0.6
	comp=Z,5.2nm,0.9s,mb4.4						
SONM	Songino Array	41.11	15	P	P	04 22 18.1	+0.7
	comp=Z,3.1nm,0.7s,mb4.0,baz=195,slow=8.2,SNR=24						
ULN	Ulaanbaatar	41.31	15	eP	P	04 22 18.7	-0.4
	comp=Z,1.9nm,0.6s,mb3.9						
ZAL	Zalesovo	45.76	354	P	P	04 22 55.3	+0.2
	comp=Z,4.0nm,0.4s,mb4.7,baz=302,slow=5.9,SNR=9.8						
BVAR	Borovoye Array	47.83	342	P	P	04 23 11.4	-0.1
	comp=Z,0.9nm,0.6s,mb4.0,baz=143,slow=7.4,SNR=5.3						
BRVK	Borovoye	47.89	342	P	P	04 23 11.9	0.0
	comp=Z,2.7nm,0.9s,mb4.3						
CHKZ	Chkalovo	48.33	343	eP	P	04 23 15.2	-0.1
	comp=Z,3.0nm,0.5s,mb4.6						
CHKZ				epP	pP	04 23 21.9	-2.6
WRA	Warramunga Arr	50.25	125	P	P	04 23 30.8	+0.3
	comp=Z,2.0nm,0.5s,mb4.4,baz=302,slow=8.9,SNR=12						
WRAB	Tennant Creek	50.26	125	eP	P	04 23 28.2	-2.4

	comp=Z,6.0nm,0.8s,mb4.7						
ASAR	Alice Springs	51.84	129	P	P	04 23 42.9	+0.3
	comp=Z,3.2nm,0.8s,mb4.3,baz=308,slow=7.1,SNR=15						
BRTR	Keskin Array B	60.52	311	P	P	04 24 43.8	-0.7
	comp=Z,1.1nm,0.7s,mb4.1,baz=128,slow=8.3,SNR=8.5						
STKA	Stephens Creek	61.97	133	P	P	04 24 55.4	+0.9
	comp=Z,3.9nm,0.9s,mb4.5,baz=273,slow=8.4,SNR=5.8						
AKASG	Malin Array Be	66.46	322	P	P	04 25 21.9	-1.5
	comp=Z,1.1nm,0.7s,mb4.0,baz=88,slow=4.6,SNR=4.9						
MLR	Muntele Rosu	67.35	316	P	P	04 25 29.9	+0.7
	comp=Z,4.0nm,1.0s,mb4.4,baz=198,slow=13,SNR=4.7						
FINES	FINESS Array B	71.27	332	P	P	04 25 53.3	+0.4
	comp=Z,2.3nm,0.9s,mb4.1,baz=112,slow=10,SNR=4.2						
MORC	Moravsky Berou	73.62	319	P	P	04 26 07.2	+0.1
	comp=Z,1.3nm,0.9s,mb3.9						
PRU	Pruhonice	75.58	319	*e*P	pP	04 26 25.6	-2.2
PRU				*e*x	x	04 26 39.8	
GERES	GERESS Array B	76.05	318	P	P	04 26 21.5	+0.5
	comp=Z,1.7nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=10						
KHC	Kasperske Hory	76.15	318	*e*P	P	04 26 22.0	+0.4
DAVOX	Davos	78.57	316	P	P	04 26 35.8	+0.8
	comp=Z,2.5nm,0.9s,mb4.2,baz=110,slow=18,SNR=3.7						
LPG	La Plagne	80.78	315	*e*P	P	04 26 48.1	+1.2
	comp=Z,28nm,1.1s,mb4.8						
ILAR	Eielson Array	95.00	22	P	P	04 27 55.2	-0.1
	comp=Z,0.6nm,0.7s,mb4.1,baz=291,slow=4.3,SNR=9.4						
YKA	Yellowknife Ar	106.35	13	PP	PP	04 33 07.6	-6.0
	comp=Z,0.3nm,0.7s,baz=334,slow=7.9,SNR=6.0						
PDAR	Pinedale Array	125.36	19	PKP	PKPdf	04 33 36.0	-2.2
	comp=Z,0.4nm,0.9s,baz=53,slow=4.5,SNR=3.0						
TXAR	Lajitas Array	139.51	21	PKP	PKPdf	04 34 03.5	-1.5
	comp=Z,0.1nm,0.5s,baz=182,slow=1.4,SNR=6.3						

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*IDC **27** 04:18:55.8±0.6, 3.86N×95.02E, mb4.3/16, mb1 4.5/17, mb1mx4.4/24, ML4.7/1, Error ellipse: s-maj=31.5km s-min=14.2km az=46.0*

*NEIC **27** 04:19:00.2±0.3, 3.72N×94.96E, h30^{km}, mb4.4/8, Error ellipse: s-maj=12.1km s-min=7.3km az=55.0*

ISC 27 04:18:58.2±0.5**, 3.72N**±0.09×**95.0E**±0.1**, h30^{km}, n30, σ0^{s}87**/27**, mb4.3**/22**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.16	15	P	P	04 22 33.2	+1.1
	8.3nm,0.7s						
CMAR	Chiang Mai Arr	15.16	15	Pn	P	04 22 36.7	+4.6
	1.1nm,0.3s,baz=207,slow=11,SNR=26						
LSA	Lhasa	26.09	352	*e*P	P	04 24 33.4	+2.1
	6.8nm,0.5s,mb4.4						
AAK	Ala-Archa	42.83	338	*e*P	P	04 26 54.1	-1.2
	3.9nm,1.0s,mb4.1						
SONM	Songino Array	45.04	11	P	P	04 27 12.3	-0.8
	0.9nm,0.6s,mb3.8,baz=188,slow=8.1,SNR=8.1						
SONM				PcP	PcP	04 28 53.8	-0.3
	0.8nm,0.5s,baz=218,slow=3.4,SNR=5.9						
WRA	Warramunga Arr	45.26	123	P	P	04 27 15.7	+0.5
	6.4nm,0.7s,mb4.6,baz=302,slow=9.0,SNR=22						
WRAB	Tennant Creek	45.27	123	*e*P	P	04 27 15.2	-0.1
	8.6nm,0.7s,mb4.7						
ASAR	Alice Springs	46.69	128	P	P	04 27 26.9	+0.5
	1.8nm,0.6s,mb4.2,baz=302,slow=7.3,SNR=14						
ZAL	Zalesovo	50.75	352	P	P	04 27 57.0	-0.5
	4.7nm,0.9s,mb4.4,baz=296,slow=5.7,SNR=16						
ZAL	Zalesovo	50.75	352	P	P	04 27 57.0	-0.5
BVAR	Borovoye Array	53.16	342	P	P	04 28 14.7	-0.9
	1.4nm,0.6s,mb4.1,baz=149,slow=8.6,SNR=8.0						
CHKZ	Chkalovo	53.65	342	*e*P	P	04 28 18.4	-0.8
	3.1nm,0.7s,mb4.3						
CHKZ				*e*pP	pP	04 28 29.1	+0.7
CTA	Charters Tower	55.63	117	P	P	04 28 33.6	-0.5
	4.7nm,0.9s,mb4.5,baz=300,slow=5.0,SNR=4.0						
CTAO	Charters Tower	55.63	117	*e*P	P	04 28 33.3	-0.8
	4.9nm,0.8s,mb4.6						
STKA	Stephens Creek	56.69	132	P	P	04 28 41.2	-0.4
	6.8nm,1.2s,mb4.6,baz=284,slow=12,SNR=3.1						
STKA	Stephens Creek	56.69	132	P	P	04 28 41.2	-0.4
EIL	Elat	62.23	302	P	P	04 29 20.8	+0.9
	2.9nm,0.5s,mb4.7,baz=202,slow=7.7,SNR=3.7						
BRTR	Keskin Array B	65.77	312	P	P	04 29 41.8	-1.1
	1.7nm,0.9s,mb4.1,baz=116,slow=6.7,SNR=8.7						
IDI	Anoyia	71.62	306	P	P	04 30 19.0	-0.2
	6.4nm,0.7s,mb4.7,baz=64,slow=11,SNR=5.9						
AKASG	Malin Array Be	71.91	322	P	P	04 30 19.3	-1.3
	1.3nm,0.5s,mb4.1,baz=88,slow=4.7,SNR=7.9						
MLR	Muntele Rosu	72.71	317	P	P	04 30 26.2	+0.8
	1.8nm,0.5s,mb4.2,baz=106,slow=6.9,SNR=7.0						
LBTB	Lobatse	73.02	243	P	P	04 30 28.7	+0.9
	3.6nm,1.0s,mb4.3						
BOSA	Boshof	74.12	239	*e*P	P	04 30 33.8	-0.2
	1.6nm,0.7s,mb4.1						
FINES	FINESS Array B	76.75	333	P	P	04 30 48.0	-0.3
	2.8nm,0.6s,mb4.4,baz=109,slow=7.1,SNR=19						
ARCES	ARCESS Array B	79.43	340	P	P	04 31 03.0	+0.1
	1.5nm,0.7s,mb4.1,baz=90,slow=4.9,SNR=12						
GERES	GERESS Array B	81.46	319	P	P	04 31 15.1	+1.0
	2.6nm,0.8s,mb4.2,baz=104,slow=5.5,SNR=21						
DAVOX	Davos	83.94	316	P	P	04 31 27.8	+0.9
	3.7nm,0.6s,mb4.7,baz=122,slow=11,SNR=13						
TXAR	Lajitas Array	142.59	27	PKhKP		04 38 25.7	
	0.3nm,0.8s,baz=164,slow=2.1,SNR=4.3						
CPUP	Villa Florida	145.22	227	PKPbc	PKPbc	04 38 35.8	+1.7
	0.0nm,0.4s,baz=179,slow=12,SNR=1.5						
LPAZ	La Paz	159.21	232	PKPab	PKPab	04 39 35.4	+1.5
	1.0nm,0.7s,baz=171,slow=1.5,SNR=4.2						

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*MOS **27** 04:22:35.4±0.9, 6.31N×93.51E, h33^{km}, mb5.3/42, MS4.8/4, Error ellipse: s-maj=10.1km s-min=6.1km az=119.1*

*IDC **27** 04:22:36.7±0.3, 6.29N×93.46E, h30^{km}±2^{km}, mb4.5/28, mb1 4.5/28, mb1mx4.5/29, MS4.6/10, Ms1 4.6/10, ms1mx4.3/19, Error ellipse: s-maj=14.1km s-min=7.8km az=39.0*

*NEIC **27** 04:22:36.5±0.2, 6.25N×93.46E, mb5.1/47, Error ellipse: s-maj=5.4km s-min=4.7km az=44.0*

*HRVD **27** 04:22:36.5±0.5, 6.20N×93.41E, h26^{km}±1^{km}, MW5.2/54, Centroid moment Tensor Solution. LP body waves: s20,c29;Mantle waves: s54,c95; Half duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.43±.44; $M_{\theta\theta}$-0.75±.27; $M_{\phi\phi}$4.18±.33; $M_{r\theta}$0.82±.56; $M_{\theta\phi}$-6.70±.24; $M_{\phi r}$2.01±.63; Best double couple: $M_0$7.75×10^{16} NP1: ϕ_s284°, δ64°, λ-161°. NP2: ϕ_s185°, δ73°, λ-27°. Principal axes: T 8.97, Plg6°, Azm236°; N -2.44, Plg58°, Azm335°; P -6.53, Plg31°, Azm142°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **27** 04:22:36.5, 6.30N×93.50E, h29^{km}, mB5.2, mb5.0, Ms4.9, Msz4.6*

ISC 27 04:22:34.6±0.2**, 6.22N**±0.04×**93.48E**±0.03**, h29^{km}, h29^{km}**±.5^{km}**:pP-P, n250, σ1^{s}04**/214**, mb5.0**/96**, MS4.7**/21**, 5C-11D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	12.73	275	P	P	04 25 36.4	-0.3
CM31	Chiang Mai Arr	13.29	23	P	P	04 25 44.6	+0.6
	55nm,0.9s						
CMAR	Chiang Mai Arr	13.29	23	Pn	P	04 25 44.9	+0.8
	baz=208,slow=17,SNR=2.3						
CMAR				LR	LR	04 31 26.3	
	comp=Z,1μm,18.1s,baz=210,slow=40						
CMAR	Chiang Mai Arr	13.29	23	Pn	P	04 25 44.9	+0.8
CMAR				LR	LR	04 31 26.3	
MDRS	Chennai	14.71	299	*e*	P	04 25 55.0	-7.8
MDRS				*e*	Sx	04 28 08.0	
VIS	Vishakhapatnam	15.13	320	*e*P	P	04 26 07.8	-0.5
VIS				*e*		04 26 19.9	
	comp=Z,322nm,1.0s						
TRD	Trivandrum	16.54	279	*e*P	P	04 26 26.2	-0.2
TRD				*e*		04 26 28.1	
	comp=Z,91nm,1.4s						
HYB	Hyderabad	18.35	309	*e*P	P	04 26 57.5	+8.5
HYB	Hyderabad	18.35	309	*i* P	P	04 26 47.0	-2.0
	comp=Z,60nm,1.0s						
HYB				*e*		04 26 57.5	
HYB				*e*S	S	04 30 06.0	-3.5
COCO	West Island	18.59	170	P	P	04 26 53.2	+1.3
	comp=Z,204nm,1.3s						
BOK	Bokaro	18.94	338	*e*	P	04 26 55.2	-0.8
BOK				*e*		04 27 14.6	
	comp=Z,252nm,1.0s						
BOK				*e*	S	04 30 15.2	-7.5
SHL	Shillong	19.30	356	*e*	P	04 26 56.0	-4.3
SHL				*e*	S	04 30 15.0	-16
MNGI	Mangalore	19.56	291	*i* P	P	04 27 02.5	-0.8
	comp=Z,64nm,1.3s						
MNGI				*e*	S	04 30 31.5	-5.2
QIZ	Qiongzhong	20.40	50	⇑*i*P	P	04 27 14.0	+1.8
QIZ				S	S	04 30 54.3	+0.1
QIZ				AMB	AMB		
	comp=Z,91nm,1.1s						
QIZ				LR	LR		
	comp=N,2μm,19.7s						
QIZ				LR	LR		
	comp=Z,2μm,18.7s,MS4.5						
QIZ	Qiongzhong	20.40	50	*e*P	P	04 27 12.9	+0.7
	comp=Z,151nm,1.2s						
LATR	Latur	20.47	308	*e*P	P	04 27 17.5	+4.6
KMI	Kunming	20.79	24	P	P	04 27 17.5	+1.3
KMI				AMB	AMB		
	comp=Z,98nm,1.2s						
KMI				LR	LR		
	comp=N,2μm,16.6s,MS4.6						
KMI				LR	LR		
	comp=E,2μm,17.4s,MS4.6						
KMI				LR	LR		
	comp=Z,2μm,14.4s,MS4.5						
GOA	Goa	21.37	297	⇑*e*P	P	04 27 25.1	+3.0
	comp=Z,52nm,0.8s,mb4.9						
GOA				*e*	Sx	04 30 43.6	
KAD	Karad	21.84	302	*e*P	P	04 27 27.0	+0.1
KAD				*i*	Sx	04 30 47.0	
PKI	Pulchoki	22.58	341	*e*P	P	04 27 35.0	+0.8
	comp=Z,494nm,0.9s,mb6.0						
POO	Poona	22.71	304	*e*P	P	04 27 36.7	+1.1
POO				*e*		04 27 51.6	
	comp=Z,55nm,1.2s						
DMN	Daman	22.71	340	*e*P	P	04 27 36.3	+0.8
	comp=Z,458nm,0.8s,mb6.0						
GUN	Gumba	22.75	342	*e*P	P	04 27 36.4	+0.5
	comp=Z,350nm,0.8s,mb5.8						
KKN	Kakani	22.82	341	*e*P	P	04 27 37.1	+0.5
	comp=Z,318nm,1.0s,mb5.7						
BHPL	Bhopal	22.92	319	*e*P		04 27 45.4	
BHPL				*e*		04 27 51.8	
	comp=Z,83nm,1.3s						
BHPL				*e*		04 27 51.9	
	comp=Z,83nm,1.2s						
GKN	Gorkha	23.23	340	*e*P	P	04 27 40.4	-0.2
	comp=Z,475nm,0.9s,mb5.9						
KOLN	Koldanda	23.40	338	*e*P	P	04 27 43.0	+0.8
	comp=Z,221nm,0.6s,mb5.7						
LSA	Lhasa	23.46	355	*e*P	P	04 27 44.9	+2.1
LSA				*e*		04 27 55.2	
LSA				pmax	pmax		
	comp=Z,31nm,0.6s,mb4.9						
LSA	Lhasa	23.46	355	*e*P	P	04 27 44.9	+2.1
	comp=Z,31nm,0.6s,mb4.9						
LSA				*e*		04 27 55.2	
GYA	Guiyang	23.74	31	⇑*i*P	P	04 27 46.8	+1.3
GYA				AP		04 27 51.8	
GYA				XP		04 27 54.0	
GYA				PP	PP	04 28 22.3	+3.6
GYA				S	S	04 31 58.0	+2.5
GYA				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.0						
GYA				AMB	AMB		
	comp=Z,970nm,4.8s						
GYA				LR	LR		
	comp=N,2μm,14.1s,MS4.9						
GYA				LR	LR		
	comp=E,2μm,15.9s,MS4.9						
GYA				LR	LR		
	comp=Z,2μm,14.6s,MS4.8						
BOM	Bombay	23.74	304	*e*P	P	04 27 47.9	+2.3
BOM				*e*S	S	04 32 07.6	+12
AGRA	Agra	25.59	327	*e*P	P	04 28 07.8	+4.5
PTH	Pithoragarh	26.37	333	*e*P	P	04 28 11.9	+1.5
ASOR	Ausora	26.89	328	*e*P	P	04 28 17.5	+2.2
BISR	Bishrakh	26.92	328	*e*P	P	04 28 21.3	+5.8
AJM	Ajmer	26.99	320	*i*	pP	04 28 26.0	+1.4
AYAN	Aya Nagar	27.02	327	*e*P	P	04 28 19.2	+2.8
NDI	New Delhi	27.13	327	*e*P	pP	04 28 24.0	-1.8
BHGR	Bahadurgarh	27.28	327	*e*P	P	04 28 24.3	+5.5
KHET	Khetri	27.45	324	*e*P	P	04 28 21.4	+1.1
RTK	Rohtak	27.84	327	*e*	P	04 28 20.6	-3.2
DDI	Dehra Dun	28.02	331	*e*	P	04 28 32.0	+6.5
TGY	Tagaytay City	28.12	72	P	P	04 28 27.0	+0.5
	comp=Z,76nm,0.3s,mb5.8,baz=188,slow=13,SNR=2.8						
TGY				LR	LR	04 39 51.3	
	comp=Z,1μm,19.1s,MS4.5,baz=269,slow=37						
ENH	Enshi	28.28	30	*e*P	P	04 28 26.2	-1.5
	comp=Z,8.0nm,0.6s,mb4.5						
KKR	Kurukshetra	28.35	328	*e*P	P	04 28 30.3	+1.8
KLP	Kalpa	28.94	332	*e*P	P	04 28 34.0	+0.3
SDNR	Sundarnagar	29.52	330	*e*P	P	04 28 40.5	+1.5
JASL	Jaisalmer	29.76	316	*e*P	P	04 28 45.6	+4.4
THN	Thein Dam	30.90	330	*e*	pP	04 28 58.2	-1.4
	comp=Z,30nm,0.9s						
XAN	Xi'an	31.16	25	P	P	04 28 51.5	-2.0
XAN				AMB	AMB		
	comp=Z,36nm,0.8s,mb5.2						
LZH	Lanzhou	31.21	16	*e*P	P	04 28 54.0	+0.1
LZH				AMB	AMB		
	comp=Z,23nm,1.0s,mb5.0						
GTA	Gaotai	33.54	9	*e*P	P	04 29 17.0	+2.8
GTA				AP	pP	04 29 24.3	+1.6
GTA				XP	sP	04 29 27.5	+1.1
GTA				PP	PP	04 30 29.8	+3.0
GTA				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.8						
GTA				AMB	AMB		
	comp=Z,64nm,6.5s						
GTA				LR	LR		
	comp=N,609nm,21.4s,MS4.4						
GTA				LR	LR		
	comp=E,485nm,22.9s,MS4.4						
GTA				LR	LR		
	comp=Z,1μm,23.7s,MS4.6						
NJ2	Nanjing	34.96	39	*e*P	P	04 29 27.5	+1.0
NJ2				AP	pP	04 29 37.3	+2.3
NJ2				XP	sP	04 29 41.0	+2.3
NJ2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,230nm,9.9s						
NJ2				LR	LR		
	comp=N,3μm,23.9s,MS5.1						
NJ2				LR	LR		
	comp=E,3μm,22.4s,MS5.1						
NJ2				LR	LR		
	comp=Z,2μm,12.3s						
MBWA	Marble Bar	37.47	137	*e*P	P	04 29 47.3	-0.4
	comp=Z,12nm,0.7s,mb4.8						
WMQ	Urumqi	37.80	353	P	P	04 29 51.8	+1.5
WMQ				AP	pP	04 29 56.3	-2.6
WMQ				AMB	AMB		
	comp=Z,22nm,0.8s,mb4.9						
HHC	Hu-ho-hao-te	38.09	22	*e*P	P	04 29 53.8	+1.0
HHC				AP	pP	04 30 00.8	-0.6
HHC				XP	sP	04 30 05.0	0.0
HHC				AMB	AMB		
	comp=Z,23nm,0.8s,mb5.0						
HHC				AMB	AMB		
	comp=Z,136nm,4.8s						
HHC				LR	LR		
	comp=N,347nm,15.5s,MS4.7						
HHC				LR	LR		
	comp=E,908nm,14.3s,MS4.7						
HHC				LR	LR		
	comp=Z,664nm,14.3s,MS4.6						
JOW	Kunigami	38.94	54	P	P	04 30 01.0	+0.9
	comp=Z,16nm,0.7s,mb4.9,baz=252,slow=12,SNR=5.6						
JOW				pP	pP	04 30 10.1	+1.4
	comp=Z,32nm,0.7s,baz=237,slow=10,SNR=6.8						
JOW				LR	LR	04 48 00.6	
	comp=Z,1μm,19.5s,MS4.7,baz=146,slow=39						
BJT	Baijiatuau	39.35	28	*e*P	P	04 30 04.1	+0.8
BJT				*e*	pP	04 30 12.7	+0.8
BJT				pmax	pmax		
	comp=Z,17nm,0.6s						
BJT	Baijiatuau	39.35	28	*e*P	P	04 30 04.1	+0.8
	comp=Z,17nm,0.6s,mb5.0						
BJT				*e*	pP	04 30 12.7	+0.7
BJI	Beijing	39.37	28	P	P	04 30 04.5	+1.0
BJI				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.2						
BJI				LR	LR		
	comp=N,606nm,23.1s,MS4.7						
BJI				LR	LR		
	comp=E,1μm,21.6s,MS4.7						
BJI				LR	LR		
	comp=Z,1μm,26.7s						
AAK	Ala-Archa	39.97	338	*e*P	P	04 30 09.0	+0.6
AAK				*e*	pP	04 30 17.4	+0.4
AAK				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.2						
AAK	Ala-Archa	39.97	338	*e*P	P	04 30 09.0	+0.6
	comp=Z,49nm,0.9s,mb5.2						
AAK				*e*	pP	04 30 17.4	+0.4
FRU	Bishkek	40.10	338	*i* P	pP	04 30 19.0	+0.9
FRU				pmax	pmax		
	comp=Z,160nm,2.0s,mb5.4						
MKAR	Makanchi Array	41.56	348	*i* P	P	04 30 21.2	-0.2
MKAR				pmax	pmax		
	comp=Z,13nm,0.7s						
SONM	Songino Array	42.91	13	P	P	04 30 32.5	0.0
	comp=Z,2.3nm,0.6s,mb4.1,baz=195,slow=9.1,SNR=17						
SONM				pP	pP	04 30 42.8	+1.6
	comp=Z,7.8nm,0.7s,baz=197,slow=8.0,SNR=22						
SONM				PcP	PcP	04 32 22.9	-0.6
	comp=Z,2.8nm,0.6s,baz=192,slow=4.3,SNR=7.2						
SONM				pPcP		04 32 34.5	
	comp=Z,2.7nm,0.6s,baz=197,slow=5.1,SNR=4.0						
ULN	Ulaanbaatar	43.09	13	*e*P	P	04 30 32.7	-1.2
ULN				*e*		04 30 43.6	
ULN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
ULN	Ulaanbaatar	43.09	13	*e*P	P	04 30 32.7	-1.2
	comp=Z,5.7nm,0.8s,mb4.3						
ULN				*e*		04 30 43.6	
SNY	Shenyang	44.41	32	⇓P	P	04 30 44.3	-0.5
SNY				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
SNY				LR	LR		
	comp=N,720nm,14.4s,MS4.8						
SNY				LR	LR		
	comp=E,440nm,16.1s,MS4.8						
SNY				LR	LR		
	comp=Z,730nm,15.2s,MS4.7						
ZAK	Zakamensk	44.78	9	*e*P	pP	04 30 58.2	+2.0
NWAO	Narrogin (SRO)	45.00	151	P	P	04 30 49.8	+0.2
	comp=Z,21nm,0.8s,mb5.0,baz=333,slow=10,SNR=7.2						
CN2	Changchun	46.78	32	*e*P	P	04 31 03.3	-0.2
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
WRA	Warramunga Arr	47.87	124	P	P	04 31 11.9	-0.5
	comp=Z,24nm,0.7s,mb5.3,baz=302,slow=9.2,SNR=64						
WRA				pP	pP	04 31 22.7	+1.6
	comp=Z,28nm,0.7s,baz=305,slow=8.7,SNR=15						
WRA				S	S	04 38 06.2	-0.3
	comp=Z,2.7nm,0.8s,baz=300,slow=16,SNR=5.6						
WRAB	Tennant Creek	47.87	124	*e*P	P	04 31 11.8	-0.6
WRAB				*e*	pP	04 31 22.2	+1.0
WRAB				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.6						
WRAB	Tennant Creek	47.87	124	*e*P	P	04 31 11.8	-0.7
	comp=Z,44nm,0.7s,mb5.6						
WRAB				*e*	pP	04 31 22.2	+1.1
ZAL	Zalesovo	48.10	353	P	P	04 31 13.0	-0.7
	comp=Z,8.2nm,0.7s,mb4.9,baz=294,slow=5.6,SNR=39						
ZAL				pP	pP	04 31 22.6	+0.1
	comp=Z,48nm,0.7s,baz=288,slow=6.9,SNR=35						
HIA	Hailar	48.30	23	*e*P	P	04 31 14.9	-0.4
HIA				*e*	pP	04 31 23.9	-0.2
HIA				pmax	pmax		
	comp=Z,18nm,0.7s						
HIA	Hailar	48.30	23	*e*P	P	04 31 14.9	-0.4
	comp=Z,18nm,0.7s,mb5.2						
HIA				*e*	pP	04 31 23.9	-0.2
NVS	Novosibirsk	49.18	352	*e*P	pP	04 31 29.5	-1.3
NVS				*e*S	S	04 38 22.6	-2.0
NVS				pmax	pmax		
	comp=Z,111nm,1.0s,mb5.8						
NVS				pmax	pmax		
	comp=N,128nm,1.6s						
NVS				smax			
	comp=E,135nm,2.5s						
NVS				smax			
	comp=N,104nm,2.7s						
ASAR	Alice Springs	49.38	128	P	P	04 31 23.7	-0.4
	comp=N,21nm,0.6s,mb5.3,baz=300,slow=7.3,SNR=153						
ASAR				pP	pP	04 31 35.1	+2.3
	comp=N,12nm,0.6s,baz=298,slow=7.4,SNR=12						
ASAR				PcP	PcP	04 32 46.6	+0.1
	comp=N,9.2nm,0.7s,baz=309,slow=3.1,SNR=8.3						
ASAR				pPcP		04 32 58.5	
	comp=N,6.4nm,0.6s,baz=306,slow=3.9,SNR=6.1						
ASAR				LR	LR	04 57 16.9	
	comp=N,412nm,18.4s,MS4.5,baz=304,slow=42						
MDJ	Mudanjiang	49.54	34	P	P	04 31 25.5	+0.5
MDJ				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,100nm,11.8s						
MDJ	Mudanjiang	49.54	34	*e*P	P	04 31 25.6	+0.6
	comp=Z,28nm,1.1s,mb5.2						
MDJ				*e*pP	pP	04 31 35.0	+1.2
BVAR	Borovoye Array	50.34	342	P	P	04 31 30.1	-0.9
	comp=Z,4.0nm,0.7s,mb4.6,baz=141,slow=9.5,SNR=14						
BVAR				pP	pP	04 31 39.6	-0.2
	comp=Z,20nm,0.8s,baz=166,slow=6.1,SNR=27						
BRVK	Borovoye	50.41	342	*e*P	P	04 31 30.8	-0.7
BRVK				*i*	pP	04 31 41.2	+0.9
BRVK				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
BRVK	Borovoye	50.41	342	*e*P	P	04 31 30.8	-0.7
	comp=Z,19nm,0.8s,mb5.2						
BRVK				*e*pP	pP	04 31 38.4	-1.9
BRVK				*i*	pP	04 31 41.2	+0.9
CBIJ	Chichi jima	50.69	60	P	P	04 31 32.9	-1.0
	comp=Z,86nm,0.5s,mb5.9,baz=271,slow=8.4,SNR=11						
CBIJ				LR	LR	04 52 23.6	
	comp=Z,383nm,18.2s,MS4.5,baz=230,slow=35						
CHKZ	Chkalovo	50.84	343	*e*P	P	04 31 34.0	-0.7
CHKZ				*e*	pP	04 31 42.6	-0.9
CHKZ				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
CHKZ	Chkalovo	50.84	343	*e*P	P	04 31 34.0	-0.8
	comp=Z,9.2nm,0.6s,mb4.9						
CHKZ				*e*	pP	04 31 42.6	-0.9
KLR	Kul'dur	53.64	30	*e*P	P	04 31 50.0	-5.8
BOD	Bodaibo	53.91	13	*e*P	P	04 31 56.9	-0.7
BOD				*e*	pP	04 32 07.2	+0.8
GNI	Garni	55.13	315	P	P	04 32 07.1	+0.2
	comp=Z,1.3nm,0.3s,mb4.4,baz=288,slow=8.5,SNR=3.9						
GNI				pP	pP	04 32 15.0	-0.6
	comp=Z,9.1nm,0.7s,baz=15,slow=2.0,SNR=6.1						
GNI	Garni	55.13	315	*e*P	P	04 32 06.1	-0.8
GNI				*e*	pP	04 32 15.0	-0.7
GNI				pmax	pmax		
	comp=Z,39nm,1.1s						
GNI	Garni	55.13	315	*e*P	P	04 32 06.1	-0.8
	comp=Z,39nm,1.1s,mb5.3						
GNI				*e*	pP	04 32 15.0	-0.6
PMG	Port Moresby	55.70	106	P	P	04 32 10.9	-0.4
	comp=Z,24nm,0.7s,mb5.3,baz=39,slow=2.9,SNR=16						
TI2	Plekhanov	55.79	317	⇓*i*P	P	04 32 19.4	+7.8
TI2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
CLNS	Chul'man	56.21	20	*e*P	P	04 32 11.9	-2.5
CLNS				*e*		04 35 43.5	
CLNS				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.2s						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,19nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.3						
CLNS				pmax	pmax		
	comp=N,20nm,1.0s						
KMBO	Kilima Mbogo	56.60	265	P	P	04 32 18.5	+0.7
	comp=N,2.3nm,0.8s,mb4.3,baz=62,slow=12,SNR=9.8						
KMBO				LR	LR	04 54 43.5	
	comp=N,712nm,18.8s,MS4.8,baz=274,slow=34						
KMBO	Kilima Mbogo	56.60	265	*e*P	P	04 32 17.8	0.0
KMBO				*e**PP	pP	04 32 26.3	-0.3
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.2s						
KMBO	Kilima Mbogo	56.60	265	*e*P	P	04 32 17.8	0.0

	comp=Z,8.7nm,1.2s,mb4.7						
KMBO				*e*pP	pP	04 32 26.3	-0.4
SVE	Sverdlovsk	56.70	339	*e*P	P	04 32 17.0	-0.9
SVE				*e*		04 32 23.0	
SVE				*e*		04 34 25.0	
SVE				MLR	MLR		
	comp=Z,1µm,19.5s,MS5.0						
ZEI	Tsey	56.81	318	*e*P	P	04 32 18.8	-0.1
ZEI				*e*	pP	04 32 26.7	-1.0
ZEI				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.4						
ASAJ	Asahikawa	57.09	40	LR	LR	04 58 55.9	
	comp=Z,507nm,18.7s,MS4.7,baz=310,slow=38						
ARU	Arti	57.16	338⇓	*i*P	P	04 32 20.7	-0.5
ARU				*e*		04 33 13.4	
ARU				*e*		04 34 25.4	
ARU				*e*S	S	04 40 11.8	-0.9
ARU				*e*SS	SS	04 44 05.5	+2.4
ARU				*e*SSS	SSS	04 46 22.6	+4.8
ARU				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.5						
ARU				MLR	MLR		
	comp=N,600nm,20.0s,MS4.9						
ARU				MLR	MLR		
	comp=Z,900nm,20.0s,MS4.9						
ARU				MLR	MLR		
	comp=E,900nm,21.0s,MS4.9						
ARU	Arti	57.16	338	*e*P	P	04 32 19.6	-1.6
	comp=E,48nm,1.0s,mb5.5						
ARU				*e*pP	pP	04 32 28.6	-1.5
ERZM	Erzurum	57.42	314	*i* P	P	04 32 13.0	-10
CTA	Charters Tower	58.09	118	P	P	04 32 28.1	-0.2
	comp=E,7.2nm,0.7s,mb4.8,baz=294,slow=12,SNR=8.9						
CTA				pP	pP	04 32 36.7	-0.4
	comp=E,11nm,0.7s,baz=294,slow=7.7,SNR=7.9						
CTA				LR	LR	05 00 22.1	
	comp=E,1µm,20.8s,MS4.9,baz=281,slow=39						
CTA	Charters Tower	58.09	118	P	P	04 32 28.1	-0.2
CTA				pP	pP	04 32 36.7	-0.4
CTA				LR	LR	05 00 22.1	
CTAO	Charters Tower	58.09	118⇓	*e*P	P	04 32 27.6	-0.6
CTAO				*e**PP	pP	04 32 37.7	+0.6
CTAO				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
CTAO	Charters Tower	58.09	118⇓	*e*P	P	04 32 27.6	-0.7
	comp=Z,25nm,1.0s,mb5.2						
CTAO				*e*pP	pP	04 32 37.7	+0.6
KIV	Kislovodsk	58.11	319	P	pP	04 32 35.0	-1.9
	comp=Z,161nm,1.2s,SNR=10						
KIV	Kislovodsk	58.11	319	P	P	04 32 27.2	-0.8
KIV				*e*	pP	04 32 35.4	-1.5
KIV				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.3						
KIV	Kislovodsk	58.11	319	P	P	04 32 27.2	-0.8
	comp=Z,39nm,1.1s,mb5.3						
KIV				*e*	pP	04 32 35.4	-1.5
ASF	Jabal al Asfar	58.57	304	P	P	04 32 32.0	+0.6
	comp=Z,2.3nm,0.8s,mb4.3,baz=56,slow=11,SNR=3.7						
ASF				pP	pP	04 32 40.5	+0.2
	comp=Z,17nm,1.1s,baz=40,slow=2.8,SNR=10						
ELZG	Elazig	58.68	312	*i* P	pP	04 32 38.6	-2.4
ELZG	Elazig	58.68	312	*i* P	pP	04 32 38.6	-2.4
MALT	Malatya	59.04	311	P	P	04 32 34.1	-0.5
MALT				*e**PP	pP	04 32 42.4	-1.1
MALT				pmax	pmax		
	comp=Z,21nm,1.4s,mb5.0						
MALT	Malatya	59.04	311	P	P	04 32 34.1	-0.5
	comp=Z,21nm,1.4s,mb5.0						
MALT				*e*pP	pP	04 32 42.4	-1.1
GZT	Gaziantep	59.40	310	*i* P	P	04 32 37.2	+0.1
STKA	Stephens Creek	59.46	133	P	P	04 32 37.3	-0.3
	comp=Z,21nm,0.6s,mb5.3,baz=311,slow=6.9,SNR=44						
STKA				LR	LR	04 59 01.5	
	comp=Z,621nm,21.6s,MS4.7,baz=107,slow=37						
STKA	Stephens Creek	59.46	133	*e*P	P	04 32 37.1	-0.5
EIL	Elat	59.68	301	pP	pP	04 32 47.3	-0.8
	comp=Z,16nm,1.1s,baz=124,slow=4.1,SNR=6.8						
EIL	Elat	59.68	301	*e*P	P	04 32 38.8	-0.4
	comp=Z,28nm,1.2s,mb5.2						
EIL				*e*	pP	04 32 47.1	-1.0
SOKR	Solikamsk	60.10	339⇑	*i*P	pP	04 32 48.8	-1.8
SOKR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,990nm,21.0s,MS4.9						
COBT	Iskenderun	60.17	309	*i* P	P	04 32 40.4	-2.0
YAK	Yakutsk	61.77	18	*e*P	P	04 32 50.7	-2.2
YAK				*e*		04 33 01.9	
YAK				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
YAK				pmax	pmax		
	comp=N,4.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.1						
YAK				pmax	pmax		
	comp=N,8.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.2						
YAK				pmax	pmax		
	comp=N,12nm,1.3s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.2s						
YAK				MLR	MLR		
	comp=Z,450nm,14.0s,MS4.8						
YAK				MLR	MLR		
	comp=N,358nm,15.0s,MS4.8						
YAK				MLR	MLR		
	comp=E,385nm,14.0s,MS4.8						
YAK	Yakutsk	61.77	18	*e*P	P	04 32 51.0	-1.9
	comp=E,37nm,0.7s,mb5.6						
YAK				*e*	pP	04 33 01.2	-0.7
CSS	Prodhromos	62.10	306	*e*P	P	04 32 49.8	-5.7
	comp=E,70nm,1.5s,mb5.6						
CSS				*e*		04 33 01.8	
BOYT	Boyabat	62.56	314	*i* P	P	04 32 57.4	-1.1
MBAR	Mbarara	62.98	266	P	P	04 33 00.7	-0.9
MBAR				*e*	pP	04 33 10.4	-0.1
MBAR				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.9						
MBAR	Mbarara	62.98	266	P	P	04 33 00.7	-0.8
	comp=Z,16nm,1.5s,mb4.9						
MBAR				*e*	pP	04 33 10.4	-0.1
BRTR	Keskin Array B	63.02	312	P	P	04 33 00.3	-1.1
	comp=Z,4.2nm,1.0s,mb4.5,baz=123,slow=7.2,SNR=13						
BRTR				pP	pP	04 33 08.6	-1.9
	comp=Z,7.7nm,0.8s,baz=112,slow=6.7,SNR=19						
ELDT	Eldivan	63.38	312	*i* P	P	04 33 06.3	+2.5
ISP	Isparta	64.95	309	P	P	04 33 13.9	-0.3
ISP				*e*	pP	04 33 21.9	-1.3
ISP				pmax	pmax		
	comp=Z,54nm,1.4s,mb5.4						
ISP	Isparta	64.95	309	P	P	04 33 13.9	-0.3
	comp=Z,54nm,1.4s,mb5.4						
ISP				*e*	pP	04 33 21.9	-1.3
ESKT	Eskisehir	65.05	311	*i* P	pP	04 33 21.8	-2.1
MOS	Moscow	66.15	329	*e*P	pP	04 33 28.3	-2.2
MOS				pmax	pmax		
	comp=Z,108nm,1.4s,mb5.7						
OBN	Obninsk	66.43	328⇓	*i*P	pP	04 33 30.2	-2.1
OBN				*e*		04 35 53.7	
OBN				*e*SS	SS	04 46 25.2	-3.3
OBN				pmax	pmax		
	comp=Z,100nm,1.8s,mb5.5						
OBN	Obninsk	66.43	328	*e*P	P	04 33 21.8	-1.5
	comp=Z,170nm,1.9s,mb5.8						
OBN				*e*	pP	04 33 30.4	-1.9
KDAG	Bornova	67.56	309	*i* P	P	04 33 25.6	-5.3
LSZ	Lusaka	68.10	251	*e*P	P	04 33 35.1	+0.5
LSZ				*e*	pP	04 33 42.9	-0.6
LSZ				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.8						
LSZ	Lusaka	68.10	251	*e*P	P	04 33 35.1	+0.5
	comp=Z,14nm,1.3s,mb4.8						
LSZ				*e*	pP	04 33 42.9	-0.6
IDI	Anoyia	68.97	305	P	P	04 33 38.7	-1.0
	comp=Z,6.5nm,0.7s,mb4.7,baz=340,slow=14,SNR=5.2						
TIXI	Tiksi	68.98	11⇓	*e*P	P	04 33 37.4	-1.7
TIXI				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
AKASG	Malin Array Be	69.04	322	P	P	04 33 37.4	-2.4
	comp=Z,1.8nm,0.5s,mb4.3,baz=88,slow=5.8,SNR=7.8						
AKASG				pP	pP	04 33 47.6	-1.2
	comp=Z,9.5nm,0.8s,baz=88,slow=4.6,SNR=11						
AKASG	Malin Array Be	69.04	322	P	P	04 33 37.4	-2.4
AKASG				*PP	pP	04 33 47.6	-1.2
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.8s						
VRI	Vrincioaia	69.44	317⇑	*i*P	P	04 33 42.6	+0.3
MLR	Muntele Rosu	69.90	316	P	P	04 33 45.0	-0.1
	comp=Z,3.4nm,0.7s,mb4.4,baz=177,slow=11,SNR=7.2						
MLR				pP	pP	04 33 53.7	-0.4
	comp=Z,13nm,1.1s,baz=92,slow=3.6,SNR=13						
MLR				PcP	PcP	04 34 08.4	+0.9
	comp=Z,9.6nm,0.9s,baz=58,slow=6.8,SNR=3.1						
RZN	Rozhen	70.06	312	*e*P	pP	04 33 53.0	-2.2
MNK	Minsk	70.94	326	*e*P	P	04 33 56.0	+4.7
KKB	Krupnik	71.29	312	*e*P	pP	04 34 01.0	-1.7
VTS	Vitosha	71.31	313	*e*P	pP	04 34 01.0	-1.8
KWP	Kalwaria	72.86	320	*e*P	P	04 34 02.5	-0.4
KWP				*e*	pP	04 34 10.6	-1.3
KWP				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.2						
KWP	Kalwaria	72.86	320	*e*P	P	04 34 02.5	-0.4
	comp=Z,38nm,1.3s,mb5.2						
KWP				*e*	pP	04 34 10.6	-1.3
LBTB	Lobatse	72.88	242	*e*P	P	04 34 04.5	+1.1
LBTB				*e*	pP	04 34 12.7	+0.2
LBTB				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
LBTB	Lobatse	72.88	242	*e*P	P	04 34 04.5	+1.1
	comp=Z,11nm,1.2s,mb4.7						
LBTB				*e*	pP	04 34 12.7	+0.3
KOLS	Kolonicke sedl	73.02	319	*e*P	P	04 34 05.0	+1.2
KOLS				*e*pP	pP	04 34 14.9	+2.1
APA	Apatity	73.16	340⇓	*i*P	P	04 34 03.4	-0.8
APA				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
SUW	Suwalki	73.46	325	*e*P	P	04 34 04.7	-1.5
SUW				*e*	pP	04 34 13.0	-2.3
SUW				pmax	pmax		
	comp=Z,137nm,1.3s,mb5.7						
SUW	Suwalki	73.46	325	*e*P	P	04 34 04.7	-1.6
	comp=Z,137nm,1.3s,mb5.7						
SUW				*e*	pP	04 34 13.0	-2.3
FINES	FINESS Array B	73.86	332	P	P	04 34 07.5	-0.9
	comp=Z,7.4nm,0.6s,mb4.8,baz=102,slow=6.3,SNR=36						
FINES				pP	pP	04 34 16.6	-0.8
	comp=Z,21nm,0.8s,baz=104,slow=7.9,SNR=16						
KECS	Kecovo	74.11	319	*e*P	pP	04 34 18.3	-0.9
KECS	Kecovo	74.11	319	*e*pP	pP	04 34 18.3	-0.9
BOSA	Boshof	74.15	238	*e*P	P	04 34 11.5	+0.7
BOSA				*e*	pP	04 34 20.8	+1.0
BOSA				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.8						
BOSA	Boshof	74.15	238	*e*P	P	04 34 11.5	+0.7
	comp=Z,16nm,1.3s,mb4.8						
BOSA				*e*	pP	04 34 20.8	+1.0
NIE	Niedzica	74.36	320	*e*P	pP	04 34 22.5	+1.9
PSZ	Piszkesteto	74.42	318	*e*P	P	04 34 11.5	-0.4
PSZ				*e**PP	pP	04 34 20.4	-0.6
PSZ				pmax	pmax		
	comp=Z,29nm,1.5s,mb5.0						
PSZ	Piszkesteto	74.42	318	*e*P	P	04 34 11.5	-0.4
	comp=Z,29nm,1.5s,mb5.0						
PSZ				*e*pP	pP	04 34 20.4	-0.6
OJC	Ojcow	74.82	320	*e*P	P	04 34 11.6	-2.6
VYHS	Vyhne	75.20	318	*e*P	pP	04 34 23.9	-1.6
VYHS	Vyhne	75.20	318	*e*	pP	04 34 23.9	-1.6
OKC	Ostrava-Krasne	75.82	320	*e*P	P	04 34 20.4	+0.5
OKC				*e*pP	pP	04 34 28.9	-0.1
MORC	Moravsky Berou	76.20	320	*e*P	P	04 34 22.2	+0.1
MORC				*e*	pP	04 34 30.2	-0.9
MORC				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
MORC	Moravsky Berou	76.20	320	*e*P	P	04 34 22.2	+0.1
	comp=Z,16nm,1.4s,mb4.7						
MORC				*e*	pP	04 34 30.2	-1.0
ZST	Bratislava	76.31	318	*i* P	P	04 34 23.6	+0.9
ZST				*e*	pP	04 34 30.9	-0.9
ARCES	ARCESS Array B	76.59	340	P	P	04 34 23.8	-0.1
	comp=Z,7.6nm,0.8s,mb4.7,baz=86,slow=5.4,SNR=40						
ARCES				pP	pP	04 34 33.2	+0.2
	comp=Z,17nm,0.8s,baz=108,slow=7.7,SNR=15						
ARE0	ARCESS Array S	76.59	340	*e*P	P	04 34 23.7	-0.2
ARE0				*e*pP	pP	04 34 32.6	-0.3
ARE0				*i* PcP	PcP	04 34 34.9	-0.8
VRAC	Vranov	76.76	319	P	P	04 34 25.4	+0.2
	comp=Z,1.4nm,0.4s,mb4.2,baz=137,slow=5.7,SNR=3.5						
MAW	Mawson	76.79	192	P	P	04 34 26.6	+1.6
	comp=Z,6.1nm,0.8s,mb4.6,baz=43,slow=6.5,SNR=5.3						
MAW	Mawson	76.79	192	*e*P	P	04 34 26.4	+1.4
MAW				pmax	pmax		
	comp=Z,13nm,1.0s						
MAW	Mawson	76.79	192	*e*P	P	04 34 26.4	+1.4
	comp=Z,13nm,1.0s,mb4.8						
DPC	Dobruska-Polom	77.04	320	*e*P	P	04 34 27.1	+0.3
DPC				*e*pP	pP	04 34 36.1	+0.2
KSP	Ksiaz	77.11	321	*e*P	P	04 34 27.7	+0.6
KSP				*e*	pP	04 34 35.8	-0.4
UPC	Upice	77.26	320	*e*P	P	04 34 28.6	+0.7
UPC				*e*pP	pP	04 34 37.3	+0.3
BOJS	Bojanci	77.34	315	*e*P	pP	04 34 38.6	+1.0
BILL	Bilibino	77.86	22	*e*P	P	04 34 28.9	-2.0
BILL				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BILL	Bilibino	77.86	22	*e*P	P	04 34 28.9	-2.1
	comp=Z,7.8nm,0.8s,mb4.7						
PRU	Pruhonice	78.15	320	*e*P	P	04 34 32.7	-0.2
PRU				*e*pP	pP	04 34 41.6	-0.4
GEC2	GERESS Array S	78.62	318	*e*P	P	04 34 36.3	+0.8
GERES	GERESS Array B	78.62	318	P	P	04 34 35.6	+0.2
	comp=Z,4.5nm,0.8s,mb4.5,baz=90,slow=5.0,SNR=36						
GERES				pP	pP	04 34 44.3	-0.2
	comp=Z,6.8nm,0.9s,baz=90,slow=6.7,SNR=24						
KHC	Kasperske Hory	78.72	319	*e*P	P	04 34 36.1	+0.1
KHC				*e*pP	pP	04 34 44.7	-0.4
RUE	Ruedersdorf	78.82	322	*e*P	P	04 34 36.4	-0.1
	comp=Z,39nm,1.0s,mb5.3						
RUE				*e*	pP	04 34 45.2	-0.5
FX1	Attu Island--F	78.85	37	P	P	04 34 35.9	-0.7
	comp=Z,9.7nm,0.5s,mb5.0,baz=4.0,slow=9.8,SNR=4.8						
FX1	Attu Island--F	78.85	37	P	P	04 34 35.9	-0.7
FX1				pmax	pmax		
	comp=Z,10.0nm,0.5s						
FX1	Attu Island--F	78.85	37	*e*P	P	04 34 34.9	-1.7
WET	Wettzell	79.18	319	*e*P	P	04 34 39.0	+0.5
CLL	Collm	79.22	321⇓	*i*P	pP	04 34 47.2	-0.6
CLL				pmax	pmax		
	comp=Z,48nm,1.9s,mb5.1						
CLL	Collm	79.22	321⇓	*i*P	pP	04 34 47.2	-0.6
	comp=Z,48nm,1.9s						
CLL	Collm	79.22	321⇓	*i**PP	pP	04 34 47.2	-0.6
CLL				*i* *SP	sP	04 34 51.2	+0.3
NKC	Novy Kostel	79.51	320	*e*P	P	04 34 35.3	-5.0
NKC				*e*pP	pP	04 34 49.4	0.0
MOX	Moxa	80.06	320	*e*P	P	04 34 43.6	+0.4
MOX	Moxa	80.06	320	*i* P	P	04 34 43.6	+0.4
FUR	Furstenfeldbru	80.20	318	*e*P	P	04 34 43.8	-0.2
GRA1	Grafenberg Arr	80.28	319	*e*P	P	04 34 44.1	-0.3
	comp=Z,6.0nm,0.7s,mb4.6						
GRA1				*e*pP	pP	04 34 53.9	+0.3
GRF	Grafenberg Arr	80.28	319	*e*P	P	04 34 44.1	-0.3
GRF				*e**PP	pP	04 34 53.9	+0.3
GRF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
GRF	Grafenberg Arr	80.28	319	*e*P	P	04 34 44.1	-0.3
GRF				*e**PP	pP	04 34 53.9	+0.3
GRF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
GRF	Grafenberg Arr	80.28	319	*e*P	P	04 34 44.1	-0.3
	comp=Z,6.0nm,0.7s,mb4.6						
GRF				*e*pP	pP	04 34 53.9	+0.3
NB2	NORSAR Subarra	80.84	331	P	P	04 34 46.0	-1.2
	comp=Z,1.7nm,0.7s,mb4.1,baz=96,slow=5.6						
NB2	NORSAR Subarra	80.84	331	P	P	04 34 46.0	-1.2
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
NOA	NORSAR Array B	80.84	331	P	P	04 34 46.6	-0.5
	comp=Z,2.6nm,0.7s,mb4.2,baz=95,slow=5.4,SNR=8.1						
NOA				pP	pP	04 34 55.0	-1.3
	comp=Z,6.4nm,0.9s,baz=94,slow=5.5,SNR=10						
BSEG	Bad Segeberg	80.98	324	*e*P	P	04 34 48.8	+0.8
DAVOX	Davos	81.12	316	P	P	04 34 49.5	+0.6
	comp=Z,6.6nm,0.6s,mb4.7,baz=124,slow=5.7,SNR=17						
DAVOX				pP	pP	04 34 58.3	+0.2
	comp=Z,12nm,0.7s,baz=107,slow=9.9,SNR=11						
CDF	Champ du Feu	82.87	318	*e*P	P	04 34 57.3	-0.7
LPG	La Plagne	83.31	315	*e*P	P	04 35 00.4	+0.1
	comp=Z,26nm,0.8s,mb5.0						
LPG	La Plagne	83.31	315	*e*P	P	04 35 00.4	+0.1
LPG				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
LPL	La Plagne	83.33	315	*e*P	P	04 35 00.5	+0.1
	comp=Z,52nm,1.0s,mb5.2						
LPL	La Plagne	83.33	315	*e*P	P	04 35 00.5	+0.1
LPL				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
HAU	Haudompre	83.50	318	*e*P	P	04 35 00.5	-0.7
	comp=Z,63nm,1.2s,mb5.3						
HAU	Haudompre	83.50	318	*e*P	P	04 35 00.5	-0.7
HAU				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.3						
ORIF	Oris-en-Rattie	83.95	314	*e*P	P	04 35 03.2	-0.4
MEZF	Maizieres J’vi	84.35	318	*e*P	P	04 35 05.2	-0.3
	comp=Z,30nm,1.1s,mb5.1						
BAIF	Baives	84.81	320	*e*P	P	04 35 07.7	-0.1
	comp=Z,33nm,1.1s,mb5.1						
BAIF	Baives	84.81	320	*e*P	P	04 35 07.7	-0.1
BAIF				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.1						
SMF	Signal de Mont	85.28	316	*e*P	P	04 35 09.8	-0.4
	comp=Z,21nm,1.0s,mb4.9						
SMF	Signal de Mont	85.28	316	*e*P	P	04 35 09.8	-0.4
SMF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.9						
BGF	Bois d’Agland	85.97	316	*e*P	P	04 35 13.6	0.0
VNDA	Vanda	91.45	168	LR	LR	05 11 44.6	
	comp=Z,256nm,18.6s,MS4.7,baz=296,slow=32						
ESDC	Sonseca Array	91.77	310	P	P	04 35 42.3	+1.0
	comp=Z,1.5nm,0.7s,mb4.5,baz=59,slow=4.2,SNR=7.3						
ESDC				pP	pP	04 35 51.0	+0.5
	comp=Z,5.0nm,0.9s,baz=59,slow=4.5,SNR=10						
IMA	Indian Mountai	93.40	22	*e*P	P	04 35 49.2	+1.1
IMA				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.6						
IMA	Indian Mountai	93.40	22	*e*P	P	04 35 49.2	+1.0
	comp=Z,15nm,0.6s,mb5.6						
ILAR	Eielson Array	96.52	22	P	P	04 36 01.4	-1.0
	comp=Z,0.6nm,0.6s,mb4.2,baz=304,slow=4.8,SNR=14						
DBIC	Dimbokro	97.51	278	P	P	04 36 08.7	+0.6
	comp=Z,1.8nm,0.9s,mb4.6,baz=16,slow=11,SNR=2.6						
SNAA	Sanae	97.85	199	P	P	04 36 10.1	+1.8
SNAA				pmax	pmax		
	comp=Z,2.0nm,1.1s						
SNAA	Sanae	97.85	199	P	P	04 36 10.1	+1.7
	comp=Z,2.0nm,1.1s,mb4.6						
INK	Inuvik	98.76	16	P	P	04 36 11.7	-0.7
	comp=Z,0.7nm,0.7s,mb4.3,baz=57,slow=32,SNR=3.0						
YKA	Yellowknife Ar	108.18	13	PP	PP	04 41 20.9	-6.6
	comp=Z,0.5nm,0.7s,baz=336,slow=7.7,SNR=9.3						
YKA				PKKPbc		04 52 12.2	
	comp=Z,0.2nm,0.7s,baz=156,slow=3.4,SNR=8.9						
ULM	Lac du Bonnet	123.18	7	PKP	PKPdf	04 41 29.6	-4.2
	comp=Z,3.0nm,0.6s,baz=50,slow=2.8,SNR=8.3						
ULM				pPKP		04 41 41.5	
	comp=Z,3.0nm,0.7s,baz=1.8,slow=2.0,SNR=5.6						
SNOW	Snow King Moun	125.90	22	*e*PKPdf	PKPdf	04 41 37.3	-2.1
SNOW				*e*		04 41 47.3	
NVAR	Mina Array Bea	126.67	31	PKP	PKPdf	04 41 38.6	-2.3
	comp=Z,1.3nm,0.8s,baz=287,slow=1.5,SNR=4.2						
NVAR				pPKP		04 41 48.9	
	comp=Z,1.6nm,0.7s,baz=273,slow=1.4,SNR=3.3						
PDAR	Pinedale Array	126.94	21	PKP	PKPdf	04 41 38.8	-2.5
	comp=Z,1.5nm,0.8s,baz=50,slow=1.7,SNR=12						
PDAR				pPKP		04 41 47.5	
	comp=Z,2.1nm,0.8s,baz=71,slow=5.0,SNR=9.3						
PV10	Paradox Valley	130.95	23	*e*PKPdf	PKPdf	04 41 45.7	-3.4
TXAR	Lajitas Array	141.00	24	PKhKP		04 41 57.5	
	comp=Z,0.2nm,0.6s,baz=292,slow=1.7,SNR=5.9						
TXAR				PKP	PKPdf	04 42 06.7	-1.3
	comp=Z,0.7nm,0.6s,baz=175,slow=1.2,SNR=4.1						
BDFB	Brasilia	141.11	253	PKP	PKPdf	04 42 04.8	-3.7
	comp=Z,1.5nm,0.7s,baz=177,slow=8.1,SNR=3.7						
JCT	Junction City	141.36	19	*e*PKIKP	PKPdf	04 42 05.3	-3.3
JCT				*e*		04 42 15.9	
CPUP	Villa Florida	145.72	231	PKPbc	PKPbc	04 42 13.4	+1.5
	comp=Z,0.0nm,0.4s,baz=57,slow=19,SNR=1.4						
CPUP				pPKPbc		04 42 22.8	
	comp=Z,0.0nm,0.4s,baz=26,slow=20,SNR=1.6						
PCRV	Puerto La Cruz	152.79	307	PKPbc	PKPdf	04 42 30.9	+3.3
	comp=Z,8.2nm,0.8s,baz=32,slow=8.3,SNR=4.2						
TEIG	Tepich	153.67	4	PKPdf	PKPdf	04 42 26.5	-2.1
TEIG				*e*PKPab	PKPab	04 42 44.4	-2.3
SDV	Santo Domingo	158.18	313	PKP	PKPdf	04 42 31.2	-3.7
	comp=Z,1.8nm,0.8s,baz=328,slow=10.0,SNR=3.6						
SDV				pPKP		04 42 42.3	
	comp=Z,2.8nm,0.8s,baz=16,slow=6.8,SNR=4.2						
SDV	Santo Domingo	158.18	313	*e*PKPdf	PKPdf	04 42 32.4	-2.4
SDV				*e*		04 42 42.6	
LPAZ	La Paz	159.39	239	PKP	PKPdf	04 42 34.7	-1.4
	comp=Z,1.3nm,0.6s,baz=151,slow=2.1,SNR=5.8						
LPAZ	La Paz	159.39	239	*e*PKIKP	PKPdf	04 42 34.1	-2.0
ROSC	El Rosal	163.59	312	PKP	PKPdf	04 42 39.1	-1.4
	comp=Z,2.9nm,0.7s,baz=268,slow=15,SNR=3.8						

IDC 27 04:25:10.9±32.0**, 11.41N**×**90.27E, mb4.2**/4**, mb1 4.3**/4**, mb1mx3.8**/18**, Error ellipse: s-maj=791.0km s-min=137.7km az=139.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FINES	FINESS Array B	67.82	332	P	P	04 36 10.8	-1.9
	5.7nm,1.2s,baz=112,slow=7.5,SNR=2.4						
ARCES	ARCESS Array B	70.67	340	P	P	04 36 28.1	-2.0
	1.9nm,0.6s,baz=98,slow=7.4,SNR=7.0						
GERES	GERESS Array B	72.66	318	P	P	04 36 40.8	-1.6
	1.5nm,0.9s,baz=90,slow=6.9,SNR=2.9						
DAVOX	Davos	75.20	316	P	P	04 36 55.6	-1.6
	2.0nm,0.6s,baz=175,slow=15,SNR=2.9						

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*IDC **27** 04:25:24.4±1.4, 9.87N×93.36E, mb4.1/8, mb1 4.3/8, mb1mx4.1/18, Error ellipse: s-maj=113.0km s-min=26.2km az=43.0*

*NEIC **27** 04:25:28.3±0.6, 9.39N×92.94E, h30^{km}, mb4.4/5, Error ellipse: s-maj=20.8km s-min=15.9km az=77.0*

ISC 27 04:25:26.3±0.8**, 9.5N**±0.1×**93.1E**±0.1**, h30^{km}, n15, σ0^{s}78**/15**, mb4.2**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NANT	Nan	11.89	38	P	S	04 30 29.0	-0.6
AAK	Ala-Archa	36.83	337	*e*P	P	04 32 25.1	-8.6
	9.6nm,0.9s,mb4.6						
ULN	Ulaanbaatar	40.07	15	P	P	04 33 02.4	+1.6
	4.8nm,1.0s,mb4.2						
CHKZ	Chkalovo	47.64	342	P	P	04 34 01.1	-0.6
	2.7nm,0.6s,mb4.5						
WRA	Warramunga Arr	50.06	126	P	P	04 34 21.1	+0.3
	1.7nm,0.8s,mb4.1,baz=310,slow=8.2,SNR=2.6						
BRTR	Keskin Array B	60.58	310	P	P	04 35 36.9	+0.2
	0.9nm,0.7s,mb4.0,baz=96,slow=7.2,SNR=2.8						
AKASG	Malin Array Be	66.25	321	P	P	04 36 13.4	-0.4
	0.7nm,0.6s,mb3.9,baz=74,slow=5.5,SNR=2.8						
FINES	FINESS Array B	70.82	332	P	P	04 36 41.5	-0.5
	1.4nm,0.8s,mb4.0,baz=101,slow=7.1,SNR=4.0						
ARCES	ARCESS Array B	73.42	340	P	P	04 36 56.6	-0.6
	2.4nm,0.9s,mb4.1,baz=90,slow=6.3,SNR=2.5						
LBTB	Lobatse	74.06	241	*e*P	P	04 37 01.5	-0.3
	2.0nm,0.6s,mb4.2						
BOSA	Boshof	75.51	237	*e*P	P	04 37 09.1	-1.0
	3.1nm,0.7s,mb4.3						
GERES	GERESS Array B	75.93	318	P	P	04 37 13.3	+1.1
	1.4nm,0.6s,mb4.1,baz=86,slow=6.1,SNR=6.3						
NOA	NORSAR Array B	77.83	330	P	P	04 37 22.3	-0.1
	1.4nm,0.9s,mb3.9,baz=107,slow=5.2,SNR=3.6						
DAVOX	Davos	78.51	316	P	P	04 37 27.5	+1.1
	1.6nm,0.4s,mb4.3,baz=127,slow=13,SNR=3.5						
DAVOX	Davos	78.51	316	P	P	04 37 27.5	+1.1

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*MOS **27** 04:26:06.2±0.9, 6.87N×92.63E, h33^{km}, mb5.1/25, Error ellipse: s-maj=12.3km s-min=7.4km az=120.0*

*BJI **27** 04:26:06.2, 6.70N×92.31E, h55^{km}, mB5.2, mb4.8, Ms5.0, Msz4.8*

*NEIC **27** 04:26:08.8±0.2, 6.83N×92.60E, mb5.0/30, Error ellipse: s-maj=5.9km s-min=5.6km az=37.0*

*CSEM **27** 04:26:09.3, 7.12N×92.40E, h33^{km}, mb5.6*

*IDC **27** 04:26:09.2±0.4, 6.88N×92.64E, h41^{km}±3^{km}, mb4.3/28, mb1 4.4/29, mb1mx4.4/30, Error ellipse: s-maj=15.2km s-min=9.3km az=42.0*

ISC 27 04:26:06.8±0.3**, 6.79N**±0.05×**92.60E**±0.05**, h39^{km}, h39^{km}**±.9^{km}**:pP-P, n145,** σ**$0^{s}93$**/134**, mb4.8**/60**, MS4.8**/8**, 6C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	**Nongplab**	**9.09**	**50**	P	**S**	**04 29 51.5**	**-9.1**
CM31	**Chiang Mai Arr**	**13.14**	**27**	*e*P	**P**	**04 29 13.4**	**-0.1**
	91nm,0.9s						
CMAR	**Chiang Mai Arr**	**13.14**	**27**	P	**P**	**04 29 12.9**	**-0.5**
	baz=214,slow=14,SNR=3.0						
CHRT	**Chiangrai**	**14.76**	**28**	PG	**P**	**04 29 28.0**	**-6.7**
CHRT				SG	Px	04 29 33.0	
UBT	**Ubonrachathani**	**14.80**	**54**	P	**P**	**04 29 51.5**	**+16**
KMI	**Kunming**	**20.65**	**27**	P	**P**	**04 30 46.8**	**+1.1**
KMI				AMB	AMB		
	comp=Z,63nm,1.1s						
KMI				LR	LR		
	comp=N,2µm,14.8s,MS4.7						
KMI				LR	LR		
	comp=E,1µm,14.3s,MS4.7						
KMI				LR	LR		
	comp=Z,2µm,15.4s,MS4.7						
QIZ	**Qiongzhong**	**20.72**	**52**	P	**P**	**04 30 47.3**	**+0.8**
QIZ				S	**S**	**04 34 32.8**	**+2.1**
QIZ				LR	LR		
	comp=N,3µm,13.4s,MS4.8						
QIZ				LR	LR		
	comp=E,1µm,14.1s,MS4.8						
QIZ				LR	LR		
	comp=Z,2µm,13.3s,MS4.6						
QIZ	**Qiongzhong**	**20.72**	**52**	*e*P	**P**	**04 30 46.5**	**0.0**
	comp=Z,120nm,1.0s						
LSA	**Lhasa**	**22.83**	**357**⇑	*e*P	**P**	**04 31 09.7**	**+2.1**
LSA				*e*		04 31 20.6	
LSA				pmax	pmax		
	comp=Z,44nm,0.8s,mb4.9						
LSA	**Lhasa**	**22.83**	**357**⇑	*e*P	**P**	**04 31 09.7**	**+2.1**
	comp=Z,44nm,0.8s,mb4.9						
LSA				*e*		04 31 20.6	
GYA	**Guiyang**	**23.71**	**33**⇑	*i*P	**P**	**04 31 16.8**	**+0.7**
GYA				PP	PP	04 31 54.8	+5.1
GYA				S	**S**	**04 35 29.0**	**+3.7**
GYA				AMB	AMB		
	comp=Z,60nm,1.2s,mb4.9						
GYA				LR	LR		
	comp=N,2µm,13.8s,MS4.8						
GYA				LR	LR		
	comp=E,2µm,14.1s,MS4.8						
GYA				LR	LR		
	comp=Z,2µm,13.2s,MS4.8						
PTH	**Pithoragarh**	**25.47**	**334**	*e*	**P**	**04 31 34.1**	**+1.0**
CD2	**Chengdu**	**26.18**	**22**	P	**P**	**04 31 39.5**	**-0.1**
NDI	**New Delhi**	**26.19**	**328**	*e*	**P**	**04 31 36.0**	**-3.8**
ENH	**Enshi**	**28.24**	**32**	*e*P	**P**	**04 31 57.5**	**-1.0**
	comp=Z,45nm,1.0s,mb5.1						
ENH				*e*pP	pP	04 32 07.5	-1.6
LZH	**Lanzhou**	**30.93**	**18**	*e*P	**P**	**04 32 22.0**	**-0.3**
LZH				AMB	AMB		
	comp=Z,33nm,1.5s,mb4.9						
XAN	**Xi’an**	**31.04**	**27**	P	**P**	**04 32 20.8**	**-2.5**
XAN				AP	pP	04 32 31.3	-2.8
XAN				AMB	AMB		
	comp=Z,14nm,1.3s,mb4.6						
WHN	**Wuhan**	**31.22**	**38**	⇓P	**P**	**04 32 25.3**	**+0.3**
WHN				AP	pP	04 32 34.8	-1.0
WHN				S	**S**	**04 37 22.0**	**-5.3**
WHN				LR	LR		
	comp=Z,4µm,13.4s,MS5.2						
GTA	**Gaotai**	**33.12**	**10**	*e*P	**P**	**04 32 41.3**	**-0.2**
GTA				PP	PP	04 33 55.0	+2.0
GTA				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.7						
GTA				AMB	AMB		
	comp=Z,198nm,7.6s						
GTA				LR	LR		
	comp=N,476nm,18.3s,MS4.6						
GTA				LR	LR		
	comp=E,761nm,14.5s,MS4.6						
GTA				LR	LR		
	comp=Z,726nm,16.8s,MS4.5						
NJ2	**Nanjing**	**35.08**	**41**	*e*P	**P**	**04 32 58.3**	**-0.1**
NJ2				AP	pP	04 33 09.0	-0.3
HHC	**Hu-ho-hao-te**	**37.91**	**24**	*e*P	**P**	**04 33 21.8**	**-0.3**
HHC				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.5						
HHC				AMB	AMB		
	comp=Z,121nm,3.6s						
HHC				LR	LR		
	comp=N,549nm,16.7s,MS4.7						
HHC				LR	LR		
	comp=E,937nm,16.7s,MS4.7						
HHC				LR	LR		
	comp=Z,702nm,16.6s,MS4.5						
UCH	**Uchtor**	**38.76**	**338**	P	**P**	**04 33 30.9**	**+1.7**
	SNR=6.2						
AML	**Almayashu**	**38.98**	**337**	P	**P**	**04 33 32.6**	**+1.6**
	SNR=18						
AAK	**Ala-Archa**	**39.12**	**339**	P	**P**	**04 33 34.1**	**+1.9**
	SNR=5.9						
AAK	**Ala-Archa**	**39.12**	**339**	*e*P	**P**	**04 33 32.9**	**+0.8**
AAK				*e**PP	pP	04 33 43.8	+0.6
AAK				pmax	pmax		
	comp=Z,34nm,1.4s,mb4.9						
AAK	**Ala-Archa**	**39.12**	**339**	*e*P	**P**	**04 33 32.9**	**+0.7**
	comp=Z,34nm,1.4s,mb4.9						
AAK				*e*pP	pP	04 33 43.8	+0.6
BJI	**Beijing**	**39.28**	**29**	P	**P**	**04 33 35.0**	**+1.5**
BJI				AMB	AMB		
	comp=Z,12nm,1.8s,mb4.3						
JOW	**Kunigami**	**39.32**	**55**	P	**P**	**04 33 35.5**	**+1.5**
	comp=Z,54nm,1.1s,mb5.2,baz=117,slow=27,SNR=2.6						
JOW				pP	pP	04 33 45.5	+0.4
	comp=Z,58nm,1.0s,baz=270,slow=9.2,SNR=1.8						
EKS2	**Erkin-Say**	**39.41**	**338**	P	**P**	**04 33 36.3**	**+1.7**
	SNR=5.7						
USP	**Ospenovka**	**39.67**	**339**	P	**P**	**04 33 37.6**	**+0.9**
	SNR=8.6						
SONM	**Songino Array**	**42.56**	**14**	P	**P**	**04 34 00.9**	**+0.4**
	comp=Z,5.4nm,1.0s,mb4.2,baz=198,slow=7.8,SNR=7.0						
SONM				pP	pP	04 34 11.1	-0.6
	comp=Z,13nm,1.1s,baz=196,slow=9.0,SNR=9.2						
ULN	**Ulaanbaatar**	**42.75**	**14**	*e*P	**P**	**04 34 02.1**	**+0.1**
ULN				*e**PP	pP	04 34 12.2	-1.0
ULN				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
ULN	**Ulaanbaatar**	**42.75**	**14**	*e*P	**P**	**04 34 02.1**	**+0.1**
	comp=Z,6.2nm,1.0s,mb4.3						
ULN				*e*pP	pP	04 34 12.2	-0.9
ZAK	**Zakamensk**	**44.36**	**10**	*e*P	**P**	**04 34 15.6**	**+0.6**
SNY	**Shenyang**	**44.41**	**33**	⇓P	**P**	**04 34 16.0**	**+0.4**
SNY				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.7						
SNY				LR	LR		
	comp=N,720nm,17.1s,MS5.0						
SNY				LR	LR		
	comp=E,1µm,14.5s,MS5.0						
SNY				LR	LR		
	comp=Z,990nm,14.3s,MS4.9						
MOY	**Mondy**	**45.27**	**7**	*e*P	pP	04 34 33.7	+0.2
ZAL	**Zalesovo**	**47.43**	**354**	P	**P**	**04 34 39.8**	**+0.4**
	comp=Z,1.9nm,0.4s,mb4.4,baz=315,slow=11,SNR=2.4						
ZAL				pP	pP	04 34 51.0	+0.5
	comp=Z,6.9nm,0.9s,baz=298,slow=6.7,SNR=4.7						
HIA	**Hailar**	**48.12**	**24**	*e*P	**P**	**04 34 44.6**	**-0.2**
HIA				*e**PP	pP	04 34 55.0	-0.9
HIA				pmax	pmax		
	comp=Z,28nm,1.0s						
HIA	**Hailar**	**48.12**	**24**	*e*P	**P**	**04 34 44.5**	**-0.2**
	comp=Z,28nm,1.0s,mb5.2						
HIA				*e*pP	pP	04 34 55.0	-1.0
NVS	**Novosibirsk**	**48.50**	**353**	*e*P	**P**	**04 34 55.7**	**+8.0**
WRA	**Warramunga Arr**	**48.90**	**124**	P	**P**	**04 34 51.0**	**-0.2**
	comp=Z,8.3nm,0.8s,mb4.8,baz=305,slow=9.0,SNR=7.4						
WRA				pP	pP	04 35 02.5	+0.1
	comp=Z,11nm,0.8s,baz=301,slow=8.4,SNR=8.2						
WRAB	**Tennant Creek**	**48.91**	**124**	*e*P	**P**	**04 34 50.5**	**-0.8**
WRAB				*e**PP	pP	04 35 01.3	-1.1
WRAB				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.1						
WRAB	**Tennant Creek**	**48.91**	**124**	*e*P	**P**	**04 34 50.5**	**-0.7**
	comp=Z,12nm,0.6s,mb5.1						
WRAB				*e*pP	pP	04 35 01.3	-1.1
BVAR	**Borovoye Array**	**49.54**	**343**	P	**P**	**04 34 54.2**	**-1.5**
	comp=Z,18nm,1.2s,mb5.0,baz=135,slow=8.4,SNR=4.9						
BVAR				pP	pP	04 35 06.3	-0.5
	comp=Z,18nm,1.2s,baz=135,slow=6.3,SNR=6.1						
MDJ	**Mudanjiang**	**49.56**	**34**	P	**P**	**04 34 54.8**	**-1.2**
	comp=Z,42nm,1.4s,mb5.3						
MDJ				*e*	pP	04 35 06.6	-0.5
BRVK	**Borovoye**	**49.60**	**342**	*e*P	**P**	**04 34 54.8**	**-1.3**
BRVK				*e**PP	pP	04 35 06.2	-1.1
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
BRVK	**Borovoye**	**49.60**	**342**	*e*P	**P**	**04 34 54.8**	**-1.3**
	comp=Z,10nm,1.0s,mb4.8						
BRVK				*e*pP	pP	04 35 06.2	-1.1
CHKZ	**Chkalovo**	**50.04**	**343**	*e*P	**P**	**04 34 58.7**	**-0.8**
CHKZ				*e**PP	pP	04 35 10.4	-0.3
CHKZ				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
CHKZ	**Chkalovo**	**50.04**	**343**	*e*P	**P**	**04 34 58.7**	**-0.9**
	comp=Z,19nm,0.9s,mb5.1						
CHKZ				*e*pP	pP	04 35 10.4	-0.3
ASAR	**Alice Springs**	**50.42**	**128**	P	**P**	**04 35 02.7**	**-0.1**
	comp=Z,7.6nm,0.7s,mb4.8,baz=300,slow=7.1,SNR=9.0						
ASAR				pP	pP	04 35 16.4	+2.3
	comp=Z,10nm,0.9s,baz=300,slow=7.6,SNR=8.2						
ASAR				PcP	PcP	04 36 21.3	+0.3
	comp=Z,2.6nm,0.8s,baz=306,slow=4.6,SNR=2.8						
BOD	**Bodaibo**	**53.56**	**14**	*e*P	**P**	**04 35 25.3**	**-0.6**
BOD				*e*	pP	04 35 35.5	-1.7
GNI	**Garni**	**54.12**	**315**	P	**P**	**04 35 30.8**	**+0.5**
	comp=Z,18nm,1.1s,mb4.9,baz=248,slow=14,SNR=3.2						
GNI	**Garni**	**54.12**	**315**	*e*P	**P**	**04 35 30.5**	**+0.2**
GNI				pmax	pmax		
	comp=Z,16nm,1.1s						
GNI	**Garni**	**54.12**	**315**	*e*P	**P**	**04 35 30.5**	**+0.2**
	comp=Z,16nm,1.1s,mb4.8						
TI2	**Plekhanov**	**54.78**	**317**⇑	*i*P	**P**	**04 35 34.6**	**-0.5**
KMBO	**Kilima Mbogo**	**55.79**	**264**	P	**P**	**04 35 42.7**	**-0.1**
	comp=Z,3.4nm,0.9s,mb4.4,baz=47,slow=11,SNR=5.7						
KMBO				pP	pP	04 35 56.6	+2.4
	comp=Z,2.8nm,0.9s,baz=55,slow=11,SNR=4.6						
KMBO	**Kilima Mbogo**	**55.79**	**264**	P	**P**	**04 35 42.7**	**0.0**
KMBO				*PP	pP	04 35 56.6	+2.4
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KMBO	**Kilima Mbogo**	**55.79**	**264**	*e*P	**P**	**04 35 43.6**	**+0.9**
	comp=Z,6.2nm,1.1s,mb4.5						
ARU	**Arti**	**56.30**	**338**	*e*P	**P**	**04 35 44.8**	**-1.0**
ARU				*e**PP	pP	04 35 56.1	-1.2
ARU				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
ARU	**Arti**	**56.30**	**338**	*e*P	**P**	**04 35 44.8**	**-1.1**
	comp=Z,19nm,1.0s,mb5.1						
ARU				*e*pP	pP	04 35 56.1	-1.2
PMG	**Port Moresby**	**56.69**	**106**	P	**P**	**04 35 48.7**	**-0.5**
	comp=Z,2.2nm,0.3s,mb4.6,baz=229,slow=17,SNR=3.8						
KIV	**Kislovodsk**	**57.11**	**319**	*e*P	**P**	**04 35 50.4**	**-1.4**
KIV				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
KIV	**Kislovodsk**	**57.11**	**319**	*e*P	**P**	**04 35 50.4**	**-1.4**
	comp=Z,16nm,0.9s,mb5.0						
ASF	**Jabal al Asfar**	**57.54**	**304**	P	**P**	**04 35 55.9**	**+1.0**
	comp=Z,4.3nm,0.9s,mb4.5,baz=340,slow=5.0,SNR=3.9						
EIL	**Elat**	**58.65**	**301**	P	**P**	**04 36 03.5**	**+0.8**
	comp=Z,9.6nm,0.9s,mb4.8,baz=38,slow=16,SNR=4.3						
EIL	**Elat**	**58.65**	**301**	*e*P	**P**	**04 36 03.5**	**+0.8**
	comp=Z,17nm,1.2s,mb5.0						
CTA	**Charters Tower**	**59.13**	**118**	P	**P**	**04 36 05.8**	**-0.4**
	comp=Z,8.1nm,0.9s,mb4.8,baz=344,slow=4.7,SNR=5.1						
CTA				pP	pP	04 36 16.8	-0.9
	comp=Z,12nm,1.1s,baz=269,slow=9.8,SNR=4.9						
CTAO	**Charters Tower**	**59.13**	**118**	*e*P	**P**	**04 36 05.6**	**-0.6**
CTAO				*e**PP	pP	04 36 17.1	-0.6
CTAO				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.2						
CTAO	**Charters Tower**	**59.13**	**118**	*e*P	**P**	**04 36 05.6**	**-0.6**
	comp=Z,33nm,1.3s,mb5.2						
CTAO				*e*pP	pP	04 36 17.1	-0.6
STKA	**Stephens Creek**	**60.48**	**132**	P	**P**	**04 36 15.1**	**-0.3**
	comp=Z,5.2nm,1.1s,mb4.5,baz=308,slow=8.6,SNR=2.8						
STKA				pP	pP	04 36 26.7	-0.2
	comp=Z,11nm,0.9s,baz=317,slow=8.8,SNR=6.6						
STKA	**Stephens Creek**	**60.48**	**132**	P	**P**	**04 36 15.7**	**+0.3**
STKA				*e*pP	pP	04 36 27.0	+0.1
YAK	**Yakutsk**	**61.51**	**19**	*e*P	**P**	**04 36 21.4**	**-0.5**
YAK				*e**PP	pP	04 36 31.5	-1.9
YAK				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.6						
YAK	**Yakutsk**	**61.51**	**19**	*e*P	**P**	**04 36 21.4**	**-0.4**
	comp=Z,55nm,1.0s,mb5.6						
YAK				*e*pP	pP	04 36 31.5	-1.9
BRTR	**Keskin Array B**	**61.99**	**312**	P	**P**	**04 36 23.9**	**-1.5**
	comp=Z,2.3nm,0.9s,mb4.3,baz=117,slow=5.5,SNR=3.9						
BRTR				pP	pP	04 36 35.6	-1.3
	comp=Z,3.0nm,1.0s,baz=135,slow=7.0,SNR=4.3						
ISP	**Isparta**	**63.91**	**309**	*e*P	**P**	**04 36 37.0**	**-1.2**
ISP				*e**PP	pP	04 36 49.0	-0.8
ISP				pmax	pmax		
	comp=Z,29nm,1.6s,mb5.1						
ISP	**Isparta**	**63.91**	**309**	*e*P	**P**	**04 36 37.0**	**-1.3**
	comp=Z,30nm,1.6s,mb5.1						
ISP				*e*pP	pP	04 36 49.0	-0.9
OBN	**Obninsk**	**65.49**	**328***c*	*i*P	**P**	**04 36 46.7**	**-1.4**
OBN				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
LSZ	**Lusaka**	**67.47**	**250**	*e*P	**P**	**04 37 01.9**	**+0.6**
LSZ				*e**SP	sP	04 37 16.5	-0.8
LSZ				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
LSZ	**Lusaka**	**67.47**	**250**	*e*P	**P**	**04 37 01.9**	**+0.6**
	comp=Z,10nm,1.0s,mb4.8						
LSZ				*e*sP	sP	04 37 16.5	-0.8
IDI	**Anoyia**	**67.94**	**305**	P	**P**	**04 37 03.4**	**-0.5**
	comp=Z,11nm,0.9s,mb4.9,baz=84,slow=6.6,SNR=2.9						
AKASG	**Malin Array Be**	**68.06**	**322**	P	**P**	**04 37 02.0**	**-2.4**
	comp=Z,5.4nm,1.1s,mb4.5,baz=93,slow=4.5,SNR=5.4						
AKASG				pP	pP	04 37 14.2	-1.9
	comp=Z,0.3nm,0.4s,baz=90,slow=4.9,SNR=4.1						
AKASG	**Malin Array Be**	**68.06**	**322**	P	**P**	**04 37 02.0**	**-2.4**
AKASG				*PP	pP	04 37 14.2	-1.9
AKASG				pmax	pmax		
	comp=Z,5.0nm,1.1s						
MLR	**Muntele Rosu**	**68.88**	**316**	P	**P**	**04 37 09.5**	**-0.1**
	comp=Z,17nm,1.0s,mb4.9,baz=46,slow=23,SNR=7.0						
MLR				pP	pP	04 37 21.5	+0.1
	comp=Z,20nm,1.1s,baz=114,slow=3.5,SNR=5.5						
APA	**Apatity**	**72.33**	**340**⇑	*i*P	**P**	**04 37 26.6**	**-3.4**
APA				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
APA				MLR	MLR		
	comp=Z,800nm,16.0s,MS5.1						
LBTB	**Lobatse**	**72.39**	**241**	*e*P	**P**	**04 37 31.7**	**+0.6**
LBTB				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
LBTB	**Lobatse**	**72.39**	**241**	*e*P	**P**	**04 37 31.7**	**+0.7**
	comp=Z,23nm,1.2s,mb5.0						
SUW	**Suwalki**	**72.49**	**325**	*e*P	**P**	**04 37 29.6**	**-1.6**
SUW				*e**PP	pP	04 37 40.0	-3.0
SUW				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.4						
SUW	**Suwalki**	**72.49**	**325**	*e*P	**P**	**04 37 29.6**	**-1.6**
	comp=Z,52nm,1.1s,mb5.4						
SUW				*e*pP	pP	04 37 40.0	-3.0
CRVS	**Cervenica-Dubn**	**72.54**	**319**	*e*P	**P**	**04 37 36.6**	**+5.0**
CRVS				*e*	pP	04 37 48.3	+5.0
CRVS	**Cervenica-Dubn**	**72.54**	**319**	*e*	**P**	**04 37 36.6**	**+5.0**
CRVS				*e*	pP	04 37 48.3	+5.0
FINES	**FINESS Array B**	**72.96**	**333**	P	**P**	**04 37 32.6**	**-1.2**
	comp=Z,5.6nm,0.8s,mb4.5,baz=90,slow=11,SNR=5.3						
BOSA	**Boshof**	**73.72**	**238**	*e*P	**P**	**04 37 39.6**	**+0.6**
BOSA				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.2						
BOSA	**Boshof**	**73.72**	**238**	*e*P	**P**	**04 37 39.6**	**+0.6**
	comp=Z,41nm,1.4s,mb5.2						
OJC	**Ojcow**	**73.82**	**320**	*e*P	**P**	**04 37 39.1**	**0.0**
VYHS	**Vyhne**	**74.19**	**318**	*e*P	**P**	**04 37 41.2**	**-0.1**
VYHS				*e*	pP	04 37 50.5	-2.6
VYHS	**Vyhne**	**74.19**	**318**	*e*	**P**	**04 37 41.2**	**-0.1**
VYHS				*e*	pP	04 37 50.5	-2.6
OKC	**Ostrava-Krasne**	**74.82**	**320**	*e*P	**P**	**04 37 44.7**	**-0.2**
OKC				*e*pP	pP	04 37 56.7	0.0
MORC	**Moravsky Berou**	**75.20**	**320**	*e*P	**P**	**04 37 47.3**	**+0.2**
MORC				*e**PP	pP	04 37 58.6	-0.3
MORC				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
MORC	**Moravsky Berou**	**75.20**	**320**	*e*P	**P**	**04 37 47.3**	**+0.2**
	comp=Z,12nm,1.2s,mb4.7						
MORC				*e*pP	pP	04 37 58.6	-0.3
ZST	**Bratislava**	**75.31**	**318**	*e*P	**P**	**04 37 47.7**	**0.0**
ZST				*e*pP	pP	04 37 59.9	+0.4
ZST	**Bratislava**	**75.31**	**318**	*e*	**P**	**04 37 47.7**	**0.0**
ZST				*e*	pP	04 37 59.9	+0.4
VRAC	**Vranov**	**75.76**	**319**	P	**P**	**04 37 49.9**	**-0.4**
	comp=Z,1.3nm,0.3s,mb4.3,baz=5.2,slow=21,SNR=2.4						
ARCES	**ARCESS Array B**	**75.77**	**340**	P	**P**	**04 37 49.6**	**-0.3**
	comp=Z,4.6nm,0.8s,mb4.5,baz=117,slow=8.1,SNR=4.7						
ARCES				pP	pP	04 38 02.8	+1.1
	comp=Z,6.7nm,0.8s,baz=90,slow=6.1,SNR=5.1						
DPC	**Dobruska-Polom**	**76.05**	**320**	*e*P	**P**	**04 37 52.3**	**+0.4**
DPC				*e*pP	pP	04 38 03.7	0.0
PRU	**Pruhonice**	**77.16**	**320**	*e*P	**P**	**04 37 58.2**	**0.0**
PRU				*e*pP	pP	04 38 12.1	+2.1
MAW	**Mawson**	**77.17**	**191**	P	**P**	**04 37 59.7**	**+1.7**
	comp=Z,5.6nm,0.9s,mb4.5,baz=36,slow=9.9,SNR=4.4						
GEC2	**GERESS Array S**	**77.62**	**318**	*e*P	**P**	**04 38 01.4**	**+0.6**
GEC2				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GEC2	**GERESS Array S**	**77.62**	**318**	*e*P	**P**	**04 38 01.4**	**+0.6**
	comp=Z,8.0nm,0.9s,mb4.7						
GERES	**GERESS Array B**	**77.62**	**318**	P	**P**	**04 38 01.0**	**+0.2**
	comp=Z,6.0nm,0.9s,mb4.5,baz=90,slow=5.3,SNR=9.5						
GERES				pP	pP	04 38 14.8	+2.2
	comp=Z,2.7nm,0.8s,baz=90,slow=4.0,SNR=4.9						
BILL	**Bilibino**	**77.65**	**22**	P	**P**	**04 38 01.3**	**+0.7**
BILL				*e**PP	pP	04 38 12.4	0.0
BILL				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BILL	**Bilibino**	**77.65**	**22**	P	**P**	**04 38 01.3**	**+0.7**
	comp=Z,5.1nm,0.8s,mb4.5						
BILL				*e*pP	pP	04 38 12.4	0.0
KHC	**Kasperske Hory**	**77.72**	**319**	*e*P	**P**	**04 38 01.1**	**-0.2**
KHC				*e*pP	pP	04 38 12.7	-0.4
WET	**Wettzell**	**78.18**	**319**	*e*P	**P**	**04 38 04.5**	**+0.7**
CLL	**Collm**	**78.23**	**321**	*e*P	**P**	**04 38 04.0**	**-0.1**
CLL				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.7						
CLL	**Collm**	**78.23**	**321**	*e*P	**P**	**04 38 04.0**	**-0.1**
	comp=Z,15nm,1.5s,mb4.7						
CLL	**Collm**	**78.23**	**321**	P	**P**	**04 38 04.0**	**-0.1**
	comp=Z,logA/T=1.0,mb4.7						
NKC	**Novy Kostel**	**78.52**	**320**	*e*P	**P**	**04 38 05.8**	**+0.1**
NKC				*e*pP	pP	04 38 15.5	-2.0
MOX	**Moxa**	**79.07**	**320**	*e*P	**P**	**04 38 08.0**	**-0.7**
GRA1	**Grafenberg Arr**	**79.28**	**319**	*e*P	**P**	**04 38 10.6**	**+0.7**
	comp=Z,10.0nm,0.9s,mb4.8						
GRF	**Grafenberg Arr**	**79.28**	**319**	*e*P	**P**	**04 38 10.6**	**+0.7**
GRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
GRF	**Grafenberg Arr**	**79.28**	**319**	*e*P	**P**	**04 38 10.6**	**+0.7**
GRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
GRF	**Grafenberg Arr**	**79.28**	**319**	*e*P	**P**	**04 38 10.6**	**+0.7**
	comp=Z,10.0nm,0.9s,mb4.8						
CLZ	**Clausthal**	**79.90**	**321**	*e*P	**P**	**04 38 13.5**	**+0.4**
	comp=Z,8.0nm,1.1s,mb4.6						
NOA	**NORSAR Array B**	**79.92**	**331**	P	**P**	**04 38 12.3**	**-0.8**
	comp=Z,2.7nm,1.0s,mb4.1,baz=95,slow=5.4,SNR=3.3						
BSEG	**Bad Segeberg**	**80.01**	**323**	*e*P	**P**	**04 38 14.0**	**+0.3**
DAVOX	**Davos**	**80.11**	**316**	P	**P**	**04 38 15.0**	**+0.6**
	comp=Z,12nm,1.0s,mb4.8,baz=114,slow=6.6,SNR=6.1						
BFO	**Black Forest**	**81.17**	**318**	*e*P	**P**	**04 38 20.0**	**+0.1**
BFO				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
BFO	**Black Forest**	**81.17**	**318**	*e*P	**P**	**04 38 20.0**	**+0.1**
	comp=Z,4.0nm,1.0s,mb4.3						
ESDC	**Sonseca Array**	**90.74**	**310**	P	**P**	**04 39 07.6**	**+0.3**
	comp=Z,3.6nm,0.8s,mb4.7,baz=58,slow=4.4,SNR=8.7						
ESDC				pP	pP	04 39 19.9	+0.5
	comp=Z,0.9nm,0.6s,baz=62,slow=4.1,SNR=3.8						
ILAR	**Eielson Array**	**96.32**	**22**	P	**P**	**04 39 31.8**	**-0.3**
	comp=Z,0.6nm,1.1s,mb3.9,baz=315,slow=5.1,SNR=3.0						
ILAR				pP	pP	04 39 46.3	+2.0
	comp=Z,0.9nm,0.8s,baz=297,slow=6.4,SNR=4.8						
DBIC	**Dimbokro**	**96.57**	**278**	P	**P**	**04 39 36.2**	**+1.7**
	comp=Z,3.0nm,1.0s,mb4.7,baz=108,slow=9.6,SNR=2.6						
INK	**Inuvik**	**98.45**	**16**	P	**P**	**04 39 40.4**	**-1.3**
	comp=Z,1.2nm,0.9s,mb4.4,baz=298,slow=4.7,SNR=3.2						
YKA	**Yellowknife Ar**	**107.82**	**13**	PP	PP	04 44 53.4	-2.3
	comp=Z,0.4nm,0.8s,baz=340,slow=7.0,SNR=3.9						
SNOW	**Snow King Moun**	**125.69**	**21**	*e*PKPdf	PKPdf	04 45 07.5	+2.9
SNOW				*e*pPKPdf		04 45 19.6	
NVAR	**Mina Array Bea**	**126.62**	**30**	PKP	PKPdf	04 45 09.7	+3.1
	comp=Z,0.3nm,0.3s,baz=333,slow=3.3,SNR=3.7						
NVAR				pPKP		04 45 21.9	
	comp=Z,4.4nm,1.0s,baz=302,slow=2.1,SNR=5.7						
NVAR	**Mina Array Bea**	**126.62**	**30**	PKP	PKPdf	04 45 09.7	+3.1
NVAR				pPKP		04 45 21.9	
PDAR	**Pinedale Array**	**126.72**	**20**	PKP	PKPdf	04 45 08.9	+2.3
	comp=Z,0.8nm,0.9s,baz=315,slow=2.1,SNR=3.8						
PDAR				pPKP		04 45 22.0	
	comp=Z,3.0nm,1.0s,baz=12,slow=1.8,SNR=10						
MSU	**Marysvale**	**129.39**	**25**	*e*PKIKP	PKPdf	04 45 16.0	+4.1
MSU				*e*		04 45 27.8	
BDFB	**Brasilia**	**140.44**	**254**	PKP	PKPdf	04 45 34.0	+1.1
	comp=Z,1.6nm,0.6s,baz=159,slow=9.8,SNR=3.6						
TXAR	**Lajitas Array**	**140.82**	**23**	PKP	PKPdf	04 45 35.8	+2.4
	comp=Z,0.6nm,0.8s,baz=350,slow=5.5,SNR=3.8						
JCT	**Junction City**	**141.08**	**17**	*e*PKIKP	PKPdf	04 45 35.1	+1.3
CPUP	**Villa Florida**	**145.39**	**232**	PKPbc	PKPbc	04 45 43.3	+1.4
	comp=Z,0.0nm,0.3s,baz=226,slow=12,SNR=1.8						
LVC	**Limon Verde**	**156.23**	**227**	PKPab	PKPab	04 46 29.0	+0.8
	comp=Z,8.1nm,1.2s,baz=67,slow=6.0,SNR=4.5						
LPAZ	**La Paz**	**158.91**	**242**	PKP	PKPdf	04 46 03.2	+1.9
	comp=Z,2.4nm,1.1s,baz=144,slow=4.2,SNR=3.6						
LPAZ				PKPab	PKPab	04 46 40.5	+0.7
	comp=Z,2.1nm,1.0s,baz=42,slow=8.5,SNR=4.1						
LPAZ	**La Paz**	**158.91**	**242**	PKP	PKPdf	04 46 03.2	+1.9
LPAZ				PKPab	PKPab	04 46 40.5	+0.7

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*IDC **27** 04:29:32.3±0.6, 12.32N×92.49E, mb4.4/19, mb1 4.5/20, mb1mx4.4/25, ML4.4/1, Error ellipse: s-maj=23.7km s-min=13.9km az=44.0*

*NEIC **27** 04:29:36.8±0.4, 12.36N×92.49E, h30^{km}, mb4.6/10, Error ellipse: s-maj=13.2km s-min=9.8km az=46.0*

*BJI **27** 04:29:42.1, 13.10N×92.84E, h30^{km}, mB4.7, mb4.8, Ms4.5, Msz4.4*

ISC 27 04:29:34.5±0.5**, 12.30N**±0.07×**92.44E**±0.05**, h30^{km}, n56,** σ**$1^{s}21$**/53**, mb4.5**/33**, MS4.5**/2**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.77**	**45**	Pn	**P**	**04 31 39.9**	**-2.5**
	1.1nm,0.3s,baz=235,slow=14,SNR=6.1						
CMAR				Sn	**Sn**	**04 33 21.9**	**+0.8**
	0.4nm,0.3s,baz=238,slow=33,SNR=2.4						
VIS	**Vishakhapatnam**	**10.32**	**303**	*e*P	**P**	**04 32 00.5**	**-3.4**
VIS				*e*S	**S**	**04 33 44.0**	**-16**
MDRS	**Chennai**	**11.92**	**275**	*e*P	**P**	**04 32 21.6**	**-4.1**
BOK	**Bokaro**	**13.02**	**332**	*e*P	**P**	**04 32 37.1**	**-3.2**
BOK				*e*S	**S**	**04 34 49.9**	**-15**
BLSP	**Bilaspur**	**13.87**	**316**	*e*P	**P**	**04 32 48.6**	**-3.0**
BLSP				*e*	**S**	**04 35 13.7**	**-12**
HYB	**Hyderabad**	**14.35**	**292**	*i* P	**P**	**04 33 06.0**	**+8.1**
HYB				*e*S	**S**	**04 35 22.0**	**-15**
LSA	**Lhasa**	**17.36**	**356**	P	**P**	**04 33 36.4**	**0.0**
BHPL	**Bhopal**	**17.95**	**309**	*e*P	**P**	**04 33 45.6**	**+1.8**
BHPL				*e*		04 33 49.2	
	comp=Z,39nm,0.7s						
BHPL				*e*S	**S**	**04 37 02.0**	**+1.8**
POO	**Poona**	**18.96**	**291**	*e*S	**S**	**04 37 26.3**	**+3.4**
PTH	**Pithoragarh**	**20.59**	**328**	*e*P	**P**	**04 34 18.2**	**+4.4**
PTH				*e*	**S**	**04 37 49.1**	**-8.4**
CD2	**Chengdu**	**21.27**	**28**	P	**P**	**04 34 20.3**	**-0.5**
CD2				AMB	AMB		
	comp=Z,60nm,0.6s,mb5.1						
ENH	**Enshi**	**23.86**	**39**	*e*P	**P**	**04 34 46.4**	**0.0**
	comp=Z,49nm,0.7s,mb5.0						
LZH	**Lanzhou**	**25.83**	**22**	*e*P	**P**	**04 35 04.5**	**-0.6**
LZH				AMB	AMB		
	comp=Z,54nm,1.6s,mb4.8						
GTA	**Gaotai**	**27.79**	**12**	P	**P**	**04 35 23.8**	**+0.8**
GTA				AP	pP	04 35 31.0	-0.8
GTA				XP	sP	04 35 34.5	-1.2
GTA				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.7						

GTA				AMB	AMB		
	comp=Z,162nm,9.2s						
GTA				LR	LR		
	comp=N,468nm,18.3s,MS4.4						
GTA				LR	LR		
	comp=E,762nm,14.5s,MS4.4						
GTA				LR	LR		
	comp=Z,726nm,14.9s,MS4.4						
BJI	**Beijing**	**34.67**	**33**	P	**P**	**04 36 24.0**	**+0.4**
BJI				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
SONM	**Songino Array**	**37.31**	**16**	P	**P**	**04 36 46.2**	**+0.4**
	comp=Z,13nm,1.1s,mb4.7,baz=202,slow=7.7,SNR=11						
ULN	**Ulaanbaatar**	**37.51**	**16**	*e*P	**P**	**04 36 47.8**	**+0.3**
	comp=Z,4.4nm,0.8s,mb4.2						
ZAL	**Zalesovo**	**41.98**	**353**	P	**P**	**04 37 24.1**	**-0.3**
	comp=Z,3.6nm,0.5s,mb4.3,baz=292,slow=8.2,SNR=5.1						
CN2	**Changchun**	**42.32**	**36**	*e*P	**P**	**04 37 27.3**	**-0.1**
CN2				AMB	AMB		
	comp=Z,20nm,1.5s,mb4.5						
CN2				LR	LR		
	comp=N,390nm,13.0s,MS4.7						
CN2				LR	LR		
	comp=E,490nm,13.0s,MS4.7						
CN2				LR	LR		
	comp=Z,450nm,15.0s,MS4.5						
BVAR	**Borovoye Array**	**44.29**	**341**	P	**P**	**04 37 45.5**	**+2.2**
	comp=Z,1.6nm,0.6s,mb4.0,baz=143,slow=10,SNR=6.2						
BRVK	**Borovoye**	**44.35**	**341**	*e*P	**P**	**04 37 43.0**	**-0.9**
	comp=Z,5.5nm,0.9s,mb4.3						
CHKZ	**Chkalovo**	**44.78**	**342**	*e*P	**P**	**04 37 47.2**	**0.0**
	comp=Z,12nm,0.8s,mb4.8						
GNI	**Garni**	**50.20**	**312**	P	**P**	**04 38 31.4**	**+1.7**
	comp=Z,8.4nm,0.9s,mb4.8,baz=357,slow=11,SNR=4.8						
WRA	**Warramunga Arr**	**52.22**	**127**	P	**P**	**04 38 45.1**	**-0.2**
	comp=Z,4.4nm,0.7s,mb4.5,baz=303,slow=8.9,SNR=8.5						
ASAR	**Alice Springs**	**54.05**	**131**	P	**P**	**04 38 58.9**	**0.0**
	comp=Z,3.4nm,0.8s,mb4.3,baz=311,slow=7.3,SNR=14						
MALT	**Malatya**	**54.38**	**308**	*e*P	**P**	**04 38 58.2**	**-2.9**
	comp=Z,4.3nm,1.0s,mb4.3						
YAK	**Yakutsk**	**56.40**	**20**	P	**P**	**04 39 13.6**	**-1.7**
	comp=Z,14nm,0.8s,mb5.0						
BRTR	**Keskin Array B**	**58.32**	**309**	P	**P**	**04 39 28.1**	**-1.2**
	comp=Z,2.0nm,0.8s,mb4.2,baz=127,slow=6.9,SNR=6.2						
PMG	**Port Moresby**	**58.49**	**109**	P	**P**	**04 39 31.1**	**+0.3**
	comp=Z,5.9nm,0.6s,mb4.8,baz=305,slow=21,SNR=3.1						
AKASG	**Malin Array Be**	**63.68**	**321**	P	**P**	**04 40 06.8**	**+1.4**
	comp=Z,2.1nm,0.7s,mb4.3,baz=88,slow=5.4,SNR=4.1						
STKA	**Stephens Creek**	**64.37**	**134**	P	**P**	**04 40 09.5**	**-0.7**
	comp=Z,2.5nm,0.8s,mb4.3,baz=293,slow=4.1,SNR=4.1						
MLR	**Muntele Rosu**	**64.88**	**315**	P	**P**	**04 40 13.8**	**+0.5**
	comp=Z,4.6nm,0.8s,mb4.5,baz=287,slow=7.2,SNR=3.8						
FINES	**FINESS Array B**	**68.05**	**332**	P	**P**	**04 40 33.5**	**+0.3**
	comp=Z,4.5nm,1.1s,mb4.4,baz=112,slow=7.0,SNR=6.9						
FINES	**FINESS Array B**	**68.05**	**332**	P	**P**	**04 40 33.5**	**+0.3**
ARCES	**ARCESS Array B**	**70.56**	**340**	P	**P**	**04 40 48.8**	**+0.3**
	comp=Z,2.7nm,0.8s,mb4.2,baz=90,slow=6.9,SNR=8.0						
MORC	**Moravsky Berou**	**70.96**	**319**	P	**P**	**04 40 52.3**	**+1.1**
	comp=Z,4.0nm,1.0s,mb4.3						
GERES	**GERESS Array B**	**73.44**	**317**	P	**P**	**04 41 06.1**	**+0.2**
	comp=Z,0.6nm,0.7s,mb3.7,baz=90,slow=5.9,SNR=4.8						
FX1	**Attu Island--F**	**74.71**	**38**	P	**P**	**04 41 13.5**	**+0.3**
	comp=Z,16nm,0.7s,mb5.1,baz=276,slow=21,SNR=3.9						
NB2	**NORSAR Subarra**	**75.08**	**330**	P	**P**	**04 41 15.1**	**-0.1**
	comp=Z,1.0nm,0.6s,mb3.9,baz=97,slow=5.0						
NOA	**NORSAR Array B**	**75.08**	**330**	P	**P**	**04 41 15.5**	**+0.3**
	comp=Z,1.4nm,0.8s,mb4.0,baz=96,slow=5.5,SNR=3.6						
NOA	**NORSAR Array B**	**75.08**	**330**	P	**P**	**04 41 15.5**	**+0.3**
DAVOX	**Davos**	**76.07**	**315**	P	**P**	**04 41 21.9**	**+0.8**
	comp=Z,1.4nm,0.6s,mb4.0,baz=132,slow=11,SNR=2.3						
LPL	**La Plagne**	**78.35**	**314**	*e*P	**P**	**04 41 37.8**	**+4.1**
	comp=Z,27nm,1.1s,mb4.8						
MCK	**McKinley**	**91.08**	**23**	*e*P	**P**	**04 42 37.9**	**+0.7**
	comp=Z,5.5nm,1.1s,mb4.8						
ILAR	**Eielson Array**	**91.29**	**22**	P	**P**	**04 42 38.1**	**0.0**
	comp=Z,1.5nm,0.9s,mb4.3,baz=300,slow=6.4,SNR=9.6						
ILAR				PKKPbc		04 59 59.9	
	comp=Z,0.5nm,1.0s,baz=180,slow=1.4,SNR=4.8						
INK	**Inuvik**	**93.22**	**16**	P	**P**	**04 42 47.8**	**+0.9**
	comp=Z,2.4nm,1.0s,mb4.6,baz=360,slow=3.0,SNR=11						
PDAR	**Pinedale Array**	**121.61**	**19**	PKP	PKPdf	04 48 27.8	-3.0
	comp=Z,0.4nm,0.5s,baz=153,slow=2.0,SNR=3.9						
NVAR	**Mina Array Bea**	**121.92**	**28**	PKP	PKPdf	04 48 30.0	-1.6
	comp=Z,0.9nm,0.6s,baz=325,slow=1.8,SNR=3.6						
ANMO	**Albuquerque**	**129.71**	**20**	PKP	PKPdf	04 48 45.2	-1.4
	comp=Z,0.5nm,0.7s,baz=244,slow=1.7,SNR=4.0						
ANMO	**Albuquerque**	**129.71**	**20**	PKP	PKPdf	04 48 45.2	-1.5
TXAR	**Lajitas Array**	**135.79**	**20**	PKP	PKPdf	04 48 56.6	-1.5
	comp=Z,0.5nm,0.7s,baz=354,slow=2.0,SNR=4.6						
BDFB	**Brasilia**	**141.52**	**260**	PKP	PKPdf	04 49 08.8	-0.1
	comp=Z,2.2nm,0.9s,baz=202,slow=5.4,SNR=2.9						
PCRV	**Puerto La Cruz**	**148.11**	**313**	PKPbc	PKPdf	04 49 21.0	+0.7
	comp=Z,4.7nm,0.7s,baz=16,slow=12,SNR=2.3						
CPUP	**Villa Florida**	**148.34**	**239**	PKPbc	PKPdf	04 49 27.5	+7.2
	comp=Z,0.0nm,0.3s,baz=33,slow=10,SNR=1.6						
SDV	**Santo Domingo**	**153.06**	**321**	PKPbc	PKPdf	04 49 30.8	+3.0
	comp=Z,2.3nm,0.9s,baz=27,slow=4.5,SNR=3.0						
LPAZ	**La Paz**	**160.76**	**256**	PKPab	PKPab	04 50 20.5	+3.8
	comp=Z,3.5nm,1.0s,baz=70,slow=8.4,SNR=3.0						

*IDC **27** 04:31:55.9±0.9,5.65N×93.12E,mb4.3/10,mb1 4.5/11, mb1mx4.2/21,ML5.3/1,Error ellipse: s-maj=34.8km s-min=20.5km az=53.0*

ISC 27 04:31:58.9±0.8,**5.6N**±0.1×**93.1E**±0.2,**h33**^{km}**,n13,** σ**0**^{s}**.63**/11,**mb4.3**/10,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.95**	**23**	Pn	**P**	**04 35 17.0**	**+0.5**
	4.8nm,0.3s,baz=220,slow=14,SNR=14						
SONM	**Songino Array**	**43.56**	**13**	P	**P**	**04 40 01.0**	**-0.4**
	2.4nm,0.8s,mb4.0,baz=191,slow=8.8,SNR=5.3						
WRA	**Warramunga Arr**	**47.82**	**123**	P	**P**	**04 40 35.6**	**+0.1**
	5.7nm,0.7s,mb4.7,baz=302,slow=8.9,SNR=5.8						
ZAL	**Zalesovo**	**48.64**	**353**	P	**P**	**04 40 41.6**	**+0.2**
	4.2nm,0.4s,mb4.8,baz=306,slow=5.9,SNR=13						
ASAR	**Alice Springs**	**49.28**	**128**	P	**P**	**04 40 46.6**	**-0.2**
	2.1nm,0.7s,mb4.3,baz=306,slow=7.7,SNR=4.4						
BVAR	**Borovoye Array**	**50.80**	**342**	P	**P**	**04 40 56.9**	**-1.2**
	1.4nm,0.6s,mb4.1,baz=146,slow=11,SNR=5.4						
BRTR	**Keskin Array B**	**63.16**	**312**	P	**P**	**04 42 25.1**	**-0.9**
	1.3nm,0.8s,mb4.1,baz=120,slow=7.0,SNR=5.1						
IDI	**Anoyia**	**69.04**	**306**	P	**P**	**04 43 03.9**	**+0.3**
	4.0nm,0.9s,mb4.4,baz=3.4,slow=19,SNR=2.4						
ARCES	**ARCESS Array B**	**77.04**	**341**	P	**P**	**04 43 49.9**	**0.0**
	0.7nm,0.5s,mb3.9,baz=90,slow=6.1,SNR=6.4						
GERES	**GERESS Array B**	**78.84**	**319**	P	**P**	**04 44 01.0**	**+0.7**
	1.8nm,0.8s,mb4.1,baz=90,slow=4.0,SNR=8.9						
DAVOX	**Davos**	**81.32**	**316**	P	**P**	**04 44 14.6**	**+1.0**
	3.7nm,0.7s,mb4.4,baz=135,slow=9.2,SNR=8.0						
TXAR	**Lajitas Array**	**141.67**	**24**	PKP	PKPdf	04 51 31.6	+3.9
	0.8nm,1.1s,baz=333,slow=2.0,SNR=3.7						
CPUP	**Villa Florida**	**145.10**	**231**	PKPbc	PKPbc	04 51 35.5	+1.5
	0.0nm,0.5s,baz=172,slow=18,SNR=1.7						

IDC 27 04:33:49.4±1.1,**4.17N**×**93.43E,mb4.0**/7,**mb1 4.2**/7, **mb1mx3.9**/18,**Error ellipse: s-maj=52.9km s-min=22.6km az=46.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**44.91**	**12**	P	P	04 42 05.9	-1.7
	1.2nm,1.1s,baz=196,slow=9.0,SNR=4.2						
WRA	**Warramunga Arr**	**46.80**	**122**	P	P	04 42 20.3	-2.7
	1.6nm,0.6s,baz=300,slow=9.3,SNR=5.3						
ASAR	**Alice Springs**	**48.18**	**127**	P	P	04 42 32.5	-1.3
	0.8nm,0.5s,baz=307,slow=7.2,SNR=4.3						
ZAL	**Zalesovo**	**50.11**	**353**	P	P	04 42 46.3	-1.9
	1.5nm,0.7s,baz=292,slow=6.6,SNR=3.0						
BRTR	**Keskin Array B**	**64.34**	**312**	P	P	04 44 26.5	-2.9
	0.9nm,0.6s,baz=117,slow=8.3,SNR=5.3						
GERES	**GERESS Array B**	**80.11**	**319**	P	P	04 46 01.7	-1.1
	1.0nm,0.8s,baz=117,slow=6.0,SNR=5.3						
DAVOX	**Davos**	**82.56**	**316**	P	P	04 46 15.1	-0.6
	1.6nm,0.6s,baz=183,slow=7.4,SNR=4.2						
CPUP	**Villa Florida**	**144.38**	**229**	PKP	PKPdf	04 53 28.9	-1.3
	0.0nm,0.5s,baz=172,slow=20,SNR=1.8						

IDC 27 04:38:20.6±6.4,**8.28N**×**93.52E,h65**^{km}±56^{km}**,mb3.6**/7, **mb1 3.8**/8,**mb1mx3.7**/18,**Error ellipse: s-maj=64.1km s-min=35.7km az=122.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.41**	**27**	P	P	04 40 59.9	-3.2
	baz=215,slow=14,SNR=4.6						
SONM	**Songino Array**	**40.91**	**13**	P	P	04 45 58.2	+0.1
	0.4nm,0.5s,baz=214,slow=8.1,SNR=3.2						
ZAL	**Zalesovo**	**46.07**	**353**	P	P	04 46 38.0	-1.8
	3.4nm,0.5s,baz=299,slow=5.6,SNR=6.1						
KMBO	**Kilima Mbogo**	**56.85**	**263**	P	P	04 48 00.8	-0.6
	0.6nm,0.6s,baz=66,slow=14,SNR=3.7						
BRTR	**Keskin Array B**	**61.70**	**311**	P	P	04 48 31.6	-2.9
	0.5nm,0.7s,baz=112,slow=7.8,SNR=3.8						
FINES	**FINESS Array B**	**72.07**	**332**	P	P	04 49 37.5	-2.1
	3.1nm,1.0s,baz=117,slow=8.5,SNR=3.7						
GERES	**GERESS Array B**	**77.12**	**318**	P	P	04 50 07.8	-1.1
	2.3nm,1.1s,baz=72,slow=4.2,SNR=7.7						
NB2	**NORSAR Subarra**	**79.08**	**331**	P	P	04 50 17.5	-1.9
	1.2nm,0.6s,baz=98,slow=4.8						
NOA	**NORSAR Array B**	**79.08**	**331**	P	P	04 50 17.3	-2.1
	1.7nm,0.7s,baz=95,slow=5.0,SNR=5.8						
CPUP	**Villa Florida**	**147.01**	**233**	PKPbc	PKPdf	04 57 55.4	+0.6
	0.0nm,0.3s,baz=155,slow=12,SNR=1.8						

*MOS **27** 04:40:44.0±1.0,6.81N×92.60E,h22^{km},mb4.9/7,Error ellipse: s-maj=27.5km s-min=14.6km az=92.9*

*IDC **27** 04:40:48.9±0.6,6.95N×92.56E,h37^{km}±4^{km},mb3.8/9, mb1 4.0/10,mb1mx3.9/18,MS3.5/1,Ms1 3.7/1, ms1mx2.9/31,Error ellipse: s-maj=27.4km s-min=12.8km az=53.0*

*NEIC **27** 04:40:48.8±0.4,6.87N×92.56E,mb4.7/7,Error ellipse: s-maj=12.6km s-min=8.9km az=76.0*

ISC 27 04:40:47.0±0.6,**6.86N**±0.08×**92.7E**±0.1,**h38**^{km}**, h38**^{km}±.7^{km}**:pP-P,n38,** σ**1**^{s}**.17**/33,**mb4.6**/23,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**13.04**	**27**	P	**P**	**04 43 52.9**	**+0.5**
CMAR	**Chiang Mai Arr**	**13.04**	**27**	Pn	**P**	**04 43 52.4**	**-0.1**
	baz=217,slow=14,SNR=8.1						
CMAR				LR	LR	04 49 03.0	
	comp=Z,209nm,18.6s,baz=210,slow=38						
SHL	**Shillong**	**18.62**	**358**	*e*P	**P**	**04 45 03.0**	**-0.9**
PKI	**Pulchoki**	**21.73**	**342**	*e*P	**P**	**04 45 41.6**	**+4.6**
	88nm,0.9s,mb5.2						
DMN	**Daman**	**21.86**	**342**	*e*P	**P**	**04 45 42.6**	**+4.3**
	77nm,0.8s,mb5.2						
GUN	**Gumba**	**21.91**	**344**	*e*P	**P**	**04 45 40.9**	**+2.1**
	83nm,0.8s,mb5.2						
KKN	**Kakani**	**21.97**	**342**	*e*P	**P**	**04 45 42.8**	**+3.4**
	75nm,0.9s,mb5.1						
GKN	**Gorkha**	**22.37**	**341**	*e*P	**P**	**04 45 45.4**	**+2.0**
	135nm,0.9s,mb5.4						
KOLN	**Koldanda**	**22.52**	**339**	*e*P	**P**	**04 45 46.9**	**+2.0**
	77nm,1.2s,mb5.0						
LSA	**Lhasa**	**22.77**	**357**	*e*P	**P**	**04 45 47.4**	**0.0**
LSA				*e*		04 46 00.6	
LSA				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.6						
LSA	**Lhasa**	**22.77**	**357**	*e*P	**P**	**04 45 47.4**	**+0.1**
	comp=Z,25nm,1.0s,mb4.6						
LSA				*e*		04 46 00.6	
AAK	**Ala-Archa**	**39.09**	**339**	P	**P**	**04 48 12.7**	**+0.4**
AAK				*e**PP	pP	04 48 23.3	+0.3
AAK				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.7						
AAK	**Ala-Archa**	**39.09**	**339**	P	**P**	**04 48 12.7**	**+0.4**
	comp=Z,17nm,1.1s,mb4.7						
AAK				*e*pP	pP	04 48 23.2	+0.2
SONM	**Songino Array**	**42.48**	**14**	P	**P**	**04 48 40.5**	**+0.3**
	comp=Z,2.8nm,0.9s,mb3.9,baz=201,slow=8.1,SNR=11						
SONM				pP	pP	04 48 51.0	0.0
	comp=Z,4.6nm,0.8s,baz=197,slow=9.0,SNR=14						
ZAK	**Zakamensk**	**44.28**	**10**	*e*P	**P**	**04 48 52.1**	**-2.7**
HIA	**Hailar**	**48.02**	**24**	*e*P	**P**	**04 49 24.8**	**+0.4**
HIA				*e**PP	pP	04 49 35.2	-0.1
HIA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
HIA	**Hailar**	**48.02**	**24**	*e*P	**P**	**04 49 24.8**	**+0.4**
	comp=Z,5.9nm,0.8s,mb4.7						
HIA				*e*pP	pP	04 49 35.2	-0.1
WRA	**Warramunga Arr**	**48.87**	**124**	P	**P**	**04 49 31.2**	**-0.2**
	comp=Z,1.2nm,0.6s,mb4.1,baz=305,slow=8.5,SNR=2.9						
WRA				pP	pP	04 49 43.1	+0.9
	comp=Z,4.1nm,0.8s,baz=302,slow=8.6,SNR=4.4						
WRAB	**Tennant Creek**	**48.88**	**124**	P	**P**	**04 49 30.9**	**-0.5**
WRAB				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
WRAB	**Tennant Creek**	**48.88**	**124**	P	**P**	**04 49 30.9**	**-0.5**
	comp=Z,6.6nm,0.7s,mb4.8						
BVAR	**Borovoye Array**	**49.50**	**342**	P	**P**	**04 49 34.7**	**-1.1**
	comp=Z,1.0nm,0.8s,mb3.9,baz=146,slow=5.3,SNR=4.8						
BVAR				pP	pP	04 49 45.7	-1.0
	comp=Z,3.3nm,0.7s,baz=143,slow=7.4,SNR=12						
BRVK	**Borovoye**	**49.56**	**342**	P	**P**	**04 49 35.7**	**-0.5**
BRVK				*i* *PP	pP	04 49 46.4	-0.8
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
BRVK	**Borovoye**	**49.56**	**342**	P	**P**	**04 49 35.7**	**-0.6**
	comp=Z,3.1nm,0.6s,mb4.5						
BRVK				*i* pP	pP	04 49 46.4	-0.8
CHKZ	**Chkalovo**	**50.00**	**343**	*e*P	**P**	**04 49 39.2**	**-0.4**
CHKZ				*e**PP	pP	04 49 49.7	-0.8
CHKZ				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
CHKZ	**Chkalovo**	**50.00**	**343**	*e*P	**P**	**04 49 39.1**	**-0.5**
	comp=Z,8.0nm,0.7s,mb4.9						
CHKZ				*e*pP	pP	04 49 49.7	-0.8
ASAR	**Alice Springs**	**50.39**	**128**	P	**P**	**04 49 43.4**	**+0.3**
	comp=Z,2.3nm,0.6s,mb4.4,baz=310,slow=7.5,SNR=4.6						
ASAR				pP	pP	04 49 54.4	+0.4
	comp=Z,3.4nm,0.8s,baz=301,slow=6.9,SNR=5.2						
BOD	**Bodaibo**	**53.47**	**14**	*e*P	**P**	**04 50 04.7**	**-1.0**
BOD				*e*	pP	04 50 15.4	-1.3
CLNS	**Chul’man**	**55.89**	**21**	*e*P	pP	04 50 32.1	-2.3
CLNS				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
CLNS				pmax	pmax		
	comp=N,7.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.0s						
ARU	**Arti**	**56.27**	**338**	*e*P	pP	04 50 33.3	-3.9
STKA	**Stephens Creek**	**60.47**	**133**	P	**P**	**04 50 57.3**	**+1.6**
	comp=E,4.6nm,1.1s,mb4.4,baz=160,slow=12,SNR=2.6						
STKA				pP	pP	04 51 08.2	+1.3
	comp=E,3.3nm,0.8s,baz=302,slow=20,SNR=3.1						
BRTR	**Keskin Array B**	**62.01**	**311**	P	**P**	**04 51 04.6**	**-1.3**
	comp=E,0.5nm,0.7s,mb3.8,baz=154,slow=12,SNR=6.0						
BRTR				pP	pP	04 51 16.3	-0.9
	comp=E,0.9nm,0.8s,baz=132,slow=7.6,SNR=5.1						
LBTB	**Lobatse**	**72.49**	**241**	*e*P	**P**	**04 52 12.6**	**+0.5**
	comp=E,3.5nm,0.8s,mb4.3						
FINES	**FINESS Array B**	**72.94**	**333**	P	**P**	**04 52 11.8**	**-2.4**
	comp=E,3.1nm,1.0s,mb4.2,baz=72,slow=12,SNR=4.2						
FINES				pP	pP	04 52 24.1	-1.5
	comp=E,3.8nm,0.8s,baz=117,slow=8.5,SNR=5.5						
ARCES	**ARCESS Array B**	**75.73**	**340**	P	**P**	**04 52 29.5**	**-0.7**
	comp=E,0.9nm,0.6s,mb3.9,baz=90,slow=8.5,SNR=4.0						
GERES	**GERESS Array B**	**77.62**	**318**	P	**P**	**04 52 41.0**	**-0.2**
	comp=E,0.9nm,0.7s,mb3.8,baz=104,slow=5.5,SNR=7.5						
GERES				pP	pP	04 52 51.9	-0.7
	comp=E,6.5nm,1.2s,baz=104,slow=5.5,SNR=6.4						
YKA	**Yellowknife Ar**	**107.74**	**13**	PP	PP	04 59 39.7	+4.3
	comp=E,0.4nm,0.8s,baz=337,slow=7.9,SNR=5.8						
CPUP	**Villa Florida**	**145.50**	**232**	PKPbc	PKPbc	05 00 23.8	+1.2
	comp=E,0.0nm,0.3s,baz=208,slow=13,SNR=1.6						
CPUP				pPKPbc		05 00 35.2	
	comp=E,0.0nm,0.4s,baz=336,slow=9.4,SNR=1.5						
CPUP	**Villa Florida**	**145.50**	**232**	PKPbc	PKPbc	05 00 23.8	+1.2
CPUP				pPKPbc		05 00 35.2	

IDC 27 04:41:23.0±1.4,**6.65S**×**131.11E,mb3.8**/1,**mb1 4.4**/3, **mb1mx4.0**/11,**ML4.1**/2,**Error ellipse: s-maj=115.0km s-min=29.1km az=74.0,Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**13.57**	**167**	Pn	P	04 44 36.5	-3.0
	1.1nm,0.3s,baz=350,slow=13,SNR=16						
WRA				Sn	S	04 46 59.5	-13
	2.4nm,0.3s,baz=346,slow=23,SNR=13						
ASAR	**Alice Springs**	**17.13**	**171**	P	P	04 45 24.0	-1.5
	1.2nm,0.3s,baz=359,slow=12,SNR=59						
ASAR				S	S	04 48 24.1	-11
	0.6nm,0.3s,baz=357,slow=29,SNR=9.4						
SONM	**Songino Array**	**58.47**	**341**	P	P	04 51 20.8	-2.4
	0.5nm,0.4s,baz=163,slow=6.7,SNR=8.2						
LPAZ	**La Paz**	**150.30**	**140**	PKPbc	PKPdf	05 01 17.9	+4.1
	0.8nm,0.4s,baz=287,slow=3.0,SNR=3.9						

*BJI **27** 04:49:14.4,3.87N×94.09E,h53^{km},mB5.3,mb4.7,Ms4.7, Msz4.7*

*MOS **27** 04:49:15.3±1.4,4.38N×93.96E,h33^{km},mb4.8/8,Error ellipse: s-maj=15.7km s-min=9.7km az=102.9*

*NEIC **27** 04:49:16.3±0.2,4.32N×93.94E,h30^{km},mb4.6/11,Error ellipse: s-maj=7.8km s-min=6.1km az=67.0*

*IDC **27** 04:49:17.5±6.7,4.36N×93.95E,h37^{km}±55^{km},mb4.4/18, mb1 4.4/19,mb1mx4.3/26,ML4.9/1,MS4.0/2,Ms1 4.1/2, ms1mx3.4/26,Error ellipse: s-maj=21.8km s-min=12.0km az=47.0*

ISC 27 04:49:15.5±1.8,**4.33N**±0.06×**93.97E**±0.07,**h38**^{km}±16^{km}**, n75,** σ**0**^{s}**.80**/66,**mb4.8**/44,**MS4.4**/2,**1C-4D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**14.86**	**19**	*e*Pn	**P**	**04 52 45.6**	**+0.8**
CMAR	**Chiang Mai Arr**	**14.86**	**19**	Pn	**P**	**04 52 45.0**	**+0.2**
	1.8nm,0.3s,baz=207,slow=11,SNR=16						
CMAR				LR	LR	04 57 50.3	
	comp=Z,402nm,20.4s,baz=200,slow=35						
PKI	**Pulchoki**	**24.51**	**341**	*e*P	**P**	**04 54 33.3**	**+0.5**
	88nm,0.8s,mb5.3						
DMN	**Daman**	**24.65**	**341**	*e*P	**P**	**04 54 34.3**	**+0.2**
GUN	**Gumba**	**24.69**	**343**	*e*P	**P**	**04 54 34.2**	**-0.2**
	39nm,0.5s,mb5.2						
KKN	**Kakani**	**24.76**	**341**	*e*P	**P**	**04 54 34.6**	**-0.5**
GYA	**Guiyang**	**25.13**	**28**	⇑*i*P	**P**	**04 54 39.8**	**+1.1**
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
GKN	**Gorkha**	**25.17**	**340**	*e*P	**P**	**04 54 39.0**	**0.0**
	comp=Z,16nm,0.3s,mb5.0						
KOLN	**Koldanda**	**25.32**	**338**	*e*P	**P**	**04 54 40.5**	**0.0**
	comp=Z,65nm,1.0s,mb5.1						
LSA	**Lhasa**	**25.38**	**354**	*e*P	**P**	**04 54 43.3**	**+2.3**
LSA				pmax	pmax		
	comp=Z,18nm,0.6s,mb4.8						
LSA	**Lhasa**	**25.38**	**354**	*e*P	**P**	**04 54 43.3**	**+2.3**
	comp=Z,18nm,0.6s,mb4.8						
CD2	**Chengdu**	**28.00**	**18**	P	**P**	**04 55 04.5**	**-0.6**
ENH	**Enshi**	**29.67**	**28**	*e*P	**P**	**04 55 18.8**	**-1.2**
	comp=Z,2.9nm,0.3s,mb4.5						
XAN	**Xi’an**	**32.67**	**23**	P	**P**	**04 55 45.0**	**-1.4**
XAN				AMB	AMB		
	comp=Z,14nm,1.1s,mb4.8						
LZH	**Lanzhou**	**32.89**	**15**	*e*P	**P**	**04 55 47.8**	**-0.5**
LZH				AMB	AMB		
	comp=Z,18nm,1.2s,mb4.9						
GTA	**Gaotai**	**35.32**	**8**	*e*P	**P**	**04 56 09.0**	**-0.1**
GTA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.6						
HHC	**Hu-ho-hao-te**	**39.65**	**21**	*e*P	**P**	**04 56 46.5**	**+1.1**
HHC				PP	PP	04 58 22.8	+2.3
HHC				S	**S**	**05 02 46.8**	**+1.0**
HHC				SS	SS	05 05 38.3	+3.0
HHC				SCS	ScS	05 06 48.3	+0.4
HHC				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.5						
HHC				AMB	AMB		
	comp=Z,345nm,10.5s						
HHC				LR	LR		
	comp=N,563nm,16.6s,MS4.6						
HHC				LR	LR		
	comp=E,209nm,13.1s,MS4.6						
HHC				LR	LR		
	comp=Z,815nm,14.3s,MS4.7						
JOW	**Kunigami**	**39.67**	**52**	P	**P**	**04 56 47.0**	**+1.4**
	comp=Z,6.1nm,0.5s,mb4.6,baz=125,slow=28,SNR=3.9						
WMQ	**Urumqi**	**39.72**	**353**	P	**P**	**04 56 46.0**	**+0.1**
WMQ				AMB	AMB		
	comp=Z,13nm,0.6s,mb4.8						
BJI	**Beijing**	**40.81**	**26**	P	**P**	**04 56 55.8**	**+0.8**
BJI				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.5						
AAK	**Ala-Archa**	**41.90**	**338**	*e*P	**P**	**04 57 04.1**	**+0.2**
AAK				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.3						
AAK	**Ala-Archa**	**41.90**	**338**	*e*P	**P**	**04 57 04.1**	**+0.2**
	comp=Z,9.0nm,1.1s,mb4.3						
NWAO	**Narrogin (SRO)**	**43.12**	**151**	P	**P**	**04 57 14.3**	**+0.3**
	comp=Z,9.5nm,1.1s,mb4.5,baz=182,slow=21,SNR=3.4						
SONM	**Songino Array**	**44.64**	**12**	P	**P**	**04 57 26.5**	**+0.4**
	comp=Z,9.9nm,0.8s,mb4.7,baz=192,slow=8.3,SNR=87						
ULN	**Ulaanbaatar**	**44.81**	**12**	*e*P	**P**	**04 57 27.4**	**-0.1**
ULN				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
ULN	**Ulaanbaatar**	**44.81**	**12**	*e*P	**P**	**04 57 27.4**	**0.0**
	comp=Z,5.7nm,0.7s,mb4.5						
WRA	**Warramunga Arr**	**46.42**	**123**	P	**P**	**04 57 40.9**	**+0.3**
	comp=Z,21nm,0.8s,mb5.1,baz=300,slow=8.9,SNR=67						
WRAB	**Tennant Creek**	**46.42**	**123**	⇓*i*P	**P**	**04 57 41.2**	**+0.5**
WRAB				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.5						
WRAB	**Tennant Creek**	**46.42**	**123**	⇓*i*P	**P**	**04 57 41.1**	**+0.5**
	comp=Z,58nm,1.0s,mb5.5						
ZAK	**Zakamensk**	**46.56**	**8**	*e*P	**P**	**04 57 41.4**	**+0.1**
ASAR	**Alice Springs**	**47.84**	**127**	P	**P**	**04 57 51.8**	**0.0**
	comp=Z,6.8nm,0.8s,mb4.7,baz=305,slow=7.6,SNR=34						
ASAR				PcP	PcP	04 59 20.9	+0.4
	comp=Z,1.5nm,0.6s,baz=317,slow=3.6,SNR=4.8						
ZAL	**Zalesovo**	**50.02**	**353**	LR	LR	05 24 40.2	
	comp=Z,220nm,18.7s,MS4.2,baz=204,slow=42						
RDF	**Al-Radifah**	**50.31**	**304**	*e*P	**P**	**04 58 11.9**	**+1.1**
RDF				AMb	AMB	04 58 13.2	
	comp=Z,30nm,0.5s,mb5.6						
UMR	**Umm Al-Rimmam**	**50.39**	**305**	*e*P	**P**	**04 58 12.4**	**+1.0**
UMR				AMb	AMB	04 58 12.7	
	comp=Z,35nm,0.7s,mb5.5						
MIB	**Mutribah**	**50.79**	**305**	*e*P	**P**	**04 58 14.9**	**+0.6**
MIB				AMb	AMB	04 58 16.4	
	comp=Z,38nm,0.6s,mb5.5						
NVS	**Novosibirsk**	**51.11**	**352**	*e*P	**P**	**04 58 14.7**	**-1.7**
NVS				*i* S	**S**	**05 05 31.1**	**+1.1**
NVS				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
NVS				pmax	pmax		
	comp=N,16nm,1.4s						
NVS				smax			
	comp=E,29nm,1.9s						
NVS				smax			
	comp=N,26nm,2.1s						
BVAR	**Borovoye Array**	**52.28**	**342**	P	**P**	**04 58 24.8**	**-0.5**
	comp=N,3.6nm,0.8s,mb4.3,baz=143,slow=7.4,SNR=17						
BRVK	**Borovoye**	**52.34**	**342**	*e*P	**P**	**04 58 24.5**	**-1.2**
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BRVK	**Borovoye**	**52.34**	**342**	*e*P	**P**	**04 58 24.5**	**-1.2**
	comp=Z,5.5nm,0.9s,mb4.5						
CHKZ	**Chkalovo**	**52.78**	**343**	⇓*e*P	**P**	**04 58 28.6**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
CHKZ	**Chkalovo**	**52.78**	**343**	⇓*e*P	**P**	**04 58 28.6**	**-0.4**
	comp=Z,12nm,0.9s,mb4.8						
PMG	**Port Moresby**	**54.73**	**105**	P	**P**	**04 58 43.3**	**-0.5**
	comp=Z,4.4nm,0.5s,mb4.7,baz=330,slow=6.3,SNR=3.8						
BOD	**Bodaibo**	**55.62**	**13**	*e*P	**P**	**04 58 48.7**	**-1.0**
CTA	**Charters Tower**	**56.78**	**117**	P	**P**	**04 58 58.9**	**+0.3**
	comp=Z,9.4nm,0.9s,mb4.8,baz=273,slow=11,SNR=5.6						
KMBO	**Kilima Mbogo**	**56.94**	**266**	P	**P**	**04 59 01.1**	**+1.3**
	comp=Z,1.8nm,0.6s,mb4.3,baz=62,slow=12,SNR=6.4						
STKA	**Stephens Creek**	**57.83**	**132**	P	**P**	**04 59 05.1**	**-0.7**
	comp=Z,1.9nm,0.5s,mb4.4,baz=316,slow=6.5,SNR=10						
ARU	**Arti**	**59.08**	**338**	*e*P	**P**	**04 59 11.8**	**-2.4**
EIL	**Elat**	**61.08**	**302**	P	**P**	**04 59 27.9**	**-0.4**
	comp=Z,4.9nm,0.9s,mb4.6,baz=59,slow=8.0,SNR=3.1						
YAK	**Yakutsk**	**63.39**	**18**	*e*P	**P**	**04 59 42.0**	**-1.2**
	comp=Z,23nm,0.6s,mb5.5						
LSZ	**Lusaka**	**67.97**	**252**	*e*P	**P**	**05 00 13.1**	**-0.1**
LSZ				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.4						
LSZ	**Lusaka**	**67.97**	**252**	*e*P	**P**	**05 00 13.1**	**-0.1**
	comp=Z,6.5nm,1.4s,mb4.5						
IDI	**Anoyia**	**70.47**	**306**	P	**P**	**05 00 28.0**	**-0.3**
	comp=Z,7.5nm,0.7s,mb4.7,baz=118,slow=17,SNR=5.3						
MLR	**Muntele Rosu**	**71.60**	**317**	P	**P**	**05 00 34.5**	**-0.3**
	comp=Z,15nm,1.2s,mb4.8						
BOSA	**Boshof**	**73.59**	**239**	*e*P	**P**	**05 00 47.0**	**-0.1**

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BOSA                                pmax    pmax
       comp=Z,2.0nm,0.6s,mb4.2
BOSA   Boshof            73.59 239  eP      P        05 00 47.0 -0.1
       comp=Z,1.8nm,0.6s,mb4.2
FINES  FINESS Array B    75.76 333  P       P        05 00 58.2 -0.6
       comp=Z,1.9nm,0.5s,mb4.3,baz=105,slow=6.1,SNR=24
KAF    Kangasniemi       75.86 333  ep      P        05 00 58.5 -0.9
       comp=Z,0.7nm,0.3s,mb4.1
KAF    Kangasniemi       75.86 333  eP      P        05 00 58.5 -0.9
KAF                                 pmax    pmax
       comp=Z,1.0nm,0.3s,mb4.2
KEV    Kevo              78.11 341  ep      P        05 01 12.1 +0.2
ARCES  ARCESS Array B    78.53 340  P       P        05 01 14.3 +0.2
       comp=Z,1.8nm,0.4s,mb4.4,baz=102,slow=7.0,SNR=22
FX1    Attu Island--F    80.04  37  P       P        05 01 23.2 +0.6
       comp=Z,12nm,0.5s,mb5.1,baz=225,slow=5.7,SNR=4.1
FX1    Attu Island--F    80.04  37  P       P        05 01 23.2 +0.5
FX1                                 pmax    pmax
       comp=Z,12nm,0.5s
FX1    Attu Island--F    80.04  37  P       P        05 01 22.2 -0.5
GERES  GERESS Array B    80.35 319  P       P        05 01 24.8 +0.3
       comp=Z,1.7nm,0.7s,mb4.1,baz=104,slow=5.5,SNR=17
NB2    NORSAR Subarra    82.72 331  P       pP       05 01 51.7 +3.5
       comp=Z,4.3nm,1.2s,baz=97,slow=5.0
DAVOX  Davos             82.82 316  P       P        05 01 37.6 +0.3
       comp=Z,3.1nm,0.4s,mb4.7,baz=191,slow=1.8,SNR=15
YKA    Yellowknife Ar   109.89  14  PP      PP       05 08 11.2 -8.7
       comp=Z,1.0nm,1.1s,baz=334,slow=8.2,SNR=4.1
YKA                                 PKKPbc           05 18 46.9
       comp=Z,0.1nm,0.6s,baz=153,slow=4.0,SNR=5.6
NVAR   Mina Array Bea   128.01  32  PKP     PKPdf    05 08 20.4 +2.3
       comp=Z,0.5nm,0.3s,baz=315,slow=2.1,SNR=4.2
PDAR   Pinedale Array   128.50  22  PKP     PKPdf    05 08 20.4 +1.6
       comp=Z,1.3nm,0.9s,baz=45,slow=2.1,SNR=7.8
ANMO   Albuquerque      136.46  25  PKP     PKPdf    05 08 37.5 +3.5
       comp=Z,2.1nm,1.0s,baz=162,slow=1.2,SNR=5.3
BDFB   Brasilia         140.99 250  PKP     PKPdf    05 08 45.6 +2.8
       comp=Z,1.0nm,0.5s,baz=44,slow=16,SNR=3.3
TXAR   Lajitas Array    142.49  26  PKhKP            05 08 42.8
       comp=Z,0.2nm,0.4s,baz=290,slow=0.5,SNR=7.5
TXAR                                PKP     PKPdf    05 08 48.7 +3.7
       comp=Z,0.9nm,0.8s,baz=31,slow=0.4,SNR=8.7
JCT    Junction City    142.97  20  ePKIKP  PKPdf    05 08 51.2 +5.4
CPUP   Villa Florida    144.89 229  PKP     PKPdf    05 08 50.3 +1.0
       comp=Z,0.0nm,0.4s,baz=262,slow=18,SNR=1.5
LPAZ   La Paz           158.79 235  PKP     PKPdf    05 09 13.4 +3.4
       comp=Z,1.0nm,0.8s,baz=113,slow=2.7,SNR=3.3
LPAZ                                PKPab   PKPab    05 09 48.6 +0.5
       comp=Z,1.1nm,0.6s,baz=103,slow=6.9,SNR=3.7
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*IDC **27** 04:50:56.9±0.5, 12.96N×92.64E, h25^{km}±2^{km}, mb4.5/23, mb1 4.5/23, mb1mx4.5/25, Error ellipse: s-maj=22.6km s-min=10.0km az=39.0*

*NEIC **27** 04:50:57.2±0.2, 13.04N×92.70E, mb4.8/15, Error ellipse: s-maj=9.2km s-min=6.8km az=221.0*

*BJI **27** 04:51:03.5, 13.25N×92.53E, h16^{km}, mB5.5, mb4.9, Ms4.6, Msz4.4*

ISC 27 04:50:55.2±0.3**, 12.93N**±0.06×**92.58E**±0.05**, h26**^{km}**, h26**^{km}±.2^{km}**:pP-P, n82,** σ1^s**05**/61**, mb4.8**/37**, MS4.5**/1**, Andaman Islands region**

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Code   Station Name       Δ°   AZ°    Phase ID          Time      Res
                                  Op      ISC       h  m  s    ISC
CM31   Chiang Mai Arr     8.23  47  ePn     P        04 52 50.2 -5.8
CM31                                eS      Sn       04 54 24.6 -4.5
CMAR   Chiang Mai Arr     8.23  47  Sn      Sn       04 54 28.6 -0.6
       0.4nm,0.3s,baz=236,slow=16,SNR=2.6
VIS    Vishakhapatnam    10.12 299  eP      P        04 53 18.0 -4.2
VIS                                 eS      x        04 54 60.0
VIS                                 e       S        04 55 07.1 -8.7
       comp=E,233nm,0.3s
VIS                                 e                04 55 07.2
       comp=N,507nm,0.3s
MDRS   Chennai           12.02 272  e       rx       04 55 43.0
       comp=N,435nm,0.2s
BOK    Bokaro            12.53 331  eP      P        04 53 52.4 -2.6
BOK                                 eS      S        04 56 00.1  -15
SHL    Shillong          12.59 357  e       P        04 53 49.0 -6.7
BLSP   Bilaspur          13.52 314  eP      P        04 54 01.2 -6.9
BLSP                                e                04 56 25.0
TRD    Trivandrum        15.96 256  e       P        04 54 37.7 -2.3
TRD                                 eS      S        04 57 22.5  -14
LSA    Lhasa             16.74 356  eP      P        04 54 50.2 +0.4
       comp=N,56nm,0.8s
POO    Poona             18.87 290  eP      P        04 55 13.8 -2.4
POO                                 e                04 55 16.6
       comp=Z,13nm,0.5s
POO                                 e                04 58 26.0
BOM    Bombay            19.91 290  e       P        04 55 32.8 +4.7
BOM                                 e                04 58 55.0
       comp=Z,111nm,0.7s
PTH    Pithoragarh       20.13 327  e       P        04 55 33.8 +3.5
PTH                                 e                04 58 57.3
CD2    Chengdu           20.66  28  P       P        04 55 43.8 +8.1
CD2                                 AMB     AMB
       comp=Z,50nm,1.0s
NDI    New Delhi         21.22 320  eP      P        04 55 40.0 -1.5
DDI    Dehra Dun         21.91 324  eP      P        04 55 50.1 +1.7
DDI                                 eS      S        04 59 50.0 +6.0
SDNR   Sundarnagar       23.41 325  eP      P        04 56 05.5 +2.3
LZH    Lanzhou           25.19  22  eP      pP       04 56 28.0 +0.1
LZH                                 AP      pP       04 56 31.0 +3.1
LZH                                 XP      sP       04 56 32.5 +1.2
LZH                                 AMB     AMB
       comp=Z,65nm,1.2s,mb5.0
NJ2    Nanjing           30.71  47  eP      pP       04 57 18.3 +0.3
NJ2                                 AMB     AMB
       comp=Z,60nm,0.9s,mb5.4
AAK    Ala-Archa         33.49 335  eP      pP       04 57 42.4 +0.1
       comp=Z,10nm,0.9s
BJI    Beijing           34.07  33  P       pP       04 57 48.0 +0.7
BJI                                 AMB     AMB
       comp=Z,37nm,0.7s,mb5.4
SONM   Songino Array     36.66  16  PcP     PcP      05 00 24.9 +0.3
       comp=Z,3.6nm,1.1s,baz=199,slow=3.2,SNR=3.6
ULN    Ulaanbaatar       36.87  16  eP      pP       04 58 11.6 +0.5
       comp=Z,9.3nm,1.0s
KS15   Wonju Array Si    39.84  46  eP      P        04 58 28.7 +0.4
KS15                                epP     pP       04 58 36.2 +0.2
CN2    Changchun         41.73  36  eP      pP       04 58 52.0 +0.4
CN2                                 AMB     AMB
       comp=Z,40nm,1.1s,mb5.0
CN2                                 LR      LR
       comp=N,490nm,16.0s,MS4.6
CN2                                 LR      LR
       comp=E,390nm,16.0s,MS4.6
CN2                                 LR      LR
       comp=Z,510nm,15.0s,MS4.5
CHKZ   Chkalovo          44.22 341  P       P        04 59 04.1 +0.1
       comp=Z,18nm,0.6s,mb5.0
CHKZ                                i pP    pP       04 59 12.0 +0.3
MAJO   Matsushiro        47.09  52  P       pP       04 59 34.6 -0.2
       comp=Z,12nm,0.7s
MAT    Matsushiro        47.09  52  P       pP       04 59 35.8 +1.0
MAT    Matsushiro        47.09  52  eP      pP       04 59 36.0 +1.2
GNI    Garni             49.88 312  P       P        04 59 49.8 +1.2
       comp=Z,8.8nm,0.9s,mb4.8,baz=68,slow=6.5,SNR=3.9
NWAO   Narrogin (SRO)    51.32 153  P       P        04 59 59.8 +0.2
       comp=Z,15nm,0.8s,mb5.0,baz=293,slow=5.9,SNR=7.7
WRA    Warramunga Arr    52.49 128  P       P        05 00 08.2 -0.4
       comp=Z,8.1nm,0.6s,mb4.8,baz=306,slow=8.3,SNR=22
WRA                                 PcP     PcP      05 01 19.3 +0.3
       comp=Z,3.6nm,0.7s,baz=316,slow=3.4,SNR=6.8
WRAB   Tennant Creek     52.50 128  eP      P        05 00 08.3 -0.4
       comp=Z,17nm,0.6s,mb5.1
WRAB                                epP     pP       05 00 16.2 -0.4
KIV    Kislovodsk        52.60 316  eP      P        05 00 09.8 +0.6
       comp=Z,7.6nm,0.8s,mb4.7
KIV                                 e       pP       05 00 17.8 +0.8
ASAJ   Asahikawa         52.74  44  P       P        05 00 12.2 +2.0
       comp=Z,6.8nm,0.7s,mb4.7,baz=225,slow=16,SNR=3.2
MALT   Malatya           54.10 308  eP      P        05 00 20.1 -0.1
       comp=Z,7.7nm,1.1s,mb4.5
ASAR   Alice Springs     54.36 132  P       P        05 00 22.1 -0.3
       comp=Z,3.4nm,0.4s,mb4.6,baz=310,slow=7.2,SNR=19
ASAR                                PcP     PcP      05 01 26.7 +0.7
       comp=Z,7.3nm,1.1s,baz=299,slow=3.7,SNR=5.0
ASAR                                S       S        05 07 55.4 -1.9
       comp=Z,1.1nm,0.8s,baz=301,slow=12,SNR=5.3
EIL    Elat              55.68 297  P       P        05 00 31.6 -0.3
       comp=Z,5.7nm,0.9s,mb4.6,baz=40,slow=25,SNR=2.6
YAK    Yakutsk           55.76  20  eP      P        05 00 30.9 -1.2
       comp=Z,18nm,0.5s,mb5.3
KMBO   Kilima Mbogo      56.62 260  P       P        05 00 40.0 +1.1
       comp=Z,3.3nm,1.0s,mb4.3,baz=46,slow=10,SNR=4.3
BRTR   Keskin Array B    58.03 309  P       P        05 00 47.5 -1.0
PMG    Port Moresby      58.57 110  P       P        05 00 53.0 +0.4
       comp=Z,5.0nm,0.6s,mb4.7,baz=223,slow=2.0,SNR=3.5
CTA    Charters Tower    62.16 121  P       P        05 01 16.4 -0.6
       comp=Z,7.4nm,0.9s,mb4.8,baz=230,slow=3.5,SNR=3.6
CTA    Charters Tower    62.16 121  P       P        05 01 16.4 -0.6
AKASG  Malin Array Be    63.28 320  P       P        05 01 22.4 -1.6
       comp=Z,1.1nm,0.5s,mb4.2,baz=88,slow=5.0,SNR=6.2
AKASG                               pP      pP       05 01 30.6 -1.5
       comp=Z,4.2nm,0.8s,baz=83,slow=5.1,SNR=8.4
IDI    Anoyia            64.49 303  P       P        05 01 33.1 +0.8
       comp=Z,6.3nm,0.8s,mb4.7,baz=15,slow=20,SNR=1.8
MLR    Muntele Rosu      64.53 314  P       P        05 01 32.9 +0.6
       comp=Z,10nm,0.9s,mb4.9,baz=124,slow=4.5,SNR=7.2
MLR                                 pP      pP       05 01 40.9 +0.5
       comp=Z,17nm,1.0s,baz=98,slow=4.5,SNR=7.6
MLR    Muntele Rosu      64.53 314  P       P        05 01 32.9 +0.6
MLR                                 pP      pP       05 01 40.9 +0.5
STKA   Stephens Creek    64.71 135  P       P        05 01 33.0 -0.7
       comp=Z,12nm,1.3s,mb4.8,baz=336,slow=10.0,SNR=3.4
KWP    Kalwaria          67.23 319  eP      P        05 01 48.6 -0.9
       comp=Z,7.7nm,0.9s,mb4.7
KWP                                 e       pP       05 01 57.2 -0.3
FINES  FINESS Array B    67.56 332  P       P        05 01 50.8 -0.6
       comp=Z,12nm,1.0s,mb4.9,baz=112,slow=10,SNR=7.9
FINES                               pP      pP       05 01 58.5 -1.0
       comp=Z,7.1nm,0.5s,baz=106,slow=7.2,SNR=13
LSZ    Lusaka            69.61 248  eP      P        05 02 06.1 +1.3
       comp=Z,4.5nm,0.7s,mb4.5
ARCES  ARCESS Array B    70.02 340  P       P        05 02 06.3 -0.2
       comp=Z,2.2nm,0.6s,mb4.3,baz=79,slow=6.2,SNR=4.3
ARCES                               pP      pP       05 02 14.6  0.0
       comp=Z,5.2nm,0.6s,baz=85,slow=6.5,SNR=11
OKC    Ostrava-Krasne    70.20 318  eP      pP       05 02 15.4 -0.5
OKC    Ostrava-Krasne    70.20 318  epP     pP       05 02 15.4 -0.5
GERES  GERESS Array B    73.08 317  P       P        05 02 25.3 +0.2
       comp=Z,7.8nm,1.1s,mb4.5,baz=90,slow=5.3,SNR=7.0
GERES                               pP      pP       05 02 33.3 +0.2
       comp=Z,16nm,1.2s,baz=90,slow=5.3,SNR=7.5
KHC    Kasperske Hory    73.16 318  eP      P        05 02 25.8 +0.3
FX1    Attu Island--F    74.13  38  P       P        05 02 31.2 +0.2
       comp=Z,21nm,0.9s,mb5.1,baz=229,slow=18,SNR=2.7
FX1                                 pP      pP       05 02 39.5 +0.3
       comp=Z,23nm,0.5s,baz=240,slow=2.5,SNR=8.8
FX1    Attu Island--F    74.13  38  eP      P        05 02 30.9 -0.2
FX1                                 e       pP       05 02 39.2  0.0
NB2    NORSAR Subarra    74.61 330  P       P        05 02 33.1 -0.6
       comp=Z,6.8nm,0.6s,mb4.8,baz=91,slow=5.8
NOA    NORSAR Array B    74.61 330  P       P        05 02 33.1 -0.6
       comp=Z,1.8nm,0.7s,mb4.1,baz=96,slow=5.5,SNR=6.8
NOA                                 pP      pP       05 02 41.3 -0.5
       comp=Z,5.8nm,0.6s,baz=91,slow=5.7,SNR=9.8
BOSA   Boshof            77.02 236  eP      P        05 02 49.5 +1.4
       comp=Z,9.3nm,0.6s,mb4.9
BOSA                                epP     pP       05 02 57.3 +1.0
LPG    La Plagne         78.00 314  eP      P        05 02 53.8 +0.7
       comp=Z,18nm,0.9s,mb4.7
EKA    Eskdalemuir Ar    82.72 325  P       P        05 03 18.6 +0.6
       comp=Z,1.9nm,0.6s,mb4.3,baz=81,slow=6.9,SNR=5.4
EKA                                 pP      pP       05 03 26.8 +0.5
       comp=Z,2.0nm,0.7s,baz=86,slow=5.4,SNR=3.4
ESDC   Sonseca Array     86.81 310  P       P        05 03 39.0 +0.1
       comp=Z,1.5nm,0.6s,mb4.4,baz=51,slow=4.9,SNR=7.4
MCK    McKinley          90.45  23  eP      P        05 03 56.4 +0.8
       comp=Z,1.7nm,0.6s,mb4.5
ILAR   Eielson Array     90.66  22  P       P        05 03 56.6 +0.1
       comp=Z,1.5nm,0.7s,mb4.4,baz=301,slow=4.4,SNR=19
ILAR                                pP      pP       05 04 04.6 -0.2
       comp=Z,2.4nm,0.6s,baz=295,slow=4.6,SNR=21
URZ    Urewera           93.66 128  P       P        05 04 11.2 +0.2
       comp=Z,12nm,0.8s,mb5.4,baz=288,slow=4.0,SNR=5.3
DBIC   Dimbokro          95.72 278  P       P        05 04 21.9 +0.8
       comp=Z,1.1nm,0.6s,mb4.5,baz=156,slow=5.4,SNR=3.8
YKA    Yellowknife Ar   101.88  13  PP      PP       05 08 56.1 -5.0
       comp=Z,0.5nm,0.9s,baz=334,slow=8.4,SNR=3.7
PDAR   Pinedale Array   120.97  19  PKP     PKPdf    05 09 47.6 -2.9
       comp=Z,0.7nm,0.5s,baz=61,slow=0.5,SNR=5.9
PDAR                                pPKP             05 09 56.2
       comp=Z,0.7nm,0.6s,baz=115,slow=2.5,SNR=5.1
NVAR   Mina Array Bea   121.30  28  PKP     PKPdf    05 09 48.8 -2.5
       comp=Z,2.1nm,0.8s,baz=302,slow=3.1,SNR=4.6
MSU    Marysvale        123.83  23  ePKPdf  PKPdf    05 09 54.9 -1.3
ANMO   Albuquerque      129.07  20  PKP     PKPdf    05 10 05.2 -1.2
       comp=Z,1.4nm,0.6s,baz=348,slow=1.3,SNR=5.8
TXAR   Lajitas Array    135.15  20  PKP     PKPdf    05 10 16.9 -1.1
       comp=Z,0.7nm,0.5s,baz=123,slow=0.4,SNR=8.1
BDFB   Brasilia         141.75 261  PKP     PKPdf    05 10 27.6 -2.7
       comp=Z,3.6nm,0.8s,baz=161,slow=4.4,SNR=4.5
TRQA   Tornquist        146.25 218  ePKPdf  PKPdf    05 10 35.6 -1.8
PCRV   Puerto La Cruz   147.77 314  PKPbc   PKPdf    05 10 38.9 -1.7
       comp=Z,9.0nm,0.9s,baz=164,slow=22,SNR=4.6
CPUP   Villa Florida    148.78 240  PKPbc   PKPdf    05 10 42.8 +0.9
       comp=Z,0.0nm,0.3s,baz=176,slow=11,SNR=1.8
SDV    Santo Domingo    152.66 322  PKPbc   PKPdf    05 10 51.4 +3.3
       comp=Z,4.5nm,0.7s,baz=166,slow=3.5,SNR=13
ROSC   El Rosal         158.06 323  PKPab   PKPab    05 11 27.1 +0.5
       comp=Z,3.4nm,0.8s,baz=74,slow=22,SNR=2.9
LVC    Limon Verde      159.94 239  PKPab   PKPab    05 11 34.4  0.0
       comp=Z,4.5nm,0.8s,baz=215,slow=3.7,SNR=6.9
LPAZ   La Paz           161.04 258  PKPab   PKPab    05 11 39.0 -0.2
       comp=Z,1.8nm,0.8s,baz=64,slow=8.7,SNR=4.4
```

IDC 27 04:56:53.1±7.1**, 4.17N**×**93.66E, mb3.8**/2**, mb1 4.1**/3**, mb1mx3.6**/17**, ML3.9**/1**, Error ellipse: s-maj=209.0km s-min=35.9km az=72.0, Off west coast of northern Sumatera**

```
Code   Station Name       Δ°   AZ°    Phase ID          Time      Res
                                  Op      ISC       h  m  s    ISC
CMAR   Chiang Mai Arr    15.11  20  Pn      P        05 00 28.6 -1.3
       0.2nm,0.3s,baz=236,slow=26,SNR=2.3
SONM   Songino Array     44.86  12  P       P        05 05 09.1 -1.9
       2.2nm,1.1s,baz=197,slow=8.5,SNR=6.5
WRA    Warramunga Arr    46.60 122  P       P        05 05 23.3 -1.8
       0.6nm,0.9s,baz=302,slow=9.0,SNR=4.7
```

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*IDC **27** 05:05:11.7±0.9, 5.89N×93.07E, mb4.0/9, mb1 4.2/10, mb1mx4.0/19, ML4.1/1, Error ellipse: s-maj=43.1km s-min=18.2km az=47.0*

*NEIC **27** 05:05:15.0±0.6, 5.71N×92.93E, mb4.6/3, Error ellipse: s-maj=19.7km s-min=10.4km az=58.0*

*BJI **27** 05:05:15.0, 5.70N×92.90E, h26^{km}, mB5.4, mb4.7*

ISC 27 05:05:12.8±0.8**, 5.7N**±0.1×**93.0E**±0.1**, h24**^{km}**, h24**^{km}±2.5^{km}**:pP-P, n25,** σ0^s**91**/20**, mb4.4**/18**, 1C, Off west coast of northern Sumatera**

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Code   Station Name       Δ°   AZ°    Phase ID          Time      Res
                                  Op      ISC       h  m  s    ISC
CMAR   Chiang Mai Arr    13.98  24  Pn      P        05 08 31.5 -0.4
       0.3nm,0.3s,baz=229,slow=14,SNR=10
PKI    Pulchoki          22.95 343  eP      P        05 10 16.6  0.0
       88nm,1.0s,mb5.1
GUN    Gumba             23.14 344  eP      P        05 10 19.3 +0.9
KKN    Kakani            23.20 342  eP      P        05 10 19.8 +0.8
       76nm,1.2s,mb5.0
GKN    Gorkha            23.59 341  eP      P        05 10 23.7 +0.9
       73nm,0.9s,mb5.1
KOLN   Koldanda          23.73 339  eP      P        05 10 24.5 +0.3
       49nm,0.8s,mb5.0
LSA    Lhasa             23.97 356  eP      P        05 10 27.0 +0.5
       12nm,0.8s,mb4.4
LSA                                 epP              05 10 33.9
GYA    Guiyang           24.45  31⇑iP      P        05 10 30.5 -0.7
GYA                                 AMB     AMB
       comp=Z,10.0nm,0.8s,mb4.3
GTA    Gaotai            34.16   9  eP      P        05 12 01.5 +3.2
GTA                                 AP      pP       05 12 07.0 +1.5
GTA                                 XP      sP       05 12 10.3 +1.6
GTA                                 AMB     AMB
       comp=Z,4.0nm,0.6s,mb4.5
SONM   Songino Array     43.56  13  P       P        05 13 16.4 -0.1
       comp=Z,0.5nm,0.7s,mb3.4,baz=196,slow=10,SNR=3.4
WRA    Warramunga Arr    47.96 123  P       P        05 13 52.8 +0.8
       comp=Z,3.7nm,0.8s,mb4.5,baz=302,slow=9.0,SNR=16
WRAB   Tennant Creek     47.97 123  eP      P        05 13 51.1 -0.8
       comp=Z,4.6nm,0.7s,mb4.6
WRAB                                epP     pP       05 13 59.5 +0.1
ZAL    Zalesovo          48.59 354  P       P        05 13 55.9 -0.4
       comp=Z,1.5nm,0.3s,mb4.4,baz=300,slow=6.3,SNR=7.4
ASAR   Alice Springs     49.42 128  P       P        05 14 04.0 +0.9
       comp=Z,1.5nm,0.7s,mb4.1,baz=302,slow=7.2,SNR=10
CHKZ   Chkalovo          51.23 343  eP      P        05 14 14.9 -1.6
       comp=Z,3.4nm,0.8s,mb4.3
CHKZ                                epP     pP       05 14 23.1 -0.8
PMG    Port Moresby      56.02 105  P       P        05 14 52.1 -0.3
       comp=Z,2.9nm,0.4s,mb4.7,baz=323,slow=9.0,SNR=3.5
BRTR   Keskin Array B    63.02 312  P       P        05 15 39.1 -1.2
       comp=Z,1.3nm,1.1s,mb4.0,baz=27,slow=2.8,SNR=3.6
FINES  FINESS Array B    74.13 333  P       P        05 16 47.2 -1.5
       comp=Z,1.5nm,0.9s,mb3.9,baz=110,slow=8.4,SNR=2.4
ARCES  ARCESS Array B    76.95 341  P       P        05 17 04.6 -0.1
       comp=Z,1.5nm,0.8s,mb4.0,baz=96,slow=8.2,SNR=2.5
GERES  GERESS Array B    78.71 319  P       P        05 17 15.8 +1.0
       comp=Z,1.0nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=7.6
KHC    Kasperske Hory    78.81 319  epP     pP       05 17 29.0 +5.9
PDAR   Pinedale Array   127.63  21  PKP     PKPdf    05 24 19.9 -1.2
       comp=Z,0.4nm,0.9s,baz=180,slow=0.7,SNR=3.2
TXAR   Lajitas Array    141.70  24  PKP     PKPdf    05 24 45.9 -1.7
       comp=Z,0.4nm,0.8s,baz=291,slow=2.5,SNR=3.8
CPUP   Villa Florida    145.00 231  PKPbc   PKPbc    05 24 52.5 +3.4
       comp=Z,0.0nm,0.3s,baz=240,slow=16,SNR=1.3
CPUP   Villa Florida    145.00 231  PKPbc   PKPbc    05 24 52.5 +3.4
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*IDC **27** 05:09:14.8±1.1, 6.93N×92.65E, mb4.0/7, mb1 4.3/8, mb1mx4.0/19, Error ellipse: s-maj=48.3km s-min=21.1km az=58.0*

*NEIC **27** 05:09:19.5±0.5, 6.80N×92.56E, mb4.5/4, Error ellipse: s-maj=17.2km s-min=9.7km az=64.0*

ISC 27 05:09:17.6±0.9**, 6.8N**±0.1×**92.6E**±0.2**, h33**^{km}**, h33**^{km}±.2^{km}**:pP-P, n14,** σ0^s**60**/12**, mb4.2**/11**, Nicobar Islands region**

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Code   Station Name       Δ°   AZ°    Phase ID          Time      Res
                                  Op      ISC       h  m  s    ISC
CMAR   Chiang Mai Arr    13.12  28  Pn      P        05 12 24.7 +0.4
       baz=210,slow=24,SNR=1.8
AAK    Ala-Archa         39.09 339  eP      P        05 16 44.6 +1.3
       6.9nm,1.0s,mb4.3
AAK                                 epP     pP       05 16 54.4 +1.2
SONM   Songino Array     42.54  14  P       P        05 17 11.3 -0.4
       1.9nm,1.0s,mb3.8,baz=202,slow=6.7,SNR=6.1
ZAL    Zalesovo          47.41 354  P       P        05 17 50.8 +0.2
       1.0nm,0.3s,mb4.2,baz=22,slow=5.4,SNR=2.9
WRA    Warramunga Arr    48.93 124  P       P        05 18 03.0 +0.1
       2.8nm,0.8s,mb4.3,baz=303,slow=8.8,SNR=7.8
WRAB   Tennant Creek     48.93 124  eP      P        05 18 02.4 -0.5
       4.4nm,0.5s,mb4.7
BVAR   Borovoye Array    49.51 343  P       P        05 18 05.7 -1.2
       0.6nm,0.6s,mb3.8,baz=135,slow=6.1,SNR=3.5
BRVK   Borovoye          49.57 342  eP      P        05 18 07.0 -0.3
       3.3nm,0.8s,mb4.4
BRVK                                epP     pP       05 18 17.1 -0.3
CHKZ   Chkalovo          50.01 343  eP      P        05 18 10.4 -0.4
       4.8nm,0.8s,mb4.6
CHKZ                                epP     pP       05 18 20.3 -0.4
ASAR   Alice Springs     50.44 128  P       P        05 18 14.8 +0.4
       2.1nm,0.7s,mb4.3,baz=307,slow=7.3,SNR=9.1
ARCES  ARCESS Array B    75.74 340  P       P        05 21 01.4 +0.1
       3.6nm,1.1s,mb4.2,baz=90,slow=4.5,SNR=3.4
GERES  GERESS Array B    77.59 318  P       P        05 21 12.6 +0.5
       0.6nm,0.8s,mb3.6,baz=90,slow=4.0,SNR=3.9
CPUP   Villa Florida    145.40 232  PKPbc   PKPbc    05 28 55.4 +2.0
       0.0nm,0.3s,baz=1.2,slow=12,SNR=1.9
CPUP   Villa Florida    145.40 232  PKPbc   PKPbc    05 28 55.4 +2.0
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*IDC **27** 05:10:48.6±0.4, 6.06N×93.22E, mb4.7/27, mb1 4.8/28, mb1mx4.8/29, ML4.5/1, MS4.5/5, Ms1 4.5/5, ms1mx4.0/15, Error ellipse: s-maj=17.5km s-min=11.4km az=35.0*

*MOS **27** 05:10:51.4±0.9, 6.02N×93.24E, h33^{km}, mb5.1/37, MS4.8/8, Error ellipse: s-maj=11.0km s-min=5.6km az=119.7*

*BJI **27** 05:10:51.3, 5.67N×93.14E, h48^{km}, mB5.1, mb5.0, Ms5.0, Msz4.7*

*NEIC **27** 05:10:53.0±0.2, 6.00N×93.21E, mb4.9/38, Error ellipse: s-maj=5.8km s-min=4.4km az=31.0*

*SYO **27** 05:10:52.3, 6.00N×93.21E, h26^{km}, MB4.9*

*HRVD **27** 05:10:53.0±0.4, 5.94N×93.19E, h15^{km}±1^{km}, MW5.2/58, Centroid moment Tensor Solution. LP body waves: s13,c17;Mantle waves: s58,c99; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.29±.31; $M_{\theta\theta}$-2.82±.20; $M_{\phi\phi}$4.11±.26; $M_{r\theta}$-1.31±.79; $M_{\theta\phi}$-4.08±.22; $M_{\phi r}$-4.68±.90; Best double couple: $M_0$7.28×10^{16} NP1:ϕ_s112°,δ47°, λ-171°. NP2:ϕ_s16°,δ84°,λ-44°. Principal axes: T 7.67, Plg24°, Azm72°; N -.78, Plg46°, Azm189°; P -6.9, Plg34°, Azm324°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 05:10:51.0±0.3**, 5.99N**±0.04×**93.22E**±0.03**, h29**^{km}**, h29**^{km}±.5^{km}**:pP-P, n238,** σ1^s**06**/241**, mb4.9**/85**, MS4.7**/25**, 9C-11D, Off west coast of northern Sumatera**

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Code   Station Name       Δ°   AZ°    Phase ID          Time      Res
                                  Op      ISC       h  m  s    ISC
SNG    Songkhla           7.44  81  P       Pn       05 12 40.0 -0.6
       430nm,1.0s
PALK   Pallekele         12.50 277  eP      P        05 13 48.8 -1.2
       39nm,0.8s
CM31   Chiang Mai Arr    13.59  24  eP      P        05 14 04.2 -0.3
       36nm,0.8s
CMAR   Chiang Mai Arr    13.59  24  Pn      P        05 14 03.2 -1.3
       0.8nm,0.3s,baz=219,slow=12,SNR=3.8
CMAR                                Sn      S        05 16 54.4  +19
       baz=222,slow=24,SNR=2.2
CMAR                                LR      LR       05 20 10.0
       comp=Z,1μm,19.2s,baz=210,slow=42
CHG    Chiang Mai        13.91  23 ⇑P       P        05 14 12.8 +4.0
       40nm,1.0s
KKTK   Khon Kaen         13.94  42  P       P        05 14 18.0 +8.9
       2μm,0.8s
MDRS   Chennai           14.59 300  eP      P        05 14 18.9 +1.2
UBT    Ubonrachathani    14.79  51  P       P        05 14 27.5 +7.2
VIS    Vishakhapatnam    15.14 321  e       P        05 14 22.0 -2.9
VIS                                 e                05 14 26.9
       comp=Z,182nm,0.5s
VIS                                 eS      S        05 17 00.3  -12
CHRT   Chiangrai         15.20  24  PG      P        05 14 22.0 -3.6
CHRT                                SG      Px       05 14 58.0
TRD    Trivandrum        16.32 280  eP      P        05 14 43.2 +3.1
TRD                                 e                05 14 46.6
       comp=Z,35nm,0.7s
AGT    Agartala          17.89 354⇓iP      P        05 14 58.0 -1.6
AGT                                 i                05 15 39.0
HYB    Hyderabad         18.29 310  eP      P        05 15 03.0 -1.7
HYB                                 pmax    pmax
       comp=Z,50nm,1.0s
HYB    Hyderabad         18.29 310  eP      P        05 15 03.0 -1.7
       comp=Z,50nm,1.0s
HYB                                 eS      S        05 18 08.0  -17
HYB    Hyderabad         18.29 310  i P     P        05 15 03.0 -1.7
       comp=Z,50nm,1.0s
HYB                                 e                05 18 10.0
IMP    Imphal            18.70   2  e       P        05 15 07.3 -2.3
IMP                                 e       S        05 18 33.6 -0.1
BOK    Bokaro            19.05 339  eP      P        05 15 13.0 -0.8
BOK                                 e                05 15 20.9
       comp=Z,270nm,0.8s
BOK                                 eS      S        05 18 34.3 -7.5
BLSP   Bilaspur          19.29 327  eP      P        05 15 16.6  0.0
BLSP                                e                05 15 21.4
       comp=Z,278nm,0.5s
BLSP                                eS      S        05 18 43.6 -3.6
MNGI   Mangalore         19.40 292  e       P        05 15 27.7  +10
MNGI                                eS      S        05 18 55.4 +5.7
SHL    Shillong          19.50 356  eP      P        05 15 15.2 -3.8
QIZ    Qiongzhong        20.74  50⇑iP      P        05 15 33.3 +1.2
QIZ                                 S       S        05 19 18.5 +1.3
QIZ                                 AMB     AMB
       comp=Z,98nm,1.1s
QIZ                                 LR      LR
       comp=N,3μm,14.3s,MS4.8
QIZ                                 LR      LR
       comp=E,2μm,13.3s,MS4.8
QIZ                                 LR      LR
       comp=Z,3μm,14.9s,MS4.7
QIZ    Qiongzhong        20.74  50  eP      P        05 15 32.6 +0.5
       comp=Z,138nm,1.0s
KMI    Kunming           21.10  25  P       P        05 15 37.5 +1.8
KMI                                 PP      PP       05 16 00.8 +1.8
KMI                                 S       S        05 19 28.5 +4.5
KMI                                 SS      SS       05 20 01.5 +4.1
KMI                                 AMB     AMB
       comp=Z,140nm,0.8s,mb5.3
KMI                                 AMB     AMB
       comp=Z,201nm,3.6s
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KMI				LR	LR		
	comp=N,2μm,15.9s,MS4.7						
KMI				LR	LR		
	comp=E,2μm,15.9s,MS4.7						
KMI				LR	LR		
	comp=Z,1μm,21.9s						
KAD	**Karad**	**21.74**	**303**	⇓*i*P	**P**	**05 15 42.2**	**-0.1**
KAD				*i*	**S**	**05 19 30.2**	**-6.0**
POO	**Poona**	**22.63**	**305**	*e*P	**P**	**05 15 52.0**	**+0.9**
POO				*e*		05 15 55.0	
	comp=Z,78nm,1.5s						
POO				*e*S	**S**	**05 19 59.0**	**+6.6**
PKI	**Pulchoki**	**22.71**	**342**	*e*P	**P**	**05 15 52.4**	**+0.5**
	comp=Z,399nm,0.7s,mb5.9						
DMN	**Daman**	**22.84**	**341**	*e*P	**P**	**05 15 53.9**	**+0.8**
	comp=Z,361nm,0.7s,mb5.9						
GUN	**Gumba**	**22.88**	**343**	*e*P	**P**	**05 15 54.2**	**+0.6**
	comp=Z,232nm,0.6s,mb5.8						
BHPL	**Bhopal**	**22.93**	**320**	*e*P	**P**	**05 15 56.0**	**+2.0**
BHPL				*e*		05 15 58.1	
	comp=Z,91nm,1.6s						
BHPL				*e*	**S**	**05 20 04.6**	**+6.8**
KKN	**Kakani**	**22.95**	**342**	*e*P	**P**	**05 15 54.6**	**+0.3**
	comp=Z,669nm,1.3s,mb5.9						
GKN	**Gorkha**	**23.36**	**341**	*e*P	**P**	**05 15 59.2**	**+1.0**
	comp=Z,503nm,0.7s,mb6.0						
KOLN	**Koldanda**	**23.51**	**338**	*e*P	**P**	**05 16 00.6**	**+1.0**
	comp=Z,355nm,0.8s,mb5.9						
BOM	**Bombay**	**23.66**	**305**	*e*P	**P**	**05 16 03.2**	**+2.0**
BOM				*e*S	**S**	**05 20 19.6**	**+9.0**
	comp=Z,494nm,2.4s						
LSA	**Lhasa**	**23.66**	**356**	*e*P	**P**	**05 16 02.8**	**+1.7**
LSA				pmax	pmax		
	comp=Z,22nm,0.6s,mb4.8						
LSA	**Lhasa**	**23.66**	**356**	*e*P	**P**	**05 16 02.8**	**+1.7**
	comp=Z,22nm,0.6s,mb4.8						
GYA	**Guiyang**	**24.06**	**31**	⇑*i*P	**P**	**05 16 06.0**	**+1.0**
GYA				PP	PP	05 16 42.3	+2.8
GYA				S	**S**	**05 20 17.5**	**+0.1**
GYA				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.2						
GYA				AMB	AMB		
	comp=Z,480nm,3.2s						
GYA				LR	LR		
	comp=N,1μm,15.9s,MS4.8						
GYA				LR	LR		
	comp=E,2μm,15.6s,MS4.8						
GYA				LR	LR		
	comp=Z,2μm,17.4s,MS4.6						
GZH	**Guangzhou**	**25.79**	**47**	P	**P**	**05 16 27.5**	**+6.0**
GZH				LR	LR		
	comp=N,3μm,18.0s,MS4.9						
GZH				LR	LR		
	comp=E,2μm,19.3s,MS4.9						
GZH				LR	LR		
	comp=Z,4μm,13.1s						
LGTI	**Lohaghat**	**26.35**	**334**	*e*P	**P**	**05 16 27.5**	**+0.8**
PTH	**Pithoragarh**	**26.45**	**334**	*e*P	**P**	**05 16 27.9**	**+0.3**
PTH				*e*S	**S**	**05 21 00.3**	**+2.9**
CD2	**Chengdu**	**26.69**	**20**	P	**P**	**05 16 30.5**	**+0.7**
CD2				AMB	AMB		
	comp=Z,90nm,0.8s,mb5.3						
NDI	**New Delhi**	**27.18**	**328**	*e*P	**P**	**05 16 32.5**	**-1.8**
NDI				*e*		05 20 40.0	
NDI				*e*	S	05 21 39.0	+30
DDI	**Dehra Dun**	**28.09**	**331**	*e*P	**P**	**05 16 41.0**	**-1.5**
TGY	**Tagaytay City**	**28.43**	**71**	P	**P**	**05 16 46.3**	**+0.6**
	comp=Z,155nm,0.4s,mb6.0,baz=190,slow=15,SNR=3.8						
TGY				LR	LR	05 27 50.9	
	comp=Z,939nm,19.7s,MS4.4,baz=323,slow=36						
ENH	**Enshi**	**28.59**	**30**	*e*P	**P**	**05 16 45.0**	**-2.1**
	comp=Z,32nm,0.9s,mb5.1						
THN	**Thein Dam**	**30.96**	**330**	*e*P	**P**	**05 17 06.9**	**-1.2**
	comp=Z,11nm,0.7s,mb4.8						
XAN	**Xi’an**	**31.47**	**25**	P	**P**	**05 17 11.0**	**-1.6**
XAN				AMB	AMB		
	comp=Z,44nm,1.1s,mb5.2						
WHN	**Wuhan**	**31.48**	**37**	⇑P	**P**	**05 17 13.0**	**+0.3**
LZH	**Lanzhou**	**31.50**	**17**	⇑P	**P**	**05 17 13.0**	**+0.2**
LZH				PP	PP	05 18 17.0	-0.2
LZH				S	**S**	**05 22 16.0**	**-1.9**
LZH				SS	SS	05 24 07.0	+0.1
LZH				AMB	AMB		
	comp=Z,44nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,172nm,5.0s						
LZH				LR	LR		
	comp=E,2μm,15.0s						
LZH				LR	LR		
	comp=Z,2μm,16.8s,MS4.9						
GTA	**Gaotai**	**33.80**	**9**	*e*P	**P**	**05 17 33.5**	**+0.7**
GTA				PP	PP	05 18 44.0	-2.2
GTA				S	**S**	**05 22 51.0**	**-2.6**
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.5						
GTA				AMB	AMB		
	comp=Z,268nm,10.7s						
GTA				LR	LR		
	comp=N,423nm,23.3s,MS4.3						
GTA				LR	LR		
	comp=E,534nm,22.2s,MS4.3						
GTA				LR	LR		
	comp=Z,645nm,21.4s,MS4.3						
NJ2	**Nanjing**	**35.29**	**39**	*e*P	**P**	**05 17 46.0**	**+0.3**
NJ2				AP	pP	05 17 55.3	+1.0
NJ2				XP	sP	05 17 59.5	+1.5
NJ2				PP	PP	05 19 06.0	+0.8
NJ2				S	**S**	**05 23 18.0**	**+1.1**
NJ2				SS	SS	05 25 37.0	+2.3
NJ2				AMB	AMB		
	comp=Z,130nm,0.8s,mb5.9						
NJ2				AMB	AMB		
	comp=Z,560nm,7.6s						
NJ2				LR	LR		
	comp=N,3μm,20.6s						
NJ2				LR	LR		
	comp=E,3μm,15.3s						
NJ2				LR	LR		
	comp=Z,3μm,12.7s						
SSE	**Sheshan**	**36.21**	**43**	P	**P**	**05 17 51.0**	**-2.4**
SSE				S	**S**	**05 23 32.5**	**+1.5**
SSE				AMB	AMB		
	comp=Z,33nm,0.6s,mb5.4						
SSE				AMB	AMB		
	comp=Z,214nm,3.3s						
SSE				LR	LR		
	comp=N,910nm,18.5s,MS4.7						
SSE				LR	LR		
	comp=E,777nm,18.7s,MS4.7						
SSE				LR	LR		
	comp=Z,644nm,14.1s,MS4.5						
KSH	**Kashi**	**36.82**	**338**	P	**P**	**05 17 59.0**	**+0.5**
KSH				*e*PP	PP	05 19 22.8	-1.5
KSH				PCP	PcP	05 20 23.3	+2.8
KSH				*e*S	**S**	**05 23 39.5**	**-0.8**
KSH				PCS		05 24 10.5	
KSH				AMB	AMB		
	comp=Z,200nm,3.6s						
KSH				LR	LR		
	comp=N,1μm,22.4s,MS4.9						
KSH				LR	LR		
	comp=E,2μm,17.6s,MS4.9						
MBWA	**Marble Bar**	**37.48**	**137**	*e*P	**P**	**05 18 03.3**	**-1.0**
	comp=E,2.0nm,0.6s,mb4.1						
BTO	**Baotou**	**37.61**	**21**	*e*P	**P**	**05 18 05.8**	**+0.7**
WMQ	**Urumqi**	**37.99**	**354**	⇑P	**P**	**05 18 10.5**	**+2.3**
WMQ				AP	pP	05 18 17.8	+0.9
WMQ				PP	PP	05 19 40.5	+2.0
WMQ				S	**S**	**05 24 00.8**	**+2.7**
WMQ				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,124nm,11.2s						
WMQ				LR	LR		
	comp=N,1μm,25.6s,MS4.7						
WMQ				LR	LR		
	comp=E,555nm,26.2s,MS4.7						
WMQ				LR	LR		
	comp=Z,653nm,22.3s,MS4.4						
HHC	**Hu-ho-hao-te**	**38.40**	**23**	*e*P	**P**	**05 18 12.8**	**+1.1**
HHC				AP	pP	05 18 20.3	-0.1
HHC				PP	PP	05 19 43.5	+0.3
HHC				PCP	PcP	05 20 26.5	+1.2
HHC				S	**S**	**05 24 00.3**	**-4.0**
HHC				PCS		05 24 14.5	
HHC				AMB	AMB		
	comp=Z,22nm,1.3s,mb4.7						
HHC				AMB	AMB		
	comp=Z,258nm,4.6s						
HHC				LR	LR		
	comp=N,795nm,15.5s,MS4.8						
HHC				LR	LR		
	comp=E,1μm,17.8s,MS4.8						
HHC				LR	LR		
	comp=Z,602nm,15.5s,MS4.5						
JOW	**Kunigami**	**39.28**	**54**	P	**P**	**05 18 20.2**	**+1.0**
	comp=Z,46nm,0.9s,mb5.2,baz=251,slow=6.1,SNR=14						
JOW				LR	LR	05 36 43.1	
	comp=Z,899nm,20.3s,MS4.6,baz=49,slow=40						
BJT	**Baijiatuau**	**39.66**	**28**	*e*P	**P**	**05 18 23.4**	**+1.1**
BJT				pmax	pmax		
	comp=Z,22nm,1.0s						
BJT	**Baijiatuau**	**39.66**	**28**	*e*P	**P**	**05 18 23.4**	**+1.1**
	comp=Z,22nm,1.0s,mb4.8						
BJI	**Beijing**	**39.69**	**28**	P	**P**	**05 18 23.5**	**+1.0**
BJI				S	**S**	**05 24 29.0**	**+5.2**
BJI				AMB	AMB		
	comp=Z,15nm,1.2s,mb4.6						
BJI				LR	LR		
	comp=N,533nm,18.8s,MS4.8						
BJI				LR	LR		
	comp=E,1μm,18.8s,MS4.8						
BJI				LR	LR		
	comp=Z,1μm,20.7s,MS4.7						
UCH	**Uchtor**	**39.72**	**338**	P	**P**	**05 18 23.9**	**+1.1**
	SNR=18						
TKM2	**Tokmak 2**	**39.94**	**340**	P	**P**	**05 18 25.3**	**+0.7**
	SNR=13						
AML	**Almayashu**	**39.95**	**337**	P	**P**	**05 18 25.8**	**+1.2**
	SNR=32						
AAK	**Ala-Archa**	**40.08**	**338**	P	**P**	**05 18 27.3**	**+1.6**
	SNR=12						
AAK	**Ala-Archa**	**40.08**	**338**	*e*P	**P**	**05 18 24.8**	**-0.9**
AAK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
AAK	**Ala-Archa**	**40.08**	**338**	*e*P	**P**	**05 18 24.8**	**-0.9**
	comp=Z,9.8nm,0.7s,mb4.7						
CHMS	**Chumysh**	**40.30**	**339**	P	**P**	**05 18 28.4**	**+0.9**
	SNR=6.3						
EKS2	**Erkin-Say**	**40.37**	**338**	P	**P**	**05 18 29.3**	**+1.2**
	SNR=9.6						
USP	**Ospenovka**	**40.63**	**339**	P	**P**	**05 18 30.8**	**+0.6**
	SNR=9.3						
MKAR	**Makanchi Array**	**41.73**	**349**	*i* P	**P**	**05 18 39.1**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.5s						
SONM	**Songino Array**	**43.19**	**13**	P	**P**	**05 18 51.0**	**-0.1**
	comp=Z,4.8nm,0.9s,mb4.2,baz=198,slow=7.8,SNR=13						
ULN	**Ulaanbaatar**	**43.37**	**14**	*e*P	**P**	**05 18 53.1**	**+0.6**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
ULN	**Ulaanbaatar**	**43.37**	**14**	*e*P	**P**	**05 18 53.1**	**+0.5**
	comp=Z,2.6nm,0.6s,mb4.1						
NWAO	**Narrogin (SRO)**	**44.93**	**151**	*e*P	**P**	**05 19 05.1**	**-0.3**
NWAO				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NWAO	**Narrogin (SRO)**	**44.93**	**151**	*e*P	**P**	**05 19 05.1**	**-0.3**
	comp=Z,1.8nm,0.5s,mb4.2						
ZAK	**Zakamensk**	**45.04**	**9**	*e*P	**P**	**05 19 06.2**	**+0.2**
CN2	**Changchun**	**47.10**	**32**	*e*P	**P**	**05 19 22.5**	**+0.1**
CN2				*e*S	**S**	**05 26 14.0**	**+2.2**
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
CN2				AMB	AMB		
	comp=Z,400nm,3.0s						
CN2				LR	LR		
	comp=N,720nm,15.0s,MS4.9						
CN2				LR	LR		
	comp=E,810nm,15.0s,MS4.9						
CN2				LR	LR		
	comp=Z,620nm,16.0s,MS4.7						
WRA	**Warramunga Arr**	**47.95**	**124**	P	**P**	**05 19 29.1**	**-0.4**
	comp=Z,20nm,0.9s,mb5.2,baz=303,slow=8.9,SNR=26						
WRAB	**Tennant Creek**	**47.96**	**124**	*e*P	**P**	**05 19 28.9**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,62nm,0.8s,mb5.7						
WRAB	**Tennant Creek**	**47.96**	**124**	*e*P	**P**	**05 19 28.9**	**-0.6**
	comp=Z,62nm,0.8s,mb5.7						
ZAL	**Zalesovo**	**48.29**	**353**	P	**P**	**05 19 31.7**	**+0.2**
	comp=Z,17nm,0.5s,mb5.3,baz=304,slow=5.9,SNR=54						
HIA	**Hailar**	**48.60**	**23**	*e*P	**P**	**05 19 33.9**	**-0.1**
HIA				pmax	pmax		
	comp=Z,24nm,1.2s						
HIA	**Hailar**	**48.60**	**23**	*e*P	**P**	**05 19 33.9**	**-0.2**
	comp=Z,24nm,1.2s,mb5.1						
NVS	**Novosibirsk**	**49.37**	**352**	⇓*i*P	**P**	**05 19 38.6**	**-1.3**
NVS				*e*	pP	05 19 48.1	-0.6
NVS				*i* S	**S**	**05 26 43.1**	**-0.4**
NVS				pmax	pmax		
	comp=N,63nm,1.7s						
NVS				pmax	pmax		
	comp=Z,52nm,1.7s,mb5.3						
NVS				smax			
	comp=E,89nm,1.7s						
ASAR	**Alice Springs**	**49.45**	**128**	P	**P**	**05 19 40.5**	**-0.4**
	comp=E,6.2nm,0.7s,mb4.7,baz=306,slow=7.3,SNR=18						
MDJ	**Mudanjiang**	**49.87**	**34**	P	**P**	**05 19 44.0**	**+0.1**
MDJ				PCP	PcP	05 21 04.0	-0.3
MDJ				PP	PP	05 21 39.3	-0.2
MDJ				PCS		05 25 01.0	
MDJ				S	**S**	**05 26 54.0**	**+3.4**
MDJ				AMB	AMB		
	comp=Z,15nm,1.6s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,124nm,6.6s						
MDJ				LR	LR		
	comp=N,347nm,29.5s,MS4.3						
MDJ				LR	LR		
	comp=E,281nm,28.6s,MS4.3						
MDJ				LR	LR		
	comp=Z,395nm,19.4s						
BVAR	**Borovoye Array**	**50.48**	**342**	P	**P**	**05 19 47.6**	**-0.8**
	comp=Z,5.1nm,0.7s,mb4.7,baz=143,slow=7.4,SNR=18						
BRVK	**Borovoye**	**50.54**	**342**	*e*P	**P**	**05 19 47.7**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
BRVK	**Borovoye**	**50.54**	**342**	*e*P	**P**	**05 19 47.7**	**-1.2**
	comp=Z,15nm,1.0s,mb4.9						
CHKZ	**Chkalovo**	**50.98**	**343**	*i* P	**P**	**05 19 51.5**	**-0.6**
CHKZ				pmax	pmax		
	comp=Z,52nm,1.9s,mb5.1						
CHKZ	**Chkalovo**	**50.98**	**343**	*e*P	**P**	**05 19 51.4**	**-0.8**
	comp=Z,38nm,1.1s,mb5.2						
KLR	**Kul’dur**	**53.96**	**30**	*e*P	**P**	**05 20 11.2**	**-3.3**
BOD	**Bodaibo**	**54.18**	**14**	*e*P	**P**	**05 20 15.4**	**-0.6**
GNI	**Garni**	**55.11**	**316**	P	**P**	**05 20 22.7**	**-0.4**
	comp=Z,3.5nm,0.4s,mb4.7,baz=339,slow=20,SNR=8.9						
GNI	**Garni**	**55.11**	**316**	*e*P	**P**	**05 20 22.8**	**-0.3**
GNI				pmax	pmax		
	comp=Z,22nm,0.9s						
GNI	**Garni**	**55.11**	**316**	*e*P	**P**	**05 20 22.8**	**-0.3**
	comp=Z,22nm,0.9s,mb5.2						
TI2	**Plekhanov**	**55.78**	**317**	⇓*i*P	**P**	**05 20 27.4**	**-0.5**
TI2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
PMG	**Port Moresby**	**55.89**	**106**	P	**P**	**05 20 28.2**	**-0.8**
	comp=Z,22nm,0.8s,mb5.2,baz=329,slow=5.2,SNR=8.4						
PMG	**Port Moresby**	**55.89**	**106**	*e*P	**P**	**05 20 27.5**	**-1.5**
PMG				pmax	pmax		
	comp=Z,18nm,0.7s						
PMG	**Port Moresby**	**55.89**	**106**	*e*P	**P**	**05 20 27.5**	**-1.5**
	comp=Z,18nm,0.7s,mb5.2						
KMBO	**Kilima Mbogo**	**56.32**	**265**	P	**P**	**05 20 32.8**	**+0.6**
	comp=Z,3.6nm,0.9s,mb4.4,baz=57,slow=9.0,SNR=8.3						
KMBO	**Kilima Mbogo**	**56.32**	**265**	*e*P	**P**	**05 20 33.0**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,52nm,2.1s						
KMBO	**Kilima Mbogo**	**56.32**	**265**	*e*P	**P**	**05 20 33.0**	**+0.8**
	comp=Z,52nm,2.1s,mb5.2						
CLNS	**Chul’man**	**56.50**	**20**	*e*P	**P**	**05 20 30.3**	**-2.6**
CLNS				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.2						
CLNS				pmax	pmax		
	comp=N,12nm,1.0s						
CLNS				pmax	pmax		
	comp=E,13nm,1.0s						
CLNS				pmax	pmax		
	comp=N,7.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
ZEI	**Tsey**	**56.80**	**318**	*e*P	**P**	**05 20 34.3**	**-0.9**
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
SVE	**Sverdlovsk**	**56.81**	**339**	⇓*i*P	**P**	**05 20 34.0**	**-1.1**
SVE				MLR	MLR		
	comp=Z,1μm,21.5s,MS4.9						
ARU	**Arti**	**57.27**	**338**	⇓*i*P	**P**	**05 20 37.1**	**-1.2**
ARU				*e*		05 21 28.0	
ARU				*e*		05 22 41.2	
ARU				*e*S	**S**	**05 28 33.3**	**+2.8**
ARU				pmax	pmax		
	comp=Z,36nm,2.1s,mb5.0						
ARU				MLR	MLR		
	comp=Z,800nm,19.0s,MS4.8						
ARU				MLR	MLR		
	comp=N,200nm,18.0s,MS4.7						
ARU				MLR	MLR		
	comp=E,600nm,20.0s,MS4.7						
ARU	**Arti**	**57.27**	**338**	*e*P	**P**	**05 20 36.5**	**-1.8**
	comp=E,58nm,1.6s,mb5.4						
ASAJ	**Asahikawa**	**57.43**	**40**	LR	LR	05 47 40.6	
	comp=E,464nm,18.4s,MS4.6,baz=272,slow=38						
KIV	**Kislovodsk**	**58.11**	**319**	P	**P**	**05 20 43.2**	**-1.2**
	comp=E,98nm,1.1s,mb5.8,SNR=9.3						
KIV	**Kislovodsk**	**58.11**	**319**	*e*P	**P**	**05 20 42.8**	**-1.6**
KIV				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.2						
KIV	**Kislovodsk**	**58.11**	**319**	*e*P	**P**	**05 20 42.8**	**-1.6**
	comp=Z,38nm,1.4s,mb5.2						
CTA	**Charters Tower**	**58.22**	**118**	P	**P**	**05 20 43.8**	**-1.7**
	comp=Z,2.9nm,0.7s,mb4.4,baz=335,slow=11,SNR=3.5						
CTAO	**Charters Tower**	**58.22**	**118**	*e*P	**P**	**05 20 44.2**	**-1.2**
CTAO				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
CTAO	**Charters Tower**	**58.22**	**118**	*e*P	**P**	**05 20 44.2**	**-1.3**
	comp=Z,8.4nm,1.1s,mb4.7						
ASF	**Jabal al Asfar**	**58.49**	**304**	P	**P**	**05 20 48.2**	**+1.0**
	comp=Z,3.0nm,0.8s,mb4.4,baz=329,slow=9.6,SNR=5.0						
ASF				LR	LR	05 49 44.9	
	comp=Z,342nm,18.6s,MS4.5,baz=149,slow=40						
ELZG	**Elazig**	**58.64**	**312**	*i* P	**P**	**05 20 47.9**	**-0.3**
MALT	**Malatya**	**58.99**	**311**	*e*P	**P**	**05 20 49.9**	**-0.7**
MALT				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.8						
MALT	**Malatya**	**58.99**	**311**	*e*P	**P**	**05 20 49.9**	**-0.7**
	comp=Z,12nm,1.2s,mb4.8						
GZT	**Gaziantep**	**59.35**	**310**	*i* P	**P**	**05 20 52.8**	**-0.3**
STKA	**Stephens Creek**	**59.50**	**132**	P	**P**	**05 20 53.5**	**-0.8**
	comp=Z,3.6nm,0.9s,mb4.4,baz=350,slow=12,SNR=4.5						
STKA	**Stephens Creek**	**59.50**	**132**	*e*P	**P**	**05 20 52.8**	**-1.4**
EIL	**Elat**	**59.58**	**301**	P	**P**	**05 20 55.0**	**+0.2**
	comp=Z,5.6nm,0.8s,mb4.6,baz=36,slow=7.2,SNR=3.6						
COBT	**Iskenderun**	**60.12**	**309**	*i* P	**P**	**05 20 58.7**	**+0.3**
SOKR	**Solikamsk**	**60.22**	**340**	⇑*i*P	**P**	**05 21 05.6**	**+6.8**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
SOKR				MLR	MLR		
	comp=Z,830nm,20.0s,MS4.9						
YAK	**Yakutsk**	**62.06**	**18**	*e*P	**P**	**05 21 10.3**	**-0.9**
YAK				*e**PP	pP	05 21 20.4	+0.1
YAK				*e*		05 21 49.7	
YAK				*e*		05 23 25.4	
YAK				*e*S	**S**	**05 29 30.6**	**-1.7**
YAK				*e*		05 30 54.0	
YAK				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.2						
YAK				pmax	pmax		
	comp=N,8.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
YAK				pmax	pmax		
	comp=N,3.0nm,1.1s						
YAK				smax			
	comp=N,7.0nm,1.0s						
YAK				smax			
	comp=E,9.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,469nm,13.0s,MS4.8						
YAK				MLR	MLR		
	comp=N,261nm,12.0s,MS4.8						
YAK				MLR	MLR		
	comp=E,316nm,14.0s,MS4.8						
BOYT	**Boyabat**	**62.53**	**314**	*i* P	**P**	**05 21 13.7**	**-1.0**
BRTR	**Keskin Array B**	**62.97**	**312**	P	**P**	**05 21 16.2**	**-1.3**
	comp=E,4.9nm,0.6s,mb4.8,baz=124,slow=7.0,SNR=26						
ELDT	**Eldivan**	**63.34**	**312**	*i* P	**P**	**05 21 18.9**	**-1.0**
BALT	**Daday**	**63.66**	**314**	*i* P	**P**	**05 21 21.1**	**-0.9**
SIM	**Simferopol’**	**64.17**	**317**	*e*P	**P**	**05 21 24.2**	**-1.2**
SIM				*e*S	**S**	**05 29 53.2**	**-5.8**
SIM				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
ISP	**Isparta**	**64.89**	**309**	*e*P	**P**	**05 21 29.0**	**-1.2**
ISP				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.3						
ISP	**Isparta**	**64.89**	**309**	*e*P	**P**	**05 21 29.0**	**-1.2**
	comp=Z,50nm,1.4s,mb5.3						
MOS	**Moscow**	**66.21**	**329**	*e*P	**P**	**05 21 36.7**	**-1.6**
OBN	**Obninsk**	**66.48**	**328**	⇓*i*P	**P**	**05 21 38.5**	**-1.6**
OBN				*i*		05 22 04.7	
OBN				*e*S	S	05 30 42.7	+16
OBN				pmax	pmax		
	comp=Z,56nm,1.8s,mb5.3						
OBN				MLR	MLR		
	comp=Z,400nm,22.0s,MS4.6						
IDI	**Anoyia**	**68.89**	**305**	P	**P**	**05 21 55.1**	**-0.4**
	comp=Z,9.0nm,0.7s,mb4.8,baz=225,slow=8.0,SNR=6.8						
AKASG	**Malin Array Be**	**69.06**	**322**	P	**P**	**05 21 54.2**	**-2.1**
	comp=Z,3.8nm,0.5s,mb4.6,baz=84,slow=5.1,SNR=27						
AKASG	**Malin Array Be**	**69.06**	**322**	P	**P**	**05 21 54.2**	**-2.1**
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.5s						
TIXI	**Tiksi**	**69.24**	**11**	⇓*i*P	**P**	**05 21 56.4**	**-0.7**
TIXI				pmax	pmax		
	comp=Z,33nm,1.5s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,323nm,18.0s,MS4.6						
VRI	**Vrincioaia**	**69.43**	**317**	⇑*i*P	**P**	**05 21 59.2**	**+0.6**
MLR	**Muntele Rosu**	**69.88**	**316**	P	**P**	**05 22 01.1**	**-0.3**
	comp=Z,14nm,0.9s,mb4.9,baz=118,slow=2.1,SNR=14						
LBTB	**Lobatse**	**72.55**	**242**	*e*P	**P**	**05 22 17.7**	**-0.2**
LBTB				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LBTB	**Lobatse**	**72.55**	**242**	*e*P	**P**	**05 22 17.7**	**-0.2**
	comp=Z,3.7nm,0.8s,mb4.4						
KWP	**Kalwaria**	**72.87**	**320**	*e*P	**P**	**05 22 19.0**	**-0.3**
KOLS	**Kolonicke sedl**	**73.02**	**319**	*i* P	**P**	**05 22 20.4**	**+0.2**
KOLS				*e*pP	pP	05 22 29.7	+0.4
APA	**Apatity**	**73.28**	**340**	⇓*i*P	**P**	**05 22 21.0**	**-0.3**
APA				*i*		05 22 33.9	
APA				MLR	MLR		
	comp=Z,1μm,18.0s,MS5.2						
SUW	**Suwalki**	**73.49**	**325**	*e*P	**P**	**05 22 21.7**	**-1.1**
FINES	**FINESS Array B**	**73.94**	**333**	P	**P**	**05 22 24.5**	**-0.8**
	comp=Z,6.3nm,0.7s,mb4.7,baz=93,slow=5.8,SNR=35						
KAF	**Kangasniemi**	**74.04**	**333**	*e*p	**P**	**05 22 24.8**	**-1.0**
	comp=Z,6.3nm,0.5s,mb4.8						
KAF	**Kangasniemi**	**74.04**	**333**	*e*P	**P**	**05 22 24.8**	**-1.0**
KAF				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
PSZ	**Piszkesteto**	**74.41**	**318**	*e*P	**P**	**05 22 27.7**	**-0.6**
PSZ				pmax	pmax		
	comp=Z,116nm,2.3s,mb5.4						
PSZ	**Piszkesteto**	**74.41**	**318**	*e*P	**P**	**05 22 27.7**	**-0.5**
	comp=Z,116nm,2.3s,mb5.4						
OJC	**Ojcow**	**74.82**	**320**	*e*P	**P**	**05 22 30.4**	**-0.2**
VYHS	**Vyhne**	**75.19**	**318**	*i* P	**P**	**05 22 32.3**	**-0.5**
OKC	**Ostrava-Krasne**	**75.82**	**320**	*e*P	**P**	**05 22 36.7**	**+0.4**
OKC				*e*pP	pP	05 22 46.1	+0.6
MORC	**Moravsky Berou**	**76.20**	**320**	*e*P	**P**	**05 22 38.5**	**0.0**
MORC				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
MORC	**Moravsky Berou**	**76.20**	**320**	*e*P	**P**	**05 22 38.5**	**0.0**
	comp=Z,6.3nm,0.8s,mb4.6						
KEV	**Kevo**	**76.30**	**341**	*e*p	**P**	**05 22 38.4**	**-0.2**
	comp=Z,5.5nm,0.6s,mb4.7						
KEV	**Kevo**	**76.30**	**341**	*e*P	**P**	**05 22 38.4**	**-0.2**
KEV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
ZST	**Bratislava**	**76.30**	**318**	*i* P	**P**	**05 22 39.6**	**+0.5**
ZST				*e*pP	pP	05 22 49.1	+0.8
ARCES	**ARCESS Array B**	**76.72**	**340**	P	**P**	**05 22 41.0**	**+0.1**
	comp=Z,4.1nm,0.6s,mb4.6,baz=91,slow=5.2,SNR=36						
DPC	**Dobruska-Polom**	**77.05**	**320**	*e*P	**P**	**05 22 43.6**	**+0.4**

DPC				epP	pP	05 22 53.4	+1.0
KSP	Ksiaz	77.12	321	⇓eP	P	05 22 43.8	+0.2
KSP	Ksiaz	77.12	321	eP	P	05 22 43.9	+0.3
UPC	Upice	77.26	320	eP	P	05 22 44.5	+0.1
UPC				epP	pP	05 22 53.2	-0.4
PRU	Pruhonice	78.16	320	eP	P	05 22 50.0	+0.7
PRU				epP	pP	05 22 59.2	+0.7
BILL	Bilibino	78.16	22	⇑eP	P	05 22 49.7	+0.8
BILL				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.6						
BILL				MLR	MLR		
	comp=Z,600nm,18.0s,MS5.0						
SUR	Sutherland	78.52	235	eP	P	05 22 53.1	+1.5
	comp=Z,7.1nm,0.7s,mb4.7						
BRG	Berggiesshubel	78.61	321	i P	P	05 22 52.5	+0.8
BRG				e	pP	05 23 01.7	+0.7
BRG				pmax	pmax		
	comp=Z,62nm,2.1s,mb5.2						
BRG	Berggiesshubel	78.61	321	i P	P	05 22 52.5	+0.8
	comp=Z,62nm,2.1s,mb5.2						
BRG				e	pP	05 23 01.7	+0.7
GEC2	GERESS Array S	78.61	318	eP	P	05 22 52.5	+0.7
GEC2				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
GEC2	GERESS Array S	78.61	318	eP	P	05 22 52.5	+0.7
	comp=Z,6.0nm,0.8s,mb4.6						
GERES	GERESS Array B	78.61	318	P	P	05 22 52.2	+0.4
	comp=Z,6.0nm,0.7s,mb4.7,baz=79,slow=6.6,SNR=41						
PTCC	Patocco-Chiusa	78.70	316	eP	P	05 22 52.1	-0.3
KHC	Kasperske Hory	78.72	319	eP	P	05 22 52.4	0.0
KHC				epP	pP	05 23 02.0	+0.4
WET	Wettzell	79.17	319	eP	P	05 22 55.3	+0.4
FX1	Attu Island--F	79.18	37	P	P	05 22 55.6	+0.8
	comp=Z,21nm,0.7s,mb5.2,baz=99,slow=7.7,SNR=3.1						
FX1	Attu Island--F	79.18	37	P	P	05 22 55.6	+0.8
FX1				pmax	pmax		
	comp=Z,21nm,0.7s						
CLL	Collm	79.23	321	eP	P	05 22 55.0	-0.1
CLL				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
CLL	Collm	79.23	321	eP	P	05 22 55.0	-0.1
	comp=Z,18nm,1.4s,mb4.8						
CLL	Collm	79.23	321	P	P	05 22 55.0	-0.1
	comp=Z,logA/T=1.1,mb4.8						
NKC	Novy Kostel	79.52	320	eP	P	05 22 56.9	+0.2
HFS	Hagfors	79.61	330	P	P	05 22 56.8	-0.2
	comp=Z,3.0nm,0.5s,mb4.5,baz=112,slow=8.0,SNR=24						
SFI	Santa Sofia	79.66	313	eP	P	05 22 58.9	+1.3
VMG	Vicchio	79.88	313	eP	P	05 23 00.1	+1.3
SEI	Scarperia	80.02	314	eP	P	05 23 01.3	+1.8
MOX	Moxa	80.07	320	eP	P	05 22 59.7	+0.1
MOX				pmax	pmax		
	comp=Z,47nm,2.0s,mb5.1						
MOX	Moxa	80.07	320	i P	P	05 22 59.7	+0.1
	comp=Z,logA/T=1.4,mb5.1						
MOX	Moxa	80.07	320	eP	P	05 22 59.7	+0.1
	comp=Z,47nm,2.0s,mb5.1						
GRA1	Grafenberg Arr	80.28	319	eP	P	05 23 01.3	+0.5
	comp=Z,7.0nm,0.9s,mb4.6						
GRA1				epP	pP	05 23 10.5	+0.4
GRF	Grafenberg Arr	80.28	319	eP	P	05 23 01.3	+0.5
GRF				e*PP	pP	05 23 10.5	+0.4
GRF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GRF	Grafenberg Arr	80.28	319	eP	P	05 23 01.3	+0.5
GRF				e*PP	pP	05 23 10.5	+0.4
GRF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GRF	Grafenberg Arr	80.28	319	eP	P	05 23 01.3	+0.5
	comp=Z,7.0nm,0.9s,mb4.6						
GRF				epP	pP	05 23 10.5	+0.4
CLZ	Clausthal	80.90	321	eP	P	05 23 03.8	-0.2
NB2	NORSAR Subarra	80.91	331	P	P	05 23 03.3	-0.6
	comp=Z,0.9nm,0.5s,mb4.0,baz=98,slow=5.0						
NB2	NORSAR Subarra	80.91	331	P	P	05 23 03.3	-0.6
NB2				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
NOA	NORSAR Array B	80.91	331	P	P	05 23 03.2	-0.7
	comp=Z,1.2nm,0.6s,mb4.0,baz=94,slow=5.7,SNR=5.1						
BSEG	Bad Segeberg	81.01	324	eP	P	05 23 05.1	+0.6
BFO	Black Forest	82.16	318	eP	P	05 23 10.6	-0.1
BFO				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BFO	Black Forest	82.16	318	eP	P	05 23 10.6	-0.1
	comp=Z,3.0nm,0.7s,mb4.3						
LPG	La Plagne	83.29	315	eP	P	05 23 17.2	+0.6
	comp=Z,13nm,0.8s,mb4.7						
LPG	La Plagne	83.29	315	eP	P	05 23 17.2	+0.6
LPG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
SYO	Syowa Base	83.35	197	⇓P	P	05 23 17.6	+1.2
VNDA	Vanda	91.28	168	P	P	05 23 56.8	+2.1
	comp=Z,1.2nm,0.9s,mb4.2,baz=41,slow=16,SNR=2.8						
VNDA	Vanda	91.28	168	eP	P	05 23 55.8	+1.2
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
VNDA	Vanda	91.28	168	eP	P	05 23 55.8	+1.2
	comp=Z,0.5nm,0.6s,mb4.0						
ESDC	Sonseca Array	91.72	310	P	P	05 23 58.5	+1.1
	comp=Z,1.0nm,0.8s,mb4.2,baz=6.0,slow=4.5,SNR=4.2						
IMA	Indian Mountai	93.70	22	eP	P	05 24 08.0	+2.1
IMA				e	pP	05 24 16.5	+1.3
MCK	McKinley	96.54	23	eP	P	05 24 19.2	+0.3
ILAR	Eielson Array	96.82	22	PP	PP	05 28 22.9	+5.0
	comp=Z,0.7nm,0.8s,baz=310,slow=6.9,SNR=5.3						
DBIC	Dimbokro	97.28	277	P	P	05 24 25.2	+1.7
	comp=Z,4.0nm,1.2s,mb4.7,baz=164,slow=8.5,SNR=5.3						
DBIC	Dimbokro	97.28	277	eP	P	05 24 24.7	+1.2
	comp=Z,1.8nm,0.6s,mb4.7						
INK	Inuvik	99.04	16	P	P	05 24 31.5	+1.4
	comp=Z,7.4nm,1.4s,mb5.0,baz=26,slow=5.8,SNR=2.8						
INK	Inuvik	99.04	16	P	P	05 24 31.5	+1.4
YKA	Yellowknife Ar	108.45	13	PP	PP	05 29 40.6	-5.5
	comp=Z,0.4nm,0.9s,baz=329,slow=6.6,SNR=5.2						
YKA				PKKPbc		05 40 37.2	
	comp=Z,0.1nm,0.6s,baz=150,slow=3.4,SNR=4.9						
SCHQ	Schefferville	117.15	347	PKP	PKPdf	05 29 34.4	-4.0
	comp=Z,2.5nm,1.0s,baz=222,slow=9.4,SNR=3.1						
SCHQ	Schefferville	117.15	347	PKP	PKPdf	05 29 34.4	-4.0
ULM	Lac du Bonnet	123.43	7	PKP	PKPdf	05 29 48.2	-2.5
	comp=Z,1.0nm,0.6s,baz=50,slow=5.9,SNR=3.2						
ULM	Lac du Bonnet	123.43	7	PKP	PKPdf	05 29 48.2	-2.5
ELK	Elko	126.65	27	ePKPdf	PKPdf	05 29 55.5	-1.7
NVAR	Mina Array Bea	126.99	31	PKP	PKPdf	05 29 55.9	-2.0
	comp=Z,0.9nm,0.3s,baz=101,slow=7.6,SNR=4.3						
NVAR	Mina Array Bea	126.99	31	PKP	PKPdf	05 29 55.9	-2.0
MNV	Mina	127.07	31	ePKPdf	PKPdf	05 29 56.0	-2.1
PDAR	Pinedale Array	127.24	21	PKP	PKPdf	05 29 55.9	-2.5
	comp=Z,2.0nm,0.9s,baz=45,slow=2.1,SNR=12						
SADO	Sadowa	129.00	353	PKP	PKPdf	05 29 59.2	-2.5
	comp=Z,5.7nm,0.9s,baz=313,slow=9.9,SNR=2.1						
SADO	Sadowa	129.00	353	PKP	PKPdf	05 29 59.2	-2.5
MSU	Marysvale	129.83	26	ePKPdf	PKPdf	05 30 01.3	-2.1
PV10	Paradox Valley	131.25	23	ePKPdf	PKPdf	05 30 02.0	-4.1
ANMO	Albuquerque	135.25	23	PKP	PKPdf	05 30 10.9	-2.7
	comp=Z,2.9nm,1.1s,baz=167,slow=0.9,SNR=4.8						
TUC	Tucson	135.58	29	PKPdf	PKPdf	05 30 11.0	-3.4
BDFB	Brasilia	140.80	253	PKP	PKPdf	05 30 21.6	-2.8
	comp=Z,1.2nm,0.7s,baz=44,slow=21,SNR=2.6						
TXAR	Lajitas Array	141.31	24	PKP	PKPdf	05 30 24.9	0.0
	comp=Z,1.5nm,1.0s,baz=171,slow=0.7,SNR=8.4						
JCT	Junction City	141.65	18	ePKPdf	PKPdf	05 30 23.0	-2.5
CPUP	Villa Florida	145.39	231	PKPbc	PKPbc	05 30 29.6	+2.1
	comp=Z,0.0nm,0.7s,baz=312,slow=15,SNR=1.9						
PCRV	Puerto La Cruz	152.71	306	PKPbc	PKPdf	05 30 46.0	+2.1
	comp=Z,42nm,1.4s,baz=11,slow=11,SNR=3.1						
LVC	Limon Verde	156.12	224	PKPab	PKPab	05 31 15.9	+2.6
	comp=Z,1.3nm,0.6s,baz=245,slow=6.7,SNR=4.3						
SDV	Santo Domingo	158.15	312	PKP	PKPdf	05 30 48.1	-3.1
	comp=Z,1.7nm,0.8s,baz=12,slow=8.1,SNR=3.3						
LPAZ	La Paz	159.06	239	PKPab	PKPab	05 31 26.9	+0.7
	comp=Z,2.4nm,1.1s,baz=234,slow=12,SNR=4.9						

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*JMA **27** 05:10:58.2±0.2, 24.86N×122.73E, h93^{km}±3^{km}, M2.7*

TAP 27 05:10:58.1, 24.57N×122.70E, h93^{km}±1^{km}, ML3.7,
Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.30	111	P	P	05 11 13.1	+1.2
YOJ				S	S	05 11 24.5	+2.2
IRIF	Iriomote-Funau	0.97	104	P	P	05 11 18.6	+0.8
IRIF				S	S	05 11 33.9	+1.3
HATJ	Hateruma jima	1.13	117	P	P	05 11 21.7	+1.9
HATJ				eS	S	05 11 39.0	+2.9
JKRS	Kuro-shima	1.24	105	P	P	05 11 22.1	+0.9
JKRS				S	S	05 11 39.9	+1.5
JIJ	Ishigaki jima	1.33	99	P	P	05 11 22.8	+0.5
JIJ				S	S	05 11 40.4	+0.1
JTJ	Tarama	1.82	87	P	P	05 11 28.9	+0.3
JTJ				eS	S	05 11 51.1	+0.1
JMJ	Miyako jima 2	2.37	84	eS	S	05 12 03.1	-1.1
JKE	Kume jima 2	4.09	64	P	P	05 11 58.4	-1.3

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*IDC **27** 05:16:29.9±0.6, 13.99N×92.98E, mb4.5/23, mb1 4.5/24, mb1mx4.5/28, ML4.7/1, MS4.7/1, Ms1 4.7/1, ms1mx3.5/22, Error ellipse: s-maj=21.5km s-min=12.5km az=42.0*

*BJI **27** 05:16:32.6, 13.80N×93.12E, h43^{km}, mB5.1, mb4.7, Ms4.5, Msz4.4*

*MOS **27** 05:16:33.1±0.9, 14.02N×93.11E, h33^{km}, mb4.8/23, Error ellipse: s-maj=11.2km s-min=7.1km az=110.9*

*NEIC **27** 05:16:34.7±0.2, 14.02N×93.07E, h30^{km}, mb4.6/24, Error ellipse: s-maj=6.7km s-min=5.6km az=45.0*

*SYO **27** 05:16:34.8, 14.03N×93.09E, h30^{km}, MB4.7*

ISC 27 05:16:32.8±0.3**, 14.03N**±0.05×**93.17E**±0.04**, h30^{km}, (h28^{km}±2.6^{km}:pP-P), n128, σ1^{s}02**/126**, mb4.6**/53**, MS4.3**/6**,**
5C, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	6.93	75	P	Pn	05 18 19.0	+4.0
CM31	Chiang Mai Arr	7.08	51	eP	Pn	05 18 17.8	+0.6
	12nm,0.3s						
CMAR	Chiang Mai Arr	7.08	51	Pn	Pn	05 18 17.4	+0.2
	3.0nm,0.3s,baz=241,slow=15,SNR=14						
CMAR				Sn	Sn	05 19 34.4	-3.0
	8.7nm,0.3s,baz=240,slow=28,SNR=5.8						
NANT	Nan	8.64	56	P	P	05 18 38.5	-0.4
KKTK	Khon Kaen	9.60	75	P	P	05 18 57.0	+4.8
	617nm,0.8s						
VIS	Vishakhapatnam	10.15	292	eP	P	05 19 02.3	+2.4
VIS				eS	S	05 20 42.7	-11
SHL	Shillong	11.54	354	eP	P	05 19 22.5	+3.7
SHL				eS	S	05 21 16.2	-11
BOK	Bokaro	11.91	326	eP	P	05 19 25.3	+1.6
BOK				eS	S	05 21 23.9	-13
LSA	Lhasa	15.71	353	P	P	05 20 13.5	-0.3
LSA				pmax	pmax		
	comp=Z,65nm,0.8s						
LSA	Lhasa	15.71	353	P	P	05 20 13.5	-0.3
	comp=Z,65nm,0.8s						
TRD	Trivandrum	16.82	253	eP	P	05 20 36.9	+9.0
BHPL	Bhopal	17.50	304	e	P	05 20 42.4	+6.0
	comp=Z,49nm,0.6s						
BHPL				eP		05 20 42.4	
BHPL				eS	S	05 23 55.8	+7.6
POO	Poona	19.08	286	eP	P	05 21 03.4	+7.6
POO				e		05 21 06.8	
	comp=Z,83nm,0.6s						
POO				eS	S	05 24 37.3	+13
CD2	Chengdu	19.42	28	⇑iP	P	05 20 59.3	-0.3
CD2				AMB	AMB		
	comp=Z,60nm,0.6s						
NDI	New Delhi	20.78	317	eP	P	05 21 17.1	+3.0
NDI				e		05 21 17.4	
	comp=Z,26nm,0.5s						
DDI	Dehra Dun	21.38	322	e	P	05 21 19.0	-1.2
ENH	Enshi	22.08	40	eP	P	05 21 26.8	-0.4
	comp=Z,21nm,0.8s,mb4.6						
LZH	Lanzhou	23.96	22	eP	P	05 21 47.5	+1.9
LZH				AMB	AMB		
	comp=Z,91nm,1.2s,mb5.1						
LZH				LR	LR		
	comp=E,765nm,13.8s						
LZH				LR	LR		
	comp=Z,1µm,15.6s,MS4.5						
THN	Thein Dam	24.28	322	e	P	05 21 47.7	-1.1
	comp=Z,26nm,0.8s,mb4.7						
GTA	Gaotai	25.95	12	eP	P	05 22 05.5	+1.0
GTA				S	S	05 26 27.8	-2.8
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.3						
GTA				AMB	AMB		
	comp=Z,194nm,5.0s						
GTA				LR	LR		
	comp=N,551nm,17.6s,MS4.3						
GTA				LR	LR		
	comp=E,659nm,16.1s,MS4.3						
GTA				LR	LR		
	comp=Z,452nm,16.8s,MS4.1						
WMQ	Urumqi	30.06	352	⇑P	P	05 22 42.3	+0.7
WMQ				PP	PP	05 23 40.3	+0.3
WMQ				S	S	05 27 38.5	+1.8
WMQ				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.4						
WMQ				LR	LR		
	comp=N,290nm,16.3s,MS4.1						
WMQ				LR	LR		
	comp=E,281nm,18.6s,MS4.1						
SSE	Sheshan	30.82	52	eP	P	05 22 47.3	-1.1
SSE				AMB	AMB		
	comp=Z,22nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,147nm,4.9s						
HHC	Hu-ho-hao-te	31.17	28	eP	P	05 22 52.5	+1.0
HHC				AP	pP	05 22 59.0	-1.3
HHC				XP	sP	05 23 04.5	+0.3
HHC				AMB	AMB		
	comp=Z,18nm,0.9s,mb4.9						
HHC				AMB	AMB		
	comp=Z,120nm,6.1s						
HHC				LR	LR		
	comp=N,307nm,14.3s,MS4.3						
HHC				LR	LR		
	comp=E,381nm,11.9s,MS4.3						
HHC				LR	LR		
	comp=Z,700nm,17.8s						
AAK	Ala-Archa	32.74	334	eP	P	05 23 04.6	-0.6
AAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
AAK	Ala-Archa	32.74	334	eP	P	05 23 04.6	-0.6
	comp=Z,7.0nm,1.0s,mb4.5						
BJT	Baijiatuau	32.82	34	eP	P	05 23 06.1	+0.3
BJI	Beijing	32.84	34	P	P	05 23 06.3	+0.3
BJI				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
JOW	Kunigami	35.15	63	P	P	05 23 27.5	+1.4
	comp=Z,10nm,0.4s,mb5.1,baz=294,slow=2.6,SNR=7.1						
SONM	Songino Array	35.45	15	P	P	05 23 29.4	+0.9
	comp=Z,13nm,1.0s,mb4.8,baz=196,slow=9.0,SNR=18						
ULN	Ulaanbaatar	35.66	16	eP	P	05 23 30.8	+0.6
ULN				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
ULN	Ulaanbaatar	35.66	16	eP	P	05 23 30.8	+0.5
	comp=Z,14nm,1.1s,mb4.8						
ZAK	Zakamensk	37.18	11	eP	P	05 23 43.5	+0.5
ZAK				eP		05 25 16.0	
SNY	Shenyang	38.22	38	⇑P	P	05 23 52.0	+0.2
TLY	Talaya	38.49	10	P	P	05 23 55.3	+1.3
TLY				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.4						
TLY	Talaya	38.49	10	P	P	05 23 55.3	+1.3
	comp=Z,7.0nm,0.9s,mb4.4						
ZAL	Zalesovo	40.36	352	P	P	05 24 09.2	-0.2
	comp=Z,7.4nm,0.6s,mb4.6,baz=307,slow=7.8,SNR=11						
CN2	Changchun	40.51	37	eP	P	05 24 11.5	+0.7
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.4						
NVS	Novosibirsk	41.45	351	i P	P	05 24 16.3	-2.1
BVAR	Borovoye Array	42.90	340	P	P	05 24 30.0	-0.3
	comp=Z,3.2nm,0.8s,mb4.1,baz=153,slow=9.9,SNR=5.7						
BRVK	Borovoye	42.97	340	eP	P	05 24 30.2	-0.6
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
BRVK	Borovoye	42.97	340	eP	P	05 24 30.2	-0.6
	comp=Z,5.8nm,1.0s,mb4.3						
CHKZ	Chkalovo	43.38	341	eP	P	05 24 34.2	+0.1
CHKZ				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.8						
CHKZ	Chkalovo	43.38	341	eP	P	05 24 34.2	+0.1
	comp=Z,11nm,0.6s,mb4.8						
MDJ	Mudanjiang	43.42	38	P	P	05 24 33.5	-1.1
MDJ				AP	pP	05 24 42.3	-1.3
MDJ				PCP	PcP	05 26 21.5	-1.7
MDJ				SCP		05 30 10.3	
MDJ				PCS		05 30 14.3	
MDJ				S	S	05 31 00.0	-0.4
MDJ				SCS	ScS	05 34 31.0	+1.2
MDJ				AMB	AMB		
	comp=Z,12nm,2.4s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,342nm,10.0s						
MDJ				LR	LR		
	comp=N,347nm,28.4s,MS4.2						
MDJ				LR	LR		
	comp=E,281nm,31.2s,MS4.2						
MDJ				LR	LR		
	comp=Z,395nm,21.1s						
MBWA	Marble Bar	43.63	143	eP	P	05 24 36.8	+0.2
	comp=Z,1.9nm,0.6s,mb4.0						
BOD	Bodaibo	46.45	15	eP	P	05 24 58.0	-0.7
CLNS	Chul'man	49.08	22	eP	P	05 25 17.7	-1.5
GNI	Garni	49.58	311	P	P	05 25 23.5	+0.2
	comp=Z,5.1nm,0.7s,mb4.7,baz=310,slow=7.8,SNR=4.0						
GNI	Garni	49.58	311	eP	P	05 25 24.3	+1.0
GNI				pmax	pmax		
	comp=Z,19nm,1.1s						
GNI	Garni	49.58	311	eP	P	05 25 24.3	+1.0
	comp=Z,19nm,1.1s,mb5.0						
ZEI	Tsey	51.00	314	eP	P	05 25 34.8	+0.7
ZEI				i *PP	pP	05 25 44.7	+1.4
ZEI				i		05 27 28.1	
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ASAJ	Asahikawa	51.55	44	P	P	05 25 40.0	+1.7
	comp=Z,5.4nm,0.7s,mb4.6,baz=187,slow=27,SNR=2.2						
ASAJ	Asahikawa	51.55	44	P	P	05 25 40.0	+1.7
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.7s						
NWAO	Narrogin (SRO)	52.05	154	eP	P	05 25 40.3	-1.9
NWAO				pmax	pmax		
	comp=Z,6.0nm,0.7s						
NWAO	Narrogin (SRO)	52.05	154	eP	P	05 25 40.3	-1.9
	comp=Z,6.2nm,0.7s,mb4.7						
KIV	Kislovodsk	52.22	315	eP	P	05 25 43.4	+0.1
KIV				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
KIV	Kislovodsk	52.22	315	eP	P	05 25 43.4	0.0
	comp=Z,13nm,0.8s,mb4.9						
YSS	Yuzh-Sakhalins	52.66	41	eP	P	05 25 47.0	+0.4
WRA	Warramunga Arr	52.72	129	P	P	05 25 47.7	+0.3
	comp=Z,5.2nm,0.7s,mb4.5,baz=307,slow=8.4,SNR=8.4						
WRA				PcP	PcP	05 26 57.6	+0.8
	comp=Z,2.9nm,0.6s,baz=314,slow=3.5,SNR=12						
WRAB	Tennant Creek	52.73	129	eP	P	05 25 47.6	+0.2
WRAB				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
WRAB	Tennant Creek	52.73	129	eP	P	05 25 47.6	+0.1
	comp=Z,11nm,0.7s,mb4.9						
MALT	Malatya	53.88	307	eP	P	05 25 53.7	-2.0
MALT				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
MALT	Malatya	53.88	307	eP	P	05 25 53.7	-2.0
	comp=Z,3.7nm,1.0s,mb4.3						
ASAR	Alice Springs	54.68	133	P	P	05 26 00.1	-1.7
	comp=Z,2.9nm,0.5s,mb4.6,baz=310,slow=6.7,SNR=23						
BRTR	Keskin Array B	57.80	308	P	P	05 26 21.9	-1.9
	comp=Z,2.7nm,0.7s,mb4.4,baz=124,slow=7.6,SNR=16						
BRTR	Keskin Array B	57.80	308	P	P	05 26 22.0	-1.9
CTA	Charters Tower	62.24	122	P	P	05 26 55.6	+1.0
	comp=Z,4.3nm,1.0s,mb4.5,baz=316,slow=3.2,SNR=3.0						
CTAO	Charters Tower	62.24	122	eP	P	05 26 55.0	+0.4
AKASG	Malin Array Be	62.81	320	P	P	05 26 56.8	-1.1
	comp=Z,1.3nm,0.6s,mb4.2,baz=86,slow=4.9,SNR=4.7						
AKASG	Malin Array Be	62.81	320	P	P	05 26 56.8	-1.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MLR	Muntele Rosu	64.18	314	P	P	05 27 05.8	-1.3
	comp=Z,4.1nm,0.8s,mb4.5,baz=82,slow=16,SNR=5.4						
STKA	Stephens Creek	65.08	135	P	P	05 27 13.1	0.0
	comp=Z,3.8nm,0.7s,mb4.6,baz=312,slow=8.9,SNR=4.8						
STKA	Stephens Creek	65.08	135	eP	P	05 27 14.1	+1.0
FINES	FINESS Array B	66.87	331	P	P	05 27 23.1	-1.0
	comp=Z,3.6nm,0.7s,mb4.5,baz=115,slow=7.9,SNR=8.0						
OJC	Ojcow	68.71	319	eP	P	05 27 35.0	-0.8
ARCES	ARCESS Array B	69.19	340	P	P	05 27 38.1	-0.3
	comp=Z,3.5nm,0.9s,mb4.3,baz=99,slow=5.8,SNR=9.2						
MORC	Moravsky Berou	70.15	318	eP	P	05 27 44.2	-0.3
MORC				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
MORC	Moravsky Berou	70.15	318	eP	P	05 27 44.2	-0.4
	comp=Z,11nm,1.1s,mb4.7						
LSZ	Lusaka	70.55	248	eP	P	05 27 47.6	+0.1
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
LSZ	Lusaka	70.55	248	eP	P	05 27 47.5	0.0
	comp=Z,3.8nm,0.7s,mb4.4						
PRU	Pruhonice	72.09	318	eP	P	05 27 57.0	+0.7
BRG	Berggiesshubel	72.46	319	i P	P	05 27 58.7	+0.3
BRG				e		05 28 05.6	
BRG				pmax	pmax		
	comp=Z,6.0nm,0.1s,mb5.5						
GEC2	GERESS Array S	72.66	317	eP	P	05 27 59.7	+0.1
GEC2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
GEC2	GERESS Array S	72.66	317	eP	P	05 27 59.7	+0.1
	comp=Z,3.0nm,0.8s,mb4.3						
GERES	GERESS Array B	72.66	317	P	P	05 27 59.5	-0.1
	comp=Z,3.2nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=15						
HFS	Hagfors	72.71	329	P	P	05 27 58.9	-0.8
	comp=Z,11nm,1.1s,mb4.7,baz=108,slow=4.7,SNR=9.4						
KHC	Kasperske Hory	72.73	317	eP	P	05 28 00.0	-0.1
FX1	Attu Island--F	72.91	39	P	P	05 28 01.5	+0.5
	comp=Z,8.6nm,0.6s,mb4.9,baz=215,slow=12,SNR=3.0						
FX1	Attu Island--F	72.91	39	P	P	05 28 01.5	+0.5
FX1				pmax	pmax		
	comp=Z,9.0nm,0.6s						
CLL	Collm	73.05	320	eP	P	05 28 02.0	+0.1
CLL	Collm	73.05	320	P	P	05 28 02.0	+0.1
WET	Wettzell	73.19	317	eP	P	05 28 02.8	0.0
NB2	NORSAR Subarra	73.95	330	P	P	05 28 06.1	-0.8
	comp=Z,4.5nm,0.8s,mb4.5,baz=90,slow=5.8						
NB2	NORSAR Subarra	73.95	330	P	P	05 28 06.1	-0.8
NB2				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
NOA	NORSAR Array B	73.95	330	P	P	05 28 06.1	-0.7
	comp=Z,2.2nm,0.6s,mb4.3,baz=90,slow=5.8,SNR=8.9						
MOX	Moxa	73.95	319	eP	P	05 28 06.9	-0.2
MOX	Moxa	73.95	319	i P	P	05 28 06.9	-0.2
GRA1	Grafenberg Arr	74.25	318	eP	P	05 28 09.6	+0.7
	comp=Z,3.0nm,0.8s,mb4.3						
GRF	Grafenberg Arr	74.25	318	eP	P	05 28 09.6	+0.7
GRF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
GRF	Grafenberg Arr	74.25	318	eP	P	05 28 09.6	+0.7
GRF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
GRF	Grafenberg Arr	74.25	318	eP	P	05 28 09.6	+0.7
	comp=Z,3.0nm,0.8s,mb4.3						
BSEG	Bad Segeberg	74.59	323	eP	P	05 28 11.3	+0.5
CLZ	Clausthal	74.67	320	eP	P	05 28 11.5	+0.3
DAVOX	Davos	75.35	315	P	P	05 28 13.7	-1.5
	comp=Z,2.5nm,1.0s,mb4.1,baz=89,slow=6.2,SNR=3.6						
LBTB	Lobatse	76.43	240	eP	P	05 28 21.5	-0.3
LBTB				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
LBTB	Lobatse	76.43	240	eP	P	05 28 21.5	-0.3
	comp=Z,3.3nm,0.7s,mb4.4						
LPL	La Plagne	77.66	314	eP	P	05 28 28.4	+0.2
	comp=Z,20nm,0.7s,mb4.8						
LPL	La Plagne	77.66	314	eP	P	05 28 28.4	+0.2
LPL				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
BOSA	Boshof	78.11	236	eP	P	05 28 30.2	-0.8
BOSA				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
BOSA	Boshof	78.11	236	eP	P	05 28 30.1	-0.9
	comp=Z,6.4nm,1.1s,mb4.5						
JMIC	Jan Mayen	80.61	341	LR	LR	06 05 30.1	
	comp=Z,366nm,18.2s,MS4.8,baz=277,slow=36						
SUR	Sutherland	83.08	234	P	P	05 28 59.3	+1.9
	comp=Z,18nm,1.3s,mb4.9						
MAW	Mawson	84.34	191	eP	P	05 28 58.6	-4.4
MAW				pmax	pmax		
	comp=Z,12nm,0.8s						
MAW	Mawson	84.34	191	eP	P	05 28 58.6	-4.3
	comp=Z,12nm,0.8s,mb5.1						
ESDC	Sonseca Array	86.55	310	P	P	05 29 14.8	+0.2
	comp=Z,0.5nm,0.4s,mb4.1,baz=68,slow=4.4,SNR=3.8						
ILAR	Eielson Array	89.42	22	P	P	05 29 27.8	0.0
	comp=Z,1.5nm,0.8s,mb4.4,baz=305,slow=4.5,SNR=12						
SYO	Syowa Base	90.98	197	⇑P	P	05 29 36.8	+1.9
SYO	Syowa Base	90.98	197	⇑pP	pP	05 29 43.6	-0.9

INK	**Inuvik**	**91.37**	**16**	P	**P**	**05 29 37.0**	**+0.3**
	comp=Z,2.1nm,0.9s,mb4.5,baz=341,slow=7.7,SNR=4.6						
YKA	**Yellowknife Ar**	**100.68**	**13**	PKKPbc		05 46 37.5	
	comp=Z,0.1nm,0.6s,baz=154,slow=3.0,SNR=6.3						
PDAR	**Pinedale Array**	**119.75**	**19**	PKP	PKPdf	05 35 21.9	-3.5
	comp=Z,0.8nm,1.2s,baz=37,slow=4.5,SNR=2.5						
NVAR	**Mina Array Bea**	**120.07**	**28**	PKP	PKPdf	05 35 24.0	-2.2
	comp=Z,0.7nm,0.6s,baz=304,slow=3.3,SNR=2.3						
MSU	**Marysvale**	**122.60**	**23**	*e*PKPdf	PKPdf	05 35 29.6	-1.5
TXAR	**Lajitas Array**	**133.93**	**21**	PKP	PKPdf	05 35 51.3	-1.7
	comp=Z,0.3nm,0.6s,SNR=3.2						
BDFB	**Brasilia**	**142.48**	**263**	PKP	PKPdf	05 36 06.6	-2.2
	comp=Z,1.4nm,0.7s,baz=159,slow=14,SNR=3.7						
TEIG	**Tepich**	**145.93**	**2**	*e*PKPdf	PKPdf	05 36 12.0	-2.7
CPUP	**Villa Florida**	**149.81**	**241**	PKPbc	PKPdf	05 36 23.4	+2.6
	comp=Z,0.0nm,0.5s,baz=137,slow=15,SNR=1.5						
ROSC	**El Rosal**	**157.51**	**326**	PKPab	PKPab	05 37 02.2	+1.1
	comp=Z,2.5nm,0.7s,baz=73,slow=15,SNR=3.4						

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*SVSA **27** 05:19:25.6±0.9, 38.60N×28.58W, h10^{km}, MD3.1, ML1.9, Error ellipse: s-maj=3.4km s-min=2.2km az=174.0*

*CSEM **27** 05:19:25.6±0.9, 38.60N×28.58W, h10^{km}, ML1.9, Error ellipse: s-maj=3.4km s-min=2.2km az=174.0, After PDA*

PDA 27 05:19:25.6±0.9, 38.60N×28.58W, h10^{km}, MD3.1, ML1.9, Error ellipse: s-maj=3.4km s-min=2.2km az=174.0, Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HOR	**Horta**	**0.09**	**209**	*e*P	Pg	05 19 27.3	-0.8
HOR				*e*S	Sg	05 19 29.5	-0.3
CALA	**Caldeira**	**0.10**	**258**	*e*P	Pg	05 19 28.2	-0.1
CALA				*e*S	Sg	05 19 30.1	0.0
CALA	**Caldeira**	**0.10**	**258**	*e*S	Sg	05 19 30.1	0.0
PCED	**Cedros**	**0.10**	**285**	*i* P	Pg	05 19 27.7	-0.6
PCED				*e*S	Sg	05 19 30.0	-0.1
	153nm,0.3s						
PCED	**Cedros**	**0.10**	**285**	*e*S	Sg	05 19 30.0	-0.1
	153nm,0.3s						
PICO	**Pico**	**0.16**	**131**	*e*P	Pg	05 19 28.6	-0.6
PICO				*e*S	Sg	05 19 31.6	0.0
ROSA	**Rosais**	**0.29**	**66**	*e*S	Sg	05 19 34.7	-0.9
PMAN	**Manadas**	**0.38**	**85**	*e*P	Pg	05 19 32.1	-1.4
PMAN				*e*S	Sg	05 19 37.2	-1.5
	40nm,0.1s						

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*IDC **27** 05:20:57.5±1.1, 3.15N×94.81E, mb4.1/9, mb1 4.2/10, mb1mx4.0/19, Error ellipse: s-maj=53.4km s-min=18.7km az=56.0*

*NEIC **27** 05:21:01.9±0.6, 3.15N×94.83E, h30^{km}, mb4.4/1, Error ellipse: s-maj=25.6km s-min=11.7km az=64.0*

ISC 27 05:21:00.3±0.9, 3.2N±0.1×94.9E±0.2, h30^{km}, n14, σ0$.^{s}$74/12, mb4.1/10, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.68**	**14**	Pn	**P**	**05 24 41.5**	**+0.4**
	baz=208,slow=11,SNR=6.6						
WRA	**Warramunga Arr**	**45.04**	**122**	P	**P**	**05 29 15.8**	**+0.1**
	3.4nm,1.0s,mb4.2,baz=302,slow=9.0,SNR=6.0						
SONM	**Songino Array**	**45.57**	**11**	P	**P**	**05 29 20.1**	**+0.7**
	2.2nm,1.1s,mb4.0,baz=189,slow=7.1,SNR=4.9						
ASAR	**Alice Springs**	**46.43**	**127**	P	**P**	**05 29 26.3**	**-0.3**
	1.4nm,0.6s,mb4.1,baz=297,slow=7.6,SNR=6.9						
ZAL	**Zalesovo**	**51.26**	**352**	P	**P**	**05 30 01.8**	**-1.7**
	1.0nm,0.3s,mb4.2,baz=360,slow=6.0,SNR=4.2						
ZAL	**Zalesovo**	**51.26**	**352**	P	**P**	**05 30 01.8**	**-1.7**
BVAR	**Borovoye Array**	**53.64**	**342**	P	**P**	**05 30 20.9**	**-0.4**
	1.5nm,0.7s,mb4.0,baz=143,slow=7.4,SNR=5.4						
CHKZ	**Chkalovo**	**54.13**	**342**	*e*P	**P**	**05 30 24.1**	**-0.7**
	2.8nm,0.7s,mb4.3						
STKA	**Stephens Creek**	**56.39**	**132**	P	**P**	**05 30 41.5**	**-0.1**
	1.7nm,0.7s,mb4.2,baz=353,slow=7.2,SNR=3.4						
FINES	**FINESS Array B**	**77.18**	**333**	P	**P**	**05 32 52.8**	**-0.1**
	3.0nm,1.1s,mb4.1,baz=100,slow=12,SNR=3.6						
ARCES	**ARCESS Array B**	**79.90**	**340**	P	**P**	**05 33 08.4**	**+0.9**
	5.4nm,1.2s,mb4.3,slow=3.6,SNR=4.2						
GERES	**GERESS Array B**	**81.81**	**319**	P	**P**	**05 33 19.0**	**+1.1**
	0.3nm,0.7s,mb3.3,baz=135,slow=5.7,SNR=4.9						
TXAR	**Lajitas Array**	**143.09**	**28**	PKP	PKPdf	05 40 31.9	-5.3
	0.5nm,0.8s,baz=236,slow=1.8,SNR=3.4						
CPUP	**Villa Florida**	**144.80**	**227**	PKP	PKPdf	05 40 36.4	-3.9
	0.0nm,0.7s						

IDC 27 05:28:07.7±0.6, 2.91N×93.72E, mb4.4/16, mb1 4.5/16, mb1mx4.3/25, Error ellipse: s-maj=64.1km s-min=13.5km az=40.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**45.88**	**121**	P	P	05 36 32.7	-1.3
	4.9nm,0.7s,baz=298,slow=9.0,SNR=26						
ASAR	**Alice Springs**	**47.20**	**126**	P	P	05 36 43.0	-1.4
	2.6nm,0.8s,baz=295,slow=7.7,SNR=18						
CTA	**Charters Tower**	**56.37**	**116**	P	P	05 37 50.3	-3.2
	1.9nm,0.7s,baz=334,slow=9.7,SNR=2.3						
STKA	**Stephens Creek**	**57.08**	**131**	P	P	05 37 56.5	-1.9
	3.2nm,0.9s,baz=138,slow=21,SNR=5.4						
GNI	**Garni**	**57.67**	**317**	P	P	05 37 60.0	-2.5
	2.3nm,0.5s,baz=30,slow=8.1,SNR=3.1						
ASF	**Jabal al Asfar**	**60.65**	**305**	P	P	05 38 21.8	-1.4
	5.4nm,0.7s,baz=79,slow=7.8,SNR=7.2						
EIL	**Elat**	**61.61**	**302**	P	P	05 38 27.9	-1.9
	2.2nm,0.5s,baz=56,slow=28,SNR=3.3						
BRTR	**Keskin Array B**	**65.40**	**313**	P	P	05 38 51.6	-2.9
	3.0nm,0.7s,baz=126,slow=7.2,SNR=12						
IDI	**Anoyia**	**71.09**	**306**	P	P	05 39 29.2	-1.0
	5.2nm,0.6s,baz=210,slow=22,SNR=4.2						
AKASG	**Malin Array Be**	**71.80**	**323**	P	P	05 39 31.1	-3.0
	1.0nm,0.3s,baz=79,slow=4.9,SNR=7.5						
MLR	**Muntele Rosu**	**72.45**	**317**	P	P	05 39 35.9	-2.2
	4.7nm,0.8s,baz=150,slow=4.7,SNR=6.6						
FINES	**FINESS Array B**	**76.89**	**333**	P	P	05 40 00.8	-2.5
	2.3nm,0.8s,baz=135,slow=8.1,SNR=3.9						
ARCES	**ARCESS Array B**	**79.77**	**341**	P	P	05 40 17.6	-1.3
	3.9nm,0.9s,baz=101,slow=7.1,SNR=14						
GERES	**GERESS Array B**	**81.25**	**319**	P	P	05 40 27.0	-0.2
	3.2nm,0.8s,baz=104,slow=5.5,SNR=16						
HFS	**Hagfors**	**82.52**	**330**	P	P	05 40 32.3	-1.2
	2.0nm,0.8s,baz=292,slow=8.0,SNR=3.3						
DAVOX	**Davos**	**83.67**	**317**	P	P	05 40 40.2	+0.4
	6.3nm,0.5s,baz=130,slow=4.8,SNR=16						
TXAR	**Lajitas Array**	**143.87**	**26**	PKP	PKPdf	05 47 45.5	-2.1
	0.4nm,1.0s,baz=225,slow=1.3,SNR=3.3						
LVC	**Limon Verde**	**154.17**	**219**	PKPbc	PKPdf	05 48 09.0	+5.1
	2.3nm,0.8s,baz=243,slow=7.0,SNR=3.1						

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*BJI **27** 05:28:38.9, 7.87N×93.74E, h30^{km}, mB5.4, mb4.9, Ms4.5, Msz4.1*

*IDC **27** 05:28:40.4±0.6, 8.67N×93.77E, mb4.2/14, mb1 4.3/14, mb1mx4.2/22, MS3.9/1, Ms1 3.9/1, ms1mx3.0/30, Error ellipse: s-maj=23.5km s-min=16.2km az=58.0*

*NEIC **27** 05:28:44.6±0.5, 8.64N×93.66E, h30^{km}, mb4.6/7, Error ellipse: s-maj=16.4km s-min=11.2km az=68.0*

ISC 27 05:28:42.7±0.6, 8.57N±0.07×93.40E±0.07, h30^{km}, n49, σ1$.^{s}$32/44, mb4.5/27, MS4.0/2, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IMP	**Imphal**	**16.13**	**2**	*e*	**P**	**05 32 28.0**	**-1.1**
TRD	**Trivandrum**	**16.26**	**271**	*e*S	**S**	**05 35 28.2**	**-1.5**
SHL	**Shillong**	**16.96**	**355**	*e*	**P**	**05 32 37.0**	**-2.6**
PKI	**Pulchoki**	**20.35**	**339**	*e*P	**P**	**05 33 20.1**	**+0.5**
	215nm,1.4s						
DMN	**Daman**	**20.49**	**339**	*e*P	**P**	**05 33 21.4**	**+0.3**
	90nm,0.8s						
GUN	**Gumba**	**20.50**	**341**	*e*P	**P**	**05 33 22.1**	**+0.9**
	193nm,0.8s						
KKN	**Kakani**	**20.59**	**339**	*e*P	**P**	**05 33 21.6**	**-0.5**
	98nm,0.9s						
GKN	**Gorkha**	**21.02**	**338**	*e*P	**P**	**05 33 23.6**	**-2.9**
	166nm,0.6s,mb5.5						
LSA	**Lhasa**	**21.12**	**355**	*e*P	**P**	**05 33 28.2**	**+0.6**
	23nm,0.7s,mb4.6						
KOLN	**Koldanda**	**21.22**	**335**	*e*P	**P**	**05 33 25.6**	**-2.9**
	128nm,0.9s,mb5.3						
GYA	**Guiyang**	**21.79**	**34**	P	**P**	**05 33 38.3**	**+4.0**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
PTH	**Pithoragarh**	**24.26**	**331**	*e*	**P**	**05 33 55.1**	**-3.4**
PTH				*e*		05 35 34.2	
NDI	**New Delhi**	**25.14**	**325**	*e*	**P**	**05 34 07.0**	**0.0**
DDI	**Dehra Dun**	**25.96**	**329**	*e*	**P**	**05 34 15.3**	**+0.6**
TGY	**Tagaytay City**	**27.54**	**76**	LR	LR	05 45 09.1	
	comp=Z,230nm,18.6s,MS3.8,baz=234,slow=36						
LZH	**Lanzhou**	**29.00**	**18**	*e*P	**P**	**05 34 45.5**	**+3.3**
LZH				AP	pP	05 34 48.5	-2.5
LZH				AMB	AMB		
	comp=Z,36nm,1.7s,mb4.8						
GTA	**Gaotai**	**31.24**	**10**	*e*P	**P**	**05 35 01.8**	**-0.2**
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.3						
HHC	**Hu-ho-hao-te**	**35.97**	**24**	*e*P	**P**	**05 35 44.8**	**+1.9**
HHC				AP	pP	05 35 52.0	+0.2
HHC				XP	sP	05 35 56.8	+1.2
HHC				AMB	AMB		
	comp=Z,12nm,0.5s,mb5.1						
HHC				AMB	AMB		
	comp=Z,648nm,10.3s						
HHC				LR	LR		
	comp=N,279nm,14.3s,MS4.4						
HHC				LR	LR		
	comp=E,301nm,13.1s,MS4.4						
HHC				LR	LR		
	comp=Z,241nm,15.5s,MS4.1						
BJI	**Beijing**	**37.35**	**29**	P	**P**	**05 35 55.3**	**+0.8**
BJI				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb4.7						
JOW	**Kunigami**	**37.68**	**57**	P	**P**	**05 35 54.1**	**-3.3**
	comp=Z,13nm,0.9s,mb4.7,baz=264,slow=19,SNR=2.4						
AAK	**Ala-Archa**	**37.77**	**337**	*e*P	**P**	**05 35 58.5**	**+0.5**
	comp=Z,6.1nm,0.9s,mb4.3						
SONM	**Songino Array**	**40.65**	**13**	P	**P**	**05 36 22.2**	**+0.4**
	comp=Z,2.4nm,0.7s,mb3.9,baz=192,slow=9.6,SNR=16						
ULN	**Ulaanbaatar**	**40.83**	**14**	*e*P	**P**	**05 36 23.3**	**-0.1**
	comp=Z,2.8nm,0.8s,mb3.9						
CN2	**Changchun**	**44.84**	**33**	*e*P	**P**	**05 36 56.0**	**-0.1**
ZAL	**Zalesovo**	**45.76**	**353**	P	**P**	**05 37 02.8**	**-0.4**
	comp=Z,4.3nm,0.4s,mb4.8,baz=298,slow=4.6,SNR=11						
NWAO	**Narrogin (SRO)**	**47.10**	**152**	P	**P**	**05 37 14.3**	**+0.2**
	comp=Z,14nm,0.7s,mb5.0,baz=89,slow=2.4,SNR=5.6						
BVAR	**Borovoye Array**	**48.09**	**342**	P	**P**	**05 37 21.8**	**+0.1**
	comp=Z,1.5nm,0.8s,mb4.0,baz=162,slow=4.6,SNR=3.5						
BRVK	**Borovoye**	**48.16**	**341**	*e*P	**P**	**05 37 21.3**	**-0.8**
	comp=Z,2.4nm,0.5s,mb4.5						
CHKZ	**Chkalovo**	**48.58**	**342**	*e*P	**P**	**05 37 21.4**	**-4.0**
	comp=Z,2.8nm,0.4s,mb4.7						
WRA	**Warramunga Arr**	**49.27**	**126**	P	**P**	**05 37 28.6**	**-2.6**
	comp=Z,2.0nm,0.5s,mb4.4,baz=303,slow=8.8,SNR=8.1						
ASAR	**Alice Springs**	**50.93**	**130**	P	**P**	**05 37 42.1**	**-1.6**
	comp=Z,1.4nm,0.5s,mb4.2,baz=303,slow=8.1,SNR=7.8						
GNI	**Garni**	**53.42**	**314**	P	**P**	**05 38 04.6**	**+2.4**
	comp=Z,1.9nm,0.4s,mb4.4,baz=205,slow=15,SNR=4.0						
GNI	**Garni**	**53.42**	**314**	*e*P	**P**	**05 38 00.5**	**-1.8**
KMBO	**Kilima Mbogo**	**56.77**	**263**	P	**P**	**05 38 30.2**	**+3.2**
	comp=Z,1.3nm,0.7s,mb4.1,baz=53,slow=16,SNR=4.7						
KMBO	**Kilima Mbogo**	**56.77**	**263**	P	**P**	**05 38 30.2**	**+3.2**
FINES	**FINESS Array B**	**71.75**	**332**	P	**P**	**05 40 04.7**	**+0.6**
	comp=Z,4.5nm,0.9s,mb4.4,baz=93,slow=6.0,SNR=9.1						
LBTB	**Lobatse**	**73.93**	**241**	*e*P	**P**	**05 40 18.8**	**+1.3**
	comp=Z,34nm,1.8s,mb5.0						
ARCES	**ARCESS Array B**	**74.36**	**340**	P	**P**	**05 40 19.9**	**+0.8**
	comp=Z,3.9nm,0.9s,mb4.3,baz=102,slow=7.1,SNR=18						
ARCES	**ARCESS Array B**	**74.36**	**340**	P	**P**	**05 40 19.9**	**+0.8**
CLL	**Collm**	**77.36**	**321**	P	**P**	**05 40 39.0**	**+2.6**
HFS	**Hagfors**	**77.48**	**330**	P	**P**	**05 40 37.5**	**+0.6**
	comp=Z,1.0nm,0.4s,mb4.1,baz=104,slow=6.1,SNR=6.6						
HFS	**Hagfors**	**77.48**	**330**	P	**P**	**05 40 37.5**	**+0.6**
NB2	**NORSAR Subarra**	**78.76**	**331**	P	**P**	**05 40 43.1**	**-0.8**
	comp=Z,12nm,1.4s,mb4.6,baz=93,slow=5.0						
NOA	**NORSAR Array B**	**78.76**	**331**	P	**P**	**05 40 44.5**	**+0.6**
	comp=Z,1.1nm,0.8s,mb3.9,baz=93,slow=5.7,SNR=4.2						
ILAR	**Eielson Array**	**94.38**	**22**	P	**P**	**05 42 01.3**	**+0.7**
	comp=Z,0.2nm,0.5s,mb3.8,baz=293,slow=5.0,SNR=4.0						
TXAR	**Lajitas Array**	**138.88**	**23**	PKP	PKPdf	05 48 11.8	-0.3
	comp=Z,0.3nm,0.5s,baz=96,slow=0.6,SNR=4.1						
BDFB	**Brasilia**	**141.67**	**256**	PKP	PKPdf	05 48 18.1	+0.7
	comp=Z,5.8nm,1.1s,baz=212,slow=2.8,SNR=3.3						
CPUP	**Villa Florida**	**147.09**	**234**	PKPbc	PKPdf	05 48 26.7	+0.2
	comp=Z,0.0nm,0.6s,baz=275,slow=17,SNR=1.9						
LPAZ	**La Paz**	**160.41**	**245**	PKP	PKPdf	05 48 43.9	-1.4
	comp=Z,0.8nm,0.7s,baz=54,slow=8.6,SNR=3.3						
LPAZ				PKPab	PKPab	05 49 25.4	+1.9
	comp=Z,1.5nm,0.8s,baz=176,slow=3.4,SNR=3.0						

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*TAP **27** 05:30:58.9, 24.39N×122.95E, h45^{km}±1^{km}, ML3.3*

JMA 27 05:30:59.0±0.1, 24.56N×122.97E, h87^{km}±1^{km}, M2.2, Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.10**	**159**	P	P	05 31 11.3	-0.1
YOJ				S	S	05 31 20.6	-0.1
IRIF	**Iriomote-Funau**	**0.73**	**108**	P	P	05 31 15.5	-0.3
IRIF				*e*S	S	05 31 27.7	-0.5
HATJ	**Hateruma jima**	**0.91**	**123**	P	P	05 31 17.6	-0.1
HATJ				*e*S	S	05 31 31.4	-0.3
JKRS	**Kuro-shima**	**1.00**	**109**	P	P	05 31 18.8	+0.1
JKRS				*e*S	S	05 31 33.5	-0.1
JIJ	**Ishigaki jima**	**1.09**	**100**	P	P	05 31 19.5	-0.3
JIJ				S	S	05 31 34.5	-0.9
JTJ	**Tarama**	**1.58**	**87**	P	P	05 31 26.2	+0.1
JTJ				*e*S	S	05 31 46.4	+0.3
JKE	**Kume jima 2**	**3.87**	**62**	P	P	05 31 56.6	-1.0

IDC 27 05:41:45.4±1.7, 9.85N×91.86E, mb3.8/5, mb1 3.9/6, mb1mx3.7/19, ML4.1/1, Error ellipse: s-maj=48.2km s-min=30.2km az=58.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.97**	**38**	Pn	P	05 44 24.4	-2.4
	0.4nm,0.3s,baz=233,slow=15,SNR=5.4						
SONM	**Songino Array**	**39.80**	**15**	P	P	05 49 20.0	-1.9
	1.2nm,0.8s,baz=195,slow=9.3,SNR=8.1						
ZAL	**Zalesovo**	**44.33**	**354**	P	P	05 49 55.9	-3.0
	0.8nm,0.3s,baz=304,slow=7.3,SNR=3.5						
BVAR	**Borovoye Array**	**46.42**	**342**	P	P	05 50 14.8	-0.7
	0.9nm,0.8s,baz=108,slow=9.1,SNR=4.9						
WRA	**Warramunga Arr**	**51.24**	**125**	P	P	05 50 51.2	-2.0
	0.6nm,0.4s,baz=301,slow=9.6,SNR=4.2						
GERES	**GERESS Array B**	**74.86**	**318**	P	P	05 53 27.9	-1.7
	0.4nm,0.9s,baz=97,slow=7.9,SNR=3.7						
TXAR	**Lajitas Array**	**138.27**	**21**	PKP	PKPdf	06 01 13.2	-2.0
	0.1nm,0.6s,baz=338,slow=4.9,SNR=2.4						

IDC 27 05:42:38.5±1.6, 6.01N×92.33E, mb3.9/4, mb1 4.2/5, mb1mx3.8/18, ML4.4/1, Error ellipse: s-maj=63.1km s-min=25.3km az=55.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.95**	**27**	Pn	P	05 45 59.5	-0.6
	0.6nm,0.3s,baz=233,slow=14,SNR=5.3						
ZAL	**Zalesovo**	**48.17**	**354**	P	P	05 51 19.9	-2.6
	0.8nm,0.3s,baz=284,slow=1.2,SNR=2.4						
WRA	**Warramunga Arr**	**48.70**	**123**	P	P	05 51 24.8	-2.2
	2.3nm,0.7s,baz=303,slow=8.9,SNR=6.4						
ASAR	**Alice Springs**	**50.15**	**128**	P	P	05 51 36.4	-1.8
	0.6nm,0.6s,baz=300,slow=7.8,SNR=4.5						
GERES	**GERESS Array B**	**78.02**	**319**	P	P	05 54 39.4	-1.1
	0.8nm,0.8s,baz=117,slow=6.0,SNR=5.1						

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*IDC **27** 05:44:14.5±1.0, 10.14N×93.55E, mb4.0/9, mb1 4.2/9, mb1mx4.0/18, Error ellipse: s-maj=73.1km s-min=16.4km az=51.0*

*NEIC **27** 05:44:18.8±0.6, 10.19N×93.62E, mb4.4/2, Error ellipse: s-maj=42.0km s-min=9.6km az=53.0*

ISC 27 05:44:17.6±0.9, 10.2N±0.3×93.6E±0.3, h33^{km}, n12, σ0$.^{s}$45/11, mb4.1/11, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AAK	**Ala-Archa**	**36.41**	**336**	*e*P	**P**	**05 51 20.5**	**-0.5**
	6.9nm,1.2s,mb4.5						
AAK				*e*pP	pP	05 51 29.5	-1.2
ZAL	**Zalesovo**	**44.22**	**353**	P	**P**	**05 52 25.6**	**+0.3**
	2.0nm,0.4s,mb4.2,baz=328,slow=4.3,SNR=5.7						
BVAR	**Borovoye Array**	**46.66**	**341**	P	**P**	**05 52 44.2**	**-0.5**
	2.1nm,1.0s,mb4.0,baz=162,slow=9.4,SNR=4.1						
CHKZ	**Chkalovo**	**47.15**	**342**	*e*P	**P**	**05 52 48.5**	**-0.1**
	3.0nm,0.7s,mb4.3						
CHKZ				*e*pP	pP	05 52 56.0	-2.4
WRA	**Warramunga Arr**	**50.02**	**127**	P	**P**	**05 53 11.3**	**0.0**
	1.2nm,0.5s,mb4.2,baz=303,slow=9.0,SNR=12						
ASAR	**Alice Springs**	**51.79**	**131**	P	**P**	**05 53 24.2**	**-0.4**
	2.4nm,0.8s,mb4.2,baz=305,slow=6.9,SNR=11						
BRTR	**Keskin Array B**	**60.56**	**310**	P	**P**	**05 54 26.7**	**-0.6**
	3.9nm,1.1s,mb4.4,baz=129,slow=7.8,SNR=7.7						
STKA	**Stephens Creek**	**62.06**	**134**	P	**P**	**05 54 37.8**	**+0.2**
	1.3nm,0.7s,mb4.2,baz=191,slow=8.0,SNR=2.9						
FINES	**FINESS Array B**	**70.45**	**332**	P	**P**	**05 55 30.6**	**+0.2**
	1.5nm,0.8s,mb4.0,baz=150,slow=31,SNR=3.1						
ARCES	**ARCESS Array B**	**72.94**	**340**	P	**P**	**05 55 45.6**	**+0.5**
	1.2nm,0.5s,mb4.1,baz=91,slow=6.4,SNR=18						
GERES	**GERESS Array B**	**75.78**	**318**	P	**P**	**05 56 02.8**	**+0.9**
	0.4nm,0.8s,mb3.4,baz=108,slow=6.7,SNR=4.0						
TXAR	**Lajitas Array**	**137.34**	**23**	PKP	PKPdf	06 03 39.8	+1.2
	0.5nm,1.0s,baz=21,slow=3.0,SNR=4.0						

IGQ 27 05:45:14.2, 2.30S×80.24W, h12^{km}±10^{km}, mb4.0, 5C-7D, Error ellipse: s-maj=10.5km s-min=6.5km az=111.1, Near coast of Ecuador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IGUA	**Igualata**	**1.79**	**63**	⇓P	Pn	05 45 47.3	+2.1
IGUA				S	Sn	05 46 09.8	+1.8
ARRY	**Arrayan**	**1.95**	**66**	⇓P	Pn	05 45 49.1	+1.6
CUSU	**Cusua**	**1.95**	**64**	P	Pn	05 45 49.9	+2.4
PATA	**Patacocha**	**1.97**	**66**	P	Pn	05 45 50.0	+2.2
JUIV	**Juive**	**1.97**	**64**	⇑P	Pn	05 45 50.1	+2.2
JUIV				S	Sn	05 46 15.1	+2.4
RETU	**Refugio**	**1.98**	**65**	⇑P	Pn	05 45 50.5	+2.6
RETU				S	Sn	05 46 15.3	+2.5
ULBA	**Ulba**	**2.01**	**65**	⇑P	Pn	05 45 50.9	+2.5
ULBA				S	Sn	05 46 16.6	+2.9
RUN2	**Runtun**	**2.02**	**65**	⇑P	Pn	05 45 50.9	+2.3
PISA	**Pisayambo**	**2.22**	**56**	P	Pn	05 45 54.1	+2.6
MARY	**Rancho Maria**	**2.34**	**48**	P	Pn	05 45 55.7	+2.6
NAS1	**Nasa**	**2.41**	**47**	⇓P	Pn	05 45 57.0	+2.8
TAMB	**Tambo**	**2.45**	**50**	⇓P	Pn	05 45 57.6	+2.8
TAMB				S	Sn	05 46 30.9	+6.0
VC1	**Cotopaxi 1**	**2.46**	**48**	⇓P	Pn	05 45 57.7	+2.9
JUA2	**San Juan 2**	**2.63**	**38**	P	Pn	05 45 58.4	+1.1
CGGP	**Crater GGP**	**2.66**	**38**	P	Pn	05 45 58.8	+1.1
CGGP				S	Sn	05 46 32.4	+2.2
PINO	**Pino**	**2.68**	**38**	⇓P	Pn	05 45 58.8	+0.8
PINO				S	Sn	05 46 31.5	+0.9
YANA	**Yana**	**2.73**	**38**	⇓P	Pn	05 45 59.4	+0.7
YANA				S	Sn	05 46 32.4	+0.5
ANTI	**Antisana**	**2.77**	**49**	⇑P	Pn	05 46 01.7	+2.4
CAYR	**Refugio Cayamb**	**3.20**	**44**	P	Pn	05 46 08.8	+3.4
COTA	**Cotacachi**	**3.23**	**36**	P	Pn	05 46 07.2	+1.4
COTA				S	Sn	05 46 46.5	+1.9
CAYA	**Cayambe**	**3.25**	**44**	P	Pn	05 46 10.0	+3.9

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*IDC **27** 05:45:55.0±0.8, 3.94N×97.67E, mb3.9/10, mb1 4.1/11, mb1mx4.1/18, Error ellipse: s-maj=38.2km s-min=18.2km az=46.0*

*NEIC **27** 05:45:59.9±0.6, 3.84N×97.67E, h30^{km}, mb4.4/2, Error ellipse: s-maj=28.1km s-min=12.7km az=48.0*

ISC 27 05:45:56.8±0.8, 3.6N±0.2×97.3E±0.3, h30^{km}, n16, σ0$.^{s}$64/14, mb4.0/12, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.88**	**6**	Pn	**P**	**05 49 31.2**	**+4.1**
	baz=198,slow=11,SNR=8.4						
SHL	**Shillong**	**22.48**	**347**	*e*	**P**	**05 51 00.0**	**+4.8**
WRA	**Warramunga Arr**	**43.23**	**124**	P	**P**	**05 53 57.9**	**+0.4**
	5.6nm,1.0s,mb4.2,baz=303,slow=9.4,SNR=8.2						
WRAB	**Tennant Creek**	**43.23**	**124**	*e*P	**P**	**05 53 57.7**	**+0.2**
	12nm,1.0s,mb4.6						
ASAR	**Alice Springs**	**44.76**	**129**	P	**P**	**05 54 09.7**	**-0.2**
	2.0nm,1.1s,mb3.9,baz=304,slow=7.9,SNR=3.8						
SONM	**Songino Array**	**44.78**	**9**	P	**P**	**05 54 09.1**	**-0.6**
	0.4nm,0.5s,mb3.5,baz=192,slow=8.8,SNR=4.2						
BVAR	**Borovoye Array**	**54.06**	**340**	P	**P**	**05 55 20.3**	**-0.6**
	0.8nm,0.6s,mb3.8,baz=141,slow=9.2,SNR=2.2						
CHKZ	**Chkalovo**	**54.53**	**341**	*e*P	**P**	**05 55 25.6**	**+1.3**
	2.0nm,0.9s,mb4.2						
STKA	**Stephens Creek**	**54.88**	**133**	P	**P**	**05 55 26.8**	**-0.4**
	3.7nm,0.7s,mb4.5,baz=291,slow=6.4,SNR=5.5						
KMBO	**Kilima Mbogo**	**60.21**	**267**	P	**P**	**05 56 10.0**	**+5.0**
	1.0nm,0.7s,mb3.9,baz=52,slow=22,SNR=3.8						
BRTR	**Keskin Array B**	**67.62**	**312**	P	**P**	**05 56 53.0**	**-0.2**
	1.9nm,0.8s,mb4.2,baz=128,slow=7.4,SNR=9.5						
AKASG	**Malin Array Be**	**73.46**	**322**	P	**P**	**05 57 27.6**	**-0.8**
	0.1nm,0.3s,mb3.3,baz=89,slow=4.7,SNR=3.2						
ARCES	**ARCESS Array B**	**80.35**	**340**	P	**P**	**05 58 06.7**	**+0.2**
	0.8nm,0.7s,mb3.8,baz=100,slow=10,SNR=3.9						
GERES	**GERESS Array B**	**83.12**	**319**	P	**P**	**05 58 21.9**	**+0.6**
	2.0nm,1.2s,mb4.0,baz=118,slow=5.5,SNR=3.5						
TXAR	**Lajitas Array**	**141.59**	**30**	PKP	PKPdf	06 05 28.5	-2.6
	0.1nm,0.5s,baz=243,slow=2.0,SNR=2.4						
CPUP	**Villa Florida**	**146.80**	**225**	PKPbc	PKPbc	06 05 41.9	+5.3
	0.0nm,0.5s,baz=124,slow=11,SNR=1.9						

IDC 27 05:47:04.5±1.4, 6.17N×92.52E, mb4.2/6, mb1 4.4/6, mb1mx4.0/19, Error ellipse: s-maj=93.1km s-min=20.2km az=41.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**48.63**	**123**	P	P	05 55 49.5	-2.9
	3.3nm,0.7s,baz=303,slow=9.0,SNR=5.6						
BVAR	**Borovoye Array**	**50.10**	**343**	P	P	05 56 00.8	-2.5
	1.0nm,0.6s,baz=153,slow=9.9,SNR=5.1						
ASAR	**Alice Springs**	**50.11**	**128**	P	P	05 56 01.6	-2.2
	3.4nm,1.0s,baz=304,slow=6.2,SNR=7.5						
PMG	**Port Moresby**	**56.61**	**105**	P	P	05 56 50.8	-1.3
	7.0nm,0.9s,baz=208,slow=9.9,SNR=2.8						
BRTR	**Keskin Array B**	**62.34**	**312**	P	P	05 57 29.4	-1.9
	1.2nm,0.8s,baz=118,slow=5.1,SNR=2.8						
GERES	**GERESS Array B**	**78.02**	**319**	P	P	05 59 05.4	-1.2
	2.4nm,0.9s,baz=76,slow=4.0,SNR=9.6						

IDC 27 05:47:08.7±1.1, 5.24N×93.80E, mb4.1/5, mb1 4.3/6, mb1mx4.0/18, Error ellipse: s-maj=47.9km s-min=24.1km az=52.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.06**	**20**	Pn	P	05 50 25.3	-6.3
	baz=229,slow=14,SNR=4.8						
SONM	**Songino Array**	**43.79**	**12**	P	P	05 55 16.6	-1.3
	1.2nm,0.9s,baz=201,slow=7.9,SNR=3.3						
WRA	**Warramunga Arr**	**47.06**	**123**	P	P	05 55 42.4	-1.9
	5.0nm,0.8s,baz=303,slow=9.1,SNR=7.4						
ASAR	**Alice Springs**	**48.53**	**128**	P	P	05 55 53.5	-2.2
	1.2nm,0.6s,baz=302,slow=8.0,SNR=5.3						
STKA	**Stephens Creek**	**58.56**	**132**	P	P	05 57 07.0	-2.8
	1.7nm,0.8s,baz=286,slow=3.2,SNR=2.9						
BRTR	**Keskin Array B**	**63.90**	**312**	P	P	05 57 42.8	-3.0
	1.1nm,0.8s,baz=121,slow=7.2,SNR=4.0						
TXAR	**Lajitas Array**	**141.74**	**25**	PKP	PKPdf	06 06 44.6	-0.2
	0.1nm,0.4s,baz=40,slow=2.2,SNR=4.1						
CPUP	**Villa Florida**	**145.36**	**230**	PKPbc	PKPbc	06 06 49.4	-0.4
	0.0nm,0.3s,baz=265,slow=9.4,SNR=1.8						

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*IDC **27** 05:50:00.3±0.8, 2.98N×95.75E, mb4.7/13, mb1 4.8/14, mb1mx4.7/20, ML5.0/1, MS4.6/2, Ms1 4.7/2, ms1mx3.7/22, Error ellipse: s-maj=32.6km s-min=15.7km az=44.0*

*BJI **27** 05:50:01.7, 3.20N×95.72E, h7^{km}, mB5.4, mb5.2, Ms5.0, Msz4.8*

*NEIC **27** 05:50:04.8±0.6, 2.86N×95.69E, h30^{km}, mb4.7/5, Error ellipse: s-maj=22.6km s-min=10.5km az=58.0*

ISC 27 05:50:02.4±0.6, 2.80N±0.09×95.6E±0.1, h30^{km}, n37, σ1$.^{s}$05/31, mb4.8/25, MS4.8/6, 1C, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
UBT	**Ubonrachathani**	**15.45**	**36**	P	**P**	**05 53 44.5**	**+4.4**
CMAR	**Chiang Mai Arr**	**15.89**	**12**	Pn	**P**	**05 53 48.4**	**+2.5**
	2.3nm,0.3s,baz=200,slow=12,SNR=14						
QZH	**Quanzhou**	**31.21**	**43**	P	**P**	**05 56 22.8**	**+1.1**
QZH				AMB	AMB		

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       comp=Z,130nm,0.9s,mb5.8
XAN    Xi'an             33.46  20   P      P      05 56 39.3 -1.9
XAN                                  AP     pP     05 56 46.0 -4.1
XAN                                  AMB    AMB
       comp=Z,61nm,0.7s,mb5.6
MBWA   Marble Bar        33.53 136  eP      P      05 56 41.5 -0.4
       comp=Z,0.9nm,0.5s,mb4.0
JOW    Kunigami          39.35  49   P      P      05 57 30.8 -0.4
       comp=Z,16nm,0.8s,mb4.8,baz=250,slow=11,SNR=4.2
BTO    Baotou            39.82  17  eP      P      05 57 34.5 -0.3
BTO                                  AMB    AMB
       comp=Z,31nm,1.2s,mb4.9
BTO                                  LR     LR
       comp=N,580nm,13.9s,MS4.8
BTO                                  LR     LR
       comp=E,876nm,17.2s,MS4.8
HHC    Hu-ho-hao-te      40.51  19  eP      P      05 57 41.5 +1.0
HHC                                  AP     pP     05 57 48.5 -1.0
HHC                                  XP     sP     05 57 52.0 -1.3
HHC                                  PP     PP     05 59 18.0 +0.8
HHC                                  S      S      06 03 36.0  -11
HHC                                  AMB    AMB
       comp=Z,49nm,1.1s,mb5.0
HHC                                  AMB    AMB
       comp=Z,312nm,4.9s
HHC                                  LR     LR
       comp=N,1µm,14.3s,MS5.0
HHC                                  LR     LR
       comp=E,803nm,14.3s,MS5.0
HHC                                  LR     LR
       comp=Z,1µm,19.0s,MS4.8
BJI    Beijing           41.48  24   P      P      05 57 49.3 +0.8
BJI                                  AMB    AMB
       comp=Z,83nm,1.0s,mb5.3
BJI                                  AMB    AMB
       comp=Z,243nm,4.5s
BJI                                  LR     LR
       comp=N,907nm,17.2s,MS4.8
BJI                                  LR     LR
       comp=E,840nm,18.5s,MS4.8
BJI                                  LR     LR
       comp=Z,685nm,24.3s
AAK    Ala-Archa         43.92 337   P      P      05 58 08.8 +0.4
       comp=Z,2.0nm,0.5s,mb4.1
WRA    Warramunga Arr    44.22 122   P      P      05 58 11.3 +0.2
       comp=Z,14nm,0.9s,mb4.7,baz=302,slow=9.0,SNR=30
WRAB   Tennant Creek     44.22 122  eP      P      05 58 11.0 -0.1
       comp=Z,31nm,1.0s,mb5.0
ASAR   Alice Springs     45.61 127   P      P      05 58 22.5 +0.3
       comp=Z,3.5nm,0.7s,mb4.4,baz=304,slow=7.6,SNR=12
SONM   Songino Array     45.81  10   P      P      05 58 23.1 -0.4
       comp=Z,14nm,0.6s,mb5.0,baz=204,slow=7.3,SNR=9.3
ULN    Ulaanbaatar       45.96  11  eP      P      05 58 23.9 -0.8
       comp=Z,5.6nm,0.5s,mb4.8
SNY    Shenyang          46.24  29 ⇑ P      P      05 58 23.8 -3.1
SNY                                  LR     LR
       comp=N,1µm,16.6s,MS4.9
SNY                                  LR     LR
       comp=E,490nm,16.6s,MS4.9
SNY                                  LR     LR
       comp=Z,940nm,15.1s,MS4.9
PMG    Port Moresby      52.76 104   P      P      05 59 15.8 -1.6
       comp=Z,16nm,0.8s,mb5.0,baz=266,slow=5.2,SNR=8.6
BVAR   Borovoye Array    54.23 341   P      P      05 59 26.8 -0.9
       comp=Z,6.1nm,0.6s,mb4.7,baz=149,slow=11,SNR=9.5
CTA    Charters Tower    54.62 117   P      P      05 59 31.0  0.0
       comp=Z,12nm,0.9s,mb4.9,baz=285,slow=11,SNR=9.3
CTA    Charters Tower    54.62 117   P      P      05 59 31.0  0.0
CHKZ   Chkalovo          54.72 342  eP      P      05 59 30.6 -0.7
       comp=Z,22nm,0.7s,mb5.3
STKA   Stephens Creek    55.59 132   P      P      05 59 40.5 +2.6
       comp=Z,2.9nm,0.8s,mb4.4,baz=357,slow=7.8,SNR=2.8
ASF    Jabal al Asfar    62.26 305   LR     LR     06 28 42.5
       comp=Z,605nm,19.0s,MS4.8,baz=124,slow=37
AKASG  Malin Array Be    73.03 322   P      P      06 01 30.4 -1.1
       comp=Z,0.7nm,0.3s,mb4.0,baz=82,slow=4.3,SNR=7.0
FINES  FINESS Array B    77.86 333   P      P      06 01 58.5 -0.2
       comp=Z,5.1nm,0.9s,mb4.5,baz=101,slow=6.7,SNR=4.7
ARCES  ARCESS Array B    80.50 340   P      P      06 02 13.9 +1.0
       comp=Z,1.7nm,0.6s,mb4.2,baz=96,slow=5.0,SNR=6.4
GERES  GERESS Array B    82.58 319   P      P      06 02 25.6 +1.5
       comp=Z,3.3nm,0.9s,mb4.4,baz=90,slow=4.0,SNR=4.4
CLL    Collm             83.20 321   P      P      06 02 27.6 +0.3
       comp=Z,logA/T=1.0,mb4.8
NOA    NORSAR Array B    84.85 331   P      P      06 02 35.0 -0.3
       comp=Z,5.6nm,1.0s,mb4.7,baz=95,slow=5.5,SNR=4.2
ILAR   Eielson Array     98.84  23   P      P      06 03 40.3 -0.2
       comp=Z,1.7nm,0.8s,mb4.6,baz=284,slow=4.8,SNR=11
ILAR                                 LR     LR     06 57 05.7
       comp=Z,215nm,18.5s,MS4.7,baz=134,slow=41
ILAR   Eielson Array     98.84  23   P      P      06 03 40.3 -0.2
ILAR                                 LR     LR     06 57 05.7
DBIC   Dimbokro         100.07 277   P      P      06 03 48.9 +1.5
       comp=Z,3.3nm,0.8s,baz=29,slow=8.7,SNR=4.6
INK    Inuvik           101.41  17   P      P      06 03 52.3 +0.2
       comp=Z,4.1nm,0.8s,baz=340,slow=6.4,SNR=6.7
CPUP   Villa Florida    145.06 225   PKPbc  PKPbc  06 09 40.7 +2.7
       comp=Z,0.0nm,0.3s,baz=196,slow=16,SNR=1.9
CPUP   Villa Florida    145.06 225   PKPbc  PKPbc  06 09 40.7 +2.7
SJG    San Juan         152.53 320   PKPbc  PKPdf  06 10 01.4 +6.5
       comp=Z,10nm,0.6s,baz=355,slow=4.7,SNR=5.0
SJG    San Juan         152.53 320   PKPbc  PKPdf  06 10 01.4 +6.5
```

MOS ***27*** *05:50:10.2±0.9, 8.02N×92.11E, h33^{km}, mb5.2/35, Error ellipse: s-maj=11.1km s-min=6.2km az=117.0*

NEIC ***27*** *05:50:12.0±0.3, 8.02N×92.10E, mb4.9/26, Error ellipse: s-maj=8.4km s-min=6.3km az=0.0*

BJI ***27*** *05:50:11.9, 8.00N×92.10E, h32^{km}, mB5.1, mb4.6, Ms5.0, Msz4.7*

HRVD ***27*** *05:50:12.0±0.5, 8.04N×92.01E, h18^{km}±2^{km}, MW5.2/59, Centroid moment Tensor Solution. LP body waves: s16,c25;Mantle waves: s59,c107; Half duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.20±.34; $M_{\theta\theta}$-5.22±.29; $M_{\phi\phi}$5.01±.30; $M_{r\theta}$-3.29±.89; $M_{\theta\phi}$-4.34±.27; $M_{\phi r}$-2.90±.87; Best double couple: $M_0$7.89×10^{16} NP1: ϕ_s118°,δ61°,λ-173°. NP2:ϕ_s24°,δ84°,λ-30°. Principal axes: T 7.05, Plg16°, Azm75°; N 1.66, Plg60°, Azm194°; P -8.72, Plg25°, Azm337°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***27*** *05:50:15.0±4.5, 8.09N×92.09E, h56^{km}±39^{km}, mb4.4/21, mb1 4.4/22, mb1mx4.4/27, ML4.5/1, MS4.6/7, Ms1 4.6/7, ms1mx4.1/19 Error ellipse: s-maj=20.5km s-min=12.2km az=33.0*

ISC 27 05:50:09.6±0.4, **8.03N**±0.05×**92.10E**±0.04, **h27^{km}, h27^{km}**±1.7^{km}**:pP-P, n178,** σ1^{s}**04**/175, **mb4.9**/66, **MS4.7**/14, **7C-7D, Nicobar Islands region**

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Code   Station Name       Δ°   AZ°    Phase ID           Time    Res
                                     Op     ISC        h  m  s   ISC
PALK   Pallekele         11.32 267  eP      P      05 52 51.4 -1.5
       110nm,0.9s
CMAR   Chiang Mai Arr    12.32  32   P      P      05 53 07.0 +0.6
       0.8nm,0.3s,baz=232,slow=14,SNR=12
CHG    Chiang Mai        12.61  31   P      P      05 53 12.2 +1.9
       14nm,0.8s
VIS    Vishakhapatnam    12.88 319  e       P      05 53 09.5 -4.3
VIS                                 eS      S      05 55 21.1  -16
TRD    Trivandrum        14.99 273  eP      P      05 53 51.8  +10
TRD                                 e              05 53 52.6
       comp=Z,38nm,0.9s
AGT    Agartala          15.79 357⇑iP       P      05 53 49.0 -3.0
AGT                                 i              05 54 44.0
HYB    Hyderabad         16.17 307  eP      P      05 53 56.0 -0.8
HYB                                 eS      S      05 56 46.0 -9.0
HYB                                  pmax   pmax
       comp=Z,130nm,1.0s
HYB    Hyderabad         16.17 307  eP      P      05 53 56.0 -0.8
       comp=Z,130nm,1.0s
HYB                                 eS      S      05 56 46.0 -9.0
HYB    Hyderabad         16.17 307  i P     P      05 53 56.0 -0.8
       comp=Z,130nm,1.0s
HYB                                 eS      S      05 56 46.0 -9.0
IMP    Imphal            16.75   6  e       P      05 54 02.3 -1.9
BOK    Bokaro            16.77 340  eP      P      05 54 00.1 -4.3
BOK                                 eS      S      05 57 01.9 -6.9
BLSP   Bilaspur          16.99 327  eP      P      05 54 05.8 -1.5
BLSP                                e              05 54 07.3
       comp=Z,110nm,1.0s
BLSP                                eS      S      05 57 11.3 -2.6
LATR   Latur             18.30 306  e       S      05 57 29.0  -15
GOA    Goa               19.36 294⇑eP       P      05 54 41.8 +5.6
       comp=Z,34nm,0.3s
GOA                                 eS      S      05 58 16.7 +9.1
KAD    Karad             19.75 300⇑iP       P      05 54 41.1 +0.5
KAD                                 i       S      05 58 08.5 -7.5
QIZ    Qiongzhong        20.40  56   P      P      05 54 47.5 +0.1
QIZ                                  AMB    AMB
       comp=Z,72nm,1.2s
QIZ    Qiongzhong        20.40  56  eP      P      05 54 47.5 +0.1
       comp=Z,41nm,0.8s
QIZ                                 e              05 54 57.4
PKI    Pulchoki          20.44 343  eP      P      05 54 47.8  0.0
       comp=Z,180nm,0.6s
DMN    Daman             20.57 342  eP      P      05 54 49.1  0.0
       comp=Z,286nm,1.1s
POO    Poona             20.58 302  eP      P      05 54 51.0 +1.7
POO                                 e              05 54 53.1
       comp=Z,89nm,1.2s
GUN    Gumba             20.63 344  eP      P      05 54 49.9 +0.1
       comp=Z,381nm,0.9s
BHPL   Bhopal            20.67 319  eP      P      05 54 50.3 +0.2
BHPL                                e              05 54 54.8
       comp=Z,170nm,1.3s
BHPL                                eS      S      05 58 38.4 +3.7
KKN    Kakani            20.69 343  eP      P      05 54 50.0 -0.3
       comp=Z,218nm,1.1s
GKN    Gorkha            21.08 341  eP      P      05 54 54.4  0.0
       comp=Z,568nm,1.0s,mb5.8
KOLN   Koldanda          21.22 339  eP      P      05 54 55.0 -0.7
       comp=Z,603nm,0.9s,mb5.9
LSA    Lhasa             21.58 358  eP      P      05 54 59.8 +0.5
LSA                                  pmax   pmax
       comp=Z,208nm,1.1s,mb5.5
LSA    Lhasa             21.58 358  eP      P      05 54 59.8 +0.5
       comp=Z,208nm,1.1s,mb5.5
GYA    Guiyang           22.96  35⇑iP       P      05 55 13.5 +0.3
GYA                                  PP     PP     05 55 46.0 +2.9
GYA                                  S      S      05 59 22.0 +4.6
GYA                                  AMB    AMB
       comp=Z,60nm,0.8s,mb5.1
GYA                                  AMB    AMB
       comp=Z,450nm,3.1s
GYA                                  LR     LR
       comp=N,1µm,15.6s,MS4.8
GYA                                  LR     LR
       comp=E,2µm,16.0s,MS4.8
GYA                                  LR     LR
       comp=Z,3µm,16.4s,MS4.9
PTH    Pithoragarh       24.15 334  eP      P      05 55 26.8 +2.1
NDI    New Delhi         24.88 328  eP      P      05 55 31.0 -0.7
CD2    Chengdu           25.24  24⇑iP       P      05 55 35.3 +0.2
CD2                                  AMB    AMB
       comp=Z,50nm,0.8s,mb5.1
DDI    Dehra Dun         25.79 331  eP      P      05 55 42.0 +1.7
DDI                                 e              06 00 32.7
ENH    Enshi             27.48  34  eP      P      05 55 53.9 -1.9
       comp=Z,19nm,0.9s,mb4.6
ENH                                 e              05 56 04.5
TGY    Tagaytay City     28.92  75   LR     LR     06 07 41.9
       comp=Z,1µm,19.2s,MS4.6,baz=252,slow=36
LZH    Lanzhou           29.92  19  eP      P      05 56 18.5 +0.8
LZH                                  AMB    AMB
       comp=Z,32nm,1.6s,mb4.8
WHN    Wuhan             30.58  40 ⇓P       P      05 56 23.3 -0.3
GTA    Gaotai            32.00  11   P      P      05 56 35.8 -0.2
GTA                                  AP     pP     05 56 42.8 -1.3
GTA                                  PP     PP     05 57 42.8 +0.3
GTA                                  S      S      06 01 46.3 +1.5
GTA                                  SS     SS     06 03 37.0 -0.9
GTA                                  AMB    AMB
       comp=Z,40nm,1.8s,mb5.0
GTA                                  AMB    AMB
       comp=Z,200nm,5.3s
GTA                                  LR     LR
       comp=N,374nm,17.6s,MS4.4
GTA                                  LR     LR
       comp=E,657nm,18.7s,MS4.4
GTA                                  LR     LR
       comp=Z,1µm,14.9s,MS4.6
KSH    Kashi             34.53 338   P      P      05 56 59.0 +1.1
KSH                                  AP     pP     05 57 05.0 -1.0
KSH                                  XP     sP     05 57 09.0 -0.5
KSH                                  AMB    AMB
       comp=Z,140nm,5.7s
KSH                                  LR     LR
       comp=N,1µm,13.6s,MS5.0
KSH                                  LR     LR
       comp=E,2µm,14.9s,MS5.0
WMQ    Urumqi            35.86 355   P      P      05 57 10.0 +0.8
WMQ                                  AMB    AMB
       comp=Z,8.0nm,0.9s,mb4.7
KZA    Kyzart            37.04 339   P      P      05 57 20.6 +1.5
       SNR=21
UCH    Uchtor            37.43 338   P      P      05 57 24.1 +1.7
       SNR=22
KBK    Karagaybulak      37.65 339   P      P      05 57 25.0 +0.7
       SNR=6.0
AML    Almayashu         37.66 337   P      P      05 57 25.8 +1.5
       SNR=54
TKM2   Tokmak 2          37.66 340   P      P      05 57 25.4 +1.0
       SNR=13
AAK    Ala-Archa         37.79 339   P      P      05 57 27.6 +2.1
       SNR=31
AAK    Ala-Archa         37.79 339d iP      P      05 57 25.7 +0.2
AAK                                  pmax   pmax
       comp=Z,72nm,1.3s,mb5.2
AAK    Ala-Archa         37.79 339  eP      P      05 57 25.5  0.0
       comp=Z,60nm,1.1s,mb5.2
FRU    Bishkek           37.92 339  eP      P      05 57 28.0 +1.5
FRU                                  pmax   pmax
       comp=Z,100nm,2.0s,mb5.2
CHMS   Chumysh           38.02 339   P      P      05 57 28.6 +1.3
       SNR=13
EKS2   Erkin-Say         38.08 338   P      P      05 57 29.4 +1.5
       SNR=20
USP    Ospenovka         38.34 339   P      P      05 57 31.6 +1.5
       SNR=16
BJT    Baijiatuau        38.44  30  eP      P      05 57 29.4 -1.5
BJT                                  pmax   pmax
       comp=Z,9.0nm,0.8s
BJT    Baijiatuau        38.44  30  eP      P      05 57 29.4 -1.5
       comp=Z,9.3nm,0.8s,mb4.6
JOW    Kunigami          39.05  57   P      P      05 57 36.1  0.0
       comp=Z,38nm,1.0s,mb5.1,baz=295,slow=9.4,SNR=5.5
JOW    Kunigami          39.05  57   P      P      05 57 36.1  0.0
MKAR   Makanchi Array    39.53 349  i P     P      05 57 40.1 +0.2
MKAR                                 pmax   pmax
       comp=Z,16nm,0.9s
MKAR   Makanchi Array    39.53 349  i P     P      05 57 40.2 +0.3
SONM   Songino Array     41.49  15   P      P      05 57 56.5 +0.5
       comp=Z,6.8nm,1.1s,mb4.2,baz=200,slow=7.9,SNR=15
ULN    Ulaanbaatar       41.68  15  eP      P      05 57 56.8 -0.8
ULN                                  pmax   pmax
       comp=Z,21nm,1.6s,mb4.5
ULN    Ulaanbaatar       41.68  15  eP      P      05 57 56.8 -0.8
       comp=Z,21nm,1.6s,mb4.5
ZAK    Zakamensk         43.23  10  eP      P      05 58 10.8 +0.5
TLY    Talaya            44.55  10  i P     P      05 58 10.2  -11
CN2    Changchun         46.00  34  eP      P      05 58 32.5  0.0
CN2                                  LR     LR
       comp=N,760nm,15.0s,MS4.9
CN2                                  LR     LR
       comp=E,700nm,15.0s,MS4.9
CN2                                  LR     LR
       comp=Z,740nm,16.0s,MS4.7
UMR    Umm Al-Rimmam     46.78 303  eP      P      05 58 39.6 +0.7
UMR                                  AMb    AMB    05 58 40.6
       comp=Z,50nm,0.7s,mb5.6
MIB    Mutribah          47.17 303  eP      P      05 58 42.5 +0.5
MIB                                  AMb    AMB    05 58 44.2
       comp=Z,99nm,0.9s,mb5.7
HIA    Hailar            47.19  24   P      P      05 58 36.3 -5.6
HIA                                  pmax   pmax
       comp=Z,5.0nm,0.8s
HIA    Hailar            47.19  24   P      P      05 58 36.3 -5.6
       comp=Z,4.6nm,0.8s,mb4.5
NVS    Novosibirsk       47.22 353  eP      P      05 58 40.3 -1.7
NVS                                  pmax   pmax
       comp=Z,19nm,0.9s,mb5.0
NVS                                  pmax   pmax
       comp=N,30nm,1.6s
RST    Umm Al-Ruwaisa    47.36 303  eP      P      05 58 44.0 +0.4
RST                                  AMb    AMB    05 58 46.0
       comp=Z,59nm,0.9s,mb5.5
BVAR   Borovoye Array    48.21 343   P      P      05 58 49.8 -0.1
       comp=Z,7.2nm,0.9s,mb4.7,baz=143,slow=7.4,SNR=20
BRVK   Borovoye          48.27 343  eP      P      05 58 49.5 -0.8
BRVK                                e       pP     05 58 57.3 -1.3
BRVK                                 pmax   pmax
       comp=Z,20nm,1.3s,mb5.0
BRVK   Borovoye          48.27 343  eP      P      05 58 49.5 -0.8
       comp=Z,20nm,1.3s,mb5.0
BRVK                                e       pP     05 58 57.3 -1.3
CHKZ   Chkalovo          48.72 343  eP      P      05 58 53.3 -0.4
CHKZ                                e       pP     05 59 01.7 -0.4
CHKZ                                 pmax   pmax
       comp=Z,75nm,1.5s,mb5.5
CHKZ   Chkalovo          48.72 343  eP      P      05 58 53.3 -0.4
       comp=Z,75nm,1.5s,mb5.5
CHKZ                                e       pP     05 59 01.7 -0.4
WRA    Warramunga Arr    50.01 124   P      P      05 59 03.7 -0.3
       comp=Z,8.9nm,0.8s,mb4.8,baz=302,slow=9.0,SNR=6.1
MAT    Matsushiro        50.56  49   P      P      05 59 07.8 -0.3
MAT    Matsushiro        50.56  49  eP      P      05 59 08.0 -0.1
MAT                                  pmax   pmax
       comp=Z,17nm,1.2s,mb4.8
MAT    Matsushiro        50.56  49  eP      P      05 59 08.0 -0.1
       comp=Z,17nm,1.2s,mb4.9
ASAR   Alice Springs     51.58 129   P      P      05 59 15.5 -0.5
       comp=Z,7.4nm,0.9s,mb4.6,baz=305,slow=6.7,SNR=8.4
ASAR                                 PcP    PcP    06 00 30.5 +0.7
       comp=Z,4.2nm,0.8s,baz=306,slow=3.8,SNR=6.3
ASAR                                 LR     LR     06 21 08.1
       comp=Z,436nm,20.6s,MS4.5,baz=299,slow=36
BOD    Bodaibo           52.49  15  eP      P      05 59 21.6 -0.8
KLR    Kul'dur           52.80  32  eP      P      05 59 31.5 +6.7
GNI    Garni             52.89 315   P      P      05 59 25.6  0.0
       comp=Z,15nm,1.0s,mb4.9,baz=357,slow=3.2,SNR=8.9
GNI    Garni             52.89 315  i P     P      05 59 26.3 +0.7
GNI                                  pmax   pmax
       comp=Z,22nm,1.2s
TI2    Plekhanov         53.54 317⇓iP       P      05 59 30.2 -0.2
TI2                                  pmax   pmax
       comp=Z,20nm,1.0s,mb5.0
SVE    Sverdlovsk        54.53 339⇓iP       P      05 59 38.0 +0.6
SVE                                  MLR    MLR
       comp=Z,1µm,17.0s,MS5.0
ZEI    Tsey              54.55 318  eP      P      05 59 37.5 -0.3
ZEI                                  pmax   pmax
       comp=Z,7.0nm,0.9s,mb4.7
ARU    Arti              54.97 338⇓iP       P      05 59 40.3 -0.4
ARU                                 e              06 01 46.5
ARU                                 eS      S      06 07 42.2  +23
ARU                                  pmax   pmax
       comp=Z,35nm,0.9s,mb5.4
CLNS   Chul'man          55.01  21  eP      P      05 59 39.2 -1.7
CLNS                                 pmax   pmax
       comp=Z,18nm,1.1s,mb5.0
CLNS                                 pmax   pmax
       comp=N,13nm,1.0s
CLNS                                 pmax   pmax
       comp=E,12nm,1.1s
KMBO   Kilima Mbogo      55.43 263   P      P      05 59 45.8 +1.2
       comp=E,0.8nm,0.7s,mb3.9,baz=45,slow=17,SNR=2.8
KIV    Kislovodsk        55.85 318   P      P      05 59 47.4 +0.2
       comp=E,130nm,0.8s,mb6.0,SNR=7.3
KIV    Kislovodsk        55.85 318⇑iP       P      05 59 47.3 +0.1
ASF    Jabal al Asfar    56.44 303   P      P      05 59 52.1 +0.5
       comp=E,2.6nm,0.4s,mb4.6,baz=70,slow=7.6,SNR=5.3
ASAJ   Asahikawa         56.63  42   P      P      05 59 52.5 -0.3
       comp=E,33nm,1.2s,mb5.2,baz=297,slow=5.5,SNR=2.8
ASAJ   Asahikawa         56.63  42   P      P      05 59 52.6 -0.2
ASAJ                                 pmax   pmax
       comp=Z,33nm,1.2s
MALT   Malatya           56.83 311  eP      P      05 59 53.7 -0.6
MALT                                 pmax   pmax
       comp=Z,12nm,1.1s,mb4.8
MALT   Malatya           56.83 311  eP      P      05 59 53.7 -0.6
       comp=Z,12nm,1.1s,mb4.8
PMG    Port Moresby      57.51 106   P      P      05 59 59.6 +0.2
       comp=Z,13nm,0.9s,mb5.0,baz=284,slow=6.4,SNR=2.8
PMG    Port Moresby      57.51 106  eP      P      05 59 59.0 -0.4
EIL    Elat              57.60 300  eP      P      06 00 00.1 +0.2
       comp=Z,39nm,1.3s,mb5.3
EIL                                 e       pP     06 00 10.0 +1.6
SOC    Sochi             57.69 317  eP      P      06 00 05.1 +4.8
SOC                                 e              06 02 11.2
SOC                                  pmax   pmax
       comp=N,4.0nm,0.7s
SOC                                  pmax   pmax
       comp=Z,14nm,0.7s,mb5.1
SOC                                  pmax   pmax
       comp=E,16nm,0.9s
YSS    Yuzh-Sakhalins    57.91  39  eP      P      06 00 05.0 +3.2
SOKR   Solikamsk         57.94 340⇑iP       P      06 00 00.3 -1.5
SOKR                                 pmax   pmax
       comp=Z,30nm,1.0s,mb5.3
SOKR                                 MLR    MLR
       comp=Z,630nm,21.0s,MS4.7
CTA    Charters Tower    60.15 119   LR     LR     06 30 36.8
       comp=Z,532nm,19.9s,MS4.7,baz=281,slow=40
YAK    Yakutsk           60.50  19  eP      pP     06 00 35.2 +7.1
YAK                                 e              06 00 49.9
YAK                                  pmax   pmax
       comp=N,8.0nm,1.0s
YAK                                  pmax   pmax
       comp=E,6.0nm,1.0s
YAK                                  pmax   pmax
       comp=Z,30nm,1.0s,mb5.4
YAK                                  pmax   pmax
       comp=Z,28nm,1.0s,mb5.3
YAK                                  pmax   pmax
       comp=N,11nm,1.1s
YAK                                  pmax   pmax
       comp=E,7.0nm,0.9s
BRTR   Keskin Array B    60.80 311   P      P      06 00 20.6 -1.3
       comp=E,5.2nm,0.8s,mb4.7,baz=118,slow=7.6,SNR=24
STKA   Stephens Creek    61.68 133   P      P      06 00 27.6 -0.3
       comp=E,2.5nm,0.9s,mb4.3,baz=33,slow=2.1,SNR=5.4
STKA                                 LR     LR     06 32 46.7
       comp=E,505nm,18.3s,MS4.7,baz=304,slow=41
MBAR   Mbarara           61.76 265  eP      P      06 00 30.4 +1.7
MBAR                                 pmax   pmax
       comp=Z,11nm,1.3s,mb4.8
MBAR   Mbarara           61.76 265  eP      P      06 00 30.4 +1.7
       comp=Z,11nm,1.3s,mb4.8
ISP    Isparta           62.76 308  eP      P      06 00 33.8 -1.2
ISP                                  pmax   pmax
       comp=Z,23nm,1.3s,mb5.2
ISP    Isparta           62.76 308  eP      P      06 00 33.8 -1.2
       comp=Z,23nm,1.3s,mb5.2
MOS    Moscow            63.90 329  eP      P      06 00 41.2 -1.1
MOS                                 e              06 00 55.6
OBN    Obninsk           64.18 328⇓iP       P      06 00 42.0 -2.1
OBN                                 eS      S      06 09 24.9 +7.0
OBN                                  pmax   pmax
       comp=Z,37nm,1.5s,mb5.2
OBN                                  MLR    MLR
       comp=Z,600nm,19.0s,MS4.8
AKASG  Malin Array Be    66.78 322   P      P      06 00 58.7 -2.2
       comp=Z,1.4nm,0.7s,mb4.1,baz=89,slow=4.8,SNR=11
AKASG  Malin Array Be    66.78 322   P      P      06 00 58.7 -2.2
AKASG                                pmax   pmax
       comp=Z,1.0nm,0.7s
IDI    Anoyia            66.82 305   P      P      06 01 01.1 -0.3
       comp=Z,22nm,1.1s,mb5.1,baz=71,slow=8.3,SNR=4.7
TIXI   Tiksi             67.49  12  eP      P      06 01 03.6 -1.4
TIXI                                 pmax   pmax
       comp=Z,40nm,1.2s,mb5.3
KOLS   Kolonicke sedl    70.76 319  eP      P      06 01 25.0 -0.5
APA    Apatity           71.00 340⇓iP       pP     06 01 34.8 -0.5
APA                                  pmax   pmax
       comp=Z,18nm,1.0s,mb5.0
SUW    Suwalki           71.20 324  eP      P      06 01 25.9 -2.2
SUW                                  pmax   pmax
       comp=Z,43nm,1.1s,mb5.3
SUW    Suwalki           71.20 324  eP      P      06 01 25.9 -2.2
       comp=Z,43nm,1.1s,mb5.3
CRVS   Cervenica-Dubn    71.28 319  eP      P      06 01 31.4 +2.7
CRVS                                e              06 13 19.5
FINES  FINESS Array B    71.64 332   P      P      06 01 29.2 -1.4
       comp=Z,1.9nm,0.7s,mb4.2,baz=97,slow=6.9,SNR=5.8
LBTB   Lobatse           72.55 241  eP      P      06 01 34.2 -2.6
LBTB                                 pmax   pmax
       comp=Z,11nm,1.2s,mb4.7
LBTB   Lobatse           72.55 241  eP      P      06 01 34.2 -2.5
       comp=Z,11nm,1.2s,mb4.7
OJC    Ojcow             72.56 320  eP      P      06 01 39.2 +2.9
VYHS   Vyhne             72.94 318  eP      P      06 01 38.4 -0.2
OKC    Ostrava-Krasne    73.56 320  eP      P      06 01 42.0 -0.1
ZST    Bratislava        74.06 318  eP      P      06 01 45.0 -0.1
ZST                                 e              06 01 51.2
ARCES  ARCESS Array B    74.44 340   P      P      06 01 46.1 -0.7
       comp=Z,3.4nm,0.8s,mb4.3,baz=108,slow=8.6,SNR=5.2
```

DPC	Dobruska-Polom	74.79	320	eP	P	06 01 49.4	+0.2
KSP	Ksiaz	74.86	320	eP	P	06 01 49.0	-0.6
UPC	Upice	75.00	320	eP	P	06 01 50.8	+0.3
UPC				epP	pP	06 02 02.5	+3.4
PRU	Pruhonice	75.90	319	eP	P	06 01 55.6	0.0
PRU				epP	pP	06 02 05.1	+0.9
BRG	Berggiesshubel	76.34	320	i P	P	06 01 58.6	+0.5
BRG				e	pP	06 02 06.0	-0.7
BRG				pmax	pmax		
	comp=Z,37nm,1.8s,mb5.0						
BRG	Berggiesshubel	76.34	320	i P	P	06 01 58.6	+0.5
	comp=Z,37nm,1.8s,mb5.0						
BRG				e	pP	06 02 06.0	-0.7
GEC2	GERESS Array S	76.37	318	eP	P	06 01 58.6	+0.4
GEC2				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GEC2	GERESS Array S	76.37	318	eP	P	06 01 58.6	+0.4
	comp=Z,7.0nm,0.9s,mb4.6						
GERES	GERESS Array B	76.37	318	P	P	06 01 58.6	+0.4
	comp=Z,4.6nm,0.9s,mb4.4,baz=90,slow=5.3,SNR=24						
KHC	Kasperske Hory	76.46	319	eP	P	06 01 58.8	0.0
BILL	Bilibino	76.69	22	i P	P	06 02 08.3	+8.6
WET	Wettzell	76.92	319	eP	P	06 02 01.8	+0.4
CLL	Collm	76.96	321	eP	P	06 02 01.0	-0.5
CLL				pmax	pmax		
	comp=Z,24nm,1.6s,mb4.9						
CLL	Collm	76.96	321	eP	P	06 02 01.0	-0.5
	comp=Z,24nm,1.6s,mb4.9						
CLL	Collm	76.96	321	P	P	06 02 01.0	-0.5
	comp=Z,logA/T=1.2,mb4.9						
NKC	Novy Kostel	77.26	320	eP	P	06 02 03.9	+0.7
NKC				epP	pP	06 02 12.4	+0.6
MOX	Moxa	77.81	320	eP	P	06 02 06.0	-0.2
FUR	Furstenfeldbru	77.95	317	eP	P	06 02 06.7	-0.3
GRA1	Grafenberg Arr	78.03	319	eP	P	06 02 08.4	+1.0
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	Grafenberg Arr	78.03	319	eP	P	06 02 08.4	+1.0
GRF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	Grafenberg Arr	78.03	319	eP	P	06 02 08.4	+1.0
GRF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	Grafenberg Arr	78.03	319	eP	P	06 02 08.4	+1.0
	comp=Z,8.0nm,0.8s,mb4.7						
FX1	Attu Island--F	78.25	38	P	P	06 02 09.2	+0.6
	comp=Z,10nm,0.6s,mb4.9,baz=82,slow=21,SNR=2.8						
FX1	Attu Island--F	78.25	38	P	P	06 02 09.2	+0.6
FX1				pmax	pmax		
	comp=Z,11nm,0.6s						
NB2	NORSAR Subarra	78.61	331	P	P	06 02 09.6	-0.8
	comp=Z,12nm,1.2s,mb4.7,baz=92,slow=5.3						
NB2	NORSAR Subarra	78.61	331	P	P	06 02 09.6	-0.8
NB2				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
CLZ	Clausthal	78.63	321	eP	P	06 02 10.7	0.0
	comp=Z,7.0nm,1.0s,mb4.5						
BSEG	Bad Segeberg	78.72	323	eP	P	06 02 11.4	+0.3
DAVOX	Davos	78.88	316	P	P	06 02 12.0	-0.1
	comp=Z,6.5nm,0.9s,mb4.5,baz=151,slow=10,SNR=4.9						
DAVOX	Davos	78.88	316	P	P	06 02 12.0	-0.1
BFO	Black Forest	79.92	318	eP	P	06 02 18.1	+0.4
BFO				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
BFO	Black Forest	79.92	318	eP	P	06 02 18.1	+0.4
	comp=Z,4.0nm,1.0s,mb4.3						
LPL	La Plagne	81.09	315	eP	P	06 02 24.1	+0.1
	comp=Z,42nm,1.0s,mb5.0						
LPL	La Plagne	81.09	315	eP	P	06 02 24.1	+0.1
LPL				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
RPZ	Rata Peaks	87.59	135	LR	LR	06 43 26.0	
	comp=Z,367nm,18.3s,MS4.8,baz=182,slow=36						
ESDC	Sonseca Array	89.57	310	P	P	06 03 06.8	+0.5
	comp=Z,0.2nm,0.4s,baz=76,slow=6.1,SNR=4.6						
URZ	Urewera	91.02	128	LR	LR	06 44 53.2	
	comp=Z,403nm,19.0s,MS4.9,baz=223,slow=36						
ILAR	Eielson Array	95.36	22	P	P	06 03 32.6	+0.2
	comp=Z,1.4nm,1.1s,mb4.3,baz=296,slow=4.1,SNR=10						
ILAR				PP	PP	06 07 21.5	-3.6
	comp=Z,1.1nm,1.1s,baz=292,slow=7.9,SNR=4.3						
ILAR				LR	LR	06 48 34.3	
	comp=Z,218nm,21.2s,MS4.6,baz=133,slow=37						
ILAR	Eielson Array	95.36	22	P	P	06 03 32.6	+0.2
ILAR				PP	PP	06 07 21.5	-3.6
ILAR				LR	LR	06 48 34.2	
INK	Inuvik	97.39	16	P	P	06 03 42.6	+1.1
	comp=Z,2.4nm,0.9s,mb4.6,baz=349,slow=6.4,SNR=3.7						
YKA	Yellowknife Ar	106.73	13	PP	PP	06 08 46.3	-5.8
	comp=Z,0.0nm,0.3s,baz=332,slow=7.3,SNR=6.7						
PDAR	Pinedale Array	125.73	20	PKP	PKPdf	06 09 11.0	-3.1
	comp=Z,0.5nm,0.8s,baz=72,slow=4.7,SNR=4.0						
NVAR	Mina Array Bea	125.80	29	PKP	PKPdf	06 09 10.0	-4.3
	comp=Z,0.5nm,0.3s,baz=56,slow=5.3,SNR=3.2						
NVAR	Mina Array Bea	125.80	29	PKP	PKPdf	06 09 10.0	-4.4
ANMO	Albuquerque	133.79	21	PKP	PKPdf	06 09 26.4	-3.2
	comp=Z,0.3nm,0.3s,baz=45,slow=13,SNR=2.4						
TXAR	Lajitas Array	139.87	22	PKhKP		06 09 34.4	
	comp=Z,0.4nm,0.6s,baz=297,slow=2.0,SNR=4.9						
JCT	Junction City	140.04	16	ePKPpre		06 09 34.4	
CPUP	Villa Florida	145.73	234	PKPbc	PKPbc	06 09 47.5	+0.3
	comp=Z,0.0nm,0.4s,baz=217,slow=17,SNR=1.9						
CPUP	Villa Florida	145.73	234	PKPbc	PKPbc	06 09 47.5	+0.3

BJI ***27*** *05:57:28.8, 8.03N×92.03E, h31^{km}, mB5.2, mb4.9, Ms4.7, Msz4.6*

MOS ***27*** *05:57:29.5±1.0, 8.03N×92.05E, h33^{km}, mb5.0/10, Error ellipse: s-maj=18.1km s-min=11.0km az=101.9*

NEIC ***27*** *05:57:31.1±0.3, 7.99N×92.06E, mb4.7/7, Error ellipse: s-maj=9.3km s-min=8.5km az=33.0*

IDC ***27*** *05:57:32.1±5.8, 7.98N×92.06E, h38^{km}±48^{km}, mb4.1/21, mb1 4.2/22, mb1mx4.1/26, ML4.5/1, Error ellipse: s-maj=20.4km s-min=13.4km az=49.0*

ISC 27 05:57:28.8±0.4**, 8.03N**±0.06×**92.05E**±0.06**, h28^{km}, h28^{km}**±1.9^{km}**:pP-P, n93, σ0^{s}91**/79**, mb4.5**/35**, MS4.8**/3**, 1C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	11.27	267	ePn	P	06 00 10.2	-1.1
	74nm,1.1s						
CMAR	Chiang Mai Arr	12.34	32	Pn	P	06 00 26.5	+0.8
	0.9nm,0.3s,baz=234,slow=14,SNR=5.8						
CMAR	Chiang Mai Arr	12.34	32	Pn	P	06 00 26.5	+0.8
HYB	Hyderabad	16.12	307	eP	P	06 01 11.0	-4.3
HYB	Hyderabad	16.12	307	i P	P	06 01 11.0	-4.3
IMP	Imphal	16.76	6	e	P	06 01 21.7	-1.6
IMP				e		06 05 40.9	
PKI	Pulchoki	20.43	343	eP	P	06 02 07.1	+0.4
	112nm,0.9s						
QIZ	Qiongzhong	20.44	56	P	P	06 02 07.5	+0.6
DMN	Daman	20.55	342	eP	P	06 02 07.5	-0.5
	73nm,0.7s						
GUN	Gumba	20.62	344	eP	P	06 02 08.1	-0.5
	91nm,0.7s						
KKN	Kakani	20.67	343	eP	P	06 02 09.3	+0.1
	31nm,0.5s						
GKN	Gorkha	21.06	342	eP	P	06 02 13.6	+0.4
	94nm,0.6s,mb5.3						
KOLN	Koldanda	21.20	339	eP	P	06 02 15.1	+0.5
	71nm,0.7s,mb5.1						
CD2	Chengdu	25.26	24	P	P	06 02 55.0	+0.6
ENH	Enshi	27.50	34	eP	P	06 03 13.2	-1.9
	19nm,0.9s,mb4.7						
ENH				epP	pP	06 03 23.3	0.0
LZH	Lanzhou	29.93	19	eP	P	06 03 35.8	-1.1
LZH				AMB	AMB		
	comp=Z,32nm,1.6s,mb4.8						
LZH				AMB	AMB		
	comp=Z,120nm,5.4s						
LZH				LR	LR		
	comp=E,1μm,14.6s						
LZH				LR	LR		
	comp=Z,2μm,16.0s,MS4.9						
WHN	Wuhan	30.61	40	⇑P	P	06 03 43.5	+0.6
GTA	Gaotai	32.01	11	eP	P	06 03 54.8	-0.3
GTA				AP	pP	06 04 00.0	-3.5
GTA				XP	sP	06 04 04.5	-2.6
GTA				PP	PP	06 04 58.5	-3.2
GTA				AMB	AMB		
	comp=Z,24nm,1.2s,mb4.9						
GTA				AMB	AMB		
	comp=Z,303nm,5.7s						
GTA				LR	LR		
	comp=N,559nm,14.1s,MS4.5						
GTA				LR	LR		
	comp=E,656nm,17.6s,MS4.5						
GTA				LR	LR		
	comp=Z,1μm,14.9s,MS4.6						
NJ2	Nanjing	34.53	43	eP	P	06 04 16.5	-0.5
NJ2				AP	pP	06 04 25.3	-0.1
NJ2				AMB	AMB		
	comp=Z,60nm,0.5s						
HHC	Hu-ho-hao-te	37.01	25	eP	P	06 04 37.5	-0.4
HHC				AP	pP	06 04 44.3	-2.1
HHC				XP	sP	06 04 47.8	-2.1
HHC				AMB	AMB		
	comp=Z,13nm,0.5s,mb5.0						
AAK	Ala-Archa	37.77	339	eP	P	06 04 44.5	+0.2
AAK				e*PP	pP	06 04 54.2	+1.5
AAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
AAK	Ala-Archa	37.77	339	eP	P	06 04 44.5	+0.2
	comp=Z,10.0nm,1.0s,mb4.5						
AAK				epP	pP	06 04 54.2	+1.5
BJI	Beijing	38.48	30	P	P	06 04 50.3	0.0
BJI				AMB	AMB		
	comp=Z,7.0nm,1.7s,mb4.1						
BJI				AMB	AMB		
	comp=Z,140nm,5.7s						
BJI				LR	LR		
	comp=N,534nm,15.4s,MS4.8						
BJI				LR	LR		
	comp=E,1μm,15.4s,MS4.8						
BJI				LR	LR		
	comp=Z,334nm,23.1s						
JOW	Kunigami	39.09	57	P	P	06 04 57.7	+2.1
	comp=Z,25nm,1.1s,mb4.9,baz=210,slow=8.1,SNR=3.6						
JOW	Kunigami	39.09	57	P	P	06 04 57.7	+2.1
SONM	Songino Array	41.50	15	P	P	06 05 15.2	+0.1
	comp=Z,2.5nm,0.5s,mb4.1,baz=197,slow=8.0,SNR=16						
SONM	Songino Array	41.50	15	P	P	06 05 15.2	+0.1
ULN	Ulaanbaatar	41.69	15	eP	P	06 05 16.4	-0.4
ULN				e*PP	pP	06 05 25.4	+0.2
ULN				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.6						
ULN	Ulaanbaatar	41.69	15	eP	P	06 05 16.4	-0.3
	comp=Z,13nm,0.9s,mb4.5						
ULN				epP	pP	06 05 25.4	+0.1
ZAK	Zakamensk	43.24	10	eP	P	06 05 29.5	+0.1
CN2	Changchun	46.02	34	eP	P	06 05 52.8	+1.0
ZAL	Zalesovo	46.15	354	P	P	06 05 52.1	-0.5
	comp=Z,1.4nm,0.4s,mb4.2,baz=292,slow=10.0,SNR=6.5						
ZAL	Zalesovo	46.15	354	P	P	06 05 52.1	-0.5
BVAR	Borovoye Array	48.20	343	P	P	06 06 08.9	+0.1
	comp=Z,1.2nm,0.7s,mb4.0,baz=149,slow=8.6,SNR=4.6						
BVAR	Borovoye Array	48.20	343	P	P	06 06 08.9	+0.1
CHKZ	Chkalovo	48.70	343	eP	P	06 06 12.6	0.0
CHKZ				e*PP	pP	06 06 21.2	0.0
CHKZ				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
CHKZ	Chkalovo	48.70	343	eP	P	06 06 12.6	0.0
	comp=Z,5.7nm,1.0s,mb4.6						
CHKZ				epP	pP	06 06 21.2	0.0
WRA	Warramunga Arr	50.05	124	P	P	06 06 22.1	-1.3
	comp=Z,3.0nm,0.7s,mb4.4,baz=305,slow=8.9,SNR=8.0						
WRA	Warramunga Arr	50.05	124	P	P	06 06 22.2	-1.3
ASAR	Alice Springs	51.62	129	P	P	06 06 34.1	-1.2
	comp=Z,2.3nm,0.8s,mb4.2,baz=310,slow=7.2,SNR=10.0						
ASAR				PcP	PcP	06 07 47.2	-1.7
	comp=Z,2.8nm,0.8s,baz=303,slow=3.6,SNR=5.9						
ASAR	Alice Springs	51.62	129	P	P	06 06 34.1	-1.2
ASAR				PcP	PcP	06 07 47.2	-1.7
BOD	Bodaibo	52.50	15	eP	P	06 06 40.0	-1.5
GNI	Garni	52.85	315	P	P	06 06 45.8	+1.4
	comp=Z,2.5nm,0.4s,mb4.5,baz=17,slow=20,SNR=3.3						
GNI	Garni	52.85	315	P	P	06 06 45.8	+1.4
SVE	Sverdlovsk	54.51	339	⇓eP	P	06 06 56.5	+0.2
SVE				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.3						
ARU	Arti	54.95	338	⇓iP	P	06 06 59.0	-0.6
ARU	Arti	54.95	338	eP	P	06 06 59.6	0.0
	comp=Z,6.4nm,0.6s,mb4.8						
KMBO	Kilima Mbogo	55.38	263	P	P	06 07 03.9	+0.7
	comp=Z,0.8nm,0.6s,mb3.9,baz=44,slow=15,SNR=4.0						
KMBO	Kilima Mbogo	55.38	263	P	P	06 07 04.0	+0.7
KIV	Kislovodsk	55.82	319	i P	P	06 07 00.9	-5.1
ASF	Jabal al Asfar	56.40	303	P	P	06 07 11.3	+1.0
	comp=Z,1.5nm,0.3s,mb4.5,baz=44,slow=18,SNR=2.1						
ASF	Jabal al Asfar	56.40	303	P	P	06 07 11.3	+1.0
MALT	Malatya	56.79	311	eP	P	06 07 12.9	-0.1
MALT				e*PP	pP	06 07 21.7	0.0
MALT				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
MALT	Malatya	56.79	311	eP	P	06 07 12.8	-0.2
	comp=Z,4.0nm,0.9s,mb4.5						
MALT				epP	pP	06 07 21.7	-0.1
PMG	Port Moresby	57.56	106	P	P	06 07 19.5	+0.7
	comp=Z,7.3nm,0.9s,mb4.7,baz=260,slow=6.1,SNR=3.3						
BRTR	Keskin Array B	60.76	311	P	P	06 07 39.2	-1.4
	comp=Z,2.1nm,1.0s,mb4.2,baz=112,slow=7.8,SNR=5.0						
BRTR	Keskin Array B	60.76	311	P	P	06 07 39.3	-1.3
STKA	Stephens Creek	61.72	133	P	P	06 07 45.4	-1.8
	comp=Z,3.8nm,0.8s,mb4.6,baz=210,slow=11,SNR=3.7						
STKA	Stephens Creek	61.72	133	P	P	06 07 45.4	-1.8
TIXI	Tiksi	67.50	12	⇓iP	P	06 08 23.4	-0.7
TIXI				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.2						
FINES	FINESS Array B	71.61	332	P	P	06 08 48.4	-1.1
	comp=Z,2.1nm,0.9s,mb4.1,baz=135,slow=3.9,SNR=3.3						
FINES	FINESS Array B	71.61	332	P	P	06 08 48.4	-1.1
PRU	Pruhonice	75.86	319	eP	P	06 09 21.0	+6.6
GERES	GERESS Array B	76.33	318	P	P	06 09 17.7	+0.6
	comp=Z,1.5nm,0.9s,mb3.9,baz=108,slow=4.2,SNR=8.0						
GERES	GERESS Array B	76.33	318	P	P	06 09 17.7	+0.6
KHC	Kasperske Hory	76.43	319	eP	pP	06 09 25.0	-1.5
TRO	Tromso	76.66	340	e	P	06 09 18.1	-0.4
CLL	Collm	76.93	321	P	P	06 09 20.0	-0.4
MAW	Mawson	78.28	191	P	P	06 09 28.5	+1.0
	comp=Z,3.4nm,0.8s,mb4.3,baz=291,slow=9.3,SNR=3.4						
FX1	Attu Island--F	78.28	38	P	P	06 09 29.8	+2.0
	comp=Z,9.5nm,0.7s,mb4.8,baz=72,slow=17,SNR=2.7						
NOA	NORSAR Array B	78.58	331	P	P	06 09 29.7	+0.4
	comp=Z,0.2nm,0.5s,baz=218,slow=17,SNR=3.1						
NOA	NORSAR Array B	78.58	331	P	P	06 09 29.7	+0.5
DAVOX	Davos	78.84	316	P	P	06 09 32.2	+1.2
	comp=Z,1.6nm,0.7s,mb4.1,baz=63,slow=14,SNR=2.7						
DAVOX	Davos	78.84	316	P	P	06 09 32.2	+1.2
LPG	La Plagne	81.04	315	eP	pP	06 09 52.1	+0.3
	comp=Z,22nm,1.0s						
LPG	La Plagne	81.04	315	eP	pP	06 09 52.1	+0.3
LPG				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
VNDA	Vanda	93.50	168	P	P	06 10 43.2	+0.5
	comp=Z,2.2nm,1.1s,mb4.5,baz=78,slow=5.3,SNR=2.5						
VNDA	Vanda	93.50	168	P	P	06 10 43.2	+0.5
ILAR	Eielson Array	95.37	22	P	P	06 10 51.7	+0.2
	comp=Z,0.5nm,0.7s,mb4.0,baz=294,slow=4.3,SNR=7.9						
ILAR	Eielson Array	95.37	22	P	P	06 10 51.7	+0.2
INK	Inuvik	97.41	16	P	P	06 11 02.0	+1.4
	comp=Z,0.7nm,0.7s,mb4.2,baz=168,slow=14,SNR=3.4						
INK	Inuvik	97.41	16	P	P	06 11 02.0	+1.4
PDAR	Pinedale Array	125.74	20	PKP	PKPdf	06 16 30.4	-2.8
	comp=Z,0.6nm,0.8s,baz=90,slow=1.5,SNR=4.5						
PDAR	Pinedale Array	125.74	20	PKP	PKPdf	06 16 30.4	-2.8
NVAR	Mina Array Bea	125.83	29	PKP	PKPdf	06 16 31.0	-2.5
	comp=Z,0.5nm,0.2s,baz=315,slow=2.6,SNR=3.5						
NVAR	Mina Array Bea	125.83	29	PKP	PKPdf	06 16 31.0	-2.5
ANMO	Albuquerque	133.81	21	PKP	PKPdf	06 16 45.5	-3.3
	comp=Z,0.3nm,0.4s,baz=270,slow=3.0,SNR=3.2						
TXAR	Lajitas Array	139.89	22	PKP	PKPdf	06 16 57.3	-2.8
	comp=Z,0.1nm,0.4s,baz=205,slow=2.3,SNR=3.5						
TXAR	Lajitas Array	139.89	22	PKP	PKPdf	06 16 57.3	-2.8
CPUP	Villa Florida	145.69	234	PKPbc	PKPbc	06 17 07.3	+1.1
	comp=Z,0.0nm,0.3s,baz=67,slow=19,SNR=1.8						
CPUP	Villa Florida	145.69	234	PKPbc	PKPbc	06 17 07.3	+1.1
LPAZ	La Paz	158.97	245	PKP	PKPdf	06 17 26.2	-3.6
	comp=Z,0.4nm,0.4s,baz=38,slow=12,SNR=2.5						
LPAZ				PKPab	PKPab	06 18 03.6	-0.1
	comp=Z,2.0nm,0.9s,baz=60,slow=3.1,SNR=4.6						
LPAZ	La Paz	158.97	245	PKP	PKPdf	06 17 26.2	-3.6
LPAZ				PKPab	PKPab	06 18 03.6	-0.1

IDC ***27*** *05:57:42.4±4.0, 8.16N×92.08E, h48^{km}±37^{km}, mb4.3/25, mb1 4.3/26, mb1mx4.3/27, ML4.4/1, Error ellipse: s-maj=19.5km s-min=11.6km az=46.0*

ISC 27 05:57:35.4±0.4**, 8.13N**±0.08×**92.06E**±0.08**, h10^{km}, n64, σ0^{s}76**/52**, mb4.5**/28**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.26	32	P	P	06 00 33.0	0.0
	0.7nm,0.3s,baz=228,slow=15,SNR=7.7						
CMAR	Chiang Mai Arr	12.26	32	P	P	06 00 33.0	0.0
JOW	Kunigami	39.03	57	P	P	06 05 04.1	0.0
	11nm,0.5s,mb4.9,baz=232,slow=5.7,SNR=5.6						
JOW	Kunigami	39.03	57	P	P	06 05 04.1	0.0
SONM	Songino Array	41.40	15	P	P	06 05 23.7	+0.2
	12nm,0.9s,mb4.5,baz=200,slow=8.4,SNR=6.2						
SONM	Songino Array	41.40	15	P	P	06 05 23.7	+0.2
ZAL	Zalesovo	46.06	354	P	P	06 06 02.2	+1.1
	3.7nm,0.8s,mb4.3,baz=289,slow=8.8,SNR=9.2						
ZAL	Zalesovo	46.06	354		P	06 06 02.2	+1.2
NWAO	Narrogin (SRO)	47.34	151	P	P	06 06 11.8	+0.3
	5.7nm,0.8s,mb4.6,baz=78,slow=22,SNR=3.7						
BVAR	Borovoye Array	48.11	343	P	P	06 06 18.2	+0.9
	3.5nm,0.8s,mb4.4,baz=158,slow=8.0,SNR=9.0						
BVAR	Borovoye Array	48.11	343	P	P	06 06 18.2	+0.9
WRA	Warramunga Arr	50.09	124	P	P	06 06 33.1	+0.1
	3.9nm,0.7s,mb4.5,baz=305,slow=8.6,SNR=6.3						
WRA	Warramunga Arr	50.09	124		P	06 06 33.1	+0.2
ASAR	Alice Springs	51.67	129	P	P	06 06 43.5	-1.4
	4.4nm,0.7s,mb4.5,baz=307,slow=7.7,SNR=12						
ASAR				PcP	PcP	06 07 58.5	-0.1
	1.9nm,0.6s,baz=311,slow=3.7,SNR=5.1						
ASAR	Alice Springs	51.67	129	P	P	06 06 43.5	-1.4
GNI	Garni	52.80	315	P	P	06 06 52.9	-0.2
	4.0nm,0.5s,mb4.6,baz=318,slow=6.0,SNR=3.4						
GNI	Garni	52.80	315		P	06 06 52.9	-0.2
KMBO	Kilima Mbogo	55.41	263	P	P	06 07 12.8	+0.1
	2.0nm,0.7s,mb4.2,baz=56,slow=9.9,SNR=6.2						
KMBO	Kilima Mbogo	55.41	263		P	06 07 12.8	+0.1
ASF	Jabal al Asfar	56.35	303	P	P	06 07 20.5	+1.3
	7.0nm,1.0s,mb4.6,baz=110,slow=1.3,SNR=4.3						
ASF	Jabal al Asfar	56.35	303	P	P	06 07 20.5	+1.3
PMG	Port Moresby	57.58	107	P	P	06 07 28.6	+0.5
	4.2nm,0.5s,mb4.7,baz=111,slow=15,SNR=3.7						
PMG	Port Moresby	57.58	107	P	P	06 07 28.6	+0.4
PMG				pmax	pmax		
	comp=Z,4.0nm,0.5s						
BRTR	Keskin Array B	60.71	311	P	P	06 07 48.1	-1.4
	comp=Z,3.8nm,0.8s,mb4.6,baz=125,slow=7.1,SNR=12						
BRTR	Keskin Array B	60.71	311		P	06 07 48.1	-1.4
STKA	Stephens Creek	61.78	133	P	P	06 07 57.0	+0.2
	comp=Z,3.7nm,0.7s,mb4.6,baz=305,slow=3.8,SNR=4.8						
STKA	Stephens Creek	61.78	133	P	P	06 07 57.0	+0.2
OBN	Obninsk	64.08	328	⇓iP	P	06 08 16.8	+5.1
OBN				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
AKASG	Malin Array Be	66.68	322	P	P	06 08 27.9	-0.7
	comp=Z,0.7nm,0.5s,mb4.0,baz=90,slow=4.2,SNR=5.5						
AKASG	Malin Array Be	66.68	322	P	P	06 08 27.9	-0.7
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
IDI	Anoyia	66.73	305	P	P	06 08 28.7	-0.5
	comp=Z,9.9nm,0.8s,mb4.9,baz=170,slow=5.9,SNR=2.8						
FINES	FINESS Array B	71.53	332	P	P	06 08 57.0	-1.3
	comp=Z,2.1nm,0.7s,mb4.2,baz=108,slow=12,SNR=5.5						
FINES	FINESS Array B	71.53	332		P	06 08 57.0	-1.3
ARCES	ARCESS Array B	74.34	340	P	P	06 09 15.0	+0.4
	comp=Z,4.2nm,0.9s,mb4.4,baz=100,slow=7.4,SNR=6.6						
BRG	Berggiesshubel	76.24	320	eP	P	06 09 31.7	+5.8
BRG				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
GERES	GERESS Array B	76.27	318	P	P	06 09 25.6	-0.5
	comp=Z,3.2nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=8.9						
GERES	GERESS Array B	76.27	318		P	06 09 25.6	-0.4
MOR8	Moi Rana	77.61	336	e	pP	06 09 42.9	+6.6
FX1	Attu Island--F	78.20	38	P	P	06 09 37.0	+0.4
	comp=Z,16nm,0.7s,mb5.1,baz=82,slow=8.6,SNR=3.4						
FX1	Attu Island--F	78.20	38	P	P	06 09 37.0	+0.4
FX1				pmax	pmax		
	comp=Z,16nm,0.7s						
NOA	NORSAR Array B	78.50	331	P	P	06 09 36.8	-1.4
	comp=Z,2.5nm,1.0s,mb4.1,baz=94,slow=5.8,SNR=3.6						
NOA	NORSAR Array B	78.50	331		P	06 09 36.8	-1.3
DAVOX	Davos	78.78	316	P	P	06 09 40.2	+0.2
	comp=Z,3.2nm,0.6s,mb4.4,baz=111,slow=10,SNR=6.5						
DAVOX	Davos	78.78	316	P	P	06 09 40.2	+0.2
ESDC	Sonseca Array	89.48	310	P	P	06 10 34.6	+0.3
	comp=Z,2.8nm,1.0s,mb4.5,baz=76,slow=12,SNR=4.1						
VNDA	Vanda	93.59	168	P	P	06 10 52.6	+0.1
	comp=Z,0.9nm,0.8s,mb4.2,baz=5.8,slow=8.4,SNR=3.5						
VNDA	Vanda	93.59	168	P	P	06 10 52.6	+0.1
ILAR	Eielson Array	95.28	22	P	P	06 10 59.9	-0.6
	comp=Z,0.7nm,0.7s,mb4.2,baz=304,slow=4.3,SNR=11						
ILAR	Eielson Array	95.28	22	P	P	06 10 59.9	-0.6
DBIC	Dimbokro	95.87	278	P	P	06 11 06.0	+1.6
	comp=Z,1.8nm,0.9s,mb4.5,baz=145,slow=20,SNR=3.1						
DBIC	Dimbokro	95.87	278	P	P	06 11 06.0	+1.6
INK	Inuvik	97.31	16	P	P	06 11 09.7	+0.1
	comp=Z,2.8nm,0.8s,mb4.7,baz=318,slow=6.1,SNR=6.8						
INK	Inuvik	97.31	16	P	P	06 11 09.7	+0.1
PDAR	Pinedale Array	125.65	20	PKP	PKPdf	06 16 38.1	-2.5
	comp=Z,0.9nm,0.7s,baz=27,slow=3.3,SNR=6.5						
PDAR	Pinedale Array	125.65	20	PKP	PKPdf	06 16 38.1	-2.5
NVAR	Mina Array Bea	125.74	29	PKP	PKPdf	06 16 37.7	-3.2
	comp=Z,2.2nm,0.7s,baz=309,slow=1.6,SNR=4.7						
NVAR	Mina Array Bea	125.74	29	PKP	PKPdf	06 16 37.7	-3.2
TXAR	Lajitas Array	139.79	22	PKP	PKPdf	06 17 05.9	-1.6
	comp=Z,0.5nm,0.5s,baz=94,slow=0.7,SNR=8.3						
TXAR	Lajitas Array	139.79	22	PKP	PKPdf	06 17 05.9	-1.6
CPUP	Villa Florida	145.76	234	PKPbc	PKPbc	06 17 16.6	+0.8
	comp=Z,0.0nm,0.3s,baz=113,slow=20,SNR=1.4						
CPUP	Villa Florida	145.76	234	PKPbc	PKPbc	06 17 16.6	+0.8
PCRV	Puerto La Cruz	150.52	308	PKPbc	PKPdf	06 17 30.7	+4.6
	comp=Z,6.1nm,0.8s,baz=220,slow=22,SNR=3.4						
LPAZ	La Paz	159.02	245	PKP	PKPdf	06 17 37.0	-0.4
	comp=Z,0.7nm,0.6s,baz=69,slow=10,SNR=3.8						
LPAZ				PKPab	PKPab	06 18 12.6	-0.8
	comp=Z,2.7nm,1.0s,baz=41,slow=8.6,SNR=3.8						
LPAZ	La Paz	159.02	245	PKP	PKPdf	06 17 37.0	-0.4

NEIC ***27*** *05:59:35.4, 37.51S×177.27E, h139^{km}, After WEL.*

WEL 27 05:59:35.6±0.2**, 37.48S×177.29E, h137^{km}**±2^{km}**, ML3.8**/7**, 4C-1D, Error ellipse: s-maj=1.3km s-min=1.1km az=90.0, Off east coast of North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WIZ	White Island	0.09	239	ePN	P	05 59 53.9	-0.5
MARZ	Manawahe	0.70	224	PN	P	05 59 57.0	-0.1
URZ	Urewera	0.79	190	P	P	05 59 57.3	-0.5
URZ	Urewera	0.79	190	PN	P	05 59 57.3	-0.4
URZ				SN	S	06 00 13.7	-1.0
MXZ	Matakaoa Point	0.81	96	P	P	05 59 57.5	-0.4
MXZ				S	S	06 00 14.4	-0.6
MXZ	Matakaoa Point	0.81	96	⇑PN	P	05 59 57.5	-0.4
MXZ				SN	S	06 00 14.4	-0.7
MYRZ	Mayor Island	0.86	283	ePN	P	05 59 58.4	+0.2
MWZ	Matawai	0.87	167	P	P	05 59 58.2	-0.2
MWZ	Matawai	0.87	167	⇑PN	P	05 59 58.2	-0.2
MWZ				SN	S	06 00 15.8	0.0
LIRZ	Lichensteins R	0.89	234	PN	P	05 59 58.6	+0.1
PUZ	Puketiti	0.97	128	P	P	05 59 58.9	-0.2
PUZ	Puketiti	0.97	128	⇑PN	P	05 59 58.9	-0.2
PUZ				SN	S	06 00 15.6	-1.5
TAZ	Tarawera	0.97	219	PN	P	05 59 59.7	+0.6
KUZ	Kuaotunu	1.45	300	P	P	06 00 03.6	-0.4
KUZ	Kuaotunu	1.45	300	⇓PN	P	06 00 03.6	-0.4
KUZ				SN	S	06 00 24.1	-1.7
KNZ	Kokohu	1.57	169	P	P	06 00 04.7	-0.6
KNZ	Kokohu	1.57	169	PN	P	06 00 04.7	-0.6
KNZ				SN	S	06 00 27.2	-0.9
BKZ	Black Stump Fm	1.79	200	P	P	06 00 06.9	-1.0
BKZ	Black Stump Fm	1.79	200	⇑PN	P	06 00 06.9	-1.0
BKZ				SN	S	06 00 31.4	-1.2
NGZ	Ngauruhoe	2.15	218	P	P	06 00 11.8	-0.4
CNZ	Chateau	2.19	218	PN	P	06 00 12.4	-0.4
TUVZ	Tukino	2.20	215	PN	P	06 00 12.4	-0.5
FWVZ	Far West T-bar	2.24	217	eP	P	06 00 12.7	-0.6
FWVZ	Far West T-bar	2.24	217	PN	P	06 00 12.7	-0.6
MOVZ	Moawhango	2.27	212	PN	P	06 00 12.2	-1.6
PWZ	Pawanui	2.57	187	P	P	06 00 14.8	-2.8
PWZ	Pawanui	2.57	187	PN	P	06 00 14.7	-2.9
PWZ				SN	S	06 00 46.6	-3.0
TSZ	Takapari Road	2.77	202	P	P	06 00 17.8	-2.5
TSZ	Takapari Road	2.77	202	PN	P	06 00 17.3	-3.0
TSZ				SN	S	06 00 50.1	-4.2
BFZ	Birch Farm	3.30	194	P	P	06 00 24.2	-3.0
BFZ	Birch Farm	3.30	194	PN	P	06 00 24.1	-3.0

BFZ				SN	S	06 01 02.1	-4.5
MRZ	Mangatainoka R	3.44	202	P	P	06 00 25.5	-3.6
MRZ	Mangatainoka R	3.44	202	PN	P	06 00 25.5	-3.6
MRZ				SN	S	06 01 05.4	-4.6
KIW	Kapiti Island	3.85	208	PN	P	06 00 30.3	-4.1
KIW				PN	P	06 00 30.4	-4.1
MTW	Mount Morrison	3.92	200	PN	P	06 00 31.1	-4.3
CAW	Cannon Point	4.01	205	P	P	06 00 32.2	-4.4
CAW	Cannon Point	4.01	205	PN	P	06 00 32.1	-4.5
TUWZ	Tuamarina	4.72	212	*e*PN	P	06 00 41.6	-4.4
NNZ	Nelson	4.81	218	*e*PN	P	06 00 42.6	-4.6
NNZ				*e*SN	S	06 01 36.2	-6.2
QRZ	Quartz Range	4.98	226	PN	P	06 00 46.1	-3.5
THZ	Tophouse	5.45	217	*e*P	P	06 00 52.0	-3.8
THZ	Tophouse	5.45	217	PN	P	06 00 51.1	-4.7
LTZ	Lake Taylor	6.54	214	*e*PN	P	06 01 04.4	-6.1
MQZ	McQueen’s Vall	7.15	208	*e*SN	S	06 02 27.2	-12

MOS ***27*** *06:01:47.6±1.4,8.03N×93.49E,h33^{km},mb5.2/35,Error ellipse: s-maj=10.5km s-min=6.4km az=108.3*

BJI ***27*** *06:01:50.0,7.85N×93.36E,h65^{km},mB5.2,mb5.3,Ms4.9,Msz4.6*

IDC ***27*** *06:01:51.8±0.5,8.00N×93.54E,h54^{km}±3^{km},mb4.5/23,mb1 4.6/24,mb1mx4.6/26,Error ellipse: s-maj=15.3km s-min=10.2km az=47.0*

NEIC ***27*** *06:01:52.2±0.2,7.94N×93.48E,mb4.9/28,Error ellipse: s-maj=7.3km s-min=6.7km az=75.0*

HRVD ***27*** *06:01:52.2±1.4,7.60N×93.45E,h60^{km}±5^{km},MW5.0/29, Centroid moment Tensor Solution. LP body waves: s8,c8; Mantle waves: s29,c36; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.09±.83; $M_{\theta\theta}$-0.69±.53; $M_{\phi\phi}$-1.41±.60; $M_{r\theta}$-0.20±.30; $M_{\theta\phi}$2.88±.39; $M_{\phi r}$-2.16±.34; Best double couple: $M_0$4.02×10^{16} NP1:ϕ_s283°,δ45°,λ31°. NP2:ϕ_s171°,δ69°,λ131°. Principal axes: T 3.72, Plg49°, Azm126°; N .6, Plg38°, Azm333°; P -4.32, Plg14°, Azm232°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 06:01:49.8±0.3**,7.90N**±0.05×**93.49E**±0.04**,h56**^{km}**,h56**^{km}±1.8^{km}**:pP-P,n180,**σ**1**^{s}**08**/159**,mb5.0**/76**,MS4.6**/6**,8C-6D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	7.10	95	P	P	06 03 35.0	+1.5
	390nm,1.0s						
CM31	Chiang Mai Arr	11.76	26	*e*P	P	06 04 38.2	+0.9
	87nm,0.8s						
CMAR	Chiang Mai Arr	11.76	26	P	P	06 04 38.6	+1.3
	2.8nm,0.3s,baz=213,slow=14,SNR=50						
CHG	Chiang Mai	12.08	25	⇓P	P	06 04 44.9	+3.3
	70nm,0.8s						
KKTK	Khon Kaen	12.39	47	P	P	06 04 50.0	+4.2
	556nm,0.9s						
VIS	Vishakhapatnam	13.90	316	*e*S	x	06 07 19.1	
VIS				*e*	S	06 07 29.8	-9.4
	comp=E,150nm,0.5s						
VIS				*e*		06 07 29.8	
	comp=N,139nm,0.4s						
MDRS	Chennai	14.00	293	*e*P	P	06 05 07.6	+0.6
HYB	Hyderabad	17.36	304	*e*S	P	06 05 52.0	+2.0
BOK	Bokaro	17.41	336	*e*P	P	06 05 49.9	-0.7
BOK				*e*		06 05 53.9	
	comp=Z,26nm,0.5s						
BOK				*e*S	S	06 08 51.9	-8.4
SHL	Shillong	17.64	355	*e*	P	06 05 42.0	-11
KMI	Kunming	19.27	26	P	P	06 06 14.8	+2.1
KMI				AMB	AMB		
	comp=Z,60nm,1.1s						
QIZ	Qiongzhong	19.35	53	P	P	06 06 15.0	+1.4
QIZ	Qiongzhong	19.35	53	*e*P	P	06 06 14.7	+1.0
	comp=Z,64nm,1.0s						
PKI	Pulchoki	21.01	340	*e*P	P	06 06 30.6	-0.4
	comp=Z,230nm,0.9s,mb5.5						
KAD	Karad	21.02	298	*e*P	P	06 06 37.0	+5.9
KAD				*e*		06 06 43.9	
	comp=Z,24nm,0.3s						
DMN	Daman	21.15	339	*e*P	P	06 06 32.1	-0.3
	comp=Z,136nm,0.7s,mb5.4						
GUN	Gumba	21.17	341	*e*P	P	06 06 32.7	+0.1
	comp=Z,302nm,0.6s,mb5.8						
KKN	Kakani	21.26	340	*e*P	P	06 06 33.5	0.0
	comp=Z,192nm,0.7s,mb5.5						
GKN	Gorkha	21.68	338	*e*P	P	06 06 37.4	-0.3
	comp=Z,244nm,0.8s,mb5.7						
BHPL	Bhopal	21.70	316	*e*P	P	06 06 41.0	+3.1
BHPL				*e*		06 06 44.5	
	comp=Z,28nm,1.0s						
BHPL				*e*S	S	06 10 35.4	+5.9
LSA	Lhasa	21.80	355	*e*P	P	06 06 38.8	-0.1
LSA				pmax	pmax		
	comp=Z,42nm,0.6s,mb5.0						
LSA	Lhasa	21.80	355	*e*P	P	06 06 38.8	0.0
	comp=Z,42nm,0.6s,mb5.0						
POO	Poona	21.82	301	*e*P		06 06 45.8	
POO				*e*		06 06 49.1	
	comp=Z,18nm,0.6s						
KOLN	Koldanda	21.87	336	*e*P	P	06 06 39.9	+0.3
	comp=Z,963nm,1.9s,mb5.9						
GYA	Guiyang	22.31	33	⇑*i*P	P	06 06 45.5	+1.6
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
BOM	Bombay	22.86	301	*e*		06 07 03.8	
BOM				*e*	S	06 10 51.6	+0.9
LGTI	Lohaghat	24.80	332	*e*	P	06 07 09.5	+1.4
CD2	Chengdu	24.83	21	P	P	06 07 08.8	+0.4
CD2				AMB	AMB		
	comp=Z,140nm,0.9s,mb5.5						
PTH	Pithoragarh	24.89	332	*e*	P	06 07 09.4	+0.3
ENH	Enshi	26.84	32	*e*P	P	06 07 25.9	-1.3
	comp=Z,27nm,0.5s,mb5.0						
LZH	Lanzhou	29.61	17	*e*P	P	06 07 51.8	-0.2
LZH				AMB	AMB		
	comp=Z,119nm,1.7s,mb5.3						
XAN	Xi’an	29.66	27	P	P	06 07 51.3	-1.2
XAN				AP	pP	06 08 06.0	-0.6
XAN				AMB	AMB		
	comp=Z,61nm,0.9s,mb5.3						
WHN	Wuhan	29.81	38	P	P	06 07 54.5	+0.6
GTA	Gaotai	31.89	9	P	P	06 08 11.5	-0.6
GTA				SCS	ScS	06 18 38.0	+2.0
GTA				AMB	AMB		
	comp=Z,22nm,1.3s,mb4.8						
GTA				AMB	AMB		
	comp=Z,385nm,5.7s						
GTA				LR	LR		
	comp=N,441nm,19.5s,MS4.3						
GTA				LR	LR		
	comp=E,444nm,18.7s,MS4.3						
GTA				LR	LR		
	comp=Z,669nm,17.6s,MS4.4						
NJ2	Nanjing	33.67	41	*e*P	P	06 08 28.8	+1.1
NJ2				PP	PP	06 09 43.3	+1.6
NJ2				S	S	06 13 51.0	+5.4
NJ2				SS	SS	06 15 59.0	+5.6
NJ2				AMB	AMB		
	comp=Z,100nm,0.7s,mb5.8						
NJ2				AMB	AMB		
	comp=Z,160nm,4.6s						
NJ2				LR	LR		
	comp=N,1µm,18.6s,MS4.9						
NJ2				LR	LR		
	comp=E,2µm,14.3s,MS4.9						
NJ2				LR	LR		
	comp=Z,2µm,13.7s,MS4.9						
SSE	Sheshan	34.66	45	P	P	06 08 34.8	-1.3
SSE				AMB	AMB		
	comp=Z,22nm,0.6s,mb5.3						
SSE				AMB	AMB		
	comp=Z,111µm,3.0s						
KSH	Kashi	35.19	336	P	P	06 08 40.0	-0.6
KSH				*e*PP	PP	06 10 05.0	+4.2
KSH				*e*PCP	PcP	06 11 04.5	-6.5
KSH				AMB	AMB		
	comp=Z,160nm,5.0s						
WMQ	Urumqi	36.14	353	P	P	06 08 49.5	+0.9
WMQ				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.7						
HHC	Hu-ho-hao-te	36.55	23	⇑P	P	06 08 52.5	+0.4
HHC				XS		06 14 56.8	
HHC				AMB	AMB		
	comp=Z,53nm,1.1s,mb5.3						
HHC				AMB	AMB		
	comp=Z,157nm,5.1s						
HHC				LR	LR		
	comp=N,624nm,11.9s,MS4.8						
HHC				LR	LR		
	comp=E,631nm,13.1s,MS4.8						
HHC				LR	LR		
	comp=Z,594nm,13.1s,MS4.5						
KZA	Kyzart	37.67	338	P	P	06 09 02.3	+0.9
	SNR=6.0						
BJT	Baijiatuau	37.87	29	*e*P	P	06 09 04.0	+0.9
BJT				pmax	pmax		
	comp=Z,108nm,1.1s						
BJT	Baijiatuau	37.87	29	*e*P	P	06 09 04.0	+0.9
	comp=Z,108nm,1.1s,mb5.5						
BJI	Beijing	37.89	29	P	P	06 09 05.0	+1.7
BJI				AMB	AMB		
	comp=Z,69nm,1.0s,mb5.3						
BJI				AMB	AMB		
	comp=Z,258nm,4.2s						
UCH	Uchtor	38.08	337	P	P	06 09 05.8	+1.0
	SNR=11						
TKM2	Tokmak 2	38.27	339	P	P	06 09 06.8	+0.4
	SNR=8.5						
AML	Almayashu	38.32	336	P	P	06 09 08.1	+1.3
	SNR=24						
AAK	Ala-Archa	38.43	337	P	P	06 09 08.9	+1.1
	SNR=17						
AAK	Ala-Archa	38.43	337	*e*P	P	06 09 06.8	-0.9
AAK				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.1						
AAK	Ala-Archa	38.43	337	*e*P	P	06 09 06.8	-0.9
	comp=Z,62nm,1.5s,mb5.1						
FRU	Bishkek	38.56	338	*e*P	P	06 09 10.0	+1.2
FRU				pmax	pmax		
	comp=Z,60nm,1.8s,mb5.0						
CHMS	Chumysh	38.65	338	P	P	06 09 09.9	+0.4
	SNR=10						
EKS2	Erkin-Say	38.73	337	P	P	06 09 10.8	+0.6
	SNR=11						
USP	Ospenovka	38.97	338	P	P	06 09 12.8	+0.6
	SNR=8.6						
MKAR	Makanchi Array	39.93	348	*i* P	P	06 09 19.6	-0.5
MKAR				pmax	pmax		
	comp=Z,11nm,0.5s						
SONM	Songino Array	41.28	13	P	P	06 09 31.2	-0.1
	comp=Z,8.9nm,0.8s,mb4.5,baz=196,slow=8.5,SNR=21						
SONM				pP	pP	06 09 45.7	-0.2
	comp=Z,13nm,1.1s,baz=198,slow=7.8,SNR=8.1						
SONM				PcP	PcP	06 11 29.3	-0.5
	comp=Z,3.8nm,0.7s,baz=208,slow=3.5,SNR=6.1						
ULN	Ulaanbaatar	41.47	14	*e*P	P	06 09 32.3	-0.5
ULN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.3						
ULN	Ulaanbaatar	41.47	14	*e*P	P	06 09 32.3	-0.5
	comp=Z,6.5nm,0.8s,mb4.3						
SNY	Shenyang	43.01	33	⇑P	P	06 09 46.3	+0.8
SNY				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.2						
SNY				LR	LR		
	comp=N,550nm,19.2s						
SNY				LR	LR		
	comp=Z,570nm,15.5s,MS4.6						
ZAK	Zakamensk	43.13	9	*e*P	P	06 09 46.3	-0.1
ZAK				*e*		06 11 30.3	
TLY	Talaya	44.45	9	*i* P	P	06 09 55.0	-2.0
TLY				pmax	pmax		
	comp=Z,5.0nm,1.3s,mb4.1						
CN2	Changchun	45.36	33	*e*P	P	06 10 04.8	+0.4
CN2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.5						
CN2				LR	LR		
	comp=N,460nm,14.0s,MS4.8						
CN2				LR	LR		
	comp=E,650nm,14.0s,MS4.8						
CN2				LR	LR		
	comp=Z,670nm,15.0s,MS4.7						
ZAL	Zalesovo	46.44	353	P	P	06 10 12.4	-0.4
	comp=Z,20nm,0.4s,mb5.4,baz=301,slow=7.5,SNR=50						
NWAO	Narrogin (SRO)	46.46	152	P	P	06 10 13.7	+0.4
	comp=Z,99nm,1.3s,mb5.6,baz=321,slow=8.3,SNR=9.1						
HIA	Hailar	46.76	23	*e*P	P	06 10 14.7	-0.7
HIA				pmax	pmax		
	comp=Z,14nm,0.6s						
HIA	Hailar	46.76	23	*e*P	P	06 10 14.7	-0.7
	comp=Z,14nm,0.6s,mb5.0						
NVS	Novosibirsk	47.53	352	⇑*i*P	P	06 10 20.1	-1.3
NVS				*e*	pP	06 10 34.6	-1.5
NVS				*e*		06 17 08.5	
NVS				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.5						
NVS				pmax	pmax		
	comp=N,56nm,1.5s						
MDJ	Mudanjiang	48.15	34	P	P	06 10 26.8	+0.4
MDJ				AMB	AMB		
	comp=Z,45nm,1.3s,mb5.3						
MDJ				AMB	AMB		
	comp=Z,127nm,3.7s						
MDJ	Mudanjiang	48.15	34	*e*P	P	06 10 27.2	+0.8
	comp=Z,60nm,1.1s,mb5.5						
BVAR	Borovoye Array	48.76	342	P	P	06 10 29.5	-1.5
	comp=Z,3.4nm,0.5s,mb4.7,baz=140,slow=9.6,SNR=18						
BVAR				PcP	PcP	06 11 55.9	+0.3
	comp=Z,1.6nm,0.5s,baz=199,slow=3.9,SNR=5.9						
WRA	Warramunga Arr	48.80	125	P	P	06 10 30.8	-0.8
	comp=Z,18nm,0.5s,mb5.3,baz=304,slow=8.7,SNR=48						
WRA				PcP	PcP	06 11 56.1	0.0
	comp=Z,3.3nm,0.6s,baz=313,slow=2.9,SNR=5.1						
WRAB	Tennant Creek	48.80	125	*e*P	P	06 10 30.7	-1.0
WRAB				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.4						
WRAB	Tennant Creek	48.80	125	*e*P	P	06 10 30.7	-1.0
	comp=Z,31nm,0.8s,mb5.4						
BRVK	Borovoye	48.83	342	*e*P	P	06 10 30.3	-1.1
BRVK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
BRVK	Borovoye	48.83	342	*e*P	P	06 10 30.3	-1.1
	comp=Z,9.5nm,0.9s,mb4.8						
CHKZ	Chkalovo	49.25	342	⇑*i*P	P	06 10 34.1	-0.7
CHKZ				*e**PP	pP	06 10 49.3	-0.3
CHKZ				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.2						
CHKZ	Chkalovo	49.25	342	⇑*i*P	P	06 10 34.0	-0.7
	comp=Z,21nm,0.8s,mb5.2						
CHKZ				*e*pP	pP	06 10 49.3	-0.2
MAT	Matsushiro	49.62	48	P	P	06 10 38.7	+0.8
MAT	Matsushiro	49.62	48	*e*P	P	06 10 39.0	+1.1
MAT				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
MAT	Matsushiro	49.62	48	*e*P	P	06 10 39.0	+1.1
	comp=Z,14nm,1.0s,mb5.0						
CBIJ	Chichi jima	49.85	61	P	P	06 10 38.5	-1.3
	comp=Z,79nm,0.3s,baz=239,slow=3.8,SNR=13						
ASAR	Alice Springs	50.42	130	P	P	06 10 42.8	-1.3
	comp=Z,7.9nm,0.4s,mb5.1,baz=306,slow=8.2,SNR=53						
ASAR				PcP	PcP	06 12 02.2	+0.2
	comp=Z,5.1nm,0.5s,baz=307,slow=3.5,SNR=9.5						
KLR	Kul’dur	52.20	31	*e*P	P	06 10 54.3	-2.8
KLR				pmax	pmax		
	comp=E,34nm,1.6s						
KLR				pmax	pmax		
	comp=Z,50nm,1.6s,mb5.2						
BOD	Bodaibo	52.28	14	⇓*i*P	P	06 10 56.5	-1.1
GNI	Garni	53.96	315	P	P	06 11 09.0	-1.3
	comp=Z,2.1nm,0.3s,mb4.5,baz=152,slow=10,SNR=2.9						
GNI	Garni	53.96	315	*e*P	P	06 11 10.7	+0.3
GNI				pmax	pmax		
	comp=Z,18nm,1.0s						
GNI	Garni	53.96	315	*e*P	P	06 11 10.7	+0.3
	comp=Z,18nm,1.0s,mb5.0						
CLNS	Chul’man	54.64	21	*e*P	P	06 11 13.0	-2.1
CLNS				pmax	pmax		
	comp=N,9.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,11nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
SVE	Sverdlovsk	55.15	339	⇑*e*P	P	06 11 18.0	-0.8
ZEI	Tsey	55.59	317	*e*P	P	06 11 20.4	-1.7
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
ARU	Arti	55.62	337	*e*P	P	06 11 20.8	-1.4
ARU				pmax	pmax		
	comp=Z,46nm,1.7s,mb5.2						
ARU	Arti	55.62	337	*e*P	P	06 11 20.8	-1.4
	comp=Z,46nm,1.7s,mb5.2						
ASAJ	Asahikawa	55.82	41	P	P	06 11 24.4	+0.5
	comp=Z,24nm,1.0s,mb5.2,baz=221,slow=18,SNR=7.8						
ASAJ	Asahikawa	55.82	41	P	P	06 11 24.4	+0.6
ASAJ				pmax	pmax		
	comp=Z,24nm,1.0s						
PMG	Port Moresby	56.15	107	P	P	06 11 26.3	-0.3
	comp=Z,15nm,0.7s,mb5.1,baz=1.1,slow=4.4,SNR=7.8						
PMG	Port Moresby	56.15	107	*e*P	P	06 11 26.0	-0.6
PMG				pmax	pmax		
	comp=Z,19nm,0.8s						
PMG	Port Moresby	56.15	107	*e*P	P	06 11 26.0	-0.6
	comp=Z,20nm,0.8s,mb5.2						
KMBO	Kilima Mbogo	56.79	263	P	P	06 11 32.3	+1.1
	comp=Z,5.3nm,0.7s,mb4.7,baz=58,slow=11,SNR=16						
KMBO				pP	pP	06 11 47.5	+1.1
	comp=Z,6.9nm,0.7s,baz=60,slow=11,SNR=10						
KIV	Kislovodsk	56.87	318	*i* P	P	06 11 29.4	-1.9
YSS	Yuzh-Sakhalins	57.16	38	*e*P	P	06 11 33.7	+0.3
YSS				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.4						
YSS	Yuzh-Sakhalins	57.16	38	*e*P	P	06 11 33.7	+0.3
	comp=Z,28nm,0.7s,mb5.4						
MALT	Malatya	57.96	310	*e*P	P	06 11 38.9	-0.2
MALT				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
MALT	Malatya	57.96	310	*e*P	P	06 11 38.9	-0.2
	comp=Z,4.0nm,0.9s,mb4.5						
SOC	Sochi	58.72	317	*e*P	P	06 11 41.1	-3.2
SOC				*e*		06 12 36.8	
SOC				*e*S	S	06 19 38.5	-4.6
SOC				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.0						
SOC				pmax	pmax		
	comp=N,16nm,0.8s						
SOC				pmax	pmax		
	comp=E,15nm,1.0s						
SOC				MLR	MLR		
	comp=Z,292nm,21.0s,MS4.4						
SOC				MLR	MLR		
	comp=N,267nm,22.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,267nm,18.0s,MS4.5						
CTA	Charters Tower	58.88	119	P	P	06 11 45.1	-0.6
	comp=E,4.1nm,0.7s,mb4.6,baz=342,slow=7.6,SNR=5.3						
YAK	Yakutsk	60.18	19	*e*P	P	06 11 50.9	-3.2
YAK				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,7.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.1s						
STKA	Stephens Creek	60.59	133	P	P	06 11 56.5	-0.8
	comp=E,15nm,0.7s,mb5.2,baz=305,slow=6.0,SNR=22						
STKA	Stephens Creek	60.59	133	*e*P	P	06 11 56.4	-0.9
BRTR	Keskin Array B	61.93	311	P	P	06 12 04.6	-1.6
	comp=E,1.5nm,0.7s,mb4.3,baz=132,slow=6.9,SNR=7.5						
BRTR				pP	pP	06 12 21.4	-0.1
	comp=E,6.2nm,0.9s,baz=126,slow=6.4,SNR=11						
MBAR	Mbarara	63.12	265	*e*P	P	06 12 15.8	+1.3
MBAR				*e*	pP	06 12 26.8	-3.1
ISP	Isparta	63.92	308	*i* P	P	06 12 18.1	-1.4
MOS	Moscow	64.73	329	*e*P	P	06 12 23.7	-0.7
OBN	Obninsk	65.02	328	*d i*P	P	06 12 23.3	-3.0
OBN				pmax	pmax		
	comp=Z,19nm,1.5s,mb4.9						
AKASG	Malin Array Be	67.74	322	P	P	06 12 41.4	-2.1
	comp=Z,0.9nm,0.5s,mb4.1,baz=91,slow=4.9,SNR=5.3						
AKASG				pP	pP	06 12 58.2	-0.9
	comp=Z,4.8nm,0.7s,baz=90,slow=4.9,SNR=9.7						
AKASG				PP	PP	06 15 13.1	-2.3
	comp=Z,0.1nm,0.3s,baz=100,slow=5.8,SNR=4.7						
AKASG	Malin Array Be	67.74	322	P	P	06 12 41.4	-2.2
AKASG				*PP	pP	06 12 58.2	-1.0
AKASG						06 15 13.1	
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LSZ	Lusaka	68.67	250	*e*P	P	06 12 51.1	+1.2
LSZ				*e*	pP	06 13 05.6	0.0
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
LSZ	Lusaka	68.67	250	*e*P	P	06 12 51.1	+1.2
	comp=Z,4.7nm,0.6s,mb4.6						
LSZ				*e*	pP	06 13 05.6	0.0
APA	Apatity	71.60	339	⇑*i*P	P	06 13 06.0	-0.9
APA				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
KOLS	Kolonicke sedl	71.77	319	*e*P	P	06 13 10.3	+2.2
KOLS				*e*pP	pP	06 13 26.6	+2.7
FINES	FINESS Array B	72.39	332	P	P	06 13 11.0	-0.6
	comp=Z,2.5nm,0.4s,mb4.5,baz=94,slow=6.5,SNR=27						
FINES				pP	pP	06 13 27.2	-0.1
	comp=Z,5.6nm,0.8s,baz=90,slow=7.6,SNR=5.2						
KAF	Kangasniemi	72.48	333	*e*p	P	06 13 12.1	0.0
	comp=Z,3.3nm,0.6s,mb4.4						
KAF	Kangasniemi	72.48	333	*e*P	P	06 13 12.1	0.0
KAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
OJC	Ojcow	73.54	320	*e*P	P	06 13 18.5	-0.1
LBTB	Lobatse	73.69	241	*e*P	P	06 13 21.4	+1.4
LBTB				*e*	pP	06 13 36.0	+0.2
LBTB				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
LBTB	Lobatse	73.69	241	*e*P	P	06 13 21.4	+1.4
	comp=Z,11nm,1.0s,mb4.8						
LBTB				*e*	pP	06 13 36.0	+0.2
VYHS	Vyhne	73.96	318	*e*	pP	06 13 35.9	-1.0
KEV	Kevo	74.60	341	*e*p	P	06 13 23.5	-0.9
	comp=Z,13nm,0.8s,mb4.9						
KEV	Kevo	74.60	341	*e*P	P	06 13 23.5	-0.9
KEV				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
MORC	Moravsky Berou	74.94	319	*e*P	P	06 13 26.6	-0.1
MORC				*e*	pP	06 13 42.0	-0.5
MORC				pmax	pmax		
	comp=Z,22nm,1.7s,mb4.8						
MORC	Moravsky Berou	74.94	319	*e*P	P	06 13 26.6	-0.1
	comp=Z,22nm,1.7s,mb4.8						
MORC				*e*	pP	06 13 42.0	-0.5
ARCES	ARCESS Array B	75.03	340	P	P	06 13 26.9	0.0
	comp=Z,4.2nm,0.5s,mb4.6,baz=110,slow=4.5,SNR=41						
BOSA	Boshof	75.05	238	*e*P	P	06 13 29.5	+1.7
BOSA				*e*	pP	06 13 41.8	-1.8
BOSA				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
BOSA	Boshof	75.05	238	*e*P	P	06 13 29.5	+1.7
	comp=Z,11nm,1.1s,mb4.7						
BOSA				*e*	pP	06 13 41.8	-1.8
ZST	Bratislava	75.08	318	*e*P	P	06 13 27.7	+0.1
ZST				*e*pP	pP	06 13 44.9	+1.5
DPC	Dobruska-Polom	75.78	320	*e*P	P	06 13 32.1	+0.6
BILL	Bilibino	76.31	22	*e*P	P	06 13 34.0	-0.1
BILL				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
BILL	Bilibino	76.31	22	*e*P	P	06 13 34.0	-0.2
	comp=Z,6.3nm,0.6s,mb4.7						
BRG	Berggiesshubel	77.32	320	*e*P	P	06 13 41.0	+0.8
BRG				*e*	pP	06 13 58.0	+2.0
BRG				pmax	pmax		
	comp=Z,38nm,2.0s,mb5.0						
BRG	Berggiesshubel	77.32	320	*e*P	P	06 13 41.0	+0.8
	comp=Z,38nm,2.0s,mb5.0						
BRG				*e*	pP	06 13 58.0	+2.0
BRG				*e*		06 14 12.4	
GERES	GERESS Array B	77.38	318	P	P	06 13 39.5	-1.1
	comp=Z,1.7nm,0.7s,mb4.1,baz=85,slow=5.6,SNR=12						
GERES				pP	pP	06 13 57.0	+0.6
	comp=Z,3.7nm,0.7s,baz=90,slow=5.3,SNR=10						
KHC	Kasperske Hory	77.47	319	*e*P	P	06 13 40.0	-1.1
FX1	Attu Island--F	77.52	38	P	P	06 13 41.7	+0.5
	comp=Z,17nm,0.5s,mb5.2,baz=68,slow=18,SNR=7.0						
FX1	Attu Island--F	77.52	38	P	P	06 13 41.7	+0.5
FX1				pmax	pmax		
	comp=Z,17nm,0.5s						
FX1	Attu Island--F	77.52	38	*e*P	P	06 13 41.5	+0.3
CLL	Collm	77.94	321	P	P	06 13 43.0	-0.5
NB2	NORSAR Subarra	79.40	331	P	P	06 13 50.4	-0.9
	comp=Z,5.4nm,0.8s,mb4.5,baz=93,slow=5.6						
NB2	NORSAR Subarra	79.40	331	P	P	06 13 50.4	-0.9
NB2				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
NOA	NORSAR Array B	79.40	331	P	P	06 13 51.0	-0.4
	comp=Z,2.2nm,0.6s,mb4.3,baz=92,slow=5.7,SNR=8.6						
NOA				pP	pP	06 14 06.3	-0.9
	comp=Z,3.3nm,0.7s,baz=94,slow=5.5,SNR=4.9						
DAVOX	Davos	79.93	316	P	P	06 13 54.8	+0.3

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      comp=Z,5.1nm,0.7s,mb4.5,baz=118,slow=3.3,SNR=8.1
LPG   La Plagne          82.15 315  eP      P        06 14 07.5 +1.3
      comp=Z,21nm,0.9s,mb4.8
LPG   La Plagne          82.15 315  eP      P        06 14 07.5 +1.3
LPG                                 pmax    pmax
      comp=Z,11nm,0.9s,mb4.8
DAG   Danmarks Havn      87.32 348⇓eP       P        06 14 31.2 -0.1
DAG                                 pmax    pmax
      comp=Z,5.0nm,0.7s,mb4.8
DAG   Danmarks Havn      87.32 348⇓eP       P        06 14 31.2 -0.1
      comp=Z,4.8nm,0.7s,mb4.8
DAG   Danmarks Havn      87.32 348 ⇓iP      P        06 14 31.2 -0.1
      comp=Z,4.8nm,0.7s,mb4.8
ESDC  Sonseca Array      90.71 310  P       P        06 14 49.1 +1.0
      comp=Z,1.2nm,0.6s,mb4.4,baz=90,slow=5.9,SNR=4.8
VNDA  Vanda              93.08 168  P       P        06 14 59.8 +1.5
      comp=Z,2.8nm,1.0s,mb4.7,baz=242,slow=6.5,SNR=7.3
ILAR  Eielson Array      94.97  22  P       P        06 15 07.5 +0.5
      comp=Z,1.1nm,0.6s,mb4.4,baz=294,slow=4.4,SNR=18
ILAR                                pP      pP       06 15 23.4 +0.1
      comp=Z,0.8nm,0.7s,baz=289,slow=4.1,SNR=3.9
ILAR                                PP      PP       06 18 57.4 -1.5
      comp=Z,1.5nm,1.1s,baz=301,slow=7.6,SNR=5.4
INK   Inuvik             97.15  16  P       P        06 15 18.0 +1.1
      comp=Z,4.6nm,0.9s,mb4.9,baz=338,slow=5.4,SNR=9.2
YKA   Yellowknife Ar    106.55  13  Pdiff   Pdif     06 16 03.6 +4.6
      comp=Z,0.6nm,1.0s,baz=333,slow=7.1,SNR=5.6
YKA                                 PP      PP       06 20 21.7 -5.8
      comp=Z,1.1nm,1.0s,baz=337,slow=8.0,SNR=7.8
YKA                                 PKKPbc           06 31 29.7
      comp=Z,0.1nm,0.4s,baz=149,slow=3.5,SNR=7.6
YKA   Yellowknife Ar    106.55  13  Pdif    Pdif     06 16 03.6 +4.6
YKA                                 PP      PP       06 20 21.7 -5.8
YKA                                 PKKPbc           06 31 29.7
MSO   Missoula          120.30  21 ePKPdf   PKPdf    06 20 36.1 +1.1
CHMT  Chamberlain Mo    120.47  21 ePKPdf   PKPdf    06 20 36.8 +1.4
ULM   Lac du Bonnet     121.53   7  PKP     PKPdf    06 20 40.1 +2.8
      comp=Z,4.6nm,0.5s,baz=347,slow=2.6,SNR=14
HLID  Hailey            122.87  24 ePKPdf   PKPdf    06 20 42.6 +2.6
LKWY  Lake              123.51  20 ePKIKP   PKPdf    06 20 44.9 +3.6
LOHW  Long Hollow       124.27  21 ePKPdf   PKPdf    06 20 45.2 +2.4
SNOW  Snow King Moun    124.34  21 ePKPdf   PKPdf    06 20 45.5 +2.5
NVAR  Mina Array Bea    125.23  30  PKP     PKPdf    06 20 48.3 +3.5
      comp=Z,2.7nm,0.8s,baz=282,slow=2.4,SNR=5.5
PDAR  Pinedale Array    125.38  21  PKP     PKPdf    06 20 47.3 +2.4
      comp=Z,3.1nm,0.7s,baz=157,slow=1.6,SNR=21
PDAR                                pPKP             06 21 03.1
      comp=Z,3.3nm,1.0s,baz=315,slow=2.1,SNR=5.4
MSU   Marysvale         128.01  26 ePKIKP   PKPdf    06 20 54.3 +4.1
NEN   Nelson            129.12  30 ePKPdf   PKPdf    06 20 55.7 +3.3
PV10  Paradox Valley    129.41  23 ePKPdf   PKPdf    06 20 56.0 +3.2
USHA  Ushuaia           131.01 194  SKPbc            06 24 18.4
      comp=Z,17nm,0.8s,baz=118,slow=7.2,SNR=7.3
ANMO  Albuquerque       133.40  23  PKP     PKPdf    06 21 03.5 +3.0
      comp=Z,2.5nm,0.9s,baz=340,slow=2.6,SNR=8.8
ANMO                                SKPbc            06 24 27.2
      comp=Z,5.6nm,1.0s,baz=334,slow=2.8,SNR=10
ANMO  Albuquerque       133.40  23  PKP     PKPdf    06 21 03.5 +3.0
ANMO                                SKPbc            06 24 27.2
TXAR  Lajitas Array     139.47  23  PKP     PKPdf    06 21 14.6 +2.9
      comp=Z,1.6nm,0.4s,baz=171,slow=1.2,SNR=38
TXAR                                SKPbc            06 24 45.5
      comp=Z,3.1nm,0.8s,baz=227,slow=1.3,SNR=14
JCT   Junction City     139.77  18 ePKIKP   PKPdf    06 21 14.7 +2.4
BDFB  Brasilia          141.59 255  PKP     PKPdf    06 21 18.8 +2.9
      comp=Z,2.0nm,0.8s,baz=205,slow=7.9,SNR=5.2
BDFB                                SKPbc            06 24 51.9
      comp=Z,4.2nm,0.8s,baz=142,slow=2.5,SNR=5.5
CPUP  Villa Florida     146.76 233  PKPbc   PKPbc    06 21 29.3 +3.2
      comp=Z,0.0nm,0.4s,baz=122,slow=7.1,SNR=2.9
TEIG  Tepich            152.00   4 ePKPbc   PKPdf    06 21 41.3 +8.4
TEIG                               e                 06 21 49.9
LPAZ  La Paz            160.20 243  PKP     PKPdf    06 21 47.5 +3.9
      comp=Z,1.6nm,0.8s,baz=43,slow=2.0,SNR=5.8
```

IDC 27 06:03:52.8±9.3**,6.53N**×**95.54E,mb4.4**/6**,mb1 4.5**/7**, mb1mx4.1**/18**,ML4.4**/1**,Error ellipse: s-maj=253.0km s-min=50.7km az=132.0,Nicobar Islands region**

```
Code  Station Name         Δ°  AZ°   Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
CMAR  Chiang Mai Arr     12.31  15  Pn      P        06 06 51.2 -1.1
      0.6nm,0.3s,slow=14,SNR=3.4
SONM  Songino Array      42.19  11  P       P        06 11 46.5 -2.4
      4.8nm,1.0s,baz=207,slow=4.6,SNR=4.0
ZAL   Zalesovo           48.06 351  P       P        06 12 33.1 -2.8
      8.4nm,0.3s,baz=303,slow=4.6,SNR=6.9
FINES FINESS Array B     74.54 332  P       P        06 15 32.9 -2.1
      2.2nm,0.4s,baz=102,slow=6.7,SNR=8.7
ARCES ARCESS Array B     76.99 340  P       P        06 15 48.2 -0.6
      2.0nm,0.7s,baz=103,slow=7.1,SNR=8.3
GERES GERESS Array B     79.74 318  P       P        06 16 02.8 -1.4
      0.6nm,0.5s,baz=99,slow=5.3,SNR=5.8
NB2   NORSAR Subarra     81.57 331  P       P        06 16 12.3 -1.3
      1.5nm,0.5s,baz=98,slow=4.8
NOA   NORSAR Array B     81.57 331  P       P        06 16 12.5 -1.1
      1.9nm,0.6s,baz=93,slow=5.6,SNR=4.9
```

IDC 27 06:04:10.1±6.7**,2.66N**×**98.81E,mb4.1**/3**,mb1 4.4**/4**, mb1mx3.9**/18**,ML4.6**/1**,Error ellipse: s-maj=176.0km s-min=67.0km az=127.0,Northern Sumatera**

```
Code  Station Name         Δ°  AZ°   Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
CMAR  Chiang Mai Arr     15.70   0  Pn      P        06 07 51.6 -2.9
      0.9nm,0.3s,baz=207,slow=11,SNR=12
SONM  Songino Array      45.48   7  P       P        06 12 31.1 -1.7
      3.0nm,0.8s,baz=192,slow=8.5,SNR=3.1
BVAR  Borovoye Array     55.43 340  P       P        06 13 46.8 -1.8
      2.9nm,0.8s,baz=162,slow=9.1,SNR=3.2
GERES GERESS Array B     84.78 319  P       P        06 16 46.2 -1.5
      0.9nm,0.8s,baz=90,slow=5.9,SNR=3.3
```

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*BJI **27** 06:06:42.5,5.47N×93.21E,h51^{km},mB5.3,mb4.8,Ms4.9, Msz5.2*

*MOS **27** 06:06:43.2±0.9,6.07N×93.26E,h33^{km},mb5.1/18,Error ellipse: s-maj=17.1km s-min=7.2km az=122.8*

*IDC **27** 06:06:44.7±0.6,6.04N×93.26E,h30^{km}±3^{km},mb4.4/19, mb1 4.5/20,mb1mx4.4/25,ML3.9/1,Error ellipse: s-maj=21.8km s-min=11.7km az=35.0*

*NEIC **27** 06:06:44.3±0.2,5.96N×93.20E,mb4.8/13,Error ellipse: s-maj=7.7km s-min=5.9km az=45.0*

ISC 27 06:06:42.4±0.3**,5.95N**±0.05×**93.22E**±0.05**,h29^{km}, h29^{km}**±1.3^{km}**:pP-P,n112,**σ**1^{s}04**/114**,mb4.8**/43**,MS4.7**/1**, 2C-7D,Off west coast of northern Sumatera**

```
Code  Station Name         Δ°  AZ°   Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
CM31  Chiang Mai Arr     13.62  24 eP       P        06 09 57.6 +1.2
      25nm,0.8s
CMAR  Chiang Mai Arr     13.62  24  Pn      P        06 09 56.1 -0.2
      0.2nm,0.3s,baz=220,slow=13,SNR=3.4
VIS   Vishakhapatnam     15.17 321 eP       P        06 10 16.2 -0.4
VIS                                e                 06 10 17.0
      comp=Z,180nm,0.3s
VIS                                eS       S        06 12 53.0  -11
TRD   Trivandrum         16.33 280 eP       P        06 10 23.4 -8.2
BOK   Bokaro             19.09 339 eP       P        06 11 08.8 +3.1
BOK                                e                 06 11 11.7
      comp=Z,118nm,0.3s
BOK                                e        S        06 14 26.8 -7.4
BLSP  Bilaspur           19.33 327 eP       P        06 11 11.1 +2.7
BLSP                               e                 06 11 12.9
      comp=Z,125nm,0.6s
BLSP                               eS       S        06 14 40.7 +1.3
SHL   Shillong           19.55 356 e        P        06 11 08.0 -2.9
QIZ   Qiongzhong         20.76  50  P       P        06 11 24.5 +0.8
POO   Poona              22.65 305 eP       P        06 11 42.2 -0.6
POO                                e                 06 11 46.0
      comp=Z,50nm,1.3s
POO                                eS       S        06 15 43.2 -1.2
BHPL  Bhopal             22.96 320 eP       P        06 11 46.4 +0.6
BHPL                               e                 06 11 49.7
      comp=Z,35nm,0.7s
BHPL                               eS       S        06 15 53.4 +3.6
GYA   Guiyang            24.09  31⇑iP       P        06 11 57.5 +0.8
GYA                                 AMB     AMB
      comp=Z,10.0nm,0.6s,mb4.4
PTH   Pithoragarh        26.49 334 e        P        06 12 08.7  -11
XAN   Xi'an              31.51  25  P       P        06 13 02.3 -2.0
XAN                                 AMB     AMB
      comp=Z,16nm,0.9s,mb4.8
WHN   Wuhan              31.51  37 ⇓P       P        06 13 04.8 +0.5
GTA   Gaotai             33.84   9 eP       P        06 13 29.3 +4.8
GTA                                 AP      pP       06 13 36.5 +3.5
GTA                                 PP      PP       06 14 41.8 +3.7
GTA                                 AMB     AMB
      comp=Z,8.0nm,0.7s,mb4.8
NJ2   Nanjing            35.32  39 eP       P        06 13 33.5 -3.8
NJ2                                 S       S        06 19 03.0 -5.8
NJ2                                 AMB     AMB
      comp=Z,260nm,4.7s
NJ2                                 LR      LR
      comp=N,3μm,20.6s
NJ2                                 LR      LR
      comp=E,3μm,15.3s
NJ2                                 LR      LR
      comp=Z,3μm,12.7s
KSH   Kashi              36.86 338  P       P        06 13 50.5 +0.3
KSH                                ePCP     PcP      06 16 12.8 +0.8
KSH                                 AMB     AMB
      comp=Z,170nm,6.2s
WMQ   Urumqi             38.03 354  P       P        06 14 01.3 +1.3
WMQ                                 AMB     AMB
      comp=Z,18nm,1.1s,mb4.7
HHC   Hu-ho-hao-te       38.43  23 eP       P        06 14 04.5 +1.1
HHC                                 PP      PP       06 15 41.3 +6.3
HHC                                 S       S        06 19 55.0 -1.3
HHC                                 XS               06 20 21.8
HHC                                 AMB     AMB
      comp=Z,15nm,0.6s,mb4.9
HHC                                 AMB     AMB
      comp=Z,962nm,10.6s
HHC                                 LR      LR
      comp=N,572nm,13.1s,MS4.7
HHC                                 LR      LR
      comp=E,631nm,13.7s,MS4.7
JOW   Kunigami           39.30  54  P       P        06 14 10.3 -0.5
      comp=E,21nm,0.7s,mb5.0,baz=115,slow=23,SNR=6.7
BJI   Beijing            39.72  28  P       P        06 14 16.0 +1.9
BJI                                 AMB     AMB
      comp=Z,9.0nm,1.1s,mb4.4
UCH   Uchtor             39.76 338  P       P        06 14 15.6 +1.2
      SNR=9.2
TKM2  Tokmak 2           39.98 340  P       P        06 14 16.9 +0.6
      SNR=6.5
AML   Almayashu          39.99 337  P       P        06 14 17.7 +1.4
      SNR=19
AAK   Ala-Archa          40.12 338  P       P        06 14 19.0 +1.6
      SNR=7.1
EKS2  Erkin-Say          40.41 338  P       P        06 14 21.1 +1.3
      SNR=8.2
USP   Ospenovka          40.67 339  P       P        06 14 22.4 +0.5
      SNR=7.1
SONM  Songino Array      43.23  13  P       P        06 14 42.4 -0.4
      comp=Z,3.1nm,0.8s,mb4.1,baz=198,slow=7.8,SNR=3.5
WRA   Warramunga Arr     47.93 124  P       P        06 15 20.7 +0.1
      comp=Z,12nm,0.8s,mb5.0,baz=302,slow=9.0,SNR=23
WRAB  Tennant Creek      47.93 124 eP       P        06 15 20.7  0.0
WRAB                               e        pP       06 15 27.4 -2.0
WRAB                                pmax    pmax
      comp=Z,23nm,0.8s,mb5.3
WRAB  Tennant Creek      47.93 124 eP       P        06 15 20.7  0.0
      comp=Z,23nm,0.8s,mb5.2
WRAB                               e        pP       06 15 27.4 -1.9
ZAL   Zalesovo           48.33 353  P       P        06 15 23.4 +0.2
      comp=Z,9.2nm,0.6s,mb5.0,baz=300,slow=5.6,SNR=20
NVS   Novosibirsk        49.41 352 eP       P        06 15 30.4 -1.2
NVS                                i S      S        06 22 34.3 -1.2
NVS                                 pmax    pmax
      comp=Z,27nm,1.2s,mb5.2
NVS                                 smax
      comp=E,45nm,1.6s
NVS                                 smax
      comp=N,15nm,1.3s
ASAR  Alice Springs      49.42 128  P       P        06 15 32.2 +0.1
      comp=N,5.0nm,0.8s,mb4.6,baz=307,slow=7.5,SNR=14
BVAR  Borovoye Array     50.52 342  P       P        06 15 39.3 -0.8
      comp=N,5.9nm,0.9s,mb4.5,baz=135,slow=8.4,SNR=8.7
BRVK  Borovoye           50.58 342 eP       P        06 15 39.4 -1.2
BRVK                                pmax    pmax
      comp=Z,6.0nm,1.0s,mb4.5
BRVK  Borovoye           50.58 342 eP       P        06 15 39.4 -1.1
      comp=Z,6.4nm,1.0s,mb4.5
CHKZ  Chkalovo           51.02 343 eP       P        06 15 43.4 -0.5
CHKZ                                pmax    pmax
      comp=Z,56nm,1.6s,mb5.2
CHKZ  Chkalovo           51.02 343 eP       P        06 15 43.4 -0.4
      comp=Z,56nm,1.6s,mb5.2
KLR   Kul'dur            53.99  30 eP       P        06 15 56.2  -10
BOD   Bodaibo            54.22  14 eP       P        06 16 07.0 -0.7
GNI   Garni              55.14 316  P       P        06 16 14.9 +0.2
      comp=Z,4.2nm,0.5s,mb4.7,baz=341,slow=20,SNR=6.3
PMG   Port Moresby       55.87 106  P       P        06 16 20.3  0.0
      comp=Z,13nm,0.7s,mb5.1,baz=282,slow=5.3,SNR=7.7
PMG                                 pP      pP       06 16 28.3 -0.8
      comp=Z,12nm,0.6s,baz=11,slow=2.9,SNR=5.9
KMBO  Kilima Mbogo       56.32 265  P       P        06 16 24.9 +1.3
      comp=Z,2.4nm,0.7s,mb4.3,baz=55,slow=9.7,SNR=7.0
KMBO                                pP      pP       06 16 32.5 +0.1
      comp=Z,4.3nm,1.1s,baz=61,slow=9.4,SNR=5.3
KMBO  Kilima Mbogo       56.32 265 i P      P        06 16 25.4 +1.8
KMBO                                pmax    pmax
      comp=Z,2.0nm,0.7s
KMBO  Kilima Mbogo       56.32 265  P       P        06 16 24.9 +1.3
KMBO                                pP      pP       06 16 32.5 +0.1
ZEI   Tsey               56.83 318 eP       P        06 16 26.1 -0.8
ZEI                                i *PP    pP       06 16 34.4 -1.3
ZEI                                i                 06 18 32.4
ZEI                                 pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.8
ARU   Arti               57.30 338⇓iP       P        06 16 27.8 -2.2
ARU                                e                 06 17 16.5
ARU                                e                 06 18 32.4
ARU                                eS       S        06 24 23.0 +0.5
ARU                                eSS      SS       06 28 11.6 -1.7
ARU                                 pmax    pmax
      comp=Z,28nm,1.8s,mb5.0
KIV   Kislovodsk         58.14 319d iP      P        06 16 34.9 -1.1
KIV                                 pmax    pmax
      comp=Z,33nm,1.5s,mb5.1
ASF   Jabal al Asfar     58.51 304  P       P        06 16 39.4 +0.6
      comp=Z,3.7nm,0.7s,mb4.6,baz=32,slow=5.5,SNR=5.5
STKA  Stephens Creek     59.47 132  P       P        06 16 45.2 -0.2
      comp=Z,3.1nm,0.8s,mb4.4,baz=293,slow=8.5,SNR=3.9
SOC   Sochi              59.96 318 eP       P        06 16 45.9 -2.7
SOC                                eS       S        06 24 53.9 -3.3
SOC                                 pmax    pmax
      comp=Z,23nm,1.1s,mb5.1
SOC                                 pmax    pmax
      comp=N,13nm,0.8s
SOC                                 pmax    pmax
      comp=E,17nm,1.1s
BRTR  Keskin Array B     63.00 312  P       P        06 17 08.0 -1.2
      comp=E,7.7nm,0.7s,mb4.9,baz=131,slow=7.3,SNR=27
BRTR                                pP      pP       06 17 18.6 +0.5
      comp=E,2.8nm,0.7s,baz=133,slow=6.0,SNR=5.8
ISP   Isparta            64.92 309 eP       P        06 17 20.5 -1.3
ISP                                 pmax    pmax
      comp=Z,25nm,1.0s,mb5.2
ISP   Isparta            64.92 309 eP       P        06 17 20.5 -1.2
      comp=Z,25nm,1.0s,mb5.2
MOS   Moscow             66.25 329 eP       P        06 17 27.0 -3.0
MOS                                 pmax    pmax
      comp=Z,50nm,1.0s,mb5.5
OBN   Obninsk            66.52 328deP       P        06 17 29.5 -2.2
OBN                                eS       S        06 26 13.8 -5.2
OBN                                 pmax    pmax
      comp=Z,38nm,1.5s,mb5.2
IDI   Anoyia             68.92 305  P       P        06 17 47.4 +0.2
      comp=Z,5.8nm,0.5s,mb4.8,baz=52,slow=7.3,SNR=5.8
AKASG Malin Array Be     69.10 322  P       P        06 17 46.0 -1.9
      comp=Z,4.6nm,0.6s,mb4.6,baz=88,slow=4.9,SNR=22
AKASG                               pP      pP       06 17 56.0 -0.8
      comp=Z,1.3nm,0.6s,baz=88,slow=5.0,SNR=3.0
AKASG                               sP      sP       06 18 02.2 +2.1
      comp=Z,1.7nm,0.6s,baz=85,slow=5.5,SNR=3.3
AKASG Malin Array Be     69.10 322  P       P        06 17 46.0 -1.9
AKASG                               *PP     pP       06 17 56.0 -0.8
AKASG                               *SP     sP       06 18 02.2 +2.2
AKASG                               pmax    pmax
      comp=Z,5.0nm,0.6s
AKASG                               pmax    pmax
      comp=Z,1.0nm,0.6s
AKASG                               pmax    pmax
      comp=Z,2.0nm,0.6s
TIXI  Tiksi              69.28  11 eP       P        06 17 48.2 -0.6
TIXI                                pmax    pmax
      comp=Z,9.0nm,1.1s,mb4.6
VRI   Vrincioaia         69.46 317⇑iP       P        06 17 50.8 +0.6
KOLS  Kolonicke sedl     73.05 319 eP       P        06 18 12.1 +0.3
FINES FINESS Array B     73.98 333  P       P        06 18 16.2 -0.7
      comp=Z,4.5nm,0.6s,mb4.6,baz=101,slow=9.7,SNR=14
KAF   Kangasniemi        74.08 333 ep       P        06 18 16.1 -1.4
      comp=Z,6.8nm,0.7s,mb4.7
KAF   Kangasniemi        74.08 333 eP       P        06 18 16.1 -1.4
KAF                                 pmax    pmax
      comp=Z,7.0nm,0.7s,mb4.7
OJC   Ojcow              74.86 320 eP       P        06 18 21.9 -0.3
VYHS  Vyhne              75.23 319 eP       P        06 18 24.0 -0.4
OKC   Ostrava-Krasne     75.86 320 eP       P        06 18 27.8 -0.1
MORC  Moravsky Berou     76.24 320 eP       P        06 18 30.0 -0.1
MORC                               e        pP       06 18 39.3 +0.2
KEV   Kevo               76.34 341 ep       P        06 18 29.0 -1.2
ZST   Bratislava         76.34 318 eP       P        06 18 30.7  0.0
ARCES ARCESS Array B     76.76 340  P       P        06 18 32.8 +0.2
      comp=Z,3.4nm,0.6s,mb4.5,baz=102,slow=5.1,SNR=15
ARCES                               pP      pP       06 18 42.6 +1.0
      comp=Z,1.9nm,0.6s,baz=90,slow=4.9,SNR=3.5
DPC   Dobruska-Polom     77.08 320 eP       P        06 18 35.6 +0.8
KSP   Ksiaz              77.16 321 eP       P        06 18 35.2  0.0
UPC   Upice              77.30 320 eP       P        06 18 36.6 +0.6
PRU   Pruhonice          78.19 320 eP       P        06 18 41.6 +0.7
PRU                                epP      pP       06 18 48.7 -1.2
BRG   Berggiesshubel     78.64 321 i P      P        06 18 43.9 +0.6
BRG                                 pmax    pmax
      comp=Z,13nm,1.1s,mb4.8
BRG   Berggiesshubel     78.64 321 i P      P        06 18 43.9 +0.6
      comp=Z,12nm,1.1s,mb4.8
GEC2  GERESS Array S     78.65 319 eP       P        06 18 43.9 +0.5
GEC2                                pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.8
GEC2  GERESS Array S     78.65 319 eP       P        06 18 43.9 +0.5
      comp=Z,10.0nm,0.8s,mb4.8
GERES GERESS Array B     78.65 319  P       P        06 18 44.0 +0.6
      comp=Z,7.9nm,0.7s,mb4.8,baz=90,slow=5.3,SNR=42
KHC   Kasperske Hory     78.75 319 eP       P        06 18 44.1 +0.1
KHC                                epP      pP       06 18 52.7 -0.3
WET   Wettzell           79.21 319 eP       P        06 18 47.1 +0.6
CLL   Collm              79.27 321 eP       P        06 18 46.0 -0.7
CLL   Collm              79.27 321  P       P        06 18 46.0 -0.7
FUR   Furstenfeldbru     80.22 318 eP       P        06 18 51.9  0.0
GRA1  Grafenberg Arr     80.31 319 eP       P        06 18 53.0 +0.6
      comp=Z,10.0nm,1.0s,mb4.7
GRF   Grafenberg Arr     80.31 319 eP       P        06 18 53.0 +0.6
GRF                                 pmax    pmax
      comp=Z,10.0nm,1.0s,mb4.7
GRF   Grafenberg Arr     80.31 319 eP       P        06 18 53.0 +0.6
GRF                                 pmax    pmax
      comp=Z,10.0nm,1.0s,mb4.7
GRF   Grafenberg Arr     80.31 319 eP       P        06 18 53.0 +0.6
      comp=Z,10.0nm,1.0s,mb4.7
CLZ   Clausthal          80.93 321 eP       P        06 18 55.3 -0.3
      comp=Z,5.0nm,0.8s,mb4.5
NB2   NORSAR Subarra     80.95 331  P       P        06 18 54.9 -0.6
      comp=Z,1.0nm,0.6s,mb3.9,baz=98,slow=5.0
NB2   NORSAR Subarra     80.95 331  P       P        06 18 54.9 -0.6
NB2                                 pmax    pmax
      comp=Z,1.0nm,0.6s,mb3.9
NOA   NORSAR Array B     80.95 331  P       P        06 18 55.1 -0.4
      comp=Z,2.2nm,0.8s,mb4.1,baz=94,slow=5.5,SNR=4.5
BSEG  Bad Segeberg       81.04 324 eP       P        06 18 56.8 +0.7
DAVOX Davos              81.14 316  P       P        06 18 57.7 +0.9
      comp=Z,15nm,0.7s,mb5.0,baz=118,slow=6.1,SNR=28
DAVOX                               pP      pP       06 19 08.0 +2.1
      comp=Z,11nm,0.8s,baz=174,slow=9.8,SNR=5.9
DAVOX Davos              81.14 316  P       P        06 18 57.7 +0.9
DAVOX                               pP      pP       06 19 08.0 +2.1
BFO   Black Forest       82.19 318 eP       P        06 19 02.4 +0.2
BFO                                 pmax    pmax
      comp=Z,2.0nm,0.8s,mb4.1
BFO   Black Forest       82.19 318 eP       P        06 19 02.4 +0.2
      comp=Z,2.0nm,0.8s,mb4.1
LPL   La Plagne          83.33 315 eP       P        06 19 09.0 +0.8
      comp=Z,18nm,0.8s,mb4.9
LPL   La Plagne          83.33 315 eP       P        06 19 09.0 +0.8
LPL                                 pmax    pmax
      comp=Z,9.0nm,0.8s,mb4.8
SNAA  Sanae              97.53 199⇓iP       sP       06 20 29.9 +3.1
VNA2  Neumayer--Watz     99.06 199 e        pP       06 20 32.3 +1.5
VNA2  Neumayer--Watz     99.06 199 e        sP       06 20 35.8 +2.1
VNA2  Neumayer--Watz     99.06 199⇓iPKPdf   P        06 20 21.5 -0.1
VNA2                               e        pP       06 20 32.3 +1.5
VNA2                               e                 06 20 35.8
VNA3  Neumayer Olymp     99.75 199 e        pP       06 20 36.7 +2.7
VNA3  Neumayer Olymp     99.75 199 e        sP       06 20 40.3 +3.5
VNA3  Neumayer Olymp     99.75 199⇓iPKPdf   P        06 20 26.3 +1.6
VNA3                               e        pP       06 20 36.7 +2.7
VNA3                               e                 06 20 40.3
ULM   Lac du Bonnet     123.47   7  PKP     PKPdf    06 25 39.0 -3.3
      comp=Z,1.0nm,0.5s,baz=88,slow=4.0,SNR=3.1
ULM                                 pPKP             06 25 49.1
      comp=Z,2.6nm,0.9s,baz=351,slow=6.9,SNR=3.0
PDAR  Pinedale Array    127.28  21  PKP     PKPdf    06 25 46.8 -2.9
      comp=Z,0.8nm,0.8s,baz=10,slow=1.8,SNR=4.7
TXAR  Lajitas Array     141.34  24  PKP     PKPdf    06 26 13.2 -3.2
      comp=Z,0.3nm,0.6s,baz=333,slow=2.8,SNR=3.9
```

IDC 27 06:07:08.7±3.5**,6.67N**×**93.14E,mb4.5**/6**,mb1 4.6**/6**, mb1mx4.3**/18**,Error ellipse: s-maj=162.0km s-min=68.9km az=28.0,Nicobar Islands region**

```
Code  Station Name         Δ°  AZ°   Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
BRTR  Keskin Array B     62.47 311  P       P        06 17 33.6 -2.7
      2.9nm,0.6s,baz=139,slow=6.1,SNR=4.2
AKASG Malin Array Be     68.48 322  P       P        06 18 12.1 -2.7
      2.1nm,0.5s,baz=84,slow=4.9,SNR=3.9
FINES FINESS Array B     73.31 332  P       P        06 18 42.5 -1.2
      5.2nm,0.8s,baz=96,slow=7.6,SNR=3.6
ARCES ARCESS Array B     76.06 340  P       P        06 18 57.5 -1.9
      1.3nm,0.4s,baz=93,slow=5.0,SNR=1.8
GERES GERESS Array B     78.06 318  P       P        06 19 10.3 -0.6
      10nm,1.1s,baz=96,slow=4.8,SNR=4.6
DAVOX Davos              80.57 316  P       P        06 19 23.9 -0.7
      11nm,0.7s,baz=140,slow=4.6,SNR=5.0
PDAR  Pinedale Array    126.64  21  PKP     PKPdf    06 26 13.8 -2.4
      1.0nm,0.8s,baz=45,slow=4.2,SNR=4.3
TXAR  Lajitas Array     140.72  24  PKP     PKPdf    06 26 42.8 -0.2
      0.3nm,0.5s,baz=328,slow=0.4,SNR=4.1
```

IDC 27 06:10:02.2±9.3**,2.53N**×**96.88E,mb3.9**/3**,mb1 4.2**/4**, mb1mx3.8**/16**,ML4.0**/1**,Error ellipse: s-maj=279.0km s-min=65.4km az=130.0,Northern Sumatera**

```
Code  Station Name         Δ°  AZ°   Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
CMAR  Chiang Mai Arr     15.96   7  Pn      P        06 13 48.4 -1.6
      0.2nm,0.3s,baz=211,slow=12,SNR=4.7
SONM  Songino Array      45.88   9  P       P        06 18 26.4 -1.7
      1.3nm,0.9s,baz=194,slow=8.9,SNR=3.8
ARCES ARCESS Array B     81.19 340  P       P        06 22 19.5 -1.4
      0.9nm,0.7s,baz=90,slow=6.1,SNR=4.1
GERES GERESS Array B     83.61 319  P       P        06 22 32.8 -1.1
      1.1nm,0.8s,baz=90,slow=5.3,SNR=4.2
```

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*NEIC **27** 06:10:33.2,33.16S×70.09W,h119^{km},MD3.7(GUC),After GUC.*

GUC 27 06:10:33.2±0.9**,33.16S**×**70.09W,h119^{km}**±3^{km}**,MD3.7, ML3.7,9C-14D,Chile-Argentina border region**

```
Code  Station Name         Δ°  AZ°   Phase ID             Time     Res
                                   Op       ISC        h  m  s    ISC
FCH   Farellones          0.24 225⇓iP       P        06 10 50.4 +0.5
FCH                                i S      S        06 11 03.4 +0.9
FCH                                 AMP              06 11 03.8
      comp=E,2μm,0.5s
CLCH  Cerro Calan         0.45 238⇑iP       P        06 10 51.2 +0.4
CLCH                               i S      S        06 11 04.6 +0.5
CLCH                                AMP              06 11 05.8
      comp=N,3μm,0.6s
CLCH                                AMP              06 11 05.8
      comp=E,3μm,0.3s
DSCH  Colegio Aleman      0.47 239⇓iP       P        06 10 51.4 +0.4
DSCH                               i S      S        06 11 04.9 +0.5
DSCH                                AMP              06 11 05.4
      comp=N,5μm,0.3s
FSR   Penalolen           0.49 229⇓iP       P        06 10 51.7 +0.6
FSR                                i S      S        06 11 05.4 +0.8
FSR                                 AMP              06 11 06.0
```

	comp=N,3µm,0.2s						
PEL	**Peldehue**	**0.50**	**272**	⇓*i*P	P	06 10 51.5	+0.3
PEL				*i* S	S	06 11 05.1	+0.4
PEL				AMP		06 11 05.9	
	comp=N,5µm,0.3s						
SJCH	**San Jose de Ma**	**0.53**	**205**	*e*P	P	06 10 51.2	-0.1
SJCH				*i* S	S	06 11 05.3	+0.2
SJCH				AMP		06 11 06.1	
	comp=E,769nm,0.4s						
STL	**Santa Lucia**	**0.54**	**239**	⇑*i*P	P	06 10 51.7	+0.3
STL				*i* S	S	06 11 05.3	+0.1
STL				AMP		06 11 06.8	
	comp=N,1µm,0.4s						
SAN	**Santiago**	**0.56**	**238**	*i* S	S	06 11 05.6	+0.1
PCH	**Pirque**	**0.58**	**218**	⇓*i*P	P	06 10 52.4	+0.7
PCH				*i* S	S	06 11 06.4	+0.7
ANTU	**Antumapu**	**0.61**	**228**	⇓*i*P	P	06 10 52.2	+0.3
ANTU				*i* S	S	06 11 06.7	+0.6
ANTU				AMP		06 11 07.8	
	comp=E,2µm,0.3s						
PUEX	**Pudahuel**	**0.63**	**243**	⇓*i*P	P	06 10 53.2	+1.3
PUEX				*i* S	S	06 11 07.6	+1.3
PUEX				AMP		06 11 08.5	
	comp=E,3µm,0.3s						
JACH	**Jahuel**	**0.64**	**318**	⇓*i*P	P	06 10 52.5	+0.4
JACH				*i* S	S	06 11 07.2	+0.7
RCDM	**Rinconada Maip**	**0.69**	**241**	*e*P	P	06 10 52.8	+0.4
RCDM				*i* S	S	06 11 07.2	+0.2
RCDM				AMP		06 11 08.2	
	comp=E,7µm,0.1s						
LMEL	**Las Melosas**	**0.69**	**188**	⇑*i*P	P	06 10 52.9	+0.4
LMEL				*i* S	S	06 11 07.5	+0.3
LMEL				AMP		06 11 12.6	
	comp=N,932nm,0.2s						
ROCH	**El Roble**	**0.80**	**283**	⇓*i*P	P	06 10 53.9	+0.5
ROCH				*i* S	S	06 11 09.1	+0.5
TACH	**Talagante**	**0.87**	**235**	⇓*i*P	P	06 10 54.1	0.0
TACH				*i* S	S	06 11 09.8	0.0
CHCH	**Chadas Angostu**	**0.91**	**211**	⇓*i*P	P	06 10 54.7	+0.2
CHCH				*i* S	S	06 11 11.2	+0.8
CACH	**El Canelo**	**1.05**	**204**	⇓*i*P	P	06 10 56.6	+0.7
CACH				*i* S	S	06 11 14.4	+1.5
MDZ	**Mendoza**	**1.07**	**76**	⇑*i*P	P	06 10 55.9	-0.3
MDZ				*i* S	S	06 10 56.2	-17
PTCH	**Petorca**	**1.14**	**321**	⇓*i*P	P	06 10 57.3	+0.3
PTCH				*i* S	S	06 11 15.6	+0.9
PTCH				AMP		06 11 18.7	
	comp=E,4µm,0.2s						
LCCH	**Las Cruces**	**1.28**	**255**	*i* P	P	06 10 58.6	+0.1
LCCH				*i* S	S	06 11 17.2	-0.3
PACH	**Papudo**	**1.29**	**298**	⇑*i*P	P	06 10 58.5	-0.1
PACH				*i* S	S	06 11 17.0	-0.7
IHA	**Instituto Hidr**	**1.31**	**275**	*e*P	P	06 10 58.9	+0.1
IHA				*i* S	S	06 11 17.9	-0.3
LNV	**Longovilo**	**1.36**	**234**	⇑*i*P	P	06 10 58.7	-0.7
LNV				*i* S	S	06 11 18.3	-0.9
SFDO	**San Fernando**	**1.64**	**208**	⇑*i*P	P	06 11 02.5	-0.2
SFDO				*i* S	S	06 11 25.5	+0.5
ILCH	**Illapel**	**1.77**	**329**	⇑*i*P	P	06 11 04.5	+0.2
ILCH				AMP		06 11 31.6	
	comp=N,716nm,0.2s						
NICH	**Los Niches**	**2.07**	**207**	*e*P	P	06 11 07.4	-0.5
CMCH	**Combarbala**	**2.13**	**338**	⇓*i*P	P	06 11 08.9	+0.2
CMCH				*i* S	S	06 11 35.9	+0.4
TALC	**Talca**	**2.58**	**209**	*e*P	P	06 11 14.7	0.0
TALC				*i* S	S	06 11 45.2	-0.8
TALC				AMP		06 11 46.4	
	comp=E,1µm,0.1s						
TLL	**Tololo Astrono**	**3.04**	**348**	⇑*i*P	P	06 11 20.8	-0.2
TLL				*i* S	S	06 11 56.9	-0.3
TLL				AMP		06 12 00.1	
	comp=N,293nm,0.5s						

IDC 27 06:19:17.7±13.0**,5.43N**×**93.41E,h95**^{km}±118^{km}**,mb3.4**/6,**mb1 3.6**/7,**mb1mx3.5**/17,**MS3.9**/1,**Ms1 3.9**/1,**ms1mx3.0**/14,**Error ellipse: s-maj=88.1km s-min=20.1km az=57.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.04**	**22**	P	P	06 22 32.6	-0.8
	baz=221,slow=12,SNR=4.4						
JOW	**Kunigami**	**39.46**	**53**	LR	LR	06 45 54.8	
	comp=Z,188nm,20.8s,baz=262,slow=40						
SONM	**Songino Array**	**43.70**	**13**	P	P	06 27 13.4	-1.5
	0.3nm,0.7s,baz=196,slow=10,SNR=2.9						
WRA	**Warramunga Arr**	**47.48**	**123**	P	P	06 27 43.3	-1.9
	1.5nm,0.7s,baz=301,slow=8.9,SNR=7.3						
ASAR	**Alice Springs**	**48.95**	**128**	P	P	06 27 54.6	-1.9
	0.4nm,0.6s,baz=299,slow=7.9,SNR=5.0						
BVAR	**Borovoye Array**	**51.07**	**342**	P	P	06 28 09.7	-2.7
	1.2nm,0.9s,baz=166,slow=6.1,SNR=4.2						
ARCES	**ARCESS Array B**	**77.31**	**340**	P	P	06 31 01.6	-1.5
	2.2nm,1.0s,baz=101,slow=6.2,SNR=4.6						
GERES	**GERESS Array B**	**79.16**	**319**	P	P	06 31 12.7	-1.0
	0.1nm,0.4s,baz=100,slow=6.0,SNR=4.2						

IDC 27 06:30:11.0±2.2**,5.15N**×**93.21E,mb3.8**/4**,mb1 3.9**/5,**mb1mx3.6**/18,**ML3.8**/1,**Error ellipse: s-maj=77.5km s-min=26.0km az=63.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.36**	**22**	Pn	P	06 33 36.3	-1.5
	0.1nm,0.3s,baz=209,slow=11,SNR=3.0						
SONM	**Songino Array**	**44.00**	**13**	P	P	06 38 20.1	-1.8
	0.2nm,0.5s,baz=191,slow=6.3,SNR=4.1						
WRA	**Warramunga Arr**	**47.51**	**123**	P	P	06 38 48.1	-2.1
	1.8nm,0.6s,baz=301,slow=9.2,SNR=10						
ASAR	**Alice Springs**	**48.95**	**128**	P	P	06 38 59.6	-1.7
	0.5nm,0.6s,baz=307,slow=7.2,SNR=5.6						
ARCES	**ARCESS Array B**	**77.50**	**341**	P	P	06 42 08.1	-1.6
	1.3nm,0.9s,baz=90,slow=5.4,SNR=4.8						

IDC 27 06:38:00.0±2.9**,4.98N**×**91.43E,mb3.9**/5**,mb1 4.2**/6,**mb1mx3.9**/18,**ML4.7**/1,**Error ellipse: s-maj=121.0km s-min=24.5km az=63.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.27**	**28**	Pn	P	06 41 31.9	-6.9
	1.2nm,0.3s,baz=225,slow=13,SNR=8.8						
SONM	**Songino Array**	**44.58**	**14**	P	P	06 46 15.3	-0.3
	0.5nm,0.8s,baz=196,slow=10,SNR=3.7						
WRA	**Warramunga Arr**	**48.91**	**122**	P	P	06 46 46.2	-3.9
	1.9nm,0.7s,baz=303,slow=9.2,SNR=11						
ZAL	**Zalesovo**	**49.10**	**355**	P	P	06 46 47.6	-3.5
	1.0nm,0.3s,baz=266,slow=3.9,SNR=3.7						
ASAR	**Alice Springs**	**50.26**	**126**	P	P	06 46 58.8	-1.6
	2.5nm,0.8s,baz=298,slow=7.4,SNR=21						
STKA	**Stephens Creek**	**60.16**	**131**	P	P	06 48 11.7	-0.4
	0.8nm,0.5s,baz=322,slow=12,SNR=3.3						
PDAR	**Pinedale Array**	**128.80**	**20**	PKP	PKPdf	06 57 09.9	-1.9
	0.3nm,0.8s,baz=117,slow=2.0,SNR=3.1						

IDC ***27*** *06:40:38.1±0.4,8.94N×93.69E,mb4.7/27,mb1 4.7/28, mb1mx4.7/29,ML4.2/1,Error ellipse: s-maj=22.9km s-min=10.7km az=46.0*

MOS ***27*** *06:40:41.4±0.8,9.02N×93.79E,h33*^{km}*,mb4.9/27,Error ellipse: s-maj=12.7km s-min=6.1km az=123.4*

NEIC ***27*** *06:40:42.9±3.0,8.97N×93.75E,h30*^{km}*±21*^{km}*,mb4.8/20, Error ellipse: s-maj=7.8km s-min=5.4km az=45.0*

BJI ***27*** *06:40:42.5,8.97N×93.37E,h34*^{km}*,mB5.2,mb4.6*

ISC 27 06:40:42.8±1.5**,8.95N**±0.05×**93.80E**±0.05**,h45**^{km}±13^{km}**,h23**^{km}±3.8^{km}**:pP-P,n148,**$\sigma 0^{s}94$/147,**mb4.8**/59,**4C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.69**	**27**	Pn	**P**	**06 43 18.6**	**+2.4**
	0.5nm,0.3s,baz=217,slow=15,SNR=4.6						
VIS	**Vishakhapatnam**	**13.41**	**312**	*i* P	**P**	**06 43 47.3**	**-5.3**
VIS				*i* S	x	06 46 04.5	
VIS				*e*	**S**	**06 46 11.2**	**-10**
	comp=N,98nm,0.5s						
VIS				*e*		06 46 11.2	
	comp=E,78nm,0.6s						
IMP	**Imphal**	**15.75**	**0**	*e*	**P**	**06 44 26.2**	**+3.1**
BOK	**Bokaro**	**16.59**	**334**	*e*P	**P**	**06 44 34.9**	**+1.1**
BOK				*e*		06 44 39.8	
	comp=Z,104nm,0.9s						
BOK				*e*S	**S**	**06 47 40.7**	**+5.0**
SHL	**Shillong**	**16.63**	**354**	*e*	**P**	**06 44 32.0**	**-2.2**
HYB	**Hyderabad**	**17.06**	**301**	*i* P	**P**	**06 44 39.0**	**-0.6**
HYB				*e*		06 47 34.0	
HYB				*e*S	**S**	**06 47 44.0**	**-2.4**
BLSP	**Bilaspur**	**17.25**	**321**	*e*P	**P**	**06 44 41.8**	**-0.2**
BLSP				*e*		06 44 47.5	
	comp=Z,67nm,1.7s						
BLSP				*e*S	**S**	**06 47 51.6**	**+0.9**
PKI	**Pulchoki**	**20.15**	**338**	*e*P	**P**	**06 45 15.8**	**-0.1**
	comp=Z,96nm,0.9s						
GUN	**Gumba**	**20.29**	**339**	*e*P	**P**	**06 45 17.4**	**0.0**
	comp=Z,208nm,1.0s						
DMN	**Daman**	**20.30**	**337**	*e*P	**P**	**06 45 17.3**	**-0.2**
	comp=Z,125nm,0.9s						
KKN	**Kakani**	**20.40**	**338**	*e*P	**P**	**06 45 17.8**	**-0.7**
	comp=Z,272nm,1.4s						
LSA	**Lhasa**	**20.80**	**353**	*e*P	**P**	**06 45 22.5**	**-0.1**
LSA				pmax	pmax		
	comp=Z,20nm,0.8s						
LSA	**Lhasa**	**20.80**	**353**	*e*P	**P**	**06 45 22.5**	**-0.2**
	comp=Z,20nm,0.8s						
GKN	**Gorkha**	**20.83**	**337**	*e*P	**P**	**06 45 22.9**	**-0.1**
	comp=Z,222nm,0.9s						
KOLN	**Koldanda**	**21.05**	**334**	*e*P	**P**	**06 45 25.6**	**+0.3**
	comp=Z,234nm,0.8s,mb5.5						
BHPL	**Bhopal**	**21.17**	**314**	*e*P	**P**	**06 45 26.3**	**-0.1**
BHPL				*e*		06 45 28.8	
	comp=Z,60nm,0.8s						
GYA	**Guiyang**	**21.26**	**33**	⇑*i*P	**P**	**06 45 31.0**	**+3.6**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.2						
POO	**Poona**	**21.57**	**298**	*e*P	**P**	**06 45 31.0**	**+0.5**
POO				*e*		06 45 36.7	
	comp=Z,25nm,0.9s						
POO				*e*S	**S**	**06 49 24.2**	**+2.3**
PTH	**Pithoragarh**	**24.13**	**330**	*e*P	**P**	**06 45 57.2**	**+1.6**
NDI	**New Delhi**	**25.08**	**324**	*e*P	**P**	**06 46 04.5**	**-0.2**
ENH	**Enshi**	**25.79**	**33**	*e*P	**P**	**06 46 12.1**	**+0.7**
	comp=Z,7.8nm,0.9s,mb4.2						
DDI	**Dehra Dun**	**25.86**	**327**	*e*P	**P**	**06 46 12.5**	**+0.4**
LZH	**Lanzhou**	**28.52**	**17**	*e*P	**P**	**06 46 36.5**	**+0.2**
LZH				AMB	AMB		
	comp=Z,19nm,1.5s,mb4.6						
GTA	**Gaotai**	**30.81**	**9**	*e*P	**P**	**06 46 57.0**	**+0.4**
GTA				AP	pP	06 47 03.3	-5.3
GTA				AMB	AMB		
	comp=Z,5.0nm,0.5s,mb4.6						
KSH	**Kashi**	**34.37**	**335**	P	**P**	**06 47 28.0**	**+0.5**
KSH				*e*AP	pP	06 47 36.3	-3.4
KSH				*e*XP	sP	06 47 40.5	-5.0
KSH				AMB	AMB		
	comp=Z,100nm,1.8s,mb5.4						
WMQ	**Urumqi**	**35.15**	**352**	*e*P	**P**	**06 47 35.5**	**+1.4**
AAK	**Ala-Archa**	**37.59**	**336**	*e*P	**P**	**06 47 53.8**	**-1.0**
AAK				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
AAK	**Ala-Archa**	**37.59**	**336**	*e*P	**P**	**06 47 53.8**	**-0.9**
	comp=Z,11nm,0.8s,mb4.7						
SONM	**Songino Array**	**40.20**	**13**	P	**P**	**06 48 17.3**	**+1.0**
	comp=Z,1.6nm,0.6s,mb4.0,baz=194,slow=4.7,SNR=12						
SONM				PcP	PcP	06 50 21.4	+0.9
	comp=Z,2.2nm,0.7s,baz=205,slow=3.3,SNR=6.3						
ZAK	**Zakamensk**	**42.05**	**9**	*e*P	**P**	**06 48 32.8**	**+1.2**
TLY	**Talaya**	**43.37**	**9**	*i* P	**P**	**06 48 42.3**	**0.0**
TLY				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.2						
ZAL	**Zalesovo**	**45.45**	**353**	P	**P**	**06 48 59.1**	**+0.1**
	comp=Z,4.9nm,0.5s,mb4.6,baz=299,slow=7.7,SNR=22						
HIA	**Hailar**	**45.67**	**24**	P	**P**	**06 49 01.8**	**+0.9**
HIA				*e**PP	pP	06 49 10.3	-3.1
NVS	**Novosibirsk**	**46.54**	**352**	*e*P	**P**	**06 49 06.3**	**-1.3**
NVS				pmax	pmax		
	comp=Z,28nm,1.8s,mb4.9						
NVS				pmax	pmax		
	comp=N,26nm,1.7s						
NWAO	**Narrogin (SRO)**	**47.25**	**153**	P	**P**	**06 49 13.4**	**-0.1**
	comp=N,50nm,1.0s,mb5.4,baz=319,slow=7.3,SNR=6.0						
QRN	**Al-Qurain**	**47.32**	**301**	*e*P	**P**	**06 49 13.9**	**-0.3**
QRN				AMb	AMB	06 49 17.4	
	comp=Z,136nm,1.4s,mb5.7						
RDF	**Al-Radifah**	**47.68**	**301**	*e*P	**P**	**06 49 17.4**	**+0.4**
RDF				AMb	AMB	06 49 19.0	
	comp=Z,88nm,0.8s,mb5.8						
BVAR	**Borovoye Array**	**47.87**	**341**	P	**P**	**06 49 17.1**	**-1.0**
	comp=Z,2.5nm,0.5s,mb4.5,baz=140,slow=9.1,SNR=19						
BVAR				PcP	PcP	06 50 46.7	+0.2
	comp=Z,2.7nm,0.6s,baz=135,slow=4.2,SNR=7.0						
BRVK	**Borovoye**	**47.93**	**341**	*e*P	**P**	**06 49 17.8**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
BRVK	**Borovoye**	**47.93**	**341**	*e*P	**P**	**06 49 17.8**	**-0.8**
	comp=Z,3.9nm,0.6s,mb4.6						
MIB	**Mutribah**	**48.09**	**302**	*e*P	**P**	**06 49 19.9**	**-0.2**
MIB				AMb	AMB	06 49 21.6	
	comp=Z,127nm,0.8s						
RST	**Umm Al-Ruwaisa**	**48.30**	**302**	*e*P	**P**	**06 49 21.8**	**0.0**
RST				AMb	AMB	06 49 23.3	
	comp=Z,84nm,0.7s,mb5.9						
CHKZ	**Chkalovo**	**48.36**	**342**	*e*P	**P**	**06 49 21.2**	**-0.7**
CHKZ				*e*		06 50 48.4	
CHKZ				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.2						
CHKZ	**Chkalovo**	**48.36**	**342**	*e*P	**P**	**06 49 21.2**	**-0.6**
	comp=Z,16nm,0.6s,mb5.2						
CHKZ				*e*PcP	PcP	06 50 48.4	+0.1
MZLS	**Mizel**	**48.70**	**294**	P	**P**	**06 49 26.2**	**+1.3**
WRA	**Warramunga Arr**	**49.16**	**126**	P	**P**	**06 49 27.8**	**-0.7**
	comp=Z,1.9nm,0.5s,mb4.4,baz=304,slow=8.5,SNR=15						
WRA				PcP	PcP	06 50 51.7	0.0
	comp=Z,2.4nm,0.6s,baz=314,slow=3.1,SNR=7.7						
WRAB	**Tennant Creek**	**49.16**	**126**	*i* P	**P**	**06 49 27.7**	**-0.8**
AFFS	**‘Afif**	**50.68**	**294**	P	**P**	**06 49 41.8**	**+1.7**
ASAR	**Alice Springs**	**50.86**	**130**	P	**P**	**06 49 40.1**	**-1.4**
	comp=Z,4.1nm,0.8s,mb4.4,baz=310,slow=7.5,SNR=29						
ASAR				PcP	PcP	06 50 58.0	+0.1
	comp=Z,3.6nm,0.8s,baz=313,slow=3.4,SNR=9.7						
BOD	**Bodaibo**	**51.19**	**14**	*e*P	**P**	**06 49 41.6**	**-1.9**
HILS	**Ha’il**	**52.31**	**298**	P	**P**	**06 49 53.6**	**+1.3**
GNI	**Garni**	**53.45**	**314**	P	**P**	**06 50 00.5**	**-0.2**
	comp=Z,3.1nm,0.4s,mb4.6,baz=210,slow=14,SNR=5.9						
GNI	**Garni**	**53.45**	**314**	*i* P	**P**	**06 49 59.0**	**-1.7**
GNI				pmax	pmax		
	comp=Z,14nm,1.6s						
KBRS	**Khaybar**	**54.30**	**295**	P	**P**	**06 50 09.1**	**+2.0**
ARU	**Arti**	**54.78**	**337**	⇑*i*P	**P**	**06 50 08.8**	**-1.3**
ARU				*e*		06 51 07.6	
ARU				*e*		06 52 09.2	
ARU				*e*S	**S**	**06 57 49.4**	**+3.6**
ARU				*e*		06 59 56.7	
ARU				*e*SSS	SSS	07 03 28.6	-1.7
ARU				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
ZEI	**Tsey**	**55.03**	**317**	*e*P	**P**	**06 50 11.2**	**-1.0**
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
UMJS	**Umm Lajj**	**55.98**	**294**	P	**P**	**06 50 21.7**	**+2.5**
PMG	**Port Moresby**	**56.17**	**108**	P	**P**	**06 50 22.2**	**+1.5**
	comp=Z,18nm,0.7s,mb5.2,baz=299,slow=6.5,SNR=13						
KIV	**Kislovodsk**	**56.30**	**317**	*i* P	**P**	**06 50 20.7**	**-0.6**
KIV				pmax	pmax		
	comp=Z,23nm,1.5s,mb5.0						
KIV	**Kislovodsk**	**56.30**	**317**	*e*P	**P**	**06 50 20.8**	**-0.5**
	comp=Z,12nm,0.6s,mb5.1						
KMBO	**Kilima Mbogo**	**57.22**	**263**	P	**P**	**06 50 28.9**	**+0.6**
	comp=Z,2.7nm,0.7s,mb4.4,baz=54,slow=12,SNR=11						
KMBO	**Kilima Mbogo**	**57.22**	**263**	*i* P	**P**	**06 50 30.2**	**+1.9**
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.7s						
MALT	**Malatya**	**57.52**	**310**	*e*P	**P**	**06 50 29.2**	**-0.9**
MALT				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
MALT	**Malatya**	**57.52**	**310**	*e*P	**P**	**06 50 29.2**	**-0.8**
	comp=Z,7.7nm,1.0s,mb4.7						
JMQS	**Jabal Moqyreh**	**57.70**	**298**	P	**P**	**06 50 31.9**	**+0.4**
AYUS	**‘Aynunah**	**58.14**	**298**	P	**P**	**06 50 35.3**	**+0.8**
SOC	**Sochi**	**58.18**	**316**	*e*P	**P**	**06 50 30.1**	**-4.5**
SOC				*i*		06 52 44.4	
SOC				*e*S	**S**	**06 58 31.5**	**+0.5**
SOC				*i* SS	SS	07 02 24.9	+0.3
SOC				*i* SSS	SSS	07 04 37.1	-9.2
SOC				pmax	pmax		
	comp=N,6.0nm,0.6s						
SOC				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
SOC				pmax	pmax		
	comp=E,7.0nm,0.7s						
BDAS	**Al Bad‘**	**58.32**	**298**	P	**P**	**06 50 35.7**	**-0.1**
JMOS	**Jabal al Moall**	**58.41**	**299**	P	**P**	**06 50 36.3**	**-0.1**
HAQS	**Haql**	**58.55**	**299**	P	**P**	**06 50 37.1**	**-0.2**
EIL	**Elat**	**58.61**	**299**	P	**P**	**06 50 37.6**	**-0.1**
	comp=E,9.6nm,0.9s,mb4.8,baz=150,slow=4.6,SNR=7.2						
CTA	**Charters Tower**	**59.12**	**120**	P	**P**	**06 50 42.0**	**+0.5**
	comp=E,4.9nm,0.7s,mb4.6,baz=301,slow=7.3,SNR=5.8						
STKA	**Stephens Creek**	**61.09**	**134**	P	**P**	**06 50 53.4**	**-1.3**
	comp=E,4.4nm,0.8s,mb4.7,baz=68,slow=2.6,SNR=5.5						
STKA	**Stephens Creek**	**61.09**	**134**	P	**P**	**06 50 53.4**	**-1.3**
BRTR	**Keskin Array B**	**61.48**	**310**	P	**P**	**06 50 55.2**	**-2.0**
	comp=E,4.9nm,0.6s,mb4.8,baz=128,slow=7.5,SNR=30						
ISP	**Isparta**	**63.52**	**308**	*i* P	**P**	**06 51 09.4**	**-1.5**
MBAR	**Mbarara**	**63.52**	**265**	*e*P	**P**	**06 51 11.9**	**+0.6**
MBAR				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
MBAR	**Mbarara**	**63.52**	**265**	*e*P	**P**	**06 51 11.9**	**+0.6**
	comp=Z,7.0nm,1.1s,mb4.6						
OBN	**Obninsk**	**64.30**	**328***c*	*i*P	**P**	**06 51 15.1**	**-0.6**
OBN				*e*SS	SS	07 04 06.7	+6.4
OBN				pmax	pmax		
	comp=Z,33nm,1.8s,mb5.1						
TIXI	**Tiksi**	**66.25**	**11**	*e*P	**P**	**06 51 27.2**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
AKASG	**Malin Array Be**	**67.11**	**321**	P	**P**	**06 51 31.7**	**-2.0**
	comp=Z,1.7nm,0.4s,mb4.4,baz=85,slow=5.1,SNR=19						
AKASG				PP	PP	06 54 00.1	-3.5
	comp=Z,1.0nm,0.8s,baz=107,slow=6.4,SNR=6.1						
AKASG	**Malin Array Be**	**67.11**	**321**	P	**P**	**06 51 31.7**	**-2.0**
AKASG						06 54 00.1	
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.8s						
IDI	**Anoyia**	**67.69**	**304**	P	**P**	**06 51 36.2**	**-1.4**
	comp=Z,9.9nm,0.6s,mb5.1,baz=67,slow=9.3,SNR=11						
VRI	**Vrincioaia**	**67.70**	**316**	⇑*i*P	**P**	**06 51 37.7**	**+0.2**
MLR	**Muntele Rosu**	**68.18**	**315**	P	**P**	**06 51 39.5**	**-1.0**
	comp=Z,6.0nm,0.7s,mb4.7,baz=74,slow=1.9,SNR=10.0						
LSZ	**Lusaka**	**69.31**	**250**	*e*P	**P**	**06 51 48.6**	**+0.6**
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
LSZ	**Lusaka**	**69.31**	**250**	*e*P	**P**	**06 51 48.6**	**+0.6**
	comp=Z,5.4nm,0.9s,mb4.5						
KOLS	**Kolonicke sedl**	**71.18**	**319**	*e*P	**P**	**06 51 58.6**	**-0.2**
KOLS				*e*		06 52 30.9	
KOLS				*e*		06 53 15.5	
FINES	**FINESS Array B**	**71.61**	**332**	P	**P**	**06 52 00.6**	**-0.6**
	comp=Z,4.3nm,0.6s,mb4.6,baz=106,slow=5.5,SNR=17						
KAF	**Kangasniemi**	**71.69**	**333**	*e*p	**P**	**06 52 00.9**	**-0.7**
OJC	**Ojcow**	**72.94**	**320**	⇓*i*P	**P**	**06 52 08.7**	**-0.5**
OJC	**Ojcow**	**72.94**	**320**	*i* P	**P**	**06 52 08.7**	**-0.5**
VYHS	**Vyhne**	**73.39**	**318**	*i* P	**P**	**06 52 11.6**	**-0.3**
KEV	**Kevo**	**73.72**	**341**	*e*p	**P**	**06 52 12.7**	**-0.7**
OKC	**Ostrava-Krasne**	**73.96**	**319**	*e*P	**P**	**06 52 16.0**	**+0.8**
ARCES	**ARCESS Array B**	**74.15**	**340**	P	**P**	**06 52 16.2**	**+0.3**
	comp=Z,7.1nm,0.7s,mb4.7,baz=100,slow=5.5,SNR=30						
MORC	**Moravsky Berou**	**74.35**	**319**	*e*P	**P**	**06 52 16.5**	**-0.9**
MORC				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
MORC	**Moravsky Berou**	**74.35**	**319**	*e*P	**P**	**06 52 16.5**	**-1.0**
	comp=Z,21nm,1.3s,mb4.9						
LBTB	**Lobatse**	**74.46**	**241**	*e*P	**P**	**06 52 19.4**	**+0.8**
LBTB				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
LBTB	**Lobatse**	**74.46**	**241**	*e*P	**P**	**06 52 19.4**	**+0.8**
	comp=Z,14nm,1.0s,mb4.8						
ZST	**Bratislava**	**74.52**	**317**	*e*P	**P**	**06 52 19.0**	**+0.5**
VRAC	**Vranov**	**74.93**	**319**	P	**P**	**06 52 19.7**	**-1.1**
	comp=Z,3.7nm,0.9s,mb4.3,baz=31,slow=22,SNR=3.6						
DPC	**Dobruska-Polom**	**75.18**	**320**	*e*P	**P**	**06 52 22.5**	**+0.3**
BILL	**Bilibino**	**75.22**	**22**	*i* P	**P**	**06 52 21.0**	**-1.1**
BILL				pmax	pmax		
	comp=Z,10.0nm,1.6s,mb4.5						
KSP	**Ksiaz**	**75.23**	**320**	*e*P	**P**	**06 52 22.7**	**+0.2**
UPC	**Upice**	**75.39**	**320**	*e*P	**P**	**06 52 22.8**	**-0.6**
BOSA	**Boshof**	**75.87**	**238**	*e*P	**P**	**06 52 26.8**	**+0.2**
BOSA				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.9						
BOSA	**Boshof**	**75.87**	**238**	*e*P	**P**	**06 52 26.8**	**+0.2**
	comp=Z,20nm,1.3s,mb4.9						
PRU	**Pruhonice**	**76.30**	**319**	*e*P	**P**	**06 52 28.7**	**+0.1**
BRG	**Berggiesshubel**	**76.72**	**320**	*i* P	**P**	**06 52 31.4**	**+0.5**
BRG				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
BRG	**Berggiesshubel**	**76.72**	**320**	*i* P	**P**	**06 52 31.4**	**+0.5**
	comp=Z,5.2nm,0.7s,mb4.6						
GEC2	**GERESS Array S**	**76.81**	**318**	*e*P	**P**	**06 52 31.5**	**0.0**
GEC2				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
GEC2	**GERESS Array S**	**76.81**	**318**	*e*P	**P**	**06 52 31.5**	**0.0**
	comp=Z,5.0nm,0.7s,mb4.5						
GERES	**GERESS Array B**	**76.81**	**318**	P	**P**	**06 52 31.6**	**+0.1**
	comp=Z,6.1nm,0.6s,mb4.7,baz=90,slow=5.4,SNR=45						
KHC	**Kasperske Hory**	**76.90**	**318**	*e*P	**P**	**06 52 31.5**	**-0.5**
CLL	**Collm**	**77.33**	**321**	*e*P	**P**	**06 52 34.0**	**-0.3**
CLL	**Collm**	**77.33**	**321**	P	**P**	**06 52 34.0**	**-0.3**
WET	**Wettzell**	**77.36**	**318**	*e*P	**P**	**06 52 34.4**	**-0.2**
HFS	**Hagfors**	**77.37**	**330**	P	**P**	**06 52 34.3**	**-0.1**
	comp=Z,7.8nm,0.5s,mb4.9,baz=90,slow=5.9,SNR=24						
MOX	**Moxa**	**78.19**	**320**	*e*P	**P**	**06 52 39.2**	**+0.1**
MOX	**Moxa**	**78.19**	**320**	*i* P	**P**	**06 52 39.2**	**+0.1**
FUR	**Furstenfeldbru**	**78.42**	**317**	*e*P	**P**	**06 52 40.8**	**+0.4**
GRA1	**Grafenberg Arr**	**78.44**	**319**	*e*P	**P**	**06 52 41.1**	**+0.6**
	comp=Z,9.0nm,0.7s,mb4.8						
GRF	**Grafenberg Arr**	**78.44**	**319**	*e*P	**P**	**06 52 41.1**	**+0.6**
GRF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
GRF	**Grafenberg Arr**	**78.44**	**319**	*e*P	**P**	**06 52 41.1**	**+0.6**
GRF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
GRF	**Grafenberg Arr**	**78.44**	**319**	*e*P	**P**	**06 52 41.1**	**+0.6**
	comp=Z,9.0nm,0.7s,mb4.8						
NB2	**NORSAR Subarra**	**78.64**	**331**	P	**P**	**06 52 40.7**	**-0.6**
	comp=Z,8.2nm,0.8s,mb4.7,baz=96,slow=5.0						
NB2	**NORSAR Subarra**	**78.64**	**331**	P	**P**	**06 52 40.7**	**-0.6**
NB2				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
NOA	**NORSAR Array B**	**78.64**	**331**	P	**P**	**06 52 40.8**	**-0.5**
	comp=Z,5.7nm,0.7s,mb4.6,baz=92,slow=5.6,SNR=22						
CLZ	**Clausthal**	**78.97**	**321**	*e*P	**P**	**06 52 43.3**	**-0.1**
	comp=Z,7.0nm,0.7s,mb4.7						
BSEG	**Bad Segeberg**	**79.00**	**323**	*e*P	**P**	**06 52 43.9**	**+0.4**
BFO	**Black Forest**	**80.38**	**318**	*e*P	**P**	**06 52 51.1**	**+0.1**
BFO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BFO	**Black Forest**	**80.38**	**318**	*e*P	**P**	**06 52 51.1**	**+0.1**
	comp=Z,2.0nm,0.8s,mb4.1						
LPG	**La Plagne**	**81.63**	**315**	*e*P	**P**	**06 52 58.4**	**+0.8**
	comp=Z,37nm,0.7s,mb5.1						
LPG	**La Plagne**	**81.63**	**315**	*e*P	**P**	**06 52 58.4**	**+0.8**
LPG				pmax	pmax		
	comp=Z,19nm,0.7s,mb5.1						
ESDC	**Sonseca Array**	**90.27**	**310**	P	**P**	**06 53 41.0**	**+0.7**
	comp=Z,1.2nm,0.5s,mb4.5,baz=52,slow=4.4,SNR=5.5						
ILAR	**Eielson Array**	**93.88**	**22**	P	**P**	**06 53 56.6**	**+0.4**
	comp=Z,2.3nm,0.7s,mb4.7,baz=302,slow=4.1,SNR=36						
VNDA	**Vanda**	**94.04**	**168**	P	**P**	**06 53 57.8**	**+1.0**
	comp=Z,0.7nm,0.6s,mb4.3,baz=156,slow=3.0,SNR=5.7						
INK	**Inuvik**	**96.06**	**16**	P	**P**	**06 54 07.2**	**+1.2**
	comp=Z,2.0nm,0.8s,mb4.6,baz=344,slow=6.9,SNR=13						
DBIC	**Dimbokro**	**97.47**	**278**	P	**P**	**06 54 14.1**	**+0.3**
	comp=Z,4.6nm,1.2s,mb4.8,baz=36,slow=15,SNR=4.4						
ULM	**Lac du Bonnet**	**120.45**	**7**	PKP	PKPdf	06 59 32.3	+2.8
	comp=Z,3.8nm,0.9s,baz=8.7,slow=3.5,SNR=6.3						
NVAR	**Mina Array Bea**	**124.17**	**30**	PKP	PKPdf	06 59 40.8	+3.8
	comp=Z,2.7nm,0.8s,baz=309,slow=1.0,SNR=9.8						
PDAR	**Pinedale Array**	**124.29**	**21**	PKP	PKPdf	06 59 39.5	+2.4
	comp=Z,2.3nm,0.8s,baz=49,slow=1.7,SNR=22						
TXAR	**Lajitas Array**	**138.38**	**23**	PKP	PKPdf	07 00 06.3	+2.3
	comp=Z,0.8nm,0.5s,baz=315,slow=1.8,SNR=4.8						
TXAR	**Lajitas Array**	**138.38**	**23**	PKP	PKPdf	07 00 06.3	+2.3
BDFB	**Brasilia**	**142.15**	**256**	PKhKP		07 00 07.2	
	comp=Z,3.0nm,0.7s,baz=134,slow=3.6,SNR=4.5						
BDFB				PKP	PKPdf	07 00 14.0	+2.8
	comp=Z,3.3nm,0.7s,baz=263,slow=1.2,SNR=8.1						
LPAZ	**La Paz**	**160.93**	**246**	PKP	PKPdf	07 00 42.8	+4.2
	comp=Z,2.1nm,0.8s,baz=83,slow=4.2,SNR=6.0						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	**El Rosal**	161.89	319	PKP	PKPdf	07 00 43.7	+4.1
	comp=Z,6.2nm,0.8s,baz=94,slow=9.9,SNR=8.1						

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*BJI **27** 06:44:55.2, 4.92N×92.77E, h63^{km}, mB5.2, mb4.8*
*IDC **27** 06:44:56.7±1.1, 5.43N×92.97E, h31^{km}±5^{km}, mb3.8/7, mb1 4.1/8, mb1mx3.9/18, ML4.3/1, Error ellipse: s-maj=40.6km s-min=20.9km az=58.0*
*NEIC **27** 06:44:56.7±0.7, 5.43N×93.00E, mb4.3/2, Error ellipse: s-maj=17.9km s-min=11.8km az=72.0*
ISC 27 06:44:54.8±0.9**, 5.4N**±0.1×**92.9E**±0.1**, h31^{km}, h31^{km}±.4^{km}:pP-P, n21, σ0^{s}80**/19**, mb4.3**/13**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	14.23	24	*e*Pn	**P**	**06 48 16.0**	**-0.5**
CMAR	**Chiang Mai Arr**	14.23	24	Pn	**P**	**06 48 15.3**	**-1.2**
	0.4nm,0.3s,baz=218,slow=14,SNR=23						
VIS	**Vishakhapatnam**	15.43	323	*e*	**P**	**06 48 31.5**	**-0.6**
SHL	**Shillong**	20.07	357	*e*	**P**	**06 49 20.0**	**-8.6**
QIZ	**Qiongzhong**	21.33	49	P	**P**	**06 49 42.0**	**+0.4**
KMI	**Kunming**	21.74	25	P	**P**	**06 49 47.3**	**+1.6**
KMI				AMB	AMB		
	comp=Z,27nm,1.2s,mb4.5						
GYA	**Guiyang**	24.70	31	⇑*i*P	**P**	**06 50 15.5**	**+0.8**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
PTH	**Pithoragarh**	26.85	335	*e*	**P**	**06 50 35.2**	**+0.5**
GTA	**Gaotai**	34.42	9	*e*P	**P**	**06 51 41.3**	**-0.3**
GTA				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.6						
HHC	**Hu-ho-hao-te**	39.04	23	*e*P	**P**	**06 52 20.8**	**+0.2**
HHC				PP	PP	06 53 53.0	-1.1
HHC				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,119nm,6.1s						
AAK	**Ala-Archa**	40.52	339	P	**P**	**06 52 33.8**	**+1.1**
	comp=Z,7.9nm,1.3s,mb4.2						
SONM	**Songino Array**	43.82	13	P	**P**	**06 52 59.9**	**+0.2**
	comp=Z,1.9nm,0.6s,mb4.0,baz=196,slow=9.0,SNR=8.7						
SONM				pP	pP	06 53 09.1	+0.2
	comp=Z,4.0nm,0.9s,baz=195,slow=8.3,SNR=8.0						
WRA	**Warramunga Arr**	47.87	123	P	**P**	**06 53 32.2**	**-0.1**
	comp=Z,2.8nm,0.7s,mb4.4,baz=301,slow=8.9,SNR=5.5						
ZAL	**Zalesovo**	48.83	354	P	**P**	**06 53 38.5**	**-0.7**
	comp=Z,2.9nm,0.4s,mb4.7,baz=308,slow=5.4,SNR=10.0						
ASAR	**Alice Springs**	49.31	128	P	**P**	**06 53 42.6**	**-0.7**
	comp=Z,0.6nm,0.6s,mb3.8,baz=300,slow=7.3,SNR=5.6						
BVAR	**Borovoye Array**	50.95	343	P	**P**	**06 53 54.5**	**-0.9**
	comp=Z,0.7nm,0.6s,mb3.8,baz=231,slow=38,SNR=4.7						
BVAR				pP	pP	06 54 03.6	-1.2
	comp=Z,1.0nm,0.6s,baz=162,slow=9.4,SNR=5.2						
CHKZ	**Chkalovo**	51.45	343	*e*P	**P**	**06 53 58.0**	**-1.2**
	comp=Z,2.0nm,0.5s,mb4.3						
CHKZ				*e*pP	pP	06 54 07.8	-0.9
STKA	**Stephens Creek**	59.32	132	pP	pP	06 55 02.1	-3.9
	comp=Z,3.1nm,0.8s,baz=288,slow=6.4,SNR=2.5						
BRTR	**Keskin Array B**	63.15	312	pP	pP	06 55 30.6	-1.2
	comp=Z,1.2nm,0.8s,baz=143,slow=7.6,SNR=4.3						
ARCES	**ARCESS Array B**	77.17	341	P	**P**	**06 56 48.1**	**+1.2**
	comp=Z,3.2nm,0.9s,mb4.2,baz=43,slow=23,SNR=2.9						
GERES	**GERESS Array B**	78.86	319	P	**P**	**06 56 57.1**	**+0.5**
	comp=Z,0.8nm,0.9s,mb3.6,baz=90,slow=4.0,SNR=4.5						
GERES				pP	pP	06 57 07.0	+0.6
	comp=Z,1.7nm,0.8s,baz=90,slow=5.3,SNR=7.6						
GERES				sP	sP	06 57 11.2	+1.5
	comp=Z,1.1nm,0.8s,baz=90,slow=4.0,SNR=5.2						

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*IDC **27** 06:48:20.1±1.1, 6.90N×92.17E, mb4.1/8, mb1 4.3/9, mb1mx4.0/19, ML3.8/1, Error ellipse: s-maj=40.5km s-min=18.3km az=54.0*
*NEIC **27** 06:48:24.8±0.5, 6.92N×92.21E, h30^{km}, mb4.5/3, Error ellipse: s-maj=15.4km s-min=8.8km az=56.0*
ISC 27 06:48:22.9±0.8**, 6.9N**±0.1×**92.3E**±0.1**, h30^{km}, n15, σ0^{s}46**/14**, mb4.2**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	13.17	29	Pn	**P**	**06 51 30.5**	**-0.2**
	0.2nm,0.3s,baz=229,slow=14,SNR=10						
TGY	**Tagaytay City**	29.06	73	P	**P**	**06 54 24.1**	**+1.0**
	82nm,0.3s,baz=16,slow=22,SNR=3.1						
AAK	**Ala-Archa**	38.86	339	*e*P	**P**	**06 55 47.5**	**+0.2**
	4.6nm,1.0s,mb4.2						
AAK				*e*pP	pP	06 55 56.1	-0.2
SONM	**Songino Array**	42.50	14	P	**P**	**06 56 16.8**	**-0.4**
	1.3nm,0.9s,mb3.6,baz=198,slow=7.8,SNR=4.3						
ZAL	**Zalesovo**	47.25	354	P	**P**	**06 56 54.9**	**-0.3**
	1.1nm,0.3s,mb4.3,baz=298,slow=1.6,SNR=3.2						
WRA	**Warramunga Arr**	49.27	124	P	**P**	**06 57 10.8**	**-0.5**
	2.6nm,0.8s,mb4.3,baz=304,slow=8.8,SNR=9.1						
BVAR	**Borovoye Array**	49.29	343	P	**P**	**06 57 10.7**	**-0.3**
	0.8nm,0.5s,mb4.0,baz=149,slow=8.6,SNR=4.4						
BRVK	**Borovoye**	49.35	343	*e*P	**P**	**06 57 11.8**	**+0.3**
	1.8nm,0.4s,mb4.5						
CHKZ	**Chkalovo**	49.80	343	*e*P	**P**	**06 57 14.7**	**-0.2**
	5.1nm,0.9s,mb4.5						
CHKZ				*e*pP	pP	06 57 22.3	-1.8
ASAR	**Alice Springs**	50.78	128	P	**P**	**06 57 22.8**	**-0.1**
	1.5nm,0.5s,mb4.2,baz=305,slow=7.5,SNR=9.9						
STKA	**Stephens Creek**	60.84	132	P	**P**	**06 58 35.1**	**0.0**
	2.4nm,0.7s,mb4.4,baz=316,slow=8.9,SNR=3.7						
FINES	**FINESS Array B**	72.67	333	P	**P**	**06 59 49.2**	**-0.3**
	1.8nm,0.8s,mb4.1,baz=135,slow=5.4,SNR=4.1						
FINES	**FINESS Array B**	72.67	333	P	**P**	**06 59 49.2**	**-0.3**
GERES	**GERESS Array B**	77.27	318	P	**P**	**07 00 17.0**	**+0.9**
	0.7nm,0.6s,mb3.8,baz=104,slow=5.5,SNR=5.7						
PDAR	**Pinedale Array**	126.69	20	PKP	PKPdf	07 07 26.5	-2.5
	0.2nm,0.7s,baz=45,slow=4.2,SNR=2.8						

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*NEIC **27** 06:50:31.1±0.7, 6.96N×92.53E, h30^{km}, mb4.2/2, Error ellipse: s-maj=15.3km s-min=12.7km az=196.0*
*IDC **27** 06:50:38.1±10.0, 7.22N×92.89E, h87^{km}±96^{km}, mb3.9/7, mb1 4.1/8, mb1mx3.8/20, ML4.3/1, Error ellipse: s-maj=78.8km s-min=17.6km az=49.0*
ISC 27 06:50:29.0±0.8**, 7.0N**±0.1×**92.5E**±0.1**, h30^{km}, n11, σ0^{s}93**/11**, mb4.2**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	11.73	272	Pn	**P**	**06 53 15.9**	**-1.6**
	27nm,0.6s						
CMAR	**Chiang Mai Arr**	13.03	28	P	**P**	**06 53 34.4**	**-0.5**
	0.6nm,0.3s,baz=230,slow=14,SNR=9.1						
AAK	**Ala-Archa**	38.93	339	*e*P	**P**	**06 57 54.3**	**+0.3**
	1.9nm,0.6s,mb4.0						
ZAL	**Zalesovo**	47.25	354	P	**P**	**06 59 00.8**	**-0.5**
	1.0nm,0.3s,mb4.2,baz=218,slow=5.5,SNR=3.1						
WRA	**Warramunga Arr**	49.07	124	P	**P**	**06 59 15.6**	**-0.3**
	1.4nm,0.4s,mb4.3,baz=304,slow=8.9,SNR=16						
WRA				pP	pP	06 59 25.5	+0.5
	3.4nm,0.6s,baz=304,slow=8.3,SNR=7.8						
CHKZ	**Chkalovo**	49.85	343	*e*P	**P**	**06 59 20.2**	**-1.2**
	1.6nm,0.4s,mb4.4						
ASAR	**Alice Springs**	50.59	128	P	**P**	**06 59 27.4**	**-0.1**
	3.0nm,1.0s,mb4.2,baz=304,slow=7.1,SNR=12						
ASAR				pP	pP	06 59 39.5	+2.9
	1.6nm,0.6s,baz=302,slow=8.0,SNR=6.3						
IDI	**Anoyia**	67.76	305	P	**P**	**07 01 28.1**	**+1.7**
	5.2nm,0.5s,mb4.8,baz=100,slow=12,SNR=6.4						
MLR	**Muntele Rosu**	68.70	316	P	**P**	**07 01 33.3**	**+1.3**
	1.7nm,0.6s,mb4.2,baz=156,slow=9.1,SNR=4.1						
ARCES	**ARCESS Array B**	75.58	340	P	**P**	**07 02 12.4**	**+0.1**
	1.8nm,0.8s,mb4.0,baz=90,slow=4.9,SNR=5.3						
GERES	**GERESS Array B**	77.43	318	P	**P**	**07 02 23.9**	**+0.8**
	2.0nm,0.9s,mb4.0,baz=90,slow=5.3,SNR=7.6						

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*IDC **27** 06:54:05.6±0.9, 12.89N×92.98E, mb4.0/9, mb1 4.2/10, mb1mx4.0/19, ML4.2/1, Error ellipse: s-maj=29.6km s-min=18.2km az=50.0*
*NEIC **27** 06:54:10.2±0.8, 12.94N×93.07E, h30^{km}, mb4.4/2, Error ellipse: s-maj=17.3km s-min=14.7km az=212.0*
ISC 27 06:54:05.5±5.3**, 12.9N**±0.1×**93.05E**±0.09**, h12^{km}**±34^{km}**, n14, σ0^{s}74**/15**, mb4.0**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	7.94	45	Pn	**Pn**	**06 56 03.8**	**+0.2**
	0.8nm,0.3s,baz=235,slow=15,SNR=19						
CMAR				Sn	**Sn**	**06 57 34.4**	**+0.2**
	0.6nm,0.3s,baz=232,slow=15,SNR=4.1						
DDI	**Dehra Dun**	22.23	324	*e*	**P**	**06 59 05.0**	**+1.3**
ENH	**Enshi**	23.04	39	*e*P	**P**	**06 59 10.8**	**-1.0**
	25nm,1.0s,mb4.6						
SONM	**Songino Array**	36.59	15	P	**P**	**07 01 14.5**	**+1.1**
	1.2nm,1.0s,mb3.7,baz=207,slow=8.3,SNR=4.5						
ZAL	**Zalesovo**	41.48	353	P	**P**	**07 01 52.5**	**-1.5**
	1.0nm,0.6s,mb3.6,baz=226,slow=3.5,SNR=4.6						
CHKZ	**Chkalovo**	44.42	341	*e*P	**P**	**07 02 17.3**	**-0.7**
	2.5nm,0.7s,mb4.0						
GNI	**Garni**	50.26	312	P	**P**	**07 03 04.1**	**+0.3**
	2.6nm,0.5s,mb4.5,baz=31,slow=21,SNR=4.5						
GNI	**Garni**	50.26	312	*e*P	**P**	**07 03 04.8**	**+1.0**
WRA	**Warramunga Arr**	52.10	128	P	**P**	**07 03 18.0**	**0.0**
	1.1nm,0.4s,mb4.1,baz=307,slow=9.2,SNR=9.9						
WRA				PcP	PcP	07 04 30.7	+0.5
	0.8nm,0.5s,baz=326,slow=3.2,SNR=7.4						
ASAR	**Alice Springs**	53.98	132	P	**P**	**07 03 32.1**	**+0.2**
	1.9nm,0.7s,mb4.2,baz=308,slow=6.9,SNR=15						
BRTR	**Keskin Array B**	58.43	309	P	**P**	**07 04 02.9**	**-0.7**
	1.3nm,0.7s,mb4.0,baz=108,slow=7.8,SNR=5.3						
ARCES	**ARCESS Array B**	70.23	340	P	**P**	**07 05 20.1**	**-0.1**
	74nm,1.6s,baz=90,slow=7.2,SNR=4.1						
GERES	**GERESS Array B**	73.43	317	P	**P**	**07 05 39.6**	**0.0**
	1.1nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=7.0						
ILAR	**Eielson Array**	90.54	22	P	**P**	**07 07 08.9**	**+0.4**
	0.3nm,0.6s,mb3.8,baz=297,slow=5.0,SNR=8.4						

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*IDC **27** 06:55:02.4±0.9, 12.18N×92.63E, mb4.1/9, mb1 4.3/10, mb1mx4.0/19, Error ellipse: s-maj=40.3km s-min=17.4km az=62.0*
*NEIC **27** 06:55:07.0±0.7, 12.21N×92.65E, h30^{km}, mb4.4/1, Error ellipse: s-maj=20.8km s-min=12.7km az=68.0*
ISC 27 06:55:05.0±0.8**, 12.2N**±0.1×**92.7E**±0.2**, h30^{km}, n12, σ0^{s}90**/12**, mb4.1**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	8.62	43	Pn	**P**	**06 57 10.9**	**+0.1**
	baz=232,slow=15,SNR=1.9						
SONM	**Songino Array**	37.30	15	P	**P**	**07 02 15.4**	**-0.8**
	1.5nm,0.9s,mb3.8,baz=203,slow=9.4,SNR=3.9						
CHKZ	**Chkalovo**	44.93	342	*e*P	**P**	**07 03 17.7**	**-1.2**
	4.8nm,0.9s,mb4.3						
NWAO	**Narrogin (SRO)**	50.63	153	P	**P**	**07 04 04.0**	**+0.3**
	9.4nm,0.9s,mb4.7,baz=320,slow=6.5,SNR=7.2						
WRA	**Warramunga Arr**	51.95	128	P	**P**	**07 04 13.1**	**-0.8**
	0.6nm,0.4s,mb3.9,baz=317,slow=8.5,SNR=6.4						
WRA				PcP	PcP	07 05 26.3	+0.2
	1.7nm,0.6s,baz=318,slow=3.1,SNR=10						
ASAR	**Alice Springs**	53.79	132	P	**P**	**07 04 27.2**	**-0.2**
	0.8nm,0.4s,mb4.0,baz=313,slow=7.1,SNR=10.0						
ASAR				PcP	PcP	07 05 33.2	+0.3
	1.1nm,0.7s,baz=309,slow=3.6,SNR=6.6						
STKA	**Stephens Creek**	64.11	135	P	**P**	**07 05 39.1**	**+0.1**
	1.4nm,0.6s,mb4.2,baz=311,slow=4.9,SNR=5.9						
ARCES	**ARCESS Array B**	70.73	340	P	**P**	**07 06 21.0**	**+1.1**
	7.6nm,1.3s,mb4.5,baz=100,slow=5.5,SNR=2.6						
ARCES	**ARCESS Array B**	70.73	340	P	**P**	**07 06 21.0**	**+1.1**
GERES	**GERESS Array B**	73.69	317	P	**P**	**07 06 37.3**	**-0.5**
	1.3nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=5.2						
NOA	**NORSAR Array B**	75.29	330	P	**P**	**07 06 47.1**	**+0.3**
	1.1nm,0.8s,mb3.8,baz=63,slow=7.4,SNR=3.3						
ILAR	**Eielson Array**	91.25	22	P	**P**	**07 08 11.1**	**+2.7**
	0.2nm,0.8s,mb3.5,baz=279,slow=5.3,SNR=4.4						

IDC 27 06:56:01.5±6.6**, 1.51S**×**103.12E, mb3.6**/3**, mb1 3.9**/3**, mb1mx3.5**/16**, Error ellipse: s-maj=263.0km s-min=31.4km az=60.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	20.27	348	P	P	07 00 38.8	-2.8
	1.3nm,0.4s,baz=175,slow=8.6,SNR=4.4						
WRA	**Warramunga Arr**	35.59	123	P	P	07 03 01.8	-1.3
	0.6nm,0.6s,baz=301,slow=9.2,SNR=3.7						
ASAR	**Alice Springs**	37.07	129	P	P	07 03 12.8	-2.6
	0.3nm,0.4s,baz=302,slow=8.1,SNR=4.4						

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*BJI **27** 06:59:12.5, 2.91N×95.50E, h31^{km}, mB5.6, mb5.5, Ms5.6, Msz5.5*
*MOS **27** 06:59:13.9±1.0, 3.07N×95.54E, h33^{km}, mb5.6/64, MS5.1/17, Error ellipse: s-maj=8.3km s-min=4.5km az=121.6*
*IDC **27** 06:59:14.7±0.4, 3.02N×95.54E, h26^{km}±2^{km}, mb4.9/28, mb1 4.9/29, mb1mx4.9/30, ML4.1/1, MS5.0/11, Ms1 5.0/11, ms1mx4.7/18, Error ellipse: s-maj=13.7km s-min=8.3km az=48.0*
*NEIC **27** 06:59:14.7±0.1, 3.03N×95.54E, mb5.4/72, MS5.1/16, Error ellipse: s-maj=5.2km s-min=3.9km az=51.0*
*SYO **27** 06:59:14.8, 3.04N×95.55E, h28^{km}, MB5.4, MS5.2*
*HRVD **27** 06:59:14.6±0.3, 2.95N×95.42E, h13^{km}±1^{km}, MW5.6/57, Centroid moment Tensor Solution. LP body waves: s38,c69;Mantle waves: s57,c95; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.50±.03; $M_{\theta\theta}$0.06±.02; $M_{\phi\phi}$0.44±.03; $M_{r\theta}$2.61±.20; $M_{\theta\phi}$-0.42±.02; $M_{\phi r}$-1.94±.16; Best double couple: $M_0$3.31×10^{17} NP1: ϕ_s174°, δ7°, λ-43°. NP2:ϕ_s307°, δ85°, λ-95°. Principal axes: T 3.36, Plg40°, Azm42°; N -.1, Plg5°, Azm307°; P -3.26, Plg50°, Azm211°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*DJA **27** 06:59:28.3±5.0, 1.97N×96.85E, h19^{km}, mb5.6/3 Error ellipse: s-maj=195.8km s-min=26.8km az=82.0*
ISC 27 06:59:12.8±0.2**, 2.99N**±0.03×**95.55E**±0.03**, h27^{km}, h27^{km}±.4^{km}:pP-P, n409, σ1^{s}01**/401**, mb5.4**/145**, MS5.2**/54**, 40C-17D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	**Songkhla**	6.54	50	P	**Pn**	**07 00 50.0**	**+0.2**
	600nm,1.0s						
PENI	**Pendagan**	12.83	131	⇑*e*P	**P**	**07 02 10.0**	**-6.3**
PENI				pmax	pmax		
	comp=Z,75nm,0.3s						
PENI	**Pendagan**	12.83	131	⇑*e*P	**P**	**07 02 10.0**	**-6.3**
	comp=Z,150nm,0.3s						
PULI	**Pulasari**	13.94	132	⇓*e*P	**P**	**07 02 24.4**	**-6.7**
	comp=Z,192nm,0.2s						
PACI	**Pancar Gunung**	14.80	130	⇑*e*P	**P**	**07 02 38.8**	**-3.7**
	comp=Z,31nm,0.5s						
KKTK	**Khon Kaen**	15.07	28	P	**P**	**07 02 51.8**	**+5.9**
COCO	**West Island**	15.13	175	*e*P	**P**	**07 02 49.5**	**+2.8**
	comp=Z,977nm,1.5s						
PALK	**Pallekele**	15.39	287	*e*P	**P**	**07 02 56.7**	**+6.6**
	comp=Z,180nm,1.2s						
CM31	**Chiang Mai Arr**	15.73	12	*e*P	**P**	**07 02 58.0**	**+3.5**
	comp=Z,376nm,1.2s						
CMAR	**Chiang Mai Arr**	15.73	12	Pn	**P**	**07 02 52.3**	**-2.1**
	comp=Z,0.3nm,0.3s,baz=201,slow=11,SNR=20						
CMAR				LR	LR	07 10 00.8	
	comp=Z,14µm,18.2s,baz=195,slow=41						
CHG	**Chiang Mai**	16.07	12	⇓P	**P**	**07 02 58.5**	**-0.4**
	comp=Z,94nm,1.1s						
NANT	**Nan**	16.50	17	⇑P	**P**	**07 03 03.0**	**-1.3**
	comp=Z,138nm,1.0s						
VIS	**Vishakhapatnam**	18.92	322	*e*P	**P**	**07 03 33.4**	**-0.9**
VIS				*e*		07 03 53.2	
	comp=Z,228nm,1.1s						
VIS				*e*S	**S**	**07 07 00.3**	**-0.6**
TRD	**Trivandrum**	19.29	287	*e*P	**P**	**07 03 38.1**	**-0.5**
TRD				*e*		07 07 30.5	
AGT	**Agartala**	21.18	349	*e*P	**P**	**07 03 57.0**	**-1.6**
QIZ	**Qiongzhong**	21.20	40	P	**P**	**07 03 58.8**	**0.0**
QIZ				XP		07 04 12.0	
QIZ				S	**S**	**07 07 49.0**	**+0.8**
QIZ				LR	LR		
	comp=N,11µm,17.0s						
QIZ				LR	LR		
	comp=Z,12µm,17.6s,MS5.3						
QIZ	**Qiongzhong**	21.20	40	*e*P	**P**	**07 03 59.0**	**+0.1**
	comp=Z,474nm,1.6s,mb5.6						
SRDI	**Scrawed**	21.76	122	⇑*e*P	**P**	**07 04 04.0**	**-0.5**
HYB	**Hyderabad**	22.00	312	⇑*e*P	**P**	**07 04 07.0**	**+0.2**
HYB				*e*S	**S**	**07 08 12.0**	**+9.0**
HYB				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.1						
HYB	**Hyderabad**	22.00	312	⇑*e*P	**P**	**07 04 07.0**	**+0.2**
	comp=Z,80nm,1.0s,mb5.1						
HYB				*e*S	**S**	**07 08 12.0**	**+9.0**
HYB	**Hyderabad**	22.00	312	⇑*i*P	**P**	**07 04 07.0**	**+0.2**
	comp=Z,80nm,1.0s,mb5.1						
HYB				*e*S	**S**	**07 08 12.0**	**+9.0**
BOK	**Bokaro**	22.70	337	*e*P	**P**	**07 04 14.5**	**+0.7**
BOK				*e*S	**S**	**07 08 20.7**	**+4.9**
SHL	**Shillong**	22.72	351	*e*	**P**	**07 04 10.0**	**-4.1**
SHL				*e*S	**S**	**07 08 20.0**	**+3.7**
MNGI	**Mangalore**	22.76	297	*e*P	**P**	**07 04 19.3**	**+4.7**
	comp=Z,152nm,1.0s,mb5.4						
MNGI				*i* S	**S**	**07 08 22.8**	**+5.8**
BLSP	**Bilaspur**	23.06	327	*e*P	**P**	**07 04 17.7**	**+0.3**
BLSP				*e*		07 04 22.6	
	comp=Z,253nm,1.8s						
BLSP				*e*S	**S**	**07 08 30.6**	**+8.3**
KMI	**Kunming**	23.07	17	P	**P**	**07 04 18.8**	**+1.3**
KMI				S	**S**	**07 08 26.8**	**+4.3**
KMI				SS	SS	07 09 12.3	+4.4
KMI				AMB	AMB		
	comp=Z,116nm,1.3s,mb5.2						
KMI				AMB	AMB		
	comp=Z,2µm,6.3s						
KMI				LR	LR		
	comp=N,15µm,13.8s,MS5.6						
KMI				LR	LR		
	comp=E,6µm,14.3s,MS5.6						
KMI				LR	LR		
	comp=Z,17µm,14.4s,MS5.6						
RATI	**Rata**	23.07	120	*e*P	**P**	**07 04 15.6**	**-2.0**
KEDI	**Kedomdong**	23.46	119	*e*pP		07 04 28.7	
KEDI	**Kedomdong**	23.46	119	⇑*e*P	**P**	**07 04 23.6**	**+2.3**
NGP	**Nagpur**	24.16	320	⇑*e*P	**P**	**07 04 30.4**	**+2.3**
NGP				*e*S	**S**	**07 08 48.0**	**+6.6**
TANI	**Tanete Lipujan**	24.66	105	⇓*e*P	**P**	**07 04 34.2**	**+1.2**
GOA	**Goa**	24.74	301	⇓*e*		07 04 52.3	
	comp=Z,43nm,0.3s						
GOA				*e*	**S**	**07 09 04.4**	**+13**
GYA	**Guiyang**	25.66	24	⇑*i*P	**P**	**07 04 42.3**	**0.0**
GYA				AP	pP	07 04 47.5	-2.6
GYA				PP	PP	07 05 20.3	-2.1
GYA				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.2						
GYA				AMB	AMB		
	comp=Z,580nm,4.6s						
GYA				LR	LR		
	comp=N,2µm,16.4s,MS4.9						
GYA				LR	LR		
	comp=E,3µm,18.2s,MS4.9						
GYA				LR	LR		
	comp=Z,3µm,17.4s,MS4.9						
ALBI	**Allahabad**	25.84	330	*e*P	**P**	**07 04 43.5**	**-0.5**
POO	**Poona**	26.27	308	*e*P	**P**	**07 04 49.9**	**+1.9**
POO				*e*	pP	07 04 59.7	+3.8
	comp=Z,55nm,1.4s						
PKI	**Pulchoki**	26.30	339	*e*P	**P**	**07 04 48.7**	**+0.5**
	comp=Z,338nm,1.2s,mb5.8						
DMN	**Daman**	26.44	339	*e*P	**P**	**07 04 49.8**	**+0.3**
	comp=Z,161nm,0.8s,mb5.6						
GUN	**Gumba**	26.45	340	*e*P	**P**	**07 04 50.2**	**+0.6**
	comp=Z,356nm,0.6s,mb6.0						
KKN	**Kakani**	26.54	339	*e*P	**P**	**07 04 50.6**	**+0.1**
	comp=Z,298nm,0.8s,mb5.9						
BHPL	**Bhopal**	26.71	320	⇓*i*P	**P**	**07 04 52.5**	**+0.5**
	comp=Z,53nm,1.5s,mb4.8						
BHPL				*e*P		07 04 53.4	
BHPL				*e*		07 05 05.0	
	comp=Z,63nm,1.6s						
LSA	**Lhasa**	26.89	352	⇑*e*P	**P**	**07 04 54.4**	**+0.7**
LSA				pmax	pmax		
	comp=Z,85nm,0.6s,mb5.5						
LSA				MLR	MLR		
	comp=Z,5µm,22.0s,MS5.0						
LSA	**Lhasa**	26.89	352	⇑*e*P	**P**	**07 04 54.4**	**+0.7**
	comp=Z,85nm,0.6s,mb5.5						
LSA				LR	LR		
	comp=Z,5µm,22.0s,MS5.0						
GKN	**Gorkha**	26.97	338	*e*P	**P**	**07 04 54.2**	**-0.2**
	comp=Z,380nm,0.9s,mb5.9						
KOLN	**Koldanda**	27.16	336	*e*P	**P**	**07 04 56.6**	**+0.5**
	comp=Z,372nm,0.9s,mb5.9						
TGY	**Tagaytay City**	27.39	65	P	**P**	**07 04 58.1**	**-0.2**
	comp=Z,101nm,0.4s,mb5.8,baz=116,slow=8.1,SNR=4.7						
TGY				LR	LR	07 16 33.1	
	comp=Z,2µm,18.3s,MS4.7,baz=14,slow=38						
CD2	**Chengdu**	28.83	15	⇓*i*P	**P**	**07 05 10.0**	**-1.2**
CD2				XP	sP	07 05 22.0	-0.6
CD2				S	**S**	**07 09 56.5**	**-1.6**
CD2				SS	SS	07 11 22.8	-3.5
CD2				AMB	AMB		
	comp=Z,130nm,1.6s,mb5.4						
CD2				LR	LR		
	comp=N,12µm,14.4s						
CD2				LR	LR		
	comp=Z,13µm,13.0s,MS5.7						
PTH	**Pithoragarh**	30.16	333	*e*P	**P**	**07 05 22.4**	**-0.7**
PTH				*e*S	**S**	**07 10 21.9**	**+2.6**
ENH	**Enshi**	30.17	24	⇑*e*P	**P**	**07 05 21.7**	**-1.5**
	comp=Z,27nm,0.7s,mb5.1						
ENH				*e*	pP	07 05 29.0	-2.2
ENH				LR	LR		
	comp=Z,6µm,21.0s,MS5.2						
DAV	**Davao City (W)**	30.18	81	*e*P	**P**	**07 05 26.0**	**+2.6**
QZH	**Quanzhou**	31.13	43	⇓*i*P	**P**	**07 05 32.0**	**+0.3**
QZH				S	**S**	**07 10 30.3**	**-4.2**
QZH				AMB	AMB		
	comp=Z,290nm,1.3s,mb6.0						
QZH				LR	LR		
	comp=N,12µm,16.0s,MS5.7						
QZH				LR	LR		
	comp=E,6µm,19.0s,MS5.7						
QZH				LR	LR		
	comp=Z,10µm,14.0s,MS5.6						
DDI	**Dehra Dun**	31.83	330	*e*P	**P**	**07 05 36.3**	**-1.5**
DDI				*e*S	**S**	**07 10 47.1**	**+1.7**
WHN	**Wuhan**	32.67	31	⇑P	**P**	**07 05 45.5**	**+0.4**
WHN				AP	pP	07 05 53.3	+0.3
WHN				XP	sP	07 05 56.5	0.0
WHN				S	**S**	**07 11 02.8**	**+4.3**
WHN				LR	LR		
	comp=N,4µm,16.0s,MS5.8						
WHN				LR	LR		
	comp=E,13µm,13.2s,MS5.8						
WHN				LR	LR		
	comp=Z,22µm,14.4s,MS6.0						
XAN	**Xi’an**	33.31	20	P	**P**	**07 05 49.5**	**-1.2**
XAN				AMB	AMB		
	comp=Z,115nm,1.4s,mb5.6						
SDNR	**Sundarnagar**	33.33	330	*e*P	**P**	**07 05 51.7**	**+0.8**
MBWA	**Marble Bar**	33.72	136	*e*P	**P**	**07 05 53.4**	**-0.9**
	comp=Z,54nm,1.1s,mb5.4						
LZH	**Lanzhou**	33.81	12	⇑P	**P**	**07 05 54.3**	**-0.7**
LZH				PP	PP	07 07 08.0	-0.5
LZH				S	**S**	**07 11 18.0**	**+1.8**
LZH				SS	SS	07 13 25.0	+2.1
LZH				SCS	ScS	07 16 17.5	+1.8
LZH				AMB	AMB		
	comp=Z,240nm,1.6s,mb5.9						
LZH				AMB	AMB		
	comp=Z,765nm,5.8s						
LZH				LR	LR		
	comp=E,3µm,11.8s						
LZH				LR	LR		
	comp=Z,4µm,12.8s,MS5.3						
DLH	**Dalhousie**	34.67	330	*e*P	**P**	**07 06 04.0**	**+1.6**
THN	**Thein Dam**	34.71	330	*e*P	**P**	**07 06 01.4**	**-1.4**
	comp=Z,32nm,0.7s,mb5.4						
THN				*e*		07 08 36.2	
	comp=Z,14nm,0.8s						
NJ2	**Nanjing**	36.27	35	*e*P	**P**	**07 06 16.3**	**+0.3**
NJ2				AP	pP	07 06 26.3	+2.3
NJ2				XP	sP	07 06 30.0	+2.6
NJ2				PP	PP	07 07 40.3	+1.0
NJ2				S	**S**	**07 11 56.0**	**+1.7**
NJ2				XS		07 12 11.0	
NJ2				SS	SS	07 14 22.0	+2.8
NJ2				AMB	AMB		
	comp=Z,410nm,1.1s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,2µm,4.6s						
NJ2				LR	LR		
	comp=N,6µm,14.2s,MS5.7						
NJ2				LR	LR		
	comp=E,7µm,14.8s,MS5.7						
NJ2				LR	LR		
	comp=Z,9µm,14.9s,MS5.7						
GTA	**Gaotai**	36.46	6	⇓P	**P**	**07 06 16.8**	**-0.7**

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GTA                                  PP      PP      07 07 40.3  -1.4
GTA                                  PCP     PcP     07 08 43.0  +1.5
GTA                                  S       S       07 11 53.8  -3.2
GTA                                  SCP             07 12 27.0
GTA                                  SCS     ScS     07 16 32.0  +2.1
GTA                                  AMB     AMB
      comp=Z,46nm,1.9s,mb5.1
GTA                                  AMB     AMB
      comp=Z,586nm,8.0s
GTA                                  LR      LR
      comp=N,3μm,14.1s,MS5.2
GTA                                  LR      LR
      comp=E,2μm,15.7s,MS5.2
GTA                                  LR      LR
      comp=Z,4μm,14.9s,MS5.3
SSE   Sheshan             36.97  38   P      P       07 06 22.3  +0.4
SSE                                  PP      PP      07 07 46.8  -1.6
SSE                                  S       S       07 12 07.0  +2.1
SSE                                  AMB     AMB
      comp=Z,65nm,1.2s,mb5.3
SSE                                  AMB     AMB
      comp=Z,460nm,4.1s
SSE                                  LR      LR
      comp=N,4μm,14.1s,MS5.5
SSE                                  LR      LR
      comp=E,3μm,14.0s,MS5.5
SSE                                  LR      LR
      comp=Z,8μm,17.1s,MS5.5
TIA   Tai'an              38.60  28  eP      P       07 06 34.8  -0.7
TIA                                  S       S       07 12 31.0  +1.3
TIA                                  AMB     AMB
      comp=Z,270nm,2.0s,mb5.6
TIA                                  LR      LR
      comp=N,2μm,16.0s,MS5.2
TIA                                  LR      LR
      comp=E,2μm,16.8s,MS5.2
JOW   Kunigami            39.29  50   P      P       07 06 41.6  +0.2
      comp=E,48nm,0.7s,mb5.3,baz=228,slow=6.5,SNR=18
JOW                                  pP      pP      07 06 49.3  -0.1
      comp=E,66nm,0.6s,baz=216,slow=9.6,SNR=10
JOW                                  LR      LR      07 25 45.7
      comp=E,1μm,18.1s,MS4.8,baz=241,slow=40
BTO   Baotou              39.66  17  eP      P       07 06 44.5  +0.2
BTO                                  S       S       07 12 47.3  +1.6
BTO                                  AMB     AMB
      comp=Z,118nm,1.7s,mb5.3
BTO                                  LR      LR
      comp=N,3μm,13.9s,MS5.4
BTO                                  LR      LR
      comp=E,3μm,18.1s,MS5.4
HHC   Hu-ho-hao-te        40.36  19⇑iP      P       07 06 51.5  +1.4
HHC                                  AP      pP      07 06 59.0  +0.8
HHC                                  XP      sP      07 07 02.3  +0.8
HHC                                  PP      PP      07 08 28.8  +2.3
HHC                                  SCP             07 12 42.3
HHC                                  PCS             07 12 44.5
HHC                                  S       S       07 12 56.5  +0.3
HHC                                  XS              07 13 08.5
HHC                                  SS      SS      07 15 48.5  -1.5
HHC                                  SCS     ScS     07 16 54.5  +2.2
HHC                                  AMB     AMB
      comp=Z,201nm,1.4s,mb5.7
HHC                                  AMB     AMB
      comp=Z,1μm,4.9s
HHC                                  LR      LR
      comp=N,10μm,14.6s,MS5.8
HHC                                  LR      LR
      comp=E,4μm,14.5s,MS5.8
HHC                                  LR      LR
      comp=Z,9μm,16.9s,MS5.7
KSH   Kashi               40.48 336⇑iP      P       07 06 52.0  +1.0
KSH                                  AP      pP      07 07 01.3  +2.2
KSH                                  XP      sP      07 07 05.5  +3.1
KSH                                  PP      PP      07 08 29.0  +1.3
KSH                                  PCP     PcP     07 08 57.8  +3.7
KSH                                  SCP             07 12 42.3
KSH                                  PCS             07 12 45.5
KSH                                  S       S       07 12 58.3  +0.4
KSH                                  XS              07 13 10.5
KSH                                  SS      SS      07 15 49.0  -3.4
KSH                                  SCS     ScS     07 16 54.8  +1.8
KSH                                  AMB     AMB
      comp=Z,400nm,4.1s
KSH                                  LR      LR
      comp=N,2μm,15.5s,MS5.2
KSH                                  LR      LR
      comp=E,2μm,20.4s,MS5.2
NWAO  Narrogin (SRO)      41.20 152   P      P       07 06 57.9  +0.9
      comp=E,47nm,0.8s,mb5.2,baz=324,slow=11,SNR=12
NWAO  Narrogin (SRO)      41.20 152  eP      P       07 06 57.6  +0.6
NWAO                                 pmax    pmax
      comp=Z,100nm,1.1s
NWAO  Narrogin (SRO)      41.20 152  eP      P       07 06 57.6  +0.6
      comp=Z,100nm,1.1s,mb5.4
WMQ   Urumqi              41.25 351 ⇑P      P       07 06 59.3  +2.0
WMQ                                  AP      pP      07 07 09.3  +3.9
WMQ                                  XP      sP      07 07 13.3  +4.6
WMQ                                  PP      PP      07 08 37.5  +1.9
WMQ                                  S       S       07 13 10.5  +1.2
WMQ                                  AMB     AMB
      comp=Z,117nm,1.3s,mb5.3
WMQ                                  LR      LR
      comp=N,1μm,22.8s,MS5.1
WMQ                                  LR      LR
      comp=E,3μm,21.3s,MS5.1
WMQ                                  LR      LR
      comp=Z,1μm,23.0s,MS4.7
BJT   Baijiatuau          41.32  24  eP      P       07 06 59.4  +1.4
BJT                                  e       pP      07 07 07.6  +1.6
BJT                                  pmax    pmax
      comp=Z,325nm,1.1s
BJT   Baijiatuau          41.32  24  eP      P       07 06 59.4  +1.4
      comp=Z,325nm,1.1s,mb5.9
BJT                                  e       pP      07 07 07.6  +1.5
BJI   Beijing             41.34  24   P      P       07 06 59.5  +1.4
BJI                                  S       S       07 13 12.8  +2.0
BJI                                  AMB     AMB
      comp=Z,291nm,1.1s,mb5.8
BJI                                  AMB     AMB
      comp=Z,2μm,4.2s
BJI                                  LR      LR
      comp=N,792nm,15.1s,MS5.4
BJI                                  LR      LR
      comp=E,4μm,15.7s,MS5.4
BJI                                  LR      LR
      comp=Z,3μm,16.2s,MS5.2
ULHL  Ulahol              42.73 339   P      P       07 07 11.1  +1.6
      SNR=15
DL2   Dalian              42.92  30 ⇑P      P       07 07 12.3  +1.1
DL2                                  AP      pP      07 07 17.0  -2.2
DL2                                  S       S       07 13 33.5  -0.6
DL2                                  AMB     AMB
      comp=Z,140nm,1.1s,mb5.6
DL2                                  AMB     AMB
      comp=Z,330nm,3.8s
DL2                                  LR      LR
      comp=N,2μm,18.0s,MS5.2
DL2                                  LR      LR
      comp=E,1μm,15.0s,MS5.2
DL2                                  LR      LR
      comp=Z,3μm,16.6s,MS5.2
KZA   Kyzart              42.96 338   P      P       07 07 12.9  +1.6
      SNR=16
UCH   Uchtor              43.37 337   P      P       07 07 16.4  +1.7
      SNR=51
AAA   Alma-Ata            43.39 340  eP      P       07 07 15.0  +0.1
AAA                                  eS      S       07 13 40.0  -0.8
AAA                                  pmax    pmax
      comp=Z,900nm,2.0s,mb6.2
AAA                                  smax
      comp=E,2μm,9.0s
AAA                                  MLR     MLR
      comp=Z,1μm,19.0s,MS4.7
TKM2  Tokmak 2            43.56 339   P      P       07 07 17.3  +1.1
      SNR=16
KBK   Karagaybulak        43.57 338   P      P       07 07 16.3   0.0
      SNR=6.5
AML   Almayashu           43.61 336   P      P       07 07 18.4  +1.7
      SNR=39
AAK   Ala-Archa           43.72 337   P      P       07 07 19.7  +2.1
      SNR=17
AAK   Ala-Archa           43.72 337  eP      P       07 07 17.8  +0.2
AAK                                  pmax    pmax
      comp=Z,21nm,0.8s,mb4.9
AAK   Ala-Archa           43.72 337  eP      P       07 07 17.8  +0.2
      comp=Z,21nm,0.8s,mb4.9
FRU   Bishkek             43.84 338  iP      P       07 07 20.0  +1.4
FRU                                  pmax    pmax
      comp=Z,160nm,2.0s,mb5.4
FRU                                  MLR     MLR
      comp=Z,2μm,18.0s,MS5.1
FRU                                  pmax    pmax
      comp=Z,280nm,2.0s,mb5.7
CHMS  Chumysh             43.94 338   P      P       07 07 20.6  +1.3
      SNR=10
EKS2  Erkin-Say           44.02 337   P      P       07 07 21.1  +1.1
      SNR=15
USP   Ospenovka           44.26 338   P      P       07 07 22.8  +0.8
      SNR=25
WRA   Warramunga Arr      44.38 123   P      P       07 07 22.8  -0.4
      comp=Z,20nm,0.9s,mb4.8,baz=301,slow=9.0,SNR=40
WRAB  Tennant Creek       44.38 123  eP      P       07 07 22.6  -0.6
WRAB                                 pmax    pmax
      comp=Z,56nm,0.9s,mb5.3
WRAB                                 MLR     MLR
      comp=Z,798nm,20.0s,MS4.6
WRAB  Tennant Creek       44.38 123  eP      P       07 07 22.6  -0.7
      comp=Z,56nm,0.9s,mb5.3
WRAB                                 LR      LR
      comp=Z,798nm,20.0s,MS4.6
KS15  Wonju Array Si      45.33  37  eP      P       07 07 30.3  -0.3
SONM  Songino Array       45.64  10   P      P       07 07 33.0  +0.1
      comp=Z,90nm,1.2s,mb5.6,baz=198,slow=7.8,SNR=100
SONM                                 pP      pP      07 07 41.3  +0.3
      comp=Z,34nm,0.6s,baz=190,slow=8.8,SNR=27
SONM                                 PcP     PcP     07 09 11.9  +0.6
      comp=Z,8.6nm,0.8s,baz=195,slow=4.2,SNR=5.1
SONM                                 pPcP            07 09 19.9
      comp=Z,5.0nm,0.6s,baz=196,slow=4.0,SNR=4.6
ASAR  Alice Springs       45.78 127   P      P       07 07 33.8  -0.5
      comp=Z,5.8nm,0.8s,mb4.5,baz=301,slow=7.4,SNR=29
ASAR                                 pP      pP      07 07 42.0  -0.4
      comp=Z,6.7nm,0.5s,baz=300,slow=7.7,SNR=18
ASAR                                 PcP     PcP     07 09 12.1  -0.1
      comp=Z,5.1nm,0.8s,baz=298,slow=2.5,SNR=6.3
ULN   Ulaanbaatar         45.79  11  eP      P       07 07 33.9  -0.2
ULN                                  pmax    pmax
      comp=Z,73nm,1.4s,mb5.4
ULN                                  MLR     MLR
      comp=Z,4μm,19.0s,MS5.3
ULN   Ulaanbaatar         45.79  11  eP      P       07 07 33.9  -0.2
      comp=Z,73nm,1.4s,mb5.4
ULN                                  LR      LR
      comp=Z,4μm,19.0s,MS5.3
SNY   Shenyang            46.11  29 ⇑P      P       07 07 36.5  -0.2
SNY                                  AP      pP      07 07 45.0  +0.2
SNY                                  S       S       07 14 17.3  -2.7
SNY                                  AMB     AMB
      comp=Z,110nm,1.5s,mb5.6
SNY                                  AMB     AMB
      comp=Z,480nm,7.6s
SNY                                  LR      LR
      comp=N,5μm,17.4s
SNY                                  LR      LR
      comp=Z,5μm,15.4s,MS5.6
ZAK   Zakamensk           47.67   7  i P     P       07 07 48.3  -0.6
CN2   Changchun           48.50  29  eP      P       07 07 54.0  -1.4
CN2                                  PP      PP      07 09 46.0  -1.9
CN2                                  eS      S       07 14 54.3  +0.5
CN2                                  AMB     AMB
      comp=Z,90nm,1.2s,mb5.7
CN2                                  AMB     AMB
      comp=Z,830nm,3.0s
CN2                                  LR      LR
      comp=N,4μm,16.0s,MS5.7
CN2                                  LR      LR
      comp=E,5μm,16.0s,MS5.7
CN2                                  LR      LR
      comp=Z,4μm,17.0s,MS5.5
MOY   Mondy               48.72   5  eP      P       07 07 57.2  +0.2
TLY   Talaya              48.99   7   P      P       07 07 59.9  +0.8
      comp=Z,181nm,1.4s,mb5.9,SNR=11
TLY   Talaya              48.99   7  eP      P       07 07 59.1   0.0
TLY                                  e       pP      07 08 07.2  -0.1
TLY                                  eS      S       07 14 57.5  -3.2
TLY                                  eSS     ScS     07 17 48.7  +2.2
TLY                                  pmax    pmax
      comp=Z,48nm,1.1s,mb5.4
TLY                                  MLR     MLR
      comp=Z,3μm,18.0s,MS5.4
TLY   Talaya              48.99   7  eP      P       07 07 59.6  +0.5
      comp=Z,28nm,0.7s,mb5.4
IRK   Irkutsk             49.62   7  eP      P       07 08 02.7  -1.2
IRK                                  e       pP      07 08 12.6  +0.5
HIA   Hailar              50.52  20  eP      P       07 08 10.4  -0.4
HIA                                  e       pP      07 08 19.3  +0.3
HIA                                  pmax    pmax
      comp=Z,188nm,1.8s
HIA   Hailar              50.52  20  eP      P       07 08 10.4  -0.4
      comp=Z,188nm,1.8s,mb5.7
HIA                                  e       pP      07 08 19.2  +0.2
MDJ   Mudanjiang          51.15  31   P      P       07 08 15.8  +0.1
MDJ                                  AP      pP      07 08 25.0  +1.1
MDJ                                  XP      sP      07 08 28.8  +1.7
MDJ                                  PCP     PcP     07 09 30.5  -0.7
MDJ                                  PP      PP      07 10 13.0  -0.2
MDJ                                  SCP             07 13 24.3
MDJ                                  PCS             07 13 27.8
MDJ                                  S       S       07 15 33.3  +2.7
MDJ                                  XS              07 15 48.0
MDJ                                  SCS     ScS     07 18 03.8  +2.6
MDJ                                  AMB     AMB
      comp=Z,80nm,1.5s,mb5.4
MDJ                                  AMB     AMB
      comp=Z,527nm,4.7s
MDJ                                  LR      LR
      comp=N,1μm,20.2s,MS5.0
MDJ                                  LR      LR
      comp=E,1μm,24.4s,MS5.0
MDJ                                  LR      LR
      comp=Z,2μm,19.7s,MS5.1
MDJ   Mudanjiang          51.15  31  eP      P       07 08 16.3  +0.6
      comp=Z,276nm,1.6s,mb5.9
MDJ                                  e       pP      07 08 24.2  +0.3
VLA   Vladivostok         51.37  34⇑iP      P       07 08 16.0  -1.4
VLA                                  pmax    pmax
      comp=Z,1μm,4.0s
MAJO  Matsushiro          51.52  44  eP      P       07 08 18.4  -0.2
MAJO                                 pmax    pmax
      comp=Z,7.0nm,0.8s,mb4.6
MAJO  Matsushiro          51.52  44  eP      P       07 08 18.4  -0.2
      comp=Z,6.9nm,0.8s,mb4.6
MAT   Matsushiro          51.52  44   P      P       07 08 17.0  -1.6
MAT                                  S       S       07 15 43.0  +7.1
MAT   Matsushiro          51.52  44  eP      P       07 08 17.0  -1.6
MAT                                  eS      S       07 15 43.0  +7.1
MAT                                  pmax    pmax
      comp=Z,53nm,1.4s,mb5.3
MAT   Matsushiro          51.52  44  eP      P       07 08 17.0  -1.6
      comp=Z,54nm,1.4s,mb5.3
MAT                                  eS      S       07 15 43.0  +7.1
ZAL   Zalesovo            51.55 352   P      P       07 08 18.3  -0.2
      comp=Z,62nm,0.5s,mb5.8,baz=305,slow=5.5,SNR=143
ZAL                                  pP      pP      07 08 26.4  -0.4
      comp=Z,28nm,0.5s,baz=300,slow=6.5,SNR=10
RDF   Al-Radifah          52.36 305  eP      P       07 08 25.1   0.0
RDF                                  AMb     AMB     07 08 36.4
      comp=Z,120nm,0.8s,mb5.9
UMR   Umm Al-Rimmam       52.45 305  eP      P       07 08 25.9  +0.2
UMR                                  AMb     AMB     07 08 35.6
      comp=Z,87nm,0.6s,mb5.9
KAMS  Al Khamasin         52.55 293   P      P       07 08 26.3  -0.2
NVS   Novosibirsk         52.65 351⇑iP      P       07 08 25.0  -1.9
NVS                                  e       pP      07 08 34.2  -0.9
NVS                                  i S     S       07 15 50.8  -0.2
NVS                                  pmax    pmax
      comp=Z,217nm,1.7s,mb5.8
NVS                                  pmax    pmax
      comp=N,192nm,1.8s
NVS                                  smax
      comp=E,202nm,2.1s
NVS                                  smax
      comp=N,56nm,1.7s
MIB   Mutribah            52.84 306  eP      P       07 08 28.5  -0.1
MIB                                  AMb     AMB     07 08 38.2
      comp=Z,180nm,0.6s,mb6.2
MZLS  Mizel               52.86 298   P      P       07 08 28.9   0.0
PMG   Port Moresby        52.87 104   P      P       07 08 28.6  -0.5
      comp=Z,20nm,0.9s,mb5.1,baz=288,slow=2.9,SNR=9.5
PMG   Port Moresby        52.87 104  eP      P       07 08 28.3  -0.8
PMG                                  pmax    pmax
      comp=Z,15nm,0.6s
PMG                                  MLR     MLR
      comp=Z,922nm,20.0s
PMG   Port Moresby        52.87 104  eP      P       07 08 28.3  -0.8
      comp=Z,15nm,0.6s,mb5.1
PMG                                  LR      LR
      comp=Z,922nm,20.0s,MS4.8
RST   Umm Al-Ruwaisa      53.01 305  eP      P       07 08 29.6  -0.3
RST                                  AMb     AMB     07 08 40.8
      comp=Z,93nm,0.9s,mb5.7
TATS  Tathlith            53.41 292   P      P       07 08 32.6  -0.4
BVAR  Borovoye Array      54.04 341   P      P       07 08 36.5  -0.6
      comp=Z,24nm,0.6s,mb5.3,baz=143,slow=7.4,SNR=86
BVAR                                 pP      pP      07 08 44.6  -0.7
      comp=Z,51nm,1.1s,baz=141,slow=7.9,SNR=14
BRVK  Borovoye            54.10 341⇑iP      P       07 08 36.7  -0.8
BRVK                                 pmax    pmax
      comp=Z,4.0nm,0.6s,mb4.5
BRVK                                 MLR     MLR
      comp=Z,309nm,20.0s,MS4.4
BRVK  Borovoye            54.10 341⇑iP      P       07 08 36.7  -0.8
      comp=Z,4.3nm,0.6s,mb4.6
BRVK                                 LR      LR
      comp=Z,309nm,20.0s,MS4.4
CHKZ  Chkalovo            54.52 342  eP      P       07 08 40.1  -0.5
CHKZ                                 e       pP      07 08 47.7  -1.1
CHKZ                                 pmax    pmax
      comp=Z,170nm,1.1s,mb6.0
CHKZ  Chkalovo            54.52 342  eP      P       07 08 40.1  -0.6
      comp=Z,170nm,1.1s,mb6.0
CHKZ                                 e       pP      07 08 47.7  -1.1
CTA   Charters Tower      54.77 117   P      P       07 08 43.0  +0.1
      comp=Z,15nm,0.8s,mb5.0,baz=287,slow=8.5,SNR=15
CTA                                  pP      pP      07 08 50.0  -1.2
      comp=Z,23nm,1.0s,baz=291,slow=8.4,SNR=9.2
CTAO  Charters Tower      54.77 117  eP      P       07 08 42.4  -0.6
CTAO                                 pmax    pmax
      comp=Z,40nm,1.2s,mb5.3
CTAO  Charters Tower      54.77 117  eP      P       07 08 42.4  -0.5
      comp=Z,40nm,1.2s,mb5.3
AFFS  'Afif               54.79 297   D              07 08 43.4
ARSS  Ar Rass             55.08 300   P      P       07 08 44.6  -0.5
KLR   Kul'dur             55.43  28κ iP      P       07 08 44.0  -3.3
KLR                                  eS      S       07 16 28.5   0.0
KLR                                  pmax    pmax
      comp=N,100nm,2.0s
KLR                                  pmax    pmax
      comp=E,150nm,2.0s
KLR                                  pmax    pmax
      comp=Z,220nm,2.0s,mb5.8
KLR                                  pmax    pmax
      comp=E,600nm,7.5s
KLR                                  pmax    pmax
      comp=Z,1μm,7.5s
KLR                                  smax
      comp=N,1μm,6.0s
KLR                                  smax
      comp=E,700nm,6.0s
KLR                                  MLR     MLR
      comp=N,4μm,15.0s
KLR                                  MLR     MLR
      comp=Z,6μm,15.0s,MS5.8
STKA  Stephens Creek      55.77 132   P      P       07 08 49.4  -0.6
      comp=Z,5.8nm,0.7s,mb4.7,baz=317,slow=5.2,SNR=7.0
STKA                                 pP      pP      07 08 57.5  -0.8
      comp=Z,13nm,0.8s,baz=314,slow=7.2,SNR=8.7
STKA  Stephens Creek      55.77 132  eP      P       07 08 49.1  -0.9
BOD   Bodaibo             56.58  12⇓iP      P       07 08 54.4  -1.1
HILS  Ha'il               56.72 301   D              07 08 57.7
KMBO  Kilima Mbogo        58.42 267   P      P       07 09 09.4  +0.4
      comp=Z,20nm,0.9s,mb5.1,baz=55,slow=9.0,SNR=45
KMBO                                 pP      pP      07 09 17.8  +0.4
      comp=Z,14nm,1.1s,baz=58,slow=12,SNR=7.0
KMBO                                 LR      LR      07 31 38.8
      comp=Z,3μm,19.2s,MS5.5,baz=206,slow=33
KMBO  Kilima Mbogo        58.42 267  eP      P       07 09 08.7  -0.3
KMBO                                 pmax    pmax
      comp=Z,26nm,1.0s
KMBO  Kilima Mbogo        58.42 267  eP      P       07 09 08.7  -0.4
      comp=Z,26nm,1.0s,mb5.2
CLNS  Chul'man            58.55  18  eP      P       07 09 09.3  -0.1
GNI   Garni               58.87 316   P      P       07 09 11.2  -0.6
      comp=Z,2.4nm,0.3s,mb4.6,baz=0.2,slow=2.8,SNR=5.3
GNI   Garni               58.87 316  i P     P       07 09 11.1  -0.7
GNI                                  pmax    pmax
      comp=Z,2.0nm,0.9s
GNI   Garni               58.87 316  i P     P       07 09 11.1  -0.7
      comp=Z,1.5nm,0.9s
TI2   Plekhanov           59.55 318  eP      P       07 09 16.0  -0.5
YSS   Yuzh-Sakhalins      59.83  36⇑eP      P       07 09 12.1  -6.3
YSS                                  e       pP      07 09 20.0  -6.8
YSS                                  e               07 11 31.0
YSS                                  pmax    pmax
      comp=Z,70nm,1.0s,mb5.7
YSS                                  MLR     MLR
      comp=Z,2μm,17.0s,MS5.3
YSS                                  MLR     MLR
      comp=N,2μm,16.0s,MS5.5
YSS                                  MLR     MLR
      comp=E,1μm,17.0s,MS5.5
YSS   Yuzh-Sakhalins      59.83  36  eP      P       07 09 17.4  -1.0
      comp=E,81nm,1.0s,mb5.7
UMJS  Umm Lajj            60.13 297   P      P       07 09 22.3  +1.6
SVE   Sverdlovsk          60.43 339⇑iP      P       07 09 22.0  -0.3
SVE                                  e               07 10 14.0
SVE                                  pmax    pmax
      comp=Z,290nm,2.2s,mb5.9
SVE                                  MLR     MLR
      comp=Z,2μm,19.0s,MS5.2
ZEI   Tsey                60.58 318  eP      P       07 09 22.4  -1.1
ZEI                                  pmax    pmax
      comp=Z,9.0nm,1.0s,mb4.8
ARU   Arti                60.91 338  eP      P       07 09 24.0  -1.6
ARU                                  e               07 10 05.3
ARU                                  e               07 11 36.3
ARU                                  eS      S       07 17 40.8  +0.8
ARU                                  e               07 19 02.5
ARU   Arti                60.91 338⇑iP      P       07 09 24.3  -1.3
ERZM  Erzurum             61.14 315  i P     P       07 09 26.5  -0.9
TBKS  Tabuk               61.43 301   P      P       07 09 30.7  +1.2
KIV   Kislovodsk          61.88 319  i P     P       07 09 31.4  -1.0
KIV                                  pmax    pmax
      comp=Z,2.0nm,0.5s,mb4.5
ASF   Jabal al Asfar      62.09 305   LR     LR      07 38 12.1
      comp=Z,806nm,18.9s,MS4.9,baz=185,slow=38
GOF   Gofitskoye          62.14 320⇓iP      pP      07 09 41.0  -1.5
GOF                                  pmax    pmax
      comp=Z,50nm,2.0s,mb5.3
JMQS  Jabal Moqyreh       62.15 301   P      P       07 09 35.0  +0.7
ELZG  Elazig              62.36 312  i P     P       07 09 35.8  +0.1
MALT  Malatya             62.72 312  eP      P       07 09 38.0   0.0
MALT                                 pmax    pmax
      comp=Z,28nm,1.2s,mb5.3
MALT  Malatya             62.72 312  eP      P       07 09 38.0   0.0
      comp=Z,28nm,1.2s,mb5.3
BDAS  Al Bad'             62.72 300   D              07 09 38.6
JMOS  Jabal al Moall      62.87 301   P      P       07 09 39.6  +0.4
GZT   Gaziantep           63.05 311  i P     P       07 09 40.3  +0.1
EIL   Elat                63.12 302  eP      P       07 09 40.2  -0.6
      comp=Z,30nm,0.9s,mb5.4
SOC   Sochi               63.70 318  i P     P       07 09 42.9  -1.5
SOC                                  e               07 10 17.1
SOC                                  i PPP   PPP     07 13 41.5  +3.6
SOC                                  eS      S       07 18 15.9  +0.5
SOC                                  i SS    SS      07 22 15.5  -9.4
SOC                                  i SSS   SSS     07 25 17.5  +5.0
SOC                                  pmax    pmax
      comp=Z,38nm,1.3s,mb5.3
SOC                                  pmax    pmax
      comp=N,17nm,1.1s
SOC                                  pmax    pmax
      comp=E,7.0nm,0.6s
COBT  Iskenderun          63.80 309  i P     P       07 09 45.6  +0.4
SOKR  Solikamsk           63.83 339⇓iP      P       07 09 42.7  -2.3
SOKR                                 pmax    pmax
      comp=Z,60nm,0.9s,mb5.6
SOKR                                 MLR     MLR
      comp=Z,1μm,19.0s,MS5.0
YAK   Yakutsk             64.19  17⇑iP      P       07 09 46.2  -1.1
MBAR  Mbarara             64.89 268  eP      P       07 09 51.7  -0.9
MBAR                                 pmax    pmax
      comp=Z,20nm,1.0s,mb5.1
MBAR  Mbarara             64.89 268  eP      P       07 09 51.7  -0.9
      comp=Z,20nm,1.0s,mb5.1
AVNT  Avonos              65.52 312  i P     P       07 09 55.6  -0.7
ANN   Anapa               65.68 318  eP      P       07 09 49.8  -7.4
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ANN				pmax	pmax		
	comp=Z,84nm,1.2s,mb5.7						
CSS	**Prodhromos**	**65.68**	**307**	*e*P	**P**	**07 09 56.9**	**-0.5**
	comp=Z,18nm,0.9s,mb5.1						
CSS				*e*	pP	07 10 05.9	+0.1
BOYT	**Boyabat**	**66.28**	**314**	*i* P	**P**	**07 10 00.6**	**-0.5**
BRTR	**Keskin Array B**	**66.70**	**312**	P	**P**	**07 10 02.8**	**-1.0**
	comp=Z,6.3nm,0.8s,mb4.7,baz=127,slow=6.2,SNR=23						
BRTR				pP	pP	07 10 11.1	-1.1
	comp=Z,4.7nm,0.8s,baz=127,slow=6.2,SNR=7.1						
ELDT	**Eldivan**	**67.07**	**313**	*i* P	**P**	**07 10 05.7**	**-0.5**
SIM	**Simferopol'**	**67.94**	**318**	*e*P	**P**	**07 10 09.2**	**-2.4**
SIM				*e*S	S	07 19 05.0	-2.1
SIM				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.3						
SGKT	**Sivrigoynuk**	**68.10**	**313**	*i* P	**P**	**07 10 09.1**	**-3.5**
ISP	**Isparta**	**68.58**	**310**	*i* P	**P**	**07 10 15.5**	**-0.1**
ESKT	**Eskisehir**	**68.72**	**311**	*i* P	**P**	**07 10 14.5**	**-2.0**
LSZ	**Lusaka**	**69.06**	**253**	*e*P	**P**	**07 10 17.1**	**-1.8**
LSZ				*e*	pP	07 10 27.3	0.0
LSZ				pmax	pmax		
	comp=Z,56nm,1.5s,mb5.3						
LSZ	**Lusaka**	**69.06**	**253**	*e*P	**P**	**07 10 17.1**	**-1.9**
	comp=Z,56nm,1.5s,mb5.3						
LSZ				*e*	pP	07 10 27.3	-0.1
SKR	**Severo-Kuril's**	**69.38**	**36**	*e*P	**P**	**07 10 17.0**	**-3.3**
SKR				*e*	pP	07 10 25.0	-3.7
SKR				*e*		07 10 31.9	
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.0						
MOS	**Moscow**	**69.96**	**329**	*e*P	**P**	**07 10 22.6**	**-1.2**
MOS				*i*	pP	07 10 31.9	-0.3
MOS				*e*		07 10 39.4	
MOS				*e*S	S	07 19 27.8	-3.1
MOS				*e*		07 20 21.2	
MOS				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.5						
OBN	**Obninsk**	**70.24**	**328**	*c* *i*P	**P**	**07 10 24.7**	**-0.8**
OBN				*i* S	S	07 19 28.7	-5.4
OBN				*e*SS	SS	07 24 09.3	+3.2
OBN				pmax	pmax		
	comp=Z,81nm,1.3s,mb5.5						
OBN	**Obninsk**	**70.24**	**328**	*e*P	**P**	**07 10 24.7**	**-0.8**
	comp=Z,47nm,0.7s,mb5.5						
MA2	**Magadan**	**70.46**	**26**	*i* P	**P**	**07 10 25.3**	**-1.4**
BTOK	**Tokmak**	**70.89**	**311**	*i* P	**P**	**07 10 29.3**	**-0.4**
PET	**Petropavlovsk**	**71.69**	**35**	*e*P	**P**	**07 10 33.1**	**-1.2**
PET				*e*		07 10 52.9	
PET				*e*S	S	07 19 47.7	-3.3
PET				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.5						
PET				pmax	pmax		
	comp=Z,200nm,24.3s						
PET				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
PET				smax			
	comp=N,300nm,27.5s						
PET				smax			
	comp=E,300nm,21.4s						
PET				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.5						
PET				MLR	MLR		
	comp=Z,2µm,17.0s						
PET	**Petropavlovsk**	**71.69**	**35**	*i* P	**P**	**07 10 32.7**	**-1.6**
KIS	**Kishinev**	**72.08**	**319**	*e*P	**P**	**07 10 35.0**	**-1.7**
KIS				*e*	pP	07 10 42.0	-3.1
KIS				*e*		07 10 48.0	
PRD	**Provadia**	**72.11**	**315**	*e*P	**P**	**07 10 36.0**	**-1.0**
IDI	**Anoyia**	**72.52**	**306**	P	**P**	**07 10 39.2**	**-0.4**
	comp=Z,31nm,0.9s,mb5.2,baz=104,slow=8.2,SNR=9.4						
SEY	**Seymchan**	**72.78**	**24**	*e*P	**P**	**07 10 40.9**	**+0.3**
SEY				*e*		07 10 56.1	
SEY				*e*		07 13 27.3	
SEY				*e*S	S	07 20 07.3	+4.1
SEY				*e*		07 20 50.8	
SEY				pmax	pmax		
	comp=Z,140nm,1.6s,mb5.6						
SEY				pmax	pmax		
	comp=E,80nm,1.7s						
SEY				smax			
	comp=N,1µm,21.3s						
SEY				smax			
	comp=E,1µm,20.1s						
SEY				MLR	MLR		
	comp=E,8µm,17.0s,MS6.1						
SEY				MLR	MLR		
	comp=Z,13µm,17.0s,MS6.3						
SEY				MLR	MLR		
	comp=N,4µm,16.0s,MS6.1						
AKASG	**Malin Array Be**	**72.84**	**322**	P	**P**	**07 10 39.8**	**-1.4**
	comp=N,8.6nm,0.7s,mb4.8,baz=90,slow=4.6,SNR=43						
AKASG				pP	pP	07 10 48.4	-1.2
	comp=N,10nm,0.8s,baz=89,slow=4.7,SNR=7.8						
AKASG	**Malin Array Be**	**72.84**	**322**	P	**P**	**07 10 39.8**	**-1.4**
AKASG				*PP	pP	07 10 48.4	-1.2
AKASG				pmax	pmax		
	comp=Z,9.0nm,0.7s						
AKASG				pmax	pmax		
	comp=Z,10.0nm,0.8s						
VRI	**Vrincioaia**	**73.19**	**317**	⇓*i*P	pP	07 10 58.5	+6.7
LBTB	**Lobatse**	**73.21**	**243**	*e*P	**P**	**07 10 43.6**	**-0.3**
LBTB				*e*	pP	07 10 52.4	+0.1
LBTB				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.4						
LBTB				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
LBTB	**Lobatse**	**73.21**	**243**	*e*P	**P**	**07 10 43.6**	**-0.3**
	comp=Z,52nm,1.1s,mb5.4						
LBTB				*e*	pP	07 10 52.4	+0.1
LBTB				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
DIM	**Dimitrovgrad**	**73.22**	**313**	*e*P	**P**	**07 10 42.0**	**-1.6**
MLR	**Muntele Rosu**	**73.64**	**317**	P	**P**	**07 10 45.5**	**-0.5**
	comp=Z,27nm,1.0s,mb5.1,baz=127,slow=3.3,SNR=21						
RZN	**Rozhen**	**73.75**	**313**	*e*P	**P**	**07 10 45.0**	**-1.6**
MAW	**Mawson**	**74.08**	**192**	P	**P**	**07 10 49.5**	**+1.4**
	comp=Z,23nm,0.9s,mb5.1,baz=25,slow=7.3,SNR=21						
MAW	**Mawson**	**74.08**	**192**	*e*P	**P**	**07 10 48.9**	**+0.9**
MAW				pmax	pmax		
	comp=Z,140nm,1.7s						
MAW	**Mawson**	**74.08**	**192**	*e*P	**P**	**07 10 48.9**	**+0.9**
	comp=Z,140nm,1.7s,mb5.6						
BOSA	**Boshof**	**74.25**	**239**	*e*P	**P**	**07 10 47.9**	**-1.9**
BOSA				*e*	pP	07 10 57.3	-1.0
BOSA				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.3						
BOSA				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
BOSA	**Boshof**	**74.25**	**239**	*e*P	**P**	**07 10 47.9**	**-2.0**
	comp=Z,62nm,1.4s,mb5.3						
BOSA				*e*	pP	07 10 57.3	-1.0
BOSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
MMB	**Musomiste**	**74.46**	**312**	*e*P	**P**	**07 10 48.0**	**-2.8**
MNK	**Minsk**	**74.75**	**326**	*e*P	**P**	**07 10 50.0**	**-2.2**
MNK				pmax	pmax		
	comp=Z,240nm,1.0s,mb6.1						
KKB	**Krupnik**	**74.98**	**312**	*e*P	**P**	**07 10 53.0**	**-0.8**
VTS	**Vitosha**	**75.01**	**313**	*e*P	**P**	**07 10 53.0**	**-0.9**
DRV	**Dumont d'Urvil**	**76.32**	**163**	P	**P**	**07 10 52.0**	**-8.9**
VSU	**Vasula**	**76.48**	**330**	*i* P	**P**	**07 11 01.7**	**-0.2**
LVZ	**Lovozero**	**76.60**	**340**	⇓*e*P	**P**	**07 11 01.3**	**-1.1**
LVZ				*e*S	S	07 20 42.6	-2.9
LVZ				*e*SS	SS	07 25 40.8	-3.2
LVZ				pmax	pmax		
	comp=Z,53nm,1.7s,mb5.2						
LVZ				pmax	pmax		
	comp=N,27nm,2.1s						
LVZ				pmax	pmax		
	comp=E,15nm,1.7s						
LVZ				smax			
	comp=E,572nm,4.8s						
KWP	**Kalwaria**	**76.65**	**320**	*e*P	**P**	**07 11 04.3**	**+1.2**
KWP				*e*		07 11 18.5	
KOLS	**Kolonicke sedl**	**76.80**	**320**	*i* P	**P**	**07 11 04.7**	**+0.8**
KOLS				*e*pP	pP	07 11 12.9	+0.5
APA	**Apatity**	**76.89**	**340**	⇑*i*P	**P**	**07 11 04.4**	**+0.4**
APA				*i*		07 11 10.4	
APA				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
SUW	**Suwalki**	**77.27**	**325**	*e*P	**P**	**07 11 06.3**	**-0.1**
SUW				*e*	pP	07 11 14.4	-0.5
SUW				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
SUW	**Suwalki**	**77.27**	**325**	*e*P	**P**	**07 11 06.3**	**-0.1**
	comp=Z,5.1nm,0.9s,mb4.5						
SUW				*e*	pP	07 11 14.4	-0.5
CRVS	**Cervenica-Dubn**	**77.32**	**319**	*e*P	**P**	**07 11 08.9**	**+2.1**
FINES	**FINESS Array B**	**77.66**	**333**	P	**P**	**07 11 08.5**	**+0.1**
	comp=Z,12nm,0.7s,mb4.9,baz=100,slow=5.7,SNR=34						
FINES				pP	pP	07 11 16.8	-0.1
	comp=Z,10nm,0.6s,baz=96,slow=7.1,SNR=9.6						
FINES				LR	LR	07 50 44.8	
	comp=Z,743nm,20.9s,MS5.0,baz=302,slow=40						
FINES	**FINESS Array B**	**77.66**	**333**	P	**P**	**07 11 08.5**	**+0.1**
FINES				pP	pP	07 11 16.8	-0.1
FINES				LR	LR	07 50 44.9	
KAF	**Kangasniemi**	**77.75**	**333**	*e*p	**P**	**07 11 09.3**	**+0.4**
	comp=Z,25nm,0.9s,mb5.1						
KAF	**Kangasniemi**	**77.75**	**333**	*e*P	**P**	**07 11 09.3**	**+0.4**
KAF				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
KECS	**Kecovo**	**77.88**	**319**	*e*P	**P**	**07 11 10.1**	**+0.2**
KECS				*e*pP	pP	07 11 18.6	+0.2
NIE	**Niedzica**	**78.15**	**320**	*e*P	**P**	**07 11 12.2**	**+0.9**
PSZ	**Piszkesteto**	**78.19**	**318**	⇑*i*P	**P**	**07 11 11.9**	**+0.3**
OJC	**Ojcow**	**78.61**	**321**	⇑*i*P	**P**	**07 11 14.3**	**+0.5**
OJC				*i* PcP	PcP	07 11 22.9	-0.3
OJC	**Ojcow**	**78.61**	**321**	*i* P	**P**	**07 11 14.3**	**+0.5**
OJC				*i* PcP	PcP	07 11 22.9	-0.3
SUR	**Sutherland**	**78.77**	**236**	*e*P	**P**	**07 11 16.1**	**+1.0**
	comp=Z,124nm,1.4s,mb5.7						
SUR				*e*	pP	07 11 23.8	+0.2
SUR				LR	LR		
	comp=Z,528nm,20.0s,MS4.9						
PKSM	**Moragy**	**78.79**	**316**	⇑*e*P	**P**	**07 11 14.8**	**-0.1**
VYHS	**Vyhne**	**78.97**	**319**	*i* P	**P**	**07 11 16.4**	**+0.5**
VYHS				*e*pP	pP	07 11 25.2	+0.8
RHK1	**Bakonya**	**79.17**	**316**	⇑*e*P	**P**	**07 11 17.0**	**0.0**
SRO	**Srobarova**	**79.22**	**318**	*e*P	**P**	**07 11 17.7**	**+0.4**
OKC	**Ostrava-Krasne**	**79.60**	**320**	*e*P	**P**	**07 11 19.9**	**+0.7**
OKC				*e*pP	pP	07 11 28.3	+0.5
KEV	**Kevo**	**79.88**	**341**	*e*p	**P**	**07 11 20.8**	**+0.4**
	comp=Z,18nm,0.9s,mb5.0						
KEV	**Kevo**	**79.88**	**341**	*e*P	**P**	**07 11 20.8**	**+0.4**
KEV				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
MORC	**Moravsky Berou**	**79.98**	**320**	*e*P	**P**	**07 11 21.4**	**+0.1**
MORC				*e*	pP	07 11 29.8	0.0
MORC				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.0						
MORC	**Moravsky Berou**	**79.98**	**320**	*e*P	**P**	**07 11 21.4**	**+0.1**
	comp=Z,27nm,1.2s,mb5.0						
MORC				*e*	pP	07 11 29.8	-0.1
ZST	**Bratislava**	**80.08**	**318**	*i* P	**P**	**07 11 22.2**	**+0.4**
ZST				*e*pP	pP	07 11 31.0	+0.6
BILL	**Bilibino**	**80.09**	**21**	⇑*i*P	**P**	**07 11 20.7**	**-0.8**
FX1	**Attu Island--F**	**80.15**	**37**	P	**P**	**07 11 23.9**	**+1.8**
	comp=Z,9.5nm,0.5s,mb5.0,baz=72,slow=22,SNR=5.2						
FX1	**Attu Island--F**	**80.15**	**37**	P	**P**	**07 11 23.9**	**+1.8**
FX1				pmax	pmax		
	comp=Z,10.0nm,0.5s						
FX1	**Attu Island--F**	**80.15**	**37**	*e*P	**P**	**07 11 24.1**	**+2.0**
FX1				*e*	pP	07 11 32.9	+2.2
ARCES	**ARCESS Array B**	**80.31**	**340**	P	**P**	**07 11 23.1**	**+0.5**
	comp=Z,11nm,0.7s,mb4.9,baz=95,slow=4.3,SNR=26						
ARCES				pP	pP	07 11 32.0	+0.8
	comp=Z,13nm,0.7s,baz=94,slow=4.7,SNR=11						
ARCES				LR	LR	07 52 54.0	
	comp=Z,1µm,20.1s,MS5.3,baz=117,slow=40						
ARCES	**ARCESS Array B**	**80.31**	**340**	P	**P**	**07 11 23.1**	**+0.5**
ARCES				pP	pP	07 11 32.0	+0.8
ARCES				LR	LR	07 52 54.0	
DPC	**Dobruska-Polom**	**80.83**	**320**	*e*P	**P**	**07 11 26.4**	**+0.6**
DPC				*e*pP	pP	07 11 35.4	+1.1
KSP	**Ksiaz**	**80.91**	**321**	*e*P	**P**	**07 11 26.9**	**+0.7**
KSP				*e**PP	pP	07 11 35.1	+0.4
KSP	**Ksiaz**	**80.91**	**321**	*e*P	**P**	**07 11 27.2**	**+1.0**
KSP				*e*	pP	07 11 35.4	+0.7
KTK1	**Kautokeino**	**80.93**	**340**	*e*P	**P**	**07 11 27.5**	**+1.5**
KTK1				*e*pP	pP	07 11 35.4	+0.9
KTK1				AMb	AMB	07 11 38.5	
	comp=Z,82nm,1.5s,mb5.4						
UPC	**Upice**	**81.05**	**321**	*e*P	**P**	**07 11 27.8**	**+0.9**
UPC				*e*pP	pP	07 11 36.3	+0.8
BOJS	**Bojanci**	**81.07**	**315**	*i* P	**P**	**07 11 27.8**	**+0.7**
BOJS				*e*	pP	07 11 36.3	+0.6
SYO	**Syowa Base**	**81.19**	**198**	⇑P	**P**	**07 11 28.2**	**+0.9**
SYO	**Syowa Base**	**81.19**	**198**	⇓PcP	PcP	07 11 33.4	-0.5
PERS	**Pernice**	**81.26**	**317**	*i* P	**P**	**07 11 29.0**	**+0.9**
RPZ	**Rata Peaks**	**81.63**	**135**	P	**P**	**07 11 30.3**	**+0.2**
	comp=Z,14nm,0.7s,mb5.0,baz=158,slow=4.2,SNR=7.8						
RPZ	**Rata Peaks**	**81.63**	**135**	P	**P**	**07 11 30.2**	**+0.2**
PRU	**Pruhonice**	**81.94**	**320**	*e*P	**P**	**07 11 32.0**	**+0.5**
PRU				*e*pP	pP	07 11 40.9	+0.8
BRG	**Berggiesshubel**	**82.39**	**321**	*i* P	**P**	**07 11 34.5**	**+0.6**
BRG				*i*	pP	07 11 43.6	+1.1
BRG				*i*		07 11 51.0	
BRG				pmax	pmax		
	comp=Z,72nm,1.8s,mb5.3						
BRG				MLR	MLR		
	comp=Z,720nm,22.4s,MS5.0						
BRG	**Berggiesshubel**	**82.39**	**321**	*i* P	**P**	**07 11 34.5**	**+0.6**
	comp=Z,72nm,1.8s,mb5.3						
BRG				*i*	pP	07 11 43.6	+1.1
BRG				*i*		07 11 51.0	
BRG				LR	LR		
	comp=Z,720nm,22.4s,MS5.0						
GEC2	**GERESS Array S**	**82.39**	**319**	*e*P	**P**	**07 11 35.0**	**+1.1**
GEC2				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.2						
GEC2	**GERESS Array S**	**82.39**	**319**	*e*P	**P**	**07 11 35.0**	**+1.1**
	comp=Z,38nm,1.1s,mb5.2						
GERES	**GERESS Array B**	**82.39**	**319**	P	**P**	**07 11 34.8**	**+0.9**
	comp=Z,12nm,0.8s,mb4.9,baz=104,slow=5.5,SNR=66						
GERES				pP	pP	07 11 43.0	+0.5
	comp=Z,10nm,0.8s,baz=110,slow=5.2,SNR=14						
KHC	**Kasperske Hory**	**82.49**	**319**	*e*P	**P**	**07 11 34.7**	**+0.3**
KHC				*e*pP	pP	07 11 43.4	+0.4
TRO	**Tromso**	**82.56**	**340**	*e*P	**P**	**07 11 34.0**	**-0.4**
TRO				*e*pP	pP	07 11 42.6	-0.4
TRO				AMb	AMB	07 11 44.8	
	comp=Z,64nm,1.3s,mb5.5						
RUE	**Ruedersdorf**	**82.62**	**322**	*e*P	**P**	**07 11 35.3**	**+0.2**
	comp=Z,18nm,0.6s,mb5.3						
RUE				*e*	pP	07 11 44.0	+0.3
FVI	**Forni Avoltri**	**82.87**	**316**	*e*P	**P**	**07 11 36.8**	**+0.3**
WET	**Wettzell**	**82.95**	**319**	*e*P	**P**	**07 11 37.6**	**+0.8**
CLL	**Collm**	**83.02**	**321**	*i* P	**P**	**07 11 37.6**	**+0.5**
CLL				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
CLL	**Collm**	**83.02**	**321**	*i* P	**P**	**07 11 37.6**	**+0.5**
	comp=Z,11nm,1.1s,mb4.8						
CLL	**Collm**	**83.02**	**321**	P	**P**	**07 11 37.6**	**+0.5**
	comp=Z,logA/T=1.0,mb4.8						
CLL				*e**PP	pP	07 11 42.0	-3.7
CLL				*i* *SP	sP	07 11 45.8	-2.7
NKC	**Novy Kostel**	**83.30**	**320**	*e*P	**P**	**07 11 37.8**	**-0.8**
HFS	**Hagfors**	**83.36**	**330**	P	**P**	**07 11 39.6**	**+0.9**
	comp=Z,15nm,0.8s,mb5.0,baz=103,slow=5.9,SNR=4.6						
SFI	**Santa Sofia**	**83.40**	**314**	*e*P	**P**	**07 11 40.8**	**+1.6**
CTI	**Castel Tesino**	**83.62**	**316**	*e*P	**P**	**07 11 40.9**	**+0.5**
MOR8	**Moi Rana**	**83.68**	**336**	*e*P	**P**	**07 11 40.7**	**+0.5**
MOR8				*e*pP	pP	07 11 48.8	0.0
MOR8				AMb	AMB	07 11 51.4	
	comp=Z,63nm,1.7s,mb5.5						
SEI	**Scarperia**	**83.76**	**314**	*e*P	**P**	**07 11 42.7**	**+1.6**
MOX	**Moxa**	**83.85**	**320**	*e*P	**P**	**07 11 42.0**	**+0.6**
MOX				pmax	pmax		
	comp=Z,35nm,1.6s,mb5.2						
MOX	**Moxa**	**83.85**	**320**	*i* P	**P**	**07 11 42.0**	**+0.6**
	comp=Z,logA/T=1.3,mb5.2						
MOX	**Moxa**	**83.85**	**320**	*e*P	**P**	**07 11 42.0**	**+0.6**
	comp=Z,35nm,1.6s,mb5.2						
GRA1	**Grafenberg Arr**	**84.06**	**319**	*e*P	**P**	**07 11 43.3**	**+0.8**
	comp=Z,33nm,1.0s,mb5.4						
GRA1				*e*pP	pP	07 11 51.9	+0.8
GRF	**Grafenberg Arr**	**84.06**	**319**	*e*P	**P**	**07 11 43.3**	**+0.8**
GRF				*e**PP	pP	07 11 51.9	+0.8
GRF				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.4						
GRF	**Grafenberg Arr**	**84.06**	**319**	*e*P	**P**	**07 11 43.3**	**+0.8**
GRF				*e**PP	pP	07 11 51.9	+0.8
GRF				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.4						
GRF	**Grafenberg Arr**	**84.06**	**319**	*e*P	**P**	**07 11 43.3**	**+0.8**
	comp=Z,33nm,1.0s,mb5.4						
GRF				*e*pP	pP	07 11 51.9	+0.8
BRMO	**Bormio**	**84.52**	**316**	*e*P	**P**	**07 11 45.5**	**+0.6**
NSS	**Namsos**	**84.55**	**334**	*e*P	**P**	**07 11 45.2**	**+0.6**
NSS				*e*pP	pP	07 11 53.1	-0.1
NSS				AMb	AMB	07 11 55.1	
	comp=Z,71nm,1.7s,mb5.5						
NB2	**NORSAR Subarra**	**84.65**	**331**	P	**P**	**07 11 45.2**	**0.0**
	comp=Z,0.7nm,0.7s,baz=96,slow=5.6						
NB2	**NORSAR Subarra**	**84.65**	**331**	P	**P**	**07 11 45.2**	**0.0**
	baz=96,slow=5.9						
NB2	**NORSAR Subarra**	**84.65**	**331**	P	**P**	**07 11 45.2**	**0.0**
NB2				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NB2	**NORSAR Subarra**	**84.65**	**331**	P	**P**	**07 11 45.2**	**0.0**
	comp=Z,0.7nm,0.7s						
NOA	**NORSAR Array B**	**84.65**	**331**	P	**P**	**07 11 45.4**	**+0.2**
	comp=Z,7.8nm,0.9s,mb4.9,baz=94,slow=5.4,SNR=16						
NOA				pP	pP	07 11 53.9	+0.1
	comp=Z,4.7nm,0.7s,baz=95,slow=5.1,SNR=6.5						
NOA				LR	LR	07 54 42.7	
	comp=Z,426nm,18.0s,MS4.9,baz=65,slow=39						
NOA	**NORSAR Array B**	**84.65**	**331**	P	**P**	**07 11 45.4**	**+0.2**
NOA				pP	pP	07 11 53.9	+0.1
NOA				LR	LR	07 54 42.7	
CLZ	**Clausthal**	**84.68**	**322**	*e*P	**P**	**07 11 46.4**	**+0.9**
	comp=Z,23nm,1.0s,mb5.3						
BSEG	**Bad Segeberg**	**84.79**	**324**	*e*P	**P**	**07 11 47.0**	**+1.0**
URZ	**Urewera**	**85.21**	**129**	P	**P**	**07 11 48.4**	**-0.2**
	comp=Z,7.0nm,0.6s,mb5.0,baz=252,slow=3.2,SNR=4.1						
BFO	**Black Forest**	**85.94**	**318**	*e*P	**P**	**07 11 52.1**	**+0.2**
BFO				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.2						
BFO	**Black Forest**	**85.94**	**318**	*e*P	**P**	**07 11 52.1**	**+0.2**
	comp=Z,14nm,1.0s,mb5.2						
MOL	**Molde**	**86.44**	**332**	*e*P	**P**	**07 11 57.5**	**+3.4**
MOL				AMb	AMB	07 12 12.6	
	comp=Z,120nm,2.1s,mb5.8						
SBF	**Sospel**	**86.59**	**314**	*e*P	**P**	**07 11 54.4**	**-0.8**
	comp=Z,42nm,0.8s,mb5.4						
SBF	**Sospel**	**86.59**	**314**	*e*P	**P**	**07 11 54.4**	**-0.8**
SBF				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.4						
CDF	**Champ du Feu**	**86.64**	**318**	*e*P	**P**	**07 11 54.4**	**-0.9**
	comp=Z,9.5nm,0.8s,mb4.8						
CDF	**Champ du Feu**	**86.64**	**318**	*e*P	**P**	**07 11 54.4**	**-0.9**
CDF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
HINF	**Hinteralfeld**	**86.93**	**318**	*e*P	**P**	**07 11 55.6**	**-1.2**
LPG	**La Plagne**	**87.05**	**315**	*e*P	**P**	**07 11 57.0**	**-0.4**
	comp=Z,46nm,1.0s,mb5.4						
LPG	**La Plagne**	**87.05**	**315**	*e*P	**P**	**07 11 57.0**	**-0.4**
LPG				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.4						
LPL	**La Plagne**	**87.06**	**315**	*e*P	**P**	**07 11 57.1**	**-0.4**
	comp=Z,43nm,0.9s,mb5.4						
LPL	**La Plagne**	**87.06**	**315**	*e*P	**P**	**07 11 57.1**	**-0.4**
LPL				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.4						
FRF	**La Foret Royal**	**87.17**	**313**	*e*P	**P**	**07 11 57.5**	**-0.5**
HAU	**Haudompre**	**87.27**	**318**	*e*P	**P**	**07 11 57.5**	**-0.9**
	comp=Z,57nm,1.1s,mb5.4						
HAU				*e*R			
	comp=Z,440nm,21.0s						
HAU	**Haudompre**	**87.27**	**318**	*e*P	**P**	**07 11 57.5**	**-0.9**
HAU				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.4						
HAU				MLR	MLR		
	comp=Z,440nm,21.0s,MS4.8						
LMR	**La Mourre**	**87.27**	**313**	*e*P	**P**	**07 11 58.1**	**-0.4**
CABF	**La Chapelle**	**87.48**	**316**	*e*P	**P**	**07 11 59.1**	**-0.4**
	comp=Z,43nm,1.0s,mb5.3						
CABF	**La Chapelle**	**87.48**	**316**	*e*P	**P**	**07 11 59.1**	**-0.4**
CABF				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.3						
ORIF	**Oris-en-Rattie**	**87.68**	**315**	*e*P	**P**	**07 12 00.3**	**-0.2**
	comp=Z,26nm,1.1s,mb5.1						
ORIF				*e*R			
	comp=Z,545nm,17.5s						
VNDA	**Vanda**	**87.89**	**169**	P	**P**	**07 12 01.4**	**+0.6**
	comp=Z,16nm,1.3s,mb5.1,baz=294,slow=3.7,SNR=8.6						
VNDA	**Vanda**	**87.89**	**169**	*e*P	**P**	**07 12 01.0**	**+0.2**
VNDA				pmax	pmax		
	comp=Z,54nm,1.6s						
VNDA	**Vanda**	**87.89**	**169**	*e*P	**P**	**07 12 01.0**	**+0.2**
	comp=Z,54nm,1.6s,mb5.5						
SMRF	**Simiane la Rot**	**87.93**	**314**	*e*P	**P**	**07 12 01.7**	**0.0**
	comp=Z,55nm,1.1s,mb5.4						
MEZF	**Maizieres J'vi**	**88.11**	**318**	*e*P	**P**	**07 12 01.8**	**-0.6**
GIVF	**Givet**	**88.20**	**320**	*e*P	**P**	**07 12 02.3**	**-0.5**
VIVF	**Saint-Julien-l**	**88.54**	**315**	*e*P	**P**	**07 12 03.9**	**-0.7**
	comp=Z,38nm,1.1s,mb5.3						
VIVF	**Saint-Julien-l**	**88.54**	**315**	*e*P	**P**	**07 12 03.9**	**-0.7**
VIVF				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.3						
BAIF	**Baives**	**88.60**	**320**	*e*P	**P**	**07 12 04.6**	**-0.1**
	comp=Z,43nm,1.0s,mb5.5						
BAIF	**Baives**	**88.60**	**320**	*e*P	**P**	**07 12 04.6**	**-0.1**
BAIF				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.4						
SBA	**Scott Base**	**89.00**	**168**	*e*P	**P**	**07 12 08.1**	**+2.0**
SBA				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.6						
SBA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.3						
SBA	**Scott Base**	**89.00**	**168**	*e*P	**P**	**07 12 08.1**	**+2.0**
	comp=Z,42nm,1.2s,mb5.7						
SBA				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SMF	**Signal de Mont**	**89.03**	**316**	*e*P	**P**	**07 12 06.1**	**-0.8**
	comp=Z,30nm,1.0s,mb5.3						
SMF	**Signal de Mont**	**89.03**	**316**	*e*P	**P**	**07 12 06.1**	**-0.8**
SMF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.3						
LASF	**Ste Croix**	**89.16**	**314**	*e*P	**P**	**07 12 07.4**	**-0.2**
	comp=Z,74nm,1.3s,mb5.5						
SSF	**Saint Saulge**	**89.23**	**317**	*e*P	**P**	**07 12 07.4**	**-0.4**
BGF	**Bois d'Agland**	**89.72**	**316**	*e*P	**P**	**07 12 10.0**	**-0.1**
	comp=Z,50nm,1.2s,mb5.4						
BGF	**Bois d'Agland**	**89.72**	**316**	*e*P	**P**	**07 12 10.0**	**-0.1**
BGF				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.4						
CAF	**Calviac**	**90.38**	**315**	*e*P	**P**	**07 12 13.3**	**0.0**
	comp=Z,18nm,1.1s,mb5.0						
CAF	**Calviac**	**90.38**	**315**	*e*P	**P**	**07 12 13.3**	**0.0**
CAF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb5.0						
MTLF	**Montolieu**	**90.40**	**313**	*e*P	**P**	**07 12 13.1**	**-0.3**
	comp=Z,34nm,1.0s,mb5.3						
MTLF	**Montolieu**	**90.40**	**313**	*e*P	**P**	**07 12 13.1**	**-0.3**
MTLF				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.3						
RJF	**Les Rejaudoux**	**90.74**	**315**	*e*P	**P**	**07 12 15.1**	**+0.2**
RJF				*e*R			
	comp=Z,413nm,19.0s						
LFF	**La Frestale**	**91.32**	**315**	*e*P	**P**	**07 12 17.7**	**+0.2**
	comp=Z,59nm,1.2s,mb5.5						
LFF	**La Frestale**	**91.32**	**315**	*e*P	**P**	**07 12 17.7**	**+0.2**
LFF				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.5						
LDF	**La Druitiere**	**91.54**	**319**	*e*P	**P**	**07 12 18.2**	**-0.2**
	comp=Z,82nm,1.1s,mb5.7						
LDF	**La Druitiere**	**91.54**	**319**	*e*P	**P**	**07 12 18.2**	**-0.2**
LDF				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.7						
FLN	**La Foliniere**	**91.75**	**319**	*e*P	**P**	**07 12 19.2**	**-0.2**
	comp=Z,76nm,1.1s,mb5.7						
FLN				*e*R			
	comp=Z,524nm,19.2s						
FLN	**La Foliniere**	**91.75**	**319**	*e*P	**P**	**07 12 19.2**	**-0.2**
FLN				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.6						
FLN				MLR	MLR		
	comp=Z,520nm,19.3s,MS5.0						
MFF	**Saint Martin d**	**91.77**	**317**	*e*P	**P**	**07 12 19.4**	**-0.2**
	comp=Z,36nm,1.1s,mb5.3						
MFF	**Saint Martin d**	**91.77**	**317**	*e*P	**P**	**07 12 19.4**	**-0.2**
MFF				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.3						
GRR	**Gorron**	**92.05**	**318**	*e*P	**P**	**07 12 20.7**	**-0.1**
	comp=Z,135nm,1.4s,mb5.8						
GRR	**Gorron**	**92.05**	**318**	*e*P	**P**	**07 12 20.7**	**-0.1**
GRR				pmax	pmax		
	comp=Z,68nm,1.4s,mb5.8						
ETSF	**Etsaut**	**92.46**	**313**	*e*P	**P**	**07 12 22.4**	**-0.5**
	comp=Z,34nm,1.0s,mb5.3						
ETSF	**Etsaut**	**92.46**	**313**	*e*P	**P**	**07 12 22.4**	**-0.5**
ETSF				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.3						

QSPA	**South Pole Qui**	**92.92**	**180**	⇓*i*P	**P**	**07 12 25.7**	**+1.5**
	comp=Z,24nm,1.2s,mb5.5						
SJPF	**Ste Jean**	**92.92**	**313**	*e*P	**P**	**07 12 25.4**	**+0.4**
	comp=Z,50nm,1.1s,mb5.6						
SJPF	**Ste Jean**	**92.92**	**313**	*e*P	**P**	**07 12 25.4**	**+0.4**
SJPF				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.6						
SGMF	**Saint Gilles**	**93.19**	**318**	*e*P	**P**	**07 12 25.8**	**-0.3**
ESDC	**Sonseca Array**	**95.42**	**310**	P	**P**	**07 12 36.2**	**-0.3**
	comp=Z,1.9nm,0.7s,mb4.6,baz=65,slow=4.2,SNR=7.4						
SNAA	**Sanae**	**95.47**	**198**	*e*	**P**	**07 12 40.8**	**+4.8**
SNAA	**Sanae**	**95.47**	**198**	*e*		07 17 09.2	
SNAA	**Sanae**	**95.47**	**198**	P	**P**	**07 12 36.0**	**0.0**
	comp=Z,1.7nm,1.1s,mb4.4,baz=56,slow=3.3,SNR=4.8						
SNAA				LR	LR	07 52 49.8	
	comp=Z,145nm,18.1s,MS4.5,baz=98,slow=34						
SNAA	**Sanae**	**95.47**	**198**	⇑*i*P	**P**	**07 12 37.8**	**+1.8**
SNAA				*e*		07 16 29.9	
SNAA	**Sanae**	**95.47**	**198**	⇑*i*P	**P**	**07 12 37.8**	**+1.8**
	comp=Z,0.2nm,1.3s						
SNAA				*e*		07 12 40.8	
SNAA				*e*		07 16 29.9	
SNAA				*e*		07 17 09.2	
VNA2	**Neumayer--Watz**	**97.03**	**199**	*e*	**P**	**07 12 50.0**	**+6.9**
VNA2	**Neumayer--Watz**	**97.03**	**199**	*e*		07 17 18.3	
VNA2	**Neumayer--Watz**	**97.03**	**199**	⇑*i*P	**P**	**07 12 46.6**	**+3.5**
VNA2				*e*		07 12 50.0	
VNA2				*e*		07 16 39.1	
VNA2				*e*		07 17 18.3	
VNA1	**Neumayer--Stat**	**97.37**	**199**	*e*	**P**	**07 12 50.2**	**+5.5**
VNA1	**Neumayer--Stat**	**97.37**	**199**	*e*		07 17 18.3	
VNA1	**Neumayer--Stat**	**97.37**	**199**	⇑*i*P	**P**	**07 12 46.3**	**+1.6**
VNA1				*e*		07 12 50.2	
VNA1				*e*		07 16 39.2	
VNA1				*e*		07 17 18.3	
VNA3	**Neumayer Olymp**	**97.69**	**198**	*e*	**P**	**07 12 51.9**	**+5.8**
VNA3	**Neumayer Olymp**	**97.69**	**198**	*e*		07 17 20.6	
VNA3	**Neumayer Olymp**	**97.69**	**198**	⇑*i*P	**P**	**07 12 48.9**	**+2.8**
VNA3				*e*		07 12 51.9	
VNA3				*e*		07 16 41.1	
VNA3				*e*		07 17 20.6	
ILAR	**Eielson Array**	**98.70**	**23**	PP	PP	07 16 42.4	-12
	comp=Z,0.8nm,0.8s,baz=294,slow=7.0,SNR=4.3						
ILAR				PKKPbc		07 29 18.9	
	comp=Z,0.9nm,0.8s,baz=142,slow=2.1,SNR=6.0						
ILAR				LR	LR	08 05 18.4	
	comp=Z,752nm,19.2s,MS5.2,baz=70,slow=40						
EVO	**Evora**	**98.72**	**310**	*e*P	**P**	**07 12 52.9**	**+1.4**
	comp=Z,146nm,1.8s,mb5.9						
EVO				*e*R			
	comp=Z,532nm,21.2s						
DBIC	**Dimbokro**	**99.97**	**277**	LR	LR	07 55 12.9	
	comp=Z,667nm,20.5s,MS5.1,baz=65,slow=34						
INK	**Inuvik**	**101.25**	**17**	P	P	07 13 03.1	+0.9
	comp=Z,1.1nm,0.9s,baz=305,slow=5.6,SNR=4.1						
INK				PP	PP	07 17 08.5	-5.7
	comp=Z,3.0nm,1.1s,baz=229,slow=6.2,SNR=3.4						
YKA	**Yellowknife Ar**	**110.80**	**14**	PKiKP		07 17 44.3	
	comp=Z,0.3nm,0.9s,baz=320,slow=2.7,SNR=5.6						
YKA				PP	PP	07 18 20.7	-4.4
	comp=Z,1.0nm,0.9s,baz=337,slow=7.6,SNR=3.8						
YKA				PKKPbc		07 28 42.5	
	comp=Z,0.6nm,0.7s,baz=143,slow=3.5,SNR=16						
YKA	**Yellowknife Ar**	**110.80**	**14**	PKPdf	PKPdf	07 17 44.3	-3.5
YKA				PP	PP	07 18 20.8	-4.4
YKA				PKKPbc		07 28 42.5	
TBI	**Tubuai**	**114.09**	**114**	*e*PS	PS	07 28 21.6	-0.8
TBI				*e*LR	LR	07 52 07.2	
	comp=Z,628nm,26.8s						
PPT	**Papeete**	**114.60**	**108**	PKP	PKPdf	07 17 54.1	-2.2
	comp=Z,53nm,0.7s,baz=113,slow=7.4,SNR=3.9						
PPT	**Papeete**	**114.60**	**108**	*e*PS	PS	07 28 26.1	-1.4
PPT				*e*LR	LR	07 52 21.8	
	comp=Z,632nm,26.5s						
ULM	**Lac du Bonnet**	**126.07**	**9**	PKP	PKPdf	07 18 14.9	-2.8
	comp=Z,7.9nm,0.8s,baz=336,slow=2.0,SNR=18						
ULM				pPKP		07 18 23.9	
	comp=Z,5.4nm,0.7s,baz=313,slow=2.7,SNR=6.9						
ULM	**Lac du Bonnet**	**126.07**	**9**	*e*PKPdf	PKPdf	07 18 14.6	-3.1
ULM				*e*		07 18 23.8	
ULM				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
RKT	**Rikitea**	**127.21**	**117**	*e*LR	LR	07 58 12.1	
	comp=Z,391nm,28.8s						
WUWY	**Wally Ulrich**	**127.99**	**24**	*e*PKPdf	Pdif	07 15 01.0	+0.4
SNOW	**Snow King Moun**	**128.05**	**24**	*e*PKPdf	PKPdf	07 18 19.1	-2.7
SNOW				*e*		07 18 27.7	
ELK	**Elko**	**128.18**	**30**	*e*PKIKP	PKPdf	07 18 20.0	-2.1
ELK				*e*		07 18 29.0	
ELK				MLR	MLR		
	comp=Z,657nm,19.0s						
NVAR	**Mina Array Bea**	**128.27**	**34**	PKP	PKPdf	07 18 20.9	-1.4
	comp=Z,3.5nm,0.8s,baz=274,slow=1.5,SNR=13						
NVAR				pPKP		07 18 29.4	
	comp=Z,2.9nm,0.8s,baz=282,slow=0.7,SNR=6.6						
NVAR	**Mina Array Bea**	**128.27**	**34**	PKP	PKPdf	07 18 20.9	-1.4
NVAR				pPKP		07 18 29.4	
MNV	**Mina**	**128.35**	**34**	*e*PKIKP	PKPdf	07 18 20.0	-2.5
MNV				*e*		07 18 29.2	
MNV				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.5						
PDAR	**Pinedale Array**	**129.12**	**24**	PKP	PKPdf	07 18 20.0	-3.8
	comp=Z,2.3nm,1.0s,slow=3.0,SNR=10						
PDAR				pPKP		07 18 29.8	
	comp=Z,1.4nm,0.6s,baz=116,slow=2.1,SNR=8.3						
MSU	**Marysvale**	**131.41**	**29**	*e*PKIKP	PKPdf	07 18 26.3	-2.0
NEN	**Nelson**	**132.19**	**34**	*e*PKPdf	PKPdf	07 18 27.0	-2.9
NEN				*e*		07 18 36.1	
PV10	**Paradox Valley**	**132.98**	**27**	*e*PKPdf	PKPdf	07 18 28.9	-2.4
TUC	**Tucson**	**136.91**	**33**	*e*PKIKP	PKPdf	07 18 35.0	-3.6
MIAR	**Mount Ida**	**141.69**	**12**	*e*PKIKP	PKPdf	07 18 38.8	-8.5
BAO	**Brasilia Array**	**141.97**	**248**	PKP	PKPdf	07 18 45.7	-2.6
BDFB	**Brasilia**	**142.00**	**248**	PKP	PKPdf	07 18 43.6	-4.7
	comp=Z,7.4nm,0.9s,baz=64,slow=3.7,SNR=9.3						
TXAR	**Lajitas Array**	**142.96**	**28**	PKP	PKPdf	07 18 44.9	-4.8
	comp=Z,2.6nm,0.8s,baz=293,slow=0.7,SNR=11						
TXAR				PP	PP	07 21 55.7	-2.6
	comp=Z,1.8nm,1.1s,baz=309,slow=5.8,SNR=4.2						
TXAR	**Lajitas Array**	**142.96**	**28**	PKP	PKPdf	07 18 44.9	-4.8
TXAR				PP	PP	07 21 55.7	-2.6
JCT	**Junction City**	**143.63**	**23**	*e*PKIKP	PKPdf	07 18 44.2	-6.5
NATX	**Nacogdoches**	**144.10**	**15**	*e*PKPdf	PKPdf	07 18 46.8	-4.7
NATX				*e*		07 18 55.3	
HKT	**Hockley**	**145.48**	**18**	*e*PKIKP	PKPdf	07 18 51.4	-2.6
LVC	**Limon Verde**	**155.35**	**216**	*e*PKPdf	PKPdf	07 19 07.2	-1.9
LVC				*e*PKPbc	PKPdf	07 19 16.2	+7.1
LVC				*e*		07 19 25.0	
LVC				*e*PKPab	PKPab	07 19 32.6	+0.5
LPAZ	**La Paz**	**159.21**	**229**	PKP	PKPdf	07 19 12.2	-2.0
	comp=Z,3.0nm,0.7s,baz=98,slow=2.8,SNR=12						
LPAZ				pPKP		07 19 21.5	
	comp=Z,2.6nm,0.7s,baz=225,slow=3.8,SNR=6.6						
LPAZ				PKPab	PKPab	07 19 49.8	+0.9
	comp=Z,7.4nm,0.8s,baz=82,slow=4.5,SNR=8.6						
LPAZ	**La Paz**	**159.21**	**229**	PKIKP	PKPdf	07 19 12.3	-1.9
LPAZ						07 19 21.5	
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,7.0nm,0.8s						
LPAZ	**La Paz**	**159.21**	**229**	*e*PKPdf	PKPdf	07 19 11.8	-2.4
LPAZ				*e*		07 19 21.0	
ROSC	**El Rosal**	**167.24**	**308**	PKP	PKPdf	07 19 18.9	-3.1
	comp=Z,5.4nm,0.9s,baz=97,slow=10,SNR=6.0						

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*IDC **27** 07:05:01.0±1.6,29.03S×176.86W,mb4.3/3,mb1 4.3/4, mb1mx4.1/14,ML3.5/1,Error ellipse: s-maj=52.2km s-min=27.8km az=137.0*

NEIC 27 07:05:10.8±2.1,**29.29S**×**177.04W**,**h76**^{km}±14^{km},**mb4.6**/1, **1C-2D,Error ellipse: s-maj=28.5km s-min=25.6km az=95.0,Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAO	**Raoul Island**	**0.77**	**273**	⇓*e*P	**P**	**07 05 26.8**	**-0.3**
RAO				*e*S	**S**	**07 05 38.2**	**-1.0**
URZ	**Urewera**	**10.18**	**207**	Pn	P	07 07 34.0	-2.0
	0.4nm,0.3s,baz=155,slow=20,SNR=4.3						
URZ				Sn	S	07 09 29.8	+0.5
	2.6nm,0.3s,baz=323,slow=24,SNR=15						
BFZ	**Birch Farm**	**12.62**	**204**	S	S	07 10 24.0	-3.9
MRZ	**Mangatainoka R**	**12.85**	**206**	S	S	07 10 28.6	-4.8
KIW	**Kapiti Island**	**13.29**	**208**	*e*S	S	07 10 38.1	-5.6
NNZ	**Nelson**	**14.23**	**211**	*e*P	P	07 08 31.6	+1.9
THZ	**Tophouse**	**14.88**	**211**	*e*P	P	07 08 38.9	+0.8
CTA	**Charters Tower**	**34.47**	**277**	P	P	07 11 52.4	-0.9
	3.4nm,0.8s,baz=101,slow=13,SNR=3.6						
CTAO	**Charters Tower**	**34.47**	**277**	*e*P	P	07 11 51.9	-1.4
STKA	**Stephens Creek**	**35.55**	**255**	P	P	07 12 02.5	0.0
	8.6nm,1.2s,baz=84,slow=9.2,SNR=2.9						
STKA	**Stephens Creek**	**35.55**	**255**	*e*P	P	07 12 01.7	-0.8
ASAR	**Alice Springs**	**44.02**	**265**	P	P	07 13 11.2	-1.4
	1.7nm,0.5s,baz=100,slow=6.6,SNR=20						
WRAB	**Tennant Creek**	**44.90**	**271**	*e*P	P	07 13 15.5	-4.2
	9.2nm,0.9s						
QSPA	**South Pole Qui**	**60.82**	**180**	⇓*i*P	P	07 15 28.3	+12
ARCES	**ARCESS Array B**	**137.68**	**348**	PKP	PKPdf	07 24 24.2	-1.2
	0.9nm,0.6s,baz=63,slow=2.0,SNR=4.2						
FINES	**FINESS Array B**	**144.38**	**341**	PKP	PKPdf	07 24 36.5	-0.8
	4.2nm,1.0s,baz=64,slow=5.3,SNR=9.4						
FINES	**FINESS Array B**	**144.38**	**341**	PKP	PKPdf	07 24 36.5	-0.8
NB2	**NORSAR Subarra**	**147.77**	**352**	PKP	PKPdf	07 24 47.0	+3.9
	1.3nm,0.6s,baz=15,slow=2.9						
NB2	**NORSAR Subarra**	**147.77**	**352**	⇑PKPab	PKPdf	07 24 47.0	+3.9
NOA	**NORSAR Array B**	**147.77**	**352**	PKPbc	PKPdf	07 24 47.3	+4.2
	2.0nm,0.6s,baz=16,slow=4.5,SNR=5.9						
HFS	**Hagfors**	**148.31**	**350**	PKPbc	PKPdf	07 24 48.5	+4.5
	3.9nm,0.7s,baz=63,slow=3.3,SNR=7.8						
AKASG	**Malin Array Be**	**150.90**	**325**	PKPbc	PKPdf	07 24 52.5	+4.2
	1.6nm,0.3s,baz=44,slow=3.3,SNR=5.4						

IDC 27 07:08:15.3±8.8,**9.19N**×**93.86E,mb4.1**/7,**mb1 4.2**/7, **mb1mx4.0**/18,**Error ellipse: s-maj=263.0km s-min=76.8km az=3.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VIS	**Vishakhapatnam**	**13.30**	**311**	*e*	S	07 13 48.1	-10
	comp=E,13nm,0.9s						
VIS				*e*		07 13 48.7	
	comp=N,13nm,0.7s						
PKI	**Pulchoki**	**19.95**	**338**	*e*P	P	07 12 52.5	+0.5
GUN	**Gumba**	**20.09**	**339**	*e*P	P	07 12 52.0	-1.4
	comp=N,22nm,0.7s						
DMN	**Daman**	**20.10**	**337**	*e*P	P	07 12 55.8	+2.2
KKN	**Kakani**	**20.20**	**337**	*e*P	P	07 12 55.3	+0.7
GKN	**Gorkha**	**20.64**	**336**	*e*P	P	07 12 57.9	-1.3
	comp=N,14nm,0.5s						
KOLN	**Koldanda**	**20.87**	**334**	*e*P	P	07 13 00.5	-1.0
	comp=N,17nm,0.8s						
AKASG	**Malin Array Be**	**66.96**	**321**	P	P	07 19 10.3	-1.6
	comp=N,0.2nm,0.3s,baz=79,slow=4.7,SNR=4.1						
FINES	**FINESS Array B**	**71.43**	**332**	P	P	07 19 36.5	-2.8
	comp=N,3.3nm,1.0s,baz=100,slow=8.5,SNR=4.3						
ARCES	**ARCESS Array B**	**73.95**	**340**	P	P	07 19 52.2	-1.7
	comp=N,3.3nm,1.0s,baz=99,slow=6.9,SNR=9.7						
GERES	**GERESS Array B**	**76.67**	**318**	P	P	07 20 07.9	-2.0
	comp=N,0.7nm,0.6s,baz=76,slow=5.5,SNR=7.0						
HFS	**Hagfors**	**77.19**	**330**	P	P	07 20 10.3	-2.2
	comp=N,5.9nm,1.2s,baz=90,slow=5.9,SNR=4.6						
NOA	**NORSAR Array B**	**78.46**	**330**	P	P	07 20 20.0	+0.5
	comp=N,0.9nm,0.8s,baz=107,slow=7.5,SNR=3.7						
ILAR	**Eielson Array**	**93.64**	**22**	P	P	07 21 33.4	-1.1
	comp=N,0.3nm,0.8s,baz=311,slow=4.3,SNR=4.9						

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*IDC **27** 07:10:48.3±4.1,7.34S×128.78E,h78^{km}±38^{km},mb4.0/6, mb1 4.2/8,mb1mx4.1/14,ML4.2/3,Error ellipse: s-maj=36.5km s-min=13.6km az=52.0*

*NEIC **27** 07:10:50.1±3.7,7.26S×129.03E,h92^{km}±37^{km},mb4.1/5, Error ellipse: s-maj=21.8km s-min=18.7km az=195.0*

ISC 27 07:10:47.2±4.1,**7.3S**±0.1×**128.9E**±0.2,**h83**^{km}±40^{km},**n18,** σ**1**^{s}**02**/22,**mb4.1**/9,**1D,Banda Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRAB	**Tennant Creek**	**13.65**	**158**	⇓*e*Pn	**P**	**07 13 57.6**	**-0.9**
	58nm,0.5s						
WRAB				*e*Sn	**S**	**07 16 19.1**	**-9.4**
WRA	**Warramunga Arr**	**13.65**	**158**	P	**P**	**07 13 57.4**	**-1.1**
	1.2nm,0.3s,baz=340,slow=12,SNR=15						
WRA				S	**S**	**07 16 20.1**	**-8.4**
	24nm,0.3s,baz=335,slow=22,SNR=13						
MBWA	**Marble Bar**	**16.42**	**212**	*e*P	**P**	**07 14 38.2**	**+4.3**
	8.8nm,0.5s						
ASAR	**Alice Springs**	**16.99**	**164**	P	**P**	**07 14 42.5**	**+1.5**
	8.6nm,0.3s,baz=340,slow=9.0,SNR=112						
ASAR				S	**S**	**07 17 35.5**	**-10**
	1.8nm,0.3s,baz=340,slow=13,SNR=4.1						
PMG	**Port Moresby**	**18.17**	**98**	P	**P**	**07 14 56.5**	**+0.9**
	0.7nm,0.3s,baz=281,slow=17,SNR=8.4						
PMG	**Port Moresby**	**18.17**	**98**	*e*P	**P**	**07 14 56.7**	**+1.1**
CTA	**Charters Tower**	**21.09**	**129**	P	**P**	**07 15 27.2**	**+0.4**
	18nm,0.9s,mb4.4,baz=307,slow=13,SNR=14						
CTA				S	**S**	**07 19 19.3**	**+7.7**
	7.3nm,1.0s,baz=230,slow=22,SNR=2.5						
CTAO	**Charters Tower**	**21.09**	**129**	*e*P	**P**	**07 15 26.8**	**0.0**
STKA	**Stephens Creek**	**27.19**	**156**	P	**P**	**07 16 24.4**	**-0.7**
	16nm,0.6s,mb4.7,baz=327,slow=8.2,SNR=31						
STKA	**Stephens Creek**	**27.19**	**156**	*e*P	**P**	**07 16 24.3**	**-0.9**
NWAO	**Narrogin (SRO)**	**27.74**	**201**	*e*P	**P**	**07 16 31.7**	**+1.5**
	2.0nm,0.4s,mb4.0						
SONM	**Songino Array**	**58.36**	**342**	P	**P**	**07 20 35.3**	**-0.8**
	0.9nm,0.9s,mb3.8,baz=156,slow=6.4,SNR=4.5						
AAK	**Ala-Archa**	**70.06**	**320**	*e*P	**P**	**07 21 51.9**	**-0.4**
	14nm,1.2s,mb4.7						
ZAL	**Zalesovo**	**71.35**	**334**	P	**P**	**07 21 58.9**	**-1.0**
	1.3nm,0.6s,mb3.9,baz=280,slow=3.2,SNR=5.1						
VNDA	**Vanda**	**72.31**	**173**	P	**P**	**07 22 04.6**	**-0.7**
	1.4nm,0.5s,mb4.1,baz=330,slow=6.3,SNR=14						
VNDA	**Vanda**	**72.31**	**173**	*e*P	**P**	**07 22 04.0**	**-1.3**
	1.3nm,0.5s,mb4.0						
BVAR	**Borovoye Array**	**77.72**	**328**	P	**P**	**07 22 37.7**	**+1.2**
	1.1nm,0.5s,mb3.9,baz=134,slow=11,SNR=7.5						
CHKZ	**Chkalovo**	**77.93**	**329**	P	**P**	**07 22 38.4**	**+0.7**
	2.3nm,0.9s,mb3.9						

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*MOS **27** 07:15:03.1±1.1,11.36N×92.09E,h33^{km},mb4.9/14,Error ellipse: s-maj=13.9km s-min=7.6km az=120.0*

*IDC **27** 07:15:05.3±0.9,11.45N×92.22E,h36^{km}±5^{km},mb4.2/22, mb1 4.3/23,mb1mx4.3/27,ML4.2/1,Error ellipse: s-maj=25.0km s-min=14.1km az=39.0*

*NEIC **27** 07:15:05.0±0.4,11.35N×92.11E,mb4.7/12,Error ellipse: s-maj=11.0km s-min=8.1km az=180.0*

*BJI **27** 07:15:12.7,12.38N×91.79E,h34^{km},mB5.1,mb4.7*

ISC 27 07:15:03.4±0.5,**11.43N**±0.07×**92.12E**±0.05,**h35**^{km}, **h35**^{km}±3.7^{km}**:pP-P,n95,**σ**1**^{s}**05**/89,**mb4.5**/40,**1C-1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**9.61**	**43**	*e*Pn	**P**	**07 17 22.1**	**-0.4**
	9.4nm,0.6s						
CM31				*e*pPn		07 17 27.9	
CMAR	**Chiang Mai Arr**	**9.61**	**43**	Pn	**P**	**07 17 24.6**	**+2.2**
	0.6nm,0.3s,baz=232,slow=15,SNR=10						
CMAR				Sn	**S**	**07 19 02.3**	**-8.0**
	0.5nm,0.3s,baz=340,slow=42,SNR=2.6						
IMP	**Imphal**	**13.39**	**7**	*e*P	**P**	**07 18 14.1**	**+0.5**
SHL	**Shillong**	**14.06**	**359**	*e*P	**P**	**07 18 20.0**	**-2.4**
	12nm,0.5s						
SHL				*e*S	**S**	**07 20 44.0**	**-14**
HYB	**Hyderabad**	**14.42**	**296**	*e*P	**P**	**07 18 26.0**	**-1.2**
HYB	**Hyderabad**	**14.42**	**296**	*i* P	**P**	**07 18 26.0**	**-1.2**
LATR	**Latur**	**16.55**	**297**	*e*	**S**	**07 21 43.5**	**-13**
PKI	**Pulchoki**	**17.25**	**340**	*e*P	**P**	**07 19 02.9**	**-0.4**
	90nm,1.1s						
DMN	**Daman**	**17.39**	**339**	*e*P	**P**	**07 19 03.8**	**-1.3**
	59nm,0.8s						
GUN	**Gumba**	**17.41**	**341**	*e*P	**P**	**07 19 01.3**	**-4.0**
	56nm,0.9s						
KKN	**Kakani**	**17.49**	**339**	*e*P	**P**	**07 19 04.5**	**-1.9**
	26nm,0.7s						
GKN	**Gorkha**	**17.92**	**338**	*e*P	**P**	**07 19 09.4**	**-2.2**
	45nm,0.5s						
KOLN	**Koldanda**	**18.11**	**335**	*e*P	**P**	**07 19 14.8**	**+0.7**
	60nm,0.9s						
LSA	**Lhasa**	**18.20**	**357**	*e*P	**P**	**07 19 17.1**	**+1.9**
LSA				pmax	pmax		
	comp=Z,6.0nm,0.5s						
LSA	**Lhasa**	**18.20**	**357**	*e*P	**P**	**07 19 17.1**	**+1.8**
	comp=Z,5.5nm,0.5s						
POO	**Poona**	**19.00**	**294**	*e*	**P**	**07 19 23.0**	**-2.0**
GYA	**Guiyang**	**20.29**	**41**	⇑*i*P	**P**	**07 19 38.3**	**-0.7**
GYA				AMB	AMB		
	comp=Z,20nm,0.6s						
NDI	**New Delhi**	**22.11**	**323**	*e*P	**P**	**07 19 56.5**	**-0.9**
CD2	**Chengdu**	**22.18**	**27**	P	**P**	**07 20 04.3**	**+6.2**
CD2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.0						
DDI	**Dehra Dun**	**22.89**	**327**	*e*P	**P**	**07 20 07.2**	**+2.0**
DDI				*e*	**S**	**07 24 26.1**	**+18**
ENH	**Enshi**	**24.73**	**38**	*e*P	**P**	**07 20 22.4**	**-0.7**
	comp=Z,10nm,0.5s,mb4.6						
ENH				*e*pP		07 20 30.2	
XAN	**Xi'an**	**27.24**	**32**	P	**P**	**07 20 48.0**	**+1.5**
XAN				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.2						
GTA	**Gaotai**	**28.69**	**12**	*e*P	**P**	**07 21 00.5**	**+1.0**
GTA				AP	pP	07 21 06.8	-2.5
GTA				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.4						
KSH	**Kashi**	**31.43**	**336**	P	**P**	**07 21 24.3**	**+0.5**
KSH				*e*AP	pP	07 21 32.8	-0.9
KSH				*e*XP	sP	07 21 37.0	-1.3
KSH				AMB	AMB		
	comp=Z,170nm,5.3s						
WMQ	**Urumqi**	**32.50**	**354**	*e*P	**P**	**07 21 33.3**	**+0.2**
HHC	**Hu-ho-hao-te**	**33.94**	**27**	*e*P	**P**	**07 21 52.3**	**+6.7**
HHC				AP	pP	07 21 57.5	+1.9
HHC				XP	sP	07 22 03.5	+3.4
HHC				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
HHC				AMB	AMB		
	comp=Z,592nm,12.7s						
BJT	**Baijiatuau**	**35.54**	**33**	P	**P**	**07 21 59.5**	**+0.2**
BJT				pmax	pmax		
	comp=Z,16nm,1.0s						
BJT	**Baijiatuau**	**35.54**	**33**	P	**P**	**07 21 59.5**	**+0.2**
	comp=Z,16nm,1.0s,mb4.9						
BJI	**Beijing**	**35.56**	**33**	P	**P**	**07 22 04.5**	**+5.0**
BJI				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.7						
MKAR	**Makanchi Array**	**36.22**	**349**	*i* P	**P**	**07 22 04.9**	**0.0**
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
SONM	**Songino Array**	**38.22**	**16**	P	**P**	**07 22 22.2**	**+0.5**
	comp=Z,2.0nm,0.7s,mb4.0,baz=196,slow=9.0,SNR=9.4						
ULN	**Ulaanbaatar**	**38.42**	**16**	*e*P	**P**	**07 22 23.4**	**0.0**
ULN				*e**PP	pP	07 22 32.5	-1.0
ULN				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
ULN	**Ulaanbaatar**	**38.42**	**16**	*e*P	**P**	**07 22 23.4**	**0.0**
	comp=Z,6.2nm,1.0s,mb4.3						
ULN				*e*pP	pP	07 22 32.5	-1.0
ZAL	**Zalesovo**	**42.80**	**354**	P	**P**	**07 22 58.6**	**-0.9**
	comp=Z,4.5nm,0.6s,mb4.4,baz=294,slow=6.1,SNR=16						
CN2	**Changchun**	**43.20**	**36**	*e*P	**P**	**07 23 03.5**	**+0.6**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
BVAR	**Borovoye Array**	**45.00**	**342**	P	**P**	**07 23 17.0**	**-0.2**
	comp=Z,1.6nm,0.6s,mb4.0,baz=141,slow=9.5,SNR=7.7						
BRVK	**Borovoye**	**45.06**	**342**	*e*P	**P**	**07 23 17.2**	**-0.5**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.2						
BRVK	**Borovoye**	**45.06**	**342**	*e*P	**P**	**07 23 17.2**	**-0.5**
	comp=Z,3.2nm,0.7s,mb4.3						
CHKZ	**Chkalovo**	**45.49**	**342**	*e*P	**P**	**07 23 21.4**	**+0.2**
CHKZ				*e**SP	sP	07 23 33.4	-2.3
CHKZ				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
CHKZ	**Chkalovo**	**45.49**	**342**	*e*P	**P**	**07 23 21.4**	**+0.2**
	comp=Z,14nm,0.9s,mb4.8						
CHKZ				*e*sP	sP	07 23 33.4	-2.3
BOD	**Bodaibo**	**49.22**	**15**	*i* P	**P**	**07 23 48.4**	**-1.8**
GNI	**Garni**	**50.55**	**313**	P	**P**	**07 24 01.8**	**+1.1**
	comp=Z,4.7nm,0.6s,mb4.6,baz=333,slow=13,SNR=5.5						
WRA	**Warramunga Arr**	**51.95**	**127**	P	**P**	**07 24 09.9**	**-1.6**
	comp=Z,6.1nm,0.5s,mb4.8,baz=306,slow=8.3,SNR=17						
ZEI	**Tsey**	**52.10**	**316**	*e*P	**P**	**07 24 14.1**	**+1.8**
ZEI				*i* *PP	pP	07 24 27.3	+4.6
ZEI				*i*		07 26 13.0	
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
KIV	**Kislovodsk**	**53.37**	**317**	*e*P	**P**	**07 24 22.4**	**+0.6**
KIV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
KIV	**Kislovodsk**	**53.37**	**317**	*e*P	**P**	**07 24 22.4**	**+0.6**
	comp=Z,8.5nm,0.6s,mb4.8						
ASAR	**Alice Springs**	**53.72**	**131**	P	**P**	**07 24 23.4**	**-1.3**
	comp=Z,3.8nm,0.9s,mb4.3,baz=320,slow=5.1,SNR=7.2						
ASF	**Jabal al Asfar**	**54.65**	**301**	P	**P**	**07 24 31.3**	**0.0**
	comp=Z,3.7nm,1.0s,mb4.4,baz=90,slow=5.1,SNR=3.5						
MALT	**Malatya**	**54.67**	**309**	*e*P	**P**	**07 24 31.7**	**+0.2**
MALT				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.7						
MALT	**Malatya**	**54.67**	**309**	*e*P	**P**	**07 24 31.7**	**+0.2**
	comp=Z,9.2nm,1.2s,mb4.7						
KMBO	**Kilima Mbogo**	**55.92**	**261**	P	**P**	**07 24 42.3**	**+1.5**
	comp=Z,0.6nm,0.6s,mb3.8,baz=222,slow=22,SNR=3.8						
EIL	**Elat**	**55.97**	**298**	P	**P**	**07 24 41.7**	**+0.7**
	comp=Z,6.9nm,0.7s,mb4.8,baz=41,slow=0.2,SNR=5.7						
EIL	**Elat**	**55.97**	**298**	P	**P**	**07 24 41.7**	**+0.7**
PMG	**Port Moresby**	**58.51**	**108**	P	**P**	**07 24 58.1**	**-1.1**
	comp=Z,4.2nm,0.6s,mb4.7,baz=306,slow=8.7,SNR=3.5						
BRTR	**Keskin Array B**	**58.62**	**310**	P	**P**	**07 24 58.5**	**-1.0**
	comp=Z,3.9nm,0.7s,mb4.6,baz=127,slow=8.0,SNR=19						
BRTR				pP	pP	07 25 09.7	-0.4
	comp=Z,3.0nm,0.9s,baz=119,slow=7.1,SNR=6.1						
OBN	**Obninsk**	**61.33**	**327**	*de*P	**P**	**07 25 16.6**	**-1.3**
OBN				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.1						
AKASG	**Malin Array Be**	**64.15**	**321**	P	**P**	**07 25 35.7**	**-0.9**
	comp=Z,2.7nm,0.6s,mb4.5,baz=88,slow=4.8,SNR=6.6						
AKASG				pP	pP	07 25 46.8	-0.5
	comp=Z,3.9nm,0.9s,baz=88,slow=5.1,SNR=2.7						
AKASG	**Malin Array Be**	**64.15**	**321**	P	**P**	**07 25 35.7**	**-0.9**
AKASG				*PP	pP	07 25 46.8	-0.4
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.9s						
IDI	**Anoyia**	**64.93**	**304**	P	**P**	**07 25 41.5**	**-0.5**
	comp=Z,7.8nm,0.9s,mb4.7,baz=86,slow=14,SNR=3.3						
MLR	**Muntele Rosu**	**65.26**	**315**	P	**P**	**07 25 44.6**	**+0.7**
	comp=Z,7.7nm,0.8s,mb4.8,baz=130,slow=3.8,SNR=9.9						
FINES	**FINESS Array B**	**68.65**	**332**	P	**P**	**07 26 05.0**	**-0.1**
	comp=Z,5.3nm,0.6s,mb4.7,baz=104,slow=8.3,SNR=17						
CRVS	**Cervenica-Dubn**	**68.76**	**318**	*e*P	**P**	**07 26 08.7**	**+2.8**
OJC	**Ojcow**	**69.99**	**319**	*e*P	**P**	**07 26 12.1**	**-1.3**
VYHS	**Vyhne**	**70.45**	**317**	*e*P	**P**	**07 26 15.9**	**-0.3**
ARCES	**ARCESS Array B**	**71.26**	**340**	P	**P**	**07 26 21.4**	**+0.5**
	comp=Z,7.7nm,0.7s,mb4.7,baz=91,slow=5.3,SNR=27						
BRG	**Berggiesshubel**	**73.76**	**320**	*i* P	**P**	**07 26 36.6**	**+0.7**
BRG				*i*	pP	07 26 48.8	+2.2
BRG				pmax	pmax		
	comp=Z,27nm,1.8s,mb4.9						
BRG	**Berggiesshubel**	**73.76**	**320**	*i* P	**P**	**07 26 36.6**	**+0.7**
	comp=Z,27nm,1.8s,mb4.9						
BRG				*i*	pP	07 26 48.8	+2.2
GEC2	**GERESS Array S**	**73.87**	**318**	*e*P	**P**	**07 26 37.0**	**+0.5**
GERES	**GERESS Array B**	**73.87**	**318**	P	**P**	**07 26 37.0**	**+0.5**
	comp=Z,2.8nm,0.7s,mb4.3,baz=86,slow=5.6,SNR=18						
GERES				pP	pP	07 26 49.1	+1.8
	comp=Z,2.6nm,0.8s,baz=76,slow=5.5,SNR=7.7						
KHC	**Kasperske Hory**	**73.95**	**318**	*e*P	**P**	**07 26 37.5**	**+0.5**
HFS	**Hagfors**	**74.40**	**329**	P	**P**	**07 26 39.4**	**+0.1**
	comp=Z,3.3nm,0.5s,mb4.5,baz=90,slow=5.9,SNR=4.7						
WET	**Wettzell**	**74.41**	**318**	*e*P	**P**	**07 26 40.0**	**+0.3**
GRA1	**Grafenberg Arr**	**75.49**	**319**	*e*P	**P**	**07 26 46.6**	**+0.7**
	comp=Z,7.0nm,1.0s,mb4.5						
GRF	**Grafenberg Arr**	**75.49**	**319**	*e*P	**P**	**07 26 46.6**	**+0.7**
GRF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
GRF	**Grafenberg Arr**	**75.49**	**319**	*e*P	**P**	**07 26 46.6**	**+0.7**
GRF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
GRF	**Grafenberg Arr**	**75.49**	**319**	*e*P	**P**	**07 26 46.6**	**+0.7**
	comp=Z,7.0nm,1.0s,mb4.5						
NB2	**NORSAR Subarra**	**75.67**	**330**	P	**P**	**07 26 46.4**	**-0.3**
	comp=Z,0.2nm,0.6s,baz=95,slow=6.2						
NOA	**NORSAR Array B**	**75.67**	**330**	P	**P**	**07 26 46.6**	**-0.1**
	comp=Z,3.0nm,0.8s,mb4.3,baz=93,slow=5.6,SNR=5.2						
CLZ	**Clausthal**	**76.01**	**321**	*e*P	**P**	**07 26 49.5**	**+0.7**
BSEG	**Bad Segeberg**	**76.03**	**323**	*e*P	**P**	**07 26 49.7**	**+0.9**
BFO	**Black Forest**	**77.44**	**317**	*e*P	**P**	**07 26 57.1**	**+0.1**
LPL	**La Plagne**	**78.73**	**314**	*e*P	**P**	**07 27 04.5**	**+0.4**
	comp=Z,11nm,0.6s,mb4.6						
LPL	**La Plagne**	**78.73**	**314**	*e*P	**P**	**07 27 04.5**	**+0.4**

LPL				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
ESDC	Sonseca Array	87.42	310	P	P	07 27 49.6	+0.9
	comp=Z,1.4nm,0.8s,mb4.2,baz=63,slow=5.7,SNR=4.1						
ILAR	Eielson Array	92.21	22	P	P	07 28 10.1	-0.5
	comp=Z,1.5nm,0.8s,mb4.4,baz=298,slow=4.0,SNR=25						
INK	Inuvik	94.13	15	P	P	07 28 20.0	+0.7
	comp=Z,0.6nm,0.6s,mb4.2,baz=338,slow=11,SNR=5.4						
YKA	Yellowknife Ar	103.43	12	PKKPbc		07 44 54.7	
	comp=Z,0.1nm,0.7s,baz=171,slow=2.7,SNR=4.7						
PDAR	Pinedale Array	122.53	19	PKP	PKPdf	07 33 57.9	+2.2
	comp=Z,0.4nm,0.8s,baz=135,slow=2.1,SNR=3.5						
NVAR	Mina Array Bea	122.83	28	PKP	PKPdf	07 33 59.7	+3.3
	comp=Z,0.7nm,0.6s,baz=352,slow=1.6,SNR=4.6						
TXAR	Lajitas Array	136.71	20	PKP	PKPdf	07 34 25.9	+2.9
	comp=Z,0.6nm,0.9s,baz=50,slow=1.1,SNR=6.7						
BDFB	Brasilia	141.05	259	PKP	PKPdf	07 34 34.7	+3.5
	comp=Z,1.9nm,0.7s,baz=228,slow=1.1,SNR=3.5						
PCRV	Puerto La Cruz	148.46	312	PKPbc	PKPdf	07 34 47.4	+3.5
	comp=Z,5.4nm,0.6s,baz=39,slow=6.5,SNR=3.9						
SDV	Santo Domingo	153.51	319	PKPbc	PKPdf	07 35 00.6	+9.1
	comp=Z,1.3nm,0.6s,baz=326,slow=19,SNR=4.6						
SDV				PKPab	PKPab	07 35 12.7	-1.3
	comp=Z,4.2nm,0.7s,baz=28,slow=4.4,SNR=7.6						
SDV	Santo Domingo	153.51	319	PKPbc	PKPdf	07 35 00.6	+9.1
SDV				PKPab	PKPab	07 35 12.7	-1.3
ROSC	El Rosal	158.94	319	PKPab	PKPab	07 35 38.0	+0.7
	comp=Z,3.3nm,0.6s,baz=101,slow=9.8,SNR=4.9						

IDC 27 07:20:10.1±1.4**, 9.15N**×**93.06E, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.7**/17**, Error ellipse: s-maj=294.0km s-min=24.7km az=41.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	49.87	126	P	P	07 29 05.2	-2.4
	1.0nm,0.7s,baz=306,slow=8.5,SNR=5.4						
ASAR	Alice Springs	51.55	130	P	P	07 29 18.6	-1.7
	0.4nm,0.6s,baz=303,slow=7.3,SNR=4.0						
BRTR	Keskin Array B	60.79	310	P	P	07 30 24.2	-2.1
	0.8nm,0.7s,baz=124,slow=5.2,SNR=4.7						
GERES	GERESS Array B	76.17	318	P	P	07 32 00.3	-1.5
	0.8nm,0.5s,baz=95,slow=5.4,SNR=8.1						

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*IDC **27** 07:23:45.7±1.1, 8.42N×93.50E, mb3.9/6, mb1 4.1/7, mb1mx3.9/18, ML4.3/1, Error ellipse: s-maj=48.3km s-min=22.2km az=49.0*

ISC 27 07:23:49.2±0.9**, 8.4N**±0.1×**93.6E**±0.1**, h33^{km}, n14, σ0^{s}76**/14**, mb4.1**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.22	27	Pn	P	07 26 30.0	-0.4
	0.6nm,0.3s,baz=211,slow=13,SNR=4.4						
VIS	Vishakhapatnam	13.62	314	eP	P	07 27 02.3	-0.3
PKI	Pulchoki	20.56	339	eP	P	07 28 28.8	+1.1
DMN	Daman	20.70	338	eP	P	07 28 29.9	+0.7
	15nm,0.7s						
GUN	Gumba	20.71	340	eP	P	07 28 30.4	+1.1
	49nm,1.0s						
KKN	Kakani	20.81	339	eP	P	07 28 31.2	+0.9
	37nm,1.2s						
GKN	Gorkha	21.23	338	eP	P	07 28 33.6	-1.0
	24nm,0.7s,mb4.6						
KOLN	Koldanda	21.44	335	eP	P	07 28 36.2	-0.5
	25nm,0.9s,mb4.5						
ZAL	Zalesovo	45.93	353	P	P	07 32 09.4	-1.2
	1.1nm,0.2s,mb4.3,baz=287,slow=3.9,SNR=3.3						
WRA	Warramunga Arr	49.00	126	P	P	07 32 35.3	+0.2
	0.6nm,0.5s,mb3.9,baz=304,slow=8.6,SNR=6.0						
ASAR	Alice Springs	50.66	130	P	P	07 32 47.9	+0.1
	0.9nm,0.6s,mb3.9,baz=305,slow=6.9,SNR=9.0						
BRTR	Keskin Array B	61.68	311	P	P	07 34 05.3	-1.1
	0.9nm,0.8s,mb3.9,baz=135,slow=6.1,SNR=3.3						
GERES	GERESS Array B	77.07	318	P	P	07 35 41.3	+0.4
	0.6nm,0.8s,mb3.6,baz=90,slow=5.3,SNR=3.9						
ILAR	Eielson Array	94.42	22	P	P	07 37 06.7	0.0
	0.3nm,0.7s,mb3.8,baz=312,slow=5.0,SNR=4.6						

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*IDC **27** 07:32:35.4±0.7, 12.29N×92.39E, mb4.1/13, mb1 4.2/14, mb1mx4.1/20, ML4.3/1, MS3.5/1, Ms1 3.7/1, ms1mx2.9/24, Error ellipse: s-maj=29.1km s-min=16.4km az=50.0*

*BJI **27** 07:32:36.0, 12.19N×92.63E, h21^{km}, mB5.4, mb4.6*

*NEIC **27** 07:32:38.8±0.4, 12.35N×92.50E, mb4.5/8, Error ellipse: s-maj=9.6km s-min=9.0km az=207.0*

ISC 27 07:32:36.7±0.5**, 12.42N**±0.06×**92.43E**±0.04**, h20^{km}, h20^{km}**±2.1^{km}**:pP-P, n45, σ1^{s}11**/46**, mb4.2**/24**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.69	45	Pn	P	07 34 43.6	-0.8
	0.9nm,0.3s,baz=238,slow=15,SNR=29						
CMAR				Sn	Sn	07 36 21.9	-1.0
	0.5nm,0.3s,baz=236,slow=27,SNR=4.1						
CMAR				LR	LR	07 38 37.6	
	comp=Z,312nm,19.3s,baz=140,slow=41						
VIS	Vishakhapatnam	10.24	302	eP	P	07 35 03.5	-2.5
VIS				eS	S	07 36 49.4	-12
PALK	Pallekele	12.63	247	Pn	P	07 35 38.1	-0.2
BOK	Bokaro	12.91	332	eP	P	07 35 40.9	-1.0
BOK				eS	S	07 37 54.2	-12
BLSP	Bilaspur	13.77	316	eP	P	07 35 51.7	-1.8
BLSP				e		07 35 56.8	
	comp=Z,17nm,0.8s						
BLSP				eS	S	07 38 24.8	-2.1
PKI	Pulchoki	16.45	337	eP	P	07 36 28.3	+0.1
	comp=Z,41nm,0.8s						
GUN	Gumba	16.59	339	eP	P	07 36 30.6	+0.6
DMN	Daman	16.60	337	eP	P	07 36 28.8	-1.3
	comp=Z,70nm,0.9s						
KKN	Kakani	16.69	337	eP	P	07 36 31.6	+0.3
	comp=Z,27nm,0.8s						
GKN	Gorkha	17.13	336	eP	P	07 36 36.1	-0.7
	comp=Z,21nm,0.3s						
KOLN	Koldanda	17.36	333	eP	P	07 36 39.3	-0.4
	comp=Z,37nm,0.6s						
BHPL	Bhopal	17.87	309	eS	S	07 40 06.0	+3.9
POO	Poona	18.90	291	eS	S	07 40 27.0	+1.5
GYA	Guiyang	19.35	42	⇑iP	P	07 37 04.0	+0.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
CD2	Chengdu	21.17	28	P	P	07 37 23.8	+0.5
ENH	Enshi	23.78	39	eP	P	07 37 48.9	-0.2
	comp=Z,19nm,0.6s,mb4.7						
LZH	Lanzhou	25.72	22	eP	P	07 38 08.5	+0.9
LZH				AP	pP	07 38 11.5	-1.9
LZH				AMB	AMB		
	comp=Z,19nm,1.5s,mb4.4						
XAN	Xi’an	26.25	32	P	P	07 38 12.5	-0.1
XAN				AP	pP	07 38 18.8	+0.4
XAN				AMB	AMB		
	comp=Z,21nm,0.8s,mb4.7						
GTA	Gaotai	27.67	12	eP	P	07 38 27.0	+1.5
GTA				AP	pP	07 38 33.8	+2.5
GTA				XP	sP	07 38 36.3	+2.4
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.2						
AAK	Ala-Archa	33.89	336	eP	P	07 39 21.0	+0.5
	comp=Z,1.5nm,0.7s,mb4.0						
SONM	Songino Array	37.19	16	P	P	07 39 49.5	+1.0
	comp=Z,2.7nm,0.9s,mb4.1,baz=199,slow=6.5,SNR=14						
ZAL	Zalesovo	41.86	353	P	P	07 40 27.8	+0.8
	comp=Z,1.3nm,0.5s,mb3.8,baz=298,slow=8.6,SNR=7.9						
CN2	Changchun	42.23	36	eP	P	07 40 32.0	+1.7
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
BVAR	Borovoye Array	44.17	341	P	P	07 40 46.5	+0.6
	comp=Z,0.5nm,0.5s,mb3.5,baz=143,slow=7.4,SNR=4.2						
CHKZ	Chkalovo	44.66	342	eP	P	07 40 50.6	+0.7
	comp=Z,2.3nm,0.6s,mb4.2						
CHKZ				epP	pP	07 40 57.2	+1.4
GNI	Garni	50.11	312	P	P	07 41 34.4	+1.7
	comp=Z,2.1nm,0.4s,mb4.5,baz=254,slow=7.4,SNR=5.2						
GNI	Garni	50.11	312	eP	P	07 41 34.8	+2.1
WRA	Warramunga Arr	52.30	127	P	P	07 41 48.3	-1.3
	comp=Z,3.6nm,0.8s,mb4.4,baz=304,slow=8.5,SNR=6.6						
WRAB	Tennant Creek	52.31	127	eP	P	07 41 47.7	-1.9
	comp=Z,6.6nm,0.7s,mb4.7						
WRAB				epP	pP	07 41 54.1	-1.7
ASAR	Alice Springs	54.14	131	P	P	07 42 01.4	-1.8
	comp=Z,1.2nm,0.8s,mb3.9,baz=314,slow=6.5,SNR=10						
BRTR	Keskin Array B	58.23	309	P	P	07 42 31.7	-0.6
	comp=Z,1.3nm,0.7s,mb4.1,baz=112,slow=6.7,SNR=7.6						
AKASG	Malin Array Be	63.58	321	P	P	07 43 07.4	-1.0
	comp=Z,0.4nm,0.5s,mb3.7,baz=160,slow=27,SNR=4.5						
STKA	Stephens Creek	64.46	134	P	P	07 43 14.8	+0.3
	comp=Z,4.2nm,1.1s,mb4.4,baz=5.8,slow=7.5,SNR=2.8						
ARCES	ARCESS Array B	70.45	340	P	P	07 43 51.7	+0.3
	comp=Z,1.3nm,0.7s,mb4.0,baz=100,slow=7.2,SNR=6.7						
ARCES	ARCESS Array B	70.45	340	P	P	07 43 51.7	+0.3
MORC	Moravsky Berou	70.86	319	P	P	07 43 54.7	+0.4
	comp=Z,2.6nm,0.9s,mb4.2						
GERES	GERESS Array B	73.35	317	P	P	07 44 09.7	+0.6
	comp=Z,5.2nm,1.2s,mb4.3,baz=108,slow=4.2,SNR=10						
NB2	NORSAR Subarra	74.97	330	P	P	07 44 17.8	-0.4
	comp=Z,6.9nm,1.2s,mb4.5,baz=92,slow=5.6						
NOA	NORSAR Array B	74.97	330	P	P	07 44 18.2	0.0
	comp=Z,1.3nm,0.7s,mb4.0,baz=91,slow=5.8,SNR=4.3						
LBTB	Lobatse	75.00	240	eP	P	07 44 19.8	+0.7
	comp=Z,3.9nm,0.9s,mb4.3						
LPL	La Plagne	78.26	314	eP	P	07 44 37.8	+0.9
	comp=Z,14nm,0.6s,mb4.7						
ILAR	Eielson Array	91.18	22	P	P	07 45 44.0	+2.7
	comp=Z,0.9nm,0.8s,mb4.2,baz=293,slow=4.3,SNR=9.1						
NVAR	Mina Array Bea	121.82	28	PKP	PKPdf	07 51 32.7	-1.4
	comp=Z,0.6nm,0.7s,baz=288,slow=2.9,SNR=3.2						
TXAR	Lajitas Array	135.68	20	PKP	PKPdf	07 51 57.8	-3.0
	comp=Z,0.2nm,0.6s,baz=32,slow=2.0,SNR=3.5						
LPAZ	La Paz	160.78	256	PKPab	PKPab	07 53 21.3	+0.6
	comp=Z,1.3nm,0.8s,baz=106,slow=13,SNR=3.9						

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*IDC **27** 07:33:34.2±0.6, 6.08N×93.28E, mb4.2/15, mb1 4.4/15, mb1mx4.3/21, Error ellipse: s-maj=31.0km s-min=13.4km az=43.0*

*BJI **27** 07:33:37.4, 6.15N×93.68E, h22^{km}, mb4.7*

*NEIC **27** 07:33:39.0±0.4, 6.08N×93.30E, h30^{km}, mb4.3/3, Error ellipse: s-maj=18.3km s-min=8.1km az=47.0*

ISC 27 07:33:36.6±0.6**, 6.1N**±0.1×**93.4E**±0.1**, h30^{km}, n24, σ0^{s}66**/19**, mb4.3**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
XAN	Xi’an	31.31	25	P	P	07 39 55.3	-1.3
XAN				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
AAK	Ala-Archa	40.02	338	eP	P	07 41 11.7	+1.0
	comp=Z,7.3nm,1.3s,mb4.2						
SONM	Songino Array	43.05	13	P	P	07 41 35.5	+0.1
	comp=Z,1.0nm,0.8s,mb3.6,baz=193,slow=7.0,SNR=5.1						
WRA	Warramunga Arr	47.91	124	P	P	07 42 14.8	+0.2
	comp=Z,7.2nm,0.9s,mb4.7,baz=302,slow=9.0,SNR=11						
ZAL	Zalesovo	48.19	353	P	P	07 42 17.5	+1.2
	comp=Z,4.0nm,0.5s,mb4.7,baz=310,slow=8.5,SNR=2.5						
ASAR	Alice Springs	49.42	128	P	P	07 42 26.3	+0.2
	comp=Z,5.5nm,0.7s,mb4.7,baz=299,slow=7.6,SNR=19						
ASAR				PcP	PcP	07 43 49.1	+0.7
	comp=Z,1.9nm,0.8s,baz=308,slow=4.3,SNR=4.6						
BVAR	Borovoye Array	50.41	342	P	P	07 42 33.2	-0.1
	comp=Z,1.8nm,0.8s,mb4.2,baz=153,slow=6.6,SNR=6.9						
BRVK	Borovoye	50.47	342	eP	P	07 42 33.4	-0.4
	comp=Z,1.2nm,0.4s,mb4.3						
CHKZ	Chkalovo	50.90	343	eP	P	07 42 36.9	-0.1
	comp=Z,8.4nm,1.0s,mb4.6						
PMG	Port Moresby	55.79	106	P	P	07 43 13.8	+0.1
	comp=Z,4.1nm,0.6s,mb4.7,baz=344,slow=14,SNR=3.1						
KMBO	Kilima Mbogo	56.46	265	P	P	07 43 18.5	-0.1
	comp=Z,0.4nm,0.4s,mb3.9,baz=61,slow=19,SNR=3.2						
CTA	Charters Tower	58.16	118	P	P	07 43 30.4	0.0
	comp=Z,3.8nm,0.9s,mb4.4,baz=282,slow=4.7,SNR=3.0						
ASF	Jabal al Asfar	58.53	304	P	P	07 43 32.4	-0.6
	comp=Z,2.2nm,0.5s,mb4.4,baz=108,slow=3.2,SNR=2.7						
STKA	Stephens Creek	59.48	133	P	P	07 43 39.4	-0.2
	comp=Z,3.8nm,0.8s,mb4.5,baz=301,slow=5.1,SNR=5.9						
BRTR	Keskin Array B	62.99	312	P	P	07 44 02.8	-0.4
	comp=Z,1.3nm,0.8s,mb4.1,baz=127,slow=6.2,SNR=4.7						
AKASG	Malin Array Be	69.05	322	P	P	07 44 40.4	-1.3
	comp=Z,0.2nm,0.3s,mb3.5,baz=91,slow=5.3,SNR=4.0						
FINES	FINESS Array B	73.90	333	P	P	07 45 10.3	-0.1
	comp=Z,2.6nm,0.7s,mb4.3,baz=90,slow=5.7,SNR=7.0						
ARCES	ARCESS Array B	76.65	340	P	P	07 45 26.8	+0.8
	comp=Z,2.4nm,0.5s,mb4.4,baz=94,slow=5.5,SNR=12						
GERES	GERESS Array B	78.61	318	P	P	07 45 38.3	+1.1
	comp=Z,1.7nm,0.8s,mb4.0,baz=76,slow=5.5,SNR=5.4						
ULM	Lac du Bonnet	123.30	7	PKP	PKPdf	07 52 34.3	-1.7
	comp=Z,0.3nm,0.4s,baz=104,slow=2.4,SNR=3.1						
PDAR	Pinedale Array	127.08	21	PKP	PKPdf	07 52 41.0	-2.5
	comp=Z,1.1nm,0.9s,baz=27,slow=3.3,SNR=6.2						
ANMO	Albuquerque	135.09	23	PKP	PKPdf	07 52 57.2	-1.8
	comp=Z,1.0nm,0.8s,baz=9.2,slow=19,SNR=4.7						
ANMO	Albuquerque	135.09	23	PKP	PKPdf	07 52 57.2	-1.8
TXAR	Lajitas Array	141.15	24	PKP	PKPdf	07 53 09.5	-0.7
	comp=Z,0.6nm,1.0s,baz=45,slow=1.8,SNR=3.7						

IDC 27 07:34:06.8±1.9**, 0.94S**×**91.89E, mb4.2**/5**, mb1 4.4**/5**, mb1mx4.0**/18**, Error ellipse: s-maj=76.4km s-min=23.8km az=51.0, South Indian Ocean**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	45.61	117	P	P	07 42 28.7	-2.2
	4.3nm,0.6s,baz=306,slow=8.5,SNR=10						
ASAR	Alice Springs	46.56	122	P	P	07 42 36.5	-1.9
	4.0nm,0.8s,baz=310,slow=7.6,SNR=7.3						
SONM	Songino Array	50.20	13	P	P	07 43 06.3	-0.1
	1.0nm,0.7s,baz=201,slow=7.5,SNR=7.5						
BVAR	Borovoye Array	56.70	345	P	P	07 43 51.3	-3.1
	1.8nm,0.7s,baz=153,slow=6.6,SNR=5.3						
GERES	GERESS Array B	82.93	319	P	P	07 46 33.0	-1.9
	0.9nm,0.6s,baz=90,slow=4.0,SNR=5.0						

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*IDC **27** 07:47:31.7±0.4, 2.77N×94.62E, mb4.9/26, mb1 4.9/27, mb1mx4.9/29, ML4.2/1, MS5.2/18, Ms1 5.2/18, ms1mx5.1/24, Error ellipse: s-maj=14.3km s-min=8.1km az=38.0*

*BJI **27** 07:47:33.6, 2.78N×94.53E, h19^{km}, mB6.0, mb5.3, Ms5.9, Msz5.7*

*NEIC **27** 07:47:35.4±0.1, 2.71N×94.51E, mb5.3/41, MS5.6/113, Error ellipse: s-maj=5.1km s-min=3.5km az=36.0*

*HRVD **27** 07:47:35.4±0.2, 2.48N×94.42E, h12^{km}, MW5.5/69, Centroid moment Tensor Solution. LP body waves: s47,c90;Mantle waves: s69,c140; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}1.83±.03; $M_{\theta\theta}$-1.11±.03; $M_{\phi\phi}$-0.71±.03; $M_{r\theta}$0.54±.07; $M_{\theta\phi}$0.96±.02; $M_{\phi r}$-0.64±.08; Best double couple: $M_0$2.04×10^{17} NP1: ϕ_s305°,δ33°,λ82°. NP2:ϕ_s134°,δ57°,λ95°. Principal axes: T 2.01, Plg77°, Azm60°; N .06, Plg4°, Azm311°; P -2.06, Plg12°, Azm220°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **27** 07:47:36.6±1.1, 3.04N×94.43E, h33^{km}, mb5.5/33, MS5.6/8 Error ellipse: s-maj=12.0km s-min=6.0km az=111.7*

*SYO **27** 07:47:36.4, 2.69N×94.49E, h33^{km}, MB5.4, MS5.6*

*CSEM **27** 07:47:38.5, 3.53N×94.80E, h33^{km}, mb5.8*

ISC 27 07:47:33.8±0.2**, 2.70N**±0.03×**94.54E**±0.02**, h25^{km}, h25^{km}**±.7^{km}**:pP-P, n414, σ1^{s}05**/340**, mb5.2**/107**, MS5.6**/147**, 43C-11D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	7.51	54	P	Pn	07 49 23.5	-1.2
	600nm,1.0s						
PALK	Pallekele	14.51	289	P	P	07 50 58.0	-1.9
	54nm,1.1s						
PULI	Pulasari	14.54	128	⇑eP	P	07 50 59.7	-0.5
	389nm,1.0s						
COCO	West Island	14.97	171	eP	P	07 51 07.1	+1.3
	705nm,1.7s						
KKTK	Khon Kaen	15.81	31	P	P	07 51 16.8	0.0
	3µm,0.7s						
CM31	Chiang Mai Arr	16.24	15	eP	P	07 51 22.1	-0.1
	336nm,1.3s						
CMAR	Chiang Mai Arr	16.24	15	Pn	P	07 51 17.2	-5.0
	0.4nm,0.3s,baz=229,slow=14,SNR=13						
CMAR				LR	LR	07 57 43.0	
	comp=Z,7µm,21.8s,baz=195,slow=38						
CHG	Chiang Mai	16.58	15	⇑P	P	07 51 24.7	-1.9
	120nm,1.3s						
CHG				S	S	07 54 38.3	+9.1
NANT	Nan	17.10	20	⇑P	P	07 51 31.0	-2.1
	138nm,1.0s						
MDRS	Chennai	17.49	307	e	P	07 51 42.6	+4.6
MDRS				e		07 51 45.2	
	comp=Z,167nm,2.2s						
CHRT	Chiangrai	17.82	16	PG	P	07 51 40.5	-1.5
CHRT				SG		07 51 49.0	
TRD	Trivandrum	18.41	289	eP	P	07 51 50.4	+0.9
TRD				e		07 51 54.3	
	comp=Z,123nm,0.0s						
KOD	Kodaikanal	18.53	295	eP	P	07 51 50.5	-0.4
KOD				e		07 52 00.0	
VIS	Vishakhapatnam	18.54	324	eP	P	07 51 50.5	-0.4
VIS				e		07 51 55.6	
	comp=Z,214nm,1.6s						
VIS				eS	S	07 55 11.6	-2.1
HYB	Hyderabad	21.45	314	⇑eP	P	07 52 23.0	+0.4
	comp=Z,67nm,1.6s,mb4.7						
HYB				eS	S	07 56 20.0	+5.7
HYB	Hyderabad	21.45	314	⇑iP	P	07 52 23.0	+0.4
	comp=Z,400nm,1.6s,mb5.5						
HYB				eS	S	07 56 20.0	+5.7
HYB				LR	LR	07 59 52.0	
	comp=Z,8.0nm,16.0s						
IMP	Imphal	21.96	359	e	P	07 52 25.9	-1.8
MNGI	Mangalore	22.00	299	i P	P	07 52 28.8	+0.6
	comp=Z,150nm,1.4s,mb5.2						
MNGI				i S	S	07 56 34.4	+10
QIZ	Qiongzhong	22.08	42	P	P	07 52 29.8	+0.8
QIZ				AP		07 52 38.5	
QIZ				S	S	07 56 27.0	+0.9
QIZ				AMB	AMB		
	comp=Z,3µm,13.5s						
QIZ				LR	LR		
	comp=N,19µm,17.5s,MS5.7						
QIZ				LR	LR		
	comp=E,16µm,18.1s,MS5.7						
QIZ				LR	LR		
	comp=Z,25µm,17.8s,MS5.7						
QIZ	Qiongzhong	22.08	42	eP	P	07 52 29.3	+0.3
	comp=Z,98nm,0.9s,mb5.2						
QIZ				LR	LR		
	comp=Z,22µm,19.0s,MS5.6						
SRDI	Scrawed	22.49	120	⇑eP	P	07 52 34.1	+1.1
SRDI				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.3						
SRDI	Scrawed	22.49	120	⇑eP	P	07 52 34.1	+1.1
	comp=Z,126nm,1.0s,mb5.3						
BOK	Bokaro	22.57	339	eP	P	07 52 31.1	-2.9
BOK				e		07 52 39.1	
	comp=Z,272nm,2.4s						
BOK				eS	S	07 56 38.4	+3.2
BLSP	Bilaspur	22.76	329	eP	P	07 52 38.1	+2.3
BLSP				e		07 52 57.4	
	comp=Z,328nm,1.1s						
BLSP				eS	S	07 56 45.0	+6.4
SHL	Shillong	22.87	354	eP	P	07 52 35.0	-1.9
SHL				eP		07 52 35.3	
SHL				e		07 52 48.0	
	comp=Z,359nm,1.6s						
SHL				eS	S	07 56 42.0	+1.5
KMI	Kunming	23.65	19	P	P	07 52 46.5	+2.1
KMI				AP		07 52 51.8	
KMI				XP		07 52 53.5	
KMI				AMB	AMB		
	comp=Z,182nm,2.0s,mb5.2						
KMI				AMB	AMB		
	comp=Z,4µm,4.8s						
KMI				LR	LR		
	comp=N,15µm,10.8s,MS5.9						
KMI				LR	LR		
	comp=E,12µm,10.2s,MS5.9						
KMI				LR	LR		
	comp=Z,16µm,12.0s,MS5.7						
NGP	Nagpur	23.74	322	⇑eP	P	07 52 47.3	+2.0
NGP				eS	S	07 57 03.7	+8.0
RATI	Rata	23.81	119	⇓eP	P	07 52 43.3	-2.8
BATP	Bataraza	23.92	74	eP	P	07 52 44.5	-2.6
GOA	Goa	24.04	303	eP	P	07 52 54.6	+6.3
GOA				⇑e		07 52 56.1	
	comp=Z,60nm,0.3s						
GOA				e		07 53 01.6	
	comp=Z,105nm,1.3s						
GOA				eS	S	07 57 09.0	+8.1
KEDI	Kedomdong	24.22	118	⇓eP	P	07 52 48.8	-1.2
AKL	Akola	24.73	318	eP	P	07 52 56.7	+1.7
AKL				e		07 53 02.4	
	comp=Z,76nm,1.2s						
PPR	Puerto Princes	25.04	73	⇓eP	P	07 53 00.6	+2.6
TANI	Tanete Lipujan	25.57	104	⇑eP	P	07 53 04.9	+1.9
ALBI	Allahabad	25.60	333	eP	P	07 53 02.0	-1.1
ALBI				eP		07 53 04.2	
ALBI				e		07 53 12.4	
	comp=Z,144nm,1.1s						
POO	Poona	25.65	309	eP	P	07 53 03.6	0.0
POO				e		07 53 08.0	
	comp=Z,70nm,1.2s						
POO				eS	S	07 57 34.8	+6.8
ENPP	El Nido	26.09	70	eP	P	07 53 07.6	-0.1
PKI	Pulchoki	26.22	341	eP	P	07 53 09.4	+0.5
	comp=Z,81nm,0.7s,mb5.4						
BHPL	Bhopal	26.30	322	eP	P	07 53 10.3	+0.7
BHPL				e		07 53 13.3	
	comp=Z,47nm,1.4s						
BHPL				eS	S	07 57 43.3	+4.6
GYA	Guiyang	26.33	25	⇑iP	P	07 53 09.8	-0.1
GYA				AP	pP	07 53 14.0	-3.1
GYA				XP	sP	07 53 17.3	-3.0
GYA				AMB	AMB		
	comp=Z,110nm,0.7s,mb5.5						
GYA				AMB	AMB		
	comp=Z,9µm,9.8s						
GYA				LR	LR		
	comp=N,17µm,18.3s,MS5.8						
GYA				LR	LR		
	comp=E,12µm,15.3s,MS5.8						
GYA				LR	LR		
	comp=Z,23µm,16.5s,MS5.8						
DMN	Daman	26.36	341	eP	P	07 53 10.7	+0.6
	comp=Z,102nm,0.7s,mb5.4						
GUN	Gumba	26.39	343	eP	P	07 53 11.1	+0.7
	comp=Z,156nm,0.6s,mb5.7						
KKN	Kakani	26.47	341	eP	P	07 53 11.5	+0.4
	comp=Z,157nm,1.0s,mb5.5						
GKN	Gorkha	26.88	340	eP	P	07 53 15.2	+0.3
	comp=Z,100nm,0.7s,mb5.5						
KOLN	Koldanda	27.03	338	eP	P	07 53 16.9	+0.6
	comp=Z,141nm,0.8s,mb5.6						
LSA	Lhasa	27.04	354	eP	P	07 53 17.9	+1.6
	comp=Z,225nm,0.6s,mb5.9						
LSA				LR	LR		
	comp=Z,4µm,21.0s,MS5.0						
CUYO	Cuyo Island	27.49	72	eP	P	07 53 20.1	-0.5
SJMP	San Jose	28.05	68	eP	P	07 53 26.0	+0.4
TGY	Tagaytay City	28.42	65	P	P	07 53 28.4	-0.6
	comp=Z,134nm,0.3s,mb6.0,baz=182,slow=15,SNR=6.1						
TGY				LR	LR	08 05 06.9	
	comp=Z,4µm,18.4s,MS5.0,baz=64,slow=37						
OTRP	Odiongan	28.86	69	eP	P	07 53 32.7	-0.2
LQP	Lukban	28.97	65	⇑eP	P	07 53 34.1	+0.2
BCPH	Baguio City Da	29.00	60	⇓iP	P	07 53 34.5	+0.3
PAGZ	Pagadian	29.16	79	eP	P	07 53 36.7	+0.9
CD2	Chengdu	29.38	16	⇑iP	P	07 53 36.5	-1.0
CD2				XP	sP	07 53 49.0	+1.1
CD2				S	S	07 58 25.8	-2.5
CD2				XS		07 58 43.3	
CD2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.4						
CD2				LR	LR		
	comp=N,11µm,12.0s						
CD2				LR	LR		
	comp=Z,10µm,10.2s,MS5.8						
PTH	Pithoragarh	29.96	334	e	P	07 53 34.1	-8.6
APYP	Conner	30.21	58	eP	P	07 53 44.9	-0.2
NDI	New Delhi	30.65	329	eP	P	07 53 47.0	-1.8
NDI				eP		07 53 48.2	
NDI				e		07 53 50.4	
	comp=Z,77nm,1.3s						
BUKP	Musuan	30.82	79	eP	P	07 53 51.1	+0.7
ENH	Enshi	30.86	26	eP	P	07 53 49.4	-1.2
	comp=Z,36nm,0.9s,mb5.2						
ENH				LR	LR		
	comp=Z,17µm,20.0s,MS5.7						
OCLP	Ormoc	30.96	73	eP	P	07 53 52.3	+0.7
PVCP	Virac	31.21	68	eP	P	07 53 52.2	-1.5
DAV	Davao City (W)	31.22	81	eP	P	07 53 57.0	+3.0
DDI	Dehra Dun	31.59	332	eP	P	07 53 57.1	0.0
SDNR	Sundarnagar	33.09	332	eP	P	07 54 11.1	+1.0

WHN	**Wuhan**	**33.44**	**32**	⇑P	**P**	**07 54 13.5**	**+0.3**
WHN				XP	sP	07 54 26.0	+2.4
WHN				S	**S**	**07 59 38.8**	**+6.8**
WHN				AMB	AMB		
	comp=Z,3µm,6.0s						
WHN				LR	LR		
	comp=N,11µm,11.4s,MS6.2						
WHN				LR	LR		
	comp=E,29µm,12.6s,MS6.2						
WHN				LR	LR		
	comp=Z,45µm,13.1s,MS6.4						
XAN	**Xi'an**	**33.94**	**22**	P	**P**	**07 54 17.0**	**-0.5**
XAN				AMB	AMB		
	comp=Z,114nm,1.4s,mb5.6						
XAN				LR	LR		
	comp=N,8µm,14.8s,MS5.7						
XAN				LR	LR		
	comp=E,5µm,14.4s,MS5.7						
XAN				LR	LR		
	comp=Z,12µm,16.6s,MS5.7						
TATO	**Taipei**	**34.13**	**47**	PFAKE		07 54 30.0	+11
TATO				LR	LR		
	comp=Z,8µm,19.0s,MS5.5						
MBWA	**Marble Bar**	**34.22**	**135**	*e*P	**P**	**07 54 19.2**	**-0.8**
MBWA				LR	LR		
	comp=Z,3µm,19.0s,MS5.1						
LZH	**Lanzhou**	**34.32**	**13**	*e*P	**P**	**07 54 19.8**	**-0.9**
LZH				AMB	AMB		
	comp=Z,53nm,1.3s,mb5.3						
LZH				AMB	AMB		
	comp=Z,770nm,4.4s						
LZH				LR	LR		
	comp=E,13µm,17.5s						
LZH				LR	LR		
	comp=Z,16µm,18.0s,MS5.8						
THN	**Thein Dam**	**34.45**	**331**	*e*P	**P**	**07 54 20.4**	**-1.5**
	comp=Z,50nm,1.1s,mb5.4						
GTA	**Gaotai**	**36.85**	**7**	⇑P	**P**	**07 54 42.3**	**+0.2**
GTA				AP	pP	07 54 51.8	+2.3
GTA				XP	sP	07 54 55.5	+2.9
GTA				S	**S**	**08 00 20.5**	**-4.1**
GTA				XS		08 00 37.5	
GTA				SS	SS	08 02 47.5	-5.7
GTA				AMB	AMB		
	comp=Z,44nm,1.5s,mb5.1						
GTA				AMB	AMB		
	comp=Z,952nm,9.2s						
GTA				LR	LR		
	comp=N,4µm,18.7s,MS5.4						
GTA				LR	LR		
	comp=E,3µm,15.7s,MS5.4						
GTA				LR	LR		
	comp=Z,6µm,17.2s,MS5.4						
NJ2	**Nanjing**	**37.09**	**35**	*e*P	**P**	**07 54 45.3**	**+1.1**
NJ2				AP	pP	07 54 53.8	+2.3
NJ2				XP	sP	07 54 57.8	+3.2
NJ2				PP	PP	07 56 11.5	+0.4
NJ2				S	**S**	**08 00 28.0**	**-0.3**
NJ2				XS		08 00 44.0	
NJ2				SS	SS	08 03 00.0	+1.4
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,7µm,8.0s						
NJ2				LR	LR		
	comp=N,12µm,19.4s,MS5.9						
NJ2				LR	LR		
	comp=E,14µm,17.0s,MS5.9						
NJ2				LR	LR		
	comp=Z,18µm,20.2s,MS5.8						
SSE	**Sheshan**	**37.82**	**39**	P	**P**	**07 54 51.5**	**+1.1**
SSE				XP	sP	07 54 56.0	-4.8
SSE				PP	PP	07 56 17.0	-2.9
SSE				S	**S**	**08 00 39.5**	**0.0**
SSE				AMB	AMB		
	comp=Z,33nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,907nm,5.3s						
SSE				LR	LR		
	comp=N,7µm,14.9s,MS5.8						
SSE				LR	LR		
	comp=E,10µm,14.6s,MS5.8						
SSE				LR	LR		
	comp=Z,10µm,12.0s,MS5.8						
BTO	**Baotou**	**40.24**	**18**	*e*P	**P**	**07 55 10.5**	**0.0**
BTO				S	**S**	**08 01 18.8**	**+2.9**
BTO				AMB	AMB		
	comp=Z,30nm,2.8s,mb4.5						
JOW	**Kunigami**	**40.25**	**50**	P	**P**	**07 55 11.7**	**+1.0**
	comp=Z,14nm,0.5s,mb5.0,baz=200,slow=6.8,SNR=6.3						
KSH	**Kashi**	**40.34**	**338**	⇑*i*P	**P**	**07 55 12.0**	**+0.7**
KSH				AP	pP	07 55 20.5	+1.9
KSH				XP	sP	07 55 25.5	+3.8
KSH				PP	PP	07 56 49.3	+1.6
KSH				PCP	PcP	07 57 11.3	-3.7
KSH				SCP		08 00 58.8	
KSH				PCS		08 01 01.0	
KSH				S	**S**	**08 01 21.0**	**+3.6**
KSH				XS		08 01 35.8	
KSH				SCS	ScS	08 05 12.3	-1.5
KSH				AMB	AMB		
	comp=Z,680nm,3.4s						
KSH				LR	LR		
	comp=N,6µm,13.4s,MS5.8						
KSH				LR	LR		
	comp=E,5µm,11.5s,MS5.8						
HHC	**Hu-ho-hao-te**	**40.97**	**20**	*e*P	**P**	**07 55 17.5**	**+1.1**
HHC				AP	pP	07 55 25.0	+1.2
HHC				XP	sP	07 55 28.0	+1.2
HHC				PP	PP	07 56 55.5	+1.6
HHC				PCP	PcP	07 57 18.0	+1.0
HHC				PCS		08 01 09.0	
HHC				S	**S**	**08 01 30.0**	**+3.3**
HHC				XS		08 01 38.5	
HHC				SS	SS	08 04 23.8	-0.7
HHC				SCS	ScS	08 05 18.5	+1.0
HHC				AMB	AMB		
	comp=Z,55nm,1.5s,mb5.0						
HHC				AMB	AMB		
	comp=Z,3µm,6.2s						
HHC				LR	LR		
	comp=N,10µm,15.7s,MS5.9						
HHC				LR	LR		
	comp=E,9µm,13.2s,MS5.9						
HHC				LR	LR		
	comp=Z,10µm,17.2s,MS5.7						
WMQ	**Urumqi**	**41.39**	**353**	⇑P	**P**	**07 55 21.3**	**+1.5**
WMQ				AP	pP	07 55 31.3	+4.1
WMQ				XP	sP	07 55 35.5	+5.3
WMQ				PP	PP	07 57 00.5	+2.0
WMQ				S	**S**	**08 01 33.5**	**+0.6**
WMQ				AMB	AMB		
	comp=Z,62nm,0.8s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,222nm,7.1s						
WMQ				LR	LR		
	comp=N,2µm,21.7s,MS5.2						
WMQ				LR	LR		
	comp=E,3µm,21.7s,MS5.2						
WMQ				LR	LR		
	comp=Z,2µm,25.0s,MS4.8						
NWAO	**Narrogin (SRO)**	**41.44**	**151**	PFAKE		07 55 30.0	+10
NWAO				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
BJT	**Baijiatuau**	**42.00**	**25**	*e*P	**P**	**07 55 26.4**	**+1.5**
	comp=Z,67nm,0.7s,mb5.4						
BJT				LR	LR		
	comp=Z,6µm,20.0s,MS5.5						
BJI	**Beijing**	**42.02**	**25**	P	**P**	**07 55 27.0**	**+1.9**
BJI				S	**S**	**08 01 49.3**	**+6.9**
BJI				AMB	AMB		
	comp=Z,87nm,1.3s,mb5.2						
BJI				AMB	AMB		
	comp=Z,3µm,5.3s						
BJI				LR	LR		
	comp=N,7µm,18.1s,MS5.7						
BJI				LR	LR		
	comp=E,7µm,18.1s,MS5.7						
BJI				LR	LR		
	comp=Z,4µm,20.4s,MS5.3						
ULHL	**Ulahol**	**42.64**	**340**	P	**P**	**07 55 31.3**	**+1.2**
	SNR=13						
KZA	**Kyzart**	**42.84**	**339**	P	**P**	**07 55 33.2**	**+1.4**
	SNR=19						
UCH	**Uchtor**	**43.24**	**338**	P	**P**	**07 55 36.4**	**+1.4**
	SNR=26						
AAA	**Alma-Ata**	**43.32**	**341**	*i* P	**P**	**07 55 36.0**	**+0.3**
KBK	**Karagaybulak**	**43.46**	**339**	P	**P**	**07 55 38.4**	**+1.6**
	SNR=12						
TKM2	**Tokmak 2**	**43.46**	**340**	P	**P**	**07 55 37.9**	**+1.1**
	SNR=24						
AML	**Almayashu**	**43.47**	**337**	P	**P**	**07 55 34.7**	**-2.2**
	SNR=19						
AAK	**Ala-Archa**	**43.60**	**338**	P	**P**	**07 55 39.2**	**+1.2**
	SNR=16						
AAK	**Ala-Archa**	**43.60**	**338**	⇑*i*P	**P**	**07 55 37.6**	**-0.3**
AAK				LR	LR		
	comp=Z,901nm,21.0s,MS4.7						
DL2	**Dalian**	**43.68**	**31**	P	**P**	**07 55 40.0**	**+1.3**
DL2				XP	sP	07 55 53.0	+3.9
DL2				S	**S**	**08 02 11.5**	**+4.9**
DL2				AMB	AMB		
	comp=Z,70nm,1.4s,mb5.2						
DL2				AMB	AMB		
	comp=Z,800nm,4.8s						
DL2				LR	LR		
	comp=N,3µm,17.7s,MS5.4						
DL2				LR	LR		
	comp=E,2µm,13.8s,MS5.4						
DL2				LR	LR		
	comp=Z,4µm,16.2s,MS5.4						
CHMS	**Chumysh**	**43.83**	**339**	P	**P**	**07 55 40.4**	**+0.7**
	SNR=12						
EKS2	**Erkin-Say**	**43.89**	**338**	P	**P**	**07 55 41.7**	**+1.4**
	SNR=19						
USP	**Ospenovka**	**44.15**	**339**	P	**P**	**07 55 42.9**	**+0.5**
	SNR=25						
WRA	**Warramunga Arr**	**45.09**	**122**	P	**P**	**07 55 49.3**	**-0.9**
	comp=Z,38nm,1.0s,mb5.2,baz=299,slow=8.9,SNR=70						
WRA				S	**S**	**08 02 25.7**	**-1.5**
	comp=Z,0.4nm,0.8s,baz=302,slow=8.4,SNR=2.8						
WRAB	**Tennant Creek**	**45.09**	**122**	*e*P	**P**	**07 55 49.7**	**-0.6**
	comp=Z,36nm,0.8s,mb5.2						
WRAB				LR	LR		
	comp=Z,857nm,19.0s,MS4.7						
MKAR	**Makanchi Array**	**45.19**	**348**	*i* P	**P**	**07 55 51.2**	**+0.5**
INCN	**Inchon**	**45.45**	**36**	PFAKE		07 56 00.0	+7.1
INCN				LR	LR		
	comp=Z,4µm,19.0s,MS5.4						
SONM	**Songino Array**	**46.11**	**11**	P	**P**	**07 55 58.4**	**+0.4**
	comp=Z,26nm,0.7s,mb5.3,baz=192,slow=8.3,SNR=143						
SONM				PcP	PcP	07 57 34.6	+0.3
	comp=Z,7.9nm,0.6s,baz=192,slow=3.3,SNR=8.2						
KS15	**Wonju Array Si**	**46.17**	**37**	*e*P	**P**	**07 55 58.4**	**-0.1**
ULN	**Ulaanbaatar**	**46.27**	**12**	*e*P	**P**	**07 55 59.4**	**+0.2**
	comp=Z,16nm,0.8s,mb5.0						
ULN				LR	LR		
	comp=Z,5µm,20.0s,MS5.5						
ASAR	**Alice Springs**	**46.42**	**127**	P	**P**	**07 56 00.2**	**-0.5**
	comp=Z,8.4nm,0.7s,mb4.8,baz=296,slow=7.7,SNR=54						
ASAR				PcP	PcP	07 57 35.7	-0.1
	comp=Z,5.0nm,0.7s,baz=296,slow=3.5,SNR=8.3						
ASAR				S	**S**	**08 02 42.0**	**-4.3**
	comp=Z,1.0nm,1.1s,baz=172,slow=19,SNR=2.5						
ASAR				LR	LR	08 18 27.4	
	comp=Z,2µm,19.3s,MS5.0,baz=300,slow=40						
SNY	**Shenyang**	**46.86**	**30**	⇑P	**P**	**07 56 04.0**	**+0.1**
SNY				AP	pP	07 56 12.3	+0.9
SNY				PP	PP	07 57 53.8	-0.1
SNY				S	**S**	**08 02 57.0**	**+4.8**
SNY				AMB	AMB		
	comp=Z,100nm,1.4s,mb5.5						
SNY				AMB	AMB		
	comp=Z,1µm,13.9s						
SNY				LR	LR		
	comp=E,3µm,12.8s						
SNY				LR	LR		
	comp=Z,2µm,13.3s,MS5.3						
ZAK	**Zakamensk**	**48.08**	**8**	*e*P	**P**	**07 56 13.0**	**-0.4**
MOY	**Mondy**	**49.09**	**5**	*e*P	**P**	**07 56 21.6**	**+0.4**
CN2	**Changchun**	**49.24**	**29**	*e*P	**P**	**07 56 23.5**	**+1.0**
CN2				PP	PP	07 58 17.0	+0.3
CN2				*e*S	**S**	**08 03 27.0**	**+1.2**
CN2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.6						
CN2				AMB	AMB		
	comp=Z,1µm,4.0s						
CN2				LR	LR		
	comp=N,6µm,16.0s,MS5.8						
CN2				LR	LR		
	comp=E,5µm,16.0s,MS5.8						
CN2				LR	LR		
	comp=Z,6µm,18.0s,MS5.6						
TLY	**Talaya**	**49.40**	**7**	P	**P**	**07 56 24.5**	**+0.9**
	comp=Z,203nm,0.8s,mb6.2,SNR=13						
TLY	**Talaya**	**49.40**	**7**	*e*P	**P**	**07 56 24.3**	**+0.7**
TLY				*e*		07 58 19.2	
TLY				pmax	pmax		
	comp=Z,93nm,1.9s,mb5.5						
TLY				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.6						
TLY	**Talaya**	**49.40**	**7**	*i* P	**P**	**07 56 24.0**	**+0.4**
TLY				LR	LR		
	comp=Z,857nm,19.0s,MS4.8						
IRK	**Irkutsk**	**50.03**	**8**	*e*P	**P**	**07 56 28.6**	**+0.2**
IRK				*e*		07 58 26.0	
IRK				*e*		08 03 36.2	
GUMO	**Guam**	**50.88**	**75**	PFAKE		07 56 50.0	+15
GUMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
HIA	**Hailar**	**51.14**	**21**	*e*P	**P**	**07 56 37.3**	**+0.4**
	comp=Z,60nm,0.8s,mb5.6						
HIA				LR	LR		
	comp=Z,16µm,19.0s,MS6.1						
QRN	**Al-Qurain**	**51.33**	**305**	*e*P	**P**	**07 56 38.8**	**+0.2**
RDF	**Al-Radifah**	**51.69**	**305**	*e*P	**P**	**07 56 42.2**	**+0.9**
RDF				AMb	AMB	07 56 44.1	
	comp=Z,140nm,0.7s,mb6.0						
ZAL	**Zalesovo**	**51.69**	**353**	P	**P**	**07 56 40.4**	**-0.6**
	comp=Z,21nm,0.5s,mb5.4,baz=298,slow=5.8,SNR=80						
ZAL				S	**S**	**08 04 02.5**	**+3.0**
	comp=Z,0.5nm,0.7s,baz=183,slow=17,SNR=1.9						
ZAL				LR	LR	08 22 25.7	
	comp=Z,2µm,18.6s,MS5.2,baz=290,slow=41						
UMR	**Umm Al-Rimmam**	**51.79**	**306**	*e*P	**P**	**07 56 43.2**	**+1.1**
UMR				AMb	AMB	07 56 44.9	
	comp=Z,142nm,0.6s,mb6.0						
MDJ	**Mudanjiang**	**51.92**	**31**	P	**P**	**07 56 43.3**	**+0.4**
MDJ				AP	pP	07 56 52.0	+1.6
MDJ				XP	sP	07 56 56.0	+2.7
MDJ				PCP	PcP	07 57 51.0	-4.4
MDJ				PP	PP	07 58 43.5	+2.0
MDJ				SCP		08 01 45.0	
MDJ				PCS		08 01 49.8	
MDJ				S	**S**	**08 04 07.5**	**+4.8**
MDJ				SCS	ScS	08 06 31.0	+2.9
MDJ				AMB	AMB		
	comp=Z,46nm,1.5s,mb5.2						
MDJ				AMB	AMB		
	comp=Z,1µm,7.6s						
MDJ				LR	LR		
	comp=N,4µm,18.0s,MS5.6						
MDJ				LR	LR		
	comp=E,5µm,20.9s,MS5.6						
MDJ				LR	LR		
	comp=Z,5µm,16.3s,MS5.6						
MDJ	**Mudanjiang**	**51.92**	**31**	*e*P	**P**	**07 56 42.6**	**-0.3**
	comp=Z,70nm,1.3s,mb5.4						
MDJ				LR	LR		
	comp=Z,4µm,20.0s,MS5.5						
MAJO	**Matsushiro**	**52.44**	**45**	PFAKE		07 57 00.0	+13
MAJO				LR	LR		
	comp=Z,5µm,20.0s,MS5.6						
MAT	**Matsushiro**	**52.44**	**45**	P	**P**	**07 56 45.3**	**-1.6**
MAT				S	**S**	**08 04 15.0**	**+5.1**
MAT	**Matsushiro**	**52.44**	**45**	*e*P	**P**	**07 56 45.0**	**-1.9**
MAT				*e*S	**S**	**08 04 27.0**	**+17**
MAT				LR	LR		
	comp=Z,5µm,20.0s,MS5.5						
NVS	**Novosibirsk**	**52.78**	**352**	*e*P	**P**	**07 56 47.7**	**-1.5**
NVS				*e*S	**S**	**08 04 16.1**	**+1.8**
NVS				pmax	pmax		
	comp=Z,287nm,2.5s,mb5.8						
NVS				pmax	pmax		
	comp=N,205nm,2.2s						
NVS				smax			
	comp=E,73nm,2.7s						
PMG	**Port Moresby**	**53.79**	**104**	P	**P**	**07 56 56.6**	**-0.5**
	comp=E,37nm,0.9s,mb5.3,baz=295,slow=5.6,SNR=18						
PMG				S	**S**	**08 04 30.4**	**+1.8**
	comp=E,1.3nm,0.3s,baz=291,slow=17,SNR=2.5						
PMG	**Port Moresby**	**53.79**	**104**	*e*P	**P**	**07 56 56.4**	**-0.7**
PMG				*e*	pP	07 57 04.5	-0.2
PMG				pmax	pmax		
	comp=Z,42nm,0.9s						
PMG	**Port Moresby**	**53.79**	**104**	*e*P	**P**	**07 56 56.4**	**-0.7**
	comp=Z,42nm,0.9s,mb5.4						
PMG				*e*	pP	07 57 04.5	-0.2
BVAR	**Borovoye Array**	**53.99**	**342**	P	**P**	**07 56 56.4**	**-1.7**
	comp=Z,13nm,0.7s,mb5.0,baz=143,slow=7.4,SNR=59						
BVAR				S	**S**	**08 04 32.6**	**+1.8**
	comp=Z,0.2nm,0.4s,baz=139,slow=13,SNR=2.8						
BRVK	**Borovoye**	**54.05**	**342**	⇑*i*P	**P**	**07 56 57.6**	**-0.9**
BRVK				LR	LR		
	comp=Z,306nm,20.0s						
CHKZ	**Chkalovo**	**54.49**	**343**	*e*P	**P**	**07 57 00.5**	**-1.2**
CHKZ				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.7						
CHKZ	**Chkalovo**	**54.49**	**343**	*e*P	**P**	**07 57 00.5**	**-1.2**
	comp=Z,103nm,1.1s,mb5.7						
CTA	**Charters Tower**	**55.55**	**117**	LR	LR	08 24 43.5	
	comp=Z,3µm,18.2s,MS5.4,baz=285,slow=40						
CTAO	**Charters Tower**	**55.55**	**117**	*e*P	**P**	**07 57 08.7**	**-1.3**
	comp=Z,35nm,1.1s,mb5.3						
CTAO				LR	LR		
	comp=Z,3µm,19.0s,MS5.3						
KLR	**Kul'dur**	**56.16**	**29κ**	*i*P	**P**	**07 57 11.5**	**-2.4**
KLR				*e*S	**S**	**08 05 04.0**	**+4.1**
KLR				pmax	pmax		
	comp=E,700nm,6.5s						
KLR				pmax	pmax		
	comp=Z,2µm,6.5s						
KLR				pmax	pmax		
	comp=N,100nm,2.2s						
KLR				pmax	pmax		
	comp=E,180nm,2.2s						
KLR				pmax	pmax		
	comp=Z,300nm,2.2s,mb5.9						
KLR				smax			
	comp=N,2µm,9.5s						
KLR				smax			
	comp=E,1µm,9.5s						
KLR				MLR	MLR		
	comp=N,3µm,13.0s,MS5.7						
KLR				MLR	MLR		
	comp=E,4µm,13.0s,MS5.7						
KLR				MLR	MLR		
	comp=Z,10µm,13.0s,MS6.1						
STKA	**Stephens Creek**	**56.34**	**132**	P	**P**	**07 57 14.6**	**-0.9**
	comp=Z,14nm,0.7s,mb5.1,baz=305,slow=5.0,SNR=24						
STKA				S	**S**	**08 05 05.2**	**+2.8**
	comp=Z,1.6nm,0.7s,baz=139,slow=16,SNR=2.2						
STKA				LR	LR	08 22 11.4	
	comp=Z,2µm,18.7s,MS5.2,baz=303,slow=37						
STKA	**Stephens Creek**	**56.34**	**132**	*e*P	**P**	**07 57 14.2**	**-1.2**
BOD	**Bodaibo**	**57.07**	**12**	⇓*i*P	**P**	**07 57 19.6**	**-0.7**
KMBO	**Kilima Mbogo**	**57.39**	**267**	P	**P**	**07 57 23.9**	**+0.7**
	comp=Z,3.5nm,0.7s,mb4.5,baz=61,slow=12,SNR=15						
KMBO				S	**S**	**08 05 22.0**	**+5.4**
	comp=Z,0.5nm,0.4s,baz=53,slow=21,SNR=2.9						
KMBO				LR	LR	08 18 23.5	
	comp=Z,3µm,18.6s,MS5.4,baz=211,slow=32						
KMBO	**Kilima Mbogo**	**57.39**	**267**	*i* P	**P**	**07 57 23.9**	**+0.7**
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KMBO	**Kilima Mbogo**	**57.39**	**267**	*e*P	**P**	**07 57 23.6**	**+0.3**
	comp=Z,100nm,1.9s,mb5.5						
KMBO				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
MAK	**Makhachkala**	**57.88**	**321**	*e*P	**P**	**07 57 25.0**	**-1.2**
MAK				*e*S	**S**	**08 05 24.0**	**+1.3**
MAK				*e*PS	PS	08 05 42.0	+2.9
MAK				*e*		08 07 14.0	
MAK				pmax	pmax		
	comp=Z,1µm,7.0s						
MAK				smax			
	comp=N,2µm,10.0s						
MAK				smax			
	comp=E,600nm,10.0s						
GNI	**Garni**	**58.37**	**317**	P	**P**	**07 57 30.2**	**+0.5**
	comp=E,15nm,0.9s,mb5.0,baz=194,slow=12,SNR=13						
GNI				LR	LR	08 23 57.2	
	comp=E,1µm,21.8s,MS4.9,baz=360,slow=37						
GNI	**Garni**	**58.37**	**317**	⇑*i*P	**P**	**07 57 29.1**	**-0.6**
TI2	**Plekhanov**	**59.08**	**318**	⇑*i*P	**P**	**07 57 34.4**	**-0.2**
TI2				*e*S	**S**	**08 05 39.6**	**+1.2**
ASAJ	**Asahikawa**	**59.11**	**39**	LR	LR	08 24 17.6	
	comp=E,4µm,19.4s,MS5.6,baz=257,slow=37						
CLNS	**Chul'man**	**59.14**	**19**	⇑*i*P	**P**	**07 57 35.3**	**+0.5**
BEST	**Besiri**	**59.91**	**313**	*i* P	**P**	**07 57 39.8**	**-0.6**
ZEI	**Tsey**	**60.12**	**319**	*e*P	**P**	**07 57 40.7**	**-1.0**
ZEI				*i* *PP	pP	07 57 49.1	-0.3
ZEI				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
SVE	**Sverdlovsk**	**60.33**	**339**	⇑*i*P	**P**	**07 57 42.2**	**-0.8**
SVE				*e*		07 58 28.0	
SVE				*e*		07 59 54.0	
SVE				*e*S	**S**	**08 05 52.0**	**-2.3**
SVE				*e*		08 07 19.0	
SVE				pmax	pmax		
	comp=Z,360nm,2.4s,mb6.0						
SVE				smax			
	comp=N,700nm,10.0s						
SVE				smax			
	comp=E,1µm,10.0s						
SVE				MLR	MLR		
	comp=Z,3µm,21.5s,MS5.4						
ERZM	**Erzurum**	**60.62**	**315**	*i* P	**P**	**07 57 45.6**	**+0.4**
YSS	**Yuzh-Sakhalins**	**60.66**	**36**	⇑*e*P	**P**	**07 57 39.8**	**-5.5**
YSS				*e**SP	sP	07 57 52.0	-3.8
YSS				*e*		08 00 02.0	
YSS				*e*PPP	PPP	08 01 22.0	-6.4
YSS				*i* S	**S**	**08 06 02.0**	**+3.5**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
YSS				MLR	MLR		
	comp=Z,4µm,15.0s,MS5.7						
YSS				MLR	MLR		
	comp=N,5µm,16.0s,MS5.9						
YSS				MLR	MLR		
	comp=E,3µm,15.0s,MS5.9						
YSS	**Yuzh-Sakhalins**	**60.66**	**36**	*e*P	**P**	**07 57 45.4**	**+0.1**
	comp=E,73nm,1.3s,mb5.7						
YSS				LR	LR		
	comp=Z,4µm,20.0s,MS5.6						
ARU	**Arti**	**60.79**	**338**	⇑*i*P	**P**	**07 57 44.7**	**-1.4**
ARU				*e*		07 58 25.4	
ARU				*e*S	**S**	**08 06 01.4**	**+1.3**
ARU				*i*		08 07 34.7	
ARU				*e*SSS	SSS	08 12 36.0	-0.9
ARU				pmax	pmax		
	comp=Z,65nm,1.4s,mb5.6						
ARU	**Arti**	**60.79**	**338**	⇑*i*P	**P**	**07 57 44.8**	**-1.3**
ARU				LR	LR		
	comp=Z,560nm,19.0s,MS4.7						
YUK	**Yuzh-Kuril'sk**	**61.14**	**40**	P	pP	07 57 57.0	+0.7
ASF	**Jabal al Asfar**	**61.43**	**305**	P	**P**	**07 57 51.8**	**+1.0**
	comp=Z,8.7nm,0.6s,mb5.0,baz=90,slow=4.0,SNR=14						
ASF				S	**S**	**08 06 14.9**	**+6.3**
	comp=Z,1.1nm,0.3s,baz=72,slow=13,SNR=2.1						
ASF				LR	LR	08 27 59.7	
	comp=Z,2µm,18.1s,MS5.2,baz=332,slow=40						
KIV	**Kislovodsk**	**61.44**	**320**	P	**P**	**07 57 50.0**	**-0.7**
	comp=Z,200nm,1.1s,mb6.2,SNR=14						
KIV	**Kislovodsk**	**61.44**	**320**	⇑*i*P	**P**	**07 57 49.2**	**-1.5**
KIV	**Kislovodsk**	**61.44**	**320**	⇑*i*P	**P**	**07 57 49.2**	**-1.5**
KIV				LR	LR		
	comp=Z,230nm,20.0s						
GOF	**Gofitskoye**	**61.72**	**321**	⇑*i*P	**P**	**07 57 51.0**	**-1.6**
GOF				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.3						
ELZG	**Elazig**	**61.81**	**313**	*i* P	**P**	**07 57 53.6**	**+0.3**
MALT	**Malatya**	**62.15**	**312**	*e*P	**P**	**07 57 54.8**	**-0.8**
MALT				pmax	pmax		
	comp=Z,69nm,1.3s,mb5.6						
MALT	**Malatya**	**62.15**	**312**	*e*P	**P**	**07 57 54.8**	**-0.8**
	comp=Z,69nm,1.3s,mb5.6						
DUSS	**Damascus Unive**	**62.29**	**307**	*i* P	**P**	**07 57 57.7**	**+1.1**
DUSS				⇑*i*P		07 57 57.8	
DUSS				*i* P		07 57 58.5	
DUSS				*e*		07 57 59.9	
	baz=104,slow=5.6						
DUSS				*e*S	**S**	**08 06 27.2**	**+7.7**
DUSS				AMS	AMS	08 25 39.4	
	comp=N,58µm,16.1s						
DUSS				AMS	AMS	08 27 47.5	
	comp=E,25µm,16.9s						

DUSS				AMS	AMS	08 28 44.1	
	comp=Z,28µm,15.3s,MS6.5						
EIL	Elat	62.41	302	P	P	07 57 58.5	+1.1
	comp=Z,8.2nm,0.6s,mb5.1,baz=174,slow=2.7,SNR=6.5						
EIL	Elat	62.41	302	*e*P	P	07 57 57.7	+0.3
	comp=Z,41nm,1.3s,mb5.4						
GZT	Gaziantep	62.47	311	*i* P	P	07 57 58.3	+0.5
KAHT	Ahir Dag	63.08	311	*i* P	P	07 57 59.2	-2.5
COBT	Iskenderun	63.20	310	*i* P	P	07 58 03.2	+0.7
SOC	Sochi	63.23	318	*i* P	P	07 58 00.9	-1.7
SOC				*e*		08 00 22.2	
SOC				*e*PPP	PPP	08 01 48.4	-6.2
SOC				*e*S	S	08 06 29.7	-1.4
SOC				*i* SSS	SSS	08 13 18.5	-6.6
SOC				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.6						
SOC				pmax	pmax		
	comp=N,29nm,1.1s						
SOC				pmax	pmax		
	comp=E,20nm,1.3s						
SOKR	Solikamsk	63.74	340	⇓*i*P	P	07 58 03.3	-2.5
SOKR				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
SOKR				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.3						
MBAR	Mbarara	63.86	268	*e*P	P	07 58 06.3	-1.1
	comp=Z,51nm,1.9s,mb5.2						
MBAR				LR	LR		
	comp=Z,205nm,20.0s						
YAK	Yakutsk	64.76	17	⇑*i*P	P	07 58 11.5	-0.9
YAK				LR	LR		
	comp=Z,8µm,20.0s,MS5.9						
AVNT	Avonos	64.95	312	*i* P	P	07 58 13.5	-0.5
CSS	Prodhromos	65.05	307	*e*P	P	07 58 14.8	+0.2
	comp=Z,38nm,1.3s,mb5.3						
CTKT	Corum	65.58	314	*i* P	P	07 58 18.3	+0.3
BOYT	Boyabat	65.75	315	*i* P	P	07 58 18.5	-0.6
BR131	Keskin Array S	66.14	313	PFAKE		07 58 30.0	+8.4
BR131				LR	LR		
	comp=Z,660nm,20.0s,MS4.8						
BRTR	Keskin Array B	66.14	313	P	P	07 58 20.6	-1.0
	comp=Z,12nm,0.7s,mb5.0,baz=127,slow=6.7,SNR=44						
ELDT	Eldivan	66.52	313	*i* P	P	07 58 23.6	-0.4
BALT	Daday	66.87	314	*i* P	P	07 58 26.0	-0.3
SIM	Simferopol'	67.47	318	*c i*P	P	07 58 29.4	-0.6
SIM				*e*S	S	08 07 24.0	+0.9
SIM				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.3						
SIM	Simferopol'	67.47	318	⇑*e*P	P	07 58 29.0	-1.0
SGKT	Sivrigoynuk	67.55	313	*i* P	P	07 58 29.7	-0.8
ISP	Isparta	67.98	310	*e*P	P	07 58 32.6	-0.7
ISP				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1						
ISP	Isparta	67.98	310	*e*P	P	07 58 32.6	-0.7
	comp=Z,15nm,0.7s,mb5.1						
LSZ	Lusaka	68.01	252	*e*P	P	07 58 33.4	-0.4
	comp=Z,6.4nm,0.8s,mb4.7						
LSZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
ESKT	Eskisehir	68.15	312	*i* P	P	07 58 33.5	-0.8
HENT	Hendek	68.46	313	*i* P	P	07 58 34.6	-1.7
ULDT	Uludag	69.58	312	*i* P	P	07 58 42.1	-1.0
CASY	Casey	69.78	173	PFAKE		07 59 00.0	+16
CASY				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
OBN	Obninsk	69.95	329	*c i*P	P	07 58 43.4	-1.7
OBN				pmax	pmax		
	comp=Z,100nm,1.4s,mb5.5						
OBN	Obninsk	69.95	329	⇑*i*P	P	07 58 43.5	-1.6
OBN				LR	LR		
	comp=Z,350nm,20.0s,MS4.6						
SKR	Severo-Kuril's	70.21	36	*e*P	P	07 58 44.5	-2.3
SKR				*e*		07 59 03.6	
SKR				*e*PS	PS	08 08 34.0	+8.4
SKR				*e*		08 08 39.0	
SKR				*e*SS	SS	08 12 24.0	-3.3
SKR				pmax	pmax		
	comp=Z,60nm,0.5s,mb5.8						
SKR				pmax	pmax		
	comp=E,2µm,4.0s						
SKR				pmax	pmax		
	comp=Z,2µm,4.0s						
SKR				MLR	MLR		
	comp=N,3µm,16.0s,MS5.8						
SKR				MLR	MLR		
	comp=E,3µm,16.0s,MS5.8						
SKR				MLR	MLR		
	comp=Z,6µm,16.0s,MS5.9						
KDAG	Bornova	70.59	310	*i* P	P	07 58 49.7	+0.4
MA2	Magadan	71.16	27	*i* P	P	07 58 51.6	-0.8
MA2				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
CFR	Carcaliu	71.58	317	⇓*i*P	P	07 58 54.8	-0.4
IDI	Anoyia	71.87	306	P	P	07 58 57.4	+0.4
	comp=Z,21nm,0.7s,mb5.2,baz=83,slow=8.1,SNR=19						
IDI				S	S	08 08 19.1	+4.2
	comp=Z,10.0nm,1.1s,baz=102,slow=9.3,SNR=1.8						
IDI	Anoyia	71.87	306	P	P	07 58 57.4	+0.4
IDI				S	S	08 08 19.1	+4.2
LBTB	Lobatse	72.18	243	*e*P	P	07 58 58.7	-0.4
	comp=Z,53nm,1.5s,mb5.2						
LBTB				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
TIXI	Tiksi	72.20	11	PFAKE		07 59 10.0	+12
TIXI				LR	LR		
	comp=Z,6µm,19.0s,MS5.8						
WAKE	Wake Island	72.23	71	PFAKE		07 59 10.0	+11
WAKE				LR	LR		
	comp=Z,53µm,20.0s						
AKASG	Malin Array Be	72.45	323	P	P	07 58 58.7	-1.6
	comp=Z,8.9nm,0.6s,mb4.9,baz=88,slow=5.0,SNR=59						
AKASG				PP	PP	08 01 42.8	-0.5
	comp=Z,1.5nm,0.6s,baz=80,slow=12,SNR=5.4						
PET	Petropavlovsk	72.50	35	*e*P	P	07 59 00.5	0.0
PET				*e*PS	PS	08 09 06.1	+10
PET				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.2						
PET				pmax	pmax		
	comp=Z,900nm,14.9s						
PET				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.8						
PET				MLR	MLR		
	comp=Z,4µm,15.0s						
PET	Petropavlovsk	72.50	35	*i* P	P	07 58 59.4	-1.1
PET				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
VRI	Vrincioaia	72.71	317	⇑*i*P	P	07 59 02.0	+0.1
MLR	Muntele Rosu	73.16	317	P	P	07 59 04.6	+0.1
	comp=Z,52nm,1.2s,mb5.3,baz=123,slow=2.9,SNR=22						
BOSA	Boshof	73.24	239	PFAKE		07 59 20.0	+15
BOSA				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
MAW	Mawson	73.59	192	LR	LR	08 25 43.1	
	comp=Z,891nm,18.6s,MS5.1,baz=30,slow=31						
MAW	Mawson	73.59	192	*e*P	P	07 59 02.9	-3.7
MAW				pmax	pmax		
	comp=Z,8.0nm,0.9s						
MAW	Mawson	73.59	192	*e*P	P	07 59 02.9	-3.7
	comp=Z,7.9nm,0.8s,mb4.7						
PGB	Panagyurishte	73.77	314	*e*P	P	07 59 07.0	-1.1
MMB	Musomiste	73.90	312	*e*P	P	07 59 08.0	-0.9
NOUC	Port Laguerre	74.20	114	*e*P	P	07 59 11.4	+0.4
DZM	Mont Dzumac	74.32	114	⇑*e*P	P	07 59 12.7	+1.0
MNK	Minsk	74.42	326	*e*P	P	07 59 09.0	-2.6
KKB	Krupnik	74.43	313	*e*P	P	07 59 11.0	-0.9
VTS	Vitosha	74.47	313	*e*P	P	07 59 11.0	-1.2
IDID	Didziasalis	75.27	327	*e*P	P	07 59 15.8	-0.7
IDID				AMPb	AMB	07 59 19.2	
	comp=Z,13nm,1.4s,mb4.7						
IDID				*e*pP	pP	07 59 23.6	-0.7
LVV	L'vov	75.43	321	⇑*i*P	P	07 59 16.8	-0.7
IIGN	Ignalina	75.56	327	*e*P	P	07 59 17.5	-0.7
IIGN				AMPb	AMB	07 59 20.3	
	comp=Z,13nm,1.6s,mb4.6						
IIGN				*e*pP	pP	07 59 25.1	-0.8
ISAL	Salakas	75.68	327	*e*P	P	07 59 18.0	-0.9
ISAL				AMPb	AMB	07 59 20.8	
	comp=Z,11nm,1.4s,mb4.6						
VSU	Vasula	76.22	330	*i* P	P	07 59 21.2	-0.6
KWP	Kalwaria	76.22	320	*e*P	P	07 59 21.9	-0.1
KWP				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
KWP	Kalwaria	76.22	320	*e*P	P	07 59 21.9	-0.1
	comp=Z,20nm,0.6s,mb5.2						
UZH	Uzhgorod	76.28	319	*e*P	P	07 59 24.0	+1.6
KOLS	Kolonicke sedl	76.36	320	*e*P	P	07 59 23.5	+0.7
KOLS				*e*	pP	07 59 31.0	+0.4
LVZ	Lovozero	76.52	340	⇑*e*P	P	07 59 21.8	-1.6
LVZ				*e*S	S	08 09 07.1	+0.8
LVZ				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
LVZ				pmax	pmax		
	comp=N,5.0nm,1.2s						
LVZ				smax			
	comp=N,566nm,4.5s						
LVZ	Lovozero	76.52	340	*i* P	P	07 59 22.5	-0.9
APA	Apatity	76.80	340	⇑*i*P	P	07 59 24.9	0.0
APA				*i*	pP	07 59 31.4	-1.3
APA				*i* S	S	08 09 12.0	+2.7
APA				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.5						
CRVS	Cervenica-Dubn	76.87	320	*e*P	pP	07 59 29.9	-3.6
CRVS	Cervenica-Dubn	76.87	320	*e*	pP	07 59 29.9	-3.6
SUW	Suwalki	76.92	325	*e*P	P	07 59 24.6	-1.2
SUW				pmax	pmax		
	comp=Z,160nm,1.2s,mb5.8						
SUW	Suwalki	76.92	325	*e*P	P	07 59 24.6	-1.3
	comp=Z,165nm,1.3s,mb5.8						
KECS	Kecovo	77.43	319	*e*P	P	07 59 28.6	-0.2
KECS				*e*pP	pP	07 59 36.6	0.0
FINES	FINESS Array B	77.45	333	P	P	07 59 28.1	-0.5
	comp=Z,11nm,0.6s,mb4.9,baz=99,slow=6.7,SNR=47						
FINES				LR	LR	08 37 55.2	
	comp=Z,1µm,20.7s,MS5.3,baz=273,slow=39						
FINES	FINESS Array B	77.45	333	*i* P	P	07 59 28.4	-0.2
FINES				pmax	pmax		
	comp=Z,11nm,0.6s						
KAF	Kangasniemi	77.55	333	*e*p	P	07 59 28.3	-0.9
	comp=Z,12nm,0.6s,mb5.0						
KAF	Kangasniemi	77.55	333	*e*P	P	07 59 28.3	-0.9
KAF				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
NIE	Niedzica	77.71	320	*e*P	P	07 59 30.7	+0.4
PSZ	Piszkesteto	77.72	318	*e*P	P	07 59 28.1	-2.3
PSZ				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.2						
PSZ	Piszkesteto	77.72	318	⇑*e*P	P	07 59 30.5	+0.1
SUR	Sutherland	77.77	236	*e*P	P	07 59 32.3	+1.3
	comp=Z,164nm,2.0s,mb5.6						
SUR				LR	LR		
	comp=Z,551nm,19.0s,MS4.9						
OJC	Ojcow	78.18	321	*e*P	P	07 59 32.8	0.0
VYHS	Vyhne	78.52	319	*i* P	P	07 59 34.9	+0.2
VYHS				*e*pP	pP	07 59 42.5	0.0
OKC	Ostrava-Krasne	79.17	320	*e*P	P	07 59 38.7	+0.4
OKC				*e*pP	pP	07 59 45.2	-0.9
MORC	Moravsky Berou	79.55	320	*e*P	P	07 59 40.2	-0.1
MORC				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
MORC	Moravsky Berou	79.55	320	*e*P	P	07 59 40.2	-0.2
	comp=Z,20nm,1.3s,mb4.9						
ZST	Bratislava	79.62	318	*i* P	P	07 59 41.1	+0.4
ZST				*e*pP	pP	07 59 48.4	-0.1
KEV	Kevo	79.81	341	*e*p	P	07 59 40.2	-1.2
VRAC	Vranov	80.10	319	P	P	07 59 43.3	0.0
	comp=Z,2.2nm,0.8s,mb4.2,baz=72,slow=4.5,SNR=5.4						
ARCES	ARCESS Array B	80.24	341	P	P	07 59 44.3	+0.7
	comp=Z,10nm,0.7s,mb4.9,baz=98,slow=4.4,SNR=33						
ARCES				LR	LR	08 41 07.7	
	comp=Z,2µm,18.3s,MS5.5,baz=112,slow=40						
ARE0	ARCESS Array S	80.24	341	*e*P	P	07 59 43.7	+0.1
DPC	Dobruska-Polom	80.40	321	*e*P	P	07 59 45.7	+0.8
DPC				*e*pP	pP	07 59 52.9	+0.2
KSP	Ksiaz	80.49	321	*e*P	P	07 59 44.9	-0.4
KSP				*e*pP	pP	07 59 51.3	-1.8
SYO	Syowa Base	80.62	197	⇑P	P	07 59 47.1	+1.4
SYO	Syowa Base	80.62	197	⇓PcP	PcP	07 59 54.2	+1.3
UPC	Upice	80.62	321	*e*P	P	07 59 46.6	+0.6
UPC				*e*pP	pP	07 59 54.2	+0.3
BILL	Bilibino	80.72	21	⇑*i*P	P	07 59 45.9	-0.3
BILL				LR	LR		
	comp=Z,6µm,19.0s,MS6.0						
PERS	Pernice	80.77	317	*i* P	P	07 59 47.5	+0.6
FX1	Attu Island--F	80.99	37	LR	LR	08 37 57.0	
	comp=Z,62nm,18.5s,baz=277,slow=37						
PRU	Pruhonice	81.50	320	*e*P	P	07 59 50.9	+0.3
	comp=Z,163nm,2.6s,mb5.5						
PRU				*e*pP	pP	07 59 58.6	+0.1
GEC2	GERESS Array S	81.94	319	*e*P	P	07 59 53.5	+0.6
GEC2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
GEC2	GERESS Array S	81.94	319	*e*P	P	07 59 53.5	+0.6
	comp=Z,7.0nm,0.8s,mb4.6						
GERES	GERESS Array B	81.94	319	P	P	07 59 53.6	+0.6
	comp=Z,5.6nm,0.7s,mb4.6,baz=102,slow=5.1,SNR=48						
BRG	Berggiesshubel	81.97	321	*i* P	P	07 59 53.8	+0.7
BRG				*i*	pP	08 00 01.1	+0.2
BRG				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.9						
BRG	Berggiesshubel	81.97	321	*i* P	P	07 59 53.8	+0.7
	comp=Z,22nm,1.4s,mb4.9						
BRG				*i*	pP	08 00 01.1	+0.2
KHC	Kasperske Hory	82.04	319	*e*P	P	07 59 53.7	+0.2
KHC				*e*pP	pP	08 00 02.0	+0.7
WET	Wettzell	82.50	319	*e*P	P	07 59 56.4	+0.5
CLL	Collm	82.60	321	*e*P	P	07 59 56.0	-0.3
CLL	Collm	82.60	321	P	P	07 59 56.0	-0.3
	comp=Z,logA/T=1.6,mb5.4						
NKC	Novy Kostel	82.86	320	*e*P	P	07 59 58.1	+0.4
NKC				*e*pP	pP	08 00 06.0	+0.4
HFS	Hagfors	83.10	330	P	P	07 59 58.8	+0.1
	comp=Z,6.8nm,0.6s,mb4.9,baz=108,slow=4.7,SNR=26						
MOX	Moxa	83.42	321	*e*P	P	08 00 01.8	+1.2
MOX				pmax	pmax		
	comp=Z,124nm,2.5s,mb5.5						
MOX	Moxa	83.42	321	*i* P	P	08 00 01.8	+1.2
	comp=Z,logA/T=1.7,mb5.5						
MOX	Moxa	83.42	321	*e*P	P	08 00 01.8	+1.2
	comp=Z,124nm,2.5s,mb5.5						
GRA1	Grafenberg Arr	83.62	320	*e*P	P	08 00 02.4	+0.8
	comp=Z,10.0nm,0.8s,mb5.0						
GRA1				*e*pP	pP	08 00 09.8	+0.3
GRF	Grafenberg Arr	83.62	320	*e*P	P	08 00 02.4	+0.8
GRF				*e**PP	pP	08 00 09.8	+0.3
GRF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
GRF	Grafenberg Arr	83.62	320	*e*P	P	08 00 02.4	+0.8
	comp=Z,10.0nm,0.8s,mb5.0						
GRF				*e*pP	pP	08 00 09.8	+0.3
CLZ	Clausthal	84.27	322	*e*P	P	08 00 05.4	+0.5
	comp=Z,5.0nm,0.8s,mb4.7						
DAVOX	Davos	84.38	317	P	P	08 00 06.3	+0.8
	comp=Z,21nm,0.6s,mb5.4,baz=120,slow=6.2,SNR=45						
DAVOX				S	S	08 10 29.8	+1.3
	comp=Z,0.6nm,0.3s,baz=165,slow=19,SNR=3.5						
NB2	NORSAR Subarra	84.41	331	P	P	08 00 04.7	-0.6
	comp=Z,11nm,1.0s,mb5.0,baz=93,slow=5.6						
NOA	NORSAR Array B	84.41	331	P	P	08 00 05.6	+0.3
	comp=Z,4.2nm,0.8s,mb4.6,baz=96,slow=5.5,SNR=9.5						
NOA				LR	LR	08 41 55.9	
	comp=Z,1µm,20.5s,MS5.2,baz=110,slow=39						
BSEG	Bad Segeberg	84.42	324	*e*P	P	08 00 06.5	+1.0
KONO	Kongsberg	85.12	329	PFAKE		08 00 20.0	+11
KONO				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
SBF	Sospel	86.05	314	*e*P	P	08 00 14.0	+0.1
	comp=Z,74nm,1.0s,mb5.6						
CDF	Champ du Feu	86.17	318	*e*P	P	08 00 14.0	-0.4
MBDF	Montbardon	86.52	314	*e*P	P	08 00 17.1	+0.8
LPG	La Plagne	86.53	315	*e*P	P	08 00 16.7	+0.4
	comp=Z,45nm,1.1s,mb5.3						
LPL	La Plagne	86.55	315	*e*P	P	08 00 16.7	+0.4
HAU	Haudompre	86.79	318	*e*P	P	08 00 17.2	-0.3
	comp=Z,16nm,0.8s,mb5.0						
HAU				*e*R			
	comp=Z,1µm,17.2s						
CABF	La Chapelle	86.98	316	*e*P	P	08 00 18.6	+0.2
	comp=Z,28nm,0.9s,mb5.2						
ORIF	Oris-en-Rattie	87.16	315	*e*P	P	08 00 19.7	+0.4
ORIF				*e*R			
	comp=Z,1µm,21.5s						
MEZF	Maizieres J'vi	87.65	318	*e*P	P	08 00 21.6	0.0
GIVF	Givet	87.76	320	*e*P	P	08 00 21.8	-0.3
VNDA	Vanda	87.82	168	P	P	08 00 23.3	+1.5
	comp=Z,2.7nm,1.2s,mb4.3,baz=258,slow=7.8,SNR=2.8						
VNDA				S	S	08 10 52.1	-8.8
	comp=Z,1.4nm,1.2s,baz=28,slow=18,SNR=2.1						
VNDA				LR	LR	08 36 19.6	
	comp=Z,2µm,18.2s,MS5.5,baz=294,slow=33						
VIVF	Saint-Julien-l	88.02	315	*e*P	P	08 00 23.6	+0.2
BAIF	Baives	88.16	320	*e*P	P	08 00 24.2	+0.2
	comp=Z,14nm,0.9s,mb4.9						
SMF	Signal de Mont	88.53	316	*e*P	P	08 00 25.7	-0.2
LASF	Ste Croix	88.63	314	*e*P	P	08 00 27.2	+0.8
SSF	Saint Saulge	88.74	317	*e*P	P	08 00 26.9	0.0
SBA	Scott Base	88.92	168	PFAKE		08 00 40.0	+13
SBA				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
BGF	Bois d'Agland	89.22	316	*e*P	P	08 00 29.5	+0.3
TCF	Toulx Ste Croi	89.68	316	*e*P	P	08 00 31.7	+0.4
MTLF	Montolieu	89.85	313	*e*P	P	08 00 32.7	+0.5
NVL	N'lazarevskaya	90.12	199	⇓*e*P	P	08 00 36.0	+3.2
NVL				*e*S	SKS	08 11 01.0	-6.9
RJF	Les Rejaudoux	90.23	315	*e*P	P	08 00 34.4	+0.5
RJF				*e*R			
	comp=Z,613nm,18.8s						
LDF	La Druitiere	91.08	319	*e*P	P	08 00 38.0	+0.3
EPF	Esparros	91.25	313	*e*P	P	08 00 38.9	+0.3
FLN	La Foliniere	91.30	319	*e*P	P	08 00 38.4	-0.3
FLN				*e*R			
	comp=Z,768nm,22.8s						
JMIC	Jan Mayen	91.70	341	LR	LR	08 45 59.5	
	comp=Z,774nm,20.3s,MS5.1,baz=265,slow=38						
ETSF	Etsaut	91.92	313	*e*P	P	08 00 42.6	+0.9
EKA	Eskdalemuir Ar	92.18	325	P	P	08 00 43.0	+0.5
	comp=Z,2.3nm,0.9s,mb4.5,baz=97,slow=6.7,SNR=4.5						
ESK	Eskdalemuir	92.20	325	PFAKE		08 00 50.0	+7.3
ESK				LR	LR		
	comp=Z,282nm,19.0s,MS4.7						
QSPA	South Pole Qui	92.64	180	PFAKE		08 01 00.0	+16
QSPA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
SGMF	Saint Gilles	92.73	318	*e*P	P	08 00 45.6	+0.3
UNV	Unalaska Valle	93.12	36	PFAKE		08 01 00.0	+13
UNV				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
ESDC	Sonseca Array	94.83	310	P	P	08 00 56.2	+1.0
	comp=Z,2.3nm,0.9s,mb4.6,baz=60,slow=6.1,SNR=3.3						
EVO	Evora	98.11	309	⇑*i*P	P	08 01 13.2	+3.1
EVO				*e*R			
	comp=Z,617nm,20.0s						
COLA	College	98.94	23	PFAKE		08 01 20.0	+6.8
COLA				LR	LR		
	comp=Z,964nm,21.0s,MS5.3						
DBIC	Dimbokro	99.00	277	LR	LR	08 40 33.0	
	comp=Z,913nm,20.9s,MS5.2,baz=71,slow=32						
DBIC	Dimbokro	99.00	277	PFAKE		08 01 30.0	+15
DBIC				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
MCK	McKinley	99.01	24	PFAKE		08 01 30.0	+16
MCK				LR	LR		
	comp=Z,731nm,19.0s,MS5.2						
ILAR	Eielson Array	99.35	22	P	P	08 01 16.8	+1.7
	comp=Z,0.4nm,0.6s,baz=305,slow=5.6,SNR=6.3						
ILAR				LR	LR	08 51 42.6	
	comp=Z,948nm,18.1s,baz=137,slow=39						
FIB	Fire Island	99.55	26	PFAKE		08 01 30.0	+14
FIB				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
KDAK	Kodiak Island	99.70	30	PFAKE		08 01 30.0	+13
KDAK				LR	LR		
	comp=Z,641nm,21.0s,MS5.1						
DIV	Divide	101.49	25	PFAKE		08 01 40.0	+15
DIV				LR	LR		
	comp=Z,5µm,21.0s,MS6.0						
SIT	Sitka	108.22	26	PFAKE		08 06 10.0	
SIT				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
YKA	Yellowknife Ar	111.32	14	Pdiff	Pdif	08 02 11.4	+3.3
	comp=Z,0.1nm,0.8s,baz=327,slow=5.1,SNR=3.2						
YKA				PP	PP	08 06 40.2	-10
	comp=Z,0.5nm,0.6s,baz=335,slow=7.8,SNR=6.6						
YKA				PKKPbc		08 17 02.5	
	comp=Z,0.2nm,0.8s,baz=150,slow=3.0,SNR=3.4						
YKA				PKKPab		08 17 12.6	
	comp=Z,0.3nm,0.8s,baz=145,slow=4.1,SNR=5.7						
YKA	Yellowknife Ar	111.32	14	Pdif	Pdif	08 02 11.4	+3.3
YKA				PP	PP	08 06 40.2	-10
YKA				PKKPbc		08 17 02.5	
YKA				PKKPab		08 17 12.6	
TBI	Tubuai	114.90	114	*e*PS	PS	08 16 58.4	+6.6
TBI				*e*LR	LR	08 41 02.1	
	comp=Z,802nm,22.2s						
PPT	Papeete	115.47	108	*e*PS	PS	08 16 59.4	+2.2
PPT				*e*LR	LR	08 41 22.0	
	comp=Z,969nm,25.0s						
OCWA	Octopus Mounta	119.44	29	PFAKE		08 06 30.0	+3.9
OCWA				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
SCHQ	Schefferville	120.63	348	PKP	PKPdf	08 06 25.2	-3.1
	comp=Z,1.3nm,0.6s,baz=56,slow=7.3,SNR=5.3						
SCHQ	Schefferville	120.63	348	PKP	PKPdf	08 06 25.2	-3.1
SCHQ				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
COR	Corvallis	122.07	31	PFAKE		08 06 40.0	+8.7
COR				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
NEW	Newport	122.23	24	PFAKE		08 06 40.0	+8.5
NEW				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
HUMO	Hull Mountain	123.61	33	PFAKE		08 06 40.0	+5.6
HUMO				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
YBH	Yreka Blue Hor	124.34	33	PFAKE		08 06 40.0	+4.2
YBH				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
MSO	Missoula	124.67	23	PFAKE		08 06 50.0	+14
MSO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
BMO	Blue Mountains	124.80	27	PFAKE		08 06 50.0	+13
BMO				LR	LR		
	comp=Z,997nm,20.0s,MS5.5						
WDC	Whiskeytown Da	125.22	34	PFAKE		08 06 50.0	+12
WDC				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
MOD	Modoc	125.51	32	PFAKE		08 06 50.0	+12
MOD				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
EFI	East Falkland	126.08	201	PFAKE		08 06 50.0	+11
EFI				LR	LR		
	comp=Z,359nm,21.0s,MS5.0						
DGMT	Dagmar	126.48	15	PFAKE		08 06 50.0	+10
DGMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
ULM	Lac du Bonnet	126.50	8	PKP	PKPdf	08 06 37.7	-2.0
	comp=Z,3.7nm,0.7s,baz=339,slow=4.6,SNR=7.5						
ULM	Lac du Bonnet	126.50	8	PKP	PKPdf	08 06 37.7	-2.0
ULM				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
BOZ	Bozeman (W)	126.55	23	PFAKE		08 06 50.0	+10
BOZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
HLID	Hailey	127.10	26	*e*PKPdf	PKPdf	08 06 38.2	-2.9
HLID				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
LAO	LASA Array	127.52	18	PFAKE		08 06 50.0	+8.2
LAO				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
LKWY	Lake	127.93	22	PFAKE		08 06 50.0	+7.3
LKWY				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
RKT	Rikitea	127.98	117	*e*LR	LR	08 47 13.4	
	comp=Z,660nm,25.2s						
CMB	Columbia Colle	128.17	35	PFAKE		08 06 50.0	+6.6
CMB				LR	LR		
	comp=Z,798nm,20.0s,MS5.4						
BMN	Battle Mountai	128.18	31	PFAKE		08 06 50.0	+6.7
BMN				LR	LR		
	comp=Z,728nm,20.0s,MS5.4						
SAO	San Andreas Ge	128.40	37	PFAKE		08 06 50.0	+6.2
SAO				LR	LR		
	comp=Z,990nm,22.0s,MS5.5						
PQI	Presque Isle	128.48	345	PFAKE		08 06 50.0	+6.3
PQI				LR	LR		
	comp=Z,16µm,20.0s						
ELK	Elko	128.93	29	PFAKE		08 06 50.0	+5.3
ELK				LR	LR		
	comp=Z,973nm,20.0s,MS5.5						
MNV	Mina	129.14	33	PFAKE		08 06 50.0	+4.8
MNV				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
AHID	Auburn Hatcher	129.16	24	PFAKE		08 06 50.0	+4.9
AHID				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
EYMN	Ely	129.28	5	PFAKE		08 06 50.0	+4.8

EYMN				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
BW06	**Boulder Array**	**129.78**	**23**	PFAKE		08 07 00.0	+14
BW06				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
PDAR	**Pinedale Array**	**129.78**	**23**	PKP	PKPdf	08 06 41.4	-4.8
	comp=Z,1.7nm,0.8s,baz=315,slow=2.1,SNR=9.0						
TPH	**Tonopah**	**129.91**	**33**	PFAKE		08 07 00.0	+13
TPH				LR	LR		
	comp=Z,882nm,21.0s,MS5.4						
HWUT	**Hardware Ranch**	**129.92**	**25**	PFAKE		08 07 00.0	+13
HWUT				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
RCBR	**Riachuelo**	**130.49**	**265**	PFAKE		08 07 00.0	+12
RCBR				LR	LR		
	comp=Z,871nm,20.0s,MS5.5						
WVL	**Waterville**	**130.86**	**345**	PFAKE		08 07 00.0	+12
WVL				LR	LR		
	comp=Z,12µm,21.0s,MS6.6						
DAC	**Darwin (Calif)**	**130.99**	**35**	PFAKE		08 07 00.0	+11
DAC				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
TPNV	**Topopah Spring**	**131.26**	**33**	PFAKE		08 07 00.0	+11
TPNV				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
MVU	**Marysvale**	**132.13**	**28**	PFAKE		08 07 00.0	+9.1
MVU				LR	LR		
	comp=Z,884nm,19.0s,MS5.5						
MSU	**Marysvale**	**132.14**	**28**	*e*PKIKP	PKPdf	08 06 48.6	-2.3
NCB	**Newcomb**	**132.45**	**349**	PFAKE		08 07 00.0	+8.7
NCB				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
WES	**Weston**	**133.33**	**346**	PFAKE		08 07 00.0	+7.0
WES				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
PFO	**Pinyon Flat Ob**	**133.54**	**36**	PFAKE		08 07 00.0	+6.4
PFO				LR	LR		
	comp=Z,236nm,19.0s,MS4.9						
PV10	**Paradox Valley**	**133.68**	**26**	PKPdf	PKPdf	08 06 53.1	-0.6
ISCO	**Idaho Springs**	**133.84**	**22**	PFAKE		08 07 00.0	+6.1
ISCO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
JFWS	**Jewell Farm**	**134.39**	**5**	PFAKE		08 07 00.0	+5.1
JFWS				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
BINY	**Binghamton**	**134.49**	**350**	PFAKE		08 07 00.0	+4.9
BINY				LR	LR		
	comp=Z,5µm,21.0s,MS6.2						
ERPA	**Erie**	**135.11**	**354**	PFAKE		08 07 00.0	+3.7
ERPA				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
SDCO	**Great Sand Dun**	**135.67**	**23**	PFAKE		08 07 10.0	+13
SDCO				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
SSPA	**Standing Stone**	**136.32**	**352**	PFAKE		08 07 10.0	+12
SSPA				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
CBKS	**Cedar Bluff**	**136.64**	**16**	PFAKE		08 07 10.0	+11
CBKS				LR	LR		
	comp=Z,5.0nm,21.0s						
ACSO	**Alum Creek Sta**	**137.21**	**357**	PFAKE		08 07 10.0	+10
ACSO				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
MCWV	**Mont Chateau**	**137.53**	**354**	PFAKE		08 07 10.0	+9.2
MCWV				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
ANMO	**Albuquerque**	**137.68**	**26**	PFAKE		08 07 10.0	+8.8
ANMO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
TUC	**Tucson**	**137.70**	**33**	PFAKE		08 07 10.0	+8.7
TUC				LR	LR		
	comp=Z,684nm,19.0s,MS5.4						
CBN	**Corbin**	**138.61**	**350**	PFAKE		08 07 10.0	+7.2
CBN				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
TRQA	**Tornquist**	**138.76**	**209**	PFAKE		08 07 10.0	+6.9
TRQA				LR	LR		
	comp=Z,930nm,19.0s,MS5.5						
CCM	**Cathedral Cave**	**139.09**	**7**	PFAKE		08 07 10.0	+6.3
CCM				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
WCI	**Wyandotte Cave**	**139.27**	**1**	PFAKE		08 07 10.0	+6.0
WCI				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
AMTX	**Amarillo**	**139.63**	**21**	PFAKE		08 07 10.0	+5.2
AMTX				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
BLA	**Blacksburg**	**140.01**	**354**	PFAKE		08 07 10.0	+4.6
BLA				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
WMOK	**Wichita Mounta**	**140.71**	**17**	PFAKE		08 07 20.0	+13
WMOK				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
MNTX	**Cornudas Mount**	**140.90**	**27**	*e*PKPpre		08 06 57.2	
MNTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BDFB	**Brasilia**	**140.95**	**248**	PKP	PKPdf	08 07 08.4	+0.8
	comp=Z,1.5nm,0.4s,baz=159,slow=8.0,SNR=3.5						
WVT	**Waverly**	**141.31**	**3**	PFAKE		08 07 20.0	+12
WVT				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
MIAR	**Mount Ida**	**142.17**	**11**	*e*PKPpre		08 07 02.2	
MIAR				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
OXF	**Oxford**	**142.80**	**5**	PFAKE		08 07 20.0	+10
OXF				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
LTX	**Lajitas**	**143.68**	**27**	*e*PKPpre		08 07 07.2	
LTX				LR	LR		
	comp=Z,1µm,22.0s,MS5.6						
TXAR	**Lajitas Array**	**143.68**	**27**	PKP	PKPdf	08 07 07.1	-4.9
	comp=Z,3.0nm,0.6s,baz=248,slow=0.3,SNR=72						
GOGA	**Godfrey**	**144.03**	**357**	PFAKE		08 07 20.0	+13
GOGA				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
JCT	**Junction City**	**144.28**	**21**	*e*PKPdf	PKPdf	08 07 08.2	-4.9
JCT				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
LRAL	**Lakeview Retre**	**144.43**	**2**	PFAKE		08 07 20.0	+12
LRAL				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
NATX	**Nacogdoches**	**144.63**	**14**	*e*PKPdf	PKPdf	08 07 09.6	-4.0
NATX				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
HKT	**Hockley**	**146.05**	**16**	*e*PKPdf	PKPdf	08 07 14.2	-2.0
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
FCH	**Farellones**	**146.39**	**203**	*e*P	PKPbc	08 07 15.9	+2.7
DWPF	**Disney**	**149.12**	**353**	PFAKE		08 07 30.0	+8.8
DWPF				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
SJG	**San Juan**	**151.89**	**318**	PFAKE		08 07 30.0	+4.3
SJG				LR	LR		
	comp=Z,795nm,20.0s,MS5.5						
LVC	**Limon Verde**	**154.51**	**218**	PFAKE		08 07 40.0	+11
LVC				LR	LR		
	comp=Z,831nm,19.0s,MS5.6						
TEIG	**Tepich**	**157.05**	**7**	PFAKE		08 07 40.0	+7.4
TEIG				LR	LR		
	comp=Z,546nm,21.0s,MS5.4						
LPAZ	**La Paz**	**158.25**	**231**	PKP	PKPdf	08 07 33.1	-1.2
	comp=Z,8.5nm,1.4s,baz=106,slow=6.7,SNR=4.6						
LPAZ				PKPab	PKPab	08 08 07.6	+1.4
	comp=Z,5.9nm,0.7s,baz=186,slow=6.0,SNR=14						
LPAZ	**La Paz**	**158.25**	**231**	*e*PKPdf	PKPdf	08 07 32.1	-2.2
LPAZ				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
SDV	**Santo Domingo**	**161.26**	**308**	PFAKE		08 07 50.0	+12
SDV				LR	LR		
	comp=Z,1µm,20.0s						
ROSC	**El Rosal**	**166.58**	**304**	PKP	PKPdf	08 07 41.5	-1.2
	comp=Z,6.5nm,1.0s,baz=149,slow=2.5,SNR=6.5						
JTS	**JuntasAbangare**	**167.08**	**358**	PFAKE		08 07 50.0	+7.0
JTS				LR	LR		
	comp=Z,251nm,20.0s						
NNA	**Nana**	**167.43**	**222**	PFAKE		08 07 50.0	+6.8
NNA				LR	LR		
	comp=Z,206nm,20.0s						
PAYG	**Puerto Ayora**	**174.78**	**67**	PFAKE		08 08 00.0	+13
PAYG				LR	LR		
	comp=Z,1µm,21.0s						

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*IDC **27** 08:10:58.3±0.5, 5.51N×93.89E, mb4.7/20, mb1 4.8/21, mb1mx4.7/26, ML3.9/1, MS4.3/1, Ms1 4.5/1, ms1mx3.2/26, Error ellipse: s-maj=22.6km s-min=12.5km az=41.0*

*MOS **27** 08:11:02.7±1.6, 5.48N×94.13E, h33^{km}, mb5.1/38, Error ellipse: s-maj=11.1km s-min=6.1km az=116.1*

*NEIC **27** 08:11:02.3±0.3, 5.48N×94.13E, mb5.0/33, Error ellipse: s-maj=11.0km s-min=9.1km az=215.0*

*BJI **27** 08:11:07.1, 6.14N×93.60E, h19^{km}, mB5.5, mb5.0, Ms5.3, Msz4.8*

ISC 27 08:11:00.6±0.3**, 5.47N**±0.05×**94.04E**±0.05**, h17**^{km}**,** **h17**^{km}±1.8^{km}**:pP-P, n174,** σ1^{s}**58**/158**, mb5.0**/72**, MS4.8**/1**,** **6C-3D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**13.77**	**20**	Pn	**P**	**08 14 18.4**	**+0.8**
	58nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.77**	**20**	Pn	**P**	**08 14 20.3**	**+2.7**
	0.2nm,0.3s,baz=218,slow=13,SNR=14						
CMAR				LR	LR	08 19 20.7	
	comp=Z,1µm,18.3s,baz=190,slow=36						
QIZ	**Qiongzhong**	**20.47**	**47**	P	**P**	**08 15 43.3**	**+3.0**
QIZ	**Qiongzhong**	**20.47**	**47**	*e*P	**P**	**08 15 38.0**	**-2.3**
	58nm,1.0s						
KMI	**Kunming**	**21.25**	**22**	P	**P**	**08 15 51.5**	**+3.3**
KMI				AMB	AMB		
	comp=Z,52nm,0.8s,mb4.9						
PKI	**Pulchoki**	**23.46**	**340**	*e*P	**P**	**08 16 08.4**	**-1.9**
	comp=Z,70nm,0.7s,mb5.2						
DMN	**Daman**	**23.60**	**340**	*e*P	**P**	**08 16 09.6**	**-2.0**
	comp=Z,139nm,0.8s,mb5.5						
GUN	**Gumba**	**23.63**	**342**	*e*P	**P**	**08 16 10.0**	**-1.8**
	comp=Z,91nm,0.8s,mb5.3						
KKN	**Kakani**	**23.71**	**340**	*e*P	**P**	**08 16 10.8**	**-1.8**
	comp=Z,132nm,0.9s,mb5.4						
GYA	**Guiyang**	**24.10**	**29**	⇑*i*P	**P**	**08 16 18.0**	**+1.5**
GYA				AP		08 16 23.3	
GYA				XP		08 16 26.0	
GYA				PP	PP	08 16 54.8	+3.7
GYA				AMB	AMB		
	comp=Z,70nm,0.8s,mb5.1						
GYA				AMB	AMB		
	comp=Z,370nm,2.8s,mb5.3						
GYA				LR	LR		
	comp=N,2µm,16.6s,MS4.8						
GYA				LR	LR		
	comp=E,2µm,15.8s,MS4.8						
GYA				LR	LR		
	comp=Z,2µm,16.0s,MS4.8						
GKN	**Gorkha**	**24.13**	**339**	*e*P	**P**	**08 16 14.9**	**-1.8**
	comp=Z,69nm,0.7s,mb5.2						
LSA	**Lhasa**	**24.25**	**354**	*e*P	**P**	**08 16 17.8**	**-0.1**
LSA				*e**PP		08 16 24.7	
LSA				pmax	pmax		
	comp=Z,113nm,0.8s,mb5.3						
LSA	**Lhasa**	**24.25**	**354**	*e*P	**P**	**08 16 17.8**	**-0.1**
	comp=Z,113nm,0.8s,mb5.3						
LSA				*e*pP		08 16 24.7	
KOLN	**Koldanda**	**24.30**	**337**	*e*P	**P**	**08 16 17.4**	**-1.0**
	comp=Z,77nm,0.9s,mb5.1						
CD2	**Chengdu**	**26.91**	**19**	P	**P**	**08 16 45.8**	**+3.0**
CD2				AMB	AMB		
	comp=Z,140nm,1.0s,mb5.5						
WHN	**Wuhan**	**31.42**	**35**	⇑P	**P**	**08 17 29.3**	**+6.0**
XAN	**Xi'an**	**31.60**	**24**	P	**P**	**08 17 23.5**	**-1.3**
XAN				AMB	AMB		
	comp=Z,51nm,0.9s,mb5.3						
LZH	**Lanzhou**	**31.77**	**15**	*e*P	**P**	**08 17 30.0**	**+3.7**
LZH				AP	pP	08 17 33.0	+1.6
LZH				XP	sP	08 17 34.5	+0.9
LZH				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.1						
GTA	**Gaotai**	**34.19**	**8**	*e*P	**P**	**08 17 50.0**	**+2.7**
GTA				AP	pP	08 17 54.3	+1.9
GTA				XP	sP	08 17 57.5	+2.9
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.4						
NJ2	**Nanjing**	**35.18**	**38**	*e*P	**P**	**08 18 02.0**	**+6.1**
NJ2				AMB	AMB		
	comp=Z,70nm,0.9s,mb5.6						
KSH	**Kashi**	**37.62**	**337**	P	**P**	**08 18 19.3**	**+3.0**
KSH				AMB	AMB		
	comp=Z,250nm,4.4s						
HHC	**Hu-ho-hao-te**	**38.57**	**21**	*e*P	**P**	**08 18 26.0**	**+1.7**
HHC				AP	pP	08 18 34.3	+4.8
HHC				XP	sP	08 18 36.8	+5.2
HHC				AMB	AMB		
	comp=Z,26nm,0.8s,mb5.0						
HHC				AMB	AMB		
	comp=Z,3µm,9.5s						
HHC				LR	LR		
	comp=N,2µm,8.3s						
HHC				LR	LR		
	comp=E,3µm,8.9s						
WMQ	**Urumqi**	**38.60**	**353**	P	**P**	**08 18 23.8**	**-0.7**
WMQ				AP	pP	08 18 28.3	-1.4
WMQ				XP	sP	08 18 30.8	-1.1
WMQ				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.6						
JOW	**Kunigami**	**38.93**	**53**	P	**P**	**08 18 27.4**	**-0.1**
	comp=Z,21nm,1.1s,mb4.8,baz=203,slow=7.7,SNR=2.9						
BJT	**Baijiatuau**	**39.75**	**27**	P	**P**	**08 18 34.1**	**0.0**
BJI	**Beijing**	**39.77**	**27**	P	**P**	**08 18 37.0**	**+2.7**
BJI				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.5						
ULHL	**Ulahol**	**39.90**	**339**	P	**P**	**08 18 38.4**	**+3.1**
	SNR=6.8						
KZA	**Kyzart**	**40.11**	**338**	P	**P**	**08 18 40.0**	**+3.0**
	SNR=13						
UCH	**Uchtor**	**40.51**	**338**	P	**P**	**08 18 39.1**	**-1.3**
	SNR=25						
TKM2	**Tokmak 2**	**40.72**	**339**	P	**P**	**08 18 44.2**	**+2.2**
	SNR=8.3						
KBK	**Karagaybulak**	**40.72**	**338**	P	**P**	**08 18 45.8**	**+3.7**
	SNR=6.8						
AML	**Almayashu**	**40.75**	**337**	P	**P**	**08 18 41.1**	**-1.2**
	SNR=11						
AAK	**Ala-Archa**	**40.87**	**338**	P	**P**	**08 18 46.5**	**+3.2**
	SNR=10						
AAK	**Ala-Archa**	**40.87**	**338**	*i* P	**P**	**08 18 41.9**	**-1.4**
AAK				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.6						
AAK	**Ala-Archa**	**40.87**	**338**	*e*P	**P**	**08 18 41.4**	**-1.9**
	comp=Z,23nm,1.1s,mb4.7						
EKS2	**Erkin-Say**	**41.17**	**337**	P	**P**	**08 18 49.4**	**+3.7**
	SNR=8.9						
USP	**Ospenovka**	**41.41**	**338**	P	**P**	**08 18 50.8**	**+3.1**
	SNR=11						
MKAR	**Makanchi Array**	**42.40**	**348**	*i* P	**P**	**08 18 53.9**	**-1.9**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.5s						
SONM	**Songino Array**	**43.52**	**12**	P	**P**	**08 19 05.1**	**+0.2**
	comp=Z,9.8nm,1.0s,mb4.5,baz=195,slow=7.9,SNR=19						
ULN	**Ulaanbaatar**	**43.69**	**13**	*e*P	**P**	**08 19 05.6**	**-0.7**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
ULN	**Ulaanbaatar**	**43.69**	**13**	*e*P	**P**	**08 19 05.6**	**-0.7**
	comp=Z,5.2nm,0.8s,mb4.3						
ZAK	**Zakamensk**	**45.43**	**8**	*e*P	**P**	**08 19 21.7**	**+1.5**
TLY	**Talaya**	**46.75**	**8**	*i* P	**P**	**08 19 31.2**	**+0.6**
TLY				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
WRA	**Warramunga Arr**	**46.98**	**124**	P	**P**	**08 19 33.0**	**0.0**
	comp=Z,45nm,0.8s,mb5.5,baz=301,slow=9.1,SNR=181						
WRAB	**Tennant Creek**	**46.99**	**124**	*e*P	**P**	**08 19 32.8**	**-0.2**
WRAB				*PP	pP	08 19 38.8	+0.6
WRAB				pmax	pmax		
	comp=Z,71nm,0.8s,mb5.7						
WRAB	**Tennant Creek**	**46.99**	**124**	*e*P	**P**	**08 19 32.8**	**-0.2**
	comp=Z,71nm,0.8s,mb5.7						
WRAB				pP	pP	08 19 38.8	+0.6
ASAR	**Alice Springs**	**48.48**	**128**	P	**P**	**08 19 44.5**	**-0.1**
	comp=Z,15nm,0.9s,mb5.0,baz=308,slow=7.5,SNR=76						
ASAR				PcP	PcP	08 21 09.9	-1.1
	comp=Z,2.4nm,0.7s,baz=319,slow=3.4,SNR=3.2						
HIA	**Hailar**	**48.77**	**22**	*e*P	**P**	**08 19 46.2**	**-0.3**
HIA				pmax	pmax		
	comp=Z,16nm,0.8s						
HIA	**Hailar**	**48.77**	**22**	*e*P	**P**	**08 19 46.1**	**-0.3**
	comp=Z,16nm,0.8s,mb5.1						
HIA				*e*pP	pP	08 19 50.8	-1.0
ZAL	**Zalesovo**	**48.90**	**353**	P	**P**	**08 19 45.9**	**-1.6**
	comp=Z,5.3nm,0.6s,mb4.8,baz=299,slow=4.7,SNR=22						
NVS	**Novosibirsk**	**49.99**	**352**	*e*P	**P**	**08 19 53.1**	**-2.7**
NVS				*e*		08 27 02.0	
NVS				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.4						
NVS				pmax	pmax		
	comp=N,31nm,1.0s						
BVAR	**Borovoye Array**	**51.22**	**342**	P	**P**	**08 20 02.5**	**-2.7**
	comp=N,14nm,0.9s,mb4.9,baz=158,slow=8.0,SNR=28						
BRVK	**Borovoye**	**51.28**	**342**	*e*P	**P**	**08 20 05.1**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
BRVK	**Borovoye**	**51.28**	**342**	*e*P	**P**	**08 20 05.1**	**-0.6**
	comp=Z,21nm,1.0s,mb5.0						
CHKZ	**Chkalovo**	**51.72**	**342**	*e*P	**P**	**08 20 06.1**	**-2.8**
CHKZ				*e**PP	pP	08 20 11.2	-3.0
CHKZ				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
CHKZ	**Chkalovo**	**51.72**	**342**	*e*P	**P**	**08 20 06.1**	**-2.9**
	comp=Z,46nm,1.0s,mb5.4						
CHKZ				*e*pP	pP	08 20 11.2	-3.0
BOD	**Bodaibo**	**54.50**	**13**	*e*P	**P**	**08 20 27.4**	**-2.1**
PMG	**Port Moresby**	**54.96**	**105**	P	**P**	**08 20 31.9**	**-1.6**
	comp=Z,9.4nm,0.8s,mb4.9,baz=290,slow=3.1,SNR=6.5						
GNI	**Garni**	**56.05**	**316**	P	**P**	**08 20 42.0**	**+0.9**
	comp=Z,2.6nm,0.4s,mb4.6,baz=159,slow=8.6,SNR=7.5						
GNI	**Garni**	**56.05**	**316**	*e*P	**P**	**08 20 41.2**	**+0.1**
GNI				pmax	pmax		
	comp=Z,6.0nm,0.6s						
GNI	**Garni**	**56.05**	**316**	*e*P	**P**	**08 20 41.2**	**+0.2**
	comp=Z,6.1nm,0.6s,mb4.8						
CLNS	**Chul'man**	**56.71**	**20**	*e*P	**P**	**08 20 48.9**	**+3.3**
CLNS				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.8s						
KMBO	**Kilima Mbogo**	**57.09**	**265**	P	**P**	**08 20 45.3**	**-3.6**
	comp=N,2.9nm,1.0s,mb4.2,baz=52,slow=12,SNR=2.5						
KMBO	**Kilima Mbogo**	**57.09**	**265**	*e*P	**P**	**08 20 48.9**	**0.0**
KMBO				pmax	pmax		
	comp=Z,4.0nm,1.1s						
KMBO	**Kilima Mbogo**	**57.09**	**265**	*e*P	**P**	**08 20 48.9**	**+0.1**
	comp=Z,3.9nm,1.1s,mb4.3						
CTA	**Charters Tower**	**57.25**	**118**	P	**P**	**08 20 47.3**	**-2.5**
	comp=Z,9.5nm,1.0s,mb4.8,baz=287,slow=9.0,SNR=6.8						
CTAO	**Charters Tower**	**57.25**	**118**	*e*P	**P**	**08 20 47.3**	**-2.6**
CTAO				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
CTAO	**Charters Tower**	**57.25**	**118**	*e*P	**P**	**08 20 47.3**	**-2.6**
	comp=Z,12nm,1.0s,mb4.9						
SVE	**Sverdlovsk**	**57.59**	**339**	*e*P	**P**	**08 20 52.0**	**+0.2**
SVE				pmax	pmax		
	comp=Z,70nm,1.4s,mb5.5						
ZEI	**Tsey**	**57.73**	**318**	*e*P	**P**	**08 20 52.6**	**-0.4**
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
ARU	**Arti**	**58.06**	**338**	⇓*i*P	**P**	**08 20 52.6**	**-2.4**
ARU				*e*S	**S**	**08 28 51.3**	**-1.9**
ARU				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
ARU	**Arti**	**58.06**	**338**	P	**P**	**08 20 54.4**	**-0.6**
	comp=Z,24nm,1.0s,mb5.2						
STKA	**Stephens Creek**	**58.54**	**133**	P	**P**	**08 20 58.2**	**-0.6**
	comp=Z,11nm,0.7s,mb5.0,baz=307,slow=7.4,SNR=20						
STKA	**Stephens Creek**	**58.54**	**133**	*e*P	**P**	**08 20 58.0**	**-0.8**
KIV	**Kislovodsk**	**59.04**	**319**	*i* P	**P**	**08 21 02.3**	**+0.2**
KIV				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.0						
KIV	**Kislovodsk**	**59.04**	**319**	*e*P	**P**	**08 21 01.7**	**-0.4**
	comp=Z,7.1nm,0.5s,mb5.0						
ASF	**Jabal al Asfar**	**59.46**	**304**	P	**P**	**08 21 05.0**	**-0.1**
	comp=Z,7.8nm,0.9s,mb4.7,baz=225,slow=8.6,SNR=5.7						
MALT	**Malatya**	**59.95**	**311**	*e*P	**P**	**08 21 06.8**	**-1.6**
MALT				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
MALT	**Malatya**	**59.95**	**311**	*e*P	**P**	**08 21 06.8**	**-1.7**
	comp=Z,8.6nm,1.3s,mb4.6						
GZT	**Gaziantep**	**60.31**	**310**	*i* P	**P**	**08 21 08.2**	**-2.7**
EIL	**Elat**	**60.55**	**301**	*e*P	**P**	**08 21 13.5**	**+0.9**
SOC	**Sochi**	**60.86**	**317**	*e*P	**P**	**08 21 12.1**	**-2.4**
SOC				*i*		08 23 31.4	
SOC				*i* PPP	PPP	08 25 02.4	+3.8
SOC				*e*S	**S**	**08 29 29.6**	**0.0**
SOC				*e*SS	SS	08 33 23.3	-7.0
SOC				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.0						
SOC				pmax	pmax		
	comp=N,12nm,0.8s						
SOC				pmax	pmax		
	comp=E,11nm,0.8s						
COBT	**Iskenderun**	**61.08**	**309**	*i* P	**P**	**08 21 12.7**	**-3.4**
YAK	**Yakutsk**	**62.29**	**18**	*e*P	**P**	**08 21 25.9**	**+1.9**
YAK				*e*S	**S**	**08 29 46.6**	**-1.0**
YAK				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.1						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.0s						
YAK				smax			
	comp=E,4.0nm,1.0s						
YAK	**Yakutsk**	**62.29**	**18**	*e*P	**P**	**08 21 22.7**	**-1.3**
	comp=E,32nm,0.7s,mb5.6						
CSS	**Prodhromos**	**63.00**	**306**	*e*P	**P**	**08 21 27.3**	**-1.7**
MBAR	**Mbarara**	**63.50**	**267**	*e*P	**P**	**08 21 32.9**	**+0.3**
MBAR				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.6						
MBAR	**Mbarara**	**63.50**	**267**	*e*P	**P**	**08 21 32.9**	**+0.4**
	comp=Z,6.3nm,1.3s,mb4.6						
BRTR	**Keskin Array B**	**63.93**	**312**	P	**P**	**08 21 32.0**	**-3.1**
	comp=Z,6.6nm,0.9s,mb4.7,baz=108,slow=3.9,SNR=28						
ESKT	**Eskisehir**	**65.96**	**311**	*i* P	**P**	**08 21 48.4**	**+0.2**
OBN	**Obninsk**	**67.35**	**328***c*	*i*P	**P**	**08 21 57.4**	**+0.6**
OBN				pmax	pmax		
	comp=Z,46nm,1.6s,mb5.3						
LSZ	**Lusaka**	**68.39**	**251**	*e*P	**P**	**08 22 04.7**	**+0.7**
LSZ				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
LSZ	**Lusaka**	**68.39**	**251**	*e*P	**P**	**08 22 04.7**	**+0.7**
	comp=Z,7.7nm,1.1s,mb4.7						
TIXI	**Tiksi**	**69.59**	**11**	⇓*i*P	**P**	**08 22 08.6**	**-1.9**
TIXI				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
IDI	**Anoyia**	**69.86**	**305**	P	**P**	**08 22 12.1**	**-0.6**
	comp=Z,16nm,0.7s,mb5.0,baz=68,slow=7.5,SNR=7.6						
AKASG	**Malin Array Be**	**69.97**	**322**	P	**P**	**08 22 10.2**	**-2.9**
	comp=Z,5.7nm,0.8s,mb4.6,baz=89,slow=4.9,SNR=18						
AKASG				PP	PP	08 24 48.1	-1.7
	comp=Z,0.3nm,0.4s,baz=102,slow=7.2,SNR=4.3						
AKASG	**Malin Array Be**	**69.97**	**322**	P	**P**	**08 22 10.2**	**-2.9**
AKASG						08 24 48.1	
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.8s						
LBTB	**Lobatse**	**73.02**	**242**	*e*P	**P**	**08 22 32.0**	**+0.1**
LBTB				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
LBTB	**Lobatse**	**73.02**	**242**	*e*P	**P**	**08 22 31.9**	**0.0**
	comp=Z,12nm,1.3s,mb4.7						
KWP	**Kalwaria**	**73.79**	**320**	*e*P	**P**	**08 22 36.8**	**+0.9**
KWP				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
KWP	**Kalwaria**	**73.79**	**320**	*e*P	**P**	**08 22 36.8**	**+0.9**
	comp=Z,28nm,1.0s,mb5.1						
KOLS	**Kolonicke sedl**	**73.94**	**319**	*i* P	**P**	**08 22 38.4**	**+1.6**
APA	**Apatity**	**74.05**	**340**	⇓*i*P	**P**	**08 22 38.4**	**+1.4**
APA				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
BOSA	**Boshof**	**74.24**	**238**	*e*P	**P**	**08 22 40.0**	**+1.1**
BOSA				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.7						
BOSA	**Boshof**	**74.24**	**238**	*e*P	**P**	**08 22 40.0**	**+1.1**
	comp=Z,15nm,1.4s,mb4.7						
CRVS	**Cervenica-Dubn**	**74.47**	**319**	*e*P	**P**	**08 22 42.0**	**+2.2**
FINES	**FINESS Array B**	**74.78**	**333**	P	**P**	**08 22 38.5**	**-2.9**
	comp=Z,6.9nm,0.9s,mb4.6,baz=135,slow=12,SNR=3.7						
KAF	**Kangasniemi**	**74.88**	**333**	*e*p	**P**	**08 22 43.8**	**+1.9**
	comp=Z,22nm,1.1s,mb5.0						
KAF	**Kangasniemi**	**74.88**	**333**	*e*P	**P**	**08 22 43.8**	**+1.9**
KAF				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
PSZ	**Piszkesteto**	**75.34**	**318**	*e*P	**P**	**08 22 44.9**	**0.0**
PSZ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
PSZ	**Piszkesteto**	**75.34**	**318**	*e*P	**P**	**08 22 46.7**	**+1.8**
PSZ	**Piszkesteto**	**75.34**	**318**	*e*P	**P**	**08 22 44.9**	**0.0**
	comp=Z,12nm,0.9s,mb4.8						
OJC	**Ojcow**	**75.75**	**320**	*e*P	**P**	**08 22 48.7**	**+1.6**
VYHS	**Vyhne**	**76.12**	**319**	*e*P	**P**	**08 22 50.0**	**+0.7**
VYHS				*e*pP	pP	08 22 56.3	+1.5
OKC	**Ostrava-Krasne**	**76.75**	**320**	*e*P	**P**	**08 22 54.4**	**+1.6**
MORC	**Moravsky Berou**	**77.13**	**320**	*e*P	**P**	**08 22 56.4**	**+1.5**

MORC				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
MORC	**Moravsky Berou**	**77.13**	**320**	*e*P	**P**	**08 22 56.4**	**+1.6**
	comp=Z,22nm,1.2s,mb5.0						
ZST	**Bratislava**	**77.24**	**318**	*i* P	**P**	**08 22 57.3**	**+1.8**
ARCES	**ARCESS Array B**	**77.48**	**340**	P	**P**	**08 22 54.0**	**-2.5**
	comp=Z,5.6nm,0.9s,mb4.5,baz=90,slow=6.1,SNR=8.3						
DPC	**Dobruska-Polom**	**77.97**	**320**	*e*P	**P**	**08 23 00.1**	**+0.6**
KSP	**Ksiaz**	**78.04**	**321**	*e*P	**P**	**08 23 01.4**	**+1.5**
UPC	**Upice**	**78.19**	**320**	*e*P	**P**	**08 23 02.7**	**+2.0**
BILL	**Bilibino**	**78.34**	**21**	*e*P	**P**	**08 23 00.5**	**-0.7**
BILL				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BILL	**Bilibino**	**78.34**	**21**	*e*P	**P**	**08 23 00.5**	**-0.7**
	comp=Z,2.8nm,0.7s,mb4.3						
SUR	**Sutherland**	**78.90**	**236**	*e*P	**P**	**08 23 04.4**	**-0.6**
	comp=Z,45nm,1.6s,mb5.2						
PRU	**Pruhonice**	**79.08**	**320**	*e*P	**P**	**08 23 07.2**	**+1.6**
FX1	**Attu Island--F**	**79.10**	**37**	P	**P**	**08 23 04.4**	**-1.2**
	comp=Z,17nm,0.8s,mb5.0,baz=21,slow=14,SNR=2.1						
FX1	**Attu Island--F**	**79.10**	**37**	P	**P**	**08 23 04.4**	**-1.2**
FX1				pmax	pmax		
	comp=Z,17nm,0.8s						
PVCC	**Panska Ves**	**79.11**	**320**	*e*P	**P**	**08 23 07.9**	**+2.2**
DRV	**Dumont d'Urvil**	**79.12**	**163**	R		08 22 00.0	
BRG	**Berggiesshubel**	**79.53**	**321**	*i* P	**P**	**08 23 09.6**	**+1.6**
BRG				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
BRG	**Berggiesshubel**	**79.53**	**321**	*i* P	**P**	**08 23 09.6**	**+1.6**
	comp=Z,18nm,1.2s,mb4.9						
GEC2	**GERESS Array S**	**79.55**	**319**	*e*P	**P**	**08 23 06.9**	**-1.2**
GERES	**GERESS Array B**	**79.55**	**319**	P	**P**	**08 23 06.3**	**-1.8**
	comp=Z,13nm,0.9s,mb4.8,baz=117,slow=3.0,SNR=31						
KHC	**Kasperske Hory**	**79.65**	**319**	*e*P	**P**	**08 23 11.0**	**+2.3**
RUE	**Ruedersdorf**	**79.75**	**322**	*e*P	**P**	**08 23 09.2**	**0.0**
	comp=Z,16nm,0.6s,mb5.1						
WET	**Wettzell**	**80.11**	**319**	*e*P	**P**	**08 23 09.8**	**-1.3**
CLL	**Collm**	**80.15**	**321**	⇑*i*P	**P**	**08 23 13.4**	**+2.1**
CLL				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
CLL	**Collm**	**80.15**	**321**	⇑*i*P	**P**	**08 23 13.4**	**+2.1**
	comp=Z,14nm,1.2s,mb4.8						
CLL	**Collm**	**80.15**	**321**	⇑P	**P**	**08 23 13.4**	**+2.1**
	comp=Z,logA/T=1.1,mb4.8						
NKC	**Novy Kostel**	**80.44**	**320**	*e*P	**P**	**08 23 15.5**	**+2.6**
MOX	**Moxa**	**80.99**	**320**	*e*P	**P**	**08 23 15.8**	**0.0**
MOX				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.9						
MOX	**Moxa**	**80.99**	**320**	*i* P	**P**	**08 23 15.8**	**0.0**
	comp=Z,logA/T=1.2,mb4.9						
MOX	**Moxa**	**80.99**	**320**	*e*P	**P**	**08 23 15.8**	**0.0**
	comp=Z,23nm,1.6s,mb4.9						
GRA1	**Grafenberg Arr**	**81.21**	**319**	*e*P	**P**	**08 23 16.0**	**-1.0**
	comp=Z,9.0nm,0.8s,mb4.8						
GRF	**Grafenberg Arr**	**81.21**	**319**	*e*P	**P**	**08 23 16.0**	**-1.0**
GRF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
GRF	**Grafenberg Arr**	**81.21**	**319**	*e*P	**P**	**08 23 16.0**	**-1.0**
GRF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
GRF	**Grafenberg Arr**	**81.21**	**319**	*e*P	**P**	**08 23 16.0**	**-1.0**
	comp=Z,9.0nm,0.8s,mb4.8						
NB2	**NORSAR Subarra**	**81.77**	**331**	P	**P**	**08 23 19.9**	**+0.3**
	comp=Z,7.1nm,1.0s,mb4.5,baz=95,slow=5.6						
NB2	**NORSAR Subarra**	**81.77**	**331**	P	**P**	**08 23 19.9**	**+0.3**
NB2				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
NOA	**NORSAR Array B**	**81.77**	**331**	P	**P**	**08 23 19.9**	**+0.3**
	comp=Z,2.9nm,0.9s,mb4.2,baz=94,slow=5.4,SNR=5.0						
CLZ	**Clausthal**	**81.81**	**321**	*e*P	**P**	**08 23 18.8**	**-1.2**
BSEG	**Bad Segeberg**	**81.91**	**324**	*e*P	**P**	**08 23 19.4**	**-1.1**
BFO	**Black Forest**	**83.10**	**318**	*e*P	**P**	**08 23 24.9**	**-1.9**
LPL	**La Plagne**	**84.25**	**315**	*e*P	**P**	**08 23 35.3**	**+2.6**
	comp=Z,43nm,1.1s,mb5.2						
LPL	**La Plagne**	**84.25**	**315**	*e*P	**P**	**08 23 35.3**	**+2.6**
LPL				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.2						
YKA	**Yellowknife Ar**	**108.77**	**14**	PP	PP	08 29 55.7	-4.2
	comp=Z,0.4nm,0.8s,baz=332,slow=7.7,SNR=7.4						
MSO	**Missoula**	**122.33**	**22**	*e*PKPdf	PKPdf	08 29 55.1	-3.8
ULM	**Lac du Bonnet**	**123.85**	**8**	PKP	PKPdf	08 29 57.9	-3.9
	comp=Z,1.3nm,0.7s,baz=332,slow=5.2,SNR=3.0						
ULM	**Lac du Bonnet**	**123.85**	**8**	PKP	PKPdf	08 29 57.9	-3.9
BOZ	**Bozeman (W)**	**124.19**	**22**	*e*PKPdf	PKPdf	08 29 59.9	-2.7
NVAR	**Mina Array Bea**	**127.01**	**32**	PKP	PKPdf	08 30 04.8	-3.3
	comp=Z,1.4nm,0.8s,baz=256,slow=8.3,SNR=3.8						
NVAR	**Mina Array Bea**	**127.01**	**32**	PKP	PKPdf	08 30 04.8	-3.3
PDAR	**Pinedale Array**	**127.43**	**22**	PKP	PKPdf	08 30 05.9	-3.0
	comp=Z,1.4nm,1.0s,baz=29,slow=2.7,SNR=6.3						
NLU	**North Lily Min**	**128.79**	**26**	*e*PKPdf	PKPdf	08 30 09.3	-2.4
MSU	**Marysvale**	**129.94**	**27**	*e*PKIKP	PKPdf	08 30 10.9	-2.9
PV10	**Paradox Valley**	**131.40**	**24**	*e*PKPdf	PKPdf	08 30 14.7	-1.9
BDFB	**Brasilia**	**141.42**	**252**	PKP	PKPdf	08 30 33.6	-2.0
	comp=Z,5.9nm,1.2s,baz=148,slow=2.1,SNR=2.4						
TXAR	**Lajitas Array**	**141.44**	**25**	PKP	PKPdf	08 30 30.7	-4.7
	comp=Z,0.8nm,0.8s,baz=229,slow=2.8,SNR=6.6						
TXAR				PP	PP	08 33 38.8	+0.4
	comp=Z,0.6nm,0.9s,baz=45,slow=3.5,SNR=4.5						
TXAR	**Lajitas Array**	**141.44**	**25**	PKP	PKPdf	08 30 30.7	-4.7
TXAR				PP	PP	08 33 38.8	+0.4
JCT	**Junction City**	**141.88**	**20**	*e*PKIKP	PKPdf	08 30 32.5	-3.6
JCT				*e*		08 30 40.4	
LPAZ	**La Paz**	**159.48**	**237**	PKPab	PKPab	08 31 39.6	+0.2
	comp=Z,2.3nm,0.8s,baz=74,slow=7.6,SNR=5.8						
LPAZ	**La Paz**	**159.48**	**237**	*e*PKP2	PKPab	08 31 39.4	0.0
LPAZ	**La Paz**	**159.48**	**237**	PKP2	PKPab	08 31 39.6	+0.2
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						

TAP ***27*** *08:15:47.7, 24.35N×122.60E, h118^{km}, ML3.2*

JMA 27 08:15:44.8±0.4**, 23.96N×122.82E, M2.4, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.53**	**19**	P	Pg	08 15 55.6	+0.2
YOJ				*e*S	Sg	08 16 03.2	+0.8
HATJ	**Hateruma jima**	**0.91**	**84**	*e*S	Sg	08 16 14.0	-1.0
IRIF	**Iriomote-Funau**	**0.91**	**66**	P	Pg	08 16 02.7	-0.3
IRIF				*e*S	Sg	08 16 14.7	-0.4
JIJ	**Ishigaki jima**	**1.27**	**71**	P	Pb	08 16 09.2	-0.2
JIJ				*e*S	Sb	08 16 26.5	+0.3
JTJ	**Tarama**	**1.85**	**68**	*e*S	Sn	08 16 42.5	+0.1

IDC ***27*** *08:17:44.5±1.0, 5.60N×92.93E, mb4.0/10, mb1 4.2/11, mb1mx4.1/19, ML4.4/1, Error ellipse: s-maj=40.0km s-min=20.8km az=48.0*

NEIC ***27*** *08:17:49.5±0.6, 5.66N×93.00E, h30^{km}, mb4.3/2, Error ellipse: s-maj=18.9km s-min=13.7km az=62.0*

ISC 27 08:17:47.0±0.8**, 5.6N**±0.1×**93.0E**±0.1**, h30**^{km}**, n16, σ0^{s}63**/13**, mb4.1**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.03**	**24**	Pn	**P**	**08 21 06.1**	**-0.1**
	0.5nm,0.3s,baz=219,slow=14,SNR=8.5						
SONM	**Songino Array**	**43.61**	**13**	P	**P**	**08 25 50.8**	**+0.5**
	2.7nm,0.7s,mb4.1,baz=194,slow=8.2,SNR=16						
WRA	**Warramunga Arr**	**47.94**	**123**	P	**P**	**08 26 24.9**	**-0.3**
	1.1nm,0.8s,mb3.9,baz=302,slow=9.1,SNR=5.5						
ASAR	**Alice Springs**	**49.40**	**128**	P	**P**	**08 26 36.4**	**0.0**
	0.4nm,0.5s,mb3.7,baz=298,slow=8.3,SNR=3.9						
BVAR	**Borovoye Array**	**50.77**	**343**	P	**P**	**08 26 46.0**	**-0.5**
	1.6nm,0.7s,mb4.1,baz=153,slow=6.6,SNR=6.5						
BRVK	**Borovoye**	**50.83**	**343**	*e*P	**P**	**08 26 46.7**	**-0.2**
	2.9nm,0.9s,mb4.2						
BRTR	**Keskin Array B**	**63.06**	**312**	P	**P**	**08 28 13.2**	**-0.7**
	0.9nm,0.5s,mb4.2,baz=112,slow=6.7,SNR=4.9						
AKASG	**Malin Array Be**	**69.22**	**322**	P	**P**	**08 28 52.4**	**-0.8**
	0.6nm,0.4s,mb3.8,baz=259,slow=9.7,SNR=6.8						
MLR	**Muntele Rosu**	**70.00**	**316**	P	**P**	**08 28 57.9**	**0.0**
	2.9nm,0.7s,mb4.3,baz=58,slow=7.2,SNR=4.2						
FINES	**FINESS Array B**	**74.17**	**333**	P	**P**	**08 29 21.9**	**-0.6**
	1.4nm,0.6s,mb4.0,baz=104,slow=7.9,SNR=5.3						
PSZ	**Piszkesteto**	**74.54**	**318**	*e*P	**P**	**08 29 25.3**	**+0.4**
	3.0nm,0.8s,mb4.3						
ARCES	**ARCESS Array B**	**77.00**	**341**	P	**P**	**08 29 39.0**	**+0.7**
	1.0nm,0.5s,mb4.0,baz=96,slow=5.4,SNR=11						
GERES	**GERESS Array B**	**78.75**	**319**	P	**P**	**08 29 50.0**	**+1.7**
	1.8nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=11						
MOX	**Moxa**	**80.22**	**320**	*e*P	pP	08 30 05.0	-0.8
TXAR	**Lajitas Array**	**141.75**	**24**	PKP	PKPdf	08 37 20.9	-0.7
	0.3nm,0.6s,baz=27,slow=2.8,SNR=3.5						
CPUP	**Villa Florida**	**144.97**	**231**	PKP	PKPdf	08 37 25.3	-1.9
	0.0nm,0.4s,baz=336,slow=11,SNR=3.2						

BJI ***27*** *08:20:03.5, 11.00N×92.27E, h22^{km}, mB5.5, mb4.7, Ms5.4*

IDC ***27*** *08:20:11.3±0.8, 11.65N×92.30E, h22^{km}±4^{km}, mb4.1/12, mb1 4.3/13, mb1mx4.2/19, ML4.4/1, Error ellipse: s-maj=32.4km s-min=15.4km az=48.0*

NEIC ***27*** *08:20:11.3±0.4, 11.69N×92.31E, mb4.6/7, Error ellipse: s-maj=12.4km s-min=9.0km az=48.0*

ISC 27 08:20:08.8±0.6**, 11.67N**±0.07×**92.28E**±0.07**, h21**^{km}**, h21**^{km}±1.2^{km}**:pP-P, n43, σ0^{s}82**/40**, mb4.4**/23**, 2C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.32**	**43**	Pn	**P**	**08 22 24.6**	**-0.5**
	1.0nm,0.3s,baz=237,slow=15,SNR=11						
CMAR				Sn	**Sn**	**08 24 15.2**	**+4.8**
	0.7nm,0.3s,baz=236,slow=29,SNR=4.7						
VIS	**Vishakhapatnam**	**10.54**	**306**	*e*P	**P**	**08 22 40.2**	**-1.7**
VIS				AML	AML	08 24 29.9	
	comp=N,119nm,1.0s						
VIS				AML	AML	08 24 30.1	
	comp=E,147nm,1.0s						
BOK	**Bokaro**	**13.51**	**334**	*e*P	**P**	**08 23 20.5**	**-1.4**
SHL	**Shillong**	**13.83**	**359**	*e*P	**P**	**08 23 31.0**	**+4.9**
BLSP	**Bilaspur**	**14.22**	**318**	*e*S	**S**	**08 26 10.3**	**+0.9**
PKI	**Pulchoki**	**17.08**	**339**	*e*P	**P**	**08 24 08.7**	**+0.6**
	comp=E,32nm,0.5s						
DMN	**Daman**	**17.23**	**338**	*e*P	**P**	**08 24 10.5**	**+0.6**
	comp=E,93nm,0.9s						
GUN	**Gumba**	**17.24**	**341**	*e*P	**P**	**08 24 09.3**	**-0.7**
	comp=E,47nm,0.7s						
KKN	**Kakani**	**17.33**	**339**	*e*P	**P**	**08 24 11.1**	**-0.1**
GKN	**Gorkha**	**17.76**	**337**	*e*P	**P**	**08 24 15.8**	**-0.7**
	comp=E,30nm,0.3s						
KOLN	**Koldanda**	**17.97**	**334**	*e*P	**P**	**08 24 19.3**	**+0.2**
	comp=E,44nm,0.6s						
GYA	**Guiyang**	**20.00**	**41**	⇑*i*P	**P**	**08 24 42.8**	**-0.3**
GYA				AMB	AMB		
	comp=Z,20nm,1.1s						
CD2	**Chengdu**	**21.90**	**27**	P	**P**	**08 25 02.8**	**+0.3**
DDI	**Dehra Dun**	**22.78**	**327**	*e*P		08 25 18.0	
ENH	**Enshi**	**24.45**	**38**	*e*P	**P**	**08 25 26.9**	**-0.6**
	comp=Z,105nm,1.2s,mb5.1						
ENH				*e*pP		08 25 34.2	
LZH	**Lanzhou**	**26.46**	**21**	*e*P	**P**	**08 25 46.8**	**+0.4**
LZH				AP	pP	08 25 49.5	-3.1
LZH				AMB	AMB		
	comp=Z,32nm,1.4s,mb4.7						
XAN	**Xi'an**	**26.96**	**32**	P	**P**	**08 25 49.8**	**-1.1**
XAN				AP	pP	08 25 57.8	+0.7
XAN				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.5						
GTA	**Gaotai**	**28.43**	**12**	*e*P	**P**	**08 26 05.3**	**+1.1**
GTA				AP	pP	08 26 11.0	+0.6
GTA				XP	sP	08 26 13.3	+0.1
GTA				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.6						
HHC	**Hu-ho-hao-te**	**33.66**	**27**	⇑P	**P**	**08 26 50.8**	**+0.5**
HHC				AP	pP	08 26 56.5	-0.1
HHC				XP	sP	08 27 01.5	+2.2
HHC				AMB	AMB		
	comp=Z,18nm,0.8s,mb5.0						
HHC				AMB	AMB		
	comp=Z,880nm,9.4s						
HHC				LR	LR		
	comp=N,2µm,8.9s						
HHC				LR	LR		
	comp=E,1µm,7.7s						
AAK	**Ala-Archa**	**34.52**	**337**	*e*P	**P**	**08 26 56.2**	**-1.5**
	comp=E,3.2nm,0.9s,mb4.2						
BJT	**Baijiatuau**	**35.26**	**33**	*e*P	**P**	**08 27 03.3**	**-0.8**
BJI	**Beijing**	**35.28**	**33**	P	**P**	**08 27 05.0**	**+0.8**
BJI				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.0						
SONM	**Songino Array**	**37.95**	**16**	P	**P**	**08 27 27.6**	**+0.9**
	comp=Z,5.0nm,0.8s,mb4.3,baz=200,slow=7.5,SNR=22						
ULN	**Ulaanbaatar**	**38.15**	**16**	*e*P	**P**	**08 27 28.6**	**+0.3**
	comp=Z,4.9nm,1.0s,mb4.2						
BVAR	**Borovoye Array**	**44.83**	**341**	P	**P**	**08 28 20.3**	**-2.8**
	comp=Z,1.5nm,0.6s,mb4.0,baz=141,slow=9.5,SNR=5.9						
CHKZ	**Chkalovo**	**45.32**	**342**	*e*P	**P**	**08 28 27.8**	**+0.8**
	comp=Z,5.9nm,0.6s,mb4.6						
CHKZ				*e*pP	pP	08 28 34.6	+1.2
WRA	**Warramunga Arr**	**51.97**	**127**	P	**P**	**08 29 19.1**	**+0.2**
	comp=Z,2.4nm,0.4s,mb4.5,baz=301,slow=10,SNR=47						
WRAB	**Tennant Creek**	**51.97**	**127**	*e*P	**P**	**08 29 18.8**	**-0.1**
	comp=Z,6.9nm,0.5s,mb4.8						
WRAB				*e*pP	pP	08 29 25.2	-0.2
ASAR	**Alice Springs**	**53.76**	**131**	P	**P**	**08 29 32.4**	**+0.2**
	comp=Z,1.3nm,0.5s,mb4.1,baz=307,slow=6.6,SNR=24						
BRTR	**Keskin Array B**	**58.59**	**310**	P	**P**	**08 30 06.5**	**-0.2**
	comp=Z,1.4nm,0.9s,mb4.0,baz=112,slow=6.7,SNR=5.2						
STKA	**Stephens Creek**	**64.04**	**134**	P	**P**	**08 30 42.9**	**-0.8**
	comp=Z,1.2nm,0.4s,mb4.3,baz=320,slow=6.9,SNR=6.2						
MLR	**Muntele Rosu**	**65.20**	**315**	P	**P**	**08 30 51.4**	**+0.5**
	comp=Z,2.4nm,0.7s,mb4.3,baz=59,slow=18,SNR=3.3						
FINES	**FINESS Array B**	**68.52**	**332**	P	**P**	**08 31 11.8**	**+0.2**
	comp=Z,3.0nm,0.8s,mb4.3,baz=112,slow=10,SNR=6.5						
FINES				pP	pP	08 31 19.4	+1.1
	comp=Z,1.0nm,0.4s,baz=117,slow=8.5,SNR=1.8						
ARCES	**ARCESS Array B**	**71.10**	**340**	P	**P**	**08 31 28.2**	**+1.0**
	comp=Z,7.2nm,1.0s,mb4.6,baz=91,slow=6.1,SNR=13						
ARCES				pP	pP	08 31 35.1	+1.3
	comp=Z,1.8nm,0.6s,baz=88,slow=6.2,SNR=3.4						
MORC	**Moravsky Berou**	**71.33**	**319**	*e*P	**P**	**08 31 29.0**	**0.0**
	comp=Z,4.7nm,1.2s,mb4.3						
GERES	**GERESS Array B**	**73.80**	**318**	P	**P**	**08 31 44.6**	**+1.0**
	comp=Z,1.0nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=6.1						
GERES				pP	pP	08 31 51.6	+1.4
	comp=Z,0.7nm,0.6s,baz=85,slow=6.7,SNR=4.0						
NB2	**NORSAR Subarra**	**75.55**	**330**	P	**P**	**08 31 53.8**	**+0.4**
	comp=Z,4.0nm,0.8s,mb4.4,baz=93,slow=5.6						
NOA	**NORSAR Array B**	**75.55**	**330**	P	**P**	**08 31 54.1**	**+0.8**
	comp=Z,2.2nm,0.7s,mb4.2,baz=92,slow=5.7,SNR=6.8						
NOA				pP	pP	08 32 01.1	+1.1
	comp=Z,0.9nm,0.5s,baz=92,slow=5.8,SNR=3.3						
NOA	**NORSAR Array B**	**75.55**	**330**	P	**P**	**08 31 54.1**	**+0.8**
NOA				pP	pP	08 32 01.1	+1.1
ILAR	**Eielson Array**	**91.93**	**22**	P	**P**	**08 33 17.1**	**+0.5**
	comp=Z,1.2nm,0.7s,mb4.3,baz=298,slow=4.4,SNR=16						
ILAR				pP	pP	08 33 23.9	+0.4
	comp=Z,0.9nm,0.6s,baz=295,slow=4.5,SNR=6.7						
YKA	**Yellowknife Ar**	**103.16**	**12**	PP	PP	08 38 22.7	-2.8
	comp=Z,0.3nm,0.9s,baz=333,slow=6.5,SNR=4.5						
TXAR	**Lajitas Array**	**136.43**	**20**	PKP	PKPdf	08 39 33.2	-0.9
	comp=Z,0.7nm,1.1s,baz=333,slow=2.8,SNR=4.0						
TXAR				pPKP		08 39 40.9	
	comp=Z,0.6nm,1.0s,baz=249,slow=0.3,SNR=3.0						
TXAR	**Lajitas Array**	**136.43**	**20**	PKP	PKPdf	08 39 33.2	-0.9
TXAR				pPKP		08 39 40.9	

MOS ***27*** *08:21:36.4±0.9, 5.60N×94.70E, h33^{km}, mb5.4/47, Error ellipse: s-maj=10.1km s-min=4.8km az=122.7*

BJI ***27*** *08:21:38.2, 5.28N×94.57E, h69^{km}, mB5.6, mb5.5, Ms5.2, Msz5.0*

CSEM ***27*** *08:21:39.6, 6.08N×94.49E, h33^{km}, mb5.5*

SYO ***27*** *08:21:39.8, 5.54N×94.59E, h48^{km}, MB5.4*

IDC ***27*** *08:21:40.2±0.5, 5.52N×94.68E, h52^{km}±4^{km}, mb4.8/27, mb1 4.8/28, mb1mx4.8/29, MS4.3/1, Ms1 4.5/1, ms1mx3.3/28, Error ellipse: s-maj=15.3km s-min=8.6km az=38.0*

NEIC ***27*** *08:21:40.2±0.1, 5.52N×94.61E, mb5.3/48, Error ellipse: s-maj=5.1km s-min=4.3km az=216.0*

HRVD ***27*** *08:21:40.2±0.4, 5.20N×94.48E, h55^{km}±1^{km}, MW5.2/48, Centroid moment Tensor Solution. LP body waves: s35,c47;Mantle waves: s48,c85; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.74±.05; $M_{\theta\theta}$-0.38±.03; $M_{\phi\phi}$-0.36±.04; $M_{r\theta}$0.31±.02; $M_{\theta\phi}$0.48±.02; $M_{\phi r}$-0.31±.03; Best double couple: M_0.91×10^{17} NP1: ϕ_s314°, δ31°, λ89°. NP2: ϕ_s135°, δ59°, λ91°. Principal axes: T .86, Plg76°, Azm47°; N .11, Plg1°, Azm315°; P -.97, Plg14°, Azm225°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 08:21:38.4±0.2**, 5.52N**±0.04×**94.62E**±0.03**, h50**^{km}**, h50**^{km}±1.1^{km}**:pP-P, n354, σ1^{s}03**/316**, mb5.3**/103**, MS5.1**/6**, 43C-9D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNG	**Songkhla**	**6.18**	**74**	P	**P**	**08 23 10.5**	**+1.2**
	770nm,1.0s						
CM31	**Chiang Mai Arr**	**13.53**	**18**	*e*Pn	**P**	**08 24 50.5**	**+0.8**
	45nm,0.3s						
CMAR	**Chiang Mai Arr**	**13.53**	**18**	P	**P**	**08 24 54.8**	**+5.0**
	12nm,0.3s,baz=209,slow=14,SNR=30						
CMAR				LR	LR	08 30 13.7	
	comp=Z,1µm,18.2s,baz=196,slow=38						
CMAR				ScP		08 33 43.0	
	baz=221,slow=3.5,SNR=5.2						
PALK	**Pallekele**	**13.95**	**278**	*e*P	**P**	**08 24 54.4**	**-0.8**
	63nm,0.8s						
TRD	**Trivandrum**	**17.78**	**281**	*e*P	**P**	**08 25 44.9**	**+0.8**
TRD				AMb	AMB	08 25 46.8	
	comp=Z,94nm,1.5s						
IMP	**Imphal**	**19.16**	**358**	*e*	**P**	**08 25 58.9**	**-1.7**
QIZ	**Qiongzhong**	**20.01**	**47**	P	**P**	**08 26 11.5**	**+1.8**
QIZ				S	**S**	**08 29 48.5**	**+1.5**
QIZ	**Qiongzhong**	**20.01**	**47**	*e*P	**P**	**08 26 11.2**	**+1.5**
	comp=Z,18nm,0.6s						
BOK	**Bokaro**	**20.02**	**336**	*e*	**P**	**08 26 02.1**	**-7.7**
	comp=E,103nm,0.8s						
BOK				*e*		08 26 02.4	
	comp=N,75nm,0.6s						
SHL	**Shillong**	**20.11**	**353**	*e*P	**P**	**08 26 08.5**	**-2.2**
BLSP	**Bilaspur**	**20.46**	**325**	*e*P	**P**	**08 26 11.9**	**-2.6**
BLSP				AMb	AMB	08 26 16.6	
	comp=Z,204nm,0.9s						
KMI	**Kunming**	**20.99**	**21**	P	**P**	**08 26 22.3**	**+2.5**
KMI				AMB	AMB		
	comp=Z,59nm,1.3s						
PKI	**Pulchoki**	**23.62**	**339**	*e*P	**P**	**08 26 45.5**	**-0.3**
	comp=Z,101nm,0.6s,mb5.4						
DMN	**Daman**	**23.76**	**339**	*e*P	**P**	**08 26 47.0**	**-0.2**
	comp=Z,133nm,0.7s,mb5.5						
GUN	**Gumba**	**23.77**	**340**	*e*P	**P**	**08 26 46.9**	**-0.4**
	comp=Z,240nm,0.5s,mb5.9						
GYA	**Guiyang**	**23.79**	**28**	⇑*i*P	**P**	**08 26 49.0**	**+1.6**
GYA				AMB	AMB		
	comp=Z,190nm,0.6s,mb5.7						
KKN	**Kakani**	**23.86**	**339**	*e*P	**P**	**08 26 47.6**	**-0.6**
	comp=Z,149nm,0.7s,mb5.5						
POO	**Poona**	**24.04**	**304**	⇓*i*P	**P**	**08 26 49.0**	**-1.0**
POO				*i*	**S**	**08 31 16.0**	**+15**
BHPL	**Bhopal**	**24.20**	**318**	*e*P	**P**	**08 26 53.4**	**+2.0**
BHPL				AMb	AMB	08 26 56.3	
	comp=Z,104nm,1.1s,mb5.2						
LSA	**Lhasa**	**24.27**	**353**	*e*P	**P**	**08 26 52.8**	**+0.6**
LSA				pmax	pmax		
	comp=Z,81nm,0.4s,mb5.5						
LSA	**Lhasa**	**24.27**	**353**	*e*P	**P**	**08 26 52.8**	**+0.7**
	comp=Z,81nm,0.4s,mb5.5						
GKN	**Gorkha**	**24.29**	**338**	*e*P	**P**	**08 26 52.9**	**+0.5**
	comp=Z,160nm,0.5s,mb5.7						
KOLN	**Koldanda**	**24.49**	**336**	*e*P	**P**	**08 26 55.5**	**+1.2**
	comp=Z,250nm,0.6s,mb5.8						
CD2	**Chengdu**	**26.68**	**18**	P	**P**	**08 27 14.8**	**0.0**
CD2				AMB	AMB		
	comp=Z,150nm,0.5s,mb5.8						
LGTI	**Lohaghat**	**27.41**	**332**	*e*P	**P**	**08 27 21.7**	**+0.2**
PTH	**Pithoragarh**	**27.51**	**332**	*e*P	**P**	**08 27 20.9**	**-1.5**
ENH	**Enshi**	**28.32**	**28**	*e*P	**P**	**08 27 28.7**	**-1.0**
	comp=Z,55nm,0.5s,mb5.4						
DDI	**Dehra Dun**	**29.19**	**330**	*e*	**P**	**08 27 33.5**	**-4.0**
BHJ	**Bhuj**	**29.84**	**309**	*e*	**P**	**08 27 49.1**	**+5.8**
SDNR	**Sundarnagar**	**30.69**	**330**	*e*P	**P**	**08 27 51.5**	**+0.7**
WHN	**Wuhan**	**31.05**	**34**	P	**P**	**08 27 54.5**	**+0.5**
XAN	**Xi'an**	**31.32**	**23**	P	**P**	**08 27 55.5**	**-0.9**
XAN				AMB	AMB		
	comp=Z,118nm,0.5s,mb6.0						
LZH	**Lanzhou**	**31.58**	**14**	*e*P	**P**	**08 27 57.5**	**-1.1**
LZH				AMB	AMB		
	comp=Z,69nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,301nm,6.0s						
LZH				LR	LR		
	comp=E,1µm,13.8s						
LZH				LR	LR		
	comp=Z,2µm,15.0s,MS5.0						
DLH	**Dalhousie**	**32.03**	**329**	*e*P	**P**	**08 28 00.0**	**-2.6**
GTA	**Gaotai**	**34.06**	**7**	⇑*i*P	**P**	**08 28 20.0**	**-0.1**
GTA				SCS	ScS	08 38 37.8	+0.7
GTA				AMB	AMB		
	comp=Z,78nm,0.7s,mb5.8						
NJ2	**Nanjing**	**34.79**	**38**	*e*P	**P**	**08 28 25.5**	**-0.8**
NJ2				PP	PP	08 29 41.8	-3.0
NJ2				S	**S**	**08 33 51.0**	**-1.4**
NJ2				AMB	AMB		
	comp=Z,220nm,0.6s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,460nm,4.7s						
NJ2				LR	LR		
	comp=N,7µm,19.6s,MS5.5						
NJ2				LR	LR		
	comp=E,5µm,16.3s,MS5.5						
NJ2				LR	LR		
	comp=Z,7µm,14.7s,MS5.5						
SSE	**Sheshan**	**35.62**	**41**	P	**P**	**08 28 29.5**	**-4.0**
SSE				AMB	AMB		
	comp=Z,17nm,0.6s,mb5.2						
SSE				AMB	AMB		
	comp=Z,1µm,11.0s						
KSH	**Kashi**	**37.80**	**336**	P	**P**	**08 28 52.0**	**+0.3**
KSH				AP	pP	08 29 04.0	-0.9
KSH				*e*PCP	PcP	08 31 09.3	+1.2
KSH				*e*S	**S**	**08 34 38.0**	**-0.6**
KSH				*e*SCP		08 34 51.0	
KSH				PCS		08 34 55.5	
KSH				SS	SS	08 37 16.3	+0.2
KSH				*e*SCS	ScS	08 38 58.5	+0.9
KSH				AMB	AMB		
	comp=Z,810nm,8.4s						
KSH				LR	LR		
	comp=N,860nm,11.0s						
KSH				LR	LR		
	comp=E,2µm,9.4s						
HHC	**Hu-ho-hao-te**	**38.31**	**21**	*e*P	**P**	**08 28 57.3**	**+1.4**
HHC				AP	pP	08 29 09.5	+0.3
HHC				PP	PP	08 30 28.8	+1.2
HHC				PCP	PcP	08 31 09.0	-0.7
HHC				S	**S**	**08 34 48.3**	**+1.9**
HHC				SS	SS	08 37 29.3	+1.8
HHC				SCS	ScS	08 39 02.5	+2.0
HHC				AMB	AMB		
	comp=Z,78nm,0.8s,mb5.5						
HHC				AMB	AMB		
	comp=Z,957nm,12.2s						
HHC				LR	LR		
	comp=N,2µm,6.0s						
HHC				LR	LR		
	comp=E,1µm,13.1s						
HHC				LR	LR		
	comp=Z,1µm,19.0s						
JOW	**Kunigami**	**38.43**	**53**	P	**P**	**08 28 58.6**	**+1.6**
	comp=Z,44nm,0.5s,mb5.4,baz=231,slow=6.6,SNR=24						
WMQ	**Urumqi**	**38.63**	**352**	P	**P**	**08 28 59.5**	**+1.0**
WMQ				AP	pP	08 29 11.5	-0.3
WMQ				PP	PP	08 30 32.5	+1.3
WMQ				S	**S**	**08 34 52.5**	**+1.4**
WMQ				AMB	AMB		
	comp=Z,58nm,0.8s,mb5.4						
WMQ				LR	LR		
	comp=N,574nm,22.6s,MS4.6						
WMQ				LR	LR		
	comp=E,1µm,25.1s,MS4.6						
WMQ				LR	LR		
	comp=Z,711nm,26.8s,MS4.4						
BJT	**Baijiatuau**	**39.44**	**26**	*e*P	**P**	**08 29 07.2**	**+1.9**
BJT				pmax	pmax		
	comp=Z,82nm,0.9s						
BJT	**Baijiatuau**	**39.44**	**26**	*e*P	**P**	**08 29 07.2**	**+1.8**
	comp=Z,82nm,0.9s,mb5.5						
BJI	**Beijing**	**39.47**	**26**	P	**P**	**08 29 07.5**	**+2.0**
BJI				AMB	AMB		
	comp=Z,81nm,0.9s,mb5.5						
ULHL	**Ulahol**	**40.06**	**339**	P	**P**	**08 29 11.8**	**+1.4**
	SNR=8.9						
KZA	**Kyzart**	**40.28**	**338**	P	**P**	**08 29 13.8**	**+1.5**
	SNR=26						
UCH	**Uchtor**	**40.69**	**337**	P	**P**	**08 29 17.2**	**+1.5**
	SNR=44						
TKM2	**Tokmak 2**	**40.88**	**339**	P	**P**	**08 29 18.3**	**+1.1**
	SNR=39						

KBK	Karagaybulak	40.89	338	P	P	08 29 19.0	+1.7
	SNR=56						
AML	Almayashu	40.94	336	P	P	08 29 19.4	+1.8
	SNR=14						
AAK	Ala-Archa	41.04	337	P	P	08 29 19.9	+1.4
	SNR=34						
AAK	Ala-Archa	41.04	337	eP	P	08 29 18.5	-0.1
AAK				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.1						
AAK	Ala-Archa	41.04	337	eP	P	08 29 18.5	0.0
	comp=Z,46nm,0.9s,mb5.1						
FRU	Bishkek	41.17	338	eP	P	08 29 21.0	+1.4
FRU				e	pP	08 29 34.0	+1.1
FRU				pmax	pmax		
	comp=Z,160nm,2.0s,mb5.3						
DL2	Dalian	41.26	32	P	P	08 29 21.5	+1.2
DL2				AMB	AMB		
	comp=Z,70nm,0.7s,mb5.4						
CHMS	Chumysh	41.26	338	P	P	08 29 21.6	+1.2
	SNR=19						
EKS2	Erkin-Say	41.35	337	P	P	08 29 22.5	+1.4
	SNR=28						
USP	Ospenovka	41.58	338	P	P	08 29 24.0	+1.0
	SNR=65						
SONM	Songino Array	43.35	12	P	P	08 29 37.5	+0.1
	comp=Z,32nm,0.7s,mb5.2,baz=187,slow=8.0,SNR=89						
SONM				PcP	PcP	08 31 25.8	-0.1
	comp=Z,6.5nm,0.5s,baz=198,slow=3.7,SNR=11						
SONM				ScP		08 35 10.3	
	comp=Z,1.8nm,0.8s,baz=194,slow=3.3,SNR=5.8						
ULN	Ulaanbaatar	43.51	12	eP	P	08 29 38.3	-0.4
ULN				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.2						
ULN	Ulaanbaatar	43.51	12	eP	P	08 29 38.2	-0.5
	comp=Z,31nm,0.6s,mb5.2						
NWAO	Narrogin (SRO)	43.85	152	eP	P	08 29 41.6	-0.1
NWAO				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NWAO	Narrogin (SRO)	43.85	152	eP	P	08 29 41.6	-0.1
	comp=Z,3.7nm,0.6s,mb4.3						
KS15	Wonju Array Si	43.92	39	eP	P	08 29 42.1	-0.1
SNY	Shenyang	44.40	31	⇓P	P	08 29 46.5	+0.5
ZAK	Zakamensk	45.30	8	⇓iP	P	08 29 52.8	-0.2
MOY	Mondy	46.30	5	eP	P	08 30 00.9	0.0
WRA	Warramunga Arr	46.53	124	P	P	08 30 02.7	-0.4
	comp=Z,35nm,0.6s,mb5.5,baz=304,slow=9.3,SNR=46						
WRA				ScP		08 35 23.3	
	comp=Z,1.7nm,0.7s,baz=318,slow=3.3,SNR=4.5						
WRA				S	S	08 36 45.0	-2.2
	comp=Z,2.4nm,0.9s,baz=295,slow=16,SNR=4.8						
WRA	Warramunga Arr	46.53	124	P	P	08 30 02.7	-0.5
WRA				S	S	08 36 45.0	-2.2
WRAB	Tennant Creek	46.53	124	eP	P	08 30 02.8	-0.4
WRAB				pmax	pmax		
	comp=Z,69nm,0.6s,mb5.8						
WRAB	Tennant Creek	46.53	124	eP	P	08 30 02.8	-0.4
	comp=Z,69nm,0.6s,mb5.8						
TLY	Talaya	46.62	8	eP	P	08 30 03.2	-0.2
TLY				e		08 30 10.9	
TLY				pmax	pmax		
	comp=Z,27nm,2.1s,mb4.8						
TLY	Talaya	46.62	8	i P	P	08 30 02.5	-0.9
CN2	Changchun	46.78	31	eP	P	08 30 05.5	+0.7
CN2				eAP	pP	08 30 18.0	-0.2
CN2				eS	S	08 36 52.0	+1.6
CN2				AMB	AMB		
	comp=Z,70nm,0.6s,mb5.8						
CN2				AMB	AMB		
	comp=Z,800nm,3.0s						
CN2				LR	LR		
	comp=N,4μm,13.0s,MS5.7						
CN2				LR	LR		
	comp=E,4μm,13.0s,MS5.7						
CN2				LR	LR		
	comp=Z,6μm,14.0s,MS5.7						
HASS	Wahat al Ahsa’	47.24	299	P	P	08 30 10.0	+1.3
ASAR	Alice Springs	48.06	129	P	P	08 30 14.6	-0.6
	comp=Z,18nm,0.6s,mb5.3,baz=300,slow=7.8,SNR=31						
ASAR				S	S	08 37 07.9	-0.9
	comp=Z,2.3nm,0.7s,baz=292,slow=14,SNR=8.1						
HIA	Hailar	48.50	22	eP	P	08 30 18.1	-0.1
HIA				pmax	pmax		
	comp=Z,30nm,0.5s						
HIA	Hailar	48.50	22	eP	P	08 30 18.1	-0.1
	comp=Z,30nm,0.5s,mb5.6						
ZAL	Zalesovo	48.93	352	P	P	08 30 21.3	-0.1
	comp=Z,24nm,0.5s,mb5.5,baz=300,slow=7.0,SNR=69						
ZAL				ScP		08 35 34.5	
	comp=Z,1.6nm,0.6s,baz=331,slow=3.9,SNR=3.2						
MDJ	Mudanjiang	49.50	33	P	P	08 30 26.5	+0.5
MDJ				PCP	PcP	08 31 47.3	-0.3
MDJ				PP	PP	08 32 21.0	+0.1
MDJ				PCS		08 35 44.0	
MDJ				S	S	08 37 33.0	+4.4
MDJ				AMB	AMB		
	comp=Z,26nm,0.7s,mb5.4						
MDJ				LR	LR		
	comp=N,797nm,18.0s,MS5.1						
MDJ				LR	LR		
	comp=E,2μm,22.4s,MS5.1						
MDJ				LR	LR		
	comp=Z,1μm,11.2s						
MDJ	Mudanjiang	49.50	33	eP	P	08 30 26.5	+0.5
	comp=Z,27nm,0.6s,mb5.5						
NVS	Novosibirsk	50.03	351	⇑iP	P	08 30 28.7	-1.2
NVS				e	pP	08 30 45.9	+2.5
NVS				eS	S	08 37 39.3	+3.5
NVS				pmax	pmax		
	comp=Z,114nm,1.4s,mb5.7						
NVS				pmax	pmax		
	comp=N,96nm,1.5s						
NVS				smax			
	comp=E,76nm,2.2s						
CBIJ	Chichi jima	50.05	59	P	P	08 30 29.6	-0.9
	comp=E,97nm,0.6s,mb6.0,baz=291,slow=5.9,SNR=10						
RDF	Al-Radifah	50.19	303	eP	P	08 30 32.1	+0.7
MAT	Matsushiro	50.41	46	P	P	08 30 33.1	+0.1
MAT	Matsushiro	50.41	46	eP	P	08 30 33.0	0.0
KAMS	Al Khamasin	50.73	292	P	P	08 30 36.2	+0.5
RST	Umm Al-Ruwaisa	50.83	304	eP	P	08 30 36.7	+0.4
MZLS	Mizel	50.89	296	P	P	08 30 37.7	+0.8
BVAR	Borovoye Array	51.36	341	P	P	08 30 39.6	-0.4
	comp=E,28nm,0.5s,mb5.4,baz=140,slow=10,SNR=97						
BRVK	Borovoye	51.42	341	eP	P	08 30 39.7	-0.7
TATS	Tathlith	51.63	290	P	P	08 30 43.7	+1.3
CHKZ	Chkalovo	51.85	342	⇑iP	P	08 30 43.6	0.0
CHKZ				pmax	pmax		
	comp=Z,105nm,0.6s,mb5.9						
CHKZ	Chkalovo	51.85	342	⇑iP	P	08 30 43.6	-0.1
	comp=Z,105nm,0.6s,mb5.9						
AFFS	‘Afif	52.84	296	P	P	08 30 52.6	+1.1
KLR	Kul’dur	53.67	29	eP	P	08 30 52.6	-4.7
KLR				pmax	pmax		
	comp=E,54nm,2.0s						
KLR				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.3						
BOD	Bodaibo	54.32	13	⇓iP	P	08 31 00.5	-1.4
PMG	Port Moresby	54.41	106	P	P	08 31 02.4	-0.8
	comp=Z,24nm,0.5s,mb5.4,baz=309,slow=2.8,SNR=23						
PMG	Port Moresby	54.41	106	eP	P	08 31 02.2	-1.0
PMG				pmax	pmax		
	comp=Z,29nm,0.6s						
PMG	Port Moresby	54.41	106	eP	P	08 31 02.2	-1.0
	comp=Z,28nm,0.6s,mb5.4						
GNI	Garni	56.43	315	P	P	08 31 16.7	-0.7
	comp=Z,5.6nm,0.6s,mb4.8,baz=347,slow=3.1,SNR=8.4						
GNI	Garni	56.43	315	eP	P	08 31 16.8	-0.6
CLNS	Chul’man	56.47	19	eP	P	08 31 15.9	-1.6
CLNS				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
CLNS				pmax	pmax		
	comp=N,5.0nm,0.5s						
CTA	Charters Tower	56.76	118	P	P	08 31 19.0	-1.1
	comp=N,12nm,0.8s,mb5.0,baz=280,slow=8.7,SNR=12						
CTAO	Charters Tower	56.76	118	eP	P	08 31 18.0	-2.1
CTAO				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
CTAO	Charters Tower	56.76	118	eP	P	08 31 18.0	-2.1
	comp=Z,14nm,0.8s,mb5.0						
ASAJ	Asahikawa	56.89	40	P	P	08 31 20.5	-0.2
	comp=Z,14nm,0.7s,mb5.1,baz=248,slow=3.4,SNR=8.5						
ASAJ	Asahikawa	56.89	40	P	P	08 31 20.5	-0.2
ASAJ				pmax	pmax		
	comp=Z,14nm,0.7s						
KMBO	Kilima Mbogo	57.67	265	P	P	08 31 27.5	+0.9
	comp=Z,0.9nm,0.5s,baz=43,slow=21,SNR=5.0						
KMBO	Kilima Mbogo	57.67	265	P	P	08 31 27.5	+0.9
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.5s						
KMBO	Kilima Mbogo	57.67	265	eP	P	08 31 23.9	-2.7
	comp=Z,3.3nm,0.1s,mb5.3						
SVE	Sverdlovsk	57.75	339	⇓eP	P	08 31 25.0	-1.6
SVE				pmax	pmax		
	comp=Z,180nm,2.0s,mb5.8						
ZEI	Tsey	58.09	318	eP	P	08 31 28.2	-0.9
ZEI				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
STKA	Stephens Creek	58.15	133	P	P	08 31 28.7	-1.0
	comp=Z,8.1nm,0.6s,mb5.0,baz=298,slow=6.1,SNR=10						
STKA	Stephens Creek	58.15	133	eP	P	08 31 28.5	-1.2
UMJS	Umm Lajj	58.17	296	P	P	08 31 31.5	+1.6
ARU	Arti	58.23	337	⇑iP	P	08 31 28.8	-1.1
ARU				e		08 32 14.0	
ARU				e		08 33 34.3	
ARU				eS	S	08 39 30.8	+4.6
ARU				e		08 41 12.6	
ARU				eSS	SS	08 43 17.8	-2.3
ARU				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.3						
ARU	Arti	58.23	337	i P	P	08 31 28.7	-1.2
YSS	Yuzh-Sakhalins	58.35	37	⇓eP	P	08 31 25.4	-5.5
YSS				e	pP	08 31 39.0	-5.7
YSS	Yuzh-Sakhalins	58.35	37	eP	P	08 31 30.3	-0.5
	comp=Z,20nm,0.6s,mb5.3						
ERZM	Erzurum	58.73	314	i P	P	08 31 33.0	-0.6
KIV	Kislovodsk	59.38	319	P	P	08 31 37.2	-0.9
	comp=Z,197nm,1.1s,mb6.0,SNR=7.8						
KIV	Kislovodsk	59.38	319	eP	P	08 31 36.6	-1.5
KIV				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.4						
KIV	Kislovodsk	59.38	319	eP	P	08 31 36.6	-1.5
	comp=Z,41nm,1.1s,mb5.4						
GOF	Gofitskoye	59.62	320	⇓iP	P	08 31 38.5	-1.2
GOF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
ASF	Jabal al Asfar	59.91	304	P	P	08 31 42.9	+1.0
	comp=Z,9.0nm,0.7s,mb4.9,baz=335,slow=3.8,SNR=11						
ELZG	Elazig	60.00	312	i P	P	08 31 41.6	-0.7
JMQS	Jabal Moqyreh	60.08	300	P	P	08 31 44.3	+1.2
MALT	Malatya	60.35	311	eP	P	08 31 43.7	-1.1
MALT				pmax	pmax		
	comp=Z,38nm,1.7s,mb5.2						
MALT	Malatya	60.35	311	eP	P	08 31 43.7	-1.2
	comp=Z,38nm,1.7s,mb5.2						
BDAS	Al Bad‘	60.67	299	P	P	08 31 46.5	-0.5
GZT	Gaziantep	60.72	310	i P	P	08 31 46.9	-0.4
HAQS	Haql	60.93	300	P	P	08 31 49.2	+0.3
EIL	Elat	61.02	301	P	P	08 31 47.7	-1.8
	comp=Z,16nm,1.2s,mb5.0,baz=137,slow=25,SNR=5.4						
SOKR	Solikamsk	61.16	339	i P	P	08 31 48.7	-1.2
SOKR				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
SOC	Sochi	61.22	317	eP	P	08 31 48.3	-2.3
SOC				i		08 34 13.0	
SOC				i PPP	PPP	08 35 32.5	-3.8
SOC				eS	S	08 40 04.0	-0.9
SOC				i SS	SS	08 44 02.8	-4.3
SOC				pmax	pmax		
	comp=N,15nm,0.9s						
SOC				pmax	pmax		
	comp=E,19nm,0.9s						
SOC				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.3						
SOC				MLR	MLR		
	comp=Z,617nm,14.0s,MS4.9						
SOC				MLR	MLR		
	comp=N,470nm,15.0s,MS5.0						
SOC				MLR	MLR		
	comp=E,734nm,14.0s,MS5.0						
KAHT	Ahir Dag	61.33	310	i P	P	08 31 51.0	-0.4
COBT	Iskenderun	61.50	309	i P	P	08 31 46.2	-6.4
YAK	Yakutsk	62.07	18	eP	P	08 31 53.1	-2.9
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,6.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.2s						
YAK	Yakutsk	62.07	18	P	P	08 31 53.0	-3.0
	comp=E,45nm,0.6s,mb5.8						
MEST	Erdemli	63.16	308	i P	P	08 32 02.6	-1.1
MEST	Erdemli	63.16	308	i P	P	08 32 02.6	-1.1
AVNT	Avonos	63.17	311	i P	P	08 32 02.6	-1.2
CSS	Prodhromos	63.44	306	eP	P	08 32 04.7	-0.8
	comp=E,69nm,1.4s,mb5.6						
BOYT	Boyabat	63.87	314	i P	P	08 32 06.9	-1.3
MBAR	Mbarara	64.08	267	eP	P	08 32 09.7	-0.4
MBAR				e	pP	08 32 20.7	-3.5
BRTR	Keskin Array B	64.33	312	P	P	08 32 09.9	-1.4
	comp=E,8.4nm,0.8s,mb4.8,baz=121,slow=7.2,SNR=27						
ELDT	Eldivan	64.69	312	i P	P	08 32 09.1	-4.5
SIM	Simferopol’	65.46	317	ceP	P	08 32 17.0	-1.5
SIM				eS	S	08 40 59.0	+1.2
SIM				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
SGKT	Sivrigoynuk	65.72	312	i P	P	08 32 12.6	-7.7
ESKT	Eskisehir	66.37	311	i P	P	08 32 23.7	-0.7
HENT	Hendek	66.63	312	i P	P	08 32 24.0	-2.0
MOS	Moscow	67.33	329	eP	P	08 32 29.1	-1.0
MOS				e	pP	08 32 44.4	+0.1
MOS				pmax	pmax		
	comp=Z,97nm,0.7s,mb5.9						
OBN	Obninsk	67.62	328	deP	P	08 32 30.3	-1.6
OBN				i		08 35 01.5	
OBN				eS	S	08 41 30.1	+6.4
OBN				pmax	pmax		
	comp=Z,83nm,1.3s,mb5.6						
OBN	Obninsk	67.62	328	i P	P	08 32 30.4	-1.5
SKR	Severo-Kuril’s	67.92	37	eP	P	08 32 31.2	-2.7
SKR				e		08 32 36.5	
SKR				pmax	pmax		
	comp=Z,60nm,0.5s,mb5.9						
BTOK	Tokmak	68.55	311	i P	P	08 32 36.1	-1.9
MA2	Magadan	68.62	27	i P	P	08 32 35.8	-2.3
KDAG	Bornova	68.89	309	i P	P	08 32 39.7	-0.5
TIXI	Tiksi	69.43	11	i P	P	08 32 41.1	-1.9
AKASG	Malin Array Be	70.29	322	P	P	08 32 46.6	-1.8
	comp=Z,6.4nm,0.5s,mb4.8,baz=88,slow=4.8,SNR=5.6						
AKASG	Malin Array Be	70.29	322	P	P	08 32 46.7	-1.8
AKASG				pmax	pmax		
	comp=Z,6.0nm,0.5s						
IDI	Anoyia	70.31	305	P	P	08 32 48.2	-0.7
	comp=Z,21nm,0.7s,mb5.2,baz=84,slow=12,SNR=27						
VRI	Vrincioaia	70.73	317	⇑iP	P	08 32 51.3	+0.1
MLR	Muntele Rosu	71.19	316	P	P	08 32 53.9	-0.1
	comp=Z,32nm,1.0s,mb5.2,baz=80,slow=2.3,SNR=26						
MLR				pP	pP	08 33 09.1	+0.9
	comp=Z,20nm,1.0s,baz=16,slow=6.9,SNR=6.7						
RZN	Rozhen	71.37	312	eP	P	08 32 52.0	-3.2
PGB	Panagyurishte	71.92	313	eP	P	08 32 57.0	-1.4
MMB	Musomiste	72.09	312	eP	P	08 32 58.0	-1.4
MNK	Minsk	72.16	326	eP	P	08 32 56.0	-3.6
KKB	Krupnik	72.61	312	eP	P	08 33 01.0	-1.5
VTS	Vitosha	72.62	313	eP	P	08 33 01.0	-1.6
LBTB	Lobatse	73.56	242	eP	P	08 33 09.4	+0.9
LBTB				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
LBTB	Lobatse	73.56	242	eP	P	08 33 09.4	+0.9
	comp=Z,4.5nm,0.6s,mb4.6						
KWP	Kalwaria	74.13	320	eP	P	08 33 11.1	-0.2
KWP				e	pP	08 33 26.3	+0.7
KWP				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
KWP	Kalwaria	74.13	320	eP	P	08 33 11.1	-0.2
	comp=Z,28nm,0.8s,mb5.2						
KWP				e	pP	08 33 26.3	+0.7
APA	Apatity	74.21	340	⇑iP	P	08 33 10.4	-1.0
APA				i	pP	08 33 24.6	-1.1
KOLS	Kolonicke sedl	74.28	319	eP	P	08 33 12.7	+0.5
KOLS				epP	pP	08 33 28.0	+1.5
SUW	Suwalki	74.69	325	eP	P	08 33 13.4	-1.0
SUW				e	pP	08 33 27.4	-1.3
SUW				pmax	pmax		
	comp=Z,41nm,0.3s,mb5.8						
SUW	Suwalki	74.69	325	eP	P	08 33 13.4	-1.0
	comp=Z,41nm,0.3s,mb5.8						
SUW				e	pP	08 33 27.4	-1.3
BOSA	Boshof	74.76	239	eP	P	08 33 16.1	+0.7
BOSA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
BOSA	Boshof	74.76	239	eP	P	08 33 16.1	+0.7
	comp=Z,4.1nm,0.6s,mb4.5						
CRVS	Cervenica-Dubn	74.81	319	eP	P	08 33 18.1	+2.9
CRVS	Cervenica-Dubn	74.81	319	e	P	08 33 18.1	+2.9
FINES	FINESS Array B	75.00	332	P	P	08 33 15.4	-0.7
	comp=Z,6.7nm,0.4s,mb4.9,baz=100,slow=6.8,SNR=32						
FINES				pP	pP	08 33 30.1	-0.2
	comp=Z,6.1nm,0.6s,baz=90,slow=5.7,SNR=9.4						
KAF	Kangasniemi	75.09	333	ep	P	08 33 15.7	-0.9
	comp=Z,11nm,0.6s,mb5.0						
KAF	Kangasniemi	75.09	333	eP	P	08 33 15.7	-0.9
KAF				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
KECS	Kecovo	75.38	319	eP	P	08 33 18.4	-0.1
NIE	Niedzica	75.63	320	eP	P	08 33 20.4	+0.5
PSZ	Piszkesteto	75.70	318	⇑eP	P	08 33 19.9	-0.4
OJC	Ojcow	76.08	320	⇑iP	P	08 33 22.3	-0.1
OJC				e	pP	08 33 37.5	+0.7
OJC	Ojcow	76.08	320	i P	P	08 33 22.3	-0.1
OJC				e	pP	08 33 37.5	+0.7
MAW	Mawson	76.34	192	P	P	08 33 25.0	+1.4
	comp=Z,1.6nm,0.5s,mb4.2,baz=278,slow=7.1,SNR=4.8						
MAW	Mawson	76.34	192	eP	P	08 33 24.9	+1.3
MAW				e		08 33 32.2	
VYHS	Vyhne	76.47	318	i P	P	08 33 24.8	+0.1
VYHS				epP	pP	08 33 39.4	+0.3
SRO	Srobarova	76.74	318	eP	P	08 33 26.8	+0.6
SRO				e	pP	08 33 42.6	+2.0
KOLL	Kolacno	76.77	319	eP	P	08 33 26.7	+0.3
KOLL				epP	pP	08 33 41.9	+1.2
OKC	Ostrava-Krasne	77.08	320	eP	P	08 33 28.2	+0.1
OKC				epP	pP	08 33 43.5	+1.0
KEV	Kevo	77.20	341	ep	P	08 33 28.1	-0.3
MORC	Moravsky Berou	77.47	320	eP	P	08 33 30.2	-0.1
MORC				e	pP	08 33 45.1	+0.5
MORC				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.3						
MORC	Moravsky Berou	77.47	320	eP	P	08 33 30.2	-0.1
	comp=Z,43nm,1.1s,mb5.3						
MORC				e	pP	08 33 45.1	+0.5
ZST	Bratislava	77.59	318	eP	P	08 33 31.6	+0.6
ZST				epP	pP	08 33 46.6	+1.3
ARCES	ARCESS Array B	77.63	340	P	P	08 33 30.7	0.0
	comp=Z,11nm,0.5s,mb5.1,baz=89,slow=5.9,SNR=83						
ARCES				pP	pP	08 33 44.9	-0.3
	comp=Z,25nm,1.0s,baz=104,slow=6.5,SNR=8.2						
ARE0	ARCESS Array S	77.63	340	eP	P	08 33 30.6	-0.2
BILL	Bilibino	78.09	21	i P	P	08 33 32.9	-0.4
DPC	Dobruska-Polom	78.31	320	eP	P	08 33 35.4	+0.6
DPC				epP	pP	08 33 50.1	+0.9
KSP	Ksiaz	78.37	321	eP	P	08 33 35.1	-0.1
KSP				e		08 33 43.1	
KSP				e*PP	pP	08 33 48.6	-1.0
UPC	Upice	78.52	320	eP	P	08 33 36.2	+0.2
UPC				epP	pP	08 33 49.6	-0.8
BOJS	Bojanci	78.64	315	eP	P	08 33 36.9	+0.1
BOJS				e	pP	08 33 52.7	+1.5
FX1	Attu Island--F	78.70	37	P	P	08 33 36.9	-0.1
	comp=Z,56nm,0.5s,mb5.8,baz=144,slow=0.9,SNR=24						
FX1	Attu Island--F	78.70	37	P	P	08 33 36.9	-0.1
FX1				pmax	pmax		
	comp=Z,56nm,0.5s						
FX1	Attu Island--F	78.70	37	eP	P	08 33 36.4	-0.6
PERS	Pernice	78.81	316	eP	P	08 33 37.9	+0.2
LJU	Ljubljana	79.18	316	eP	P	08 33 40.5	+0.8
SUR	Sutherland	79.40	236	eP	P	08 33 43.0	+1.8
PRU	Pruhonice	79.42	320	eP	P	08 33 40.5	-0.4
PRU				epP	pP	08 33 56.4	+1.0
PVCC	Panska Ves	79.44	320	eP	P	08 33 41.5	+0.5
PVCC				epP	pP	08 33 54.2	-1.3
BRG	Berggiesshubel	79.86	321	i P	P	08 33 43.6	+0.3
BRG				e	pP	08 33 58.9	+1.2
BRG				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.2						
BRG	Berggiesshubel	79.86	321	i P	P	08 33 43.6	+0.3
	comp=Z,50nm,1.5s,mb5.2						
BRG				e	pP	08 33 58.9	+1.2
GEC2	GERESS Array S	79.89	318	eP	P	08 33 43.9	+0.4
GEC2				pmax	pmax		
	comp=Z,73nm,1.4s,mb5.4						
GEC2	GERESS Array S	79.89	318	eP	P	08 33 43.9	+0.4
	comp=Z,73nm,1.4s,mb5.4						
GERES	GERESS Array B	79.89	318	P	P	08 33 43.9	+0.4
	comp=Z,18nm,0.8s,mb5.0,baz=90,slow=5.3,SNR=56						
GERES				pP	pP	08 33 59.8	+1.9
	comp=Z,14nm,0.9s,baz=90,slow=5.3,SNR=7.4						
KHC	Kasperske Hory	79.99	319	eP	P	08 33 43.9	-0.1
PTCC	Patocco-Chiusa	80.01	316	eP	P	08 33 44.1	0.0
RUE	Ruedersdorf	80.07	322	eP	P	08 33 44.2	-0.2
	comp=Z,23nm,0.5s,mb5.4						
WET	Wettzell	80.45	319	eP	P	08 33 46.8	+0.3
CLL	Collm	80.48	321	⇑iP	P	08 33 46.4	-0.2
CLL				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
CLL	Collm	80.48	321	⇑iP	P	08 33 46.4	-0.2
	comp=Z,25nm,1.4s,mb5.0						
CLL	Collm	80.48	321	⇑P	P	08 33 46.4	-0.2
	comp=Z,logA/T=1.3,mb5.0						
CLL				e*PP	pP	08 34 01.0	0.0
NKC	Novy Kostel	80.78	320	eP	P	08 33 48.6	+0.4
SFI	Santa Sofia	81.00	313	eP	P	08 33 50.7	+1.2
PGD	Poggio Sodo	81.09	313	eP	P	08 33 51.6	+1.6
CTI	Castel Tesino	81.18	316	eP	P	08 33 50.9	+0.5
VMG	Vicchio	81.22	313	eP	P	08 33 51.8	+1.2
MOX	Moxa	81.33	320	eP	P	08 33 51.1	0.0
MOX				e*PP	pP	08 34 06.2	+0.7
MOX				pmax	pmax		
	comp=Z,40nm,1.8s,mb5.0						
MOX	Moxa	81.33	320	i P	P	08 33 51.1	0.0
	comp=Z,logA/T=1.4,mb5.1						
MOX				pP	pP	08 34 06.0	+0.5
MOX	Moxa	81.33	320	eP	P	08 33 51.1	0.0
	comp=Z,40nm,1.8s,mb5.0						
MOX				epP	pP	08 34 06.2	+0.7
SEI	Scarperia	81.35	314	eP	P	08 33 52.7	+1.3
GRA1	Grafenberg Arr	81.55	319	eP	P	08 33 53.0	+0.7
	comp=Z,43nm,1.2s,mb5.2						
GRF	Grafenberg Arr	81.55	319	eP	P	08 33 53.0	+0.7
GRF				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.2						
GRF	Grafenberg Arr	81.55	319	eP	P	08 33 53.0	+0.7
GRF				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.2						
GRF	Grafenberg Arr	81.55	319	eP	P	08 33 53.0	+0.7
	comp=Z,43nm,1.2s,mb5.2						
NB2	NORSAR Subarra	82.01	331	P	P	08 33 52.9	-1.5
	comp=Z,11nm,1.2s,mb4.7,baz=96,slow=4.8						
NB2	NORSAR Subarra	82.01	331	P	P	08 33 52.9	-1.5
NB2				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
NOA	NORSAR Array B	82.01	331	P	P	08 33 54.6	+0.3
	comp=Z,2.6nm,0.9s,mb4.2,baz=96,slow=5.0,SNR=5.5						
NOA				pP	pP	08 34 09.5	+0.6
	comp=Z,3.6nm,0.8s,baz=93,slow=5.5,SNR=4.9						
BRMO	Bormio	82.07	316	eP	P	08 33 55.3	+0.3
CLZ	Clausthal	82.14	321	eP	P	08 33 55.3	+0.1
	comp=Z,34nm,1.3s,mb5.1						
BSEG	Bad Segeberg	82.22	324	eP	P	08 33 55.9	+0.3
PGF	Pioggiola	83.08	312	eP	P	08 34 00.4	+0.2
SYO	Syowa Base	83.31	197	⇑P	P	08 34 02.6	+1.7
SYO	Syowa Base	83.31	197	⇓pP	pP	08 34 18.2	+2.8
BFO	Black Forest	83.45	318	eP	P	08 34 01.9	-0.1
BFO				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.1						
BFO	Black Forest	83.45	318	eP	P	08 34 01.9	-0.1
	comp=Z,24nm,1.2s,mb5.1						
FIN	Finale Ligure	83.62	314	eP	P	08 34 02.9	-0.1
CDF	Champ du Feu	84.15	318	⇑iP	P	08 34 05.2	-0.3
SBF	Sospel	84.19	313	⇑iP	P	08 34 06.1	+0.2
	comp=Z,56nm,0.9s,mb5.4						
SBF	Sospel	84.19	313	⇑iP	P	08 34 06.1	+0.2
SBF				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.4						
HINF	Hinteralfeld	84.45	317	⇑iP	P	08 34 06.4	-0.7
LPG	La Plagne	84.61	315	⇑iP	P	08 34 08.5	+0.6
	comp=Z,54nm,1.0s,mb5.3						
LPG	La Plagne	84.61	315	⇑iP	P	08 34 08.5	+0.6
LPG				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.3						
LPL	La Plagne	84.62	315	⇑iP	P	08 34 08.5	+0.5
	comp=Z,31nm,0.7s,mb5.3						
LPL	La Plagne	84.62	315	⇑iP	P	08 34 08.5	+0.5
LPL				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.3						

MBDF	**Montbardon**	**84.63**	**314**	*e*P	**P**	**08 34 09.4**	**+1.4**
	comp=Z,15nm,0.8s,mb4.9						
MBDF	**Montbardon**	**84.63**	**314**	*e*P	**P**	**08 34 09.4**	**+1.4**
MBDF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
BNI	**Bardonecchia**	**84.68**	**315**	*e*P	**P**	**08 34 10.0**	**+1.7**
BNI				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
BNI	**Bardonecchia**	**84.68**	**315**	*e*P	**P**	**08 34 09.9**	**+1.7**
	comp=Z,12nm,0.9s,mb5.0						
FRF	**La Foret Royal**	**84.77**	**313**	⇑*i*P	**P**	**08 34 09.1**	**+0.3**
HAU	**Haudompre**	**84.78**	**318**	⇑*i*P	**P**	**08 34 08.5**	**-0.2**
	comp=Z,39nm,0.8s,mb5.3						
HAU	**Haudompre**	**84.78**	**318**	⇑*i*P	**P**	**08 34 08.5**	**-0.2**
HAU				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.3						
LMR	**La Mourre**	**84.88**	**313**	*e*P	**P**	**08 34 09.6**	**+0.3**
CABF	**La Chapelle**	**85.02**	**316**	⇑*i*P	**P**	**08 34 10.3**	**+0.3**
	comp=Z,20nm,0.7s,mb5.0						
CABF	**La Chapelle**	**85.02**	**316**	⇑*i*P	**P**	**08 34 10.3**	**+0.3**
CABF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
ORIF	**Oris-en-Rattie**	**85.25**	**315**	⇑*i*P	**P**	**08 34 11.7**	**+0.6**
	comp=Z,11nm,0.6s,mb4.9						
ORIF	**Oris-en-Rattie**	**85.25**	**315**	⇑*i*P	**P**	**08 34 11.7**	**+0.6**
ORIF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.8						
MEZF	**Maizieres J'vi**	**85.62**	**318**	*e*P	**P**	**08 34 13.0**	**+0.1**
BAIF	**Baives**	**86.08**	**320**	⇑*i*P	**P**	**08 34 15.4**	**+0.4**
	comp=Z,17nm,0.7s,mb5.1						
BAIF	**Baives**	**86.08**	**320**	⇑*i*P	**P**	**08 34 15.4**	**+0.4**
BAIF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.1						
VIVF	**Saint-Julien-l**	**86.11**	**315**	⇑*i*P	**P**	**08 34 15.6**	**+0.3**
	comp=Z,49nm,1.2s,mb5.3						
VIVF	**Saint-Julien-l**	**86.11**	**315**	⇑*i*P	**P**	**08 34 15.6**	**+0.3**
VIVF				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.3						
SMF	**Signal de Mont**	**86.57**	**316**	⇑*i*P	**P**	**08 34 17.5**	**0.0**
	comp=Z,14nm,0.6s,mb5.1						
SMF	**Signal de Mont**	**86.57**	**316**	⇑*i*P	**P**	**08 34 17.5**	**0.0**
SMF				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb5.1						
SSF	**Saint Saulge**	**86.76**	**317**	*e*P	**P**	**08 34 18.8**	**+0.3**
BGF	**Bois d'Agland**	**87.26**	**316**	*e*P	**P**	**08 34 21.3**	**+0.4**
TCF	**Toulx Ste Croi**	**87.72**	**316**	⇑*i*P	**P**	**08 34 23.4**	**+0.3**
CAF	**Calviac**	**87.96**	**315**	⇑*i*P	**P**	**08 34 25.0**	**+0.7**
MTLF	**Montolieu**	**88.00**	**313**	⇑*i*P	**P**	**08 34 25.2**	**+0.7**
RJF	**Les Rejaudoux**	**88.30**	**315**	⇑*i*P	**P**	**08 34 26.7**	**+0.8**
LFF	**La Frestale**	**88.89**	**315**	*e*P	**P**	**08 34 29.5**	**+0.8**
LDF	**La Druitiere**	**89.04**	**319**	*e*P	**P**	**08 34 29.6**	**+0.3**
	comp=Z,36nm,1.1s,mb5.3						
LDF	**La Druitiere**	**89.04**	**319**	*e*P	**P**	**08 34 29.6**	**+0.3**
LDF				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.3						
FLN	**La Foliniere**	**89.25**	**319**	*e*P	**P**	**08 34 30.6**	**+0.2**
MFF	**Saint Martin d**	**89.31**	**317**	*e*P	**P**	**08 34 30.9**	**+0.2**
EPF	**Esparros**	**89.40**	**313**	*e*P	**P**	**08 34 30.6**	**-0.6**
VNDA	**Vanda**	**90.54**	**168**	P	**P**	**08 34 36.3**	**+0.5**
	comp=Z,2.1nm,0.9s,mb4.4,baz=281,slow=5.2,SNR=5.0						
VNDA	**Vanda**	**90.54**	**168**	*e*P	**P**	**08 34 36.4**	**+0.6**
SBA	**Scott Base**	**91.64**	**168**	*e*P	**P**	**08 34 40.9**	**0.0**
ESDC	**Sonseca Array**	**93.09**	**310**	P	**P**	**08 34 49.6**	**+1.2**
	comp=Z,1.7nm,0.5s,mb4.7,baz=60,slow=3.9,SNR=10						
IMA	**Indian Mountai**	**93.61**	**22**	*e*P	**P**	**08 34 51.2**	**+1.1**
IMA				pmax	pmax		
	comp=Z,62nm,0.7s,mb6.2						
IMA	**Indian Mountai**	**93.61**	**22**	*e*P	**P**	**08 34 51.2**	**+1.1**
	comp=Z,62nm,0.7s,mb6.2						
ILAR	**Eielson Array**	**96.73**	**22**	P	**P**	**08 35 03.4**	**-1.0**
	comp=Z,1.2nm,0.7s,mb4.5,baz=297,slow=4.2,SNR=18						
ILAR				sP	sP	08 35 25.1	+0.9
	comp=Z,1.3nm,0.8s,baz=297,slow=4.5,SNR=6.1						
SNAA	**Sanae**	**97.56**	**198**	P	**P**	**08 35 09.3**	**+1.3**
VNA2	**Neumayer--Watz**	**99.11**	**199**	*e*	pP	08 35 24.2	-5.6
VNA2	**Neumayer--Watz**	**99.11**	**199**	*e*	pP	08 35 27.9	-1.9
VNA2	**Neumayer--Watz**	**99.11**	**199**	*e*	PP	08 39 15.6	-4.4
VNA2	**Neumayer--Watz**	**99.11**	**199**	⇑*i*Pdif	**P**	**08 35 16.0**	**+1.0**
VNA2				*e*		08 35 24.2	
VNA2				*e*	pP	08 35 27.9	-1.9
VNA2				*e*		08 39 15.6	
VNA1	**Neumayer--Stat**	**99.44**	**199**	*e*	pP	08 35 23.3	-8.0
VNA1	**Neumayer--Stat**	**99.44**	**199**	*e*	pP	08 35 27.2	-4.1
VNA1	**Neumayer--Stat**	**99.44**	**199**	*e*	PP	08 39 14.8	-7.9
VNA1	**Neumayer--Stat**	**99.44**	**199**	⇑*i*Pdif	**P**	**08 35 15.3**	**-1.2**
VNA1				*e*	pP	08 35 27.2	-4.1
VNA1				*e*		08 39 14.8	
VNA3	**Neumayer Olymp**	**99.78**	**199**	*e*	pP	08 35 27.1	-5.8
VNA3	**Neumayer Olymp**	**99.78**	**199**	*e*	pP	08 35 30.7	-2.1
VNA3	**Neumayer Olymp**	**99.78**	**199**	*e*	PP	08 39 18.5	-6.9
VNA3	**Neumayer Olymp**	**99.78**	**199**	⇑*i*Pdif	**P**	**08 35 18.9**	**+0.8**
VNA3				*e*		08 35 27.1	
VNA3				*e*	pP	08 35 30.7	-2.1
VNA3				*e*		08 39 18.5	
YKA	**Yellowknife Ar**	**108.58**	**14**	Pdiff	Pdif	08 35 58.5	+1.4
	comp=Z,0.2nm,0.6s,baz=337,slow=5.3,SNR=11						
YKA				PKiKP		08 40 02.4	
	comp=Z,0.3nm,0.5s,baz=339,slow=2.0,SNR=21						
YKA				PP	PP	08 40 26.4	-5.6
	comp=Z,1.1nm,0.6s,baz=339,slow=7.7,SNR=11						
YKA				PKKPbc		08 51 11.3	
	comp=Z,0.3nm,0.6s,baz=148,slow=3.4,SNR=11						
YKA	**Yellowknife Ar**	**108.58**	**14**	Pdif	Pdif	08 35 58.5	+1.4
YKA				PKPdf		08 40 02.4	
YKA				PP	PP	08 40 26.4	-5.6
YKA				PKKPbc		08 51 11.3	
SCHQ	**Schefferville**	**117.91**	**348**	PKP	PKPdf	08 40 20.9	+1.5
	comp=Z,2.2nm,0.5s,baz=34,slow=7.3,SNR=11						
SCHQ	**Schefferville**	**117.91**	**348**	PKP	PKPdf	08 40 20.9	+1.5
NEW	**Newport**	**119.64**	**24**	*e*PKIKP	PKPdf	08 40 24.1	+1.1
YBH	**Yreka Blue Hor**	**121.94**	**32**	PKP	PKPdf	08 40 30.1	+2.4
	comp=Z,1.4nm,0.6s,baz=153,slow=2.3,SNR=4.7						
BMO	**Blue Mountains**	**122.26**	**26**	*e*PKIKP	PKPdf	08 40 28.8	+0.6
ULM	**Lac du Bonnet**	**123.72**	**8**	PKP	PKPdf	08 40 33.1	+2.3
	comp=Z,8.1nm,0.6s,baz=16,slow=1.4,SNR=23						
BOZ	**Bozeman (W)**	**123.93**	**22**	*e*PKIKP	PKPdf	08 40 32.9	+1.5
HLID	**Hailey**	**124.54**	**25**	*e*PKPdf	PKPdf	08 40 34.8	+2.1
LAO	**LASA Array**	**124.83**	**17**	*e*PKPdf	PKPdf	08 40 35.3	+2.2
YFT	**Old Faithful**	**125.24**	**22**	*e*PKPdf	PKPdf	08 40 37.4	+3.4
TPAW	**Teton Pass**	**126.01**	**23**	*e*PKPdf	PKPdf	08 40 37.8	+2.3
LOHW	**Long Hollow**	**126.04**	**23**	*e*PKPdf	PKPdf	08 40 37.5	+2.0
WUWY	**Wally Ulrich**	**126.05**	**23**	*e*PKPdf	PKPdf	08 40 37.8	+2.3
SNOW	**Snow King Moun**	**126.11**	**23**	*e*PKPdf	PKPdf	08 40 37.6	+2.0
REDW	**Red Top Meadow**	**126.16**	**23**	*e*PKPdf	PKPdf	08 40 37.7	+1.9
NVAR	**Mina Array Bea**	**126.66**	**32**	PKP	PKPdf	08 40 39.8	+2.9
	comp=Z,5.8nm,0.7s,baz=311,slow=2.4,SNR=22						
NVAR				pPKP		08 40 54.0	
	comp=Z,2.2nm,0.8s,baz=306,slow=1.7,SNR=4.0						
NVAR				sPKP		08 40 58.9	
	comp=Z,2.1nm,0.7s,baz=258,slow=0.4,SNR=5.8						
PDAR	**Pinedale Array**	**127.16**	**22**	PKP	PKPdf	08 40 39.5	+1.7
	comp=Z,4.3nm,0.6s,baz=126,slow=2.3,SNR=47						
PDAR				pPKP		08 40 56.3	
	comp=Z,2.2nm,0.6s,baz=180,slow=1.5,SNR=6.7						
HWUT	**Hardware Ranch**	**127.35**	**25**	*e*PKPdf	PKPdf	08 40 39.7	+1.6
TRCR	**Troy Canyon**	**128.12**	**30**	*e*PKPdf	PKPdf	08 40 42.4	+2.7
NLU	**North Lily Min**	**128.50**	**26**	*e*PKPdf	PKPdf	08 40 42.3	+1.9
TMUT	**Trail Mountain**	**129.42**	**26**	*e*PKPdf	PKPdf	08 40 44.1	+1.9
MVU	**Marysvale**	**129.62**	**27**	*e*PKPdf	PKPdf	08 40 45.6	+3.0
MSU	**Marysvale**	**129.63**	**27**	*e*PKIKP	PKPdf	08 40 45.6	+3.0
NEN	**Nelson**	**130.57**	**32**	*e*PKPdf	PKPdf	08 40 46.5	+2.0
PV10	**Paradox Valley**	**131.11**	**25**	*e*PKPdf	PKPdf	08 40 47.7	+2.3
PV01	**Paradox Valley**	**131.51**	**25**	*e*PKPdf	PKPdf	08 40 49.0	+2.8
ANMO	**Albuquerque**	**135.11**	**25**	*e*PKIKP	PKPdf	08 40 54.3	+1.3
WMOK	**Wichita Mounta**	**138.01**	**17**	*e*PKHKP		08 40 42.7	
WVT	**Waverly**	**138.51**	**3**	*e*PKHKP		08 40 50.2	
WVT						08 41 00.4	
MIAR	**Mount Ida**	**139.41**	**10**	*e*PKIKP	PKPdf	08 41 01.9	+1.1
LTX	**Lajitas**	**141.14**	**26**	*e*PKIKP	PKPdf	08 41 02.3	-1.9
TXAR	**Lajitas Array**	**141.14**	**26**	PKhKP		08 41 00.0	
	comp=Z,1.8nm,0.5s,baz=210,slow=1.7,SNR=23						
TXAR				PKP	PKPdf	08 41 06.1	+1.9
	comp=Z,3.7nm,0.5s,baz=197,slow=1.1,SNR=30						
TXAR				PP	PP	08 44 07.1	-2.8
	comp=Z,0.5nm,0.6s,baz=18,slow=4.2,SNR=4.4						
JCT	**Junction City**	**141.63**	**20**	*e*PKHKP		08 40 59.4	
JCT				*e*		08 41 06.6	
BDFB	**Brasilia**	**141.99**	**252**	PKhKP		08 41 04.0	
	comp=Z,5.8nm,1.2s,baz=233,slow=5.1,SNR=2.5						
BDFB				PKP	PKPdf	08 41 08.5	+2.6
	comp=Z,1.2nm,0.4s,baz=37,slow=2.6,SNR=3.5						
CPUP	**Villa Florida**	**146.16**	**229**	PKPbc	PKPbc	08 41 16.1	+2.1
	comp=Z,0.0nm,0.3s,baz=139,slow=7.4,SNR=1.8						
SDV	**Santo Domingo**	**159.49**	**314**	PKP	PKPdf	08 41 33.9	+1.6
	comp=Z,3.4nm,0.9s,baz=308,slow=9.5,SNR=4.4						
SDV				PKPab	PKPab	08 42 12.3	-0.4
	comp=Z,6.6nm,1.1s,baz=63,slow=2.3,SNR=4.9						
SDV	**Santo Domingo**	**159.49**	**314**	*e*PKPdf	PKPdf	08 41 33.6	+1.4
LPAZ	**La Paz**	**159.99**	**236**	PKP	PKPdf	08 41 34.9	+2.2
	comp=Z,1.4nm,0.6s,baz=279,slow=3.2,SNR=3.6						
LPAZ				PKPab	PKPab	08 42 16.0	+1.2
	comp=Z,3.0nm,0.7s,baz=95,slow=5.5,SNR=4.6						
LPAZ	**La Paz**	**159.99**	**236**	PKIKP	PKPdf	08 41 34.9	+2.2
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.6s						
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ROSC	**El Rosal**	**164.90**	**313**	PKP	PKPdf	08 41 39.6	+1.9
	comp=Z,12nm,1.2s,baz=96,slow=13,SNR=5.4						

IDC 27 08:30:31.5±3.0, 4.34N×94.74E, mb3.6/4, mb1 3.7/4, mb1mx3.6/18, Error ellipse: s-maj=121.0km s-min=24.5km az=60.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**44.48**	**11**	P	P	08 38 45.2	-1.1
	0.5nm,0.7s,baz=201,slow=7.8,SNR=4.6						
WRA	**Warramunga Arr**	**45.79**	**123**	P	P	08 38 53.9	-3.2
	0.5nm,0.4s,baz=312,slow=7.7,SNR=7.1						
ASAR	**Alice Springs**	**47.24**	**128**	P	P	08 39 08.0	-0.6
	0.4nm,0.6s,baz=309,slow=6.9,SNR=6.3						
BVAR	**Borovoye Array**	**52.51**	**342**	P	P	08 39 45.8	-2.8
	1.3nm,0.8s,baz=135,slow=6.1,SNR=3.3						

DJA 27 08:31:43.3±1.3, 7.79S×117.56E, h80^{km}, MD5.3/3, ML4.4/3, 1C-4D, Error ellipse: s-maj=58.1km s-min=28.6km az=144.0, Bali Sea

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KEDI	**Kedomdong**	**1.59**	**244**	⇓*e*Pn	P	08 32 10.1	-0.2
	368nm,0.2s						
KEDI				⇓*e*Sn	S	08 32 28.0	-2.3
RATI	**Rata**	**2.21**	**245**	⇓*e*Pn	P	08 32 18.0	-0.8
	350nm,0.2s						
RATI				⇑*e*Sn	S	08 32 44.8	-0.2
KELI	**Kelakatan**	**3.07**	**262**	⇓*i*Pn	P	08 32 29.9	-0.9
	66nm,0.7s						

IDC 27 08:35:44.6±2.4, 21.35N×97.43E, mb3.6/2, mb1 3.9/2, mb1mx3.4/17, Error ellipse: s-maj=30.9km s-min=26.6km az=87.0, Myanmar

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CHG	**Chiang Mai**	**2.90**	**150**	PG	Pg	08 36 37.5	-4.9
CHG				SG	Sg	08 37 07.0	-14
CMAR	**Chiang Mai Arr**	**3.21**	**153**	Pg	Pg	08 36 44.0	-4.7
	1.7nm,0.3s,baz=334,slow=18,SNR=21						
CMAR				Sn	Sn	08 37 16.6	-0.1
	3.8nm,0.3s,baz=328,slow=28,SNR=15						
CMAR				Lg		08 37 26.6	
	2.7nm,0.3s,baz=333,slow=32,SNR=11						
WRA	**Warramunga Arr**	**54.65**	**136**	P	P	08 45 17.1	-0.6
	0.4nm,0.6s,baz=299,slow=9.8,SNR=3.2						
ASAR	**Alice Springs**	**57.12**	**140**	P	P	08 45 31.4	-4.2
	0.4nm,0.4s,baz=310,slow=7.1,SNR=9.3						

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*MOS **27** 08:37:37.0±1.0, 6.50N×93.27E, h33^{km}, mb5.7/33, MS5.6/15, Error ellipse: s-maj=10.8km s-min=5.7km az=116.0*

*BJI **27** 08:37:37.0, 6.17N×93.13E, h49^{km}, mB5.8, mb5.0, Ms6.0, Msz5.8*

*NEIC **27** 08:37:38.5±0.2, 6.48N×93.28E, h30^{km}, mb5.4/48, MS5.7/114, Error ellipse: s-maj=6.5km s-min=5.0km az=47.0*

*HRVD **27** 08:37:38.5±0.2, 6.26N×93.13E, h12^{km}, MW5.6/73, Centroid moment Tensor Solution. LP body waves: s43,c79;Mantle waves: s73,c148; Half duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}1.59±.04; $M_{\theta\theta}$-0.65±.04; $M_{\phi\phi}$-0.94±.05; $M_{r\theta}$1.33±.12; $M_{\theta\phi}$2.23±.03; $M_{\phi r}$0.10±.12; Best double couple: $M_0$2.9×10^{17} NP1:ϕ_s352°, δ49°,λ148°. NP2:ϕ_s104°,δ66°,λ46°. Principal axes: T 2.62, Plg48°, Azm326°; N .56, Plg40°, Azm126°; P -3.18, Plg10°, Azm225°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **27** 08:37:38.6, 6.49N×93.24E, h30^{km}, MB5.6, MS5.7*

*IDC **27** 08:37:40.8±2.7, 6.51N×93.34E, h48^{km}±24^{km}, mb4.8/31, mb1 4.8/32, mb1mx4.8/32, ML4.8/1, MS5.5/25, Ms1 5.5/25, ms1mx5.4/32, Error ellipse: s-maj=16.7km s-min=8.9km az=41.0*

*CSEM **27** 08:37:41.4, 6.95N×92.80E, h33^{km}, mb5.7*

ISC 27 08:37:37.0±0.2, 6.43N±0.03×93.23E±0.03, h32^{km}, h32^{km}±2.1^{km}:pP-P, n406, σ1^{s}10/314, mb5.3/103, MS5.7/160, 26C-9D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**13.19**	**24**	*e*P	**P**	**08 40 48.5**	**+3.7**
	144nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.19**	**24**	P	**P**	**08 40 49.5**	**+4.8**
	1.6nm,0.3s,baz=232,slow=13,SNR=15						
CMAR				LR	LR	08 45 55.6	
	comp=Z,12µm,18.5s,baz=215,slow=38						
MDRS	**Chennai**	**14.39**	**298**	*e*P	**P**	**08 40 59.8**	**-0.9**
MDRS				*e*		08 41 01.2	
	comp=Z,355nm,0.8s						
MDRS				*e*S	**S**	**08 43 34.3**	**-5.6**
UBT	**Ubonrachathani**	**14.51**	**52**	P	**P**	**08 41 12.0**	**+10**
VIS	**Vishakhapatnam**	**14.81**	**320**	*e*P	**P**	**08 41 05.3**	**-0.8**
VIS				*e*		08 41 10.4	
	comp=Z,352nm,1.1s						
VIS				*e*S	**S**	**08 43 41.3**	**-8.5**
TRD	**Trivandrum**	**16.26**	**278**	*e*P	**P**	**08 41 25.7**	**+0.8**
TRD				*e*		08 44 21.6	
	comp=E,87nm,0.1s						
TRD				*e*S	**S**	**08 44 22.3**	**-1.6**
TRD				*e*		08 44 22.4	
	comp=N,120nm,0.2s						
AGT	**Agartala**	**17.46**	**354**	⇑*i*P	**P**	**08 41 37.0**	**-2.9**
AGT				*i*		08 42 31.0	
HYB	**Hyderabad**	**18.02**	**309**	*e*P	**P**	**08 41 47.0**	**0.0**
	comp=N,100nm,1.0s						
HYB	**Hyderabad**	**18.02**	**309**	*i* P	**P**	**08 41 47.0**	**0.0**
	comp=N,100nm,1.0s						
BOK	**Bokaro**	**18.65**	**339**	*e*P	**P**	**08 41 54.5**	**-0.2**
BOK				*e*		08 42 01.1	
	comp=Z,312nm,0.7s						
BOK				*e*S	**S**	**08 45 16.7**	**-1.4**
COCO	**West Island**	**18.84**	**169**	*e*P	**P**	**08 41 57.0**	**+0.1**
	comp=Z,2µm,2.1s						
BLSP	**Bilaspur**	**18.93**	**327**	*e*P	**P**	**08 41 57.7**	**-0.3**
BLSP				*e*		08 42 00.7	
	comp=Z,238nm,1.0s						
BLSP				*e*S	**S**	**08 45 25.1**	**+0.6**
SHL	**Shillong**	**19.07**	**356**	*e*	**P**	**08 41 55.0**	**-4.7**
SHL				*e*S	**S**	**08 45 33.5**	**+5.7**
NGP	**Nagpur**	**20.07**	**318**	⇑*e*P	**P**	**08 42 11.6**	**+1.0**
NGP				*e*		08 45 54.9	
QIZ	**Qiongzhong**	**20.45**	**51**	P	**P**	**08 42 15.0**	**+0.3**
QIZ				AP		08 42 25.3	
QIZ				S	**S**	**08 45 55.5**	**-1.5**
QIZ				LR	LR		
	comp=N,41µm,12.3s,MS6.1						
QIZ				LR	LR		
	comp=E,27µm,12.3s,MS6.1						
QIZ				LR	LR		
	comp=Z,26µm,13.3s,MS5.8						
QIZ	**Qiongzhong**	**20.45**	**51**	*e*P	**P**	**08 42 14.9**	**+0.1**
	comp=Z,287nm,1.3s						
QIZ				LR	LR		
	comp=Z,19µm,19.0s,MS5.5						
KMI	**Kunming**	**20.70**	**25**	P	**P**	**08 42 21.5**	**+4.3**
KMI				AMB	AMB		
	comp=Z,207nm,1.1s						
GOA	**Goa**	**21.05**	**297**	⇑*e*	**P**	**08 42 26.8**	**+5.9**
	comp=Z,174nm,1.1s,mb5.3						
GOA				*e*	**S**	**08 46 23.2**	**+15**
AKL	**Akola**	**21.17**	**314**	⇑*i*P	**P**	**08 42 24.9**	**+2.9**
AKL				*i* S	**S**	**08 46 18.0**	**+7.2**
	comp=Z,425nm,1.3s						
PKI	**Pulchoki**	**22.30**	**341**	*e*P	**P**	**08 42 33.9**	**+0.6**
	comp=Z,807nm,1.3s,mb6.0						
POO	**Poona**	**22.39**	**304**	*e*P	**P**	**08 42 35.4**	**+1.2**
POO				*e*		08 42 38.9	
	comp=Z,92nm,1.3s						
POO				*e*S	**S**	**08 46 38.9**	**+5.6**
DMN	**Daman**	**22.43**	**341**	*e*P	**P**	**08 42 35.3**	**+0.7**
	comp=Z,417nm,0.8s,mb5.9						
GUN	**Gumba**	**22.47**	**343**	*e*P	**P**	**08 42 35.8**	**+0.8**
	comp=Z,769nm,1.2s,mb6.0						
KKN	**Kakani**	**22.54**	**341**	*e*P	**P**	**08 42 36.0**	**+0.2**
	comp=Z,252nm,0.7s,mb5.7						
BHPL	**Bhopal**	**22.60**	**319**	*e*P	**P**	**08 42 38.3**	**+1.8**
BHPL				*e*		08 42 40.6	
	comp=Z,132nm,1.7s						
BHPL				*e*	**S**	**08 46 47.9**	**+11**
GKN	**Gorkha**	**22.95**	**340**	*e*P	**P**	**08 42 40.5**	**+0.7**
	comp=Z,382nm,0.5s,mb6.1						
KOLN	**Koldanda**	**23.11**	**338**	*e*P	**P**	**08 42 42.4**	**+1.1**
	comp=Z,263nm,0.7s,mb5.8						
LSA	**Lhasa**	**23.23**	**355**	*e*P	**P**	**08 42 43.6**	**+1.1**
	comp=Z,49nm,0.9s,mb4.9						
LSA				LR	LR		
	comp=Z,12µm,22.0s,MS5.3						
GYA	**Guiyang**	**23.68**	**31**	⇑*i*P	**P**	**08 42 47.3**	**+0.4**
GYA				PP	PP	08 43 23.5	+3.6
GYA				S	**S**	**08 47 05.3**	**+9.1**
GYA				AMB	AMB		
	comp=Z,70nm,1.2s,mb5.0						
GYA				AMB	AMB		
	comp=Z,3µm,4.8s						
GYA				LR	LR		
	comp=N,19µm,13.8s,MS6.0						
GYA				LR	LR		
	comp=E,30µm,15.0s,MS6.0						
GYA				LR	LR		
	comp=Z,24µm,16.8s,MS5.7						
DGAR	**Diego Garcia**	**24.87**	**237**	PFAKE		08 43 10.0	+11
DGAR				LR	LR		
	comp=Z,4µm,20.0s,MS5.0						
PPR	**Puerto Princes**	**25.46**	**81**	⇓*e*P	**P**	**08 43 04.8**	**+0.7**
PTH	**Pithoragarh**	**26.07**	**333**	*e*P	**P**	**08 43 08.9**	**-0.7**
PTH				*e*		08 48 03.7	
CD2	**Chengdu**	**26.28**	**21**	⇓*i*P	**P**	**08 43 11.5**	**-0.1**
CD2				PP	PP	08 43 55.0	+0.7
CD2				S	**S**	**08 47 44.8**	**+4.9**
CD2				XS		08 47 58.5	
CD2				AMB	AMB		
	comp=Z,120nm,0.9s,mb5.4						
CD2				AMB	AMB		
	comp=Z,3µm,11.3s						
CD2				LR	LR		
	comp=N,14µm,12.1s						
CD2				LR	LR		
	comp=Z,21µm,11.2s,MS5.9						
AJM	**Ajmer**	**26.67**	**320**	*i* P	**P**	**08 43 15.0**	**-0.2**
DDI	**Dehra Dun**	**27.72**	**331**	*e*P	**P**	**08 43 25.6**	**+0.9**
SJMP	**San Jose**	**28.14**	**76**	*e*P	**P**	**08 43 31.3**	**+2.6**
ENH	**Enshi**	**28.22**	**31**	*e*P	**P**	**08 43 28.1**	**-1.1**
	comp=Z,24nm,0.8s,mb4.9						
ENH				LR	LR		
	comp=Z,19µm,19.0s,MS5.7						
TGY	**Tagaytay City**	**28.29**	**72**	P	**P**	**08 43 32.7**	**+2.8**
	comp=Z,129nm,0.3s,mb6.0,baz=99,slow=13,SNR=5.4						
TGY				LR	LR	08 55 24.5	
	comp=Z,12µm,18.0s,MS5.5,baz=239,slow=38						
BCPH	**Baguio City Da**	**28.54**	**67**	⇑*e*P	**P**	**08 43 31.9**	**-0.3**
OTRP	**Odiongan**	**29.00**	**76**	*e*P	**P**	**08 43 39.7**	**+3.3**
SDNR	**Sundarnagar**	**29.21**	**331**	*e*P	**P**	**08 43 39.9**	**+1.7**
QZH	**Quanzhou**	**30.47**	**50**	P	**P**	**08 43 53.8**	**+4.4**
QZH				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.6						
QZH				LR	LR		
	comp=N,14µm,13.4s,MS6.2						
QZH				LR	LR		
	comp=E,39µm,13.4s,MS6.2						
QZH				LR	LR		
	comp=Z,38µm,15.0s,MS6.2						
XAN	**Xi'an**	**31.08**	**26**	P	**P**	**08 43 53.0**	**-1.7**
XAN				AP	pP	08 44 04.8	+0.7
XAN				PP	PP	08 45 03.8	+6.5
XAN				S	**S**	**08 48 47.0**	**-10**
XAN				AMB	AMB		
	comp=Z,65nm,1.0s,mb5.4						
XAN				LR	LR		
	comp=N,10µm,16.5s,MS5.9						
XAN				LR	LR		
	comp=E,17µm,16.7s,MS5.9						
XAN				LR	LR		
	comp=Z,20µm,16.2s,MS5.9						
LZH	**Lanzhou**	**31.08**	**17**	⇑P	**P**	**08 43 53.5**	**-1.2**
LZH				PP	PP	08 44 56.0	-1.4
LZH				S	**S**	**08 48 58.0**	**+1.3**
LZH				SS	SS	08 50 44.0	+1.7
LZH				AMB	AMB		
	comp=Z,89nm,1.2s,mb5.5						
LZH				AMB	AMB		
	comp=Z,672nm,6.3s						
LZH				LR	LR		
	comp=E,12µm,12.8s						
LZH				LR	LR		
	comp=Z,13µm,13.5s,MS5.8						
WHN	**Wuhan**	**31.13**	**37**	P	**P**	**08 43 51.3**	**-3.8**
WHN				S	**S**	**08 49 04.0**	**+6.5**
WHN				LR	LR		
	comp=N,5µm,10.2s,MS6.3						
WHN				LR	LR		
	comp=E,39µm,12.3s,MS6.3						
WHN				LR	LR		
	comp=Z,27µm,13.4s,MS6.1						
BUKP	**Musuan**	**31.62**	**85**	*e*P	**P**	**08 44 02.4**	**+2.8**
DAV	**Davao City (W)**	**32.13**	**87**	*e*P	**P**	**08 44 08.0**	**+3.9**
GTA	**Gaotai**	**33.37**	**9**	*e*P	**P**	**08 44 14.5**	**-0.1**
GTA				PP	PP	08 45 27.0	+0.3
GTA				S	**S**	**08 49 36.5**	**+4.2**
GTA				SCP		08 50 30.8	
GTA				SS	SS	08 51 41.5	+5.7
GTA				AMB	AMB		
	comp=Z,12nm,1.4s,mb4.6						
GTA				AMB	AMB		
	comp=Z,1µm,6.5s						
GTA				LR	LR		
	comp=N,7µm,19.1s,MS5.6						
GTA				LR	LR		
	comp=E,7µm,15.3s,MS5.6						
GTA				LR	LR		
	comp=Z,8µm,24.5s						
NJ2	**Nanjing**	**34.95**	**40**	*e*P	**P**	**08 44 28.5**	**+0.2**
NJ2				AP	pP	08 44 38.3	+0.4
NJ2				XP	sP	08 44 42.0	0.0
NJ2				PP	PP	08 45 47.3	+0.6
NJ2				S	**S**	**08 49 58.0**	**+1.1**
NJ2				XS		08 50 14.0	
NJ2				SS	SS	08 52 14.0	+1.7
NJ2				AMB	AMB		
	comp=Z,190nm,0.7s,mb6.1						
NJ2				AMB	AMB		
	comp=Z,360nm,4.6s						
NJ2				LR	LR		
	comp=N,5µm,21.6s,MS5.4						
NJ2				LR	LR		
	comp=E,5µm,18.3s,MS5.4						
NJ2				LR	LR		
	comp=Z,5µm,16.7s,MS5.3						
SSE	**Sheshan**	**35.89**	**43**	P	**P**	**08 44 34.8**	**-1.5**
SSE				S	**S**	**08 50 10.3**	**-1.1**
SSE				AMB	AMB		
	comp=Z,37nm,0.7s,mb5.4						
SSE				AMB	AMB		
	comp=Z,1µm,8.2s						
SSE				LR	LR		
	comp=N,12µm,12.2s,MS6.0						
SSE				LR	LR		
	comp=E,8µm,12.2s,MS6.0						
SSE				LR	LR		
	comp=Z,20µm,13.8s,MS6.0						
KSH	**Kashi**	**36.42**	**337**	⇑*i*P	**P**	**08 44 41.5**	**+0.8**
KSH				AP	pP	08 44 50.0	-0.3
KSH				PP	PP	08 46 05.8	+1.0
KSH				PCP	PcP	08 47 05.5	+0.7
KSH				S	**S**	**08 50 20.0**	**+0.5**
KSH				*e*SCP		08 50 47.3	
KSH				*e*PCS		08 50 50.8	
KSH				*e*SS	SS	08 52 45.3	-0.3

KSH				SCS	ScS	08 54 53.0	+0.5
KSH				AMB	AMB		
	comp=Z,680nm,6.3s						
KSH				LR	LR		
	comp=N,8µm,15.7s,MS5.7						
KSH				LR	LR		
	comp=E,8µm,16.6s,MS5.7						
TIA	**Tai’an**	**36.85**	**33**	*e*P	**P**	**08 44 46.0**	**+1.7**
TIA				LR	LR		
	comp=N,12µm,16.0s,MS6.0						
TIA				LR	LR		
	comp=E,15µm,16.0s,MS6.0						
BTO	**Baotou**	**37.20**	**21**	*e*P	**P**	**08 44 46.5**	**-0.7**
BTO				S	**S**	**08 50 41.0**	**+10**
BTO				AMB	AMB		
	comp=Z,18nm,1.0s,mb4.9						
BTO				LR	LR		
	comp=N,3µm,10.2s,MS5.8						
BTO				LR	LR		
	comp=E,9µm,11.6s,MS5.8						
WMQ	**Urumqi**	**37.56**	**353**	⇑P	**P**	**08 44 51.0**	**+0.8**
WMQ				AP	pP	08 45 01.0	+1.2
WMQ				XP	sP	08 45 05.3	+1.5
WMQ				PP	PP	08 46 19.5	+0.6
WMQ				S	**S**	**08 50 37.0**	**+0.2**
WMQ				AMB	AMB		
	comp=Z,66nm,1.1s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,635nm,9.5s						
WMQ				LR	LR		
	comp=N,7µm,22.3s,MS5.5						
WMQ				LR	LR		
	comp=E,5µm,21.4s,MS5.5						
WMQ				LR	LR		
	comp=Z,7µm,20.0s,MS5.5						
MBWA	**Marble Bar**	**37.80**	**137**	PFAKE		08 45 00.0	+7.6
MBWA				LR	LR		
	comp=Z,7µm,20.0s,MS5.5						
HHC	**Hu-ho-hao-te**	**37.99**	**23**	⇑P	**P**	**08 44 54.3**	**+0.4**
HHC				AP	pP	08 45 04.3	+0.8
HHC				XP	sP	08 45 08.0	+0.5
HHC				PP	PP	08 46 24.5	+0.3
HHC				PCP	PcP	08 47 09.0	-0.6
HHC				S	**S**	**08 50 43.0**	**-0.5**
HHC				SS	SS	08 53 21.3	+0.2
HHC				SCS	ScS	08 55 01.3	+0.1
HHC				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
HHC				AMB	AMB		
	comp=Z,1µm,10.0s						
HHC				LR	LR		
	comp=N,10µm,17.0s,MS5.9						
HHC				LR	LR		
	comp=E,12µm,12.2s,MS5.9						
HHC				LR	LR		
	comp=Z,13µm,14.7s,MS5.9						
ULHL	**Ulahol**	**38.72**	**340**	P	**P**	**08 45 00.8**	**+0.9**
	SNR=11						
KZA	**Kyzart**	**38.92**	**339**	P	**P**	**08 45 03.4**	**+1.8**
	SNR=28						
JOW	**Kunigami**	**39.02**	**55**	P	**P**	**08 45 06.2**	**+3.5**
	comp=Z,38nm,0.8s,mb5.2,baz=249,slow=9.0,SNR=9.2						
JOW				LR	LR	09 03 24.0	
	comp=Z,10µm,18.3s,MS5.7,baz=237,slow=40						
BJT	**Baijiatuau**	**39.28**	**28**	*e*P	**P**	**08 45 04.3**	**-0.4**
	comp=Z,48nm,0.8s,mb5.3						
BJT				LR	LR		
	comp=Z,11µm,22.0s,MS5.7						
BJI	**Beijing**	**39.30**	**28**	P	**P**	**08 45 06.0**	**+1.2**
BJI				S	**S**	**08 51 06.5**	**+3.3**
BJI				AMB	AMB		
	comp=Z,26nm,1.1s,mb4.9						
BJI				AMB	AMB		
	comp=Z,1µm,5.8s						
BJI				LR	LR		
	comp=N,9µm,16.0s,MS5.7						
BJI				LR	LR		
	comp=E,5µm,18.2s,MS5.7						
BJI				LR	LR		
	comp=Z,8µm,20.9s,MS5.5						
UCH	**Uchtor**	**39.32**	**338**	P	**P**	**08 45 06.9**	**+1.9**
	SNR=40						
AAA	**Alma-Ata**	**39.40**	**341**	*e*P	**P**	**08 44 56.0**	**-10**
AAA				*e*		08 46 36.0	
AAA				*e*S	**S**	**08 51 04.0**	**-0.7**
AAA				pmax	pmax		
	comp=Z,2µm,4.0s						
AAA				smax			
	comp=N,2µm,10.0s						
AAA				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.3						
KBK	**Karagaybulak**	**39.54**	**339**	P	**P**	**08 45 07.9**	**+1.2**
	SNR=22						
TKM2	**Tokmak 2**	**39.54**	**340**	P	**P**	**08 45 08.1**	**+1.3**
	SNR=17						
AML	**Almayashu**	**39.55**	**337**	P	**P**	**08 45 08.9**	**+2.0**
	SNR=89						
AAK	**Ala-Archa**	**39.68**	**338**	P	**P**	**08 45 09.7**	**+1.8**
	SNR=29						
AAK	**Ala-Archa**	**39.68**	**338**	*e*P	**P**	**08 45 07.3**	**-0.7**
	comp=Z,110nm,1.4s,mb5.4						
AAK				LR	LR		
	comp=Z,3µm,20.0s,MS5.1						
FRU	**Bishkek**	**39.81**	**338**	*i* P	**P**	**08 45 10.0**	**+1.0**
FRU				pmax	pmax		
	comp=Z,220nm,2.0s,mb5.5						
CHMS	**Chumysh**	**39.91**	**339**	P	**P**	**08 45 10.7**	**+0.9**
	SNR=14						
EKS2	**Erkin-Say**	**39.97**	**338**	P	**P**	**08 45 12.3**	**+2.0**
	SNR=12						
USP	**Ospenovka**	**40.23**	**339**	P	**P**	**08 45 12.7**	**+0.3**
	SNR=29						
DL2	**Dalian**	**41.27**	**34**	P	**P**	**08 45 23.5**	**+2.5**
DL2				*e*S	**S**	**08 51 37.8**	**+5.2**
DL2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.1						
DL2				AMB	AMB		
	comp=Z,590nm,8.9s						
DL2				LR	LR		
	comp=N,6µm,13.8s,MS5.6						
DL2				LR	LR		
	comp=E,2µm,17.1s,MS5.6						
DL2				LR	LR		
	comp=Z,4µm,14.0s,MS5.4						
MKAR	**Makanchi Array**	**41.30**	**349**	*i* P	**P**	**08 45 20.8**	**-0.4**
MKAR				pmax	pmax		
	comp=Z,24nm,0.7s						
MKAR	**Makanchi Array**	**41.30**	**349**	*i* P	**P**	**08 45 20.9**	**-0.3**
SONM	**Songino Array**	**42.76**	**13**	P	**P**	**08 45 32.9**	**-0.3**
	comp=Z,6.2nm,0.9s,mb4.4,baz=198,slow=8.0,SNR=18						
ULN	**Ulaanbaatar**	**42.94**	**14**	*e*P	**P**	**08 45 32.1**	**-2.6**
	comp=Z,8.7nm,1.0s,mb4.4						
ULN				LR	LR		
	comp=Z,8µm,19.0s,MS5.7						
INCN	**Inchon**	**43.33**	**40**	PFAKE		08 45 50.0	+12
INCN				LR	LR		
	comp=Z,5µm,19.0s,MS5.4						
SNY	**Shenyang**	**44.37**	**33**	⇓P	**P**	**08 45 46.0**	**-0.3**
SNY				S	**S**	**08 52 17.5**	**-0.5**
SNY				LR	LR		
	comp=N,8µm,14.7s,MS5.8						
SNY				LR	LR		
	comp=E,4µm,17.0s,MS5.8						
SNY				LR	LR		
	comp=Z,8µm,14.0s,MS5.8						
ZAK	**Zakamensk**	**44.61**	**9**	*e*P	**P**	**08 45 48.5**	**+0.4**
NWAO	**Narrogin (SRO)**	**45.30**	**151**	P	**P**	**08 45 55.6**	**+1.7**
	comp=Z,43nm,1.1s,mb5.2,baz=334,slow=8.3,SNR=8.9						
NWAO	**Narrogin (SRO)**	**45.30**	**151**	P	**P**	**08 45 53.4**	**-0.5**
	comp=Z,120nm,1.5s,mb5.5						
NWAO				LR	LR		
	comp=Z,5µm,20.0s,MS5.5						
MOY	**Mondy**	**45.55**	**7**	*e*P	**P**	**08 46 00.3**	**+4.7**
TLY	**Talaya**	**45.92**	**9**	*i* P	**P**	**08 45 57.3**	**-1.2**
TLY	**Talaya**	**45.92**	**9**	*e*P	**P**	**08 45 58.7**	**+0.1**
	comp=Z,5.3nm,0.8s,mb4.5						
CN2	**Changchun**	**46.73**	**32**	*e*P	**P**	**08 46 04.0**	**-1.0**
CN2				*e*AP	pP	08 46 14.0	-0.7
CN2				*e*S	**S**	**08 52 51.0**	**-0.8**
CN2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
CN2				AMB	AMB		
	comp=Z,1µm,6.0s						
CN2				LR	LR		
	comp=N,8µm,13.0s,MS6.0						
CN2				LR	LR		
	comp=E,7µm,13.0s,MS6.0						
CN2				LR	LR		
	comp=Z,8µm,14.0s,MS5.8						
ZAL	**Zalesovo**	**47.86**	**353**	P	**P**	**08 46 13.9**	**+0.1**
	comp=Z,25nm,0.5s,mb5.5,baz=297,slow=7.1						
ZAL				LR	LR	09 10 50.7	
	comp=Z,7µm,19.9s,MS5.6,baz=291,slow=42						
WRA	**Warramunga Arr**	**48.19**	**124**	P	**P**	**08 46 15.0**	**-1.8**
	comp=Z,36nm,0.8s,mb5.5,baz=301,slow=8.3,SNR=60						
WRA				S	**S**	**08 53 10.8**	**-1.9**
	comp=Z,4.8nm,1.1s,baz=298,slow=16,SNR=6.4						
WRAB	**Tennant Creek**	**48.19**	**124**	*i* P	**P**	**08 46 17.6**	**+0.8**
WRAB	**Tennant Creek**	**48.19**	**124**	*e*P	**P**	**08 46 14.4**	**-2.4**
	comp=Z,221nm,1.3s,mb6.0						
WRAB				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
HIA	**Hailar**	**48.20**	**23**	*e*P	**P**	**08 46 16.3**	**-0.1**
	comp=Z,48nm,1.0s,mb5.5						
HIA				LR	LR		
	comp=Z,11µm,19.0s,MS5.9						
NVS	**Novosibirsk**	**48.94**	**352**	*e*P	**P**	**08 46 20.9**	**-1.2**
NVS				*i* S	**S**	**08 53 24.7**	**+1.9**
NVS				pmax	pmax		
	comp=Z,106nm,1.3s,mb5.7						
NVS				smax			
	comp=E,173nm,2.3s						
NVS				smax			
	comp=N,167nm,2.6s						
MDJ	**Mudanjiang**	**49.50**	**34**	P	**P**	**08 46 26.3**	**-0.3**
MDJ				AP	pP	08 46 35.3	-1.1
MDJ				PCP	PcP	08 47 47.5	-1.0
MDJ				PP	PP	08 48 23.0	+1.7
MDJ				SCP		08 51 40.3	
MDJ				PCS		08 51 44.5	
MDJ				S	**S**	**08 53 32.5**	**+1.7**
MDJ				SCS	ScS	08 56 15.5	+2.8
MDJ				AMB	AMB		
	comp=Z,21nm,1.9s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,686nm,6.8s						
MDJ				LR	LR		
	comp=N,3µm,16.7s,MS5.8						
MDJ				LR	LR		
	comp=E,6µm,14.1s,MS5.8						
MDJ				LR	LR		
	comp=Z,6µm,15.0s,MS5.8						
MDJ	**Mudanjiang**	**49.50**	**34**	*e*P	**P**	**08 46 26.4**	**-0.2**
	comp=Z,29nm,1.0s,mb5.3						
MDJ				LR	LR		
	comp=Z,4µm,21.0s,MS5.4						
ASAR	**Alice Springs**	**49.71**	**128**	P	**P**	**08 46 26.6**	**-1.9**
	comp=Z,24nm,0.7s,mb5.3,baz=300,slow=7.8,SNR=92						
ASAR				PcP	PcP	08 47 50.6	+1.1
	comp=Z,7.0nm,0.6s,baz=304,slow=3.3,SNR=5.8						
ASAR				S	**S**	**08 53 35.3**	**+1.4**
	comp=Z,2.3nm,1.0s,baz=306,slow=14,SNR=4.4						
BVA0	**Borovoye Array**	**50.07**	**342**	P	**P**	**08 46 29.8**	**-1.0**
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
BVAR	**Borovoye Array**	**50.07**	**342**	P	**P**	**08 46 29.9**	**-0.9**
	comp=Z,26nm,1.1s,mb5.2,baz=143,slow=7.4,SNR=47						
BRVK	**Borovoye**	**50.13**	**342**	*e*P	**P**	**08 46 30.7**	**-0.6**
	comp=Z,21nm,0.9s,mb5.2						
BRVK				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
CHKZ	**Chkalovo**	**50.56**	**343**	*e*P	**P**	**08 46 33.5**	**-1.1**
CHKZ				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.4						
CHKZ	**Chkalovo**	**50.56**	**343**	*e*P	**P**	**08 46 33.5**	**-1.1**
	comp=Z,53nm,1.1s,mb5.4						
JHJ	**Hachijo jima 2**	**50.66**	**52**	LR	LR	09 09 05.1	
	comp=Z,4µm,18.6s,MS5.5,baz=286,slow=37						
CBIJ	**Chichi jima**	**50.79**	**60**	P	**P**	**08 46 37.4**	**+0.7**
	comp=Z,83nm,0.9s,mb5.7,baz=219,slow=13,SNR=3.4						
CBIJ				LR	LR	09 08 32.7	
	comp=Z,3µm,18.2s,MS5.3,baz=83,slow=37						
MAJO	**Matsushiro**	**50.80**	**47**	PFAKE		08 46 50.0	+13
MAJO				LR	LR		
	comp=Z,5µm,19.0s,MS5.6						
MAT	**Matsushiro**	**50.80**	**47**	P	**P**	**08 46 37.7**	**+1.1**
MAT	**Matsushiro**	**50.80**	**47**	P	**P**	**08 46 39.0**	**+2.4**
GUMO	**Guam**	**51.27**	**78**	PFAKE		08 46 50.0	+10
GUMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
KLR	**Kul’dur**	**53.58**	**30**	*e*P	**P**	**08 46 52.9**	**-4.4**
BOD	**Bodaibo**	**53.76**	**14**	*e*P	**P**	**08 46 57.1**	**-1.3**
MAK	**Makhachkala**	**54.21**	**320**	*e*P	**P**	**08 47 04.0**	**+2.1**
GNI	**Garni**	**54.81**	**315**	P	**P**	**08 47 06.9**	**+0.5**
	comp=Z,46nm,1.1s,mb5.4,baz=53,slow=3.5,SNR=20						
GNI				LR	LR	09 15 10.8	
	comp=Z,3µm,19.3s,MS5.4,baz=251,slow=41						
GNI	**Garni**	**54.81**	**315**	⇑*e*P	**P**	**08 47 05.6**	**-0.8**
	comp=Z,66nm,1.3s,mb5.5						
GNI				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
PMG	**Port Moresby**	**55.99**	**106**	P	**P**	**08 47 15.9**	**+0.6**
	comp=Z,41nm,0.8s,mb5.5,baz=285,slow=5.1,SNR=18						
PMG	**Port Moresby**	**55.99**	**106**	*e*P	**P**	**08 47 13.5**	**-1.8**
PMG				pmax	pmax		
	comp=Z,43nm,0.8s						
PMG	**Port Moresby**	**55.99**	**106**	*e*P	**P**	**08 47 13.5**	**-1.8**
	comp=Z,43nm,0.8s,mb5.5						
CLNS	**Chul’man**	**56.09**	**20**	*e*P	**P**	**08 47 14.1**	**-1.4**
KMBO	**Kilima Mbogo**	**56.37**	**264**	P	**P**	**08 47 18.8**	**+0.7**
	comp=Z,12nm,1.1s,mb4.9,baz=57,slow=8.9,SNR=14						
KMBO				LR	LR	09 07 07.5	
	comp=Z,7µm,20.4s,MS5.7,baz=87,slow=31						
KMBO	**Kilima Mbogo**	**56.37**	**264**	*i* P	**P**	**08 47 18.8**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,12nm,1.1s						
KMBO	**Kilima Mbogo**	**56.37**	**264**	*e*P	**P**	**08 47 18.1**	**0.0**
	comp=Z,231nm,2.0s,mb5.9						
KMBO				LR	LR		
	comp=Z,7µm,20.0s,MS5.7						
SVE	**Sverdlovsk**	**56.41**	**339**	⇑*e*P	**P**	**08 47 16.8**	**-0.9**
SVE				*e*S	**S**	**08 55 05.0**	**+0.5**
SVE				pmax	pmax		
	comp=Z,230nm,2.0s,mb5.9						
SVE				MLR	MLR		
	comp=Z,10µm,21.5s,MS5.9						
ZEI	**Tsey**	**56.48**	**318**	*e*P	**P**	**08 47 17.5**	**-1.0**
ZEI				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
ARU	**Arti**	**56.87**	**338**	⇑*i*P	**P**	**08 47 19.1**	**-1.9**
ARU				*e*		08 48 13.8	
ARU				*e*		08 49 28.2	
ARU				*e*S	**S**	**08 55 11.4**	**+0.9**
ARU				pmax	pmax		
	comp=Z,54nm,1.2s,mb5.5						
ARU				MLR	MLR		
	comp=N,3µm,20.0s,MS5.8						
ARU				MLR	MLR		
	comp=Z,8µm,20.0s,MS5.8						
ARU				MLR	MLR		
	comp=E,7µm,19.0s,MS5.8						
ARU	**Arti**	**56.87**	**338**	*e*P	**P**	**08 47 18.4**	**-2.6**
	comp=E,136nm,1.5s,mb5.8						
ARU				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
ASAJ	**Asahikawa**	**57.09**	**41**	P	**P**	**08 47 21.7**	**-1.1**
	comp=Z,9.7nm,0.8s,mb4.9,baz=259,slow=8.9,SNR=2.9						
ASAJ				LR	LR	09 11 52.5	
	comp=Z,2µm,19.1s,MS5.2,baz=252,slow=36						
KIV	**Kislovodsk**	**57.79**	**319**	P	**P**	**08 47 27.6**	**0.0**
	comp=Z,182nm,1.4s,mb5.9,SNR=11						
KIV	**Kislovodsk**	**57.79**	**319**	⇑*i*P	**P**	**08 47 26.0**	**-1.6**
KIV	**Kislovodsk**	**57.79**	**319**	⇑*i*P	**P**	**08 47 26.0**	**-1.6**
KIV				LR	LR		
	comp=Z,666nm,22.0s,MS4.7						
GOF	**Gofitskoye**	**58.03**	**320**	*e*P	**P**	**08 47 27.0**	**-2.4**
ASF	**Jabal al Asfar**	**58.25**	**304**	P	**P**	**08 47 32.5**	**+1.5**
	comp=Z,28nm,1.0s,mb5.2,baz=332,slow=3.1,SNR=16						
ASF				LR	LR	09 13 01.6	
	comp=Z,4µm,21.7s,MS5.5,baz=202,slow=36						
CTA	**Charters Tower**	**58.41**	**118**	P	**P**	**08 47 30.8**	**-1.5**
	comp=Z,26nm,1.1s,mb5.2,baz=288,slow=7.9,SNR=15						
CTA				LR	LR	09 15 16.6	
	comp=Z,7µm,20.9s,MS5.8,baz=290,slow=39						
CTA	**Charters Tower**	**58.41**	**118**	P	**P**	**08 47 30.8**	**-1.6**
CTA				LR	LR	09 15 16.6	
CTAO	**Charters Tower**	**58.41**	**118**	*e*P	**P**	**08 47 30.0**	**-2.3**
	comp=Z,125nm,1.5s,mb5.7						
CTAO				LR	LR		
	comp=Z,7µm,21.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	**58.47**	**38**	⇑*e*P	**P**	**08 47 39.0**	**+6.6**
YSS				*e*S	**S**	**08 55 32.0**	**+0.3**
MALT	**Malatya**	**58.71**	**311**	*e*P	**P**	**08 47 34.3**	**+0.1**
MALT				pmax	pmax		
	comp=Z,57nm,1.8s,mb5.3						
MALT	**Malatya**	**58.71**	**311**	*e*P	**P**	**08 47 34.3**	**+0.1**
	comp=Z,57nm,1.8s,mb5.3						
DUSS	**Damascus Unive**	**59.06**	**305**	*i* P	**P**	**08 47 37.5**	**+0.8**
DUSS				*i* P		08 47 37.8	
DUSS				*i* P		08 47 38.0	
DUSS				*e*		08 47 38.5	
	baz=103,slow=2.9						
DUSS				*e*S	**S**	**08 55 43.6**	**+3.9**
DUSS				AMS	AMS	09 14 38.0	
	comp=E,91µm,18.0s						
DUSS				AMS	AMS	09 14 38.0	
	comp=N,147µm,16.5s						
DUSS				AMS	AMS	09 17 21.7	
	comp=Z,60µm,17.3s,MS6.8						
GZT	**Gaziantep**	**59.08**	**310**	*i* P	**P**	**08 47 36.3**	**-0.4**
YUK	**Yuzh-Kuril’sk**	**59.20**	**42**	P	**P**	**08 47 35.3**	**-2.2**
YUK				pmax	pmax		
	comp=Z,2µm,2.0s						
YUK				pmax	pmax		
	comp=E,2µm,3.0s						
KSHT	**Keshet**	**59.33**	**305**	P	**P**	**08 47 39.1**	**+0.5**
EIL	**Elat**	**59.36**	**301**	P	**P**	**08 47 39.5**	**+0.6**
	comp=E,23nm,1.1s,mb5.2,baz=102,slow=6.4,SNR=10						
EIL				LR	LR	09 14 36.9	
	comp=E,6µm,18.1s,MS5.7,baz=92,slow=37						
EIL	**Elat**	**59.36**	**301**	P	**P**	**08 47 39.0**	**+0.1**
EIL	**Elat**	**59.36**	**301**	*e*P	**P**	**08 47 39.5**	**+0.7**
	comp=E,76nm,1.4s,mb5.5						
DRGI	**Dragot**	**59.37**	**303**	P	**P**	**08 47 39.1**	**+0.2**
HMDT	**Nahal Hemdat**	**59.40**	**304**	P	**P**	**08 47 39.5**	**+0.4**
MBH	**Mount Berech**	**59.42**	**301**	P	**P**	**08 47 39.2**	**0.0**
PRNI	**Paran**	**59.45**	**301**	P	**P**	**08 47 39.7**	**+0.3**
MMLI	**Mount Malkishu**	**59.53**	**304**	P	**P**	**08 47 40.4**	**+0.5**
SOC	**Sochi**	**59.61**	**317**	*i* P	**P**	**08 47 38.2**	**-2.1**
SOC				*i*		08 49 47.8	
SOC				*i* PPP	PPP	08 51 15.8	-3.4
SOC				*e*S	**S**	**08 55 44.4**	**-2.2**
SOC				*i* SSS	SSS	09 02 17.6	+4.7
SOC				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
SOC				pmax	pmax		
	comp=N,22nm,0.9s						
SOC				pmax	pmax		
	comp=E,6.0nm,0.6s						
KMTI	**Karmit**	**59.64**	**301**	P	**P**	**08 47 40.5**	**-0.2**
KAHT	**Ahir Dag**	**59.68**	**310**	*i* P	**P**	**08 47 41.3**	**+0.4**
STKA	**Stephens Creek**	**59.78**	**133**	P	**P**	**08 47 39.7**	**-2.0**
	comp=E,21nm,0.8s,mb5.2,baz=305,slow=7.9,SNR=18						
STKA				LR	LR	09 15 24.1	
	comp=E,4µm,20.6s,MS5.6,baz=299,slow=38						
STKA	**Stephens Creek**	**59.78**	**133**	*e*P	**P**	**08 47 41.1**	**-0.6**
SOKR	**Solikamsk**	**59.82**	**340**	⇑*i*P	**P**	**08 47 40.8**	**-0.7**
SOKR				*i* S	**S**	**08 55 48.1**	**-0.9**
SOKR				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,7µm,21.0s,MS5.8						
COBT	**Iskenderun**	**59.85**	**309**	*i* P	**P**	**08 47 41.5**	**-0.6**
MEST	**Erdemli**	**61.51**	**308**	*i* P	**P**	**08 47 52.9**	**-0.5**
YAK	**Yakutsk**	**61.64**	**19**	⇑*i*P	**P**	**08 47 52.5**	**-1.4**
YAK				LR	LR		
	comp=Z,5µm,19.0s,MS5.7						
CSS	**Prodhromos**	**61.78**	**306**	*e*P	**P**	**08 47 55.5**	**+0.2**
	comp=Z,125nm,1.4s,mb5.8						
BOYT	**Boyabat**	**62.24**	**314**	*i* P	**P**	**08 47 57.5**	**-0.7**
BR131	**Keskin Array S**	**62.69**	**312**	PFAKE		08 48 10.0	+8.8
BR131				LR	LR		
	comp=Z,668nm,21.0s,MS4.8						
BRTR	**Keskin Array B**	**62.69**	**312**	P	**P**	**08 48 00.0**	**-1.2**
	comp=Z,14nm,0.9s,mb5.1,baz=121,slow=7.2,SNR=54						
MBAR	**Mbarara**	**62.75**	**266**	*e*P	**P**	**08 48 01.4**	**-0.6**
	comp=Z,54nm,1.5s,mb5.5						
MBAR				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
ELDT	**Eldivan**	**63.05**	**312**	*i* P	**P**	**08 48 02.9**	**-0.6**
SIM	**Simferopol’**	**63.86**	**317**	*e*P	**P**	**08 48 07.1**	**-1.8**
SIM				*e*S	**S**	**08 56 43.0**	**+2.7**
SIM				pmax	pmax		
	comp=Z,21nm,1.7s,mb4.9						
SGKT	**Sivrigoynuk**	**64.08**	**312**	*i* P	**P**	**08 48 09.4**	**-1.0**
MOS	**Moscow**	**65.84**	**329**	*e*P	**P**	**08 48 20.0**	**-1.5**
MOS				*e*		08 50 44.2	
MOS				pmax	pmax		
	comp=Z,85nm,1.2s,mb5.7						
MOS				MLR	MLR		
	comp=Z,6µm,22.0s,MS5.8						
OBN	**Obninsk**	**66.12**	**328**	*c* *i*P	**P**	**08 48 21.4**	**-1.8**
OBN				*e*S	S	08 57 07.4	-0.5
OBN				pmax	pmax		
	comp=Z,87nm,1.6s,mb5.5						
OBN				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.7						
OBN	**Obninsk**	**66.12**	**328**	⇑*i*P	**P**	**08 48 21.4**	**-1.8**
OBN				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
KDAG	**Bornova**	**67.24**	**309**	*i* P	**P**	**08 48 31.2**	**+0.5**
LSZ	**Lusaka**	**67.94**	**251**	*e*P	**P**	**08 48 35.2**	**-0.2**
	comp=Z,101nm,1.8s,mb5.5						
LSZ				LR	LR		
	comp=Z,9µm,19.0s,MS6.0						
KIS	**Kishinev**	**67.98**	**318**	*e*P	**P**	**08 48 34.0**	**-1.2**
KIS				*e*		08 49 02.0	
MA2	**Magadan**	**68.46**	**27**	*e*P	**P**	**08 48 37.6**	**-0.3**
	comp=Z,119nm,1.3s,mb5.8						
MA2				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
IDI	**Anoyia**	**68.65**	**305**	P	**P**	**08 48 39.1**	**-0.5**
	comp=Z,20nm,0.8s,mb5.1,baz=34,slow=4.0,SNR=6.6						
AKASG	**Malin Array Be**	**68.72**	**322**	P	**P**	**08 48 37.2**	**-2.5**
	comp=Z,4.9nm,0.7s,mb4.5,baz=89,slow=4.8,SNR=32						
TIXI	**Tiksi**	**68.82**	**11**	*i* P	**P**	**08 48 39.0**	**-1.0**
VRI	**Vrincioaia**	**69.12**	**317**	⇑*i*P	**P**	**08 48 42.4**	**+0.1**
KDZ	**Kurdzhali**	**69.21**	**312**	*e*P	**P**	**08 48 42.0**	**-0.9**
MLR	**Muntele Rosu**	**69.57**	**316**	P	**P**	**08 48 44.7**	**-0.4**
	comp=Z,40nm,1.1s,mb5.2,baz=18,slow=6.7,SNR=23						
RZN	**Rozhen**	**69.73**	**312**	*e*P	**P**	**08 48 45.0**	**-1.1**
PET	**Petropavlovsk**	**70.23**	**36**	PFAKE		08 49 00.0	+11
PET				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
PGB	**Panagyurishte**	**70.28**	**313**	*e*P	**P**	**08 48 49.0**	**-0.4**
MMB	**Musomiste**	**70.45**	**312**	*e*P	**P**	**08 48 49.0**	**-1.5**
SEY	**Seymchan**	**70.61**	**25**	*e*P	**P**	**08 48 50.0**	**-1.0**
SEY				*e*		08 49 11.0	
SEY				*e*		08 51 30.9	
SEY				*e*PPP	PPP	08 53 05.2	-4.9
SEY				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.6						
SEY				pmax	pmax		
	comp=E,30nm,1.2s						
SEY				MLR	MLR		
	comp=Z,16µm,17.0s,MS6.3						
SEY				MLR	MLR		
	comp=N,6µm,23.0s						
SEY				MLR	MLR		
	comp=E,8µm,16.0s						
KKB	**Krupnik**	**70.97**	**312**	*e*P	**P**	**08 48 52.0**	**-1.6**
VTS	**Vitosha**	**70.99**	**313**	*e*P	**P**	**08 48 53.0**	**-0.7**
KWP	**Kalwaria**	**72.54**	**320**	*e*P	**P**	**08 49 02.6**	**-0.3**
KWP				pmax	pmax		
	comp=Z,110nm,1.7s,mb5.5						
KWP	**Kalwaria**	**72.54**	**320**	*e*P	**P**	**08 49 02.6**	**-0.3**
	comp=Z,114nm,1.7s,mb5.5						
LVZ	**Lovozero**	**72.60**	**340**	⇑*e*P	**P**	**08 49 02.1**	**-0.7**
LVZ				*e*S	S	08 58 24.3	+0.3
LVZ				*e*		08 59 19.7	
LVZ				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.1						
LVZ				pmax	pmax		
	comp=N,4.0nm,1.2s						
LVZ				MLR	MLR		
	comp=Z,7µm,21.0s,MS5.9						
LVZ				MLR	MLR		
	comp=N,1µm,14.0s						
KOLS	**Kolonicke sedl**	**72.69**	**319**	*e*P	**P**	**08 49 04.2**	**+0.4**
KOLS				*e*		08 49 26.7	
LBTB	**Lobatse**	**72.76**	**241**	*e*P	**P**	**08 49 04.8**	**+0.1**
	comp=N,162nm,1.8s,mb5.7						
LBTB				LR	LR		
	comp=Z,7µm,20.0s,MS5.9						
APA	**Apatity**	**72.88**	**340**	⇑*i*P	**P**	**08 49 03.4**	**-1.1**
APA				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						

APA				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.7						
SUW	**Suwalki**	73.14	325	*e*P	P	08 49 05.2	-1.1
FINES	**FINESS Array B**	73.56	333	P	P	08 49 07.6	-1.0
	comp=Z,11nm,0.8s,mb4.8,baz=90,slow=5.7,SNR=24						
FINES				LR	LR	09 25 08.6	
	comp=Z,4µm,20.8s,MS5.7,baz=110,slow=39						
FINES	**FINESS Array B**	73.56	333	*i* P	P	08 49 08.3	-0.3
FINES				pmax	pmax		
	comp=Z,11nm,0.8s						
FINES	**FINESS Array B**	73.56	333	P	P	08 49 07.6	-1.0
FINES				LR	LR	09 25 08.6	
CASY	**Casey**	73.61	173	PFAKE		08 49 20.0	+11
CASY				LR	LR		
	comp=Z,3µm,19.0s,MS5.6						
KECS	**Kecovo**	73.79	319	*e*P	P	08 49 10.5	+0.4
BOSA	**Boshof**	74.05	238	*e*P	P	08 49 12.2	+0.1
	comp=Z,155nm,1.6s,mb5.7						
BOSA				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
PSZ	**Piszkesteto**	74.09	318	*e*P	P	08 49 10.4	-1.5
PSZ				pmax	pmax		
	comp=Z,110nm,2.0s,mb5.4						
PSZ	**Piszkesteto**	74.09	318	*e*P	P	08 49 10.4	-1.5
	comp=Z,107nm,2.0s,mb5.4						
OJC	**Ojcow**	74.50	320	*e*P	P	08 49 14.3	+0.1
VYHS	**Vyhne**	74.88	318	*e*P	P	08 49 16.0	-0.4
SRO	**Srobarova**	75.14	318	*e*P	P	08 49 18.4	+0.4
OKC	**Ostrava-Krasne**	75.50	320	*e*P	P	08 49 20.0	0.0
OKC				*e*pP	pP	08 49 24.3	-5.8
MORC	**Moravsky Berou**	75.88	320	*e*P	P	08 49 22.2	+0.1
MORC				pmax	pmax		
	comp=Z,44nm,1.5s,mb5.2						
MORC	**Moravsky Berou**	75.88	320	*e*P	P	08 49 22.2	+0.1
	comp=Z,44nm,1.5s,mb5.2						
ZST	**Bratislava**	75.99	318	*i* P	P	08 49 23.3	+0.5
ZST				*e*		08 49 40.5	
ARCES	**ARCESS Array B**	76.31	340	P	P	08 49 23.2	-1.0
	comp=Z,17nm,0.9s,mb5.0,baz=102,slow=5.7,SNR=27						
ARCES				LR	LR	09 25 17.2	
	comp=Z,7µm,21.1s,MS5.9,baz=115,slow=37						
VRAC	**Vranov**	76.44	319	P	P	08 49 24.5	-0.8
	comp=Z,2.7nm,0.8s,mb4.2,baz=98,slow=7.2,SNR=4.9						
DPC	**Dobruska-Polom**	76.72	320	*e*P	P	08 49 27.7	+0.8
DPC				AMS	AMS	09 31 40.0	
	comp=Z,2µm,16.0s						
KSP	**Ksiaz**	76.79	321	*e*P	P	08 49 26.5	-0.8
KSP				*e*pP	pP	08 49 32.0	-5.4
NOUC	**Port Laguerre**	76.90	114	*e*P	P	08 49 31.6	+3.2
NOUC	**Port Laguerre**	76.90	114	*e*P	P	08 49 31.6	+3.2
UPC	**Upice**	76.94	320	*e*P	P	08 49 24.7	-3.4
MAW	**Mawson**	76.95	191	P	P	08 49 29.3	+1.6
	comp=Z,10nm,0.9s,mb4.7,baz=33,slow=9.5,SNR=8.2						
MAW				LR	LR	09 18 23.0	
	comp=Z,4µm,18.0s,MS5.7,baz=28,slow=32						
MAW	**Mawson**	76.95	191	*e*P	P	08 49 30.1	+2.4
	comp=Z,66nm,1.5s,mb5.3						
MAW				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
BILL	**Bilibino**	77.75	22	⇓*i*P	P	08 49 32.2	0.0
BILL				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
PRU	**Pruhonice**	77.83	320	*e*P	P	08 49 32.8	-0.2
PRU				AMS	AMS	09 29 50.0	
	comp=Z,2µm,18.6s						
PVCC	**Panska Ves**	77.86	320	*e*P	P	08 49 33.9	+0.8
PVCC				*e*pP	pP	08 49 39.1	-4.2
PVCC				AMS	AMS	09 28 50.0	
	comp=Z,2µm,18.1s						
BRG	**Berggiesshubel**	78.28	321	*i* P	P	08 49 36.3	+0.9
BRG				pmax	pmax		
	comp=Z,65nm,1.8s,mb5.3						
BRG				MLR	MLR		
	comp=N,2µm,22.7s,MS5.5						
BRG				MLR	MLR		
	comp=E,2µm,22.7s,MS5.5						
BRG				MLR	MLR		
	comp=Z,3µm,22.7s,MS5.6						
BRG	**Berggiesshubel**	78.28	321	*i* P	P	08 49 36.3	+0.9
	comp=Z,65nm,1.8s,mb5.3						
BRG				*e*		08 50 00.4	
BRG				LR	LR		
	comp=Z,3µm,22.7s,MS5.6						
GEC2	**GERESS Array S**	78.30	318	*e*P	P	08 49 36.1	+0.5
GERES	**GERESS Array B**	78.30	318	P	P	08 49 35.7	+0.1
	comp=Z,13nm,1.0s,mb4.8,baz=90,slow=5.3,SNR=56						
KHC	**Kasperske Hory**	78.39	319	*e*P	P	08 49 36.3	+0.2
KHC				LR	LR		
	comp=Z,2µm,18.4s,MS5.4						
KHC	**Kasperske Hory**	78.39	319	*e*P	P	08 49 36.3	+0.2
KHC				AMS	AMS	09 29 00.0	
	comp=Z,2µm,18.4s						
SUR	**Sutherland**	78.77	235	*e*P	P	08 49 40.9	+2.4
	comp=Z,38nm,0.9s,mb5.3						
FVI	**Forni Avoltri**	78.80	316	*e*P	P	08 49 38.5	+0.2
WET	**Wettzell**	78.86	319	*e*P	P	08 49 39.2	+0.6
CLL	**Collm**	78.90	321	⇑*i*P	P	08 49 37.9	-0.9
CLL				pmax	pmax		
	comp=Z,43nm,1.6s,mb5.1						
CLL	**Collm**	78.90	321	⇑*i*P	P	08 49 37.9	-0.9
	comp=Z,43nm,1.6s,mb5.1						
CLL	**Collm**	78.90	321	⇑P	P	08 49 37.9	-0.9
	comp=Z,logA/T=1.4,mb5.1						
SFI	**Santa Sofia**	79.37	313	*e*P	P	08 49 42.9	+1.4
SMY	**Shemya**	79.39	38	PFAKE		08 49 50.0	+8.6
SMY				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
PGD	**Poggio Sodo**	79.46	313	*e*P	P	08 49 43.4	+1.4
CTI	**Castel Tesino**	79.56	316	*e*P	P	08 49 43.4	+0.9
VMG	**Vicchio**	79.59	313	*e*P	P	08 49 44.8	+2.1
SEI	**Scarperia**	79.72	313	*e*P	P	08 49 44.9	+1.5
MOX	**Moxa**	79.74	320	*e*P	P	08 49 43.9	+0.5
MOX				pmax	pmax		
	comp=Z,47nm,1.8s,mb5.1						
MOX				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
MOX	**Moxa**	79.74	320	*i* P	P	08 49 43.9	+0.5
	comp=Z,logA/T=1.4,mb5.1						
MOX				L		09 31 03.0	
MOX	**Moxa**	79.74	320	*e*P	P	08 49 43.9	+0.5
	comp=Z,47nm,1.8s,mb5.1						
MOX				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
GRA1	**Grafenberg Arr**	79.96	319	*e*P	P	08 49 45.7	+1.1
	comp=Z,9.0nm,0.9s,mb4.7						
GRF	**Grafenberg Arr**	79.96	319	*e*P	P	08 49 45.7	+1.1
GRF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
GRF	**Grafenberg Arr**	79.96	319	*e*P	P	08 49 45.7	+1.1
	comp=Z,9.0nm,0.9s,mb4.7						
NB2	**NORSAR Subarra**	80.54	331	P	P	08 49 46.6	-0.8
	comp=Z,192nm,2.5s,mb5.6,baz=93,slow=5.6						
NB2	**NORSAR Subarra**	80.54	331	P	P	08 49 46.6	-0.8
	baz=93,slow=5.9						
NOA	**NORSAR Array B**	80.54	331	P	P	08 49 47.2	-0.3
	comp=Z,5.3nm,1.0s,mb4.4,baz=93,slow=5.6,SNR=5.8						
NOA				LR	LR	09 29 26.3	
	comp=Z,3µm,19.6s,MS5.7,baz=85,slow=39						
NOA	**NORSAR Array B**	80.54	331	P	P	08 49 47.2	-0.3
NOA				LR	LR	09 29 26.3	
CLZ	**Clausthal**	80.56	321	*e*P	P	08 49 48.2	+0.4
BSEG	**Bad Segeberg**	80.66	324	*e*P	P	08 49 48.7	+0.5
NAO01	**NORSAR Array S**	80.69	331	PFAKE		08 50 00.0	+12
NAO01				LR	LR		
	comp=Z,5µm,19.0s,MS5.9						
DAVOX	**Davos**	80.80	316	P	P	08 49 50.2	+1.1
	comp=Z,28nm,1.1s,mb5.1,baz=120,slow=5.4,SNR=15						
KONO	**Kongsberg**	81.27	329	PFAKE		08 50 00.0	+8.7
KONO				LR	LR		
	comp=Z,4µm,20.0s,MS5.8						
PGF	**Pioggiola**	81.44	312	*e*P	P	08 49 52.5	-0.1
	comp=Z,108nm,1.1s,mb5.4						
BFO	**Black Forest**	81.85	318	*e*P	P	08 49 54.4	-0.1
CDF	**Champ du Feu**	82.55	318	*e*P	P	08 49 57.6	-0.6
	comp=Z,66nm,1.6s,mb5.1						
LPG	**La Plagne**	82.99	315	*e*P	P	08 50 00.7	+0.2
	comp=Z,68nm,1.2s,mb5.3						
LPL	**La Plagne**	83.00	315	*e*P	P	08 50 00.7	+0.1
	comp=Z,60nm,1.0s,mb5.3						
MBDF	**Montbardon**	83.00	314	*e*P	P	08 50 01.0	+0.4
	comp=Z,48nm,1.1s,mb5.1						
FRF	**La Foret Royal**	83.14	313	*e*P	P	08 50 01.2	-0.1
HAU	**Haudompre**	83.18	318	*e*P	P	08 50 00.7	-0.7
HAU				*e*R			
	comp=Z,2µm,21.2s						
LMR	**La Mourre**	83.25	313	*e*P	P	08 50 01.8	-0.1
CABF	**La Chapelle**	83.41	316	*e*P	P	08 50 02.9	+0.2
ORIF	**Oris-en-Rattie**	83.63	314	*e*P	P	08 50 03.5	-0.3
ORIF				*e*R			
	comp=Z,2µm,22.5s						
SYO	**Syowa Base**	83.77	197	⇓P	P	08 50 04.9	+0.9
SYO	**Syowa Base**	83.77	197	⇓PcP	PcP	08 50 09.2	+0.8
SMRF	**Simiane la Rot**	83.89	313	*e*P	P	08 50 05.8	+0.6
GIVF	**Givet**	84.09	320	*e*P	P	08 50 05.8	-0.2
VIVF	**Saint-Julien-l**	84.49	314	*e*P	P	08 50 08.0	-0.2
	comp=Z,71nm,1.4s,mb5.3						
BAIF	**Baives**	84.49	320	*e*P	P	08 50 07.9	-0.1
	comp=Z,83nm,1.4s,mb5.4						
LASF	**Ste Croix**	85.12	314	*e*P	P	08 50 11.6	+0.2
SSF	**Saint Saulge**	85.15	317	*e*P	P	08 50 11.2	-0.2
	comp=Z,59nm,1.5s,mb5.2						
BGF	**Bois d'Agland**	85.64	316	*e*P	P	08 50 13.8	-0.1
RPZ	**Rata Peaks**	85.68	135	LR	LR	09 32 48.9	
	comp=Z,4µm,18.9s,MS5.8,baz=281,slow=39						
CAF	**Calviac**	86.33	315	*e*P	P	08 50 17.6	+0.3
MTLF	**Montolieu**	86.37	313	*e*P	P	08 50 17.5	-0.1
THZ	**Tophouse**	86.59	132	*e*P	P	08 50 17.3	-1.4
RJF	**Les Rejaudoux**	86.68	315	*e*P	P	08 50 19.3	+0.3
RJF				*e*R			
	comp=Z,2µm,22.2s						
JMIC	**Jan Mayen**	87.78	341	LR	LR	09 32 44.8	
	comp=Z,2µm,18.1s,MS5.6,baz=78,slow=38						
ESK	**Eskdalemuir**	88.42	325	PFAKE		08 50 40.0	+13
ESK				LR	LR		
	comp=Z,659nm,20.0s,MS5.0						
ANM	**Nome**	89.11	25	*e*P	P	08 50 31.3	+1.1
URZ	**Urewera**	89.15	128	LR	LR	09 29 06.2	
	comp=Z,4µm,21.4s,MS5.8,baz=111,slow=35						
ESDC	**Sonseca Array**	91.45	310	P	P	08 50 42.0	+0.4
	comp=Z,5.5nm,1.0s,mb4.8,baz=57,slow=4.3,SNR=8.2						
ESLA	**Sonseca Array**	91.45	310	PFAKE		08 50 50.0	+8.3
ESLA				LR	LR		
	comp=Z,7µm,19.0s,MS6.1						
VNDA	**Vanda**	91.71	168	P	P	08 50 43.4	+1.4
	comp=Z,6.6nm,1.2s,mb4.8,baz=303,slow=5.0,SNR=6.1						
VNDA				LR	LR	09 28 22.7	
	comp=Z,2µm,18.0s,MS5.6,baz=300,slow=33						
VNDA	**Vanda**	91.71	168	*e*P	P	08 50 43.1	+1.1
RAO	**Raoul Island**	92.10	119	PFAKE		08 51 00.0	+15
RAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
SBA	**Scott Base**	92.81	168	PFAKE		08 51 00.0	+13
SBA				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
NVL	**N'lazarevskaya**	93.19	199	⇓*e*P	P	08 50 55.0	+6.0
NVL				*e*S	S	09 01 59.0	+8.3
NVL				pmax	pmax		
	comp=Z,334nm,3.5s						
NVL				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.8						
IMA	**Indian Mountai**	93.29	22	P	P	08 50 51.0	+1.5
IMA				pmax	pmax		
	comp=Z,130nm,1.6s,mb6.1						
IMA	**Indian Mountai**	93.29	22	P	P	08 50 51.0	+1.4
	comp=Z,126nm,1.6s,mb6.1						
BORG	**Borgarnes**	94.40	337	LR	LR	09 36 02.4	
	comp=Z,3µm,19.0s,MS5.7,baz=248,slow=37						
COLA	**College**	96.00	22	PFAKE		08 51 10.0	+8.0
COLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
MCK	**McKinley**	96.14	23	PFAKE		08 51 10.0	+7.4
MCK				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
QSPA	**South Pole Qui**	96.34	180	PFAKE		08 51 20.0	+17
QSPA				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
AFI	**Afiamalu**	96.35	103	PFAKE		08 51 20.0	+15
AFI				LR	LR		
	comp=Z,738nm,20.0s,MS5.2						
ILAR	**Eielson Array**	96.42	22	PP	PP	08 54 54.0	-6.2
	comp=Z,1.1nm,0.9s,baz=349,slow=7.3,SNR=4.4						
ILAR				LR	LR	09 43 00.2	
	comp=Z,2µm,18.5s,MS5.6,baz=324,slow=41						
FIB	**Fire Island**	96.80	26	PFAKE		08 51 20.0	+14
FIB				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
KDAK	**Kodiak Island**	97.14	30	PFAKE		08 51 20.0	+13
KDAK				LR	LR		
	comp=Z,521nm,20.0s,MS5.0						
DBIC	**Dimbokro**	97.24	278	P	P	08 51 11.5	+2.8
	comp=Z,51nm,1.6s,mb5.7,baz=101,slow=5.2,SNR=3.8						
DBIC				LR	LR	09 30 14.9	
	comp=Z,1µm,21.1s,MS5.4,baz=64,slow=32						
DBIC	**Dimbokro**	97.24	278	P	P	08 51 11.5	+2.8
DBIC				LR	LR	09 30 14.9	
SNAA	**Sanae**	97.97	199	*e*	pP	08 51 28.0	+6.9
SNAA	**Sanae**	97.97	199	LR	LR	09 32 01.2	
	comp=Z,1µm,18.1s,MS5.4,baz=220,slow=33						
SNAA	**Sanae**	97.97	199	⇑*i*Pdif	P	08 51 16.0	+5.2
SNAA				*e*	pP	08 51 28.0	+6.9
SNAA				*e*		08 51 31.5	
INK	**Inuvik**	98.62	16	P	P	08 51 13.5	-0.2
	comp=Z,2.3nm,0.9s,mb4.7,baz=334,slow=5.8,SNR=8.0						
INK	**Inuvik**	98.62	16	P	P	08 51 13.5	-0.2
DIV	**Divide**	98.69	25	PFAKE		08 51 30.0	+16
DIV				LR	LR		
	comp=Z,5µm,19.0s,MS6.0						
VNA2	**Neumayer--Watz**	99.51	199	*e*	P	08 51 27.0	+9.3
VNA2	**Neumayer--Watz**	99.51	199	*e*	pP	08 51 30.9	+2.7
VNA2	**Neumayer--Watz**	99.51	199	*e*		08 55 45.6	
VNA2	**Neumayer--Watz**	99.51	199	⇓*i*Pdif	P	08 51 15.1	-2.6
VNA2				*e*	pP	08 51 27.0	-1.2
VNA2				*e*		08 51 30.9	
VNA2				*e*		08 55 45.6	
VNA3	**Neumayer Olymp**	100.20	199	*e*	P	08 51 36.3	+15
VNA3	**Neumayer Olymp**	100.20	199	*e*		08 51 39.9	
VNA3	**Neumayer Olymp**	100.20	199	*e*		08 55 53.8	
VNA3	**Neumayer Olymp**	100.20	199	⇓*i*Pdif	P	08 51 25.0	+4.1
VNA3				*e*		08 51 36.3	
VNA3				*e*		08 51 39.9	
VNA3				*e*		08 55 53.8	
SIT	**Sitka**	105.44	25	PFAKE		08 56 10.0	
SIT				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
YKA	**Yellowknife Ar**	108.03	13	PKiKP		08 56 03.5	
	comp=Z,0.6nm,1.0s,baz=340,slow=3.7,SNR=5.7						
YKA				PP	PP	08 56 23.7	-4.4
	comp=Z,1.1nm,0.8s,baz=331,slow=7.4,SNR=10						
YKA				PKKPbc		09 07 17.0	
	comp=Z,0.5nm,0.9s,baz=154,slow=3.3,SNR=8.3						
YKA	**Yellowknife Ar**	108.03	13	PKPdf		08 56 03.5	
YKA				PP	PP	08 56 23.8	-4.4
YKA				PKKPbc		09 07 17.0	
SCHQ	**Schefferville**	116.73	347	PFAKE		08 56 30.0	+6.6
SCHQ				LR	LR		
	comp=Z,5µm,22.0s,MS6.0						
OCWA	**Octopus Mounta**	116.79	27	PFAKE		08 56 30.0	+6.3
OCWA				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
TBI	**Tubuai**	117.58	113	*e*LR	LR	09 32 20.5	
	comp=Z,2µm,22.5s						
PPT	**Papeete**	117.82	106	*e*PS	PS	09 07 22.5	+2.2
PPT				*e*LR	LR	09 32 26.5	
	comp=Z,2µm,24.8s						
NEW	**Newport**	119.36	23	PFAKE		08 56 40.0	+11
NEW				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
COR	**Corvallis**	119.53	29	PFAKE		08 56 40.0	+11
COR				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
HUMO	**Hull Mountain**	121.14	31	PFAKE		08 56 40.0	+7.7
HUMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
MSO	**Missoula**	121.75	22	*e*PKPdf	PKPdf	08 56 29.2	-4.1
MSO				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BMO	**Blue Mountains**	122.05	25	PFAKE		08 56 40.0	+6.0
BMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
MOD	**Modoc**	122.98	29	PFAKE		08 56 40.0	+4.2
MOD				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
ULM	**Lac du Bonnet**	123.00	7	PKP	PKPdf	08 56 32.9	-2.8
	comp=Z,5.1nm,0.9s,baz=356,slow=3.3,SNR=8.4						
ULM	**Lac du Bonnet**	123.00	7	PKP	PKPdf	08 56 32.9	-2.8
ULM				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
DGMT	**Dagmar**	123.23	14	PFAKE		08 56 40.0	+3.8
DGMT				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
BOZ	**Bozeman (W)**	123.59	21	PFAKE		08 56 40.0	+3.0
BOZ				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
HOPS	**Hopland**	123.67	34	PFAKE		08 56 50.0	+13
HOPS				LR	LR		
	comp=Z,913nm,20.0s,MS5.4						
HLID	**Hailey**	124.31	24	PFAKE		08 56 50.0	+12
HLID				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
LAO	**LASA Array**	124.36	16	*e*PKPdf	PKPdf	08 56 36.0	-2.5
LAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
PQI	**Presque Isle**	124.57	344	PFAKE		08 56 50.0	+11
PQI				LR	LR		
	comp=Z,12µm,20.0s,MS6.5						
LKWY	**Lake**	124.96	20	PFAKE		08 56 50.0	+10
LKWY				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
BMN	**Battle Mountai**	125.60	28	PFAKE		08 56 50.0	+9.0
BMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
EYMN	**Ely**	125.70	4	PFAKE		08 56 50.0	+9.0
EYMN				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
LOHW	**Long Hollow**	125.72	21	*e*PKPdf	PKPdf	08 56 38.3	-2.9
SNOW	**Snow King Moun**	125.80	21	*e*PKPdf	PKPdf	08 56 38.9	-2.4
CMB	**Columbia Colle**	125.82	33	PFAKE		08 56 50.0	+8.5
CMB				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
REDW	**Red Top Meadow**	125.85	22	*e*PKPdf	PKPdf	08 56 38.6	-2.8
SAO	**San Andreas Ge**	126.16	34	PFAKE		08 56 50.0	+7.8
SAO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
ELK	**Elko**	126.26	27	PFAKE		08 56 50.0	+7.8
ELK				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
AHID	**Auburn Hatcher**	126.27	22	PFAKE		08 56 50.0	+7.8
AHID				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
NVAR	**Mina Array Bea**	126.61	31	PKP	PKPdf	08 56 41.1	-1.9
	comp=Z,2.7nm,0.8s,baz=34,slow=1.4,SNR=12						
MNV	**Mina**	126.69	31	PFAKE		08 56 50.0	+6.9
MNV				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BW06	**Boulder Array**	126.83	21	PFAKE		08 56 50.0	+6.7
BW06				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
PDAR	**Pinedale Array**	126.83	21	PKP	PKPdf	08 56 40.0	-3.3
	comp=Z,4.2nm,0.9s,slow=1.5,SNR=17						
WVL	**Waterville**	126.95	345	PFAKE		08 56 50.0	+6.6
WVL				LR	LR		
	comp=Z,20µm,22.0s,MS6.8						
HWUT	**Hardware Ranch**	127.09	23	PFAKE		08 56 50.0	+6.2
HWUT				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
TPH	**Tonopah**	127.43	30	PFAKE		08 56 50.0	+5.4
TPH				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
TRCR	**Troy Canyon**	128.02	29	*e*PKPdf	PKPdf	08 56 42.8	-3.0
NCB	**Newcomb**	128.57	348	PFAKE		08 56 50.0	+3.4
NCB				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
DAC	**Darwin (Calif)**	128.62	32	PFAKE		08 56 50.0	+3.0
DAC				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
TPNV	**Topopah Spring**	128.79	30	PFAKE		08 57 00.0	+13
TPNV				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
EFI	**East Falkland**	129.03	203	PFAKE		08 57 00.0	+13
EFI				LR	LR		
	comp=Z,377nm,20.0s,MS5.1						
HRV	**Harvard--Oak R**	129.36	345	PFAKE		08 57 00.0	+12
HRV				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
MVU	**Marysvale**	129.43	26	*e*PKPdf	PKPdf	08 56 45.9	-2.5
MVU				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
RCBR	**Riachuelo**	129.43	268	PFAKE		08 57 00.0	+11
RCBR				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
MSU	**Marysvale**	129.44	26	*e*PKIKP	PKPdf	08 56 47.0	-1.5
NEN	**Nelson**	130.51	30	*e*PKPdf	PKPdf	08 56 48.2	-2.4
BINY	**Binghamton**	130.61	349	PFAKE		08 57 00.0	+9.4
BINY				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
RKT	**Rikitea**	130.79	115	*e*LR	LR	09 38 25.3	
	comp=Z,2µm,25.2s						
JFWS	**Jewell Farm**	130.79	3	PFAKE		08 57 00.0	+9.1
JFWS				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
ISCO	**Idaho Springs**	130.82	19	PFAKE		08 57 00.0	+9.0
ISCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.9						
PV10	**Paradox Valley**	130.85	23	*e*PKPdf	PKPdf	08 56 47.4	-3.7
PFO	**Pinyon Flat Ob**	131.24	33	PFAKE		08 57 00.0	+8.0
PFO				LR	LR		
	comp=Z,355nm,21.0s,MS5.0						
ERPA	**Erie**	131.29	353	PFAKE		08 57 00.0	+8.1
ERPA				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
SDCO	**Great Sand Dun**	132.71	20	PFAKE		08 57 00.0	+5.3
SDCO				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
CBKS	**Cedar Bluff**	133.41	14	PFAKE		08 57 00.0	+4.1
CBKS				LR	LR		
	comp=Z,5.0nm,20.0s						
ACSO	**Alum Creek Sta**	133.44	356	PFAKE		08 57 00.0	+4.1
ACSO				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
MCWV	**Mont Chateau**	133.70	353	PFAKE		08 57 00.0	+3.6
MCWV				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
KSU1	**Kansas State U**	133.79	11	*e*PKPdf	PKPdf	08 56 53.9	-2.7
CBN	**Corbin**	134.74	350	PFAKE		08 57 10.0	+12
CBN				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
ANMO	**Albuquerque**	134.85	23	PKP	PKPdf	08 56 56.8	-1.9
	comp=Z,3.8nm,0.8s,baz=298,slow=0.8,SNR=16						
ANMO	**Albuquerque**	134.85	23	*e*PKPdf	PKPdf	08 56 56.3	-2.4
ANMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
CCM	**Cathedral Cave**	135.55	5	PFAKE		08 57 10.0	+10
CCM				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
BBSR	**BB Station**	136.06	333	PFAKE		08 57 10.0	+9.0
BBSR				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
BLA	**Blacksburg**	136.18	353	PFAKE		08 57 10.0	+8.9
BLA				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
AMTX	**Amarillo**	136.57	18	PFAKE		08 57 10.0	+8.2
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
MNTX	**Cornudas Mount**	138.13	24	*e*PKPdf	PKPdf	08 57 01.1	-3.7
MNTX				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
MIAR	**Mount Ida**	138.74	9	PFAKE		08 57 10.0	+4.1
MIAR				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
OXF	**Oxford**	139.21	3	PFAKE		08 57 10.0	+3.3
OXF				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
NHSC	**New Hope**	140.19	351	PFAKE		08 57 20.0	+11
NHSC				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
GOGA	**Godfrey**	140.26	356	PFAKE		08 57 20.0	+11
GOGA				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
LRAL	**Lakeview Retre**	140.75	0	PFAKE		08 57 20.0	+10
LRAL				LR	LR		
	comp=Z,3µm,22.0s,MS6.1						
LTX	**Lajitas**	140.91	24	PFAKE		08 57 20.0	+10
LTX				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
TXAR	**Lajitas Array**	140.91	24	PKhKP		08 57 00.6	
	comp=Z,0.3nm,0.7s,baz=22,slow=0.5,SNR=4.0						
TXAR				PKP	PKPdf	08 57 08.1	-1.9
	comp=Z,1.6nm,0.8s,baz=178,slow=1.6,SNR=15						
TXAR				PP	PP	09 00 07.0	-2.3
	comp=Z,1.6nm,1.0s,slow=2.5,SNR=5.5						
BAO	**Brasilia Array**	140.91	253	PKP	PKPdf	08 57 05.5	-4.8
BDFB	**Brasilia**	140.93	253	PKP	PKPdf	08 57 06.2	-4.2
	comp=Z,1.1nm,0.4s,baz=239,slow=5.9,SNR=2.9						
JCT	**Junction City**	141.23	18	*e*PKPpre		08 57 01.9	
JCT				LR	LR		

	comp=Z,2μm,21.0s,MS5.9						
NATX	**Nacogdoches**	**141.29**	**11**	PFAKE		08 57 20.0	+9.4
NATX				LR	LR		
	comp=Z,3μm,20.0s,MS6.0						
TRQA	**Tornquist**	**141.31**	**212**	*e*PKPpre		08 57 00.4	
HKT	**Hockley**	**142.80**	**13**	*e*PKPdf	PKPdf	08 57 10.8	-2.4
HKT				LR	LR		
	comp=Z,4μm,21.0s,MS6.1						
DWPF	**Disney**	**145.28**	**352**	PFAKE		08 57 30.0	+17
DWPF				LR	LR		
	comp=Z,2μm,19.0s,MS5.9						
SJG	**San Juan**	**148.24**	**320**	PKPbc	PKPdf	08 57 21.5	-1.2
	comp=Z,5.4nm,0.4s,baz=45,slow=1.4,SNR=3.3						
SJG	**San Juan**	**148.24**	**320**	PKPbc	PKPdf	08 57 21.5	-1.2
TEIG	**Tepich**	**153.47**	**3**	PFAKE		08 57 40.0	+9.5
TEIG				LR	LR		
	comp=Z,871nm,20.0s,MS5.6						
LVC	**Limon Verde**	**156.43**	**225**	PKPdf	PKPdf	08 57 32.7	-1.7
LVC				LR	LR		
	comp=Z,2μm,20.0s,MS5.9						
SDV	**Santo Domingo**	**157.86**	**313**	PKP	PKPdf	08 57 33.4	-3.1
	comp=Z,6.5nm,1.0s,baz=249,slow=0.6,SNR=6.2						
SDV				PKPab	PKPab	08 58 06.0	-0.6
	comp=Z,2.3nm,0.8s,baz=358,slow=5.8,SNR=3.2						
SDV	**Santo Domingo**	**157.86**	**313**	*e*PKPdf	PKPdf	08 57 33.1	-3.5
LPAZ	**La Paz**	**159.28**	**240**	PKP	PKPdf	08 57 36.5	-1.7
	comp=Z,2.7nm,0.7s,baz=336,slow=2.6,SNR=13						
LPAZ				PKPab	PKPab	08 58 13.2	+0.6
	comp=Z,3.5nm,0.8s,baz=113,slow=4.4,SNR=6.5						
LPAZ	**La Paz**	**159.28**	**240**	*e*PKPdf	PKPdf	08 57 36.0	-2.2
LPAZ				LR	LR		
	comp=Z,2μm,19.0s,MS5.9						
ROSC	**El Rosal**	**163.27**	**312**	PKP	PKPdf	08 57 40.6	-1.8
	comp=Z,6.0nm,0.8s,baz=89,slow=18,SNR=8.2						
JTS	**JuntasAbangare**	**163.29**	**354**	PFAKE		08 57 50.0	+7.7
JTS				LR	LR		
	comp=Z,410nm,22.0s						
NNA	**Nana**	**168.75**	**240**	PFAKE		08 57 50.0	+3.3
NNA				LR	LR		
	comp=Z,499nm,19.0s						
PAYG	**Puerto Ayora**	**173.29**	**32**	PFAKE		08 58 00.0	+11
PAYG				LR	LR		
	comp=Z,2μm,20.0s						

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*NEIC **27** 08:37:58.9±1.0, 21.55S×68.43W, h112^{km}±19^{km}, Error ellipse: s-maj=29.6km s-min=14.7km az=79.0*

*IDC **27** 08:37:59.0±1.3, 21.55S×68.40W, h111^{km}±25^{km}, mb3.6/2, mb1 3.5/3, mb1mx3.2/14, MS3.4/1, Ms1 3.6/1, ms1mx2.8/20, Error ellipse: s-maj=44.8km s-min=24.8km az=91.0*

ISC 27 08:37:58.0±1.1**, 21.6S**±0.1×**68.4W**±0.3**, h123**^{km}±24^{km}**, n6,** σ**0^{s}47**/8**, mb4.2**/1**, 1D, Chile-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	**1.12**	**203**	P	**P**	**08 38 22.1**	**+0.3**
	87nm,0.3s,baz=32,slow=11,SNR=868						
LVC				S	**S**	**08 38 40.0**	**+0.4**
	58nm,0.3s,baz=104,slow=22,SNR=29						
LVC	**Limon Verde**	**1.12**	**203**	⇓*i*Pn	**P**	**08 38 22.1**	**+0.3**
LVC				*e*Sn	**S**	**08 38 38.8**	**-0.8**
LPAZ	**La Paz**	**5.27**	**3**	P	**P**	**08 39 15.8**	**0.0**
	1.6nm,0.3s,baz=214,slow=7.4,SNR=23						
LPAZ				LR	LR	08 41 32.8	
	comp=Z,406nm,18.7s,baz=81,slow=41						
CPUP	**Villa Florida**	**11.21**	**117**	P	**P**	**08 40 35.8**	**+0.2**
	0.0nm,0.3s,baz=193,slow=14,SNR=2.5						
BDFB	**Brasilia**	**20.23**	**77**	P	**P**	**08 42 25.1**	**-0.3**
	1.5nm,0.4s,baz=234,slow=10,SNR=3.6						
DBIC	**Dimbokro**	**68.34**	**73**	P	**P**	**08 48 48.6**	**0.0**
	4.4nm,1.1s,mb4.2,baz=225,slow=5.7,SNR=3.1						

IDC 27 08:43:49.3±2.5**, 9.04N**×**92.70E, mb4.0**/5**, mb1 4.3**/6**, mb1mx4.0**/19**, ML3.5**/1**, Error ellipse: s-maj=66.3km s-min=44.5km az=122.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.15**	**32**	Pn	P	08 46 31.6	-1.6
	0.1nm,0.3s,baz=222,slow=15,SNR=3.9						
BRTR	**Keskin Array B**	**60.59**	**311**	P	P	08 54 02.1	-2.1
	1.3nm,0.7s,baz=127,slow=7.2,SNR=5.2						
AKASG	**Malin Array Be**	**66.36**	**322**	P	P	08 54 39.2	-2.8
	0.2nm,0.3s,baz=86,slow=4.8,SNR=4.3						
MLR	**Muntele Rosu**	**67.34**	**316**	P	P	08 54 47.8	-0.6
	7.1nm,1.2s,baz=115,slow=8.9,SNR=3.5						
ARCES	**ARCESS Array B**	**73.69**	**340**	P	P	08 55 23.2	-3.2
	3.3nm,1.0s,baz=90,slow=7.3,SNR=6.6						
GERES	**GERESS Array B**	**76.01**	**318**	P	P	08 55 39.6	-0.6
	1.3nm,1.0s,baz=79,slow=6.8,SNR=5.2						
NB2	**NORSAR Subarra**	**78.02**	**331**	P	P	08 55 48.1	-3.0
	1.9nm,0.7s,baz=95,slow=5.0						
CPUP	**Villa Florida**	**146.80**	**235**	PKPbc	PKPbc	09 03 33.4	-0.4
	0.0nm,0.4s,baz=272,slow=16,SNR=2.1						

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*IDC **27** 08:45:26.7±0.8, 7.73N×93.98E, h18^{km}±4^{km}, mb3.9/6, mb1 4.1/7, mb1mx3.9/18, ML3.0/1, Error ellipse: s-maj=47.3km s-min=16.4km az=47.0*

ISC 27 08:45:24.3±0.9**, 7.5N**±0.1×**93.8E**±0.2**, h19**^{km}**, h19**^{km}±.4^{km}**:pP-P, n10,** σ**0^{s}68**/8**, mb4.0**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.97**	**24**	Pn	**P**	**08 48 17.3**	**+0.1**
	0.0nm,0.3s,baz=214,slow=16,SNR=3.0						
SONM	**Songino Array**	**41.58**	**13**	P	**P**	**08 53 12.6**	**0.0**
	1.5nm,0.7s,mb3.7,baz=191,slow=8.1,SNR=5.0						
WRA	**Warramunga Arr**	**48.35**	**125**	P	**P**	**08 54 06.7**	**-0.4**
	0.9nm,0.5s,mb4.0,baz=307,slow=8.7,SNR=6.0						
WRA				pP	pP	08 54 12.7	-0.2
	0.9nm,0.6s,baz=306,slow=8.8,SNR=5.5						
ASAR	**Alice Springs**	**49.96**	**129**	P	**P**	**08 54 19.9**	**+0.3**
	1.3nm,0.6s,mb4.1,baz=303,slow=6.6,SNR=8.9						
ASAR				pP	pP	08 54 25.4	0.0
	2.2nm,0.9s,baz=299,slow=7.1,SNR=8.2						
BRTR	**Keskin Array B**	**62.39**	**311**	P	**P**	**08 55 47.7**	**-0.7**
	0.7nm,0.6s,mb4.0,baz=108,slow=9.1,SNR=3.2						
AKASG	**Malin Array Be**	**68.21**	**322**	pP	pP	08 56 33.6	+1.9
	0.4nm,0.3s,baz=137,slow=12,SNR=5.3						
FINES	**FINESS Array B**	**72.86**	**332**	P	**P**	**08 56 53.0**	**-0.7**
	2.0nm,0.7s,mb4.2,baz=90,slow=7.6,SNR=9.2						
FINES				pP	pP	08 56 58.8	-0.9
	1.2nm,0.6s,baz=63,slow=4.3,SNR=4.6						
GERES	**GERESS Array B**	**77.85**	**318**	P	**P**	**08 57 24.0**	**+1.6**
	2.0nm,0.9s,mb4.1,baz=89,slow=5.3,SNR=7.0						
GERES				pP	pP	08 57 30.2	+1.8
	0.4nm,0.4s,baz=90,slow=6.7,SNR=4.4						
NB2	**NORSAR Subarra**	**79.86**	**331**	P	**P**	**08 57 33.0**	**-0.1**
	1.0nm,0.7s,mb3.9,baz=92,slow=5.3						
CPUP	**Villa Florida**	**146.77**	**232**	PKPbc	PKPbc	09 05 09.6	+3.9
	0.0nm,0.4s,baz=263,slow=15,SNR=1.5						

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*BJI **27** 08:47:54.6, 24.76N×129.75E, h9^{km}, mB5.1, mb4.9*

*NIED **27** 08:48:00, 25.60N×128.80E, h20^{km}, Mw4.3 Best double couple: M$_0$2.95×10^{15} NP1:ϕ_s192°, δ78°, λ-142°. NP2: ϕ_s93°, δ53°, λ-15°.*

*IDC **27** 08:48:07.3±0.8, 25.57N×128.81E, mb4.1/9, mb1 4.2/9, mb1mx4.0/22, MS3.8/1, Ms1 3.8/1, ms1mx3.0/28, Error ellipse: s-maj=37.3km s-min=17.9km az=73.0*

*NEIC **27** 08:48:08.5±5.9, 25.51N×128.75E, h10^{km}±37^{km}, mb4.6/4, MW4.3(NIED), Error ellipse: s-maj=18.8km s-min=11.9km az=63.0*

*JMA **27** 08:48:09.7±0.4, 25.58N×128.84E, h51^{km}, M4.8*

ISC 27 08:48:09.1±1.1**, 25.58N**±0.03×**128.77E**±0.04**, h30**^{km}±8^{km}**, n41,** σ**1^{s}06**/60**, mb4.2**/13**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JJT2	**Tamagusuku 2**	**1.08**	**301**	P	**Pn**	**08 48 29.6**	**+1.2**
JJT2				*e*S	**Sb**	**08 48 44.2**	**+1.4**
NAH1	**Naha**	**1.16**	**303**	P	**Pn**	**08 48 30.6**	**+1.1**
NAH1				*e*S	**Sb**	**08 48 44.8**	**-0.3**
JOW	**Kunigami**	**1.33**	**340**	Pn	**Pn**	**08 48 32.5**	**+0.5**
	1μm,0.3s,baz=156,slow=14,SNR=2998						
JOW				Sn	**Sn**	**08 48 48.1**	**-0.6**
	2μm,0.3s,baz=108,slow=20,SNR=43						
JOW	**Kunigami**	**1.33**	**340**	P	**Pn**	**08 48 32.9**	**+0.9**
JOW				*e*S	**Sn**	**08 48 48.1**	**-0.7**
JIH	**Iheya**	**1.62**	**334**	P	**Pn**	**08 48 37.3**	**+1.1**
JIH				S	**Sn**	**08 48 56.4**	**+0.2**
JAGN	**Aguni-jima**	**1.71**	**307**	P	**Pn**	**08 48 38.3**	**+0.9**
JAGN				S	**Sn**	**08 48 58.8**	**+0.4**
JKE	**Kume jima 2**	**1.94**	**293**	P	**Pn**	**08 48 41.0**	**+0.3**
JKE				*e*S	**Sn**	**08 49 02.9**	**-1.3**
JTK	**Tokunoshima**	**2.21**	**4**	P	**Pn**	**08 48 44.8**	**+0.3**
JTK				*e*S	**Sn**	**08 49 08.9**	**-2.2**
JMZ	**Minamidaito 2**	**2.22**	**83**	P	**Pn**	**08 48 43.1**	**-1.7**
JMZ				*e*S	**Sn**	**08 49 06.9**	**-4.6**
JAM	**Amami Oshima**	**2.92**	**15**	P	**Pn**	**08 48 54.2**	**-0.5**
JAM				*e*S	**Sn**	**08 49 26.5**	**-2.7**
JZK	**Kikaishima**	**2.93**	**21**	P	**Pn**	**08 48 54.9**	**0.0**
JZK				*e*S	**Sn**	**08 49 28.8**	**-0.6**
JOGS	**Gusukube**	**3.16**	**256**	P	**Pn**	**08 48 58.4**	**+0.4**
JOGS				*e*S	**Sn**	**08 49 33.7**	**-1.4**
JMJ	**Miyako jima 2**	**3.24**	**257**	P	**Pn**	**08 48 59.3**	**0.0**
JMJ				*e*S	**Sn**	**08 49 35.2**	**-2.1**
JTJ	**Tarama**	**3.81**	**257**	P	**Pn**	**08 49 06.4**	**-0.9**
JTJ				*e*S	**Sn**	**08 49 47.6**	**-4.0**
JNN	**Nakanoshima**	**4.36**	**13**	P	**Pn**	**08 49 15.0**	**-0.2**
JNN				*e*S	**Sn**	**08 50 01.3**	**-4.3**
JIJ	**Ishigaki jima**	**4.37**	**255**	P	**Pn**	**08 49 13.8**	**-1.5**
JIJ				*e*S	**Sn**	**08 50 00.1**	**-5.8**
JKRS	**Kuro-shima**	**4.53**	**254**	P	**Pn**	**08 49 17.3**	**-0.2**
JKRS				*e*S	**Sn**	**08 50 05.0**	**-4.8**
IRIF	**Iriomote-Funau**	**4.74**	**256**	P	**Pn**	**08 49 20.2**	**-0.3**
IRIF				*e*S	**Sn**	**08 50 09.4**	**-5.8**
HATJ	**Hateruma jima**	**4.76**	**253**	*e*S	**Sn**	**08 50 09.1**	**-6.6**
JKC	**Kuchinoerabu**	**5.03**	**14**	P	**Pn**	**08 49 23.9**	**-0.7**
JKC				*e*S	**Sn**	**08 50 16.9**	**-5.5**
JTN	**Tanegashima 3**	**5.42**	**21**	P	**Pn**	**08 49 28.6**	**-1.5**
JTN				*e*S	**Sn**	**08 50 27.3**	**-5.0**
CBIJ	**Chichi jima**	**12.12**	**80**	LR	LR	08 54 23.6	
	comp=Z,434nm,19.0s,baz=336,slow=31						
MAJO	**Matsushiro**	**13.59**	**34**	P	**P**	**08 51 23.3**	**+1.0**
	16nm,0.9s						
MAJO				*e*		08 51 32.8	
BJT	**Baijiatuau**	**17.85**	**327**	*e*P	**P**	**08 52 17.2**	**+0.3**
	7.5nm,0.6s						
HHC	**Hu-ho-hao-te**	**20.90**	**321**	*e*P	**P**	**08 52 51.0**	**-0.5**
HHC				AP		08 52 56.0	
HHC				XP		08 53 04.0	
HHC				AMB	AMB		
	comp=Z,10.0nm,0.6s						
HHC				AMB	AMB		
	comp=Z,778nm,9.9s						
GTA	**Gaotai**	**27.91**	**307**	*e*P	**P**	**08 53 58.0**	**-0.7**
GTA				AP	pP	08 54 02.5	-4.8
GTA				XP	sP	08 54 05.3	-5.9
GTA				AMB	AMB		
	comp=Z,14nm,0.6s,mb4.8						
SONM	**Songino Array**	**28.36**	**327**	P	**P**	**08 54 04.8**	**+2.1**
	comp=Z,2.1nm,0.4s,mb4.1,baz=145,slow=11,SNR=13						
WRA	**Warramunga Arr**	**45.57**	**173**	P	**P**	**08 56 28.9**	**+0.4**
	comp=Z,1.3nm,0.7s,mb4.0,baz=353,slow=8.3,SNR=7.3						
CTAO	**Charters Tower**	**48.47**	**158**	P	**P**	**08 56 49.9**	**-1.4**
	comp=Z,19nm,1.5s,mb4.9						
ASAR	**Alice Springs**	**49.20**	**174**	P	**P**	**08 56 57.2**	**+0.4**
	comp=Z,1.2nm,0.9s,mb3.9,baz=360,slow=8.5,SNR=5.3						
CHKZ	**Chkalovo**	**51.05**	**319**	P	**P**	**08 57 10.2**	**-0.3**
BVAR	**Borovoye Array**	**51.09**	**319**	P	**P**	**08 57 11.4**	**+0.6**
	comp=Z,0.8nm,0.5s,mb4.0,baz=79,slow=7.3,SNR=6.6						
BRVK	**Borovoye**	**51.15**	**319**	*e*P	**P**	**08 57 12.2**	**+0.8**
	comp=Z,3.4nm,0.7s,mb4.4						
INK	**Inuvik**	**69.30**	**23**	P	**P**	**08 59 16.2**	**+1.0**
	comp=Z,1.4nm,0.7s,mb4.0,baz=290,slow=4.7,SNR=10.0						
FINES	**FINESS Array B**	**73.67**	**331**	P	**P**	**08 59 42.4**	**+1.0**
	comp=Z,0.5nm,0.3s,mb3.9,baz=63,slow=4.9,SNR=7.1						
FINES	**FINESS Array B**	**73.67**	**331**	P	**P**	**08 59 42.4**	**+1.0**
AKASG	**Malin Array Be**	**76.34**	**320**	P	**P**	**08 59 58.3**	**+1.3**
	comp=Z,1.1nm,0.6s,mb3.9,baz=61,slow=5.8,SNR=3.0						
BRTR	**Keskin Array B**	**77.82**	**308**	P	**P**	**09 00 07.2**	**+1.7**
	comp=Z,1.3nm,0.9s,mb3.9,baz=104,slow=8.3,SNR=5.0						
YKA	**Yellowknife Ar**	**78.91**	**25**	P	**P**	**09 00 12.2**	**+1.3**
	comp=Z,0.8nm,0.5s,mb3.9,baz=301,slow=5.5,SNR=18						
YKA	**Yellowknife Ar**	**78.91**	**25**	P	**P**	**09 00 12.2**	**+1.3**
TPNV	**Topopah Spring**	**92.78**	**47**	*e*P	**P**	**09 01 20.5**	**+0.4**
	comp=Z,3.9nm,1.0s,mb4.8						

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*IDC **27** 08:49:49.6±1.0, 5.30N×92.98E, h30^{km}±5^{km}, mb3.9/6, mb1 4.1/7, mb1mx3.8/19, ML4.3/1, Error ellipse: s-maj=43.2km s-min=18.0km az=52.0*

ISC 27 08:49:48.5±1.1**, 5.6N**±0.1×**93.3E**±0.2**, h31**^{km}**, h31**^{km}±2.0^{km}**:pP-P, n7,** σ**1^{s}36**/7**, mb4.0**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.90**	**23**	Pn	**P**	**08 53 04.3**	**-1.7**
	0.5nm,0.3s,baz=214,slow=13,SNR=14						
SONM	**Songino Array**	**43.54**	**13**	P	**P**	**08 57 53.2**	**+2.0**
	0.9nm,0.7s,mb3.6,baz=197,slow=8.0,SNR=5.3						
SONM				pP	pP	08 58 02.2	+1.9
	0.8nm,0.6s,baz=197,slow=7.7,SNR=4.2						
WRA	**Warramunga Arr**	**47.68**	**123**	P	**P**	**08 58 24.7**	**+0.1**
	3.1nm,0.8s,mb4.4,baz=300,slow=9.2,SNR=9.5						
WRA				pP	pP	08 58 32.9	-0.9
	2.0nm,0.8s,baz=301,slow=9.1,SNR=8.1						
ZAL	**Zalesovo**	**48.67**	**353**	P	**P**	**08 58 34.1**	**+2.4**
	1.1nm,0.4s,mb4.2,baz=291,slow=4.0,SNR=4.5						
ZAL				pP	pP	08 58 41.7	+0.6
	1.4nm,0.7s,baz=298,slow=6.5,SNR=3.3						
ASAR	**Alice Springs**	**49.15**	**128**	P	**P**	**08 58 35.8**	**-0.1**
	1.1nm,0.9s,mb3.9,baz=299,slow=8.4,SNR=4.3						
GERES	**GERESS Array B**	**78.95**	**319**	P	**P**	**09 01 49.7**	**-1.2**
	0.6nm,0.7s,mb3.7,baz=90,slow=3.9,SNR=3.8						
GERES				pP	pP	09 02 00.8	+0.2
	1.0nm,0.8s,baz=72,slow=4.2,SNR=3.7						
DAVOX	**Davos**	**81.43**	**316**	P	**P**	**09 02 03.5**	**-0.7**
	2.0nm,0.8s,mb4.1,baz=59,slow=2.1,SNR=4.1						
DAVOX				pP	pP	09 02 14.7	+0.8
	1.7nm,0.6s,baz=327,slow=22,SNR=2.7						

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*IDC **27** 08:52:59.3±0.9, 5.32S×102.51E, h42^{km}±4^{km}, mb4.0/10, mb1 4.1/10, mb1mx3.9/18, Error ellipse: s-maj=41.6km s-min=11.8km az=49.0*

*NEIC **27** 08:52:59.4±0.7, 5.31S×102.54E, mb4.6/3, Error ellipse: s-maj=32.6km s-min=8.7km az=47.0*

ISC 27 08:52:57.4±1.0**, 5.3S**±0.2×**102.5E**±0.2**, h44**^{km}**, h44**^{km}±1.4^{km}**:pP-P, n18,** σ**0^{s}67**/16**, mb4.3**/13**, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**23.86**	**352**	P	**P**	**08 58 08.8**	**+1.1**
	1.4nm,0.6s,mb3.6,baz=180,slow=8.6,SNR=4.1						
WRA	**Warramunga Arr**	**34.18**	**118**	P	**P**	**08 59 40.4**	**-0.4**
	1.2nm,0.4s,mb4.2,baz=287,slow=8.6,SNR=7.9						
ASAR	**Alice Springs**	**35.29**	**124**	P	**P**	**08 59 50.5**	**+0.2**
	1.0nm,0.5s,mb4.0,baz=297,slow=7.9,SNR=6.0						
PMG	**Port Moresby**	**44.41**	**98**	P	**P**	**09 01 05.3**	**-0.7**
	2.7nm,0.6s,mb4.2,baz=270,slow=5.1,SNR=3.3						
PMG				pP	pP	09 01 17.3	-0.9
	7.1nm,0.7s,baz=190,slow=5.2,SNR=2.9						
PMG	**Port Moresby**	**44.41**	**98**	P	**P**	**09 01 05.3**	**-0.7**
PMG				pP	pP	09 01 17.3	-0.9
CTA	**Charters Tower**	**44.94**	**113**	P	**P**	**09 01 10.2**	**0.0**
	4.2nm,1.0s,mb4.2,baz=268,slow=9.1,SNR=3.9						
CTA				pP	pP	09 01 24.3	+1.9
	11nm,1.0s,baz=277,slow=8.5,SNR=5.4						
STKA	**Stephens Creek**	**45.08**	**131**	P	**P**	**09 01 12.0**	**+0.8**
	4.3nm,0.4s,mb4.6,baz=308,slow=6.8,SNR=36						
STKA				pP	pP	09 01 23.9	+0.5
	7.6nm,0.7s,baz=304,slow=6.2,SNR=5.2						
STKA	**Stephens Creek**	**45.08**	**131**	*e*P	**P**	**09 01 12.3**	**+1.1**
STKA				pP	pP	09 01 23.9	+0.5
SONM	**Songino Array**	**53.01**	**3**	P	**P**	**09 02 12.9**	**+0.9**
	4.8nm,0.8s,mb4.5,baz=184,slow=8.9,SNR=32						
SONM				pP	pP	09 02 25.3	+0.9
	3.6nm,0.6s,baz=185,slow=9.4,SNR=8.9						
SONM				PcP	PcP	09 03 20.4	+0.2
	1.3nm,0.6s,baz=178,slow=4.5,SNR=3.3						
ZAL	**Zalesovo**	**60.86**	**348**	P	**P**	**09 03 07.2**	**-0.5**
	1.9nm,0.5s,mb4.5,baz=309,slow=5.8,SNR=13						
ZAL				pP	pP	09 03 19.8	-0.6
	6.1nm,0.8s,baz=306,slow=5.6,SNR=13						
ZAL	**Zalesovo**	**60.86**	**348**	P	**P**	**09 03 07.2**	**-0.5**
ZAL				pP	pP	09 03 19.8	-0.6
BVAR	**Borovoye Array**	**64.14**	**339**	P	**P**	**09 03 28.8**	**-0.6**
	5.0nm,1.0s,mb4.5,baz=143,slow=7.2,SNR=15						
BVAR				pP	pP	09 03 41.4	-0.8
	5.8nm,0.7s,baz=143,slow=9.1,SNR=14						
BRVK	**Borovoye**	**64.20**	**339**	*e*P	**P**	**09 03 28.9**	**-1.0**
	1.6nm,0.6s,mb4.2						
CHKZ	**Chkalovo**	**64.58**	**340**	*e*P	**P**	**09 03 31.9**	**-0.4**
	5.0nm,0.6s,mb4.7						
CHKZ				*e*pP	pP	09 03 43.8	-1.3
KIV	**Kislovodsk**	**72.68**	**319**	P	**P**	**09 04 22.3**	**-0.3**
	4.9nm,0.6s,mb4.6						
BRTR	**Keskin Array B**	**77.40**	**312**	P	**P**	**09 04 50.5**	**+0.8**
	0.8nm,0.5s,mb3.9,baz=135,slow=7.0,SNR=5.7						
BRTR				pP	pP	09 05 03.8	+0.9
	1.9nm,0.8s,baz=143,slow=7.5,SNR=5.9						
YKA	**Yellowknife Ar**	**116.72**	**18**	PKiKP		09 11 38.4	
	0.1nm,0.7s,baz=342,slow=2.3,SNR=4.5						
YKA				pPKiKP		09 11 50.0	
	0.2nm,0.7s,baz=351,slow=2.4,SNR=3.3						
TXAR	**Lajitas Array**	**145.56**	**43**	PKPbc	PKPbc	09 12 34.5	+2.4
	6.0nm,0.5s,baz=274,slow=0.8,SNR=130						

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*IDC **27** 09:00:03.4±1.6, 13.00S×169.07E, mb4.1/8, mb1 4.3/8, mb1mx4.2/16, Error ellipse: s-maj=76.7km s-min=21.7km az=137.0*

*NEIC **27** 09:00:04.1±0.7, 13.39S×169.43E, h10^{km}, mb4.4/3, Error ellipse: s-maj=20.6km s-min=11.6km az=122.0*

ISC 27 09:00:07.4±5.5**, 13.6S**±0.3×**169.5E**±0.2**, h54**^{km}±54^{km}**, n21,** σ**0^{s}96**/17**, mb4.2**/10**, Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DZM	**Mont Dzumac**	**8.89**	**199**	*e*P	**P**	**09 02 15.3**	**-0.5**
DZM	**Mont Dzumac**	**8.89**	**199**	*e*P	**P**	**09 02 15.3**	**-0.5**
NOUC	**Port Laguerre**	**8.96**	**199**	*e*P	**P**	**09 02 16.9**	**+0.2**
PMG	**Port Moresby**	**22.30**	**278**	P	**P**	**09 05 02.5**	**+0.9**
	4.0nm,0.7s,mb4.0,baz=54,slow=19,SNR=3.3						
PMG	**Port Moresby**	**22.30**	**278**	P	**P**	**09 05 02.9**	**+1.3**
CTA	**Charters Tower**	**23.16**	**251**	P	**P**	**09 05 10.8**	**+0.8**
	5.7nm,0.7s,mb4.1,baz=74,slow=11,SNR=9.5						
CTAO	**Charters Tower**	**23.16**	**251**	*e*P	**P**	**09 05 10.5**	**+0.5**
	7.3nm,0.8s,mb4.2						
STKA	**Stephens Creek**	**31.36**	**230**	P	**P**	**09 06 26.9**	**+1.6**
	14nm,1.1s,mb4.7,baz=37,slow=6.7,SNR=12						
STKA	**Stephens Creek**	**31.36**	**230**	*e*P	**P**	**09 06 26.6**	**+1.3**
WRAB	**Tennant Creek**	**34.20**	**255**	*e*P	**P**	**09 06 50.3**	**+0.3**
	0.8nm,0.5s,mb3.9						
WRA	**Warramunga Arr**	**34.21**	**255**	P	**P**	**09 06 49.0**	**-1.1**
	1.1nm,0.7s,mb3.9,baz=83,slow=9.1,SNR=6.0						
WRA				PcP	PcP	09 09 27.1	+1.0
	0.9nm,0.8s,baz=90,slow=3.1,SNR=5.0						
ASAR	**Alice Springs**	**35.10**	**248**	P	**P**	**09 06 56.1**	**-1.6**
	2.0nm,0.6s,mb4.2,baz=75,slow=9.2,SNR=22						
ASAR				PcP	PcP	09 09 29.6	+1.0
	0.9nm,0.6s,baz=93,slow=2.4,SNR=6.0						
SONM	**Songino Array**	**82.93**	**323**	P	**P**	**09 12 26.2**	**-1.6**
	0.9nm,1.0s,mb3.8,baz=90,slow=2.5,SNR=5.6						
COLA	**College**	**84.62**	**17**	*e*P	**P**	**09 12 35.6**	**-0.3**
	13nm,1.1s,mb5.0						
COLA				*e*		09 12 42.0	
ILAR	**Eielson Array**	**84.82**	**17**	P	**P**	**09 12 37.5**	**+0.5**
	2.7nm,0.7s,mb4.5,baz=242,slow=4.7,SNR=34						
YKA	**Yellowknife Ar**	**95.58**	**27**	P	**P**	**09 13 28.3**	**+0.8**
	0.5nm,0.9s,mb4.0,baz=251,slow=4.5,SNR=7.1						
YKA	**Yellowknife Ar**	**95.58**	**27**	P	**P**	**09 13 28.3**	**+0.8**
SSF	**Saint Saulge**	**144.67**	**343**	*e*PKP1	PKPbc	09 19 39.7	+1.7
LPG	**La Plagne**	**145.04**	**339**	*e*PKP1	PKPbc	09 19 43.8	+4.8
MBDF	**Montbardon**	**145.69**	**338**	*e*PKP1	PKPbc	09 19 43.3	+2.6
ORIF	**Oris-en-Rattie**	**145.84**	**339**	*e*PKP1	PKPbc	09 19 44.3	+3.2
	63nm,1.2s						

IDC 27 09:02:04.8±1.9**, 3.44N**×**94.43E, mb3.8**/4**, mb1 4.0**/5**, mb1mx3.7**/18**, ML3.9**/1**, Error ellipse: s-maj=85.0km s-min=24.5km az=55.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.56**	**16**	Pn	P	09 05 46.4	-1.1
	0.2nm,0.3s,baz=211,slow=12,SNR=6.8						
WRA	**Warramunga Arr**	**45.56**	**122**	P	P	09 10 26.6	-2.0
	1.8nm,0.8s,baz=300,slow=10.0,SNR=7.5						
ASAR	**Alice Springs**	**46.94**	**127**	P	P	09 10 37.8	-1.7
	0.3nm,0.3s,baz=296,slow=7.2,SNR=8.2						
ZAL	**Zalesovo**	**50.95**	**353**	P	P	09 11 07.5	-2.5
	0.9nm,0.6s,baz=280,slow=4.2,SNR=3.2						
FINES	**FINESS Array B**	**76.75**	**333**	P	P	09 13 58.0	-1.5
	0.3nm,0.3s,baz=112,slow=6.6,SNR=6.2						

IDC 27 09:02:35.7±1.4**, 12.30N**×**90.17E, mb3.8**/6**, mb1 4.0**/7**, mb1mx3.8**/19**, ML4.1**/1**, Error ellipse: s-maj=45.8km s-min=24.3km az=55.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.44**	**53**	Pn	P	09 05 07.0	-3.0
	0.5nm,0.3s,baz=225,slow=14,SNR=4.9						
SONM	**Songino Array**	**37.94**	**18**	P	P	09 09 54.9	-1.8
	0.5nm,0.7s,baz=196,slow=7.2,SNR=4.2						
BVAR	**Borovoye Array**	**43.59**	**343**	P	P	09 10 47.5	+4.3
	1.6nm,1.0s,baz=135,slow=6.3,SNR=4.8						
WRA	**Warramunga Arr**	**54.01**	**126**	P	P	09 12 01.7	-2.6
	1.1nm,0.6s,baz=305,slow=8.9,SNR=7.9						
ASAR	**Alice Springs**	**55.74**	**130**	P	P	09 12 14.9	-1.9
	1.0nm,0.6s,baz=305,slow=6.9,SNR=7.3						
ARCES	**ARCESS Array B**	**69.80**	**340**	P	P	09 13 48.0	-1.6
	1.6nm,0.9s,baz=114,slow=8.9,SNR=4.0						
GERES	**GERESS Array B**	**71.94**	**318**	P	P	09 14 01.0	-1.9
	0.6nm,0.9s,baz=90,slow=4.0,SNR=3.6						

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*IDC **27** 09:09:10.0±1.1, 8.35N×93.40E, mb3.9/11, mb1 4.0/12, mb1mx3.9/20, ML4.4/1, Error ellipse: s-maj=41.7km s-min=20.8km az=53.0*

*NEIC **27** 09:09:14.6±0.6, 8.36N×93.42E, h30^{km}, mb4.4/4, Error ellipse: s-maj=17.2km s-min=10.9km az=63.0*

ISC 27 09:09:12.8±0.8**, 8.4N**±0.1×**93.5E**±0.1**, h30**^{km}**, n23,** σ**0^{s}53**/23**, mb4.1**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.32**	**27**	Pn	**P**	**09 11 56.2**	**+0.5**
	0.7nm,0.3s,baz=213,slow=15,SNR=7.2						
SHL	**Shillong**	**17.15**	**355**	*e*P	**P**	**09 13 12.0**	**0.0**
PKI	**Pulchoki**	**20.55**	**339**	*e*P	**P**	**09 13 51.9**	**+0.2**
	72nm,1.1s						
DMN	**Daman**	**20.70**	**339**	*e*P	**P**	**09 13 53.7**	**+0.5**
	54nm,0.9s						
GUN	**Gumba**	**20.71**	**341**	*e*P	**P**	**09 13 53.2**	**-0.1**
	41nm,0.6s						
KKN	**Kakani**	**20.80**	**339**	*e*P	**P**	**09 13 53.9**	**-0.4**
	32nm,0.7s						
GKN	**Gorkha**	**21.23**	**338**	*e*P	**P**	**09 13 58.8**	**+0.2**
	113nm,0.8s						
LSA	**Lhasa**	**21.31**	**354**	*e*P	**P**	**09 13 58.9**	**-0.5**
	8.8nm,0.5s,mb4.3						
KOLN	**Koldanda**	**21.43**	**335**	*e*P	**P**	**09 14 00.9**	**+0.3**
	63nm,0.9s,mb5.0						
SONM	**Songino Array**	**40.80**	**13**	P	**P**	**09 16 53.0**	**-0.2**
	2.3nm,1.1s,mb3.7,baz=194,slow=5.1,SNR=8.2						
ZAL	**Zalesovo**	**45.96**	**353**	P	**P**	**09 17 34.5**	**-0.3**
	1.6nm,0.4s,mb4.3,baz=49,slow=1.4,SNR=8.2						
BVAR	**Borovoye Array**	**48.30**	**341**	P	**P**	**09 17 52.7**	**-0.6**
	1.0nm,0.5s,mb4.2,baz=140,slow=9.1,SNR=7.2						
BRVK	**Borovoye**	**48.36**	**341**	*e*P	**P**	**09 17 53.5**	**-0.2**
	1.7nm,0.5s,mb4.3						
CHKZ	**Chkalovo**	**48.79**	**342**	*e*P	**P**	**09 17 56.7**	**-0.3**
	5.3nm,0.6s,mb4.8						
WRA	**Warramunga Arr**	**49.08**	**125**	P	**P**	**09 17 59.2**	**-0.6**
	0.4nm,0.4s,mb3.8,baz=304,slow=8.6,SNR=4.8						
ASAR	**Alice Springs**	**50.73**	**130**	P	**P**	**09 18 12.7**	**+0.4**
	0.5nm,0.9s,mb3.4,baz=298,slow=7.1,SNR=5.0						
AKASG	**Malin Array Be**	**67.36**	**322**	P	**P**	**09 20 06.0**	**-1.3**
	0.7nm,0.5s,mb4.0,baz=85,slow=5.5,SNR=4.9						
FINES	**FINESS Array B**	**71.96**	**332**	P	**P**	**09 20 34.9**	**-0.4**
	1.6nm,0.8s,mb4.0,baz=124,slow=9.0,SNR=3.5						
ARCES	**ARCESS Array B**	**74.57**	**340**	P	**P**	**09 20 51.0**	**+0.7**
	0.8nm,0.4s,mb4.0,baz=108,slow=3.8,SNR=16						
GERES	**GERESS Array B**	**77.02**	**318**	P	**P**	**09 21 05.7**	**+1.1**
	0.8nm,0.8s,mb3.7,baz=90,slow=5.3,SNR=5.9						
HFS	**Hagfors**	**77.69**	**330**	P	**P**	**09 21 08.9**	**+0.8**
	1.1nm,0.5s,mb4.0,baz=90,slow=7.2,SNR=6.8						
NB2	**NORSAR Subarra**	**78.97**	**331**	P	**P**	**09 21 15.3**	**+0.2**
	0.8nm,0.6s,mb3.8,baz=91,slow=5.3						
NOA	**NORSAR Array B**	**78.97**	**331**	P	**P**	**09 21 15.4**	**+0.3**
	0.8nm,0.7s,mb3.8,baz=92,slow=5.5,SNR=4.0						

IDC 27 09:10:23.9±1.6,**6.76N**×**92.46E,mb3.9**/3,**mb1 4.3**/4,**mb1mx3.8**/17,**ML4.6**/1,**Error ellipse: s-maj=63.3km s-min=29.2km az=49.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.23	28	Pn	P	09 13 33.8	-2.0
	1.0nm,0.3s,baz=230,slow=14,SNR=16						
WRA	Warramunga Arr	49.00	124	P	P	09 19 12.0	-2.6
	1.6nm,0.8s,baz=304,slow=8.8,SNR=8.0						
ASAR	Alice Springs	50.51	128	P	P	09 19 24.8	-1.4
	1.7nm,0.8s,baz=299,slow=7.1,SNR=7.5						
GERES	GERESS Array B	77.55	318	P	P	09 22 21.9	-1.5
	1.8nm,1.0s,baz=76,slow=5.5,SNR=5.5						

IDC 27 09:12:01.7±2.6,**4.25N**×**93.94E,mb3.8**/3,**mb1 4.1**/4,**mb1mx3.7**/19,**ML4.4**/1,**Error ellipse: s-maj=102.0km s-min=28.4km az=59.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.95	19	Pn	P	09 15 35.3	-1.0
	0.6nm,0.3s,baz=210,slow=12,SNR=9.3						
WRA	Warramunga Arr	46.41	123	P	P	09 20 29.7	-2.4
	1.6nm,0.7s,baz=302,slow=9.2,SNR=5.5						
ASAR	Alice Springs	47.82	127	P	P	09 20 41.8	-1.5
	0.5nm,0.6s,baz=299,slow=7.9,SNR=3.1						
BVAR	Borovoye Array	52.35	342	P	P	09 21 15.1	-2.4
	0.3nm,0.4s,baz=106,slow=11,SNR=4.3						

IDC 27 09:12:28.3±1.4,**8.86N**×**92.46E,mb4.2**/6,**mb1 4.4**/6,**mb1mx4.0**/17,**Error ellipse: s-maj=69.5km s-min=21.5km az=56.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	40.59	14	P	P	09 20 09.5	-1.9
	1.3nm,0.9s,baz=192,slow=7.6,SNR=5.1						
WRA	Warramunga Arr	50.19	125	P	P	09 21 24.9	-3.3
	5.4nm,0.8s,baz=301,slow=8.8,SNR=10						
ASAR	Alice Springs	51.82	129	P	P	09 21 37.9	-2.7
	2.5nm,0.6s,baz=303,slow=7.7,SNR=12						
STKA	Stephens Creek	61.99	133	P	P	09 22 52.4	-0.5
	3.9nm,0.8s,baz=288,slow=7.0,SNR=6.5						
ARCES	ARCESS Array B	73.78	340	P	P	09 24 05.8	-0.1
	2.3nm,0.8s,baz=101,slow=6.2,SNR=4.7						
GERES	GERESS Array B	75.98	318	P	P	09 24 16.0	-3.1
	0.2nm,0.3s,baz=108,slow=4.2,SNR=3.7						

IDC 27 09:13:05.2±3.2,**3.14N**×**94.48E,mb3.9**/1,**mb1 4.3**/2,**mb1mx3.8**/18,**ML4.1**/1,**Error ellipse: s-maj=117.0km s-min=67.7km az=110.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.84	16	Pn	P	09 16 48.9	-2.6
	0.3nm,0.3s,baz=208,slow=11,SNR=9.6						
SHL	Shillong	22.44	354	*e*	P	09 18 02.0	-5.3
GERES	GERESS Array B	81.58	319	P	P	09 25 25.4	-0.9
	0.9nm,0.8s,baz=90,slow=4.9,SNR=5.1						
TXAR	Lajitas Array	143.33	27	PKP	PKPdf	09 32 43.8	-0.3
	0.5nm,0.8s,baz=224,slow=0.7,SNR=4.3						
CPUP	Villa Florida	144.47	227	PKP	PKPdf	09 32 42.5	-3.7
	0.0nm,0.3s,baz=313,slow=14,SNR=2.8						

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*BJI **27** 09:14:32.5,3.87S×100.94E,h35^{km},mB5.7,mb5.0*

*NEIC **27** 09:14:34.8±0.5,3.68S×100.73E,mb4.7/6,Error ellipse: s-maj=20.5km s-min=8.6km az=52.0*

*IDC **27** 09:14:35.1±0.6,3.70S×100.69E,h26^{km}±3^{km},mb4.3/16, mb1 4.4/16,mb1mx4.2/20,Error ellipse: s-maj=27.6km s-min=12.4km az=51.0*

ISC 27 09:14:33.1±0.6,**3.64S**±0.09×**100.8E**±0.1,**h25^{km}, h25^{km}**±1.3^{km}**:pP-P,n39,**σ**1^{s}04**/37,**mb4.8**/33,**1C-1D, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	22.04	355	P	P	09 19 33.0	+5.2
	16nm,1.0s,mb4.4,baz=226,slow=13,SNR=13						
GYA	Guiyang	30.45	10	⇓*i*P	P	09 20 46.0	-0.2
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
PKI	Pulchoki	34.42	335	*e*P	P	09 21 21.9	+1.0
GUN	Gumba	34.52	336	*e*P	P	09 21 22.8	+1.0
	comp=Z,40nm,0.4s,mb5.7						
DMN	Daman	34.58	335	*e*P	P	09 21 22.8	+0.5
	comp=Z,41nm,0.7s,mb5.5						
KKN	Kakani	34.66	335	*e*P	P	09 21 23.4	+0.4
	comp=Z,55nm,0.8s,mb5.5						
ENH	Enshi	34.72	13	*e*P	P	09 21 22.4	-1.0
	comp=Z,7.2nm,0.7s,mb4.7						
GKN	Gorkha	35.12	335	*e*P	P	09 21 25.8	-1.1
KOLN	Koldanda	35.38	333	*e*P	P	09 21 29.0	-0.1
	comp=Z,32nm,0.7s,mb5.4						
WRA	Warramunga Arr	36.45	119	P	P	09 21 37.9	-0.4
	comp=Z,9.2nm,1.1s,mb4.6,baz=302,slow=9.1,SNR=11						
WRAB	Tennant Creek	36.46	119	*e*P	P	09 21 36.8	-1.5
	comp=Z,6.3nm,0.6s,mb4.7						
ASAR	Alice Springs	37.62	125	P	P	09 21 48.8	+0.8
	comp=Z,2.5nm,0.6s,mb4.1,baz=302,slow=7.9,SNR=7.8						
ASAR				PcP	PcP	09 24 06.0	+0.1
	comp=Z,0.9nm,0.6s,baz=315,slow=2.6,SNR=3.6						
ASAR				pPcP		09 24 13.2	
	comp=Z,1.0nm,0.7s,baz=319,slow=3.3,SNR=4.5						
XAN	Xi'an	38.24	11	P	P	09 21 52.5	-0.7
XAN				AMB	AMB		
	comp=Z,37nm,0.9s,mb5.1						
LZH	Lanzhou	39.62	4	*e*P	P	09 22 05.5	+0.9
LZH				AMB	AMB		
	comp=Z,41nm,1.0s,mb5.1						
JOW	Kunigami	40.25	40	P	P	09 22 11.0	+1.1
	comp=Z,17nm,1.1s,mb4.7,baz=179,slow=13,SNR=4.4						
GTA	Gaotai	42.85	359	⇑*e*P	P	09 22 31.8	+0.7
GTA				AP	pP	09 22 37.0	-1.6
GTA				AMB	AMB		
	comp=Z,21nm,1.1s,mb4.8						
HHC	Hu-ho-hao-te	45.35	11	*e*P	P	09 22 52.5	+1.2
HHC				AP	pP	09 22 59.8	+1.0
HHC				XP	sP	09 23 03.0	+1.1
HHC				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.9						
HHC				AMB	AMB		
	comp=Z,1μm,7.2s						
BJI	Beijing	45.69	16	P	P	09 22 54.5	+0.5
BJI				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.9						
CTA	Charters Tower	47.15	114	P	P	09 23 06.5	+0.7
	comp=Z,3.4nm,0.7s,mb4.4,baz=306,slow=12,SNR=4.4						
CTAO	Charters Tower	47.15	114	*e*P	P	09 23 06.3	+0.5
	comp=Z,5.5nm,0.7s,mb4.6						
STKA	Stephens Creek	47.44	131	P	P	09 23 08.1	+0.2
	comp=Z,2.8nm,0.8s,mb4.3,baz=291,slow=13,SNR=4.3						
STKA				pP	pP	09 23 15.1	-0.4
	comp=Z,5.8nm,0.7s,baz=319,slow=7.7,SNR=5.5						
STKA	Stephens Creek	47.44	131	*e*P	P	09 23 08.0	+0.1
STKA				pP	pP	09 23 15.1	-0.4
WMQ	Urumqi	48.70	347	P	P	09 23 18.5	+0.9
WMQ				AP	pP	09 23 23.0	-2.2
WMQ				AMB	AMB		
	comp=Z,29nm,0.9s,mb5.3						
SONM	Songino Array	51.49	5	P	P	09 23 39.5	+0.7
	comp=Z,10nm,0.7s,mb4.9,baz=187,slow=9.1,SNR=21						
SONM				pP	pP	09 23 47.2	+0.7
	comp=Z,16nm,0.8s,baz=183,slow=8.7,SNR=22						
ULN	Ulaanbaatar	51.58	5	*e*P	P	09 23 39.6	+0.2
	comp=Z,6.1nm,0.9s,mb4.5						
CN2	Changchun	52.16	22	*e*P	P	09 23 42.0	-1.9
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
ZAL	Zalesovo	58.92	349	P	P	09 24 31.1	-1.5
	comp=Z,5.8nm,0.8s,mb4.7,baz=303,slow=5.0,SNR=13						
ZAL				pP	pP	09 24 39.8	-0.6
	comp=Z,5.2nm,0.7s,baz=262,slow=7.7,SNR=5.8						
BVAR	Borovoye Array	62.00	340	P	P	09 24 52.0	-1.6
	comp=Z,6.2nm,0.6s,mb5.0,baz=144,slow=8.9,SNR=20						
BVAR				pP	pP	09 25 00.5	-1.0
	comp=Z,10nm,0.9s,baz=141,slow=9.5,SNR=14						
BRVK	Borovoye	62.07	340	*e*P	P	09 24 51.9	-2.2
	comp=Z,2.3nm,0.6s,mb4.5						
CHKZ	Chkalovo	62.46	340	*e*P	P	09 24 55.2	-1.5
	comp=Z,12nm,1.0s,mb5.0						
CHKZ				*e*pP	pP	09 25 03.7	-0.8
BRTR	Keskin Array B	75.05	313	P	P	09 26 14.0	-0.8
	comp=Z,1.3nm,0.5s,mb4.1,baz=134,slow=9.7,SNR=6.1						
BRTR				pP	pP	09 26 22.4	-0.2
	comp=Z,1.8nm,0.7s,baz=124,slow=5.9,SNR=6.6						
VNDA	Vanda	80.40	169	P	P	09 26 43.8	+0.1
	comp=Z,1.2nm,0.9s,mb3.8,baz=27,slow=8.6,SNR=2.8						
MLR	Muntele Rosu	82.06	317	P	P	09 26 51.8	-1.1
	comp=Z,4.3nm,1.1s,mb4.3,baz=39,slow=13,SNR=2.8						
MLR				pP	pP	09 27 01.9	+1.0
	comp=Z,4.9nm,1.0s,baz=180,slow=3.1,SNR=4.1						
ARCES	ARCESS Array B	88.29	340	P	P	09 27 23.1	-0.3
	comp=Z,2.3nm,0.8s,mb4.5,baz=117,slow=5.4,SNR=5.6						
GERES	GERESS Array B	90.83	319	P	P	09 27 36.8	+1.0
	comp=Z,1.4nm,0.9s,mb4.3,baz=90,slow=4.0,SNR=4.0						
GERES				pP	pP	09 27 44.9	+1.0
	comp=Z,1.5nm,0.9s,baz=135,slow=1.9,SNR=5.1						
NOA	NORSAR Array B	92.98	331	P	P	09 27 47.0	+1.6
	comp=Z,1.5nm,1.1s,mb4.3,baz=101,slow=8.9,SNR=2.7						
DAVOX	Davos	93.29	317	P	P	09 27 49.0	+1.8
	comp=Z,7.8nm,0.8s,mb5.2,baz=323,slow=8.9,SNR=12						
DAVOX				pP	pP	09 27 57.3	+2.1
	comp=Z,4.3nm,0.7s,baz=176,slow=8.1,SNR=4.7						
TXAR	Lajitas Array	145.45	40	PKPbc	PKPbc	09 34 12.5	+2.2
	comp=Z,12nm,0.8s,baz=275,slow=1.2,SNR=99						
TXAR				pPKPbc		09 34 20.8	
	comp=Z,7.8nm,0.7s,baz=270,slow=0.9,SNR=20						
TXAR	Lajitas Array	145.45	40	PKPbc	PKPbc	09 34 12.5	+2.2
TXAR				pPKPbc		09 34 20.8	

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*IDC **27** 09:18:11.3±0.6,7.81N×36.72W,mb4.2/21,mb1 4.3/21, mb1mx4.2/24,Error ellipse: s-maj=19.9km s-min=15.0km az=140.0*

*NEIC **27** 09:18:12.6±0.2,7.80N×36.65W,h10^{km},mb4.8/21,Error ellipse: s-maj=8.2km s-min=5.5km az=120.0*

ISC 27 09:18:10.8±0.3,**7.80N**±0.06×**36.58W**±0.07,**h10^{km},n69,** σ**0^{s}81**/68,**mb4.5**/40,**2C-1D,Central Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
RCBR	Riachuelo	13.56	177	*e*P	P	09 21 23.5	-2.4
BAO	Brasilia Array	25.89	206	PKP	P	09 23 46.2	+1.4
BDFB	Brasilia	25.90	206	P	P	09 23 44.2	-0.8
	6.8nm,0.9s,mb4.2,baz=35,slow=13,SNR=7.8						
DBIC	Dimbokro	31.49	90	P	P	09 24 34.8	-0.5
	3.8nm,0.8s,mb4.3,baz=312,slow=9.7,SNR=6.2						
DBIC	Dimbokro	31.49	90	*e*P	P	09 24 35.3	0.0
	6.0nm,0.9s,mb4.4						
LPAZ	La Paz	39.34	232	P	P	09 25 43.6	+1.3
	6.9nm,0.8s,mb4.4,baz=52,slow=9.0,SNR=21						
LPAZ	La Paz	39.34	232	*e*P	P	09 25 41.4	-0.9
	9.3nm,0.9s,mb4.5						
ESDC	Sonseca Array	43.12	37	P	P	09 26 14.7	+1.5
	0.4nm,0.4s,mb3.5,baz=243,slow=9.9,SNR=5.0						
QUIF	Quistinic	48.99	29	*e*P	P	09 26 59.6	+0.1
SGMF	Saint Gilles	49.52	29	*e*P	P	09 27 03.4	-0.2
	17nm,0.9s,mb4.8						
LASF	Ste Croix	50.43	37	*e*P	P	09 27 10.3	-0.3
	266nm,1.9s,mb5.7						
GRR	Gorron	50.45	30	*e*P	P	09 27 10.5	-0.2
	66nm,1.4s,mb5.2						
TCF	Toulx Ste Croi	50.75	34	*e*P	P	09 27 12.5	-0.5
	0.5nm,0.2s,mb3.7						
FLN	La Foliniere	50.88	30	*e*P	P	09 27 13.8	-0.2
LDF	La Druitiere	50.95	31	*e*P	P	09 27 14.4	-0.1
	51nm,1.3s,mb5.0						
BGF	Bois d'Agland	51.26	34	*e*P	P	09 27 16.9	0.0
	15nm,0.8s,mb4.7						
VIVF	Saint-Julien-l	51.34	37	*e*P	P	09 27 17.3	-0.2
	42nm,1.1s,mb5.0						
TRQA	Tornquist	51.41	206	*e*P	P	09 27 17.8	-0.3
	0.9nm,0.7s,mb3.8						
LMR	La Mourre	51.67	39	*e*P	P	09 27 19.0	-1.0
	203nm,1.6s,mb5.5						
FRF	La Foret Royal	51.87	39	*e*P	P	09 27 20.7	-0.8
SMF	Signal de Mont	51.87	35	*e*P	P	09 27 20.7	-0.8
MBDF	Montbardon	52.54	38	*e*P	P	09 27 25.7	-0.9
	76nm,1.6s,mb5.1						
SCHQ	Schefferville	52.76	339	P	P	09 27 27.8	-0.3
	2.2nm,0.8s,mb4.1,baz=153,slow=4.5,SNR=5.9						
SCHQ	Schefferville	52.76	339	*e*P	P	09 27 27.3	-0.8
	1.8nm,0.6s,mb4.2						
PGF	Pioggiola	52.89	41	*e*P	P	09 27 29.0	-0.2
	182nm,1.3s,mb5.5						
CABF	La Chapelle	53.13	36	*e*P	P	09 27 30.3	-0.7
	25nm,1.1s,mb4.8						
HAU	Haudompre	54.05	34	*e*P	P	09 27 37.5	-0.1
	32nm,1.0s,mb4.9						
BAIF	Baives	54.08	31	*e*P	P	09 27 37.4	-0.4
	35nm,1.2s,mb4.8						
HINF	Hinteralfeld	54.23	35	*e*P	P	09 27 38.2	-0.7
	19nm,1.0s,mb4.7						
GIVF	Givet	54.42	32	*e*P	P	09 27 39.8	-0.6
CDF	Champ du Feu	54.79	34	*e*P	P	09 27 43.3	+0.2
GERES	GERESS Array B	58.70	36	P	P	09 28 10.4	-0.6
	1.2nm,0.6s,mb4.1,baz=243,slow=4.4,SNR=7.0						
KHC	Kasperske Hory	58.76	36	*e*P	P	09 28 04.0	-7.3
PRU	Pruhonice	59.70	36	*e*P	P	09 28 18.1	+0.2
JCT	Junction City	63.03	300	P	P	09 28 45.5	+4.9
	5.4nm,0.8s,mb4.7						
NB2	NORSAR Subarra	63.78	24	P	P	09 28 45.8	+0.7
	2.3nm,0.7s,mb4.3,baz=236,slow=6.5						
NOA	NORSAR Array B	63.78	24	P	P	09 28 46.0	+1.0
	2.9nm,0.7s,mb4.4,baz=236,slow=6.6,SNR=6.0						
HFS	Hagfors	64.30	25	P	P	09 28 50.1	+1.6
	3.1nm,0.7s,mb4.5,baz=288,slow=4.7,SNR=4.4						
ULM	Lac du Bonnet	64.64	322	P	P	09 28 50.0	-0.9
	1.1nm,0.6s,mb4.1,baz=332,slow=6.9,SNR=2.7						
ULM	Lac du Bonnet	64.64	322	P	P	09 28 50.5	-0.4
	6.1nm,0.8s,mb4.7						
SUMG	Summit	64.72	359	*e*P	P	09 28 51.8	+0.7
	6.9nm,0.8s,mb4.7						
MLR	Muntele Rosu	65.33	43	P	P	09 28 57.1	+1.7
	10.0nm,0.9s,mb4.8,baz=262,slow=1.1,SNR=7.6						
TXAR	Lajitas Array	66.26	299	P	P	09 29 00.8	-0.8
	0.4nm,0.6s,mb3.6,baz=96,slow=5.9,SNR=6.7						
TXAR	Lajitas Array	66.26	299	P	P	09 29 00.8	-0.8
LBTB	Lobatse	68.72	121	*e*P	P	09 29 17.2	-0.1
	5.1nm,1.1s,mb4.4						
AKASG	Malin Array Be	68.76	38	P	P	09 29 17.3	+0.3
	4.6nm,0.8s,mb4.5,baz=260,slow=5.4,SNR=12						
BRTR	Keskin Array B	69.85	51	P	P	09 29 25.4	+1.5
	4.4nm,0.8s,mb4.4,baz=253,slow=6.0,SNR=14						
FINES	FINESS Array B	70.31	27	P	P	09 29 27.5	+1.2
	3.1nm,0.8s,mb4.3,baz=270,slow=3.8,SNR=6.2						
FINES	FINESS Array B	70.31	27	P	P	09 29 27.5	+1.2
PDAR	Pinedale Array	72.25	312	P	P	09 29 38.7	+0.4
	0.3nm,0.4s,mb3.6,baz=97,slow=7.3,SNR=3.7						
ARCES	ARCESS Array B	73.18	19	P	P	09 29 43.5	+0.2
	2.0nm,0.5s,mb4.3,baz=248,slow=6.6,SNR=16						
TPAW	Teton Pass	73.33	313	*e*P	P	09 29 45.1	+0.4
IMW	Indian Meadow	73.36	313	*e*P	P	09 29 45.4	+0.5
IMW				*e*		09 29 52.5	
HWUT	Hardware Ranch	73.64	311	*e*P	P	09 29 46.6	0.0
	5.2nm,0.9s,mb4.5						
HWUT				*e*		09 29 53.7	
MSU	Marysvale	73.92	308	P	P	09 29 47.3	-0.9
HRY	Holter Researc	74.25	316	*e*P	P	09 29 49.2	-0.7
BGU	Big Grassy Mou	74.70	310	*e*P	P	09 29 52.5	-0.1
BGU				*e*		09 30 00.1	
YKA	Yellowknife Ar	77.59	332	P	P	09 30 07.6	-0.9
	1.3nm,0.6s,mb4.0,baz=101,slow=5.9,SNR=50						
YKA	Yellowknife Ar	77.59	332	P	P	09 30 07.6	-0.9
NVAR	Mina Array Bea	78.73	308	P	P	09 30 15.5	+0.2
	0.4nm,0.7s,mb3.5,slow=16,SNR=2.5						
VNA3	Neumayer Olymp	80.90	171	*e*	P	09 30 36.6	+10
VNA3	Neumayer Olymp	80.90	171	⇑*i*P	P	09 30 28.9	+2.6
VNA3				*e*		09 30 36.6	
VNA2	Neumayer--Watz	80.97	171	*e*	P	09 30 37.0	+10
VNA2	Neumayer--Watz	80.97	171	⇑*i*P	P	09 30 31.0	+4.4
VNA2				*e*		09 30 37.0	
SNAA	Sanae	82.37	170	P	P	09 30 35.2	+1.2
	0.5nm,0.8s,mb3.5,baz=32,slow=12,SNR=3.1						
SNAA	Sanae	82.37	170	⇓*i*P	P	09 30 34.6	+0.7
SNAA				*e*		09 30 42.2	
INK	Inuvik	85.37	338	P	P	09 30 50.0	+0.9
	1.6nm,0.8s,mb4.2,baz=53,slow=5.9,SNR=8.6						
ILAR	Eielson Array	91.46	336	P	P	09 31 19.1	+0.8
	1.6nm,1.2s,mb4.2,baz=54,slow=3.0,SNR=4.3						
ASAR	Alice Springs	161.78	151	PKPab	PKPab	09 39 00.9	+0.4
	0.4nm,0.9s,baz=194,slow=4.6,SNR=4.0						

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*TAP **27** 09:20:16.4,24.81N×121.85E,h94^{km},ML4.2*

JMA 27 09:20:16.4±0.2,**24.90N**×**121.95E,h90^{km},M3.5,Taiwan**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	1.06	114	P	P	09 20 37.0	0.0
YOJ				S	S	09 20 52.2	-0.4
IRIF	Iriomote-Funau	1.71	109	P	P	09 20 44.8	-0.6
IRIF				S	S	09 21 06.8	+0.1
HATJ	Hateruma jima	1.89	116	P	P	09 20 47.7	+0.1
HATJ				S	S	09 21 11.4	+0.8
JKRS	Kuro-shima	1.99	109	P	P	09 20 49.0	+0.1
JKRS				S	S	09 21 13.4	+0.5
JIJ	Ishigaki jima	2.07	105	P	P	09 20 49.8	-0.2
JIJ				S	S	09 21 14.9	0.0
JTJ	Tarama	2.52	95	P	P	09 20 56.5	+0.2
JTJ				S	S	09 21 27.4	+1.4
JKE	Kume jima 2	4.59	71	P	P	09 21 25.5	+0.6
JKE				*e*S	S	09 22 19.2	+1.8

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*IDC **27** 09:24:02.5±0.9,13.15N×93.05E,mb4.1/14,mb1 4.2/15, mb1mx4.1/22,ML4.2/1,Error ellipse: s-maj=28.0km s-min=18.1km az=45.0*

*NEIC **27** 09:24:07.8±0.6,13.25N×93.17E,h30^{km},mb4.4/7,Error ellipse: s-maj=13.7km s-min=12.6km az=223.0*

*BJI **27** 09:24:07.1,13.21N×93.36E,h32^{km},mB5.4,mb4.7*

ISC 27 09:24:02.1±3.7,**13.25N**±0.09×**93.05E**±0.07,**h6^{km}**±23^{km}**, n35,**σ**1^{s}14**/35,**mb4.2**/22,**2C,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.68	47	Pn	Pn	09 25 57.5	+0.2
	1.0nm,0.3s,baz=239,slow=15,SNR=18						
CMAR				Sn	Sn	09 27 24.4	-1.1
	0.9nm,0.3s,baz=241,slow=28,SNR=4.1						
SHL	Shillong	12.30	355	*e*P	P	09 26 58.0	-2.9
PKI	Pulchoki	15.94	335	*e*P	P	09 27 48.7	-0.1
	64nm,1.1s						
GUN	Gumba	16.05	336	*e*P	P	09 27 50.6	+0.4
	37nm,0.8s						
DMN	Daman	16.10	334	*e*P	P	09 27 50.1	-0.8
	43nm,0.8s						
LSA	Lhasa	16.46	354	*e*P	P	09 27 58.8	+3.3
	6.6nm,0.4s						
GKN	Gorkha	16.65	333	*e*P	P	09 27 56.8	-1.0
	23nm,0.4s						
KOLN	Koldanda	16.93	330	*e*P	P	09 27 59.3	-2.1
	31nm,0.6s						
GYA	Guiyang	18.32	42	⇑*i*P	P	09 28 20.8	+2.0
GYA				AMB	AMB		
	comp=Z,20nm,0.8s						
ENH	Enshi	22.75	39	*e*P	P	09 29 05.8	-0.7
	comp=Z,26nm,1.0s,mb4.6						
LZH	Lanzhou	24.73	21	⇑P	P	09 29 27.5	+1.9
LZH				AP		09 29 30.5	
LZH				AMB	AMB		
	comp=Z,49nm,1.6s,mb4.8						
XAN	Xi'an	25.22	32	P	P	09 29 30.3	-0.1
XAN				AMB	AMB		
	comp=Z,27nm,0.7s,mb4.9						
GTA	Gaotai	26.73	12	*e*P	P	09 29 45.8	+1.5
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.3						
SONM	Songino Array	36.23	15	P	P	09 31 08.4	+0.5
	comp=Z,1.9nm,0.6s,mb4.2,baz=202,slow=7.7,SNR=15						
ZAL	Zalesovo	41.11	353	P	P	09 31 48.6	+0.2
	comp=Z,1.3nm,0.6s,mb3.8,baz=326,slow=7.3,SNR=8.0						
BVAR	Borovoye Array	43.59	340	P	P	09 32 09.8	+1.1
	comp=Z,1.6nm,0.7s,mb3.9,baz=129,slow=9.5,SNR=4.1						
BRVK	Borovoye	43.66	340	*e*P	P	09 32 07.9	-1.3
	comp=Z,1.9nm,0.4s,mb4.2						
CHKZ	Chkalovo	44.07	341	*e*P	P	09 32 12.4	-0.1
	comp=Z,10nm,1.1s,mb4.5						
CHKZ				*e*pP	pP	09 32 20.4	+6.0
GNI	Garni	50.01	312	P	P	09 33 02.3	+2.8
	comp=Z,2.3nm,0.4s,mb4.6,baz=34,slow=9.9,SNR=4.6						
GNI	Garni	50.01	312	P	P	09 33 00.9	+1.4
	comp=Z,9.8nm,0.9s,mb4.8						
WRA	Warramunga Arr	52.33	128	P	P	09 33 15.8	-1.6
	comp=Z,1.1nm,0.6s,mb3.9,baz=302,slow=9.2,SNR=6.2						
ASAR	Alice Springs	54.24	132	P	P	09 33 30.1	-1.2
	comp=Z,1.2nm,0.9s,mb3.8,baz=305,slow=6.6,SNR=9.7						
BRTR	Keskin Array B	58.19	309	P	P	09 33 59.0	-0.5
	comp=Z,1.7nm,0.8s,mb4.1,baz=124,slow=8.1,SNR=6.9						
AKASG	Malin Array Be	63.33	320	P	P	09 34 33.1	-1.2
	comp=Z,0.2nm,0.3s,mb3.7,baz=89,slow=4.9,SNR=4.4						
MLR	Muntele Rosu	64.64	314	P	P	09 34 43.6	+0.6
	comp=Z,2.9nm,0.8s,mb4.3,baz=144,slow=6.8,SNR=4.1						
FINES	FINESS Array B	67.50	331	P	P	09 35 00.7	-0.3
	comp=Z,1.4nm,0.5s,mb4.2,baz=90,slow=5.7,SNR=10						
ARCES	ARCESS Array B	69.88	340	P	P	09 35 15.6	0.0
	comp=Z,1.8nm,0.7s,mb4.1,baz=91,slow=6.9,SNR=16						
MORC	Moravsky Berou	70.65	318	P	P	09 35 20.9	+0.3
	comp=Z,2.4nm,0.8s,mb4.2						
GERES	GERESS Array B	73.15	317	P	P	09 35 35.2	-0.3
	comp=Z,0.9nm,0.5s,mb3.9,baz=87,slow=6.1,SNR=12						
HFS	Hagfors	73.31	329	P	P	09 35 36.3	+0.1
	comp=Z,1.1nm,0.5s,mb4.0,baz=108,slow=4.7,SNR=7.2						
HFS	Hagfors	73.31	329	P	P	09 35 36.3	+0.1
LBTB	Lobatse	75.94	240	P	P	09 35 55.0	+2.9
	comp=Z,1.7nm,0.6s,mb4.2						
IMA	Indian Mountai	87.08	22	*e*P	P	09 36 50.8	+1.2
ILAR	Eielson Array	90.19	22	P	P	09 37 04.1	-0.3
	comp=Z,0.6nm,0.6s,mb4.1,baz=300,slow=4.5,SNR=12						
TXAR	Lajitas Array	134.69	21	PKP	PKPdf	09 43 26.0	+0.9
	comp=Z,0.3nm,0.6s,baz=184,slow=2.7,SNR=3.5						

IDC 27 09:24:10.6±2.2,**2.57N**×**97.81E,mb3.9**/5,**mb1 4.1**/5,**mb1mx3.8**/17,**Error ellipse: s-maj=166.0km s-min=26.0km az=48.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	Warramunga Arr	42.25	124	P	P	09 32 06.2	-1.5
	1.0nm,0.7s,baz=302,slow=9.2,SNR=5.8						
ASAR	Alice Springs	43.74	129	P	P	09 32 17.8	-2.0
	0.7nm,0.8s,baz=297,slow=8.5,SNR=5.2						
BVAR	Borovoye Array	55.17	340	P	P	09 33 44.5	-2.8
	1.2nm,0.7s,baz=149,slow=8.4,SNR=4.2						
BRTR	Keskin Array B	68.66	312	P	P	09 35 10.0	-8.1
	1.6nm,0.8s,baz=124,slow=7.3,SNR=3.6						
GERES	GERESS Array B	84.20	319	P	P	09 36 44.6	-0.6
	1.1nm,0.8s,baz=101,slow=5.0,SNR=3.8						

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*IDC **27** 09:31:52.4±1.3,4.71N×97.43E,mb4.1/6,mb1 4.3/7, mb1mx4.0/18,Error ellipse: s-maj=59.6km s-min=19.1km az=58.0*

*BJI **27** 09:31:55.5,4.38N×97.94E,h44^{km},mB5.5,mb4.6*

*NEIC **27** 09:31:56.9±0.5,4.72N×97.44E,h30^{km},mb4.5/5,Error ellipse: s-maj=19.1km s-min=10.4km az=71.0*

ISC 27 09:31:55.6±0.6,**4.76N**±0.09×**97.6E**±0.1,**h30^{km},n32,** σ**0^{s}99**/30,**mb4.6**/20,**1C,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.68	6	Pn	P	09 35 10.1	-0.1
	baz=199,slow=12,SNR=6.5						
KMI	Kunming	20.85	13	P	P	09 36 40.0	+2.4
KMI				AMB	AMB		
	comp=Z,31nm,1.2s						
GYA	Guiyang	23.27	21	⇑*i*P	P	09 37 01.3	-0.4
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.6						
PKI	Pulchoki	25.47	334	*e*P	P	09 37 22.9	0.0
	comp=Z,39nm,1.2s,mb4.8						
GUN	Gumba	25.57	335	*e*P	P	09 37 23.8	0.0
	comp=Z,82nm,0.8s,mb5.3						
DMN	Daman	25.64	334	*e*P	P	09 37 24.7	+0.2
	comp=Z,27nm,0.8s,mb4.8						
KKN	Kakani	25.72	334	*e*P	P	09 37 25.2	0.0
	comp=Z,52nm,1.0s,mb5.0						
GKN	Gorkha	26.18	333	*e*P	P	09 37 29.4	-0.1
	comp=Z,56nm,1.0s,mb5.0						
KOLN	Koldanda	26.47	331	*e*P	P	09 37 31.6	-0.5
	comp=Z,56nm,0.9s,mb5.1						
GTA	Gaotai	34.55	3	*e*P	P	09 38 42.5	-1.2
GTA				AMB	AMB		
	comp=Z,3.0nm,0.7s,mb4.3						
HHC	Hu-ho-hao-te	38.07	17	*e*P	P	09 39 17.0	+3.6
HHC				AP	pP	09 39 24.0	+1.7
HHC				XP	sP	09 39 28.0	+1.9
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.7						

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HHC                                   AMB       AMB
           comp=Z,563nm,7.6s
BJT   Baijiatuau          38.91  23   P         P         09 39 21.8 +1.4
           comp=Z,6.1nm,0.4s,mb4.7
BJI   Beijing             38.93  23   P         P         09 39 19.3 -1.3
KZA   Kyzart              42.15 335   P         P         09 39 48.0 +0.9
           SNR=6.8
UCH   Uchtor              42.58 335   P         P         09 39 51.7 +1.0
           SNR=12
TKM2  Tokmak 2            42.70 336   P         P         09 39 51.1 -0.6
           SNR=6.0
KBK   Karagaybulak        42.75 335   P         P         09 39 52.9 +0.8
           SNR=6.4
AML   Almayashu           42.86 334   P         P         09 39 54.2 +1.3
           SNR=10
AAK   Ala-Archa           42.92 335   P         P         09 39 54.8 +1.4
           SNR=6.8
SONM  Songino Array       43.58   9   P         P         09 39 58.6 -0.1
           comp=Z,2.7nm,0.9s,mb4.0,baz=198,slow=7.8,SNR=9.1
WRA   Warramunga Arr      43.69 125   P         P         09 39 59.6 -0.4
           comp=Z,1.7nm,0.6s,mb4.0,baz=305,slow=9.3,SNR=11
WRAB  Tennant Creek       43.70 125  eP         P         09 40 00.1 +0.1
           comp=Z,2.3nm,0.4s,mb4.3
ASAR  Alice Springs       45.32 130   P         P         09 40 13.3 +0.3
           comp=Z,2.1nm,0.4s,mb4.3,baz=302,slow=8.1,SNR=16
ZAL   Zalesovo            50.12 350   P         P         09 40 49.9 -0.1
           comp=Z,2.8nm,0.8s,mb4.4,baz=285,slow=7.1,SNR=11
ZAL   Zalesovo            50.12 350   P         P         09 40 49.9 -0.1
BVAR  Borovoye Array      53.04 340   P         P         09 41 10.3 -1.8
           comp=Z,5.9nm,0.8s,mb4.6,baz=143,slow=7.4,SNR=13
BRVK  Borovoye            53.10 340  eP         P         09 41 10.4 -2.2
           comp=Z,6.2nm,0.8s,mb4.6
CHKZ  Chkalovo            53.50 340  eP         P         09 41 14.1 -1.4
           comp=Z,13nm,0.8s,mb4.9
AKASG Malin Array Be      72.69 322   P         P         09 43 22.5 -0.1
           comp=Z,0.2nm,0.3s,mb3.5,baz=83,slow=5.3,SNR=4.1
LBTB  Lobatse             75.80 243   P         P         09 43 41.5 +0.4
           comp=Z,1.6nm,0.4s,mb4.3
BAO   Brasilia Array     144.48 250   PKP       PKPdf     09 51 30.8 -4.4
BDFB  Brasilia           144.50 250   PKP       PKPdf     09 51 31.3 -3.9
           comp=Z,5.4nm,0.8s,baz=228,slow=3.1,SNR=6.2
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*IDC **27** 09:33:17.6±7.6, 9.45N×93.64E, mb4.2/8, mb1 4.4/8, mb1mx4.1/20, Error ellipse: s-maj=238.0km s-min=50.5km az=180.0*

*NEIC **27** 09:33:21.8±1.2, 9.30N×93.69E, h30^{km}, mb4.4/4, Error ellipse: s-maj=32.9km s-min=23.2km az=123.0*

ISC 27 09:33:20.7±1.6, **9.4N**±0.2×**93.5E**±0.3, **h30**^{km}, **n13**, σ**0^{s}.58**/13, **mb4.2**/12, **Nicobar Islands region**

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Code  Station Name         Δ°   AZ°      Phase ID            Time      Res
                                      Op        ISC        h  m  s     ISC
BRVK  Borovoye            47.44 341  eP         P         09 41 55.3 +0.7
           4.0nm,0.9s,mb4.3
CHKZ  Chkalovo            47.87 342  eP         P         09 41 58.3 +0.4
           4.8nm,0.7s,mb4.6
BRTR  Keskin Array B      61.00 310   P         P         09 43 32.9 -1.0
           2.1nm,0.6s,mb4.4,baz=122,slow=6.7,SNR=7.2
AKASG Malin Array Be      66.61 321   P         P         09 44 09.3 -1.2
           0.5nm,0.3s,mb4.0,baz=88,slow=4.5,SNR=5.3
MLR   Muntele Rosu        67.69 315   P         P         09 44 17.7 +0.2
           4.1nm,0.8s,mb4.5,baz=84,slow=9.2,SNR=4.8
ARCES ARCESS Array B      73.66 340   P         P         09 44 53.0  0.0
           0.4nm,0.4s,mb3.7,baz=90,slow=6.1,SNR=5.1
MORC  Moravsky Berou      73.85 319  eP         P         09 44 54.2 -0.3
           2.8nm,0.8s,mb4.2
LBTB  Lobatse             74.44 241   P         P         09 44 58.8 +0.3
           4.4nm,1.0s,mb4.3
GERES GERESS Array B      76.31 318   P         P         09 45 09.2 +0.5
           1.9nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=13
KHC   Kasperske Hory      76.40 318  eP         P         09 45 09.5 +0.4
DAVOX Davos               78.90 316   P         P         09 45 23.3 +0.4
           2.9nm,0.7s,mb4.3,baz=103,slow=11,SNR=4.8
ILAR  Eielson Array       93.58  22   P         P         09 46 34.4 -0.5
           0.5nm,0.7s,mb4.0,baz=309,slow=4.9,SNR=6.6
INK   Inuvik              95.72  16   P         P         09 46 44.8 +0.1
           0.5nm,0.6s,mb4.1,baz=337,slow=5.5,SNR=5.3
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*IDC **27** 09:36:46.2±1.3, 7.94N×91.81E, mb3.9/6, mb1 4.1/6, mb1mx3.9/17, Error ellipse: s-maj=52.8km s-min=23.1km az=50.0*

ISC 27 09:36:49.3±1.1, **8.0N**±0.2×**91.8E**±0.3, **h33**^{km}, **n12**, σ**0^{s}.60**/12, **mb4.1**/8, **Nicobar Islands region**

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Code  Station Name         Δ°   AZ°      Phase ID            Time      Res
                                      Op        ISC        h  m  s     ISC
PKI   Pulchoki            20.43 344  eP         P         09 41 26.7 +0.1
           18nm,0.5s
DMN   Daman               20.56 343  eP         P         09 41 28.6 +0.7
GUN   Gumba               20.63 345  eP         P         09 41 27.7 -0.9
           21nm,0.7s
KKN   Kakani              20.68 343  eP         P         09 41 29.1  0.0
GKN   Gorkha              21.07 342  eP         P         09 41 32.3 -0.8
           27nm,0.5s,mb4.9
KOLN  Koldanda            21.19 340  eP         P         09 41 34.2 -0.1
           16nm,0.7s,mb4.5
SONM  Songino Array       41.63  15   P         P         09 44 36.6 +0.5
           1.9nm,0.6s,mb3.9,baz=195,slow=8.2,SNR=12
WRA   Warramunga Arr      50.20 124   P         P         09 45 43.6 -0.9
           2.1nm,0.7s,mb4.3,baz=305,slow=8.9,SNR=11
ASAR  Alice Springs       51.75 128   P         P         09 45 56.5 +0.4
           1.3nm,0.9s,mb3.9,baz=312,slow=8.5,SNR=6.7
BRTR  Keskin Array B      60.64 311   P         P         09 46 59.2 -0.4
           0.8nm,0.5s,mb4.1,baz=126,slow=7.1,SNR=4.2
GERES GERESS Array B      76.23 318   P         P         09 48 37.2 +0.9
           0.4nm,0.8s,mb3.4,baz=90,slow=6.7,SNR=3.5
ILAR  Eielson Array       95.53  22   P         P         09 50 12.3 +0.5
           0.3nm,0.7s,mb3.9,baz=298,slow=3.8,SNR=5.9
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*IDC **27** 09:37:19.2±0.5, 7.65N×92.71E, mb4.5/22, mb1 4.6/23, mb1mx4.6/27, ML4.4/1, Error ellipse: s-maj=25.3km s-min=12.8km az=42.0*

*BJI **27** 09:37:22.8, 7.47N×92.64E, h53^{km}, mb4.8*

*NEIC **27** 09:37:25.0±2.0, 7.58N×92.67E, h40^{km}±17^{km}, mb4.7/10, Error ellipse: s-maj=13.3km s-min=7.6km az=220.0*

ISC 27 09:37:21.0±0.4, **7.52N**±0.07×**92.71E**±0.07, **h26**^{km}, **h26**^{km}±2.6^{km}**:pP-P**, **n64**, σ**0^{s}.74**/52, **mb4.5**/37, **1C-1D**, **Nicobar Islands region**

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Code  Station Name         Δ°   AZ°      Phase ID            Time      Res
                                      Op        ISC        h  m  s     ISC
CMAR  Chiang Mai Arr      12.45  29   Pn        P         09 40 21.0 +1.5
           0.7nm,0.3s,baz=230,slow=14,SNR=7.7
GYA   Guiyang             23.04  34⇑ iP         P         09 42 26.0 +0.6
GYA                                   AMB       AMB
           comp=Z,10.0nm,0.6s,mb4.4
CD2   Chengdu             25.46  23   P         P         09 42 48.5 -0.2
CD2                                   AMB       AMB
           comp=Z,50nm,0.8s,mb5.1
ENH   Enshi               27.57  33  eP         P         09 43 06.8 -1.3
           comp=Z,32nm,1.1s,mb4.9
LZH   Lanzhou             30.20  18  eP         P         09 43 31.0 -0.7
LZH                                   AMB       AMB
           comp=Z,20nm,1.1s,mb4.8
GTA   Gaotai              32.39  10  eP         P         09 43 50.5 -0.3
GTA                                   AP        pP        09 43 58.8 +0.3
GTA                                   AMB       AMB
           comp=Z,18nm,1.0s,mb4.9
HHC   Hu-ho-hao-te        37.20  24  eP         P         09 44 31.5 -0.5
HHC                                   PP        PP        09 46 03.0 +3.6
HHC                                   AMB       AMB
           comp=Z,10.0nm,0.7s,mb4.8
UCH   Uchtor              38.13 338   P         P         09 44 41.1 +1.4
           SNR=7.2
AML   Almayashu           38.36 337   P         P         09 44 42.8 +1.1
           SNR=13
AAK   Ala-Archa           38.49 338   P         P         09 44 44.3 +1.5
           SNR=6.9
BJI   Beijing             38.59  29   P         P         09 44 44.3 +0.6
BJI                                   AMB       AMB
           comp=Z,10.0nm,0.5s,mb4.8
EKS2  Erkin-Say           38.78 338   P         P         09 44 46.3 +1.0
           SNR=6.4
USP   Ospenovka           39.03 339   P         P         09 44 48.1 +0.7
           SNR=6.5
SONM  Songino Array       41.83  14   P         P         09 45 10.0 -0.3
           comp=Z,1.9nm,0.8s,mb3.8,baz=198,slow=7.8,SNR=6.1
SNY   Shenyang            43.74  34⇓  P         P         09 45 26.3 +0.3
SNY                                   AMB       AMB
           comp=Z,20nm,1.2s,mb4.7
CN2   Changchun           46.09  33  eP         P         09 45 44.5 -0.3
ZAL   Zalesovo            46.73 354   P         P         09 45 49.1 -0.5
           comp=Z,2.2nm,0.9s,mb4.1,baz=293,slow=8.3,SNR=8.8
BVAR  Borovoye Array      48.88 342   P         P         09 46 05.6 -0.9
           comp=Z,4.7nm,0.8s,mb4.5,baz=143,slow=7.4,SNR=16
BRVK  Borovoye            48.94 342  eP         P         09 46 05.3 -1.6
           comp=Z,9.3nm,1.1s,mb4.7
BRVK                                 epP        pP        09 46 14.3 -0.5
WRA   Warramunga Arr      49.22 124   P         P         09 46 09.5 -0.1
           comp=Z,5.8nm,0.8s,mb4.7,baz=307,slow=8.6,SNR=17
WRAB  Tennant Creek       49.22 124  eP         P         09 46 09.2 -0.4
           comp=Z,12nm,0.8s,mb5.0
CHKZ  Chkalovo            49.38 343  eP         P         09 46 09.2 -1.2
           comp=Z,20nm,1.1s,mb5.1
CHKZ                                 epP        pP        09 46 15.3 -3.0
ASAR  Alice Springs       50.78 129   P         P         09 46 22.1 +0.6
           comp=Z,8.2nm,0.8s,mb4.7,baz=307,slow=7.4,SNR=35
GNI   Garni               53.68 315   P         P         09 46 43.4 +0.5
           comp=Z,1.8nm,0.3s,mb4.4,baz=36,slow=18,SNR=4.2
KMBO  Kilima Mbogo        55.98 264   P         P         09 47 00.4 +0.4
           comp=Z,1.9nm,0.9s,mb4.1,baz=25,slow=14,SNR=3.9
KMBO  Kilima Mbogo        55.98 264   P         P         09 46 59.5 -0.5
           comp=Z,2.1nm,0.9s,mb4.2
PMG   Port Moresby        56.79 106   P         P         09 47 05.2 -0.6
           comp=Z,3.0nm,0.5s,mb4.6,baz=355,slow=11,SNR=3.2
EIL   Elat                58.38 300   P         P         09 47 16.2 -0.6
           comp=Z,5.0nm,0.7s,mb4.7,baz=123,slow=7.4,SNR=4.7
CTA   Charters Tower      59.38 119   P         P         09 47 24.3 +0.5
           comp=Z,1.6nm,0.6s,mb4.2,baz=288,slow=13,SNR=3.3
STKA  Stephens Creek      60.90 133   P         P         09 47 34.6 +0.5
           comp=Z,9.3nm,0.9s,mb4.9,baz=318,slow=6.8,SNR=8.0
BRTR  Keskin Array B      61.59 311   P         P         09 47 37.1 -1.6
           comp=Z,2.1nm,0.8s,mb4.3,baz=112,slow=6.7,SNR=7.8
MBAR  Mbarara             62.32 265  eP         P         09 47 44.1 +0.1
           comp=Z,6.2nm,1.3s,mb4.6
IDI   Anoyia              67.61 305   P         P         09 48 18.1 +0.2
           comp=Z,6.4nm,0.7s,mb4.8,baz=71,slow=7.6,SNR=5.3
MLR   Muntele Rosu        68.44 316   P         P         09 48 22.8 -0.1
           comp=Z,9.6nm,0.9s,mb4.8,baz=119,slow=3.2,SNR=8.5
FINES FINESS Array B      72.36 332   P         P         09 48 45.4 -1.0
           comp=Z,3.7nm,0.7s,mb4.4,baz=117,slow=8.5,SNR=9.9
FINES FINESS Array B      72.36 332   P         P         09 48 45.4 -1.0
ARCES ARCESS Array B      75.12 340   P         P         09 49 02.0 -0.3
           comp=Z,2.8nm,0.8s,mb4.2,baz=90,slow=9.7,SNR=5.1
DPC   Dobruska-Polom      75.56 320  eP         P         09 49 05.5 +0.3
PRU   Pruhonice           76.67 320  eP         P         09 49 11.5  0.0
BILL  Bilibino            76.94  22  eP         P         09 49 12.1 -0.5
           comp=Z,6.7nm,1.4s,mb4.4
BRG   Berggiesshubel      77.12 320  i P        P         09 49 14.5 +0.6
           comp=Z,22nm,1.8s,mb4.8
GERES GERESS Array B      77.15 318   P         P         09 49 14.3 +0.2
           comp=Z,3.8nm,0.8s,mb4.4,baz=90,slow=5.3,SNR=22
KHC   Kasperske Hory      77.25 319  eP         P         09 49 14.6 -0.1
TRO   Tromso              77.37 340  e          P         09 49 06.1 -8.8
CLL   Collm               77.74 321   P         P         09 49 17.0 -0.3
MOR8  Moi Rana            78.42 336  e          pP        09 49 31.1 +2.0
NB2   NORSAR Subarra      79.34 331   P         P         09 49 24.8 -1.1
           comp=Z,2.0nm,0.7s,mb4.2,baz=97,slow=5.0
NOA   NORSAR Array B      79.34 331   P         P         09 49 25.1 -0.9
           comp=Z,3.5nm,0.8s,mb4.3,baz=94,slow=5.6,SNR=6.5
DAVOX Davos               79.66 316   P         P         09 49 28.3 +0.4
           comp=Z,2.3nm,0.5s,mb4.4,baz=97,slow=6.1,SNR=9.2
LPL   La Plagne           81.88 315  eP         P         09 49 40.5 +0.9
           comp=Z,3.4nm,0.3s,mb4.5
ESDC  Sonseca Array       90.36 310   P         P         09 50 22.1 +0.5
           comp=Z,0.2nm,0.3s,mb3.9,baz=69,slow=4.3,SNR=5.3
ILAR  Eielson Array       95.60  22   P         P         09 50 44.9 -0.2
           comp=Z,0.5nm,0.7s,mb4.1,baz=312,slow=5.2,SNR=7.4
INK   Inuvik              97.72  16   P         P         09 50 55.3 +0.7
           comp=Z,1.8nm,0.8s,mb4.6,baz=306,slow=4.4,SNR=6.0
ULM   Lac du Bonnet      121.99   6   PKP       PKPdf     09 56 16.4 -1.7
           comp=Z,1.6nm,0.8s,baz=258,slow=5.0,SNR=3.9
NVAR  Mina Array Bea     125.94  30   PKP       PKPdf     09 56 25.2 -0.8
           comp=Z,3.9nm,0.8s,baz=351,slow=0.8,SNR=14
PDAR  Pinedale Array     126.00  20   PKP       PKPdf     09 56 23.9 -2.1
           comp=Z,3.3nm,0.7s,baz=33,slow=1.1,SNR=27
NLU   North Lily Min     127.50  24  ePKPdf     PKPdf     09 56 27.2 -1.8
MSU   Marysvale          128.68  25  ePKPdf     PKPdf     09 56 30.6 -0.7
ANMO  Albuquerque        134.04  22   PKP       PKPdf     09 56 40.2 -1.3
           comp=Z,2.4nm,0.7s,baz=234,slow=1.2,SNR=15
TXAR  Lajitas Array      140.11  23   PKhKP               09 56 44.3
           comp=Z,0.4nm,0.7s,baz=27,slow=2.0,SNR=4.3
TXAR                                  PKP       PKPdf     09 56 51.2 -1.6
           comp=Z,1.3nm,0.6s,baz=180,slow=0.8,SNR=12
TXAR  Lajitas Array      140.11  23   PKP       PKPdf     09 56 51.2 -1.6
JCT   Junction City      140.36  17  ePKPdf     PKPdf     09 56 51.2 -2.1
CPUP  Villa Florida      145.92 233   PKPbc     PKPbc     09 57 00.7 +1.4
           comp=Z,0.0nm,0.3s,baz=98,slow=11,SNR=1.8
LPAZ  La Paz             159.34 243   PKPab     PKPab     09 57 59.1 +1.3
           comp=Z,1.5nm,0.8s,baz=127,slow=2.7,SNR=6.4
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*MOS **27** 09:39:04.8±0.9, 5.35N×94.63E, h33^{km}, mb6.5/96, MS5.7/60, Error ellipse: s-maj=7.9km s-min=4.4km az=123.6*

*BJI **27** 09:39:05.2, 5.15N×94.47E, h49^{km}, mB6.3, mb6.2, Ms6.1, Msz5.9*

*NEIC **27** 09:39:06.8±0.1, 5.35N×94.65E, h35^{km}, mb6.2/137, ME6.1, MS5.9/122, MW6.1, Error ellipse: s-maj=4.7km s-min=2.8km az=30.0 Broadband fault plane solution: P waves. NP1:ϕ_s130°, δ65°, λ55°. NP2:ϕ_s9°, δ42°, λ141°. Principal axes: T Plg55°, Azm354°; N Plg0°, Azm0°; P Plg13°, Azm245°; Moment Tensor Solution. s16 Moment tensor: Scale 10^{18} Nm; M_{rr}1.18; $M_{\theta\theta}$0.01; $M_{\phi\phi}$-1.19; $M_{r\theta}$0.91; $M_{\theta\phi}$0.26; $M_{\phi r}$-0.54; Best double couple: $M_0$1.6×10^{18} NP1:ϕ_s8°, δ33°, λ131°. NP2:ϕ_s142°, δ66°, λ67°. Principal axes: T 1.72, Plg62°, Azm15°; N -.25, Plg21°, Azm152°; P -1.47, Plg17°, Azm249°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*HRVD **27** 09:39:06.8±0.1, 5.21N×94.48E, h41^{km}, MW6.0/77, Centroid moment Tensor Solution. LP body waves: s77,c181;Mantle waves: s76,c169; Half duration: 2^{s}.5 Moment tensor: Scale 10^{18}Nm; M_{rr}0.86±.01; $M_{\theta\theta}$-0.41±.01; $M_{\phi\phi}$-0.45±.01; $M_{r\theta}$0.72±.01; $M_{\theta\phi}$0.48±.01; $M_{\phi r}$-0.64±.01; Best double couple: $M_0$1.31×10^{18} NP1: ϕ_s320°, δ21°, λ97°. NP2:ϕ_s133°, δ69°, λ87°. Principal axes: T 1.28, Plg66°, Azm38°; N .04, Plg3°, Azm134°; P -1.33, Plg24°, Azm225°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **27** 09:39:06.8, 5.36N×94.66E, h35^{km}, MB6.1, MS5.9*

*DUSS **27** 09:39:08.9±0.4, 5.36N×94.10E, h15^{km}, MS6.8*

*IDC **27** 09:39:11.5±1.0, 5.39N×94.71E, h73^{km}±7^{km}, mb5.2/27, mb1 5.2/28, mb1mx5.2/28, MS5.6/10, Ms1 5.7/10, ms1mx5.3/16, Error ellipse: s-maj=10.4km s-min=5.9km az=42.0*

ISC 27 09:39:04.6±0.1, **5.31N**±0.02×**94.61E**±0.02, **h30**^{km}, **h30**^{km}±1.2^{km}**:pP-P**, **n1061**, σ**0^{s}.95**/904, **mb6.1**/225, **MS5.9**/166, **326C-30D**, **Northern Sumatera**

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Code  Station Name         Δ°   AZ°      Phase ID            Time      Res
                                      Op        ISC        h  m  s     ISC
KKTK  Khon Kaen           13.60  36 ⇑ P         P         09 42 22.0 +3.8
CM31  Chiang Mai Arr      13.74  18⇑ eP         P         09 42 22.6 +2.7
           64nm,0.4s
CMAR  Chiang Mai Arr      13.74  18   P         P         09 42 22.1 +2.1
           12nm,0.3s,baz=210,slow=14,SNR=38
CMAR                                  LR        LR        09 47 28.9
           comp=Z,21μm,21.1s,baz=195,slow=36
CMAR                                  ScP                 09 51 12.8
           0.5nm,0.3s,baz=228,slow=3.4,SNR=14
PALK  Pallekele           13.96 279⇓ eP         P         09 42 23.2 +0.2
           45nm,0.6s
CHRT  Chiangrai           15.33  19   SG        P         09 42 43.5 +2.8
MDRS  Chennai             16.14 300⇑ eP         P         09 42 50.4 -0.8
MDRS                                 eS         S         09 45 32.1  -17
VIS   Vishakhapatnam      16.55 319⇑ eP         P         09 42 54.8 -1.6
VIS                                  e                    09 43 04.5
           comp=Z,1μm,1.8s
VIS                                  eS         S         09 45 43.1  -15
COCO  West Island         17.52 173  eP         P         09 43 07.8 -0.7
           comp=Z,2μm,1.4s
VJD   Vijayawada          17.65 310  i P        P         09 43 14.0 +3.9
KOD   Kodaikanal          17.68 287⇓ eP         P         09 43 11.3 +0.8
TRD   Trivandrum          17.81 281  eP         P         09 43 13.1 +0.9
TRD                                  e                    09 43 16.1
           comp=Z,441nm,1.6s
TRD                                  eS         S         09 46 17.5  -10
CAL   Calcutta            18.18 341⇑ eP         P         09 43 13.2 -3.6
AGT   Agartala            18.75 350⇓ i          P         09 43 31.0 +7.3
AGT                                  i                    09 44 15.0
IMP   Imphal              19.38 358  e          Px        09 41 18.8
IMP                                  e                    09 43 27.8
HYB   Hyderabad           19.80 309⇑ eP         P         09 43 36.0 +0.3
HYB                                  eS         S         09 47 12.0 +0.5
HYB                                   pmax      pmax
           comp=Z,110nm,1.0s
HYB   Hyderabad           19.80 309⇑ eP         P         09 43 36.0 +0.3
           comp=Z,110nm,1.0s
HYB                                  eS         S         09 47 12.0 +0.5
HYB   Hyderabad           19.80 309⇑ iP         P         09 43 36.0 +0.3
           comp=Z,110nm,1.0s
HYB                                  eS         S         09 47 12.0 +0.5
HYB                                   LR        LR        09 51 18.0
           comp=Z,19nm,16.0s
QIZ   Qiongzhong          20.16  46⇑ iP         P         09 43 41.0 +1.4
QIZ                                   PP        PP        09 44 02.0 +2.5
QIZ                                   S         S         09 47 19.5 +0.4
QIZ                                   SS        SS        09 47 47.5 -0.8
QIZ                                   AMB       AMB
           comp=Z,478nm,1.4s
QIZ                                   LR        LR
           comp=N,40μm,17.2s,MS6.0
QIZ                                   LR        LR
           comp=E,35μm,17.6s,MS6.0
QIZ                                   LR        LR
           comp=Z,49μm,19.3s,MS5.9
QIZ   Qiongzhong          20.16  46⇑ eP         P         09 43 40.9 +1.3
           comp=Z,1μm,1.4s
BOK   Bokaro              20.21 336⇑ eP         P         09 43 39.9 -0.2
BOK                                  e                    09 43 43.6
           comp=Z,5μm,2.0s
BOK                                  eS         S         09 47 14.9 -5.1
SHL   Shillong            20.32 353⇑ e          P         09 43 38.5 -2.6
BLSP  Bilaspur            20.63 325⇑ eP         P         09 43 45.7 +1.3
BLSP                                 eS         S         09 47 25.9 -2.5
MNGI  Mangalore           20.95 293⇑ e          P         09 43 49.6 +2.0
KMI   Kunming             21.19  21   P         P         09 43 52.5 +2.4
KMI                                   S         S         09 47 42.5 +3.3
KMI                                   SS        SS        09 48 15.5 +2.4
KMI                                   AMB       AMB
           comp=Z,759nm,1.9s,mb5.7
KMI                                   AMB       AMB
           comp=Z,4μm,3.7s
KMI                                   LR        LR
           comp=N,21μm,20.5s
KMI                                   LR        LR
           comp=E,18μm,15.3s
KMI                                   LR        LR
           comp=Z,27μm,24.5s,MS5.5
MNCY  Minicoy             21.63 279⇓ i          P         09 43 58.0 +3.5
MNCY                                 i                    09 46 52.0
LATR  Latur               21.92 308  eP         P         09 43 58.5 +1.0
LATR                                ⇑i                    09 49 13.6
SLGI  Shiliguri           22.08 345  e                    09 44 05.3
           comp=Z,8.0nm,0.8s
GOA   Goa                 22.79 298⇑ iP         P         09 44 09.4 +3.2
GOA                                  e                    09 44 34.5
           comp=Z,480nm,1.5s
AKL   Akola               22.94 313⇑ e          P         09 44 12.3 +4.7
AKL                                  e                    09 44 31.1
           comp=Z,2μm,1.8s
AKL                                  i          S         09 48 20.4 +9.0
BATP  Bataraza            23.27  80  eP         P         09 44 12.3 +1.4
KAD   Karad               23.28 302  eP         P         09 44 13.0 +2.1
KAD                                  i          S         09 48 25.3 +8.0
ALBI  Allahabad           23.38 330⇑ iP         P         09 44 11.5 -0.3
SRDI  Scrawed             23.81 125⇑ eP         P         09 44 14.9 -1.2
SRDI                                  pmax      pmax
           comp=Z,398nm,0.8s,mb5.9
SRDI  Scrawed             23.81 125⇑ eP         P         09 44 14.9 -1.2
           comp=Z,398nm,0.8s,mb5.9
PKI   Pulchoki            23.81 339  eP         P         09 44 15.9 -0.1
           comp=Z,7μm,1.7s,mb6.8
KELI  Kelakatan           23.95 124⇓ eP         P         09 44 18.3 +0.8
           comp=Z,635nm,0.9s,mb6.0
DMN   Daman               23.96 339  eP         P         09 44 17.7 +0.3
           comp=Z,4μm,1.6s,mb6.6
GUN   Gumba               23.97 341  eP         P         09 44 17.4 -0.1
           comp=Z,5μm,1.4s,mb6.8
GYA   Guiyang             23.98  27⇑ iP         P         09 44 19.0 +1.3
GYA                                   AMB       AMB
           comp=Z,1μm,1.3s,mb6.2
GYA                                   AMB       AMB
           comp=Z,6μm,7.2s
GYA                                   LR        LR
           comp=N,28μm,22.4s,MS5.8
GYA                                   LR        LR
           comp=E,21μm,19.8s,MS5.8
GYA                                   LR        LR
           comp=Z,43μm,22.4s,MS5.9
KKN   Kakani              24.06 339  eP         P         09 44 18.3 -0.1
           comp=Z,6μm,1.5s,mb6.8
POO   Poona               24.16 305  eP         P         09 44 21.4 +1.9
POO                                  e                    09 44 26.1
           comp=Z,323nm,1.4s
POO                                  e          S         09 48 36.8 +4.4
VLK   Valmikinagar        24.17 336⇑ iP         P         09 44 20.0 +0.5
VLK                                  i                    09 44 56.0
BHPL  Bhopal              24.35 319⇑ eP         P         09 44 21.9 +0.6
BHPL                                 e                    09 44 27.5
           comp=Z,696nm,1.8s
BHPL                                 eS         S         09 48 35.2 -0.5
GKN   Gorkha              24.48 338  eP         P         09 44 22.6  0.0
           comp=Z,11μm,1.8s,mb7.0
LSA   Lhasa               24.48 353⇑ eP         P         09 44 22.7 +0.1
LSA                                   pmax      pmax
           comp=Z,1μm,1.4s,mb6.2
LSA   Lhasa               24.48 353⇑ eP         P         09 44 22.7 +0.2
           comp=Z,1μm,1.4s,mb6.2
KOLN  Koldanda            24.68 336  eP         P         09 44 23.8 -0.6
           comp=Z,10μm,1.7s,mb7.0
RATI  Rata                25.09 124⇑ eP         P         09 44 28.8 +0.4
           comp=Z,1μm,1.0s,mb6.4
BOM   Bombay              25.19 304⇑ eP         P         09 44 32.4 +3.1
BOM                                  eS         S         09 48 49.3 -0.5
ENPP  El Nido             25.23  75  eP         P         09 44 30.2 +0.4
KEDI  Kedomdong           25.44 122⇑ eP         P         09 44 30.4 -1.4
KEDI                                  pmax      pmax
           comp=Z,637nm,1.0s,mb6.1
KEDI  Kedomdong           25.44 122⇑ eP         P         09 44 30.4 -1.4
           comp=Z,638nm,1.0s,mb6.1
DGAR  Diego Garcia        25.46 240  eP         P         09 44 32.3 +0.3
DGAR                                  MLR       MLR
           comp=Z,6μm,21.0s,MS5.1
LUBP  Lubang              26.61  70  eP         P         09 44 43.1 +0.5
LUBP  Lubang              26.61  70  eP         P         09 44 43.1 +0.5
CUYO  Cuyo Island         26.71  76  eP         P         09 44 43.9 +0.4
CD2   Chengdu             26.88  18   P         P         09 44 44.8 -0.2
CD2                                   S         S         09 49 16.0 -1.8
CD2                                   AMB       AMB
           comp=Z,920nm,1.3s,mb6.2
CD2                                   LR        LR
           comp=N,319μm,27.0s
CD2                                   LR        LR
           comp=Z,125μm,19.2s
SCZP  Santa Cruz          26.92  65  eP         P         09 44 43.2 -2.2
SJMP  San Jose            27.12  73  eP         P         09 44 47.8 +0.6
BOLP  Bolinao             27.14  64  eP         P         09 44 48.3 +0.9
BHV   Bhavnagar           27.22 309  eP         P         09 44 51.0 +2.9
BHV                                  e                    09 49 52.0
TGY   Tagaytay City       27.35  69   P         P         09 44 50.5 +1.2
           comp=Z,1μm,1.0s,mb6.4,baz=233,slow=4.3,SNR=43
LGTI  Lohaghat            27.59 332  eP         P         09 44 51.5 +0.1
PTH   Pithoragarh         27.69 332  eP         P         09 44 52.1 -0.2
PTH                                  e          S         09 49 27.2 -3.6
BCPH  Baguio City Da      27.74  65⇓ iP         P         09 44 54.0 +1.1
LQP   Lukban              27.92  70⇑ iP         P         09 44 55.4 +0.9
PCPH  Palayan             27.93  67⇓ eP         P         09 44 45.0  -10
OTRP  Odiongan            27.96  74  eP         P         09 44 55.1 +0.3
BOAC  Boac                28.04  71  eP         P         09 44 55.0 -0.5
KALP  Kalibo              28.13  75⇓ eP         P         09 44 58.1 +1.8
GUIM  Jordan              28.19  77  eP         P         09 44 57.0 +0.1
ABRA  Dolores             28.32  62  eP         P         09 44 58.9 +0.8
AJM   Ajmer               28.41 320⇑ eP         P         09 44 59.0 +0.2
AJM                                  e                    09 45 02.1
           comp=Z,354nm,1.8s
AJM                                  eS         S         09 49 38.3 -4.1
BALP  Baler               28.43  67  eP         P         09 44 59.6 +0.5
POLP  Polilio Island      28.46  69  eP         P         09 44 59.9 +0.5
RCP   Roxas               28.50  76⇑ iP         P         09 45 01.0 +1.3
NDI   New Delhi           28.51 327⇑ eP         P         09 44 59.1 -0.6
NDI                                  e                    09 45 04.2
           comp=Z,391nm,1.8s
NDI                                  e                    09 48 42.0
ENH   Enshi               28.52  28⇑ iP         P         09 44 58.9 -0.9
           comp=Z,5.5nm,0.3s
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SNPH	**Sibulan**	**28.66**	**80**	*e*P	**P**	**09 45 02.0**	**+0.8**
PAGZ	**Pagadian**	**28.69**	**83**	*e*P	**P**	**09 45 01.9**	**+0.4**
AUQP	**San Andres**	**28.79**	**72**	*e*P	**P**	**09 45 03.6**	**+1.3**
APYP	**Conner**	**28.86**	**62**	*e*P	**P**	**09 45 03.3**	**+0.3**
CAUP	**Cauayan**	**29.05**	**64**	*e*P	**P**	**09 45 05.0**	**+0.3**
TBP	**Tagbilaran**	**29.32**	**80**⇑	*e*P	**P**	**09 45 07.0**	**-0.1**
	comp=Z,316µm,1.4s						
CVP	**Callao Caves**	**29.32**	**63**	*e*P	**P**	**09 45 08.0**	**+0.9**
DDI	**Dehra Dun**	**29.37**	**330**	*e*P	**P**	**09 45 06.5**	**-1.0**
DDI				*e*		09 50 47.4	
LLP	**Lapu-Lapu**	**29.49**	**78**⇑	*e*P	**P**	**09 45 09.2**	**+0.5**
PALP	**Palanan**	**29.63**	**65**	*e*P	**P**	**09 45 09.8**	**0.0**
BHJ	**Bhuj**	**29.96**	**309**⇑	*e*P	**P**	**09 45 12.5**	**-0.3**
BHJ				*e*		09 45 17.6	
	comp=Z,228nm,1.9s						
BHJ				*e*S	**S**	**09 50 04.6**	**-2.6**
QZH	**Quanzhou**	**30.18**	**47**⇑	*i*P	**P**	**09 45 15.8**	**+1.1**
QZH				S	**S**	**09 50 16.0**	**+5.4**
QZH				AMB	AMB		
	comp=Z,620nm,1.2s,mb6.2						
QZH				LR	LR		
	comp=N,14µm,11.2s,MS6.3						
QZH				LR	LR		
	comp=E,39µm,13.4s,MS6.3						
QZH				LR	LR		
	comp=Z,58µm,22.1s						
OCLP	**Ormoc**	**30.22**	**77**	*e*P	**P**	**09 45 15.4**	**+0.3**
PVCP	**Virac**	**30.25**	**72**	*e*P	**P**	**09 45 14.7**	**-0.7**
MSLP	**Maasin**	**30.34**	**79**	*e*P	**P**	**09 45 15.8**	**-0.4**
BUKP	**Musuan**	**30.35**	**84**	*e*P	**P**	**09 45 16.8**	**+0.5**
CNP	**Catarman**	**30.52**	**74**	*e*P	**P**	**09 45 18.2**	**+0.4**
BBP	**Basco**	**30.54**	**58**	*e*P	**P**	**09 45 18.0**	**+0.1**
PLP	**Palo**	**30.59**	**77**	*e*P	**P**	**09 45 18.4**	**0.0**
	comp=Z,205µm,1.5s						
DAV	**Davao City (W)**	**30.83**	**85**	*e*P	**P**	**09 45 22.0**	**+1.5**
SDNR	**Sundarnagar**	**30.87**	**330**	*e*P	**P**	**09 45 21.1**	**+0.4**
BUTP	**Butuan**	**30.98**	**81**	*e*P	**P**	**09 45 22.1**	**+0.3**
BHK	**Bhakra**	**31.08**	**329**	*e*P	**P**	**09 45 21.8**	**-0.8**
BHK				*e*		09 51 46.4	
BESP	**Borongan**	**31.11**	**76**	*e*P	**P**	**09 45 22.8**	**-0.2**
WHN	**Wuhan**	**31.23**	**34**	⇑P	**P**	**09 45 24.5**	**+0.6**
WHN				LR	LR		
	comp=N,24µm,14.2s,MS6.3						
WHN				LR	LR		
	comp=E,45µm,13.7s,MS6.3						
WHN				LR	LR		
	comp=Z,98µm,14.4s,MS6.6						
XAN	**Xi’an**	**31.53**	**23**	P	**P**	**09 45 25.8**	**-0.7**
XAN				AP	pP	09 45 36.8	+1.4
XAN				PP	PP	09 46 37.0	+6.0
XAN				S	**S**	**09 50 24.3**	**-7.4**
XAN				AMB	AMB		
	comp=Z,724nm,1.3s,mb6.3						
XAN				LR	LR		
	comp=N,9µm,23.7s,MS5.6						
XAN				LR	LR		
	comp=E,11µm,23.7s,MS5.6						
XAN				LR	LR		
	comp=Z,28µm,19.7s,MS5.9						
PONG	**Pong**	**31.75**	**329**	*e*P	**P**	**09 45 29.0**	**+0.5**
LZH	**Lanzhou**	**31.79**	**14**	⇑P	**P**	**09 45 28.0**	**-0.8**
LZH				PP	PP	09 46 33.3	-1.1
LZH				PCP	PcP	09 48 20.0	+0.4
LZH				S	**S**	**09 50 37.0**	**+1.2**
LZH				SS	SS	09 52 28.0	+0.8
LZH				SCS	ScS	09 55 54.0	-2.2
LZH				AMB	AMB		
	comp=Z,590nm,1.2s,mb6.3						
LZH				AMB	AMB		
	comp=Z,3µm,5.6s						
LZH				LR	LR		
	comp=E,16µm,14.1s						
LZH				LR	LR		
	comp=Z,19µm,15.3s,MS5.9						
DLH	**Dalhousie**	**32.21**	**330**	*e*P	**P**	**09 45 32.0**	**-0.5**
DLH				*e*		09 45 46.0	
THN	**Thein Dam**	**32.25**	**329**	*e*	**P**	**09 45 31.1**	**-1.7**
	comp=Z,43nm,0.4s,mb5.6						
THN				*e*		09 51 56.4	
TATO	**Taipei**	**32.36**	**50**	PFAKE		09 45 40.0	+6.2
TATO				LR	LR		
	comp=Z,20µm,20.0s,MS5.8						
GTA	**Gaotai**	**34.28**	**7**⇑	*i*P	**P**	**09 45 50.3**	**0.0**
GTA				AP	pP	09 46 00.0	+0.7
GTA				XP	sP	09 46 03.8	+0.7
GTA				PP	PP	09 47 07.0	+1.3
GTA				PCP	PcP	09 48 26.8	+0.4
GTA				S	**S**	**09 51 10.8**	**-3.6**
GTA				XS		09 51 32.8	
GTA				SCP		09 52 07.0	
GTA				PCS		09 52 11.3	
GTA				SS	SS	09 53 21.3	-3.3
GTA				SCS	ScS	09 56 07.8	-1.2
GTA				AMB	AMB		
	comp=Z,1µm,1.3s,mb6.6						
GTA				AMB	AMB		
	comp=Z,8µm,5.7s						
GTA				LR	LR		
	comp=N,17µm,20.5s						
GTA				LR	LR		
	comp=E,11µm,25.9s						
GTA				LR	LR		
	comp=Z,23µm,24.3s,MS5.8						
NJ2	**Nanjing**	**34.96**	**37**	*e*P	**P**	**09 45 57.0**	**+0.7**
NJ2				AP	pP	09 46 05.8	+0.5
NJ2				XP	sP	09 46 09.5	+0.4
NJ2				PP	PP	09 47 15.0	+0.3
NJ2				S	**S**	**09 51 25.0**	**-0.1**
NJ2				SCP		09 52 07.5	
NJ2				SS	SS	09 53 41.0	+0.5
NJ2				AMB	AMB		
	comp=Z,820nm,1.0s,mb6.6						
NJ2				AMB	AMB		
	comp=Z,2µm,6.2s						
NJ2				LR	LR		
	comp=N,33µm,19.5s,MS6.2						
NJ2				LR	LR		
	comp=E,19µm,16.4s,MS6.2						
NJ2				LR	LR		
	comp=Z,25µm,26.8s						
SSE	**Sheshan**	**35.79**	**41**	P	**P**	**09 46 04.0**	**+0.7**
SSE				XP	sP	09 46 16.8	+0.7
SSE				PP	PP	09 47 25.0	+0.3
SSE				S	**S**	**09 51 39.0**	**+1.1**
SSE				PCS		09 52 19.8	
SSE				AMB	AMB		
	comp=Z,209nm,1.1s,mb6.0						
SSE				AMB	AMB		
	comp=Z,2µm,5.5s						
SSE				LR	LR		
	comp=N,15µm,18.9s,MS5.9						
SSE				LR	LR		
	comp=E,13µm,19.4s,MS5.9						
SSE				LR	LR		
	comp=Z,22µm,18.9s,MS5.9						
MBWA	**Marble Bar**	**36.04**	**138**	*e*P	**P**	**09 46 04.8**	**-0.8**
MBWA				LR	LR		
	comp=Z,6µm,22.0s,MS5.3						
TIY	**Taiyuan**	**36.12**	**24**	⇑P	**P**	**09 46 11.3**	**+5.3**
TIY				S	**S**	**09 51 46.0**	**+3.0**
TIY				LR	LR		
	comp=N,45µm,7.0s						
TIA	**Tai’an**	**37.06**	**31**	⇑P	**P**	**09 46 14.0**	**0.0**
TIA				PP	PP	09 47 43.0	+2.1
TIA				S	**S**	**09 51 58.0**	**+0.6**
TIA				AMB	AMB		
	comp=Z,475nm,1.3s,mb6.2						
TIA				AMB	AMB		
	comp=Z,4µm,7.0s						
TIA				LR	LR		
	comp=N,21µm,16.0s,MS6.1						
TIA				LR	LR		
	comp=E,16µm,16.0s,MS6.1						
BTO	**Baotou**	**37.77**	**19**	P	**P**	**09 46 19.5**	**-0.4**
BTO				PP	PP	09 47 46.8	-2.6
BTO				S	**S**	**09 52 00.0**	**-8.2**
BTO				AMB	AMB		
	comp=Z,212nm,1.1s,mb5.8						
BTO				LR	LR		
	comp=N,4µm,8.0s						
BTO				LR	LR		
	comp=E,13µm,13.9s						
KSH	**Kashi**	**37.99**	**336**⇑	*i*P	**P**	**09 46 22.0**	**+0.2**
KSH				AP	pP	09 46 31.5	+0.7
KSH				XP	sP	09 46 36.5	+1.9
KSH				PP	PP	09 47 51.3	-0.7
KSH				PCP	PcP	09 48 40.0	+2.5
KSH				S	**S**	**09 52 09.5**	**-2.1**
KSH				PCS		09 52 27.0	
KSH				AMB	AMB		
	comp=Z,4µm,3.6s						
KSH				LR	LR		
	comp=N,12µm,12.3s,MS6.0						
KSH				LR	LR		
	comp=E,6µm,13.5s,MS6.0						
HHC	**Hu-ho-hao-te**	**38.52**	**21**	*e*P	**P**	**09 46 27.0**	**+0.8**
HHC				AP	pP	09 46 36.8	+1.6
HHC				XP	sP	09 46 41.3	+2.3
HHC				PP	PP	09 47 59.0	+0.9
HHC				PCP	PcP	09 48 39.5	+0.4
HHC				S	**S**	**09 52 18.5**	**-0.9**
HHC				PCS		09 52 27.3	
HHC				SS	SS	09 55 01.8	+1.2
HHC				SCS	ScS	09 56 33.3	+0.9
HHC				AMB	AMB		
	comp=Z,568nm,1.5s,mb6.1						
HHC				AMB	AMB		
	comp=Z,4µm,4.4s						
HHC				LR	LR		
	comp=N,21µm,20.6s,MS6.0						
HHC				LR	LR		
	comp=E,9µm,18.4s,MS6.0						
HHC				LR	LR		
	comp=Z,22µm,19.2s,MS6.0						
JOW	**Kunigami**	**38.57**	**53**	P	**P**	**09 46 28.1**	**+1.3**
	comp=Z,260nm,1.1s,mb5.9,baz=253,slow=7.3,SNR=42						
JOW				ScP		09 52 22.2	
	comp=Z,26nm,1.2s,baz=327,slow=7.4,SNR=5.8						
WMQ	**Urumqi**	**38.84**	**352**	⇑P	**P**	**09 46 29.8**	**+1.0**
WMQ				PP	PP	09 48 01.8	0.0
WMQ				S	**S**	**09 52 26.5**	**+2.2**
WMQ				AMB	AMB		
	comp=Z,663nm,1.4s,mb6.2						
WMQ				AMB	AMB		
	comp=Z,493nm,5.4s						
WMQ				LR	LR		
	comp=N,8µm,27.3s,MS5.7						
WMQ				LR	LR		
	comp=E,15µm,28.8s,MS5.7						
WMQ				LR	LR		
	comp=Z,10µm,28.8s,MS5.5						
BJT	**Baijiatuau**	**39.64**	**26**⇑	*i*P	**P**	**09 46 36.9**	**+1.4**
BJT				pmax	pmax		
	comp=Z,2µm,1.3s						
BJT	**Baijiatuau**	**39.64**	**26**⇑	*i*P	**P**	**09 46 36.9**	**+1.4**
	comp=Z,2µm,1.3s,mb6.6						
BJI	**Beijing**	**39.66**	**26**	P	**P**	**09 46 37.0**	**+1.3**
BJI				PP	PP	09 48 11.5	+0.9
BJI				S	**S**	**09 52 38.5**	**+1.8**
BJI				AMB	AMB		
	comp=Z,1µm,1.3s,mb6.4						
BJI				AMB	AMB		
	comp=Z,6µm,4.0s						
BJI				LR	LR		
	comp=N,16µm,19.3s,MS6.0						
BJI				LR	LR		
	comp=E,10µm,17.6s,MS6.0						
BJI				LR	LR		
	comp=Z,20µm,24.7s						
ULHL	**Ulahol**	**40.25**	**339**	P	**P**	**09 46 43.0**	**+2.5**
	SNR=18						
KZA	**Kyzart**	**40.47**	**338**	P	**P**	**09 46 44.2**	**+1.9**
	SNR=17						
UCH	**Uchtor**	**40.88**	**337**	P	**P**	**09 46 47.2**	**+1.5**
	SNR=226						
AAA	**Alma-Ata**	**40.91**	**340**	*i* P	**P**	**09 46 46.0**	**+0.1**
AAA				*i*		09 48 20.0	
AAA				*i* S	**S**	**09 52 54.0**	**-1.3**
AAA				pmax	pmax		
	comp=Z,6µm,4.0s						
AAA				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.4						
TKM2	**Tokmak 2**	**41.07**	**339**	P	**P**	**09 46 48.3**	**+1.1**
	SNR=115						
KBK	**Karagaybulak**	**41.08**	**338**	P	**P**	**09 46 49.1**	**+1.7**
	SNR=119						
AML	**Almayashu**	**41.13**	**336**	P	**P**	**09 46 48.9**	**+1.2**
	SNR=380						
AAK	**Ala-Archa**	**41.24**	**337**	P	**P**	**09 46 49.9**	**+1.3**
	SNR=188						
AAK	**Ala-Archa**	**41.24**	**337**	PFAKE		09 47 00.0	+11
AAK				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
FRU	**Bishkek**	**41.36**	**338**⇑	*i*P	**P**	**09 46 51.0**	**+1.4**
FRU				*i*		09 47 04.0	
FRU				*e*S	**S**	**09 53 02.0**	**0.0**
FRU				pmax	pmax		
	comp=Z,4µm,2.0s,mb6.7						
FRU				pmax	pmax		
	comp=Z,7µm,3.6s						
DL2	**Dalian**	**41.44**	**32**	⇑P	**P**	**09 46 52.0**	**+1.7**
DL2				XP	sP	09 47 05.8	+2.7
DL2				*e*S	**S**	**09 52 58.5**	**-4.8**
DL2				AMB	AMB		
	comp=Z,460nm,1.1s,mb6.0						
DL2				AMB	AMB		
	comp=Z,2µm,4.7s						
DL2				LR	LR		
	comp=N,6µm,20.7s,MS5.7						
DL2				LR	LR		
	comp=E,8µm,17.4s,MS5.7						
DL2				LR	LR		
	comp=Z,8µm,22.0s,MS5.5						
CHMS	**Chumysh**	**41.45**	**338**	P	**P**	**09 46 51.0**	**+0.6**
	SNR=143						
EKS2	**Erkin-Say**	**41.54**	**337**	P	**P**	**09 46 52.1**	**+1.0**
	SNR=114						
USP	**Ospenovka**	**41.78**	**338**	P	**P**	**09 46 53.8**	**+0.8**
	SNR=179						
MKAR	**Makanchi Array**	**42.68**	**348**	*i* P	**P**	**09 47 00.7**	**+0.3**
MKAR				pmax	pmax		
	comp=Z,2µm,1.4s						
MKAR	**Makanchi Array**	**42.68**	**348**	*i* P	**P**	**09 47 00.8**	**+0.4**
INCN	**Inchon**	**43.34**	**38**	*e*P	**P**	**09 47 05.4**	**-0.5**
	comp=Z,641nm,1.3s,mb6.2						
INCN				LR	LR		
	comp=Z,27µm,20.0s,MS6.2						
SONM	**Songino Array**	**43.56**	**12**	P	**P**	**09 47 07.5**	**0.0**
	comp=Z,293nm,1.2s,mb5.9,baz=198,slow=7.8,SNR=269						
SONM				PcP	PcP	09 48 55.3	-0.2
	comp=Z,22nm,0.8s,baz=198,slow=3.5,SNR=6.3						
SONM				ScP		09 52 41.6	
	comp=Z,18nm,1.1s,baz=225,slow=3.5,SNR=7.1						
NWAO	**Narrogin (SRO)**	**43.67**	**152**	P	**P**	**09 47 08.4**	**-0.2**
	comp=Z,32nm,0.9s,baz=337,slow=11,SNR=5.3						
NWAO	**Narrogin (SRO)**	**43.67**	**152**	*e*P	**P**	**09 47 08.0**	**-0.6**
NWAO				pmax	pmax		
	comp=Z,101nm,1.4s						
NWAO				MLR	MLR		
	comp=Z,5µm,20.0s						
NWAO	**Narrogin (SRO)**	**43.67**	**152**	*e*P	**P**	**09 47 08.0**	**-0.6**
	comp=Z,100nm,1.4s,mb5.4						
NWAO				LR	LR		
	comp=Z,5µm,20.0s,MS5.4						
ULN	**Ulaanbaatar**	**43.73**	**12**	*e*P	**P**	**09 47 07.8**	**-1.1**
ULN				pmax	pmax		
	comp=Z,490nm,1.4s,mb6.0						
ULN				MLR	MLR		
	comp=Z,12µm,20.0s,MS5.8						
ULN	**Ulaanbaatar**	**43.73**	**12**	*e*P	**P**	**09 47 07.8**	**-1.1**
	comp=Z,490nm,1.4s,mb6.0						
ULN				LR	LR		
	comp=Z,12µm,20.0s,MS5.8						
KS15	**Wonju Array Si**	**44.09**	**39**	*e*P	**P**	**09 47 12.0**	**0.0**
SNY	**Shenyang**	**44.59**	**31**	P	**P**	**09 47 16.0**	**0.0**
SNY				XP	sP	09 47 32.3	+3.5
SNY				PP	PP	09 48 57.8	-3.3
SNY				AMB	AMB		
	comp=Z,460nm,1.7s,mb6.0						
SNY				LR	LR		
	comp=N,16µm,18.5s,MS6.0						
SNY				LR	LR		
	comp=E,6µm,20.8s,MS6.0						
SNY				LR	LR		
	comp=Z,21µm,18.8s,MS6.1						
ZAK	**Zakamensk**	**45.51**	**8**⇓	*i*P	**P**	**09 47 22.5**	**-0.7**
ZAK				*e*		09 49 01.5	
WRA	**Warramunga Arr**	**46.42**	**124**	P	**P**	**09 47 30.6**	**-0.1**
	comp=Z,420nm,0.8s,mb6.5,baz=302,slow=9.1,SNR=189						
WRA				ScP		09 52 54.1	
	comp=Z,8.5nm,1.0s,baz=307,slow=3.7,SNR=6.0						
WRA				S	**S**	**09 54 13.0**	**-2.7**
	comp=Z,44nm,1.1s,baz=295,slow=17,SNR=14						
WRA	**Warramunga Arr**	**46.42**	**124**	P	**P**	**09 47 30.6**	**-0.2**
WRA				S	**S**	**09 54 13.0**	**-2.8**
WRAB	**Tennant Creek**	**46.43**	**124**	*e*P	**P**	**09 47 30.7**	**-0.1**
WRAB				pmax	pmax		
	comp=Z,2µm,1.0s,mb6.9						
WRAB				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.2						
WRAB	**Tennant Creek**	**46.43**	**124**	*e*P	**P**	**09 47 30.7**	**-0.1**
	comp=Z,2µm,1.0s,mb6.9						
WRAB				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
VAN	**Vannovskaya**	**46.45**	**320**	*e*P	**P**	**09 47 31.2**	**+0.5**
MOY	**Mondy**	**46.51**	**5**	*e*P	**P**	**09 47 30.9**	**-0.2**
MOY				*e*		09 57 22.0	
TLY	**Talaya**	**46.83**	**8**	P	**P**	**09 47 34.0**	**+0.4**
	comp=Z,952nm,1.4s,mb6.5,SNR=49						
TLY	**Talaya**	**46.83**	**8**⇑	*i*P	**P**	**09 47 34.1**	**+0.5**
TLY				*e*S	**S**	**09 54 19.2**	**-2.0**
TLY				*e*SS	SS	09 57 17.1	-23
TLY				pmax	pmax		
	comp=Z,246nm,1.4s,mb5.9						
TLY				MLR	MLR		
	comp=Z,11µm,18.0s,MS5.9						
TLY	**Talaya**	**46.83**	**8**	*e*P	**P**	**09 47 33.9**	**+0.3**
	comp=Z,460nm,1.5s,mb6.2						
TLY				LR	LR		
	comp=Z,3µm,20.0s,MS5.2						
CN2	**Changchun**	**46.97**	**31**	*e*P	**P**	**09 47 34.8**	**0.0**
CN2				PP	PP	09 49 24.0	-0.8
CN2				*e*S	**S**	**09 54 25.0**	**+1.8**
CN2				AMB	AMB		
	comp=Z,360nm,1.5s,mb6.1						
CN2				AMB	AMB		
	comp=Z,480nm,3.0s						
CN2				LR	LR		
	comp=N,9µm,16.0s,MS6.0						
CN2				LR	LR		
	comp=E,11µm,16.0s,MS6.0						
CN2				LR	LR		
	comp=Z,13µm,16.0s,MS6.0						
HASS	**Wahat al Ahsa’**	**47.34**	**300**	P	**P**	**09 47 39.2**	**+1.3**
IRK	**Irkutsk**	**47.47**	**8**	*e*P	**P**	**09 47 38.0**	**-0.6**
IRK				*e*		09 54 34.8	
ASAR	**Alice Springs**	**47.94**	**129**	P	**P**	**09 47 42.4**	**-0.3**
	comp=Z,168nm,1.1s,mb6.0,baz=300,slow=8.1,SNR=113						
ASAR				S	**S**	**09 54 34.5**	**-2.6**
	comp=Z,34nm,0.9s,baz=293,slow=14,SNR=13						
HIA	**Hailar**	**48.70**	**22**⇑	*i*P	**P**	**09 47 48.0**	**-0.2**
HIA				pmax	pmax		
	comp=Z,560nm,1.4s						
HIA	**Hailar**	**48.70**	**22**⇑	*i*P	**P**	**09 47 48.0**	**-0.3**
	comp=Z,560nm,1.4s,mb6.4						
ZAL	**Zalesovo**	**49.14**	**352**	ScP		09 53 04.7	
	comp=Z,26nm,1.1s,baz=266,slow=6.3,SNR=5.6						
ZAL				S	**S**	**09 54 52.6**	**-1.0**
	comp=Z,1.7nm,0.8s,baz=163,slow=19,SNR=4.2						
MDJ	**Mudanjiang**	**49.69**	**32**	P	**P**	**09 47 56.0**	**+0.1**
MDJ				AP	pP	09 48 05.5	+0.4
MDJ				PCP	PcP	09 49 16.0	-1.1
MDJ				PP	PP	09 49 51.0	0.0
MDJ				SCP		09 53 09.5	
MDJ				PCS		09 53 13.0	
MDJ				S	**S**	**09 55 04.5**	**+3.1**
MDJ				XS		09 55 20.0	
MDJ				AMB	AMB		
	comp=Z,518nm,2.0s,mb6.2						
MDJ				AMB	AMB		
	comp=Z,2µm,5.2s						
MDJ				LR	LR		
	comp=N,4µm,17.8s,MS5.9						
MDJ				LR	LR		
	comp=E,11µm,22.6s,MS5.9						
MDJ				LR	LR		
	comp=Z,12µm,19.2s,MS5.9						
MDJ	**Mudanjiang**	**49.69**	**32**⇑	*i*P	**P**	**09 47 56.3**	**+0.4**
	comp=Z,2µm,1.7s,mb6.8						
QRN	**Al-Qurain**	**49.93**	**303**	*e*P	**P**	**09 47 58.2**	**+0.2**
VLA	**Vladivostok**	**50.01**	**35**⇓	*i*P	**P**	**09 48 00.0**	**+1.6**
VLA				*i*	pP	09 48 08.0	+0.4
VLA				pmax	pmax		
	comp=Z,2µm,4.0s						
CBIJ	**Chichi jima**	**50.17**	**59**	P	**P**	**09 47 57.4**	**-2.5**
	comp=Z,409nm,0.5s,mb6.7,baz=267,slow=3.8,SNR=48						
GUMO	**Guam**	**50.17**	**77**	PFAKE		09 48 10.0	+10
GUMO				LR	LR		
	comp=Z,4µm,22.0s,MS5.4						
NVS	**Novosibirsk**	**50.24**	**351**⇑	*i*P	**P**	**09 47 58.7**	**-1.2**
NVS				*e*S	**S**	**09 55 00.4**	**-8.5**
NVS				*e*		09 57 40.3	
NVS				pmax	pmax		
	comp=Z,1µm,1.9s,mb6.7						
NVS				pmax	pmax		
	comp=N,1µm,1.7s						
NVS				pmax	pmax		
	comp=E,438nm,1.5s						
NVS				smax			
	comp=N,384nm,1.8s						
RDF	**Al-Radifah**	**50.30**	**303**	*e*P	**P**	**09 48 01.6**	**+0.9**
RDF				AMb	AMB	09 48 17.6	
	comp=Z,392nm,0.9s,mb6.4						
UMR	**Umm Al-Rimmam**	**50.36**	**304**	*e*P	**P**	**09 48 02.0**	**+0.8**
UMR				AMb	AMB	09 48 04.0	
	comp=Z,238nm,0.8s,mb6.2						
MAJO	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**09 48 02.0**	**-0.7**
MAJO				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
MAJO				MLR	MLR		
	comp=Z,14µm,22.0s,MS5.9						
MAJO	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**09 48 01.9**	**-0.7**
	comp=Z,1µm,1.8s,mb6.5						
MAJO				LR	LR		
	comp=Z,14µm,22.0s,MS5.9						
MAT	**Matsushiro**	**50.56**	**46**	P	**P**	**09 48 01.9**	**-0.8**
MAT				S	**S**	**09 55 14.0**	**+0.4**
MAT	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**09 48 02.0**	**-0.7**
MAT				*e*S	**S**	**09 55 15.0**	**+1.4**
MAT				pmax	pmax		
	comp=Z,2µm,2.0s,mb6.6						
MAT				MLR	MLR		
	comp=Z,10µm,20.0s,MS5.8						
MAT	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**09 48 02.0**	**-0.7**
	comp=Z,2µm,2.0s,mb6.6						
MAT				*e*S	**S**	**09 55 15.0**	**+1.4**
MAT				LR	LR		
	comp=Z,10µm,20.0s,MS5.8						
KAMS	**Al Khamasin**	**50.80**	**292**	P	**P**	**09 48 04.9**	**+0.2**
RST	**Umm Al-Ruwaisa**	**50.94**	**304**	*e*P	**P**	**09 48 06.0**	**+0.4**
RST				AMb	AMB	09 48 22.0	
	comp=Z,372nm,0.9s,mb6.3						
MZLS	**Mizel**	**50.98**	**297**	P	**P**	**09 48 07.1**	**+1.1**
BVA0	**Borovoye Array**	**51.56**	**342**	P	**P**	**09 48 09.1**	**-0.9**
BVA0				pmax	pmax		
	comp=Z,124nm,1.6s,mb5.6						
BVAR	**Borovoye Array**	**51.56**	**342**	P	**P**	**09 48 09.6**	**-0.4**
	comp=Z,79nm,1.0s,mb5.6,baz=143,slow=7.4,SNR=114						
BVAR				S	**S**	**09 55 27.1**	**0.0**
	comp=Z,12nm,0.9s,baz=143,slow=15,SNR=8.0						
BRVK	**Borovoye**	**51.62**	**342**⇑	*i*P	**P**	**09 48 09.9**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.5						
BRVK				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
BRVK	**Borovoye**	**51.62**	**342**⇑	*i*P	**P**	**09 48 09.9**	**-0.6**
	comp=Z,1µm,1.6s,mb6.5						
BRVK				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
TATS	**Tathlith**	**51.70**	**291**	P	**P**	**09 48 12.0**	**+0.5**
CHKZ	**Chkalovo**	**52.05**	**342**⇑	*i*P	**P**	**09 48 13.6**	**-0.1**
CHKZ				pmax	pmax		
	comp=Z,3µm,1.6s,mb6.9						
CHKZ	**Chkalovo**	**52.05**	**342**⇑	*i*P	**P**	**09 48 13.6**	**-0.1**
	comp=Z,3µm,1.6s,mb6.9						
AFFS	**‘Afif**	**52.92**	**296**	P	**P**	**09 48 21.7**	**+1.0**
ARSS	**Ar Rass**	**53.14**	**298**	P	**P**	**09 48 22.4**	**+0.2**
KLR	**Kul’dur**	**53.86**	**29**κ	*i*P	**P**	**09 48 24.0**	**-3.2**
KLR				*e*		09 50 25.5	
KLR				*e*S	S	09 56 20.5	+22
KLR				pmax	pmax		
	comp=N,500nm,2.0s						
KLR				pmax	pmax		
	comp=E,850nm,2.0s						
KLR				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.4						

KLR				pmax	pmax		
	comp=N,2µm,7.5s						
KLR				pmax	pmax		
	comp=E,2µm,7.5s						
KLR				pmax	pmax		
	comp=Z,4µm,7.5s						
PMG	**Port Moresby**	**54.37**	**105**	P	**P**	**09 48 30.6**	**-0.8**
	comp=Z,75nm,0.4s,mb5.9,baz=308,slow=4.2,SNR=70						
PMG				S	**S**	**09 56 04.4**	**-1.5**
	comp=Z,5.8nm,0.8s,baz=147,slow=22,SNR=6.3						
PMG	**Port Moresby**	**54.37**	**105**	⇑ *i*P	**P**	**09 48 30.4**	**-0.9**
PMG				pmax	pmax		
	comp=Z,117nm,0.7s						
PMG				MLR	MLR		
	comp=Z,3µm,20.0s						
PMG	**Port Moresby**	**54.37**	**105**	⇑ *i*P	**P**	**09 48 30.4**	**-0.9**
	comp=Z,117nm,0.7s,mb5.9						
PMG				LR	LR		
	comp=Z,3µm,20.0s,MS5.3						
BOD	**Bodaibo**	**54.53**	**13**	⇓ *i*P	**P**	**09 48 30.4**	**-1.6**
BOD				*e*		09 56 04.7	
BOD				*e*		09 58 10.7	
HILS	**Ha’il**	**54.75**	**300**	P	**P**	**09 48 35.3**	**+1.3**
MAK	**Makhachkala**	**55.95**	**320**	*d* *i*P	**P**	**09 48 42.0**	**-0.5**
MAK				*e*		09 50 51.0	
MAK				*i* S	**S**	**09 56 24.0**	**-2.7**
MAK				*i* PS	PS	09 56 47.0	+4.7
MAK				*i*		09 58 26.0	
MAK				pmax	pmax		
	comp=Z,780nm,2.0s,mb6.4						
MAK				pmax	pmax		
	comp=N,2µm,10.0s						
MAK				pmax	pmax		
	comp=E,1µm,10.0s						
MAK				pmax	pmax		
	comp=Z,3µm,10.0s						
MAK				smax			
	comp=N,4µm,5.0s						
MAK				smax			
	comp=E,2µm,5.0s						
GNI	**Garni**	**56.57**	**315**	P	**P**	**09 48 46.7**	**-0.3**
	comp=E,27nm,0.6s,mb5.5,baz=170,slow=3.1,SNR=51						
GNI				S	**S**	**09 56 35.2**	**+0.3**
	comp=E,1.9nm,0.4s,baz=289,slow=23,SNR=8.2						
GNI	**Garni**	**56.57**	**315**	⇑ *i*P	**P**	**09 48 46.5**	**-0.5**
GNI				pmax	pmax		
	comp=Z,876nm,1.7s						
GNI				MLR	MLR		
	comp=Z,2µm,20.0s						
GNI	**Garni**	**56.57**	**315**	⇑ *i*P	**P**	**09 48 46.5**	**-0.5**
	comp=Z,876nm,1.7s,mb6.5						
GNI				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
CTA	**Charters Tower**	**56.67**	**118**	P	**P**	**09 48 47.2**	**-0.8**
	comp=Z,127nm,1.1s,mb5.9,baz=296,slow=8.7,SNR=57						
CTA				S	**S**	**09 56 34.8**	**-1.7**
	comp=Z,3.9nm,0.9s,baz=163,slow=19,SNR=2.8						
CTAO	**Charters Tower**	**56.67**	**118**	⇑ *i*P	**P**	**09 48 46.9**	**-1.1**
CTAO				pmax	pmax		
	comp=Z,324nm,1.3s,mb6.2						
CTAO				MLR	MLR		
	comp=Z,8µm,22.0s,MS5.8						
CTAO	**Charters Tower**	**56.67**	**118**	⇑ *i*P	**P**	**09 48 46.9**	**-1.1**
	comp=Z,324nm,1.3s,mb6.2						
CTAO				LR	LR		
	comp=Z,8µm,22.0s,MS5.8						
CLNS	**Chul’man**	**56.68**	**19**	*c* *i*P	**P**	**09 48 47.1**	**-0.4**
CLNS				*e*		09 49 38.6	
CLNS				*e*S	**S**	**09 56 34.4**	**-1.6**
CLNS				*e*PS	PS	09 56 46.5	-5.8
CLNS				*e*		09 58 23.9	
CLNS				*e*SS	SS	10 00 24.9	+0.1
CLNS				*e*SSS	SSS	10 02 35.6	-1.1
CLNS				pmax	pmax		
	comp=N,160nm,1.4s						
CLNS				pmax	pmax		
	comp=Z,210nm,1.4s,mb6.0						
CLNS				pmax	pmax		
	comp=E,124nm,1.6s						
CLNS				smax			
	comp=N,681nm,11.3s						
CLNS				smax			
	comp=E,326nm,11.5s						
CLNS				smax			
	comp=Z,420nm,11.5s						
CLNS				MLR	MLR		
	comp=Z,23µm,22.0s,MS6.2						
CLNS				MLR	MLR		
	comp=N,12µm,19.0s,MS6.0						
CLNS				MLR	MLR		
	comp=E,2µm,18.0s,MS6.0						
ASAJ	**Asahikawa**	**57.06**	**40**	P	**P**	**09 48 50.2**	**-0.2**
	comp=E,228nm,1.2s,mb6.1,baz=257,slow=10,SNR=16						
TI2	**Plekhanov**	**57.23**	**317**	⇑ *i*P	**P**	**09 48 41.6**	**-10**
TI2				*i* S	**S**	**09 56 42.2**	**-1.3**
TI2				pmax	pmax		
	comp=Z,450nm,1.5s,mb6.3						
YNBS	**Yanbu‘ al Bahr**	**57.49**	**295**	P	**P**	**09 48 55.2**	**+1.5**
KMBO	**Kilima Mbogo**	**57.64**	**265**	P	**P**	**09 48 56.8**	**+1.8**
	comp=Z,29nm,1.2s,mb5.2,baz=61,slow=9.9,SNR=24						
KMBO				S	**S**	**09 56 50.8**	**+1.4**
	comp=Z,0.4nm,0.4s,baz=166,slow=23,SNR=10						
KMBO				LR	LR	10 09 35.7	
	comp=Z,12µm,21.8s,MS6.0,baz=83,slow=32						
KMBO	**Kilima Mbogo**	**57.64**	**265**	*i* P	**P**	**09 48 56.8**	**+1.8**
KMBO				pmax	pmax		
	comp=Z,29nm,1.2s						
KMBO	**Kilima Mbogo**	**57.64**	**265**	*e*P	**P**	**09 48 56.4**	**+1.4**
	comp=Z,46nm,1.4s,mb5.3						
KMBO				LR	LR		
	comp=Z,13µm,22.0s,MS6.0						
SVE	**Sverdlovsk**	**57.95**	**339**	⇑ *i*P	**P**	**09 48 56.0**	**-0.5**
SVE				*i* S	**S**	**09 56 51.0**	**-1.8**
SVE				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.7						
SVE				smax			
	comp=N,4µm,8.6s						
SVE				smax			
	comp=E,5µm,8.6s						
SVE				MLR	MLR		
	comp=Z,5µm,17.0s,MS5.7						
STKA	**Stephens Creek**	**58.02**	**133**	P	**P**	**09 48 56.7**	**-0.6**
	comp=Z,69nm,1.0s,mb5.6,baz=304,slow=7.2,SNR=48						
STKA				LR	LR	10 16 30.8	
	comp=Z,4µm,20.5s,MS5.5,baz=298,slow=39						
STKA	**Stephens Creek**	**58.02**	**133**	*e*P	**P**	**09 48 56.5**	**-0.8**
BEST	**Besiri**	**58.23**	**312**	*i* P	**P**	**09 48 57.6**	**-1.1**
ZEI	**Tsey**	**58.24**	**318**	*i* P	**P**	**09 48 58.4**	**-0.3**
ZEI				*i*		09 51 10.4	
ZEI				pmax	pmax		
	comp=Z,68nm,0.8s,mb5.7						
UMJS	**Umm Lajj**	**58.26**	**296**	P	**P**	**09 49 00.6**	**+1.5**
ARU	**Arti**	**58.42**	**337**	⇑ *i*P	**P**	**09 48 58.8**	**-1.0**
ARU				*e*		09 49 48.1	
ARU				*e*		09 51 06.2	
ARU				*i* S	**S**	**09 56 58.3**	**-0.7**
ARU				*e*		09 58 42.5	
ARU				*e*SS	SS	10 00 53.5	+0.5
ARU				pmax	pmax		
	comp=Z,399nm,1.5s,mb6.2						
ARU	**Arti**	**58.42**	**337**	*e*P	**P**	**09 48 58.7**	**-1.1**
	comp=Z,1µm,1.7s,mb6.6						
ARU				LR	LR		
	comp=Z,1µm,19.0s,MS5.1						
YSS	**Yuzh-Sakhalins**	**58.53**	**37**	α *i*P	**P**	**09 48 54.8**	**-5.9**
YSS				*e**SP	sP	09 49 07.0	-6.5
YSS				*e*		09 51 04.0	
YSS				*e*S	**S**	**09 57 16.0**	**+15**
YSS				pmax	pmax		
	comp=N,140nm,1.1s						
YSS				pmax	pmax		
	comp=Z,469nm,1.1s,mb6.4						
YSS				pmax	pmax		
	comp=E,190nm,1.0s						
YSS				MLR	MLR		
	comp=Z,4µm,17.0s,MS5.6						
YSS				MLR	MLR		
	comp=N,5µm,16.0s,MS5.8						
YSS				MLR	MLR		
	comp=E,4µm,15.0s,MS5.8						
YSS	**Yuzh-Sakhalins**	**58.53**	**37**	⇑ *i*P	**P**	**09 49 00.3**	**-0.3**
	comp=E,601nm,1.3s,mb6.5						
YSS				LR	LR		
	comp=Z,8µm,19.0s,MS5.9						
ERZM	**Erzurum**	**58.87**	**314**	*i* P	**P**	**09 49 02.4**	**-0.7**
YUK	**Yuzh-Kuril’sk**	**59.12**	**41**	⇑ *i*P	**P**	**09 49 03.0**	**-1.9**
YUK				*e*S	S	09 57 31.4	+23
YUK				pmax	pmax		
	comp=N,2µm,2.0s						
YUK				pmax	pmax		
	comp=Z,5µm,2.0s						
YUK				pmax	pmax		
	comp=E,2µm,3.0s						
YUK				MLR	MLR		
	comp=E,10µm,21.0s,MS6.1						
YUK				MLR	MLR		
	comp=Z,13µm,21.0s,MS6.0						
YUK				MLR	MLR		
	comp=N,11µm,22.0s,MS6.1						
TBKS	**Tabuk**	**59.47**	**300**	P	**P**	**09 49 08.9**	**+1.4**
QURS	**Qurayyt al Mil**	**59.48**	**303**	P	**P**	**09 49 09.1**	**+1.5**
KIV	**Kislovodsk**	**59.53**	**319**	P	**P**	**09 49 06.6**	**-1.1**
	comp=N,1µm,1.7s,mb6.6,SNR=81						
KIV	**Kislovodsk**	**59.53**	**319**	⇑ *i*P	**P**	**09 49 06.2**	**-1.5**
KIV				pmax	pmax		
	comp=Z,840nm,1.7s,mb6.5						
KIV	**Kislovodsk**	**59.53**	**319**	⇑ *i*P	**P**	**09 49 06.4**	**-1.3**
	comp=Z,841nm,1.7s,mb6.5						
KIV				LR	LR		
	comp=Z,376nm,20.0s						
GOF	**Gofitskoye**	**59.78**	**320**	⇑ *i*P	**P**	**09 49 08.0**	**-1.3**
GOF				*i* S	**S**	**09 57 15.0**	**-1.7**
GOF				pmax	pmax		
	comp=Z,260nm,1.6s,mb6.0						
GOF				smax			
	comp=E,920nm,2.0s						
ASF	**Jabal al Asfar**	**60.02**	**304**	LR	LR	10 17 51.3	
	comp=E,7µm,18.1s,MS5.8,baz=153,slow=39						
ELZG	**Elazig**	**60.13**	**312**	*i* P	**P**	**09 49 11.7**	**-0.2**
JMQS	**Jabal Moqyreh**	**60.17**	**300**	P	**P**	**09 49 13.1**	**+0.8**
MALT	**Malatya**	**60.49**	**311**	⇑ *i*P	**P**	**09 49 13.9**	**-0.4**
MALT				pmax	pmax		
	comp=Z,513nm,1.8s,mb6.2						
MALT	**Malatya**	**60.49**	**311**	⇑ *i*P	**P**	**09 49 13.9**	**-0.4**
	comp=Z,513nm,1.8s,mb6.3						
AYUS	**‘Aynunah**	**60.57**	**299**	P	**P**	**09 49 15.6**	**+0.6**
BDAS	**Al Bad‘**	**60.76**	**300**	P	**P**	**09 49 16.7**	**+0.4**
DUSS	**Damascus Unive**	**60.84**	**305**	*i* P	**P**	**09 49 17.8**	**+1.0**
DUSS				*i* P		09 49 17.9	
DUSS				*i* P		09 49 18.4	
DUSS				*e*		09 49 19.6	
	baz=103,slow=4.0						
DUSS				*e*S	**S**	**09 57 33.1**	**+2.6**
DUSS				AMS	AMS	10 16 12.0	
	comp=N,60µm,18.4s						
DUSS				AMS	AMS	10 18 38.4	
	comp=Z,75µm,19.9s,MS6.8						
DUSS				AMS	AMS	10 20 15.9	
	comp=E,85µm,19.0s						
GZT	**Gaziantep**	**60.85**	**310**	*i* P	**P**	**09 49 16.9**	**+0.1**
JMOS	**Jabal al Moall**	**60.89**	**300**	P	**P**	**09 49 17.7**	**+0.5**
MKRJ	**Makawir**	**60.92**	**303**	P	**P**	**09 49 18.1**	**+0.8**
ALWS	**Ilw as Safayha**	**60.95**	**301**	P	**P**	**09 49 18.8**	**+1.2**
HAQS	**Haql**	**61.02**	**300**	P	**P**	**09 49 18.6**	**+0.6**
KSHT	**Keshet**	**61.10**	**305**	P	**P**	**09 49 19.5**	**+1.0**
MZDA	**Masada**	**61.10**	**303**	P	**P**	**09 49 18.9**	**+0.3**
ZFRI	**Zfri**	**61.10**	**302**	P	**P**	**09 49 19.0**	**+0.4**
EIL	**Elat**	**61.12**	**301**	P	**P**	**09 49 19.1**	**+0.4**
	comp=E,17nm,0.6s,mb5.4,baz=112,slow=4.1,SNR=24						
EIL				LR	LR	10 16 41.9	
	comp=E,9µm,18.5s,MS6.0,baz=111,slow=37						
EIL	**Elat**	**61.12**	**301**	P	**P**	**09 49 18.9**	**+0.2**
EIL	**Elat**	**61.12**	**301**	*e*P	**P**	**09 49 18.7**	**0.0**
	comp=E,1µm,1.4s,mb6.9						
DRGI	**Dragot**	**61.14**	**303**	P	**P**	**09 49 19.2**	**+0.4**
HMDT	**Nahal Hemdat**	**61.17**	**304**	P	**P**	**09 49 19.5**	**+0.5**
GLH	**Golan-Tel Qazi**	**61.17**	**304**	P	**P**	**09 49 20.0**	**+1.0**
MBH	**Mount Berech**	**61.17**	**301**	P	**P**	**09 49 19.4**	**+0.3**
PRNI	**Paran**	**61.21**	**302**	P	**P**	**09 49 19.8**	**+0.5**
HRI	**Mount Hermon**	**61.23**	**305**	P	**P**	**09 49 20.3**	**+0.9**
MMLI	**Mount Malkishu**	**61.30**	**304**	P	**P**	**09 49 20.8**	**+0.9**
SOKR	**Solikamsk**	**61.35**	**339**	*c* *i*P	**P**	**09 49 18.3**	**-1.5**
SOKR				pmax	pmax		
	comp=Z,230nm,1.4s,mb6.1						
SOC	**Sochi**	**61.37**	**317**	*i* P	**P**	**09 49 18.2**	**-2.0**
SOC				*i*		09 49 54.0	
SOC				*i*		09 51 34.9	
SOC				*i* PPP	PPP	09 53 03.1	-2.7
SOC				*i* S	**S**	**09 57 36.4**	**-0.7**
SOC				*e*		09 59 01.8	
SOC				*i* SS	SS	10 01 37.6	-1.7
SOC				*i* SSS	SSS	10 04 14.4	-4.3
SOC				pmax	pmax		
	comp=Z,366nm,1.8s,mb6.2						
SOC				pmax	pmax		
	comp=N,114nm,1.9s						
SOC				pmax	pmax		
	comp=E,134nm,2.1s						
SOC				pmax	pmax		
	comp=Z,2µm,3.4s						
KMTI	**Karmit**	**61.40**	**301**	P	**P**	**09 49 20.9**	**+0.3**
KAHT	**Ahir Dag**	**61.46**	**310**	*i* P	**P**	**09 49 20.9**	**0.0**
SLTI	**Sal’it**	**61.57**	**304**	P	**P**	**09 49 22.3**	**+0.6**
COBT	**Iskenderun**	**61.62**	**309**	*i* P	**P**	**09 49 22.4**	**+0.3**
HNTI	**Hanita**	**61.64**	**305**	P	**P**	**09 49 22.9**	**+0.7**
OFRI	**‘Ofer**	**61.70**	**304**	P	**P**	**09 49 23.2**	**+0.6**
HAF	**Haifa**	**61.70**	**304**	P	**P**	**09 49 23.1**	**+0.5**
KZIT	**Kziot**	**61.83**	**302**	P	**P**	**09 49 23.6**	**+0.1**
YAK	**Yakutsk**	**62.27**	**18**	*c* *i*P	**P**	**09 49 24.3**	**-1.8**
YAK				*e**PP	pP	09 49 32.9	-2.6
YAK				*e*		09 50 03.4	
YAK				*e*		09 51 42.3	
YAK				*e*S	**S**	**09 57 42.8**	**-5.5**
YAK				pmax	pmax		
	comp=N,93nm,1.3s						
YAK				pmax	pmax		
	comp=E,84nm,1.3s						
YAK				pmax	pmax		
	comp=Z,147nm,1.3s,mb6.0						
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,15nm,1.0s						
YAK				pmax	pmax		
	comp=E,12nm,1.0s						
YAK				smax			
	comp=E,19nm,1.3s						
YAK				smax			
	comp=N,14nm,1.2s						
YAK				MLR	MLR		
	comp=E,5µm,15.0s,MS5.9						
YAK				MLR	MLR		
	comp=Z,6µm,15.0s,MS5.8						
YAK				MLR	MLR		
	comp=N,3µm,14.0s,MS5.9						
YAK	**Yakutsk**	**62.27**	**18**	⇑ *i*P	**P**	**09 49 24.0**	**-2.1**
	comp=N,1µm,1.4s,mb6.8						
YAK				LR	LR		
	comp=Z,11µm,22.0s,MS6.0						
PHNC	**Paralimni**	**63.00**	**307**	⇑ P	**P**	**09 49 30.9**	**-0.3**
PHNC	**Paralimni**	**63.00**	**307**	⇑ *i*P	**P**	**09 49 30.9**	**-0.3**
MEST	**Erdemli**	**63.28**	**308**	*i* P	**P**	**09 49 32.6**	**-0.4**
AVNT	**Avonos**	**63.30**	**311**	*i* P	**P**	**09 49 32.6**	**-0.6**
ANN	**Anapa**	**63.34**	**318**	⇑ *i*P	**P**	**09 49 30.5**	**-2.8**
ANN				*e*		09 51 48.8	
ANN				*i*		09 59 19.3	
ANN				pmax	pmax		
	comp=Z,105nm,1.2s,mb5.8						
CSS	**Prodhromos**	**63.55**	**306**	⇑ P	**P**	**09 49 34.7**	**-0.2**
CSS	**Prodhromos**	**63.55**	**306**	⇑ *e*P	**P**	**09 49 34.7**	**-0.2**
MAMC	**Mammari**	**63.69**	**307**	P	**P**	**09 49 36.0**	**+0.2**
CTKT	**Corum**	**63.86**	**313**	*i* P	**P**	**09 49 36.2**	**-0.6**
SZAC	**Souni-Zanaja**	**63.87**	**306**	⇑ P	**P**	**09 49 37.0**	**0.0**
SZAC	**Souni-Zanaja**	**63.87**	**306**	⇑ *e*P	**P**	**09 49 37.0**	**0.0**
BOYT	**Boyabat**	**64.01**	**314**	*i* P	**P**	**09 49 37.0**	**-0.8**
MBAR	**Mbarara**	**64.06**	**267**	⇑ *e*P	**P**	**09 49 38.6**	**0.0**
MBAR				pmax	pmax		
	comp=Z,65nm,1.3s,mb5.5						
MBAR				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
MBAR	**Mbarara**	**64.06**	**267**	⇑ *e*P	**P**	**09 49 38.6**	**0.0**
	comp=Z,65nm,1.3s,mb5.5						
MBAR				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
ALFC	**Alevga**	**64.18**	**307**	P	**P**	**09 49 38.5**	**-0.5**
	comp=Z,3.7nm,0.7s						
ALFC	**Alevga**	**64.18**	**307**	*i* P	**P**	**09 49 38.5**	**-0.5**
PPCY	**Paphos**	**64.33**	**306**	P	**P**	**09 49 39.4**	**-0.6**
AKMC	**Akamas**	**64.37**	**306**	P	**P**	**09 49 39.5**	**-0.8**
BRTR	**Keskin Array B**	**64.46**	**312**	P	**P**	**09 49 39.5**	**-1.3**
	comp=Z,32nm,0.7s,mb5.4,baz=128,slow=5.8,SNR=73						
PECR	**Pechory**	**64.60**	**332**	*e*P	**P**	**09 49 40.0**	**-1.4**
PECR				*e*		09 49 57.2	
PECR				*e*S	**S**	**09 58 12.0**	**-5.3**
PECR				*i*		09 58 30.0	
PECR				*e*		09 59 26.0	
PECR				pmax	pmax		
	comp=E,2µm,6.0s						
PECR				pmax	pmax		
	comp=N,1µm,7.4s						
PECR				smax			
	comp=N,4µm,10.0s						
PECR				smax			
	comp=E,2µm,4.0s						
ELDT	**Eldivan**	**64.82**	**312**	*i* P	**P**	**09 49 42.2**	**-0.9**
BALT	**Daday**	**65.13**	**314**	*i* P	**P**	**09 49 44.5**	**-0.6**
SIM	**Simferopol’**	**65.61**	**317**	*c* *i*P	**P**	**09 49 47.0**	**-1.1**
SIM				*e*S	S	09 58 22.0	-8.0
SIM				pmax	pmax		
	comp=Z,131nm,1.4s,mb5.8						
SIM	**Simferopol’**	**65.61**	**317**	⇑ *i*P	**P**	**09 49 46.7**	**-1.4**
ISP	**Isparta**	**66.40**	**309**	*e*P	**P**	**09 49 52.1**	**-1.1**
ISP				pmax	pmax		
	comp=Z,2µm,1.8s,mb6.8						
ISP	**Isparta**	**66.40**	**309**	*e*P	**P**	**09 49 52.1**	**-1.1**
	comp=Z,2µm,1.8s,mb6.8						
ESKT	**Eskisehir**	**66.50**	**311**	*i* P	**P**	**09 49 53.0**	**-0.9**
HENT	**Hendek**	**66.77**	**312**	*i* P	**P**	**09 49 54.2**	**-1.4**
DNZL	**Cakiroluk**	**67.50**	**309**	*i* P	**P**	**09 49 58.9**	**-1.4**
MOS	**Moscow**	**67.51**	**329**	α *i*P	**P**	**09 49 58.9**	**-1.1**
MOS				*i*	pP	09 50 08.0	-1.4
MOS				*e*		09 54 14.5	
MOS				*e*S	S	09 58 48.7	-4.0
MOS				*e*		09 59 51.5	
MOS				pmax	pmax		
	comp=E,1µm,2.0s						
MOS				pmax	pmax		
	comp=Z,3µm,2.0s,mb7.0						
MOS				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.6						
MOS				pmax	pmax		
	comp=E,312nm,1.6s						
MOS				smax			
	comp=E,2µm,3.8s						
MOS				smax			
	comp=N,5µm,4.0s						
MOS				MLR	MLR		
	comp=Z,6µm,22.4s,MS5.8						
OBN	**Obninsk**	**67.79**	**328**	*c* *i*P	**P**	**09 50 00.2**	**-1.6**
OBN				*e*S	S	09 58 52.5	-3.7
OBN				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.6						
OBN				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.5						
OBN	**Obninsk**	**67.79**	**328**	⇑ *e*P	**P**	**09 50 00.1**	**-1.6**
	comp=Z,2µm,1.7s,mb6.8						
OBN				LR	LR		
	comp=Z,799nm,21.0s,MS4.9						
ULDT	**Uludag**	**67.93**	**311**	*i* P	**P**	**09 50 02.5**	**-0.4**
ARG	**Arkhangelos**	**67.96**	**307**	*e*P	**P**	**09 50 02.6**	**-0.6**
MANT	**Manisa**	**68.03**	**309**	*i* P	**P**	**09 50 02.9**	**-0.6**
SKR	**Severo-Kuril’s**	**68.09**	**37**	P	**P**	**09 50 01.2**	**-2.5**
SKR				*e*		09 50 18.4	
SKR				pmax	pmax		
	comp=E,4µm,4.0s						
SKR				pmax	pmax		
	comp=Z,6µm,4.0s						
SKR				pmax	pmax		
	comp=N,2µm,3.0s						
SKR				MLR	MLR		
	comp=N,4µm,16.0s,MS5.9						
SKR				MLR	MLR		
	comp=E,4µm,16.0s,MS5.9						
SKR				MLR	MLR		
	comp=Z,11µm,16.0s,MS6.2						
KAP	**Karpathos**	**68.61**	**306**	*e*P	**P**	**09 50 04.7**	**-2.5**
BDRM	**Kayabasi**	**68.64**	**308**	*i* P	**P**	**09 50 04.3**	**-3.1**
BTOK	**Tokmak**	**68.68**	**311**	*i* P	**P**	**09 50 06.8**	**-0.7**
MA2	**Magadan**	**68.82**	**27**	⇑ *i*P	**P**	**09 50 07.1**	**-1.0**
MA2				pmax	pmax		
	comp=Z,655nm,1.5s,mb6.3						
MA2				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.7						
MA2	**Magadan**	**68.82**	**27**	⇑ *i*P	**P**	**09 50 07.1**	**-0.9**
	comp=Z,654nm,1.5s,mb6.3						
MA2				LR	LR		
	comp=Z,4µm,19.0s,MS5.7						
LSZ	**Lusaka**	**68.88**	**251**	*e*P	**P**	**09 50 09.3**	**+0.1**
LSZ				pmax	pmax		
	comp=Z,88nm,1.4s,mb5.5						
LSZ				MLR	MLR		
	comp=Z,16µm,20.0s,MS6.2						
LSZ	**Lusaka**	**68.88**	**251**	*e*P	**P**	**09 50 09.3**	**+0.1**
	comp=Z,88nm,1.4s,mb5.5						
LSZ				LR	LR		
	comp=Z,16µm,20.0s,MS6.2						
KDAG	**Bornova**	**69.01**	**309**	*i* P	**P**	**09 50 09.8**	**+0.1**
SMG	**Samos**	**69.23**	**308**	*e*P	**P**	**09 50 10.7**	**-0.3**
AYVA	**Ayvalik**	**69.61**	**310**	*i* P	**P**	**09 50 12.3**	**-1.0**
TIXI	**Tiksi**	**69.65**	**11**	⇑ *i*P	**P**	**09 50 11.3**	**-1.7**
TIXI				pmax	pmax		
	comp=N,208nm,1.5s						
TIXI				pmax	pmax		
	comp=Z,1µm,1.5s,mb6.5						
TIXI				pmax	pmax		
	comp=E,211nm,1.6s						
TIXI				pmax	pmax		
	comp=Z,3µm,1.9s,mb6.8						
TIXI				MLR	MLR		
	comp=Z,13µm,18.0s,MS6.2						
TIXI				MLR	MLR		
	comp=N,8µm,20.0s,MS6.7						
TIXI				MLR	MLR		
	comp=E,42µm,22.0s,MS6.7						
TIXI	**Tiksi**	**69.65**	**11**	⇑ *i*P	**P**	**09 50 11.2**	**-1.8**
TIXI				LR	LR		
	comp=Z,14µm,19.0s,MS6.2						
KIS	**Kishinev**	**69.73**	**318**	⇑ *i*P	**P**	**09 50 12.0**	**-1.9**
KIS				*e*		09 50 30.0	
KIS				*e*S	S	09 59 14.0	-5.3
KIS				pmax	pmax		
	comp=Z,900nm,1.4s,mb6.5						
KIS				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
CFR	**Carcaliu**	**69.75**	**316**	⇑ *i*P	**P**	**09 50 13.3**	**-0.8**
NPS	**Neapolis**	**69.83**	**306**	*e*P	**P**	**09 50 14.9**	**+0.2**
PRD	**Provadia**	**69.84**	**314**	*e*P	**P**	**09 50 13.0**	**-1.6**
PRK	**Paraskevi**	**69.92**	**310**	*e*P	**P**	**09 50 14.8**	**-0.4**
BOZC	**Bozcaada**	**70.19**	**310**	*i* P	**P**	**09 50 16.0**	**-0.8**
JMB	**Yambol**	**70.28**	**313**	*e*P	**P**	**09 50 16.0**	**-1.3**
PET	**Petropavlovsk**	**70.34**	**35**	*c* *i*P	**P**	**09 50 16.0**	**-1.4**
PET				*e*		09 50 37.4	
PET				*e*S	S	09 59 23.9	-2.4
PET				*e*		10 00 10.1	
PET				pmax	pmax		
	comp=Z,175nm,1.0s,mb5.9						
PET				pmax	pmax		
	comp=Z,2µm,4.0s						
PET				smax			
	comp=E,1µm,9.9s						
PET				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.9						
PET				MLR	MLR		
	comp=Z,7µm,20.0s						
PET	**Petropavlovsk**	**70.34**	**35**	*e*P	**P**	**09 50 15.8**	**-1.7**
	comp=Z,240nm,1.3s,mb6.0						
PET				LR	LR		
	comp=Z,8µm,22.0s,MS6.0						
IDI	**Anoyia**	**70.42**	**305**	P	**P**	**09 50 18.1**	**-0.2**
	comp=Z,59nm,0.5s,mb5.8,baz=87,slow=8.1,SNR=41						
IDI				S	S	09 59 24.3	-3.3
	comp=Z,7.0nm,0.8s,baz=66,slow=19,SNR=3.4						
AKASG	**Malin Array Be**	**70.45**	**322**	P	**P**	**09 50 16.5**	**-1.7**
	comp=Z,16nm,0.5s,mb5.2,baz=90,slow=4.6,SNR=113						
AKASG				S	S	09 59 17.0	-11
	comp=Z,0.2nm,0.2s,baz=94,slow=9.8,SNR=8.8						
RDO	**Rodhopi**	**70.81**	**312**	*e*P	**P**	**09 50 19.5**	**-1.0**
ISR	**Istrita**	**70.84**	**316**	⇑ *i*P	**P**	**09 50 21.3**	**+0.6**
LIA	**Limnos Island**	**70.86**	**310**	*e*P	**P**	**09 50 20.1**	**-0.8**
VRI	**Vrincioaia**	**70.87**	**317**	⇑ *i*P	**P**	**09 50 21.1**	**+0.2**
SZH	**Strazhica**	**70.90**	**314**	*e*P	**P**	**09 50 20.0**	**-1.1**
DIM	**Dimitrovgrad**	**70.97**	**313**	*e*P	**P**	**09 50 20.0**	**-1.5**
KDZ	**Kurdzhali**	**70.98**	**312**	*e*P	**P**	**09 50 20.0**	**-1.6**
VAM	**Vamos**	**70.99**	**306**	*e*P	**P**	**09 50 22.2**	**+0.4**
GVD	**Gavdhos**	**71.02**	**305**	*e*P	**P**	**09 50 21.2**	**-0.8**

	comp=Z,528nm,1.6s,mb6.2						
SEY	**Seymchan**	**71.06**	**24**	eP	**P**	**09 50 20.7**	**-1.0**
SEY						09 50 37.3	
SEY						09 53 06.9	
SEY				eS	S	09 59 32.5	-2.0
SEY				PS	PS	09 59 59.6	-7.0
SEY				pmax	pmax		
	comp=N,100nm,1.2s						
SEY				pmax	pmax		
	comp=Z,180nm,1.2s,mb5.9						
SEY				pmax	pmax		
	comp=E,230nm,1.7s						
SEY				MLR	MLR		
	comp=E,22µm,20.0s,MS6.5						
SEY				MLR	MLR		
	comp=Z,40µm,20.0s,MS6.7						
SEY				MLR	MLR		
	comp=N,15µm,23.0s,MS6.5						
PVL	**Pavlikeni**	**71.32**	**314**	eP	**P**	**09 50 23.0**	**-0.6**
MLR	**Muntele Rosu**	**71.33**	**316**	P	**P**	**09 50 23.7**	**+0.1**
	comp=N,833nm,1.5s,mb6.5,baz=96,slow=1.9,SNR=101						
MLR				S	S	09 59 35.5	-2.6
	comp=N,2.0nm,0.8s,baz=9.1,slow=22,SNR=7.4						
MLR				LR	LR	10 27 02.4	
	comp=N,3µm,21.8s,MS5.5,baz=195,slow=40						
RZN	**Rozhen**	**71.51**	**312**	eP	**P**	**09 50 23.0**	**-1.7**
PLD	**Plovdiv**	**71.59**	**313**	eP	**P**	**09 50 23.0**	**-2.2**
ATH	**Athens Observa**	**71.71**	**308**	eP	**P**	**09 50 24.7**	**-1.3**
PGB	**Panagyurishte**	**72.05**	**313**	eP	**P**	**09 50 27.0**	**-1.0**
NVR	**Nevrokopi**	**72.08**	**312**	eP	**P**	**09 50 27.4**	**-0.8**
MMB	**Musomiste**	**72.22**	**312**	eP	**P**	**09 50 27.0**	**-2.0**
PLG	**Polygyros**	**72.25**	**311**	eP	**P**	**09 50 28.3**	**-0.9**
NEO	**Neokhori**	**72.27**	**309**	eP	**P**	**09 50 27.7**	**-1.6**
MNK	**Minsk**	**72.33**	**326**	eP	**P**	**09 50 26.0**	**-3.4**
MNK				pmax	pmax		
	comp=Z,2µm,1.5s,mb6.7						
MNK				pmax	pmax		
	comp=E,2µm,1.8s						
CASY	**Casey**	**72.34**	**173**	P	**P**	**09 50 29.5**	**+0.2**
	comp=E,86nm,1.3s,mb5.5						
CASY				LR	LR		
	comp=Z,9µm,20.0s,MS6.0						
LKR	**Lokris**	**72.36**	**309**	eP	**P**	**09 50 28.2**	**-1.7**
PUL	**Pulkovo**	**72.68**	**331**	⇓eP	**P**	**09 50 31.4**	**+0.1**
PUL				e		09 50 49.3	
PUL				eS	S	09 59 45.5	-7.6
PUL				eSS	SS	10 04 33.9	-1.1
PUL				pmax	pmax		
	comp=Z,467nm,1.8s,mb6.1						
PUL				pmax	pmax		
	comp=N,108nm,0.8s						
PUL				smax			
	comp=N,3µm,2.1s						
PUL				MLR	MLR		
	comp=E,4µm,19.0s						
PUL				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.8						
KKB	**Krupnik**	**72.74**	**312**	eP	**P**	**09 50 30.0**	**-2.1**
VTS	**Vitosha**	**72.76**	**313**	eP	**P**	**09 50 31.0**	**-1.2**
ITM	**Ithomi**	**73.03**	**307**	eP	**P**	**09 50 32.6**	**-1.3**
VAY	**Valandovo**	**73.04**	**311**	i P	**P**	**09 50 32.5**	**-1.4**
IDID	**Didziasalis**	**73.16**	**326**	eP	**P**	**09 50 33.4**	**-0.8**
IDID				AMPb	AMB	09 50 37.1	
	comp=Z,96nm,1.6s,mb5.5						
LBTB	**Lobatse**	**73.45**	**242**	P	**P**	**09 50 37.4**	**+0.9**
LBTB				S	S	10 00 03.3	+0.8
LBTB	**Lobatse**	**73.45**	**242**	eP	**P**	**09 50 37.5**	**+0.9**
LBTB				pmax	pmax		
	comp=Z,111nm,1.5s,mb5.6						
LBTB				MLR	MLR		
	comp=Z,11µm,20.0s,MS6.2						
LBTB	**Lobatse**	**73.45**	**242**	eP	**P**	**09 50 37.5**	**+0.9**
	comp=Z,110nm,1.5s,mb5.6						
LBTB				LR	LR		
	comp=Z,11µm,20.0s,MS6.2						
IIGN	**Ignalina**	**73.45**	**326**	eP	**P**	**09 50 35.3**	**-0.7**
IIGN				AMPb	AMB	09 50 38.9	
	comp=Z,102nm,1.6s,mb5.5						
LVV	**L'vov**	**73.48**	**320**	i P	**P**	**09 50 34.9**	**-1.3**
RLS	**Riolos of Patr**	**73.48**	**308**	eP	**P**	**09 50 33.7**	**-2.8**
KZN	**Kozani**	**73.51**	**310**	eP	**P**	**09 50 34.9**	**-1.7**
IZAR	**Zarasai**	**73.54**	**327**	eP	**P**	**09 50 35.9**	**-0.5**
IZAR				AMPb	AMB	09 50 39.3	
	comp=Z,97nm,1.8s,mb5.4						
ISAL	**Salakas**	**73.56**	**327**	eP	**P**	**09 50 35.8**	**-0.8**
ISAL				AMPb	AMB	09 50 39.5	
	comp=Z,86nm,1.7s,mb5.4						
BOLS	**Boljevac**	**73.84**	**314**	⇓iP	**P**	**09 50 37.6**	**-0.9**
SKO	**Skopje**	**73.97**	**312**	⇑iP	**P**	**09 50 38.0**	**-1.2**
SKO				⇑i		09 50 58.0	
VSU	**Vasula**	**74.02**	**330**	i P	**P**	**09 50 38.4**	**-0.8**
VSU	**Vasula**	**74.02**	**330**	i P	**P**	**09 50 38.5**	**-0.7**
LVZ	**Lovozero**	**74.12**	**340**	c iP	**P**	**09 50 38.7**	**-0.9**
LVZ				ePPP	PPP	09 55 06.6	-5.2
LVZ				eS	S	10 00 05.0	-4.1
LVZ				e		10 01 01.3	
LVZ				eSSS	SSS	10 08 07.7	-1.3
LVZ				pmax	pmax		
	comp=Z,316nm,2.1s,mb5.9						
LVZ				pmax	pmax		
	comp=E,66nm,2.5s						
LVZ				smax			
	comp=N,1µm,3.4s						
LVZ				smax			
	comp=E,455nm,3.4s						
LVZ				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.6						
LVZ				MLR	MLR		
	comp=N,3µm,22.0s						
KWP	**Kalwaria**	**74.28**	**320**	⇑eP	**P**	**09 50 40.6**	**-0.3**
KWP				ePcP	PcP	09 50 59.6	+3.7
KWP				ePP	PP	09 53 29.7	+1.0
KWP				eS	S	10 00 06.6	-4.8
KWP	**Kalwaria**	**74.28**	**320**	eP	**P**	**09 50 40.6**	**-0.3**
	comp=N,2µm,2.1s,mb6.8						
KWP				ePcP	PcP	09 50 59.6	+3.7
KWP				ePP	PP	09 53 29.7	+1.0
KWP				eS	S	10 00 06.6	-4.8
KWP				MLR	MLR	10 25 21.0	
	comp=N,2µm,26.5s,MS5.3						
OHR	**Ohrid**	**74.34**	**311**	i P	**P**	**09 50 39.9**	**-1.5**
APA	**Apatity**	**74.40**	**340**	⇓iP	**P**	**09 50 39.4**	**-1.8**
APA				pmax	pmax		
	comp=Z,360nm,1.5s,mb6.1						
APA				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.7						
SVIS	**Svilajnac**	**74.44**	**314**	⇑iP	**P**	**09 50 40.9**	**-1.0**
KOLS	**Kolonicke sedl**	**74.44**	**319**	i P	**P**	**09 50 42.2**	**+0.4**
BOSA	**Boshof**	**74.64**	**239**	eP	**P**	**09 50 43.0**	**-0.4**
BOSA				pmax	pmax		
	comp=Z,122nm,1.4s,mb5.6						
BOSA				MLR	MLR		
	comp=Z,8µm,22.0s,MS6.0						
BOSA	**Boshof**	**74.64**	**239**	eP	**P**	**09 50 43.0**	**-0.4**
	comp=Z,122nm,1.4s,mb5.6						
BOSA				LR	LR		
	comp=Z,8µm,22.0s,MS6.0						
GRUS	**Gruza**	**74.74**	**314**	⇑iP	**P**	**09 50 43.7**	**0.0**
SUW	**Suwalki**	**74.85**	**325**	⇑eP	**P**	**09 50 43.0**	**-1.1**
SUW				ePcP	PcP	09 50 57.6	-0.6
SUW				eS	S	10 00 11.4	-6.2
SUW				eSKS	SKS	10 00 47.7	-6.3
SUW	**Suwalki**	**74.85**	**325**	eP	**P**	**09 50 43.0**	**-1.1**
	comp=Z,2µm,1.6s,mb6.8						
SUW				ePcP	PcP	09 50 57.6	-0.6
SUW				eS	S	10 00 11.4	-6.2
SUW				eSKS	SKS	10 00 47.7	-6.3
SUW				MLR	MLR	10 28 02.6	
	comp=Z,3µm,21.4s,MS5.5						
CRVS	**Cervenica-Dubn**	**74.96**	**319**	eP	**P**	**09 50 45.4**	**+0.6**
CRVS				e		09 50 51.5	
BEO	**Belgrade**	**75.05**	**315**	⇑iP	**P**	**09 50 44.9**	**-0.5**
QSH	**Qafa e Shtames**	**75.06**	**311**	i p	**P**	**09 50 46.0**	**+0.5**
PVY	**Plav**	**75.12**	**313**	⇑iP	**P**	**09 50 41.7**	**-4.2**
NOUC	**Port Laguerre**	**75.18**	**114**	⇑eP	**P**	**09 50 47.1**	**+0.4**
FINES	**FINESS Array B**	**75.19**	**332**	P	**P**	**09 50 45.0**	**-0.9**
	comp=Z,16nm,0.5s,mb5.2,baz=105,slow=5.8,SNR=62						
FINES				LR	LR	10 27 57.0	
	comp=Z,3µm,21.5s,MS5.5,baz=269,slow=39						
IVA	**Berane**	**75.21**	**313**	⇑iP	**P**	**09 50 43.8**	**-2.6**
KAF	**Kangasniemi**	**75.28**	**333**	ep	**P**	**09 50 45.3**	**-1.1**
	comp=Z,165nm,1.4s,mb5.8						
KAF	**Kangasniemi**	**75.28**	**333**	eP	**P**	**09 50 45.3**	**-1.1**
KAF				pmax	pmax		
	comp=Z,165nm,1.4s,mb5.8						
DIVS	**Divcibare**	**75.29**	**314**	⇓iP	**P**	**09 50 45.9**	**-0.9**
DZM	**Mont Dzumac**	**75.30**	**114**	⇑eP	**P**	**09 50 48.1**	**+0.8**
NVSS	**Nova Varos 2**	**75.43**	**313**	⇓iP	**P**	**09 50 46.8**	**-0.8**
KECS	**Kecovo**	**75.54**	**319**	eP	**P**	**09 50 48.2**	**+0.1**
ULC	**Ulcinj**	**75.59**	**312**	⇑iP	**P**	**09 50 46.1**	**-2.5**
PLE	**Pljevlja**	**75.63**	**313**	⇑iP	**P**	**09 50 48.7**	**-0.1**
TTG	**Podgorica**	**75.63**	**312**	⇑iP	**P**	**09 50 44.9**	**-3.9**
PKSN	**Nyarlorinc**	**75.73**	**317**	⇑eP	**P**	**09 50 49.4**	**+0.1**
NIE	**Niedzica**	**75.79**	**320**	eP	**P**	**09 50 50.1**	**+0.6**
WAR	**Warsaw**	**75.79**	**323**	⇑eP	**P**	**09 50 49.5**	**0.0**
	comp=Z,1.3nm,1.2s						
WAR				eS	S	10 00 24.8	-3.2
WAR				eSKS	SKS	10 00 58.1	-2.8
WAR	**Warsaw**	**75.79**	**323**	eP	**P**	**09 50 49.5**	**0.0**
	comp=Z,1µm,1.2s,mb6.7						
WAR				eS	S	10 00 24.8	-3.2
WAR				eSKS	SKS	10 00 58.1	-2.8
WAR				MLR	MLR	10 28 44.9	
	comp=Z,3µm,23.1s,MS5.5						
PSZ	**Piszkesteto**	**75.85**	**318**	⇑iP	**P**	**09 50 49.9**	**0.0**
NKY	**Niksic**	**75.86**	**313**	⇑iP	**P**	**09 50 47.2**	**-2.9**
BUM	**Brajici-Budva**	**75.89**	**312**	⇑iP	**P**	**09 50 46.5**	**-3.7**
UPM	**Unac-Piva**	**75.97**	**313**	⇑iP	**P**	**09 50 49.9**	**-0.8**
MAW	**Mawson**	**76.13**	**192**	P	**P**	**09 50 53.2**	**+2.0**
	comp=Z,8.9nm,0.7s,baz=358,slow=6.6,SNR=11						
MAW				S	S	10 00 32.5	+1.1
	comp=Z,2.0nm,0.7s,baz=90,slow=20,SNR=1.7						
MAW	**Mawson**	**76.13**	**192**	eP	**P**	**09 50 53.4**	**+2.3**
MAW				pmax	pmax		
	comp=Z,58nm,1.1s						
MAW	**Mawson**	**76.13**	**192**	eP	**P**	**09 50 53.4**	**+2.3**
	comp=Z,58nm,1.1s,mb5.4						
HCY	**Herceg Novi**	**76.19**	**312**	⇑iP	**P**	**09 50 48.2**	**-3.8**
BRY	**Bratogost**	**76.20**	**313**	⇑iP	**P**	**09 50 49.9**	**-2.1**
OJC	**Ojcow**	**76.23**	**320**	⇑iP	**P**	**09 50 52.1**	**+0.1**
OJC				eS	S	10 00 29.3	-3.6
OJC				LR	LR		
	comp=Z,2µm,22.3s,MS5.3						
OJC	**Ojcow**	**76.23**	**320**	i P	**P**	**09 50 52.1**	**+0.1**
OJC				eS	S	10 00 29.3	-3.6
OJC				MLR	MLR	10 48 49.5	
	comp=Z,2µm,22.3s,MS5.3						
BUD	**Budapest**	**76.37**	**317**	eP	**P**	**09 50 52.3**	**-0.6**
PKSM	**Moragy**	**76.48**	**316**	⇑iP	**P**	**09 50 53.2**	**-0.3**
VYHS	**Vyhne**	**76.62**	**318**	i P	**P**	**09 50 54.3**	**0.0**
PKS9	**Tamasi**	**76.78**	**316**	⇑eP	**P**	**09 50 54.6**	**-0.5**
PKSG		**76.79**	**317**	⇑eP	**P**	**09 50 55.1**	**-0.1**
RHK1	**Bakonya**	**76.86**	**316**	⇑iP	**P**	**09 50 55.2**	**-0.5**
SRO	**Srobarova**	**76.89**	**318**	eP	**P**	**09 50 55.8**	**0.0**
SRO				esP	sP	09 51 09.2	+0.6
KOLL	**Kolacno**	**76.92**	**319**	i P	**P**	**09 50 55.9**	**0.0**
OKC	**Ostrava-Krasne**	**77.24**	**320**	⇑iP	**P**	**09 50 57.9**	**+0.3**
OKC				epP	pP	09 51 07.9	+0.7
OKC				eS	S	10 00 38.2	-5.6
RAC	**Raciborz**	**77.24**	**320**	eP	**P**	**09 50 58.4**	**+0.8**
TIP	**Timpagrande**	**77.25**	**309**	⇑eP	**P**	**09 50 57.6**	**-0.3**
KEV	**Kevo**	**77.40**	**341**	ep	**P**	**09 50 57.8**	**-0.3**
	comp=Z,151nm,1.2s,mb5.8						
KEV	**Kevo**	**77.40**	**341**	eP	**P**	**09 50 57.8**	**-0.3**
KEV				pmax	pmax		
	comp=Z,151nm,1.2s,mb5.8						
GRI	**Girifalco**	**77.50**	**308**	eP	**P**	**09 51 00.1**	**+0.8**
ORI	**Oriolo Calabro**	**77.55**	**310**	eP	**P**	**09 51 00.7**	**+1.1**
SMOL	**Smolenice**	**77.56**	**318**	eP	**P**	**09 50 59.4**	**0.0**
MORC	**Moravsky Berou**	**77.62**	**320**	eP	**P**	**09 50 59.9**	**+0.2**
MORC				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.5						
MORC	**Moravsky Berou**	**77.62**	**320**	eP	**P**	**09 50 59.9**	**+0.1**
	comp=Z,1µm,1.8s,mb6.5						
ZST	**Bratislava**	**77.74**	**318**	i P	**P**	**09 51 00.9**	**+0.5**
SOI	**Samo**	**77.74**	**308**	eP	**P**	**09 51 01.4**	**+0.7**
ARCES	**ARCESS Array B**	**77.83**	**340**	P	**P**	**09 51 00.3**	**-0.1**
	comp=Z,100nm,1.1s,mb5.7,baz=105,slow=3.4,SNR=92						
ARCES				PP	PP	09 53 58.4	+0.2
	comp=Z,43nm,1.1s,baz=100,slow=7.4,SNR=5.4						
ARCES				S	S	10 00 47.5	-2.2
	comp=Z,2.5nm,1.0s,baz=326,slow=13,SNR=2.9						
ARE0	**ARCESS Array S**	**77.83**	**340**	eP	**P**	**09 50 60.0**	**-0.5**
SOP	**Sopron**	**78.06**	**317**	⇑iP	**P**	**09 51 02.5**	**+0.3**
GKP	**Gorka Klasztor**	**78.22**	**323**	⇑eP	**P**	**09 51 02.8**	**-0.1**
GKP				e		09 51 18.0	
GKP				eS	S	10 00 50.5	-3.8
GKP				e		10 01 14.1	
GKP	**Gorka Klasztor**	**78.22**	**323**	⇑eP	**P**	**09 51 02.8**	**-0.1**
	comp=Z,1.5nm,2.2s						
GKP				epP	pP	09 51 05.9	-6.6
GKP				ePcP	PcP	09 51 18.0	+5.3
GKP				eS	S	10 00 50.5	-3.8
GKP				eSKS	SKS	10 01 14.1	-4.4
GKP	**Gorka Klasztor**	**78.22**	**323**	eP	**P**	**09 51 02.8**	**-0.1**
	comp=Z,2µm,2.2s,mb6.5						
GKP				epP	pP	09 51 05.9	-6.6
GKP				ePcP	PcP	09 51 18.0	+5.3
GKP				eS	S	10 00 50.5	-3.8
GKP				eSKS	SKS	10 01 14.1	-4.4
GKP				MLR	MLR	10 31 16.4	
	comp=Z,2µm,22.2s,MS5.5						
BILL	**Bilibino**	**78.29**	**21**	eP	**P**	**09 51 01.9**	**-1.1**
BILL				pmax	pmax		
	comp=Z,495nm,1.5s,mb6.2						
BILL				MLR	MLR		
	comp=Z,18µm,19.0s,MS6.4						
BILL	**Bilibino**	**78.29**	**21**	eP	**P**	**09 51 01.9**	**-1.2**
	comp=Z,495nm,1.5s,mb6.2						
BILL				LR	LR		
	comp=Z,18µm,19.0s,MS6.4						
SGO	**Sicignano**	**78.45**	**310**	eP	**P**	**09 51 03.9**	**-0.6**
KTK1	**Kautokeino**	**78.45**	**340**	eP	**P**	**09 51 04.6**	**+0.7**
KTK1				AMb	AMB	09 51 07.2	
	comp=Z,465nm,1.7s,mb6.1						
KTK1	**Kautokeino**	**78.45**	**340**	eP	**P**	**09 51 04.6**	**+0.7**
	comp=Z,465nm,1.7s,mb6.1						
DPC	**Dobruska-Polom**	**78.46**	**320**	⇑iP	**P**	**09 51 05.2**	**+0.8**
DPC				epP	pP	09 51 14.5	+0.6
DPC				eS	S	10 00 52.0	-5.0
DPC				AMS	AMS	10 32 40.0	
	comp=Z,2µm,18.2s						
KSP	**Ksiaz**	**78.53**	**321**	⇑iP	**P**	**09 51 05.3**	**+0.6**
KSP				e	pP	09 51 13.0	-1.3
KSP				eS	S	10 00 51.0	-6.7
KSP				MLR	MLR		
	comp=Z,4µm,20.6s,MS5.7						
KSP	**Ksiaz**	**78.53**	**321**	⇑iP	**P**	**09 51 05.3**	**+0.6**
KSP				e	pP	09 51 13.0	-1.3
KSP				ePP	PP	09 53 51.0	-13
KSP				eS	S	10 00 51.0	-6.7
KSP				LR	LR		
	comp=Z,4µm,20.6s,MS5.7						
KSP	**Ksiaz**	**78.53**	**321**	eP	**P**	**09 51 05.2**	**+0.5**
	comp=Z,3µm,2.2s,mb6.8						
KSP				epP	pP	09 51 08.5	-5.8
KSP				eS	S	10 00 56.6	-1.1
KSP				esS		10 01 07.5	
KSP				eSKS	SKS	10 01 22.8	+2.1
KSP				MLR	MLR	10 33 00.9	
	comp=Z,3µm,20.7s,MS5.7						
GCIS	**Gornji Cirnik**	**78.54**	**316**	eP	**P**	**09 51 05.2**	**+0.3**
CRES	**Cresnjev**	**78.66**	**316**	eP	**P**	**09 51 05.5**	**0.0**
GROS	**Grobnik**	**78.67**	**316**	eP	**P**	**09 51 05.8**	**+0.2**
UPC	**Upice**	**78.68**	**320**	⇑iP	**P**	**09 51 06.1**	**+0.6**
UPC				epP	pP	09 51 14.2	-0.9
ARSA	**Arzberg**	**78.72**	**317**	⇑iP	**P**	**09 51 06.5**	**+0.7**
	comp=Z,395nm,1.5s,mb6.1						
BOJS	**Bojanci**	**78.78**	**315**	eP	**P**	**09 51 06.4**	**+0.2**
DRV	**Dumont d'Urvil**	**78.80**	**163**	S	S	10 01 05.0	+4.8
FX1	**Attu Island--F**	**78.88**	**37**	eP	**P**	**09 51 05.9**	**-0.7**
PERS	**Pernice**	**78.95**	**316**	eP	**P**	**09 51 07.7**	**+0.6**
	comp=Z,2µm,2.2s,mb6.7						
PERS	**Pernice**	**78.95**	**316**	eP	**P**	**09 51 07.6**	**+0.5**
SUR	**Sutherland**	**79.27**	**236**	⇑eP	**P**	**09 51 11.2**	**+2.1**
	comp=Z,64nm,0.9s,mb5.5						
SUR				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
LJU	**Ljubljana**	**79.32**	**316**	eP	**P**	**09 51 09.7**	**+0.5**
	comp=Z,3µm,2.1s,mb6.9						
OBKA	**Obir**	**79.33**	**316**	⇑iP	**P**	**09 51 09.8**	**+0.6**
	comp=Z,462nm,1.6s,mb6.2						
SMY	**Shemya**	**79.43**	**37**	P	**P**	**09 51 08.7**	**-0.9**
SMY				pmax	pmax		
	comp=Z,430nm,1.0s,mb6.3						
SMY	**Shemya**	**79.43**	**37**	eP	**P**	**09 51 09.1**	**-0.5**
PRU	**Pruhonice**	**79.57**	**320**	⇑iP	**P**	**09 51 10.7**	**+0.3**
	comp=Z,171nm,1.6s,mb5.7						
PRU				epP	pP	09 51 21.2	+1.2
PRU				eS	S	10 01 06.4	-2.3
PRU				AMS	AMS	10 36 20.0	
	comp=Z,2µm,17.9s						
PVCC	**Panska Ves**	**79.60**	**320**	⇑eS	S	10 01 05.0	-4.0
MOA	**Molln**	**79.61**	**318**	⇑iP	**P**	**09 51 10.8**	**+0.1**
	comp=Z,190nm,1.4s,mb5.8						
PRA	**Prague**	**79.65**	**320**	⇑P	**P**	**09 51 10.0**	**-0.8**
VOY	**Vojsko**	**79.76**	**316**	⇑eP	**P**	**09 51 11.6**	**+0.1**
VOY				e		09 51 31.3	
BSD	**Bornholm Skovb**	**79.78**	**325**	⇑iP	**P**	**09 51 10.7**	**-0.7**
BSD				i	pP	09 51 19.2	-1.8
BSD				pmax	pmax		
	comp=Z,114nm,1.0s,mb5.8						
BSD	**Bornholm Skovb**	**79.78**	**325**	⇑iP	**P**	**09 51 10.7**	**-0.7**
	comp=Z,114nm,1.0s,mb5.8						
BSD				i	pP	09 51 19.2	-1.8
TRI	**Trieste**	**79.83**	**315**	eP	**P**	**09 51 11.4**	**-0.5**
CADS	**Cadrg**	**79.88**	**316**	eP	**P**	**09 51 12.2**	**0.0**
PTQR	**Pietraquaria**	**79.94**	**312**	eP	**P**	**09 51 12.3**	**-0.3**
AQU	**L'Aquila**	**79.95**	**312**	eP	**P**	**09 51 13.0**	**+0.4**
BRG	**Berggiesshubel**	**80.02**	**321**	⇑iP	**P**	**09 51 13.3**	**+0.5**
BRG				i		09 51 30.8	
BRG				i S	S	10 01 11.6	-1.8
BRG				pmax	pmax		
	comp=Z,286nm,1.7s,mb5.9						
BRG	**Berggiesshubel**	**80.02**	**321**	⇑iP	**P**	**09 51 13.3**	**+0.5**
	comp=Z,286nm,1.7s,mb5.9						
BRG				i		09 51 30.8	
BRG				i S	S	10 01 11.6	-1.8
ROBS	**Robic**	**80.04**	**316**	i P	**P**	**09 51 12.9**	**-0.1**
GEC2	**GERESS Array S**	**80.05**	**319**	eP	**P**	**09 51 13.6**	**+0.6**
GEC2				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.6						
GEC2	**GERESS Array S**	**80.05**	**319**	eP	**P**	**09 51 13.6**	**+0.6**
	comp=Z,1µm,1.8s,mb6.6						
GERES	**GERESS Array B**	**80.05**	**319**	P	**P**	**09 51 13.5**	**+0.5**
	comp=Z,33nm,0.5s,mb5.5,baz=114,slow=5.0,SNR=140						
TRO	**Tromso**	**80.08**	**340**	eP	**P**	**09 51 11.4**	**-1.3**
TRO				AMb	AMB	09 51 13.8	
	comp=Z,332nm,1.4s,mb6.1						
TRO	**Tromso**	**80.08**	**340**	eP	**P**	**09 51 11.4**	**-1.3**
	comp=Z,332nm,1.4s,mb6.1						
KHC	**Kasperske Hory**	**80.14**	**319**	⇑iP	**P**	**09 51 13.8**	**+0.3**
KHC				epP	pP	09 51 28.5	+5.4
KHC				eS	S	10 01 11.0	-3.7
KHC				AMS	AMS	10 31 30.0	
	comp=Z,2µm,19.9s						
PTCC	**Patocco-Chiusa**	**80.15**	**316**	⇑iP	**P**	**09 51 13.6**	**0.0**
NRCA	**Norcia**	**80.18**	**312**	⇑iP	**P**	**09 51 13.8**	**0.0**
KBA	**Koelnbreinsper**	**80.19**	**317**	⇑iP	**P**	**09 51 13.9**	**+0.1**
	comp=Z,165nm,1.4s,mb5.8						
KBA	**Koelnbreinsper**	**80.19**	**317**	⇑iP	**P**	**09 51 13.9**	**+0.1**
KBA				pmax	pmax		
	comp=Z,165nm,1.4s,mb5.8						
GMNA	**Gemona**	**80.23**	**316**	⇑iP	**P**	**09 51 14.2**	**+0.2**
RUE	**Ruedersdorf**	**80.23**	**322**	⇑iP	**P**	**09 51 14.0**	**+0.2**
	comp=Z,2µm,1.9s,mb6.6						
SNTG	**Esanatoglia**	**80.32**	**313**	⇑iP	**P**	**09 51 14.9**	**+0.3**
ARV	**Arcevia**	**80.33**	**313**	⇑iP	**P**	**09 51 15.2**	**+0.6**
ERC	**Erice**	**80.48**	**308**	eP	**P**	**09 51 20.2**	**+4.7**
MNS	**Montasola**	**80.49**	**312**	eP	**P**	**09 51 14.9**	**-0.6**
FVI	**Forni Avoltri**	**80.56**	**316**	⇑iP	**P**	**09 51 15.8**	**+0.1**
WET	**Wettzell**	**80.60**	**319**	eP	**P**	**09 51 16.4**	**+0.5**
MURB	**Monte Urbino**	**80.63**	**313**	eP	**P**	**09 51 16.3**	**+0.2**
CLL	**Collm**	**80.64**	**321**	⇑iP	**P**	**09 51 15.9**	**-0.1**
CLL				eS	S	10 01 17.0	-2.8
CLL				pmax	pmax		
	comp=Z,528nm,1.9s,mb6.1						
CLL				MLR	MLR		
	comp=Z,3µm,21.4s,MS5.5						
CLL	**Collm**	**80.64**	**321**	⇑iP	**P**	**09 51 15.9**	**-0.1**
	comp=Z,528nm,1.9s,mb6.1						
CLL				eS	S	10 01 17.0	-2.8
CLL				LR	LR		
	comp=Z,3µm,21.4s,MS5.5						
CLL	**Collm**	**80.64**	**321**	⇑P	**P**	**09 51 15.9**	**-0.1**
	comp=Z,logA/T=2.4,mb6.1						
CLL				ePP	PP	09 54 17.0	-4.8
CLL				eS	S	10 01 17.0	-2.8
CLL				eSS	SS	10 06 36.0	+0.1
RSM	**Repubblica di**	**80.70**	**314**	⇑iP	**P**	**09 51 17.6**	**+1.1**
HFS	**Hagfors**	**80.90**	**330**	P	**P**	**09 51 16.8**	**-0.4**
	comp=Z,15nm,0.6s,mb5.1,baz=124,slow=5.2,SNR=6.5						
NKC	**Novy Kostel**	**80.93**	**320**	⇑iP	**P**	**09 51 18.0**	**+0.4**
NKC				eS	S	10 01 18.5	-4.4
NKC				AMS	AMS	10 33 20.0	
	comp=Z,2µm,20.8s						
BRSN	**Barisano**	**80.98**	**314**	eP	**P**	**09 51 19.9**	**+1.9**
BJO	**Bjornoya**	**81.04**	**345**	eP	**P**	**09 51 21.2**	**+3.4**
BJO1	**Bjornoya**	**81.08**	**345**	eP	**P**	**09 51 21.2**	**+3.2**
SFI	**Santa Sofia**	**81.14**	**313**	⇑iP	**P**	**09 51 20.3**	**+1.5**
MOR8	**Moi Rana**	**81.20**	**336**	eP	**P**	**09 51 17.7**	**-1.0**
MOR8				AMb	AMB	09 51 20.6	
	comp=Z,325nm,1.8s,mb6.0						
MOR8				epP	pP	09 51 27.6	-0.7
MOR8				esP	sP	09 51 32.5	+1.0
MOR8	**Moi Rana**	**81.20**	**336**	eP	**P**	**09 51 17.7**	**-1.0**
	comp=Z,325nm,1.8s,mb6.0						
PGD	**Poggio Sodo**	**81.23**	**313**	⇑iP	**P**	**09 51 20.5**	**+1.2**
COP	**Copenhagen**	**81.23**	**325**	⇑iP	**P**	**09 51 19.4**	**+0.3**
CTI	**Castel Tesino**	**81.32**	**316**	⇑iP	**P**	**09 51 20.5**	**+0.7**
VMG	**Vicchio**	**81.36**	**314**	eP	**P**	**09 51 21.1**	**+1.2**
WTTA	**Wattenberg**	**81.36**	**317**	⇑iP	**P**	**09 51 20.0**	**+0.1**
	comp=Z,287nm,1.3s,mb6.0						
WTTA	**Wattenberg**	**81.36**	**317**	⇑iP	**P**	**09 51 20.0**	**+0.1**
WTTA				pmax	pmax		
	comp=Z,287nm,1.3s,mb6.0						
WATA	**Walderalm**	**81.41**	**317**	⇑iP	**P**	**09 51 19.9**	**-0.3**
	comp=Z,28nm,0.5s,mb5.4						
WATA	**Walderalm**	**81.41**	**317**	⇑iP	**P**	**09 51 19.9**	**-0.3**
WATA				pmax	pmax		
	comp=Z,28nm,0.5s,mb5.5						
MOX	**Moxa**	**81.48**	**320**	eP	**P**	**09 51 20.7**	**+0.2**
MOX				pmax	pmax		
	comp=Z,646nm,2.0s,mb6.2						
MOX				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.4						
MOX	**Moxa**	**81.48**	**320**	i P	**P**	**09 51 20.7**	**+0.2**
	comp=Z,logA/T=2.5,mb6.2						
MOX				L		10 33 57.0	
MOX	**Moxa**	**81.48**	**320**	eP	**P**	**09 51 20.7**	**+0.2**
	comp=Z,646nm,2.0s,mb6.2						
MOX				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
SEI	**Scarperia**	**81.49**	**314**	eP	**P**	**09 51 21.5**	**+0.8**
CSNT	**Castellina Chi**	**81.53**	**313**	eP	**P**	**09 51 19.9**	**-1.0**
FUR	**Furstenfeldbru**	**81.63**	**318**	eP	**P**	**09 51 21.3**	**0.0**
SQTA	**Sankt Quirin**	**81.65**	**317**	⇑iP	**P**	**09 51 21.5**	**+0.1**
	comp=Z,43nm,0.5s,mb5.6						
SQTA	**Sankt Quirin**	**81.65**	**317**	⇑iP	**P**	**09 51 21.5**	**+0.1**
SQTA				pmax	pmax		
	comp=Z,43nm,0.5s,mb5.6						
FNVD	**Fontana Vidola**	**81.66**	**314**	⇑iP	**P**	**09 51 22.8**	**+1.2**
GRA1	**Grafenberg Arr**	**81.70**	**319**	eP	**P**	**09 51 22.5**	**+0.8**
	comp=Z,959nm,1.8s,mb6.4						
GRF	**Grafenberg Arr**	**81.70**	**319**	eP	**P**	**09 51 22.5**	**+0.8**
GRF				pmax	pmax		
	comp=Z,959nm,1.8s,mb6.4						
GRF	**Grafenberg Arr**	**81.70**	**319**	eP	**P**	**09 51 22.5**	**+0.8**
GRF				pmax	pmax		
	comp=Z,959nm,1.8s,mb6.4						
GRF	**Grafenberg Arr**	**81.70**	**319**	eP	**P**	**09 51 22.5**	**+0.8**
	comp=Z,959nm,1.8s,mb6.4						
MOTA	**Moosalm**	**81.73**	**317**	⇑iP	**P**	**09 51 21.7**	**-0.1**
	comp=Z,46nm,0.9s,mb5.4						
MOTA	**Moosalm**	**81.73**	**317**	⇑iP	**P**	**09 51 21.7**	**-0.1**
MOTA				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.4						
GRFL	**Gerfalco**	**81.76**	**313**	⇑iP	**P**	**09 51 21.7**	**-0.4**
ZCCA	**Zocca**	**81.77**	**314**	eP	**P**	**09 51 23.5**	**+1.4**
LOF	**Lofoten**	**81.78**	**338**	eP	**P**	**09 51 25.0**	**+3.3**
MSZ	**Milford Sound**	**81.97**	**136**	eP	**P**	**09 51 23.0**	**-0.2**
BDI	**Bagni Di Lucca**	**82.04**	**314**	eP	**P**	**09 51 23.1**	**-0.4**
GSCL	**Gusciola**	**82.05**	**314**	eP	**P**	**09 51 24.9**	**+1.4**
NSS	**Namsos**	**82.07**	**334**	eP	**P**	**09 51 22.8**	**-0.5**
PII	**Pisa**	**82.09**	**313**	eP	**P**	**09 51 22.9**	**-0.9**
SAL	**Salo**	**82.10**	**315**	⇑iP	**P**	**09 51 24.9**	**+1.1**
MAIM		**82.11**	**313**	P	**P**	**09 51 22.7**	**-1.2**
ERBM	**Eremo**	**82.17**	**314**	⇑iP	**P**	**09 51 25.8**	**+1.6**
NB2	**NORSAR Subarra**	**82.19**	**331**	P	**P**	**09 51 23.4**	**-0.5**
	comp=Z,423nm,1.7s,mb6.1,baz=96,slow=5.0						
NB2	**NORSAR Subarra**	**82.19**	**331**	P	**P**	**09 51 23.4**	**-0.5**

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      baz=96,slow=5.3
NB2   NORSAR Subarra   82.19 331  P      P      09 51 23.4 -0.5
NB2                               pmax   pmax
      comp=Z,423nm,1.7s,mb6.1
NOA   NORSAR Array B   82.19 331  P      P      09 51 23.2 -0.7
      comp=Z,50nm,1.3s,mb5.3,baz=94,slow=5.3,SNR=11
NOA                               PP     PP     09 54 41.8 +7.4
      comp=Z,44nm,1.4s,baz=87,slow=8.5,SNR=3.4
NOA                               LR     LR     10 33 40.5
      comp=Z,3µm,19.4s,MS5.6,baz=95,slow=40
NOA   NORSAR Array B   82.19 331  P      P      09 51 23.2 -0.7
NOA                               PP     PP     09 54 41.8 +7.4
NOA                               LR     LR     10 33 40.5
VLC   Villacollemand   82.19 314  eP     P      09 51 23.9 -0.5
BRMO  Bormio           82.22 316⇑iP     P      09 51 25.0 +0.6
FUORN Ofenpass         82.29 316⇑iP     P      09 51 25.5 +0.7
VALM                   82.29 314  P      P      09 51 24.5 -0.3
CLZ   Clausthal        82.30 321  eP     P      09 51 25.1 +0.4
      comp=Z,700nm,1.8s,mb6.3
MLZ   Mavora Lakes     82.32 137  P      P      09 51 21.0 -4.0
NAO01 NORSAR Array S   82.34 331  eP     P      09 51 22.8 -1.9
      comp=Z,26nm,0.8s,mb5.2
NAO01                             LR     LR
      comp=Z,4µm,20.0s,MS5.8
HDH   Heidenheim       82.35 318⇑eP     P      09 51 24.9 -0.1
VINC  Vinca            82.36 314  P      P      09 51 23.3 -1.9
BSEG  Bad Segeberg     82.38 324  eP     P      09 51 25.6 +0.5
HSP   Hornsund         82.40 347  eP     P      09 51 24.6 -0.2
UBR   Uberruh          82.41 317⇑eP     P      09 51 25.4 +0.1
BACM                   82.42 314  P      P      09 51 24.2 -1.3
GRAM                   82.42 314  P      P      09 51 23.9 -1.6
BERNI Berninapass      82.46 316⇑iP     P      09 51 26.7 +1.1
DAVOX Davos            82.56 316  S      S      10 01 37.3 -2.3
      comp=Z,42nm,1.4s,baz=234,slow=21,SNR=17
DAVOX Davos            82.56 316⇑iP     P      09 51 27.9 +1.7
DAVA  Damuels          82.56 317⇑iP     P      09 51 26.6 +0.5
      comp=Z,314nm,1.4s,mb6.2
CODM                   82.58 314  P      P      09 51 25.6 -0.7
SIND  Sindeldorf       82.75 319⇑eP     P      09 51 27.5 +0.4
VDL   Val di Lei       82.84 316⇑iP     P      09 51 28.1 +0.5
BOB   Bobbio (Coli)    82.86 314  eP     P      09 51 28.6 +0.8
PLONS Plons            82.90 317⇑iP     P      09 51 28.4 +0.5
BUCH  Bad Urach        82.92 318⇑eP     P      09 51 28.1 +0.1
KONO  Kongsberg        82.93 329  PFAKE         09 51 40.0  +12
KONO                              LR     LR
      comp=Z,4µm,19.0s,MS5.8
VSL   Villasalto       82.98 309  eP     P      09 51 28.4 -0.1
      comp=Z,767nm,1.9s,mb6.4
STU   Stuttgart        83.02 318  eP     P      09 51 28.5  0.0
STU                               pmax   pmax
      comp=Z,651nm,1.8s,mb6.4
STU   Stuttgart        83.02 318  eP     P      09 51 28.5  0.0
      comp=Z,651nm,1.8s,mb6.4
GUT   Gutenstein       83.08 318⇑eP     P      09 51 28.7 -0.1
MUD   Monsted U’grnd   83.09 326  i P    P      09 51 29.5 +0.8
MUD                               i             09 51 41.7
MUD                               pmax   pmax
      comp=Z,76nm,1.3s,mb5.6
MUD   Monsted U’grnd   83.09 326  i P    P      09 51 29.5 +0.8
      comp=Z,76nm,1.3s,mb5.6
MUD                               i             09 51 41.7
SYO   Syowa Base       83.11 197 ⇑P      P      09 51 29.6 +1.0
SYO   Syowa Base       83.11 197 ⇓PcP    PcP    09 51 35.5 +2.0
SYO   Syowa Base       83.11 197 ⇓pP     pP     09 51 40.2 +2.0
SYO   Syowa Base       83.11 197 ⇓sP     sP     09 51 45.5 +4.1
SYO   Syowa Base       83.11 197 ⇓PP     PP     09 54 43.1 +1.5
MUGIO Muggio           83.14 315⇑iP     P      09 51 29.8 +0.6
LLS   Linth-Limmern    83.16 316⇑iP     P      09 51 29.4 +0.2
WEIN  Weingarten       83.17 317⇑iP     P      09 51 28.6 -0.7
GENL  Genova Univers   83.21 314  P      P      09 51 28.6 -0.9
PGF   Pioggiola        83.21 312⇑iP     P      09 51 30.0 +0.4
      comp=Z,1µm,1.9s,mb6.4
WILA  Wila             83.22 317⇑iP     P      09 51 29.4 -0.2
STEIN Stein am Rhein   83.24 317⇑eP     P      09 51 29.7  0.0
DOMB  Dombas           83.26 332  eP     P      09 51 30.6 +1.1
DOMB                              AMb    AMB    09 51 32.3
      comp=Z,164nm,1.5s,mb5.8
DOMB                              epP    pP     09 51 40.0 +0.9
DOMB  Dombas           83.26 332  eP     P      09 51 30.6 +1.1
      comp=Z,164nm,1.5s,mb5.8
TOD   Tromm            83.28 319⇑eP     P      09 51 30.0 +0.2
TOD   Tromm            83.28 319  eP     P      09 51 29.9 +0.1
LBG   Lerchenberg      83.29 318⇑eP     P      09 51 29.9  0.0
SPAK  Spaichingen      83.30 318⇑eP     P      09 51 30.3 +0.4
SPAK  Spaichingen      83.30 318  eP     P      09 51 30.1 +0.2
VAI   Varese           83.33 315⇑iP     P      09 51 29.6 -0.6
SWS   Schriesheim      83.34 319⇑eP     P      09 51 30.1  0.0
TRULL Truellikon       83.37 317⇑eP     P      09 51 30.8 +0.5
FUSIO Fusio            83.40 316⇑eP     P      09 51 31.3 +0.8
MUO   Muotathal        83.41 317⇑iP     P      09 51 30.8 +0.3
ZUR   Zurich           83.44 317⇑iP     P      09 51 30.9 +0.2
TUZ   Tuapeka          83.47 137  P      P      09 51 25.0 -5.9
SLE   Schleitheim      83.50 317⇑iP     P      09 51 30.9 -0.1
PCP   Pian Castagno    83.51 314  P      P      09 51 30.2 -0.9
BFO   Black Forest     83.60 318  eP     P      09 51 31.4 -0.1
BFO                               pmax   pmax
      comp=Z,198nm,1.4s,mb6.0
BFO   Black Forest     83.60 318  eP     P      09 51 31.4 -0.1
      comp=Z,198nm,1.4s,mb6.0
HASLI Hasliberg        83.75 316⇑eP     P      09 51 32.6 +0.3
KTD   Kalmit           83.75 319⇑eP     P      09 51 32.5 +0.3
KTD   Kalmit           83.75 319  eP     P      09 51 32.4 +0.2
SULZ  Sulz-Cheisache   83.76 317⇑iP     P      09 51 32.3  0.0
FIN   Finale Ligure    83.76 314⇑iP     P      09 51 32.6 +0.2
FELD  Feldberg         83.83 317⇑eP     P      09 51 32.8 +0.1
MCGN  Macugnaga        83.88 316  eP     P      09 51 33.7 +0.7
KIZ   Kirchzarten      83.88 318⇑eP     P      09 51 32.9  0.0
ORO   Oropa            83.89 315  eP     P      09 51 32.0 -1.0
ORX   Oropa            83.89 315  P      P      09 51 31.5 -1.5
MMK   Mattmark         83.89 316⇑iP     P      09 51 33.3 +0.3
RPZ   Rata Peaks       83.91 135  P      P      09 51 33.2  0.0
      comp=Z,41nm,1.1s,mb5.5,baz=214,slow=0.9,SNR=8.4
LANF  Langenberg       83.94 319  eP     P      09 51 33.7 +0.5
STR   Strasbourg       83.97 318  eP     P      09 51 33.8 +0.4
IMI   Imperia          84.00 313⇑iP     P      09 51 34.1 +0.4
ROB   Roburent         84.00 314  P      P      09 51 32.9 -0.7
BALST Balsthal         84.05 317⇑iP     P      09 51 33.7 -0.1
ABH   Alteburg         84.09 319⇑eP     P      09 51 34.5 +0.6
ABH   Alteburg         84.09 319  eP     P      09 51 34.3 +0.4
MONE  Monesi           84.09 314  P      P      09 51 33.3 -0.8
LIBD  Limburg          84.09 318⇑eP     P      09 51 34.4 +0.4
LIBD  Limburg          84.09 318  eP     P      09 51 34.5 +0.5
LKBD  Leukerbad        84.11 316⇑iP     P      09 51 34.8 +0.6
BBS   Basel-Blauen     84.17 317⇑eP     P      09 51 34.2 -0.2
BBS   Basel-Blauen     84.17 317  eP     P      09 51 34.3 -0.1
SAOF  Saorge           84.23 314  eP     P      09 51 35.3 +0.5
WLS   Welschbruch      84.25 318  eP     P      09 51 34.9 +0.1
DIX   Grande Dixence   84.27 316⇑iP     P      09 51 35.8 +0.8
CDF   Champ du Feu     84.30 318⇑iP     P      09 51 34.8 -0.2
      comp=Z,708nm,1.9s,mb6.2
CDF   Champ du Feu     84.30 318⇑iP     P      09 51 34.8 -0.2
CDF                               pmax   pmax
      comp=Z,354nm,1.9s,mb6.2
ENR   Entracque        84.32 314  P      P      09 51 34.5 -0.8
SBF   Sospel           84.33 313⇑iP     P      09 51 35.3  0.0
      comp=Z,309nm,0.9s,mb6.1
SBF   Sospel           84.33 313⇑iP     P      09 51 35.3  0.0
SBF                               pmax   pmax
      comp=Z,155nm,0.9s,mb6.1
AUTN  L’Aution         84.33 314  eP     P      09 51 36.1 +0.8
SENIN Lac Senin        84.34 316⇑iP     P      09 51 35.9 +0.6
BOURR Bourrignon       84.36 317⇑iP     P      09 51 35.2 -0.2
REVF  Revere           84.38 313  eP     P      09 51 36.0 +0.5
ECH   Echery           84.38 318  eP     P      09 51 35.4 -0.1
STV2  Anna di Valdie   84.39 314  P      P      09 51 34.1 -1.5
STV   Sta Anna Valdi   84.39 314  P      P      09 51 34.2 -1.4
RUP   Ruppelstein      84.41 319⇑eP     P      09 51 36.0 +0.5
RUP   Ruppelstein      84.41 319  eP     P      09 51 36.2 +0.7
RSP   Reno Superiore   84.41 315  P      P      09 51 34.0 -1.7
MOF   Molkenrain       84.41 317  eP     P      09 51 35.4 -0.2
BHB   Bricherasio      84.42 314  P      P      09 51 34.0 -1.7
DOI   San Damiano      84.44 314  eP     P      09 51 35.1 -0.7
TOUF  Mont Tournerai   84.45 314  eP     P      09 51 36.7 +0.8
LSD   Ceresole Reale   84.47 315  P      P      09 51 36.1 +0.1
GRYON Gryon            84.48 316⇑eP     P      09 51 36.2 +0.2
WTSB  Winterswijk      84.51 322  eP     P      09 51 36.5 +0.5
      comp=Z,356nm,2.0s,mb6.2
MVIF  Mont Vial        84.53 313  eP     P      09 51 37.0 +0.7
BLS5  Blasjo           84.53 329  eP     P      09 51 37.1 +1.2
BLS5                              AMb    AMB    09 51 41.7
      comp=Z,142nm,1.8s,mb5.8
BLS5                              esP    sP     09 51 50.2 +1.5
BLS5  Blasjo           84.53 329  eP     P      09 51 37.1 +1.2
      comp=Z,142nm,1.8s,mb5.8
PZZ   Prazzo           84.54 314  P      P      09 51 34.9 -1.5
FENE  Fenestrelle      84.55 315  P      P      09 51 35.5 -0.9
TORNY Torny            84.56 316⇑eP     P      09 51 36.7 +0.3
WIT   Witteveen        84.57 322  eP     P      09 51 37.1 +0.9
SALAN Lac Salanfe      84.58 316⇑iP     P      09 51 37.1 +0.6
AIGLE Aigle            84.58 316⇑iP     P      09 51 36.8 +0.3
HINF  Hinteralfeld     84.60 317⇑iP     P      09 51 36.2 -0.4
      comp=Z,667nm,1.9s,mb6.1
HINF  Hinteralfeld     84.60 317⇑iP     P      09 51 36.2 -0.4
HINF                              pmax   pmax
      comp=Z,333nm,1.9s,mb6.1
EMV   Vieux Emosson    84.63 316⇑eP     P      09 51 37.2 +0.5
LOMF  Lomont           84.64 317  eP     P      09 51 36.8 +0.1
OG22  Abries           84.64 314  eP     P      09 51 36.9 +0.1
SURF  Saint Ours       84.75 314  eP     P      09 51 38.2 +0.8
RRL   Cesana Torines   84.75 315  P      P      09 51 36.9 -0.5
LPG   La Plagne        84.75 315⇑iP     P      09 51 37.9 +0.5
      comp=Z,342nm,1.1s,mb6.1
LPG   La Plagne        84.75 315⇑iP     P      09 51 37.9 +0.5
LPG                               pmax   pmax
      comp=Z,171nm,1.1s,mb6.1
LPL   La Plagne        84.77 315⇑iP     P      09 51 37.9 +0.5
      comp=Z,331nm,1.1s,mb6.1
LPL   La Plagne        84.77 315⇑iP     P      09 51 37.9 +0.5
LPL                               pmax   pmax
      comp=Z,165nm,1.1s,mb6.1
MBDF  Montbardon       84.77 314⇑iP     P      09 51 37.1 -0.4
      comp=Z,278nm,1.3s,mb5.9
MBDF  Montbardon       84.77 314⇑iP     P      09 51 37.1 -0.4
MBDF                              pmax   pmax
      comp=Z,139nm,1.3s,mb5.9
OG01  Vacheresse       84.77 316  eP     P      09 51 36.4 -1.0
KIWB  Kanaga Island    84.78  39  eP     P      09 51 36.9 -0.4
THZ   Tophouse         84.82 133  eP     P      09 51 36.2 -1.6
BNI   Bardonecchia     84.82 315  eP     P      09 51 37.6 -0.1
BNI                               pmax   pmax
      comp=Z,375nm,1.7s,mb6.2
BNI   Bardonecchia     84.82 315  eP     P      09 51 37.6 -0.2
      comp=Z,375nm,1.7s,mb6.2
BRANT Les Verrieres    84.89 317⇑eP     P      09 51 38.2 +0.2
HAU   Haudompre        84.93 318⇑iP     P      09 51 37.9 -0.3
      comp=Z,1µm,1.8s,mb6.5
HAU                               eR
      comp=Z,2µm,22.2s
HAU   Haudompre        84.93 318⇑iP     P      09 51 37.9 -0.3
HAU                               pmax   pmax
      comp=Z,630nm,1.8s,mb6.4
HAU                               MLR    MLR
      comp=Z,2µm,22.3s,MS5.4
WLF   Walferdange      85.00 319⇑eP     P      09 51 38.8 +0.3
WLF                               pmax   pmax
      comp=Z,791nm,1.9s,mb6.5
WLF   Walferdange      85.00 319⇑eP     P      09 51 38.8 +0.4
      comp=Z,791nm,1.9s,mb6.5
LMR   La Mourre        85.02 313⇑iP     P      09 51 38.9 +0.2
      comp=Z,1µm,1.7s,mb6.5
LMR   La Mourre        85.02 313⇑iP     P      09 51 38.9 +0.2
LMR                               pmax   pmax
      comp=Z,614nm,1.7s,mb6.5
HGN   Heimansgroeve    85.09 320  eP     P      09 51 39.0  0.0
      comp=Z,212nm,1.9s,mb5.9
THEF  They Montfort    85.17 318  eP     P      09 51 39.2 -0.2
CABF  La Chapelle      85.17 316⇑iP     P      09 51 39.8 +0.4
      comp=Z,1µm,1.7s,mb6.4
CABF  La Chapelle      85.17 316⇑iP     P      09 51 39.8 +0.4
CABF                              pmax   pmax
      comp=Z,592nm,1.7s,mb6.4
GDM   Grand’Maison     85.22 315  eP     P      09 51 40.2 +0.5
OG25  Le Caire         85.28 314  eP     P      09 51 40.7 +0.6
ORIF  Oris-en-Rattie   85.40 315⇑iP     P      09 51 41.0 +0.4
      comp=Z,1µm,1.9s,mb6.4
ORIF                              eR
      comp=Z,3µm,22.5s
KHZ   Kahutara         85.42 133  eP     P      09 51 39.9 -0.9
GSTR  Great Sitkin T   85.44  38  eP     P      09 51 39.0 -1.7
OG05  Jujurieux        85.63 316  eP     P      09 51 42.4 +0.6
SMRF  Simiane la Rot   85.66 314⇑iP     P      09 51 42.8 +0.8
      comp=Z,2µm,1.9s,mb6.6
HIZ   Hauiti           85.67 129  eP     P      09 51 42.1  0.0
MEZF  Maizieres J’vi   85.78 318⇑iP     P      09 51 42.5 +0.1
      comp=Z,951nm,1.9s,mb6.4
MIDW  Midway           85.78  62  PFAKE         09 51 50.0 +7.1
MIDW                              LR     LR
      comp=Z,4µm,19.0s,MS5.8
OCF   Saint Nazaire    85.83 314  eP     P      09 51 43.7 +1.0
OG26  St.-Nazaire-De   85.83 314  eP     P      09 51 43.7 +1.0
GIVF  Givet            85.84 320⇑iP     P      09 51 42.8 +0.1
      comp=Z,517nm,1.7s,mb6.2
GIVF  Givet            85.84 320⇑iP     P      09 51 42.8 +0.1
GIVF                              pmax   pmax
      comp=Z,259nm,1.7s,mb6.2
WAZ   Wanganui         85.99 130  P      P      09 51 43.1 -0.6
KUZ   Kuaotunu         86.05 127  eP     P      09 51 41.8 -2.3
BAIF  Baives           86.23 320⇑iP     P      09 51 45.0 +0.4
      comp=Z,949nm,1.8s,mb6.4
BAIF  Baives           86.23 320⇑iP     P      09 51 45.0 +0.4
BAIF                              pmax   pmax
      comp=Z,475nm,1.8s,mb6.4
VIVF  Saint-Julien-l   86.26 315⇑iP     P      09 51 45.1 +0.2
      comp=Z,1µm,1.8s,mb6.4
VIVF  Saint-Julien-l   86.26 315⇑iP     P      09 51 45.1 +0.2
VIVF                              pmax   pmax
      comp=Z,500nm,1.8s,mb6.4
SMF   Signal de Mont   86.71 316⇑iP     P      09 51 46.9 -0.2
      comp=Z,1µm,1.9s,mb6.5
SMF   Signal de Mont   86.71 316⇑iP     P      09 51 46.9 -0.2
SMF                               pmax   pmax
      comp=Z,535nm,1.9s,mb6.5
LASF  Ste Croix        86.89 314⇑iP     P      09 51 48.6 +0.6
      comp=Z,1µm,1.9s,mb6.5
COLF  Collangettes     86.90 315  eP     P      09 51 48.5 +0.5
SSF   Saint Saulge     86.91 317⇑iP     P      09 51 48.2 +0.2
      comp=Z,1µm,1.9s,mb6.4
SSF   Saint Saulge     86.91 317⇑iP     P      09 51 48.2 +0.2
SSF                               pmax   pmax
      comp=Z,520nm,1.9s,mb6.4
PLDF  La Plantade      86.92 316  eP     P      09 51 49.4 +1.3
BFZ   Birch Farm       87.10 131  eP     P      09 51 48.6 -0.5
LBL   Lubilhac         87.24 315  eP     P      09 51 51.5 +1.9
AGO   Saint Agoulin    87.25 316  eP     P      09 51 51.3 +1.6
PYM   Petit Puy Mans   87.36 316  eP     P      09 51 51.7 +1.5
URZ   Urewera          87.38 129  P      P      09 51 49.1 -1.4
      comp=Z,60nm,1.0s,mb5.8,baz=322,slow=3.2,SNR=18
BGF   Bois d’Agland    87.40 316⇑iP     P      09 51 50.8 +0.4
      comp=Z,1µm,1.9s,mb6.6
BGF   Bois d’Agland    87.40 316⇑iP     P      09 51 50.8 +0.4
BGF                               pmax   pmax
      comp=Z,722nm,1.9s,mb6.6
HYF   Humbligny        87.48 317⇑iP     P      09 51 51.4 +0.6
FRNF  Fournols         87.70 315  eP     P      09 51 52.8 +0.9
MWZ   Matawai          87.72 129  P      P      09 51 51.1 -1.0
EJON  La Jonquera      87.73 312  P      P      09 51 51.1 -1.0
      comp=Z,12nm,0.8s,mb5.2
TCF   Toulx Ste Croi   87.87 316⇑iP     P      09 51 53.0 +0.4
      comp=Z,640nm,1.8s,mb6.3
TCF   Toulx Ste Croi   87.87 316⇑iP     P      09 51 53.0 +0.4
TCF                               pmax   pmax
      comp=Z,320nm,1.8s,mb6.2
CAF   Calviac          88.10 315⇑iP     P      09 51 54.4 +0.6
      comp=Z,734nm,1.9s,mb6.3
CAF   Calviac          88.10 315⇑iP     P      09 51 54.4 +0.6
CAF                               pmax   pmax
      comp=Z,367nm,1.9s,mb6.3
MTLF  Montolieu        88.14 313⇑iP     P      09 51 54.5 +0.5
      comp=Z,944nm,1.9s,mb6.4
MTLF  Montolieu        88.14 313⇑iP     P      09 51 54.5 +0.5
MTLF                              pmax   pmax
      comp=Z,472nm,1.9s,mb6.4
RJF   Les Rejaudoux    88.45 315⇑iP     P      09 51 56.2 +0.8
      comp=Z,1µm,1.9s,mb6.5
RJF                               eR
      comp=Z,2µm,21.2s
RJF   Les Rejaudoux    88.45 315⇑iP     P      09 51 56.2 +0.8
RJF                               pmax   pmax
      comp=Z,599nm,1.9s,mb6.5
RJF                               MLR    MLR
      comp=Z,2µm,21.3s,MS5.5
WAL1  Walls            88.53 330  eP     P      09 51 55.3 -0.2
LMK   Market Rasen     88.72 323⇑eP     P      09 51 57.0 +0.5
KTG1  Tilbrook Grang   88.91 322⇑eP     P      09 51 53.5 -4.0
MLS   Moulis           89.00 313  eP     P      09 51 58.3 +0.2
LFF   La Frestale      89.03 315⇑iP     P      09 51 59.1 +0.9
      comp=Z,954nm,1.8s,mb6.5
LFF   La Frestale      89.03 315⇑iP     P      09 51 59.1 +0.9
LFF                               pmax   pmax
      comp=Z,477nm,1.8s,mb6.5
EPOB  Poblet           89.18 311  P      P      09 51 58.2 -0.9
      comp=Z,25nm,0.6s,mb5.7
LDF   La Druitiere     89.19 319⇑iP     P      09 51 59.1 +0.2
      comp=Z,1µm,1.9s,mb6.7
LDF   La Druitiere     89.19 319⇑iP     P      09 51 59.1 +0.2
LDF                               pmax   pmax
      comp=Z,713nm,1.9s,mb6.7
LCP   Cassop           89.22 325⇑eP     P      09 51 59.0 +0.2
EIBI  Ibiza            89.23 309  P      P      09 51 59.7 +0.3
JMIC  Jan Mayen        89.28 341  LR     LR     10 38 23.0
      comp=Z,2µm,21.4s,MS5.6,baz=76,slow=40
FLN   La Foliniere     89.41 319⇑iP     P      09 52 00.1 +0.2
      comp=Z,725nm,1.6s,mb6.4
FLN                               eR
      comp=Z,3µm,22.8s
FLN   La Foliniere     89.41 319⇑iP     P      09 52 00.1 +0.2
FLN                               pmax   pmax
      comp=Z,362nm,1.6s,mb6.5
FLN                               MLR    MLR
      comp=Z,3µm,22.8s,MS5.7
HPK   Haverah Park     89.42 324⇑eP     P      09 51 60.0 +0.1
MFF   Saint Martin d   89.45 317⇑iP     P      09 52 00.4 +0.2
      comp=Z,1µm,1.9s,mb6.6
KBI1  Birley Grange    89.46 323⇑eP     P      09 51 56.0 -4.0
EDR   Drumtochty       89.50 327  eP     P      09 52 00.9 +0.8
ANM   Nome             89.54  25  eP     P      09 52 00.4 +0.2
EPF   Esparros         89.54 313⇑iP     P      09 52 00.6 -0.1
      comp=Z,304nm,1.8s,mb6.0
EPF   Esparros         89.54 313⇑iP     P      09 52 00.6 -0.1
EPF                               pmax   pmax
      comp=Z,152nm,1.8s,mb6.0
RESF  Ens              89.57 313  eP     P      09 52 02.2 +1.4
LHO   Holmfirth        89.61 324⇑eP     P      09 52 01.2 +0.4
MATF  Mathat           89.65 316  eP     P      09 52 02.1 +1.0
EGRA  Graus            89.66 312  P      P      09 52 00.1 -1.1
      comp=Z,30nm,0.9s,mb5.6
KWE   Weaver Farm      89.68 323⇑eP     P      09 51 57.3 -3.8
EBR   Ebro Roquetas    89.68 311  eP     P      09 52 02.8 +1.4
EBR                               eTs           10 18 16.0
ESY   Stoneypath       89.69 326⇑eP     P      09 52 01.2 +0.2
ESY                               AMb    AMB    09 52 05.0
      comp=Z,144nm,1.8s,mb6.0
GRR   Gorron           89.70 318⇑iP     P      09 52 01.7 +0.4
      comp=Z,1µm,1.9s,mb6.6
GRR   Gorron           89.70 318⇑iP     P      09 52 01.7 +0.4
GRR                               pmax   pmax
      comp=Z,593nm,1.9s,mb6.6
EBIE  Bielsa           89.72 313  P      P      09 52 01.2 -0.4
      comp=Z,14nm,0.9s,mb5.3
ERTA  Horta de San J   89.79 311  P      P      09 52 01.3 -0.6
      comp=Z,49nm,1.1s,mb5.8
LCHF  La Chataignera   89.85 317  eP     P      09 52 03.3 +1.3
EBL   Broad Law        89.95 326  eP     P      09 52 02.4 +0.1
EDI   Edinburgh        90.01 326⇑eP     P      09 52 03.0 +0.5
EDI                               AMb    AMB    09 52 06.7
      comp=Z,261nm,1.8s,mb6.3
REYF  Montagne du Re   90.07 313  eP     P      09 52 04.2 +1.1
DAG   Danmarks Havn    90.07 348⇓iP     P      09 52 02.0 -0.4
DAG                               pmax   pmax
      comp=Z,529nm,2.0s,mb6.5
DAG   Danmarks Havn    90.07 348⇓iP     P      09 52 02.0 -0.4
      comp=Z,529nm,2.0s,mb6.5
ESK   Eskdalemuir      90.12 326⇑eP     P      09 52 03.3 +0.3
ESK                               AMb    AMB    09 52 07.2
      comp=Z,187nm,1.9s,mb6.1
ESK   Eskdalemuir      90.12 326  PFAKE         09 52 10.0 +6.9
ESK                               LR     LR
      comp=Z,564nm,20.0s,MS5.0
EAU   Auchinoon        90.17 326⇑eP     P      09 52 03.1 -0.2
EAU                               AMb    AMB    09 52 07.7
      comp=Z,259nm,1.8s,mb6.3
ETSF  Etsaut           90.21 313⇑iP     P      09 52 04.8 +1.0
      comp=Z,475nm,1.7s,mb6.3
ETSF  Etsaut           90.21 313⇑iP     P      09 52 04.8 +1.0
ETSF                              pmax   pmax
      comp=Z,238nm,1.7s,mb6.2
ESAC  San Caprasio     90.30 312  P      P      09 52 02.9 -1.3
      comp=Z,46nm,0.6s,mb6.0
VNDA  Vanda            90.33 168  P      P      09 52 04.5 +0.8
      comp=Z,3.6nm,0.6s,baz=302,slow=6.9,SNR=12
VNDA                              LR     LR     10 29 05.4
      comp=Z,5µm,18.6s,baz=298,slow=33
VNDA  Vanda            90.33 168  eP     P      09 52 03.6  0.0
VNDA                              pmax   pmax
      comp=Z,158nm,1.9s
VNDA                              MLR    MLR
      comp=Z,5µm,20.0s
VNDA  Vanda            90.33 168  eP     P      09 52 03.6 -0.1
      comp=Z,158nm,1.9s,mb6.0
VNDA                              LR     LR
      comp=Z,5µm,20.0s,MS5.9
RAO   Raoul Island     90.36 119  PFAKE         09 52 20.0  +15
RAO                               LR     LR
      comp=Z,3µm,22.0s,MS5.7
LRYF  La Roche-sur-Y   90.41 317  eP     P      09 52 05.4 +0.7
EMOS  Mosqueruela      90.47 310  P      P      09 52 04.4 -0.7
      comp=Z,59nm,0.8s,mb6.0
EBEN  Beniarda         90.49 309  P      P      09 52 05.7 +0.5
      comp=Z,26nm,0.9s,mb5.6
LARF  Larrau           90.50 313  eP     P      09 52 06.5 +1.3
MCH1  Michaelchurch    90.54 322  eP     P      09 52 02.4 -2.7
EAB   Aberfoyle        90.60 326⇑eP     P      09 52 05.9 +0.6
EAB                               AMb    AMB    09 52 09.6
      comp=Z,226nm,1.8s,mb6.2
SJPF  Ste Jean         90.67 313⇑iP     P      09 52 06.9 +1.0
      comp=Z,407nm,1.7s,mb6.2
SJPF  Ste Jean         90.67 313⇑iP     P      09 52 06.9 +1.0
SJPF                              pmax   pmax
      comp=Z,203nm,1.7s,mb6.2
SGMF  Saint Gilles     90.84 318⇑iP     P      09 52 06.9 +0.3
      comp=Z,1µm,1.8s,mb6.6
SGMF  Saint Gilles     90.84 318⇑iP     P      09 52 06.9 +0.3
SGMF                              pmax   pmax
      comp=Z,562nm,1.8s,mb6.6
EALK  Alkurruntz       90.86 313  P      P      09 52 02.9 -3.9
      comp=Z,28nm,0.9s,mb5.6
UNV   Unalaska Valle   90.98  36  eP     P      09 52 05.5 -1.6
      comp=Z,488nm,1.3s,mb6.7
UNV                               LR     LR
      comp=Z,9µm,21.0s,MS6.2
CART  Cartagena        91.24 308  eP     P      09 52 08.8 +0.1
      comp=Z,648nm,1.8s,mb6.7
QUIF  Quistinic        91.30 318⇑iP     P      09 52 08.8 +0.1
      comp=Z,704nm,1.7s,mb6.4
QUIF  Quistinic        91.30 318⇑iP     P      09 52 08.8 +0.1
QUIF                              pmax   pmax
      comp=Z,352nm,1.7s,mb6.4
ROSF  Rostrenen        91.30 319⇑iP     P      09 52 09.1 +0.4
      comp=Z,967nm,1.8s,mb6.5
ROSF  Rostrenen        91.30 319⇑iP     P      09 52 09.1 +0.4
ROSF                              pmax   pmax
      comp=Z,483nm,1.8s,mb6.5
EMUR  La Murta         91.39 308  P      P      09 52 11.1 +1.7
      comp=Z,14nm,0.8s,mb5.3
SBA   Scott Base       91.44 168  eP     P      09 52 10.6 +1.9
SBA                               pmax   pmax
      comp=Z,305nm,1.5s,mb6.4
SBA                               MLR    MLR
      comp=Z,3µm,19.0s,MS5.8
SBA   Scott Base       91.44 168  eP     P      09 52 10.6 +1.8
      comp=Z,305nm,1.5s,mb6.4
SBA                               LR     LR
      comp=Z,3µm,19.0s,MS5.8
ELAN  Lanestosa        92.25 314  P      P      09 52 11.1 -2.1
EVIA  Vianos           92.26 309  P      P      09 52 14.5 +1.1
EVIA                              pmax   pmax
      comp=Z,91nm,1.3s,mb6.0
EVIA  Vianos           92.26 309  P      P      09 52 14.5 +1.1
      comp=Z,91nm,1.3s,mb5.9
ENIJ  Nijar            92.28 307  P      P      09 52 14.0 +0.5
DLF   Lyons Farm       92.41 324  eP     P      09 52 14.6 +0.9
DMUB  Kingscourt       92.50 325  eP     P      09 52 13.3 -0.8
NVL   N’lazarevskaya   92.59 199⇓eP     P      09 52 25.0  +11
NVL                               eS     S      10 03 19.0 +5.5
NVL                               e             10 04 23.0
NVL                               pmax   pmax
      comp=Z,537nm,3.2s
EBER  Berja            92.83 307  P      P      09 52 17.8 +1.8
      comp=Z,27nm,0.7s,mb5.8
EQES  Quesada          92.83 308  P      P      09 52 17.7 +1.7
      comp=Z,20nm,0.9s,mb5.5
DCN   Croghan          92.84 324  eP     P      09 52 14.5 -1.1
GUD   Guadarrama       93.20 311  P      P      09 52 17.8 +0.2
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GUD                                  pmax     pmax
      comp=Z,103nm,1.3s,mb6.1
GUD   Guadarrama          93.20 311  P        P         09 52 17.8 +0.2
      comp=Z,103nm,1.3s,mb6.1
ESDC  Sonseca Array       93.22 310  P        P         09 52 18.7 +0.9
      comp=Z,6.2nm,0.5s,mb5.3,baz=59,slow=4.3,SNR=30
ESDC                                 PKKPbc             10 09 26.1
      comp=Z,0.8nm,0.6s,baz=315,slow=4.2,SNR=5.2
ESDC  Sonseca Array       93.22 310  P        P         09 52 17.8 +0.1
      comp=Z,6.3nm,0.6s,mb5.2
ESLA  Sonseca Array       93.22 310 eP        P         09 52 18.6 +0.9
      comp=Z,92nm,1.7s,mb5.9
ESLA                                 LR       LR
      comp=Z,9µm,20.0s,MS6.2
EBAN  Banos Encina        93.33 309  P        P         09 52 19.7 +1.4
EBAN                                 pmax     pmax
      comp=Z,8.0nm,0.6s,mb5.3
EBAN  Banos Encina        93.33 309  P        P         09 52 19.7 +1.5
      comp=Z,8.1nm,0.6s,mb5.3
SCO   Scoresbysund        93.62 342 i P       P         09 52 19.7 +0.8
      comp=Z,6.0nm,1.1s
ELOJ  Sierra Loja         93.79 308  P        P         09 52 20.8 +0.4
ELOJ                                 pmax     pmax
      comp=Z,3.0nm,0.3s,mb5.2
ELOJ  Sierra Loja         93.79 308  P        P         09 52 20.8 +0.4
      comp=Z,2.5nm,0.3s,mb5.1
IMA   Indian Mountai      93.81  22 eP        P         09 52 20.4 +0.6
EADA  Adamuz              93.95 309  P        P         09 52 20.4  -0.7
      comp=Z,12nm,0.8s,mb5.4
EMIJ  Mijas               94.37 307  P        P         09 52 23.4 +0.3
      comp=Z,18nm,1.0s,mb5.5
AFI   Afiamalu            94.75 103  PFAKE              09 52 40.0  +15
AFI                                  LR       LR
      comp=Z,1µm,19.0s,MS5.4
ECAL  Calabor             94.88 313  P        P         09 52 21.8  -3.6
ESPR  Espera              95.18 308  P        P         09 52 27.9 +1.1
      comp=Z,5.8nm,0.7s,mb5.1
EMIN  Mina Concepcio      95.65 309  P        P         09 52 28.1  -0.8
COLA  College             96.52  22 eP        P         09 52 32.0  -0.2
MCK   McKinley            96.61  24⇑eP        P         09 52 32.0  -0.7
MCK                                  pmax     pmax
      comp=Z,152nm,1.7s,mb6.2
MCK                                  MLR      MLR
      comp=Z,4µm,22.0s,MS5.8
MCK   McKinley            96.61  24⇑eP        P         09 52 32.0  -0.7
      comp=Z,152nm,1.7s,mb6.2
MCK                                  LR       LR
      comp=Z,4µm,22.0s,MS5.8
SUMG  Summit              96.74 347  P        P         09 52 32.8  -0.3
      comp=Z,514nm,2.3s,mb6.5
ILAR  Eielson Array       96.93  22  P        P         09 52 32.5  -1.5
      comp=Z,4.0nm,0.6s,baz=269,slow=3.8,SNR=69
ILAR                                 PP       PP        09 56 26.3  -5.9
      comp=Z,6.9nm,1.1s,baz=281,slow=6.8,SNR=5.6
ILAR                                 PKKPbc             10 09 11.8
      comp=Z,0.5nm,0.8s,baz=202,slow=0.5,SNR=4.1
FIB   Fire Island         97.20  26  PFAKE              09 52 50.0  +15
FIB                                  LR       LR
      comp=Z,3µm,21.0s,MS5.7
SNAA  Sanae               97.35 198 e         P         09 52 44.8 +8.9
SNAA  Sanae               97.35 198 e         P         09 52 46.0  +10
SNAA  Sanae               97.35 198  P        P         09 52 38.7 +2.9
      comp=Z,1.0nm,1.0s,baz=115,slow=4.4,SNR=5.8
SNAA  Sanae               97.35 198⇑iPdif     P         09 52 40.1 +4.2
      comp=Z,0.5nm,1.4s
SNAA                                e                   09 52 44.8
SNAA                                e                   09 52 46.0
KDAK  Kodiak Island       97.42  30 eP        P         09 52 36.2  -0.3
KDAK                                 LR       LR
      comp=Z,2µm,22.0s,MS5.5
SLKM  Skilak Lake         97.45  27 eP        P         09 52 36.2  -0.3
PMR   Palmer              97.47  26 eP        P         09 52 35.0  -1.6
SML   Sawmill             97.72  25⇑iP        P         09 52 37.9 +0.2
THY   Trims Highway       98.02  23⇑eP        P         09 52 38.5  -0.5
DBIC  Dimbokro            98.75 278  P        P         09 52 44.9 +1.4
      comp=Z,5.3nm,1.0s,baz=90,slow=3.9,SNR=4.8
DBIC  Dimbokro            98.75 278 eP        P         09 52 44.4 +0.9
DBIC                                 pmax     pmax
      comp=Z,28nm,1.6s
DBIC                                 MLR      MLR
      comp=Z,5µm,20.0s
DBIC  Dimbokro            98.75 278 eP        P         09 52 44.4 +0.9
      comp=Z,28nm,1.6s,mb5.5
DBIC                                 LR       LR
      comp=Z,5µm,20.0s,MS6.0
VNA2  Neumayer--Watz      98.91 199 e         P         09 52 54.5  +12
VNA2  Neumayer--Watz      98.91 199 e         P         09 52 55.9  +13
VNA2  Neumayer--Watz      98.91 199⇓iPdif     P         09 52 49.4 +6.5
VNA2                                e                   09 52 54.5
VNA2                                e                   09 52 55.9
DIV   Divide              99.12  25  PFAKE              09 53 00.0  +16
DIV                                  LR       LR
      comp=Z,14µm,20.0s,MS6.5
VNA1  Neumayer--Stat      99.24 199 e         P         09 52 58.9  +15
VNA1  Neumayer--Stat      99.24 199 e         P         09 53 00.2  +16
VNA1  Neumayer--Stat      99.24 199⇑iPdif     P         09 52 53.6 +9.2
VNA1                                e                   09 52 58.9
VNA1                                e                   09 53 00.2
INK   Inuvik              99.31  16  P        P         09 52 44.6  -0.1
      comp=Z,112nm,1.3s,mb6.2,baz=309,slow=5.5,SNR=40
VNA3  Neumayer Olymp      99.58 199 e         P         09 53 04.6  +19
VNA3  Neumayer Olymp      99.58 199 e         P         09 53 05.8  +20
VNA3  Neumayer Olymp      99.58 199⇓iPdif     P         09 52 59.5  +14
VNA3                                e                   09 53 04.6
VNA3                                e                   09 53 05.8
KIP   Kipapa             104.11  66  PFAKE              09 53 20.0  +13
KIP                                  LR       LR
      comp=Z,4µm,20.0s,MS5.9
SIT   Sitka              105.86  26  PFAKE              09 57 40.0
SIT                                  LR       LR
      comp=Z,6µm,20.0s,MS6.2
TRIS  Tristan da Cun     106.68 233  PFAKE              09 57 40.0
TRIS                                 LR       LR
      comp=Z,3µm,19.0s,MS5.8
DLBC  Dease Lake         107.13  23  Pdiff    Pdif      09 53 19.9 +0.3
      comp=Z,3.5nm,1.2s,baz=1.0,slow=8.7,SNR=4.7
DLBC                                 PP       PP        09 57 36.5   -13
      comp=Z,23nm,1.5s,baz=324,slow=6.9,SNR=3.8
DLBC                                 PKKP     PKKP      10 08 59.8 +8.4
      comp=Z,0.6nm,0.6s,baz=145,slow=9.5,SNR=3.1
DLBC  Dease Lake         107.13  23  Pdif     Pdif      09 53 19.9 +0.3
DLBC                                 PP       PP        09 57 36.5   -13
DLBC                                 PKKP     PKKP      10 08 59.8 +8.4
YKA   Yellowknife Ar     108.80  14  Pdiff    Pdif      09 53 27.2 +0.4
      comp=Z,2.1nm,1.0s,baz=330,slow=4.3,SNR=21
YKA                                  PP       PP        09 57 53.0  -9.1
      comp=Z,7.3nm,1.1s,baz=335,slow=7.5,SNR=9.2
YKA                                  PKKPbc             10 08 38.9
      comp=Z,0.3nm,0.5s,baz=143,slow=3.5,SNR=11
YKA                                  PKKP     PKKP      10 08 54.1 +5.8
      comp=Z,1.1nm,0.7s,baz=150,slow=3.1,SNR=12
YKA   Yellowknife Ar     108.80  14  Pdif     Pdif      09 53 27.2 +0.4
YKA                                  PP       PP        09 57 53.0  -9.2
YKA                                  PKKPbc             10 08 38.9
YKA                                  PKKP     PKKP      10 08 54.1 +5.8
TBI   Tubuai             115.87 113 ePP       PP        09 58 51.2  -2.7
TBI                                 ePS       PS        10 08 38.0 +7.4
TBI                                 eSS       SS        10 14 57.1 +7.8
TBI                                 eLR       LR        10 32 37.7
      comp=Z,4µm,23.0s
PPT   Papeete            116.18 107 ePS       PS        10 08 40.1 +6.6
PPT                                 eLR       LR        10 32 48.1
      comp=Z,2µm,22.8s
OCWA  Octopus Mounta     117.13  28  PFAKE              09 58 00.0 +7.9
OCWA                                 LR       LR
      comp=Z,3µm,21.0s,MS6.0
SCHQ  Schefferville      118.12 348  PKP      PKPdf     09 57 50.1  -3.7
      comp=Z,4.5nm,0.6s,baz=45,slow=3.2,SNR=24
SCHQ  Schefferville      118.12 348  PKP      PKPdf     09 57 50.1  -3.7
SCHQ                                 LR       LR
      comp=Z,5µm,20.0s,MS6.1
PMSA  Palmer Station     118.72 190  PFAKE              09 58 00.0 +5.2
PMSA                                 LR       LR
      comp=Z,4µm,20.0s,MS6.0
LON   Longmire           118.97  28  PKIKP    PKPdf     09 57 52.1  -3.6
WTV   Waterville         119.09  26  P        PKPdf     09 57 51.6  -4.3
TBM   Table Mountain     119.21  27  P        PKPdf     09 57 52.4  -3.8
COR   Corvallis          119.81  30  PFAKE              09 58 10.0  +13
COR                                  LR       LR
      comp=Z,857nm,20.0s,MS5.4
NEW   Newport            119.84  24  PKIKP    PKPdf     09 57 53.8  -3.5
NEW   Newport            119.84  24 ePKPdf    PKPdf     09 57 52.0  -5.4
NEW                                 ePKPdf    PKPdf     09 57 52.7  -4.6
NEW                                  LR       LR
      comp=Z,5µm,22.0s,MS6.1
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OD2   Odessa Site #2     119.87  25  P        PKPdf     09 57 53.6 -3.8
WRD   Warden             120.13  26  P        PKPdf     09 57 54.5 -3.4
RSW   Rattlesnake Hi     120.25  27  P        PKPdf     09 57 55.0 -3.2
VIPM  Ingram Point       121.19  29  PKIKP    PKPdf     09 57 57.0 -3.1
LNOR  Lincton Mounta     121.23  26  PKIKP    PKPdf     09 57 56.0 -4.1
HUMO  Hull Mountain      121.38  32 ePKPdf    PKPdf     09 57 57.2 -3.4
HUMO                                 LR       LR
      comp=Z,4µm,22.0s,MS6.0
YBH   Yreka Blue Hor     122.13  32  PKP      PKPdf     09 57 58.5 -3.4
      comp=Z,7.4nm,1.1s,baz=63,slow=2.4,SNR=5.8
YBH   Yreka Blue Hor     122.13  32  PKIKP    PKPdf     09 57 58.5 -3.4
YBH                                  MLR      MLR
      comp=Z,3µm,21.0s
MSO   Missoula           122.26  23 ePKPdf    PKPdf     09 57 57.3 -4.8
MSO                                 ePKPdf    PKPdf     09 57 57.7 -4.3
MSO                                  LR       LR
      comp=Z,3µm,22.0s,MS6.0
BMO   Blue Mountains     122.46  26 ePKIKP    PKPdf     09 57 57.5 -5.0
BMO                                  MLR      MLR
      comp=Z,2µm,19.0s,MS5.9
WDC   Whiskeytown Da     123.02  33 ePKIKP    PKPdf     09 57 58.9 -4.8
WDC                                  MLR      MLR
      comp=Z,3µm,21.0s,MS6.0
HRY   Holter Researc     123.15  21 ePKPdf    PKPdf     09 57 59.5 -4.2
MOD   Modoc              123.26  31 ePKPdf    PKPdf     09 58 00.9 -3.2
MOD                                 eSKP                10 01 33.0
MOD                                  LR       LR
      comp=Z,3µm,21.0s,MS5.9
HOPS  Hopland            123.82  35  PFAKE              09 58 10.0 +4.7
HOPS                                 LR       LR
      comp=Z,3µm,20.0s,MS5.9
ULM   Lac du Bonnet      123.93   8  PKP      PKPdf     09 58 02.0 -3.3
      comp=Z,27nm,1.0s,baz=354,slow=2.6,SNR=24
ULM                                  PP       PP        09 59 39.9 -8.8
      comp=Z,12nm,0.9s,baz=337,slow=7.2,SNR=4.1
ULM   Lac du Bonnet      123.93   8 ePKPdf    PKPdf     09 58 01.5 -3.7
ULM                                  LR       LR
      comp=Z,7µm,21.0s,MS6.3
DGMT  Dagmar             123.97  15 ePKPdf    PKPdf     09 58 00.9 -4.5
DGMT                                 LR       LR
      comp=Z,5µm,21.0s,MS6.2
BOZ   Bozeman (W)        124.13  22 ePKIKP    PKPdf     09 58 01.9 -3.9
BOZ                                  MLR      MLR
      comp=Z,5µm,19.0s,MS6.2
NSHM  Saint Helena R     124.41  35 ePKPdf    PKPdf     09 58 03.2 -3.3
HLID  Hailey             124.74  25 ePKPdf    PKPdf     09 58 03.3 -3.7
HLID                                 LR       LR
      comp=Z,7µm,22.0s,MS6.3
LAO   LASA Array         125.03  17⇑iPKPdf    PKPdf     09 58 04.4 -3.1
LAO                                  LR       LR
      comp=Z,6µm,20.0s,MS6.3
YMR   Madison River      125.21  22 ePKPdf    PKPdf     09 58 04.4 -3.5
YMR                                 eSKPdf              10 01 37.6
YNR   Norris Junctio     125.28  22 ePKPdf    PKPdf     09 58 05.2 -2.7
PAHR  Pah Rah Range      125.34  32 ePKPdf    PKPdf     09 58 05.1 -3.2
WCN   Washoe City        125.44  33 ePKIKP    PKPdf     09 58 04.5 -4.0
WCN                                 e                   09 59 53.2
YFT   Old Faithful       125.44  22 ePKPdf    PKPdf     09 58 06.6 -1.7
LKWY  Lake               125.51  22⇑ePKIKP    PKPdf     09 58 06.6 -1.8
LKWY                                 MLR      MLR
      comp=Z,8µm,20.0s,MS6.4
IMW   Indian Meadow      125.87  23 ePKPdf    PKPdf     09 58 05.8 -3.3
BMN   Battle Mountai     125.91  30 ePKIKP    PKPdf     09 58 05.5 -3.8
BMN                                 e                   09 59 57.7
BMN                                  MLR      MLR
      comp=Z,2µm,22.0s,MS5.7
CMB   Columbia Colle     126.00  34  PFAKE              09 58 20.0  +10
CMB                                  LR       LR
      comp=Z,2µm,22.0s,MS5.8
PQI   Presque Isle       126.00 345  PFAKE              09 58 20.0  +11
PQI                                  LR       LR
      comp=Z,30µm,22.0s,MS6.9
MOOW  Moose Ponds        126.07  23 ePKPdf    PKPdf     09 58 05.1 -4.4
TPAW  Teton Pass         126.21  23 ePKPdf    PKPdf     09 58 06.7 -3.1
TPAW                                eSKPdf              10 01 37.9
LOHW  Long Hollow        126.24  23⇑ePKPdf    PKPdf     09 58 06.3 -3.5
LOHW                                ePP       PP        09 59 57.9 -5.9
WUWY  Wally Ulrich       126.25  23⇑ePKPdf    PKPdf     09 58 06.6 -3.3
WUWY                                e                   09 58 23.2
WUWY                                eSKPdf              10 01 38.6
SAO   San Andreas Ge     126.28  36  PFAKE              09 58 20.0  +10
SAO                                  LR       LR
      comp=Z,2µm,20.0s,MS5.9
SNOW  Snow King Moun     126.31  23 ePKPdf    PKPdf     09 58 06.3 -3.7
REDW  Red Top Meadow     126.36  23 ePKPdf    PKPdf     09 58 06.6 -3.5
REDW                                eSKPdf              10 01 39.7
ELK   Elko               126.62  28⇑ePKIKP    PKPdf     09 58 07.4 -3.2
ELK                                  MLR      MLR
      comp=Z,3µm,21.0s
ELK   Elko               126.62  28⇑ePKPdf    PKPdf     09 58 07.4 -3.2
ELK                                 eSKPdf              10 01 39.6
ELK                                  LR       LR
      comp=Z,3µm,21.0s,MS5.9
EYMN  Ely                126.70   5 ePKPdf    PKPdf     09 58 06.3 -4.3
EYMN                                ePP       PP        09 59 57.0 -9.4
EYMN                                eSKPdf              10 01 38.0
EYMN                                 LR       LR
      comp=Z,3µm,20.0s,MS6.0
AHID  Auburn Hatcher     126.77  24 ePKPdf    PKPdf     09 58 07.0 -3.9
AHID                                 LR       LR
      comp=Z,3µm,19.0s,MS6.0
NVAR  Mina Array Bea     126.85  32  PKP      PKPdf     09 58 08.7 -2.4
      comp=Z,31nm,1.1s,baz=329,slow=0.8,SNR=56
NVAR                                 SKP                10 01 33.2
      comp=Z,3.2nm,0.7s,baz=287,slow=4.0,SNR=3.7
NVAR  Mina Array Bea     126.85  32  PKP      PKPdf     09 58 08.7 -2.4
NVAR                                 SKP                10 01 33.2
HVU   Hansel Valley      126.89  25 ePKPdf    PKPdf     09 58 07.3 -3.8
HVU                                 eSKPdf              10 01 39.1
MNV   Mina               126.92  32 ePKIKP    PKPdf     09 58 07.8 -3.5
MNV                                  MLR      MLR
      comp=Z,3µm,20.0s,MS5.9
OMM   Old Mammoth Mi     127.07  33 ePKPdf    PKPdf     09 58 08.4 -3.2
BW06  Boulder Array      127.36  22 ePKPdf    PKPdf     09 58 07.8 -4.2
BW06                                 LR       LR
      comp=Z,5µm,20.0s,MS6.2
PDAR  Pinedale Array     127.36  22  PKP      PKPdf     09 58 08.6 -3.5
      comp=Z,39nm,1.1s,slow=1.5,SNR=89
PDAR                                 PP       PP        10 00 05.5 -5.4
      comp=Z,4.2nm,1.0s,baz=14,slow=3.7,SNR=3.8
SPUT  South Promonto     127.42  26⇑ePKPdf    PKPdf     09 58 08.4 -3.8
BGU   Big Grassy Mou     127.48  26⇑iPKPdf    PKPdf     09 58 08.7 -3.7
MTUM  Tungsten Hills     127.49  33 ePKPdf    PKPdf     09 58 09.7 -2.8
HWUT  Hardware Ranch     127.55  25 ePKPdf    PKPdf     09 58 08.4 -4.0
HWUT                                 LR       LR
      comp=Z,5µm,22.0s,MS6.2
TPH   Tonopah            127.68  32⇑ePKIKP    PKPdf     09 58 09.2 -3.6
TPH                                  MLR      MLR
      comp=Z,2µm,22.0s,MS5.8
NOQ   North Oquirrh      128.10  26 ePKPdf    PKPdf     09 58 09.8 -3.8
TRCR  Troy Canyon        128.31  30 ePKPdf    PKPdf     09 58 11.0 -3.1
WVL   Waterville         128.38 346  PFAKE              09 58 20.0 +6.0
WVL                                  LR       LR
      comp=Z,16µm,20.0s,MS6.7
EFI   East Falkland      128.52 201  PFAKE              09 58 20.0 +6.0
EFI                                  LR       LR
      comp=Z,779nm,20.0s,MS5.4
DAU   Daniels Canyon     128.67  25 ePKIKP    PKPdf     09 58 11.4 -3.3
NLU   North Lily Min     128.69  26 ePKPdf    PKPdf     09 58 11.2 -3.6
DAC   Darwin (Calif)     128.81  34 ePKIKP    PKPdf     09 58 11.7 -3.4
DAC                                  MLR      MLR
      comp=Z,2µm,19.0s,MS5.7
MPU   Maple Canyon       128.84  26 ePKPdf    PKPdf     09 58 11.4 -3.6
MPU                                 ePP       PP        10 00 14.5 -6.8
TPNV  Topopah Spring     129.04  32 ePKIKP    PKPdf     09 58 11.6 -3.9
TPNV                                 MLR      MLR
      comp=Z,2µm,21.0s,MS5.8
RKT   Rikitea            129.06 115 eSS       SS        10 17 45.8 +7.9
RKT                                 eLR       LR        10 38 22.2
      comp=Z,4µm,35.2s
RWWY  Rawlins            129.16  21 ePKPdf    PKPdf     09 58 11.3 -4.3
RWWY                                ePP       PP        10 00 16.7 -6.7
TMUT  Trail Mountain     129.61  26 ePKPdf    PKPdf     09 58 13.4 -3.1
MDV   Middlebury         129.70 349 ePKPdf    PKPdf     09 58 12.9 -3.7
ARUT  Antelope Range     129.81  29 ePKIKP    PKPdf     09 58 13.5 -3.4
MVU   Marysvale          129.81  27 ePKPdf    PKPdf     09 58 14.2 -2.7
MVU                                 ePP       PP        10 00 21.4 -6.0
MVU                                  LR       LR
      comp=Z,2µm,22.0s,MS5.8
MSU   Marysvale          129.82  27 ePKPdf    PKPdf     09 58 14.3 -2.6
MSU                                 ePP       PP        10 00 22.0 -5.4
MSU                                 eSKP                10 01 30.1
NCB   Newcomb            129.93 349  PFAKE              09 58 20.0 +3.0
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NCB                                  LR       LR
      comp=Z,3µm,21.0s,MS6.0
SRU   San Rafael         130.06  26 ePKIKP    PKPdf     09 58 13.4  -4.0
PHWY  Pilot Hill         130.12  20 ePKPdf    PKPdf     09 58 12.1  -5.3
RCBR  Riachuelo          130.76 267  PFAKE              09 58 30.0  +11
RCBR                                 LR       LR
      comp=Z,3µm,19.0s,MS6.0
NEN   Nelson             130.76  32 ePKPdf    PKPdf     09 58 15.2  -3.5
NEN                                 eSKP                10 01 33.5
HRV   Harvard--Oak R     130.78 347  PFAKE              09 58 30.0  +11
HRV                                  LR       LR
      comp=Z,3µm,21.0s,MS6.0
WES   Weston             130.84 346  PFAKE              09 58 30.0  +11
WES                                  LR       LR
      comp=Z,4µm,20.0s,MS6.1
PV10  Paradox Valley     131.31  25 ePKPdf    PKPdf     09 58 16.2  -3.5
PV10                                eSKPbc              10 01 36.4
PFO   Pinyon Flat Ob     131.39  35 ePKIKP    PKPdf     09 58 16.8  -3.2
PFO                                  MLR      MLR
      comp=Z,662nm,22.0s,MS5.3
PFO   Pinyon Flat Ob     131.39  35 ePKPdf    PKPdf     09 58 16.8  -3.2
PFO                                 eSKPbc              10 01 35.2
PFO                                  LR       LR
      comp=Z,662nm,22.0s,MS5.3
ISCO  Idaho Springs      131.40  21 ePKIKP    PKPdf     09 58 14.6  -5.3
ISCO                                e                   10 00 32.8
ISCO                                 MLR      MLR
      comp=Z,4µm,20.0s,MS6.1
GENY  Geneseo            131.66 353 ePKPdf    PKPdf     09 58 16.8  -3.4
GENY                                eSKPbc              10 01 37.5
PV01  Paradox Valley     131.71  25 ePKPdf    PKPdf     09 58 15.5  -5.0
PV01                                ePP       PP        10 00 34.1  -5.7
PV01                                eSKPbc              10 01 37.1
JFWS  Jewell Farm        131.81   5 ePKIKP    PKPdf     09 58 15.4  -5.1
JFWS                                e                   10 00 32.5
JFWS                                 MLR      MLR
      comp=Z,3µm,21.0s,MS6.0
JFWS  Jewell Farm        131.81   5 ePKPdf    PKPdf     09 58 15.4  -5.1
JFWS                                ePP       PP        10 00 32.5  -7.7
JFWS                                eSKPbc              10 01 37.1
JFWS                                 LR       LR
      comp=Z,3µm,21.0s,MS6.0
BINY  Binghamton         131.95 351  PFAKE              09 58 30.0 +9.2
BINY                                 LR       LR
      comp=Z,4µm,19.0s,MS6.1
RW3   Ridgway            131.97  24 ePKIKP    PKPdf     09 58 17.9  -3.1
RW3                                 e                   10 00 34.6
ERPA  Erie               132.55 355 ePKPdf    PKPdf     09 58 18.3  -3.7
ERPA                                eSKPbc              10 01 39.5
ERPA                                 LR       LR
      comp=Z,4µm,19.0s,MS6.1
ALLY  Alegheny Colle     133.03 355 ePKPdf    PKPdf     09 58 19.1  -3.8
ALLY                                eSKPbc              10 01 42.0
SDCO  Great Sand Dun     133.26  22 ePKPdf    PKPdf     09 58 19.5  -3.9
SDCO                                ePP       PP        10 00 41.5  -7.8
SDCO                                 LR       LR
      comp=Z,5µm,20.0s,MS6.2
SSPA  Standing Stone     133.77 352 ePKPdf    PKPdf     09 58 21.1  -3.1
SSPA                                eSKP                10 01 44.6
SSPA                                 LR       LR
      comp=Z,578nm,22.0s,MS5.2
KSU1  Kansas State U     134.61  12 ePKPdf    PKPdf     09 58 20.7  -5.2
KSU1                                eSKPbc              10 01 46.9
ACSO  Alum Creek Sta     134.63 357 ePKPdf    PKPdf     09 58 21.6  -4.3
ACSO                                ePP       PP        10 00 48.4   -10
ACSO                                ePKPbc              10 01 47.1
ACSO                                 LR       LR
      comp=Z,4µm,22.0s,MS6.1
MCWV  Mont Chateau       134.97 354  PFAKE              09 58 30.0 +3.4
MCWV                                 LR       LR
      comp=Z,4µm,22.0s,MS6.1
ANMO  Albuquerque        135.31  25  PKhKP              09 58 12.1
      comp=Z,1.3nm,0.7s,baz=342,slow=3.4,SNR=5.7
ANMO                                 PKP      PKPdf     09 58 24.4  -2.9
      comp=Z,30nm,1.1s,baz=271,slow=1.2,SNR=28
ANMO                                 PP       PP        10 00 53.1  -9.3
      comp=Z,4.1nm,1.0s,baz=346,slow=3.9,SNR=4.6
ANMO                                 SKP                10 01 51.9
      comp=Z,36nm,1.2s,baz=326,slow=2.3,SNR=14
ANMO  Albuquerque        135.31  25 ePKHKP              09 58 09.0
ANMO                                e                   09 58 24.1
ANMO  Albuquerque        135.31  25 ePKPpre             09 58 09.0
ANMO                                 PKP      PKPdf     09 58 12.1   -15
ANMO                                ePKPdf    PKPdf     09 58 24.1  -3.2
ANMO                                 PKP      PKPdf     09 58 24.4  -2.9
ANMO                                 PP       PP        10 00 53.1  -9.3
ANMO                                 SKP                10 01 51.9
TUC   Tucson             135.47  31  PKHKP              09 58 14.6
TUC                                 e                   09 58 19.8
TUC                                  MLR      MLR
      comp=Z,2µm,22.0s,MS5.8
TUC   Tucson             135.47  31 ePKPdf    PKPdf     09 58 24.5  -3.1
TUC                                 eSKPbc              10 01 50.9
TUC                                  LR       LR
      comp=Z,2µm,22.0s,MS5.8
CBN   Corbin             136.08 351  PFAKE              09 58 40.0  +11
CBN                                  LR       LR
      comp=Z,5µm,21.0s,MS6.2
CCM   Cathedral Cave     136.52   7 ePKPdf    PKPdf     09 58 25.4  -3.9
CCM                                 eSKPbc              10 01 51.2
FVM   French Village     136.68   6  PKPdf    PKPdf     09 58 25.3  -4.4
FVM                                 eSKPbc              10 01 53.2
WCI   Wyandotte Cave     136.68   1 ePKIKP    PKPdf     09 58 25.4  -4.3
WCI                                  MLR      MLR
      comp=Z,941nm,21.0s,MS5.5
USIN  University of      136.90   3 ePKPdf    PKPdf     09 58 25.3  -4.7
FWV   Forest Hill        137.12 355 ePKPdf    PKPdf     09 58 26.2  -4.3
AMTX  Amarillo           137.18  20  PKPpre             09 58 16.2
AMTX                                 LR       LR
      comp=Z,5µm,21.0s,MS6.2
PWV   Princeton          137.39 355 ePKPdf    PKPdf     09 58 26.4  -4.6
BLA   Blacksburg         137.45 354  PFAKE              09 58 40.0 +8.8
BLA                                  LR       LR
      comp=Z,3µm,20.0s,MS6.1
BBSR  BB Station         137.68 334  PFAKE              09 58 40.0 +8.3
BBSR                                 LR       LR
      comp=Z,3µm,20.0s,MS6.1
WMOK  Wichita Mounta     138.22  17 ePKHKP              09 58 15.2
WMOK                                e                   09 58 28.9
WMOK                                e                   10 01 14.4
PVMO  Portageville       138.31   5 ePKPdf    PKPdf     09 58 29.2  -3.5
UTMT  University of      138.44   4 ePKPdf    PKPdf     09 58 29.2  -3.9
GLAT  Glass              138.48   5 ePKPdf    PKPdf     09 58 29.7  -3.4
GLAT                                ePP       PP        10 01 10.3   -12
GLAT                                eSKP                10 02 00.5
MNTX  Cornudas Mount     138.56  26  PFAKE              09 58 40.0 +6.7
MNTX                                 LR       LR
      comp=Z,3µm,20.0s,MS6.1
WVT   Waverly            138.72   3 ePKPpre             09 58 18.9
WVT                                 ePKPdf    PKPdf     09 58 29.2  -4.3
WVT                                 eSKP                10 02 00.1
HALT  Halls              138.84   5 ePKPdf    PKPdf     09 58 30.1  -3.6
HALT                                ePP       PP        10 01 18.9  -5.6
HBAR  Harrisburg         139.06   7 ePKPdf    PKPdf     09 58 31.0  -3.1
CPCT  Cooper Cave        139.46 359 ePKPdf    PKPdf     09 58 30.8  -4.1
CPCT                                eSKPdf              10 02 01.6
UALR  University of      139.60   9 ePKPdf    PKPdf     09 58 31.0  -4.1
MIAR  Mount Ida          139.62  10 ePKHKP              09 58 21.7
MIAR                                e                   09 58 31.3
MIAR                                 MLR      MLR
      comp=Z,4µm,21.0s,MS6.1
MIAR  Mount Ida          139.62  10 ePKPpre             09 58 21.6
MIAR                                ePKPdf    PKPdf     09 58 31.3  -3.8
MIAR                                eSKP                10 02 02.1
MIAR                                 LR       LR
      comp=Z,4µm,21.0s,MS6.1
OXF   Oxford             140.22   5 ePKIKP    PKPdf     09 58 26.6   -10
OXF                                  MLR      MLR
      comp=Z,4µm,20.0s,MS6.2
OXF   Oxford             140.22   5 ePKPpre             09 58 26.6
OXF                                 ePP       PP        10 01 22.3   -11
OXF                                 eSKPdf              10 02 04.0
OXF                                  LR       LR
      comp=Z,4µm,20.0s,MS6.2
JSC   Jenkinsville       140.44 355 ePKPdf    PKPdf     09 58 32.0  -4.6
JSC                                 ePP       PP        10 01 29.0  -5.2
JSC                                 eSKPdf              10 02 04.2
TRQA  Tornquist          141.06 210  PFAKE              09 58 50.0  +12
TRQA                                 LR       LR
      comp=Z,4µm,19.0s,MS6.2
COW   Cow Castle Cre     141.27 354 ePKPdf    PKPdf     09 58 34.1  -4.1
LTX   Lajitas            141.34  26 ePKHKP              09 58 26.4
LTX                                 e                   09 58 34.0
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LTX				MLR	MLR		
	comp=Z,3µm,22.0s,MS6.0						
LTX	**Lajitas**	**141.34**	**26**	*e*PKPpre		09 58 26.4	
LTX				*e*PKPpre		09 58 27.9	
LTX				*e*PKPdf	PKPdf	09 58 34.0	-4.5
LTX				LR	LR		
	comp=Z,3µm,22.0s,MS6.0						
TXAR	**Lajitas Array**	**141.34**	**26**	PKhKP		09 58 28.4	
	comp=Z,3.2nm,0.7s,baz=321,slow=0.9,SNR=28						
TXAR				PKP	PKPdf	09 58 34.6	-3.8
	comp=Z,8.1nm,0.7s,baz=270,slow=0.9,SNR=26						
TXAR				PP	PP	10 01 39.0	-0.8
	comp=Z,19nm,1.2s,baz=342,slow=4.0,SNR=6.2						
TXAR				SKPbc		10 02 09.8	
	comp=Z,3.7nm,0.6s,baz=28,slow=1.1,SNR=7.3						
GOGA	**Godfrey**	**141.45**	**357**	*e*PKIKP	PKPdf	09 58 35.3	-3.2
GOGA				MLR	MLR		
	comp=Z,3µm,19.0s,MS6.1						
GOGA	**Godfrey**	**141.45**	**357**	*e*PKPdf	PKPdf	09 58 35.3	-3.2
GOGA				*e*SKP		10 02 07.7	
GOGA				LR	LR		
	comp=Z,3µm,19.0s,MS6.1						
NHSC	**New Hope**	**141.48**	**353**	PFAKE		09 58 50.0	+11
NHSC				LR	LR		
	comp=Z,3µm,21.0s,MS6.1						
JCT	**Junction City**	**141.84**	**20**	*e*PKPpre		09 58 29.5	
JCT				*e*PKPdf	PKPdf	09 58 35.8	-3.5
JCT				*e*PP	PP	10 01 38.3	-4.5
JCT				*e*SKP		10 02 07.3	
LRAL	**Lakeview Retre**	**141.84**	**2**	*e*PKPpre		09 58 30.0	
LRAL				*e*PKPdf	PKPdf	09 58 35.7	-3.5
LRAL				*e*PP	PP	10 01 35.0	-7.8
LRAL				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
BAO	**Brasilia Array**	**141.89**	**251**	PKP	PKPdf	09 58 32.7	-7.0
BDFB	**Brasilia**	**141.91**	**251**	PKhKP		09 58 33.1	
	comp=Z,5.4nm,0.9s,baz=28,slow=4.0,SNR=4.2						
NATX	**Nacogdoches**	**142.10**	**13**	*e*PKPpre		09 58 30.2	
NATX				*e*SKP		10 02 05.0	
NATX				LR	LR		
	comp=Z,5µm,20.0s,MS6.3						
HKT	**Hockley**	**143.54**	**15**	*e*PKIKP	PKPdf	09 58 34.7	-7.5
HKT				MLR	MLR		
	comp=Z,933nm,19.0s,MS5.6						
HKT	**Hockley**	**143.54**	**15**	*e*PKPpre		09 58 34.7	
HKT				*e*PKPpre		09 58 35.0	
HKT				*e*PP	PP	10 01 42.2	-11
HKT				*e*SKPbc		10 02 14.4	
HKT				LR	LR		
	comp=Z,933nm,19.0s,MS5.6						
DWPF	**Disney**	**146.56**	**354**	PKPdf	PKPdf	09 58 45.6	-1.9
DWPF	**Disney**	**146.56**	**354**	*e*PKPdf	PKPdf	09 58 43.6	-3.9
DWPF				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
RPN	**Rapa Nui**	**148.51**	**136**	PFAKE		09 59 00.0	+9.3
RPN				LR	LR		
	comp=Z,529nm,21.0s,MS5.3						
BBL	**Barber's Block**	**148.54**	**312**	*e*P	PKPdf	09 58 49.5	-1.5
CJM	**Chamela**	**148.67**	**38**	*e*P	PKPdf	09 58 43.2	-7.9
MVM	**Montagne Vaucl**	**148.71**	**309⇑**	*e*P	PKPdf	09 58 47.6	-3.7
FCH	**Farellones**	**148.78**	**205**	*e*P	PKPdf	09 58 41.7	-9.2
FDF	**Fort de France**	**148.79**	**310⇓**	*e*P	PKPdf	09 58 48.9	-2.5
BIM	**Bigot**	**148.87**	**310⇓**	*e*P	PKPdf	09 58 49.0	-2.5
COLM	**Colima**	**149.72**	**36**	*e*P	PKPdf	09 58 53.2	+0.4
SJG	**San Juan**	**149.97**	**321**	*e*PKHKP		09 58 49.4	
SJG				*e*		09 58 54.6	
SJG				MLR	MLR		
	comp=Z,3µm,22.0s						
TPR	**Prospect**	**150.53**	**304**	*e*P	PKPdf	09 58 53.4	-0.8
MOIG	**Morelia**	**150.71**	**32**	*i* P	PKPdf	09 58 51.8	-2.5
GRW	**Mount Saint Ca**	**150.72**	**306**	*e*P	PKPdf	09 58 58.2	+3.8
TRN	**Trinidad (W)**	**151.34**	**304**	*e*P	PKPdf	09 58 59.8	+4.4
TPP	**Pointe-a-Pierr**	**151.56**	**303**	*e*P	PKPdf	09 58 56.4	+0.7
TLL	**Tololo Astrono**	**151.70**	**207**	*e*P	PKPdf	09 58 52.5	-3.0
UNM	**Universidad Na**	**152.01**	**29**	*i* PKIKP	PKPdf	09 58 51.3	-5.0
YAIG	**Yautepec**	**152.46**	**29**	*e*P	PKPdf	09 58 51.1	-5.8
PPM	**Popocatepetl**	**152.50**	**28**	*i* PKIKP	PKPdf	09 58 54.7	-2.3
PLIG	**Platanillo**	**152.65**	**30**	*i* P	PKPdf	09 58 54.3	-2.9
PCRV	**Puerto La Cruz**	**154.24**	**307**	PP	PP	10 02 50.5	-4.9
	comp=Z,6.6nm,0.9s,baz=34,slow=17,SNR=3.1						
TEIG	**Tepich**	**154.47**	**6**	*e*PKPbc	PKPdf	09 59 03.8	+4.2
TEIG				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
VHO	**Vista Hermosa**	**155.10**	**27**	*i* P	PKPdf	09 58 58.0	-2.5
CMIG	**Matias Romero**	**155.85**	**23**	*i* P	PKPdf	09 58 56.5	-4.9
HUIG	**Huatulco**	**156.53**	**27**	*i* P	PKPdf	09 58 59.7	-2.7
LVC	**Limon Verde**	**156.56**	**221**	PKP	PKPdf	09 58 59.9	-2.4
	comp=Z,4.1nm,0.7s,baz=154,slow=2.2,SNR=4.2						
LVC	**Limon Verde**	**156.56**	**221**	*e*PKPdf	PKPdf	09 59 00.2	-2.1
LVC				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
CCIG	**Comitan**	**157.54**	**17**	*i* P	PKPdf	09 58 59.3	-4.5
SDV	**Santo Domingo**	**159.63**	**314**	PP	PP	10 03 17.9	-6.5
	comp=Z,4.6nm,0.8s,baz=37,slow=9.5,SNR=3.6						
SDV	**Santo Domingo**	**159.63**	**314**	*e*PKPdf	PKPdf	09 59 02.6	-3.8
SDV				*e*PKPab	PKPab	09 59 41.1	-1.0
SDV				*e*PP	PP	10 03 18.0	-6.4
SDV				LR	LR		
	comp=Z,3µm,20.0s,MS6.2						
LPAZ	**La Paz**	**159.86**	**236**	PKP	PKPdf	09 59 04.2	-2.3
	comp=Z,8.8nm,0.8s,baz=53,slow=3.9,SNR=27						
LPAZ				PKPab	PKPab	09 59 45.2	+2.2
	comp=Z,15nm,0.9s,baz=62,slow=1.1,SNR=4.7						
LPAZ	**La Paz**	**159.86**	**236**	*e*PKIKP	PKPdf	09 59 03.8	-2.8
LPAZ				MLR	MLR		
	comp=Z,4µm,20.0s						
LPAZ	**La Paz**	**159.86**	**236**	*e*PKPdf	PKPdf	09 59 03.8	-2.8
LPAZ				*e*PKPdf	PKPdf	09 59 04.0	-2.5
LPAZ				*e*PKPab	PKPab	09 59 43.9	+1.0
LPAZ				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
ARE	**Arequipa**	**162.43**	**230**	*e*PKIKP	PKPdf	09 59 07.0	-2.1
JTS	**JuntasAbangare**	**164.50**	**358**	PFAKE		09 59 20.0	+8.7
JTS				LR	LR		
	comp=Z,765nm,22.0s						
ROSC	**El Rosal**	**165.04**	**312**	PKP	PKPdf	09 59 09.3	-2.6
	comp=Z,20nm,0.8s,baz=96,slow=4.1,SNR=40						
NNA	**Nana**	**169.26**	**231**	*e*PKPdf	PKPdf	09 59 11.1	-3.6
NNA				LR	LR		
	comp=Z,764nm,22.0s						
PAYG	**Puerto Ayora**	**173.29**	**47**	PFAKE		09 59 20.0	+2.9
PAYG				LR	LR		
	comp=Z,3µm,21.0s						

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*IDC **27** 09:40:01.5±1.0, 15.74N×61.49W, mb3.7/3, mb1 3.9/6, mb1mx3.6/23, ML3.4/1, MS3.5/1, Ms1 3.5/1, ms1mx2.1/30, Error ellipse: s-maj=15.1km s-min=9.0km az=110.0*

*TRN **27** 09:40:01.7, 15.74N×61.41W, h21^{km}, MD3.5*

ISC 27 09:40:03.6±0.4, 15.76N±0.03×61.43W±0.07, h24^{km}±4^{km}, n26, σ0^{s}75/35, mb3.9/3, 6C-2D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	**Marie-Galante**	**0.19**	**34⇑**	*i*P	**Pb**	**09 40 08.5**	**-0.5**
DWS	**Wesley**	**0.22**	**149**	*i* P	**Pb**	**09 40 09.0**	**-0.4**
DWS				*e*S	**Sb**	**09 40 13.1**	**-0.3**
BBL	**Barber's Block**	**0.24**	**190⇑**	*i*P	**Pb**	**09 40 08.3**	**-1.3**
BBL	**Barber's Block**	**0.24**	**190⇑**	*i*P	**Pb**	**09 40 09.4**	**-0.2**
BBL				*e*S	**Sb**	**09 40 13.2**	**-0.5**
MDN	**Morne-Daniel**	**0.44**	**176**	*e*P	**Pb**	**09 40 13.0**	**+0.3**
MDN				*e*S	**Sb**	**09 40 19.1**	**+0.2**
DBCT	**Belle View Cho**	**0.49**	**171**	*e*P	**Pb**	**09 40 14.1**	**+0.5**
DSTT	**Stowe**	**0.53**	**167⇑**	*e*P	**Pb**	**09 40 14.5**	**+0.4**
DSTT				*e*S	**Sb**	**09 40 22.1**	**+0.8**
DSHT	**Scott's Head**	**0.55**	**174**	*e*P	**Pb**	**09 40 15.0**	**+0.6**
DSHT				*e*S	**Sb**	**09 40 22.1**	**+0.2**
SEG	**Port Louis**	**0.64**	**353**	*e*P	**Pb**	**09 40 15.6**	**-0.5**
DEG	**La Desirade**	**0.65**	**33**	*e*P	**Pb**	**09 40 15.6**	**-0.7**
FDF	**Fort de France**	**1.06**	**165⇓**	*e*P	**Pn**	**09 40 22.7**	**-0.3**
FDF				*e*S	**Sb**	**09 40 37.6**	**+1.1**
CRM	**Caravelle**	**1.12**	**154⇑**	*e*P	**Pn**	**09 40 23.3**	**-0.6**
CRM				*e*S	**Sb**	**09 40 38.9**	**+0.7**
MGH	**Saint George's**	**1.22**	**322**	*i* P	**Pn**	**09 40 25.5**	**+0.2**
MBWH		**1.22**	**323**	*e*P	**Pn**	**09 40 25.1**	**-0.2**
MBGB		**1.23**	**322**	*e*P	**Pn**	**09 40 25.6**	**0.0**
BIM	**Bigot**	**1.28**	**164**	*e*P	**Pn**	**09 40 26.3**	**+0.1**
MVM	**Montagne Vaucl**	**1.30**	**157⇓**	*e*P	**Pn**	**09 40 26.2**	**-0.4**
BPA	**Boggy Peak**	**1.34**	**342⇑**	*e*P	**Pn**	**09 40 28.5**	**+1.3**
BPA				*e*S	**Sn**	**09 40 45.8**	**+1.4**
CPB	**Codrington**	**1.91**	**349**	*e*S	**Sn**	**09 41 00.3**	**+1.7**
GRW	**Mount Saint Ca**	**3.59**	**184**	*e*P	**Pn**	**09 40 59.2**	**+0.1**
SJG	**San Juan**	**5.09**	**298**	Pn	**Pn**	**09 41 20.1**	**-0.3**
	8.6nm,0.3s,baz=144,slow=22,SNR=7.2						
SJG				Sn	**Sn**	**09 42 14.0**	**-5.2**
	4.6nm,0.3s,baz=350,slow=24,SNR=3.4						
SJG				LR	LR	09 42 20.5	
	comp=Z,462nm,19.6s,baz=63,slow=28						
PCRV	**Puerto La Cruz**	**6.37**	**210**	Pn	**Pn**	**09 41 37.5**	**-1.0**
	0.4nm,0.3s,baz=80,slow=5.4,SNR=3.1						
SDV	**Santo Domingo**	**11.29**	**234**	Pn	**P**	**09 42 42.7**	**-4.0**
	0.2nm,0.3s,baz=41,slow=10,SNR=2.6						
PDAR	**Pinedale Array**	**49.01**	**313**	P	**P**	**09 48 50.4**	**-0.2**
	0.4nm,0.5s,mb3.7,baz=116,slow=9.2,SNR=4.5						
DBIC	**Dimbokro**	**56.08**	**93**	P	**P**	**09 49 42.9**	**-0.7**
	2.6nm,0.9s,mb4.3,baz=284,slow=8.3,SNR=3.7						
YKA	**Yellowknife Ar**	**59.53**	**334**	P	**P**	**09 50 05.5**	**-1.7**
	0.5nm,0.6s,mb3.7,baz=105,slow=7.3,SNR=13						

IDC 27 09:51:46.0±1.8, 7.55N×95.67E, mb3.8/4, mb1 4.0/4, mb1mx3.8/18, Error ellipse: s-maj=74.7km s-min=26.3km az=59.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**41.17**	**11**	P	P	09 59 31.8	-2.0
	1.1nm,0.9s,baz=194,slow=8.5,SNR=3.0						
WRA	**Warramunga Arr**	**46.85**	**126**	P	P	10 00 19.1	-0.9
	1.2nm,0.8s,baz=301,slow=8.8,SNR=3.6						
ASAR	**Alice Springs**	**48.55**	**131**	P	P	10 00 30.4	-2.9
	1.7nm,1.0s,baz=300,slow=7.1,SNR=3.2						
GERES	**GERESS Array B**	**79.08**	**318**	P	P	10 03 53.0	-0.9
	0.4nm,0.6s,baz=104,slow=5.5,SNR=2.8						

IDC 27 09:55:26.1±1.1, 4.03N×95.88E, mb4.1/9, mb1 4.2/9, mb1mx4.0/18, Error ellipse: s-maj=53.0km s-min=19.6km az=51.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**44.57**	**10**	P	P	10 03 40.4	-1.2
	3.3nm,0.6s,baz=189,slow=8.7,SNR=20						
WRA	**Warramunga Arr**	**44.67**	**124**	P	P	10 03 40.9	-1.9
	1.3nm,0.5s,baz=302,slow=9.2,SNR=9.3						
ASAR	**Alice Springs**	**46.16**	**128**	P	P	10 03 52.8	-1.8
	0.4nm,0.6s,baz=300,slow=7.6,SNR=7.2						
ZAL	**Zalesovo**	**50.57**	**352**	P	P	10 04 25.9	-2.5
	4.8nm,0.4s,baz=305,slow=4.7,SNR=15						
BVAR	**Borovoye Array**	**53.16**	**341**	P	P	10 04 46.0	-2.0
	1.5nm,0.7s,baz=135,slow=8.4,SNR=8.6						
BRTR	**Keskin Array B**	**66.25**	**312**	P	P	10 06 16.6	-1.7
	0.8nm,0.7s,baz=129,slow=8.3,SNR=4.2						
FINES	**FINESS Array B**	**76.89**	**332**	P	P	10 07 18.6	-3.1
	1.4nm,0.8s,baz=101,slow=7.1,SNR=3.9						
ARCES	**ARCESS Array B**	**79.44**	**340**	P	P	10 07 34.0	-1.6
	0.3nm,0.3s,baz=101,slow=4.6,SNR=8.7						
DAVOX	**Davos**	**84.34**	**316**	P	P	10 08 01.7	+0.2
	0.9nm,0.4s,baz=165,slow=14,SNR=3.6						
TXAR	**Lajitas Array**	**141.89**	**28**	PKhKP		10 14 54.0	
	0.2nm,0.5s,baz=270,slow=0.9,SNR=3.1						

IDC 27 09:57:18.3±1.3, 6.02N×93.45E, mb4.1/6, mb1 4.4/7, mb1mx4.1/19, ML4.3/1, Error ellipse: s-maj=60.7km s-min=23.0km az=52.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.47**	**23**	Pn	P	10 00 35.3	+2.0
	0.5nm,0.3s,baz=231,slow=14,SNR=13						
SONM	**Songino Array**	**43.11**	**13**	P	P	10 05 21.8	-0.1
	1.1nm,0.6s,baz=191,slow=7.3,SNR=4.4						
WRA	**Warramunga Arr**	**47.78**	**124**	P	P	10 05 57.7	-1.9
	2.0nm,0.9s,baz=303,slow=8.9,SNR=5.8						
ZAL	**Zalesovo**	**48.29**	**353**	P	P	10 05 59.1	-4.0
	1.8nm,0.4s,baz=302,slow=6.6,SNR=4.3						
ASAR	**Alice Springs**	**49.29**	**128**	P	P	10 06 09.0	-2.2
	1.8nm,0.8s,baz=308,slow=7.6,SNR=8.1						
GERES	**GERESS Array B**	**78.75**	**318**	P	P	10 09 23.2	-1.1
	0.8nm,0.7s,baz=90,slow=4.0,SNR=5.4						
DAVOX	**Davos**	**81.24**	**316**	P	P	10 09 36.9	-0.8
	1.1nm,0.4s,baz=150,slow=3.3,SNR=3.7						
TXAR	**Lajitas Array**	**141.18**	**24**	PKP	PKPdf	10 16 55.5	+2.0
	0.2nm,0.8s,baz=115,slow=0.6,SNR=4.9						

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*BJI **27** 09:57:50.8, 7.46N×92.74E, h18^{km}, mB5.9, mb5.1, Ms6.0, Msz5.7*

*IDC **27** 09:57:51.5±0.4, 7.88N×92.82E, mb5.1/34, mb1 5.1/35, mb1mx5.1/35, ML5.4/1, Error ellipse: s-maj=16.9km s-min=10.1km az=43.0*

*NEIC **27** 09:57:52.7±3.2, 7.71N×92.65E, h9^{km}±19^{km}, mb5.4/73, MS5.6/20, Error ellipse: s-maj=6.4km s-min=4.4km az=221.0*

*HRVD **27** 09:57:52.7±0.2, 7.65N×92.74E, h12^{km}, MW5.7/74, Centroid moment Tensor Solution. LP body waves: s28,c50;Mantle waves: s74,c155; Half duration: 1^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}2.74±.09; $M_{\theta\theta}$-2.26±.07; $M_{\phi\phi}$-0.48±.09; $M_{r\theta}$0.67±.27; $M_{\theta\phi}$2.93±.07; $M_{\phi r}$0.06±.30; Best double couple: $M_0$3.7×10^{17} NP1:ϕ_s326°, δ44°, λ119°. NP2:ϕ_s109°, δ52°, λ65°. Principal axes: T 2.93, Plg70°, Azm317°; N 1.53, Plg20°, Azm125°; P -4.47, Plg4°, Azm216°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **27** 09:57:52.7, 7.71N×92.66E, h9^{km}, MB5.4, MS5.6*

*MOS **27** 09:57:54.1±0.9, 7.75N×92.78E, h33^{km}, mb5.5/42, MS5.6/5, Error ellipse: s-maj=12.0km s-min=6.2km az=116.4*

*CSEM **27** 09:57:56.7, 8.02N×92.70E, h33^{km}, mb5.6*

ISC 27 09:57:51.8±1.1, 7.70N±0.03×92.73E±0.03, h14^{km}±6^{km}, h15^{km}±2.0^{km}:pP-P, n342, σ1^{s}11/314, mb5.2/127, MS5.6/35, 15C-2D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**12.28**	**29**	*e*P	**P**	**10 00 51.3**	**+2.0**
	122nm,0.7s						
CMAR	**Chiang Mai Arr**	**12.28**	**29**	Pn	**P**	**10 00 51.9**	**+2.5**
	7.4nm,0.3s,baz=231,slow=14,SNR=69						
MDRS	**Chennai**	**13.39**	**295**	*e*P	**P**	**10 01 00.5**	**-3.5**
MDRS				*e*		10 01 05.2	
	comp=Z,590nm,0.8s						
VIS	**Vishakhapatnam**	**13.54**	**318**	*e*P	**P**	**10 01 03.9**	**-2.2**
VIS				*e*		10 01 24.9	
	comp=Z,1µm,1.3s						
VIS				*e*S	**S**	**10 03 24.0**	**-13**
KOD	**Kodaikanal**	**15.29**	**281**	*e*	**P**	**10 01 28.2**	**-0.9**
KOD				*e*	**S**	**10 04 05.1**	**-14**
CAL	**Calcutta**	**15.35**	**344**	*e*	**P**	**10 01 38.1**	**+8.2**
BOK	**Bokaro**	**17.30**	**338**	*e*P	**P**	**10 01 54.0**	**-0.7**
BOK				*e*		10 01 59.5	
	comp=Z,199nm,0.8s						
BLSP	**Bilaspur**	**17.61**	**326**	*e*P	**P**	**10 01 59.0**	**+0.4**
BLSP				*e*		10 02 07.9	
	comp=Z,342nm,1.2s						
SHL	**Shillong**	**17.79**	**357**	*e*P	**P**	**10 01 58.6**	**-2.2**
SHL				*e*		10 02 13.5	
	comp=Z,471nm,1.0s						
SHL				*e*S	**S**	**10 05 12.1**	**-4.4**
KMI	**Kunming**	**19.79**	**28**	P	**P**	**10 02 26.3**	**+1.5**
KMI				AP		10 02 29.3	
KMI				S	**S**	**10 06 01.0**	**-0.4**
KMI				AMB	AMB		
	comp=Z,188nm,1.3s						
KMI				LR	LR		
	comp=N,22µm,15.1s						
KMI				LR	LR		
	comp=E,14µm,16.2s						
KMI				LR	LR		
	comp=Z,20µm,16.2s						
AKL	**Akola**	**19.96**	**312**	*e*P	**P**	**10 02 29.1**	**+2.5**
AKL				*e*		10 02 37.3	
	comp=Z,260nm,1.0s						
GOA	**Goa**	**20.06**	**294⇑**	*e*P	**P**	**10 02 25.5**	**-2.2**
	comp=Z,46nm,0.6s						
GOA				*e*		10 02 45.0	
	comp=Z,306nm,0.6s						
QIZ	**Qiongzhong**	**20.08**	**54**	P	**P**	**10 02 29.3**	**+1.4**
QIZ				S	**S**	**10 06 08.5**	**+1.0**
QIZ				LR	LR		
	comp=N,43µm,14.5s						
QIZ				LR	LR		
	comp=Z,61µm,11.9s,MS6.2						
QIZ	**Qiongzhong**	**20.08**	**54**	*e*P	**P**	**10 02 28.8**	**+0.9**
	comp=Z,634nm,1.8s						
COCO	**West Island**	**20.17**	**168**	*e*P	**P**	**10 02 28.5**	**-0.4**
	comp=Z,100nm,0.8s						
KAD	**Karad**	**20.45**	**300**	*e*P	**P**	**10 02 30.3**	**-1.5**
KAD				*e*		10 02 40.5	
	comp=Z,419nm,1.6s						
POO	**Poona**	**21.29**	**302**	*e*P	**P**	**10 02 39.2**	**-1.2**
POO				*e*		10 02 47.7	
	comp=Z,136nm,1.5s						
BHPL	**Bhopal**	**21.33**	**318**	*e*P	**P**	**10 02 41.4**	**+0.7**
BHPL				*e*		10 02 50.2	
	comp=Z,254nm,1.3s						
LSA	**Lhasa**	**21.94**	**356**	*e*P	**P**	**10 02 46.3**	**-0.5**
LSA				pmax	pmax		
	comp=Z,63nm,0.7s,mb5.2						
LSA	**Lhasa**	**21.94**	**356**	*e*P	**P**	**10 02 46.3**	**-0.5**
	comp=Z,63nm,0.7s,mb5.2						
BOM	**Bombay**	**22.32**	**302**	*e*P	**P**	**10 02 52.4**	**+1.7**
BOM				*e*		10 02 53.8	
	comp=Z,168nm,1.0s						
BOM				*e*S	**S**	**10 07 00.8**	**+10**
GYA	**Guiyang**	**22.88**	**34⇑**	*i*P	**P**	**10 02 57.5**	**+1.2**
GYA				AP		10 03 02.0	
GYA				XP		10 03 05.3	
GYA				PP	PP	10 03 23.5	-2.3
GYA				S	**S**	**10 07 10.3**	**+9.4**
GYA				AMB	AMB		
	comp=Z,120nm,1.1s,mb5.2						
GYA				AMB	AMB		
	comp=Z,2µm,5.0s						
GYA				LR	LR		
	comp=N,6µm,16.8s,MS5.3						
GYA				LR	LR		
	comp=E,7µm,17.0s,MS5.3						
GYA				LR	LR		
	comp=Z,8µm,15.4s,MS5.3						
PTH	**Pithoragarh**	**24.72**	**333**	*e*P	**P**	**10 03 15.1**	**+1.0**
PTH				*e*	**S**	**10 07 45.2**	**+13**
CD2	**Chengdu**	**25.29**	**23⇑**	*i*P	**P**	**10 03 20.3**	**+0.8**
CD2				PP	PP	10 03 56.8	-1.4
CD2				S	**S**	**10 07 42.8**	**+0.6**
CD2				AMB	AMB		
	comp=Z,140nm,0.7s,mb5.6						
CD2				LR	LR		
	comp=N,22µm,13.8s						
CD2				LR	LR		
	comp=Z,16µm,11.6s,MS5.8						
AJM	**Ajmer**	**25.39**	**320**	*i* P	**P**	**10 03 20.0**	**-0.5**
NDI	**New Delhi**	**25.49**	**327**	*e*P	**P**	**10 03 21.7**	**+0.3**
NDI				*e*		10 03 31.3	
	comp=Z,202nm,1.1s						
DDI	**Dehra Dun**	**26.38**	**330**	*e*P	**P**	**10 03 30.1**	**+0.4**
DDI				*e*		10 07 40.1	
SRDI	**Scrawed**	**26.71**	**127⇑**	*e*P	**P**	**10 03 31.8**	**-1.1**
	comp=Z,150nm,1.0s,mb5.5						
KELI	**Kelakatan**	**26.84**	**126⇑**	*e*P	**P**	**10 03 34.3**	**+0.3**
	comp=Z,203nm,1.0s,mb5.6						
ENH	**Enshi**	**27.41**	**33**	*e*P	**P**	**10 03 37.6**	**-1.4**
	comp=Z,143nm,1.2s,mb5.4						
ENH				LR	LR		
	comp=Z,18µm,21.0s,MS5.6						
SDNR	**Sundarnagar**	**27.88**	**330**	*e*P	**P**	**10 03 45.3**	**+2.0**
BHK	**Bhakra**	**28.09**	**329**	*e*	**P**	**10 03 52.0**	**+6.8**
TGY	**Tagaytay City**	**28.40**	**75**	P	**P**	**10 03 50.4**	**+2.2**
	comp=Z,102nm,0.3s,mb5.9,baz=193,slow=19,SNR=2.4						
LZH	**Lanzhou**	**30.03**	**18**	⇑P	**P**	**10 04 02.5**	**-0.1**
LZH				AP	pP	10 04 05.5	-1.2
LZH				AMB	AMB		
	comp=Z,120nm,1.0s,mb5.6						
LZH				AMB	AMB		
	comp=Z,823nm,5.9s						
LZH				LR	LR		
	comp=E,11µm,13.1s						
LZH				LR	LR		
	comp=Z,16µm,14.5s,MS5.8						
XAN	**Xi'an**	**30.17**	**27**	P	**P**	**10 04 02.0**	**-1.9**
XAN				AP	pP	10 04 07.8	-0.2
XAN				AMB	AMB		
	comp=Z,35nm,0.8s,mb5.1						
WHN	**Wuhan**	**30.43**	**39**	P	**P**	**10 04 10.5**	**+4.2**
WHN				LR	LR		
	comp=Z,28µm,17.8s,MS6.0						
GTA	**Gaotai**	**32.21**	**10**	*e*P	**P**	**10 04 21.0**	**-0.8**
GTA				AP	pP	10 04 24.5	-1.4
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
NJ2	**Nanjing**	**34.32**	**42**	*e*P	**P**	**10 04 41.0**	**+0.8**
NJ2				AP	pP	10 04 50.3	+6.0
NJ2				XP	sP	10 04 54.0	+7.9
NJ2				PP	PP	10 05 55.8	+0.3
NJ2				S	**S**	**10 10 04.0**	**-2.0**
NJ2				XS		10 10 20.0	
NJ2				SS	SS	10 12 14.0	-1.8
NJ2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,6µm,8.4s						
NJ2				LR	LR		
	comp=N,17µm,12.5s,MS6.2						
NJ2				LR	LR		
	comp=E,24µm,14.0s,MS6.2						
NJ2				LR	LR		
	comp=Z,28µm,14.2s,MS6.1						
KSH	**Kashi**	**35.07**	**337**	P	**P**	**10 04 47.0**	**+0.4**
KSH				*e*AP	pP	10 04 52.0	+1.3
KSH				XP	sP	10 04 54.3	+1.8
KSH				*e*PP	PP	10 06 05.5	+0.4
KSH				*e*PCP	PcP	10 07 19.0	+0.5
KSH				S	**S**	**10 10 19.3**	**+1.7**
KSH				*e*SCP		10 11 03.5	
KSH				PCS		10 11 05.5	
KSH				*e*SS	SS	10 12 32.0	-1.1
KSH				*e*SCS	ScS	10 15 04.5	-0.4
KSH				AMB	AMB		
	comp=Z,280nm,7.6s						
KSH				LR	LR		
	comp=N,10µm,22.8s,MS5.7						
KSH				LR	LR		
	comp=E,14µm,24.0s,MS5.7						
SSE	**Sheshan**	**35.33**	**45**	P	**P**	**10 04 48.8**	**0.0**
SSE				S	**S**	**10 10 24.5**	**+2.9**
SSE				XS		10 10 30.5	
SSE				PCS		10 10 59.8	
SSE				AMB	AMB		
	comp=Z,38nm,0.6s,mb5.5						
SSE				AMB	AMB		
	comp=Z,8µm,12.0s						
SSE				LR	LR		
	comp=N,8µm,12.9s,MS5.8						
SSE				LR	LR		
	comp=E,8µm,12.9s,MS5.8						
SSE				LR	LR		
	comp=Z,13µm,13.6s,MS5.9						
WMQ	**Urumqi**	**36.25**	**354**	P	**P**	**10 04 58.0**	**+1.5**
WMQ				AP	pP	10 05 02.5	+1.9
WMQ				XP	sP	10 05 05.3	+2.9
WMQ				PP	PP	10 06 20.8	+1.3
WMQ				S	**S**	**10 10 37.0**	**+1.3**
WMQ				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
WMQ				LR	LR		
	comp=N,4µm,29.4s,MS5.5						
WMQ				LR	LR		
	comp=E,11µm,26.3s,MS5.5						
WMQ				LR	LR		
	comp=Z,5µm,27.6s,MS5.1						
HHC	**Hu-ho-hao-te**	**37.03**	**24**	*e*P	**P**	**10 05 02.0**	**-1.1**
HHC				AP	pP	10 05 11.8	+4.6
HHC				XP	sP	10 05 15.3	+6.3
HHC				S	**S**	**10 10 47.3**	**-0.4**
HHC				AMB	AMB		
	comp=Z,18nm,0.5s,mb5.2						
ULHL	**Ulahol**	**37.37**	**340**	P	**P**	**10 05 07.0**	**+1.2**
	SNR=11						
KZA	**Kyzart**	**37.57**	**338**	P	**P**	**10 05 09.4**	**+1.8**
	SNR=13						
UCH	**Uchtor**	**37.97**	**338**	P	**P**	**10 05 12.8**	**+1.9**
	SNR=15						
KBK	**Karagaybulak**	**38.18**	**339**	P	**P**	**10 05 14.0**	**+1.3**
	SNR=8.8						
TKM2	**Tokmak 2**	**38.19**	**340**	P	**P**	**10 05 13.1**	**+0.4**
	SNR=11						
AML	**Almayashu**	**38.20**	**337**	P	**P**	**10 05 14.2**	**+1.3**
	SNR=18						
AAK	**Ala-Archa**	**38.33**	**338**	P	**P**	**10 05 15.6**	**+1.6**
	SNR=14						

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AAK   Ala-Archa         38.33 338 i P    P      10 05 13.5 -0.5
AAK                               pmax   pmax
        comp=Z,114nm,1.7s,mb5.3
AAK   Ala-Archa         38.33 338 eP     P      10 05 14.3 +0.4
        comp=Z,188nm,1.6s,mb5.6
AAK                               LR     LR
        comp=Z,2µm,21.0s,MS4.9
BJT   Baijiatuau        38.41  29 eP     P      10 05 13.8 -0.9
        comp=Z,43nm,1.0s,mb5.1
BJT                               LR     LR
        comp=Z,9µm,20.0s,MS5.6
BJI   Beijing           38.43  29 P      P      10 05 15.5 +0.6
BJI                               AMB    AMB
        comp=Z,17nm,0.9s,mb4.8
BJI                               LR     LR
        comp=N,9µm,15.0s,MS5.9
BJI                               LR     LR
        comp=E,10µm,15.0s,MS5.9
BJI                               LR     LR
        comp=Z,10µm,23.6s
CHMS  Chumysh           38.55 339 P      P      10 05 16.9 +1.1
        SNR=12
EKS2  Erkin-Say         38.62 337 P      P      10 05 18.4 +2.0
        SNR=16
JOW   Kunigami          38.71  56 P      P      10 05 20.6 +3.3
        comp=Z,10nm,0.4s,mb4.9,baz=167,slow=9.3,SNR=9.5
USP   Ospenovka         38.88 339 P      P      10 05 18.9 +0.3
        SNR=14
MBWA  Marble Bar        39.06 138 eP     P      10 05 18.9 -1.4
        comp=Z,30nm,1.0s,mb5.0
MBWA                              LR     LR
        comp=Z,7µm,21.0s,MS5.5
MKAR  Makanchi Array    39.97 349 i P    P      10 05 27.6  0.0
MKAR                              pmax   pmax
        comp=Z,15nm,0.8s
DL2   Dalian            40.51  35 P      P      10 05 33.0 +0.9
DL2                               AMB    AMB
        comp=Z,40nm,0.8s,mb5.1
SONM  Songino Array     41.65  14 P      P      10 05 41.2 -0.2
        comp=Z,4.6nm,0.8s,mb4.2,baz=197,slow=7.7,SNR=11
ULN   Ulaanbaatar       41.84  14 eP     P      10 05 41.5 -1.5
        comp=Z,7.8nm,0.9s,mb4.3
ULN                               LR     LR
        comp=Z,13µm,20.0s,MS5.8
ZAK   Zakamensk         43.45  10 eP     P      10 05 53.3 -2.7
ZAK                               e             10 07 34.0
KS15  Wonju Array Si    43.49  42 eP     P      10 05 57.0 +0.4
SNY   Shenyang          43.58  34 ⇑P     P      10 05 58.0 +0.7
SNY                               AMB    AMB
        comp=Z,30nm,1.0s,mb5.0
MOY   Mondy             44.36   7 eP     P      10 06 11.2 +7.8
HASS  Wahat al Ahsa'    44.55 298 P      P      10 06 07.4 +2.0
TLY   Talaya            44.76  10 i P    P      10 06 05.9 -0.8
TLY                               pmax   pmax
        comp=Z,33nm,2.2s,mb4.8
TLY   Talaya            44.76  10 P      P      10 06 07.3 +0.7
        comp=Z,30nm,1.4s,mb4.9
CN2   Changchun         45.93  33 eP     P      10 06 15.5 -0.5
CN2                               eAP    pP     10 06 19.0 -1.2
CN2                               eS     S      10 12 59.5 +0.2
CN2                               AMB    AMB
        comp=Z,30nm,0.9s,mb5.2
CN2                               AMB    AMB
        comp=Z,2µm,3.0s
CN2                               LR     LR
        comp=N,6µm,17.0s,MS5.8
CN2                               LR     LR
        comp=E,7µm,17.0s,MS5.8
CN2                               LR     LR
        comp=Z,8µm,18.0s,MS5.7
ZAL   Zalesovo          46.55 354 P      P      10 06 20.0 -0.8
        comp=Z,8.2nm,0.9s,mb4.7,baz=301,slow=7.1,SNR=13
ZAL   Zalesovo          46.55 354 P      P      10 06 20.0 -0.8
NWAO  Narrogin (SRO)    46.65 151 P      P      10 06 23.4 +1.6
        comp=Z,25nm,1.1s,mb5.1,baz=14,slow=5.1,SNR=3.7
NWAO  Narrogin (SRO)    46.65 151 eP     P      10 06 23.5 +1.6
        comp=Z,6.9nm,0.6s,mb4.8
NWAO                              LR     LR
        comp=Z,8µm,19.0s,MS5.7
QRN   Al-Qurain         47.07 302 eP     P      10 06 30.8 +5.5
HIA   Hailar            47.24  24 eP     P      10 06 25.9 -0.4
        comp=Z,28nm,1.0s,mb5.1
HIA                               LR     LR
        comp=Z,11µm,21.0s,MS5.8
RDF   Al-Radifah        47.44 302 AMb    AMB    10 06 30.4
        comp=Z,104nm,0.9s,mb5.8
NVS   Novosibirsk       47.62 353 eP     P      10 06 27.8 -1.5
NVS                               pmax   pmax
        comp=Z,157nm,2.2s,mb5.7
NVS                               pmax   pmax
        comp=N,105nm,2.1s
MIB   Mutribah          47.88 303 eP     P      10 06 31.3 -0.3
MIB                               AMb    AMB    10 06 34.1
        comp=Z,161nm,0.9s,mb6.0
RST   Umm Al-Ruwaisa    48.07 303 eP     P      10 06 33.0 -0.1
RST                               AMb    AMB    10 06 35.9
        comp=Z,119nm,1.0s,mb5.9
KAMS  Al Khamasin       48.20 290 P      P      10 06 34.1 -0.1
MZLS  Mizel             48.25 295 P      P      10 06 36.1 +1.5
BVA0  Borovoye Array    48.72 342 P      P      10 06 36.1 -1.7
BVA0                              pmax   pmax
        comp=Z,2.0nm,0.9s,mb4.2
BVAR  Borovoye Array    48.72 342 P      P      10 06 36.3 -1.4
        comp=Z,16nm,0.8s,mb5.1,baz=143,slow=7.4,SNR=39
MDJ   Mudanjiang        48.74  35 P      P      10 06 37.5 -0.6
MDJ                               AP     pP     10 06 40.5 -1.8
MDJ                               PCP    PcP    10 08 02.0 -1.5
MDJ                               PP     PP     10 08 30.5 -0.7
MDJ                               SCP           10 11 57.0
MDJ                               PCS           10 11 58.3
MDJ                               S      S      10 13 41.5 +2.3
MDJ                               SCS    ScS    10 16 29.8 +2.3
MDJ                               AMB    AMB
        comp=Z,24nm,1.1s,mb5.1
MDJ                               LR     LR
        comp=N,7µm,15.3s,MS5.8
MDJ                               LR     LR
        comp=E,4µm,15.1s,MS5.8
MDJ                               LR     LR
        comp=Z,8µm,16.2s,MS5.8
MDJ   Mudanjiang        48.74  35 eP     P      10 06 38.3 +0.2
        comp=Z,83nm,1.1s,mb5.7
BRVK  Borovoye          48.78 342 eP     P      10 06 36.9 -1.3
        comp=Z,23nm,0.9s,mb5.2
BRVK                              LR     LR
        comp=Z,1µm,20.0s,MS4.9
TATS  Tathlith          49.13 289 P      P      10 06 42.4 +1.0
CHKZ  Chkalovo          49.22 343 i P    P      10 06 40.5 -1.1
CHKZ                              pmax   pmax
        comp=Z,39nm,0.9s,mb5.4
CHKZ  Chkalovo          49.22 343 eP     P      10 06 40.6 -1.0
        comp=Z,48nm,0.9s,mb5.5
WRA   Warramunga Arr    49.30 125 P      P      10 06 42.1 -0.7
        comp=Z,18nm,0.6s,mb5.3,baz=303,slow=8.6,SNR=39
WRAB  Tennant Creek     49.31 125 eP     P      10 06 40.8 -1.9
        comp=Z,213nm,1.6s,mb5.9
WRAB                              LR     LR
        comp=Z,4µm,21.0s,MS5.4
AFFS  'Afif             50.22 295 P      P      10 06 51.0 +1.3
MAT   Matsushiro        50.31  48 P      P      10 06 51.1 +0.8
MAT   Matsushiro        50.31  48 eP     P      10 06 51.0 +0.7
        comp=Z,176nm,2.0s,mb5.8
ARSS  Ar Rass           50.38 297 P      P      10 06 51.9 +1.0
CBIJ  Chichi jima       50.60  61 P      P      10 06 51.2 -1.4
        comp=Z,92nm,0.5s,mb5.9,baz=274,slow=8.2,SNR=8.1
ASAR  Alice Springs     50.88 129 P      P      10 06 53.9 -0.8
        comp=Z,9.2nm,0.6s,mb4.9,baz=300,slow=7.2,SNR=29
ASAR                              PcP    PcP    10 08 11.4 -0.1
        comp=Z,12nm,0.9s,baz=302,slow=5.3,SNR=4.0
HILS  Ha'il             51.96 299 P      P      10 07 05.0 +2.1
BOD   Bodaibo           52.65  14 eP     P      10 07 06.2 -1.4
GNI   Garni             53.57 315 P      P      10 07 15.3 +0.6
        comp=Z,31nm,0.9s,mb5.2,baz=35,slow=0.5,SNR=22
GNI   Garni             53.57 315 eP     P      10 07 14.0 -0.7
GNI                               pmax   pmax
        comp=Z,100nm,1.2s
GNI   Garni             53.57 315 eP     P      10 07 14.0 -0.7
        comp=Z,104nm,1.3s,mb5.6
KBRS  Khaybar           53.88 296 P      P      10 07 19.5 +2.3
SVE   Sverdlovsk        55.06 339 eP     P      10 07 26.0 +0.6
SVE                               pmax   pmax
        comp=Z,250nm,2.0s,mb5.9
SVE                               MLR    MLR
        comp=Z,3µm,9.0s
CLNS  Chul'man          55.09  21 eP     P      10 07 24.5 -1.1
CLNS                              pmax   pmax
        comp=Z,19nm,0.8s,mb5.2
CLNS                              pmax   pmax
        comp=N,9.0nm,0.9s
ZEI   Tsey              55.22 318 eP     P      10 07 26.5 -0.3
ZEI                               i *PP  pP     10 07 36.5 +5.5
ZEI                               pmax   pmax
        comp=Z,27nm,1.0s,mb5.2
ARU   Arti              55.52 338⇑iP     P      10 07 27.7 -1.0
ARU                               e             10 08 24.7
ARU                               e             10 09 29.6
ARU                               eS     S      10 15 11.1 -0.5
ARU                               pmax   pmax
        comp=Z,55nm,1.0s,mb5.5
ARU   Arti              55.52 338 eP     P      10 07 27.6 -1.1
        comp=Z,123nm,1.3s,mb5.8
ARU                               LR     LR
        comp=Z,1µm,19.0s,MS5.0
ERZM  Erzurum           55.87 313 i P    P      10 07 32.2 +0.7
KMBO  Kilima Mbogo      56.02 263 P      P      10 07 33.9 +1.0
        comp=Z,23nm,1.0s,mb5.2,baz=51,slow=9.7,SNR=25
KMBO  Kilima Mbogo      56.02 263 eP     P      10 07 33.4 +0.6
        comp=Z,23nm,0.9s,mb5.2
KMBO                              LR     LR
        comp=Z,7µm,19.0s,MS5.8
ASAJ  Asahikawa         56.47  41 P      P      10 07 35.6 -0.1
        comp=Z,16nm,0.8s,mb5.1,baz=90,slow=5.1,SNR=3.6
KIV   Kislovodsk        56.52 318 P      P      10 07 35.7 -0.4
        comp=Z,427nm,1.0s,mb6.4,SNR=17
KIV   Kislovodsk        56.52 318⇑iP     P      10 07 34.6 -1.5
KIV                               pmax   pmax
        comp=Z,71nm,1.0s,mb5.7
KIV   Kislovodsk        56.52 318⇑iP     P      10 07 34.6 -1.4
        comp=Z,72nm,0.9s,mb5.7
KIV                               LR     LR
        comp=Z,631nm,22.0s,MS4.7
QURS  Qurayyt al Mil    56.62 303 P      P      10 07 38.7 +1.8
TBKS  Tabuk             56.68 299 P      P      10 07 39.9 +2.5
PMG   Port Moresby      56.82 106 P      P      10 07 38.2 -0.4
        comp=Z,25nm,1.0s,mb5.2,baz=258,slow=6.3,SNR=7.6
PMG   Port Moresby      56.82 106 eP     P      10 07 37.7 -0.9
        comp=Z,20nm,0.8s,mb5.2
PMG                               LR     LR
        comp=Z,5µm,20.0s,MS5.6
ASF   Jabal al Asfar    57.14 303 P      P      10 07 41.2 +0.5
        comp=Z,23nm,0.9s,mb5.2,baz=332,slow=2.7,SNR=19
ELZG  Elazig            57.16 311 i P    P      10 07 40.4 -0.4
JMQS  Jabal Moqyreh     57.37 299 P      P      10 07 44.2 +1.8
MALT  Malatya           57.52 311 eP     P      10 07 41.9 -1.4
MALT                              pmax   pmax
        comp=Z,17nm,1.0s,mb5.0
MALT  Malatya           57.52 311 eP     P      10 07 41.9 -1.4
        comp=Z,17nm,1.0s,mb5.0
YSS   Yuzh-Sakhalins    57.78  38 eP     P      10 07 40.2 -4.8
YSS                               e             10 07 58.0
YSS                               e             10 08 31.3
YSS                               pmax   pmax
        comp=Z,70nm,1.1s,mb5.6
YSS   Yuzh-Sakhalins    57.78  38 eP     P      10 07 45.5 +0.5
        comp=Z,96nm,1.2s,mb5.7
AYUS  'Aynunah          57.79 298 P      P      10 07 46.7 +1.4
GZT   Gaziantep         57.89 309 i P    P      10 07 45.0 -0.9
BDAS  Al Bad'           57.97 299 P      P      10 07 48.2 +1.6
MKRJ  Makawir           58.06 302 P      P      10 07 48.2 +1.1
JMOS  Jabal al Moall    58.08 300 P      P      10 07 48.5 +1.2
ALWS  Ilw as Safayha    58.15 300 P      P      10 07 49.3 +1.5
KSHT  Keshet            58.21 304 P      P      10 07 49.5 +1.3
HAQS  Haql              58.22 299 P      P      10 07 49.9 +1.6
DRGI  Dragot            58.28 302 P      P      10 07 49.8 +1.1
EIL   Elat              58.30 300 P      P      10 07 49.4 +0.5
        comp=Z,34nm,0.9s,mb5.4,baz=104,slow=3.1,SNR=19
EIL   Elat              58.30 300 P      P      10 07 49.8 +0.9
EIL   Elat              58.30 300 eP     P      10 07 48.9  0.0
        comp=Z,49nm,1.0s,mb5.5
SOC   Sochi             58.35 317 eP     P      10 07 46.4 -2.6
SOC                               e             10 09 59.9
SOC                               eS     S      10 15 46.2 -3.1
SOC                               i SS   SS     10 19 39.0 -4.2
SOC                               pmax   pmax
        comp=Z,63nm,1.6s,mb5.4
SOC                               pmax   pmax
        comp=N,21nm,1.3s
SOC                               pmax   pmax
        comp=E,45nm,1.6s
MBH   Mount Berech      58.35 300 P      P      10 07 50.4 +1.2
PRNI  Paran             58.38 301 P      P      10 07 50.6 +1.2
MMLI  Mount Malkishu    58.42 303 P      P      10 07 51.0 +1.4
SOKR  Solikamsk         58.47 339 i P    P      10 07 48.1 -1.5
SOKR                              pmax   pmax
        comp=Z,50nm,1.0s,mb5.5
KAHT  Ahir Dag          58.50 310 i P    P      10 07 50.1  0.0
OFRI  'Ofer             58.82 303 P      P      10 07 53.5 +1.1
CTA   Charters Tower    59.44 119 P      P      10 07 56.2 -0.7
        comp=Z,14nm,1.1s,mb4.9,baz=279,slow=8.6,SNR=7.7
CTA   Charters Tower    59.44 119 P      P      10 07 56.2 -0.7
CTAO  Charters Tower    59.44 119 eP     P      10 07 55.6 -1.3
        comp=Z,76nm,1.6s,mb5.5
CTAO                              LR     LR
        comp=Z,8µm,20.0s,MS5.8
AVNT  Avonos            60.34 310 i P    P      10 08 01.2 -1.6
MEST  Erdemli           60.35 308 i P    P      10 08 01.8 -1.1
CSS   Prodhromos        60.64 306 eP     P      10 08 04.7 -0.2
        comp=Z,72nm,1.4s,mb5.6
STKA  Stephens Creek    61.00 133 P      P      10 08 07.0 -0.4
        comp=Z,52nm,1.1s,mb5.6,baz=312,slow=6.6,SNR=15
STKA  Stephens Creek    61.00 133 eP     P      10 08 05.7 -1.7
BOYT  Boyabat           61.02 313 i P    P      10 08 06.1 -1.3
BRTR  Keskin Array B    61.49 311 P      P      10 08 08.4 -2.2
        comp=Z,18nm,0.8s,mb5.2,baz=124,slow=6.6,SNR=64
ELDT  Eldivan           61.84 312 i P    P      10 08 11.7 -1.3
BALT  Daday             62.14 313 i P    P      10 08 14.3 -0.7
MBAR  Mbarara           62.36 265 eP     P      10 08 16.2 -0.6
MBAR                              pmax   pmax
        comp=Z,23nm,1.1s,mb5.2
MBAR  Mbarara           62.36 265 eP     P      10 08 16.2 -0.6
        comp=Z,23nm,1.1s,mb5.2
SIM   Simferopol'       62.60 317 eP     P      10 08 13.7 -4.3
SIM                               eS     S      10 16 43.0 -0.7
SIM                               pmax   pmax
        comp=Z,34nm,1.8s,mb5.2
SGKT  Sivrigoynuk       62.87 312 i P    P      10 08 18.6 -1.2
ISP   Isparta           63.45 308 i P    P      10 08 23.6 -0.1
ESKT  Eskisehir         63.54 310 i P    P      10 08 22.6 -1.6
MOS   Moscow            64.51 329 eP     P      10 08 33.2 +2.9
MOS                               pmax   pmax
        comp=Z,146nm,1.2s,mb5.9
MOS                               MLR    MLR
        comp=Z,5µm,20.5s,MS5.7
OBN   Obninsk           64.79 328ceP     P      10 08 30.0 -2.2
OBN                               e             10 10 55.6
OBN                               pmax   pmax
        comp=Z,44nm,1.2s,mb5.4
OBN                               MLR    MLR
        comp=Z,4µm,20.0s,MS5.6
OBN   Obninsk           64.79 328 eP     P      10 08 30.6 -1.6
        comp=Z,78nm,1.2s,mb5.6
OBN                               LR     LR
        comp=Z,1µm,22.0s,MS5.0
AKASG Malin Array Be    67.43 322 P      P      10 08 46.9 -2.3
        comp=Z,8.7nm,0.8s,mb4.8,baz=90,slow=4.9,SNR=30
IDI   Anoyia            67.52 305 P      P      10 08 49.9 -0.1
        comp=Z,43nm,0.9s,mb5.5,baz=93,slow=6.1,SNR=12
MA2   Magadan           67.57  28 eP     P      10 08 49.4 -0.4
MA2                               pmax   pmax
        comp=Z,83nm,1.2s,mb5.6
MA2   Magadan           67.57  28 eP     P      10 08 49.4 -0.4
        comp=Z,83nm,1.3s,mb5.6
TIXI  Tiksi             67.68  12 eP     P      10 08 48.9 -1.5
TIXI                              pmax   pmax
        comp=Z,67nm,0.8s,mb5.7
TIXI                              MLR    MLR
        comp=Z,4µm,15.0s,MS5.7
TIXI  Tiksi             67.68  12 i P    P      10 08 48.3 -2.1
VRI   Vrincioaia        67.86 316⇑iP     P      10 08 52.4 +0.5
LSZ   Lusaka            67.89 250 eP     P      10 08 51.8 -0.8
        comp=Z,19nm,0.9s,mb5.1
LSZ                               LR     LR
        comp=Z,10µm,19.0s,MS6.0
MLR   Muntele Rosu      68.32 316 P      P      10 08 53.5 -1.3
        comp=Z,42nm,0.9s,mb5.5,baz=179,slow=2.6,SNR=33
BOLS  Boljevac          70.85 314⇑iP     P      10 09 09.3 -1.0
SKO   Skopje            70.99 312 eP     P      10 09 10.3 -0.9
KOLS  Kolonicke sedl    71.42 319 eP     P      10 09 13.4 -0.3
KOLS                              e             10 09 22.1
APA   Apatity           71.52 340⇑iP     P      10 09 12.4 -1.6
APA                               i             10 09 30.8
APA                               pmax   pmax
        comp=Z,21nm,1.0s,mb5.0
SUW   Suwalki           71.83 324 eP     P      10 09 15.0 -1.0
SUW                               pmax   pmax
        comp=Z,46nm,0.5s,mb5.7
SUW   Suwalki           71.83 324 eP     P      10 09 15.0 -1.0
        comp=Z,46nm,0.5s,mb5.7
CRVS  Cervenica-Dubn    71.94 319 eP     P      10 09 17.5 +0.7
FINES FINESS Array B    72.22 332 P      P      10 09 16.9 -1.3
        comp=Z,14nm,0.8s,mb5.0,baz=112,slow=10,SNR=26
FINES FINESS Array B    72.22 332 i P    P      10 09 17.3 -0.9
FINES                             pmax   pmax
        comp=Z,14nm,0.8s
KAF   Kangasniemi       72.31 333 ep     P      10 09 17.7 -1.1
        comp=Z,23nm,1.0s,mb5.1
KAF   Kangasniemi       72.31 333 eP     P      10 09 17.7 -1.1
KAF                               pmax   pmax
        comp=Z,23nm,1.0s,mb5.1
KECS  Kecovo            72.52 318 eP     P      10 09 20.1 -0.1
NIE   Niedzica          72.77 319 eP     P      10 09 21.9 +0.2
PSZ   Piszkesteto       72.83 318 eP     P      10 09 21.0 -1.1
PSZ                               pmax   pmax
        comp=Z,11nm,0.9s,mb4.8
PSZ   Piszkesteto       72.83 318 eP     P      10 09 21.6 -0.5
LBTB  Lobatse           72.94 241 eP     P      10 09 22.6 -0.6
        comp=Z,25nm,1.1s,mb5.1
LBTB                              LR     LR
        comp=Z,10µm,19.0s,MS6.1
OJC   Ojcow             73.21 320 eP     P      10 09 23.0 -1.2
PKSM  Moragy            73.48 316⇑eP     P      10 09 25.6 -0.3
VYHS  Vyhne             73.61 318 eP     P      10 09 25.4 -1.2
SRO   Srobarova         73.88 317 eP     P      10 09 28.5 +0.4
OKC   Ostrava-Krasne    74.22 320 eP     P      10 09 30.2 +0.1
BOSA  Boshof            74.31 238 eP     P      10 09 30.7 -0.4
BOSA                              pmax   pmax
        comp=Z,28nm,1.1s,mb5.1
BOSA  Boshof            74.31 238 eP     P      10 09 30.7 -0.4
        comp=Z,28nm,1.1s,mb5.1
MORC  Moravsky Berou    74.60 319 eP     P      10 09 31.2 -1.1
MORC                              pmax   pmax
        comp=Z,22nm,1.0s,mb5.0
MORC  Moravsky Berou    74.60 319 eP     P      10 09 31.2 -1.1
        comp=Z,22nm,1.0s,mb5.0
ZST   Bratislava        74.72 318 eP     P      10 09 32.8 -0.3
ARCES ARCESS Array B    74.96 340 P      P      10 09 33.5 -0.5
        comp=Z,8.5nm,0.9s,mb4.7,baz=101,slow=6.2,SNR=13
ARE0  ARCESS Array S    74.96 340 eP     P      10 09 33.0 -1.0
VRAC  Vranov            75.17 319 P      P      10 09 35.8 +0.2
        comp=Z,6.6nm,0.8s,mb4.6,baz=95,slow=7.0,SNR=10.0
DPC   Dobruska-Polom    75.44 320 eP     P      10 09 36.7 -0.4
KSP   Ksiaz             75.51 320 eP     P      10 09 37.0 -0.5
KSP                               epP    pP     10 09 40.8 -1.1
UPC   Upice             75.65 320 eP     P      10 09 38.5 +0.2
PRU   Pruhonice         76.55 319 eP     P      10 09 43.7 +0.3
BILL  Bilibino          76.77  22 i P    P      10 09 44.4 +0.1
BILL                              pmax   pmax
        comp=Z,17nm,1.2s,mb4.8
BRG   Berggiesshubel    77.00 320 i P    P      10 09 46.6 +0.7
BRG                               i             10 09 59.4
BRG                               pmax   pmax
        comp=Z,73nm,1.6s,mb5.4
BRG                               MLR    MLR
        comp=N,1µm,13.9s,MS5.6
BRG                               MLR    MLR
        comp=E,1µm,13.9s,MS5.6
BRG                               MLR    MLR
        comp=Z,2µm,13.9s,MS5.6
BRG   Berggiesshubel    77.00 320 i P    P      10 09 46.6 +0.7
        comp=Z,72nm,1.6s,mb5.4
BRG                               e      pP     10 09 50.6 +0.3
BRG                               i             10 09 59.4
BRG                               LR     LR
        comp=Z,2µm,13.9s,MS5.6
GEC2  GERESS Array S    77.03 318 eP     P      10 09 46.2 +0.1
GEC2                              pmax   pmax
        comp=Z,28nm,0.9s,mb5.2
GEC2  GERESS Array S    77.03 318 eP     P      10 09 46.2 +0.1
        comp=Z,28nm,0.9s,mb5.2
GERES GERESS Array B    77.03 318 P      P      10 09 46.0 -0.1
        comp=Z,17nm,0.8s,mb5.1,baz=93,slow=4.2,SNR=68
KHC   Kasperske Hory    77.12 319 eP     P      10 09 45.5 -1.1
PTCC  Patocco-Chiusa    77.15 316 eP     P      10 09 46.3 -0.5
RUE   Ruedersdorf       77.21 322 eP     P      10 09 45.6 -1.4
FVI   Forni Avoltri     77.55 316 eP     P      10 09 50.1 +1.1
WET   Wettzell          77.58 319 eP     P      10 09 49.3 +0.2
CLL   Collm             77.61 321 i P    P      10 09 49.7 +0.4
CLL                               pmax   pmax
        comp=Z,76nm,1.8s,mb5.3
CLL   Collm             77.61 321 i P    P      10 09 49.7 +0.4
        comp=Z,76nm,1.8s,mb5.3
CLL   Collm             77.61 321 P      P      10 09 49.7 +0.4
CLL                               e*PP   pP     10 09 54.0 +0.3
HFS   Hagfors           77.91 330 P      P      10 09 50.0 -0.7
        comp=Z,11nm,0.9s,mb4.8,baz=108,slow=4.7,SNR=9.2
NKC   Novy Kostel       77.91 320 eP     P      10 09 49.7 -1.2
MAW   Mawson            78.08 191 P      P      10 09 53.9 +2.3
        comp=Z,9.7nm,0.9s,mb4.7,baz=34,slow=6.0,SNR=6.7
SFI   Santa Sofia       78.14 313 eP     P      10 09 53.2 +0.9
PGD   Poggio Sodo       78.24 313 eP     P      10 09 54.0 +1.1
CTI   Castel Tesino     78.32 315 eP     P      10 09 53.6 +0.4
VMG   Vicchio           78.36 313 eP     P      10 09 54.2 +0.7
MOX   Moxa              78.46 320 eP     P      10 09 54.6 +0.7
MOX                               pmax   pmax
        comp=Z,40nm,1.6s,mb5.1
MOX   Moxa              78.46 320 i P    P      10 09 54.6 +0.7
        comp=Z,logA/T=1.4,mb5.1
MOX   Moxa              78.46 320 eP     P      10 09 54.6 +0.7
        comp=Z,40nm,1.6s,mb5.1
SEI   Scarperia         78.50 313 eP     P      10 09 55.4 +1.1
FUR   Furstenfeldbru    78.61 318 eP     P      10 09 54.5 -0.3
GRA1  Grafenberg Arr    78.69 319 eP     P      10 09 55.8 +0.6
        comp=Z,33nm,1.0s,mb5.2
GRF   Grafenberg Arr    78.69 319 eP     P      10 09 55.8 +0.6
GRF                               pmax   pmax
        comp=Z,33nm,1.0s,mb5.2
GRF   Grafenberg Arr    78.69 319 eP     P      10 09 55.8 +0.6
        comp=Z,33nm,1.0s,mb5.2
ZCCA  Zocca             78.78 314 eP     P      10 09 57.6 +1.8
SUR   Sutherland        79.08 235 eP     P      10 09 59.0 +1.2
        comp=Z,44nm,1.0s,mb5.3
SUR                               LR     LR
        comp=Z,2µm,19.0s,MS5.5
NB2   NORSAR Subarra    79.20 331 P      P      10 09 56.1 -1.7
        comp=Z,2.7nm,0.7s,mb4.3,baz=97,slow=5.0
NOA   NORSAR Array B    79.20 331 P      P      10 09 56.5 -1.3
        comp=Z,8.8nm,0.8s,mb4.7,baz=94,slow=5.6,SNR=17
BRMO  Bormio            79.21 316 eP     P      10 09 58.5 +0.4
CLZ   Clausthal         79.28 321 eP     P      10 09 58.4 +0.1
        comp=Z,22nm,0.9s,mb5.1
BSEG  Bad Segeberg      79.36 323 eP     P      10 09 59.0 +0.2
DAVOX Davos             79.55 316 P      P      10 10 00.0 +0.1
        comp=Z,28nm,0.9s,mb5.2,baz=111,slow=8.5,SNR=27
MUD   Monsted U'grnd    80.07 326 i P    P      10 10 03.4 +0.9
MUD                               pmax   pmax
        comp=Z,26nm,1.0s,mb5.1
MUD   Monsted U'grnd    80.07 326 i P    P      10 10 03.4 +0.9
        comp=Z,26nm,1.0s,mb5.1
PGF   Pioggiola         80.24 312 eP     P      10 10 03.9 +0.2
        comp=Z,211nm,1.6s,mb5.5
VAI   Varese            80.33 315 eP     P      10 10 03.7 -0.5
BFO   Black Forest      80.58 318 eP     P      10 10 05.2 -0.2
        comp=Z,13nm,0.9s,mb4.9
CDF   Champ du Feu      81.28 318 eP     P      10 10 08.3 -0.8
        comp=Z,39nm,1.2s,mb4.9
SBF   Sospel            81.33 313 eP     P      10 10 08.9 -0.6
        comp=Z,82nm,0.9s,mb5.4
HINF  Hinteralfeld      81.59 317 eP     P      10 10 09.5 -1.2
LPG   La Plagne         81.75 315 eP     P      10 10 11.6  0.0
        comp=Z,93nm,1.0s,mb5.4
LPL   La Plagne         81.77 315 eP     P      10 10 11.6 -0.1
        comp=Z,104nm,1.0s,mb5.4
MBDF  Montbardon        81.77 314 eP     P      10 10 10.9 -0.8
        comp=Z,64nm,1.1s,mb5.2
HAU   Haudompre         81.92 317 eP     P      10 10 11.6 -0.8
        comp=Z,40nm,0.9s,mb5.1
FRF   La Foret Royal    81.92 313 eP     P      10 10 12.3 -0.2
WLF   Walferdange       81.98 319 eP     P      10 10 12.9 +0.3
        comp=Z,83nm,1.6s,mb5.4
LMR   La Mourre         82.03 313 eP     P      10 10 12.6 -0.5
CABF  La Chapelle       82.16 316 eP     P      10 10 13.4 -0.3
        comp=Z,65nm,1.2s,mb5.2
ORIF  Oris-en-Rattie    82.40 314 eP     P      10 10 14.3 -0.7
        comp=Z,43nm,1.1s,mb5.0
SMRF  Simiane la Rot    82.67 313 eP     P      10 10 16.5 +0.1
        comp=Z,134nm,1.4s,mb5.5
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MEZF	Maizieres J'vi	82.76	318	eP	P	10 10 16.3	-0.5
	comp=Z,27nm,0.9s,mb5.0						
GIVF	Givet	82.81	320	eP	P	10 10 16.3	-0.7
BAIF	Baives	83.21	320	eP	P	10 10 18.7	-0.4
	comp=Z,118nm,1.6s,mb5.4						
VIVF	Saint-Julien-l	83.26	314	eP	P	10 10 19.1	-0.3
	comp=Z,33nm,0.9s,mb5.0						
SMF	Signal de Mont	83.70	316	eP	P	10 10 20.9	-0.8
	comp=Z,59nm,1.2s,mb5.3						
LASF	Ste Croix	83.90	314	eP	P	10 10 22.7	-0.1
	comp=Z,61nm,1.2s,mb5.3						
SSF	Saint Saulge	83.90	317	eP	P	10 10 21.8	-0.9
	comp=Z,111nm,1.7s,mb5.4						
BGF	Bois d'Agland	84.39	316	eP	P	10 10 24.9	-0.3
	comp=Z,45nm,1.1s,mb5.2						
HYF	Humbligny	84.47	317	eP	P	10 10 25.5	0.0
SYO	Syowa Base	84.83	197	⇓P	P	10 10 27.2	+0.4
SYO	Syowa Base	84.83	197	⇓PcP	PcP	10 10 33.3	+2.5
TCF	Toulx Ste Croi	84.86	316	eP	P	10 10 26.4	-1.1
CAF	Calviac	85.10	315	eP	P	10 10 28.7	0.0
	comp=Z,45nm,1.2s,mb5.2						
MTLF	Montolieu	85.15	313	eP	P	10 10 28.9	-0.1
	comp=Z,38nm,0.9s,mb5.2						
RJF	Les Rejaudoux	85.44	315	eP	P	10 10 30.6	+0.2
	comp=Z,56nm,1.2s,mb5.3						
LDF	La Druitiere	86.17	318	eP	P	10 10 33.4	-0.6
	comp=Z,31nm,1.0s,mb5.2						
FLN	La Foliniere	86.39	319	eP	P	10 10 34.5	-0.5
MFF	Saint Martin d	86.44	316	eP	P	10 10 34.8	-0.6
	comp=Z,36nm,1.1s,mb5.2						
GRR	Gorron	86.69	318	eP	P	10 10 36.0	-0.5
	comp=Z,91nm,1.5s,mb5.5						
EKA	Eskdalemuir Ar	87.07	325	P	P	10 10 39.3	+1.1
	comp=Z,13nm,0.8s,mb5.2,baz=97,slow=5.7,SNR=16						
ETSF	Etsaut	87.22	313	eP	P	10 10 38.6	-0.7
	comp=Z,50nm,1.2s,mb5.3						
ANM	Nome	88.18	25	eP	P	10 10 44.8	+1.5
ESDC	Sonseca Array	90.26	310	P	P	10 10 54.4	+0.6
	comp=Z,8.8nm,0.9s,mb5.1,baz=59,slow=4.3,SNR=18						
IMA	Indian Mountai	92.31	22	eP	P	10 11 04.5	+2.0
VNDA	Vanda	93.04	168	P	P	10 11 07.0	+1.3
	comp=Z,3.3nm,0.9s,mb4.8,baz=263,slow=6.5,SNR=5.0						
VNDA	Vanda	93.04	168	eP	P	10 11 06.8	+1.1
VNDA				LR	LR		
	comp=Z,5μm,20.0s,MS5.9						
SBA	Scott Base	94.14	168	eP	P	10 11 13.2	+2.4
SBA				LR	LR		
	comp=Z,3μm,21.0s,MS5.7						
MCK	McKinley	95.17	23	eP	P	10 11 16.2	+0.5
	comp=Z,8.9nm,1.2s,mb5.1						
ILAR	Eielson Array	95.43	22	P	P	10 11 17.1	+0.2
	comp=Z,2.4nm,0.8s,mb4.7,baz=298,slow=4.5,SNR=10.0						
PWA	Palmer West	95.78	25	eP	P	10 11 20.2	+1.6
DBIC	Dimbokro	96.58	278	P	P	10 11 25.6	+2.2
	comp=Z,10.0nm,0.9s,mb5.2,baz=45,slow=5.3,SNR=10						
INK	Inuvik	97.54	16	P	P	10 11 27.6	+1.2
	comp=Z,4.2nm,0.9s,mb5.0,baz=306,slow=4.6,SNR=6.4						
MENT	Mentasta	97.60	23	eP	P	10 11 30.8	+4.0
YKA	Yellowknife Ar	106.91	13	Pdiff	Pdif	10 12 12.5	+4.2
	comp=Z,0.5nm,0.9s,baz=325,slow=4.4,SNR=3.6						
YKA				PKiKP		10 16 17.4	
	comp=Z,0.6nm,0.9s,baz=328,slow=2.8,SNR=4.5						
YKA				PP	PP	10 16 30.9	-6.9
	comp=Z,2.1nm,0.9s,baz=332,slow=7.1,SNR=4.8						
YKA				PKKP	PKKP	10 27 49.8	+6.5
	comp=Z,0.4nm,0.7s,baz=149,slow=4.1,SNR=3.8						
YKA	Yellowknife Ar	106.91	13	Pdif	Pdif	10 12 12.6	+4.2
YKA				PKPdf		10 16 17.4	
YKA				PP	PP	10 16 30.9	-6.9
YKA				PKKP	PKKP	10 27 49.9	+6.5
HUMO	Hull Mountain	120.30	30	ePKPdf	PKPdf	10 16 45.9	-0.6
MSO	Missoula	120.75	21	ePKPdf	PKPdf	10 16 44.7	-2.6
ULM	Lac du Bonnet	121.81	6	PKP	PKPdf	10 16 47.2	-2.1
	comp=Z,4.9nm,0.7s,baz=351,slow=2.6,SNR=12						
LAO	LASA Array	123.28	16	ePKPdf	PKPdf	10 16 51.0	-1.1
HLID	Hailey	123.35	23	ePKPdf	PKPdf	10 16 50.4	-1.9
LKWY	Lake	123.95	20	ePKPdf	PKPdf	10 16 54.3	+0.8
TPAW	Teton Pass	124.70	21	ePKPdf	PKPdf	10 16 54.3	-0.8
LOHW	Long Hollow	124.72	20	ePKPdf	PKPdf	10 16 53.5	-1.6
WUWY	Wally Ulrich	124.73	21	ePKPdf	PKPdf	10 16 53.7	-1.4
SNOW	Snow King Moun	124.80	21	ePKPdf	PKPdf	10 16 53.8	-1.4
REDW	Red Top Meadow	124.85	21	ePKPdf	PKPdf	10 16 53.8	-1.5
ELK	Elko	125.35	26	ePKPdf	PKPdf	10 16 56.1	-0.3
NVAR	Mina Array Bea	125.78	30	PKP	PKPdf	10 16 55.9	-1.4
	comp=Z,12nm,1.0s,baz=69,slow=2.9,SNR=34						
PDAR	Pinedale Array	125.82	20	PKP	PKPdf	10 16 54.9	-2.4
	comp=Z,7.7nm,0.8s,baz=71,slow=0.5,SNR=41						
HWUT	Hardware Ranch	126.12	22	ePKPdf	PKPdf	10 16 56.6	-1.2
SADO	Sadowa	127.27	353	PKP	PKPdf	10 16 56.7	-3.2
	comp=Z,8.1nm,0.8s,baz=82,slow=1.3,SNR=4.2						
RWWY	Rawlins	127.56	19	ePKPdf	PKPdf	10 16 58.3	-2.3
MVU	Marysvale	128.51	25	ePKPdf	PKPdf	10 17 02.4	-0.1
MSU	Marysvale	128.51	25	ePKPdf	PKPdf	10 17 02.4	-0.1
NEN	Nelson	129.67	29	ePKPdf	PKPdf	10 17 04.5	-0.3
PV10	Paradox Valley	129.88	22	ePKPdf	PKPdf	10 17 04.3	-0.8
PV01	Paradox Valley	130.27	22	ePKPdf	PKPdf	10 17 04.6	-1.3
RW3	Ridgway	130.49	21	ePKPdf	PKPdf	10 17 05.0	-1.3
KSU1	Kansas State U	132.64	10	ePKPdf	PKPdf	10 17 07.9	-2.5
ANMO	Albuquerque	133.87	22	ePKPdf	PKPdf	10 17 10.7	-2.0
TUC	Tucson	134.33	28	ePKPdf	PKPdf	10 17 13.0	-0.7
MNTX	Cornudas Mount	137.17	23	ePKPdf	PKPdf	10 17 17.5	-1.4
MIAR	Mount Ida	137.57	8	ePKPdf	PKPdf	10 17 18.0	-1.5
TXAR	Lajitas Array	139.94	23	PKhKP		10 17 18.0	
	comp=Z,4.9nm,1.1s,baz=308,slow=0.5,SNR=11						
TXAR				PKP	PKPdf	10 17 23.1	-0.9
	comp=Z,2.4nm,0.6s,baz=225,slow=1.3,SNR=18						
JCT	Junction City	140.18	17	ePKPdf	PKPdf	10 17 23.2	-1.3
BAO	Brasilia Array	140.79	255	PKP	PKPdf	10 17 24.8	-1.2
BDFB	Brasilia	140.81	255	PKP	PKPdf	10 17 25.2	-0.8
	comp=Z,8.0nm,1.0s,baz=188,slow=1.2,SNR=7.0						
SJG	San Juan	146.95	321	PKPbc	PKPbc	10 17 35.5	+0.9
	comp=Z,29nm,0.9s,baz=332,slow=22,SNR=6.4						
SJG	San Juan	146.95	321	ePKPdf	PKPdf	10 17 36.4	-0.1
MDZ	Mendoza	149.67	212	eP	PKPdf	10 17 44.9	+4.4
FCH	Farellones	150.04	209	i P	PKPdf	10 17 45.4	+4.4
TEIG	Tepich	152.24	2	ePKPbc	PKPdf	10 17 49.5	+4.9
SDV	Santo Domingo	156.63	315	PKP	PKPdf	10 17 50.0	-0.8
	comp=Z,7.4nm,1.1s,baz=321,slow=3.1,SNR=6.2						
SDV				PKPab	PKPab	10 18 18.0	-1.0
	comp=Z,8.1nm,0.9s,baz=158,slow=3.5,SNR=5.5						
LVC	Limon Verde	156.94	228	PKP	PKPdf	10 17 51.9	+0.9
	comp=Z,5.3nm,1.1s,baz=330,slow=3.2,SNR=4.1						
LVC				PKPab	PKPab	10 18 21.6	+1.5
	comp=Z,13nm,0.9s,baz=232,slow=0.9,SNR=9.2						
LVC	Limon Verde	156.94	228	ePKPdf	PKPdf	10 17 50.7	-0.2
LPAZ	La Paz	159.44	244	PKP	PKPdf	10 17 54.5	+0.3
	comp=Z,7.1nm,0.9s,baz=74,slow=1.7,SNR=15						
LPAZ				PKPab	PKPab	10 18 31.8	+0.9
	comp=Z,13nm,0.9s,baz=99,slow=6.4,SNR=14						
LPAZ	La Paz	159.44	244	ePKPdf	PKPdf	10 17 54.2	0.0
LPAZ				ePKPab	PKPab	10 18 31.6	+0.6
ROSC	El Rosal	162.05	314	PKP	PKPdf	10 17 57.4	+0.4
	comp=Z,9.2nm,0.9s,baz=284,slow=23,SNR=5.5						

IDC 27 09:59:37.3±1.5**,7.93N**×**94.22E,mb4.4**/7**,mb1 4.6**/7**, mb1mx4.3**/18**,MS5.6**/3**,Ms1 5.6**/3**,ms1mx4.7**/24**,Error ellipse: s-maj=96.3km s-min=27.2km az=49.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	Zalesovo	46.51	352	P	P	10 08 06.0	-2.2
	4.9nm,0.3s,baz=282,slow=11,SNR=3.8						
WRA	Warramunga Arr	48.23	126	P	P	10 08 20.1	-2.0
	3.7nm,0.7s,baz=303,slow=10,SNR=2.3						
ASAR	Alice Springs	49.89	130	LR	LR	10 30 16.8	
	comp=Z,3μm,21.9s,baz=300,slow=37						
STKA	Stephens Creek	60.09	134	LR	LR	10 40 26.3	
	comp=Z,5μm,18.5s,baz=298,slow=41						
FINES	FINESS Array B	72.70	332	P	P	10 11 07.1	-1.7
	2.5nm,0.6s,baz=90,slow=5.6,SNR=4.2						
ARCES	ARCESS Array B	75.24	340	P	P	10 11 22.2	-1.3
	1.4nm,0.7s,baz=98,slow=6.4,SNR=5.6						
ARCES				LR	LR	10 47 34.6	
	comp=Z,6μm,21.2s,baz=110,slow=38						
GERES	GERESS Array B	77.84	318	P	P	10 11 37.0	-1.4
	2.7nm,0.8s,baz=90,slow=3.9,SNR=2.7						
HFS	Hagfors	78.45	330	P	P	10 11 39.9	-1.6
	2.4nm,0.4s,baz=111,slow=3.4,SNR=8.1						
NOA	NORSAR Array B	79.72	331	P	P	10 11 46.9	-1.5
	1.4nm,0.6s,baz=96,slow=5.6,SNR=2.3						

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*NEIC **27** 10:01:41.6±2.9,7.51N×92.65E,h48^{km}±24^{km},mb5.0/4, Error ellipse: s-maj=22.9km s-min=11.6km az=45.0*

*IDC **27** 10:01:42.5±4.7,7.54N×92.72E,h54^{km}±41^{km},mb4.2/20, mb1 4.3/21,mb1mx4.2/26,ML4.6/1,MS5.6/1,Ms1 5.6/1, ms1mx4.0/29,Error ellipse: s-maj=22.7km s-min=12.2km az=40.0*

*BJI **27** 10:01:43.3,8.18N×92.90E,h48^{km},mb4.8,Ms6.0,Msz5.8*

ISC 27 10:01:37.8±0.5**,7.55N**±0.08×**92.76E**±0.08**,h33**^{km}**,n39, σ1**^{s}**25**/32**,mb4.6**/27**,MS5.7**/2**,1D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.40	28	ePn	P	10 04 36.0	+1.1
	32nm,0.7s						
CMAR	Chiang Mai Arr	12.40	28	P	P	10 04 38.2	+3.3
	1.0nm,0.3s,baz=231,slow=14,SNR=9.8						
KMI	Kunming	19.91	27	P	P	10 06 07.5	-2.0
KMI				AMB	AMB		
	comp=Z,39nm,1.6s						
QIZ	Qiongzhong	20.14	54	P	P	10 06 11.8	-0.2
LSA	Lhasa	22.09	356	eP	P	10 06 32.5	+0.8
	comp=Z,142nm,1.3s,mb5.2						
GTA	Gaotai	32.35	10	eP	P	10 08 06.3	-0.1
GTA				AMB	AMB		
	comp=Z,27nm,1.0s,mb5.0						
GTA				LR	LR		
	comp=N,14μm,15.6s,MS5.8						
GTA				LR	LR		
	comp=E,11μm,17.5s,MS5.8						
GTA				LR	LR		
	comp=Z,17μm,17.1s,MS5.8						
AAK	Ala-Archa	38.48	338	eP	P	10 08 58.0	-0.5
	comp=Z,32nm,1.3s,mb4.9						
JOW	Kunigami	38.77	56	P	P	10 09 03.7	+2.6
	comp=Z,6.2nm,0.6s,mb4.5,baz=194,slow=12,SNR=3.4						
SONM	Songino Array	41.79	14	P	P	10 09 28.9	+3.0
	comp=Z,3.5nm,1.0s,mb3.9,baz=193,slow=7.5,SNR=3.0						
SNY	Shenyang	43.69	34	⇓P	P	10 09 40.5	-1.0
SNY				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
CN2	Changchun	46.04	33	eP	P	10 09 58.8	-1.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAL	Zalesovo	46.70	354	P	P	10 10 04.5	-0.7
	comp=Z,2.1nm,0.4s,mb4.4,baz=218,slow=7.4,SNR=4.2						
BVAR	Borovoye Array	48.87	342	P	P	10 10 21.4	-0.8
	comp=Z,7.3nm,1.1s,mb4.6,baz=153,slow=9.7,SNR=3.0						
WRA	Warramunga Arr	49.20	124	P	P	10 10 24.5	-0.7
	comp=Z,5.1nm,0.5s,mb4.8,baz=304,slow=8.6,SNR=12						
CHKZ	Chkalovo	49.36	343	eP	P	10 10 24.7	-1.3
	comp=Z,12nm,1.0s,mb4.9						
ASAR	Alice Springs	50.77	129	P	P	10 10 36.5	-0.7
	comp=Z,3.7nm,0.7s,mb4.4,baz=306,slow=7.8,SNR=5.5						
ASAR				PcP	PcP	10 11 54.1	0.0
	comp=Z,2.6nm,0.7s,baz=292,slow=4.7,SNR=3.6						
KMBO	Kilima Mbogo	56.03	264	P	P	10 11 17.9	+1.8
	comp=Z,4.8nm,0.9s,mb4.5,baz=55,slow=20,SNR=2.4						
PMG	Port Moresby	56.75	106	P	P	10 11 22.0	+0.7
	comp=Z,6.9nm,0.7s,mb4.8,baz=222,slow=7.6,SNR=3.3						
PMG				LR	LR	10 38 37.2	
	comp=Z,5μm,19.4s,MS5.6,baz=127,slow=39						
ASF	Jabal al Asfar	57.25	303	P	P	10 11 25.3	+0.7
	comp=Z,2.5nm,0.4s,mb4.6,baz=152,slow=0.2,SNR=2.4						
CTA	Charters Tower	59.35	119	P	P	10 11 40.4	+0.9
	comp=Z,3.1nm,0.8s,mb4.4,baz=285,slow=12,SNR=2.2						
STKA	Stephens Creek	60.88	133	P	P	10 11 48.5	-1.3
	comp=Z,6.9nm,1.0s,mb4.8,baz=194,slow=8.9,SNR=3.0						
BRTR	Keskin Array B	61.61	311	P	P	10 11 53.2	-1.4
	comp=Z,2.2nm,0.7s,mb4.4,baz=124,slow=5.2,SNR=3.4						
IDI	Anoyia	67.63	305	P	P	10 12 33.6	-0.1
	comp=Z,9.6nm,0.9s,mb4.8,baz=244,slow=22,SNR=2.1						
FINES	FINESS Array B	72.36	332	P	P	10 13 00.7	-1.3
	comp=Z,2.7nm,0.7s,mb4.3,baz=106,slow=10,SNR=3.0						
FINES	FINESS Array B	72.36	332	P	P	10 13 00.7	-1.3
ARCES	ARCESS Array B	75.11	340	P	P	10 13 17.1	-0.8
	comp=Z,3.1nm,1.0s,mb4.2,baz=112,slow=4.9,SNR=3.3						
GERES	GERESS Array B	77.16	318	P	P	10 13 29.6	-0.3
	comp=Z,4.3nm,0.8s,mb4.4,baz=90,slow=4.9,SNR=4.9						
NOA	NORSAR Array B	79.34	331	P	P	10 13 43.1	+1.4
	comp=Z,2.0nm,0.8s,mb4.1,baz=82,slow=6.6,SNR=3.7						
DAVOX	Davos	79.67	316	P	P	10 13 43.7	-0.1
	comp=Z,4.1nm,0.6s,mb4.5,baz=135,slow=10.0,SNR=6.8						
LPG	La Plagne	81.88	315	eP	P	10 13 59.9	+4.5
	comp=Z,9.2nm,0.7s,mb4.5						
EKA	Eskdalemuir Ar	87.21	325	P	P	10 14 23.8	+1.9
	comp=Z,4.2nm,0.9s,mb4.7,baz=68,slow=4.5,SNR=3.8						
ILAR	Eielson Array	95.56	22	P	P	10 15 02.9	+2.4
	comp=Z,0.6nm,0.7s,mb4.1,baz=298,slow=5.2,SNR=4.5						
ULM	Lac du Bonnet	121.95	7	PKP	PKPdf	10 20 31.4	+2.4
	comp=Z,1.6nm,0.8s,baz=7.7,slow=12,SNR=2.8						
NVAR	Mina Array Bea	125.89	30	PKP	PKPdf	10 20 39.8	+2.9
	comp=Z,1.2nm,0.8s,baz=252,slow=2.9,SNR=3.9						
PDAR	Pinedale Array	125.95	20	PKP	PKPdf	10 20 38.9	+1.9
	comp=Z,1.3nm,0.7s,baz=91,slow=1.2,SNR=3.7						
TXAR	Lajitas Array	140.06	23	PKhKP		10 20 59.2	
	comp=Z,2.9nm,1.0s,baz=45,slow=1.8,SNR=3.7						
TXAR				PKP	PKPdf	10 21 07.2	+3.5
	comp=Z,0.6nm,0.6s,baz=352,slow=0.5,SNR=6.9						
TXAR	Lajitas Array	140.06	23	PKP	PKPdf	10 21 07.2	+3.5
CPUP	Villa Florida	145.98	233	PKPbc	PKPbc	10 21 17.6	+2.4
	comp=Z,0.0nm,0.4s,baz=275,slow=7.6,SNR=1.8						
LPAZ	La Paz	159.40	243	PKP	PKPdf	10 21 35.9	+2.2
	comp=Z,1.2nm,0.9s,baz=147,slow=8.0,SNR=2.3						
LPAZ				PKPab	PKPab	10 22 14.9	+1.2
	comp=Z,3.9nm,0.8s,baz=114,slow=7.8,SNR=7.2						

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*MOS **27** 10:05:02.4±0.9,4.92N×95.17E,h33^{km},mb6.1/82, MS5.6/20,Error ellipse: s-maj=8.3km s-min=4.0km az=125.1*

*SYO **27** 10:05:02.3,4.78N×95.11E,h25^{km},MB5.9*

*BJI **27** 10:05:03.1,4.61N×95.04E,h57^{km},mB5.9,mb5.9,Ms6.0, Msz5.9*

*CSEM **27** 10:05:04.7,5.24N×94.97E,h33^{km},mb6.1*

*NEIC **27** 10:05:05.4±0.1,4.72N×95.11E,mb5.8/109,MS5.6/15, Error ellipse: s-maj=4.4km s-min=3.0km az=216.0*

*HRVD **27** 10:05:05.4±0.3,4.47N×95.00E,h53^{km}±1^{km},MW5.7/67, Centroid moment Tensor Solution. LP body waves: s40,c53;Mantle waves: s67,c138; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M_{rr}4.02±.17; $M_{\theta\theta}$-2.30±.10; $M_{\phi\phi}$-1.72±.11; $M_{r\theta}$1.67±.07; $M_{\theta\phi}$2.04±.06; $M_{\phi r}$-1.58±.08; Best double couple: $M_0$4.65×10^{17} NP1: ϕ_s310°,δ30°,λ88°. NP2:ϕ_s132°,δ60°,λ91°. Principal axes: T 4.63, Plg75°, Azm46°; N .05, Plg1°, Azm312°; P -4.68, Plg15°, Azm221°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **27** 10:05:09.6±1.4,4.72N×95.16E,h86^{km}±12^{km},mb5.2/30, mb1 5.2/31,mb1mx5.2/33,MS5.5/2,Ms1 5.5/2, ms1mx4.3/26 Error ellipse: s-maj=14.1km s-min=7.0km az=42.0*

ISC 27 10:05:03.7±0.1**,4.73N**±0.03×**95.15E**±0.02**,h49**^{km}**, h49**^{km}±1.8^{km}**:pP-P,n614,σ0**^{s}**89**/553**,mb5.8**/175**,MS5.7**/38**, 195C-15D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.14	15	ePn	P	10 08 25.8	+2.7
	458nm,0.8s						
CMAR	Chiang Mai Arr	14.14	15	P	P	10 08 25.2	+2.1
	1.8nm,0.3s,baz=200,slow=8.9,SNR=32						
CMAR				ScP		10 17 09.7	
	baz=220,slow=2.8,SNR=5.8						
PALK	Pallekele	14.59	281	eP	P	10 08 25.9	-3.0
MDRS	Chennai	16.88	300	eS	S	10 11 51.3	-12
COCO	West Island	16.89	174	eP	P	10 08 56.9	-1.4
	1μm,1.4s						
VIS	Vishakhapatnam	17.34	319	eP	P	10 09 03.1	-0.8
VIS				e		10 09 09.0	
	comp=Z,364nm,1.6s						
VIS				eS	S	10 12 04.2	-9.1
KOD	Kodaikanal	18.36	288	eP	P	10 09 17.2	+0.6
TRD	Trivandrum	18.45	283	eP	P	10 09 19.8	+2.1
IMP	Imphal	19.98	357	eP	P	10 09 32.6	-2.2
QIZ	Qiongzhong	20.19	44	P	P	10 09 38.3	+1.2
QIZ	Qiongzhong	20.19	44	eP	P	10 09 36.1	-0.9
	comp=Z,174nm,1.0s						
HYB	Hyderabad	20.57	309	⇑eP	P	10 09 41.0	0.0
	comp=Z,220nm,1.0s						
HYB				eS	S	10 13 28.0	+4.7
HYB	Hyderabad	20.57	309	⇑iP	P	10 09 41.0	0.0
	comp=Z,220nm,1.0s						
HYB				eS	S	10 13 28.0	+4.7
HYB				LR	LR	10 19 28.0	
	comp=Z,24nm,16.0s						
BOK	Bokaro	20.95	336	eP	P	10 09 44.0	-0.9
BOK				e		10 10 06.7	
	comp=Z,647nm,1.2s						
BOK				eS	S	10 13 31.6	+0.9
SHL	Shillong	20.96	352	eP	P	10 09 42.8	-2.1
SHL				e		10 09 49.8	
	comp=Z,148nm,1.0s						
SHL				eS	S	10 13 34.1	+3.4
BLSP	Bilaspur	21.41	325	eP	P	10 09 49.7	+0.3
BLSP				e		10 09 52.1	
	comp=Z,786nm,1.2s						
BLSP				e	S	10 13 46.7	+7.6
KMI	Kunming	21.55	19	P	P	10 09 52.8	+1.9
KMI				PP	PP	10 10 14.8	-1.5
KMI				AMB	AMB		
	comp=Z,364nm,1.3s,mb5.7						
MNCY	Minicoy	22.25	280	⇓iP	P	10 10 03.0	+5.1
MNCY				i		10 11 17.0	
BATP	Bataraza	22.85	79	eP	P	10 10 04.4	+0.5
SRDI	Scrawed	23.04	125	⇑eP	P	10 10 05.2	-0.6
	comp=Z,306nm,1.0s,mb5.7						
KELI	Kelakatan	23.18	124	⇑eP	P	10 10 07.2	0.0
	comp=Z,518nm,1.1s,mb5.9						
GOA	Goa	23.53	299	e	P	10 10 20.5	+10
AKL	Akola	23.72	314	eP	P	10 10 15.8	+3.5
AKL				e		10 10 34.6	
	comp=Z,622nm,1.3s						
ALBI	Allahabad	24.14	329	i P	P	10 10 15.5	-0.8
ALBI				i		10 10 15.5	
GYA	Guiyang	24.25	26	⇑iP	P	10 10 18.5	+1.1
GYA				PP	PP	10 10 56.5	+3.0
GYA				S	S	10 14 31.5	+1.6
GYA				AMB	AMB		
	comp=Z,170nm,1.1s,mb5.4						
GYA				AMB	AMB		
	comp=Z,2μm,3.8s						
GYA				LR	LR		
	comp=N,3μm,16.7s,MS5.0						
GYA				LR	LR		
	comp=E,2μm,15.8s,MS5.0						
RATI	Rata	24.32	123	⇑eP	P	10 10 15.2	-3.0
	comp=E,684nm,1.0s,mb6.0						
PKI	Pulchoki	24.54	339	eP	P	10 10 19.0	-1.2
	comp=E,317nm,1.2s,mb5.7						
DMN	Daman	24.68	338	eP	P	10 10 21.8	+0.2
	comp=E,238nm,1.0s,mb5.7						
GUN	Gumba	24.69	340	eP	P	10 10 20.7	-0.9
	comp=E,155nm,0.4s,mb5.9						
KEDI	Kedomdong	24.69	122	⇑eP	P	10 10 20.6	-1.2
KEDI				pmax	pmax		
	comp=Z,383nm,1.1s,mb5.8						
KEDI	Kedomdong	24.69	122	⇑eP	P	10 10 20.6	-1.2
	comp=Z,382nm,1.1s,mb5.8						
KKN	Kakani	24.79	339	eP	P	10 10 21.4	-1.2
	comp=Z,299nm,1.0s,mb5.8						
ENPP	El Nido	24.88	74	eP	P	10 10 23.1	-0.4
POO	Poona	24.92	305	⇑iP	P	10 10 24.0	0.0
LSA	Lhasa	25.12	352	eP	P	10 10 25.2	-0.6
LSA				pmax	pmax		
	comp=Z,236nm,0.9s,mb5.7						
LSA	Lhasa	25.12	352	eP	P	10 10 25.2	-0.6
	comp=Z,236nm,0.9s,mb5.7						
GKN	Gorkha	25.22	338	eP	P	10 10 26.1	-0.6
	comp=Z,707nm,1.1s,mb6.1						
KOLN	Koldanda	25.42	336	eP	P	10 10 28.7	+0.1
	comp=Z,659nm,0.9s,mb6.2						
DGAR	Diego Garcia	25.66	242	P	P	10 10 30.0	-1.0
JHNI	Jhansi	26.06	324	⇑iP	P	10 10 32.0	-2.6
JHNI				e	pP	10 10 49.0	+2.0
LUBP	Lubang	26.31	68	eP	P	10 10 37.8	+0.8
LUBP	Lubang	26.31	68	eP	P	10 10 37.8	+0.8
SCZP	Santa Cruz	26.69	64	eP	P	10 10 40.8	+0.3
SJMP	San Jose	26.78	72	eP	P	10 10 42.4	+1.0
BOLP	Bolinao	26.92	63	eP	P	10 10 43.3	+0.7
TGY	Tagaytay City	27.06	68	P	P	10 10 45.5	+1.6
	comp=Z,388nm,0.5s,mb6.2,baz=229,slow=3.4,SNR=20						
CD2	Chengdu	27.28	16	P	P	10 10 45.0	-0.7
CD2				AMB	AMB		
	comp=Z,590nm,0.9s,mb6.1						
OTRP	Odiongan	27.61	72	eP	P	10 10 49.7	+0.8
LQP	Lukban	27.62	68	⇑eP	P	10 10 49.5	+0.5
PCPH	Palayan	27.68	65	⇓eP	P	10 10 49.2	-0.3
ABRA	Dolores	28.12	61	eP	P	10 10 54.1	+0.6
BALP	Baler	28.17	65	eP	P	10 10 54.2	+0.2
POLP	Polilio Island	28.18	67	eP	P	10 10 54.6	+0.6
LGTI	Lohaghat	28.35	332	eP	P	10 10 55.5	+0.1
PTH	Pithoragarh	28.45	332	eP	P	10 10 55.9	-0.4
PTH				eS	S	10 15 40.8	+2.2
APYP	Conner	28.67	61	eP	P	10 10 58.6	+0.2
ENH	Enshi	28.79	26	eP	P	10 10 58.1	-1.2
	comp=Z,220nm,1.2s,mb5.8						
CAUP	Cauayan	28.82	63	eP	P	10 11 00.1	+0.4
CVP	Callao Caves	29.11	62	eP	P	10 11 02.0	-0.3
NDI	New Delhi	29.28	326	eP	P	10 11 02.9	-0.8
NDI				e	pP	10 11 18.6	+2.3
	comp=Z,182nm,1.3s						
PALP	Palanan	29.40	63	eP	P	10 11 04.0	-0.9
BUKP	Musuan	29.89	82	eP	P	10 11 09.8	+0.5
QZH	Quanzhou	30.18	46	⇑iP	P	10 11 12.8	+1.0
QZH				AMB	AMB		
	comp=Z,620nm,1.2s,mb6.2						
QZH				LR	LR		
	comp=N,30μm,13.0s,MS6.3						
QZH				LR	LR		
	comp=E,39μm,13.7s,MS6.3						
QZH				LR	LR		
	comp=Z,60μm,15.7s,MS6.3						
BBP	Basco	30.39	57	eP	P	10 11 13.9	+0.2
WHN	Wuhan	31.42	33	P	P	10 11 23.0	+0.4
WHN				S	S	10 16 23.3	-2.3
WHN				LR	LR		
	comp=Z,30μm,19.2s,MS6.0						
XAN	Xi'an	31.85	22	P	P	10 11 25.3	-1.1
XAN				AMB	AMB		
	comp=Z,632nm,1.1s,mb6.4						
LZH	Lanzhou	32.22	13	⇑P	P	10 11 28.5	-1.1
LZH				PP	PP	10 12 35.0	-2.7
LZH				PCP	PcP	10 14 18.0	+0.6
LZH				eS	S	10 16 41.0	+2.9
LZH				SCP		10 17 58.0	
LZH				SS	SS	10 18 33.0	-1.4
LZH				SCS	ScS	10 21 53.5	+0.3
LZH				AMB	AMB		
	comp=Z,174nm,1.1s,mb5.8						
LZH				AMB	AMB		
	comp=Z,863nm,4.0s						
LZH				LR	LR		
	comp=E,12μm,13.8s						
LZH				LR	LR		
	comp=Z,16μm,15.0s,MS5.8						
PONG	Pong	32.52	329	eP	P	10 11 32.0	-0.2
DLH	Dalhousie	32.98	329	eP	P	10 11 36.0	-0.2
THN	Thein Dam	33.02	329	eP	P	10 11 34.6	-2.0
	comp=Z,41nm,0.5s,mb5.6						
THN				eS	S	10 16 51.4	+0.8
GTA	Gaotai	34.78	6	⇑iP	P	10 11 51.0	-0.7
GTA				AP	pP	10 12 01.0	-3.6
GTA				PP	PP	10 13 09.5	-0.5
GTA				PCP	PcP	10 14 25.0	+0.5
GTA				S	S	10 17 19.3	+1.5
GTA				SCP		10 18 06.3	
GTA				SS	SS	10 19 31.3	-2.0
GTA				SCS	ScS	10 22 06.8	+0.3
GTA				AMB	AMB		
	comp=Z,427nm,0.9s,mb6.4						
GTA				AMB	AMB		
	comp=Z,4μm,5.0s						
GTA				LR	LR		
	comp=N,9μm,14.4s,MS5.8						
GTA				LR	LR		
	comp=E,9μm,11.4s,MS5.8						
GTA				LR	LR		
	comp=Z,9μm,13.7s,MS5.7						
NJ2	Nanjing	35.10	36	eP	P	10 11 55.0	+0.5
NJ2				PP	PP	10 13 12.5	-1.6
NJ2				S	S	10 17 23.0	+0.2
NJ2				AMB	AMB		
	comp=Z,710nm,1.0s,mb6.5						
NJ2				AMB	AMB		
	comp=Z,6μm,7.4s						
NJ2				LR	LR		
	comp=N,17μm,17.5s,MS6.1						
NJ2				LR	LR		
	comp=E,24μm,16.0s,MS6.1						

NJ2				LR	LR		
	comp=Z,28µm,19.2s,MS6.0						
MBWA	Marble Bar	35.26	138	eP	P	10 11 55.0	-0.9
	comp=Z,71nm,1.4s,mb5.4						
SSE	Sheshan	35.88	40	P	P	10 12 02.3	+1.2
SSE				AMB	AMB		
	comp=Z,88nm,1.0s,mb5.6						
SSE				AMB	AMB		
	comp=Z,1µm,11.3s						
TIA	Tai'an	37.29	30	eP	P	10 12 12.5	-0.4
TIA				AMB	AMB		
	comp=Z,278nm,1.5s,mb5.9						
TIA				LR	LR		
	comp=N,10µm,15.0s,MS5.8						
TIA				LR	LR		
	comp=E,8µm,15.0s,MS5.8						
BTO	Baotou	38.14	18	eP	P	10 12 19.0	-1.0
BTO				AMB	AMB		
	comp=Z,89nm,0.9s,mb5.5						
BTO				LR	LR		
	comp=N,3µm,13.7s,MS5.8						
BTO				LR	LR		
	comp=E,10µm,12.5s,MS5.8						
JOW	Kunigami	38.50	52	P	P	10 12 24.6	+1.5
	comp=E,465nm,1.1s,mb6.1,baz=247,slow=7.4,SNR=56						
KSH	Kashi	38.73	336⇑	iP	P	10 12 26.0	+1.1
KSH				PP	PP	10 13 58.8	+0.9
KSH				PCP	PcP	10 14 39.3	+2.9
KSH				S	S	10 18 20.8	+2.5
KSH				PCS		10 18 26.5	
KSH				SS	SS	10 21 01.3	-0.9
KSH				AMB	AMB		
	comp=Z,2µm,2.8s,mb6.4						
KSH				LR	LR		
	comp=N,12µm,12.3s,MS6.0						
KSH				LR	LR		
	comp=E,11µm,14.2s,MS6.0						
HHC	Hu-ho-hao-te	38.87	20⇑	iP	P	10 12 25.3	-0.7
HHC				PP	PP	10 13 57.0	-2.4
HHC				PCP	PcP	10 14 37.8	+1.0
HHC				S	S	10 18 19.5	-0.8
HHC				PCS		10 18 25.3	
HHC				SCS	ScS	10 22 31.3	+2.0
HHC				AMB	AMB		
	comp=Z,207nm,1.3s,mb5.7						
HHC				AMB	AMB		
	comp=Z,2µm,3.1s						
HHC				LR	LR		
	comp=N,10µm,16.7s,MS5.9						
HHC				LR	LR		
	comp=E,8µm,15.5s,MS5.9						
HHC				LR	LR		
	comp=Z,13µm,15.5s,MS5.8						
WMQ	Urumqi	39.48	352 ⇑	P	P	10 12 31.5	+0.4
WMQ				PP	PP	10 14 06.0	-0.1
WMQ				S	S	10 18 32.5	+3.0
WMQ				AMB	AMB		
	comp=Z,158nm,1.0s,mb5.7						
WMQ				LR	LR		
	comp=N,2µm,24.1s,MS5.6						
WMQ				LR	LR		
	comp=E,11µm,26.1s,MS5.6						
WMQ				LR	LR		
	comp=Z,7µm,21.2s,MS5.5						
BJT	Baijiatuau	39.92	25	eP	P	10 12 36.5	+1.7
BJT				pmax	pmax		
	comp=Z,668nm,1.0s						
BJT	Baijiatuau	39.92	25	eP	P	10 12 36.5	+1.7
	comp=Z,668nm,1.0s,mb6.3						
BJI	Beijing	39.95	25	P	P	10 12 36.5	+1.6
BJI				AMB	AMB		
	comp=Z,712nm,0.9s,mb6.4						
ULHL	Ulahol	40.98	338	P	P	10 12 44.8	+1.4
	SNR=18						
KZA	Kyzart	41.21	337	P	P	10 12 46.8	+1.5
	SNR=100						
UCH	Uchtor	41.62	337	P	P	10 12 50.4	+1.6
	SNR=202						
DL2	Dalian	41.65	32	P	P	10 12 50.0	+1.0
DL2				eS	S	10 19 06.5	+4.7
DL2				AMB	AMB		
	comp=Z,350nm,0.9s,mb6.0						
DL2				LR	LR		
	comp=N,5µm,14.7s,MS5.6						
DL2				LR	LR		
	comp=E,4µm,16.5s,MS5.6						
DL2				LR	LR		
	comp=Z,4µm,16.3s,MS5.4						
TKM2	Tokmak 2	41.80	338	P	P	10 12 51.7	+1.5
	SNR=17						
KBK	Karagaybulak	41.82	338	P	P	10 12 52.2	+1.8
	SNR=211						
AML	Almayashu	41.87	336	P	P	10 12 52.4	+1.7
	SNR=295						
AAK	Ala-Archa	41.97	337	P	P	10 12 53.2	+1.5
	SNR=157						
AAK	Ala-Archa	41.97	337c	iP	P	10 12 52.1	+0.5
AAK				pmax	pmax		
	comp=Z,758nm,1.4s,mb6.1						
AAK	Ala-Archa	41.97	337	eP	P	10 12 51.8	+0.1
	comp=Z,920nm,1.4s,mb6.2						
FRU	Bishkek	42.09	337⇑	iP	P	10 12 53.0	+0.3
FRU				i		10 19 11.0	
FRU				pmax	pmax		
	comp=Z,2µm,1.8s,mb6.3						
CHMS	Chumysh	42.19	338	P	P	10 12 55.3	+1.9
	SNR=7.6						
EKS2	Erkin-Say	42.28	336	P	P	10 12 55.7	+1.5
	SNR=89						
USP	Ospenovka	42.51	338	P	P	10 12 58.4	+2.3
	SNR=8.2						
NWAO	Narrogin (SRO)	42.91	152	P	P	10 12 59.0	-0.5
	comp=Z,22nm,0.9s,mb4.9,baz=328,slow=14,SNR=3.0						
NWAO				ScP		10 18 36.5	
	comp=Z,26nm,1.2s,baz=283,slow=7.2,SNR=3.6						
NWAO	Narrogin (SRO)	42.91	152	eP	P	10 12 59.5	0.0
NWAO				pmax	pmax		
	comp=Z,21nm,0.8s						
NWAO	Narrogin (SRO)	42.91	152	eP	P	10 12 59.5	0.0
	comp=Z,21nm,0.8s,mb4.9						
MKAR	Makanchi Array	43.36	347	i P	P	10 13 02.7	-0.2
INCN	Inchon	43.47	37	eP	P	10 13 03.6	-0.3
	comp=Z,242nm,1.0s,mb5.9						
SONM	Songino Array	44.02	11	P	P	10 13 07.6	-0.6
	comp=Z,33nm,0.9s,mb5.1,baz=190,slow=8.3,SNR=44						
SONM				PcP	PcP	10 14 53.6	-0.1
	comp=Z,54nm,1.0s,baz=195,slow=3.6,SNR=19						
SONM				ScP		10 18 40.7	
	comp=Z,12nm,1.2s,baz=194,slow=5.1,SNR=6.8						
ULN	Ulaanbaatar	44.18	11	eP	P	10 13 08.6	-0.9
ULN				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.0						
ULN	Ulaanbaatar	44.18	11	eP	P	10 13 08.6	-1.0
	comp=Z,33nm,1.0s,mb5.0						
KS15	Wonju Array Si	44.21	38	eP	P	10 13 09.6	-0.3
SNY	Shenyang	44.81	30 ⇑	P	P	10 13 14.8	+0.1
SNY				AP	pP	10 13 24.8	-3.1
SNY				AMB	AMB		
	comp=Z,230nm,0.9s,mb6.0						
SNY				LR	LR		
	comp=E,9µm,16.1s						
SNY				LR	LR		
	comp=Z,4µm,13.7s,MS5.5						
WRA	Warramunga Arr	45.66	124	P	P	10 13 21.9	+0.2
	comp=Z,498nm,1.0s,mb6.4,baz=303,slow=9.1,SNR=156						
WRA				ScP		10 18 47.5	
	comp=Z,13nm,1.2s,baz=301,slow=3.6,SNR=6.1						
WRA				S	S	10 19 57.3	-3.0
	comp=Z,20nm,1.2s,baz=294,slow=16,SNR=9.8						
WRA	Warramunga Arr	45.66	124	P	P	10 13 21.9	+0.2
WRA				S	S	10 19 57.3	-3.0
WRAB	Tennant Creek	45.66	124⇑	iP	P	10 13 22.1	+0.3
WRAB				pmax	pmax		
	comp=Z,806nm,1.0s,mb6.6						
WRAB	Tennant Creek	45.66	124⇑	iP	P	10 13 22.1	+0.3
	comp=Z,806nm,1.0s,mb6.6						
ZAK	Zakamensk	46.01	7⇓	iP	P	10 13 22.1	-2.0
MOY	Mondy	47.04	5	eP	P	10 13 31.4	-0.7
MOY				e		10 15 04.6	
ASAR	Alice Springs	47.16	128	P	P	10 13 33.5	0.0
	comp=Z,59nm,0.8s,mb5.6,baz=306,slow=7.7,SNR=70						
ASAR				PcP	PcP	10 15 03.6	-1.3
	comp=Z,27nm,0.9s,baz=303,slow=4.1,SNR=4.5						
ASAR				S	S	10 20 20.6	-1.1
	comp=Z,5.8nm,0.9s,baz=293,slow=12,SNR=5.3						
CN2	Changchun	47.19	30 ⇑	P	P	10 13 33.5	0.0
CN2				eS	S	10 20 25.8	+4.0
CN2				AMB	AMB		
	comp=Z,200nm,0.8s,mb6.1						
CN2				AMB	AMB		
	comp=Z,400nm,4.0s						
CN2				LR	LR		
	comp=N,8µm,16.0s,MS5.9						
CN2				LR	LR		
	comp=E,7µm,16.0s,MS5.9						
CN2				LR	LR		
	comp=Z,9µm,15.0s,MS5.8						
TLY	Talaya	47.33	7	P	P	10 13 34.4	-0.1
	comp=Z,257nm,0.9s,mb6.2,SNR=9.2						
TLY	Talaya	47.33	7⇑	iP	P	10 13 34.4	-0.1
IRK	Irkutsk	47.96	8	eP	P	10 13 36.8	-2.6
GUMO	Guam	49.78	76	P	P	10 13 53.8	-0.2
MDJ	Mudanjiang	49.89	32	P	P	10 13 54.8	+0.4
MDJ				PP	PP	10 15 49.8	-0.4
MDJ				PCS		10 19 11.5	
MDJ				S	S	10 21 05.5	+6.0
MDJ				AMB	AMB		
	comp=Z,274nm,1.2s,mb6.2						
MDJ				LR	LR		
	comp=N,6µm,15.5s,MS5.8						
MDJ				LR	LR		
	comp=E,4µm,16.5s,MS5.8						
MDJ				LR	LR		
	comp=Z,10µm,18.4s,MS5.8						
MDJ	Mudanjiang	49.89	32	eP	P	10 13 54.8	+0.4
	comp=Z,420nm,1.2s,mb6.3						
JHJ	Hachijo jima 2	50.23	50	P	P	10 13 57.9	+0.7
	comp=Z,274nm,0.9s,mb6.3,baz=229,slow=9.6,SNR=4.4						
JHJ				LR	LR	10 36 57.8	
	comp=Z,3µm,18.0s,MS5.4,baz=264,slow=38						
MAT	Matsushiro	50.58	45	P	P	10 13 59.1	-0.7
MAT	Matsushiro	50.58	45	eP	P	10 13 59.0	-0.8
MAT				pmax	pmax		
	comp=Z,228nm,1.5s,mb5.9						
MAT				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.4						
MAT	Matsushiro	50.58	45	eP	P	10 13 59.0	-0.8
	comp=Z,228nm,1.5s,mb5.9						
MAT				LR	LR		
	comp=Z,4µm,20.0s,MS5.4						
NVS	Novosibirsk	50.89	351⇑	iP	P	10 13 59.7	-2.1
NVS				e	pP	10 14 12.0	-3.2
NVS				eS	S	10 21 06.9	-6.3
NVS				pmax	pmax		
	comp=Z,249nm,1.2s,mb6.0						
NVS				pmax	pmax		
	comp=N,220nm,1.4s						
NVS				pmax	pmax		
	comp=E,102nm,1.3s						
NVS				smax			
	comp=N,140nm,1.7s						
NVS				smax			
	comp=E,81nm,1.7s						
KAMS	Al Khamasin	51.51	292	P	P	10 14 06.8	-0.2
MZLS	Mizel	51.71	297	P	P	10 14 09.1	+0.6
BVA0	Borovoye Array	52.27	341	P	P	10 14 11.5	-0.8
BVA0				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.4						
BVAR	Borovoye Array	52.27	341	P	P	10 14 11.5	-0.7
	comp=Z,230nm,0.8s,mb6.2,baz=143,slow=7.4,SNR=350						
BVAR				S	S	10 21 32.7	+0.4
	comp=Z,2.6nm,0.7s,baz=127,slow=15,SNR=4.9						
BRVK	Borovoye	52.33	341⇑	iP	P	10 14 12.0	-0.7
BRVK				pmax	pmax		
	comp=Z,417nm,1.0s,mb6.3						
BRVK	Borovoye	52.33	341⇑	iP	P	10 14 11.9	-0.8
	comp=Z,417nm,1.0s,mb6.3						
TATS	Tathlith	52.40	291	P	P	10 14 13.8	+0.1
CHKZ	Chkalovo	52.76	342⇑	iP	P	10 14 15.4	-0.5
CHKZ				pmax	pmax		
	comp=Z,925nm,1.0s,mb6.7						
CHKZ	Chkalovo	52.76	342⇑	iP	P	10 14 15.4	-0.5
	comp=Z,926nm,1.0s,mb6.7						
AFFS	'Afif	53.66	296	P	P	10 14 23.8	+0.8
PMG	Port Moresby	53.70	105	P	P	10 14 22.8	-0.6
	comp=Z,32nm,0.8s,mb5.3,baz=331,slow=3.2,SNR=16						
PMG	Port Moresby	53.70	105	eP	P	10 14 22.6	-0.8
PMG				pmax	pmax		
	comp=Z,46nm,0.8s						
PMG				MLR	MLR		
	comp=Z,5µm,20.0s						
PMG	Port Moresby	53.70	105	eP	P	10 14 22.6	-0.8
	comp=Z,46nm,0.8s,mb5.5						
PMG				LR	LR		
	comp=Z,5µm,20.0s,MS5.6						
ARSS	Ar Rass	53.89	299	P	P	10 14 24.6	-0.1
KLR	Kul'dur	54.10	29⇓	iP	P	10 14 23.0	-2.9
KLR				eS	S	10 22 16.0	+19
KLR				pmax	pmax		
	comp=N,150nm,1.4s						
KLR				pmax	pmax		
	comp=E,250nm,1.4s						
KLR				pmax	pmax		
	comp=Z,300nm,1.4s,mb6.0						
BOD	Bodaibo	54.98	12⇓	iP	P	10 14 30.4	-1.8
HILS	Ha'il	55.50	300	P	P	10 14 37.4	+1.0
CTA	Charters Tower	55.93	118	P	P	10 14 39.1	-0.4
	comp=Z,121nm,1.0s,mb5.9,baz=291,slow=8.9,SNR=50						
CTAO	Charters Tower	55.93	118⇑	iP	P	10 14 39.1	-0.4
CTAO				pmax	pmax		
	comp=Z,198nm,1.1s,mb6.1						
CTAO				MLR	MLR		
	comp=Z,8µm,20.0s,MS5.8						
CTAO	Charters Tower	55.93	118⇑	iP	P	10 14 39.1	-0.5
	comp=Z,198nm,1.1s,mb6.1						
CTAO				LR	LR		
	comp=Z,8µm,20.0s,MS5.8						
MAK	Makhachkala	56.73	320d	iP	P	10 14 45.0	0.0
MAK				eS	S	10 22 30.0	-2.3
MAK				pmax	pmax		
	comp=Z,2µm,8.0s						
MAK				MLR	MLR		
	comp=Z,6µm,13.0s,MS5.8						
MAK				MLR	MLR		
	comp=N,4µm,12.0s,MS5.8						
MAK				MLR	MLR		
	comp=E,4µm,12.0s,MS5.8						
CLNS	Chul'man	57.05	19	eP	P	10 14 44.5	-2.5
CLNS				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.4						
CLNS				pmax	pmax		
	comp=N,29nm,0.8s						
CLNS				pmax	pmax		
	comp=E,18nm,0.7s						
ASAJ	Asahikawa	57.16	39	P	P	10 14 48.0	0.0
	comp=E,99nm,1.1s,mb5.8,baz=255,slow=11,SNR=14						
STKA	Stephens Creek	57.23	133	P	P	10 14 48.1	-0.6
	comp=E,32nm,0.9s,mb5.4,baz=310,slow=7.8,SNR=19						
STKA	Stephens Creek	57.23	133	eP	P	10 14 47.8	-0.9
GNI	Garni	57.35	315	P	P	10 14 48.9	-0.5
	comp=E,136nm,1.2s,mb5.8,baz=357,slow=3.0,SNR=40						
GNI	Garni	57.35	315⇑	iP	P	10 14 48.8	-0.6
GNI				pmax	pmax		
	comp=Z,182nm,1.1s						
GNI				MLR	MLR		
	comp=Z,3µm,22.0s						
GNI	Garni	57.35	315⇑	iP	P	10 14 48.8	-0.7
	comp=Z,182nm,1.1s,mb6.0						
GNI				LR	LR		
	comp=Z,3µm,22.0s,MS5.4						
KBRS	Khaybar	57.36	298	P	P	10 14 50.4	+0.7
TI2	Plekhanov	58.01	317⇑	iP	pP	10 15 09.0	+1.4
KMBO	Kilima Mbogo	58.13	266	P	P	10 14 56.7	+1.5
	comp=Z,12nm,0.8s,mb5.0,baz=81,slow=23,SNR=28						
KMBO	Kilima Mbogo	58.13	266	P	P	10 14 54.1	-1.1
KMBO				pmax	pmax		
	comp=Z,21nm,0.9s						
KMBO	Kilima Mbogo	58.13	266	P	P	10 14 54.1	-1.2
	comp=Z,21nm,0.9s,mb5.2						
YSS	Yuzh-Sakhalins	58.67	36⇑	iP	P	10 14 58.3	-0.2
YSS				pmax	pmax		
	comp=Z,482nm,1.1s,mb6.4						
YSS	Yuzh-Sakhalins	58.67	36⇑	iP	P	10 14 58.3	-0.2
	comp=Z,482nm,1.1s,mb6.4						
SVE	Sverdlovsk	58.68	339⇑	iP	P	10 14 57.5	-0.9
SVE				e		10 15 42.5	
SVE				eS	S	10 22 52.0	-5.6
SVE				pmax	pmax		
	comp=Z,1µm,1.6s,mb6.7						
UMJS	Umm Lajj	58.99	297	P	P	10 15 02.2	+1.1
ZEI	Tsey	59.02	318	i P	P	10 15 00.5	-0.5
ZEI				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.7						
ARU	Arti	59.16	337⇑	iP	P	10 15 00.6	-1.2
ARU				e		10 17 10.8	
ARU				eS	S	10 23 08.1	+4.2
ARU				pmax	pmax		
	comp=Z,232nm,1.1s,mb6.1						
ARU	Arti	59.16	337⇑	iP	P	10 15 00.3	-1.4
	comp=Z,374nm,1.4s,mb6.2						
ERZM	Erzurum	59.65	314	i P	P	10 15 04.9	-0.5
TBKS	Tabuk	60.22	300	P	P	10 15 10.4	+0.9
KIV	Kislovodsk	60.32	319	P	P	10 15 09.7	-0.2
	comp=Z,893nm,1.4s,mb6.6,SNR=28						
KIV	Kislovodsk	60.32	319⇑	iP	P	10 15 08.6	-1.3
KIV				pmax	pmax		
	comp=Z,223nm,1.2s,mb6.1						
KIV				MLR	MLR		
	comp=Z,631nm,22.0s,MS4.7						
KIV	Kislovodsk	60.32	319⇑	iP	P	10 15 08.6	-1.3
	comp=Z,223nm,1.2s,mb6.1						
KIV				LR	LR		
	comp=Z,631nm,22.0s,MS4.7						
ASF	Jabal al Asfar	60.78	304	P	P	10 15 13.8	+0.5
	comp=Z,13nm,1.0s,mb5.0,baz=12,slow=1.4,SNR=11						
ELZG	Elazig	60.91	312	i P	P	10 15 13.7	-0.3
JMQS	Jabal Moqyreh	60.93	300	P	P	10 15 14.8	+0.5
MALT	Malatya	61.27	311⇑	iP	P	10 15 15.9	-0.5
MALT				pmax	pmax		
	comp=Z,118nm,1.3s,mb5.9						
MALT	Malatya	61.27	311⇑	iP	P	10 15 15.9	-0.6
	comp=Z,118nm,1.3s,mb5.9						
AYUS	'Aynunah	61.32	300	P	P	10 15 17.3	+0.4
BDAS	Al Bad'	61.51	300	P	P	10 15 18.4	+0.2
GZT	Gaziantep	61.63	310	i P	P	10 15 19.0	+0.1
JMOS	Jabal al Moall	61.64	301	P	P	10 15 19.6	+0.5
HAQS	Haql	61.77	300	P	P	10 15 20.3	+0.3
KSHT	Keshet	61.87	305	P	P	10 15 21.3	+0.8
EIL	Elat	61.87	301	P	P	10 15 20.8	+0.2
	comp=Z,34nm,1.1s,mb5.4,baz=116,slow=6.1,SNR=14						
EIL	Elat	61.87	301	P	P	10 15 20.6	0.0
EIL	Elat	61.87	301	eP	P	10 15 20.5	-0.1
	comp=Z,42nm,1.1s,mb5.5						
DRGI	Dragot	61.90	303	P	P	10 15 21.0	+0.2
HMDT	Nahal Hemdat	61.93	304	P	P	10 15 21.2	+0.2
PRNI	Paran	61.96	302	P	P	10 15 21.4	+0.2
MMLI	Mount Malkishu	62.06	304	P	P	10 15 22.4	+0.6
SOKR	Solikamsk	62.08	339⇓	iP	P	10 15 17.4	-4.2
SOKR				pmax	pmax		
	comp=Z,300nm,1.2s,mb6.3						
SOC	Sochi	62.15	317	i P	P	10 15 20.4	-1.9
SOC				eS	S	10 23 42.5	+0.2
SOC				pmax	pmax		
	comp=Z,140nm,0.9s,mb6.1						
SOC				pmax	pmax		
	comp=N,67nm,1.5s						
SOC				pmax	pmax		
	comp=E,72nm,2.3s						
SOC				pmax	pmax		
	comp=Z,922nm,3.0s						
KAHT	Ahir Dag	62.23	310	i P	P	10 15 22.8	-0.1
COBT	Iskenderun	62.40	309	i P	P	10 15 24.4	+0.3
OFRI	'Ofer	62.46	304	P	P	10 15 24.8	+0.3
YAK	Yakutsk	62.66	18c	iP	P	10 15 23.6	-1.8
YAK				e*PP	pP	10 15 35.8	-3.4
YAK				e		10 16 07.3	
YAK				e		10 17 40.3	
YAK				eS	S	10 23 44.6	-3.8
YAK				e		10 25 06.2	
YAK				pmax	pmax		
	comp=Z,129nm,1.0s,mb6.0						
YAK				pmax	pmax		
	comp=N,57nm,1.1s						
YAK				pmax	pmax		
	comp=E,47nm,1.2s						
YAK				pmax	pmax		
	comp=N,4.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=E,7.0nm,1.1s						
YAK				smax			
	comp=N,14nm,1.2s						
YAK				smax			
	comp=E,10.0nm,1.2s						
YAK				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.7						
YAK				MLR	MLR		
	comp=N,3µm,18.0s,MS5.7						
YAK				MLR	MLR		
	comp=E,3µm,15.0s,MS5.7						
YAK	Yakutsk	62.66	18⇑	iP	P	10 15 23.4	-2.0
	comp=E,295nm,1.0s,mb6.4						
YAK				LR	LR		
	comp=Z,8µm,20.0s,MS5.9						
MEST	Erdemli	64.06	308	i P	P	10 15 34.4	-0.7
AVNT	Avonos	64.08	311	i P	P	10 15 34.3	-0.8
CSS	Prodhromos	64.32	307⇑	iP	P	10 15 36.1	-0.7
	comp=Z,167nm,1.5s,mb5.8						
CTKT	Corum	64.64	313	i P	P	10 15 38.0	-0.7
BOYT	Boyabat	64.79	314	i P	P	10 15 39.0	-0.7
BRTR	Keskin Array B	65.24	312	P	P	10 15 41.4	-1.3
	comp=Z,24nm,0.7s,mb5.4,baz=121,slow=7.2,SNR=93						
BRTR				PKPPKP		10 44 28.6	
	comp=Z,0.3nm,0.4s,baz=270,slow=2.5,SNR=4.5						
ELDT	Eldivan	65.60	312	i P	P	10 15 44.2	-0.8
BALT	Daday	65.92	314	i P	P	10 15 46.5	-0.4
SIM	Simferopol'	66.40	317c	iP	P	10 15 48.8	-1.1
SIM				eS	S	10 24 33.0	-1.7
SIM				pmax	pmax		
	comp=Z,117nm,1.1s,mb5.8						
SIM				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.4						
SGKT	Sivrigoynuk	66.63	312	i P	P	10 15 50.8	-0.7
ISP	Isparta	67.17	309⇑	iP	P	10 15 53.5	-1.4
ISP				pmax	pmax		
	comp=Z,197nm,1.3s,mb6.0						
ISP	Isparta	67.17	309⇑	iP	P	10 15 53.5	-1.4
	comp=Z,197nm,1.3s,mb6.0						
ESKT	Eskisehir	67.28	311	i P	P	10 15 54.4	-1.2
HENT	Hendek	67.55	312	i P	P	10 15 54.5	-2.7
SKR	Severo-Kuril's	68.23	37	eP	P	10 15 58.5	-2.8
MOS	Moscow	68.27	329α	iP	P	10 16 00.8	-0.7
MOS				i *PP	pP	10 16 15.0	-0.4
MOS				e		10 18 37.7	
MOS				i S	S	10 24 54.2	-2.9
MOS				e		10 25 18.1	
MOS				e		10 25 48.7	
MOS				pmax	pmax		
	comp=Z,1µm,1.4s,mb6.7						
MOS				pmax	pmax		
	comp=Z,522nm,1.2s,mb6.4						
MOS				smax			
	comp=N,2µm,4.6s						
MOS				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.7						
OBN	Obninsk	68.56	328c	iP	P	10 16 01.8	-1.5
OBN				e		10 18 34.8	
OBN				i S	S	10 24 57.0	-3.5
OBN				pmax	pmax		
	comp=Z,369nm,1.3s,mb6.2						
OBN				MLR	MLR		
	comp=Z,3µm,17.0s,MS5.6						
OBN	Obninsk	68.56	328⇑	iP	P	10 16 01.6	-1.7
	comp=Z,713nm,1.5s,mb6.4						
ULDT	Uludag	68.70	311	i P	P	10 16 03.3	-1.1
MANT	Manisa	68.81	309	i P	P	10 16 04.4	-0.7
MA2	Magadan	69.09	27⇑	iP	P	10 16 05.8	-0.7
MA2				pmax	pmax		
	comp=Z,246nm,1.3s,mb6.0						
MA2	Magadan	69.09	27⇑	iP	P	10 16 05.8	-0.7
	comp=Z,246nm,1.3s,mb6.0						
BTOK	Tokmak	69.46	311	i P	P	10 16 07.9	-1.2
TIXI	Tiksi	70.11	11	i P	P	10 16 10.9	-1.6
AYVA	Ayvalik	70.39	310	i P	P	10 16 14.1	-0.7
PET	Petropavlovsk	70.50	35	eP	P	10 16 14.3	-0.9
PET				e		10 33 04.0	
PET				pmax	pmax		
	comp=Z,176nm,1.2s,mb5.9						
PET				MLR	MLR		
	comp=Z,3µm,17.0s,MS5.6						
PET				MLR	MLR		
	comp=Z,3µm,17.0s						
PET	Petropavlovsk	70.50	35⇑	iP	P	10 16 14.0	-1.2
	comp=Z,207nm,1.2s,mb5.9						
PET				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						

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CFR   Carcaliu         70.54 316⇑iP   P      10 16 14.7 -0.8
JMB   Yambol           71.06 313 eP   P      10 16 18.0 -0.8
AKASG Malin Array Be   71.23 322  P   P      10 16 18.1 -1.5
      comp=Z,40nm,0.6s,mb5.5,baz=87,slow=5.0,SNR=122
AKASG                             S   S      10 25 28.2 -3.6
      comp=Z,0.2nm,0.2s,baz=105,slow=11,SNR=5.9
AKASG                             PKPPKP     10 44 08.1
      comp=Z,0.1nm,0.3s,baz=270,slow=2.9,SNR=5.6
ISR   Istrita          71.63 316⇑iP   P      10 16 22.9 +0.8
VRI   Vrincioaia       71.66 317 ⇑P   P      10 16 22.7 +0.5
SZH   Strazhica        71.68 314 eP   P      10 16 22.0 -0.5
CASY  Casey            71.71 174 eP   P      10 16 24.1 +1.9
      comp=Z,223nm,1.6s,mb5.8
MLR   Muntele Rosu     72.12 316  P   P      10 16 25.2 +0.2
      comp=Z,360nm,1.3s,mb6.2,baz=86,slow=2.3,SNR=66
RZN   Rozhen           72.29 312 eP   P      10 16 25.0 -1.0
PGB   Panagyurishte    72.83 313 eP   P      10 16 28.0 -1.3
MMB   Musomiste        73.00 312 eP   P      10 16 30.0 -0.3
MNK   Minsk            73.10 326 eP   P      10 16 27.0 -3.6
MNK                               pmax  pmax
      comp=Z,840nm,1.1s,mb6.6
MNK                               pmax  pmax
      comp=E,800nm,1.5s
PUL   Pulkovo          73.44 331⇑eP   P      10 16 32.2 -0.3
PUL                              eS   S      10 26 04.8 +8.0
PUL                               pmax  pmax
      comp=Z,432nm,1.3s,mb6.2
PUL                               pmax  pmax
      comp=N,55nm,0.6s
PUL                               pmax  pmax
      comp=E,421nm,1.2s
PUL                               MLR   MLR
      comp=Z,3µm,15.0s,MS5.7
PUL                               MLR   MLR
      comp=N,1µm,16.0s,MS5.6
PUL                               MLR   MLR
      comp=E,2µm,18.0s,MS5.6
PUL   Pulkovo          73.44 331 i P  P      10 16 31.7 -0.8
KKB   Krupnik          73.52 312 eP   P      10 16 32.0 -1.4
VTS   Vitosha          73.54 313 eP   P      10 16 32.0 -1.5
LBTB  Lobatse          73.65 242  P   P      10 16 35.6 +1.2
LBTB  Lobatse          73.65 242 eP   P      10 16 35.1 +0.6
LBTB                              pmax  pmax
      comp=Z,77nm,1.3s,mb5.5
LBTB                              MLR   MLR
      comp=Z,10µm,19.0s,MS6.1
LBTB  Lobatse          73.65 242 eP   P      10 16 35.1 +0.7
      comp=Z,77nm,1.3s,mb5.5
LBTB                              LR    LR
      comp=Z,10µm,19.0s,MS6.1
NOUC  Port Laguerre    74.46 114 eP   P      10 16 40.0 +0.8
DZM   Mont Dzumac      74.58 114⇑iP   P      10 16 41.0 +1.1
DZM   Mont Dzumac      74.58 114⇑iP   P      10 16 41.0 +1.1
BOLS  Boljevac         74.63 314⇓iP   P      10 16 38.8 -0.9
SKO   Skopje           74.75 312 i P  P      10 16 38.7 -1.8
VSU   Vasula           74.79 330 i P  P      10 16 38.6 -1.7
BOSA  Boshof           74.80 239 eP   P      10 16 41.2 +0.2
BOSA                              pmax  pmax
      comp=Z,121nm,1.6s,mb5.6
BOSA                              MLR   MLR
      comp=Z,4µm,19.0s,MS5.8
BOSA  Boshof           74.80 239 eP   P      10 16 41.1 +0.1
      comp=Z,121nm,1.6s,mb5.6
BOSA                              LR    LR
      comp=Z,4µm,19.0s,MS5.8
LVZ   Lovozero         74.84 340⇑iP   P      10 16 39.7 -0.8
LVZ                               pmax  pmax
      comp=E,19nm,0.8s
LVZ                               pmax  pmax
      comp=Z,90nm,0.8s,mb5.8
KWP   Kalwaria         75.07 320 eP   P      10 16 42.2 +0.1
APA   Apatity          75.13 340⇓iP   P      10 16 40.7 -1.4
APA                              i    pP     10 16 54.7 -1.5
APA                              i    pP     10 16 59.2 +3.0
APA                               pmax  pmax
      comp=Z,250nm,1.0s,mb6.1
KOLS  Kolonicke sedl   75.22 319 i P  P      10 16 43.6 +0.6
GRUS  Gruza            75.53 314⇓iP   P      10 16 44.4 -0.5
SUW   Suwalki          75.63 325 eP   P      10 16 44.6 -0.7
MAW   Mawson           75.68 192 eP   P      10 16 46.8 +1.5
MAW                               pmax  pmax
      comp=Z,93nm,0.5s
MAW   Mawson           75.68 192 eP   P      10 16 46.8 +1.5
      comp=Z,93nm,0.5s,mb6.0
CRVS  Cervenica-Dubn   75.75 319 eP   P      10 16 47.1 +1.1
BEO   Belgrade         75.83 315⇑iP   P      10 16 45.3 -1.3
FINES FINESS Array B   75.94 332  P   P      10 16 46.2 -0.6
      comp=Z,36nm,0.4s,mb5.6,baz=110,slow=6.5,SNR=285
KAF   Kangasniemi      76.03 333 ep   P      10 16 47.0 -0.4
      comp=Z,128nm,0.9s,mb5.8
KAF   Kangasniemi      76.03 333 eP   P      10 16 47.0 -0.4
KAF                               pmax  pmax
      comp=Z,128nm,0.9s,mb5.8
DIVS  Divcibare        76.07 314⇓iP   P      10 16 47.1 -0.8
NVSS  Nova Varos 2     76.21 314⇑iP   P      10 16 48.6 -0.1
KECS  Kecovo           76.32 319 i P  P      10 16 49.3  0.0
NIE   Niedzica         76.57 320 eP   P      10 16 51.4 +0.7
WAR   Warsaw           76.57 323 eP   P      10 16 51.1 +0.4
WAR                               MLR   MLR
      comp=Z,3µm,23.1s,MS5.5
PSZ   Piszkesteto      76.63 318⇑eP   P      10 16 51.3 +0.2
OJC   Ojcow            77.02 320⇑iP   P      10 16 53.4 +0.2
OJC   Ojcow            77.02 320 i P  P      10 16 53.4 +0.2
PKSM  Moragy           77.27 316⇑eP   P      10 16 54.3 -0.4
LIKS  Likavka          77.30 319 eP   P      10 16 54.6 -0.2
VYHS  Vyhne            77.41 319 i P  P      10 16 55.6 +0.2
PKS9  Tamasi           77.56 317⇑iP   P      10 16 56.0 -0.3
RHK1  Bakonya          77.65 316⇑iP   P      10 16 56.4 -0.4
SRO   Srobarova        77.67 318 eP   P      10 16 57.4 +0.5
OKC   Ostrava-Krasne   78.02 320⇑iP   P      10 16 59.1 +0.4
OKC                              epP  pP     10 17 14.5 +1.6
KEV   Kevo             78.12 341 ep   P      10 16 58.8 -0.1
      comp=Z,58nm,0.6s,mb5.7
KEV   Kevo             78.12 341 eP   P      10 16 58.8 -0.1
KEV                               pmax  pmax
      comp=Z,58nm,0.6s,mb5.7
SMOL  Smolenice        78.34 318 eP   P      10 17 00.4 -0.1
MORC  Moravsky Berou   78.40 320 eP   P      10 17 00.3 -0.5
MORC                              pmax  pmax
      comp=Z,170nm,1.3s,mb5.8
MORC  Moravsky Berou   78.40 320 eP   P      10 17 00.3 -0.5
      comp=Z,170nm,1.3s,mb5.8
ZST   Bratislava       78.52 318 i P  P      10 17 02.0 +0.5
ARCES ARCESS Array B   78.55 340  P   P      10 17 01.3  0.0
      comp=Z,57nm,0.5s,mb5.8,baz=92,slow=5.5,SNR=355
ARCES                             S   S      10 26 52.7 +0.1
      comp=Z,2.7nm,0.9s,baz=90,slow=12,SNR=4.8
ARE0  ARCESS Array S   78.55 340 eP   P      10 17 00.9 -0.3
BILL  Bilibino         78.63  21 eP   P      10 16 59.7 -2.0
BILL                              pmax  pmax
      comp=Z,128nm,1.4s,mb5.7
BILL                              MLR   MLR
      comp=Z,4µm,20.0s,MS5.7
BILL  Bilibino         78.63  21 eP   P      10 16 59.7 -2.0
      comp=Z,128nm,1.4s,mb5.7
BILL                              LR    LR
      comp=Z,4µm,20.0s,MS5.7
SOP   Sopron           78.84 318⇑eP   P      10 17 03.4 +0.1
VRAC  Vranov           78.97 319  P   P      10 17 04.2 +0.2
      comp=Z,9.1nm,0.5s,mb5.0,baz=91,slow=5.9,SNR=25
GKP   Gorka Klasztor   79.00 323 eP   P      10 17 04.1 +0.1
GKP                               MLR   MLR
      comp=Z,2µm,22.2s,MS5.5
FX1   Attu Island--F   79.02  37 eP   P      10 17 03.8 -0.3
KTK1  Kautokeino       79.17 340⇑iP   P      10 17 05.4 +0.7
KTK1                              AMb   AMB  10 17 07.7
      comp=Z,278nm,1.4s,mb6.0
KTK1                             epP  pP     10 17 19.2 +0.4
KTK1  Kautokeino       79.17 340⇑iP   P      10 17 05.4 +0.7
      comp=Z,278nm,1.4s,mb6.0
DPC   Dobruska-Polom   79.25 320⇑iP   P      10 17 06.2 +0.7
KSP   Ksiaz            79.31 321⇑eP   P      10 17 06.3 +0.5
KSP                              epP  pP     10 17 19.7 -0.3
KSP                              e           10 17 33.2
KSP   Ksiaz            79.31 321 eP   P      10 17 06.6 +0.8
SUR   Sutherland       79.39 236 eP   P      10 17 07.4 +0.8
      comp=Z,86nm,1.4s,mb5.5
SUR                               LR    LR
      comp=Z,2µm,19.0s,MS5.5
CRES  Cresnjev         79.44 316 eP   P      10 17 06.5 -0.1
GROS  Grobnik          79.46 316 eP   P      10 17 06.8 +0.1
UPC   Upice            79.46 320⇑iP   P      10 17 07.1 +0.5
ARSA  Arzberg          79.50 317⇑iP   P      10 17 07.4 +0.5
      comp=Z,156nm,1.4s,mb5.8
BOJS  Bojanci          79.56 315⇑eP   P      10 17 07.1 -0.2
PERS  Pernice          79.73 316⇑iP   P      10 17 08.6 +0.4
      comp=Z,567nm,1.7s,mb6.2
PERS  Pernice          79.73 316 eP   P      10 17 08.5 +0.3
LJU   Ljubljana        80.10 316⇑iP   P      10 17 10.8 +0.6
      comp=Z,957nm,1.7s,mb6.5
LJU   Ljubljana        80.10 316⇓iP   P      10 17 10.8 +0.6
LJU                               pmax  pmax
      comp=Z,957nm,1.7s,mb6.5
LJU   Ljubljana        80.10 316⇓iP   P      10 17 10.8 +0.6
      comp=Z,957nm,1.7s,mb6.5
OBKA  Obir             80.12 316⇑iP   P      10 17 10.9 +0.7
      comp=Z,172nm,1.5s,mb5.8
PRU   Pruhonice        80.36 320⇑iP   P      10 17 11.6 +0.2
PRU                              epP  pP     10 17 26.2 +0.6
PVCC  Panska Ves       80.38 320⇑eP   P      10 17 11.7 +0.2
PVCC                             epP  pP     10 17 24.8 -0.9
MOA   Molln            80.39 318⇑iP   P      10 17 11.5 -0.2
      comp=Z,82nm,1.5s,mb5.4
PRA   Prague           80.43 320 ⇑P   P      10 17 12.0 +0.2
VOY   Vojsko           80.54 316 eP   P      10 17 12.3 -0.2
BSD   Bornholm Skovb   80.55 325 i P  P      10 17 12.1 -0.3
BSD                               pmax  pmax
      comp=Z,109nm,1.3s,mb5.6
BSD   Bornholm Skovb   80.55 325 i P  P      10 17 12.1 -0.3
      comp=Z,108nm,1.3s,mb5.6
CADS  Cadrg            80.66 316 eP   P      10 17 12.9 -0.2
TRO   Tromso           80.81 340⇑iP   P      10 17 11.3 -2.1
TRO                               AMb   AMB  10 17 14.2
      comp=Z,218nm,1.4s,mb5.9
TRO   Tromso           80.81 340 eP   P      10 17 12.0 -1.4
TRO                               pmax  pmax
      comp=Z,219nm,1.4s,mb5.9
TRO   Tromso           80.81 340 eP   P      10 17 12.0 -1.4
      comp=Z,218nm,1.4s,mb5.9
GEC2  GERESS Array S   80.83 319 eP   P      10 17 14.2 +0.3
GEC2                              pmax  pmax
      comp=Z,270nm,1.4s,mb6.0
GEC2  GERESS Array S   80.83 319 eP   P      10 17 14.2 +0.3
      comp=Z,270nm,1.4s,mb6.0
GERES GERESS Array B   80.83 319  P   P      10 17 14.3 +0.4
      comp=Z,155nm,1.2s,mb5.8,baz=90,slow=5.3,SNR=124
GERES                             S   S      10 27 17.1 +0.1
      comp=Z,3.2nm,1.1s,baz=90,slow=9.3,SNR=11
KHC   Kasperske Hory   80.93 319⇑iP   P      10 17 14.5  0.0
KHC                              epP  pP     10 17 23.9 -4.8
PTCC  Patocco-Chiusa   80.94 316⇑iP   P      10 17 14.6  0.0
KBA   Koelnbreinsper   80.97 317⇑iP   P      10 17 14.6 -0.2
      comp=Z,90nm,1.4s,mb5.5
KBA   Koelnbreinsper   80.97 317⇑iP   P      10 17 14.6 -0.2
KBA                               pmax  pmax
      comp=Z,91nm,1.4s,mb5.5
RUE   Ruedersdorf      81.01 322 eP   P      10 17 14.5 -0.3
      comp=Z,66nm,0.7s,mb5.7
GMNA  Gemona           81.01 316 eP   P      10 17 15.2 +0.2
SNTG  Esanatoglia      81.11 313 eP   P      10 17 15.9 +0.3
ARV   Arcevia          81.11 313⇑iP   P      10 17 16.1 +0.5
MSZ   Milford Sound    81.19 136  P   P      10 17 16.7 +0.8
FSSB  Fossombrone      81.24 313⇑iP   P      10 17 16.8 +0.5
MNS   Montasola        81.27 312 eP   P      10 17 15.7 -0.7
FVI   Forni Avoltri    81.34 316⇑iP   P      10 17 16.5 -0.2
WET   Wettzell         81.39 319 eP   P      10 17 17.1 +0.2
CLL   Collm            81.42 321⇑iP   P      10 17 16.9 -0.1
CLL                               pmax  pmax
      comp=Z,96nm,1.3s,mb5.6
CLL                               MLR   MLR
      comp=Z,2µm,19.8s,MS5.6
CLL   Collm            81.42 321⇑iP   P      10 17 16.9 -0.1
      comp=Z,96nm,1.3s,mb5.6
CLL                               LR    LR
      comp=Z,2µm,19.8s,MS5.6
CLL   Collm            81.42 321 ⇑P   P      10 17 16.9 -0.1
      comp=Z,logA/T=1.9,mb5.6
CLL                              e*PP pP     10 17 32.0 +0.8
HFS   Hagfors          81.66 330  P   P      10 17 17.8 -0.2
      comp=Z,32nm,0.5s,mb5.5,baz=108,slow=4.7,SNR=96
NKC   Novy Kostel      81.72 320⇑iP   P      10 17 18.7 +0.1
NKC                              epP  pP     10 17 32.9 +0.1
SFI   Santa Sofia      81.92 314⇑iP   P      10 17 20.9 +1.2
MOR8  Moi Rana         81.94 336⇑iP   P      10 17 18.7 -0.7
MOR8                              AMb   AMB  10 17 20.9
      comp=Z,199nm,2.0s,mb5.7
MOR8                             epP  pP     10 17 33.5 -0.1
MOR8  Moi Rana         81.94 336⇑iP   P      10 17 18.7 -0.7
      comp=Z,199nm,2.0s,mb5.7
PGD   Poggio Sodo      82.01 313⇑iP   P      10 17 21.5 +1.3
CTI   Castel Tesino    82.11 316⇑iP   P      10 17 21.2 +0.5
VMG   Vicchio          82.14 314 eP   P      10 17 22.1 +1.2
WTTA  Wattenberg       82.15 317⇑iP   P      10 17 20.6 -0.2
      comp=Z,40nm,0.6s,mb5.5
WTTA  Wattenberg       82.15 317⇑iP   P      10 17 20.6 -0.2
WTTA                              pmax  pmax
      comp=Z,40nm,0.6s,mb5.5
WATA  Walderalm        82.19 317⇑iP   P      10 17 20.6 -0.5
      comp=Z,31nm,0.6s,mb5.4
WATA  Walderalm        82.19 317⇑iP   P      10 17 20.6 -0.5
WATA                              pmax  pmax
      comp=Z,31nm,0.6s,mb5.4
MOX   Moxa             82.27 320 eP   P      10 17 21.6 +0.2
MOX                              e*PP pP     10 17 35.3 -0.3
MOX                               pmax  pmax
      comp=Z,228nm,2.0s,mb5.8
MOX                               MLR   MLR
      comp=Z,2µm,19.0s,MS5.4
MOX   Moxa             82.27 320 i P  P      10 17 21.6 +0.2
      comp=Z,logA/T=2.1,mb5.8
MOX                               pP  pP     10 17 35.0 -0.6
MOX                               L          10 57 08.0
MOX   Moxa             82.27 320 eP   P      10 17 21.6 +0.2
      comp=Z,228nm,2.0s,mb5.8
MOX                              epP  pP     10 17 35.3 -0.3
MOX                               LR  LR
      comp=Z,2µm,19.0s,MS5.4
SEI   Scarperia        82.27 314 eP   P      10 17 22.3 +0.8
FUR   Furstenfeldbru   82.41 318 eP   P      10 17 21.9 -0.3
SQTA  Sankt Quirin     82.44 317⇑iP   P      10 17 22.2 -0.1
      comp=Z,39nm,0.5s,mb5.6
SQTA  Sankt Quirin     82.44 317⇑iP   P      10 17 22.2 -0.1
SQTA                              pmax  pmax
      comp=Z,39nm,0.5s,mb5.6
FNVD  Fontana Vidola   82.44 314 eP   P      10 17 23.5 +1.1
GRA1  Grafenberg Arr   82.49 319 eP   P      10 17 23.1 +0.6
      comp=Z,349nm,1.8s,mb6.0
GRA1                             epP  pP     10 17 38.3 +1.5
GRF   Grafenberg Arr   82.49 319 eP   P      10 17 23.1 +0.6
GRF                              e*PP pP     10 17 38.3 +1.5
GRF                               pmax  pmax
      comp=Z,349nm,1.8s,mb6.0
GRF   Grafenberg Arr   82.49 319 eP   P      10 17 23.1 +0.6
GRF                              e*PP pP     10 17 38.3 +1.5
GRF                               pmax  pmax
      comp=Z,349nm,1.8s,mb6.0
GRF   Grafenberg Arr   82.49 319 eP   P      10 17 23.1 +0.6
      comp=Z,349nm,1.8s,mb6.0
GRF                              epP  pP     10 17 38.3 +1.5
LOF   Lofoten          82.51 338 eP   P      10 17 24.4 +2.2
MOTA  Moosalm          82.51 317⇑iP   P      10 17 22.5 -0.2
      comp=Z,39nm,0.7s,mb5.5
MOTA  Moosalm          82.51 317⇑iP   P      10 17 22.5 -0.2
MOTA                              pmax  pmax
      comp=Z,39nm,0.7s,mb5.5
ZCCA  Zocca            82.55 314 eP   P      10 17 24.5 +1.5
SYO   Syowa Base       82.72 197 ⇓P   P      10 17 28.5 +5.2
SYO   Syowa Base       82.72 197 ⇓PcP PcP    10 17 25.2 -3.4
NSS   Namsos           82.82 334 eP   P      10 17 22.8 -1.2
NSS                               AMb   AMB  10 17 25.0
      comp=Z,280nm,1.4s,mb6.1
NSS                              epP  pP     10 17 38.3 +0.1
NSS   Namsos           82.82 334 eP   P      10 17 22.8 -1.2
      comp=Z,280nm,1.4s,mb6.1
BDI   Bagni Di Lucca   82.82 314 eP   P      10 17 23.7 -0.7
GSCL  Gusciola         82.83 314 eP   P      10 17 25.6 +1.2
SAL   Salo             82.89 315 eP   P      10 17 25.5 +0.9
NB2   NORSAR Subarra   82.95 331  P   P      10 17 23.8 -0.8
      comp=Z,101nm,1.1s,mb5.8,baz=96,slow=4.8
NB2   NORSAR Subarra   82.95 331  P   P      10 17 23.8 -0.8
      baz=96,slow=5.1
NB2   NORSAR Subarra   82.95 331  P   P      10 17 23.8 -0.8
NB2                               pmax  pmax
      comp=Z,101nm,1.1s,mb5.8
NOA   NORSAR Array B   82.95 331  P   P      10 17 24.1 -0.6
      comp=Z,47nm,1.0s,mb5.5,baz=94,slow=5.2,SNR=27
NOA                               PP  PP     10 20 39.5 +2.1
      comp=Z,19nm,1.1s,baz=87,slow=7.9,SNR=5.8
ERBM  Eremo            82.96 314 eP   P      10 17 26.5 +1.5
BRMO  Bormio           83.00 316⇑iP   P      10 17 25.8 +0.6
CLZ   Clausthal        83.08 322 eP   P      10 17 25.7 +0.2
      comp=Z,134nm,1.3s,mb5.8
NAO01 NORSAR Array S   83.10 331 eP   P      10 17 24.7 -0.7
      comp=Z,66nm,1.1s,mb5.6
RPZ   Rata Peaks       83.13 135  P   P      10 17 26.7 +0.7
      comp=Z,39nm,1.0s,mb5.4,baz=30,slow=3.8,SNR=8.9
HDH   Heidenheim       83.13 318⇑eP   P      10 17 25.5 -0.3
BSEG  Bad Segeberg     83.16 324 eP   P      10 17 26.1 +0.3
UBR   Uberruh          83.19 317⇑eP   P      10 17 26.0 -0.1
DAVOX Davos            83.34 316  P   P      10 17 27.8 +0.8
      comp=Z,51nm,0.5s,mb5.8,baz=121,slow=5.7,SNR=103
DAVA  Damuels          83.34 317⇑iP   P      10 17 27.4 +0.5
      comp=Z,113nm,1.3s,mb5.7
SIND  Sindeldorf       83.54 319⇑eP   P      10 17 28.1 +0.2
QRZ   Quartz Range     83.57 132  P   P      10 17 29.0 +0.7
QRZ                               pP  pP     10 17 38.9 -3.7
BOB   Bobbio (Coli)    83.65 314 eP   P      10 17 29.3 +0.8
BUCH  Bad Urach        83.70 318⇑eP   P      10 17 28.6 -0.1
GUT   Gutenstein       83.86 318⇑eP   P      10 17 29.5  0.0
MUD   Monsted U'grnd   83.86 326 eP   P      10 17 30.4 +1.1
MUD                              i    pP     10 17 46.7 +3.1
MUD                               pmax  pmax
      comp=Z,10.0nm,0.6s,mb5.1
MUD   Monsted U'grnd   83.86 326 eP   P      10 17 30.4 +1.1
      comp=Z,10nm,0.6s,mb5.1
MUD                              i    pP     10 17 46.7 +3.1
MUD   Monsted U'grnd   83.86 326 i P  P      10 17 30.4 +1.1
      comp=Z,10nm,0.6s,mb5.1
MUD                              i    pP     10 17 46.7 +3.1
PGF   Pioggiola        84.00 312⇑iP   P      10 17 30.6 +0.2
      comp=Z,308nm,1.5s,mb5.9
PGF   Pioggiola        84.00 312⇑iP   P      10 17 30.6 +0.2
PGF                               pmax  pmax
      comp=Z,154nm,1.5s,mb5.9
DOMB  Dombas           84.02 332 eP   P      10 17 30.1 +0.1
DOMB                              AMb   AMB  10 17 32.5
      comp=Z,147nm,1.4s,mb5.9
DOMB                             epP  pP     10 17 45.3 +1.0
DOMB  Dombas           84.02 332 eP   P      10 17 30.1 +0.1
      comp=Z,147nm,1.4s,mb5.9
TOD   Tromm            84.06 319⇑eP   P      10 17 30.6 +0.1
TOD   Tromm            84.06 319 eP   P      10 17 30.2 -0.3
LBG   Lerchenberg      84.07 318⇑eP   P      10 17 30.6  0.0
SPAK  Spaichingen      84.08 318⇑eP   P      10 17 30.8 +0.1
SPAK  Spaichingen      84.08 318 eP   P      10 17 30.9 +0.2
VAI   Varese           84.11 315 eP   P      10 17 30.2 -0.7
SWS   Schriesheim      84.13 319⇑eP   P      10 17 31.0 +0.1
BFO   Black Forest     84.38 318 eP   P      10 17 31.8 -0.4
BFO                               pmax  pmax
      comp=Z,63nm,1.3s,mb5.6
BFO   Black Forest     84.38 318 eP   P      10 17 31.8 -0.4
      comp=Z,63nm,1.3s,mb5.6
KTD   Kalmit           84.53 319 eP   P      10 17 33.1 +0.2
KTD   Kalmit           84.53 319 eP   P      10 17 33.4 +0.5
FIN   Finale Ligure    84.54 314⇑iP   P      10 17 33.1  0.0
FELD  Feldberg         84.61 318⇑eP   P      10 17 33.4 +0.1
MCGN  Macugnaga        84.66 316 eP   P      10 17 34.5 +0.9
KIZ   Kirchzarten      84.67 318⇑eP   P      10 17 33.4 -0.2
LANF  Langenberg       84.72 319 eP   P      10 17 34.1 +0.3
MOL   Molde            84.73 332 eP   P      10 17 35.5 +2.0
MOL                               AMb   AMB  10 17 38.1
      comp=Z,219nm,1.5s,mb6.0
MOL   Molde            84.73 332 eP   P      10 17 35.5 +2.0
      comp=Z,219nm,1.5s,mb6.1
ABH   Alteburg         84.87 320⇑eP   P      10 17 35.1 +0.5
LIBD  Limburg          84.87 318 eP   P      10 17 34.8 +0.2
KIWB  Kanaga Island    84.89  38 eP   P      10 17 34.3 -0.3
BBS   Basel-Blauen     84.95 317⇑eP   P      10 17 34.9 -0.1
WLS   Welschbruch      85.03 318 eP   P      10 17 35.1 -0.3
CDF   Champ du Feu     85.08 318⇑iP   P      10 17 35.4 -0.3
      comp=Z,125nm,1.4s,mb5.5
CDF   Champ du Feu     85.08 318⇑iP   P      10 17 35.4 -0.3
CDF                               pmax  pmax
      comp=Z,62nm,1.4s,mb5.5
SBF   Sospel           85.11 313⇑iP   P      10 17 35.8 -0.1
      comp=Z,131nm,0.9s,mb5.8
SBF   Sospel           85.11 313⇑iP   P      10 17 35.8 -0.1
SBF                               pmax  pmax
      comp=Z,66nm,0.9s,mb5.8
ECH   Echery           85.17 318 eP   P      10 17 36.0 -0.1
RUP   Ruppelstein      85.19 319⇑eP   P      10 17 36.7 +0.6
MOF   Molkenrain       85.20 318 eP   P      10 17 36.3 +0.1
WTSB  Winterswijk      85.29 322 eP   P      10 17 37.0 +0.4
      comp=Z,132nm,1.3s,mb5.9
WTSB                             eP   pP     10 17 52.7 +1.8
BLS5  Blasjo           85.30 329⇑iP   P      10 17 38.0 +1.5
BLS5                              AMb   AMB  10 17 40.5
      comp=Z,114nm,1.7s,mb5.7
BLS5  Blasjo           85.30 329 eP   P      10 17 38.0 +1.6
      comp=Z,114nm,1.7s,mb5.7
WIT   Witteveen        85.35 322 eP   P      10 17 38.1 +1.3
HINF  Hinteralfeld     85.39 317⇑iP   P      10 17 36.7 -0.5
      comp=Z,116nm,1.7s,mb5.4
HINF  Hinteralfeld     85.39 317⇑iP   P      10 17 36.7 -0.5
HINF                              pmax  pmax
      comp=Z,58nm,1.7s,mb5.4
LOMF  Lomont           85.42 317 eP   P      10 17 37.2 -0.1
LPG   La Plagne        85.54 315⇑iP   P      10 17 38.3 +0.3
      comp=Z,154nm,1.2s,mb5.8
LPG   La Plagne        85.54 315⇑iP   P      10 17 38.3 +0.3
LPG                               pmax  pmax
      comp=Z,77nm,1.2s,mb5.8
LPL   La Plagne        85.55 315⇑iP   P      10 17 38.3 +0.3
      comp=Z,140nm,1.1s,mb5.8
LPL   La Plagne        85.55 315⇑iP   P      10 17 38.3 +0.3
LPL                               pmax  pmax
      comp=Z,70nm,1.1s,mb5.8
MBDF  Montbardon       85.55 314⇑iP   P      10 17 38.8 +0.7
      comp=Z,89nm,1.2s,mb5.6
MBDF  Montbardon       85.55 314⇑iP   P      10 17 38.8 +0.7
MBDF                              pmax  pmax
      comp=Z,44nm,1.2s,mb5.6
OG01  Vacheresse       85.55 316 eP   P      10 17 36.9 -1.1
FRF   La Foret Royal   85.69 313⇑iP   P      10 17 38.9 +0.1
      comp=Z,288nm,1.4s,mb6.0
FRF   La Foret Royal   85.69 313⇑iP   P      10 17 38.9 +0.1
FRF                               pmax  pmax
      comp=Z,144nm,1.4s,mb6.0
LMR   La Mourre        85.80 313⇑iP   P      10 17 39.4 +0.1
      comp=Z,124nm,1.3s,mb5.7
LMR   La Mourre        85.80 313⇑iP   P      10 17 39.4 +0.1
LMR                               pmax  pmax
      comp=Z,62nm,1.3s,mb5.7
MRZ   Mangatainoka R   85.82 131 eP   P      10 17 38.8 -0.7
HGN   Heimansgroeve    85.88 320 eP   P      10 17 38.8 -0.7
      comp=Z,48nm,1.7s,mb5.5
THEF  They Montfort    85.95 318 eP   P      10 17 40.0 +0.1
CABF  La Chapelle      85.95 316⇑iP   P      10 17 40.3 +0.3
      comp=Z,186nm,1.3s,mb5.9
CABF  La Chapelle      85.95 316⇑iP   P      10 17 40.3 +0.3
CABF                              pmax  pmax
      comp=Z,93nm,1.3s,mb5.8
OG25  Le Caire         86.07 314 eP   P      10 17 41.2 +0.6
ORIF  Oris-en-Rattie   86.18 315⇑iP   P      10 17 41.5 +0.4
      comp=Z,190nm,1.6s,mb5.8
ORIF  Oris-en-Rattie   86.18 315⇑iP   P      10 17 41.5 +0.4
ORIF                              pmax  pmax
      comp=Z,95nm,1.6s,mb5.8
BKZ   Black Stump Fm   86.27 130  P   P      10 17 41.3 -0.4
BKZ                               pP  pP     10 17 51.6 -4.5
OG05  Jujurieux        86.42 316 eP   P      10 17 42.6 +0.3
SMRF  Simiane la Rot   86.45 314⇑iP   P      10 17 43.2 +0.8
      comp=Z,283nm,1.6s,mb6.0
MEZF  Maizieres J'vi   86.56 318⇑iP   P      10 17 43.0 +0.1
      comp=Z,229nm,1.6s,mb5.9
URZ   Urewera          86.60 129  P   P      10 17 42.8 -0.5
      comp=Z,82nm,1.1s,mb5.9,baz=340,slow=0.8,SNR=16
GIVF  Givet            86.62 320⇑iP   P      10 17 43.2 +0.1
      comp=Z,150nm,1.5s,mb5.7
GIVF  Givet            86.62 320⇑iP   P      10 17 43.2 +0.1
GIVF                              pmax  pmax
      comp=Z,75nm,1.5s,mb5.7
MWZ   Matawai          86.94 129  P   P      10 17 44.6 -0.4
MWZ                               pP  pP     10 17 58.9 -0.5
BAIF  Baives           87.02 320⇑iP   P      10 17 45.5 +0.4
      comp=Z,272nm,1.5s,mb6.0
BAIF  Baives           87.02 320⇑iP   P      10 17 45.5 +0.4
BAIF                              pmax  pmax
      comp=Z,136nm,1.5s,mb6.0
VIVF  Saint-Julien-l   87.04 315⇑iP   P      10 17 45.5 +0.2
      comp=Z,112nm,1.3s,mb5.6
VIVF  Saint-Julien-l   87.04 315⇑iP   P      10 17 45.5 +0.2
VIVF                              pmax  pmax
      comp=Z,56nm,1.3s,mb5.6
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SMF	Signal de Mont	87.50	316	⇑iP	P	10 17 47.2	-0.3
	comp=Z,128nm,1.2s,mb5.7						
SMF	Signal de Mont	87.50	316	⇑iP	P	10 17 47.2	-0.3
SMF				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.7						
LASF	Ste Croix	87.68	314	⇑iP	P	10 17 48.9	+0.5
	comp=Z,67nm,1.4s,mb5.4						
SSF	Saint Saulge	87.70	317	⇑iP	P	10 17 48.7	+0.3
	comp=Z,187nm,1.5s,mb5.8						
SSF	Saint Saulge	87.70	317	⇑iP	P	10 17 48.7	+0.3
SSF				pmax	pmax		
	comp=Z,94nm,1.5s,mb5.8						
PLDF	La Plantade	87.70	316	eP	P	10 17 50.2	+1.7
LBL	Lubilhac	88.02	315	eP	P	10 17 49.7	-0.3
AGO	Saint Agoulin	88.03	316	eP	P	10 17 49.0	-1.1
PYM	Petit Puy Mans	88.14	316	eP	P	10 17 50.9	+0.3
BGF	Bois d'Agland	88.19	316	⇑iP	P	10 17 51.2	+0.4
	comp=Z,243nm,1.5s,mb5.9						
BGF	Bois d'Agland	88.19	316	⇑iP	P	10 17 51.2	+0.4
BGF				pmax	pmax		
	comp=Z,121nm,1.5s,mb5.9						
HYF	Humbligny	88.27	317	eP	P	10 17 51.8	+0.6
TCF	Toulx Ste Croi	88.65	316	⇑iP	P	10 17 53.4	+0.4
	comp=Z,164nm,1.6s,mb5.8						
TCF	Toulx Ste Croi	88.65	316	⇑iP	P	10 17 53.4	+0.4
TCF				pmax	pmax		
	comp=Z,82nm,1.6s,mb5.8						
CAF	Calviac	88.88	315	⇑iP	P	10 17 54.7	+0.6
	comp=Z,143nm,1.5s,mb5.8						
CAF	Calviac	88.88	315	⇑iP	P	10 17 54.7	+0.6
CAF				pmax	pmax		
	comp=Z,72nm,1.5s,mb5.8						
MTLF	Montolieu	88.92	313	⇑iP	P	10 17 54.8	+0.4
	comp=Z,148nm,1.4s,mb5.8						
MTLF	Montolieu	88.92	313	⇑iP	P	10 17 54.8	+0.4
MTLF				pmax	pmax		
	comp=Z,74nm,1.4s,mb5.8						
RJF	Les Rejaudoux	89.23	315	⇑iP	P	10 17 56.5	+0.7
	comp=Z,255nm,1.6s,mb6.0						
RJF	Les Rejaudoux	89.23	315	⇑iP	P	10 17 56.5	+0.7
RJF				pmax	pmax		
	comp=Z,128nm,1.6s,mb6.0						
VNDA	Vanda	89.67	168	P	P	10 17 55.7	-1.5
	comp=Z,1.7nm,0.9s,mb4.4,baz=333,slow=5.6,SNR=2.8						
VNDA				LR	LR	10 51 08.7	
	comp=Z,3μm,19.6s,MS5.7,baz=293,slow=31						
VNDA	Vanda	89.67	168	eP	P	10 18 00.7	+3.5
VNDA				pmax	pmax		
	comp=Z,41nm,1.4s						
VNDA				MLR	MLR		
	comp=Z,5μm,20.0s						
VNDA	Vanda	89.67	168	eP	P	10 18 00.7	+3.5
	comp=Z,41nm,1.4s,mb5.6						
VNDA				LR	LR		
	comp=Z,5μm,20.0s,MS5.9						
LFF	La Frestale	89.82	315	⇑iP	P	10 17 59.2	+0.7
	comp=Z,298nm,1.6s,mb6.1						
LFF	La Frestale	89.82	315	⇑iP	P	10 17 59.2	+0.7
LFF				pmax	pmax		
	comp=Z,149nm,1.6s,mb6.1						
ANM	Nome	89.83	25	eP	P	10 17 58.7	+0.6
LDF	La Druitiere	89.97	319	⇑iP	P	10 17 59.4	+0.2
	comp=Z,219nm,1.4s,mb6.0						
LDF	La Druitiere	89.97	319	⇑iP	P	10 17 59.4	+0.2
LDF				pmax	pmax		
	comp=Z,110nm,1.4s,mb6.0						
FLN	La Foliniere	90.19	319	⇑iP	P	10 18 00.4	+0.2
	comp=Z,187nm,1.1s,mb6.0						
FLN	La Foliniere	90.19	319	⇑iP	P	10 18 00.4	+0.2
FLN				pmax	pmax		
	comp=Z,93nm,1.1s,mb6.0						
MFF	Saint Martin d	90.24	317	⇑iP	P	10 18 00.7	+0.2
	comp=Z,201nm,1.4s,mb5.9						
MFF	Saint Martin d	90.24	317	⇑iP	P	10 18 00.7	+0.2
MFF				pmax	pmax		
	comp=Z,100nm,1.4s,mb6.0						
EPF	Esparros	90.32	313	⇑iP	P	10 18 01.0	0.0
	comp=Z,85nm,1.7s,mb5.5						
EPF	Esparros	90.32	313	⇑iP	P	10 18 01.0	0.0
EPF				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.5						
GRR	Gorron	90.49	318	⇑iP	P	10 18 02.0	+0.4
	comp=Z,202nm,1.3s,mb6.0						
GRR	Gorron	90.49	318	⇑iP	P	10 18 02.0	+0.4
GRR				pmax	pmax		
	comp=Z,101nm,1.3s,mb6.0						
EKA	Eskdalemuir Ar	90.86	326	P	P	10 18 02.8	-0.4
	comp=Z,6.7nm,0.6s,mb5.2,baz=91,slow=5.2,SNR=25						
EKA				PP	PP	10 21 47.4	+5.5
	comp=Z,3.5nm,0.9s,baz=97,slow=6.7,SNR=4.4						
ETSF	Etsaut	90.99	313	⇑iP	P	10 18 05.1	+1.0
	comp=Z,138nm,1.5s,mb5.8						
ETSF	Etsaut	90.99	313	⇑iP	P	10 18 05.1	+1.0
ETSF				pmax	pmax		
	comp=Z,69nm,1.5s,mb5.8						
SJPF	Ste Jean	91.45	313	⇑iP	P	10 18 07.1	+0.9
	comp=Z,136nm,1.4s,mb5.8						
SJPF	Ste Jean	91.45	313	⇑iP	P	10 18 07.1	+0.9
SJPF				pmax	pmax		
	comp=Z,68nm,1.4s,mb5.8						
SGMF	Saint Gilles	91.63	319	⇑iP	P	10 18 07.3	+0.4
	comp=Z,204nm,1.4s,mb6.0						
SGMF	Saint Gilles	91.63	319	⇑iP	P	10 18 07.3	+0.4
SGMF				pmax	pmax		
	comp=Z,102nm,1.4s,mb6.0						
QUIF	Quistinic	92.08	318	eP	P	10 18 08.8	-0.2
	comp=Z,293nm,1.7s,mb6.0						
QUIF	Quistinic	92.08	318	eP	P	10 18 08.8	-0.2
QUIF				pmax	pmax		
	comp=Z,146nm,1.7s,mb6.0						
ROSF	Rostrenen	92.09	319	⇑iP	P	10 18 09.2	+0.2
	comp=Z,204nm,1.5s,mb5.9						
ROSF	Rostrenen	92.09	319	⇑iP	P	10 18 09.2	+0.2
ROSF				pmax	pmax		
	comp=Z,102nm,1.5s,mb5.9						
ESDC	Sonseca Array	94.00	310	P	P	10 18 18.6	+0.7
	comp=Z,1.7nm,0.5s,mb4.7,baz=71,slow=2.9,SNR=11						
ESDC				PKKPbc		10 35 21.7	
	comp=Z,0.2nm,0.2s,baz=276,slow=3.2,SNR=6.1						
IMA	Indian Mountai	94.14	22	eP	P	10 18 18.9	+1.0
SCO	Scoresbysund	94.33	343	i P	P	10 18 19.7	+1.0
	comp=Z,6.9nm,0.9s,mb5.1						
MCK	McKinley	96.92	24	eP	P	10 18 31.0	+0.3
MCK				e		10 22 26.7	
MCK				pmax	pmax		
	comp=Z,63nm,1.7s,mb5.8						
MCK				MLR	MLR		
	comp=Z,2μm,20.0s,MS5.6						
MCK	McKinley	96.92	24	eP	P	10 18 31.0	+0.3
	comp=Z,63nm,1.7s,mb5.8						
MCK				ePP	PP	10 22 26.7	-2.4
MCK				LR	LR		
	comp=Z,2μm,20.0s,MS5.6						
SNAA	Sanae	96.98	198	PKKPbc		10 35 11.0	
	comp=Z,0.8nm,0.9s,baz=341,slow=5.4,SNR=4.7						
ILAR	Eielson Array	97.26	22	P	P	10 18 31.1	-1.1
	comp=Z,3.7nm,0.7s,mb5.0,baz=304,slow=3.4,SNR=18						
ILAR				PP	PP	10 22 28.8	-3.0
	comp=Z,4.0nm,1.1s,baz=294,slow=7.6,SNR=6.3						
ILAR				PKKPbc		10 35 11.2	
	comp=Z,0.9nm,0.9s,baz=190,slow=4.6,SNR=5.5						
PMR	Palmer	97.76	26	eP	P	10 18 34.7	+0.2
SML	Sawmill	98.01	25	eP	P	10 18 36.2	+0.6
MENT	Mentasta	99.37	23	eP	P	10 18 43.1	+1.3
INK	Inuvik	99.71	16	P	P	10 18 43.1	-0.1
	comp=Z,25nm,1.2s,mb5.5,baz=317,slow=5.2,SNR=22						
INK				PKKPbc		10 35 02.6	
	comp=Z,2.3nm,1.1s,baz=16,slow=4.3,SNR=3.1						
DLBC	Dease Lake	107.45	23	PKiKP		10 23 26.8	
	comp=Z,4.9nm,1.2s,baz=124,slow=3.6,SNR=3.5						
DLBC	Dease Lake	107.45	23	PKPdf		10 23 26.8	
YKA	Yellowknife Ar	109.22	14	Pdiff	Pdif	10 19 27.1	+1.7
	comp=Z,0.4nm,0.5s,baz=333,slow=5.3,SNR=8.1						
YKA				PKiKP		10 23 28.9	
	comp=Z,1.5nm,1.0s,baz=329,slow=0.6,SNR=8.1						
YKA				PKKPbc		10 34 37.0	
	comp=Z,0.5nm,0.8s,baz=146,slow=3.0,SNR=7.6						
YKA	Yellowknife Ar	109.22	14	Pdif	Pdif	10 19 27.1	+1.7
YKA				PKPdf		10 23 28.9	
YKA				PKKPbc		10 34 37.0	
TBI	Tubuai	115.15	113	eLR	LR	10 58 36.8	
	comp=Z,3μm,23.8s						
PPT	Papeete	115.50	107	eLR	LR	10 58 45.9	
	comp=Z,2μm,23.8s						
JCW	Jim Creek	118.11	27	P	PKPdf	10 23 47.5	+2.1
HTW	Haystack Looko	118.47	27	P	PKPdf	10 23 48.0	+1.8
SCHQ	Schefferville	118.79	348	PKP	PKPdf	10 23 48.2	+1.6
	comp=Z,5.1nm,0.7s,baz=42,slow=2.7,SNR=23						
ETW	Entiat	119.27	27	P	PKPdf	10 23 49.4	+1.6
WTV	Waterville	119.37	26	P	PKPdf	10 23 49.3	+1.4
EBG	Ellensburg	119.68	27	P	PKPdf	10 23 50.6	+2.0
NEW	Newport	120.15	24	ePKIKP	PKPdf	10 23 50.7	+1.2
VIPM	Ingram Point	121.43	29	PKIKP	PKPdf	10 23 54.3	+2.3
HUMO	Hull Mountain	121.59	32	ePKPdf	PKPdf	10 23 54.5	+2.2
HUMO				e		10 24 13.1	
MSO	Missoula	122.58	23	ePKPdf	PKPdf	10 23 55.0	+0.8
LHEM	Herd Peak	122.66	33	P	PKPdf	10 23 56.6	+2.1
BMO	Blue Mountains	122.73	27	ePKIKP	PKPdf	10 23 55.2	+0.7
HRY	Holter Researc	123.49	22	ePKPdf	PKPdf	10 23 57.2	+1.3
DGMT	Dagmar	124.38	15	ePKPdf	PKPdf	10 23 59.2	+1.6
ULM	Lac du Bonnet	124.42	9	PKP	PKPdf	10 24 00.1	+2.4
	comp=Z,13nm,0.8s,baz=347,slow=3.4,SNR=21						
ULM	Lac du Bonnet	124.42	9	ePKPdf	PKPdf	10 23 59.8	+2.1
BOZ	Bozeman (W)	124.46	23	ePKIKP	PKPdf	10 23 59.4	+1.5
HLID	Hailey	125.03	26	ePKPdf	PKPdf	10 24 00.9	+1.9
HLID				ePP	PP	10 25 50.0	-2.5
HLID				eSKPdf		10 27 33.9	
LAO	LASA Array	125.42	18	ePKPdf	PKPdf	10 24 01.5	+1.8
LAO				eSKPdf		10 27 34.0	
YMR	Madison River	125.54	23	ePKPdf	PKPdf	10 24 02.7	+2.8
YNR	Norris Junctio	125.61	22	ePKPdf	PKPdf	10 24 03.0	+2.9
YFT	Old Faithful	125.77	23	ePKPdf	PKPdf	10 24 03.7	+3.3
LKWY	Lake	125.84	22	ePKIKP	PKPdf	10 24 03.9	+3.4
TPAW	Teton Pass	126.53	23	ePKPdf	PKPdf	10 24 03.8	+1.9
TPAW				e		10 24 20.8	
LOHW	Long Hollow	126.56	23	ePKPdf	PKPdf	10 24 03.9	+1.9
SNOW	Snow King Moun	126.63	23	ePKPdf	PKPdf	10 24 04.3	+2.2
REDW	Red Top Meadow	126.68	23	ePKPdf	PKPdf	10 24 03.9	+1.7
ELK	Elko	126.87	29	eP	Pdif	10 20 44.3	+0.6
ELK						10 24 05.2	
NVAR	Mina Array Bea	127.04	33	PKP	PKPdf	10 24 06.0	+2.9
	comp=Z,12nm,0.8s,baz=319,slow=0.5,SNR=46						
NVAR				PP	PP	10 26 04.2	-1.5
	comp=Z,5.6nm,1.1s,baz=297,slow=4.0,SNR=4.1						
NVAR	Mina Array Bea	127.04	33	PKP	PKPdf	10 24 06.0	+2.9
NVAR				PP	PP	10 26 04.2	-1.5
HVU	Hansel Valley	127.18	26	ePKPdf	PKPdf	10 24 05.0	+1.7
HVU				e		10 24 21.9	
EYMN	Ely	127.23	6	ePKPdf	PKPdf	10 24 04.6	+1.4
EYMN				e		10 24 23.2	
MTUM	Tungsten Hills	127.67	34	ePKPdf	PKPdf	10 24 06.2	+1.8
PDAR	Pinedale Array	127.69	23	PKP	PKPdf	10 24 06.0	+1.8
	comp=Z,18nm,1.0s,slow=1.5,SNR=57						
BGU	Big Grassy Mou	127.75	27	ePKPdf	PKPdf	10 24 06.2	+1.8
HWUT	Hardware Ranch	127.84	25	ePKPdf	PKPdf	10 24 05.9	+1.4
HWUT				ePP	PP	10 26 07.1	-4.1
RKT	Rikitea	128.34	116	eLR	LR	11 04 43.5	
	comp=Z,4μm,25.5s						
NOQ	North Oquirrh	128.38	26	ePKPdf	PKPdf	10 24 07.4	+1.8
TRCR	Troy Canyon	128.53	31	ePKPdf	PKPdf	10 24 08.7	+2.8
TRCR				e		10 24 25.4	
NLU	North Lily Min	128.97	27	ePKPdf	PKPdf	10 24 08.3	+1.6
NLU				e		10 24 26.1	
MPU	Maple Canyon	129.12	26	ePKPdf	PKPdf	10 24 09.2	+2.1
RWWY	Rawlins	129.50	22	ePKPdf	PKPdf	10 24 09.0	+1.3
RWWY				e		10 24 28.5	
ARUT	Antelope Range	130.05	30	ePKIKP	PKPdf	10 24 11.4	+2.6
ARUT				e		10 24 27.6	
MVU	Marysvale	130.07	28	ePKPdf	PKPdf	10 24 11.4	+2.6
MSU	Marysvale	130.08	28	ePKIKP	PKPdf	10 24 11.6	+2.7
MSU	Marysvale	130.08	28	ePKPdf	PKPdf	10 24 11.4	+2.5
SADO	Sadowa	130.46	355	PKP	PKPdf	10 24 10.8	+1.4
	comp=Z,7.7nm,0.5s,baz=335,slow=5.0,SNR=15						
SADO				SKPbc		10 27 29.8	
	comp=Z,28nm,1.1s,baz=331,slow=5.1,SNR=5.7						
SADO	Sadowa	130.46	355	PKP	PKPdf	10 24 10.8	+1.4
SADO				SKPbc		10 27 29.8	
NEN	Nelson	130.96	33	ePKPdf	PKPdf	10 24 12.9	+2.3
NEN				e		10 24 30.6	
PV10	Paradox Valley	131.60	26	ePKPdf	PKPdf	10 24 14.5	+2.7
ISCO	Idaho Springs	131.74	21	ePKIKP	PKPdf	10 24 13.5	+1.5
PV01	Paradox Valley	132.01	25	ePKPdf	PKPdf	10 24 12.6	0.0
ANMO	Albuquerque	135.60	26	PKHKP		10 24 09.3	
ANMO	Albuquerque	135.60	26	ePKPdf	PKPdf	10 24 21.8	+2.5
ANMO				e		10 24 39.1	
TUC	Tucson	135.68	32	PKIKP	PKPdf	10 24 22.6	+3.1
BLO	Bloomington	136.29	2	PKHKP		10 24 04.8	
WMOK	Wichita Mounta	138.61	17	PKHKP		10 24 16.0	
WMOK				e		10 24 26.4	
WMOK	Wichita Mounta	138.61	17	ePKIKP	PKPdf	10 24 26.4	+1.6
WVT	Waverly	139.26	4	PKHKP		10 24 18.1	
MIAR	Mount Ida	140.08	11	PKHKP		10 24 21.3	
OXF	Oxford	140.74	6	PKHKP		10 24 23.1	
LPA	La Plata	140.99	216	ceP	Pdif	10 21 46.0	0.0
	comp=Z,4μm,22.0s						
JSC	Jenkinsville	141.05	355	ePKPdf	PKPdf	10 24 30.9	+1.6
JSC				e		10 24 48.7	
LTX	Lajitas	141.61	27	PKIKP	PKPdf	10 24 28.5	-1.9
TXAR	Lajitas Array	141.61	27	PKhKP		10 24 26.4	
	comp=Z,2.0nm,0.4s,baz=48,slow=0.7,SNR=34						
TXAR				PP	PP	10 27 37.2	-0.9
	comp=Z,14nm,1.2s,baz=326,slow=4.5,SNR=6.7						
TXAR				SKPbc		10 28 06.5	
	comp=Z,3.2nm,0.8s,baz=213,slow=0.7,SNR=7.8						
TXAR	Lajitas Array	141.61	27	PKP	PKPdf	10 24 26.4	-4.0
TXAR				PP	PP	10 27 37.2	-0.9
TXAR				SKPbc		10 28 06.5	
BAO	Brasilia Array	142.21	251	PKP	PKPdf	10 24 33.9	+2.1
BDFB	Brasilia	142.22	251	PKP	PKPdf	10 24 34.7	+2.9
	comp=Z,26nm,1.3s,baz=256,slow=2.4,SNR=8.0						
NATX	Nacogdoches	142.53	14	ePKPdf	PKPdf	10 24 29.4	-2.5
HKT	Hockley	143.95	16	ePKIKP	PKPdf	10 24 32.7	-1.7
CPUP	Villa Florida	146.03	228	PKPbc	PKPbc	10 24 40.4	+1.2
	comp=Z,0.0nm,0.3s,baz=294,slow=16,SNR=1.8						
FCH	Farellones	148.47	204	⇑iP	PKPdf	10 24 47.6	+5.7
SJG	San Juan	150.75	321	ePKIKP	PKPdf	10 24 47.4	+1.5
SJG				e		10 24 52.9	
TLL	Tololo Astrono	151.43	206	⇑iP	PKPdf	10 24 54.7	+8.1
LVC	Limon Verde	156.47	219	PKP	PKPdf	10 24 56.8	+3.1
	comp=Z,3.5nm,0.8s,baz=273,slow=2.0,SNR=4.0						
LVC	Limon Verde	156.47	219	ePKPdf	PKPdf	10 24 56.8	+3.1
LPAZ	La Paz	159.97	234	PKP	PKPdf	10 25 01.4	+3.2
	comp=Z,12nm,1.1s,baz=53,slow=2.8,SNR=21						
LPAZ	La Paz	159.97	234	ePKIKP	PKPdf	10 25 01.2	+3.1
SDV	Santo Domingo	160.41	314	ePKPdf	PKPdf	10 25 00.7	+2.0
ARE	Arequipa	162.46	227	ePKIKP	PKPdf	10 25 05.0	+4.4
ROSC	El Rosal	165.82	312	PKP	PKPdf	10 25 06.8	+2.7
	comp=Z,29nm,1.0s,baz=94,slow=18,SNR=21						
NNA	Nana	169.29	227	ePKPdf	PKPdf	10 25 08.2	+2.0
NNA				ePKPab	PKPab	10 26 20.7	-0.2

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*NEIC **27** 10:07:17.7,29.32S×69.61W,h125^{km},MD3.7(GUC),After GUC.*

GUC 27 10:07:17.7±1.1**,29.32S×69.61W,h125^{km},MD3.7,ML4.0, 3C-3D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VACH	Vallenar	1.25	306	⇑iP	P	10 07 50.7	+7.6
VACH				i S	S	10 08 09.9	+7.8
VACH				AMP		10 08 10.5	
	comp=N,7μm,0.1s						
TLL	Tololo Astrono	1.34	230	⇓iP	P	10 07 45.3	+1.2
TLL				i S	S	10 08 05.4	+1.2
TLL				AMP		10 08 07.9	
	comp=N,2μm,0.4s						
LSCH	La Serena	1.54	247	i P		10 09 17.5	
LSCH				i S		10 09 38.6	
LSCH				AMP		10 09 39.9	
	comp=N,1μm,0.2s						
CPCH	Copiapo	2.06	341	⇓iP	P	10 07 52.7	+0.1
CPCH				i S	S	10 08 18.5	-0.4
CMCH	Combarbala	2.21	213	⇑iP	P	10 07 54.7	+0.1
CMCH				i S	S	10 08 22.4	-0.1
CMCH				AMP		10 08 24.1	
	comp=E,2μm,0.5s						
ILCH	Illapel	2.67	210	e	P	10 08 00.0	-0.7
ILCH				eP		10 08 00.0	
ILCH				i S	S	10 08 32.1	-1.2
ILCH				AMP		10 08 32.7	
	comp=E,264nm,0.4s						
PTCH	Petorca	3.15	201	eP	P	10 08 06.4	-0.6
PTCH				i S	S	10 08 43.7	-0.8
PTCH				AMP		10 08 45.9	
	comp=E,259nm,0.2s						
JACH	Jahuel	3.46	194	⇓iP	P	10 08 11.1	-0.1
PACH	Papudo	3.57	206	⇑iP	P	10 08 11.2	-1.5

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*CSEM **27** 10:08:01.1±0.9,38.63N×28.58W,h5^{km}±7^{km},ML1.5,Error ellipse: s-maj=2.9km s-min=1.9km az=164.0,After PDA*

*PDA **27** 10:08:01.1±0.9,38.63N×28.58W,h5^{km}±7^{km},MD3.0, ML1.5,Error ellipse: s-maj=2.9km s-min=1.9km az=164.0*

SVSA 27 10:08:01.1±0.9**,38.63N×28.58W,h5^{km}±7^{km},MD3.0, ML1.5,Error ellipse: s-maj=2.9km s-min=1.9km az=164.0,Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	Cedros	0.10	269	i P	Pg	10 08 02.7	-0.5
PCED				eS	Sg	10 08 04.8	+0.1
	96nm,0.1s						
PCED	Cedros	0.10	269	eS	Sg	10 08 04.8	+0.1
	96nm,0.1s						
	96nm,0.1s						
CALA	Caldeira	0.11	244	eP	Pg	10 08 03.3	-0.1
CALA				eS	Sg	10 08 05.4	+0.4
CALA	Caldeira	0.11	244	eS	Sg	10 08 05.4	+0.4
HOR	Horta	0.11	202	eS	Sg	10 08 04.7	-0.4
PICO	Pico	0.17	138	eP	Pg	10 08 04.4	-0.3
PICO				eS	Sg	10 08 07.1	0.0
ROSA	Rosais	0.28	71	eP	Pg	10 08 06.0	-0.7
ROSA				eS	Sg	10 08 10.0	-0.4
PMAN	Manadas	0.38	89	eS	Sg	10 08 13.2	-0.7
	12nm,0.1s						

IDC 27 10:22:00.9±15.0**,4.71N×95.25E,h104^{km}**±134^{km}**,mb3.7**/4**, mb1 3.9**/5**,mb1mx3.5**/18**,ML4.5**/1**,Error ellipse: s-maj=108.0km s-min=20.1km az=55.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.14	15	P	P	10 25 16.5	-1.1
	0.7nm,0.3s,baz=98,slow=10,SNR=4.6						
WRA	Warramunga Arr	45.56	124	P	P	10 30 10.4	-2.1
	4.7nm,0.7s,baz=302,slow=9.1,SNR=13						
ASAR	Alice Springs	47.07	129	P	P	10 30 23.0	-1.4
	1.1nm,0.7s,baz=297,slow=7.5,SNR=7.6						
BVAR	Borovoye Array	52.32	341	P	P	10 31 01.9	-2.2
	1.2nm,0.7s,baz=135,slow=8.4,SNR=7.0						
ARCES	ARCESS Array B	78.60	340	P	P	10 33 50.8	-1.6
	2.7nm,1.0s,baz=112,slow=4.9,SNR=4.0						
CPUP	Villa Florida	146.09	228	PKPbc	PKPbc	10 41 28.9	-0.8
	0.0nm,0.5s,baz=116,slow=1.4,SNR=2.6						

IDC 27 10:23:30.7±1.7**,5.45N×93.11E,mb3.9**/4**,mb1 4.2**/5**, mb1mx3.9**/16**,ML4.3**/1**,Error ellipse: s-maj=58.2km s-min=26.3km az=60.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.12	23	Pn	P	10 26 53.2	-1.2
	0.4nm,0.3s,baz=216,slow=12,SNR=4.3						
SONM	Songino Array	43.73	13	P	P	10 31 37.5	-1.9
	0.9nm,0.6s,baz=194,slow=10,SNR=5.8						
WRA	Warramunga Arr	47.75	123	P	P	10 32 09.9	-1.9
	3.0nm,0.7s,baz=301,slow=9.1,SNR=9.2						
ASAR	Alice Springs	49.20	128	P	P	10 32 21.1	-1.9
	1.0nm,0.8s,baz=306,slow=7.5,SNR=4.8						
ARCES	ARCESS Array B	77.19	341	pP	pP	10 35 35.5	+7.7
	1.8nm,0.9s,baz=90,slow=6.3,SNR=5.3						
GERES	GERESS Array B	78.95	319	P	P	10 35 36.6	-1.3
	0.6nm,0.7s,baz=90,slow=5.3,SNR=3.9						
GERES				pP	pP	10 35 45.9	+8.0
	0.6nm,0.7s,baz=63,slow=6.6,SNR=3.8						

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*IDC **27** 10:28:06.0±0.6,8.37N×93.92E,mb4.1/17,mb1 4.2/18, mb1mx4.2/23,ML4.5/1,Error ellipse: s-maj=31.2km s-min=15.9km az=46.0*

*NEIC **27** 10:28:10.5±0.5,8.25N×93.81E,h30^{km},mb4.5/2,Error ellipse: s-maj=15.3km s-min=11.4km az=56.0*

ISC 27 10:28:08.4±0.6**,8.24N**±0.09**×93.8E**±0.1**,h30^{km},n30,** σ0^{s}**80**/28**,mb4.2**/21**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.30	26	Pn	P	10 30 51.6	+0.5
	1.1nm,0.3s,baz=214,slow=14,SNR=26						
PKI	Pulchoki	20.82	339	eP	P	10 32 50.3	+0.2
	125nm,1.4s						
DMN	Daman	20.96	338	eP	P	10 32 51.0	-0.6
	28nm,0.7s						
GUN	Gumba	20.96	340	eP	P	10 32 51.5	-0.1
	32nm,0.6s						
KKN	Kakani	21.06	338	eP	P	10 32 51.9	-0.7
	47nm,0.9s,mb4.8						
GKN	Gorkha	21.49	337	eP	P	10 32 56.9	-0.1
	16nm,0.3s,mb4.8						
KOLN	Koldanda	21.70	335	eP	P	10 32 59.7	+0.6
	37nm,0.9s,mb4.8						
AAK	Ala-Archa	38.25	337	eP	P	10 35 27.5	-0.2
	13nm,1.4s,mb4.5						
AAK				epP	pP	10 35 35.7	-1.0
SONM	Songino Array	40.87	13	P	P	10 35 49.0	-0.4
	0.6nm,0.8s,mb3.2,baz=170,slow=8.8,SNR=3.6						
BVAR	Borovoye Array	48.55	341	P	P	10 36 49.8	-1.0
	0.5nm,0.3s,mb4.0,baz=130,slow=8.5,SNR=4.6						
WRA	Warramunga Arr	48.72	126	P	P	10 36 52.3	-0.3
	2.4nm,1.0s,mb4.2,baz=303,slow=9.1,SNR=8.2						
ASAR	Alice Springs	50.38	130	P	P	10 37 05.3	0.0
	0.4nm,0.5s,mb3.7,baz=305,slow=7.9,SNR=6.5						
KMBO	Kilima Mbogo	57.17	263	P	P	10 37 56.3	+0.8
	0.5nm,0.4s,mb3.9,baz=46,slow=23,SNR=3.0						
STKA	Stephens Creek	60.57	134	P	P	10 38 17.9	-0.9
	2.1nm,0.8s,mb4.3,baz=188,slow=19,SNR=3.2						
STKA	Stephens Creek	60.57	134	P	P	10 38 17.9	-0.9
BRTR	Keskin Array B	61.97	311	P	P	10 38 26.5	-1.7
	0.8nm,0.6s,mb4.0,baz=126,slow=5.7,SNR=3.4						
IDI	Anoyia	68.11	305	P	P	10 39 07.0	-1.1
	7.1nm,0.8s,mb4.8,baz=340,slow=10,SNR=3.2						
MLR	Muntele Rosu	68.70	316	P	P	10 39 12.0	+0.5
	1.5nm,0.6s,mb4.1,baz=114,slow=16,SNR=2.8						
FINES	FINESS Array B	72.25	332	P	P	10 39 31.8	-0.8
	1.3nm,0.6s,mb4.0,baz=90,slow=5.7,SNR=9.0						
ARCES	ARCESS Array B	74.82	340	P	P	10 39 47.7	+0.2
	0.7nm,0.5s,mb3.9,baz=93,slow=3.7,SNR=6.8						
GERES	GERESS Array B	77.36	318	P	P	10 40 02.9	+0.7
	1.0nm,1.0s,mb3.7,baz=90,slow=6.7,SNR=5.1						
HFS	Hagfors	77.99	330	P	P	10 40 05.9	+0.5
	1.9nm,0.5s,mb4.3,baz=90,slow=5.9,SNR=10						
NB2	NORSAR Subarra	79.27	331	P	P	10 40 11.5	-0.9
	3.1nm,0.8s,mb4.3,baz=96,slow=5.0						
NOA	NORSAR Array B	79.27	331	P	P	10 40 12.3	-0.1
	7.6nm,1.2s,mb4.5,baz=97,slow=5.3,SNR=4.1						
NOA	NORSAR Array B	79.27	331	P	P	10 40 12.3	-0.1
DAVOX	Davos	79.92	316	P	P	10 40 17.8	+1.6
	1.9nm,0.7s,mb4.1,baz=153,slow=16,SNR=3.4						
EKA	Eskdalemuir Ar	87.25	325	P	P	10 40 54.5	+1.1
	1.1nm,0.7s,mb4.2,baz=113,slow=5.7,SNR=5.4						
ILAR	Eielson Array	94.52	22	P	P	10 41 28.4	+1.5
	0.3nm,0.8s,mb3.8,baz=298,slow=5.2,SNR=5.3						
CPUP	Villa Florida	147.25	233	PKPbc	PKPdf	10 47 53.7	+1.2
	0.0nm,0.3s,baz=209,slow=19,SNR=1.8						
CPUP	Villa Florida	147.25	233	PKPbc	PKPdf	10 47 53.7	+1.2

IDC 27 10:30:45.6±3.0**,3.77N×94.17E,mb3.8**/3**,mb1 4.0**/4**, mb1mx3.7**/18**,ML3.9**/1**,Error ellipse: s-maj=96.7km s-min=31.6km az=62.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.32	17	Pn	P	10 34 22.7	-2.3
	0.2nm,0.3s,baz=225,slow=12,SNR=3.1						
SONM	Songino Array	45.14	12	P	P	10 39 04.4	-1.3
	0.6nm,0.7s,baz=194,slow=8.3,SNR=4.3						
WRA	Warramunga Arr	45.96	122	P	P	10 39 10.6	-1.9
	1.5nm,0.7s,baz=300,slow=9.1,SNR=5.3						
BVAR	Borovoye Array	52.87	342	P	P	10 40 02.7	-2.6
	1.6nm,1.0s,baz=159,slow=13,SNR=3.8						

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*IDC **27** 10:35:30.1±1.0,4.42N×95.26E,mb4.0/9,mb1 4.1/10, mb1mx4.0/19,ML3.9/1,Error ellipse: s-maj=54.7km s-min=19.3km az=47.0*

*NEIC **27** 10:35:34.3±0.7,4.19N×95.08E,h30^{km},mb3.8/1,Error ellipse: s-maj=24.1km s-min=14.2km az=59.0*

ISC 27 10:35:32.6±0.8,**4.2N**±0.1×**95.1E**±0.2,**h30^{km},n12, σ1^{s}07**/12,**mb3.9**/10,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.64	15	Pn	P	10 39 01.1	+1.3
	0.2nm,0.3s,baz=210,slow=12,SNR=6.7						
AAK	Ala-Archa	42.43	337	P	P	10 43 26.8	+0.4
	1.3nm,0.7s,mb3.7						
SONM	Songino Array	44.53	11	P	P	10 43 41.6	-1.9
	0.2nm,0.3s,mb3.4,baz=190,slow=8.8,SNR=2.8						
WRA	Warramunga Arr	45.41	123	P	P	10 43 50.3	-0.5
	1.7nm,0.9s,mb3.9,baz=305,slow=8.7,SNR=14						
ASAR	Alice Springs	46.87	128	P	P	10 44 02.9	+0.5
	0.7nm,0.8s,mb3.6,baz=315,slow=7.7,SNR=4.2						
BVAR	Borovoye Array	52.74	341	P	P	10 44 45.6	-1.4
	5.3nm,0.9s,mb4.5,baz=149,slow=8.6,SNR=12						
BRTR	Keskin Array B	65.56	312	P	P	10 46 15.0	-0.8
	0.6nm,0.5s,mb3.9,baz=118,slow=9.6,SNR=3.1						
FINES	FINESS Array B	76.38	333	P	P	10 47 20.0	-0.6
	3.1nm,1.0s,mb4.2,baz=96,slow=6.3,SNR=8.4						
FINES	FINESS Array B	76.38	333	P	P	10 47 20.0	-0.6
ARCES	ARCESS Array B	79.01	340	P	P	10 47 35.3	+0.3
	1.1nm,0.5s,mb4.0,baz=96,slow=6.5,SNR=13						
GERES	GERESS Array B	81.19	319	P	P	10 47 47.9	+0.9
	0.5nm,0.4s,mb3.8,baz=104,slow=5.5,SNR=4.3						
DAVOX	Davos	83.69	316	P	P	10 48 01.9	+1.8
	1.1nm,0.4s,mb4.4,baz=135,slow=5.2,SNR=6.3						

BJI ***27*** *10:36:18.9,38.70N×122.70W,h3^{km},mB4.3,mb4.2,Ms4.8, Msz4.6*

NEIC ***27*** *10:36:23.0,38.75N×122.73W,h4^{km},MW4.3(BRK),After NCEDC.*

NEIC Felt [IV] at Middletown; [III] at Calistoga, Clearlake, Cloverdale, Healdsburg, Kelseyville, Petaluma and San Anselmo; [II] at San Francisco, Santa Rosa and Windsor.

IDC ***27*** *10:36:26.3±3.1,38.79N×122.71W,h16^{km}±15^{km},mb3.9/11, mb1 4.2/16,mb1mx4.0/24,ML3.7/4,Error ellipse: s-maj=24.2km s-min=9.6km az=49.0*

ISC 27 10:36:22.2±0.4,**38.75N**±0.04×**122.63W**±0.05,**h4^{km},n63, σ1^{s}27**/65,**mb4.0**/12,**Northern California**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NSHM	Saint Helena R	0.23	175	*i* Pg	Pg	10 36 28.0	+1.2
HOPS	Hopland	0.42	306	*e*Pg	Pg	10 36 30.0	-0.6
HOPS				*e*Sg	Sg	10 36 34.4	-1.8
OHCM	Honcut	1.07	56	*e*Pg	Pg	10 36 43.0	-0.6
SAC	San Andreas	1.18	172	*e*Pg	Pg	10 36 44.3	-1.4
WDC	Whiskeytown Da	1.83	2	*e*Pn	Pn	10 36 53.7	-1.1
CMB	Columbia Colle	1.90	111	*e*Pn	Pn	10 36 56.5	+0.7
SAO	San Andreas Ge	2.19	154	*e*Pn	Pn	10 36 58.5	-1.4
WCN	Washoe City	2.31	75	*e*Pn	Pn	10 37 03.4	+1.8
LRV	Little Rabbit	2.65	151	*e*Pn	Pn	10 37 06.0	-0.5
PAHR	Pah Rah Range	2.70	68	*e*Pn	Pn	10 37 08.0	+0.8
YBH	Yreka Blue Hor	2.98	359	Pn	Pn	10 37 12.8	+1.6
	2.6nm,0.3s,baz=180,slow=7.8,SNR=29						
YBH				Lg		10 37 58.9	
	3.8nm,0.3s,baz=285,slow=9.0,SNR=5.3						
YBH	Yreka Blue Hor	2.98	359	*e*Pn	Pn	10 37 11.9	+0.7
OMM	Old Mammoth Mi	3.08	110	*e*Pn	Pn	10 37 14.4	+1.8
NVAR	Mina Array Bea	3.41	94	Pn	Pn	10 37 18.6	+1.3
	5.1nm,0.3s,baz=270,slow=16,SNR=105						
NVAR				Pg	Pg	10 37 26.2	-4.0
	32nm,0.3s,baz=262,slow=17,SNR=62						
NVAR				Lg		10 38 17.9	
	28nm,0.3s,baz=261,slow=28,SNR=7.1						
MTUM	Tungsten Hills	3.50	112	*e*Pn	Pn	10 37 20.1	+1.6
MNV	Mina	3.52	94	*e*Pn	Pn	10 37 19.4	+0.5
MOD	Modoc	3.62	29	*e*Pn	Pn	10 37 20.6	+0.4
HUMO	Hull Mountain	3.86	356	*e*Pn	Pn	10 37 23.4	-0.4
TPH	Tonopah	4.30	97	*e*Pn	Pn	10 37 30.1	+0.1
BMN	Battle Mountai	4.51	66	*e*Pn	Pn	10 37 32.7	-0.1
DAC	Darwin (Calif)	4.71	120	*e*Pg	Pg	10 37 48.3	-7.9
TPNV	Topopah Spring	5.36	108	*e*Pn	Pn	10 37 45.2	+0.3
TRCR	Troy Canyon	5.54	92	Pn	Pn	10 37 47.6	+0.1
ELK	Elko	6.04	68	*e*Pn	Pn	10 37 54.0	-0.5
NEN	Nelson	6.94	114	*e*Pn	Pn	10 38 06.0	-1.2
PFO	Pinyon Flat Ob	7.16	134	*e*Pn	Pn	10 38 08.3	-2.0
BMO	Blue Mountains	7.28	31	*e*Pn	Pn	10 38 09.8	-2.2
ARUT	Antelope Range	7.30	95	*e*Pn	Pn	10 38 10.5	-1.8
BGU	Big Grassy Mou	7.70	71	*e*Pn	Pn	10 38 17.0	-0.9
MVU	Marysvale	8.16	88	*e*Pn	P	10 38 22.6	-1.7
MSU	Marysvale	8.19	88	*e*Pn	P	10 38 23.5	-1.2
NLU	North Lily Min	8.27	78	*e*Pn	P	10 38 25.4	-0.4
HWUT	Hardware Ranch	8.94	68	*e*Pn	P	10 38 33.5	-1.6
SRU	San Rafael	9.45	84	*e*Pn	P	10 38 41.2	-0.9
PV10	Paradox Valley	10.65	88	Pn	P	10 38 56.4	-2.3
PDAR	Pinedale Array	10.70	64	Pn	P	10 39 03.1	+3.8
	0.1nm,0.3s,baz=248,slow=10.0,SNR=48						
PDAR				Lg		10 42 07.7	
	0.0nm,0.3s,baz=245,slow=19,SNR=3.0						
PV01	Paradox Valley	11.05	89	*e*Pn	P	10 39 02.6	-1.5
RW3	Ridgway	11.72	88	*e*Pn	P	10 39 14.1	+0.8
ANMO	Albuquerque	13.49	101	Pn	P	10 39 47.0	+10
	baz=276,slow=9.3,SNR=8.0						
ANMO				Lg		10 43 38.1	
	baz=32,slow=11,SNR=3.4						
ANMO	Albuquerque	13.49	101	Pn	P	10 39 47.0	+10
ANMO				Lg		10 43 38.1	
MNTX	Cornudas Mount	15.74	111	Pn	P	10 40 07.9	+1.5
LTX	Lajitas	18.28	115	*e*Pn	P	10 40 38.7	+0.2
TXAR	Lajitas Array	18.28	115	P	P	10 40 41.2	+2.8
	0.1nm,0.3s,baz=288,slow=7.3,SNR=28						
TXAR	Lajitas Array	18.28	115	P	P	10 40 41.2	+2.7
KSU1	Kansas State U	20.23	81	*e*Pn	P	10 41 01.1	0.0
DLBC	Dease Lake	20.28	349	P	P	10 41 02.8	+1.4
	8.1nm,1.2s,baz=165,slow=13,SNR=4.5						
ULM	Lac du Bonnet	22.16	50	P	P	10 41 20.4	-0.1
	3.7nm,1.0s,mb3.8,baz=259,slow=13,SNR=3.4						
ULM	Lac du Bonnet	22.16	50	P	P	10 41 20.4	-0.1
YKA	Yellowknife Ar	24.27	9	P	P	10 41 42.2	+1.1
	0.5nm,0.8s,mb3.0,baz=188,slow=9.6,SNR=8.5						
YKA				PcP	PcP	10 45 20.7	-2.0
	0.3nm,0.9s,baz=199,slow=3.2,SNR=4.4						
YKA	Yellowknife Ar	24.27	9	P	P	10 41 42.2	+1.1
YKA				PcP	PcP	10 45 20.7	-2.0
ILAR	Eielson Array	29.69	339	P	P	10 42 31.7	+0.7
	2.4nm,1.1s,mb3.9,baz=156,slow=6.6,SNR=14						
ILAR				PcP	PcP	10 45 34.5	-0.8
	0.7nm,0.9s,baz=189,slow=1.5,SNR=6.2						
INK	Inuvik	30.21	352	P	P	10 42 36.0	+0.3
	7.3nm,1.2s,mb4.3,baz=163,slow=11,SNR=9.0						
INK	Inuvik	30.21	352	P	P	10 42 36.0	+0.3
NOA	NORSAR Array B	73.69	21	P	P	10 47 59.2	+0.9
	1.3nm,0.8s,mb3.9,baz=326,slow=5.9,SNR=3.4						
NOA	NORSAR Array B	73.69	21	P	P	10 47 59.2	+0.9
MDJ	Mudanjiang	74.58	315	P	P	10 48 00.8	-3.1
MDJ				AMB	AMB		
	comp=Z,6.0nm,2.4s,mb4.1						
MDJ				AMB	AMB		
	comp=Z,713nm,12.2s						
SONM	Songino Array	83.39	329	P	P	10 48 53.1	+1.5
	comp=Z,0.7nm,0.9s,mb3.7,baz=34,slow=4.5,SNR=6.1						
ESDC	Sonseca Array	83.87	43	P	P	10 48 55.6	+1.4
	comp=Z,0.2nm,0.3s,mb3.7,baz=284,slow=2.5,SNR=4.5						
GERES	GERESS Array B	84.59	27	P	P	10 48 59.2	+1.6
	comp=Z,3.4nm,1.2s,mb4.4,slow=2.7,SNR=7.1						
VRAC	Vranov	85.20	25	P	P	10 49 02.8	+2.2
	comp=Z,3.7nm,0.9s,mb4.5,baz=346,slow=7.2,SNR=4.9						
AKASG	Malin Array Be	87.56	17	P	P	10 49 12.8	+0.6
	comp=Z,0.2nm,0.3s,mb3.8,baz=324,slow=3.8,SNR=4.4						
WMQ	Urumqi	93.35	339	*e*P	P	10 49 40.3	+0.9
LZH	Lanzhou	94.05	324	*e*P	P	10 49 40.5	-2.3
LZH				AP	pP	10 49 43.5	-0.5
LZH				XP	sP	10 49 50.3	+5.9
LZH				PP	PP	10 53 28.3	-3.6
LZH				AMB	AMB		
	comp=Z,11nm,1.5s,mb5.1						

NEIC ***27*** *10:37:19.9±1.2,2.54N×95.43E,h30^{km},Error ellipse: s-maj=41.3km s-min=14.3km az=65.0*

IDC 27 10:37:26.1±14.0,**2.77N×95.76E,h73^{km}**±118^{km},**mb3.7**/6,**mb1 3.9**/7,**mb1mx3.6**/18,**ML4.7**/1,**Error ellipse: s-maj=110.0km s-min=18.1km az=57.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.90	11	P	P	10 41 05.4	-1.5
	1.1nm,0.3s,baz=198,slow=11,SNR=18						
WRA	Warramunga Arr	44.08	123	P	P	10 45 27.0	-2.0
	1.5nm,0.8s,baz=304,slow=8.9,SNR=6.3						
ASAR	Alice Springs	45.48	127	P	P	10 45 38.5	-1.6
	0.6nm,0.6s,baz=300,slow=7.5,SNR=3.6						
SONM	Songino Array	45.83	10	P	P	10 45 40.9	-1.7
	1.4nm,0.8s,baz=189,slow=9.2,SNR=10						
BVAR	Borovoye Array	54.31	341	P	P	10 46 44.7	-2.5
	1.6nm,0.5s,baz=157,slow=11,SNR=8.1						
CTA	Charters Tower	54.48	117	P	P	10 46 46.7	-2.2
	5.3nm,1.1s,baz=334,slow=8.9,SNR=2.7						
ARCES	ARCESS Array B	80.59	340	P	P	10 49 30.7	-1.2
	3.9nm,1.1s,baz=90,slow=3.6,SNR=4.5						
ARCES	ARCESS Array B	80.59	340	P	P	10 49 30.7	-1.2
TXAR	Lajitas Array	143.05	29	PKP	PKPdf	10 56 50.5	-1.8
	0.6nm,1.0s,slow=1.3,SNR=3.8						

IDC 27 10:42:30.2±24.0,**19.51S×174.76W,h358^{km}**±262^{km},**mb3.2**/6,**mb1 3.5**/7,**mb1mx3.3**/17,**Error ellipse: s-maj=101.0km s-min=25.5km az=6.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	19.98	199	P	P	10 46 36.5	-0.8
	0.6nm,0.3s,baz=220,slow=4.6,SNR=4.0						
CTA	Charters Tower	36.63	262	P	P	10 49 04.6	-0.6
	3.3nm,1.0s,baz=100,slow=13,SNR=5.5						
ASAR	Alice Springs	47.72	255	P	P	10 50 32.8	-1.3
	1.1nm,0.4s,baz=90,slow=7.8,SNR=37						
WRA	Warramunga Arr	47.76	260	P	P	10 50 32.2	-2.2
	2.2nm,0.4s,baz=98,slow=5.6,SNR=65						
TXAR	Lajitas Array	83.97	56	P	P	10 54 22.6	+0.3
	0.4nm,0.8s,baz=207,slow=6.0,SNR=4.5						
PDAR	Pinedale Array	86.17	42	P	P	10 54 32.3	-0.5
	0.2nm,0.8s,baz=243,slow=4.0,SNR=3.0						
ILAR	Eielson Array	86.71	12	P	P	10 54 32.5	-2.2
	0.5nm,0.5s,baz=227,slow=6.0,SNR=20						

IDC ***27*** *10:45:36.6±0.7,3.16N×93.84E,h25^{km}±4^{km},mb4.4/20, mb1 4.5/20,mb1mx4.4/26,Error ellipse: s-maj=28.3km s-min=11.3km az=35.0*

NEIC ***27*** *10:45:37.0±0.3,3.17N×93.88E,h30^{km},mb4.8/5,Error ellipse: s-maj=20.7km s-min=7.9km az=216.0*

BJI ***27*** *10:45:36.9,3.20N×93.90E,h30^{km},mB5.3,mb5.2,Ms5.6, Msz5.4*

ISC 27 10:45:34.6±0.5,**3.2N**±0.1×**93.9E**±0.1,**h26^{km}, h26^{km}**±1.1^{km}**:pP-P,n43,σ0^{s}71**/39,**mb4.6**/24,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BJT	Baijiatuau	41.88	26	P	pP	10 53 31.9	-0.4
	17nm,0.8s						
WRA	Warramunga Arr	45.88	122	P	P	10 53 56.9	-0.2
	9.0nm,0.7s,mb4.8,baz=300,slow=8.8,SNR=42						
WRA				pP	pP	10 54 05.3	+0.4
	6.5nm,0.7s,baz=300,slow=8.9,SNR=13						
ASAR	Alice Springs	47.22	127	P	P	10 54 08.2	+0.4
	4.6nm,0.8s,mb4.5,baz=301,slow=7.5,SNR=25						
ASAR				pP	pP	10 54 16.0	+0.5
	3.2nm,0.9s,baz=301,slow=7.6,SNR=8.7						
BRVK	Borovoye	53.42	342	P	P	10 54 54.2	-0.3
	20nm,1.1s,mb5.0						
PMG	Port Moresby	54.54	104	P	P	10 55 03.4	+0.1
	1.9nm,0.3s,mb4.6,baz=296,slow=12,SNR=3.2						
CTA	Charters Tower	56.35	117	P	P	10 55 16.5	+0.2
	1.0nm,0.3s,mb4.3,baz=275,slow=17,SNR=2.5						
CTA	Charters Tower	56.35	117	P	P	10 55 16.5	+0.2
KMBO	Kilima Mbogo	56.76	267	P	P	10 55 19.3	0.0
	1.5nm,0.8s,mb4.1,baz=240,slow=24,SNR=4.4						
STKA	Stephens Creek	57.13	131	P	P	10 55 20.8	-1.0
	4.9nm,0.8s,mb4.6,baz=286,slow=7.8,SNR=6.0						
STKA	Stephens Creek	57.13	131	P	P	10 55 20.8	-1.0
GNI	Garni	57.59	317	P	P	10 55 25.3	+0.4
	14nm,0.7s,mb5.1,baz=73,slow=7.8,SNR=3.3						
GNI	Garni	57.59	317	P	P	10 55 24.3	-0.6
ASAJ	Asahikawa	59.18	39	P	P	10 55 36.4	+0.5
	7.3nm,0.8s,mb4.8,baz=26,slow=26,SNR=2.1						
ASF	Jabal al Asfar	60.63	305	P	P	10 55 47.4	+1.4
	2.4nm,0.7s,mb4.4,baz=229,slow=0.3,SNR=3.7						
KIV	Kislovodsk	60.67	320	P	P	10 55 44.3	-1.8
YSS	Yuzh-Sakhalins	60.68	36	P	P	10 55 45.5	-0.6
ELZG	Elazig	61.02	313	*i* P	P	10 55 49.2	+0.7
MALT	Malatya	61.36	312	*e*P	P	10 55 50.8	0.0
	5.7nm,0.9s,mb4.7						
EIL	Elat	61.60	302	*e*P	P	10 55 52.4	-0.3
	3.4nm,0.4s,mb4.8						
GZT	Gaziantep	61.68	311	*i* P	P	10 55 52.3	-0.7
KAHT	Ahir Dag	62.29	311	*i* P	P	10 55 57.9	+0.7
BOYT	Boyabat	64.96	315	*i* P	P	10 56 14.7	0.0
BRTR	Keskin Array B	65.34	313	P	P	10 56 16.6	-0.6
	2.4nm,0.8s,mb4.3,baz=125,slow=7.2,SNR=10.0						
BALT	Daday	66.08	314	*i* P	P	10 56 26.6	+4.8
ULDT	Uludag	68.79	312	*i* P	P	10 56 33.2	-5.7
IDI	Anoyia	71.07	306	P	P	10 56 52.6	-0.3
	7.7nm,0.6s,mb4.8,baz=86,slow=6.4,SNR=4.1						
AKASG	Malin Array Be	71.69	323	P	P	10 56 55.0	-1.3
	1.2nm,0.6s,mb4.0,baz=89,slow=4.9,SNR=10						
MLR	Muntele Rosu	72.37	317	P	P	10 57 00.2	-0.3
	4.5nm,0.7s,mb4.5,baz=144,slow=5.4,SNR=5.9						
FINES	FINESS Array B	76.74	333	P	P	10 57 24.9	-0.5
	8.6nm,0.6s,mb4.9,baz=90,slow=7.6,SNR=21						
FINES	FINESS Array B	76.74	333	P	P	10 57 24.9	-0.5
PSZ	Piszkesteto	76.95	318	*e*P	P	10 57 26.6	-0.2
	3.1nm,0.6s,mb4.4						
MORC	Moravsky Berou	78.78	320	P	P	10 57 36.7	0.0
ZST	Bratislava	78.84	318	*e*P	P	10 57 38.0	+0.9
VRAC	Vranov	79.32	319	P	P	10 57 40.5	+0.8
	1.5nm,0.4s,mb4.3,baz=323,slow=15,SNR=2.2						
ARCES	ARCESS Array B	79.59	341	P	P	10 57 40.4	-0.4
	5.7nm,0.5s,mb4.8,baz=63,slow=2.7,SNR=64						
ARCES	ARCESS Array B	79.59	341	P	P	10 57 40.4	-0.4
FX1	Attu Island--F	81.03	37	P	P	10 57 49.8	+1.0
	15nm,0.6s,mb5.1,baz=130,slow=7.2,SNR=2.7						
GERES	GERESS Array B	81.16	319	P	P	10 57 50.6	+1.1
	3.6nm,0.7s,mb4.4,baz=104,slow=5.4,SNR=31						
GERES				pP	pP	10 57 58.1	+0.4
	2.5nm,0.7s,baz=104,slow=5.5,SNR=7.9						
DAVOX	Davos	83.59	317	P	P	10 58 03.3	+1.1
	8.9nm,0.7s,mb5.0,baz=111,slow=5.5,SNR=17						
NOA	NORSAR Array B	83.69	331	P	P	10 58 02.3	0.0
	1.4nm,0.8s,mb4.1,baz=338,slow=20,SNR=3.6						
TXAR	Lajitas Array	143.58	26	PKP	PKPdf	11 05 08.1	-4.5
	0.4nm,0.7s,baz=196,slow=0.6,SNR=5.6						
CPUP	Villa Florida	144.04	227	PKP	PKPdf	11 05 08.9	-4.5
	0.0nm,0.3s,baz=314,slow=18,SNR=1.5						
LPAZ	La Paz	158.01	232	PKPab	PKPab	11 06 06.2	+0.4
	3.0nm,1.2s,baz=77,slow=3.7,SNR=3.7						

MOS ***27*** *10:46:37.3±1.0,13.73N×93.03E,h33^{km},mb5.5/46, MS5.0/4,Error ellipse: s-maj=7.8km s-min=4.9km az=120.2*

BJI ***27*** *10:46:37.0,13.51N×93.01E,h43^{km},mB5.5,mb5.0,Ms5.0, Msz4.8*

IDC ***27*** *10:46:38.9±0.3,13.65N×93.06E,h32^{km}±1^{km},mb4.8/31, mb1 4.8/32,mb1mx4.8/33,ML4.8/1,MS4.8/8,Ms1 4.8/8, ms1mx4.4/23,Error ellipse: s-maj=11.2km s-min=6.5km az=42.0*

NEIC ***27*** *10:46:39.0±0.2,13.68N×93.04E,mb5.2/53,Error ellipse: s-maj=5.8km s-min=4.7km az=197.0*

SYO ***27*** *10:46:38.8,13.66N×93.10E,h30^{km},MB5.1*

HRVD ***27*** *10:46:39.0±0.5,13.85N×93.11E,h12^{km},MW5.4/56, Centroid moment Tensor Solution. LP body waves: s22,c27;Mantle waves: s56,c86; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.17±.03; $M_{\theta\theta}$0.05±.02; $M_{\phi\phi}$0.12±.02; $M_{r\theta}$0.47±.08; $M_{\theta\phi}$0.32±.02; $M_{\phi r}$-1.25±.07; Best double couple: $M_0$1.36×10^{17} NP1: ϕ_s247°,δ12°,λ-7°. NP2:ϕ_s343°,δ89°,λ-102°. Principal axes: T 1.24, Plg42°, Azm85°; N .25, Plg12°, Azm343°; P -1.49, Plg45°, Azm241°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 10:46:36.9±0.2,**13.69N**±0.03×**93.05E**±0.03,**h32^{km}, h32^{km}**±.5^{km}**:pP-P,n353,σ1^{s}07**/329,**mb5.1**/96,**MS4.9**/16,**11C-10D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	6.61	99	P	Sn	10 49 36.0	+6.6
NST	Nakhon Sawan	7.14	73	P	Pn	10 48 22.4	+0.6
CM31	Chiang Mai Arr	7.39	49	*e*Pn	Pn	10 48 23.0	-2.4
	16nm,0.4s						
CMAR	Chiang Mai Arr	7.39	49	Pn	Pn	10 48 23.8	-1.6
	4.2nm,0.3s,baz=240,slow=15,SNR=50						
CMAR				Sn	Sn	10 49 42.8	-6.2
	2.1nm,0.3s,baz=240,slow=20,SNR=2.7						
CMAR				LR	LR	10 51 53.2	
	comp=Z,4µm,18.9s,baz=240,slow=42						
CHG	Chiang Mai	7.62	47	PN	Pn	10 48 27.0	-1.6
CHG				SG	Sn	10 49 49.3	-5.4
NANT	Nan	8.93	54	⇑P	P	10 48 47.0	+0.1
	125nm,1.0s						
VIS	Vishakhapatnam	10.18	294	*e*P	P	10 49 01.1	-3.0
AGT	Agartala	10.28	351	⇑*i*	P	10 49 08.0	+2.5
AGT				*i*		10 50 36.0	
IMP	Imphal	11.07	4	*e*P	P	10 49 12.3	-3.9
SHL	Shillong	11.87	355	*e*	P	10 49 30.2	+3.2
SHL				*e*S	S	10 51 25.2	-14
BOK	Bokaro	12.12	327	*e*P	P	10 49 28.3	-2.1
MDRS	Chennai	12.47	269	*e*S	S	10 51 38.5	-15
PALK	Pallekele	13.71	244	*e*P	P	10 49 51.1	-0.5
	171nm,1.6s						
HYB	Hyderabad	14.45	287	*e*P	P	10 49 52.0	-9.3
HYB				*e*S	S	10 52 26.0	-15
HYB	Hyderabad	14.45	287	*i* P	P	10 49 58.0	-3.3
HYB				*e*S	S	10 52 24.0	-17
KMI	Kunming	14.58	37	P	P	10 50 11.3	+8.2
KMI				PP	PP	10 50 26.5	+12
KMI				AMB	AMB		
	comp=Z,27nm,1.1s						
KMI				LR	LR		
	comp=Z,4µm,15.4s						
PKI	Pulchoki	15.54	334	*e*P	P	10 50 14.2	-1.3
	comp=Z,186nm,0.6s						
KOD	Kodaikanal	15.62	259	*e*	P	10 50 23.1	+6.5
KOD				*e*		10 50 24.8	
KOD				*e*	S	10 52 58.5	-10
GUN	Gumba	15.65	336	*e*P	P	10 50 14.9	-2.0
	comp=Z,290nm,0.8s						
DMN	Daman	15.71	333	*e*P	P	10 50 15.7	-1.9
	comp=Z,366nm,0.8s						
KKN	Kakani	15.79	334	*e*P	P	10 50 17.7	-1.0
	comp=Z,180nm,0.9s						
LSA	Lhasa	16.03	354	*e*P	P	10 50 25.0	+3.3
LSA				pmax	pmax		
	comp=Z,25nm,0.8s						
LSA	Lhasa	16.03	354	*e*P	P	10 50 24.9	+3.2
	comp=Z,25nm,0.8s						
GKN	Gorkha	16.25	332	*e*P	P	10 50 23.8	-0.8
	comp=Z,227nm,0.5s						
KOLN	Koldanda	16.55	329	*e*P	P	10 50 27.0	-1.4
	comp=Z,238nm,0.7s						
AKL	Akola	16.82	297	*e*	P	10 50 34.7	+2.8
AKL				*e*		10 50 47.8	
	comp=Z,203nm,1.8s						
AKL				*e*	S	10 53 16.0	-20
QIZ	Qiongzhong	16.97	70	P	P	10 50 37.5	+3.8
QIZ				*e*S	S	10 53 41.5	+1.7
QIZ				LR	LR		
	comp=E,5µm,15.0s						
QIZ				LR	LR		
	comp=Z,7µm,15.0s						
QIZ	Qiongzhong	16.97	70	P	P	10 50 32.1	-1.6
	comp=Z,131nm,1.4s						
BHPL	Bhopal	17.59	305	*e*P	P	10 50 40.2	-1.2
BHPL				*e*		10 50 52.8	
	comp=Z,264nm,1.3s						
JHNI	Jhansi	17.98	313	*e*P	P	10 50 46.0	-0.3
JHNI				*e*		10 51 06.0	
GYA	Guiyang	18.00	43	⇑*i*P	P	10 50 46.5	-0.1
GYA				AMB	AMB		
	comp=Z,240nm,2.4s						
GYA				LR	LR		
	comp=N,1µm,16.7s						
GYA				LR	LR		
	comp=E,2µm,15.8s						
GYA				LR	LR		
	comp=Z,1µm,15.0s						
KAD	Karad	18.53	284	*e*P	P	10 50 49.4	-3.7
KAD				*e*P		10 50 53.0	
KAD				*e*		10 51 08.0	
	comp=Z,157nm,1.5s						
KAD				*i*	S	10 53 59.0	-16
GOA	Goa	18.69	278	*e*		10 51 05.7	
GOA				*e*		10 51 05.9	
	comp=Z,107nm,1.0s						
GOA				*e*	S	10 54 11.5	-7.3
CD2	Chengdu	19.77	28	P	P	10 51 06.0	-1.5
CD2				AMB	AMB		
	comp=Z,120nm,0.9s						
BOM	Bombay	20.09	288	*e*P	P	10 51 10.9	+0.1
BOM				*e*		10 51 15.9	
	comp=Z,238nm,1.9s						
BOM				*e*	S	10 54 31.6	-18
NDI	New Delhi	20.95	318	*e*P	P	10 51 20.3	+0.6
NDI				*e*		10 51 43.2	
	comp=Z,200nm,1.5s						
NDI				*e*		10 54 57.2	
AJM	Ajmer	21.43	309	*i* P	P	10 51 25.0	+0.5
DDI	Dehra Dun	21.57	323	*e*P	P	10 51 25.8	-0.1
DDI				*e*	S	10 55 11.5	-6.6
ENH	Enshi	22.42	40	*e*P	P	10 51 33.2	-1.2
	comp=Z,51nm,0.7s,mb5.1						
SDNR	Sundarnagar	23.07	323	*e*P	P	10 51 42.9	+2.1
BHK	Bhakra	23.33	322	*e*P	P	10 51 45.0	+1.6
BHJ	Bhuj	24.11	297	*e*	P	10 51 41.6	-9.3
BHJ				*e*		10 51 56.5	
	comp=Z,138nm,1.3s						
LZH	Lanzhou	24.32	22	⇑P	P	10 51 54.0	+1.1
LZH				PP	PP	10 52 29.5	+1.2
LZH				S	S	10 56 10.5	+3.5
LZH				SS	SS	10 57 04.8	+3.6
LZH				AMB	AMB		
	comp=Z,110nm,1.1s,mb5.2						
LZH				AMB	AMB		
	comp=Z,956nm,8.6s						
LZH				LR	LR		
	comp=E,2µm,14.2s						
LZH				LR	LR		
	comp=Z,4µm,15.3s,MS5.0						
DLH	Dalhousie	24.41	323	*e*	P	10 52 04.0	+10
THN	Thein Dam	24.47	323	*e*P	P	10 51 54.2	-0.3
	comp=Z,19nm,0.6s,mb4.7						
THN				*e*	S	10 56 38.9	+29
XAN	Xi’an	24.86	33	P	P	10 51 57.3	-0.8
XAN				AP		10 52 06.0	
XAN				AMB	AMB		
	comp=Z,122nm,0.8s,mb5.5						
WHN	Wuhan	25.82	46	P	P	10 52 07.8	+0.6
GTA	Gaotai	26.31	12	⇑P	P	10 52 13.0	+1.4
GTA				PP	PP	10 52 58.0	+3.6
GTA				PCP	PcP	10 55 36.8	-1.0
GTA				S	S	10 56 47.5	+7.3
GTA				SCP		10 59 15.5	
GTA				SCS	ScS	11 03 04.8	+2.3
GTA				AMB	AMB		
	comp=Z,38nm,1.1s,mb4.8						
GTA				AMB	AMB		
	comp=Z,408nm,4.6s						
GTA				LR	LR		
	comp=N,2µm,16.0s,MS4.9						
GTA				LR	LR		
	comp=E,2µm,14.1s,MS4.9						
GTA				LR	LR		
	comp=Z,3µm,16.0s,MS4.9						
TGY	Tagaytay City	27.07	86	P	P	10 52 19.9	+1.0
	comp=Z,89nm,0.3s,mb5.8,baz=86,slow=8.0,SNR=2.3						
DGAR	Diego Garcia	29.28	225	P	P	10 52 38.5	-0.3
DGAR				pmax	pmax		
	comp=Z,28nm,0.4s,mb5.3						
DGAR	Diego Garcia	29.28	225	P	P	10 52 38.5	-0.3
	comp=Z,28nm,0.4s,mb5.3						
KSH	Kashi	29.80	333	*e*P	P	10 52 44.8	+1.6
KSH				*e*AP	pP	10 52 50.0	-2.6
KSH				AMB	AMB		
	comp=Z,860nm,6.7s						
WMQ	Urumqi	30.38	352	⇑P	P	10 52 50.8	+2.6
WMQ				AP	pP	10 52 55.3	-2.3
WMQ				PP	PP	10 53 50.5	+2.5
WMQ				S	S	10 57 49.8	+4.4
WMQ				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.3						
WMQ				LR	LR		
	comp=N,709nm,25.4s,MS4.4						
WMQ				LR	LR		
	comp=E,647nm,22.4s,MS4.4						
WMQ				LR	LR		

	comp=Z,722nm,21.6s,MS4.3						
BTO	**Baotou**	**30.66**	**26**	*e*P	**P**	**10 52 50.3**	**-0.4**
BTO				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.8						
TIA	**Tai'an**	**31.13**	**40**	*e*P	**P**	**10 52 54.5**	**-0.5**
HHC	**Hu-ho-hao-te**	**31.53**	**27**	*e*P	**P**	**10 52 57.3**	**-1.1**
HHC				AMB	AMB		
	comp=Z,56nm,1.2s,mb5.3						
HHC				AMB	AMB		
	comp=Z,823nm,8.9s						
KBK	**Karagaybulak**	**32.83**	**335**	P	**P**	**10 53 10.8**	**+1.1**
	SNR=7.9						
AML	**Almayashu**	**32.93**	**333**	P	**P**	**10 53 11.8**	**+1.2**
	SNR=12						
AAK	**Ala-Archa**	**33.00**	**334**	P	**P**	**10 53 12.3**	**+1.1**
	SNR=7.2						
AAK	**Ala-Archa**	**33.00**	**334**	*e*P	**P**	**10 53 10.7**	**-0.5**
AAK				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
AAK	**Ala-Archa**	**33.00**	**334**	*e*P	**P**	**10 53 10.7**	**-0.5**
	comp=Z,15nm,1.2s,mb4.8						
FRU	**Bishkek**	**33.11**	**335**	*e*P	**P**	**10 53 13.0**	**+0.8**
BJT	**Baijiatuau**	**33.16**	**33**	*e*P	**P**	**10 53 13.2**	**+0.5**
BJT				pmax	pmax		
	comp=Z,21nm,0.8s						
BJT	**Baijiatuau**	**33.16**	**33**	*e*P	**P**	**10 53 13.2**	**+0.5**
	comp=Z,21nm,0.8s,mb5.1						
BJI	**Beijing**	**33.19**	**33**	P	**P**	**10 53 13.3**	**+0.4**
BJI				AMB	AMB		
	comp=Z,23nm,0.9s,mb5.1						
BJI				LR	LR		
	comp=N,2µm,19.7s,MS4.9						
BJI				LR	LR		
	comp=E,2µm,17.7s,MS4.9						
BJI				LR	LR		
	comp=Z,10µm,23.6s						
EKS2	**Erkin-Say**	**33.32**	**334**	P	**P**	**10 53 15.3**	**+1.2**
	SNR=8.7						
USP	**Ospenovka**	**33.52**	**335**	P	**P**	**10 53 16.2**	**+0.5**
	SNR=7.9						
JOW	**Kunigami**	**35.41**	**63**	P	**P**	**10 53 32.5**	**+0.4**
	comp=Z,20nm,0.5s,mb5.3,baz=270,slow=5.4,SNR=12						
JOW				pP	pP	10 53 41.6	0.0
	comp=Z,31nm,0.7s,baz=217,slow=6.7,SNR=5.4						
JOW				LR	LR	11 09 32.0	
	comp=Z,2µm,20.3s,MS5.0,baz=81,slow=39						
DL2	**Dalian**	**35.61**	**40**	*e*P	**P**	**10 53 32.8**	**-0.9**
DL2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
SONM	**Songino Array**	**35.81**	**15**	P	**P**	**10 53 36.5**	**+1.2**
	comp=Z,12nm,0.9s,mb4.8,baz=203,slow=9.4,SNR=52						
SONM				pP	pP	10 53 44.4	-0.4
	comp=Z,35nm,1.0s,baz=203,slow=3.9,SNR=20						
SONM				PcP	PcP	10 56 04.3	+1.5
	comp=Z,4.3nm,0.8s,baz=190,slow=3.2,SNR=3.7						
SONM				pPcP		10 56 13.4	
	comp=Z,9.4nm,0.9s,baz=195,slow=2.5,SNR=6.2						
SONM				ScP		10 59 47.5	
	comp=Z,0.9nm,0.8s,baz=180,slow=1.2,SNR=3.9						
ULN	**Ulaanbaatar**	**36.01**	**16**	*e*P	**P**	**10 53 37.7**	**+0.7**
ULN				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**36.01**	**16**	*e*P	**P**	**10 53 37.7**	**+0.7**
	comp=Z,13nm,1.0s,mb4.8						
ZAK	**Zakamensk**	**37.53**	**11**	*e*P	**P**	**10 53 50.7**	**+0.9**
TLY	**Talaya**	**38.84**	**11**	*i* P	**P**	**10 54 01.1**	**+0.3**
TLY				pmax	pmax		
	comp=Z,17nm,2.0s,mb4.4						
TLY	**Talaya**	**38.84**	**11**	*e*P	**P**	**10 54 03.3**	**+2.5**
	comp=Z,4.7nm,0.7s,mb4.3						
KS15	**Wonju Array Si**	**38.98**	**46**	*e*P	**P**	**10 53 59.1**	**-3.0**
CN2	**Changchun**	**40.85**	**36**	*e*P	**P**	**10 54 18.3**	**+0.9**
HIA	**Hailar**	**41.71**	**26**	*e*P	**P**	**10 54 24.7**	**+0.3**
HIA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
HIA	**Hailar**	**41.71**	**26**	*e*P	**P**	**10 54 24.7**	**+0.3**
	comp=Z,8.4nm,0.8s,mb4.4						
NVS	**Novosibirsk**	**41.77**	**351**	*e*P	**P**	**10 54 30.1**	**+5.3**
NVS				*e*		11 00 40.0	
NVS				pmax	pmax		
	comp=Z,55nm,1.2s,mb5.1						
NVS				pmax	pmax		
	comp=N,91nm,2.0s						
BVA0	**Borovoye Array**	**43.18**	**340**	P	**P**	**10 54 36.0**	**-0.4**
BVAR	**Borovoye Array**	**43.18**	**340**	P	**P**	**10 54 35.7**	**-0.6**
	comp=N,9.3nm,1.1s,mb4.4,baz=149,slow=8.6,SNR=17						
BVAR				pP	pP	10 54 46.1	+0.2
	comp=N,12nm,0.9s,baz=143,slow=7.4,SNR=14						
BRVK	**Borovoye**	**43.24**	**340**	*e*P	**P**	**10 54 36.7**	**-0.2**
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
BRVK	**Borovoye**	**43.24**	**340**	*e*P	**P**	**10 54 36.7**	**-0.2**
	comp=Z,7.5nm,0.8s,mb4.5						
MBWA	**Marble Bar**	**43.43**	**142**	*e*P	**P**	**10 54 37.2**	**-1.6**
	comp=Z,15nm,0.6s,mb4.9						
CHKZ	**Chkalovo**	**43.65**	**341**	*e*P	**P**	**10 54 40.1**	**-0.1**
CHKZ				pmax	pmax		
	comp=Z,25nm,0.9s,mb4.9						
CHKZ	**Chkalovo**	**43.65**	**341**	*e*P	**P**	**10 54 40.1**	**-0.1**
	comp=Z,25nm,0.9s,mb4.9						
MDJ	**Mudanjiang**	**43.76**	**38**	P	**P**	**10 54 41.0**	**-0.2**
MDJ				AP	pP	10 54 49.5	-1.2
MDJ				XP	sP	10 54 53.8	-0.9
MDJ				PP	PP	10 56 23.8	-0.9
MDJ				PCP	PcP	10 56 26.5	-1.6
MDJ				SCP		11 00 16.3	
MDJ				PCS		11 00 19.8	
MDJ				S	**S**	**11 01 09.5**	**+0.5**
MDJ				XS		11 01 26.0	
MDJ				SCS	ScS	11 04 37.8	+2.3
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.5s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,840nm,13.4s						
MDJ				LR	LR		
	comp=N,519nm,17.5s,MS4.8						
MDJ				LR	LR		
	comp=E,934nm,20.2s,MS4.8						
MDJ				LR	LR		
	comp=Z,1µm,16.7s,MS4.8						
MDJ	**Mudanjiang**	**43.76**	**38**	*e*P	**P**	**10 54 41.4**	**+0.2**
	comp=Z,9.5nm,0.9s,mb4.5						
MZLS	**Mizel**	**46.23**	**290**	P	**P**	**10 54 56.1**	**-5.2**
MAJO	**Matsushiro**	**46.26**	**52**	*e*P	**P**	**10 55 00.9**	**-0.4**
MAJO				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.4						
MAJO	**Matsushiro**	**46.26**	**52**	*e*P	**P**	**10 55 00.9**	**-0.4**
	comp=Z,38nm,0.8s,mb5.4						
MAT	**Matsushiro**	**46.26**	**52**	P	**P**	**10 55 01.6**	**+0.3**
MAT	**Matsushiro**	**46.26**	**52**	*e*P	**P**	**10 55 02.0**	**+0.7**
MAT				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
MAT	**Matsushiro**	**46.26**	**52**	*e*P	**P**	**10 55 02.0**	**+0.7**
	comp=Z,42nm,1.0s,mb5.3						
LBOS		**46.36**	**276**	*e*P	**P**	**10 55 05.2**	**+2.9**
BOD	**Bodaibo**	**46.81**	**15**	*e*P	**P**	**10 55 05.2**	**-0.1**
KLR	**Kul'dur**	**47.56**	**34**	*e*P	**P**	**10 55 05.7**	**-5.7**
AFFS	**'Afif**	**48.24**	**290**	P	**P**	**10 55 11.8**	**-5.3**
CLNS	**Chul'man**	**49.44**	**22**	*e*P	**P**	**10 55 23.6**	**-2.2**
CLNS				pmax	pmax		
	comp=N,21nm,0.9s						
CLNS				pmax	pmax		
	comp=E,20nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.4						
SVE	**Sverdlovsk**	**49.64**	**337**⇓	*e*P	**P**	**10 55 27.5**	**+0.1**
SVE				*e*		10 56 50.0	
SVE				*e*		10 57 27.0	
SVE				*e*		10 58 22.0	
SVE				*e*S	**S**	**11 02 34.5**	**+2.1**
SVE				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
SVE				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.3						
GNI	**Garni**	**49.71**	**311**	P	**P**	**10 55 29.8**	**+1.7**
	comp=Z,12nm,0.6s,mb5.2,baz=26,slow=0.3,SNR=22						
GNI				LR	LR	11 19 58.2	
	comp=Z,753nm,18.7s,MS4.7,baz=268,slow=40						
GNI	**Garni**	**49.71**	**311**	*e*P	**P**	**10 55 29.5**	**+1.4**
GNI				pmax	pmax		
	comp=Z,51nm,0.9s						
GNI	**Garni**	**49.71**	**311**	*e*P	**P**	**10 55 29.5**	**+1.4**
	comp=Z,51nm,0.9s,mb5.6						
ARU	**Arti**	**50.16**	**336**⇓	*i*P	**P**	**10 55 31.0**	**-0.3**
ARU				*e*		10 56 50.0	
ARU				*e*		10 57 28.9	
ARU				*e*PPP	PPP	10 58 26.1	+2.1
ARU				*e*S	**S**	**11 02 44.4**	**+4.8**
ARU				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.4						
ARU	**Arti**	**50.16**	**336**	P	**P**	**10 55 30.8**	**-0.5**
	comp=Z,55nm,1.2s,mb5.5						
ZEI	**Tsey**	**51.15**	**314**	*e*P	**P**	**10 55 39.0**	**0.0**
ZEI				*i* *PP	pP	10 55 51.7	+2.9
BEST	**Besiri**	**51.71**	**308**	*i* P	**P**	**10 55 44.2**	**+0.8**
NWAO	**Narrogin (SRO)**	**51.80**	**154**	P	**P**	**10 55 43.4**	**-0.7**
	comp=Z,16nm,0.4s,mb5.3,baz=312,slow=7.8,SNR=21						
NWAO				pP	pP	10 55 53.5	-0.3
	comp=Z,46nm,0.7s,baz=327,slow=7.8,SNR=9.0						
NWAO	**Narrogin (SRO)**	**51.80**	**154**	P	**P**	**10 55 43.4**	**-0.7**
NWAO				*PP	pP	10 55 53.5	-0.3
NWAO				pmax	pmax		
	comp=Z,17nm,0.4s						
NWAO				pmax	pmax		
	comp=Z,46nm,0.7s						
NWAO	**Narrogin (SRO)**	**51.80**	**154**	*e*P	**P**	**10 55 42.6**	**-1.5**
	comp=Z,17nm,0.7s,mb5.1						
ASAJ	**Asahikawa**	**51.88**	**44**	P	**P**	**10 55 45.0**	**+0.4**
	comp=Z,21nm,1.0s,mb5.0,baz=242,slow=17,SNR=5.8						
ASAJ				pP	pP	10 55 55.1	+0.9
	comp=Z,38nm,0.9s,baz=236,slow=23,SNR=5.7						
ASAJ	**Asahikawa**	**51.88**	**44**	P	**P**	**10 55 45.0**	**+0.4**
ASAJ				*PP	pP	10 55 55.2	+0.9
ASAJ				pmax	pmax		
	comp=Z,21nm,1.0s						
ASAJ				pmax	pmax		
	comp=Z,38nm,0.9s						
KIV	**Kislovodsk**	**52.37**	**315**	P	**P**	**10 55 49.9**	**+1.6**
	comp=Z,294nm,0.8s,mb6.3,SNR=17						
KIV	**Kislovodsk**	**52.37**	**315**	*i* P	**P**	**10 55 44.9**	**-3.4**
KIV				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.4						
KIV	**Kislovodsk**	**52.37**	**315**	*e*P	**P**	**10 55 48.5**	**+0.2**
	comp=Z,38nm,0.8s,mb5.4						
GOF	**Gofitskoye**	**52.51**	**317**⇓	*i*P	**P**	**10 55 45.0**	**-4.3**
GOF				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
WRA	**Warramunga Arr**	**52.61**	**129**	P	**P**	**10 55 49.5**	**-0.9**
	comp=Z,28nm,0.6s,mb5.3,baz=308,slow=7.8,SNR=52						
WRA				pP	pP	10 55 59.7	-0.4
	comp=Z,73nm,0.8s,baz=310,slow=8.1,SNR=25						
WRA				PcP	PcP	10 57 00.3	+0.1
	comp=Z,7.7nm,0.5s,baz=321,slow=3.1,SNR=8.0						
WRA				pPcP		10 57 10.1	
	comp=Z,11nm,0.6s,baz=320,slow=3.1,SNR=8.7						
WRA				S	**S**	**11 03 11.1**	**-2.7**
	comp=Z,2.9nm,1.1s,baz=299,slow=15,SNR=6.3						
WRA	**Warramunga Arr**	**52.61**	**129**	P	**P**	**10 55 49.5**	**-0.8**
WRA				*PP	pP	10 55 59.7	-0.4
WRA						10 57 00.3	
WRA				S	**S**	**11 03 11.1**	**-2.7**
WRAB	**Tennant Creek**	**52.61**	**129**	*i* P	**P**	**10 55 49.2**	**-1.2**
WRAB	**Tennant Creek**	**52.61**	**129**	*e*P	**P**	**10 55 49.4**	**-1.0**
	comp=Z,59nm,0.7s,mb5.6						
YSS	**Yuzh-Sakhalins**	**52.99**	**41**	*e*P	**P**	**10 55 52.7**	**-0.2**
YSS				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.3						
YSS	**Yuzh-Sakhalins**	**52.99**	**41**	*e*P	**P**	**10 55 52.6**	**-0.2**
	comp=Z,18nm,0.5s,mb5.3						
SOKR	**Solikamsk**	**53.03**	**338**⇓	*i*P	**P**	**10 55 51.0**	**-1.9**
SOKR				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
UMJS	**Umm Lajj**	**53.46**	**291**	P	**P**	**10 55 58.3**	**+1.7**
MALT	**Malatya**	**53.99**	**308**	*e*P	**P**	**10 55 59.9**	**-0.3**
MALT				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.2						
MALT	**Malatya**	**53.99**	**308**	*e*P	**P**	**10 55 59.9**	**-0.3**
	comp=Z,50nm,1.5s,mb5.2						
TBKS	**Tabuk**	**54.26**	**295**	P	**P**	**10 55 55.2**	**-7.2**
ASF	**Jabal al Asfar**	**54.28**	**300**	P	**P**	**10 56 02.4**	**-0.1**
	comp=Z,7.5nm,1.0s,mb4.6,baz=0.9,slow=2.4,SNR=4.2						
ASF				pP	pP	10 56 12.8	+0.5
	comp=Z,7.4nm,0.8s,baz=302,slow=0.5,SNR=6.6						
SOC	**Sochi**	**54.31**	**314**	*e*P	**P**	**10 56 02.1**	**-0.5**
SOC				*e*		10 58 09.7	
SOC				*e*S	**S**	**11 03 39.5**	**+3.0**
SOC				pmax	pmax		
	comp=Z,33nm,1.2s,mb5.1						
SOC				pmax	pmax		
	comp=N,6.0nm,0.4s						
SOC				pmax	pmax		
	comp=E,29nm,1.7s						
SOC				MLR	MLR		
	comp=Z,690nm,18.0s,MS4.8						
SOC				MLR	MLR		
	comp=N,774nm,17.0s,MS4.9						
SOC				MLR	MLR		
	comp=E,343nm,17.0s,MS4.9						
ASAR	**Alice Springs**	**54.54**	**133**	P	**P**	**10 56 04.0**	**-0.6**
	comp=E,36nm,0.5s,mb5.7,baz=311,slow=7.6,SNR=86						
ASAR				pP	pP	10 56 14.2	0.0
	comp=E,65nm,0.9s,baz=309,slow=6.8,SNR=21						
ASAR				pPcP		10 57 17.9	
	comp=E,10nm,0.8s,baz=302,slow=3.6,SNR=4.6						
ASAR				S	**S**	**11 03 38.0**	**-1.8**
	comp=E,2.7nm,0.8s,baz=299,slow=13,SNR=12						
ASAR				LR	LR	11 24 31.1	
	comp=E,289nm,19.9s,MS4.3,baz=299,slow=42						
JMQS	**Jabal Moqyreh**	**54.89**	**296**	P	**P**	**10 56 02.5**	**-4.5**
YAK	**Yakutsk**	**54.89**	**20**	*e*P	**P**	**10 56 05.2**	**-1.4**
YAK				*e*	pP	10 56 14.5	-1.8
YAK				pmax	pmax		
	comp=N,4.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,5.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=E,3.0nm,0.8s						
YAK	**Yakutsk**	**54.89**	**20**	*e*P	**P**	**10 56 03.1**	**-3.5**
	comp=E,32nm,0.6s,mb5.5						
COBT	**Iskenderun**	**55.38**	**305**	*i* P	**P**	**10 56 11.0**	**+0.6**
BDAS	**Al Bad'**	**55.55**	**295**	P	**P**	**10 56 12.3**	**+0.5**
JMOS	**Jabal al Moall**	**55.58**	**296**	P	**P**	**10 56 11.4**	**-0.6**
HAQS	**Haql**	**55.73**	**296**	P	**P**	**10 56 13.6**	**+0.5**
EIL	**Elat**	**55.74**	**297**	*e*P	**P**	**10 56 13.2**	**0.0**
	comp=E,9.2nm,0.8s,mb4.9						
AVNT	**Avonos**	**56.83**	**307**	*i* P	**P**	**10 56 20.4**	**-0.5**
MEST	**Erdemli**	**57.07**	**305**	*i* P	**P**	**10 56 21.2**	**-1.4**
CTKT	**Corum**	**57.20**	**310**	*i* P	**P**	**10 56 23.4**	**0.0**
KMBO	**Kilima Mbogo**	**57.20**	**260**	P	**P**	**10 56 24.9**	**+1.1**
	comp=E,2.3nm,0.9s,mb4.2,baz=38,slow=11,SNR=9.0						
KMBO				pP	pP	10 56 35.0	+1.3
	comp=E,6.5nm,0.9s,baz=54,slow=9.0,SNR=8.3						
KMBO				LR	LR	11 19 07.6	
	comp=E,1µm,19.1s,MS5.0,baz=278,slow=34						
KMBO	**Kilima Mbogo**	**57.20**	**260**	*e*P	**P**	**10 56 24.4**	**+0.6**
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KMBO	**Kilima Mbogo**	**57.20**	**260**	*e*P	**P**	**10 56 24.4**	**+0.5**
	comp=Z,5.4nm,0.9s,mb4.6						
CSS	**Prodhromos**	**57.54**	**303**	*e*P	**P**	**10 56 23.1**	**-2.9**
	comp=Z,13nm,0.7s,mb5.1						
BRTR	**Keskin Array B**	**57.91**	**308**	P	**P**	**10 56 27.9**	**-0.6**
	comp=Z,18nm,0.8s,mb5.1,baz=112,slow=6.7,SNR=9.3						
BRTR				pP	pP	10 56 38.4	0.0
	comp=Z,19nm,0.7s,baz=123,slow=7.7,SNR=16						
ELDT	**Eldivan**	**58.20**	**309**	*i* P	**P**	**10 56 30.4**	**-0.1**
PMG	**Port Moresby**	**58.40**	**110**	P	**P**	**10 56 32.2**	**0.0**
	comp=Z,17nm,0.8s,mb5.1,baz=281,slow=6.8,SNR=8.8						
PMG				pP	pP	10 56 42.1	0.0
	comp=Z,31nm,0.7s,baz=6.3,slow=2.2,SNR=9.6						
PMG	**Port Moresby**	**58.40**	**110**	*e*P	**P**	**10 56 31.0**	**-1.2**
PMG				pmax	pmax		
	comp=Z,13nm,0.7s						
PMG	**Port Moresby**	**58.40**	**110**	*e*P	**P**	**10 56 31.0**	**-1.2**
	comp=Z,13nm,0.7s,mb5.1						
SIM	**Simferopol'**	**58.55**	**315**	*e*P	**P**	**10 56 29.0**	**-3.8**
SIM				*e*S	**S**	**11 04 34.0**	**+1.3**
SIM				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
SGKT	**Sivrigoynuk**	**59.24**	**309**	*i* P	**P**	**10 56 37.4**	**-0.3**
MOS	**Moscow**	**59.61**	**327**	*e*P	**P**	**10 56 38.0**	**-2.0**
MOS				pmax	pmax		
	comp=Z,57nm,0.7s,mb5.7						
OBN	**Obninsk**	**59.94**	**326***c*	*e*P	**P**	**10 56 40.8**	**-1.5**
OBN				*e*		10 59 00.1	
OBN				*e*S	**S**	**11 04 51.8**	**+1.3**
OBN				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.1						
ESKT	**Eskisehir**	**60.02**	**308**	*i* P	**P**	**10 56 41.5**	**-1.5**
ISP	**Isparta**	**60.09**	**306**	*e*P	**P**	**10 56 42.6**	**-1.0**
ISP				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.2						
ISP	**Isparta**	**60.09**	**306**	*e*P	**P**	**10 56 42.6**	**-1.0**
	comp=Z,22nm,0.8s,mb5.2						
HENT	**Hendek**	**60.15**	**309**	*i* P	**P**	**10 56 41.9**	**-2.0**
TIXI	**Tiksi**	**61.79**	**12**⇑	*i*P	**P**	**10 56 53.6**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.4						
CTA	**Charters Tower**	**62.17**	**122**	P	**P**	**10 56 57.4**	**-0.6**
	comp=Z,5.3nm,0.8s,mb4.7,baz=307,slow=7.7,SNR=4.9						
CTA				pP	pP	10 57 07.9	0.0
	comp=Z,23nm,1.0s,baz=305,slow=7.5,SNR=12						
CTAO	**Charters Tower**	**62.17**	**122**	*e*P	**P**	**10 56 55.4**	**-2.5**
CTAO				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.9						
CTAO	**Charters Tower**	**62.17**	**122**	*e*P	**P**	**10 56 55.4**	**-2.5**
	comp=Z,6.9nm,0.7s,mb4.9						
MA2	**Magadan**	**62.19**	**29**	*e*P	**P**	**10 56 57.8**	**+0.3**
MA2				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
MA2	**Magadan**	**62.19**	**29**	*e*P	**P**	**10 56 57.8**	**+0.4**
	comp=Z,7.4nm,0.5s,mb5.1						
KIS	**Kishinev**	**62.57**	**316**	*e*P	**P**	**10 57 05.0**	**+4.8**
KIS				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.0						
KDAG	**Bornova**	**62.69**	**306**	*i* P	**P**	**10 57 00.7**	**-0.4**
CFR	**Carcaliu**	**62.76**	**314**⇑	*i*P	**P**	**10 56 57.7**	**-3.7**
AKASG	**Malin Array Be**	**62.99**	**320**	P	**P**	**10 57 01.6**	**-1.3**
	comp=Z,2.5nm,0.5s,mb4.6,baz=85,slow=5.3,SNR=26						
AKASG				pP	pP	10 57 12.4	-0.4
	comp=Z,20nm,1.1s,baz=88,slow=5.1,SNR=7.1						
AKASG	**Malin Array Be**	**62.99**	**320**	P	**P**	**10 57 01.6**	**-1.3**
AKASG				*PP	pP	10 57 12.4	-0.4
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
AKASG				pmax	pmax		
	comp=Z,20nm,1.1s						
MBAR	**Mbarara**	**63.31**	**262**	*e*P	**P**	**10 57 06.0**	**+0.5**
MBAR				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.3						
MBAR	**Mbarara**	**63.31**	**262**	*e*P	**P**	**10 57 06.0**	**+0.5**
	comp=Z,38nm,1.5s,mb5.3						
VRI	**Vrincioaia**	**63.83**	**315**⇑	*i*P	**P**	**10 57 09.6**	**+1.1**
MLR	**Muntele Rosu**	**64.33**	**314**	P	**P**	**10 57 11.9**	**+0.1**
	comp=Z,41nm,1.0s,mb5.4,baz=193,slow=0.6,SNR=25						
MLR				pP	pP	10 57 22.4	+0.7
	comp=Z,35nm,1.0s,baz=66,slow=3.1,SNR=9.4						
IDI	**Anoyia**	**64.46**	**303**	P	**P**	**10 57 12.1**	**-0.8**
	comp=Z,12nm,0.6s,mb5.1,baz=130,slow=7.3,SNR=5.6						
IDI				pP	pP	10 57 21.6	-1.1
	comp=Z,16nm,0.6s,baz=89,slow=8.9,SNR=4.4						
STKA	**Stephens Creek**	**64.92**	**135**	P	**P**	**10 57 15.6**	**-0.3**
	comp=Z,16nm,0.7s,mb5.2,baz=308,slow=6.3,SNR=32						
STKA				pP	pP	10 57 25.4	-0.5
	comp=Z,26nm,0.8s,baz=313,slow=5.9,SNR=12						
STKA				LR	LR	11 25 55.7	
	comp=Z,1µm,18.7s,MS5.2,baz=306,slow=36						
STKA	**Stephens Creek**	**64.92**	**135**	*e*P	**P**	**10 57 15.2**	**-0.7**
PGB	**Panagyurishte**	**65.34**	**311**	*e*P	**P**	**10 57 18.0**	**-0.4**
MMB	**Musomiste**	**65.61**	**310**	*e*P	**P**	**10 57 20.0**	**-0.1**
LVZ	**Lovozero**	**65.77**	**339**⇓	*e*P	**P**	**10 57 26.7**	**+6.0**
LVZ				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
LVZ				pmax	pmax		
	comp=N,13nm,1.8s						
LVZ				pmax	pmax		
	comp=E,17nm,1.7s						
LVZ				MLR	MLR		
	comp=N,672nm,16.0s,MS5.1						
LVZ				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.2						
LVZ				MLR	MLR		
	comp=E,745nm,17.0s,MS5.1						
VTS	**Vitosha**	**66.05**	**311**	*e*P	**P**	**10 57 22.0**	**-0.9**
APA	**Apatity**	**66.06**	**339**⇓	*i*P	**P**	**10 57 21.9**	**-0.7**
APA				*i*	pP	10 57 31.9	-0.6
APA				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
KKB	**Krupnik**	**66.10**	**310**	*e*P	**P**	**10 57 22.0**	**-1.3**
KWP	**Kalwaria**	**66.96**	**318**	*e*P	**P**	**10 57 28.8**	**+0.2**
KWP				*e*	pP	10 57 39.2	+0.7
FINES	**FINESS Array B**	**67.11**	**331**	P	**P**	**10 57 28.7**	**-0.6**
	comp=Z,8.3nm,0.5s,mb5.0,baz=101,slow=9.7,SNR=5.5						
FINES				pP	pP	10 57 38.1	-1.2
	comp=Z,14nm,0.6s,baz=108,slow=6.0,SNR=14						
FINES	**FINESS Array B**	**67.11**	**331**	P	**P**	**10 57 28.7**	**-0.6**
FINES				*PP	pP	10 57 38.1	-1.2
FINES				pmax	pmax		
	comp=Z,8.0nm,0.5s						
FINES				pmax	pmax		
	comp=Z,14nm,0.6s						
KAF	**Kangasniemi**	**67.17**	**332**	*e*p	**P**	**10 57 29.5**	**-0.2**
	comp=Z,17nm,0.8s,mb5.1						
KAF	**Kangasniemi**	**67.17**	**332**	*e*P	**P**	**10 57 29.5**	**-0.2**
KAF				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
SUW	**Suwalki**	**67.21**	**323**	*e*P	**P**	**10 57 29.7**	**-0.4**
SUW				*e*	pP	10 57 39.9	-0.1
CRVS	**Cervenica-Dubn**	**67.71**	**317**	*e*P	**P**	**10 57 34.2**	**+0.9**
CRVS				*e*		10 57 46.7	
KECS	**Kecovo**	**68.32**	**317**	*e*P	**P**	**10 57 37.3**	**+0.1**
NIE	**Niedzica**	**68.50**	**318**	*e*P	**P**	**10 57 39.3**	**+1.1**
PSZ	**Piszkesteto**	**68.68**	**316**	*e*P	**P**	**10 57 39.2**	**-0.2**
PSZ				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
PSZ	**Piszkesteto**	**68.68**	**316**⇓	*e*P	**P**	**10 57 39.4**	**0.0**
PSZ	**Piszkesteto**	**68.68**	**316**	*e*P	**P**	**10 57 39.2**	**-0.2**
	comp=Z,18nm,0.9s,mb5.0						
OJC	**Ojcow**	**68.89**	**319**	*e*P	**P**	**10 57 40.5**	**-0.1**
KEV	**Kevo**	**69.03**	**340**	*e*p	**P**	**10 57 40.6**	**-0.6**
VYHS	**Vyhne**	**69.42**	**317**	*e*P	**P**	**10 57 43.9**	**0.0**
VYHS				*e*pP	pP	10 57 54.0	+0.2
ARCES	**ARCESS Array B**	**69.47**	**340**	P	**P**	**10 57 43.9**	**0.0**
	comp=Z,5.8nm,0.5s,mb4.8,baz=93,slow=6.4,SNR=86						
ARCES				pP	pP	10 57 53.4	-0.4
	comp=Z,14nm,0.7s,baz=90,slow=4.9,SNR=11						
ARCES				LR	LR	11 31 23.0	
	comp=Z,1µm,18.7s,MS5.2,baz=118,slow=39						
ARCES	**ARCESS Array B**	**69.47**	**340**	P	**P**	**10 57 43.9**	**0.0**
ARCES				*PP	pP	10 57 53.4	-0.4
ARCES	**ARCESS Array B**	**69.47**	**340**	P	**P**	**10 57 43.9**	**0.0**
ARCES				pP	pP	10 57 53.4	-0.4
ARCES				LR	LR	11 31 23.0	
ARE0	**ARCESS Array S**	**69.47**	**340**	*e*P	**P**	**10 57 43.4**	**-0.5**
PKSM	**Moragy**	**69.47**	**314**⇓	*e*P	**P**	**10 57 44.0**	**-0.3**
SRO	**Srobarova**	**69.74**	**316**	*e*P	**P**	**10 57 46.5**	**+0.6**
SRO				*e*	pP	10 57 54.5	-1.3
OKC	**Ostrava-Krasne**	**69.93**	**318**	*e*P	**P**	**10 57 47.7**	**+0.7**
OKC				*e*pP	pP	10 57 56.9	0.0
KTK1	**Kautokeino**	**70.11**	**339**	*e*P	**P**	**10 57 48.6**	**+0.9**
KTK1				*e*pP	pP	10 57 59.0	+1.3
LSZ	**Lusaka**	**70.31**	**248**	*e*P	**P**	**10 57 51.3**	**+1.5**
LSZ				pmax	pmax		
	comp=Z,69nm,1.4s,mb5.4						
LSZ	**Lusaka**	**70.31**	**248**	*e*P	**P**	**10 57 51.3**	**+1.4**
	comp=Z,69nm,1.4s,mb5.4						
MORC	**Moravsky Berou**	**70.32**	**318**	*e*P	**P**	**10 57 49.4**	**0.0**
MORC				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
MORC	**Moravsky Berou**	**70.32**	**318**	*e*P	**P**	**10 57 49.4**	**+0.1**
	comp=Z,31nm,1.0s,mb5.2						
ZST	**Bratislava**	**70.56**	**317**	*e*P	**P**	**10 57 50.9**	**0.0**
ZST				*e*pP	pP	10 58 00.0	-0.8
GKP	**Gorka Klasztor**	**70.66**	**322**	*e*P	**P**	**10 57 51.0**	**-0.4**
GKP				*e*	pP	10 58 01.0	-0.3
VRAC	**Vranov**	**70.92**	**318**	P	**P**	**10 57 53.1**	**0.0**
	comp=Z,2.8nm,0.6s,mb4.3,baz=89,slow=7.2,SNR=6.7						
VRAC				pP	pP	10 58 03.3	+0.3
	comp=Z,4.3nm,0.6s,baz=166,slow=3.2,SNR=4.5						
DPC	**Dobruska-Polom**	**71.12**	**319**	*e*P	**P**	**10 57 54.7**	**+0.5**
DPC				*e*pP	pP	10 58 04.3	+0.1
BILL	**Bilibino**	**71.13**	**22**	*e*P	**P**	**10 57 53.2**	**-0.8**
BILL				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
BILL	**Bilibino**	**71.13**	**22**	*e*P	**P**	**10 57 53.2**	**-0.8**
	comp=Z,11nm,0.6s,mb5.0						
KSP	**Ksiaz**	**71.15**	**319**	*e*P	**P**	**10 57 54.6**	**+0.2**
KSP				*e*pP	pP	10 58 03.9	-0.5
KSP				*e*		10 58 10.4	
KSP	**Ksiaz**	**71.15**	**319**	*e*P	**P**	**10 57 54.9**	**+0.5**
UPC	**Upice**	**71.32**	**319**	*e*P	**P**	**10 57 55.8**	**+0.4**

UPC				*e*pP	pP	10 58 06.1	+0.7
TRO	Tromso	71.73	339	*e*P	P	10 57 56.2	-1.4
TRO				*e*pP	pP	10 58 07.8	+0.2
PRU	Pruhonice	72.26	318	*e*P	P	10 58 01.4	+0.3
PRU				*e*pP	pP	10 58 10.9	-0.1
RUE	Ruedersdorf	72.73	321	*e*P	P	10 58 03.8	0.0
	comp=Z,24nm,0.4s,mb5.5						
VOY	Vojsko	72.77	314	⇓*e*P	P	10 58 04.2	0.0
VOY				*e*	pP	10 58 13.6	-0.5
GEC2	GERESS Array S	72.83	317	*e*P	P	10 58 04.6	+0.2
GEC2				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.3						
GEC2	GERESS Array S	72.83	317	*e*P	P	10 58 04.6	+0.2
	comp=Z,42nm,1.1s,mb5.3						
GERES	GERESS Array B	72.83	317	P	P	10 58 04.9	+0.5
	comp=Z,21nm,0.8s,mb5.2,baz=85,slow=6.1,SNR=59						
GERES				pP	pP	10 58 15.0	+0.6
	comp=Z,23nm,0.9s,baz=90,slow=5.3,SNR=11						
KHC	Kasperske Hory	72.90	317	*e*P	P	10 58 05.1	+0.3
KHC				*e*pP	pP	10 58 15.3	+0.5
MOR8	Moi Rana	72.97	335	*e*P	P	10 58 04.1	-0.8
MOR8				*e*pP	pP	10 58 14.8	-0.1
PTCC	Patocco-Chiusa	73.13	315	*e*P	P	10 58 06.0	-0.3
CLL	Collm	73.23	320	*e*P	P	10 58 07.0	+0.3
CLL				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
CLL	Collm	73.23	320	*e*P	P	10 58 07.0	+0.3
	comp=Z,32nm,1.2s,mb5.1						
CLL	Collm	73.23	320	P	P	10 58 06.7	0.0
	comp=Z,logA/T=1.4,mb5.1						
FX1	Attu Island--F	73.25	39	P	P	10 58 07.4	+0.6
	comp=Z,30nm,0.6s,mb5.4,baz=329,slow=5.8,SNR=9.0						
FX1				pP	pP	10 58 17.2	+0.4
	comp=Z,35nm,0.8s,baz=93,slow=6.1,SNR=3.1						
FX1	Attu Island--F	73.25	39	P	P	10 58 07.4	+0.6
FX1				*PP	pP	10 58 17.2	+0.4
FX1				pmax	pmax		
	comp=Z,30nm,0.6s						
FX1				pmax	pmax		
	comp=Z,35nm,0.8s						
WET	Wettzell	73.36	318	*e*P	P	10 58 07.7	+0.2
LOF	Lofoten	73.48	337	*e*P	P	10 58 09.3	+1.5
NKC	Novy Kostel	73.61	319	*e*P	P	10 58 09.3	+0.4
NSS	Namsos	73.91	334	*e*P	P	10 58 08.9	-1.4
MOX	Moxa	74.12	319	*e*P	P	10 58 12.1	+0.2
MOX	Moxa	74.12	319	*i* P	P	10 58 12.1	+0.2
NB2	NORSAR Subarra	74.18	330	P	P	10 58 11.1	-0.9
	comp=Z,18nm,0.8s,mb5.0,baz=91,slow=5.8						
NB2	NORSAR Subarra	74.18	330	P	P	10 58 11.1	-0.9
	baz=91,slow=5.9						
NB2	NORSAR Subarra	74.18	330	P	P	10 58 11.1	-0.9
NB2				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
NOA	NORSAR Array B	74.18	330	P	P	10 58 11.4	-0.6
	comp=Z,9.6nm,0.8s,mb4.8,baz=90,slow=5.8,SNR=12						
NOA				pP	pP	10 58 22.2	+0.2
	comp=Z,12nm,0.7s,baz=90,slow=5.8,SNR=11						
NOA				PP	PP	11 01 00.4	+1.0
	comp=Z,1.3nm,0.8s,baz=72,slow=9.9,SNR=2.7						
NOA	NORSAR Array B	74.18	330	P	P	10 58 11.4	-0.6
NOA				*PP	pP	10 58 22.2	+0.2
NOA						11 01 00.4	
NOA	NORSAR Array B	74.18	330	P	P	10 58 11.4	-0.6
NOA				pP	pP	10 58 22.2	+0.2
NOA				PP	PP	11 01 00.4	+1.0
CTI	Castel Tesino	74.33	314	*e*P	P	10 58 13.5	+0.3
NAO01	NORSAR Array S	74.34	330	*e*P	P	10 58 11.8	-1.2
	comp=Z,8.7nm,0.7s,mb4.8						
GRA1	Grafenberg Arr	74.42	318	*e*P	P	10 58 14.3	+0.7
	comp=Z,135nm,2.1s,mb5.5						
GRA1				*e*pP	pP	10 58 23.7	+0.1
GRF	Grafenberg Arr	74.42	318	*e*P	P	10 58 14.3	+0.7
GRF				*e**PP	pP	10 58 23.7	+0.1
GRF				pmax	pmax		
	comp=Z,135nm,2.1s,mb5.5						
GRF	Grafenberg Arr	74.42	318	*e*P	P	10 58 14.3	+0.7
	comp=Z,135nm,2.1s,mb5.5						
GRF				*e*pP	pP	10 58 23.7	+0.1
VMG	Vicchio	74.55	312	*e*P	P	10 58 15.7	+1.2
SEI	Scarperia	74.68	312	*e*P	P	10 58 15.8	+0.6
BSEG	Bad Segeberg	74.79	323	*e*P	P	10 58 16.4	+0.7
CLZ	Clausthal	74.85	320	*e*P	P	10 58 16.6	+0.5
	comp=Z,32nm,1.1s,mb5.2						
GSCL	Gusciola	75.20	313	*e*P	P	10 58 19.4	+1.1
MUD	Monsted U'grnd	75.33	325	*i* P	P	10 58 19.6	+0.8
MUD				*i*	pP	10 58 29.8	+1.0
DAVOX	Davos	75.50	315	P	P	10 58 20.0	+0.1
	comp=Z,10nm,0.5s,mb5.0,baz=65,slow=10.0,SNR=3.6						
DAVOX				pP	pP	10 58 30.8	+0.8
	comp=Z,15nm,0.9s,baz=316,slow=23,SNR=4.4						
MOL	Molde	75.89	332	*e*P	P	10 58 24.0	+2.2
LBTB	Lobatse	76.15	240	*e*P	P	10 58 25.5	+1.4
LBTB				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.0						
LBTB	Lobatse	76.15	240	*e*P	P	10 58 25.5	+1.4
	comp=Z,10nm,0.5s,mb5.0						
VAI	Varese	76.35	314	*e*P	P	10 58 24.1	-0.7
BFO	Black Forest	76.42	317	*e*P	P	10 58 24.9	-0.2
BFO				pmax	pmax		
	comp=Z,78nm,2.5s,mb5.2						
BFO	Black Forest	76.42	317	*e*P	P	10 58 24.9	-0.2
	comp=Z,78nm,2.5s,mb5.2						
FELD	Feldberg	76.68	316	*e*P	P	10 58 26.4	-0.1
LANF	Langenberg	76.70	318	*e*P	P	10 58 26.7	+0.1
WLS	Welschbruch	77.06	317	*e*P	P	10 58 29.0	+0.4
RUP	Ruppelstein	77.11	318	*e*P	P	10 58 29.9	+1.0
ECH	Echery	77.20	317	*e*P	P	10 58 29.5	+0.1
MOF	Molkenrain	77.26	316	*e*P	P	10 58 26.7	-3.1
LOMF	Lomont	77.52	316	*e*P	P	10 58 30.4	-0.8
DOI	San Damiano	77.57	313	*e*P	P	10 58 30.2	-1.3
LPL	La Plagne	77.81	314	*e*P	P	10 58 33.7	+0.9
	comp=Z,97nm,0.7s,mb5.5						
LPL	La Plagne	77.81	314	*e*P	P	10 58 33.7	+0.9
LPL				pmax	pmax		
	comp=Z,48nm,0.7s,mb5.5						
BOSA	Boshof	77.82	236	*e*P	P	10 58 34.4	+1.2
BOSA				pmax	pmax		
	comp=Z,46nm,1.1s,mb5.3						
BOSA	Boshof	77.82	236	*e*P	P	10 58 34.4	+1.2
	comp=Z,46nm,1.1s,mb5.3						
BNI	Bardonecchia	77.90	314	*e*P	P	10 58 32.8	-0.6
BNI				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.1						
BNI	Bardonecchia	77.90	314	*e*P	P	10 58 32.8	-0.5
	comp=Z,19nm,0.8s,mb5.1						
THEF	They Montfort	77.98	317	*e*P	P	10 58 32.1	-1.6
PLDF	La Plantade	79.90	315	*e*P	P	10 58 44.0	-0.2
NOUC	Port Laguerre	80.11	116	*e*P	P	10 58 47.1	+1.2
AGO	Saint Agoulin	80.22	315	*e*P	P	10 58 44.7	-1.2
DZM	Mont Dzumac	80.23	116	*e*P	P	10 58 48.2	+1.7
DZM	Mont Dzumac	80.23	116	*e*P	P	10 58 48.2	+1.7
LBL	Lubilhac	80.28	314	*e*P	P	10 58 45.6	-0.7
PYM	Petit Puy Mans	80.36	315	*e*P	P	10 58 46.3	-0.4
CASY	Casey	80.80	173	*e*P	P	10 58 48.5	0.0
	comp=Z,38nm,1.1s,mb5.2						
EKA	Eskdalemuir Ar	82.36	325	P	P	10 58 55.9	-1.0
	comp=Z,7.5nm,0.9s,mb4.6,baz=84,slow=5.8,SNR=14						
EKA				pP	pP	10 59 07.5	+0.5
	comp=Z,23nm,1.0s,baz=88,slow=6.1,SNR=12						
SUR	Sutherland	82.78	234	*e*P	P	10 59 01.3	+1.7
	comp=Z,17nm,0.8s,mb5.1						
MAW	Mawson	83.99	191	P	P	10 59 04.4	-0.5
	comp=Z,3.8nm,0.7s,mb4.7,baz=270,slow=20,SNR=3.9						
MAW				pP	pP	10 59 16.2	+1.1
	comp=Z,80nm,1.3s,baz=16,slow=6.1,SNR=10						
MAW				LR	LR	11 29 00.7	
	comp=Z,456nm,18.7s,MS4.9,baz=183,slow=30						
MAW	Mawson	83.99	191	P	P	10 59 04.4	-0.6
MAW				*PP	pP	10 59 16.2	+1.0
MAW				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MAW				pmax	pmax		
	comp=Z,80nm,1.3s						
MAW	Mawson	83.99	191	*e*P	P	10 59 05.1	+0.1
	comp=Z,68nm,1.3s,mb5.6						
IMA	Indian Mountai	86.67	22	*e*P	P	10 59 20.2	+1.8
ESDC	Sonseca Array	86.67	310	P	P	10 59 20.0	+1.0
	comp=Z,2.3nm,0.6s,mb4.6,baz=56,slow=4.7,SNR=11						
ESDC				pP	pP	10 59 29.9	+0.7
	comp=Z,11nm,1.0s,baz=62,slow=4.4,SNR=7.6						
MCK	McKinley	89.57	23	*e*P	P	10 59 33.4	+1.1
MCK				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.2						
MCK	McKinley	89.57	23	*e*P	P	10 59 33.4	+1.1
	comp=Z,15nm,1.2s,mb5.2						
ILAR	Eielson Array	89.78	22	P	P	10 59 33.8	+0.6
	comp=Z,4.7nm,0.9s,mb4.8,baz=300,slow=4.2,SNR=37						
ILAR				pP	pP	10 59 43.2	-0.3
	comp=Z,8.7nm,0.8s,baz=301,slow=5.4,SNR=28						
ILAR				PP	PP	11 03 06.8	-1.2
	comp=Z,1.7nm,0.9s,baz=282,slow=7.9,SNR=5.2						
PWA	Palmer West	90.26	25	*e*P	P	10 59 37.1	+1.6
PMR	Palmer	90.60	25	*e*P	P	10 59 39.0	+1.9
SYO	Syowa Base	90.62	197	⇑P	P	10 59 37.8	+0.8
SYO	Syowa Base	90.62	197	⇓PcP	PcP	10 59 39.5	+1.2
SML	Sawmill	90.81	25	*e*P	P	10 59 39.2	+1.2
INK	Inuvik	91.73	16	P	P	10 59 43.5	+1.4
	comp=Z,4.2nm,0.8s,mb4.8,baz=329,slow=5.8,SNR=16						
INK				pP	pP	10 59 52.2	-0.1
	comp=Z,23nm,1.0s,baz=311,slow=3.9,SNR=21						
MENT	Mentasta	91.98	23	*e*P	P	10 59 46.6	+3.2
URZ	Urewera	93.78	128	P	P	10 59 52.8	+0.5
	comp=Z,10.0nm,0.9s,mb5.2,baz=180,slow=8.2,SNR=3.0						
URZ				pP	pP	11 00 03.1	+0.6
	comp=Z,12nm,0.8s,baz=110,slow=8.5,SNR=3.3						
DBIC	Dimbokro	96.06	278	P	P	11 00 03.5	+0.1
	comp=Z,1.5nm,0.6s,mb4.6,baz=60,slow=3.0,SNR=6.9						
DLBC	Dease Lake	99.99	21	P	P	11 00 20.9	+0.9
	comp=Z,1.6nm,0.9s,mb4.5,baz=330,slow=21,SNR=3.5						
DLBC				pP	pP	11 00 32.1	+1.7
	comp=Z,5.3nm,1.2s,baz=358,slow=14,SNR=5.1						
YKA	Yellowknife Ar	101.04	13	P	P	11 00 25.7	+1.0
	comp=Z,0.6nm,0.9s,baz=326,slow=4.4,SNR=13						
YKA				pP		11 00 34.6	
	comp=Z,1.7nm,0.9s,baz=326,slow=4.1,SNR=17						
YKA				PP	PP	11 04 33.5	-2.5
	comp=Z,0.6nm,0.9s,baz=334,slow=7.9,SNR=5.1						
YKA				PKKPbc		11 16 35.7	
	comp=Z,0.5nm,1.0s,baz=150,slow=3.2,SNR=5.9						
YKA	Yellowknife Ar	101.04	13	P	P	11 00 25.7	+1.0
YKA						11 04 33.5	
YKA	Yellowknife Ar	101.04	13	P	P	11 00 25.7	+1.0
YKA				pP		11 00 34.6	
YKA				PP	PP	11 04 33.5	-2.5
YKA				PKKPbc		11 16 35.7	
ULM	Lac du Bonnet	115.86	6	pPKP		11 05 29.4	
	comp=Z,3.0nm,0.6s,baz=2.6,slow=3.7,SNR=6.7						
BOZ	Bozeman (W)	116.87	19	*e*PKIKP	PKPdf	11 05 21.2	-2.5
LAO	LASA Array	117.45	15	*e*PKPdf	PKPdf	11 05 22.6	-2.2
HLID	Hailey	117.74	22	*e*PKPdf	PKPdf	11 05 23.8	-1.6
TPAW	Teton Pass	119.01	20	PKPdf	PKPdf	11 05 26.4	-1.6
LOHW	Long Hollow	119.02	19	*e*PKPdf	PKPdf	11 05 25.7	-2.2
SNOW	Snow King Moun	119.10	20	*e*PKPdf	PKPdf	11 05 26.5	-1.6
REDW	Red Top Meadow	119.16	20	*e*PKPdf	PKPdf	11 05 26.5	-1.7
PDAR	Pinedale Array	120.11	19	PKP	PKPdf	11 05 27.1	-3.0
	comp=Z,1.7nm,0.8s,baz=44,slow=0.2,SNR=11						
PDAR				pPKP		11 05 36.4	
	comp=Z,4.7nm,0.8s,baz=39,slow=0.9,SNR=20						
NVAR	Mina Array Bea	120.42	28	PKP	PKPdf	11 05 29.6	-1.2
	comp=Z,7.1nm,1.1s,baz=337,slow=1.3,SNR=16						
NVAR				pPKP		11 05 38.7	
	comp=Z,7.4nm,0.7s,baz=290,slow=1.7,SNR=23						
NVAR	Mina Array Bea	120.42	28	PKP	PKPdf	11 05 29.6	-1.2
NVAR				pPKP		11 05 38.7	
MTUM	Tungsten Hills	121.17	29	PKPdf	PKPdf	11 05 29.2	-3.1
MVU	Marysvale	122.95	24	*e*PKPdf	PKPdf	11 05 34.1	-1.5
MSU	Marysvale	122.95	23	*e*PKIKP	PKPdf	11 05 34.3	-1.4
PV10	Paradox Valley	124.23	21	*e*PKPdf	PKPdf	11 05 36.7	-1.5
NEN	Nelson	124.28	27	*e*PKPdf	PKPdf	11 05 36.9	-1.4
PV01	Paradox Valley	124.61	21	PKPdf	PKPdf	11 05 36.9	-2.1
ACSO	Alum Creek Sta	126.23	356	PKPdf	PKPdf	11 05 39.3	-2.7
ANMO	Albuquerque	128.21	20	PKP	PKPdf	11 05 44.5	-1.5
	comp=Z,4.1nm,0.8s,baz=232,slow=0.8,SNR=19						
ANMO				pPKP		11 05 53.8	
	comp=Z,14nm,1.0s,baz=191,slow=1.6,SNR=21						
ANMO	Albuquerque	128.21	20	*e*PKIKP	PKPdf	11 05 44.4	-1.6
TUC	Tucson	128.89	26	*e*PKIKP	PKPdf	11 05 45.9	-1.5
WVT	Waverly	130.44	1	PKIKP	PKPdf	11 05 46.7	-3.5
WMOK	Wichita Mounta	130.55	13	PKIKP	PKPdf	11 05 47.7	-2.8
MNTX	Cornudas Mount	131.53	21	*e*PKPdf	PKPdf	11 05 51.9	-0.5
LTX	Lajitas	134.28	21	*e*PKIKP	PKPdf	11 05 54.7	-2.9
TXAR	Lajitas Array	134.28	21	PKP	PKPdf	11 05 55.5	-2.1
	comp=Z,1.3nm,0.6s,baz=225,slow=1.3,SNR=10						
TXAR				pPKP		11 06 05.4	
	comp=Z,5.8nm,0.9s,baz=200,slow=1.3,SNR=15						
TXAR				PP	PP	11 08 29.6	+1.2
	comp=Z,1.5nm,1.0s,baz=340,slow=2.3,SNR=4.1						
JCT	Junction City	134.38	16	*e*PKIKP	PKPdf	11 05 55.3	-2.5
BAO	Brasilia Array	142.29	262	P	PKPdf	11 06 07.5	-5.0
BAO				*e*		11 06 13.9	
BDFB	Brasilia	142.31	262	PKP	PKPdf	11 06 06.9	-5.6
	comp=Z,5.3nm,1.1s,baz=94,slow=4.0,SNR=4.3						
BDFB				pPKP		11 06 15.4	
	comp=Z,7.0nm,0.9s,baz=170,slow=6.2,SNR=5.1						
TEIG	Tepich	146.27	2	*e*PKPbc	PKPbc	11 06 18.9	+3.8
TRQA	Tornquist	147.13	218	*e*PKPdf	PKPdf	11 06 17.4	-2.7
PCRV	Puerto La Cruz	147.55	316	PKPbc	PKPdf	11 06 19.6	-1.9
	comp=Z,6.4nm,0.5s,baz=206,slow=4.6,SNR=4.2						
PCRV				pPKPbc		11 06 28.5	
	comp=Z,16nm,0.6s,baz=218,slow=0.3,SNR=9.9						
CPUP	Villa Florida	149.54	241	PKPbc	PKPdf	11 06 25.6	+1.1
	comp=Z,0.0nm,0.3s,baz=224,slow=14,SNR=1.2						
CPUP				PKPab	PKPab	11 06 31.0	+0.2
	comp=Z,0.0nm,0.3s,baz=325,slow=12,SNR=1.6						
CPUP				pPKPbc		11 06 35.6	
	comp=Z,0.0nm,0.4s,baz=214,slow=19,SNR=1.5						
CPUP	Villa Florida	149.54	241	PKP2	PKPab	11 06 31.0	+0.1
CPUP	Villa Florida	149.54	241	PKPbc	PKPdf	11 06 25.6	+1.1
CPUP				PKPab	PKPab	11 06 31.0	+0.2
CPUP				pPKPbc		11 06 35.6	
SDV	Santo Domingo	152.33	323	PKPbc	PKPdf	11 06 32.2	+3.2
	comp=Z,7.4nm,0.9s,baz=112,slow=3.9,SNR=7.6						
SDV	Santo Domingo	152.33	323	*e*PKPbc	PKPdf	11 06 31.5	+2.6
ROSC	El Rosal	157.72	325	pPKP		11 06 44.2	
	comp=Z,6.1nm,0.5s,baz=99,slow=23,SNR=2.2						
ROSC				pPKPab		11 07 15.7	
	comp=Z,9.0nm,0.5s,baz=117,slow=11,SNR=6.0						
LVC	Limon Verde	160.71	240	PKP	PKPdf	11 06 38.4	-0.9
	comp=Z,1.3nm,0.7s,baz=247,slow=22,SNR=2.2						
LVC				pPKP		11 06 47.6	
	comp=Z,3.8nm,0.9s,baz=192,slow=3.5,SNR=4.3						
LVC				PKPab	PKPab	11 07 18.4	0.0
	comp=Z,2.4nm,0.6s,baz=142,slow=3.7,SNR=3.9						
LVC				pPKPab		11 07 28.8	
	comp=Z,8.0nm,0.9s,baz=64,slow=1.8,SNR=6.1						
LVC	Limon Verde	160.71	240	PKPdf	PKPdf	11 06 38.0	-1.3
LPAZ	La Paz	161.63	260	PKP	PKPdf	11 06 39.4	-1.0
	comp=Z,0.7nm,0.7s,baz=22,slow=6.9,SNR=3.8						
LPAZ				pPKP		11 06 48.8	
	comp=Z,4.6nm,1.0s,baz=48,slow=2.8,SNR=7.2						
LPAZ				PKPab	PKPab	11 07 20.7	-1.8
	comp=Z,3.3nm,0.8s,baz=183,slow=5.9,SNR=5.3						
LPAZ				pPKPab		11 07 32.5	
	comp=Z,5.6nm,0.9s,baz=79,slow=8.8,SNR=6.2						
LPAZ	La Paz	161.63	260	PKIKP	PKPdf	11 06 39.4	-1.0
LPAZ						11 06 48.8	
LPAZ						11 07 20.7	
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.7s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.9s						
LPAZ	La Paz	161.63	260	*e*PKPdf	PKPdf	11 06 38.9	-1.5

MOS ***27*** *10:46:46.8±1.0, 13.73N×93.16E, h33^{km}, mb5.6/27, Error ellipse: s-maj=12.1km s-min=8.4km az=110.3*

BJI ***27*** *10:46:46.1, 13.45N×93.03E, h44^{km}, mB5.6, mb5.2, Ms4.9, Msz4.8*

NEIC ***27*** *10:46:47.7±2.2, 13.66N×93.05E, h25^{km}±15^{km}, mb5.3/42, Error ellipse: s-maj=6.7km s-min=6.2km az=152.0*

SYO ***27*** *10:46:47.5, 13.65N×93.07E, h24^{km}, MB5.3*

ISC 27 10:46:42.9±2.1**, 13.65N**±0.05×**93.05E**±0.05**, h7**^{km}±13^{km}**, n133, σ1§12**/108**, mb5.2**/47**, MS4.7**/4**, 2C-3D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.41	49	*e*Pn	Pn	10 48 36.1	+1.9
KKTK	Khon Kaen	9.81	73	P	P	10 49 06.0	-1.7
UBT	Ubonrachathani	11.70	81	P	P	10 49 36.0	+2.5
PALK	Pallekele	13.69	244	Pn	P	10 49 59.1	-1.2
LSA	Lhasa	16.07	354	*e*P	P	10 50 34.4	+3.3
LSA				pmax	pmax		
	comp=Z,134nm,1.0s						
LSA	Lhasa	16.07	354	*e*P	P	10 50 34.4	+3.3
	comp=Z,134nm,1.0s						
QIZ	Qiongzhong	16.98	69	*e*P	P	10 50 38.2	-4.5
ENH	Enshi	22.44	40	*e*P	P	10 51 45.8	+1.8
	comp=Z,164nm,1.0s,mb5.4						
LZH	Lanzhou	24.35	22	*e*P	P	10 52 05.0	+2.3
LZH				AP		10 52 12.0	
LZH				XP		10 52 15.0	
LZH				PP	PP	10 52 41.0	+3.1
LZH				S	S	10 56 22.0	+2.7
LZH				SS	SS	10 57 16.3	+3.6
LZH				AMB	AMB		
	comp=Z,124nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,963nm,6.8s						
LZH				LR	LR		
	comp=E,2μm,14.0s						
LZH				LR	LR		
	comp=Z,4μm,15.2s,MS5.0						
GTA	Gaotai	26.34	12	*e*P	P	10 52 23.0	+1.6
GTA				PP	PP	10 53 08.0	+4.0
GTA				PCP	PcP	10 55 48.8	+0.8
GTA				S	S	10 56 57.3	+4.7
GTA				PCS		10 59 28.5	
GTA				SCS	ScS	11 03 13.8	-1.9
GTA				AMB	AMB		
	comp=Z,52nm,1.4s,mb4.9						
GTA				AMB	AMB		
	comp=Z,2μm,5.0s						
GTA				LR	LR		
	comp=N,2μm,16.7s,MS4.8						
GTA				LR	LR		
	comp=E,2μm,18.3s,MS4.8						
GTA				LR	LR		
	comp=Z,3μm,16.7s,MS4.9						
WMQ	Urumqi	30.41	352	⇑P	P	10 52 58.5	+0.4
WMQ				PP	PP	10 53 58.3	+0.7
WMQ				S	S	10 57 57.8	-0.2
WMQ				AMB	AMB		
	comp=Z,26nm,1.1s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,736nm,9.3s						
WMQ				LR	LR		
	comp=N,1μm,21.6s,MS4.6						
WMQ				LR	LR		
	comp=E,820nm,20.8s,MS4.6						
WMQ				LR	LR		
	comp=Z,1μm,20.8s,MS4.5						
HHC	Hu-ho-hao-te	31.56	27	*e*P	P	10 53 05.5	-2.8
HHC				AMB	AMB		
	comp=Z,38nm,0.9s,mb5.2						
HHC				AMB	AMB		
	comp=Z,1μm,8.7s						
HHC	Hu-ho-hao-te	31.56	27	AP	pP	10 53 05.5	-4.7
HHC				XP	sP	10 53 11.5	+0.4
AAK	Ala-Archa	33.03	334	*e*P	P	10 53 19.7	-1.4
AAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
AAK	Ala-Archa	33.03	334	*e*P	P	10 53 19.7	-1.4
	comp=Z,9.9nm,0.9s,mb4.7						
BJT	Baijiatuau	33.20	33	*e*P	P	10 53 21.9	-0.6
BJT				pmax	pmax		
	comp=Z,62nm,1.0s						
BJT	Baijiatuau	33.20	33	*e*P	P	10 53 21.9	-0.7
	comp=Z,62nm,1.0s,mb5.5						
MKAR	Makanchi Array	34.25	347	*i* P	P	10 53 31.6	0.0
MKAR				pmax	pmax		
	comp=Z,91nm,1.0s						
DL2	Dalian	35.63	40	P	P	10 53 43.5	0.0
DL2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
DL2	Dalian	35.63	40	P	P	10 53 43.5	0.0
DL2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
ULN	Ulaanbaatar	36.05	16	*e*P	P	10 53 47.9	+1.0
ULN				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
ULN	Ulaanbaatar	36.05	16	*e*P	P	10 53 47.9	+1.0
	comp=Z,31nm,1.0s,mb5.2						
MOY	Mondy	38.45	8	*e*P	P	10 54 07.3	+0.2
TLY	Talaya	38.88	11	*e*P	P	10 54 11.5	+0.8
TLY				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
TLY	Talaya	38.88	11	*e*P	P	10 54 11.5	+0.8
	comp=Z,11nm,0.8s,mb4.6						
KS15	Wonju Array Si	39.01	46	P	P	10 54 12.2	+0.3
CN2	Changchun	40.88	36	*e*P	P	10 54 29.0	+1.7
CN2	Changchun	40.88	36	*e*P	P	10 54 29.0	+1.7
HIA	Hailar	41.74	26	*e*P	P	10 54 33.7	-0.6
HIA				pmax	pmax		
	comp=Z,11nm,0.7s						
HIA	Hailar	41.74	26	*e*P	P	10 54 33.7	-0.6
	comp=Z,11nm,0.7s,mb4.6						
BVA0	Borovoye Array	43.21	340	P	P	10 54 45.9	-0.4
BVA0				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.0						
BRVK	Borovoye	43.28	340	P	P	10 54 46.0	-0.8
BRVK				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.6						
BRVK	Borovoye	43.28	340	*e*P	P	10 54 46.4	-0.4
	comp=Z,28nm,1.1s,mb4.9						
MBWA	Marble Bar	43.40	142	*e*P	P	10 54 47.7	-0.6
	comp=Z,48nm,1.0s,mb5.2						
CHKZ	Chkalovo	43.69	341	*e*P	P	10 54 49.6	-0.5
CHKZ				pmax	pmax		
	comp=Z,42nm,0.7s,mb5.3						
CHKZ	Chkalovo	43.69	341	*e*P	P	10 54 49.6	-0.5
	comp=Z,42nm,0.7s,mb5.3						
MDJ	Mudanjiang	43.78	38	P	P	10 54 50.8	-0.3
MDJ				PP	PP	10 56 33.0	-1.9
MDJ				PCP	PcP	10 56 37.3	-1.0
MDJ				SCP		11 00 27.8	
MDJ				PCS		11 00 30.3	
MDJ				S	S	11 01 21.0	-0.5
MDJ				AMB	AMB		
	comp=Z,840nm,8.9s						
MDJ				LR	LR		
	comp=N,591nm,21.0s						
MDJ				LR	LR		
	comp=E,687nm,27.8s						
MDJ				LR	LR		
	comp=Z,703nm,23.4s,MS4.5						
MDJ	Mudanjiang	43.78	38	*e*P	P	10 54 49.9	-1.1
	comp=Z,9.8nm,0.9s,mb4.5						
MAJO	Matsushiro	46.28	52	*e*P	P	10 55 10.7	-0.5
MAJO				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.4						
MAJO	Matsushiro	46.28	52	*e*P	P	10 55 10.7	-0.4
	comp=Z,44nm,0.8s,mb5.4						
BOD	Bodaibo	46.84	15	*e*P	P	10 55 14.0	-1.3
BOD				*e*		10 55 19.0	
GNI	Garni	49.74	311	*e*P	P	10 55 39.6	+1.5
GNI				pmax	pmax		
	comp=Z,103nm,1.2s						
GNI	Garni	49.74	311	*e*P	P	10 55 39.6	+1.6
	comp=Z,103nm,1.2s,mb5.7						
ARU	Arti	50.20	336	*e*P	P	10 55 39.6	-1.7
ARU				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.4						
ARU	Arti	50.20	336	*e*P	P	10 55 39.6	-1.7
	comp=Z,52nm,1.2s,mb5.4						
NWAO	Narrogin (SRO)	51.76	154	*e*P	P	10 55 53.3	-0.3
NWAO				pmax	pmax		
	comp=Z,29nm,0.7s						
NWAO	Narrogin (SRO)	51.76	154	*e*P	P	10 55 53.3	-0.2
	comp=Z,29nm,0.7s,mb5.3						
KIV	Kislovodsk	52.40	315	P	P	10 55 59.7	+1.5
KIV				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.6						
KIV	Kislovodsk	52.40	315	P	P	10 55 59.7	+1.4
	comp=Z,90nm,1.1s,mb5.6						
WRAB	Tennant Creek	52.59	129	*e*P	P	10 55 59.4	-0.5
WRAB				pmax	pmax		
	comp=Z,157nm,0.9s,mb5.9						
WRAB	Tennant Creek	52.59	129	*e*P	P	10 55 59.4	-0.5
	comp=Z,157nm,0.9s,mb5.9						
YSS	Yuzh-Sakhalins	53.02	41	*e*P	P	10 56 02.1	-0.7
YSS				pmax	pmax		
	comp=Z,88nm,1.0s,mb5.6						
YSS	Yuzh-Sakhalins	53.02	41	*e*P	P	10 56 02.1	-0.7
	comp=Z,88nm,1.0s,mb5.7						
MALT	Malatya	54.02	308	*e*P	P	10 56 10.4	+0.2
MALT				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
MALT	Malatya	54.02	308	*e*P	P	10 56 10.4	+0.2
	comp=Z,18nm,0.9s,mb5.0						
YAK	Yakutsk	54.93	20	*e*P	P	10 56 15.4	-1.2

YAK				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.6						
YAK	Yakutsk	54.93	20	eP	P	10 56 15.4	-1.2
	comp=Z,44nm,0.7s,mb5.6						
EIL	Elat	55.76	297	eP	P	10 56 23.8	+0.7
	comp=Z,34nm,1.2s,mb5.2						
KMBO	Kilima Mbogo	57.20	260	eP	P	10 56 34.6	+1.0
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KMBO	Kilima Mbogo	57.20	260	eP	P	10 56 34.6	+1.0
	comp=Z,9.0nm,1.0s,mb4.8						
CSS	Prodhromos	57.56	303	eP	P	10 56 35.7	-0.2
	comp=Z,19nm,0.8s,mb5.2						
PMG	Port Moresby	58.38	110	eP	P	10 56 41.1	-0.8
PMG				pmax	pmax		
	comp=Z,33nm,0.7s						
PMG	Port Moresby	58.38	110	eP	P	10 56 41.1	-0.8
	comp=Z,33nm,0.7s,mb5.5						
MOS	Moscow	59.64	327	eP	P	10 56 48.4	-1.6
MOS				e		10 56 58.9	
ISP	Isparta	60.12	306	P	P	10 56 52.6	-1.0
ISP				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.3						
ISP	Isparta	60.12	306	P	P	10 56 52.6	-1.0
	comp=Z,20nm,0.7s,mb5.2						
CTAO	Charters Tower	62.15	122	eP	P	10 57 07.1	-0.5
CTAO				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.4						
CTAO	Charters Tower	62.15	122	eP	P	10 57 07.1	-0.5
	comp=Z,40nm,1.2s,mb5.4						
MA2	Magadan	62.22	29	eP	P	10 57 05.9	-1.6
MA2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.5						
MA2	Magadan	62.22	29	eP	P	10 57 05.9	-1.6
	comp=Z,40nm,1.0s,mb5.5						
MBAR	Mbarara	63.30	262	eP	P	10 57 15.9	+0.6
MBAR				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.4						
MBAR	Mbarara	63.30	262	eP	P	10 57 15.9	+0.6
	comp=Z,41nm,1.4s,mb5.4						
ISR	Istrita	63.90	314	⇑iP	P	10 57 18.0	-0.8
STKA	Stephens Creek	64.90	135	eP	P	10 57 24.6	-0.9
KWP	Kalwaria	66.99	318	eP	P	10 57 39.1	+0.5
KWP				pmax	pmax		
	comp=Z,84nm,1.1s,mb5.7						
KWP	Kalwaria	66.99	318	eP	P	10 57 39.1	+0.5
	comp=Z,84nm,1.1s,mb5.7						
KOLS	Kolonicke sedl	67.21	318	eP	P	10 57 37.0	-3.0
KOLS				e		10 57 45.4	
KOLS	Kolonicke sedl	67.21	318	e	P	10 57 37.0	-3.0
KOLS				e		10 57 45.4	
PSZ	Piszkesteto	68.71	316	eP	P	10 57 49.4	0.0
PSZ				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.3						
PSZ	Piszkesteto	68.71	316	eP	P	10 57 49.4	0.0
	comp=Z,51nm,1.3s,mb5.3						
ARE0	ARCESS Array S	69.50	340	eP	P	10 57 53.7	-0.2
LSZ	Lusaka	70.30	248	eP	P	10 57 59.7	+0.1
LSZ				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.2						
LSZ	Lusaka	70.30	248	eP	P	10 57 59.7	+0.1
	comp=Z,41nm,1.2s,mb5.2						
BILL	Bilibino	71.16	22	eP	P	10 58 02.9	-1.2
BILL				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
BILL	Bilibino	71.16	22	eP	P	10 58 02.9	-1.1
	comp=Z,11nm,0.6s,mb5.0						
RUE	Ruedersdorf	72.77	321	eP	P	10 58 13.9	0.0
	comp=Z,40nm,0.3s,mb5.8						
CLL	Collm	73.26	320	eP	P	10 58 16.0	-0.8
CLL				pmax	pmax		
	comp=Z,63nm,1.5s,mb5.3						
CLL	Collm	73.26	320	eP	P	10 58 16.0	-0.8
	comp=Z,63nm,1.5s,mb5.3						
CLL	Collm	73.26	320	P	P	10 58 16.0	-0.8
	comp=Z,logA/T=1.6,mb5.3						
MOX	Moxa	74.15	319	eP	P	10 58 21.8	-0.2
MOX	Moxa	74.15	319	i P	P	10 58 21.8	-0.2
MOX	Moxa	74.15	319	eP	P	10 58 21.8	-0.2
NAO01	NORSAR Array S	74.37	330	eP	P	10 58 22.2	-0.8
	comp=Z,9.5nm,0.7s,mb4.8						
LBTB	Lobatse	76.14	240	eP	P	10 58 34.2	+0.3
LBTB				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
LBTB	Lobatse	76.14	240	eP	P	10 58 34.2	+0.3
	comp=Z,32nm,1.0s,mb5.2						
BOSA	Boshof	77.80	236	eP	P	10 58 43.6	+0.5
BOSA				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						
BOSA	Boshof	77.80	236	eP	P	10 58 43.6	+0.6
	comp=Z,16nm,0.6s,mb5.1						
BNI	Bardonecchia	77.93	314	eP	P	10 58 46.0	+2.6
BNI				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
BNI	Bardonecchia	77.93	314	eP	P	10 58 46.0	+2.6
	comp=Z,40nm,1.0s,mb5.3						
CASY	Casey	80.76	173	eP	P	10 58 58.4	+0.1
	comp=Z,32nm,1.1s,mb5.2						
SUR	Sutherland	82.77	234	eP	P	10 59 10.5	+1.0
	comp=Z,21nm,0.9s,mb5.2						
MAW	Mawson	83.95	191	eP	P	10 59 16.4	+1.7
	comp=Z,47nm,1.1s,mb5.5						
MCK	McKinley	89.61	23	eP	P	10 59 42.9	+0.5
	comp=Z,16nm,0.9s,mb5.3						
SYO	Syowa Base	90.59	197	⇓sP	sP	10 59 52.9	+3.3
SYO	Syowa Base	90.59	197	⇓P	P	10 59 49.0	+2.2
SYO	Syowa Base	90.59	197	⇓pP	pP	10 59 57.5	+8.6
SML	Sawmill	90.84	25	eP	P	10 59 48.5	+0.3
BOZ	Bozeman (W)	116.90	19	ePKPdf	PKPdf	11 05 30.4	-0.8
LAO	LASA Array	117.49	15	ePKPdf	PKPdf	11 05 31.4	-0.9
HLID	Hailey	117.77	22	ePKPdf	PKPdf	11 05 32.7	-0.3
TPAW	Teton Pass	119.05	20	ePKPdf	PKPdf	11 05 35.2	-0.2
LOHW	Long Hollow	119.05	19	ePKPdf	PKPdf	11 05 35.2	-0.3
SNOW	Snow King Moun	119.13	20	ePKPdf	PKPdf	11 05 35.4	-0.2
REDW	Red Top Meadow	119.19	20	ePKPdf	PKPdf	11 05 35.6	-0.1
MTUM	Tungsten Hills	121.20	29	ePKPdf	PKPdf	11 05 39.2	-0.7
MVU	Marysvale	122.98	24	ePKPdf	PKPdf	11 05 43.9	+0.8
MSU	Marysvale	122.99	23	ePKPdf	PKPdf	11 05 44.0	+0.9
GENY	Geneseo	123.24	352	ePKPdf	PKPdf	11 05 42.7	-0.8
ISCO	Idaho Springs	124.06	17	ePKPdf	PKPdf	11 05 45.2	-0.1
PV10	Paradox Valley	124.26	21	ePKPdf	PKPdf	11 05 45.5	-0.2
NEN	Nelson	124.31	27	ePKPdf	PKPdf	11 05 45.9	0.0
PV01	Paradox Valley	124.64	21	ePKPdf	PKPdf	11 05 46.3	-0.2
ACSO	Alum Creek Sta	126.27	356	ePKPdf	PKPdf	11 05 48.5	-1.0
ANMO	Albuquerque	128.24	20	ePKPdf	PKPdf	11 05 52.6	-1.0
TUC	Tucson	128.92	26	ePKPdf	PKPdf	11 05 54.1	-0.8
WVT	Waverly	130.48	1	ePKPdf	PKPdf	11 05 56.8	-1.0
WMOK	Wichita Mounta	130.58	13	ePKPdf	PKPdf	11 05 56.4	-1.6
MNTX	Cornudas Mount	131.57	21	ePKPdf	PKPdf	11 06 00.7	+0.8
LTX	Lajitas	134.32	21	ePKPdf	PKPdf	11 06 04.8	-0.3
SDV	Santo Domingo	152.36	323	ePKPbc	PKPdf	11 06 42.4	+6.0
LVC	Limon Verde	160.69	240	ePKPdf	PKPdf	11 06 46.6	-0.2
LVC				ePKPab	PKPab	11 07 28.9	+0.4
LPAZ	La Paz	161.63	259	ePKIKP	PKPdf	11 06 48.4	+0.6
LPAZ				e		11 07 33.0	
LPAZ	La Paz	161.63	259	ePKPdf	PKPdf	11 06 48.4	+0.6
LPAZ				ePKPab	PKPab	11 07 33.0	+0.3

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*IDC **27** 10:46:45.9±0.9, 4.93N×94.85E, mb4.4/11, mb1 4.5/11, mb1mx4.4/20, Error ellipse: s-maj=44.1km s-min=16.3km az=48.0*

NEIC 27 10:46:50.0±0.6**, 4.76N×94.70E, h30^{km}, Error ellipse: s-maj=32.9km s-min=12.8km az=49.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	44.07	11	P	P	10 54 54.5	-2.7
	3.9nm,0.8s,baz=188,slow=10,SNR=3.6						
WRA	Warramunga Arr	46.05	124	P	P	10 55 11.0	-2.2
	5.0nm,0.7s,baz=302,slow=9.2,SNR=9.4						
ASAR	Alice Springs	47.53	128	P	P	10 55 22.5	-2.5
	2.0nm,0.7s,baz=299,slow=7.7,SNR=6.0						
BVAR	Borovoye Array	52.10	342	P	P	10 55 57.1	-2.4
	4.7nm,0.7s,baz=135,slow=8.4,SNR=4.4						
CTA	Charters Tower	56.34	118	P	P	10 56 30.4	-0.6
	1.2nm,0.7s,baz=319,slow=19,SNR=1.7						
STKA	Stephens Creek	57.58	133	P	P	10 56 37.2	-2.5
	1.7nm,0.8s,baz=95,slow=11,SNR=1.8						
IDI	Anoyia	70.81	306	P	P	10 58 05.2	-0.9
	11nm,0.8s,baz=49,slow=8.6,SNR=2.1						
ARCES	ARCESS Array B	78.37	340	P	P	10 58 47.0	-1.8
	1.4nm,0.4s,baz=103,slow=7.0,SNR=6.9						
FX1	Attu Island--F	79.26	37	P	P	10 58 51.4	-2.6
	11nm,0.4s,baz=55,slow=21,SNR=2.8						
GERES	GERESS Array B	80.51	319	P	P	10 59 00.4	-0.4
	3.7nm,0.8s,baz=90,slow=5.9,SNR=2.8						
NOA	NORSAR Array B	82.70	331	P	P	10 59 10.3	-1.8
	1.5nm,0.8s,baz=98,slow=4.5,SNR=1.7						

IDC 27 10:53:09.3±4.9**, 23.00N×141.95E, mb4.0**/3**, mb1 4.2**/3**, mb1mx3.7**/19**, MS3.5**/1**, Ms1 3.5**/1**, ms1mx3.0**/28**, Error ellipse: s-maj=342.0km s-min=32.1km az=86.0, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	Chichi jima	4.08	3	LR	LR	10 55 09.4	
	comp=Z,581nm,19.6s,baz=333,slow=29						
WRA	Warramunga Arr	43.32	190	P	P	11 01 13.2	-1.7
	1.5nm,0.8s,baz=11,slow=8.6,SNR=4.4						
ASAR	Alice Springs	47.04	190	P	P	11 01 42.5	-2.1
	0.7nm,0.6s,baz=16,slow=13,SNR=3.2						
FINES	FINESS Array B	81.52	334	P	P	11 05 28.4	-1.2
	1.5nm,0.7s,baz=56,slow=5.0,SNR=5.7						

IDC 27 10:55:01.5±2.5**, 7.95N×91.87E, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.7**/16**, Error ellipse: s-maj=101.0km s-min=27.1km az=61.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	41.62	15	P	P	11 02 52.0	-1.0
	0.6nm,0.7s,baz=185,slow=8.2,SNR=4.5						
WRA	Warramunga Arr	50.15	124	P	P	11 03 58.2	-2.9
	0.4nm,0.6s,baz=304,slow=9.7,SNR=4.5						
ASAR	Alice Springs	51.70	129	P	P	11 04 11.4	-1.4
	0.9nm,0.6s,baz=306,slow=6.9,SNR=12						
ARCES	ARCESS Array B	74.44	340	P	P	11 06 40.9	-2.1
	2.0nm,0.8s,baz=106,slow=6.6,SNR=4.3						

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*NEIC **27** 10:55:36.0±0.8, 7.21N×92.32E, h30^{km}, Error ellipse: s-maj=19.3km s-min=13.6km az=221.0*

*IDC **27** 10:55:38.0±8.8, 7.27N×92.44E, h43^{km}±80^{km}, mb3.6/5, mb1 3.8/6, mb1mx3.6/17, ML3.9/1, Error ellipse: s-maj=65.5km s-min=22.9km az=51.0*

ISC 27 10:55:34.1±1.0**, 7.2N**±0.1×**92.4E**±0.1**, h30^{km}, n8, σ0^{s}70**/8**, mb3.8**/5**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.86	29	P	P	10 58 37.6	-0.1
	0.2nm,0.3s,baz=230,slow=15,SNR=3.4						
HYB	Hyderabad	16.85	308	eP	P	10 59 29.0	-0.7
HYB	Hyderabad	16.85	308	i P	P	10 59 29.0	-0.7
SONM	Songino Array	42.18	14	P	P	11 03 25.9	+0.1
	2.4nm,0.9s,mb3.8,baz=198,slow=8.1,SNR=8.1						
SONM				pP	pP	11 03 33.4	-1.4
	3.4nm,0.8s,baz=196,slow=7.8,SNR=13						
WRA	Warramunga Arr	49.35	124	P	P	11 04 23.0	-0.2
	1.2nm,0.8s,mb4.0,baz=305,slow=8.9,SNR=6.2						
ASAR	Alice Springs	50.88	128	P	P	11 04 34.6	-0.2
	0.7nm,0.5s,mb3.9,baz=297,slow=8.0,SNR=5.1						
BRTR	Keskin Array B	61.52	311	P	P	11 05 50.4	-0.4
	0.4nm,0.5s,mb3.8,baz=121,slow=8.0,SNR=3.8						
GERES	GERESS Array B	77.12	318	P	P	11 07 28.3	+1.7
	0.6nm,0.7s,mb3.6,baz=68,slow=7.2,SNR=3.8						

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*NEIC **27** 10:58:09.4, 35.33S×70.56W, h7^{km}, ML3.2(GUC), After GUC.*

GUC 27 10:58:09.4±0.8**, 35.33S×70.56W, h7^{km}**±12^{km}**, MD3.7, ML3.2, 6C-5D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NICH	Los Niches	0.64	300	⇓iP	Pg	10 58 21.9	-0.4
NICH				i S	Sg	10 58 31.9	+1.1
CACH	El Canelo	1.21	358	⇓iP	Pb	10 58 30.8	-1.4
CACH				i S	Sb	10 58 47.3	-0.5
CHCH	Chadas Angostu	1.39	357	eP	Pn	10 58 34.0	-1.3
LMEL	Las Melosas	1.50	11	⇓iP	Pn	10 58 36.2	-0.7
LMEL				i S	Sb	10 58 56.2	-0.2
LMEL				AMP		10 58 59.3	
	comp=N,222nm,0.2s						
LNV	Longovilo	1.54	333	⇑iP	Pn	10 58 36.3	-1.1
LNV				i S	Sb	10 58 56.6	-0.8
TACH	Talagante	1.70	349	⇓iP	Pn	10 58 39.0	-0.7
TACH				i S	Sn	10 59 01.8	0.0
PCH	Pirque	1.70	1	⇓iP	Pn	10 58 39.5	-0.2
PCH				i S	Sn	10 59 02.5	+0.5
ANTU	Antumapu	1.75	358	⇑iP	Pn	10 58 40.4	-0.1
ANTU				eS	Sn	10 59 03.1	-0.2
ANTU				AMP		10 59 05.2	
	comp=E,321nm,0.5s						
RCDM	Rinconada Maip	1.84	354	⇑iP	Pn	10 58 41.8	+0.1
RCDM				i S	Sn	10 59 05.6	0.0
RCDM				AMP		10 59 06.8	
	comp=E,744nm,0.1s						
CLCH	Cerro Calan	1.93	1	i P	Pn	10 58 43.6	+0.7
CLCH				i S	Sn	10 59 09.3	+1.7
CLCH				AMP		10 59 21.7	
	comp=E,301nm,0.4s						
FCH	Farellones	2.01	6	⇑iP	Pn	10 58 44.8	+0.7
FCH				i S	Sn	10 59 11.5	+1.8
FCH				AMP		10 59 20.2	
	comp=N,265nm,0.4s						
LCCH	Las Cruces	2.03	335	⇑iP	Pn	10 58 44.4	0.0
LCCH				i S	Sn	10 59 10.9	+0.7
PEL	Peldehue	2.18	357	AMP		10 59 24.5	
	comp=N,470nm,0.4s						
ROCH	El Roble	2.38	351	⇑iP	Pn	10 58 50.6	+1.1
ROCH				i S	Sn	10 59 21.4	+2.2

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*IDC **27** 11:01:13.9±0.6, 8.78N×93.48E, mb4.2/19, mb1 4.3/20, mb1mx4.3/25, ML4.2/1, Error ellipse: s-maj=26.1km s-min=13.0km az=49.0*

*NEIC **27** 11:01:18.6±0.4, 8.78N×93.46E, h30^{km}, mb4.6/5, Error ellipse: s-maj=17.9km s-min=9.4km az=55.0*

*BJI **27** 11:01:18.5, 8.76N×93.29E, h36^{km}, mB5.5, mb4.6*

ISC 27 11:01:16.3±0.5**, 8.60N**±0.08×**93.29E**±0.10**, h30^{km}, n33, σ1^{s}22**/31**, mb4.3**/28**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.23	29	Pn	P	11 04 01.1	+3.0
	0.5nm,0.3s,baz=218,slow=14,SNR=16						
LSA	Lhasa	21.09	355	eP	P	11 05 58.1	-2.6
	11nm,0.7s,mb4.3						
GYA	Guiyang	21.83	34	⇑iP	P	11 06 09.5	+1.3
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
GTA	Gaotai	31.23	10	eP	P	11 07 35.8	+0.3
GTA				AP	pP	11 07 45.5	+1.1
GTA				XP	sP	11 07 49.5	+1.2
GTA				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.9						
HHC	Hu-ho-hao-te	35.98	24	eP	P	11 08 17.0	+0.4
HHC				AP	pP	11 08 25.8	+0.3
HHC				XP	sP	11 08 29.5	+0.2
HHC				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
AAK	Ala-Archa	37.71	337	eP	P	11 08 31.1	0.0
	comp=Z,6.6nm,1.1s,mb4.3						
SONM	Songino Array	40.65	14	P	P	11 08 55.3	-0.1
	comp=Z,2.0nm,0.7s,mb3.8,baz=198,slow=8.4,SNR=12						
CN2	Changchun	44.87	33	eP	P	11 09 30.8	+0.8
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.7						
ZAL	Zalesovo	45.72	353	P	P	11 09 35.2	-1.3
	comp=Z,1.0nm,0.6s,mb4.0,baz=315,slow=10,SNR=4.1						
NWAO	Narrogin (SRO)	47.17	152	P	P	11 09 50.8	+2.5
	comp=Z,14nm,0.7s,mb5.0,baz=329,slow=11,SNR=7.9						
BVAR	Borovoye Array	48.04	342	P	P	11 09 54.0	-0.8
	comp=Z,1.8nm,0.9s,mb4.1,baz=293,slow=38,SNR=2.8						
CHKZ	Chkalovo	48.53	342	eP	P	11 09 57.1	-1.4
	comp=Z,3.8nm,0.9s,mb4.4						
CHKZ				e		11 10 08.6	
WRA	Warramunga Arr	49.36	126	P	P	11 10 05.5	+0.1
	comp=Z,2.2nm,0.7s,mb4.3,baz=305,slow=8.9,SNR=10						
ASAR	Alice Springs	51.02	130	P	P	11 10 16.9	-1.1
	comp=Z,1.3nm,0.8s,mb3.9,baz=306,slow=7.9,SNR=6.8						
PMG	Port Moresby	56.55	107	P	P	11 10 56.4	-2.5
	comp=Z,8.0nm,0.9s,mb4.7,baz=317,slow=18,SNR=2.5						
KMBO	Kilima Mbogo	56.67	263	P	P	11 11 00.6	+0.7
	comp=Z,0.8nm,0.6s,mb3.9,baz=43,slow=23,SNR=3.2						
YSS	Yuzh-Sakhalins	56.73	39	eP	P	11 10 58.5	-1.3
	comp=Z,17nm,0.7s,mb5.2						
CTA	Charters Tower	59.39	119	P	P	11 11 16.5	-2.2
	comp=Z,3.7nm,1.0s,mb4.4,baz=345,slow=10,SNR=2.3						
CTA	Charters Tower	59.39	119	P	P	11 11 16.5	-2.2
STKA	Stephens Creek	61.21	134	P	P	11 11 31.6	+0.6
	comp=Z,4.7nm,1.0s,mb4.6,baz=323,slow=5.1,SNR=3.4						
BRTR	Keskin Array B	61.32	311	P	P	11 11 30.8	-0.9
	comp=Z,1.4nm,0.8s,mb4.2,baz=129,slow=7.9,SNR=4.7						
MLR	Muntele Rosu	68.07	316	P	P	11 12 16.0	+0.6
	comp=Z,3.3nm,0.8s,mb4.4,baz=147,slow=7.8,SNR=4.4						
FINES	FINESS Array B	71.68	332	P	P	11 12 36.8	-0.3
	comp=Z,1.3nm,0.7s,mb4.0,baz=162,slow=24,SNR=3.3						
ARCES	ARCESS Array B	74.30	340	P	P	11 12 52.9	+0.5
	comp=Z,2.4nm,1.1s,mb4.1,baz=99,slow=6.8,SNR=3.8						
GERES	GERESS Array B	76.73	318	P	P	11 13 06.7	+0.1
	comp=Z,1.0nm,0.7s,mb3.9,baz=90,slow=6.7,SNR=5.6						
NB2	NORSAR Subarra	78.69	331	P	pP	11 13 28.0	+1.4
	comp=Z,6.8nm,1.1s,baz=93,slow=5.3						
NOA	NORSAR Array B	78.69	331	P	P	11 13 16.6	-0.5
	comp=Z,2.2nm,1.0s,mb4.1,baz=96,slow=5.6,SNR=2.6						
DAVOX	Davos	79.29	316	P	P	11 13 22.4	+1.7
	comp=Z,1.0nm,0.4s,mb4.1,baz=158,slow=3.0,SNR=3.2						
IMA	Indian Mountai	91.27	22	eP	P	11 14 21.8	+2.0
	comp=Z,13nm,0.9s,mb5.2						
ILAR	Eielson Array	94.39	22	P	P	11 14 34.3	+0.1
	comp=Z,0.6nm,0.6s,mb4.2,baz=298,slow=3.9,SNR=15						
INK	Inuvik	96.53	16	P	P	11 14 45.0	+1.0
	comp=Z,1.0nm,0.7s,mb4.3,baz=336,slow=4.2,SNR=6.6						
INK	Inuvik	96.53	16	P	P	11 14 45.0	+1.0
CPUP	Villa Florida	147.02	234	PKPbc	PKPdf	11 21 01.1	+1.1
	comp=Z,0.0nm,0.3s,baz=58,slow=20,SNR=2.5						

IDC 27 11:01:43.4±1.5**, 6.68N×93.61E, mb4.1**/4**, mb1 4.2**/5**, mb1mx3.9**/18**, ML4.4**/1**, Error ellipse: s-maj=46.9km s-min=30.0km az=22.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.81	23	Pn	P	11 04 47.2	-2.5
	0.6nm,0.3s,baz=333,slow=16,SNR=7.4						
WRA	Warramunga Arr	48.02	124	P	P	11 10 23.9	-2.7
	1.0nm,0.4s,baz=300,slow=10.0,SNR=8.0						
ASAR	Alice Springs	49.57	129	P	P	11 10 37.3	-1.2
	0.8nm,0.4s,baz=306,slow=8.2,SNR=8.6						
KMBO	Kilima Mbogo	56.77	264	P	P	11 11 30.0	-2.1
	0.7nm,0.4s,baz=18,slow=12,SNR=4.2						
STKA	Stephens Creek	59.68	133	P	P	11 11 49.7	-2.4
	2.6nm,0.7s,baz=292,slow=3.8,SNR=3.5						

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*IDC **27** 11:06:25.0±0.7, 4.09N×93.93E, mb4.4/15, mb1 4.5/16, mb1mx4.4/23, ML3.3/1, Error ellipse: s-maj=35.7km s-min=13.8km az=53.0*

*BJI **27** 11:06:29.0, 4.18N×94.34E, h26^{km}, mB5.3, mb4.8*

*NEIC **27** 11:06:30.8±0.3, 4.12N×94.05E, mb4.6/9, Error ellipse: s-maj=11.2km s-min=7.4km az=71.0*

ISC 27 11:06:28.3±4.2**, 4.1N**±0.1×**94.0E**±0.1**, h33^{km}**±35^{km}**, h37^{km}**±.8^{km}**:pP-P, n37, σ0^{s}90**/33**, mb4.5**/29**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.07	18	eP	P	11 10 01.1	+0.5
	9.9nm,0.5s						
CMAR	Chiang Mai Arr	15.07	18	Pn	P	11 09 59.9	-0.7
	0.0nm,0.3s,baz=222,slow=15,SNR=8.5						
KMI	Kunming	22.53	21	P	P	11 11 28.0	+1.3
KMI				AMB	AMB		
	comp=Z,19nm,0.9s,mb4.5						
GYA	Guiyang	25.32	27	⇑iP	P	11 11 54.0	+0.2
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.0						
LSA	Lhasa	25.62	354	eP	P	11 11 58.5	+2.0
	comp=Z,30nm,0.7s,mb4.9						
LSA				epP	pP	11 12 08.9	+2.9
ENH	Enshi	29.86	28	eP	P	11 12 33.2	-1.7
	comp=Z,15nm,0.8s,mb4.8						
ENH				epP	pP	11 12 43.7	-0.9
XAN	Xi’an	32.86	23	P	P	11 12 59.3	-2.1
XAN				AP	pP	11 13 10.3	-0.8
XAN				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.9						
GTA	Gaotai	35.55	8	P	P	11 13 24.5	+0.1
GTA				AP	pP	11 13 34.8	+0.6
GTA				XP	sP	11 13 38.8	+0.2
GTA				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.8						
BJT	Baijiatuau	40.98	26	eP	P	11 14 11.0	+1.2
	comp=Z,18nm,0.9s,mb4.7						
BJI	Beijing	41.00	26	P	P	11 14 11.0	+1.1
BJI				AMB	AMB		
	comp=Z,22nm,0.8s,mb4.8						
AAK	Ala-Archa	42.14	338	eP	P	11 14 20.1	+0.9
	comp=Z,5.6nm,1.2s,mb4.1						
NWAO	Narrogin (SRO)	42.88	151	P	P	11 14 26.3	+0.8
	comp=Z,10nm,0.8s,mb4.6,baz=200,slow=1.9,SNR=2.6						
SONM	Songino Array	44.86	12	P	P	11 14 41.3	+0.1
	comp=Z,7.1nm,0.8s,mb4.6,baz=192,slow=8.5,SNR=34						
WRA	Warramunga Arr	46.24	123	P	P	11 14 52.7	+0.1
	comp=Z,7.2nm,0.6s,mb4.8,baz=300,slow=9.0,SNR=40						
ASAR	Alice Springs	47.65	127	P	P	11 15 03.8	+0.2
	comp=Z,3.3nm,0.7s,mb4.5,baz=297,slow=7.9,SNR=25						
HIA	Hailar	50.04	22	eP	P	11 15 21.2	-0.5
	comp=Z,8.0nm,0.9s,mb4.8						
ZAL	Zalesovo	50.26	353	P	P	11 15 23.4	0.0
	comp=Z,4.1nm,0.5s,mb4.7,baz=301,slow=4.3,SNR=14						
BVAR	Borovoye Array	52.52	342	P	P	11 15 39.2	-1.2
	comp=Z,5.1nm,0.6s,mb4.6,baz=149,slow=8.6,SNR=18						
BRVK	Borovoye	52.59	342	eP	P	11 15 40.6	-0.3
	comp=Z,3.0nm,0.6s,mb4.4						
BRVK				epP	pP	11 15 51.1	+0.1
STKA	Stephens Creek	57.63	132	P	P	11 16 17.1	-0.7
	comp=Z,6.3nm,1.2s,mb4.5,baz=19,slow=1.6,SNR=7.4						
YAK	Yakutsk	63.60	18	eP	P	11 16 56.6	-1.4
	comp=Z,9.6nm,0.5s,mb5.1						
BRTR	Keskin Array B	64.84	312	P	P	11 17 05.8	-0.6
	comp=Z,1.5nm,0.8s,mb4.1,baz=128,slow=6.8,SNR=6.0						
IDI	Anoyia	70.65	306	P	P	11 17 42.3	-0.4
	comp=Z,7.3nm,0.9s,mb4.6,baz=71,slow=12,SNR=3.6						
AKASG	Malin Array Be	71.05	323	P	P	11 17 43.4	-1.5
	comp=Z,0.5nm,0.3s,mb3.9,baz=90,slow=4.8,SNR=4.7						
MLR	Muntele Rosu	71.81	317	P	P	11 17 49.5	+0.1
	comp=Z,3.6nm,0.9s,mb4.3,baz=134,slow=4.1,SNR=4.4						
MLR	Muntele Rosu	71.81	317	P	P	11 17 49.5	+0.1
FINES	FINESS Array B	75.99	333	P	P	11 18 13.7	+0.1
	comp=Z,1.8nm,0.6s,mb4.2,baz=104,slow=7.9,SNR=9.0						
MORC	Moravsky Berou	78.17	320	P	P	11 18 26.7	+0.7
	comp=Z,2.9nm,1.0s,mb4.2						
ARCES	ARCESS Array B	78.77	341	P	P	11 18 29.7	+0.8
	comp=Z,1.7nm,0.7s,mb4.1,baz=90,slow=6.1,SNR=8.0						
ARCES	ARCESS Array B	78.77	341	P	P	11 18 29.7	+0.8
HFS	Hagfors	81.66	330	P	P	11 18 44.8	+0.4
	comp=Z,3.2nm,0.9s,mb4.2,baz=79,slow=7.3,SNR=3.2						
NOA	NORSAR Array B	82.96	331	P	P	11 18 50.7	-0.4
	comp=Z,0.9nm,0.8s,mb3.8,baz=97,slow=5.6,SNR=3.5						
DAVOX	Davos	83.03	316	P	P	11 18 52.5	+0.7
	comp=Z,2.2nm,0.6s,mb4.4,baz=132,slow=12,SNR=5.0						
TXAR	Lajitas Array	142.68	26	PKhKP		11 25 55.8	
	comp=Z,0.1nm,0.4s,baz=297,slow=2.8,SNR=4.3						
TXAR				PKP	PKPdf	11 26 01.8	+3.0
	comp=Z,0.2nm,0.6s,baz=99,slow=4.9,SNR=3.4						
TXAR	Lajitas Array	142.68	26	PKP	PKPdf	11 26 01.8	+3.0
CPUP	Villa Florida	144.78	228	PKP	PKPdf	11 26 05.1	+2.5
	comp=Z,0.0nm,0.3s,baz=104,slow=5.7,SNR=1.4						
CPUP	Villa Florida	144.78	228	PKP	PKPdf	11 26 05.1	+2.5

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*BJI **27** 11:06:44.9, 10.54N×93.08E, h38^{km}, mb4.6*

*NEIC **27** 11:06:47.4±0.7, 10.79N×92.65E, h30^{km}, mb4.4/3, Error ellipse: s-maj=14.5km s-min=13.3km az=224.0*

*IDC **27** 11:06:51.6±6.0, 10.97N×92.88E, h62^{km}±52^{km}, mb3.7/14, mb1 3.9/15, mb1mx3.8/22, ML4.5/1, Error ellipse: s-maj=42.6km s-min=17.1km az=51.0*

ISC 27 11:06:45.7±0.7**, 10.8N**±0.1×**92.7E**±0.1**, h30^{km}, n23, σ0^{s}81**/23**, mb4.1**/18**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	9.66	38	ePn	P	11 09 07.0	+1.0
CMAR	Chiang Mai Arr	9.66	38	P	P	11 09 06.0	+0.1
	1.4nm,0.3s,baz=234,slow=14,SNR=51						

LSA	Lhasa	18.82	356	*e*P	P	11 11 06.1	+0.5
	7.0nm,0.6s						
CD2	Chengdu	22.43	26	P	P	11 11 42.8	-0.8
CD2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.7						
GTA	Gaotai	29.14	11	*e*P	P	11 12 46.5	+0.1
GTA				AP	pP	11 12 55.0	-0.2
GTA				XP	sP	11 12 59.3	+0.2
GTA				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.5						
SONM	Songino Array	38.62	15	P	P	11 14 07.6	-0.5
	comp=Z,0.9nm,0.8s,mb3.6,baz=201,slow=11,SNR=6.4						
ZAL	Zalesovo	43.45	353	P	P	11 14 46.4	-1.2
	comp=Z,0.7nm,0.5s,mb3.7,baz=290,slow=9.6,SNR=2.9						
ZAL	Zalesovo	43.45	353	P	P	11 14 46.4	-1.2
BVAR	Borovoye Array	45.75	341	P	P	11 15 06.1	-0.1
	comp=Z,1.9nm,0.6s,mb4.2,baz=135,slow=10,SNR=12						
BRVK	Borovoye	45.81	341	*e*P	P	11 15 04.7	-2.0
	comp=Z,3.3nm,0.7s,mb4.4						
CHKZ	Chkalovo	46.24	342	*e*P	P	11 15 10.2	+0.2
	comp=Z,10nm,0.9s,mb4.8						
WRA	Warramunga Arr	51.12	127	P	P	11 15 49.0	+0.8
	comp=Z,3.4nm,0.9s,mb4.3,baz=303,slow=9.8,SNR=2.0						
ASAR	Alice Springs	52.88	131	P	P	11 16 00.3	-1.1
	comp=Z,0.8nm,0.5s,mb3.9,baz=308,slow=7.1,SNR=2.7						
BRTR	Keskin Array B	59.46	310	P	P	11 16 48.1	-0.3
	comp=Z,0.4nm,0.5s,mb3.7,baz=111,slow=12,SNR=2.8						
FINES	FINESS Array B	69.46	332	P	P	11 17 52.5	-0.6
	comp=Z,2.9nm,1.1s,mb4.1,baz=108,slow=6.0,SNR=9.2						
ARCES	ARCESS Array B	72.02	340	P	P	11 18 08.7	+0.3
	comp=Z,1.8nm,0.9s,mb4.0,baz=90,slow=7.3,SNR=4.0						
GERES	GERESS Array B	74.71	318	P	P	11 18 25.3	+0.9
	comp=Z,0.8nm,0.6s,mb3.9,baz=92,slow=6.1,SNR=8.3						
HFS	Hagfors	75.21	329	P	P	11 18 27.0	-0.1
	comp=Z,4.4nm,1.1s,mb4.3,baz=18,slow=4.7,SNR=5.4						
NOA	NORSAR Array B	76.48	330	P	P	11 18 35.7	+1.4
	comp=Z,0.7nm,0.8s,mb3.6,baz=96,slow=5.5,SNR=2.6						
DAVOX	Davos	77.31	316	P	P	11 18 40.2	+1.0
	comp=Z,1.0nm,0.5s,mb4.0,baz=124,slow=22,SNR=2.7						
ILAR	Eielson Array	92.52	22	P	P	11 19 54.5	-0.6
	comp=Z,0.4nm,0.7s,mb4.0,baz=297,slow=3.3,SNR=7.7						
INK	Inuvik	94.53	16	P	P	11 20 04.8	+0.7
	comp=Z,0.6nm,0.8s,mb4.0,baz=68,slow=1.6,SNR=4.3						
INK	Inuvik	94.53	16	P	P	11 20 04.8	+0.6

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*IDC **27** 11:08:36.4±1.1, 5.43N×92.92E, mb4.2/10, mb1 4.3/11, mb1mx4.1/21, Error ellipse: s-maj=39.1km s-min=26.0km az=45.0*

*NEIC **27** 11:08:41.2±0.8, 5.48N×93.01E, h30^{km}, Error ellipse: s-maj=19.8km s-min=17.6km az=86.0*

ISC 27 11:08:39.3±1.0, **5.5N**±0.2×**93.1E**±0.2, **h30**^{km}**, n15,** σ**0ˢ99**/14, **mb4.2**/10, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.11	23	Pn	P	11 11 59.3	-0.3
	baz=216,slow=14,SNR=2.9						
AAK	Ala-Archa	40.50	339	P	P	11 16 17.8	+0.5
SONM	Songino Array	43.72	13	P	P	11 16 43.3	-0.3
	1.5nm,0.7s,mb3.8,baz=191,slow=6.3,SNR=4.2						
WRA	Warramunga Arr	47.79	123	P	P	11 17 16.2	-0.1
	1.9nm,0.8s,mb4.2,baz=303,slow=9.1,SNR=4.6						
ZAL	Zalesovo	48.78	354	P	P	11 17 23.6	+0.1
	4.1nm,0.5s,mb4.8,baz=311,slow=4.9,SNR=9.0						
BRTR	Keskin Array B	63.21	312	P	P	11 19 05.5	-1.7
	1.2nm,1.0s,mb4.0,baz=90,slow=5.8,SNR=2.7						
BRTR	Keskin Array B	63.21	312	P	P	11 19 05.5	-1.7
IDI	Anoyia	69.07	306	P	P	11 19 42.2	-2.6
	8.6nm,0.9s,mb4.7,baz=18,slow=15,SNR=2.2						
FINES	FINESS Array B	74.33	333	P	P	11 20 15.7	+0.1
	1.6nm,0.9s,mb3.9,baz=146,slow=37,SNR=2.8						
ARCES	ARCESS Array B	77.15	341	P	P	11 20 31.7	+0.2
	1.0nm,0.6s,mb4.0,baz=79,slow=4.6,SNR=4.4						
ARCES	ARCESS Array B	77.15	341	P	P	11 20 31.7	+0.2
GERES	GERESS Array B	78.90	319	P	P	11 20 42.5	+0.9
	1.6nm,0.9s,mb4.0,baz=90,slow=6.7,SNR=4.0						
HFS	Hagfors	79.98	330	P	P	11 20 47.6	+0.4
	4.2nm,1.0s,mb4.3,baz=264,slow=13,SNR=2.5						
DAVOX	Davos	81.38	316	P	P	11 20 56.5	+1.8
	1.7nm,0.6s,mb4.1,baz=204,slow=18,SNR=2.5						
CPUP	Villa Florida	144.95	231	PKP	PKPdf	11 28 17.0	-2.5
	0.0nm,0.3s,baz=128,slow=13,SNR=1.8						

IDC 27 11:12:06.8±2.4, **4.31N×93.82E, mb3.9**/3, **mb1 4.1**/4, **mb1mx3.8**/18, **ML4.4**/1, **Error ellipse: s-maj=75.9km s-min=30.1km az=72.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.93	19	Pn	P	11 15 41.2	+0.1
	0.5nm,0.3s,baz=216,slow=11,SNR=9.5						
SONM	Songino Array	44.69	12	P	P	11 20 20.9	-2.5
	0.5nm,0.6s,baz=193,slow=8.4,SNR=4.1						
WRA	Warramunga Arr	46.54	123	P	P	11 20 36.7	-1.7
	2.7nm,0.6s,baz=300,slow=9.1,SNR=15						
ASAR	Alice Springs	47.95	127	P	P	11 20 47.4	-2.2
	0.9nm,0.7s,baz=299,slow=8.1,SNR=5.4						
CPUP	Villa Florida	144.76	229	PKP	PKPdf	11 31 46.5	-1.8
	0.0nm,0.4s,baz=244,slow=7.7,SNR=2.3						

IDC 27 11:13:11.8±1.8, **7.24N×92.88E, mb3.8**/4, **mb1 4.0**/4, **mb1mx3.7**/17, **Error ellipse: s-maj=70.2km s-min=26.7km az=57.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	42.06	14	P	P	11 21 05.4	-1.6
	0.2nm,0.5s,baz=225,slow=6.1,SNR=3.2						
WRA	Warramunga Arr	48.92	124	P	P	11 21 59.9	-2.1
	1.5nm,0.8s,baz=304,slow=8.6,SNR=6.0						
ASAR	Alice Springs	50.48	129	P	P	11 22 11.9	-2.0
	1.5nm,0.6s,baz=300,slow=7.5,SNR=9.5						
GERES	GERESS Array B	77.47	318	P	P	11 25 09.5	-1.4
	0.4nm,0.7s,baz=72,slow=4.2,SNR=3.7						

IDC 27 11:17:58.2±1.4, **5.56N×96.65E, mb3.9**/8, **mb1 4.1**/9, **mb1mx3.8**/18, **ML4.3**/1, **Error ellipse: s-maj=57.5km s-min=30.4km az=57.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.02	10	Pn	P	11 21 04.0	-3.2
	0.5nm,0.3s,baz=211,slow=14,SNR=5.1						
SONM	Songino Array	42.94	10	P	P	11 25 59.6	-0.9
	0.2nm,0.4s,baz=207,slow=6.4,SNR=3.0						
WRA	Warramunga Arr	44.89	125	P	P	11 26 14.6	-2.1
	0.3nm,0.5s,baz=304,slow=9.0,SNR=3.4						
ZAL	Zalesovo	49.19	351	P	P	11 26 46.9	-3.0
	2.1nm,0.5s,baz=287,slow=8.3,SNR=11						
FINES	FINESS Array B	75.91	332	P	P	11 29 45.1	-3.1
	2.0nm,0.9s,baz=100,slow=8.5,SNR=3.5						
ARCES	ARCESS Array B	78.28	340	P	P	11 30 01.1	-0.1
	1.0nm,0.8s,baz=108,slow=5.7,SNR=2.8						
GERES	GERESS Array B	81.20	318	P	P	11 30 15.9	-1.5
	0.6nm,0.7s,baz=108,slow=6.2,SNR=3.0						
HFS	Hagfors	81.70	330	P	P	11 30 18.8	-0.8
	2.0nm,0.7s,baz=90,slow=7.4,SNR=5.6						
NOA	NORSAR Array B	82.96	331	P	P	11 30 25.0	-1.2
	1.0nm,0.8s,baz=97,slow=5.4,SNR=2.7						

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*NEIC **27** 11:18:11.7±0.7, 9.46N×92.84E, h30^{km}, Error ellipse: s-maj=20.9km s-min=11.3km az=70.0*

*IDC **27** 11:18:15.7±7.8, 9.56N×92.99E, h64^{km}±67^{km}, mb3.7/9, mb1 3.8/10, mb1mx3.6/20, ML4.0/1, Error ellipse: s-maj=59.1km s-min=15.7km az=60.0*

ISC 27 11:18:09.8±0.8, **9.5N**±0.1×**92.9E**±0.2, **h30**^{km}**, n12,** σ**0ˢ61**/12, **mb4.0**/9, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.65	33	P	P	11 20 43.7	0.0
	0.3nm,0.3s,baz=219,slow=12,SNR=2.1						
SONM	Songino Array	39.87	14	P	P	11 25 42.6	0.0
	0.9nm,0.8s,mb3.6,baz=195,slow=8.4,SNR=7.2						
ZAL	Zalesovo	44.80	353	P	P	11 26 23.7	+0.9
	0.7nm,0.3s,mb4.0,baz=256,slow=4.5,SNR=2.5						
ZAL	Zalesovo	44.80	353	P	P	11 26 23.7	+0.9
NWAO	Narrogin (SRO)	48.13	152	P	P	11 26 49.7	+0.5
	14nm,1.1s,mb4.9,baz=25,slow=22,SNR=2.9						
NWAO	Narrogin (SRO)	48.13	152	P	P	11 26 49.7	+0.4
WRA	Warramunga Arr	50.17	126	P	P	11 27 05.2	+0.1
	0.4nm,0.5s,mb3.7,baz=304,slow=8.7,SNR=5.0						
ASAR	Alice Springs	51.87	130	P	P	11 27 18.1	+0.1
	0.2nm,0.6s,mb3.2,baz=305,slow=7.9,SNR=2.7						
CTA	Charters Tower	60.14	120	P	P	11 28 16.8	-0.6
	3.4nm,1.0s,mb4.3,baz=131,slow=3.5,SNR=2.5						
FINES	FINESS Array B	70.73	332	P	P	11 29 25.1	+0.1
	1.2nm,0.5s,mb4.0,baz=108,slow=6.0,SNR=7.8						
ARCES	ARCESS Array B	73.35	340	P	P	11 29 38.8	-1.5
	4.7nm,1.2s,mb4.3,baz=90,slow=6.1,SNR=7.0						
GERES	GERESS Array B	75.83	318	P	P	11 29 55.3	+0.3
	0.6nm,0.8s,mb3.6,baz=90,slow=5.3,SNR=3.8						

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*IDC **27** 11:19:00.8±0.9, 6.01N×94.91E, mb4.1/14, mb1 4.2/15, mb1mx4.2/23, ML4.8/1, Error ellipse: s-maj=35.0km s-min=19.9km az=45.0*

*NEIC **27** 11:19:05.4±0.5, 6.03N×94.94E, h30^{km}, mb4.2/5, Error ellipse: s-maj=12.8km s-min=10.0km az=55.0*

ISC 27 11:19:03.6±0.7, **6.1N**±0.1×**95.0E**±0.1, **h30**^{km}**, n23,** σ**0ˢ66**/23, **mb4.1**/19, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.93	17	Pn	P	11 22 08.2	+0.1
	1.4nm,0.3s,baz=207,slow=14,SNR=11						
BJT	Baijiatuau	38.82	26	P	P	11 26 27.7	-0.1
	4.2nm,0.4s,mb4.5						
AAK	Ala-Archa	40.68	337	*e*P	P	11 26 42.7	-0.4
	4.3nm,0.9s,mb4.1						
SONM	Songino Array	42.76	11	P	P	11 27 00.1	-0.1
	2.7nm,0.9s,mb4.0,baz=192,slow=7.0,SNR=13						
ULN	Ulaanbaatar	42.92	12	*e*P	P	11 27 02.0	+0.6
	1.5nm,0.6s,mb3.9						
WRA	Warramunga Arr	46.56	125	P	P	11 27 31.3	+0.4
	0.8nm,0.8s,mb3.7,baz=304,slow=8.4,SNR=3.4						
ASAR	Alice Springs	48.14	129	P	P	11 27 42.5	-0.8
	1.4nm,0.8s,mb4.0,baz=301,slow=6.7,SNR=7.5						
ZAL	Zalesovo	48.45	352	P	P	11 27 45.0	-0.3
	1.2nm,0.8s,mb4.0,baz=289,slow=7.8,SNR=4.7						
ZAL	Zalesovo	48.45	352	P	P	11 27 45.0	-0.3
BVAR	Borovoye Array	50.96	341	P	P	11 28 04.4	0.0
	2.2nm,1.0s,mb4.0,baz=135,slow=4.2,SNR=5.2						
BRVK	Borovoye	51.02	341	P	P	11 28 04.7	-0.2
	2.2nm,0.9s,mb4.1						
CHKZ	Chkalovo	51.44	342	*e*P	P	11 28 07.2	-0.9
	3.9nm,0.9s,mb4.3						
ASF	Jabal al Asfar	59.88	304	P	P	11 29 09.6	+0.3
	1.5nm,0.5s,mb4.3,baz=158,slow=4.0,SNR=2.6						
BRTR	Keskin Array B	64.22	311	P	P	11 29 37.3	-1.0
	1.5nm,0.8s,mb4.1,baz=112,slow=6.7,SNR=4.8						
AKASG	Malin Array Be	70.07	322	P	P	11 30 14.2	-0.7
	0.8nm,0.5s,mb3.9,baz=78,slow=4.9,SNR=4.3						
IDI	Anoyia	70.26	305	P	P	11 30 16.6	+0.2
	9.9nm,0.7s,mb4.8,baz=282,slow=6.3,SNR=3.6						
MLR	Muntele Rosu	71.03	316	P	P	11 30 20.2	-0.6
	3.1nm,0.9s,mb4.2,baz=177,slow=7.4,SNR=3.4						
MLR	Muntele Rosu	71.03	316	P	P	11 30 20.2	-0.7
FINES	FINESS Array B	74.68	332	P	P	11 30 41.8	-0.2
	1.2nm,0.5s,mb4.1,baz=106,slow=4.0,SNR=7.8						
ARCES	ARCESS Array B	77.24	340	P	P	11 30 57.5	+1.3
	2.8nm,1.0s,mb4.2,baz=90,slow=6.1,SNR=7.2						
GERES	GERESS Array B	79.71	318	P	P	11 31 11.3	+1.1
	1.5nm,0.9s,mb3.9,baz=243,slow=3.0,SNR=7.8						
HFS	Hagfors	80.42	330	P	P	11 31 13.9	+0.1
	3.7nm,1.0s,mb4.3,baz=80,slow=8.8,SNR=3.6						
DAVOX	Davos	82.25	316	P	P	11 31 25.1	+1.5

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*BJI **27** 11:19:43.3, 4.32N×94.40E, h57^{km}, mb4.8*

*NEIC **27** 11:19:45.8±0.5, 4.63N×94.74E, h30^{km}, mb4.5/6, Error ellipse: s-maj=12.4km s-min=10.2km az=74.0*

*IDC **27** 11:19:48.0±6.8, 4.77N×94.83E, h46^{km}±63^{km}, mb4.0/14, mb1 4.1/15, mb1mx4.0/23, Error ellipse: s-maj=35.5km s-min=16.9km az=50.0*

ISC 27 11:19:47.8±4.5, **4.7N**±0.1×**94.8E**±0.1, **h62**^{km}±37^{km}**, n30,** σ**0ˢ84**/28, **mb4.3**/23, **1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.24	16	Pn	P	11 23 08.4	+0.6
	5.0nm,0.4s						
CMAR	Chiang Mai Arr	14.24	16	P	P	11 23 07.6	-0.2
	baz=204,slow=11,SNR=2.6						
GYA	Guiyang	24.41	26	⇑*i*P	P	11 25 02.8	+1.0
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
LSA	Lhasa	25.09	352	*e*P	P	11 25 08.7	+0.4
	comp=Z,7.1nm,0.6s,mb4.4						
XAN	Xi’an	31.98	22	P	P	11 26 08.5	-1.9
XAN				AMB	AMB		
	comp=Z,17nm,0.7s,mb5.0						
GTA	Gaotai	34.83	7	*e*P	P	11 26 34.5	-0.4
GTA				AP	pP	11 26 45.5	-4.8
GTA				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.9						
JOW	Kunigami	38.77	52	P	P	11 27 09.2	+1.1
	comp=Z,7.3nm,0.6s,mb4.6,baz=295,slow=23,SNR=4.1						
BJT	Baijiatuau	40.07	26	*e*P	P	11 27 19.6	+0.8
	comp=Z,7.9nm,0.7s,mb4.5						
AAK	Ala-Archa	41.85	337	*e*P	P	11 27 33.6	+0.2
	comp=Z,2.0nm,0.6s,mb3.9						
SONM	Songino Array	44.09	11	P	P	11 27 51.1	-0.5
	comp=Z,2.1nm,0.8s,mb3.9,baz=192,slow=8.3,SNR=12						
WRA	Warramunga Arr	45.93	124	P	P	11 28 05.6	-1.0
	comp=Z,2.8nm,0.6s,mb4.4,baz=302,slow=9.2,SNR=12						
ASAR	Alice Springs	47.41	128	P	P	11 28 18.4	+0.2
	comp=Z,1.3nm,0.6s,mb4.0,baz=298,slow=7.4,SNR=6.7						
ZAL	Zalesovo	49.74	352	P	P	11 28 34.0	-1.9
	comp=Z,3.5nm,0.5s,mb4.6,baz=301,slow=5.8,SNR=11						
BVAR	Borovoye Array	52.17	342	P	P	11 28 53.6	-0.6
	comp=Z,2.1nm,0.4s,mb4.5,baz=143,slow=7.4,SNR=13						
BRVK	Borovoye	52.23	342	*e*P	P	11 28 54.0	-0.7
	comp=Z,2.9nm,0.4s,mb4.6						
CHKZ	Chkalovo	52.66	342	*e*P	P	11 28 57.7	-0.3
	comp=Z,9.9nm,0.7s,mb4.8						
BRTR	Keskin Array B	65.00	312	P	P	11 30 23.1	-0.7
	comp=Z,2.1nm,0.7s,mb4.2,baz=128,slow=7.5,SNR=6.8						
IDI	Anoyia	70.92	306	P	P	11 31 01.5	+0.8
	comp=Z,5.8nm,0.7s,mb4.6,baz=19,slow=19,SNR=3.2						
AKASG	Malin Array Be	71.04	322	P	P	11 30 59.9	-1.2
	comp=Z,0.9nm,0.4s,mb4.0,baz=88,slow=5.3,SNR=6.9						
MLR	Muntele Rosu	71.89	316	P	P	11 31 07.2	+0.9
	comp=Z,1.3nm,0.7s,mb4.0,baz=157,slow=21,SNR=2.8						
MLR	Muntele Rosu	71.89	316	P	P	11 31 07.2	+0.9
FINES	FINESS Array B	75.80	332	P	P	11 31 28.6	-0.1
	comp=Z,2.0nm,0.8s,mb4.1,baz=101,slow=7.7,SNR=5.1						
MORC	Moravsky Berou	78.20	320	*e*P	P	11 31 43.5	+1.2
	comp=Z,1.5nm,0.6s,mb4.1						
ARCES	ARCESS Array B	78.44	340	P	P	11 31 43.8	+0.5
	comp=Z,1.0nm,0.4s,mb4.1,baz=100,slow=6.8,SNR=18						
GERES	GERESS Array B	80.62	319	P	P	11 31 56.3	+0.9
	comp=Z,1.6nm,0.9s,mb4.0,baz=90,slow=5.3,SNR=7.8						
HFS	Hagfors	81.50	330	P	P	11 32 00.1	+0.2
	comp=Z,0.9nm,0.5s,mb4.0,baz=135,slow=6.1,SNR=4.3						
INK	Inuvik	99.81	16	P	P	11 33 26.5	+0.3
	slow=2.0						
INK	Inuvik	99.81	16	P	P	11 33 26.5	+0.2
TXAR	Lajitas Array	141.77	27	PKhKP		11 39 10.5	
	comp=Z,0.5nm,1.1s,baz=340,slow=0.6,SNR=3.2						
CPUP	Villa Florida	145.78	228	PKPbc	PKPbc	11 39 23.4	+2.4
	comp=Z,0.0nm,0.4s,baz=214,slow=19,SNR=2.6						

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*IDC **27** 11:20:34.0±0.8, 5.26N×93.62E, mb4.2/10, mb1 4.3/11, mb1mx4.1/19, Error ellipse: s-maj=43.4km s-min=17.5km az=54.0*

*NEIC **27** 11:20:38.3±0.5, 5.14N×93.54E, h30^{km}, mb4.5/3, Error ellipse: s-maj=18.8km s-min=10.5km az=65.0*

ISC 27 11:20:36.0±0.8, **5.1N**±0.1×**93.5E**±0.2, **h30**^{km}**, n18,** σ**0ˢ86**/15, **mb4.2**/13, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.29	21	Pn	P	11 23 58.5	-0.1
	baz=217,slow=14,SNR=2.6						
LSA	Lhasa	24.56	355	*e*P	P	11 25 57.3	+2.6
	28nm,1.2s,mb4.7						
SONM	Songino Array	43.98	13	P	P	11 28 41.9	-0.5
	2.9nm,1.0s,mb4.0,baz=196,slow=9.0,SNR=7.9						
WRA	Warramunga Arr	47.24	123	P	P	11 29 08.7	0.0
	8.2nm,0.6s,mb4.8,baz=301,slow=9.0,SNR=14						
ASAR	Alice Springs	48.69	128	P	P	11 29 19.4	-0.5
	2.9nm,1.0s,mb4.3,baz=302,slow=7.5,SNR=5.0						
ASAR				PcP	PcP	11 30 46.2	+1.0
	1.1nm,0.9s,baz=300,slow=4.0,SNR=4.1						
ZAL	Zalesovo	49.19	353	P	P	11 29 23.5	+0.1
	1.8nm,0.7s,mb4.2,baz=288,slow=7.5,SNR=7.2						
BVAR	Borovoye Array	51.40	342	P	P	11 29 39.4	-0.8
	1.4nm,0.7s,mb4.0,baz=146,slow=10,SNR=2.2						
BRVK	Borovoye	51.46	342	P	P	11 29 40.2	-0.5
	3.2nm,1.0s,mb4.2						
CHKZ	Chkalovo	51.90	343	*e*P	P	11 29 43.7	-0.3
	2.5nm,0.4s,mb4.5						
ARU	Arti	58.18	338	P	P	11 30 29.5	-0.1
STKA	Stephens Creek	58.70	132	P	P	11 30 34.1	+0.6
	2.0nm,0.8s,mb4.2,baz=333,slow=4.5,SNR=2.6						
BRTR	Keskin Array B	63.77	312	P	P	11 31 07.2	-0.5
	1.3nm,0.8s,mb4.0,baz=121,slow=7.2,SNR=4.4						
FINES	FINESS Array B	74.85	333	P	P	11 32 14.2	-1.2
	3.3nm,0.9s,mb4.3,baz=108,slow=8.8,SNR=2.9						
ARCES	ARCESS Array B	77.64	340	P	P	11 32 31.6	+0.8
	1.6nm,0.8s,mb4.0,baz=95,slow=6.8,SNR=7.2						
GERES	GERESS Array B	79.46	319	P	P	11 32 42.8	+1.6
	0.4nm,0.7s,mb3.5,baz=124,slow=4.8,SNR=4.0						
TXAR	Lajitas Array	141.99	25	PKhKP		11 40 04.4	
	0.2nm,0.8s,baz=315,slow=3.8,SNR=2.6						
CPUP	Villa Florida	145.04	230	PKPbc	PKPbc	11 40 14.3	+2.8
	0.0nm,0.3s,baz=54,slow=11,SNR=2.2						
CPUP	Villa Florida	145.04	230	PKPbc	PKPbc	11 40 14.3	+2.8

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*IDC **27** 11:30:39.4±0.6, 7.73N×92.63E, mb4.2/16, mb1 4.3/17, mb1mx4.3/22, ML4.8/1, MS4.4/6, Ms1 4.5/6, ms1mx4.0/26, Error ellipse: s-maj=29.6km s-min=14.6km az=48.0*

*BJI **27** 11:30:41.7, 7.14N×92.42E, h49^{km}, mB5.2, mb4.8, Ms4.9, Msz4.7*

*NEIC **27** 11:30:43.6±0.4, 7.55N×92.43E, h30^{km}, mb4.7/15, Error ellipse: s-maj=9.9km s-min=8.8km az=28.0*

ISC 27 11:30:38.5±3.2, **7.43N**±0.07×**92.37E**±0.06, **h15**^{km}±22^{km}**, n63,** σ**1ˢ13**/55, **mb4.6**/41, **MS4.6**/8, **1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	11.57	270	*e*Pn	P	11 33 25.5	-0.8
	12nm,0.6s						
CM31	Chiang Mai Arr	12.69	30	Pn	P	11 33 40.0	-1.3
	12nm,0.6s						
CMAR	Chiang Mai Arr	12.69	30	Pn	P	11 33 41.4	+0.1
	1.9nm,0.3s,baz=232,slow=14,SNR=32						
CMAR				LR	LR	11 39 27.8	
	comp=Z,759nm,19.1s,baz=215,slow=43						
CMAR	Chiang Mai Arr	12.69	30	Pn	P	11 33 41.4	+0.1
CMAR				LR	LR	11 39 27.8	
CHG	Chiang Mai	13.00	29	⇑P	P	11 33 48.6	+3.2
	12nm,1.0s						
NANT	Nan	13.90	35	P	P	11 34 01.0	+3.5
HYB	Hyderabad	16.73	308	*e*P	P	11 34 35.0	+0.9
HYB	Hyderabad	16.73	308	*i* P	P	11 34 35.0	+0.9
KMI	Kunming	20.19	28	P	P	11 35 18.0	+2.5
KMI				AMB	AMB		
	comp=Z,34nm,1.2s						
PKI	Pulchoki	21.09	343	*e*P	P	11 35 25.1	+0.3
	comp=Z,56nm,0.5s,mb5.2						
DMN	Daman	21.21	342	*e*P	P	11 35 26.6	+0.6
	comp=Z,45nm,0.6s,mb5.0						
GUN	Gumba	21.27	344	*e*P	P	11 35 26.1	-0.5
	comp=Z,181nm,1.1s,mb5.3						
KKN	Kakani	21.33	343	*e*P	P	11 35 27.8	+0.6
	comp=Z,104nm,1.2s,mb5.0						
GKN	Gorkha	21.73	341	*e*P	P	11 35 31.6	+0.4
	comp=Z,136nm,1.2s,mb5.3						
KOLN	Koldanda	21.86	339	*e*P	P	11 35 33.3	+0.7
	comp=Z,135nm,1.3s,mb5.2						
LSA	Lhasa	22.18	357	*e*P	P	11 35 38.2	+2.5
	comp=Z,29nm,1.1s,mb4.6						
GYA	Guiyang	23.30	34	⇓*i*P	P	11 35 48.8	+1.9
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.4						
CD2	Chengdu	25.68	23	P	P	11 36 11.5	+1.9
CD2				AMB	AMB		
	comp=Z,30nm,0.9s,mb4.8						
ENH	Enshi	27.82	33	*e*P	P	11 36 28.3	-1.1
	comp=Z,30nm,1.1s,mb4.8						
TGY	Tagaytay City	28.82	74	LR	LR	11 48 26.7	
	comp=Z,1µm,18.3s,MS4.6,baz=226,slow=38						
LZH	Lanzhou	30.39	19	*e*P	P	11 36 53.0	+0.7
LZH				AMB	AMB		
	comp=Z,36nm,1.7s,mb4.8						
GTA	Gaotai	32.53	11	*e*P	P	11 37 11.5	+0.4
GTA				AMB	AMB		
	comp=Z,27nm,1.8s,mb4.9						
GTA				AMB	AMB		
	comp=Z,335nm,3.0s						
GTA				LR	LR		
	comp=N,1µm,14.5s,MS4.8						
GTA				LR	LR		
	comp=E,1µm,16.0s,MS4.8						
GTA				LR	LR		
	comp=Z,1µm,16.4s,MS4.7						
NJ2	Nanjing	34.76	42	*e*P	P	11 37 29.5	-0.9
NJ2				AP	pP	11 37 39.0	+4.1
NJ2				S	S	11 42 48.0	-11
NJ2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,842nm,6.0s						
NJ2				LR	LR		
	comp=N,2µm,12.5s						
NJ2				LR	LR		
	comp=E,2µm,20.2s						
NJ2				LR	LR		
	comp=Z,2µm,11.8s,MS5.0						
HHC	Hu-ho-hao-te	37.42	24	*e*P	P	11 37 54.0	+1.2
HHC				XP	sP	11 38 08.8	+10
HHC				PP	PP	11 39 25.5	+4.7
HHC				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
HHC				AMB	AMB		
	comp=Z,201nm,7.1s						
AAK	Ala-Archa	38.44	339	*e*P	P	11 38 02.4	+1.0
	comp=Z,46nm,1.5s,mb5.0						
BJI	Beijing	38.84	30	P	P	11 38 05.0	+0.2
BJI				LR	LR		
	comp=Z,457nm,20.8s,MS4.3						
JOW	Kunigami	39.16	56	LR	LR	11 58 28.4	
	comp=Z,662nm,18.3s,MS4.5,baz=295,slow=43						
SONM	Songino Array	41.99	14	P	P	11 38 30.8	+0.1
	comp=Z,5.3nm,1.1s,mb4.1,baz=198,slow=8.1,SNR=15						
ZAL	Zalesovo	46.77	354	P	P	11 39 08.4	-0.6
	comp=Z,1.2nm,0.5s,mb4.1,baz=254,slow=3.0,SNR=8.3						
BVAR	Borovoye Array	48.86	343	P	P	11 39 24.3	-1.0
	comp=Z,1.8nm,0.7s,mb4.2,baz=141,slow=9.5,SNR=8.9						
BRVK	Borovoye	48.92	342	*e*P	P	11 39 25.9	+0.1
	comp=Z,9.9nm,1.2s,mb4.7						
CHKZ	Chkalovo	49.36	343	*e*P	P	11 39 28.8	-0.4
	comp=Z,27nm,1.3s,mb5.1						
WRA	Warramunga Arr	49.45	124	P	P	11 39 30.8	+0.4
	comp=Z,6.1nm,1.0s,mb4.6,baz=303,slow=8.6,SNR=20						
WRAB	Tennant Creek	49.46	124	*e*P	P	11 39 31.0	+0.6
	comp=Z,37nm,1.4s,mb5.2						
ASAR	Alice Springs	51.00	129	P	P	11 39 42.6	+0.5
	comp=Z,3.0nm,0.7s,mb4.3,baz=309,slow=7.5,SNR=14						
ASAR				PcP	PcP	11 40 59.8	+1.3
	comp=Z,1.3nm,0.6s,baz=307,slow=3.9,SNR=2.6						
GNI	Garni	53.49	315	P	P	11 40 03.0	+2.4
	comp=Z,4.3nm,0.6s,mb4.5,baz=292,slow=20,SNR=3.5						
GNI				LR	LR	12 05 35.9	
	comp=Z,218nm,20.7s,MS4.2,baz=92,slow=39						
GNI	Garni	53.49	315	*e*P	P	11 40 01.0	+0.4
	comp=Z,6.5nm,0.7s,mb4.7						
GNI				LR	LR	12 05 35.9	
KMBO	Kilima Mbogo	55.62	264	P	P	11 40 20.8	+4.2
	comp=Z,0.7nm,0.6s,mb3.9,baz=51,slow=24,SNR=3.9						
KMBO				LR	LR	12 00 12.7	
	comp=Z,760nm,19.8s,MS4.8,baz=278,slow=32						
KMBO	Kilima Mbogo	55.62	264	*e*P	P	11 40 19.6	+3.0
	comp=Z,4.6nm,1.1s,mb4.4						
KMBO				LR	LR	12 00 12.7	
ASF	Jabal al Asfar	56.98	304	LR	LR	12 07 13.0	
	comp=Z,294nm,18.4s,MS4.4,baz=339,slow=38						
MALT	Malatya	57.41	311	P	P	11 40 30.1	+1.1
	comp=Z,1.9nm,0.5s,mb4.4						
EIL	Elat	58.12	300	P	P	11 40 35.7	+1.7
	comp=Z,6.3nm,0.8s,mb4.7						
CTA	Charters Tower	59.64	118	P	P	11 40 45.6	+0.9
	comp=Z,2.0nm,0.8s,mb4.2,baz=309,slow=6.5,SNR=2.6						

STKA	**Stephens Creek**	61.09	133	P	**P**	**11 40 54.3**	**-0.2**
	comp=Z,4.2nm,1.0s,mb4.5,baz=315,slow=10.0,SNR=2.8						
BRTR	**Keskin Array B**	61.39	311	P	**P**	**11 40 57.2**	**+0.8**
	comp=Z,0.8nm,0.6s,mb4.1,baz=113,slow=8.0,SNR=4.0						
BRTR				PP	PP	11 43 10.9	-2.9
	comp=Z,1.2nm,0.7s,baz=104,slow=5.1,SNR=4.4						
AKASG	**Malin Array Be**	67.41	322	P	**P**	**11 41 35.4**	**-0.1**
	comp=Z,0.2nm,0.2s,mb3.7,baz=92,slow=4.5,SNR=5.2						
FINES	**FINESS Array B**	72.28	332	P	**P**	**11 42 04.0**	**-1.0**
	comp=Z,1.9nm,0.9s,mb4.0,baz=108,slow=6.0,SNR=5.2						
LBTB	**Lobatse**	72.49	241	*e*P	**P**	**11 42 08.7**	**+1.7**
	comp=Z,9.7nm,1.3s,mb4.6						
MORC	**Moravsky Berou**	74.56	320	*e*P	**P**	**11 42 19.3**	**+0.8**
	comp=Z,18nm,1.6s,mb4.8						
ARCES	**ARCESS Array B**	75.09	340	P	**P**	**11 42 21.5**	**+0.3**
	comp=Z,1.3nm,0.8s,mb3.9,baz=104,slow=7.4,SNR=3.0						
BRG	**Berggiesshubel**	76.97	320	*e*P	**P**	**11 42 36.2**	**+4.0**
	comp=Z,13nm,1.6s,mb4.6						
GERES	**GERESS Array B**	76.98	318	P	**P**	**11 42 32.9**	**+0.6**
	comp=Z,1.7nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=13						
BILL	**Bilibino**	77.14	22	*e*P	**P**	**11 42 33.8**	**+0.9**
	comp=Z,1.6nm,0.4s,mb4.3						
CLL	**Collm**	77.59	321	P	**P**	**11 42 37.0**	**+1.4**
LPL	**La Plagne**	81.69	315	*e*P	**P**	**11 43 01.5**	**+3.7**
	comp=Z,32nm,1.1s,mb4.9						
ESDC	**Sonseca Array**	90.15	310	P	**P**	**11 43 42.5**	**+2.7**
	comp=Z,0.2nm,0.3s,mb3.9,baz=90,slow=7.7,SNR=4.0						
INK	**Inuvik**	97.89	16	P	**P**	**11 44 15.5**	**+1.0**
	comp=Z,1.0nm,0.7s,mb4.4,baz=310,slow=4.4,SNR=4.7						
YKA	**Yellowknife Ar**	107.25	13	PP	PP	11 49 20.6	-6.1
	comp=Z,0.4nm,0.8s,baz=332,slow=7.5,SNR=6.1						
NVAR	**Mina Array Bea**	126.19	30	PKP	PKPdf	11 49 45.0	+0.4
	comp=Z,1.9nm,0.9s,baz=32,slow=2.1,SNR=6.6						
PDAR	**Pinedale Array**	126.19	20	PKP	PKPdf	11 49 45.0	+0.5
	comp=Z,1.0nm,1.0s,slow=1.5,SNR=5.5						
TXAR	**Lajitas Array**	140.32	22	PKhKP		11 50 07.2	
	comp=Z,0.1nm,0.6s,baz=270,slow=0.9,SNR=2.9						
TXAR				PKP	PKPdf	11 50 11.8	+0.5
	comp=Z,0.3nm,0.5s,baz=183,slow=0.4,SNR=6.8						
TXAR	**Lajitas Array**	140.32	22	PKP	PKPdf	11 50 07.2	-4.1
TXAR				PKP	PKPdf	11 50 11.8	+0.5
CPUP	**Villa Florida**	145.59	233	PKPbc	PKPbc	11 50 22.6	+4.9
	comp=Z,0.0nm,0.3s,baz=326,slow=14,SNR=1.6						

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*NEIC **27** 11:38:52.8±0.6, 10.94N×91.47E, h30^{km}, mb4.4/5, Error ellipse: s-maj=15.6km s-min=10.2km az=51.0*

*BJI **27** 11:38:52.7, 11.03N×92.01E, h14^{km}, mB5.1, mb4.4, Ms5.0, Msz4.5*

*IDC **27** 11:38:54.8±6.5, 10.98N×91.52E, h44^{km}±58^{km}, mb3.7/12, mb1 3.8/13, mb1mx3.7/20, ML3.9/1, Error ellipse: s-maj=48.8km s-min=15.1km az=52.0*

ISC 27 11:38:50.8±0.7**, 10.94N**±0.10×**91.5E**±0.1**, h30^{km}, n20, σ0.^{s}83**/21**, mb4.2**/18**, MS4.7**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	10.37	43	P	**P**	**11 41 20.6**	**-0.2**
	0.3nm,0.3s,baz=235,slow=14,SNR=7.4						
LSA	**Lhasa**	18.67	359	*e*P	**P**	**11 43 09.7**	**+0.8**
	6.9nm,0.6s						
ENH	**Enshi**	25.49	38	*e*P	**P**	**11 44 16.6**	**-1.6**
	31nm,0.8s,mb4.9						
ENH				*e*pP	pP	11 44 23.2	-3.8
LZH	**Lanzhou**	27.42	22	*e*P	**P**	**11 44 39.8**	**+3.8**
LZH				AP	pP	11 44 42.5	-2.3
LZH				XP	sP	11 44 44.3	-4.4
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb4.6						
AAK	**Ala-Archa**	34.90	338	*e*P	**P**	**11 45 41.4**	**-0.4**
	comp=Z,4.1nm,1.1s,mb4.3						
SONM	**Songino Array**	38.85	16	P	**P**	**11 46 15.2**	**+0.1**
	comp=Z,1.6nm,0.7s,mb3.9,baz=205,slow=8.4,SNR=9.3						
ZAL	**Zalesovo**	43.22	354	P	**P**	**11 46 50.9**	**0.0**
	comp=Z,0.5nm,0.7s,mb3.4,baz=318,slow=13,SNR=3.3						
CN2	**Changchun**	43.95	36	*e*P	**P**	**11 47 02.3**	**+5.4**
CN2				*e*S	**S**	**11 53 31.5**	**+5.4**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
CN2				LR	LR		
	comp=N,700nm,14.0s,MS4.9						
CN2				LR	LR		
	comp=E,770nm,14.0s,MS4.9						
CN2				LR	LR		
	comp=Z,440nm,15.0s,MS4.5						
BVAR	**Borovoye Array**	45.29	342	P	**P**	**11 47 07.6**	**+0.1**
	comp=Z,0.7nm,0.7s,mb3.6,baz=141,slow=9.5,SNR=3.8						
CHKZ	**Chkalovo**	45.79	343	*e*P	**P**	**11 47 12.3**	**+0.8**
	comp=Z,5.2nm,1.0s,mb4.4						
GNI	**Garni**	50.46	314	P	**P**	**11 47 46.9**	**-1.2**
	comp=Z,2.8nm,0.5s,mb4.5						
WRA	**Warramunga Arr**	52.14	126	P	**P**	**11 48 01.1**	**+0.1**
	comp=Z,0.6nm,0.3s,mb4.0,baz=300,slow=10,SNR=25						
ASAR	**Alice Springs**	53.86	130	P	**P**	**11 48 13.8**	**+0.1**
	comp=Z,1.2nm,0.9s,mb3.8,baz=312,slow=7.0,SNR=12						
BRTR	**Keskin Array B**	58.48	310	P	**P**	**11 48 47.4**	**+0.7**
	comp=Z,2.7nm,1.1s,mb4.2,baz=112,slow=6.7,SNR=5.1						
PMG	**Port Moresby**	58.92	108	P	**P**	**11 48 49.5**	**-0.5**
	comp=Z,5.0nm,0.8s,mb4.6,baz=331,slow=9.3,SNR=4.4						
STKA	**Stephens Creek**	64.08	133	P	**P**	**11 49 25.2**	**+0.6**
	comp=Z,1.3nm,0.7s,mb4.1,baz=319,slow=12,SNR=3.7						
FINES	**FINESS Array B**	68.81	332	P	**P**	**11 49 53.5**	**-0.7**
	comp=Z,1.8nm,0.8s,mb4.0,baz=117,slow=8.5,SNR=5.1						
ARCES	**ARCESS Array B**	71.53	340	P	**P**	**11 50 11.5**	**+0.9**
	comp=Z,6.6nm,1.1s,mb4.5,baz=90,slow=7.3,SNR=4.8						
GERES	**GERESS Array B**	73.83	318	P	**P**	**11 50 23.2**	**-1.2**
	comp=Z,0.2nm,0.2s,mb3.6,baz=104,slow=8.1,SNR=3.5						
ILAR	**Eielson Array**	92.88	21	P	**P**	**11 52 03.1**	**+1.4**
	comp=Z,0.3nm,0.8s,mb3.8,baz=297,slow=4.0,SNR=3.4						

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*IDC **27** 11:45:26.4±1.2, 5.56N×93.16E, mb3.8/9, mb1 3.9/10, mb1mx3.8/20, ML3.9/1, Error ellipse: s-maj=53.5km s-min=18.8km az=53.0*

*NEIC **27** 11:45:30.9±0.7, 5.55N×93.18E, h30^{km}, Error ellipse: s-maj=22.8km s-min=11.8km az=62.0*

ISC 27 11:45:29.1±0.9**, 5.6N**±0.1×**93.2E**±0.2**, h30^{km}, n12, σ0.^{s}65**/12**, mb3.8**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	13.96	23	Pn	**P**	**11 48 47.7**	**+0.3**
	0.2nm,0.3s,baz=228,slow=14,SNR=3.3						
SONM	**Songino Array**	43.59	13	P	**P**	**11 53 32.1**	**-0.2**
	0.5nm,0.8s,mb3.3,baz=196,slow=7.4,SNR=3.7						
WRA	**Warramunga Arr**	47.71	123	P	**P**	**11 54 05.3**	**-0.2**
	1.0nm,0.6s,mb4.0,baz=302,slow=9.3,SNR=6.0						
ZAL	**Zalesovo**	48.70	353	P	**P**	**11 54 12.4**	**-0.2**
	0.9nm,0.5s,mb4.0,baz=295,slow=2.0,SNR=5.2						
ASAR	**Alice Springs**	49.17	128	P	**P**	**11 54 16.0**	**-0.7**
	0.3nm,0.5s,mb3.5,baz=300,slow=7.9,SNR=3.5						
BVAR	**Borovoye Array**	50.88	342	P	**P**	**11 54 28.5**	**-0.9**
	0.8nm,0.7s,mb3.8,baz=135,slow=8.4,SNR=4.8						
CTA	**Charters Tower**	58.00	118	P	**P**	**11 55 22.7**	**+0.9**
	4.7nm,1.2s,mb4.4,baz=201,slow=2.5,SNR=2.5						
FINES	**FINESS Array B**	74.32	333	P	**P**	**11 57 04.7**	**-0.6**
	1.4nm,0.8s,mb3.9,baz=117,slow=8.5,SNR=3.5						
FINES	**FINESS Array B**	74.32	333	P	**P**	**11 57 04.7**	**-0.6**
ARCES	**ARCESS Array B**	77.12	340	P	**P**	**11 57 21.7**	**+0.6**
	0.8nm,0.6s,mb3.9,baz=90,slow=4.9,SNR=7.7						
ARCES	**ARCESS Array B**	77.12	340	P	**P**	**11 57 21.7**	**+0.6**
GERES	**GERESS Array B**	78.94	319	P	**P**	**11 57 32.6**	**+1.1**
	0.2nm,0.3s,mb3.5,baz=90,slow=5.3,SNR=6.3						

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*NEIC **27** 11:47:13.7±0.5, 5.64N×93.24E, h30^{km}, mb4.3/4, Error ellipse: s-maj=17.1km s-min=9.9km az=66.0*

*IDC **27** 11:47:16.3±7.4, 5.75N×93.36E, h51^{km}±64^{km}, mb3.8/12, mb1 4.0/13, mb1mx3.9/19, ML4.1/1, Error ellipse: s-maj=46.2km s-min=16.2km az=54.0*

ISC 27 11:47:13.4±7.2**, 5.6N**±0.2×**93.3E**±0.3**, h47^{km}**±61^{km}**, n31, σ0.^{s}76**/25**, mb4.3**/20**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	13.93	23	P	**P**	**11 50 29.7**	**-0.5**
	0.3nm,0.3s,baz=218,slow=13,SNR=4.5						
PKI	**Pulchoki**	23.10	342	*e*P	**P**	**11 52 17.0**	**+0.8**
	27nm,0.5s,mb4.9						
DMN	**Daman**	23.23	341	*e*P	**P**	**11 52 17.2**	**-0.2**
	38nm,0.6s,mb5.0						
GUN	**Gumba**	23.28	343	*e*P	**P**	**11 52 17.9**	**0.0**
	34nm,0.7s,mb4.9						
KKN	**Kakani**	23.34	342	*e*P	**P**	**11 52 19.1**	**+0.6**
GKN	**Gorkha**	23.75	341	*e*P	**P**	**11 52 22.7**	**+0.3**
KOLN	**Koldanda**	23.89	338	*e*P	**P**	**11 52 24.0**	**+0.2**
	32nm,0.6s,mb5.0						
LSA	**Lhasa**	24.06	355	*e*P	**P**	**11 52 27.1**	**+1.7**
	7.2nm,0.6s,mb4.3						
AAK	**Ala-Archa**	40.47	339	*e*P	**P**	**11 54 49.5**	**+0.3**
	6.8nm,1.4s,mb4.2						
SONM	**Songino Array**	43.56	13	P	**P**	**11 55 14.0**	**-0.5**
	1.4nm,0.8s,mb3.7,baz=195,slow=7.8,SNR=8.3						
SONM				PcP	PcP	11 57 00.7	-1.4
	0.7nm,0.4s,baz=200,slow=3.8,SNR=6.4						
WRA	**Warramunga Arr**	47.69	123	P	**P**	**11 55 47.8**	**+0.1**
	1.3nm,0.6s,mb4.2,baz=302,slow=8.9,SNR=5.6						
ZAL	**Zalesovo**	48.69	353	P	**P**	**11 55 55.0**	**+0.1**
	2.6nm,0.4s,mb4.6,baz=305,slow=4.4,SNR=14						
ASAR	**Alice Springs**	49.16	128	P	**P**	**11 55 59.1**	**+0.1**
	0.8nm,0.9s,mb3.8,baz=300,slow=7.3,SNR=5.7						
BVAR	**Borovoye Array**	50.87	342	P	**P**	**11 56 10.8**	**-0.9**
	7.4nm,1.1s,mb4.5,baz=141,slow=9.5,SNR=13						
BRVK	**Borovoye**	50.93	342	*e*P	**P**	**11 56 11.2**	**-0.9**
	1.7nm,0.6s,mb4.2						
CHKZ	**Chkalovo**	51.37	343	*e*P	**P**	**11 56 14.9**	**-0.6**
	9.2nm,1.0s,mb4.7						
STKA	**Stephens Creek**	59.19	132	P	**P**	**11 57 12.7**	**+0.3**
	1.5nm,0.7s,mb4.1,baz=125,slow=13,SNR=2.9						
BRTR	**Keskin Array B**	63.27	312	P	**P**	**11 57 39.2**	**-0.6**
	1.1nm,0.8s,mb4.0,baz=150,slow=10.0,SNR=4.2						
AKASG	**Malin Array Be**	69.41	322	P	**P**	**11 58 17.0**	**-1.5**
	0.3nm,0.3s,mb3.7,baz=88,slow=4.6,SNR=4.4						
FINES	**FINESS Array B**	74.32	333	P	**P**	**11 58 47.4**	**-0.2**
	5.9nm,0.9s,mb4.5,baz=89,slow=6.1,SNR=11						
ARCES	**ARCESS Array B**	77.11	340	P	**P**	**11 59 03.7**	**+0.4**
	2.4nm,0.6s,mb4.3,baz=98,slow=5.5,SNR=22						
ARCES	**ARCESS Array B**	77.11	340	P	**P**	**11 59 03.7**	**+0.4**
GERES	**GERESS Array B**	78.94	319	P	**P**	**11 59 15.2**	**+1.4**
	3.7nm,0.9s,mb4.3,baz=90,slow=5.3,SNR=17						
KHC	**Kasperske Hory**	79.05	319	*e*P	**P**	**11 59 15.5**	**+1.1**
NOA	**NORSAR Array B**	81.28	331	P	**P**	**11 59 24.9**	**-1.2**
	3.3nm,1.2s,mb4.1,baz=101,slow=5.0,SNR=2.8						
PDAR	**Pinedale Array**	127.59	21	PKP	PKPdf	12 06 16.6	+2.6
	0.5nm,0.6s,baz=270,slow=1.5,SNR=4.4						
BDFB	**Brasilia**	140.73	252	PKP	PKPdf	12 06 43.5	+4.2
	1.6nm,0.6s,baz=111,slow=6.8,SNR=2.6						
TXAR	**Lajitas Array**	141.64	24	PKhKP		12 06 36.1	
	0.2nm,0.7s,baz=270,slow=0.9,SNR=3.0						
TXAR				PKP	PKPdf	12 06 46.1	+5.6
	0.5nm,0.7s,baz=342,slow=0.3,SNR=6.6						
TXAR	**Lajitas Array**	141.64	24	PKP	PKPdf	12 06 46.1	+5.6
CPUP	**Villa Florida**	145.18	230	PKPbc	PKPbc	12 06 49.7	+2.6
	0.0nm,0.3s,baz=297,slow=18,SNR=2.1						
CPUP	**Villa Florida**	145.18	230	PKPbc	PKPbc	12 06 49.7	+2.6

DJA 27 11:48:49.9±0.9**, 8.57S**×**114.59E, h109^{km}**±7^{km}**, MD5.3**/4**, ML4.2**/2**, 7C-1D, Error ellipse: s-maj=32.5km s-min=9.4km az=8.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KELI	**Kelakatan**	0.37	345	⇑*e*Pn	P	11 49 05.8	-0.2
	1μm,0.2s						
KELI				⇓*e*Sn	S	11 49 17.5	-0.5
SRDI	**Scrawed**	0.45	282	⇑*e*Pn	P	11 49 06.0	-0.4
	168nm,0.2s						
SRDI				⇑*e*Sn	S	11 49 17.5	-1.3
RATI	**Rata**	0.95	99	⇑*e*Pn	P	11 49 10.6	-0.1
	921nm,0.2s						
RATI				⇑*e*Sn	S	11 49 25.2	-1.2
KEDI	**Kedomdong**	1.51	87	⇑*e*Pn	P	11 49 16.2	-1.0
	113nm,0.2s						
KEDI				⇑*e*Sn	S	11 49 35.4	-2.3

IDC 27 11:54:29.4±2.4**, 13.67N**×**93.35E, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.5**/18**, ML3.9**/1**, Error ellipse: s-maj=55.6km s-min=25.9km az=85.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	7.18	48	Pn	Pn	11 56 17.2	-1.0
	0.6nm,0.3s,baz=238,slow=15,SNR=7.2						
CMAR				Sn	Sn	11 57 37.8	-3.8
	baz=229,slow=17,SNR=3.0						
SONM	**Songino Array**	35.75	15	P	P	12 01 29.7	-2.2
	0.3nm,0.5s,baz=217,slow=7.2,SNR=3.5						
WRA	**Warramunga Arr**	52.36	129	P	P	12 03 43.8	-2.0
	0.7nm,1.0s,baz=301,slow=9.5,SNR=3.6						
ASAR	**Alice Springs**	54.31	133	P	P	12 03 57.6	-2.4
	0.4nm,0.6s,baz=311,slow=7.5,SNR=7.1						

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*IDC **27** 11:54:49.1±12.0, 14.33N×90.55W, mb3.6/2, mb1 3.9/3, mb1mx3.4/18, ML3.6/1, Error ellipse: s-maj=246.0km s-min=100.7km az=2.0*

*NEIC **27** 11:54:58.6±6.0, 13.89N×91.76W, h78^{km}±23^{km}, MD4.4(MEX), Error ellipse: s-maj=76.9km s-min=18.5km az=161.0*

*CASC **27** 11:55:06.2±1.1, 14.84N×92.01W, h95^{km}±7^{km}, MD3.7, ML4.2*

*MEX **27** 11:55:10.2±0.9, 14.55N×92.39W, h16^{km}±53^{km}, MD4.4*

ISC 27 11:55:06.1±0.6**, 14.54N**±0.07×**92.16W**±0.04**, h95^{km}, n20, σ1.^{s}18**/31**, mb3.6**/2**, 1C, Near coast of Chiapas**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAT	**Jato**	0.55	113	⇑*e*P	**P**	**11 55 22.5**	**+0.6**
JAT				*e*S	**S**	**11 55 35.5**	**+1.7**
FUG	**Fuego 3**	1.28	94	*e*P	**P**	**11 55 28.8**	**-1.1**
PCG	**Pacaya**	1.51	95	*e*P	**P**	**11 55 31.8**	**-0.8**
PCG				*e*S	**S**	**11 55 51.3**	**-1.0**
IXG	**Ixpaco**	1.69	102	*e*P	**P**	**11 55 34.3**	**-0.6**
IXG				*e*S	**S**	**11 55 57.2**	**+1.0**
IXG				AML	AML	11 56 02.4	
	comp=E,6μm,0.3s						
CCIG	**Comitan**	1.73	1	*e*P	**P**	**11 55 36.3**	**+0.8**
CCIG				*e*S	**S**	**11 55 57.0**	**-0.3**
NBG	**Las Nubes**	1.75	88	*e*P	**P**	**11 55 35.0**	**-0.7**
NBG				*e*S	**S**	**11 55 56.9**	**-0.7**
NBG				AML	AML	11 56 04.7	
	comp=N,3μm,0.5s						
SCX	**San Cristobal**	2.23	348	*e*P	**P**	**11 55 43.0**	**+0.8**
SCX				*i* S	**S**	**11 56 10.0**	**+1.0**
CMIG	**Matias Romero**	3.65	314	*e*P	**P**	**11 56 02.4**	**+0.7**
CMIG				*e*S	**S**	**11 56 41.0**	**-3.0**
CMIG	**Matias Romero**	3.65	314	*e*P	**P**	**11 56 02.2**	**+0.4**
CMIG				*e*S	**S**	**11 56 41.0**	**-3.0**
HUIG	**Huatulco**	4.01	288	*e*P	**P**	**11 56 07.1**	**+0.5**
HUIG				*e*S	**S**	**11 56 46.5**	**-6.1**
OXX	**Oaxaca**	5.07	301	*e*P	**P**	**11 56 20.0**	**-1.2**
OXX				*i* S	**S**	**11 57 23.0**	**+4.0**
VHO	**Vista Hermosa**	5.08	300	*i* S	**S**	**11 57 18.4**	**-0.7**
TEIG	**Tepich**	6.76	33	*e*Pg	**P**	**11 56 40.5**	**-3.9**
	comp=N,88nm,0.3s						
PPM	**Popocatepetl**	7.66	307	*e*P	**P**	**11 57 01.1**	**+4.4**
PPM				*e*S	**S**	**11 58 21.1**	**-1.5**
PPM	**Popocatepetl**	7.66	307	*i* P	**P**	**11 56 57.2**	**+0.5**
TXAR	**Lajitas Array**	18.17	326	P	**P**	**11 59 15.0**	**+1.5**
	comp=N,0.0nm,0.3s,baz=155,slow=12,SNR=5.1						
TXAR	**Lajitas Array**	18.17	326	P	**P**	**11 59 15.0**	**+1.5**
NVAR	**Mina Array Bea**	33.16	321	P	**P**	**12 01 38.1**	**+2.5**
	comp=N,1.3nm,0.7s,mb3.9,baz=131,slow=8.3,SNR=9.9						
YKA	**Yellowknife Ar**	50.47	347	P	**P**	**12 03 52.4**	**-3.7**
	comp=N,0.3nm,0.7s,mb3.3,baz=148,slow=7.7,SNR=9.4						
YKA				pP	pP	12 04 14.3	-4.8
	comp=N,0.3nm,0.7s,baz=152,slow=7.0,SNR=2.7						
YKA	**Yellowknife Ar**	50.47	347	P	**P**	**12 03 52.4**	**-3.7**
YKA				pP	pP	12 04 14.3	-4.8

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*BJI **27** 11:57:53.8, 7.97N×92.31E, h32^{km}, mB5.2, mb5.1, Ms4.7, Msz4.5*

*SYO **27** 11:57:53.8, 8.08N×92.28E, h13^{km}, MB5.1*

*IDC **27** 11:57:54.9±0.3, 8.12N×92.28E, h23^{km}±1^{km}, mb4.7/25, mb1 4.7/26, mb1mx4.7/27, ML5.0/1, MS4.4/5, Ms1 4.4/5, ms1mx4.0/26, Error ellipse: s-maj=14.1km s-min=8.6km az=45.0*

*MOS **27** 11:57:54.4±0.9, 8.09N×92.38E, h33^{km}, mb5.3/47, Error ellipse: s-maj=10.1km s-min=5.2km az=120.1*

*NEIC **27** 11:57:55.5±0.2, 8.08N×92.30E, mb5.1/48, Error ellipse: s-maj=5.4km s-min=4.6km az=203.0*

*HRVD **27** 11:57:55.5±0.7, 7.88N×92.35E, h16^{km}±3^{km}, MW5.1/28, Centroid moment Tensor Solution. LP body waves: s9,c9; Mantle waves: s28,c40; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-3.14±.62; M$_{\theta\theta}$-0.67±.36; M$_{\phi\phi}$3.81±.42; M$_{r\theta}$-1.26±1.24; M$_{\theta\phi}$-0.37±.25; M$_{\phi r}$-3.59±1.20; Best double couple: M$_0$5.19×10^{16} NP1:φ$_s$155°,δ25°,λ-126°. NP2: φ$_s$14°,δ70°,λ-74°. Principal axes: T 5.34, Plg23°, Azm92°; N -.28, Plg15°, Azm188°; P -5.05, Plg62°, Azm308°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 11:57:53.5±0.2**, 8.03N**±0.03×**92.32E**±0.03**, h25^{km}, h25^{km}**±.6^{km}**:pP-P, n295, σ1.^{s}08**/270**, mb5.0**/90**, MS4.5**/20**, 11C-12D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	8.27	95	P	**P**	**11 59 57.0**	**+2.1**
	430nm,1.0s						
NST	**Nakhon Sawan**	10.78	44	P	**P**	**12 00 29.0**	**-0.6**
PALK	**Pallekele**	11.54	267	*e*Pn	**P**	**12 00 37.4**	**-2.5**
	66nm,0.8s						
CM31	**Chiang Mai Arr**	12.21	31	*e*Pn	**P**	**12 00 48.6**	**-0.3**
	24nm,0.6s						
CMAR	**Chiang Mai Arr**	12.21	31	Pn	**P**	**12 00 48.0**	**-0.8**
	3.0nm,0.3s,baz=221,slow=14,SNR=57						
CMAR				LR	LR	12 06 08.4	
	comp=Z,913nm,19.7s,baz=215,slow=41						
CMAR				ScP		12 10 03.5	
	baz=244,slow=3.1,SNR=11						
CHG	**Chiang Mai**	12.51	30	⇓P	**P**	**12 00 52.6**	**-0.3**
	32nm,0.8s						
MDRS	**Chennai**	12.88	294	*e*P	**P**	**12 00 58.0**	**+0.1**
MDRS				*e*	**S**	**12 03 12.0**	**-9.3**
VIS	**Vishakhapatnam**	13.02	319	*e*P	**P**	**12 00 57.2**	**-2.5**
VIS				*e*		12 01 07.4	
	comp=Z,361nm,0.9s						
VIS				*e*S	**S**	**12 03 08.9**	**-16**
NANT	**Nan**	13.45	36	P	**P**	**12 01 05.0**	**-0.5**
CHRT	**Chiangrai**	13.82	31	PG	**P**	**12 01 10.0**	**-0.4**
CHRT				SG	Px	12 01 19.5	
KOD	**Kodaikanal**	14.82	280	*e*P	**P**	**12 01 21.7**	**-1.8**
KOD				*e*	S	12 03 45.3	-22
TRD	**Trivandrum**	15.21	273	*e*P	**P**	**12 01 25.9**	**-2.7**
TRD				*e*		12 01 27.8	
	comp=Z,50nm,1.0s						
AGT	**Agartala**	15.80	356	⇓*i*P	**P**	**12 01 40.0**	**+3.8**
AGT				*i*		12 02 36.0	
HYB	**Hyderabad**	16.34	306	*e*P	**P**	**12 01 45.0**	**+1.9**
HYB				pmax	pmax		
	comp=Z,110nm,1.0s						
HYB	**Hyderabad**	16.34	306	*e*P	**P**	**12 01 45.0**	**+1.9**
	comp=Z,110nm,1.0s						
HYB	**Hyderabad**	16.34	306	*i* P	**P**	**12 01 45.0**	**+1.9**
	comp=Z,110nm,1.0s						
IMP	**Imphal**	16.73	5	*e*	**P**	**12 01 45.8**	**-2.2**
BOK	**Bokaro**	16.84	339	*e*P	**P**	**12 01 49.3**	**-0.1**
BOK				*e*		12 02 03.6	
	comp=Z,209nm,0.8s						
BOK				*e*	**S**	**12 04 35.3**	**-19**
BLSP	**Bilaspur**	17.11	326	*e*P	**P**	**12 01 51.4**	**-1.4**
BLSP				*e*		12 02 05.0	
	comp=Z,138nm,1.2s						
BLSP				*e*S	**S**	**12 05 00.9**	**+0.1**
SHL	**Shillong**	17.45	359	*e*P	**P**	**12 01 55.7**	**-1.3**
SHL				*e*		12 02 09.5	
	comp=Z,105nm,1.1s						
SHL				*e*		12 04 46.3	
AKL	**Akola**	19.43	312	*e*	**P**	**12 02 23.9**	**+2.8**
AKL				*e*		12 02 27.7	
	comp=Z,103nm,1.1s						
AKL				*e*	**S**	**12 05 43.3**	**-10**
GOA	**Goa**	19.55	294	*e*	**P**	**12 02 06.9**	**-16**
GOA				*e*		12 02 40.7	
	comp=Z,116nm,0.9s						
KMI	**Kunming**	19.70	29	P	**P**	**12 02 24.5**	**+0.4**
KMI				S	**S**	**12 06 00.5**	**+1.4**
KMI				AMB	AMB		
	comp=Z,99nm,1.3s						
KMI				AMB	AMB		
	comp=Z,540nm,3.3s						
KMI				LR	LR		
	comp=N,1μm,16.7s						
KMI				LR	LR		
	comp=E,545nm,14.2s						
KMI				LR	LR		
	comp=Z,2μm,15.7s						
KAD	**Karad**	19.93	299	*e*P	**P**	**12 02 25.8**	**-0.9**
KAD				*e*		12 02 30.1	
	comp=Z,101nm,1.3s						
QIZ	**Qiongzhong**	20.23	56	⇓*i*P	**P**	**12 02 30.0**	**+0.3**
QIZ				*e*S	**S**	**12 06 14.3**	**+4.2**
QIZ				AMB	AMB		
	comp=Z,121nm,1.3s						
QIZ				LR	LR		
	comp=N,1μm,16.3s,MS4.5						
QIZ				LR	LR		
	comp=E,1μm,19.6s,MS4.5						
QIZ				LR	LR		
	comp=Z,2μm,14.1s						
QIZ	**Qiongzhong**	20.23	56	*e*P	**P**	**12 02 29.7**	**0.0**
	comp=Z,168nm,1.3s						
PKI	**Pulchoki**	20.51	342	*e*P	**P**	**12 02 33.0**	**+0.4**
	comp=Z,332nm,0.8s						
DMN	**Daman**	20.64	342	*e*P	**P**	**12 02 33.7**	**-0.2**
	comp=Z,377nm,0.9s						
GUN	**Gumba**	20.69	344	*e*P	**P**	**12 02 34.4**	**-0.1**
	comp=Z,337nm,0.9s						
KKN	**Kakani**	20.75	342	*e*P	**P**	**12 02 34.7**	**-0.4**
	comp=Z,103nm,0.9s						
POO	**Poona**	20.76	302	⇓*i*P	**P**	**12 02 33.0**	**-2.2**
POO				*i*	**S**	**12 06 12.0**	**-8.8**
BHPL	**Bhopal**	20.81	318	*e*P	**P**	**12 02 36.0**	**+0.3**
BHPL				*e*		12 02 45.8	
	comp=Z,88nm,1.3s						
GKN	**Gorkha**	21.15	341	*e*P	**P**	**12 02 39.3**	**+0.1**
KOLN	**Koldanda**	21.30	338	*e*P	**P**	**12 02 41.1**	**+0.5**
	comp=Z,416nm,0.9s,mb5.8						
LSA	**Lhasa**	21.59	357	*e*P	**P**	**12 02 44.7**	**+1.1**
LSA				pmax	pmax		
	comp=Z,43nm,0.9s,mb4.9						
LSA	**Lhasa**	21.59	357	*e*P	**P**	**12 02 44.7**	**+1.1**
	comp=Z,43nm,0.9s,mb4.9						
BOM	**Bombay**	21.80	302	*e*P	**P**	**12 02 47.1**	**+1.3**
BOM				*e*		12 02 48.0	
	comp=Z,134nm,0.9s						
BOM				*e*S	**S**	**12 06 41.2**	**+0.7**
GYA	**Guiyang**	22.84	35	⇑*i*P	**P**	**12 02 56.5**	**+0.3**
GYA				AP		12 03 01.3	
GYA				XP		12 03 04.5	
GYA				PP	PP	12 03 28.5	+3.0
GYA				S	**S**	**12 07 02.3**	**+2.8**
GYA				AMB	AMB		
	comp=Z,100nm,0.7s,mb5.3						
GYA				AMB	AMB		
	comp=Z,1μm,4.9s						
GYA				LR	LR		
	comp=N,2μm,15.8s,MS4.8						
GYA				LR	LR		
	comp=E,2μm,16.0s,MS4.8						
GYA				LR	LR		
	comp=Z,3μm,16.2s,MS4.8						
LGTI	**Lohaghat**	24.14	334	*e*		12 03 21.0	
AJM	**Ajmer**	24.87	320	*e*P	**P**	**12 03 18.9**	**+3.0**
AJM				*e*		12 03 28.3	
	comp=Z,73nm,1.1s						
NDI	**New Delhi**	24.99	327	*e*P	**P**	**12 03 18.0**	**+1.1**
NDI				*e*		12 03 29.4	
	comp=Z,186nm,1.2s						
GZH	**Guangzhou**	25.14	51	P	pP	12 03 22.8	-2.9
GZH				LR	LR		
	comp=N,479nm,18.0s						
GZH				LR	LR		
	comp=E,878nm,12.4s						
GZH				LR	LR		
	comp=Z,1μm,14.0s,MS4.5						
CD2	**Chengdu**	25.15	24	P	**P**	**12 03 18.5**	**+0.1**
CD2				S	**S**	**12 07 46.5**	**+7.4**
CD2				AMB	AMB		
	comp=Z,150nm,0.9s,mb5.5						
CD2				LR	LR		
	comp=N,1μm,14.4s						
CD2				LR	LR		
	comp=Z,1μm,16.2s,MS4.5						
DDI	**Dehra Dun**	25.89	331	*e*	**P**	**12 03 25.2**	**-0.2**
ENH	**Enshi**	27.36	34	*e*P	**P**	**12 03 37.7**	**-1.1**
	comp=Z,82nm,1.0s,mb5.2						
TGY	**Tagaytay City**	28.71	75	LR	LR	12 16 49.4	

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      comp=Z,797nm,18.1s,MS4.4,baz=336,slow=40
LZH   Lanzhou           29.85  19 eP     P      12 04 00.8 -0.4
LZH                                PP    PP     12 04 58.3 -0.3
LZH                                S     S      12 08 56.0 +0.7
LZH                                SS    SS     12 10 32.0 +0.6
LZH                                AMB   AMB
      comp=Z,59nm,1.7s,mb5.0
LZH                                AMB   AMB
      comp=Z,203nm,4.0s
LZH                                LR    LR
      comp=E,1µm,11.0s
LZH                                LR    LR
      comp=Z,1µm,12.4s,MS4.8
XAN   Xi'an             30.07  28  P     P      12 04 01.0 -2.2
XAN                                AP    pP     12 04 08.5 -2.2
XAN                                AMB   AMB
      comp=Z,26nm,1.1s,mb4.9
WHN   Wuhan             30.44  40 ⇑P     P      12 04 06.3 -0.2
GTA   Gaotai            31.96  11⇑iP     P      12 04 20.3 +0.5
GTA                                PP    PP     12 05 25.5 -0.6
GTA                                S     S      12 09 29.5 +1.1
GTA                                SCP          12 10 51.8
GTA                                PCS          12 10 55.0
GTA                                SS    SS     12 11 20.8 -0.4
GTA                                SCS   ScS    12 14 49.0 +1.7
GTA                                AMB   AMB
      comp=Z,92nm,1.2s,mb5.5
GTA                                AMB   AMB
      comp=Z,223nm,3.4s
GTA                                LR    LR
      comp=N,622nm,19.4s,MS4.5
GTA                                LR    LR
      comp=E,575nm,18.2s,MS4.5
GTA                                LR    LR
      comp=Z,799nm,18.6s,MS4.4
NJ2   Nanjing           34.35  42 eP     P      12 04 40.3 -0.3
NJ2                                AP    pP     12 04 49.3 +1.2
NJ2                                XP    sP     12 04 53.8 +2.5
NJ2                                PP    PP     12 05 54.5 -1.7
NJ2                                S     S      12 10 02.0 -3.6
NJ2                                XS           12 10 18.0
NJ2                                SS    SS     12 12 13.0 -3.2
NJ2                                AMB   AMB
      comp=Z,120nm,0.8s,mb5.9
NJ2                                AMB   AMB
      comp=Z,630nm,10.0s
NJ2                                LR    LR
      comp=N,1µm,23.0s
NJ2                                LR    LR
      comp=E,1µm,14.1s
NJ2                                LR    LR
      comp=Z,1µm,13.6s
KSH   Kashi             34.61 337  P     P      12 04 43.5 +0.8
KSH                               ePP    PP     12 06 00.0 +0.5
KSH                               ePCP   PcP    12 07 18.3 +1.2
KSH                               eS     S      12 10 12.0 +2.4
KSH                               eSCP          12 11 01.0
KSH                               ePCS          12 11 03.0
KSH                               eSS    SS     12 12 22.3 +0.2
KSH                                SCS   ScS    12 15 03.5 +2.5
KSH                                AMB   AMB
      comp=Z,140nm,4.6s
KSH                                LR    LR
      comp=N,560nm,12.2s,MS4.8
KSH                                LR    LR
      comp=E,1µm,17.2s,MS4.8
SSE   Sheshan           35.39  46  P     P      12 04 48.5 -1.0
SSE                                S     S      12 10 24.5 +2.8
SSE                                AMB   AMB
      comp=Z,50nm,0.7s,mb5.5
SSE                                AMB   AMB
      comp=Z,171nm,4.3s
SSE                                LR    LR
      comp=N,149nm,18.0s,MS4.1
SSE                                LR    LR
      comp=E,274nm,18.8s,MS4.1
SSE                                LR    LR
      comp=Z,361nm,16.4s,MS4.2
WMQ   Urumqi            35.88 354 ⇑P     P      12 04 54.3 +0.8
WMQ                                AP    pP     12 04 58.8 -2.2
WMQ                                PP    PP     12 06 15.5 +0.4
WMQ                                S     S      12 10 30.5 +1.3
WMQ                                AMB   AMB
      comp=Z,7.0nm,1.1s,mb4.5
WMQ                                AMB   AMB
      comp=Z,162nm,8.1s
WMQ                                LR    LR
      comp=N,441nm,22.6s,MS4.3
WMQ                                LR    LR
      comp=E,519nm,27.1s,MS4.3
WMQ                                LR    LR
      comp=Z,509nm,26.0s,MS4.2
TIA   Tai'an            36.04  35 ⇓P     P      12 04 55.0 +0.1
HHC   Hu-ho-hao-te      36.90  25 eP     P      12 05 02.0 -0.1
HHC                                AP    pP     12 05 06.8 -2.9
HHC                                PP    PP     12 06 28.8 +0.5
HHC                                S     S      12 10 46.0 +1.2
HHC                                SS    SS     12 13 15.8 +1.9
HHC                                SCS   ScS    12 15 14.5 +1.0
HHC                                AMB   AMB
      comp=Z,17nm,0.8s,mb4.9
HHC                                LR    LR
      comp=N,338nm,11.9s,MS4.6
HHC                                LR    LR
      comp=E,566nm,15.5s,MS4.6
HHC                                LR    LR
      comp=Z,526nm,20.2s,MS4.3
ULHL  Ulahol            36.91 340  P     P      12 05 03.5 +1.2
      SNR=7.0
KZA   Kyzart            37.11 339  P     P      12 05 05.2 +1.3
      SNR=16
UCH   Uchtor            37.51 338  P     P      12 05 08.5 +1.2
      SNR=28
KBK   Karagaybulak      37.73 339  P     P      12 05 10.7 +1.6
      SNR=24
TKM2  Tokmak 2          37.73 340  P     P      12 05 10.4 +1.3
      SNR=7.9
AML   Almayashu         37.74 337  P     P      12 05 10.5 +1.4
      SNR=59
AAK   Ala-Archa         37.87 338  P     P      12 05 11.8 +1.6
      SNR=20
AAK   Ala-Archa         37.87 338d iP    P      12 05 10.2  0.0
AAK                                pmax  pmax
      comp=Z,44nm,1.4s,mb5.0
AAK   Ala-Archa         37.87 338 eP     P      12 05 10.4 +0.2
      comp=Z,38nm,1.1s,mb5.0
FRU   Bishkek           38.00 339 eP     P      12 05 13.0 +1.7
FRU                               e      pP     12 05 22.0 +3.1
FRU                                pmax  pmax
      comp=Z,60nm,1.8s,mb5.0
CHMS  Chumysh           38.10 339  P     P      12 05 13.0 +0.8
      SNR=9.2
EKS2  Erkin-Say         38.16 338  P     P      12 05 14.3 +1.6
      SNR=21
BJT   Baijiatuau        38.33  30 eP     P      12 05 14.7 +0.5
BJT                                pmax  pmax
      comp=Z,9.0nm,0.6s
BJT   Baijiatuau        38.33  30 eP     P      12 05 14.7 +0.5
      comp=Z,9.1nm,0.6s,mb4.7
BJI   Beijing           38.35  30  P     P      12 05 15.0 +0.7
BJI                                S     S      12 11 06.8 -0.1
BJI                                AMB   AMB
      comp=Z,18nm,0.6s,mb5.0
BJI                                LR    LR
      comp=N,414nm,17.2s,MS4.5
BJI                                LR    LR
      comp=E,520nm,17.2s,MS4.5
BJI                                LR    LR
      comp=Z,574nm,21.0s,MS4.4
USP   Ospenovka         38.42 339  P     P      12 05 15.7 +0.8
      SNR=24
JOW   Kunigami          38.87  57  P     P      12 05 19.2 +0.4
      comp=Z,33nm,0.6s,mb5.3,baz=276,slow=7.2,SNR=17
JOW                                pP    pP     12 05 27.4 +1.1
      comp=Z,17nm,0.5s,baz=298,slow=23,SNR=3.6
JOW                                LR    LR     12 21 23.7
      comp=Z,564nm,19.5s,MS4.4,baz=327,slow=36
MKAR  Makanchi Array    39.57 349 i P    P      12 05 24.1 -0.3
MKAR                               pmax  pmax
      comp=Z,14nm,0.9s
MBWA  Marble Bar        39.58 138 eP     P      12 05 25.1 +0.4
      comp=Z,17nm,0.9s,mb4.8
DL2   Dalian            40.49  36  P     P      12 05 33.5 +1.4
DL2                                AMB   AMB
      comp=Z,30nm,1.1s,mb4.9
SONM  Songino Array     41.43  14  P     P      12 05 39.7 -0.1
      comp=Z,13nm,0.8s,mb4.6,baz=195,slow=8.8,SNR=91
SONM                               pP    pP     12 05 46.9 -0.4
      comp=Z,22nm,0.8s,baz=195,slow=7.3,SNR=29
SONM                               ScP          12 11 26.4
      comp=Z,2.2nm,1.1s,baz=180,slow=3.7,SNR=4.0
ULN   Ulaanbaatar       41.63  15 eP     P      12 05 41.2 -0.1
ULN                                pmax  pmax
      comp=Z,14nm,0.9s,mb4.6
ULN   Ulaanbaatar       41.63  15 eP     P      12 05 41.2 -0.2
      comp=Z,14nm,0.9s,mb4.6
ZAK   Zakamensk         43.20  10 eP     P      12 05 53.8 -0.3
ZAK                               e             12 07 47.5
KS15  Wonju Array Si    43.52  42 eP     P      12 05 57.8 +0.8
MOY   Mondy             44.09   8 eP     pP     12 06 08.7 -0.2
TLY   Talaya            44.51  10 eP     P      12 06 05.1 +0.4
TLY                                pmax  pmax
      comp=Z,11nm,1.0s,mb4.6
TLY                                MLR   MLR
      comp=Z,467nm,18.0s,MS4.5
CN2   Changchun         45.88  33 eP     P      12 06 15.8 +0.1
CN2                               eS     S      12 12 59.0 +1.3
CN2                                AMB   AMB
      comp=Z,10.0nm,0.6s,mb4.9
CN2                                AMB   AMB
      comp=Z,300nm,3.0s
CN2                                LR    LR
      comp=N,710nm,16.0s,MS4.8
CN2                                LR    LR
      comp=E,350nm,16.0s,MS4.8
CN2                                LR    LR
      comp=Z,380nm,22.0s
ZAL   Zalesovo          46.18 354  P     P      12 06 17.0 -1.0
      comp=Z,3.4nm,0.6s,mb4.5,baz=304,slow=9.2,SNR=21
ZAL                                pP    pP     12 06 25.0 -0.6
      comp=Z,22nm,1.2s,baz=297,slow=7.9,SNR=12
HIA   Hailar            47.11  24 eP     P      12 06 24.4 -1.0
HIA                                pmax  pmax
      comp=Z,20nm,1.1s
HIA   Hailar            47.11  24 eP     P      12 06 24.4 -1.0
      comp=Z,20nm,1.1s,mb5.0
NWAO  Narrogin (SRO)    47.13 151  P     P      12 06 31.1 +5.2
      comp=Z,12nm,0.7s,mb4.9,baz=340,slow=6.6,SNR=4.0
NWAO                               pP    pP     12 06 39.9 +6.4
      comp=Z,20nm,0.8s,baz=330,slow=7.0,SNR=4.1
NWAO  Narrogin (SRO)    47.13 151 eP     P      12 06 26.3 +0.5
NWAO                               *PP   pP     12 06 39.9 +6.4
NWAO                               pmax  pmax
      comp=Z,15nm,0.9s
NWAO  Narrogin (SRO)    47.13 151 eP     P      12 06 26.3 +0.5
      comp=Z,15nm,0.9s,mb4.9
NWAO                               pP    pP     12 06 39.9 +6.4
NVS   Novosibirsk       47.25 353 eP     P      12 06 25.0 -1.4
NVS                               e             12 13 11.3
NVS                                pmax  pmax
      comp=N,17nm,1.0s
NVS                                pmax  pmax
      comp=E,14nm,1.0s
NVS                                pmax  pmax
      comp=Z,35nm,1.0s,mb5.2
KAMS  Al Khamasin       47.70 290  P     P      12 06 33.6 +3.2
BVA0  Borovoye Array    48.28 342  P     P      12 06 33.9 -0.6
BVA0                               pmax  pmax
      comp=Z,3.0nm,1.1s,mb4.2
BVAR  Borovoye Array    48.28 342  P     P      12 06 33.4 -1.0
      comp=Z,10nm,0.9s,mb4.9,baz=143,slow=7.4,SNR=49
BRVK  Borovoye          48.34 342 eP     P      12 06 34.2 -0.8
BRVK                               pmax  pmax
      comp=Z,15nm,1.0s,mb5.0
BRVK  Borovoye          48.34 342 eP     P      12 06 34.2 -0.8
      comp=Z,15nm,1.0s,mb5.0
MDJ   Mudanjiang        48.71  35  P     P      12 06 37.0 -0.9
MDJ                                PCP   PcP    12 08 02.0 -1.2
MDJ                                PP    PP     12 08 30.0 -0.9
MDJ                                SCP          12 11 55.3
MDJ                                PCS          12 11 58.8
MDJ                                S     S      12 13 37.3 -0.5
MDJ                                SCS   ScS    12 16 29.0 +3.2
MDJ                                AMB   AMB
      comp=Z,367nm,11.2s
MDJ                                LR    LR
      comp=N,375nm,19.8s,MS4.5
MDJ                                LR    LR
      comp=E,339nm,18.1s,MS4.5
MDJ                                LR    LR
      comp=Z,570nm,16.3s,MS4.7
MDJ   Mudanjiang        48.71  35  P     pP     12 06 46.1 +0.5
      comp=Z,22nm,1.1s
CHKZ  Chkalovo          48.78 343 eP     P      12 06 37.7 -0.6
CHKZ                               pmax  pmax
      comp=Z,38nm,1.0s,mb5.4
CHKZ  Chkalovo          48.78 343 eP     P      12 06 37.7 -0.6
      comp=Z,38nm,1.0s,mb5.4
AFFS  'Afif             49.70 295  P     P      12 06 47.4 +1.5
WRA   Warramunga Arr    49.83 124  P     P      12 06 46.1 -0.8
      comp=Z,6.7nm,0.6s,mb4.9,baz=305,slow=8.6,SNR=49
WRA                                pP    pP     12 06 53.0 -1.6
      comp=Z,15nm,0.6s,baz=303,slow=8.8,SNR=25
WRAB  Tennant Creek     49.83 124 eP     P      12 06 46.0 -0.9
WRAB                               pmax  pmax
      comp=Z,13nm,0.6s,mb5.1
WRAB  Tennant Creek     49.83 124 eP     P      12 06 46.0 -0.9
      comp=Z,13nm,0.6s,mb5.1
MAT   Matsushiro        50.41  49  P     P      12 06 53.4 +2.3
MAT   Matsushiro        50.41  49 eP     pP     12 06 59.0 +0.2
ASAR  Alice Springs     51.41 129  P     P      12 06 57.4 -1.5
      comp=Z,3.6nm,0.6s,mb4.5,baz=308,slow=7.3,SNR=33
ASAR                               pP    pP     12 07 04.8 -1.7
      comp=Z,15nm,0.9s,baz=300,slow=7.3,SNR=28
HILS  Ha'il             51.44 299  P     P      12 07 00.7 +1.7
BOD   Bodaibo           52.43  14 eP     P      12 07 04.9 -1.2
BOD                               e             12 07 10.1
KLR   Kul'dur           52.69  32 eP     pP     12 07 19.0 +3.1
GNI   Garni             53.04 315  P     P      12 07 10.2 -0.7
      comp=Z,27nm,1.1s,mb5.1,baz=54,slow=4.5,SNR=9.9
GNI                                pP    pP     12 07 17.5 -1.1
      comp=Z,7.3nm,0.6s,baz=6.6,slow=23,SNR=4.2
GNI   Garni             53.04 315  P     P      12 07 10.2 -0.7
GNI                                *PP   pP     12 07 17.5 -1.1
GNI                                pmax  pmax
      comp=Z,27nm,1.1s
GNI                                pmax  pmax
      comp=Z,7.0nm,0.6s
GNI   Garni             53.04 315 eP     P      12 07 11.2 +0.2
      comp=Z,18nm,1.0s,mb5.0
TI2   Plekhanov         53.69 317 eP     P      12 07 16.2 +0.6
SVE   Sverdlovsk        54.60 339⇓iP     P      12 07 22.0 -0.1
SVE                                pmax  pmax
      comp=Z,150nm,1.0s,mb6.0
ZEI   Tsey              54.70 318 eP     P      12 07 22.5 -0.5
ZEI                               i *PP  pP     12 07 32.5 +1.7
ZEI                               i             12 09 28.5
ZEI                                pmax  pmax
      comp=Z,8.0nm,1.0s,mb4.7
CLNS  Chul'man          54.93  21 eP     P      12 07 21.1 -3.4
CLNS                               pmax  pmax
      comp=Z,24nm,0.8s,mb5.3
CLNS                               pmax  pmax
      comp=N,12nm,1.2s
CLNS                               pmax  pmax
      comp=E,8.0nm,1.3s
UMJS  Umm Lajj          55.02 295  P     P      12 07 27.6 +1.9
ARU   Arti              55.05 338⇑iP     P      12 07 25.1 -0.3
ARU                               e             12 08 25.5
ARU                               eS     S      12 15 08.0 +3.5
ARU                                pmax  pmax
      comp=Z,44nm,0.9s,mb5.5
ARU   Arti              55.05 338 eP     P      12 07 24.9 -0.6
      comp=Z,52nm,0.9s,mb5.6
KMBO  Kilima Mbogo      55.65 263  P     P      12 07 30.7 +0.4
      comp=Z,10.0nm,0.8s,mb4.9,baz=53,slow=11,SNR=36
KMBO  Kilima Mbogo      55.65 263 eP     P      12 07 31.3 +1.0
KMBO                               pmax  pmax
      comp=Z,10.0nm,0.8s
KMBO  Kilima Mbogo      55.65 263 eP     P      12 07 31.3 +1.0
      comp=Z,10nm,0.8s,mb4.9
KIV   Kislovodsk        56.00 318 eP     P      12 07 31.5 -0.9
KIV   Kislovodsk        56.00 318 eP     P      12 07 31.5 -0.9
TBKS  Tabuk             56.16 299  P     P      12 07 35.8 +2.0
GOF   Gofitskoye        56.24 320⇑iP     pP     12 07 40.0 -1.9
GOF                                pmax  pmax
      comp=Z,40nm,1.0s,mb5.4
ASAJ  Asahikawa         56.49  42  LR    LR     12 36 00.4
      comp=Z,345nm,18.3s,MS4.5,baz=241,slow=40
ASF   Jabal al Asfar    56.62 303  P     P      12 07 36.2 -0.9
      comp=Z,7.1nm,0.8s,mb4.8,baz=146,slow=6.0,SNR=7.0
JMQS  Jabal Moqyreh     56.85 299  P     P      12 07 40.1 +1.4
MALT  Malatya           56.99 311 eP     P      12 07 38.7 -0.9
MALT                               pmax  pmax
      comp=Z,2.0nm,1.0s,mb4.1
MALT  Malatya           56.99 311 eP     P      12 07 38.7 -0.9
      comp=Z,2.4nm,1.0s,mb4.2
AYUS  'Aynunah          57.27 298  P     P      12 07 42.3 +0.5
PMG   Port Moresby      57.31 107  P     P      12 07 41.2 -0.9
      comp=Z,19nm,0.7s,mb5.3,baz=326,slow=1.1,SNR=18
PMG                                pP    pP     12 07 49.8 -0.2
      comp=Z,20nm,0.6s,baz=316,slow=3.3,SNR=10
PMG   Port Moresby      57.31 107 eP     P      12 07 41.5 -0.7
PMG                                pmax  pmax
      comp=Z,16nm,0.7s
PMG   Port Moresby      57.31 107 eP     P      12 07 41.5 -0.7
      comp=Z,16nm,0.7s,mb5.2
BDAS  Al Bad'           57.45 299  P     P      12 07 43.8 +0.8
JMOS  Jabal al Moall    57.56 299  P     P      12 07 44.8 +1.1
TAYS  Tayyib Ism        57.67 299  P     P      12 07 45.6 +1.1
HAQS  Haql              57.70 299  P     P      12 07 45.8 +1.0
EIL   Elat              57.78 300 eP     P      12 07 46.0 +0.7
      comp=Z,34nm,1.1s,mb5.3
YSS   Yuzh-Sakhalins    57.78  39 eP     P      12 07 40.0 -5.0
YSS                               e      pP     12 07 48.0 -4.9
YSS   Yuzh-Sakhalins    57.78  39 eP     P      12 07 44.6 -0.4
SOC   Sochi             57.83 317 eP     P      12 07 43.9 -1.5
SOC                               e             12 08 30.3
SOC                               e             12 09 47.3
SOC                               eS     S      12 15 36.6 -4.9
SOC                                pmax  pmax
      comp=Z,26nm,1.4s,mb5.1
SOC                                pmax  pmax
      comp=N,22nm,1.3s
SOC                                pmax  pmax
      comp=E,10.0nm,1.3s
SOKR  Solikamsk         58.01 340⇑iP     P      12 07 45.0 -1.5
SOKR                               pmax  pmax
      comp=Z,50nm,1.0s,mb5.5
SOKR                               MLR   MLR
      comp=Z,410nm,21.0s,MS4.5
CTA   Charters Tower    59.96 119  P     P      12 08 00.2 -0.4
      comp=Z,6.3nm,1.0s,mb4.6,baz=255,slow=5.4,SNR=6.2
CTA                                LR    LR     12 37 16.3
      comp=Z,427nm,20.4s,MS4.6,baz=292,slow=39
CTA   Charters Tower    59.96 119  P     P      12 08 00.2 -0.4
CTA                                LR    LR     12 37 16.4
CTAO  Charters Tower    59.96 119 eP     P      12 08 00.5  0.0
CTAO                               pmax  pmax
      comp=Z,8.0nm,1.0s,mb4.7
CTAO  Charters Tower    59.96 119 eP     P      12 08 00.5 -0.1
      comp=Z,8.4nm,1.0s,mb4.7
CSS   Prodhromos        60.12 306 eP     P      12 08 00.9 -0.5
      comp=Z,17nm,0.9s,mb5.1
YAK   Yakutsk           60.43  19 eP     P      12 08 00.9 -2.3
YAK                               e      pP     12 08 07.6 -3.5
YAK                                pmax  pmax
      comp=Z,12nm,0.9s,mb4.9
YAK                                pmax  pmax
      comp=N,4.0nm,1.2s
YAK                                pmax  pmax
      comp=E,4.0nm,1.2s
YAK                                pmax  pmax
      comp=Z,15nm,0.8s,mb5.1
YAK                                pmax  pmax
      comp=N,5.0nm,1.0s
YAK                                pmax  pmax
      comp=E,4.0nm,1.1s
YAK   Yakutsk           60.43  19 eP     P      12 08 01.5 -1.7
BRTR  Keskin Array B    60.96 311  P     P      12 08 05.2 -1.8
      comp=E,5.3nm,0.9s,mb4.7,baz=121,slow=7.2,SNR=24
BRTR                               pP    pP     12 08 12.2 -2.8
      comp=E,9.0nm,0.9s,baz=117,slow=5.5,SNR=8.5
STKA  Stephens Creek    61.53 133  P     P      12 08 10.7 -0.4
      comp=E,5.0nm,0.7s,mb4.8,baz=293,slow=5.0,SNR=7.8
STKA                               pP    pP     12 08 17.7 -1.2
      comp=E,15nm,0.8s,baz=308,slow=6.8,SNR=9.5
STKA  Stephens Creek    61.53 133 eP     P      12 08 10.8 -0.2
MBAR  Mbarara           61.97 265 eP     P      12 08 14.4 +0.1
MBAR                               pmax  pmax
      comp=Z,26nm,1.4s,mb5.2
MBAR  Mbarara           61.97 265 eP     P      12 08 14.4 +0.1
      comp=Z,26nm,1.4s,mb5.2
SIM   Simferopol'       62.08 317 eP     P      12 08 19.2 +4.6
SIM                               eS     S      12 16 46.0 +10
SIM                                pmax  pmax
      comp=Z,29nm,1.1s,mb5.3
MOS   Moscow            64.01 329 eP     P      12 08 25.0 -2.2
OBN   Obninsk           64.29 328ceP     pP     12 08 36.1 -0.8
OBN                               e             12 10 58.1
OBN                                pmax  pmax
      comp=Z,61nm,1.6s,mb5.4
OBN                                MLR   MLR
      comp=Z,300nm,17.0s,MS4.5
CFR   Carcaliu          66.22 316⇑iP     pP     12 08 49.2 -0.3
AKASG Malin Array Be    66.92 322  P     P      12 08 43.2 -2.7
      comp=Z,3.2nm,0.7s,mb4.5,baz=90,slow=4.4,SNR=17
AKASG                              pP    pP     12 08 51.8 -2.0
      comp=Z,13nm,1.1s,baz=90,slow=4.1,SNR=6.8
AKASG Malin Array Be    66.92 322  P     P      12 08 43.2 -2.7
AKASG                              *PP   pP     12 08 51.8 -2.0
AKASG                              pmax  pmax
      comp=Z,3.0nm,0.7s
AKASG                              pmax  pmax
      comp=Z,13nm,1.1s
IDI   Anoyia            67.00 305  P     P      12 08 45.3 -1.4
      comp=Z,10.0nm,0.8s,mb4.9,baz=40,slow=10,SNR=6.0
VRI   Vrincioaia        67.34 316⇑iP     P      12 08 48.7  0.0
TIXI  Tiksi             67.44  12⇑iP     P      12 08 48.3 -0.6
TIXI                               pmax  pmax
      comp=Z,54nm,1.2s,mb5.5
MA2   Magadan           67.47  28 eP     P      12 08 48.6 -0.7
MA2                                pmax  pmax
      comp=Z,25nm,1.0s,mb5.2
MA2   Magadan           67.47  28 eP     P      12 08 48.6 -0.7
      comp=Z,25nm,1.0s,mb5.2
LSZ   Lusaka            67.62 250 eP     P      12 08 51.0 +0.1
LSZ                                pmax  pmax
      comp=Z,14nm,0.9s,mb5.0
LSZ   Lusaka            67.62 250 eP     P      12 08 51.0  0.0
      comp=Z,14nm,0.9s,mb5.0
MMB   Musomiste         68.72 311 eP     P      12 08 55.0 -2.4
KKB   Krupnik           69.23 312 eP     P      12 08 59.0 -1.5
VTS   Vitosha           69.25 312 eP     P      12 09 00.0 -0.6
PET   Petropavlovsk     69.47  36 eP     P      12 09 01.3 -0.5
PET                                pmax  pmax
      comp=Z,66nm,1.5s,mb5.3
PET   Petropavlovsk     69.47  36 eP     P      12 09 01.3 -0.5
      comp=Z,66nm,1.5s,mb5.3
KWP   Kalwaria          70.74 320 eP     P      12 09 09.2 -0.4
KWP                               e      pP     12 09 17.6 +0.1
LVZ   Lovozero          70.80 340 eP     pP     12 09 17.5  0.0
LVZ                                pmax  pmax
      comp=Z,20nm,0.9s,mb5.0
KOLS  Kolonicke sedl    70.90 319 eP     P      12 09 10.6  0.0
KOLS                              e      pP     12 09 18.2 -0.3
APA   Apatity           71.07 340⇓iP     P      12 09 10.1 -1.2
APA                               i      pP     12 09 19.0 -0.2
APA                                pmax  pmax
      comp=Z,34nm,1.0s,mb5.2
SUW   Suwalki           71.33 324 eP     P      12 09 11.7 -1.3
SUW                               e      pP     12 09 20.5 -0.4
CRVS  Cervenica-Dubn    71.42 319 eP     P      12 09 15.2 +1.5
CRVS                              e             12 09 26.9
FINES FINESS Array B    71.73 332  P     P      12 09 14.3 -1.1
      comp=Z,9.0nm,0.8s,mb4.8,baz=104,slow=7.9,SNR=20
FINES                              pP    pP     12 09 20.9 -2.3
      comp=Z,11nm,0.8s,baz=104,slow=7.9,SNR=14
KAF   Kangasniemi       71.83 333 ep     P      12 09 14.6 -1.3
      comp=Z,14nm,1.1s,mb4.8
KAF   Kangasniemi       71.83 333 eP     P      12 09 14.6 -1.3
KAF                                pmax  pmax
      comp=Z,14nm,1.1s,mb4.8
KECS  Kecovo            72.00 318 eP     P      12 09 16.5 -0.7
KECS                              epP    pP     12 09 25.6 +0.5
PSZ   Piszkesteto       72.31 318 eP     P      12 09 18.0 -1.0
PSZ                                pmax  pmax
      comp=Z,11nm,1.1s,mb4.7
PSZ   Piszkesteto       72.31 318 eP     P      12 09 18.0 -1.0
      comp=Z,11nm,1.1s,mb4.7
OJC   Ojcow             72.70 320 eP     P      12 09 21.0 -0.3
OJC                               e      pP     12 09 29.0 -0.2
LBTB  Lobatse           72.73 241 eP     P      12 09 22.7 +0.7
LBTB                               pmax  pmax
      comp=Z,20nm,1.0s,mb5.0
LBTB  Lobatse           72.73 241 eP     P      12 09 22.7 +0.6
      comp=Z,20nm,1.0s,mb5.0
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VYHS	Vyhne	73.09	318	*i* P	P	12 09 23.2	-0.4
VYHS				*e*	pP	12 09 31.7	+0.2
SRO	Srobarova	73.35	317	*e*P	P	12 09 25.1	-0.1
SRO				*e*pP	pP	12 09 32.9	-0.2
OKC	Ostrava-Krasne	73.70	320	*e*P	P	12 09 26.7	-0.4
OKC				*e*pP	pP	12 09 35.3	+0.2
MORC	Moravsky Berou	74.08	319	*e*P	P	12 09 28.7	-0.6
MORC				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
MORC	Moravsky Berou	74.08	319	*e*P	P	12 09 28.7	-0.6
	comp=Z,20nm,1.2s,mb4.9						
BOSA	Boshof	74.14	237	*e*P	P	12 09 30.6	+0.5
BOSA				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.2						
BOSA	Boshof	74.14	237	*e*P	P	12 09 30.6	+0.5
	comp=Z,45nm,1.5s,mb5.2						
ZST	Bratislava	74.20	318	*e*P	P	12 09 29.4	-0.7
ZST				*e*pP	pP	12 09 38.7	+0.7
ARCES	ARCESS Array B	74.51	340	P	P	12 09 30.5	-1.0
	comp=Z,9.0nm,0.8s,mb4.8,baz=101,slow=6.2,SNR=19						
ARCES				pP	pP	12 09 38.6	-0.8
	comp=Z,22nm,1.0s,baz=98,slow=4.7,SNR=10.0						
DPC	Dobruska-Polom	74.92	320	*e*P	P	12 09 34.3	+0.1
DPC				*e*pP	pP	12 09 43.3	+1.1
KSP	Ksiaz	74.99	320	⇓*e*P	P	12 09 34.6	0.0
KSP				*e*pP	pP	12 09 41.5	-1.0
KSP	Ksiaz	74.99	320	*e*P	P	12 09 34.8	+0.2
KSP				*e*	pP	12 09 41.5	-1.0
UPC	Upice	75.14	320	*e*P	P	12 09 35.7	+0.3
UPC				*e*pP	pP	12 09 42.1	-1.3
CASY	Casey	75.31	172	*e*P	P	12 09 36.8	+0.7
	comp=Z,17nm,1.0s,mb4.9						
PRU	Pruhonice	76.03	319	*e*P	P	12 09 40.9	+0.4
PRU				*e*pP	pP	12 09 47.5	-1.0
PVCC	Panska Ves	76.06	320	*e*P	P	12 09 41.0	+0.4
PVCC				*e*pP	pP	12 09 49.8	+1.2
BRG	Berggiesshubel	76.48	320	*i* P	P	12 09 43.4	+0.4
BRG				*e*	pP	12 09 50.3	-0.7
BRG				pmax	pmax		
	comp=Z,38nm,1.6s,mb5.1						
BRG	Berggiesshubel	76.48	320	*i* P	P	12 09 43.4	+0.4
	comp=Z,38nm,1.6s,mb5.1						
BRG				*e*	pP	12 09 50.3	-0.7
GEC2	GERESS Array S	76.51	318	*e*P	P	12 09 43.4	+0.2
GEC2				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
GEC2	GERESS Array S	76.51	318	*e*P	P	12 09 43.4	+0.2
	comp=Z,27nm,1.0s,mb5.1						
GERES	GERESS Array B	76.51	318	P	P	12 09 42.9	-0.3
	comp=Z,12nm,0.8s,mb4.9,baz=90,slow=5.3,SNR=92						
GERES				pP	pP	12 09 49.7	-1.5
	comp=Z,11nm,0.8s,baz=90,slow=5.3,SNR=11						
KHC	Kasperske Hory	76.61	319	*e*P	P	12 09 43.4	-0.3
KHC				*e*pP	pP	12 09 49.9	-1.8
BILL	Bilibino	76.61	22	*e*P	P	12 09 43.2	-0.2
BILL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
BILL	Bilibino	76.61	22	*e*P	P	12 09 43.2	-0.2
	comp=Z,7.4nm,1.0s,mb4.6						
PTCC	Patocco-Chiusa	76.62	316	*e*P	P	12 09 43.7	-0.2
RUE	Ruedersdorf	76.69	322	*e*P	P	12 09 43.4	-0.8
WET	Wettzell	77.06	319	*e*P	P	12 09 46.2	-0.1
CLL	Collm	77.10	321	*e*P	P	12 09 44.0	-2.4
CLL				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
CLL	Collm	77.10	321	*e*P	P	12 09 44.0	-2.4
	comp=Z,16nm,1.2s,mb4.8						
CLL	Collm	77.10	321	P	P	12 09 45.0	-1.4
	comp=Z,logA/T=1.1,mb4.8						
CLL				*i* *SP	sP	12 09 55.1	-2.1
NKC	Novy Kostel	77.39	320	*e*P	P	12 09 48.4	+0.3
NKC				*e*pP	pP	12 09 56.9	+0.8
SFI	Santa Sofia	77.62	313	*e*P	P	12 09 51.5	+2.0
PGD	Poggio Sodo	77.71	313	*e*P	P	12 09 51.3	+1.3
CTI	Castel Tesino	77.79	315	*e*P	P	12 09 50.7	+0.3
MOX	Moxa	77.94	320	*e*P	P	12 09 50.1	-1.0
MOX				*e**PP	pP	12 10 00.1	+1.0
MOX				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.0						
MOX	Moxa	77.94	320	*i* P	P	12 09 50.1	-1.0
	comp=Z,logA/T=1.3,mb5.0						
MOX				pP	pP	12 10 00.0	+0.9
MOX	Moxa	77.94	320	*e*P	P	12 09 50.1	-1.0
	comp=Z,30nm,1.6s,mb5.0						
MOX				*e*pP	pP	12 10 00.1	+1.0
SEI	Scarperia	77.97	313	*e*P	P	12 09 52.4	+1.0
GRA1	Grafenberg Arr	78.17	319	*e*P	P	12 09 52.8	+0.5
	comp=Z,38nm,1.0s,mb5.3						
GRA1				*e*pP	pP	12 10 01.3	+0.9
GRF	Grafenberg Arr	78.17	319	*e*P	P	12 09 52.8	+0.5
GRF				*e**PP	pP	12 10 01.3	+0.9
GRF				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
GRF	Grafenberg Arr	78.17	319	*e*P	P	12 09 52.8	+0.5
GRF				*e**PP	pP	12 10 01.3	+0.9
GRF				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
GRF	Grafenberg Arr	78.17	319	*e*P	P	12 09 52.8	+0.5
	comp=Z,38nm,1.0s,mb5.3						
GRF				*e*pP	pP	12 10 01.3	+0.9
MAW	Mawson	78.33	191	P	P	12 09 54.7	+1.9
	comp=Z,16nm,0.8s,mb5.0,baz=7.9,slow=6.6,SNR=14						
MAW				pP	pP	12 10 02.5	+1.6
	comp=Z,16nm,0.9s,baz=344,slow=7.7,SNR=6.9						
MAW	Mawson	78.33	191	*e*P	P	12 09 54.5	+1.6
MAW				pmax	pmax		
	comp=Z,37nm,1.2s						
MAW	Mawson	78.33	191	*e*P	P	12 09 54.5	+1.7
	comp=Z,37nm,1.2s,mb5.2						
GSCL	Gusciola	78.53	314	*e*P	P	12 09 55.6	+1.2
NB2	NORSAR Subarra	78.71	331	P	P	12 09 53.4	-1.7
	comp=Z,12nm,0.9s,mb4.8,baz=98,slow=4.8						
NB2	NORSAR Subarra	78.71	331	P	P	12 09 53.4	-1.7
	baz=98,slow=5.1						
NB2	NORSAR Subarra	78.71	331	P	P	12 09 53.4	-1.7
NB2				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
NOA	NORSAR Array B	78.71	331	P	P	12 09 53.9	-1.2
	comp=Z,5.7nm,0.8s,mb4.5,baz=94,slow=5.5,SNR=11						
NOA				pP	pP	12 10 01.1	-2.0
	comp=Z,7.1nm,0.8s,baz=94,slow=5.5,SNR=9.4						
CLZ	Clausthal	78.76	321	*e*P	P	12 09 55.7	+0.1
	comp=Z,23nm,1.0s,mb5.1						
BSEG	Bad Segeberg	78.85	323	*e*P	P	12 09 56.3	+0.3
NAO01	NORSAR Array S	78.86	330	*e*P	P	12 09 55.1	-0.8
	comp=Z,14nm,0.9s,mb4.9						
SUR	Sutherland	78.94	235	*e*P	P	12 09 59.2	+2.3
	comp=Z,49nm,1.2s,mb5.3						
VAI	Varese	79.80	315	*e*P	P	12 10 00.8	-0.5
BFO	Black Forest	80.06	318	*e*P	P	12 10 02.6	-0.1
LPL	La Plagne	81.24	315	*e*P	P	12 10 09.8	+0.8
	comp=Z,85nm,0.9s,mb5.3						
LPL	La Plagne	81.24	315	*e*P	P	12 10 09.8	+0.8
LPL				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.4						
BNI	Bardonecchia	81.30	314	*e*P	P	12 10 09.3	0.0
BNI				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
BNI	Bardonecchia	81.30	314	*e*P	P	12 10 09.3	0.0
	comp=Z,25nm,0.9s,mb5.1						
SYO	Syowa Base	85.03	197	⇓P	P	12 10 28.0	+0.2
SYO	Syowa Base	85.03	197	⇓PcP	PcP	12 10 30.3	-1.2
SYO	Syowa Base	85.03	197	⇓PP	PP	12 13 48.0	+1.5
ESDC	Sonseca Array	89.73	310	P	P	12 10 51.5	+0.2
	comp=Z,0.5nm,0.3s,mb4.3,baz=57,slow=4.4,SNR=12						
ESDC				pP	pP	12 10 58.9	-0.5
	comp=Z,4.6nm,0.8s,baz=62,slow=4.6,SNR=5.7						
IMA	Indian Mountai	92.16	22	*e*P	P	12 11 03.7	+1.9
	comp=Z,7.4nm,0.6s,mb5.2						
MCK	McKinley	95.03	23	*e*P	P	12 11 16.4	+1.3
	comp=Z,3.0nm,0.7s,mb4.8						
ILAR	Eielson Array	95.28	22	P	P	12 11 15.7	-0.5
	comp=Z,1.0nm,0.7s,mb4.4,baz=303,slow=4.7,SNR=14						
ILAR				pP	pP	12 11 23.9	-0.5
	comp=Z,1.8nm,0.7s,baz=309,slow=4.4,SNR=13						
ILAR				PP	PP	12 15 02.9	-5.7
	comp=Z,0.6nm,0.8s,baz=305,slow=7.1,SNR=4.5						
DBIC	Dimbokro	96.13	278	P	P	12 11 21.9	+0.6
	comp=Z,7.5nm,0.9s,mb5.1,baz=46,slow=5.7,SNR=9.0						
DBIC				pP	pP	12 11 30.8	+1.3
	comp=Z,6.0nm,0.9s,baz=58,slow=4.6,SNR=6.2						
DBIC	Dimbokro	96.13	278	*e*P	P	12 11 22.7	+1.4
INK	Inuvik	97.34	16	P	P	12 11 25.6	+0.1
	comp=Z,2.7nm,0.9s,mb4.7,baz=339,slow=3.8,SNR=11						
INK				pP	pP	12 11 33.2	-0.4
	comp=Z,3.3nm,0.8s,baz=297,slow=4.3,SNR=7.6						
YKA	Yellowknife Ar	106.69	13	PP	PP	12 16 27.3	-8.6
	comp=Z,1.1nm,0.9s,baz=337,slow=7.8,SNR=6.8						
YKA				PKKPbc		12 27 36.6	
	comp=Z,0.2nm,0.8s,baz=155,slow=3.1,SNR=6.8						
BMO	Blue Mountains	120.99	24	*e*PKPdf	PKPdf	12 16 46.6	-2.3
ULM	Lac du Bonnet	121.53	6	PKP	PKPdf	12 16 47.2	-2.6
	comp=Z,0.9nm,0.5s,baz=56,slow=3.6,SNR=3.1						
ULM				pPKP		12 16 56.0	
	comp=Z,3.5nm,1.0s,baz=321,slow=2.6,SNR=3.4						
ULM	Lac du Bonnet	121.53	6	PKP	PKPdf	12 16 47.2	-2.6
ULM				pPKP		12 16 56.0	
BOZ	Bozeman (W)	122.41	20	*e*PKPdf	PKPdf	12 16 49.2	-2.3
HLID	Hailey	123.21	23	*e*PKPdf	PKPdf	12 16 51.3	-1.9
TPAW	Teton Pass	124.54	20	*e*PKPdf	PKPdf	12 16 53.9	-1.9
LOHW	Long Hollow	124.55	20	*e*PKPdf	PKPdf	12 16 53.8	-2.0
SNOW	Snow King Moun	124.63	20	*e*PKPdf	PKPdf	12 16 54.1	-1.9
REDW	Red Top Meadow	124.69	20	*e*PKPdf	PKPdf	12 16 54.0	-2.1
PDAR	Pinedale Array	125.66	20	PKP	PKPdf	12 16 55.2	-2.7
	comp=Z,2.1nm,0.7s,baz=50,slow=1.4,SNR=22						
PDAR				pPKP		12 17 03.1	
	comp=Z,2.6nm,0.7s,slow=1.5,SNR=16						
NVAR	Mina Array Bea	125.70	30	PKP	PKPdf	12 16 56.2	-1.9
	comp=Z,3.1nm,0.7s,baz=286,slow=2.9,SNR=21						
NVAR				pPKP		12 17 04.0	
	comp=Z,5.9nm,0.8s,baz=301,slow=2.3,SNR=16						
NVAR	Mina Array Bea	125.70	30	PKP	PKPdf	12 16 56.2	-1.9
NVAR				pPKP		12 17 04.0	
MNV	Mina	125.77	29	*e*PKPdf	PKPdf	12 16 56.6	-1.7
TRCR	Troy Canyon	127.04	27	*e*PKPdf	PKPdf	12 16 59.1	-1.6
MVU	Marysvale	128.38	25	*e*PKPdf	PKPdf	12 17 01.5	-1.8
MSU	Marysvale	128.39	25	*e*PKPdf	PKPdf	12 17 02.8	-0.6
NEN	Nelson	129.58	29	*e*PKPdf	PKPdf	12 17 03.4	-2.4
PV10	Paradox Valley	129.73	22	*e*PKPdf	PKPdf	12 17 04.3	-1.6
ANMO	Albuquerque	133.72	21	PKP	PKPdf	12 17 11.4	-2.1
	comp=Z,2.2nm,0.8s,baz=76,slow=0.9,SNR=11						
ANMO				pPKP		12 17 19.6	
	comp=Z,4.2nm,0.8s,baz=208,slow=1.4,SNR=11						
ANMO	Albuquerque	133.72	21	*e*PKPdf	PKPdf	12 17 11.8	-1.7
TUC	Tucson	134.23	28	*e*PKPdf	PKPdf	12 17 14.4	-0.1
MNTX	Cornudas Mount	137.03	22	*e*PKPdf	PKPdf	12 17 17.7	-2.0
TXAR	Lajitas Array	139.79	22	PKhKP		12 17 17.1	
	comp=Z,0.5nm,1.0s,baz=347,slow=4.5,SNR=3.7						
TXAR				PKP	PKPdf	12 17 22.7	-2.1
	comp=Z,0.9nm,0.6s,baz=198,slow=1.6,SNR=17						
JCT	Junction City	139.99	16	*e*PKPdf	PKPdf	12 17 22.2	-3.0
BDFB	Brasilia	140.50	255	PKhKP		12 17 19.4	
	comp=Z,3.8nm,0.8s,baz=102,slow=4.1,SNR=3.5						
BDFB				PKP	PKPdf	12 17 24.3	-2.0
	comp=Z,4.4nm,0.9s,baz=178,slow=11,SNR=4.3						
SJG	San Juan	146.44	321	PKPbc	PKPbc	12 17 33.8	+0.5
	comp=Z,8.7nm,0.3s,baz=15,slow=21,SNR=4.3						
SJG	San Juan	146.44	321	PKPbc	PKPbc	12 17 33.8	+0.5
MDZ	Mendoza	149.73	213	*e*P	PKPdf	12 17 45.0	+3.4
PCRV	Puerto La Cruz	150.78	308	PKPbc	PKPdf	12 17 44.5	+0.8
	comp=Z,15nm,0.8s,baz=342,slow=1.9,SNR=5.3						
SDV	Santo Domingo	156.10	314	PKP	PKPdf	12 17 48.6	-2.6
	comp=Z,2.6nm,0.9s,baz=329,slow=8.2,SNR=2.5						
SDV				PKPab	PKPab	12 18 14.1	-2.5
	comp=Z,6.0nm,0.9s,baz=120,slow=2.2,SNR=5.7						
SDV	Santo Domingo	156.10	314	PKPdf	PKPdf	12 17 48.7	-2.4
LVC	Limon Verde	156.85	229	*e*PKPdf	PKPdf	12 17 49.9	-2.1
LVC				*e*PKPab	PKPab	12 18 20.3	+0.8
LPAZ	La Paz	159.21	245	PKP	PKPdf	12 17 53.0	-2.0
	comp=Z,4.4nm,0.9s,baz=53,slow=1.4,SNR=14						
LPAZ				pPKP		12 18 01.0	
	comp=Z,4.4nm,0.8s,baz=51,slow=4.2,SNR=8.8						
LPAZ				PKPab	PKPab	12 18 29.6	-0.3
	comp=Z,6.0nm,0.8s,baz=96,slow=6.1,SNR=9.9						
LPAZ	La Paz	159.21	245	*e*PKPdf	PKPdf	12 17 53.8	-1.2

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*MOS **27** 11:58:30.5±1.6, 4.10N×95.10E, h33^{km}, mb5.1/10, Error ellipse: s-maj=23.5km s-min=12.0km az=108.8*

*IDC **27** 11:58:32.3±3.8, 4.88N×94.72E, mb4.6/9, mb1 4.8/10, mb1mx4.6/20, ML4.5/1, Error ellipse: s-maj=93.5km s-min=47.8km az=148.0*

*NEIC **27** 11:58:36.5±1.8, 4.83N×94.82E, h30^{km}, mb5.0/6, Error ellipse: s-maj=44.1km s-min=16.4km az=158.0*

ISC 27 11:58:36.3±2.4, **5.1N**±0.4×**94.8E**±0.2, **h30^{km}, n36, σ0^{s}89**/36, **mb4.7**/15, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.85	17	Pn	P	12 02 00.8	+7.5
	0.8nm,0.3s,baz=212,slow=12,SNR=6.9						
BJT	Baijiatuau	39.72	26	*e*P	P	12 06 08.5	+0.6
BJT				pmax	pmax		
	comp=Z,17nm,0.6s						
BJT	Baijiatuau	39.72	26	*e*P	P	12 06 08.5	+0.6
	comp=Z,17nm,0.6s,mb5.0						
SONM	Songino Array	43.70	11	P	P	12 06 40.5	+0.1
	comp=Z,9.0nm,0.8s,mb4.5,baz=192,slow=9.5,SNR=4.1						
SONM				PcP	PcP	12 08 27.1	-0.6
	comp=Z,3.4nm,0.8s,baz=190,slow=4.1,SNR=4.9						
ZAL	Zalesovo	49.34	352	P	P	12 07 25.4	+0.6
	comp=Z,9.1nm,0.5s,mb5.1,baz=303,slow=5.2,SNR=10						
NVS	Novosibirsk	50.44	351	*e*P	P	12 07 28.0	-5.2
BVAR	Borovoye Array	51.78	341	P	P	12 07 43.6	+0.1
	comp=Z,13nm,0.8s,mb4.9,baz=141,slow=9.5,SNR=7.7						
BRVK	Borovoye	51.84	341	*e*P	P	12 07 43.7	-0.2
BRVK				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
BRVK	Borovoye	51.84	341	*e*P	P	12 07 43.7	-0.2
	comp=Z,11nm,0.7s,mb4.9						
CHKZ	Chkalovo	52.27	342	*e*P	P	12 07 47.4	+0.3
CHKZ				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
CHKZ	Chkalovo	52.27	342	*e*P	P	12 07 47.4	+0.3
	comp=Z,33nm,0.9s,mb5.3						
SVE	Sverdlovsk	58.17	339	*e*P	P	12 08 28.0	-1.8
YSS	Yuzh-Sakhalins	58.56	37	P	P	12 08 31.8	-0.9
YSS				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.1						
YSS	Yuzh-Sakhalins	58.56	37	P	P	12 08 31.8	-0.9
	comp=Z,13nm,0.6s,mb5.1						
BRTR	Keskin Array B	64.71	312	P	P	12 09 13.6	-0.6
	comp=Z,2.4nm,0.5s,mb4.5,baz=138,slow=6.1,SNR=6.8						
IDI	Anoyia	70.66	305	P	P	12 09 50.3	-1.2
	comp=Z,6.4nm,0.8s,mb4.6,baz=76,slow=4.2,SNR=1.9						
AKASG	Malin Array Be	70.70	322	P	P	12 09 50.2	-1.2
	comp=Z,1.9nm,0.4s,mb4.3,baz=83,slow=4.5,SNR=8.1						
AKASG	Malin Array Be	70.70	322	P	P	12 09 50.2	-1.3
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
APA	Apatity	74.63	340	*i* P	P	12 10 09.6	-4.7
KOLS	Kolonicke sedl	74.69	319	*e*P	P	12 10 16.1	+1.1
KOLS	Kolonicke sedl	74.69	319	*e*	P	12 10 16.1	+1.1
CRVS	Cervenica-Dubn	75.21	319	*e*P	P	12 10 20.0	+2.0
CRVS	Cervenica-Dubn	75.21	319	*e*	P	12 10 20.0	+2.0
FINES	FINESS Array B	75.42	332	P	P	12 10 18.5	-0.5
	comp=Z,1.7nm,0.5s,mb4.3,baz=98,slow=5.9,SNR=4.8						
PSZ	Piszkesteto	76.09	318	*e*P	P	12 10 22.9	-0.2
PSZ				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
PSZ	Piszkesteto	76.09	318	*e*P	P	12 10 22.9	-0.2
	comp=Z,9.9nm,0.9s,mb4.7						
OJC	Ojcow	76.48	320	*e*P	P	12 10 25.5	+0.3
VYHS	Vyhne	76.87	318	*e*P	P	12 10 28.0	+0.6
VYHS	Vyhne	76.87	318	*e*	P	12 10 28.0	+0.6
MORC	Moravsky Berou	77.87	320	*e*P	P	12 10 32.6	-0.3
MORC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
MORC	Moravsky Berou	77.87	320	*e*P	P	12 10 32.5	-0.3
	comp=Z,10nm,1.0s,mb4.7						
ZST	Bratislava	77.99	318	*e*P	P	12 10 34.5	+1.0
ZST	Bratislava	77.99	318	*e*	P	12 10 34.5	+1.0
ARCES	ARCESS Array B	78.05	340	P	P	12 10 33.9	+0.4
	comp=Z,3.0nm,0.7s,mb4.3,baz=100,slow=7.0,SNR=6.5						
GERES	GERESS Array B	80.29	319	P	P	12 10 47.2	+1.2
	comp=Z,7.2nm,0.7s,mb4.7,baz=116,slow=5.6,SNR=8.5						
CLL	Collm	80.88	321	P	P	12 10 48.0	-1.1

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*IDC **27** 12:08:23.4±1.5, 7.57N×92.49E, mb3.7/4, mb1 3.9/5, mb1mx3.7/18, ML3.9/1, Error ellipse: s-maj=49.1km s-min=25.5km az=59.0*

*NEIC **27** 12:08:26.9±0.8, 7.51N×92.29E, h30^{km}, mb4.0/3, Error ellipse: s-maj=16.7km s-min=15.5km az=10.0*

ISC 27 12:08:24.8±0.9, **7.4N**±0.1×**92.2E**±0.1, **h30^{km}, n9, σ1^{s}23**/9, **mb3.9**/7, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	11.43	270	*e*Pn	P	12 11 07.8	-1.5
	19nm,0.5s						
CMAR	Chiang Mai Arr	12.75	30	Pn	P	12 11 23.6	-3.3
	0.2nm,0.3s,baz=232,slow=14,SNR=4.8						
LSA	Lhasa	22.16	358	*e*P	P	12 13 21.3	+1.3
	3.8nm,0.6s,mb4.0						
AAK	Ala-Archa	38.38	339	*e*P	P	12 15 45.2	0.0
	1.0nm,0.6s,mb3.7						
SONM	Songino Array	42.02	14	P	P	12 16 14.7	-0.5
	1.1nm,0.8s,mb3.5,baz=199,slow=9.7,SNR=6.9						
CHKZ	Chkalovo	49.31	343	*e*P	P	12 17 13.1	+0.1
	1.4nm,0.4s,mb4.3						
WRA	Warramunga Arr	49.57	124	P	P	12 17 15.4	-0.1
	0.6nm,0.4s,mb4.0,baz=301,slow=9.1,SNR=9.1						
ASAR	Alice Springs	51.11	128	P	P	12 17 27.6	+0.3
	0.6nm,0.6s,mb3.7,baz=301,slow=7.3,SNR=5.8						
BRTR	Keskin Array B	61.28	311	P	P	12 18 41.9	+2.1
	0.5nm,0.5s,mb3.9,baz=117,slow=5.5,SNR=3.6						

IDC 27 12:13:54.9±7.8, **3.42N**×**96.80E, mb3.9**/3, **mb1 4.2**/3, **mb1mx3.9**/16, **Error ellipse: s-maj=309.0km s-min=47.2km az=62.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.57	124	P	P	12 22 01.1	-1.6
	1.0nm,0.7s,baz=304,slow=9.1,SNR=7.8						
ASAR	Alice Springs	45.06	129	P	P	12 22 12.8	-2.0
	0.3nm,0.4s,baz=297,slow=8.0,SNR=9.9						
ILAR	Eielson Array	97.82	23	P	P	12 27 31.9	-1.3
	0.9nm,0.7s,baz=290,slow=4.6,SNR=4.8						

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*ORF **27** 12:13:56.7, 12.79N×93.66E, h30^{km}, mb5.5*

*MOS **27** 12:13:58.2±0.9, 12.87N×92.77E, h33^{km}, mb5.4/38, Error ellipse: s-maj=10.7km s-min=5.3km az=122.5*

*BJI **27** 12:13:58.0, 12.51N×92.54E, h48^{km}, mb4.7, mB5.1, Ms4.5, Msz4.3*

*NEIC **27** 12:13:59.6±0.2, 12.81N×92.68E, mb5.2/35, Error ellipse: s-maj=6.1km s-min=5.2km az=217.0*

*HRVD **27** 12:13:59.6±0.9, 12.86N×92.51E, h30^{km}±1^{km}, MW5.0/29, Centroid moment Tensor Solution. LP body waves: s12,c12; Mantle waves: s29,c37; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.75±.52; $M_{\theta\theta}$2.74±.35; $M_{\phi\phi}$1.01±.35; $M_{r\theta}$-0.10±.42; $M_{\theta\phi}$1.38±.20; $M_{\phi r}$-1.18±.48; Best double couple: $M_0$3.8×10^{16} NP1:ϕ_s253°, δ41°, λ-71°. NP2:ϕ_s48°, δ52°, λ-106°. Principal axes: T 3.57, Plg5°, Azm149°; N .47, Plg13°, Azm58°; P -4.03, Plg76°, Azm262°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **27** 12:14:03.0±1.5, 12.86N×92.79E, h57^{km}±12^{km}, mb4.7/25, mb1 4.7/26, mb1mx4.7/27 Error ellipse: s-maj=16.1km s-min=8.6km az=44.0*

ISC 27 12:13:57.6±0.2, **12.76N**±0.04×**92.63E**±0.03, **h27^{km}, h27^{km}**±1.4^{km}**:pP-P, n251, σ1^{s}05**/247, **mb5.0**/76, **MS4.3**/8, **7C-11D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	7.83	67	P	Pn	12 15 55.2	+2.6
CM31	Chiang Mai Arr	8.31	46	*e*Pn	P	12 15 59.4	+0.1
	13nm,0.4s						
CMAR	Chiang Mai Arr	8.31	46	P	P	12 15 57.1	-2.2
	1.8nm,0.3s,baz=236,slow=15,SNR=28						
CMAR				S	Sn	12 17 25.6	-7.6
	baz=233,slow=24,SNR=2.0						
CMAR	Chiang Mai Arr	8.31	46	P	P	12 15 57.1	-2.2
CMAR				S	Sn	12 17 25.6	-7.6
NANT	Nan	9.81	51	P	P	12 16 23.0	+2.8
CHRT	Chiangrai	9.85	43	⇓P	P	12 16 21.5	+0.8
	816nm,0.9s						
VIS	Vishakhapatnam	10.24	300	*i* P	P	12 16 20.7	-5.4
VIS				*i* S	S	12 18 04.7	-16
KKTK	Khon Kaen	10.48	69	P	P	12 16 31.5	+2.1
	2μm,0.5s						
AGT	Agartala	11.14	353	⇑*i*P	P	12 16 40.0	+1.6
IMP	Imphal	12.02	6	*e*	P	12 16 47.6	-2.7
MDRS	Chennai	12.08	273	*e*P	P	12 16 49.0	-2.1
MDRS				*e*		12 18 50.0	
UBT	Ubonrachathani	12.27	77	P	P	12 16 58.5	+4.8
SHL	Shillong	12.76	357	*e*P	P	12 16 58.5	-1.6
SHL				*e*S	S	12 19 09.9	-12
BLSP	Bilaspur	13.67	314	*e*P	P	12 17 09.6	-2.7
BLSP				*e*S	S	12 19 25.3	-19
KOD	Kodaikanal	15.07	262	*e*P	P	12 17 30.3	-0.5
KOD				*e*		12 20 04.9	
NGP	Nagpur	15.43	305	⇑*e*P	P	12 17 36.4	+1.0
NGP				*e*		12 20 12.7	
KMI	Kunming	15.56	36	P	P	12 17 41.5	+4.5
KMI				AP		12 17 46.3	
KMI				S	S	12 20 32.0	+3.1
KMI				AMB	AMB		
	comp=Z,10.0nm,1.2s						
KMI				LR	LR		
	comp=N,832nm,17.6s						
KMI				LR	LR		
	comp=E,999nm,16.7s						
KMI				LR	LR		
	comp=Z,420nm,19.4s						
PKI	Pulchoki	16.21	336	*e*P	P	12 17 45.3	0.0
GUN	Gumba	16.34	338	*e*P	P	12 17 47.2	+0.3
DMN	Daman	16.36	336	*e*P	P	12 17 46.7	-0.5
KKN	Kakani	16.46	336	*e*P	P	12 17 47.9	-0.5
AKL	Akola	16.90	300	*e*P	P	12 17 53.5	-0.5
AKL				*e*		12 18 08.3	
	comp=Z,116nm,1.2s						
AKL				*i*		12 20 27.4	
	comp=Z,117nm,1.4s						
GKN	Gorkha	16.90	335	*e*P	P	12 17 53.3	-0.8
LSA	Lhasa	16.91	356	*e*P	P	12 17 56.4	+2.3
LSA				pmax	pmax		
	comp=Z,735nm,0.6s						
LSA	Lhasa	16.91	356	*e*P	P	12 17 56.4	+2.2
	comp=Z,735nm,0.6s						
KOLN	Koldanda	17.16	332	*e*P	P	12 17 55.5	-1.7
GYA	Guiyang	18.96	42	⇓*i*P	P	12 18 19.8	+0.4
GYA				AMB	AMB		
	comp=Z,40nm,0.7s						
GYA				AMB	AMB		
	comp=Z,580nm,3.1s						
GYA				LR	LR		
	comp=N,1μm,15.8s						
GYA				LR	LR		
	comp=E,2μm,15.0s						
GYA				LR	LR		
	comp=Z,1μm,16.2s						
POO	Poona	18.97	290	⇓*i*	P	12 18 11.0	-8.6
	comp=Z,70nm,1.0s						
POO				*i*		12 21 32.0	
BOM	Bombay	20.01	290	*e*P	P	12 18 32.1	+0.8
BOM				*e*		12 18 32.7	
	comp=Z,36nm,0.6s						
BOM				*e*		12 21 58.9	
	comp=Z,158nm,0.7s						
LGTI	Lohaghat	20.20	327	*e*P	P	12 18 33.7	+0.5
LGTI				*e*		12 22 08.5	
CD2	Chengdu	20.78	28	P	P	12 18 38.5	-0.7
NDI	New Delhi	21.38	320	*e*P	P	12 18 44.9	-0.4
NDI				*e*		12 18 49.5	
	comp=Z,124nm,1.0s						
NDI				*i* S	S	12 22 37.1	+0.8
AJM	Ajmer	21.72	312	*i* P	P	12 18 49.0	+0.3
DDI	Dehra Dun	22.08	325	*e*P	P	12 18 52.2	-0.1
DDI				*e*S	S	12 22 51.2	+2.1
ENH	Enshi	23.39	39	*e*P	P	12 19 04.5	-0.7
	comp=Z,43nm,0.8s,mb4.9						
SDNR	Sundarnagar	23.57	325	*e*P	P	12 19 09.5	+2.5
DLH	Dalhousie	24.92	325	*e*P	P	12 19 20.0	0.0
THN	Thein Dam	24.98	324	*e*P	P	12 19 20.0	-0.6
	comp=Z,23nm,0.6s,mb4.9						
LZH	Lanzhou	25.33	22	*e*P	P	12 19 24.5	+0.7
LZH				AMB	AMB		
	comp=Z,42nm,1.2s,mb4.8						
LZH				LR	LR		
	comp=E,503nm,14.0s						
LZH				LR	LR		
	comp=Z,1μm,15.3s,MS4.5						
XAN	Xi'an	25.85	32	P	P	12 19 28.0	-0.8
XAN				AMB	AMB		
	comp=Z,6.0nm,0.7s,mb4.2						
GTA	Gaotai	27.29	12	*e*P	P	12 19 42.5	+0.6

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GTA                                PP       PP     12 20 28.5  -0.7
GTA                                PCP      PcP    12 23 02.5  +1.0
GTA                                S        S      12 24 18.5  +0.6
GTA                                SS       SS     12 25 34.0  -0.8
GTA                                AMB      AMB
      comp=Z,20nm,1.1s,mb4.6
GTA                                AMB      AMB
      comp=Z,366nm,4.6s
GTA                                LR       LR
      comp=N,883nm,17.9s,MS4.5
GTA                                LR       LR
      comp=E,550nm,17.1s,MS4.5
GTA                                LR       LR
      comp=Z,1µm,24.7s
KSH   Kashi             30.45 334  P        P      12 20 10.0  -0.3
KSH                               ePP       PP     12 21 07.0  -3.2
KSH                                S        S      12 25 08.5  +0.1
KSH                                AMB      AMB
      comp=Z,70nm,1.4s,mb5.2
KSH                                LR       LR
      comp=N,340nm,12.8s,MS4.4
KSH                                LR       LR
      comp=E,510nm,14.3s,MS4.4
WMQ   Urumqi            31.24 353 ⇑P        P      12 20 18.0  +0.8
WMQ                                AP       pP     12 20 25.5  +0.3
WMQ                                PP       PP     12 21 18.3  -2.2
WMQ                                S        S      12 25 21.5  +0.8
WMQ                                AMB      AMB
      comp=Z,10.0nm,0.8s,mb4.7
WMQ                                LR       LR
      comp=N,417nm,28.3s
WMQ                                LR       LR
      comp=E,399nm,20.4s
WMQ                                LR       LR
      comp=Z,342nm,25.0s,MS3.9
HHC   Hu-ho-hao-te      32.53  27 eP        P      12 20 28.5   0.0
HHC                                AP       pP     12 20 36.3  -0.3
HHC                                XP       sP     12 20 42.8  +2.7
HHC                                AMB      AMB
      comp=Z,17nm,0.7s,mb5.1
HHC                                AMB      AMB
      comp=Z,339nm,11.5s
HHC                                LR       LR
      comp=N,277nm,13.1s,MS4.2
HHC                                LR       LR
      comp=E,202nm,16.6s,MS4.2
ULHL  Ulahol            32.65 337  P        P      12 20 29.8  +0.2
      SNR=11
KZA   Kyzart            32.89 336  P        P      12 20 32.5  +0.9
      SNR=18
UCH   Uchtor            33.32 335  P        P      12 20 36.2  +0.9
      SNR=22
TKM2  Tokmak 2          33.47 337  P        P      12 20 36.8  +0.1
      SNR=13
KBK   Karagaybulak      33.50 336  P        P      12 20 37.9  +1.0
      SNR=21
AML   Almayashu         33.58 334  P        P      12 20 38.7  +1.1
      SNR=34
AAK   Ala-Archa         33.66 336  P        P      12 20 39.4  +1.0
      SNR=19
AAK   Ala-Archa         33.66 336 eP        P      12 20 37.1  -1.3
AAK                               e                12 23 16.2
AAK                                pmax     pmax
      comp=Z,28nm,1.0s,mb5.2
AAK   Ala-Archa         33.66 336 eP        P      12 20 37.1  -1.3
      comp=Z,28nm,1.0s,mb5.2
AAK                               ePcP      PcP    12 23 16.2  -1.8
FRU   Bishkek           33.78 336 eP        P      12 20 40.0  +0.6
CHMS  Chumysh           33.87 336  P        P      12 20 40.2  +0.1
      SNR=14
EKS2  Erkin-Say         33.98 335  P        P      12 20 42.0  +0.8
      SNR=27
BJT   Baijiatuau        34.16  33 eP        P      12 20 43.0  +0.4
      comp=Z,24nm,0.7s,mb5.2
BJI   Beijing           34.18  33  P        P      12 20 43.0  +0.2
BJI                                AMB      AMB
      comp=Z,8.0nm,1.1s,mb4.6
USP   Ospenovka         34.19 336  P        P      12 20 43.1  +0.2
      SNR=36
MKAR  Makanchi Array    35.02 348 i P       P      12 20 49.7  -0.3
JOW   Kunigami          36.20  62  P        P      12 20 59.8  -0.3
      comp=Z,9.7nm,0.4s,mb5.1,baz=110,slow=28,SNR=9.5
JOW   Kunigami          36.20  62  P        P      12 20 59.8  -0.3
SONM  Songino Array     36.81  16  P        P      12 21 04.7  -0.4
      comp=Z,7.8nm,1.1s,mb4.5,baz=198,slow=7.8,SNR=35
SONM                               PcP      PcP    12 23 27.1  -0.1
      comp=Z,3.1nm,0.8s,baz=202,slow=2.4,SNR=4.6
SONM                               ScP             12 27 09.4
      comp=Z,0.3nm,0.7s,baz=270,slow=2.9,SNR=2.5
SONM  Songino Array     36.81  16  P        P      12 21 04.7  -0.4
SONM                               PcP      PcP    12 23 27.1  -0.1
SONM                               ScP             12 27 09.4
ULN   Ulaanbaatar       37.01  16 eP        P      12 21 06.8   0.0
      comp=Z,10nm,1.4s,mb4.5
ZAK   Zakamensk         38.51  11⇓iP        P      12 21 19.4   0.0
ZAK                               e                12 22 51.8
TLY   Talaya            39.83  11 i P       P      12 21 24.3  -6.0
KS15  Wonju Array Si    39.91  46 eP        P      12 21 31.2  +0.1
ZAL   Zalesovo          41.54 353  P        P      12 21 43.5  -0.8
      comp=Z,13nm,0.7s,mb4.7,baz=304,slow=6.6,SNR=70
ZAL   Zalesovo          41.54 353  P        P      12 21 43.5  -0.8
CN2   Changchun         41.83  36 eP        P      12 21 46.5  -0.4
CN2                                AMB      AMB
      comp=Z,10.0nm,0.9s,mb4.5
HASS  Wahat al Ahsa'    42.27 293  P        P      12 21 52.1  +1.4
NVS   Novosibirsk       42.62 352 i P       P      12 21 50.9  -2.3
NVS                               e                12 23 45.0
NVS                                pmax     pmax
      comp=N,9.0nm,0.9s
NVS                                pmax     pmax
      comp=E,7.0nm,0.9s
NVS                                pmax     pmax
      comp=Z,20nm,0.9s,mb4.8
HIA   Hailar            42.72  26 eP        P      12 21 53.4  -0.6
      comp=Z,5.0nm,0.6s,mb4.4
MBWA  Marble Bar        42.95 141 eP        P      12 21 55.5  -0.8
BVA0  Borovoye Array    43.91 341  P        P      12 22 03.3  -0.4
BVA0                               pmax     pmax
      comp=Z,3.0nm,1.2s
BVAR  Borovoye Array    43.91 341  P        P      12 22 03.2  -0.5
      comp=Z,6.8nm,0.6s,mb4.5,baz=149,slow=8.6,SNR=38
BVAR                               PcP      PcP    12 23 48.4  -1.6
      comp=Z,2.7nm,0.6s,baz=135,slow=2.1,SNR=3.7
BVAR  Borovoye Array    43.91 341  P        P      12 22 03.2  -0.5
BVAR                               PcP      PcP    12 23 48.4  -1.6
BRVK  Borovoye          43.98 341 eP        P      12 22 03.1  -1.1
BRVK                               pmax     pmax
      comp=Z,18nm,1.0s,mb4.8
BRVK  Borovoye          43.98 341 eP        P      12 22 03.0  -1.1
      comp=Z,18nm,1.0s,mb4.8
CHKZ  Chkalovo          44.40 341 eP        P      12 22 07.5  -0.1
      comp=Z,50nm,0.9s,mb5.2
QRN   Al-Qurain         44.45 298 eP        P      12 22 08.6  +0.1
MDJ   Mudanjiang        44.73  38  P        P      12 22 10.5   0.0
MDJ                                PCP      PcP    12 23 50.5  -2.4
MDJ                                PP       PP     12 23 55.0  -0.9
MDJ                                PCS             12 27 45.5
MDJ                                S        S      12 28 46.5  +1.6
MDJ                                AMB      AMB
      comp=Z,8.0nm,2.2s,mb4.2
MDJ                                AMB      AMB
      comp=Z,75nm,7.6s
MDJ                                LR       LR
      comp=N,237nm,16.0s,MS4.2
MDJ                                LR       LR
      comp=E,132nm,18.8s,MS4.2
MDJ                                LR       LR
      comp=Z,303nm,19.7s,MS4.2
UMR   Umm Al-Rimmam     44.79 299 eP        P      12 22 11.9  +0.7
UMR                                AMb      AMB    12 22 12.5
      comp=Z,45nm,0.7s,mb5.4
RDF   Al-Radifah        44.81 298 eP        P      12 22 12.1  +0.8
RDF                                AMb      AMB    12 22 12.9
      comp=Z,123nm,0.5s,mb6.0
RYDS  Riyadh            44.89 291  P        P      12 22 13.6  +1.6
RST   Umm Al-Ruwaisa    45.40 299 eP        P      12 22 16.5  +0.6
RST                                AMb      AMB    12 22 17.1
      comp=Z,80nm,0.6s,mb5.8
MZLS  Mizel             46.18 291  P        P      12 22 23.4  +1.2
MAT   Matsushiro        47.15  52  P        pP     12 22 37.9   0.0
MAT   Matsushiro        47.15  52 eP        pP     12 22 38.0  +0.1
MAT                                pmax     pmax
      comp=Z,22nm,1.1s,mb5.0
MAT   Matsushiro        47.15  52 eP        pP     12 22 38.0  +0.1
      comp=Z,22nm,1.1s
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BOD   Bodaibo           47.81  15 eP        P      12 22 33.6  -1.0
AFFS  'Afif             48.18 291  P        P      12 22 39.5  +1.5
GNI   Garni             50.03 312  P        P      12 22 53.0  +1.1
      comp=Z,47nm,0.8s,mb5.5,baz=7.9,slow=2.9,SNR=37
GNI   Garni             50.03 312 eP        P      12 22 53.4  +1.5
GNI                                pmax     pmax
      comp=Z,105nm,1.1s
GNI   Garni             50.03 312 eP        P      12 22 53.4  +1.5
      comp=Z,105nm,1.1s,mb5.8
SVE   Sverdlovsk        50.34 338⇓eP        P      12 22 53.5  -0.6
SVE                                pmax     pmax
      comp=Z,80nm,1.3s,mb5.6
TI2   Plekhanov         50.56 314 eP        P      12 22 57.2  +1.2
ARU   Arti              50.84 336⇓iP        P      12 22 56.6  -1.3
ARU                               e                12 24 52.1
ARU                               eS        S      12 30 18.9  +8.1
ARU                                pmax     pmax
      comp=Z,31nm,1.3s,mb5.1
ARU   Arti              50.84 336 eP        P      12 22 56.8  -1.1
      comp=Z,36nm,1.3s,mb5.1
NWAO  Narrogin (SRO)    51.15 153  P        P      12 22 59.5  -1.0
      comp=Z,24nm,0.9s,mb5.1,baz=262,slow=7.6,SNR=9.1
NWAO  Narrogin (SRO)    51.15 153 eP        P      12 22 59.2  -1.3
      comp=Z,37nm,1.1s,mb5.2
ZEI   Tsey              51.51 315 i P       P      12 23 04.1  +0.9
ZEI                                pmax     pmax
      comp=Z,28nm,0.9s,mb5.2
WRA   Warramunga Arr    52.35 128  P        P      12 23 08.6  -1.3
      comp=Z,30nm,0.7s,mb5.3,baz=305,slow=8.4,SNR=137
WRA                                PcP      PcP    12 24 20.5  -0.2
      comp=Z,5.2nm,0.7s,baz=316,slow=3.5,SNR=5.4
WRA                                ScP             12 28 14.1
      comp=Z,2.2nm,0.8s,baz=316,slow=4.0,SNR=6.7
WRA                                S        S      12 30 28.1  -4.0
      comp=Z,1.6nm,0.8s,baz=309,slow=16,SNR=7.3
WRA   Warramunga Arr    52.35 128  P        P      12 23 08.6  -1.2
WRA                                PcP      PcP    12 24 20.5  -0.2
WRA                                ScP             12 28 14.1
WRA                                S        S      12 30 28.1  -4.0
WRAB  Tennant Creek     52.35 128 eP        P      12 23 08.9  -1.0
      comp=Z,50nm,0.6s,mb5.6
KIV   Kislovodsk        52.76 316  P        P      12 23 13.4  +0.9
      comp=Z,482nm,0.8s,SNR=8.5
KIV   Kislovodsk        52.76 316 eP        P      12 23 12.9  +0.4
KIV                                pmax     pmax
      comp=Z,43nm,0.7s,mb5.5
KIV   Kislovodsk        52.76 316 eP        P      12 23 12.9  +0.4
      comp=Z,43nm,0.7s,mb5.5
GOF   Gofitskoye        52.91 317⇓iP        P      12 23 15.0  +1.3
GOF                                pmax     pmax
      comp=Z,40nm,1.0s,mb5.3
SOKR  Solikamsk         53.74 338⇑iP        P      12 23 18.1  -1.4
SOKR                               pmax     pmax
      comp=Z,40nm,0.9s,mb5.3
YSS   Yuzh-Sakhalins    53.96  41 eP        P      12 23 23.0  +1.8
ASAR  Alice Springs     54.22 132  P        P      12 23 22.9  -0.6
      comp=Z,19nm,0.6s,mb5.2,baz=310,slow=6.6,SNR=149
ASAR                               PcP      PcP    12 24 27.9  +0.2
      comp=Z,6.1nm,0.9s,baz=317,slow=4.1,SNR=4.4
ASAR                               ScP             12 28 21.8
      comp=Z,1.8nm,0.8s,baz=319,slow=4.3,SNR=6.0
ASAR                               S        S      12 30 54.4  -2.9
      comp=Z,2.4nm,0.9s,baz=302,slow=13,SNR=8.4
ASAR  Alice Springs     54.22 132  P        P      12 23 22.9  -0.6
ASAR                               PcP      PcP    12 24 27.9  +0.2
ASAR                               ScP             12 28 21.8
ASAR                               S        S      12 30 54.4  -2.9
MALT  Malatya           54.24 308 eP        P      12 23 23.7  +0.2
MALT                               pmax     pmax
      comp=Z,26nm,1.1s,mb5.1
MALT  Malatya           54.24 308 eP        P      12 23 23.7  +0.2
      comp=Z,26nm,1.1s,mb5.1
SOC   Sochi             54.67 315 i P       P      12 23 26.0  -0.6
SOC                               e                12 24 33.8
SOC                               e                12 25 35.3
SOC                               ePPP      PPP    12 26 47.0  +4.5
SOC                               eS        S      12 31 13.5   +10
SOC                                pmax     pmax
      comp=Z,32nm,0.7s,mb5.5
SOC                                pmax     pmax
      comp=N,11nm,0.9s
SOC                                pmax     pmax
      comp=E,6.0nm,0.5s
SOC                                MLR      MLR
      comp=N,221nm,22.0s,MS4.3
SOC                                MLR      MLR
      comp=Z,269nm,22.0s,MS4.3
SOC                                MLR      MLR
      comp=E,205nm,21.0s,MS4.3
KAHT  Ahir Dag          55.30 307 i P       P      12 23 31.7  +0.4
COBT  Iskenderun        55.58 306 i P       P      12 23 33.5  +0.2
YAK   Yakutsk           55.90  20 eP        P      12 23 32.5  -2.7
YAK                               e         pP     12 23 40.5  -3.1
YAK                               eS        tx     12 34 57.3
YAK                                pmax     pmax
      comp=Z,10.0nm,0.9s,mb4.8
YAK                                pmax     pmax
      comp=N,8.0nm,1.0s
YAK                                pmax     pmax
      comp=E,3.0nm,1.0s
YAK                                pmax     pmax
      comp=Z,15nm,0.9s,mb5.0
YAK                                pmax     pmax
      comp=N,8.0nm,1.1s
YAK                                pmax     pmax
      comp=E,7.0nm,1.1s
YAK                                smax
      comp=N,10.0nm,1.0s
YAK                                smax
      comp=E,6.0nm,0.9s
ANN   Anapa             56.60 316 eP        P      12 23 39.7  -0.8
ANN                                pmax     pmax
      comp=Z,96nm,1.3s,mb5.7
KMBO  Kilima Mbogo      56.64 260  P        P      12 23 43.1  +1.9
      comp=Z,7.2nm,0.8s,mb4.8,baz=52,slow=10,SNR=26
KMBO                               PcP      PcP    12 24 38.6  +1.4
      comp=Z,1.9nm,0.8s,baz=28,slow=22,SNR=2.5
KMBO  Kilima Mbogo      56.64 260  P        P      12 23 43.2  +2.0
KMBO                                               12 24 38.6
KMBO                               pmax     pmax
      comp=Z,7.0nm,0.8s
KMBO                               pmax     pmax
      comp=Z,2.0nm,0.8s
KMBO  Kilima Mbogo      56.64 260 eP        P      12 23 42.8  +1.6
      comp=Z,6.9nm,0.8s,mb4.7
BOYT  Boyabat           57.56 311 i P       P      12 23 46.7  -0.7
BRTR  Keskin Array B    58.18 309  P        P      12 23 50.6  -1.1
      comp=Z,22nm,0.8s,mb5.3,baz=121,slow=7.7,SNR=110
BRTR  Keskin Array B    58.18 309  P        P      12 23 50.6  -1.1
PMG   Port Moresby      58.46 109  P        P      12 23 53.9  -0.1
      comp=Z,15nm,0.8s,mb5.0,baz=294,slow=2.5,SNR=8.1
PMG   Port Moresby      58.46 109 eP        P      12 23 53.5  -0.5
      comp=Z,32nm,1.3s,mb5.2
BALT  Daday             58.70 311 i P       P      12 23 55.5  +0.1
SIM   Simferopol'       58.91 315c iP       P      12 23 57.1  +0.3
SIM                               eS        S      12 32 04.0  +4.8
SIM                                pmax     pmax
      comp=Z,319nm,0.9s
SIM                                MLR      MLR
      comp=Z,300nm,19.0s
SGKT  Sivrigoynuk       59.52 310 i P       P      12 23 59.5  -1.5
MOS   Moscow            60.17 328 eP        P      12 24 04.7  -0.6
MOS                                pmax     pmax
      comp=Z,54nm,0.8s,mb5.6
ESKT  Eskisehir         60.27 308 i P       P      12 24 04.9  -1.3
ISP   Isparta           60.31 306 i P       P      12 24 05.1  -1.4
OBN   Obninsk           60.49 327deP        P      12 24 05.4  -2.1
OBN                               e                12 26 19.0
OBN                               eS        S      12 32 42.6   +23
OBN                                pmax     pmax
      comp=Z,48nm,1.4s,mb5.3
OBN                                MLR      MLR
      comp=Z,300nm,17.0s,MS4.5
OBN   Obninsk           60.49 327 i P       P      12 24 05.5  -2.0
CTA   Charters Tower    62.03 121  P        P      12 24 17.8  -0.6
      comp=Z,12nm,0.9s,mb5.0,baz=291,slow=6.2,SNR=13
CTA   Charters Tower    62.03 121  P        P      12 24 17.8  -0.6
TIXI  Tiksi             62.78  12⇑iP        P      12 24 21.4  -1.2
TIXI                               pmax     pmax
      comp=Z,41nm,1.4s,mb5.4
MBAR  Mbarara           62.79 263 eP        P      12 24 24.5  +1.0
MBAR                               pmax     pmax
      comp=Z,22nm,1.3s,mb5.1
MBAR  Mbarara           62.79 263 eP        P      12 24 24.5  +1.0
      comp=Z,22nm,1.3s,mb5.1
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CFR   Carcaliu          63.11 314⇓iP        P      12 24 24.6  -0.6
AKASG Malin Array Be    63.44 321  P        P      12 24 25.4  -1.8
      comp=Z,11nm,0.8s,mb5.0,baz=89,slow=4.3,SNR=40
AKASG Malin Array Be    63.44 321  P        P      12 24 25.4  -1.9
AKASG                              pmax     pmax
      comp=Z,11nm,0.8s
VRI   Vrincioaia        64.19 315⇑iP        P      12 24 33.1  +0.8
STKA  Stephens Creek    64.56 135  P        P      12 24 34.1  -0.8
      comp=Z,4.1nm,0.6s,mb4.6,baz=316,slow=11,SNR=7.6
STKA  Stephens Creek    64.56 135 eP        P      12 24 34.6  -0.3
DIM   Dimitrovgrad      64.58 311 eP        P      12 24 43.0  +8.1
IDI   Anoyia            64.63 303  P        P      12 24 34.2  -1.1
      comp=Z,9.5nm,0.8s,mb4.9,baz=62,slow=6.2,SNR=6.1
RZN   Rozhen            65.16 310 eP        P      12 24 38.0  -0.6
MMB   Musomiste         65.89 310 eP        P      12 24 42.0  -1.3
VTS   Vitosha           66.35 311 eP        P      12 24 45.0  -1.2
KKB   Krupnik           66.39 310 eP        P      12 24 45.0  -1.5
APA   Apatity           66.78 339⇓iP        P      12 24 47.2  -1.4
APA                               i                12 24 59.4
APA                                pmax     pmax
      comp=Z,26nm,1.0s,mb5.2
KWP   Kalwaria          67.39 319 eP        P      12 24 52.1  -0.6
KOLS  Kolonicke sedl    67.59 318 eP        P      12 24 54.0   0.0
SUW   Suwalki           67.71 323 eP        P      12 24 53.3  -1.4
FINES FINESS Array B    67.73 332  P        P      12 24 53.5  -1.2
      comp=Z,13nm,0.7s,mb5.1,baz=104,slow=7.9,SNR=38
FINES FINESS Array B    67.73 332  P        P      12 24 53.5  -1.1
KAF   Kangasniemi       67.80 332 ep        P      12 24 53.5  -1.6
      comp=Z,17nm,0.9s,mb5.1
KAF   Kangasniemi       67.80 332 eP        P      12 24 53.5  -1.6
KAF                                pmax     pmax
      comp=Z,17nm,0.9s,mb5.1
CRVS  Cervenica-Dubn    68.12 318 eP        P      12 24 58.7  +1.4
KECS  Kecovo            68.72 317 eP        P      12 25 00.1  -1.0
NIE   Niedzica          68.92 318 eP        P      12 25 02.6  +0.4
OJC   Ojcow             69.32 319 eP        P      12 25 04.5  -0.2
LSZ   Lusaka            69.59 248 eP        P      12 25 08.3  +1.4
LSZ                                pmax     pmax
      comp=Z,30nm,1.5s,mb5.0
LSZ   Lusaka            69.59 248 eP        P      12 25 08.3  +1.4
      comp=Z,30nm,1.5s,mb5.0
KEV   Kevo              69.76 340 ep        P      12 25 06.0  -1.1
VYHS  Vyhne             69.82 317 i P       P      12 25 07.3  -0.5
SRO   Srobarova         70.13 316 eP        P      12 25 09.8  +0.1
ARCES ARCESS Array B    70.19 340  P        P      12 25 09.1  -0.6
      comp=Z,11nm,0.7s,mb4.9,baz=87,slow=6.4,SNR=52
ARCES ARCESS Array B    70.19 340  P        P      12 25 09.1  -0.6
OKC   Ostrava-Krasne    70.35 319 eP        P      12 25 11.0   0.0
MORC  Moravsky Berou    70.74 318 eP        P      12 25 13.0  -0.3
MORC                               pmax     pmax
      comp=Z,28nm,1.2s,mb5.1
MORC  Moravsky Berou    70.74 318 eP        P      12 25 13.0  -0.3
      comp=Z,28nm,1.2s,mb5.1
ZST   Bratislava        70.96 317 eP        P      12 25 14.2  -0.5
ZST                               epP       pP     12 25 24.4  +1.2
DPC   Dobruska-Polom    71.55 319 eP        P      12 25 18.6  +0.4
KSP   Ksiaz             71.59 320⇓eP        P      12 25 18.5  +0.1
KSP   Ksiaz             71.59 320 eP        P      12 25 18.8  +0.3
UPC   Upice             71.76 319 eP        P      12 25 19.8  +0.4
BILL  Bilibino          72.14  22 eP        P      12 25 20.8  -0.6
BILL                              e         pP     12 25 28.8  -1.2
BILL                               pmax     pmax
      comp=Z,2.0nm,0.3s,mb4.5
BILL  Bilibino          72.14  22 eP        P      12 25 20.8  -0.6
      comp=Z,2.0nm,0.3s,mb4.5
BILL                              e         pP     12 25 28.8  -1.1
PRU   Pruhonice         72.69 319 eP        P      12 25 25.1  +0.1
BRG   Berggiesshubel    73.08 320 i P       P      12 25 27.9  +0.6
      comp=Z,41nm,1.6s,mb5.1
GEC2  GERESS Array S    73.23 317 eP        P      12 25 28.3  +0.1
GEC2                               pmax     pmax
      comp=Z,24nm,1.1s,mb5.0
GEC2  GERESS Array S    73.23 317 eP        P      12 25 28.3  +0.1
      comp=Z,24nm,1.1s,mb5.0
GERES GERESS Array B    73.23 317  P        P      12 25 28.4  +0.2
      comp=Z,12nm,0.7s,mb4.9,baz=85,slow=5.6,SNR=84
KHC   Kasperske Hory    73.31 318 eP        P      12 25 28.5  -0.1
CLL   Collm             73.67 320 i P       P      12 25 30.7   0.0
CLL                                pmax     pmax
      comp=Z,20nm,1.2s,mb4.9
CLL   Collm             73.67 320 i P       P      12 25 30.7   0.0
      comp=Z,20nm,1.2s,mb4.9
CLL   Collm             73.67 320  P        P      12 25 30.7   0.0
      comp=Z,logA/T=1.2,mb4.9
WET   Wettzell          73.77 318 eP        P      12 25 31.5  +0.2
NKC   Novy Kostel       74.03 319 eP        P      12 25 33.3  +0.5
MOX   Moxa              74.56 319 eP        P      12 25 34.9  -0.9
MOX                                pmax     pmax
      comp=Z,22nm,1.3s,mb4.9
MOX   Moxa              74.56 319 i P       P      12 25 34.9  -0.9
      comp=Z,logA/T=1.2,mb4.9
MOX   Moxa              74.56 319 eP        P      12 25 34.9  -0.9
      comp=Z,22nm,1.3s,mb4.9
NB2   NORSAR Subarra    74.78 330  P        P      12 25 35.9  -1.0
      comp=Z,11nm,0.7s,mb4.9,baz=89,slow=5.6
NB2   NORSAR Subarra    74.78 330  P        P      12 25 35.9  -1.0
      baz=89,slow=5.9
NB2   NORSAR Subarra    74.78 330  P        P      12 25 35.9  -1.0
NB2                                pmax     pmax
      comp=Z,11nm,0.7s,mb4.9
NOA   NORSAR Array B    74.78 330  P        P      12 25 35.9  -0.9
      comp=Z,11nm,0.8s,mb4.9,baz=91,slow=5.7,SNR=28
NOA   NORSAR Array B    74.78 330  P        P      12 25 35.9  -1.0
GRA1  Grafenberg Arr    74.84 318 eP        P      12 25 38.1  +0.6
      comp=Z,25nm,1.1s,mb5.1
GRF   Grafenberg Arr    74.84 318 eP        P      12 25 38.1  +0.6
GRF                                pmax     pmax
      comp=Z,25nm,1.1s,mb5.1
GRF   Grafenberg Arr    74.84 318 eP        P      12 25 38.1  +0.6
GRF                                pmax     pmax
      comp=Z,25nm,1.1s,mb5.1
GRF   Grafenberg Arr    74.84 318 eP        P      12 25 38.1  +0.6
      comp=Z,25nm,1.1s,mb5.1
FUR   Furstenfeldbru    74.86 317 eP        P      12 25 36.0  -1.6
BSEG  Bad Segeberg      75.28 323 eP        P      12 25 40.4  +0.5
CLZ   Clausthal         75.31 321 eP        P      12 25 40.4  +0.3
      comp=Z,24nm,0.8s,mb5.2
LBTB  Lobatse           75.34 240 eP        P      12 25 42.6  +1.8
      comp=Z,24nm,0.8s,mb5.2
BOSA  Boshof            76.97 236 eP        P      12 25 51.7  +1.7
      comp=Z,26nm,0.9s,mb5.2
LPL   La Plagne         78.16 314 eP        P      12 25 56.9  +0.7
      comp=Z,76nm,0.7s,mb5.4
LPL   La Plagne         78.16 314 eP        P      12 25 56.9  +0.7
LPL                                pmax     pmax
      comp=Z,38nm,0.7s,mb5.4
BNI   Bardonecchia      78.25 314 eP        P      12 25 56.5  -0.2
BNI                                pmax     pmax
      comp=Z,13nm,0.8s,mb4.9
BNI   Bardonecchia      78.25 314 eP        P      12 25 56.5  -0.1
      comp=Z,13nm,0.8s,mb4.9
MAW   Mawson            83.00 191  P        P      12 26 23.3  +1.9
      comp=Z,3.9nm,0.8s,mb4.5,baz=318,slow=1.7,SNR=3.8
DLF   Lyons Farm        85.28 324 eP        P      12 26 35.9  +2.7
DMUB  Kingscourt        85.34 324 eP        P      12 26 35.0  +1.5
DCN   Croghan           85.70 324 eP        P      12 26 36.5  +1.2
ESDC  Sonseca Array     86.96 310  P        P      12 26 42.4  +0.6
      comp=Z,4.4nm,0.5s,mb4.9,baz=60,slow=4.4,SNR=21
IMA   Indian Mountai    87.68  22 eP        P      12 26 45.8  +1.2
MCK   McKinley          90.58  23 eP        P      12 26 58.6  +0.2
ILAR  Eielson Array     90.79  22  P        P      12 26 58.7  -0.6
      comp=Z,2.1nm,0.7s,mb4.6,baz=302,slow=4.5,SNR=48
ILAR  Eielson Array     90.79  22  P        P      12 26 58.7  -0.6
PWA   Palmer West       91.27  25 eP        P      12 27 02.5  +0.9
INK   Inuvik            92.72  16  P        P      12 27 08.4  +0.3
      comp=Z,3.3nm,0.5s,mb5.0,baz=316,slow=5.1,SNR=50
INK   Inuvik            92.72  16  P        P      12 27 08.4  +0.3
MENT  Mentasta          92.98  22 eP        P      12 27 11.8  +2.4
URZ   Urewera           93.52 128  P        P      12 27 13.4  +0.9
      comp=Z,5.3nm,0.8s,mb5.0,baz=270,slow=11,SNR=2.7
URZ   Urewera           93.52 128  P        P      12 27 13.4  +0.9
DBIC  Dimbokro          95.80 278  P        P      12 27 24.0  +0.4
      comp=Z,1.9nm,0.6s,mb4.7,baz=78,slow=7.5,SNR=5.1
YKA   Yellowknife Ar   102.03  13  Pdiff    Pdif   12 27 50.9  +0.5
      comp=Z,0.6nm,0.7s,baz=150,slow=4.4,SNR=8.5
YKA   Yellowknife Ar   102.03  13  Pdif     Pdif   12 27 50.9  +0.5
PDAR  Pinedale Array   121.11  19  PKP      PKPdf  12 32 49.9  -3.2
      comp=Z,1.4nm,0.9s,baz=55,slow=1.3,SNR=9.0
PDAR  Pinedale Array   121.11  19  PKP      PKPdf  12 32 49.9  -3.2
NVAR  Mina Array Bea   121.42  28  PKP      PKPdf  12 32 51.7  -2.1
      comp=Z,2.5nm,0.7s,baz=306,slow=2.5,SNR=16
NVAR  Mina Array Bea   121.42  28  PKP      PKPdf  12 32 51.7  -2.1
MSU   Marysvale        123.96  23 ePKPdf    PKPdf  12 32 57.3  -1.4
PV10  Paradox Valley   125.23  21 ePKPdf    PKPdf  12 32 58.7  -2.5
NEN   Nelson           125.28  27 ePKPdf    PKPdf  12 32 59.6  -1.8
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ANMO	Albuquerque	129.21	20	PKP	PKPdf	12 33 05.5	-3.5
	comp=Z,2.7nm,0.8s,baz=199,slow=0.7,SNR=12						
ANMO	Albuquerque	129.21	20	PKP	PKPdf	12 33 05.5	-3.5
TXAR	Lajitas Array	135.29	20	PKP	PKPdf	12 33 15.3	-5.2
	comp=Z,2.1nm,1.0s,baz=222,slow=0.6,SNR=11						
TXAR				SKP		12 36 46.8	
	comp=Z,1.6nm,0.8s,baz=304,slow=2.1,SNR=7.9						
TXAR	Lajitas Array	135.29	20	PKP	PKPdf	12 33 15.3	-5.2
TXAR				SKP		12 36 46.8	
JCT	Junction City	135.38	15	*e*PKPdf	PKPdf	12 33 17.6	-3.0
BDFB	Brasilia	141.78	261	PKhKP		12 33 23.4	
	comp=Z,1.5nm,0.5s,baz=99,slow=8.2,SNR=3.1						
TRQA	Tornquist	146.15	217	*e*PKPdf	PKPdf	12 33 37.0	-2.5
SDV	Santo Domingo	152.82	321	*e*PKPdf	PKPdf	12 33 47.3	-3.4
SDV				*e*PKPab	PKPab	12 34 04.9	-1.5
ROSC	El Rosal	158.22	323	PKPab	PKPab	12 34 30.1	+0.6
	comp=Z,23nm,0.9s,baz=105,slow=23,SNR=8.4						
LPAZ	La Paz	161.05	257	PKP	PKPdf	12 33 58.8	-2.1
	comp=Z,2.7nm,1.1s,baz=58,slow=4.0,SNR=3.3						
LPAZ				PKPab	PKPab	12 34 41.5	+0.1
	comp=Z,4.1nm,0.8s,baz=124,slow=4.6,SNR=8.2						
LPAZ	La Paz	161.05	257	PKP	PKPdf	12 33 58.8	-2.1
LPAZ				PKPab	PKPab	12 34 41.5	+0.1

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*IDC **27** 12:14:03.6±0.6, 12.80N×92.63E, mb4.9/19, mb1 5.0/20, mb1mx4.9/25, ML4.7/1, MS4.0/1, Ms1 4.2/1, ms1mx3.1/21, Error ellipse: s-maj=26.4km s-min=12.0km az=55.0*

ISC 27 12:14:07.2±0.4**, 12.84N**±0.05×**92.88E**±0.06**, h33^{km}, n69, σ0^{s}99**/60**, mb4.9**/21**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	6.69	91	P	S	12 16 58.5	-3.1
CMAR	Chiang Mai Arr	8.08	45	Pn	P	12 16 03.5	-1.5
	2.8nm,0.3s,baz=236,slow=15,SNR=39						
CMAR				Sn	Sn	12 17 36.5	+0.1
	2.2nm,0.3s,baz=235,slow=28,SNR=5.6						
CMAR				LR	LR	12 19 35.6	
	comp=Z,1µm,21.7s,baz=233,slow=40						
CMAR	Chiang Mai Arr	8.08	45	Pn	P	12 16 03.5	-1.5
CMAR				Sn	Sn	12 17 36.5	+0.1
CMAR				LR	LR	12 19 35.6	
SHL	Shillong	12.70	356	*e*	S	12 19 28.2	-1.2
	comp=N,72nm,0.4s						
SHL				*e*	S	12 19 29.6	+0.3
	comp=E,121nm,0.5s						
ENH	Enshi	23.17	39	*e*	P	12 19 12.7	+0.7
SMLA	Simla	23.26	324	⇑*i*P	P	12 19 18.4	+5.6
	comp=E,178nm,1.7s,mb5.2						
SMLA				*i* S	S	12 23 24.3	+5.4
	comp=E,264nm,0.6s						
BHK	Bhakra	23.91	323	*e*	P	12 19 22.0	+3.0
BJT	Baijiatuau	33.96	33	*e*	P	12 20 50.0	+0.3
JOW	Kunigami	35.95	62	P	P	12 21 08.8	+1.9
	comp=E,10nm,0.4s,mb5.1,baz=302,slow=9.7,SNR=6.1						
JOW	Kunigami	35.95	62	P	P	12 21 08.8	+1.9
SONM	Songino Array	36.67	15	P	P	12 21 13.2	+0.6
	comp=E,11nm,0.7s,mb4.8,baz=198,slow=9.1,SNR=25						
SONM	Songino Array	36.67	15	P	P	12 21 13.2	+0.6
ULN	Ulaanbaatar	36.87	16	*e*	P	12 21 15.1	+0.7
KS15	Wonju Array Si	39.69	46	*e*	P	12 21 38.9	+0.9
ZAL	Zalesovo	41.49	353	P	P	12 21 51.6	-1.1
	comp=E,12nm,0.6s,mb4.7,baz=306,slow=5.4,SNR=16						
ZAL	Zalesovo	41.49	353		P	12 21 51.7	-1.0
HIA	Hailar	42.54	26	*e*	P	12 22 00.5	-0.9
MBWA	Marble Bar	42.86	142	*e*	P	12 22 03.4	-1.0
BVAR	Borovoye Array	43.92	341	P	P	12 22 12.2	-0.4
	comp=E,3.8nm,0.5s,mb4.4,baz=143,slow=7.4,SNR=8.5						
BVAR	Borovoye Array	43.92	341	P	P	12 22 12.2	-0.4
CHKZ	Chkalovo	44.40	341	*e*	P	12 22 16.7	+0.3
BOD	Bodaibo	47.67	15	*e*	P	12 22 41.9	-0.3
NWAO	Narrogin (SRO)	51.11	154	P	P	12 23 08.8	-0.2
	comp=E,27nm,0.5s,mb5.4,baz=322,slow=6.6,SNR=5.9						
NWAO	Narrogin (SRO)	51.11	154	*e*	P	12 23 08.2	-0.8
NWAO				P		12 23 08.8	
WRA	Warramunga Arr	52.21	128	P	P	12 23 17.5	+0.1
	comp=E,20nm,0.6s,mb5.2,baz=307,slow=8.3,SNR=15						
WRA				PcP	PcP	12 24 29.4	+0.6
	comp=E,14nm,0.6s,baz=314,slow=3.2,SNR=15						
WRA	Warramunga Arr	52.21	128	P	P	12 23 17.5	+0.1
WRA				PcP	PcP	12 24 29.4	+0.6
WRAB	Tennant Creek	52.21	128	*e*	P	12 23 17.5	+0.1
WRAB				*e*PcP	PcP	12 24 29.1	+0.3
YSS	Yuzh-Sakhalins	53.74	41	*e*P	P	12 23 28.7	+0.3
	comp=E,27nm,1.0s,mb5.1						
ASAR	Alice Springs	54.09	132	P	P	12 23 31.3	0.0
	comp=E,23nm,0.5s,mb5.4,baz=311,slow=7.0,SNR=27						
ASAR				PcP	PcP	12 24 36.6	+0.8
	comp=E,15nm,0.6s,baz=315,slow=4.0,SNR=14						
ASAR	Alice Springs	54.09	132	P	P	12 23 31.3	0.0
ASAR				PcP	PcP	12 24 36.6	+0.8
PMG	Port Moresby	58.26	110	P	P	12 24 02.3	+1.0
	comp=E,12nm,0.8s,mb5.0,baz=269,slow=9.9,SNR=4.9						
PMG	Port Moresby	58.26	110	P	P	12 24 02.3	+1.0
BRTR	Keskin Array B	58.32	309	P	P	12 23 59.2	-2.1
	comp=E,4.2nm,0.7s,mb4.6,baz=100,slow=8.8,SNR=4.4						
BRTR	Keskin Array B	58.32	309		P	12 23 59.3	-2.1
CTA	Charters Tower	61.87	121	P	P	12 24 26.4	+0.4
	comp=E,19nm,1.0s,mb5.2,baz=290,slow=10,SNR=8.2						
CTA	Charters Tower	61.87	121		P	12 24 26.4	+0.5
AKASG	Malin Array Be	63.54	320	P	P	12 24 33.7	-3.0
	comp=E,2.0nm,0.5s,mb4.4,baz=83,slow=5.0,SNR=4.0						
STKA	Stephens Creek	64.44	135	P	P	12 24 42.4	-0.4
	comp=E,15nm,0.5s,mb5.3,baz=320,slow=5.5,SNR=14						
STKA	Stephens Creek	64.44	135	P	P	12 24 42.4	-0.4
STKA				*e*		12 24 43.0	
FINES	FINESS Array B	67.78	332	P	P	12 25 02.4	-1.1
	comp=E,11nm,0.9s,mb4.9,baz=92,slow=5.9,SNR=7.5						
FINES	FINESS Array B	67.78	332		P	12 25 02.4	-1.1
ARCES	ARCESS Array B	70.20	340	P	P	12 25 18.4	0.0
	comp=E,4.4nm,0.5s,mb4.7,baz=93,slow=5.6,SNR=6.4						
ARCES	ARCESS Array B	70.20	340		P	12 25 18.4	0.0
BRG	Berggiesshubel	73.18	319	*e*	P	12 25 36.8	+0.3
GERES	GERESS Array B	73.34	317	P	P	12 25 36.7	-0.8
	comp=E,2.6nm,0.6s,mb4.3,baz=90,slow=6.7,SNR=4.6						
NOA	NORSAR Array B	74.83	330	P	P	12 25 45.6	-0.2
	comp=E,3.2nm,0.6s,mb4.5,baz=90,slow=5.8,SNR=5.2						
NOA	NORSAR Array B	74.83	330		P	12 25 45.6	-0.2
LBTB	Lobatse	75.59	240	*e*	P	12 25 50.8	-0.1
BOSA	Boshof	77.22	236	*e*	P	12 26 00.5	+0.4
MCK	McKinley	90.41	23	*e*	P	12 27 07.5	+1.3
ILAR	Eielson Array	90.63	22	P	P	12 27 08.5	+1.2
	comp=E,3.0nm,0.8s,mb4.7,baz=302,slow=4.6,SNR=14						
ILAR	Eielson Array	90.63	22	P	P	12 27 08.5	+1.2
INK	Inuvik	92.58	16	P	P	12 27 17.2	+1.0
	comp=E,3.5nm,0.7s,mb4.9,baz=304,slow=5.3,SNR=7.9						
INK	Inuvik	92.58	16	P	P	12 27 17.2	+1.0
URZ	Urewera	93.38	128	P	P	12 27 20.8	+0.2
	comp=E,17nm,0.8s,mb5.5,baz=256,slow=1.8,SNR=6.9						
URZ	Urewera	93.38	128	P	P	12 27 20.8	+0.2
PDAR	Pinedale Array	120.96	19	PKP	PKPdf	12 32 58.6	+2.0
	comp=E,0.9nm,0.5s,baz=7.0,slow=0.9,SNR=7.1						
PDAR	Pinedale Array	120.96	19	PKP	PKPdf	12 32 58.6	+2.0
NVAR	Mina Array Bea	121.24	28	PKP	PKPdf	12 33 00.2	+2.9
	comp=E,3.0nm,1.1s,baz=302,slow=2.2,SNR=8.3						
MSU	Marysvale	123.79	24	*e*	PKPdf	12 33 06.5	+4.2
PV10	Paradox Valley	125.08	21	*e*	PKPdf	12 33 08.2	+3.4
NEN	Nelson	125.10	28	*e*	PKPdf	12 33 07.8	+2.9
ANMO	Albuquerque	129.05	21	PKP	PKPdf	12 33 14.7	+2.2
	comp=E,2.4nm,0.7s,baz=178,slow=1.2,SNR=7.5						
ANMO	Albuquerque	129.05	21	PKP	PKPdf	12 33 14.7	+2.2
TXAR	Lajitas Array	135.13	21	PKP	PKPdf	12 33 26.3	+2.2
	comp=E,1.1nm,0.6s,baz=170,slow=1.8,SNR=7.7						
TXAR	Lajitas Array	135.13	21	PKP	PKPdf	12 33 26.3	+2.2
SDV	Santo Domingo	152.91	322	*e*PKPbc	PKPdf	12 33 54.6	-0.1
LPAZ	La Paz	161.31	257	PKP	PKPdf	12 34 08.7	+3.8
	comp=E,1.1nm,0.5s,baz=42,slow=3.7,SNR=2.4						
LPAZ	La Paz	161.31	257	PKP	PKPdf	12 34 08.7	+3.8

IDC 27 12:20:44.2±11.0**, 16.51S**×**173.83W, mb3.8**/3**, mb1 4.1**/3**, mb1mx3.8**/15**, Error ellipse: s-maj=517.0km s-min=38.5km az=140.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	49.20	258	P	P	12 29 34.4	-2.0
	0.5nm,0.8s,baz=90,slow=7.1,SNR=4.2						
ASAR	Alice Springs	49.38	253	P	P	12 29 36.0	-1.8
	2.2nm,0.6s,baz=89,slow=7.9,SNR=23						
ILAR	Eielson Array	83.61	11	P	P	12 33 14.1	-1.3
	1.2nm,1.2s,baz=220,slow=7.0,SNR=4.4						

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*IDC **27** 12:22:46.5±0.8, 9.50N×93.07E, mb4.2/12, mb1 4.2/13, mb1mx4.1/21, Error ellipse: s-maj=36.7km s-min=15.9km az=54.0*

*NEIC **27** 12:22:51.4±0.5, 9.55N×93.19E, h30^{km}, mb4.5/2, Error ellipse: s-maj=16.3km s-min=9.7km az=56.0*

*BJI **27** 12:22:51.0, 9.43N×93.13E, h34^{km}, mb4.7*

ISC 27 12:22:49.8±0.8**, 9.5N**±0.1×**93.3E**±0.2**, h30^{km}, n23, σ1^{s}25**/22**, mb4.2**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.50	31	Pn	P	12 25 18.8	-2.8
	baz=189,slow=23,SNR=2.5						
GTA	Gaotai	30.39	10	*e*P	P	12 29 02.8	+1.2
GTA				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.6						
KBK	Karagaybulak	36.75	337	P	P	12 29 58.6	+2.1
	SNR=8.3						
AML	Almayashu	36.80	335	P	P	12 29 58.9	+1.9
	SNR=12						
AAK	Ala-Archa	36.91	337	P	P	12 29 59.7	+1.9
	SNR=5.1						
AAK	Ala-Archa	36.91	337	*e*P	P	12 29 57.5	-0.3
	comp=Z,4.4nm,0.9s,mb4.3						
EKS2	Erkin-Say	37.21	336	P	P	12 30 02.5	+2.1
	SNR=7.0						
USP	Ospenovka	37.44	337	P	P	12 30 03.3	+1.0
	SNR=9.4						
SONM	Songino Array	39.82	14	P	P	12 30 22.0	-0.1
	comp=Z,3.2nm,0.9s,mb4.1,baz=200,slow=6.4,SNR=16						
ZAL	Zalesovo	44.87	353	P	P	12 31 02.4	-0.8
	comp=Z,0.8nm,0.3s,mb4.0,baz=297,slow=10,SNR=3.9						
ZAL	Zalesovo	44.87	353	P	P	12 31 02.4	-0.8
BVAR	Borovoye Array	47.21	341	P	P	12 31 20.8	-1.0
	comp=Z,0.9nm,0.6s,mb3.9,baz=162,slow=9.1,SNR=6.9						
CHKZ	Chkalovo	47.70	342	*e*P	P	12 31 25.2	-0.5
	comp=Z,6.3nm,0.9s,mb4.7						
WRA	Warramunga Arr	49.89	126	P	P	12 31 43.4	+0.4
	comp=Z,1.6nm,0.5s,mb4.3,baz=303,slow=8.9,SNR=13						
WRA				PcP	PcP	12 33 03.5	+0.1
	comp=Z,0.5nm,0.6s,baz=324,slow=3.1,SNR=5.7						
ASAR	Alice Springs	51.60	130	P	P	12 31 55.6	-0.3
	comp=Z,1.2nm,0.6s,mb4.0,baz=305,slow=7.2,SNR=11						
ASAR				PcP	PcP	12 33 09.9	+0.3
	comp=Z,2.1nm,1.0s,baz=305,slow=3.6,SNR=5.2						
CTA	Charters Tower	59.85	120	P	P	12 32 56.4	+1.0
	comp=Z,4.2nm,0.9s,mb4.5,baz=316,slow=11,SNR=4.7						
BRTR	Keskin Array B	60.74	310	P	P	12 32 59.5	-1.8
	comp=Z,1.4nm,0.8s,mb4.2,baz=121,slow=7.2,SNR=6.2						
FINES	FINESS Array B	70.90	332	P	P	12 34 04.7	-1.3
	comp=Z,1.2nm,0.8s,mb3.9,baz=104,slow=7.9,SNR=3.5						
ARCES	ARCESS Array B	73.48	340	P	P	12 34 19.5	-1.5
	comp=Z,2.0nm,0.9s,mb4.0,baz=267,slow=26,SNR=3.0						
GERES	GERESS Array B	76.07	318	P	P	12 34 35.3	-1.1
	comp=Z,1.3nm,0.9s,mb3.8,baz=90,slow=5.3,SNR=6.8						
ILAR	Eielson Array	93.60	22	P	P	12 36 03.9	-0.2
	comp=Z,0.8nm,0.7s,mb4.2,baz=301,slow=4.2,SNR=12						
INK	Inuvik	95.71	16	P	P	12 36 14.0	+0.3
	comp=Z,1.4nm,0.5s,mb4.6,baz=341,slow=5.3,SNR=11						
PDAR	Pinedale Array	123.99	20	PKP	PKPdf	12 41 46.6	-4.2
	comp=Z,0.2nm,0.7s,baz=315,slow=2.1,SNR=3.5						

IDC 27 12:25:03.9±2.4**, 10.97N**×**94.50E, mb4.1**/5**, mb1 4.2**/5**, mb1mx3.8**/18**, Error ellipse: s-maj=103.0km s-min=22.1km az=63.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAD	Karad	20.67	290	*e*P	P	12 30 10.0	+22
SONM	Songino Array	38.09	13	P	P	12 32 25.0	-1.0
	2.3nm,0.8s,baz=193,slow=9.2,SNR=8.8						
ZAL	Zalesovo	43.55	352	P	P	12 33 07.4	-3.6
	3.7nm,0.4s,baz=301,slow=4.6,SNR=12						
BVAR	Borovoye Array	46.20	340	P	P	12 33 31.9	-0.4
	1.1nm,0.5s,baz=136,slow=8.4,SNR=6.1						
WRA	Warramunga Arr	49.82	128	P	P	12 33 59.5	-1.5
	1.2nm,0.9s,baz=306,slow=9.0,SNR=5.4						
ASAR	Alice Springs	51.67	132	P	P	12 34 12.3	-2.7
	1.1nm,0.7s,baz=315,slow=7.1,SNR=5.4						

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*IDC **27** 12:28:21.7±1.0, 10.95N×92.36E, mb3.9/8, mb1 4.0/9, mb1mx3.9/18, ML3.7/1, Error ellipse: s-maj=38.8km s-min=18.4km az=55.0*

*NEIC **27** 12:28:26.2±0.6, 10.95N×92.35E, h30^{km}, mb3.9/2, Error ellipse: s-maj=18.5km s-min=12.0km az=57.0*

ISC 27 12:28:24.2±0.8**, 11.0N**±0.1×**92.4E**±0.1**, h30^{km}, n12, σ0^{s}59**/12**, mb3.8**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.75	40	Pn	P	12 30 46.0	+0.2
	0.2nm,0.3s,baz=125,slow=8.4,SNR=2.7						
AAK	Ala-Archa	35.20	337	P	P	12 35 17.7	-0.1
	0.4nm,0.3s,mb3.8						
SONM	Songino Array	38.58	15	P	P	12 35 45.6	-0.6
	0.3nm,0.5s,mb3.3,baz=225,slow=4.1,SNR=1.8						
ZAL	Zalesovo	43.28	353	P	P	12 36 24.6	-0.3
	0.6nm,0.6s,mb3.5,baz=261,slow=4.7,SNR=3.3						
CHKZ	Chkalovo	46.02	342	*e*P	P	12 36 46.7	-0.1
	0.9nm,0.4s,mb4.0						
WRA	Warramunga Arr	51.45	127	P	P	12 37 29.3	0.0
	2.3nm,0.8s,mb4.1,baz=305,slow=8.6,SNR=18						
ASAR	Alice Springs	53.20	131	P	P	12 37 42.7	+0.3
	1.5nm,0.8s,mb4.0,baz=306,slow=6.7,SNR=12						
BRTR	Keskin Array B	59.14	310	P	P	12 38 24.4	-0.3
	0.6nm,0.8s,mb3.7,baz=133,slow=8.3,SNR=3.8						
STKA	Stephens Creek	63.46	134	P	P	12 38 53.5	-0.5
	4.0nm,0.8s,mb4.6,baz=281,slow=6.6,SNR=4.0						
STKA	Stephens Creek	63.46	134	P	P	12 38 53.5	-0.5
FINES	FINESS Array B	69.19	332	P	P	12 39 31.7	+1.7
	1.0nm,0.8s,mb3.8,baz=113,slow=11,SNR=3.6						
GERES	GERESS Array B	74.40	318	P	P	12 40 00.9	-0.3
	0.1nm,0.3s,mb3.2,baz=72,slow=4.2,SNR=3.6						

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*MOS **27** 12:28:59.4±1.6, 55.56N×110.99E, h14^{km}, mb4.3/1, Error ellipse: s-maj=24.3km s-min=14.8km az=52.5*

*BYKL **27** 12:28:59.2±0.2, 55.59N×110.96E, h16^{km}±4^{km}*

ISC 27 12:28:56.5±0.3**, 55.45N**±0.03×**111.01E**±0.04**, h14^{km}, n33, σ1^{s}43**/67**, 5C-3D, Lake Baykal region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMO	Kumora	0.46	14	⇓*i*Pg	Pg	12 29 05.5	-0.5
KMO				*e*Sg	Sg	12 29 10.2	-2.1
KMO				Pmax			
	376nm,0.3s						
KMO				Smax			
	3µm,0.5s						
KMO	Kumora	0.46	14	*e*PG	Pg	12 29 05.4	-0.6
KMO				*e*		12 29 10.0	
KMO				pmax	pmax		
	comp=Z,388nm,0.3s						
KMO				smax			
	comp=N,8µm,0.5s						
YLYR	Ulyunkhan	0.58	171	⇑*i*Pg	Pg	12 29 12.7	+4.4
YLYR				*e*Sg	Sg	12 29 23.1	+6.9
YLYR				Pmax			
	comp=N,118nm,0.3s						
YLYR				Smax			
	comp=N,540nm,0.3s						
YOA	Uoyan	0.80	30	⇓*i*Pg	Pg	12 29 12.2	-0.5
YOA				*e*Sg	Sg	12 29 22.4	-1.1
YOA				Pmax			
	comp=N,245nm,0.2s						
YOA				Smax			
	comp=N,3µm,0.3s						
YOA	Uoyan	0.80	30	*e*PG	Pg	12 29 11.8	-0.9
YOA				*e*		12 29 21.9	
YOA				pmax	pmax		
	comp=Z,96nm,0.4s						
YOA				smax			
	comp=N,3µm,0.4s						
NIZ	Nizh Angarsk	0.89	292	⇑*i*Pg	Pg	12 29 14.8	+0.3
NIZ				*e*Pb	Pb	12 29 18.2	+4.9
NIZ				*e*Sg	Sg	12 29 26.3	-0.3
NIZ				max			
	comp=N,103nm,0.1s						
NIZ				Smax			
	comp=N,750nm,0.3s						
NIZ	Nizh Angarsk	0.89	292	*e*PG	Pg	12 29 14.7	+0.2
NIZ				*e*		12 29 26.2	
NIZ				pmax	pmax		
	comp=Z,40nm,0.3s						
NIZ				smax			
	comp=N,690nm,0.5s						
UKT	Uakit	1.49	87	⇓*i*Pg	Pg	12 29 26.2	-0.2
	comp=N,43nm,0.5s						
UKT				⇑*i*Pg	Pg	12 29 26.2	-0.2
	comp=N,223nm,0.5s						
UKT				⇑*i*Pg	Pg	12 29 26.2	-0.2
	comp=N,200nm,0.5s						
UKT				*i* Sg	Sg	12 29 46.4	0.0
UKT				Pmax			
	comp=N,178nm,0.4s						
UKT				Smax			
	comp=N,1µm,0.4s						
UKT	Uakit	1.49	87	*e*PN	Pg	12 29 26.2	-0.2
UKT				*e*		12 29 46.3	
UKT				pmax	pmax		
	comp=Z,166nm,0.2s						
UKT				smax			
	comp=N,571nm,0.3s						
SVKR	Severomuysk	1.59	64	*e*Pg	Pg	12 29 27.2	-1.2
SVKR				*e*Sg	Sg	12 29 49.1	-0.6
SVKR				Pmax			
	comp=N,201nm,0.2s						
SVKR				Smax			
	comp=N,1µm,0.5s						
SVKR	Severomuysk	1.59	64	*e*PN	Pn	12 29 27.0	+2.5
SVKR				*e*		12 29 28.6	
SVKR				*e*		12 29 48.2	
SVKR				pmax	pmax		
	comp=Z,151nm,0.2s						
SVKR				smax			
	comp=N,1µm,0.7s						
SYVR	Suvo	1.89	199	*e*Pn	Pn	12 29 33.0	+4.3
SYVR				*e*Pg	Pg	12 29 35.3	+1.1
SYVR				*e*Sn	Sn	12 30 00.0	+7.6
SYVR				*e*Sg	Sg	12 30 03.3	+3.9
SYVR				Pmax			
	comp=N,40nm,0.4s						
SYVR				Smax			
	comp=N,299nm,0.4s						
OGRR	Ongureny	2.69	229	*e*Pn	Pn	12 29 44.3	+4.2
OGRR				*e*Pg	Pg	12 29 48.9	-1.3
OGRR				*e*Sn	Sn	12 30 17.5	+4.8
OGRR				*e*Sg	Sg	12 30 24.5	-1.5
OGRR				Pmax			
	comp=N,22nm,0.4s						
OGRR				Smax			
	comp=N,142nm,0.6s						
NLYR	Nelyaty	2.84	66	⇑*i*Pn	Pn	12 29 44.2	+1.8
NLYR				*e*Sg	Sg	12 30 26.2	-5.0
NLYR				max			
	comp=N,43nm,0.6s						
NLYR				Smax			
	comp=N,175nm,1.1s						
BOD	Bodaibo	2.90	34	*e*Pn	Pn	12 29 43.7	+0.5
BOD				*e*Pg	Pg	12 29 48.6	-5.8
BOD				*e*Sn	Sn	12 30 17.5	-0.6
BOD				*e*Sg	Sg	12 30 24.4	-8.7
BOD				Pmax			
	comp=N,18nm,0.2s						
BOD				Smax			
	comp=N,73nm,0.3s						
ZRHB	Zarechye	3.68	220	*e*Pg	Pg	12 30 08.9	-1.2
ZRHB				*e*Sg	Sg	12 30 58.5	-0.7
ZRHB				Smax			
	comp=N,95nm,0.4s						
CIT	Chita	3.75	155	*e*Pg	Pg	12 30 08.9	-2.5
CIT				*e*Sg	Sg	12 30 58.7	-2.7
CIT				Pmax			
	comp=N,15nm,0.6s						
CIT				Smax			
	comp=N,94nm,0.8s						
TRTB	Turuntaevo	3.79	213	*e*Pn	Pn	12 29 59.8	+3.9
TRTB				*e*Sg	Sg	12 31 00.6	-2.2
TRTB				max			
	comp=N,10.0nm,0.7s						
TRTB				Smax			
	comp=N,53nm,0.6s						
TRG	Tyrgan	3.84	227	*e*Pn	Pn	12 29 59.5	+2.9
TRG				*e*Pg	Pg	12 30 08.1	-5.1
TRG				*e*Sg	Sg	12 31 00.1	-4.4
TRG				Pmax			
	comp=N,7.0nm,0.3s						
TRG				Smax			
	comp=N,87nm,0.4s						
FFNB	Fofonovo	4.23	218	*e*Pn	Pn	12 30 04.8	+2.6
FFNB				*e*Sg	Sg	12 31 12.2	-5.3
FFNB				max			
	comp=N,8.0nm,0.1s						
FFNB				Smax			
	comp=N,136nm,0.5s						
CRS	Chara	4.31	67	*e*Pn	Pn	12 30 04.5	+1.2
CRS				*e*Pg	Pg	12 30 16.6	-6.1
CRS				*e*Sg	Sg	12 31 11.5	-8.7
CRS				Pmax			
	comp=N,29nm,0.9s						
CRS				Smax			
	comp=N,56nm,0.6s						
CRS	Chara	4.31	67	*e*PN	Pn	12 30 04.5	+1.2
CRS				*e*		12 30 17.5	
CRS				*e*		12 31 11.1	
CRS				pmax	pmax		
	comp=Z,37nm,1.0s						
CRS				smax			
	comp=E,79nm,1.3s						
LSTR	Listvyanka	5.13	228	*e*Sg	Sg	12 31 40.0	-7.3
LSTR				Smax			
	comp=E,61nm,1.5s						
LSTR	Listvyanka	5.13	228	*e*PN	Pn	12 30 32.6	+18
LSTR				*e*		12 31 39.9	
LSTR				pmax	pmax		
	comp=Z,21nm,1.6s						
LSTR				smax			
	comp=N,57nm,1.5s						
TUP	Tupik	5.26	98	*e*Pn	Pn	12 30 17.8	+1.1
TUP				*e*Sn	Sn	12 31 19.2	+1.4
TUP				*e*Sg	Sg	12 31 43.5	-8.2
TUP				max			
	comp=N,35nm,0.2s						
TUP				Smax			
	comp=N,100nm,0.8s						
TUP	Tupik	5.26	98	*e*PN	Pn	12 30 17.9	+1.2
TUP				*e*		12 30 33.7	
TUP				*e*S	Sn	12 31 18.5	+0.7
TUP				*e*		12 31 43.4	
TUP				pmax	pmax		
	comp=Z,35nm,0.2s						
TUP				smax			
	comp=E,83nm,0.8s						
TLY	Talaya	5.78	232	*e*Sg	Sg	12 31 58.6	-11
TLY				Smax			
	comp=E,37nm,0.7s						
KPC	Khapcheranga	5.81	171	*e*Sg	Sg	12 32 02.4	-7.7
KPC				Smax			
	comp=E,43nm,1.1s						
ARS	Arshan	6.20	239	*e*Pn	Pn	12 30 32.1	+2.1
ARS				*e*Sg	Sg	12 32 11.3	-12
ARS				max			
	comp=E,7.0nm,0.2s						
ARS				Smax			
	comp=E,132nm,0.8s						
ZAK	Zakamensk	6.89	226	*e*Sg	Sg	12 32 36.9	-9.1
ZAK				Smax			
	comp=E,14nm,1.1s						
MOY	Mondy	7.06	242	*e*Pn	Pn	12 30 43.3	+1.2
MOY				*e*Sn	Sn	12 32 02.9	0.0
MOY				*e*Sg	Sg	12 32 37.9	-14
MOY				Smax			
	comp=E,31nm,1.4s						
ORL	Orlik	7.21	251	*e*Pn	Pn	12 30 46.0	+1.8
ORL				*e*Sg	Sg	12 32 44.4	-12
ORL				Smax			
	comp=E,45nm,1.4s						
ORL	Orlik	7.21	251	*e*PN	Pn	12 30 46.3	+2.1
ORL				*e*		12 31 10.1	
ORL				*e*		12 32 44.4	
ORL				pmax	pmax		
	comp=Z,8.0nm,1.1s						
ORL				smax			
	comp=N,47nm,1.6s						

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*IDC **27** 12:33:39.4±0.9, 13.58N×93.00E, mb3.8/9, mb1 4.0/10,* *mb1mx3.9/18, Error ellipse: s-maj=35.5km s-min=18.5km az=48.0*

*NEIC **27** 12:33:44.3±0.7, 13.59N×93.05E, h30^{km}, mb4.2/2, Error ellipse: s-maj=17.7km s-min=13.5km az=221.0*

*BJI **27** 12:33:44.9, 13.46N×93.95E, h20^{km}, mb4.2*

ISC 27 12:33:42.2±0.8**, 13.6N**±0.1×**93.09E**±0.09**, h30^{km}, n15, σ1^{s}07**/16**, mb3.8**/12**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	7.43	48	Pn	Pn	12 35 31.4	0.0
	baz=238,slow=15,SNR=3.2						
CMAR				Sn	Sn	12 36 54.8	-0.8
	baz=242,slow=27,SNR=4.5						
LZH	**Lanzhou**	24.41	21	*e*P	P	12 39 01.8	+2.4
LZH				AP		12 39 04.5	
LZH				AMB	AMB		
	comp=Z,24nm,1.4s,mb4.4						
GTA	**Gaotai**	26.41	12	*e*P	P	12 39 20.0	+1.9
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.0						
SONM	**Songino Array**	35.91	15	P	P	12 40 41.3	-0.5
	comp=Z,0.1nm,0.4s,mb3.1,baz=311,slow=26,SNR=4.6						
ZAL	**Zalesovo**	40.80	352	P	P	12 41 21.1	-1.4
	comp=Z,0.8nm,0.3s,mb3.9,baz=20,slow=5.1,SNR=2.5						
CHKZ	**Chkalovo**	43.78	341	*e*P	P	12 41 47.1	+0.3
	comp=Z,2.1nm,1.0s,mb3.8						
WRA	**Warramunga Arr**	52.50	129	P	P	12 42 55.9	+0.8
	comp=Z,1.0nm,0.6s,mb4.0,baz=304,slow=8.5,SNR=7.3						
ASAR	**Alice Springs**	54.43	133	P	P	12 43 08.5	-0.8
	comp=Z,2.3nm,1.0s,mb4.1,baz=309,slow=7.0,SNR=19						
BRTR	**Keskin Array B**	58.02	308	P	P	12 43 34.5	-0.3
	comp=Z,2.0nm,1.1s,mb4.0,baz=103,slow=8.7,SNR=3.1						
BRTR	**Keskin Array B**	58.02	308	P	P	12 43 34.5	-0.3
AKASG	**Malin Array Be**	63.10	320	P	P	12 44 07.5	-1.7
	comp=Z,0.1nm,0.3s,mb3.5,baz=55,slow=36,SNR=2.4						
ARCES	**ARCESS Array B**	69.59	340	P	P	12 44 50.4	+0.2
	comp=Z,0.6nm,0.6s,mb3.7,baz=124,slow=9.8,SNR=3.4						
GERES	**GERESS Array B**	72.94	317	P	P	12 45 10.4	-0.3
	comp=Z,0.2nm,0.3s,mb3.5,baz=154,slow=37,SNR=6.6						
NB2	**NORSAR Subarra**	74.30	330	P	P	12 45 19.5	+1.2
	comp=Z,4.5nm,1.1s,mb4.3,baz=90,slow=5.8						
NOA	**NORSAR Array B**	74.30	330	P	P	12 45 19.0	+0.7
	comp=Z,1.5nm,0.9s,mb3.9,baz=29,slow=13,SNR=2.4						

IDC 27 12:37:54.9±11.0**, 2.46N**×**98.00E, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.5**/17**, ML3.5**/1**, Error ellipse: s-maj=337.0km s-min=45.7km az=72.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	15.93	3	Pn	P	12 41 40.5	-1.8
	0.1nm,0.3s,baz=226,slow=14,SNR=4.6						
WRA	**Warramunga Arr**	42.04	124	P	P	12 45 48.2	-2.0
	0.7nm,0.5s,baz=301,slow=9.2,SNR=5.0						
ASAR	**Alice Springs**	43.53	129	P	P	12 46 01.0	-1.4
	0.4nm,0.4s,baz=300,slow=7.8,SNR=5.3						

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*IDC **27** 12:39:06.7±0.8, 52.06N×174.14E, mb3.8/16, mb1 4.0/16, mb1mx3.9/26, Error ellipse: s-maj=19.1km s-min=13.8km az=23.0*

*NEIC **27** 12:39:10.6±1.8, 52.13N×174.06E, h25^{km}±10^{km}, mb3.9/3, Error ellipse: s-maj=15.5km s-min=8.9km az=165.0*

ISC 27 12:39:11.2±2.0**, 52.2N**±0.1×**174.0E**±0.1**, h42^{km}**±14^{km}**, n23, σ0^{s}79**/24**, mb3.9**/19**, 1D, Near Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SMY	**Shemya**	0.56	4	⇓*i*P	P	12 39 23.2	+0.5
FX1	**Attu Island--F**	0.89	323	Pn	P	12 39 27.3	0.0
	584nm,0.3s,baz=124,slow=1.8,SNR=1841						
FX1				Sn	S	12 39 38.6	-0.6
FX1	**Attu Island--F**	0.89	323	*e*P	P	12 39 27.2	-0.2
COLA	**College**	23.17	42	*e*P	P	12 44 15.6	+1.3
	6.4nm,0.8s,mb4.1						
ILAR	**Eielson Array**	23.54	43	P	P	12 44 19.8	+1.9
	2.0nm,0.7s,mb3.7,baz=265,slow=9.4,SNR=18						
INK	**Inuvik**	29.43	37	P	P	12 45 12.3	-0.1
	0.4nm,0.4s,mb3.5,baz=112,slow=6.2,SNR=6.8						
INK	**Inuvik**	29.43	37	P	P	12 45 12.3	-0.1
YKA	**Yellowknife Ar**	37.89	46	P	P	12 46 25.3	-0.1
	0.5nm,0.5s,mb3.5,baz=288,slow=7.7,SNR=16						
SONM	**Songino Array**	42.27	292	P	P	12 47 03.1	+1.4
	0.2nm,0.4s,mb3.1,baz=58,slow=7.0,SNR=3.7						
BW06	**Boulder Array**	50.23	69	P	P	12 48 04.0	-0.7
	0.7nm,0.7s,mb3.8						
PDAR	**Pinedale Array**	50.23	69	P	P	12 48 04.8	+0.1
	0.4nm,0.5s,mb3.7,baz=292,slow=3.6,SNR=6.4						
FRB	**Frobisher Bay**	54.58	29	P	P	12 48 36.0	-0.9
	2.0nm,0.6s,mb4.3,baz=276,slow=6.3,SNR=4.6						
ARCES	**ARCESS Array B**	56.44	347	P	P	12 48 50.4	+0.1
	1.0nm,0.8s,mb3.9,baz=31,slow=7.1,SNR=3.6						
BVAR	**Borovoye Array**	57.31	316	P	P	12 48 55.8	-0.9
	0.7nm,0.3s,mb4.1,baz=57,slow=7.3,SNR=6.4						
MNTX	**Cornudas Mount**	60.14	76	P	P	12 49 15.8	-0.8
	0.5nm,0.6s,mb3.7						
SCHQ	**Schefferville**	62.02	35	P	P	12 49 27.5	-1.5
	2.3nm,0.6s,mb4.5,baz=260,slow=9.1,SNR=5.3						
TXAR	**Lajitas Array**	62.86	76	P	P	12 49 34.8	-0.3
	0.3nm,0.4s,mb3.8,baz=309,slow=5.7,SNR=11						
FINES	**FINESS Array B**	63.89	344	P	P	12 49 41.2	+0.1
	1.9nm,0.9s,mb4.1,baz=274,slow=25,SNR=2.5						
NOA	**NORSAR Array B**	66.30	351	P	P	12 49 56.8	+0.1
	2.6nm,1.1s,mb4.2,baz=345,slow=4.0,SNR=2.8						
HFS	**Hagfors**	66.93	349	P	P	12 50 00.3	-0.3
	2.0nm,0.7s,mb4.3,baz=153,slow=6.6,SNR=4.1						
AKASG	**Malin Array Be**	73.26	338	P	P	12 50 40.2	+1.0
	0.3nm,0.2s,mb3.8,baz=40,slow=50,SNR=3.8						
WRA	**Warramunga Arr**	79.71	218	P	P	12 51 16.1	0.0
	1.4nm,0.7s,mb4.0,baz=34,slow=6.3,SNR=6.4						
ASAR	**Alice Springs**	83.27	217	P	P	12 51 34.6	+0.1
	0.6nm,0.8s,mb3.7,baz=31,slow=6.0,SNR=5.4						

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*IDC **27** 12:40:54.2±2.8, 7.12N×93.27E, mb4.0/4, mb1 4.1/5, mb1mx3.8/18, ML3.8/1, Error ellipse: s-maj=94.0km s-min=22.9km az=69.0*

*NEIC **27** 12:40:58.4±1.0, 7.22N×93.27E, h30^{km}, mb4.2/2, Error ellipse: s-maj=31.6km s-min=15.5km az=69.0*

*BJI **27** 12:40:58.4, 7.20N×93.30E, h30^{km}, mb4.4*

ISC 27 12:40:53.9±1.5**, 6.8N**±0.2×**92.6E**±0.3**, h30^{km}, n10, σ0^{s}65**/9**, mb4.2**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	13.20	28	Pn	P	12 43 53.0	-9.0
	0.2nm,0.3s,baz=209,slow=17,SNR=2.4						
GYA	**Guiyang**	23.77	33	P	P	12 46 05.8	+0.9
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
GTA	**Gaotai**	33.17	10	*e*P	P	12 47 29.5	-0.6
GTA				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.7						
AAK	**Ala-Archa**	39.14	339	*e*P	P	12 48 21.4	+0.7
	comp=Z,4.1nm,1.1s,mb4.1						
SONM	**Songino Array**	42.61	14	P	P	12 48 48.6	-0.6
	comp=Z,1.9nm,0.7s,mb4.0,baz=198,slow=8.3,SNR=15						
ZAL	**Zalesovo**	47.47	354	P	P	12 49 27.8	-0.1
	comp=Z,0.8nm,0.7s,mb3.8,baz=325,slow=12,SNR=4.8						
WRA	**Warramunga Arr**	48.92	124	P	P	12 49 39.5	-0.1
	comp=Z,2.7nm,0.8s,mb4.3,baz=303,slow=9.1,SNR=15						
CHKZ	**Chkalovo**	50.06	343	*e*P	P	12 49 47.8	-0.2
	comp=Z,2.7nm,0.7s,mb4.4						
ASAR	**Alice Springs**	50.43	128	P	P	12 49 51.3	+0.1
	comp=Z,2.3nm,0.8s,mb4.3,baz=308,slow=7.1,SNR=14						
TXAR	**Lajitas Array**	140.88	23	PKP	PKPdf	13 00 25.4	-1.6
	comp=Z,0.4nm,1.0s,baz=270,slow=1.3,SNR=3.5						

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*IDC **27** 12:45:06.5±0.8, 8.87N×92.14E, mb4.3/14, mb1 4.3/15, mb1mx4.1/24, ML3.9/1, Error ellipse: s-maj=34.1km s-min=14.9km az=47.0*

*NEIC **27** 12:45:11.2±0.6, 8.89N×92.22E, mb4.4/5, Error ellipse: s-maj=15.3km s-min=10.0km az=52.0*

*BJI **27** 12:45:11.1, 8.71N×93.05E, h27^{km}, mB5.1, mb4.5*

ISC 27 12:45:09.3±0.7**, 8.93N**±0.09×**92.33E**±0.09**, h28^{km}, h28^{km}**±1.0^{km}**:pP-P, n30, σ0^{s}96**/27**, mb4.3**/20**, 2C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	11.44	33	Pn	P	12 47 53.5	-0.6
	0.2nm,0.3s,baz=232,slow=15,SNR=2.8						
SHL	**Shillong**	16.55	359	*e*P	P	12 49 00.0	-1.3
POO	**Poona**	20.31	300	⇑*i*P	P	12 49 48.0	+1.9
LSA	**Lhasa**	20.69	357	*e*P	P	12 49 51.0	+1.1
	16nm,0.6s						
LSA				*e*pP		12 49 59.5	
GYA	**Guiyang**	22.10	36	⇑*i*P	P	12 50 03.5	-0.7
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
ENH	**Enshi**	26.61	35	*e*P	P	12 50 46.9	-0.6
	comp=Z,4.7nm,0.5s,mb4.3						
GTA	**Gaotai**	31.08	11	*e*P	P	12 51 29.0	+1.5
GTA				AP	pP	12 51 36.5	+0.8
GTA				XP	sP	12 51 39.5	+0.2
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
AAK	**Ala-Archa**	37.05	338	*e*P	P	12 52 20.4	+1.6
	comp=Z,9.9nm,1.1s,mb4.5						
AAK				*e*pP	pP	12 52 28.8	+1.8
SONM	**Songino Array**	40.56	15	P	P	12 52 48.4	+0.4
	comp=Z,3.8nm,0.9s,mb4.0,baz=194,slow=7.8,SNR=19						
ULN	**Ulaanbaatar**	40.76	15	*e*P	P	12 52 50.1	+0.5
	comp=Z,4.2nm,1.0s,mb4.0						
CN2	**Changchun**	45.12	34	*e*P	P	12 53 25.8	+0.6
ZAL	**Zalesovo**	45.29	354	P	P	12 53 26.6	+0.2
	comp=Z,1.2nm,0.3s,mb4.1,baz=298,slow=5.7,SNR=3.7						
BVAR	**Borovoye Array**	47.43	342	P	P	12 53 42.8	-0.5
	comp=Z,0.6nm,0.7s,mb3.6,baz=121,slow=8.4,SNR=3.1						
CHKZ	**Chkalovo**	47.93	343	*e*P	P	12 53 47.3	+0.1
	comp=Z,2.5nm,0.8s,mb4.3						
CHKZ				*e*pP	pP	12 53 56.3	+0.6
WRA	**Warramunga Arr**	50.33	125	P	P	12 54 05.6	-0.5
	comp=Z,3.0nm,0.8s,mb4.4,baz=300,slow=10.0,SNR=19						
ASAR	**Alice Springs**	51.96	129	P	P	12 54 19.4	+0.9
	comp=Z,3.3nm,0.8s,mb4.3,baz=309,slow=6.8,SNR=17						
GNI	**Garni**	52.42	314	P	P	12 54 20.7	-1.1
	comp=Z,1.9nm,0.3s,mb4.5,baz=119,slow=21,SNR=2.3						
PMG	**Port Moresby**	57.55	107	P	P	12 54 58.8	-0.5
	comp=Z,3.4nm,0.7s,mb4.5,baz=285,slow=12,SNR=2.9						
CTA	**Charters Tower**	60.38	119	P	P	12 55 19.2	+0.4
	comp=Z,8.4nm,1.1s,mb4.7,baz=287,slow=8.0,SNR=5.1						
BRTR	**Keskin Array B**	60.39	311	P	P	12 55 17.4	-1.3
	comp=Z,0.7nm,0.7s,mb3.8,baz=141,slow=7.9,SNR=4.0						
IDI	**Anoyia**	66.50	305	P	P	12 55 56.1	-2.9
	comp=Z,20nm,1.1s,mb5.1,baz=32,slow=11,SNR=3.6						
FINES	**FINESS Array B**	70.95	332	P	P	12 56 25.1	-1.0
	comp=Z,1.9nm,0.9s,mb4.0,baz=141,slow=12,SNR=3.7						
ARCES	**ARCESS Array B**	73.67	340	P	P	12 56 42.2	+0.2
	comp=Z,1.2nm,0.9s,mb3.8,baz=37,slow=6.1,SNR=2.9						
ARCES	**ARCESS Array B**	73.67	340	P	P	12 56 42.2	+0.2
KHC	**Kasperske Hory**	75.94	318	*e*pP	pP	12 57 05.0	+0.8
LPL	**La Plagne**	80.62	315	*e*P	pP	12 57 31.6	+1.6
	comp=Z,14nm,0.7s						
ILAR	**Eielson Array**	94.44	22	P	P	12 58 28.0	+0.2
	comp=Z,0.4nm,0.6s,mb4.0,baz=298,slow=4.3,SNR=8.5						
INK	**Inuvik**	96.47	16	P	P	12 58 37.4	+0.4
	comp=Z,1.4nm,0.8s,mb4.4,baz=278,slow=1.9,SNR=9.4						
INK	**Inuvik**	96.47	16	P	P	12 58 37.4	+0.4
PDAR	**Pinedale Array**	124.81	20	PKP	PKPdf	13 04 10.7	-1.3
	comp=Z,0.3nm,0.7s,baz=315,slow=2.1,SNR=3.7						

IDC 27 12:47:12.4±4.1**, 10.63N**×**93.20E, mb4.0**/5**, mb1 4.1**/5**, mb1mx3.8**/18**, Error ellipse: s-maj=95.0km s-min=88.3km az=17.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	38.71	14	P	P	12 54 37.5	-2.4
	0.8nm,0.6s,baz=190,slow=8.8,SNR=2.8						
ZAL	**Zalesovo**	43.72	353	P	P	12 55 20.4	-0.5
	0.9nm,0.8s,baz=303,slow=7.1,SNR=3.8						
ARCES	**ARCESS Array B**	72.38	340	P	P	12 58 39.4	-2.5
	1.3nm,0.5s,baz=90,slow=6.1,SNR=8.3						
ILAR	**Eielson Array**	92.55	22	P	P	13 00 25.6	-1.0
	0.4nm,0.6s,baz=292,slow=4.0,SNR=9.4						
INK	**Inuvik**	94.61	16	P	P	13 00 35.4	-0.6
	0.9nm,0.7s,baz=6.4,slow=6.5,SNR=5.9						

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*IDC **27** 12:48:17.7±0.5, 8.56N×93.76E, h24^{km}±2^{km}, mb4.3/22, mb1 4.3/23, mb1mx4.3/27, MS3.6/1, Ms1 3.8/1, ms1mx2.8/28, Error ellipse: s-maj=20.7km s-min=12.5km az=47.0*

*MOS **27** 12:48:17.5±1.0, 8.69N×93.92E, h33^{km}, mb4.9/16, Error ellipse: s-maj=13.9km s-min=6.9km az=121.8*

*NEIC **27** 12:48:18.0±0.3, 8.58N×93.84E, mb4.9/14, Error ellipse: s-maj=7.9km s-min=7.1km az=214.0*

*BJI **27** 12:48:18.3, 8.15N×93.43E, h57^{km}, mB5.2, mb4.6, Ms5.0, Msz4.7*

ISC 27 12:48:16.2±0.4**, 8.50N**±0.06×**93.82E**±0.06**, h25^{km}, h25^{km}**±.5^{km}**:pP-P, n118, σ0^{s}91**/117**, mb4.6**/50**, MS5.0**/1**, 2C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	11.07	26	Pn	P	12 50 52.5	-3.7
	baz=239,slow=19,SNR=1.9						
CMAR				LR	LR	12 55 24.4	
	comp=Z,314nm,19.3s,baz=210,slow=39						
SHL	**Shillong**	17.07	354	*e*P	P	12 52 15.5	+0.6
SHL				*e*		13 02 07.0	
HYB	**Hyderabad**	17.31	302	*e*P	P	12 52 18.0	0.0
HYB	**Hyderabad**	17.31	302	*i* P	S	12 55 37.0	+9.0
KMI	**Kunming**	18.59	26	P	P	12 52 37.3	+3.5
KMI				AMB	AMB		
	comp=Z,30nm,1.5s						
PKI	**Pulchoki**	20.57	338	*e*P	P	12 52 55.8	-0.1
	comp=Z,164nm,1.2s						
GUN	**Gumba**	20.71	340	*e*P	P	12 52 57.3	-0.1
	comp=Z,233nm,1.0s						
DMN	**Daman**	20.71	338	*e*P	P	12 52 57.7	+0.3
	comp=Z,78nm,0.9s						
KKN	**Kakani**	20.81	338	*e*P	P	12 52 58.4	0.0
	comp=Z,106nm,0.9s						
LSA	**Lhasa**	21.24	354	*e*P	P	12 53 02.2	-0.5
LSA				pmax	pmax		
	comp=Z,35nm,1.0s,mb4.6						
LSA	**Lhasa**	21.24	354	*e*P	P	12 53 02.2	-0.5
	comp=Z,35nm,1.0s,mb4.7						
GKN	**Gorkha**	21.25	337	*e*P	P	12 53 02.9	+0.1
	comp=Z,141nm,0.9s,mb5.3						
KOLN	**Koldanda**	21.46	335	*e*P	P	12 53 05.3	+0.3
	comp=Z,164nm,1.3s,mb5.2						
BHPL	**Bhopal**	21.49	315	⇓*i*P	P	12 53 06.7	+1.4
GYA	**Guiyang**	21.62	33	⇑*i*P	P	12 53 10.8	+4.2
GYA				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.7						
LGTI	**Lohaghat**	24.43	330	*e*P	P	12 53 36.0	+1.8
NDI	**New Delhi**	25.45	324	*e*P	P	12 53 43.5	-0.4
DDI	**Dehra Dun**	26.25	328	*e*	P	12 53 59.8	+8.5
LZH	**Lanzhou**	28.94	17	*e*P	P	12 54 15.5	-0.2
LZH				AMB	AMB		
	comp=Z,36nm,1.7s,mb4.8						
GTA	**Gaotai**	31.24	9	*e*P	P	12 54 36.5	+0.4
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.3						
NJ2	**Nanjing**	33.00	41	*e*P	P	12 54 50.0	-1.6
NJ2				S	S	13 00 02.0	-5.4
NJ2				AMB	AMB		
	comp=Z,630nm,10.0s						
NJ2				LR	LR		
	comp=N,3µm,20.0s,MS5.1						
NJ2				LR	LR		
	comp=E,2µm,19.1s,MS5.1						
NJ2				LR	LR		
	comp=Z,2µm,17.6s,MS4.9						
KSH	**Kashi**	34.77	335	P	P	12 55 06.8	0.0
KSH				AMB	AMB		
	comp=Z,80nm,3.2s						
WMQ	**Urumqi**	35.59	352	P	P	12 55 14.3	+0.6
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.5						
HHC	**Hu-ho-hao-te**	35.87	23	*e*P	P	12 55 24.0	+7.9
HHC				AP	pP	12 55 32.3	+8.7
HHC				XP	sP	12 55 39.0	+12
HHC				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,344nm,11.9s						
ULHL	**Ulahol**	37.01	338	P	P	12 55 26.4	+0.7
	SNR=7.2						
KZA	**Kyzart**	37.24	337	P	P	12 55 28.9	+1.3
	SNR=8.4						
JOW	**Kunigami**	37.37	56	P	P	12 55 29.6	+0.8
	comp=Z,27nm,1.2s,mb4.9,baz=60,slow=25,SNR=2.0						
UCH	**Uchtor**	37.66	336	P	P	12 55 32.1	+1.0
	SNR=10.0						
TKM2	**Tokmak 2**	37.83	338	P	P	12 55 33.3	+0.8
	SNR=5.3						
KBK	**Karagaybulak**	37.85	337	P	P	12 55 33.9	+1.1
	SNR=16						
AML	**Almayashu**	37.91	335	P	P	12 55 34.4	+1.2
	SNR=24						
AAK	**Ala-Archa**	38.01	337	P	P	12 55 35.5	+1.4
	SNR=11						
AAK	**Ala-Archa**	38.01	337	*e*P	P	12 55 33.9	-0.2
AAK				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.0						
AAK	**Ala-Archa**	38.01	337	*e*P	P	12 55 33.9	-0.2
	comp=Z,31nm,1.1s,mb5.0						
FRU	**Bishkek**	38.13	337	*e*P	P	12 55 35.0	-0.1
CHMS	**Chumysh**	38.22	337	P	P	12 55 36.4	+0.6
	SNR=7.4						
EKS2	**Erkin-Say**	38.31	336	P	P	12 55 37.7	+1.0
	SNR=7.7						
USP	**Ospenovka**	38.54	337	P	P	12 55 39.0	+0.4
	SNR=20						
MKAR	**Makanchi Array**	39.41	348	*i* P	P	12 55 45.1	-0.7
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SONM	**Songino Array**	40.62	13	P	P	12 55 55.8	+0.1
	comp=Z,1.0nm,0.7s,mb3.5,baz=188,slow=8.7,SNR=5.0						
SONM				PcP	PcP	12 57 58.3	+0.2
	comp=Z,1.9nm,1.1s,baz=180,slow=1.4,SNR=3.6						
ZAK	**Zakamensk**	42.48	9	*e*P	P	12 56 17.9	+6.9
TLY	**Talaya**	43.80	9	*i* P	P	12 56 20.9	-0.7
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
ZAL	**Zalesovo**	45.89	353	P	P	12 56 38.0	-0.3
	comp=Z,10nm,0.9s,mb4.8,baz=300,slow=7.1,SNR=37						
NWAO	**Narrogin (SRO)**	46.85	153	P	P	12 56 46.6	+0.4
	comp=Z,32nm,1.1s,mb5.2,baz=297,slow=4.5,SNR=6.7						
NWAO				pP	pP	12 56 53.9	+0.1
	comp=Z,38nm,0.8s,baz=330,slow=8.9,SNR=8.6						
BVAR	**Borovoye Array**	48.30	341	P	P	12 56 56.0	-1.3
	comp=Z,2.6nm,0.7s,mb4.4,baz=135,slow=8.4,SNR=8.8						
BRVK	**Borovoye**	48.36	341	*e*P	P	12 56 56.9	-0.9
BRVK				*e**PP	pP	12 57 04.3	-1.1
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
BRVK	**Borovoye**	48.36	341	*e*P	P	12 56 56.9	-0.9
	comp=Z,3.4nm,0.8s,mb4.4						
BRVK				*e*pP	pP	12 57 04.3	-1.2
WRA	**Warramunga Arr**	48.88	126	P	P	12 57 01.3	-1.0
	comp=Z,1.4nm,0.5s,mb4.2,baz=306,slow=8.3,SNR=3.8						
WRAB	**Tennant Creek**	48.88	126	*i* P	P	12 57 04.6	+2.3
ASAR	**Alice Springs**	50.56	130	P	P	12 57 14.7	-0.4
	comp=Z,1.6nm,0.6s,mb4.1,baz=319,slow=9.6,SNR=3.6						
BOD	**Bodaibo**	51.61	14	*e*	P	12 57 19.3	-3.3
BOD				*e*	pP	12 57 28.5	-1.8
GNI	**Garni**	53.77	314	P	P	12 57 36.7	-2.2
	comp=Z,5.4nm,0.6s,mb4.7,baz=151,slow=11,SNR=4.0						
GNI	**Garni**	53.77	314	*e*P	P	12 57 36.8	-2.1
ARU	**Arti**	55.19	337	⇓*i*P	P	12 57 47.9	-1.2
ARU				*e*		12 59 49.4	
ARU				*e*S	S	13 05 29.8	+0.8
ARU				*e*SS	SS	13 09 13.0	-0.1
ARU				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
ZEI	**Tsey**	55.37	317	*e*P	P	12 57 49.9	-0.7
ZEI				*i* *PP	pP	12 57 59.9	+1.6
ZEI				*i*		12 59 53.6	
ZEI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
KIV	**Kislovodsk**	56.64	318	*e*P	P	12 57 58.7	-1.0
KIV				*e**PP	pP	12 58 06.6	-0.9
KIV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
KIV	**Kislovodsk**	56.64	318	*e*P	P	12 57 58.7	-1.0
	comp=Z,10nm,0.7s,mb5.0						
KIV				*e*pP	pP	12 58 06.6	-0.9
KMBO	**Kilima Mbogo**	57.18	263	P	P	12 58 04.2	+0.2
	comp=Z,1.9nm,0.9s,mb4.1,baz=50,slow=10,SNR=6.6						
KMBO	**Kilima Mbogo**	57.18	263	*e*P	P	12 58 07.6	+3.6
KMBO	**Kilima Mbogo**	57.18	263	*e*P	P	12 58 04.3	+0.3
ASF	**Jabal al Asfar**	57.61	303	P	P	12 58 06.5	-0.3
	comp=Z,5.3nm,1.0s,mb4.5,baz=207,slow=7.6,SNR=5.0						
MALT	**Malatya**	57.82	310	*e*P	P	12 58 07.2	-0.9
MALT				*e**PP	pP	12 58 15.2	-0.7
MALT				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
MALT	**Malatya**	57.82	310	*e*P	P	12 58 07.2	-0.9
	comp=Z,8.9nm,1.3s,mb4.6						
MALT				*e*pP	pP	12 58 15.2	-0.7
SOC	**Sochi**	58.51	316	*e*P	P	12 58 09.0	-3.9
SOC				*e*S	S	13 06 12.9	-0.2
SOC				*e*SS	SS	13 10 06.0	-1.4
SOC				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
SOC				pmax	pmax		
	comp=N,4.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,9.0nm,0.6s						
EIL	**Elat**	58.84	299	*e*P	P	12 58 14.8	-0.6
	comp=E,8.4nm,0.9s,mb4.8						
EIL				*e*pP	pP	12 58 23.2	0.0
BRTR	**Keskin Array B**	61.78	311	P	P	12 58 33.2	-2.1
	comp=E,4.2nm,0.8s,mb4.6,baz=125,slow=7.0,SNR=16						
BRTR				pP	pP	12 58 41.2	-2.0
	comp=E,6.0nm,0.7s,baz=122,slow=7.6,SNR=15						
MBAR	**Mbarara**	63.50	265	*i* P	P	12 58 48.0	+0.8
MBAR	**Mbarara**	63.50	265	*e*P	P	12 58 46.8	-0.4
	comp=E,9.6nm,1.5s,mb4.6						
ISP	**Isparta**	63.80	308	*i* P	P	12 58 48.1	-0.7
MOS	**Moscow**	64.38	329	*e*P	P	12 58 51.1	-1.1
MOS				*e*		13 01 16.4	
MOS				pmax	pmax		
	comp=Z,43nm,0.7s,mb5.6						
OBN	**Obninsk**	64.68	328	⇑*i*P	P	12 58 53.4	-0.8
OBN				*e*		13 01 15.0	
OBN				*e*S	S	13 07 26.9	-4.2
OBN				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.9						
TIXI	**Tiksi**	66.68	11	⇓*i*P	P	12 59 05.5	-1.3
TIXI				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
AKASG	**Malin Array Be**	67.47	322	P	P	12 59 10.4	-1.6
	comp=Z,1.2nm,0.5s,mb4.2,baz=84,slow=4.4,SNR=13						
AKASG	**Malin Array Be**	67.47	322	P	P	12 59 10.5	-1.6
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.5s						
MLR	**Muntele Rosu**	68.50	316	P	P	12 59 17.9	-0.7
	comp=Z,8.7nm,1.0s,mb4.7,baz=60,slow=5.3,SNR=6.4						
MLR				pP	pP	12 59 25.2	-1.3
	comp=Z,11nm,0.9s,baz=35,slow=8.4,SNR=6.7						
LSZ	**Lusaka**	69.18	250	*e*P	P	12 59 24.0	+0.7
LSZ				*e**PP	pP	12 59 32.8	+1.6
LSZ				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.7						
LSZ	**Lusaka**	69.18	250	*e*P	P	12 59 24.0	+0.7
	comp=Z,15nm,1.5s,mb4.7						
LSZ				*e*pP	pP	12 59 32.8	+1.6
KOLS	**Kolonicke sedl**	71.53	319	*e*P	P	12 59 38.1	+1.1
KOLS				*e*		12 59 43.9	
FINES	**FINESS Array B**	72.01	332	P	P	12 59 38.1	-1.5
	comp=Z,3.9nm,0.8s,mb4.4,baz=100,slow=12,SNR=7.5						
FINES				pP	pP	12 59 46.5	-1.0
	comp=Z,6.5nm,0.8s,baz=101,slow=9.7,SNR=6.5						
CRVS	**Cervenica-Dubn**	72.05	319	*e*P	pP	12 59 46.5	-1.5
CRVS				*e*		12 59 51.7	
CRVS	**Cervenica-Dubn**	72.05	319	*e*pP	pP	12 59 46.5	-1.5
CRVS				*e*		12 59 51.7	
KECS	**Kecovo**	72.64	318	*e*P	P	12 59 52.2	+8.6
KECS	**Kecovo**	72.64	318	*e*pP	pP	12 59 52.2	+0.7
OJC	**Ojcow**	73.29	320	*e*P	P	12 59 46.6	-0.8
VYHS	**Vyhne**	73.73	318	*e*P	P	12 59 49.6	-0.4
LBTB	**Lobatse**	74.27	241	*e*P	P	12 59 53.7	+0.1
LBTB				*e**PP	pP	13 00 02.7	+1.2
OKC	**Ostrava-Krasne**	74.31	319	*e*P	P	12 59 53.6	+0.3
OKC				*e*pP	pP	13 00 00.9	-0.3
ARCES	**ARCESS Array B**	74.57	340	P	P	12 59 54.2	-0.3
	comp=Z,4.7nm,0.8s,mb4.5,baz=100,slow=6.9,SNR=7.8						
ARCES				pP	pP	13 00 01.6	-0.8
	comp=Z,8.2nm,0.9s,baz=90,slow=6.1,SNR=5.8						
MORC	**Moravsky Berou**	74.70	319	*e*P	P	12 59 55.4	-0.2
MORC				*e**PP	pP	13 00 03.3	-0.2
MORC				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.8						
MORC	**Moravsky Berou**	74.70	319	*e*P	P	12 59 55.4	-0.2
	comp=Z,17nm,1.3s,mb4.8						

MORC				epP	pP	13 00 03.3	-0.1
ZST	**Bratislava**	**74.86**	**318**	eP	**P**	**12 59 56.7**	**+0.2**
ZST				epP	pP	13 00 04.3	-0.2
DPC	**Dobruska-Polom**	**75.53**	**320**	eP	**P**	**13 00 01.2**	**+0.9**
DPC				epP	pP	13 00 08.5	+0.3
BILL	**Bilibino**	**75.62**	**22**	eP	**P**	**13 00 00.5**	**0.0**
BILL				e*PP	pP	13 00 08.7	+0.3
BILL				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
BILL	**Bilibino**	**75.62**	**22**	eP	**P**	**13 00 00.5**	**0.0**
	comp=Z,1.2nm,0.5s,mb4.1						
BILL				epP	pP	13 00 08.7	+0.2
UPC	**Upice**	**75.74**	**320**	eP	**P**	**13 00 02.2**	**+0.7**
UPC				epP	pP	13 00 09.2	-0.2
PRU	**Pruhonice**	**76.65**	**319**	eP	**P**	**13 00 06.9**	**+0.3**
PRU				epP	pP	13 00 14.7	+0.1
BRG	**Berggiesshubel**	**77.07**	**320**	i P	**P**	**13 00 09.7**	**+0.7**
BRG				i	pP	13 00 17.3	+0.4
BRG				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.9						
BRG	**Berggiesshubel**	**77.07**	**320**	i P	**P**	**13 00 09.7**	**+0.7**
	comp=Z,23nm,1.6s,mb4.9						
BRG				i	pP	13 00 17.3	+0.4
GERES	**GERESS Array B**	**77.15**	**318**	P	**P**	**13 00 09.6**	**+0.1**
	comp=Z,1.9nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=10						
GERES				pP	pP	13 00 16.9	-0.5
	comp=Z,4.0nm,0.9s,baz=89,slow=5.1,SNR=10.0						
KHC	**Kasperske Hory**	**77.24**	**318**	eP	**P**	**13 00 10.5**	**+0.6**
KHC				epP	pP	13 00 17.5	-0.4
CLL	**Collm**	**77.68**	**321**	eP	**P**	**13 00 13.0**	**+0.7**
CLL				e	pP	13 00 20.0	-0.3
CLL	**Collm**	**77.68**	**321**	P	**P**	**13 00 13.0**	**+0.7**
CLL				e*PP	pP	13 00 20.0	-0.3
HFS	**Hagfors**	**77.76**	**330**	P	**P**	**13 00 12.2**	**-0.3**
	comp=Z,9.2nm,1.1s,mb4.6,baz=79,slow=7.6,SNR=6.5						
HFS				pP	pP	13 00 20.6	+0.1
	comp=Z,8.9nm,0.9s,baz=117,slow=3.3,SNR=5.7						
NB2	**NORSAR Subarra**	**79.03**	**331**	P	**P**	**13 00 18.3**	**-1.2**
	comp=Z,15nm,1.0s,mb4.9,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**79.03**	**331**	P	**P**	**13 00 18.3**	**-1.2**
	baz=91,slow=6.2						
NB2	**NORSAR Subarra**	**79.03**	**331**	P	**P**	**13 00 18.3**	**-1.2**
NB2				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
NOA	**NORSAR Array B**	**79.03**	**331**	P	**P**	**13 00 18.9**	**-0.6**
	comp=Z,5.2nm,0.9s,mb4.5,baz=96,slow=5.2,SNR=7.5						
NOA				pP	pP	13 00 26.8	-0.7
	comp=Z,8.8nm,0.9s,baz=92,slow=5.6,SNR=11						
NOA	**NORSAR Array B**	**79.03**	**331**	P	**P**	**13 00 18.9**	**-0.6**
NOA				*PP	pP	13 00 26.8	-0.7
NOA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NOA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
DAVOX	**Davos**	**79.72**	**316**	P	**P**	**13 00 23.9**	**+0.3**
	comp=Z,3.9nm,0.9s,mb4.3,baz=137,slow=18,SNR=4.3						
DAVOX				pP	pP	13 00 31.2	-0.4
	comp=Z,2.3nm,0.5s,baz=110,slow=15,SNR=4.3						
LPL	**La Plagne**	**81.97**	**315**	eP	**P**	**13 00 36.4**	**+1.0**
	comp=Z,94nm,1.6s,mb5.2						
LPL	**La Plagne**	**81.97**	**315**	eP	**P**	**13 00 36.4**	**+1.0**
LPL				pmax	pmax		
	comp=Z,47nm,1.6s,mb5.2						
HGN	**Heimansgroeve**	**82.15**	**320**	ex	**P**	**13 00 36.4**	**+0.2**
	comp=Z,35nm,1.3s,mb5.1						
ESDC	**Sonseca Array**	**90.58**	**310**	P	**P**	**13 01 18.1**	**+0.2**
	comp=Z,0.9nm,0.7s,mb4.2,baz=56,slow=5.3,SNR=4.2						
IMA	**Indian Mountai**	**91.16**	**22**	eP	**P**	**13 01 22.0**	**+2.1**
	comp=Z,45nm,1.1s,mb5.7						
IMA				epP	pP	13 01 29.8	+1.8
ILAR	**Eielson Array**	**94.28**	**22**	P	**P**	**13 01 34.1**	**-0.2**
	comp=Z,0.3nm,0.8s,mb3.8,baz=306,slow=4.9,SNR=4.6						
INK	**Inuvik**	**96.48**	**16**	P	**P**	**13 01 44.8**	**+0.5**
	comp=Z,6.2nm,1.5s,mb4.8,baz=297,slow=7.3,SNR=3.6						
NVAR	**Mina Array Bea**	**124.54**	**30**	PKP	PKPdf	13 07 15.9	-2.7
	comp=Z,0.2nm,0.3s,baz=57,slow=30,SNR=2.8						
NVAR				pPKP		13 07 24.6	
	comp=Z,1.4nm,0.8s,baz=189,slow=2.2,SNR=4.9						
PDAR	**Pinedale Array**	**124.70**	**21**	PKP	PKPdf	13 07 16.4	-2.4
	comp=Z,0.8nm,0.8s,baz=45,slow=2.1,SNR=6.4						

IDC 27 12:52:21.4±4.0**,10.59N**×**91.69E,mb4.0**/3**,mb1 4.2**/4**,**
mb1mx3.8/18**,ML3.8**/1**,Error ellipse: s-maj=107.0km**
s-min=29.7km az=82.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.51**	**41**	Pn	P	12 54 54.0	-2.4
	0.2nm,0.3s,baz=210,slow=12,SNR=3.5						
LUBP	**Lubang**	**28.08**	**81**	eP	P	12 58 17.5	+0.5
SONM	**Songino Array**	**39.13**	**16**	P	P	12 59 50.6	-1.8
	0.6nm,0.6s,baz=206,slow=8.5,SNR=4.8						
WRA	**Warramunga Arr**	**51.80**	**126**	P	P	13 01 31.0	-2.6
	2.6nm,0.5s,baz=305,slow=8.6,SNR=11						
ASAR	**Alice Springs**	**53.50**	**130**	P	P	13 01 44.4	-1.8
	1.2nm,0.6s,baz=316,slow=7.0,SNR=4.3						

IDC 27 12:56:35.5±2.1**,8.38N**×**92.43E,mb3.7**/4**,mb1 3.9**/5**,**
mb1mx3.6/19**,ML4.1**/1**,Error ellipse: s-maj=67.6km**
s-min=24.6km az=66.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.85**	**32**	Pn	P	12 59 26.4	-2.5
	0.3nm,0.3s,baz=220,slow=14,SNR=7.5						
SONM	**Songino Array**	**41.07**	**14**	P	P	13 04 20.6	-1.8
	0.5nm,0.5s,baz=204,slow=6.3,SNR=6.9						
BVAR	**Borovoye Array**	**47.98**	**342**	P	P	13 05 15.7	-2.3
	0.2nm,0.4s,baz=153,slow=6.4,SNR=2.9						
WRA	**Warramunga Arr**	**49.93**	**125**	P	P	13 05 31.8	-1.6
	0.9nm,0.5s,baz=302,slow=9.0,SNR=4.9						
ASAR	**Alice Springs**	**51.54**	**129**	P	P	13 05 43.4	-2.2
	0.4nm,0.4s,baz=305,slow=8.0,SNR=5.0						

IDC ***27*** *12:56:53.6±1.4,7.93N×91.77E,mb4.0/6,mb1 4.2/7,*
mb1mx4.0/18,ML4.1/1,Error ellipse: s-maj=41.2km
s-min=28.4km az=49.0
NEIC ***27*** *12:56:58.3±0.9,7.96N×91.82E,h30*^{km}*,Error ellipse:*
s-maj=20.2km s-min=19.3km az=76.0
ISC 27 12:56:58.0±0.9**,8.1N**±0.1×**92.1E**±0.1**,h30**^{km}**,n10,**
σ**1**$\overset{s}{.}$**38**/10**,mb4.0**/6**,1C,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.26**	**32**	Pn	**P**	**12 59 54.5**	**+0.8**
	0.3nm,0.3s,baz=233,slow=15,SNR=7.0						
HYB	**Hyderabad**	**16.12**	**306**	eP	**P**	**13 00 46.5**	**+2.2**
HYB	**Hyderabad**	**16.12**	**306**	i P	**P**	**13 00 46.5**	**+2.2**
SONM	**Songino Array**	**41.42**	**15**	P	**P**	**13 04 43.8**	**+0.4**
	3.4nm,0.7s,mb4.1,baz=196,slow=8.4,SNR=19						
ZAL	**Zalesovo**	**46.09**	**354**	P	**P**	**13 05 20.9**	**-0.1**
	0.6nm,0.3s,mb4.0,baz=321,slow=6.5,SNR=3.3						
WRA	**Warramunga Arr**	**50.05**	**124**	P	**P**	**13 05 52.0**	**-0.4**
	3.1nm,1.0s,mb4.3,baz=307,slow=8.9,SNR=7.4						
BRTR	**Keskin Array B**	**60.75**	**311**	P	**P**	**13 07 06.5**	**-2.9**
	1.5nm,0.9s,mb4.1,baz=116,slow=8.6,SNR=4.1						
GERES	**GERESS Array B**	**76.31**	**318**	P	**P**	**13 08 44.4**	**-1.5**
	0.6nm,0.7s,mb3.6,baz=72,slow=4.2,SNR=5.5						
SYO	**Syowa Base**	**85.03**	**197**	⇑P	**P**	**13 09 33.7**	**+2.1**
ILAR	**Eielson Array**	**95.29**	**22**	P	**P**	**13 10 19.4**	**-0.6**
	0.5nm,0.8s,mb4.0,baz=295,slow=4.2,SNR=6.7						

IDC ***27*** *12:57:56.9±0.6,7.34N×92.52E,mb4.3/20,mb1 4.4/21,*
mb1mx4.4/26,Error ellipse: s-maj=23.3km s-min=12.8km
az=39.0
MOS ***27*** *12:57:58.9±1.8,6.89N×91.98E,h33*^{km}*,mb4.9/10,Error*
ellipse: s-maj=23.4km s-min=13.5km az=104.6
NEIC ***27*** *12:58:01.2±0.4,7.29N×92.52E,mb4.7/17,Error ellipse:*
s-maj=10.3km s-min=8.0km az=221.0
BJI ***27*** *12:58:04.4,7.11N×91.63E,h46*^{km}*,mB5.4,mb4.7,Ms4.9,*
Msz4.6
SYO ***27*** *12:58:15.8,7.76N×93.23E,h30*^{km}*,MB4.6*
ISC 27 12:57:59.3±0.4**,7.31N**±0.06×**92.48E**±0.06**,h26**^{km}**,**
h26^{km}±.8^{km}**:pP-P,n98,**σ**1**$\overset{s}{.}$**38**/90**,mb4.6**/54**,MS4.6**/12**,**
2C-3D,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**12.74**	**29**	Pn	**P**	**13 01 01.2**	**-0.5**
	4.6nm,0.4s						
CMAR	**Chiang Mai Arr**	**12.74**	**29**	Pn	**P**	**13 01 00.6**	**-1.2**
	baz=225,slow=14,SNR=2.4						
CMAR				Sn	**S**	**13 03 21.9**	**-1.9**
	0.7nm,0.3s,baz=233,slow=14,SNR=4.4						
CMAR	**Chiang Mai Arr**	**12.74**	**29**	i P	**P**	**13 01 08.8**	**+7.0**
CMAR				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HYB	**Hyderabad**	**16.90**	**308**	eP	**P**	**13 01 50.0**	**-5.9**
	comp=Z,90nm,1.0s						
HYB				e		13 01 55.0	
HYB	**Hyderabad**	**16.90**	**308**	i P	**P**	**13 01 50.0**	**-5.9**
	comp=Z,90nm,1.0s						
HYB				e		13 01 55.0	
PKI	**Pulchoki**	**21.24**	**342**	eP	**P**	**13 02 43.7**	**-2.1**
	comp=Z,62nm,1.0s,mb4.9						
POO	**Poona**	**21.29**	**303**	i P	**P**	**13 02 41.0**	**-5.3**
	comp=Z,30nm,1.0s,mb4.6						
POO				i S	**S**	**13 06 23.0**	**-14**
DMN	**Daman**	**21.37**	**342**	eP	**P**	**13 02 45.6**	**-1.5**
	comp=Z,89nm,1.0s,mb5.1						
GUN	**Gumba**	**21.42**	**344**	eP	**P**	**13 02 45.7**	**-1.9**
	comp=Z,72nm,1.0s,mb5.0						
KKN	**Kakani**	**21.48**	**342**	eP	**P**	**13 02 46.4**	**-1.8**
GKN	**Gorkha**	**21.88**	**341**	eP	**P**	**13 02 50.1**	**-2.1**
	comp=Z,66nm,1.1s,mb5.0						
KOLN	**Koldanda**	**22.02**	**339**	eP	**P**	**13 02 51.7**	**-1.9**
	comp=Z,137nm,1.1s,mb5.3						
LSA	**Lhasa**	**22.31**	**357**	eP	**P**	**13 02 59.0**	**+2.6**
	comp=Z,33nm,1.0s,mb4.7						
GYA	**Guiyang**	**23.34**	**34**	⇑iP	**P**	**13 03 13.5**	**+6.8**
GYA				PP	PP	13 03 49.3	+11
GYA				S	**S**	**13 07 33.8**	**+20**
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.6						
GYA				AMB	AMB		
	comp=Z,570nm,3.2s						
GYA				LR	LR		
	comp=N,1µm,16.0s,MS4.7						
GYA				LR	LR		
	comp=E,2µm,15.4s,MS4.7						
GYA				LR	LR		
	comp=Z,2µm,16.2s,MS4.7						
GZH	**Guangzhou**	**25.46**	**50**	P	**P**	**13 03 33.3**	**+6.2**
GZH				LR	LR		
	comp=N,883nm,12.4s,MS4.9						
GZH				LR	LR		
	comp=E,2µm,11.8s,MS4.9						
GZH				LR	LR		
	comp=Z,2µm,11.5s,MS4.8						
NDI	**New Delhi**	**25.69**	**328**	e	**P**	**13 03 27.5**	**-1.7**
NDI	**New Delhi**	**25.69**	**328**	e	**P**	**13 03 27.5**	**-1.7**
DDI	**Dehra Dun**	**26.60**	**331**	e	**P**	**13 03 36.8**	**-0.8**
ENH	**Enshi**	**27.86**	**33**	eP	**P**	**13 03 47.9**	**-1.2**
	comp=Z,45nm,1.4s,mb4.9						
ENH				epP	pP	13 03 55.1	-1.5
TGY	**Tagaytay City**	**28.74**	**74**	P	**P**	**13 03 56.9**	**-0.2**
	comp=Z,91nm,0.3s,baz=246,slow=20,SNR=2.0						
LZH	**Lanzhou**	**30.47**	**18**	eP	pP	13 04 21.5	+1.5
LZH				AMB	AMB		
	comp=Z,46nm,1.6s,mb5.0						
XAN	**Xi’an**	**30.63**	**27**	P	pP	13 04 21.3	-0.1
XAN				AP	pP	13 04 28.8	+7.4
XAN				AMB	AMB		
	comp=Z,17nm,1.3s,mb4.7						
WHN	**Wuhan**	**30.89**	**39**	P	**P**	**13 04 21.8**	**+5.6**
GTA	**Gaotai**	**32.63**	**11**	eP	**P**	**13 04 33.5**	**+2.2**
GTA				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.7						
GTA				AMB	AMB		
	comp=Z,261nm,4.2s						
GTA				LR	LR		
	comp=N,873nm,14.1s,MS4.7						
GTA				LR	LR		
	comp=E,598nm,11.8s,MS4.7						
GTA				LR	LR		
	comp=Z,989nm,12.2s,MS4.7						
NJ2	**Nanjing**	**34.77**	**41**	eP	**P**	**13 04 54.8**	**+4.9**
NJ2				PP	PP	13 06 15.0	+7.6
NJ2				S	**S**	**13 10 27.0**	**+9.2**
NJ2				SS	SS	13 12 49.0	+17
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,740nm,6.3s						
NJ2				LR	LR		
	comp=N,2µm,21.2s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,21.1s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,22.3s,MS4.8						
WMQ	**Urumqi**	**36.61**	**354**	P	pP	13 05 11.3	-1.7
WMQ				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.7						
UCH	**Uchtor**	**38.24**	**338**	P	**P**	**13 05 20.1**	**+1.0**
	SNR=6.5						
KBK	**Karagaybulak**	**38.45**	**339**	P	**P**	**13 05 21.9**	**+1.0**
	SNR=9.0						
AML	**Almayashu**	**38.46**	**337**	P	**P**	**13 05 21.9**	**+1.0**
	SNR=13						
AAK	**Ala-Archa**	**38.60**	**339**	P	**P**	**13 05 23.1**	**+1.1**
	SNR=6.8						
AAK	**Ala-Archa**	**38.60**	**339**	i P	**P**	**13 05 21.4**	**-0.7**
AAK				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.4						
AAK	**Ala-Archa**	**38.60**	**339**	eP	**P**	**13 05 21.8**	**-0.3**
	comp=Z,11nm,1.3s,mb4.4						
BJT	**Baijiatuau**	**38.87**	**29**	eP	**P**	**13 05 26.5**	**+2.2**
	comp=Z,7.7nm,0.8s,mb4.5						
BJT				epP	pP	13 05 33.7	+1.6
EKS2	**Erkin-Say**	**38.88**	**338**	P	**P**	**13 05 25.1**	**+0.7**
	SNR=5.9						
BJI	**Beijing**	**38.89**	**29**	P	pP	13 05 33.5	+1.3
BJI				AMB	AMB		
	comp=Z,19nm,1.5s,mb4.6						
BJI				AMB	AMB		
	comp=Z,232nm,4.2s						
BJI				LR	LR		
	comp=N,375nm,17.5s,MS4.6						
BJI				LR	LR		
	comp=E,762nm,17.0s,MS4.6						
BJI				LR	LR		
	comp=Z,338nm,23.3s						
USP	**Ospenovka**	**39.15**	**339**	P	**P**	**13 05 26.8**	**+0.2**
	SNR=11						
SONM	**Songino Array**	**42.09**	**14**	P	**P**	**13 05 49.5**	**-1.3**
	comp=Z,4.0nm,0.8s,mb4.1,baz=192,slow=8.5,SNR=4.2						
ULN	**Ulaanbaatar**	**42.27**	**15**	eP	**P**	**13 05 52.4**	**0.0**
	comp=Z,2.9nm,0.7s,mb4.0						
ZAK	**Zakamensk**	**43.87**	**10**	eP	pP	13 06 13.1	+0.1
TLY	**Talaya**	**45.18**	**10**	i P	**P**	**13 06 18.1**	**+2.3**
CN2	**Changchun**	**46.38**	**33**	eP	**P**	**13 06 29.5**	**+4.0**
ZAL	**Zalesovo**	**46.91**	**354**	P	**P**	**13 06 29.0**	**-0.4**
	comp=Z,0.9nm,0.7s,mb3.8,baz=287,slow=9.3,SNR=4.1						
HIA	**Hailar**	**47.69**	**24**	P	**P**	**13 06 36.0**	**+0.3**
	comp=Z,5.0nm,0.8s,mb4.6						
HIA				epP	pP	13 06 44.4	+0.8
NVS	**Novosibirsk**	**47.98**	**353**	eP	pP	13 06 46.9	+1.2
NVS				eS	**S**	**13 13 28.9**	**-4.1**
NVS				pmax	pmax		
	comp=N,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
NVS				smax			
	comp=N,12nm,1.8s						
NVS				smax			
	comp=E,42nm,1.8s						
BVAR	**Borovoye Array**	**49.01**	**342**	P	**P**	**13 06 45.7**	**-0.2**
	comp=E,2.1nm,0.8s,mb4.2,baz=153,slow=9.9,SNR=6.7						
BRVK	**Borovoye**	**49.07**	**342**	eP	**P**	**13 06 45.5**	**-0.8**
	comp=E,4.5nm,0.9s,mb4.5						
MDJ	**Mudanjiang**	**49.20**	**35**	P	pP	13 06 54.8	-0.5
MDJ				AP	pP	13 07 03.8	+8.5
MDJ				XP	sP	13 07 07.5	+9.2
MDJ				PP	PP	13 08 48.3	+6.8
MDJ				S	**S**	**13 13 54.0**	**+3.7**
MDJ				SS	SS	13 17 26.0	+8.5
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.6s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,113nm,6.0s						
MDJ				LR	LR		
	comp=N,460nm,14.6s,MS4.6						
MDJ				LR	LR		
	comp=E,247nm,19.1s,MS4.6						
MDJ				LR	LR		
	comp=Z,495nm,12.7s						
MDJ	**Mudanjiang**	**49.20**	**35**	P	**P**	**13 06 48.1**	**+0.7**
	comp=Z,6.0nm,0.6s,mb4.8						
WRA	**Warramunga Arr**	**49.29**	**124**	P	**P**	**13 06 46.5**	**-1.9**
	comp=Z,2.3nm,0.5s,mb4.4,baz=307,slow=8.4,SNR=12						
WRAB	**Tennant Creek**	**49.29**	**124**	i P	**P**	**13 06 47.5**	**-1.0**
WRAB	**Tennant Creek**	**49.29**	**124**	eP	**P**	**13 06 47.3**	**-1.1**
	comp=Z,18nm,0.8s,mb5.1						
CHKZ	**Chkalovo**	**49.51**	**343**	eP	**P**	**13 06 49.8**	**+0.1**
	comp=Z,3.5nm,0.9s,mb4.4						
ASAR	**Alice Springs**	**50.83**	**129**	P	**P**	**13 06 59.9**	**-0.3**
	comp=Z,3.9nm,0.5s,mb4.6,baz=301,slow=7.3,SNR=20						
BOD	**Bodaibo**	**53.08**	**14**	eP	**P**	**13 07 18.8**	**+2.1**
BOD				e	pP	13 07 27.0	+2.4
BOD				e		13 07 33.0	
GNI	**Garni**	**53.67**	**315**	P	**P**	**13 07 19.6**	**-1.5**
	comp=Z,1.3nm,0.3s,mb4.3,baz=14,slow=14,SNR=4.0						
GNI	**Garni**	**53.67**	**315**	i P	**P**	**13 07 16.0**	**-5.2**
GNI				pmax	pmax		
	comp=Z,8.0nm,1.4s						
GNI	**Garni**	**53.67**	**315**	eP	**P**	**13 07 20.9**	**-0.3**
	comp=Z,4.4nm,0.5s,mb4.6						
TI2	**Plekhanov**	**54.33**	**317**	eP	**P**	**13 07 25.0**	**-1.0**
KMBO	**Kilima Mbogo**	**55.73**	**264**	P	**P**	**13 07 37.4**	**+0.8**
	comp=Z,3.9nm,0.8s,mb4.5,baz=64,slow=14,SNR=3.5						
ARU	**Arti**	**55.78**	**338**	⇓iP	**P**	**13 07 36.0**	**-0.4**
ARU				e		13 08 30.6	
ARU				e		13 09 40.1	
ARU				eS	**S**	**13 15 25.4**	**+5.5**
ARU				eSS	SS	13 19 12.6	+7.1
ARU				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
ARU	**Arti**	**55.78**	**338**	eP	**P**	**13 07 35.9**	**-0.5**
	comp=Z,11nm,0.8s,mb4.9						
KIV	**Kislovodsk**	**56.64**	**319**	d iP	**P**	**13 07 41.8**	**-1.0**
KIV				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.9						
KIV	**Kislovodsk**	**56.64**	**319**	eP	**P**	**13 07 42.2**	**-0.5**
	comp=Z,6.1nm,0.6s,mb4.8						
PMG	**Port Moresby**	**56.95**	**106**	P	**P**	**13 07 43.8**	**-1.6**
	comp=Z,3.8nm,0.7s,mb4.5,baz=202,slow=13,SNR=3.1						
ASF	**Jabal al Asfar**	**57.15**	**304**	LR	LR	13 36 14.1	
	comp=Z,162nm,19.4s,MS4.1,baz=136,slow=38						
MALT	**Malatya**	**57.58**	**311**	eP	**P**	**13 07 49.0**	**-0.5**
	comp=Z,7.3nm,1.2s,mb4.6						
EIL	**Elat**	**58.28**	**300**	LR	LR	13 35 52.7	
	comp=Z,265nm,18.0s,MS4.4,baz=95,slow=37						
SOC	**Sochi**	**58.47**	**317**	eP	**P**	**13 07 51.3**	**-4.3**
SOC				e		13 08 46.3	
SOC				e		13 10 09.9	
SOC				eS	**S**	**13 15 57.2**	**+1.7**
SOC				eSSS	SSS	13 22 04.3	-7.5
SOC				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
SOC				pmax	pmax		
	comp=N,3.0nm,0.4s						
SOC				pmax	pmax		
	comp=E,4.0nm,0.4s						
CTA	**Charters Tower**	**59.48**	**118**	P	**P**	**13 08 02.2**	**-0.7**
	comp=E,5.6nm,1.2s,mb4.5,baz=273,slow=11,SNR=2.5						
STKA	**Stephens Creek**	**60.92**	**133**	P	**P**	**13 08 11.8**	**-0.9**
	comp=E,4.3nm,0.8s,mb4.7,baz=324,slow=12,SNR=3.0						
STKA	**Stephens Creek**	**60.92**	**133**	P	**P**	**13 08 13.9**	**+1.3**
YAK	**Yakutsk**	**61.05**	**19**	eP	pP	13 08 21.6	+0.5
YAK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.9						
YAK				pmax	pmax		
	comp=N,6.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.3s						
YAK				MLR	MLR		
	comp=Z,281nm,12.0s,MS4.6						
YAK				MLR	MLR		
	comp=N,206nm,11.0s,MS4.6						
YAK				MLR	MLR		
	comp=E,93nm,11.0s,MS4.6						
BRTR	**Keskin Array B**	**61.56**	**311**	P	**P**	**13 08 15.8**	**-1.1**
	comp=E,2.8nm,0.8s,mb4.4,baz=121,slow=7.2,SNR=10						
OBN	**Obninsk**	**64.99**	**328**	⇓eP	**P**	**13 08 38.0**	**-1.2**
OBN				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.7						
OBN				MLR	MLR		
	comp=Z,100nm,20.0s,MS4.0						
AKASG	**Malin Array Be**	**67.58**	**322**	P	**P**	**13 08 54.1**	**-1.7**
	comp=Z,0.9nm,0.6s,mb4.0,baz=90,slow=4.1,SNR=4.7						
TIXI	**Tiksi**	**68.11**	**12**	⇑iP	**P**	**13 09 01.3**	**+2.5**
TIXI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
TIXI				MLR	MLR		
	comp=Z,258nm,14.0s,MS4.6						
MLR	**Muntele Rosu**	**68.43**	**316**	P	**P**	**13 09 01.2**	**0.0**
	comp=Z,14nm,1.1s,mb4.9,baz=80,slow=3.0,SNR=5.7						
FINES	**FINESS Array B**	**72.44**	**332**	P	**P**	**13 09 23.6**	**-1.7**
	comp=Z,2.7nm,0.8s,mb4.2,baz=139,slow=20,SNR=4.7						
ARCES	**ARCESS Array B**	**75.24**	**340**	P	**P**	**13 09 40.9**	**-0.5**
	comp=Z,3.3nm,0.9s,mb4.3,baz=38,slow=14,SNR=4.4						
DPC	**Dobruska-Polom**	**75.58**	**320**	eP	**P**	**13 09 44.6**	**+1.0**
BRG	**Berggiesshubel**	**77.14**	**320**	eP	**P**	**13 09 54.3**	**+1.9**
BRG				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
BRG	**Berggiesshubel**	**77.14**	**320**	eP	**P**	**13 09 54.3**	**+1.9**
	comp=Z,7.6nm,1.2s,mb4.5						
GERES	**GERESS Array B**	**77.15**	**318**	P	**P**	**13 09 53.1**	**+0.6**
	comp=Z,3.3nm,0.9s,mb4.3,baz=108,slow=4.2,SNR=4.9						
BILL	**Bilibino**	**77.22**	**22**	i P	**P**	**13 09 55.0**	**+2.5**
BILL				pmax	pmax		
	comp=Z,3.0nm,2.4s,mb3.8						
KHC	**Kasperske Hory**	**77.25**	**319**	eP	**P**	**13 09 54.5**	**+1.5**
KHC				ex	x	13 10 24.5	
CLL	**Collm**	**77.76**	**321**	P	**P**	**13 09 57.0**	**+1.2**
HFS	**Hagfors**	**78.11**	**330**	P	**P**	**13 09 58.3**	**+0.7**
	comp=Z,4.3nm,0.9s,mb4.4,baz=108,slow=4.7,SNR=5.5						
DAVOX	**Davos**	**79.66**	**316**	P	**P**	**13 10 07.5**	**+1.2**
	comp=Z,5.2nm,0.9s,mb4.5,baz=162,slow=11,SNR=5.1						
DAVOX	**Davos**	**79.66**	**316**	P	**P**	**13 10 07.5**	**+1.2**
LPL	**La Plagne**	**81.86**	**315**	eP	**P**	**13 10 21.0**	**+3.1**
	comp=Z,33nm,0.9s,mb4.9						
EKA	**Eskdalemuir Ar**	**87.25**	**325**	P	**P**	**13 10 46.1**	**+1.4**
	comp=Z,1.5nm,0.8s,mb4.3,baz=83,slow=6.7,SNR=4.0						
ILAR	**Eielson Array**	**95.88**	**22**	P	**P**	**13 11 26.1**	**+1.4**
	comp=Z,0.4nm,0.7s,mb4.0,baz=307,slow=4.4,SNR=5.8						
DBIC	**Dimbokro**	**96.39**	**278**	LR	LR	13 56 24.0	
	comp=Z,147nm,18.3s,MS4.5,baz=72,slow=35						
ULM	**Lac du Bonnet**	**122.22**	**6**	PKP	PKPdf	13 17 07.5	+11
	comp=Z,0.9nm,0.5s,baz=8.2,slow=2.9,SNR=3.2						
NVAR	**Mina Array Bea**	**126.23**	**30**	PKP	PKPdf	13 17 13.7	+8.8
	comp=Z,0.9nm,0.6s,baz=248,slow=1.9,SNR=4.4						
PDAR	**Pinedale Array**	**126.27**	**20**	PKP	PKPdf	13 17 13.4	+8.6
	comp=Z,1.0nm,0.8s,baz=57,slow=1.9,SNR=7.1						
TXAR	**Lajitas Array**	**140.39**	**22**	PKP	PKPdf	13 17 39.7	+8.1
	comp=Z,0.3nm,0.4s,baz=355,slow=1.2,SNR=6.3						
TXAR	**Lajitas Array**	**140.39**	**22**	PKP	PKPdf	13 17 39.7	+8.1

IDC 27 12:58:10.2±1.7**,6.49N**×**95.62E,mb4.7**/11**,mb1 4.8**/12**,**
mb1mx4.5/21**,ML4.6**/1**,MS4.3**/3**,Ms1 4.3**/3**,ms1mx3.7**/11**,**
Error ellipse: s-maj=46.6km s-min=37.1km az=159.0,
Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.33**	**15**	Pn	P	13 01 07.7	-2.3
	1.1nm,0.3s,baz=214,slow=14,SNR=15						
SONM	**Songino Array**	**42.21**	**11**	P	P	13 06 03.6	-2.9
	8.3nm,1.0s,baz=189,slow=9.0,SNR=11						
BRTR	**Keskin Array B**	**64.44**	**311**	P	P	13 08 48.0	-2.8
	3.5nm,0.7s,baz=121,slow=7.0,SNR=7.6						
AKASG	**Malin Array Be**	**70.14**	**322**	P	P	13 09 22.8	-3.7
	2.6nm,0.7s,baz=86,slow=4.8,SNR=5.7						
IDI	**Anoyia**	**70.56**	**305**	P	P	13 09 26.8	-2.5
	14nm,0.6s,baz=74,slow=7.6,SNR=9.9						
MLR	**Muntele Rosu**	**71.18**	**316**	P	P	13 09 30.5	-2.4
	7.4nm,0.8s,baz=319,slow=4.0,SNR=5.3						
FINES	**FINESS Array B**	**74.61**	**332**	P	P	13 09 51.8	-1.0
	4.6nm,0.7s,baz=102,slow=6.1,SNR=8.8						
ARCES	**ARCESS Array B**	**77.06**	**340**	P	P	13 10 06.4	-0.1
	6.3nm,0.9s,baz=102,slow=4.9,SNR=7.7						
GERES	**GERESS Array B**	**79.83**	**318**	P	P	13 10 20.8	-1.3
	2.6nm,0.6s,baz=92,slow=4.2,SNR=8.0						
HFS	**Hagfors**	**80.39**	**330**	P	P	13 10 23.8	-1.0
	5.1nm,0.6s,baz=117,slow=6.6,SNR=7.2						
NOA	**NORSAR Array B**	**81.65**	**331**	P	P	13 10 31.8	+0.3
	3.3nm,0.8s,baz=94,slow=5.4,SNR=7.1						
EKA	**Eskdalemuir Ar**	**89.69**	**326**	P	P	13 11 11.9	+0.5
	3.6nm,0.7s,baz=100,slow=5.8,SNR=8.0						
ESDC	**Sonseca Array**	**93.23**	**310**	P	P	13 11 28.2	+0.1

2.4nm,0.7s,baz=61,slow=4.2,SNR=6.7

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*IDC **27** 13:04:25.5±1.1, 5.29N×94.40E, mb3.9/10, mb1 4.1/11, mb1mx3.9/20, ML4.0/1, Error ellipse: s-maj=51.3km s-min=17.9km az=42.0*

*NEIC **27** 13:04:30.4±0.8, 5.30N×94.47E, $h30^{km}$, mb4.4/1, Error ellipse: s-maj=36.1km s-min=12.0km az=46.0*

ISC 27 13:04:28.3±1.0, **5.3N**±0.2×**94.5E**±0.2, **$h30^{km}$, n16, $\sigma 0\overset{s}{.}67$**/16, **mb4.0**/12, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.80	18	Pn	P	13 07 53.6	+9.2
	0.2nm,0.3s,baz=210,slow=11,SNR=9.2						
SONM	Songino Array	43.60	12	P	P	13 12 30.7	-0.9
	0.3nm,0.4s,mb3.4,baz=194,slow=8.0,SNR=6.1						
WRA	Warramunga Arr	46.55	124	P	P	13 12 56.1	+0.6
	0.5nm,0.4s,mb3.8,baz=304,slow=9.3,SNR=4.7						
ZAL	Zalesovo	49.13	352	P	P	13 13 15.9	+0.8
	1.2nm,0.6s,mb4.1,baz=312,slow=6.6,SNR=5.3						
BVAR	Borovoye Array	51.52	342	P	P	13 13 34.0	+0.6
	0.8nm,0.5s,mb4.0,baz=141,slow=9.5,SNR=6.7						
CHKZ	Chkalovo	52.01	342	*e*P	P	13 13 37.8	+0.7
	3.5nm,0.7s,mb4.4						
PMG	Port Moresby	54.52	105	P	P	13 13 55.5	-0.7
	6.2nm,0.3s,mb5.2,baz=251,slow=12,SNR=18						
CTA	Charters Tower	56.80	118	P	P	13 14 12.8	+0.1
	0.7nm,0.2s,mb4.2,baz=175,slow=8.4,SNR=3.0						
CTA	Charters Tower	56.80	118	P	P	13 14 12.8	+0.1
BRTR	Keskin Array B	64.35	312	P	P	13 15 03.9	+0.2
	0.7nm,0.6s,mb3.9,baz=121,slow=8.4,SNR=3.5						
AKASG	Malin Array Be	70.36	322	P	P	13 15 39.9	-1.4
	0.3nm,0.4s,mb3.6,baz=214,slow=18,SNR=5.0						
FINES	FINESS Array B	75.12	332	P	P	13 16 08.8	-0.4
	1.2nm,0.8s,mb3.9,baz=56,slow=5.0,SNR=3.2						
FINES	FINESS Array B	75.12	332	P	P	13 16 08.8	-0.4
ARCES	ARCESS Array B	77.78	340	P	P	13 16 24.3	+0.3
	2.9nm,1.1s,mb4.1,baz=79,slow=6.2,SNR=6.5						
ARCES	ARCESS Array B	77.78	340	P	P	13 16 24.3	+0.3
GERES	GERESS Array B	79.95	319	P	P	13 16 36.1	0.0
	0.2nm,0.3s,mb3.5,baz=101,slow=6.8,SNR=5.5						

IDC 27 13:13:17.8±5.2, **16.06N**×**90.27E, mb3.8**/4, **mb1 3.8**/5, **mb1mx3.5**/19, **ML3.5**/1, **Error ellipse: s-maj=125.0km s-min=36.9km az=174.0, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.62	73	Pn	P	13 15 23.9	-2.8
	0.1nm,0.3s,baz=232,slow=14,SNR=5.0						
SONM	Songino Array	34.36	19	P	P	13 20 06.5	-1.9
	0.3nm,0.5s,baz=202,slow=7.8,SNR=3.3						
ARCES	ARCESS Array B	66.33	340	P	P	13 24 07.4	-2.5
	1.4nm,0.9s,baz=90,slow=7.3,SNR=4.5						
GERES	GERESS Array B	69.27	317	P	P	13 24 26.7	-2.0
	0.3nm,0.3s,baz=76,slow=5.5,SNR=5.3						
HFS	Hagfors	69.53	329	P	P	13 24 28.7	-1.5
	0.9nm,0.4s,baz=56,slow=5.2,SNR=3.6						

IDC 27 13:16:47.9±7.1, **4.45N**×**92.84E, mb3.7**/5, **mb1 3.9**/6, **mb1mx3.7**/19, **ML3.7**/1, **Error ellipse: s-maj=184.0km s-min=58.1km az=137.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.15	23	Pn	P	13 20 30.9	+5.8
	0.1nm,0.3s,baz=234,slow=12,SNR=4.1						
SONM	Songino Array	44.77	13	P	P	13 25 03.5	-1.6
	0.2nm,0.5s,baz=198,slow=9.1,SNR=2.6						
ZAL	Zalesovo	49.77	354	P	P	13 25 41.9	-2.3
	1.2nm,0.5s,baz=321,slow=4.4,SNR=7.7						
BVAR	Borovoye Array	51.83	343	P	P	13 25 57.3	-2.5
	0.4nm,0.6s,baz=146,slow=10,SNR=4.5						
GERES	GERESS Array B	79.52	319	P	P	13 28 57.6	-0.5
	0.2nm,0.3s,baz=79,slow=5.0,SNR=5.1						
ESDC	Sonseca Array	92.42	310	P	P	13 30 00.1	-2.0
	0.1nm,0.3s,baz=104,slow=12,SNR=4.2						

IDC 27 13:20:40.7±1.9, **2.33N**×**95.84E, mb3.5**/4, **mb1 3.6**/4, **mb1mx3.4**/17, **Error ellipse: s-maj=84.6km s-min=23.7km az=57.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	43.78	122	P	P	13 28 46.8	-3.3
	0.6nm,0.5s,baz=309,slow=7.9,SNR=16						
ASAR	Alice Springs	45.15	127	P	P	13 29 00.9	-0.3
	0.3nm,0.4s,baz=309,slow=6.8,SNR=12						
SONM	Songino Array	46.24	10	P	P	13 29 08.7	-0.8
	0.5nm,0.7s,baz=194,slow=7.8,SNR=4.3						
BVAR	Borovoye Array	54.75	341	P	P	13 30 11.4	-2.8
	0.4nm,0.8s,baz=304,slow=5.2,SNR=2.9						
LPAZ	La Paz	158.99	228	PKP	PKPdf	13 40 41.7	-1.6
	5.9nm,0.3s,baz=223,slow=2.4,SNR=7.2						

IDC 27 13:22:56.0±1.7, **5.91N**×**92.90E, mb3.6**/5, **mb1 3.9**/6, **mb1mx3.7**/18, **ML3.3**/1, **Error ellipse: s-maj=69.6km s-min=23.1km az=58.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.79	25	Pn	P	13 26 16.9	+1.5
	0.1nm,0.3s,baz=218,slow=14,SNR=5.7						
SONM	Songino Array	43.34	13	P	P	13 30 59.5	-2.0
	0.5nm,0.9s,baz=198,slow=9.1,SNR=2.8						
WRA	Warramunga Arr	48.17	123	P	P	13 31 37.9	-2.6
	1.4nm,0.6s,baz=302,slow=9.1,SNR=10						
ZAL	Zalesovo	48.33	354	P	P	13 31 39.6	-1.6
	0.6nm,0.5s,baz=297,slow=9.0,SNR=3.1						
ASAR	Alice Springs	49.65	128	P	P	13 31 50.5	-1.2
	0.8nm,1.0s,baz=295,slow=8.0,SNR=3.6						
GERES	GERESS Array B	78.47	319	P	P	13 34 59.0	-1.5
	0.3nm,0.6s,baz=104,slow=5.5,SNR=4.1						

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*IDC **27** 13:25:14.8±1.2, 4.85N×94.65E, mb3.9/7, mb1 4.1/8, mb1mx3.9/18, ML3.9/1, Error ellipse: s-maj=60.7km s-min=19.9km az=48.0*

*NEIC **27** 13:25:18.3±0.7, 4.38N×94.17E, $h30^{km}$, mb4.0/3, Error ellipse: s-maj=23.3km s-min=12.7km az=58.0*

ISC 27 13:25:16.4±0.9, **4.4N**±0.1×**94.2E**±0.2, **$h30^{km}$, n11, $\sigma 0\overset{s}{.}90$**/11, **mb4.0**/10, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.73	18	Pn	P	13 28 45.7	+0.9
	0.2nm,0.3s,baz=210,slow=11,SNR=13						
AAK	Ala-Archa	41.91	338	P	P	13 33 06.2	+0.2
	3.1nm,1.1s,mb3.9						
SONM	Songino Array	44.53	12	P	P	13 33 23.3	-4.0
	0.6nm,0.7s,mb3.5,baz=184,slow=8.0,SNR=5.2						
WRA	Warramunga Arr	46.28	123	P	P	13 33 41.3	-0.2
	2.4nm,0.6s,mb4.3,baz=301,slow=9.2,SNR=16						
ASAR	Alice Springs	47.72	128	P	P	13 33 52.9	0.0
	0.9nm,0.5s,mb4.0,baz=300,slow=8.1,SNR=12						
BVAR	Borovoye Array	52.28	342	P	P	13 34 26.4	-1.0
	1.4nm,0.9s,mb3.9,baz=135,slow=8.4,SNR=4.8						
BRVK	Borovoye	52.34	342	*e*P	P	13 34 26.8	-1.1
	1.1nm,0.6s,mb4.0						
CHKZ	Chkalovo	52.78	343	*e*P	P	13 34 29.8	-1.2
	4.2nm,0.9s,mb4.4						
BRTR	Keskin Array B	64.75	312	P	P	13 35 54.9	+0.4
	1.2nm,0.8s,mb4.0,baz=132,slow=6.8,SNR=4.9						
ARCES	ARCESS Array B	78.53	340	P	P	13 37 16.8	+0.6
	1.7nm,0.9s,mb4.0,baz=83,slow=7.3,SNR=4.4						
GERES	GERESS Array B	80.44	319	P	P	13 37 28.6	+1.7
	0.9nm,0.7s,mb3.8,baz=124,slow=4.8,SNR=7.3						

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*IDC **27** 13:27:52.8±0.7, 2.72N×96.03E, mb4.3/16, mb1 4.4/17, mb1mx4.4/22, ML4.8/1, Error ellipse: s-maj=31.4km s-min=14.2km az=45.0*

*BJI **27** 13:27:54.2, 2.42N×96.06E, $h37^{km}$, mB5.2, mb5.1, Ms4.7, Msz4.2*

*MOS **27** 13:27:55.7±1.0, 2.75N×96.07E, $h33^{km}$, mb4.9/14, Error ellipse: s-maj=17.6km s-min=8.8km az=105.0*

*NEIC **27** 13:27:56.5±0.4, 2.71N×96.05E, mb4.8/11, Error ellipse: s-maj=11.4km s-min=7.2km az=61.0*

ISC 27 13:27:54.3±0.5, **2.66N**±0.06×**96.06E**±0.06, **$h23^{km}$, $h23^{km}$**$\pm 2.1^{km}$**:pP-P, n80, $\sigma 1\overset{s}{.}11$**/83, **mb4.7**/48, **MS4.4**/3, **4C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	6.38	45	P	Pn	13 29 32.0	+2.6
	242nm,1.0s						
KKTK	Khon Kaen	15.13	26	P	P	13 31 35.0	+6.4
	556nm,0.8s						
CM31	Chiang Mai Arr	15.95	10	*e*P	P	13 31 39.1	0.0
	6.4nm,0.5s						
CMAR	Chiang Mai Arr	15.95	10	Pn	P	13 31 39.7	+0.6
	1.2nm,0.3s,baz=197,slow=11,SNR=35						
CHG	Chiang Mai	16.30	10	⇑P	P	13 31 43.4	-0.2
	17nm,0.9s						
NANT	Nan	16.67	15	P	P	13 31 50.0	+1.7
SHL	Shillong	23.13	350	*e*P	P	13 32 57.5	-2.4
KMI	Kunming	23.24	16	P	P	13 33 03.3	+2.2
KMI				AMB	AMB		
	comp=Z,19nm,1.1s,mb4.4						
PKI	Pulchoki	26.78	339	*e*P	P	13 33 34.9	+0.3
	comp=Z,69nm,1.1s,mb5.1						
GUN	Gumba	26.93	340	*e*P	P	13 33 36.6	+0.7
	comp=Z,107nm,0.8s,mb5.4						
DMN	Daman	26.93	338	*e*P	P	13 33 36.2	+0.2
	comp=Z,53nm,0.9s,mb5.1						
KKN	Kakani	27.03	339	*e*P	P	13 33 37.1	+0.2
	comp=Z,100nm,0.8s,mb5.4						
LSA	Lhasa	27.29	351	*e*P	P	13 33 39.6	+0.3
LSA				pmax	pmax		
	comp=Z,28nm,0.8s,mb4.8						
LSA	Lhasa	27.29	351	*e*P	P	13 33 39.6	+0.4
	comp=Z,28nm,0.8s,mb4.8						
GKN	Gorkha	27.46	338	*e*P	P	13 33 40.0	-0.8
	comp=Z,124nm,0.9s,mb5.4						
KOLN	Koldanda	27.66	336	*e*P	P	13 33 43.0	+0.4
CD2	Chengdu	29.02	14	P	P	13 33 54.3	-0.6
CD2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.3						
ENH	Enshi	30.27	23	*e*P	P	13 34 04.8	-1.1
	comp=Z,16nm,0.9s,mb4.8						
XAN	Xi’an	33.45	20	P	P	13 34 32.8	-1.0
XAN				AMB	AMB		
	comp=Z,21nm,1.0s,mb5.0						
LZH	Lanzhou	34.03	11	*e*P	P	13 34 38.5	-0.3
LZH				AMB	AMB		
	comp=Z,43nm,1.4s,mb5.2						
NJ2	Nanjing	36.26	34	*e*P	P	13 34 56.5	-1.4
NJ2				AP	pP	13 35 06.3	+1.5
NJ2				XP	sP	13 35 10.5	+2.7
NJ2				PP	PP	13 36 21.5	+0.5
NJ2				S	S	13 40 37.0	+0.7
NJ2				XS		13 40 53.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,740nm,6.3s						
NJ2				LR	LR		
	comp=N,2µm,21.2s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,19.1s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,18.3s,MS5.0						
GTA	Gaotai	36.74	5	⇑P	P	13 35 01.5	-0.3
GTA				AP	pP	13 35 08.3	-0.5
GTA				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.4						
SSE	Sheshan	36.91	37	P	P	13 35 00.5	-2.9
SSE				S	S	13 40 45.3	-1.1
SSE				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.1						
SSE				AMB	AMB		
	comp=Z,178nm,4.8s						
SSE				LR	LR		
	comp=N,71nm,15.3s,MS3.9						
SSE				LR	LR		
	comp=E,142nm,15.5s,MS3.9						
SSE				LR	LR		
	comp=Z,124nm,23.1s						
HHC	Hu-ho-hao-te	40.51	18	*e*P	P	13 35 35.0	+1.7
HHC				AP	pP	13 35 39.5	-0.8
HHC				PP	PP	13 37 14.5	+4.5
HHC				PCP	PcP	13 37 36.5	+0.3
HHC				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,132nm,6.2s						
HHC				LR	LR		
	comp=N,288nm,16.6s,MS4.2						
HHC				LR	LR		
	comp=E,182nm,19.0s,MS4.2						
HHC				LR	LR		
	comp=Z,245nm,13.4s						
BJT	Baijiatuau	41.42	24	*e*P	P	13 35 41.8	+1.1
BJT				pmax	pmax		
	comp=Z,61nm,0.8s						
BJT	Baijiatuau	41.42	24	*e*P	P	13 35 41.8	+1.1
	comp=Z,61nm,0.8s,mb5.3						
BJI	Beijing	41.44	24	P	P	13 35 42.5	+1.6
BJI				AMB	AMB		
	comp=Z,76nm,0.7s,mb5.4						
WMQ	Urumqi	41.65	351	⇑P	P	13 35 43.5	+0.9
WMQ				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.4						
ULHL	Ulahol	43.22	338	P	P	13 35 56.2	+0.7
	SNR=6.3						
WRA	Warramunga Arr	43.77	123	P	P	13 36 01.0	+0.8
	comp=Z,9.0nm,1.2s,mb4.4,baz=301,slow=9.2,SNR=8.8						
WRAB	Tennant Creek	43.78	123	*i* P	P	13 35 53.0	-7.3
UCH	Uchtor	43.87	337	P	P	13 36 01.9	+1.2
	SNR=14						
TKM2	Tokmak 2	44.05	338	P	P	13 36 03.0	+0.8
	SNR=7.9						
KBK	Karagaybulak	44.06	338	P	P	13 36 04.0	+1.7
	SNR=14						
AML	Almayashu	44.11	336	P	P	13 36 03.9	+1.1
	SNR=12						
AAK	Ala-Archa	44.22	337	P	P	13 36 05.8	+2.3
	SNR=6.2						
AAK	Ala-Archa	44.22	337	*i* P	P	13 36 03.5	-0.1
AAK				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.3						
AAK	Ala-Archa	44.22	337	*e*P	P	13 36 03.8	+0.2
	comp=Z,6.4nm,0.9s,mb4.3						
EKS2	Erkin-Say	44.52	336	P	P	13 36 06.9	+0.8
	SNR=8.6						
USP	Ospenovka	44.75	338	P	P	13 36 08.3	+0.4
	SNR=23						
ASAR	Alice Springs	45.18	128	P	P	13 36 12.3	+0.7
	comp=Z,1.1nm,0.6s,mb3.9,baz=300,slow=8.1,SNR=9.2						
MKAR	Makanchi Array	45.56	347	*i* P	P	13 36 14.2	-0.1
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.6s						
SONM	Songino Array	45.88	10	P	P	13 36 17.3	+0.5
	comp=Z,12nm,0.7s,mb5.0,baz=191,slow=9.0,SNR=74						
SONM				PcP	PcP	13 37 53.6	-0.6
	comp=Z,1.7nm,0.7s,baz=192,slow=3.2,SNR=3.7						
ULN	Ulaanbaatar	46.02	10	*e*P	P	13 36 17.7	-0.2
ULN				*e**PP	pP	13 36 24.9	0.0
ULN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
ULN	Ulaanbaatar	46.02	10	*e*P	P	13 36 17.7	-0.2
	comp=Z,5.7nm,0.6s,mb4.7						
ULN				*e*pP	pP	13 36 24.9	0.0
ZAK	Zakamensk	47.94	6	*e*P	P	13 36 32.4	-0.6
CN2	Changchun	48.55	28	*e*P	P	13 36 36.5	-1.2
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb5.0						
HIA	Hailar	50.65	20	*e*P	P	13 36 53.4	-0.4
HIA				*e**PP	pP	13 37 00.8	-0.1
HIA				pmax	pmax		
	comp=Z,12nm,1.1s						
HIA	Hailar	50.65	20	*e*P	P	13 36 53.4	-0.4
	comp=Z,12nm,1.1s,mb4.7						
HIA				*e*pP	pP	13 37 00.8	-0.1
ZAL	Zalesovo	51.94	352	P	P	13 37 02.9	-0.7
	comp=Z,7.0nm,0.6s,mb4.8						
PMG	Port Moresby	52.30	104	P	P	13 37 06.9	+0.1
	comp=Z,5.1nm,0.7s,mb4.6,baz=280,slow=6.5,SNR=4.3						
NVS	Novosibirsk	53.06	351	*e*P	P	13 37 08.9	-3.0
NVS				pmax	pmax		
	comp=N,6.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,4.0nm,0.8s						
NVS				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
CTA	Charters Tower	54.17	117	P	P	13 37 20.4	0.0
	comp=Z,5.1nm,0.9s,mb4.5,baz=293,slow=8.7,SNR=6.4						
BVA0	Borovoye Array	54.51	341	*i* P	P	13 37 21.2	-1.3
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
BVAR	Borovoye Array	54.51	341	P	P	13 37 21.6	-0.9
	comp=Z,5.4nm,0.7s,mb4.7,baz=149,slow=8.6,SNR=30						
BRVK	Borovoye	54.57	341	*e*P	P	13 37 21.6	-1.4
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
BRVK	Borovoye	54.57	341	*e*P	P	13 37 21.6	-1.3
	comp=Z,4.5nm,0.6s,mb4.7						
CHKZ	Chkalovo	54.99	342	*e*P	P	13 37 25.2	-0.9
CHKZ				*e**PP	pP	13 37 33.1	-0.1
CHKZ				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
CHKZ	Chkalovo	54.99	342	*e*P	P	13 37 25.2	-0.9
	comp=Z,11nm,0.7s,mb5.0						
CHKZ				*e*pP	pP	13 37 33.1	-0.1
STKA	Stephens Creek	55.17	132	P	P	13 37 27.9	+0.2
	comp=Z,2.1nm,0.7s,mb4.3,baz=269,slow=2.1,SNR=2.8						
STKA	Stephens Creek	55.17	132	P	P	13 37 27.9	+0.2
BOD	Bodaibo	56.80	11	*e*P	P	13 37 37.1	-1.9
KMBO	Kilima Mbogo	58.91	267	P	P	13 37 55.0	+0.6
	comp=Z,2.1nm,0.8s,mb4.2,baz=68,slow=23,SNR=4.6						
GNI	Garni	59.46	316	*i* P	P	13 37 57.4	-0.5
GNI				pmax	pmax		
	comp=Z,6.0nm,1.6s						
ARU	Arti	61.40	337	⇓*i*P	P	13 38 09.6	-1.3
ARU				*e*		13 38 47.5	
ARU				*e*		13 40 24.2	
ARU				*e*S	S	13 46 32.0	+3.3
ARU				*e*		13 47 58.2	
ARU				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
ARU	Arti	61.40	337	*e*P	P	13 38 09.0	-1.9
	comp=Z,14nm,1.1s,mb5.0						
KIV	Kislovodsk	62.46	319	*i* P	P	13 38 17.3	-0.9
KIV				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.6						
SOC	Sochi	64.28	318	*e*P	P	13 38 25.3	-4.9
SOC				*e*		13 39 04.8	
SOC				*e*PPP	PPP	13 42 21.6	-4.4
SOC				*e*S	S	13 47 06.3	+1.4
SOC				*e*SS	SS	13 51 17.3	+1.0
SOC				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
SOC				pmax	pmax		
	comp=N,1.0nm,0.4s						
SOC				pmax	pmax		
	comp=E,1.0nm,0.4s						
YAK	Yakutsk	64.35	17	*e*P	P	13 38 28.6	-1.7
YAK				*e*	pP	13 38 34.4	-3.2
YAK				pmax	pmax		
	comp=N,4.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=E,5.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
YAK				pmax	pmax		
	comp=N,6.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK	Yakutsk	64.35	17	*e*P	P	13 38 29.0	-1.3
	comp=E,40nm,0.9s,mb5.4						
YAK				*e*pP	pP	13 38 35.4	-2.2
BRTR	Keskin Array B	67.29	312	P	P	13 38 51.2	+1.7
	comp=E,0.5nm,0.7s,mb3.7,baz=38,slow=42,SNR=3.2						
OBN	Obninsk	70.78	328	⇑*e*P	P	13 39 09.3	-1.5
OBN				*e*		13 41 42.1	
OBN				*e*S	S	13 48 23.7	+0.9
OBN				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
TIXI	Tiksi	71.96	10	⇓*i*P	P	13 39 16.8	-0.8
TIXI				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
AKASG	Malin Array Be	73.41	322	P	P	13 39 24.9	-1.6
	comp=Z,0.3nm,0.4s,mb3.6,baz=82,slow=4.6,SNR=5.5						
FINES	FINESS Array B	78.19	333	P	P	13 39 53.0	-0.3
	comp=Z,4.9nm,1.0s,mb4.4,baz=112,slow=10,SNR=7.1						
ARCES	ARCESS Array B	80.78	340	P	P	13 40 07.4	+0.2
	comp=Z,1.9nm,0.7s,mb4.1,baz=104,slow=5.0,SNR=10						
GERES	GERESS Array B	82.97	319	P	P	13 40 19.7	+0.8
	comp=Z,1.5nm,0.9s,mb4.0,baz=117,slow=6.0,SNR=7.9						
HFS	Hagfors	83.89	330	P	P	13 40 24.9	+1.5
	comp=Z,6.2nm,0.9s,mb4.7,baz=333,slow=6.6,SNR=4.3						
DAVOX	Davos	85.45	317	P	P	13 40 31.4	-0.2
	comp=Z,3.2nm,1.0s,mb4.4,baz=52,slow=1.8,SNR=3.8						
TXAR	Lajitas Array	143.00	29	PKP	PKPdf	13 47 30.1	-1.3
	comp=Z,0.4nm,0.8s,baz=277,slow=1.4,SNR=3.7						

IDC 27 13:29:03.7±1.5, **6.12N**×**92.58E, mb4.1**/6, **mb1 4.3**/6, **mb1mx4.0**/18, **Error ellipse: s-maj=111.0km s-min=23.1km az=45.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	48.55	123	P	P	13 37 48.0	-3.0
	2.9nm,0.8s,baz=306,slow=8.4,SNR=8.2						
ASAR	Alice Springs	50.03	128	P	P	13 38 00.9	-1.4
	2.3nm,0.7s,baz=301,slow=7.7,SNR=6.1						
FINES	FINESS Array B	73.54	333	P	P	13 40 37.0	-3.2
	1.5nm,0.6s,baz=101,slow=7.1,SNR=6.1						
GERES	GERESS Array B	78.10	319	P	P	13 41 05.9	-0.3
	0.5nm,0.5s,baz=90,slow=4.9,SNR=2.6						
HFS	Hagfors	79.19	330	P	P	13 41 09.7	-2.2
	2.5nm,0.7s,baz=117,slow=6.4,SNR=4.1						
ILAR	Eielson Array	96.95	22	P	P	13 42 38.6	+0.6
	0.2nm,0.7s,baz=320,slow=3.8,SNR=2.8						

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*IDC **27** 13:29:39.1±0.8, 26.93S×70.78W, mb4.1/8, mb1 4.3/10, mb1mx4.1/19, ML4.4/2, MS3.4/2, Ms1 3.3/2, ms1mx2.9/22, Error ellipse: s-maj=39.6km s-min=19.6km az=89.0*

*GUC **27** 13:29:43.5±1.0, 26.89S×70.28W, $h65^{km}$, ML4.8*

*NEIC **27** 13:29:44.8±0.7, 26.91S×70.48W, $h40^{km}\pm 7^{km}$, Error ellipse: s-maj=18.0km s-min=6.8km az=94.0*

NEIC Felt [IV] at Caldera; [III] Chanaral, Copiapo, Diego de Almagro and Tierra Amarilla.

ISC 27 13:29:43.9±0.7, **26.93S**±0.03×**70.6W**±0.1, **$h54^{km}$**$\pm 8^{km}$**, n25, $\sigma 1\overset{s}{.}00$**/28, **mb4.0**/8, **MS3.1**/1, **1C-4D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPCH	Copiapo	0.49	151	⇑*i*P	P	13 29 55.5	+0.1
CPCH				*i* S	S	13 30 04.5	+0.9
CPCH				AMP		13 30 05.8	
	comp=N,121µm,0.1s						
VACH	Vallenar	1.65	184	⇓*i*P	P	13 30 18.5	+7.4
VACH				*i* S	S	13 30 40.6	+9.4
VACH				AMP		13 30 42.5	
	comp=E,15µm,0.3s						
CPN1	Cerro Paranal	2.30	5	⇓*i*P	P	13 30 20.1	-0.1
CPN1				*i* S	S	13 30 47.1	-0.3
CPN1				AMP		13 30 50.8	
	comp=E,2µm,0.4s						
TLL	Tololo Astrono	3.23	183	⇓*i*P	P	13 30 34.1	+0.6
TLL				*i* S	S	13 31 12.4	+1.4
TLL				AMP		13 31 36.2	
	comp=N,2µm,0.8s						
CMCH	Combarbala	4.24	184	⇓*i*P	P	13 30 46.7	-1.0
CMCH				*i* S	S	13 31 34.8	-1.7
LVC	Limon Verde	4.57	20	Pn	P	13 30 52.5	+0.2
	comp=N,5.5nm,0.3s,baz=194,slow=8.8,SNR=154						
LVC				Pg	P	13 31 03.6	+11
	comp=N,17nm,0.3s,baz=199,slow=8.7,SNR=27						
LVC				Sn	S	13 31 45.2	+0.6
	comp=N,38nm,0.3s,baz=298,slow=22,SNR=3.2						
LVC				Lg		13 32 01.4	
	comp=N,51nm,0.3s,baz=332,slow=23,SNR=7.0						
LVC				LR	LR	13 32 43.6	
	comp=N,473nm,18.5s,baz=216,slow=40						
LVC	Limon Verde	4.57	20	*e*Pn	P	13 30 51.5	-0.7
MDZ	Mendoza	6.13	166	*e*P	P	13 31 20.9	+6.9
MDZ				*e*		13 32 42.9	
LPAZ	La Paz	10.84	13	Pn	P	13 32 17.4	-1.6
	comp=N,0.5nm,0.3s,baz=208,slow=8.6,SNR=9.5						
TRQA	Tornquist	13.27	149	*e*Pn	P	13 32 49.2	-2.2

	comp=N,6.7nm,0.8s						
BDFB	Brasilia	23.82	66	LR	LR	13 44 09.2	
	comp=N,67nm,21.3s,MS3.1,baz=344,slow=36						
BAO	Brasilia Array	23.84	66	P	P	13 34 53.6	+0.5
BAO				*e*		13 35 06.3	
JTS	JuntasAbangare	39.53	337	P	P	13 37 08.0	-3.2
	comp=N,0.3nm,0.4s,mb3.4,baz=190,slow=11,SNR=3.1						
SNAA	Sanae	57.71	160	P	P	13 39 31.3	+0.2
	comp=N,0.6nm,0.4s,mb4.0,baz=281,slow=11,SNR=16						
TXAR	Lajitas Array	64.28	328	P	P	13 40 16.3	+0.2
	comp=N,1.0nm,0.7s,mb4.0,baz=148,slow=8.2,SNR=8.2						
ANMO	Albuquerque	70.27	329	P	P	13 40 54.3	+0.8
	comp=N,0.9nm,0.6s,mb3.9,baz=155,slow=7.1,SNR=4.8						
SADO	Sadowa	71.77	354	P	P	13 41 01.8	-0.6
	comp=N,7.3nm,0.9s,mb4.6,baz=213,slow=5.6,SNR=3.1						
PDAR	Pinedale Array	78.08	332	P	P	13 41 39.4	+0.9
	comp=N,0.9nm,0.7s,mb3.8,baz=127,slow=4.8,SNR=6.8						
ULM	Lac du Bonnet	80.04	344	P	P	13 41 50.0	+0.9
	comp=N,1.9nm,0.5s,mb4.3,baz=165,slow=4.8,SNR=7.5						
ULM	Lac du Bonnet	80.04	344	P	P	13 41 50.0	+0.9
YKA	Yellowknife Ar	95.78	341	P	P	13 43 05.2	+0.5
	comp=N,0.9nm,1.0s,mb4.2,baz=138,slow=4.7,SNR=8.8						
YKA	Yellowknife Ar	95.78	341	P	P	13 43 05.2	+0.5
PMG	Port Moresby	128.55	231	PKP	PKPdf	13 48 50.0	+4.2
	comp=N,8.5nm,0.6s,baz=327,slow=3.6,SNR=7.4						
ZAL	Zalesovo	147.49	27	PKPbc	PKPdf	13 49 23.8	+5.0
	comp=N,7.2nm,0.6s,baz=166,slow=2.2,SNR=20						
SONM	Songino Array	159.00	6	PKP	PKPdf	13 49 38.8	+3.5
	comp=N,1.9nm,1.0s,baz=243,slow=3.2,SNR=4.2						

IDC ***27*** *13:29:54.5±0.8, 19.46N×68.07W, mb3.8/7, mb1 4.3/11, mb1mx3.9/23, ML4.4/2, MS3.3/2, Ms1 3.3/2, ms1mx2.3/28, Error ellipse: s-maj=25.7km s-min=15.6km az=46.0*

NEIC ***27*** *13:29:54.1, 19.65N×68.32W, h24^{km}, MD3.9(RSPR), After RSPR.*

RSPR ***27*** *13:29:54.1, 19.65N×68.32W, h25^{km}±42^{km}, MD3.9/13, MD3.9/13*

ISC 27 13:29:54.2±0.5**, 19.50N**±0.05×**68.11W**±0.05**, h10^{km}, n34, σ0^{s}88**/48**, mb3.9**/7**, 14C-1D, North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IDE	Isla Desecheo	1.25	151	⇑eP	Pb	13 30 15.6	-1.9
MPR	Mayaguez	1.57	144	eS	Sb	13 30 43.8	+1.0
MPR	Mayaguez	1.57	144	⇑eP	Pn	13 30 22.6	+0.2
MPR				eS	Sb	13 30 43.8	+1.0
LSP	Las Mesas	1.63	143	⇑eP	Pn	13 30 23.0	-0.2
LRS	Lares	1.69	135	⇑eP	Pn	13 30 24.3	+0.3
LRS				eS	Sn	13 30 46.8	+0.9
MGP	Maguayo	1.77	147	⇓iP	Pn	13 30 24.0	-1.2
MGP	Maguayo	1.77	147	⇑eP	Pn	13 30 24.0	-1.1
MGP	Maguayo	1.77	147	eS	Sn	13 30 48.2	+0.4
MGP	Maguayo	1.77	147	⇑eP	Pn	13 30 24.0	-1.1
MGP				eS	Sn	13 30 48.2	+0.4
PORP	Portuguez	2.00	136	⇑eP	Pn	13 30 28.5	0.0
CELP	Cerrillos	2.03	134	⇑eP	Pn	13 30 28.4	-0.4
CELP				eS	Sn	13 30 55.5	+1.1
CSB	Colonia Sabana	2.21	123	⇑eP	Pn	13 30 30.4	-1.0
CSB				eS	Sn	13 30 59.7	+0.7
SJG	San Juan	2.31	126	eS	Sn	13 31 01.6	-0.1
SJG	San Juan	2.31	126	⇑eP	Pn	13 30 33.1	+0.1
SJG				eS	Sn	13 31 02.4	+0.8
SJG	San Juan	2.31	126	Pn	Pn	13 30 32.8	-0.1
	90nm,0.3s,baz=307,slow=9.2,SNR=76						
SJG				Sn	Sn	13 31 01.1	-0.6
	348nm,0.3s,baz=343,slow=18,SNR=22						
SJG				LR	LR	13 31 27.1	
	comp=Z,555nm,19.6s,baz=292,slow=41						
SJG	San Juan	2.31	126	⇑eP	Pn	13 30 33.0	0.0
SJG				eS	Sn	13 31 01.6	-0.1
CBYP	Canovanas	2.46	119	eS	Sn	13 31 05.0	-0.4
CBYP	Canovanas	2.46	119	⇑eP	Pn	13 30 34.3	-0.8
CBYP				eS	Sn	13 31 05.0	-0.4
CPD	Cerro la Pandu	2.54	125	eS	Sn	13 31 07.9	+0.6
CPD	Cerro la Pandu	2.54	125	⇑eP	Pn	13 30 36.2	+0.1
CPD				eS	Sn	13 31 07.9	+0.6
MTP	Monte Pirata	2.79	120	eS	Sn	13 31 14.2	+0.3
MTP	Monte Pirata	2.79	120	⇑eP	Pn	13 30 38.5	-1.2
MTP				eS	Sn	13 31 14.2	+0.3
PCRV	Puerto La Cruz	9.85	160	Pn	P	13 32 16.9	-2.2
	1.3nm,0.3s,baz=135,slow=8.3,SNR=9.0						
PCRV				Sn	Sn	13 34 00.5	-10
	1.3nm,0.3s,baz=276,slow=8.3,SNR=4.7						
SDV	Santo Domingo	10.83	193	Pn	P	13 32 31.1	-1.3
	8.9nm,0.3s,baz=39,slow=7.6,SNR=64						
SDV				Sn	S	13 34 25.1	-10
	1.7nm,0.3s,baz=332,slow=17,SNR=4.3						
SDV				LR	LR	13 36 44.0	
	comp=Z,184nm,21.4s,baz=242,slow=38						
SDV	Santo Domingo	10.83	193	eP	P	13 32 29.9	-2.5
	34nm,0.6s						
ROSC	El Rosal	15.76	203	Pn	P	13 33 39.3	+1.2
	1.9nm,0.3s,baz=279,slow=23,SNR=4.9						
ROSC				Sn	S	13 36 33.9	+0.8
	1.2nm,0.3s,baz=94,slow=23,SNR=3.6						
TXAR	Lajitas Array	33.71	294	P	P	13 36 38.2	+0.3
	0.9nm,0.6s,mb3.9,baz=112,slow=9.1,SNR=17						
PDAR	Pinedale Array	41.83	313	P	P	13 37 46.4	+0.5
	0.5nm,0.9s,mb3.1,baz=105,slow=10,SNR=3.5						
NVAR	Mina Array Bea	47.18	305	P	P	13 38 30.3	+1.4
	0.4nm,0.3s,mb3.8,baz=90,slow=5.4,SNR=2.9						
NVAR	Mina Array Bea	47.18	305	P	P	13 38 30.3	+1.4
YKA	Yellowknife Ar	53.46	335	P	P	13 39 16.3	-0.2
	0.6nm,0.7s,mb3.6,baz=112,slow=7.6,SNR=11						
DBIC	Dimbokro	62.61	93	P	P	13 40 21.7	+0.3
	2.8nm,1.0s,mb4.4,baz=274,slow=8.2,SNR=5.2						
ILAR	Eielson Array	67.76	333	P	P	13 40 53.5	-0.4
	1.7nm,1.1s,mb4.0,baz=73,slow=5.2,SNR=8.6						
ARCES	ARCESS Array B	73.17	22	P	P	13 41 27.2	+0.7
	4.0nm,1.0s,mb4.3,baz=297,slow=4.0,SNR=3.6						

BJI ***27*** *13:34:22.7, 2.59N×95.72E, h27^{km}, mB5.1, mb5.0, Ms4.5, Msz4.3*

IDC ***27*** *13:34:24.9±0.7, 2.75N×95.55E, h21^{km}±3^{km}, mb4.1/16, mb1 4.3/17, mb1mx4.2/23, ML4.7/1, MS4.0/1, Ms1 4.0/1, ms1mx2.9/24, Error ellipse: s-maj=25.6km s-min=13.3km az=48.0*

MOS ***27*** *13:34:24.1±1.1, 2.74N×95.71E, h33^{km}, mb4.7/19, Error ellipse: s-maj=23.2km s-min=11.1km az=97.3*

NEIC ***27*** *13:34:25.1±0.4, 2.73N×95.58E, mb4.7/16, Error ellipse: s-maj=11.9km s-min=7.9km az=67.0*

SYO ***27*** *13:34:26.1, 2.74N×95.64E, h30^{km}, MB4.7*

ISC 27 13:34:23.6±0.4**, 2.73N**±0.05×**95.65E**±0.07**, h24^{km}, h24^{km}**±1.3^{km}**:pP-P, n88, σ1^{s}08**/90**, mb4.6**/44**, MS4.2**/5**, 2C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	15.96	11	eP	P	13 38 10.9	+2.5
	31nm,0.8s						
CMAR	Chiang Mai Arr	15.96	11	Pn	P	13 38 09.8	+1.4
	1.1nm,0.3s,baz=202,slow=11,SNR=63						
CMAR	Chiang Mai Arr	15.96	11	P	P	13 38 09.8	+1.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KMI	Kunming	23.28	16	P	P	13 39 32.0	+1.4
KMI				AMB	AMB		
	comp=Z,34nm,1.0s,mb4.7						
KMI				AMB	AMB		
	comp=Z,1μm,6.3s						
KMI				LR	LR		
	comp=N,628nm,13.1s,MS4.3						
KMI				LR	LR		
	comp=E,353nm,14.6s,MS4.3						
KMI				LR	LR		
	comp=Z,863nm,13.4s,MS4.4						
PKI	Pulchoki	26.57	339	eP	P	13 40 03.0	+1.2
	comp=Z,14nm,0.6s,mb4.7						
DMN	Daman	26.71	339	eP	P	13 40 04.2	+1.1
	comp=Z,33nm,0.7s,mb5.0						
GUN	Gumba	26.72	340	eP	P	13 40 03.6	+0.4
	comp=Z,53nm,0.7s,mb5.2						
KKN	Kakani	26.81	339	eP	P	13 40 04.3	+0.2
	comp=Z,43nm,0.8s,mb5.0						
LSA	Lhasa	27.16	351	eP	P	13 40 08.2	+1.0
LSA				pmax	pmax		
	comp=Z,21nm,0.7s,mb4.8						
LSA	Lhasa	27.16	351	eP	P	13 40 08.2	+1.0
	comp=Z,21nm,0.7s,mb4.8						
GKN	Gorkha	27.24	338	eP	P	13 40 07.9	-0.1
KOLN	Koldanda	27.43	336	eP	P	13 40 11.3	+1.6
	comp=Z,48nm,0.8s,mb5.1						
CD2	Chengdu	29.05	14	P	P	13 40 23.0	-1.3
CD2				AMB	AMB		
	comp=Z,40nm,0.4s,mb5.5						
ENH	Enshi	30.36	24	eP	P	13 40 34.1	-1.9
	comp=Z,19nm,0.9s,mb4.8						
LZH	Lanzhou	34.04	12	eP	P	13 41 07.5	-0.6
LZH				AMB	AMB		
	comp=Z,31nm,1.1s,mb5.2						
GTA	Gaotai	36.70	5	eP	P	13 41 30.3	-0.4
GTA				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.0						
HHC	Hu-ho-hao-te	40.57	19	eP	P	13 42 04.5	+1.6
HHC				AP	pP	13 42 14.0	+3.8
HHC				XP	sP	13 42 18.5	+5.3
HHC				PP	PP	13 43 42.0	+2.2
HHC				PCP	PcP	13 44 07.5	+1.9
HHC				S	S	13 48 10.8	+0.1
HHC				XS		13 48 27.8	
HHC				SS	SS	13 51 08.0	+2.3
HHC				SCS	ScS	13 52 05.5	+0.5
HHC				AMB	AMB		
	comp=Z,35nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,174nm,4.8s						
HHC				LR	LR		
	comp=N,288nm,11.9s,MS4.4						
HHC				LR	LR		
	comp=E,273nm,16.9s,MS4.4						
HHC				LR	LR		
	comp=Z,245nm,17.8s,MS4.1						
NWAO	Narrogin (SRO)	40.93	152	P	P	13 42 06.8	+0.9
	comp=Z,10nm,1.1s,mb4.4,baz=243,slow=14,SNR=2.1						
NWAO	Narrogin (SRO)	40.93	152	P	P	13 42 06.8	+0.9
NWAO				pmax	pmax		
	comp=Z,10.0nm,1.1s						
BJT	Baijiatuau	41.52	24	eP	P	13 42 12.2	+1.5
BJT				pmax	pmax		
	comp=Z,19nm,0.8s						
BJT	Baijiatuau	41.52	24	eP	P	13 42 12.2	+1.5
	comp=Z,19nm,0.8s,mb4.8						
WMQ	Urumqi	41.52	351	⇑P	P	13 42 11.5	+0.8
WMQ				AP	pP	13 42 21.5	+3.6
WMQ				XP	sP	13 42 25.5	+4.6
WMQ				PP	PP	13 43 51.0	+1.3
WMQ				S	S	13 48 24.5	-0.2
WMQ				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,44nm,7.6s						
WMQ				LR	LR		
	comp=N,273nm,23.5s,MS4.4						
WMQ				LR	LR		
	comp=E,577nm,24.2s,MS4.4						
BJI	Beijing	41.54	24	P	P	13 42 11.8	+0.9
BJI				AMB	AMB		
	comp=Z,43nm,0.8s,mb5.1						
UCH	Uchtor	43.64	337	P	P	13 42 29.4	+1.4
	SNR=10.0						
KBK	Karagaybulak	43.84	338	P	P	13 42 31.3	+1.6
	SNR=8.2						
AML	Almayashu	43.88	336	P	P	13 42 31.2	+1.3
	SNR=8.0						
AAK	Ala-Archa	43.99	337	eP	P	13 42 31.1	+0.2
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
AAK	Ala-Archa	43.99	337	eP	P	13 42 31.1	+0.2
	comp=Z,3.1nm,0.7s,mb4.2						
WRA	Warramunga Arr	44.16	122	P	P	13 42 32.9	+0.3
	comp=Z,4.5nm,0.7s,mb4.3,baz=301,slow=9.0,SNR=22						
WRA	Warramunga Arr	44.16	122	P	P	13 42 32.9	+0.3
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
EKS2	Erkin-Say	44.29	337	P	P	13 42 34.6	+1.2
	SNR=7.1						
USP	Ospenovka	44.53	338	P	P	13 42 35.7	+0.5
	SNR=17						
MKAR	Makanchi Array	45.40	347	i P	P	13 42 42.2	+0.1
MKAR				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ASAR	Alice Springs	45.55	127	P	P	13 42 44.0	+0.3
	comp=Z,1.6nm,0.6s,mb4.1,baz=301,slow=7.9,SNR=15						
ASAR				PcP	PcP	13 44 21.9	-0.6
	comp=Z,0.9nm,0.7s,baz=320,slow=3.7,SNR=4.5						
SONM	Songino Array	45.88	10	P	P	13 42 45.9	+0.1
	comp=Z,7.4nm,0.8s,mb4.6,baz=191,slow=8.7,SNR=43						
SONM				pP	pP	13 42 52.2	-1.0
	comp=Z,6.9nm,0.7s,baz=188,slow=8.5,SNR=24						
SONM				PcP	PcP	13 44 23.7	+0.3
	comp=Z,2.8nm,0.7s,baz=192,slow=3.6,SNR=7.4						
ULN	Ulaanbaatar	46.02	11	eP	P	13 42 46.3	-0.7
ULN				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
ULN	Ulaanbaatar	46.02	11	eP	P	13 42 46.3	-0.7
	comp=Z,4.5nm,1.0s,mb4.3						
ZAK	Zakamensk	47.91	7	eP	P	13 43 00.8	-1.1
CN2	Changchun	48.68	29	eP	P	13 43 07.8	-0.1
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
HIA	Hailar	50.72	20	eP	P	13 43 22.4	-1.1
HIA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
HIA	Hailar	50.72	20	eP	P	13 43 22.4	-1.1
	comp=Z,8.8nm,0.9s,mb4.7						
MDJ	Mudanjiang	51.32	31	P	P	13 43 27.5	-0.6
MDJ				AP	pP	13 43 36.5	+1.0
MDJ				XP	sP	13 43 40.5	+2.2
MDJ				PCP	PcP	13 44 41.0	-2.0
MDJ				PP	PP	13 45 24.8	-1.1
MDJ				SCP		13 48 36.0	
MDJ				PCS		13 48 40.0	
MDJ				S	S	13 50 45.8	+1.5
MDJ				XS		13 51 00.0	
MDJ				SCS	ScS	13 53 14.0	+0.1
MDJ				SS	SS	13 54 20.8	+2.8
MDJ				AMB	AMB		
	comp=Z,112nm,6.1s						
MDJ				LR	LR		
	comp=N,86nm,20.6s,MS3.9						
MDJ				LR	LR		
	comp=E,106nm,23.3s,MS3.9						
MDJ				LR	LR		
	comp=Z,98nm,21.5s,MS3.8						
MDJ	Mudanjiang	51.32	31	P	P	13 43 26.2	-1.9
	comp=Z,3.0nm,0.4s,mb4.6						
ZAL	Zalesovo	51.81	352	P	P	13 43 30.8	-0.9
	comp=Z,12nm,0.7s,mb5.0,baz=307,slow=6.3,SNR=59						
ZAL				pP	pP	13 43 37.7	-1.4
	comp=Z,6.9nm,0.8s,baz=294,slow=6.4,SNR=8.3						
ZAL	Zalesovo	51.81	352	P	P	13 43 30.8	-0.9
ZAL				*PP	pP	13 43 37.7	-1.4
ZAL				pmax	pmax		
	comp=Z,12nm,0.7s						
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.8s						
PMG	Port Moresby	52.72	104	P	P	13 43 38.9	-0.2
	comp=Z,5.6nm,0.7s,mb4.6,baz=135,slow=8.6,SNR=5.4						
PMG	Port Moresby	52.72	104	eP	P	13 43 38.6	-0.5
PMG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
PMG	Port Moresby	52.72	104	eP	P	13 43 38.6	-0.5
	comp=Z,5.5nm,0.7s,mb4.6						
NVS	Novosibirsk	52.92	351	eP	P	13 43 38.1	-1.9
NVS				pmax	pmax		
	comp=N,7.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,4.0nm,0.8s						
NVS				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
BVA0	Borovoye Array	54.31	341	i P	P	13 43 49.2	-1.0
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
BVAR	Borovoye Array	54.31	341	P	P	13 43 49.6	-0.6
	comp=Z,9.9nm,0.7s,mb4.8,baz=143,slow=7.4,SNR=47						
BVAR				pP	pP	13 43 56.2	-1.3
	comp=Z,6.9nm,0.6s,baz=153,slow=9.9,SNR=14						
BRVK	Borovoye	54.37	341	eP	P	13 43 49.3	-1.3
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
BRVK	Borovoye	54.37	341	eP	P	13 43 49.3	-1.4
	comp=Z,8.6nm,0.8s,mb4.7						
CTA	Charters Tower	54.57	117	P	P	13 43 53.1	+0.5
	comp=Z,3.3nm,0.8s,mb4.4,baz=278,slow=12,SNR=5.6						
CTA				LR	LR	14 11 31.7	
	comp=Z,129nm,18.4s,MS4.0,baz=280,slow=41						
CTA	Charters Tower	54.57	117	P	P	13 43 53.1	+0.5
CTA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CTA				MLR	MLR		
	comp=Z,129nm,18.5s						
CHKZ	Chkalovo	54.79	342	eP	P	13 43 53.1	-0.7
CHKZ				e*PP	pP	13 44 00.2	-1.0
CHKZ				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
CHKZ	Chkalovo	54.79	342	eP	P	13 43 53.1	-0.7
	comp=Z,20nm,0.8s,mb5.2						
CHKZ				epP	pP	13 44 00.2	-0.9
STKA	Stephens Creek	55.53	132	P	P	13 44 00.0	+0.6
KLR	Kul'dur	55.61	28	eP	P	13 43 56.8	-3.0
BOD	Bodaibo	56.81	12	eP	P	13 44 06.3	-2.0
KMBO	Kilima Mbogo	58.50	267	P	P	13 44 20.6	-0.2
	comp=Z,1.7nm,0.9s,mb4.1,baz=57,slow=19,SNR=4.5						
KMBO	Kilima Mbogo	58.50	267	eP	P	13 44 21.2	+0.4
KMBO				pmax	pmax		
	comp=Z,2.0nm,1.0s						
KMBO	Kilima Mbogo	58.50	267	eP	P	13 44 21.2	+0.4
	comp=Z,2.2nm,1.0s,mb4.1						
ARU	Arti	61.18	338	eP	P	13 44 36.9	-1.6
ARU				e*PP	pP	13 44 43.9	-2.2
ARU				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
ARU	Arti	61.18	338	eP	P	13 44 36.9	-1.6
	comp=Z,5.0nm,0.8s,mb4.7						
ARU				epP	pP	13 44 43.9	-2.1
YAK	Yakutsk	64.40	17	eP	P	13 44 57.6	-2.2
YAK				e	pP	13 45 04.0	-3.4
YAK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,4.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,7.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.1s						
YAK	Yakutsk	64.40	17	eP	P	13 44 58.5	-1.4
	comp=E,36nm,0.9s,mb5.4						
YAK				e	pP	13 45 05.5	-1.8
BRTR	Keskin Array B	66.94	312	P	P	13 45 16.1	-0.4
	comp=E,0.4nm,0.4s,mb3.8,baz=100,slow=8.8,SNR=2.7						
BRTR				pP	pP	13 45 22.4	-1.6
	comp=E,1.5nm,0.9s,baz=129,slow=7.9,SNR=4.4						
BRTR	Keskin Array B	66.94	312	P	P	13 45 16.2	-0.3
BRTR				*PP	pP	13 45 22.4	-1.6
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
AKASG	Malin Array Be	73.10	322	P	P	13 45 52.4	-1.5
	comp=Z,0.6nm,0.6s,mb3.7,baz=78,slow=5.0,SNR=3.7						
AKASG				pP	pP	13 45 59.4	-2.1
	comp=Z,1.5nm,0.5s,baz=88,slow=4.5,SNR=6.7						
AKASG	Malin Array Be	73.10	322	P	P	13 45 52.4	-1.5
AKASG				*PP	pP	13 45 59.4	-2.1
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.5s						
LBTB	Lobatse	73.19	243	P	P	13 45 54.5	-0.4
LBTB				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
LBTB	Lobatse	73.19	243	P	P	13 45 54.5	-0.4
	comp=Z,4.8nm,1.0s,mb4.4						
MLR	Muntele Rosu	73.89	317	P	P	13 45 58.5	0.0
	comp=Z,0.6nm,0.5s,mb3.8,baz=238,slow=19,SNR=2.3						
MLR	Muntele Rosu	73.89	317	P	P	13 45 58.5	-0.1
MLR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	77.93	333	P	P	13 46 20.7	-0.3
	comp=Z,2.2nm,0.8s,mb4.2,baz=120,slow=15,SNR=4.9						
FINES				pP	pP	13 46 27.3	-1.4
	comp=Z,3.5nm,0.9s,baz=117,slow=4.3,SNR=3.3						
FINES	FINESS Array B	77.93	333	P	P	13 46 20.7	-0.3
FINES				*PP	pP	13 46 27.3	-1.4
FINES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
FINES				pmax	pmax		
	comp=Z,4.0nm,0.9s						
BILL	Bilibino	80.30	21	eP	P	13 46 33.6	-0.2
BILL				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
BILL	Bilibino	80.30	21	eP	P	13 46 33.6	-0.1
	comp=Z,1.2nm,0.6s,mb4.0						
ARCES	ARCESS Array B	80.58	340	P	P	13 46 35.1	-0.1
	comp=Z,6.3nm,1.1s,mb4.5,baz=90,slow=3.6,SNR=7.1						
ARCES				pP	pP	13 46 42.9	0.0
	comp=Z,1.4nm,0.5s,baz=94,slow=5.9,SNR=2.6						
ARCES	ARCESS Array B	80.58	340	P	P	13 46 35.2	0.0
ARCES				*PP	pP	13 46 42.9	0.0
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
ARCES	ARCESS Array B	80.58	340	P	P	13 46 35.1	-0.1
ARCES				pP	pP	13 46 42.9	0.0
SYO	Syowa Base	80.98	198	⇑P	P	13 46 38.8	+1.4
SYO	Syowa Base	80.98	198	⇓PcP	PcP	13 46 43.2	-1.0
GERES	GERESS Array B	82.64	319	P	P	13 46 45.9	-0.5
	comp=Z,0.4nm,0.7s,mb3.6,baz=135,slow=2.8,SNR=3.6						
GERES				pP	pP	13 46 54.4	+0.3
	comp=Z,2.8nm,0.9s,baz=90,slow=5.3,SNR=12						
GERES	GERESS Array B	82.64	319	P	P	13 46 45.9	-0.5
GERES				*PP	pP	13 46 54.4	+0.3
GERES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
HFS	Hagfors	83.63	330	P	P	13 46 50.2	-1.0
	comp=Z,2.1nm,0.8s,mb4.3,baz=45,slow=6.1,SNR=2.9						
HFS	Hagfors	83.63	330	P	P	13 46 50.2	-1.0
HFS				pmax	pmax		
	comp=Z,2.0nm,0.8s						

DJA 27 13:34:56.9±1.0**, 8.59S**×**114.92E, h30^{km}**±9^{km}**, MD5.4**/4**, ML3.3**/1**, 3C-2D, Error ellipse: s-maj=37.6km s-min=8.7km az=6.0, Bali region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KELI	Kelakatan	0.56	311	⇑ePn	Pn	13 35 14.5	+5.7
	69nm,0.2s						
KELI				⇓eSn	Sn	13 35 26.4	+9.3
RATI	Rata	0.62	103	ePn	Pn	13 35 14.7	+5.1
	180nm,0.2s						
SRDI	Scrawed	0.78	278	⇓ePn	Pn	13 35 15.8	+3.9
	183nm,0.2s						
SRDI				⇑iSn	Sn	13 35 29.8	+7.3
KEDI	Kedomdong	1.18	85	⇑ePn	Pn	13 35 19.5	+1.8
	38nm,0.2s						
KEDI				eSn	Sn	13 35 36.7	+3.9

MOS ***27*** *13:38:52.3±0.9, 12.87N×92.55E, h33^{km}, mb4.7/15, Error ellipse: s-maj=15.9km s-min=10.4km az=114.9*

BJI ***27*** *13:38:52.5, 12.80N×92.50E, h36^{km}, mb4.6, Ms4.1, Msz4.3*

NEIC ***27*** *13:38:54.6±0.5, 12.82N×92.49E, mb4.5/9, Error ellipse: s-maj=12.6km s-min=9.1km az=221.0*

IDC ***27*** *13:38:55.9±0.7, 12.27N×92.96E, mb4.4/17, mb1 4.5/18, mb1mx4.4/25, ML4.1/1, Error ellipse: s-maj=34.3km s-min=15.3km az=51.0*

ISC 27 13:38:52.6±0.5**, 12.82N**±0.07×**92.46E**±0.05**, h35^{km}, h35^{km}**±3.6^{km}**:pP-P, n109, σ1^{s}18**/68**, mb4.3**/23**, MS4.2**/1**, 5C-2D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	8.39	47	ePn	P	13 40 54.1	-0.5
	6.6nm,0.4s						
CMAR	Chiang Mai Arr	8.39	47	Pn	P	13 40 51.9	-2.8
	0.6nm,0.3s,baz=238,slow=14,SNR=8.8						
CMAR	Chiang Mai Arr	8.39	47	P	P	13 40 51.9	-2.7
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR	Chiang Mai Arr	8.39	47	Pn	P	13 40 51.9	-2.8
VIS	Vishakhapatnam	10.06	300	eP	P	13 41 16.5	-1.4
VIS				eS	S	13 42 57.4	-13
BOK	Bokaro	12.57	331	eP	P	13 41 49.9	-2.0
BOK				AMb	AMB	13 41 52.7	
	comp=Z,11nm,0.3s						
BLSP	Bilaspur	13.51	315	eP	P	13 42 02.9	-1.4

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYB	Hyderabad	14.18	291	*i* P	P	13 42 13.0	-0.1
HYB				*e*		13 44 28.0	
HYB				*e*S	S	13 44 49.0	-1.2
TRD	Trivandrum	15.82	256	*e*P	P	13 42 32.5	-2.0
TRD				AMb	AMB	13 42 35.3	
	comp=Z,34nm,0.8s						
PKI	Pulchoki	16.09	337	*e*P	P	13 42 38.1	+0.3
	comp=Z,54nm,0.5s						
GUN	Gumba	16.22	339	*e*P	P	13 42 42.8	+3.3
	comp=Z,41nm,0.7s						
DMN	Daman	16.24	336	*e*P	P	13 42 39.8	+0.1
	comp=Z,34nm,0.4s						
KKN	Kakani	16.34	337	*e*P	P	13 42 41.3	+0.4
	comp=Z,21nm,0.4s						
GKN	Gorkha	16.78	335	*e*P	P	13 42 47.3	+0.8
	comp=Z,57nm,0.3s						
LSA	Lhasa	16.84	356	*e*P	P	13 42 48.0	+0.7
LSA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
LSA	Lhasa	16.84	356	*e*P	P	13 42 48.0	+0.7
	comp=Z,9.5nm,0.6s						
KOLN	Koldanda	17.02	332	*e*P	P	13 42 52.6	+3.0
	comp=Z,72nm,0.6s						
BHPL	Bhopal	17.64	308	*e*P	P	13 42 59.7	+2.4
BHPL				AMb	AMB	13 43 10.9	
	comp=Z,77nm,0.7s						
POO	Poona	18.79	290	*e*P	P	13 43 13.2	+1.6
POO				AMb	AMB	13 43 23.0	
	comp=Z,12nm,0.9s						
CD2	Chengdu	20.81	28	P	P	13 43 30.8	-2.6
CD2				AMB	AMB		
	comp=Z,30nm,0.8s						
NDI	New Delhi	21.23	320	*e*P	P	13 43 37.0	-0.7
NDI				*e*		13 47 23.0	
DDI	Dehra Dun	21.93	325	*e*	P	13 43 47.6	+2.9
SDNR	Sundarnagar	23.43	325	*e*		13 44 13.5	
ENH	Enshi	23.45	40	*e*P	P	13 43 58.8	-0.9
	comp=Z,10nm,0.7s,mb4.4						
ENH				*e*pP		13 44 08.6	
THN	Thein Dam	24.83	325	*e*		13 44 24.1	
	comp=Z,22nm,0.7s						
LZH	Lanzhou	25.34	22	*e*P	P	13 44 19.8	+1.9
LZH				AP	pP	13 44 22.8	-4.9
LZH				AMB	AMB		
	comp=Z,27nm,1.3s,mb4.6						
LZH				LR	LR		
	comp=E,286nm,12.1s						
LZH				LR	LR		
	comp=Z,564nm,13.5s,MS4.2						
XAN	Xi'an	25.89	33	P	P	13 44 22.0	-1.1
XAN				AP	pP	13 44 30.3	-2.7
XAN				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.5						
GTA	Gaotai	27.27	13	*e*P	P	13 44 36.5	+0.7
GTA				AP	pP	13 44 43.0	-2.7
GTA				XP	sP	13 44 46.0	-4.1
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.3						
AAK	Ala-Archa	33.54	336	P	P	13 45 31.7	+0.5
AAK				*e**PP	pP	13 45 40.5	-0.8
AAK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
AAK	Ala-Archa	33.54	336	P	P	13 45 31.6	+0.5
	comp=Z,3.4nm,0.7s,mb4.4						
AAK				*e*pP	pP	13 45 40.5	-0.8
BJT	Baijiatuau	34.20	33	*e*P	P	13 45 36.4	-0.5
BJT				*e**PP	pP	13 45 46.9	-0.2
BJT				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BJT	Baijiatuau	34.20	33	*e*P	P	13 45 36.4	-0.6
	comp=Z,7.3nm,0.6s,mb4.8						
BJT				*e*pP	pP	13 45 46.9	-0.2
SONM	Songino Array	36.80	16	P	P	13 45 59.4	+0.5
	comp=Z,2.6nm,0.8s,mb4.1,baz=203,slow=6.6,SNR=6.9						
SONM	Songino Array	36.80	16	P	pP	13 46 08.8	-0.2
	comp=Z,5.1nm,0.8s,baz=202,slow=7.9,SNR=12						
SONM	Songino Array	36.80	16	P	pP	13 46 08.8	-0.2
SONM	Songino Array	36.80	16	P	P	13 45 59.4	+0.5
ZAK	Zakamensk	38.49	11	*e*P	P	13 46 08.4	-4.6
ZAK				*e*	pP	13 46 22.8	-0.4
JNU	Nakatsue	40.43	54	P	P	13 46 30.2	+0.9
	comp=Z,0.7nm,0.5s,mb3.7,baz=240,slow=20,SNR=2.7						
ZAL	Zalesovo	41.46	353	P	P	13 46 37.8	+0.2
	comp=Z,2.6nm,1.0s,mb3.8,baz=287,slow=10,SNR=3.6						
ZAL	Zalesovo	41.46	353	P	pP	13 46 48.1	+0.2
	comp=Z,5.6nm,0.9s,baz=299,slow=9.6,SNR=9.9						
ZAL	Zalesovo	41.46	353	P	P	13 46 37.8	+0.2
ZAL	Zalesovo	41.46	353		pP	13 46 48.1	+0.2
NVS	Novosibirsk	42.54	352	*e*P	pP	13 46 55.2	-1.6
NVS				pmax	pmax		
	comp=N,4.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.5						
BVAR	Borovoye Array	43.80	341	P	pP	13 47 07.2	+0.2
	comp=Z,2.7nm,0.6s,baz=154,slow=12,SNR=8.8						
CHKZ	Chkalovo	44.29	342	*e*P	P	13 47 00.9	+0.3
CHKZ				*e**PP	pP	13 47 11.0	0.0
CHKZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
CHKZ	Chkalovo	44.29	342	*e*P	P	13 47 00.9	+0.3
	comp=Z,2.1nm,0.6s,mb4.0						
CHKZ				*e*pP	pP	13 47 11.0	0.0
BOD	Bodaibo	47.80	15	*e*P	P	13 47 27.3	-1.0
BOD				*e*	pP	13 47 37.7	-1.0
GNI	Garni	49.86	312	P	pP	13 47 57.1	+2.2
	comp=Z,2.9nm,0.4s,baz=186,slow=6.8,SNR=5.0						
GNI	Garni	49.86	312	P	pP	13 47 57.1	+2.2
GNI				pmax	pmax		
	comp=Z,3.0nm,0.4s						
NWAO	Narrogin (SRO)	51.28	153	P	P	13 47 56.2	+0.8
	comp=Z,14nm,0.9s,mb4.9,baz=342,slow=5.6,SNR=8.2						
NWAO	Narrogin (SRO)	51.28	153	P	P	13 47 56.2	+0.8
NWAO				pmax	pmax		
	comp=Z,14nm,0.9s						
ZEI	Tsey	51.35	315	*e*P	pP	13 48 08.9	+2.7
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
WRA	Warramunga Arr	52.52	128	P	P	13 48 05.1	+0.3
	comp=Z,8.6nm,0.7s,mb4.8,baz=308,slow=8.4,SNR=62						
WRA	Warramunga Arr	52.52	128	P	P	13 48 05.1	+0.2
WRA				pmax	pmax		
	comp=Z,9.0nm,0.7s						
KIV	Kislovodsk	52.59	316	P	P	13 48 06.0	+0.9
KIV				*e**PP	pP	13 48 17.3	+1.7
KIV				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
KIV	Kislovodsk	52.59	316	P	P	13 48 06.0	+0.9
	comp=Z,9.0nm,0.7s,mb4.8						
KIV				*e*pP	pP	13 48 17.3	+1.7
BRTR	Keskin Array B	58.01	309	P	P	13 48 44.4	+0.1
	comp=Z,5.0nm,1.2s,mb4.4,baz=125,slow=6.6,SNR=5.9						
BRTR	Keskin Array B	58.01	309	P	pP	13 48 55.1	+0.1
	comp=Z,5.0nm,0.9s,baz=121,slow=7.2,SNR=14						
BRTR	Keskin Array B	58.01	309	P	P	13 48 44.4	+0.1
BRTR	Keskin Array B	58.01	309		pP	13 48 55.1	+0.1
CTA	Charters Tower	62.21	121	P	P	13 49 14.6	+1.2
	comp=Z,5.4nm,0.9s,mb4.7,baz=278,slow=5.0,SNR=3.9						
CTA	Charters Tower	62.21	121	P	P	13 49 14.6	+1.3
CTA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CTA	Charters Tower	62.21	121	P	P	13 49 14.6	+1.2
CTAO	Charters Tower	62.21	121	*e*P	P	13 49 11.4	-1.9
CTAO				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.9						
CTAO	Charters Tower	62.21	121	*e*P	P	13 49 11.3	-2.0
	comp=Z,12nm,1.1s,mb4.9						
AKASG	Malin Array Be	63.29	321	P	pP	13 49 30.4	-0.5
	comp=Z,0.6nm,0.4s,baz=81,slow=4.9,SNR=6.6						
AKASG	Malin Array Be	63.29	321	P	pP	13 49 30.4	-0.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FINES	FINESS Array B	67.60	332	P	P	13 49 47.4	-0.1
	comp=Z,1.5nm,0.7s,mb4.2,baz=153,slow=4.3,SNR=4.1						
FINES	FINESS Array B	67.60	332	P	pP	13 49 57.6	-0.8
	comp=Z,3.5nm,0.7s,baz=90,slow=7.3,SNR=7.6						
FINES	FINESS Array B	67.60	332	P	P	13 49 47.4	-0.1
FINES	FINESS Array B	67.60	332		pP	13 49 57.6	-0.8
ARCES	ARCESS Array B	70.08	340	P	P	13 50 02.8	+0.1
	comp=Z,2.2nm,0.9s,mb4.1,baz=68,slow=6.5,SNR=3.7						
ARCES	ARCESS Array B	70.08	340	P	pP	13 50 14.0	+0.5
	comp=Z,2.1nm,0.5s,baz=84,slow=6.7,SNR=14						
ARCES	ARCESS Array B	70.08	340	P	P	13 50 02.8	+0.1
ARCES	ARCESS Array B	70.08	340		pP	13 50 14.0	+0.4
MORC	Moravsky Berou	70.58	318	*e*P	P	13 50 05.3	-0.8
MORC				*e**PP	pP	13 50 18.1	+1.2
MORC				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
MORC	Moravsky Berou	70.58	318	*e*P	P	13 50 05.3	-0.8
	comp=Z,3.3nm,0.8s,mb4.3						
MORC				*e*pP	pP	13 50 18.1	+1.2
BRG	Berggiesshubel	72.92	319	*e*P	pP	13 50 32.6	+1.7
BRG				*e*		13 50 38.2	
GERES	GERESS Array B	73.07	317	P	P	13 50 21.9	+0.9
	comp=Z,0.4nm,0.3s,mb3.8,baz=76,slow=5.5,SNR=8.6						
GERES	GERESS Array B	73.07	317	P	pP	13 50 33.2	+1.3
	comp=Z,2.2nm,0.7s,baz=108,slow=4.2,SNR=11						
GERES	GERESS Array B	73.07	317	P	P	13 50 21.9	+0.9
GERES	GERESS Array B	73.07	317		pP	13 50 33.2	+1.4
KHC	Kasperske Hory	73.15	318	*e*pP	pP	13 50 33.5	+1.2
HFS	Hagfors	73.38	329	P	pP	13 50 34.3	+0.8
	comp=Z,3.0nm,0.6s,baz=104,slow=6.1,SNR=8.4						
HFS	Hagfors	73.38	329	P	pP	13 50 34.3	+0.9
HFS				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NB2	NORSAR Subarra	74.64	330	P	P	13 50 29.5	-0.3
	comp=Z,3.9nm,1.0s,mb4.3,baz=91,slow=5.8						
NB2	NORSAR Subarra	74.64	330	P	P	13 50 29.5	-0.3
NB2				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
NOA	NORSAR Array B	74.64	330	P	P	13 50 29.6	-0.2
	comp=Z,0.5nm,0.8s,mb3.5,baz=112,slow=7.7,SNR=2.8						
NOA	NORSAR Array B	74.64	330	P	pP	13 50 41.6	+0.9
	comp=Z,1.2nm,0.6s,baz=91,slow=5.8,SNR=5.3						
NOA	NORSAR Array B	74.64	330	P	P	13 50 29.6	-0.2
NOA	NORSAR Array B	74.64	330	P	pP	13 50 41.6	+0.9
NOA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
NOA	NORSAR Array B	74.64	330		pP	13 50 41.6	+0.9
DAVOX	Davos	75.72	315	P	pP	13 50 48.9	+1.7
	comp=Z,0.9nm,0.4s,baz=351,slow=21,SNR=4.5						
LPL	La Plagne	78.00	314	*e*P	pP	13 51 02.0	+2.0
	comp=Z,18nm,0.7s						
ILAR	Eielson Array	90.80	22	P	P	13 51 53.0	-0.1
	comp=Z,0.2nm,0.7s,mb3.6,baz=306,slow=4.9,SNR=4.3						
ILAR	Eielson Array	90.80	22	P	pP	13 52 03.9	-0.5
	comp=Z,0.9nm,0.7s,baz=301,slow=4.4,SNR=7.5						
ILAR	Eielson Array	90.80	22	P	pP	13 52 03.9	-0.5
ILAR	Eielson Array	90.80	22	P	P	13 51 53.0	-0.1
INK	Inuvik	92.71	16	P	pP	13 52 13.2	+0.1
	comp=Z,0.8nm,0.6s,baz=342,slow=2.5,SNR=6.0						
SNAA	Sanae	103.75	199	⇑*i*	Pdif	13 52 55.9	+4.3
VNA2	Neumayer--Watz	105.25	200	⇑*i*	Pdif	13 53 03.3	+5.0
VNA2	Neumayer--Watz	105.25	200	⇓*i*	Pdif	13 53 13.7	+15
VNA2	Neumayer--Watz	105.25	200	⇑*i*	Pdif	13 53 18.0	+20
VNA1	Neumayer--Stat	105.57	200	⇓*i*	Pdif	13 53 04.9	+5.2
VNA3	Neumayer Olymp	105.96	199	⇑*i*	Pdif	13 53 00.9	-0.5
VNA3	Neumayer Olymp	105.96	199	⇑*i*	Pdif	13 53 12.3	+11
PDAR	Pinedale Array	121.11	19	PKP	PKPdf	13 57 50.6	+8.6
	comp=Z,0.3nm,0.5s,baz=102,slow=2.3,SNR=5.0						
TXAR	Lajitas Array	135.29	20	PKP	PKPdf	13 58 19.4	+10
	comp=Z,0.4nm,0.5s,baz=244,slow=0.3,SNR=4.2						
SDV	Santo Domingo	152.66	321	PKPbc	PKPdf	13 58 59.8	+20
	comp=Z,1.4nm,0.4s,baz=40,slow=7.9,SNR=3.6						

NEIC ***27*** *13:40:51.0±0.8, 17.78S×178.64W, h537^{km}±10^{km}, mb4.7/5, Error ellipse: s-maj=12.8km s-min=7.6km az=151.0*

IDC ***27*** *13:40:52.8±1.8, 17.84S×178.67W, h556^{km}±21^{km}, mb3.8/19, mb1 4.0/20, mb1mx3.9/23, Error ellipse: s-maj=15.2km s-min=9.4km az=152.0*

ISC 27 13:40:50.1±1.1**, 17.85S**±0.08×**178.65W**±0.08**, h536**^{km}±15^{km}**, n44, σ0**^{s}**87**/39**, mb4.2**/21**, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.69	60	*e*P	P	13 42 45.0	-0.2
	97nm,0.6s						
DZM	Mont Dzumac	14.63	251	*e*P	P	13 43 57.1	+1.2
DZM	Mont Dzumac	14.63	251	*e*P	P	13 43 57.1	+1.2
RAR	Rarotonga	18.10	104	P	P	13 44 30.1	+0.2
	0.7nm,0.3s,baz=258,slow=6.8,SNR=3.5						
RAR	Rarotonga	18.10	104	P	P	13 44 30.1	+0.2
URZ	Urewera	20.67	189	P	P	13 44 52.5	-1.3
	22nm,0.7s,baz=333,slow=6.2,SNR=13						
NNZ	Nelson	24.27	195	*e*P	P	13 45 26.1	-0.4
THZ	Tophouse	24.90	195	*e*P	P	13 45 31.2	-1.0
KHZ	Kahutara	25.38	194	P	P	13 45 35.1	-1.2
RPZ	Rata Peaks	27.21	196	P	P	13 45 52.7	+0.2
	13nm,0.6s,mb4.8,baz=26,slow=3.3,SNR=14						
JCZ	Jackson Bay	28.21	199	P	P	13 46 01.4	+0.2
MSZ	Milford Sound	29.01	200	*e*P	P	13 46 09.1	+1.0
CTA	Charters Tower	33.23	260	P	P	13 46 44.3	+0.1
	10nm,0.7s,mb4.5,baz=92,slow=9.5,SNR=17						
CTAO	Charters Tower	33.23	260	*e*P	P	13 46 44.3	+0.1
	6.3nm,0.7s,mb4.2						
PMG	Port Moresby	34.22	280	P	P	13 46 53.8	+1.3
	16nm,0.8s,mb4.6,baz=89,slow=6.5,SNR=11						
STKA	Stephens Creek	38.45	241	P	P	13 47 28.6	+1.5
	22nm,0.6s,mb4.9,baz=90,slow=9.6,SNR=62						
STKA	Stephens Creek	38.45	241	*e*P	P	13 47 28.3	+1.2
WRAB	Tennant Creek	44.41	260	*e*P	P	13 48 14.0	-0.8
	13nm,0.5s,mb4.7						
WRA	Warramunga Arr	44.41	260	P	P	13 48 14.2	-0.6
	7.8nm,0.5s,mb4.5,baz=94,slow=7.0,SNR=92						
WRA				PcP	PcP	13 49 46.4	-0.9
	2.7nm,0.6s,baz=90,slow=3.5,SNR=6.9						
WRA	Warramunga Arr	44.41	260	P	P	13 48 14.2	-0.6
WRA				PcP	PcP	13 49 46.4	-0.9
ASAR	Alice Springs	44.58	254	P	P	13 48 16.0	-0.1
	95nm,0.5s,baz=89,slow=8.0,SNR=1915						
ASAR				PcP	PcP	13 49 47.0	-0.8
	3.9nm,0.5s,baz=100,slow=4.2,SNR=5.4						
ASAR				ScP		13 52 48.4	
	0.4nm,0.5s,baz=93,slow=4.2,SNR=4.6						
ASAR				S	S	13 54 09.2	-4.0
	2.1nm,0.8s,baz=90,slow=15,SNR=6.6						
MBWA	Marble Bar	57.86	256	*e*P	P	13 49 51.4	-1.3
	12nm,0.5s,mb4.4						
NWAO	Narrogin (SRO)	59.03	242	P	P	13 49 59.4	-1.0
	16nm,1.1s,mb4.2,baz=340,slow=21,SNR=4.4						
VNDA	Vanda	60.48	185	P	P	13 50 10.2	+0.8
	2.5nm,0.7s,mb3.6,baz=352,slow=6.2,SNR=11						
VNDA	Vanda	60.48	185	*e*P	P	13 50 10.4	+1.0
QSPA	South Pole Qui	72.20	180	*e*P	P	13 51 22.4	+0.9
	23nm,0.8s,mb4.7						
YBH	Yreka Blue Hor	78.63	39	P	P	13 51 57.7	+0.1
	4.3nm,0.7s,mb3.9,baz=259,slow=2.0,SNR=9.8						
NVAR	Mina Array Bea	79.54	44	P	P	13 52 03.0	+0.6
	8.4nm,0.9s,mb4.1,baz=220,slow=7.9,SNR=20						
MAW	Mawson	83.83	200	P	P	13 52 24.3	+0.8
	4.8nm,0.5s,mb4.3,baz=130,slow=7.4,SNR=5.5						
DLBC	Dease Lake	85.87	23	P	P	13 52 33.9	+0.3
	1.9nm,0.9s,mb3.7,baz=226,slow=9.8,SNR=4.7						
ILAR	Eielson Array	85.88	13	P	P	13 52 32.0	-1.5
	0.9nm,0.4s,mb3.7,baz=224,slow=5.2,SNR=27						
TXAR	Lajitas Array	86.16	58	P	P	13 52 37.1	+1.4
	5.1nm,0.7s,mb4.3,baz=218,slow=6.1,SNR=45						
ANMO	Albuquerque	86.24	52	P	P	13 52 36.2	+0.2
	12nm,1.4s,mb4.3,baz=229,slow=3.9,SNR=6.0						
ANMO	Albuquerque	86.24	52	P	P	13 52 36.2	+0.2
PDAR	Pinedale Array	87.47	44	P	P	13 52 41.8	+0.2
	2.8nm,0.6s,mb4.1,baz=217,slow=3.5,SNR=44						
CMAR	Chiang Mai Arr	88.65	290	P	P	13 52 48.1	+0.5
	2.6nm,0.8s,mb4.1,baz=111,slow=2.5,SNR=9.3						
INK	Inuvik	91.89	15	P	P	13 53 00.4	-1.1
	1.3nm,0.7s,mb4.1,baz=273,slow=3.7,SNR=4.3						
YKA	Yellowknife Ar	94.38	25	P	P	13 53 11.8	-1.1
	1.1nm,0.9s,mb4.0,baz=245,slow=4.5,SNR=12						
BVAR	Borovoye Array	116.66	321	PKiKP		13 58 32.5	
	1.1nm,0.5s,baz=94,slow=4.3,SNR=5.3						
BRTR	Keskin Array B	144.58	315	PKP	PKPdf	13 59 26.6	+1.2
	3.4nm,0.8s,baz=114,slow=2.4,SNR=15						
CLL	Collm	145.36	347	*e*PKP1	PKPbc	13 59 28.0	+0.6
CLL	Collm	145.36	347	P		13 59 40.0	
GERES	GERESS Array B	147.50	345	PKPbc	PKPdf	13 59 34.1	+4.2
	0.7nm,0.4s,baz=24,slow=2.4,SNR=7.3						
DAVOX	Davos	150.30	348	PKPbc	PKPdf	13 59 41.5	+7.1
	3.5nm,0.8s,baz=7.0,slow=22,SNR=4.3						

IDC ***27*** *13:44:07.1±11.0, 5.70N×92.21E, mb3.8/4, mb1 4.0/5, mb1mx3.8/18, ML3.7/1, Error ellipse: s-maj=259.0km s-min=43.3km az=146.0*

NEIC 27 13:44:13.3±0.8**, 5.93N×92.05E, h30**^{km}**, mb4.1**/3**, Error ellipse: s-maj=24.9km s-min=13.0km az=58.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.15	28	Pn	P	13 47 32.2	-1.8
	0.1nm,0.3s,baz=229,slow=14,SNR=5.2						
LSA	Lhasa	23.66	358	*e*P	P	13 49 19.1	-4.1
	5.3nm,0.8s						
AAK	Ala-Archa	39.72	340	*e*P	P	13 51 43.0	-1.9
	2.7nm,0.9s						
SONM	Songino Array	43.52	14	P	P	13 52 12.4	-3.5
	0.9nm,0.8s,baz=199,slow=7.2,SNR=5.0						
ZAL	Zalesovo	48.22	354	P	P	13 52 52.4	-0.9
	0.5nm,0.3s,baz=334,slow=19,SNR=2.2						
CHKZ	Chkalovo	50.70	344	*e*P	P	13 53 09.6	-2.6
	2.3nm,1.0s						
BRTR	Keskin Array B	62.15	312	P	P	13 54 31.2	-3.2
	2.4nm,0.3s,baz=100,slow=6.8,SNR=16						
GERES	GERESS Array B	77.89	319	P	P	13 56 10.1	+0.1
	0.3nm,0.3s,baz=189,slow=18,SNR=4.3						

IDC ***27*** *13:44:32.7±0.8, 4.64N×94.96E, mb4.5/13, mb1 4.6/14, mb1mx4.4/22, ML4.8/1, Error ellipse: s-maj=34.2km s-min=15.4km az=42.0*

MOS ***27*** *13:44:34.6±1.3, 4.20N×94.57E, h33^{km}, mb4.8/14, Error ellipse: s-maj=29.7km s-min=13.2km az=112.0*

BJI ***27*** *13:44:37.3, 5.00N×94.90E, h30^{km}, mb5.0*

NEIC ***27*** *13:44:39.3±1.0, 4.97N×94.94E, h30^{km}, mb4.7/9, Error ellipse: s-maj=23.6km s-min=12.9km az=150.0*

ISC 27 13:44:35.7±0.6**, 4.66N**±0.10×**95.1E**±0.1**, h30**^{km}**, n55, σ1**^{s}**10**/54**, mb4.6**/26**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.22	15	Pn	P	13 47 54.6	-2.8
CM31				pP		13 48 03.3	
CMAR	Chiang Mai Arr	14.22	15	Pn	P	13 48 05.0	+7.6
	1.4nm,0.3s,baz=207,slow=11,SNR=26						
CMAR	Chiang Mai Arr	14.22	15	P	P	13 48 05.0	+7.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
BJT	Baijiatuau	40.01	25	*e*P	P	13 52 09.8	+0.1
BJT				pmax	pmax		
	comp=Z,10.0nm,0.6s						
BJT	Baijiatuau	40.01	25	*e*P	P	13 52 09.8	+0.1
	comp=Z,9.9nm,0.6s,mb4.7						
BJI	Beijing	40.03	25	P	P	13 52 10.8	+0.9
BJI				AMB	AMB		
	comp=Z,17nm,0.7s,mb4.9						
ULHL	Ulahol	41.03	339	P	P	13 52 18.9	+0.9
	SNR=10.0						
UCH	Uchtor	41.66	337	P	P	13 52 25.1	+1.8
	SNR=14						
TKM2	Tokmak 2	41.85	338	P	P	13 52 25.9	+1.1
	SNR=9.1						
KBK	Karagaybulak	41.86	338	P	P	13 52 26.7	+1.8
	SNR=18						
AML	Almayashu	41.91	336	P	P	13 52 27.1	+1.8
	SNR=8.6						
AAK	Ala-Archa	42.02	337	P	P	13 52 28.7	+2.5
	SNR=7.7						
AAK	Ala-Archa	42.02	337	*e*P	P	13 52 27.3	+1.1
AAK				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.6						
AAK	Ala-Archa	42.02	337	*e*P	P	13 52 27.3	+1.1
	comp=Z,9.0nm,0.6s,mb4.6						
EKS2	Erkin-Say	42.32	337	P	P	13 52 30.4	+1.7
	SNR=8.4						
USP	Ospenovka	42.56	338	P	P	13 52 31.2	+0.6
	SNR=19						
JNU	Nakatsue	43.74	45	P	P	13 52 41.8	+1.4
	comp=Z,0.4nm,0.4s,mb3.5,baz=262,slow=7.1						
SONM	Songino Array	44.10	11	P	P	13 52 42.6	-0.4
	comp=Z,1.1nm,0.6s,mb3.7,baz=193,slow=8.9,SNR=6.0						
SONM				PcP	PcP	13 54 27.8	-0.6
	comp=Z,1.2nm,0.5s,baz=195,slow=3.9,SNR=8.3						
WRA	Warramunga Arr	45.66	124	P	P	13 52 56.2	+0.2
	comp=Z,16nm,0.7s,mb5.1,baz=302,slow=9.2,SNR=30						
WRA	Warramunga Arr	45.66	124	P	P	13 52 56.2	+0.3
WRA				pmax	pmax		
	comp=Z,16nm,0.7s						
WRAB	Tennant Creek	45.66	124	*e*P	P	13 52 56.1	+0.2
	comp=Z,39nm,1.0s,mb5.3						
ASAR	Alice Springs	47.16	128	P	P	13 53 08.0	+0.2
	comp=Z,2.2nm,0.5s,mb4.4,baz=298,slow=7.8,SNR=11						
CN2	Changchun	47.28	30	*e*P	P	13 53 07.5	-0.9
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
HIA	Hailar	49.12	21	*e*P	P	13 53 21.7	-0.9
HIA				pmax	pmax		
	comp=Z,3.0nm,0.5s						
HIA	Hailar	49.12	21	*e*P	P	13 53 21.7	-0.9
	comp=Z,3.4nm,0.5s,mb4.6						
ZAL	Zalesovo	49.84	352	P	P	13 53 26.9	-1.2
	comp=Z,4.5nm,0.5s,mb4.7,baz=305,slow=5.5,SNR=17						
ZAL	Zalesovo	49.84	352	P	P	13 53 26.9	-1.2
ZAL				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BVAR	Borovoye Array	52.32	341	P	P	13 53 46.2	-0.7
	comp=Z,11nm,0.6s,mb5.0,baz=141,slow=9.5,SNR=33						
BRVK	Borovoye	52.38	341	*e*P	P	13 53 46.5	-0.9
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
BRVK	Borovoye	52.38	341	*e*P	P	13 53 46.5	-0.9
	comp=Z,5.9nm,0.5s,mb4.8						
CHKZ	Chkalovo	52.81	342	*e*P	P	13 53 49.6	-0.9
CHKZ				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.3						
CHKZ	Chkalovo	52.81	342	*e*P	P	13 53 49.6	-1.0
	comp=Z,26nm,0.7s,mb5.3						
CTA	Charters Tower	55.94	118	P	P	13 54 13.8	-0.1
	comp=Z,1.9nm,0.6s,mb4.3,baz=214,slow=3.6,SNR=3.1						
CTA	Charters Tower	55.94	118	P	P	13 54 13.8	-0.1
CTA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CTA	Charters Tower	55.94	118	P	P	13 54 13.8	-0.1
KIV	Kislovodsk	60.34	319	*e*P	P	13 54 42.8	-1.6
KIV				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
KIV	Kislovodsk	60.34	319	*e*P	P	13 54 42.8	-1.6
	comp=Z,6.6nm,0.5s,mb4.9						
BRTR	Keskin Array B	65.25	312	P	P	13 55 16.2	-0.9
	comp=Z,2.6nm,0.6s,mb4.4,baz=126,slow=6.9,SNR=8.4						
BRTR	Keskin Array B	65.25	312	P	P	13 55 16.2	-0.9
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
IDI	Anoyia	71.19	306	P	P	13 55 53.5	-0.6
	comp=Z,8.9nm,1.0s,mb4.7,baz=150,slow=8.1,SNR=2.8						
AKASG	Malin Array Be	71.26	322	P	P	13 55 52.0	-2.2
	comp=Z,0.5nm,0.3s,mb3.9,baz=87,slow=4.8,SNR=5.2						
AKASG	Malin Array Be	71.26	322	P	P	13 55 52.0	-2.2
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.3s						
FINES	FINESS Array B	75.98	332	P	P	13 56 20.9	-0.7
	comp=Z,2.2nm,0.4s,mb4.5,baz=105,slow=6.1,SNR=24						
FINES	FINESS Array B	75.98	332	P	P	13 56 20.9	-0.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
KAF	Kangasniemi	76.07	333	*e*p	P	13 56 21.1	-0.9
	comp=Z,3.3nm,0.5s,mb4.5						
KAF	Kangasniemi	76.07	333	*e*P	P	13 56 21.1	-0.9
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
KEV	Kevo	78.17	341	*e*p	P	13 56 32.6	-0.9
	comp=Z,3.8nm,0.6s,mb4.5						
KEV	Kevo	78.17	341	*e*P	P	13 56 32.6	-0.9
KEV				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
MORC	Moravsky Berou	78.43	320	P	P	13 56 35.0	-0.3
	comp=Z,2.1nm,0.8s,mb4.1						
ARCES	ARCESS Array B	78.59	340	P	P	13 56 35.8	-0.1
	comp=Z,2.4nm,0.4s,mb4.4,baz=99,slow=6.8,SNR=34						
ARCES	ARCESS Array B	78.59	340	P	P	13 56 35.8	-0.1
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
GERES	GERESS Array B	80.85	319	P	P	13 56 49.3	+0.9
	comp=Z,1.1nm,0.4s,mb4.1,baz=126,slow=5.4,SNR=9.0						
GERES	GERESS Array B	80.85	319	P	P	13 56 49.3	+0.9
GERES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
DAVOX	Davos	83.36	316	P	P	13 57 02.3	+0.8
	comp=Z,6.0nm,0.6s,mb4.8,baz=118,slow=3.2,SNR=9.4						
TXAR	Lajitas Array	141.70	27	PKP	PKPdf	14 04 09.0	-1.2
	comp=Z,0.3nm,0.4s,baz=301,slow=0.3,SNR=5.7						

*IDC **27** 13:49:59.4±1.2, 3.70N×95.41E, mb4.0/9, mb1 4.2/10, mb1mx4.0/20, ML4.3/1, Error ellipse: s-maj=60.6km s-min=17.8km az=52.0*
*NEIC **27** 13:50:03.2±0.7, 3.43N×95.12E, h30^{km}, mb4.5/3, Error ellipse: s-maj=22.6km s-min=11.3km az=68.0*
ISC 27 13:50:01.1±0.9, **3.4N**±0.1×**95.1E**±0.2, **h30^{km}, n15, σ1^{s}03**/14, **mb4.1**/11, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.42	14	eP	P	13 53 39.1	+0.7
	7.6nm,0.7s						
CMAR	Chiang Mai Arr	15.42	14	Pn	P	13 53 39.6	+1.2
	0.4nm,0.3s,baz=207,slow=12,SNR=21						
LSA	Lhasa	26.41	352	eP	P	13 55 36.6	-0.5
	8.4nm,0.6s,mb4.5						
WRA	Warramunga Arr	44.99	123	P	P	13 58 15.9	-0.1
	1.7nm,0.7s,mb4.0,baz=299,slow=9.4,SNR=8.8						
SONM	Songino Array	45.31	11	P	P	13 58 16.2	-2.0
	0.7nm,0.5s,mb3.7,baz=188,slow=9.2,SNR=7.1						
ASAR	Alice Springs	46.40	127	P	P	13 58 27.4	+0.3
	0.8nm,0.6s,mb3.8,baz=299,slow=8.1,SNR=9.1						
ZAL	Zalesovo	51.07	352	P	P	13 59 01.7	-1.1
	4.1nm,0.6s,mb4.6,baz=310,slow=4.7,SNR=20						
BVAR	Borovoye Array	53.49	342	P	P	13 59 20.2	-0.7
	0.7nm,0.5s,mb3.9,baz=141,slow=9.5,SNR=4.2						
CHKZ	Chkalovo	53.98	342	eP	P	13 59 23.6	-0.9
	2.5nm,0.4s,mb4.5						
CTA	Charters Tower	55.37	117	P	P	13 59 34.9	-0.3
	2.4nm,0.8s,mb4.3,baz=278,slow=4.3,SNR=4.5						
FINES	FINESS Array B	77.08	333	P	P	14 01 53.5	+0.5
	1.3nm,0.4s,mb4.2,baz=103,slow=6.6,SNR=16						
FINES	FINESS Array B	77.08	333	P	P	14 01 53.5	+0.4
ARCES	ARCESS Array B	79.76	340	P	P	14 02 08.5	+0.9
	0.8nm,0.5s,mb3.9,baz=89,slow=4.8,SNR=11						
GERES	GERESS Array B	81.78	319	P	P	14 02 20.9	+2.4
	0.2nm,0.2s,mb3.6,baz=117,slow=3.0,SNR=3.5						
LPAZ	La Paz	159.13	231	PKP	PKPdf	14 10 00.8	-1.5
	108nm,0.2s,baz=135,slow=0.2,SNR=3.9						

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*IDC **27** 13:55:16.9±1.1, 7.90N×91.80E, mb4.0/9, mb1 4.2/10, mb1mx4.0/19, ML3.7/1, Error ellipse: s-maj=41.9km s-min=19.9km az=51.0*
*NEIC **27** 13:55:20.6±0.8, 7.86N×91.78E, mb4.3/4, Error ellipse: s-maj=20.6km s-min=14.4km az=55.0*
ISC 27 13:55:20.5±0.9, **7.8N**±0.1×**92.0E**±0.1, **h33^{km}, n19, σ1^{s}41**/19, **mb4.1**/10, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.57	32	Pn	P	13 58 19.4	-0.5
	0.1nm,0.3s,baz=233,slow=14,SNR=9.6						
LSA	Lhasa	21.79	358	epP	P	14 00 14.1	+2.6
UCH	Uchtor	37.58	339	P	P	14 02 35.4	+1.7
	SNR=5.7						
AML	Almayashu	37.80	338	P	P	14 02 37.2	+1.7
	SNR=13						
KBK	Karagaybulak	37.80	339	P	P	14 02 37.3	+1.7
	SNR=5.3						
AAK	Ala-Archa	37.94	339	eP	P	14 02 36.8	+0.1
	4.9nm,1.1s,mb4.2						
EKS2	Erkin-Say	38.23	338	P	P	14 02 40.5	+1.4
	SNR=5.6						
USP	Ospenovka	38.49	339	P	P	14 02 42.3	+1.0
	SNR=5.2						
SONM	Songino Array	41.73	15	P	P	14 03 06.7	-1.4
	0.6nm,0.6s,mb3.4,baz=208,slow=6.5,SNR=4.3						
ZAL	Zalesovo	46.35	354	P	P	14 03 43.8	-1.5
	1.6nm,0.3s,mb4.4,baz=107,slow=3.6,SNR=3.7						
BVAR	Borovoye Array	48.38	343	P	P	14 03 59.6	-1.5
	4.3nm,1.1s,mb4.4,baz=129,slow=9.5,SNR=6.8						
CHKZ	Chkalovo	48.88	343	epP	P	14 04 04.2	-0.8
WRA	Warramunga Arr	50.00	124	P	P	14 04 15.6	+1.6
	1.2nm,0.7s,mb4.1,baz=304,slow=8.5,SNR=6.4						
ASAR	Alice Springs	51.55	129	P	P	14 04 25.5	-0.2
	2.8nm,0.9s,mb4.2,baz=299,slow=7.2,SNR=9.4						
BRTR	Keskin Array B	60.84	311	P	P	14 05 30.6	-1.6
	0.8nm,0.6s,mb4.0,baz=117,slow=5.5,SNR=3.7						
FINES	FINESS Array B	71.76	332	P	P	14 06 39.0	-2.2
	2.1nm,1.0s,mb4.0,baz=101,slow=9.7,SNR=6.6						
ARCES	ARCESS Array B	74.60	340	P	P	14 06 56.0	-1.7
	1.7nm,0.8s,mb4.1,baz=108,slow=7.7,SNR=4.3						
ARCES	ARCESS Array B	74.60	340	P	P	14 06 56.0	-1.7
GERES	GERESS Array B	76.43	318	P	P	14 07 08.8	+0.2
	1.3nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=9.7						

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*IDC **27** 13:56:35.9±1.2, 5.51N×94.39E, mb4.1/9, mb1 4.3/9, mb1mx4.1/18, Error ellipse: s-maj=56.7km s-min=19.7km az=53.0*
*NEIC **27** 13:56:42.5±1.0, 6.24N×95.31E, h30^{km}, mb4.6/2, Error ellipse: s-maj=34.9km s-min=17.1km az=62.0*
ISC 27 13:56:39.4±0.8, **5.7N**±0.1×**94.7E**±0.2, **h30^{km}, n15, σ0^{s}62**/15, **mb4.2**/11, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.31	18	ePn	P	13 59 39.6	-9.3
	6.8nm,0.4s						
CHRT	Chiangrai	14.90	19	SG	P	14 00 09.0	-0.9
SONM	Songino Array	43.13	12	P	P	14 04 40.0	+1.2
	0.5nm,0.4s,mb3.6,baz=202,slow=5.1,SNR=8.5						
WRA	Warramunga Arr	46.58	124	P	P	14 05 07.0	+0.1
	0.6nm,0.3s,mb4.0,baz=298,slow=11,SNR=12						
ASAR	Alice Springs	48.13	129	P	P	14 05 18.9	-0.1
	0.8nm,0.4s,mb4.1,baz=299,slow=8.0,SNR=8.2						
ZAL	Zalesovo	48.73	352	P	P	14 05 24.2	+1.0
	3.5nm,0.3s,mb4.8,baz=299,slow=3.2,SNR=7.4						
BVAR	Borovoye Array	51.18	341	P	P	14 05 42.2	+0.3
	2.1nm,0.6s,mb4.2,baz=145,slow=11,SNR=11						
BRVK	Borovoye	51.25	341	eP	P	14 05 42.3	-0.2
	3.0nm,0.6s,mb4.4						
CHKZ	Chkalovo	51.67	342	eP	P	14 05 45.8	+0.1
	4.5nm,0.5s,mb4.7						
FINES	FINESS Array B	74.86	332	P	P	14 08 17.8	-1.0
	1.6nm,0.9s,mb4.0,baz=117,slow=4.3,SNR=5.0						
FINES	FINESS Array B	74.86	332	P	P	14 08 17.8	-1.0
ARCES	ARCESS Array B	77.46	340	P	P	14 08 32.9	-0.4
	1.7nm,0.8s,mb4.0,baz=97,slow=6.7,SNR=7.3						
GERES	GERESS Array B	79.79	318	P	P	14 08 46.4	0.0
	0.7nm,0.5s,mb3.9,baz=108,slow=4.2,SNR=6.2						
GERES	GERESS Array B	79.79	318	P	P	14 08 46.4	0.0
ESDC	Sonseca Array	93.02	310	P	P	14 09 51.6	-0.1
	0.2nm,0.4s,mb3.9,baz=84,slow=12,SNR=4.1						

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*IDC **27** 14:00:32.8±1.6, 5.09N×94.82E, mb3.7/7, mb1 3.9/8, mb1mx3.8/19, ML4.3/1, Error ellipse: s-maj=76.4km s-min=22.4km az=55.0*
NEIC 27 14:00:36.1±1.1, **4.73N×94.41E, h30^{km}, Error ellipse: s-maj=36.7km s-min=18.4km az=66.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.34	18	Pn	P	14 03 58.9	-0.6
	0.5nm,0.3s,baz=205,slow=13,SNR=4.6						
SONM	Songino Array	44.16	12	P	P	14 08 39.9	-4.1
	0.4nm,0.6s,baz=196,slow=9.0,SNR=3.7						
WRA	Warramunga Arr	46.27	123	P	P	14 08 59.5	-1.7
	1.0nm,0.6s,baz=303,slow=9.0,SNR=5.4						
ASAR	Alice Springs	47.74	128	P	P	14 09 10.8	-2.0
	0.3nm,0.5s,baz=297,slow=7.6,SNR=4.1						
ZAL	Zalesovo	49.68	353	P	P	14 09 24.4	-2.9
	1.1nm,0.6s,baz=269,slow=5.5,SNR=5.5						
BVAR	Borovoye Array	52.04	342	P	P	14 09 41.9	-3.3
	0.4nm,0.7s,baz=129,slow=9.2,SNR=3.0						
ARCES	ARCESS Array B	78.30	340	P	P	14 12 33.5	-1.2
	1.4nm,1.0s,baz=90,slow=6.3,SNR=3.7						
GERES	GERESS Array B	80.34	319	P	P	14 12 46.4	+0.3
	0.6nm,0.6s,baz=90,slow=5.9,SNR=3.8						

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*IDC **27** 14:05:07.8±1.2, 8.05N×91.94E, mb3.9/7, mb1 4.0/8, mb1mx3.9/19, ML3.5/1, Error ellipse: s-maj=29.8km s-min=27.7km az=47.0*
*NEIC **27** 14:05:12.2±0.8, 8.07N×91.97E, mb4.2/3, Error ellipse: s-maj=17.0km s-min=14.6km az=138.0*
ISC 27 14:05:10.2±1.0, **8.1N**±0.1×**92.0E**±0.1, **h28^{km}, n13, σ0^{s}74**/13, **mb4.0**/10, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.32	32	Pn	P	14 08 06.0	-0.8
	0.1nm,0.3s,baz=233,slow=14,SNR=7.9						
AAK	Ala-Archa	37.71	339	P	P	14 12 25.6	+0.4
	7.1nm,1.4s,mb4.2						
SONM	Songino Array	41.46	15	P	P	14 12 56.6	+0.4
	1.9nm,0.7s,mb3.8,baz=194,slow=8.2,SNR=19						
ULN	Ulaanbaatar	41.66	15	P	P	14 12 58.5	+0.6
	3.4nm,1.0s,mb3.9						
ULN				epP	pP	14 13 06.8	+0.4
ZAL	Zalesovo	46.10	354	P	P	14 13 34.0	+0.4
	0.7nm,0.3s,mb4.1,baz=129,slow=6.5,SNR=3.0						
ZAL	Zalesovo	46.10	354	P	P	14 13 34.0	+0.4
BVAR	Borovoye Array	48.14	343	P	P	14 13 50.8	+1.2
	0.3nm,0.6s,mb3.5,baz=153,slow=6.4,SNR=3.3						
CHKZ	Chkalovo	48.64	343	eP	P	14 13 52.7	-0.8
	1.4nm,0.5s,mb4.2						
CHKZ				epP	pP	14 14 01.4	-0.8
WRA	Warramunga Arr	50.11	124	P	P	14 14 05.3	0.0
	1.4nm,0.6s,mb4.2,baz=306,slow=8.6,SNR=7.2						
KMBO	Kilima Mbogo	55.35	263	P	P	14 14 44.7	+0.2
	1.5nm,0.8s,mb4.1,baz=60,slow=18,SNR=4.5						
KMBO	Kilima Mbogo	55.35	263	P	P	14 14 44.7	+0.2
BRTR	Keskin Array B	60.70	311	P	P	14 15 19.9	-1.6
	0.7nm,0.7s,mb3.9,baz=134,slow=7.6,SNR=3.6						
GERES	GERESS Array B	76.27	318	P	P	14 16 58.0	-0.1
	0.8nm,0.8s,mb3.7,baz=90,slow=6.7,SNR=4.9						

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*IDC **27** 14:06:42.3±0.8, 8.17N×92.77E, mb4.2/16, mb1 4.3/17, mb1mx4.2/23, ML4.1/1, Error ellipse: s-maj=35.3km s-min=14.5km az=49.0*
*NEIC **27** 14:06:47.2±0.5, 8.28N×92.90E, h30^{km}, mb4.4/4, Error ellipse: s-maj=18.1km s-min=10.4km az=52.0*
*BJI **27** 14:06:47.2, 8.30N×92.90E, h30^{km}, mb4.7*
ISC 27 14:06:45.2±0.6, **8.2N**±0.1×**92.9E**±0.1, **h30^{km}, n31, σ1^{s}10**/30, **mb4.3**/23, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.77	29	Pn	P	14 09 30.9	-3.4
	0.3nm,0.3s,baz=231,slow=14,SNR=7.0						
KMI	Kunming	19.28	28	P	P	14 11 10.0	-0.5
KMI				AMB	AMB		
	comp=Z,17nm,0.9s						
PKI	Pulchoki	20.51	341	eP	P	14 11 14.1	-10
	comp=Z,28nm,0.5s						
DMN	Daman	20.65	340	eP	P	14 11 15.5	-10
	comp=Z,45nm,1.0s						
GUN	Gumba	20.68	342	eP	P	14 11 15.6	-10
	comp=Z,55nm,0.9s						
KKN	Kakani	20.76	341	eP	P	14 11 16.3	-10
	comp=Z,29nm,0.7s						
GKN	Gorkha	21.17	339	eP	P	14 11 19.6	-11
	comp=Z,52nm,1.1s,mb4.8						
GTA	Gaotai	31.68	10	eP	P	14 13 10.5	+2.1
GTA				AP	pP	14 13 14.0	-3.3
GTA				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.9						
AAK	Ala-Archa	37.91	338	eP	P	14 14 02.4	+0.8
	comp=Z,5.9nm,0.9s,mb4.3						
SONM	Songino Array	41.12	14	P	P	14 14 27.5	-0.7
	comp=Z,0.6nm,0.6s,mb3.4,baz=195,slow=9.7,SNR=5.0						
CN2	Changchun	45.43	33	eP	P	14 15 05.5	+2.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
ZAL	Zalesovo	46.06	353	P	P	14 15 09.3	+1.2
	comp=Z,1.0nm,0.4s,mb4.1,baz=309,slow=7.9,SNR=4.5						
BVAR	Borovoye Array	48.27	342	P	P	14 15 25.5	0.0
	comp=Z,2.6nm,0.8s,mb4.3,baz=153,slow=6.6,SNR=7.8						
BRVK	Borovoye	48.34	342	eP	P	14 15 25.5	-0.5
	comp=Z,2.9nm,0.9s,mb4.3						
CHKZ	Chkalovo	48.77	343	eP	P	14 15 27.6	-1.8
	comp=Z,11nm,0.9s,mb4.9						
WRA	Warramunga Arr	49.48	125	P	P	14 15 35.1	-0.1
	comp=Z,4.1nm,0.6s,mb4.6,baz=304,slow=8.6,SNR=23						
ASAR	Alice Springs	51.10	129	P	P	14 15 46.7	-0.8
	comp=Z,3.2nm,0.6s,mb4.4,baz=302,slow=7.3,SNR=16						
PMG	Port Moresby	56.83	107	P	P	14 16 30.3	+0.5
	comp=Z,5.5nm,0.8s,mb4.6,baz=286,slow=14,SNR=5.1						
STKA	Stephens Creek	61.25	133	P	P	14 16 59.9	-0.3
	comp=Z,3.1nm,0.9s,mb4.4,baz=330,slow=8.1,SNR=3.2						
BRTR	Keskin Array B	61.26	311	P	P	14 16 59.1	-1.0
	comp=Z,1.6nm,0.7s,mb4.3,baz=127,slow=6.2,SNR=6.0						
FINES	FINESS Array B	71.83	332	P	P	14 18 06.8	-0.2
	comp=Z,1.7nm,0.6s,mb4.1,baz=104,slow=7.9,SNR=6.9						
ARCES	ARCESS Array B	74.53	340	P	P	14 18 23.2	+0.7
	comp=Z,1.1nm,0.6s,mb4.0,baz=68,slow=6.5,SNR=5.2						
GERES	GERESS Array B	76.74	318	P	P	14 18 36.0	+0.5
	comp=Z,1.6nm,0.8s,mb4.0,baz=90,slow=4.0,SNR=8.5						
HFS	Hagfors	77.53	330	P	P	14 18 38.6	-1.1
	comp=Z,1.3nm,0.6s,mb4.0,baz=117,slow=9.7,SNR=4.1						
NOA	NORSAR Array B	78.82	331	P	P	14 18 46.3	-0.4
	comp=Z,1.3nm,0.9s,mb3.9,baz=104,slow=7.4,SNR=2.9						
DAVOX	Davos	79.28	316	P	P	14 18 49.6	+0.1
	comp=Z,3.2nm,0.8s,mb4.3,baz=132,slow=13,SNR=4.5						
LPL	La Plagne	81.50	315	eP	P	14 19 01.6	+0.3
	comp=Z,2.7nm,0.3s,mb4.3						
ILAR	Eielson Array	94.91	22	P	P	14 20 08.1	+2.6
	comp=Z,0.4nm,0.7s,mb4.0,baz=311,slow=5.1,SNR=6.9						
INK	Inuvik	97.02	16	P	P	14 20 15.6	+0.6
	comp=Z,0.6nm,0.6s,mb4.2,baz=154,slow=12,SNR=6.7						
INK	Inuvik	97.02	16	P	P	14 20 15.6	+0.6
PDAR	Pinedale Array	125.30	20	PKP	PKPdf	14 25 46.7	-2.0
	comp=Z,0.4nm,0.6s,baz=90,slow=1.5,SNR=5.0						

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*IDC **27** 14:12:33.7±1.1, 5.42N×93.20E, mb4.1/9, mb1 4.2/10, mb1mx4.0/20, Error ellipse: s-maj=48.9km s-min=19.4km az=53.0*
*NEIC **27** 14:12:38.3±0.6, 5.42N×93.22E, h30^{km}, mb4.2/3, Error ellipse: s-maj=19.2km s-min=11.1km az=60.0*
ISC 27 14:12:36.5±0.9, **5.5N**±0.1×**93.3E**±0.2, **h30^{km}, n14, σ0^{s}60**/14, **mb4.1**/12, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.07	23	Pn	P	14 15 56.6	+0.5
	baz=214,slow=13,SNR=2.5						
AAK	Ala-Archa	40.60	339	eP	P	14 20 15.7	+0.4
	1.9nm,0.8s,mb3.8						
SONM	Songino Array	43.70	13	P	P	14 20 40.2	-0.4
	0.4nm,0.6s,mb3.3,baz=196,slow=9.5,SNR=3.8						
WRA	Warramunga Arr	47.62	123	P	P	14 21 12.2	0.0
	3.0nm,0.7s,mb4.4,baz=302,slow=9.1,SNR=22						
ZAL	Zalesovo	48.83	353	P	P	14 21 21.4	+0.3
	1.1nm,0.3s,mb4.3,baz=293,slow=6.6,SNR=7.5						
ASAR	Alice Springs	49.08	128	P	P	14 21 23.4	-0.1
	1.1nm,0.8s,mb3.9,baz=299,slow=7.6,SNR=7.6						
BVAR	Borovoye Array	51.01	342	P	P	14 21 37.4	-0.3
	1.9nm,0.6s,mb4.2,baz=149,slow=8.6,SNR=11						
BRVK	Borovoye	51.07	342	eP	P	14 21 37.3	-0.9
	1.9nm,0.6s,mb4.2						
CHKZ	Chkalovo	51.51	343	eP	P	14 21 41.3	-0.2
	5.0nm,0.9s,mb4.4						
FINES	FINESS Array B	74.44	333	P	P	14 24 12.3	-1.2
	1.9nm,0.8s,mb4.1,baz=127,slow=9.5,SNR=6.2						
FINES	FINESS Array B	74.44	333	P	P	14 24 12.3	-1.2
ARCES	ARCESS Array B	77.24	341	P	P	14 24 29.6	+0.4
	3.4nm,1.0s,mb4.2,baz=94,slow=5.2,SNR=9.7						
GERES	GERESS Array B	79.05	319	P	P	14 24 40.9	+1.3
	0.7nm,0.6s,mb3.8,baz=90,slow=5.3,SNR=7.0						
HFS	Hagfors	80.10	330	P	P	14 24 45.2	+0.2
	3.7nm,1.0s,mb4.3,baz=53,slow=7.4,SNR=4.5						

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*IDC **27** 14:13:39.5±0.9, 8.63N×93.48E, mb4.1/16, mb1 4.3/17, mb1mx4.2/23, ML4.9/1, Error ellipse: s-maj=36.3km s-min=17.9km az=40.0*
*NEIC **27** 14:13:44.2±0.4, 8.65N×93.52E, h30^{km}, mb4.3/5, Error ellipse: s-maj=10.3km s-min=8.1km az=46.0*
ISC 27 14:13:42.4±0.7, **8.7N**±0.1×**93.6E**±0.1, **h30^{km}, n27, σ0^{s}73**/25, **mb4.2**/20, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.01	28	Pn	P	14 16 20.8	-0.4
CMAR	Chiang Mai Arr	11.01	28	Pn	P	14 16 21.5	+0.4
	2.3nm,0.3s,baz=212,slow=15,SNR=23						
AAK	Ala-Archa	37.73	337	eP	P	14 20 57.6	+0.3
	2.7nm,0.8s,mb4.0						
SONM	Songino Array	40.49	13	P	P	14 21 20.0	-0.2
	0.9nm,0.9s,mb3.5,baz=189,slow=8.5,SNR=4.1						
SONM				PcP	PcP	14 23 23.3	+0.2
	0.6nm,0.5s,baz=195,slow=3.4,SNR=4.9						
ZAL	Zalesovo	45.67	353	P	P	14 22 02.3	+0.2
	2.5nm,0.8s,mb4.2,baz=293,slow=10.0,SNR=9.0						
BVAR	Borovoye Array	48.04	341	P	P	14 22 20.2	-0.6
	2.9nm,1.0s,mb4.2,baz=135,slow=10,SNR=5.0						
BVAR				PcP	PcP	14 23 49.4	+0.6
	1.5nm,0.6s,baz=162,slow=4.7,SNR=5.8						
BRVK	Borovoye	48.10	341	P	P	14 22 20.5	-0.8
	1.3nm,0.6s,mb4.1						
CHKZ	Chkalovo	48.52	342	eP	P	14 22 24.4	-0.2
	3.9nm,0.6s,mb4.6						
WRA	Warramunga Arr	49.19	126	P	P	14 22 30.1	0.0
	0.6nm,0.5s,mb3.9,baz=304,slow=8.9,SNR=2.9						
ASAR	Alice Springs	50.87	130	PcP	PcP	14 23 59.4	-0.1
	1.0nm,0.8s,baz=313,slow=4.1,SNR=4.3						
PMG	Port Moresby	56.30	107	P	P	14 23 23.1	-0.1
	7.6nm,0.8s,mb4.8,baz=242,slow=23,SNR=6.2						
KIV	Kislovodsk	56.34	318	P	P	14 23 23.0	0.0
	5.2nm,0.6s,mb4.7						
CTA	Charters Tower	59.19	120	P	P	14 23 42.8	-0.6
	1.6nm,0.9s,mb4.1,baz=350,slow=6.1,SNR=3.0						
BRTR	Keskin Array B	61.48	311	P	P	14 23 57.9	-0.8
	2.6nm,0.7s,mb4.5,baz=122,slow=7.8,SNR=12						
AKASG	Malin Array Be	67.17	322	P	P	14 24 33.9	-1.8
	2.9nm,0.9s,mb4.3,baz=88,slow=4.2,SNR=5.4						
MLR	Muntele Rosu	68.20	316	P	P	14 24 42.8	+0.6
	2.1nm,0.8s,mb4.2,baz=344,slow=6.8,SNR=3.2						
FINES	FINESS Array B	71.73	332	P	P	14 25 03.2	-0.3
	3.8nm,1.1s,mb4.2,baz=118,slow=8.8,SNR=4.0						
FINES	FINESS Array B	71.73	332	P	P	14 25 03.2	-0.3
ARCES	ARCESS Array B	74.31	340	P	P	14 25 19.0	+0.6
	1.7nm,0.9s,mb4.0,baz=100,slow=7.4,SNR=6.2						
GERES	GERESS Array B	76.85	318	P	P	14 25 34.2	+0.9
	2.0nm,0.9s,mb4.0,baz=90,slow=4.0,SNR=8.5						
HFS	Hagfors	77.47	330	P	P	14 25 36.3	-0.1
	1.9nm,0.5s,mb4.2,baz=124,slow=5.3,SNR=9.5						
NB2	NORSAR Subarra	78.75	331	P	P	14 25 43.5	+0.1
	1.3nm,0.6s,mb4.0,baz=94,slow=5.3						
NOA	NORSAR Array B	78.75	331	P	P	14 25 43.8	+0.3
	1.5nm,0.6s,mb4.1,baz=92,slow=5.7,SNR=5.3						
EKA	Eskdalemuir Ar	86.73	325	P	P	14 26 26.4	+1.7
	2.7nm,0.6s,mb4.7,baz=106,slow=5.6,SNR=9.8						
ILAR	Eielson Array	94.20	22	P	P	14 27 00.6	+1.3
	0.7nm,0.6s,mb4.2,baz=300,slow=4.7,SNR=11						
ILAR	Eielson Array	94.20	22	P	P	14 27 00.6	+1.3
PDAR	Pinedale Array	124.60	21	PKP	PKPdf	14 32 41.4	-3.1
	0.4nm,0.7s,slow=1.5,SNR=4.3						

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*MOS **27** 14:20:51.0±0.9, 8.10N×92.76E, h33^{km}, mb4.8/37, Error ellipse: s-maj=11.5km s-min=7.2km az=114.3*
*NEIC **27** 14:20:53.9±0.2, 8.10N×92.72E, mb4.8/31, Error ellipse: s-maj=6.2km s-min=5.3km az=57.0*
*BJI **27** 14:20:53.7, 7.98N×93.56E, h28^{km}, mB5.2, mb4.9, Ms4.6, Msz4.4*
*IDC **27** 14:20:54.2±0.4, 8.15N×92.75E, h41^{km}±3^{km}, mb4.2/23, mb1 4.3/24, mb1mx4.3/26, ML4.6/1, Error ellipse: s-maj=18.6km s-min=9.2km az=46.0*
*SYO **27** 14:20:55.7, 8.27N×93.55E, h30^{km}, MB4.8*
ISC 27 14:20:51.8±0.3, **8.09N**±0.04×**92.74E**±0.04, **h37^{km}, h37^{km}**±1.3^{km}**:pP-P, n165, σ1^{s}02**/141, **mb4.7**/65, **MS4.3**/8, **5C-4D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.94	30	ePn	P	14 23 41.5	-1.1
	12nm,0.6s						
CMAR	Chiang Mai Arr	11.94	30	P	P	14 23 43.0	+0.4
	1.0nm,0.3s,baz=233,slow=13,SNR=44						
CMAR	Chiang Mai Arr	11.94	30	P	P	14 23 43.0	+0.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
PALK	Pallekele	11.96	267	ePn	P	14 23 39.2	-3.6
	comp=Z,65nm,0.8s						
CHRT	Chiangrai	13.56	29	PG	P	14 24 11.0	+6.9
CHRT				SG	Px	14 24 21.0	
HYB	Hyderabad	16.65	305⇓	eP	P	14 24 46.0	+2.0
HYB	Hyderabad	16.65	305⇓	iP	P	14 24 46.0	+2.0
HYB				e		14 27 32.0	
HYB				eS	S	14 27 45.0	-1.8
KMI	Kunming	19.45	28	P	P	14 25 20.0	+1.9
KMI				AMB	AMB		
	comp=Z,68nm,1.0s						
QIZ	Qiongzhong	19.85	55	P	P	14 25 19.0	-3.5
QIZ				eS	S	14 28 47.3	-12
QIZ				LR	LR		
	comp=N,1µm,15.2s						
QIZ				LR	LR		
	comp=Z,909nm,10.9s						
QIZ	Qiongzhong	19.85	55	eP	P	14 25 23.2	+0.7
	comp=Z,44nm,1.0s						
COCO	West Island	20.55	169	eP	P	14 25 30.6	+0.7
	comp=Z,226nm,1.2s						
PKI	Pulchoki	20.59	341	eP	P	14 25 30.1	-0.1
	comp=Z,364nm,1.4s						
DMN	Daman	20.72	341	eP	P	14 25 31.7	+0.1
	comp=Z,205nm,1.3s						
GUN	Gumba	20.76	343	eP	P	14 25 32.2	+0.2
	comp=Z,94nm,0.6s						
KKN	Kakani	20.83	341	eP	P	14 25 32.7	-0.1
	comp=Z,165nm,1.2s						
GKN	Gorkha	21.24	340	eP	P	14 25 37.2	+0.3
	comp=Z,58nm,1.0s,mb4.8						
KOLN	Koldanda	21.40	337	eP	P	14 25 39.3	+0.8
LSA	Lhasa	21.55	356	eP	P	14 25 39.9	-0.1
LSA				pmax	pmax		
	comp=Z,17nm,0.8s,mb4.5						
LSA	Lhasa	21.55	356	eP	P	14 25 39.9	-0.1
	comp=Z,17nm,0.8s,mb4.5						
GYA	Guiyang	22.56	34⇑	iP	P	14 25 51.0	+0.9
GYA				AP		14 25 56.3	
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
GYA				AMB	AMB		
	comp=Z,840nm,3.8s						
GYA				LR	LR		
	comp=N,1µm,16.4s,MS4.8						
GYA				LR	LR		
	comp=E,2µm,16.0s,MS4.8						
GYA				LR	LR		
	comp=Z,2µm,15.8s,MS4.6						
CD2	Chengdu	24.93	23	P	P	14 26 13.5	+0.3
CD2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.1						
ENH	Enshi	27.08	33	eP	P	14 26 32.1	-1.1
	comp=Z,13nm,0.5s,mb4.7						
LZH	Lanzhou	29.66	18	eP	P	14 26 56.0	-0.2
LZH				AMB	AMB		
	comp=Z,40nm,1.4s,mb5.0						
XAN	Xi’an	29.83	28	P	P	14 26 56.3	-1.5
XAN				AP	pP	14 27 05.5	-2.7
XAN				AMB	AMB		
	comp=Z,17nm,0.8s,mb4.8						
GTA	Gaotai	31.83	10	eP	P	14 27 15.8	+0.4
GTA				AMB	AMB		
	comp=Z,28nm,1.1s,mb5.0						
GTA				AMB	AMB		
	comp=Z,187nm,4.6s						
GTA				LR	LR		
	comp=N,812nm,11.0s						
GTA				LR	LR		
	comp=E,828nm,9.1s						
GTA				LR	LR		
	comp=Z,704nm,19.0s						
NJ2	Nanjing	34.02	42	eP	P	14 27 36.0	+1.5
NJ2				AP	pP	14 27 46.0	+1.0
NJ2				PP	PP	14 28 42.3	-6.8
NJ2				S	S	14 33 01.0	+4.7
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,740nm,6.3s						
NJ2				LR	LR		
	comp=N,2µm,21.2s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,21.1s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,19.3s,MS4.9						
KSH	Kashi	34.72	337	eP	pP	14 27 51.8	+0.8
KSH				XP	sP	14 27 59.8	+4.0
KSH				eSCP		14 34 02.0	
KSH				ePCS		14 34 05.0	
KSH				AMB	AMB		
	comp=Z,130nm,3.0s						
SSE	Sheshan	35.05	45	eP	P	14 27 43.0	-0.3
SSE				AMB	AMB		

	comp=Z,16nm,0.6s,mb5.1						
SSE				AMB	AMB		
	comp=Z,147nm,4.2s						
WMQ	**Urumqi**	**35.87**	**354**	⇑P	**P**	**14 27 53.3**	**+3.1**
WMQ				AP	pP	14 28 03.5	+2.8
WMQ				XP	sP	14 28 07.5	+2.0
WMQ				PP	PP	14 29 14.8	+2.7
WMQ				PPP	PPP	14 29 34.3	+2.5
WMQ				S	**S**	**14 33 27.8**	**+3.1**
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.4s,mb4.8						
WMQ				LR	LR		
	comp=N,291nm,23.3s,MS4.1						
WMQ				LR	LR		
	comp=E,217nm,24.4s,MS4.1						
WMQ				LR	LR		
	comp=Z,317nm,24.8s,MS4.0						
HHC	**Hu-ho-hao-te**	**36.68**	**24**	*e*P	**P**	**14 27 57.3**	**+0.3**
HHC				AP	pP	14 28 06.5	-1.1
HHC				XP	sP	14 28 10.5	-1.8
HHC				PP	PP	14 29 20.0	-2.4
HHC				PCP	PcP	14 30 22.3	+2.7
HHC				S	**S**	**14 33 34.0**	**-3.2**
HHC				XS		14 33 51.0	
HHC				SS	SS	14 35 58.8	-6.5
HHC				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,174nm,5.1s						
HHC				LR	LR		
	comp=N,298nm,15.0s,MS4.6						
HHC				LR	LR		
	comp=E,680nm,13.0s,MS4.6						
HHC				LR	LR		
	comp=Z,260nm,16.6s,MS4.1						
ULHL	**Ulahol**	**37.01**	**339**	P	pP	14 28 11.6	+1.3
	SNR=6.4						
KZA	**Kyzart**	**37.22**	**338**	P	pP	14 28 14.1	+1.9
	SNR=7.3						
UCH	**Uchtor**	**37.62**	**338**	P	**P**	**14 28 06.2**	**+1.3**
	SNR=6.8						
KBK	**Karagaybulak**	**37.83**	**338**	P	**P**	**14 28 08.1**	**+1.5**
	SNR=8.8						
TKM2	**Tokmak 2**	**37.83**	**339**	P	pP	14 28 19.3	+2.0
	SNR=6.5						
AML	**Almayashu**	**37.85**	**337**	P	**P**	**14 28 08.5**	**+1.7**
	SNR=16						
AAK	**Ala-Archa**	**37.98**	**338**	P	**P**	**14 28 09.7**	**+1.8**
	SNR=5.3						
AAK	**Ala-Archa**	**37.98**	**338**	*i* P	**P**	**14 28 08.4**	**+0.5**
AAK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.3						
AAK	**Ala-Archa**	**37.98**	**338**	*e*P	**P**	**14 28 07.9**	**+0.1**
	comp=Z,10nm,1.2s,mb4.4						
BJT	**Baijiatuau**	**38.07**	**30**	*e*P	**P**	**14 28 09.2**	**+0.5**
BJT				*e*	pP	14 28 18.7	-0.6
BJI	**Beijing**	**38.09**	**30**	P	**P**	**14 28 10.0**	**+1.1**
BJI				AMB	AMB		
	comp=Z,18nm,0.6s,mb5.0						
BJI				LR	LR		
	comp=N,225nm,21.0s,MS4.3						
BJI				LR	LR		
	comp=E,425nm,21.0s,MS4.3						
BJI				LR	LR		
	comp=Z,203nm,23.0s,MS3.9						
FRU	**Bishkek**	**38.10**	**338**	*e*P	pP	14 28 20.0	+0.4
FRU				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.1						
CHMS	**Chumysh**	**38.20**	**339**	P	pP	14 28 21.6	+1.3
	SNR=8.2						
EKS2	**Erkin-Say**	**38.27**	**337**	P	**P**	**14 28 11.7**	**+1.4**
	SNR=5.4						
USP	**Ospenovka**	**38.52**	**338**	P	**P**	**14 28 13.2**	**+0.8**
	SNR=6.8						
MBWA	**Marble Bar**	**39.34**	**138**	*e*P	**P**	**14 28 19.8**	**+0.4**
	comp=Z,13nm,1.1s,mb4.6						
MKAR	**Makanchi Array**	**39.59**	**349**	*i* P	**P**	**14 28 21.0**	**-0.3**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SONM	**Songino Array**	**41.28**	**14**	P	**P**	**14 28 35.4**	**+0.2**
	comp=Z,3.3nm,0.8s,mb4.0,baz=198,slow=8.0,SNR=25						
ULN	**Ulaanbaatar**	**41.47**	**15**	*e*P	**P**	**14 28 36.7**	**0.0**
ULN				*e*	pP	14 28 47.6	+0.2
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.9						
ULN	**Ulaanbaatar**	**41.47**	**15**	*e*P	**P**	**14 28 36.7**	**-0.1**
	comp=Z,1.6nm,0.7s,mb3.8						
ULN				*e*	pP	14 28 47.6	+0.2
TLY	**Talaya**	**44.38**	**10**	*i* P	**P**	**14 29 01.2**	**+0.8**
TLY				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.5						
ZAL	**Zalesovo**	**46.17**	**353**	P	**P**	**14 29 14.2**	**-0.4**
	comp=Z,1.5nm,0.3s,mb4.4,baz=313,slow=7.8,SNR=7.6						
ZAL	**Zalesovo**	**46.17**	**353**	P	**P**	**14 29 14.3**	**-0.3**
ZAL				pmax	pmax		
	comp=Z,2.0nm,0.3s						
NWAO	**Narrogin (SRO)**	**46.98**	**152**	P	**P**	**14 29 21.3**	**0.0**
	comp=Z,20nm,0.7s,mb5.1,baz=300,slow=6.7,SNR=9.3						
NWAO	**Narrogin (SRO)**	**46.98**	**152**	*e*P	**P**	**14 29 22.0**	**+0.7**
NWAO				pmax	pmax		
	comp=Z,23nm,0.9s						
NWAO	**Narrogin (SRO)**	**46.98**	**152**	*e*P	**P**	**14 29 22.0**	**+0.7**
	comp=Z,23nm,0.9s,mb5.1						
NVS	**Novosibirsk**	**47.24**	**353**	*e*P	**P**	**14 29 28.7**	**+5.6**
NVS				pmax	pmax		
	comp=N,7.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
BVA0	**Borovoye Array**	**48.35**	**342**	*i* P	**P**	**14 29 30.8**	**-1.0**
BVAR	**Borovoye Array**	**48.35**	**342**	P	**P**	**14 29 31.2**	**-0.6**
	comp=Z,7.0nm,1.2s,mb4.6,baz=149,slow=8.6,SNR=12						
BVAR				pP	pP	14 29 42.4	-0.1
	comp=Z,7.4nm,0.7s,baz=141,slow=9.5,SNR=28						
BRVK	**Borovoye**	**48.41**	**342**	*e*P	**P**	**14 29 31.0**	**-1.2**
BRVK				*e*	pP	14 29 40.4	-2.6
BRVK				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
BRVK	**Borovoye**	**48.41**	**342**	*e*P	**P**	**14 29 31.0**	**-1.2**
	comp=Z,14nm,0.9s,mb5.0						
BRVK				*e*	pP	14 29 40.4	-2.6
MDJ	**Mudanjiang**	**48.42**	**35**	P	**P**	**14 29 30.0**	**-2.4**
MDJ				AP	pP	14 29 39.0	-4.2
MDJ				XP	sP	14 29 42.8	-4.9
MDJ				PP	PP	14 31 22.0	-2.7
MDJ				PCS		14 34 53.8	
MDJ				S	**S**	**14 36 25.8**	**-3.6**
MDJ				XS		14 36 41.3	
MDJ				SS	SS	14 39 56.0	+1.7
MDJ				AMB	AMB		
	comp=Z,10.0nm,2.0s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,39nm,3.7s						
MDJ				LR	LR		
	comp=N,289nm,21.3s						
MDJ				LR	LR		
	comp=E,188nm,28.1s						
MDJ				LR	LR		
	comp=Z,233nm,22.0s,MS4.1						
CHKZ	**Chkalovo**	**48.85**	**343**	*i* P	**P**	**14 29 35.2**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
CHKZ	**Chkalovo**	**48.85**	**343**	*e*P	**P**	**14 29 35.1**	**-0.5**
	comp=Z,7.4nm,1.0s,mb4.7						
WRA	**Warramunga Arr**	**49.52**	**125**	P	**P**	**14 29 40.5**	**-0.7**
	comp=Z,7.2nm,0.7s,mb4.8,baz=307,slow=8.7,SNR=18						
WRA				pP	pP	14 29 52.5	+0.5
	comp=Z,6.3nm,0.4s,baz=303,slow=8.9,SNR=10						
WRA	**Warramunga Arr**	**49.52**	**125**	P	**P**	**14 29 40.5**	**-0.7**
WRA				*PP	pP	14 29 52.5	+0.5
WRA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
WRA				pmax	pmax		
	comp=Z,6.0nm,0.4s						
WRAB	**Tennant Creek**	**49.52**	**125**	*e*P	**P**	**14 29 40.3**	**-0.9**
WRAB				*e*	pP	14 29 51.0	-1.0
WRAB				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.1						
WRAB	**Tennant Creek**	**49.52**	**125**	*e*P	**P**	**14 29 40.3**	**-0.9**
	comp=Z,12nm,0.6s,mb5.1						
WRAB				*e*	pP	14 29 51.0	-1.0
ASAR	**Alice Springs**	**51.12**	**129**	P	**P**	**14 29 52.2**	**-1.1**
	comp=Z,7.4nm,0.6s,mb4.8,baz=306,slow=7.3,SNR=34						
ASAR				PcP	PcP	14 31 09.0	+0.2
	comp=Z,4.1nm,0.6s,baz=306,slow=3.2,SNR=9.6						
BOD	**Bodaibo**	**52.27**	**14**	*e*P	**P**	**14 30 00.2**	**-1.3**
BOD				*e*	pP	14 30 08.8	-3.6
GNI	**Garni**	**53.30**	**315**	P	**P**	**14 30 11.5**	**+2.0**
	comp=Z,1.9nm,0.4s,mb4.4,baz=6.7,slow=17,SNR=2.9						
GNI				pP	pP	14 30 20.6	+0.2
	comp=Z,7.3nm,0.8s,baz=160,slow=17,SNR=2.4						
GNI	**Garni**	**53.30**	**315**	P	**P**	**14 30 08.7**	**-0.8**
GNI				*e**PP	pP	14 30 20.1	-0.3
GNI				*PP	pP	14 30 20.7	+0.3
GNI				pmax	pmax		
	comp=Z,12nm,1.0s						
GNI	**Garni**	**53.30**	**315**	P	**P**	**14 30 08.7**	**-0.7**
	comp=Z,12nm,1.0s,mb4.8						
GNI				*e*pP	pP	14 30 20.1	-0.3
GNI				pP	pP	14 30 20.6	+0.2
TI2	**Plekhanov**	**53.94**	**317**	*e*P	pP	14 30 25.2	+0.1
SVE	**Sverdlovsk**	**54.70**	**339**	*e*P	pP	14 30 27.5	-3.0
ZEI	**Tsey**	**54.94**	**317**	*e*P	pP	14 30 32.7	+0.2
ZEI				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
ARU	**Arti**	**55.16**	**338**	⇑*i*P	**P**	**14 30 22.0**	**-0.9**
ARU				*e*		14 31 19.9	
ARU				*e*		14 32 23.6	
ARU				*e*S	**S**	**14 38 05.8**	**+4.2**
ARU				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.4						
ARU	**Arti**	**55.16**	**338**	*e*P	**P**	**14 30 21.9**	**-1.0**
	comp=Z,34nm,0.9s,mb5.4						
KMBO	**Kilima Mbogo**	**56.07**	**263**	P	**P**	**14 30 31.5**	**+1.5**
	comp=Z,1.5nm,0.7s,mb4.1,baz=53,slow=22,SNR=4.4						
KMBO				pP	pP	14 30 42.3	+1.2
	comp=Z,12nm,1.2s,baz=56,slow=9.8,SNR=9.4						
KMBO	**Kilima Mbogo**	**56.07**	**263**	P	**P**	**14 30 29.9**	**-0.1**
KMBO				*e**PP	pP	14 30 40.5	-0.5
KMBO				*PP	pP	14 30 42.3	+1.3
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KMBO	**Kilima Mbogo**	**56.07**	**263**	P	**P**	**14 30 29.9**	**-0.1**
	comp=Z,4.9nm,0.8s,mb4.6						
KMBO				*e*pP	pP	14 30 40.5	-0.5
KMBO				pP	pP	14 30 42.3	+1.2
KIV	**Kislovodsk**	**56.23**	**318**	*e*P	**P**	**14 30 30.4**	**-0.4**
KIV				*e*	pP	14 30 38.9	-2.9
KIV				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
KIV	**Kislovodsk**	**56.23**	**318**	*e*P	**P**	**14 30 30.4**	**-0.4**
	comp=Z,16nm,0.9s,mb5.1						
KIV				*e*	pP	14 30 38.9	-2.9
PMG	**Port Moresby**	**56.92**	**107**	P	**P**	**14 30 36.4**	**+0.3**
	comp=Z,6.8nm,0.6s,mb4.9,baz=274,slow=4.8,SNR=6.1						
PMG				pP	pP	14 30 48.3	+1.2
	comp=Z,13nm,0.6s,baz=304,slow=4.5,SNR=7.6						
PMG	**Port Moresby**	**56.92**	**107**	*e*P	**P**	**14 30 35.5**	**-0.6**
PMG				*e**PP	pP	14 30 45.7	-1.4
PMG				pmax	pmax		
	comp=Z,13nm,0.7s						
PMG	**Port Moresby**	**56.92**	**107**	*e*P	**P**	**14 30 35.5**	**-0.6**
	comp=Z,13nm,0.7s,mb5.1						
PMG				*e*pP	pP	14 30 45.7	-1.4
MALT	**Malatya**	**57.27**	**311**	*e*P	**P**	**14 30 38.1**	**-0.2**
MALT				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
MALT	**Malatya**	**57.27**	**311**	*e*P	**P**	**14 30 38.1**	**-0.2**
	comp=Z,8.8nm,1.3s,mb4.6						
YSS	**Yuzh-Sakhalins**	**57.48**	**39**	*e*P	pP	14 30 45.0	-5.6
SOKR	**Solikamsk**	**58.11**	**339**	⇑*i*P	pP	14 30 51.3	-3.6
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,270nm,21.0s,MS4.3						
EIL	**Elat**	**58.12**	**300**	pP	pP	14 30 55.6	+0.3
	comp=Z,8.9nm,1.0s,baz=70,slow=3.0,SNR=3.7						
EIL	**Elat**	**58.12**	**300**	*e*P	**P**	**14 30 44.6**	**+0.3**
	comp=Z,20nm,1.2s,mb5.0						
EIL				*e*pP	pP	14 30 54.9	-0.5
CTA	**Charters Tower**	**59.62**	**119**	P	**P**	**14 30 53.4**	**-1.5**
	comp=Z,5.1nm,1.2s,mb4.4,baz=277,slow=5.8,SNR=3.7						
CTA	**Charters Tower**	**59.62**	**119**	P	**P**	**14 30 53.4**	**-1.5**
CTA				pmax	pmax		
	comp=Z,5.0nm,1.2s						
CTAO	**Charters Tower**	**59.62**	**119**	*e*P	**P**	**14 30 53.2**	**-1.7**
CTAO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
CTAO	**Charters Tower**	**59.62**	**119**	*e*P	**P**	**14 30 53.2**	**-1.7**
	comp=Z,2.7nm,0.6s,mb4.5						
YAK	**Yakutsk**	**60.24**	**19**	P	**P**	**14 30 57.0**	**-1.6**
YAK				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
YAK	**Yakutsk**	**60.24**	**19**	P	**P**	**14 30 57.0**	**-1.6**
	comp=Z,8.2nm,0.6s,mb4.9						
BRTR	**Keskin Array B**	**61.24**	**311**	P	**P**	**14 31 04.2**	**-1.5**
	comp=Z,3.0nm,0.9s,mb4.4,baz=121,slow=7.2,SNR=11						
BRTR	**Keskin Array B**	**61.24**	**311**	P	**P**	**14 31 04.2**	**-1.5**
BRTR				pmax	pmax		
	comp=Z,3.0nm,1.0s						
STKA	**Stephens Creek**	**61.26**	**133**	P	**P**	**14 31 05.0**	**-0.8**
	comp=Z,5.0nm,0.7s,mb4.8,baz=298,slow=10,SNR=10						
STKA				pP	pP	14 31 18.6	+1.6
	comp=Z,13nm,1.0s,baz=298,slow=7.6,SNR=5.6						
STKA	**Stephens Creek**	**61.26**	**133**	*e*P	**P**	**14 31 04.7**	**-1.1**
STKA				*e*pP	pP	14 31 15.2	-1.8
STKA				*e*sP	sP	14 31 18.8	-2.5
MBAR	**Mbarara**	**62.40**	**265**	P	**P**	**14 31 13.8**	**+0.1**
MBAR				*e**PP	pP	14 31 24.5	-0.4
MBAR				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.7						
MBAR	**Mbarara**	**62.40**	**265**	P	**P**	**14 31 13.8**	**+0.1**
	comp=Z,8.4nm,1.2s,mb4.8						
MBAR				*e*pP	pP	14 31 24.5	-0.4
ISP	**Isparta**	**63.22**	**308**	*i* P	**P**	**14 31 17.6**	**-1.3**
OBN	**Obninsk**	**64.47**	**328**	⇓*e*P	**P**	**14 31 25.3**	**-1.4**
OBN				*e*S	**S**	**14 40 01.7**	**+0.3**
OBN				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.6						
AKASG	**Malin Array Be**	**67.13**	**322**	P	**P**	**14 31 42.4**	**-1.4**
	comp=Z,0.4nm,0.5s,mb3.7,baz=84,slow=4.5,SNR=5.2						
TIXI	**Tiksi**	**67.30**	**12**	*e*P	**P**	**14 31 43.8**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,112nm,18.0s,MS4.1						
IDI	**Anoyia**	**67.31**	**305**	P	**P**	**14 31 45.3**	**+0.1**
	comp=Z,7.2nm,0.8s,mb4.7,baz=103,slow=14,SNR=4.3						
IDI				pP	pP	14 31 58.3	+1.8
	comp=Z,13nm,0.7s,baz=59,slow=9.7,SNR=3.5						
LSZ	**Lusaka**	**68.03**	**250**	*e*P	**P**	**14 31 50.3**	**+0.2**
LSZ				*e**PP	pP	14 32 00.4	-0.9
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
LSZ	**Lusaka**	**68.03**	**250**	*e*P	**P**	**14 31 50.3**	**+0.3**
	comp=Z,2.7nm,0.7s,mb4.4						
LSZ				*e*pP	pP	14 32 00.4	-0.9
MLR	**Muntele Rosu**	**68.05**	**316**	P	**P**	**14 31 49.6**	**-0.1**
	comp=Z,12nm,1.2s,mb4.8,baz=215,slow=16,SNR=4.5						
MLR				pP	pP	14 32 01.9	+0.9
	comp=Z,14nm,1.0s,baz=71,slow=7.1,SNR=8.0						
MLR	**Muntele Rosu**	**68.05**	**316**	P	**P**	**14 31 49.6**	**-0.1**
MLR				*PP	pP	14 32 01.9	+0.9
MLR				pmax	pmax		
	comp=Z,12nm,1.3s						
MLR				pmax	pmax		
	comp=Z,14nm,1.0s						
APA	**Apatity**	**71.17**	**340**	⇓*i*P	pP	14 32 19.6	-0.1
APA				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
FINES	**FINESS Array B**	**71.88**	**332**	P	**P**	**14 32 11.8**	**-0.9**
	comp=Z,2.5nm,0.7s,mb4.3,baz=104,slow=7.9,SNR=6.8						
FINES				pP	pP	14 32 23.8	-0.2
	comp=Z,13nm,0.8s,baz=104,slow=7.9,SNR=11						
FINES	**FINESS Array B**	**71.88**	**332**	P	**P**	**14 32 11.8**	**-0.9**
FINES				*PP	pP	14 32 23.8	-0.2
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES				pmax	pmax		
	comp=Z,13nm,0.8s						
KAF	**Kangasniemi**	**71.97**	**333**	*e*p	pP	14 32 23.8	-0.7
	comp=Z,6.0nm,0.6s						
LBTB	**Lobatse**	**73.13**	**241**	*e*P	**P**	**14 32 21.6**	**+0.7**
LBTB				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
LBTB	**Lobatse**	**73.13**	**241**	*e*P	**P**	**14 32 21.6**	**+0.7**
	comp=Z,7.9nm,1.0s,mb4.6						
OKC	**Ostrava-Krasne**	**73.93**	**319**	*e*P	pP	14 32 36.5	+0.2
OKC	**Ostrava-Krasne**	**73.93**	**319**	*e*pP	pP	14 32 36.5	+0.2
MORC	**Moravsky Berou**	**74.31**	**319**	P	**P**	**14 32 27.2**	**0.0**
MORC				*e**PP	pP	14 32 38.6	+0.1
MORC				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
MORC	**Moravsky Berou**	**74.31**	**319**	P	**P**	**14 32 27.2**	**0.0**
	comp=Z,11nm,1.1s,mb4.7						
MORC				*e*pP	pP	14 32 38.5	0.0
BOSA	**Boshof**	**74.53**	**237**	*e*P	**P**	**14 32 29.4**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
BOSA	**Boshof**	**74.53**	**237**	*e*P	**P**	**14 32 29.4**	**+0.5**
	comp=Z,12nm,1.0s,mb4.8						
ARCES	**ARCESS Array B**	**74.60**	**340**	P	**P**	**14 32 28.5**	**+0.1**
	comp=Z,0.9nm,0.6s,mb3.9,baz=79,slow=6.2,SNR=6.1						
ARCES				pP	pP	14 32 40.4	+0.7
	comp=Z,5.4nm,0.8s,baz=90,slow=2.4,SNR=6.6						
ARCES	**ARCESS Array B**	**74.60**	**340**	P	**P**	**14 32 28.5**	**0.0**
ARCES				*PP	pP	14 32 40.4	+0.6
ARCES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
DPC	**Dobruska-Polom**	**75.15**	**320**	*e*P	**P**	**14 32 31.7**	**-0.3**
DPC				*e*pP	pP	14 32 43.8	+0.4
CASY	**Casey**	**75.31**	**173**	P	**P**	**14 32 33.5**	**+0.9**
	comp=Z,17nm,1.0s,mb4.9						
UPC	**Upice**	**75.36**	**320**	*e*pP	pP	14 32 45.2	+0.6
UPC				*e*x	x	14 32 58.5	
PRU	**Pruhonice**	**76.27**	**319**	*e*P	pP	14 32 50.1	+0.4
PRU	**Pruhonice**	**76.27**	**319**	*e*pP	pP	14 32 50.1	+0.4
BILL	**Bilibino**	**76.41**	**22**	P	**P**	**14 32 39.1**	**+0.3**
BILL				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
BILL	**Bilibino**	**76.41**	**22**	P	**P**	**14 32 39.1**	**+0.3**
	comp=Z,2.4nm,0.7s,mb4.2						
BRG	**Berggiesshubel**	**76.70**	**320**	*e*P	pP	14 32 53.1	+0.9
GERES	**GERESS Array B**	**76.75**	**318**	P	**P**	**14 32 41.4**	**+0.2**
	comp=Z,4.8nm,1.1s,mb4.3,baz=90,slow=5.3,SNR=13						
GERES				pP	pP	14 32 53.7	+1.3
	comp=Z,6.9nm,0.9s,baz=90,slow=4.0,SNR=16						
GERES	**GERESS Array B**	**76.75**	**318**	P	**P**	**14 32 41.4**	**+0.2**
GERES				*PP	pP	14 32 53.7	+1.2
GERES				pmax	pmax		
	comp=Z,5.0nm,1.1s						
GERES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KHC	**Kasperske Hory**	**76.84**	**319**	*e*P	pP	14 32 53.8	+0.8
KHC	**Kasperske Hory**	**76.84**	**319**	*e*pP	pP	14 32 53.8	+0.8
CLL	**Collm**	**77.32**	**321**	*e*P	pP	14 32 55.0	-0.7
CLL	**Collm**	**77.32**	**321**	*e**PP	pP	14 32 55.0	-0.7
HFS	**Hagfors**	**77.58**	**330**	P	**P**	**14 32 45.0**	**-0.5**
	comp=Z,1.6nm,0.7s,mb4.1,baz=90,slow=7.2,SNR=4.8						
HFS				pP	pP	14 32 57.8	+0.9
	comp=Z,3.6nm,0.6s,baz=112,slow=8.0,SNR=4.4						
HFS	**Hagfors**	**77.58**	**330**	P	**P**	**14 32 45.0**	**-0.6**
HFS				*PP	pP	14 32 57.8	+0.9
HFS				pmax	pmax		
	comp=Z,2.0nm,0.7s						
HFS				pmax	pmax		
	comp=Z,4.0nm,0.6s						
NB2	**NORSAR Subarra**	**78.87**	**331**	P	**P**	**14 32 51.6**	**-1.0**
	comp=Z,1.0nm,0.6s,mb3.9,baz=96,slow=5.3						
NB2	**NORSAR Subarra**	**78.87**	**331**	P	**P**	**14 32 51.6**	**-1.0**
NB2				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
NOA	**NORSAR Array B**	**78.87**	**331**	P	**P**	**14 32 52.0**	**-0.7**
	comp=Z,1.5nm,0.7s,mb4.0,baz=93,slow=5.6,SNR=3.9						
NOA				pP	pP	14 33 04.2	+0.2
	comp=Z,2.7nm,0.8s,baz=95,slow=5.4,SNR=4.7						
NOA	**NORSAR Array B**	**78.87**	**331**	P	**P**	**14 32 52.0**	**-0.6**
NOA				*PP	pP	14 33 04.2	+0.2
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
NOA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
LPL	**La Plagne**	**81.50**	**315**	*e*P	pP	14 33 17.6	-0.8
	comp=Z,24nm,0.8s						
SYO	**Syowa Base**	**85.20**	**197**	⇑PcP	PcP	14 33 34.1	+5.3
IMA	**Indian Mountai**	**91.95**	**22**	*e*P	**P**	**14 33 59.5**	**+2.0**
IMA				*e*	pP	14 34 11.4	+2.3
IMA				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.6						
IMA	**Indian Mountai**	**91.95**	**22**	*e*P	**P**	**14 33 59.5**	**+2.0**
	comp=Z,39nm,1.2s,mb5.6						
IMA				*e*	pP	14 34 11.4	+2.3
VNDA	**Vanda**	**93.42**	**168**	P	**P**	**14 34 05.6**	**+1.6**
	comp=Z,2.0nm,0.9s,mb4.5,baz=318,slow=7.9,SNR=6.2						
VNDA	**Vanda**	**93.42**	**168**	P	**P**	**14 34 05.6**	**+1.6**
VNDA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
VNDA	**Vanda**	**93.42**	**168**	*e*P	**P**	**14 34 05.6**	**+1.6**
	comp=Z,2.6nm,0.7s,mb4.8						
ILAR	**Eielson Array**	**95.07**	**22**	P	**P**	**14 34 12.0**	**+0.3**
	comp=Z,0.6nm,0.8s,mb4.1,baz=283,slow=4.4,SNR=8.8						
ILAR				pP	pP	14 34 25.9	+2.5
	comp=Z,2.3nm,1.1s,baz=285,slow=4.3,SNR=8.0						
ILAR	**Eielson Array**	**95.07**	**22**	P	**P**	**14 34 12.0**	**+0.3**
ILAR				*PP	pP	14 34 25.9	+2.5
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
DBIC	**Dimbokro**	**96.54**	**278**	pP	pP	14 34 32.8	+1.5
	comp=Z,2.4nm,0.8s,baz=85,slow=3.6,SNR=3.7						
INK	**Inuvik**	**97.17**	**16**	P	**P**	**14 34 22.0**	**+0.8**
	comp=Z,4.9nm,1.3s,mb4.8,baz=130,slow=28,SNR=4.7						
INK				pP	pP	14 34 33.6	+0.7
	comp=Z,3.5nm,0.9s,baz=336,slow=3.6,SNR=9.3						
INK	**Inuvik**	**97.17**	**16**	P	**P**	**14 34 22.0**	**+0.8**
INK				*PP	pP	14 34 33.6	+0.7
INK				pmax	pmax		
	comp=Z,5.0nm,1.3s						
INK				pmax	pmax		
	comp=Z,4.0nm,0.9s						
DIV	**Divide**	**97.40**	**25**	P	**P**	**14 34 24.7**	**+2.3**
	comp=Z,19nm,0.7s,mb5.6						
DIV				*e*		14 34 32.2	
ULM	**Lac du Bonnet**	**121.43**	**6**	pPKP		14 39 56.9	
	comp=Z,1.3nm,0.7s,baz=26,slow=8.2,SNR=2.2						
NVAR	**Mina Array Bea**	**125.44**	**30**	pPKP		14 40 04.3	
	comp=Z,1.1nm,0.6s,baz=291,slow=3.0,SNR=5.1						
PDAR	**Pinedale Array**	**125.46**	**20**	PKP	PKPdf	14 39 52.2	+2.7
	comp=Z,0.7nm,0.5s,baz=150,slow=1.1,SNR=6.9						
PDAR				pPKP		14 40 03.9	
	comp=Z,0.9nm,0.6s,baz=68,slow=1.3,SNR=7.1						
ANMO	**Albuquerque**	**133.51**	**22**	PKP	PKPdf	14 40 08.3	+3.3
	comp=Z,0.5nm,0.4s,baz=29,slow=8.1,SNR=3.7						
TXAR	**Lajitas Array**	**139.58**	**22**	PKP	PKPdf	14 40 18.8	+2.5
	comp=Z,0.3nm,0.5s,baz=358,slow=1.2,SNR=5.0						
TXAR				pPKP		14 40 31.5	
	comp=Z,0.5nm,0.5s,baz=203,slow=0.3,SNR=5.9						

IDC ***27*** *14:29:10.6±0.7, 12.24N×92.53E, h22^{km}±3^{km}, mb3.9/12, mb1 4.0/13, mb1mx3.9/20, ML3.9/1, Error ellipse: s-maj=29.0km s-min=13.6km az=52.0*

NEIC ***27*** *14:29:10.6±0.6, 12.23N×92.46E, mb4.5/4, Error ellipse: s-maj=13.7km s-min=11.2km az=196.0*

ISC 27 14:29:08.8±0.8**, 12.3N**±0.1×**92.55E**±0.10**, h23**^{km}**, h23**^{km}±.9^{km}**:pP-P, n24,** σ**0^{s}73**/22**, mb4.0**/14**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**8.71**	**44**	Pn	**P**	**14 31 16.9**	**+0.4**
	5.3nm,0.6s						
CMAR	**Chiang Mai Arr**	**8.71**	**44**	Pn	**P**	**14 31 15.8**	**-0.7**
	0.3nm,0.3s,baz=236,slow=15,SNR=8.1						
AAK	**Ala-Archa**	**34.08**	**336**	*e*P	**P**	**14 35 53.2**	**-0.4**
	1.1nm,0.6s,mb4.0						
SONM	**Songino Array**	**37.31**	**15**	P	**P**	**14 36 22.5**	**+1.5**
	1.2nm,0.6s,mb3.9,baz=202,slow=6.7,SNR=3.9						
SONM				pP	pP	14 36 28.5	+0.6
	2.3nm,0.8s,baz=205,slow=7.1,SNR=9.8						
ZAL	**Zalesovo**	**42.02**	**353**	P	**P**	**14 37 00.0**	**0.0**
	1.7nm,1.0s,mb3.6,baz=307,slow=9.5,SNR=5.2						
ZAL				pP	pP	14 37 07.4	+0.4
	1.8nm,0.8s,baz=309,slow=7.9,SNR=4.6						
BVAR	**Borovoye Array**	**44.35**	**341**	P	**P**	**14 37 19.4**	**+0.3**
	5.0nm,1.2s,mb4.1,baz=153,slow=9.9,SNR=8.0						
CHKZ	**Chkalovo**	**44.84**	**342**	*e*P	**P**	**14 37 22.9**	**0.0**
	7.1nm,1.0s,mb4.5						
CHKZ				*e*pP	pP	14 37 29.8	-0.1
GNI	**Garni**	**50.30**	**312**	P	**P**	**14 38 07.7**	**+2.0**
	4.0nm,0.5s,mb4.7,baz=338,slow=0.9,SNR=5.2						
GNI	**Garni**	**50.30**	**312**	*e*P	**P**	**14 38 06.4**	**+0.6**
	11nm,0.9s,mb4.9						

WRA	Warramunga Arr	52.12	127	P	P	14 38 19.8	0.0
	1.2nm,0.9s,mb3.8,baz=300,slow=10.0,SNR=5.5						
WRA				pP	pP	14 38 26.2	-0.8
	2.3nm,0.8s,baz=305,slow=8.2,SNR=7.5						
ASAR	Alice Springs	53.95	131	P	P	14 38 33.6	+0.3
	0.8nm,0.7s,mb3.8,baz=306,slow=6.6,SNR=12						
ASAR				pP	pP	14 38 39.7	-0.7
	1.6nm,0.6s,baz=306,slow=6.8,SNR=8.7						
ASAR	Alice Springs	53.95	131	P	P	14 38 33.6	+0.3
ASAR				pP	pP	14 38 39.7	-0.7
BRTR	Keskin Array B	58.42	309	P	P	14 39 04.1	-1.1
	1.6nm,1.0s,mb4.0,baz=135,slow=7.0,SNR=4.7						
BRTR	Keskin Array B	58.42	309	P	P	14 39 04.1	-1.1
FINES	FINESS Array B	68.12	332	P	P	14 40 08.2	-0.7
	1.8nm,0.8s,mb4.2,baz=117,slow=8.5,SNR=3.8						
FINES				pP	pP	14 40 15.3	-0.8
	2.9nm,1.0s,baz=183,slow=32,SNR=1.6						
ARCES	ARCESS Array B	70.63	340	P	P	14 40 23.9	-0.2
	1.1nm,0.6s,mb4.0,baz=104,slow=5.0,SNR=9.5						
ARCES				pP	pP	14 40 31.9	+0.5
	2.5nm,0.6s,baz=85,slow=6.8,SNR=3.8						
GERES	GERESS Array B	73.54	317	P	P	14 40 42.2	+0.5
	1.3nm,0.8s,mb3.9,baz=104,slow=4.0,SNR=7.4						
GERES				pP	pP	14 40 49.8	+0.8
	0.9nm,0.8s,baz=90,slow=5.3,SNR=4.0						
GERES	GERESS Array B	73.54	317	P	P	14 40 42.2	+0.5
GERES				pP	pP	14 40 49.8	+0.7
CLL	Collm	74.00	320	P	P	14 40 45.0	+0.6
CLL				*e**PP	pP	14 40 52.0	+0.3
NB2	NORSAR Subarra	75.16	330	P	P	14 40 49.7	-1.2
	5.5nm,1.0s,mb4.4,baz=92,slow=5.6						
NOA	NORSAR Array B	75.16	330	P	P	14 40 50.6	-0.3
	1.3nm,0.8s,mb3.9,baz=85,slow=6.2,SNR=3.1						
NOA				pP	pP	14 40 58.0	-0.2
	1.7nm,0.7s,baz=92,slow=5.7,SNR=3.4						
ILAR	Eielson Array	91.28	22	P	P	14 42 12.4	-0.9
	0.4nm,1.0s,mb3.7,baz=293,slow=4.9,SNR=5.1						
ILAR				pP	pP	14 42 21.7	+0.9
	0.4nm,0.7s,baz=313,slow=5.0,SNR=4.0						
INK	Inuvik	93.22	16	pP	pP	14 42 30.5	+0.8
	0.3nm,0.5s,baz=112,slow=13,SNR=2.0						
YKA	Yellowknife Ar	102.53	13	P	Pdif	14 43 03.8	-0.7
	0.2nm,0.6s,baz=328,slow=6.5,SNR=5.9						

BJI **27** *14:30:23.6, 7.60N×93.51E, h24^{km}, mB5.3, mb4.8, Ms5.0, Msz4.7*

MOS **27** *14:30:31.8±1.1, 8.58N×93.85E, h33^{km}, mb5.2/53, Error ellipse: s-maj=9.8km s-min=5.5km az=115.4*

SYO **27** *14:30:31.0, 8.55N×93.86E, h15^{km}, MB5.2*

IDC **27** *14:30:32.4±0.5, 8.56N×93.93E, h24^{km}±2^{km}, mb4.6/29, mb1 4.7/30, mb1mx4.7/30, ML5.0/1, MS3.9/1, Ms1 4.2/1, ms1mx3.1/26, Error ellipse: s-maj=18.8km s-min=8.9km az=50.0*

NEIC **27** *14:30:32.3±0.2, 8.55N×93.87E, mb5.1/38, Error ellipse: s-maj=6.2km s-min=4.6km az=52.0*

HRVD **27** *14:30:32.3±0.4, 8.63N×93.90E, h12^{km}, MW5.2/45, Centroid moment Tensor Solution. LP body waves: s11,c15;Mantle waves: s45,c69; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.82±.26; M$_{\theta\theta}$-1.48±.22; M$_{\phi\phi}$4.30±.18; M$_{r\theta}$5.26±.83; M$_{\theta\phi}$1.21±.17; M$_{\phi r}$-3.03±.56; Best double couple: M$_0$6.87×10^{16} NP1:ϕ_s215°,δ34°,λ-23°. NP2:ϕ_s325°,δ77°,λ-122°. Principal axes: T 5.53, Plg25°, Azm79°; N 2.68, Plg31°, Azm333°; P -8.21, Plg48°, Azm201°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 14:30:30.5±0.2, **8.49N**±0.03×**93.86E**±0.03, **h25**^{km}, **h25**^{km}±.8^{km}**:pP-P, n279,** σ1^{s}**18**/259, **mb4.9**/83, **MS4.6**/9, **8C-5D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	6.83	101	P	Pn	14 32 12.0	+0.2
	596nm,1.0s						
NNT	Nongplab	7.07	54	P	Sn	14 33 39.0	+3.5
NST	Nakhon Sawan	9.41	40	P	P	14 32 49.7	+2.0
CM31	Chiang Mai Arr	11.07	26	Pn	P	14 33 09.7	-0.9
	34nm,0.6s						
CMAR	Chiang Mai Arr	11.07	26	Pn	P	14 33 11.9	+1.4
	3.2nm,0.3s,baz=213,slow=15,SNR=52						
CMAR				LR	LR	14 37 20.6	
	comp=Z,697nm,20.0s,baz=215,slow=37						
CMAR	Chiang Mai Arr	11.07	26	P	P	14 33 12.0	+1.4
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,697nm,20.0s						
KKTK	Khon Kaen	11.72	47	P	P	14 33 16.0	-3.4
	comp=Z,309nm,0.8s						
NANT	Nan	12.21	32	⇑P	P	14 33 29.0	+3.0
	comp=Z,81nm,1.0s						
CHRT	Chiangrai	12.68	26	⇓P	P	14 33 36.5	+4.2
	comp=Z,250nm,1.2s						
PALK	Pallekele	13.09	266	*e*Pn	P	14 33 36.2	-1.5
	comp=Z,23nm,0.9s						
VIS	Vishakhapatnam	13.75	313	*e*P	P	14 33 43.3	-3.2
VIS				*e*		14 34 05.2	
	comp=Z,251nm,1.2s						
VIS				*e*S	S	14 35 59.6	-20
MDRS	Chennai	14.12	290	*e*P	P	14 33 50.7	-0.7
MDRS				*e*		14 33 53.9	
	comp=Z,597nm,1.5s						
IMP	Imphal	16.20	0	*e*P	P	14 34 18.3	0.0
KOD	Kodaikanal	16.26	277	*e*P	P	14 34 22.8	+3.6
KOD				*e*		14 37 06.6	
KOD				*i*		14 39 10.0	
TRD	Trivandrum	16.71	271	*e*P	P	14 34 28.6	+3.7
TRD				*e*		14 34 38.3	
	comp=Z,82nm,2.0s						
BOK	Bokaro	17.02	334	*e*P	P	14 34 30.1	+1.4
BOK				*e*		14 34 37.1	
	comp=Z,60nm,1.2s						
BOK				*e*	S	14 37 36.7	+0.9
SHL	Shillong	17.08	354	*e*P	P	14 34 27.5	-2.0
SHL				*e*		14 34 34.1	
	comp=N,49nm,1.2s						
HYB	Hyderabad	17.34	302	*e*P	P	14 34 32.0	-0.7
HYB	Hyderabad	17.34	302	*i* P	P	14 34 32.0	-0.7
HYB				*e*S	S	14 37 44.0	+0.9
BLSP	Bilaspur	17.64	322	*e*P	P	14 34 37.0	+0.6
BLSP				*e*		14 34 42.4	
	comp=Z,168nm,1.7s						
BLSP				*e*S	S	14 37 47.1	-2.7
KMI	Kunming	18.58	26	P	P	14 34 52.5	+4.4
KMI				S	S	14 38 19.5	+8.3
KMI				AMB	AMB		
	comp=Z,47nm,1.1s						
KMI				AMB	AMB		
	comp=Z,1µm,6.3s						
KMI				LR	LR		
	comp=N,2µm,11.6s						
KMI				LR	LR		
	comp=E,2µm,10.0s						
KMI				LR	LR		
	comp=Z,2µm,11.8s						
QIZ	Qiongzhong	18.71	54	P	P	14 34 51.5	+1.8
QIZ				LR	LR		
	comp=N,9µm,13.1s						
QIZ				LR	LR		
	comp=Z,4µm,10.9s						
AKL	Akola	20.29	309	*e*P	P	14 35 06.9	-0.6
AKL				*e*		14 35 15.6	
	comp=E,61nm,0.8s						
AKL				*e*S	S	14 38 52.2	+3.7
PKI	Pulchoki	20.59	338	*e*P	P	14 35 10.4	-0.1
	comp=E,304nm,1.2s						
GUN	Gumba	20.73	340	*e*P	P	14 35 11.5	-0.4
	comp=E,404nm,1.1s						
DMN	Daman	20.73	338	*e*P	P	14 35 10.7	-1.3
COCO	West Island	20.76	172	*e*P	P	14 35 13.0	+0.6
	comp=E,224nm,1.1s						
GOA	Goa	20.78	291	*e*		14 35 23.5	
KKN	Kakani	20.83	338	*e*P	P	14 35 12.5	-0.5
	comp=E,113nm,0.6s						
LSA	Lhasa	21.25	353	*e*P	P	14 35 16.8	-0.4
LSA				pmax	pmax		
	comp=Z,83nm,1.2s,mb4.9						
LSA	Lhasa	21.25	353	*e*P	P	14 35 16.8	-0.4
	comp=Z,83nm,1.2s,mb4.9						
GKN	Gorkha	21.27	337	*e*P	P	14 35 17.3	-0.1
	comp=Z,253nm,0.8s,mb5.6						
KOLN	Koldanda	21.48	334	*e*P	P	14 35 19.9	+0.3
	comp=Z,104nm,0.7s,mb5.3						
BHPL	Bhopal	21.52	315	*e*P	P	14 35 21.8	+1.7
BHPL				*e*		14 35 37.8	
	comp=Z,94nm,1.0s						
GYA	Guiyang	21.61	33	⇑*i*P	P	14 35 24.3	+3.4
GYA				AP		14 35 31.8	
GYA				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.7						
GYA				LR	LR		
	comp=N,1µm,16.8s,MS4.5						
GYA				LR	LR		
	comp=E,1µm,15.2s,MS4.5						
GYA				LR	LR		
	comp=Z,2µm,15.4s,MS4.7						
POO	Poona	21.84	299	*e*P	P	14 35 25.7	+2.5
POO				*e*		14 35 37.9	
	comp=Z,76nm,1.0s						
GZH	Guangzhou	23.66	50	P	P	14 35 39.5	-1.7
GZH				LR	LR		
	comp=N,2µm,12.3s						
GZH				LR	LR		
	comp=E,1µm,19.2s						
GZH				LR	LR		
	comp=Z,1µm,16.5s,MS4.5						
NDI	New Delhi	25.47	324	*e*P	P	14 35 58.9	+0.4
NDI				*e*		14 36 13.2	
	comp=E,62nm,1.2s						
NDI				*e*S	S	14 40 20.9	-0.7
ENH	Enshi	26.14	32	*e*P	P	14 36 05.3	+0.5
	comp=E,14nm,0.8s,mb4.5						
DDI	Dehra Dun	26.27	328	*e*P	P	14 36 06.7	+0.8
SDNR	Sundarnagar	27.77	328	*e*P	P	14 36 20.9	+1.3
LZH	Lanzhou	28.94	17	*e*P	P	14 36 31.5	+1.4
LZH				SCP		14 43 18.5	
LZH				AMB	AMB		
	comp=Z,29nm,1.6s,mb4.8						
LZH				LR	LR		
	comp=E,1µm,10.1s						
LZH				LR	LR		
	comp=Z,2µm,12.1s,MS4.9						
GTA	Gaotai	31.24	9	⇑P	P	14 36 51.3	+0.8
GTA				AP	pP	14 37 03.0	+5.1
GTA				AMB	AMB		
	comp=Z,18nm,1.4s,mb4.7						
GTA				AMB	AMB		
	comp=Z,477nm,6.1s						
GTA				LR	LR		
	comp=N,812nm,11.8s						
GTA				LR	LR		
	comp=E,990nm,9.1s						
GTA				LR	LR		
	comp=Z,706nm,11.8s,MS4.6						
KSH	Kashi	34.80	335	P	P	14 37 21.0	-0.4
KSH				*e*PP	PP	14 38 38.3	-0.7
KSH				S	S	14 42 48.5	-1.0
KSH				SCS	ScS	14 47 41.0	+1.9
KSH				AMB	AMB		
	comp=Z,140nm,4.0s						
WMQ	Urumqi	35.60	352	⇓P	P	14 37 29.5	+1.3
WMQ				AP	pP	14 37 36.8	+1.2
WMQ				PP	PP	14 38 49.0	+0.2
WMQ				S	S	14 43 03.5	+1.5
WMQ				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,573nm,6.9s						
WMQ				LR	LR		
	comp=N,603nm,28.4s,MS4.2						
WMQ				LR	LR		
	comp=E,110nm,25.7s,MS4.2						
WMQ				LR	LR		
	comp=Z,194nm,25.8s,MS3.8						
HHC	Hu-ho-hao-te	35.86	23	*e*P	P	14 37 33.3	+2.9
HHC				AP	pP	14 37 40.8	+3.0
HHC				PP	PP	14 38 54.3	+2.3
HHC				S	S	14 43 10.3	+4.3
HHC				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,242nm,5.7s						
HHC				LR	LR		
	comp=N,520nm,12.4s						
HHC				LR	LR		
	comp=E,688nm,8.5s						
HHC				LR	LR		
	comp=Z,920nm,10.8s,MS4.8						
ULHL	Ulahol	37.03	338	P	P	14 37 40.5	+0.2
	SNR=8.3						
KZA	Kyzart	37.26	337	P	P	14 37 43.5	+1.4
	SNR=9.7						
UCH	Uchtor	37.68	336	P	P	14 37 46.6	+0.9
	SNR=14						
TKM2	Tokmak 2	37.85	338	P	P	14 37 48.2	+1.0
	SNR=8.3						
KBK	Karagaybulak	37.87	337	P	P	14 37 48.8	+1.5
	SNR=22						
AML	Almayashu	37.93	335	P	P	14 37 48.9	+1.1
	SNR=37						
AAK	Ala-Archa	38.03	337	P	P	14 37 50.1	+1.5
	SNR=17						
AAK	Ala-Archa	38.03	337	*i* P	P	14 37 49.0	+0.4
AAK				pmax	pmax		
	comp=Z,33nm,1.4s,mb4.9						
AAK	Ala-Archa	38.03	337	*e*P	P	14 37 48.6	0.0
	comp=Z,25nm,1.1s,mb4.8						
FRU	Bishkek	38.15	337	*e*P	P	14 37 50.0	+0.3
CHMS	Chumysh	38.24	337	P	P	14 37 51.7	+1.3
	SNR=12						
EKS2	Erkin-Say	38.34	336	P	P	14 37 52.3	+1.1
	SNR=17						
USP	Ospenovka	38.56	337	P	P	14 37 53.9	+0.8
	SNR=24						
MBWA	Marble Bar	38.91	140	*e*P	P	14 37 56.0	-0.3
	comp=Z,32nm,1.2s,mb4.9						
MKAR	Makanchi Array	39.42	347	*i* P	P	14 38 00.6	+0.3
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SONM	Songino Array	40.62	13	P	P	14 38 10.5	+0.4
	comp=Z,6.0nm,1.1s,mb4.1,baz=202,slow=6.7,SNR=14						
SONM				PcP	PcP	14 40 12.4	0.0
	comp=Z,3.4nm,0.7s,baz=209,slow=3.3,SNR=5.4						
SONM				ScP		14 43 59.6	
	comp=Z,2.5nm,1.0s,baz=207,slow=2.8,SNR=6.3						
ULN	Ulaanbaatar	40.80	14	*e*P	P	14 38 09.6	-2.0
ULN				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
ULN	Ulaanbaatar	40.80	14	*e*P	P	14 38 09.6	-2.0
	comp=Z,2.1nm,0.5s,mb4.0						
ZAK	Zakamensk	42.48	9	*e*P	P	14 38 26.3	+0.9
TLY	Talaya	43.80	9	*i* P	P	14 38 33.0	-3.1
TLY				pmax	pmax		
	comp=Z,11nm,1.6s,mb4.3						
ZAL	Zalesovo	45.90	353	P	P	14 38 53.1	+0.3
	comp=Z,17nm,0.8s,mb5.0,baz=297,slow=7.6,SNR=81						
ZAL	Zalesovo	45.90	353	P	P	14 38 53.2	+0.4
ZAL				pmax	pmax		
	comp=Z,17nm,0.8s						
HIA	Hailar	46.07	23	*e*P	P	14 38 53.2	-1.0
HIA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HIA	Hailar	46.07	23	*e*P	P	14 38 53.2	-1.0
	comp=Z,10nm,0.8s,mb4.8						
NWAO	Narrogin (SRO)	46.82	153	P	P	14 39 00.7	+0.3
	comp=Z,103nm,0.8s,mb5.8,baz=319,slow=9.9,SNR=20						
NWAO				pP	pP	14 39 08.5	+0.6
	comp=Z,316nm,1.1s,baz=304,slow=9.3,SNR=22						
NWAO	Narrogin (SRO)	46.82	153	*e*P	P	14 39 00.6	+0.2
NWAO				*e*	pP	14 39 08.4	+0.5
NWAO				pmax	pmax		
	comp=Z,359nm,1.1s						
NWAO	Narrogin (SRO)	46.82	153	*e*P	P	14 39 00.6	+0.2
	comp=Z,359nm,1.1s,mb6.2						
NWAO				*e*	pP	14 39 08.4	+0.5
NVS	Novosibirsk	46.99	352	*i* P	P	14 39 00.1	-1.3
NVS				*e*		14 40 58.1	
NVS				*e*		14 41 41.7	
NVS				*e*S	S	14 45 47.4	-3.2
NVS				pmax	pmax		
	comp=N,26nm,1.0s						
NVS				pmax	pmax		
	comp=E,15nm,1.0s						
NVS				pmax	pmax		
	comp=Z,62nm,1.0s,mb5.5						
NVS				smax			
	comp=N,24nm,2.0s						
NVS				smax			
	comp=E,71nm,2.0s						
MDJ	Mudanjiang	47.46	34	P	P	14 39 06.0	+0.7
MDJ				PCP	PcP	14 40 36.0	+0.2
MDJ				PP	PP	14 40 57.3	+1.3
MDJ				PCS		14 44 31.5	
MDJ				AMB	AMB		
	comp=Z,6.0nm,2.2s,mb4.1						
MDJ				AMB	AMB		
	comp=Z,67nm,4.4s						
MDJ				LR	LR		
	comp=N,964nm,15.8s,MS5.0						
MDJ				LR	LR		
	comp=E,792nm,14.3s,MS5.0						
MDJ				LR	LR		
	comp=Z,527nm,13.9s,MS4.7						
RDF	Al-Radifah	47.96	301	*e*P	P	14 39 10.3	+0.8
RDF				AMb	AMB	14 39 12.2	
	comp=Z,77nm,1.0s,mb5.7						
UMR	Umm Al-Rimmam	47.99	302	*e*P	P	14 39 09.8	+0.1
UMR				AMb	AMB	14 39 17.3	
	comp=Z,48nm,0.6s,mb5.7						
BVA0	Borovoye Array	48.31	341	P	P	14 39 11.1	-0.7
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
BVAR	Borovoye Array	48.31	341	P	P	14 39 10.7	-1.1
	comp=Z,8.2nm,1.1s,mb4.7,baz=143,slow=7.4,SNR=16						
BVAR				pP	pP	14 39 19.8	+0.4
	comp=Z,10nm,1.0s,baz=147,slow=9.2,SNR=12						
BVAR				ScP		14 44 31.1	
	comp=Z,2.1nm,1.0s,baz=146,slow=5.2,SNR=4.0						
BRVK	Borovoye	48.38	341	*e*P	P	14 39 11.0	-1.3
BRVK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
BRVK	Borovoye	48.38	341	*e*P	P	14 39 11.0	-1.3
	comp=Z,6.8nm,1.0s,mb4.6						
RST	Umm Al-Ruwaisa	48.58	302	*e*P	P	14 39 14.4	+0.2
RST				AMb	AMB	14 39 16.6	
	comp=Z,69nm,1.0s,mb5.6						
CHKZ	Chkalovo	48.80	342	*i* P	P	14 39 15.2	-0.4
CHKZ				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
CHKZ	Chkalovo	48.80	342	*e*P	P	14 39 15.0	-0.5
	comp=Z,18nm,0.9s,mb5.1						
WRA	Warramunga Arr	48.85	126	P	P	14 39 15.1	-1.3
	comp=Z,7.9nm,0.6s,mb4.9,baz=304,slow=8.6,SNR=32						
WRA				pP	pP	14 39 23.2	-0.8
	comp=Z,23nm,0.9s,baz=306,slow=8.5,SNR=17						
WRA				PcP	PcP	14 40 40.6	-0.5
	comp=Z,4.2nm,0.7s,baz=312,slow=2.7,SNR=5.8						
WRA	Warramunga Arr	48.85	126	P	P	14 39 15.1	-1.3
WRA				*PP	pP	14 39 23.2	-0.7
WRA						14 40 40.6	
WRA				pmax	pmax		
	comp=Z,8.0nm,0.6s						
WRA				pmax	pmax		
	comp=Z,23nm,1.0s						
WRA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WRAB	Tennant Creek	48.85	126	*e*P	P	14 39 15.3	-1.1
WRAB				*e*	pP	14 39 23.3	-0.7
WRAB				pmax	pmax		
	comp=Z,76nm,1.4s,mb5.5						
WRAB	Tennant Creek	48.85	126	*e*P	P	14 39 15.3	-1.1
	comp=Z,76nm,1.4s,mb5.5						
WRAB				*e*	pP	14 39 23.3	-0.7
MZLS	Mizel	48.93	294	P	P	14 39 18.9	+1.9
MAT	Matsushiro	48.96	48	P	P	14 39 19.4	+2.4
KAMS	Al Khamasin	48.98	289	P	P	14 39 18.9	+1.5
TATS	Tathlith	49.93	288	P	P	14 39 26.3	+1.6
ASAR	Alice Springs	50.53	130	P	P	14 39 27.6	-1.6
	comp=Z,8.9nm,0.8s,mb4.7,baz=307,slow=7.1,SNR=32						
ASAR				pP	pP	14 39 35.8	-1.0
	comp=Z,20nm,0.9s,baz=300,slow=6.9,SNR=22						
ASAR				PcP	PcP	14 40 46.9	-0.3
	comp=Z,6.0nm,0.8s,baz=310,slow=3.5,SNR=7.8						
AFFS	‘Afif	50.91	294	P	P	14 39 33.9	+1.8
BOD	Bodaibo	51.62	14	*e*P	P	14 39 36.1	-0.9
HILS	Ha’il	52.56	298	P	P	14 39 46.0	+1.4
GNI	Garni	53.80	314	P	P	14 39 53.6	+0.1
	comp=Z,3.8nm,0.6s,mb4.5,baz=224,slow=13,SNR=5.1						
GNI	Garni	53.80	314	*e*P	P	14 39 53.3	-0.2
GNI				pmax	pmax		
	comp=Z,51nm,1.3s						
GNI	Garni	53.80	314	*e*P	P	14 39 53.3	-0.2
	comp=Z,51nm,1.3s,mb5.3						
CLNS	Chul’man	53.95	21	*e*P	P	14 39 53.8	-0.6
CLNS				pmax	pmax		
	comp=N,7.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
TI2	Plekhanov	54.41	316	*e*P	P	14 39 58.0	0.0
KBRS	Khaybar	54.54	296	P	P	14 40 01.0	+1.9
ARU	Arti	55.21	337	⇑*i*P	P	14 40 02.8	-0.9
ARU				*e*		14 40 58.9	
ARU				*e*		14 42 07.0	
ARU				*e*PPP	PPP	14 43 17.1	-4.9
ARU				*e*S	S	14 47 49.3	+5.6
ARU				*e*SS	SS	14 51 33.1	+5.3
ARU				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.0						
ARU	Arti	55.21	337	*e*P	P	14 40 02.9	-0.8
	comp=Z,8.7nm,0.9s,mb4.8						
ZEI	Tsey	55.40	317	*e*P	P	14 40 05.1	-0.1
ZEI				*i* *PP	pP	14 40 19.8	+7.0
ZEI				*i*		14 42 12.6	
ZEI				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.9						
PMG	Port Moresby	55.98	107	P	P	14 40 10.5	+0.8
	comp=Z,31nm,0.8s,mb5.4,baz=298,slow=4.2,SNR=23						
PMG	Port Moresby	55.98	107	*e*P	P	14 40 09.7	0.0
PMG				pmax	pmax		
	comp=Z,46nm,1.0s						
PMG	Port Moresby	55.98	107	*e*P	P	14 40 09.7	0.0
	comp=Z,46nm,1.0s,mb5.5						
UMJS	Umm Lajj	56.21	295	P	P	14 40 13.1	+1.8
YSS	Yuzh-Sakhalins	56.47	38	P	P	14 40 11.5	-1.3
YSS				*e*		14 40 21.4	
YSS				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.2						
YSS	Yuzh-Sakhalins	56.47	38	P	P	14 40 11.5	-1.3
	comp=Z,14nm,0.6s,mb5.2						
YSS				*e*		14 40 21.4	
KIV	Kislovodsk	56.67	318	*e*P	P	14 40 14.0	-0.3
KIV				*e*		14 41 08.8	
KIV				*e*PPP	PPP	14 43 37.7	-2.7
KIV				*e*S	S	14 48 07.0	+3.7
KIV				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.1						
KIV				pmax	pmax		
	comp=N,11nm,0.9s						
KIV				pmax	pmax		
	comp=E,9.0nm,1.1s						
KIV	Kislovodsk	56.67	318	*e*P	P	14 40 13.0	-1.4
	comp=E,17nm,0.8s,mb5.1						
GOF	Gofitskoye	56.88	319	⇓*i*P	P	14 40 21.5	+5.7
GOF				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.0						
KMBO	Kilima Mbogo	57.21	263	P	P	14 40 20.2	+1.6
	comp=Z,2.7nm,0.8s,mb4.3,baz=46,slow=15,SNR=6.3						
KMBO	Kilima Mbogo	57.21	263	*e*P	P	14 40 20.1	+1.5
KMBO				pmax	pmax		
	comp=Z,26nm,1.4s						
KMBO	Kilima Mbogo	57.21	263	*e*P	P	14 40 20.1	+1.5
	comp=Z,26nm,1.4s,mb5.1						
TBKS	Tabuk	57.28	298	P	P	14 40 20.1	+1.2
ELZG	Elazig	57.48	310	P	P	14 40 19.6	-0.5
ASF	Jabal al Asfar	57.65	303	P	P	14 40 21.7	+0.3
	comp=Z,3.3nm,0.4s,mb4.7,baz=330,slow=5.5,SNR=8.0						
MALT	Malatya	57.85	310	*e*P	P	14 40 21.4	-1.3
MALT				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
MALT	Malatya	57.85	310	*e*P	P	14 40 21.4	-1.3
	comp=Z,10nm,0.9s,mb4.8						
JMQS	Jabal Moqyreh	57.96	299	P	P	14 40 24.3	+0.7
SOKR	Solikamsk	58.12	339	⇑*i*P	P	14 40 23.3	-1.0
SOKR				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,600nm,21.0s,MS4.7						
GZT	Gaziantep	58.26	309	P	P	14 40 24.7	-0.9
AYUS	‘Aynunah	58.40	298	P	P	14 40 27.3	+0.6
SOC	Sochi	58.54	316	*e*P	P	14 40 25.5	-2.0
SOC				*e*		14 41 18.5	
SOC				*e*		14 42 43.0	
SOC				*e*S	S	14 48 31.5	+3.6
SOC				pmax	pmax		

	comp=N,9.0nm,1.4s						
SOC				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.1						
SOC				pmax	pmax		
	comp=E,6.0nm,0.7s						
BDAS	**Al Bad‘**	**58.58**	**298**	P	**P**	**14 40 28.4**	**+0.5**
TAYS	**Tayyib Ism**	**58.79**	**298**	P	**P**	**14 40 29.8**	**+0.4**
CTA	**Charters Tower**	**58.85**	**120**	P	**P**	**14 40 29.9**	**-0.1**
	comp=E,16nm,1.3s,mb4.9,baz=297,slow=7.8,SNR=6.7						
CTA				PcP	PcP	14 41 19.1	0.0
	comp=E,4.3nm,0.7s,baz=299,slow=5.9,SNR=7.3						
CTA	**Charters Tower**	**58.85**	**120**	P	**P**	**14 40 29.9**	**-0.1**
CTA						14 41 19.1	
CTA				pmax	pmax		
	comp=Z,16nm,1.3s						
CTA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CTAO	**Charters Tower**	**58.85**	**120**	*e*P	**P**	**14 40 29.7**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,32nm,1.4s,mb5.2						
CTAO	**Charters Tower**	**58.85**	**120**	*e*P	**P**	**14 40 29.7**	**-0.2**
	comp=Z,32nm,1.4s,mb5.2						
KAHT	**Ahir Dag**	**58.86**	**309**	P	**P**	**14 40 29.1**	**-0.7**
EIL	**Elat**	**58.88**	**299**	P	**P**	**14 40 30.5**	**+0.5**
	comp=Z,4.6nm,0.5s,mb4.7,baz=94,slow=9.3,SNR=5.0						
EIL	**Elat**	**58.88**	**299**	*e*P	**P**	**14 40 29.9**	**-0.1**
	comp=Z,25nm,1.3s,mb5.1						
COBT	**Iskenderun**	**59.08**	**308**	P	**P**	**14 40 30.8**	**-0.5**
YAK	**Yakutsk**	**59.50**	**19**	*e*P	**P**	**14 40 31.4**	**-2.5**
YAK				*e*	pP	14 40 38.5	-3.1
YAK				*e*S	**S**	**14 48 37.1**	**-3.0**
YAK				pmax	pmax		
	comp=N,4.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=E,3.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
YAK				pmax	pmax		
	comp=N,5.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
YAK				smax			
	comp=N,5.0nm,1.2s						
YAK				smax			
	comp=E,4.0nm,1.2s						
YAK	**Yakutsk**	**59.50**	**19**	*e*P	**P**	**14 40 32.7**	**-1.2**
	comp=E,21nm,0.7s,mb5.3						
AVNT	**Avonos**	**60.68**	**310**	P	**P**	**14 40 41.2**	**-1.0**
STKA	**Stephens Creek**	**60.73**	**134**	P	**P**	**14 40 41.7**	**-1.1**
	comp=E,5.0nm,0.7s,mb4.8,baz=326,slow=6.8,SNR=8.6						
STKA	**Stephens Creek**	**60.73**	**134**	*e*P	**P**	**14 40 41.4**	**-1.4**
MEST	**Erdemli**	**60.75**	**307**	P	**P**	**14 40 41.1**	**-1.7**
CSS	**Prodhromos**	**61.09**	**305**	*e*P	**P**	**14 40 43.6**	**-1.4**
	comp=E,51nm,1.5s,mb5.4						
BOYT	**Boyabat**	**61.29**	**313**	P	**P**	**14 40 44.9**	**-1.4**
BRTR	**Keskin Array B**	**61.81**	**311**	P	**P**	**14 40 47.9**	**-2.1**
	comp=E,8.5nm,0.8s,mb4.9,baz=122,slow=7.1,SNR=38						
BRTR	**Keskin Array B**	**61.81**	**311**	P	**P**	**14 40 47.9**	**-2.0**
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ELDT	**Eldivan**	**62.15**	**311**	P	**P**	**14 40 50.7**	**-1.5**
BALT	**Daday**	**62.42**	**313**	P	**P**	**14 40 53.0**	**-0.9**
SGKT	**Sivrigoynuk**	**63.18**	**311**	P	**P**	**14 40 54.4**	**-4.6**
MBAR	**Mbarara**	**63.53**	**265**	*e*P	**P**	**14 41 02.3**	**+0.5**
MBAR				*e*	pP	14 41 10.5	+1.0
MBAR				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.1						
MBAR	**Mbarara**	**63.53**	**265**	*e*P	**P**	**14 41 02.2**	**+0.5**
	comp=Z,28nm,1.3s,mb5.1						
MBAR				*e*	pP	14 41 10.5	+0.9
ESKT	**Eskisehir**	**63.88**	**310**	P	**P**	**14 41 01.6**	**-2.0**
MOS	**Moscow**	**64.41**	**329**	*e*P	**P**	**14 41 06.4**	**-0.4**
MOS				*e*		14 41 18.1	
OBN	**Obninsk**	**64.71**	**328**	⇓*e*P	**P**	**14 41 06.7**	**-2.1**
OBN				*e*		14 43 38.8	
OBN				pmax	pmax		
	comp=Z,42nm,1.6s,mb5.2						
OBN				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.7						
MA2	**Magadan**	**66.35**	**28**	P	**P**	**14 41 18.1**	**-1.1**
MA2				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.2						
MA2	**Magadan**	**66.35**	**28**	P	**P**	**14 41 18.1**	**-1.1**
	comp=Z,16nm,0.7s,mb5.2						
TIXI	**Tiksi**	**66.68**	**11**	*e*P	**P**	**14 41 19.0**	**-2.2**
TIXI				pmax	pmax		
	comp=Z,29nm,0.7s,mb5.4						
AKASG	**Malin Array Be**	**67.50**	**322**	P	**P**	**14 41 23.9**	**-2.7**
	comp=Z,3.7nm,0.7s,mb4.5,baz=87,slow=5.0,SNR=14						
AKASG	**Malin Array Be**	**67.50**	**322**	P	**P**	**14 41 23.9**	**-2.8**
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.7s						
IDI	**Anoyia**	**67.99**	**305**	P	**P**	**14 41 29.0**	**-1.0**
	comp=Z,8.4nm,0.6s,mb5.0,baz=101,slow=5.7,SNR=6.8						
VRI	**Vrincioaia**	**68.06**	**316**	⇑*i*P	**P**	**14 41 29.9**	**-0.4**
LSZ	**Lusaka**	**69.21**	**250**	*e*P	**P**	**14 41 38.4**	**+0.5**
LSZ				*e*	pP	14 41 47.0	+1.4
LSZ				pmax	pmax		
	comp=Z,45nm,1.3s,mb5.2						
LSZ	**Lusaka**	**69.21**	**250**	*e*P	**P**	**14 41 38.4**	**+0.5**
	comp=Z,45nm,1.3s,mb5.2						
LSZ				*e*	pP	14 41 47.0	+1.4
MMB	**Musomiste**	**69.56**	**311**	*e*P	**P**	**14 41 38.0**	**-1.6**
VTS	**Vitosha**	**70.06**	**312**	*e*P	**P**	**14 41 40.0**	**-2.6**
KKB	**Krupnik**	**70.07**	**311**	*e*P	**P**	**14 41 40.0**	**-2.7**
APA	**Apatity**	**71.17**	**339**	⇓*i*P	**P**	**14 41 46.9**	**-2.1**
APA				*i*		14 41 57.8	
APA				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
KWP	**Kalwaria**	**71.38**	**320**	*e*P	**P**	**14 41 49.9**	**-0.6**
KOLS	**Kolonicke sedl**	**71.56**	**319**	*e*P	**P**	**14 41 57.0**	**+5.4**
KOLS	**Kolonicke sedl**	**71.56**	**319**	*e*pP	pP	14 41 57.0	-2.3
SUW	**Suwalki**	**71.84**	**324**	*e*P	**P**	**14 41 52.5**	**-0.7**
FINES	**FINESS Array B**	**72.03**	**332**	P	**P**	**14 41 53.8**	**-0.4**
	comp=Z,10nm,0.9s,mb4.8,baz=90,slow=7.6,SNR=17						
FINES	**FINESS Array B**	**72.03**	**332**	P	**P**	**14 41 53.8**	**-0.4**
FINES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
CRVS	**Cervenica-Dubn**	**72.08**	**319**	*e*P	**P**	**14 41 57.0**	**+2.3**
CRVS				*e*		14 42 02.2	
KAF	**Kangasniemi**	**72.11**	**333**	*e*p	**P**	**14 41 53.0**	**-1.7**
	comp=Z,7.4nm,0.7s,mb4.7						
KAF	**Kangasniemi**	**72.11**	**333**	*e*P	**P**	**14 41 53.0**	**-1.7**
KAF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
OJC	**Ojcow**	**73.32**	**320**	*e*P	**P**	**14 42 02.0**	**0.0**
VYHS	**Vyhne**	**73.76**	**318**	*e*P	**P**	**14 42 03.3**	**-1.3**
VYHS				*e*pP	pP	14 42 11.4	-1.0
LBTB	**Lobatse**	**74.29**	**241**	*e*P	**P**	**14 42 09.0**	**+0.9**
LBTB				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
LBTB	**Lobatse**	**74.29**	**241**	*e*P	**P**	**14 42 09.0**	**+0.8**
	comp=Z,24nm,0.9s,mb5.1						
OKC	**Ostrava-Krasne**	**74.34**	**319**	*e*P	**P**	**14 42 08.1**	**+0.2**
OKC				*e*pP	pP	14 42 14.8	-0.9
ARCES	**ARCESS Array B**	**74.59**	**340**	P	**P**	**14 42 09.1**	**+0.1**
	comp=Z,6.8nm,0.8s,mb4.6,baz=102,slow=6.9,SNR=27						
ARCES	**ARCESS Array B**	**74.59**	**340**	P	**P**	**14 42 09.1**	**+0.1**
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.8s						
ARCES	**ARCESS Array B**	**74.59**	**340**	P	**P**	**14 42 09.1**	**+0.1**
MORC	**Moravsky Berou**	**74.72**	**319**	*e*P	**P**	**14 42 09.8**	**-0.3**
MORC				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
MORC	**Moravsky Berou**	**74.72**	**319**	*e*P	**P**	**14 42 09.8**	**-0.3**
	comp=Z,19nm,1.3s,mb4.9						
ZST	**Bratislava**	**74.89**	**318**	*e*P	**P**	**14 42 11.2**	**+0.1**
DPC	**Dobruska-Polom**	**75.55**	**320**	*e*P	**P**	**14 42 15.0**	**+0.1**
DPC				*e*pP	pP	14 42 22.2	-0.5
CASY	**Casey**	**75.57**	**173**	*e*P	**P**	**14 42 14.6**	**0.0**
	comp=Z,23nm,0.9s,mb5.1						
CASY				*e*		14 42 26.1	
KSP	**Ksiaz**	**75.61**	**320**	*e*P	**P**	**14 42 14.9**	**-0.3**
KSP				*e**PP	pP	14 42 22.3	-0.7
KSP	**Ksiaz**	**75.61**	**320**	*e*P	**P**	**14 42 15.1**	**-0.1**
BILL	**Bilibino**	**75.62**	**22**	*e*P	**P**	**14 42 14.6**	**-0.3**
BILL				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.0						
BILL	**Bilibino**	**75.62**	**22**	*e*P	**P**	**14 42 14.6**	**-0.3**
	comp=Z,26nm,1.4s,mb5.0						
BOSA	**Boshof**	**75.67**	**238**	*e*P	**P**	**14 42 16.4**	**+0.4**
BOSA				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.3						
BOSA	**Boshof**	**75.67**	**238**	*e*P	**P**	**14 42 16.4**	**+0.4**
	comp=Z,40nm,1.1s,mb5.3						
UPC	**Upice**	**75.76**	**320**	*e*P	**P**	**14 42 15.4**	**-0.6**
UPC				*e*pP	pP	14 42 20.6	-3.3
PRU	**Pruhonice**	**76.68**	**319**	*e*P	**P**	**14 42 20.9**	**-0.3**
PRU				*e*pP	pP	14 42 28.1	-0.9
BRG	**Berggiesshubel**	**77.10**	**320**	*e*P	**P**	**14 42 24.1**	**+0.6**
BRG				*e*	pP	14 42 30.7	-0.7
BRG				pmax	pmax		
	comp=Z,29nm,1.7s,mb4.9						
BRG	**Berggiesshubel**	**77.10**	**320**	*e*P	**P**	**14 42 24.1**	**+0.6**
	comp=Z,29nm,1.7s,mb4.9						
BRG				*e*	pP	14 42 30.7	-0.7
GEC2	**GERESS Array S**	**77.18**	**318**	*e*P	**P**	**14 42 24.2**	**+0.2**
GEC2	**GERESS Array S**	**77.18**	**318**	*e*P	**P**	**14 42 24.1**	**+0.1**
GERES	**GERESS Array B**	**77.18**	**318**	P	**P**	**14 42 23.7**	**-0.3**
	comp=Z,3.9nm,0.8s,mb4.4,baz=90,slow=5.3,SNR=22						
GERES	**GERESS Array B**	**77.18**	**318**	P	**P**	**14 42 23.7**	**-0.3**
GERES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KHC	**Kasperske Hory**	**77.27**	**318**	*e*P	**P**	**14 42 24.1**	**-0.4**
KHC				*e*pP	pP	14 42 31.4	-1.0
CLL	**Collm**	**77.71**	**321**	*e*P	**P**	**14 42 26.0**	**-0.8**
CLL	**Collm**	**77.71**	**321**	P	**P**	**14 42 26.0**	**-0.8**
	comp=Z,logA/T=1.3,mb5.0						
CLL				*e**SP	pP	14 42 34.0	-0.7
WET	**Wettzell**	**77.73**	**318**	*e*P	**P**	**14 42 27.6**	**+0.6**
WET	**Wettzell**	**77.73**	**318**	*e*P	**P**	**14 42 27.1**	**+0.1**
GRA1	**Grafenberg Arr**	**78.82**	**319**	*e*P	**P**	**14 42 34.3**	**+1.3**
	comp=Z,32nm,1.6s,mb5.0						
GRF	**Grafenberg Arr**	**78.82**	**319**	*e*P	**P**	**14 42 34.3**	**+1.3**
GRF				pmax	pmax		
	comp=Z,32nm,1.6s,mb5.0						
GRF	**Grafenberg Arr**	**78.82**	**319**	*e*P	**P**	**14 42 34.3**	**+1.3**
GRF				pmax	pmax		
	comp=Z,32nm,1.6s,mb5.0						
GRF	**Grafenberg Arr**	**78.82**	**319**	*e*P	**P**	**14 42 34.3**	**+1.3**
	comp=Z,32nm,1.6s,mb5.0						
NB2	**NORSAR Subarra**	**79.06**	**331**	P	**P**	**14 42 33.3**	**-0.8**
	comp=Z,4.6nm,0.6s,mb4.6,baz=95,slow=5.0						
NB2	**NORSAR Subarra**	**79.06**	**331**	P	**P**	**14 42 33.3**	**-0.8**
NB2				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
NOA	**NORSAR Array B**	**79.06**	**331**	P	**P**	**14 42 33.5**	**-0.6**
	comp=Z,5.8nm,0.7s,mb4.6,baz=95,slow=5.4,SNR=15						
NOA	**NORSAR Array B**	**79.06**	**331**	P	**P**	**14 42 33.5**	**-0.6**
NOA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
MAW	**Mawson**	**79.08**	**192**	P	**P**	**14 42 35.4**	**+1.4**
	comp=Z,5.8nm,0.8s,mb4.6,baz=337,slow=6.3,SNR=4.6						
MAW	**Mawson**	**79.08**	**192**	P	**P**	**14 42 35.4**	**+1.3**
MAW				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NAO01	**NORSAR Array S**	**79.21**	**330**	*e*P	**P**	**14 42 34.1**	**-0.8**
	comp=Z,13nm,0.8s,mb4.9						
NAO01				*e*	pP	14 42 41.5	-1.2
CLZ	**Clausthal**	**79.36**	**321**	*e*P	**P**	**14 42 36.0**	**+0.1**
BSEG	**Bad Segeberg**	**79.39**	**323**	*e*P	**P**	**14 42 36.3**	**+0.3**
BSEG	**Bad Segeberg**	**79.39**	**323**	*e*P	**P**	**14 42 35.9**	**-0.1**
DAVOX	**Davos**	**79.75**	**316**	P	**P**	**14 42 38.5**	**+0.4**
	comp=Z,5.2nm,0.6s,mb4.6,baz=114,slow=8.0,SNR=10						
MUD	**Monsted U’grnd**	**80.04**	**326**	*i* P	**P**	**14 42 41.0**	**+1.5**
MUD				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
MUD	**Monsted U’grnd**	**80.04**	**326**	*i* P	**P**	**14 42 41.0**	**+1.5**
	comp=Z,20nm,0.8s,mb5.1						
SUR	**Sutherland**	**80.45**	**235**	*e*P	**P**	**14 42 43.8**	**+1.7**
	comp=Z,28nm,1.3s,mb5.0						
SUR				*e*	pP	14 42 52.0	+2.0
LPL	**La Plagne**	**82.00**	**315**	*e*P	**P**	**14 42 50.6**	**+0.7**
	comp=Z,35nm,0.9s,mb5.0						
LPL	**La Plagne**	**82.00**	**315**	*e*P	**P**	**14 42 50.6**	**+0.7**
LPL				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
SYO	**Syowa Base**	**85.91**	**197**	⇑P	**P**	**14 43 09.5**	**+0.2**
SYO	**Syowa Base**	**85.91**	**197**	⇑pP	pP	14 43 17.6	+0.3
RPZ	**Rata Peaks**	**86.68**	**135**	P	**P**	**14 43 13.8**	**+0.1**
	comp=Z,5.2nm,0.6s,mb4.9,baz=52,slow=18,SNR=3.8						
ANM	**Nome**	**86.99**	**25**	*e*P	**P**	**14 43 15.7**	**+1.0**
URZ	**Urewera**	**89.94**	**129**	P	**P**	**14 43 28.4**	**-1.0**
	comp=Z,5.4nm,0.7s,mb5.0,baz=228,slow=10.0,SNR=3.0						
ESDC	**Sonseca Array**	**90.61**	**310**	P	**P**	**14 43 32.8**	**+0.4**
	comp=Z,3.3nm,0.8s,mb4.7,baz=58,slow=4.4,SNR=12						
IMA	**Indian Mountai**	**91.16**	**22**	*e*P	**P**	**14 43 36.6**	**+2.3**
VNDA	**Vanda**	**93.59**	**168**	P	**P**	**14 43 46.0**	**+0.7**
	comp=Z,2.9nm,1.0s,mb4.7,baz=287,slow=6.2,SNR=5.6						
VNDA	**Vanda**	**93.59**	**168**	*e*P	**P**	**14 43 45.8**	**+0.5**
MCK	**McKinley**	**94.00**	**23**	*e*P	**P**	**14 43 48.5**	**+1.1**
MCK				pmax	pmax		
	comp=Z,48nm,2.0s,mb5.6						
MCK	**McKinley**	**94.00**	**23**	*e*P	**P**	**14 43 48.5**	**+1.1**
	comp=Z,48nm,2.0s,mb5.6						
ILAR	**Eielson Array**	**94.28**	**22**	P	**P**	**14 43 48.5**	**-0.2**
	comp=Z,1.4nm,0.8s,mb4.5,baz=299,slow=4.4,SNR=15						
ILAR				pP	pP	14 43 56.9	+0.2
	comp=Z,3.0nm,0.7s,baz=298,slow=4.2,SNR=16						
ILAR	**Eielson Array**	**94.28**	**22**	P	**P**	**14 43 48.5**	**-0.2**
ILAR				*PP	pP	14 43 56.9	+0.3
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.7s						
INK	**Inuvik**	**96.48**	**16**	P	**P**	**14 43 59.6**	**+1.0**
	comp=Z,7.0nm,1.1s,mb5.0,baz=328,slow=5.1,SNR=15						
INK	**Inuvik**	**96.48**	**16**	P	**P**	**14 43 59.7**	**+1.0**
INK				pmax	pmax		
	comp=Z,7.0nm,1.1s						
DBIC	**Dimbokro**	**97.58**	**278**	P	**P**	**14 44 06.1**	**+1.2**
	comp=Z,3.8nm,1.0s,mb4.9,baz=70,slow=4.3,SNR=3.8						
DBIC	**Dimbokro**	**97.58**	**278**	P	**P**	**14 44 06.1**	**+1.2**
DBIC				pmax	pmax		
	comp=Z,4.0nm,1.0s						
DBIC	**Dimbokro**	**97.58**	**278**	P	**P**	**14 44 06.1**	**+1.2**
YKA	**Yellowknife Ar**	**105.89**	**13**	Pdiff	Pdif	14 44 40.6	-0.2
	comp=Z,0.6nm,1.1s,baz=321,slow=5.0,SNR=5.2						
YKA				PP	PP	14 49 03.0	-3.8
	comp=Z,0.4nm,0.7s,baz=332,slow=7.7,SNR=6.5						
YKA				PKKPbc		15 00 15.4	
	comp=Z,0.5nm,0.7s,baz=153,slow=3.0,SNR=12						
YKA	**Yellowknife Ar**	**105.89**	**13**	P	Pdif	14 44 40.6	-0.2
YKA						14 49 03.0	
YKA				pmax	pmax		
	comp=Z,1.0nm,1.1s						
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
YKA	**Yellowknife Ar**	**105.89**	**13**	Pdif	Pdif	14 44 40.6	-0.2
YKA				PP	PP	14 49 03.0	-3.8
YKA				PKKPbc		15 00 15.4	
ULM	**Lac du Bonnet**	**120.89**	**7**	PKP	PKPdf	14 49 23.2	-2.4
	comp=Z,2.0nm,0.9s,baz=333,slow=17,SNR=3.4						
ULM				pPKP		14 49 29.8	
	comp=Z,2.1nm,0.7s,baz=15,slow=3.1,SNR=3.3						
ULM	**Lac du Bonnet**	**120.89**	**7**	PKP	PKPdf	14 49 23.2	-2.4
ULM				pPKP		14 49 29.8	
BOZ	**Bozeman (W)**	**121.45**	**21**	*e*PKIKP	PKPdf	14 49 24.0	-2.8
HLID	**Hailey**	**122.18**	**24**	*e*PKPdf	PKPdf	14 49 26.4	-1.8
TPAW	**Teton Pass**	**123.56**	**21**	*e*PKPdf	PKPdf	14 49 28.8	-2.1
LOHW	**Long Hollow**	**123.58**	**21**	*e*PKPdf	PKPdf	14 49 28.6	-2.3
SNOW	**Snow King Moun**	**123.66**	**21**	*e*PKPdf	PKPdf	14 49 28.4	-2.7
NVAR	**Mina Array Bea**	**124.53**	**30**	PKP	PKPdf	14 49 28.5	-4.5
	comp=Z,2.1nm,0.8s,baz=17,slow=1.4,SNR=7.6						
NVAR				pPKP		14 49 39.4	
	comp=Z,3.3nm,0.8s,baz=64,slow=2.2,SNR=6.6						
PDAR	**Pinedale Array**	**124.69**	**21**	PKP	PKPdf	14 49 30.5	-2.7
	comp=Z,2.2nm,0.8s,baz=24,slow=2.0,SNR=17						
PDAR				pPKP		14 49 37.7	
	comp=Z,4.2nm,0.9s,SNR=13						
PDAR	**Pinedale Array**	**124.69**	**21**	PKP	PKPdf	14 49 30.4	-2.7
PDAR				pPKP		14 49 37.7	
MVU	**Marysvale**	**127.31**	**26**	*e*PKPdf	PKPdf	14 49 36.8	-1.5
MSU	**Marysvale**	**127.32**	**26**	*e*PKIKP	PKPdf	14 49 37.3	-1.0
NEN	**Nelson**	**128.43**	**30**	*e*PKPdf	PKPdf	14 49 38.7	-1.9
NEN				*e*		14 49 46.2	
PV10	**Paradox Valley**	**128.72**	**23**	*e*PKPdf	PKPdf	14 49 39.1	-1.9
USHA	**Ushuaia**	**131.67**	**194**	SKPbc		14 53 02.9	
	comp=Z,12nm,0.9s,baz=131,slow=9.3,SNR=2.3						
ANMO	**Albuquerque**	**132.71**	**23**	PKP	PKPdf	14 49 46.0	-2.7
	comp=Z,2.6nm,1.0s,baz=259,slow=2.1,SNR=4.8						
ANMO				pPKP		14 49 55.2	
	comp=Z,2.9nm,0.9s,baz=287,slow=2.1,SNR=5.2						
ANMO				SKPbc		14 53 11.7	
	comp=Z,7.8nm,1.0s,baz=307,slow=3.4,SNR=10						
ANMO	**Albuquerque**	**132.71**	**23**	PKIKP	PKPdf	14 49 46.7	-2.0
TUC	**Tucson**	**133.10**	**29**	*e*PKIKP	PKPdf	14 49 46.9	-2.6
MNTX	**Cornudas Mount**	**136.00**	**24**	*e*PKPdf	PKPdf	14 49 51.9	-2.9
TXAR	**Lajitas Array**	**138.78**	**24**	PKhKP		14 49 50.4	
	comp=Z,0.2nm,0.4s,baz=349,slow=4.6,SNR=4.4						
TXAR				PKP	PKPdf	14 49 58.9	-1.1
	comp=Z,1.0nm,0.8s,baz=180,slow=1.3,SNR=4.6						
TXAR				SKPbc		14 53 29.9	
	comp=Z,3.2nm,1.0s,baz=297,slow=2.8,SNR=9.9						
TXAR	**Lajitas Array**	**138.78**	**24**	PKP	PKPdf	14 49 58.9	-1.1
TXAR				SKPbc		14 53 29.9	
JCT	**Junction City**	**139.09**	**18**	*e*PKIKP	PKPdf	14 49 57.8	-2.7
BDFB	**Brasilia**	**142.09**	**256**	PKhKP		14 49 58.1	
	comp=Z,1.1nm,0.4s,baz=173,slow=8.1,SNR=2.6						
BDFB				PKP	PKPdf	14 50 04.4	-1.9
	comp=Z,4.8nm,0.8s,baz=211,slow=2.0,SNR=5.0						
BDFB	**Brasilia**	**142.09**	**256**	PKHKP		14 49 58.2	
BDFB						14 50 04.4	
BDFB				pmax	pmax		
	comp=Z,1.0nm,0.4s						
BDFB				pmax	pmax		
	comp=Z,5.0nm,0.8s						
BDFB	**Brasilia**	**142.09**	**256**	PKP	PKPdf	14 50 04.4	-1.9
SDV	**Santo Domingo**	**156.83**	**318**	PKP	PKPdf	14 50 27.2	-2.0
	comp=Z,2.4nm,0.7s,baz=46,slow=3.1,SNR=4.0						
SDV				PKPab	PKPab	14 50 56.4	-0.4
	comp=Z,6.6nm,0.9s,baz=15,slow=3.7,SNR=5.8						
SDV	**Santo Domingo**	**156.83**	**318**	*e*PKPdf	PKPdf	14 50 26.2	-3.0
SDV				*e*PKPab	PKPab	14 50 55.9	-0.9
LVC	**Limon Verde**	**158.29**	**228**	PKP	PKPdf	14 50 30.3	-0.5
	comp=Z,3.2nm,1.0s,baz=238,slow=13,SNR=2.9						
LVC				PKPab	PKPab	14 51 04.0	+1.2
	comp=Z,7.8nm,0.7s,baz=213,slow=1.7,SNR=12						
ROSC	**El Rosal**	**162.26**	**318**	PKP	PKPdf	14 50 34.8	-0.5
	comp=Z,3.8nm,0.4s,baz=270,slow=20,SNR=4.3						

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*NEIC **27** 14:30:49.8, 16.67N×100.60W, h10^{km}, MD4.0(MEX), After MEX.*

MEX 27 14:30:49.3±0.6**, 16.64N×100.62W, h10^{km}**±29^{km}**, MD4.0, Near coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAIG	**El Cayaco**	**0.53**	**39**	*e*P	Pg	14 30 58.5	-1.4
CAIG				*e*S	Sg	14 31 05.9	-1.2
ACX	**Acapulco**	**0.71**	**71**	*i* P	Pb	14 31 01.5	-1.8
ACX				*i* S	Sb	14 31 11.0	-1.8
YAIG	**Yautepec**	**2.66**	**33**	*e*P	Pn	14 31 30.4	-2.6
YAIG				*e*S	Sn	14 32 00.3	-5.3
YAIG	**Yautepec**	**2.66**	**33**	*e*P	Pn	14 31 30.4	-2.6
YAIG				*i* S	Sn	14 32 02.2	-3.4
PPM	**Popocatepetl**	**3.07**	**38**	*e*P	Pn	14 31 35.9	-3.0
PPM				*i* S	Sn	14 32 21.7	+5.7
PPM	**Popocatepetl**	**3.07**	**38**	*e*P	Pn	14 31 35.9	-3.0
PPM				*i* S	Sn	14 32 13.3	-2.8
MOIG	**Morelia**	**3.07**	**350**	*e*P	Pn	14 31 35.6	-3.3
MOIG				*i* S	Sn	14 32 14.8	-1.3
MOIG	**Morelia**	**3.07**	**350**	*e*P	Pn	14 31 35.6	-3.3
MOIG				*i* S	Sn	14 32 11.3	-4.9

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*BJI **27** 14:37:15.6, 12.36N×93.40E, h30^{km}, mb4.3, Ms4.7*

*IDC **27** 14:37:18.5±0.9, 13.02N×93.07E, mb3.8/9, mb1 4.1/10, mb1mx4.0/19, ML3.8/1, Error ellipse: s-maj=35.3km s-min=18.0km az=48.0*

*NEIC **27** 14:37:23.1±0.8, 13.07N×93.22E, h30^{km}, mb4.3/1, Error ellipse: s-maj=16.8km s-min=15.3km az=197.0*

ISC 27 14:37:21.0±0.8**, 13.1N**±0.1×**93.2E**±0.1**, h30^{km}, n16,** σ**$1^{s}20$**/16**, mb4.0**/13**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**7.68**	**45**	*e*Pn	**Pn**	**14 39 13.0**	**-0.9**
	20nm,1.0s						
CMAR	**Chiang Mai Arr**	**7.68**	**45**	Pn	**Pn**	**14 39 12.7**	**-1.1**
	0.3nm,0.3s,baz=240,slow=15,SNR=9.0						
GYA	**Guiyang**	**18.35**	**41**	⇑*i*P	**P**	**14 41 36.5**	**+1.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s						
LZH	**Lanzhou**	**24.84**	**21**	*e*P	**P**	**14 42 43.0**	**+0.7**
LZH				AMB	AMB		
	comp=Z,35nm,1.6s,mb4.6						
XAN	**Xi’an**	**25.29**	**32**	P	**P**	**14 42 45.0**	**-1.6**
XAN				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.5						
GTA	**Gaotai**	**26.89**	**11**	*e*P	**P**	**14 43 02.5**	**+1.2**
GTA				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.1						
SONM	**Songino Array**	**36.37**	**15**	P	**P**	**14 44 24.2**	**-0.2**
	comp=Z,1.7nm,0.8s,mb4.0,baz=200,slow=7.6,SNR=5.9						
BVAR	**Borovoye Array**	**43.83**	**340**	P	**P**	**14 45 27.5**	**+1.5**
	comp=Z,1.5nm,0.9s,mb3.7,baz=146,slow=5.2,SNR=3.8						
CHKZ	**Chkalovo**	**44.31**	**341**	*e*P	**P**	**14 45 30.0**	**0.0**
	comp=Z,5.2nm,0.9s,mb4.3						
WRA	**Warramunga Arr**	**52.07**	**128**	P	**P**	**14 46 30.4**	**-0.4**
	comp=Z,0.5nm,0.5s,mb3.7,baz=306,slow=8.3,SNR=7.8						
WRA				PcP	PcP	14 47 44.4	+1.8
	comp=Z,0.3nm,0.5s,baz=314,slow=3.5,SNR=4.9						
ASAR	**Alice Springs**	**53.98**	**132**	P	**P**	**14 46 45.3**	**+0.6**
	comp=Z,0.7nm,0.5s,mb3.8,baz=308,slow=6.8,SNR=13						
BRTR	**Keskin Array B**	**58.45**	**309**	P	**P**	**14 47 14.9**	**-1.8**
	comp=Z,2.0nm,0.8s,mb4.2,baz=117,slow=6.4,SNR=5.0						
AKASG	**Malin Array Be**	**63.59**	**320**	P	**P**	**14 47 49.4**	**-1.8**
	comp=Z,0.3nm,0.4s,mb3.7,baz=80,slow=6.7,SNR=3.7						
GERES	**GERESS Array B**	**73.41**	**317**	P	**P**	**14 48 51.5**	**-0.8**
	comp=Z,0.8nm,0.7s,mb3.8,baz=45,slow=2.8,SNR=4.4						
NOA	**NORSAR Array B**	**74.81**	**330**	P	**P**	**14 49 02.2**	**+2.0**
	comp=Z,0.8nm,0.8s,mb3.7,baz=23,slow=11,SNR=3.4						
ILAR	**Eielson Array**	**90.30**	**22**	P	**P**	**14 50 21.5**	**+1.4**
	comp=Z,0.4nm,0.7s,mb3.9,baz=306,slow=4.7,SNR=5.0						

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*IDC **27** 14:43:43.8±1.0, 13.03N×92.61E, mb4.1/10, mb1 4.2/11, mb1mx4.1/20, ML3.7/1, Error ellipse: s-maj=35.5km s-min=18.5km az=53.0*

*BJI **27** 14:43:46.4, 12.97N×92.75E, h35^{km}, mb4.4*

*NEIC **27** 14:43:48.5±0.6, 13.11N×92.72E, h30^{km}, mb4.5/4, Error ellipse: s-maj=13.1km s-min=10.2km az=47.0*

ISC 27 14:43:46.6±0.8**, 13.15N**±0.09×**92.63E**±0.09**, h30^{km}, n28,** σ**$1^{s}07$**/28**, mb4.2**/16**, 2C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.05**	**48**	Pn	**P**	**14 45 43.0**	**-1.5**
	0.2nm,0.3s,baz=240,slow=15,SNR=6.7						
AGT	**Agartala**	**10.76**	**353**	⇑*i*	**P**	**14 46 20.0**	**-1.9**
AGT				*i*		14 49 39.0	
PKI	**Pulchoki**	**15.86**	**336**	*e*P	**P**	**14 47 27.9**	**-1.6**
	13nm,0.2s						
GUN	**Gumba**	**15.98**	**338**	*e*P	**P**	**14 47 30.3**	**-0.8**
	38nm,0.7s						
DMN	**Daman**	**16.01**	**335**	*e*P	**P**	**14 47 29.8**	**-1.7**
KKN	**Kakani**	**16.10**	**336**	*e*P	**P**	**14 47 31.1**	**-1.5**
	13nm,0.3s						
LSA	**Lhasa**	**16.53**	**355**	*e*P	**P**	**14 47 39.1**	**+1.1**
	12nm,0.5s						
GKN	**Gorkha**	**16.55**	**334**	*e*P	**P**	**14 47 38.1**	**-0.3**
	44nm,0.3s						
KOLN	**Koldanda**	**16.81**	**331**	*e*P	**P**	**14 47 43.0**	**+1.4**
GYA	**Guiyang**	**18.68**	**43**	⇑*i*P	**P**	**14 48 05.3**	**+0.5**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
CD2	**Chengdu**	**20.44**	**28**	P	**P**	**14 48 25.0**	**+0.6**
ENH	**Enshi**	**23.09**	**40**	*e*P	**P**	**14 48 50.6**	**-0.4**
	comp=Z,21nm,1.0s,mb4.5						
LZH	**Lanzhou**	**24.97**	**22**	*e*P	**P**	**14 49 10.8**	**+1.7**
LZH				AMB	AMB		
	comp=Z,22nm,1.5s,mb4.5						
XAN	**Xi’an**	**25.53**	**33**	P	**P**	**14 49 13.8**	**-0.6**
XAN				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.2						
GTA	**Gaotai**	**26.92**	**12**	*e*P	**P**	**14 49 28.3**	**+1.1**
GTA				AP	pP	14 49 35.3	-0.6
GTA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.3						
AAK	**Ala-Archa**	**33.31**	**335**	*e*P	**P**	**14 50 24.2**	**+0.2**
	comp=Z,4.9nm,1.0s,mb4.4						
SONM	**Songino Array**	**36.44**	**16**	P	**P**	**14 50 51.7**	**+1.1**
	comp=Z,3.4nm,0.9s,mb4.3,baz=204,slow=7.0,SNR=18						
ZAL	**Zalesovo**	**41.16**	**353**	P	**P**	**14 51 29.9**	**+0.1**
	comp=Z,6.5nm,1.0s,mb4.2,baz=305,slow=7.6,SNR=21						
ZAL	**Zalesovo**	**41.16**	**353**	P	**P**	**14 51 29.9**	**+0.1**
BVAR	**Borovoye Array**	**43.55**	**341**	P	**P**	**14 51 50.1**	**+0.8**
	comp=Z,2.0nm,0.7s,mb4.0,baz=141,slow=9.5,SNR=15						
CHKZ	**Chkalovo**	**44.03**	**341**	*e*P	**P**	**14 51 54.2**	**+0.9**
	comp=Z,13nm,0.9s,mb4.7						

WRA	**Warramunga Arr**	**52.59**	**128**	P	**P**	**14 52 59.2**	**-1.0**
	comp=Z,1.3nm,0.8s,mb3.9,baz=304,slow=9.7,SNR=6.8						
ASAR	**Alice Springs**	**54.48**	**132**	P	**P**	**14 53 12.9**	**-1.2**
	comp=Z,0.7nm,0.4s,mb3.9,baz=315,slow=6.9,SNR=17						
BRTR	**Keskin Array B**	**57.93**	**309**	P	**P**	**14 53 38.4**	**-0.2**
	comp=Z,1.3nm,0.9s,mb4.0,baz=135,slow=8.2,SNR=5.4						
FINES	**FINESS Array B**	**67.39**	**331**	P	**P**	**14 54 40.8**	**-0.3**
	comp=Z,1.7nm,0.9s,mb4.1,baz=101,slow=9.7,SNR=4.2						
ARCES	**ARCESS Array B**	**69.83**	**340**	P	**P**	**14 54 56.7**	**+0.6**
	comp=Z,2.4nm,0.8s,mb4.2,baz=101,slow=6.2,SNR=5.1						
GERES	**GERESS Array B**	**72.94**	**317**	P	**P**	**14 55 16.2**	**+1.1**
	comp=Z,2.1nm,1.1s,mb4.0,baz=90,slow=5.3,SNR=4.9						
INK	**Inuvik**	**92.35**	**16**	P	**P**	**14 56 56.5**	**+1.4**
	comp=Z,0.5nm,0.8s,mb3.9,baz=24,slow=10.0,SNR=3.6						

BJI **27** *14:46:45.0, 12.30N×92.47E, h25^{km}, mB5.7, mb5.5, Ms5.6, Msz5.4*

NEIC **27** *14:46:46.5±0.1, 12.35N×92.47E, h19^{km}, mb5.8/146, ME5.4, MS5.3/10, Error ellipse: s-maj=4.1km s-min=2.9km az=196.0 Broadband fault plane solution: P waves. NP1: φ$_s$345°, δ85°, λ-90°. NP2:φ$_s$165°, δ5°, λ-90°. Principal axes: T Plg40°, Azm75°; N Plg0°, Azm0°; P Plg50°, Azm255°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

SYO **27** *14:46:46.5, 12.36N×92.50E, h19^{km}, MB5.8*

HRVD **27** *14:46:46.5±0.2, 12.39N×92.72E, h27^{km}, MW5.6/67, Centroid moment Tensor Solution. LP body waves: s54,c98;Mantle waves: s67,c137; Half duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.43±.04; M$_{\theta\theta}$-0.14±.03; M$_{\phi\phi}$1.57±.03; M$_{r\theta}$0.71±.07; M$_{\theta\phi}$-0.10±.03; M$_{\phi r}$-2.10±.06; Best double couple: M$_0$2.68×10^{17} NP1: φ$_s$191°, δ19°, λ-64°. NP2:φ$_s$344°, δ73°, λ-98°. Principal axes: T 2.71, Plg28°, Azm81°; N -.06, Plg8°, Azm346°; P -2.65, Plg61°, Azm242°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC **27** *14:46:47.9±1.4, 12.35N×92.51E, h27^{km}±8^{km}, mb5.3/30, mb1 5.4/31, mb1mx5.4/31, ML5.4/1, MS5.3/18, Ms1 5.3/18, ms1mx5.1/27 Error ellipse: s-maj=12.9km s-min=9.1km az=49.0*

MOS **27** *14:46:48.1±0.9, 12.59N×92.38E, h33^{km}, mb6.0/118, MS5.3/34, Error ellipse: s-maj=7.0km s-min=3.5km az=125.2*

ISC 27 14:46:45.7±0.1**, 12.39N**±0.03×**92.52E**±0.02**, h25**^{km}**, h25**^{km}±.8^{km}**:pP-P, n773,** σ**0^{s}98**/759**, mb5.7**/226**, MS5.4**/60**, 32C-116D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNT	**Nongplab**	**7.05**	**88**	P	**Sn**	**14 49 46.0**	**-4.3**
	305nm,1.5s						
NST	**Nakhon Sawan**	**8.08**	**65**	P	**P**	**14 48 48.5**	**+4.1**
CM31	**Chiang Mai Arr**	**8.64**	**45**	*e*Pn	**P**	**14 48 51.8**	**-0.6**
	157nm,0.6s						
CMAR	**Chiang Mai Arr**	**8.64**	**45**	Pn	**P**	**14 48 51.6**	**-0.7**
	11nm,0.3s,baz=237,slow=15,SNR=58						
CMAR				Sn	**Sn**	**14 50 28.0**	**-2.0**
	8.6nm,0.3s,baz=20,slow=20,SNR=5.3						
CMAR				LR	LR	14 52 56.8	
	comp=Z,14µm,19.4s,baz=225,slow=42						
CMAR	**Chiang Mai Arr**	**8.64**	**45**	P	**P**	**14 48 51.7**	**-0.6**
CMAR						14 50 28.0	
CMAR				pmax	pmax		
	comp=Z,11nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,14µm,19.4s						
CMAR	**Chiang Mai Arr**	**8.64**	**45**	Pn	**P**	**14 48 51.6**	**-0.7**
CMAR				Sn	**Sn**	**14 50 28.0**	**-2.0**
CMAR				LR	LR	14 52 56.8	
SNG	**Songkhla**	**9.52**	**122**	P	**P**	**14 49 06.0**	**+1.5**
	comp=Z,640nm,1.0s						
NANT	**Nan**	**10.13**	**50**	⇑P	**P**	**14 49 12.0**	**-1.0**
	comp=Z,250nm,1.0s						
CHRT	**Chiangrai**	**10.20**	**42**	SG	**P**	**14 49 12.0**	**-1.8**
VIS	**Vishakhapatnam**	**10.33**	**302**	*e*P	**P**	**14 49 11.7**	**-4.1**
VIS				*e*S	Px	14 50 57.5	
VIS				*e*	**S**	**14 51 02.4**	**-9.4**
	comp=E,2µm,0.9s						
VIS				*e*		14 51 02.5	
	comp=N,2µm,0.8s						
KKTK	**Khon Kaen**	**10.73**	**67**	⇑P	**P**	**14 49 23.0**	**+1.9**
	comp=N,617nm,0.7s						
MDRS	**Chennai**	**11.99**	**275**	*e*P	**P**	**14 49 34.8**	**-3.5**
MDRS				*e*		14 49 39.0	
	comp=Z,552nm,1.0s						
MDRS				*e*S	**S**	**14 51 38.1**	**-14**
IMP	**Imphal**	**12.40**	**6**	*e*P	**P**	**14 49 41.9**	**-1.8**
UBT	**Ubonrachathani**	**12.47**	**75**	P	**P**	**14 49 46.0**	**+1.4**
	comp=Z,347nm,1.5s						
PALK	**Pallekele**	**12.70**	**247**	*e*Pn	**P**	**14 49 45.5**	**-2.3**
	comp=Z,375nm,1.3s						
PALK				*e*Sn	**S**	**14 51 59.7**	**-10**
BOK	**Bokaro**	**12.97**	**332**	*e*P	**P**	**14 49 47.0**	**-4.4**
BOK				*e*		14 49 52.5	
	comp=Z,322nm,0.8s						
BOK				*e*	**S**	**14 52 04.8**	**-11**
SHL	**Shillong**	**13.12**	**357**	*e*P	**P**	**14 49 48.6**	**-4.7**
SHL				*e*		14 50 06.9	
	comp=Z,174nm,1.2s						
SHL				*e*S	**S**	**14 52 02.9**	**-16**
BLSP	**Bilaspur**	**13.85**	**316**	*e*P	**P**	**14 50 00.2**	**-2.8**
BLSP				*e*		14 50 03.9	
	comp=Z,516nm,1.2s						
HYB	**Hyderabad**	**14.39**	**292**	*e*P	**P**	**14 50 08.0**	**-2.1**
HYB				*e*S	**S**	**14 52 34.5**	**-15**
HYB	**Hyderabad**	**14.39**	**292**	*i* P	**P**	**14 50 08.0**	**-2.1**
HYB				*e*S	**S**	**14 52 34.0**	**-16**
HYB				LR	LR	14 57 24.0	
	comp=Z,21nm,16.0s						
KOD	**Kodaikanal**	**14.91**	**263**	*e*P	**P**	**14 50 15.7**	**-1.3**
NGP	**Nagpur**	**15.55**	**306**	⇑*e*P	**P**	**14 50 23.8**	**-1.4**
NGP				*e*S	**S**	**14 53 17.5**	**+0.4**
KMI	**Kunming**	**15.93**	**36**	P	**P**	**14 50 32.3**	**+2.3**
KMI				AP		14 50 36.0	
KMI				AMB	AMB		
	comp=Z,328nm,1.2s						
KMI				AMB	AMB		
	comp=Z,2µm,4.9s						
KMI				LR	LR		
	comp=N,12µm,17.2s						
KMI				LR	LR		
	comp=E,11µm,15.0s						
KMI				LR	LR		
	comp=Z,10µm,16.0s						
ALBI	**Allahabad**	**16.35**	**323**	*e*P	**P**	**14 50 34.5**	**-0.9**
ALBI				*e*		14 50 59.0	
PKI	**Pulchoki**	**16.50**	**337**	*e*P	**P**	**14 50 36.4**	**-1.0**
	comp=Z,435nm,0.5s						
PKI				*e*S	**S**	**14 53 28.2**	**-11**
LATR	**Latur**	**16.50**	**293**	*e*P	**P**	**14 50 35.4**	**-2.0**
LATR				*e*	**S**	**14 53 25.0**	**-14**
GUN	**Gumba**	**16.64**	**339**	*e*P	**P**	**14 50 39.6**	**+0.5**
	comp=Z,405nm,0.6s						
DMN	**Daman**	**16.65**	**336**	*e*P	**P**	**14 50 37.0**	**-2.3**
	comp=Z,365nm,0.5s						
KKN	**Kakani**	**16.75**	**337**	*e*P	**P**	**14 50 40.0**	**-0.5**
	comp=Z,389nm,0.7s						
AKL	**Akola**	**16.99**	**301**	*e*P	**P**	**14 50 45.8**	**+2.2**
AKL				*e*		14 50 52.2	
	comp=Z,807nm,1.7s						
AKL				*e*S	**S**	**14 53 47.9**	**-2.5**
GKN	**Gorkha**	**17.19**	**336**	*e*P	**P**	**14 50 45.7**	**-0.3**
	comp=Z,469nm,0.4s						
LSA	**Lhasa**	**17.27**	**356**	*e*P	**P**	**14 50 46.3**	**-0.7**
LSA				pmax	pmax		
	comp=Z,16nm,1.1s						
LSA	**Lhasa**	**17.27**	**356**	*e*P	**P**	**14 50 46.3**	**-0.7**
	comp=Z,16nm,1.1s						
KOLN	**Koldanda**	**17.43**	**333**	*e*P	**P**	**14 50 46.0**	**-3.0**
	comp=Z,906nm,0.7s						
QIZ	**Qiongzhong**	**17.93**	**66**	P	**P**	**14 50 56.5**	**+1.3**
QIZ				S	**S**	**14 54 13.3**	**+1.6**
QIZ				LR	LR		
	comp=E,7µm,20.9s						
QIZ				LR	LR		
	comp=Z,10µm,18.7s						
QIZ	**Qiongzhong**	**17.93**	**66**	*e*P	**P**	**14 50 55.8**	**+0.6**
	comp=Z,156nm,1.0s						
BHPL	**Bhopal**	**17.95**	**309**	*e*P	**P**	**14 50 54.5**	**-1.0**
BHPL				*e*		14 51 01.0	
	comp=Z,681nm,1.5s						
BHPL				*e*S	**S**	**14 54 17.0**	**+4.9**
BHPL				*i*		14 56 28.4	
KAD	**Karad**	**18.38**	**288**	*e*P	**P**	**14 50 58.1**	**-2.8**
KAD				*e*		14 51 05.2	
	comp=Z,447nm,1.4s						
KAD				*e*	Sx	14 54 47.6	
GOA	**Goa**	**18.40**	**282**	*e*	**P**	**14 51 08.2**	**+7.0**
GOA				*e*		14 51 12.1	
	comp=Z,451nm,1.4s						
GOA				*e*	**S**	**14 54 17.7**	**-4.8**
JHNI	**Jhansi**	**18.52**	**317**	⇑*i*P	**P**	**14 51 01.0**	**-1.6**
JHNI				*e*	**S**	**14 54 17.0**	**-8.1**
POO	**Poona**	**18.99**	**291**	*e*P	**P**	**14 51 09.0**	**+0.7**
POO				*e*		14 51 12.8	
	comp=Z,322nm,1.1s						
POO				*e*	**S**	**14 54 49.5**	**+14**
GYA	**Guiyang**	**19.31**	**42**	⇑*i*P	**P**	**14 51 11.5**	**-0.4**
GYA				AP		14 51 15.8	
GYA				XP		14 51 19.0	
GYA				PP	PP	14 51 34.5	+5.4
GYA				AMB	AMB		
	comp=Z,130nm,0.7s						
GYA				AMB	AMB		
	comp=Z,3µm,6.3s						
GYA				LR	LR		
	comp=N,8µm,16.2s						
GYA				LR	LR		
	comp=E,8µm,14.4s						
GYA				LR	LR		
	comp=Z,15µm,15.8s						
BOM	**Bombay**	**20.04**	**291**	*e*P	**P**	**14 51 19.3**	**-0.6**
BOM				*e*		14 51 26.0	
	comp=Z,765nm,1.3s						
BOM				*e*S	**S**	**14 55 01.8**	**+3.3**
PTH	**Pithoragarh**	**20.55**	**328**	*e*P	**P**	**14 51 26.5**	**+1.3**
PTH				*e*	**S**	**14 55 02.8**	**-6.0**
CD2	**Chengdu**	**21.15**	**28**	⇓*i*P	**P**	**14 51 31.5**	**+0.1**
CD2				S	**S**	**14 55 21.5**	**+1.0**
CD2				AMB	AMB		
	comp=Z,370nm,0.8s,mb5.8						
CD2				LR	LR		
	comp=N,8µm,15.6s						
CD2				LR	LR		
	comp=Z,7µm,15.6s,MS5.2						
SONA	**Sohna**	**21.37**	**320**	*e*P	**P**	**14 51 33.6**	**0.0**
SONA				*e*		14 55 15.2	
AYAN	**Aya Nagar**	**21.51**	**320**	*e*P	**P**	**14 51 35.2**	**+0.2**
NDI	**New Delhi**	**21.59**	**321**	*e*P	**P**	**14 51 35.8**	**0.0**
NDI				*e*		14 51 41.5	
	comp=Z,632nm,1.5s						
NDI				*e*S	**S**	**14 55 33.6**	**+4.8**
AJM	**Ajmer**	**21.88**	**312**	*e*P	**P**	**14 51 39.2**	**+0.5**
AJM				*e*		14 51 42.5	
	comp=Z,685nm,1.4s						
AJM				*e*S	**S**	**14 55 40.7**	**+6.6**
KHET	**Khetri**	**22.07**	**317**	⇑*i*P	**P**	**14 51 41.0**	**+0.3**
DDI	**Dehra Dun**	**22.31**	**325**	⇓*i*P	**P**	**14 51 43.7**	**+0.7**
DDI				*e*	**S**	**14 55 40.4**	**-1.6**
GZH	**Guangzhou**	**22.48**	**59**	P	**P**	**14 51 48.8**	**+4.1**
GZH				S	**S**	**14 55 48.0**	**+3.0**
GZH				LR	LR		
	comp=N,5µm,19.3s,MS5.1						
GZH				LR	LR		
	comp=E,5µm,19.6s,MS5.1						
GZH				LR	LR		
	comp=Z,8µm,19.6s,MS5.1						
KLP	**Kalpa**	**23.15**	**328**	⇓*i*P	**P**	**14 51 52.8**	**+1.5**
ENH	**Enshi**	**23.74**	**39**	*e*P	**P**	**14 51 56.8**	**-0.3**
	comp=Z,0.4nm,0.3s						
SDNR	**Sundarnagar**	**23.81**	**325**	*e*P	**P**	**14 51 59.9**	**+2.2**
SDNR				*e*	**S**	**14 56 20.7**	**+12**
BHJ	**Bhuj**	**24.26**	**300**	*e*P	**P**	**14 52 01.8**	**-0.4**
BHJ				*e*		14 52 08.3	
	comp=Z,266nm,1.4s						
BHJ				*e*	**S**	**14 56 25.4**	**+9.0**
COCO	**West Island**	**24.80**	**170**	*e*P	**P**	**14 52 08.4**	**+1.0**
	comp=Z,930nm,1.4s,mb6.1						
DLH	**Dalhousie**	**25.15**	**326**	*e*P	**P**	**14 52 10.0**	**-0.7**
DLH				*e*		14 52 33.0	
THN	**Thein Dam**	**25.21**	**325**	*e*P	**P**	**14 52 11.1**	**-0.1**
	comp=Z,119nm,0.6s,mb5.6						
THN				*e*		14 57 01.0	
LZH	**Lanzhou**	**25.71**	**22**	*e*P	**P**	**14 52 17.8**	**+2.0**
LZH				AP	pP	14 52 20.5	-2.7
LZH				PP	PP	14 52 57.0	+0.9
LZH				S	**S**	**14 56 42.5**	**+1.9**
LZH				SS	SS	14 57 46.0	+0.7
LZH				SCS	ScS	15 03 13.0	+2.3
LZH				AMB	AMB		
	comp=Z,271nm,1.4s,mb5.6						
LZH				AMB	AMB		
	comp=Z,712nm,4.5s						
LZH				LR	LR		
	comp=E,7µm,14.2s						
LZH				LR	LR		
	comp=Z,14µm,19.0s,MS5.5						
XAN	**Xi'an**	**26.22**	**32**	P	**P**	**14 52 20.3**	**-0.3**
XAN				AP	pP	14 52 28.0	0.0
XAN				S	**S**	**14 56 46.3**	**-2.8**
XAN				AMB	AMB		
	comp=Z,243nm,0.8s,mb5.8						
XAN				LR	LR		
	comp=N,3µm,27.9s,MS4.9						
XAN				LR	LR		
	comp=E,4µm,28.3s,MS4.9						
XAN				LR	LR		
	comp=Z,6µm,22.5s						
ENPP	**El Nido**	**26.36**	**90**	*e*P	**P**	**14 52 22.0**	**-0.1**
WHN	**Wuhan**	**27.09**	**45**	⇑P	**P**	**14 52 28.8**	**+0.2**
WHN				S	**S**	**14 57 01.0**	**-2.4**
WHN				LR	LR		
	comp=N,4µm,17.8s,MS5.7						
WHN				LR	LR		
	comp=E,19µm,16.3s,MS5.7						
WHN				LR	LR		
	comp=Z,30µm,16.4s,MS5.9						
QZH	**Quanzhou**	**27.61**	**59**	⇓*i*P	**P**	**14 52 34.0**	**+0.6**
QZH				AMB	AMB		
	comp=Z,250nm,1.2s,mb5.7						
GTA	**Gaotai**	**27.68**	**12**	⇑P	**P**	**14 52 35.5**	**+1.7**
GTA				AP	pP	14 52 39.0	-2.2
GTA				XP	sP	14 52 42.0	-2.5
GTA				PP	PP	14 53 22.0	-0.6
GTA				S	**S**	**14 57 13.3**	**+0.6**
GTA				AMB	AMB		
	comp=Z,105nm,1.4s,mb5.3						
GTA				AMB	AMB		
	comp=Z,543nm,4.2s						
GTA				LR	LR		
	comp=N,7µm,17.9s,MS5.4						
GTA				LR	LR		
	comp=E,7µm,16.7s,MS5.4						
GTA				LR	LR		
	comp=Z,8µm,19.0s,MS5.3						
TGY	**Tagaytay City**	**27.71**	**83**	P	**P**	**14 52 35.0**	**+0.7**
	comp=Z,96nm,0.4s,mb5.8,baz=166,slow=8.3,SNR=2.9						
TGY				LR	LR	15 03 33.2	
	comp=Z,6µm,18.2s,MS5.2,baz=84,slow=36						
TGY	**Tagaytay City**	**27.71**	**83**	P	**P**	**14 52 35.0**	**+0.6**
TGY				pmax	pmax		
	comp=Z,96nm,0.4s						
TGY				MLR	MLR		
	comp=Z,6µm,18.2s						
ABRA	**Dolores**	**27.71**	**76**	*e*P	**P**	**14 52 33.7**	**-0.6**
PCPH	**Palayan**	**27.90**	**80**	⇓*e*P	**P**	**14 52 34.3**	**-1.8**
APYP	**Conner**	**28.24**	**75**	*e*P	**P**	**14 52 36.5**	**-2.6**
LQP	**Lukban**	**28.29**	**83**	⇑*e*P	**P**	**14 52 38.7**	**-0.9**
BALP	**Baler**	**28.37**	**80**	*e*P	**P**	**14 52 40.0**	**-0.4**
POLP	**Polilio Island**	**28.69**	**82**	*e*P	**P**	**14 52 41.7**	**-1.4**
CAUP	**Cauayan**	**28.69**	**77**	*e*P	**P**	**14 52 41.3**	**-1.9**
SGCP	**Mt. Cagua**	**29.04**	**75**	*e*P	**P**	**14 52 44.9**	**-1.5**
PALP	**Palanan**	**29.28**	**77**	*e*P	**P**	**14 52 46.2**	**-2.2**
PAGZ	**Pagadian**	**30.70**	**95**	*e*P	**P**	**14 52 59.6**	**-1.6**
KSH	**Kashi**	**30.73**	**334**	*i* PR		14 53 02.0	
KSH				AP	pP	14 53 06.0	-2.6
KSH				XP	sP	14 53 09.5	-2.4
KSH				PP	PP	14 54 03.0	+0.7
KSH				PPP	PPP	14 54 18.0	+1.0
KSH				PCP	PcP	14 56 00.0	+1.4
KSH				S	**S**	**14 58 03.0**	**+1.6**
KSH				SCP		14 59 41.0	
KSH				PCS		14 59 42.8	
KSH				*e*SS	SS	14 59 45.0	+0.9
KSH				SCS	ScS	15 03 36.0	+2.6
KSH				LR	LR		
	comp=N,10µm,19.4s,MS5.7						
KSH				LR	LR		
	comp=E,9µm,15.0s,MS5.7						
NJ2	**Nanjing**	**31.11**	**47**	*e*P	**P**	**14 53 03.5**	**-1.1**
NJ2				AP	pP	14 53 13.0	+0.9
NJ2				XP	sP	14 53 17.0	+1.7
NJ2				PP	PP	14 54 06.5	-0.9
NJ2				S	**S**	**14 58 06.0**	**-1.5**
NJ2				XS		14 58 22.0	
NJ2				SS	SS	14 59 53.0	-0.1
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,740nm,6.3s						
NJ2				LR	LR		
	comp=N,8µm,21.2s,MS5.6						
NJ2				LR	LR		
	comp=E,10µm,19.1s,MS5.6						
NJ2				LR	LR		
	comp=Z,9µm,22.3s,MS5.4						
OCLP	**Ormoc**	**31.44**	**89**	*e*P	**P**	**14 53 08.2**	**+0.6**
WMQ	**Urumqi**	**31.59**	**353**	⇑P	**P**	**14 53 09.5**	**+0.8**
WMQ				AP	pP	14 53 14.0	-2.2
WMQ				XP	sP	14 53 16.8	-2.6
WMQ				PP	PP	14 54 14.0	+0.5
WMQ				PPP	PPP	14 54 29.0	+0.5
WMQ				S	**S**	**14 58 17.0**	**+2.2**
WMQ				AMB	AMB		
	comp=Z,97nm,0.9s,mb5.6						
WMQ				AMB	AMB		
	comp=Z,213nm,10.1s						
WMQ				LR	LR		
	comp=N,4µm,22.3s,MS5.4						
WMQ				LR	LR		
	comp=E,9µm,23.6s,MS5.4						
WMQ				LR	LR		
	comp=Z,4µm,21.0s,MS5.1						
MSLP	**Maasin**	**31.79**	**91**	*e*P	**P**	**14 53 15.9**	**+5.2**
BTO	**Baotou**	**32.04**	**26**	*e*P	**P**	**14 53 12.5**	**-0.2**
BTO				S	**S**	**14 58 20.3**	**-1.6**
BTO				AMB	AMB		
	comp=Z,47nm,1.0s,mb5.3						
BTO				LR	LR		
	comp=N,1µm,12.7s,MS5.2						
BTO				LR	LR		
	comp=E,4µm,15.7s,MS5.2						
BUKP	**Musuan**	**32.33**	**95**	*e*P	**P**	**14 53 14.8**	**-0.7**
SSE	**Sheshan**	**32.33**	**50**	P	**P**	**14 53 15.5**	**+0.2**
SSE				XP	sP	14 53 24.5	-1.5
SSE				S	**S**	**14 58 29.8**	**+3.3**
SSE				XS		14 58 40.8	
SSE				AMB	AMB		
	comp=Z,87nm,1.1s,mb5.5						
SSE				AMB	AMB		
	comp=Z,257nm,3.4s						
SSE				LR	LR		
	comp=N,6µm,22.3s,MS5.3						
SSE				LR	LR		
	comp=E,3µm,21.0s,MS5.3						
SSE				LR	LR		
	comp=Z,6µm,16.5s,MS5.4						
TIA	**Tai'an**	**32.46**	**39**	*e*P	**P**	**14 53 15.3**	**-1.0**
TIA				S	**S**	**14 58 32.0**	**+3.6**
TIA				LR	LR		
	comp=N,8µm,18.0s,MS5.7						
TIA				LR	LR		
	comp=E,9µm,16.0s,MS5.7						
HHC	**Hu-ho-hao-te**	**32.91**	**27**	*e*P	**P**	**14 53 20.5**	**+0.3**
HHC				AP	pP	14 53 26.3	-1.4
HHC				XP	sP	14 53 29.5	-1.5
HHC				PP	PP	14 54 29.8	-0.8
HHC				S	**S**	**14 58 33.5**	**-1.9**
HHC				SS	SS	15 00 33.3	-1.9
HHC				SCS	ScS	15 03 45.0	+0.7
HHC				AMB	AMB		
	comp=Z,84nm,1.1s,mb5.6						
HHC				AMB	AMB		
	comp=Z,798nm,4.8s						
HHC				LR	LR		
	comp=N,3µm,14.6s,MS5.3						
HHC				LR	LR		
	comp=E,4µm,18.3s,MS5.3						
HHC				LR	LR		
	comp=Z,4µm,17.1s,MS5.2						
ULHL	**Ulahol**	**32.95**	**338**	P	**P**	**14 53 21.1**	**+0.6**
	SNR=59						
KZA	**Kyzart**	**33.18**	**336**	P	**P**	**14 53 23.9**	**+1.3**
	SNR=95						
AAA	**Alma-Ata**	**33.59**	**339**	*e*P	**P**	**14 53 26.0**	**-0.1**
AAA				*e*S	**S**	**14 58 48.0**	**+2.1**
AAA				pmax	pmax		
	comp=Z,500nm,4.0s						
AAA				smax			
	comp=E,2µm,8.0s						
UCH	**Uchtor**	**33.60**	**335**	P	**P**	**14 53 27.8**	**+1.6**
	SNR=8.0						
TKM2	**Tokmak 2**	**33.77**	**337**	P	**P**	**14 53 28.3**	**+0.6**
	SNR=128						
KBK	**Karagaybulak**	**33.79**	**336**	P	**P**	**14 53 29.2**	**+1.3**
	SNR=157						
AML	**Almayashu**	**33.86**	**334**	P	**P**	**14 53 30.3**	**+1.8**
	SNR=10						
AAK	**Ala-Archa**	**33.95**	**336**	P	**P**	**14 53 30.6**	**+1.3**
	SNR=134						
AAK	**Ala-Archa**	**33.95**	**336**	⇓*i*P	**P**	**14 53 29.4**	**+0.1**
AAK				pmax	pmax		
	comp=Z,86nm,0.7s,mb5.8						
AAK	**Ala-Archa**	**33.95**	**336**	⇓*i*P	**P**	**14 53 29.4**	**+0.2**
	comp=Z,86nm,0.7s,mb5.8						
FRU	**Bishkek**	**34.07**	**336**	*i* P	**P**	**14 53 30.0**	**-0.3**
FRU				pmax	pmax		
	comp=Z,280nm,2.0s,mb5.8						
CHMS	**Chumysh**	**34.16**	**337**	P	**P**	**14 53 31.6**	**+0.6**
	SNR=111						
EKS2	**Erkin-Say**	**34.27**	**335**	P	**P**	**14 53 33.4**	**+1.4**
	SNR=221						
USP	**Ospenovka**	**34.48**	**336**	P	**P**	**14 53 34.5**	**+0.7**
	SNR=423						
BJT	**Baijiatuau**	**34.53**	**33**	*e*P	**P**	**14 53 34.5**	**+0.2**
BJT				*e*		14 56 09.0	
BJT				pmax	pmax		
	comp=Z,224nm,1.0s						
BJT	**Baijiatuau**	**34.53**	**33**	*e*P	**P**	**14 53 34.5**	**+0.2**
	comp=Z,224nm,1.0s,mb6.0						
BJT				*e*PcP	PcP	14 56 09.0	0.0
BJI	**Beijing**	**34.55**	**33**	P	**P**	**14 53 35.0**	**+0.6**
BJI				S	**S**	**14 58 57.3**	**-3.5**
BJI				AMB	AMB		
	comp=Z,72nm,0.9s,mb5.6						
BJI				AMB	AMB		
	comp=Z,383nm,4.1s						
BJI				LR	LR		
	comp=N,4µm,16.0s,MS5.5						
BJI				LR	LR		
	comp=E,5µm,16.0s,MS5.5						
BJI				LR	LR		
	comp=Z,6µm,18.0s,MS5.4						
MKAR	**Makanchi Array**	**35.36**	**348**	*i* P	**P**	**14 53 41.2**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,190nm,1.0s						
JOW	**Kunigami**	**36.47**	**61**	P	**P**	**14 53 52.0**	**+1.2**
	comp=Z,72nm,0.9s,mb5.6,baz=280,slow=14,SNR=10						
JOW				LR	LR	15 09 59.6	
	comp=Z,7µm,21.2s,MS5.4,baz=277,slow=38						
JOW	**Kunigami**	**36.47**	**61**	P	**P**	**14 53 52.0**	**+1.2**
JOW				LR	LR	15 09 59.6	
DL2	**Dalian**	**36.93**	**39**	⇑P	**P**	**14 53 54.8**	**+0.2**
DL2				S	**S**	**14 59 28.8**	**-8.7**
DL2				AMB	AMB		
	comp=Z,90nm,0.9s,mb5.6						
DL2				AMB	AMB		
	comp=Z,400nm,5.7s						
DL2				LR	LR		
	comp=N,4µm,15.6s,MS5.3						
DL2				LR	LR		
	comp=E,2µm,17.4s,MS5.3						
DL2				LR	LR		
	comp=Z,5µm,16.1s,MS5.4						
SONM	**Songino Array**	**37.19**	**16**	P	**P**	**14 53 57.8**	**+1.1**
	comp=Z,25nm,0.8s,mb5.1,baz=200,slow=8.7,SNR=90						
SONM				PcP	PcP	14 56 17.1	+0.3
	comp=Z,33nm,1.1s,baz=202,slow=2.7,SNR=5.8						
SONM				S	**S**	**14 59 44.6**	**+3.1**
	comp=Z,3.3nm,1.0s,baz=203,slow=9.4,SNR=4.0						

SONM				ScP		15 00 02.8	
	comp=Z,7.8nm,1.1s,baz=207,slow=2.8,SNR=5.8						
ULN	**Ulaanbaatar**	**37.40**	**16**	*e*P	**P**	**14 53 59.6**	**+1.2**
ULN				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.1						
ULN	**Ulaanbaatar**	**37.40**	**16**	*e*P	**P**	**14 53 59.6**	**+1.2**
	comp=Z,28nm,1.0s,mb5.0						
ZAK	**Zakamensk**	**38.90**	**11**	⇑*e*P	**P**	**14 54 13.1**	**+2.1**
ZAK				*e*		14 56 22.2	
INCN	**Inchon**	**39.41**	**45**	*e*P	**P**	**14 54 16.2**	**+0.8**
	comp=Z,249nm,1.3s,mb5.8						
MOY	**Mondy**	**39.77**	**8**	*e*P	**P**	**14 54 18.6**	**+0.4**
TLY	**Talaya**	**40.21**	**11**	P	**P**	**14 54 25.3**	**+3.5**
	comp=Z,363nm,1.1s,mb6.0,SNR=11						
TLY	**Talaya**	**40.21**	**11**	*e*P	**P**	**14 54 25.2**	**+3.4**
TLY				*e*S	**S**	**15 00 26.5**	**-0.5**
TLY				pmax	pmax		
	comp=Z,78nm,1.2s,mb5.3						
TLY				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.3						
TLY	**Talaya**	**40.21**	**11**	*e*P	**P**	**14 54 23.4**	**+1.6**
	comp=Z,262nm,1.7s,mb5.7						
KS15	**Wonju Array Si**	**40.25**	**45**	*e*P	**P**	**14 54 22.1**	**-0.2**
IRK	**Irkutsk**	**40.86**	**11**	*e*P	**P**	**14 54 35.1**	**+7.9**
IRK				*e*		15 00 28.4	
ZAL	**Zalesovo**	**41.89**	**353**	P	**P**	**14 54 36.0**	**+0.3**
	comp=Z,38nm,0.6s,mb5.2,baz=299,slow=8.0,SNR=155						
ZAL				LR	LR	15 15 53.5	
	comp=Z,2µm,19.6s,MS5.0,baz=291,slow=42						
ZAL	**Zalesovo**	**41.89**	**353**	P	**P**	**14 54 36.0**	**+0.4**
ZAL				pmax	pmax		
	comp=Z,38nm,0.6s						
ZAL				MLR	MLR		
	comp=Z,2µm,19.6s						
CN2	**Changchun**	**42.20**	**36**	*e*P	**P**	**14 54 39.0**	**+0.7**
CN2				*e*XP	sP	14 54 45.8	-3.2
CN2				*e*S	**S**	**15 00 59.0**	**+2.4**
CN2				AMB	AMB		
	comp=Z,100nm,0.9s,mb5.5						
CN2				AMB	AMB		
	comp=Z,1µm,5.0s						
CN2				LR	LR		
	comp=N,4µm,15.0s,MS5.7						
CN2				LR	LR		
	comp=E,6µm,15.0s,MS5.7						
CN2				LR	LR		
	comp=Z,7µm,16.0s,MS5.7						
HASS	**Wahat al Ahsa’**	**42.31**	**294**	P	**P**	**14 54 40.4**	**+0.9**
MBWA	**Marble Bar**	**42.74**	**141**	*e*P	**P**	**14 54 41.5**	**-1.5**
	comp=Z,32nm,0.8s,mb5.1						
NVS	**Novosibirsk**	**42.97**	**352**	*e*P	**P**	**14 54 43.0**	**-1.5**
NVS				*e*S	**S**	**15 01 04.7**	**-3.1**
NVS				pmax	pmax		
	comp=N,138nm,1.4s						
NVS				pmax	pmax		
	comp=E,116nm,1.4s						
NVS				pmax	pmax		
	comp=Z,257nm,1.4s,mb5.8						
NVS				smax			
	comp=N,92nm,2.1s						
NVS				smax			
	comp=E,251nm,2.1s						
HIA	**Hailar**	**43.10**	**26**	*e*P	**P**	**14 54 45.9**	**+0.4**
HIA				*e*		14 56 25.9	
HIA				pmax	pmax		
	comp=Z,268nm,1.7s						
HIA	**Hailar**	**43.10**	**26**	*e*P	**P**	**14 54 45.9**	**+0.3**
	comp=Z,268nm,1.7s,mb5.7						
HIA				*e*PP	PP	14 56 25.9	-2.0
HIA				*e*ScP		15 00 24.8	
BVA0	**Borovoye Array**	**44.22**	**341**	*i* P	**P**	**14 54 54.6**	**0.0**
BVA0				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.7						
BVAR	**Borovoye Array**	**44.22**	**341**	P	**P**	**14 54 54.4**	**-0.2**
	comp=Z,74nm,0.9s,mb5.4,baz=143,slow=7.4,SNR=188						
BVAR				PcP	PcP	14 56 39.2	-0.3
	comp=Z,14nm,0.7s,baz=180,slow=1.5,SNR=3.5						
BRVK	**Borovoye**	**44.29**	**341**	*e*P	**P**	**14 54 54.8**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,125nm,1.0s,mb5.6						
BRVK	**Borovoye**	**44.29**	**341**	*e*P	**P**	**14 54 54.8**	**-0.3**
	comp=Z,125nm,1.0s,mb5.6						
QRN	**Al-Qurain**	**44.53**	**298**	*e*P	**P**	**14 54 57.4**	**-0.1**
CHKZ	**Chkalovo**	**44.71**	**342**	⇓*i*P	**P**	**14 54 58.8**	**+0.2**
CHKZ				pmax	pmax		
	comp=Z,343nm,0.9s,mb6.2						
CHKZ	**Chkalovo**	**44.71**	**342**	⇓*i*P	**P**	**14 54 58.8**	**+0.2**
	comp=Z,343nm,0.9s,mb6.2						
UMR	**Umm Al-Rimmam**	**44.87**	**300**	*e*P	**P**	**14 55 00.6**	**+0.4**
UMR				AMb	AMB	14 55 03.4	
	comp=Z,226nm,0.7s,mb6.1						
RDF	**Al-Radifah**	**44.88**	**299**	*e*P	**P**	**14 55 00.9**	**+0.6**
RDF				AMb	AMB	14 55 01.8	
	comp=Z,405nm,0.6s,mb6.4						
RYDS	**Riyadh**	**44.92**	**292**	P	**P**	**14 55 01.7**	**+1.0**
MDJ	**Mudanjiang**	**45.09**	**37**	*e*P	**P**	**14 55 02.8**	**+1.0**
	comp=Z,86nm,1.4s,mb5.4						
RST	**Umm Al-Ruwaisa**	**45.48**	**299**	*e*P	**P**	**14 55 05.1**	**+0.1**
RST				AMb	AMB	14 55 07.8	
	comp=Z,358nm,1.1s,mb6.1						
VLA	**Vladivostok**	**45.72**	**40**	⇓*i*P	**P**	**14 55 06.0**	**-0.7**
VLA				pmax	pmax		
	comp=Z,2µm,5.0s						
VLA				pmax	pmax		
	comp=E,800nm,4.0s						
VLA				MLR	MLR		
	comp=Z,8µm,15.0s,MS5.8						
VLA				MLR	MLR		
	comp=N,2µm,16.0s,MS6.2						
VLA				MLR	MLR		
	comp=E,22µm,15.0s,MS6.2						
LBOS		**46.00**	**277**	⇑*e*P	**P**	**14 55 11.4**	**+2.1**
MZLS	**Mizel**	**46.21**	**291**	P	**P**	**14 55 11.7**	**+0.9**
KAMS	**Al Khamasin**	**46.54**	**286**	P	**P**	**14 55 14.0**	**+0.6**
TRBA	**At Turbah**	**47.15**	**277**	*e*P	**P**	**14 55 20.6**	**+2.2**
MAJO	**Matsushiro**	**47.47**	**51**	*e*P	**P**	**14 55 20.7**	**+0.1**
MAJO				pmax	pmax		
	comp=Z,265nm,1.4s,mb6.0						
MAJO	**Matsushiro**	**47.47**	**51**	*e*P	**P**	**14 55 20.7**	**0.0**
	comp=Z,265nm,1.4s,mb6.0						
MAT	**Matsushiro**	**47.47**	**51**	P	**P**	**14 55 19.9**	**-0.7**
MAT				S	**S**	**15 02 18.0**	**+5.4**
MAT	**Matsushiro**	**47.47**	**51**	*e*P	**P**	**14 55 20.0**	**-0.6**
MAT				*e*S	**S**	**15 02 18.0**	**+5.4**
MAT				pmax	pmax		
	comp=Z,156nm,1.4s,mb5.8						
MAT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
MAT	**Matsushiro**	**47.47**	**51**	*e*P	**P**	**14 55 20.0**	**-0.6**
	comp=Z,156nm,1.4s,mb5.8						
MAT				*e*S	**S**	**15 02 18.0**	**+5.4**
MAT				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
TATS	**Tathlith**	**47.55**	**285**	P	**P**	**14 55 22.2**	**+0.6**
BOD	**Bodaibo**	**48.19**	**15**	*e*P	**P**	**14 55 25.9**	**-0.1**
BOD				*e*	pP	14 55 33.5	-0.1
BOD				*e*		15 02 21.8	
AFFS	**‘Afif**	**48.21**	**291**	P	**P**	**14 55 27.6**	**+1.0**
CBIJ	**Chichi jima**	**48.67**	**65**	P	**P**	**14 55 28.6**	**-1.5**
	comp=Z,74nm,0.6s,mb5.9,baz=294,slow=20,SNR=3.4						
KLR	**Kul’dur**	**48.92**	**33**	*e*P	**P**	**14 55 29.2**	**-2.5**
KLR				*e*		14 57 23.0	
KLR				pmax	pmax		
	comp=N,78nm,1.8s						
KLR				pmax	pmax		
	comp=E,120nm,1.8s						
KLR				pmax	pmax		
	comp=Z,120nm,1.8s,mb5.6						
KLR				pmax	pmax		
	comp=E,1.0nm,5.5s						
KLR				MLR	MLR		
	comp=N,6µm,15.0s						
KLR				MLR	MLR		
	comp=Z,7µm,15.0s,MS5.8						
MAK	**Makhachkala**	**49.32**	**317**	*c* *i*P	**P**	**14 55 36.0**	**+1.1**
MAK				*i* S	**S**	**15 02 42.0**	**+3.4**
MAK				*i* PS	PS	15 02 57.0	+6.9
MAK				*i*		15 05 19.0	
MAK				pmax	pmax		
	comp=Z,1µm,6.0s						
MAK				smax			
	comp=N,2µm,5.0s						
MAK				smax			
	comp=E,1µm,5.0s						
HILS	**Ha’il**	**49.65**	**295**	P	**P**	**14 55 38.3**	**+0.7**
GNI	**Garni**	**50.19**	**312**	P	**P**	**14 55 42.7**	**+1.1**
	comp=E,388nm,1.0s,mb6.4,baz=332,slow=2.0,SNR=122						
GNI				LR	LR	15 20 10.7	
	comp=E,3µm,19.8s,MS5.3,baz=322,slow=40						
GNI	**Garni**	**50.19**	**312**	*e*P	**P**	**14 55 43.2**	**+1.6**
GNI				pmax	pmax		
	comp=Z,498nm,1.0s						
GNI	**Garni**	**50.19**	**312**	*e*P	**P**	**14 55 43.2**	**+1.6**
	comp=Z,498nm,1.0s,mb6.5						
SVE	**Sverdlovsk**	**50.64**	**338**	⇓*i*P	**P**	**14 55 45.0**	**+0.2**
SVE				*e*		14 57 46.0	
SVE				*i* S	**S**	**15 02 58.0**	**+1.4**
SVE				pmax	pmax		
	comp=Z,440nm,1.8s,mb6.1						
SVE				pmax	pmax		
	comp=Z,480nm,1.8s,mb6.1						
SVE				MLR	MLR		
	comp=Z,4µm,17.0s,MS5.5						
TI2	**Plekhanov**	**50.73**	**314**	⇓*i*P	**P**	**14 55 47.2**	**+1.5**
CLNS	**Chul’man**	**50.83**	**22**	*e*P	**P**	**14 55 45.4**	**-0.8**
CLNS				*e**PP	pP	14 55 52.2	-1.7
CLNS				*e*		14 57 02.3	
CLNS				*e*S	**S**	**15 03 00.7**	**+1.5**
CLNS				*e*PS	PS	15 03 11.6	+0.6
CLNS				*e*		15 05 24.9	
CLNS				pmax	pmax		
	comp=Z,63nm,0.8s,mb5.6						
CLNS				pmax	pmax		
	comp=N,47nm,0.9s						
CLNS				pmax	pmax		
	comp=E,27nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
CLNS				pmax	pmax		
	comp=N,19nm,1.0s						
CLNS				pmax	pmax		
	comp=E,25nm,1.8s						
CLNS				smax			
	comp=N,16nm,1.0s						
CLNS				smax			
	comp=Z,5.0nm,0.8s						
CLNS				smax			
	comp=E,5.0nm,0.9s						
CLNS				MLR	MLR		
	comp=Z,4µm,15.0s,MS5.5						
CLNS				MLR	MLR		
	comp=N,2µm,14.0s,MS5.2						
CLNS				MLR	MLR		
	comp=E,500nm,14.0s,MS5.2						
NWAO	**Narrogin (SRO)**	**50.87**	**153**	P	**P**	**14 55 45.9**	**-1.0**
	comp=E,124nm,1.2s,mb5.7,baz=324,slow=8.9,SNR=24						
NWAO	**Narrogin (SRO)**	**50.87**	**153**	*e*P	**P**	**14 55 44.7**	**-2.2**
NWAO				pmax	pmax		
	comp=Z,69nm,0.8s						
NWAO	**Narrogin (SRO)**	**50.87**	**153**	*e*P	**P**	**14 55 44.7**	**-2.2**
	comp=Z,69nm,0.8s,mb5.6						
ARU	**Arti**	**51.13**	**337**	⇓*i*P	**P**	**14 55 48.0**	**-0.5**
ARU				*e*		14 57 44.3	
ARU				*e*PPP	PPP	14 58 38.5	-7.9
ARU				*e*S	**S**	**15 03 03.5**	**0.0**
ARU				*e*		15 05 37.0	
ARU				*e*SSS	SSS	15 08 12.4	-0.6
ARU				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.8						
ARU				MLR	MLR		
	comp=N,3µm,18.0s,MS5.5						
ARU				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.5						
ARU				MLR	MLR		
	comp=E,2µm,20.5s,MS5.5						
ARU	**Arti**	**51.13**	**337**	*e*P	**P**	**14 55 48.1**	**-0.4**
	comp=E,154nm,1.1s,mb5.8						
ZEI	**Tsey**	**51.70**	**315**	*e*P	**P**	**14 55 54.2**	**+1.2**
ZEI				*i*		14 57 51.9	
ZEI				pmax	pmax		
	comp=Z,152nm,1.0s,mb5.9						
KBRS	**Khaybar**	**51.74**	**293**	P	**P**	**14 55 54.4**	**+0.8**
BEST	**Besiri**	**52.10**	**309**	*i* P	**P**	**14 55 55.9**	**-0.3**
WRA	**Warramunga Arr**	**52.22**	**127**	P	**P**	**14 55 55.5**	**-1.8**
	comp=Z,38nm,0.6s,mb5.5,baz=306,slow=8.2,SNR=117						
WRA				PcP	PcP	14 57 09.1	+0.5
	comp=Z,20nm,0.6s,baz=315,slow=3.3,SNR=8.4						
WRA				ScP		15 01 01.8	
	comp=Z,19nm,1.0s,baz=316,slow=3.8,SNR=12						
WRA				S	**S**	**15 03 15.2**	**-3.7**
	comp=Z,8.8nm,0.9s,baz=298,slow=15,SNR=9.0						
WRA	**Warramunga Arr**	**52.22**	**127**	P	**P**	**14 55 55.5**	**-1.7**
WRA						14 57 09.1	
WRA				S	**S**	**15 03 15.2**	**-3.7**
WRA				pmax	pmax		
	comp=Z,38nm,0.6s						
WRA				pmax	pmax		
	comp=Z,20nm,0.6s						
WRAB	**Tennant Creek**	**52.22**	**127**	*i* P	**P**	**14 55 54.4**	**-2.9**
WRAB	**Tennant Creek**	**52.22**	**127**	*e*P	**P**	**14 55 55.2**	**-2.1**
	comp=Z,75nm,0.6s,mb5.8						
ERZM	**Erzurum**	**52.58**	**311**	*i* P	**P**	**14 56 01.3**	**+1.6**
YNBS	**Yanbu‘ al Bahr**	**52.80**	**291**	P	**P**	**14 56 02.0**	**+0.4**
KIV	**Kislovodsk**	**52.94**	**316**	P	**P**	**14 56 02.8**	**+0.5**
	comp=Z,2µm,0.9s,SNR=51						
KIV	**Kislovodsk**	**52.94**	**316**	*d* *i*P	**P**	**14 56 02.6**	**+0.3**
KIV				pmax	pmax		
	comp=Z,378nm,1.1s,mb6.2						
KIV	**Kislovodsk**	**52.94**	**316**	*e*P	**P**	**14 56 02.7**	**+0.4**
	comp=Z,260nm,0.8s,mb6.2						
GOF	**Gofitskoye**	**53.11**	**318**	⇓*i*P	**P**	**14 56 04.0**	**+0.5**
GOF				*e*S	**S**	**15 03 34.0**	**+3.4**
GOF				pmax	pmax		
	comp=Z,140nm,1.6s,mb5.6						
GOF				smax			
	comp=N,480nm,2.0s						
ASAJ	**Asahikawa**	**53.17**	**44**	P	**P**	**14 56 04.9**	**+0.9**
	comp=N,53nm,0.8s,mb5.5,baz=236,slow=13,SNR=4.9						
ASAJ	**Asahikawa**	**53.17**	**44**	P	**P**	**14 56 04.9**	**+0.9**
ASAJ				pmax	pmax		
	comp=Z,53nm,0.8s						
ELZG	**Elazig**	**54.00**	**309**	*i* P	**P**	**14 56 10.5**	**+0.4**
QURS	**Qurayyt al Mil**	**54.02**	**300**	P	**P**	**14 56 10.9**	**+0.5**
SOKR	**Solikamsk**	**54.04**	**338**	⇑*i*P	**P**	**14 56 08.8**	**-1.3**
SOKR				*i* S	**S**	**15 03 39.1**	**-3.9**
SOKR				pmax	pmax		
	comp=Z,170nm,1.0s,mb5.9						
SOKR				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.3						
ASAR	**Alice Springs**	**54.06**	**132**	P	**P**	**14 56 09.0**	**-1.8**
	comp=Z,20nm,0.5s,mb5.3,baz=308,slow=6.5,SNR=239						
ASAR				PcP	PcP	14 57 15.7	+0.2
	comp=Z,37nm,1.1s,baz=305,slow=4.4,SNR=6.9						
ASAR				ScP		15 01 10.6	
	comp=Z,13nm,1.0s,baz=308,slow=4.2,SNR=11						
ASAR				S	**S**	**15 03 39.9**	**-3.9**
	comp=Z,7.1nm,0.8s,baz=293,slow=13,SNR=12						
ASAR				LR	LR	15 22 46.7	
	comp=Z,1µm,18.2s,MS4.9,baz=300,slow=40						
YSS	**Yuzh-Sakhalins**	**54.31**	**40**	⇑*e*P	**P**	**14 56 07.0**	**-5.3**
YSS				*e**SP	sP	14 56 14.0	-9.0
YSS				*e*S	**S**	**15 03 43.0**	**-3.9**
YSS				*e*PPS	PPS	15 04 04.0	-4.3
YSS				pmax	pmax		
	comp=Z,120nm,0.8s,mb5.9						
YSS				pmax	pmax		
	comp=E,80nm,1.0s						
YSS				MLR	MLR		
	comp=E,4µm,15.0s						
YSS				MLR	MLR		
	comp=Z,4µm,15.0s,MS5.5						
YSS	**Yuzh-Sakhalins**	**54.31**	**40**	*e*P	**P**	**14 56 13.1**	**+0.8**
	comp=Z,224nm,1.1s,mb6.0						
TBKS	**Tabuk**	**54.35**	**296**	P	**P**	**14 56 13.4**	**+0.5**
MALT	**Malatya**	**54.38**	**308**	*e*P	**P**	**14 56 12.6**	**-0.3**
MALT				pmax	pmax		
	comp=Z,99nm,1.0s,mb5.7						
MALT	**Malatya**	**54.38**	**308**	*e*P	**P**	**14 56 12.6**	**-0.3**
	comp=Z,99nm,1.0s,mb5.7						
ASF	**Jabal al Asfar**	**54.49**	**301**	LR	LR	15 23 15.3	
	comp=Z,3µm,18.0s,MS5.3,baz=154,slow=40						
GZT	**Gaziantep**	**54.84**	**307**	*i* P	**P**	**14 56 16.2**	**-0.1**
SOC	**Sochi**	**54.85**	**315**	*i* P	**P**	**14 56 15.6**	**-0.8**
SOC				*e*		14 58 21.0	
SOC				*i* S	**S**	**15 03 53.5**	**-0.6**
SOC				*e*SS	SS	15 07 29.3	-8.0
SOC				pmax	pmax		
	comp=Z,191nm,1.0s,mb6.1						
SOC				pmax	pmax		
	comp=N,43nm,0.9s						
SOC				pmax	pmax		
	comp=E,71nm,1.6s						
SOC				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
SOC				MLR	MLR		
	comp=N,4µm,23.0s,MS5.5						
SOC				MLR	MLR		
	comp=E,2µm,23.0s,MS5.5						
JMQS	**Jabal Moqyreh**	**55.00**	**297**	P	**P**	**14 56 17.7**	**0.0**
KAHT	**Ahir Dag**	**55.43**	**307**	*i* P	**P**	**14 56 20.5**	**-0.1**
MKRJ	**Makawir**	**55.47**	**300**	P	**P**	**14 56 20.9**	**-0.1**
AYUS	**‘Aynunah**	**55.48**	**296**	P	**P**	**14 56 21.2**	**0.0**
KSHT	**Keshet**	**55.51**	**302**	P	**P**	**14 56 21.4**	**+0.1**
GLH	**Golan-Tel Qazi**	**55.61**	**301**	P	**P**	**14 56 22.1**	**+0.1**
BDAS	**Al Bad‘**	**55.64**	**296**	P	**P**	**14 56 22.0**	**-0.3**
HMDT	**Nahal Hemdat**	**55.65**	**301**	P	**P**	**14 56 22.2**	**-0.1**
DRGI	**Dragot**	**55.69**	**300**	P	**P**	**14 56 22.5**	**-0.1**
JMOS	**Jabal al Moall**	**55.69**	**297**	P	**P**	**14 56 22.5**	**-0.2**
COBT	**Iskenderun**	**55.70**	**306**	*i* P	**P**	**14 56 22.4**	**-0.3**
ALWS	**Ilw as Safayha**	**55.74**	**297**	P	**P**	**14 56 22.9**	**-0.1**
MMLI	**Mount Malkishu**	**55.76**	**301**	P	**P**	**14 56 23.3**	**+0.2**
HAQS	**Haql**	**55.84**	**297**	P	**P**	**14 56 23.5**	**-0.2**
EIL	**Elat**	**55.87**	**297**	*e*P	**P**	**14 56 23.2**	**-0.7**
	comp=E,32nm,0.6s,mb5.5						
MBH	**Mount Berech**	**55.91**	**298**	P	**P**	**14 56 24.0**	**-0.2**
SLTI	**Sal’it**	**56.06**	**301**	P	**P**	**14 56 25.2**	**0.0**
KMTI	**Karmit**	**56.11**	**298**	P	**P**	**14 56 25.3**	**-0.3**
OFRI	**‘Ofer**	**56.15**	**301**	P	**P**	**14 56 25.9**	**0.0**
YAK	**Yakutsk**	**56.28**	**20**	*e*P	**P**	**14 56 25.6**	**-0.8**
YAK				*e**PP	pP	14 56 31.0	-3.2
YAK				*e*		14 57 22.6	
YAK				*e*		14 58 32.9	
YAK				*e*PPP	PPP	14 59 44.8	-5.4
YAK				*e*S	**S**	**15 04 11.0**	**-2.0**
YAK				*e*		15 06 08.2	
YAK				*e*SS	SS	15 07 57.9	-2.4
YAK				*e*SSS	SSS	15 10 12.0	+2.5
YAK				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.0						
YAK				pmax	pmax		
	comp=N,8.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,10.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
YAK				smax			
	comp=N,5.0nm,1.0s						
YAK				smax			
	comp=E,11nm,1.1s						
YAK				MLR	MLR		
	comp=N,1µm,14.0s,MS5.2						
YAK				MLR	MLR		
	comp=Z,1µm,14.0s,MS5.2						
YAK				MLR	MLR		
	comp=E,466nm,15.0s,MS5.2						
YAK	**Yakutsk**	**56.28**	**20**	*e*P	**P**	**14 56 25.1**	**-1.3**
	comp=E,87nm,0.8s,mb5.8						
KMBO	**Kilima Mbogo**	**56.47**	**260**	P	**P**	**14 56 29.4**	**+1.0**
	comp=E,41nm,1.1s,mb5.3,baz=56,slow=11,SNR=54						
KMBO				LR	LR	15 17 40.5	
	comp=E,4µm,21.1s,MS5.5,baz=83,slow=33						
KMBO	**Kilima Mbogo**	**56.47**	**260**	*e*P	**P**	**14 56 29.1**	**+0.7**
KMBO				pmax	pmax		
	comp=Z,57nm,1.3s						
KMBO	**Kilima Mbogo**	**56.47**	**260**	*e*P	**P**	**14 56 29.1**	**+0.7**
	comp=Z,57nm,1.3s,mb5.4						
ANN	**Anapa**	**56.78**	**316**	*e*P	**P**	**14 56 31.7**	**+1.5**
ANN				*e*S	**S**	**15 04 21.1**	**+1.3**
ANN				pmax	pmax		
	comp=Z,95nm,1.1s,mb5.7						
AVNT	**Avonos**	**57.22**	**308**	*i* P	**P**	**14 56 32.4**	**-1.0**
PHNC	**Paralimni**	**57.25**	**304**	⇓P	**P**	**14 56 32.4**	**-1.3**
PHNC	**Paralimni**	**57.25**	**304**	⇓*i*P	**P**	**14 56 32.4**	**-1.3**
MEST	**Erdemli**	**57.39**	**306**	*i* P	**P**	**14 56 33.5**	**-1.2**
PECR	**Pechory**	**57.44**	**330**	*e*P	**P**	**14 56 35.4**	**+0.7**
PECR				*e*S	**S**	**15 04 27.4**	**-0.9**
PECR				*e*		15 04 46.0	
PECR				smax			
	comp=N,1µm,8.0s						
PECR				smax			
	comp=E,800nm,8.0s						
CTKT	**Corum**	**57.63**	**310**	*i* P	**P**	**14 56 36.2**	**-0.1**
BOYT	**Boyabat**	**57.72**	**311**	*i* P	**P**	**14 56 36.5**	**-0.4**
CSS	**Prodhromos**	**57.81**	**304**	*e*P	**P**	**14 56 36.3**	**-1.4**
	comp=E,50nm,0.8s,mb5.6						
VOR	**Voronezh**	**58.00**	**324**	*e*P	**P**	**14 56 37.5**	**-1.2**
VOR				pmax	pmax		
	comp=Z,370nm,1.6s,mb6.2						
SZAC	**Souni-Zanaja**	**58.15**	**303**	⇓P	**P**	**14 56 39.1**	**-0.9**
	comp=Z,2.6nm,0.8s						
SZAC	**Souni-Zanaja**	**58.15**	**303**	⇓*e*P	**P**	**14 56 39.1**	**-0.9**
BRTR	**Keskin Array B**	**58.32**	**309**	P	**P**	**14 56 39.6**	**-1.5**
	comp=Z,56nm,0.8s,mb5.6,baz=122,slow=7.0,SNR=142						
BRTR				ScP		15 01 29.9	
	comp=Z,2.0nm,0.8s,baz=119,slow=5.3,SNR=3.9						
ALFC	**Alevga**	**58.43**	**304**	⇓P	**P**	**14 56 40.5**	**-1.5**
	comp=Z,3.5nm,0.8s						
ALFC	**Alevga**	**58.43**	**304**	⇓*e*P	**P**	**14 56 40.5**	**-1.5**
PMG	**Port Moresby**	**58.45**	**109**	P	**P**	**14 56 41.5**	**-0.9**
	comp=Z,40nm,0.7s,mb5.5,baz=7.4,slow=2.9,SNR=20						
PMG	**Port Moresby**	**58.45**	**109**	*e*P	**P**	**14 56 41.2**	**-1.2**
PMG				pmax	pmax		
	comp=Z,43nm,0.7s						
PMG	**Port Moresby**	**58.45**	**109**	*e*P	**P**	**14 56 41.2**	**-1.1**
	comp=Z,43nm,0.7s,mb5.6						
ELDT	**Eldivan**	**58.62**	**310**	*i* P	**P**	**14 56 42.9**	**-0.4**
AKMC	**Akamas**	**58.64**	**303**	P	**P**	**14 56 41.9**	**-1.5**
BALT	**Daday**	**58.86**	**311**	*i* P	**P**	**14 56 44.1**	**-0.7**
SIM	**Simferopol’**	**59.09**	**315**	*d* *i*P	**P**	**14 56 45.9**	**-0.5**
SIM				*i* S	**S**	**15 04 53.0**	**+2.8**
SIM				pmax	pmax		
	comp=Z,124nm,1.2s,mb5.8						
SIM				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
SGKT	**Sivrigoynuk**	**59.66**	**310**	*i* P	**P**	**14 56 50.0**	**-0.5**
ESKT	**Eskisehir**	**60.41**	**308**	*i* P	**P**	**14 56 54.4**	**-1.2**
MOS	**Moscow**	**60.42**	**328**	*e*P	**P**	**14 56 54.9**	**-0.5**
MOS				*i*	pP	14 57 02.2	-1.1
MOS				*e*		14 57 32.7	
MOS				*e*		14 59 07.4	
MOS				*e*S	**S**	**15 05 07.4**	**+0.3**
MOS				pmax	pmax		
	comp=Z,900nm,2.3s,mb6.4						
MOS				pmax	pmax		
	comp=Z,316nm,1.6s,mb6.1						
ISP	**Isparta**	**60.44**	**307**	*e*P	**P**	**14 56 54.0**	**-1.8**
ISP				pmax	pmax		
	comp=Z,134nm,1.1s,mb5.9						
ISP	**Isparta**	**60.44**	**307**	*e*P	**P**	**14 56 54.0**	**-1.8**
	comp=Z,134nm,1.1s,mb5.9						
HENT	**Hendek**	**60.57**	**310**	*i* P	**P**	**14 56 55.6**	**-1.1**
OBN	**Obninsk**	**60.74**	**327**	*d* *i*P	**P**	**14 56 56.7**	**-0.9**
OBN				*e*		14 59 13.4	
OBN				*i* S	**S**	**15 05 07.0**	**-4.2**
OBN				pmax	pmax		
	comp=Z,311nm,1.6s,mb6.2						
OBN				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.5						
OBN	**Obninsk**	**60.74**	**327**	*e*P	**P**	**14 56 56.7**	**-0.9**
	comp=Z,230nm,1.3s,mb6.2						
DNZL	**Cakiroluk**	**61.58**	**306**	*i* P	**P**	**14 57 02.3**	**-1.2**
ULDT	**Uludag**	**61.80**	**309**	*i* P	**P**	**14 57 04.0**	**-1.0**
CTA	**Charters Tower**	**61.94**	**121**	P	**P**	**14 57 05.1**	**-1.1**
	comp=Z,26nm,1.0s,mb5.3,baz=303,slow=7.7,SNR=14						
CTA	**Charters Tower**	**61.94**	**121**	P		15 01 45.5	
	comp=Z,12nm,1.1s,baz=317,slow=2.5,SNR=6.2						
CTA	**Charters Tower**	**61.94**	**121**	P	**P**	**14 57 05.1**	**-1.1**
CTA				pmax	pmax		
	comp=Z,26nm,1.0s						
CTAO	**Charters Tower**	**61.94**	**121**	*e*P	**P**	**14 57 05.3**	**-0.9**
CTAO				pmax	pmax		
	comp=Z,135nm,1.6s,mb5.8						
CTAO	**Charters Tower**	**61.94**	**121**	*e*P	**P**	**14 57 05.3**	**-1.0**
	comp=Z,135nm,1.6s,mb5.8						
MANT	**Manisa**	**62.05**	**307**	*i* P	**P**	**14 57 05.3**	**-1.4**
AYDN	**Tasoluk**	**62.49**	**306**	*i* P	**P**	**14 57 08.5**	**-1.2**
MBAR	**Mbarara**	**62.63**	**263**	*i* P	**P**	**14 57 10.8**	**-0.1**
MBAR	**Mbarara**	**62.63**	**263**	*e*P	**P**	**14 57 10.7**	**-0.2**
	comp=Z,143nm,1.5s,mb5.9						
TIRR	**Tirgusor**	**62.98**	**314**	P	**P**	**14 57 12.1**	**-0.6**
KDAG	**Bornova**	**63.05**	**307**	*i* P	**P**	**14 57 12.5**	**-0.8**
KIS	**Kishinev**	**63.14**	**317**	*e*P	**P**	**14 57 13.0**	**-0.8**
KIS				*e*	pP	14 57 20.0	-1.7
KIS				*e*		15 05 40.0	
KIS				*e*		15 05 58.0	

TIXI	Tiksi	63.16	12	⇓iP	P	14 57 12.4	-1.2
TIXI				eS	S	15 05 39.4	-2.2
TIXI				pmax	pmax		
	comp=Z,284nm,1.3s,mb6.2						
TIXI				pmax	pmax		
	comp=N,40nm,0.9s						
TIXI				pmax	pmax		
	comp=E,98nm,2.1s						
TIXI				pmax	pmax		
	comp=Z,890nm,2.4s,mb6.5						
TIXI				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.4						
CFR	Carcaliu	63.29	314	⇓iP	P	14 57 14.0	-0.8
MA2	Magadan	63.56	29	i P	P	14 57 15.8	-0.6
MA2				pmax	pmax		
	comp=Z,89nm,1.3s,mb5.6						
MA2	Magadan	63.56	29	eP	P	14 57 15.4	-0.9
	comp=Z,136nm,1.0s,mb5.9						
AKASG	Malin Array Be	63.65	321	P	P	14 57 14.9	-2.2
	comp=Z,34nm,0.7s,mb5.5,baz=85,slow=5.2,SNR=133						
AKASG	Malin Array Be	63.65	321	P	P	14 57 14.9	-2.2
AKASG				pmax	pmax		
	comp=Z,34nm,0.7s						
SKR	Severo-Kuril's	63.84	39	eP	P	14 57 18.0	-0.3
SKR				e		14 57 49.0	
SKR				ePPP	PPP	15 01 10.0	-2.3
SKR				S	S	15 05 44.0	-6.4
SKR				pmax	pmax		
	comp=Z,2µm,4.0s						
SKR				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.1						
SKR				smax			
	comp=N,2µm,8.0s						
SKR				smax			
	comp=E,2µm,8.0s						
SKR				MLR	MLR		
	comp=N,3µm,18.0s,MS5.7						
SKR				MLR	MLR		
	comp=E,3µm,18.0s,MS5.7						
SKR				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.5						
VRI	Vrincioaia	64.37	315	⇓iP	P	14 57 22.2	+0.3
STKA	Stephens Creek	64.38	135	P	P	14 57 21.1	-1.1
	comp=Z,17nm,0.5s,mb5.3,baz=313,slow=7.5,SNR=41						
STKA	Stephens Creek	64.38	135	eP	P	14 57 20.7	-1.5
IDI	Anoyia	64.73	303	P	P	14 57 23.6	-0.8
	comp=Z,63nm,1.0s,mb5.6,baz=83,slow=6.6,SNR=25						
MLR	Muntele Rosu	64.86	315	P	P	14 57 25.3	+0.2
RZN	Rozhen	65.31	310	eP	P	14 57 26.0	-2.0
MNK	Minsk	65.36	325	eP	P	14 57 25.0	-3.1
MNK				pmax	pmax		
	comp=E,350nm,1.2s						
MNK				pmax	pmax		
	comp=Z,630nm,1.2s,mb6.5						
PUL	Pulkovo	65.51	331	⇑eP	P	14 57 28.9	-0.1
PUL				eS	S	15 06 10.8	0.0
PUL				eSSS	SSS	15 13 11.3	-8.1
PUL				pmax	pmax		
	comp=Z,154nm,0.7s,mb6.1						
PUL				pmax	pmax		
	comp=N,84nm,0.6s						
PUL				pmax	pmax		
	comp=E,247nm,0.9s						
SEY	Seymchan	65.54	26	eP	P	14 57 27.0	-2.2
SEY						14 57 57.9	
SEY				PPP	PPP	15 01 35.4	+5.2
SEY				eS	S	15 06 08.1	-3.0
SEY				ePS	PS	15 06 29.8	-5.6
SEY				e		15 07 19.5	
SEY				eSS	SS	15 10 21.7	-4.9
SEY				eSSS	SSS	15 13 22.6	+2.7
SEY				pmax	pmax		
	comp=E,100nm,1.2s						
SEY				pmax	pmax		
	comp=Z,230nm,1.2s,mb6.1						
SEY				MLR	MLR		
	comp=Z,7µm,20.0s,MS5.9						
SEY				MLR	MLR		
	comp=N,4µm,15.0s,MS5.8						
SEY				MLR	MLR		
	comp=E,4µm,18.0s,MS5.8						
PGB	Panagyurishte	65.80	311	eP	P	14 57 30.0	-1.1
PET	Petropavlovsk	65.88	37	eP	P	14 57 33.5	+2.1
PET				e		14 59 59.8	
PET				eS	S	15 06 16.0	+0.6
PET				e		15 07 18.1	
PET				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.3						
PET				pmax	pmax		
	comp=Z,300nm,12.9s						
PET				pmax	pmax		
	comp=Z,200nm,14.7s						
PET				smax			
	comp=N,700nm,23.0s						
PET				smax			
	comp=E,500nm,21.5s						
PET				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.5						
PET				MLR	MLR		
	comp=Z,2µm,18.0s						
PET	Petropavlovsk	65.88	37	eP	P	14 57 30.9	-0.5
	comp=Z,41nm,0.9s,mb5.5						
MMB	Musomiste	66.04	310	eP	P	14 57 31.0	-1.7
IDID	Didziasalis	66.17	325	i P	P	14 57 32.9	-0.4
IDID				AMPb	AMB	14 57 36.2	
	comp=Z,56nm,1.1s,mb5.5						
IIGN	Ignalina	66.46	325	i P	P	14 57 35.0	-0.2
IIGN				AMPb	AMB	14 57 38.1	
	comp=Z,52nm,1.0s,mb5.5						
VTS	Vitosha	66.50	311	eP	P	14 57 34.0	-1.6
VTS	Vitosha	66.50	311	P	P	14 57 35.0	-0.6
IZAR	Zarasai	66.54	326	eP	P	14 57 35.4	-0.3
IZAR				AMPb	AMB	14 57 38.7	
	comp=Z,47nm,1.4s,mb5.3						
KKB	Krupnik	66.54	310	eP	P	14 57 34.0	-1.9
ISAL	Salakas	66.56	325	eP	P	14 57 35.4	-0.4
ISAL				AMPb	AMB	14 57 38.9	
	comp=Z,37nm,1.4s,mb5.2						
LVZ	Lovozero	66.79	340	⇑eP	P	14 57 36.5	-0.6
LVZ				eS	S	15 06 23.4	-2.9
LVZ				pmax	pmax		
	comp=Z,86nm,1.1s,mb5.7						
LVZ				pmax	pmax		
	comp=E,18nm,0.8s						
LVZ				smax			
	comp=N,545nm,4.1s						
LVZ				smax			
	comp=E,505nm,3.7s						
LVZ				MLR	MLR		
	comp=Z,4µm,19.0s,MS5.7						
LVZ				MLR	MLR		
	comp=E,3µm,22.0s						
APA	Apatity	67.08	339	⇑iP	P	14 57 37.4	-1.5
APA				i	pP	14 57 46.1	-0.7
APA				eS	S	15 06 29.0	-0.8
APA				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.8						
APA				MLR	MLR		
	comp=Z,6µm,18.0s,MS5.8						
BOLS	Boljevac	67.51	312	⇑iP	P	14 57 41.4	-0.7
KWP	Kalwaria	67.59	319	eP	P	14 57 42.3	-0.1
KWP				e	pP	14 57 50.2	-0.1
SKO	Skopje	67.77	310	⇑iP	P	14 57 42.0	-1.7
SKO				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.4						
SKO	Skopje	67.77	310	⇑iP	P	14 57 42.0	-1.7
	comp=Z,0.0nm,0.7s						
KOLS	Kolonicke sedl	67.79	318	i P	P	14 57 43.6	-0.1
KOLS				e	pP	14 57 52.5	+1.0
KOLS	Kolonicke sedl	67.79	318	i P	P	14 57 43.6	-0.1
KOLS				e		14 57 45.4	
KOLS				esP	sP	14 57 52.5	-1.9
SUW	Suwalki	67.94	323	eP	P	14 57 43.5	-1.0
SUW				e	pP	14 57 52.4	0.0
FINES	FINESS Array B	68.00	332	P	P	14 57 44.0	-0.8
	comp=Z,76nm,0.8s,mb5.8,baz=104,slow=7.9,SNR=136						
FINES				LR	LR	15 33 53.8	
	comp=Z,2µm,19.3s,MS5.4,baz=105,slow=42						
KAF	Kangasniemi	68.07	332	ep	P	14 57 45.2	0.0
	comp=Z,104nm,1.0s,mb5.8						
KAF	Kangasniemi	68.07	332	eP	P	14 57 45.2	0.0
KAF				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.8						
CRVS	Cervenica-Dubn	68.31	318	i P	P	14 57 48.4	+1.4
CRVS				e		14 58 01.3	
GRUS	Gruza	68.41	312	⇓iP	P	14 57 46.5	-1.1
KECS	Kecovo	68.92	317	i P	P	14 57 50.2	-0.5
NIE	Niedzica	69.12	318	eP	P	14 57 52.1	+0.2
PSZ	Piszkesteto	69.27	317	eP	P	14 57 52.1	-0.7
PSZ				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.7						
PSZ	Piszkesteto	69.27	317	⇓eP	P	14 57 52.7	-0.1
LSZ	Lusaka	69.35	248	eP	P	14 57 54.2	+0.3
LSZ				pmax	pmax		
	comp=Z,195nm,1.5s,mb5.8						
LSZ	Lusaka	69.35	248	eP	P	14 57 54.1	+0.3
	comp=Z,195nm,1.5s,mb5.8						
OJC	Ojcow	69.52	319	i P	P	14 57 53.8	-0.6
OJC				ePcP	pP	14 58 02.5	+0.3
PKSM	Moragy	70.01	315	⇓eP	P	14 57 56.7	-0.7
VYHS	Vyhne	70.01	317	i P	P	14 57 57.1	-0.3
VYHS				esP	sP	14 58 05.4	-2.7
KEV	Kevo	70.07	340	ep	P	14 57 57.3	-0.1
	comp=Z,53nm,0.6s,mb5.6						
KEV	Kevo	70.07	340	eP	P	14 57 57.3	-0.1
KEV				pmax	pmax		
	comp=Z,53nm,0.6s,mb5.7						
SRO	Srobarova	70.32	316	eP	P	14 57 59.1	-0.2
RHK1	Bakonya	70.40	315	⇑iP	P	14 57 59.2	-0.6
ARCES	ARCESS Array B	70.50	340	P	P	14 58 00.1	+0.1
	comp=Z,62nm,0.6s,mb5.7,baz=84,slow=6.7,SNR=309						
ARCES				LR	LR	15 32 15.7	
	comp=Z,4µm,18.8s,MS5.7,baz=115,slow=39						
ARCES	ARCESS Array B	70.50	340	P	P	14 58 00.1	+0.1
ARCES				pmax	pmax		
	comp=Z,62nm,0.6s						
ARCES				MLR	MLR		
	comp=Z,4µm,18.8s						
ARE0	ARCESS Array S	70.50	340	eP	P	14 58 00.1	+0.1
OKC	Ostrava-Krasne	70.55	319	⇓eP	P	14 58 00.4	-0.2
OKC				epP	pP	14 58 08.9	+0.4
MORC	Moravsky Berou	70.94	319	eP	P	14 58 02.9	-0.1
MORC				pmax	pmax		
	comp=Z,214nm,1.4s,mb5.9						
MORC	Moravsky Berou	70.94	319	eP	P	14 58 02.9	-0.1
	comp=Z,214nm,1.4s,mb5.9						
SMOL	Smolenice	70.95	317	eP	P	14 58 02.9	-0.2
KTK1	Kautokeino	71.13	339	eP	P	14 58 04.7	+0.9
KTK1				AMb	AMB	14 58 08.0	
	comp=Z,155nm,1.4s,mb5.7						
KTK1	Kautokeino	71.13	339	eP	P	14 58 04.7	+0.9
	comp=Z,155nm,1.4s,mb5.8						
ZST	Bratislava	71.15	317	eP	P	14 58 04.1	-0.2
ZST				esP	sP	14 58 12.9	-2.1
GKP	Gorka Klasztor	71.36	322	eP	P	14 58 05.5	0.0
GKP				e	pP	14 58 13.4	0.0
VRAC	Vranov	71.53	318	P	P	14 58 06.9	+0.3
GRI	Girifalco	71.55	307	eP	P	14 58 06.8	-0.1
DPC	Dobruska-Polom	71.75	319	eP	P	14 58 08.3	+0.4
DPC				epP	pP	14 58 16.7	+0.9
DPC				eS	S	15 07 24.8	-0.3
DPC				AMS	AMS	15 33 30.0	
	comp=Z,1µm,17.0s						
KSP	Ksiaz	71.80	320	⇓iP	P	14 58 08.3	+0.2
KSP				epP	pP	14 58 16.5	+0.5
KSP				e		14 58 22.0	
KSP				eS	S	15 07 26.0	+0.5
KSP				LR	LR		
	comp=Z,4µm,20.2s,MS5.7						
KSP	Ksiaz	71.80	320	eP	P	14 58 08.4	+0.3
KSP				e	pP	14 58 16.9	+0.9
SOI	Samo	71.85	306	eP	P	14 58 08.4	-0.3
UPC	Upice	71.96	319	⇓eP	P	14 58 09.3	+0.2
UPC				epP	pP	14 58 17.7	+0.7
ARSA	Arzberg	72.19	316	⇑iP	P	14 58 10.2	-0.3
	comp=Z,74nm,1.4s,mb5.4						
PERS	Pernice	72.46	315	⇓eP	P	14 58 11.9	-0.2
PERS				e	pP	14 58 20.0	0.0
BILL	Bilibino	72.52	22	eP	P	14 58 11.6	-0.5
BILL				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.2						
BILL	Bilibino	72.52	22	eP	P	14 58 11.6	-0.5
	comp=Z,39nm,1.1s,mb5.2						
TRO	Tromso	72.76	339	eP	P	14 58 12.2	-1.2
TRO				AMb	AMB	14 58 23.7	
	comp=Z,238nm,1.7s,mb5.8						
PZI	Palazzolo	72.77	305	eP	P	14 58 14.0	-0.2
BSD	Bornholm Skovb	72.84	324	i P	P	14 58 13.2	-1.0
BSD				pmax	pmax		
	comp=Z,103nm,0.9s,mb5.8						
BSD	Bornholm Skovb	72.84	324	i P	P	14 58 13.2	-1.0
	comp=Z,103nm,0.9s,mb5.8						
OBKA	Obir	72.85	315	⇑iP	P	14 58 14.4	-0.1
	comp=Z,80nm,1.1s,mb5.6						
PVCC	Panska Ves	72.88	319	⇓eP	P	14 58 14.8	+0.3
PRU	Pruhonice	72.89	319	⇓iP	P	14 58 14.6	0.0
	comp=Z,117nm,1.1s,mb5.7						
PRU				epP	pP	14 58 23.1	+0.6
PRU				eS	S	15 07 35.2	-2.8
PRU				AMS	AMS	15 34 10.0	
	comp=Z,1µm,19.3s						
MOA	Molln	73.05	316	⇑iP	P	14 58 15.3	-0.3
	comp=Z,52nm,1.1s,mb5.4						
JAVS	Javornik	73.19	314	⇓eP	P	14 58 16.0	-0.4
BRG	Berggiesshubel	73.29	320	⇓iP	P	14 58 17.1	+0.2
BRG				i	pP	14 58 25.9	+1.1
BRG				i S	S	15 07 44.0	+1.5
BRG				pmax	pmax		
	comp=Z,163nm,1.4s,mb5.8						
BRG				MLR	MLR		
	comp=Z,2µm,20.9s,MS5.3						
BRG	Berggiesshubel	73.29	320	⇓iP	P	14 58 17.1	+0.2
	comp=Z,163nm,1.4s,mb5.8						
BRG				i	pP	14 58 25.9	+1.1
BRG				i S	S	15 07 44.0	+1.5
BRG				LR	LR		
	comp=Z,2µm,20.9s,MS5.3						
VOY	Vojsko	73.31	315	eP	P	14 58 15.5	-1.6
VOY				e	pP	14 58 25.0	-0.1
RUE	Ruedersdorf	73.42	321	eP	P	14 58 17.7	+0.1
	comp=Z,295nm,1.0s,mb6.2						
GEC2	GERESS Array S	73.43	317	eP	P	14 58 17.9	+0.1
GEC2				pmax	pmax		
	comp=Z,129nm,1.0s,mb5.8						
GEC2	GERESS Array S	73.43	317	eP	P	14 58 17.9	+0.1
	comp=Z,129nm,1.0s,mb5.8						
GERES	GERESS Array B	73.43	317	P	P	14 58 17.8	+0.1
	comp=Z,65nm,0.9s,mb5.5,baz=90,slow=5.3,SNR=205						
GERES	GERESS Array B	73.43	317	P	P	14 58 17.8	0.0
GERES				pmax	pmax		
	comp=Z,65nm,0.9s						
KHC	Kasperske Hory	73.51	318	⇓iP	P	14 58 17.6	-0.6
KHC				epP	pP	14 58 26.7	+0.5
KHC				AMS	AMS	15 40 50.0	
	comp=Z,900nm,19.1s						
PTCC	Patocco-Chiusa	73.68	315	eP	P	14 58 18.8	-0.5
GMNA	Gemona	73.76	315	eP	P	14 58 19.5	-0.3
CLL	Collm	73.88	320	⇓iP	P	14 58 20.1	-0.2
CLL				eS	S	15 07 50.0	+0.9
CLL				pmax	pmax		
	comp=Z,105nm,1.1s,mb5.7						
CLL				MLR	MLR		
	comp=Z,2µm,19.1s,MS5.3						
CLL	Collm	73.88	320	⇓iP	P	14 58 20.1	-0.2
	comp=Z,105nm,1.1s,mb5.7						
CLL				eS	S	15 07 50.0	+0.9
CLL				LR	LR		
	comp=Z,2µm,19.1s,MS5.3						
CLL	Collm	73.88	320	⇓P	P	14 58 20.1	-0.2
	comp=Z,logA/T=2.0,mb5.7						
CLL				e*SP	sP	14 58 28.0	-3.1
CLL				eS	S	15 07 50.0	+0.9
MOR8	Moi Rana	73.93	336	eP	P	14 58 19.6	-0.7
MOR8				AMb	AMB	14 58 23.0	
	comp=Z,155nm,1.5s,mb5.7						
MOR8				esP	sP	14 58 28.0	-3.0
MOR8	Moi Rana	73.93	336	eP	P	14 58 19.6	-0.7
	comp=Z,155nm,1.5s,mb5.7						
WET	Wettzell	73.97	318	eP	P	14 58 21.1	+0.2
ARV	Arcevia	74.05	312	eP	P	14 58 20.8	-0.7
SNTG	Esanatoglia	74.05	312	eP	P	14 58 20.8	-0.8
FVI	Forni Avoltri	74.07	315	eP	P	14 58 21.3	-0.2
NKC	Novy Kostel	74.24	319	⇓eP	P	14 58 22.5	+0.1
NKC				AMS	AMS	15 37 20.0	
	comp=Z,2µm,16.5s						
COP	Copenhagen	74.28	325	i P	P	14 58 23.3	+0.8
COP				i S	S	15 07 54.6	+1.2
COP				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.5						
COP				MLR	MLR		
	comp=Z,510nm,17.0s,MS4.9						
COP	Copenhagen	74.28	325	i P	P	14 58 23.3	+0.8
	comp=Z,54nm,0.8s,mb5.5						
COP				i S	S	15 07 54.6	+1.2
	comp=Z,510nm,17.0s						
LOF	Lofoten	74.47	338	⇑iP	P	14 58 25.4	+1.9
LOF				AMb	AMB	14 58 28.5	
	comp=Z,277nm,1.2s,mb6.0						
LOF	Lofoten	74.47	338	⇑iP	P	14 58 25.4	+1.9
	comp=Z,277nm,1.3s,mb6.0						
FX1	Attu Island--F	74.58	38	eP	P	14 58 24.2	-0.1
MOX	Moxa	74.77	319	eP	P	14 58 25.6	+0.1
MOX				e*PP	pP	14 58 34.0	+0.6
MOX				pmax	pmax		
	comp=Z,169nm,1.7s,mb5.7						
MOX				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
MOX	Moxa	74.77	319	i P	P	14 58 25.6	+0.1
	comp=Z,logA/T=2.0,mb5.7						
MOX				pP	pP	14 58 34.0	+0.6
MOX				L		15 35 42.0	
MOX	Moxa	74.77	319	eP	P	14 58 25.6	+0.1
	comp=Z,169nm,1.7s,mb5.7						
MOX				epP	pP	14 58 34.0	+0.6
MOX				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
SFI	Santa Sofia	74.82	312	eP	P	14 58 26.4	+0.5
NSS	Namsos	74.83	334	eP	P	14 58 24.4	-1.2
WTTA	Wattenberg	74.84	316	⇓iP	P	14 58 25.2	-0.8
	comp=Z,74nm,0.8s,mb5.7						
WTTA	Wattenberg	74.84	316	⇓iP	P	14 58 25.2	-0.8
WTTA				pmax	pmax		
	comp=Z,74nm,0.8s,mb5.7						
CTI	Castel Tesino	74.87	315	eP	P	14 58 26.1	-0.1
WATA	Walderalm	74.87	316	⇓iP	P	14 58 25.2	-1.0
	comp=Z,13nm,0.6s,mb5.0						
WATA	Walderalm	74.87	316	⇓iP	P	14 58 25.2	-1.0
WATA				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
PGD	Poggio Sodo	74.91	312	eP	P	14 58 27.1	+0.6
NB2	NORSAR Subarra	75.04	330	P	P	14 58 26.4	-0.4
	comp=Z,70nm,0.7s,mb5.7,baz=90,slow=5.6						
NB2	NORSAR Subarra	75.04	330	P	P	14 58 26.4	-0.4
	baz=90,slow=5.9						
NB2	NORSAR Subarra	75.04	330	P	P	14 58 26.4	-0.4
NB2				pmax	pmax		
	comp=Z,70nm,0.7s,mb5.7						
NOA	NORSAR Array B	75.04	330	P	P	14 58 26.3	-0.6
	comp=Z,49nm,0.7s,mb5.6,baz=91,slow=5.8,SNR=171						
NOA				LR	LR	15 34 08.0	
	comp=Z,2µm,20.5s,MS5.3,baz=90,slow=38						
NOA	NORSAR Array B	75.04	330	P	P	14 58 26.3	-0.5
NOA				pmax	pmax		
	comp=Z,49nm,0.7s						
NOA				MLR	MLR		
	comp=Z,2µm,20.5s						
NOA	NORSAR Array B	75.04	330	P	P	14 58 26.3	-0.6
NOA				LR	LR	15 34 08.0	
GRA1	Grafenberg Arr	75.04	318	eP	P	14 58 27.7	+0.6
	comp=Z,214nm,1.4s,mb5.9						
GRA1				epP	pP	14 58 35.4	+0.4
GRF	Grafenberg Arr	75.04	318	eP	P	14 58 27.7	+0.6
GRF				e*PP	pP	14 58 35.4	+0.4
GRF				pmax	pmax		
	comp=Z,214nm,1.4s,mb5.9						
GRF	Grafenberg Arr	75.04	318	eP	P	14 58 27.7	+0.6
GRF				e*PP	pP	14 58 35.4	+0.4
GRF				pmax	pmax		
	comp=Z,214nm,1.4s,mb5.9						
GRF	Grafenberg Arr	75.04	318	eP	P	14 58 27.7	+0.6
	comp=Z,214nm,1.4s,mb5.9						
GRF				epP	pP	14 58 35.4	+0.4
FUR	Furstenfeldbru	75.05	317	eP	P	14 58 26.8	-0.4
LBTB	Lobatse	75.06	240	P	P	14 58 28.5	+0.8
LBTB				sP	sP	14 58 37.2	-1.2
LBTB	Lobatse	75.06	240	eP	P	14 58 28.1	+0.4
LBTB				pmax	pmax		
	comp=Z,96nm,1.0s,mb5.7						
LBTB	Lobatse	75.06	240	eP	P	14 58 28.1	+0.4
	comp=Z,96nm,1.0s,mb5.7						
HSP	Hornsund	75.08	347	eP	P	14 58 26.9	+0.1
SQTA	Sankt Quirin	75.13	316	⇑iP	P	14 58 27.1	-0.5
	comp=Z,37nm,0.6s,mb5.5						
SQTA	Sankt Quirin	75.13	316	⇑iP	P	14 58 27.1	-0.5
SQTA				pmax	pmax		
	comp=Z,37nm,0.6s,mb5.5						
SEI	Scarperia	75.17	313	eP	P	14 58 28.5	+0.5
NAO01	NORSAR Array S	75.19	330	eP	P	14 58 27.4	-0.3
	comp=Z,65nm,0.8s,mb5.6						
MOTA	Moosalm	75.19	316	⇑iP	P	14 58 27.4	-0.6
	comp=Z,42nm,0.8s,mb5.4						
MOTA	Moosalm	75.19	316	⇑iP	P	14 58 27.4	-0.6
MOTA				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.4						
OSL	Oslo	75.26	329	eP	P	14 58 28.0	-0.1
FNVD	Fontana Vidola	75.33	313	eP	P	14 58 24.8	-4.0
ZCCA	Zocca	75.42	313	eP	P	14 58 30.2	+0.8
BSEG	Bad Segeberg	75.50	323	eP	P	14 58 30.2	+0.6
CLZ	Clausthal	75.52	321	⇓iP	P	14 58 30.0	+0.2
	comp=Z,150nm,1.1s,mb5.8						
CLZ				epP	pP	14 58 38.4	+0.7
GSCL	Gusciola	75.70	313	eP	P	14 58 31.7	+0.7
BDI	Bagni Di Lucca	75.71	313	eP	P	14 58 29.8	-1.3
BRMO	Bormio	75.74	315	eP	P	14 58 31.1	0.0
HDH	Heidenheim	75.75	317	eP	P	14 58 30.7	-0.4
PII	Pisa	75.79	312	eP	P	14 58 29.9	-1.6
MAIM		75.80	312	P	P	14 58 29.7	-1.8
ERBM	Eremo	75.83	313	eP	P	14 58 32.7	+1.1
UBR	Uberruh	75.86	316	⇓eP	P	14 58 31.3	-0.5
VLC	Villacollemand	75.86	313	eP	P	14 58 31.1	-0.8
	comp=Z,25nm,0.8s,mb5.2						
VALM		75.95	313	P	P	14 58 32.2	-0.2
DAVA	Damuels	76.03	316	⇑iP	P	14 58 32.7	-0.1
	comp=Z,133nm,1.0s,mb5.8						
GRAM		76.07	313	P	P	14 58 32.7	-0.4
BACM		76.08	313	P	P	14 58 32.9	-0.2
DOMB	Dombas	76.08	331	eP	P	14 58 32.6	-0.1
DOMB				esP	sP	14 58 41.1	-2.4
MUD	Monsted U'grnd	76.10	325	i P	P	14 58 33.6	+0.6
MUD				pmax	pmax		
	comp=Z,106nm,0.9s,mb5.8						
MUD	Monsted U'grnd	76.10	325	i P	P	14 58 33.6	+0.6
	comp=Z,106nm,0.9s,mb5.8						
SIND	Sindeldorf	76.10	318	eP	P	14 58 33.4	+0.3
CODM		76.23	313	P	P	14 58 32.8	-1.2
BUCH	Bad Urach	76.32	317	eP	P	14 58 34.0	-0.4
STU	Stuttgart	76.41	317	eP	P	14 58 34.6	-0.2
STU				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.4						
STU	Stuttgart	76.41	317	eP	P	14 58 34.6	-0.3
	comp=Z,32nm,0.6s,mb5.4						
BOB	Bobbio (Coli)	76.49	313	eP	P	14 58 35.9	+0.5
GUT	Gutenstein	76.50	317	⇓eP	P	14 58 34.9	-0.5
TOD	Tromm	76.61	318	eP	P	14 58 35.7	-0.3
TOD	Tromm	76.61	318	eP	P	14 58 36.9	+0.9
LBG	Lerchenberg	76.68	317	⇓eP	P	14 58 36.1	-0.3
BOSA	Boshof	76.68	236	eP	P	14 58 37.2	+0.4
BOSA				pmax	pmax		
	comp=Z,79nm,1.0s,mb5.6						
BOSA	Boshof	76.68	236	eP	P	14 58 37.2	+0.4
	comp=Z,80nm,1.0s,mb5.6						
SWS	Schriesheim	76.69	318	eP	P	14 58 36.4	0.0
SPAK	Spaichingen	76.72	317	eP	P	14 58 36.4	-0.2
SPAK	Spaichingen	76.72	317	eP	P	14 58 36.9	+0.3
MOL	Molde	76.78	332	eP	P	14 58 38.8	+2.1
MOL				AMb	AMB	14 58 42.4	
	comp=Z,148nm,1.5s,mb5.7						
MOL	Molde	76.78	332	eP	P	14 58 38.8	+2.1
	comp=Z,148nm,1.5s,mb5.7						
GENL	Genova Univers	76.86	313	P	P	14 58 35.5	-2.0
VAI	Varese	76.89	315	eP	P	14 58 36.6	-1.0
PGF	Pioggiola	76.99	311	eP	P	14 58 37.8	-0.4
BFO	Black Forest	77.01	317	eP	P	14 58 37.9	-0.3
BFO				pmax	pmax		
	comp=Z,72nm,1.3s,mb5.4						
BFO	Black Forest	77.01	317	eP	P	14 58 37.9	-0.3
	comp=Z,72nm,1.3s,mb5.4						
KTD	Kalmit	77.10	318	eP	P	14 58 39.0	+0.3
PCP	Pian Castagno	77.15	313	P	P	14 58 38.4	-0.7
FELD	Feldberg	77.26	317	⇓eP	P	14 58 39.4	-0.2
LANF	Langenberg	77.31	318	eP	P	14 58 39.8	0.0
KIZ	Kirchzarten	77.31	317	⇓eP	P	14 58 39.7	-0.2
STR	Strasbourg	77.36	317	eP	P	14 58 40.4	+0.2

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ABH  Alteburg         77.41 319⇓eP    P      14 58 40.6 +0.2
ABH  Alteburg         77.41 319 eP    P      14 58 41.6 +1.2
FIN  Finale Ligure    77.42 313 eP    P      14 58 40.3 -0.3
MCGN Macugnaga        77.42 315 eP    P      14 58 40.5 -0.1
BLS5 Blasjo           77.43 328 eP    P      14 58 41.9 +1.5
BLS5                             AMb   AMB    14 58 43.0
     comp=Z,67nm,0.6s,mb5.7
BLS5 Blasjo           77.43 328 eP    P      14 58 41.9 +1.5
     comp=Z,67nm,0.6s,mb5.8
ORX  Oropa            77.45 314  P    P      14 58 39.6 -1.1
LIBD Limburg          77.51 317 eP    P      14 58 41.1 +0.1
LIBD Limburg          77.51 317 eP    P      14 58 41.4 +0.4
BBS  Basel-Blauen     77.62 316 eP    P      14 58 41.2 -0.4
BBS  Basel-Blauen     77.62 316 eP    P      14 58 41.9 +0.3
WLS  Welschbruch      77.65 317 eP    P      14 58 41.7  0.0
ROB  Roburent         77.65 313  P    P      14 58 40.7 -1.1
IMI  Imperia          77.67 313  P    P      14 58 40.4 -1.6
CDF  Champ du Feu     77.70 317⇓iP    P      14 58 41.7 -0.3
     comp=Z,134nm,1.1s,mb5.5
CDF  Champ du Feu     77.70 317⇓iP    P      14 58 41.7 -0.3
CDF                              pmax  pmax
     comp=Z,67nm,1.1s,mb5.5
WTSB Winterswijk      77.72 321 eP    P      14 58 42.3 +0.2
     comp=Z,146nm,1.0s,mb5.8
WTSB                            ePcP  PcP    14 58 50.4 -2.1
RUP  Ruppelstein      77.74 319⇓eP    P      14 58 42.6 +0.4
RUP  Ruppelstein      77.74 319 eP    P      14 58 42.3 +0.1
WIT  Witteveen        77.74 322 eP    P      14 58 44.1 +2.0
WIT                             ePcP  PcP    14 58 51.1 -1.4
MONE Monesi           77.75 313  P    P      14 58 42.1 -0.3
ECH  Echery           77.80 317 eP    P      14 58 42.6 +0.1
MOF  Molkenrain       77.84 317 eP    P      14 58 42.1 -0.7
ENR  Entracque        77.98 313  P    P      14 58 42.3 -1.3
AUTN L’Aution         78.00 313 eP    P      14 58 43.2 -0.5
AUTN L’Aution         78.00 313 eP    P      14 58 44.8 +1.1
SBF  Sospel           78.01 313 eP    P      14 58 43.4 -0.4
     comp=Z,173nm,1.1s,mb5.6
SBF  Sospel           78.01 313 eP    P      14 58 43.4 -0.4
SBF                              pmax  pmax
     comp=Z,87nm,1.1s,mb5.6
RSP  Reno Superiore   78.01 314  P    P      14 58 42.1 -1.7
BHB  Bricherasio      78.03 314  P    P      14 58 41.6 -2.4
HINF Hinteralfeld     78.04 317 eP    P      14 58 43.6 -0.3
     comp=Z,94nm,1.1s,mb5.3
HINF Hinteralfeld     78.04 317 eP    P      14 58 43.6 -0.3
HINF                             pmax  pmax
     comp=Z,47nm,1.1s,mb5.3
STV2 Anna di Valdie   78.05 313  P    P      14 58 42.4 -1.6
STV  Sta Anna Valdi   78.05 313  P    P      14 58 42.2 -1.8
LSD  Ceresole Reale   78.05 314  P    P      14 58 43.8 -0.2
DOI  San Damiano      78.08 313 eP    P      14 58 42.7 -1.5
LOMF Lomont           78.10 316 eP    P      14 58 44.5 +0.3
TOUF Mont Tournerai   78.12 313 eP    P      14 58 41.1 -3.3
FENE Fenestrelle      78.16 314  P    P      14 58 43.9 -0.7
PZZ  Prazzo           78.18 313  P    P      14 58 42.6 -2.1
MVIF Mont Vial        78.21 313 eP    P      14 58 42.7 -2.2
OG01 Vacheresse       78.29 315 eP    P      14 58 44.5 -0.8
WLF  Walferdange      78.33 319 eP    P      14 58 45.9 +0.5
WLF                              pmax  pmax
     comp=Z,271nm,1.8s,mb5.9
WLF  Walferdange      78.33 319 eP    P      14 58 45.9 +0.4
     comp=Z,271nm,1.8s,mb5.9
LPG  La Plagne        78.33 314⇓iP    P      14 58 45.9 +0.4
     comp=Z,362nm,0.9s,mb6.0
LPG  La Plagne        78.33 314⇓iP    P      14 58 45.9 +0.4
LPG                              pmax  pmax
     comp=Z,181nm,0.9s,mb6.0
LPL  La Plagne        78.34 314⇓iP    P      14 58 45.9 +0.3
     comp=Z,335nm,0.7s,mb6.1
LPL  La Plagne        78.34 314⇓iP    P      14 58 45.9 +0.3
LPL                              pmax  pmax
     comp=Z,167nm,0.7s,mb6.1
HAU  Haudompre        78.36 317⇓iP    P      14 58 45.2 -0.4
     comp=Z,238nm,1.1s,mb5.8
HAU                             eR
     comp=Z,1μm,19.2s
HAU  Haudompre        78.36 317⇓iP    P      14 58 45.2 -0.4
HAU                              pmax  pmax
     comp=Z,119nm,1.1s,mb5.7
HAU                              MLR   MLR
     comp=Z,1μm,19.3s,MS5.3
RRL  Cesana Torines   78.36 314  P    P      14 58 44.9 -0.8
HGN  Heimansgroeve    78.37 320 eP    P      14 58 45.5 -0.1
     comp=Z,77nm,2.1s,mb5.3
HGN                             ePcP  PcP    14 58 54.0 -1.3
SURF Saint Ours       78.39 313 eP    P      14 58 46.7 +0.8
MBDF Montbardon       78.39 313⇓iP    P      14 58 45.2 -0.7
     comp=Z,241nm,1.1s,mb5.8
MBDF Montbardon       78.39 313⇓iP    P      14 58 45.2 -0.7
MBDF                             pmax  pmax
     comp=Z,121nm,1.1s,mb5.7
BNI  Bardonecchia     78.42 314 eP    P      14 58 45.1 -1.0
BNI                              pmax  pmax
     comp=Z,143nm,0.9s,mb5.9
BNI  Bardonecchia     78.42 314 eP    P      14 58 45.1 -0.9
     comp=Z,143nm,0.9s,mb5.9
THEF They Montfort    78.58 317 eP    P      14 58 46.1 -0.7
FRF  La Foret Royal   78.61 312⇓iP    P      14 58 46.8 -0.3
     comp=Z,336nm,1.3s,mb5.8
FRF  La Foret Royal   78.61 312⇓iP    P      14 58 46.8 -0.3
FRF                              pmax  pmax
     comp=Z,168nm,1.3s,mb5.8
CABF La Chapelle      78.67 315⇓iP    P      14 58 47.6 +0.2
     comp=Z,279nm,1.2s,mb5.8
CABF La Chapelle      78.67 315⇓iP    P      14 58 47.6 +0.2
CABF                             pmax  pmax
     comp=Z,140nm,1.2s,mb5.8
LMR  La Mourre        78.73 312⇓iP    P      14 58 47.5 -0.3
     comp=Z,240nm,1.3s,mb5.7
LMR  La Mourre        78.73 312⇓iP    P      14 58 47.5 -0.3
LMR                              pmax  pmax
     comp=Z,120nm,1.3s,mb5.7
GDM  Grand’Maison     78.81 314 eP    P      14 58 48.6 +0.4
OG25 Le Caire         78.93 313 eP    P      14 58 48.7 -0.2
ORIF Oris-en-Rattie   79.00 314⇓iP    P      14 58 48.7 -0.6
     comp=Z,99nm,0.9s,mb5.5
ORIF                            eR
     comp=Z,1μm,21.5s
GRN  Grenoble         79.06 314 eP    P      14 58 49.7 +0.1
GIVF Givet            79.14 319 eP    P      14 58 49.8 -0.1
OG05 Jujurieux        79.17 315 eP    P      14 58 50.3 +0.2
SMRF Simiane la Rot   79.33 313 eP    P      14 58 51.4 +0.4
     comp=Z,347nm,1.5s,mb5.8
OG26 St.-Nazaire-De   79.45 313 eP    P      14 58 52.3 +0.6
OCF  Saint Nazaire    79.45 313 eP    P      14 58 52.3 +0.6
BAIF Baives           79.54 319⇓iP    P      14 58 52.2 +0.2
     comp=Z,199nm,1.1s,mb5.7
BAIF Baives           79.54 319⇓iP    P      14 58 52.2 +0.2
BAIF                             pmax  pmax
     comp=Z,99nm,1.1s,mb5.7
CASY Casey            79.58 173 eP    P      14 58 51.8 -0.1
VIVF Saint-Julien-l   79.86 314⇓iP    P      14 58 53.9  0.0
     comp=Z,319nm,1.1s,mb5.9
VIVF Saint-Julien-l   79.86 314⇓iP    P      14 58 53.9  0.0
VIVF                             pmax  pmax
     comp=Z,159nm,1.1s,mb5.9
SMF  Signal de Mont   80.21 316⇓iP    P      14 58 55.4 -0.3
     comp=Z,130nm,0.9s,mb5.6
SMF  Signal de Mont   80.21 316⇓iP    P      14 58 55.4 -0.3
SMF                              pmax  pmax
     comp=Z,65nm,0.9s,mb5.6
SSF  Saint Saulge     80.38 316⇓iP    P      14 58 56.5 -0.1
     comp=Z,95nm,0.9s,mb5.4
SSF  Saint Saulge     80.38 316⇓iP    P      14 58 56.5 -0.1
SSF                              pmax  pmax
     comp=Z,48nm,0.9s,mb5.4
PLDF La Plantade      80.45 315 eP    P      14 58 58.4 +1.4
COLF Collangettes     80.46 315 eP    P      14 58 56.9 -0.2
LASF Ste Croix        80.55 313⇓iP    P      14 58 58.0 +0.5
     comp=Z,383nm,1.3s,mb5.9
AGO  Saint Agoulin    80.78 315 eP    P      14 58 59.8 +1.1
LBL  Lubilhac         80.81 314 eP    P      14 59 00.7 +1.8
BGF  Bois d’Agland    80.90 316⇓iP    P      14 58 59.5 +0.2
     comp=Z,218nm,1.1s,mb5.7
BGF  Bois d’Agland    80.90 316⇓iP    P      14 58 59.5 +0.2
BGF                              pmax  pmax
     comp=Z,109nm,1.1s,mb5.7
PYM  Petit Puy Mans   80.90 315 eP    P      14 58 59.8 +0.4
HYF  Humbligny        80.94 316 eP    P      14 58 59.9 +0.4
LRW  Lerwick          81.19 330 eP    P      14 59 01.3 +0.7
FRNF Fournols         81.27 315 eP    P      14 59 01.9 +0.6
TCF  Toulx Ste Croi   81.37 315⇓iP    P      14 59 02.2 +0.4
     comp=Z,211nm,1.1s,mb5.7
TCF  Toulx Ste Croi   81.37 315⇓iP    P      14 59 02.2 +0.4
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TCF                              pmax  pmax
     comp=Z,106nm,1.1s,mb5.7
WAL1 Walls            81.39 330 eP    P      14 59 02.3 +0.6
EJON La Jonquera      81.48 312  P    P      14 59 03.8 +1.3
     comp=Z,210nm,1.5s,mb5.8
SUR  Sutherland       81.61 234 eP    P      14 59 04.9 +1.5
     comp=Z,184nm,1.4s,mb5.8
CAF  Calviac          81.69 314⇓iP    P      14 59 04.0 +0.5
     comp=Z,352nm,1.5s,mb5.8
CAF  Calviac          81.69 314⇓iP    P      14 59 04.0 +0.5
CAF                              pmax  pmax
     comp=Z,176nm,1.5s,mb5.8
MTLF Montolieu        81.83 313⇓iP    P      14 59 04.5 +0.2
     comp=Z,324nm,1.2s,mb5.8
MTLF Montolieu        81.83 313⇓iP    P      14 59 04.5 +0.2
MTLF                             pmax  pmax
     comp=Z,162nm,1.2s,mb5.8
LMK  Market Rasen     81.84 323 eP    P      14 59 04.8 +0.7
JMIC Jan Mayen        81.94 341 LR    LR     15 38 17.3
     comp=Z,2μm,18.8s,MS5.5,baz=347,slow=38
RJF  Les Rejaudoux    82.01 315⇓iP    P      14 59 05.8 +0.6
     comp=Z,271nm,1.2s,mb5.8
RJF                             eR
     comp=Z,1μm,21.0s
RJF  Les Rejaudoux    82.01 315⇓iP    P      14 59 05.8 +0.6
RJF                              pmax  pmax
     comp=Z,136nm,1.2s,mb5.8
RJF                              MLR   MLR
     comp=Z,1μm,21.0s,MS5.2
KTG1 Tilbrook Grang   82.08 322 eP    P      14 59 04.2 -1.2
LCP  Cassop           82.28 324 eP    P      14 59 07.2 +0.8
HPK  Haverah Park     82.51 324 eP    P      14 59 08.5 +0.9
LDF  La Druitiere     82.56 318⇓iP    P      14 59 08.0 +0.1
     comp=Z,112nm,0.8s,mb5.7
LDF  La Druitiere     82.56 318⇓iP    P      14 59 08.0 +0.1
LDF                              pmax  pmax
     comp=Z,56nm,0.8s,mb5.7
KBI1 Birley Grange    82.59 323 eP    P      14 59 06.6 -1.4
LFF  La Frestale      82.61 314⇓iP    P      14 59 08.9 +0.6
     comp=Z,239nm,1.2s,mb5.8
LFF  La Frestale      82.61 314⇓iP    P      14 59 08.9 +0.6
LFF                              pmax  pmax
     comp=Z,120nm,1.2s,mb5.8
MAW  Mawson           82.62 191  P    P      14 59 09.1 +1.2
     comp=Z,24nm,0.8s,mb5.3,baz=9.6,slow=6.6,SNR=21
MAW                              LR    LR     15 32 10.1
     comp=Z,1μm,18.6s,MS5.3,baz=22,slow=33
MAW  Mawson           82.62 191 eP    P      14 59 08.3 +0.4
MAW                              pmax  pmax
     comp=Z,26nm,0.9s
MAW  Mawson           82.62 191  P    P      14 59 09.1 +1.2
MAW                              pmax  pmax
     comp=Z,24nm,0.8s
MAW  Mawson           82.62 191 eP    P      14 59 08.3 +0.5
     comp=Z,26nm,0.9s,mb5.3
MLS  Moulis           82.71 312 eP    P      14 59 08.6 -0.2
LHO  Holmfirth        82.72 323 eP    P      14 59 09.4 +0.7
FLN  La Foliniere     82.76 318⇓iP    P      14 59 09.0  0.0
     comp=Z,174nm,1.0s,mb5.7
FLN                             eR
     comp=Z,2μm,19.0s
FLN  La Foliniere     82.76 318⇓iP    P      14 59 09.0  0.0
FLN                              pmax  pmax
     comp=Z,87nm,1.0s,mb5.7
FLN                              MLR   MLR
     comp=Z,2μm,19.0s,MS5.4
KWE  Weaver Farm      82.82 323 eP    P      14 59 07.7 -1.5
MFF  Saint Martin d   82.93 316⇓iP    P      14 59 09.9  0.0
     comp=Z,170nm,0.9s,mb5.8
MFF  Saint Martin d   82.93 316⇓iP    P      14 59 09.9  0.0
MFF                              pmax  pmax
     comp=Z,85nm,0.9s,mb5.8
EBL  Broad Law        82.97 325 eP    P      14 59 10.9 +1.0
EPOB Poblet           83.00 311  P    P      14 59 11.3 +0.9
     comp=Z,340nm,1.2s,mb6.2
EDI  Edinburgh        83.02 326 eP    P      14 59 10.7 +0.6
EDI                              AMb   AMB    14 59 20.2
     comp=Z,175nm,1.2s,mb6.0
GRR  Gorron           83.07 318 eP    P      14 59 10.7 +0.1
ESK  Eskdalemuir      83.15 325 eP    P      14 59 11.6 +0.8
ESK                              AMb   AMB    14 59 21.5
     comp=Z,114nm,1.7s,mb5.6
ESK  Eskdalemuir      83.15 325 eP    P      14 59 11.2 +0.3
ESK                              pmax  pmax
     comp=Z,42nm,0.7s,mb5.6
ESK  Eskdalemuir      83.15 325 eP    P      14 59 11.2 +0.3
     comp=Z,42nm,0.7s,mb5.6
EAU  Auchinoon        83.18 326 eP    P      14 59 11.6 +0.6
EAU                              AMb   AMB    14 59 14.4
     comp=Z,192nm,1.5s,mb5.9
EIBI Ibiza            83.22 308  P    P      14 59 12.8 +1.2
     comp=Z,121nm,1.1s,mb5.8
EPF  Esparros         83.24 312⇓iP    P      14 59 11.1 -0.5
     comp=Z,37nm,1.1s,mb5.0
EPF  Esparros         83.24 312⇓iP    P      14 59 11.1 -0.5
EPF                              pmax  pmax
     comp=Z,19nm,1.1s,mb5.0
RESF Ens              83.28 312 eP    P      14 59 13.1 +1.3
LCHF La Chataignera   83.32 316 eP    P      14 59 12.0 +0.1
EGRA Graus            83.41 312  P    P      14 59 13.6 +1.2
     comp=Z,54nm,0.8s,mb5.6
HAE  Alders End       83.43 322 eP    P      14 59 12.6 +0.3
HAE                              AMb   AMB    14 59 14.8
     comp=Z,155nm,1.1s,mb6.0
EBIE Bielsa           83.44 312  P    P      14 59 13.9 +1.3
     comp=Z,167nm,1.4s,mb5.9
EBR  Ebro Roquetas    83.53 310 eP    P      14 59 14.0 +0.8
HLM1 Long Mynd        83.53 322 eP    P      14 59 13.5 +0.6
HLM1                             AMb   AMB    14 59 16.1
     comp=Z,90nm,1.7s,mb5.6
EAB  Aberfoyle        83.59 326 eP    P      14 59 13.6 +0.5
EAB                              AMb   AMB    14 59 24.8
     comp=Z,152nm,1.7s,mb5.9
ERTA Horta de San J   83.62 310  P    P      14 59 14.6 +1.0
     comp=Z,523nm,1.5s,mb6.4
HGH  Gray Hill        83.67 321 eP    P      14 59 13.8 +0.2
HGH                              AMb   AMB    14 59 16.5
     comp=Z,219nm,1.4s,mb6.1
JQE  Queens East      83.68 319 eP    P      14 59 13.6 -0.1
SSP1 Stoney Pound     83.69 322 eP    P      14 59 14.3 +0.6
MCH1 Michaelchurch    83.71 322 eP    P      14 59 13.9 +0.1
JLP  Les Platons      83.72 319 eP    P      14 59 14.1 +0.2
JSA  Saint Aubin      83.77 319 eP    P      14 59 14.0 -0.2
JVM  Valle D.L. Mar   83.79 319 eP    P      14 59 14.6 +0.3
ETSF Etsaut           83.91 312⇓iP    P      14 59 16.4 +1.4
     comp=Z,77nm,0.8s,mb5.6
ETSF Etsaut           83.91 312⇓iP    P      14 59 16.4 +1.4
ETSF                             pmax  pmax
     comp=Z,39nm,0.8s,mb5.6
ANM  Nome             84.04  25 eP    P      14 59 17.5 +2.3
ESAC San Caprasio     84.07 311  P    P      14 59 16.9 +1.0
     comp=Z,346nm,1.2s,mb6.4
YLL  Llanberis        84.17 323 eP    P      14 59 16.4 +0.4
WME  Myndd Eilian     84.19 323 eP    P      14 59 16.8 +0.7
WME                              AMb   AMB    14 59 18.4
     comp=Z,62nm,1.3s,mb5.6
LARF Larrau           84.19 313 eP    P      14 59 17.6 +1.2
SGMF Saint Gilles     84.21 318⇓iP    P      14 59 16.6 +0.2
     comp=Z,60nm,0.9s,mb5.4
SGMF Saint Gilles     84.21 318⇓iP    P      14 59 16.6 +0.2
SGMF                             pmax  pmax
     comp=Z,30nm,0.9s,mb5.4
WIM  Isle of Man      84.23 324 eP    P      14 59 17.4 +1.0
WIM                              AMb   AMB    14 59 19.9
     comp=Z,147nm,1.9s,mb5.8
WCB1 Church Bay       84.33 323 eP    P      14 59 17.9 +1.0
WCB1                             AMb   AMB    14 59 23.0
     comp=Z,76nm,1.5s,mb5.6
EMOS Mosqueruela      84.34 310  P    P      14 59 18.8 +1.5
     comp=Z,567nm,1.9s,mb6.4
SJPF Ste Jean         84.35 313⇓iP    P      14 59 18.6 +1.4
     comp=Z,145nm,1.1s,mb5.7
SJPF Ste Jean         84.35 313⇓iP    P      14 59 18.6 +1.4
SJPF                             pmax  pmax
     comp=Z,73nm,1.1s,mb5.7
YRE  Yr Eifl          84.35 323 eP    P      14 59 17.8 +0.8
YRE                              AMb   AMB    14 59 20.4
     comp=Z,103nm,2.2s,mb5.6
EBEN Beniarda         84.48 308  P    P      14 59 18.8 +0.8
     comp=Z,259nm,1.5s,mb6.1
EALK Alkurruntz       84.53 313  P    P      14 59 19.4 +1.3
     comp=Z,100nm,1.1s,mb5.9
ROSF Rostrenen        84.66 318⇓iP    P      14 59 18.9 +0.2
     comp=Z,176nm,1.2s,mb5.8
ROSF Rostrenen        84.66 318⇓iP    P      14 59 18.9 +0.2
ROSF                             pmax  pmax
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     comp=Z,88nm,1.2s,mb5.8
QUIF Quistinic        84.68 318⇓iP    P      14 59 18.6 -0.2
     comp=Z,33nm,0.8s,mb5.2
QUIF Quistinic        84.68 318⇓iP    P      14 59 18.6 -0.2
QUIF                             pmax  pmax
     comp=Z,16nm,0.8s,mb5.2
SBD  Saint Breward    85.06 321 eP    P      14 59 14.2 -6.4
EMUR La Murta         85.44 308  P    P      14 59 23.6 +0.8
     comp=Z,210nm,2.0s,mb5.9
DLF  Lyons Farm       85.51 324 eP    P      14 59 23.6 +0.8
DLF  Lyons Farm       85.51 324 eP    pP     14 59 31.9 +1.0
DMUB Kingscourt       85.57 324 eP    P      14 59 24.2 +1.1
DMUB Kingscourt       85.57 324 eP    pP     14 59 32.5 +1.3
ELAN Lanestosa        85.90 313  P    P      14 59 26.1 +1.2
     comp=Z,60nm,1.0s,mb5.8
DCN  Croghan          85.93 324 eP    P      14 59 25.7 +0.8
DCN                             ePs   pP     14 59 34.4 +1.4
EVIA Vianos           86.24 309  P    P      14 59 28.1 +1.3
EVIA                             pmax  pmax
     comp=Z,119nm,1.5s,mb5.9
EVIA Vianos           86.24 309  P    P      14 59 28.1 +1.4
     comp=Z,119nm,1.5s,mb5.9
ENIJ Nijar            86.37 307  P    P      14 59 28.8 +1.3
ENIJ                             pmax  pmax
     comp=Z,55nm,1.0s,mb5.7
ENIJ Nijar            86.37 307  P    P      14 59 28.8 +1.3
     comp=Z,55nm,1.0s,mb5.7
EQES Quesada          86.86 308  P    P      14 59 31.2 +1.4
     comp=Z,681nm,2.7s,mb6.4
EBER Berja            86.92 307  P    P      14 59 31.3 +1.2
     comp=Z,681nm,2.1s,mb6.5
GUD  Guadarrama       87.02 311  P    P      14 59 31.9 +1.4
GUD                              pmax  pmax
     comp=Z,67nm,0.8s,mb5.9
GUD  Guadarrama       87.02 311  P    P      14 59 31.9 +1.4
     comp=Z,67nm,0.8s,mb5.9
ESDC Sonseca Array    87.11 310  P    P      14 59 31.6 +0.6
     comp=Z,15nm,0.7s,mb5.4,baz=59,slow=4.5,SNR=52
ESDC Sonseca Array    87.11 310  P    P      14 59 31.3 +0.4
     comp=Z,50nm,1.0s,mb5.7
ESLA Sonseca Array    87.11 310 eP    P      14 59 31.0  0.0
     comp=Z,10.0nm,1.1s,mb5.0
EARI Arriondas        87.14 314  P    P      14 59 31.6 +0.6
     comp=Z,650nm,2.3s,mb6.5
ERON Agron            87.61 307  P    P      14 59 33.6 +0.2
     comp=Z,21nm,1.0s,mb5.3
ELUQ Luque            87.84 308  P    P      14 59 35.1 +0.6
ELUQ                             pmax  pmax
     comp=Z,23nm,0.9s,mb5.4
ELUQ Luque            87.84 308  P    P      14 59 35.1 +0.5
     comp=Z,23nm,0.9s,mb5.4
ELOJ Sierra Loja      87.85 307  P    P      14 59 35.3 +0.7
ELOJ                             pmax  pmax
     comp=Z,6.0nm,0.6s,mb5.0
ELOJ Sierra Loja      87.85 307  P    P      14 59 35.3 +0.7
     comp=Z,5.7nm,0.6s,mb5.0
EADA Adamuz           87.93 308  P    P      14 59 35.9 +0.9
     comp=Z,240nm,1.5s,mb6.2
IMA  Indian Mountai   88.06  22 eP    P      14 59 36.3 +1.4
IMA  Indian Mountai   88.06  22 eP    P      14 59 36.4 +1.5
IMA                              pmax  pmax
     comp=Z,130nm,0.9s,mb6.2
EMIJ Mijas            88.47 307  P    P      14 59 37.5 -0.1
     comp=Z,89nm,1.1s,mb5.9
MSZ  Milford Sound    88.50 136  P    P      14 59 37.9 +0.4
EPON Pontenova        88.51 314  P    P      14 59 39.5 +1.9
     comp=Z,422nm,2.0s,mb6.4
ECAL Calabor          88.58 313  P    P      14 59 39.8 +1.8
     comp=Z,269nm,2.1s,mb6.2
PBRG Braganca         88.62 312 eP    P      14 59 39.0 +0.8
BORG Borgarnes        88.67 337 LR    LR     15 41 33.8
     comp=Z,2μm,20.0s,MS5.5,baz=325,slow=37
SYO  Syowa Base       89.24 197 ⇓P    P      14 59 40.7 +0.2
SYO  Syowa Base       89.24 197 ⇓PcP  PcP    14 59 42.4 +0.3
SYO  Syowa Base       89.24 197 ⇓pP   pP     14 59 45.1 -3.5
SYO  Syowa Base       89.24 197 ⇓sP   sP     14 59 50.3 -0.9
ESPR Espera           89.24 307  P    P      14 59 41.0 -0.2
     comp=Z,7.9nm,0.3s,mb5.5
SUMG Summit           89.41 347 eP    P      14 59 42.0 +0.8
     comp=Z,28nm,1.1s,mb5.5
PVRL Vila Real        89.47 312 eP    P      14 59 43.3 +1.1
     comp=Z,48nm,1.5s,mb5.6
ELOB Lobios           89.55 313  P    P      14 59 44.0 +1.3
     comp=Z,329nm,1.7s,mb6.4
MTE  Manteigas        89.58 311 eS    S      15 10 36.4 +6.6
MTE  Manteigas        89.58 311 eP    P      14 59 44.0 +1.2
STS  Santiago         89.61 314  P    P      14 59 44.1 +1.2
STS                              pmax  pmax
     comp=Z,66nm,1.1s,mb5.9
STS  Santiago         89.61 314  P    P      14 59 44.1 +1.2
     comp=Z,66nm,1.1s,mb5.9
EBAD Badajoz          89.63 310  P    P      14 59 44.1 +1.1
     comp=Z,112nm,1.2s,mb6.1
EMIN Mina Concepcio   89.63 309  P    P      14 59 44.0 +0.9
     comp=Z,95nm,1.2s,mb6.0
PCBR Castelo Branco   89.69 311 eP    P      14 59 44.3 +1.0
     comp=Z,35nm,0.9s,mb5.7
PVIS Viseu            89.75 312 eP    P      14 59 45.1 +1.5
     comp=Z,48nm,1.4s,mb5.6
EMAZ Mazaricos        89.90 314  P    P      14 59 45.0 +0.8
     comp=Z,204nm,1.3s,mb6.3
EZAM Zamans           89.93 313  P    P      14 59 45.1 +0.8
EZAM                             pmax  pmax
     comp=Z,15nm,0.8s,mb5.4
EZAM Zamans           89.93 313  P    P      14 59 45.1 +0.8
     comp=Z,15nm,0.8s,mb5.4
EGRO El Granado       90.32 308  P    P      14 59 46.9 +0.7
     comp=Z,317nm,2.0s,mb6.3
RPZ  Rata Peaks       90.35 135  P    P      14 59 46.7 +0.5
     comp=Z,18nm,0.8s,mb5.5,baz=284,slow=0.7,SNR=12
EVO  Evora            90.44 310 eP    P      14 59 47.7 +0.9
     comp=Z,87nm,1.1s,mb5.7
EVO                             eR
     comp=Z,1μm,21.8s
COLA College          90.77  22 eP    P      14 59 48.0 +0.3
COLA                             pmax  pmax
     comp=Z,68nm,1.8s,mb5.7
COLA College          90.77  22 eP    P      14 59 48.0 +0.3
     comp=Z,68nm,1.8s,mb5.7
MCK  McKinley         90.96  23 eP    P      14 59 49.3 +0.7
MCK                              pmax  pmax
     comp=Z,24nm,1.0s,mb5.5
MCK  McKinley         90.96  23 eP    P      14 59 49.2 +0.7
     comp=Z,24nm,1.0s,mb5.5
RSO  Redoubt South    90.99  27 eP    P      14 59 49.4 +0.7
ILAR Eielson Array    91.17  22  P    P      14 59 49.6 +0.1
     comp=Z,12nm,0.7s,mb5.3,baz=298,slow=4.5,SNR=68
ILAR                             PP    PP     15 03 20.3 -8.7
     comp=Z,2.6nm,0.9s,baz=299,slow=6.7,SNR=4.9
ILAR                             PKKP  PKKP   15 17 11.8  +10
     comp=Z,0.6nm,0.6s,baz=141,slow=1.9,SNR=14
ILAR                             LR    LR     15 48 01.8
     comp=Z,1μm,20.1s,MS5.4,baz=155,slow=40
PTEO Sao Teotonio     91.26 309 eP    P      14 59 52.3 +1.7
PMR  Palmer           91.98  25 eP    P      14 59 54.2 +0.9
SLKM Skilak Lake      92.07  26 eP    P      14 59 53.4 -0.3
SML  Sawmill          92.20  25 eP    P      14 59 55.4 +1.1
THY  Trims Highway    92.33  23 eP    P      14 59 56.5 +1.6
INK  Inuvik           93.11  16  P    P      14 59 59.1 +0.8
     comp=Z,7.3nm,0.7s,mb5.2,baz=340,slow=5.6,SNR=27
INK                              LR    LR     15 50 11.9
     comp=Z,1μm,19.5s,MS5.4,baz=186,slow=41
MENT Mentasta         93.37  22 eP    P      15 00 01.7 +2.0
URZ  Urewera          93.38 128  P    P      15 00 00.1 -0.3
     comp=Z,27nm,0.7s,mb5.8,baz=282,slow=3.2,SNR=18
DIV  Divide           93.60  24 eP    P      15 00 01.8 +1.0
     comp=Z,57nm,0.8s,mb6.0
DBIC Dimbokro         95.74 278  P    P      15 00 12.6 +0.8
     comp=Z,9.8nm,1.2s,mb5.1,baz=66,slow=6.9,SNR=6.4
DBIC                             LR    LR     15 44 07.2
     comp=Z,2μm,20.0s,MS5.5,baz=52,slow=36
DBIC Dimbokro         95.74 278  P    P      15 00 12.6 +0.9
DBIC                             pmax  pmax
     comp=Z,10.0nm,1.2s
DBIC                             MLR   MLR
     comp=Z,2μm,20.0s
DBIC Dimbokro         95.74 278 eP    P      15 00 12.2 +0.4
     comp=Z,66nm,1.8s,mb5.8
VNDA Vanda            97.65 168  P    P      15 00 19.6 +0.7
     comp=Z,5.2nm,0.8s,mb5.1,baz=287,slow=6.1,SNR=12
VNDA                             LR    LR     15 42 05.7
     comp=Z,1μm,18.3s,MS5.5,baz=300,slow=34
VNDA Vanda            97.65 168 eP    P      15 00 19.5 +0.6
     comp=Z,6.9nm,0.8s,mb5.2
DLBC Dease Lake      101.38  21 PP    PP     15 04 47.3 -1.1
     comp=Z,1.5nm,0.8s,baz=295,slow=14,SNR=2.4
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YKA   Yellowknife Ar   102.41  13 P        Pdif      15 00 41.3 +0.7
      comp=Z,1.3nm,0.7s,baz=328,slow=4.2,SNR=31
YKA                               PP       PP        15 04 52.8 -3.1
      comp=Z,4.7nm,1.1s,baz=336,slow=8.3,SNR=7.7
YKA                               PKKPbc             15 16 40.7
      comp=Z,0.7nm,0.6s,baz=155,slow=2.9,SNR=15
YKA   Yellowknife Ar   102.41  13 P        Pdif      15 00 41.3 +0.7
YKA                                                  15 04 52.8
YKA                               pmax     pmax
      comp=Z,1.0nm,0.7s
YKA                               pmax     pmax
      comp=Z,5.0nm,1.1s
YKA                               pmax     pmax
      comp=Z,1.0nm,0.6s
YKA   Yellowknife Ar   102.41  13 P        Pdif      15 00 41.3 +0.7
YKA                               PP       PP        15 04 52.8 -3.1
YKA                               PKKPbc             15 16 40.7
SNAA  Sanae            103.36 199 PKKPbc             15 16 39.1
      comp=Z,0.9nm,0.6s,baz=208,slow=2.1,SNR=9.6
SCHQ  Schefferville    110.80 347 PP       PP        15 05 53.3 -5.1
      comp=Z,6.8nm,0.8s,baz=27,slow=8.3,SNR=3.9
SCHQ                              PKKPbc             15 16 15.8
      comp=Z,5.9nm,0.6s,baz=216,slow=8.7,SNR=14
HUMO  Hull Mountain    116.33  29 ePKPdf   PKPdf     15 05 29.7 -2.4
MSO   Missoula         116.46  20 ePKPdf   PKPdf     15 05 28.6 -3.6
ULM   Lac du Bonnet    117.19   6 PKP      PKPdf     15 05 31.2 -2.4
      comp=Z,2.4nm,0.5s,baz=72,slow=0.6,SNR=8.1
ULM                               PKKPbc             15 15 54.5
      comp=Z,5.2nm,0.9s,baz=157,slow=0.8,SNR=9.9
ULM   Lac du Bonnet    117.19   6 PKP      PKPdf     15 05 31.2 -2.4
ULM                               PKKPbc             15 15 54.5
MOD   Modoc            118.10  27 ePKPdf   PKPdf     15 05 33.4 -2.1
BOZ   Bozeman (W)      118.26  19 ePKIKP   PKPdf     15 05 33.0 -2.7
LAO   LASA Array       118.83  15 ePKPdf   PKPdf     15 05 34.4 -2.5
HLID  Hailey           119.13  22 ePKPdf   PKPdf     15 05 34.9 -2.6
YMR   Madison River    119.34  19 ePKPdf   PKPdf     15 05 35.5 -2.3
OHCM  Honcut           119.57  30 ePKPdf   PKPdf     15 05 35.0 -3.5
YFT   Old Faithful     119.58  19 ePKPdf   PKPdf     15 05 37.4 -0.9
LKWY  Lake             119.61  19 ePKIKP   PKPdf     15 05 36.7 -1.6
EYMN  Ely              119.83   3 ePKPdf   PKPdf     15 05 35.0 -3.6
PPT   Papeete          120.01 103 ePS      PS        15 16 47.3 -2.5
PPT                               eSS      SS        15 23 13.5  -12
PPT                               eLR      LR        15 42 38.8
      comp=Z,709nm,23.0s
TBI   Tubuai           120.39 110 ePS      PS        15 16 52.3 -0.8
TBI                               eSS      SS        15 23 32.7 +2.3
TBI                               eLR      LR        15 42 38.6
      comp=Z,767nm,25.0s
TPAW  Teton Pass       120.40  20 ePKPdf   PKPdf     15 05 37.5 -2.4
LOHW  Long Hollow      120.40  19 ePKPdf   PKPdf     15 05 37.3 -2.6
WCN   Washoe City      120.43  29 ePKIKP   PKPdf     15 05 38.0 -2.1
SNOW  Snow King Moun   120.49  20 ePKPdf   PKPdf     15 05 37.5 -2.6
REDW  Red Top Meadow   120.55  20 ePKPdf   PKPdf     15 05 37.7 -2.5
ELK   Elko             121.22  24 ePKIKP   PKPdf     15 05 39.0 -2.6
PDAR  Pinedale Array   121.50  19 PKP      PKPdf     15 05 39.0 -3.2
      comp=Z,15nm,1.1s,baz=62,slow=1.1,SNR=65
PDAR                              SKP                15 09 13.1
      comp=Z,2.3nm,1.1s,slow=0.9,SNR=4.4
PDAR                              PKKPbc             15 15 36.8
      comp=Z,1.0nm,0.7s,baz=135,slow=3.8,SNR=7.5
NVAR  Mina Array Bea   121.80  28 PKP      PKPdf     15 05 40.9 -1.9
      comp=Z,18nm,0.6s,baz=300,slow=2.4,SNR=88
NVAR                              SKP                15 09 15.6
      comp=Z,1.8nm,0.8s,baz=232,slow=10,SNR=2.9
HWUT  Hardware Ranch   121.86  21 ePKPdf   PKPdf     15 05 39.8 -3.0
MNV   Mina             121.87  28 ePKIKP   PKPdf     15 05 40.6 -2.3
MTUM  Tungsten Hills   122.54  29 ePKPdf   PKPdf     15 05 42.2 -2.0
TRCR  Troy Canyon      123.08  26 ePKPdf   PKPdf     15 05 43.0 -2.2
NLU   North Lily Min   123.13  22 ePKPdf   PKPdf     15 05 42.9 -2.4
DAC   Darwin (Calif)   123.87  29 ePKIKP   PKPdf     15 05 44.8 -2.1
TPNV  Topopah Spring   123.95  28 ePKIKP   PKPdf     15 05 44.3 -2.7
TMUT  Trail Mountain   124.02  22 ePKPdf   PKPdf     15 05 44.8 -2.3
MVU   Marysvale        124.34  23 ePKPdf   PKPdf     15 05 45.9 -1.8
MSU   Marysvale        124.34  23 ePKIKP   PKPdf     15 05 46.2 -1.5
ARUT  Antelope Range   124.46  25 ePKIKP   PKPdf     15 05 46.7 -1.3
ISCO  Idaho Springs    125.41  17 ePKIKP   PKPdf     15 05 46.7 -3.1
PV10  Paradox Valley   125.62  21 ePKPdf   PKPdf     15 05 47.9 -2.3
NEN   Nelson           125.66  27 ePKPdf   PKPdf     15 05 48.1 -2.2
PV01  Paradox Valley   126.00  21 ePKPdf   PKPdf     15 05 47.3 -3.6
RW3   Ridgway          126.19  20 PKIKP    PKPdf     15 05 49.6 -1.7
ACSO  Alum Creek Sta   127.48 356 ePKPdf   PKPdf     15 05 50.2 -3.5
KSU1  Kansas State U   128.07   9 ePKPdf   PKPdf     15 05 51.5 -3.5
ANMO  Albuquerque      129.59  20 ePKIKP   PKPdf     15 05 56.3 -1.7
WCI   Wyandotte Cave   129.63 359 ePKIKP   PKPdf     15 05 54.9 -3.0
TUC   Tucson           130.27  26 ePKIKP   PKPdf     15 05 57.7 -1.6
WVT   Waverly          131.74   0 ePKIKP   PKPdf     15 05 58.7 -3.3
WMOK  Wichita Mounta   131.92  13 ePKIKP   PKPdf     15 05 58.4 -4.0
MNTX  Cornudas Mount   132.92  21 ePKPdf   PKPdf     15 06 00.7 -3.6
MIAR  Mount Ida        132.97   7 ePKIKP   PKPdf     15 06 01.3 -3.1
LRAL  Lakeview Retre   134.83 359 ePKPdf   PKPdf     15 06 05.1 -2.7
LTX   Lajitas          135.67  20 ePKIKP   PKPdf     15 06 06.6 -2.9
TXAR  Lajitas Array    135.67  20 PKhKP              15 05 55.8
      comp=Z,0.8nm,0.7s,SNR=6.2
TXAR                              PKP      PKPdf     15 06 06.7 -2.7
      comp=Z,8.8nm,0.6s,baz=184,slow=0.6,SNR=41
TXAR                              PP       PP        15 08 37.2 -9.5
      comp=Z,1.5nm,0.9s,baz=45,slow=1.3,SNR=4.1
TXAR                              SKP                15 09 37.2
      comp=Z,12nm,0.9s,baz=297,slow=2.0,SNR=15
TXAR  Lajitas Array    135.67  20 PKP      PKPdf     15 06 06.8 -2.7
TXAR                              PP       PP        15 08 37.2 -9.5
TXAR                              SKP                15 09 37.2
JCT   Junction City    135.76  15 ePKIKP   PKPdf     15 06 06.6 -3.0
BDFB  Brasilia         141.61 260 PKhKP              15 06 11.5
      comp=Z,3.5nm,0.6s,baz=117,slow=4.0,SNR=7.0
BDFB                              PKP      PKPdf     15 06 17.9 -2.8
      comp=Z,12nm,0.7s,baz=170,slow=1.4,SNR=12
BDFB  Brasilia         141.61 260 PKIKP    PKPdf     15 06 17.9 -2.7
LPA   La Plata         145.08 225 dePKP    PKPdf     15 06 20.0 -6.1
LPA   La Plata         145.08 225 ePKP     PKPdf     15 06 23.0 -3.1
LPA                               epPKP              15 06 27.0
LPA                               ePKS     PKS       15 09 57.0 +1.1
TRQA  Tornquist        145.79 217 ePKPdf   PKPdf     15 06 24.2 -3.0
TEIG  Tepich           147.58   1 ePKPbc   PKPdf     15 06 29.6 -1.1
SDV   Santo Domingo    153.03 321 ePKPdf   PKPdf     15 06 36.6 -2.6
SDV                               ePKPbc   PKPdf     15 06 43.2 +3.9
ROSC  El Rosal         158.45 322 PKP      PKPdf     15 06 45.5 -1.0
      comp=Z,3.1nm,0.4s,baz=105,slow=19,SNR=4.9
ROSC                              PKPab    PKPab     15 07 19.7 +0.8
      comp=Z,31nm,1.0s,baz=272,slow=1.9,SNR=10
LVC   Limon Verde      159.60 238 ePKPdf   PKPdf     15 06 46.2 -1.3
LPAZ  La Paz           160.86 256 PKP      PKPdf     15 06 47.3 -1.6
      comp=Z,6.6nm,1.2s,baz=63,slow=9.0,SNR=12
LPAZ                              PKPab    PKPab     15 07 29.7 +0.6
      comp=Z,22nm,1.0s,baz=70,slow=11,SNR=13
LPAZ  La Paz           160.86 256 ePKIKP   PKPdf     15 06 46.7 -2.2
LPAZ                              e                  15 07 28.9
LPAZ                              e                  15 11 12.4
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*NIED **27** 14:51:00, 42.10N×144.40E, h32^{km}, Mw4.4 Best double couple: $M_0$4.36×10^{15} NP1:ϕ_s15°, δ72°, λ68°. NP2:ϕ_s248°, δ28°, λ140°.*

*JMA **27** 14:51:00.3, 42.06N×144.44E, h43^{km}±1^{km}, M4.3*

*IDC **27** 14:51:20.3±1.6, 44.28N×143.86E, h81^{km}±17^{km}, mb3.7/9, mb1 4.0/9, mb1mx3.7/24, Error ellipse: s-maj=24.8km s-min=24.1km az=107.0*

ISC 27 14:51:00.0±1.3**, 42.03N**±0.07×**144.46E**±0.10**, h38**^{km}±11^{km}**, n19,** σ**0**^{s}**68**/20**, mb4.1**/5**, 3C, Hokkaido region**

```
Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
JEM   Erimo            0.97 269   P        P         14 51 17.4 +0.1
JAK   Akkeshi          0.98  10   P        P         14 51 17.7 +0.3
JAK                               eS       S         14 51 31.0 +0.7
JOB   Onbets           0.99 332 ⇑P        P         14 51 17.9 +0.4
JCH   Churui           1.00 306 ⇑P        P         14 51 17.9 +0.2
JCH                               eS       S         14 51 31.3 +0.4
JNBK  Urakawa-nobuka   1.29 282   P        P         14 51 22.7 +0.8
JNBK                              eS       S         14 51 38.2 -0.1
JAR   Ashorobuto       1.36 338 ⇑P        P         14 51 22.5 -0.5
JAR                               eS       S         14 51 39.5 -0.6
JNK   Nakash           1.56   7   P        P         14 51 25.1 -0.7
JNK                               eS       S         14 51 44.8 -0.3
ASAJ  Asahikawa        2.49 327   P        P         14 51 38.8 -0.3
      6.2nm,0.3s,baz=178,slow=12,SNR=34
MAT   Matsushiro       7.32 224   P        P         14 52 46.7 -0.4
ILAR  Eielson Array   44.04  35   P        P         14 59 06.0 +0.8
      0.9nm,0.9s,mb3.5,baz=265,slow=5.3,SNR=8.3
INK   Inuvik          48.88  29   P        P         14 59 43.2 -0.2
      0.6nm,0.4s,mb4.0,baz=252,slow=4.0,SNR=10
BVAR  Borovoye Array  49.07 310   P        P         14 59 44.3 -0.8
      2.6nm,0.6s,mb4.4,baz=73,slow=8.4,SNR=6.8
FINES FINESS Array B  65.49 332   P        P         15 01 39.5 -1.5
      3.2nm,0.7s,mb4.5,baz=53,slow=6.9,SNR=3.0
NVAR  Mina Array Bea  70.17  56   P        pP        15 02 20.2 -1.8
      0.9nm,0.6s,baz=289,slow=9.2,SNR=5.6
NVAR  Mina Array Bea  70.17  56   P        pP        15 02 20.2 -1.8
NOA   NORSAR Array B  70.47 338   P        P         15 02 13.8 +1.8
      1.8nm,0.8s,mb4.0,baz=38,slow=6.3,SNR=2.8
PDAR  Pinedale Array  72.53  48   P        pP        15 02 30.8 -5.1
      0.8nm,0.6s,baz=270,slow=1.5,SNR=3.6
KHC   Kasperske Hory  79.47 330  eP        P         15 03 04.0 +0.2
TXAR  Lajitas Array   85.25  54   P        pP        15 03 43.7 -2.0
      1.6nm,0.8s,baz=297,slow=4.0,SNR=7.7
```

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*NEIC **27** 14:59:00.2±0.7, 9.21N×93.44E, mb4.4/2, Error ellipse: s-maj=18.9km s-min=12.5km az=59.0*

*IDC **27** 14:59:01.2±0.9, 9.51N×93.84E, h20^{km}±4^{km}, mb3.9/10, mb1 4.1/11, mb1mx3.9/20, ML3.7/1, Error ellipse: s-maj=26.8km s-min=19.3km az=57.0*

ISC 27 14:58:58.4±0.8**, 9.3N**±0.1×**93.5E**±0.2**, h22**^{km}**, h22**^{km}±1.2^{km}**:pP-P, n15,** σ**0**^{s}**66**/15**, mb4.1**/12**, Nicobar Islands region**

```
Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
CMAR  Chiang Mai Arr  10.55  29   Pn       P         15 01 32.1 +0.6
      0.2nm,0.3s,baz=220,slow=14,SNR=4.9
SONM  Songino Array   39.95  14   P        P         15 06 32.6 -0.3
      1.0nm,0.9s,mb3.5,baz=202,slow=7.8,SNR=3.8
ZAL   Zalesovo        45.10 353   P        P         15 07 14.2 -0.5
      0.8nm,0.3s,mb4.0,baz=311,slow=12,SNR=2.9
ZAL                               pP       pP        15 07 21.8 +0.5
      0.9nm,0.6s,baz=304,slow=6.3,SNR=2.4
BVAR  Borovoye Array  47.48 341   P        P         15 07 33.2 -0.4
      1.8nm,1.0s,mb3.9,baz=143,slow=7.4,SNR=3.7
BVAR                              pP       pP        15 07 40.6 +0.3
      1.3nm,0.7s,baz=146,slow=5.3,SNR=6.1
BVAR  Borovoye Array  47.48 341   P        P         15 07 33.2 -0.4
BVAR                              pP       pP        15 07 40.6 +0.3
BRVK  Borovoye        47.54 341   P        P         15 07 33.4 -0.7
      2.4nm,0.8s,mb4.3
CHKZ  Chkalovo        47.97 342  eP        P         15 07 37.2 -0.2
      6.6nm,1.2s,mb4.5
WRA   Warramunga Arr  49.57 126   P        P         15 07 50.8 +0.6
      1.6nm,0.6s,mb4.3,baz=304,slow=8.6,SNR=4.4
ASAR  Alice Springs   51.28 130   P        P         15 08 02.2 -1.0
      1.8nm,0.8s,mb4.1,baz=304,slow=7.3,SNR=6.9
KMBO  Kilima Mbogo    56.98 263   P        P         15 08 50.2 +5.0
      0.8nm,0.4s,mb4.1,baz=53,slow=20,SNR=5.5
KMBO                              pP       pP        15 08 56.5 +4.5
      1.3nm,0.6s,baz=56,slow=13,SNR=2.9
KMBO  Kilima Mbogo    56.98 263   P        P         15 08 50.2 +5.0
KMBO                              pP       pP        15 08 56.5 +4.5
BRTR  Keskin Array B  61.06 310   P        P         15 09 13.2 +0.1
      1.1nm,0.6s,mb4.2,baz=113,slow=7.9,SNR=4.6
BRTR                              pP       pP        15 09 19.5 -0.5
      2.2nm,0.9s,baz=117,slow=5.5,SNR=5.9
ARCES ARCESS Array B  73.75 340   P        P         15 10 32.7 +0.3
      3.4nm,1.0s,mb4.2,baz=93,slow=6.1,SNR=5.3
GERES GERESS Array B  76.38 318   P        P         15 10 49.0 +1.1
      0.9nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=6.8
GERES                             pP       pP        15 10 55.3 +0.5
      0.9nm,0.6s,baz=76,slow=5.5,SNR=4.8
INK   Inuvik          95.83  16   P        P         15 12 24.4 +0.4
      0.9nm,0.7s,mb4.3,baz=252,slow=3.2,SNR=4.0
```

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*IDC **27** 15:05:31.8±2.1, 2.78N×94.07E, mb4.0/6, mb1 4.1/7, mb1mx3.9/19, ML4.2/1, Error ellipse: s-maj=83.9km s-min=19.9km az=62.0*

*NEIC **27** 15:05:36.6±0.8, 2.83N×94.17E, h30^{km}, mb4.3/2, Error ellipse: s-maj=25.0km s-min=9.6km az=72.0*

ISC 27 15:05:34.0±1.2**, 2.8N**±0.1×**94.1E**±0.2**, h30**^{km}**, n11,** σ**0**^{s}**35**/10**, mb4.1**/7**, Off west coast of northern Sumatera**

```
Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
CM31  Chiang Mai Arr  16.29  17  eP        P         15 09 22.4 -0.1
      18nm,0.8s
CMAR  Chiang Mai Arr  16.29  17   Pn       P         15 09 22.3 -0.2
      0.4nm,0.3s,baz=214,slow=11,SNR=17
WRA   Warramunga Arr  45.53 122   P        P         15 13 53.4 +0.2
      1.3nm,0.7s,mb4.0,baz=303,slow=8.4,SNR=2.5
WRA   Warramunga Arr  45.53 122   P        P         15 13 53.4 +0.2
SONM  Songino Array   46.12  12   P        P         15 13 57.8 +0.3
      1.3nm,0.6s,mb4.0,baz=194,slow=8.6,SNR=13
ASAR  Alice Springs   46.85 126   P        P         15 14 04.1 +0.5
      1.0nm,0.7s,mb3.9,baz=297,slow=7.7,SNR=7.2
ZAL   Zalesovo        51.55 353   P        P         15 14 39.6 +0.2
      1.8nm,0.4s,mb4.3,baz=312,slow=5.3,SNR=5.8
BVAR  Borovoye Array  53.77 342   P        P         15 14 55.7 -0.2
      0.8nm,0.6s,mb3.9,baz=141,slow=9.5,SNR=7.4
CHKZ  Chkalovo        54.27 343  eP        P         15 14 59.5  0.0
      4.4nm,1.0s,mb4.3
STKA  Stephens Creek  56.75 131   P        P         15 15 17.1 -0.8
      1.3nm,0.6s,mb4.1,baz=141,slow=21,SNR=3.2
TXAR  Lajitas Array  143.82  27   PKP      PKPdf     15 25 10.2 -1.9
      0.3nm,0.8s,baz=14,slow=3.7,SNR=2.7
```

KRSC 27 15:08:38.3±1.4**, 49.38N**×**157.04E, h44**^{km}±99^{km}**, ML3.8, East of Kuril Islands**

```
Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
SKR   Severo-Kuril's   1.43 336  eP        P         15 09 02.1 -0.2
ALID  Alaid            1.77 328  eP        P         15 09 05.3 -1.8
PAU   Pauzhetka        2.10 356  eP        P         15 09 10.8 -0.9
PAU                              eS        S         15 09 33.3 -3.3
PAU                               Smax
      660nm,0.2s
RUS   Russkaya         3.20  16  eP        P         15 09 26.9 -0.5
RUS                              eS        S         15 10 02.1 -2.5
GRL   Gorelyy          3.24  11  eP        P         15 09 28.4 +0.4
GRL                              i S       S         15 10 04.5 -1.3
KRMR  Karymshinskiy    3.52  11  eS        S         15 10 14.8 +1.9
PET   Petropavlovsk    3.79  15  eP        P         15 09 35.6 -0.1
PET                              eS        S         15 10 17.4 -2.2
UGLR  Uglovaya         3.99  16  eP        P         15 09 39.4 +0.8
UGLR                             eS        S         15 10 23.7 -1.1
AVH   Avacha           4.03  15  eP        P         15 09 40.1 +0.9
AVH                              eS        S         15 10 25.6 -0.2
SMAR  Somma            4.04  15  eP        P         15 09 40.9 +1.6
SMAR                             eS        S         15 10 24.9 -1.1
KOK   Koryaka          4.04  14  i P       P         15 09 40.3 +1.0
KOK                              i S       S         15 10 27.0 +1.0
NLC   Nalytchevo       4.06  20  eP        P         15 09 38.6 -1.0
NLC                              eS        S         15 10 22.1 -4.4
SDLR  Sedlovina        4.07  16  eP        P         15 09 39.6 -0.1
SDLR                             eS        S         15 10 23.4 -3.3
SPN   Mys Shipunski    4.17  26  eP        P         15 09 41.6 +0.5
SPN                              eS        S         15 10 26.4 -2.8
GNL   Ganaly           4.36   7  eP        P         15 09 44.0 +0.2
GNL                              eS        S         15 10 32.5 -1.5
```

IDC 27 15:18:22.7±22.0**, 7.39S**×**126.51E, h263**^{km}±121^{km}**, mb3.2**/3**, mb1 3.4**/5**, mb1mx3.3**/14**, Error ellipse: s-maj=240.0km s-min=32.8km az=129.0, Banda Sea**

```
Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
WRA   Warramunga Arr  14.61 149   P        P         15 21 37.0 -2.2
      0.9nm,0.3s,baz=322,slow=12,SNR=12
ASAR  Alice Springs   17.67 157   P        P         15 22 11.4 -1.9
      2.6nm,0.3s,baz=336,slow=12,SNR=204
PMG   Port Moresby    20.52  97   P        P         15 22 41.4 -0.7
      1.7nm,0.5s,baz=317,slow=20,SNR=3.0
CTA   Charters Tower  22.92 125   P        P         15 23 04.8 -0.5
      0.7nm,0.5s,baz=307,slow=9.2,SNR=3.7
STKA  Stephens Creek  28.13 152   P        P         15 23 50.2 -2.7
      1.3nm,0.4s,baz=334,slow=11,SNR=6.6
```

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*STR **27** 15:18:23.7±0.5, 48.19N×7.68E, h10^{km}±1^{km}, Ml1.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 27 15:18:23.5±0.3**, 48.20N**×**7.73E, h10**^{km}±2^{km}**, Md1.6**/1**, Ml1.8**/4**, Error ellipse: s-maj=5.3km s-min=3.5km az=83.0, France**

```
Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
CDF   Champ du Feu     0.37 306  ePg       Pg        15 18 31.0 -0.2
CDF                              eSg       Sg        15 18 35.6 -0.7
      6.4nm,0.2s
ECH   Echery           0.38 273   Pg       Pg        15 18 31.2 -0.2
ECH                               Sg       Sg        15 18 35.9 -0.8
MOF   Molkenrain       0.53 230   Pg       Pg        15 18 34.3 +0.1
MOF                               Sg       Sg        15 18 40.5 -0.9
HINF  Hinteralfeld     0.70 238  ePg       Pg        15 18 36.9 -0.7
HINF                             eSg       Sg        15 18 45.6 -1.4
      4.4nm,0.2s
HAU   Haudompre        0.95 259  ePg       Pg        15 18 41.4 -1.1
HAU                              eSn       Sn        15 18 53.8 -2.4
      3.6nm,0.3s
RFYF  Reffroy          1.56 287  eSg       Sg        15 19 12.6 -3.1
      1.2nm,0.2s
SFTF  Sexfontaines     1.80 271  eSg       Sg        15 19 20.7 -2.9
      1.4nm,0.2s
```

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*IDC **27** 15:18:38.6±1.4, 7.64N×91.90E, mb3.8/5, mb1 4.0/6, mb1mx3.8/19, ML3.9/1, Error ellipse: s-maj=42.2km s-min=26.9km az=46.0*

*NEIC **27** 15:18:43.0±0.9, 7.60N×92.00E, h30^{km}, mb3.9/1, Error ellipse: s-maj=19.9km s-min=17.4km az=59.0*

ISC 27 15:18:41.1±1.2**, 7.6N**±0.2×**92.1E**±0.2**, h30**^{km}**, n10,** σ**0**^{s}**90**/10**, mb3.8**/6**, Nicobar Islands region**

```
Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
CMAR  Chiang Mai Arr  12.68  31   Pn       P         15 21 41.8 -0.7
      0.2nm,0.3s,baz=230,slow=15,SNR=8.7
LSA   Lhasa           21.98 358  eP        P         15 23 36.4 +1.8
AAK   Ala-Archa       38.15 339  eP        P         15 25 59.3 -0.3
      2.2nm,1.0s,mb3.8
SONM  Songino Array   41.89  14   P        P         15 26 30.6 +0.1
      2.3nm,0.6s,mb4.0,baz=197,slow=8.5,SNR=21
BVAR  Borovoye Array  48.58 343   P        P         15 27 23.1 -0.7
      0.5nm,0.6s,mb3.7,baz=162,slow=4.6,SNR=3.1
BRVK  Borovoye        48.64 343   P        P         15 27 24.0 -0.3
WRA   Warramunga Arr  49.82 124   P        P         15 27 33.9 +0.1
      1.1nm,0.6s,mb4.0,baz=302,slow=7.9,SNR=2.9
WRA   Warramunga Arr  49.82 124   P        P         15 27 33.9 +0.1
BRTR  Keskin Array B  61.03 311   P        P         15 28 53.4 -1.2
      0.4nm,0.5s,mb3.8,baz=90,slow=7.2,SNR=4.8
GERES GERESS Array B  76.64 318   P        P         15 30 32.2 +1.3
      0.2nm,0.3s,mb3.5,baz=76,slow=4.0,SNR=5.1
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*BJI **27** 15:20:27.0, 10.00N×93.45E, h23^{km}, mB5.5, mb4.7, Ms5.1, Msz4.9*

*SYO **27** 15:20:32.0, 10.60N×93.59E, h14^{km}, MB5.1*

*MOS **27** 15:20:33.2±1.0, 10.67N×93.65E, h33^{km}, mb5.1/44, Error ellipse: s-maj=11.1km s-min=5.2km az=121.8*

*NEIC **27** 15:20:33.6±0.2, 10.59N×93.59E, mb5.0/35, Error ellipse: s-maj=6.6km s-min=5.5km az=220.0*

*HRVD **27** 15:20:33.6±0.3, 10.61N×93.70E, h16^{km}, MW5.2/52, Centroid moment Tensor Solution. LP body waves: s30,c52;Mantle waves: s52,c89; Half duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}-4.98±.24; $M_{\theta\theta}$-0.33±.19; $M_{\phi\phi}$5.32±.19; $M_{r\theta}$3.84±.61; $M_{\theta\phi}$-4.02±.16; $M_{\phi r}$-0.46±.48; Best double couple: $M_0$7.59×10^{16} NP1: ϕ_s182°, δ44°, λ-41°. NP2:ϕ_s304°, δ63°, λ-126°. Principal axes: T 7.81, Plg10°, Azm59°; N -.43, Plg31°, Azm323°; P -7.37, Plg56°, Azm165°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **27** 15:20:38.1±4.1, 10.71N×93.60E, h59^{km}±36^{km}, mb4.4/23, mb1 4.5/24, mb1mx4.5/28, ML4.3/1, MS4.7/10, Ms1 4.7/10, ms1mx4.3/25 Error ellipse: s-maj=24.1km s-min=11.2km az=43.0*

ISC 27 15:20:31.7±0.3**, 10.56N**±0.04×**93.67E**±0.03**, h24**^{km}**, h24**^{km}±1.0^{km}**:pP-P, n265,** σ**1**^{s}**15**/265**, mb4.9**/68**, MS4.7**/17**, 6C-6D, Andaman Islands region**

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Code  Station Name      Δ°  AZ°   Phase ID           Time      Res
                                  Op       ISC       h  m  s   ISC
CM31  Chiang Mai Arr   9.36  32  ePn       P         15 22 48.0 -0.3
      32nm,0.8s
CMAR  Chiang Mai Arr   9.36  32   P        P         15 22 49.0 +0.8
      0.8nm,0.3s,baz=224,slow=15,SNR=20
CMAR                              LR       LR        15 26 37.9
      comp=Z,3µm,19.2s,baz=220,slow=39
CMAR  Chiang Mai Arr   9.36  32   P        P         15 22 49.1 +0.8
CMAR                              pmax     pmax
      comp=Z,1.0nm,0.3s
CMAR                              MLR      MLR
      comp=Z,3µm,19.2s
VIS   Vishakhapatnam  12.30 307  eP        P         15 23 27.2 -1.2
VIS                              e                   15 25 41.2
      comp=E,265nm,1.2s
VIS                              e         S         15 25 41.4 -4.3
      comp=N,237nm,0.6s
IMP   Imphal          14.15   1  e         P         15 23 51.8 -1.1
SHL   Shillong        15.02 354  eP        P         15 24 03.9 -0.5
SHL                              e                   15 24 20.7
      comp=Z,65nm,0.7s
SHL                              eS        S         15 26 42.7 -8.0
BOK   Bokaro          15.11 332  eP        P         15 24 05.4 -0.1
BOK                              e                   15 24 16.0
      comp=Z,63nm,0.9s
BOK                              eS        S         15 26 40.3  -13
KOD   Kodaikanal      15.95 270  eP        P         15 24 18.8 +2.4
KOD                              e         S         15 26 59.5  -13
BLSP  Bilaspur        15.96 318  eP        P         15 24 14.4 -2.1
BLSP                             e                   15 24 25.0
      comp=Z,124nm,0.9s
BLSP                             eS        S         15 26 55.6  -17
HYB   Hyderabad       16.17 297  eP        P         15 24 23.0 +3.8
HYB                              eS        S         15 27 10.0 -7.6
HYB   Hyderabad       16.17 297  i P       P         15 24 23.0 +3.8
HYB                              e                   15 27 10.0
HYB                              eS        S         15 27 20.0 +2.4
TRD   Trivandrum      16.61 264  eP        P         15 24 29.7 +4.9
TRD                              e                   15 24 36.0
      comp=Z,59nm,1.4s
KMI   Kunming         16.85  30   P        P         15 24 32.5 +4.7
KMI                               S        S         15 27 41.3 +8.2
KMI                               AMB      AMB
      comp=Z,34nm,1.4s
KMI                               LR       LR
      comp=N,3µm,14.1s
KMI                               LR       LR
      comp=E,3µm,15.9s
KMI                               LR       LR
      comp=Z,2µm,19.4s
MNGI  Mangalore       18.61 279  i P       P         15 24 51.8 +2.0
MNGI                             i         S         15 28 13.6 +0.4
PKI   Pulchoki        18.62 336  eP        P         15 24 51.1 +1.3
      comp=Z,505nm,1.4s
GUN   Gumba           18.75 338  eP        P         15 24 53.2 +1.8
      comp=Z,199nm,0.9s
DMN   Daman           18.78 336  eP        P         15 24 52.9 +1.2
KKN   Kakani          18.87 336  eP        P         15 24 54.1 +1.3
      comp=Z,172nm,1.1s
AKL   Akola           18.93 304  e         P         15 24 55.6 +2.0
AKL                              e                   15 28 19.9
LSA   Lhasa           19.19 353  eP        P         15 24 55.8 -0.8
LSA                               pmax     pmax
      comp=Z,23nm,0.8s
LSA   Lhasa           19.19 353  eP        P         15 24 55.8 -0.8
      comp=Z,23nm,0.8s
GKN   Gorkha          19.32 335  eP        P         15 24 58.3 +0.2
      comp=Z,255nm,1.1s
KOLN  Koldanda        19.57 332  eP        P         15 25 02.0 +1.1
      comp=Z,254nm,1.2s
GOA   Goa             19.95 286  e         P         15 25 08.4 +3.3
BHPL  Bhopal          19.99 311  eP        P         15 25 04.8 -0.8
BHPL                             e                   15 25 15.3
      comp=Z,150nm,1.9s
BHPL                             eS        S         15 28 36.8 -6.9
GYA   Guiyang         20.02  36 ⇑iP        P         15 25 07.5 +1.7
GYA                               AMB      AMB
      comp=Z,20nm,1.0s
KAD   Karad           20.06 292  eP        P         15 25 06.7 +0.4
KAD                              e                   15 25 19.1
      comp=Z,106nm,1.9s
KAD                              eS        S         15 28 37.1 -8.0
POO   Poona           20.75 295  eP        P         15 25 11.0 -2.4
AGRA  Agra            22.24 320  eP        P         15 25 28.4  0.0
CD2   Chengdu         22.31  23   P        P         15 25 31.0 +1.9
CD2                               AMB      AMB
      comp=Z,30nm,1.0s,mb4.7
LGTI  Lohaghat        22.60 328  eP        P         15 25 35.5 +3.5
PTH   Pithoragarh     22.69 328  eP        P         15 25 33.8 +0.9
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PTH				*e*S	S	15 29 32.8	-2.3
SONA	**Sohna**	23.50	321	*e*P	P	15 25 41.7	+1.0
SONA				*e*	S	15 29 57.6	+8.2
NDI	**New Delhi**	23.72	322	*e*P	P	15 25 44.6	+1.6
BHGR	**Bahadurgarh**	23.90	321	*e*P	P	15 25 46.6	+2.0
AJM	**Ajmer**	23.95	314	*e*P	P	15 25 47.5	+2.3
AJM				*e*		15 25 57.8	
	comp=Z,100nm,1.4s						
KHET	**Khetri**	24.19	319	*e*P	P	15 25 48.3	+0.8
DDI	**Dehra Dun**	24.45	326	*e*P	P	15 25 51.2	+1.1
DDI				*e*	S	15 30 28.2	+22
RTK	**Rohtak**	24.46	321	*e*P	P	15 25 51.5	+1.3
ENH	**Enshi**	24.52	35	*e*P	P	15 25 50.6	-0.2
	comp=Z,41nm,1.0s,mb4.9						
KKR	**Kurukshetra**	24.89	323	*e*P	P	15 25 55.3	+1.1
KLP	**Kalpa**	25.29	328	*e*P	P	15 25 58.3	+0.2
KLP				*e*	S	15 30 46.6	+27
TGY	**Tagaytay City**	26.86	80	LR	LR	15 36 11.9	
	comp=Z,2µm,18.5s,MS4.7,baz=91,slow=35						
JASL	**Jaisalmer**	26.94	310	*e*	P	15 26 09.5	-3.8
LZH	**Lanzhou**	27.04	18	*e*P	P	15 26 17.5	+3.4
LZH				AMB	AMB		
	comp=Z,37nm,1.6s,mb4.7						
LZH				LR	LR		
	comp=E,2µm,14.0s						
LZH				LR	LR		
	comp=Z,3µm,15.6s,MS4.9						
WHN	**Wuhan**	27.66	41	P	P	15 26 24.0	+4.2
GTA	**Gaotai**	29.25	10	*e*P	P	15 26 34.0	-0.1
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.2						
GTA				AMB	AMB		
	comp=Z,471nm,4.6s						
GTA				LR	LR		
	comp=N,1µm,15.6s,MS4.8						
GTA				LR	LR		
	comp=E,1µm,12.9s,MS4.8						
GTA				LR	LR		
	comp=Z,2µm,14.5s,MS4.8						
NJ2	**Nanjing**	31.59	44	*e*P	P	15 26 54.0	-0.9
NJ2				AP	pP	15 27 07.5	+5.4
NJ2				PP	PP	15 27 58.0	-1.7
NJ2				S	S	15 31 58.0	-3.1
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,740nm,6.1s						
NJ2				LR	LR		
	comp=N,2µm,20.2s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,19.1s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,18.3s,MS4.9						
KSH	**Kashi**	32.86	334	P	P	15 27 06.3	+0.4
KSH				PP	PP	15 28 14.5	-1.6
KSH				S	S	15 32 21.0	+0.2
KSH				AMB	AMB		
	comp=Z,120nm,4.1s						
KSH				LR	LR		
	comp=N,740nm,15.0s,MS4.7						
KSH				LR	LR		
	comp=E,650nm,10.0s,MS4.7						
WMQ	**Urumqi**	33.54	352	⇑P	P	15 27 14.0	+2.2
WMQ				AP	pP	15 27 21.0	+2.1
WMQ				PP	PP	15 28 26.0	+1.7
WMQ				PPP	PPP	15 28 42.8	+1.4
WMQ				S	S	15 32 34.5	+3.2
WMQ				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.9						
WMQ				LR	LR		
	comp=N,441nm,22.3s,MS4.4						
WMQ				LR	LR		
	comp=E,739nm,23.3s,MS4.4						
WMQ				LR	LR		
	comp=Z,566nm,20.4s,MS4.3						
ULHL	**Ulahol**	35.06	337	P	P	15 27 25.3	+0.4
	SNR=5.6						
KZA	**Kyzart**	35.31	336	P	P	15 27 28.0	+1.0
	SNR=13						
UCH	**Uchtor**	35.73	335	P	P	15 27 31.4	+0.9
	SNR=9.9						
TKM2	**Tokmak 2**	35.89	337	P	P	15 27 31.9	+0.1
	SNR=6.0						
KBK	**Karagaybulak**	35.91	336	P	P	15 27 33.9	+1.7
	SNR=13						
AML	**Almayashu**	35.99	334	P	P	15 27 34.2	+1.4
	SNR=21						
AAK	**Ala-Archa**	36.08	336	P	P	15 27 34.7	+1.3
	SNR=12						
AAK	**Ala-Archa**	36.08	336	*i* P	P	15 27 33.2	-0.3
AAK				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
AAK	**Ala-Archa**	36.08	336	*e*P	P	15 27 32.2	-1.3
	comp=Z,35nm,1.2s,mb5.2						
CHMS	**Chumysh**	36.28	336	P	P	15 27 36.0	+0.8
	SNR=12						
EKS2	**Erkin-Say**	36.40	335	P	P	15 27 37.9	+1.7
	SNR=19						
USP	**Ospenovka**	36.61	336	P	P	15 27 38.5	+0.6
	SNR=18						
MKAR	**Makanchi Array**	37.38	347	*i* P	P	15 27 44.0	-0.4
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
SONM	**Songino Array**	38.67	14	P	P	15 27 56.8	+1.6
	comp=Z,1.4nm,0.8s,mb3.8,baz=199,slow=7.1,SNR=4.5						
ULN	**Ulaanbaatar**	38.85	14	*e*P	P	15 27 58.2	+1.4
ULN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
ULN	**Ulaanbaatar**	38.85	14	*e*P	P	15 27 58.2	+1.5
	comp=Z,4.5nm,0.9s,mb4.2						
KS15	**Wonju Array Si**	40.76	43	*e*P	P	15 28 12.7	+0.1
TLY	**Talaya**	41.80	9	*i* P	P	15 28 19.9	-1.1
TLY				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.4						
CN2	**Changchun**	43.04	34	*e*P	P	15 28 30.5	-0.8
CN2				*e*S	S	15 34 55.3	+0.1
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
CN2				AMB	AMB		
	comp=Z,1µm,4.0s						
CN2				LR	LR		
	comp=N,860nm,16.0s,MS4.9						
CN2				LR	LR		
	comp=E,970nm,16.0s,MS4.9						
CN2				LR	LR		
	comp=Z,1µm,17.0s,MS5.0						
ZAL	**Zalesovo**	43.84	352	P	P	15 28 37.0	-0.6
	comp=Z,7.2nm,0.5s,mb4.7,baz=322,slow=5.7,SNR=24						
ZAL				LR	LR	15 51 47.6	
	comp=Z,495nm,18.4s,MS4.5,baz=293,slow=43						
NVS	**Novosibirsk**	44.94	351	*e*P	P	15 28 45.0	-1.4
NVS				pmax	pmax		
	comp=N,21nm,1.4s						
NVS				pmax	pmax		
	comp=E,26nm,1.4s						
NVS				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.1						
MDJ	**Mudanjiang**	45.88	36	P	P	15 28 55.3	+1.3
MDJ				PCP	PcP	15 30 31.5	0.0
MDJ				PP	PP	15 30 42.3	+0.4
MDJ				PCS		15 34 26.0	
MDJ				S	S	15 35 41.0	+4.9
MDJ				AMB	AMB		
	comp=Z,9.0nm,1.5s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,403nm,8.4s						
MDJ				LR	LR		
	comp=N,399nm,23.0s,MS4.5						
MDJ				LR	LR		
	comp=E,562nm,22.0s,MS4.5						
MDJ				LR	LR		
	comp=Z,626nm,23.0s,MS4.5						
BVA0	**Borovoye Array**	46.32	341	*i* P	P	15 28 56.5	-0.9
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.0						
BVAR	**Borovoye Array**	46.32	341	P	P	15 28 56.3	-1.0
	comp=Z,9.6nm,0.8s,mb4.8,baz=143,slow=7.4,SNR=33						
BRVK	**Borovoye**	46.38	341	*e*P	P	15 28 56.4	-1.5
BRVK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
BRVK	**Borovoye**	46.38	341	*e*P	P	15 28 56.4	-1.5
	comp=Z,18nm,0.9s,mb5.0						
CHKZ	**Chkalovo**	46.80	341	*e*P	P	15 28 59.7	-1.4
CHKZ				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
CHKZ	**Chkalovo**	46.80	341	*e*P	P	15 28 59.7	-1.4
	comp=Z,38nm,1.0s,mb5.3						
MZLS	**Mizel**	47.94	293	P	P	15 29 11.6	+1.0
KAMS	**Al Khamasin**	48.15	288	P	P	15 29 13.1	+0.8
NWAO	**Narrogin (SRO)**	48.73	153	P	P	15 29 15.6	-1.0
NWAO				pmax	pmax		
	comp=Z,78nm,1.7s						
NWAO	**Narrogin (SRO)**	48.73	153	P	P	15 29 15.6	-1.0
	comp=Z,78nm,1.7s,mb5.5						
TATS	**Tathlith**	49.14	287	P	P	15 29 16.0	-3.9
BOD	**Bodaibo**	49.67	14	*e*P	P	15 29 24.8	+1.4
WRA	**Warramunga Arr**	50.21	127	P	P	15 29 29.4	+1.3
	comp=Z,14nm,0.8s,mb5.1,baz=304,slow=8.8,SNR=41						
WRA	**Warramunga Arr**	50.21	127	P	P	15 29 29.4	+1.3
WRA				pmax	pmax		
	comp=Z,14nm,0.8s						
WRAB	**Tennant Creek**	50.22	127	*i* P	P	15 29 29.4	+1.3
WRAB	**Tennant Creek**	50.22	127	*e*P	P	15 29 27.8	-0.3
	comp=Z,27nm,0.8s,mb5.3						
HILS	**Ha’il**	51.46	297	P	P	15 29 35.5	-2.0
ASAR	**Alice Springs**	52.00	131	P	P	15 29 41.1	-0.5
	comp=Z,8.7nm,0.7s,mb4.8,baz=304,slow=6.9,SNR=30						
GNI	**Garni**	52.26	313	P	P	15 29 43.6	+0.2
	comp=Z,7.3nm,0.5s,mb4.9,baz=31,slow=8.6,SNR=11						
GNI	**Garni**	52.26	313	*e*P	P	15 29 43.9	+0.5
GNI				pmax	pmax		
	comp=Z,136nm,1.4s						
GNI	**Garni**	52.26	313	*e*P	P	15 29 43.9	+0.6
	comp=Z,136nm,1.4s,mb5.7						
SVE	**Sverdlovsk**	52.75	338	⇓*i*P	P	15 29 46.5	-0.3
SVE				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.5						
TI2	**Plekhanov**	52.82	315	*e*P	P	15 29 49.0	+1.5
ARU	**Arti**	53.26	336	⇑*i*P	P	15 29 47.7	-2.8
ARU				*e*		15 30 50.5	
ARU				*e*S	S	15 37 16.5	-2.2
ARU				*e*SS	SS	15 40 53.1	-4.7
ARU				*e*SSS	SSS	15 42 48.2	+1.1
ARU				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
ARU	**Arti**	53.26	336	*e*P	P	15 29 47.9	-2.7
	comp=Z,31nm,1.2s,mb5.1						
ZEI	**Tsey**	53.79	316	*i* P	P	15 29 55.7	+1.1
ZEI				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
YSS	**Yuzh-Sakhalins**	54.98	39	*e*P	P	15 29 52.5	-11
KIV	**Kislovodsk**	55.04	317	P	P	15 30 03.3	-0.5
	comp=Z,304nm,0.8s,mb6.4,SNR=12						
KIV	**Kislovodsk**	55.04	317	*e*P	P	15 30 03.5	-0.3
KIV				*e*S	S	15 37 44.6	+1.7
KIV				pmax	pmax		
	comp=N,30nm,1.0s						
KIV				pmax	pmax		
	comp=E,19nm,1.0s						
KIV				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
KIV	**Kislovodsk**	55.04	317	*e*P	P	15 30 03.3	-0.5
	comp=Z,50nm,0.9s,mb5.5						
ELZG	**Elazig**	56.02	309	P	P	15 30 10.8	-0.2
SOKR	**Solikamsk**	56.15	338	⇑*i*P	P	15 30 10.3	-1.3
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,600nm,20.0s,MS4.7						
TBKS	**Tabuk**	56.18	297	P	P	15 30 13.0	+0.8
ASF	**Jabal al Asfar**	56.40	302	LR	LR	15 58 08.6	
	comp=Z,510nm,20.2s,MS4.6,baz=101,slow=40						
MALT	**Malatya**	56.40	309	*e*P	P	15 30 13.2	-0.5
MALT				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
MALT	**Malatya**	56.40	309	*e*P	P	15 30 13.2	-0.5
	comp=Z,13nm,1.3s,mb4.8						
PMG	**Port Moresby**	56.79	109	P	P	15 30 18.6	+1.8
	comp=Z,11nm,0.7s,mb5.0,baz=283,slow=7.6,SNR=13						
PMG	**Port Moresby**	56.79	109	*e*P	P	15 30 16.5	-0.3
PMG				pmax	pmax		
	comp=Z,16nm,0.8s						
PMG	**Port Moresby**	56.79	109	*e*P	P	15 30 16.5	-0.2
	comp=Z,16nm,0.8s,mb5.1						
GZT	**Gaziantep**	56.85	308	P	P	15 30 16.7	-0.2
SOC	**Sochi**	56.94	315	*e*P	P	15 30 15.3	-2.2
SOC				*e*		15 32 17.7	
SOC				*e*S	S	15 38 05.8	-2.3
SOC				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.3						
SOC				pmax	pmax		
	comp=N,13nm,0.9s						
SOC				pmax	pmax		
	comp=E,8.0nm,0.8s						
KMBO	**Kilima Mbogo**	57.30	262	P	P	15 30 22.2	+1.7
	comp=E,3.3nm,0.9s,mb4.4,baz=54,slow=22,SNR=7.2						
KMBO				LR	LR	15 52 22.3	
	comp=E,1µm,18.4s,MS5.0,baz=92,slow=33						
KMBO	**Kilima Mbogo**	57.30	262	*i* P	P	15 30 23.2	+2.7
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KMBO	**Kilima Mbogo**	57.30	262	*e*P	P	15 30 20.9	+0.4
	comp=Z,26nm,1.6s,mb5.0						
KAHT	**Ahir Dag**	57.44	308	P	P	15 30 20.9	-0.2
YAK	**Yakutsk**	57.62	19	*e*P	P	15 30 21.7	-0.3
YAK				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
YAK	**Yakutsk**	57.62	19	*e*P	P	15 30 21.7	-0.3
	comp=Z,8.2nm,0.7s,mb4.9						
EIL	**Elat**	57.73	298	P	P	15 30 23.2	0.0
	comp=Z,8.8nm,0.9s,mb4.8,baz=5.2,slow=16,SNR=5.6						
EIL				LR	LR	15 56 49.1	
	comp=Z,365nm,18.5s,MS4.5,baz=269,slow=38						
EIL	**Elat**	57.73	298	*e*P	P	15 30 22.7	-0.5
	comp=Z,17nm,1.2s,mb5.0						
AVNT	**Avonos**	59.24	309	P	P	15 30 35.0	+1.3
CSS	**Prodhromos**	59.77	304	*e*P	P	15 30 36.2	-1.1
	comp=Z,14nm,1.1s,mb4.9						
BOYT	**Boyabat**	59.77	312	P	P	15 30 36.2	-1.1
CTA	**Charters Tower**	60.04	120	LR	LR	15 55 15.3	
	comp=Z,423nm,21.2s,MS4.5,baz=105,slow=34						
CTAO	**Charters Tower**	60.04	120	*e*P	P	15 30 40.1	+0.7
CTAO				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.0						
CTAO	**Charters Tower**	60.04	120	*e*P	P	15 30 40.1	+0.8
	comp=Z,22nm,1.3s,mb5.0						
BRTR	**Keskin Array B**	60.35	310	P	P	15 30 39.5	-1.7
	comp=Z,5.1nm,0.8s,mb4.6,baz=119,slow=6.9,SNR=21						
BRTR	**Keskin Array B**	60.35	310	P	P	15 30 39.6	-1.7
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.8s						
ELDT	**Eldivan**	60.66	311	P	P	15 30 42.5	-0.8
BALT	**Daday**	60.91	312	P	P	15 30 44.7	-0.3
SIM	**Simferopol’**	61.19	316	*e*P	P	15 30 46.0	-0.8
SIM				*e*S	S	15 39 08.8	+5.6
SIM				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.4						
SGKT	**Sivrigoynuk**	61.71	310	P	P	15 30 49.7	-0.8
STKA	**Stephens Creek**	62.29	134	P	P	15 30 54.9	+0.4
	comp=Z,4.9nm,0.6s,mb4.8,baz=310,slow=7.5,SNR=11						
STKA	**Stephens Creek**	62.29	134	*e*P	P	15 30 54.4	-0.1
STKA				*e*	pP	15 31 02.4	+0.4
ESKT	**Eskisehir**	62.43	309	P	P	15 30 53.0	-2.4
ISP	**Isparta**	62.44	307	*i* P	P	15 30 53.6	-1.8
MOS	**Moscow**	62.57	328	*e*P	P	15 31 00.9	+4.9
OBN	**Obninsk**	62.88	327	*d i*P	P	15 30 57.1	-0.9
OBN				*e*S	S	15 39 30.0	+5.5
OBN				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.3						
MBAR	**Mbarara**	63.55	264	*i* P	P	15 31 04.6	+1.5
MA2	**Magadan**	64.62	28	*i* P	P	15 31 08.2	-1.2
TIXI	**Tiksi**	64.71	12	*e*P	P	15 31 09.8	0.0
TIXI				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
CFR	**Carcaliu**	65.37	315	⇓*i*P	P	15 31 13.0	-1.5
AKASG	**Malin Array Be**	65.78	321	P	P	15 31 14.1	-2.9
	comp=Z,7.7nm,0.7s,mb4.9,baz=86,slow=5.0,SNR=12						
AKASG	**Malin Array Be**	65.78	321	P	P	15 31 14.1	-2.9
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.7s						
VRI	**Vrincioaia**	66.47	315	⇓*i*P	P	15 31 20.6	-0.8
MLR	**Muntele Rosu**	66.95	315	P	P	15 31 24.7	+0.1
	comp=Z,28nm,0.9s,mb5.3,baz=110,slow=1.5,SNR=29						
MLR	**Muntele Rosu**	66.95	315	P	P	15 31 24.7	+0.2
MLR				pmax	pmax		
	comp=Z,29nm,0.9s						
PGB	**Panagyurishte**	67.85	312	*e*P	P	15 31 30.0	-0.3
MMB	**Musomiste**	68.08	311	*e*P	P	15 31 29.0	-2.7
VTS	**Vitosha**	68.56	312	*e*P	P	15 31 33.0	-1.7
KKB	**Krupnik**	68.58	311	*e*P	P	15 31 33.0	-1.8
APA	**Apatity**	69.19	339	⇓*i*P	P	15 31 36.7	-1.4
APA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
KWP	**Kalwaria**	69.71	319	*e*P	P	15 31 41.2	-0.4
LSZ	**Lusaka**	69.75	249	*e*P	P	15 31 42.6	+0.2
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
LSZ	**Lusaka**	69.75	249	*e*P	P	15 31 42.6	+0.2
	comp=Z,3.7nm,0.6s,mb4.5						
KOLS	**Kolonicke sedl**	69.90	318	*e*P	P	15 31 42.8	0.0
KOLS				*e*pP	pP	15 31 51.0	+0.7
SUW	**Suwalki**	70.08	324	*e*P	P	15 31 42.3	-1.4
FINES	**FINESS Array B**	70.14	332	P	P	15 31 42.4	-1.6
	comp=Z,6.2nm,0.7s,mb4.6,baz=101,slow=9.7,SNR=16						
FINES	**FINESS Array B**	70.14	332	P	P	15 31 42.4	-1.6
FINES				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KAF	**Kangasniemi**	70.21	333	*e*p	P	15 31 43.1	-1.3
	comp=Z,16nm,1.0s,mb4.9						
KAF	**Kangasniemi**	70.21	333	*e*P	P	15 31 43.1	-1.3
KAF				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
CRVS	**Cervenica-Dubn**	70.43	318	*e*P	P	15 31 47.6	+1.6
CRVS				*e*	pP	15 31 55.4	+1.9
NIE	**Niedzica**	71.23	319	*e*P	P	15 31 51.0	+0.1
PSZ	**Piszkesteto**	71.37	317	*e*P	P	15 31 51.0	-0.7
PSZ				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
PSZ	**Piszkesteto**	71.37	317	*e*P	P	15 31 51.0	-0.8
	comp=Z,25nm,1.2s,mb5.0						
OJC	**Ojcow**	71.64	319	*e*P	P	15 31 52.6	-0.7
VYHS	**Vyhne**	72.12	318	*e*P	P	15 31 55.4	-0.8
KEV	**Kevo**	72.17	340	*e*p	P	15 31 56.0	-0.1
SRO	**Srobarova**	72.42	317	*e*P	P	15 31 58.1	+0.1
SRO				*e*pP	pP	15 32 05.2	-0.4
RHK1	**Bakonya**	72.49	315	⇑*e*P	P	15 31 57.8	-0.6
ARCES	**ARCESS Array B**	72.60	340	P	P	15 31 58.6	0.0
	comp=Z,8.6nm,0.8s,mb4.7,baz=90,slow=6.1,SNR=13						
ARCES				LR	LR	16 06 44.2	
	comp=Z,599nm,19.8s,MS4.9,baz=299,slow=38						
ARCES	**ARCESS Array B**	72.60	340	P	P	15 31 58.6	0.0
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.8s						
ARCES				MLR	MLR		
	comp=Z,599nm,19.8s						
OKC	**Ostrava-Krasne**	72.67	319	*e*P	P	15 31 59.4	0.0
OKC				*e*pP	pP	15 32 06.2	-0.8
MORC	**Moravsky Berou**	73.06	319	*e*P	P	15 32 00.5	-1.2
MORC				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
MORC	**Moravsky Berou**	73.06	319	*e*P	P	15 32 00.5	-1.2
	comp=Z,18nm,0.9s,mb5.0						
ZST	**Bratislava**	73.26	317	*e*P	P	15 32 02.9	0.0
ZST				*e*pP	pP	15 32 09.9	-0.6
VRAC	**Vranov**	73.65	318	P	P	15 32 04.6	-0.5
	comp=Z,4.2nm,0.8s,mb4.5,baz=90,slow=7.2,SNR=5.6						
VRAC	**Vranov**	73.65	318	P	P	15 32 04.6	-0.5
VRAC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BILL	**Bilibino**	73.78	22	*e*P	P	15 32 05.4	-0.1
BILL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
BILL	**Bilibino**	73.78	22	*e*P	P	15 32 05.4	-0.1
	comp=Z,2.6nm,0.8s,mb4.2						
DPC	**Dobruska-Polom**	73.88	319	*e*P	P	15 32 06.6	+0.2
KSP	**Ksiaz**	73.92	320	*e*P	P	15 32 06.6	-0.1
KSP				*e**PP	pP	15 32 13.2	-1.1
UPC	**Upice**	74.08	320	*e*P	P	15 32 07.7	+0.1
UPC				*e*pP	pP	15 32 18.0	+2.8
PERS	**Pernice**	74.55	316	⇓*e*P	P	15 32 10.4	0.0
PVCC	**Panska Ves**	75.00	320	*e*P	P	15 32 12.8	-0.1
PRU	**Pruhonice**	75.01	319	*e*P	P	15 32 12.9	-0.1
PRU				*e*pP	pP	15 32 19.8	-0.8
LBTB	**Lobatse**	75.14	241	*e*P	P	15 32 14.8	+0.6
LBTB				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
LBTB	**Lobatse**	75.14	241	*e*P	P	15 32 14.8	+0.6
	comp=Z,14nm,0.8s,mb5.0						
VOY	**Vojsko**	75.39	315	*e*P	P	15 32 14.1	-1.2
VOY				*e*	pP	15 32 22.2	-0.7
GEC2	**GERESS Array S**	75.53	318	*e*P	P	15 32 16.2	+0.2
GEC2				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
GEC2	**GERESS Array S**	75.53	318	*e*P	P	15 32 16.2	+0.2
	comp=Z,18nm,0.8s,mb5.0						
GERES	**GERESS Array B**	75.53	318	P	P	15 32 14.8	-1.2
	comp=Z,12nm,0.7s,mb4.9,baz=89,slow=5.4,SNR=63						
GERES	**GERESS Array B**	75.53	318	P	P	15 32 14.8	-1.2
GERES				pmax	pmax		
	comp=Z,12nm,0.7s						
KHC	**Kasperske Hory**	75.62	318	*e*P	P	15 32 16.2	-0.3
KHC				*e*pP	pP	15 32 22.9	-1.2
PTCC	**Patocco-Chiusa**	75.77	315	*e*P	P	15 32 16.1	-1.3
HFS	**Hagfors**	75.92	329	P	P	15 32 16.3	-1.7
	comp=Z,7.5nm,0.9s,mb4.6,baz=90,slow=4.4,SNR=11						
HFS	**Hagfors**	75.92	329	P	P	15 32 16.3	-1.7
HFS				pmax	pmax		
	comp=Z,8.0nm,0.9s						
HFS	**Hagfors**	75.92	329	P	P	15 32 16.3	-1.7
CLL	**Collm**	76.01	320	*e*P	P	15 32 18.0	-0.6
CLL				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
CLL	**Collm**	76.01	320	*e*P	P	15 32 18.0	-0.6
	comp=Z,9.0nm,1.0s,mb4.7						
CLL	**Collm**	76.01	320	P	P	15 32 18.0	-0.6
	comp=Z,logA/T=1.0,mb4.7						
WET	**Wettzell**	76.08	318	*e*P	P	15 32 19.3	+0.2
NKC	**Novy Kostel**	76.36	319	*e*P	P	15 32 20.9	+0.3
BOSA	**Boshof**	76.63	237	*e*P	P	15 32 22.7	+0.1
BOSA				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
BOSA	**Boshof**	76.63	237	*e*P	P	15 32 22.7	+0.1
	comp=Z,16nm,0.8s,mb5.0						
MOX	**Moxa**	76.89	320	*e*P	P	15 32 23.4	-0.2
MOX	**Moxa**	76.89	320	*i* P	P	15 32 23.4	-0.2
SFI	**Santa Sofia**	76.89	313	*e*P	P	15 32 24.6	+0.9
CTI	**Castel Tesino**	76.96	315	*e*P	P	15 32 21.0	-3.1
PGD	**Poggio Sodo**	76.98	313	*e*P	P	15 32 25.2	+1.0
FUR	**Furstenfeldbru**	77.15	317	*e*P	P	15 32 24.9	-0.2
GRA1	**Grafenberg Arr**	77.16	319	*e*P	P	15 32 25.5	+0.4
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	**Grafenberg Arr**	77.16	319	*e*P	P	15 32 25.5	+0.4
GRF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	**Grafenberg Arr**	77.16	319	*e*P	P	15 32 25.5	+0.4
GRF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	**Grafenberg Arr**	77.16	319	*e*P	P	15 32 25.5	+0.4
	comp=Z,8.0nm,0.8s,mb4.7						
NB2	**NORSAR Subarra**	77.18	330	P	P	15 32 23.8	-1.2
	comp=Z,9.9nm,1.0s,mb4.7,baz=92,slow=5.8						
NB2	**NORSAR Subarra**	77.18	330	P	P	15 32 23.8	-1.2
NB2				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
NOA	**NORSAR Array B**	77.18	330	P	P	15 32 23.4	-1.6
	comp=Z,5.2nm,0.8s,mb4.5,baz=92,slow=5.6,SNR=11						
NOA	**NORSAR Array B**	77.18	330	P	P	15 32 23.4	-1.6
NOA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
SEI	**Scarperia**	77.24	313	*e*P	P	15 32 26.1	+0.4
NAO01	**NORSAR Array S**	77.34	330	*e*P	P	15 32 24.6	-1.3
	comp=Z,7.9nm,0.8s,mb4.7						
ZCCA	**Zocca**	77.50	313	*e*P	P	15 32 28.3	+1.2
BSEG	**Bad Segeberg**	77.64	323	*e*P	P	15 32 28.2	+0.6
CLZ	**Clausthal**	77.65	321	*e*P	P	15 32 28.0	+0.3
	comp=Z,16nm,0.9s,mb5.0						
GSCL	**Gusciola**	77.78	313	*e*P	P	15 32 29.6	+1.0
BDI	**Bagni Di Lucca**	77.78	313	*e*P	P	15 32 27.5	-1.2
BRMO	**Bormio**	77.83	315	*e*P	P	15 32 29.0	+0.1
ERBM	**Eremo**	77.90	313	*e*P	P	15 32 30.7	+1.4
DAVOX	**Davos**	78.15	316	P	P	15 32 29.8	-0.9
	comp=Z,13nm,0.7s,mb5.0,baz=111,slow=5.5,SNR=24						
VAI	**Varese**	78.97	315	*e*P	P	15 32 34.4	-0.8
BFO	**Black Forest**	79.11	317	*e*P	P	15 32 35.6	-0.3
LPG	**La Plagne**	80.41	315	*e*P	P	15 32 43.7	+0.8
	comp=Z,62nm,0.8s,mb5.3						
LPG	**La Plagne**	80.41	315	*e*P	P	15 32 43.7	+0.8
LPG				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.3						
BNI	**Bardonecchia**	80.50	314	*e*P	P	15 32 42.4	-1.0
BNI				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.1						
BNI	**Bardonecchia**	80.50	314	*e*P	P	15 32 42.4	-1.0
	comp=Z,20nm,0.8s,mb5.1						
MAW	**Mawson**	81.06	191	LR	LR	16 00 11.5	

	comp=Z,440nm,19.5s,MS4.8,baz=48,slow=29						
SUR	Sutherland	81.48	235	*e*P	P	15 32 49.8	+1.0
	comp=Z,19nm,0.8s,mb5.1						
EKA	Eskdalemuir Ar	85.26	325	P	P	15 33 08.2	+0.6
	comp=Z,10nm,0.9s,mb5.0,baz=95,slow=4.8,SNR=9.7						
EKA	Eskdalemuir Ar	85.26	325	P	P	15 33 08.2	+0.6
EKA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SYO	Syowa Base	87.82	197	⇑P	P	15 33 21.4	+1.6
IMA	Indian Mountai	89.33	22	*e*P	P	15 33 29.0	+2.0
ILAR	Eielson Array	92.44	22	P	P	15 33 41.5	+0.1
	comp=Z,0.7nm,0.7s,mb4.1,baz=293,slow=4.0,SNR=8.4						
ILAR	Eielson Array	92.44	22	P	P	15 33 41.6	+0.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	Inuvik	94.56	16	P	P	15 33 51.8	+0.7
	comp=Z,0.9nm,0.7s,mb4.3,baz=250,slow=8.2,SNR=7.0						
INK	Inuvik	94.56	16	P	P	15 33 51.8	+0.7
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
DBIC	Dimbokro	97.12	278	LR	LR	16 17 06.3	
	comp=Z,361nm,20.0s,MS4.8,baz=22,slow=35						
ULM	Lac du Bonnet	118.88	7	PKP	PKPdf	15 39 19.8	-3.0
	comp=Z,2.0nm,0.6s,baz=18,slow=4.3,SNR=6.0						
HLID	Hailey	120.37	23	*e*PKPdf	PKPdf	15 39 23.9	-2.0
LOHW	Long Hollow	121.73	21	*e*PKPdf	PKPdf	15 39 26.5	-2.0
REDW	Red Top Meadow	121.86	21	*e*PKPdf	PKPdf	15 39 26.8	-2.0
PDAR	Pinedale Array	122.83	20	PKP	PKPdf	15 39 28.1	-2.5
	comp=Z,2.2nm,0.8s,baz=29,slow=1.3,SNR=18						
NVAR	Mina Array Bea	122.85	30	PKP	PKPdf	15 39 28.2	-2.5
	comp=Z,2.0nm,0.7s,baz=339,slow=0.8,SNR=8.3						
HWUT	Hardware Ranch	123.13	22	*e*PKPdf	PKPdf	15 39 28.6	-2.7
MVU	Marysvale	125.54	25	*e*PKPdf	PKPdf	15 39 34.9	-1.2
MSU	Marysvale	125.54	25	*e*PKIKP	PKPdf	15 39 34.9	-1.2
PV10	Paradox Valley	126.89	22	*e*PKPdf	PKPdf	15 39 37.0	-1.6
ANMO	Albuquerque	130.88	22	PKP	PKPdf	15 39 45.1	-1.3
	comp=Z,0.8nm,0.5s,baz=274,slow=5.5,SNR=4.1						
MNTX	Cornudas Mount	134.19	23	*e*PKPdf	PKPdf	15 39 50.1	-2.5
TXAR	Lajitas Array	136.96	22	PKP	PKPdf	15 39 54.6	-3.2
	comp=Z,0.8nm,0.7s,baz=92,slow=0.8,SNR=5.0						
JCT	Junction City	137.19	17	*e*PKIKP	PKPdf	15 39 57.1	-1.1
BDFB	Brasilia	142.38	258	PKP	PKPdf	15 40 06.8	-1.1
	comp=Z,3.6nm,0.7s,baz=172,slow=3.9,SNR=5.0						
BDFB	Brasilia	142.38	258	PKIKP	PKPdf	15 40 06.8	-1.1
BDFB				pmax	pmax		
	comp=Z,4.0nm,0.7s						
TRQA	Tornquist	144.98	215	*e*PKPdf	PKPdf	15 40 08.2	-3.6
SDV	Santo Domingo	155.16	320	*e*PKPab	PKPab	15 40 50.1	-0.7

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*IDC **27** 15:27:55.5±0.9, 3.80N×94.13E, mb4.1/10, mb1 4.3/11, mb1mx4.1/20, ML4.6/1, Error ellipse: s-maj=51.3km s-min=17.7km az=48.0*

*NEIC **27** 15:27:59.3±0.7, 3.48N×93.91E, h30^{km}, mb4.6/3, Error ellipse: s-maj=24.2km s-min=13.9km az=59.0*

ISC 27 15:27:57.4±0.8, **3.4N**±0.1×**93.9E**±0.2, **h30**^{km}**, n26, σ1^{s}05**/26, **mb4.4**/19, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.76	18	Pn	P	15 31 39.0	-0.1
	0.9nm,0.3s,baz=213,slow=12,SNR=11						
PKI	Pulchoki	25.38	342	*e*P	P	15 33 25.0	+1.2
	10nm,0.5s,mb4.6						
DMN	Daman	25.50	342	*e*P	P	15 33 26.5	+1.4
DMN	Daman	25.50	342	*e*P	P	15 33 26.0	+0.9
	21nm,0.9s,mb4.7						
GUN	Gumba	25.55	343	*e*P	P	15 33 25.0	-0.5
	42nm,0.6s,mb5.2						
GUN	Gumba	25.55	343	*e*P	P	15 33 26.3	+0.8
	42nm,0.6s,mb5.2						
KKN	Kakani	25.62	342	*e*P	P	15 33 27.8	+1.7
	26nm,1.0s,mb4.7						
KKN	Kakani	25.62	342	*e*P	P	15 33 26.5	+0.4
GKN	Gorkha	26.02	341	*e*P	P	15 33 30.4	+0.5
GKN	Gorkha	26.02	341	*e*P	P	15 33 30.6	+0.7
	16nm,0.4s,mb4.9						
KOLN	Koldanda	26.16	339	*e*P	P	15 33 31.7	+0.6
KOLN	Koldanda	26.16	339	*e*P	P	15 33 32.2	+1.1
	15nm,0.6s,mb4.7						
LSA	Lhasa	26.29	355	*e*P	P	15 33 33.0	+0.7
	17nm,0.7s,mb4.7						
LSA				*e*pP	pP	15 33 42.6	+1.5
SONM	Songino Array	45.56	12	P	P	15 36 13.6	-2.8
	1.6nm,0.5s,mb4.2,baz=192,slow=8.9,SNR=19						
SONM				PcP	PcP	15 37 53.1	-2.0
	0.6nm,0.8s,baz=188,slow=4.2,SNR=4.0						
WRA	Warramunga Arr	45.98	122	P	P	15 36 21.8	+1.7
	2.9nm,0.6s,mb4.4,baz=302,slow=8.9,SNR=11						
ASAR	Alice Springs	47.33	127	P	P	15 36 30.1	-0.6
	1.5nm,0.6s,mb4.1,baz=297,slow=7.8,SNR=13						
ASAR				PcP	PcP	15 38 04.8	+3.1
	0.9nm,0.7s,baz=304,slow=3.2,SNR=6.8						
BVAR	Borovoye Array	53.15	342	P	P	15 37 13.5	-1.2
	3.4nm,0.5s,mb4.5,baz=140,slow=9.3,SNR=23						
BRVK	Borovoye	53.21	342	*e*P	P	15 37 13.5	-1.7
	1.9nm,0.4s,mb4.4						
CHKZ	Chkalovo	53.65	343	*e*P	P	15 37 17.4	-0.9
	5.2nm,0.8s,mb4.5						
BRTR	Keskin Array B	65.22	312	P	P	15 38 38.4	-0.1
	0.7nm,0.5s,mb4.0,baz=108,slow=7.2,SNR=6.0						
AKASG	Malin Array Be	71.53	323	P	P	15 39 16.5	-1.0
	0.8nm,0.4s,mb4.0,baz=85,slow=5.2,SNR=10						
FINES	FINESS Array B	76.55	333	P	P	15 39 45.9	-0.5
	1.4nm,0.5s,mb4.1,baz=90,slow=5.7,SNR=9.4						
ARCES	ARCESS Array B	79.38	341	P	P	15 40 01.4	-0.4
	1.3nm,0.6s,mb4.1,baz=94,slow=5.3,SNR=12						
ARCES	ARCESS Array B	79.38	341	P	P	15 40 01.4	-0.4
GERES	GERESS Array B	81.01	319	P	P	15 40 12.1	+1.2
	1.8nm,0.9s,mb4.0,baz=90,slow=6.7,SNR=10						
HFS	Hagfors	82.19	330	P	P	15 40 16.5	-0.3
	1.1nm,0.6s,mb4.0,baz=78,slow=13,SNR=4.7						

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*NEIC **27** 15:30:39.0±0.6, 6.57N×92.64E, h30^{km}, mb4.1/2, Error ellipse: s-maj=19.3km s-min=14.1km az=49.0*

*IDC **27** 15:30:41.5±6.5, 6.61N×92.70E, h50^{km}±60^{km}, mb3.8/12, mb1 4.0/13, mb1mx3.9/22, ML4.3/1, Error ellipse: s-maj=49.0km s-min=17.5km az=46.0*

ISC 27 15:30:38.5±7.0, **6.6N**±0.2×**92.7E**±0.2, **h39**^{km}±59^{km}**, n24, σ0^{s}90**/23, **mb4.3**/19, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.23	27	P	P	15 33 47.0	+0.6
	0.5nm,0.3s,baz=227,slow=14,SNR=7.7						
PKI	Pulchoki	21.95	342	*e*P	P	15 35 30.9	+0.4
	25nm,0.6s,mb4.8						
DMN	Daman	22.07	342	*e*P	P	15 35 31.8	+0.1
	37nm,0.7s,mb4.9						
GUN	Gumba	22.13	344	*e*P	P	15 35 31.5	-0.8
	28nm,0.7s,mb4.8						
KKN	Kakani	22.19	342	*e*P	P	15 35 33.0	+0.1
	21nm,0.6s,mb4.7						
GKN	Gorkha	22.59	341	*e*P	P	15 35 36.2	-0.7
KOLN	Koldanda	22.73	339	*e*P	P	15 35 38.5	+0.2
	34nm,0.6s,mb5.0						
AAK	Ala-Archa	39.30	339	*e*P	P	15 38 04.1	-1.3
	2.5nm,0.9s,mb3.9						
SONM	Songino Array	42.69	14	P	P	15 38 34.5	+1.2
	0.4nm,0.6s,mb3.3,baz=194,slow=8.0,SNR=3.0						
WRA	Warramunga Arr	48.73	124	P	P	15 39 21.1	-0.5
	1.5nm,0.5s,mb4.3,baz=306,slow=8.5,SNR=7.7						
CHKZ	Chkalovo	50.22	343	*e*P	P	15 39 30.8	-1.8
	1.7nm,0.5s,mb4.3						
ASAR	Alice Springs	50.24	128	P	P	15 39 33.0	-0.2
	0.8nm,0.4s,mb4.1,baz=302,slow=7.7,SNR=14						
BRTR	Keskin Array B	62.17	312	P	P	15 40 58.1	-0.2
	1.4nm,0.6s,mb4.2,baz=124,slow=8.6,SNR=8.7						
IDI	Anoyia	68.11	305	P	P	15 41 37.4	+0.7
	8.2nm,0.7s,mb4.9,baz=67,slow=12,SNR=5.8						
IDI	Anoyia	68.11	305	P	P	15 41 37.4	+0.7
AKASG	Malin Array Be	68.25	322	P	P	15 41 35.4	-1.9
	1.3nm,0.8s,mb4.0,baz=86,slow=4.9,SNR=4.9						
MLR	Muntele Rosu	69.07	316	P	P	15 41 43.8	+1.3
	1.4nm,0.5s,mb4.1,baz=157,slow=2.6,SNR=4.3						
FINES	FINESS Array B	73.14	333	P	P	15 42 06.0	-0.6
	1.5nm,0.7s,mb4.1,baz=108,slow=6.0,SNR=5.4						
ARCES	ARCESS Array B	75.95	340	P	P	15 42 22.6	0.0
	0.8nm,0.5s,mb3.9,baz=90,slow=4.9,SNR=5.9						
GERES	GERESS Array B	77.80	318	P	P	15 42 34.6	+1.2
	1.7nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=14						
KHC	Kasperske Hory	77.90	319	*e*P	P	15 42 35.5	+1.5
HFS	Hagfors	78.81	330	P	P	15 42 38.5	-0.2
	1.0nm,0.5s,mb4.0,baz=112,slow=8.0,SNR=4.0						
DAVOX	Davos	80.29	316	P	P	15 42 47.6	+0.6
	2.8nm,0.6s,mb4.4,baz=123,slow=8.7,SNR=5.9						
PDAR	Pinedale Array	126.83	20	PKP	PKPdf	15 49 40.6	+2.1
	0.7nm,0.9s,baz=27,slow=3.3,SNR=3.6						

IDC 27 15:34:22.4±6.4, **4.46N×93.67E, mb3.7**/3, **mb1 3.9**/4, **mb1mx3.6**/18, **ML4.0**/1, **Error ellipse: s-maj=190.0km s-min=30.9km az=73.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.84	20	Pn	P	15 37 53.7	-1.9
	0.2nm,0.3s,baz=195,slow=14,SNR=7.3						
SONM	Songino Array	44.58	12	P	P	15 42 36.2	-1.8
	0.8nm,1.0s,baz=210,slow=6.1,SNR=4.5						
WRA	Warramunga Arr	46.75	123	P	P	15 42 53.5	-2.0
	1.0nm,0.6s,baz=300,slow=9.1,SNR=4.8						
ASAR	Alice Springs	48.16	127	P	P	15 43 05.0	-1.7
	0.6nm,0.6s,baz=295,slow=7.9,SNR=5.0						

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*JMA **27** 15:36:23.9±0.3, 23.97N×122.25E, h31^{km}, M3.2*

TAP 27 15:36:25.3, 23.96N×122.45E, h6^{km}±1^{km}**, ML3.6, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	0.71	46	P	Pg	15 36 39.5	-0.1
YOJ				S	Sg	15 36 50.9	+1.7
IRIF	Iriomote-Funau	1.23	72	P	Pb	15 36 48.2	-0.2
IRIF				S	Sb	15 37 05.4	+1.1
HATJ	Hateruma jima	1.24	85	P	Pb	15 36 48.3	-0.4
HATJ				S	Sb	15 37 06.1	+1.3
JKRS	Kuro-shima	1.45	79	P	Pn	15 36 51.4	-0.7
JKRS				S	Sb	15 37 10.4	-0.4
JIJ	Ishigaki jima	1.60	75	P	Pn	15 36 53.0	-1.2
JIJ				S	Sb	15 37 13.0	-2.1
JTJ	Tarama	2.16	71	P	Pn	15 37 01.1	-1.2
JTJ				*e*S	Sn	15 37 29.6	-0.1
JOGS	Gusukube	2.81	73	P	Pn	15 37 11.0	-0.5
JOGS				*e*S	Sn	15 37 47.2	+1.1

IDC 27 15:36:41.4±1.2, **8.75N×91.32E, mb4.0**/5, **mb1 4.2**/6, **mb1mx3.9**/18, **ML4.1**/1, **Error ellipse: s-maj=30.6km s-min=28.1km az=5.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.16	37	Pn	P	15 39 37.2	-1.8
	0.3nm,0.3s,baz=232,slow=14,SNR=10						
SONM	Songino Array	41.00	15	P	P	15 44 26.1	-1.6
	3.5nm,0.7s,baz=198,slow=8.3,SNR=29						
ASAR	Alice Springs	52.63	129	P	P	15 45 57.4	-2.4
	1.0nm,0.8s,baz=310,slow=7.9,SNR=6.5						
KMBO	Kilima Mbogo	54.76	262	P	P	15 46 14.1	-1.4
	2.4nm,0.8s,baz=54,slow=14,SNR=6.6						
BRTR	Keskin Array B	59.75	311	P	P	15 46 47.8	-2.7
	0.7nm,0.6s,baz=118,slow=7.4,SNR=4.3						
GERES	GERESS Array B	75.31	318	P	P	15 48 26.8	-1.5
	1.1nm,0.8s,baz=108,slow=4.2,SNR=6.9						

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*BJI **27** 15:40:53.9, 9.78N×92.78E, h24^{km}, mB5.1, mb4.8, Ms4.3, Msz3.9*

*MOS **27** 15:41:00.8±0.9, 10.40N×92.78E, h33^{km}, mb4.8/25, Error ellipse: s-maj=13.0km s-min=7.6km az=98.8*

*NEIC **27** 15:41:01.6±3.1, 10.47N×92.83E, h24^{km}±21^{km}, mb4.8/21, Error ellipse: s-maj=10.4km s-min=5.1km az=54.0*

*SYO **27** 15:41:03.0, 10.47N×92.86E, h34^{km}, MB4.8*

*IDC **27** 15:41:04.7±4.1, 10.43N×92.72E, h48^{km}±36^{km}, mb4.3/20, mb1 4.4/21, mb1mx4.3/27, ML5.3/1, MS3.5/1, Ms1 3.7/1, ms1mx2.8/25, Error ellipse: s-maj=27.4km s-min=10.7km az=52.0*

ISC 27 15:41:00.7±0.4, **10.44N**±0.05×**92.88E**±0.06, **h30**^{km}**, h30**^{km}±2.4^{km}**:pP-P, n118, σ0^{s}88**/113, **mb4.7**/47, **MS4.0**/3, **3C-1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	9.89	36	*e*Pn	P	15 43 23.3	-0.9
	22nm,0.4s						
CMAR	Chiang Mai Arr	9.89	36	P	P	15 43 26.6	+2.4
	6.9nm,0.3s,baz=230,slow=15,SNR=80						
CMAR				S	Sn	15 45 20.5	+5.2
	baz=234,slow=30,SNR=2.7						
CMAR				LR	LR	15 47 20.3	
	comp=Z,271nm,21.9s,baz=220,slow=38						
CMAR	Chiang Mai Arr	9.89	36	P	P	15 43 26.6	+2.4
CMAR				S	Sn	15 45 20.5	+5.2
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,271nm,21.9s						
CMAR	Chiang Mai Arr	9.89	36	P	P	15 43 26.6	+2.4
CMAR				S	Sn	15 45 20.5	+5.2
CMAR				LR	LR	15 47 20.3	
HYB	Hyderabad	15.53	298	*i*P	P	15 44 45.0	+5.5
KMI	Kunming	17.34	31	P	P	15 45 04.8	+2.4
KMI				AMB	AMB		
	comp=Z,30nm,0.7s						
LSA	Lhasa	19.23	355	*e*P	P	15 45 24.5	-0.9
LSA				pmax	pmax		
	comp=Z,17nm,0.8s						
LSA	Lhasa	19.23	355	*e*P	P	15 45 24.5	-0.9
	comp=Z,17nm,0.8s						
GYA	Guiyang	20.58	37	⇑*i*P	P	15 45 39.5	-0.4
GYA				AMB	AMB		
	comp=Z,30nm,0.7s						
CD2	Chengdu	22.73	25	P	P	15 46 01.0	-0.6
CD2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.1						
ENH	Enshi	25.07	36	*e*P	P	15 46 23.4	-0.8
	comp=Z,54nm,0.8s,mb5.1						
LZH	Lanzhou	27.40	20	*e*P	P	15 46 46.5	+0.8
LZH				AP	pP	15 46 49.5	-4.9
LZH				AMB	AMB		
	comp=Z,42nm,1.5s,mb4.8						
GTA	Gaotai	29.50	11	*e*P	P	15 47 05.0	+0.3
GTA				AP	pP	15 47 13.0	-0.4
GTA				XP	sP	15 47 17.0	-0.3
GTA				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.0						
WMQ	Urumqi	33.56	353	⇓P	P	15 47 41.0	+0.8
WMQ				AP	pP	15 47 51.0	+2.0
WMQ				XP	sP	15 47 55.3	+2.5
WMQ				PP	PP	15 48 53.5	+0.6
WMQ				PPP	PPP	15 49 10.5	+0.5
WMQ				S	S	15 52 59.3	-0.1
WMQ				AMB	AMB		
	comp=Z,4.0nm,0.6s,mb4.5						
WMQ				LR	LR		
	comp=N,84nm,21.1s,MS3.8						
WMQ				LR	LR		
	comp=E,186nm,20.3s,MS3.8						
WMQ				LR	LR		
	comp=Z,185nm,23.4s,MS3.7						
HHC	Hu-ho-hao-te	34.49	25	*e*P	P	15 47 47.8	-0.5
HHC				AP	pP	15 47 57.3	+0.2
HHC				XP	sP	15 48 01.3	+0.4
HHC				PP	PP	15 49 02.0	-2.6
HHC				S	S	15 53 11.0	-2.8
HHC				SCS	ScS	15 58 06.3	0.0
HHC				AMB	AMB		
	comp=Z,24nm,0.6s,mb5.3						
HHC				AMB	AMB		
	comp=Z,223nm,7.0s						
HHC				LR	LR		
	comp=N,326nm,14.3s,MS4.3						
HHC				LR	LR		
	comp=E,222nm,16.6s,MS4.3						
HHC				LR	LR		
	comp=Z,260nm,16.6s,MS4.0						
TKM2	Tokmak 2	35.70	338	P	P	15 47 59.3	+0.8
	SNR=8.6						
KBK	Karagaybulak	35.71	337	P	P	15 47 59.9	+1.3
	SNR=11						
AML	Almayashu	35.77	335	P	P	15 48 00.7	+1.6
	SNR=7.9						
AAK	Ala-Archa	35.87	337	P	P	15 48 01.4	+1.4
	SNR=6.4						
AAK	Ala-Archa	35.87	337	*e*P	P	15 48 00.2	+0.2
AAK				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
AAK	Ala-Archa	35.87	337	*e*P	P	15 48 00.2	+0.2
	comp=Z,8.4nm,1.1s,mb4.6						
BJT	Baijiatuau	35.98	31	*e*P	P	15 48 01.3	+0.3
BJT				pmax	pmax		
	comp=Z,20nm,0.9s						
BJT	Baijiatuau	35.98	31	*e*P	P	15 48 01.3	+0.3
	comp=Z,20nm,0.9s,mb5.0						
BJI	Beijing	36.00	31	P	P	15 48 01.8	+0.7
BJI				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.9						
CHMS	Chumysh	36.08	337	P	P	15 48 02.5	+0.7
	SNR=8.2						
USP	Ospenovka	36.41	337	P	P	15 48 05.3	+0.9
	SNR=21						
MKAR	Makanchi Array	37.33	348	*i*P	P	15 48 11.9	-0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
SONM	Songino Array	38.97	14	P	P	15 48 26.3	+0.3
	comp=Z,2.0nm,0.4s,mb4.2,baz=196,slow=8.6,SNR=19						
SONM				PcP	PcP	15 50 37.0	+0.4
	comp=Z,1.1nm,0.6s,baz=198,slow=3.8,SNR=5.8						
ULN	Ulaanbaatar	39.16	15	*e*P	P	15 48 27.4	-0.2
ULN				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb3.8						
ULN	Ulaanbaatar	39.16	15	*e*P	P	15 48 27.4	-0.2
	comp=Z,1.0nm,0.5s,mb3.8						
ZAK	Zakamensk	40.73	10	*e*P	P	15 48 40.5	0.0
MBWA	Marble Bar	41.01	140	*e*P	P	15 48 42.3	-0.8
	comp=Z,3.7nm,0.4s,mb4.4						
KS15	Wonju Array Si	41.38	44	*e*P	P	15 48 46.2	+0.3
CN2	Changchun	43.58	34	*e*P	P	15 49 04.0	+0.2
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
ZAL	Zalesovo	43.86	353	P	P	15 49 05.1	-0.9
	comp=Z,3.2nm,0.3s,mb4.5,baz=304,slow=5.2,SNR=12						
ZAL	Zalesovo	43.86	353	P	P	15 49 05.1	-0.9
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.4s						
HIA	Hailar	44.69	25	*e*P	P	15 49 12.2	-0.6
HIA				pmax	pmax		
	comp=Z,6.0nm,1.1s						
HIA	Hailar	44.69	25	*e*P	P	15 49 12.2	-0.6
	comp=Z,5.8nm,1.1s,mb4.3						
BVA0	Borovoye Array	46.17	341	P	P	15 49 24.2	-0.3
BVAR	Borovoye Array	46.17	341	P	P	15 49 24.3	-0.1
	comp=Z,2.9nm,0.5s,mb4.5,baz=144,slow=9.2,SNR=33						
BRVK	Borovoye	46.23	341	*e*P	P	15 49 24.2	-0.8
BRVK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
BRVK	Borovoye	46.23	341	*e*P	P	15 49 24.2	-0.8
	comp=Z,11nm,1.1s,mb4.7						
MDJ	Mudanjiang	46.43	36	P	P	15 49 25.5	-1.1
MDJ				AP	pP	15 49 34.3	-1.3
MDJ				XP	sP	15 49 38.0	-1.3
MDJ				PCP	PcP	15 51 00.3	-1.2
MDJ				PP	PP	15 51 14.0	-1.6
MDJ				SCP		15 54 51.3	
MDJ				PCS		15 54 54.0	
MDJ				S	S	15 56 12.5	+0.8
MDJ				XS		15 56 24.8	
MDJ				SCS	ScS	15 59 17.0	+0.1
MDJ				SS	SS	15 59 36.0	+6.1
MDJ				AMB	AMB		
	comp=Z,5.0nm,2.2s,mb4.1						
MDJ				LR	LR		
	comp=N,93nm,18.9s,MS4.0						
MDJ				LR	LR		
	comp=E,118nm,17.6s,MS4.0						
MDJ				LR	LR		
	comp=Z,108nm,17.6s,MS3.9						
CHKZ	Chkalovo	46.66	342	*e*P	P	15 49 28.1	-0.2
CHKZ				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.2						
CHKZ	Chkalovo	46.66	342	*e*P	P	15 49 28.1	-0.2
	comp=Z,25nm,0.8s,mb5.2						
NWAO	Narrogin (SRO)	48.98	153	P	P	15 49 46.1	-0.7
	comp=Z,9.6nm,1.1s,mb4.7,baz=147,slow=22,SNR=6.3						
NWAO	Narrogin (SRO)	48.98	153	P	P	15 49 46.1	-0.6
NWAO				pmax	pmax		
	comp=Z,10.0nm,1.1s						
BOD	Bodaibo	49.97	15	*e*P	P	15 49 52.8	-1.2
WRA	Warramunga Arr	50.77	126	P	P	15 50 00.6	0.0
	comp=Z,8.5nm,0.6s,mb4.9,baz=305,slow=8.6,SNR=52						
WRA	Warramunga Arr	50.77	126	P	P	15 50 00.6	+0.1
WRA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
WRAB	Tennant Creek	50.77	126	*e*P	P	15 50 00.2	-0.4
WRAB				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
WRAB	Tennant Creek	50.77	126	*e*P	P	15 50 00.2	-0.4
	comp=Z,17nm,0.6s,mb5.2						
ASAR	Alice Springs	52.51	131	P	P	15 50 13.7	0.0
	comp=Z,5.0nm,0.4s,mb4.8,baz=318,slow=4.9,SNR=132						
ASAR				PcP	PcP	15 51 24.2	+0.4
	comp=Z,3.5nm,0.8s,baz=311,slow=3.7,SNR=8.7						
ARU	Arti	53.05	337	*e*P	P	15 50 15.5	-1.8
ARU				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
ARU	Arti	53.05	337	*e*P	P	15 50 15.5	-1.8
	comp=Z,5.2nm,0.6s,mb4.6						
ZEI	Tsey	53.33	316	*e*P	P	15 50 20.3	+0.8
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
KIV	Kislovodsk	54.60	317	*e*P	P	15 50 28.4	-0.4
KIV				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
KIV	Kislovodsk	54.60	317	*e*P	P	15 50 28.4	-0.4
	comp=Z,6.2nm,0.7s,mb4.8						
YSS	Yuzh-Sakhalins	55.56	39	*e*P	P	15 50 35.4	-0.4
YSS				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.1						
YSS	Yuzh-Sakhalins	55.56	39	*e*P	P	15 50 35.4	-0.4
	comp=Z,14nm,0.7s,mb5.1						
PMG	Port Moresby	57.49	108	P	P	15 50 50.5	+0.5
	comp=Z,7.8nm,0.7s,mb4.8,baz=160,slow=15,SNR=7.8						
PMG	Port Moresby	57.49	108	*e*P	P	15 50 49.8	-0.2
PMG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
PMG	Port Moresby	57.49	108	*e*P	P	15 50 49.8	-0.2
	comp=Z,5.4nm,0.6s,mb4.8						
YAK	Yakutsk	57.98	19	*e*P	P	15 50 50.5	-2.3
YAK				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
YAK	Yakutsk	57.98	19	*e*P	P	15 50 50.5	-2.3
	comp=Z,24nm,0.6s,mb5.4						
BRTR	Keskin Array B	59.83	310	P	P	15 51 04.6	-1.3
	comp=Z,2.3nm,1.1s,mb4.1,baz=126,slow=7.0,SNR=6.3						
BRTR	Keskin Array B	59.83	310	P	P	15 51 04.6	-1.3
BRTR				pmax	pmax		
	comp=Z,2.0nm,1.1s						
CTA	Charters Tower	60.65	120	P	P	15 51 12.4	+0.7
	comp=Z,3.4nm,0.6s,mb4.6,baz=300,slow=5.3,SNR=8.9						
CTA				PcP	PcP	15 51 56.4	+0.9
	comp=Z,1.4nm,0.4s,baz=25,slow=1.2,SNR=5.6						
CTA	Charters Tower	60.65	120	P	P	15 51 12.4	+0.6
CTA						15 51 56.4	
CTA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CTA				pmax	pmax		
	comp=Z,1.0nm,0.4s						
CTA	Charters Tower	60.65	120	P	P	15 51 12.4	+0.7
CTA				PcP	PcP	15 51 56.4	+0.9
CTAO	Charters Tower	60.65	120	*e*P	P	15 51 11.9	+0.1
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.7						
CTAO	Charters Tower	60.65	120	*e*P	P	15 51 11.9	+0.1
	comp=Z,4.3nm,0.7s,mb4.7						
STKA	Stephens Creek	62.77	134	P	P	15 51 26.7	+0.8
	comp=Z,7.5nm,0.4s,mb5.2,baz=302,slow=7.8,SNR=21						
STKA	Stephens Creek	62.77	134	*e*P	P	15 51 26.4	+0.6
MLR	Muntele Rosu	66.48	315	P	P	15 51 49.1	-0.7
	comp=Z,2.5nm,0.8s,mb4.3,baz=135,slow=6.0,SNR=5.4						
MLR	Muntele Rosu	66.48	315	P	P	15 51 49.1	-0.7
MLR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
PET	Petropavlovsk	67.21	37	*e*P	pP	15 52 05.3	+1.8
FINES	FINESS Array B	69.88	332	P	P	15 52 09.9	-0.7
	comp=Z,2.1nm,0.7s,mb4.2,baz=108,slow=8.4,SNR=11						
FINES	FINESS Array B	69.88	332	P	P	15 52 09.9	-0.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	72.44	340	P	P	15 52 25.8	-0.2
	comp=Z,3.9nm,0.8s,mb4.4,baz=101,slow=6.9,SNR=11						

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ARCES	ARCESS Array B	72.44	340	P	P	15 52 25.8	-0.2
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
BILL	Bilibino	74.18	22	*e*P	P	15 52 35.2	-0.8
BILL				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.6						
BILL	Bilibino	74.18	22	*e*P	P	15 52 35.2	-0.8
	comp=Z,4.1nm,0.5s,mb4.6						
GERES	GERESS Array B	75.10	318	P	P	15 52 42.0	+0.3
	comp=Z,3.4nm,0.6s,mb4.4,baz=86,slow=5.7,SNR=34						
GERES	GERESS Array B	75.10	318	P	P	15 52 42.0	+0.3
GERES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HFS	Hagfors	75.63	330	P	P	15 52 43.9	-0.6
	comp=Z,1.1nm,0.4s,mb4.2,baz=108,slow=4.7,SNR=12						
HFS	Hagfors	75.63	330	P	P	15 52 43.9	-0.6
HFS				pmax	pmax		
	comp=Z,1.0nm,0.4s						
FX1	Attu Island--F	75.89	38	P	P	15 52 46.2	+0.1
	comp=Z,14nm,0.5s,mb5.2,baz=215,slow=22,SNR=3.7						
FX1	Attu Island--F	75.89	38	P	P	15 52 46.2	+0.1
FX1				pmax	pmax		
	comp=Z,14nm,0.5s						
NB2	NORSAR Subarra	76.90	330	P	P	15 52 50.6	-1.0
	comp=Z,0.1nm,0.6s,mb2.9,baz=94,slow=5.8						
NOA	NORSAR Array B	76.90	330	P	P	15 52 51.0	-0.6
	comp=Z,1.3nm,0.9s,mb3.9,baz=93,slow=5.5,SNR=3.1						
NOA	NORSAR Array B	76.90	330	P	P	15 52 51.0	-0.6
NOA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
DAVOX	Davos	77.69	316	P	P	15 52 56.8	+0.5
	comp=Z,3.8nm,0.7s,mb4.4,baz=122,slow=7.3,SNR=7.3						
LPG	La Plagne	79.94	315	*e*P	P	15 53 09.2	+0.6
	comp=Z,19nm,0.9s,mb4.7						
LPG	La Plagne	79.94	315	*e*P	P	15 53 09.2	+0.6
LPG				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
SYO	Syowa Base	87.48	197	⇑P	P	15 53 49.5	+3.1
SYO	Syowa Base	87.48	197	⇑PcP	PcP	15 53 51.4	+2.7
IMA	Indian Mountai	89.72	22	*e*P	P	15 53 58.5	+1.4
IMA				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.6						
IMA	Indian Mountai	89.72	22	*e*P	P	15 53 58.5	+1.4
	comp=Z,20nm,0.7s,mb5.5						
COLA	College	92.44	22	*e*P	P	15 54 10.2	+0.6
COLA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.7						
COLA	College	92.44	22	*e*P	P	15 54 10.2	+0.6
	comp=Z,2.0nm,0.5s,mb4.7						
MCK	McKinley	92.61	23	*e*P	P	15 54 11.0	+0.6
MCK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.9						
MCK	McKinley	92.61	23	*e*P	P	15 54 11.0	+0.6
	comp=Z,4.9nm,0.9s,mb4.9						
ILAR	Eielson Array	92.84	22	P	P	15 54 11.1	-0.4
	comp=Z,2.8nm,0.8s,mb4.8,baz=301,slow=4.3,SNR=41						
ILAR	Eielson Array	92.84	22	P	P	15 54 11.1	-0.4
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SML	Sawmill	93.81	25	*e*P	P	15 54 16.8	+0.8
INK	Inuvik	94.88	16	P	P	15 54 21.4	+0.7
	comp=Z,2.2nm,0.6s,mb4.8,baz=271,slow=2.7,SNR=28						
INK	Inuvik	94.88	16	P	P	15 54 21.4	+0.6
INK				pmax	pmax		
	comp=Z,2.0nm,0.6s						
INK	Inuvik	94.88	16	P	P	15 54 21.4	+0.7
HLID	Hailey	120.78	23	*e*PKPdf	PKPdf	15 59 52.2	-3.2
LOHW	Long Hollow	122.11	20	*e*PKPdf	PKPdf	15 59 54.2	-3.7
REDW	Red Top Meadow	122.25	20	*e*PKPdf	PKPdf	15 59 55.5	-2.7
PDAR	Pinedale Array	123.21	20	PKP	PKPdf	15 59 57.0	-3.1
	comp=Z,0.8nm,0.7s,baz=28,slow=0.4,SNR=6.5						
NVAR	Mina Array Bea	123.33	29	PKP	PKPdf	15 59 58.5	-1.9
	comp=Z,1.0nm,0.5s,baz=280,slow=3.1,SNR=5.9						
NVAR	Mina Array Bea	123.33	29	PKP	PKPdf	15 59 58.5	-1.9
MVU	Marysvale	125.97	24	*e*PKPdf	PKPdf	16 00 02.6	-3.0
TXAR	Lajitas Array	137.35	22	PKP	PKPdf	16 00 25.7	-1.6
	comp=Z,0.5nm,0.4s,baz=310,slow=0.2,SNR=6.3						
TXAR	Lajitas Array	137.35	22	PKP	PKPdf	16 00 25.7	-1.6

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*IDC **27** 15:46:14.6±1.1, 5.64N×93.32E, mb4.1/8, mb1 4.4/9, mb1mx4.1/19, ML4.4/1, Error ellipse: s-maj=44.3km s-min=18.1km az=55.0*

*NEIC **27** 15:46:19.3±0.6, 5.64N×93.28E, h30^{km}, mb4.3/5, Error ellipse: s-maj=14.9km s-min=10.2km az=67.0*

*BJI **27** 15:46:27.1, 6.43N×93.97E, h30^{km}, mb4.8*

ISC 27 15:46:17.1±0.8**, 5.59N**±0.09×**93.3E**±0.1**, h30^{km}, n25,** σ1^{s}04/23**, mb4.3**/14**, 2C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.93	23	*e*Pn	P	15 49 33.4	-1.6
	17nm,0.7s						
CMAR	Chiang Mai Arr	13.93	23	Pn	P	15 49 34.7	-0.3
	0.6nm,0.3s,baz=218,slow=14,SNR=20						
VIS	Vishakhapatnam	15.50	322	*e*P	P	15 49 51.9	-3.6
VIS				*e*S	Px	15 52 25.9	
HYB	Hyderabad	18.60	310	*e*P	P	15 50 40.0	+5.5
HYB				*e*S	Px	15 53 36.0	
HYB	Hyderabad	18.60	310	*i* P	P	15 50 40.0	+5.5
BOK	Bokaro	19.46	339	*e*P	P	15 50 47.2	+2.7
BOK				*e*S	Px	15 53 52.7	
QIZ	Qiongzhong	20.95	49	P	P	15 51 01.3	+1.1
QIZ	Qiongzhong	20.95	49	*e*P	P	15 51 00.5	+0.3
	22nm,0.7s						
KMI	Kunming	21.44	24	P	P	15 51 07.5	+2.4
KMI				AMB	AMB		
	comp=Z,26nm,0.6s,mb4.7						
LSA	Lhasa	24.07	355	*e*P	P	15 51 31.6	+0.6
	comp=Z,6.3nm,0.6s,mb4.2						
GYA	Guiyang	24.37	30	⇑*i*P	P	15 51 34.5	+0.5
GYA				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.0						
AAK	Ala-Archa	40.48	339	*e*P	P	15 53 54.8	-0.1
	comp=Z,3.0nm,0.9s,mb4.0						
AAK				*e*pP	pP	15 54 02.7	-1.3
SONM	Songino Array	43.57	13	P	P	15 54 19.7	-0.4
	comp=Z,4.2nm,0.6s,mb4.3,baz=195,slow=8.0,SNR=31						
SNY	Shenyang	45.04	32	⇑P	pP	15 54 38.0	-3.1
WRA	Warramunga Arr	47.67	123	P	P	15 54 53.1	-0.1
	comp=Z,5.5nm,0.8s,mb4.6,baz=302,slow=9.0,SNR=19						
ZAL	Zalesovo	48.70	353	P	P	15 54 59.8	-0.9
	comp=Z,2.1nm,0.6s,mb4.4,baz=328,slow=7.0,SNR=8.5						
ASAR	Alice Springs	49.15	128	P	P	15 55 04.5	0.0
	comp=Z,3.1nm,1.0s,mb4.3,baz=302,slow=7.7,SNR=8.5						
BVAR	Borovoye Array	50.88	342	P	P	15 55 16.4	-1.0
	comp=Z,0.7nm,0.5s,mb3.8,baz=144,slow=13,SNR=4.5						
BVAR	Borovoye Array	50.88	342	P	P	15 55 16.4	-1.0
BRVK	Borovoye	50.95	342	P	P	15 55 18.0	+0.1
	comp=Z,1.4nm,0.7s,mb4.0						
CHKZ	Chkalovo	51.38	343	*e*P	P	15 55 19.6	-1.6
	comp=Z,4.0nm,0.9s,mb4.3						
STKA	Stephens Creek	59.17	132	P	P	15 56 17.8	-0.1
	comp=Z,3.2nm,0.8s,mb4.4,baz=301,slow=10.0,SNR=3.3						
BRTR	Keskin Array B	63.29	312	P	P	15 56 46.5	+0.9
	comp=Z,0.6nm,0.8s,mb3.8,baz=79,slow=6.3,SNR=4.1						
GERES	GERESS Array B	78.96	319	P	P	15 58 20.0	+0.3
	comp=Z,1.0nm,0.8s,mb3.8,baz=104,slow=5.5,SNR=5.7						
TXAR	Lajitas Array	141.65	24	PKP	PKPdf	16 05 50.3	-1.2
	comp=Z,0.3nm,0.5s,slow=5.0,SNR=3.8						

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*IDC **27** 15:49:27.8±0.8, 7.27N×92.29E, mb4.3/12, mb1 4.5/12, mb1mx4.3/21, Error ellipse: s-maj=41.8km s-min=16.0km az=46.0*

*MOS **27** 15:49:31.2±1.2, 7.19N×92.05E, h33^{km}, mb4.7/20, Error ellipse: s-maj=25.7km s-min=10.2km az=112.7*

*BJI **27** 15:49:31.4, 7.13N×92.87E, h27^{km}, mB4.9, mb4.5, Ms4.4, Msz4.2*

*NEIC **27** 15:49:32.9±0.3, 7.22N×92.28E, mb4.6/13, Error ellipse: s-maj=13.9km s-min=8.0km az=48.0*

*SYO **27** 15:49:32.2, 7.20N×92.27E, h30^{km}, MB4.6*

ISC 27 15:49:30.2±0.5**, 7.19N**±0.07×**92.27E**±0.07**, h32^{km}, h32^{km}**±1.8^{km}**:pP-P, n113,** σ0^{s}89/64**, mb4.5**/35**, MS4.2**/3**, 3C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	Kunming	20.45	28	P	P	15 54 08.5	+0.6
KMI				AMB	AMB		
	comp=Z,20nm,0.8s						
LSA	Lhasa	22.42	357	P	P	15 54 30.0	+2.3
LSA				pmax	pmax		
	comp=Z,12nm,0.6s,mb4.5						
LSA	Lhasa	22.42	357	P	P	15 54 30.0	+2.3
	comp=Z,12nm,0.6s,mb4.5						
ENH	Enshi	28.08	33	*e*P	P	15 55 19.9	-1.4
	comp=Z,6.4nm,0.6s,mb4.4						
ENH				*e*pP	pP	15 55 28.9	-1.7
GTA	Gaotai	32.79	11	*e*P	P	15 56 03.3	+0.5
GTA				AP	pP	15 56 08.3	-4.0
GTA				XP	sP	15 56 11.5	-4.9
GTA				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.9						
NJ2	Nanjing	35.00	41	*e*P	P	15 56 21.5	-0.5
NJ2				AP	pP	15 56 31.0	-0.5
NJ2				XP	sP	15 56 34.0	-1.6
NJ2				PP	PP	15 57 40.0	-0.6
NJ2				S	S	16 01 50.0	-0.9
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				LR	LR		
	comp=N,2µm,20.2s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,19.1s,MS5.0						
WMQ	Urumqi	36.71	354	⇓P	P	15 56 37.0	+0.7
WMQ				AP	pP	15 56 47.0	+1.2
WMQ				XP	sP	15 56 51.0	+1.1
WMQ				PP	PP	15 58 02.5	+0.8
WMQ				S	S	16 02 17.3	+0.2
WMQ				AMB	AMB		
	comp=Z,2.0nm,0.7s,mb4.1						
WMQ				AMB	AMB		
	comp=Z,135nm,8.3s						
WMQ				LR	LR		
	comp=N,169nm,19.0s,MS4.0						
WMQ				LR	LR		
	comp=E,114nm,17.0s,MS4.0						
AAK	Ala-Archa	38.63	339	*e*P	P	15 56 53.4	+0.9
AAK				*e**PP	pP	15 57 03.7	+1.7
AAK				pmax	pmax		
	comp=Z,25nm,1.4s,mb4.8						
AAK	Ala-Archa	38.63	339	*e*P	P	15 56 53.4	+0.9
	comp=Z,25nm,1.4s,mb4.8						
AAK				*e*pP	pP	15 57 03.7	+1.7
MKAR	Makanchi Array	40.38	349	*i* P	P	15 57 06.6	-0.3
MKAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
SONM	Songino Array	42.25	14	P	P	15 57 22.5	+0.2
	comp=Z,1.7nm,0.8s,mb3.7,baz=197,slow=8.4,SNR=5.3						
SONM	Songino Array	42.25	14	P	pP	15 57 33.4	+1.5
	comp=Z,3.3nm,0.8s,baz=197,slow=6.6,SNR=9.8						
SONM	Songino Array	42.25	14	P	P	15 57 22.5	+0.2
SONM	Songino Array	42.25	14	P	pP	15 57 33.4	+1.5
ULN	Ulaanbaatar	42.45	15	P	P	15 57 25.2	+1.3
ULN				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb3.9						
ULN	Ulaanbaatar	42.45	15	*e*	pP	15 57 34.4	+0.9
ZAK	Zakamensk	44.02	10	*e*P	pP	15 57 47.5	+1.2
TLY	Talaya	45.34	10	*i* P	P	15 57 46.1	-1.1
TLY				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
ZAL	Zalesovo	47.00	354	P	P	15 57 59.3	-1.0
	comp=Z,0.9nm,0.5s,mb4.0,baz=280,slow=10,SNR=3.8						
ZAL	Zalesovo	47.00	354	P	pP	15 58 10.6	+0.6
	comp=Z,1.8nm,0.4s,baz=277,slow=7.8,SNR=6.4						
ZAL	Zalesovo	47.00	354	P	P	15 57 59.3	-1.0
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BVA0	Borovoye Array	49.06	343	*i* P	P	15 58 16.0	-0.3
BVAR	Borovoye Array	49.06	343	P	P	15 58 16.2	-0.1
	comp=Z,2.5nm,0.8s,mb4.3,baz=143,slow=7.4,SNR=9.8						
BVAR	Borovoye Array	49.06	343	P	pP	15 58 26.9	+0.9
	comp=Z,14nm,1.1s,baz=149,slow=8.6,SNR=16						
BVAR	Borovoye Array	49.06	343	P	P	15 58 16.2	-0.1
BVAR	Borovoye Array	49.06	343	P	pP	15 58 26.9	+0.9
BRVK	Borovoye	49.12	343	*e*P	P	15 58 16.5	-0.3
BRVK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
BRVK	Borovoye	49.12	343	*e*	pP	15 58 27.0	+0.4
WRA	Warramunga Arr	49.40	124	P	P	15 58 19.4	0.0
	comp=Z,7.1nm,0.9s,mb4.7,baz=304,slow=8.8,SNR=15						
WRA	Warramunga Arr	49.40	124	P	pP	15 58 29.9	+0.8
	comp=Z,7.3nm,0.8s,baz=304,slow=8.9,SNR=10.0						
WRA	Warramunga Arr	49.40	124	P	P	15 58 19.4	0.0
WRA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
WRAB	Tennant Creek	49.41	124	*i* P	P	15 58 19.5	+0.1
MDJ	Mudanjiang	49.42	35	P	P	15 58 19.5	+0.3
MDJ				AP	pP	15 58 28.8	-0.2
MDJ				XP	sP	15 58 32.5	-0.3
MDJ				PP	PP	16 00 14.0	+0.3
MDJ				SCP		16 03 34.0	
MDJ				PCS		16 03 38.0	
MDJ				S	S	16 05 25.5	+2.6
MDJ				SCS	ScS	16 08 04.0	-1.4
MDJ				AMB	AMB		
	comp=Z,7.0nm,2.1s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,359nm,8.2s						
MDJ				LR	LR		
	comp=N,64nm,26.9s,MS3.7						
MDJ				LR	LR		
	comp=E,91nm,26.9s,MS3.7						
MDJ				LR	LR		
	comp=Z,103nm,23.6s,MS3.8						
CHKZ	Chkalovo	49.56	343	*e*P	P	15 58 20.1	-0.1
CHKZ				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
CHKZ	Chkalovo	49.56	343	*e*	pP	15 58 30.5	+0.5
ASAR	Alice Springs	50.93	128	P	P	15 58 31.0	0.0
	comp=Z,3.1nm,0.8s,mb4.3,baz=299,slow=6.4,SNR=5.6						
ASAR	Alice Springs	50.93	128	P	pP	15 58 42.1	+1.4
	comp=Z,3.1nm,0.7s,baz=312,slow=7.9,SNR=7.6						
ASAR	Alice Springs	50.93	128	P	P	15 58 31.0	0.0
ASAR	Alice Springs	50.93	128	P	pP	15 58 42.1	+1.4
BOD	Bodaibo	53.25	14	*e*P	P	15 58 47.5	-0.5
GNI	Garni	53.60	315	*e*P	P	15 58 51.5	+0.7
GNI				*e*	pP	15 59 02.3	+1.7
GNI				pmax	pmax		
	comp=Z,3.0nm,0.5s						
GNI	Garni	53.60	315	*e*P	P	15 58 51.5	+0.7
	comp=Z,3.1nm,0.5s,mb4.5						
GNI				*e*	pP	15 59 02.3	+1.7
ZEI	Tsey	55.28	318	*e*P	P	15 59 02.0	-1.1
ZEI				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
ARU	Arti	55.81	338	*e*P	P	15 59 06.1	-0.6
ARU				*e*	pP	15 59 16.8	+0.3
ARU				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
ARU	Arti	55.81	338	*e*P	P	15 59 06.1	-0.6
	comp=Z,13nm,0.9s,mb5.0						
ARU				*e*	pP	15 59 16.8	+0.3
KIV	Kislovodsk	56.59	319	*e*P	P	15 59 12.6	+0.1
KIV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KIV	Kislovodsk	56.59	319	*e*	pP	15 59 22.9	+0.6
MALT	Malatya	57.50	311	*e*P	P	15 59 19.2	+0.2
MALT				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
MALT	Malatya	57.50	311	*e*P	P	15 59 19.2	+0.2
	comp=Z,4.2nm,1.1s,mb4.4						
MALT	Malatya	57.50	311	*e*	pP	15 59 30.3	+1.4
MALT	Malatya	57.50	311	*e*	pP	15 59 30.3	+1.4
EIL	Elat	58.16	300	*e*P	P	15 59 22.6	-1.1
	comp=Z,8.9nm,0.9s,mb4.8						
SOC	Sochi	58.41	317	*e*P	P	15 59 18.2	-7.1
SOC				*e*		16 00 10.6	
SOC				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.7						
SOC				pmax	pmax		
	comp=N,3.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,3.0nm,0.6s						
STKA	Stephens Creek	61.00	132	P	P	15 59 43.7	+0.5
	comp=E,4.8nm,0.7s,mb4.7,baz=332,slow=11,SNR=5.9						
STKA	Stephens Creek	61.00	132	P	pP	15 59 54.8	+1.6
	comp=E,3.0nm,0.7s,baz=312,slow=9.6,SNR=5.9						
STKA	Stephens Creek	61.00	132	*e*P	P	15 59 43.1	-0.1
STKA	Stephens Creek	61.00	132	P	pP	15 59 54.8	+1.6
BRTR	Keskin Array B	61.48	311	P	P	15 59 45.9	-0.5
	comp=E,1.3nm,0.8s,mb4.1,baz=121,slow=7.2,SNR=6.2						
BRTR	Keskin Array B	61.48	311	P	pP	15 59 56.7	+0.3
	comp=E,1.6nm,0.7s,baz=134,slow=6.8,SNR=7.0						
BRTR	Keskin Array B	61.48	311	P	P	15 59 45.9	-0.5
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
MBAR	Mbarara	61.86	265	*i* P	P	15 59 48.4	-0.9
OBN	Obninsk	64.97	328	⇓*e*P	P	16 00 08.2	-1.0
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
IDI	Anoyia	67.44	305	P	P	16 00 25.4	+0.1
	comp=Z,11nm,0.7s,mb5.0						
IDI	Anoyia	67.44	305	P	pP	16 00 37.2	+2.0
	comp=Z,6.1nm,0.6s,baz=100,slow=12,SNR=4.5						
IDI	Anoyia	67.44	305	P	P	16 00 25.4	+0.1
IDI	Anoyia	67.44	305	P	pP	16 00 37.2	+2.0
AKASG	Malin Array Be	67.54	322	P	pP	16 00 36.7	+1.1
	comp=Z,0.2nm,0.3s,baz=89,slow=5.7,SNR=4.6						
TIXI	Tiksi	68.27	12	*e*P	P	16 00 28.8	-1.1
TIXI				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
MLR	Muntele Rosu	68.37	316	P	P	16 00 31.3	+0.4
	comp=Z,6.9nm,0.8s,mb4.7						
MLR	Muntele Rosu	68.37	316	P	pP	16 00 42.7	+1.8
	comp=Z,9.4nm,0.9s,baz=126,slow=4.7,SNR=7.5						
MLR	Muntele Rosu	68.37	316	P	P	16 00 31.3	+0.4
MLR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
FINES	FINESS Array B	72.45	333	P	P	16 00 54.6	-0.8
	comp=Z,2.1nm,0.7s,mb4.2,baz=108,slow=12,SNR=5.5						
FINES	FINESS Array B	72.45	333	P	pP	16 01 05.7	+0.3
	comp=Z,3.5nm,0.7s,baz=100,slow=7.5,SNR=11						
FINES	FINESS Array B	72.45	333	P	P	16 00 54.6	-0.8
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ARCES	ARCESS Array B	75.28	340	P	pP	16 01 22.7	+1.0
	comp=Z,3.6nm,0.9s,baz=104,slow=5.0,SNR=6.3						
GERES	GERESS Array B	77.10	318	P	P	16 01 23.2	+1.0
	comp=Z,2.3nm,0.8s,mb4.2,baz=90,slow=4.0,SNR=15						
GERES	GERESS Array B	77.10	318	P	pP	16 01 34.0	+1.7
	comp=Z,4.3nm,0.9s,baz=90,slow=5.3,SNR=13						
GERES	GERESS Array B	77.10	318	P	P	16 01 23.2	+1.0
GERES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KHC	Kasperske Hory	77.20	319	*e*pP	pP	16 01 34.0	+1.1
BILL	Bilibino	77.41	22	*i* P	P	16 01 22.8	-0.8
BILL				pmax	pmax		
	comp=Z,2.0nm,1.3s,mb3.9						
HFS	Hagfors	78.11	330	P	pP	16 01 39.3	+1.6
	comp=Z,3.7nm,0.8s,baz=112,slow=8.0,SNR=4.1						
NB2	NORSAR Subarra	79.42	331	P	P	16 01 34.2	-0.5
	comp=Z,3.0nm,0.9s,mb4.2,baz=96,slow=4.8						
NB2	NORSAR Subarra	79.42	331	P	P	16 01 34.2	-0.5
NB2				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
NOA	NORSAR Array B	79.42	331	P	pP	16 01 45.4	+0.5
	comp=Z,5.1nm,1.1s,baz=95,slow=5.4,SNR=4.0						
DAVOX	Davos	79.59	316	P	P	16 01 37.7	+1.7
	comp=Z,4.4nm,0.6s,mb4.5,baz=122,slow=8.8,SNR=9.1						
DAVOX	Davos	79.59	316	P	pP	16 01 48.3	+2.1
	comp=Z,5.0nm,0.7s,baz=126,slow=10,SNR=7.9						
DAVOX	Davos	79.59	316	P	P	16 01 37.7	+1.7
DAVOX	Davos	79.59	316	P	pP	16 01 48.3	+2.2
LPL	La Plagne	81.80	315	*e*P	P	16 01 49.2	+1.6
	comp=Z,14nm,0.8s,mb4.6						
LPL	La Plagne	81.80	315	*e*P	P	16 01 49.2	+1.6
LPL				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
SYO	Syowa Base	84.21	197	⇓P	P	16 02 02.8	+3.3
SYO	Syowa Base	84.21	197	⇑pP	pP	16 02 09.8	0.0
EKA	Eskdalemuir Ar	87.23	325	P	pP	16 02 26.4	+1.4
	comp=Z,1.9nm,0.8s,baz=72,slow=2.2,SNR=4.8						
VNA2	Neumayer--Watz	99.91	199	⇑*i*P	PP	16 07 35.5	+15
VNA3	Neumayer Olymp	100.60	199	⇑*i*P	PP	16 07 36.4	+11
HLID	Hailey	124.00	23	PKPdf	PKPdf	16 08 27.9	-3.1
LOHW	Long Hollow	125.35	20	*e*PKPdf	PKPdf	16 08 30.2	-3.5
LOHW				*e*		16 08 42.1	
REDW	Red Top Meadow	125.49	21	*e*PKPdf	PKPdf	16 08 31.4	-2.5
REDW				*e*		16 08 42.7	
NVAR	Mina Array Bea	126.44	30	PKP	PKPdf	16 08 34.1	-1.8
	comp=Z,2.2nm,0.7s,baz=43,slow=1.7,SNR=9.1						
NVAR	Mina Array Bea	126.44	30	PKP	PKPdf	16 08 45.5	+10
	comp=Z,1.3nm,0.8s,baz=296,slow=0.8,SNR=7.7						
NVAR	Mina Array Bea	126.44	30	PKP	PKPdf	16 08 34.1	-1.8
NVAR	Mina Array Bea	126.44	30	PKP	PKPdf	16 08 45.5	+10
PDAR	Pinedale Array	126.46	20	PKP	PKPdf	16 08 32.8	-3.0
	comp=Z,1.5nm,0.8s,baz=90,slow=1.5,SNR=11						
PDAR	Pinedale Array	126.46	20	PKP	PKPdf	16 08 44.2	+8.5
	comp=Z,1.7nm,0.8s,baz=68,slow=1.5,SNR=9.2						
PDAR	Pinedale Array	126.46	20	PKP	PKPdf	16 08 32.8	-3.0
PDAR	Pinedale Array	126.46	20	PKP	PKPdf	16 08 44.2	+8.5
MVU	Marysvale	129.16	25	*e*PKPdf	PKPdf	16 08 39.5	-1.7
MVU				*e*pPKPdf		16 08 49.3	
ANMO	Albuquerque	134.51	22	PKP	PKPdf	16 08 49.5	-1.8
	comp=Z,1.4nm,0.7s,baz=343,slow=3.9,SNR=4.1						
ANMO	Albuquerque	134.51	22	PKP	PKPdf	16 09 01.3	+10
	comp=Z,1.4nm,0.7s,baz=208,slow=3.6,SNR=3.6						
ANMO	Albuquerque	134.51	22	PKP	PKPdf	16 08 49.5	-1.8
ANMO	Albuquerque	134.51	22	PKP	PKPdf	16 09 01.3	+10
MNTX	Cornudas Mount	137.81	23	PKPdf	PKPdf	16 08 55.5	-2.0
TXAR	Lajitas Array	140.58	22	PKP	PKPdf	16 08 60.0	-2.7
	comp=Z,0.7nm,0.6s,baz=142,slow=0.4,SNR=5.6						

IDC 27 15:50:47.0±7.8**, 0.14S**×**100.63E, mb4.1**/3**, mb1 4.3**/3**, mb1mx3.8**/15**, Error ellipse: s-maj=279.0km s-min=31.3km az=65.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	38.43	123	P	P	15 58 10.3	-2.1
	1.4nm,0.6s,baz=301,slow=9.2,SNR=4.9						
ASAR	Alice Springs	39.87	128	P	P	15 58 23.0	-1.4
	3.6nm,0.5s,baz=300,slow=7.9,SNR=32						
SONM	Songino Array	48.04	5	P	P	15 59 28.2	-1.9
	1.4nm,0.7s,baz=204,slow=6.5,SNR=4.6						

IDC 27 15:55:31.7±11.0**, 4.73N**×**97.80E, mb3.6**/3**, mb1 3.9**/3**, mb1mx3.6**/16**, MS3.6**/1**, Ms1 3.8**/1**, ms1mx2.8**/23**, Error ellipse: s-maj=392.0km s-min=32.8km az=68.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.69	5	LR	LR	16 03 45.5	
	comp=Z,228nm,18.8s,baz=197,slow=36						
WRA	Warramunga Arr	43.48	126	P	P	16 03 37.0	-1.8
	0.6nm,0.6s,baz=303,slow=9.1,SNR=3.5						
SONM	Songino Array	43.58	8	P	P	16 03 37.4	-1.7
	0.4nm,0.6s,baz=191,slow=7.4,SNR=3.6						
ASAR	Alice Springs	45.12	130	P	P	16 03 50.1	-1.8
	1.6nm,0.9s,baz=309,slow=7.7,SNR=6.2						

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*IDC **27** 15:57:20.5±0.8, 9.02N×93.24E, mb4.1/12, mb1 4.2/13, mb1mx4.1/22, Error ellipse: s-maj=36.9km s-min=14.8km az=55.0*

*NEIC **27** 15:57:24.8±2.8, 9.16N×93.34E, h27^{km}±20^{km}, mb4.3/5, Error ellipse: s-maj=10.2km s-min=8.3km az=53.0*

ISC 27 15:57:23.5±0.6**, 9.15N**±0.07×**93.38E**±0.08**, h33^{km}, n27,** σ0^{s}85/27**, mb4.2**/16**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	10.71	30	Pn	P	15 59 56.5	-1.2
CMAR	Chiang Mai Arr	10.71	30	Pn	P	15 59 57.4	-0.4
	baz=225,slow=14,SNR=2.1						
PALK	Pallekele	12.68	262	*e*Pn	P	16 00 23.1	-1.3
PKI	Pulchoki	19.81	339	*e*P	P	16 01 54.1	0.0
	15nm,0.5s						
DMN	Daman	19.95	338	*e*P	P	16 01 55.4	-0.3
GUN	Gumba	19.96	340	*e*P	P	16 01 55.7	0.0
	28nm,0.5s						
KKN	Kakani	20.05	339	*e*P	P	16 01 56.7	0.0
	36nm,1.1s						
GKN	Gorkha	20.48	337	*e*P	P	16 02 01.3	+0.1
LSA	Lhasa	20.55	354	*e*P	P	16 02 01.2	-0.7
	8.4nm,0.4s						
KOLN	Koldanda	20.69	335	*e*P	P	16 02 04.3	+0.9
	30nm,0.7s						
DDI	Dehra Dun	25.47	328	*e*	P	16 02 57.1	+6.7
ENH	Enshi	25.85	33	*e*P	P	16 02 54.0	+0.1
	4.4nm,0.6s,mb4.2						
AAK	Ala-Archa	37.24	337	*e*P	P	16 04 34.6	+0.7
	4.4nm,0.9s,mb4.3						
SONM	Songino Array	40.10	14	P	P	16 05 00.6	+3.0
	1.1nm,0.7s,mb3.7,baz=202,slow=9.5,SNR=6.0						
ZAL	Zalesovo	45.19	353	P	P	16 05 38.9	-0.1
	4.2nm,0.3s,mb4.8,baz=68,slow=3.6,SNR=2.8						

BVAR	Borovoye Array	47.55	341	P	P	16 05 57.3	-0.3
	0.5nm,0.4s,mb3.9,baz=157,slow=11,SNR=7.2						
BRVK	Borovoye	47.61	341	*e*P	P	16 05 57.3	-0.8
	1.5nm,0.6s,mb4.2						
NWAO	Narrogin (SRO)	47.62	153	P	P	16 05 59.0	+0.4
	9.3nm,1.0s,mb4.8,baz=353,slow=13,SNR=6.6						
CHKZ	Chkalovo	48.03	342	*e*P	P	16 06 00.4	-1.1
	3.9nm,0.5s,mb4.7						
WRA	Warramunga Arr	49.61	126	P	P	16 06 13.8	-0.3
	1.5nm,0.5s,mb4.3,baz=306,slow=8.5,SNR=12						
WRA				PcP	PcP	16 07 36.1	+0.6
	1.0nm,0.7s,baz=315,slow=2.9,SNR=9.2						
ASAR	Alice Springs	51.31	130	P	P	16 06 25.8	-1.1
	0.7nm,0.5s,mb3.9,baz=303,slow=7.7,SNR=14						
ASAR				PcP	PcP	16 07 42.2	+0.5
	1.2nm,0.8s,baz=312,slow=3.5,SNR=7.4						
PMG	Port Moresby	56.63	108	P	P	16 07 06.9	+0.8
	7.7nm,1.1s,mb4.7,baz=310,slow=6.9,SNR=3.5						
BRTR	Keskin Array B	61.03	310	P	P	16 07 36.0	-0.4
	0.8nm,0.5s,mb4.1,baz=129,slow=7.1,SNR=5.9						
FINES	FINESS Array B	71.24	332	P	P	16 08 42.0	+0.9
	1.5nm,0.9s,mb3.9,baz=323,slow=19,SNR=2.7						
ARCES	ARCESS Array B	73.82	340	P	P	16 08 56.3	+0.2
	0.7nm,0.5s,mb3.9,baz=90,slow=4.9,SNR=6.0						
GERES	GERESS Array B	76.38	318	P	P	16 09 12.0	+0.7
	0.4nm,0.4s,mb3.7,baz=117,slow=3.0,SNR=7.6						
HFS	Hagfors	76.98	330	P	P	16 09 16.6	+2.2
	2.6nm,0.9s,mb4.1,baz=59,slow=8.4,SNR=3.8						

DJA 27 16:02:40.7±0.9**, 10.18S**×**114.14E, h33^{km}, MD5.4**/3**, ML5.1**/4**, 7C-2D, Error ellipse: s-maj=21.1km s-min=11.6km az=9.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	1.69	360	⇑*e*Pn	Pn	16 03 06.9	-1.5
	3µm,0.2s						
SRDI	Scrawed	1.69	360	⇑*i*P	P	16 03 08.0	-0.2
SRDI				⇑*e*Sn	Sn	16 03 23.8	-5.2
KELI	Kelakatan	1.98	10	⇓*e*Pn	Pn	16 03 11.8	-0.7
	1µm,0.2s						
KELI				⇓*e*Sn	Sn	16 03 32.9	-3.5
RATI	Rata	1.99	44	⇑*e*Pn	Pn	16 03 10.8	-1.9
	2µm,0.2s						
RATI				⇑*e*Sn	Sn	16 03 33.4	-3.4
KEDI	Kedomdong	2.57	49	⇑*e*Pn	Pn	16 03 19.4	-1.6
	357nm,0.2s						
KEDI				⇑*i*Sn	Sn	16 03 48.1	-3.3

DJA 27 16:07:06.2±0.9**, 10.09S**×**114.20E, h2^{km}, MD4.8**/3**, ML4.7**/4**, 4C-4D, Error ellipse: s-maj=21.1km s-min=11.8km az=12.0, South of Bali**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SRDI	Scrawed	1.60	358	⇑*e*Pn	Pn	16 07 32.4	-3.2
	1µm,0.2s						
SRDI				⇓*e*Sn	Sn	16 07 48.6	-8.5
KELI	Kelakatan	1.88	9	⇑*e*Pn	Pn	16 07 37.0	-2.7
	482nm,0.3s						
KELI	Kelakatan	1.88	9	*e*P	Pn	16 07 40.5	+0.8
KELI				⇓*e*Sn	Sn	16 07 58.2	-6.1
RATI	Rata	1.89	44	⇑*e*Pn	Pn	16 07 36.1	-3.7
	563nm,0.3s						
RATI				⇓*i*Sn	Sn	16 07 59.5	-5.0
KEDI	Kedomdong	2.47	50	⇑*e*Pn	Pn	16 07 45.0	-3.1
	174nm,0.2s						
KEDI				⇓*e*Sn	Sn	16 08 13.6	-5.6

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*SYO **27** 16:08:15.8, 5.79N×93.12E, h14^{km}, MB4.4*
*NEIC **27** 16:08:18.4±2.4, 5.77N×93.07E, h31^{km}±17^{km}, mb4.4/7, Error ellipse: s-maj=8.5km s-min=6.8km az=47.0*
*BJI **27** 16:08:18.4, 5.80N×93.10E, h30^{km}, mB4.8, mb4.5, Ms4.3, Msz4.2*
*IDC **27** 16:08:20.2±4.7, 5.82N×93.07E, h45^{km}±43^{km}, mb4.0/19, mb1 4.1/20, mb1mx4.1/24, ML4.1/1, Error ellipse: s-maj=23.6km s-min=11.5km az=53.0*
ISC 27 16:08:13.7±2.4**, 5.70N**±0.06×**93.07E**±0.07**, h12^{km}**±14^{km}**, n46, σ0^{s}98**/42**, mb4.4**/32**, MS4.0**/2**, 1C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	12.38	278	Pn	P	16 11 12.9	0.0
CM31	Chiang Mai Arr	13.92	24	*e*Pn	P	16 11 31.2	-2.2
	5.7nm,0.8s						
CMAR	Chiang Mai Arr	13.92	24	P	P	16 11 34.2	+0.8
	0.3nm,0.3s,baz=216,slow=14,SNR=16						
PKI	Pulchoki	22.94	342	*e*P	P	16 13 20.4	+1.3
	11nm,0.4s,mb4.6						
DMN	Daman	23.07	342	*e*P	P	16 13 21.2	+0.8
	19nm,0.7s,mb4.7						
GUN	Gumba	23.12	344	*e*P	P	16 13 21.4	+0.5
	16nm,0.6s,mb4.6						
KKN	Kakani	23.18	342	*e*P	P	16 13 22.1	+0.6
	35nm,1.0s,mb4.7						
GKN	Gorkha	23.58	341	*e*P	P	16 13 26.5	+1.1
	60nm,0.9s,mb5.0						
KOLN	Koldanda	23.72	339	*e*P	P	16 13 28.6	+1.9
	21nm,0.7s,mb4.7						
LSA	Lhasa	23.94	356	*e*P	P	16 13 29.8	+0.9
	1.9nm,0.4s,mb3.9						
WMQ	Urumqi	38.26	354	⇑P	P	16 15 37.5	+1.8
WMQ				AP	pP	16 15 42.0	+2.9
WMQ				PP	PP	16 17 07.5	+1.0
WMQ				S	S	16 21 30.0	+1.0
WMQ				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,95nm,9.3s						
WMQ				LR	LR		
	comp=N,96nm,16.4s,MS3.8						
WMQ				LR	LR		
	comp=E,61nm,16.2s,MS3.8						
WMQ				LR	LR		
	comp=Z,117nm,16.7s,MS3.8						
SONM	Songino Array	43.51	13	P	P	16 16 19.2	+0.3
	comp=Z,1.3nm,0.7s,mb3.8,baz=195,slow=8.1,SNR=12						
NWAO	Narrogin (SRO)	44.75	151	P	P	16 16 29.9	+0.7
	comp=Z,8.7nm,1.2s,mb4.5,baz=88,slow=22,SNR=3.1						
NWAO	Narrogin (SRO)	44.75	151	P	P	16 16 29.5	+0.4
	comp=Z,17nm,1.1s,mb4.8						
WRA	Warramunga Arr	47.92	123	P	P	16 16 54.5	+0.1
	comp=Z,3.7nm,0.6s,mb4.6,baz=301,slow=9.1,SNR=27						
WRAB	Tennant Creek	47.92	123	*e*P	P	16 16 54.5	+0.2
	comp=Z,24nm,1.3s,mb5.1						
ZAL	Zalesovo	48.56	353	P	P	16 16 58.8	-0.1
	comp=Z,4.6nm,0.7s,mb4.7,baz=294,slow=7.3,SNR=8.0						
ASAR	Alice Springs	49.39	128	P	P	16 17 05.4	-0.2
	comp=Z,4.5nm,1.1s,mb4.4,baz=299,slow=7.8,SNR=17						
ASAR				PcP	PcP	16 18 28.4	0.0
	comp=Z,1.4nm,0.6s,baz=306,slow=3.4,SNR=8.8						
MDJ	Mudanjiang	50.20	34	P	P	16 17 10.0	-1.6
MDJ				PCP	PcP	16 18 28.0	-3.0
MDJ				PP	PP	16 19 05.0	-2.9
MDJ				PCS		16 22 27.3	
MDJ				S	S	16 24 22.3	+0.3
MDJ				SCS	ScS	16 27 01.5	+1.7
MDJ				AMB	AMB		
	comp=Z,4.0nm,1.7s,mb4.2						
MDJ				AMB	AMB		
	comp=Z,126nm,7.6s						
MDJ				LR	LR		
	comp=N,137nm,16.4s,MS4.2						
MDJ				LR	LR		
	comp=E,86nm,11.6s,MS4.2						
MDJ				LR	LR		
	comp=Z,221nm,12.2s,MS4.4						
BVAR	Borovoye Array	50.71	342	P	P	16 17 14.3	-1.1
	comp=Z,1.5nm,0.6s,mb4.1,baz=146,slow=11,SNR=3.8						
BVAR				PcP	PcP	16 18 32.2	-0.6
	comp=Z,2.2nm,0.9s,baz=135,slow=6.3,SNR=3.7						
BRVK	Borovoye	50.77	342	*e*P	P	16 17 14.7	-1.1
	comp=Z,1.7nm,0.5s,mb4.2						
CHKZ	Chkalovo	51.21	343	*e*P	P	16 17 18.1	-1.0
	comp=Z,3.6nm,0.4s,mb4.7						
KMBO	Kilima Mbogo	56.14	265	P	P	16 17 56.7	+0.6
	comp=Z,0.7nm,0.5s,mb4.0,baz=44,slow=19,SNR=3.4						
KMBO	Kilima Mbogo	56.14	265	*e*P	P	16 17 56.5	+0.4
	comp=Z,1.7nm,0.9s,mb4.1						
CTA	Charters Tower	58.21	118	P	P	16 18 11.2	+0.5
	comp=Z,2.2nm,0.9s,mb4.2,baz=50,slow=3.4,SNR=2.7						
ASF	Jabal al Asfar	58.53	304	P	P	16 18 12.3	-0.3
	comp=Z,1.8nm,0.4s,mb4.5,baz=12,slow=4.2,SNR=3.7						
STKA	Stephens Creek	59.41	132	P	P	16 18 18.8	-0.1
	comp=Z,3.6nm,0.9s,mb4.4,baz=103,slow=3.4,SNR=3.7						
STKA	Stephens Creek	59.41	132	*e*P	P	16 18 18.6	-0.3
EIL	Elat	59.60	301	P	P	16 18 20.2	0.0
	comp=Z,5.0nm,1.1s,mb4.5,baz=158,slow=18,SNR=2.8						
EIL	Elat	59.60	301	P	P	16 18 20.2	0.0
BRTR	Keskin Array B	63.05	312	P	P	16 18 41.8	-1.5
	comp=Z,1.5nm,0.5s,mb4.4,baz=123,slow=7.8,SNR=8.8						
AKASG	Malin Array Be	69.20	322	P	P	16 19 20.1	-2.4
	comp=Z,4.6nm,0.8s,mb4.5,baz=86,slow=5.0,SNR=14						
LBTB	Lobatse	72.27	242	*e*P	P	16 19 41.2	-0.3
	comp=Z,2.1nm,0.7s,mb4.2						
FINES	FINESS Array B	74.13	333	P	P	16 19 50.5	-1.2
	comp=Z,9.4nm,1.1s,mb4.7,baz=100,slow=6.4,SNR=19						
MAW	Mawson	76.20	191	P	P	16 20 04.1	+0.7
	comp=Z,5.9nm,1.1s,mb4.4,baz=13,slow=7.5,SNR=4.0						
ARCES	ARCESS Array B	76.94	341	P	P	16 20 07.0	-0.5
	comp=Z,2.1nm,0.6s,mb4.3,baz=104,slow=5.0,SNR=12						
GERES	GERESS Array B	78.73	319	P	P	16 20 18.0	+0.3
	comp=Z,2.4nm,0.6s,mb4.3,baz=90,slow=5.3,SNR=29						
HFS	Hagfors	79.79	330	P	P	16 20 22.6	-0.7
	comp=Z,2.4nm,0.7s,mb4.3,baz=100,slow=9.0,SNR=10						
NOA	NORSAR Array B	81.09	331	P	P	16 20 29.0	-1.2
	comp=Z,0.4nm,0.5s,mb3.6,baz=91,slow=6.1,SNR=2.8						
SYO	Syowa Base	83.03	197	⇓P	P	16 20 41.1	+1.0
BOZ	Bozeman (W)	124.33	21	PKPdf	PKPdf	16 27 15.0	-1.4
PDAR	Pinedale Array	127.57	21	PKP	PKPdf	16 27 20.8	-1.8
	comp=Z,0.4nm,0.5s,baz=45,slow=2.1,SNR=4.8						
MVU	Marysvale	130.16	26	PKPdf	PKPdf	16 27 26.9	-0.8
TXAR	Lajitas Array	141.63	24	PKP	PKPdf	16 27 49.2	0.0
	comp=Z,0.3nm,0.4s,baz=270,slow=1.3,SNR=3.6						
CPUP	Villa Florida	145.08	231	PKPbc	PKPbc	16 27 53.2	+0.9
	comp=Z,0.0nm,0.5s,baz=219,slow=8.1,SNR=2.1						
LPAZ	La Paz	158.78	239	PKP	PKPdf	16 28 14.8	-0.7
	comp=Z,0.7nm,0.2s						
LPAZ				PKPab	PKPab	16 28 50.9	+0.5

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*IDC **27** 16:12:55.2±2.1, 40.11N×77.91E, mb3.9/7, mb1 4.0/9, mb1mx3.8/22, ML3.3/2, Error ellipse: s-maj=41.5km s-min=25.4km az=173.0*
*BJI **27** 16:12:59.4, 40.61N×77.77E, h14^{km}, mB5.0, mb4.5, ML4.0*
*MOS **27** 16:13:01.3±0.9, 40.60N×77.89E, h33^{km}, mb4.0/2, Error ellipse: s-maj=38.5km s-min=16.7km az=109.6*
*NEIC **27** 16:13:05.0±3.5, 40.66N×77.74E, h49^{km}±21^{km}, Error ellipse: s-maj=39.5km s-min=14.1km az=172.0*
*NNC **27** 16:13:05.1±3.6, 41.07N×78.00E, mpv4.5, Error ellipse: s-maj=27.1km s-min=16.5km az=169.0*
ISC 27 16:12:57.7±0.5**, 40.42N**±0.04×**77.95E**±0.05**, h10^{km}, n39, σ1^{s}43**/45**, mb3.8**/8**, 4C-4D, Kyrgyzstan-Xinjiang border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	1.77	240	⇓*i*PG	Pg	16 13 31.8	-1.2
KSH				SG	Sg	16 13 57.5	+0.9
KSH				Smax			
	comp=N,1µm,0.7s						
KSH				Smax			
	comp=E,1µm,0.7s						
ULHL	Ulahol	2.23	325	P	Pn	16 13 36.4	+1.1
	SNR=81						
KZA	Kyzart	2.62	310	P	Pn	16 13 41.9	+1.0
	SNR=127						
AAA	Alma-Ata	2.95	346	*e*PN	Pn	16 13 49.9	+4.4
AAA				*e*		16 14 25.7	
TKM2	Tokmak 2	3.06	326	P	Pn	16 13 48.3	+1.2
	SNR=38						
UCH	Uchtor	3.15	306	P	Pn	16 13 49.3	+0.8
	SNR=29						
KBK	Karagaybulak	3.17	316	P	Pn	16 13 50.4	+1.6
	SNR=73						
AAK	Ala-Archa	3.41	312	⇓Pn	Pn	16 13 57.9	+5.8
	comp=E,264nm,0.6s						
AAK				⇑Lg		16 14 38.9	
	comp=E,320nm,0.7s						
AAK	Ala-Archa	3.41	312	P	Pn	16 13 53.4	+1.3
	SNR=38						
AAK	Ala-Archa	3.41	312	*e*PN	Pn	16 13 52.1	0.0
AAK				*e*		16 14 02.3	
AAK				*e*		16 14 39.0	
AAK	Ala-Archa	3.41	312	*e*Pn	Pn	16 13 52.1	0.0
AAK				*e*		16 13 56.9	
AAK				*e*Pg	Pg	16 14 02.3	-3.5
AAK				*e*Sb	Sb	16 14 39.0	-0.6
CHMS	Chumysh	3.52	318	P	Pn	16 13 53.9	+0.3
	SNR=7.0						
AML	Almayashu	3.63	299	P	Pn	16 13 56.1	+0.8
	SNR=12						
USP	Ospenovka	3.84	319	P	Pn	16 14 05.3	+7.1
	SNR=111						
EKS2	Erkin-Say	3.85	307	P	Pn	16 14 00.8	+2.4
	SNR=9.8						
MK31	Makanchi Array	7.11	25	Pn	Pn	16 14 43.6	-0.8
	comp=E,9.1nm,0.7s,baz=209,slow=14,SNR=70						
MK31				Sn	Sn	16 16 02.4	-3.6
	comp=E,9.3nm,0.5s,baz=204,slow=22,SNR=5.7						
MK31				⇑Lg		16 16 34.3	
	comp=E,41nm,1.1s,baz=209,slow=32,SNR=4.4						
WMQ	Urumqi	8.00	62	*e*P	P	16 15 00.3	+3.4
WMQ				S	Sn	16 16 29.8	+1.4
WMQ				Smax			
	comp=N,24nm,0.8s						
WMQ				Smax			
	comp=E,36nm,0.5s						
DLH	Dalhousie	8.02	192	*e*P	P	16 14 59.0	+1.8
DLH				*e*S	Sn	16 16 28.0	-0.9
DDI	Dehra Dun	10.08	179	*e*P	Px	16 16 09.7	
DDI				*e*S	S	16 17 15.7	-4.1
BVA0	Borovoye Array	13.62	340	Pn	P	16 16 11.0	-2.2
	comp=E,0.8nm,0.9s,baz=142,slow=12,SNR=7.4						
BVA0				⇓Lg		16 20 00.3	
	comp=E,1.3nm,0.9s,baz=146,slow=25,SNR=5.4						
BVAR	Borovoye Array	13.62	340	Pn	P	16 16 10.7	-2.6
	comp=E,0.3nm,0.3s,baz=138,slow=12,SNR=8.8						
BVAR				Lg		16 19 59.9	
	comp=E,0.3nm,0.3s,baz=165,slow=17,SNR=3.8						
BRVK	Borovoye	13.68	340	*e*P	P	16 16 11.3	-2.7
BRVK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
BRVK	Borovoye	13.68	340	*e*Pn	P	16 16 11.3	-2.7
	comp=Z,1.5nm,0.5s						
CHKZ	Chkalovo	14.16	342	⇓Pn	P	16 16 18.9	-1.4
	comp=Z,5.9nm,1.8s						
CHKZ				⇑Lg		16 20 16.3	
	comp=Z,21nm,1.4s						
ZAL	Zalesovo	14.29	17	Pn	P	16 16 23.5	+1.4
	comp=Z,0.3nm,0.3s,baz=268,slow=11,SNR=5.6						
ZAL				Lg		16 20 29.7	
	comp=Z,0.2nm,0.3s,baz=213,slow=24,SNR=3.0						
ZAL	Zalesovo	14.29	17	Pn	P	16 16 23.5	+1.4
ZAL				Lg		16 20 29.7	
NVS	Novosibirsk	14.85	12	*e*P	P	16 16 34.6	+5.2
NVS				pmax	pmax		
	comp=N,3.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,5.0nm,0.7s						
GTA	Gaotai	16.80	86	*e*P	P	16 17 00.8	+6.2
GTA				AP		16 17 05.0	
GTA				XP		16 17 08.0	
GTA				AMB	AMB		
	comp=Z,6.0nm,0.8s						
ZAK	Zakamensk	20.29	52	*e*P	P	16 17 32.4	-3.9
ARU	Arti	20.43	328	⇑*i*P	P	16 17 39.3	+1.7
ARU				*e*		16 17 54.0	
ARU				*e*SS	SS	16 21 44.7	-6.3
ARU				pmax	pmax		
	comp=Z,6.0nm,0.9s						
SONM	Songino Array	21.64	61	P	P	16 17 51.0	+1.0
	comp=Z,2.0nm,0.8s,mb3.6,baz=258,slow=11,SNR=14						
BRTR	Keskin Array B	33.65	284	P	P	16 19 39.6	-0.9
	comp=Z,2.1nm,0.8s,mb4.1,baz=89,slow=8.9,SNR=6.7						
FINES	FINESS Array B	37.54	322	P	P	16 20 12.1	-1.3
	comp=Z,1.7nm,0.7s,mb3.9,baz=127,slow=9.5,SNR=4.1						
FINES	FINESS Array B	37.54	322	P	P	16 20 12.2	-1.2
ARCES	ARCESS Array B	39.80	334	P	P	16 20 31.4	-0.9
	comp=Z,0.8nm,0.4s,mb3.8,baz=100,slow=8.8,SNR=7.0						
TIXI	Tiksi	40.09	22	*i* P	P	16 20 35.0	+0.4
TIXI				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.4						
INK	Inuvik	69.06	12	P	P	16 24 03.9	-1.3
	comp=Z,2.0nm,0.9s,mb4.0,baz=11,slow=4.6,SNR=6.3						
ILAR	Eielson Array	69.42	19	P	P	16 24 05.5	-1.8
	comp=Z,0.8nm,0.8s,mb3.7,baz=326,slow=5.3,SNR=9.8						
YKA	Yellowknife Ar	76.94	6	P	P	16 24 50.0	-1.3
	comp=Z,0.4nm,0.5s,mb3.6,baz=344,slow=5.4,SNR=14						

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*IDC **27** 16:13:53.6±1.9, 8.70N×91.41E, mb4.1/11, mb1 4.2/12, mb1mx4.0/22, ML3.8/1, Error ellipse: s-maj=53.0km s-min=26.4km az=138.0*
*NEIC **27** 16:13:58.2±1.2, 8.67N×91.41E, h30^{km}, mb4.5/1, Error ellipse: s-maj=32.5km s-min=9.8km az=146.0*
ISC 27 16:13:56.7±4.2**, 8.9N**±0.3×**91.3E**±0.2**, h22^{km}**±27^{km}**, n16, σ0^{s}67**/15**, mb4.1**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	10.59	262	*e*Pn	P	16 16 30.7	+0.2
CM31	Chiang Mai Arr	12.06	37	*e*Pn	P	16 16 51.7	+1.2
	2.4nm,0.6s						
CMAR	Chiang Mai Arr	12.06	37	Pn	P	16 16 49.2	-1.2
	0.2nm,0.3s,baz=231,slow=15,SNR=7.9						
SONM	Songino Array	40.85	16	P	P	16 21 38.8	+0.3
	2.0nm,1.0s,mb3.7,baz=195,slow=9.0,SNR=7.8						
BVAR	Borovoye Array	47.12	343	P	P	16 22 28.0	-1.2
	0.6nm,0.6s,mb3.7,baz=149,slow=8.3,SNR=2.3						
CHKZ	Chkalovo	47.63	344	*e*P	P	16 22 33.2	0.0
	3.6nm,0.7s,mb4.5						
KMBO	Kilima Mbogo	54.73	262	P	P	16 23 26.5	-0.9
	1.9nm,0.7s,mb4.2,baz=26,slow=9.6,SNR=6.8						
BRTR	Keskin Array B	59.60	311	P	P	16 24 01.3	-0.2
	1.5nm,0.8s,mb4.1,baz=108,slow=7.8,SNR=5.5						
IDI	Anoyia	65.64	305	P	P	16 24 42.6	+0.8
	10nm,1.0s,mb4.8,baz=242,slow=17,SNR=2.7						
FINES	FINESS Array B	70.47	332	P	P	16 25 11.5	0.0
	1.3nm,0.8s,mb3.9,baz=112,slow=7.5,SNR=3.1						
GERES	GERESS Array B	75.16	318	P	P	16 25 40.0	+0.7
	1.8nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=12						
HFS	Hagfors	76.13	330	P	P	16 25 44.3	-0.3
	9.1nm,1.2s,mb4.6,baz=108,slow=4.6,SNR=4.6						
DAVOX	Davos	77.67	316	P	P	16 25 54.0	+0.6
	1.6nm,0.5s,mb4.2,baz=94,slow=13						
ESDC	Sonseca Array	88.37	310	P	P	16 26 48.4	-0.2
	0.3nm,0.3s,mb3.9,baz=74,slow=6.9,SNR=3.3						
ILAR	Eielson Array	94.83	21	P	P	16 27 17.8	0.0
	0.2nm,0.7s,mb3.7,baz=294,slow=4.1,SNR=3.3						
CPUP	Villa Florida	145.57	236	PKPbc	PKPbc	16 33 33.8	-1.0
	0.0nm,0.3s,baz=281,slow=18,SNR=1.9						

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*IDC **27** 16:18:06.6±0.4, 4.85N×94.25E, mb4.7/32, mb1 4.8/33, mb1mx4.8/35, ML5.0/1, MS4.3/8, Ms1 4.3/8, ms1mx3.9/28, Error ellipse: s-maj=17.8km s-min=10.6km az=48.0*
*MOS **27** 16:18:09.9±0.8, 4.89N×94.27E, h33^{km}, mb5.1/53, MS4.3/4, Error ellipse: s-maj=11.1km s-min=5.8km az=118.5*
*BJI **27** 16:18:10.0, 4.61N×94.38E, h51^{km}, mB5.1, mb5.0, Ms4.5, Msz4.3*
*SYO **27** 16:18:10.7, 4.86N×94.25E, h31^{km}, MB4.8*
*NEIC **27** 16:18:12.0±0.9, 4.82N×94.26E, h38^{km}±8^{km}, mb4.9/39, Error ellipse: s-maj=6.3km s-min=4.9km az=216.0*
*HRVD **27** 16:18:12.0±0.7, 4.65N×94.19E, h27^{km}±1^{km}, MW5.0/42, Centroid moment Tensor Solution. LP body waves: s16,c22;Mantle waves: s42,c66; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.73±.27; $M_{\theta\theta}$2.07±.17; $M_{\phi\phi}$0.66±.20; $M_{r\theta}$-0.32±.28; $M_{\theta\phi}$-1.24±.12; $M_{\phi r}$-2.17±.38; Best double couple: $M_0$3.43×10^{16} NP1:ϕ_s99°, δ41°, λ-132°. NP2:ϕ_s329°, δ61°, λ-60°. Principal axes: T 2.94, Plg11°, Azm37°; N .96, Plg26°, Azm133°; P -3.91, Plg61°, Azm287°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 27 16:18:07.2±1.7**, 4.81N**±0.04×**94.27E**±0.04**, h16^{km}**±11^{km}**, h33^{km}**±2.4^{km}**:pP-P, n226, σ0^{s}95**/210**, mb4.8**/89**, MS4.4**/19**, 6C-5D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	13.71	281	*e*Pn	P	16 21 22.2	-1.5
	11nm,0.6s						
KKTK	Khon Kaen	14.20	36	P	P	16 21 40.5	+10
	710nm,0.8s						
CM31	Chiang Mai Arr	14.31	18	*e*Pn	P	16 21 32.2	+0.7
CM31				*e*		16 21 39.7	
CMAR	Chiang Mai Arr	14.31	18	Pn	P	16 21 35.0	+3.5
	2.3nm,0.3s,baz=209,slow=13,SNR=21						
CMAR				LR	LR	16 27 15.5	
	comp=Z,529nm,18.5s,baz=205,slow=38						
CMAR	Chiang Mai Arr	14.31	18	P	P	16 21 35.0	+3.5
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,529nm,18.5s						
NANT	Nan	15.26	24	P	P	16 21 50.0	+6.2
HYB	Hyderabad	19.85	310	*e*P	P	16 22 40.0	-0.6
HYB	Hyderabad	19.85	310	*i* P	P	16 22 40.0	-0.6
QIZ	Qiongzhong	20.75	46	*e*P	P	16 22 50.0	0.0
QIZ				S	S	16 26 34.3	-1.9
QIZ				LR	LR		
	comp=N,857nm,19.9s,MS4.3						
QIZ				LR	LR		
	comp=E,772nm,15.6s,MS4.3						
QIZ				LR	LR		
	comp=Z,834nm,17.0s,MS4.2						
SHL	Shillong	20.77	354	*e*P	P	16 22 47.5	-2.6
KMI	Kunming	21.77	21	P	P	16 23 02.3	+2.0
KMI				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
PKI	Pulchoki	24.16	340	*e*P	P	16 23 24.9	+1.1
	comp=Z,40nm,0.6s,mb5.0						
DMN	Daman	24.30	340	*e*P	P	16 23 25.9	+0.7
	comp=Z,43nm,0.7s,mb5.0						
GUN	Gumba	24.32	342	*e*P	P	16 23 25.7	+0.3
	comp=Z,71nm,0.7s,mb5.2						
KKN	Kakani	24.41	340	*e*P	P	16 23 26.6	+0.4
	comp=Z,29nm,0.6s,mb4.9						
GYA	Guiyang	24.57	28	⇑*i*P	P	16 23 29.0	+1.1
GYA				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.2						
GKN	Gorkha	24.82	339	*e*P	P	16 23 31.0	+0.8
	comp=Z,75nm,0.6s,mb5.4						
LSA	Lhasa	24.93	354	*e*P	P	16 23 30.7	-0.6
LSA				pmax	pmax		
	comp=Z,29nm,0.6s,mb5.0						
LSA	Lhasa	24.93	354	*e*P	P	16 23 30.6	-0.6
	comp=Z,29nm,0.6s,mb5.0						
KOLN	Koldanda	24.99	337	*e*P	P	16 23 32.5	+0.6
	comp=Z,102nm,0.9s,mb5.4						
CD2	Chengdu	27.46	18	P	P	16 23 54.3	-0.3
CD2				AMB	AMB		
	comp=Z,40nm,0.5s,mb5.2						
ENH	Enshi	29.11	28	*e*P	P	16 24 08.1	-1.5
	comp=Z,19nm,0.6s,mb5.0						
XAN	Xi’an	32.11	23	P	P	16 24 35.3	-0.8
XAN				AP	pP	16 24 46.0	+5.2
XAN				AMB	AMB		
	comp=Z,56nm,0.6s,mb5.6						
LZH	Lanzhou	32.35	15	*e*P	P	16 24 37.5	-0.6
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
LZH				LR	LR		
	comp=E,423nm,14.0s						
LZH				LR	LR		
	comp=Z,968nm,15.5s,MS4.6						
GTA	Gaotai	34.81	8	*e*P	P	16 24 59.8	+0.4
GTA				AP	pP	16 25 09.3	+5.2
GTA				PP	PP	16 26 21.0	+4.1
GTA				S	S	16 30 35.0	+6.6
GTA				XS		16 30 45.0	
GTA				AMB	AMB		
	comp=Z,39nm,0.8s,mb5.4						
GTA				AMB	AMB		
	comp=Z,250nm,5.7s						
GTA				LR	LR		
	comp=N,498nm,20.9s,MS4.3						
GTA				LR	LR		
	comp=E,287nm,17.9s,MS4.3						
GTA				LR	LR		
	comp=Z,342nm,16.7s,MS4.2						
NJ2	Nanjing	35.56	37	*e*P	P	16 25 07.0	+1.1
NJ2				AP	pP	16 25 17.8	+7.2
NJ2				XP	sP	16 25 21.5	+8.9
NJ2				PP	PP	16 26 29.5	+3.3
NJ2				S	S	16 30 43.0	+2.8

NJ2				XS		16 30 59.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,520nm,4.7s						
NJ2				LR	LR		
	comp=N,2µm,21.4s,MS5.0						
NJ2				LR	LR		
	comp=E,1µm,20.0s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,15.3s,MS5.0						
MBWA	**Marble Bar**	**35.91**	**137**	*e*P	**P**	**16 25 08.0**	**-0.9**
	comp=Z,7.2nm,0.9s,mb4.6						
SSE	**Sheshan**	**36.38**	**41**	P	**P**	**16 25 10.0**	**-2.9**
SSE				AP	pP	16 25 23.0	+5.4
SSE				S	**S**	**16 30 51.5**	**-1.3**
SSE				XS		16 31 07.0	
SSE				AMB	AMB		
	comp=Z,22nm,0.8s,mb5.1						
SSE				AMB	AMB		
	comp=Z,82nm,3.1s						
SSE				LR	LR		
	comp=N,671nm,15.2s,MS4.6						
SSE				LR	LR		
	comp=E,347nm,15.4s,MS4.6						
SSE				LR	LR		
	comp=Z,1µm,13.0s,MS4.8						
JOW	**Kunigami**	**39.14**	**52**	P	**P**	**16 25 37.0**	**+1.0**
	comp=Z,14nm,0.6s,mb4.8,baz=349,slow=15,SNR=3.0						
JOW				LR	LR	16 41 49.8	
	comp=Z,345nm,19.2s,MS4.2,baz=95,slow=36						
WMQ	**Urumqi**	**39.28**	**352**	⇓P	**P**	**16 25 38.3**	**+1.3**
WMQ				AP	pP	16 25 45.5	+3.7
WMQ				PP	PP	16 27 11.8	+0.6
WMQ				S	**S**	**16 31 38.3**	**+1.5**
WMQ				AMB	AMB		
	comp=Z,9.0nm,1.0s,mb4.5						
WMQ				LR	LR		
	comp=N,243nm,22.6s,MS4.1						
WMQ				LR	LR		
	comp=E,240nm,24.0s,MS4.1						
WMQ				LR	LR		
	comp=Z,152nm,20.4s,MS3.8						
BJT	**Baijiatuau**	**40.23**	**26**	*e*P	**P**	**16 25 44.5**	**-0.4**
BJT				pmax	pmax		
	comp=Z,13nm,0.8s						
BJT	**Baijiatuau**	**40.23**	**26**	*e*P	**P**	**16 25 44.5**	**-0.4**
	comp=Z,13nm,0.8s,mb4.7						
BJI	**Beijing**	**40.25**	**26**	P	**P**	**16 25 47.0**	**+1.9**
BJI				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
BJI				LR	LR		
	comp=N,641nm,17.7s,MS4.5						
BJI				LR	LR		
	comp=E,222nm,17.7s,MS4.5						
BJI				LR	LR		
	comp=Z,381nm,21.7s,MS4.2						
KZA	**Kyzart**	**40.80**	**338**	P	**P**	**16 25 50.7**	**+1.1**
	SNR=6.3						
UCH	**Uchtor**	**41.21**	**338**	P	**P**	**16 25 54.2**	**+1.4**
	SNR=18						
TKM2	**Tokmak 2**	**41.41**	**339**	P	**P**	**16 25 55.5**	**+0.9**
	SNR=8.6						
KBK	**Karagaybulak**	**41.41**	**338**	P	**P**	**16 25 56.2**	**+1.6**
	SNR=30						
AML	**Almayashu**	**41.44**	**337**	P	**P**	**16 25 56.4**	**+1.6**
	SNR=26						
AAK	**Ala-Archa**	**41.56**	**338**	P	**P**	**16 25 57.8**	**+1.9**
	SNR=5.7						
AAK	**Ala-Archa**	**41.56**	**338**	*e*P	**P**	**16 25 54.7**	**-1.2**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.2						
AAK	**Ala-Archa**	**41.56**	**338**	*e*P	**P**	**16 25 54.7**	**-1.2**
	comp=Z,3.6nm,0.6s,mb4.2						
EKS2	**Erkin-Say**	**41.86**	**337**	P	**P**	**16 25 59.6**	**+1.3**
	SNR=10						
USP	**Ospenovka**	**42.11**	**338**	P	**P**	**16 26 00.9**	**+0.6**
	SNR=22						
MKAR	**Makanchi Array**	**43.09**	**348**	*i* P	**P**	**16 26 08.8**	**+0.5**
MKAR				pmax	pmax		
	comp=Z,17nm,0.5s						
NWAO	**Narrogin (SRO)**	**43.39**	**151**	P	**P**	**16 26 11.0**	**+0.1**
	comp=Z,11nm,1.1s,mb4.5,baz=96,slow=13,SNR=2.2						
NWAO	**Narrogin (SRO)**	**43.39**	**151**	P	**P**	**16 26 11.0**	**+0.1**
NWAO				pmax	pmax		
	comp=Z,11nm,1.1s						
SONM	**Songino Array**	**44.11**	**12**	P	**P**	**16 26 16.7**	**+0.1**
	comp=Z,12nm,0.8s,mb4.7,baz=193,slow=8.0,SNR=74						
SONM				PcP	PcP	16 28 02.0	-0.2
	comp=Z,2.7nm,0.7s,baz=189,slow=3.5,SNR=5.8						
ULN	**Ulaanbaatar**	**44.28**	**12**	*e*P	**P**	**16 26 17.4**	**-0.5**
ULN				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
ULN	**Ulaanbaatar**	**44.28**	**12**	*e*P	**P**	**16 26 17.4**	**-0.6**
	comp=Z,4.8nm,0.6s,mb4.4						
SNY	**Shenyang**	**45.19**	**31**	⇑P	**P**	**16 26 25.8**	**+0.5**
SNY				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.8						
WRA	**Warramunga Arr**	**46.43**	**123**	P	**P**	**16 26 35.9**	**+0.5**
	comp=Z,14nm,0.8s,mb4.9,baz=301,slow=9.0,SNR=18						
WRA	**Warramunga Arr**	**46.43**	**123**	P	**P**	**16 26 35.9**	**+0.5**
WRA				pmax	pmax		
	comp=Z,14nm,0.8s						
WRAB	**Tennant Creek**	**46.44**	**123**	*i* P	**P**	**16 26 35.9**	**+0.5**
WRAB	**Tennant Creek**	**46.44**	**123**	*e*P	**P**	**16 26 34.4**	**-1.1**
	comp=Z,22nm,0.8s,mb5.1						
TLY	**Talaya**	**47.37**	**8**	*i* P	**P**	**16 26 42.6**	**+0.2**
CN2	**Changchun**	**47.56**	**31**	*e*P	**P**	**16 26 44.3**	**+0.2**
CN2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.3						
CN2				LR	LR		
	comp=N,290nm,14.0s,MS4.7						
CN2				LR	LR		
	comp=E,430nm,14.0s,MS4.7						
CN2				LR	LR		
	comp=Z,360nm,17.0s,MS4.4						
ASAR	**Alice Springs**	**47.90**	**128**	P	**P**	**16 26 47.0**	**0.0**
	comp=Z,4.1nm,0.6s,mb4.6,baz=303,slow=7.9,SNR=9.6						
ASAR				PcP	PcP	16 28 15.6	-0.2
	comp=Z,4.3nm,0.6s,baz=309,slow=3.6,SNR=5.7						
ASAR				LR	LR	16 50 45.2	
	comp=Z,222nm,19.0s,MS4.2,baz=117,slow=41						
HIA	**Hailar**	**49.29**	**22**	*e*P	**P**	**16 26 55.9**	**-1.4**
HIA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HIA	**Hailar**	**49.29**	**22**	*e*P	**P**	**16 26 55.9**	**-1.5**
	comp=Z,6.8nm,0.6s,mb4.8						
ZAL	**Zalesovo**	**49.58**	**353**	P	**P**	**16 26 59.8**	**+0.2**
	comp=Z,8.3nm,0.7s,mb4.9,baz=298,slow=6.3,SNR=36						
ZAL	**Zalesovo**	**49.58**	**353**	P	**P**	**16 26 59.8**	**+0.3**
ZAL				pmax	pmax		
	comp=Z,8.0nm,0.7s						
MDJ	**Mudanjiang**	**50.28**	**32**	P	**P**	**16 27 03.5**	**-1.5**
MDJ				PCP	PcP	16 28 22.0	-2.1
MDJ				PP	PP	16 28 58.8	-2.7
MDJ				PCS		16 32 19.0	
MDJ				S	**S**	**16 34 16.5**	**+0.9**
MDJ				LR	LR		
	comp=N,76nm,24.9s,MS3.9						
MDJ				LR	LR		
	comp=E,138nm,26.4s,MS3.9						
MDJ				LR	LR		
	comp=Z,179nm,22.8s,MS4.0						
MDJ	**Mudanjiang**	**50.28**	**32**	*e*P	**P**	**16 27 03.7**	**-1.3**
	comp=Z,5.8nm,0.5s,mb4.9						
NVS	**Novosibirsk**	**50.68**	**352**	*i* P	**P**	**16 27 06.5**	**-1.4**
NVS				*e*		16 27 15.3	
NVS				*e*S	**S**	**16 34 13.4**	**-7.4**
NVS				pmax	pmax		
	comp=N,13nm,0.7s						
NVS				pmax	pmax		
	comp=E,11nm,0.7s						
NVS				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
NVS				smax			
	comp=N,39nm,1.7s						
NVS				smax			
	comp=E,33nm,1.7s						
BVA0	**Borovoye Array**	**51.92**	**342**	*i* P	**P**	**16 27 16.9**	**-0.4**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
BVAR	**Borovoye Array**	**51.92**	**342**	P	**P**	**16 27 16.9**	**-0.5**
	comp=Z,16nm,0.6s,mb5.1,baz=143,slow=9.9,SNR=129						
BVAR				PcP	PcP	16 28 29.7	-0.4
	comp=Z,3.8nm,0.6s,baz=135,slow=8.4,SNR=3.5						
BRVK	**Borovoye**	**51.98**	**342**	*e*P	**P**	**16 27 16.9**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
BRVK	**Borovoye**	**51.98**	**342**	*e*P	**P**	**16 27 16.9**	**-0.9**
	comp=Z,18nm,0.6s,mb5.2						
CHKZ	**Chkalovo**	**52.41**	**342**	*e*P	**P**	**16 27 20.7**	**-0.3**
CHKZ				*e*		16 28 30.7	
CHKZ				pmax	pmax		
	comp=Z,714nm,0.8s						
CHKZ	**Chkalovo**	**52.41**	**342**	*e*P	**P**	**16 27 20.7**	**-0.3**
	comp=Z,714nm,0.8s						
CHKZ				*e*PcP	PcP	16 28 30.7	-1.1
KLR	**Kul'dur**	**54.46**	**29**	*e*P	**P**	**16 27 33.2**	**-3.0**
PMG	**Port Moresby**	**54.56**	**105**	P	**P**	**16 27 36.9**	**-0.5**
	comp=Z,4.9nm,0.9s,mb4.5,baz=171,slow=5.6,SNR=3.6						
PMG	**Port Moresby**	**54.56**	**105**	P	**P**	**16 27 36.9**	**-0.5**
PMG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BOD	**Bodaibo**	**55.09**	**13**	⇓*i*P	**P**	**16 27 39.8**	**-0.9**
GNI	**Garni**	**56.68**	**316**	P	**P**	**16 27 51.9**	**-0.5**
	comp=Z,3.3nm,0.5s,mb4.6,baz=120,slow=1.5,SNR=5.2						
GNI	**Garni**	**56.68**	**316**	*e*P	**P**	**16 27 52.0**	**-0.4**
GNI				pmax	pmax		
	comp=Z,6.0nm,0.7s						
GNI	**Garni**	**56.68**	**316**	*e*P	**P**	**16 27 52.0**	**-0.5**
	comp=Z,5.8nm,0.7s,mb4.7						
CTA	**Charters Tower**	**56.74**	**118**	P	**P**	**16 27 53.1**	**0.0**
	comp=Z,3.8nm,0.9s,mb4.4,baz=275,slow=10,SNR=4.7						
CTA				PcP	PcP	16 28 49.0	+0.1
	comp=Z,1.7nm,0.6s,baz=288,slow=5.5,SNR=5.2						
CTA				LR	LR	16 53 30.5	
	comp=Z,263nm,21.4s,MS4.3,baz=288,slow=37						
CTA	**Charters Tower**	**56.74**	**118**	P	**P**	**16 27 53.1**	**0.0**
CTA						16 28 49.0	
CTA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CTA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
CTA				MLR	MLR		
	comp=Z,263nm,21.4s						
CTAO	**Charters Tower**	**56.74**	**118**	*e*P	**P**	**16 27 53.1**	**0.0**
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
CTAO	**Charters Tower**	**56.74**	**118**	*e*P	**P**	**16 27 53.1**	**0.0**
	comp=Z,3.9nm,0.9s,mb4.4						
KMBO	**Kilima Mbogo**	**57.27**	**266**	P	**P**	**16 27 58.0**	**+1.0**
	comp=Z,2.0nm,0.6s,mb4.4,baz=56,slow=12,SNR=8.3						
KMBO	**Kilima Mbogo**	**57.27**	**266**	*e*P	**P**	**16 27 57.5**	**+0.6**
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KMBO	**Kilima Mbogo**	**57.27**	**266**	*e*P	**P**	**16 27 57.5**	**+0.6**
	comp=Z,1.5nm,0.6s,mb4.2						
ASAJ	**Asahikawa**	**57.66**	**40**	P	**P**	**16 27 59.5**	**+0.3**
	comp=Z,6.8nm,0.7s,mb4.8,baz=123,slow=24,SNR=5.0						
ASAJ	**Asahikawa**	**57.66**	**40**	P	**P**	**16 27 59.5**	**+0.3**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.7s						
ZEI	**Tsey**	**58.38**	**318**	*e*P	**P**	**16 28 03.8**	**-0.5**
ZEI				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
ARU	**Arti**	**58.75**	**338**	⇑*i*P	**P**	**16 28 05.2**	**-1.5**
ARU				*e*		16 28 51.8	
ARU				*e*		16 30 10.9	
ARU				*e*S	**S**	**16 36 08.8**	**-0.5**
ARU				*e*		16 37 51.7	
ARU				*e*SS	SS	16 40 02.4	-1.9
ARU				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
ARU	**Arti**	**58.75**	**338**	*e*P	**P**	**16 28 04.6**	**-2.1**
	comp=Z,32nm,1.3s,mb5.2						
YSS	**Yuzh-Sakhalins**	**59.12**	**37**	*e*P	**P**	**16 28 09.0**	**-0.5**
YSS				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
YSS	**Yuzh-Sakhalins**	**59.12**	**37**	*e*P	**P**	**16 28 09.0**	**-0.5**
	comp=Z,13nm,0.8s,mb5.0						
KIV	**Kislovodsk**	**59.68**	**319**	*e*P	**P**	**16 28 11.5**	**-1.9**
KIV				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
KIV	**Kislovodsk**	**59.68**	**319**	*e*P	**P**	**16 28 11.5**	**-1.9**
	comp=Z,8.4nm,0.8s,mb4.8						
ASF	**Jabal al Asfar**	**60.02**	**304**	P	**P**	**16 28 16.1**	**+0.3**
	comp=Z,2.1nm,0.6s,mb4.3,baz=22,slow=8.0,SNR=3.2						
MALT	**Malatya**	**60.56**	**312**	*e*P	**P**	**16 28 19.0**	**-0.4**
MALT				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
MALT	**Malatya**	**60.56**	**312**	*e*P	**P**	**16 28 19.0**	**-0.4**
	comp=Z,1.5nm,0.7s,mb4.2						
GZT	**Gaziantep**	**60.91**	**310**	P	**P**	**16 28 22.0**	**+0.2**
EIL	**Elat**	**61.08**	**301**	LR	LR	16 55 46.1	
	comp=Z,381nm,18.1s,MS4.6,baz=283,slow=37						
EIL	**Elat**	**61.08**	**301**	*e*P	**P**	**16 28 21.4**	**-1.7**
	comp=Z,16nm,1.1s,mb5.1						
SOC	**Sochi**	**61.50**	**318**	*e*P	**P**	**16 28 20.9**	**-4.8**
SOC				*e*		16 30 36.3	
SOC				*e*S	**S**	**16 36 40.6**	**-4.2**
SOC				*e*SS	SS	16 40 45.2	-2.3
SOC				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
SOC				pmax	pmax		
	comp=N,8.0nm,0.8s						
SOC				pmax	pmax		
	comp=E,4.0nm,0.6s						
KAHT	**Ahir Dag**	**61.52**	**310**	P	**P**	**16 28 26.3**	**+0.3**
COBT	**Iskenderun**	**61.67**	**309**	P	**P**	**16 28 27.2**	**+0.3**
SOKR	**Solikamsk**	**61.69**	**339**	⇓*i*P	**P**	**16 28 25.4**	**-1.4**
SOKR				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,230nm,21.0s,MS4.3						
YAK	**Yakutsk**	**62.85**	**18**	*e*P	**P**	**16 28 33.2**	**-1.3**
YAK				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
YAK	**Yakutsk**	**62.85**	**18**	*e*P	**P**	**16 28 33.2**	**-1.3**
	comp=Z,18nm,0.8s,mb5.3						
MEST	**Erdemli**	**63.33**	**309**	P	**P**	**16 28 37.3**	**-0.7**
AVNT	**Avonos**	**63.37**	**311**	P	**P**	**16 28 38.0**	**-0.2**
CSS	**Prodhromos**	**63.57**	**307**	P	**P**	**16 28 36.7**	**-3.0**
	comp=Z,4.0nm,0.6s,mb4.6						
MBAR	**Mbarara**	**63.69**	**267**	*e*P	**P**	**16 28 39.6**	**-1.2**
MBAR				pmax	pmax		
	comp=Z,4.0nm,1.1s,mb4.4						
MBAR	**Mbarara**	**63.69**	**267**	*e*P	**P**	**16 28 39.6**	**-1.2**
	comp=Z,4.5nm,1.1s,mb4.4						
BOYT	**Boyabat**	**64.10**	**314**	P	**P**	**16 28 42.1**	**-1.0**
BRTR	**Keskin Array B**	**64.54**	**312**	P	**P**	**16 28 44.6**	**-1.3**
	comp=Z,4.0nm,0.8s,mb4.5,baz=135,slow=7.0,SNR=21						
BRTR	**Keskin Array B**	**64.54**	**312**	P	**P**	**16 28 44.7**	**-1.2**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.8s						
ESKT	**Eskisehir**	**66.57**	**311**	P	**P**	**16 28 58.2**	**-0.8**
OBN	**Obninsk**	**68.03**	**328**	*de*P	**P**	**16 29 06.7**	**-1.2**
OBN				*i*		16 29 22.1	
OBN				*e*S	S	16 37 57.5	-7.6
OBN				pmax	pmax		
	comp=Z,28nm,1.9s,mb5.0						
OBN				MLR	MLR		
	comp=Z,100nm,18.0s,MS4.1						
LSZ	**Lusaka**	**68.40**	**252**	*e*P	**P**	**16 29 10.3**	**-0.6**
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
LSZ	**Lusaka**	**68.40**	**252**	*e*P	**P**	**16 29 10.3**	**-0.6**
	comp=Z,2.6nm,0.5s,mb4.5						
TIXI	**Tiksi**	**70.19**	**11**	*e*P	**P**	**16 29 19.6**	**-1.4**
TIXI				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,289nm,16.0s,MS4.6						
IDI	**Anoyia**	**70.43**	**306**	P	**P**	**16 29 22.7**	**-0.4**
	comp=Z,13nm,0.7s,mb5.0,baz=138,slow=6.7,SNR=10						
AKASG	**Malin Array Be**	**70.63**	**322**	P	**P**	**16 29 22.3**	**-1.7**
	comp=Z,8.4nm,0.8s,mb4.7,baz=85,slow=5.0,SNR=23						
AKASG	**Malin Array Be**	**70.63**	**322**	P	**P**	**16 29 22.3**	**-1.7**
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.8s						
VRI	**Vrincioaia**	**71.00**	**317**	⇑*i*P	**P**	**16 29 26.8**	**+0.5**
MLR	**Muntele Rosu**	**71.45**	**316**	P	**P**	**16 29 29.0**	**0.0**
	comp=Z,16nm,0.8s,mb5.0,baz=150,slow=1.6,SNR=17						
MLR	**Muntele Rosu**	**71.45**	**316**	P	**P**	**16 29 29.0**	**0.0**
MLR				pmax	pmax		
	comp=Z,16nm,0.8s						
LBTB	**Lobatse**	**72.92**	**242**	*e*P	**P**	**16 29 38.3**	**+0.1**
LBTB				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
LBTB	**Lobatse**	**72.92**	**242**	*e*P	**P**	**16 29 38.3**	**+0.2**
	comp=Z,18nm,1.0s,mb4.9						
BOSA	**Boshof**	**74.09**	**239**	*e*P	**P**	**16 29 44.6**	**-0.3**
BOSA				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
BOSA	**Boshof**	**74.09**	**239**	*e*P	**P**	**16 29 44.6**	**-0.3**
	comp=Z,4.8nm,0.5s,mb4.7						
VSU	**Vasula**	**74.28**	**330**	*i* P	**P**	**16 29 44.8**	**-0.6**
KOLS	**Kolonicke sedl**	**74.59**	**319**	*e*P	**P**	**16 29 48.0**	**+0.6**
KOLS				*e*		16 29 57.8	
SUW	**Suwalki**	**75.06**	**325**	*e*P	**P**	**16 29 49.1**	**-0.9**
CRVS	**Cervenica-Dubn**	**75.11**	**319**	*e*P	**P**	**16 29 52.9**	**+2.5**
FINES	**FINESS Array B**	**75.47**	**333**	P	**P**	**16 29 51.7**	**-0.5**
	comp=Z,9.7nm,0.5s,mb5.0,baz=95,slow=6.0,SNR=92						
FINES	**FINESS Array B**	**75.47**	**333**	P	**P**	**16 29 51.7**	**-0.5**
FINES				pmax	pmax		
	comp=Z,10.0nm,0.5s						
KAF	**Kangasniemi**	**75.57**	**333**	*e*p	**P**	**16 29 52.4**	**-0.3**
	comp=Z,12nm,0.5s,mb5.1						
KAF	**Kangasniemi**	**75.57**	**333**	*e*P	**P**	**16 29 52.4**	**-0.3**
KAF				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.1						
MAW	**Mawson**	**75.58**	**192**	P	**P**	**16 29 53.6**	**+0.9**
	comp=Z,4.5nm,0.4s,mb4.8,baz=28,slow=4.1,SNR=8.1						
MAW	**Mawson**	**75.58**	**192**	P	**P**	**16 29 53.6**	**+0.9**
MAW				pmax	pmax		
	comp=Z,5.0nm,0.4s						
KECS	**Kecovo**	**75.68**	**319**	*e*P	**P**	**16 29 53.6**	**0.0**
OJC	**Ojcow**	**76.40**	**320**	*e*P	**P**	**16 29 49.5**	**-8.1**
VYHS	**Vyhne**	**76.77**	**319**	*i* P	**P**	**16 29 59.8**	**0.0**
OKC	**Ostrava-Krasne**	**77.40**	**320**	*e*P	**P**	**16 30 03.5**	**+0.3**
KEV	**Kevo**	**77.75**	**341**	*e*p	**P**	**16 30 05.1**	**+0.3**
	comp=Z,9.7nm,0.6s,mb4.9						
KEV	**Kevo**	**77.75**	**341**	*e*P	**P**	**16 30 05.1**	**+0.3**
KEV				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
MORC	**Moravsky Berou**	**77.78**	**320**	*e*P	**P**	**16 30 05.1**	**-0.2**
MORC				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.8						
MORC	**Moravsky Berou**	**77.78**	**320**	*e*P	**P**	**16 30 05.1**	**-0.2**
	comp=Z,18nm,1.5s,mb4.8						
ZST	**Bratislava**	**77.88**	**318**	*e*P	**P**	**16 30 06.5**	**+0.6**
ARCES	**ARCESS Array B**	**78.18**	**340**	P	**P**	**16 30 07.3**	**+0.2**
	comp=Z,10nm,0.6s,mb5.0,baz=88,slow=5.9,SNR=127						
ARCES	**ARCESS Array B**	**78.18**	**340**	P	**P**	**16 30 07.4**	**+0.3**
ARCES				pmax	pmax		
	comp=Z,10.0nm,0.6s						
VRAC	**Vranov**	**78.34**	**319**	P	**P**	**16 30 08.7**	**+0.3**
	comp=Z,1.6nm,0.6s,mb4.2,baz=358,slow=3.7,SNR=3.0						
VRAC	**Vranov**	**78.34**	**319**	P	**P**	**16 30 08.7**	**+0.3**
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
DPC	**Dobruska-Polom**	**78.63**	**320**	*e*P	**P**	**16 30 10.8**	**+0.9**
DPC				*e*pP	pP	16 30 20.4	+5.4
KSP	**Ksiaz**	**78.70**	**321**	*e*P	**P**	**16 30 10.8**	**+0.5**
SUR	**Sutherland**	**78.72**	**236**	*e*P	**P**	**16 30 12.0**	**+1.2**
	comp=Z,16nm,0.9s,mb5.0						
UPC	**Upice**	**78.84**	**320**	*e*P	**P**	**16 30 10.2**	**-0.9**
UPC				*e*pP	pP	16 30 22.2	+6.1
BILL	**Bilibino**	**78.87**	**21**	*e*P	**P**	**16 30 10.7**	**-0.2**
BILL				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						
BILL	**Bilibino**	**78.87**	**21**	*e*P	**P**	**16 30 10.7**	**-0.2**
	comp=Z,1.9nm,0.3s,mb4.5						
PRU	**Pruhonice**	**79.73**	**320**	*e*P	**P**	**16 30 16.6**	**+0.6**
PRU				*e*pP	pP	16 30 24.3	+3.3
BRG	**Berggiesshubel**	**80.18**	**321**	*i* P	**P**	**16 30 19.2**	**+0.8**
BRG				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
BRG	**Berggiesshubel**	**80.18**	**321**	*i* P	**P**	**16 30 19.2**	**+0.8**
	comp=Z,13nm,1.0s,mb4.8						
GEC2	**GERESS Array S**	**80.19**	**319**	*e*P	**P**	**16 30 19.0**	**+0.6**
GEC2				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
GEC2	**GERESS Array S**	**80.19**	**319**	*e*P	**P**	**16 30 19.0**	**+0.6**
	comp=Z,23nm,1.1s,mb5.0						
GERES	**GERESS Array B**	**80.19**	**319**	P	**P**	**16 30 19.2**	**+0.7**
	comp=Z,9.7nm,0.9s,mb4.8,baz=104,slow=5.5,SNR=58						
GERES	**GERESS Array B**	**80.19**	**319**	P	**P**	**16 30 19.2**	**+0.8**
GERES				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KHC	**Kasperske Hory**	**80.29**	**319**	*e*P	**P**	**16 30 19.3**	**+0.3**
WET	**Wettzell**	**80.75**	**319**	*e*P	**P**	**16 30 21.8**	**+0.4**
CLL	**Collm**	**80.81**	**321**	*e*P	**P**	**16 30 21.0**	**-0.6**
CLL				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
CLL	**Collm**	**80.81**	**321**	*e*P	**P**	**16 30 21.0**	**-0.6**
	comp=Z,14nm,1.2s,mb4.8						
CLL	**Collm**	**80.81**	**321**	P	**P**	**16 30 21.0**	**-0.6**
	comp=Z,logA/T=1.1,mb4.8						
NKC	**Novy Kostel**	**81.09**	**320**	*e*P	**P**	**16 30 23.6**	**+0.4**
HFS	**Hagfors**	**81.16**	**330**	P	**P**	**16 30 23.3**	**0.0**
	comp=Z,9.3nm,0.5s,mb4.9,baz=104,slow=6.1,SNR=60						
HFS	**Hagfors**	**81.16**	**330**	P	**P**	**16 30 23.3**	**0.0**
HFS				pmax	pmax		
	comp=Z,9.0nm,0.5s						
MOX	**Moxa**	**81.64**	**320**	*e*P	**P**	**16 30 26.6**	**+0.6**
MOX	**Moxa**	**81.64**	**320**	*i* P	**P**	**16 30 26.6**	**+0.6**
FUR	**Furstenfeldbru**	**81.77**	**318**	*e*P	**P**	**16 30 26.8**	**+0.1**
GRA1	**Grafenberg Arr**	**81.86**	**319**	*e*P	**P**	**16 30 28.2**	**+1.0**
	comp=Z,15nm,0.9s,mb4.9						
GRF	**Grafenberg Arr**	**81.86**	**319**	*e*P	**P**	**16 30 28.2**	**+1.0**
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	**Grafenberg Arr**	**81.86**	**319**	*e*P	**P**	**16 30 28.2**	**+1.0**
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	**Grafenberg Arr**	**81.86**	**319**	*e*P	**P**	**16 30 28.2**	**+1.0**
	comp=Z,15nm,0.9s,mb4.9						
NB2	**NORSAR Subarra**	**82.45**	**331**	P	**P**	**16 30 29.4**	**-0.6**
	comp=Z,4.7nm,0.7s,mb4.5,baz=94,slow=5.8						
NB2	**NORSAR Subarra**	**82.45**	**331**	P	**P**	**16 30 29.4**	**-0.6**
NB2				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
NOA	**NORSAR Array B**	**82.45**	**331**	P	**P**	**16 30 29.8**	**-0.2**
	comp=Z,3.6nm,0.7s,mb4.4,baz=95,slow=5.6,SNR=9.9						
NOA	**NORSAR Array B**	**82.45**	**331**	P	**P**	**16 30 29.8**	**-0.2**
NOA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CLZ	**Clausthal**	**82.47**	**322**	*e*P	**P**	**16 30 31.1**	**+0.8**
	comp=Z,10.0nm,0.9s,mb4.8						
SYO	**Syowa Base**	**82.53**	**197**	⇓P	**P**	**16 30 32.0**	**+1.7**
SYO	**Syowa Base**	**82.53**	**197**	⇑PcP	PcP	16 30 36.1	+0.1
SYO	**Syowa Base**	**82.53**	**197**	⇑pP	pP	16 30 39.1	+3.7
BSEG	**Bad Segeberg**	**82.58**	**324**	*e*P	**P**	**16 30 31.7**	**+0.9**
NAO01	**NORSAR Array S**	**82.60**	**331**	*e*P	**P**	**16 30 30.3**	**-0.5**
	comp=Z,18nm,1.1s,mb5.0						
DAVOX	**Davos**	**82.68**	**316**	P	**P**	**16 30 32.4**	**+0.9**
	comp=Z,19nm,0.7s,mb5.2,baz=119,slow=6.0,SNR=36						
BFO	**Black Forest**	**83.74**	**318**	*e*P	**P**	**16 30 37.0**	**+0.1**
RPZ	**Rata Peaks**	**83.81**	**135**	P	**P**	**16 30 38.4**	**+1.0**
	comp=Z,4.6nm,0.7s,mb4.8,baz=320,slow=22,SNR=3.1						
RPZ				LR	LR	17 05 50.0	
	comp=Z,218nm,19.8s,MS4.5,baz=348,slow=34						
LPL	**La Plagne**	**84.88**	**315**	*e*P	**P**	**16 30 43.1**	**+0.4**
	comp=Z,27nm,0.9s,mb5.1						
LPL	**La Plagne**	**84.88**	**315**	*e*P	**P**	**16 30 43.1**	**+0.4**
LPL				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.1						
URZ	**Urewera**	**87.34**	**129**	P	**P**	**16 30 54.3**	**-0.7**
	comp=Z,25nm,1.3s,mb5.3,baz=344,slow=14,SNR=5.3						
JMIC	**Jan Mayen**	**89.64**	**341**	LR	LR	17 15 41.9	
	comp=Z,227nm,18.4s,MS4.6,baz=257,slow=39						
VNDA	**Vanda**	**89.92**	**168**	P	**P**	**16 31 07.2**	**+0.7**
	comp=Z,0.9nm,0.5s,mb4.3,baz=334,slow=12,SNR=5.6						
VNDA	**Vanda**	**89.92**	**168**	*e*P	**P**	**16 31 06.8**	**+0.3**
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA	**Vanda**	**89.92**	**168**	*e*P	**P**	**16 31 06.8**	**+0.4**
	comp=Z,2.8nm,0.9s,mb4.6						
EKA	**Eskdalemuir Ar**	**90.30**	**325**	P	**P**	**16 31 08.4**	**-0.3**
	comp=Z,5.6nm,0.7s,mb5.0,baz=98,slow=5.3,SNR=10						
EKA	**Eskdalemuir Ar**	**90.30**	**325**	P	**P**	**16 31 08.4**	**-0.3**
EKA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
ESDC	**Sonseca Array**	**93.28**	**310**	P	**P**	**16 31 23.7**	**+1.0**
	comp=Z,1.2nm,0.6s,mb4.5,baz=53,slow=5.6,SNR=5.9						
ILAR	**Eielson Array**	**97.52**	**22**	P	**P**	**16 31 41.5**	**+0.1**
	comp=Z,0.4nm,0.5s,mb4.2,baz=303,slow=2.9,SNR=16						
DBIC	**Dimbokro**	**98.48**	**277**	LR	LR	17 13 18.3	
	comp=Z,149nm,19.1s,MS4.5,baz=52,slow=34						
INK	**Inuvik**	**99.88**	**16**	P	**P**	**16 31 52.5**	**+0.3**
	comp=Z,0.7nm,0.5s,mb4.3,baz=341,slow=4.6,SNR=5.1						
INK	**Inuvik**	**99.88**	**16**	P	**P**	**16 31 52.5**	**+0.4**
INK				pmax	pmax		
	comp=Z,1.0nm,0.5s						
YKA	**Yellowknife Ar**	**109.36**	**14**	Pdiff	Pdif	16 32 36.4	+2.2
	comp=Z,0.1nm,0.7s,baz=327,slow=4.2,SNR=3.9						
YKA				PP	PP	16 37 04.4	-6.7
	comp=Z,0.4nm,0.8s,baz=333,slow=7.3,SNR=4.4						
SCHQ	**Schefferville**	**118.53**	**348**	PKP	PKPdf	16 36 55.8	-2.3

	comp=Z,6.3nm,1.3s,baz=355,slow=8.9,SNR=3.6						
ULM	**Lac du Bonnet**	**124.47**	**8**	PKP	PKPdf	16 37 08.0	-1.7
	comp=Z,2.2nm,0.6s,baz=272,slow=3.1,SNR=6.4						
BOZ	**Bozeman (W)**	**124.71**	**22**	*e*PKIKP	PKPdf	16 37 08.0	-2.3
HLID	**Hailey**	**125.33**	**25**	*e*PKPdf	PKPdf	16 37 10.0	-1.6
LOHW	**Long Hollow**	**126.83**	**22**	*e*PKPdf	PKPdf	16 37 11.0	-3.3
REDW	**Red Top Meadow**	**126.95**	**23**	*e*PKPdf	PKPdf	16 37 12.4	-2.2
NVAR	**Mina Array Bea**	**127.45**	**32**	PKP	PKPdf	16 37 14.5	-1.2
	comp=Z,2.3nm,0.7s,baz=298,slow=3.0,SNR=9.9						
NVAR	**Mina Array Bea**	**127.45**	**32**	PKP	PKPdf	16 37 14.5	-1.2
PDAR	**Pinedale Array**	**127.95**	**22**	PKP	PKPdf	16 37 14.8	-1.8
	comp=Z,2.1nm,0.8s,baz=117,slow=0.8,SNR=16						
MVU	**Marysvale**	**130.41**	**27**	*e*PKPdf	PKPdf	16 37 17.8	-3.7
NEN	**Nelson**	**131.36**	**32**	*e*PKPdf	PKPdf	16 37 20.7	-2.6
PV01	**Paradox Valley**	**132.30**	**24**	PKPdf	PKPdf	16 37 22.4	-2.7
ANMO	**Albuquerque**	**135.90**	**25**	*e*PKIKP	PKPdf	16 37 30.0	-1.8
MNTX	**Cornudas Mount**	**139.15**	**26**	*e*PKPdf	PKPdf	16 37 35.3	-2.5
TXAR	**Lajitas Array**	**141.93**	**26**	PKhKP		16 37 35.4	
	comp=Z,0.7nm,0.6s,baz=198,slow=2.4,SNR=7.1						
TXAR				PKP	PKPdf	16 37 41.4	-1.5
	comp=Z,1.1nm,0.5s,baz=339,slow=0.9,SNR=12						
TXAR	**Lajitas Array**	**141.93**	**26**	PKP	PKPdf	16 37 41.4	-1.5
JCT	**Junction City**	**142.41**	**20**	PKIKP	PKPdf	16 37 41.3	-2.4
CPUP	**Villa Florida**	**145.43**	**229**	PKPbc	PKPbc	16 37 47.1	+1.2
	comp=Z,0.0nm,0.3s,baz=238,slow=14,SNR=1.9						
LPAZ	**La Paz**	**159.30**	**235**	PKP	PKPdf	16 38 08.5	-0.8
	comp=Z,1.3nm,0.8s,baz=2.8,slow=2.9,SNR=5.0						
LPAZ				PKPab	PKPab	16 38 46.3	+0.9

BJI ***27*** *16:22:43.1, 9.20N×93.50E, h30^{km}, mb4.3*
NEIC ***27*** *16:22:44.2±0.4, 9.21N×93.48E, h30^{km}, mb4.5/3, Error ellipse: s-maj=12.0km s-min=7.9km az=61.0*
IDC ***27*** *16:22:47.0±5.0, 9.32N×93.61E, h50^{km}±44^{km}, mb3.9/22, mb1 4.0/23, mb1mx4.0/28, ML3.7/1, Error ellipse: s-maj=28.9km s-min=10.9km az=49.0*
ISC 27 16:22:42.4±0.5**, 9.24N**±0.08×**93.55E**±0.09**, h30^{km}, n35, σ0^{s}75**/32**, mb4.2**/25**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**10.55**	**29**	*e*Pn	**P**	**16 25 14.7**	**-0.3**
	5.0nm,0.6s						
CM31				*e*pPn		16 25 22.6	
CMAR	**Chiang Mai Arr**	**10.55**	**29**	P	**P**	**16 25 15.7**	**+0.7**
	0.2nm,0.3s,baz=217,slow=14,SNR=4.8						
CMAR	**Chiang Mai Arr**	**10.55**	**29**	P	**P**	**16 25 15.7**	**+0.7**
LSA	**Lhasa**	**20.48**	**354**	*e*P	**P**	**16 27 20.0**	**-0.6**
	9.7nm,0.8s						
GYA	**Guiyang**	**21.16**	**34**	⇑*i*P	**P**	**16 27 28.8**	**+1.2**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.4						
POO	**Poona**	**21.22**	**298**	*e*P	**P**	**16 27 35.0**	**+6.8**
DDI	**Dehra Dun**	**25.48**	**328**	*e*	**P**	**16 28 11.0**	**+1.1**
AAK	**Ala-Archa**	**37.23**	**337**	*e*P	**P**	**16 29 53.0**	**-0.1**
	comp=Z,7.7nm,1.0s,mb4.5						
AAK				*e*pP	pP	16 29 58.6	-3.5
SONM	**Songino Array**	**39.98**	**13**	P	**P**	**16 30 15.8**	**-0.3**
	comp=Z,0.8nm,0.8s,mb3.5,baz=198,slow=9.1,SNR=3.6						
SONM				PcP	PcP	16 32 21.9	+0.4
	comp=Z,0.8nm,0.6s,baz=203,slow=3.6,SNR=5.3						
ZAL	**Zalesovo**	**45.13**	**353**	P	**P**	**16 30 57.2**	**-0.7**
	comp=Z,0.9nm,0.5s,mb3.9,baz=30,slow=8.1,SNR=3.0						
ZAL	**Zalesovo**	**45.13**	**353**	P	**P**	**16 30 57.2**	**-0.7**
BVAR	**Borovoye Array**	**47.52**	**341**	P	**P**	**16 31 15.6**	**-1.3**
	comp=Z,1.5nm,0.8s,mb4.1,baz=127,slow=7.2,SNR=4.4						
NWAO	**Narrogin (SRO)**	**47.62**	**153**	P	**P**	**16 31 18.1**	**+0.1**
	comp=Z,20nm,1.2s,mb5.0,baz=2.6,slow=8.6,SNR=9.5						
CHKZ	**Chkalovo**	**48.00**	**342**	*e*P	**P**	**16 31 19.4**	**-1.2**
	comp=Z,4.8nm,0.5s,mb4.8						
CHKZ				*e*pP	pP	16 31 26.8	-2.9
WRA	**Warramunga Arr**	**49.53**	**126**	P	**P**	**16 31 32.8**	**0.0**
	comp=Z,2.6nm,0.5s,mb4.5,baz=306,slow=8.6,SNR=21						
WRA				PcP	PcP	16 32 55.0	+0.4
	comp=Z,1.5nm,0.7s,baz=320,slow=2.9,SNR=15						
ASAR	**Alice Springs**	**51.24**	**130**	P	**P**	**16 31 45.3**	**-0.5**
	comp=Z,3.3nm,0.9s,mb4.2,baz=303,slow=7.5,SNR=15						
ASAR				PcP	PcP	16 33 01.4	+0.6
	comp=Z,1.8nm,0.7s,baz=311,slow=3.7,SNR=9.2						
GNI	**Garni**	**53.07**	**314**	P	**P**	**16 32 00.7**	**+1.3**
	comp=Z,1.5nm,0.4s,mb4.3,baz=178,slow=20,SNR=2.5						
PMG	**Port Moresby**	**56.49**	**108**	P	**P**	**16 32 24.8**	**+0.2**
	comp=Z,5.4nm,0.7s,mb4.7,baz=280,slow=5.5,SNR=7.3						
KMBO	**Kilima Mbogo**	**57.00**	**263**	P	**P**	**16 32 32.6**	**+4.3**
	comp=Z,1.4nm,0.9s,mb4.0,baz=39,slow=22,SNR=3.6						
CTA	**Charters Tower**	**59.48**	**120**	P	**P**	**16 32 45.9**	**+0.3**
	comp=Z,2.7nm,0.9s,mb4.3,baz=283,slow=10.0,SNR=3.5						
BRTR	**Keskin Array B**	**61.10**	**310**	P	**P**	**16 32 55.4**	**-0.9**
	comp=Z,1.9nm,0.7s,mb4.3,baz=128,slow=7.1,SNR=7.2						
STKA	**Stephens Creek**	**61.47**	**134**	P	**P**	**16 32 58.6**	**-0.3**
	comp=Z,1.1nm,0.4s,mb4.3,baz=332,slow=15,SNR=2.7						
AKASG	**Malin Array Be**	**66.73**	**321**	P	**P**	**16 33 32.8**	**-0.2**
	comp=Z,0.2nm,0.2s,mb3.7,baz=84,slow=5.6,SNR=3.8						
IDI	**Anoyia**	**67.32**	**304**	P	**P**	**16 33 36.2**	**-0.8**
	comp=Z,3.6nm,0.6s,mb4.6,baz=62,slow=18,SNR=2.2						
MLR	**Muntele Rosu**	**67.79**	**315**	P	**P**	**16 33 40.6**	**+0.8**
	comp=Z,1.1nm,0.5s,mb4.1,baz=81,slow=5.8,SNR=2.6						
FINES	**FINESS Array B**	**71.24**	**332**	P	**P**	**16 34 00.3**	**-0.3**
	comp=Z,1.7nm,0.8s,mb4.1,baz=76,slow=5.7,SNR=3.5						
ARCES	**ARCESS Array B**	**73.79**	**340**	P	**P**	**16 34 15.5**	**0.0**
	comp=Z,2.7nm,0.8s,mb4.2,baz=79,slow=6.2,SNR=5.8						
GERES	**GERESS Array B**	**76.43**	**318**	P	**P**	**16 34 31.4**	**+0.4**
	comp=Z,1.1nm,0.6s,mb4.0,baz=76,slow=5.5,SNR=7.4						
KHC	**Kasperske Hory**	**76.52**	**318**	*e*pP	pP	16 34 38.5	-2.4
HFS	**Hagfors**	**76.99**	**330**	P	**P**	**16 34 35.0**	**+1.2**
	comp=Z,5.4nm,1.1s,mb4.4,baz=90,slow=7.4,SNR=5.4						
DAVOX	**Davos**	**79.01**	**316**	P	**P**	**16 34 46.2**	**+0.9**
	comp=Z,1.2nm,0.4s,mb4.2,baz=26,slow=8.5,SNR=2.8						
ILAR	**Eielson Array**	**93.71**	**22**	P	**P**	**16 35 56.0**	**-1.2**
	comp=Z,0.3nm,0.7s,mb3.8,baz=316,slow=5.3,SNR=4.5						
INK	**Inuvik**	**95.85**	**16**	P	**P**	**16 36 07.1**	**+0.1**
	comp=Z,0.9nm,0.6s,mb4.4,baz=339,slow=6.4,SNR=6.8						
CPUP	**Villa Florida**	**147.60**	**235**	PKPbc	PKPdf	16 42 25.2	-1.8
	comp=Z,0.0nm,0.3s,baz=331,slow=5.5,SNR=2.2						
LPAZ	**La Paz**	**160.82**	**247**	PKPab	PKPab	16 43 27.3	+2.4
	comp=Z,0.6nm,0.5s,baz=82,slow=7.7,SNR=3.0						

IDC ***27*** *16:25:16.5±0.7, 8.34N×94.08E, mb4.1/11, mb1 4.2/12, mb1mx4.1/22, ML4.1/1, Error ellipse: s-maj=33.6km s-min=17.0km az=53.0*
NEIC ***27*** *16:25:21.0±0.6, 8.42N×94.20E, h30^{km}, mb4.1/2, Error ellipse: s-maj=16.2km s-min=11.8km az=77.0*
ISC 27 16:25:19.0±0.7**, 8.47N**±0.10×**94.3E**±0.1**, h30^{km}, n16, σ1^{s}07**/15**, mb4.0**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**10.92**	**24**	*e*Pn	**P**	**16 27 55.6**	**-0.9**
	2.5nm,0.4s						
CMAR	**Chiang Mai Arr**	**10.92**	**24**	Pn	**P**	**16 27 56.3**	**-0.2**
	0.4nm,0.3s,baz=212,slow=14,SNR=7.6						
LSA	**Lhasa**	**21.33**	**353**	*e*P	**P**	**16 30 01.4**	**-4.5**
	6.3nm,0.8s,mb4.0						
AAK	**Ala-Archa**	**38.22**	**336**	P	**P**	**16 32 37.9**	**-0.2**
	2.0nm,0.8s,mb3.9						
SONM	**Songino Array**	**40.56**	**13**	P	**P**	**16 32 59.9**	**+2.5**
	0.9nm,0.9s,mb3.4,baz=191,slow=7.3,SNR=3.5						
NWAO	**Narrogin (SRO)**	**46.61**	**153**	P	**P**	**16 33 46.9**	**+0.3**
	5.8nm,0.9s,mb4.5,baz=121,slow=15,SNR=5.7						
WRA	**Warramunga Arr**	**48.50**	**126**	P	**P**	**16 34 00.9**	**-0.6**
	0.7nm,0.5s,mb4.0,baz=304,slow=8.7,SNR=5.6						
ASAR	**Alice Springs**	**50.20**	**130**	P	**P**	**16 34 14.4**	**-0.1**
	0.6nm,0.8s,mb3.7,baz=302,slow=7.6,SNR=3.2						
BRTR	**Keskin Array B**	**62.14**	**311**	P	**P**	**16 35 38.4**	**-1.5**
	0.8nm,0.8s,mb3.9,baz=114,slow=6.0,SNR=3.1						
IDI	**Anoyia**	**68.34**	**305**	P	**P**	**16 36 19.2**	**-0.7**
	6.7nm,0.8s,mb4.7,baz=206,slow=4.0,SNR=2.4						
MLR	**Muntele Rosu**	**68.84**	**315**	P	**P**	**16 36 22.1**	**-0.8**
	5.5nm,1.1s,mb4.4,baz=359,slow=4.1,SNR=3.1						
FINES	**FINESS Array B**	**72.25**	**332**	P	**P**	**16 36 42.7**	**-0.6**
	1.7nm,0.9s,mb4.0,baz=225,slow=5.4,SNR=3.6						
ARCES	**ARCESS Array B**	**74.75**	**340**	P	**P**	**16 36 58.7**	**+1.0**
	1.7nm,0.8s,mb4.0,baz=100,slow=7.4,SNR=4.3						
GERES	**GERESS Array B**	**77.47**	**318**	P	**P**	**16 37 14.1**	**+0.8**
	0.6nm,0.8s,mb3.6,baz=90,slow=3.9,SNR=4.3						
HFS	**Hagfors**	**78.01**	**330**	P	**P**	**16 37 18.5**	**+2.4**
	0.7nm,0.5s,mb3.8,baz=101,slow=7.6,SNR=4.3						
CPUP	**Villa Florida**	**147.72**	**233**	PKPbc	PKPdf	16 45 04.1	+0.3
	0.0nm,0.5s,baz=212,slow=12,SNR=2.0						

IDC ***27*** *16:26:16.4±0.7, 4.98N×93.86E, mb4.1/13, mb1 4.2/14, mb1mx4.1/24, Error ellipse: s-maj=28.8km s-min=18.6km az=42.0*
NEIC ***27*** *16:26:21.0±0.5, 4.87N×93.79E, h30^{km}, mb4.4/1, Error ellipse: s-maj=16.2km s-min=12.9km az=57.0*
ISC 27 16:26:18.6±0.7**, 4.8N**±0.1×**93.8E**±0.1**, h30^{km}, n24, σ0^{s}72**/16**, mb4.0**/14**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.46**	**20**	Pn	**P**	**16 29 44.8**	**+1.3**
	baz=303,slow=30,SNR=2.4						
JOW	**Kunigami**	**39.52**	**53**	P	**P**	**16 33 48.4**	**-0.3**
	13nm,0.7s,mb4.8,baz=270,slow=16,SNR=3.1						
SONM	**Songino Array**	**44.20**	**12**	P	**P**	**16 34 25.8**	**-1.0**
	0.9nm,1.0s,mb3.5,baz=196,slow=8.1,SNR=4.8						
WRA	**Warramunga Arr**	**46.84**	**123**	P	**P**	**16 34 48.2**	**+0.1**
	2.4nm,0.7s,mb4.2,baz=301,slow=9.0,SNR=6.9						
ASAR	**Alice Springs**	**48.29**	**128**	P	**P**	**16 34 59.4**	**0.0**
	0.5nm,0.7s,mb3.6,baz=302,slow=8.5,SNR=2.5						
BVAR	**Borovoye Array**	**51.76**	**342**	P	**P**	**16 35 24.8**	**-0.8**
	1.0nm,0.7s,mb3.9,baz=149,slow=8.6,SNR=4.0						
CHKZ	**Chkalovo**	**52.26**	**343**	*e*P	**P**	**16 35 28.6**	**-0.7**
	1.8nm,0.4s,mb4.3						
BRTR	**Keskin Array B**	**64.17**	**312**	P	**P**	**16 36 52.4**	**-0.5**
	0.8nm,0.6s,mb4.0,baz=121,slow=4.2,SNR=3.5						
IDI	**Anoyia**	**70.03**	**306**	P	**P**	**16 37 30.6**	**+0.7**
	4.2nm,0.5s,mb4.6,baz=350,slow=6.1,SNR=3.8						
MLR	**Muntele Rosu**	**71.11**	**316**	P	**P**	**16 37 35.9**	**-0.5**
	2.7nm,0.9s,mb4.2,baz=185,slow=12,SNR=3.6						
FINES	**FINESS Array B**	**75.24**	**333**	P	**P**	**16 37 59.6**	**-0.6**
	0.6nm,0.5s,mb3.8,baz=108,slow=6.0,SNR=5.2						
ARCES	**ARCESS Array B**	**78.00**	**340**	P	**P**	**16 38 15.8**	**+0.3**
	0.7nm,0.5s,mb3.9,baz=90,slow=4.9,SNR=6.9						
ARCES	**ARCESS Array B**	**78.00**	**340**	P	**P**	**16 38 15.8**	**+0.3**
GERES	**GERESS Array B**	**79.86**	**319**	P	**P**	**16 38 27.1**	**+1.1**
	1.2nm,0.9s,mb3.8,baz=117,slow=6.6,SNR=4.8						
HFS	**Hagfors**	**80.91**	**330**	P	**P**	**16 38 31.2**	**-0.1**
	1.2nm,0.6s,mb4.0,baz=90,slow=12,SNR=2.7						
DAVOX	**Davos**	**82.34**	**316**	P	**P**	**16 38 40.1**	**+1.1**
	1.1nm,0.8s,mb3.8,baz=150,slow=8.1,SNR=5.7						
ULM	**Lac du Bonnet**	**124.52**	**8**	PKP	PKPdf	16 45 18.2	-2.2
	1.0nm,0.6s,baz=171,slow=17,SNR=2.8						
ULM	**Lac du Bonnet**	**124.52**	**8**	PKP	PKPdf	16 45 18.2	-2.2
NVAR	**Mina Array Bea**	**127.69**	**32**	PKP	PKPdf	16 45 24.1	-2.7
	0.2nm,0.3s,baz=323,slow=4.5,SNR=3.6						
BDFB	**Brasilia**	**140.97**	**251**	PKP	PKPdf	16 45 51.8	-0.3
	1.4nm,0.5s,baz=139,slow=13,SNR=2.4						
TXAR	**Lajitas Array**	**142.13**	**25**	PKP	PKPdf	16 45 52.7	-1.1
	0.2nm,0.5s,baz=14,slow=3.7,SNR=3.2						
CPUP	**Villa Florida**	**145.07**	**229**	PKPbc	PKPbc	16 45 56.0	+1.8
	0.0nm,0.6s,baz=178,slow=8.7,SNR=1.4						
CPUP	**Villa Florida**	**145.07**	**229**	PKPbc	PKPbc	16 45 56.0	+1.8
LPAZ	**La Paz**	**158.91**	**236**	PKPab	PKPab	16 46 54.7	+1.8

IDC ***27*** *16:28:15.8±0.5, 8.70N×92.24E, h28^{km}±2^{km}, mb3.9/19, mb1 4.0/20, mb1mx4.0/23, ML4.1/1, Error ellipse: s-maj=21.8km s-min=10.4km az=50.0*
NEIC ***27*** *16:28:15.6±0.3, 8.61N×92.17E, mb4.5/6, Error ellipse: s-maj=11.0km s-min=8.0km az=73.0*
BJI ***27*** *16:28:20.3, 8.97N×91.71E, h10^{km}, mB5.0, mb4.7, Ms4.3, Msz4.0*
ISC 27 16:28:13.8±0.5**, 8.62N**±0.07×**92.25E**±0.09**, h28^{km}, h28^{km}**±.7^{km}**:pP-P, n43, σ0^{s}91**/30**, mb4.2**/27**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**11.75**	**33**	Pn	**P**	**16 31 00.9**	**-1.8**
CMAR	**Chiang Mai Arr**	**11.75**	**33**	Pn	**P**	**16 31 03.6**	**+0.9**
	0.4nm,0.3s,baz=228,slow=15,SNR=6.1						
SHL	**Shillong**	**16.86**	**359**	*e*P	**P**	**16 32 12.5**	**+2.8**
KMI	**Kunming**	**19.22**	**30**	P		16 32 47.5	
KMI				AMB	AMB		
	comp=Z,13nm,1.0s						
LSA	**Lhasa**	**21.00**	**357**	*e*P	**P**	**16 32 57.6**	**0.0**
	comp=Z,17nm,0.8s,mb4.4						
LSA				*e*pP		16 33 06.1	
GYA	**Guiyang**	**22.41**	**36**	⇑*i*P		16 33 20.3	
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.2						
CD2	**Chengdu**	**24.64**	**24**	P		16 33 41.0	
CD2				AMB	AMB		
	comp=Z,40nm,0.5s,mb5.2						
ENH	**Enshi**	**26.91**	**34**	*e*P	**P**	**16 33 54.6**	**-0.1**
	comp=Z,9.9nm,0.8s,mb4.4						
ENH				*e*pP	pP	16 34 02.3	-0.6
GTA	**Gaotai**	**31.40**	**11**	*e*P	sP	16 34 43.0	-3.8
GTA				AP	pP	16 34 48.5	+5.4
GTA				XP	sP	16 34 51.0	+4.2
GTA				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.1						
AAK	**Ala-Archa**	**37.30**	**338**	*e*P	**P**	**16 35 25.4**	**0.0**
	comp=Z,4.4nm,0.9s,mb4.3						
AAK				*e*pP	pP	16 35 33.9	+0.1
SONM	**Songino Array**	**40.88**	**15**	P	**P**	**16 35 54.3**	**-0.9**
	comp=Z,0.6nm,0.5s,mb3.5,baz=201,slow=8.5,SNR=7.4						
SONM				pP	pP	16 36 04.4	+0.8
	comp=Z,8.1nm,1.1s,baz=195,slow=7.2,SNR=17						
ULN	**Ulaanbaatar**	**41.08**	**15**	*e*P	**P**	**16 35 57.8**	**+1.0**
	comp=Z,4.7nm,1.0s,mb4.1						
ULN				*e*pP	pP	16 36 05.5	+0.3
ZAL	**Zalesovo**	**45.59**	**354**	pP	pP	16 36 41.0	-0.7
	comp=Z,2.1nm,0.4s,baz=94,slow=14,SNR=3.8						
NWAO	**Narrogin (SRO)**	**47.68**	**151**	P	**P**	**16 36 51.7**	**+1.6**
	comp=Z,7.4nm,0.9s,mb4.7,baz=296,slow=15,SNR=4.1						
NWAO				sP	sP	16 37 04.5	+2.5
	comp=Z,8.2nm,1.0s,baz=244,slow=5.7,SNR=1.3						
BVAR	**Borovoye Array**	**47.70**	**342**	P	**P**	**16 36 49.9**	**-0.1**
	comp=Z,0.4nm,0.6s,mb3.6,baz=153,slow=6.4,SNR=2.4						
BVAR				pP	pP	16 36 57.9	-0.6
	comp=Z,0.8nm,0.5s,baz=146,slow=5.2,SNR=4.5						
BVAR	**Borovoye Array**	**47.70**	**342**	P	**P**	**16 36 49.9**	**-0.1**
BVAR				pP	pP	16 36 57.9	-0.6
CHKZ	**Chkalovo**	**48.20**	**343**	P	**P**	**16 36 53.6**	**-0.3**
	comp=Z,3.6nm,0.4s,mb4.8						
CHKZ				*e*pP	pP	16 37 02.1	-0.3
WRA	**Warramunga Arr**	**50.22**	**125**	P	**P**	**16 37 08.5**	**-1.3**
	comp=Z,0.9nm,0.4s,mb4.1,baz=302,slow=9.9,SNR=9.8						
WRA				pP	pP	16 37 18.3	-0.1
	comp=Z,0.9nm,0.4s,baz=300,slow=9.9,SNR=4.0						
ASAR	**Alice Springs**	**51.83**	**129**	P	**P**	**16 37 20.8**	**-1.2**
	comp=Z,1.1nm,0.5s,mb4.0,baz=302,slow=7.9,SNR=11						
ASAR				PcP	PcP	16 38 34.9	0.0
	comp=Z,0.5nm,0.6s,baz=311,slow=3.7,SNR=5.0						
PMG	**Port Moresby**	**57.54**	**107**	P	**P**	**16 38 05.4**	**+1.7**
	comp=Z,3.6nm,0.7s,mb4.5,baz=27,slow=6.8,SNR=3.3						
PMG				sP	sP	16 38 15.4	-0.2
	comp=Z,2.1nm,0.5s,baz=38,slow=8.9,SNR=1.7						
CTA	**Charters Tower**	**60.30**	**119**	P	**P**	**16 38 22.7**	**-0.1**
	comp=Z,1.4nm,0.8s,mb4.0,baz=100,slow=22,SNR=3.1						
CTA	**Charters Tower**	**60.30**	**119**	P	**P**	**16 38 22.7**	**-0.1**
BRTR	**Keskin Array B**	**60.53**	**311**	P	**P**	**16 38 23.5**	**-0.7**
	comp=Z,0.7nm,0.7s,mb3.9,baz=98,slow=6.2,SNR=3.4						
BRTR				pP	pP	16 38 31.6	-1.3
	comp=Z,1.7nm,0.9s,baz=112,slow=6.7,SNR=4.7						
STKA	**Stephens Creek**	**61.97**	**133**	P	**P**	**16 38 33.6**	**-0.4**
	comp=Z,0.8nm,0.4s,mb4.2,baz=273,slow=23,SNR=2.8						
AKASG	**Malin Array Be**	**66.42**	**322**	pP	pP	16 39 10.7	-0.7
	comp=Z,0.1nm,0.2s,baz=88,slow=5.2,SNR=4.1						
MLR	**Muntele Rosu**	**67.34**	**316**	P	**P**	**16 39 08.8**	**+0.2**
	comp=Z,0.8nm,0.4s,mb4.1,baz=137,slow=6.5,SNR=2.5						
MLR				pP	pP	16 39 17.1	-0.3
	comp=Z,4.4nm,0.9s,baz=153,slow=3.0,SNR=4.3						
FINES	**FINESS Array B**	**71.19**	**332**	pP	pP	16 39 39.8	-1.0
	comp=Z,2.3nm,0.7s,baz=108,slow=6.0,SNR=3.3						
ARCES	**ARCESS Array B**	**73.94**	**340**	P	**P**	**16 39 48.1**	**+0.1**
	comp=Z,2.0nm,0.9s,mb4.0,baz=90,slow=4.9,SNR=4.2						
ARCES				pP	pP	16 39 55.6	-1.3
	comp=Z,2.0nm,0.8s,baz=101,slow=6.2,SNR=2.7						
GERES	**GERESS Array B**	**76.03**	**318**	P	**P**	**16 39 59.7**	**-0.7**
	comp=Z,0.7nm,0.8s,mb3.6,baz=90,slow=6.9,SNR=3.4						
GERES				pP	pP	16 40 09.0	-0.3
	comp=Z,1.9nm,0.8s,baz=104,slow=5.5,SNR=8.3						
CLL	**Collm**	**76.61**	**321**	e*PP	pP	16 40 11.0	-1.5
HFS	**Hagfors**	**76.88**	**330**	P	**P**	**16 40 05.5**	**+0.5**
	comp=Z,2.7nm,1.1s,mb4.1,baz=90,slow=5.8,SNR=3.1						
HFS				pP	pP	16 40 14.6	+0.8
	comp=Z,2.3nm,0.8s,baz=135,slow=4.2,SNR=1.8						
NOA	**NORSAR Array B**	**78.17**	**331**	P	**P**	**16 40 12.1**	**+0.1**
	comp=Z,1.6nm,1.1s,mb3.9,baz=79,slow=6.0,SNR=2.7						
NOA				pP	pP	16 40 21.4	+0.5
	comp=Z,1.0nm,0.7s,baz=96,slow=5.5,SNR=2.1						
DAVOX	**Davos**	**78.56**	**316**	P	**P**	**16 40 14.2**	**-0.3**
	comp=Z,1.1nm,0.5s,mb4.1,baz=90,slow=6.9,SNR=3.2						
DAVOX				pP	pP	16 40 23.2	-0.2
	comp=Z,1.5nm,0.5s,baz=165,slow=12,SNR=3.1						
MAW	**Mawson**	**78.89**	**191**	P	**P**	**16 40 16.8**	**+0.9**
	comp=Z,1.9nm,0.6s,mb4.2,baz=50,slow=17,SNR=3.0						
LPG	**La Plagne**	**80.77**	**315**	*e*P	pP	16 40 36.5	+1.1
	comp=Z,19nm,1.1s						
ILAR	**Eielson Array**	**94.76**	**22**	P	**P**	**16 41 34.5**	**+0.7**
	comp=Z,0.6nm,1.0s,mb4.0,baz=280,slow=6.1,SNR=4.1						
DBIC	**Dimbokro**	**95.99**	**278**	P	**P**	**16 41 40.0**	**-0.6**
	comp=Z,1.6nm,0.8s,mb4.5,baz=151,slow=12,SNR=2.6						
DBIC	**Dimbokro**	**95.99**	**278**	P	**P**	**16 41 40.0**	**-0.6**
INK	**Inuvik**	**96.79**	**16**	P	**P**	**16 41 42.3**	**-0.6**
	comp=Z,0.3nm,0.5s,mb4.0,baz=134,slow=20,SNR=3.6						
PDAR	**Pinedale Array**	**125.13**	**20**	PKP	PKPdf	16 47 13.6	-3.5
	comp=Z,0.4nm,0.7s,slow=1.8,SNR=3.9						
TXAR	**Lajitas Array**	**139.27**	**22**	PKP	PKPdf	16 47 40.8	-3.2
	comp=Z,0.3nm,0.5s,baz=50,slow=33,SNR=3.3						
CPUP	**Villa Florida**	**146.19**	**235**	PKPbc	PKPbc	16 47 53.8	+1.3
	comp=Z,0.0nm,0.3s,baz=231,slow=17,SNR=2.4						
LPAZ	**La Paz**	**159.39**	**246**	PKP	PKPdf	16 48 11.5	-3.9
	comp=Z,0.9nm,0.8s,baz=235,slow=1.3,SNR=3.0						
LPAZ				PKPab	PKPab	16 48 51.8	+1.3
	comp=Z,1.1nm,0.8s,baz=260,slow=14,SNR=4.2						

IDC ***27*** *16:30:59.5±3.8, 19.51N×145.97E, h71^{km}±33^{km}, mb4.0/11, mb1 4.0/12, mb1mx3.8/24, ML4.0/1, Error ellipse: s-maj=34.9km s-min=13.1km az=85.0*
NEIC ***27*** *16:31:13.2±0.5, 19.36N×145.79E, h200^{km}, mb4.3/1, Error ellipse: s-maj=28.2km s-min=10.5km az=87.0*
ISC 27 16:30:57.2±3.0**, 19.50N**±0.07×**145.9E**±0.3**, h67^{km}**±26^{km}**, n18, σ0^{s}73**/18**, mb4.1**/13**, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CBIJ	**Chichi jima**	**8.31**	**336**	P	**P**	**16 32 58.5**	**+1.3**
	6.3nm,0.3s,baz=274,slow=18,SNR=3.3						
CBIJ				S	**S**	**16 34 29.1**	**-1.3**
	5.8nm,0.3s,baz=299,slow=23,SNR=4.3						
PMG	**Port Moresby**	**28.75**	**177**	P	**P**	**16 36 49.7**	**-1.1**
	4.8nm,0.8s,mb4.2,slow=12,SNR=2.9						
CTAO	**Charters Tower**	**39.34**	**180**	P	**P**	**16 38 21.6**	**-0.1**
WRAB	**Tennant Creek**	**40.80**	**197**	*e*P	**P**	**16 38 33.4**	**-0.3**
	4.2nm,0.4s,mb4.6						
WRA	**Warramunga Arr**	**40.81**	**197**	P	**P**	**16 38 34.1**	**+0.3**
	2.4nm,0.6s,mb4.2,baz=24,slow=9.2,SNR=18						
SONM	**Songino Array**	**42.66**	**321**	P	**P**	**16 38 49.1**	**+0.3**
	0.6nm,0.5s,mb3.6,baz=137,slow=6.1,SNR=5.9						
ASAR	**Alice Springs**	**44.48**	**196**	P	**P**	**16 39 04.2**	**+0.4**
	0.5nm,0.5s,mb3.5,baz=18,slow=6.8,SNR=9.8						
STKA	**Stephens Creek**	**51.25**	**185**	P	**P**	**16 39 56.2**	**-0.2**
	4.0nm,1.1s,mb4.4,slow=6.1,SNR=1.9						
STKA	**Stephens Creek**	**51.25**	**185**	P	**P**	**16 39 56.2**	**-0.2**
ZAL	**Zalesovo**	**57.53**	**322**	P	**P**	**16 40 41.9**	**-0.1**
	2.1nm,0.9s,mb4.2,baz=4.1,slow=6.5,SNR=8.7						
BVAR	**Borovoye Array**	**66.00**	**320**	P	**P**	**16 41 39.3**	**+0.6**
	5.3nm,0.7s,mb4.5,baz=90,slow=7.5,SNR=28						
INK	**Inuvik**	**68.56**	**23**	P	**P**	**16 41 53.5**	**-0.9**
	0.4nm,0.4s,mb3.6,baz=260,slow=5.3,SNR=6.1						
YKA	**Yellowknife Ar**	**77.18**	**28**	P	**P**	**16 42 45.8**	**+0.7**
	0.2nm,0.7s,mb3.0,baz=287,slow=5.7,SNR=3.5						
YKA	**Yellowknife Ar**	**77.18**	**28**	P	**P**	**16 42 45.8**	**+0.7**
ARCES	**ARCESS Array B**	**81.80**	**342**	P	**P**	**16 43 11.1**	**+1.3**
	5.9nm,1.1s,mb4.3,baz=90,slow=9.7,SNR=4.2						
FINES	**FINESS Array B**	**86.25**	**335**	P	**P**	**16 43 31.8**	**-0.4**
	28nm,1.4s,mb5.0,baz=72,slow=4.4,SNR=8.1						
HFS	**Hagfors**	**91.73**	**338**	P	**P**	**16 43 57.7**	**-0.6**
	1.4nm,0.8s,mb4.2,baz=45,slow=4.1,SNR=3.3						
LPAZ	**La Paz**	**147.46**	**90**	PKPbc	PKPdf	16 50 37.3	+5.6
	1.0nm,0.8s,baz=100,slow=2.5,SNR=2.9						

MOS ***27*** *16:33:54.2±0.9, 8.49N×92.22E, h33^{km}, mb5.1/21, Error ellipse: s-maj=12.1km s-min=7.9km az=104.7*
IDC ***27*** *16:33:55.4±0.4, 8.48N×92.10E, h28^{km}±2^{km}, mb4.2/26, mb1 4.2/27, mb1mx4.2/31, ML4.3/1, MS4.2/7, Ms1 4.3/7, ms1mx3.8/27, Error ellipse: s-maj=15.6km s-min=9.7km az=42.0*
NEIC ***27*** *16:33:55.4±0.3, 8.45N×92.15E, mb4.8/18, Error ellipse: s-maj=7.6km s-min=7.4km az=164.0*
BJI ***27*** *16:33:58.5, 8.94N×92.12E, h29^{km}, mB5.2, mb4.6, Ms4.7, Msz4.4*
ISC 27 16:33:53.0±0.4**, 8.37N**±0.06×**92.21E**±0.05**, h28^{km}, h28^{km}**±.8^{km}**:pP-P, n124, σ1^{s}10**/102**, mb4.5**/57**, MS4.4**/13**, 3C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**11.97**	**32**	*e*Pn	**P**	**16 36 44.1**	**-0.9**
	20nm,1.0s						
CMAR	**Chiang Mai Arr**	**11.97**	**32**	Pn	**P**	**16 36 44.1**	**-0.9**
	0.5nm,0.3s,baz=229,slow=14,SNR=12						
CMAR				LR	LR	16 41 25.7	
	comp=Z,396nm,21.4s,baz=207,slow=38						
CAL	**Calcutta**	**14.57**	**346**	*e*P	**P**	**16 37 10.2**	**-9.3**
CAL				*e*		16 43 13.4	
HYB	**Hyderabad**	**16.05**	**305**	*e*P	**P**	**16 37 42.0**	**+3.3**
HYB	**Hyderabad**	**16.05**	**305**	*i* P	**P**	**16 37 42.0**	**+3.3**
HYB				*e*S	**S**	**16 40 37.0**	**+1.4**
SHL	**Shillong**	**17.10**	**359**	*e*P	**P**	**16 37 53.0**	**+1.1**
KMI	**Kunming**	**19.45**	**30**	P	**P**	**16 38 22.8**	**+2.3**
KMI				AP		16 38 25.3	
KMI				AMB	AMB		
	comp=Z,25nm,1.5s						
KMI				LR	LR		
	comp=N,839nm,17.4s						
KMI				LR	LR		
	comp=E,696nm,13.2s						
KMI				LR	LR		
	comp=Z,959nm,15.9s						
LSA	**Lhasa**	**21.24**	**357**	*e*P	**P**	**16 38 39.6**	**+0.3**
LSA				pmax	pmax		
	comp=Z,35nm,0.8s,mb4.7						
LSA	**Lhasa**	**21.24**	**357**	*e*P	**P**	**16 38 39.6**	**+0.3**
	comp=Z,35nm,0.8s,mb4.7						
GYA	**Guiyang**	**22.62**	**36**	⇑*i*P	**P**	**16 38 54.0**	**+0.8**
GYA				AP		16 38 58.0	
GYA				PP	PP	16 39 21.5	-0.2
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.4						
GYA				LR	LR		
	comp=N,510nm,19.5s,MS4.2						
GYA				LR	LR		
	comp=E,630nm,17.4s,MS4.2						
GYA				LR	LR		
	comp=Z,780nm,19.2s,MS4.2						
CD2	**Chengdu**	**24.88**	**24**	P	**P**	**16 39 16.3**	**+1.2**
CD2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
GZH	**Guangzhou**	**25.00**	**52**	P	**P**	**16 39 21.5**	**+5.2**
GZH				LR	LR		
	comp=N,663nm,17.7s,MS4.4						
GZH				LR	LR		
	comp=E,664nm,14.3s,MS4.4						
GZH				LR	LR		
	comp=Z,878nm,16.2s,MS4.3						
ENH	**Enshi**	**27.13**	**34**	*e*P	**P**	**16 39 34.9**	**-1.1**
	comp=Z,7.1nm,0.5s,mb4.5						
ENH				*e*pP	pP	16 39 44.1	+0.1
TGY	**Tagaytay City**	**28.73**	**76**	LR	LR	16 51 10.3	
	comp=Z,763nm,18.7s,MS4.3,baz=257,slow=36						
LZH	**Lanzhou**	**29.56**	**19**	*e*P	**P**	**16 39 58.5**	**+0.7**
LZH				AMB	AMB		
	comp=Z,22nm,1.5s,mb4.7						
LZH				LR	LR		
	comp=E,669nm,13.4s						
LZH				LR	LR		
	comp=Z,1μm,15.5s,MS4.7						
GTA	**Gaotai**	**31.65**	**11**	*e*P	**P**	**16 40 16.8**	**+0.6**
GTA				AP	pP	16 40 21.8	-2.6
GTA				XP	sP	16 40 24.5	-3.5
GTA				AMB	AMB		
	comp=Z,24nm,1.0s,mb5.0						
GTA				AMB	AMB		
	comp=Z,525nm,5.7s						
GTA				LR	LR		
	comp=N,635nm,17.5s,MS4.5						
GTA				LR	LR		
	comp=E,742nm,16.4s,MS4.5						
GTA				LR	LR		
	comp=Z,657nm,17.5s,MS4.4						
NJ2	**Nanjing**	**34.17**	**43**	*e*P	**P**	**16 40 38.0**	**-0.2**
NJ2				AP	pP	16 40 46.5	+0.1
NJ2				XP	sP	16 40 50.8	+0.9
NJ2				PP	PP	16 41 51.5	-1.5
NJ2				S	**S**	**16 45 59.0**	**-2.7**

NJ2				XS		16 46 15.0	
NJ2				SS	SS	16 48 07.0	-4.0
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,520nm,4.7s						
NJ2				LR	LR		
	comp=N,2μm,21.4s,MS4.9						
NJ2				LR	LR		
	comp=E,1μm,21.0s,MS4.9						
NJ2				LR	LR		
	comp=Z,2μm,15.3s						
KSH	**Kashi**	**34.25**	**337**	*e*P	**P**	**16 40 45.0**	**+6.1**
KSH				*e*AP	pP	16 40 52.0	+4.9
KSH				*e*XP	sP	16 40 55.5	+4.9
WMQ	**Urumqi**	**35.53**	**354**	*e*P	**P**	**16 40 50.3**	**+0.6**
WMQ				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.7						
AAK	**Ala-Archa**	**37.51**	**338**	*e*P	**P**	**16 41 06.3**	**-0.1**
AAK				*e**PP	pP	16 41 14.7	0.0
AAK				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.0						
AAK	**Ala-Archa**	**37.51**	**338**	*e*P	**P**	**16 41 06.3**	**-0.2**
	comp=Z,37nm,1.3s,mb5.0						
AAK				*e*pP	pP	16 41 14.7	0.0
FRU	**Bishkek**	**37.64**	**339**	*e*P	**P**	**16 41 13.0**	**+5.5**
FRU				pmax	pmax		
	comp=Z,60nm,1.8s,mb5.0						
BJT	**Baijiatuau**	**38.09**	**30**	P	**P**	**16 41 10.9**	**-0.4**
BJT				pmax	pmax		
	comp=Z,6.0nm,0.4s						
BJT	**Baijiatuau**	**38.09**	**30**	P	**P**	**16 41 10.9**	**-0.4**
	comp=Z,6.1nm,0.4s,mb4.7						
BJI	**Beijing**	**38.11**	**30**	P	**P**	**16 41 18.3**	**+6.8**
BJI				LR	LR		
	comp=N,458nm,16.8s,MS4.5						
BJI				LR	LR		
	comp=E,498nm,16.8s,MS4.5						
BJI				LR	LR		
	comp=Z,308nm,25.1s						
JOW	**Kunigami**	**38.77**	**57**	P	**P**	**16 41 19.1**	**+1.9**
	comp=Z,11nm,0.5s,mb4.8,baz=263,slow=17,SNR=3.7						
JOW				LR	LR	16 59 46.1	
	comp=Z,341nm,18.1s,MS4.2,baz=150,slow=40						
MKAR	**Makanchi Array**	**39.21**	**349**	*i* P	**P**	**16 41 20.4**	**-0.2**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.5s						
SONM	**Songino Array**	**41.13**	**15**	P	**P**	**16 41 37.1**	**+0.7**
	comp=Z,2.9nm,0.8s,mb4.0,baz=198,slow=7.8,SNR=17						
SONM				pP	pP	16 41 45.5	+0.8
	comp=Z,6.6nm,0.8s,baz=198,slow=7.8,SNR=18						
ULN	**Ulaanbaatar**	**41.32**	**15**	*e*P	**P**	**16 41 38.5**	**+0.5**
ULN				*e**PP	pP	16 41 46.6	+0.3
ULN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.2						
ULN	**Ulaanbaatar**	**41.32**	**15**	*e*P	**P**	**16 41 38.5**	**+0.5**
	comp=Z,6.4nm,0.9s,mb4.2						
ULN				*e*pP	pP	16 41 46.6	+0.3
ZAK	**Zakamensk**	**42.88**	**10**	*e*P	**P**	**16 41 52.0**	**+1.3**
ZAK				*e*		16 43 42.5	
TLY	**Talaya**	**44.19**	**10**	*i* P	**P**	**16 42 07.5**	**+6.2**
TLY				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.7						
CN2	**Changchun**	**45.65**	**34**	*e*P	**P**	**16 42 18.5**	**+5.4**
ZAL	**Zalesovo**	**45.83**	**354**	P	**P**	**16 42 13.6**	**-0.8**
	comp=Z,2.2nm,0.6s,mb4.3,baz=293,slow=9.5,SNR=12						
ZAL				pP	pP	16 42 22.3	-0.4
	comp=Z,8.1nm,0.8s,baz=295,slow=10,SNR=15						
HIA	**Hailar**	**46.84**	**25**	P	**P**	**16 42 21.7**	**-0.7**
HIA				*e**PP	pP	16 42 30.7	-0.1
HIA				pmax	pmax		
	comp=Z,12nm,1.0s						
HIA	**Hailar**	**46.84**	**25**	P	**P**	**16 42 21.7**	**-0.7**
	comp=Z,12nm,1.0s,mb4.8						
HIA				*e*pP	pP	16 42 30.6	-0.1
NVS	**Novosibirsk**	**46.89**	**353**	*e*P	**P**	**16 42 21.0**	**-1.8**
NVS				pmax	pmax		
	comp=N,38nm,1.2s						
NVS				pmax	pmax		
	comp=E,24nm,1.2s						
NVS				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.3						
BVAR	**Borovoye Array**	**47.92**	**342**	P	**P**	**16 42 30.2**	**-0.7**
	comp=Z,0.7nm,0.6s,mb3.9,baz=153,slow=7.2,SNR=2.6						
BVAR				pP	pP	16 42 38.2	-1.1
	comp=Z,2.7nm,0.8s,baz=149,slow=8.6,SNR=4.7						
BRVK	**Borovoye**	**47.98**	**342**	*e*P	**P**	**16 42 30.6**	**-0.8**
BRVK				*e**PP	pP	16 42 38.3	-1.5
BRVK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.6						
BRVK	**Borovoye**	**47.98**	**342**	*e*P	**P**	**16 42 30.6**	**-0.8**
	comp=Z,8.2nm,1.3s,mb4.6						
BRVK				*e*pP	pP	16 42 38.3	-1.5
CHKZ	**Chkalovo**	**48.42**	**343**	*e*P	**P**	**16 42 34.3**	**-0.5**
CHKZ				*e**PP	pP	16 42 42.7	-0.5
CHKZ				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.7						
CHKZ	**Chkalovo**	**48.42**	**343**	*e*P	**P**	**16 42 34.3**	**-0.5**
	comp=Z,14nm,1.5s,mb4.8						
CHKZ				*e*pP	pP	16 42 42.7	-0.4
WRA	**Warramunga Arr**	**50.11**	**125**	P	**P**	**16 42 48.0**	**-0.2**
	comp=Z,1.3nm,0.5s,mb4.2,baz=301,slow=9.5,SNR=18						
WRA				pP	pP	16 42 57.3	+0.6
	comp=Z,9.0nm,0.8s,baz=306,slow=8.5,SNR=23						
WRAB	**Tennant Creek**	**50.12**	**125**	*i* P	**P**	**16 42 48.0**	**-0.2**
ASAR	**Alice Springs**	**51.71**	**129**	P	**P**	**16 43 00.2**	**0.0**
	comp=Z,1.0nm,0.5s,mb4.0,baz=304,slow=7.4,SNR=11						
ASAR				pP	pP	16 43 09.3	+0.5
	comp=Z,11nm,1.1s,baz=301,slow=7.3,SNR=14						
BOD	**Bodaibo**	**52.13**	**15**	*i* P	**P**	**16 43 02.8**	**-0.2**
BOD				*e*	pP	16 43 10.6	-0.9
GNI	**Garni**	**52.73**	**315**	P	**P**	**16 43 09.5**	**+1.8**
	comp=Z,3.2nm,0.7s,mb4.4,baz=198,slow=19,SNR=3.0						
GNI				pP	pP	16 43 16.3	+0.1
	comp=Z,1.2nm,0.3s,baz=129,slow=17,SNR=2.1						
GNI	**Garni**	**52.73**	**315**	P	**P**	**16 43 06.8**	**-0.9**
GNI				*PP	pP	16 43 16.3	+0.1
GNI				pmax	pmax		
	comp=Z,32nm,1.4s						
GNI	**Garni**	**52.73**	**315**	P	**P**	**16 43 06.8**	**-0.9**
	comp=Z,32nm,1.4s,mb5.1						
GNI				*e*pP	pP	16 43 15.0	-1.2
GNI				pP	pP	16 43 16.3	+0.1
ZEI	**Tsey**	**54.38**	**317**	*e*P	**P**	**16 43 19.4**	**-0.4**
ZEI				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
ARU	**Arti**	**54.70**	**338**	⇑*i*P	**P**	**16 43 20.5**	**-1.5**
ARU				*e*		16 44 20.8	
ARU				*e*S	**S**	**16 50 59.3**	**+0.6**
ARU				*e*SS	SS	16 54 43.1	+1.7
ARU				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.2						
KMBO	**Kilima Mbogo**	**55.58**	**263**	P	**P**	**16 43 30.1**	**+1.1**
	comp=Z,0.5nm,0.2s,mb4.1,baz=50,slow=22,SNR=3.5						
KMBO				pP	pP	16 43 38.6	+1.1
	comp=Z,1.4nm,0.8s,baz=56,slow=21,SNR=1.9						
KMBO				LR	LR	17 07 06.7	
	comp=Z,218nm,18.8s,MS4.3,baz=98,slow=36						
KIV	**Kislovodsk**	**55.67**	**318**	*e*P	**P**	**16 43 31.7**	**+2.5**
KIV				*e*S	**S**	**16 51 16.3**	**+4.4**
KIV				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
KIV				MLR	MLR		
	comp=N,50nm,20.0s,MS4.0						
KIV				MLR	MLR		
	comp=E,119nm,20.0s,MS4.0						
KIV				MLR	MLR		
	comp=Z,130nm,20.0s,MS4.0						
KIV	**Kislovodsk**	**55.67**	**318**	*e*P	**P**	**16 43 28.7**	**-0.6**
KIV				*e*pP	pP	16 43 36.8	-0.9
ASAJ	**Asahikawa**	**56.30**	**42**	P	**P**	**16 43 35.0**	**+1.2**
	comp=Z,8.7nm,1.0s,mb4.7,baz=98,slow=20,SNR=2.4						
ASF	**Jabal al Asfar**	**56.34**	**303**	pP	pP	16 43 43.1	+0.4
	comp=Z,0.9nm,0.3s,baz=296,slow=6.1,SNR=1.6						
MALT	**Malatya**	**56.69**	**311**	*e*P	**P**	**16 43 36.5**	**-0.1**
MALT				*e**PP	pP	16 43 44.3	-0.8
MALT				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.7						
MALT	**Malatya**	**56.69**	**311**	*e*P	**P**	**16 43 36.5**	**-0.1**
	comp=Z,12nm,1.5s,mb4.7						
MALT				*e*pP	pP	16 43 44.3	-0.9
PMG	**Port Moresby**	**57.51**	**107**	P	**P**	**16 43 46.9**	**+4.1**
	comp=Z,4.0nm,0.9s,mb4.5,baz=241,slow=8.3,SNR=2.7						
PMG				pP	pP	16 43 52.2	+0.9
	comp=Z,11nm,1.0s,baz=300,slow=5.5,SNR=5.8						
PMG				LR	LR	17 12 52.7	
	comp=Z,246nm,18.3s,MS4.3,baz=120,slow=41						
SOC	**Sochi**	**57.51**	**317**	*e*P	**P**	**16 43 39.9**	**-2.5**
SOC				*e*		16 44 33.1	
SOC				*e*		16 45 51.0	
SOC				*e*PPP	PPP	16 47 14.4	+1.5
SOC				*e*S	**S**	**16 51 38.3**	**+2.1**
SOC				*e*SS	SS	16 55 31.9	+4.3
EIL	**Elat**	**57.52**	**300**	P	**P**	**16 43 42.0**	**-0.6**
	comp=Z,3.1nm,1.0s,mb4.3,baz=302,slow=21,SNR=2.1						
EIL				pP	pP	16 43 51.7	+0.5
	comp=Z,7.8nm,1.1s,baz=88,slow=10.0,SNR=3.9						
EIL	**Elat**	**57.52**	**300**	*e*P	**P**	**16 43 42.2**	**-0.5**
EIL				pP	pP	16 43 51.7	+0.5
CSS	**Prodhromos**	**59.83**	**306**	*e*P	**P**	**16 43 57.3**	**-1.3**
	comp=Z,15nm,1.2s,mb4.9						
YAK	**Yakutsk**	**60.14**	**19**	*e*P	**P**	**16 43 58.8**	**-1.6**
CTA	**Charters Tower**	**60.22**	**119**	P	**P**	**16 44 02.8**	**+1.3**
	comp=Z,3.2nm,1.0s,mb4.3,baz=339,slow=8.6,SNR=2.8						
CTA				pP	pP	16 44 12.3	+2.2
	comp=Z,5.9nm,1.0s,baz=284,slow=6.7,SNR=5.1						
CTA				LR	LR	17 13 04.3	
	comp=Z,321nm,20.3s,MS4.5,baz=55,slow=39						
CTA	**Charters Tower**	**60.22**	**119**	P	**P**	**16 44 02.8**	**+1.3**
CTA				pP	pP	16 44 12.3	+2.2
CTA				LR	LR	17 13 04.3	
CTAO	**Charters Tower**	**60.22**	**119**	*e*P	**P**	**16 44 02.0**	**+0.5**
CTAO				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
CTAO	**Charters Tower**	**60.22**	**119**	*e*P	**P**	**16 44 02.0**	**+0.5**
	comp=Z,7.5nm,1.0s,mb4.7						
BRTR	**Keskin Array B**	**60.66**	**311**	P	**P**	**16 44 01.4**	**-2.8**
	comp=Z,1.7nm,0.9s,mb4.2,baz=125,slow=7.2,SNR=7.4						
BRTR				pP	pP	16 44 11.2	-1.7
	comp=Z,4.0nm,1.0s,baz=129,slow=7.9,SNR=11						
STKA	**Stephens Creek**	**61.84**	**133**	P	**P**	**16 44 12.8**	**+0.5**
	comp=Z,1.8nm,0.9s,mb4.2,baz=304,slow=7.3,SNR=3.8						
STKA				pP	pP	16 44 23.3	+2.3
	comp=Z,4.8nm,0.8s,baz=294,slow=11,SNR=4.5						
STKA				LR	LR	17 16 33.9	
	comp=Z,257nm,18.4s,MS4.4,baz=208,slow=41						
STKA	**Stephens Creek**	**61.84**	**133**	P	**P**	**16 44 12.8**	**+0.5**
STKA				pP	pP	16 44 23.3	+2.3
STKA				LR	LR	17 16 33.9	
MBAR	**Mbarara**	**61.90**	**265**	*i* P	**P**	**16 44 14.1**	**+1.1**
MOS	**Moscow**	**63.66**	**329**	*e*P	**P**	**16 44 28.5**	**+4.5**
MOS				pmax	pmax		
	comp=Z,61nm,1.3s,mb5.5						
OBN	**Obninsk**	**63.94**	**328**	*e*P	**P**	**16 44 26.4**	**+0.5**
OBN				*e*S	**S**	**16 53 01.1**	**+2.8**
OBN				pmax	pmax		
	comp=Z,33nm,1.5s,mb5.1						
AKASG	**Malin Array Be**	**66.58**	**322**	P	**P**	**16 44 41.4**	**-1.6**
	comp=Z,0.4nm,0.6s,mb3.6,baz=85,slow=5.0,SNR=4.8						
AKASG				pP	pP	16 44 49.8	-1.8
	comp=Z,4.3nm,1.0s,baz=93,slow=4.3,SNR=5.1						
IDI	**Anoyia**	**66.71**	**305**	P	**P**	**16 44 42.6**	**-1.5**
	comp=Z,22nm,1.2s,mb5.1,baz=245,slow=22,SNR=2.3						
TIXI	**Tiksi**	**67.13**	**12**	⇑*i*P	**P**	**16 44 45.5**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,42nm,0.9s,mb5.5						
MLR	**Muntele Rosu**	**67.48**	**316**	P	**P**	**16 44 49.7**	**+1.0**
	comp=Z,7.2nm,1.1s,mb4.6,baz=39,slow=5.8,SNR=3.2						
MLR				pP	pP	16 44 56.5	-0.9
	comp=Z,30nm,1.2s,baz=43,slow=2.3,SNR=12						
LSZ	**Lusaka**	**67.64**	**250**	*e*P	**P**	**16 44 50.6**	**+0.4**
LSZ				*e**PP	pP	16 44 59.6	+0.7
LSZ				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
LSZ	**Lusaka**	**67.64**	**250**	*e*P	**P**	**16 44 50.6**	**+0.4**
	comp=Z,5.6nm,1.1s,mb4.5						
LSZ				*e*pP	pP	16 44 59.6	+0.7
KOLS	**Kolonicke sedl**	**70.57**	**319**	*i* pP	pP	16 45 16.2	-0.2
KOLS				*e*		16 45 27.5	
CRVS	**Cervenica-Dubn**	**71.10**	**319**	*e*	pP	16 45 17.0	-2.6
FINES	**FINESS Array B**	**71.38**	**332**	P	**P**	**16 45 11.8**	**-0.6**
	comp=Z,1.4nm,0.8s,mb3.9,baz=112,slow=7.5,SNR=3.4						
FINES				pP	pP	16 45 19.8	-1.2
	comp=Z,6.4nm,1.1s,baz=135,slow=11,SNR=4.0						
FINES	**FINESS Array B**	**71.38**	**332**	P	**P**	**16 45 11.8**	**-0.6**
FINES				*PP	pP	16 45 19.9	-1.2
PSZ	**Piszkesteto**	**71.99**	**318**	*e*P	**P**	**16 45 15.0**	**-1.3**
PSZ				*e**PP	pP	16 45 24.0	-0.9
PSZ				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
PSZ	**Piszkesteto**	**71.99**	**318**	*e*P	**P**	**16 45 14.9**	**-1.3**
	comp=Z,10nm,1.2s,mb4.6						
PSZ				*e*pP	pP	16 45 24.0	-0.9
OJC	**Ojcow**	**72.36**	**320**	*e*P	pP	16 45 25.9	-1.2
LBTB	**Lobatse**	**72.81**	**241**	*e*P	**P**	**16 45 21.6**	**0.0**
LBTB				*e**PP	pP	16 45 31.1	+0.8
LBTB				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
LBTB	**Lobatse**	**72.81**	**241**	*e*P	**P**	**16 45 21.6**	**0.0**
	comp=Z,12nm,1.2s,mb4.7						
LBTB				*e*pP	pP	16 45 31.1	+0.8
OKC	**Ostrava-Krasne**	**73.37**	**319**	*e*pP	pP	16 45 32.6	-0.5
ZST	**Bratislava**	**73.88**	**318**	*e*pP	pP	16 45 35.7	-0.3
ARCES	**ARCESS Array B**	**74.15**	**340**	P	**P**	**16 45 29.1**	**+0.6**
	comp=Z,5.4nm,1.1s,mb4.4,baz=97,slow=7.3,SNR=5.4						
ARCES				pP	pP	16 45 36.6	-0.6
	comp=Z,3.9nm,0.9s,baz=304,slow=13,SNR=3.2						
DPC	**Dobruska-Polom**	**74.59**	**320**	*e*pP	pP	16 45 39.7	-0.5
KSP	**Ksiaz**	**74.66**	**320**	*e*P	pP	16 45 36.6	-3.9
KSP				*e*	sP	16 45 39.7	-3.9
UPC	**Upice**	**74.81**	**320**	*e*pP	pP	16 45 37.9	-3.5
PRU	**Pruhonice**	**75.70**	**319**	*e*pP	pP	16 45 46.2	-0.4
BRG	**Berggiesshubel**	**76.15**	**320**	*e*P	pP	16 45 45.2	-3.8
	comp=Z,21nm,1.3s						
BRG				*e*	sP	16 45 49.5	-2.5
GERES	**GERESS Array B**	**76.18**	**318**	P	**P**	**16 45 39.2**	**-1.3**
	comp=Z,1.1nm,0.8s,mb3.8,baz=117,slow=3.0,SNR=7.1						
GERES				pP	pP	16 45 48.6	-0.6
	comp=Z,5.6nm,1.0s,baz=104,slow=5.5,SNR=11						
KHC	**Kasperske Hory**	**76.28**	**318**	*e*pP	pP	16 45 49.3	-0.5
BILL	**Bilibino**	**76.33**	**22**	*i* P	**P**	**16 45 41.8**	**+0.8**
BILL				pmax	pmax		
	comp=Z,2.0nm,1.8s,mb3.8						
CLL	**Collm**	**76.77**	**321**	*e**PP	pP	16 45 48.0	-4.5
CLL				*e**SP	sP	16 45 51.0	-4.5
HFS	**Hagfors**	**77.06**	**330**	P	**P**	**16 45 43.6**	**-1.7**
	comp=Z,4.5nm,1.1s,mb4.3,baz=249,slow=13,SNR=2.5						
HFS				pP	pP	16 45 53.3	-0.7
	comp=Z,3.3nm,0.8s,baz=221,slow=14,SNR=3.1						
NKC	**Novy Kostel**	**77.06**	**320**	*e*pP	pP	16 45 50.9	-3.3
NOA	**NORSAR Array B**	**78.36**	**331**	P	**P**	**16 45 54.2**	**+1.8**
	comp=Z,2.3nm,0.9s,mb4.1,baz=33,slow=11,SNR=2.8						
NOA				pP	pP	16 45 58.9	-2.2
	comp=Z,3.5nm,1.0s,baz=95,slow=5.4,SNR=4.5						
MAW	**Mawson**	**78.64**	**191**	pP	pP	16 46 04.7	+2.1
	comp=Z,2.3nm,0.6s,baz=231,slow=11,SNR=2.3						
DAVOX	**Davos**	**78.70**	**316**	P	**P**	**16 45 53.8**	**-0.7**
	comp=Z,3.1nm,0.8s,mb4.3,baz=104,slow=4.2,SNR=3.6						
DAVOX				pP	pP	16 46 03.6	+0.2
	comp=Z,7.4nm,1.1s,baz=106,slow=4.7,SNR=5.6						
LPL	**La Plagne**	**80.92**	**315**	*e*P	**P**	**16 46 06.9**	**+0.4**
	comp=Z,108nm,1.4s,mb5.3						
LPL	**La Plagne**	**80.92**	**315**	*e*P	**P**	**16 46 06.9**	**+0.4**
LPL				pmax	pmax		
	comp=Z,54nm,1.4s,mb5.3						
EKA	**Eskdalemuir Ar**	**86.23**	**325**	P	**P**	**16 46 32.8**	**-0.4**
	comp=Z,2.0nm,0.8s,mb4.4,baz=10.0,slow=29,SNR=3.3						
ESDC	**Sonseca Array**	**89.43**	**310**	pP	pP	16 46 58.7	+0.7
	comp=Z,1.1nm,0.7s,baz=56,slow=5.3,SNR=2.4						
ILAR	**Eielson Array**	**95.00**	**22**	P	**P**	**16 47 13.9**	**-0.1**
	comp=Z,0.3nm,0.7s,mb3.9,baz=304,slow=5.0,SNR=5.3						
ILAR				pP	pP	16 47 25.6	+2.7
	comp=Z,0.6nm,1.0s,baz=302,slow=6.1,SNR=3.2						
DBIC	**Dimbokro**	**95.98**	**278**	P	**P**	**16 47 21.3**	**+1.5**
	comp=Z,2.1nm,1.0s,mb4.5,baz=87,slow=14,SNR=2.5						
INK	**Inuvik**	**97.04**	**16**	P	**P**	**16 47 23.7**	**+0.5**
	comp=Z,1.8nm,1.0s,mb4.5,baz=292,slow=5.4,SNR=5.5						
YKA	**Yellowknife Ar**	**106.37**	**13**	PP	PP	16 52 27.0	-5.6
	comp=Z,0.4nm,0.8s,baz=337,slow=7.5,SNR=4.5						
ULM	**Lac du Bonnet**	**121.20**	**6**	PKP	PKPdf	16 52 45.9	-2.6
	comp=Z,1.8nm,0.9s,baz=35,slow=9.6,SNR=2.5						
PDAR	**Pinedale Array**	**125.37**	**20**	PKP	PKPdf	16 52 53.2	-3.6
	comp=Z,0.7nm,0.9s,baz=135,slow=1.3,SNR=3.2						
PDAR	**Pinedale Array**	**125.37**	**20**	PKP	PKPdf	16 52 53.2	-3.6
NVAR	**Mina Array Bea**	**125.45**	**29**	PKP	PKPdf	16 52 54.4	-2.7
	comp=Z,0.2nm,0.4s,slow=1.8,SNR=4.3						
TXAR	**Lajitas Array**	**139.51**	**22**	PKP	PKPdf	16 53 21.8	-1.9
	comp=Z,2.3nm,1.2s,baz=63,slow=4.0,SNR=3.7						
TXAR				PP	PP	16 56 14.2	-3.4
	comp=Z,0.5nm,1.0s,baz=63,slow=2.8,SNR=3.7						
TXAR	**Lajitas Array**	**139.51**	**22**	PKP	PKPdf	16 53 21.8	-1.9
TXAR				PP	PP	16 56 14.2	-3.4
BDFB	**Brasilia**	**140.48**	**256**	PKP	PKPdf	16 53 22.7	-3.0
	comp=Z,1.9nm,0.8s,baz=194,slow=10.0,SNR=2.5						
CPUP	**Villa Florida**	**146.02**	**234**	PKPbc	PKPbc	16 53 33.1	+1.8
	comp=Z,0.0nm,0.3s,baz=293,slow=14,SNR=1.8						
CPUP				pPKPbc		16 53 41.8	
	comp=Z,0.0nm,0.3s,baz=245,slow=15,SNR=1.6						
LPAZ	**La Paz**	**159.26**	**246**	PKP	PKPdf	16 53 54.4	-0.1
	comp=Z,0.4nm,0.5s,baz=50,slow=7.4,SNR=2.5						
LPAZ				PKPab	PKPab	16 54 31.2	+2.0
	comp=Z,1.0nm,0.8s,baz=132,slow=5.7,SNR=2.3						
LPAZ	**La Paz**	**159.26**	**246**	PKP	PKPdf	16 53 54.4	-0.1
LPAZ				PKPab	PKPab	16 54 31.2	+2.0

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*IDC **27** 16:38:19.3±0.6, 5.85N×93.40E, mb4.2/17, mb1 4.3/17, mb1mx4.2/24, Error ellipse: s-maj=25.8km s-min=13.4km az=45.0*

ISC 27 16:38:22.5±0.5**, 5.83N**±0.09×**93.5E**±0.1**, h33^{km}, n42, σ1^{s}01**/42**, mb4.2**/22**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
QIZ	**Qiongzhong**	**20.66**	**49**	P	**P**	**16 43 01.6**	**-0.5**
LSA	**Lhasa**	**23.84**	**355**	*e*P	**P**	**16 43 35.5**	**+1.9**
	9.0nm,0.8s,mb4.2						
PTH	**Pithoragarh**	**26.70**	**334**	*e*P	**P**	**16 44 02.3**	**+1.5**
JOW	**Kunigami**	**39.17**	**54**	P	**P**	**16 45 49.9**	**+0.8**
	20nm,1.0s,mb4.8,baz=126,slow=27,SNR=3.0						
JOW	**Kunigami**	**39.17**	**54**	P	**P**	**16 45 49.9**	**+0.8**
AAK	**Ala-Archa**	**40.32**	**338**	*e*P	**P**	**16 45 58.3**	**-0.1**
	4.4nm,1.3s,mb4.0						
SONM	**Songino Array**	**43.29**	**13**	P	**P**	**16 46 21.8**	**-1.0**
	1.4nm,1.0s,mb3.7,baz=189,slow=9.0,SNR=6.7						
SONM	**Songino Array**	**43.29**	**13**	P	**P**	**16 46 21.8**	**-1.0**
NWAO	**Narrogin (SRO)**	**44.67**	**151**	P	**P**	**16 46 33.5**	**-0.7**
	13nm,1.0s,mb4.7,baz=104,slow=22,SNR=2.2						
NWAO	**Narrogin (SRO)**	**44.67**	**151**	P	**P**	**16 46 33.5**	**-0.7**
WRA	**Warramunga Arr**	**47.66**	**124**	P	**P**	**16 46 58.3**	**+0.3**
	2.1nm,0.3s,mb4.6,baz=305,slow=8.8,SNR=21						
WRA	**Warramunga Arr**	**47.66**	**124**	P	**P**	**16 46 58.3**	**+0.3**
WRAB	**Tennant Creek**	**47.67**	**124**	*e*P	**P**	**16 46 58.4**	**+0.4**
	4.3nm,0.4s,mb4.8						
ZAL	**Zalesovo**	**48.47**	**353**	P	**P**	**16 47 03.6**	**-0.2**
	1.8nm,0.3s,mb4.5,baz=306,slow=6.7,SNR=3.5						
ZAL	**Zalesovo**	**48.47**	**353**	P	**P**	**16 47 03.7**	**-0.1**
ASAR	**Alice Springs**	**49.16**	**128**	P	**P**	**16 47 09.6**	**0.0**
	1.4nm,0.4s,mb4.3,baz=301,slow=8.1,SNR=24						
ASAR	**Alice Springs**	**49.16**	**128**	P	**P**	**16 47 09.6**	**0.0**
BVAR	**Borovoye Array**	**50.70**	**342**	P	**P**	**16 47 19.2**	**-1.8**
	0.7nm,0.8s,mb3.7,baz=146,slow=5.3,SNR=4.3						
BVAR	**Borovoye Array**	**50.70**	**342**	P	**P**	**16 47 19.2**	**-1.8**
BRVK	**Borovoye**	**50.76**	**342**	P	**P**	**16 47 21.3**	**-0.1**
	8.2nm,1.0s,mb4.6						
CHKZ	**Chkalovo**	**51.20**	**343**	*e*P	**P**	**16 47 24.4**	**-0.3**
	1.5nm,0.8s,mb4.0						
BOD	**Bodaibo**	**54.28**	**13**	*i* P	**P**	**16 47 45.3**	**-2.2**
PMG	**Port Moresby**	**55.61**	**106**	P	**P**	**16 47 57.1**	**-0.7**
	1.4nm,0.4s,mb4.3,baz=155,slow=10,SNR=6.3						
PMG	**Port Moresby**	**55.61**	**106**	P	**P**	**16 47 57.1**	**-0.7**
KMBO	**Kilima Mbogo**	**56.55**	**265**	P	**P**	**16 48 03.1**	**-1.5**
	0.5nm,0.3s,mb4.0,baz=56,slow=22,SNR=2.5						
KMBO	**Kilima Mbogo**	**56.55**	**265**	P	**P**	**16 48 03.1**	**-1.5**
STKA	**Stephens Creek**	**59.21**	**132**	P	**P**	**16 48 24.2**	**+1.2**
	4.1nm,0.9s,mb4.4,baz=310,slow=11,SNR=2.6						
STKA	**Stephens Creek**	**59.21**	**132**	P	**P**	**16 48 24.2**	**+1.2**
BRTR	**Keskin Array B**	**63.26**	**312**	P	**P**	**16 48 49.3**	**-1.0**
	0.5nm,0.8s,mb3.7,baz=124,slow=8.9,SNR=2.8						
BRTR	**Keskin Array B**	**63.26**	**312**	P	**P**	**16 48 49.3**	**-1.0**
MLR	**Muntele Rosu**	**70.16**	**316**	P	**P**	**16 49 34.9**	**+1.1**
	1.5nm,0.7s,mb4.1,baz=189,slow=17,SNR=2.5						
MLR	**Muntele Rosu**	**70.16**	**316**	P	**P**	**16 49 34.9**	**+1.1**
FINES	**FINESS Array B**	**74.19**	**333**	P	**P**	**16 49 57.0**	**-0.5**
	2.3nm,0.8s,mb4.1,baz=101,slow=7.1,SNR=3.9						
FINES	**FINESS Array B**	**74.19**	**333**	P	**P**	**16 49 57.0**	**-0.4**
ARCES	**ARCESS Array B**	**76.95**	**340**	P	**P**	**16 50 13.1**	**0.0**
	0.9nm,0.6s,mb3.9,baz=106,slow=6.6,SNR=5.3						
ARCES	**ARCESS Array B**	**76.95**	**340**	P	**P**	**16 50 13.1**	**0.0**
GERES	**GERESS Array B**	**78.89**	**319**	P	**P**	**16 50 24.7**	**+0.5**
	0.3nm,0.6s,mb3.4,baz=90,slow=6.7,SNR=4.2						
GERES	**GERESS Array B**	**78.89**	**319**	P	**P**	**16 50 24.7**	**+0.5**
HFS	**Hagfors**	**79.87**	**330**	P	**P**	**16 50 29.9**	**+0.6**
	6.4nm,1.2s,mb4.4,baz=212,slow=14,SNR=2.4						
HFS	**Hagfors**	**79.87**	**330**	P	**P**	**16 50 29.9**	**+0.7**
DAVOX	**Davos**	**81.39**	**316**	P	**P**	**16 50 39.5**	**+1.9**
	0.9nm,0.5s,mb3.9,baz=19,slow=10,SNR=3.2						
DAVOX	**Davos**	**81.39**	**316**	P	**P**	**16 50 39.5**	**+1.9**

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*MOS **27** 16:38:22.0±1.0, 5.59N×93.21E, h33^{km}, mb4.6/8, Error ellipse: s-maj=21.6km s-min=12.0km az=113.1*

*NEIC **27** 16:38:25.0±0.4, 5.84N×93.43E, mb4.6/7, Error ellipse: s-maj=13.1km s-min=7.6km az=49.0*

*IDC **27** 16:38:31.9±0.6, 6.08N×93.67E, mb4.4/23, mb1 4.4/24, mb1mx4.4/29, Error ellipse: s-maj=21.0km s-min=12.2km az=45.0*

*BJI **27** 16:38:32.5, 5.97N×93.32E, h26^{km}, mB5.2, mb5.0, Ms4.7, Msz4.4*

ISC 27 16:38:34.8±0.4**, 6.04N**±0.06×**93.69E**±0.07**, h33^{km}, n70, σ1^{s}16**/69**, mb4.6**/34**, MS4.5**/6**, 2C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**13.37**	**22**	*e*Pn	**P**	**16 41 41.0**	**-3.8**
	4.2nm,0.6s						
CMAR	**Chiang Mai Arr**	**13.37**	**22**	Pn	**P**	**16 41 41.8**	**-3.1**
	baz=233,slow=14,SNR=18						
KKTK	**Khon Kaen**	**13.60**	**40**	P	**P**	**16 41 47.0**	**-1.0**
	370nm,0.8s						
SHL	**Shillong**	**19.50**	**355**	*e*P	**P**	**16 42 56.0**	**-6.1**
QIZ	**Qiongzhong**	**20.36**	**49**	P	**P**	**16 43 13.5**	**+2.1**
KMI	**Kunming**	**20.87**	**24**	P	**P**	**16 43 18.0**	**+1.4**
KMI				AMB	AMB		
	comp=Z,48nm,0.9s						
KMI				LR	LR		
	comp=N,1μm,14.9s,MS4.5						
KMI				LR	LR		
	comp=E,736nm,11.5s,MS4.5						
KMI				LR	LR		
	comp=Z,741nm,16.4s,MS4.2						
LSA	**Lhasa**	**23.66**	**354**	*e*pP	**P**	**16 43 46.5**	**+2.1**
GYA	**Guiyang**	**23.79**	**30**	⇑*i*P	**P**	**16 43 46.5**	**+0.9**
GYA				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.0						
CD2	**Chengdu**	**26.49**	**20**	P	**P**	**16 44 11.0**	**-0.2**
CD2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.2						
ENH	**Enshi**	**28.33**	**30**	*e*P	**P**	**16 44 27.0**	**-0.9**
	comp=Z,16nm,0.8s,mb4.7						
LZH	**Lanzhou**	**31.33**	**16**	*e*P	**P**	**16 44 54.5**	**-0.1**
LZH				AMB	AMB		
	comp=Z,31nm,1.2s,mb5.0						
LZH				LR	LR		
	comp=E,623nm,14.0s						
LZH				LR	LR		
	comp=Z,1μm,15.5s,MS4.7						
GTA	**Gaotai**	**33.68**	**9**	*e*P	**P**	**16 45 15.0**	**0.0**
GTA				AMB	AMB		
	comp=Z,12nm,0.6s,mb5.0						
HHC	**Hu-ho-hao-te**	**38.18**	**22**	*e*P	**P**	**16 45 55.0**	**+1.9**
HHC				AP	pP	16 46 04.5	+1.6
HHC				XP	sP	16 46 09.0	+1.9
HHC				AMB	AMB		
	comp=Z,28nm,1.0s,mb5.0						
HHC				AMB	AMB		
	comp=Z,267nm,9.2s						
HHC				LR	LR		
	comp=N,450nm,13.9s,MS4.7						
HHC				LR	LR		
	comp=E,599nm,11.9s,MS4.7						
HHC				LR	LR		
	comp=Z,469nm,15.8s,MS4.4						
JOW	**Kunigami**	**38.88**	**54**	P	**P**	**16 46 00.5**	**+1.5**
	comp=Z,14nm,0.8s,mb4.8,baz=213,slow=8.6,SNR=2.7						
JOW	**Kunigami**	**38.88**	**54**	P	**P**	**16 46 00.5**	**+1.5**
BJI	**Beijing**	**39.43**	**28**	P	**P**	**16 46 05.5**	**+2.0**
BJI				AMB	AMB		
	comp=Z,19nm,1.1s,mb4.7						
BJI				LR	LR		
	comp=N,469nm,15.8s,MS4.6						
BJI				LR	LR		
	comp=E,453nm,15.8s,MS4.6						
BJI				LR	LR		

	comp=Z,207nm,21.7s						
AAK	**Ala-Archa**	**40.21**	**338**	*e*P	**P**	**16 46 08.3**	**-1.6**
AAK				*e*pP	Px	16 46 10.7	
SONM	**Songino Array**	**43.04**	**13**	P	**P**	**16 46 33.7**	**+0.5**
	comp=Z,3.3nm,0.7s,mb4.2,baz=194,slow=8.8,SNR=15						
SONM	**Songino Array**	**43.04**	**13**	P	**P**	**16 46 33.7**	**+0.5**
SNY	**Shenyang**	**44.45**	**32**	⇑P	**P**	**16 46 44.8**	**+0.1**
SNY				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
SNY				LR	LR		
	comp=N,480nm,18.0s,MS4.7						
SNY				LR	LR		
	comp=E,540nm,15.9s,MS4.7						
SNY				LR	LR		
	comp=Z,570nm,16.1s,MS4.6						
NWAO	**Narrogin (SRO)**	**44.74**	**151**	P	**P**	**16 46 48.6**	**+1.5**
	comp=Z,7.3nm,0.9s,mb4.5,baz=39,slow=19,SNR=2.9						
NWAO	**Narrogin (SRO)**	**44.74**	**151**		**P**	**16 46 48.7**	**+1.6**
CN2	**Changchun**	**46.82**	**32**	*e*P	**P**	**16 47 03.5**	**+0.1**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
CN2				LR	LR		
	comp=N,380nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=E,530nm,13.0s,MS4.8						
CN2				LR	LR		
	comp=Z,360nm,15.0s,MS4.5						
WRA	**Warramunga Arr**	**47.59**	**124**	P	**P**	**16 47 09.9**	**+0.1**
	comp=Z,8.7nm,0.8s,mb4.8,baz=303,slow=9.3,SNR=14						
WRA	**Warramunga Arr**	**47.59**	**124**		**P**	**16 47 09.9**	**+0.1**
WRAB	**Tennant Creek**	**47.60**	**124**	*e*pP	**P**	**16 47 08.5**	**-1.4**
ZAL	**Zalesovo**	**48.30**	**353**	P	**P**	**16 47 15.1**	**+0.2**
	comp=Z,3.6nm,0.5s,mb4.7,baz=306,slow=6.7,SNR=9.6						
ZAL	**Zalesovo**	**48.30**	**353**		**P**	**16 47 15.1**	**+0.2**
ASAR	**Alice Springs**	**49.11**	**128**	P	**P**	**16 47 20.9**	**-0.6**
	comp=Z,3.5nm,0.8s,mb4.4,baz=301,slow=7.4,SNR=14						
ASAR	**Alice Springs**	**49.11**	**128**	P	**P**	**16 47 20.9**	**-0.6**
MDJ	**Mudanjiang**	**49.58**	**33**	*e*P	**P**	**16 47 24.2**	**-0.6**
	comp=Z,19nm,1.1s,mb5.0						
BVAR	**Borovoye Array**	**50.58**	**342**	P	**P**	**16 47 30.7**	**-1.6**
	comp=Z,3.7nm,0.7s,mb4.5,baz=149,slow=8.6,SNR=16						
BVAR	**Borovoye Array**	**50.58**	**342**	P	**P**	**16 47 30.7**	**-1.6**
BRVK	**Borovoye**	**50.64**	**342**	*e*pP	**P**	**16 47 32.3**	**-0.5**
CHKZ	**Chkalovo**	**51.07**	**343**	*e*pP	**P**	**16 47 34.5**	**-1.6**
KLR	**Kul'dur**	**53.69**	**30**	*e*P	**P**	**16 47 53.8**	**-1.9**
BOD	**Bodaibo**	**54.03**	**13**	*e*	**P**	**16 47 57.2**	**-0.9**
PMG	**Port Moresby**	**55.45**	**106**	P	**P**	**16 48 08.8**	**-0.2**
	comp=Z,5.6nm,0.5s,mb4.8,baz=350,slow=4.4,SNR=9.6						
PMG	**Port Moresby**	**55.45**	**106**		**P**	**16 48 08.8**	**-0.2**
KMBO	**Kilima Mbogo**	**56.79**	**265**	P	**P**	**16 48 20.0**	**+1.3**
	comp=Z,0.9nm,0.6s,mb4.0,baz=24,slow=7.7,SNR=3.0						
KMBO	**Kilima Mbogo**	**56.79**	**265**		**P**	**16 48 20.0**	**+1.3**
ASAJ	**Asahikawa**	**57.09**	**40**	P	**P**	**16 48 20.0**	**-0.5**
	comp=Z,11nm,0.9s,mb4.9,baz=354,slow=15,SNR=2.3						
ASAJ	**Asahikawa**	**57.09**	**40**	P	**P**	**16 48 20.0**	**-0.5**
ASAJ				pmax	pmax		
	comp=Z,11nm,0.9s						
CTA	**Charters Tower**	**57.83**	**118**	P	**P**	**16 48 25.2**	**-0.7**
	comp=Z,3.0nm,0.9s,mb4.3,baz=289,slow=14,SNR=4.6						
STKA	**Stephens Creek**	**59.19**	**133**	P	**P**	**16 48 34.1**	**-1.2**
	comp=Z,3.8nm,0.8s,mb4.5,baz=316,slow=10.0,SNR=5.1						
STKA	**Stephens Creek**	**59.19**	**133**	P	**P**	**16 48 34.1**	**-1.2**
YAK	**Yakutsk**	**61.87**	**18**	*e*P	**P**	**16 48 51.9**	**-1.2**
YAK				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
YAK	**Yakutsk**	**61.87**	**18**	*e*P	**P**	**16 48 52.7**	**-0.4**
BRTR	**Keskin Array B**	**63.29**	**312**	P	**P**	**16 49 01.8**	**-1.1**
	comp=E,1.6nm,0.6s,mb4.3,baz=126,slow=7.3,SNR=7.6						
BRTR	**Keskin Array B**	**63.29**	**312**		**P**	**16 49 01.8**	**-1.1**
IDI	**Anoyia**	**69.25**	**305**	P	**P**	**16 49 41.1**	**+0.3**
	comp=E,8.2nm,0.9s,mb4.7,baz=151,slow=5.6,SNR=4.9						
AKASG	**Malin Array Be**	**69.31**	**322**	P	**P**	**16 49 39.3**	**-1.6**
	comp=E,1.1nm,0.6s,mb4.0,baz=88,slow=5.1,SNR=7.6						
AKASG	**Malin Array Be**	**69.31**	**322**	P	**P**	**16 49 39.3**	**-1.6**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MLR	**Muntele Rosu**	**70.17**	**316**	P	**P**	**16 49 46.8**	**+0.6**
	comp=Z,3.2nm,0.8s,mb4.3,baz=84,slow=9.8,SNR=4.0						
MLR	**Muntele Rosu**	**70.17**	**316**		**P**	**16 49 46.8**	**+0.6**
FINES	**FINESS Array B**	**74.12**	**332**	P	**P**	**16 50 09.2**	**-0.1**
	comp=Z,1.7nm,0.6s,mb4.2,baz=98,slow=6.6,SNR=8.8						
FINES	**FINESS Array B**	**74.12**	**332**		**P**	**16 50 09.3**	**-0.1**
OJC	**Ojcow**	**75.09**	**320**	*e*P	**P**	**16 50 22.0**	**+6.8**
ARCES	**ARCESS Array B**	**76.83**	**340**	P	**P**	**16 50 25.5**	**+0.7**
	comp=Z,2.5nm,0.8s,mb4.2,baz=90,slow=6.2,SNR=12						
ARCES	**ARCESS Array B**	**76.83**	**340**		**P**	**16 50 25.5**	**+0.7**
GERES	**GERESS Array B**	**78.89**	**318**	P	**P**	**16 50 37.5**	**+1.0**
	comp=Z,1.5nm,0.6s,mb4.1,baz=104,slow=5.5,SNR=11						
GERES	**GERESS Array B**	**78.89**	**318**		**P**	**16 50 37.5**	**+0.9**
KHC	**Kasperske Hory**	**78.99**	**319**	*e*pP	**P**	**16 50 36.5**	**-0.6**
HFS	**Hagfors**	**79.81**	**330**	P	**P**	**16 50 42.2**	**+0.9**
	comp=Z,2.2nm,0.8s,mb4.1,baz=108,slow=9.4,SNR=5.5						
HFS	**Hagfors**	**79.81**	**330**		**P**	**16 50 42.2**	**+0.9**
DAVOX	**Davos**	**81.39**	**316**	P	**P**	**16 50 50.2**	**+0.3**
	comp=Z,3.6nm,0.6s,mb4.5,baz=164,slow=3.9,SNR=7.7						
DAVOX	**Davos**	**81.39**	**316**	P	**P**	**16 50 50.2**	**+0.3**
ILAR	**Eielson Array**	**96.61**	**22**	P	**P**	**16 52 04.5**	**+2.2**
	comp=Z,0.2nm,0.6s,mb3.8,baz=287,slow=4.6,SNR=6.3						
INK	**Inuvik**	**98.87**	**16**	P	**P**	**16 52 13.7**	**+1.2**
	comp=Z,0.7nm,0.7s,mb4.3,baz=335,slow=7.5,SNR=5.1						
CPUP	**Villa Florida**	**145.77**	**231**	PKPbc	PKPbc	16 58 14.6	+3.0
	comp=Z,0.0nm,0.3s,baz=160,slow=14,SNR=1.6						

IDC ***27*** *16:39:44.2±0.4, 4.83N×94.20E, mb4.6/27, mb1 4.6/28, mb1mx4.6/31, ML4.7/1, Error ellipse: s-maj=19.6km s-min=11.6km az=50.0*

MOS ***27*** *16:39:47.4±0.8, 4.88N×94.29E, h33*^{km}*, mb4.8/32, Error ellipse: s-maj=15.4km s-min=7.9km az=121.8*

NEIC ***27*** *16:39:49.5±1.7, 4.80N×94.21E, h35*^{km}*±14*^{km}*, mb4.7/15, Error ellipse: s-maj=9.4km s-min=5.8km az=50.0*

BJI ***27*** *16:39:50.9, 5.22N×94.32E, h35*^{km}*, mB5.2, mb5.0, Ms4.7, Msz4.4*

ISC 27 16:39:47.3±0.3**, 4.83N**±0.06×**94.24E**±0.06**, h33**^{km}**, n113,** σ**0**^{s}**89**/103**, mb4.7**/47**, MS4.5**/1**, 3C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**14.30**	**18**	*e*Pn	**P**	**16 43 10.7**	**+1.1**
	20nm,0.8s						
CMAR	**Chiang Mai Arr**	**14.30**	**18**	Pn	**P**	**16 43 13.4**	**+3.8**
	1.2nm,0.3s,baz=214,slow=12,SNR=12						
CMAR	**Chiang Mai Arr**	**14.30**	**18**	P	**P**	**16 43 13.5**	**+3.8**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KMI	**Kunming**	**21.77**	**21**	P	**P**	**16 44 39.0**	**+0.9**
KMI				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.3						
POO	**Poona**	**24.13**	**306**	⇑*i*	**P**	**16 45 05.0**	**+3.6**
GYA	**Guiyang**	**24.57**	**28**	⇑*i*P	**P**	**16 45 07.0**	**+1.3**
GYA				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.0						
CD2	**Chengdu**	**27.45**	**18**	P	**P**	**16 45 31.8**	**-0.7**
CD2				AMB	AMB		
	comp=Z,30nm,0.9s,mb4.8						
ENH	**Enshi**	**29.11**	**28**	*e*P	**P**	**16 45 46.3**	**-1.0**
	comp=Z,16nm,0.7s,mb4.9						
XAN	**Xi'an**	**32.11**	**23**	P	**P**	**16 46 12.0**	**-1.9**
XAN				AP	pP	16 46 23.5	0.0
XAN				AMB	AMB		
	comp=Z,33nm,0.7s,mb5.3						
GTA	**Gaotai**	**34.80**	**8**	*e*P	**P**	**16 46 37.3**	**+0.3**
GTA				AP	pP	16 46 42.3	-4.4
GTA				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
GTA				AMB	AMB		
	comp=Z,201nm,4.2s						
GTA				LR	LR		
	comp=N,635nm,17.5s,MS4.6						
GTA				LR	LR		
	comp=E,742nm,17.9s,MS4.6						
GTA				LR	LR		
	comp=Z,657nm,17.5s,MS4.4						
JOW	**Kunigami**	**39.16**	**52**	P	**P**	**16 47 15.4**	**+1.7**
	comp=Z,18nm,0.8s,mb4.9,baz=130,slow=20,SNR=2.4						
AAK	**Ala-Archa**	**41.53**	**338**	*e*P	**P**	**16 47 34.2**	**+0.8**
AAK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
AAK	**Ala-Archa**	**41.53**	**338**	*e*P	**P**	**16 47 34.2**	**+0.8**
	comp=Z,2.4nm,0.6s,mb4.0						
NWAO	**Narrogin (SRO)**	**43.42**	**151**	P	**P**	**16 47 48.3**	**-0.6**
	comp=Z,11nm,1.1s,mb4.5,baz=315,slow=14,SNR=3.3						
NWAO	**Narrogin (SRO)**	**43.42**	**151**	P	**P**	**16 47 48.3**	**-0.7**
NWAO				pmax	pmax		
	comp=Z,11nm,1.1s						
SONM	**Songino Array**	**44.10**	**12**	P	**P**	**16 47 54.4**	**+0.2**
	comp=Z,8.3nm,0.8s,mb4.5,baz=192,slow=8.4,SNR=19						
SONM				PcP	PcP	16 49 39.4	-0.1
	comp=Z,2.4nm,0.8s,baz=201,slow=4.1,SNR=4.1						
ZAK	**Zakamensk**	**46.03**	**8**	*e*P	**P**	**16 48 08.7**	**-0.9**
WRA	**Warramunga Arr**	**46.47**	**123**	P	**P**	**16 48 13.3**	**-0.1**
	comp=Z,14nm,0.9s,mb4.9,baz=302,slow=9.0,SNR=11						
WRA				PcP	PcP	16 49 47.9	-0.2
	comp=Z,1.4nm,0.6s,baz=315,slow=2.9,SNR=4.5						
WRA	**Warramunga Arr**	**46.47**	**123**	P	**P**	**16 48 13.3**	**-0.1**
WRA						16 49 47.9	
WRA				pmax	pmax		
	comp=Z,14nm,0.9s						
WRA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CN2	**Changchun**	**47.56**	**31**	*e*P	**P**	**16 48 21.8**	**+0.1**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.1						
ASAR	**Alice Springs**	**47.93**	**128**	P	**P**	**16 48 24.3**	**-0.6**
	comp=Z,4.0nm,0.6s,mb4.6,baz=298,slow=7.7,SNR=6.3						
ASAR				PcP	PcP	16 49 53.1	-0.1
	comp=Z,2.5nm,0.6s,baz=304,slow=3.5,SNR=6.3						
ZAL	**Zalesovo**	**49.56**	**353**	P	**P**	**16 48 36.8**	**-0.2**
	comp=Z,4.7nm,0.7s,mb4.6,baz=291,slow=7.1,SNR=6.2						
ZAL	**Zalesovo**	**49.56**	**353**	P	**P**	**16 48 36.8**	**-0.2**
ZAL				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BVAR	**Borovoye Array**	**51.89**	**342**	P	**P**	**16 48 54.6**	**-0.1**
	comp=Z,10.0nm,0.7s,mb4.9,baz=141,slow=9.5,SNR=17						
BRVK	**Borovoye**	**51.95**	**342**	*e*P	**P**	**16 48 54.5**	**-0.7**
CHKZ	**Chkalovo**	**52.39**	**342**	*e*P	**P**	**16 48 58.1**	**-0.3**
CHKZ				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
CHKZ	**Chkalovo**	**52.39**	**342**	*e*P	**P**	**16 48 58.1**	**-0.3**
	comp=Z,51nm,1.0s,mb5.4						
BOD	**Bodaibo**	**55.08**	**13**	*e*P	**P**	**16 49 17.3**	**-0.9**
GNI	**Garni**	**56.65**	**316**	P	**P**	**16 49 30.2**	**+0.4**
	comp=Z,2.0nm,0.4s,mb4.5,baz=288,slow=13,SNR=2.4						
GNI	**Garni**	**56.65**	**316**	P	**P**	**16 49 30.2**	**+0.4**
GNI				pmax	pmax		
	comp=Z,2.0nm,0.4s						
CTA	**Charters Tower**	**56.77**	**118**	P	**P**	**16 49 30.3**	**-0.7**
	comp=Z,4.0nm,0.9s,mb4.5,baz=299,slow=5.6,SNR=4.5						
CTA	**Charters Tower**	**56.77**	**118**	P	**P**	**16 49 30.3**	**-0.6**
CTA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CTA	**Charters Tower**	**56.77**	**118**	P	**P**	**16 49 30.3**	**-0.7**
CTAO	**Charters Tower**	**56.77**	**118**	*e*P	**P**	**16 49 30.2**	**-0.7**
CTAO				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
CTAO	**Charters Tower**	**56.77**	**118**	*e*P	**P**	**16 49 30.2**	**-0.8**
	comp=Z,6.0nm,1.0s,mb4.6						
KMBO	**Kilima Mbogo**	**57.24**	**266**	P	**P**	**16 49 35.0**	**+0.7**
	comp=Z,1.5nm,0.6s,mb4.2,baz=66,slow=12,SNR=2.6						
KMBO	**Kilima Mbogo**	**57.24**	**266**	P	**P**	**16 49 35.0**	**+0.7**
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KMBO	**Kilima Mbogo**	**57.24**	**266**	*e*P	**P**	**16 49 34.0**	**-0.4**
	comp=Z,3.3nm,1.0s,mb4.3						
ASAJ	**Asahikawa**	**57.66**	**40**	P	**P**	**16 49 37.4**	**+0.5**
	comp=Z,6.9nm,0.7s,mb4.8,baz=225,slow=5.7,SNR=3.1						
ASAJ	**Asahikawa**	**57.66**	**40**	P	**P**	**16 49 37.4**	**+0.5**
ASAJ				pmax	pmax		
	comp=Z,7.0nm,0.7s						
STKA	**Stephens Creek**	**57.97**	**132**	P	**P**	**16 49 39.2**	**0.0**
	comp=Z,1.6nm,0.6s,mb4.2,baz=300,slow=18,SNR=1.8						
ZEI	**Tsey**	**58.34**	**318**	*e*P	**P**	**16 49 41.7**	**0.0**
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
ARU	**Arti**	**58.72**	**338**	*e*P	**P**	**16 49 41.4**	**-2.7**
YSS	**Yuzh-Sakhalins**	**59.13**	**37**	*e*P	**P**	**16 49 47.5**	**+0.4**
YSS				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
YSS	**Yuzh-Sakhalins**	**59.13**	**37**	*e*P	**P**	**16 49 47.5**	**+0.4**
	comp=Z,13nm,0.8s,mb5.0						
KIV	**Kislovodsk**	**59.65**	**319**	*e*P	**P**	**16 49 49.8**	**-1.0**
KIV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
KIV	**Kislovodsk**	**59.65**	**319**	*e*P	**P**	**16 49 49.8**	**-0.9**
	comp=Z,8.7nm,0.8s,mb4.8						
MALT	**Malatya**	**60.52**	**312**	*e*P	**P**	**16 49 56.4**	**-0.4**
MALT				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.5						
MALT	**Malatya**	**60.52**	**312**	*e*P	**P**	**16 49 56.4**	**-0.4**
	comp=Z,3.6nm,1.0s,mb4.5						
EIL	**Elat**	**61.05**	**301**	P	**P**	**16 50 01.4**	**+0.9**
	comp=Z,2.4nm,0.5s,mb4.6,baz=109,slow=20,SNR=2.8						
EIL	**Elat**	**61.05**	**301**	P	**P**	**16 50 01.4**	**+0.9**
YAK	**Yakutsk**	**62.84**	**18**	*e*P	**P**	**16 50 10.3**	**-1.7**
YAK				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.1						
YAK	**Yakutsk**	**62.84**	**18**	*e*P	**P**	**16 50 10.3**	**-1.7**
	comp=Z,14nm,0.9s,mb5.1						
MBAR	**Mbarara**	**63.66**	**267**	P	**P**	**16 50 17.0**	**-1.2**
MBAR				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
MBAR	**Mbarara**	**63.66**	**267**	P	**P**	**16 50 17.0**	**-1.2**
	comp=Z,2.6nm,0.9s,mb4.3						
BRTR	**Keskin Array B**	**64.50**	**312**	P	**P**	**16 50 22.4**	**-0.8**
	comp=Z,2.8nm,0.9s,mb4.3,baz=117,slow=5.5,SNR=5.7						
BRTR	**Keskin Array B**	**64.50**	**312**	P	**P**	**16 50 22.5**	**-0.7**
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.9s						
OBN	**Obninsk**	**68.00**	**328**	⇑*e*P	**P**	**16 50 43.5**	**-1.7**
OBN				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
IDI	**Anoyia**	**70.39**	**306**	P	**P**	**16 50 59.6**	**-0.7**
	comp=Z,9.6nm,1.1s,mb4.7,baz=8.1,slow=7.1,SNR=3.8						
AKASG	**Malin Array Be**	**70.60**	**322**	P	**P**	**16 50 59.7**	**-1.5**
	comp=Z,5.4nm,0.9s,mb4.5,baz=89,slow=5.0,SNR=8.8						
AKASG	**Malin Array Be**	**70.60**	**322**	P	**P**	**16 50 59.7**	**-1.5**
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.9s						
MLR	**Muntele Rosu**	**71.42**	**316**	P	**P**	**16 51 06.3**	**0.0**
	comp=Z,9.1nm,0.8s,mb4.8,baz=178,slow=2.8,SNR=8.6						
MLR	**Muntele Rosu**	**71.42**	**316**	P	**P**	**16 51 06.3**	**0.0**
MLR				pmax	pmax		
	comp=Z,9.0nm,0.8s						
LBTB	**Lobatse**	**72.90**	**242**	*e*P	**P**	**16 51 14.9**	**-0.6**
LBTB				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
LBTB	**Lobatse**	**72.90**	**242**	*e*P	**P**	**16 51 14.9**	**-0.6**
	comp=Z,5.9nm,0.8s,mb4.6						
KOLS	**Kolonicke sedl**	**74.56**	**319**	*e*P	**P**	**16 51 24.5**	**-0.2**
KOLS				*e*		16 52 50.3	
FINES	**FINESS Array B**	**75.44**	**333**	P	**P**	**16 51 29.2**	**-0.2**
	comp=Z,12nm,0.9s,mb4.8,baz=100,slow=6.0,SNR=15						
FINES	**FINESS Array B**	**75.44**	**333**	P	**P**	**16 51 29.3**	**-0.2**
FINES				pmax	pmax		
	comp=Z,12nm,0.9s						
MAW	**Mawson**	**75.59**	**192**	P	**P**	**16 51 31.6**	**+1.4**
	comp=Z,3.3nm,0.6s,mb4.4,baz=51,slow=6.5,SNR=4.4						
MAW	**Mawson**	**75.59**	**192**	P	**P**	**16 51 31.6**	**+1.4**
MAW				pmax	pmax		
	comp=Z,3.0nm,0.6s						
OJC	**Ojcow**	**76.36**	**320**	*e*P	**P**	**16 51 33.8**	**-1.2**
VYHS	**Vyhne**	**76.74**	**319**	*e*P	**P**	**16 51 37.5**	**+0.4**
OKC	**Ostrava-Krasne**	**77.36**	**320**	*e*P	**P**	**16 51 41.1**	**+0.5**
MORC	**Moravsky Berou**	**77.75**	**320**	*e*P	**P**	**16 51 42.8**	**+0.1**
MORC				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
MORC	**Moravsky Berou**	**77.75**	**320**	*e*P	**P**	**16 51 42.8**	**+0.1**
	comp=Z,12nm,1.3s,mb4.7						
ZST	**Bratislava**	**77.85**	**318**	*e*P	**P**	**16 51 44.2**	**+0.9**
ZST	**Bratislava**	**77.85**	**318**	*e*	**P**	**16 51 43.8**	**+0.5**
ARCES	**ARCESS Array B**	**78.15**	**340**	P	**P**	**16 51 45.0**	**+0.4**
	comp=Z,4.6nm,0.6s,mb4.6,baz=96,slow=6.0,SNR=17						
ARCES	**ARCESS Array B**	**78.15**	**340**	P	**P**	**16 51 45.0**	**+0.5**
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
ARCES	**ARCESS Array B**	**78.15**	**340**	P	**P**	**16 51 45.0**	**+0.4**
DPC	**Dobruska-Polom**	**78.59**	**320**	*e*P	**P**	**16 51 48.3**	**+1.0**
PRU	**Pruhonice**	**79.70**	**320**	*e*P	**P**	**16 51 53.7**	**+0.3**
BRG	**Berggiesshubel**	**80.15**	**321**	P	**P**	**16 51 56.7**	**+0.9**
BRG				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
BRG	**Berggiesshubel**	**80.15**	**321**	P	**P**	**16 51 56.7**	**+0.9**
	comp=Z,8.1nm,1.2s,mb4.5						
GERES	**GERESS Array B**	**80.16**	**319**	P	**P**	**16 51 56.8**	**+0.9**
	comp=Z,6.6nm,0.9s,mb4.6,baz=90,slow=5.3,SNR=14						
GERES	**GERESS Array B**	**80.16**	**319**	P	**P**	**16 51 56.8**	**+0.9**
GERES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KHC	**Kasperske Hory**	**80.26**	**319**	*e*P	**P**	**16 51 57.2**	**+0.8**
RUE	**Ruedersdorf**	**80.38**	**322**	P	**P**	**16 51 56.7**	**-0.2**
	comp=Z,13nm,0.5s,mb5.1						
CLL	**Collm**	**80.77**	**321**	*e*P	**P**	**16 52 00.0**	**+0.9**
CLL	**Collm**	**80.77**	**321**	P	**P**	**16 52 00.0**	**+0.9**
HFS	**Hagfors**	**81.13**	**330**	P	**P**	**16 52 01.0**	**+0.3**
	comp=Z,3.0nm,0.5s,mb4.5,baz=104,slow=6.1,SNR=14						
HFS	**Hagfors**	**81.13**	**330**	P	**P**	**16 52 01.0**	**+0.3**
HFS				pmax	pmax		
	comp=Z,3.0nm,0.5s						
NB2	**NORSAR Subarra**	**82.42**	**331**	P	**P**	**16 52 07.2**	**-0.2**
	comp=Z,1.8nm,0.6s,mb4.2,baz=98,slow=5.3						
NB2	**NORSAR Subarra**	**82.42**	**331**	P	**P**	**16 52 07.2**	**-0.2**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	**NORSAR Array B**	**82.42**	**331**	P	**P**	**16 52 07.5**	**0.0**
	comp=Z,3.4nm,0.9s,mb4.3,baz=95,slow=5.4,SNR=4.8						
NOA	**NORSAR Array B**	**82.42**	**331**	P	**P**	**16 52 07.5**	**+0.1**
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
DAVOX	**Davos**	**82.65**	**316**	P	**P**	**16 52 10.1**	**+1.2**
	comp=Z,12nm,0.7s,mb5.0,baz=113,slow=6.9,SNR=14						
VNDA	**Vanda**	**89.94**	**168**	P	**P**	**16 52 45.0**	**+1.0**
	comp=Z,1.0nm,0.7s,mb4.2,baz=166,slow=3.3,SNR=2.9						
VNDA	**Vanda**	**89.94**	**168**	P	**P**	**16 52 45.0**	**+1.0**
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
EKA	**Eskdalemuir Ar**	**90.27**	**325**	P	**P**	**16 52 47.0**	**+1.1**
	comp=Z,4.2nm,0.7s,mb4.9,baz=94,slow=4.7,SNR=6.8						
EKA	**Eskdalemuir Ar**	**90.27**	**325**	P	**P**	**16 52 47.1**	**+1.1**
EKA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
INK	**Inuvik**	**99.87**	**16**	P	**P**	**16 53 29.2**	**-0.3**
	comp=Z,0.6nm,0.7s,mb4.1,baz=313,slow=5.8,SNR=2.6						
INK	**Inuvik**	**99.87**	**16**	P	**P**	**16 53 29.2**	**-0.3**
INK				pmax	pmax		
	comp=Z,1.0nm,0.7s						
SCHQ	**Schefferville**	**118.50**	**348**	PKP	PKPdf	16 58 33.3	+1.6
	comp=Z,4.8nm,1.1s,baz=278,slow=3.1,SNR=2.4						
ULM	**Lac du Bonnet**	**124.45**	**8**	PKP	PKPdf	16 58 46.1	+2.7
	comp=Z,2.1nm,1.0s,baz=157,slow=4.4,SNR=3.4						
NVAR	**Mina Array Bea**	**127.45**	**32**	PKP	PKPdf	16 58 52.8	+3.3
	comp=Z,1.8nm,0.8s,baz=281,slow=3.0,SNR=7.4						
PDAR	**Pinedale Array**	**127.94**	**22**	PKP	PKPdf	16 58 52.3	+2.0
	comp=Z,1.5nm,0.8s,baz=354,slow=1.6,SNR=7.6						
ANMO	**Albuquerque**	**135.90**	**25**	PKP	PKPdf	16 59 09.7	+4.2
	comp=Z,1.1nm,0.6s,baz=27,slow=4.5,SNR=3.9						
TXAR	**Lajitas Array**	**141.93**	**26**	PKhKP		16 59 13.5	
	comp=Z,0.2nm,0.4s,baz=138,slow=19,SNR=3.2						
TXAR				PKP	PKPdf	16 59 19.9	+3.3
	comp=Z,0.8nm,0.6s,baz=27,slow=0.4,SNR=6.7						
CPUP	**Villa Florida**	**145.42**	**229**	PKPbc	PKPbc	16 59 24.0	+0.8
	comp=Z,0.0nm,0.3s,baz=18,slow=16,SNR=1.7						
LPAZ	**La Paz**	**159.29**	**235**	PKP	PKPdf	16 59 45.0	+1.9
	comp=Z,0.7nm,0.8s,baz=315,slow=2.9,SNR=3.8						
LPAZ				PKPab	PKPab	17 00 23.3	+0.5
	comp=Z,2.1nm,0.7s,baz=107,slow=4.9,SNR=8.6						
LPAZ	**La Paz**	**159.29**	**235**	PKIKP	PKPdf	16 59 45.0	+1.9
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.8s						
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LPAZ	**La Paz**	**159.29**	**235**	PKP	PKPdf	16 59 45.0	+1.9
LPAZ				PKPab	PKPab	17 00 23.3	+0.5

BJI ***27*** *16:45:09.8, 3.72N×94.59E, h55*^{km}*, mb4.7*

IDC ***27*** *16:45:11.7±8.8, 4.07N×94.42E, h36*^{km}*±71*^{km}*, mb4.1/23, mb1 4.2/24, mb1mx4.2/28, ML4.2/1, Error ellipse: s-maj=22.8km s-min=11.2km az=50.0*

NEIC ***27*** *16:45:11.5±0.2, 4.03N×94.42E, mb4.4/9, Error ellipse: s-maj=9.3km s-min=5.8km az=55.0*

ISC 27 16:45:09.6±0.4**, 4.04N**±0.06×**94.46E**±0.08**, h35**^{km}**, h35**^{km}±.7^{km}**:pP-P, n53,** σ**0**^{s}**94**/45**, mb4.4**/34**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**14.99**	**17**	*e*Pn	**P**	**16 48 42.8**	**+2.0**
	3.7nm,0.6s						
CMAR	**Chiang Mai Arr**	**14.99**	**17**	Pn	**P**	**16 48 45.4**	**+4.6**
	0.4nm,0.3s,baz=212,slow=12,SNR=6.7						
SHL	**Shillong**	**21.55**	**354**	*e*	**P**	**16 49 55.0**	**-3.0**
KMI	**Kunming**	**22.42**	**20**	P	**P**	**16 50 05.0**	**-1.7**
KMI				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.3						
GYA	**Guiyang**	**25.17**	**26**	⇑*i*P	**P**	**16 50 33.5**	**0.0**
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.5						
GTA	**Gaotai**	**35.54**	**7**	*e*P	**P**	**16 52 05.8**	**+0.3**
GTA				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.8						
UCH	**Uchtor**	**41.99**	**338**	P	**P**	**16 53 00.7**	**+1.6**
	SNR=7.3						
KBK	**Karagaybulak**	**42.20**	**338**	P	**P**	**16 53 02.1**	**+1.2**
	SNR=8.0						
AML	**Almayashu**	**42.22**	**337**	P	**P**	**16 53 02.6**	**+1.5**
	SNR=7.5						
AAK	**Ala-Archa**	**42.34**	**338**	*e*P	**P**	**16 53 02.1**	**0.0**
	comp=Z,1.9nm,0.7s,mb3.8						
AAK				*e*pP	pP	16 53 12.7	+0.3
NWAO	**Narrogin (SRO)**	**42.63**	**151**	P	**P**	**16 53 04.4**	**-0.2**
	comp=Z,6.5nm,0.8s,mb4.4,baz=16,slow=13,SNR=5.2						
EKS2	**Erkin-Say**	**42.64**	**337**	P	**P**	**16 53 05.7**	**+1.2**
	SNR=5.4						
USP	**Ospenovka**	**42.89**	**339**	P	**P**	**16 53 07.2**	**+0.6**
	SNR=8.3						
SONM	**Songino Array**	**44.83**	**11**	P	**P**	**16 53 22.6**	**+0.6**
	comp=Z,1.6nm,0.8s,mb3.9,baz=190,slow=7.5,SNR=6.3						
SONM				PcP	PcP	16 55 04.4	+0.4
	comp=Z,1.4nm,0.6s,baz=204,slow=3.4,SNR=5.1						
WRA	**Warramunga Arr**	**45.85**	**123**	P	**P**	**16 53 31.0**	**+0.4**
	comp=Z,18nm,0.7s,mb5.1,baz=300,slow=9.1,SNR=63						
WRAB	**Tennant Creek**	**45.86**	**123**	*e*P	**P**	**16 53 30.5**	**-0.2**
	comp=Z,26nm,0.7s,mb5.3						
ASAR	**Alice Springs**	**47.28**	**128**	P	**P**	**16 53 42.0**	**+0.2**
	comp=Z,6.2nm,0.7s,mb4.6,baz=298,slow=8.0,SNR=38						
ASAR				PcP	PcP	16 55 12.8	-0.2
	comp=Z,1.8nm,0.8s,baz=295,slow=4.5,SNR=5.2						
HIA	**Hailar**	**49.93**	**21**	*e*P	**P**	**16 54 01.5**	**-0.5**
	comp=Z,2.8nm,0.7s,mb4.4						
HIA				*e*pP	pP	16 54 11.9	-0.5
ZAL	**Zalesovo**	**50.37**	**353**	P	**P**	**16 54 05.0**	**-0.3**
	comp=Z,1.9nm,0.6s,mb4.3,baz=317,slow=4.1,SNR=6.2						
RDF	**Al-Radifah**	**50.88**	**304**	*e*P	pP	16 54 20.9	+1.0
RDF				AMb	AMB	16 54 21.6	
	comp=Z,49nm,0.6s						
UMR	**Umm Al-Rimmam**	**50.96**	**305**	*e*P	pP	16 54 21.3	+0.8
UMR				AMb	AMB	16 54 22.0	
	comp=Z,30nm,0.6s						
RST	**Umm Al-Ruwaisa**	**51.53**	**305**	*e*P	pP	16 54 25.4	+0.6
RST				AMb	AMB	16 54 26.0	
	comp=Z,21nm,0.6s,mb5.3						
BVAR	**Borovoye Array**	**52.71**	**342**	P	**P**	**16 54 22.3**	**-0.6**
	comp=Z,3.8nm,0.7s,mb4.5,baz=141,slow=9.5,SNR=19						
BRVK	**Borovoye**	**52.77**	**342**	*e*P	**P**	**16 54 22.6**	**-0.8**
	comp=Z,1.9nm,0.6s,mb4.2						
BRVK				*e*pP	pP	16 54 32.7	-1.1
PMG	**Port Moresby**	**54.18**	**105**	P	**P**	**16 54 34.4**	**0.0**
	comp=Z,4.1nm,0.8s,mb4.4,baz=282,slow=9.3,SNR=3.6						
CTA	**Charters Tower**	**56.22**	**117**	P	**P**	**16 54 49.2**	**+0.2**
	comp=Z,4.5nm,0.8s,mb4.5,baz=316,slow=5.5,SNR=5.9						
CTA	**Charters Tower**	**56.22**	**117**	P	**P**	**16 54 49.2**	**+0.2**
CTAO	**Charters Tower**	**56.22**	**117**	*e*P	**P**	**16 54 49.0**	**0.0**
	comp=Z,7.8nm,1.0s,mb4.7						
STKA	**Stephens Creek**	**57.27**	**132**	P	**P**	**16 54 55.7**	**-0.7**
	comp=Z,2.6nm,0.7s,mb4.4,baz=328,slow=18,SNR=4.6						
KMBO	**Kilima Mbogo**	**57.40**	**266**	P	**P**	**16 54 55.8**	**-1.7**
	comp=Z,1.2nm,0.6s,mb4.1,baz=76,slow=11,SNR=5.5						
KMBO	**Kilima Mbogo**	**57.40**	**266**	*e*P	**P**	**16 54 57.4**	**-0.2**
ASF	**Jabal al Asfar**	**60.61**	**305**	P	**P**	**16 55 20.5**	**+1.0**
	comp=Z,2.0nm,0.4s,mb4.6,baz=296,slow=1.9,SNR=2.9						
MALT	**Malatya**	**61.21**	**312**	P	**P**	**16 55 22.9**	**-0.6**
	comp=Z,0.9nm,0.4s,mb4.2						
EIL	**Elat**	**61.65**	**302**	P	**P**	**16 55 26.8**	**+0.3**
	comp=Z,3.3nm,0.8s,mb4.5,baz=181,slow=9.0,SNR=2.9						
YAK	**Yakutsk**	**63.52**	**18**	*e*P	**P**	**16 55 37.3**	**-1.2**
	comp=Z,5.7nm,0.7s,mb4.7						
BRTR	**Keskin Array B**	**65.19**	**312**	P	**P**	**16 55 48.6**	**-1.2**
	comp=Z,3.1nm,1.1s,mb4.2,baz=121,slow=7.2,SNR=7.3						
IDI	**Anoyia**	**71.03**	**306**	P	**P**	**16 56 26.3**	**+0.1**
	comp=Z,5.7nm,0.7s,mb4.6,baz=209,slow=6.8,SNR=5.1						
AKASG	**Malin Array Be**	**71.36**	**322**	P	**P**	**16 56 26.1**	**-1.8**
	comp=Z,1.2nm,0.8s,mb3.9,baz=88,slow=5.1,SNR=4.3						

MLR	Muntele Rosu	72.14	317	P	P	16 56 32.9	+0.3
	comp=Z,2.4nm,0.8s,mb4.2,baz=142,slow=12,SNR=2.5						
BOSA	Boshof	73.86	239	eP	P	16 56 42.7	-0.4
	comp=Z,1.9nm,0.5s,mb4.3						
MAW	Mawson	74.87	192	P	P	16 56 49.2	+1.1
	comp=Z,2.6nm,0.7s,mb4.3,baz=338,slow=22,SNR=2.5						
FINES	FINESS Array B	76.24	333	P	P	16 56 55.2	-0.8
	comp=Z,1.5nm,0.6s,mb4.1,baz=90,slow=7.6,SNR=8.3						
ARCES	ARCESS Array B	78.96	340	P	P	16 57 09.8	-1.3
	comp=Z,1.9nm,0.8s,mb4.1,baz=90,slow=1.2,SNR=6.2						
ARCES	ARCESS Array B	78.96	340	P	P	16 57 09.8	-1.3
GERES	GERESS Array B	80.89	319	P	P	16 57 22.0	+0.2
	comp=Z,1.6nm,0.7s,mb4.0,baz=108,slow=4.2,SNR=11						
HFS	Hagfors	81.92	330	P	P	16 57 26.8	-0.1
	comp=Z,1.5nm,0.7s,mb4.0,baz=90,slow=7.2,SNR=2.9						
DAVOX	Davos	83.37	316	P	P	16 57 35.2	+0.6
	comp=Z,3.1nm,0.6s,mb4.5,baz=128,slow=6.4,SNR=6.4						
VNDA	Vanda	89.13	168	P	P	16 58 03.5	+1.2
	comp=Z,1.3nm,0.9s,mb4.3,baz=342,slow=3.2,SNR=2.7						
NVAR	Mina Array Bea	127.99	33	PKP	PKPdf	17 04 14.0	+1.4
	comp=Z,0.6nm,0.5s,baz=270,slow=4.4,SNR=4.7						
NVAR	Mina Array Bea	127.99	33	PKP	PKPdf	17 04 14.0	+1.4
PDAR	Pinedale Array	128.58	23	PKP	PKPdf	17 04 15.5	+1.9
	comp=Z,0.2nm,0.6s,slow=0.9,SNR=4.0						
CPUP	Villa Florida	145.06	228	PKPbc	PKPbc	17 04 45.3	+0.9
	comp=Z,0.0nm,0.4s,baz=271,slow=17,SNR=2.1						
LPAZ	La Paz	159.01	233	PKP	PKPdf	17 05 06.6	+1.9
	comp=Z,0.7nm,0.8s,baz=101,slow=5.1,SNR=2.9						
LPAZ				PKPab	PKPab	17 05 43.1	-0.5
	comp=Z,0.9nm,0.6s,baz=78,slow=8.7,SNR=4.7						

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*LDG **27** 16:52:09.1±0.1, 49.39N×6.90E, h1^{km}, Md3.0/3, Ml3.0/13, Error ellipse: s-maj=1.7km s-min=1.4km az=89.0, Suspected Mining induced.*
*STR **27** 16:52:09.1±0.1, 49.39N×6.91E, h1^{km}±1^{km}, Ml2.6, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **27** 16:52:09.1, 49.39N×6.91E, h1^{km}, ML3.0(LDG), ML2.6(STR), After STR.*
*BGR **27** 16:52:09.8±0.4, 49.39N×6.87E, h1^{km}, ML2.3/3, Error ellipse: s-maj=7.8km s-min=4.4km az=34.0*
*CSEM **27** 16:52:09.1±0.1, 49.40N×6.91E, h2^{km}, ML3.0/14, Error ellipse: s-maj=1.3km s-min=1.0km az=91.0*
*BNS **27** 16:52:11.0±2.1, 49.45N×6.92E, h1^{km}, ML2.4*
*UCC **27** 16:52:11.8±0.8, 49.43N×6.88E, ML2.0*
ISC 27 16:52:07.2±0.2**, 49.38N**±0.01×**6.88E**±0.02**, n50,** σ**1^{s}17**/91**, 1D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RUP	Ruppelstein	0.34	20	Pg	Pg	16 52 15.7	+1.6
WLF	Walferdange	0.55	302	ePg	Pg	16 52 20.4	+2.2
	SNR=12						
WLF				eSg	Sg	16 52 27.3	+1.7
ABH	Alteburg	0.67	41	Pg	Pg	16 52 21.0	+0.5
LANF	Langenberg	0.73	123	Pg	Pg	16 52 22.4	+0.7
KTD	Kalmit	0.79	94	Pg	Pg	16 52 23.8	+0.8
BGG	Burgeitz	0.88	20	⇓ePg	Pg	16 52 25.1	+0.3
BGG				eSg	Sg	16 52 37.2	+0.6
	116nm,0.6s						
CDF	Champ du Feu	1.00	165	ePg	Pg	16 52 27.4	+0.2
CDF				ePn	Pn	16 52 28.4	+0.1
CDF				eSg	Sg	16 52 41.2	+0.6
	58nm,0.3s						
CDF	Champ du Feu	1.00	165	ePn	Pn	16 52 28.4	+0.1
CDF				eSg	Sg	16 52 41.2	+0.6
	29nm,0.3s						
WLS	Welschbruch	1.01	162	Pg	Pg	16 52 28.7	+1.2
WLS				Sg	Sg	16 52 42.6	+1.6
ECH	Echery	1.18	171	Pg	Pg	16 52 31.5	+0.8
ECH				Sg	Sg	16 52 47.6	+1.2
RFYF	Reffroy	1.19	231	ePg	Pg	16 52 32.2	+1.2
	baz=47						
RFYF				eSg	Sg	16 52 47.6	+0.8
	64nm,0.3s						
STB	Steinbach	1.22	359	ePg	Pg	16 52 33.3	+1.8
STB				eSg	Sg	16 52 48.5	+0.8
	63nm,0.8s						
TOD	Tromm	1.28	79	Pg	Pg	16 52 32.3	-0.4
THEF	They Montfort	1.29	207	Pg	Pg	16 52 33.4	+0.3
LIBD	Limburg	1.32	158	Pg	Pg	16 52 34.4	+0.9
LIBD				Sg	Sg	16 52 52.3	+1.2
KLL	Kalltalsperre	1.32	344	ePg	Pg	16 52 34.0	+0.3
KLL				eSg	Sg	16 52 50.1	-1.2
MEM	Membach	1.35	336	P	Pb	16 52 34.1	+0.9
MEM				S	Sb	16 52 52.2	+1.2
HAU	Haudompre	1.42	195	ePg	Pg	16 52 34.8	-0.7
HAU				eSn	Sn	16 52 53.3	-0.6
	28nm,0.3s						
BFO	Black Forest	1.42	137	ePg	Pg	16 52 35.8	+0.2
	SNR=9.5						
BFO				eSg	Sg	16 52 54.4	-0.1
MEZF	Maizieres J'vi	1.49	235	ePn	Pn	16 52 36.3	+1.0
	baz=48						
MEZF				ePg	Pg	16 52 37.3	+0.3
MEZF				eSn	Sn	16 52 54.5	-1.2
	41nm,0.4s						
MEZF	Maizieres J'vi	1.49	235	ePg	Pg	16 52 37.3	+0.3
MEZF				eSn	Sn	16 52 54.5	-1.2
	20nm,0.4s						
HGN	Heimansgroeve	1.52	337	ePg	Pg	16 52 38.2	+0.7
	11nm,0.2s						
HGN				eSg	Sg	16 52 56.9	-0.8
HGN	Heimansgroeve	1.52	337	eSg	Sg	16 52 56.9	-0.8
GIVF	Givet	1.52	299	ePn	Pn	16 52 35.3	-0.4
GIVF				ePg	Pg	16 52 36.3	-1.2
GIVF				eSg	Sg	16 52 56.9	-0.8
	62nm,0.4s						
GIVF	Givet	1.52	299	ePg	Pg	16 52 36.3	-1.2
GIVF				eSg	Sg	16 52 56.9	-0.8
	31nm,0.4s						
MOF	Molkenrain	1.54	174	Pg	Pg	16 52 38.1	+0.2
MOF				Sg	Sg	16 52 59.5	+1.1
HINF	Hinteralfeld	1.56	181	ePg	Pg	16 52 38.8	+0.4
HINF				eSn	Sn	16 52 55.8	-1.8
HINF				eSg	Sg	16 52 58.9	-0.3
	49nm,0.2s						
BNS	Bensberg	1.60	7	i Sg	Sg	16 52 59.4	-1.1
BEBN	Eben Emael	1.62	332	P	Pn	16 52 39.2	+2.0
BEBN				S	Sb	16 52 58.4	-0.2
DOU	Dourbes	1.65	297	P	Pn	16 52 39.9	+2.3
DOU				S	Sb	16 52 59.5	+0.1
FELD	Feldberg	1.68	153	Pg	Pg	16 52 40.5	-0.2
SFTF	Sexfontaines	1.69	227	ePg	Pg	16 52 38.7	-2.3
	baz=50						
SFTF				eSg	Sg	16 53 02.9	-0.6
	27nm,0.3s						
BAIF	Baives	1.86	292	ePn	Pn	16 52 41.6	+0.9
BAIF				ePg	Pg	16 52 44.4	0.0
BAIF				eSg	Sg	16 53 07.9	-1.3
	23nm,0.4s						
BAIF	Baives	1.86	292	ePg	Pg	16 52 44.4	0.0
BAIF				eSg	Sg	16 53 07.9	-1.3
	11nm,0.4s						
SNF	Seneffe	2.02	305	P	Pn	16 52 47.1	+4.2
SNF				S	Sn	16 53 14.6	+5.3
BUG	Bochum--Univer	2.08	7	eSg	Sg	16 53 14.1	-2.4
CABF	La Chapelle	2.82	191	ePn	Pn	16 52 53.9	-0.4
CABF				eSg	Sg	16 53 38.8	-2.3
	23nm,0.6s						
GRF	Grafenberg Arr	2.85	82	ePg	Pg	16 53 04.2	+0.2
	SNR=6.5						
GRF				eSg	Sg	16 53 40.2	-1.8
SSF	Saint Saulge	3.23	225	ePn	Pn	16 52 58.9	-1.3
SSF				eSg	Sg	16 53 51.8	-3.1
	6.9nm,0.5s						
MOX	Moxa	3.31	66	ePg	Pg	16 53 09.6	-3.7
MOX				eSg	Sg	16 53 54.5	-2.9
SMF	Signal de Mont	3.41	218	ePn	Pn	16 53 01.7	-1.0
SMF				eSn	Sn	16 53 40.7	-3.8
SMF				eSg	Sg	16 53 56.4	-4.4
	9.4nm,0.4s						
AVF	Avril sur Loir	3.50	224	ePn	Pn	16 53 02.3	-1.8
AVF				eSn	Sn	16 53 43.4	-3.5
	4.1nm,0.3s						
NKC	Novy Kostel	3.71	75	ePG	Pg	16 53 17.3	-4.0
NKC				eSG	Sg	16 54 06.1	-4.6
CLL	Collm	4.37	61	eSG	Sg	16 54 32.0	-0.8
KHC	Kasperske Hory	4.40	91	ePn	Pn	16 53 15.9	-0.9
KHC				e		16 54 05.1	
KHC	Kasperske Hory	4.40	91	ePN	Pn	16 53 15.9	-0.9
KHC				ex	x	16 53 39.5	
KHC				eSN	Sn	16 54 05.1	-4.4
KHC				ex	x	16 54 36.5	
GEC2	GERESS Array S	4.51	94	ePn	Pn	16 53 18.1	-0.3
	SNR=20						
GEC2				eSn	Sn	16 54 08.0	-4.5
BRG	Berggiesshubel	4.79	69	eSg	Sg	16 54 39.7	-6.8
BRG	Berggiesshubel	4.79	69	eSg	Sg	16 54 39.7	-6.8
EPF	Esparros	7.80	218	ePg	Pg	16 54 32.7	-10

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*NEIC **27** 16:54:43.4±4.8, 5.59N×93.27E, h33^{km}±33^{km}, mb4.3/4, Error ellipse: s-maj=16.7km s-min=8.6km az=49.0*
*IDC **27** 16:54:44.5±6.5, 5.61N×93.27E, h40^{km}±58^{km}, mb3.9/13, mb1 3.9/14, mb1mx3.8/22, ML3.2/1, Error ellipse: s-maj=25.7km s-min=17.2km az=47.0*
ISC 27 16:54:39.1±8.2**, 5.6N**±0.1×**93.3E**±0.1**, h16^{km}**±57^{km}**, n27,** σ**0^{s}60**/25**, mb4.3**/21**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.97	23	Pn	P	16 57 58.6	-0.4
CMAR	Chiang Mai Arr	13.97	23	P	P	16 57 59.0	0.0
	0.0nm,0.3s,baz=221,slow=13,SNR=7.9						
PKI	Pulchoki	23.13	342	eP	P	17 00 02.8	+17
	30nm,0.9s,mb4.7						
DMN	Daman	23.26	341	eP	P	17 00 04.3	+17
	23nm,0.7s,mb4.7						
GUN	Gumba	23.31	343	eP	P	17 00 04.1	+17
	45nm,1.0s,mb4.8						
KKN	Kakani	23.37	342	eP	P	17 00 05.2	+17
	12nm,0.5s,mb4.6						
LSA	Lhasa	24.10	356	eP	P	16 59 56.2	+1.1
	2.9nm,0.4s,mb4.1						
JOW	Kunigami	39.51	54	P	P	17 02 10.6	-0.4
	20nm,0.8s,mb4.9						
AAK	Ala-Archa	40.49	339	eP	P	17 02 19.3	+0.3
	0.9nm,0.3s,mb4.0						
SONM	Songino Array	43.60	13	P	P	17 02 45.2	+0.9
	1.1nm,0.7s,mb3.7,baz=194,slow=8.8,SNR=11						
WRA	Warramunga Arr	47.69	123	P	P	17 03 17.6	+0.4
	1.4nm,0.6s,mb4.1,baz=302,slow=9.1,SNR=12						
WRAB	Tennant Creek	47.70	123	eP	P	17 03 17.0	-0.3
	7.8nm,0.8s,mb4.8						
WRAB				epP	pP	17 03 24.1	+2.0
ZAL	Zalesovo	48.72	353	P	P	17 03 25.2	+0.4
	3.3nm,0.5s,mb4.7,baz=320,slow=4.6,SNR=11						
ZAL	Zalesovo	48.72	353	P	P	17 03 25.2	+0.4
ASAR	Alice Springs	49.16	128	P	P	17 03 28.8	+0.2
	0.8nm,0.9s,mb3.7,baz=303,slow=7.9,SNR=7.2						
BVAR	Borovoye Array	50.90	342	P	P	17 03 40.3	-1.2
	0.7nm,0.5s,mb3.8,baz=143,slow=7.4,SNR=4.6						
CHKZ	Chkalovo	51.40	343	eP	P	17 03 44.5	-0.8
	1.9nm,0.3s,mb4.5						
KMBO	Kilima Mbogo	56.31	265	P	P	17 04 21.9	-0.2
	0.7nm,0.5s,mb4.0,baz=252,slow=21,SNR=3.2						
ASF	Jabal al Asfar	58.76	304	P	P	17 04 39.9	+0.9
	0.9nm,0.3s,mb4.3,baz=21,slow=4.4,SNR=2.4						
BRTR	Keskin Array B	63.28	312	P	P	17 05 08.9	-0.6
	0.4nm,0.6s,mb3.7,baz=127,slow=6.2,SNR=3.9						
FINES	FINESS Array B	74.34	333	P	P	17 06 17.0	-0.6
	2.4nm,0.9s,mb4.1,baz=100,slow=12,SNR=3.3						
ARCES	ARCESS Array B	77.14	340	P	P	17 06 33.5	+0.2
	2.9nm,1.0s,mb4.2,baz=90,slow=5.4,SNR=6.8						
GERES	GERESS Array B	78.96	319	P	P	17 06 43.4	-0.3
	1.1nm,0.7s,mb3.9,baz=90,slow=4.0,SNR=8.7						
DAVOX	Davos	81.44	316	P	P	17 06 57.5	+0.5
	3.0nm,0.9s,mb4.2,baz=216,slow=6.0,SNR=5.2						
DAVOX	Davos	81.44	316	P	P	17 06 57.5	+0.5
CPUP	Villa Florida	145.13	230	PKPbc	PKPbc	17 14 18.1	+1.0
	0.0nm,0.4s,baz=189,slow=20,SNR=1.8						
LPAZ	La Paz	158.86	238	PKPab	PKPab	17 15 15.5	0.0
	0.7nm,0.7s,baz=17,slow=1.6,SNR=3.6						

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*IDC **27** 16:57:05.5±7.3, 32.01S×179.76W, h72^{km}±61^{km}, mb3.5/3, mb1 3.8/4, mb1mx3.6/13, ML3.9/1, Error ellipse: s-maj=49.5km s-min=32.6km az=53.0*
NEIC 27 16:57:24.6±3.3**, 33.52S×179.92W, h265^{km}**±34^{km}**, Error ellipse: s-maj=52.0km s-min=33.4km az=168.0, South of Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	4.29	199	eP	P	16 58 33.0	+0.1
MXZ				S	S	16 59 30.8	+4.7
MXZ	Matakaoa Point	4.29	199	P	P	16 58 28.7	-4.2
MXZ				S	S	16 59 32.4	+6.3
PUZ	Puketiti	4.78	198	P	P	16 58 38.5	-0.2
PUZ				S	S	16 59 37.1	+0.5
PUZ	Puketiti	4.78	198	eP	P	16 58 34.6	-4.1
PUZ				eS	S	16 59 41.5	+4.9
MWZ	Matawai	5.23	203	P	P	16 58 43.6	-0.5
MWZ	Matawai	5.23	203	eP	P	16 58 41.0	-3.1
MWZ				eS	S	16 59 54.8	+8.4
URZ	Urewera	5.31	206	P	P	16 58 42.8	-2.3
	2.1nm,0.3s,baz=272,slow=6.3,SNR=16						
URZ				S	S	16 59 56.2	+8.1
	4.6nm,0.3s,baz=170,slow=23,SNR=23						
URZ	Urewera	5.31	206	P	P	16 58 43.4	-1.7
URZ	Urewera	5.31	206	eP	P	16 58 42.5	-2.6
TSZ	Takapari Road	7.31	206	eP	P	16 59 07.4	-2.6
TSZ				S	S	17 00 41.1	+8.4
BFZ	Birch Farm	7.77	202	eP	P	16 59 15.2	-0.6
BFZ	Birch Farm	7.77	202	eP	P	16 59 12.5	-3.3
BFZ				eS	S	17 00 51.0	+8.0
MRZ	Mangatainoka R	7.98	205	eP	P	16 59 16.6	-1.8
MRZ	Mangatainoka R	7.98	205	eP	P	16 59 16.2	-2.2
MRZ				S	S	17 00 55.9	+8.2
KIW	Kapiti Island	8.41	208	eP	P	16 59 19.0	-4.8
CAW	Cannon Point	8.56	206	eP	P	16 59 23.1	-2.6
NNZ	Nelson	9.35	213	eP	P	16 59 34.0	-1.6
NNZ				eS	S	17 01 27.2	+8.6
THZ	Tophouse	10.00	213	eP	P	16 59 43.0	-0.7
THZ	Tophouse	10.00	213	eP	P	16 59 42.9	-0.8
THZ				S	S	17 01 43.5	+10
KHZ	Kahutara	10.27	208	eP	P	16 59 46.4	-0.7
KHZ	Kahutara	10.27	208	eP	P	16 59 45.9	-1.2
DSZ	Denniston Nort	10.51	216	eP	P	16 59 49.4	-0.7
MQZ	McQueen's Vall	11.71	208	eS	S	17 02 18.2	+6.4
ASAR	Alice Springs	41.43	271	P	P	17 04 48.1	+1.1
	0.7nm,0.8s,baz=106,slow=8.6,SNR=4.2						
WRA	Warramunga Arr	42.70	277	P	P	17 04 54.0	-3.4
	1.5nm,0.8s,baz=114,slow=7.7,SNR=6.4						
VNDA	Vanda	44.84	186	P	P	17 05 24.0	+10
	3.8nm,1.2s,baz=50,slow=7.9,SNR=3.1						
FINES	FINESS Array B	147.44	337	PKPbc	PKPdf	17 16 35.9	+2.6
	2.4nm,0.5s,baz=50,slow=3.6,SNR=22						
FINES	FINESS Array B	147.44	337	PKPbc	PKPdf	17 16 35.9	+2.6
NOA	NORSAR Array B	151.53	349	PKPbc	PKPdf	17 16 46.3	+6.7
	0.9nm,1.0s,baz=52,slow=4.5,SNR=2.5						
HFS	Hagfors	151.91	346	PKPbc	PKPdf	17 16 47.7	+7.5
	5.7nm,1.2s,baz=90,slow=1.5,SNR=4.6						

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*NEIC **27** 16:58:21.3±0.8, 51.51N×16.08E, h5^{km}, ML2.8(VIE), ML2.0(BRG), Error ellipse: s-maj=10.2km s-min=6.5km az=57.0*
*PRU **27** 16:58:22.7, 51.43N×16.09E*
*WAR **27** 16:58:22, 51.46N×16.11E, h1^{km}, ML3.0, Mining Induced*
ISC 27 16:58:19.4±0.6**, 51.48N**±0.03×**16.11E**±0.04**, n20,** σ**1^{s}12**/45**, 2D, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.65	169	ePG	Pg	16 58 34.0	+1.7
KSP				eSG	Sg	16 58 42.0	+1.1
KSP	Ksiaz	0.65	169	⇓iP	Pg	16 58 34.1	+1.8
KSP				eSg	Sg	16 58 42.2	+1.3
UPC	Upice	0.97	184	ePG	Pg	16 58 40.1	+1.3
DPC	Dobruska-Polom	1.14	173	ePG	Pg	16 58 42.9	+0.8
DPC				eSG	Sg	16 58 57.0	-0.2
	30nm,0.3s						
PVCC	Panska Ves	1.36	226	ePG	Pg	16 58 47.3	+0.8
BRG	Berggiesshubel	1.49	247	i Pn	Pn	16 58 48.5	+1.0
BRG				i Pg	Pg	16 58 49.9	+0.7
BRG				i Sg	Sg	16 59 10.0	+1.0
PRU	Pruhonice	1.79	214	ePn	Pn	16 58 52.9	+1.1
PRU				ePg	Pg	16 58 54.7	-0.5
PRU				eSg	Sg	16 59 19.2	+0.1
PRU	Pruhonice	1.79	214	ePN	Pn	16 58 52.6	+0.8
PRU				PG	Pg	16 58 54.6	-0.6
PRU				i x	x	16 58 59.0	
PRU				i x	x	16 59 11.5	
PRU				eSG	Sg	16 59 19.2	+0.1
	24nm,0.3s						
MORC	Moravsky Berou	1.93	151	ePn	Pn	16 58 54.6	+0.8
CLL	Collm	1.95	266	ePn	Pn	16 58 54.0	-0.1
CLL				ePg	Pg	16 58 57.0	-1.4
CLL				eSg	Sg	16 59 24.0	-0.4
CLL	Collm	1.95	266	ePN	Pn	16 58 54.0	-0.1
CLL				ePG	Pg	16 58 57.0	-1.4
CLL				e		16 59 00.0	
CLL				eSG	Sg	16 59 24.0	-0.4
OKC	Ostrava-Krasne	2.09	141	ePG	Pg	16 59 00.4	-0.8
OKC				eSG	Sg	16 59 27.2	-1.9
NKC	Novy Kostel	2.63	243	ePN	Pn	16 59 05.1	+1.2
NKC				ePG	Pg	16 59 11.3	-0.7
OJC	Ojcow	2.66	117	ePG	Pg	16 59 12.0	-0.4
OJC				eSG	Sg	16 59 47.0	-0.8
KHC	Kasperske Hory	2.85	216	ePn	Pn	16 59 08.3	+1.3
KHC				ePg	Pg	16 59 14.2	-2.2
KHC				eSg	Sg	16 59 52.8	-1.6
KHC	Kasperske Hory	2.85	216	ePN	Pn	16 59 08.3	+1.3
KHC				ePG	Pg	16 59 14.2	-2.2
KHC				eSN	Sn	16 59 43.0	+0.4
KHC				eSG	Sg	16 59 52.8	-1.6
MOX	Moxa	2.95	255	Pg	Pg	16 59 18.0	-0.4
MOX				Sg	Sg	16 59 56.0	-1.8
VYHS	Vyhne	3.47	148	ePN	Pn	16 59 17.7	+2.0
VYHS				ePG	Pg	16 59 26.5	-2.1
BSD	Bornholm Skovb	3.71	349	i P	Pn	16 59 18.7	-0.5
BSD				i		16 59 23.8	
BSD				eS	Sn	16 59 58.2	-6.2
MOA	Molln	3.82	199	⇓iPN	Pn	16 59 21.7	+0.9
MOA				i SG	Sg	17 00 25.8	-0.9
	4.8nm,0.5s						

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*IDC **27** 17:00:17.4±1.0, 12.78N×92.98E, mb3.8/10, mb1 3.9/11, mb1mx3.8/20, ML4.2/1, Error ellipse: s-maj=39.8km s-min=19.1km az=52.0*
*NEIC **27** 17:00:22.3±0.8, 12.88N×93.14E, h30^{km}, Error ellipse: s-maj=16.7km s-min=15.2km az=208.0*
ISC 27 17:00:20.6±0.8**, 13.0N**±0.1×**93.30E**±0.10**, h30^{km}, n12,** σ**0^{s}72**/13**, mb3.7**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	7.68	44	ePn	Pn	17 02 14.0	+0.7
	3.8nm,0.4s						
CMAR	Chiang Mai Arr	7.68	44	Pn	Pn	17 02 14.8	+1.5
	0.8nm,0.3s,baz=237,slow=15,SNR=16						
CMAR				Sn	Sn	17 03 38.9	-1.3
	0.3nm,0.3s,baz=237,slow=28,SNR=5.1						
SONM	Songino Array	36.41	15	P	P	17 07 28.1	+3.7
	0.4nm,0.8s,mb3.4,baz=201,slow=12,SNR=3.2						
ZAL	Zalesovo	41.38	352	P	P	17 08 05.8	+0.1
	0.8nm,0.7s,mb3.5,baz=270,slow=3.3,SNR=3.5						
BVAR	Borovoye Array	43.90	340	P	P	17 08 26.2	-0.1
	0.5nm,0.5s,mb3.5,baz=153,slow=6.4,SNR=3.3						
WRA	Warramunga Arr	51.99	128	P	P	17 09 29.5	-0.2
	0.4nm,0.8s,mb3.4,baz=313,slow=8.0,SNR=7.1						
ASAR	Alice Springs	53.90	132	P	P	17 09 43.5	-0.3
	0.2nm,0.4s,mb3.4,baz=310,slow=6.9,SNR=11						
FINES	FINESS Array B	67.83	331	P	P	17 11 17.2	-0.6
	1.1nm,0.6s,mb4.1,baz=117,slow=8.5,SNR=7.2						
ARCES	ARCESS Array B	70.19	340	P	P	17 11 32.3	0.0
	0.4nm,0.5s,mb3.6,baz=104,slow=5.0,SNR=5.3						
GERES	GERESS Array B	73.49	317	P	P	17 11 52.6	+0.3
	2.1nm,0.9s,mb4.1,baz=76,slow=5.5,SNR=13						
HFS	Hagfors	73.64	329	P	P	17 11 52.8	-0.2
	3.9nm,0.9s,mb4.3,baz=104,slow=6.1,SNR=6.6						
NOA	NORSAR Array B	74.89	330	P	P	17 11 59.7	-0.4
	1.1nm,0.8s,mb3.8,baz=95,slow=5.6,SNR=3.3						

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*NEIC **27** 17:02:47.0, 37.15S×177.52E, h184^{km}, After WEL.*
WEL 27 17:02:57.8±0.3**, 38.10S×176.40E, h154^{km}**±2^{km}**, ML3.7**/9**, 3C, Error ellipse: s-maj=2.0km s-min=1.8km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LIRZ	Lichensteins R	0.10	352	PN	P	17 03 18.4	-0.3
TAZ	Tarawera	0.15	147	P	P	17 03 18.6	-0.2
TAZ	Tarawera	0.15	147	PN	P	17 03 18.6	-0.2
UTU	Utuhina	0.18	246	PN	P	17 03 18.7	-0.2
MARZ	Manawahe	0.24	62	PN	P	17 03 18.8	-0.3
URZ	Urewera	0.58	106	eP	P	17 03 19.8	-0.6
URZ	Urewera	0.58	106	⇑PN	P	17 03 19.8	-0.7
URZ				SN	S	17 03 36.8	-1.1
MWZ	Matawai	0.92	105	P	P	17 03 22.3	-0.1
MWZ	Matawai	0.92	105	PN	P	17 03 22.3	-0.1
MWZ				SN	S	17 03 41.5	0.0
BKZ	Black Stump Fm	1.07	176	⇑PN	P	17 03 23.4	-0.3
BKZ				SN	S	17 03 42.9	-0.8
NGZ	Ngauruhoe	1.24	210	P	P	17 03 25.2	-0.2
NGZ	Ngauruhoe	1.24	210	PN	P	17 03 25.2	-0.2
TUVZ	Tukino	1.30	206	PN	P	17 03 25.6	-0.4
KNZ	Kokohu	1.35	133	P	P	17 03 26.5	0.0
KNZ	Kokohu	1.35	133	PN	P	17 03 26.5	0.0
KNZ				SN	S	17 03 47.7	-1.0
PUZ	Puketiti	1.46	89	PN	P	17 03 27.2	-0.4
PUZ				SN	S	17 03 49.6	-1.0
MXZ	Matakaoa Point	1.60	71	PN	P	17 03 28.7	-0.4
MXZ				SN	S	17 03 51.6	-1.5
PWZ	Pawanui	1.96	170	P	P	17 03 32.4	-0.5
PWZ	Pawanui	1.96	170	PN	P	17 03 32.1	-0.8
PWZ				SN	S	17 03 58.6	-1.5
TSZ	Takapari Road	1.98	190	P	P	17 03 31.9	-1.4
TSZ	Takapari Road	1.98	190	PN	P	17 03 31.9	-1.4
TSZ				SN	S	17 03 58.2	-2.5
WAZ	Wanganui	1.99	213	PN	P	17 03 34.0	+0.7
WAZ				SN	S	17 04 00.6	0.0
BFZ	Birch Farm	2.58	183	eP	P	17 03 38.4	-2.2
BFZ	Birch Farm	2.58	183	PN	P	17 03 38.5	-2.2
BFZ				SN	S	17 04 09.9	-3.5
MRZ	Mangatainoka R	2.63	194	P	P	17 03 38.6	-2.7
MRZ	Mangatainoka R	2.63	194	PN	P	17 03 38.5	-2.8
MRZ				SN	S	17 04 10.3	-4.4
KIW	Kapiti Island	2.99	202	PN	P	17 03 42.2	-3.6
MTW	Mount Morrison	3.13	193	P	P	17 03 44.0	-3.6
MTW	Mount Morrison	3.13	193	PN	P	17 03 43.9	-3.7
MTW				SN	S	17 04 20.5	-5.4
CAW	Cannon Point	3.17	199	P	P	17 03 44.6	-3.6
CAW	Cannon Point	3.17	199	⇑PN	P	17 03 44.6	-3.6
CAW				SN	S	17 04 22.1	-4.8
PAWZ	Paruwai Farm	3.36	193	PN	P	17 03 46.6	-4.0
MRW	Makara Radio	3.39	202	PN	P	17 03 46.8	-4.2
MRW				SN	S	17 04 26.8	-5.0
WEL	Wellington	3.42	201	P	P	17 03 47.5	-3.9
WEL	Wellington	3.42	201	PN	P	17 03 47.4	-4.0
MSWZ	Moikau Station	3.43	195	P	P	17 03 47.3	-4.2
MSWZ	Moikau Station	3.43	195	PN	P	17 03 47.3	-4.2
MSWZ				SN	S	17 04 26.4	-6.3
TUWZ	Tuamarina	3.83	209	ePN	P	17 03 52.1	-4.6
NNZ	Nelson	3.89	216	PN	P	17 03 52.4	-5.1
NNZ				SN	S	17 04 37.2	-6.2
THZ	Tophouse	4.54	215	PN	P	17 03 60.0	-6.0
MQZ	McQueen's Vall	6.28	206	eSN	S	17 05 28.2	-12

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*NEIC **27** 17:08:59.8±0.7, 10.34N×93.14E, h30^{km}, mb4.3/5, Error ellipse: s-maj=14.2km s-min=13.1km az=218.0*
*IDC **27** 17:09:03.8±9.6, 10.46N×93.35E, h63^{km}±84^{km}, mb3.6/9, mb1 3.8/10, mb1mx3.7/20, ML3.7/1, Error ellipse: s-maj=83.4km s-min=17.2km az=51.0*
ISC 27 17:08:58.0±0.8**, 10.4N**±0.1×**93.2E**±0.1**, h30^{km}, n17,** σ**0^{s}86**/17**, mb4.1**/14**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	9.76	34	ePn	P	17 11 19.6	-0.1
CMAR	Chiang Mai Arr	9.76	34	P	P	17 11 20.0	+0.3
	0.2nm,0.3s,baz=225,slow=14,SNR=8.7						
ENH	Enshi	24.93	35	eP	P	17 14 21.1	+0.8
	8.1nm,0.9s,mb4.2						
AAK	Ala-Archa	36.06	336	P	P	17 15 57.6	-1.3
	0.7nm,0.4s,mb3.9						
SONM	Songino Array	38.96	14	P	P	17 16 31.1	+8.0
	0.3nm,0.6s,mb3.2,baz=196,slow=9.9,SNR=3.2						
ZAL	Zalesovo	43.97	353	P	P	17 17 04.0	-0.1
	1.4nm,0.4s,mb4.0,baz=303,slow=12,SNR=5.4						
ZAL	Zalesovo	43.97	353	P	P	17 17 04.0	-0.1
BVAR	Borovoye Array	46.34	341	P	P	17 17 22.4	-0.7

	0.8nm,0.6s,mb3.9,baz=143,slow=7.4,SNR=4.9						
BRVK	Borovoye	46.40	341	*e*P	P	17 17 22.2	-1.3
	1.8nm,0.7s,mb4.1						
CHKZ	Chkalovo	46.83	342	*e*P	P	17 17 26.9	0.0
	4.7nm,0.9s,mb4.4						
WRA	Warramunga Arr	50.46	127	P	P	17 17 55.2	-0.3
	1.2nm,0.7s,mb4.1,baz=306,slow=8.5,SNR=9.2						
ASAR	Alice Springs	52.22	131	P	P	17 18 08.3	-0.5
	1.3nm,0.8s,mb3.9,baz=305,slow=7.1,SNR=13						
BRTR	Keskin Array B	60.12	310	P	P	17 19 04.9	-0.3
	0.5nm,0.6s,mb3.7,baz=175,slow=14,SNR=3.0						
FINES	FINESS Array B	70.09	332	P	P	17 20 09.1	-0.1
	3.7nm,1.0s,mb4.2,baz=121,slow=11,SNR=3.9						
GERES	GERESS Array B	75.37	318	P	P	17 20 42.0	+1.5
	1.0nm,0.7s,mb3.9,baz=104,slow=5.5,SNR=10						
HFS	Hagfors	75.85	329	P	P	17 20 43.2	+0.2
	9.7nm,1.2s,mb4.6,baz=78,slow=14,SNR=3.4						
LPG	La Plagne	80.22	315	*e*P	P	17 21 09.5	+2.2
	13nm,0.9s,mb4.6						

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*NEIC **27** 17:13:11.6±0.5, 13.23N×92.39E, h30^{km}, mb4.2/5, Error ellipse: s-maj=11.5km s-min=9.7km az=202.0*

*IDC **27** 17:13:15.6±5.4, 13.37N×92.61E, h61^{km}±48^{km}, mb3.8/13, mb1 3.9/14, mb1mx3.8/23, ML3.6/1, MS3.9/1, Ms1 3.9/1, ms1mx2.6/26, Error ellipse: s-maj=32.8km s-min=14.7km az=57.0*

ISC 27 17:13:11.0±3.5**, 13.2N**±0.1×**92.5E**±0.1**, h40**^{km}±29^{km}**, n24, σ0**^{s}**64**/24**, mb4.1**/16**, MS3.9**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	8.12	49	*e*Pn	P	17 15 08.6	-0.6
CMAR	Chiang Mai Arr	8.12	49	P	P	17 15 09.2	0.0
	0.2nm,0.3s,baz=239,slow=15,SNR=10						
CMAR				S	S	17 16 34.0	-6.8
	0.4nm,0.3s,baz=239,slow=28,SNR=11						
LSA	Lhasa	16.43	356	*e*P	P	17 17 00.8	+0.6
	6.1nm,0.6s						
QIZ	Qiongzhong	17.67	69	P	P	17 17 16.5	+0.6
	57nm,1.3s						
DDI	Dehra Dun	21.58	324	*e*	P	17 18 06.9	+7.7
ENH	Enshi	23.14	40	*e*P	P	17 18 13.8	-0.9
	13nm,1.0s,mb4.3						
SONM	Songino Array	36.40	16	P	P	17 20 14.5	+1.0
	1.8nm,0.9s,mb4.0,baz=202,slow=6.7,SNR=10						
ZAL	Zalesovo	41.05	353	P	P	17 20 51.7	-0.4
	0.8nm,0.6s,mb3.5,baz=310,slow=8.8,SNR=5.2						
ZAL	Zalesovo	41.05	353	P	P	17 20 51.7	-0.4
BVAR	Borovoye Array	43.41	341	P	P	17 21 11.8	+0.4
	0.3nm,0.7s,mb3.1,baz=282,slow=35,SNR=2.4						
CHKZ	Chkalovo	43.89	341	*e*P	P	17 21 14.9	-0.4
	1.4nm,0.6s,mb3.9						
CBIJ	Chichi jima	48.39	65	LR	LR	17 42 28.1	
	comp=Z,134nm,21.8s,MS3.9,baz=316,slow=36						
GNI	Garni	49.58	312	*e*P	P	17 21 59.1	-1.1
	2.3nm,0.7s,mb4.3						
NWAO	Narrogin (SRO)	51.65	153	P	P	17 22 16.6	+0.5
	12nm,1.1s,mb4.7,baz=325,slow=16,SNR=2.5						
WRA	Warramunga Arr	52.79	128	P	P	17 22 24.3	-0.4
	2.1nm,1.0s,mb4.0,baz=306,slow=8.2,SNR=7.9						
ASAR	Alice Springs	54.67	132	P	P	17 22 38.5	-0.1
	3.8nm,1.2s,mb4.3,baz=308,slow=7.1,SNR=8.0						
BRTR	Keskin Array B	57.74	309	P	P	17 22 59.9	-0.5
	1.1nm,0.9s,mb3.9,baz=127,slow=6.2,SNR=5.3						
MLR	Muntele Rosu	64.22	314	P	P	17 23 44.9	+0.8
	4.5nm,0.9s,mb4.5,baz=21,slow=9.5,SNR=3.8						
FINES	FINESS Array B	67.22	331	P	P	17 24 03.0	0.0
	1.3nm,0.8s,mb4.0,baz=325,slow=35,SNR=4.7						
FINES	FINESS Array B	67.22	331	P	P	17 24 03.0	0.0
GERES	GERESS Array B	72.76	317	P	P	17 24 37.8	+0.8
	1.1nm,0.8s,mb3.9,baz=76,slow=5.5,SNR=7.5						
HFS	Hagfors	73.02	329	P	P	17 24 37.8	-0.5
	4.4nm,0.9s,mb4.4,baz=173,slow=37,SNR=2.7						
ILAR	Eielson Array	90.42	22	P	P	17 26 08.3	-0.9
	0.9nm,0.7s,mb4.2,baz=300,slow=4.7,SNR=12						
INK	Inuvik	92.32	16	P	P	17 26 18.9	+1.0
	1.9nm,1.2s,mb4.3,baz=272,slow=2.2,SNR=3.2						

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*BJI **27** 17:16:28.3, 6.15N×94.96E, h42^{km}, mB5.2, mb4.7, Ms4.6, Msz4.2*

*MOS **27** 17:16:29.9±0.8, 6.61N×94.73E, h33^{km}, mb4.7/25, Error ellipse: s-maj=16.6km s-min=8.2km az=111.3*

*NEIC **27** 17:16:30.4±0.3, 6.58N×94.71E, mb4.8/16, Error ellipse: s-maj=9.5km s-min=7.4km az=68.0*

*IDC **27** 17:16:34.0±4.9, 6.65N×94.78E, h52^{km}±44^{km}, mb4.0/20, mb1 4.2/21, mb1mx4.1/26, ML4.2/1, Error ellipse: s-maj=27.4km s-min=13.5km az=56.0*

ISC 27 17:16:28.6±0.4**, 6.57N**±0.07×**94.73E**±0.07**, h24**^{km}**, h24**^{km}±1.2^{km}**:pP-P, n99, σ0**^{s}**99**/97**, mb4.6**/48**, MS4.3**/5**, 4C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.51	19	*e*Pn	P	17 19 26.9	-1.3
CMAR	Chiang Mai Arr	12.51	19	P	P	17 19 28.8	+0.6
	0.4nm,0.3s,baz=205,slow=14,SNR=8.7						
KMI	Kunming	19.98	22	P	P	17 21 03.8	+1.4
KMI				AMB	AMB		
	comp=Z,18nm,0.9s						
LSA	Lhasa	23.25	352	*e*P	P	17 21 36.1	+0.7
LSA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.3						
LSA	Lhasa	23.25	352	*e*P	P	17 21 36.1	+0.7
	comp=Z,10nm,0.8s,mb4.3						
CD2	Chengdu	25.65	18	⇓*i*P	P	17 21 59.0	+0.6
CD2				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.0						
XAN	Xi’an	30.33	24	P	P	17 22 40.0	-0.7
XAN				AMB	AMB		
	comp=Z,27nm,0.9s,mb5.0						
LZH	Lanzhou	30.54	15	⇑P	P	17 22 43.0	+0.4
LZH				AMB	AMB		
	comp=Z,36nm,1.5s,mb5.0						
GTA	Gaotai	33.02	7	*e*P	P	17 23 05.8	+1.6
GTA				AP	pP	17 23 11.5	+0.2
GTA				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.9						
NJ2	Nanjing	33.90	38	*e*P	P	17 23 09.8	-2.2
NJ2				AP	pP	17 23 19.5	+0.4
NJ2				XP	sP	17 23 23.3	+1.2
NJ2				PP	PP	17 24 23.3	-2.5
NJ2				S	S	17 28 30.0	-4.1
NJ2				SS	SS	17 30 37.0	-4.2
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,520nm,4.7s						
NJ2				LR	LR		
	comp=N,2µm,16.4s,MS5.0						
NJ2				LR	LR		
	comp=E,1µm,18.0s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,15.3s,MS5.0						
SSE	Sheshan	34.77	42	P	P	17 23 14.8	-4.7
SSE				AMB	AMB		
	comp=Z,32nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,129nm,4.9s						
HHC	Hu-ho-hao-te	37.30	21	*e*P	P	17 23 42.5	+1.7
HHC				AP	pP	17 23 49.5	+1.6
HHC				XP	sP	17 23 55.0	+4.1
HHC				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
HHC				AMB	AMB		
	comp=Z,114nm,5.0s						
HHC				LR	LR		
	comp=N,205nm,14.3s,MS4.3						
HHC				LR	LR		
	comp=E,360nm,15.5s,MS4.3						
HHC				LR	LR		
	comp=Z,235nm,9.8s						
BJT	Baijiatuau	38.46	27	*e*P	P	17 23 51.5	+0.9
BJT				*e**PP	pP	17 23 59.1	+1.4
BJT				pmax	pmax		
	comp=Z,23nm,1.0s						
BJT	Baijiatuau	38.46	27	*e*P	P	17 23 51.5	+1.0
	comp=Z,23nm,1.0s,mb4.9						
BJT				*e*pP	pP	17 23 59.0	+1.3
UCH	Uchtor	39.77	336	P	P	17 24 02.4	+1.0
	SNR=6.4						
KBK	Karagaybulak	39.97	337	P	P	17 24 03.9	+0.8
	SNR=9.7						
AML	Almayashu	40.03	335	P	P	17 24 04.3	+0.7
	SNR=12						
AAK	Ala-Archa	40.12	337	P	P	17 24 05.5	+1.2
	SNR=6.2						
AAK	Ala-Archa	40.12	337	*i* P	P	17 24 03.7	-0.6
AAK				pmax	pmax		
	comp=Z,14nm,1.8s,mb4.4						
AAK	Ala-Archa	40.12	337	*e*P	P	17 24 04.0	-0.4
	comp=Z,13nm,1.3s,mb4.5						
EKS2	Erkin-Say	40.44	336	P	P	17 24 07.6	+0.7
	SNR=6.7						
USP	Ospenovka	40.66	337	P	P	17 24 09.1	+0.4
	SNR=8.9						
SONM	Songino Array	42.31	12	P	P	17 24 21.9	-0.3
	comp=Z,6.3nm,0.8s,mb4.3,baz=194,slow=8.2,SNR=44						
ULN	Ulaanbaatar	42.47	12	*e*P	P	17 24 23.5	-0.1
ULN				*e**PP	pP	17 24 30.5	-0.2
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.1						
ULN	Ulaanbaatar	42.47	12	*e*P	P	17 24 23.5	0.0
	comp=Z,2.8nm,0.6s,mb4.1						
ULN				*e*pP	pP	17 24 30.5	-0.2
SNY	Shenyang	43.46	32	⇑P	P	17 24 32.5	+0.8
SNY				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.4						
SNY				LR	LR		
	comp=E,370nm,20.2s						
SNY				LR	LR		
	comp=Z,220nm,20.0s,MS4.1						
ZAK	Zakamensk	44.25	8	*e*P	P	17 24 27.3	-11
NWAO	Narrogin (SRO)	44.73	153	P	P	17 24 42.2	+0.2
	comp=Z,7.2nm,0.9s,mb4.5,baz=259,slow=21,SNR=5.6						
NWAO	Narrogin (SRO)	44.73	153	P	P	17 24 42.3	+0.2
NWAO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
CN2	Changchun	45.83	31	*e*P	P	17 24 51.5	+0.9
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
CN2				LR	LR		
	comp=N,260nm,13.0s,MS4.5						
CN2				LR	LR		
	comp=E,290nm,13.0s,MS4.5						
CN2				LR	LR		
	comp=Z,190nm,14.0s,MS4.2						
WRA	Warramunga Arr	47.03	125	P	P	17 25 00.7	+0.2
	comp=Z,1.8nm,0.7s,mb4.1,baz=306,slow=8.9,SNR=13						
WRA	Warramunga Arr	47.03	125	P	P	17 25 00.7	+0.2
WRA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
WRAB	Tennant Creek	47.04	125	*e*P	P	17 25 00.8	+0.3
WRAB				*e**PP	pP	17 25 07.0	-0.8
WRAB				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
WRAB	Tennant Creek	47.04	125	*e*P	P	17 25 00.8	+0.3
	comp=Z,11nm,1.0s,mb4.8						
WRAB				*e*pP	pP	17 25 07.0	-0.7
ZAL	Zalesovo	47.91	352	P	P	17 25 06.7	-0.3
	comp=Z,2.0nm,0.9s,mb4.1,baz=290,slow=8.5,SNR=12						
ZAL	Zalesovo	47.91	352	P	P	17 25 06.7	-0.2
ZAL				pmax	pmax		
	comp=Z,2.0nm,1.0s						
ASAR	Alice Springs	48.64	129	P	P	17 25 13.0	0.0
	comp=Z,1.0nm,0.5s,mb4.1,baz=302,slow=7.9,SNR=15						
BVAR	Borovoye Array	50.40	341	P	P	17 25 25.3	-0.8
	comp=Z,2.9nm,0.7s,mb4.4,baz=143,slow=7.4,SNR=21						
BRVK	Borovoye	50.47	341	*e*P	P	17 25 25.2	-1.4
BRVK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
BRVK	Borovoye	50.47	341	*e*P	P	17 25 25.2	-1.4
	comp=Z,5.8nm,1.1s,mb4.5						
CHKZ	Chkalovo	50.89	342	*e*P	P	17 25 28.9	-0.9
CHKZ				*e**PP	pP	17 25 36.5	-0.6
CHKZ				pmax	pmax		
	comp=Z,32nm,1.5s,mb5.0						
CHKZ	Chkalovo	50.89	342	*e*P	P	17 25 28.9	-0.9
	comp=Z,32nm,1.5s,mb5.0						
CHKZ				*e*pP	pP	17 25 36.5	-0.6
BOD	Bodaibo	53.28	13	⇑*i*P	P	17 25 46.4	-1.3
GNI	Garni	55.76	315	*i* P	P	17 26 06.7	+0.6
GNI				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ARU	Arti	57.31	337	⇓*i*P	P	17 26 15.6	-1.3
ARU				*e*		17 27 05.0	
ARU				*e*		17 28 22.0	
ARU				*e*S	S	17 34 12.4	+2.5
ARU				*e*SS	SS	17 38 03.2	+2.4
ARU				pmax	pmax		
	comp=Z,13nm,1.7s,mb4.7						
ZEI	Tsey	57.39	317	*e*P	P	17 26 18.5	+0.8
ZEI				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
YSS	Yuzh-Sakhalins	57.45	37	*e*P	P	17 26 18.2	+0.1
YSS				*e**PP	pP	17 26 25.6	+0.1
YSS				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.3						
YSS	Yuzh-Sakhalins	57.45	37	*e*P	P	17 26 18.2	+0.1
	comp=Z,37nm,1.1s,mb5.3						
YSS				*e*pP	pP	17 26 25.6	+0.1
KMBO	Kilima Mbogo	57.87	265	P	P	17 26 21.8	+0.3
	comp=Z,0.7nm,0.8s,mb3.8,baz=58,slow=23,SNR=2.6						
KMBO	Kilima Mbogo	57.87	265	*e*P	P	17 26 21.5	+0.1
KMBO				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KMBO	Kilima Mbogo	57.87	265	*e*P	P	17 26 21.5	0.0
	comp=Z,3.1nm,1.0s,mb4.3						
KIV	Kislovodsk	58.67	318	*e*P	P	17 26 26.3	-0.3
KIV				pmax	pmax		
	comp=E,5.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
KIV	Kislovodsk	58.67	318	*e*P	P	17 26 26.2	-0.5
	comp=Z,10.0nm,1.0s,mb4.8						
STKA	Stephens Creek	58.79	133	P	P	17 26 33.9	+6.3
	comp=Z,1.7nm,0.7s,mb4.2,baz=307,slow=11,SNR=3.5						
SOC	Sochi	60.52	317	*e*P	P	17 26 35.7	-3.7
SOC				*e*		17 27 19.5	
SOC				*e*		17 28 54.7	
SOC				*e*S	S	17 34 48.8	-3.0
SOC				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.8						
SOC				pmax	pmax		
	comp=N,3.0nm,0.6s						
EIL	Elat	60.58	300	P	P	17 26 41.9	+2.0
	comp=N,4.1nm,0.7s,mb4.7,baz=72,slow=3.4,SNR=4.4						
EIL	Elat	60.58	300	P	P	17 26 41.9	+2.0
YAK	Yakutsk	61.04	18	*e*P	P	17 26 40.8	-1.8
YAK				*e**PP	pP	17 26 47.6	-2.5
YAK				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
YAK	Yakutsk	61.04	18	*e*P	P	17 26 40.8	-1.8
	comp=Z,12nm,0.8s,mb5.1						
YAK				*e*pP	pP	17 26 47.6	-2.5
BRTR	Keskin Array B	63.72	311	P	P	17 26 59.7	-1.2
	comp=Z,1.9nm,0.6s,mb4.3,baz=122,slow=7.7,SNR=9.6						
BRTR	Keskin Array B	63.72	311	P	P	17 26 59.7	-1.2
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
OBN	Obninsk	66.79	328	*e*P	P	17 27 19.0	-1.3
OBN				pmax	pmax		
	comp=Z,20nm,1.5s,mb4.9						
TIXI	Tiksi	68.39	11	⇑*i*P	P	17 27 28.9	-1.3
TIXI				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,60nm,14.0s,MS4.0						
AKASG	Malin Array Be	69.53	322	P	P	17 27 36.0	-1.5
	comp=Z,0.9nm,0.6s,mb3.9,baz=88,slow=4.8,SNR=7.3						
AKASG	Malin Array Be	69.53	322	P	P	17 27 36.0	-1.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.6s						
IDI	Anoyia	69.79	305	P	P	17 27 39.6	+0.2
	comp=Z,5.2nm,0.6s,mb4.7,baz=69,slow=8.6,SNR=6.5						
MLR	Muntele Rosu	70.51	316	P	P	17 27 43.3	-0.3
	comp=Z,1.7nm,0.9s,mb4.0,baz=78,slow=12,SNR=3.3						
MLR	Muntele Rosu	70.51	316	P	P	17 27 43.3	-0.3
MLR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
SUW	Suwalki	73.90	324	*e*P	P	17 28 02.5	-1.0
SUW				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
SUW	Suwalki	73.90	324	*e*P	P	17 28 02.5	-1.0
	comp=Z,23nm,1.0s,mb5.1						
FINES	FINESS Array B	74.13	332	P	P	17 28 04.2	-0.5
	comp=Z,7.0nm,0.5s,mb4.8,baz=97,slow=6.2,SNR=81						
FINES	FINESS Array B	74.13	332	P	P	17 28 04.2	-0.5
FINES				pmax	pmax		
	comp=Z,7.0nm,0.5s						
KAF	Kangasniemi	74.21	333	*e*p	P	17 28 04.5	-0.6
	comp=Z,5.9nm,0.6s,mb4.7						
KAF	Kangasniemi	74.21	333	*e*P	P	17 28 04.5	-0.6
KAF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
KEV	Kevo	76.25	341	*e*p	P	17 28 15.6	-1.1
ARCES	ARCESS Array B	76.68	340	P	P	17 28 18.9	-0.2
	comp=Z,6.7nm,0.9s,mb4.6,baz=95,slow=6.2,SNR=29						
ARCES	ARCESS Array B	76.68	340	P	P	17 28 18.9	-0.2
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MORC	Moravsky Berou	76.74	319	*e*P	P	17 28 20.2	+0.4
MORC				*e**PP	pP	17 28 28.0	+0.6
MORC				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
MORC	Moravsky Berou	76.74	319	*e*P	P	17 28 20.2	+0.4
	comp=Z,11nm,1.3s,mb4.6						
MORC				*e*pP	pP	17 28 28.0	+0.6
VRAC	Vranov	77.31	319	P	P	17 28 24.6	+1.6
	comp=Z,1.3nm,0.5s,mb4.1,baz=21,slow=4.0,SNR=2.4						
VRAC	Vranov	77.31	319	P	P	17 28 24.6	+1.6
VRAC				pmax	pmax		
	comp=Z,1.0nm,0.5s						
DPC	Dobruska-Polom	77.58	320	*e*P	P	17 28 25.6	+1.2
GERES	GERESS Array B	79.18	318	P	P	17 28 34.0	+0.7
	comp=Z,2.1nm,0.6s,mb4.2,baz=107,slow=3.6,SNR=17						
GERES	GERESS Array B	79.18	318	P	P	17 28 34.0	+0.7
GERES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KHC	Kasperske Hory	79.28	319	*e*P	P	17 28 33.6	-0.2
HFS	Hagfors	79.87	330	P	P	17 28 36.9	+0.2
	comp=Z,9.7nm,1.2s,mb4.6,baz=135,slow=4.2,SNR=11						
HFS	Hagfors	79.87	330	P	P	17 28 36.9	+0.2
HFS				pmax	pmax		
	comp=Z,10.0nm,1.2s						
NB2	NORSAR Subarra	81.15	331	P	P	17 28 42.9	-0.6
	comp=Z,1.3nm,0.7s,mb4.0,baz=96,slow=4.8						
NB2	NORSAR Subarra	81.15	331	P	P	17 28 42.9	-0.6
NB2				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
NOA	NORSAR Array B	81.15	331	P	P	17 28 43.1	-0.3
	comp=Z,2.4nm,0.8s,mb4.2,baz=91,slow=5.7,SNR=5.2						
NOA	NORSAR Array B	81.15	331	P	P	17 28 43.2	-0.3
NOA				pmax	pmax		
	comp=Z,2.0nm,0.8s						
DAVOX	Davos	81.73	316	P	P	17 28 47.3	+0.5
	comp=Z,2.4nm,0.6s,mb4.3,baz=128,slow=18,SNR=4.9						
LPL	La Plagne	83.96	315	*e*P	P	17 29 05.8	+7.5
	comp=Z,56nm,1.5s,mb5.2						
LPL	La Plagne	83.96	315	*e*P	P	17 29 05.8	+7.5
LPL				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.2						
ULM	Lac du Bonnet	122.67	8	PKP	PKPdf	17 35 23.2	-3.9
	comp=Z,0.6nm,0.4s,baz=17,slow=8.3,SNR=3.2						
ULM	Lac du Bonnet	122.67	8	PKP	PKPdf	17 35 23.2	-3.9
PDAR	Pinedale Array	126.16	22	PKP	PKPdf	17 35 30.9	-3.2
	comp=Z,0.8nm,1.0s,baz=45,slow=2.1,SNR=5.3						
TXAR	Lajitas Array	140.16	25	PKP	PKPdf	17 35 57.9	-2.8
	comp=Z,0.1nm,0.4s,baz=34,slow=6.5,SNR=3.2						
CPUP	Villa Florida	146.91	230	PKPbc	PKPbc	17 36 11.9	+2.4
	comp=Z,0.0nm,0.6s,baz=335,slow=14,SNR=1.7						

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*IDC **27** 17:21:34.3±1.1, 8.21N×94.34E, mb3.8/7, mb1 3.9/8, mb1mx3.8/20, ML3.6/1, Error ellipse: s-maj=52.2km s-min=21.5km az=60.0*

*NEIC **27** 17:21:38.3±0.8, 8.00N×94.05E, h30^{km}, mb4.3/3, Error ellipse: s-maj=26.4km s-min=16.8km az=67.0*

ISC 27 17:21:36.1±0.9**, 8.0N**±0.1×**94.1E**±0.2**, h30**^{km}**, n12, σ1**^{s}**06**/11**, mb4.0**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.43	24	Pn	P	17 24 21.7	+1.2
	0.1nm,0.3s,baz=210,slow=14,SNR=3.2						
SONM	Songino Array	41.06	13	P	P	17 29 18.5	-0.1
	1.1nm,0.9s,mb3.5,baz=190,slow=7.5,SNR=5.3						
ZAL	Zalesovo	46.41	352	P	P	17 30 00.3	-1.4
	1.4nm,0.8s,mb4.0,baz=300,slow=7.5,SNR=7.3						
WRA	Warramunga Arr	48.39	126	P	P	17 30 17.4	-0.3
	0.7nm,0.6s,mb3.9,baz=305,slow=8.6,SNR=5.8						
BVAR	Borovoye Array	48.85	341	P	P	17 30 19.8	-1.0
	1.1nm,0.9s,mb3.9,baz=166,slow=6.1,SNR=4.1						
BRVK	Borovoye	48.91	341	P	P	17 30 20.6	-0.7
	1.1nm,0.7s,mb4.0						
CHKZ	Chkalovo	49.33	342	*e*P	P	17 30 23.0	-1.5
	4.1nm,0.9s,mb4.5						
ASAR	Alice Springs	50.05	130	P	P	17 30 30.5	0.0
	0.5nm,0.5s,mb3.8,baz=303,slow=8.0,SNR=5.1						
GNI	Garni	54.30	314	P	P	17 31 03.3	+1.3
	1.9nm,0.5s,mb4.3						
FINES	FINESS Array B	72.57	332	P	P	17 33 03.2	+1.1
	1.0nm,0.8s,mb3.8,baz=90,slow=8.3,SNR=2.9						
HFS	Hagfors	78.31	330	P	P	17 33 36.4	+1.5
	1.6nm,0.7s,mb4.0,baz=104,slow=5.9,SNR=3.7						
CPUP	Villa Florida	147.28	233	PKPbc	PKPdf	17 41 21.1	+0.9
	0.0nm,0.3s,baz=172,slow=16,SNR=1.5						

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*IDC **27** 17:23:35.6±0.8, 13.51N×92.64E, mb4.0/10, mb1 4.1/11, mb1mx3.9/20, ML3.3/1, Error ellipse: s-maj=29.8km s-min=16.9km az=53.0*

*NEIC **27** 17:23:40.3±0.6, 13.60N×92.79E, h30^{km}, mb4.1/1, Error ellipse: s-maj=13.7km s-min=12.2km az=224.0*

ISC 27 17:23:37.7±5.4**, 13.65N**±0.10×**92.9E**±0.1**, h25**^{km}±38^{km}**, n13, σ0**^{s}**98**/14**, mb4.0**/11**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.53	50	*e*Pn	Pn	17 25 28.8	0.0
CMAR	Chiang Mai Arr	7.53	50	Pn	Pn	17 25 28.5	-0.3
	0.1nm,0.3s,baz=242,slow=15,SNR=3.8						
CMAR				Sn	Sn	17 26 53.1	-1.1
	0.4nm,0.3s,baz=240,slow=28,SNR=6.1						
JOW	Kunigami	35.56	63	P	P	17 30 37.7	+2.5
	22nm,0.9s,mb5.1,baz=111,slow=30,SNR=3.8						
SONM	Songino Array	35.89	16	P	P	17 30 39.8	+2.0
	1.2nm,1.2s,mb3.7,baz=207,slow=9.7,SNR=2.5						
ZAL	Zalesovo	40.70	353	P	P	17 31 18.3	+0.5
	0.8nm,0.9s,mb3.3,baz=332,slow=15,SNR=2.6						
CHKZ	Chkalovo	43.65	341	*e*P	P	17 31 41.9	0.0
	2.1nm,0.6s,mb4.0						
NWAO	Narrogin (SRO)	51.82	154	P	P	17 32 45.1	-0.9
	18nm,1.2s,mb4.9,baz=231,slow=12,SNR=3.3						
WRA	Warramunga Arr	52.70	128	P	P	17 32 53.2	+0.4
	1.2nm,0.6s,mb4.0,baz=308,slow=7.8,SNR=14						
ASAR	Alice Springs	54.62	132	P	P	17 33 06.8	-0.1
	0.5nm,0.5s,mb3.8,baz=308,slow=6.9,SNR=16						
BRTR	Keskin Array B	57.83	308	P	P	17 33 28.2	-1.4
	0.6nm,0.7s,mb3.7,baz=117,slow=8.3,SNR=4.6						
FINES	FINESS Array B	67.08	331	P	P	17 34 30.1	-0.8
	1.2nm,0.7s,mb4.0,baz=135,slow=8.1,SNR=4.3						
ARCES	ARCESS Array B	69.46	340	P	P	17 34 45.9	+0.3
	2.9nm,1.0s,mb4.2,baz=117,slow=2.7,SNR=3.7						
GERES	GERESS Array B	72.76	317	P	P	17 35 05.8	0.0
	0.9nm,0.7s,mb3.8,baz=76,slow=5.5,SNR=7.7						

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*IDC **27** 17:27:20.1±1.1, 11.25N×92.49E, mb3.6/7, mb1 3.7/8, mb1mx3.6/19, ML3.4/1, Error ellipse: s-maj=42.2km s-min=21.2km az=51.0*

*NEIC **27** 17:27:24.8±0.8, 11.28N×92.55E, h30^{km}, mb4.0/1, Error ellipse: s-maj=19.4km s-min=14.6km az=52.0*

ISC 27 17:27:22.8±0.9**, 11.3N**±0.1×**92.6E**±0.1**, h30**^{km}**, n10, σ0**^{s}**72**/10**, mb3.6**/8**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.38	40	Pn	P	17 29 38.8	-0.3
	0.1nm,0.3s,baz=239,slow=14,SNR=3.9						
SONM	Songino Array	38.21	15	P	P	17 34 42.4	+0.7
	0.2nm,0.4s,mb3.2,baz=205,slow=6.9,SNR=3.8						
BVAR	Borovoye Array	45.27	341	P	P	17 35 39.7	+0.3
	0.4nm,0.5s,mb3.5,baz=150,slow=12,SNR=3.0						
CHKZ	Chkalovo	45.76	342	*e*P	P	17 35 43.2	-0.1
	1.0nm,0.5s,mb4.0						
WRA	Warramunga Arr	51.49	127	P	P	17 36 26.8	-1.3
	0.3nm,0.4s,mb3.6,baz=300,slow=10,SNR=8.2						
WRA	Warramunga Arr	51.49	127	P	P	17 36 26.8	-1.3
ASAR	Alice Springs	53.28	131	P	P	17 36 42.9	+1.4
	0.4nm,0.5s,mb3.6,baz=300,slow=7.8,SNR=6.1						
BRTR	Keskin Array B	59.08	310	P	P	17 37 22.3	-0.6
	0.3nm,0.3s,mb3.7,baz=114,slow=14,SNR=2.5						
ARCES	ARCESS Array B	71.54	340	P	P	17 38 42.5	-0.2
	1.2nm,0.8s,mb3.9,baz=102,slow=8.3,SNR=2.6						

GERES	**GERESS Array B**	**74.28**	**318**	P	**P**	**17 38 59.4**	**+0.3**
	0.4nm,0.6s,mb3.5,baz=68,slow=7.2,SNR=4.0						

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*BJI **27** 17:32:25.1, 7.01N×94.02E, h22^{km}, mB5.0, mb4.5*
*IDC **27** 17:32:27.3±0.7, 7.44N×94.06E, mb4.2/18, mb1 4.3/19, mb1mx4.2/26, ML4.1/1, MS3.0/1, Ms1 3.2/1, ms1mx2.6/26, Error ellipse: s-maj=28.8km s-min=14.3km az=49.0*
*NEIC **27** 17:32:31.2±0.5, 7.54N×94.22E, mb4.4/6, Error ellipse: s-maj=16.8km s-min=11.2km az=57.0*
ISC 27 17:32:26.2±8.8**, 7.4N**±0.1×**94.1E**±0.1**, h5**^{km}±54^{km}**, h23**^{km}±.6^{km}**:pP-P, n38,** σ**0**^{s}**96**/38**, mb4.4**/32**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.97**	**23**	Pn	**P**	**17 35 19.4**	**-1.3**
	0.4nm,0.3s,baz=214,slow=14,SNR=19						
CMAR				LR	LR	17 39 39.9	
	comp=Z,80nm,20.4s,baz=220,slow=36						
KMI	**Kunming**	**19.48**	**24**	P	**P**	**17 36 58.0**	**+1.1**
KMI				AMB	AMB		
	comp=Z,11nm,1.0s						
PKI	**Pulchoki**	**21.68**	**339**	*e*P	**P**	**17 37 21.4**	**+1.3**
	comp=Z,30nm,0.9s,mb4.7						
DMN	**Daman**	**21.83**	**338**	*e*P	**P**	**17 37 21.5**	**0.0**
	comp=Z,38nm,0.9s,mb4.8						
GUN	**Gumba**	**21.83**	**340**	*e*P	**P**	**17 37 22.3**	**+0.7**
	comp=Z,49nm,1.0s,mb4.9						
KKN	**Kakani**	**21.93**	**339**	*e*P	**P**	**17 37 22.9**	**+0.4**
	comp=Z,42nm,1.0s,mb4.8						
LSA	**Lhasa**	**22.36**	**353**	*e*P	**P**	**17 37 27.1**	**+0.3**
	comp=Z,14nm,0.8s,mb4.4						
GKN	**Gorkha**	**22.36**	**338**	*e*P	**P**	**17 37 26.6**	**-0.2**
	comp=Z,40nm,1.0s,mb4.8						
GYA	**Guiyang**	**22.43**	**31**	⇑*i*P	**P**	**17 37 28.8**	**+1.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
KOLN	**Koldanda**	**22.57**	**335**	*e*P	**P**	**17 37 28.5**	**-0.4**
	comp=Z,18nm,0.6s,mb4.7						
WMQ	**Urumqi**	**36.71**	**352**	*e*P	**P**	**17 39 37.0**	**+0.8**
WMQ				AP	pP	17 39 44.0	+6.5
WMQ				AMB	AMB		
	comp=Z,2.0nm,0.6s,mb4.1						
AAK	**Ala-Archa**	**39.12**	**337**	*e*P	**P**	**17 39 56.1**	**-0.4**
	comp=Z,4.0nm,1.0s,mb4.1						
SONM	**Songino Array**	**41.64**	**12**	P	**P**	**17 40 16.8**	**-0.4**
	comp=Z,1.9nm,1.0s,mb3.7,baz=193,slow=9.3,SNR=13						
SONM				PcP	PcP	17 42 15.9	+1.1
	comp=Z,2.1nm,1.3s,baz=225,slow=4.1,SNR=2.9						
NWAO	**Narrogin (SRO)**	**45.75**	**153**	P	**P**	**17 40 52.4**	**+1.7**
	comp=Z,12nm,1.0s,mb4.8,baz=152,slow=22,SNR=1.7						
ZAL	**Zalesovo**	**47.01**	**353**	P	**P**	**17 40 59.6**	**-0.7**
	comp=Z,1.6nm,0.5s,mb4.2,baz=290,slow=8.3,SNR=11						
WRA	**Warramunga Arr**	**48.04**	**125**	P	**P**	**17 41 07.4**	**-1.5**
	comp=Z,0.7nm,0.6s,mb3.9,baz=305,slow=8.5,SNR=10						
BVAR	**Borovoye Array**	**49.42**	**341**	P	**P**	**17 41 17.8**	**-1.3**
	comp=Z,1.7nm,0.7s,mb4.2,baz=149,slow=8.6,SNR=11						
BVAR				PcP	PcP	17 42 41.6	-0.1
	comp=Z,0.4nm,0.6s,SNR=3.1						
BRVK	**Borovoye**	**49.48**	**341**	*e*P	**P**	**17 41 18.2**	**-1.4**
	comp=Z,3.8nm,0.9s,mb4.4						
BRVK				*e*pP	pP	17 41 24.7	+3.8
ASAR	**Alice Springs**	**49.66**	**130**	P	**P**	**17 41 20.7**	**-0.6**
	comp=Z,0.6nm,0.6s,mb3.8,baz=301,slow=7.8,SNR=11						
CHKZ	**Chkalovo**	**49.91**	**342**	*e*P	**P**	**17 41 21.8**	**-1.0**
	comp=Z,6.5nm,0.7s,mb4.8						
CHKZ				*e*pP	pP	17 41 28.9	+4.7
PMG	**Port Moresby**	**55.45**	**107**	P	**P**	**17 42 04.3**	**-0.4**
	comp=Z,2.2nm,0.6s,mb4.4,baz=335,slow=18,SNR=2.7						
KMBO	**Kilima Mbogo**	**57.31**	**264**	P	**P**	**17 42 22.3**	**+4.3**
	comp=Z,1.8nm,0.8s,mb4.2,baz=53,slow=13,SNR=6.4						
KMBO	**Kilima Mbogo**	**57.31**	**264**	P	**P**	**17 42 22.3**	**+4.3**
KIV	**Kislovodsk**	**57.63**	**318**	P	**P**	**17 42 19.4**	**-0.5**
	comp=Z,2.1nm,0.4s,mb4.5						
ASF	**Jabal al Asfar**	**58.42**	**303**	P	**P**	**17 42 27.5**	**+2.0**
	comp=Z,1.8nm,0.8s,mb4.2,baz=61,slow=1.2,SNR=2.9						
BRTR	**Keskin Array B**	**62.69**	**311**	P	**P**	**17 42 53.1**	**-1.4**
	comp=Z,0.9nm,0.6s,mb4.1,baz=134,slow=8.3,SNR=4.9						
IDI	**Anoyia**	**68.79**	**305**	P	**P**	**17 43 33.8**	**0.0**
	comp=Z,8.8nm,0.9s,mb4.7,baz=357,slow=22,SNR=4.3						
MLR	**Muntele Rosu**	**69.47**	**316**	P	**P**	**17 43 38.0**	**+0.2**
	comp=Z,3.1nm,1.0s,mb4.2,baz=212,slow=13,SNR=3.1						
FINES	**FINESS Array B**	**73.10**	**332**	P	**P**	**17 43 59.0**	**-0.3**
	comp=Z,1.7nm,0.5s,mb4.2,baz=87,slow=6.4,SNR=12						
ARCES	**ARCESS Array B**	**75.69**	**340**	P	**P**	**17 44 14.3**	**+0.2**
	comp=Z,4.7nm,1.0s,mb4.4,baz=90,slow=4.9,SNR=5.2						
FX1	**Attu Island--F**	**77.56**	**38**	P	**P**	**17 44 25.3**	**+0.4**
	comp=Z,24nm,0.9s,mb5.1,baz=163,slow=18,SNR=2.5						
GERES	**GERESS Array B**	**78.14**	**318**	P	**P**	**17 44 28.8**	**+0.7**
	comp=Z,0.5nm,0.6s,mb3.6,baz=76,slow=5.5,SNR=8.3						
NB2	**NORSAR Subarra**	**80.11**	**331**	P	**P**	**17 44 38.1**	**-0.5**
	comp=Z,1.5nm,0.7s,mb4.0,baz=92,slow=5.6						
NOA	**NORSAR Array B**	**80.11**	**331**	P	**P**	**17 44 37.4**	**-1.2**
	comp=Z,0.8nm,0.6s,mb3.8,baz=95,slow=5.2,SNR=3.4						
NOA	**NORSAR Array B**	**80.11**	**331**	P	**P**	**17 44 37.4**	**-1.2**
DAVOX	**Davos**	**80.69**	**316**	P	**P**	**17 44 41.9**	**-0.1**
	comp=Z,2.4nm,0.8s,mb4.2,baz=340,slow=5.8,SNR=3.5						
INK	**Inuvik**	**97.47**	**16**	P	**P**	**17 46 04.1**	**+2.0**
	comp=Z,1.2nm,1.1s,mb4.2,baz=313,slow=4.1,SNR=3.3						
INK	**Inuvik**	**97.47**	**16**	P	**P**	**17 46 04.1**	**+2.0**

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*IDC **27** 17:35:37.3±1.6, 21.60N×143.10E, h287^{km}±16^{km}, mb3.5/14, mb1 3.7/16, mb1mx3.5/27, Error ellipse: s-maj=22.3km s-min=9.3km az=84.0*
*NEIC **27** 17:35:37.5±2.4, 21.61N×143.11E, h290^{km}±24^{km}, mb3.8/3, Error ellipse: s-maj=18.7km s-min=6.6km az=80.0*
ISC 27 17:35:36.6±1.2**, 21.59N**±0.08×**143.1E**±0.2**, h295**^{km}±12^{km}**, n25,** σ**0**^{s}**77**/25**, mb3.8**/16**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CBIJ	**Chichi jima**	**5.54**	**352**	P	**P**	**17 37 01.8**	**+1.0**
	42nm,0.3s,baz=148,slow=21,SNR=22						
CBIJ				S	**S**	**17 38 05.8**	**-1.0**
	44nm,0.3s,baz=273,slow=23,SNR=9.7						
JHJ	**Hachijo jima 2**	**11.85**	**346**	P	**P**	**17 38 19.1**	**+0.6**
	16nm,0.3s,baz=103,slow=22,SNR=7.5						
MAT	**Matsushiro**	**15.49**	**345**	P	**P**	**17 39 00.3**	**-1.5**
MAT	**Matsushiro**	**15.49**	**345**	*e*P	**P**	**17 39 00.0**	**-1.8**
ASAJ	**Asahikawa**	**22.47**	**359**	P	**P**	**17 40 13.8**	**+1.6**
	26nm,1.2s,mb4.4,baz=264,slow=7.6,SNR=2.9						
SONM	**Songino Array**	**39.35**	**321**	P	**P**	**17 42 39.9**	**+0.8**
	0.4nm,0.5s,mb3.1,baz=128,slow=7.1,SNR=9.5						
CTA	**Charters Tower**	**41.54**	**175**	P	**P**	**17 42 58.2**	**+0.8**
	1.3nm,0.6s,mb3.3,baz=22,slow=5.4,SNR=3.9						
CTA	**Charters Tower**	**41.54**	**175**	P	**P**	**17 42 58.2**	**+0.7**
CTAO	**Charters Tower**	**41.54**	**175**	P	**P**	**17 42 57.3**	**-0.1**
	3.0nm,0.9s,mb3.5						
WRAB	**Tennant Creek**	**42.14**	**192**	*e*P	**P**	**17 43 02.2**	**0.0**
	12nm,0.5s,mb4.4						
WRA	**Warramunga Arr**	**42.15**	**192**	P	**P**	**17 43 02.6**	**+0.3**
	7.2nm,0.6s,mb4.1,baz=14,slow=9.0,SNR=146						
ASAR	**Alice Springs**	**45.86**	**192**	P	**P**	**17 43 31.3**	**-0.4**
	1.1nm,0.4s,mb3.5,baz=12,slow=7.8,SNR=23						
STKA	**Stephens Creek**	**53.18**	**182**	P	**P**	**17 44 26.2**	**-0.5**
	2.8nm,0.4s,mb3.9,baz=8.2,slow=11,SNR=11						
ZAL	**Zalesovo**	**54.24**	**322**	P	**P**	**17 44 33.5**	**-0.5**
	0.5nm,0.3s,mb3.2,baz=66,slow=8.4,SNR=2.6						
ILAR	**Eielson Array**	**62.18**	**27**	P	**P**	**17 45 28.6**	**+0.1**
	0.4nm,0.7s,mb3.2,baz=254,slow=5.6,SNR=5.3						
CHKZ	**Chkalovo**	**62.55**	**320**	*e*P	**P**	**17 45 30.9**	**-0.2**
BVAR	**Borovoye Array**	**62.68**	**320**	P	**P**	**17 45 31.9**	**0.0**
	1.8nm,0.5s,mb3.9,baz=98,slow=7.2,SNR=15						
BRVK	**Borovoye**	**62.74**	**320**	*e*P	**P**	**17 45 32.1**	**-0.3**
	1.7nm,0.8s,mb3.7						
URZ	**Urewera**	**67.57**	**152**	P	**P**	**17 46 02.8**	**-0.5**
	2.5nm,0.6s,mb4.2,baz=188,slow=22,SNR=3.6						
YKA	**Yellowknife Ar**	**76.60**	**28**	P	**P**	**17 46 55.4**	**-0.5**
	0.5nm,0.5s,mb3.5,baz=292,slow=5.9,SNR=14						
YKA	**Yellowknife Ar**	**76.60**	**28**	P	**P**	**17 46 55.4**	**-0.5**
ARCES	**ARCESS Array B**	**78.99**	**341**	P	**P**	**17 47 08.7**	**-0.1**
	1.4nm,0.8s,mb3.7,baz=63,slow=8.1,SNR=3.4						
FINES	**FINESS Array B**	**83.23**	**334**	P	**P**	**17 47 30.2**	**-0.7**
	0.7nm,0.4s,mb3.8,baz=59,slow=5.5,SNR=9.6						
GERES	**GERESS Array B**	**96.62**	**329**	P	**P**	**17 48 35.6**	**+1.5**
	0.4nm,0.7s,mb3.8,baz=90,slow=6.9,SNR=3.5						
LPAZ	**La Paz**	**150.06**	**85**	PKPbc	PKPdf	17 54 55.8	+8.2
	2.7nm,0.8s,baz=314,slow=4.5,SNR=9.8						

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*IDC **27** 17:40:00.7±0.4, 5.63N×93.20E, mb5.0/32, mb1 4.9/33, mb1mx4.9/33, ML4.6/1, MS4.6/4, Ms1 4.6/4, ms1mx3.8/20, Error ellipse: s-maj=15.8km s-min=9.9km az=43.0*
*BJI **27** 17:40:01.8, 5.48N×93.09E, h28^{km}, mB5.2, mb5.1, Ms5.2, Msz4.9*
*SYO **27** 17:40:01.6, 5.60N×93.16E, h9^{km}, MB5.2*
*NEIC **27** 17:40:03.6±0.1, 5.60N×93.16E, mb5.3/63, MS4.6/4, Error ellipse: s-maj=4.8km s-min=3.8km az=217.0*
*HRVD **27** 17:40:03.6±0.2, 5.65N×93.21E, h12^{km}, MW5.2/55, Centroid moment Tensor Solution. LP body waves: s35,c58;Mantle waves: s55,c104; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-5.40±.23; M$_{\theta\theta}$-0.55±.15; M$_{\phi\phi}$5.96±.18; M$_{r\theta}$1.95±.48; M$_{\theta\phi}$-1.79±.13; M$_{\phi r}$-3.23±.47; Best double couple: M$_0$7.03×10^{16} NP1: ϕ_s178°, δ30°, λ-71°. NP2: ϕ_s335°, δ62°, λ-101°. Principal axes: T 7.45, Plg16°, Azm74°; N -.83, Plg10°, Azm341°; P -6.61, Plg71°, Azm221°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*CSEM **27** 17:40:04.2, 5.87N×93.47E, h33^{km}, mb5.7*
*MOS **27** 17:40:04.1±0.9, 5.70N×93.19E, h33^{km}, mb5.4/68, MS4.7/13, Error ellipse: s-maj=8.5km s-min=4.6km az=121.2*
ISC 27 17:40:01.9±0.2**, 5.59N**±0.03×**93.16E**±0.03**, h21**^{km}**, h21**^{km}±1.1^{km}**:pP-P, n390,** σ**0**^{s}**99**/385**, mb5.2**/116**, MS4.9**/30**, 6C-15D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNG	**Songkhla**	**7.58**	**78**	P	**Pn**	**17 41 54.0**	**0.0**
	362nm,1.0s						
NST	**Nakhon Sawan**	**12.14**	**34**	P	**P**	**17 43 03.0**	**+6.2**
PALK	**Pallekele**	**12.49**	**278**	*e*Pn	**P**	**17 43 00.7**	**-0.9**
	21nm,0.8s						
PALK				*e*Sn	Sx	17 45 05.7	
CM31	**Chiang Mai Arr**	**13.98**	**23**	*e*Pn	**P**	**17 43 21.8**	**+0.5**
	18nm,0.6s						
CMAR	**Chiang Mai Arr**	**13.98**	**23**	Pn	**P**	**17 43 21.0**	**-0.3**
	0.9nm,0.3s,baz=219,slow=13,SNR=70						
CMAR	**Chiang Mai Arr**	**13.98**	**23**	P	**P**	**17 43 21.0**	**-0.3**
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KKTK	**Khon Kaen**	**14.28**	**41**	P	**P**	**17 43 30.5**	**+5.3**
	comp=Z,3µm,0.6s						
CHG	**Chiang Mai**	**14.30**	**23**	⇓P	**P**	**17 43 26.0**	**+0.4**
	comp=Z,20nm,0.9s						
MDRS	**Chennai**	**14.75**	**301**	*e*P	**P**	**17 43 29.4**	**-2.0**
MDRS				*e*		17 43 33.1	
	comp=Z,241nm,1.0s						
MDRS				*e*S	**S**	**17 46 02.4**	**-13**
UBT	**Ubonrachathani**	**15.09**	**50**	P	**P**	**17 43 43.0**	**+7.1**
VIS	**Vishakhapatnam**	**15.42**	**322**	*e*P	**P**	**17 43 37.5**	**-2.7**
VIS				*e*		17 43 43.6	
	comp=Z,490nm,0.8s						
VIS				*e*S	**S**	**17 46 20.2**	**-11**
VIS				*e*		18 33 07.9	
	comp=Z,2µm,17.0s						
CHRT	**Chiangrai**	**15.59**	**24**	⇓P	**P**	**17 43 44.0**	**+1.6**
	comp=Z,1µm,0.9s						
KOD	**Kodaikanal**	**16.21**	**288**	*e*P	**P**	**17 43 50.2**	**-0.2**
KOD				*e*		17 46 36.4	
TRD	**Trivandrum**	**16.34**	**281**	*e*	**P**	**17 43 46.6**	**-5.4**
CAL	**Calcutta**	**17.49**	**345**	*e*P	**P**	**17 44 05.4**	**-0.9**
COCO	**West Island**	**18.03**	**168**	*e*P	**P**	**17 44 12.1**	**-1.2**
	comp=Z,167nm,1.1s						
AGT	**Agartala**	**18.29**	**354**	⇑*i*P	**P**	**17 44 14.0**	**-2.3**
AGT				*i*		17 45 31.0	
HYB	**Hyderabad**	**18.51**	**311**	⇓*e*P	**P**	**17 44 18.0**	**-1.0**
HYB				pmax	pmax		
	comp=Z,120nm,1.0s						
HYB	**Hyderabad**	**18.51**	**311**	⇓*e*P	**P**	**17 44 18.0**	**-1.0**
	comp=Z,120nm,1.0s						
HYB				*e*S	Sx	17 47 26.0	
HYB	**Hyderabad**	**18.51**	**311**	⇓*i*P	**P**	**17 44 18.0**	**-1.0**
	comp=Z,120nm,1.0s						
HYB				*e*		17 47 26.0	
HYB				*e*S	**S**	**17 47 40.0**	**-1.6**
HYB				LR	LR	17 51 06.0	
	comp=Z,2.7nm,18.0s						
IMP	**Imphal**	**19.10**	**2**	*e*	**P**	**17 44 24.3**	**-1.9**
BOK	**Bokaro**	**19.41**	**340**	*e*P	**P**	**17 44 30.4**	**+0.7**
BOK				*e*		17 44 48.1	
	comp=Z,380nm,0.8s						
BOK				*e*S	**S**	**17 47 57.5**	**-4.5**
BLSP	**Bilaspur**	**19.60**	**328**	*e*P	**P**	**17 44 31.3**	**-0.6**
BLSP				*e*		17 44 36.9	
	comp=Z,304nm,1.2s						
BLSP				*e*S	**S**	**17 48 01.0**	**-5.2**
SHL	**Shillong**	**19.91**	**357**	*e*P	**P**	**17 44 31.6**	**-3.6**
SHL				*e*		17 44 34.6	
	comp=Z,111nm,1.1s						
SHL				*e*S	**S**	**17 48 07.5**	**-5.1**
LATR	**Latur**	**20.62**	**310**	*e*P	**P**	**17 44 42.4**	**-0.3**
LATR				*e*S	**S**	**17 48 20.0**	**-7.2**
NGP	**Nagpur**	**20.66**	**320**	⇓*e*	**P**	**17 44 43.7**	**+0.7**
NGP				*e*		17 48 47.6	
QIZ	**Qiongzhong**	**21.04**	**49**	P	**P**	**17 44 48.3**	**+1.3**
QIZ				S	**S**	**17 48 38.3**	**+2.8**
QIZ				LR	LR		
	comp=N,4µm,16.1s						
QIZ				LR	LR		
	comp=Z,4µm,12.5s,MS5.0						
QIZ	**Qiongzhong**	**21.04**	**49**	*e*P	**P**	**17 44 47.5**	**+0.4**
	comp=Z,74nm,0.8s,mb5.1						
GOA	**Goa**	**21.39**	**299**	*e*P	**P**	**17 44 57.4**	**+6.8**
GOA				*e*		17 44 59.7	
	comp=Z,202nm,1.3s						
GOA				*e*S	**S**	**17 48 47.3**	**+5.3**
KMI	**Kunming**	**21.49**	**24**	P	**P**	**17 44 53.0**	**+1.5**
KMI				AP		17 44 55.8	
KMI				S	**S**	**17 48 44.5**	**+0.7**
KMI				SS	SS	17 49 17.8	-1.7
KMI				SSS	SSS	17 49 32.0	-2.0
KMI				AMB	AMB		
	comp=Z,177nm,1.0s,mb5.3						
KMI				AMB	AMB		
	comp=Z,278nm,3.1s						
KMI				LR	LR		
	comp=N,3µm,12.0s,MS5.0						
KMI				LR	LR		
	comp=E,2µm,12.0s,MS5.0						
KMI				LR	LR		
	comp=Z,3µm,12.8s,MS4.8						
AKL	**Akola**	**21.71**	**315**	*e*	**P**	**17 44 57.1**	**+3.3**
AKL				*e*		17 44 58.8	
	comp=Z,300nm,1.2s						
KAD	**Karad**	**21.92**	**304**	*e*P	**P**	**17 44 57.0**	**+1.1**
KAD				*e*		17 44 59.2	
	comp=Z,243nm,1.2s						
KAD				*e*S	**S**	**17 48 47.8**	**-4.1**
POO	**Poona**	**22.82**	**306**	*e*P	**P**	**17 45 03.4**	**-1.4**
POO				*e*		17 45 09.4	
	comp=Z,133nm,1.3s						
POO				*e*S	**S**	**17 49 03.8**	**-4.5**
PKI	**Pulchoki**	**23.07**	**342**	*e*P	**P**	**17 45 08.3**	**+1.0**
	comp=Z,783nm,1.2s,mb6.0						
BHPL	**Bhopal**	**23.20**	**321**	*e*P	**P**	**17 45 09.0**	**+0.4**
BHPL				*e*		17 45 29.9	
	comp=Z,106nm,1.2s						
BHPL				*e*S	**S**	**17 49 15.1**	**0.0**
DMN	**Daman**	**23.20**	**342**	*e*P	**P**	**17 45 09.3**	**+0.7**
	comp=Z,452nm,0.8s,mb5.9						
GUN	**Gumba**	**23.26**	**343**	*e*P	**P**	**17 45 10.2**	**+1.1**
	comp=Z,954nm,1.1s,mb6.1						
KKN	**Kakani**	**23.32**	**342**	*e*P	**P**	**17 45 10.4**	**+0.7**
	comp=Z,394nm,1.3s,mb5.7						
GKN	**Gorkha**	**23.72**	**341**	*e*P	**P**	**17 45 14.8**	**+1.2**
	comp=Z,357nm,0.9s,mb5.8						
BOM	**Bombay**	**23.84**	**305**	*e*P	**P**	**17 45 18.2**	**+3.4**
BOM				*e*		17 45 21.4	
	comp=Z,154nm,1.8s						
KOLN	**Koldanda**	**23.86**	**339**	*e*P	**P**	**17 45 16.6**	**+1.6**
	comp=Z,507nm,1.0s,mb5.9						
LSA	**Lhasa**	**24.06**	**356**	*e*P	**P**	**17 45 17.9**	**+1.0**
LSA				pmax	pmax		
	comp=Z,20nm,0.6s,mb4.7						
LSA	**Lhasa**	**24.06**	**356**	*e*P	**P**	**17 45 17.9**	**+1.0**
	comp=Z,20nm,0.6s,mb4.7						
GYA	**Guiyang**	**24.43**	**30**	⇑*i*P	**P**	**17 45 20.5**	**0.0**
GYA				S	**S**	**17 49 37.5**	**+1.2**
GYA				AMB	AMB		
	comp=Z,180nm,0.9s,mb5.5						
GYA				AMB	AMB		
	comp=Z,270nm,5.1s						
GYA				LR	LR		
	comp=N,4µm,14.4s,MS5.1						
GYA				LR	LR		
	comp=E,3µm,13.2s,MS5.1						
GYA				LR	LR		
	comp=Z,4µm,14.9s,MS5.1						
GZH	**Guangzhou**	**26.11**	**46**	P	**P**	**17 45 40.0**	**+3.6**
GZH				LR	LR		
	comp=N,3µm,13.4s,MS5.4						
GZH				LR	LR		
	comp=E,6µm,12.0s,MS5.4						
GZH				LR	LR		
	comp=Z,10µm,12.4s,MS5.6						
PTH	**Pithoragarh**	**26.79**	**334**	*e*P	**P**	**17 45 43.8**	**+1.2**
PTH				*e*		17 58 52.3	
CD2	**Chengdu**	**27.09**	**20**	P	**P**	**17 45 44.8**	**-0.5**
CD2				S	**S**	**17 50 14.8**	**-5.6**
CD2				LR	LR		
	comp=N,3µm,13.9s						
CD2				LR	LR		
	comp=Z,3µm,12.6s,MS5.0						
AJM	**Ajmer**	**27.28**	**322**	*e*P	**P**	**17 45 47.6**	**+0.5**
AJM				*e*		17 45 51.5	
	comp=Z,58nm,1.7s						
AYAN	**Aya Nagar**	**27.38**	**328**	*e*P	**P**	**17 45 48.1**	**+0.1**
NDI	**New Delhi**	**27.50**	**328**	*e*P	**P**	**17 45 47.5**	**-1.5**
NDI				*e*P		17 45 49.4	
NDI				*e*		17 46 03.7	
	comp=Z,132nm,1.9s						
KHET	**Khetri**	**27.78**	**326**	*e*P	**P**	**17 45 52.0**	**+0.4**
DDI	**Dehra Dun**	**28.42**	**332**	*e*P	**P**	**17 45 56.2**	**-1.2**
DDI				*e*		17 51 30.2	
TGY	**Tagaytay City**	**28.61**	**71**	P	**P**	**17 46 00.6**	**+1.3**
	comp=Z,60nm,0.4s,mb5.6,baz=63,slow=8.2,SNR=4.9						
TGY				LR	LR	17 57 15.3	
	comp=Z,1µm,19.8s,MS4.5,baz=266,slow=36						
TGY	**Tagaytay City**	**28.61**	**71**	P	**P**	**17 46 00.6**	**+1.4**
TGY				pmax	pmax		
	comp=Z,60nm,0.4s						
TGY				MLR	MLR		
	comp=Z,1µm,19.8s						
BHJ	**Bhuj**	**28.67**	**310**	*e*P	**P**	**17 45 58.0**	**-1.6**
ENH	**Enshi**	**28.97**	**30**	*e*P	**P**	**17 46 00.6**	**-1.7**
	comp=Z,26nm,0.9s,mb5.0						
KLP	**Kalpa**	**29.36**	**333**	*e*P	**P**	**17 46 05.2**	**-0.6**
THN	**Thein Dam**	**31.29**	**331**	*e*P	**P**	**17 46 21.7**	**-1.2**
	comp=Z,59nm,1.2s,mb5.3						
XAN	**Xi’an**	**31.86**	**25**	P	**P**	**17 46 26.5**	**-1.4**
XAN				AMB	AMB		
	comp=Z,43nm,0.6s,mb5.5						
LZH	**Lanzhou**	**31.90**	**17**	⇑P	**P**	**17 46 28.0**	**-0.2**
LZH				PP	PP	17 47 30.0	-4.3
LZH				S	**S**	**17 51 31.0**	**-5.8**
LZH				SCS	ScS	17 56 56.0	-0.6
LZH				AMB	AMB		
	comp=Z,56nm,1.5s,mb5.2						
LZH				AMB	AMB		
	comp=Z,213nm,5.2s						
LZH				LR	LR		
	comp=E,2µm,15.0s						
LZH				LR	LR		
	comp=Z,3µm,16.4s,MS5.1						
GTA	**Gaotai**	**34.20**	**9**	*e*P	**P**	**17 46 48.0**	**-0.2**
GTA				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
GTA				AMB	AMB		
	comp=Z,212nm,4.6s						
GTA				LR	LR		
	comp=N,2µm,15.6s,MS5.0						
GTA				LR	LR		
	comp=E,1µm,19.8s,MS5.0						
GTA				LR	LR		
	comp=Z,2µm,15.2s,MS5.0						
NJ2	**Nanjing**	**35.64**	**39**	*e*P	**P**	**17 47 01.0**	**+0.4**
NJ2				AP	pP	17 47 10.8	+3.9
NJ2				XP	sP	17 47 15.0	+5.4
NJ2				PP	PP	17 48 20.5	-0.7
NJ2				S	**S**	**17 52 32.0**	**-2.9**
NJ2				XS		17 52 50.0	
NJ2				AMB	AMB		
	comp=Z,230nm,0.7s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,520nm,4.7s						
NJ2				LR	LR		
	comp=N,2µm,16.4s,MS5.0						
NJ2				LR	LR		
	comp=E,1µm,18.0s,MS5.0						
NJ2				LR	LR		
	comp=Z,2µm,15.3s,MS5.0						
KSH	**Kashi**	**37.17**	**338**	*i* PR		17 47 14.0	
KSH				AP	pP	17 47 18.5	-1.2
KSH				XP	sP	17 47 24.3	+1.9
KSH				PP	PP	17 48 41.3	+0.7
KSH				PPP	PPP	17 49 00.3	-0.6
KSH				PCP	PcP	17 49 34.3	+0.6
KSH				*e*S	**S**	**17 53 00.0**	**+1.6**
KSH				XS		17 53 09.0	
KSH				SCP		17 53 18.0	
KSH				PCS		17 53 21.3	
KSH				SS	SS	17 55 30.3	+1.1
KSH				SCS	ScS	17 57 24.5	-0.1
KSH				LR	LR		
	comp=N,830nm,15.3s,MS4.9						
KSH				LR	LR		
	comp=E,1µm,12.7s,MS4.9						
MBWA	**Marble Bar**	**37.23**	**136**	*e*P	**P**	**17 47 12.7**	**-1.4**
	comp=E,17nm,0.9s,mb4.9						
TIA	**Tai’an**	**37.59**	**33**	*e*P	**P**	**17 47 17.3**	**+0.4**
BTO	**Baotou**	**38.01**	**21**	*e*P	**P**	**17 47 19.0**	**-1.4**
BTO				S	**S**	**17 53 10.3**	**-0.8**
BTO				AMB	AMB		
	comp=Z,9.0nm,1.5s,mb4.3						
BTO				LR	LR		
	comp=N,955nm,10.8s,MS5.1						
BTO				LR	LR		
	comp=E,2µm,13.3s,MS5.1						
WMQ	**Urumqi**	**38.38**	**354**	P	**P**	**17 47 24.5**	**+1.0**
WMQ				AP	pP	17 47 29.0	-0.9
WMQ				XP	sP	17 47 31.5	-1.0
WMQ				PP	PP	17 48 56.0	+1.1
WMQ				PPP	PPP	17 49 18.5	+1.1
WMQ				S	**S**	**17 53 18.5**	**+1.8**
WMQ				AMB	AMB		
	comp=Z,52nm,0.9s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,49nm,7.5s						
WMQ				LR	LR		
	comp=N,371nm,19.0s,MS4.5						
WMQ				LR	LR		
	comp=E,639nm,21.1s,MS4.5						
WMQ				LR	LR		
	comp=Z,360nm,19.6s,MS4.2						
HHC	**Hu-ho-hao-te**	**38.79**	**22**	*e*P	**P**	**17 47 27.8**	**+0.8**
HHC				AP	pP	17 47 31.3	-2.0
HHC				PP	PP	17 48 56.8	-2.9
HHC				PCP	PcP	17 49 39.0	+0.3
HHC				S	**S**	**17 53 17.8**	**-5.1**
HHC				SCS	ScS	17 57 35.8	+2.0
HHC				AMB	AMB		
	comp=Z,22nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,340nm,4.2s						
HHC				LR	LR		
	comp=N,826nm,14.3s,MS5.1						
HHC				LR	LR		
	comp=E,2µm,14.3s,MS5.1						
HHC				LR	LR		
	comp=Z,1µm,10.9s,MS5.0						
ULHL	**Ulahol**	**39.48**	**340**	P	**P**	**17 47 33.5**	**+0.8**
	SNR=20						
JOW	**Kunigami**	**39.56**	**54**	P	**P**	**17 47 34.9**	**+1.4**
	comp=Z,28nm,0.9s,mb5.0,baz=202,slow=12,SNR=5.4						
JOW				LR	LR	18 05 50.1	
	comp=Z,1µm,19.2s,MS4.8,baz=268,slow=39						
KZA	**Kyzart**	**39.68**	**339**	P	**P**	**17 47 35.5**	**+1.2**
	SNR=36						
BJT	**Baijiatuau**	**40.05**	**28**	*e*P	**P**	**17 47 37.6**	**+0.2**
BJT				pmax	pmax		
	comp=Z,32nm,1.1s						
BJT	**Baijiatuau**	**40.05**	**28**	*e*P	**P**	**17 47 37.6**	**+0.2**
	comp=Z,32nm,1.1s,mb5.0						
BJI	**Beijing**	**40.07**	**28**	P	**P**	**17 47 34.5**	**-3.1**
BJI				S	**S**	**17 53 43.0**	**+0.8**
BJI				LR	LR		
	comp=N,778nm,17.2s,MS4.8						
BJI				LR	LR		
	comp=E,916nm,17.2s,MS4.8						
BJI				LR	LR		

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      comp=Z,635nm,19.1s,MS4.5
UCH   Uchtor             40.08 338  P      P      17 47 38.9 +1.3
      SNR=58
KBK   Karagaybulak       40.29 339  P      P      17 47 41.0 +1.6
      SNR=66
AML   Almayashu          40.30 337  P      P      17 47 40.8 +1.3
      SNR=77
TKM2  Tokmak 2           40.30 340  P      P      17 47 40.3 +0.8
      SNR=23
AAK   Ala-Archa          40.44 339  P      P      17 47 41.7 +1.1
      SNR=30
AAK   Ala-Archa          40.44 339 eP      P      17 47 40.0 -0.6
AAK                                 pmax   pmax
      comp=Z,75nm,1.4s,mb5.2
AAK   Ala-Archa          40.44 339 eP      P      17 47 40.0 -0.6
      comp=Z,75nm,1.4s,mb5.2
FRU   Bishkek            40.57 339 eP      P      17 47 42.0 +0.4
FRU                                e       pP     17 47 50.0 +2.0
FRU                                 pmax   pmax
      comp=Z,140nm,1.8s,mb5.3
CHMS  Chumysh            40.66 339  P      P      17 47 42.9 +0.5
      SNR=15
EKS2  Erkin-Say          40.73 338  P      P      17 47 44.3 +1.4
      SNR=33
USP   Ospenovka          40.99 339  P      P      17 47 45.6 +0.6
      SNR=41
MKAR  Makanchi Array     42.11 349 i P     P      17 47 54.1 -0.2
MKAR                                pmax   pmax
      comp=Z,43nm,1.0s
MKAR  Makanchi Array     42.11 349 i P     P      17 47 54.2 -0.1
SONM  Songino Array      43.59  13  P      P      17 48 06.5 +0.2
      comp=Z,15nm,0.8s,mb4.8,baz=195,slow=8.6,SNR=115
ULN   Ulaanbaatar        43.77  14 eP      P      17 48 07.6 -0.2
ULN                                 pmax   pmax
      comp=Z,14nm,0.9s,mb4.7
ULN   Ulaanbaatar        43.77  14 eP      P      17 48 07.6 -0.2
      comp=Z,14nm,0.9s,mb4.7
NWAO  Narrogin (SRO)     44.60 151  P      P      17 48 14.9 +0.2
      comp=Z,9.6nm,0.6s,mb4.8,baz=273,slow=3.1,SNR=13
NWAO  Narrogin (SRO)     44.60 151  P      P      17 48 14.9 +0.1
NWAO                                pmax   pmax
      comp=Z,10.0nm,0.6s
ZAK   Zakamensk          45.45   9 eP      P      17 48 21.1 -0.1
ZAK                                e              17 50 01.4
MOY   Mondy              46.39   7 eP      P      17 48 29.4 +0.8
MOY                                e              17 50 11.0
TLY   Talaya             46.76   9 eP      sP     17 48 39.0 -1.6
TLY                                eS      S      17 55 20.3 +0.7
TLY                                eSS     ScS    17 58 21.6 -0.9
TLY                                 pmax   pmax
      comp=Z,67nm,3.2s
TLY                                 MLR    MLR
      comp=Z,727nm,18.0s,MS4.7
TLY   Talaya             46.76   9 eP      P      17 48 32.7 +1.2
      comp=Z,21nm,1.0s,mb5.0
CN2   Changchun          47.47  32 eP      P      17 48 37.0 -0.3
CN2                                eS      S      17 55 31.0 +1.3
CN2                                 AMB    AMB
      comp=Z,20nm,0.8s,mb5.1
CN2                                 LR     LR
      comp=N,1µm,14.0s,MS5.1
CN2                                 LR     LR
      comp=E,1µm,14.0s,MS5.1
CN2                                 LR     LR
      comp=Z,900nm,15.0s,MS4.9
WRA   Warramunga Arr     47.78 123  P      P      17 48 39.1 -1.0
      comp=Z,41nm,0.7s,mb5.6,baz=301,slow=9.1,SNR=234
WRA   Warramunga Arr     47.78 123  P      P      17 48 39.1 -0.9
WRA                                 pmax   pmax
      comp=Z,41nm,0.7s
WRAB  Tennant Creek      47.78 123 eP      P      17 48 39.2 -0.9
WRAB                                pmax   pmax
      comp=Z,77nm,0.8s,mb5.8
WRAB  Tennant Creek      47.78 123 eP      P      17 48 39.2 -0.9
      comp=Z,77nm,0.8s,mb5.8
ZAL   Zalesovo           48.68 353  P      P      17 48 46.8 +0.2
      comp=Z,22nm,0.8s,mb5.2,baz=302,slow=5.7,SNR=108
ZAL   Zalesovo           48.68 353  P      P      17 48 46.8 +0.2
ZAL                                 pmax   pmax
      comp=Z,22nm,0.8s
HIA   Hailar             48.99  23 eP      P      17 48 48.5 -0.5
HIA                                 pmax   pmax
      comp=Z,81nm,1.5s
HIA   Hailar             48.99  23 eP      P      17 48 48.5 -0.5
      comp=Z,81nm,1.5s,mb5.5
ASAR  Alice Springs      49.24 128  P      P      17 48 50.4 -0.9
      comp=Z,13nm,0.7s,mb5.1,baz=299,slow=7.2,SNR=102
ASAR                                PcP    PcP    17 50 14.2 -0.2
      comp=Z,6.1nm,0.7s,baz=309,slow=3.0,SNR=7.9
MZLS  Mizel              49.56 297  P      P      17 48 44.4 -9.4
NVS   Novosibirsk        49.76 352 i P     P      17 48 53.8 -1.0
NVS                                e       pP     17 48 59.2 -2.1
NVS                                eS      S      17 55 52.8 -8.8
NVS                                 pmax   pmax
      comp=N,136nm,1.3s
NVS                                 pmax   pmax
      comp=E,88nm,1.3s
NVS                                 pmax   pmax
      comp=Z,154nm,1.3s,mb5.9
NVS                                 smax
      comp=N,47nm,1.6s
NVS                                 smax
      comp=E,94nm,1.6s
MDJ   Mudanjiang         50.24  33  P      P      17 48 58.0 -0.6
MDJ                                 PCP    PcP    17 50 16.3 -1.5
MDJ                                 PP     PP     17 50 52.8 -2.2
MDJ                                 SCP           17 54 12.3
MDJ                                 PCS           17 54 13.5
MDJ                                 S      S      17 56 11.3 +2.9
MDJ                                 SCS    ScS    17 58 49.0 +3.4
MDJ                                 LR     LR
      comp=N,346nm,15.4s,MS4.9
MDJ                                 LR     LR
      comp=E,973nm,16.0s,MS4.9
MDJ                                 LR     LR
      comp=Z,896nm,16.6s,MS4.9
MDJ   Mudanjiang         50.24  33 eP      P      17 48 58.0 -0.7
      comp=Z,22nm,1.1s,mb5.1
TATS  Tathlith           50.25 291  P      P      17 48 59.6 +0.6
BVAR  Borovoye Array     50.85 342  P      P      17 49 02.5 -0.7
      comp=Z,13nm,0.8s,mb4.9,baz=143,slow=7.4,SNR=66
BRVK  Borovoye           50.91 342 eP      P      17 49 02.0 -1.6
BRVK                                pmax   pmax
      comp=Z,32nm,1.1s,mb5.2
BRVK  Borovoye           50.91 342 eP      P      17 49 02.0 -1.6
      comp=Z,32nm,1.1s,mb5.2
CHKZ  Chkalovo           51.35 343 i P     P      17 49 06.6 -0.3
CHKZ                                pmax   pmax
      comp=Z,92nm,1.5s,mb5.5
CHKZ  Chkalovo           51.35 343 eP      P      17 49 06.4 -0.6
      comp=Z,85nm,1.2s,mb5.5
NAMS  An Nimas           51.38 290  P      P      17 49 09.2 +1.6
MAT   Matsushiro         51.42  47  P      P      17 49 07.8 +0.1
MAT   Matsushiro         51.42  47 eP      P      17 49 08.0 +0.3
AFFS  ‘Afif              51.50 296  P      P      17 49 02.1 -6.4
ARSS  Ar Rass            51.74 299  P      P      17 49 02.7 -7.7
HILS  Ha’il              53.36 300  P      P      17 49 16.6 -5.9
KLR   Kul’dur            54.34  30 eP      P      17 49 26.2 -3.0
BOD   Bodaibo            54.59  14 eP      P      17 49 29.4 -1.5
BOD                                e       pP     17 49 36.2 -1.2
KBRS  Khaybar            55.21 298  P      P      17 49 33.6 -2.5
GNI   Garni              55.36 316  P      P      17 49 36.1 -0.7
      comp=Z,8.1nm,0.7s,mb4.9,baz=112,slow=4.2,SNR=19
GNI   Garni              55.36 316  P      P      17 49 36.1 -0.8
GNI                                 pmax   pmax
      comp=Z,8.0nm,0.7s
GNI   Garni              55.36 316 eP      P      17 49 36.1 -0.8
      comp=Z,53nm,1.2s,mb5.4
PMG   Port Moresby       55.83 105  P      P      17 49 39.6 -1.0
      comp=Z,17nm,0.7s,mb5.2,baz=31,slow=5.0,SNR=17
PMG   Port Moresby       55.83 105 eP      P      17 49 38.9 -1.7
PMG                                 pmax   pmax
      comp=Z,16nm,0.7s
PMG   Port Moresby       55.83 105 eP      P      17 49 38.9 -1.7
      comp=Z,16nm,0.7s,mb5.2
KMBO  Kilima Mbogo       56.23 265  P      P      17 49 45.0 +1.5
      comp=Z,15nm,1.1s,mb4.9,baz=47,slow=8.9,SNR=26
KMBO                                LR     LR     18 14 12.5
      comp=Z,375nm,18.3s,MS4.5,baz=279,slow=36
KMBO  Kilima Mbogo       56.23 265 eP      P      17 49 44.5 +1.0
KMBO                               e              17 49 53.7
KMBO                                pmax   pmax
      comp=Z,22nm,1.1s
KMBO  Kilima Mbogo       56.23 265 eP      P      17 49 44.5 +1.0
      comp=Z,22nm,1.1s,mb5.1
KMBO                               e              17 49 53.7
UMJS  Umm Lajj           56.84 296  P      P      17 49 48.4 +0.7
CLNS  Chul’man           56.90  20 eP      P      17 49 46.6 -1.1
CLNS                                pmax   pmax
      comp=Z,37nm,0.9s,mb5.4
CLNS                                pmax   pmax
      comp=N,20nm,1.2s
CLNS                                pmax   pmax
      comp=E,21nm,1.0s
ZEI   Tsey               57.06 318 eP      P      17 49 48.6 -0.5
ZEI                                i *PP   pP     17 49 58.6 +3.0
ZEI                                 pmax   pmax
      comp=Z,17nm,1.1s,mb5.0
SVE   Sverdlovsk         57.17 339 eP      P      17 49 49.0 -0.6
SVE                                e       pP     17 49 56.0 -0.2
SVE                                e              17 50 49.0
SVE                                eS      S      17 57 42.5 +0.6
SVE                                 pmax   pmax
      comp=Z,200µm,1.6s
SVE                                 MLR    MLR
      comp=Z,2µm,17.0s,MS5.2
ARU   Arti               57.62 338⇑iP      P      17 49 51.0 -1.8
ARU                                e              17 50 40.3
ARU                                e              17 51 59.6
ARU                                ePPP    PPP    17 53 16.4 -7.3
ARU                                eS      S      17 57 47.9  0.0
ARU                                eSS     SS     18 01 36.4 -3.2
ARU                                 pmax   pmax
      comp=Z,48nm,1.3s,mb5.4
ARU   Arti               57.62 338 eP      P      17 49 51.1 -1.7
      comp=Z,63nm,1.3s,mb5.5
ARU                                e       pP     17 49 58.4 -0.9
ERZM  Erzurum            57.64 314 i P     P      17 49 53.2 +0.1
ASAJ  Asahikawa          57.77  40  P      P      17 49 53.5 -0.5
      comp=Z,6.7nm,0.9s,mb4.7,baz=308,slow=12,SNR=2.7
ASAJ  Asahikawa          57.77  40  P      P      17 49 53.6 -0.4
ASAJ                                pmax   pmax
      comp=Z,7.0nm,0.9s
CTA   Charters Tower     58.08 118  P      P      17 49 56.0 -0.4
      comp=Z,12nm,0.9s,mb4.9,baz=300,slow=6.9,SNR=15
CTA                                 LR     LR     18 19 35.6
      comp=Z,534nm,18.9s,MS4.7,baz=286,slow=41
CTA   Charters Tower     58.08 118  P      P      17 49 56.0 -0.4
CTA                                 pmax   pmax
      comp=Z,12nm,0.9s
CTA                                 MLR    MLR
      comp=Z,534nm,18.9s
CTAO  Charters Tower     58.08 118 eP      P      17 49 55.5 -0.9
CTAO                                pmax   pmax
      comp=Z,19nm,1.1s,mb5.0
CTAO  Charters Tower     58.08 118 eP      P      17 49 55.5 -0.9
      comp=Z,19nm,1.1s,mb5.0
TBKS  Tabuk              58.08 300  P      P      17 49 56.7 +0.4
KIV   Kislovodsk         58.38 319  P      P      17 49 57.1 -1.1
      comp=Z,191nm,1.4s,mb5.9,SNR=11
KIV   Kislovodsk         58.38 319d iP     P      17 49 57.4 -0.8
KIV                                e              17 50 48.8
KIV                                e              17 52 10.1
KIV                                eS      S      17 57 58.9 +0.9
KIV                                 pmax   pmax
      comp=Z,33nm,1.0s,mb5.3
KIV   Kislovodsk         58.38 319 eP      P      17 49 56.9 -1.3
GOF   Gofitskoye         58.64 320 eP      P      17 49 57.0 -3.0
ASF   Jabal al Asfar     58.67 304  P      P      17 50 01.7 +1.2
      comp=Z,82nm,1.4s,mb5.6,baz=357,slow=2.1,SNR=20
JMQS  Jabal Moqyreh      58.79 300  P      P      17 50 02.3 +1.0
ELZG  Elazig             58.87 312 i P     P      17 50 01.5 -0.2
YSS   Yuzh-Sakhalins     59.17  37 eP      P      17 50 03.0 -0.8
YSS                                 MLR    MLR
      comp=Z,600nm,14.0s,MS4.9
YSS                                 MLR    MLR
      comp=N,600nm,13.0s,MS5.0
YSS                                 MLR    MLR
      comp=E,500nm,13.0s,MS5.0
AYUS  ‘Aynunah           59.18 299  P      P      17 50 05.5 +1.5
STKA  Stephens Creek     59.27 132  P      P      17 50 04.6  0.0
      comp=E,13nm,0.7s,mb5.1,baz=302,slow=8.8,SNR=19
STKA  Stephens Creek     59.27 132 eP      P      17 50 03.6 -1.0
BDAS  Al Bad‘            59.37 300  P      P      17 50 06.2 +0.9
JMOS  Jabal al Moall     59.50 301  P      P      17 50 07.4 +1.1
GZT   Gaziantep          59.57 310 i P     P      17 50 07.0 +0.3
HAQS  Haql               59.63 300  P      P      17 50 08.4 +1.2
EIL   Elat               59.74 301  P      P      17 50 08.6 +0.7
      comp=E,43nm,1.2s,mb5.3,baz=107,slow=7.5,SNR=12
KAHT  Ahir Dag           60.17 310 i P     P      17 50 11.2 +0.4
SOC   Sochi              60.19 318 i P     P      17 50 08.6 -2.1
SOC                                e              17 50 54.1
SOC                                e              17 52 29.9
SOC                                ePPP    PPP    17 53 44.5 -7.4
SOC                                eS      S      17 58 23.5 +2.1
SOC                                eSS     SS     18 02 16.8 -3.1
SOC                                 pmax   pmax
      comp=Z,37nm,1.7s,mb5.1
SOC                                 pmax   pmax
      comp=N,23nm,1.4s
SOC                                 pmax   pmax
      comp=E,11nm,1.1s
SOC                                 MLR    MLR
      comp=Z,305nm,20.0s,MS4.4
SOC                                 MLR    MLR
      comp=N,244nm,18.0s,MS4.6
SOC                                 MLR    MLR
      comp=E,342nm,20.0s,MS4.6
COBT  Iskenderun         60.33 309 i P     P      17 50 12.5 +0.6
SOKR  Solikamsk          60.58 340⇓iP      P      17 50 11.3 -1.9
SOKR                                pmax   pmax
      comp=Z,40nm,1.1s,mb5.5
SOKR                                MLR    MLR
      comp=Z,810nm,19.0s,MS4.9
MEST  Erdemli            61.98 309 i P     P      17 50 22.6 -0.5
AVNT  Avonos             62.03 311 i P     P      17 50 23.0 -0.4
CSS   Prodhromos         62.23 307 eP      P      17 50 23.3 -1.4
      comp=Z,106nm,1.4s,mb5.8
YAK   Yakutsk            62.46  18 eP      P      17 50 24.8 -1.1
YAK                                e              17 51 06.5
YAK                                e              17 52 41.4
YAK                                eS      S      17 58 48.3 -1.7
YAK                                e              18 00 17.3
YAK                                 pmax   pmax
      comp=Z,11nm,0.9s,mb5.0
YAK                                 pmax   pmax
      comp=N,6.0nm,1.1s
YAK                                 pmax   pmax
      comp=E,3.0nm,1.0s
YAK                                 pmax   pmax
      comp=Z,6.0nm,0.9s,mb4.7
YAK                                 pmax   pmax
      comp=N,3.0nm,1.1s
YAK                                 smax
      comp=E,7.0nm,1.0s
YAK                                 smax
      comp=N,14nm,1.3s
YAK                                 MLR    MLR
      comp=Z,900nm,12.0s,MS5.2
YAK                                 MLR    MLR
      comp=N,568nm,11.0s,MS5.1
YAK                                 MLR    MLR
      comp=E,436nm,13.0s,MS5.1
YAK   Yakutsk            62.46  18 eP      P      17 50 24.1 -1.7
      comp=E,84nm,1.3s,mb5.7
YAK                                e       pP     17 50 31.6 -0.9
MBAR  Mbarara            62.63 266 eP      P      17 50 27.2 -0.5
MBAR                               e              17 50 36.8
MBAR                                pmax   pmax
      comp=Z,41nm,1.5s,mb5.3
MBAR  Mbarara            62.63 266 eP      P      17 50 27.1 -0.5
      comp=Z,41nm,1.5s,mb5.3
MBAR                               e              17 50 36.8
BOYT  Boyabat            62.77 314 i P     P      17 50 27.1 -1.1
BRTR  Keskin Array B     63.20 312  P      P      17 50 30.1 -1.0
      comp=Z,8.3nm,0.9s,mb4.9,baz=127,slow=6.2,SNR=47
BRTR  Keskin Array B     63.20 312  P      P      17 50 30.1 -0.9
BRTR                                pmax   pmax
      comp=Z,8.0nm,0.9s
ELDT  Eldivan            63.57 313 i P     P      17 50 32.6 -0.9
BALT  Daday              63.90 314 i P     P      17 50 35.0 -0.6
VOR   Voronezh           63.90 326 eP      P      17 50 34.0 -1.5
VOR                                 pmax   pmax
      comp=Z,110nm,1.1s,mb5.8
SIM   Simferopol’        64.43 318 eP      P      17 50 38.7 -0.4
SIM                                eS      S      17 59 21.0 +6.1
SIM                                 pmax   pmax
      comp=Z,27nm,1.3s,mb5.1
SGKT  Sivrigoynuk        64.60 312 i P     P      17 50 39.2 -1.0
ISP   Isparta            65.10 309 i P     P      17 50 42.5 -1.0
ESKT  Eskisehir          65.23 311 i P     P      17 50 44.0 -0.3
HENT  Hendek             65.51 312 i P     P      17 50 45.2 -0.9
MOS   Moscow             66.53 329 eP      P      17 50 51.6 -0.8
MOS                                e              17 51 15.2
MOS                                i              17 53 26.8
MOS                                 pmax   pmax
      comp=Z,127nm,1.4s,mb5.8
ULDT  Uludag             66.66 311 i P     P      17 50 52.9 -0.5
MANT  Manisa             66.74 309 i P     P      17 50 53.7 -0.3
OBN   Obninsk            66.80 329deP      P      17 50 52.4 -1.7
OBN                                e              17 53 18.6
OBN                                eS      S      17 59 50.5 +6.8
OBN                                 pmax   pmax
      comp=Z,115nm,1.7s,mb5.6
OBN                                 MLR    MLR
      comp=Z,600nm,19.0s,MS4.8
OBN   Obninsk            66.80 329 eP      P      17 50 52.4 -1.7
LSZ   Lusaka             67.60 251 eP      P      17 50 59.8  0.0
LSZ                                e              17 51 09.8
LSZ                                 pmax   pmax
      comp=Z,30nm,1.4s,mb5.1
LSZ   Lusaka             67.60 251 eP      P      17 50 59.8  0.0
      comp=Z,30nm,1.4s,mb5.1
LSZ                                e              17 51 09.8
KDAG  Bornova            67.72 309 i P     P      17 51 00.4 +0.2
CFR   Carcaliu           68.56 316⇓iP      P      17 51 04.3 -1.0
KIS   Kishinev           68.56 318 eP      P      17 51 05.0 -0.3
KIS                                e              17 51 14.0
IDI   Anoyia             69.08 306  P      P      17 51 09.3 +0.6
      comp=Z,16nm,0.8s,mb5.0,baz=102,slow=5.7,SNR=7.3
MA2   Magadan            69.23  27 eP      P      17 51 08.4 -0.8
MA2                                 pmax   pmax
      comp=Z,27nm,1.0s,mb5.1
MA2   Magadan            69.23  27 eP      P      17 51 08.4 -0.8
      comp=Z,27nm,1.0s,mb5.1
AKASG Malin Array Be     69.35 322  P      P      17 51 08.2 -1.8
      comp=Z,4.9nm,0.7s,mb4.5,baz=88,slow=4.6,SNR=33
AKASG Malin Array Be     69.35 322  P      P      17 51 08.3 -1.8
AKASG                               pmax   pmax
      comp=Z,5.0nm,0.7s
TIXI  Tiksi              69.65  11 eP      P      17 51 10.3 -1.3
TIXI                               eS      S      18 00 15.9 -1.5
TIXI                                pmax   pmax
      comp=Z,13nm,0.6s,mb5.0
TIXI  Tiksi              69.65  11 i P     P      17 51 10.1 -1.5
VRI   Vrincioaia         69.68 317⇑iP      P      17 51 12.9 +0.7
RZN   Rozhen             70.25 312 eP      P      17 51 15.0 -0.7
PET   Petropavlovsk      70.94  36  P      P      17 51 19.3 -0.5
PET                                 pmax   pmax
      comp=Z,79nm,1.4s,mb5.5
PET   Petropavlovsk      70.94  36  P      P      17 51 19.3 -0.4
      comp=Z,79nm,1.4s,mb5.5
MMB   Musomiste          70.96 312 eP      P      17 51 20.0 -0.1
MNK   Minsk              71.28 326 eP      P      17 51 18.0 -3.8
MNK                                 pmax   pmax
      comp=Z,210nm,1.2s,mb5.9
KKB   Krupnik            71.48 312 eP      P      17 51 22.0 -1.2
VTS   Vitosha            71.51 313 eP      P      17 51 22.0 -1.4
LBTB  Lobatse            72.30 242 eP      P      17 51 28.2 -0.2
LBTB                                pmax   pmax
      comp=Z,7.0nm,0.8s,mb4.6
LBTB  Lobatse            72.30 242 eP      P      17 51 28.2 -0.2
      comp=Z,7.5nm,0.8s,mb4.7
VSU   Vasula             73.05 330 i P     P      17 51 30.0 -2.2
KWP   Kalwaria           73.14 320 eP      P      17 51 32.5 -0.4
KOLS  Kolonicke sedl     73.29 319 eP      P      17 51 24.0  -10
KOLS                               e              17 52 24.2
KOLS  Kolonicke sedl     73.29 319 e       P      17 51 24.0  -10
KOLS                               e              17 52 24.2
APA   Apatity            73.64 340⇑iP      P      17 51 33.4 -2.0
APA                                i              17 51 51.2
APA                                 pmax   pmax
      comp=Z,40nm,1.2s,mb5.2
APA                                 MLR    MLR
      comp=Z,2µm,18.0s,MS5.3
SUW   Suwalki            73.79 325 eP      P      17 51 35.3 -1.3
CRVS  Cervenica-Dubn     73.81 319 eP      P      17 51 38.0 +1.2
FINES FINESS Array B     74.28 333  P      P      17 51 38.7 -0.5
      comp=Z,9.6nm,0.8s,mb4.8,baz=104,slow=7.9,SNR=18
FINES FINESS Array B     74.28 333  P      P      17 51 38.7 -0.5
FINES                               pmax   pmax
      comp=Z,10.0nm,0.8s
KECS  Kecovo             74.37 319 eP      P      17 51 41.3 +1.3
KAF   Kangasniemi        74.38 333 ep      P      17 51 37.0 -2.8
      comp=Z,28nm,1.1s,mb5.1
KAF   Kangasniemi        74.38 333 eP      P      17 51 37.0 -2.8
KAF                                 pmax   pmax
      comp=Z,28nm,1.1s,mb5.1
PSZ   Piszkesteto        74.67 318⇓eP      P      17 51 41.6 -0.2
OJC   Ojcow              75.10 320⇓iP      P      17 51 44.0 -0.2
OJC   Ojcow              75.10 320 i P     P      17 51 44.0 -0.2
VYHS  Vyhne              75.46 319 i P     P      17 51 46.1 -0.2
SRO   Srobarova          75.71 318 eP      P      17 51 48.8 +1.0
OKC   Ostrava-Krasne     76.09 320 eP      P      17 51 50.2 +0.3
OKC                                epP     pP     17 51 55.7 -0.9
MAW   Mawson             76.11 191  P      P      17 51 50.7 +1.0
      comp=Z,4.1nm,0.7s,mb4.5,baz=34,slow=8.3,SNR=6.2
MAW   Mawson             76.11 191 eP      P      17 51 50.4 +0.8
MAW                                 pmax   pmax
      comp=Z,9.0nm,0.6s
MAW   Mawson             76.11 191 eP      P      17 51 50.4 +0.7
      comp=Z,8.9nm,0.6s,mb4.9
ZST   Bratislava         76.57 318 i P     P      17 51 52.8 +0.2
ZST                                epP     pP     17 51 58.5 -0.8
KEV   Kevo               76.66 341 ep      P      17 51 52.0 -0.7
      comp=Z,11nm,0.9s,mb4.8
KEV   Kevo               76.66 341 eP      P      17 51 52.0 -0.7
KEV                                 pmax   pmax
      comp=Z,11nm,0.9s,mb4.8
ARCES ARCESS Array B     77.08 341  P      P      17 51 55.1 +0.1
      comp=Z,4.9nm,0.6s,mb4.6,baz=89,slow=5.0,SNR=27
ARCES ARCESS Array B     77.08 341  P      P      17 51 55.1 +0.1
ARCES                               pmax   pmax
      comp=Z,5.0nm,0.6s
ARE0  ARCESS Array S     77.08 341 eP      P      17 51 55.0  0.0
ARE0                               e       pP     17 52 02.3 +0.6
DPC   Dobruska-Polom     77.33 320 eP      P      17 51 57.0 +0.3
KSP   Ksiaz              77.40 321⇓eP      P      17 51 57.6 +0.5
KSP                                e*PP    pP     17 52 01.5 -2.4
KSP   Ksiaz              77.40 321 eP      P      17 51 58.1 +1.0
UPC   Upice              77.54 320 eP      P      17 51 58.3 +0.4
UPC                                ex      x      17 52 07.3
PERS  Pernice            77.75 316 eP      P      17 51 59.4 +0.2
PRU   Pruhonice          78.43 320 eP      P      17 52 03.2 +0.4
      comp=Z,51nm,1.6s,mb5.2
PRU                                epP     pP     17 52 08.4 -1.1
PVCC  Panska Ves         78.46 320 eP      P      17 52 03.7 +0.8
BILL  Bilibino           78.56  22 eP      P      17 52 02.9 -0.2
BILL                               e       pP     17 52 10.4 +0.5
BILL                                pmax   pmax
      comp=Z,4.0nm,0.8s,mb4.4
BILL  Bilibino           78.56  22 eP      P      17 52 02.9 -0.3
      comp=Z,3.6nm,0.8s,mb4.3
BILL                               e       pP     17 52 10.3 +0.5
GEC2  GERESS Array S     78.88 319 eP      P      17 52 06.2 +0.9
GEC2                                pmax   pmax
      comp=Z,52nm,1.2s,mb5.3
GEC2  GERESS Array S     78.88 319 eP      P      17 52 06.2 +0.9
      comp=Z,52nm,1.2s,mb5.3
GERES GERESS Array B     78.88 319  P      P      17 52 05.9 +0.6
      comp=Z,13nm,0.8s,mb4.9,baz=95,slow=4.9,SNR=92
GERES GERESS Array B     78.88 319  P      P      17 52 05.9 +0.6
GERES                               pmax   pmax
      comp=Z,13nm,0.8s
BRG   Berggiesshubel     78.89 321 i P     P      17 52 05.7 +0.4
BRG                                e       pP     17 52 12.8 +0.8
BRG                                 pmax   pmax
      comp=Z,53nm,1.5s,mb5.2
BRG   Berggiesshubel     78.89 321 i P     P      17 52 05.7 +0.4
      comp=Z,53nm,1.5s,mb5.2
BRG                                e       pP     17 52 12.8 +0.8
PTCC  Patocco-Chiusa     78.95 316 eP      P      17 52 06.1 +0.3
KHC   Kasperske Hory     78.98 319 eP      P      17 52 05.8 -0.1
KHC                                epP     pP     17 52 12.5 -0.1
RUE   Ruedersdorf        79.12 322 eP      P      17 52 05.9 -0.6
      comp=Z,18nm,0.7s,mb5.1
FVI   Forni Avoltri      79.36 316 eP      P      17 52 08.3 +0.4
WET   Wettzell           79.44 319 eP      P      17 52 09.1 +0.8
CLL   Collm              79.51 321 eP      P      17 52 08.0 -0.7
CLL                                 pmax   pmax
      comp=Z,30nm,1.5s,mb5.0
CLL   Collm              79.51 321 eP      P      17 52 08.0 -0.7
      comp=Z,30nm,1.5s,mb5.0
CLL   Collm              79.51 321  P      P      17 52 08.0 -0.7
      comp=Z,logA/T=1.3,mb5.0
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FX1   Attu Island--F    79.53  37  P        P        17 52 09.3 +0.5
        comp=Z,43nm,0.8s,mb5.4,baz=278,slow=20,SNR=5.4
FX1   Attu Island--F    79.53  37  P        P        17 52 09.3 +0.5
FX1                                pmax     pmax
        comp=Z,43nm,0.8s
NKC   Novy Kostel       79.79 320 eP        P        17 52 10.2  0.0
NKC                               epP       pP       17 52 16.6 -0.3
PGD   Poggio Sodo       79.98 313 eP        P        17 52 12.8 +1.4
CTI   Castel Tesino     80.11 316 eP        P        17 52 12.6 +0.6
SEI   Scarperia         80.25 314 eP        P        17 52 14.0 +1.2
MOX   Moxa              80.34 320 eP        P        17 52 13.7 +0.6
MOX                                pmax     pmax
        comp=Z,41nm,1.7s,mb5.1
MOX                                MLR      MLR
        comp=Z,300nm,20.0s,MS4.6
MOX   Moxa              80.34 320 i P       P        17 52 13.7 +0.6
        comp=Z,logA/T=1.4,mb5.1
MOX                                L                 18 33 01.0
MOX   Moxa              80.34 320 eP        P        17 52 13.7 +0.6
        comp=Z,41nm,1.7s,mb5.1
MOX                                LR       LR
        comp=Z,300nm,20.0s,MS4.6
GRA1  Grafenberg Arr    80.55 319 eP        P        17 52 15.3 +1.0
        comp=Z,79nm,1.5s,mb5.4
GRA1                              epP       pP       17 52 22.4 +1.4
GRF   Grafenberg Arr    80.55 319 eP        P        17 52 15.3 +1.0
GRF                               e*PP      pP       17 52 22.4 +1.4
GRF                                pmax     pmax
        comp=Z,79nm,1.5s,mb5.4
GRF   Grafenberg Arr    80.55 319 eP        P        17 52 15.3 +1.0
GRF                               e*PP      pP       17 52 22.4 +1.4
GRF                                pmax     pmax
        comp=Z,79nm,1.5s,mb5.4
GRF   Grafenberg Arr    80.55 319 eP        P        17 52 15.3 +1.0
        comp=Z,79nm,1.5s,mb5.4
GRF                               epP       pP       17 52 22.4 +1.4
SAL   Salo              80.89 315 eP        P        17 52 17.7 +1.6
BRMO  Bormio            81.01 316 eP        P        17 52 17.4 +0.7
CLZ   Clausthal         81.18 321 eP        P        17 52 18.0 +0.5
        comp=Z,43nm,1.5s,mb5.2
NB2   NORSAR Subarra    81.24 331  P        P        17 52 16.8 -0.8
        comp=Z,29nm,1.2s,mb5.1,baz=93,slow=5.8
NB2   NORSAR Subarra    81.24 331  P        P        17 52 16.8 -0.8
        baz=93,slow=5.9
NB2   NORSAR Subarra    81.24 331  P        P        17 52 16.8 -0.8
NB2                                pmax     pmax
        comp=Z,29nm,1.2s,mb5.1
NOA   NORSAR Array B    81.24 331  P        P        17 52 17.1 -0.5
        comp=Z,5.1nm,0.9s,mb4.4,baz=94,slow=5.5,SNR=5.3
NOA   NORSAR Array B    81.24 331  P        P        17 52 17.1 -0.5
NOA                                pmax     pmax
        comp=Z,5.0nm,0.9s
BSEG  Bad Segeberg      81.30 324 eP        P        17 52 18.8 +0.7
PGF   Pioggiola         81.95 312 eP        P        17 52 22.0 +0.3
VAI   Varese            82.12 315 eP        P        17 52 22.4 -0.1
BFO   Black Forest      82.42 318 eP        P        17 52 23.9 -0.2
BFO                                pmax     pmax
        comp=Z,36nm,1.5s,mb5.1
BFO   Black Forest      82.42 318 eP        P        17 52 23.9 -0.2
        comp=Z,36nm,1.5s,mb5.1
SYO   Syowa Base        82.95 197 ⇓P        P        17 52 28.5 +2.1
SYO   Syowa Base        82.95 197 ⇓pP       pP       17 52 31.9 -1.3
SBF   Sospel            83.08 313 eP        P        17 52 27.8 +0.2
        comp=Z,59nm,0.9s,mb5.3
SBF   Sospel            83.08 313 eP        P        17 52 27.8 +0.2
SBF                                pmax     pmax
        comp=Z,30nm,0.9s,mb5.3
CDF   Champ du Feu      83.13 318 eP        P        17 52 27.6 -0.1
HINF  Hinteralfeld      83.42 317 eP        P        17 52 29.1 -0.1
LPG   La Plagne         83.54 315 eP        P        17 52 30.5 +0.6
        comp=Z,33nm,1.0s,mb5.1
LPG   La Plagne         83.54 315 eP        P        17 52 30.5 +0.6
LPG                                pmax     pmax
        comp=Z,17nm,1.0s,mb5.1
MBDF  Montbardon        83.54 314 eP        P        17 52 29.6 -0.3
        comp=Z,76nm,1.4s,mb5.3
MBDF  Montbardon        83.54 314 eP        P        17 52 29.6 -0.3
MBDF                               pmax     pmax
        comp=Z,38nm,1.4s,mb5.3
LPL   La Plagne         83.55 315 eP        P        17 52 30.5 +0.5
        comp=Z,45nm,1.0s,mb5.3
LPL   La Plagne         83.55 315 eP        P        17 52 30.5 +0.5
LPL                                pmax     pmax
        comp=Z,23nm,1.0s,mb5.3
FRF   La Foret Royal    83.66 313 eP        P        17 52 30.9 +0.3
        comp=Z,78nm,1.1s,mb5.5
FRF   La Foret Royal    83.66 313 eP        P        17 52 30.9 +0.3
FRF                                pmax     pmax
        comp=Z,39nm,1.1s,mb5.5
HAU   Haudompre         83.75 318 eP        P        17 52 30.8 -0.1
        comp=Z,40nm,1.0s,mb5.2
HAU                               eR
        comp=Z,223nm,21.5s
HAU   Haudompre         83.75 318 eP        P        17 52 30.8 -0.1
HAU                                pmax     pmax
        comp=Z,20nm,1.0s,mb5.2
HAU                                MLR      MLR
        comp=Z,220nm,21.5s,MS4.5
LMR   La Mourre         83.77 313 eP        P        17 52 31.5 +0.4
CABF  La Chapelle       83.97 316 eP        P        17 52 32.5 +0.4
        comp=Z,152nm,1.7s,mb5.5
CABF  La Chapelle       83.97 316 eP        P        17 52 32.5 +0.4
CABF                               pmax     pmax
        comp=Z,76nm,1.7s,mb5.5
ORIF  Oris-en-Rattie    84.17 314 eP        P        17 52 33.7 +0.6
ORIF                              eR
        comp=Z,352nm,21.8s
SMRF  Simiane la Rot    84.42 314 eP        P        17 52 35.1 +0.7
        comp=Z,289nm,1.7s,mb5.8
MEZF  Maizieres J'vi    84.61 318 eP        P        17 52 35.4 +0.2
GIVF  Givet             84.69 320 eP        P        17 52 35.6  0.0
VIVF  Saint-Julien-l    85.03 314 eP        P        17 52 37.8 +0.4
        comp=Z,70nm,1.4s,mb5.3
VIVF  Saint-Julien-l    85.03 314 eP        P        17 52 37.8 +0.4
VIVF                               pmax     pmax
        comp=Z,35nm,1.4s,mb5.3
BAIF  Baives            85.09 320 eP        P        17 52 38.0 +0.4
        comp=Z,104nm,1.7s,mb5.4
BAIF  Baives            85.09 320 eP        P        17 52 38.0 +0.4
BAIF                               pmax     pmax
        comp=Z,52nm,1.7s,mb5.4
RPZ   Rata Peaks        85.14 135  P        P        17 52 38.5 +0.6
        comp=Z,22nm,1.1s,mb5.2,baz=347,slow=2.0,SNR=8.7
SMF   Signal de Mont    85.52 316 eP        P        17 52 39.7 -0.1
        comp=Z,74nm,1.3s,mb5.4
SMF   Signal de Mont    85.52 316 eP        P        17 52 39.7 -0.1
SMF                                pmax     pmax
        comp=Z,37nm,1.3s,mb5.5
SSF   Saint Saulge      85.72 317 eP        P        17 52 40.9 +0.1
        comp=Z,68nm,1.6s,mb5.3
SSF   Saint Saulge      85.72 317 eP        P        17 52 40.9 +0.1
SSF                                pmax     pmax
        comp=Z,34nm,1.6s,mb5.3
AVF   Avril sur Loir    85.84 316 eP        P        17 52 41.3 -0.1
        comp=Z,60nm,1.4s,mb5.3
AVF   Avril sur Loir    85.84 316 eP        P        17 52 41.3 -0.1
AVF                                pmax     pmax
        comp=Z,30nm,1.4s,mb5.3
BGF   Bois d'Agland     86.20 316 eP        P        17 52 43.7 +0.5
        comp=Z,53nm,1.2s,mb5.3
BGF   Bois d'Agland     86.20 316 eP        P        17 52 43.7 +0.5
BGF                                pmax     pmax
        comp=Z,27nm,1.2s,mb5.3
HYF   Humbligny         86.30 317 eP        P        17 52 44.3 +0.7
TCF   Toulx Ste Croi    86.66 316 eP        P        17 52 45.8 +0.3
        comp=Z,95nm,1.8s,mb5.4
TCF   Toulx Ste Croi    86.66 316 eP        P        17 52 45.8 +0.3
TCF                                pmax     pmax
        comp=Z,48nm,1.8s,mb5.4
CAF   Calviac           86.88 315 eP        P        17 52 47.1 +0.6
MTLF  Montolieu         86.90 313 eP        P        17 52 47.1 +0.4
        comp=Z,77nm,1.6s,mb5.4
MTLF  Montolieu         86.90 313 eP        P        17 52 47.1 +0.4
MTLF                               pmax     pmax
        comp=Z,39nm,1.6s,mb5.4
RJF   Les Rejaudoux     87.23 315 eP        P        17 52 49.0 +0.8
        comp=Z,47nm,1.3s,mb5.2
RJF                               eR
        comp=Z,257nm,22.0s
RJF   Les Rejaudoux     87.23 315 eP        P        17 52 49.0 +0.8
RJF                                pmax     pmax
        comp=Z,23nm,1.3s,mb5.2
RJF                                MLR      MLR
        comp=Z,260nm,22.0s,MS4.6
LFF   La Frestale       87.81 315 eP        P        17 52 51.7 +0.7
        comp=Z,66nm,1.2s,mb5.4
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LFF   La Frestale       87.81 315 eP        P        17 52 51.7 +0.7
LFF                                pmax     pmax
        comp=Z,33nm,1.2s,mb5.4
LDF   La Druitiere      88.03 318 eP        P        17 52 52.2 +0.2
FLN   La Foliniere      88.25 319 eP        P        17 52 53.1 +0.1
FLN                               eR
        comp=Z,269nm,20.0s
MFF   Saint Martin d    88.26 316 eP        P        17 52 53.4 +0.3
GRR   Gorron            88.54 318 eP        P        17 52 54.7 +0.3
        comp=Z,157nm,1.7s,mb5.8
GRR   Gorron            88.54 318 eP        P        17 52 54.7 +0.3
GRR                                pmax     pmax
        comp=Z,78nm,1.7s,mb5.8
URZ   Urewera           88.68 128  P        P        17 52 55.4  0.0
        comp=Z,9.1nm,0.8s,mb5.2,baz=172,slow=12,SNR=5.1
ANM   Nome              89.90  25 eP        P        17 53 01.3 +0.8
QUIF  Quistinic         90.13 318 eP        P        17 53 02.2 +0.2
        comp=Z,49nm,1.2s,mb5.4
QUIF  Quistinic         90.13 318 eP        P        17 53 02.2 +0.2
QUIF                               pmax     pmax
        comp=Z,24nm,1.2s,mb5.4
VNDA  Vanda             90.90 168  P        P        17 53 06.5 +1.6
        comp=Z,2.4nm,0.9s,mb4.5,baz=275,slow=1.8,SNR=4.3
VNDA  Vanda             90.90 168  P        P        17 53 06.5 +1.6
VNDA                               pmax     pmax
        comp=Z,2.0nm,0.9s
VNDA  Vanda             90.90 168  P        P        17 53 06.4 +1.6
        comp=Z,25nm,1.5s,mb5.3
ESDC  Sonseca Array     91.94 310  P        P        17 53 11.5 +1.0
        comp=Z,2.9nm,0.8s,mb4.7,baz=46,slow=4.3,SNR=11
MCK   McKinley          96.93  23 eP        P        17 53 32.9 +0.1
MCK                                pmax     pmax
        comp=Z,2.0nm,0.5s,mb4.8
MCK   McKinley          96.93  23 eP        P        17 53 32.9 +0.1
        comp=Z,1.8nm,0.5s,mb4.8
ILAR  Eielson Array     97.22  22  P        P        17 53 33.5 -0.5
        comp=Z,0.7nm,0.7s,mb4.2,baz=299,slow=4.5,SNR=7.6
ILAR  Eielson Array     97.22  22  P        P        17 53 33.6 -0.4
ILAR                               pmax     pmax
        comp=Z,1.0nm,0.7s
DBIC  Dimbokro          97.28 277  P        P        17 53 37.0 +1.5
        comp=Z,2.3nm,0.8s,mb4.7,baz=99,slow=9.1,SNR=5.2
DBIC  Dimbokro          97.28 277  P        P        17 53 37.0 +1.5
DBIC                               pmax     pmax
        comp=Z,2.0nm,0.8s
INK   Inuvik            99.44  16  P        P        17 53 45.3 +1.3
        comp=Z,0.9nm,0.7s,mb4.4,baz=327,slow=10.0,SNR=7.4
INK   Inuvik            99.44  16  P        P        17 53 45.3 +1.3
INK                                pmax     pmax
        comp=Z,1.0nm,0.7s
YKA   Yellowknife Ar   108.86  13  PKiKP             17 58 32.1
        comp=Z,0.2nm,0.7s,baz=342,slow=2.3,SNR=6.4
YKA                                PP       PP       17 59 04.5 +3.1
        comp=Z,3.3nm,1.0s,baz=329,slow=7.5,SNR=13
YKA   Yellowknife Ar   108.86  13  PKPdf             17 58 32.1
YKA                                PP       PP       17 59 04.5 +3.1
TBI   Tubuai           117.31 113 eLR       LR       18 35 48.0
        comp=Z,255nm,23.8s
SCHQ  Schefferville    117.53 347  PKP      PKPdf    17 58 48.5 -2.0
        comp=Z,3.8nm,0.9s,baz=110,slow=2.6,SNR=3.9
PPT   Papeete          117.64 107 eSS       tx       18 17 15.5
PPT                               eLR       LR       18 35 59.0
        comp=Z,181nm,22.2s
ULM   Lac du Bonnet    123.84   7  PKP      PKPdf    17 59 01.4 -1.5
        comp=Z,2.7nm,0.9s,baz=3.3,slow=3.2,SNR=7.3
BOZ   Bozeman (W)      124.40  21 ePKIKP    PKPdf    17 59 02.0 -2.1
MCMT  McKenzie Canyo   124.65  22 ePKPdf    PKPdf    17 59 02.8 -1.9
HLID  Hailey           125.09  24 ePKPdf    PKPdf    17 59 03.8 -1.7
TPAW  Teton Pass       126.50  22 ePKPdf    PKPdf    17 59 06.7 -1.5
LOHW  Long Hollow      126.53  21 ePKPdf    PKPdf    17 59 06.5 -1.7
SNOW  Snow King Moun   126.60  22 ePKPdf    PKPdf    17 59 06.7 -1.7
SNOW                              e                  17 59 14.5
REDW  Red Top Meadow   126.65  22 ePKPdf    PKPdf    17 59 06.8 -1.6
NVAR  Mina Array Bea   127.37  31  PKP      PKPdf    17 59 09.4 -0.6
        comp=Z,3.6nm,0.7s,baz=351,slow=2.2,SNR=9.3
PDAR  Pinedale Array   127.64  21  PKP      PKPdf    17 59 07.7 -2.8
        comp=Z,3.3nm,0.9s,baz=227,slow=0.4,SNR=18
SADO  Sadowa           129.40 353  PKP      PKPdf    17 59 11.2 -2.6
        comp=Z,39nm,1.4s,baz=203,slow=5.2,SNR=3.1
MVU   Marysvale        130.21  26 ePKPdf    PKPdf    17 59 15.1 -0.4
NEN   Nelson           131.27  31 ePKPdf    PKPdf    17 59 16.5 -1.1
PV10  Paradox Valley   131.65  23 ePKPdf    PKPdf    17 59 16.6 -1.6
PV01  Paradox Valley   132.04  23  PKPdf    PKPdf    17 59 16.1 -2.9
ANMO  Albuquerque      135.64  23 ePKIKP    PKPdf    17 59 24.2 -1.6
TUC   Tucson           135.96  30 ePKIKP    PKPdf    17 59 23.0 -3.4
CCM   Cathedral Cave   136.39   5  PKIKP    PKPdf    17 59 25.8 -1.2
WMOK  Wichita Mounta   138.34  15  PKIKP    PKPdf    17 59 28.7 -2.0
BDFB  Brasilia         140.62 252  PKP      PKPdf    17 59 33.2 -2.2
        comp=Z,1.6nm,0.6s,baz=146,slow=7.3,SNR=3.0
BDFB  Brasilia         140.62 252  PKIKP    PKPdf    17 59 33.2 -2.2
BDFB                               pmax     pmax
        comp=Z,2.0nm,0.6s
TXAR  Lajitas Array    141.70  24  PKhKP             17 59 29.3
        comp=Z,0.7nm,0.7s,baz=162,slow=1.8,SNR=10
TXAR                               PKP      PKPdf    17 59 34.9 -2.0
        comp=Z,2.1nm,0.6s,baz=225,slow=1.8,SNR=20
TXAR  Lajitas Array    141.70  24  PKP      PKPdf    17 59 34.9 -2.0
JCT   Junction City    142.05  18 ePKIKP    PKPdf    17 59 35.8 -1.7
CPUP  Villa Florida    145.09 231  PKPbc    PKPbc    17 59 40.1 +1.2
        comp=Z,0.0nm,0.3s,baz=268,slow=11,SNR=1.6
LVC   Limon Verde      155.79 224 ePKPab    PKPab    18 00 24.9 +0.9
LPAZ  La Paz           158.80 238  PKP      PKPdf    18 00 02.0 -1.2
        comp=Z,1.7nm,0.9s,baz=73,slow=2.1,SNR=9.4
LPAZ                               PKPab    PKPab    18 00 38.0 +0.8
        comp=Z,4.3nm,0.9s,baz=79,slow=3.6,SNR=7.9
LPAZ  La Paz           158.80 238  PKIKP    PKPdf    18 00 02.0 -1.2
LPAZ                               pmax     pmax
        comp=Z,2.0nm,0.9s
LPAZ                               pmax     pmax
        comp=Z,4.0nm,0.9s
ROSC  El Rosal         163.76 309  PKP      PKPdf    18 00 07.8 -0.6
        comp=Z,3.9nm,0.3s,baz=99,slow=23,SNR=3.4
ROSC                               PKPab    PKPab    18 00 58.6 -0.2
        comp=Z,6.0nm,0.3s,baz=114,slow=21,SNR=2.3
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*MOS **27** 17:42:32.9±0.8, 11.89N×91.83E, h33^{km}, mb5.0/27, Error ellipse: s-maj=14.7km s-min=10.2km az=119.3*
*NEIC **27** 17:42:33.5±0.2, 11.84N×91.80E, mb4.9/15, Error ellipse: s-maj=7.5km s-min=5.9km az=49.0*
*IDC **27** 17:42:38.1±9.2, 11.85N×91.82E, h61^{km}±84^{km}, mb4.2/22, mb1 4.2/22, mb1mx4.2/25, MS4.7/1, Ms1 4.7/1, ms1mx3.2/22, Error ellipse: s-maj=21.7km s-min=11.7km az=51.0*
ISC 27 17:42:31.5±0.4**, 11.85N**±0.07×**91.82E**±0.08**, h23**^{km}**,**
h23^{km}±1.8^{km}**:pP-P, n73, σ0.77**/71**, mb4.7**/35**, MS4.8**/1**, 1C,**
Andaman Islands region

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Code  Station Name       Δ°   AZ°   Phase ID            Time      Res
                                  Op        ISC       h  m  s    ISC
AAK   Ala-Archa         34.17 337 eP        P        17 49 17.5 +0.2
AAK                                pmax     pmax
        comp=Z,21nm,1.0s,mb5.0
AAK   Ala-Archa         34.17 337 eP        P        17 49 17.5 +0.2
        comp=Z,21nm,1.0s,mb5.0
JOW   Kunigami          37.33  61  P        P        17 49 45.6 +1.5
        comp=Z,45nm,1.2s,mb5.2,baz=139,slow=14,SNR=2.8
SONM  Songino Array     37.90  16  P        P        17 49 49.9 +1.2
        comp=Z,9.5nm,0.6s,mb4.7,baz=208,slow=7.7,SNR=10
ZAL   Zalesovo          42.35 354  P        P        17 50 25.9 +0.4
        comp=Z,5.2nm,0.8s,mb4.2,baz=256,slow=22,SNR=2.0
ZAL   Zalesovo          42.35 354  P        P        17 50 25.9 +0.4
ZAL                                pmax     pmax
        comp=Z,5.0nm,0.9s
ZAL   Zalesovo          42.35 354  P        P        17 50 25.9 +0.4
BVAR  Borovoye Array    44.52 342  P        P        17 50 43.7 +0.6
        comp=Z,2.7nm,0.6s,mb4.3,baz=150,slow=12,SNR=3.2
BOD   Bodaibo           48.89  16 i P       P        17 51 16.9 -0.5
GNI   Garni             50.06 313  P        P        17 51 27.0 +0.3
        comp=Z,4.0nm,0.6s,mb4.6,baz=59,slow=12,SNR=2.1
GNI   Garni             50.06 313 eP        P        17 51 26.3 -0.4
GNI                               e*PP      pP       17 51 34.5 +0.9
GNI                                pmax     pmax
        comp=Z,56nm,1.2s
GNI   Garni             50.06 313 eP        P        17 51 26.3 -0.3
        comp=Z,56nm,1.2s,mb5.5
GNI                               epP       pP       17 51 34.5 +0.9
NWAO  Narrogin (SRO)    50.70 152  P        P        17 51 30.9 -0.7
        comp=Z,11nm,1.0s,mb4.7,baz=297,slow=8.8,SNR=2.4
NWAO  Narrogin (SRO)    50.70 152  P        P        17 51 31.0 -0.7
NWAO                               pmax     pmax
        comp=Z,11nm,1.0s
WRA   Warramunga Arr    52.43 127  P        P        17 51 44.0 -0.9
        comp=Z,12nm,0.6s,mb5.0,baz=307,slow=8.2,SNR=16
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WRA   Warramunga Arr    52.43 127  P        P        17 51 44.0 -0.9
WRA                                pmax     pmax
        comp=Z,12nm,0.6s
KIV   Kislovodsk        52.87 317 eP        P        17 51 45.5 -2.3
KIV                                pmax     pmax
        comp=N,21nm,1.1s
KIV                                pmax     pmax
        comp=Z,36nm,1.1s,mb5.2
KIV   Kislovodsk        52.87 317 eP        P        17 51 47.7 -0.1
MALT  Malatya           54.19 309 eP        P        17 51 57.9 +0.3
MALT                               pmax     pmax
        comp=Z,12nm,1.1s,mb4.7
MALT  Malatya           54.19 309 eP        P        17 51 57.9 +0.3
        comp=Z,12nm,1.1s,mb4.8
ASAR  Alice Springs     54.21 131  P        P        17 51 57.1 -0.9
        comp=Z,4.0nm,0.7s,mb4.5,baz=307,slow=6.7,SNR=5.8
YSS   Yuzh-Sakhalins    55.16  40 eP        P        17 52 04.0 -0.7
YSS                               e*PP      pP       17 52 10.7 -0.9
YSS                                pmax     pmax
        comp=Z,22nm,1.1s,mb5.1
YSS   Yuzh-Sakhalins    55.16  40 eP        P        17 52 04.0 -0.7
        comp=Z,22nm,1.1s,mb5.1
YSS                               epP       pP       17 52 10.7 -0.9
KMBO  Kilima Mbogo      55.71 260  P        P        17 52 10.2 +1.2
        comp=Z,0.9nm,0.8s,mb3.9,baz=51,slow=22,SNR=1.8
KMBO  Kilima Mbogo      55.71 260 eP        P        17 52 08.9 -0.1
KMBO                              e*PP      pP       17 52 16.3 +0.3
KMBO                               pmax     pmax
        comp=Z,9.0nm,1.2s
KMBO  Kilima Mbogo      55.71 260 eP        P        17 52 08.9 -0.1
        comp=Z,9.0nm,1.2s,mb4.7
KMBO                              epP       pP       17 52 16.3 +0.3
YAK   Yakutsk           57.02  20 eP        P        17 52 16.4 -1.4
YAK                                pmax     pmax
        comp=Z,25nm,0.8s,mb5.3
YAK   Yakutsk           57.02  20 eP        P        17 52 16.4 -1.4
        comp=Z,25nm,0.8s,mb5.3
BRTR  Keskin Array B    58.14 310  P        P        17 52 24.2 -1.7
        comp=Z,3.8nm,0.9s,mb4.4,baz=124,slow=5.7,SNR=3.7
BRTR  Keskin Array B    58.14 310  P        P        17 52 24.2 -1.7
BRTR                               pmax     pmax
        comp=Z,4.0nm,0.9s
PMG   Port Moresby      58.92 109  P        P        17 52 31.8 +0.1
        comp=Z,9.3nm,0.6s,mb5.0,baz=283,slow=3.5,SNR=6.2
PMG   Port Moresby      58.92 109  P        P        17 52 31.8 +0.1
PMG                                pmax     pmax
        comp=Z,9.0nm,0.6s
OBN   Obninsk           60.82 327c iP       P        17 52 44.6 +0.4
OBN                                pmax     pmax
        comp=Z,28nm,1.0s,mb5.3
MBAR  Mbarara           61.89 263 eP        P        17 52 51.8 -0.2
MBAR                               pmax     pmax
        comp=Z,9.0nm,1.2s,mb4.8
MBAR  Mbarara           61.89 263 eP        P        17 52 51.8 -0.2
        comp=Z,8.8nm,1.2s,mb4.8
CTA   Charters Tower    62.25 120  P        P        17 52 54.7 +0.3
        comp=Z,9.4nm,1.0s,mb4.9,baz=321,slow=6.3,SNR=4.8
CTA   Charters Tower    62.25 120  P        P        17 52 54.7 +0.3
CTA                                pmax     pmax
        comp=Z,9.0nm,1.0s
CTAO  Charters Tower    62.25 120 eP        P        17 52 54.2 -0.2
        comp=Z,17nm,1.1s,mb5.1
AKASG Malin Array Be    63.64 321  P        P        17 53 01.4 -1.7
        comp=Z,1.1nm,0.7s,mb4.0,baz=92,slow=4.2,SNR=3.1
AKASG Malin Array Be    63.64 321  P        P        17 53 01.4 -1.7
AKASG                              pmax     pmax
        comp=Z,1.0nm,0.7s
MA2   Magadan           64.37  29 eP        P        17 53 08.2 +0.5
MA2                                pmax     pmax
        comp=Z,20nm,1.0s,mb5.1
MA2   Magadan           64.37  29 eP        P        17 53 08.2 +0.4
        comp=Z,20nm,1.0s,mb5.1
STKA  Stephens Creek    64.49 134  P        P        17 53 09.4 +0.4
        comp=Z,1.9nm,0.7s,mb4.2,baz=291,slow=8.6,SNR=2.8
FINES FINESS Array B    68.15 332  P        P        17 53 31.8  0.0
        comp=Z,2.5nm,0.7s,mb4.4,baz=95,slow=7.0,SNR=3.6
FINES                              LR       LR       18 27 50.8
        comp=Z,521nm,19.3s,MS4.8,baz=122,slow=40
FINES FINESS Array B    68.15 332  P        P        17 53 31.8  0.0
FINES                              pmax     pmax
        comp=Z,3.0nm,0.7s
FINES                              MLR      MLR
        comp=Z,521nm,19.3s
FINES FINESS Array B    68.15 332  P        P        17 53 31.8  0.0
FINES                              LR       LR       18 27 50.8
LSZ   Lusaka            68.52 248 eP        P        17 53 34.9 +0.1
LSZ                               e*PP      pP       17 53 41.8 -0.1
LSZ                                pmax     pmax
        comp=Z,9.0nm,1.1s,mb4.6
LSZ   Lusaka            68.52 248 eP        P        17 53 34.9  0.0
        comp=Z,9.4nm,1.1s,mb4.6
LSZ                               epP       pP       17 53 41.8 -0.1
ARCES ARCESS Array B    70.78 340  P        P        17 53 47.9 +0.1
        comp=Z,9.4nm,1.1s,mb4.6,baz=76,slow=5.0,SNR=4.3
ARCES ARCESS Array B    70.78 340  P        P        17 53 47.9 +0.1
ARCES                              pmax     pmax
        comp=Z,9.0nm,1.1s
MORC  Moravsky Berou    70.90 319 eP        P        17 53 48.9 +0.1
MORC                              e*PP      pP       17 53 54.7 -1.2
MORC                               pmax     pmax
        comp=Z,9.0nm,1.1s,mb4.6
MORC  Moravsky Berou    70.90 319 eP        P        17 53 48.9 +0.1
        comp=Z,8.8nm,1.1s,mb4.6
MORC                              epP       pP       17 53 54.7 -1.2
BILL  Bilibino          73.28  22 eP        P        17 54 02.2 -0.4
BILL                               pmax     pmax
        comp=Z,9.0nm,0.9s,mb4.7
BILL  Bilibino          73.28  22 eP        P        17 54 02.2 -0.4
        comp=Z,9.1nm,0.9s,mb4.7
GERES GERESS Array B    73.36 318  P        P        17 54 04.0 +0.5
        comp=Z,2.4nm,0.9s,mb4.1,baz=127,slow=4.9,SNR=2.5
GERES GERESS Array B    73.36 318  P        P        17 54 04.0 +0.5
GERES                              pmax     pmax
        comp=Z,2.0nm,1.0s
LBTB  Lobatse           74.20 240 eP        P        17 54 10.0 +1.2
LBTB                               pmax     pmax
        comp=Z,12nm,1.1s,mb4.7
LBTB  Lobatse           74.20 240 eP        P        17 54 10.0 +1.2
        comp=Z,12nm,1.1s,mb4.7
NB2   NORSAR Subarra    75.17 330  P        P        17 54 06.6 -7.1
        comp=Z,14nm,1.4s,mb4.7,baz=91,slow=5.8
NB2   NORSAR Subarra    75.17 330  P        P        17 54 06.6 -7.1
NB2                                pmax     pmax
        comp=Z,14nm,1.4s,mb4.7
NOA   NORSAR Array B    75.17 330  P        P        17 54 13.3 -0.4
        comp=Z,3.6nm,1.0s,mb4.3,baz=96,slow=5.6,SNR=3.4
NOA   NORSAR Array B    75.17 330  P        P        17 54 13.3 -0.4
NOA                                pmax     pmax
        comp=Z,4.0nm,1.0s
BOSA  Boshof            75.81 236 eP        P        17 54 18.3 +0.3
BOSA                               pmax     pmax
        comp=Z,9.0nm,0.9s,mb4.7
BOSA  Boshof            75.81 236 eP        P        17 54 18.3 +0.3
        comp=Z,9.3nm,0.9s,mb4.7
DAVOX Davos             75.97 315  P        P        17 54 18.9 +0.4
        comp=Z,2.9nm,1.0s,mb4.2
MAW   Mawson            81.96 191  P        P        17 54 51.5 +0.9
        comp=Z,5.1nm,1.1s,mb4.4,baz=270,slow=11,SNR=3.5
MAW   Mawson            81.96 191  P        P        17 54 51.5 +0.9
MAW                                pmax     pmax
        comp=Z,5.0nm,1.1s
ILAR  Eielson Array     91.93  21  P        P        17 55 39.1 +0.1
        comp=Z,1.6nm,0.8s,mb4.4,baz=295,slow=4.5,SNR=10
ILAR  Eielson Array     91.93  21  P        P        17 55 39.2 +0.1
ILAR                               pmax     pmax
        comp=Z,2.0nm,0.8s
INK   Inuvik            93.81  15  P        P        17 55 48.2 +0.6
        comp=Z,1.2nm,0.6s,mb4.5,baz=319,slow=4.2,SNR=4.7
INK   Inuvik            93.81  15  P        P        17 55 48.3 +0.6
INK                                pmax     pmax
        comp=Z,1.0nm,0.6s
TRQA  Tornquist        144.95 217 ePKPdf    PKPdf    18 02 08.7 -3.0
CPUP  Villa Florida    147.59 239  PKPbc    PKPdf    18 02 16.2 -0.2
        comp=Z,0.0nm,0.3s,baz=250,slow=16,SNR=1.9
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*MOS **27** 17:45:49.9±0.8, 4.68N×94.01E, h33^{km}, mb4.6/13, Error ellipse: s-maj=17.3km s-min=11.5km az=111.1*
*IDC **27** 17:45:51.2±0.6, 4.57N×93.98E, h29^{km}±3^{km}, mb4.2/18, mb1 4.3/19, mb1mx4.1/26, ML3.6/1, Error ellipse: s-maj=22.6km s-min=11.0km az=46.0*
*NEIC **27** 17:45:51.2±0.2, 4.65N×93.99E, mb4.5/10, Error ellipse: s-maj=7.2km s-min=5.6km az=54.0*
ISC 27 17:45:48.5±6.1**, 4.64N**±0.09×**93.99E**±0.10**, h24**^{km}±42^{km}**,**

h29^{km}±1.3^{km}:pP-P,n53,σ0^{s}63/51,mb4.5/26,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.56	19	*e*Pn	P	17 49 14.9	-0.3
CM31				*e*pPn		17 49 21.9	
CMAR	Chiang Mai Arr	14.56	19	Pn	P	17 49 15.6	+0.4
	0.1nm,0.3s,baz=220,slow=14,SNR=4.8						
AAK	Ala-Archa	41.61	338	*e*P	P	17 53 36.2	-0.2
AAK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.4						
AAK	Ala-Archa	41.61	338	*e*P	P	17 53 36.2	-0.2
	comp=Z,9.9nm,1.1s,mb4.3						
MKAR	Makanchi Array	43.20	348	*i* P	P	17 53 50.1	+0.8
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.8s						
SONM	Songino Array	44.33	12	P	P	17 53 59.5	+0.9
	comp=Z,2.0nm,0.8s,mb3.9,baz=198,slow=7.8,SNR=4.4						
SONM				pP	pP	17 54 09.1	+3.2
	comp=Z,2.2nm,0.8s,baz=189,slow=7.4,SNR=5.9						
WRA	Warramunga Arr	46.58	123	P	P	17 54 17.1	+0.4
	comp=Z,5.2nm,0.7s,mb4.6,baz=300,slow=9.1,SNR=6.8						
WRA				pP	pP	17 54 24.3	+0.3
	comp=Z,12nm,0.6s,baz=300,slow=9.1,SNR=16						
WRA	Warramunga Arr	46.58	123	P	P	17 54 17.1	+0.4
WRA				*PP	pP	17 54 24.3	+0.2
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRA				pmax	pmax		
	comp=Z,13nm,0.6s						
WRAB	Tennant Creek	46.58	123	*e*P	P	17 54 17.0	+0.2
WRAB				*e**PP	pP	17 54 24.5	+0.4
WRAB				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.2						
WRAB	Tennant Creek	46.58	123	*e*P	P	17 54 17.0	+0.2
	comp=Z,24nm,0.7s,mb5.2						
WRAB				*e*pP	pP	17 54 24.5	+0.4
ASAR	Alice Springs	48.02	128	P	P	17 54 28.1	+0.1
	comp=Z,1.8nm,0.8s,mb4.2,baz=300,slow=8.0,SNR=5.4						
ASAR				pP	pP	17 54 35.9	+0.4
	comp=Z,5.0nm,0.7s,baz=300,slow=7.0,SNR=14						
ZAL	Zalesovo	49.71	353	P	P	17 54 41.3	+0.6
	comp=Z,3.6nm,0.5s,mb4.7,baz=280,slow=7.2,SNR=10						
ZAL				pP	pP	17 54 51.1	+2.9
	comp=Z,3.3nm,0.5s,baz=331,slow=4.5,SNR=8.1						
ZAL	Zalesovo	49.71	353	P	P	17 54 41.3	+0.6
ZAL				*PP	pP	17 54 51.1	+3.0
ZAL				pmax	pmax		
	comp=Z,4.0nm,0.5s						
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BVAR	Borovoye Array	51.99	342	P	P	17 54 58.0	0.0
	comp=Z,4.4nm,0.7s,mb4.5,baz=135,slow=8.4,SNR=12						
BRVK	Borovoye	52.05	342	*e*P	P	17 54 58.0	-0.5
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
BRVK	Borovoye	52.05	342	*e*P	P	17 54 58.0	-0.5
	comp=Z,3.4nm,0.5s,mb4.5						
BOD	Bodaibo	55.31	13	*e*P	P	17 55 20.7	-1.8
GNI	Garni	56.61	316	P	P	17 55 32.5	+0.5
	comp=Z,1.1nm,0.4s,mb4.3,baz=231,slow=22,SNR=3.1						
GNI	Garni	56.61	316	*e*P	P	17 55 31.6	-0.4
GNI				pmax	pmax		
	comp=Z,4.0nm,0.8s						
GNI	Garni	56.61	316	*e*P	P	17 55 31.6	-0.4
	comp=Z,3.9nm,0.8s,mb4.5						
CTA	Charters Tower	56.91	117	P	P	17 55 33.5	-1.0
	comp=Z,1.8nm,0.8s,mb4.1,baz=307,slow=17,SNR=2.1						
CTA				pP	pP	17 55 42.4	+0.4
	comp=Z,3.6nm,0.9s,baz=311,slow=9.0,SNR=4.2						
CTA	Charters Tower	56.91	117	P	P	17 55 33.5	-1.0
CTA				*PP	pP	17 55 42.4	+0.4
CTA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
CTA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
CTAO	Charters Tower	56.91	117	P	P	17 55 34.4	-0.1
CTAO				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
CTAO	Charters Tower	56.91	117	P	P	17 55 34.4	-0.1
	comp=Z,6.2nm,1.0s,mb4.6						
KMBO	Kilima Mbogo	56.97	266	P	P	17 55 35.6	+0.6
	comp=Z,3.9nm,1.1s,mb4.4,baz=29,slow=23,SNR=5.5						
KMBO	Kilima Mbogo	56.97	266	*e*P	P	17 55 35.7	+0.7
KMBO				*e**PP	pP	17 55 43.8	+1.3
STKA	Stephens Creek	58.03	132	P	P	17 55 41.8	-0.3
	comp=Z,4.1nm,1.1s,mb4.4,baz=210,slow=1.8,SNR=2.7						
STKA				pP	pP	17 55 50.8	+1.2
	comp=Z,2.1nm,0.7s,baz=318,slow=8.2,SNR=5.5						
ASF	Jabal al Asfar	59.88	305	P	P	17 55 55.2	+0.2
	comp=Z,1.4nm,0.3s,mb4.4,baz=94,slow=4.5,SNR=4.5						
MALT	Malatya	60.46	312	*e*P	P	17 55 58.8	-0.1
MALT				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
MALT	Malatya	60.46	312	*e*P	P	17 55 58.8	-0.1
	comp=Z,1.5nm,0.4s,mb4.4						
EIL	Elat	60.93	301	P	P	17 56 02.1	-0.1
	comp=Z,3.4nm,0.6s,mb4.6,baz=297,slow=4.5,SNR=3.6						
YAK	Yakutsk	63.09	18	*e*P	P	17 56 15.1	-1.1
YAK				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.1						
YAK	Yakutsk	63.09	18	*e*P	P	17 56 15.1	-1.1
	comp=Z,19nm,1.1s,mb5.1						
MBAR	Mbarara	63.40	267	*e*P	P	17 56 18.4	-0.5
	comp=Z,1.4nm,0.6s,mb4.3						
BRTR	Keskin Array B	64.44	312	P	P	17 56 24.2	-1.2
	comp=Z,1.3nm,0.8s,mb4.0,baz=117,slow=5.5,SNR=5.4						
BRTR				pP	pP	17 56 34.0	+0.9
	comp=Z,1.5nm,0.8s,baz=121,slow=7.2,SNR=5.2						
BRTR	Keskin Array B	64.44	312	P	P	17 56 24.2	-1.2
BRTR				*PP	pP	17 56 34.0	+1.0
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.8s						
KIS	Kishinev	69.81	319	*e*P	P	17 57 08.0	+8.9
KIS				*e*		17 57 23.0	
IDI	Anoyia	70.30	306	P	P	17 57 02.5	+0.2
	comp=Z,7.5nm,0.9s,mb4.6,baz=85,slow=12,SNR=4.4						
LBTB	Lobatse	72.59	242	*e*P	P	17 57 16.3	0.0
LBTB				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
LBTB	Lobatse	72.59	242	*e*P	P	17 57 16.3	0.0
	comp=Z,6.2nm,1.1s,mb4.5						
FINES	FINESS Array B	75.49	333	P	P	17 57 31.6	-0.7
	comp=Z,3.3nm,0.9s,mb4.3,baz=67,slow=14,SNR=4.8						
FINES	FINESS Array B	75.49	333	P	P	17 57 31.6	-0.8
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	78.24	340	P	P	17 57 48.2	+0.7
	comp=Z,5.5nm,1.1s,mb4.4,baz=300,slow=17,SNR=4.2						
ARCES	ARCESS Array B	78.24	340	P	P	17 57 48.2	+0.7
ARCES				pmax	pmax		
	comp=Z,6.0nm,1.1s						
BILL	Bilibino	79.13	21	*e*P	P	17 57 53.0	+0.5
BILL				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
BILL	Bilibino	79.13	21	*e*P	P	17 57 53.0	+0.5
	comp=Z,1.9nm,0.5s,mb4.3						
FX1	Attu Island--F	79.78	37	P	P	17 57 56.9	+0.6
	comp=Z,24nm,0.9s,mb5.1,baz=83,slow=20,SNR=3.0						
FX1	Attu Island--F	79.78	37	P	P	17 57 56.9	+0.6
FX1				pmax	pmax		
	comp=Z,24nm,0.9s						
GERES	GERESS Array B	80.13	319	P	P	17 57 58.5	+0.3
	comp=Z,1.4nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=7.9						
GERES				pP	pP	17 58 08.7	+2.7
	comp=Z,0.6nm,0.7s,baz=90,slow=5.3,SNR=3.8						
GERES	GERESS Array B	80.13	319	P	P	17 57 58.5	+0.3
GERES				*PP	pP	17 58 08.7	+2.8
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
GERES				pmax	pmax		
	comp=Z,1.0nm,0.7s						
DAVOX	Davos	82.61	316	P	P	17 58 12.0	+0.8
	comp=Z,1.4nm,0.4s,mb4.3,baz=118,slow=7.2,SNR=5.1						
PDAR	Pinedale Array	128.21	22	PKP	PKPdf	18 04 55.8	-2.2
	comp=Z,0.8nm,0.9s,SNR=4.2						
CPUP	Villa Florida	145.11	229	PKPbc	PKPbc	18 05 26.4	+1.4
	comp=Z,0.0nm,0.3s,baz=197,slow=20,SNR=1.8						

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*IDC **27** 17:48:41.7±0.9,4.53N×93.82E,mb3.9/9,mb1 4.1/10, mb1mx3.9/20,ML4.3/1,Error ellipse: s-maj=47.9km s-min=20.0km az=49.0*

*NEIC **27** 17:48:45.8±0.7,4.28N×93.56E,h30^{km},mb4.4/3,Error ellipse: s-maj=18.7km s-min=13.2km az=76.0*

ISC 27 17:48:43.8±0.8,**4.3N**±0.1×**93.6E**±0.1,**h30^{km},n16,** σ**1^{s}13**/15,**mb4.1**/13,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.06	20	*e*Pn	P	17 52 17.3	+0.8
CMAR	Chiang Mai Arr	15.06	20	Pn	P	17 52 18.1	+1.6
	0.4nm,0.3s,baz=213,slow=12,SNR=9.0						
LSA	Lhasa	25.40	355	*e*P	P	17 54 10.8	+0.3
	7.4nm,0.8s,mb4.3						
LSA				*e*pP	pP	17 54 20.1	+0.9
SONM	Songino Array	44.79	12	P	P	17 56 54.6	-2.1
	0.5nm,0.6s,mb3.5,baz=193,slow=8.3,SNR=3.4						
WRA	Warramunga Arr	46.74	122	P	P	17 57 12.4	-0.1
	1.0nm,0.5s,mb4.0,baz=300,slow=8.9,SNR=6.7						
ASAR	Alice Springs	48.13	127	P	P	17 57 23.4	-0.1
	0.5nm,0.7s,mb3.6,baz=297,slow=8.1,SNR=2.9						
ZAL	Zalesovo	50.03	353	P	P	17 57 36.6	-1.0
	1.6nm,0.5s,mb4.3,baz=291,slow=5.8,SNR=6.1						
BVAR	Borovoye Array	52.22	343	P	P	17 57 53.1	-1.1
	1.6nm,0.6s,mb4.1,baz=141,slow=9.5,SNR=5.2						
BRVK	Borovoye	52.28	342	*e*P	P	17 57 53.4	-1.3
	1.7nm,0.5s,mb4.2						
CHKZ	Chkalovo	52.72	343	*e*P	P	17 57 56.9	-1.1
	3.7nm,0.4s,mb4.7						
IDI	Anoyia	70.17	306	P	P	17 59 57.4	+1.4
	39nm,1.4s,mb5.2,baz=337,slow=19,SNR=2.7						
FINES	FINESS Array B	75.62	333	P	P	18 00 26.8	-0.7
	1.4nm,0.9s,mb3.9,baz=180,slow=36,SNR=4.2						
ARCES	ARCESS Array B	78.45	341	P	P	18 00 43.2	+0.1
	2.4nm,0.9s,mb4.1,baz=97,slow=7.3,SNR=3.6						
GERES	GERESS Array B	80.12	319	P	P	18 00 53.7	+1.1
	0.2nm,0.3s,mb3.5,baz=90,slow=5.3,SNR=3.0						
DAVOX	Davos	82.58	316	P	P	18 01 07.4	+1.9
	0.7nm,0.4s,mb4.1,baz=185,slow=22,SNR=3.6						
CPUP	Villa Florida	144.53	229	PKP	PKPdf	18 08 21.1	-2.2
	0.0nm,0.7s,baz=63,slow=14,SNR=1.6						

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*IDC **27** 17:50:53.2±1.1,6.62N×94.72E,mb3.9/8,mb1 4.1/8, mb1mx3.8/18,Error ellipse: s-maj=60.4km s-min=22.6km az=46.0*

*NEIC **27** 17:50:57.8±0.7,6.63N×94.76E,h30^{km},mb4.0/1,Error ellipse: s-maj=38.2km s-min=14.2km az=49.0*

ISC 27 17:50:56.0±0.9,**6.7N**±0.2×**94.8E**±0.3,**h30^{km},n10,** σ**0^{s}88**/10,**mb3.9**/9,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	42.19	12	P	P	17 58 47.8	0.0
	0.6nm,0.7s,mb3.3,baz=192,slow=8.0,SNR=3.7						
WRA	Warramunga Arr	47.02	125	P	P	17 59 27.4	+0.4
	0.7nm,0.7s,mb3.7,baz=305,slow=9.2,SNR=3.7						
ASAR	Alice Springs	48.64	130	P	P	17 59 38.9	-0.7
	0.7nm,1.1s,mb3.6,baz=302,slow=8.1,SNR=4.1						
ASAR	Alice Springs	48.64	130	P	P	17 59 38.9	-0.7
CHKZ	Chkalovo	50.82	342	*e*P	P	17 59 54.9	-0.9
	1.0nm,0.6s,mb3.9						
BRTR	Keskin Array B	63.72	311	P	P	18 01 25.7	-1.7
	0.7nm,0.5s,mb4.0,baz=132,slow=7.2,SNR=5.5						
FINES	FINESS Array B	74.08	332	P	P	18 02 30.9	-0.1
	2.3nm,0.5s,mb4.4,baz=97,slow=6.2,SNR=28						
ARCES	ARCESS Array B	76.62	340	P	P	18 02 46.2	+0.9
	2.6nm,0.9s,mb4.2,baz=105,slow=6.5,SNR=8.0						
GERES	GERESS Array B	79.16	318	P	P	18 03 00.4	+0.7
	1.0nm,0.9s,mb3.8,baz=108,slow=4.2,SNR=4.7						
DAVOX	Davos	81.71	316	P	P	18 03 14.4	+1.2
	1.6nm,0.7s,mb4.0,baz=158,slow=19,SNR=2.4						

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*IDC **27** 17:52:34.0±1.6,7.34N×91.42E,mb3.9/6,mb1 4.1/7, mb1mx3.8/19,ML4.0/1,MS4.0/1,Ms1 4.0/1,ms1mx2.8/26, Error ellipse: s-maj=60.9km s-min=21.8km az=59.0*

*NEIC **27** 17:52:38.6±1.0,7.35N×91.44E,h30^{km},mb4.1/2,Error ellipse: s-maj=27.8km s-min=16.2km az=62.0*

ISC 27 17:52:36.6±1.1,**7.4N**±0.1×**91.5E**±0.2,**h30^{km},n10,**σ**0^{s}91**/9, **mb3.9**/8,**MS3.9**/1,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.20	33	Pn	P	17 55 44.6	-0.1
	0.2nm,0.3s,baz=214,slow=11,SNR=8.4						
TGY	Tagaytay City	29.68	74	LR	LR	18 12 16.5	
	comp=Z,252nm,18.5s,MS3.9,baz=109,slow=40						
SONM	Songino Array	42.27	15	P	P	18 00 30.7	+1.6
	0.9nm,1.1s,mb3.3,baz=196,slow=8.0,SNR=3.4						
ZAL	Zalesovo	46.74	355	P	P	18 01 03.0	-1.8
	0.6nm,0.4s,mb3.9,baz=318,slow=14,SNR=2.9						
BVAR	Borovoye Array	48.65	343	P	P	18 01 19.7	-0.1
	1.0nm,0.7s,mb4.0,baz=149,slow=8.6,SNR=4.6						
BRVK	Borovoye	48.71	343	P	P	18 01 19.9	-0.4
	0.8nm,0.6s,mb3.9						
CHKZ	Chkalovo	49.16	344	*e*P	P	18 01 23.6	-0.2
	1.9nm,0.8s,mb4.2						
WRA	Warramunga Arr	50.15	124	P	P	18 01 32.0	+0.1
	3.7nm,0.7s,mb4.5,baz=301,slow=9.2,SNR=12						
ASAR	Alice Springs	51.66	128	P	P	18 01 42.8	-0.4
	0.3nm,0.6s,mb3.4,baz=301,slow=7.8,SNR=4.9						
FINES	FINESS Array B	71.93	333	P	P	18 04 00.3	+1.3
	3.8nm,1.2s,mb4.2,baz=112,slow=7.5,SNR=4.4						

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*NEIC **27** 17:59:24.2±0.5,6.94N×94.37E,h30^{km},mb4.3/3,Error ellipse: s-maj=15.9km s-min=10.7km az=82.0*

*IDC **27** 17:59:27.2±7.1,7.05N×94.54E,h51^{km}±59^{km},mb3.7/11, mb1 3.8/12,mb1mx3.7/20,ML4.2/1,Error ellipse: s-maj=55.6km s-min=19.5km az=59.0*

ISC 27 17:59:22.5±0.8,**7.0N**±0.1×**94.4E**±0.2,**h30^{km},n19,** σ**0^{s}81**/15,**mb4.0**/13,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.22	21	*e*Pn	P	18 02 17.6	-0.1
CMAR	Chiang Mai Arr	12.22	21	P	P	18 02 18.2	+0.6
	0.4nm,0.3s,baz=213,slow=14,SNR=13						
ENH	Enshi	27.14	30	*e*P	P	18 05 04.6	-0.6
	8.3nm,1.1s,mb4.2						
ENH				*e*pP	pP	18 05 16.4	+2.4
SONM	Songino Array	41.97	12	P	P	18 07 12.8	+0.4
	1.4nm,0.8s,mb3.6,baz=190,slow=8.5,SNR=10						
ZAL	Zalesovo	47.46	352	P	P	18 07 56.0	-0.4
	2.5nm,1.0s,mb4.1,baz=292,slow=8.9,SNR=11						
WRA	Warramunga Arr	47.51	125	P	P	18 07 57.8	+0.5
	1.1nm,0.8s,mb4.0,baz=302,slow=9.1,SNR=3.8						
ASAR	Alice Springs	49.13	130	P	P	18 08 08.8	-1.0
	0.9nm,0.6s,mb4.0,baz=301,slow=6.6,SNR=6.9						
BVAR	Borovoye Array	49.92	341	P	P	18 08 14.8	-0.7
	1.7nm,0.8s,mb4.1,baz=129,slow=9.5,SNR=6.8						
BRVK	Borovoye	49.98	341	*e*P	P	18 08 14.9	-1.0
	1.3nm,0.6s,mb4.1						
CHKZ	Chkalovo	50.40	342	*e*P	P	18 08 18.6	-0.6
	6.6nm,1.1s,mb4.6						
KMBO	Kilima Mbogo	57.62	264	P	pP	18 09 20.6	-1.4
	1.5nm,0.8s,baz=63,slow=21,SNR=4.9						
BRTR	Keskin Array B	63.23	311	P	P	18 09 54.3	+3.8
	0.6nm,0.5s,mb4.0,baz=100,slow=7.5,SNR=3.8						
FINES	FINESS Array B	73.63	332	P	P	18 10 54.5	-0.2
	2.4nm,1.0s,mb4.1,baz=101,slow=9.7,SNR=4.2						
ARCES	ARCESS Array B	76.20	340	P	P	18 11 09.6	+0.2
	0.9nm,0.7s,mb3.8,baz=333,slow=5.4,SNR=3.9						
GERES	GERESS Array B	78.68	318	P	P	18 11 24.6	+1.1
	0.6nm,0.7s,mb3.7,baz=100,slow=6.0,SNR=3.3						
INK	Inuvik	97.76	16	P	P	18 12 57.3	+1.6
	0.8nm,0.8s,mb4.3,baz=190,slow=11,SNR=2.8						
PDAR	Pinedale Array	125.89	22	PKP	PKPdf	18 18 23.3	-3.8
	0.2nm,0.6s,baz=326,slow=3.3,SNR=2.4						
CPUP	Villa Florida	146.94	231	PKPbc	PKPbc	18 19 05.5	+3.0
	0.0nm,0.3s,baz=144,slow=16,SNR=1.6						
CPUP	Villa Florida	146.94	231	PKPbc	PKPbc	18 19 05.5	+3.0

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*IDC **27** 18:06:46.0±1.5,5.00N×92.78E,mb3.7/6,mb1 3.9/7, mb1mx3.8/19,ML3.7/1,Error ellipse: s-maj=57.0km s-min=21.6km az=57.0*

*NEIC **27** 18:06:50.8±0.7,5.05N×92.87E,h30^{km},mb3.9/1,Error ellipse: s-maj=12.5km s-min=11.9km az=197.0*

ISC 27 18:06:48.7±0.9,**5.1N**±0.1×**92.8E**±0.1,**h30^{km},n11,** σ**0^{s}61**/11,**mb3.7**/7,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	12.26	281	*e*Pn	P	18 09 43.8	-0.5
CM31	Chiang Mai Arr	14.60	24	*e*Pn	P	18 10 15.1	-0.2
	0.8nm,0.4s						
CMAR	Chiang Mai Arr	14.60	24	Pn	P	18 10 14.9	-0.4
	0.1nm,0.3s,baz=218,slow=14,SNR=9.1						
SONM	Songino Array	44.19	13	P	P	18 14 57.7	+1.0
	0.3nm,0.5s,mb3.3,baz=192,slow=6.2,SNR=5.4						
WRA	Warramunga Arr	47.77	123	P	P	18 15 24.9	-0.7
	1.7nm,0.8s,mb4.1,baz=301,slow=9.1,SNR=12						
ZAL	Zalesovo	49.17	354	P	P	18 15 34.9	-1.0
	0.6nm,0.5s,mb3.9,baz=318,slow=14,SNR=2.8						
ZAL	Zalesovo	49.17	354	P	P	18 15 34.9	-1.0
ASAR	Alice Springs	49.18	127	P	P	18 15 36.8	+0.4
	0.7nm,0.7s,mb3.8,baz=298,slow=8.1,SNR=5.0						
BVAR	Borovoye Array	51.25	343	P	P	18 15 52.2	+0.4
	0.2nm,0.4s,mb3.4,baz=135,slow=4.1,SNR=3.3						
CHKZ	Chkalovo	51.76	343	*e*P	P	18 15 55.7	+0.1
	0.8nm,0.5s,mb3.9						
GERES	GERESS Array B	79.06	319	P	P	18 18 52.5	+0.8
	0.2nm,0.3s,mb3.5,baz=90,slow=5.3,SNR=5.2						

IDC 27 18:08:38.3±4.9,**4.55N**×**92.93E,mb3.7**/4,**mb1 3.9**/4, **mb1mx3.6**/18,**Error ellipse: s-maj=239.0km s-min=24.9km az=56.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	47.42	122	P	P	18 17 15.2	-1.7
	1.2nm,0.5s,baz=300,slow=9.1,SNR=6.9						
ASAR	Alice Springs	48.81	127	P	P	18 17 25.3	-2.3
	0.4nm,0.7s,baz=298,slow=7.1,SNR=5.0						
ZAL	Zalesovo	49.68	354	P	P	18 17 32.1	-1.8
	0.8nm,0.4s,baz=222,slow=1.2,SNR=3.8						
BVAR	Borovoye Array	51.76	343	P	P	18 17 47.0	-2.7
	0.3nm,0.6s,baz=158,slow=8.0,SNR=4.1						

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*IDC **27** 18:09:27.7±0.4,2.74N×94.59E,mb4.7/25,mb1 4.8/26, mb1mx4.7/30,ML4.9/1,MS4.9/9,Ms1 4.9/9,ms1mx4.4/24, Error ellipse: s-maj=21.6km s-min=10.4km az=44.0*

*MOS **27** 18:09:30.7±1.0,2.74N×94.62E,h33^{km},mb5.1/45, MS4.8/10,Error ellipse: s-maj=11.0km s-min=6.3km az=111.3*

*CSEM **27** 18:09:32.1,3.05N×94.90E,h33^{km},mb5.5*

*BJI **27** 18:09:32.6,2.66N×94.75E,h48^{km},mB5.5,mb5.1,Ms5.6, Msz5.4*

*NEIC **27** 18:09:33.7±1.2,2.75N×94.63E,h42^{km}±10^{km},mb5.0/39, Error ellipse: s-maj=6.9km s-min=5.7km az=56.0*

*HRVD **27** 18:09:33.7±0.2,2.61N×94.42E,h12^{km},MW5.3/57, Centroid moment Tensor Solution. LP body waves: s40,c67;Mantle waves: s57,c110; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.71±.02; $M_{\theta\theta}$-0.28±.02; $M_{\phi\phi}$-0.43±.02; $M_{r\theta}$0.28±.05; $M_{\theta\phi}$0.38±.01; $M_{\phi r}$-0.57±.05; Best double couple: M_0.96×10^{17} NP1: ϕ_s311°,δ25°,λ74°. NP2:ϕ_s149°,δ66°,λ98°. Principal axes: T .95, Plg68°, Azm74°; N .02, Plg7°, Azm326°; P -.97, Plg20°, Azm234°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **27** 18:09:33.6,2.75N×94.64E,h42^{km},MB5.0*

ISC 27 18:09:30.4±0.3,**2.73N**±0.04×**94.61E**±0.04,**h29^{km}, h29^{km}**±1.8^{km}**:pP-P,n195,**σ**1^{s}10**/198,**mb4.9**/83,**MS5.2**/32, **5C-5D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	13.97	23	P	P	18 12 39.6	-9.3
PALK	Pallekele	14.57	289	*e*Pn	P	18 12 57.0	+0.2
COCO	West Island	14.98	172	P	P	18 13 03.9	+1.7
	47nm,0.7s						
KKTK	Khon Kaen	15.76	30	P	P	18 13 13.0	+0.8
	2µm,0.5s						
UBT	Ubonrachathani	16.13	39	P	P	18 13 20.0	+3.1
CM31	Chiang Mai Arr	16.20	15	P	P	18 13 16.9	-0.9
CMAR	Chiang Mai Arr	16.20	15	Pn	P	18 13 17.5	-0.3
	1.6nm,0.3s,baz=215,slow=12,SNR=7.1						
CMAR				LR	LR	18 20 21.7	
	comp=Z,3µm,19.0s,baz=185,slow=40						
CMAR	Chiang Mai Arr	16.20	15	P	P	18 13 17.5	-0.3
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,3µm,19.0s						
KOD	Kodaikanal	18.58	294	*e*	P	18 13 47.0	-0.7
KOD				*e*		18 16 47.8	
CAL	Calcutta	20.61	343	*e*P	P	18 14 07.0	-3.2
AGT	Agartala	21.28	352	⇓*i*P	P	18 14 16.0	-1.0
AGT				*i*		18 16 03.0	
HYB	Hyderabad	21.48	314	*e*P	P	18 14 20.0	+1.0
HYB	Hyderabad	21.48	314	*i* P	P	18 14 20.0	+1.0
QIZ	Qiongzhong	22.02	42	P	P	18 14 25.0	+0.6
QIZ				S	S	18 18 23.3	+2.7
QIZ				LR	LR		
	comp=N,10µm,16.6s,MS5.5						
QIZ				LR	LR		
	comp=E,11µm,17.3s,MS5.5						
QIZ				LR	LR		
	comp=Z,8µm,16.4s,MS5.2						
QIZ	Qiongzhong	22.02	42	*e*P	P	18 14 24.1	-0.3
	comp=Z,52nm,1.1s,mb4.9						
SHL	Shillong	22.86	354	*e*P	P	18 14 31.6	-1.1
SHL				*e*		18 14 36.9	
	comp=Z,98nm,1.1s						
SHL				*e*S	S	18 18 43.5	+7.6
KMI	Kunming	23.61	19	P	P	18 14 41.5	+1.5
KMI				S	S	18 18 56.3	+7.3
KMI				AMB	AMB		
	comp=Z,56nm,1.2s,mb4.9						
KMI				AMB	AMB		
	comp=Z,1µm,7.6s						
KMI				LR	LR		
	comp=N,9µm,13.2s,MS5.5						
KMI				LR	LR		
	comp=E,4µm,13.2s,MS5.5						
KMI				LR	LR		
	comp=Z,9µm,13.1s,MS5.4						
NGP	Nagpur	23.77	322	⇓*e*P	P	18 14 45.8	+4.2
NGP				*e*		18 19 13.4	
GOA	Goa	24.09	303	*e*P	P	18 14 52.0	+7.2
GOA				*e*		18 15 10.2	
	comp=Z,80nm,1.6s						
GOA				*e*S	S	18 19 11.8	+14
AKL	Akola	24.76	318	*e*P	P	18 14 54.9	+3.6
AKL				*e*		18 15 04.0	
	comp=Z,28nm,1.0s						
AKL				*e*S	S	18 19 22.5	+14
GYA	Guiyang	26.28	25	⇑*i*P	P	18 15 05.3	-0.1
GYA				AP	pP	18 15 12.5	-1.3
GYA				PP	PP	18 15 46.3	-1.8
GYA				S	S	18 19 39.5	+5.4
GYA				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.2						
GYA				AMB	AMB		
	comp=Z,80nm,3.8s						
GYA				LR	LR		
	comp=N,870nm,16.7s,MS4.7						
GYA				LR	LR		
	comp=E,1µm,16.0s,MS4.7						
GYA				LR	LR		
	comp=Z,1µm,16.6s,MS4.5						
LSA	Lhasa	27.02	353	*e*P	P	18 15 13.0	+0.8
LSA				pmax	pmax		
	comp=Z,82nm,0.7s,mb5.4						
LSA	Lhasa	27.02	353	*e*P	P	18 15 13.0	+0.8
	comp=Z,82nm,0.7s,mb5.4						
CD2	Chengdu	29.34	16	⇑*i*P	P	18 15 32.0	-1.1
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.2						
CD2				LR	LR		
	comp=N,6µm,15.6s						
CD2				LR	LR		
	comp=Z,5µm,10.8s,MS5.4						
PTH	Pithoragarh	29.97	334	*e*P	P	18 15 38.8	0.0
NDI	New Delhi	30.67	329	*e*P	P	18 15 43.5	-1.5
ENH	Enshi	30.81	26	*e*P	P	18 15 44.6	-1.5
	comp=Z,36nm,1.0s,mb5.2						
DDI	Dehra Dun	31.61	332	*e*	P	18 15 45.5	-7.7
WHN	Wuhan	33.38	32	P	P	18 16 09.5	+0.8
WHN				S	S	18 21 33.0	+6.3
WHN				LR	LR		
	comp=Z,16µm,12.8s,MS5.9						
XAN	Xi’an	33.90	22	P	P	18 16 11.8	-1.3

XAN				S	**S**	**18 21 31.5**	**-3.1**
XAN				AMB	AMB		
	comp=Z,48nm,0.7s,mb5.5						
XAN				LR	LR		
	comp=N,2µm,21.6s,MS5.2						
XAN				LR	LR		
	comp=E,4µm,20.0s,MS5.2						
XAN				LR	LR		
	comp=Z,6µm,13.5s						
MBWA	**Marble Bar**	**34.19**	**135**	*e*P	**P**	**18 16 15.0**	**-0.7**
	comp=Z,11nm,0.8s,mb4.8						
LZH	**Lanzhou**	**34.28**	**13**	*e*P	**P**	**18 16 16.5**	**+0.2**
LZH				AMB	AMB		
	comp=Z,30nm,1.7s,mb5.0						
LZH				AMB	AMB		
	comp=Z,1µm,6.0s						
LZH				LR	LR		
	comp=E,6µm,15.3s						
LZH				LR	LR		
	comp=Z,8µm,17.0s,MS5.5						
THN	**Thein Dam**	**34.47**	**331**	*e*	**P**	**18 16 14.9**	**-3.1**
	comp=Z,50nm,1.4s,mb5.2						
GTA	**Gaotai**	**36.82**	**7**	P	**P**	**18 16 38.0**	**+0.1**
GTA				AP	pP	18 16 46.0	-0.4
GTA				S	**S**	**18 22 10.0**	**-10**
GTA				AMB	AMB		
	comp=Z,39nm,0.9s,mb5.2						
GTA				AMB	AMB		
	comp=Z,517nm,5.7s						
GTA				LR	LR		
	comp=N,4µm,18.6s,MS5.4						
GTA				LR	LR		
	comp=E,3µm,16.3s,MS5.4						
GTA				LR	LR		
	comp=Z,5µm,12.2s,MS5.5						
NJ2	**Nanjing**	**37.03**	**35**	*e*P	**P**	**18 16 40.8**	**+1.1**
NJ2				AP	pP	18 16 48.8	+0.5
NJ2				XP	sP	18 16 53.3	+1.4
NJ2				PP	PP	18 18 04.0	-2.5
NJ2				S	**S**	**18 22 19.0**	**-4.0**
NJ2				SS	SS	18 24 49.0	-4.0
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,800nm,3.7s						
NJ2				LR	LR		
	comp=N,9µm,24.6s,MS5.7						
NJ2				LR	LR		
	comp=E,13µm,24.2s,MS5.7						
NJ2				LR	LR		
	comp=Z,13µm,24.8s,MS5.6						
SSE	**Sheshan**	**37.76**	**39**	P	**P**	**18 16 41.5**	**-4.3**
SSE				AP	pP	18 16 53.3	-1.1
SSE				S	**S**	**18 22 27.5**	**-6.7**
SSE				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
SSE				AMB	AMB		
	comp=Z,289nm,4.8s						
SSE				LR	LR		
	comp=N,3µm,15.5s,MS5.4						
SSE				LR	LR		
	comp=E,4µm,15.5s,MS5.4						
SSE				LR	LR		
	comp=Z,5µm,13.4s,MS5.5						
JOW	**Kunigami**	**40.18**	**50**	P	**P**	**18 17 07.8**	**+1.8**
	comp=Z,24nm,0.6s,mb5.1,baz=238,slow=5.7,SNR=5.5						
BTO	**Baotou**	**40.20**	**18**	*e*P	**P**	**18 17 07.3**	**+1.2**
BTO				S	**S**	**18 23 18.3**	**+7.4**
BTO				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.6						
HHC	**Hu-ho-hao-te**	**40.92**	**20**	*e*P	**P**	**18 17 13.8**	**+1.8**
HHC				AP	pP	18 17 21.5	+0.9
HHC				XP	sP	18 17 27.0	+2.8
HHC				PP	PP	18 18 53.0	+3.6
HHC				S	**S**	**18 23 21.3**	**-0.3**
HHC				AMB	AMB		
	comp=Z,19nm,1.1s,mb4.6						
HHC				AMB	AMB		
	comp=Z,654nm,8.2s						
HHC				LR	LR		
	comp=N,2µm,16.7s,MS5.6						
HHC				LR	LR		
	comp=E,7µm,17.8s,MS5.6						
HHC				LR	LR		
	comp=Z,5µm,13.5s,MS5.5						
WMQ	**Urumqi**	**41.38**	**352**	*e*P	**P**	**18 17 17.3**	**+1.6**
WMQ				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.5						
NWAO	**Narrogin (SRO)**	**41.42**	**151**	P	**P**	**18 17 16.1**	**0.0**
	comp=Z,14nm,0.8s,mb4.6,baz=321,slow=10,SNR=8.7						
NWAO	**Narrogin (SRO)**	**41.42**	**151**	*e*P	**P**	**18 17 16.0**	**-0.2**
NWAO				pmax	pmax		
	comp=Z,11nm,0.8s						
NWAO	**Narrogin (SRO)**	**41.42**	**151**	*e*P	**P**	**18 17 16.0**	**-0.2**
	comp=Z,11nm,0.8s,mb4.5						
BJT	**Baijiatuau**	**41.95**	**25**	*e*P	**P**	**18 17 22.0**	**+1.5**
BJT				pmax	pmax		
	comp=Z,40nm,0.8s						
BJT	**Baijiatuau**	**41.95**	**25**	*e*P	**P**	**18 17 22.0**	**+1.5**
	comp=Z,40nm,0.8s,mb5.1						
BJI	**Beijing**	**41.97**	**25**	P	**P**	**18 17 22.0**	**+1.3**
BJI				S	**S**	**18 23 44.0**	**+6.8**
BJI				AMB	AMB		
	comp=Z,29nm,0.9s,mb4.9						
BJI				AMB	AMB		
	comp=Z,721nm,5.0s						
BJI				LR	LR		
	comp=N,2µm,19.9s,MS5.2						
BJI				LR	LR		
	comp=E,3µm,19.9s,MS5.2						
BJI				LR	LR		
	comp=Z,2µm,23.9s,MS4.8						
UCH	**Uchtor**	**43.25**	**338**	P	**P**	**18 17 32.6**	**+1.6**
	SNR=15						
KBK	**Karagaybulak**	**43.46**	**339**	P	**P**	**18 17 34.8**	**+2.0**
	SNR=15						
TKM2	**Tokmak 2**	**43.46**	**340**	P	**P**	**18 17 34.0**	**+1.2**
	SNR=9.6						
AML	**Almayashu**	**43.48**	**337**	P	**P**	**18 17 34.8**	**+1.9**
	SNR=16						
AAK	**Ala-Archa**	**43.61**	**338**	P	**P**	**18 17 36.7**	**+2.8**
	SNR=5.2						
AAK	**Ala-Archa**	**43.61**	**338**	*e*P	**P**	**18 17 35.3**	**+1.3**
AAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
AAK	**Ala-Archa**	**43.61**	**338**	*e*P	**P**	**18 17 35.3**	**+1.4**
	comp=Z,11nm,0.9s,mb4.6						
DL2	**Dalian**	**43.63**	**31**	P	**P**	**18 17 35.3**	**+1.1**
DL2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.3						
DL2				AMB	AMB		
	comp=Z,290nm,5.3s						
DL2				LR	LR		
	comp=N,2µm,16.2s,MS5.0						
DL2				LR	LR		
	comp=E,580nm,15.0s,MS5.0						
DL2				LR	LR		
	comp=Z,1µm,14.7s,MS5.0						
EKS2	**Erkin-Say**	**43.90**	**338**	P	**P**	**18 17 38.0**	**+1.7**
	SNR=13						
USP	**Ospenovka**	**44.16**	**339**	P	**P**	**18 17 39.2**	**+0.8**
	SNR=20						
WRA	**Warramunga Arr**	**45.04**	**122**	P	**P**	**18 17 45.1**	**-0.7**
	comp=Z,22nm,0.8s,mb5.0,baz=301,slow=8.8,SNR=65						
WRA				PcP	PcP	18 19 27.0	+0.2
	comp=Z,3.0nm,0.7s,baz=319,slow=2.9,SNR=5.4						
WRA	**Warramunga Arr**	**45.04**	**122**	P	**P**	**18 17 45.1**	**-0.7**
WRA						18 19 27.0	
WRA				pmax	pmax		
	comp=Z,22nm,0.8s						
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRAB	**Tennant Creek**	**45.04**	**122**	*i* P	**P**	**18 17 46.0**	**+0.2**
WRAB	**Tennant Creek**	**45.04**	**122**	*e*P	**P**	**18 17 44.7**	**-1.2**
	comp=Z,47nm,0.9s,mb5.3						
MKAR	**Makanchi Array**	**45.18**	**348**	*i* P	**P**	**18 17 46.8**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,14nm,0.7s						
INCN	**Inchon**	**45.39**	**36**	P	**P**	**18 17 48.8**	**+0.5**
SONM	**Songino Array**	**46.07**	**11**	P	**P**	**18 17 53.8**	**+0.2**
	comp=Z,17nm,0.8s,mb5.0,baz=191,slow=7.9,SNR=88						
SONM				PcP	PcP	18 19 30.5	+0.4
	comp=Z,4.1nm,0.7s,baz=200,slow=3.7,SNR=3.8						
KS15	**Wonju Array Si**	**46.11**	**37**	*e*P	**P**	**18 17 53.8**	**-0.3**
ULN	**Ulaanbaatar**	**46.23**	**12**	*e*P	**P**	**18 17 54.7**	**-0.2**
ULN				*e*		18 19 30.6	
ULN				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ULN	**Ulaanbaatar**	**46.23**	**12**	*e*P	**P**	**18 17 54.7**	**-0.2**
	comp=Z,9.9nm,0.8s,mb4.8						
ULN				*e*PcP	PcP	18 19 30.6	0.0
ASAR	**Alice Springs**	**46.38**	**127**	P	**P**	**18 17 55.8**	**-0.6**
	comp=Z,8.4nm,0.8s,mb4.8,baz=298,slow=7.8,SNR=48						
ASAR				PcP	PcP	18 19 31.4	-0.1
	comp=Z,6.9nm,0.7s,baz=304,slow=3.5,SNR=14						
SNY	**Shenyang**	**46.80**	**30**	⇓P	**P**	**18 17 59.8**	**+0.3**
SNY				S	**S**	**18 24 46.0**	**-1.0**
SNY				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.5						
SNY				LR	LR		
	comp=N,2µm,16.3s						
SNY				LR	LR		
	comp=E,2µm,22.1s						
SNY				LR	LR		
	comp=Z,3µm,19.6s,MS5.3						
ZAK	**Zakamensk**	**48.05**	**7**	*e*P	**P**	**18 18 09.3**	**+0.1**
MOY	**Mondy**	**49.06**	**5**	*e*P	**P**	**18 18 17.2**	**+0.2**
CN2	**Changchun**	**49.19**	**29**	*e*P	**P**	**18 18 17.8**	**-0.2**
CN2				*e*XP	sP	18 18 35.0	+4.8
CN2				*e*S	**S**	**18 25 19.5**	**-1.1**
CN2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.6						
CN2				AMB	AMB		
	comp=Z,500nm,3.0s						
CN2				LR	LR		
	comp=N,2µm,14.0s,MS5.5						
CN2				LR	LR		
	comp=E,2µm,14.0s,MS5.5						
CN2				LR	LR		
	comp=Z,2µm,15.0s,MS5.3						
TLY	**Talaya**	**49.37**	**7**	*e*P	**P**	**18 18 20.2**	**+0.9**
TLY				*e*SS	SS	18 28 50.8	+0.1
TLY				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
TLY				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
TLY	**Talaya**	**49.37**	**7**	*e*P	**P**	**18 18 18.5**	**-0.8**
	comp=Z,18nm,0.8s,mb5.2						
HIA	**Hailar**	**51.09**	**21**	*e*P	**P**	**18 18 32.4**	**-0.1**
HIA				pmax	pmax		
	comp=Z,29nm,0.8s						
HIA	**Hailar**	**51.09**	**21**	*e*P	**P**	**18 18 32.4**	**0.0**
	comp=Z,29nm,0.8s,mb5.2						
ZAL	**Zalesovo**	**51.68**	**353**	P	**P**	**18 18 34.1**	**-2.7**
	comp=Z,6.6nm,0.4s,mb4.9,baz=288,slow=5.5,SNR=26						
ZAL	**Zalesovo**	**51.68**	**353**	P	**P**	**18 18 34.2**	**-2.7**
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.4s						
MDJ	**Mudanjiang**	**51.86**	**31**	P	**P**	**18 18 38.5**	**+0.1**
MDJ				PCP	PcP	18 19 46.0	-5.1
MDJ				PP	PP	18 20 36.3	-0.6
MDJ				SCP		18 23 44.0	
MDJ				PCS		18 23 46.3	
MDJ				S	**S**	**18 26 03.0**	**+5.5**
MDJ				XS		18 26 13.5	
MDJ				AMB	AMB		
	comp=Z,13nm,1.5s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,765nm,10.4s						
MDJ				LR	LR		
	comp=N,2µm,17.9s,MS5.3						
MDJ				LR	LR		
	comp=E,2µm,18.3s,MS5.3						
MDJ				LR	LR		
	comp=Z,3µm,13.2s						
MDJ	**Mudanjiang**	**51.86**	**31**	*e*P	**P**	**18 18 38.5**	**+0.1**
	comp=Z,28nm,1.1s,mb5.1						
NVS	**Novosibirsk**	**52.77**	**352**	*e*P	**P**	**18 18 43.5**	**-1.6**
NVS				*e*S	**S**	**18 26 06.4**	**-3.4**
NVS				pmax	pmax		
	comp=N,35nm,1.2s						
NVS				pmax	pmax		
	comp=E,16nm,1.2s						
NVS				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
NVS				smax			
	comp=N,20nm,2.2s						
NVS				smax			
	comp=E,49nm,2.2s						
PMG	**Port Moresby**	**53.73**	**104**	P	**P**	**18 18 51.6**	**-1.0**
	comp=E,24nm,0.7s,mb5.2,baz=302,slow=3.4,SNR=24						
PMG	**Port Moresby**	**53.73**	**104**	P	**P**	**18 18 51.6**	**-1.0**
PMG				pmax	pmax		
	comp=Z,24nm,0.7s						
PMG	**Port Moresby**	**53.73**	**104**	*e*P	**P**	**18 18 51.6**	**-1.1**
	comp=Z,24nm,0.8s,mb5.2						
BVA0	**Borovoye Array**	**53.99**	**342**	*i* P	**P**	**18 18 53.2**	**-0.8**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
BVAR	**Borovoye Array**	**53.99**	**342**	P	**P**	**18 18 53.3**	**-0.7**
	comp=Z,9.4nm,0.7s,mb4.8,baz=144,slow=9.4,SNR=44						
BRVK	**Borovoye**	**54.05**	**342**	*e*P	**P**	**18 18 53.5**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
BRVK	**Borovoye**	**54.05**	**342**	*e*P	**P**	**18 18 53.5**	**-1.0**
	comp=Z,9.0nm,0.7s,mb4.8						
CHKZ	**Chkalovo**	**54.48**	**343**	*i* P	**P**	**18 18 57.0**	**-0.7**
CHKZ	**Chkalovo**	**54.48**	**343**	*e*P	**P**	**18 18 56.9**	**-0.8**
	comp=Z,26nm,0.9s,mb5.2						
CTA	**Charters Tower**	**55.50**	**117**	P	**P**	**18 19 05.2**	**-0.4**
	comp=Z,8.1nm,0.8s,mb4.8,baz=288,slow=8.6,SNR=15						
CTA				PcP	PcP	18 20 05.7	+0.5
	comp=Z,5.5nm,0.8s,baz=268,slow=6.8,SNR=5.1						
CTA				LR	LR	18 44 21.6	
	comp=Z,885nm,18.2s,MS4.9,baz=284,slow=38						
CTA	**Charters Tower**	**55.50**	**117**	P	**P**	**18 19 05.2**	**-0.3**
CTA						18 20 05.7	
CTA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
CTA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
CTA				MLR	MLR		
	comp=Z,885nm,18.2s						
CTAO	**Charters Tower**	**55.50**	**117**	*e*P	**P**	**18 19 05.2**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
CTAO	**Charters Tower**	**55.50**	**117**	*e*P	**P**	**18 19 05.2**	**-0.4**
	comp=Z,9.2nm,0.8s,mb4.9						
KLR	**Kul’dur**	**56.10**	**28**	*e*P	**P**	**18 19 07.5**	**-2.0**
KLR				*i* S	**S**	**18 27 02.0**	**+7.3**
KLR				pmax	pmax		
	comp=Z,2µm,11.5s						
KLR				smax			
	comp=N,2µm,9.5s						
KLR				smax			
	comp=E,1µm,9.5s						
STKA	**Stephens Creek**	**56.30**	**132**	P	**P**	**18 19 10.4**	**-0.7**
	comp=E,8.4nm,0.6s,mb5.0,baz=309,slow=5.8,SNR=21						
STKA				LR	LR	18 44 16.9	
	comp=E,926nm,18.1s,MS4.9,baz=300,slow=37						
STKA	**Stephens Creek**	**56.30**	**132**	*e*P	**P**	**18 19 09.8**	**-1.3**
BOD	**Bodaibo**	**57.03**	**12**	⇑*i*P	**P**	**18 19 15.8**	**-0.2**
KMBO	**Kilima Mbogo**	**57.47**	**267**	P	**P**	**18 19 18.7**	**-1.0**
	comp=E,10nm,1.2s,mb4.7,baz=54,slow=17,SNR=7.3						
KMBO				LR	LR	18 41 30.1	
	comp=E,2µm,18.2s,MS5.2,baz=275,slow=34						
KMBO	**Kilima Mbogo**	**57.47**	**267**	*e*P	**P**	**18 19 20.1**	**+0.4**
KMBO				pmax	pmax		
	comp=Z,10.0nm,1.2s						
KMBO	**Kilima Mbogo**	**57.47**	**267**	*e*P	**P**	**18 19 20.1**	**+0.4**
	comp=Z,9.6nm,1.2s,mb4.7						
GNI	**Garni**	**58.41**	**317**	P	**P**	**18 19 26.5**	**+0.6**
	comp=Z,4.4nm,0.7s,mb4.6,baz=351,slow=18,SNR=4.0						
GNI	**Garni**	**58.41**	**317**	*e*P	**P**	**18 19 25.4**	**-0.5**
GNI				pmax	pmax		
	comp=Z,16nm,1.2s						
GNI	**Garni**	**58.41**	**317**	*e*P	**P**	**18 19 25.4**	**-0.5**
	comp=Z,16nm,1.2s,mb4.9						
ASAJ	**Asahikawa**	**59.05**	**39**	LR	LR	18 46 49.8	
	comp=Z,2µm,18.5s,MS5.3,baz=248,slow=38						
CLNS	**Chul’man**	**59.10**	**19**	*e*P	**P**	**18 19 24.9**	**-5.6**
CLNS				*e*		18 27 39.1	
CLNS				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.3						
CLNS				pmax	pmax		
	comp=N,12nm,0.8s						
CLNS				pmax	pmax		
	comp=E,12nm,1.0s						
CLNS				pmax	pmax		
	comp=N,191nm,12.2s						
CLNS				pmax	pmax		
	comp=Z,181nm,12.0s						
CLNS				MLR	MLR		
	comp=Z,3µm,13.0s,MS5.6						
CLNS				MLR	MLR		
	comp=N,800nm,14.0s,MS5.1						
CLNS				MLR	MLR		
	comp=E,500nm,11.0s,MS5.1						
ZEI	**Tsey**	**60.15**	**319**	*e*P	**P**	**18 19 37.3**	**-0.6**
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
SVE	**Sverdlovsk**	**60.34**	**339**	*e*P	**P**	**18 19 39.5**	**+0.5**
SVE				*e*		18 20 28.0	
SVE				pmax	pmax		
	comp=Z,60nm,2.0s,mb5.3						
SVE				MLR	MLR		
	comp=Z,1µm,21.5s,MS5.0						
YSS	**Yuzh-Sakhalins**	**60.59**	**36**	*e*P	**P**	**18 19 40.1**	**-0.8**
YSS				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
YSS	**Yuzh-Sakhalins**	**60.59**	**36**	*e*P	**P**	**18 19 40.1**	**-0.8**
	comp=Z,20nm,0.9s,mb5.2						
ERZM	**Erzurum**	**60.66**	**315**	*i* P	**P**	**18 19 42.1**	**+0.7**
ARU	**Arti**	**60.79**	**338**	⇓*i*P	**P**	**18 19 40.9**	**-1.2**
ARU				*e*		18 20 21.6	
ARU				*e*		18 21 51.7	
ARU				*e*S	**S**	**18 27 56.8**	**+1.1**
ARU				*e*		18 29 32.4	
ARU				*e*SS	SS	18 31 57.4	+1.4
ARU				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.1						
ARU	**Arti**	**60.79**	**338**	*e*P	**P**	**18 19 40.5**	**-1.5**
	comp=Z,11nm,1.0s,mb5.0						
KIV	**Kislovodsk**	**61.47**	**320**	*e*P	**P**	**18 19 46.2**	**-0.7**
KIV				*e*S	**S**	**18 28 03.3**	**-1.2**
KIV				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.0						
KIV				MLR	MLR		
	comp=E,168nm,15.0s						
KIV				MLR	MLR		
	comp=Z,234nm,15.0s,MS4.5						
KIV	**Kislovodsk**	**61.47**	**320**	*e*P	**P**	**18 19 44.6**	**-2.3**
	comp=Z,21nm,1.2s,mb5.2						
ASF	**Jabal al Asfar**	**61.47**	**305**	P	**P**	**18 19 48.3**	**+1.2**
	comp=Z,5.7nm,0.9s,mb4.7,baz=357,slow=7.2,SNR=7.1						
MALT	**Malatya**	**62.19**	**312**	*e*P	**P**	**18 19 52.2**	**+0.4**
MALT				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
MALT	**Malatya**	**62.19**	**312**	*e*P	**P**	**18 19 52.2**	**+0.4**
	comp=Z,10nm,1.0s,mb4.9						
KAHT	**Ahir Dag**	**63.12**	**311**	P	**P**	**18 19 59.2**	**+1.3**
COBT	**Iskenderun**	**63.24**	**310**	P	**P**	**18 19 59.3**	**+0.6**
SOC	**Sochi**	**63.26**	**318**	*i* P	**P**	**18 19 57.1**	**-1.7**
SOC				*e*		18 20 42.4	
SOC				*e*		18 22 17.5	
SOC				*e*S	**S**	**18 28 32.4**	**+5.3**
SOC				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
SOC				pmax	pmax		
	comp=N,5.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,9.0nm,0.9s						
SOC				MLR	MLR		
	comp=Z,478nm,19.0s,MS4.7						
SOC				MLR	MLR		
	comp=N,126nm,16.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,275nm,18.0s,MS4.5						
SOKR	**Solikamsk**	**63.74**	**340**	⇑*i*P	**P**	**18 20 00.5**	**-1.2**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
SOKR				MLR	MLR		
	comp=Z,980nm,21.0s,MS5.0						
YAK	**Yakutsk**	**64.72**	**17**	*e*P	**P**	**18 20 06.9**	**-1.1**
YAK				*e*		18 20 25.2	
YAK				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=N,16nm,0.9s						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.1s						
YAK				MLR	MLR		
	comp=N,1µm,15.0s,MS5.3						
YAK				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.4						
YAK				MLR	MLR		
	comp=E,933nm,17.0s,MS5.3						
YAK	**Yakutsk**	**64.72**	**17**	*e*P	**P**	**18 20 06.7**	**-1.4**
	comp=E,48nm,0.8s,mb5.6						
AVNT	**Avonos**	**64.99**	**312**	P	**P**	**18 20 10.0**	**-0.2**
CSS	**Prodhromos**	**65.09**	**307**	*e*P	**P**	**18 20 09.6**	**-1.3**
	comp=E,16nm,1.1s,mb5.0						
BOYT	**Boyabat**	**65.79**	**315**	P	**P**	**18 20 15.3**	**+0.1**
BRTR	**Keskin Array B**	**66.17**	**313**	P	**P**	**18 20 17.5**	**-0.3**
	comp=E,4.3nm,0.7s,mb4.6,baz=128,slow=6.8,SNR=21						
BRTR	**Keskin Array B**	**66.17**	**313**	P	**P**	**18 20 17.5**	**-0.3**
BRTR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LSZ	**Lusaka**	**68.08**	**252**	*e*P	**P**	**18 20 30.2**	**0.0**
LSZ				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
LSZ	**Lusaka**	**68.08**	**252**	*e*P	**P**	**18 20 30.2**	**0.0**
	comp=Z,3.5nm,0.8s,mb4.4						
MOS	**Moscow**	**69.71**	**330**	*e*P	**P**	**18 20 46.6**	**+7.0**
MOS				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.4						
OBN	**Obninsk**	**69.97**	**329**	*e*P	**P**	**18 20 40.6**	**-0.6**
OBN				*e*S	S	18 29 53.9	+5.8
OBN				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
OBN				MLR	MLR		
	comp=Z,500nm,21.0s,MS4.7						
MA2	**Magadan**	**71.11**	**27**	*e*P	**P**	**18 20 48.5**	**+0.5**
MA2				*e*		18 21 04.6	
MA2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
MA2	**Magadan**	**71.11**	**27**	*e*P	**P**	**18 20 48.2**	**+0.2**
	comp=Z,14nm,0.7s,mb5.0						
IDI	**Anoyia**	**71.91**	**306**	P	**P**	**18 20 53.4**	**+0.1**
	comp=Z,15nm,0.9s,mb4.9,baz=31,slow=4.4,SNR=5.3						
TIXI	**Tiksi**	**72.16**	**11**	*e*P	**P**	**18 20 53.2**	**-0.9**
TIXI				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
LBTB	**Lobatse**	**72.26**	**243**	*e*P	**P**	**18 20 55.8**	**+0.3**
LBTB				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
LBTB	**Lobatse**	**72.26**	**243**	*e*P	**P**	**18 20 55.8**	**+0.3**
	comp=Z,12nm,1.0s,mb4.8						
PET	**Petropavlovsk**	**72.44**	**35**	*e*P	**P**	**18 20 55.6**	**-0.5**
PET				pmax	pmax		
	comp=Z,87nm,1.4s,mb5.5						
PET	**Petropavlovsk**	**72.44**	**35**	*e*P	**P**	**18 20 55.6**	**-0.4**
	comp=Z,87nm,1.4s,mb5.5						
AKASG	**Malin Array Be**	**72.48**	**323**	P	**P**	**18 20 54.3**	**-2.0**
	comp=Z,4.7nm,0.8s,mb4.5,baz=88,slow=4.9,SNR=20						
AKASG	**Malin Array Be**	**72.48**	**323**	P	**P**	**18 20 54.3**	**-2.0**
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.8s						
MLR	**Muntele Rosu**	**73.19**	**317**	P	**P**	**18 21 00.7**	**+0.1**
	comp=Z,7.3nm,0.8s,mb4.7,baz=169,slow=5.8,SNR=9.8						
MLR	**Muntele Rosu**	**73.19**	**317**	P	**P**	**18 21 00.7**	**+0.1**
MLR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
BOSA	**Boshof**	**73.31**	**239**	*e*P	**P**	**18 21 01.4**	**-0.3**
BOSA				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.9						
BOSA	**Boshof**	**73.31**	**239**	*e*P	**P**	**18 21 01.4**	**-0.3**
	comp=Z,20nm,1.3s,mb4.9						
MAW	**Mawson**	**73.63**	**192**	LR	LR	18 49 45.9	
	comp=Z,527nm,18.3s,MS4.9,baz=30,slow=33						
KOLS	**Kolonicke sedl**	**76.38**	**320**	*i* P	**P**	**18 21 19.9**	**+1.0**
KOLS				*e*		18 21 26.4	
SUW	**Suwalki**	**76.94**	**325**	*e*P	**P**	**18 21 21.3**	**-0.6**
FINES	**FINESS Array B**	**77.46**	**333**	P	**P**	**18 21 24.1**	**-0.5**
	comp=Z,4.0nm,0.7s,mb4.5,baz=108,slow=6.0,SNR=12						
FINES	**FINESS Array B**	**77.46**	**333**	P	**P**	**18 21 24.1**	**-0.5**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KAF	**Kangasniemi**	**77.56**	**333**	*e*p	**P**	**18 21 23.4**	**-1.8**
	comp=Z,20nm,1.2s,mb4.9						
KAF	**Kangasniemi**	**77.56**	**333**	*e*P	**P**	**18 21 23.4**	**-1.8**
KAF				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
PSZ	**Piszkesteto**	**77.75**	**318**	*e*P	**P**	**18 21 25.8**	**-0.7**

PSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
PSZ	Piszkesteto	77.75	318	*e*P	P	18 21 25.8	-0.7
	comp=Z,4.5nm,0.8s,mb4.5						
SUR	Sutherland	77.84	236	*e*P	P	18 21 28.9	+1.6
	comp=Z,15nm,1.0s,mb4.9						
OJC	Ojcow	78.21	321	*e*P	P	18 21 27.6	-1.3
VYHS	Vyhne	78.54	319	*e*P	P	18 21 32.9	+2.1
MORC	Moravsky Berou	79.58	320	*e*P	P	18 21 36.9	+0.5
	comp=Z,8.7nm,1.2s,mb4.6						
ZST	Bratislava	79.65	318	*e*P	P	18 21 37.9	+1.1
ZST				*e*		18 21 44.0	
KEV	Kevo	79.82	341	*e*p	P	18 21 35.9	-1.4
ARCES	ARCESS Array B	80.24	341	P	P	18 21 39.7	+0.1
	comp=Z,8.0nm,0.9s,mb4.7,baz=90,slow=6.1,SNR=11						
ARCES				LR	LR	19 01 57.0	
	comp=Z,730nm,19.1s,MS5.0,baz=332,slow=39						
KSP	Ksiaz	80.51	321	*e*P	P	18 21 42.7	+1.3
SYO	Syowa Base	80.66	197	⇑PcP	PcP	18 21 48.2	-0.7
SYO	Syowa Base	80.66	197	⇓PP	PP	18 24 47.4	-0.3
BILL	Bilibino	80.68	21	*e*P	P	18 21 42.2	+0.3
	comp=Z,4.6nm,0.8s,mb4.5						
GERES	GERESS Array B	81.97	319	P	P	18 21 50.1	+1.1
	comp=Z,3.2nm,0.8s,mb4.3,baz=104,slow=5.5,SNR=21						
BRG	Berggiesshubel	82.00	321	*e*P	P	18 21 50.8	+1.7
	comp=Z,10nm,1.3s,mb4.6						
BRG				*e*	pP	18 21 59.8	+1.5
KHC	Kasperske Hory	82.07	319	*e*P	P	18 21 50.5	+0.9
RPZ	Rata Peaks	82.11	135	P	P	18 21 50.6	+0.7
	comp=Z,20nm,0.7s,mb5.2,baz=95,slow=0.6,SNR=15						
CLL	Collm	82.63	321	P	P	18 21 56.0	+3.6
CLL				*e**PP	pP	18 22 06.0	+4.4
HFS	Hagfors	83.11	330	P	P	18 21 53.7	-1.0
	comp=Z,3.6nm,0.8s,mb4.5,baz=100,slow=9.0,SNR=2.7						
DAVOX	Davos	84.41	317	P	P	18 22 03.0	+1.3
	comp=Z,5.0nm,0.7s,mb4.8,baz=113,slow=9.6,SNR=13						
NB2	NORSAR Subarra	84.42	331	P	P	18 22 01.3	0.0
	comp=Z,1.7nm,0.8s,mb4.2,baz=97,slow=5.0						
NOA	NORSAR Array B	84.42	331	P	P	18 22 01.4	+0.1
	comp=Z,2.1nm,0.8s,mb4.3,baz=94,slow=5.6,SNR=6.4						
NOA				LR	LR	19 03 43.5	
	comp=Z,305nm,19.9s,MS4.7,baz=265,slow=39						
SBF	Sospel	86.08	314	*e*P	P	18 22 07.9	-2.2
	comp=Z,48nm,0.9s,mb5.4						
LPG	La Plagne	86.57	315	*e*P	P	18 22 11.7	-0.7
	comp=Z,45nm,1.3s,mb5.2						
LPL	La Plagne	86.58	315	*e*P	P	18 22 11.7	-0.7
HAU	Haudompre	86.82	318	*e*P	P	18 22 12.9	-0.7
VNDA	Vanda	87.83	168	LR	LR	18 58 26.1	
	comp=Z,538nm,18.8s,MS5.0,baz=294,slow=33						
ILAR	Eielson Array	99.30	22	P	P	18 23 11.9	+1.2
	comp=Z,0.4nm,0.7s,mb4.1,baz=299,slow=4.5,SNR=7.9						
TBI	Tubuai	114.84	114	*e*LR	LR	19 02 38.8	
	comp=Z,338nm,22.2s						
PPT	Papeete	115.41	108	*e*LR	LR	19 02 53.6	
	comp=Z,448nm,25.8s						
ULM	Lac du Bonnet	126.47	8	PKP	PKPdf	18 28 32.5	-3.4
	comp=Z,2.6nm,0.8s,baz=257,slow=3.2,SNR=5.9						
HLID	Hailey	127.05	26	*e*PKPdf	PKPdf	18 28 34.7	-2.5
NVAR	Mina Array Bea	129.00	33	PKP	PKPdf	18 28 39.9	-1.3
	comp=Z,0.5nm,0.2s,baz=315,slow=1.7,SNR=3.7						
NVAR	Mina Array Bea	129.00	33	PKP	PKPdf	18 28 39.9	-1.3
LTX	Lajitas	143.63	27	*e*PKPdf	PKPdf	18 29 03.6	-4.6
TXAR	Lajitas Array	143.63	27	PKP	PKPdf	18 29 03.8	-4.5
	comp=Z,2.3nm,0.8s,baz=258,slow=2.4,SNR=23						
JCT	Junction City	144.23	22	*e*PKPdf	PKPdf	18 29 04.2	-5.1
LRAL	Lakeview Retre	144.40	2	PKPdf	PKPdf	18 29 05.1	-4.4
NATX	Nacogdoches	144.59	14	*e*PKPdf	PKPdf	18 29 06.1	-3.8
LVC	Limon Verde	154.58	218	*e*PKPab	PKPab	18 29 46.5	+0.3
LPAZ	La Paz	158.32	230	PKPab	PKPab	18 30 03.6	+1.2
	comp=Z,1.5nm,0.5s,baz=88,slow=9.0,SNR=5.3						
LPAZ	La Paz	158.32	230	*e*PKPab	PKPab	18 30 03.0	+0.6

IDC ***27*** *18:11:42.6±0.8, 13.58N×93.04E, mb4.2/10, mb1 4.4/10, mb1mx4.2/18, Error ellipse: s-maj=43.8km s-min=16.2km az=56.0*

NEIC ***27*** *18:11:47.2±0.5, 13.56N×93.04E, h30^{km}, Error ellipse: s-maj=25.9km s-min=10.1km az=57.0*

ISC 27 18:11:45.2±0.7**, 13.6N**±0.1×**93.2E**±0.1**, h30^{km}, n18, σ0^{s}.60**/12**, mb4.2**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	6.46	98	P	Pn	18 13 20.0	-0.9
NANT	Nan	8.89	53	P	P	18 14 04.0	+9.3
PKI	Pulchoki	15.69	334	*e*P		18 15 32.7	
	9.1nm,0.3s						
GUN	Gumba	15.79	336	*e*P		18 15 34.6	
	15nm,0.6s						
DMN	Daman	15.85	333	*e*P		18 15 34.5	
	7.5nm,0.3s						
KKN	Kakani	15.93	334	*e*P		18 15 35.4	
	16nm,0.7s						
GKN	Gorkha	16.40	332	*e*P		18 15 41.6	
	14nm,0.3s						
KOLN	Koldanda	16.70	329	*e*P		18 15 44.1	
	21nm,0.5s						
SONM	Songino Array	35.87	15	P	P	18 18 44.9	+0.4
	2.4nm,0.8s,mb4.2,baz=191,slow=7.3,SNR=3.1						
NWAO	Narrogin (SRO)	51.65	154	P	P	18 20 51.9	+0.2
	9.4nm,0.9s,mb4.7,baz=310,slow=7.3,SNR=3.7						
WRA	Warramunga Arr	52.44	129	P	P	18 20 57.8	0.0
	1.6nm,0.4s,mb4.3,baz=300,slow=9.8,SNR=15						
WRA				PcP	PcP	18 22 09.0	+0.8
	1.0nm,0.4s,baz=319,slow=3.2,SNR=6.7						
ASAR	Alice Springs	54.38	133	P	P	18 21 12.4	+0.5
	2.5nm,0.4s,mb4.5,baz=312,slow=7.1,SNR=11						
BRTR	Keskin Array B	58.08	308	P	P	18 21 37.5	-0.8
	1.5nm,0.7s,mb4.1,baz=122,slow=7.2,SNR=2.3						
STKA	Stephens Creek	64.76	135	P	P	18 22 23.5	0.0
	4.6nm,0.9s,mb4.5,baz=325,slow=8.3,SNR=2.9						
ARCES	ARCESS Array B	69.60	340	P	P	18 22 53.4	0.0
	1.2nm,0.5s,mb4.1,baz=90,slow=6.3,SNR=5.7						
GERES	GERESS Array B	72.99	317	P	P	18 23 13.9	-0.1
	1.3nm,0.6s,mb4.0,baz=86,slow=5.1,SNR=4.1						
NOA	NORSAR Array B	74.33	330	P	P	18 23 21.0	-0.5
	1.6nm,0.9s,mb3.9,baz=97,slow=5.5,SNR=2.7						
ILAR	Eielson Array	89.83	22	P	P	18 24 43.3	+1.2
	0.5nm,0.7s,mb4.0,baz=309,slow=4.6,SNR=3.3						

IDC ***27*** *18:14:10.1±1.2, 7.60N×92.95E, mb4.1/8, mb1 4.3/8, mb1mx4.1/19, MS4.7/1, Ms1 4.7/1, ms1mx3.2/28, Error ellipse: s-maj=58.4km s-min=21.9km az=47.0*

NEIC ***27*** *18:14:14.6±0.9, 7.71N×93.01E, h30^{km}, mb4.4/2, Error ellipse: s-maj=44.1km s-min=16.5km az=50.0*

BJI ***27*** *18:14:14.6, 7.70N×93.00E, h30^{km}, mb4.5*

ISC 27 18:14:12.5±0.8**, 7.6N**±0.1×**92.9E**±0.1**, h30^{km}, n15, σ1^{s}.24**/14**, mb4.2**/12**, MS4.7**/1**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	Imphal	17.11	3	*e*	P	18 18 09.0	-2.4
KMI	Kunming	19.82	27	P	P	18 18 44.0	+0.1
KMI				AMB	AMB		
	comp=Z,16nm,0.7s						
GYA	Guiyang	22.89	33	⇑*i*P	P	18 19 17.3	+2.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
GTA	Gaotai	32.28	10	*e*P	P	18 20 41.8	+0.9
GTA				AP	pP	18 20 46.3	-3.5
GTA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
AAK	Ala-Archa	38.46	338	*e*P	P	18 21 31.9	-1.7
	comp=Z,7.1nm,1.0s,mb4.3						
SONM	Songino Array	41.71	14	P	P	18 22 00.5	+0.1
	comp=Z,3.6nm,1.1s,mb3.9,baz=196,slow=7.5,SNR=3.9						
ZAL	Zalesovo	46.66	353	LR	LR	18 44 48.3	
	comp=Z,811nm,20.5s,MS4.7,baz=292,slow=39						
BVAR	Borovoye Array	48.84	342	P	P	18 22 58.2	+1.0
	comp=Z,1.5nm,0.9s,mb4.0,baz=162,slow=9.1,SNR=3.9						
WRA	Warramunga Arr	49.15	125	P	P	18 22 59.1	-0.9
	comp=Z,2.5nm,0.8s,mb4.3,baz=307,slow=8.7,SNR=5.5						
CHKZ	Chkalovo	49.34	343	*e*P	P	18 22 59.1	-2.0
	comp=Z,3.2nm,0.7s,mb4.5						
ASAR	Alice Springs	50.73	129	P	P	18 23 11.8	-0.2
	comp=Z,1.8nm,0.8s,mb4.0,baz=301,slow=6.8,SNR=4.2						
BRTR	Keskin Array B	61.64	311	P	P	18 24 30.3	+0.2
	comp=Z,0.6nm,0.5s,mb4.0,baz=127,slow=7.2,SNR=3.0						
MLR	Muntele Rosu	68.47	316	P	P	18 25 15.7	+1.6
	comp=Z,3.6nm,0.9s,mb4.4,baz=199,slow=13,SNR=3.6						
FINES	FINESS Array B	72.36	332	P	P	18 25 37.0	-0.4
	comp=Z,1.8nm,0.8s,mb4.0,baz=146,slow=10.0,SNR=2.8						
GERES	GERESS Array B	77.18	318	P	P	18 26 06.2	+0.9
	comp=Z,1.7nm,0.9s,mb4.0,baz=90,slow=5.9,SNR=5.1						

BJI ***27*** *18:20:18.8, 7.38N×91.74E, h30^{km}, mb4.7*

NEIC ***27*** *18:20:25.6±0.5, 8.01N×91.89E, h30^{km}, mb4.3/4, Error ellipse: s-maj=12.0km s-min=10.8km az=119.0*

IDC ***27*** *18:20:28.3±5.9, 8.07N×91.94E, h52^{km}±54^{km}, mb3.9/9, mb1 4.1/10, mb1mx3.9/19, ML4.2/1, Error ellipse: s-maj=31.5km s-min=19.1km az=47.0*

ISC 27 18:20:23.9±0.7**, 8.01N**±0.10×**91.9E**±0.1**, h30^{km}, n21, σ0^{s}.78**/21**, mb4.3**/16**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.42	33	*e*Pn	P	18 23 20.6	-1.1
	10nm,0.8s						
CMAR	Chiang Mai Arr	12.42	33	P	P	18 23 20.9	-0.9
	0.4nm,0.3s,baz=232,slow=14,SNR=16						
POO	Poona	20.45	303	*e*	S	18 28 35.0	-9.3
LSA	Lhasa	21.59	358	*e*P	P	18 25 14.0	+0.6
	13nm,0.9s,mb4.4						
GYA	Guiyang	23.08	36	⇑*i*P	P	18 25 29.0	+0.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
LZH	Lanzhou	29.99	20	*e*P	P	18 26 34.5	+2.2
LZH				AP	pP	18 26 37.5	-3.6
LZH				AMB	AMB		
	comp=Z,19nm,1.5s,mb4.6						
GTA	Gaotai	32.06	12	*e*P	P	18 26 50.5	+0.1
GTA				AP	pP	18 27 00.5	+1.3
GTA				XP	sP	18 27 04.8	+1.7
GTA				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.8						
AAK	Ala-Archa	37.75	339	*e*P	P	18 27 39.2	+0.2
	comp=Z,1.1nm,0.4s,mb3.9						
SONM	Songino Array	41.55	15	P	P	18 28 10.9	+0.5
	comp=Z,4.2nm,0.7s,mb4.2,baz=197,slow=7.7,SNR=29						
ZAL	Zalesovo	46.16	354	P	P	18 28 48.0	+0.4
	comp=Z,0.8nm,0.6s,mb3.8,baz=308,slow=4.2,SNR=4.1						
ZAL	Zalesovo	46.16	354	P	P	18 28 48.0	+0.4
CHKZ	Chkalovo	48.69	343	*e*P	P	18 29 06.8	-0.6
	comp=Z,1.3nm,0.5s,mb4.2						
WRA	Warramunga Arr	50.13	124	P	P	18 29 18.9	0.0
	comp=Z,2.0nm,0.6s,mb4.3,baz=304,slow=8.6,SNR=12						
ASAR	Alice Springs	51.69	129	P	P	18 29 30.6	-0.2
	comp=Z,0.7nm,0.8s,mb3.6,baz=301,slow=7.9,SNR=5.7						
KMBO	Kilima Mbogo	55.27	263	P	P	18 29 58.1	+0.8
	comp=Z,3.1nm,0.8s,mb4.4,baz=52,slow=15,SNR=9.3						
BRTR	Keskin Array B	60.69	311	P	P	18 30 33.5	-1.6
	comp=Z,1.8nm,0.7s,mb4.3,baz=120,slow=6.8,SNR=9.3						
GERES	GERESS Array B	76.27	318	P	P	18 32 11.7	+0.1
	comp=Z,1.7nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=17						
KHC	Kasperske Hory	76.37	319	*e*P	P	18 32 12.5	+0.3
LPG	La Plagne	80.98	315	*e*P	P	18 32 37.1	-0.2
	comp=Z,10.0nm,0.8s,mb4.5						
EKA	Eskdalemuir Ar	86.37	325	P	P	18 33 03.9	-0.6
	comp=Z,1.5nm,0.6s,mb4.4,baz=90,slow=5.0,SNR=4.3						
ESDC	Sonseca Array	89.46	310	P	P	18 33 19.2	-0.5
	comp=Z,1.0nm,0.6s,mb4.3,baz=59,slow=4.0,SNR=5.1						

BJI ***27*** *18:23:58.0, 8.51N×93.94E, h39^{km}, mB5.4, mb4.9, Ms5.2, Msz5.0*

MOS ***27*** *18:24:03.5±1.1, 9.31N×93.73E, h33^{km}, mb4.9/29, Error ellipse: s-maj=13.5km s-min=7.3km az=108.6*

SYO ***27*** *18:24:04.2, 9.29N×93.86E, h27^{km}, MB4.9*

IDC ***27*** *18:24:05.9±6.9, 9.34N×93.69E, h35^{km}±55^{km}, mb4.3/21, mb1 4.4/22, mb1mx4.4/26, ML4.5/1, MS4.4/2, Ms1 4.5/2, ms1mx3.6/26, Error ellipse: s-maj=26.8km s-min=11.5km az=52.0*

NEIC ***27*** *18:24:05.8±1.2, 9.30N×93.82E, h39^{km}±10^{km}, mb4.9/25, Error ellipse: s-maj=8.8km s-min=7.5km az=63.0*

HRVD ***27*** *18:24:05.8±0.4, 8.81N×94.21E, h25^{km}±1^{km}, MW5.0/49, Centroid moment Tensor Solution. LP body waves: s6,c9; Mantle waves: s49,c85; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.44±.24; $M_{\theta\theta}$-2.72±.17; $M_{\phi\phi}$3.16±.17; $M_{r\theta}$-1.24±.35; $M_{\theta\phi}$2.18±.13; $M_{\phi r}$-1.74±.40; Best double couple: $M_0$4.15×10^{16} NP1:ϕ_s151°,δ65°,λ174°. NP2: ϕ_s243°,δ84°,λ26°. Principal axes: T 4.7, Plg22°, Azm110°; N -1.1, Plg64°, Azm255°; P -3.59, Plg14°, Azm14°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 18:24:01.8±0.3**, 9.21N**±0.05×**93.88E**±0.05**, h25^{km}, h25^{km}**±1.3^{km}**:pP-P, n152, σ1^{s}.11**/147**, mb4.7**/58**, MS5.0**/5**, 1C-6D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.42	28	*e*Pn	P	18 26 30.8	-2.3
	4.8nm,0.4s						
CMAR	Chiang Mai Arr	10.42	28	Pn	P	18 26 33.6	+0.6
	1.1nm,0.3s,baz=214,slow=14,SNR=24						
CMAR				LR	LR	18 30 48.1	
	comp=Z,2μm,19.1s,baz=205,slow=39						
CMAR	Chiang Mai Arr	10.42	28	P	P	18 26 33.7	+0.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,2μm,19.1s						
CMAR	Chiang Mai Arr	10.42	28	Pn	P	18 26 33.6	+0.6
CMAR				LR	LR	18 30 48.1	
PALK	Pallekele	13.18	263	Pn	P	18 27 09.9	-0.5
IMP	Imphal	15.49	0	*e*P	P	18 27 43.3	+2.7
SHL	Shillong	16.38	354	*e*P	P	18 27 53.0	+1.0
KMI	Kunming	17.93	27	P	P	18 28 15.0	+3.5
KMI				AMB	AMB		
	comp=Z,29nm,1.2s						
PKI	Pulchoki	19.94	337	*e*P	P	18 28 36.1	+1.0
	comp=Z,278nm,0.9s						
GUN	Gumba	20.07	339	*e*P	P	18 28 37.3	+0.8
	comp=Z,390nm,1.0s						
DMN	Daman	20.09	337	*e*P	P	18 28 36.9	+0.2
KKN	Kakani	20.18	337	*e*P	P	18 28 38.5	+0.8
	comp=Z,295nm,0.9s						
LSA	Lhasa	20.55	353	*e*P	P	18 28 41.3	-0.1
LSA				pmax	pmax		
	comp=Z,60nm,1.0s						
LSA	Lhasa	20.55	353	*e*P	P	18 28 41.3	-0.1
	comp=Z,60nm,1.0s						
GKN	Gorkha	20.62	336	*e*P	P	18 28 43.1	+0.9
	comp=Z,570nm,0.9s						
KOLN	Koldanda	20.86	334	*e*P	P	18 28 46.1	+1.5
	comp=Z,497nm,1.1s						
GYA	Guiyang	21.00	34	⇓*i*P	P	18 28 45.8	-0.3
GYA				AMB	AMB		
	comp=Z,50nm,1.0s,mb4.8						
COCO	West Island	21.46	172	*e*P	P	18 28 51.6	+0.8
	comp=Z,111nm,0.5s,mb5.5						
CD2	Chengdu	23.47	22	P	P	18 29 12.0	+1.4
CD2				AMB	AMB		
	comp=Z,150nm,1.2s,mb5.3						
LGTI	Lohaghat	23.85	329	*e*P	P	18 29 17.3	+3.0
PTH	Pithoragarh	23.95	330	*e*P	P	18 29 15.4	+0.2
PTH				*e*		18 36 18.8	
NDI	New Delhi	24.91	323	*e*P	P	18 29 25.0	+0.4
ENH	Enshi	25.53	33	*e*P	P	18 29 28.9	-1.5
	comp=Z,43nm,1.5s,mb4.8						
DDI	Dehra Dun	25.68	327	*e*P	P	18 29 32.3	+0.4
TGY	Tagaytay City	26.93	77	LR	LR	18 39 46.9	
	comp=Z,1μm,18.4s,MS4.5,baz=251,slow=35						
SDNR	Sundarnagar	27.18	327	*e*P	P	18 29 47.5	+1.8
LZH	Lanzhou	28.25	17	⇓P	P	18 29 55.0	-0.3
LZH				AMB	AMB		
	comp=Z,61nm,1.5s,mb5.0						
LZH				AMB	AMB		
	comp=Z,210nm,4.5s						
LZH				LR	LR		
	comp=E,2μm,12.0s						
LZH				LR	LR		
	comp=Z,2μm,13.2s,MS5.0						
XAN	Xi'an	28.32	27	P	P	18 29 54.3	-1.6
XAN				AP	pP	18 30 02.0	-1.1
XAN				AMB	AMB		
	comp=Z,132nm,1.2s,mb5.4						
GTA	Gaotai	30.54	9	*e*P	P	18 30 16.3	+0.6
GTA				AP	pP	18 30 23.0	+0.1
GTA				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.6						
NJ2	Nanjing	32.44	42	*e*P	P	18 30 32.0	-0.4
NJ2				AP	pP	18 30 41.5	+1.8
NJ2				XP	sP	18 30 45.5	+2.6
NJ2				PP	PP	18 31 41.0	+0.2
NJ2				S	S	18 35 44.0	-0.5
NJ2				XS		18 36 00.0	
NJ2				SS	SS	18 37 42.0	+1.3
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,800nm,4.6s						
NJ2				LR	LR		
	comp=N,9μm,18.6s,MS5.7						
NJ2				LR	LR		
	comp=E,13μm,19.2s,MS5.7						
NJ2				LR	LR		
	comp=Z,13μm,18.8s,MS5.6						
SSE	Sheshan	33.46	46	P	P	18 30 38.5	-2.8
SSE				AMB	AMB		
	comp=Z,29nm,0.7s,mb5.3						
KSH	Kashi	34.16	335	P	P	18 30 47.8	+0.5
KSH				AP	pP	18 30 54.0	-0.6
KSH				XP	sP	18 30 58.3	+0.6
KSH				PP	PP	18 32 01.0	-1.1
KSH				*e*S	S	18 36 10.0	-1.1
KSH				AMB	AMB		
	comp=Z,190nm,4.7s						
KSH				LR	LR		
	comp=N,2μm,12.6s,MS5.1						
KSH				LR	LR		
	comp=E,1μm,11.7s,MS5.1						
WMQ	Urumqi	34.90	352	*e*P	P	18 30 54.0	+0.4
WMQ				AP	pP	18 31 01.0	+0.1
WMQ				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
HHC	Hu-ho-hao-te	35.20	24	*e*P	P	18 30 56.5	+0.3
HHC				AP	pP	18 31 04.0	+0.5
HHC				XP	sP	18 31 06.5	-0.1
HHC				PP	PP	18 32 16.8	+1.4
HHC				PCP	PcP	18 33 23.5	-3.7
HHC				S	S	18 36 32.0	+4.8
HHC				XS		18 36 44.0	
HHC				SS	SS	18 38 52.8	+8.7
HHC				AMB	AMB		
	comp=Z,27nm,0.9s,mb5.2						
HHC				LR	LR		
	comp=N,1μm,10.7s,MS5.1						
HHC				LR	LR		
	comp=E,1μm,11.9s,MS5.1						
HHC				LR	LR		
	comp=Z,904nm,13.1s,MS4.7						
BJT	Baijiatuau	36.55	29	*e*P	P	18 31 08.1	+0.5
BJT				pmax	pmax		
	comp=Z,34nm,1.1s						
BJT	Baijiatuau	36.55	29	*e*P	P	18 31 08.1	+0.6
	comp=Z,34nm,1.1s,mb5.1						
BJI	Beijing	36.57	29	P	P	18 31 08.3	+0.6
BJI				AMB	AMB		
	comp=Z,29nm,1.0s,mb5.1						
UCH	Uchtor	37.04	336	P	P	18 31 13.0	+1.3
	SNR=7.6						
KBK	Karagaybulak	37.23	337	P	P	18 31 14.6	+1.3
	SNR=12						
AML	Almayashu	37.29	335	P	P	18 31 15.2	+1.4
	SNR=15						
AAK	Ala-Archa	37.38	336	P	P	18 31 15.8	+1.2
	SNR=8.8						
AAK	Ala-Archa	37.38	336	*i* P	P	18 31 14.3	-0.3
AAK				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.6						
AAK	Ala-Archa	37.38	336	*e*P	P	18 31 14.6	0.0
	comp=Z,28nm,1.3s,mb4.9						
CHMS	Chumysh	37.59	337	P	P	18 31 16.8	+0.5
	SNR=6.4						
EKS2	Erkin-Say	37.70	336	P	P	18 31 18.1	+0.9
	SNR=12						
USP	Ospenovka	37.92	337	P	P	18 31 19.7	+0.7
	SNR=13						
MKAR	Makanchi Array	38.74	347	*i* P	P	18 31 25.7	-0.2
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SONM	Songino Array	39.93	13	P	P	18 31 35.9	+0.1
	comp=Z,1.9nm,0.9s,mb3.8,baz=196,slow=9.0,SNR=8.4						
ULN	Ulaanbaatar	40.11	14	*e*P	P	18 31 36.5	-0.8
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.0						
ULN	Ulaanbaatar	40.11	14	*e*P	P	18 31 36.5	-0.8
	comp=Z,1.9nm,0.7s,mb3.9						
SNY	Shenyang	41.70	34	⇓P	P	18 31 50.3	-0.2
SNY				AMB	AMB		
	comp=Z,30nm,1.3s,mb4.8						
ZAK	Zakamensk	41.78	9	*e*P	P	18 31 54.7	+3.7
ZAK				*e*		18 33 35.5	
CN2	Changchun	44.05	33	*e*P	P	18 32 09.5	-0.1
CN2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.7						
ZAL	Zalesovo	45.20	352	P	P	18 32 18.3	-0.3
	comp=Z,5.7nm,0.9s,mb4.4,baz=296,slow=9.4,SNR=31						
ZAL	Zalesovo	45.20	352	P	P	18 32 18.3	-0.3
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.9s						
HIA	Hailar	45.41	24	*e*P	P	18 32 20.3	-0.1
HIA				pmax	pmax		
	comp=Z,37nm,1.4s						
HIA	Hailar	45.41	24	*e*P	P	18 32 20.3	0.0
	comp=Z,37nm,1.4s,mb5.0						
NVS	Novosibirsk	46.29	351	*e*P	P	18 32 26.0	-1.3
NVS				*e*	pP	18 32 34.0	-0.7
NVS				pmax	pmax		
	comp=N,40nm,1.4s						
NVS				pmax	pmax		
	comp=E,13nm,1.4s						
NVS				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.2						
NWAO	Narrogin (SRO)	47.45	153	P	P	18 32 38.0	+1.3
	comp=Z,43nm,0.8s,mb5.4,baz=321,slow=7.5,SNR=14						
NWAO	Narrogin (SRO)	47.45	153	P	P	18 32 38.1	+1.4
NWAO				pmax	pmax		
	comp=Z,43nm,0.8s						
BVA0	Borovoye Array	47.65	341	*i* P	P	18 32 37.0	-1.1
BVA0				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.8						
BVAR	Borovoye Array	47.65	341	P	P	18 32 37.1	-0.9
	comp=Z,3.0nm,0.8s,mb4.4,baz=153,slow=6.6,SNR=11						
BRVK	Borovoye	47.71	341	*e*P	P	18 32 39.2	+0.7
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BRVK	Borovoye	47.71	341	*e*P	P	18 32 39.2	+0.7
	comp=Z,4.8nm,0.8s,mb4.6						
MIB	Mutribah	48.02	302	*e*P	P	18 32 40.8	-0.5
CHKZ	Chkalovo	48.13	342	*e*P	P	18 32 41.1	-0.7
CHKZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
CHKZ	Chkalovo	48.13	342	*e*P	P	18 32 41.1	-0.7
	comp=Z,9.1nm,0.8s,mb4.9						
RST	Umm Al-Ruwaisa	48.23	301	*e*P	P	18 32 42.7	-0.1
WRA	Warramunga Arr	49.25	126	P	P	18 32 52.2	+1.4
	comp=Z,8.0nm,0.7s,mb4.9,baz=305,slow=8.9,SNR=9.9						
WRA	Warramunga Arr	49.25	126	P	P	18 32 52.2	+1.4
WRA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
WRAB	Tennant Creek	49.25	126	*i* P	P	18 32 48.1	-2.8
WRAB	Tennant Creek	49.25	126	*e*P	P	18 32 46.4	-4.4
	comp=Z,16nm,0.8s,mb5.1						
BOD	Bodaibo	50.92	14	*e*P	P	18 33 01.0	-2.1
ASAR	Alice Springs	50.97	131	P	P	18 33 04.6	+0.7
	comp=Z,7.1nm,0.8s,mb4.7,baz=306,slow=6.8,SNR=4.6						
GNI	Garni	53.33	314	*e*P	P	18 33 21.4	-0.1
GNI				pmax	pmax		
	comp=Z,21nm,1.2s						
GNI	Garni	53.33	314	*e*P	P	18 33 21.4	0.0
	comp=Z,21nm,1.2s,mb4.9						
ARU	Arti	54.57	337	⇓*i*P	P	18 33 29.2	-1.1
ARU				*e*		18 34 31.3	
ARU				*e*		18 35 37.5	
ARU				*e*S	S	18 41 10.2	+3.7
ARU				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.9						
ARU	Arti	54.57	337	*e*P	P	18 33 28.4	-1.9
	comp=Z,2.5nm,0.7s,mb4.3						
ZEI	Tsey	54.90	316	*e*P	P	18 33 41.0	+8.1
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
YSS	Yuzh-Sakhalins	55.90	39	*e*P	P	18 33 39.2	-0.9
KIV	Kislovodsk	56.16	317	*e*P	P	18 33 40.6	-1.4
KIV				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
KIV	Kislovodsk	56.16	317	*e*P	P	18 33 40.6	-1.4
	comp=Z,12nm,0.9s,mb4.9						
PMG	Port Moresby	56.17	108	P	P	18 33 45.0	+2.5

	comp=Z,27nm,0.9s,mb5.3,baz=289,slow=18,SNR=5.1						
PMG	Port Moresby	56.17	108	*e*P	P	18 33 39.9	-2.6
PMG				pmax	pmax		
	comp=Z,31nm,0.9s						
PMG	Port Moresby	56.17	108	*e*P	P	18 33 39.9	-2.6
	comp=Z,31nm,0.9s,mb5.3						
KMBO	Kilima Mbogo	57.33	263	P	P	18 33 51.0	+0.2
	comp=Z,1.8nm,0.8s,mb4.2,baz=220,slow=24,SNR=5.0						
KMBO	Kilima Mbogo	57.33	263	*e*P	P	18 33 50.6	-0.2
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.7s						
KMBO	Kilima Mbogo	57.33	263	*e*P	P	18 33 50.6	-0.2
	comp=Z,0.6nm,0.7s,mb3.7						
MALT	Malatya	57.41	310	*e*P	P	18 33 50.0	-1.0
MALT				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
MALT	Malatya	57.41	310	*e*P	P	18 33 50.0	-1.0
	comp=Z,4.1nm,0.9s,mb4.5						
EIL	Elat	58.55	299	P	P	18 33 58.8	-0.3
	comp=Z,5.8nm,1.1s,mb4.5,baz=48,slow=17,SNR=2.6						
CTA	Charters Tower	59.19	120	P	P	18 34 06.3	+2.7
	comp=Z,15nm,0.9s,mb5.0,baz=295,slow=8.9,SNR=16						
CTA	Charters Tower	59.19	120	P	P	18 34 06.4	+2.8
CTA				pmax	pmax		
	comp=Z,15nm,0.9s						
CTAO	Charters Tower	59.19	120	*e*P	P	18 34 05.1	+1.5
CTAO				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
CTAO	Charters Tower	59.19	120	*e*P	P	18 34 05.1	+1.4
	comp=Z,22nm,1.0s,mb5.2						
STKA	Stephens Creek	61.21	134	P	P	18 34 18.4	+1.1
	comp=Z,6.4nm,1.1s,mb4.7,baz=242,slow=5.5,SNR=3.6						
STKA	Stephens Creek	61.21	134	*e*P	P	18 34 18.1	+0.8
BRTR	Keskin Array B	61.37	310	P	P	18 34 15.8	-2.5
	comp=Z,1.7nm,0.9s,mb4.2,baz=121,slow=7.2,SNR=6.2						
BRTR	Keskin Array B	61.37	310	P	P	18 34 15.8	-2.5
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
OBN	Obninsk	64.12	327	⇑*e*P	P	18 34 37.0	+0.7
OBN				*e*		18 36 57.5	
OBN				pmax	pmax		
	comp=Z,6.0nm,1.4s,mb4.4						
AKASG	Malin Array Be	66.96	321	P	P	18 34 52.2	-2.4
	comp=Z,0.2nm,0.3s,mb3.6,baz=84,slow=5.2,SNR=4.6						
SUW	Suwalki	71.28	324	P	P	18 35 22.0	+0.8
SUW				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
SUW	Suwalki	71.28	324	P	P	18 35 22.0	+0.8
	comp=Z,24nm,0.9s,mb5.1						
FINES	FINESS Array B	71.42	332	P	P	18 35 21.1	-0.9
	comp=Z,2.0nm,0.6s,mb4.2,baz=100,slow=6.4,SNR=13						
FINES	FINESS Array B	71.42	332	P	P	18 35 21.1	-0.8
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
OJC	Ojcow	72.80	320	*e*P	P	18 35 29.0	-1.3
OKC	Ostrava-Krasne	73.82	319	*e*P	P	18 35 43.3	+7.1
OKC	Ostrava-Krasne	73.82	319	*e*pP	pP	18 35 43.3	-0.6
ARCES	ARCESS Array B	73.93	340	P	P	18 35 37.1	+0.6
	comp=Z,3.0nm,0.8s,mb4.3,baz=90,slow=3.6,SNR=11						
ARCES	ARCESS Array B	73.93	340	P	P	18 35 37.1	+0.6
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MORC	Moravsky Berou	74.20	319	*e*P	P	18 35 37.8	-0.7
MORC				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
MORC	Moravsky Berou	74.20	319	*e*P	P	18 35 37.8	-0.7
	comp=Z,9.2nm,1.1s,mb4.6						
LBTB	Lobatse	74.66	241	*e*P	P	18 35 39.9	-1.7
LBTB				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.6						
LBTB	Lobatse	74.66	241	*e*P	P	18 35 39.9	-1.7
	comp=Z,10nm,1.2s,mb4.6						
DPC	Dobruska-Polom	75.03	320	*e*P	P	18 35 42.5	-0.7
KSP	Ksiaz	75.08	320	*e*P	P	18 35 51.0	+7.5
UPC	Upice	75.24	320	*e*P	P	18 35 51.9	+7.5
UPC				e*PP	pP	18 36 00.4	+8.2
UPC	Upice	75.24	320	*e*pP	pP	18 35 51.9	-0.3
UPC				*e*sP	sP	18 36 00.4	+5.6
PRU	Pruhonice	76.15	319	*e*P	P	18 35 56.9	+7.3
PRU	Pruhonice	76.15	319	*e*pP	pP	18 35 56.9	-0.5
BRG	Berggiesshubel	76.57	320	*e*P	P	18 35 53.9	+2.0
BRG				*e*	pP	18 35 59.8	+0.1
BRG				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.7						
BRG	Berggiesshubel	76.57	320	*e*P	P	18 35 53.9	+2.0
	comp=Z,15nm,1.7s,mb4.7						
BRG				*e*	pP	18 35 59.8	+0.1
GERES	GERESS Array B	76.67	318	P	P	18 35 51.9	-0.6
	comp=Z,1.7nm,0.6s,mb4.2,baz=89,slow=5.7,SNR=18						
GERES	GERESS Array B	76.67	318	P	P	18 35 51.9	-0.6
GERES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KHC	Kasperske Hory	76.75	318	*e*P	P	18 35 52.4	-0.6
KHC				*e*pP	pP	18 35 59.8	-1.0
CLL	Collm	77.17	321	*e*P	P	18 36 03.0	+7.7
CLL	Collm	77.17	321	P	P	18 36 03.0	+7.7
HFS	Hagfors	77.18	330	P	P	18 35 54.3	-0.8
	comp=Z,3.1nm,0.7s,mb4.3,baz=84,slow=15,SNR=8.4						
HFS	Hagfors	77.18	330	P	P	18 35 54.3	-0.8
HFS				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NB2	NORSAR Subarra	78.45	330	P	P	18 35 59.8	-2.3
	comp=Z,3.2nm,0.7s,mb4.4,baz=92,slow=5.8						
NB2	NORSAR Subarra	78.45	330	P	P	18 35 59.8	-2.3
NB2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
NOA	NORSAR Array B	78.45	330	P	P	18 36 02.5	+0.4
	comp=Z,3.3nm,0.9s,mb4.2,baz=94,slow=5.3,SNR=4.1						
NOA	NORSAR Array B	78.45	330	P	P	18 36 02.5	+0.4
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
NOA	NORSAR Array B	78.45	330	P	P	18 36 02.5	+0.4
NAO01	NORSAR Array S	78.60	330	*e*P	P	18 36 01.9	-1.0
	comp=Z,16nm,1.0s,mb4.9						
DAVOX	Davos	79.26	316	P	P	18 36 06.3	-0.5
	comp=Z,2.8nm,0.6s,mb4.4,baz=119,slow=12,SNR=5.6						
LPL	La Plagne	81.51	315	*e*P	P	18 36 18.5	-0.3
	comp=Z,28nm,0.8s,mb5.0						
LPL	La Plagne	81.51	315	*e*P	P	18 36 18.5	-0.3
LPL				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
EKA	Eskdalemuir Ar	86.48	325	P	P	18 36 44.0	+0.2
	comp=Z,2.7nm,0.7s,mb4.6,baz=124,slow=6.0,SNR=6.7						
EKA	Eskdalemuir Ar	86.48	325	P	P	18 36 44.0	+0.2
EKA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
SYO	Syowa Base	86.60	197	⇓PcP	PcP	18 36 49.1	+2.3
SYO	Syowa Base	86.60	197	⇓sP	sP	18 36 59.5	+5.0
IMA	Indian Mountai	90.49	22	*e*P	P	18 37 02.5	-0.1
IMA				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.5						
IMA	Indian Mountai	90.49	22	*e*P	P	18 37 02.5	-0.1
	comp=Z,21nm,0.9s,mb5.5						
VNDA	Vanda	94.28	168	P	P	18 37 23.4	+3.6
	comp=Z,2.3nm,0.9s,mb4.6,baz=286,slow=12,SNR=3.7						
VNDA	Vanda	94.28	168	P	P	18 37 22.9	+3.1
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
VNDA	Vanda	94.28	168	P	P	18 37 22.9	+3.1
	comp=Z,2.6nm,0.7s,mb4.8						
INK	Inuvik	95.79	16	P	P	18 37 26.3	-0.6
	comp=Z,3.1nm,0.9s,mb4.7,baz=307,slow=3.8,SNR=7.8						
INK	Inuvik	95.79	16	P	P	18 37 26.3	-0.6
INK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
LOHW	Long Hollow	122.91	21	*e*PKPdf	PKPdf	18 42 58.2	-2.8
REDW	Red Top Meadow	123.04	21	PKPdf	PKPdf	18 42 59.7	-1.5
PDAR	Pinedale Array	124.02	21	PKP	PKPdf	18 43 02.0	-1.1
	comp=Z,1.2nm,0.8s,slow=3.0,SNR=5.7						

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*IDC **27** 18:30:59.9±1.0, 8.93N×92.20E, mb4.0/10, mb1 4.1/11, mb1mx4.0/20, Error ellipse: s-maj=38.5km s-min=17.6km az=48.0*

*NEIC **27** 18:31:04.8±0.5, 8.98N×92.29E, mb4.5/3, Error ellipse: s-maj=14.5km s-min=8.8km az=55.0*

*BJI **27** 18:31:08.6, 9.34N×92.92E, h31^{km}, mb4.5*

ISC 27 18:31:03.3±0.8**, 9.0N**±0.1×**92.4E**±0.1**, h33^{km}, (h31^{km}±.9^{km}:pP-P), n15, σ0^{s}59**/15**, mb4.1**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.38	34	Pn	P	18 33 45.5	-1.1
	baz=156,slow=31,SNR=2.1						
LSA	Lhasa	20.63	357	*e*P	P	18 35 42.8	+0.2
	6.2nm,0.8s						
GTA	Gaotai	31.01	11	*e*P	P	18 37 21.0	+0.8
GTA				AP	pP	18 37 30.3	+0.5
GTA				XP	sP	18 37 34.0	-0.2
GTA				AMB	AMB		
	comp=Z,11nm,1.4s,mb4.5						
AAK	Ala-Archa	36.99	338	*e*P	P	18 38 12.1	+0.6
	comp=Z,9.2nm,1.1s,mb4.5						
AAK				*e*pP	pP	18 38 21.7	+0.4
SONM	Songino Array	40.49	15	P	P	18 38 41.3	+0.6
	comp=Z,0.9nm,0.7s,mb3.6,baz=196,slow=9.0,SNR=6.3						
ZAL	Zalesovo	45.22	354	P	P	18 39 19.2	+0.1
	comp=Z,0.7nm,0.7s,mb3.6,baz=334,slow=8.6,SNR=3.6						
BVAR	Borovoye Array	47.37	342	P	P	18 39 35.8	-0.3
	comp=Z,0.6nm,0.4s,mb3.8,baz=268,slow=37,SNR=4.6						
CHKZ	Chkalovo	47.87	343	*e*P	P	18 39 39.9	-0.1
	comp=Z,2.9nm,0.4s,mb4.7						
CHKZ				*e*pP	pP	18 39 48.9	-0.9
WRA	Warramunga Arr	50.35	125	P	P	18 39 59.5	-0.1
	comp=Z,1.9nm,0.9s,mb4.1,baz=300,slow=9.9,SNR=10						
ASAR	Alice Springs	51.99	129	P	P	18 40 11.7	-0.2
	comp=Z,1.2nm,0.8s,mb3.9,baz=307,slow=7.7,SNR=8.1						
PMG	Port Moresby	57.55	107	P	P	18 40 52.9	+0.4
	comp=Z,2.4nm,0.7s,mb4.3,baz=24,slow=6.6,SNR=3.4						
BRTR	Keskin Array B	60.36	311	P	P	18 41 10.2	-1.4
	comp=Z,1.3nm,0.8s,mb4.0,baz=129,slow=7.9,SNR=7.4						
FINES	FINESS Array B	70.90	332	P	P	18 42 18.6	-0.2
	comp=Z,3.0nm,0.9s,mb4.2,baz=90,slow=1.9,SNR=5.6						
ARCES	ARCESS Array B	73.62	340	P	P	18 42 34.7	-0.1
	comp=Z,2.4nm,0.9s,mb4.1,baz=104,slow=5.0,SNR=6.5						
GERES	GERESS Array B	75.81	318	P	P	18 42 48.4	+0.6
	comp=Z,2.3nm,0.9s,mb4.1,baz=90,slow=5.3,SNR=13						

IDC 27 18:34:27.3±12.0**, 4.65N×97.79E, mb3.8**/2**, mb1 4.1**/3**, mb1mx3.6**/17**, ML4.3**/1**, Error ellipse: s-maj=384.0km s-min=43.2km az=75.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.77	5	Pn	P	18 37 43.9	-2.5
	0.4nm,0.3s,baz=234,slow=15,SNR=8.3						
WRA	Warramunga Arr	43.45	125	P	P	18 42 30.5	-3.5
	0.9nm,0.7s,baz=300,slow=8.9,SNR=5.0						
ASAR	Alice Springs	45.08	130	P	P	18 42 47.0	-0.1
	1.7nm,0.8s,baz=311,slow=7.6,SNR=8.8						

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*NEIC **27** 18:35:06.4±0.6, 3.46N×94.06E, h30^{km}, mb4.1/3, Error ellipse: s-maj=16.5km s-min=12.4km az=64.0*

*IDC **27** 18:35:08.9±8.3, 3.63N×94.18E, h48^{km}±77^{km}, mb3.9/11, mb1 4.1/12, mb1mx4.0/20, ML4.4/1, Error ellipse: s-maj=49.6km s-min=16.3km az=51.0*

ISC 27 18:35:04.7±0.7**, 3.5N**±0.1×**94.1E**±0.1**, h30^{km}, n19, σ1^{s}08**/19**, mb4.5**/17**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.62	17	*e*P	P	18 38 46.1	+1.4
	8.6nm,0.7s						
CMAR	Chiang Mai Arr	15.62	17	P	P	18 38 45.6	+0.9
	0.5nm,0.3s,baz=215,slow=12,SNR=13						
AAK	Ala-Archa	42.73	339	*e*P	P	18 43 00.8	-0.2
	2.1nm,0.7s,mb4.0						
SONM	Songino Array	45.44	12	P	P	18 43 21.3	-1.5
	1.3nm,0.7s,mb3.9,baz=195,slow=8.2,SNR=6.6						
SONM				PcP	PcP	18 45 01.1	-0.9
	0.9nm,0.6s,baz=202,slow=4.2,SNR=6.4						
WRA	Warramunga Arr	45.85	122	P	P	18 43 26.7	+0.3
	6.3nm,0.8s,mb4.6,baz=300,slow=8.9,SNR=14						
ASAR	Alice Springs	47.22	127	P	P	18 43 37.2	+0.1
	1.8nm,0.5s,mb4.3,baz=296,slow=7.7,SNR=14						
ASAR				PcP	PcP	18 45 08.9	+0.3
	0.6nm,0.6s,baz=308,slow=3.4,SNR=4.7						
ZAL	Zalesovo	50.88	353	P	P	18 44 03.6	-1.3
	3.1nm,0.4s,mb4.6,baz=300,slow=3.9,SNR=9.2						
RDF	Al-Radifah	50.91	305	*e*P	P	18 44 07.6	+2.1
RDF				AMb	AMB	18 44 08.6	
	comp=Z,65nm,1.1s,mb5.5						
UMR	Umm Al-Rimmam	51.00	306	*e*P	P	18 44 07.6	+1.4
UMR				AMb	AMB	18 44 12.1	
	comp=Z,34nm,1.1s,mb5.2						
MIB	Mutribah	51.39	306	*e*P	P	18 44 10.2	+1.0
MIB				AMb	AMB	18 44 11.7	
	comp=Z,38nm,1.0s,mb5.3						
RST	Umm Al-Ruwaisa	51.56	305	*e*P	P	18 44 09.4	-1.1
RST				AMb	AMB	18 44 12.3	
	comp=Z,26nm,0.7s,mb5.3						
BVAR	Borovoye Array	53.13	342	P	P	18 44 20.5	-1.4
	comp=Z,2.3nm,0.7s,mb4.2,baz=135,slow=10,SNR=8.8						
MALT	Malatya	61.33	312	*e*P	P	18 45 20.5	+0.4
	comp=Z,3.1nm,1.1s,mb4.3						
BRTR	Keskin Array B	65.31	312	P	P	18 45 45.7	-0.7
	comp=Z,1.0nm,0.7s,mb4.0,baz=90,slow=4.9,SNR=4.7						
IDI	Anoyia	71.08	306	P	P	18 46 22.4	0.0
	comp=Z,5.6nm,0.6s,mb4.7,baz=91,slow=12,SNR=6.1						
AKASG	Malin Array Be	71.59	323	P	P	18 46 23.5	-1.7
	comp=Z,1.4nm,0.8s,mb4.0,baz=86,slow=5.0,SNR=4.6						
FINES	FINESS Array B	76.57	333	P	P	18 46 53.1	-0.7
	comp=Z,2.2nm,0.7s,mb4.2,baz=100,slow=7.3,SNR=8.6						
ARCES	ARCESS Array B	79.37	341	P	P	18 47 09.1	0.0
	comp=Z,1.2nm,0.6s,mb4.0,baz=79,slow=6.2,SNR=6.7						
GERES	GERESS Array B	81.08	319	P	P	18 47 19.8	+1.3
	comp=Z,1.7nm,0.8s,mb4.0,baz=104,slow=5.5,SNR=11						

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*IDC **27** 18:37:48.9±0.4, 3.33N×93.76E, mb4.8/24, mb1 4.9/25, mb1mx4.8/28, ML3.3/1, MS4.9/6, Ms1 4.9/6, ms1mx4.3/20, Error ellipse: s-maj=21.1km s-min=10.8km az=44.0*

*BJI **27** 18:37:50.9, 2.95N×93.96E, h44^{km}, mB5.5, mb5.1, Ms5.5, Msz5.2*

*MOS **27** 18:37:52.0±0.9, 3.36N×93.79E, h33^{km}, mb5.3/50, MS4.9/11, Error ellipse: s-maj=10.9km s-min=5.6km az=120.1*

*NEIC **27** 18:37:53.0±0.1, 3.32N×93.81E, mb5.1/42, Error ellipse: s-maj=5.3km s-min=3.9km az=56.0*

*HRVD **27** 18:37:53.0±0.4, 3.68N×93.32E, h12^{km}, MW5.4/63, Centroid moment Tensor Solution. LP body waves: s23,c27;Mantle waves: s63,c121; Half duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.88±.04; $M_{\theta\theta}$0.13±.03; $M_{\phi\phi}$0.74±.03; $M_{r\theta}$-1.51±.12; $M_{\theta\phi}$-0.28±.03; $M_{\phi r}$-0.32±.09; Best double couple: $M_0$1.63×10^{17} NP1: ϕ_s315°,δ14°,λ-43°. NP2:ϕ_s87°,δ81°,λ-100°. Principal axes: T 1.22, Plg35°, Azm186°; N .81, Plg10°, Azm89°; P -2.03, Plg53°, Azm345°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 18:37:51.3±0.2**, 3.34N**±0.04×**93.83E**±0.04**, h28^{km}, h28^{km}±.6^{km}:pP-P, n230, σ0^{s}96**/218**, mb5.0**/86**, MS5.2**/23**, 6C-6D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
COCO	West Island	15.71	169	*e*P	P	18 41 30.7	-1.9
CM31	Chiang Mai Arr	15.84	18	*e*P	P	18 41 33.6	-0.6
	48nm,0.9s						
CMAR	Chiang Mai Arr	15.84	18	Pn	P	18 41 33.6	-0.5
	0.0nm,0.3s,baz=214,slow=13,SNR=16						
CMAR				LR	LR	18 48 31.1	
	comp=Z,4µm,18.7s,baz=205,slow=40						
UBT	Ubonrachathani	16.17	42	P	P	18 41 40.5	+2.1
CHG	Chiang Mai	16.17	18	⇓P	P	18 41 37.9	-0.5
	19nm,0.8s						
CHRT	Chiangrai	17.43	19	⇓P	P	18 41 54.5	+0.3
	218nm,1.1s						
KOD	Kodaikanal	17.63	294	*e*P	P	18 42 01.3	+4.6
KOD				*e*S	S	18 45 05.5	-4.4
HYB	Hyderabad	20.50	314	*e*P	P	18 42 29.0	-1.0
HYB	Hyderabad	20.50	314	*i* P	P	18 42 29.0	-1.0
AGT	Agartala	20.58	353	⇑*i*	P	18 42 39.0	+8.3
AGT				*i*		18 43 35.0	
IMP	Imphal	21.32	0	*e*	P	18 42 37.2	-1.1
QIZ	Qiongzhong	22.10	44	P	P	18 42 46.1	0.0
	95nm,1.3s,mb5.1						
SHL	Shillong	22.18	355	*e*P	P	18 42 45.0	-1.9
SHL				*e*P		18 42 46.1	
SHL				*e*		18 42 51.4	
	comp=Z,92nm,1.4s						
SHL				*e*		18 46 48.7	
GOA	Goa	23.11	303	*e*P	P	18 43 00.9	+4.7
GOA				*e*		18 43 05.7	
	comp=Z,86nm,1.3s						
KMI	Kunming	23.30	21	P	P	18 43 00.3	+2.4
KMI				AMB	AMB		
	comp=Z,36nm,2.0s,mb4.5						
KMI				LR	LR		
	comp=N,6µm,13.2s,MS5.4						
KMI				LR	LR		
	comp=E,7µm,11.9s,MS5.4						
KAD	Karad	23.76	307	*e*P	P	18 43 03.0	+0.5
AKL	Akola	23.79	318	*e*P	P	18 43 04.3	+1.5
AKL				*e*		18 43 28.0	
	comp=Z,67nm,1.6s						
GYA	Guiyang	26.07	27	⇑*i*P	P	18 43 25.0	+0.5
GYA				AP	pP	18 43 32.8	+0.1
GYA				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.0						
GYA				LR	LR		
	comp=N,3µm,16.8s,MS5.0						
GYA				LR	LR		
	comp=E,1µm,15.4s,MS5.0						
GYA				LR	LR		
	comp=Z,2µm,16.0s,MS4.8						
LSA	Lhasa	26.34	355	*e*P	P	18 43 29.1	+2.2
LSA				e*PP	pP	18 43 38.1	+2.9
LSA				pmax	pmax		
	comp=Z,186nm,0.8s,mb5.7						
LSA	Lhasa	26.34	355	*e*P	P	18 43 29.1	+2.2
	comp=Z,186nm,0.8s,mb5.7						
LSA				*e*pP	pP	18 43 38.1	+2.9
CD2	Chengdu	28.98	18	P	P	18 43 50.5	-0.3
CD2				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.2						
PTH	Pithoragarh	29.09	335	*e*	P	18 43 43.2	-8.7
PTH				*e*		18 49 48.7	
NDI	New Delhi	29.75	330	*e*P	P	18 43 56.5	-1.3
ENH	Enshi	30.61	27	*e*P	P	18 44 04.3	-1.1
	comp=Z,11nm,0.7s,mb4.8						
DDI	Dehra Dun	30.71	333	*e*P	P	18 44 07.0	+0.8
WHN	Wuhan	33.29	33	P	P	18 44 30.3	+1.5
WHN				S	S	18 49 55.0	+8.7
WHN				LR	LR		
	comp=N,4µm,17.1s,MS5.8						
WHN				LR	LR		
	comp=E,16µm,15.9s,MS5.8						
WHN				LR	LR		
	comp=Z,13µm,12.1s,MS5.8						
XAN	Xi’an	33.63	23	P	P	18 44 31.0	-0.7
XAN				AP	pP	18 44 39.0	-1.1
XAN				AMB	AMB		
	comp=Z,45nm,0.8s,mb5.5						
LZH	Lanzhou	33.88	15	*e*P	P	18 44 33.8	0.0
LZH				AMB	AMB		
	comp=Z,43nm,1.6s,mb5.1						
LZH				AMB	AMB		
	comp=Z,170nm,6.0s						
LZH				LR	LR		
	comp=E,3µm,12.9s						
LZH				LR	LR		
	comp=Z,7µm,15.8s,MS5.5						
MBWA	Marble Bar	35.16	135	*e*P	P	18 44 44.9	-0.1
	comp=Z,22nm,1.1s,mb5.0						
GTA	Gaotai	36.32	8	*e*P	P	18 44 54.5	-0.1
GTA				AP	pP	18 45 05.5	+2.5
GTA				AMB	AMB		
	comp=Z,33nm,1.2s,mb5.1						
GTA				AMB	AMB		
	comp=Z,1µm,6.5s						
GTA				LR	LR		
	comp=N,3µm,15.2s,MS5.3						
GTA				LR	LR		
	comp=E,3µm,14.5s,MS5.3						
GTA				LR	LR		
	comp=Z,4µm,13.7s,MS5.3						
NJ2	Nanjing	36.99	37	*e*P	P	18 44 58.5	-1.8
NJ2				AP	pP	18 45 12.3	+3.5
NJ2				PP	PP	18 46 24.5	-2.5
NJ2				S	S	18 50 40.0	-3.4
NJ2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,800nm,5.0s						
NJ2				LR	LR		
	comp=N,9µm,18.6s,MS5.8						
NJ2				LR	LR		
	comp=E,13µm,19.2s,MS5.8						
NJ2				LR	LR		
	comp=Z,13µm,18.8s,MS5.7						
SSE	Sheshan	37.78	40	P	P	18 45 04.5	-2.5
SSE				AP	pP	18 45 17.5	+2.0
SSE				S	S	18 50 54.8	-0.7
SSE				AMB	AMB		
	comp=Z,32nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,742nm,8.9s						
SSE				LR	LR		
	comp=N,6µm,15.9s,MS5.5						
SSE				LR	LR		
	comp=E,2µm,15.9s,MS5.5						
SSE				LR	LR		
	comp=Z,5µm,12.2s,MS5.5						
KSH	Kashi	39.49	338	P	P	18 45 20.3	-0.9
KSH				AP	pP	18 45 31.0	+1.3
KSH				AMB	AMB		
	comp=Z,130nm,4.2s						
KSH				LR	LR		
	comp=N,1µm,10.3s,MS5.2						
KSH				LR	LR		
	comp=E,1µm,10.0s,MS5.2						
HHC	Hu-ho-hao-te	40.62	21	*e*P	P	18 45 32.0	+1.5
HHC				AP	pP	18 45 40.0	+1.0
HHC				PP	PP	18 47 07.3	0.0
HHC				S	S	18 51 36.0	-2.1
HHC				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.7						
HHC				AMB	AMB		
	comp=Z,678nm,11.5s						
HHC				LR	LR		
	comp=N,2µm,14.1s,MS5.7						
HHC				LR	LR		
	comp=E,8µm,15.6s,MS5.7						
HHC				LR	LR		
	comp=Z,2µm,16.5s,MS5.1						
WMQ	Urumqi	40.68	353	*e*P	P	18 45 32.5	+1.6
WMQ				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.8						
BJT	Baijiatuau	41.74	26	*e*P	P	18 45 41.1	+1.4
BJT				e*PP	pP	18 45 50.0	+1.8
BJT				pmax	pmax		
	comp=Z,54nm,1.1s						
BJT	Baijiatuau	41.74	26	*e*P	P	18 45 41.1	+1.4
	comp=Z,54nm,1.1s,mb5.1						
BJT				*e*pP	pP	18 45 50.0	+1.8
BJI	Beijing	41.76	26	P	P	18 45 41.5	+1.6
BJI				AMB	AMB		
	comp=Z,42nm,1.1s,mb5.0						
BJI				LR	LR		
	comp=N,3µm,14.2s,MS5.4						
BJI				LR	LR		
	comp=E,2µm,15.5s,MS5.4						
BJI				LR	LR		
	comp=Z,2µm,19.9s,MS5.0						
ULHL	Ulahol	41.81	340	P	P	18 45 40.7	+0.4
	SNR=12						
KZA	Kyzart	42.00	339	P	P	18 45 43.0	+1.1
	SNR=8.8						
NWAO	Narrogin (SRO)	42.33	150	P	P	18 45 43.7	-1.0
	comp=Z,8.4nm,0.9s,mb4.4,baz=315,slow=8.6,SNR=3.7						
NWAO	Narrogin (SRO)	42.33	150	P	P	18 45 44.0	-0.7
NWAO				pmax	pmax		
	comp=Z,11nm,0.9s						
NWAO	Narrogin (SRO)	42.33	150	P	P	18 45 44.0	-0.7
	comp=Z,11nm,0.9s,mb4.5						
UCH	Uchtor	42.40	339	P	P	18 45 46.4	+1.3
	SNR=17						
KBK	Karagaybulak	42.62	339	P	P	18 45 48.3	+1.4
	SNR=18						
AML	Almayashu	42.62	338	P	P	18 45 48.1	+1.2
	SNR=15						
TKM2	Tokmak 2	42.63	340	P	P	18 45 47.9	+0.9
	SNR=11						
AAK	Ala-Archa	42.76	339	P	P	18 45 49.6	+1.6
	SNR=6.9						
AAK	Ala-Archa	42.76	339	*i* P	P	18 45 48.1	+0.1
AAK				pmax	pmax		
	comp=Z,16nm,1.5s,mb4.5						
AAK	Ala-Archa	42.76	339	*e*P	P	18 45 48.2	+0.2
	comp=Z,20nm,1.3s,mb4.7						

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FRU   Bishkek          42.89 339  eP     P      18 45 50.0 +0.9
FRU                               e             18 46 08.0
FRU                                pmax  pmax
      comp=Z,40nm,1.6s,mb4.9
CHMS  Chumysh          42.99 339   P     P      18 45 50.5 +0.6
      SNR=5.5
EKS2  Erkin-Say        43.05 338   P     P      18 45 51.4 +1.0
      SNR=13
USP   Ospenovka        43.31 339   P     P      18 45 53.1 +0.6
      SNR=18
MKAR  Makanchi Array   44.43 349  i P    P      18 46 01.9 +0.3
MKAR                               pmax  pmax
      comp=Z,33nm,0.8s
SONM  Songino Array    45.63  12   P     P      18 46 11.7 +0.6
      comp=Z,18nm,0.8s,mb5.0,baz=192,slow=8.8,SNR=60
SONM                               PcP   PcP    18 47 49.7 +0.1
      comp=Z,5.8nm,0.7s,baz=200,slow=4.7,SNR=3.9
ULN   Ulaanbaatar      45.80  12  eP     P      18 46 12.5 +0.1
ULN                               e*PP   pP     18 46 21.1 +0.1
ULN                                pmax  pmax
      comp=Z,65nm,1.8s,mb5.3
ULN   Ulaanbaatar      45.80  12  eP     P      18 46 12.5 +0.1
      comp=Z,65nm,1.8s,mb5.3
ULN                               epP    pP     18 46 21.1 +0.2
WRA   Warramunga Arr   46.01 122   P     P      18 46 14.8 +0.3
      comp=Z,36nm,0.8s,mb5.4,baz=300,slow=8.9,SNR=82
WRA   Warramunga Arr   46.01 122   P     P      18 46 14.8 +0.3
WRA                                pmax  pmax
      comp=Z,36nm,0.8s
WRAB  Tennant Creek    46.02 122  eP     P      18 46 14.9 +0.4
WRAB                              e*PP   pP     18 46 23.6 +0.5
WRAB                               pmax  pmax
      comp=Z,77nm,1.0s,mb5.6
WRAB  Tennant Creek    46.02 122  eP     P      18 46 14.9 +0.4
      comp=Z,76nm,1.0s,mb5.6
WRAB                              epP    pP     18 46 23.6 +0.5
ASAR  Alice Springs    47.36 127   P     P      18 46 25.2 +0.1
      comp=Z,17nm,0.9s,mb5.0,baz=304,slow=7.7,SNR=58
ASAR                               PcP   PcP    18 47 56.5 +0.6
      comp=Z,7.2nm,0.7s,baz=303,slow=3.5,SNR=8.1
TLY   Talaya           48.87   8  i P    P      18 46 35.3 -1.1
TLY                                pmax  pmax
      comp=Z,16nm,1.5s,mb4.8
CN2   Changchun        49.05  30  eP     P      18 46 37.0 -0.9
CN2                                AMB   AMB
      comp=Z,20nm,0.8s,mb5.2
CN2                                LR    LR
      comp=N,3µm,14.0s,MS5.6
CN2                                LR    LR
      comp=E,3µm,14.0s,MS5.6
CN2                                LR    LR
      comp=Z,2µm,16.0s,MS5.2
RDF   Al-Radifah       50.75 305  eP     P      18 46 52.0 +0.8
RDF                                AMb   AMB    18 46 53.2
      comp=Z,162nm,0.9s,mb6.0
HIA   Hailar           50.81  22  eP     P      18 46 51.5 +0.2
HIA                                pmax  pmax
      comp=Z,32nm,0.9s
HIA   Hailar           50.81  22  eP     P      18 46 51.5 +0.2
      comp=Z,32nm,0.9s,mb5.2
UMR   Umm Al-Rimmam    50.85 306  eP     P      18 46 52.7 +0.9
UMR                                AMb   AMB    18 46 53.8
      comp=Z,157nm,0.8s,mb6.0
ZAL   Zalesovo         50.98 353   P     P      18 46 52.5  0.0
      comp=Z,12nm,0.5s,mb5.0,baz=298,slow=6.2,SNR=33
ZAL   Zalesovo         50.98 353   P     P      18 46 52.6 +0.1
ZAL                                pmax  pmax
      comp=Z,12nm,0.5s
MIB   Mutribah         51.25 306  eP     P      18 46 55.3 +0.5
MIB                                AMb   AMB    18 46 56.6
      comp=Z,289nm,0.8s,mb6.3
RST   Umm Al-Ruwaisa   51.41 306  eP     P      18 46 56.6 +0.4
RST                                AMb   AMB    18 46 57.9
      comp=Z,84nm,1.1s,mb5.6
MDJ   Mudanjiang       51.75  32   P     P      18 46 58.8 +0.3
MDJ                                AMB   AMB
      comp=Z,17nm,2.1s,mb4.6
MDJ                                AMB   AMB
      comp=Z,747nm,11.5s
NVS   Novosibirsk      52.06 352  eP     P      18 46 59.5 -1.2
NVS                               e             18 49 00.0
NVS                               eS     S      18 54 30.9  +10
NVS                                pmax  pmax
      comp=N,62nm,1.2s
NVS                                pmax  pmax
      comp=E,36nm,1.2s
NVS                                pmax  pmax
      comp=Z,79nm,1.2s,mb5.5
NVS                                smax
      comp=N,18nm,2.0s
NVS                                smax
      comp=E,61nm,2.0s
BVA0  Borovoye Array   53.18 343  i P    P      18 47 08.0 -1.1
BVA0                               pmax  pmax
      comp=Z,2.0nm,0.8s,mb4.1
BVAR  Borovoye Array   53.18 343   P     P      18 47 08.2 -0.8
      comp=Z,14nm,0.7s,mb5.0,baz=141,slow=9.5,SNR=47
BRVK  Borovoye         53.24 342  eP     P      18 47 08.5 -1.0
BRVK                              e*PP   pP     18 47 17.2 -1.0
BRVK                               pmax  pmax
      comp=Z,23nm,1.1s,mb5.0
BRVK  Borovoye         53.24 342  eP     P      18 47 08.5 -1.0
      comp=Z,24nm,1.1s,mb5.0
BRVK                              epP    pP     18 47 17.1 -1.0
CHKZ  Chkalovo         53.68 343  eP     P      18 47 12.0 -0.7
CHKZ                              e*PP   pP     18 47 20.5 -0.9
CHKZ                               pmax  pmax
      comp=Z,52nm,1.0s,mb5.4
CHKZ  Chkalovo         53.68 343  eP     P      18 47 12.0 -0.7
      comp=Z,52nm,1.0s,mb5.4
CHKZ                              epP    pP     18 47 20.5 -0.9
PMG   Port Moresby     54.62 104   P     P      18 47 19.9 -0.3
      comp=Z,5.1nm,0.7s,mb4.7,baz=326,slow=6.6,SNR=5.0
PMG   Port Moresby     54.62 104   P     P      18 47 19.9 -0.3
PMG                                pmax  pmax
      comp=Z,5.0nm,0.7s
PMG   Port Moresby     54.62 104  eP     P      18 47 19.9 -0.3
      comp=Z,10nm,0.8s,mb4.9
KLR   Kul'dur          55.95  29  eP     P      18 47 26.8 -2.5
KLR                                pmax  pmax
      comp=Z,36nm,1.4s,mb5.2
CTA   Charters Tower   56.46 117   P     P      18 47 33.9 +0.5
      comp=Z,12nm,1.0s,mb4.9,baz=288,slow=9.8,SNR=10
CTA   Charters Tower   56.46 117   P     P      18 47 33.9 +0.5
CTA                                pmax  pmax
      comp=Z,12nm,1.0s
CTAO  Charters Tower   56.46 117  eP     P      18 47 32.2 -1.2
CTAO                              e*PP   pP     18 47 41.8 -0.3
BOD   Bodaibo          56.61  13⇑iP     P      18 47 33.6 -0.3
BOD                               e             18 47 39.8
KMBO  Kilima Mbogo     56.73 266   P     P      18 47 35.5 +0.1
      comp=Z,4.2nm,0.8s,mb4.5,baz=54,slow=10.0,SNR=8.6
KMBO  Kilima Mbogo     56.73 266   P     P      18 47 35.5 +0.1
KMBO                               pmax  pmax
      comp=Z,4.0nm,0.9s
KMBO  Kilima Mbogo     56.73 266  eP     P      18 47 35.5 +0.1
      comp=Z,12nm,1.4s,mb4.7
KMBO                              epP    pP     18 47 44.3 +0.1
STKA  Stephens Creek   57.28 132   P     P      18 47 39.1  0.0
      comp=Z,12nm,0.8s,mb5.0,baz=298,slow=8.3,SNR=20
STKA                               LR    LR     19 13 34.7
      comp=Z,1µm,18.4s,MS5.0,baz=307,slow=37
STKA  Stephens Creek   57.28 132  eP     P      18 47 38.8 -0.3
STKA                              epP    pP     18 47 47.1 -0.8
GNI   Garni            57.43 317   P     P      18 47 40.1 +0.1
      comp=Z,16nm,1.0s,mb5.0,baz=317,slow=8.1,SNR=9.8
GNI                                LR    LR     19 16 26.8
      comp=Z,494nm,19.7s,MS4.6,baz=290,slow=40
GNI   Garni            57.43 317  eP     P      18 47 39.4 -0.7
GNI                                pmax  pmax
      comp=Z,16nm,0.9s
GNI   Garni            57.43 317  eP     P      18 47 39.4 -0.6
      comp=Z,16nm,0.9s,mb5.1
ASAJ  Asahikawa        59.06  39   P     P      18 47 52.1 +0.8
      comp=Z,19nm,1.0s,mb5.1,baz=236,slow=7.3,SNR=3.6
ASAJ  Asahikawa        59.06  39   P     P      18 47 52.2 +0.8
ASAJ                               pmax  pmax
      comp=Z,19nm,1.0s
ZEI   Tsey             59.18 319  eP     P      18 47 51.4 -0.8
ZEI                               i *PP  pP     18 48 00.0 -1.1
ZEI                                pmax  pmax
      comp=Z,10.0nm,0.7s,mb5.0
SVE   Sverdlovsk       59.50 340  eP     P      18 47 53.0 -1.2
SVE                               e             18 47 58.0
SVE                               eS     S      18 56 08.6 +8.5
SVE                                pmax  pmax
      comp=Z,80nm,1.5s,mb5.5
SVE                                MLR   MLR
      comp=Z,2µm,17.2s,MS5.4
ERZM  Erzurum          59.68 315  i P    P      18 47 56.4 +0.7
ARU   Arti             59.94 338⇓iP     P      18 47 54.8 -2.4
ARU                               e             18 48 36.0
ARU                               e             18 50 05.9
ARU                               eS     S      18 56 05.8  0.0
ARU                               e             18 57 47.6
ARU                               eSS    SS     19 00 05.7 +2.2
ARU                                pmax  pmax
      comp=Z,18nm,1.0s,mb5.1
ARU                                MLR   MLR
      comp=Z,1µm,18.0s,MS5.0
ARU                                MLR   MLR
      comp=N,700nm,20.0s,MS5.0
ARU                                MLR   MLR
      comp=E,700nm,17.0s,MS5.0
ARU   Arti             59.94 338  eP     P      18 47 55.2 -2.0
      comp=E,38nm,1.4s,mb5.2
ARU                               epP    pP     18 48 03.8 -2.3
ASF   Jabal al Asfar   60.49 305   P     P      18 48 01.7 +0.4
      comp=E,9.3nm,0.9s,mb4.8,baz=149,slow=5.9,SNR=10
KIV   Kislovodsk       60.51 320  eP     P      18 48 00.2 -1.1
KIV                                pmax  pmax
      comp=Z,13nm,0.8s,mb5.1
KIV   Kislovodsk       60.51 320  eP     P      18 48 00.2 -1.1
      comp=Z,13nm,0.8s,mb5.1
YSS   Yuzh-Sakhalins   60.56  36  eP     P      18 48 02.7 +1.1
YSS                               e*PP   pP     18 48 11.1 +0.6
ELZG  Elazig           60.87 313  i P    P      18 48 04.0 +0.2
MALT  Malatya          61.21 312  eP     P      18 48 06.0 -0.1
MALT                               pmax  pmax
      comp=Z,21nm,1.1s,mb5.2
MALT  Malatya          61.21 312  eP     P      18 48 06.0 -0.1
      comp=Z,21nm,1.1s,mb5.2
EIL   Elat             61.48 302   P     P      18 48 08.2 +0.1
      comp=Z,19nm,1.0s,mb5.2,baz=149,slow=5.5,SNR=9.4
EIL   Elat             61.48 302  eP     P      18 48 08.0  0.0
      comp=Z,27nm,1.1s,mb5.3
GZT   Gaziantep        61.53 311  i P    P      18 48 08.5 +0.2
KAHT  Ahir Dag         62.14 311  i P    P      18 48 13.2 +0.8
COBT  Iskenderun       62.26 310  i P    P      18 48 13.6 +0.4
SOC   Sochi            62.29 318  eP     P      18 48 10.6 -2.8
SOC                               e             18 48 49.8
SOC                               ePPP   PPP    18 51 55.4 -6.6
SOC                               eS     S      18 56 30.4 -5.5
SOC                                pmax  pmax
      comp=N,6.0nm,0.8s
SOC                                pmax  pmax
      comp=Z,20nm,0.8s,mb5.3
SOC                                pmax  pmax
      comp=E,9.0nm,0.9s
SOC                                MLR   MLR
      comp=Z,412nm,17.0s,MS4.7
SOC                                MLR   MLR
      comp=N,439nm,19.0s,MS4.8
SOC                                MLR   MLR
      comp=E,349nm,17.0s,MS4.8
SOKR  Solikamsk        62.91 340⇓iP     P      18 48 15.3 -1.9
SOKR                              i S    Sx     18 57 19.2
SOKR                               pmax  pmax
      comp=Z,20nm,1.0s,mb5.2
SOKR                               MLR   MLR
      comp=Z,1µm,19.0s,MS5.1
MBAR  Mbarara          63.18 268  i P    P      18 48 18.6 -1.0
MBAR  Mbarara          63.18 268  eP     P      18 48 18.2 -1.4
      comp=Z,6.2nm,1.1s,mb4.7
AVNT  Avonos           64.01 312  i P    P      18 48 23.6 -1.2
CSS   Prodhromos       64.10 307  eP     P      18 48 24.5 -1.0
CSS                               epP    pP     18 48 34.4 +0.1
YAK   Yakutsk          64.37  18  eP     P      18 48 25.9 -0.8
YAK                               e*PP   pP     18 48 34.4 -1.2
YAK                                pmax  pmax
      comp=Z,77nm,1.4s,mb5.5
YAK   Yakutsk          64.37  18  eP     P      18 48 25.9 -0.8
      comp=Z,77nm,1.4s,mb5.5
YAK                               epP    pP     18 48 34.4 -1.2
BOYT  Boyabat          64.81 315  i P    P      18 48 29.1 -0.8
BRTR  Keskin Array B   65.19 313   P     P      18 48 31.4 -1.0
      comp=Z,7.1nm,1.0s,mb4.7,baz=127,slow=6.9,SNR=19
BRTR  Keskin Array B   65.19 313   P     P      18 48 31.5 -1.0
BRTR                               pmax  pmax
      comp=Z,7.0nm,1.0s
BALT  Daday            65.93 314  i P    P      18 48 36.4 -0.7
SIM   Simferopol'      66.53 318d iP    P      18 48 40.4 -0.5
SIM                               eS     S      18 57 24.0 -4.3
SIM                                pmax  pmax
      comp=Z,30nm,0.8s,mb5.4
ISP   Isparta          67.03 310  i P    P      18 48 43.9 -0.3
LSZ   Lusaka           67.53 252  eP     P      18 48 47.3 -0.4
LSZ                               e*PP   pP     18 48 56.1 -0.5
LSZ                                pmax  pmax
      comp=Z,14nm,1.3s,mb4.8
LSZ   Lusaka           67.53 252  eP     P      18 48 47.3 -0.4
      comp=Z,14nm,1.3s,mb4.8
LSZ                               epP    pP     18 48 56.1 -0.5
MOS   Moscow           68.79 330  eP     P      18 48 54.1 -0.8
MOS                                pmax  pmax
      comp=Z,78nm,1.4s,mb5.5
OBN   Obninsk          69.05 329c iP    P      18 48 55.1 -1.4
OBN                               e             18 51 30.9
OBN                                pmax  pmax
      comp=Z,17nm,1.4s,mb4.8
OBN                                MLR   MLR
      comp=Z,700nm,19.0s,MS4.9
OBN   Obninsk          69.05 329  eP     P      18 48 55.1 -1.4
      comp=Z,10nm,0.8s,mb4.8
IDI   Anoyia           70.93 306   P     P      18 49 07.7 -0.6
      comp=Z,22nm,1.1s,mb5.0,baz=327,slow=5.9,SNR=7.7
AKASG Malin Array Be   71.53 323   P     P      18 49 10.1 -1.6
      comp=Z,11nm,1.0s,mb4.7,baz=91,slow=4.4,SNR=19
AKASG Malin Array Be   71.53 323   P     P      18 49 10.1 -1.5
AKASG                              pmax  pmax
      comp=Z,11nm,1.0s
LBTB  Lobatse          71.85 242  eP     P      18 49 13.9 -0.1
LBTB                              e*PP   pP     18 49 22.8 -0.1
LBTB                               pmax  pmax
      comp=Z,16nm,0.9s,mb5.0
LBTB  Lobatse          71.85 242  eP     P      18 49 13.9 -0.1
      comp=Z,16nm,0.9s,mb5.0
LBTB                              epP    pP     18 49 22.8 -0.1
RZN   Rozhen           72.25 313  eP     P      18 49 15.0 -1.1
MMB   Musomiste        72.96 312  eP     P      18 49 19.0 -1.3
BOSA  Boshof           72.96 239  eP     P      18 49 20.3 -0.3
BOSA                               pmax  pmax
      comp=Z,10.0nm,0.8s,mb4.8
BOSA  Boshof           72.96 239  eP     P      18 49 20.3 -0.3
      comp=Z,10nm,0.8s,mb4.8
KKB   Krupnik          73.48 313  eP     P      18 49 22.0 -1.4
VTS   Vitosha          73.53 313  eP     P      18 49 22.0 -1.6
KOLS  Kolonicke sedl   75.42 320  eP     P      18 49 34.9 +0.5
KOLS                              epP    pP     18 49 42.3 -1.1
KOLS                              e             18 49 57.3
CRVS  Cervenica-Dubn   75.94 320  eP     P      18 49 41.7 +4.4
APA   Apatity          75.97 340⇑iP     P      18 49 36.4 -0.7
APA                               i             18 49 42.8
APA                                pmax  pmax
      comp=Z,16nm,1.0s,mb4.9
APA                                MLR   MLR
      comp=Z,2µm,18.0s,MS5.3
SUW   Suwalki          76.00 325  eP     P      18 49 36.6 -1.0
SUW                                pmax  pmax
      comp=Z,49nm,1.0s,mb5.4
SUW   Suwalki          76.00 325  eP     P      18 49 36.5 -1.0
      comp=Z,48nm,1.0s,mb5.4
KECS  Kecovo           76.50 319  eP     pP     18 49 47.5 -1.9
KECS  Kecovo           76.50 319  e      pP     18 49 47.5 -1.9
FINES FINESS Array B   76.57 333   P     P      18 49 40.1 -0.4
      comp=Z,17nm,1.1s,mb4.9,baz=90,slow=5.7,SNR=13
FINES FINESS Array B   76.57 333   P     P      18 49 40.2 -0.4
FINES                              pmax  pmax
      comp=Z,17nm,1.1s
NIE   Niedzica         76.78 320  eP     P      18 49 42.8 +0.8
PSZ   Piszkesteto      76.78 318  eP     P      18 49 41.7 -0.4
PSZ                                pmax  pmax
      comp=Z,11nm,0.9s,mb4.8
PSZ   Piszkesteto      76.78 318  eP     P      18 49 41.7 -0.4
      comp=Z,11nm,0.9s,mb4.8
OJC   Ojcow            77.25 321  eP     P      18 49 44.8 +0.2
SUR   Sutherland       77.53 236  eP     P      18 49 47.3 +0.7
      comp=Z,12nm,0.9s,mb4.8
VYHS  Vyhne            77.58 319  i P    P      18 49 46.8 +0.3
VYHS                              e             18 50 07.0
SRO   Srobarova        77.82 318  eP     P      18 49 48.6 +0.8
KOLL  Kolacno          77.88 319  eP     P      18 49 47.9 -0.2
OKC   Ostrava-Krasne   78.23 320  eP     P      18 49 49.9 -0.1
OKC                               epP    pP     18 49 58.8 -0.2
MORC  Moravsky Berou   78.61 320  eP     P      18 49 52.4 +0.3
MORC                               pmax  pmax
      comp=Z,40nm,1.8s,mb5.0
MORC  Moravsky Berou   78.61 320  eP     P      18 49 52.4 +0.3
      comp=Z,40nm,1.8s,mb5.0
ZST   Bratislava       78.68 318  i P    P      18 49 53.0 +0.5
ZST                               epP    pP     18 50 01.4 -0.1
ZST                               e             18 50 15.8
ARCES ARCESS Array B   79.41 341   P     P      18 49 56.5 +0.4
      comp=Z,9.3nm,0.9s,mb4.7,baz=117,slow=5.4,SNR=13
ARCES                              LR    LR     19 28 54.2
      comp=Z,1µm,19.1s,MS5.3,baz=293,slow=39
ARCES ARCESS Array B   79.41 341   P     P      18 49 56.5 +0.4
ARCES                              pmax  pmax
      comp=Z,9.0nm,0.9s
ARCES                              MLR   MLR
      comp=Z,1µm,19.2s
DPC   Dobruska-Polom   79.47 320  eP     P      18 49 57.5 +0.7
DPC                               epP    pP     18 50 05.7 -0.1
KSP   Ksiaz            79.56 321  eP     P      18 49 57.8 +0.6
KSP                               epP    pP     18 50 05.9 -0.4
KSP                               e             18 50 19.2
UPC   Upice            79.69 321  eP     P      18 49 58.4 +0.4
UPC                               epP    pP     18 50 07.1 +0.1
BILL  Bilibino         80.39  21  eP     P      18 50 01.7 +0.3
BILL                              e*PP   pP     18 50 10.5 +0.1
BILL                               pmax  pmax
      comp=Z,5.0nm,0.8s,mb4.5
BILL  Bilibino         80.39  21  eP     P      18 50 01.7 +0.4
      comp=Z,5.2nm,0.8s,mb4.5
BILL                              epP    pP     18 50 10.5  0.0
PRU   Pruhonice        80.56 320  eP     P      18 50 02.8 +0.2
PRU                               epP    pP     18 50 11.3 -0.4
GEC2  GERESS Array S   81.00 319  eP     P      18 50 05.9 +1.0
GEC2                               pmax  pmax
      comp=Z,37nm,1.2s,mb5.2
GEC2  GERESS Array S   81.00 319  eP     P      18 50 05.9 +1.0
      comp=Z,37nm,1.2s,mb5.2
GERES GERESS Array B   81.00 319   P     P      18 50 05.6 +0.7
      comp=Z,12nm,0.7s,mb4.9,baz=90,slow=5.3,SNR=71
GERES GERESS Array B   81.00 319   P     P      18 50 05.6 +0.7
GERES                              pmax  pmax
      comp=Z,12nm,0.7s
SYO   Syowa Base       81.01 197 ⇑P     P      18 50 05.8 +1.2
SYO   Syowa Base       81.01 197 ⇓P     pP     18 50 14.5 +0.8
BRG   Berggiesshubel   81.04 321  i P    P      18 50 05.8 +0.7
BRG                               i      pP     18 50 14.6 +0.4
BRG                                pmax  pmax
      comp=Z,24nm,1.4s,mb4.9
BRG                                MLR   MLR
      comp=Z,640nm,24.1s,MS4.9
BRG   Berggiesshubel   81.04 321  i P    P      18 50 05.8 +0.7
      comp=Z,24nm,1.4s,mb4.9
BRG                               i      pP     18 50 14.6 +0.4
BRG                               i             18 50 29.7
BRG                                LR    LR
      comp=Z,640nm,24.1s,MS4.9
KHC   Kasperske Hory   81.11 319  eP     P      18 50 05.9 +0.4
KHC                               epP    pP     18 50 14.4 -0.2
RUE   Ruedersdorf      81.30 322  eP     P      18 50 07.1 +0.7
WET   Wettzell         81.56 319  eP     P      18 50 08.4 +0.5
CLL   Collm            81.67 321  i P    P      18 50 08.6 +0.2
CLL                                pmax  pmax
      comp=Z,14nm,1.1s,mb4.8
CLL   Collm            81.67 321  i P    P      18 50 08.6 +0.2
      comp=Z,14nm,1.1s,mb4.8
NKC   Novy Kostel      81.93 320  eP     P      18 50 10.4 +0.6
MOX   Moxa             82.49 320  eP     P      18 50 12.9 +0.2
MOX                                pmax  pmax
      comp=Z,21nm,1.6s,mb4.8
MOX   Moxa             82.49 320  i P    P      18 50 12.9 +0.2
      comp=Z,logA/T=1.1,mb4.8
MOX   Moxa             82.49 320  eP     P      18 50 12.9 +0.2
      comp=Z,21nm,1.6s,mb4.8
GRA1  Grafenberg Arr   82.68 320  eP     P      18 50 14.7 +1.0
      comp=Z,25nm,1.0s,mb5.2
GRA1                              epP    pP     18 50 23.4 +0.6
GRF   Grafenberg Arr   82.68 320  eP     P      18 50 14.7 +1.0
GRF                               e*PP   pP     18 50 23.4 +0.6
GRF                                pmax  pmax
      comp=Z,25nm,1.0s,mb5.2
GRF   Grafenberg Arr   82.68 320  eP     P      18 50 14.7 +1.0
GRF                               e*PP   pP     18 50 23.4 +0.6
GRF                                pmax  pmax
      comp=Z,25nm,1.0s,mb5.2
GRF   Grafenberg Arr   82.68 320  eP     P      18 50 14.7 +1.0
      comp=Z,25nm,1.0s,mb5.2
GRF                               epP    pP     18 50 23.4 +0.6
RPZ   Rata Peaks       83.09 135   P     P      18 50 16.5 +0.6
      comp=Z,14nm,0.8s,mb5.0,baz=246,slow=6.3,SNR=5.4
CLZ   Clausthal        83.34 322  eP     P      18 50 17.9 +0.9
      comp=Z,14nm,1.1s,mb4.9
BSEG  Bad Segeberg     83.49 324  eP     P      18 50 18.3 +0.5
NB2   NORSAR Subarra   83.51 331   P     P      18 50 17.3 -0.4
      comp=Z,2.5nm,0.8s,mb4.4,baz=97,slow=5.0
NB2   NORSAR Subarra   83.51 331   P     P      18 50 17.3 -0.4
NB2                                pmax  pmax
      comp=Z,3.0nm,0.8s,mb4.5
NOA   NORSAR Array B   83.51 331   P     P      18 50 17.6 -0.1
      comp=Z,5.0nm,0.9s,mb4.7,baz=94,slow=5.5,SNR=8.1
NOA                                LR    LR     19 35 03.0
      comp=Z,424nm,18.1s,MS4.9,baz=55,slow=41
NOA   NORSAR Array B   83.51 331   P     P      18 50 17.6 -0.1
NOA                                pmax  pmax
      comp=Z,5.0nm,0.9s
NOA                                MLR   MLR
      comp=Z,424nm,18.1s
BFO   Black Forest     84.53 318  eP     P      18 50 23.6 +0.5
BFO                                pmax  pmax
      comp=Z,10.0nm,1.0s,mb4.9
BFO   Black Forest     84.53 318  eP     P      18 50 23.6 +0.5
      comp=Z,10.0nm,1.0s,mb4.9
LPL   La Plagne        85.60 315  eP     P      18 50 29.5 +0.9
      comp=Z,31nm,0.9s,mb5.2
LPL   La Plagne        85.60 315  eP     P      18 50 29.5 +0.9
LPL                                pmax  pmax
      comp=Z,16nm,0.9s,mb5.2
WLF   Walferdange      85.97 319  eP     P      18 50 31.5 +1.2
WLF                                pmax  pmax
      comp=Z,17nm,1.1s,mb5.2
WLF   Walferdange      85.97 319  eP     P      18 50 31.5 +1.2
      comp=Z,18nm,1.1s,mb5.2
VNDA  Vanda            88.58 168   P     P      18 50 43.8 +1.5
      comp=Z,2.7nm,0.9s,mb4.6,baz=279,slow=9.2,SNR=3.7
VNDA                               LR    LR     19 27 50.0
      comp=Z,378nm,18.1s,MS4.8,baz=178,slow=34
VNDA  Vanda            88.58 168   P     P      18 50 43.8 +1.5
VNDA                               pmax  pmax
      comp=Z,3.0nm,0.9s
VNDA                               MLR   MLR
      comp=Z,379nm,18.1s
ESDC  Sonseca Array    93.88 310   P     P      18 51 09.1 +1.4
      comp=Z,2.5nm,0.8s,mb4.7,baz=54,slow=4.3,SNR=10
MSO   Missoula        124.37  23  ePKPdf PKPdf  18 56 49.5 -3.4
ULM   Lac du Bonnet   125.97   8   PKP   PKPdf  18 56 53.1 -2.8
      comp=Z,2.4nm,0.7s,baz=41,slow=4.4,SNR=5.6
LAO   LASA Array      127.13  17  ePKPdf PKPdf  18 56 55.3 -2.9
BW06  Boulder Array   129.47  22  ePKPdf PKPdf  18 57 00.6 -2.3
PDAR  Pinedale Array  129.47  22   PKP   PKPdf  18 56 60.0 -2.9
      comp=Z,1.5nm,0.9s,slow=0.9,SNR=7.1
ANMO  Albuquerque     137.41  25   PKP   PKPdf  18 57 16.8 -1.1
      comp=Z,2.9nm,0.9s,baz=42,slow=2.0,SNR=4.6
ANMO  Albuquerque     137.41  25  ePKIKP PKPdf  18 57 15.0 -2.9
WVT   Waverly         140.71   2  ePKIKP PKPdf  18 57 20.9 -3.1
TXAR  Lajitas Array   143.44  26   PKP   PKPdf  18 57 24.2 -4.6
      comp=Z,2.1nm,0.9s,baz=169,slow=1.2,SNR=12
TXAR  Lajitas Array   143.44  26   PKP   PKPdf  18 57 24.2 -4.6
JCT   Junction City   143.94  20  ePKIKP PKPdf  18 57 24.5 -5.1
JCT                               e             18 57 30.6
NATX  Nacogdoches     144.18  12  ePKPdf PKPdf  18 57 25.9 -4.1
NATX                              epPKPdf       18 57 34.3
HKT   Hockley         145.63  15  ePKPbc PKPbc  18 57 30.5 +2.1
HKT                               epPKPdf       18 57 38.9
LVC   Limon Verde     154.56 220  ePKPbc PKPdf  18 57 52.6 +6.1
TEIG  Tepich          156.49   5  ePKPab PKPab  18 58 15.0 -0.4
LPAZ  La Paz          158.09 233   PKP   PKPdf  18 57 49.6 -1.7
      comp=Z,0.5nm,0.5s,baz=191,slow=5.2,SNR=4.3
LPAZ                               PKPab PKPab  18 58 22.4  0.0
      comp=Z,2.8nm,0.8s,baz=89,slow=6.0,SNR=5.5
LPAZ  La Paz          158.09 233   PKIKP PKPdf  18 57 49.6 -1.7
LPAZ                                            18 58 22.4
LPAZ                               pmax  pmax
```

	comp=Z,1.0nm,0.5s						
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.8s						
SDV	**Santo Domingo**	160.32	308	*e*PKPdf	PKPdf	18 57 50.7	-3.2
SDV				*e*PKPab	PKPab	18 58 31.3	-0.7

IDC ***27*** *18:37:59.2±1.5, 9.55N×91.32E, mb4.3/4, mb1 4.5/5, mb1mx4.0/18, ML3.4/1, MS4.8/1, Ms1 4.8/1, ms1mx3.3/19, Error ellipse: s-maj=54.0km s-min=26.6km az=56.0*

ISC 27 18:38:03.0±1.2**, 9.7N**±0.2×**91.6E**±0.1**, h33**^{km}**, n7, σ1**^{s}**73**/6**, mb4.3**/4**, MS4.9**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	**Nongplab**	8.44	69	P	S	18 41 40.5	-0.5
CMAR	**Chiang Mai Arr**	11.21	38	Pn	P	18 40 47.4	+3.3
	0.1nm,0.3s,baz=231,slow=14,SNR=5.8						
ZAL	**Zalesovo**	44.45	354	P	P	18 46 11.0	-1.6
	1.6nm,0.4s,mb4.2,baz=309,slow=7.1,SNR=3.8						
WRA	**Warramunga Arr**	51.33	125	P	P	18 47 06.2	-0.5
	13nm,1.0s,mb4.8,baz=302,slow=8.9,SNR=4.8						
ASAR	**Alice Springs**	52.98	129	P	P	18 47 19.5	+0.6
	5.5nm,1.0s,mb4.4,baz=307,slow=7.6,SNR=4.1						
PMG	**Port Moresby**	58.43	107	LR	LR	19 13 44.5	
	comp=Z,915nm,20.4s,MS4.9,baz=18,slow=37						
GERES	**GERESS Array B**	74.82	318	P	P	18 49 42.4	+0.5
	0.7nm,0.8s,mb3.7,baz=76,slow=5.5,SNR=3.9						

IDC ***27*** *18:39:59.8±1.6, 38.29N×139.95E, h116*^{km}*±15*^{km}*, mb3.7/11, mb1 4.0/13, mb1mx3.8/24, MS4.6/1, Ms1 4.7/1, ms1mx3.0/34, Error ellipse: s-maj=19.3km s-min=9.7km az=104.0*

BJI ***27*** *18:40:00.3, 38.45N×139.89E, h146*^{km}*, mb4.6*

MOS ***27*** *18:40:01.0±1.3, 38.40N×139.78E, h145*^{km}*, mb4.0/14, Error ellipse: s-maj=17.3km s-min=9.6km az=79.1*

NEIC ***27*** *18:40:02.2±0.7, 38.38N×139.80E, h139*^{km}*±7*^{km}*, mb4.1/11, Error ellipse: s-maj=9.8km s-min=7.5km az=117.0*

JMA ***27*** *18:40:02.2±0.1, 38.29N×139.93E, h136*^{km}*±1*^{km}*, M3.7 Broadband fault plane solution: P waves. NP1:*ϕ_s*316°, δ18°, λ49°. NP2:*ϕ_s*178°, δ76°, λ102°. Principal axes: T Plg57°, Azm104°; N Plg12°, Azm355°; P Plg30°, Azm258°;*

ISC 27 18:40:00.7±0.3**, 38.33N**±0.04×**139.89E**±0.06**, h142**^{km}±2^{km}**, n65, σ1**^{s}**00**/76**, mb4.1**/20**, 8C-4D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JYS	**Shirataka**	0.18	129	⇑P	P	18 40 20.8	+0.4
JYS				S	S	18 40 34.9	-0.4
JYA	**Atsumi**	0.29	332	⇑P	P	18 40 21.4	+0.6
JYA				*e*S	S	18 40 36.0	0.0
JAW	**Awa shima**	0.52	284	⇑P	P	18 40 22.1	+0.4
JAW				*e*S	S	18 40 38.0	+0.2
JOU	**Okura**	0.61	87	⇓P	P	18 40 22.5	+0.2
JOU				S	S	18 40 38.1	-0.7
JNS	**Sasagawa**	0.68	221	⇑P	P	18 40 23.1	+0.4
JNS				*e*S	S	18 40 38.8	-0.7
JYK	**Kaneyama**	0.69	32	⇓P	P	18 40 23.3	+0.6
JYK				S	S	18 40 39.6	0.0
JMM	**Marumori**	0.85	123	P	P	18 40 23.8	0.0
JMM				S	S	18 40 40.4	-1.1
JFT	**Otama**	0.89	156	P	P	18 40 24.4	+0.4
JFT				*e*S	S	18 40 41.5	-0.4
JFY	**Yanaizu**	0.94	189	⇑P	P	18 40 25.0	+0.6
JMK	**Ichinoseki**	1.21	59	⇓P	P	18 40 27.3	+0.3
JSD	**Sado**	1.32	257	⇑P	P	18 40 28.8	+0.7
JSD				S	S	18 40 48.6	-0.5
JOM	**Ohasama**	1.58	44	⇓P	P	18 40 31.8	+0.9
JAG	**Ashikaga**	1.94	190	⇑P	P	18 40 35.9	+1.0
MAJO	**Matsushiro**	2.23	217	*e*P	P	18 40 39.9	+1.2
MAT	**Matsushiro**	2.23	217	P	P	18 40 39.9	+1.2
MAT				S	S	18 41 07.8	+0.1
MAT	**Matsushiro**	2.23	217	*e*P	P	18 40 40.0	+1.4
MAT				*e*S	S	18 41 08.0	+0.3
JHJ	**Hachijo jima 2**	5.21	181	P	P	18 41 15.8	-1.9
	30nm,0.3s,baz=332,slow=12,SNR=6.6						
JHJ				S	S	18 42 12.9	-4.2
	39nm,0.3s,baz=94,slow=22,SNR=6.6						
ASAJ	**Asahikawa**	6.13	19	P	P	18 41 28.8	-1.2
	3.4nm,0.3s,baz=220,slow=8.9,SNR=21						
ASAJ				S	S	18 42 37.5	-1.8
	2.3nm,0.3s,baz=56,slow=30,SNR=4.5						
ASAJ	**Asahikawa**	6.13	19	P	P	18 41 28.8	-1.2
ASAJ				S	S	18 42 37.6	-1.7
ASAJ				pmax	pmax		
	comp=Z,3.0nm,0.3s						
YSS	**Yuzh-Sakhalins**	8.87	13	*e*P	P	18 42 06.2	-0.5
HIA	**Hailar**	18.13	314	*e*P	P	18 44 00.7	-3.6
HIA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
HIA	**Hailar**	18.13	314	*e*P	P	18 44 00.7	-3.6
	comp=Z,2.6nm,0.6s						
NJ2	**Nanjing**	18.28	256	*e*P	P	18 44 05.3	-0.8
BJT	**Baijiatuau**	18.46	283	*e*P	P	18 44 05.8	-2.1
BJT				pmax	pmax		
	comp=Z,8.0nm,0.6s						
BJT	**Baijiatuau**	18.46	283	*e*P	P	18 44 05.8	-2.2
	comp=Z,7.9nm,0.6s						
MA2	**Magadan**	22.37	15	*e*P	P	18 44 48.6	+1.3
MA2				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.3						
MA2	**Magadan**	22.37	15	*e*P	P	18 44 48.5	+1.2
	comp=Z,8.0nm,0.6s,mb4.3						
ULN	**Ulaanbaatar**	25.63	302	*e*P	P	18 45 18.7	+0.3
ULN				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
ULN	**Ulaanbaatar**	25.63	302	*e*P	P	18 45 18.7	+0.3
	comp=Z,1.1nm,0.4s,mb3.8						
SONM	**Songino Array**	26.06	302	P	P	18 45 23.3	+0.9
	comp=Z,1.0nm,0.4s,mb3.8,baz=99,slow=9.6,SNR=18						
ENH	**Enshi**	26.28	261	*e*P	P	18 45 24.3	-0.3
	comp=Z,27nm,0.5s,mb5.1						
GYA	**Guiyang**	30.29	257	⇑*i*P	P	18 45 59.5	-1.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
CMAR	**Chiang Mai Arr**	40.69	253	P	P	18 47 30.1	+1.3
	comp=Z,1.1nm,0.6s,mb3.7,baz=43,slow=7.4,SNR=6.8						
CMAR	**Chiang Mai Arr**	40.69	253	P	P	18 47 30.1	+1.4
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
CHKZ	**Chkalovo**	48.54	312	*e*P	P	18 48 30.4	-0.5
CHKZ				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.3						
CHKZ	**Chkalovo**	48.54	312	*e*P	P	18 48 30.4	-0.5
	comp=Z,3.6nm,0.5s,mb4.3						
AAK	**Ala-Archa**	48.82	297	*e*P	P	18 48 32.3	-0.9
AAK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.0						
AAK	**Ala-Archa**	48.82	297	*e*P	P	18 48 32.3	-0.9
	comp=Z,1.7nm,0.5s,mb3.9						
ILAR	**Eielson Array**	49.05	33	P	P	18 48 35.0	+0.3
	comp=Z,1.3nm,0.6s,mb3.8,baz=272,slow=5.5,SNR=26						
ILAR				LR	LR	19 13 38.5	
	comp=Z,571nm,18.2s,baz=156,slow=41						
ILAR	**Eielson Array**	49.05	33	P	P	18 48 35.0	+0.3
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ILAR				MLR	MLR		
	comp=Z,571nm,18.2s						
SVE	**Sverdlovsk**	53.37	318	*e*P	P	18 49 10.0	+2.7
INK	**Inuvik**	53.79	27	P	P	18 49 08.8	-1.4
	comp=Z,2.7nm,0.6s,mb4.2,baz=310,slow=6.5,SNR=18						
INK	**Inuvik**	53.79	27	P	P	18 49 08.8	-1.4
INK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
WRAB	**Tennant Creek**	58.19	186	*e*P	P	18 49 40.5	-1.7
WRAB				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.7						
WRAB	**Tennant Creek**	58.19	186	*e*P	P	18 49 40.5	-1.7
	comp=Z,11nm,0.8s,mb4.7						
WRA	**Warramunga Arr**	58.20	186	P	P	18 49 41.0	-1.2
	comp=Z,2.8nm,0.4s,mb4.5,slow=6.7,SNR=30						
WRA	**Warramunga Arr**	58.20	186	P	P	18 49 41.0	-1.3
WRA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ASAR	**Alice Springs**	61.93	186	P	P	18 50 06.8	-0.9
	comp=Z,1.1nm,0.5s,mb3.9,baz=356,slow=4.6,SNR=9.5						
YKA	**Yellowknife Ar**	63.29	30	P	P	18 50 15.8	-0.3
	comp=Z,0.8nm,0.7s,mb3.7,baz=305,slow=6.7,SNR=20						
YKA	**Yellowknife Ar**	63.29	30	P	P	18 50 15.8	-0.3
YKA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
FINES	**FINESS Array B**	67.10	331	P	P	18 50 40.4	-0.1
	comp=Z,0.7nm,0.4s,mb3.9,baz=51,slow=7.2,SNR=6.6						
FINES	**FINESS Array B**	67.10	331	P	P	18 50 40.4	-0.1
FINES				pmax	pmax		
	comp=Z,1.0nm,0.4s						
NB2	**NORSAR Subarra**	72.52	337	P	P	18 51 12.7	-0.4
	comp=Z,4.1nm,1.2s,mb4.0,baz=36,slow=6.2						
NB2	**NORSAR Subarra**	72.52	337	P	P	18 51 12.7	-0.4
NB2				pmax	pmax		
	comp=Z,4.0nm,1.2s,mb4.0						
NOA	**NORSAR Array B**	72.52	337	P	P	18 51 12.9	-0.2
	comp=Z,1.0nm,0.7s,mb3.7,baz=37,slow=6.1,SNR=11						
NOA	**NORSAR Array B**	72.52	337	P	P	18 51 13.0	-0.1
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BOZ	**Bozeman (W)**	74.61	44	*e*P	P	18 51 26.8	+1.2
BOZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.0						
BOZ	**Bozeman (W)**	74.61	44	*e*P	P	18 51 26.8	+1.2
	comp=Z,2.6nm,0.7s,mb4.0						
ELK	**Elko**	75.63	49	*e*P	P	18 51 33.0	+1.5
ELK				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ELK	**Elko**	75.63	49	*e*P	P	18 51 33.0	+1.5
	comp=Z,1.3nm,0.6s,mb3.7						
PDAR	**Pinedale Array**	77.61	45	P	P	18 51 43.9	+1.4
	comp=Z,1.2nm,0.7s,mb3.6,baz=315,slow=2.2,SNR=9.9						
TXAR	**Lajitas Array**	90.27	51	P	P	18 52 48.4	+1.9
	comp=Z,0.7nm,0.7s,mb3.7,baz=301,slow=7.3,SNR=6.5						
LPAZ	**La Paz**	147.03	56	PKPbc	PKPdf	18 59 30.2	+5.6
	comp=Z,1.2nm,0.5s,baz=320,slow=2.2,SNR=5.3						
LPAZ	**La Paz**	147.03	56	PKP2	PKPab	18 59 30.3	-0.7
LPAZ				pmax	pmax		
	comp=Z,1.0nm,0.5s						
LVC	**Limon Verde**	150.80	66	*e*PKPbc	PKPdf	18 59 39.4	+8.9

IDC 27 18:46:54.6±1.5**, 12.84N**×**91.83E, mb3.8**/4**, mb1 4.0**/5**, mb1mx3.6**/18**, ML4.3**/1**, MS4.5**/1**, Ms1 4.5**/1**, ms1mx3.2**/27**, Error ellipse: s-maj=46.8km s-min=27.7km az=45.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	8.84	50	Pn	P	18 49 02.0	-4.6
	0.9nm,0.3s,baz=213,slow=15,SNR=14						
ZAL	**Zalesovo**	41.38	354	P	P	18 54 43.0	-1.0
	1.4nm,0.6s,baz=276,slow=6.9,SNR=5.0						
ZAL				LR	LR	19 12 28.4	
	comp=Z,670nm,20.8s,baz=291,slow=37						
WRA	**Warramunga Arr**	53.02	127	P	P	18 56 13.9	-2.0
	0.3nm,0.3s,baz=300,slow=10,SNR=7.5						
BRTR	**Keskin Array B**	57.52	309	P	P	18 56 45.7	-2.6
	0.8nm,0.6s,baz=114,slow=7.9,SNR=4.9						
ARCES	**ARCESS Array B**	69.86	340	P	P	18 58 06.9	-2.0
	1.4nm,0.9s,baz=98,slow=6.4,SNR=5.0						

IDC 27 18:53:44.5±2.0**, 7.76N**×**94.24E, mb3.5**/4**, mb1 3.8**/4**, mb1mx3.5**/17**, Error ellipse: s-maj=191.0km s-min=27.3km az=47.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	48.11	126	P	P	19 02 25.2	-3.3
	0.4nm,0.6s,baz=307,slow=8.6,SNR=5.9						
ASAR	**Alice Springs**	49.77	130	P	P	19 02 40.6	-0.6
	0.4nm,0.9s,baz=303,slow=8.2,SNR=4.2						
ARCES	**ARCESS Array B**	75.40	340	P	P	19 05 30.5	-1.1
	1.4nm,0.9s,baz=90,slow=4.5,SNR=3.9						
GERES	**GERESS Array B**	77.98	318	P	P	19 05 44.4	-1.9
	0.1nm,0.5s,baz=90,slow=5.3,SNR=3.7						

BJI ***27*** *19:03:20.1, 4.50N×94.90E, h54*^{km}*, mb4.9*

IDC ***27*** *19:03:22.4±1.0, 4.68N×95.07E, h54*^{km}*±6*^{km}*, mb4.1/13, mb1 4.2/13, mb1mx4.0/20, Error ellipse: s-maj=40.0km s-min=16.0km az=47.0*

NEIC ***27*** *19:03:22.2±0.6, 4.54N×94.93E, mb4.8/4, Error ellipse: s-maj=21.6km s-min=11.9km az=56.0*

ISC 27 19:03:20.9±0.7**, 4.7N**±0.1×**95.2E**±0.1**, h53**^{km}**, h53**^{km}±2.8^{km}**:pP-P, n44, σ1**^{s}**03**/43**, mb4.5**/23**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	14.19	15	*e*Pn	P	19 06 45.3	+4.6
	11nm,0.6s						
PKI	**Pulchoki**	24.59	339	*e*P	P	19 08 36.8	-0.8
	4.5nm,0.4s,mb4.3						
DMN	**Daman**	24.74	338	*e*P	P	19 08 38.5	-0.5
	9.7nm,0.7s,mb4.4						
GUN	**Gumba**	24.74	340	*e*P	P	19 08 38.0	-1.0
	18nm,0.5s,mb4.8						
KKN	**Kakani**	24.84	339	*e*P	P	19 08 39.1	-0.8
	6.1nm,0.6s,mb4.3						
LSA	**Lhasa**	25.18	352	*e*P	P	19 08 42.9	-0.2
	7.2nm,0.6s,mb4.4						
GKN	**Gorkha**	25.27	338	*e*P	P	19 08 43.9	-0.1
KOLN	**Koldanda**	25.47	336	*e*P	P	19 08 45.8	-0.1
GTA	**Gaotai**	34.84	6	*e*P	P	19 10 08.0	-0.9
GTA				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
BJI	**Beijing**	39.99	25	P	P	19 10 53.0	+0.9
BJI				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.7						
ULHL	**Ulahol**	41.03	338	P	P	19 11 01.6	+0.9
	SNR=7.0						
KZA	**Kyzart**	41.26	337	P	P	19 11 03.9	+1.4
	SNR=6.7						
UCH	**Uchtor**	41.67	337	P	P	19 11 07.5	+1.5
	SNR=17						
TKM2	**Tokmak 2**	41.85	338	P	P	19 11 08.4	+1.0
	SNR=8.3						
KBK	**Karagaybulak**	41.87	338	P	P	19 11 09.2	+1.6
	SNR=28						
AML	**Almayashu**	41.92	336	P	P	19 11 09.5	+1.5
	SNR=15						
AAK	**Ala-Archa**	42.02	337	P	P	19 11 11.3	+2.4
	SNR=8.7						
CHMS	**Chumysh**	42.24	338	P	P	19 11 11.3	+0.7
	SNR=5.3						
EKS2	**Erkin-Say**	42.33	336	P	P	19 11 12.8	+1.4
	SNR=10						
USP	**Ospenovka**	42.56	338	P	P	19 11 14.1	+0.8
	SNR=24						
SONM	**Songino Array**	44.07	11	P	P	19 11 24.8	-0.7
	comp=Z,0.6nm,0.5s,mb3.6,baz=197,slow=7.9,SNR=5.8						
SONM				PcP	PcP	19 13 09.0	-1.6
	comp=Z,0.8nm,0.4s,baz=204,slow=3.6,SNR=7.8						
WRA	**Warramunga Arr**	45.62	124	P	P	19 11 38.2	-0.1
	comp=Z,9.4nm,0.7s,mb4.9,baz=302,slow=9.2,SNR=67						
WRAB	**Tennant Creek**	45.63	124	*e*P	P	19 11 38.7	+0.4
	comp=Z,11nm,0.6s,mb5.0						
ASAR	**Alice Springs**	47.12	128	P	P	19 11 50.3	+0.2
	comp=Z,1.9nm,0.7s,mb4.2,baz=299,slow=7.6,SNR=23						
HIA	**Hailar**	49.09	21	*e*P	P	19 12 04.4	-0.5
HIA				*e*	pP	19 12 17.3	-1.8
ZAL	**Zalesovo**	49.83	352	P	P	19 12 09.5	-1.1
	comp=Z,3.4nm,0.6s,mb4.6,baz=319,slow=5.7,SNR=16						
ZAL				pP	pP	19 12 25.3	+0.5
	comp=Z,1.3nm,0.4s,baz=134,slow=6.6,SNR=1.5						
ZAL	**Zalesovo**	49.83	352	P	P	19 12 09.5	-1.1
ZAL				pP	pP	19 12 25.3	+0.5
BVAR	**Borovoye Array**	52.32	341	P	P	19 12 28.8	-0.6
	comp=Z,9.6nm,0.7s,mb4.8,baz=141,slow=9.5,SNR=80						
BRVK	**Borovoye**	52.38	341	*e*P	P	19 12 28.6	-1.3
	comp=Z,8.5nm,0.6s,mb4.8						
BRVK				*e*pP	pP	19 12 44.0	-0.2
CHKZ	**Chkalovo**	52.81	342	*e*P	P	19 12 32.4	-0.7
KIV	**Kislovodsk**	60.36	319	*e*P	P	19 13 25.9	-1.1
	comp=Z,4.2nm,0.7s,mb4.6						
BRTR	**Keskin Array B**	65.28	312	P	P	19 13 58.4	-1.3
	comp=Z,1.9nm,0.6s,mb4.3,baz=126,slow=7.7,SNR=9.2						
BRTR				pP	pP	19 14 14.0	-0.5
	comp=Z,1.6nm,0.8s,baz=117,slow=7.3,SNR=4.2						
AKASG	**Malin Array Be**	71.28	322	P	P	19 14 34.3	-2.4
	comp=Z,3.4nm,0.6s,mb4.4,baz=86,slow=5.3,SNR=16						
FINES	**FINESS Array B**	75.99	332	P	P	19 15 03.5	-0.4
	comp=Z,1.8nm,0.3s,mb4.4,baz=108,slow=5.9,SNR=35						
FINES				pP	pP	19 15 17.8	-1.3
	comp=Z,1.4nm,0.5s,baz=108,slow=5.7,SNR=2.8						
FINES	**FINESS Array B**	75.99	332	P	P	19 15 03.5	-0.4
FINES				pP	pP	19 15 17.8	-1.3
ARCES	**ARCESS Array B**	78.60	340	P	P	19 15 18.4	+0.1
	comp=Z,2.3nm,0.5s,mb4.4,baz=99,slow=7.0,SNR=39						
ARCES	**ARCESS Array B**	78.60	340	P	P	19 15 18.4	+0.1
GERES	**GERESS Array B**	80.87	319	P	P	19 15 31.5	+0.5
	comp=Z,1.1nm,0.5s,mb4.0,baz=113,slow=5.0,SNR=12						
CLL	**Collm**	81.46	321	*e**PP	pP	19 15 45.0	-4.2
HFS	**Hagfors**	81.71	330	P	P	19 15 35.3	+0.2
	comp=Z,1.3nm,0.4s,mb4.2,baz=135,slow=4.2,SNR=12						
NOA	**NORSAR Array B**	83.00	331	P	P	19 15 39.7	-1.9
	comp=Z,1.1nm,0.8s,mb3.9,baz=128,slow=3.3,SNR=3.6						
NOA	**NORSAR Array B**	83.00	331	P	P	19 15 39.7	-1.9
DAVOX	**Davos**	83.38	316	P	P	19 15 44.9	+1.0
	comp=Z,4.1nm,0.5s,mb4.8,baz=143,slow=4.6,SNR=17						
DAVOX				pP	pP	19 15 59.0	-0.2
	comp=Z,2.2nm,0.6s,baz=80,slow=4.0,SNR=3.1						
DAVOX	**Davos**	83.38	316	P	P	19 15 44.9	+1.0
DAVOX				pP	pP	19 15 59.0	-0.2

BJI ***27*** *19:06:05.8, 8.76N×92.37E, h31*^{km}*, mB5.1, mb4.8*

NEIC ***27*** *19:06:07.0±0.4, 8.80N×92.20E, h30*^{km}*, mb4.6/7, Error ellipse: s-maj=11.6km s-min=8.1km az=72.0*

IDC ***27*** *19:06:09.3±5.0, 8.87N×92.27E, h46*^{km}*±45*^{km}*, mb4.0/13, mb1 4.1/14, mb1mx3.9/22, ML4.3/1, Error ellipse: s-maj=40.5km s-min=14.7km az=57.0*

ISC 27 19:06:05.6±3.1**, 8.8N**±0.1×**92.3E**±0.1**, h33**^{km}±25^{km}**, n39, σ0**^{s}**75**/37**, mb4.5**/22**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	11.60	33	*e*Pn	P	19 08 50.9	-1.0
	7.1nm,0.6s						
CMAR	**Chiang Mai Arr**	11.60	33	P	P	19 08 51.6	-0.3
	0.6nm,0.3s,baz=229,slow=14,SNR=32						
HYB	**Hyderabad**	15.85	304	*i* P	P	19 09 53.0	+5.1
IMP	**Imphal**	15.98	6	*e*	P	19 09 48.8	-0.8
IMP				*e*		19 16 23.8	
KMI	**Kunming**	19.07	30	P	P	19 10 29.0	+0.9
KMI				AMB	AMB		
	comp=Z,14nm,0.9s						
PKI	**Pulchoki**	19.77	342	*e*P	P	19 10 36.4	+0.7
DMN	**Daman**	19.89	341	*e*P	P	19 10 37.9	+0.8
	comp=Z,35nm,0.7s						
GUN	**Gumba**	19.94	343	*e*P	P	19 10 38.1	+0.5
	comp=Z,38nm,0.6s						
KKN	**Kakani**	20.01	342	*e*P	P	19 10 38.4	+0.1
	comp=Z,22nm,0.7s						
GKN	**Gorkha**	20.41	340	*e*P	P	19 10 42.6	0.0
	comp=Z,33nm,0.6s						
KOLN	**Koldanda**	20.57	338	*e*P	P	19 10 44.9	+0.7
	comp=Z,16nm,0.5s						
LSA	**Lhasa**	20.82	357	*e*P	P	19 10 47.3	+0.4
	comp=Z,12nm,0.7s						
GYA	**Guiyang**	22.26	36	⇑*i*P	P	19 11 02.5	+1.2
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.7						
CD2	**Chengdu**	24.48	24	P	P	19 11 24.5	+1.4
CD2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.0						
ENH	**Enshi**	26.77	35	*e*P	P	19 11 44.0	-0.5
	comp=Z,7.7nm,0.6s,mb4.4						
GTA	**Gaotai**	31.23	11	*e*P	P	19 12 25.5	+1.1
GTA				AP	pP	19 12 33.5	-0.5
GTA				XP	sP	19 12 37.5	-0.9
GTA				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
SONM	**Songino Array**	40.72	15	P	P	19 13 44.8	0.0
	comp=Z,6.5nm,0.7s,mb4.3,baz=196,slow=8.1,SNR=35						
SONM				PcP	PcP	19 15 47.8	+1.2
	comp=Z,1.6nm,0.7s,baz=210,slow=3.1,SNR=4.9						
CN2	**Changchun**	45.28	34	*e*P	P	19 14 22.3	+0.3
ZAL	**Zalesovo**	45.42	354	P	P	19 14 23.1	+0.1
	comp=Z,3.7nm,0.4s,mb4.6,baz=294,slow=5.7,SNR=10.0						
HIA	**Hailar**	46.44	25	*e*P	P	19 14 32.4	+1.3
	comp=Z,3.6nm,0.6s,mb4.5						
BVAR	**Borovoye Array**	47.53	342	P	P	19 14 39.1	-0.5
	comp=Z,5.8nm,1.1s,mb4.5,baz=153,slow=9.9,SNR=6.6						
BRVK	**Borovoye**	47.59	342	*e*P	P	19 14 39.4	-0.7
	comp=Z,2.7nm,0.8s,mb4.3						
NWAO	**Narrogin (SRO)**	47.83	151	P	P	19 14 44.1	+1.8
	comp=Z,6.1nm,0.6s,mb4.8,baz=164,slow=20,SNR=6.5						
CHKZ	**Chkalovo**	48.03	343	*e*P	P	19 14 43.6	+0.1
	comp=Z,6.4nm,0.7s,mb4.8						
CHKZ				*e*pP	pP	19 14 51.6	-1.8
WRA	**Warramunga Arr**	50.32	125	P	P	19 15 00.8	-0.7
	comp=Z,2.1nm,0.4s,mb4.5,baz=305,slow=8.4,SNR=9.9						
ASAR	**Alice Springs**	51.94	129	P	P	19 15 13.5	-0.2
	comp=Z,2.1nm,0.7s,mb4.2,baz=311,slow=7.1,SNR=6.4						
YSS	**Yuzh-Sakhalins**	57.23	39	*e*P	P	19 15 51.4	-0.7
	comp=Z,15nm,0.9s,mb5.0						
YAK	**Yakutsk**	59.74	19	*e*P	P	19 16 07.9	-1.5
	comp=Z,12nm,0.8s,mb5.0						
CTA	**Charters Tower**	60.39	119	P	P	19 16 14.6	+0.2
	comp=Z,2.5nm,0.8s,mb4.3,baz=270,slow=10,SNR=3.9						
CTA	**Charters Tower**	60.39	119	P	P	19 16 14.6	+0.2
BRTR	**Keskin Array B**	60.41	311	P	P	19 16 13.5	-0.8
	comp=Z,2.3nm,1.0s,mb4.2,baz=129,slow=8.3,SNR=5.9						
FINES	**FINESS Array B**	71.03	332	P	P	19 17 21.6	-0.3
	comp=Z,1.8nm,0.8s,mb4.0,baz=117,slow=8.5,SNR=4.2						
ARCES	**ARCESS Array B**	73.77	340	P	P	19 17 38.2	+0.2
	comp=Z,0.8nm,0.5s,mb3.9,baz=72,slow=3.8,SNR=4.5						
GERES	**GERESS Array B**	75.90	318	P	P	19 17 50.9	+0.3
	comp=Z,0.8nm,0.6s,mb3.9,baz=90,slow=6.7,SNR=6.8						
GERES	**GERESS Array B**	75.90	318	P	P	19 17 50.9	+0.3
ILAR	**Eielson Array**	94.59	22	P	P	19 19 23.7	-0.2
	comp=Z,0.3nm,0.7s,mb3.9,baz=318,slow=5.0,SNR=4.7						
INK	**Inuvik**	96.62	16	P	P	19 19 32.9	-0.1
	comp=Z,1.5nm,0.9s,mb4.4,baz=354,slow=4.7,SNR=4.7						
PDAR	**Pinedale Array**	124.96	19	PKP	PKPdf	19 25 04.8	+2.0
	comp=Z,0.5nm,0.6s,baz=88,slow=1.6,SNR=5.0						
TXAR	**Lajitas Array**	139.11	21	PKP	PKPdf	19 25 31.6	+1.9
	comp=Z,0.4nm,0.5s,baz=7.2,slow=1.1,SNR=8.4						

IDC ***27*** *19:08:11.2±0.7, 0.12S×125.25E, mb4.1/11, mb1 4.3/11, mb1mx4.2/17, Error ellipse: s-maj=50.1km s-min=17.1km az=68.0*

NEIC ***27*** *19:08:18.7±5.4, 0.21S×125.33E, h53*^{km}*±51*^{km}*, mb4.3/5, Error ellipse: s-maj=28.5km s-min=14.8km az=66.0*

ISC 27 19:08:14.9±0.5**, 0.2S**±0.1×**125.4E**±0.2**, h33**^{km}**, n17, σ0**^{s}**88**/17**, mb4.2**/16**, Southern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	**Lubang**	14.71	340	*e*P	P	19 11 34.1	-8.4
WRAB	**Tennant Creek**	21.53	156	*e*P	P	19 13 03.5	+0.1
	8.3nm,0.7s,mb4.3						
WRA	**Warramunga Arr**	21.54	157	P	P	19 13 02.0	-1.4
	1.3nm,0.4s,mb3.7,baz=338,slow=11,SNR=7.7						
ASAR	**Alice Springs**	24.80	161	P	P	19 13 36.3	+0.9
	1.8nm,0.5s,mb3.8,baz=345,slow=10,SNR=12						
ASAR				PcP	PcP	19 17 11.6	-0.8
	0.9nm,0.5s,baz=349,slow=2.0,SNR=11						
STKA	**Stephens Creek**	35.08	156	P	P	19 15 07.2	+0.1
	1.7nm,0.5s,mb4.2,baz=339,slow=10,SNR=5.4						
LSA	**Lhasa**	44.11	315	*e*P	P	19 16 23.6	+1.5
	2.8nm,0.5s,mb4.2						
SONM	**Songino Array**	50.57	344	P	P	19 17 12.0	-0.4
	0.5nm,0.5s,mb3.8,baz=157,slow=7.1,SNR=4.9						
YAK	**Yakutsk**	62.10	2	*e*P	P	19 18 35.1	+0.4
	9.6nm,0.7s,mb5.0						
ZAL	**Zalesovo**	63.46	335	P	P	19 18 41.4	-2.4
	0.8nm,0.5s,mb4.2,baz=325,slow=3.5,SNR=4.0						
BVAR	**Borovoye Array**	69.86	328	P	P	19 19 23.2	-1.1
	1.4nm,0.8s,mb4.0,baz=98,slow=6.9,SNR=9.0						
BRVK	**Borovoye**	69.93	328	*e*P	P	19 19 24.9	+0.3
	2.4nm,0.8s,mb4.2						
MALT	**Malatya**	87.71	308	*e*P	P	19 21 02.2	+0.4
	3.3nm,1.0s,mb4.5						
KMBO	**Kilima Mbogo**	88.14	269	P	P	19 21 04.8	+0.4
	0.6nm,0.3s,mb4.2,baz=56,slow=11,SNR=5.3						
ILAR	**Eielson Array**	89.16	25	P	P	19 21 09.0	+0.9
	0.3nm,0.5s,mb3.8,baz=254,slow=4.7,SNR=6.2						
BRTR	**Keskin Array B**	91.45	310	P	P	19 21 19.2	-0.3
	0.5nm,0.5s,mb4.2,baz=124,slow=5.2,SNR=2.6						
ARCES	**ARCESS Array B**	93.60	340	P	P	19 21 28.0	-0.6
	1.8nm,1.0s,mb4.5,baz=63,slow=6.0,SNR=3.6						
INK	**Inuvik**	94.24	21	P	P	19 21 31.9	+0.5
	5.4nm,1.4s,mb4.8,baz=274,slow=2.2,SNR=3.4						

IDC 27 19:10:52.6±1.8**, 13.24N**×**92.96E, mb3.7**/3**, mb1 4.0**/4**, mb1mx3.6**/18**, ML3.8**/1**, Error ellipse: s-maj=56.6km s-min=28.3km az=60.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

CMAR	Chiang Mai Arr	7.74	47	Pn	Pn	19 12 46.2	-3.1
	0.4nm,0.3s,baz=236,slow=15,SNR=13						
CMAR				Sn	Sn	19 14 06.5	-12
	0.1nm,0.3s,baz=239,slow=30,SNR=4.1						
WRA	Warramunga Arr	52.39	128	P	P	19 20 06.3	-2.9
	0.6nm,0.8s,baz=302,slow=9.3,SNR=4.1						
ASAR	Alice Springs	54.30	132	P	P	19 20 22.2	-1.0
	0.4nm,0.5s,baz=308,slow=6.9,SNR=6.9						
ARCES	ARCESS Array B	69.86	340	P	P	19 22 04.4	-2.4
	1.4nm,0.8s,baz=90,slow=6.1,SNR=3.7						

IDC ***27*** *19:12:06.0±0.9, 4.39N×94.48E, mb4.1/13, mb1 4.3/13, mb1mx4.1/20, MS5.0/1, Ms1 5.0/1, ms1mx3.3/23, Error ellipse: s-maj=46.0km s-min=15.6km az=46.0*

NEIC ***27*** *19:12:11.6±0.6, 4.93N×94.99E, h30^{km}, Error ellipse: s-maj=24.0km s-min=11.9km az=54.0*

ISC 27 19:12:08.6±0.7**, 4.2N**±0.1×**94.4E**±0.1**, h30^{km}, n18, σ1^{s}27**/17**, mb4.2**/13**, MS5.0**/1**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NANT	Nan	15.80	22	P	P	19 15 52.0	+1.1
	150nm,1.0s						
KBK	Karagaybulak	42.06	338	P	P	19 20 02.1	+2.7
	SNR=6.0						
EKS2	Erkin-Say	42.50	337	P	P	19 20 05.5	+2.5
	SNR=11						
USP	Ospenovka	42.75	339	P	P	19 20 07.1	+2.0
	SNR=5.0						
SONM	Songino Array	44.72	11	P	P	19 20 18.8	-2.2
	0.9nm,0.4s,mb3.9,baz=190,slow=8.4,SNR=8.5						
WRA	Warramunga Arr	45.98	123	P	P	19 20 31.5	+0.1
	1.5nm,0.5s,mb4.2,baz=300,slow=9.2,SNR=7.7						
ASAR	Alice Springs	47.41	128	P	P	19 20 43.8	+1.2
	1.0nm,0.7s,mb3.9,baz=296,slow=8.2,SNR=7.2						
ZAL	Zalesovo	50.24	353	P	P	19 21 03.1	-0.9
	3.2nm,0.4s,mb4.7,baz=296,slow=5.6,SNR=16						
BVAR	Borovoye Array	52.57	342	P	P	19 21 20.0	-1.7
	2.2nm,1.0s,mb4.0,baz=135,slow=8.4,SNR=6.0						
PMG	Port Moresby	54.28	105	P	P	19 21 33.5	-1.3
	3.9nm,1.0s,mb4.3,baz=37,slow=5.1,SNR=3.1						
STKA	Stephens Creek	57.41	132	P	P	19 21 57.6	+0.5
	1.1nm,0.6s,mb4.1,baz=311,slow=9.3,SNR=3.1						
EIL	Elat	61.52	302	LR	LR	19 49 24.0	
	comp=Z,999nm,18.1s,MS5.0,baz=227,slow=36						
BRTR	Keskin Array B	65.06	312	P	P	19 22 48.2	-0.5
	1.7nm,1.0s,mb4.0,baz=127,slow=6.2,SNR=4.3						
AKASG	Malin Array Be	71.22	322	P	P	19 23 26.0	-0.9
	0.9nm,0.5s,mb3.9,baz=85,slow=5.1,SNR=5.1						
FINES	FINESS Array B	76.10	333	P	P	19 23 54.5	-0.6
	2.6nm,0.4s,mb4.5,baz=99,slow=6.4,SNR=32						
ARCES	ARCESS Array B	78.83	340	P	P	19 24 09.3	-0.7
	1.8nm,0.6s,mb4.2,baz=88,slow=5.6,SNR=12						
GERES	GERESS Array B	80.75	319	P	P	19 24 21.0	+0.3
	1.4nm,0.6s,mb4.1,baz=113,slow=5.5,SNR=16						
DAVOX	Davos	83.23	316	P	P	19 24 34.0	+0.3
	2.8nm,0.6s,mb4.5,baz=132,slow=5.6,SNR=6.2						

IDC ***27*** *19:13:14.7±0.4, 11.57N×92.48E, mb5.1/27, mb1 5.2/27, mb1mx5.1/28, ML4.4/1, MS5.0/9, Ms1 5.0/9, ms1mx4.6/21, Error ellipse: s-maj=17.1km s-min=10.3km az=48.0*

BJI ***27*** *19:13:16.8, 11.54N×92.41E, h30^{km}, mB5.7, mb5.6, Ms5.4, Msz5.2*

CSEM ***27*** *19:13:18.2, 11.73N×92.70E, h33^{km}, mb5.6*

MOS ***27*** *19:13:18.4±1.0, 11.62N×92.49E, h33^{km}, mb5.7/50, MS5.1/24, Error ellipse: s-maj=8.5km s-min=4.5km az=119.2*

NEIC ***27*** *19:13:18.9±0.1, 11.59N×92.50E, mb5.5/46, MS5.1/10, Error ellipse: s-maj=5.0km s-min=3.8km az=206.0*

HRVD ***27*** *19:13:18.9±0.2, 11.72N×92.28E, h25^{km}±1^{km}, MW5.5/59, Centroid moment Tensor Solution. LP body waves: s48,c92;Mantle waves: s59,c108; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.96±.04; $M_{\theta\theta}$-0.38±.03; $M_{\phi\phi}$1.35±.03; $M_{r\theta}$0.22±.07; $M_{\theta\phi}$0.44±.03; $M_{\phi r}$1.48±.10; Best double couple: $M_0$1.93×10^{17} NP1:ϕ_s22°, δ20°, λ-77°. NP2:ϕ_s188°, δ71°, λ-95°. Principal axes: T 2.17, Plg26°, Azm282°; N -.47, Plg4°, Azm190°; P -1.69, Plg64°, Azm91°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***27*** *19:13:19.0, 11.61N×92.53E, h26^{km}, MB5.6*

ISC 27 19:13:16.9±0.2**, 11.57N**±0.03×**92.48E**±0.02**, h25^{km}, h25^{km}**±.6^{km}**:pP-P, n376, σ1^{s}08**/364**, mb5.4**/102**, MS5.2**/44**, 18C-30D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NNT	Nongplab	7.17	81	⇑P	Sn	19 16 22.0	-2.4
NST	Nakhon Sawan	8.48	60	P	P	19 15 22.1	+0.8
CM31	Chiang Mai Arr	9.26	42	*e*Pn	P	19 15 26.7	-5.4
CMAR	Chiang Mai Arr	9.26	42	Pn	P	19 15 27.0	-5.0
	1.1nm,0.3s,baz=238,slow=15,SNR=7.7						
CMAR				Sn	Sn	19 17 23.9	+7.3
	0.9nm,0.3s,baz=235,slow=28,SNR=5.1						
CMAR				LR	LR	19 19 51.3	
	comp=Z,5µm,20.4s,baz=220,slow=43						
CMAR	Chiang Mai Arr	9.26	42	P	P	19 15 27.0	-5.1
CMAR						19 17 23.9	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,5µm,20.4s						
VIS	Vishakhapatnam	10.76	306	*e*	P	19 15 51.8	-0.9
	comp=Z,2µm,1.1s						
VIS				*e*	S	19 17 40.0	-13
	comp=N,964nm,0.9s						
CHRT	Chiangrai	10.83	40	⇑P	P	19 15 52.5	-1.3
	comp=N,553nm,1.3s						
KKTK	Khon Kaen	11.10	64	P	P	19 16 00.6	+3.2
	comp=N,1µm,1.0s						
CAL	Calcutta	11.60	341	*e*P	P	19 15 59.2	-5.0
MDRS	Chennai	12.05	278	*e*P	P	19 16 06.7	-3.6
MDRS				*e*		19 16 08.7	
	comp=Z,1µm,1.9s						
AGT	Agartala	12.30	355	*i* P	P	19 16 11.0	-2.6
AGT				*i*		19 17 10.0	
PALK	Pallekele	12.38	251	*e*Pn	P	19 16 12.3	-2.4
	comp=Z,613nm,1.7s						
PALK				*e*Sn	Px	19 18 16.3	
UBT	Ubonrachathani	12.73	72	⇑P	P	19 16 22.0	+2.6
BOK	Bokaro	13.68	334	*e*P	P	19 16 29.7	-2.2
BOK				*e*		19 16 39.7	
	comp=Z,162nm,1.2s						
BOK				*e*S	Sx	19 18 46.9	
SHL	Shillong	13.93	358	*e*P	P	19 16 33.6	-1.7
BLSP	Bilaspur	14.42	318	*e*P	P	19 16 38.4	-3.4
BLSP				*e*		19 16 41.2	
	comp=Z,232nm,0.7s						
HYB	Hyderabad	14.68	295	⇑*e*P	P	19 16 42.5	-2.6
HYB				pmax	pmax		
	comp=Z,260nm,1.0s						
HYB	Hyderabad	14.68	295	⇑*i*P	P	19 16 42.5	-2.6
	comp=Z,260nm,1.0s						
HYB				*e*S	S	19 19 24.0	-3.8
HYB				LR	LR	19 24 04.0	
	comp=Z,11nm,16.0s						
KOD	Kodaikanal	14.80	266	*e*P	P	19 16 45.2	-1.6
TRD	Trivandrum	15.59	260	*e*P	P	19 16 53.8	-3.1
TRD				*e*		19 17 04.8	
	comp=Z,486nm,1.5s						
NGP	Nagpur	16.01	308	⇑*e*P	P	19 17 01.6	-0.8
NGP				*e*		19 19 47.9	
KMI	Kunming	16.61	34	P	P	19 17 11.8	+1.8
KMI				XP		19 17 20.8	
KMI				PP	PP	19 17 28.8	+5.1
KMI				S	S	19 20 15.8	+2.9
KMI				XS		19 20 24.5	
KMI				SS	SS	19 20 37.0	+3.9
KMI				AMB	AMB		
	comp=Z,163nm,1.4s						
KMI				LR	LR		
	comp=N,9µm,17.6s						
KMI				LR	LR		
	comp=E,5µm,16.8s						
KMI				LR	LR		
	comp=Z,7µm,16.4s						
LATR	Latur	16.81	296	*e*P	P	19 17 08.5	-4.0
LATR				*e*		19 19 58.5	
ALBI	Allahabad	16.99	325	*e*P	P	19 17 14.0	-0.7
PKI	Pulchoki	17.24	338	*e*P	P	19 17 17.1	-0.8
	comp=Z,875nm,1.1s						
DMN	Daman	17.39	338	*e*P	P	19 17 18.9	-0.8
	comp=Z,792nm,1.1s						
GUN	Gumba	17.39	340	*e*P	P	19 17 19.7	0.0
	comp=Z,176nm,0.9s						
AKL	Akola	17.40	303	*e*P	P	19 17 20.6	+0.7
AKL				*e*		19 17 27.1	
	comp=Z,398nm,1.3s						
KKN	Kakani	17.49	338	*e*P	P	19 17 20.5	-0.5
	comp=Z,113nm,0.7s						
GKN	Gorkha	17.92	337	*e*P	P	19 17 25.9	-0.4
	comp=Z,275nm,0.7s						
LSA	Lhasa	18.08	356	*e*P	P	19 17 27.7	-0.6
LSA						19 20 42.9	
LSA				pmax	pmax		
	comp=Z,166nm,1.4s						
LSA	Lhasa	18.08	356	*e*Pn	P	19 17 27.7	-0.6
	comp=Z,166nm,1.4s						
LSA				Sn	S	19 20 42.9	-3.4
KOLN	Koldanda	18.14	334	*e*P	P	19 17 30.5	+1.4
QIZ	Qiongzhong	18.30	64	P	P	19 17 32.0	+0.8
QIZ				S	S	19 20 51.5	+0.1
QIZ				AMB	AMB		
	comp=Z,107nm,1.7s						
QIZ				LR	LR		
	comp=E,5µm,13.0s						
QIZ				LR	LR		
	comp=Z,7µm,12.7s						
QIZ	Qiongzhong	18.30	64	*e*P	P	19 17 28.8	-2.3
	comp=Z,416nm,1.8s						
BHPL	Bhopal	18.45	311	*e*P	P	19 17 32.3	-0.6
BHPL				*e*		19 17 35.6	
	comp=Z,235nm,1.3s						
GOA	Goa	18.55	284	*e*P	P	19 17 37.5	+3.4
GOA				*e*S	S	19 20 58.9	+1.9
KAD	Karad	18.61	290	*e*P	P	19 17 32.6	-2.3
KAD				*i*		19 20 43.6	
JHNI	Jhansi	19.10	318	⇓*i*P	P	19 17 37.0	-3.7
JHNI				*e*		19 21 00.0	
POO	Poona	19.27	293	*e*P	P	19 17 40.2	-2.4
POO				*e*		19 17 45.4	
	comp=Z,617nm,1.6s						
GYA	Guiyang	19.95	40	⇓*i*P	P	19 17 49.5	-0.7
GYA				AP		19 17 54.3	
GYA				PP	PP	19 18 14.5	+5.2
GYA				AMB	AMB		
	comp=Z,370nm,1.2s						
GYA				AMB	AMB		
	comp=Z,1µm,7.8s						
GYA				LR	LR		
	comp=N,5µm,14.8s						
GYA				LR	LR		
	comp=E,4µm,18.4s						
GYA				LR	LR		
	comp=Z,7µm,15.6s						
BOM	Bombay	20.31	293	*e*P	P	19 17 52.9	-1.2
AGRA	Agra	20.72	321	*e*P	P	19 17 54.8	-3.4
PTH	Pithoragarh	21.22	329	*e*P	P	19 18 01.9	-1.4
PTH				*e*		19 21 50.2	
AYAN	Aya Nagar	22.12	322	*e*P	P	19 18 15.0	+2.7
NDI	New Delhi	22.21	322	*e*P	P	19 18 14.0	+0.8
AJM	Ajmer	22.41	314	*e*P	P	19 18 15.3	+0.1
AJM				*e*		19 18 20.6	
	comp=Z,435nm,0.9s						
AJM				*e*S	S	19 22 18.0	+2.9
KHET	Khetri	22.66	319	*e*P	P	19 18 18.7	+0.9
DDI	Dehra Dun	22.96	326	*e*P	P	19 18 21.3	+0.5
DDI				*e*		19 22 26.3	
KLP	Kalpa	23.82	329	*e*P	P	19 18 31.1	+2.0
KLP				*e*S	S	19 22 46.5	+6.5
COCO	West Island	24.00	169	P	P	19 18 32.4	+1.4
	comp=Z,234nm,1.0s,mb5.6						
SMLA	Simla	24.07	326	⇓*i*	Px	19 18 46.5	
	comp=Z,1µm,2.7s						
SMLA				*i*		19 22 59.1	
	comp=Z,1µm,2.4s						
ENH	Enshi	24.40	38	⇓*i*P	P	19 18 34.3	-0.5
	comp=Z,1µm,1.3s,mb6.3						
SDNR	Sundarnagar	24.46	327	*e*P	P	19 18 37.5	+2.2
BHJ	Bhuj	24.64	301	*e*P	P	19 18 36.9	-0.3
BHJ				*e*		19 19 13.3	
	comp=Z,267nm,1.6s						
BHJ				*e*S	S	19 22 57.1	+3.0
DLH	Dalhousie	25.81	327	*e*P	P	19 18 48.0	0.0
THN	Thein Dam	25.86	326	*e*P	P	19 18 48.4	-0.1
	comp=Z,13nm,0.5s,mb4.7						
THN				*e*		19 23 25.9	
LZH	Lanzhou	26.48	21	⇓P	P	19 18 54.8	+0.6
LZH				AP	pP	19 18 57.8	-3.6
LZH				XS		19 23 43.3	
LZH				AMB	AMB		
	comp=Z,314nm,1.5s,mb5.6						
LZH				AMB	AMB		
	comp=Z,1µm,6.0s						
LZH				LR	LR		
	comp=E,5µm,12.5s						
LZH				LR	LR		
	comp=Z,7µm,14.0s,MS5.4						
XAN	Xi'an	26.93	31	P	P	19 18 57.0	-1.4
XAN				AMB	AMB		
	comp=Z,131nm,1.2s,mb5.3						
WHN	Wuhan	27.70	44	P	P	19 19 05.3	-0.1
WHN				LR	LR		
	comp=Z,15µm,13.5s,MS5.7						
GTA	Gaotai	28.48	12	⇓P	P	19 19 13.0	+0.7
GTA				AP	pP	19 19 17.0	-2.6
GTA				PP	PP	19 20 04.0	-0.3
GTA				PCP	PcP	19 22 24.5	+0.3
GTA				S	S	19 23 58.0	+1.1
GTA				XS		19 24 07.8	
GTA				SS	SS	19 25 22.3	-0.2
GTA				SCP		19 26 02.5	
GTA				PCS		19 26 06.5	
GTA				SCS	ScS	19 29 55.0	+0.9
GTA				AMB	AMB		
	comp=Z,239nm,1.5s,mb5.6						
GTA				AMB	AMB		
	comp=Z,2µm,4.6s						
GTA				LR	LR		
	comp=N,4µm,17.5s,MS5.2						
GTA				LR	LR		
	comp=E,4µm,20.9s,MS5.2						
GTA				LR	LR		
	comp=Z,5µm,18.3s,MS5.1						
KSH	Kashi	31.45	335	P	P	19 19 38.5	-0.2
KSH				AP	pP	19 19 45.0	-1.1
KSH				XP	sP	19 19 49.0	-0.3
KSH				PP	PP	19 20 42.3	-0.6
KSH				PPP	PPP	19 20 56.0	-1.9
KSH				PCP	PcP	19 22 32.0	+0.2
KSH				*e*S	S	19 24 42.8	-1.1
KSH				SCP		19 26 13.0	
KSH				PCS		19 26 15.8	
KSH				SS	SS	19 26 26.3	-6.0
KSH				AMB	AMB		
	comp=Z,450nm,7.2s						
KSH				LR	LR		
	comp=N,4µm,15.8s,MS5.4						
KSH				LR	LR		
	comp=E,5µm,16.6s,MS5.4						
TIY	Taiyuan	31.58	31	⇑P	P	19 19 44.5	+4.6
TIY				LR	LR		
	comp=N,4µm,12.0s						
NJ2	Nanjing	31.70	46	*e*P	P	19 19 40.8	-0.2
NJ2				AP	pP	19 19 47.8	-0.6
NJ2				XP	sP	19 19 51.8	+0.2
NJ2				PP	PP	19 20 42.5	-3.7
NJ2				S	S	19 24 43.0	-4.9
NJ2				XS		19 24 58.0	
NJ2				AMB	AMB		
	comp=Z,240nm,0.8s,mb6.1						
NJ2				AMB	AMB		
	comp=Z,640nm,7.0s						
NJ2				LR	LR		
	comp=N,5µm,18.8s,MS5.3						
NJ2				LR	LR		
	comp=E,5µm,22.1s,MS5.3						
NJ2				LR	LR		
	comp=Z,5µm,12.8s						
WMQ	Urumqi	32.40	354	*e*P	P	19 19 47.3	+0.3
WMQ				AP	pP	19 19 51.8	-2.5
WMQ				XP	sP	19 19 54.3	-3.2
WMQ				AMB	AMB		
	comp=Z,87nm,0.7s,mb5.7						
BTO	Baotou	32.79	25	*e*P	P	19 19 49.5	-0.9
BTO				AMB	AMB		
	comp=Z,151nm,1.1s,mb5.8						
BTO				LR	LR		
	comp=N,589nm,12.3s,MS5.0						
BTO				LR	LR		
	comp=E,2µm,13.2s,MS5.0						
SSE	Sheshan	32.88	49	P	P	19 19 52.3	+0.9
SSE				XP	sP	19 20 04.8	+2.9
SSE				S	S	19 25 09.5	+3.1
SSE				XS		19 25 24.3	
SSE				AMB	AMB		
	comp=Z,54nm,0.8s,mb5.5						
SSE				AMB	AMB		
	comp=Z,742nm,8.9s						
SSE				LR	LR		
	comp=N,1µm,13.1s,MS5.1						
SSE				LR	LR		
	comp=E,2µm,13.4s,MS5.1						
SSE				LR	LR		
	comp=Z,3µm,14.1s,MS5.2						
TIA	Tai'an	33.12	38	*e*P	P	19 19 52.3	-1.0
TIA				AMB	AMB		
	comp=Z,129nm,1.4s,mb5.7						
HHC	Hu-ho-hao-te	33.65	27	⇓*i*P	P	19 19 58.0	+0.1
HHC				AP	pP	19 20 05.0	-0.3
HHC				XP	sP	19 20 08.5	0.0
HHC				PP	PP	19 21 10.5	-0.4
HHC				PCP	PcP	19 22 38.8	+1.0
HHC				S	S	19 25 17.0	-1.2
HHC				XS		19 25 29.8	
HHC				SCP		19 26 20.0	
HHC				SS	SS	19 27 20.0	-3.5
HHC				AMB	AMB		
	comp=Z,213nm,1.2s,mb6.0						
HHC				LR	LR		
	comp=N,1µm,15.5s,MS5.0						
HHC				LR	LR		
	comp=E,2µm,20.2s,MS5.0						
HHC				LR	LR		
	comp=Z,2µm,17.0s,MS4.9						
ULHL	Ulahol	33.68	338	P	P	19 19 59.1	+0.9
	SNR=6.8						
KZA	Kyzart	33.91	337	P	P	19 20 01.3	+1.1
	SNR=17						
TKM2	Tokmak 2	34.51	338	P	P	19 20 05.8	+0.5
	SNR=13						
AML	Almayashu	34.58	335	P	P	19 20 07.7	+1.7
	SNR=14						
AAK	Ala-Archa	34.68	336	P	P	19 20 08.5	+1.7
	SNR=22						
FRU	Bishkek	34.80	337	*e*P	P	19 20 09.0	+1.2
FRU				pmax	pmax		
	comp=Z,160nm,2.0s,mb5.6						
CHMS	Chumysh	34.89	337	P	P	19 20 09.1	+0.5
	SNR=17						
BJT	Baijiatuau	35.23	32	*e*P	P	19 20 11.9	+0.4
BJT				pmax	pmax		
	comp=Z,216nm,1.0s						
BJT	Baijiatuau	35.23	32	*e*P	P	19 20 11.9	+0.4
	comp=Z,216nm,1.0s,mb6.0						
BJI	Beijing	35.25	32	P	P	19 20 12.0	+0.3
BJI				AMB	AMB		
	comp=Z,183nm,1.0s,mb6.0						
BJI				AMB	AMB		
	comp=Z,1µm,3.5s						
BJI				LR	LR		
	comp=N,2µm,18.1s,MS5.2						
BJI				LR	LR		
	comp=E,4µm,18.1s,MS5.2						
BJI				LR	LR		
	comp=Z,3µm,16.0s,MS5.2						
MKAR	Makanchi Array	36.15	348	*e*P	P	19 20 14.0	-5.2
MKAR				pmax	pmax		
	comp=Z,329nm,1.4s						
JOW	Kunigami	36.90	61	P	P	19 20 25.1	-0.5
	comp=Z,34nm,0.4s,mb5.5,baz=263,slow=13,SNR=22						
DL2	Dalian	37.59	39	P	P	19 20 32.0	+0.7
DL2				AMB	AMB		
	comp=Z,80nm,1.5s,mb5.2						
DL2				LR	LR		
	comp=N,2µm,15.0s,MS5.1						
DL2				LR	LR		
	comp=E,490nm,17.4s,MS5.1						
DL2				LR	LR		
	comp=Z,2µm,14.5s,MS5.1						
SONM	Songino Array	37.98	15	P	P	19 20 35.1	+0.5
	comp=Z,52nm,0.8s,mb5.3,baz=202,slow=6.7,SNR=226						
SONM				PcP	PcP	19 22 51.2	+0.7
	comp=Z,5.0nm,0.6s,baz=221,slow=3.0,SNR=4.7						
ULN	Ulaanbaatar	38.19	16	*e*P	P	19 20 36.3	0.0
ULN				pmax	pmax		
	comp=Z,115nm,1.3s,mb5.5						
ULN	Ulaanbaatar	38.19	16	*e*P	P	19 20 36.3	0.0
	comp=Z,115nm,1.3s,mb5.5						
ULN				*e*S	tx	19 26 03.7	
ZAK	Zakamensk	39.70	11	⇓*i*P	P	19 20 49.6	+0.7
SNY	Shenyang	40.57	36	⇓P	P	19 20 56.3	+0.1
SNY				AMB	AMB		
	comp=Z,130nm,1.5s,mb5.3						
SNY				LR	LR		
	comp=N,2µm,15.2s,MS5.4						
SNY				LR	LR		
	comp=E,3µm,16.8s,MS5.4						
SNY				LR	LR		
	comp=Z,4µm,15.7s,MS5.4						
MOY	Mondy	40.58	8	*e*P	P	19 20 57.2	+1.1
KS15	Wonju Array Si	40.85	45	*e*P	P	19 20 59.0	+0.5
TLY	Talaya	41.01	11	P	P	19 21 01.9	+2.2
	comp=Z,294nm,1.0s,mb5.9,SNR=9.9						
TLY	Talaya	41.01	11	*e*P	P	19 21 00.7	+1.0
TLY				*e*S	S	19 27 12.9	+2.7
TLY				pmax	pmax		
	comp=Z,92nm,1.4s,mb5.2						
TLY				MLR	MLR		
	comp=Z,2µm,23.1s,MS4.9						
TLY	Talaya	41.01	11	*i* Pr		19 21 01.3	
IRK	Irkutsk	41.66	11	*e*P	P	19 21 05.9	+0.9
MBWA	Marble Bar	42.13	140	⇓*i*P	P	19 21 07.9	-1.4
	comp=Z,307nm,1.5s,mb5.7						
MBWA				LR	LR		
	comp=Z,2µm,22.0s,MS4.9						
ZAL	Zalesovo	42.70	353	P	P	19 21 13.4	0.0
	comp=Z,18nm,0.8s,mb4.8,baz=304,slow=6.5,SNR=44						
ZAL				LR	LR	19 43 34.1	
	comp=Z,3µm,19.4s,MS5.2,baz=291,slow=43						
ZAL	Zalesovo	42.70	353	P	P	19 21 13.4	0.0
ZAL				pmax	pmax		
	comp=Z,18nm,0.9s						
ZAL				MLR	MLR		
	comp=Z,3µm,19.4s						
CN2	Changchun	42.88	35	*e*P	P	19 21 15.3	+0.2
CN2				*e*XP	sP	19 21 26.0	+0.3
CN2				*e*S	S	19 27 38.3	+0.4
CN2				AMB	AMB		
	comp=Z,280nm,1.0s,mb6.0						
CN2				AMB	AMB		
	comp=Z,910nm,5.0s						
CN2				LR	LR		
	comp=N,2µm,14.0s,MS5.3						
CN2				LR	LR		
	comp=E,1µm,14.0s,MS5.3						
CN2				LR	LR		
	comp=Z,2µm,15.0s,MS5.1						
NVS	Novosibirsk	43.77	352	*i* P	P	19 21 20.8	-1.4
NVS				*e*		19 23 07.4	
NVS				*e*S	S	19 27 44.2	-6.5
NVS				pmax	pmax		
	comp=N,105nm,1.4s						
NVS				pmax	pmax		
	comp=E,85nm,1.4s						
NVS				pmax	pmax		
	comp=Z,180nm,1.4s,mb5.6						
NVS				smax			
	comp=N,45nm,2.1s						
NVS				smax			
	comp=E,152nm,2.1s						
HIA	Hailar	43.84	26	⇓*i*P	P	19 21 22.5	-0.3
HIA				*e*		19 23 09.1	
HIA				pmax	pmax		
	comp=Z,4.0nm,0.3s						
HIA	Hailar	43.84	26	⇓*i*P	P	19 21 22.5	-0.4
	comp=Z,3.9nm,0.3s,mb4.6						
HIA				*e*		19 23 09.1	
BVA0	Borovoye Array	44.98	341	P	P	19 21 31.3	-0.7
BVA0				pmax	pmax		

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              comp=Z,10.0nm,1.3s,mb4.5
BVAR  Borovoye Array    44.98 341   P      P         19 21 31.7 -0.3
              comp=Z,19nm,0.8s,mb5.0,baz=143,slow=7.4,SNR=65
BRVK  Borovoye          45.04 341⇓ iP      P         19 21 31.5 -1.0
CHKZ  Chkalovo          45.47 342⇓ iP      P         19 21 35.7 -0.1
CHKZ                                pmax   pmax
              comp=Z,147nm,1.0s,mb5.8
CHKZ  Chkalovo          45.47 342⇓ iP      P         19 21 35.6 -0.2
              comp=Z,147nm,1.0s,mb5.8
MDJ   Mudanjiang        45.76  37   P      P         19 21 37.5 -0.8
MDJ                                 AMB    AMB
              comp=Z,35nm,2.2s,mb4.9
MDJ                                 AMB    AMB
              comp=Z,888nm,11.6s
MDJ                                 LR     LR
              comp=E,3µm,20.2s
MDJ                                 LR     LR
              comp=Z,3µm,17.3s,MS5.3
MDJ   Mudanjiang        45.76  37  eP      P         19 21 38.5 +0.3
              comp=Z,129nm,1.8s,mb5.6
MDJ                                 LR     LR
              comp=Z,3µm,19.0s,MS5.2
MZLS  Mizel             46.48 292   P      P         19 21 37.2 -7.0
KAMS  Al Khamasin       46.73 287   P      P         19 21 46.7 +0.5
TATS  Tathlith          47.74 286   P      P         19 21 55.5 +1.3
MAJO  Matsushiro        48.00  51  eP      P         19 21 56.2 +0.1
MAJO                                pmax   pmax
              comp=Z,238nm,1.5s,mb6.0
MAJO  Matsushiro        48.00  51  eP      P         19 21 56.2 +0.1
              comp=Z,238nm,1.5s,mb6.0
MAT   Matsushiro        48.00  51   P      P         19 21 55.7 -0.4
MAT   Matsushiro        48.00  51  eP      P         19 21 56.0 -0.1
MAT                                 pmax   pmax
              comp=Z,353nm,1.6s,mb6.1
MAT   Matsushiro        48.00  51  eP      P         19 21 56.0 -0.1
              comp=Z,353nm,1.6s,mb6.1
AFFS  ‘Afif             48.47 292   P      P         19 21 54.7 -5.1
NAMS  An Nimas          48.92 285   P      P         19 22 06.8 +3.4
BOD   Bodaibo           48.98  15⇓ iP      P         19 22 02.9 -0.4
KLR   Kul’dur           49.62  33  eP      P         19 22 05.1 -3.2
KLR                                eS      S         19 29 05.0 -8.9
KLR                                 pmax   pmax
              comp=N,64nm,1.8s
KLR                                 pmax   pmax
              comp=E,100nm,1.8s
KLR                                 pmax   pmax
              comp=Z,120nm,1.8s,mb5.6
HILS  Ha’il             49.97 296   P      P         19 22 06.9 -4.4
NWAO  Narrogin (SRO)    50.16 153   P      P         19 22 12.1 -0.6
              comp=Z,13nm,0.5s,mb5.2,baz=327,slow=6.9,SNR=27
NWAO  Narrogin (SRO)    50.16 153   P      P         19 22 12.1 -0.6
NWAO                                pmax   pmax
              comp=Z,13nm,0.5s
GNI   Garni             50.72 313   P      P         19 22 17.6 +0.8
              comp=Z,17nm,0.8s,mb5.0,baz=20,slow=1.4,SNR=17
GNI                                 LR     LR        19 48 37.6
              comp=Z,930nm,18.7s,MS4.8,baz=276,slow=42
GNI   Garni             50.72 313   P      P         19 22 17.6 +0.8
GNI                                 pmax   pmax
              comp=Z,17nm,0.8s
GNI                                 MLR    MLR
              comp=Z,930nm,18.7s
GNI   Garni             50.72 313  eP      P         19 22 17.6 +0.7
GNI                                 LR     LR
              comp=Z,1µm,20.0s,MS4.8
TI2   Plekhanov         51.28 315  i P     P         19 22 22.4 +1.3
SVE   Sverdlovsk        51.38 338⇓ iP      P         19 22 22.0 +0.4
SVE                                i                 19 22 32.0
SVE                                e                 19 23 37.0
SVE                                e                 19 24 23.5
SVE                                e                 19 25 15.5
SVE                                 pmax   pmax
              comp=Z,100nm,2.0s,mb5.4
SVE                                 MLR    MLR
              comp=Z,3µm,21.5s,MS5.3
CLNS  Chul’man          51.59  22d iP      P         19 22 23.5 +0.2
CLNS                               e*PP    pP        19 22 31.5 +0.6
CLNS                               e                 19 24 24.4
CLNS                               eS      S         19 29 47.8 +6.7
CLNS                                pmax   pmax
              comp=N,94nm,1.0s
CLNS                                pmax   pmax
              comp=Z,164nm,1.0s,mb5.9
CLNS                                pmax   pmax
              comp=E,97nm,1.1s
CLNS                                pmax   pmax
              comp=Z,17nm,1.3s,mb4.8
CLNS                                pmax   pmax
              comp=N,16nm,1.1s
CLNS                                pmax   pmax
              comp=E,12nm,1.6s
CLNS                                smax
              comp=N,484nm,13.8s
CLNS                                smax
              comp=E,59nm,13.3s
CLNS                                MLR    MLR
              comp=Z,1µm,16.0s,MS4.9
CLNS                                MLR    MLR
              comp=N,700nm,14.0s,MS4.8
CLNS                                MLR    MLR
              comp=E,200nm,16.0s,MS4.8
WRA   Warramunga Arr    51.75 127   P      P         19 22 24.0 -1.0
              comp=E,110nm,0.5s,mb6.1,baz=301,slow=10.0,SNR=843
WRA   Warramunga Arr    51.75 127   P      P         19 22 24.0 -1.0
WRA                                 pmax   pmax
              comp=Z,110nm,0.5s
WRAB  Tennant Creek     51.76 127  eP      P         19 22 23.9 -1.1
WRAB                                pmax   pmax
              comp=Z,258nm,0.5s,mb6.4
WRAB  Tennant Creek     51.76 127  eP      P         19 22 23.9 -1.1
              comp=Z,258nm,0.5s,mb6.4
WRAB                               e                 19 25 12.6
ARU   Arti              51.87 337⇓ iP      P         19 22 24.4 -0.9
ARU                                e                 19 23 36.4
ARU                                e                 19 24 22.6
ARU                                ePPP    PPP       19 25 25.7 -1.4
ARU                                eS      S         19 29 44.3 -0.5
ARU                                eSSS    SSS       19 34 53.4 -7.0
ARU                                 pmax   pmax
              comp=Z,61nm,1.5s,mb5.3
ARU                                 MLR    MLR
              comp=Z,3µm,20.0s,MS5.3
ARU                                 MLR    MLR
              comp=N,2µm,19.0s,MS5.3
ARU                                 MLR    MLR
              comp=E,2µm,20.0s,MS5.3
ARU   Arti              51.87 337  i Pr              19 22 24.3
ZEI   Tsey              52.25 316  eP      P         19 22 29.9 +1.5
ZEI                                i *PP   pP        19 22 40.0 +4.0
ZEI                                 pmax   pmax
              comp=Z,23nm,1.3s,mb5.0
BEST  Besiri            52.58 309   P      P         19 22 31.5 +0.5
YNBS  Yanbu‘ al Bahr    53.07 292   P      P         19 22 36.3 +1.5
ERZM  Erzurum           53.09 312   P      P         19 22 36.9 +2.2
KIV   Kislovodsk        53.51 317   P      P         19 22 38.7 +1.0
              comp=Z,306nm,0.9s,mb6.2,SNR=25
KIV   Kislovodsk        53.51 317d iP      P         19 22 37.5 -0.2
KIV                                e                 19 23 42.8
KIV                                i S     S         19 30 09.5 +2.2
KIV                                 pmax   pmax
              comp=N,59nm,1.3s
KIV                                 pmax   pmax
              comp=Z,91nm,1.3s,mb5.5
KIV                                 smax
              comp=N,326nm,4.7s
KIV                                 smax
              comp=E,581nm,4.7s
KIV   Kislovodsk        53.51 317  eP      P         19 22 37.2 -0.5
              comp=E,97nm,1.1s,mb5.7
ASAR  Alice Springs     53.55 131   P      P         19 22 37.2 -1.1
              comp=E,40nm,0.5s,mb5.6,baz=306,slow=6.7,SNR=383
ASAR                                LR     LR        19 46 23.6
              comp=E,848nm,21.8s,MS4.8,baz=301,slow=37
GOF   Gofitskoye        53.69 318⇑ iP      P         19 22 39.0  0.0
GOF                                 pmax   pmax
              comp=Z,40nm,1.0s,mb5.3
UMJS  Umm Lajj          53.74 293   P      P         19 22 41.6 +1.9
ASAJ  Asahikawa         53.78  43   P      P         19 22 39.5 -0.2
              comp=Z,30nm,0.8s,mb5.3,baz=239,slow=8.8,SNR=12
ASAJ  Asahikawa         53.78  43   P      P         19 22 39.5 -0.2
ASAJ                                pmax   pmax
              comp=Z,30nm,0.8s
ELZG  Elazig            54.48 309   P      P         19 22 45.6 +0.7
TBKS  Tabuk             54.68 296   P      P         19 22 48.3 +1.8
SOKR  Solikamsk         54.78 339⇓ iP      P         19 22 44.0 -2.8
SOKR                                pmax   pmax
              comp=Z,70nm,1.2s,mb5.6
SOKR                                MLR    MLR
              comp=Z,3µm,21.0s,MS5.3
MALT  Malatya           54.86 309  eP      P         19 22 47.9 +0.2
MALT                               e*PP    pP        19 22 55.6 +0.2
MALT                                pmax   pmax
              comp=Z,60nm,1.5s,mb5.4
MALT  Malatya           54.86 309  eP      P         19 22 47.9 +0.2
              comp=Z,60nm,1.5s,mb5.4
MALT                               epP     pP        19 22 55.6 +0.3
YSS   Yuzh-Sakhalins    54.95  40⇓ eP      P         19 22 42.5 -5.8
YSS                                 pmax   pmax
              comp=Z,120nm,1.0s,mb5.9
YSS                                 MLR    MLR
              comp=Z,1µm,15.0s,MS5.2
YSS                                 MLR    MLR
              comp=N,1µm,16.0s,MS5.2
YSS                                 MLR    MLR
              comp=E,1µm,14.0s,MS5.2
YSS   Yuzh-Sakhalins    54.95  40⇓ iP      P         19 22 47.7 -0.6
              comp=E,88nm,0.9s,mb5.8
GZT   Gaziantep         55.30 308   P      P         19 22 51.6 +0.6
JMQS  Jabal Moqyreh     55.33 297   P      P         19 22 54.5 +3.2
SOC   Sochi             55.40 315  eP      P         19 22 51.2 -0.4
SOC                                e                 19 23 46.5
SOC                                i S     S         19 30 32.0 -0.8
SOC                                 pmax   pmax
              comp=Z,88nm,2.0s,mb5.4
SOC                                 pmax   pmax
              comp=N,38nm,1.5s
SOC                                 pmax   pmax
              comp=E,32nm,1.6s
SOC                                 MLR    MLR
              comp=Z,996nm,21.0s,MS4.9
SOC                                 MLR    MLR
              comp=N,879nm,20.0s,MS5.0
SOC                                 MLR    MLR
              comp=E,724nm,18.0s,MS5.0
KAHT  Ahir Dag          55.90 308   P      P         19 22 55.6 +0.4
BDAS  Al Bad‘           55.97 296   P      P         19 22 60.0 +4.1
COBT  Iskenderun        56.15 306   P      P         19 22 57.4 +0.3
EIL   Elat              56.22 298  eP      P         19 22 58.0 +0.3
              comp=E,44nm,1.3s,mb5.3
EIL                                epP     pP        19 23 05.5 +0.2
KMBO  Kilima Mbogo      56.30 261   P      P         19 22 59.6 +1.2
              comp=E,4.1nm,0.8s,mb4.5,baz=51,slow=11,SNR=11
KMBO  Kilima Mbogo      56.30 261  eP      P         19 22 59.1 +0.6
KMBO                                pmax   pmax
              comp=Z,48nm,1.5s
KMBO  Kilima Mbogo      56.30 261  eP      P         19 22 59.1 +0.6
              comp=Z,48nm,1.5s,mb5.3
YAK   Yakutsk           57.06  20d iP      P         19 23 01.7 -1.5
YAK                                e       pP        19 23 09.1 -1.8
YAK                                 pmax   pmax
              comp=Z,54nm,1.0s,mb5.5
YAK                                 pmax   pmax
              comp=N,37nm,1.2s
YAK                                 pmax   pmax
              comp=E,33nm,1.2s
YAK                                 pmax   pmax
              comp=Z,39nm,0.9s,mb5.4
YAK                                 pmax   pmax
              comp=N,25nm,1.0s
YAK                                 pmax   pmax
              comp=E,20nm,1.1s
YAK   Yakutsk           57.06  20⇓ iP      P         19 23 01.5 -1.7
              comp=E,219nm,1.2s,mb6.1
YAK                                 LR     LR
              comp=Z,1µm,22.0s,MS5.0
AVNT  Avonos            57.69 309   P      P         19 23 07.7 -0.3
MEST  Erdemli           57.84 306   P      P         19 23 08.0 -1.0
PMG   Port Moresby      58.22 109   P      P         19 23 11.5 -0.5
              comp=Z,82nm,0.6s,mb6.0,baz=3.9,slow=2.7,SNR=124
PMG   Port Moresby      58.22 109   P      P         19 23 11.5 -0.5
PMG                                 pmax   pmax
              comp=Z,82nm,0.6s
PMG   Port Moresby      58.22 109⇓ iP      P         19 23 11.4 -0.5
              comp=Z,87nm,0.6s,mb6.0
BOYT  Boyabat           58.23 312   P      P         19 23 12.5 +0.8
CSS   Prodhromos        58.24 304  eP      P         19 23 12.1 +0.3
              comp=Z,74nm,1.8s,mb5.4
VOR   Voronezh          58.63 324  eP      P         19 23 13.5 -0.9
VOR                                 pmax   pmax
              comp=Z,110nm,1.5s,mb5.7
BRTR  Keskin Array B    58.81 310   P      P         19 23 14.9 -0.8
              comp=Z,5.4nm,0.7s,mb4.7,baz=120,slow=7.9,SNR=28
BRTR  Keskin Array B    58.81 310   P      P         19 23 15.0 -0.8
BRTR                                pmax   pmax
              comp=Z,5.0nm,0.7s
ELDT  Eldivan           59.12 310   P      P         19 23 17.5 -0.5
SIM   Simferopol’       59.65 316  eP      P         19 23 21.5  0.0
SIM                                eS      S         19 31 34.0 +5.4
SIM                                 pmax   pmax
              comp=Z,33nm,1.2s,mb5.2
SGKT  Sivrigoynuk       60.16 310   P      P         19 23 24.6 -0.5
ESKT  Eskisehir         60.89 309   P      P         19 23 28.8 -1.3
ISP   Isparta           60.90 307  i P     P         19 23 30.0 -0.2
MOS   Moscow            61.09 328  eP      P         19 23 31.0 -0.2
MOS                                e       pP        19 23 39.3 +0.3
MOS                                e                 19 23 44.9
MOS                                eS      S         19 31 45.9 -1.0
MOS                                 pmax   pmax
              comp=Z,161nm,1.8s,mb5.8
MOS                                 MLR    MLR
              comp=Z,2µm,19.3s,MS5.3
MOS                                 MLR    MLR
              comp=N,2µm,19.6s,MS5.3
MOS                                 MLR    MLR
              comp=E,900nm,18.0s,MS5.3
OBN   Obninsk           61.40 327⇓ eP      P         19 23 32.7 -0.6
OBN                                eSS     SS        19 35 59.0 +5.8
OBN                                 pmax   pmax
              comp=Z,149nm,1.9s,mb5.8
OBN                                 MLR    MLR
              comp=Z,2µm,18.0s,MS5.2
OBN   Obninsk           61.40 327⇑ iP      P         19 23 32.7 -0.6
CTA   Charters Tower    61.56 120   P      P         19 23 34.5 -0.3
              comp=Z,55nm,1.2s,mb5.6,baz=301,slow=8.7,SNR=25
CTA   Charters Tower    61.56 120   P      P         19 23 34.6 -0.3
CTA                                 pmax   pmax
              comp=Z,55nm,1.2s
CTAO  Charters Tower    61.56 120⇓ eP      P         19 23 34.4 -0.5
CTAO                                pmax   pmax
              comp=Z,81nm,1.3s,mb5.7
CTAO                                MLR    MLR
              comp=Z,1µm,20.0s,MS5.1
CTAO  Charters Tower    61.56 120⇓ eP      P         19 23 34.4 -0.5
              comp=Z,80nm,1.3s,mb5.7
CTAO                                LR     LR
              comp=Z,1µm,20.0s,MS5.1
MBAR  Mbarara           62.50 263  eP      P         19 23 41.4 +0.2
MBAR                                pmax   pmax
              comp=Z,121nm,1.8s,mb5.7
MBAR  Mbarara           62.50 263  eP      P         19 23 41.4 +0.2
              comp=Z,121nm,1.8s,mb5.7
KIS   Kishinev          63.71 317  eP      P         19 23 50.0 +1.2
KIS                                e                 19 23 55.0
KIS                                 MLR    MLR
              comp=Z,1µm,19.0s,MS5.0
CFR   Carcaliu          63.83 315⇑ iP      P         19 23 49.8 +0.2
STKA  Stephens Creek    63.84 134   P      P         19 23 49.0 -0.9
              comp=Z,21nm,0.6s,mb5.3,baz=307,slow=5.7,SNR=71
STKA  Stephens Creek    63.84 134  eP      P         19 23 48.0 -1.9
AKASG Malin Array Be    64.26 321   P      P         19 23 50.6 -1.8
              comp=Z,12nm,0.9s,mb4.9,baz=89,slow=4.8,SNR=48
AKASG Malin Array Be    64.26 321   P      P         19 23 50.6 -1.7
AKASG                               pmax   pmax
              comp=Z,12nm,0.9s
MA2   Magadan           64.29  29  eP      P         19 23 51.5 -0.9
MA2                                eS      S         19 32 27.3 +0.2
MA2                                 pmax   pmax
              comp=E,30nm,1.3s
MA2                                 pmax   pmax
              comp=Z,90nm,1.3s,mb5.6
MA2                                 MLR    MLR
              comp=Z,2µm,24.0s,MS5.3
MA2   Magadan           64.29  29  i Pr              19 23 51.3
VRI   Vrincioaia        64.93 315⇑ iP      P         19 23 57.2 +0.5
IDI   Anoyia            65.15 304   P      P         19 23 57.8 -0.5
              comp=Z,12nm,0.9s,mb4.9,baz=95,slow=16,SNR=6.3
MLR   Muntele Rosu      65.41 315   LR     LR        19 57 13.7
              comp=Z,1µm,19.4s,MS5.2,baz=275,slow=40
RZN   Rozhen            65.81 311  eP      P         19 24 00.0 -2.5
MNK   Minsk             66.00 325  eP      P         19 24 01.0 -2.5
MNK                                 pmax   pmax
              comp=Z,310nm,1.5s,mb6.1
MMB   Musomiste         66.53 310  eP      P         19 24 07.0 -0.1
PET   Petropavlovsk     66.55  37  i P     P         19 24 04.9 -2.1
VTS   Vitosha           67.01 311  eP      P         19 24 10.0 -0.1
KKB   Krupnik           67.04 311  eP      P         19 24 09.0 -1.3
LVZ   Lovozero          67.54 340⇑ eP      P         19 24 12.1 -1.0
LVZ                                 pmax   pmax
              comp=Z,63nm,1.2s,mb5.5
LVZ                                 pmax   pmax
              comp=E,23nm,1.3s
LVZ                                 MLR    MLR
              comp=Z,3µm,20.0s,MS5.5
LVZ                                 MLR    MLR
              comp=E,2µm,19.0s
VSU   Vasula            67.59 329  i P     P         19 24 12.0 -1.5
APA   Apatity           67.83 339⇑ iP      P         19 24 13.9 -1.0
APA                                i                 19 24 24.0
APA                                i S     S         19 33 10.0  0.0
APA                                 pmax   pmax
              comp=Z,91nm,1.2s,mb5.7
APA                                 MLR    MLR
              comp=Z,4µm,18.0s,MS5.6
KWP   Kalwaria          68.18 319  eP      P         19 24 17.4 +0.1
KWP                                e       pP        19 24 26.2 +1.1
KOLS  Kolonicke sedl    68.37 318  eP      P         19 24 18.6 +0.1
KOLS                               epP     pP        19 24 26.6 +0.3
SUW   Suwalki           68.57 324  eP      P         19 24 18.8 -0.9
SUW                                 pmax   pmax
              comp=Z,228nm,1.3s,mb5.9
SUW   Suwalki           68.57 324  eP      P         19 24 18.8 -0.8
              comp=Z,228nm,1.3s,mb5.9
SUW   Suwalki           68.57 324  eP      P         19 24 19.2 -0.5
FINES FINESS Array B    68.70 332   P      P         19 24 19.6 -0.7
              comp=Z,9.7nm,0.6s,mb4.9,baz=105,slow=7.6,SNR=36
FINES FINESS Array B    68.70 332   P      P         19 24 19.6 -0.7
FINES                               pmax   pmax
              comp=Z,10.0nm,0.6s
CRVS  Cervenica-Dubn    68.89 318  eP      P         19 24 24.7 +2.9
LSZ   Lusaka            69.02 249  eP      P         19 24 23.6 +0.5
LSZ                                 pmax   pmax
              comp=Z,141nm,1.8s,mb5.6
LSZ                                 MLR    MLR
              comp=Z,1µm,21.0s,MS5.1
LSZ   Lusaka            69.02 249  eP      P         19 24 23.6 +0.5
              comp=Z,141nm,1.8s,mb5.6
LSZ                                 LR     LR
              comp=Z,1µm,21.0s,MS5.1
KECS  Kecovo            69.49 318  eP      P         19 24 33.1 +7.7
KECS  Kecovo            69.49 318  epP     pP        19 24 33.1 -0.1
NIE   Niedzica          69.70 318  eP      P         19 24 27.3 +0.6
PSZ   Piszkesteto       69.83 317  eP      P         19 24 26.7 -0.8
PSZ                                e*PP    pP        19 24 35.0 -0.3
PSZ                                 pmax   pmax
              comp=Z,74nm,1.6s,mb5.4
PSZ   Piszkesteto       69.83 317  eP      P         19 24 26.7 -0.9
              comp=Z,74nm,1.6s,mb5.4
PSZ                                epP     pP        19 24 35.0 -0.3
OJC   Ojcow             70.11 319  eP      P         19 24 29.4 +0.2
PKSM  Moragy            70.56 315⇑ eP      P         19 24 32.0  0.0
VYHS  Vyhne             70.59 317  i P     P         19 24 31.9 -0.2
VYHS                               epP     pP        19 24 39.7 -0.2
KEV   Kevo              70.82 340  ep      P         19 24 33.1 -0.1
              comp=Z,60nm,1.2s,mb5.4
KEV   Kevo              70.82 340  eP      P         19 24 33.1 -0.1
KEV                                 pmax   pmax
              comp=Z,60nm,1.2s,mb5.4
SRO   Srobarova         70.89 317  eP      P         19 24 35.0 +1.1
SRO                                e       pP        19 24 41.9 +0.2
OKC   Ostrava-Krasne    71.14 319  eP      P         19 24 34.7 -0.8
OKC                                epP     pP        19 24 43.0 -0.2
ARCES ARCESS Array B    71.25 340   P      P         19 24 35.5 -0.4
              comp=Z,16nm,0.8s,mb5.0,baz=104,slow=5.0,SNR=30
ARCES                               LR     LR        19 58 50.7
              comp=Z,3µm,19.9s,MS5.5,baz=113,slow=38
ARCES ARCESS Array B    71.25 340   P      P         19 24 35.5 -0.3
ARCES                               pmax   pmax
              comp=Z,16nm,0.8s
ARCES                               MLR    MLR
              comp=Z,3µm,19.9s
ARE0  ARCESS Array S    71.25 340  eP      P         19 24 35.4 -0.4
MORC  Moravsky Berou    71.53 319  eP      P         19 24 37.7 -0.1
MORC                                pmax   pmax
              comp=Z,77nm,1.5s,mb5.4
MORC  Moravsky Berou    71.53 319  eP      P         19 24 37.7 -0.1
              comp=Z,77nm,1.5s,mb5.4
ZST   Bratislava        71.72 317  eP      P         19 24 38.9 -0.1
ZST                                epP     pP        19 24 46.5 -0.3
TIP   Timpagrande       71.74 308  eP      P         19 24 38.4 -0.8
TIP                                e       pP        19 24 46.9 -0.2
GKP   Gorka Klasztor    71.98 322  eP      P         19 24 40.4  0.0
GKP                                e       pP        19 24 48.1 -0.1
DPC   Dobruska-Polom    72.35 319  eP      P         19 24 42.9 +0.3
DPC                                epP     pP        19 24 50.9 +0.5
KSP   Ksiaz             72.39 320  eP      P         19 24 43.2 +0.3
KSP                                epP     pP        19 24 50.5 -0.2
KSP                                ePcP    PcP       19 24 59.0 -1.9
KSP   Ksiaz             72.39 320  eP      P         19 24 43.6 +0.7
KSP                                e       pP        19 24 51.4 +0.7
UPC   Upice             72.55 319  eP      P         19 24 43.4 -0.5
UPC                                epP     pP        19 24 52.2 +0.5
BILL  Bilibino          73.28  22⇓ iP      P         19 24 46.7 -1.1
BILL                                pmax   pmax
              comp=Z,110nm,1.7s,mb5.5
BILL  Bilibino          73.28  22  eP      P         19 24 46.9 -0.9
              comp=Z,21nm,0.6s,mb5.2
PVCC  Panska Ves        73.47 319  eP      P         19 24 49.3 +0.1
PRU   Pruhonice         73.48 319  eP      P         19 24 49.8 +0.5
              comp=Z,33nm,1.3s,mb5.1
PRU                                epP     pP        19 24 57.4 +0.3
VOY   Vojsko            73.85 315  eP      P         19 24 51.3 -0.2
VOY                                e       pP        19 24 59.5 +0.1
BRG   Berggiesshubel    73.88 320⇑ iP      P         19 24 52.1 +0.5
BRG                                i       pP        19 25 00.1 +0.7
BRG                                i                 19 25 08.8
BRG                                 pmax   pmax
              comp=Z,87nm,1.8s,mb5.4
BRG                                 MLR    MLR
              comp=Z,890nm,16.3s,MS5.1
BRG   Berggiesshubel    73.88 320⇑ iP      P         19 24 52.1 +0.5
              comp=Z,87nm,1.8s,mb5.4
BRG                                i       pP        19 25 00.1 +0.7
BRG                                i                 19 25 08.8
BRG                                 LR     LR
              comp=Z,890nm,16.3s,MS5.1
GEC2  GERESS Array S    74.00 318  eP      P         19 24 52.6 +0.3
GEC2                                pmax   pmax
              comp=Z,13nm,0.9s,mb4.9
GEC2  GERESS Array S    74.00 318  eP      P         19 24 52.6 +0.3
              comp=Z,13nm,0.9s,mb4.9
GERES GERESS Array B    74.00 318   P      P         19 24 52.3  0.0
              comp=Z,8.3nm,0.7s,mb4.8,baz=90,slow=5.3,SNR=42
GERES GERESS Array B    74.00 318   P      P         19 24 52.3  0.0
GERES                               pmax   pmax
              comp=Z,8.0nm,0.7s
RUE   Ruedersdorf       74.03 321  eP      P         19 24 52.2 -0.2
              comp=Z,33nm,0.5s,mb5.5
RUE                                epP     pP        19 25 00.8 +0.6
KHC   Kasperske Hory    74.09 318  eP      P         19 24 53.0 +0.2
KHC                                epP     pP        19 24 59.8 -0.8
PTCC  Patocco-Chiusa    74.23 315  eP      P         19 24 53.4 -0.3
CLL   Collm             74.48 320  i P     P         19 24 54.2 -0.9
CLL                                i       pP        19 25 02.9  0.0
CLL                                 pmax   pmax
              comp=Z,31nm,1.3s,mb5.1
CLL                                 MLR    MLR
              comp=Z,1µm,19.7s,MS5.2
CLL   Collm             74.48 320  i P     P         19 24 54.2 -0.9
              comp=Z,31nm,1.3s,mb5.1
CLL                                i       pP        19 25 02.9  0.0
CLL                                 LR     LR
              comp=Z,1µm,19.7s,MS5.2
CLL   Collm             74.48 320   P      P         19 24 54.2 -0.9
              comp=Z,logA/T=1.4,mb5.1
CLL                                i *SP   sP        19 25 02.9 -2.7
WET   Wettzell          74.55 318  eP      P         19 24 55.8 +0.3
LBTB  Lobatse           74.62 240  eP      P         19 24 57.8 +1.4
LBTB                               e*PP    pP        19 25 06.1 +1.9
LBTB                                pmax   pmax
              comp=Z,18nm,1.0s,mb5.0
LBTB                                MLR    MLR
              comp=Z,2µm,19.0s,MS5.3
LBTB  Lobatse           74.62 240  eP      P         19 24 57.8 +1.4
              comp=Z,18nm,1.0s,mb5.0
LBTB                               epP     pP        19 25 06.1 +1.8
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LBTB				LR	LR		
	comp=Z,2µm,19.0s,MS5.3						
FVI	Forni Avoltri	74.62	315	eP	P	19 24 55.4	-0.6
NKC	Novy Kostel	74.83	319	eP	P	19 24 55.3	-1.8
NKC				epP	pP	19 25 05.2	+0.3
FX1	Attu Island--F	75.24	38	P	P	19 24 59.4	0.0
	comp=Z,54nm,0.5s,mb5.7,baz=353,slow=5.6,SNR=12						
FX1	Attu Island--F	75.24	38	P	P	19 24 59.4	0.0
FX1				pmax	pmax		
	comp=Z,54nm,0.5s						
FX1	Attu Island--F	75.24	38	eP	P	19 24 59.1	-0.3
SFI	Santa Sofia	75.34	313	eP	P	19 25 01.2	+1.0
MOX	Moxa	75.36	319	eP	P	19 25 00.3	+0.2
MOX	Moxa	75.36	319	i P	P	19 25 00.3	+0.2
	comp=Z,logA/T=1.7,mb5.4						
MOX				i	pP	19 25 08.0	0.0
MOX				L		20 03 29.0	
CTI	Castel Tesino	75.42	315	eP	P	19 25 00.5	-0.1
PGD	Poggio Sodo	75.44	312	eP	P	19 25 02.1	+1.4
FUR	Furstenfeldbru	75.62	317	eP	P	19 25 02.4	+0.7
GRA1	Grafenberg Arr	75.62	318	eP	P	19 25 02.6	+0.9
	comp=Z,10.0nm,0.8s,mb4.8						
GRA1				epP	pP	19 25 10.0	+0.5
GRF	Grafenberg Arr	75.62	318	eP	P	19 25 02.6	+0.9
GRF				e*PP	pP	19 25 10.0	+0.5
GRF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
GRF	Grafenberg Arr	75.62	318	eP	P	19 25 02.6	+0.9
GRF				e*PP	pP	19 25 10.0	+0.5
GRF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
GRF	Grafenberg Arr	75.62	318	eP	P	19 25 02.6	+0.9
	comp=Z,10.0nm,0.8s,mb4.8						
GRF				epP	pP	19 25 10.0	+0.5
SEI	Scarperia	75.69	313	eP	P	19 25 03.6	+1.4
NB2	NORSAR Subarra	75.73	330	P	P	19 25 00.9	-1.1
	comp=Z,80nm,1.4s,mb5.5,baz=92,slow=5.8						
NB2	NORSAR Subarra	75.73	330	P	P	19 25 00.9	-1.1
	baz=92,slow=5.9						
NB2	NORSAR Subarra	75.73	330	P	P	19 25 00.9	-1.1
NB2				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.5						
NOA	NORSAR Array B	75.73	330	P	P	19 25 01.6	-0.4
	comp=Z,12nm,1.1s,mb4.7,baz=92,slow=5.7,SNR=6.7						
NOA	NORSAR Array B	75.73	330	P	P	19 25 01.6	-0.4
NOA				pmax	pmax		
	comp=Z,12nm,1.1s						
NAO01	NORSAR Array S	75.88	330	P	P	19 25 03.7	+0.8
	comp=Z,32nm,1.1s,mb5.2						
CLZ	Clausthal	76.12	321	eP	P	19 25 04.9	+0.5
	comp=Z,9.0nm,0.8s,mb4.8						
BSEG	Bad Segeberg	76.13	323	eP	P	19 25 04.8	+0.4
BOSA	Boshof	76.20	237	eP	P	19 25 06.3	+0.9
BOSA				e*PP	pP	19 25 14.8	+1.6
BOSA				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
BOSA				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
BOSA	Boshof	76.20	237	eP	P	19 25 06.3	+0.9
	comp=Z,26nm,0.9s,mb5.2						
BOSA				epP	pP	19 25 14.8	+1.6
BOSA				LR	LR		
	comp=Z,1µm,20.0s,MS5.1						
BRMO	Bormio	76.29	315	eP	P	19 25 05.4	0.0
DAVOX	Davos	76.61	316	P	P	19 25 07.2	-0.1
	comp=Z,8.1nm,0.6s,mb4.8,baz=106,slow=6.2,SNR=13						
DAVOX	Davos	76.61	316	P	P	19 25 07.2	-0.1
STU	Stuttgart	76.98	318	eP	P	19 25 09.0	-0.3
STU				e	pP	19 25 17.3	+0.1
STU				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
STU	Stuttgart	76.98	318	eP	P	19 25 09.0	-0.3
	comp=Z,18nm,1.0s,mb5.0						
STU				e	pP	19 25 17.3	+0.2
TOD	Tromm	77.20	318	eP	P	19 25 10.6	+0.1
VAI	Varese	77.43	315	eP	P	19 25 10.9	-1.0
BFO	Black Forest	77.58	317	eP	P	19 25 13.6	+1.0
BFO				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
BFO	Black Forest	77.58	317	eP	P	19 25 13.6	+1.0
	comp=Z,5.0nm,0.9s,mb4.4						
KTD	Kalmit	77.68	318	eP	P	19 25 12.4	-0.7
FELD	Feldberg	77.83	317	eP	P	19 25 14.2	+0.2
LANF	Langenberg	77.89	318	eP	P	19 25 14.9	+0.6
ABH	Alteburg	78.00	319	eP	P	19 25 12.0	-2.8
LIBD	Limburg	78.08	317	eP	P	19 25 15.8	+0.5
WLS	Welschbruch	78.22	317	eP	P	19 25 16.1	0.0
RUP	Ruppelstein	78.32	319	eP	P	19 25 15.3	-1.3
ECH	Echery	78.37	317	eP	P	19 25 14.6	-2.3
MOF	Molkenrain	78.41	317	eP	P	19 25 17.2	0.0
OG01	Vacheresse	78.84	315	eP	P	19 25 19.2	-0.4
LPL	La Plagne	78.88	314	eP	P	19 25 20.5	+0.7
	comp=Z,87nm,0.8s,mb5.5						
LPL	La Plagne	78.88	314	eP	P	19 25 20.5	+0.7
LPL				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.4						
BNI	Bardonecchia	78.96	314	P	P	19 25 20.2	-0.1
BNI				pmax	pmax		
	comp=Z,309nm,2.3s,mb5.8						
BNI	Bardonecchia	78.96	314	P	P	19 25 20.2	-0.1
	comp=Z,309nm,2.3s,mb5.8						
THEF	They Montfort	79.15	317	eP	P	19 25 19.8	-1.4
NOUC	Port Laguerre	79.71	115	eP	P	19 25 24.0	-0.8
OG05	Jujurieux	79.72	315	eP	P	19 25 24.8	+0.5
DZM	Mont Dzumac	79.83	115	eP	P	19 25 24.8	-0.6
DZM	Mont Dzumac	79.83	115	eP	P	19 25 24.8	-0.6
PLDF	La Plantade	81.00	315	eP	P	19 25 32.7	+1.6
AGO	Saint Agoulin	81.33	315	eP	P	19 25 34.3	+1.5
LBL	Lubilhac	81.36	314	eP	P	19 25 35.0	+2.0
PYM	Petit Puy Mans	81.45	315	eP	P	19 25 35.0	+1.5
MAW	Mawson	81.82	191	P	P	19 25 33.7	-1.3
	comp=Z,6.2nm,0.3s,mb5.0,baz=101,slow=7.4,SNR=24						
MAW				LR	LR	19 59 37.9	
	comp=Z,688nm,18.0s,MS5.1,baz=32,slow=34						
MAW	Mawson	81.82	191	P	P	19 25 33.7	-1.3
MAW				pmax	pmax		
	comp=Z,6.0nm,0.3s						
MAW				MLR	MLR		
	comp=Z,688nm,18.0s						
ANM	Nome	84.79	25	eP	P	19 25 51.1	+0.9
ESDC	Sonseca Array	87.60	310	P	P	19 26 05.0	+0.4
	comp=Z,2.1nm,0.6s,mb4.5,baz=63,slow=4.2,SNR=13						
SYO	Syowa Base	88.45	197	⇑P	P	19 26 08.9	+1.0
SYO	Syowa Base	88.45	197	⇑pP	pP	19 26 18.0	+2.1
IMA	Indian Mountai	88.83	22	eP	P	19 26 10.6	+0.8
BORG	Borgarnes	89.41	337	LR	LR	20 08 20.0	
	comp=Z,1µm,19.3s,MS5.3,baz=33,slow=37						
RPZ	Rata Peaks	89.80	135	P	P	19 26 15.8	+0.8
	comp=Z,13nm,0.7s,mb5.4,baz=301,slow=4.6,SNR=9.2						
COLA	College	91.54	22	eP	P	19 26 22.8	+0.4
COLA				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.1						
COLA				MLR	MLR		
	comp=Z,850nm,20.0s,MS5.2						
COLA	College	91.54	22	eP	P	19 26 22.8	+0.3
	comp=Z,9.0nm,0.9s,mb5.1						
COLA				LR	LR		
	comp=Z,850nm,20.0s,MS5.2						
MCK	McKinley	91.72	23	eP	P	19 26 23.9	+0.6
MCK				pmax	pmax		
	comp=Z,49nm,1.2s,mb5.7						
MCK				MLR	MLR		
	comp=Z,602nm,20.0s,MS5.0						
MCK	McKinley	91.72	23	eP	P	19 26 23.9	+0.6
	comp=Z,48nm,1.2s,mb5.7						
MCK				LR	LR		
	comp=Z,602nm,20.0s,MS5.0						
RSO	Redoubt South	91.73	27	eP	P	19 26 24.4	+0.9
ILAR	Eielson Array	91.94	22	P	P	19 26 23.7	-0.6
	comp=Z,9.5nm,0.7s,mb5.2,baz=297,slow=4.2,SNR=116						
ILAR				PP	PP	19 30 00.2	-6.2
	comp=Z,3.3nm,1.0s,baz=298,slow=7.5,SNR=6.9						
PWA	Palmer West	92.40	25	eP	P	19 26 27.3	+0.8
PMR	Palmer	92.74	25	eP	P	19 26 29.3	+1.3
SLKM	Skilak Lake	92.82	26	eP	P	19 26 28.6	+0.2
URZ	Urewera	92.91	128	LR	LR	20 07 29.1	
	comp=Z,815nm,21.5s,MS5.2,baz=261,slow=35						
SML	Sawmill	92.95	25	eP	P	19 26 30.1	+1.1
THY	Trims Highway	93.10	23	eP	P	19 26 30.0	+0.4
INK	Inuvik	93.90	16	P	P	19 26 33.6	+0.3
	comp=Z,24nm,1.1s,mb5.5,baz=316,slow=4.5,SNR=30						
INK	Inuvik	93.90	16	P	P	19 26 33.6	+0.4
INK				pmax	pmax		
	comp=Z,24nm,1.1s						
MENT	Mentasta	94.13	22	eP	P	19 26 35.9	+1.5
VNDA	Vanda	96.86	168	P	P	19 26 47.8	+1.2
	comp=Z,1.2nm,0.6s,mb4.5,baz=309,slow=6.5,SNR=2.6						
VNDA	Vanda	96.86	168	P	P	19 26 47.8	+1.2
VNDA				pmax	pmax		
	comp=Z,1.0nm,0.6s						
YKA	Yellowknife Ar	103.21	13	Pdiff	Pdif	19 27 15.9	+0.5
	comp=Z,1.0nm,0.8s,baz=328,slow=4.2,SNR=17						
YKA				PP	PP	19 31 25.5	-7.9
	comp=Z,4.6nm,1.1s,baz=332,slow=7.5,SNR=7.5						
YKA	Yellowknife Ar	103.21	13	P	Pdif	19 27 15.9	+0.5
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
HLID	Hailey	119.89	22	ePKPdf	PKPdf	19 32 08.3	-1.8
TPAW	Teton Pass	121.18	20	ePKPdf	PKPdf	19 32 10.5	-2.2
LOHW	Long Hollow	121.18	19	ePKPdf	PKPdf	19 32 10.6	-2.1
REDW	Red Top Meadow	121.32	20	ePKPdf	PKPdf	19 32 11.1	-1.8
HVU	Hansel Valley	122.04	22	ePKIKP	PKPdf	19 32 11.6	-2.8
PDAR	Pinedale Array	122.28	19	PKP	PKPdf	19 32 11.8	-2.9
	comp=Z,1.8nm,0.6s,baz=136,slow=0.8,SNR=17						
NVAR	Mina Array Bea	122.53	28	PKP	PKPdf	19 32 13.7	-1.7
	comp=Z,4.7nm,0.6s,baz=355,slow=2.3,SNR=6.8						
BGU	Big Grassy Mou	122.69	23	ePKPdf	PKPdf	19 32 13.7	-1.9
NLU	North Lily Min	123.89	23	ePKPdf	PKPdf	19 32 15.8	-2.2
TMUT	Trail Mountain	124.79	22	ePKPdf	PKPdf	19 32 17.1	-2.8
MVU	Marysvale	125.10	24	ePKPdf	PKPdf	19 32 19.0	-1.4
SRU	San Rafael	125.21	22	ePKIKP	PKPdf	19 32 17.8	-2.8
PV10	Paradox Valley	126.39	21	ePKPdf	PKPdf	19 32 20.6	-2.3
NEN	Nelson	126.40	28	ePKPdf	PKPdf	19 32 21.4	-1.5
NEN				e		19 32 30.4	
RW3	Ridgway	126.97	20	ePKIKP	PKPdf	19 32 21.7	-2.3
ANMO	Albuquerque	130.37	20	PKP	PKPdf	19 32 28.5	-2.2
	comp=Z,2.9nm,0.7s,baz=284,slow=1.3,SNR=8.5						
ANMO	Albuquerque	130.37	20	ePKIKP	PKPdf	19 32 28.7	-1.9
TUC	Tucson	131.02	26	ePKIKP	PKPdf	19 32 30.5	-1.4
LTX	Lajitas	136.45	21	ePKIKP	PKPdf	19 32 40.1	-2.0
TXAR	Lajitas Array	136.45	21	PKP	PKPdf	19 32 40.4	-1.7
	comp=Z,2.3nm,0.7s,baz=212,slow=1.1,SNR=21						
BDFB	Brasilia	141.43	259	PKP	PKPdf	19 32 48.9	-2.6
	comp=Z,2.2nm,0.6s,baz=67,slow=3.5,SNR=4.6						
BDFB	Brasilia	141.43	259	PKIKP	PKPdf	19 32 48.9	-2.6
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SDV	Santo Domingo	153.63	320	ePKPdf	PKPdf	19 33 08.3	-3.0
SDV				e		19 33 15.7	
LPAZ	La Paz	160.61	254	PKP	PKPdf	19 33 18.4	-1.5
	comp=Z,1.6nm,0.9s,baz=38,slow=2.2,SNR=7.7						
LPAZ	La Paz	160.61	254	PKIKP	PKPdf	19 33 18.4	-1.5
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LPAZ	La Paz	160.61	254	ePKPdf	PKPdf	19 33 17.9	-2.0
OTAV	Otavalo	165.21	322	ePKPdf	PKPdf	19 33 23.0	-1.6

BJI ***27*** *19:15:58.6, 10.57N×92.73E, h28^{km}, mb5.1, mB4.9, Ms5.4, Msz5.1*

IDC ***27*** *19:16:02.2±0.8, 11.40N×92.33E, mb4.7/15, mb1 4.8/16, mb1mx4.6/22, Error ellipse: s-maj=34.2km s-min=14.1km az=48.0*

MOS ***27*** *19:16:05.8±1.0, 11.49N×92.51E, h33^{km}, mb5.2/19, Error ellipse: s-maj=14.6km s-min=11.4km az=97.8*

NEIC ***27*** *19:16:07.0±0.2, 11.49N×92.49E, mb5.1/23, Error ellipse: s-maj=7.5km s-min=5.8km az=58.0*

ISC 27 19:16:04.7±0.4**, 11.47N**±0.06×**92.47E**±0.06**, h26^{km}, h26^{km}**±2.9^{km}**:pP-P, n85, σ0^{s}82**/79**, mb5.0**/38**, 2C-1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.35	41	Pn	P	19 18 21.4	+0.5
	baz=233,slow=15,SNR=1.5						
KMI	Kunming	16.70	34	P	P	19 20 00.5	+1.7
KMI				AMB	AMB		
	comp=Z,31nm,1.1s						
QIZ	Qiongzhong	18.36	64	P	P	19 20 15.3	-4.2
	comp=Z,16nm,0.8s						
GYA	Guiyang	20.03	40	⇑iP	P	19 20 38.8	+0.1
CD2	Chengdu	21.99	27	P	P	19 20 58.5	-0.2
CD2				AMB	AMB		
	comp=Z,130nm,0.7s,mb5.5						
COCO	West Island	23.91	169	eP	P	19 21 18.4	+0.7
	comp=Z,147nm,1.2s,mb5.3						
ENH	Enshi	24.49	38	eP	P	19 21 23.1	-0.1
	comp=Z,93nm,0.6s,mb5.4						
GTA	Gaotai	28.58	12	eP	P	19 22 02.0	+1.2
GTA				AP	pP	19 22 06.8	-1.7
GTA				AMB	AMB		
	comp=Z,27nm,1.1s,mb4.9						
BJT	Baijiatuau	35.32	32	eP	P	19 23 00.3	+0.4
BJI	Beijing	35.34	32	P	P	19 22 59.0	-1.1
BJI				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
SONM	Songino Array	38.09	15	P	P	19 23 23.6	+0.5
	comp=Z,14nm,1.1s,mb4.6,baz=196,slow=9.0,SNR=3.8						
SNY	Shenyang	40.66	36	⇑P	P	19 23 44.8	+0.3
SNY				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.8						
KS15	Wonju Array Si	40.93	45	eP	P	19 23 46.4	-0.4
MBWA	Marble Bar	42.06	140	eP	P	19 23 56.6	+0.3
	comp=Z,36nm,1.0s,mb5.0						
ZAL	Zalesovo	42.79	353	P	P	19 24 01.1	-0.8
	comp=Z,4.8nm,0.8s,mb4.3,baz=298,slow=8.5,SNR=3.4						
ZAL	Zalesovo	42.79	353	P	P	19 24 01.1	-0.8
ZAL				pmax	pmax		
	comp=Z,5.0nm,0.8s						
CN2	Changchun	42.97	35	eP	P	19 24 03.5	0.0
CN2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.4						
BVAR	Borovoye Array	45.07	341	P	P	19 24 20.0	-0.4
	comp=Z,15nm,1.1s,mb4.7,baz=141,slow=8.2,SNR=4.5						
BRVK	Borovoye	45.13	341	eP	P	19 24 17.6	-3.2
BRVK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
BRVK	Borovoye	45.13	341	eP	P	19 24 17.6	-3.2
	comp=Z,12nm,0.9s,mb4.7						
CHKZ	Chkalovo	45.56	342	eP	P	19 24 24.3	+0.1
CHKZ				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.3						
CHKZ	Chkalovo	45.56	342	eP	P	19 24 24.3	+0.1
	comp=Z,29nm,0.8s,mb5.3						
NWAO	Narrogin (SRO)	50.08	153	P	P	19 24 59.9	+0.2
NWAO				pmax	pmax		
	comp=Z,15nm,1.1s						
NWAO	Narrogin (SRO)	50.08	153	P	P	19 24 59.9	+0.2
	comp=Z,16nm,1.1s,mb5.0						
GNI	Garni	50.77	313	eP	P	19 25 06.1	+1.2
GNI				pmax	pmax		
	comp=Z,76nm,1.6s						
GNI	Garni	50.77	313	eP	P	19 25 06.1	+1.2
	comp=Z,76nm,1.6s,mb5.4						
WRA	Warramunga Arr	51.71	127	P	P	19 25 11.4	-0.8
	comp=Z,26nm,0.6s,mb5.4,baz=305,slow=8.7,SNR=17						
WRA	Warramunga Arr	51.71	127	P	P	19 25 11.4	-0.8
WRA				pmax	pmax		
	comp=Z,26nm,0.6s						
ASAR	Alice Springs	53.49	131	P	P	19 25 25.1	-0.4
	comp=Z,11nm,0.6s,mb5.0,baz=307,slow=6.7,SNR=7.8						
ASAR	Alice Springs	53.49	131	P	P	19 25 25.1	-0.4
YSS	Yuzh-Sakhalins	55.04	40	⇓eP	P	19 25 30.8	-5.8
YSS				e		19 25 41.8	
YSS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
YSS	Yuzh-Sakhalins	55.04	40	eP	P	19 25 35.9	-0.7
	comp=Z,28nm,0.8s,mb5.3						
EIL	Elat	56.25	298	eP	P	19 25 45.7	+0.2
	comp=Z,3.6nm,0.7s,mb4.5						
KMBO	Kilima Mbogo	56.27	261	P	P	19 25 46.1	+0.2
KMBO				e*PP	pP	19 25 56.2	+2.3
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KMBO	Kilima Mbogo	56.27	261	P	P	19 25 46.1	+0.2
	comp=Z,3.9nm,0.9s,mb4.4						
KMBO				epP	pP	19 25 56.2	+2.4
YAK	Yakutsk	57.16	20	eP	P	19 25 50.0	-1.5
YAK				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.3						
YAK	Yakutsk	57.16	20	eP	P	19 25 50.0	-1.5
	comp=Z,24nm,0.7s,mb5.3						
PMG	Port Moresby	58.20	109	P	P	19 26 00.1	+0.6
	comp=Z,24nm,0.6s,mb5.4,baz=311,slow=3.8,SNR=12						
PMG	Port Moresby	58.20	109	eP	P	19 25 59.1	-0.4
PMG				pmax	pmax		
	comp=Z,23nm,0.6s						
PMG	Port Moresby	58.20	109	eP	P	19 25 59.1	-0.4
	comp=Z,23nm,0.6s,mb5.4						
CSS	Prodhromos	58.28	304	eP	P	19 25 59.9	+0.1
	comp=Z,2.5nm,0.5s,mb4.5						
CSS				epP	pP	19 26 07.7	-0.1
BRTR	Keskin Array B	58.86	310	P	P	19 26 02.9	-0.8
	comp=Z,1.2nm,0.7s,mb4.0,baz=124,slow=8.0,SNR=2.0						
BRTR	Keskin Array B	58.86	310	P	P	19 26 02.9	-0.9
BRTR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
CTA	Charters Tower	61.52	120	P	P	19 26 21.9	-0.3
	comp=Z,8.9nm,0.9s,mb4.9,baz=279,slow=7.0,SNR=3.1						
CTA	Charters Tower	61.52	120	P	P	19 26 21.9	-0.3
CTA				pmax	pmax		
	comp=Z,9.0nm,0.9s						
CTAO	Charters Tower	61.52	120	eP	P	19 26 21.1	-1.1
CTAO				pmax	pmax		
	comp=Z,16nm,1.1s,mb5.1						
CTAO	Charters Tower	61.52	120	eP	P	19 26 21.1	-1.1
	comp=Z,16nm,1.1s,mb5.1						
STKA	Stephens Creek	63.78	134	P	P	19 26 36.6	-0.5
	comp=Z,13nm,1.0s,mb4.9,baz=310,slow=7.5,SNR=4.3						
STKA	Stephens Creek	63.78	134	eP	P	19 26 36.0	-1.1
SUW	Suwalki	68.64	324	eP	P	19 27 07.0	-0.8
SUW				e*PP	pP	19 27 15.7	-0.2
SUW				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
SUW	Suwalki	68.64	324	eP	P	19 27 07.0	-0.8
	comp=Z,22nm,0.8s,mb5.1						
SUW				epP	pP	19 27 15.7	-0.2
FINES	FINESS Array B	68.78	332	P	P	19 27 08.2	-0.3
	comp=Z,4.3nm,0.6s,mb4.6,baz=104,slow=7.9,SNR=4.3						
FINES	FINESS Array B	68.78	332	P	P	19 27 08.2	-0.3
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ARCES	ARCESS Array B	71.34	340	P	P	19 27 24.2	+0.2
	comp=Z,11nm,0.9s,mb4.8,baz=68,slow=6.5,SNR=6.6						
ARCES	ARCESS Array B	71.34	340	P	P	19 27 24.2	+0.2
ARCES				pmax	pmax		
	comp=Z,11nm,0.9s						
BILL	Bilibino	73.38	22	eP	P	19 27 35.0	-1.0
BILL				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
BILL	Bilibino	73.38	22	eP	P	19 27 35.0	-1.0
	comp=Z,4.6nm,0.6s,mb4.6						
PRU	Pruhonice	73.54	319	epP	pP	19 27 46.5	+1.1
GERES	GERESS Array B	74.06	318	P	P	19 27 39.9	-0.5
	comp=Z,3.4nm,0.8s,mb4.4,baz=90,slow=5.3,SNR=4.1						
GERES	GERESS Array B	74.06	318	P	P	19 27 39.9	-0.4
GERES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KHC	Kasperske Hory	74.15	318	eP	P	19 27 40.5	-0.3
CLL	Collm	74.55	320	P	P	19 27 42.0	-1.1
LBTB	Lobatse	74.56	240	P	P	19 27 46.2	+2.5
LBTB				e*PP	pP	19 27 54.4	+2.5
LBTB				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
LBTB	Lobatse	74.56	240	P	P	19 27 46.2	+2.5
	comp=Z,8.4nm,0.6s,mb4.8						
LBTB				epP	pP	19 27 54.4	+2.5
NB2	NORSAR Subarra	75.81	330	P	P	19 27 49.4	-0.7
	comp=Z,34nm,2.0s,mb4.9,baz=91,slow=5.8						
NB2	NORSAR Subarra	75.81	330	P	P	19 27 49.4	-0.7
	baz=91,slow=5.9						
NOA	NORSAR Array B	75.81	330	P	P	19 27 49.6	-0.5
	comp=Z,0.8nm,0.7s,baz=75,slow=4.5,SNR=3.2						
NOA	NORSAR Array B	75.81	330	P	P	19 27 49.6	-0.5
NOA				pmax	pmax		
	comp=Z,1.0nm,0.7s						
DAVOX	Davos	76.67	316	P	P	19 27 55.5	+0.3
	baz=119,slow=10						
LPG	La Plagne	78.93	314	eP	pP	19 28 17.1	+1.1
	comp=Z,29nm,0.8s						
IMA	Indian Mountai	88.93	22	eP	P	19 28 59.1	+1.2
IMA				pmax	pmax		
	comp=Z,29nm,0.6s,mb5.8						
IMA	Indian Mountai	88.93	22	eP	P	19 28 59.0	+1.1
	comp=Z,29nm,0.6s,mb5.8						
COLA	College	91.64	22	P	P	19 29 10.8	+0.3
COLA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb5.0						
COLA	College	91.64	22	P	P	19 29 10.8	+0.3
	comp=Z,6.9nm,0.9s,mb5.0						
MCK	McKinley	91.82	23	eP	P	19 29 12.2	+0.8
MCK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb5.0						
MCK	McKinley	91.82	23	eP	P	19 29 12.2	+0.8
	comp=Z,6.8nm,0.9s,mb5.0						
ILAR	Eielson Array	92.04	22	P	P	19 29 12.4	+0.1
	comp=Z,4.6nm,0.7s,mb4.9,baz=302,slow=4.5,SNR=15						
ILAR	Eielson Array	92.04	22	P	P	19 29 12.5	+0.1
ILAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
SML	Sawmill	93.05	25	eP	P	19 29 18.4	+1.3
INK	Inuvik	94.00	16	P	P	19 29 21.9	+0.6
	comp=Z,3.0nm,0.7s,mb4.8,baz=351,slow=5.9,SNR=5.8						
INK	Inuvik	94.00	16	P	P	19 29 22.0	+0.7
INK				pmax	pmax		
	comp=Z,3.0nm,0.7s						
YKA	Yellowknife Ar	103.31	13	Pdiff	Pdif	19 30 03.8	+0.3
	comp=Z,0.3nm,0.7s,baz=328,slow=3.7,SNR=4.2						
REDW	Red Top Meadow	121.42	20	ePKPdf	PKPdf	19 34 58.4	-2.4
PDAR	Pinedale Array	122.38	19	PKP	PKPdf	19 35 00.2	-2.5
	comp=Z,2.1nm,1.0s,baz=56,slow=0.8,SNR=3.4						
MVU	Marysvale	125.19	24	ePKPdf	PKPdf	19 35 05.8	-2.5

MOS ***27*** *19:18:24.6±0.9, 9.00N×92.39E, h33^{km}, mb5.0/39, Error ellipse: s-maj=13.4km s-min=6.6km az=121.2*

BJI ***27*** *19:18:24.9, 9.01N×92.37E, h29^{km}, mB5.7, mb5.2, Ms5.2, Msz4.9*

NEIC ***27*** *19:18:26.2±0.2, 8.97N×92.36E, mb4.9/26, Error ellipse: s-maj=7.0km s-min=5.7km az=214.0*

HRVD ***27*** *19:18:26.2±0.6, 8.95N×92.41E, h18^{km}±2^{km}, MW5.0/49, Centroid moment Tensor Solution. LP body waves: s3,c3; Mantle waves: s49,c79; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.37±.23; $M_{\theta\theta}$-2.42±.17; $M_{\phi\phi}$2.05±.17; $M_{r\theta}$-0.09±.37; $M_{\theta\phi}$-2.00±.15; $M_{\phi r}$-1.86±.52; Best double couple: $M_0$3.53×10^{16} NP1:ϕ_s111°, δ61°, λ169°. NP2: ϕ_s206°, δ80°, λ30°. Principal axes: T 3.71, Plg28°, Azm72°; N -.35, Plg59°, Azm223°; P -3.36, Plg13°, Azm335°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***27*** *19:18:28.8±5.1, 9.02N×92.34E, h58^{km}±46^{km}, mb4.4/22, mb1 4.5/23, mb1mx4.4/26, ML4.0/1 Error ellipse: s-maj=24.7km s-min=10.9km az=53.0*

ISC 27 19:18:24.1±0.3**, 8.95N**±0.05×**92.41E**±0.05**, h29^{km}, h29^{km}**±1.4^{km}**:pP-P, n136, σ1^{s}00**/137**, mb4.9**/52**, MS5.0**/2**, 4C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.38	33	ePn	P	19 21 06.4	-1.5
CMAR	Chiang Mai Arr	11.38	33	P	P	19 21 09.4	+1.4
	0.3nm,0.3s,baz=230,slow=14,SNR=5.0						
CMAR				S	S	19 23 12.7	-2.4
	0.2nm,0.3s,baz=230,slow=24,SNR=2.4						
KMI	Kunming	18.85	30	P	P	19 22 46.0	+1.5
KMI				AMB	AMB		
	comp=Z,43nm,0.9s						
QIZ	Qiongzhong	19.64	57	eP	P	19 22 53.7	+0.1
	comp=Z,10nm,0.6s						
GYA	Guiyang	22.04	36	⇑iP	P	19 23 20.0	+1.8
GYA				AP		19 23 24.0	
GYA				XP		19 23 27.3	
GYA				PP	PP	19 23 47.3	+3.0
GYA				S	S	19 27 18.8	+4.2
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.0						
GYA				AMB	AMB		
	comp=Z,1µm,6.4s						
GYA				LR	LR		
	comp=N,2µm,15.0s,MS5.2						
GYA				LR	LR		
	comp=E,6µm,16.2s,MS5.2						
GYA				LR	LR		
	comp=Z,4µm,15.8s,MS5.0						
CD2	Chengdu	24.27	24	P	P	19 23 40.5	+0.4
LZH	Lanzhou	28.95	19	eP	P	19 24 22.8	-0.4
LZH				AMB	AMB		
	comp=Z,60nm,1.4s,mb5.1						
GTA	Gaotai	31.05	11	eP	P	19 24 42.5	+0.7

GTA				AP	pP	19 24 50.3	-0.1
GTA				XP	sP	19 24 54.0	-0.2
GTA				PP	PP	19 25 45.3	+1.0
GTA				S	S	19 29 44.8	+1.0
GTA				XS		19 29 54.8	
GTA				AMB	AMB		
	comp=Z,69nm,0.8s,mb5.5						
GTA				AMB	AMB		
	comp=Z,1µm,5.3s						
GTA				LR	LR		
	comp=N,1µm,13.7s,MS4.9						
GTA				LR	LR		
	comp=E,1µm,15.2s,MS4.9						
GTA				LR	LR		
	comp=Z,2µm,15.6s,MS4.8						
WMQ	Urumqi	34.98	354	⇓P	P	19 25 16.5	+0.6
WMQ				AP	pP	19 25 21.0	-3.6
WMQ				XP	sP	19 25 23.8	-4.5
WMQ				AMB	AMB		
	comp=Z,27nm,0.7s,mb5.3						
UCH	Uchtor	36.70	338	P	P	19 25 32.3	+1.8
	SNR=5.4						
TKM2	Tokmak 2	36.91	339	P	P	19 25 33.4	+1.2
	SNR=9.0						
KBK	Karagaybulak	36.91	338	P	P	19 25 34.2	+1.9
	SNR=19						
AML	Almayashu	36.93	337	P	P	19 25 34.4	+2.0
	SNR=38						
AAK	Ala-Archa	37.06	338	P	P	19 25 35.4	+1.9
	SNR=9.7						
CHMS	Chumysh	37.28	338	P	P	19 25 36.3	+1.0
	SNR=11						
EKS2	Erkin-Say	37.35	337	P	P	19 25 37.9	+1.9
	SNR=18						
BJT	Baijiatuau	37.49	31	eP	P	19 25 38.5	+1.4
BJT				e*SP	sP	19 25 50.1	+0.6
BJT				pmax	pmax		
	comp=Z,24nm,0.9s						
BJT	Baijiatuau	37.49	31	eP	P	19 25 38.5	+1.4
	comp=Z,24nm,0.9s,mb5.0						
BJT				epP	pP	19 25 46.3	+0.5
BJT				esP	sP	19 25 50.1	+0.6
BJI	Beijing	37.51	31	P	P	19 25 38.5	+1.2
BJI				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.8						
USP	Ospenovka	37.60	338	P	P	19 25 39.1	+1.1
	SNR=21						
MKAR	Makanchi Array	38.69	349	iP	P	19 25 47.3	+0.2
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.5s						
SONM	Songino Array	40.52	15	P	P	19 26 02.2	-0.1
	comp=Z,15nm,0.7s,mb4.7,baz=198,slow=7.0,SNR=21						
ZAL	Zalesovo	45.28	354	P	P	19 26 39.6	-1.3
	comp=Z,9.2nm,0.5s,mb4.9,baz=296,slow=6.5,SNR=16						
ZAL	Zalesovo	45.28	354	P	P	19 26 39.6	-1.3
ZAL				pmax	pmax		
	comp=Z,9.0nm,0.5s						
NVS	Novosibirsk	46.35	353	eP	P	19 26 47.8	-1.5
NVS				pmax	pmax		
	comp=N,10.0nm,0.9s						
NVS				pmax	pmax		
	comp=E,10.0nm,0.9s						
NVS				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
RDF	Al-Radifah	46.51	302	eP	P	19 26 52.4	+1.4
RDF				AMb	AMB	19 26 52.8	
	comp=Z,52nm,0.9s,mb5.5						
MIB	Mutribah	46.93	303	eP	P	19 26 54.7	+0.4
MIB				AMb	AMB	19 26 55.6	
	comp=Z,35nm,0.8s,mb5.3						
RST	Umm Al-Ruwaisa	47.13	302	eP	P	19 26 56.4	+0.5
RST				AMb	AMB	19 26 57.4	
	comp=Z,43nm,0.8s,mb5.4						
BVAR	Borovoye Array	47.44	342	P	P	19 26 57.1	-0.9
	comp=Z,23nm,1.2s,mb5.0,baz=135,slow=8.4,SNR=10						
BRVK	Borovoye	47.50	342	eP	P	19 26 57.8	-0.6
BRVK				e*PP	pP	19 27 07.4	+0.1
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
BRVK	Borovoye	47.50	342	eP	P	19 26 57.8	-0.6
	comp=Z,6.6nm,0.8s,mb4.6						
BRVK				epP	pP	19 27 07.4	+0.1
NWAO	Narrogin (SRO)	47.89	152	P	P	19 27 02.7	+0.9
	comp=Z,7.0nm,0.4s,mb5.0,baz=252,slow=22,SNR=9.8						
NWAO	Narrogin (SRO)	47.89	152	P	P	19 27 02.7	+0.9
NWAO				pmax	pmax		
	comp=Z,7.0nm,0.4s						
NWAO	Narrogin (SRO)	47.89	152	P	P	19 27 02.7	+0.9
WRA	Warramunga Arr	50.27	125	P	P	19 27 19.9	-0.4
	comp=Z,2.8nm,0.4s,mb4.7,baz=301,slow=9.8,SNR=6.5						
WRA	Warramunga Arr	50.27	125	P	P	19 27 19.9	-0.4
WRA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
BOD	Bodaibo	51.52	15	eP	P	19 27 28.2	-1.1
BOD				e	pP	19 27 37.2	-1.0
ASAR	Alice Springs	51.91	129	P	P	19 27 32.2	-0.5
	comp=Z,1.8nm,0.5s,mb4.3,baz=303,slow=8.0,SNR=5.3						
GNI	Garni	52.47	314	P	P	19 27 34.6	-2.0
	comp=Z,8.1nm,0.8s,mb4.7,baz=290,slow=7.6,SNR=4.7						
GNI	Garni	52.47	314	P	P	19 27 34.6	-2.1
GNI				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GNI	Garni	52.47	314	eP	P	19 27 36.4	-0.3
	comp=Z,17nm,0.9s,mb5.0						
SVE	Sverdlovsk	53.78	339	⇓iP	P	19 27 46.0	-0.1
SVE				pmax	pmax		
	comp=Z,80nm,1.6s,mb5.4						
ZEI	Tsey	54.09	317	eP	P	19 27 48.0	-0.6
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
ARU	Arti	54.24	338	⇑iP	P	19 27 48.4	-1.1
ARU				eS	S	19 35 21.1	-2.2
ARU				eSS	SS	19 38 58.4	-6.4
ARU				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
ARU	Arti	54.24	338	eP	P	19 27 48.7	-0.7
	comp=Z,20nm,0.8s,mb5.1						
ARU				epP	pP	19 27 58.1	-0.3
ARU				esP	sP	19 28 01.1	-0.8
KIV	Kislovodsk	55.38	318	eP	P	19 27 57.6	-0.4
KIV				e*PP	pP	19 28 07.2	+0.2
KIV				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
KIV	Kislovodsk	55.38	318	eP	P	19 27 57.6	-0.4
	comp=Z,18nm,0.7s,mb5.2						
KIV				epP	pP	19 28 07.2	+0.2
KMBO	Kilima Mbogo	55.86	263	P	P	19 28 01.8	0.0
	comp=Z,8.2nm,1.3s,mb4.6						
MALT	Malatya	56.47	310	eP	P	19 28 04.3	-1.6
MALT				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
MALT	Malatya	56.47	310	eP	P	19 28 04.3	-1.6
	comp=Z,8.8nm,1.1s,mb4.7						
YSS	Yuzh-Sakhalins	57.01	39	eP	pP	19 28 16.0	-2.7
EIL	Elat	57.41	299	P	P	19 28 12.1	-0.6
	comp=Z,7.6nm,0.8s,mb4.8,baz=155,slow=5.7,SNR=6.9						
EIL	Elat	57.41	299	eP	P	19 28 12.6	-0.1
	comp=Z,7.7nm,0.7s,mb4.8						
PMG	Port Moresby	57.48	107	P	P	19 28 13.3	-0.1
	comp=Z,10nm,0.6s,mb5.0,baz=340,slow=11,SNR=7.3						
PMG	Port Moresby	57.48	107	P	P	19 28 13.3	-0.1
PMG				pmax	pmax		
	comp=Z,10.0nm,0.6s						
YAK	Yakutsk	59.54	19	eP	P	19 28 25.8	-1.3
YAK				e*PP	pP	19 28 36.0	-0.2
YAK				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
YAK	Yakutsk	59.54	19	eP	P	19 28 25.8	-1.3
	comp=Z,16nm,0.8s,mb5.1						
YAK				epP	pP	19 28 36.0	-0.2
CTA	Charters Tower	60.32	119	P	P	19 28 33.1	+0.1
	comp=Z,4.1nm,0.7s,mb4.6,baz=308,slow=5.1,SNR=5.2						
CTA	Charters Tower	60.32	119	P	P	19 28 33.1	+0.1
CTA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CTAO	Charters Tower	60.32	119	eP	P	19 28 32.9	-0.1
CTAO				*PP	pP	19 28 42.2	+0.1
CTAO				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
CTAO	Charters Tower	60.32	119	eP	P	19 28 32.9	-0.1
	comp=Z,5.3nm,0.7s,mb4.7						
CTAO				pP	pP	19 28 42.2	0.0
BRTR	Keskin Array B	60.44	311	P	P	19 28 31.0	-2.5
	comp=Z,7.0nm,0.8s,mb4.7,baz=123,slow=7.3,SNR=15						
BRTR	Keskin Array B	60.44	311	P	P	19 28 31.0	-2.5
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.8s						
STKA	Stephens Creek	62.08	133	P	P	19 28 44.6	-0.2
	comp=Z,3.8nm,0.7s,mb4.6,baz=329,slow=6.2,SNR=3.3						
CFR	Carcaliu	65.63	316	⇑iP	P	19 29 06.3	-1.6
AKASG	Malin Array Be	66.25	322	P	P	19 29 09.3	-2.4
	comp=Z,4.3nm,0.6s,mb4.7,baz=85,slow=5.3,SNR=13						
AKASG	Malin Array Be	66.25	322	P	P	19 29 09.3	-2.4
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
VRI	Vrincioaia	66.75	316	⇑iP	P	19 29 15.3	+0.4
MLR	Muntele Rosu	67.21	316	P	P	19 29 17.6	-0.3
	comp=Z,16nm,0.7s,mb5.1,baz=149,slow=3.8,SNR=11						
MLR	Muntele Rosu	67.21	316	P	P	19 29 17.6	-0.3
MLR				pmax	pmax		
	comp=Z,16nm,0.7s						
LSZ	Lusaka	68.03	250	eP	P	19 29 24.8	+1.3
LSZ				e*PP	pP	19 29 35.0	+2.4
LSZ				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.6						
LSZ	Lusaka	68.03	250	eP	P	19 29 24.8	+1.3
	comp=Z,7.1nm,1.2s,mb4.6						
LSZ				epP	pP	19 29 35.0	+2.4
KOLS	Kolonicke sedl	70.27	319	eP	P	19 29 35.9	-0.8
SUW	Suwalki	70.64	324	eP	P	19 29 37.8	-1.1
CRVS	Cervenica-Dubn	70.80	319	eP	P	19 29 40.4	+0.5
FINES	FINESS Array B	70.97	332	P	P	19 29 39.5	-1.2
	comp=Z,8.1nm,0.7s,mb4.8,baz=101,slow=9.7,SNR=14						
FINES	FINESS Array B	70.97	332	P	P	19 29 39.5	-1.3
FINES				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KAF	Kangasniemi	71.06	333	ep	P	19 29 40.4	-0.9
	comp=Z,2.3nm,0.5s,mb4.4						
KAF	Kangasniemi	71.06	333	eP	P	19 29 40.4	-0.9
KAF				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
KECS	Kecovo	71.38	318	iP	P	19 29 43.1	-0.4
PSZ	Piszkesteto	71.70	317	eP	P	19 29 44.4	-1.0
PSZ				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
PSZ	Piszkesteto	71.70	317	eP	P	19 29 44.4	-1.0
	comp=Z,4.7nm,0.7s,mb4.5						
OJC	Ojcow	72.06	320	eP	P	19 29 46.8	-0.7
VYHS	Vyhne	72.47	318	iP	P	19 29 49.6	-0.3
OKC	Ostrava-Krasne	73.07	319	eP	P	19 29 53.4	0.0
TIP	Timpagrande	73.29	308	eP	P	19 29 54.7	-0.2
MORC	Moravsky Berou	73.45	319	eP	P	19 29 55.1	-0.6
MORC				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
MORC	Moravsky Berou	73.45	319	eP	P	19 29 55.0	-0.6
	comp=Z,9.1nm,1.0s,mb4.7						
ZST	Bratislava	73.59	318	eP	P	19 29 56.5	0.0
ZST				e		19 30 08.2	
ARCES	ARCESS Array B	73.68	340	P	P	19 29 55.9	-0.8
	comp=Z,7.1nm,0.8s,mb4.7,baz=90,slow=6.1,SNR=9.1						
ARCES	ARCESS Array B	73.68	340	P	P	19 29 55.9	-0.7
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.8s						
DPC	Dobruska-Polom	74.29	320	eP	P	19 30 01.0	+0.5
KSP	Ksiaz	74.35	320	eP	P	19 30 01.0	+0.2
KSP				epP	pP	19 30 10.0	0.0
KSP				ePcP	PcP	19 30 14.9	-0.8
KSP	Ksiaz	74.35	320	eP	P	19 30 01.3	+0.5
UPC	Upice	74.50	320	eP	P	19 30 02.1	+0.4
BOSA	Boshof	74.72	237	eP	P	19 30 04.6	+1.1
BOSA				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
BOSA	Boshof	74.72	237	eP	P	19 30 04.6	+1.2
	comp=Z,2.2nm,0.5s,mb4.3						
PRU	Pruhonice	75.40	319	eP	P	19 30 07.3	+0.4
BRG	Berggiesshubel	75.84	320	iP	P	19 30 09.8	+0.4
BRG				e		19 30 23.9	
BRG				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
BRG	Berggiesshubel	75.84	320	iP	P	19 30 09.8	+0.4
	comp=Z,12nm,0.9s,mb4.8						
BRG				e		19 30 23.9	
GEC2	GERESS Array S	75.89	318	eP	P	19 30 10.0	+0.3
GEC2				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
GEC2	GERESS Array S	75.89	318	eP	P	19 30 10.0	+0.3
	comp=Z,13nm,0.8s,mb4.9						
GERES	GERESS Array B	75.89	318	P	P	19 30 09.3	-0.4
	comp=Z,7.5nm,0.7s,mb4.7,baz=90,slow=5.3,SNR=24						
GERES	GERESS Array B	75.89	318	P	P	19 30 09.3	-0.4
GERES				pmax	pmax		
	comp=Z,8.0nm,0.7s						
KHC	Kasperske Hory	75.98	318	eP	P	19 30 10.2	-0.1
RUE	Ruedersdorf	76.03	322	eP	P	19 30 10.1	-0.3
	comp=Z,25nm,0.7s,mb5.2						
WET	Wettzell	76.44	318	eP	P	19 30 13.2	+0.4
CLL	Collm	76.45	321	eP	P	19 30 12.0	-0.8
CLL				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
CLL	Collm	76.45	321	eP	P	19 30 12.0	-0.8
	comp=Z,8.0nm,1.0s,mb4.6						
CLL	Collm	76.45	321	P	P	19 30 12.0	-0.8
	comp=Z,logA/T=0.9,mb4.6						
NKC	Novy Kostel	76.76	319	eP	P	19 30 14.8	+0.2
MOX	Moxa	77.30	320	eP	P	19 30 17.9	+0.3
MOX	Moxa	77.30	320	iP	P	19 30 17.9	+0.3
GRA1	Grafenberg Arr	77.54	319	eP	P	19 30 19.7	+0.8
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	77.54	319	eP	P	19 30 19.7	+0.8
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	77.54	319	eP	P	19 30 19.7	+0.8
GRF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
GRF	Grafenberg Arr	77.54	319	eP	P	19 30 19.7	+0.8
	comp=Z,15nm,0.9s,mb4.9						
NB2	NORSAR Subarra	77.96	331	P	P	19 30 20.4	-0.6
	comp=Z,7.3nm,0.8s,mb4.7,baz=97,slow=5.0						
NB2	NORSAR Subarra	77.96	331	P	P	19 30 20.4	-0.6
NB2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
NOA	NORSAR Array B	77.96	331	P	P	19 30 20.6	-0.4
	comp=Z,4.4nm,0.7s,mb4.5,baz=94,slow=5.5,SNR=9.1						
NOA	NORSAR Array B	77.96	331	P	P	19 30 20.6	-0.4
NOA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
CLZ	Clausthal	78.11	321	eP	P	19 30 22.4	+0.4
	comp=Z,12nm,0.8s,mb4.9						
BSEG	Bad Segeberg	78.17	323	eP	P	19 30 23.0	+0.7
MAW	Mawson	79.25	191	P	P	19 30 27.0	-0.9
	comp=Z,6.0nm,0.4s,mb4.8,baz=67,slow=20,SNR=18						
MAW	Mawson	79.25	191	P	P	19 30 27.0	-0.9
MAW				pmax	pmax		
	comp=Z,6.0nm,0.4s						
LPG	La Plagne	80.65	315	eP	P	19 30 36.6	+0.7
	comp=Z,34nm,0.8s,mb5.0						
LPG	La Plagne	80.65	315	eP	P	19 30 36.6	+0.7
LPG				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
BNI	Bardonecchia	80.73	314	eP	P	19 30 37.0	+0.7
BNI				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
BNI	Bardonecchia	80.73	314	eP	P	19 30 37.0	+0.7
	comp=Z,19nm,0.9s,mb5.0						
SYO	Syowa Base	85.93	197	⇓pPKiKP		19 31 18.1	
ESDC	Sonseca Array	89.22	310	P	P	19 31 19.4	+0.5
	comp=Z,1.3nm,0.6s,mb4.5,baz=66,slow=3.9,SNR=7.7						
ILAR	Eielson Array	94.39	22	P	P	19 31 40.6	-1.5
	comp=Z,1.1nm,0.7s,mb4.4,baz=300,slow=4.4,SNR=4.7						
ILAR	Eielson Array	94.39	22	P	P	19 31 40.7	-1.4
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	Inuvik	96.43	16	P	P	19 31 51.8	+0.4
	comp=Z,3.3nm,0.8s,mb4.8,baz=345,slow=1.4,SNR=6.0						
INK	Inuvik	96.43	16	P	P	19 31 51.8	+0.4
INK				pmax	pmax		
	comp=Z,3.0nm,0.8s						
YKA	Yellowknife Ar	105.77	13	PP	PP	19 36 52.9	-5.9
	comp=Z,0.9nm,0.7s,baz=335,slow=7.7,SNR=10.0						

MOS ***27*** *19:26:55.3±0.9, 7.83N×92.16E, h33*^{km}*, mb5.2/49, Error ellipse: s-maj=10.6km s-min=5.5km az=117.9*

IDC ***27*** *19:26:57.0±7.2, 7.83N×92.17E, h32*^{km}*±52*^{km}*, mb4.6/27, mb1 4.7/28, mb1mx4.7/29, ML4.5/1, Error ellipse: s-maj=18.5km s-min=10.0km az=46.0*

BJI ***27*** *19:26:56.4, 7.67N×92.19E, h51*^{km}*, mB5.4, mb4.9, Ms5.1, Msz4.7*

SYO ***27*** *19:26:57.5, 7.81N×92.13E, h36*^{km}*, MB5.0*

NEIC ***27*** *19:26:58.1±1.4, 7.81N×92.15E, h42*^{km}*±11*^{km}*, mb5.1/39, Error ellipse: s-maj=8.5km s-min=4.9km az=220.0*

HRVD ***27*** *19:26:58.1±0.5, 7.51N×92.14E, h12*^{km}*, MW5.2/38, Centroid moment Tensor Solution. LP body waves: s14,c18; Mantle waves: s38,c69; Half duration: 0 Moment tensor: Scale* 10^{16}*Nm;* M_{rr}*-3.93±.41;* $M_{\theta\theta}$*-1.57±.32;* $M_{\phi\phi}$*5.50±.31;* $M_{r\theta}$*-2.39±1.31;* $M_{\theta\phi}$*-3.51±.31;* $M_{\phi r}$*-1.35±.93; Best double couple:* M_0*6.6×*10^{16} *NP1:*ϕ_s*125°, δ56°, λ-141°. NP2:*ϕ_s*10°, δ59°, λ-41°. Principal axes: T 6.96, Plg2°, Azm68°; N -.72, Plg40°, Azm160°; P -6.24, Plg50°, Azm336°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 19:26:55.5±0.3**,7.72N**±0.04×**92.18E**±0.04**,h36**^{km}**, h36**^{km}±1.5^{km}**:pP-P,n255,σ**0^{s}**.94**/243**,mb5.0**/77**,MS4.8**/6**, 9C-4D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.54	31	ePn	P	19 29 54.0	-0.3
	12nm,0.7s						
CMAR	Chiang Mai Arr	12.54	31	Pn	P	19 29 53.8	-0.5
	0.8nm,0.3s,baz=226,slow=13,SNR=37						
CMAR	Chiang Mai Arr	12.54	31	P	P	19 29 53.8	-0.5
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MDRS	Chennai	12.88	295	eP	P	19 29 56.0	-2.8
MDRS				eS	x	19 32 03.2	
MDRS				e	S	19 32 11.0	-11
	comp=N,956nm,0.3s						
MDRS				e		19 32 11.5	
	comp=E,914nm,0.4s						
VIS	Vishakhapatnam	13.16	320	eP	P	19 29 58.1	-4.4
VIS				eS	x	19 32 05.2	
VIS				e		19 32 07.0	
	comp=N,383nm,1.0s						
VIS				e		19 32 07.2	
	comp=E,426nm,0.9s						
KKTK	Khon Kaen	13.47	50	P	P	19 30 16.4	+10
	comp=E,988nm,0.7s						
NANT	Nan	13.78	36	P	P	19 30 18.0	+7.3
BOK	Bokaro	17.09	340	eP	P	19 30 52.6	-0.6
BLSP	Bilaspur	17.29	327	eP	P	19 30 55.1	-0.7
BLSP				e		19 30 59.2	
	comp=Z,99nm,0.9s						
BLSP				eS	S	19 33 56.1	-9.1
SHL	Shillong	17.75	359	eP	P	19 31 01.9	+0.3
SHL				e		19 31 02.9	
	comp=Z,58nm,0.5s						
SHL				e		19 32 44.9	
GOA	Goa	19.56	295	eP	P	19 31 24.9	+1.8
KMI	Kunming	20.03	29	P	P	19 31 29.5	+1.3
KMI				AMB	AMB		
	comp=Z,43nm,1.1s						
KMI				LR	LR		
	comp=N,2µm,12.2s,MS4.8						
KMI				LR	LR		
	comp=E,2µm,12.8s,MS4.8						
KMI				LR	LR		
	comp=Z,2µm,12.5s,MS4.6						
QIZ	Qiongzhong	20.51	55	P	P	19 31 34.0	+0.7
QIZ	Qiongzhong	20.51	55	eP	P	19 31 33.8	+0.5
	comp=Z,67nm,0.8s						
PKI	Pulchoki	20.76	343	eP	P	19 31 36.5	+0.7
	comp=Z,113nm,0.4s						
DMN	Daman	20.89	342	eP	P	19 31 37.5	+0.4
GUN	Gumba	20.95	344	eP	P	19 31 37.9	+0.2
	comp=Z,201nm,0.7s						
BHPL	Bhopal	20.95	319	eP	P	19 31 38.0	+0.2
BHPL				e		19 31 40.2	
	comp=Z,106nm,1.4s						
BHPL				e		19 33 26.1	
KKN	Kakani	21.00	343	eP	P	19 31 38.4	+0.1
	comp=Z,72nm,0.4s,mb5.4						
GKN	Gorkha	21.40	341	eP	P	19 31 42.3	+0.1
	comp=Z,185nm,0.5s,mb5.7						
KOLN	Koldanda	21.53	339	eP	P	19 31 44.4	+0.8
	comp=Z,344nm,0.8s,mb5.9						
BOM	Bombay	21.85	302	eP	P	19 31 48.0	+1.2
LSA	Lhasa	21.89	358	eP	P	19 31 46.4	-0.7
LSA				pmax	pmax		
	comp=Z,25nm,1.3s,mb4.5						
LSA	Lhasa	21.89	358	eP	P	19 31 46.4	-0.7
	comp=Z,25nm,1.3s,mb4.5						
GYA	Guiyang	23.17	35	⇑iP	P	19 32 00.8	+0.9
GYA				AP		19 32 08.0	
GYA				S	S	19 36 10.3	+5.3
GYA				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.1						
GYA				AMB	AMB		
	comp=Z,970nm,4.2s						
GYA				LR	LR		
	comp=N,5µm,16.2s,MS5.2						
GYA				LR	LR		
	comp=E,5µm,15.8s,MS5.2						
GYA				LR	LR		
	comp=Z,3µm,16.3s,MS4.8						
AJM	Ajmer	25.02	320	eP	P	19 32 19.7	+1.9
AJM				e		19 32 23.6	
	comp=Z,42nm,0.8s						
NDI	New Delhi	25.18	328	eP	P	19 32 20.9	+1.5
NDI				e		19 32 22.1	
	comp=Z,93nm,1.6s						
CD2	Chengdu	25.49	24	P	P	19 32 23.0	+0.8
CD2				AMB	AMB		
	comp=Z,110nm,0.7s,mb5.5						
DDI	Dehra Dun	26.09	331	eP	P	19 32 31.3	+3.4
SDNR	Sundarnagar	27.59	331	eP	P	19 32 43.5	+1.9
ENH	Enshi	27.69	34	eP	P	19 32 41.0	-1.5
	comp=Z,44nm,1.0s,mb5.0						
LZH	Lanzhou	30.18	19	eP	P	19 33 05.0	+0.3
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.6						
WHN	Wuhan	30.77	40	eP	P	19 33 09.8	-0.1
GTA	Gaotai	32.29	11	⇓P	P	19 33 23.5	+0.3
GTA				PP	PP	19 34 30.5	-0.7
GTA				S	S	19 38 34.8	+1.6
GTA				SS	SS	19 40 24.5	-4.5
GTA				AMB	AMB		
	comp=Z,130nm,0.7s,mb5.9						
GTA				LR	LR		
	comp=N,954nm,16.4s,MS4.6						
GTA				LR	LR		
	comp=E,805nm,20.9s,MS4.6						
GTA				LR	LR		
	comp=Z,1µm,18.6s,MS4.6						
KSH	Kashi	34.84	338	eP	P	19 33 45.5	+0.3
KSH				AP	pP	19 33 54.8	-0.8
KSH				XP	sP	19 34 00.0	-0.3
KSH				ePP	PP	19 35 01.3	-2.1
KSH				ePCP	PcP	19 36 19.0	+1.0
KSH				eS	S	19 39 11.0	-1.8
KSH				eSCP		19 40 01.5	
KSH				ePCS		19 40 04.0	
KSH				eSS	SS	19 41 23.5	-4.2
KSH				eSCS	ScS	19 44 02.5	+1.2
KSH				AMB	AMB		
	comp=Z,340nm,6.9s						
KSH				LR	LR		
	comp=N,1µm,12.7s,MS5.0						
KSH				LR	LR		
	comp=E,1µm,11.5s,MS5.0						
WMQ	Urumqi	36.17	354	eP	P	19 33 57.3	+0.8
WMQ				AMB	AMB		
	comp=Z,24nm,0.8s,mb5.2						
ULHL	Ulahol	37.16	340	P	P	19 34 05.8	+1.0
	SNR=9.9						
KZA	Kyzart	37.35	339	P	P	19 34 07.7	+1.3
	SNR=18						
UCH	Uchtor	37.75	338	P	P	19 34 11.1	+1.4
	SNR=32						
KBK	Karagaybulak	37.97	339	P	P	19 34 13.1	+1.6
	SNR=53						
AML	Almayashu	37.97	337	P	P	19 34 13.2	+1.7
	SNR=95						
TKM2	Tokmak 2	37.98	340	P	P	19 34 12.8	+1.2
	SNR=16						
AAK	Ala-Archa	38.11	339	P	P	19 34 14.5	+1.7
	SNR=28						
FRU	Bishkek	38.24	339	eP	P	19 34 16.0	+2.2
FRU				e	pP	19 34 29.0	+4.7
FRU				pmax	pmax		
	comp=Z,100nm,1.8s,mb5.2						
CHMS	Chumysh	38.34	339	P	P	19 34 15.4	+0.8
	SNR=18						
EKS2	Erkin-Say	38.39	338	P	P	19 34 16.7	+1.6

	SNR=34						
USP	Ospenovka	38.66	339	P	P	19 34 18.1	+0.8
	SNR=44						
BJT	Baijiatuau	38.66	30	eP	P	19 34 17.6	+0.2
BJT				pmax	pmax		
	comp=Z,10.0nm,0.5s						
BJT	Baijiatuau	38.66	30	eP	P	19 34 17.6	+0.3
	comp=Z,10.0nm,0.5s,mb4.8						
BJI	Beijing	38.68	30	P	P	19 34 18.0	+0.5
BJI				AMB	AMB		
	comp=Z,15nm,0.7s,mb4.8						
MBWA	Marble Bar	39.44	137	eP	P	19 34 24.7	+0.7
	comp=Z,15nm,1.2s,mb4.6						
MKAR	Makanchi Array	39.85	349	i P	P	19 34 26.9	-0.2
MKAR				pmax	pmax		
	comp=Z,14nm,0.6s						
SONM	Songino Array	41.77	14	P	P	19 34 42.3	-0.6
	comp=Z,17nm,0.8s,mb4.8,baz=197,slow=7.9,SNR=92						
ULN	Ulaanbaatar	41.96	15	eP	P	19 34 44.4	-0.1
ULN				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.6						
ULN	Ulaanbaatar	41.96	15	eP	P	19 34 44.4	-0.2
	comp=Z,15nm,1.0s,mb4.6						
ZAK	Zakamensk	43.52	10	eP	P	19 34 56.5	-0.8
TLY	Talaya	44.83	10	i P	P	19 35 06.5	-1.3
TLY				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.6						
CN2	Changchun	46.21	33	eP	P	19 35 19.3	+0.4
ZAL	Zalesovo	46.47	354	P	P	19 35 20.3	-0.5
	comp=Z,9.5nm,0.3s,mb5.1,baz=296,slow=5.6,SNR=40						
ZAL	Zalesovo	46.47	354	P	P	19 35 20.3	-0.5
ZAL				pmax	pmax		
	comp=Z,10.0nm,0.4s						
ZAL	Zalesovo	46.47	354	P	P	19 35 20.3	-0.5
NWAO	Narrogin (SRO)	46.93	151	P	P	19 35 26.0	+1.3
	comp=Z,12nm,0.7s,mb5.0,baz=314,slow=7.6,SNR=11						
NWAO	Narrogin (SRO)	46.93	151	eP	P	19 35 25.7	+1.0
NWAO				pmax	pmax		
	comp=Z,11nm,0.7s						
NWAO	Narrogin (SRO)	46.93	151	eP	P	19 35 25.7	+1.0
	comp=Z,11nm,0.7s,mb4.9						
HIA	Hailar	47.44	24	eP	P	19 35 28.8	+0.3
HIA				pmax	pmax		
	comp=Z,16nm,1.1s						
HIA	Hailar	47.44	24	eP	P	19 35 28.8	+0.3
	comp=Z,16nm,1.1s,mb4.9						
NVS	Novosibirsk	47.53	353	eP	P	19 35 27.5	-1.6
NVS				e	pP	19 35 37.4	-2.3
NVS				pmax	pmax		
	comp=N,20nm,1.0s						
NVS				pmax	pmax		
	comp=E,10.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.4						
BVA0	Borovoye Array	48.53	343	i P	P	19 35 36.2	-0.7
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.1s,mb4.2						
BVAR	Borovoye Array	48.53	343	P	P	19 35 36.3	-0.6
	comp=Z,9.5nm,0.6s,mb5.0,baz=141,slow=9.5,SNR=55						
BRVK	Borovoye	48.59	343	eP	P	19 35 36.3	-1.1
BRVK				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.3						
BRVK	Borovoye	48.59	343	eP	P	19 35 36.2	-1.1
	comp=Z,26nm,0.9s,mb5.3						
CHKZ	Chkalovo	49.03	343	eP	P	19 35 40.3	-0.5
CHKZ				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.6						
CHKZ	Chkalovo	49.03	343	eP	P	19 35 40.3	-0.5
	comp=Z,62nm,0.9s,mb5.6						
MDJ	Mudanjiang	49.04	35	eP	P	19 35 38.8	-2.1
WRA	Warramunga Arr	49.77	124	P	P	19 35 46.7	-0.2
	comp=Z,22nm,1.1s,mb5.1,baz=304,slow=8.7,SNR=60						
WRA				PcP	PcP	19 37 08.4	+0.7
	comp=Z,2.0nm,0.9s,baz=325,slow=2.7,SNR=5.1						
WRA	Warramunga Arr	49.77	124	P	P	19 35 46.7	-0.2
WRA						19 37 08.4	
WRA				pmax	pmax		
	comp=Z,22nm,1.1s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
WRAB	Tennant Creek	49.77	124	i P	P	19 35 46.8	-0.1
WRAB	Tennant Creek	49.77	124	eP	P	19 35 46.5	-0.5
	comp=Z,25nm,0.7s,mb5.3						
MAT	Matsushiro	50.71	48	P	P	19 35 54.0	+0.1
ASAR	Alice Springs	51.32	129	P	P	19 35 58.4	-0.3
	comp=Z,6.0nm,0.7s,mb4.6,baz=299,slow=7.2,SNR=38						
BOD	Bodaibo	52.77	14	⇓iP	P	19 36 08.7	-0.3
GNI	Garni	53.16	315	P	P	19 36 12.3	+0.1
	comp=Z,8.4nm,0.7s,mb4.8,baz=4.5,slow=3.7,SNR=13						
GNI	Garni	53.16	315	eP	P	19 36 12.6	+0.4
GNI				pmax	pmax		
	comp=Z,30nm,1.2s						
GNI	Garni	53.16	315	eP	P	19 36 12.6	+0.4
	comp=Z,30nm,1.2s,mb5.1						
TI2	Plekhanov	53.82	317	i P	P	19 36 17.6	+0.5
TI2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
ZEI	Tsey	54.84	318	eP	P	19 36 24.5	0.0
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
SVE	Sverdlovsk	54.84	339	⇓eP	P	19 36 24.0	-0.3
SVE				e	pP	19 36 35.0	-0.1
SVE				e		19 37 23.5	
SVE				e		19 43 54.0	
SVE				pmax	pmax		
	comp=Z,180nm,1.8s,mb5.8						
ARU	Arti	55.29	338	⇓iP	P	19 36 26.8	-0.7
ARU				e		19 37 21.9	
ARU				i		19 38 30.3	
ARU				eS	S	19 44 10.2	+3.1
ARU				eSS	SS	19 47 53.3	+1.8
ARU				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.3						
ARU	Arti	55.29	338	eP	P	19 36 26.2	-1.4
	comp=Z,114nm,1.6s,mb5.7						
KMBO	Kilima Mbogo	55.48	263	P	P	19 36 29.9	+0.5
	comp=Z,3.1nm,0.6s,mb4.5,baz=60,slow=12,SNR=12						
KMBO	Kilima Mbogo	55.48	263	eP	P	19 36 30.3	+0.8
KMBO				pmax	pmax		
	comp=Z,8.0nm,1.0s						
KMBO	Kilima Mbogo	55.48	263	eP	P	19 36 30.3	+0.8
	comp=Z,7.9nm,1.0s,mb4.7						
KIV	Kislovodsk	56.14	319	P	P	19 36 34.6	+0.8
	comp=Z,170nm,0.9s,mb6.1,SNR=8.9						
KIV	Kislovodsk	56.14	319	eP	P	19 36 33.3	-0.5
KIV				e		19 37 32.1	
KIV				eS	S	19 44 19.4	+0.7
KIV				pmax	pmax		
	comp=N,14nm,1.0s						
KIV				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
KIV	Kislovodsk	56.14	319	eP	P	19 36 32.6	-1.2
	comp=Z,43nm,1.2s,mb5.4						
ASAJ	Asahikawa	56.81	42	P	P	19 36 39.2	+0.6
	comp=Z,11nm,0.8s,mb5.0,baz=8.8,slow=12,SNR=6.4						
ASAJ	Asahikawa	56.81	42	P	P	19 36 39.3	+0.6
ASAJ				pmax	pmax		
	comp=Z,11nm,0.8s						
MALT	Malatya	57.09	311	eP	P	19 36 39.9	-0.8
MALT				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
MALT	Malatya	57.09	311	eP	P	19 36 39.9	-0.9
	comp=Z,15nm,1.2s,mb4.9						
PMG	Port Moresby	57.35	106	P	P	19 36 42.3	-0.6
	comp=Z,5.7nm,0.6s,mb4.8,baz=308,slow=3.5,SNR=6.3						
PMG	Port Moresby	57.35	106	eP	P	19 36 42.4	-0.5
PMG				pmax	pmax		
	comp=Z,5.0nm,0.6s						
PMG	Port Moresby	57.35	106	eP	P	19 36 42.4	-0.5
	comp=Z,5.1nm,0.6s,mb4.7						
EIL	Elat	57.82	300	P	P	19 36 46.3	+0.3
	comp=Z,11nm,0.8s,mb4.9,baz=66,slow=4.5,SNR=8.3						
EIL	Elat	57.82	300	eP	P	19 36 46.1	+0.1
SOC	Sochi	57.96	317	eP	P	19 36 42.3	-4.5
SOC				e		19 37 34.4	
SOC				ePPP	PPP	19 40 12.9	-7.0
SOC				eS	S	19 44 38.8	-3.9
SOC				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
SOC				pmax	pmax		
	comp=N,13nm,1.0s						
SOC				pmax	pmax		
	comp=E,3.0nm,0.8s						
SOC				MLR	MLR		
	comp=Z,491nm,17.0s,MS4.7						
SOC				MLR	MLR		
	comp=N,483nm,18.0s,MS4.7						
SOC				MLR	MLR		
	comp=E,335nm,20.0s,MS4.7						
YSS	Yuzh-Sakhalins	58.11	39	eP	P	19 36 47.3	-0.4
CTA	Charters Tower	59.94	118	P	P	19 37 00.5	-0.3
	comp=E,3.1nm,0.8s,mb4.4,baz=264,slow=6.9,SNR=5.2						
CTA				PcP	PcP	19 37 46.8	+0.3
	comp=E,2.0nm,0.5s,baz=282,slow=3.7,SNR=7.2						
CTA	Charters Tower	59.94	118	P	P	19 37 00.5	-0.3
CTA						19 37 46.8	
CTA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
CTA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
CTAO	Charters Tower	59.94	118	eP	P	19 37 00.7	-0.1
CTAO				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
CTAO	Charters Tower	59.94	118	eP	P	19 37 00.7	-0.1
	comp=Z,13nm,1.3s,mb4.8						
ANN	Anapa	59.94	318	eP	pP	19 37 16.3	+5.0
ANN				pmax	pmax		
	comp=Z,83nm,1.1s,mb5.7						
CSS	Prodhromos	60.19	306	eP	P	19 37 01.9	-0.4
	comp=Z,6.2nm,0.9s,mb4.6						
YAK	Yakutsk	60.77	19	eP	P	19 37 04.4	-1.5
YAK				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.4						
YAK	Yakutsk	60.77	19	eP	P	19 37 04.4	-1.5
	comp=Z,23nm,0.8s,mb5.4						
BRTR	Keskin Array B	61.06	311	P	P	19 37 06.0	-2.2
	comp=Z,9.7nm,0.9s,mb4.9,baz=132,slow=7.4,SNR=26						
BRTR	Keskin Array B	61.06	311	P	P	19 37 06.0	-2.2
BRTR				pmax	pmax		
	comp=Z,10.0nm,0.9s						
STKA	Stephens Creek	61.42	133	P	P	19 37 10.5	-0.2
	comp=Z,6.1nm,0.8s,mb4.8,baz=262,slow=2.6,SNR=9.3						
STKA				PcP	PcP	19 37 52.5	+0.1
	comp=Z,3.1nm,0.8s,baz=314,slow=11,SNR=3.9						
STKA	Stephens Creek	61.42	133	eP	P	19 37 10.6	-0.2
MOS	Moscow	64.21	329	eP	P	19 37 27.6	-1.2
MOS				e	pP	19 37 39.9	+0.1
MOS				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.6						
OBN	Obninsk	64.48	328	ceP	P	19 37 28.9	-1.7
OBN				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
OBN				MLR	MLR		
	comp=Z,600nm,21.0s,MS4.8						
OBN	Obninsk	64.48	328	eP	P	19 37 28.5	-2.1
	comp=Z,15nm,0.6s,mb5.2						
CFR	Carcaliu	66.35	316	⇑iP	P	19 37 41.8	-1.0
IDI	Anoyia	67.06	305	P	P	19 37 47.5	+0.1
	comp=Z,23nm,0.6s,mb5.4,baz=88,slow=7.3,SNR=30						
AKASG	Malin Array Be	67.07	322	P	P	19 37 44.9	-2.3
	comp=Z,4.1nm,0.6s,mb4.7,baz=91,slow=4.6,SNR=21						
AKASG	Malin Array Be	67.07	322	P	P	19 37 44.9	-2.3
AKASG				pmax	pmax		
	comp=Z,4.0nm,0.6s						
VRI	Vrincioaia	67.47	317	⇑iP	P	19 37 50.1	+0.3
MA2	Magadan	67.81	28	i P	P	19 37 51.8	+0.1
MA2				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.1						
MLR	Muntele Rosu	67.93	316	P	P	19 37 52.9	+0.2
	comp=Z,20nm,0.7s,mb5.3,baz=166,slow=4.8,SNR=19						
MLR	Muntele Rosu	67.93	316	P	P	19 37 52.9	+0.2
MLR				pmax	pmax		
	comp=Z,20nm,0.7s						
RZN	Rozhen	68.10	312	eP	P	19 37 52.0	-1.9
KKB	Krupnik	69.34	312	eP	P	19 38 00.0	-1.5
VTS	Vitosha	69.35	313	eP	P	19 38 00.0	-1.6
VSU	Vasula	70.73	330	i P	P	19 38 08.8	-0.9
KOLS	Kolonicke sedl	71.04	319	eP	P	19 38 11.1	-0.6
KOLS	Kolonicke sedl	71.04	319	e	P	19 38 11.1	-0.6
SUW	Suwalki	71.50	324	eP	P	19 38 12.5	-1.8
SUW				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.6						
SUW	Suwalki	71.50	324	eP	P	19 38 12.4	-1.9
	comp=Z,90nm,1.1s,mb5.6						
CRVS	Cervenica-Dubn	71.57	319	eP	P	19 38 15.3	+0.5
CRVS	Cervenica-Dubn	71.57	319	e	P	19 38 15.3	+0.5
FINES	FINESS Array B	71.94	332	P	P	19 38 15.8	-1.0
	comp=Z,6.2nm,0.5s,mb4.8,baz=103,slow=7.2,SNR=42						
FINES	FINESS Array B	71.94	332	P	P	19 38 15.8	-1.0
FINES				pmax	pmax		
	comp=Z,6.0nm,0.5s						
KAF	Kangasniemi	72.05	333	ep	P	19 38 16.5	-0.9
	comp=Z,2.0nm,0.3s,mb4.5						
KAF	Kangasniemi	72.05	333	eP	P	19 38 16.5	-0.9
KAF				pmax	pmax		
	comp=Z,2.0nm,0.3s,mb4.5						
KECS	Kecovo	72.14	318	eP	P	19 38 17.9	-0.3
KECS	Kecovo	72.14	318	e	P	19 38 17.9	-0.3
NIE	Niedzica	72.39	319	eP	P	19 38 20.2	+0.5
PSZ	Piszkesteto	72.45	318	eP	P	19 38 19.2	-0.9
PSZ				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
PSZ	Piszkesteto	72.45	318	eP	P	19 38 19.2	-0.9
	comp=Z,13nm,0.9s,mb4.8						
OJC	Ojcow	72.84	320	eP	P	19 38 21.9	-0.5
VYHS	Vyhne	73.23	318	eP	P	19 38 23.9	-0.8
VYHS	Vyhne	73.23	318	e	P	19 38 23.9	-0.8
SRO	Srobarova	73.49	318	eP	P	19 38 26.8	+0.5
SRO	Srobarova	73.49	318	e	P	19 38 26.8	+0.5
OKC	Ostrava-Krasne	73.85	320	eP	P	19 38 28.1	-0.2
OKC				epP	pP	19 38 38.9	-0.5
MORC	Moravsky Berou	74.23	319	eP	P	19 38 28.5	-2.0
MORC				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.0						
MORC	Moravsky Berou	74.23	319	eP	P	19 38 28.5	-1.9
	comp=Z,27nm,1.4s,mb5.0						
KEV	Kevo	74.34	341	ep	P	19 38 29.7	-1.0
	comp=Z,5.8nm,0.6s,mb4.7						
KEV	Kevo	74.34	341	eP	P	19 38 29.7	-1.0
KEV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
ZST	Bratislava	74.34	318	eP	P	19 38 30.8	-0.4
ZST	Bratislava	74.34	318	e	P	19 38 30.8	-0.4
ARCES	ARCESS Array B	74.76	340	P	P	19 38 32.2	-0.9
	comp=Z,3.9nm,0.6s,mb4.5,baz=79,slow=6.2,SNR=20						
ARCES	ARCESS Array B	74.76	340	P	P	19 38 32.2	-1.0
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ARCES	ARCESS Array B	74.76	340	P	P	19 38 32.2	-0.9
DPC	Dobruska-Polom	75.07	320	eP	P	19 38 35.7	+0.3
KSP	Ksiaz	75.14	320	eP	P	19 38 35.9	+0.1
KSP				e*PP	pP	19 38 46.9	0.0
UPC	Upice	75.29	320	eP	P	19 38 36.7	+0.1
PRU	Pruhonice	76.18	320	eP	P	19 38 41.9	+0.2
PRU				epP	pP	19 38 52.9	+0.1
PVCC	Panska Ves	76.21	320	eP	P	19 38 42.6	+0.8
BRG	Berggiesshubel	76.63	320	i P	P	19 38 44.6	+0.4
BRG				e	pP	19 38 56.2	+0.9
BRG				pmax	pmax		
	comp=Z,70nm,1.6s,mb5.3						
BRG	Berggiesshubel	76.63	320	i P	P	19 38 44.6	+0.4
	comp=Z,70nm,1.6s,mb5.3						
BRG				e	pP	19 38 56.2	+0.9
GEC2	GERESS Array S	76.65	318	eP	P	19 38 44.5	+0.1
GEC2				pmax	pmax		
	comp=Z,46nm,1.4s,mb5.2						
GEC2	GERESS Array S	76.65	318	eP	P	19 38 44.5	+0.1
	comp=Z,46nm,1.4s,mb5.2						
GERES	GERESS Array B	76.65	318	P	P	19 38 44.5	+0.1
	comp=Z,9.4nm,0.6s,mb4.9,baz=91,slow=5.5,SNR=92						
GERES	GERESS Array B	76.65	318	P	P	19 38 44.5	+0.1
GERES				pmax	pmax		
	comp=Z,9.0nm,0.6s						
KHC	Kasperske Hory	76.75	319	eP	P	19 38 44.7	-0.2
RUE	Ruedersdorf	76.85	322	eP	P	19 38 44.0	-1.5
	comp=Z,23nm,0.7s,mb5.2						
BILL	Bilibino	76.95	22	eP	P	19 38 45.4	-0.3
BILL				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
BILL	Bilibino	76.95	22	eP	P	19 38 45.4	-0.3
	comp=Z,2.8nm,0.6s,mb4.4						
WET	Wettzell	77.21	319	eP	P	19 38 47.6	+0.1
CLL	Collm	77.25	321	⇑iP	P	19 38 48.1	+0.4
CLL				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.1						
CLL	Collm	77.25	321	⇑iP	P	19 38 48.1	+0.4
	comp=Z,35nm,1.5s,mb5.1						
CLL	Collm	77.25	321	⇑P	P	19 38 48.1	+0.4
	comp=Z,logA/T=1.4,mb5.1						
CLL				e*PP	pP	19 38 59.0	+0.1
NKC	Novy Kostel	77.54	320	eP	P	19 38 50.0	+0.7
NKC				epP	pP	19 38 59.6	-0.9
MAW	Mawson	78.00	191	P	P	19 38 53.2	+1.7
	comp=Z,5.9nm,0.8s,mb4.5,baz=17,slow=9.5,SNR=5.6						
MAW	Mawson	78.00	191	P	P	19 38 53.2	+1.7
MAW				pmax	pmax		
	comp=Z,6.0nm,0.9s						
MOX	Moxa	78.09	320	eP	P	19 38 52.3	0.0
MOX				pmax	pmax		
	comp=Z,42nm,1.8s,mb5.1						
MOX	Moxa	78.09	320	i P	P	19 38 52.3	0.0
	comp=Z,logA/T=1.4,mb5.1						
MOX	Moxa	78.09	320	eP	P	19 38 52.3	0.0
	comp=Z,42nm,1.8s,mb5.1						
FUR	Furstenfeldbru	78.23	318	eP	P	19 38 52.8	-0.3
GRA1	Grafenberg Arr	78.31	319	eP	P	19 38 54.2	+0.6
	comp=Z,50nm,1.2s,mb5.3						
GRF	Grafenberg Arr	78.31	319	eP	P	19 38 54.2	+0.6
GRF				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.3						
GRF	Grafenberg Arr	78.31	319	eP	P	19 38 54.2	+0.6
GRF				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.3						
GRF	Grafenberg Arr	78.31	319	eP	P	19 38 54.2	+0.6
	comp=Z,50nm,1.2s,mb5.3						
MAIM		78.71	313	P	P	19 38 55.5	-0.4
VALM		78.89	314	P	P	19 38 57.6	+0.8
NB2	NORSAR Subarra	78.91	331	P	P	19 38 55.4	-1.2
	comp=Z,4.0nm,0.8s,mb4.4,baz=97,slow=5.0						
NB2	NORSAR Subarra	78.91	331	P	P	19 38 55.4	-1.2
NB2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
NOA	NORSAR Array B	78.91	331	P	P	19 38 56.0	-0.6
	comp=Z,12nm,1.1s,mb4.7,baz=94,slow=5.5,SNR=11						
NOA	NORSAR Array B	78.91	331	P	P	19 38 56.1	-0.5
NOA				pmax	pmax		
	comp=Z,12nm,1.1s						
CLZ	Clausthal	78.92	321	eP	P	19 38 57.1	+0.3
	comp=Z,31nm,1.4s,mb5.0						
VINC	Vinca	78.95	313	P	P	19 38 56.4	-0.8
BACM		79.01	314	P	P	19 38 57.1	-0.5
BSEG	Bad Segeberg	79.02	323	eP	P	19 38 58.0	+0.7
GRAM		79.02	314	P	P	19 38 59.0	+1.4
DAVOX	Davos	79.15	316	P	P	19 38 58.2	-0.1
	comp=Z,15nm,0.5s,mb5.2,baz=120,slow=7.1,SNR=65						
CODM		79.17	314	P	P	19 38 58.2	-0.2
PCP	Pian Castagno	80.10	314	P	P	19 39 03.4	0.0
BFO	Black Forest	80.20	318	eP	P	19 39 04.0	+0.2
BFO				pmax	pmax		
	comp=Z,45nm,1.6s,mb5.2						
BFO	Black Forest	80.20	318	eP	P	19 39 04.0	+0.2
	comp=Z,45nm,1.6s,mb5.2						
FIN	Finale Ligure	80.35	313	P	P	19 39 04.7	-0.1
ORX	Oropa	80.48	315	P	P	19 39 04.0	-1.4
IMI	Imperia	80.59	313	P	P	19 39 05.8	-0.2
ROB	Roburent	80.59	314	P	P	19 39 06.0	0.0
MONE	Monesi	80.68	313	P	P	19 39 06.9	+0.4
NEGI	Negi	80.73	313	P	P	19 39 06.7	0.0
ENR	Entracque	80.92	314	P	P	19 39 07.9	+0.2
STV2	Anna di Valdie	80.99	314	P	P	19 39 08.8	+0.7
STV	Sta Anna Valdi	80.99	314	P	P	19 39 08.6	+0.5
RSP	Reno Superiore	81.00	314	P	P	19 39 07.7	-0.5
BHB	Bricherasio	81.01	314	P	P	19 39 06.8	-1.4
LSD	Ceresole Reale	81.07	315	P	P	19 39 09.1	+0.6
PZZ	Prazzo	81.14	314	P	P	19 39 07.7	-1.2
FENE	Fenestrelle	81.15	314	P	P	19 39 09.0	+0.1
RRL	Cesana Torines	81.35	314	P	P	19 39 09.9	-0.1
LPL	La Plagne	81.36	315	eP	P	19 39 10.8	+0.8
	comp=Z,54nm,0.7s,mb5.3						
LPL	La Plagne	81.36	315	eP	P	19 39 10.8	+0.8
LPL				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.3						
SYO	Syowa Base	84.69	197	⇑P	P	19 39 29.3	+2.8
SYO	Syowa Base	84.69	197	⇑pP	pP	19 39 38.3	+0.5
ESDC	Sonseca Array	89.83	310	P	P	19 39 52.7	+0.6
	comp=Z,4.2nm,0.7s,mb4.9,baz=59,slow=4.5,SNR=18						
IMA	Indian Mountai	92.50	22	eP	P	19 40 05.5	+1.8
IMA				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.8						
IMA	Indian Mountai	92.50	22	eP	P	19 40 05.5	+1.8
	comp=Z,48nm,1.0s,mb5.8						
ILAR	Eielson Array	95.61	22	P	P	19 40 17.6	-0.3
	comp=Z,2.0nm,0.6s,mb4.7,baz=305,slow=4.4,SNR=33						
ILAR	Eielson Array	95.61	22	P	P	19 40 17.7	-0.3
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.6s						
DBIC	Dimbokro	96.04	278	P	P	19 40 22.0	+0.9
	comp=Z,4.4nm,0.8s,mb5.0,baz=55,slow=5.8,SNR=6.7						
DBIC	Dimbokro	96.04	278	P	P	19 40 22.0	+0.9
DBIC				pmax	pmax		
	comp=Z,4.0nm,0.8s						
INK	Inuvik	97.67	16	P	P	19 40 27.8	+0.5
	comp=Z,2.6nm,0.6s,mb4.9,baz=4.5,slow=6.4,SNR=9.0						
INK	Inuvik	97.67	16	P	P	19 40 27.8	+0.5
INK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
YKA	Yellowknife Ar	107.01	13	PP	PP	19 45 31.5	-7.5
	comp=Z,3.0nm,1.1s,baz=334,slow=7.4,SNR=8.8						
ULM	Lac du Bonnet	121.85	6	PKP	PKPdf	19 45 48.2	+2.1
	comp=Z,2.2nm,0.6s,baz=19,slow=6.2,SNR=4.8						
ULM	Lac du Bonnet	121.85	6	PKP	PKPdf	19 45 48.2	+2.1
SNOW	Snow King Moun	124.97	20	ePKPdf	PKPdf	19 45 55.5	+3.2
REDW	Red Top Meadow	125.02	20	ePKPdf	PKPdf	19 45 55.1	+2.7
ELK	Elko	125.57	25	ePKIKP	PKPdf	19 45 56.4	+2.9
PDAR	Pinedale Array	125.99	20	PKP	PKPdf	19 45 56.1	+1.9
	comp=Z,6.3nm,1.0s,baz=90,slow=0.2,SNR=17						
NVAR	Mina Array Bea	126.03	30	PKP	PKPdf	19 45 58.5	+4.1
	comp=Z,4.2nm,0.5s,baz=309,slow=1.6,SNR=8.7						
MSU	Marysvale	128.72	25	ePKIKP	PKPdf	19 46 03.4	+3.7
ANMO	Albuquerque	134.05	21	PKP	PKPdf	19 46 13.1	+3.2
	comp=Z,3.2nm,0.7s,baz=54,slow=1.4,SNR=7.7						
ANMO	Albuquerque	134.05	21	ePKIKP	PKPdf	19 46 13.4	+3.5
TUC	Tucson	134.57	28	ePKIKP	PKPdf	19 46 14.5	+3.6
WVT	Waverly	136.39	0	ePKIKP	PKPdf	19 46 15.9	+1.8
TXAR	Lajitas Array	140.13	22	PKP	PKPdf	19 46 21.2	+0.2
	comp=Z,1.1nm,0.6s,baz=1.5,slow=1.6,SNR=4.6						
JCT	Junction City	140.32	16	ePKIKP	PKPdf	19 46 23.4	+2.0
LPAZ	La Paz	158.96	244	PKP	PKPdf	19 46 52.0	+1.7
	comp=Z,1.0nm,0.8s,baz=125,slow=4.1,SNR=3.9						
LPAZ				PKPab	PKPab	19 47 29.4	+0.3
	comp=Z,2.1nm,0.6s,baz=117,slow=5.9,SNR=7.7						
LPAZ	La Paz	158.96	244	ePKPdf	PKPdf	19 46 53.5	+3.1
LPAZ				ePKPab	PKPab	19 47 29.7	+0.6
OTAV	Otavalo	167.76	310	ePKPdf	PKPdf	19 47 02.5	+3.8
OTAV				ePKPab	PKPab	19 48 08.4	+1.0

IDC ***27*** *19:28:35.8±2.9, 9.94N×92.49E, mb4.4/15, mb1 4.6/16, mb1mx4.5/22, ML5.3/1, Error ellipse: s-maj=72.3km s-min=26.6km az=143.0*

NEIC ***27*** *19:28:38.6±0.8, 9.71N×92.59E, mb4.9/12, Error ellipse: s-maj=20.1km s-min=10.3km az=151.0*

MOS ***27*** *19:28:42.3±1.2, 10.51N×92.42E, h33*^{km}*, mb4.9/16, Error ellipse: s-maj=18.2km s-min=11.2km az=96.7*

ISC 27 19:28:37.0±0.8**, 9.8N**±0.1×**92.63E**±0.08**, h28**^{km}**, h28**^{km}±1.7^{km}**:pP-P, n74,** σ**1**^{s}**34**/69**, mb4.7**/29**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.58	35	ePn	P	19 31 09.3	-0.8
CMAR	Chiang Mai Arr	10.58	35	Pn	P	19 31 08.9	-1.2
	6.6nm,0.3s,baz=212,slow=15,SNR=32						
CMAR	Chiang Mai Arr	10.58	35	P	P	19 31 09.0	-1.1
CMAR				pmax	pmax		
	comp=Z,7.0nm,0.3s						
PALK	Pallekele	12.06	259	ePn	P	19 31 27.1	-3.0
KOD	Kodaikanal	14.94	273	e	P	19 32 27.4	+19
SONM	Songino Array	39.68	15	P	P	19 36 09.2	+0.8
	comp=Z,1.1nm,0.7s,mb3.7,baz=188,slow=9.7,SNR=2.3						
ZAK	Zakamensk	41.44	10	eP	P	19 36 23.4	+0.6
HASS	Wahat al Ahsa'	43.52	296	P	P	19 36 37.9	-2.3
ZAL	Zalesovo	44.49	353	P	P	19 36 47.8	0.0
	comp=Z,7.1nm,0.8s,mb4.5,baz=298,slow=8.2,SNR=8.2						
ZAL	Zalesovo	44.49	353	P	P	19 36 47.8	+0.1
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.8s						
HIA	Hailar	45.40	25	P	P	19 36 54.4	-0.6
HIA				e*PP	pP	19 37 02.1	-1.2
HIA				pmax	pmax		
	comp=Z,20nm,0.8s						
HIA	Hailar	45.40	25	P	P	19 36 54.4	-0.7
	comp=Z,20nm,0.8s,mb5.0						
HIA				epP	pP	19 37 02.1	-1.2
NVS	Novosibirsk	45.57	352	eP	P	19 36 57.0	+0.7

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BVAR	**Borovoye Array**	**46.73**	**342**	P	**P**	**19 37 02.9**	**-2.5**
	comp=Z,3.5nm,1.0s,mb4.2,baz=135,slow=2.0,SNR=2.3						
WRAB	**Tennant Creek**	**50.57**	**126**	*e*P	**P**	**19 37 35.6**	**0.0**
	comp=Z,62nm,1.3s,mb5.4						
HILS	**Ha'il**	**50.91**	**297**	P	**P**	**19 37 43.7**	**+5.6**
KBRS	**Khaybar**	**52.91**	**295**	P	**P**	**19 37 49.6**	**-3.6**
ZEI	**Tsey**	**53.65**	**317**	*e*P	**P**	**19 38 04.1**	**+5.7**
ZEI				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
YNBS	**Yanbu‘ al Bahr**	**53.88**	**293**	P	**P**	**19 37 50.9**	**-9.4**
ERZM	**Erzurum**	**54.40**	**312**	P	**P**	**19 38 07.4**	**+3.4**
UMJS	**Umm Lajj**	**54.59**	**294**	P	**P**	**19 38 04.1**	**-1.5**
KIV	**Kislovodsk**	**54.92**	**318**	P	**P**	**19 38 07.9**	**+0.1**
KIV				*e**PP	pP	19 38 16.7	+0.5
KIV				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
KIV	**Kislovodsk**	**54.92**	**318**	P	**P**	**19 38 07.9**	**+0.2**
	comp=Z,16nm,0.8s,mb5.1						
KIV				*e*pP	pP	19 38 16.7	+0.4
ELZG	**Elazig**	**55.74**	**310**	P	**P**	**19 38 16.4**	**+2.7**
MALT	**Malatya**	**56.11**	**310**	*e*P	**P**	**19 38 15.7**	**-0.7**
MALT				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
MALT	**Malatya**	**56.11**	**310**	*e*P	**P**	**19 38 15.7**	**-0.7**
	comp=Z,3.5nm,0.7s,mb4.5						
KMBO	**Kilima Mbogo**	**56.18**	**262**	P	**P**	**19 38 16.2**	**-1.0**
	comp=Z,0.8nm,0.5s,mb4.0,baz=37,slow=23,SNR=3.5						
KMBO	**Kilima Mbogo**	**56.18**	**262**	P	**P**	**19 38 16.4**	**-0.8**
YSS	**Yuzh-Sakhalins**	**56.24**	**39**	⇑*e*P	pP	19 38 27.2	+1.5
YSS				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
GZT	**Gaziantep**	**56.52**	**308**	P	**P**	**19 38 21.3**	**+1.9**
COBT	**Iskenderun**	**57.35**	**307**	P	**P**	**19 38 27.6**	**+2.3**
YAK	**Yakutsk**	**58.70**	**19**	P	**P**	**19 38 32.7**	**-1.6**
MEST	**Erdemli**	**59.02**	**307**	P	pP	19 38 45.5	0.0
CSS	**Prodhromos**	**59.37**	**305**	*e*P	**P**	**19 38 37.6**	**-1.8**
	comp=Z,6.1nm,0.7s,mb4.7						
CSS				*e*pP	pP	19 38 48.5	+0.5
BRTR	**Keskin Array B**	**60.07**	**310**	P	**P**	**19 38 44.5**	**+0.3**
	comp=Z,5.4nm,0.9s,mb4.6,baz=119,slow=6.4,SNR=7.1						
BRTR	**Keskin Array B**	**60.07**	**310**	P	**P**	**19 38 44.5**	**+0.3**
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.9s						
ELDT	**Eldivan**	**60.40**	**311**	P	pP	19 38 54.3	-0.7
ESKT	**Eskisehir**	**62.14**	**310**	P	pP	19 39 06.7	-0.1
MOS	**Moscow**	**62.70**	**329**	*e*P	**P**	**19 39 10.2**	**+8.6**
AKASG	**Malin Array Be**	**65.75**	**321**	P	**P**	**19 39 19.9**	**-1.7**
	comp=Z,0.7nm,0.4s,mb4.0,baz=86,slow=5.4,SNR=4.3						
AKASG	**Malin Array Be**	**65.75**	**321**	P	**P**	**19 39 19.9**	**-1.7**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MA2	**Magadan**	**65.80**	**28**	P	**P**	**19 39 21.2**	**-0.5**
MA2				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.4						
MA2	**Magadan**	**65.80**	**28**	P	**P**	**19 39 21.2**	**-0.6**
	comp=Z,32nm,0.8s,mb5.4						
IDI	**Anoyia**	**66.27**	**304**	P	**P**	**19 39 26.8**	**+1.6**
	comp=Z,10nm,0.6s,mb5.0,baz=73,slow=8.1,SNR=5.6						
MLR	**Muntele Rosu**	**66.78**	**315**	P	**P**	**19 39 28.1**	**-0.2**
	comp=Z,5.9nm,0.9s,mb4.6,baz=130,slow=1.1,SNR=3.5						
MLR	**Muntele Rosu**	**66.78**	**315**	P	**P**	**19 39 28.1**	**-0.2**
MLR				pmax	pmax		
	comp=Z,6.0nm,0.9s						
PET	**Petropavlovsk**	**67.89**	**37**	*e*P	**P**	**19 39 36.4**	**+1.3**
PET				pmax	pmax		
	comp=Z,307nm,1.8s						
PET	**Petropavlovsk**	**67.89**	**37**	*e*P	**P**	**19 39 36.4**	**+1.2**
	comp=Z,307nm,1.8s						
LSZ	**Lusaka**	**68.52**	**249**	*e*P	**P**	**19 39 36.0**	**-3.6**
LSZ				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
LSZ	**Lusaka**	**68.52**	**249**	*e*P	**P**	**19 39 36.0**	**-3.6**
	comp=Z,8.0nm,1.3s,mb4.5						
SUW	**Suwalki**	**70.11**	**324**	*e*P	**P**	**19 39 48.5**	**-0.2**
SUW				*e**PP	pP	19 39 56.1	-1.3
SUW				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
SUW	**Suwalki**	**70.11**	**324**	*e*P	**P**	**19 39 48.5**	**-0.2**
	comp=Z,7.1nm,0.6s,mb4.8						
SUW				*e*pP	pP	19 39 56.1	-1.2
FINES	**FINESS Array B**	**70.35**	**332**	P	**P**	**19 39 49.7**	**-0.4**
	comp=Z,3.5nm,0.6s,mb4.4,baz=124,slow=6.9,SNR=6.1						
FINES	**FINESS Array B**	**70.35**	**332**	P	**P**	**19 39 49.7**	**-0.4**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
MORC	**Moravsky Berou**	**72.98**	**319**	*e*P	**P**	**19 40 06.4**	**+0.4**
MORC				*e**PP	pP	19 40 15.0	+0.3
MORC				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
MORC	**Moravsky Berou**	**72.98**	**319**	*e*P	**P**	**19 40 06.3**	**+0.3**
	comp=Z,3.1nm,0.9s,mb4.2						
MORC				*e*pP	pP	19 40 15.0	+0.4
ARCES	**ARCESS Array B**	**72.99**	**340**	P	**P**	**19 40 05.4**	**-0.3**
	comp=Z,6.1nm,0.9s,mb4.5,baz=102,slow=7.0,SNR=7.0						
ARCES	**ARCESS Array B**	**72.99**	**340**	P	**P**	**19 40 05.4**	**-0.3**
ARCES				pmax	pmax		
	comp=Z,6.0nm,0.9s						
LBTB	**Lobatse**	**73.86**	**240**	*e*P	**P**	**19 40 06.8**	**-4.8**
	comp=Z,6.0nm,0.8s,mb4.6						
LBTB				*e*pP	pP	19 40 14.8	-5.5
BRG	**Berggiesshubel**	**75.35**	**320**	*e*P	pP	19 40 28.4	0.0
BRG				pmax	pmax		
	comp=Z,59nm,1.6s,mb5.3						
GERES	**GERESS Array B**	**75.43**	**318**	P	**P**	**19 40 21.1**	**+0.9**
	comp=Z,3.9nm,1.0s,mb4.3,baz=90,slow=5.3,SNR=5.0						
GERES	**GERESS Array B**	**75.43**	**318**	P	**P**	**19 40 21.1**	**+0.9**
GERES				pmax	pmax		
	comp=Z,4.0nm,1.0s						
CLL	**Collm**	**75.96**	**320**	P	**P**	**19 40 23.0**	**-0.2**
NB2	**NORSAR Subarra**	**77.36**	**330**	P	**P**	**19 40 30.1**	**-0.7**
	comp=Z,55nm,1.0s,mb5.4,baz=95,slow=5.0						
NB2	**NORSAR Subarra**	**77.36**	**330**	*e*	**P**	**19 40 30.1**	**-0.7**
	baz=95,slow=5.1						
NB2	**NORSAR Subarra**	**77.36**	**330**	P	**P**	**19 40 30.1**	**-0.7**
NB2				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.4						
NOA	**NORSAR Array B**	**77.36**	**330**	P	**P**	**19 40 30.5**	**-0.3**
	comp=Z,3.2nm,0.6s,mb4.4,baz=94,slow=5.1,SNR=9.7						
NOA	**NORSAR Array B**	**77.36**	**330**	P	**P**	**19 40 30.5**	**-0.3**
NOA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
DAVOX	**Davos**	**78.00**	**316**	P	**P**	**19 40 36.9**	**+2.3**
	comp=Z,6.4nm,0.8s,mb4.6,baz=142,slow=3.5,SNR=5.3						
LPL	**La Plagne**	**80.25**	**315**	*e*P	**P**	**19 40 49.7**	**+2.9**
	comp=Z,22nm,0.6s,mb4.9						
LPL	**La Plagne**	**80.25**	**315**	*e*P	**P**	**19 40 49.7**	**+2.9**
LPL				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
ESDC	**Sonseca Array**	**88.86**	**310**	P	**P**	**19 41 31.4**	**+1.2**
	comp=Z,0.8nm,0.5s,mb4.3,baz=74,slow=4.4,SNR=5.8						
ILAR	**Eielson Array**	**93.55**	**22**	P	**P**	**19 41 52.6**	**+1.3**
	comp=Z,1.0nm,0.9s,mb4.2,baz=307,slow=4.0,SNR=4.7						
ILAR	**Eielson Array**	**93.55**	**22**	P	**P**	**19 41 52.6**	**+1.2**
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.9s						
SNG	**Songkhla**	**6.98**	**101**	P	**Pn**	**19 30 32.5**	**-1.0**
	350nm,1.0s						
CM31	**Chiang Mai Arr**	**11.11**	**27**	*e*Pn	**P**	**19 31 28.6**	**-2.1**
CMAR	**Chiang Mai Arr**	**11.11**	**27**	Pn	**P**	**19 31 31.2**	**+0.5**
	7.6nm,0.3s,baz=213,slow=15,SNR=22						
CMAR				LR	LR	19 36 41.8	
	comp=Z,2µm,18.8s,baz=213,slow=43						
CMAR	**Chiang Mai Arr**	**11.11**	**27**	P	**P**	**19 31 31.3**	**+0.6**
CMAR				pmax	pmax		
	comp=Z,8.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,2µm,18.8s						
VIS	**Vishakhapatnam**	**13.62**	**313**	*e*P	**P**	**19 32 03.6**	**-0.8**
VIS				*e*		19 32 07.1	
	comp=Z,618nm,0.8s						
MDRS	**Chennai**	**13.97**	**290**	*e*P	**P**	**19 32 08.5**	**-0.5**
MDRS				*e*		19 32 12.6	
	comp=Z,468nm,0.4s						
BOK	**Bokaro**	**16.93**	**335**	*e*P	**P**	**19 32 45.5**	**-1.7**
BOK				*e*		19 33 02.5	
	comp=Z,234nm,1.6s						
SHL	**Shillong**	**17.04**	**354**	*e*P	**P**	**19 32 49.1**	**+0.6**
SHL				*e*		19 32 50.4	
	comp=Z,138nm,0.9s						
BLSP	**Bilaspur**	**17.52**	**322**	*i* P	**P**	**19 32 56.1**	**+1.5**
BLSP				*e*		19 32 57.9	
	comp=Z,306nm,0.7s						
KMI	**Kunming**	**18.62**	**26**	P	**P**	**19 33 09.8**	**+1.6**
KMI				S	**S**	**19 36 35.0**	**+3.3**
KMI				AMB	AMB		
	comp=Z,78nm,2.0s						
KMI				AMB	AMB		
	comp=Z,1µm,5.9s						
KMI				LR	LR		
	comp=N,2µm,12.2s						
KMI				LR	LR		
	comp=E,2µm,12.8s						
KMI				LR	LR		
	comp=Z,2µm,12.5s						
QIZ	**Qiongzhong**	**18.82**	**55**	P	**P**	**19 33 13.5**	**+2.9**
QIZ				S	**S**	**19 36 37.8**	**+1.7**
QIZ				LR	LR		
	comp=N,10µm,14.5s						
QIZ				LR	LR		
	comp=Z,5µm,11.0s						
QIZ	**Qiongzhong**	**18.82**	**55**	*e*P	**P**	**19 33 11.6**	**+1.0**
	comp=Z,270nm,1.5s						
BHPL	**Bhopal**	**21.40**	**315**	*e*P	**P**	**19 33 36.8**	**-1.6**
BHPL				*e*		19 33 40.9	
	comp=Z,102nm,0.6s						
CD2	**Chengdu**	**24.17**	**21**	P	**P**	**19 34 06.0**	**+0.3**
CD2				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.2						
PTH	**Pithoragarh**	**24.45**	**331**	*e*P	**P**	**19 34 08.7**	**+0.3**
PTH				*e*		19 40 34.2	
NDI	**New Delhi**	**25.36**	**324**	*e*P	**P**	**19 34 17.3**	**+0.2**
NDI				*e*		19 34 21.4	
AJM	**Ajmer**	**25.42**	**317**	*e*P	**P**	**19 34 17.7**	**+0.1**
AJM				*e*P		19 34 20.8	
AJM				*e*		19 34 21.6	
	comp=Z,108nm,1.0s						
DDI	**Dehra Dun**	**26.17**	**328**	*e*P	**P**	**19 34 24.3**	**-0.2**
ENH	**Enshi**	**26.20**	**32**	*e*P	**P**	**19 34 24.7**	**-0.1**
	comp=Z,71nm,1.0s,mb5.2						
BHJ	**Bhuj**	**27.31**	**305**	*e*P	**P**	**19 34 38.0**	**+3.0**
BHJ				*e*		19 34 47.8	
	comp=Z,42nm,1.0s						
SDNR	**Sundarnagar**	**27.67**	**328**	*e*P	**P**	**19 34 40.1**	**+1.9**
LZH	**Lanzhou**	**28.95**	**17**	⇑P	**P**	**19 34 49.8**	**0.0**
LZH				PP	PP	19 35 44.8	+1.1
LZH				S	**S**	**19 39 41.0**	**+3.4**
LZH				SS	SS	19 41 08.0	+1.4
LZH				AMB	AMB		
	comp=Z,76nm,1.2s,mb5.3						
LZH				AMB	AMB		
	comp=Z,341nm,4.0s						
LZH				LR	LR		
	comp=E,2µm,12.8s						
LZH				LR	LR		
	comp=Z,4µm,14.4s,MS5.2						
DLH	**Dalhousie**	**29.01**	**328**	*e*P	**P**	**19 34 50.0**	**-0.3**
THN	**Thein Dam**	**29.06**	**327**	*e*P	**P**	**19 34 50.1**	**-0.7**
	comp=Z,35nm,0.7s,mb5.2						
GTA	**Gaotai**	**31.24**	**9**	⇓P	**P**	**19 35 09.8**	**-0.3**
GTA				AP	pP	19 35 16.3	-1.6
GTA				PP	PP	19 36 15.5	+2.2
GTA				PCP	PcP	19 37 59.5	-4.8
GTA				S	**S**	**19 40 19.3**	**+5.6**
GTA				XS		19 40 30.5	
GTA				SCP		19 41 40.5	
GTA				PCS		19 41 44.5	
GTA				SCS	ScS	19 45 38.5	-1.6
GTA				AMB	AMB		
	comp=Z,53nm,1.3s,mb5.2						
GTA				AMB	AMB		
	comp=Z,3µm,5.3s						
GTA				LR	LR		
	comp=N,1µm,15.2s,MS4.9						
GTA				LR	LR		
	comp=E,2µm,13.3s,MS4.9						
GTA				LR	LR		
	comp=Z,1µm,17.5s,MS4.7						
NJ2	**Nanjing**	**33.06**	**41**	*e*P	**P**	**19 35 26.8**	**+0.7**
NJ2				XS		19 41 07.0	
NJ2				SS	SS	19 42 51.0	+7.8
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
NJ2				LR	LR		
	comp=N,5µm,18.8s,MS5.4						
NJ2				LR	LR		
	comp=E,5µm,22.1s,MS5.4						
NJ2				LR	LR		
	comp=Z,5µm,12.8s						
SSE	**Sheshan**	**34.06**	**45**	P	**P**	**19 35 33.3**	**-1.5**
SSE				AMB	AMB		
	comp=Z,17nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,3µm,12.0s						
KSH	**Kashi**	**34.71**	**336**	*i* PR		19 35 40.3	
KSH				AP	pP	19 35 49.3	+1.2
KSH				XP	sP	19 35 53.0	+1.6
KSH				*e*PP	PP	19 36 56.8	-0.6
KSH				PPP	PPP	19 37 14.5	-0.9
KSH				*e*PCP	PcP	19 38 13.5	-0.4
KSH				*e*S	**S**	**19 41 07.3**	**-0.3**
KSH				*e*XS		19 41 22.5	
KSH				*e*SCP		19 41 54.8	
KSH				*e*PCS		19 41 57.5	
KSH				SS	SS	19 43 18.8	-2.1
KSH				SCS	ScS	19 45 57.0	-1.0
KSH				AMB	AMB		
	comp=Z,1µm,8.6s						
KSH				LR	LR		
	comp=N,1µm,15.2s,MS5.0						
KSH				LR	LR		
	comp=E,1µm,11.5s,MS5.0						
WMQ	**Urumqi**	**35.55**	**353**	⇑P	**P**	**19 35 47.8**	**+0.4**
WMQ				AP	pP	19 35 55.0	-0.2
WMQ				PP	PP	19 37 07.8	0.0
WMQ				PPP	PPP	19 37 26.8	-0.1
WMQ				S	**S**	**19 41 22.0**	**+1.4**
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.6						
WMQ				LR	LR		
	comp=N,758nm,21.2s,MS4.7						
WMQ				LR	LR		
	comp=E,1µm,23.0s,MS4.7						
WMQ				LR	LR		
	comp=Z,745nm,22.9s,MS4.4						
HHC	**Hu-ho-hao-te**	**35.89**	**23**	*e*P	**P**	**19 35 49.8**	**-0.5**
HHC				AP	pP	19 35 59.3	+1.1
HHC				XP	sP	19 36 03.5	+2.0
HHC				PP	PP	19 37 10.3	-1.6
HHC				AMB	AMB		
	comp=Z,33nm,0.7s,mb5.4						
HHC				AMB	AMB		
	comp=Z,667nm,8.0s						
ULHL	**Ulahol**	**36.95**	**338**	P	**P**	**19 35 59.4**	**+0.3**
	SNR=12						
KZA	**Kyzart**	**37.17**	**337**	P	**P**	**19 36 02.4**	**+1.4**
	SNR=8.8						
BJT	**Baijiatuau**	**37.23**	**29**	*e*P	**P**	**19 36 01.4**	**-0.1**
BJT				pmax	pmax		
	comp=Z,9.0nm,0.6s						
BJT	**Baijiatuau**	**37.23**	**29**	*e*P	**P**	**19 36 01.4**	**-0.1**
	comp=Z,9.4nm,0.6s,mb4.8						
UCH	**Uchtor**	**37.59**	**336**	P	**P**	**19 36 05.3**	**+0.8**
	SNR=13						
TKM2	**Tokmak 2**	**37.77**	**338**	P	**P**	**19 36 06.5**	**+0.5**
	SNR=9.3						
KBK	**Karagaybulak**	**37.78**	**337**	P	**P**	**19 36 07.9**	**+1.7**
	SNR=8.9						
AML	**Almayashu**	**37.84**	**335**	P	**P**	**19 36 08.0**	**+1.3**
	SNR=10						
AAK	**Ala-Archa**	**37.94**	**337**	P	**P**	**19 36 08.6**	**+1.2**
	SNR=11						
CHMS	**Chumysh**	**38.15**	**337**	P	**P**	**19 36 09.5**	**+0.3**
	SNR=13						
EKS2	**Erkin-Say**	**38.25**	**336**	P	**P**	**19 36 11.7**	**+1.6**
	SNR=9.3						
USP	**Ospenovka**	**38.48**	**337**	P	**P**	**19 36 12.4**	**+0.4**
	SNR=16						
MBWA	**Marble Bar**	**39.03**	**139**	P	**P**	**19 36 18.1**	**+1.2**
	comp=Z,48nm,1.3s,mb5.1						
MKAR	**Makanchi Array**	**39.37**	**348**	*i* P	**P**	**19 36 18.9**	**-0.4**
SONM	**Songino Array**	**40.63**	**13**	P	**P**	**19 36 28.4**	**-1.3**
	comp=Z,9.0nm,1.0s,mb4.4,baz=193,slow=7.1,SNR=7.2						
SONM				PcP	PcP	19 38 32.2	+0.2
	comp=Z,12nm,1.0s,baz=203,slow=3.9,SNR=5.5						
ULN	**Ulaanbaatar**	**40.81**	**14**	*e*P	**P**	**19 36 30.8**	**-0.4**
ULN				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.8						
ULN	**Ulaanbaatar**	**40.81**	**14**	*e*P	**P**	**19 36 30.8**	**-0.4**
	comp=Z,27nm,1.0s,mb4.8						
INCN	**Inchon**	**41.44**	**41**	P	**P**	**19 36 36.4**	**-0.1**
KS15	**Wonju Array Si**	**42.23**	**42**	*e*P	**P**	**19 36 44.2**	**+1.1**
SNY	**Shenyang**	**42.37**	**34**	⇓P	**P**	**19 36 44.5**	**+0.4**
ZAK	**Zakamensk**	**42.48**	**9**	*e*P	**P**	**19 36 44.6**	**-0.3**
CN2	**Changchun**	**44.72**	**33**	*e*P	**P**	**19 37 04.0**	**+0.8**
CN2				*e*AP	pP	19 37 10.8	-0.3
CN2				*e*S	**S**	**19 43 40.0**	**+2.4**
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
CN2				AMB	AMB		
	comp=Z,700nm,5.0s						
CN2				LR	LR		
	comp=N,1µm,17.0s,MS5.0						
CN2				LR	LR		
	comp=E,700nm,17.0s,MS5.0						
CN2				LR	LR		
	comp=Z,1µm,18.0s,MS4.8						
ZAL	**Zalesovo**	**45.85**	**353**	P	**P**	**19 37 11.3**	**-0.7**
	comp=Z,76nm,0.8s,mb5.7,baz=298,slow=7.3,SNR=50						
ZAL	**Zalesovo**	**45.85**	**353**	P	**P**	**19 37 11.4**	**-0.6**
ZAL				pmax	pmax		
	comp=Z,76nm,0.8s						
NWAO	**Narrogin (SRO)**	**46.92**	**153**	P	**P**	**19 37 19.8**	**-1.0**
	comp=Z,84nm,1.0s,mb5.6,baz=329,slow=9.1,SNR=9.0						
NWAO	**Narrogin (SRO)**	**46.92**	**153**	*e*P	**P**	**19 37 20.2**	**-0.5**
NWAO				pmax	pmax		
	comp=Z,58nm,0.9s						
NWAO	**Narrogin (SRO)**	**46.92**	**153**	*e*P	**P**	**19 37 20.2**	**-0.6**
	comp=Z,58nm,0.9s,mb5.5						
NVS	**Novosibirsk**	**46.94**	**352**	*e*P	**P**	**19 37 19.2**	**-1.4**
NVS				*e*	pP	19 37 26.5	-2.1
NVS				pmax	pmax		
	comp=N,90nm,0.9s						
NVS				pmax	pmax		
	comp=E,52nm,0.9s						
NVS				pmax	pmax		
	comp=Z,223nm,0.9s,mb6.1						
MDJ	**Mudanjiang**	**47.52**	**35**	P	**P**	**19 37 25.3**	**0.0**
MDJ				PCP	PcP	19 38 55.5	0.0
MDJ				PP	PP	19 39 16.5	+0.4
MDJ				PCS		19 42 50.0	
MDJ				S	**S**	**19 44 21.0**	**+3.5**
MDJ				AMB	AMB		
	comp=Z,16nm,2.3s,mb4.6						
MDJ				LR	LR		
	comp=N,286nm,16.7s,MS4.7						
MDJ				LR	LR		
	comp=E,681nm,21.7s,MS4.7						
MDJ				LR	LR		
	comp=Z,638nm,25.9s,MS4.5						
RDF	**Al-Radifah**	**47.82**	**301**	*e*P	**P**	**19 37 29.1**	**+1.2**
RDF				AMb	AMB	19 37 30.9	
	comp=Z,364nm,1.0s,mb6.3						
UMR	**Umm Al-Rimmam**	**47.85**	**302**	*e*P	**P**	**19 37 29.1**	**+0.9**
UMR				AMb	AMB	19 37 30.8	
	comp=Z,146nm,0.8s,mb6.1						
MIB	**Mutribah**	**48.24**	**303**	*e*P	**P**	**19 37 31.6**	**+0.4**
MIB				AMb	AMB	19 37 33.4	
	comp=Z,377nm,0.8s,mb6.5						
BVA0	**Borovoye Array**	**48.24**	**341**	*i* P	**P**	**19 37 30.1**	**-0.7**
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
BVAR	**Borovoye Array**	**48.24**	**341**	P	**P**	**19 37 28.7**	**-2.1**
	comp=Z,24nm,0.8s,mb5.3,baz=149,slow=8.6,SNR=17						
BRVK	**Borovoye**	**48.30**	**341**	*e*P	**P**	**19 37 30.5**	**-0.8**
BRVK				*e**PP	pP	19 37 38.8	-0.5
BRVK				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.3						
BRVK	**Borovoye**	**48.30**	**341**	*e*P	**P**	**19 37 30.5**	**-0.8**
	comp=Z,31nm,0.9s,mb5.3						
BRVK				*e*pP	pP	19 37 38.8	-0.6
RST	**Umm Al-Ruwaisa**	**48.44**	**302**	*e*P	**P**	**19 37 33.4**	**+0.7**
RST				AMb	AMB	19 37 35.2	
	comp=Z,286nm,1.1s,mb6.2						
CHKZ	**Chkalovo**	**48.73**	**342**	*e*P	**P**	**19 37 33.6**	**-0.9**
CHKZ				pmax	pmax		
	comp=Z,81nm,0.8s,mb5.8						
CHKZ	**Chkalovo**	**48.73**	**342**	*e*P	**P**	**19 37 33.6**	**-1.0**
	comp=Z,81nm,0.8s,mb5.8						
WRA	**Warramunga Arr**	**48.99**	**126**	P	**P**	**19 37 34.6**	**-2.4**
	comp=Z,3.8nm,0.5s,mb4.7,baz=304,slow=8.6,SNR=6.8						
WRA				PcP	PcP	19 39 00.3	-0.9
	comp=Z,6.6nm,0.9s,baz=316,slow=3.0,SNR=6.3						
WRA	**Warramunga Arr**	**48.99**	**126**	P	**P**	**19 37 34.6**	**-2.4**
WRA						19 39 00.3	
WRA				pmax	pmax		
	comp=Z,4.0nm,0.5s						
WRA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
WRAB	**Tennant Creek**	**48.99**	**126**	*i* P	**P**	**19 37 37.5**	**+0.5**
WRAB	**Tennant Creek**	**48.99**	**126**	*e*P	**P**	**19 37 37.2**	**+0.2**
	comp=Z,48nm,1.1s,mb5.4						
MAT	**Matsushiro**	**49.05**	**48**	P	**P**	**19 37 38.8**	**+1.5**
MAT	**Matsushiro**	**49.05**	**48**	*e*P	**P**	**19 37 39.0**	**+1.7**
ASAR	**Alice Springs**	**50.66**	**130**	P	**P**	**19 37 48.0**	**-1.8**
	comp=Z,6.5nm,0.9s,mb4.6,baz=306,slow=7.6,SNR=6.6						
ASAR				PcP	PcP	19 39 06.7	-0.5
	comp=Z,9.5nm,1.0s,baz=312,slow=3.7,SNR=8.0						
KLR	**Kul'dur**	**51.55**	**31**	*e*P	**P**	**19 37 54.8**	**-1.4**
BOD	**Bodaibo**	**51.62**	**14**	*e*P	**P**	**19 37 55.2**	**-1.4**
GNI	**Garni**	**53.68**	**314**	P	**P**	**19 38 12.2**	**+0.1**
	comp=Z,22nm,0.8s,mb5.2,baz=339,slow=7.7,SNR=8.3						
GNI	**Garni**	**53.68**	**314**	*e*P	**P**	**19 38 11.6**	**-0.6**
GNI				pmax	pmax		
	comp=Z,56nm,1.1s						
GNI	**Garni**	**53.68**	**314**	*e*P	**P**	**19 38 11.6**	**-0.6**
	comp=Z,56nm,1.1s,mb5.4						
CLNS	**Chul'man**	**53.98**	**21**	*e*P	**P**	**19 38 12.6**	**-1.5**
CLNS				*e**PP	pP	19 38 20.1	-2.1
CLNS				*e*		19 40 15.5	
CLNS				*e*PPP	PPP	19 41 27.8	+1.0
CLNS				*e*S	**S**	**19 46 02.8**	**+16**
CLNS				*e*		19 48 01.4	
CLNS				pmax	pmax		
	comp=Z,34nm,0.7s,mb5.4						
CLNS				pmax	pmax		
	comp=N,19nm,0.8s						
CLNS				pmax	pmax		
	comp=E,16nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
CLNS				pmax	pmax		
	comp=N,10.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,3.0nm,0.7s						
CLNS				smax			
	comp=N,939nm,14.3s						
CLNS				smax			
	comp=Z,1µm,14.9s						
CLNS				smax			
	comp=E,108nm,12.9s						
CLNS				MLR	MLR		
	comp=N,700nm,11.0s,MS5.0						
CLNS				MLR	MLR		
	comp=Z,900nm,11.0s,MS5.1						

IDC ***27*** *19:28:47.8±0.4, 8.64N×93.83E, mb5.1/29, mb1 5.1/30, mb1mx5.1/30, ML5.4/1, MS4.5/1, Ms1 4.7/1, ms1mx3.4/23, Error ellipse: s-maj=18.8km s-min=10.7km az=47.0*

BJI ***27*** *19:28:49.9, 8.29N×93.53E, h42^{km}, mB5.5, mb5.0, Ms5.1, Msz4.9*

MOS ***27*** *19:28:52.4±0.9, 8.77N×93.64E, h33^{km}, mb5.6/45, Error ellipse: s-maj=9.9km s-min=5.8km az=112.4*

NEIC ***27*** *19:28:52.3±0.2, 8.55N×93.69E, mb5.4/41, Error ellipse: s-maj=6.0km s-min=5.0km az=223.0*

SYO ***27*** *19:28:52.7, 8.58N×93.66E, h30^{km}, MB5.4*

HRVD ***27*** *19:28:52.3±0.3, 8.72N×93.93E, h12^{km}, MW5.3/60, Centroid moment Tensor Solution. LP body waves: s29,c43;Mantle waves: s60,c115; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.74±.02; $M_{\theta\theta}$-0.04±.02; $M_{\phi\phi}$0.78±.02; $M_{r\theta}$0.22±.08; $M_{\theta\phi}$-0.15±.02; $M_{\phi r}$-0.67±.06; Best double couple: $M_0$1.04×10^{17} NP1: ϕ_s177°,δ24°,λ-79°. NP2:ϕ_s344°,δ66°,λ-95°. Principal axes: T 1.07, Plg21°, Azm78°; N -.06, Plg5°, Azm346°; P -1.01, Plg68°, Azm245°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 19:28:50.3±0.2**, 8.52N**±0.04×**93.70E**±0.03**, h26^{km}, h26^{km}**±.5^{km}**:pP-P, n276,** σ**1^{s}06**/255**, mb5.3**/90**, MS4.9**/10**, 3C-13D, Nicobar Islands region**

CLNS				MLR	MLR		
	comp=E,100nm,12.0s,MS5.0						
SVE	Sverdlovsk	54.64	338	⇓iP	P	19 38 18.3	-0.7
SVE				e		19 39 29.0	
SVE				e		19 40 23.5	
SVE				pmax	pmax		
	comp=Z,180nm,1.6s,mb5.8						
ARU	Arti	55.13	337	⇓iP	P	19 38 21.2	-1.4
ARU				e		19 39 18.9	
ARU				e		19 40 21.5	
ARU				ePPP	PPP	19 41 35.9	-4.7
ARU				eS	S	19 46 03.2	+1.2
ARU				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.5						
ARU	Arti	55.13	337	eP	P	19 38 21.1	-1.5
	comp=Z,54nm,1.0s,mb5.5						
ASAJ	Asahikawa	55.21	41	P	P	19 38 22.9	-0.5
	comp=Z,9.3nm,0.7s,mb4.9,baz=198,slow=6.4,SNR=4.3						
ASAJ	Asahikawa	55.21	41	P	P	19 38 22.9	-0.5
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
ASAJ	Asahikawa	55.21	41	P	P	19 38 22.9	-0.5
ASAJ				pmax	pmax		
	comp=Z,9.0nm,0.7s						
ZEI	Tsey	55.27	317	eP	P	19 38 23.7	-0.1
PMG	Port Moresby	56.13	107	P	P	19 38 30.4	0.0
	comp=Z,10.0nm,0.6s,mb5.0,baz=318,slow=8.7,SNR=5.9						
PMG	Port Moresby	56.13	107	eP	P	19 38 30.0	-0.4
PMG				pmax	pmax		
	comp=Z,28nm,0.9s						
PMG	Port Moresby	56.13	107	eP	P	19 38 30.0	-0.4
	comp=Z,28nm,0.9s,mb5.3						
YSS	Yuzh-Sakhalins	56.54	38	eP	P	19 38 32.7	-0.2
	comp=Z,37nm,0.8s,mb5.5						
YSS	Yuzh-Sakhalins	56.54	38	e	P	19 38 35.1	+2.2
KIV	Kislovodsk	56.55	318	eP	P	19 38 32.3	-0.7
KIV				eS	S	19 46 23.4	+2.3
KIV				pmax	pmax		
	comp=N,37nm,1.1s						
KIV				pmax	pmax		
	comp=E,33nm,1.1s						
KIV				pmax	pmax		
	comp=Z,77nm,1.1s,mb5.7						
KIV	Kislovodsk	56.55	318	eP	P	19 38 32.1	-0.9
	comp=Z,70nm,0.9s,mb5.7						
KMBO	Kilima Mbogo	57.07	263	P	P	19 38 39.1	+1.9
	comp=Z,8.8nm,0.9s,mb4.8,baz=52,slow=9.1,SNR=10						
KMBO	Kilima Mbogo	57.07	263	P	P	19 38 39.1	+2.0
KMBO				pmax	pmax		
	comp=Z,9.0nm,0.9s						
TBKS	Tabuk	57.14	298	P	P	19 38 33.4	-4.1
ASF	Jabal al Asfar	57.50	303	P	P	19 38 40.4	+0.4
	comp=Z,19nm,0.8s,mb5.2,baz=339,slow=4.2,SNR=19						
MALT	Malatya	57.72	310	eP	P	19 38 39.9	-1.4
MALT				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
MALT	Malatya	57.72	310	eP	P	19 38 39.9	-1.5
	comp=Z,31nm,1.1s,mb5.2						
JMQS	Jabal Moqyreh	57.82	299	P	P	19 38 42.7	+0.6
SOKR	Solikamsk	58.04	339	⇓iP	P	19 38 41.3	-2.0
SOKR				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.7						
AYUS	‘Aynunah	58.25	298	P	P	19 38 42.6	-2.6
SOC	Sochi	58.42	316	iP	P	19 38 44.3	-1.8
SOC				eS	S	19 46 45.6	-0.1
SOC				pmax	pmax		
	comp=Z,44nm,1.0s,mb5.4						
SOC				pmax	pmax		
	comp=N,13nm,0.9s						
SOC				pmax	pmax		
	comp=E,7.0nm,0.8s						
SOC				MLR	MLR		
	comp=Z,421nm,17.0s,MS4.6						
SOC				MLR	MLR		
	comp=E,215nm,15.0s						
BDAS	Al Bad‘	58.43	298	P	P	19 38 45.1	-1.3
MKRJ	Makawir	58.44	302	P	P	19 38 47.2	+0.7
JMOS	Jabal al Moall	58.52	299	P	P	19 38 48.4	+1.3
KSHT	Keshet	58.56	303	P	P	19 38 47.9	+0.6
ALWS	Ilw as Safayha	58.58	299	P	P	19 38 47.9	+0.4
DRGI	Dragot	58.66	302	P	P	19 38 48.5	+0.5
HMDT	Nahal Hemdat	58.66	303	P	P	19 38 48.5	+0.5
HAQS	Haql	58.66	299	P	P	19 38 49.4	+1.3
EIL	Elat	58.73	299	P	P	19 38 49.1	+0.6
	comp=E,39nm,1.0s,mb5.4,baz=56,slow=6.6,SNR=14						
EIL	Elat	58.73	299	eP	P	19 38 47.0	-1.5
	comp=E,46nm,1.0s,mb5.5						
MBH	Mount Berech	58.78	300	P	P	19 38 49.5	+0.6
MMLI	Mount Malkishu	58.78	303	P	P	19 38 49.5	+0.6
KMTI	Karmit	58.99	300	P	P	19 38 50.9	+0.6
CTA	Charters Tower	59.00	119	P	P	19 38 50.0	-0.6
	comp=E,4.7nm,1.1s,mb4.4,baz=261,slow=4.9,SNR=3.9						
CTA	Charters Tower	59.00	119	P	P	19 38 50.0	-0.5
CTA				pmax	pmax		
	comp=Z,5.0nm,1.1s						
CTAO	Charters Tower	59.00	119	eP	P	19 38 51.9	+1.4
CTAO				pmax	pmax		
	comp=Z,52nm,1.6s,mb5.3						
CTAO	Charters Tower	59.00	119	eP	P	19 38 51.9	+1.4
	comp=Z,52nm,1.6s,mb5.3						
HAF	Haifa	59.17	303	P	P	19 38 51.9	+0.3
KZIT	Kziot	59.39	301	P	P	19 38 53.4	+0.3
YAK	Yakutsk	59.52	19	eP	P	19 38 51.9	-1.7
YAK				e	pP	19 38 59.8	-2.0
YAK				pmax	pmax		
	comp=N,8.0nm,0.9s						
YAK				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=E,9.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.2						
YAK				pmax	pmax		
	comp=N,25nm,1.3s						
YAK				pmax	pmax		
	comp=E,17nm,1.1s						
YAK				MLR	MLR		
	comp=Z,621nm,14.0s,MS4.9						
YAK				MLR	MLR		
	comp=N,582nm,15.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,276nm,15.0s,MS4.9						
YAK	Yakutsk	59.52	19	eP	P	19 38 51.6	-1.9
	comp=E,38nm,0.8s,mb5.5						
ANN	Anapa	60.37	317	eP	pP	19 39 14.8	+6.9
ANN				pmax	pmax		
	comp=Z,111nm,1.7s,mb5.6						
STKA	Stephens Creek	60.86	134	P	P	19 39 02.0	-1.1
	comp=Z,5.6nm,0.7s,mb4.8,baz=304,slow=8.7,SNR=5.5						
STKA	Stephens Creek	60.86	134	eP	P	19 39 01.2	-1.9
CSS	Prodhromos	60.95	305	eP	P	19 39 03.2	-0.5
	comp=Z,14nm,0.9s,mb5.1						
BRTR	Keskin Array B	61.68	311	P	P	19 39 07.3	-1.3
	comp=Z,24nm,0.8s,mb5.4,baz=121,slow=7.3,SNR=26						
VOR	Voronezh	61.80	325	eP	P	19 39 07.5	-1.8
VOR				pmax	pmax		
	comp=Z,160nm,1.1s,mb6.1						
SIM	Simferopol’	62.66	316	deP	P	19 39 14.0	-1.1
SIM				eS	S	19 47 33.0	-7.0
MBAR	Mbarara	63.38	265	iP	P	19 39 21.9	+1.7
MBAR	Mbarara	63.38	265	eP	P	19 39 19.9	-0.4
	comp=Z,28nm,1.3s,mb5.2						
ISP	Isparta	63.70	308	iP	P	19 39 19.2	-2.9
MOS	Moscow	64.30	329	eP	P	19 39 24.6	-1.1
MOS				e	pP	19 39 32.7	-1.2
MOS				e		19 41 43.4	
MOS				pmax	pmax		
	comp=Z,186nm,1.4s,mb5.9						
OBN	Obninsk	64.60	328	deP	P	19 39 26.2	-1.4
OBN				e		19 41 48.2	
OBN				eS	S	19 47 59.7	-4.3
OBN				pmax	pmax		
	comp=Z,171nm,1.6s,mb5.8						
OBN	Obninsk	64.60	328	eP	P	19 39 26.3	-1.4
	comp=Z,213nm,1.4s,mb6.0						
MA2	Magadan	66.39	28	eP	P	19 39 39.0	0.0
MA2				e	pP	19 39 47.6	+0.3
MA2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
MA2	Magadan	66.39	28	eP	P	19 39 37.7	-1.3
	comp=Z,32nm,0.8s,mb5.4						
AKASG	Malin Array Be	67.38	322	P	P	19 39 43.6	-1.9
	comp=Z,11nm,0.7s,mb5.0,baz=89,slow=4.7,SNR=27						
AKASG	Malin Array Be	67.38	322	P	P	19 39 43.6	-1.9
AKASG				pmax	pmax		
	comp=Z,11nm,0.7s						
IDI	Anoyia	67.85	305	P	P	19 39 48.6	-0.1
	comp=Z,34nm,0.9s,mb5.4,baz=90,slow=6.6,SNR=7.3						
MLR	Muntele Rosu	68.41	316	P	P	19 39 51.8	-0.2
	comp=Z,38nm,0.9s,mb5.4,baz=76,slow=4.0,SNR=11						
MLR	Muntele Rosu	68.41	316	P	P	19 39 51.8	-0.2
MLR				pmax	pmax		
	comp=Z,38nm,0.9s						
SEY	Seymchan	68.52	25	eP	P	19 39 50.8	-1.6
SEY				e	pP	19 39 59.9	-0.8
SEY				pmax	pmax		
	comp=E,50nm,1.4s						
SEY				pmax	pmax		
	comp=Z,100nm,1.4s,mb5.5						
SEY	Seymchan	68.52	25	eP	P	19 39 50.8	-1.6
SEY				e	pP	19 39 59.9	-0.8
SEY				pmax	pmax		
	comp=E,50nm,1.4s						
SEY				pmax	pmax		
	comp=Z,100nm,1.4s,mb5.5						
LVZ	Lovozero	70.81	340	⇓eP	P	19 40 04.0	-2.3
LVZ				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.4						
LVZ				pmax	pmax		
	comp=E,25nm,1.0s						
VSU	Vasula	70.81	329	iP	P	19 40 05.9	-0.6
KWP	Kalwaria	71.26	320	eP	P	19 40 09.1	-0.2
KOLS	Kolonicke sedl	71.44	319	eP	P	19 40 09.5	-0.9
KOLS				e	pP	19 40 18.8	+0.1
SUW	Suwalki	71.73	324	eP	P	19 40 10.9	-1.2
FINES	FINESS Array B	71.94	332	P	P	19 40 12.8	-0.4
	comp=E,32nm,0.9s,mb5.3,baz=104,slow=7.9,SNR=25						
FINES	FINESS Array B	71.94	332	P	P	19 40 12.8	-0.4
FINES				pmax	pmax		
	comp=Z,32nm,0.9s						
FINES	FINESS Array B	71.94	332	P	P	19 40 12.8	-0.4
CRVS	Cervenica-Dubn	71.96	319	eP	P	19 40 15.7	+2.2
KAF	Kangasniemi	72.02	333	ep	P	19 40 13.2	-0.5
	comp=Z,17nm,0.7s,mb5.1						
KAF	Kangasniemi	72.02	333	eP	P	19 40 13.2	-0.5
KAF				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
NIE	Niedzica	72.78	319	eP	P	19 40 18.5	+0.2
PSZ	Piszkesteto	72.88	317	eP	P	19 40 17.9	-1.1
PSZ				pmax	pmax		
	comp=Z,48nm,1.4s,mb5.2						
PSZ	Piszkesteto	72.88	317	eP	P	19 40 17.9	-1.1
	comp=Z,48nm,1.4s,mb5.2						
OJC	Ojcow	73.20	320	⇓iP	P	19 40 20.5	-0.3
OJC	Ojcow	73.20	320	iP	P	19 40 20.5	-0.3
VYHS	Vyhne	73.64	318	iP	P	19 40 23.0	-0.4
VYHS				e	pP	19 40 31.2	-0.5
SRO	Srobarova	73.92	317	eP	P	19 40 24.9	-0.2
SRO				epP	pP	19 40 33.2	-0.2
KEV	Kevo	74.08	341	ep	P	19 40 25.1	-0.5
	comp=Z,40nm,0.9s,mb5.3						
KEV	Kevo	74.08	341	eP	P	19 40 25.1	-0.5
KEV				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
LBTB	Lobatse	74.17	241	eP	P	19 40 28.5	+1.5
LBTB				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
LBTB	Lobatse	74.17	241	eP	P	19 40 28.5	+1.5
	comp=Z,37nm,0.9s,mb5.3						
OKC	Ostrava-Krasne	74.22	319	eP	P	19 40 26.6	-0.1
OKC				epP	pP	19 40 34.9	-0.2
ARCES	ARCESS Array B	74.51	340	P	P	19 40 27.7	-0.4
	comp=Z,28nm,0.8s,mb5.2,baz=100,slow=7.4,SNR=23						
ARCES	ARCESS Array B	74.51	340	P	P	19 40 27.7	-0.3
ARCES				pmax	pmax		
	comp=Z,28nm,0.8s						
ARCES	ARCESS Array B	74.51	340	P	P	19 40 27.7	-0.4
ARE0	ARCESS Array S	74.51	340	eP	P	19 40 28.0	-0.1
MORC	Moravsky Berou	74.61	319	eP	P	19 40 29.0	0.0
MORC				pmax	pmax		
	comp=Z,53nm,1.3s,mb5.3						
MORC	Moravsky Berou	74.61	319	eP	P	19 40 29.0	+0.1
	comp=Z,53nm,1.3s,mb5.3						
ZST	Bratislava	74.77	318	eP	P	19 40 29.7	-0.2
ZST				epP	pP	19 40 38.2	-0.1
KTK1	Kautokeino	75.14	339	eP	P	19 40 33.0	+1.4
KTK1				epP	pP	19 40 40.3	+0.3
KTK1				AMb	AMB	19 40 42.0	
	comp=Z,81nm,1.0s,mb5.6						
DPC	Dobruska-Polom	75.44	320	eP	P	19 40 34.0	+0.3
DPC				epP	pP	19 40 43.1	+1.0
KSP	Ksiaz	75.49	320	eP	P	19 40 34.3	+0.3
KSP				epP	pP	19 40 42.7	+0.3
KSP	Ksiaz	75.49	320	eP	P	19 40 34.6	+0.6
BOSA	Boshof	75.56	238	eP	P	19 40 36.4	+1.5
BOSA				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
BOSA	Boshof	75.56	238	eP	P	19 40 36.4	+1.5
	comp=Z,40nm,1.0s,mb5.3						
CASY	Casey	75.62	173	eP	P	19 40 33.9	-0.5
	comp=Z,11nm,0.7s,mb4.9						
UPC	Upice	75.64	320	eP	P	19 40 35.2	+0.3
UPC				epP	pP	19 40 44.2	+0.9
BILL	Bilibino	75.65	22	iP	P	19 40 33.4	-1.2
BILL	Bilibino	75.65	22	iP	P	19 40 33.4	-1.2
PRU	Pruhonice	76.56	319	eP	P	19 40 40.2	+0.1
PRU				epP	pP	19 40 48.9	+0.5
BRG	Berggiesshubel	76.98	320	iP	P	19 40 43.0	+0.6
BRG				pmax	pmax		
	comp=Z,59nm,1.6s,mb5.3						
BRG	Berggiesshubel	76.98	320	iP	P	19 40 43.0	+0.6
	comp=Z,59nm,1.6s,mb5.3						
BRG	Berggiesshubel	76.98	320	i	P	19 40 43.0	+0.6
GEC2	GERESS Array S	77.06	318	eP	P	19 40 43.0	+0.1
GEC2				pmax	pmax		
	comp=Z,93nm,1.8s,mb5.4						
GEC2	GERESS Array S	77.06	318	eP	P	19 40 43.0	+0.1
	comp=Z,93nm,1.8s,mb5.4						
GERES	GERESS Array B	77.06	318	P	P	19 40 42.4	-0.4
	comp=Z,12nm,0.9s,mb4.8,baz=90,slow=5.3,SNR=17						
GERES	GERESS Array B	77.06	318	P	P	19 40 42.4	-0.5
GERES				pmax	pmax		
	comp=Z,12nm,0.9s						
KHC	Kasperske Hory	77.15	318	eP	P	19 40 43.3	-0.1
KHC				epP	pP	19 40 51.5	-0.2
CLL	Collm	77.59	321	⇓iP	P	19 40 45.4	-0.3
CLL				i	pP	19 40 54.1	0.0
CLL				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
CLL	Collm	77.59	321	⇓iP	P	19 40 45.4	-0.3
	comp=Z,24nm,1.2s,mb5.0						
CLL				i	pP	19 40 54.1	0.0
CLL	Collm	77.59	321	⇓P	P	19 40 45.4	-0.3
	comp=Z,logA/T=1.3,mb5.0						
CLL				i *PP	pP	19 40 51.0	-3.1
CLL				i *SP	sP	19 40 54.1	-2.9
WET	Wettzell	77.61	318	eP	P	19 40 46.2	+0.3
NKC	Novy Kostel	77.91	320	eP	P	19 40 47.7	+0.2
MOX	Moxa	78.45	320	eP	P	19 40 50.5	0.0
MOX				pmax	pmax		
	comp=Z,37nm,1.6s,mb5.1						
MOX	Moxa	78.45	320	iP	P	19 40 50.5	0.0
	comp=Z,logA/T=1.4,mb5.1						
MOX	Moxa	78.45	320	eP	P	19 40 50.5	0.0
	comp=Z,37nm,1.6s,mb5.1						
GRA1	Grafenberg Arr	78.70	319	eP	P	19 40 52.3	+0.4
	comp=Z,56nm,1.3s,mb5.3						
GRA1				epP	pP	19 41 00.9	+0.6
GRF	Grafenberg Arr	78.70	319	eP	P	19 40 52.3	+0.4
GRF				e*PP	pP	19 41 00.9	+0.6
GRF				pmax	pmax		
	comp=Z,56nm,1.3s,mb5.3						
GRF	Grafenberg Arr	78.70	319	eP	P	19 40 52.3	+0.4
GRF				e*PP	pP	19 41 00.9	+0.6
GRF				pmax	pmax		
	comp=Z,56nm,1.3s,mb5.3						
GRF	Grafenberg Arr	78.70	319	eP	P	19 40 52.3	+0.4
	comp=Z,56nm,1.3s,mb5.3						
GRF				epP	pP	19 41 00.9	+0.6
NOA	NORSAR Array B	78.96	331	P	P	19 40 53.0	-0.1
	comp=Z,36nm,0.9s,mb5.3,baz=93,slow=5.6,SNR=24						
NOA	NORSAR Array B	78.96	331	P	P	19 40 53.0	-0.1
NOA				pmax	pmax		
	comp=Z,37nm,0.9s						
MAW	Mawson	79.08	192	P	P	19 40 55.0	+1.4
	comp=Z,3.6nm,0.7s,mb4.4,baz=7.1,slow=8.1,SNR=4.1						
MAW	Mawson	79.08	192	P	P	19 40 55.0	+1.4
MAW				pmax	pmax		
	comp=Z,4.0nm,0.7s						
NAO01	NORSAR Array S	79.11	330	eP	P	19 40 53.5	-0.4
	comp=Z,30nm,0.8s,mb5.3						
OSL	Oslo	79.16	329	eP	P	19 40 54.8	+0.6
OSL				AMb	AMB	19 40 56.0	
	comp=Z,97nm,1.0s,mb5.7						
OSL				epP	pP	19 41 03.1	+0.5
CLZ	Clausthal	79.24	321	eP	P	19 40 55.1	+0.3
	comp=Z,50nm,1.3s,mb5.3						
BSEG	Bad Segeberg	79.28	323	eP	P	19 40 55.1	+0.2
DAVOX	Davos	79.63	316	P	P	19 40 57.0	0.0
	comp=Z,12nm,0.8s,mb4.9,baz=130,slow=4.7,SNR=7.9						
MUD	Monsted U’grnd	79.93	326	iP	P	19 40 59.3	+0.9
MUD				i	pP	19 41 08.1	+1.3
MUD				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.5						
MUD	Monsted U’grnd	79.93	326	iP	P	19 40 59.3	+0.9
	comp=Z,52nm,0.9s,mb5.5						
MUD				i	pP	19 41 08.1	+1.3
BFO	Black Forest	80.63	318	eP	P	19 41 01.8	-0.5
BFO				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
BFO	Black Forest	80.63	318	eP	P	19 41 01.8	-0.5
	comp=Z,24nm,1.2s,mb5.0						
MOL	Molde	80.72	332	eP	P	19 41 06.2	+3.7
MOL				AMb	AMB	19 41 09.9	
	comp=Z,128nm,2.3s,mb5.5						
MOL				esP	sP	19 41 15.6	+1.9
SYO	Syowa Base	85.89	197	⇓P	P	19 41 30.7	+2.0
SYO	Syowa Base	85.89	197	⇑pP	pP	19 41 38.7	+1.4
ANM	Nome	87.03	25	eP	P	19 41 35.8	+1.4
ESDC	Sonseca Array	90.47	310	P	P	19 41 51.8	+0.5
	comp=Z,12nm,0.9s,mb5.2,baz=59,slow=4.3,SNR=21						
IMA	Indian Mountai	91.19	22	eP	P	19 41 55.4	+1.4
SUMG	Summit	93.42	347	eP	P	19 42 05.1	+0.9
	comp=Z,16nm,1.0s,mb5.4						
VNDA	Vanda	93.65	168	P	P	19 42 06.5	+1.4
	comp=Z,3.3nm,0.9s,mb4.7,baz=289,slow=8.0,SNR=6.7						
VNDA	Vanda	93.65	168	P	P	19 42 06.5	+1.4
VNDA				pmax	pmax		
	comp=Z,3.0nm,1.0s						
VNDA	Vanda	93.65	168	P	P	19 42 06.5	+1.4
MCK	McKinley	94.04	23	eP	P	19 42 07.5	+0.4
MCK				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.3						
MCK	McKinley	94.04	23	eP	P	19 42 07.5	+0.4
	comp=Z,17nm,1.2s,mb5.3						
ILAR	Eielson Array	94.31	22	P	P	19 42 07.9	-0.4
	comp=Z,2.3nm,0.7s,mb4.7,baz=298,slow=4.2,SNR=11						
ILAR				PP	PP	19 46 00.1	+1.9
	comp=Z,2.5nm,1.2s,baz=310,slow=9.0,SNR=5.0						
ILAR	Eielson Array	94.31	22	P	P	19 42 07.9	-0.4
ILAR						19 46 00.1	
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,3.0nm,1.2s						
PWA	Palmer West	94.63	25	eP	P	19 42 10.5	+0.6
SML	Sawmill	95.20	25	eP	P	19 42 14.7	+2.2
INK	Inuvik	96.49	16	P	P	19 42 17.8	-0.5
	comp=Z,10nm,0.9s,mb5.2,baz=311,slow=6.4,SNR=12						
INK	Inuvik	96.49	16	P	P	19 42 17.8	-0.5
INK				pmax	pmax		
	comp=Z,10.0nm,0.9s						
DBIC	Dimbokro	97.43	278	P	P	19 42 23.4	-0.3
	comp=Z,9.1nm,1.1s,mb5.1,baz=46,slow=4.1,SNR=7.0						
DBIC	Dimbokro	97.43	278	P	P	19 42 23.4	-0.4
DBIC				pmax	pmax		
	comp=Z,9.0nm,1.1s						
DBIC	Dimbokro	97.43	278	P	P	19 42 23.4	-0.3
YKA	Yellowknife Ar	105.90	13	Pdiff	Pdif	19 43 01.2	+0.9
	comp=Z,0.5nm,0.8s,baz=322,slow=4.7,SNR=6.6						
YKA				PP	PP	19 47 21.2	-5.1
	comp=Z,2.8nm,1.2s,baz=335,slow=7.1,SNR=5.2						
YKA	Yellowknife Ar	105.90	13	P	Pdif	19 43 01.2	+0.8
YKA						19 47 21.2	
YKA				pmax	pmax		
	comp=Z,1.0nm,0.9s						
YKA				pmax	pmax		
	comp=Z,3.0nm,1.2s						
ULM	Lac du Bonnet	120.88	7	PKP	PKPdf	19 47 41.7	-3.5
	comp=Z,3.6nm,0.8s,baz=342,slow=2.0,SNR=6.2						
ULM	Lac du Bonnet	120.88	7	PKP	PKPdf	19 47 41.7	-3.5
SNOW	Snow King Moun	123.69	21	ePKPdf	PKPdf	19 47 48.6	-2.2
SNOW				e		19 47 57.4	
ELK	Elko	124.19	26	ePKIKP	PKPdf	19 47 49.5	-2.4
ELK				e		19 47 57.0	
NVAR	Mina Array Bea	124.58	30	PKP	PKPdf	19 47 50.6	-2.2
	comp=Z,5.0nm,0.8s,baz=256,slow=2.7,SNR=6.8						
PDAR	Pinedale Array	124.72	21	PKP	PKPdf	19 47 49.2	-3.7
	comp=Z,6.2nm,0.9s,baz=50,slow=1.6,SNR=18						
SADO	Sadowa	126.56	354	PKP	PKPdf	19 47 52.1	-4.2
	comp=Z,3.4nm,0.5s,baz=360,slow=1.4,SNR=5.0						
TMUT	Trail Mountain	127.10	24	ePKPdf	PKPdf	19 47 55.1	-2.4
MVU	Marysvale	127.35	26	ePKPdf	PKPdf	19 47 56.4	-1.7
MSU	Marysvale	127.36	26	ePKIKP	PKPdf	19 47 56.5	-1.6
SRU	San Rafael	127.53	24	ePKIKP	PKPdf	19 47 54.9	-3.5
PV10	Paradox Valley	128.75	23	ePKPdf	PKPdf	19 47 58.9	-1.9
ANMO	Albuquerque	132.75	23	PKP	PKPdf	19 48 05.6	-2.8
	comp=Z,5.2nm,0.9s,baz=2.1,slow=1.3,SNR=11						
TUC	Tucson	133.15	29	ePKIKP	PKPdf	19 48 06.8	-2.5
WVT	Waverly	135.56	2	ePKIKP	PKPdf	19 48 11.1	-2.5
LTX	Lajitas	138.81	23	ePKIKP	PKPdf	19 48 16.5	-3.3
TXAR	Lajitas Array	138.81	23	PKP	PKPdf	19 48 16.9	-2.9
	comp=Z,1.6nm,0.7s,baz=266,slow=2.0,SNR=6.1						
JCT	Junction City	139.11	18	ePKIKP	PKPdf	19 48 16.9	-3.4
BDFB	Brasilia	141.95	256	PKhKP		19 48 18.9	
	comp=Z,9.8nm,1.0s,baz=78,slow=2.0,SNR=5.8						
BDFB	Brasilia	141.95	256	PKIKP	PKPdf	19 48 18.9	-6.8
BDFB				pmax	pmax		
	comp=Z,10.0nm,1.0s						
TRQA	Tornquist	143.31	213	ePKPdf	PKPdf	19 48 22.8	-4.7
SJG	San Juan	146.89	323	PKPbc	PKPbc	19 48 31.5	+0.5
	comp=Z,8.4nm,0.3s,baz=11,slow=17,SNR=4.6						
SJG	San Juan	146.89	323	PKP2	PKPab	19 48 31.5	-3.3
SJG				pmax	pmax		
	comp=Z,8.0nm,0.4s						
TEIG	Tepich	151.37	4	ePKPbc	PKPdf	19 48 44.4	+3.2
TEIG				ePKPab	PKPab	19 48 52.5	-0.5
SDV	Santo Domingo	156.71	318	ePKPdf	PKPdf	19 48 46.1	-2.6
SDV				ePKPab	PKPab	19 49 15.0	-0.8
LPAZ	La Paz	160.66	245	PKP	PKPdf	19 48 51.3	-2.0
	comp=Z,4.0nm,1.0s,baz=50,slow=6.3,SNR=6.6						
LPAZ				PKPab	PKPab	19 49 33.9	+1.2
	comp=Z,5.5nm,0.6s,baz=103,slow=4.8,SNR=9.2						
LPAZ	La Paz	160.66	245	PKIKP	PKPdf	19 48 51.3	-2.0
LPAZ						19 49 33.9	
LPAZ				pmax	pmax		
	comp=Z,4.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,6.0nm,0.6s						
LPAZ	La Paz	160.66	245	ePKIKP	PKPdf	19 48 51.8	-1.5
LPAZ				e		19 49 33.0	
ROSC	El Rosal	162.14	318	PKP	PKPdf	19 48 53.0	-1.9
	comp=Z,17nm,1.0s,baz=264,slow=22,SNR=6.6						
OTAV	Otavalo	168.30	318	ePKPdf	PKPdf	19 48 57.4	-2.7
OTAV				ePKPab	PKPab	19 50 06.8	+0.7

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*IDC **27** 19:40:33.5±0.7, 2.59N×94.23E, mb4.2/17, mb1 4.3/18, mb1mx4.2/24, ML4.2/1, Error ellipse: s-maj=30.3km s-min=13.9km az=41.0*

*BJI **27** 19:40:34.0, 2.60N×94.30E, h28^{km}, mb4.5*

*NEIC **27** 19:40:38.0±0.3, 2.63N×94.30E, mb4.6/5, Error ellipse: s-maj=12.8km s-min=8.0km az=45.0*

ISC 27 19:40:35.7±0.5**, 2.64N**±0.09×**94.33E**±0.10**, h26^{km}, h26^{km}**±2.3^{km}**:pP-P, n29, σ0^{s}80**/26**, mb4.2**/22**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.35	16	Pn	P	19 44 26.0	+0.6
	0.3nm,0.3s,baz=213,slow=12,SNR=15						
SHL	Shillong	22.91	354	eP	P	19 45 39.0	0.0
KMI	Kunming	23.77	19	P	P	19 45 46.3	-1.1
KMI				AMB	AMB		
	comp=Z,6.0nm,1.3s,mb3.9						
GTA	Gaotai	36.94	7	P	P	19 47 45.3	+0.7
GTA				AP	pP	19 47 51.3	-1.0
GTA				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.6						
WRA	Warramunga Arr	45.23	122	P	P	19 48 52.6	-0.5
	comp=Z,1.5nm,0.7s,mb4.0,baz=298,slow=8.7,SNR=6.5						
SONM	Songino Array	46.21	11	P	P	19 49 00.9	+0.5
	comp=Z,1.3nm,0.8s,mb3.9,baz=198,slow=8.2,SNR=6.0						

ASAR	Alice Springs	46.55	126	P	P	19 49 03.8	+0.3
	comp=Z,1.3nm,0.7s,mb4.0,baz=296,slow=7.7,SNR=9.9						
ZAL	Zalesovo	51.73	353	P	P	19 49 42.3	-0.7
	comp=Z,3.2nm,1.0s,mb4.2,baz=285,slow=7.4,SNR=7.0						
PMG	Port Moresby	53.98	104	P	P	19 50 01.3	+1.1
	comp=Z,3.2nm,0.7s,mb4.4,baz=266,slow=10,SNR=3.9						
BVAR	Borovoye Array	53.98	342	P	P	19 49 58.7	-1.1
	comp=Z,2.5nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=8.0						
CTA	Charters Tower	55.71	116	P	P	19 50 12.9	+0.1
	comp=Z,5.1nm,0.9s,mb4.5,baz=310,slow=8.9,SNR=6.1						
CTAO	Charters Tower	55.71	116	*e*P	P	19 50 13.4	+0.5
	comp=Z,5.6nm,0.9s,mb4.6						
STKA	Stephens Creek	56.45	131	P	P	19 50 16.8	-1.2
	comp=Z,2.2nm,0.7s,mb4.3,baz=310,slow=11,SNR=5.3						
KMBO	Kilima Mbogo	57.19	267	P	P	19 50 22.5	-1.1
	comp=Z,3.0nm,1.1s,mb4.3,baz=52,slow=19,SNR=5.1						
GNI	Garni	58.28	317	P	P	19 50 29.7	-1.1
	comp=Z,0.9nm,0.4s,mb4.2,baz=7.4,slow=12,SNR=3.6						
MALT	Malatya	62.04	312	*e*P	P	19 50 57.6	+0.9
	comp=Z,8.1nm,1.1s,mb4.8						
MALT				*e*pP	pP	19 51 06.0	+1.4
YAK	Yakutsk	64.88	18	*e*P	P	19 51 14.3	-0.6
	comp=Z,13nm,1.0s,mb4.9						
YAK				*e*pP	pP	19 51 23.3	+0.4
BRTR	Keskin Array B	66.03	313	P	P	19 51 22.0	-0.7
	comp=Z,2.6nm,0.3s,mb4.7,baz=117,slow=6.4,SNR=35						
LBTB	Lobatse	71.97	243	P	P	19 52 00.1	+0.5
	comp=Z,3.0nm,0.8s,mb4.3						
AKASG	Malin Array Be	72.38	323	P	P	19 52 01.4	-0.2
	comp=Z,0.7nm,0.5s,mb3.8,baz=90,slow=5.2,SNR=4.6						
MLR	Muntele Rosu	73.06	317	P	P	19 52 07.1	+1.4
	comp=Z,2.3nm,0.6s,mb4.3,baz=265,slow=19,SNR=3.3						
DRV	Dumont d'Urvil	76.35	163	R		19 53 00.0	
FINES	FINESS Array B	77.41	333	P	P	19 52 29.8	-0.3
	comp=Z,0.4nm,0.5s,mb3.6,baz=112,slow=10,SNR=4.1						
GERES	GERESS Array B	81.85	319	P	P	19 52 55.2	+1.0
	comp=Z,2.4nm,1.0s,mb4.1,baz=104,slow=5.5,SNR=8.9						
DAVOX	Davos	84.28	317	P	P	19 53 08.0	+1.2
	comp=Z,1.4nm,0.5s,mb4.4,baz=114,slow=8.9,SNR=5.5						
DAVOX	Davos	84.28	317	P	P	19 53 08.0	+1.2
NB2	NORSAR Subarra	84.36	331	P	pP	19 53 15.8	+0.7
	comp=Z,1.6nm,0.9s,baz=94,slow=5.3						
NOA	NORSAR Array B	84.36	331	P	P	19 53 07.1	+0.3
	comp=Z,1.1nm,1.1s,mb3.9,baz=254,slow=9.7,SNR=3.3						
TXAR	Lajitas Array	143.83	27	PKP	PKPdf	20 00 10.7	-3.4
	comp=Z,0.9nm,0.9s,baz=243,slow=2.8,SNR=5.2						

*IDC **27** 19:44:20.8±1.2, 6.02N×93.43E, mb4.0/8, mb1 4.1/9, mb1mx3.9/20, ML4.3/1, Error ellipse: s-maj=54.4km s-min=17.4km az=62.0*

NEIC 27 19:44:25.4±0.8, 6.04N×93.50E, h30^{km}, Error ellipse: s-maj=29.0km s-min=12.7km az=71.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.43	23	Pn	P	19 47 34.0	-2.6
	0.5nm,0.3s,baz=215,slow=14,SNR=3.3						
SONM	Songino Array	43.08	13	P	P	19 52 21.4	-3.1
	0.3nm,0.3s,baz=192,slow=9.9,SNR=7.8						
NWAO	Narrogin (SRO)	44.84	151	P	P	19 52 35.4	-3.6
	8.8nm,0.8s,baz=239,slow=8.0,SNR=6.4						
WRA	Warramunga Arr	47.75	124	P	P	19 53 00.9	-1.2
	2.3nm,0.7s,baz=304,slow=9.2,SNR=14						
ZAL	Zalesovo	48.27	353	P	P	19 53 04.0	-1.7
	0.8nm,0.4s,baz=317,slow=8.8,SNR=3.3						
ZAL	Zalesovo	48.27	353	P	P	19 53 04.0	-1.7
ASAR	Alice Springs	49.26	128	P	P	19 53 12.7	-1.0
	1.0nm,0.4s,baz=302,slow=8.1,SNR=14						
BVAR	Borovoye Array	50.52	342	P	P	19 53 21.1	-1.8
	0.5nm,0.5s,baz=131,slow=13,SNR=3.2						
FINES	FINESS Array B	74.03	333	P	P	19 55 58.5	-1.4
	2.1nm,1.0s,baz=108,slow=6.0,SNR=6.6						
ARCES	ARCESS Array B	76.77	340	P	P	19 56 13.7	-1.8
	1.0nm,0.7s,baz=108,slow=3.8,SNR=3.7						

*BJI **27** 19:46:31.2, 4.67N×94.53E, h46^{km}, mb4.7, Ms4.6, Msz4.8*

*MOS **27** 19:46:32.0±1.1, 5.01N×94.52E, h33^{km}, mb4.7/22, Error ellipse: s-maj=19.0km s-min=8.8km az=117.1*

*NEIC **27** 19:46:33.3±0.5, 4.95N×94.46E, h30^{km}, mb4.6/12, Error ellipse: s-maj=14.9km s-min=9.4km az=225.0*

*IDC **27** 19:46:40.0±7.6, 5.08N×94.54E, h87^{km}±67^{km}, mb4.1/15, mb1 4.3/16, mb1mx4.1/23, ML4.7/1, Error ellipse: s-maj=40.4km s-min=13.1km az=48.0*

ISC 27 19:46:31.6±0.5, 4.97N±0.08×94.50E±0.08, h30^{km}, n81, σ1^{s}01/81, mb4.6/38, MS4.8/1, 1C, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.09	18	Pn	P	19 49 54.5	+2.9
CMAR	Chiang Mai Arr	14.09	18	P	P	19 49 56.2	+4.6
	1.1nm,0.3s,baz=213,slow=12,SNR=29						
CMAR	Chiang Mai Arr	14.09	18	P	P	19 49 56.2	+4.6
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
KMI	Kunming	21.54	21	P	P	19 51 21.5	+0.8
KMI				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.2						
PKI	Pulchoki	24.08	340	*e*P	P	19 51 46.3	+0.6
DMN	Daman	24.22	339	*e*P	P	19 51 47.6	+0.5
	comp=Z,48nm,0.8s,mb5.0						
GUN	Gumba	24.24	341	*e*P	P	19 51 48.1	+0.8
	comp=Z,53nm,0.7s,mb5.1						
GYA	Guiyang	24.33	27⇑	*i*P	P	19 51 49.5	+1.4
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.7						
KKN	Kakani	24.33	340	*e*P	P	19 51 48.4	+0.3
	comp=Z,35nm,0.7s,mb4.9						
GKN	Gorkha	24.75	339	*e*P	P	19 51 52.3	+0.1
	comp=Z,16nm,0.3s,mb5.1						
LSA	Lhasa	24.80	353	*e*P	P	19 51 53.8	+1.2
LSA				pmax	pmax		
	comp=Z,16nm,0.6s,mb4.7						
LSA	Lhasa	24.80	353	*e*P	P	19 51 53.8	+1.2
	comp=Z,16nm,0.6s,mb4.7						
KOLN	Koldanda	24.93	337	*e*P	P	19 51 54.7	+0.8
	comp=Z,70nm,1.0s,mb5.2						
LZH	Lanzhou	32.14	14	*e*P	P	19 52 57.5	-1.3
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.7						
LZH				LR	LR		
	comp=E,536nm,10.2s						
LZH				LR	LR		
	comp=Z,1µm,12.3s,MS4.8						
GTA	Gaotai	34.62	7	*e*P	P	19 53 19.5	-0.8
GTA				AP	pP	19 53 28.8	-0.4
GTA				AMB	AMB		
	comp=Z,22nm,0.8s,mb5.1						
BJT	Baijiatuau	39.99	26	*e*P	P	19 54 06.0	+0.6
BJT				pmax	pmax		
	comp=Z,6.0nm,0.6s						
BJT	Baijiatuau	39.99	26	*e*P	P	19 54 06.0	+0.5
	comp=Z,6.4nm,0.6s,mb4.5						
BJI	Beijing	40.01	26	P	P	19 54 06.3	+0.7
BJI				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.8						
MKAR	Makanchi Array	42.98	348	*i* P	P	19 54 29.9	0.0
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.6s						
SONM	Songino Array	43.91	12	P	P	19 54 36.3	-1.1
	comp=Z,4.8nm,0.7s,mb4.3,baz=191,slow=8.0,SNR=37						
SONM				PcP	PcP	19 56 22.9	-0.8
	comp=Z,2.1nm,0.5s,baz=194,slow=3.6,SNR=11						
ULN	Ulaanbaatar	44.07	12	*e*P	P	19 54 37.5	-1.3
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
ULN	Ulaanbaatar	44.07	12	*e*P	P	19 54 37.5	-1.3
	comp=Z,2.7nm,0.6s,mb4.2						
WRA	Warramunga Arr	46.33	124	P	P	19 54 57.9	+0.8
	comp=Z,15nm,0.7s,mb5.0,baz=303,slow=9.1,SNR=55						
WRA	Warramunga Arr	46.33	124	P	P	19 54 57.9	+0.8
WRA				pmax	pmax		
	comp=Z,15nm,0.7s						
ASAR	Alice Springs	47.82	128	P	P	19 55 09.3	+0.4
	comp=Z,2.8nm,0.5s,mb4.5,baz=299,slow=7.9,SNR=20						
ZAL	Zalesovo	49.45	352	P	P	19 55 20.4	-0.6
	comp=Z,4.1nm,0.3s,mb4.9,baz=301,slow=5.2,SNR=24						
ZAL	Zalesovo	49.45	352	P	P	19 55 20.4	-0.6
ZAL				pmax	pmax		
	comp=Z,4.0nm,0.3s						
NVS	Novosibirsk	50.55	352	*e*P	P	19 55 27.9	-1.5
NVS				pmax	pmax		
	comp=N,4.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,3.0nm,0.7s						
NVS				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
BVA0	Borovoye Array	51.84	342	*i* P	P	19 55 38.1	-1.1
BVAR	Borovoye Array	51.84	342	P	P	19 55 38.3	-0.9
	comp=Z,3.7nm,0.7s,mb4.4,baz=149,slow=8.6,SNR=12						
BRVK	Borovoye	51.90	342	P	P	19 55 38.8	-0.8
BRVK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.2						
CHKZ	Chkalovo	52.33	342	*e*P	P	19 55 42.2	-0.6
CHKZ				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
CHKZ	Chkalovo	52.33	342	*e*P	P	19 55 42.2	-0.6
	comp=Z,6.4nm,0.7s,mb4.7						
PMG	Port Moresby	54.39	105	P	P	19 55 58.1	-0.5
	comp=Z,2.9nm,0.5s,mb4.5,baz=64,slow=6.2,SNR=5.6						
PMG	Port Moresby	54.39	105	P	P	19 55 58.1	-0.5
PMG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
BOD	Bodaibo	54.88	13	*e*P	P	19 55 56.9	-4.7
CTA	Charters Tower	56.62	118	P	P	19 56 14.2	-0.5
	comp=Z,3.4nm,0.9s,mb4.4,baz=283,slow=4.1,SNR=3.8						
CTA	Charters Tower	56.62	118	P	P	19 56 14.2	-0.4
CTA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
CTAO	Charters Tower	56.62	118	*e*P	P	19 56 13.9	-0.7
CTAO				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
CTAO	Charters Tower	56.62	118	*e*P	P	19 56 13.9	-0.8
	comp=Z,4.9nm,1.0s,mb4.5						
ZEI	Tsey	58.40	318	*e*P	P	19 56 24.9	-2.0
KIV	Kislovodsk	59.71	319	*e*P	P	19 56 33.7	-2.2
KIV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
KIV	Kislovodsk	59.71	319	*e*P	P	19 56 33.7	-2.2
	comp=Z,2.7nm,0.6s,mb4.5						
YAK	Yakutsk	62.63	18	*e*P	P	19 56 52.8	-2.6
YAK				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.8						
YAK	Yakutsk	62.63	18	*e*P	P	19 56 52.8	-2.6
	comp=Z,5.0nm,0.6s,mb4.8						
BRTR	Keskin Array B	64.60	312	P	P	19 57 07.8	-1.0
	comp=Z,4.8nm,1.1s,mb4.4,baz=129,slow=7.9,SNR=8.9						
BRTR	Keskin Array B	64.60	312	P	P	19 57 07.8	-0.9
BRTR				pmax	pmax		
	comp=Z,5.0nm,1.2s						
AKASG	Malin Array Be	70.64	322	P	P	19 57 44.9	-1.5
	comp=Z,0.9nm,0.4s,mb4.0,baz=90,slow=4.7,SNR=11						
AKASG	Malin Array Be	70.64	322	P	P	19 57 44.9	-1.5
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MLR	Muntele Rosu	71.49	316	P	P	19 57 51.2	-0.4
	comp=Z,3.5nm,0.7s,mb4.4,baz=160,slow=9.2,SNR=3.2						
MLR	Muntele Rosu	71.49	316	P	P	19 57 51.2	-0.4
MLR				pmax	pmax		
	comp=Z,4.0nm,0.7s						
KOLS	Kolonicke sedl	74.61	319	*e*P	P	19 58 10.9	+1.0
KOLS	Kolonicke sedl	74.61	319	*e*	P	19 58 10.9	+1.0
FINES	FINESS Array B	75.43	333	P	P	19 58 13.8	-0.5
	comp=Z,1.4nm,0.6s,mb4.0,baz=63,slow=8.5,SNR=9.5						
FINES	FINESS Array B	75.43	333	P	P	19 58 13.8	-0.5
FINES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
FINES	FINESS Array B	75.43	333	P	P	19 58 13.8	-0.5
PSZ	Piszkesteto	76.02	318	P	P	19 58 16.8	-1.1
PSZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
PSZ	Piszkesteto	76.02	318	P	P	19 58 16.8	-1.1
	comp=Z,3.3nm,0.7s,mb4.4						
OJC	Ojcow	76.42	320	*e*P	P	19 58 20.5	+0.4
VYHS	Vyhne	76.80	319	*e*P	P	19 58 22.7	+0.4
VYHS	Vyhne	76.80	319	*e*	P	19 58 22.7	+0.4
OKC	Ostrava-Krasne	77.42	320	*e*P	P	19 58 26.4	+0.7
MORC	Moravsky Berou	77.80	320	*e*P	P	19 58 27.9	+0.1
MORC				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
MORC	Moravsky Berou	77.80	320	*e*P	P	19 58 27.9	+0.2
	comp=Z,4.3nm,0.8s,mb4.4						
ARCES	ARCESS Array B	78.10	340	P	P	19 58 29.1	0.0
	comp=Z,1.8nm,0.8s,mb4.1,baz=90,slow=7.3,SNR=4.9						
ARCES	ARCESS Array B	78.10	340	P	P	19 58 29.1	+0.1
ARCES				pmax	pmax		
	comp=Z,2.0nm,0.8s						
BILL	Bilibino	78.64	21	*e*P	P	19 58 31.3	-0.7
BILL				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
BILL	Bilibino	78.64	21	*e*P	P	19 58 31.3	-0.8
	comp=Z,1.6nm,0.5s,mb4.2						
DPC	Dobruska-Polom	78.64	320	*e*P	P	19 58 33.8	+1.4
PRU	Pruhonice	79.75	320	*e*P	P	19 58 39.4	+1.0
BRG	Berggiesshubel	80.20	321	*i* P	P	19 58 42.0	+1.2
BRG				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
BRG	Berggiesshubel	80.20	321	*i* P	P	19 58 42.0	+1.2
	comp=Z,5.0nm,0.9s,mb4.4						
GERES	GERESS Array B	80.22	319	P	P	19 58 41.7	+0.8
	comp=Z,3.8nm,0.5s,mb4.6,baz=96,slow=5.2,SNR=50						
GERES	GERESS Array B	80.22	319	P	P	19 58 41.7	+0.8
GERES				pmax	pmax		
	comp=Z,4.0nm,0.5s						
KHC	Kasperske Hory	80.32	319	*e*P	P	19 58 42.2	+0.8
CLL	Collm	80.82	321	*i* P	P	19 58 45.1	+1.0
CLL	Collm	80.82	321	P	P	19 58 45.1	+1.0
DAVOX	Davos	82.72	316	P	P	19 58 54.8	+0.8
	comp=Z,7.1nm,0.5s,mb5.0,baz=126,slow=4.4,SNR=20						
LPL	La Plagne	84.92	315	*e*P	P	19 59 06.5	+1.3
	comp=Z,13nm,0.8s,mb4.8						
LPL	La Plagne	84.92	315	*e*P	P	19 59 06.5	+1.3
LPL				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.8						
ILAR	Eielson Array	97.28	22	P	P	20 00 02.6	-0.1
	comp=Z,0.2nm,0.7s,mb3.6,baz=310,slow=4.9,SNR=4.4						

*IDC **27** 19:50:14.4±0.6, 6.91N×92.95E, h42^{km}±4^{km}, mb4.1/20, mb1 4.2/21, mb1mx4.1/29, ML4.8/1, Error ellipse: s-maj=26.8km s-min=10.8km az=40.0*

*NEIC **27** 19:50:14.3±0.4, 6.70N×92.70E, mb4.5/7, Error ellipse: s-maj=12.1km s-min=9.0km az=52.0*

ISC 27 19:50:12.1±0.5, 6.64N±0.08×92.75E±0.08, h43^{km}, h43^{km}±1.8^{km}:pP-P, n37, σ0^{s}98/37, mb4.4/25, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.21	27	*e*Pn	P	19 53 19.6	+0.2
CMAR	Chiang Mai Arr	13.21	27	P	P	19 53 21.1	+1.6
	1.6nm,0.3s,baz=230,slow=14,SNR=21						
QIZ	Qiongzhong	20.69	52	*e*P	P	19 54 50.5	-0.8
	28nm,0.9s						
POO	Poona	21.88	304	*e*P	P	19 55 02.0	-1.2
LSA	Lhasa	22.99	356	*e*P	P	19 55 14.9	+0.7
	2.2nm,0.4s,mb3.9						
UCH	Uchtor	38.95	338	P	P	19 57 36.8	+1.1
	SNR=11						
KBK	Karagaybulak	39.17	339	P	P	19 57 38.9	+1.3
	SNR=12						
AML	Almayashu	39.18	337	P	P	19 57 39.0	+1.4
	SNR=24						
AAK	Ala-Archa	39.31	339	*e*P	P	19 57 38.5	-0.2
	5.6nm,1.0s,mb4.2						
EKS2	Erkin-Say	39.60	338	P	P	19 57 42.5	+1.3
	SNR=8.6						
USP	Ospenovka	39.87	339	P	P	19 57 43.7	+0.4
	SNR=9.5						
NWAO	Narrogin (SRO)	45.72	151	P	P	19 58 34.1	+3.0
	18nm,1.1s,mb4.9,baz=34,slow=6.9,SNR=3.2						
ZAL	Zalesovo	47.60	354	P	P	19 58 44.7	-0.9
	1.1nm,0.5s,mb4.2,baz=315,slow=6.5,SNR=3.9						
ZAL	Zalesovo	47.60	354	P	P	19 58 44.7	-0.9
WRA	Warramunga Arr	48.70	124	P	P	19 58 55.5	+0.9
	2.3nm,0.5s,mb4.5,baz=303,slow=8.9,SNR=12						
WRA				pP	pP	19 59 06.8	+0.2
	5.7nm,0.7s,baz=304,slow=9.0,SNR=14						
BVAR	Borovoye Array	49.73	342	P	P	19 58 60.0	-2.1
	1.3nm,0.5s,mb4.2,baz=135,slow=10,SNR=6.6						
BRVK	Borovoye	49.79	342	P	P	19 59 01.0	-1.6
	1.7nm,0.6s,mb4.2						
ASAR	Alice Springs	50.21	128	P	P	19 59 05.6	-0.6
	1.2nm,0.6s,mb4.1,baz=300,slow=8.0,SNR=8.4						
CHKZ	Chkalovo	50.23	343	*e*P	P	19 59 04.9	-1.1
	4.8nm,0.5s,mb4.8						
CHKZ				*e*pP	pP	19 59 17.5	-0.4
GNI	Garni	54.33	315	P	P	19 59 37.3	+0.5
	3.0nm,0.8s,mb4.3,baz=336,slow=6.8,SNR=4.1						
GNI	Garni	54.33	315	*e*P	P	19 59 36.7	-0.1
	8.0nm,1.1s,mb4.6						
PMG	Port Moresby	56.51	106	P	P	19 59 52.8	0.0
	2.4nm,0.5s,mb4.5,baz=83,slow=22,SNR=3.7						
PMG				pP	pP	20 00 03.8	-1.3
	4.7nm,0.6s,baz=327,slow=8.0,SNR=3.8						
ASAJ	Asahikawa	57.24	41	P	P	19 59 56.5	-1.3
	8.5nm,0.3s,mb5.3,baz=265,slow=18,SNR=46						
ASAJ				pP	pP	20 00 06.3	-3.7
	26nm,0.5s,baz=291,slow=34,SNR=6.3						
KIV	Kislovodsk	57.32	319	*e*P	P	19 59 57.5	-0.7
	7.7nm,0.9s,mb4.7						
EIL	Elat	58.85	301	P	P	20 00 10.4	+1.2
	2.6nm,0.7s,mb4.4,baz=186,slow=8.7,SNR=4.2						
STKA	Stephens Creek	60.27	132	P	P	20 00 18.1	-0.8
	2.9nm,0.8s,mb4.4,baz=310,slow=19,SNR=2.9						
STKA				pP	pP	20 00 30.4	-0.8
	4.4nm,0.8s,baz=351,slow=2.7,SNR=3.1						
BRTR	Keskin Array B	62.20	312	P	P	20 00 31.4	-0.3
	1.5nm,0.7s,mb4.3,baz=124,slow=8.9,SNR=6.9						
IDI	Anoyia	68.14	305	P	P	20 01 10.5	+0.4
	6.7nm,0.8s,mb4.7,baz=45,slow=6.6,SNR=5.6						
IDI				pP	pP	20 01 24.3	+1.6
	8.8nm,0.8s,baz=95,slow=5.9,SNR=2.3						
AKASG	Malin Array Be	68.27	322	P	P	20 01 09.9	-0.8
	0.6nm,0.6s,mb3.8,baz=86,slow=5.3,SNR=4.2						
MLR	Muntele Rosu	69.09	316	P	P	20 01 15.6	-0.3
	3.2nm,0.7s,mb4.3,baz=116,slow=21,SNR=3.9						
MLR				pP	pP	20 01 29.6	+1.1
	6.5nm,1.0s,baz=230,slow=16,SNR=3.6						
FINES	FINESS Array B	73.16	333	P	P	20 01 39.3	-0.7
	2.3nm,0.7s,mb4.2,baz=135,slow=2.7,SNR=5.1						
ARCES	ARCESS Array B	75.96	340	P	P	20 01 55.6	-0.3
	1.6nm,0.5s,mb4.2,baz=99,slow=5.7,SNR=13						
GERES	GERESS Array B	77.83	318	P	P	20 02 06.9	+0.1
	1.1nm,0.5s,mb4.0,baz=93,slow=4.9,SNR=12						
GERES				pP	pP	20 02 20.3	+0.8
	1.4nm,0.8s,baz=72,slow=4.2,SNR=6.4						
KHC	Kasperske Hory	77.93	319	*e*P	P	20 02 08.5	+1.1
HFS	Hagfors	78.83	330	P	P	20 02 11.4	-0.7
	2.5nm,0.6s,mb4.3,baz=104,slow=6.1,SNR=6.1						
DAVOX	Davos	80.32	316	P	P	20 02 20.9	+0.5
	2.5nm,0.5s,mb4.4,baz=114,slow=4.6,SNR=14						
DAVOX				pP	pP	20 02 33.6	+0.4
	3.1nm,0.7s,baz=138,slow=14,SNR=3.9						
EKA	Eskdalemuir Ar	87.95	325	P	P	20 02 59.2	+0.6
	1.6nm,0.7s,mb4.4,baz=90,slow=5.0,SNR=4.1						

IDC 27 19:57:55.3±1.2, 4.81N×92.92E, mb3.7/4, mb1 4.0/5, mb1mx3.7/18, ML3.8/1, Error ellipse: s-maj=69.0km s-min=24.3km az=42.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.78	23	Pn	P	20 01 26.0	-1.7
	0.1nm,0.3s,baz=212,slow=11,SNR=6.6						
LATR	Latur	20.93	312	*e*P	P	20 02 48.5	+6.3
WRA	Warramunga Arr	47.57	123	P	P	20 06 33.3	-1.6
	1.5nm,0.7s,baz=302,slow=9.3,SNR=9.6						
ASAR	Alice Springs	48.97	127	P	P	20 06 43.4	-2.4
	0.2nm,0.5s,baz=300,slow=7.5,SNR=4.5						
BRTR	Keskin Array B	63.53	312	P	P	20 08 27.3	-2.6
	0.6nm,0.5s,baz=121,slow=7.2,SNR=4.2						
GERES	GERESS Array B	79.30	319	P	P	20 10 03.4	-0.9
	0.7nm,0.7s,baz=90,slow=4.0,SNR=6.2						

*NEIC **27** 19:58:32.2, 15.97N×97.89W, h18^{km}, MD4.0(MEX), After MEX.*

MEX 27 19:58:32.8±0.7, 16.01N×97.89W, h22^{km}±18^{km}, MD4.0, Oaxaca

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PNIG	Pinotepa	0.44	329	*e*P	Pb	19 58 40.6	-1.3
PNIG				*e*S	Sb	19 58 46.0	-2.0
VHO	Vista Hermosa	1.53	46	*e*P	Pn	19 58 56.1	-3.1
VHO				*e*S	Sn	19 59 14.1	-4.5
VHO	Vista Hermosa	1.53	46	*e*P	Pn	19 58 55.8	-3.4
VHO				*e*S	Sn	19 59 14.1	-4.5
OXX	Oaxaca	1.55	46	*i* P	Pn	19 58 57.0	-2.4
OXX				*i* S	Sn	19 59 15.0	-3.9
HUIG	Huatulco	1.73	98	*e*P	Pn	19 58 58.3	-3.8
HUIG				*e*S	Sn	19 59 17.1	-6.5
HUIG	Huatulco	1.73	98	*e*P	Pn	19 58 58.3	-3.8
HUIG				*i* P		19 58 58.9	
ACX	Acapulco	2.12	294	*i* P	Pn	19 59 10.0	+2.4
ACX				*i* S	Sn	19 59 36.0	+2.4
CAIG	El Cayaco	2.50	295	*e*P	Pn	19 59 09.7	-3.4
CAIG				*e*S	Sn	19 59 39.1	-4.1
PLIG	Platanillo	2.82	327	*e*P	Pn	19 59 15.6	-2.1
PLIG				*i* S	Sn	19 59 47.0	-4.4
CMIG	Matias Romero	3.08	69	*e*P	Pn	19 59 16.8	-4.5
CMIG				*e*S	Sn	19 59 50.2	-7.6
CMIG	Matias Romero	3.08	69	*e*P	Pn	19 59 16.8	-4.5
CMIG				*i* S	Sn	19 59 52.2	-5.6
PPM	Popocatepetl	3.12	347	*e*P	Pn	19 59 19.9	-2.0
PPM				*e*S	Sn	19 59 54.1	-4.7

*IDC **27** 20:05:29.1±0.9, 8.62N×92.83E, mb4.1/11, mb1 4.2/12, mb1mx4.0/21, ML3.9/1, Error ellipse: s-maj=37.3km s-min=16.3km az=49.0*

*BJI **27** 20:05:32.0, 8.70N×93.07E, h29^{km}, mb4.7*

*NEIC **27** 20:05:33.7±0.6, 8.70N×92.94E, h30^{km}, mb4.4/6, Error ellipse: s-maj=15.0km s-min=10.7km az=57.0*

ISC 27 20:05:31.7±0.7, 8.67N±0.09×93.0E±0.1, h30^{km}, n30, σ0^{s}89/29, mb4.2/17, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.30	30	*e*P	P	20 08 12.0	-2.5
	2.6nm,0.7s						
CMAR	Chiang Mai Arr	11.30	30	Pn	P	20 08 15.5	+1.0
	0.2nm,0.3s,baz=222,slow=15,SNR=13						
PKI	Pulchoki	20.13	340	*e*P	P	20 10 07.4	+1.1
DMN	Daman	20.27	339	*e*P	P	20 10 08.4	+0.7
GUN	Gumba	20.29	342	*e*P	P	20 10 08.7	+0.8
	34nm,0.7s						
KKN	Kakani	20.37	340	*e*P	P	20 10 09.2	+0.4
	14nm,0.7s						
GKN	Gorkha	20.79	339	*e*P	P	20 10 13.3	+0.2
KOLN	Koldanda	20.98	336	*e*P	P	20 10 16.1	+1.1
	16nm,0.5s						
LSA	Lhasa	21.00	355	*e*P	P	20 10 14.8	-0.4
	11nm,0.5s						
ENH	Enshi	26.44	33	*e*P	P	20 11 07.2	-0.9
	9.6nm,0.5s,mb4.6						
GTA	Gaotai	31.21	10	*e*P	P	20 11 51.0	+0.3
GTA				AP	pP	20 11 56.3	-3.3
GTA				XP	sP	20 11 59.5	-4.0
GTA				AMB	AMB		
	comp=Z,24nm,0.6s,mb5.2						
AAK	Ala-Archa	37.54	337	*e*P	P	20 12 45.4	+0.4
	comp=Z,3.7nm,1.0s,mb4.1						
SONM	Songino Array	40.65	14	P	P	20 13 11.1	+0.2
	comp=Z,3.9nm,0.8s,mb4.1,baz=197,slow=8.4,SNR=27						
ULN	Ulaanbaatar	40.84	14	*e*P	P	20 13 12.0	-0.3
	comp=Z,2.3nm,0.8s,mb3.9						
ZAL	Zalesovo	45.62	353	P	P	20 13 50.7	-0.4
	comp=Z,1.1nm,0.6s,mb3.9,baz=290,slow=6.7,SNR=6.3						
BVAR	Borovoye Array	47.88	342	P	P	20 14 09.6	+0.6
	comp=Z,0.5nm,0.6s,mb3.7,baz=45,slow=6.3,SNR=4.3						
CHKZ	Chkalovo	48.38	342	*e*P	P	20 14 12.2	-0.6
	comp=Z,3.3nm,0.5s,mb4.6						
WRA	Warramunga Arr	49.63	125	P	P	20 14 23.3	+0.4
	comp=Z,1.1nm,0.4s,mb4.2,baz=301,slow=9.6,SNR=32						
WRAB	Tennant Creek	49.63	125	*e*P	P	20 14 22.2	-0.7
ASAR	Alice Springs	51.28	130	P	P	20 14 35.6	+0.2
	comp=Z,1.1nm,0.6s,mb4.0,baz=302,slow=7.0,SNR=21						
GNI	Garni	53.09	314	P	P	20 14 46.5	-2.3
ARU	Arti	54.73	337	*e*P	P	20 14 59.5	-1.0
	comp=Z,2.6nm,0.8s,mb4.3						
PMG	Port Moresby	56.83	107	P	P	20 15 17.7	+1.4
	comp=Z,4.2nm,0.5s,mb4.7,baz=291,slow=3.5,SNR=10						
BRTR	Keskin Array B	61.07	311	P	P	20 15 44.5	-0.8
	comp=Z,0.9nm,0.6s,mb4.1,baz=114,slow=8.1,SNR=5.8						
FINES	FINESS Array B	71.49	332	P	P	20 16 50.2	-1.2
	comp=Z,1.9nm,1.0s,mb4.0,baz=63,slow=4.3,SNR=4.1						
FINES	FINESS Array B	71.49	332	P	P	20 16 50.2	-1.2
ARCES	ARCESS Array B	74.14	340	P	P	20 17 07.2	+0.4

	comp=Z,1.5nm,0.9s,mb3.9,baz=329,slow=7.1,SNR=3.7						
GERES	GERESS Array B	76.50	318	P	P	20 17 21.4	+0.7
	comp=Z,0.8nm,0.6s,mb3.8,baz=90,slow=5.8,SNR=8.6						
HFS	Hagfors	77.21	330	P	P	20 17 24.5	+0.2
	comp=Z,1.2nm,0.5s,mb4.0,baz=124,slow=5.3,SNR=4.4						
TXAR	Lajitas Array	138.94	22	PKP	PKPdf	20 25 00.4	-0.8
	comp=Z,0.3nm,0.7s,baz=129,slow=1.7,SNR=3.9						

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*IDC **27** 20:08:10.4±0.9,13.50N×92.78E,mb4.2/12,mb1 4.4/13, mb1mx4.2/20,ML4.1/1,MS5.3/1,Ms1 5.3/1,ms1mx4.0/28, Error ellipse: s-maj=34.1km s-min=17.5km az=45.0*

*NEIC **27** 20:08:14.8±0.4,13.49N×92.80E,h30^{km},mb4.3/5,Error ellipse: s-maj=8.0km s-min=6.4km az=186.0*

ISC 27 20:08:12.7±0.6**,13.49N**±0.07×**92.79E**±0.06**,h30^{km},n33,** σ**0^{s}61**/35**,mb4.2**/15**,MS5.3**/1**,1C,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.71	49	*e*P	Pn	20 10 05.1	-0.7
	2.7nm,0.3s						
CMAR	Chiang Mai Arr	7.71	49	Pn	Pn	20 10 05.5	-0.4
	0.7nm,0.3s,baz=236,slow=15,SNR=12						
CMAR				Sn	Sn	20 11 25.9	-7.1
	0.5nm,0.3s,baz=236,slow=18,SNR=4.3						
CHRT	Chiangrai	9.22	46	⇑PN	Sn	20 12 14.0	+3.3
HYB	Hyderabad	14.27	288	*e*P	P	20 11 35.0	0.0
HYB				*e*		20 11 47.0	
HYB				*e*S	S	20 14 03.0	-10
HYB	Hyderabad	14.27	288	*i* P	P	20 11 35.0	0.0
HYB				*e*		20 11 47.0	
HYB				*e*		20 14 03.0	
HYB				*e*S	S	20 14 13.0	-0.1
PKI	Pulchoki	15.61	335	*e*P	P	20 11 51.9	-0.6
	26nm,0.5s						
GUN	Gumba	15.73	337	*e*P	P	20 11 53.4	-0.6
	12nm,0.5s						
DMN	Daman	15.77	334	*e*P	P	20 11 54.2	-0.4
	33nm,0.7s						
KKN	Kakani	15.86	335	*e*P	P	20 11 55.6	-0.1
	25nm,0.7s						
LSA	Lhasa	16.20	355	P	P	20 12 00.7	+0.7
	7.4nm,0.6s						
GKN	Gorkha	16.32	333	*e*P	P	20 12 00.9	-0.6
ENH	Enshi	22.73	40	*e*P	P	20 13 14.3	+0.7
	13nm,0.8s,mb4.4						
SONM	Songino Array	36.07	16	P	P	20 15 13.0	-0.6
	0.7nm,0.7s,mb3.7,baz=211,slow=7.2,SNR=4.6						
ZAL	Zalesovo	40.84	353	P	P	20 15 53.7	+0.4
	2.0nm,0.4s,mb4.1,baz=290,slow=5.9,SNR=9.0						
CHKZ	Chkalovo	43.76	341	*e*P	P	20 16 17.1	0.0
CHKZ				*e*	pP	20 16 26.4	+0.2
ARU	Arti	50.24	336	*e*P	P	20 17 07.9	-0.2
KIV	Kislovodsk	52.34	316	*e*P	P	20 17 24.4	+0.2
	3.3nm,0.6s,mb4.4						
WRA	Warramunga Arr	52.68	128	P	P	20 17 26.8	-0.1
	2.7nm,0.6s,mb4.4,baz=300,slow=10,SNR=20						
WRAB	Tennant Creek	52.68	128	*e*P	P	20 17 26.3	-0.7
ASAR	Alice Springs	54.59	132	P	P	20 17 41.0	0.0
	1.1nm,0.5s,mb4.2,baz=309,slow=7.1,SNR=10.0						
BRTR	Keskin Array B	57.84	309	P	P	20 18 03.6	-0.5
	2.3nm,0.7s,mb4.3,baz=116,slow=7.5,SNR=11						
PMG	Port Moresby	58.56	110	LR	LR	20 44 54.0	
	comp=Z,2μm,19.2s,MS5.3,baz=141,slow=38						
AKASG	Malin Array Be	62.98	320	P	P	20 18 38.7	-0.2
	0.3nm,0.3s,mb3.8,baz=86,slow=5.6,SNR=3.5						
MLR	Muntele Rosu	64.29	314	P	P	20 18 49.6	+1.9
	2.8nm,0.9s,mb4.3,baz=101,slow=16,SNR=3.7						
FINES	FINESS Array B	67.17	331	P	P	20 19 05.6	-0.3
	3.9nm,1.1s,mb4.3,baz=72,slow=6.0,SNR=5.5						
ARCES	ARCESS Array B	69.57	340	P	P	20 19 20.8	+0.1
	4.9nm,1.0s,mb4.4,baz=90,slow=6.1,SNR=6.8						
LSZ	Lusaka	70.00	248	P	P	20 19 24.4	+0.3
MORC	Moravsky Berou	70.30	318	*e*P	P	20 19 25.6	+0.2
	1.3nm,0.5s,mb4.1						
GERES	GERESS Array B	72.80	317	P	P	20 19 41.1	+0.7
	1.6nm,0.6s,mb4.2,baz=87,slow=5.8,SNR=18						
HFS	Hagfors	72.98	329	P	P	20 19 41.6	+0.5
	3.3nm,0.8s,mb4.3,baz=121,slow=8.4,SNR=3.6						
NB2	NORSAR Subarra	74.22	330	P	P	20 19 48.1	-0.3
	1.6nm,0.7s,mb4.1,baz=92,slow=5.8						
NOA	NORSAR Array B	74.22	330	P	P	20 19 48.4	0.0
	2.8nm,1.0s,mb4.2,baz=91,slow=5.6,SNR=4.5						
NOA	NORSAR Array B	74.22	330	P	P	20 19 48.4	0.0

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*IDC **27** 20:10:47.0±0.4,2.97N×95.65E,mb5.4/30,mb1 5.4/31, mb1mx5.4/31,ML5.0/1,MS5.6/9,Ms1 5.6/9,ms1mx5.1/29, Error ellipse: s-maj=15.2km s-min=8.7km az=49.0*

*BJI **27** 20:10:49.1,2.90N×95.49E,h29^{km},mB5.7,mb5.3,Ms6.2, Msz6.0*

*MOS **27** 20:10:50.5±1.0,2.98N×95.60E,h33^{km},mb5.9/107, MS5.6/37,Error ellipse: s-maj=8.6km s-min=3.9km az=123.7*

*SYO **27** 20:10:50.6,2.92N×95.61E,h24^{km},MB5.7,MS5.8*

*NEIC **27** 20:10:51.3±1.7,2.93N×95.61E,h29^{km}±11^{km},mb5.7/104, ME5.4,MS5.8/60,MW5.7,Error ellipse: s-maj=5.2km s-min=4.0km az=219.0 Broadband fault plane solution: P waves. NP1:φ$_s$315°,δ45°,λ90°. NP2:φ$_s$135°,δ45°,λ90°. Principal axes: T Plg90°, Azm0°; N Plg0°, Azm0°; P Plg0°, Azm45°; Moment Tensor Solution. s8 Moment tensor: Scale 10^{17} Nm; M$_{rr}$4.53; M$_{θθ}$-2.35; M$_{φφ}$-2.18; M$_{rθ}$0.07; M$_{θφ}$2.43; M$_{φr}$-0.01; Best double couple: M$_0$4.6×10^{17} NP1: φ$_s$315°,δ45°,λ91°. NP2:φ$_s$133°,δ45°,λ89°. Principal axes: T 4.54, Plg89°, Azm349°; N .17, Plg1°, Azm134°; P -4.7, Plg0°, Azm224°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*HRVD **27** 20:10:51.3±0.2,2.92N×95.49E,h12^{km},MW5.7/77, Centroid moment Tensor Solution. LP body waves: s57,c107;Mantle waves: s77,c163; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$4.73±.06; M$_{θθ}$-1.60±.06; M$_{φφ}$-3.13±.07; M$_{rθ}$-0.83±.17; M$_{θφ}$2.36±.05; M$_{φr}$-0.46±.17; Best double couple: M$_0$4.88×10^{17} NP1: φ$_s$155°,δ45°,λ106°. NP2:φ$_s$313°,δ47°,λ75°. Principal axes: T 4.92, Plg79°, Azm148°; N -.07, Plg11°, Azm324°; P -4.85, Plg1°, Azm54°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 20:10:46.8±0.8**,2.90N**±0.03×**95.60E**±0.02**,h10^{km}**±4^{km}**, h18^{km}**±2.3^{km}**:pP-P,n668,** σ**1^{s}00**/606**,mb5.6**/173**,MS5.8**/105**, 45C-16D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.56	49	P	Pn	20 12 27.0	+1.3
	920nm,1.0s						
NNT	Nongplab	10.46	23	P	P	20 13 19.0	-1.0
NST	Nakhon Sawan	13.45	19	P	P	20 14 01.8	+1.5
COCO	West Island	15.04	175	*e*P	P	20 14 23.3	+1.9
	272nm,1.1s						
KKTK	Khon Kaen	15.12	28	P	P	20 14 27.0	+4.6
	4μm,0.5s						
PALK	Pallekele	15.46	287	*e*P	P	20 14 29.4	+2.6
	417nm,1.3s						
CM31	Chiang Mai Arr	15.80	12	*e*Pn	P	20 14 31.7	+0.5
	289nm,1.0s						
CMAR	Chiang Mai Arr	15.80	12	Pn	P	20 14 31.7	+0.5
	1.9nm,0.3s,baz=199,slow=10,SNR=34						
CMAR				Sn	S	20 17 40.1	+13
	baz=218,slow=12,SNR=2.2						
CMAR				LR	LR	20 21 33.0	
	comp=Z,57μm,18.1s,baz=195,slow=41						
CMAR	Chiang Mai Arr	15.80	12	P	P	20 14 31.7	+0.5
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
CMAR				MLR	MLR		
	comp=Z,57μm,18.1s						
MDRS	Chennai	18.24	304	*e*P	P	20 15 03.5	+1.6
MDRS				*e*S	S	20 18 31.5	+9.0
VIS	Vishakhapatnam	19.02	322	*e*P	P	20 15 10.4	-1.1
VIS				*e*		20 15 15.4	
	comp=Z,198nm,0.8s						
VIS				*e*S	S	20 18 46.4	+6.1
VIS				*e*		20 32 01.2	
	comp=Z,18μm,18.6s						
TRD	Trivandrum	19.36	287	*e*P	P	20 15 15.5	0.0
TRD				*e*S	S	20 19 01.1	+13
TRD				*e*		20 33 00.5	
	comp=Z,16μm,16.8s						
QIZ	Qiongzhong	21.24	40	P	P	20 15 37.5	+2.1
QIZ				S	S	20 19 28.8	+2.3
QIZ				SS	SS	20 19 58.0	-2.1
QIZ				LR	LR		
	comp=N,15μm,16.1s,MS6.0						
QIZ				LR	LR		
	comp=E,45μm,17.6s,MS6.0						
QIZ				LR	LR		
	comp=Z,37μm,18.0s,MS5.8						
QIZ	Qiongzhong	21.24	40	*e*P	P	20 15 35.1	-0.3
	comp=Z,397nm,1.6s,mb5.5						
AGT	Agartala	21.28	349	⇑*i*	P	20 15 25.0	-11
AGT				*i*		20 16 18.0	
HYB	Hyderabad	22.09	312	*e*P	P	20 15 45.0	+1.0
HYB				*e*S	S	20 19 40.0	-2.4
HYB	Hyderabad	22.09	312	*i* P	P	20 15 45.0	+1.0
HYB				*e*S	S	20 19 40.0	-2.4
HYB				LR	LR	20 24 24.0	
	comp=Z,24nm,18.0s						
BOK	Bokaro	22.80	336	*e*P	P	20 15 51.5	+0.4
BOK				*e*		20 15 58.2	
	comp=Z,392nm,1.2s						
BOK				*e*S	S	20 19 56.4	+1.1
SHL	Shillong	22.82	351	*e*P	P	20 15 48.0	-3.2
BATP	Bataraza	22.84	74	*e*P	P	20 15 51.2	-0.3
KMI	Kunming	23.14	17	P	P	20 15 55.8	+1.4
KMI				PP	PP	20 16 27.0	+2.2
KMI				PCP	PcP	20 19 44.5	-0.1
KMI				S	S	20 20 04.5	+3.1
KMI				AMB	AMB		
	comp=Z,94nm,1.0s,mb5.2						
KMI				AMB	AMB		
	comp=Z,3μm,8.9s						
KMI				LR	LR		
	comp=N,53μm,13.1s,MS6.2						
KMI				LR	LR		
	comp=E,31μm,13.8s,MS6.2						
KMI				LR	LR		
	comp=Z,61μm,13.5s,MS6.2						
BLSP	Bilaspur	23.16	327	*e*P	P	20 15 54.8	+0.2
PPR	Puerto Princes	23.97	72	⇓*e*P	P	20 16 03.8	+1.3
NGP	Nagpur	24.26	320	⇓*e*	P	20 16 09.6	+4.3
NGP				*e*		20 20 29.6	
GOA	Goa	24.83	302	⇑*i*	P	20 16 17.9	+7.0
	comp=Z,258nm,1.1s,mb5.7						
GOA				*i*		20 20 41.1	
DGAR	Diego Garcia	25.27	246	PFAKE		20 16 30.0	+15
DGAR				LR	LR		
	comp=Z,7μm,21.0s,MS5.2						
AKL	Akola	25.32	316	⇑*i*	P	20 16 19.7	+4.2
AKL				*i*		20 20 52.3	
	comp=Z,337nm,1.1s						
KAD	Karad	25.44	306	*e*P	P	20 16 17.4	+0.8
KAD				*e*		20 16 25.6	
	comp=Z,211nm,0.9s						
GYA	Guiyang	25.71	23	⇑*i*P	P	20 16 18.5	-0.6
GYA				AP	pP	20 16 23.0	+1.0
GYA				PP	PP	20 17 02.3	+3.2
GYA				S	S	20 20 50.3	+5.0
GYA				AMB	AMB		
	comp=Z,50nm,1.0s,mb5.0						
GYA				AMB	AMB		
	comp=Z,2μm,11.7s						
GYA				LR	LR		
	comp=N,16μm,16.4s,MS5.9						
GYA				LR	LR		
	comp=E,19μm,12.3s,MS5.9						
GYA				LR	LR		
	comp=Z,25μm,17.0s,MS5.8						
POO	Poona	26.36	308	*e*P	P	20 16 26.6	+1.4
POO				*e*		20 16 33.1	
	comp=Z,161nm,1.4s						
PKI	Pulchoki	26.39	339	*e*P	P	20 16 26.3	+0.9
GZH	Guangzhou	26.42	39	P	P	20 16 25.0	-0.7
GZH				LR	LR		
	comp=N,27μm,15.9s,MS6.0						
GZH				LR	LR		
	comp=E,16μm,15.2s,MS6.0						
GZH				LR	LR		
	comp=Z,38μm,14.9s,MS6.1						
DMN	Daman	26.54	339	*e*P	P	20 16 27.9	+1.2
	comp=Z,243nm,0.8s,mb5.8						
GUN	Gumba	26.54	340	*e*P	P	20 16 27.7	+0.9
	comp=Z,866nm,1.2s,mb6.2						
KKN	Kakani	26.64	339	*e*P	P	20 16 28.0	+0.3
	comp=Z,398nm,1.0s,mb5.9						
BHPL	Bhopal	26.80	320	*e*P	P	20 16 30.0	+0.8
BHPL				*e*	pP	20 16 34.1	+1.9
	comp=Z,132nm,1.8s						
BHPL				*e*S	S	20 21 05.5	+2.1
BHPL				*e*		20 33 12.0	
	comp=Z,9μm,16.0s						
LSA	Lhasa	26.98	351	*e*P	P	20 16 31.1	+0.3
LSA				pmax	pmax		
	comp=Z,416nm,1.1s,mb5.9						
LSA	Lhasa	26.98	351	*e*P	P	20 16 31.1	+0.3
	comp=Z,416nm,1.1s,mb5.9						
SJMP	San Jose	26.98	68	*e*P	P	20 16 31.7	+0.8
GKN	Gorkha	27.07	338	*e*P	P	20 16 32.2	+0.6
	comp=Z,1μm,1.2s,mb6.3						
KOLN	Koldanda	27.26	336	*e*P	P	20 16 33.7	+0.4
	comp=Z,520nm,1.0s,mb6.0						
TGY	Tagaytay City	27.38	65	P	P	20 16 33.8	-0.8
	comp=Z,41nm,0.3s,mb5.4,baz=279,slow=13,SNR=2.6						
TGY				LR	LR	20 27 44.2	
	comp=Z,11μm,18.2s,MS5.5,baz=85,slow=37						
TGY	Tagaytay City	27.38	65	P	P	20 16 33.8	-0.7
TGY				pmax	pmax		
	comp=Z,41nm,0.4s						
TGY				MLR	MLR		
	comp=Z,11μm,18.2s						
OTRP	Odiongan	27.79	69	*e*P	P	20 16 38.0	-0.3
GUIM	Jordan	27.86	73	*e*P	P	20 16 39.1	+0.2
PAGZ	Pagadian	28.08	79	*e*P	P	20 16 41.7	+0.7
CD2	Chengdu	28.90	15	⇑*i*P	P	20 16 46.8	-1.4
CD2				S	S	20 21 36.8	-0.4
CD2				SS	SS	20 23 05.0	0.0
CD2				AMB	AMB		
	comp=Z,140nm,0.8s,mb5.7						
CD2				AMB	AMB		
	comp=Z,1μm,9.6s						
CD2				LR	LR		
	comp=E,56μm,14.4s						
CD2				LR	LR		
	comp=Z,56μm,14.4s,MS6.3						
BUKP	Musuan	29.73	79	*e*P	P	20 16 56.3	+0.5
OCLP	Ormoc	29.88	73	*e*P	P	20 16 58.9	+1.7
MSLP	Maasin	29.92	75	*e*P	P	20 16 57.0	-0.5
DAV	Davao City (W)	30.14	81	*e*P	P	20 17 02.5	+3.1
ENH	Enshi	30.23	24	*e*P	P	20 16 57.9	-2.2
	comp=Z,179nm,1.4s,mb5.6						
PTH	Pithoragarh	30.26	333	*e*P	P	20 16 59.6	-0.7
PTH				*e*		20 22 07.8	
MATI	Mati	30.80	81	*e*P	P	20 17 04.2	-1.0
AJM	Ajmer	30.88	321	*e*P	P	20 17 03.8	-2.0
AJM				*e*		20 17 12.9	
	comp=Z,96nm,0.9s						
AJM				*e*S	S	20 22 08.1	-0.4
NDI	New Delhi	31.05	327	*e*P	P	20 17 05.5	-1.7
QZH	Quanzhou	31.16	43	⇓*i*P	P	20 17 11.8	+3.5
QZH				S	S	20 22 07.8	-5.1
QZH				AMB	AMB		
	comp=Z,150nm,1.1s,mb5.7						
QZH				LR	LR		
	comp=N,36μm,16.2s,MS6.2						
QZH				LR	LR		
	comp=E,19μm,12.0s,MS6.2						
QZH				LR	LR		
	comp=Z,36μm,15.0s,MS6.2						
DDI	Dehra Dun	31.93	330	*e*P	P	20 17 13.3	-1.7
DDI				*e*		20 22 46.3	
BHJ	Bhuj	32.25	311	*e*P	P	20 17 17.8	0.0
BHJ				*e*S	S	20 22 30.8	+0.8
WHN	Wuhan	32.72	31	⇓P	P	20 17 22.0	+0.1
WHN				LR	LR		
	comp=N,11μm,20.3s						
WHN				LR	LR		
	comp=E,44μm,14.0s						
WHN				LR	LR		
	comp=Z,55μm,15.7s,MS6.4						
XAN	Xi’an	33.38	20	P	P	20 17 25.8	-1.8
XAN				S	S	20 22 44.8	-2.6
XAN				AMB	AMB		
	comp=Z,166nm,1.0s,mb5.9						
XAN				LR	LR		
	comp=N,12μm,16.3s,MS6.0						
XAN				LR	LR		
	comp=E,16μm,14.3s,MS6.0						
XAN				LR	LR		
	comp=Z,30μm,14.3s,MS6.2						
SDNR	Sundarnagar	33.43	330	*e*	P	20 17 38.5	+10
MBWA	Marble Bar	33.62	136	*e*P	P	20 17 27.1	-2.7
	comp=Z,50nm,1.2s,mb5.3						
LZH	Lanzhou	33.89	12	*e*P	P	20 17 31.5	-0.5
LZH				AP	pP	20 17 36.0	+1.1
LZH				S	S	20 22 54.0	-1.3
LZH				SS	SS	20 25 02.8	+1.2
LZH				AMB	AMB		
	comp=Z,220nm,1.4s,mb5.9						
LZH				AMB	AMB		
	comp=Z,511nm,4.6s						
LZH				LR	LR		
	comp=E,15μm,12.7s						
LZH				LR	LR		
	comp=Z,17μm,15.6s,MS5.9						
DLH	Dalhousie	34.77	330	*e*	P	20 17 43.0	+3.4
THN	Thein Dam	34.81	330	*e*P	P	20 17 39.5	-0.5
	comp=Z,66nm,1.1s,mb5.5						
NJ2	Nanjing	36.31	34	*e*P	P	20 17 53.0	+0.3
NJ2				AP	pP	20 18 02.8	+7.1
NJ2				XP	sP	20 18 06.5	+10
NJ2				PP	PP	20 19 16.0	+0.1
NJ2				S	S	20 23 30.0	-2.9
NJ2				XS		20 23 46.0	
NJ2				SS	SS	20 25 55.0	-2.1
NJ2				AMB	AMB		
	comp=Z,240nm,0.8s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,640nm,7.0s						
NJ2				LR	LR		
	comp=N,5μm,18.8s,MS5.4						
NJ2				LR	LR		
	comp=E,5μm,22.1s,MS5.4						
NJ2				LR	LR		
	comp=Z,5μm,12.8s						
GTA	Gaotai	36.54	5	*e*P	P	20 17 54.0	-0.5
GTA				PP	PP	20 19 18.5	-0.2
GTA				PCP	PcP	20 20 19.3	+0.8
GTA				S	S	20 23 35.3	-1.0
GTA				XS		20 23 45.3	
GTA				SCP		20 23 59.0	
GTA				PCS		20 24 06.8	
GTA				SS	SS	20 26 01.0	-1.0
GTA				SCS	ScS	20 28 07.8	-1.2
GTA				AMB	AMB		
	comp=Z,44nm,2.3s,mb4.9						
GTA				LR	LR		
	comp=N,26μm,12.9s,MS6.2						
GTA				LR	LR		
	comp=E,14μm,16.0s,MS6.2						
GTA				LR	LR		
	comp=Z,31μm,13.7s,MS6.2						
SSE	Sheshan	37.00	38	P	P	20 18 02.0	+3.5
SSE				PP	PP	20 19 24.0	-0.9
SSE				S	S	20 23 42.3	-1.1
SSE				AMB	AMB		
	comp=Z,61nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,598nm,7.5s						
SSE				LR	LR		
	comp=N,14μm,14.3s,MS6.1						
SSE				LR	LR		
	comp=E,17μm,14.3s,MS6.1						
SSE				LR	LR		
	comp=Z,29μm,16.1s,MS6.2						
TIA	Tai’an	38.65	28	*e*P	P	20 18 12.3	0.0
TIA				S	S	20 24 10.0	+1.6
TIA				AMB	AMB		
	comp=Z,118nm,1.4s,mb5.4						
TIA				LR	LR		
	comp=N,9μm,14.4s,MS5.9						
TIA				LR	LR		
	comp=E,9μm,15.0s,MS5.9						
JOW	Kunigami	39.30	50	P	P	20 18 17.5	-0.4
	comp=E,37nm,0.6s,mb5.3,baz=255,slow=7.6,SNR=7.2						
BTO	Baotou	39.73	17	*e*P	P	20 18 21.5	+0.2
BTO				S	S	20 24 27.3	+2.6
BTO				AMB	AMB		
	comp=Z,39nm,1.4s,mb4.9						
BTO				LR	LR		
	comp=N,16μm,12.8s,MS6.3						
BTO				LR	LR		
	comp=E,23μm,14.3s,MS6.3						
HHC	Hu-ho-hao-te	40.43	19	*e*P	P	20 18 28.3	+1.3
HHC				AP	pP	20 18 35.8	+5.8
HHC				XP	sP	20 18 39.0	+7.8
HHC				PP	PP	20 20 04.8	+1.1
HHC				PCP	PcP	20 20 31.8	+1.2
HHC				SCP		20 24 17.5	
HHC				PCS		20 24 20.5	
HHC				S	S	20 24 34.5	-0.7
HHC				XS		20 24 46.5	
HHC				SS	SS	20 27 29.8	+1.3
HHC				SCS	ScS	20 28 30.5	-0.8
HHC				AMB	AMB		
	comp=Z,71nm,1.3s,mb5.2						
HHC				AMB	AMB		
	comp=Z,2μm,5.5s						
HHC				LR	LR		
	comp=N,40μm,15.7s,MS6.5						
HHC				LR	LR		
	comp=E,21μm,13.9s,MS6.5						
HHC				LR	LR		
	comp=Z,39μm,15.3s,MS6.4						
KSH	Kashi	40.58	336	P	P	20 18 30.0	+1.8
KSH				AP	pP	20 18 37.5	+6.3
KSH				XP	sP	20 18 41.0	+8.6
KSH				PP	PP	20 20 07.0	+1.8
KSH				PCP	PcP	20 20 32.0	+0.9
KSH				PPP	PPP	20 20 36.5	+3.7
KSH				SCP		20 24 18.5	
KSH				PCS		20 24 21.3	
KSH				S	S	20 24 41.0	+3.6
KSH				XS		20 24 52.0	
KSH				SCS	ScS	20 28 32.5	+0.3
KSH				AMB	AMB		
	comp=Z,1μm,5.4s						
KSH				LR	LR		
	comp=N,6μm,12.2s,MS5.8						
KSH				LR	LR		
	comp=E,6μm,13.9s,MS5.8						
NWAO	Narrogin (SRO)	41.10	152	P	P	20 18 32.9	+0.3
	comp=E,71nm,1.0s,mb5.2,baz=322,slow=7.3,SNR=11						
NWAO	Narrogin (SRO)	41.10	152	*e*P	P	20 18 33.2	+0.6
NWAO				pmax	pmax		
	comp=Z,164nm,1.3s						
NWAO	Narrogin (SRO)	41.10	152	*e*P	P	20 18 33.2	+0.6
	comp=Z,164nm,1.3s,mb5.5						
WMQ	Urumqi	41.34	351	⇑P	P	20 18 35.0	+0.5
WMQ				AP	pP	20 18 39.5	+2.1
WMQ				XP	sP	20 18 42.3	+3.6
WMQ				PP	PP	20 20 14.3	+1.1
WMQ				PPP	PPP	20 20 44.0	+0.8
WMQ				S	S	20 24 49.0	+0.3
WMQ				AMB	AMB		
	comp=Z,37nm,1.2s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,480nm,7.9s						
WMQ				LR	LR		
	comp=N,2μm,20.1s,MS5.4						
WMQ				LR	LR		
	comp=E,4μm,23.0s,MS5.4						
WMQ				LR	LR		
	comp=Z,4μm,22.0s,MS5.2						
BJT	Baijiatuau	41.38	24	*e*P	P	20 18 36.0	+1.2
BJT				pmax	pmax		
	comp=Z,828nm,1.3s						
BJT				MLR	MLR		
	comp=Z,10μm,22.0s						
BJT	Baijiatuau	41.38	24	*e*P	P	20 18 36.0	+1.2
	comp=Z,828nm,1.3s,mb6.2						
BJT				LR	LR		
	comp=Z,10μm,22.0s,MS5.6						
BJI	Beijing	41.40	24	P	P	20 18 36.3	+1.3
BJI				S	S	20 24 50.8	+1.2
BJI				AMB	AMB		
	comp=Z,162nm,0.8s,mb5.7						
BJI				AMB	AMB		
	comp=Z,2μm,5.6s						
BJI				LR	LR		
	comp=N,14μm,17.0s,MS6.0						

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BJI                              LR     LR
      comp=E,8µm,17.0s,MS6.0
BJI                              LR     LR
      comp=Z,8µm,25.5s
ULHL  Ulahol            42.83 339  P      P       20 18 46.9 +0.2
      SNR=51
DL2   Dalian            42.97  30  P      P       20 18 48.5 +0.6
DL2                                S      S       20 25 07.5  -5.3
DL2                                AMB    AMB
      comp=Z,160nm,0.8s,mb5.8
DL2                                AMB    AMB
      comp=Z,600nm,8.7s
DL2                                LR     LR
      comp=N,11µm,18.3s,MS5.9
DL2                                LR     LR
      comp=E,6µm,16.8s,MS5.9
DL2                                LR     LR
      comp=Z,11µm,17.1s,MS5.8
KZA   Kyzart            43.05 338  P      P       20 18 49.9 +1.3
      SNR=46
UCH   Uchtor            43.47 337  P      P       20 18 53.3 +1.4
      SNR=110
AAA   Alma-Ata          43.49 340 eP      P       20 18 56.0 +3.9
AAA                               e               20 20 32.0
AAA                               eS      S       20 25 24.0 +3.8
AAA                                pmax   pmax
      comp=Z,2µm,4.0s
AAA                                smax
      comp=E,4µm,8.0s
AAA                                MLR    MLR
      comp=Z,4µm,20.0s,MS5.3
TKM2  Tokmak 2          43.65 339  P      P       20 18 54.4 +1.0
      SNR=42
KBK   Karagaybulak      43.67 338  P      P       20 18 55.2 +1.7
      SNR=89
AML   Almayashu         43.71 336  P      P       20 18 55.2 +1.4
      SNR=135
AAK   Ala-Archa         43.82 337  P      P       20 18 56.0 +1.3
      SNR=48
AAK   Ala-Archa         43.82 337 eP      P       20 18 54.2  -0.5
AAK                                pmax   pmax
      comp=Z,97nm,1.1s,mb5.5
AAK   Ala-Archa         43.82 337 eP      P       20 18 54.2  -0.6
      comp=Z,97nm,1.1s,mb5.5
FRU   Bishkek           43.94 338 eP      P       20 18 57.0 +1.3
FRU                               e               20 19 05.0
CHMS  Chumysh           44.03 338  P      P       20 18 57.0 +0.5
      SNR=36
EKS2  Erkin-Say         44.12 337  P      P       20 18 58.5 +1.3
      SNR=49
WRA   Warramunga Arr    44.29 123  P      P       20 18 58.2  -0.6
      comp=Z,78nm,0.9s,mb5.4,baz=301,slow=9.1,SNR=31
WRA   Warramunga Arr    44.29 123  P      P       20 18 58.2  -0.7
WRA                                pmax   pmax
      comp=Z,78nm,0.9s
WRAB  Tennant Creek     44.29 123 eP      P       20 18 57.8  -1.1
WRAB                               pmax   pmax
      comp=Z,131nm,0.9s,mb5.7
WRAB  Tennant Creek     44.29 123 eP      P       20 18 57.8  -1.1
      comp=Z,131nm,0.9s,mb5.7
USP   Ospenovka         44.36 338  P      P       20 18 59.8 +0.6
      SNR=110
INCN  Inchon            44.66  36 eP      P       20 19 02.9 +1.2
      comp=Z,155nm,1.4s,mb5.6
MKAR  Makanchi Array    45.23 347 i P     P       20 19 06.0  0.0
MKAR                               pmax   pmax
      comp=Z,164nm,0.8s
MKAR  Makanchi Array    45.23 347 i P     P       20 19 06.1 +0.1
KS15  Wonju Array Si    45.37  37 eP      P       20 19 07.0  -0.3
ASAR  Alice Springs     45.69 127  P      P       20 19 09.8  -0.3
      comp=Z,19nm,0.6s,mb5.2,baz=300,slow=7.5,SNR=26
ASAR                               PcP    PcP     20 20 47.9  -0.7
      comp=Z,7.5nm,0.7s,baz=306,slow=4.5,SNR=4.5
SONM  Songino Array     45.72  10  P      P       20 19 09.8  -0.1
      comp=Z,36nm,0.8s,mb5.3,baz=189,slow=8.9,SNR=66
SONM                               PcP    PcP     20 20 48.9 +0.6
      comp=Z,13nm,0.7s,baz=194,slow=3.4,SNR=6.8
ULN   Ulaanbaatar       45.87  11 eP      P       20 19 10.7  -0.4
ULN                               e               20 20 48.5
ULN                                pmax   pmax
      comp=Z,111nm,1.4s,mb5.6
ULN   Ulaanbaatar       45.87  11 eP      P       20 19 10.7  -0.4
      comp=Z,111nm,1.4s,mb5.6
ULN                               ePcP    PcP     20 20 48.5  -0.3
SNY   Shenyang          46.16  29 ⇓P      P       20 19 13.5  0.0
SNY                                SS     SS      20 29 20.0 +3.7
SNY                                AMB    AMB
      comp=Z,670nm,9.2s
SNY                                LR     LR
      comp=N,19µm,18.5s,MS6.2
SNY                                LR     LR
      comp=E,9µm,15.7s,MS6.2
SNY                                LR     LR
      comp=Z,21µm,18.4s,MS6.1
ZAK   Zakamensk         47.75   7⇑iP      P       20 19 25.3  -0.7
ZAK                               e               20 20 57.6
CN2   Changchun         48.55  29 ⇑P      P       20 19 32.8 +0.6
CN2                               eXP     sP      20 19 44.8 +8.4
CN2                               eS      S       20 26 32.8 +0.1
CN2                                AMB    AMB
      comp=Z,30nm,1.2s,mb5.2
CN2                                AMB    AMB
      comp=Z,1µm,10.0s
CN2                                LR     LR
      comp=N,11µm,17.0s,MS6.1
CN2                                LR     LR
      comp=E,11µm,17.0s,MS6.1
CN2                                LR     LR
      comp=Z,14µm,18.0s,MS6.0
MOY   Mondy             48.80   4 eP      P       20 19 34.2 +0.1
MOY                               e               20 21 03.1
TLY   Talaya            49.08   7 eP      P       20 19 36.3 +0.2
TLY                               e               20 21 26.1
TLY                               eS      S       20 26 37.2  -2.7
TLY                                pmax   pmax
      comp=Z,54nm,1.2s,mb5.5
TLY                                MLR    MLR
      comp=Z,11µm,16.0s,MS6.0
TLY   Talaya            49.08   7 eP      P       20 19 36.2  0.0
      comp=Z,95nm,1.4s,mb5.6
HASS  Wahat al Ahsa’    49.39 301  P      P       20 19 39.1 +0.2
IRK   Irkutsk           49.70   7 eP      P       20 19 41.2 +0.2
IRK                               e               20 19 57.8
IRK                               e               20 21 35.7
GUMO  Guam              49.80  75  PFAKE          20 19 50.0 +7.8
GUMO                               LR     LR
      comp=Z,9µm,21.0s,MS5.8
HIA   Hailar            50.58  20 eP      P       20 19 47.0  -0.7
HIA                                pmax   pmax
      comp=Z,120nm,1.4s
HIA   Hailar            50.58  20 eP      P       20 19 47.0  -0.7
      comp=Z,120nm,1.4s,mb5.6
CBIJ  Chichi jima       50.60  57  LR     LR      20 39 10.8
      comp=Z,4µm,21.8s,MS5.4,baz=64,slow=34
MDJ   Mudanjiang        51.20  31  P      P       20 19 52.5  0.0
MDJ                                AP     pP      20 19 56.8 +1.3
MDJ                                PCP    PcP     20 21 06.5  -1.6
MDJ                                PP     PP      20 21 49.3  -0.9
MDJ                                SCP            20 25 01.5
MDJ                                PCS            20 25 04.5
MDJ                                S      S       20 27 12.0 +2.6
MDJ                                SCS    ScS     20 29 41.0 +0.8
MDJ                                AMB    AMB
      comp=Z,20nm,1.6s,mb4.8
MDJ                                AMB    AMB
      comp=Z,692nm,5.1s
MDJ                                LR     LR
      comp=N,9µm,17.8s,MS6.1
MDJ                                LR     LR
      comp=E,12µm,16.9s,MS6.1
MDJ                                LR     LR
      comp=Z,11µm,19.7s,MS5.9
MDJ   Mudanjiang        51.20  31 eP      P       20 19 51.8  -0.6
      comp=Z,151nm,1.4s,mb5.7
MAJO  Matsushiro        51.55  44  PFAKE          20 20 10.0  +15
MAJO                               LR     LR
      comp=Z,7µm,19.0s,MS5.7
MAT   Matsushiro        51.55  44  P      P       20 19 54.2  -1.1
MAT                                S      S       20 27 16.0 +1.7
MAT   Matsushiro        51.55  44 eP      P       20 19 54.0  -1.3
MAT                               eS      S       20 27 17.0 +2.7
MAT                                pmax   pmax
      comp=Z,35nm,1.3s,mb5.1
MAT                                MLR    MLR
      comp=Z,5µm,20.0s,MS5.5
MAT   Matsushiro        51.55  44 eP      P       20 19 54.0  -1.3
      comp=Z,35nm,1.3s,mb5.1
MAT                               eS      S       20 27 17.0 +2.7
MAT                                LR     LR
      comp=Z,5µm,20.0s,MS5.5
ZAL   Zalesovo          51.64 352  P      P       20 19 55.1  -0.5
      comp=Z,72nm,0.6s,mb5.8,baz=301,slow=7.0,SNR=82
ZAL                                S      S       20 27 17.9 +2.6
      comp=Z,2.2nm,1.0s,baz=175,slow=22,SNR=1.9
ZAL   Zalesovo          51.64 352  P      P       20 19 55.2  -0.5
ZAL                                S      S       20 27 17.9 +2.6
ZAL                                pmax   pmax
      comp=Z,72nm,0.6s
KAMS  Al Khamasin       52.63 293  P      P       20 20 03.4  -0.2
NVS   Novosibirsk       52.75 351 i P     P       20 20 02.2  -1.8
NVS                               eS      S       20 27 31.5 +1.1
NVS                                pmax   pmax
      comp=N,271nm,1.4s
NVS                                pmax   pmax
      comp=E,294nm,1.4s
NVS                                pmax   pmax
      comp=Z,557nm,1.4s,mb6.3
NVS                                smax
      comp=N,35nm,1.5s
NVS                                smax
      comp=E,161nm,1.5s
PMG   Port Moresby      52.80 104  P      P       20 20 04.1  -0.9
      comp=E,60nm,0.7s,mb5.6,baz=298,slow=5.0,SNR=15
PMG   Port Moresby      52.80 104 eP      P       20 20 03.8  -1.2
PMG                                pmax   pmax
      comp=Z,67nm,0.8s
PMG   Port Moresby      52.80 104 eP      P       20 20 03.8  -1.2
      comp=Z,66nm,0.8s,mb5.6
MZLS  Mizel             52.95 298  P      P       20 20 06.1 +0.2
TATS  Tathlith          53.49 292  P      P       20 20 10.2 +0.3
BVA0  Borovoye Array    54.13 341 i P     P       20 20 12.9  -1.3
BVA0                               pmax   pmax
      comp=Z,20nm,1.1s,mb5.0
BVAR  Borovoye Array    54.13 341  P      P       20 20 13.4  -0.8
      comp=Z,55nm,0.7s,mb5.6,baz=143,slow=7.4,SNR=83
BVAR                               S      S       20 27 51.1 +1.9
      comp=Z,0.7nm,0.6s,baz=278,slow=40,SNR=2.0
BRVK  Borovoye          54.20 341 eP      P       20 20 13.7  -1.0
BRVK                               pmax   pmax
      comp=Z,168nm,1.1s,mb5.9
BRVK                               MLR    MLR
      comp=Z,1µm,19.0s,MS5.0
BRVK  Borovoye          54.20 341 eP      P       20 20 13.7  -0.9
      comp=Z,168nm,1.1s,mb5.9
BRVK                               LR     LR
      comp=Z,1µm,19.0s,MS5.0
NAMS  An Nimas          54.59 291  P      P       20 20 19.1 +1.0
CHKZ  Chkalovo          54.62 342 eP      P       20 20 17.2  -0.6
CHKZ                               pmax   pmax
      comp=Z,441nm,1.1s,mb6.4
CHKZ  Chkalovo          54.62 342 eP      P       20 20 17.2  -0.6
      comp=Z,441nm,1.1s,mb6.4
CTA   Charters Tower    54.69 117  P      P       20 20 18.1  -0.6
      comp=Z,48nm,0.9s,mb5.5,baz=294,slow=8.9,SNR=30
CTA                                S      S       20 27 59.9 +2.7
      comp=Z,1.4nm,0.8s,baz=278,slow=2.9,SNR=1.8
CTA   Charters Tower    54.69 117  P      P       20 20 18.2  -0.6
CTA                                S      S       20 27 59.9 +2.7
CTA                                pmax   pmax
      comp=Z,48nm,0.9s
CTAO  Charters Tower    54.69 117 eP      P       20 20 17.7  -1.1
CTAO                               pmax   pmax
      comp=Z,95nm,1.1s,mb5.7
CTAO                               MLR    MLR
      comp=Z,5µm,21.0s,MS5.6
CTAO  Charters Tower    54.69 117 eP      P       20 20 17.7  -1.0
      comp=Z,95nm,1.1s,mb5.7
CTAO                               LR     LR
      comp=Z,5µm,21.0s,MS5.6
AFFS  ‘Afif             54.88 297  P      P       20 20 20.5 +0.4
KLR   Kul’dur           55.48  28 eP      P       20 20 19.0  -5.2
KLR                               e               20 22 36.0
KLR                               eS      S       20 28 08.0 +0.6
KLR                               eSS     SS      20 31 54.5 +2.3
KLR                                pmax   pmax
      comp=N,90nm,2.0s
KLR                                pmax   pmax
      comp=E,150nm,2.0s
KLR                                pmax   pmax
      comp=Z,180nm,2.0s,mb5.8
KLR                                pmax   pmax
      comp=N,800nm,12.0s
KLR                                pmax   pmax
      comp=E,500nm,12.0s
KLR                                pmax   pmax
      comp=Z,2µm,12.0s
KLR                                smax
      comp=E,2µm,9.5s
KLR                                MLR    MLR
      comp=N,10µm,13.0s,MS6.4
KLR                                MLR    MLR
      comp=E,20µm,13.0s,MS6.4
KLR                                MLR    MLR
      comp=Z,23µm,13.0s,MS6.5
STKA  Stephens Creek    55.67 132  P      P       20 20 25.3  -0.5
      comp=Z,14nm,1.0s,mb4.9,baz=318,slow=8.1,SNR=8.0
STKA  Stephens Creek    55.67 132 eP      P       20 20 24.9  -0.9
BOD   Bodaibo           56.66  12 eP      P       20 20 31.4  -1.1
HILS  Ha’il             56.81 301  P      P       20 20 34.2 +0.2
ASAJ  Asahikawa         58.30  38  LR     LR      20 46 06.6
      comp=Z,5µm,19.9s,MS5.6,baz=80,slow=36
MAK   Makhachkala       58.41 320 eP      P       20 20 46.0 +1.0
MAK                               e               20 22 56.0
MAK                               eS      S       20 28 49.0 +2.8
MAK                               i PS    PS      20 28 58.0  -2.8
MAK                                pmax   pmax
      comp=Z,1µm,8.0s
MAK                                smax
      comp=N,1µm,5.0s
MAK                                smax
      comp=E,500nm,5.0s
MAK                                MLR    MLR
      comp=Z,4µm,14.0s,MS5.6
KMBO  Kilima Mbogo      58.47 267  P      P       20 20 46.4 +0.6
      comp=Z,29nm,1.1s,mb5.2,baz=54,slow=9.8,SNR=23
KMBO                               LR     LR      20 43 02.2
      comp=Z,13µm,19.3s,MS6.0,baz=85,slow=33
KMBO  Kilima Mbogo      58.47 267 eP      P       20 20 46.0 +0.2
KMBO                               pmax   pmax
      comp=Z,34nm,1.1s
KMBO                               MLR    MLR
      comp=Z,12µm,19.0s
KMBO  Kilima Mbogo      58.47 267 eP      P       20 20 46.0 +0.2
      comp=Z,34nm,1.1s,mb5.3
KMBO                               LR     LR
      comp=Z,12µm,19.0s,MS6.0
CLNS  Chul’man          58.62  18 eP      P       20 20 40.2  -6.1
CLNS                               pmax   pmax
      comp=N,36nm,1.0s
CLNS                               pmax   pmax
      comp=Z,41nm,1.0s,mb5.4
CLNS                               pmax   pmax
      comp=E,21nm,0.9s
GNI   Garni             58.97 316 eP      P       20 20 50.2 +1.2
GNI   Garni             58.97 316  P      P       20 20 48.9  -0.1
      comp=E,147nm,1.4s,mb5.8,baz=117,slow=2.6,SNR=14
GNI   Garni             58.97 316 eP      P       20 20 48.3  -0.7
GNI                                pmax   pmax
      comp=Z,141nm,1.3s
GNI                                MLR    MLR
      comp=Z,3µm,21.0s
GNI   Garni             58.97 316 eP      P       20 20 48.3  -0.6
      comp=Z,141nm,1.3s,mb5.8
GNI                                LR     LR
      comp=Z,3µm,21.0s,MS5.3
YNBS  Yanbu‘ al Bahr    59.43 297  P      P       20 20 53.0 +0.7
YSS   Yuzh-Sakhalins    59.87  36⇑eP      P       20 20 48.3  -6.8
YSS                               eS      S       20 29 03.0  -2.1
YSS                               ePPS    PPS     20 29 27.0  -2.2
YSS                               eSS     SS      20 33 04.0 +1.4
YSS                                SSS    SSS     20 35 36.0 +3.0
YSS                                pmax   pmax
      comp=Z,160nm,1.5s,mb5.8
YSS                                MLR    MLR
      comp=Z,9µm,18.0s,MS5.9
YSS                                MLR    MLR
      comp=N,8µm,17.0s,MS5.9
YSS                                MLR    MLR
      comp=E,3µm,20.0s,MS5.9
YSS   Yuzh-Sakhalins    59.87  36 eP      P       20 20 54.5  -0.6
      comp=E,175nm,1.4s,mb5.9
UMJS  Umm Lajj          60.21 297  P      P       20 20 59.0 +1.2
BTMT  Batman            60.51 313 eP      P       20 21 00.1 +0.5
SVE   Sverdlovsk        60.53 339⇑eP      P       20 20 58.5  -1.0
SVE                               eS      S       20 29 13.0  -0.4
SVE                                pmax   pmax
      comp=Z,340nm,1.3s,mb6.3
SVE                                MLR    MLR
      comp=Z,10µm,21.0s,MS5.9
BEST  Besiri            60.56 312 i P     P       20 20 59.1  -0.9
ZEI   Tsey              60.67 318 eP      P       20 20 59.0  -1.6
ZEI                                pmax   pmax
      comp=Z,13nm,1.0s,mb5.0
VRT   Varto             60.83 314 eP      P       20 21 00.1  -1.7
ARU   Arti              61.01 338⇑iP      P       20 21 01.5  -1.2
ARU                               e               20 21 40.6
ARU                               i               20 23 12.7
ARU                               i S     S       20 29 18.4  -1.1
ARU                               e               20 30 49.2
ARU                                pmax   pmax
      comp=Z,208nm,1.2s,mb6.1
ARU                                MLR    MLR
      comp=Z,4µm,17.0s,MS5.7
ARU                                MLR    MLR
      comp=N,3µm,18.0s,MS5.7
ARU                                MLR    MLR
      comp=E,3µm,17.0s,MS5.7
ARU   Arti              61.01 338 eP      P       20 21 01.2  -1.5
      comp=E,274nm,1.3s,mb6.2
ARU                                LR     LR
      comp=Z,1µm,19.0s,MS5.1
ERZM  Erzurum           61.24 315 i P     P       20 21 04.6 +0.1
EZM   Erzurum           61.24 315 eP      P       20 21 04.7 +0.2
BINT  Bingol            61.49 313 eP      P       20 21 04.7  -1.5
TBKS  Tabuk             61.52 301  P      P       20 21 07.6 +1.0
BCA   Borcka            61.66 316 eP      P       20 21 05.3  -2.0
KIV   Kislovodsk        61.98 319  P      P       20 21 08.8  -0.7
      comp=Z,458nm,1.0s,mb6.6,SNR=24
KIV   Kislovodsk        61.98 319 eP      P       20 21 08.1  -1.4
KIV                                pmax   pmax
      comp=Z,123nm,1.2s,mb5.9
KIV   Kislovodsk        61.98 319 eP      P       20 21 08.1  -1.4
      comp=Z,123nm,1.2s,mb5.9
ASF   Jabal al Asfar    62.18 305  LR     LR      20 48 59.7
      comp=Z,4µm,19.0s,MS5.6,baz=216,slow=37
URFA  Urfa              62.23 311 eP      P       20 21 12.3 +1.1
GOF   Gofitskoye        62.24 321⇓iP      P       20 21 10.0  -1.2
GOF                                pmax   pmax
      comp=Z,80nm,1.0s,mb5.8
JMQS  Jabal Moqyreh     62.24 301  P      P       20 21 11.8 +0.3
EZC   Erzincan          62.29 314 eP      P       20 21 16.4 +4.8
PTK   Pertek            62.29 313 eP      P       20 21 10.0  -1.7
ELZG  Elazig            62.46 312 i P     P       20 21 13.2 +0.5
AYUS  ‘Aynunah          62.61 300  P      P       20 21 14.5 +0.6
GUMT  Gumushane         62.79 315 eP      P       20 21 15.8 +0.9
BDAS  Al Bad‘           62.81 300  P      P       20 21 15.3 +0.1
MALT  Malatya           62.81 312 eP      P       20 21 17.5 +2.4
MALT  Malatya           62.81 312 eP      P       20 21 14.6  -0.5
MALT                               pmax   pmax
      comp=Z,69nm,1.2s,mb5.7
MALT  Malatya           62.81 312 eP      P       20 21 14.6  -0.5
      comp=Z,69nm,1.2s,mb5.7
JMOS  Jabal al Moall    62.96 301  P      P       20 21 16.7 +0.5
ALWS  Ilw as Safayha    63.03 301  P      P       20 21 17.1 +0.5
MKRJ  Makawir           63.06 304  P      P       20 21 17.2 +0.4
HAQS  Haql              63.09 301  P      P       20 21 17.5 +0.5
GZT   Gaziantep         63.15 311 i P     P       20 21 17.4 +0.1
EIL   Elat              63.20 302  P      P       20 21 17.9 +0.1
      comp=Z,96nm,1.2s,mb5.8,baz=93,slow=6.4,SNR=22
EIL   Elat              63.20 302  P      P       20 21 17.8  0.0
EIL   Elat              63.20 302 eP      P       20 21 17.3  -0.4
      comp=Z,134nm,1.4s,mb5.9
MBH   Mount Berech      63.26 302  P      P       20 21 18.3 +0.1
DRGI  Dragot            63.28 304  P      P       20 21 18.2  0.0
KSHT  Keshet            63.28 306  P      P       20 21 18.8 +0.6
HMDT  Nahal Hemdat      63.33 305  P      P       20 21 18.6  0.0
GAZ   Gaziantep         63.36 310 eP      P       20 21 19.3 +0.6
MMLI  Mount Malkishu    63.46 305  P      P       20 21 19.9 +0.5
KMTI  Karmit            63.49 302  P      P       20 21 19.6  -0.1
SLTI  Sal’it            63.72 305  P      P       20 21 22.4 +1.1
KAHT  Ahir Dag          63.76 311 i P     P       20 21 21.6 +0.3
SOC   Sochi             63.79 318 eP      P       20 21 18.5  -3.0
SOC                               eS      S       20 29 52.3  -2.5
SOC                                pmax   pmax
      comp=Z,127nm,1.1s,mb5.9
SOC                                pmax   pmax
      comp=N,68nm,1.3s
SOC                                pmax   pmax
      comp=E,16nm,1.3s
SOC                                MLR    MLR
      comp=Z,2µm,18.0s,MS5.3
SOC                                MLR    MLR
      comp=N,828nm,23.0s,MS5.3
SOC                                MLR    MLR
      comp=E,2µm,21.0s,MS5.3
SOC   Sochi             63.79 318 eP      P       20 21 19.8  -1.7
HNTI  Hanita            63.82 306  P      P       20 21 22.1 +0.2
OFRI  ‘Ofer             63.86 305  P      P       20 21 22.4 +0.2
HTY   Hatay             63.87 309 eP      P       20 21 17.6  -4.6
COBT  Iskenderun        63.90 309 i P     P       20 21 22.5 +0.2
SOKR  Solikamsk         63.93 339⇓iP      P       20 21 20.8  -1.3
SOKR                               pmax   pmax
      comp=Z,270nm,1.0s,mb6.2
SOKR                               MLR    MLR
      comp=Z,4µm,18.0s,MS5.7
KZIT  Kziot             63.95 303  P      P       20 21 22.5  -0.3
YAK   Yakutsk           64.26  17c iP     P       20 21 22.8  -1.4
YAK                               e               20 21 53.7
YAK                               e               20 23 50.0
YAK                               eS      S       20 29 57.8  -2.4
YAK                               e               20 31 07.8
YAK                                pmax   pmax
      comp=Z,198nm,1.2s,mb6.0
YAK                                pmax   pmax
      comp=N,90nm,1.1s
YAK                                pmax   pmax
      comp=E,74nm,1.1s
YAK                                pmax   pmax
      comp=Z,6.0nm,1.1s
YAK                                pmax   pmax
      comp=E,5.0nm,1.3s
YAK                                smax
      comp=N,617nm,10.5s
YAK                                smax
      comp=E,226nm,11.9s
YAK                                MLR    MLR
      comp=Z,13µm,18.0s,MS6.2
YAK                                MLR    MLR
      comp=N,7µm,17.0s,MS6.1
YAK                                MLR    MLR
      comp=E,9µm,17.0s,MS6.1
YAK   Yakutsk           64.26  17 eP      P       20 21 22.6  -1.6
      comp=E,470nm,1.3s,mb6.4
BNN   Bunyan            64.90 312 eP      P       20 21 26.9  -1.9
MBAR  Mbarara           64.93 268 eP      P       20 21 28.5  -0.9
MBAR                               pmax   pmax
      comp=Z,49nm,1.2s,mb5.4
MBAR                               MLR    MLR
      comp=Z,2µm,20.0s,MS5.2
MBAR  Mbarara           64.93 268 eP      P       20 21 28.5  -1.0
      comp=Z,49nm,1.2s,mb5.4
MBAR                               LR     LR
      comp=Z,2µm,20.0s,MS5.2
PHNC  Paralimni         65.22 307 ⇓P      P       20 21 30.6  -0.4
PHNC  Paralimni         65.22 307⇓eP      P       20 21 30.6  -0.4
MEST  Erdemli           65.55 309 i P     P       20 21 31.7  -1.3
NIG   Nigde             65.61 311 eP      P       20 21 32.1  -1.2
AVNT  Avonos            65.62 312 i P     P       20 21 33.3  -0.2
CSS   Prodhromos        65.77 307  P      P       20 21 34.3  -0.2
ANN   Anapa             65.77 318 eP      P       20 21 34.2  -0.1
ANN                                pmax   pmax
      comp=Z,84nm,1.2s,mb5.7
MAMC  Mammari           65.91 307 ⇑P      P       20 21 35.6 +0.2
SZAC  Souni-Zanaja      66.08 307 ⇑P      P       20 21 36.2  -0.2
SZAC  Souni-Zanaja      66.08 307⇑iP      P       20 21 36.2  -0.2
LEF   Lefka             66.16 307 eP      P       20 21 37.4 +0.4
CTKT  Corum             66.21 313 i P     P       20 21 37.0  -0.2
BOYT  Boyabat           66.37 314 i P     P       20 21 37.6  -0.6
ALFC  Alevga            66.40 307  P      P       20 21 37.6  -0.9
      comp=Z,0.9nm,0.8s
BYBT  Boyabat           66.49 314 eP      P       20 21 34.5  -4.5
PPCY  Paphos            66.54 307 ⇑P      P       20 21 38.5  -0.9
PPCY  Paphos            66.54 307⇑iP      P       20 21 38.5  -0.9
AKMC  Akamas            66.58 307  P      P       20 21 38.6  -1.1
KAMT  Kaman             66.64 312 eP      P       20 21 39.3  -0.6
BR131 Keskin Array S    66.79 312  PFAKE          20 21 50.0 +9.1
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BR131				LR	LR		
	comp=Z,3μm,20.0s,MS5.4						
BRTR	**Keskin Array B**	66.79	312	P	P	20 21 39.6	-1.3
	comp=Z,17nm,0.9s,mb5.1,baz=127,slow=6.2,SNR=33						
BRTR				PcP	PcP	20 22 10.1	+0.3
	comp=Z,12nm,0.9s,baz=142,slow=5.2,SNR=5.0						
BRTR	**Keskin Array B**	66.79	312	P	P	20 21 39.7	-1.2
BRTR						20 22 10.1	
BRTR				pmax	pmax		
	comp=Z,17nm,0.9s						
BRTR				pmax	pmax		
	comp=Z,12nm,0.9s						
HDMB	**Hadim**	66.93	309	*e*P	P	20 21 36.2	-5.6
ELDT	**Eldivan**	67.16	313	*i* P	P	20 21 42.3	-1.0
BZK	**Bozkurt**	67.18	315	*e*P	P	20 21 43.3	0.0
ANTO	**Ankara**	67.46	312	*e*P	P	20 21 43.2	-1.9
VOR	**Voronezh**	67.47	326	*e*P	P	20 21 43.3	-1.7
VOR				pmax	pmax		
	comp=Z,230nm,1.3s,mb6.0						
BALT	**Daday**	67.50	314	*i* P	P	20 21 45.2	-0.2
SAFT	**Safranbolu**	67.92	314	*e*P	P	20 21 45.5	-2.5
SIM	**Simferopol'**	68.04	318*c*	*i*P	P	20 21 47.1	-1.6
SIM				*i* S	S	20 30 48.5	+2.0
SIM				pmax	pmax		
	comp=Z,98nm,1.2s,mb5.7						
SIM				MLR	MLR		
	comp=Z,800nm,19.0s,MS5.0						
SIM	**Simferopol'**	68.04	318⇑	*e*P	P	20 21 47.9	-0.8
SGKT	**Sivrigoynuk**	68.19	313	*i* P	P	20 21 49.3	-0.4
ISP	**Isparta**	68.67	310	*e*P	P	20 21 53.4	+0.7
ISP				pmax	pmax		
	comp=Z,101nm,1.2s,mb5.6						
ISP	**Isparta**	68.67	310	*e*P	P	20 21 53.4	+0.7
	comp=Z,101nm,1.2s,mb5.6						
MDU	**Mudurnu**	68.78	312	*e*P	P	20 21 50.8	-2.6
ESKT	**Eskisehir**	68.81	311	*e*P	P	20 21 51.9	-1.7
ESKT	**Eskisehir**	68.81	311	*i* P	P	20 21 52.8	-0.8
ELL	**Elmali**	68.89	308	*e*P	P	20 21 53.7	-0.4
LSZ	**Lusaka**	69.08	253	*e*P	P	20 21 55.2	-0.4
LSZ				pmax	pmax		
	comp=Z,65nm,1.3s,mb5.4						
LSZ	**Lusaka**	69.08	253	*e*P	P	20 21 55.2	-0.4
	comp=Z,65nm,1.3s,mb5.4						
HENT	**Hendek**	69.11	313	P	P	20 21 54.1	-1.3
ALT	**Altintas**	69.26	311	*e*P	P	20 21 54.9	-1.5
SKR	**Severo-Kuril's**	69.42	36	*e*P	P	20 21 51.9	-5.2
SKR				*e*		20 22 10.0	
SKR				*e*		20 24 30.0	
SKR				*e*SSS	tx	20 26 06.0	
SKR				*e*S	S	20 30 52.0	-11
SKR				*e*		20 31 30.0	
SKR				pmax	pmax		
	comp=Z,3.0nm,8.0s						
SKR				pmax	pmax		
	comp=Z,110nm,0.7s,mb5.9						
SKR				smax			
	comp=N,3.0nm,10.0s						
SKR				smax			
	comp=E,3.0nm,10.0s						
SKR				MLR	MLR		
	comp=N,3μm,16.0s,MS5.8						
SKR				MLR	MLR		
	comp=E,3μm,16.0s,MS5.8						
SKR				MLR	MLR		
	comp=Z,3μm,16.0s,MS5.7						
FETY	**Fethiye**	69.51	308	*e*P	P	20 21 54.3	-3.7
CASY	**Casey**	69.86	174	*e*P	P	20 21 58.8	-0.7
	comp=Z,32nm,1.1s,mb5.2						
CASY				LR	LR		
	comp=Z,5μm,20.0s,MS5.7						
MOS	**Moscow**	70.06	329	*e*P	P	20 21 59.9	-1.0
MOS				*e*		20 22 08.4	
MOS				*e*S	S	20 31 07.6	-2.7
MOS				pmax	pmax		
	comp=Z,400nm,1.4s,mb6.2						
MOS				pmax	pmax		
	comp=Z,344nm,1.2s,mb6.2						
MOS				MLR	MLR		
	comp=Z,3μm,17.7s,MS5.6						
MOS				MLR	MLR		
	comp=N,4μm,18.2s						
ULDT	**Uludag**	70.24	312	*i* P	P	20 22 02.0	-0.3
MANT	**Manisa**	70.31	310	*i* P	P	20 22 02.5	-0.3
OBN	**Obninsk**	70.34	328*d*	*i*P	P	20 22 01.4	-1.2
OBN				*e*		20 24 45.0	
OBN				*i* S	S	20 31 07.9	-5.7
OBN				pmax	pmax		
	comp=Z,74nm,1.2s,mb5.5						
OBN				MLR	MLR		
	comp=Z,3μm,21.0s,MS5.5						
OBN	**Obninsk**	70.34	328	*e*P	P	20 22 01.3	-1.3
	comp=Z,267nm,1.3s,mb6.0						
MA2	**Magadan**	70.51	26	*e*P	P	20 22 03.4	-0.2
MA2				*e*S	S	20 31 15.4	-0.1
MA2				*e*		20 32 01.9	
MA2				pmax	pmax		
	comp=Z,90nm,1.5s,mb5.5						
MA2	**Magadan**	70.51	26	*e*P	P	20 22 03.0	-0.6
	comp=Z,121nm,1.1s,mb5.7						
AYDN	**Tasoluk**	70.67	309	*i* P	P	20 22 04.5	-0.4
AKS	**Akhisar**	70.97	310	*e*P	P	20 22 03.0	-3.7
BTOK	**Tokmak**	70.99	311	*i* P	P	20 22 06.2	-0.6
BNT	**Bandirma**	71.20	312	*e*P	P	20 22 02.4	-5.7
KDAG	**Bornova**	71.29	310	P	P	20 22 08.5	-0.2
PET	**Petropavlovsk**	71.73	35	*e*P	P	20 22 09.9	-1.2
PET				*e*S	S	20 31 26.6	-3.1
PET				*e*SS	SS	20 36 05.4	-1.9
PET				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.6						
PET				smax			
	comp=N,700nm,15.0s						
PET				smax			
	comp=E,700nm,26.2s						
PET				MLR	MLR		
	comp=Z,6μm,18.0s,MS5.9						
PET				MLR	MLR		
	comp=Z,6μm,17.0s						
PET	**Petropavlovsk**	71.73	35	*e*P	P	20 22 11.1	0.0
TIRR	**Tirgusor**	71.80	316	P	P	20 22 11.2	-0.4
CFR	**Carcaliu**	72.17	317⇑	*i*P	P	20 22 12.9	-0.9
KIS	**Kishinev**	72.17	319	*e*P	P	20 22 13.0	-0.8
KIS				MLR	MLR		
	comp=Z,2μm,17.0s,MS5.5						
IDI	**Anoyia**	72.61	306	P	P	20 22 16.5	-0.2
	comp=Z,67nm,0.9s,mb5.6,baz=103,slow=6.6,SNR=17						
SEY	**Seymchan**	72.84	24	*e*P	P	20 22 17.3	-0.2
SEY				SS	SS	20 36 25.7	+1.1
SEY				MLR	MLR		
	comp=Z,52μm,18.0s,MS6.8						
SEY				MLR	MLR		
	comp=N,24μm,17.0s,MS6.7						
SEY				MLR	MLR		
	comp=E,25μm,17.0s,MS6.7						
AKASG	**Malin Array Be**	72.94	322	P	P	20 22 16.9	-1.4
	comp=E,25nm,0.7s,mb5.3,baz=88,slow=4.5,SNR=47						
AKASG				PP	PP	20 25 04.8	+1.9
	comp=E,24nm,1.2s,baz=92,slow=7.0,SNR=5.4						
AKASG	**Malin Array Be**	72.94	322	P	P	20 22 16.9	-1.4
AKASG						20 25 04.8	
AKASG				pmax	pmax		
	comp=Z,25nm,0.7s						
AKASG				pmax	pmax		
	comp=Z,24nm,1.2s						
LBTB	**Lobatse**	73.22	243	*e*P	P	20 22 20.5	0.0
LBTB				pmax	pmax		
	comp=Z,94nm,1.2s,mb5.6						
LBTB				MLR	MLR		
	comp=Z,13μm,19.0s,MS6.2						
LBTB	**Lobatse**	73.22	243	*e*P	P	20 22 20.5	0.0
	comp=Z,94nm,1.2s,mb5.6						
LBTB				LR	LR		
	comp=Z,13μm,19.0s,MS6.2						
VRI	**Vrincioaia**	73.29	317	P	P	20 22 20.6	+0.2
VRI	**Vrincioaia**	73.29	317	⇓P	P	20 22 20.8	+0.4
NOUC	**Port Laguerre**	73.30	114	*e*P	P	20 22 19.9	-1.1
MLR	**Muntele Rosu**	73.74	317	P	P	20 22 23.4	+0.4
	comp=Z,193nm,1.2s,mb5.9,baz=67,slow=5.7,SNR=23						
MLR	**Muntele Rosu**	73.74	317	P	P	20 22 23.5	+0.4
RZN	**Rozhen**	73.84	313	*e*P	P	20 22 23.0	-0.7
MAW	**Mawson**	74.01	192	P	P	20 22 25.1	+0.9
	comp=Z,33nm,1.3s,mb5.1,baz=48,slow=9.6,SNR=6.4						
MAW				LR	LR	20 48 55.6	
	comp=Z,3μm,20.2s,MS5.5,baz=24,slow=31						
MAW	**Mawson**	74.01	192	P	P	20 22 25.1	+0.9
MAW				pmax	pmax		
	comp=Z,33nm,1.3s						
MAW				MLR	MLR		
	comp=Z,3μm,20.2s						
BOSA	**Boshof**	74.25	239	*e*P	P	20 22 26.0	-0.4
BOSA				pmax	pmax		
	comp=Z,92nm,1.3s,mb5.5						
BOSA				MLR	MLR		
	comp=Z,9μm,19.0s,MS6.1						
BOSA	**Boshof**	74.25	239	*e*P	P	20 22 26.0	-0.4
	comp=Z,92nm,1.3s,mb5.5						
BOSA				LR	LR		
	comp=Z,9μm,19.0s,MS6.1						
PGB	**Panagyurishte**	74.40	313	*e*P	P	20 22 26.0	-1.0
MMB	**Musomiste**	74.55	312	*e*P	P	20 22 25.0	-2.8
MNK	**Minsk**	74.85	326	*e*P	P	20 22 25.0	-4.3
MNK				pmax	pmax		
	comp=Z,360nm,1.5s,mb6.1						
KKB	**Krupnik**	75.08	312	*e*P	P	20 22 30.0	-0.9
VTS	**Vitosha**	75.11	313	*e*P	P	20 22 30.0	-1.0
VTS	**Vitosha**	75.11	313	P	P	20 22 30.6	-0.4
PUL	**Pulkovo**	75.24	332⇑	*e*P	P	20 22 31.6	+0.2
PUL				pmax	pmax		
	comp=E,462nm,1.3s						
PUL				pmax	pmax		
	comp=Z,230nm,1.3s,mb6.0						
PUL	**Pulkovo**	75.24	332	*i* P	P	20 22 31.5	+0.1
IDID	**Didziasalis**	75.69	327	*e*P	P	20 22 33.7	-0.4
IDID				AMPb	AMB	20 22 39.1	
	comp=Z,55nm,1.3s,mb5.3						
IIGN	**Ignalina**	75.98	327	*e*P	P	20 22 35.4	-0.3
IIGN				AMPb	AMB	20 22 40.8	
	comp=Z,58nm,1.3s,mb5.3						
IZAR	**Zarasai**	76.08	327	*e*P	P	20 22 35.8	-0.5
IZAR				AMPb	AMB	20 22 41.3	
	comp=Z,40nm,1.3s,mb5.2						
ISAL	**Salakas**	76.10	327	*e*P	P	20 22 36.0	-0.4
ISAL				AMPb	AMB	20 22 41.4	
	comp=Z,39nm,1.4s,mb5.2						
BOLS	**Boljevac**	76.22	314⇑	*i*P	P	20 22 36.2	-1.1
DRV	**Dumont d'Urvil**	76.23	163	P	P	20 22 37.0	+0.1
SKO	**Skopje**	76.30	312	*e*P	P	20 22 38.0	+0.2
VSU	**Vasula**	76.58	330	*i* P	P	20 22 38.8	-0.2
LVZ	**Lovozero**	76.70	340⇑	*e*P	P	20 22 39.7	+0.2
LVZ				*e*		20 25 34.7	
LVZ				*e*S	S	20 32 26.5	+1.6
LVZ				*e*		20 33 09.2	
LVZ				pmax	pmax		
	comp=Z,141nm,1.3s,mb5.7						
LVZ				pmax	pmax		
	comp=E,32nm,1.5s						
LVZ				smax			
	comp=N,827nm,7.1s						
LVZ				MLR	MLR		
	comp=Z,5μm,18.0s,MS5.9						
LVZ				MLR	MLR		
	comp=N,4μm,19.0s,MS6.0						
LVZ				MLR	MLR		
	comp=E,5μm,18.0s,MS6.0						
LVZ	**Lovozero**	76.70	340	*i* P	P	20 22 39.5	0.0
KWP	**Kalwaria**	76.75	320	*e*P	P	20 22 40.2	0.0
KOLS	**Kolonicke sedl**	76.89	320	*i* P	P	20 22 41.7	+0.7
APA	**Apatity**	76.98	340⇑	*i*P	P	20 22 40.6	-0.5
APA				*i*		20 22 50.7	
APA				*e*S	S	20 32 33.0	+5.0
APA				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.8						
APA				MLR	MLR		
	comp=Z,6μm,19.0s,MS5.9						
GRUS	**Gruza**	77.11	314⇑	*i*P	P	20 22 42.1	-0.2
SUW	**Suwalki**	77.37	325	*e*P	P	20 22 42.8	-0.7
CRVS	**Cervenica-Dubn**	77.41	319	*e*P	P	20 22 47.5	+3.6
CRVS				*e*		20 22 59.6	
CRVS				*e*		20 35 11.2	
CRVS	**Cervenica-Dubn**	77.41	319	*e*	P	20 22 47.5	+3.6
CRVS				*e*		20 22 59.6	
CRVS				*e*		20 35 11.2	
DIVS	**Divcibare**	77.66	314⇑	*i*P	P	20 22 45.0	-0.4
FINES	**FINESS Array B**	77.76	333	P	P	20 22 45.1	-0.4
	comp=Z,31nm,0.9s,mb5.2,baz=97,slow=6.2,SNR=32						
FINES	**FINESS Array B**	77.76	333	P	P	20 22 45.1	-0.4
FINES				pmax	pmax		
	comp=Z,31nm,0.9s						
KAF	**Kangasniemi**	77.85	333	*e*p	P	20 22 46.0	0.0
	comp=Z,102nm,1.2s,mb5.6						
KAF	**Kangasniemi**	77.85	333	*e*P	P	20 22 46.0	0.0
KAF				pmax	pmax		
	comp=Z,102nm,1.2s,mb5.6						
KECS	**Kecovo**	77.98	319	*e*P	P	20 22 47.6	+0.6
NIE	**Niedzica**	78.25	320	*e*P	P	20 22 49.0	+0.6
PSZ	**Piszkesteto**	78.28	318	P	P	20 22 48.9	+0.3
PSZ	**Piszkesteto**	78.28	318⇑	*e*P	P	20 22 48.8	+0.2
WAR	**Warsaw**	78.29	323	*e*P	P	20 22 47.6	-1.0
OJC	**Ojcow**	78.70	321	*e*P	P	20 22 51.0	+0.1
SUR	**Sutherland**	78.76	236	*e*P	P	20 22 51.5	-0.1
	comp=Z,118nm,1.3s,mb5.7						
PKSM	**Moragy**	78.89	316⇑	*e*P	P	20 22 51.6	-0.4
VYHS	**Vyhne**	79.07	319	*i* P	P	20 22 53.0	+0.1
RHK1	**Bakonya**	79.27	316⇑	*e*P	P	20 22 53.7	-0.4
SRO	**Srobarova**	79.32	318	*e*P	P	20 22 55.3	+1.0
KOLL	**Kolacno**	79.36	319	*e*P	P	20 22 54.7	+0.1
TIP	**Timpagrande**	79.52	309	*e*P	P	20 22 55.7	+0.1
OKC	**Ostrava-Krasne**	79.70	320	*e*P	P	20 22 56.7	+0.4
OKC				AMS	AMS	21 13 50.0	
	comp=Z,1μm,18.9s						
RAC	**Raciborz**	79.70	320	*e*P	P	20 22 57.3	+1.0
KEV	**Kevo**	79.98	341	*e*p	P	20 22 58.3	+0.9
	comp=Z,80nm,1.2s,mb5.5						
KEV	**Kevo**	79.98	341	*e*P	P	20 22 58.3	+0.9
KEV				pmax	pmax		
	comp=Z,81nm,1.2s,mb5.5						
MORC	**Moravsky Berou**	80.08	320	*e*P	P	20 22 58.4	0.0
MORC				pmax	pmax		
	comp=Z,78nm,1.2s,mb5.5						
MORC	**Moravsky Berou**	80.08	320	*e*P	P	20 22 58.4	0.0
	comp=Z,78nm,1.2s,mb5.5						
BILL	**Bilibino**	80.16	21	*e*P	P	20 22 57.9	-0.5
BILL				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
BILL				MLR	MLR		
	comp=Z,12μm,19.0s,MS6.2						
BILL	**Bilibino**	80.16	21	*e*P	P	20 22 57.9	-0.6
	comp=Z,32nm,1.2s,mb5.1						
BILL				LR	LR		
	comp=Z,12μm,19.0s,MS6.2						
ZST	**Bratislava**	80.18	318	*e*P	P	20 22 59.5	+0.6
ZST				*e*PNS	SP	20 33 50.7	+2.9
ARCES	**ARCESS Array B**	80.41	340	P	P	20 23 00.6	+0.8
	comp=Z,142nm,1.2s,mb5.8,baz=108,slow=3.8,SNR=23						
ARCES	**ARCESS Array B**	80.41	340	P	P	20 23 00.6	+0.9
ARCES				pmax	pmax		
	comp=Z,142nm,1.2s						
ARCES	**ARCESS Array B**	80.41	340	P	P	20 23 00.6	+0.8
ARE0	**ARCESS Array S**	80.41	340	*e*P	P	20 22 59.5	-0.2
SOP	**Sopron**	80.48	318	*e*P	P	20 23 00.9	+0.3
VRAC	**Vranov**	80.64	319	P	P	20 23 01.2	-0.2
	comp=Z,24nm,1.3s,mb5.0,baz=58,slow=5.0,SNR=8.1						
VRAC	**Vranov**	80.64	319	P	P	20 23 01.2	-0.1
VRAC				pmax	pmax		
	comp=Z,25nm,1.3s						
GKP	**Gorka Klasztor**	80.72	323	*e*P	P	20 23 01.3	-0.4
DPC	**Dobruska-Polom**	80.93	320	*e*P	P	20 23 03.6	+0.7
DPC				*e*x	x	20 33 49.5	
DPC				AMS	AMS	21 07 20.0	
	comp=Z,2μm,16.7s						
KSP	**Ksiaz**	81.00	321⇑	*e*P	P	20 23 03.7	+0.5
KSP				*e*S	S	20 33 13.0	+2.0
KSP				LR	LR		
	comp=Z,4μm,20.0s,MS5.8						
KSP	**Ksiaz**	81.00	321	*e*P	P	20 23 03.9	+0.7
SYO	**Syowa Base**	81.12	198	⇓P	P	20 23 04.6	+1.1
SYO	**Syowa Base**	81.12	198	⇑PcP	PcP	20 23 09.0	-1.4
ARSA	**Arzberg**	81.14	317⇓	*i*P	P	20 23 05.0	+1.0
	comp=Z,104nm,1.3s,mb5.6						
UPC	**Upice**	81.14	321	*e*P	P	20 23 04.7	+0.7
PERS	**Pernice**	81.36	317	*e*	P	20 23 05.5	+0.3
LJU	**Ljubljana**	81.72	316	*e*	P	20 23 07.7	+0.7
OBKA	**Obir**	81.74	316⇓	*i*P	P	20 23 08.1	+0.9
	comp=Z,62nm,1.2s,mb5.4						
PRU	**Pruhonice**	82.03	320	*e*P	P	20 23 09.0	+0.4
	comp=Z,63nm,1.4s,mb5.3						
PRU				*e*S	S	20 33 23.7	+2.1
PRU				AMS	AMS	21 05 40.0	
	comp=Z,2μm,16.0s						
MOA	**Molln**	82.04	318⇓	*i*P	P	20 23 09.0	+0.3
	comp=Z,50nm,1.5s,mb5.2						
PVCC	**Panska Ves**	82.06	320	*e*P	P	20 23 09.4	+0.6
VOY	**Vojsko**	82.16	316	*e*P	P	20 23 09.7	+0.4
AQU	**L'Aquila**	82.28	312	*e*P	P	20 23 10.1	0.0
AQU				pmax	pmax		
	comp=Z,212nm,1.3s,mb5.9						
AQU	**L'Aquila**	82.28	312	*e*P	P	20 23 10.1	0.0
	comp=Z,212nm,1.3s,mb5.9						
BSD	**Bornholm Skovb**	82.30	325	*e*P	P	20 23 11.3	+1.4
BSD				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.7						
BSD	**Bornholm Skovb**	82.30	325	*i* P	P	20 23 11.1	+1.2
BSD	**Bornholm Skovb**	82.30	325	*i* P	P	20 23 11.3	+1.4
	comp=Z,114nm,1.2s,mb5.7						
GEC2	**GERESS Array S**	82.49	319	*e*P	P	20 23 11.3	+0.3
GEC2				pmax	pmax		
	comp=Z,160nm,1.3s,mb5.8						
GEC2	**GERESS Array S**	82.49	319	*e*P	P	20 23 11.3	+0.3
	comp=Z,160nm,1.3s,mb5.8						
GERES	**GERESS Array B**	82.49	319	P	P	20 23 11.9	+0.9
	comp=Z,148nm,1.2s,mb5.8,baz=90,slow=5.3,SNR=56						
GERES	**GERESS Array B**	82.49	319	P	P	20 23 11.9	+0.9
GERES				pmax	pmax		
	comp=Z,148nm,1.2s						
BRG	**Berggiesshubel**	82.49	321	*i* P	P	20 23 11.8	+0.8
BRG				pmax	pmax		
	comp=Z,67nm,1.2s,mb5.5						
BRG	**Berggiesshubel**	82.49	321	*i* P	P	20 23 11.8	+0.8
	comp=Z,66nm,1.2s,mb5.4						
BRG				*i*	pP	20 23 15.1	+1.0
NRCA	**Norcia**	82.52	313	*e*P	P	20 23 11.6	+0.3
PTCC	**Patocco-Chiusa**	82.56	316	*e*P	P	20 23 11.8	+0.4
KHC	**Kasperske Hory**	82.59	319	*e*P	P	20 23 12.0	+0.5
KHC				*e*S	S	20 33 32.5	+5.2
KHC				AMS	AMS	21 10 40.0	
	comp=Z,2μm,22.0s						
KBA	**Koelnbreinsper**	82.61	317⇑	*i*P	P	20 23 11.6	-0.1
	comp=Z,52nm,1.1s,mb5.5						
KBA	**Koelnbreinsper**	82.61	317⇑	*i*P	P	20 23 11.6	-0.1
KBA				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.5						
GMNA	**Gemona**	82.63	316	*e*P	P	20 23 12.2	+0.4
SNTG	**Esanatoglia**	82.67	313	*e*P	P	20 23 13.4	+1.3
ARV	**Arcevia**	82.68	313	*e*P	P	20 23 13.1	+1.0
RUE	**Ruedersdorf**	82.72	322	*e*P	P	20 23 12.3	+0.2
	comp=Z,234nm,1.4s,mb6.0						
FSSB	**Fossombrone**	82.81	313	*e*P	P	20 23 13.5	+0.7
FVI	**Forni Avoltri**	82.96	316	*e*P	P	20 23 14.0	+0.5
WET	**Wettzell**	83.05	319	*e*P	P	20 23 14.2	+0.3
CLL	**Collm**	83.11	321	*i* P	P	20 23 14.0	-0.2
CLL				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.4						
CLL				MLR	MLR		
	comp=Z,2μm,20.3s,MS5.6						
CLL	**Collm**	83.11	321	*i* P	P	20 23 14.0	-0.2
	comp=Z,46nm,1.2s,mb5.4						
CLL				LR	LR		
	comp=Z,2μm,20.3s,MS5.6						
CLL	**Collm**	83.11	321	P	P	20 23 14.0	-0.2
	comp=Z,logA/T=1.6,mb5.4						
CLL				*e*		20 23 32.0	
NKC	**Novy Kostel**	83.39	320	*e*P	P	20 23 16.4	+0.7
NKC				AMS	AMS	21 07 00.0	
	comp=Z,3μm,18.4s						
HFS	**Hagfors**	83.46	330	P	P	20 23 15.8	0.0
	comp=Z,83nm,1.1s,mb5.7,baz=108,slow=4.7,SNR=22						
HFS	**Hagfors**	83.46	330	P	P	20 23 15.8	0.0
HFS				pmax	pmax		
	comp=Z,83nm,1.1s						
SFI	**Santa Sofia**	83.50	314	*e*P	P	20 23 17.4	+1.1
PGD	**Poggio Sodo**	83.58	314	*e*P	P	20 23 18.6	+1.8
CTI	**Castel Tesino**	83.72	316	*e*P	P	20 23 17.9	+0.5
WTTA	**Wattenberg**	83.78	317⇑	*i*P	P	20 23 17.5	-0.2
	comp=Z,79nm,1.1s,mb5.8						
WTTA	**Wattenberg**	83.78	317⇑	*i*P	P	20 23 17.5	-0.2
WTTA				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.8						
WATA	**Walderalm**	83.82	317⇑	*i*P	P	20 23 17.7	-0.2
	comp=Z,49nm,0.9s,mb5.6						
WATA	**Walderalm**	83.82	317⇑	*i*P	P	20 23 17.7	-0.2
WATA				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.6						
SEI	**Scarperia**	83.85	314	*e*P	P	20 23 19.7	+1.6
CSNT	**Castellina Chi**	83.88	313	*e*P	P	20 23 20.4	+2.1
MOX	**Moxa**	83.95	320	*e*P	P	20 23 18.6	+0.1
MOX				pmax	pmax		
	comp=Z,67nm,1.4s,mb5.6						
MOX				MLR	MLR		
	comp=Z,2μm,19.0s,MS5.5						
MOX	**Moxa**	83.95	320	*i* P	P	20 23 18.6	+0.1
	comp=Z,logA/T=1.7,mb5.6						
MOX				PS	PS	20 34 21.0	-15
MOX				L		21 08 10.0	
MOX	**Moxa**	83.95	320	*e*P	P	20 23 18.6	+0.1
	comp=Z,67nm,1.4s,mb5.6						
MOX				*e*PS	PS	20 34 21.0	-15
MOX				LR	LR		
	comp=Z,2μm,19.0s,MS5.5						
FUR	**Furstenfeldbru**	84.06	318	*e*P	P	20 23 18.8	-0.3
SQTA	**Sankt Quirin**	84.07	317⇑	*i*P	P	20 23 19.6	+0.4
	comp=Z,35nm,0.9s,mb5.5						
SQTA	**Sankt Quirin**	84.07	317⇑	*i*P	P	20 23 19.6	+0.4
SQTA				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.5						
ZCCA	**Zocca**	84.14	314	*e*P	P	20 23 23.6	+4.0
MOTA	**Moosalm**	84.14	317⇑	*i*P	P	20 23 19.4	-0.2
	comp=Z,51nm,1.1s,mb5.6						
MOTA	**Moosalm**	84.14	317⇑	*i*P	P	20 23 19.4	-0.2
MOTA				pmax	pmax		
	comp=Z,51nm,1.1s,mb5.6						
GRA1	**Grafenberg Arr**	84.16	319	*e*P	P	20 23 20.1	+0.5
	comp=Z,145nm,1.2s,mb6.0						
GRF	**Grafenberg Arr**	84.16	319	*e*P	P	20 23 20.1	+0.5
GRF				pmax	pmax		
	comp=Z,145nm,1.2s,mb6.0						
GRF	**Grafenberg Arr**	84.16	319	*e*P	P	20 23 20.1	+0.5
GRF				pmax	pmax		
	comp=Z,145nm,1.2s,mb6.0						
GRF	**Grafenberg Arr**	84.16	319	*e*P	P	20 23 20.1	+0.5
	comp=Z,145nm,1.2s,mb6.0						
GSCL	**Gusciola**	84.42	314	*e*P	P	20 23 23.0	+2.0
SAL	**Salo**	84.49	315	*e*P	P	20 23 22.7	+1.4
MABI	**Malga Bissina**	84.51	316	*e*P	P	20 23 22.2	+0.8
ERBM	**Eremo**	84.54	314	*e*P	P	20 23 24.9	+3.3
BRMO	**Bormio**	84.62	316	*e*P	P	20 23 22.9	+0.9
NB2	**NORSAR Subarra**	84.75	331	P	P	20 23 22.1	-0.1
	comp=Z,90nm,1.2s,mb5.8,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	84.75	331	P	P	20 23 22.1	-0.1
	baz=97,slow=5.3						
NB2	**NORSAR Subarra**	84.75	331	P	P	20 23 22.1	-0.1
NB2				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.8						
NOA	**NORSAR Array B**	84.75	331	P	P	20 23 23.0	+0.7
	comp=Z,31nm,1.1s,mb5.4,baz=95,slow=5.3,SNR=14						
NOA	**NORSAR Array B**	84.75	331	P	P	20 23 23.0	+0.8
NOA				pmax	pmax		
	comp=Z,31nm,1.1s						
CLZ	**Clausthal**	84.78	322	*e*P	P	20 23 22.8	+0.2
	comp=Z,84nm,1.2s,mb5.8						
BSEG	**Bad Segeberg**	84.89	324	*e*P	P	20 23 23.5	+0.4
NAO01	**NORSAR Array S**	84.90	331	*e*P	P	20 23 22.9	-0.1
	comp=Z,101nm,1.4s,mb5.8						
DAVOX	**Davos**	84.97	317	P	P	20 23 24.8	+1.2
	comp=Z,244nm,1.4s,mb6.2,baz=132,slow=11						
DAVA	**Damuels**	84.98	317⇑	*i*P	P	20 23 24.4	+0.7
	comp=Z,97nm,1.3s,mb5.8						
STU	**Stuttgart**	85.46	319	*e*P	P	20 23 26.3	+0.2
STU				pmax	pmax		
	comp=Z,73nm,1.4s,mb5.6						
STU	**Stuttgart**	85.46	319	*e*P	P	20 23 26.3	+0.2
	comp=Z,73nm,1.4s,mb5.6						
PGF	**Pioggiola**	85.55	312	*e*P	P	20 23 24.5	-2.2
	comp=Z,175nm,1.3s,mb5.8						
PGF	**Pioggiola**	85.55	312	*e*P	P	20 23 24.5	-2.2
PGF				pmax	pmax		
	comp=Z,88nm,1.3s,mb5.8						
MUD	**Monsted U'grnd**	85.62	326	*e*P	P	20 23 30.1	+3.4
MUD				pmax	pmax		
	comp=Z,93nm,1.3s,mb5.8						
MUD	**Monsted U'grnd**	85.62	326	*e*P	P	20 23 30.1	+3.4
	comp=Z,93nm,1.3s,mb5.9						
MUD	**Monsted U'grnd**	85.62	326	*i* P	P	20 23 30.1	+3.4
	comp=Z,93nm,1.3s,mb5.9						
VAI	**Varese**	85.72	316	*e*P	P	20 23 29.0	+1.5
SPAK	**Spaichingen**	85.73	318	*e*P	P	20 23 27.5	+0.1

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TOD   Tromm             85.73 319  eP       P        20 23 27.3  -0.1
BFO   Black Forest      86.03 318  eP       P        20 23 28.5  -0.5
BFO                                pmax     pmax
      comp=Z,72nm,1.4s,mb5.7
BFO   Black Forest      86.03 318  eP       P        20 23 28.5  -0.5
      comp=Z,72nm,1.4s,mb5.7
FIN   Finale Ligure     86.12 314  eP       P        20 23 30.1  +0.6
KTD   Kalmit            86.20 319  eP       P        20 23 30.8  +1.1
FELD  Feldberg          86.25 318  eP       P        20 23 31.6  +1.6
MCGN  Macugnaga         86.27 316  eP       P        20 23 31.4  +1.2
LANF  Langenberg        86.38 319  eP       P        20 23 30.7  +0.1
LIBD  Limburg           86.52 318  eP       P        20 23 31.6  +0.2
ABH   Alteburg          86.54 320  eP       P        20 23 32.0  +0.6
BBS   Basel-Blauen      86.59 317  eP       P        20 23 31.0  -0.7
SAOF  Saorge            86.59 314  eP       P        20 23 34.1  +2.3
SBF   Sospel            86.68 314  eP       P        20 23 30.7  -1.6
      comp=Z,161nm,0.9s,mb5.9
SBF   Sospel            86.68 314  eP       P        20 23 30.7  -1.6
SBF                                pmax     pmax
      comp=Z,80nm,0.9s,mb6.0
WLS   Welschbruch       86.68 318  eP       P        20 23 31.9  -0.2
AUTN  L'Aution          86.69 314  eP       P        20 23 36.1  +3.8
REVF  Revere            86.73 313  eP       P        20 23 32.9  +0.4
CDF   Champ du Feu      86.73 318  eP       P        20 23 30.7  -1.7
      comp=Z,94nm,1.4s,mb5.5
CDF   Champ du Feu      86.73 318  eP       P        20 23 30.7  -1.7
CDF                                pmax     pmax
      comp=Z,47nm,1.4s,mb5.5
ECH   Echery            86.82 318  eP       P        20 23 32.6  -0.2
TOUF  Mont Tournerai    86.82 314  eP       P        20 23 34.9  +2.0
MOF   Molkenrain        86.84 318  eP       P        20 23 32.6  -0.3
RUP   Ruppelstein       86.86 319  eP       P        20 23 33.6  +0.6
MVIF  Mont Vial         86.89 314  eP       P        20 23 33.0  -0.3
WTSB  Winterswijk       86.99 322  eP       P        20 23 33.9  +0.3
      comp=Z,62nm,1.4s,mb5.7
HINF  Hinteralfeld      87.03 318  eP       P        20 23 31.8  -2.0
      comp=Z,63nm,1.5s,mb5.3
HINF  Hinteralfeld      87.03 318  eP       P        20 23 31.8  -2.0
HINF                               pmax     pmax
      comp=Z,32nm,1.5s,mb5.3
LOMF  Lomont            87.05 317  eP       P        20 23 32.6  -1.4
LPG   La Plagne         87.14 315  eP       P        20 23 34.5   0.0
      comp=Z,79nm,1.1s,mb5.6
LPG   La Plagne         87.14 315  eP       P        20 23 34.5   0.0
LPG                                pmax     pmax
      comp=Z,40nm,1.1s,mb5.6
MBDF  Montbardon        87.14 314  eP       P        20 23 32.0  -2.5
      comp=Z,105nm,1.3s,mb5.6
MBDF  Montbardon        87.14 314  eP       P        20 23 32.0  -2.5
MBDF                               pmax     pmax
      comp=Z,53nm,1.3s,mb5.6
LPL   La Plagne         87.16 315  eP       P        20 23 34.6  +0.1
      comp=Z,119nm,1.0s,mb5.8
LPL   La Plagne         87.16 315  eP       P        20 23 34.6  +0.1
LPL                                pmax     pmax
      comp=Z,60nm,1.0s,mb5.8
BNI   Bardonecchia      87.20 315  eP       P        20 23 35.3  +0.5
BNI                                pmax     pmax
      comp=Z,33nm,1.2s,mb5.4
BNI   Bardonecchia      87.20 315  eP       P        20 23 35.2  +0.5
      comp=Z,33nm,1.2s,mb5.4
RSL   Roselend          87.23 315  eP       P        20 23 35.0  +0.1
FRF   La Foret Royal    87.26 313  eP       P        20 23 33.5  -1.6
      comp=Z,164nm,1.3s,mb5.8
FRF   La Foret Royal    87.26 313  eP       P        20 23 33.5  -1.6
FRF                                pmax     pmax
      comp=Z,82nm,1.3s,mb5.8
HAU   Haudompre         87.36 318  eP       P        20 23 34.7  -0.7
      comp=Z,138nm,1.2s,mb5.8
HAU                                eR
      comp=Z,2µm,20.8s
HAU   Haudompre         87.36 318  eP       P        20 23 34.7  -0.7
HAU                                pmax     pmax
      comp=Z,69nm,1.2s,mb5.8
HAU                                MLR      MLR
      comp=Z,2µm,20.8s,MS5.5
LMR   La Mourre         87.37 313  eP       P        20 23 33.3  -2.3
      comp=Z,118nm,1.3s,mb5.7
LMR   La Mourre         87.37 313  eP       P        20 23 33.3  -2.3
LMR                                pmax     pmax
      comp=Z,59nm,1.3s,mb5.7
WLF   Walferdange       87.45 319  eP       P        20 23 36.5  +0.7
WLF                                pmax     pmax
      comp=Z,76nm,1.3s,mb5.8
WLF   Walferdange       87.45 319  eP       P        20 23 36.5  +0.6
      comp=Z,76nm,1.3s,mb5.8
HGN   Heimansgroeve     87.56 321  eP       P        20 23 36.0  -0.3
      comp=Z,21nm,1.1s,mb5.3
CABF  La Chapelle       87.58 316  eP       P        20 23 35.4  -1.1
      comp=Z,158nm,1.3s,mb5.8
CABF  La Chapelle       87.58 316  eP       P        20 23 35.4  -1.1
CABF                               pmax     pmax
      comp=Z,79nm,1.3s,mb5.8
THEF  They Montfort     87.60 318  eP       P        20 23 36.3  -0.3
ORIF  Oris-en-Rattie    87.77 315  eP       P        20 23 35.3  -2.2
      comp=Z,71nm,1.1s,mb5.5
ORIF                               eR
      comp=Z,3µm,21.2s
VNDA  Vanda             87.80 169  P        P        20 23 37.2  +0.2
      comp=Z,32nm,1.4s,mb5.4,baz=324,slow=6.5,SNR=7.1
VNDA  Vanda             87.80 169  P        P        20 23 37.2  +0.3
VNDA                               pmax     pmax
      comp=Z,32nm,1.4s
VNDA  Vanda             87.80 169  eP       P        20 23 37.2  +0.3
      comp=Z,56nm,1.4s,mb5.6
SMRF  Simiane la Rot    88.02 314  eP       P        20 23 37.1  -1.6
MEZF  Maizieres J'vi    88.21 318  eP       P        20 23 38.2  -1.3
      comp=Z,49nm,1.0s,mb5.4
GIVF  Givet             88.30 320  eP       P        20 23 38.7  -1.2
      comp=Z,109nm,1.4s,mb5.6
GIVF  Givet             88.30 320  eP       P        20 23 38.7  -1.2
GIVF                               pmax     pmax
      comp=Z,55nm,1.4s,mb5.6
VIVF  Saint-Julien-l    88.63 315  eP       P        20 23 40.2  -1.4
      comp=Z,73nm,1.3s,mb5.6
VIVF  Saint-Julien-l    88.63 315  eP       P        20 23 40.2  -1.4
VIVF                               pmax     pmax
      comp=Z,37nm,1.3s,mb5.5
BAIF  Baives            88.69 320  eP       P        20 23 40.8  -1.0
      comp=Z,187nm,1.3s,mb6.0
BAIF  Baives            88.69 320  eP       P        20 23 40.8  -1.0
BAIF                               pmax     pmax
      comp=Z,93nm,1.3s,mb6.0
SMF   Signal de Mont    89.12 316  eP       P        20 23 42.2  -1.7
      comp=Z,92nm,1.2s,mb5.7
SMF   Signal de Mont    89.12 316  eP       P        20 23 42.2  -1.7
SMF                                pmax     pmax
      comp=Z,46nm,1.2s,mb5.7
LASF  Ste Croix         89.26 314  eP       P        20 23 44.9  +0.3
      comp=Z,167nm,1.4s,mb5.9
PLDF  La Plantade       89.31 316  eP       P        20 23 45.2  +0.4
SSF   Saint Saulge      89.33 317  eP       P        20 23 45.0  +0.1
      comp=Z,110nm,1.3s,mb5.7
SSF   Saint Saulge      89.33 317  eP       P        20 23 45.0  +0.1
SSF                                pmax     pmax
      comp=Z,55nm,1.3s,mb5.7
AVF   Avril sur Loir    89.45 317  eP       P        20 23 44.0  -1.4
      comp=Z,122nm,1.4s,mb5.7
AVF   Avril sur Loir    89.45 317  eP       P        20 23 44.0  -1.4
AVF                                pmax     pmax
      comp=Z,61nm,1.4s,mb5.7
LBL   Lubilhac          89.62 315  eP       P        20 23 48.0  +1.7
AGO   Saint Agoulin     89.65 316  eP       P        20 23 47.7  +1.3
PYM   Petit Puy Mans    89.75 316  eP       P        20 23 48.7  +1.8
BGF   Bois d'Agland     89.81 316  eP       P        20 23 46.2  -1.0
      comp=Z,182nm,1.3s,mb6.0
BGF   Bois d'Agland     89.81 316  eP       P        20 23 46.2  -1.0
BGF                                pmax     pmax
      comp=Z,91nm,1.3s,mb6.0
HYF   Humbligny         89.90 317  eP       P        20 23 46.9  -0.7
TCF   Toulx Ste Croi    90.27 316  eP       P        20 23 49.7  +0.4
      comp=Z,86nm,1.3s,mb5.6
TCF   Toulx Ste Croi    90.27 316  eP       P        20 23 49.7  +0.4
TCF                                pmax     pmax
      comp=Z,43nm,1.3s,mb5.6
CAF   Calviac           90.48 315  eP       P        20 23 49.5  -0.8
      comp=Z,88nm,1.3s,mb5.6
CAF   Calviac           90.48 315  eP       P        20 23 49.5  -0.8
CAF                                pmax     pmax
      comp=Z,44nm,1.3s,mb5.6
MTLF  Montolieu         90.49 313  eP       P        20 23 49.5  -0.9
      comp=Z,86nm,1.2s,mb5.7
MTLF  Montolieu         90.49 313  eP       P        20 23 49.5  -0.9
MTLF                               pmax     pmax
      comp=Z,43nm,1.2s,mb5.7
NVL   N'lazarevskaya    90.66 199⇑ eP       P        20 23 53.0  +2.5
NVL                                pmax     pmax
      comp=Z,150nm,2.2s,mb5.9
NVL                                MLR      MLR
      comp=Z,3µm,18.0s,MS5.8
RJF   Les Rejaudoux     90.83 315  eP       P        20 23 51.3  -0.6
      comp=Z,106nm,1.3s,mb5.7
RJF                                eR
      comp=Z,2µm,21.8s
RJF   Les Rejaudoux     90.83 315  eP       P        20 23 51.3  -0.6
RJF                                pmax     pmax
      comp=Z,53nm,1.3s,mb5.7
RJF                                MLR      MLR
      comp=Z,2µm,21.8s,MS5.4
LFF   La Frestale       91.42 315  eP       P        20 23 54.1  -0.5
      comp=Z,133nm,1.3s,mb5.8
LFF   La Frestale       91.42 315  eP       P        20 23 54.1  -0.5
LFF                                pmax     pmax
      comp=Z,67nm,1.3s,mb5.8
LDF   La Druitiere      91.63 319  eP       P        20 23 55.7  +0.2
      comp=Z,194nm,1.2s,mb6.0
LDF   La Druitiere      91.63 319  eP       P        20 23 55.7  +0.2
LDF                                pmax     pmax
      comp=Z,97nm,1.2s,mb6.0
FLN   La Foliniere      91.85 319  eP       P        20 23 56.6  +0.1
      comp=Z,216nm,1.2s,mb6.1
FLN                                eR
      comp=Z,2µm,19.2s
FLN   La Foliniere      91.85 319  eP       P        20 23 56.6  +0.1
FLN                                pmax     pmax
      comp=Z,108nm,1.2s,mb6.0
FLN                                MLR      MLR
      comp=Z,2µm,19.3s,MS5.6
MFF   Saint Martin d    91.86 317  eP       P        20 23 56.8  +0.2
      comp=Z,195nm,1.3s,mb6.0
MFF   Saint Martin d    91.86 317  eP       P        20 23 56.8  +0.2
MFF                                pmax     pmax
      comp=Z,97nm,1.3s,mb6.0
EPF   Esparros          91.89 313  eP       P        20 23 56.6  -0.2
      comp=Z,102nm,1.7s,mb5.6
EPF   Esparros          91.89 313  eP       P        20 23 56.6  -0.2
EPF                                pmax     pmax
      comp=Z,51nm,1.7s,mb5.6
EBR   Ebro Roquetas     91.99 311  eP       P        20 23 58.0  +0.7
GRR   Gorron            92.14 318  eP       P        20 23 58.2  +0.4
      comp=Z,218nm,1.3s,mb6.0
GRR   Gorron            92.14 318  eP       P        20 23 58.2  +0.4
GRR                                pmax     pmax
      comp=Z,109nm,1.3s,mb6.0
ETSF  Etsaut            92.56 313  eP       P        20 23 59.6  -0.3
      comp=Z,89nm,1.2s,mb5.8
ETSF  Etsaut            92.56 313  eP       P        20 23 59.6  -0.3
ETSF                               pmax     pmax
      comp=Z,45nm,1.2s,mb5.8
EKA   Eskdalemuir Ar    92.62 326  P        P        20 23 60.0  +0.1
      comp=Z,9.9nm,0.9s,mb5.2,baz=106,slow=6.1,SNR=6.8
ESK   Eskdalemuir       92.64 326  PFAKE             20 24 10.0   +10
ESK                                LR       LR
      comp=Z,623nm,20.0s,MS5.1
QSPA  South Pole Qui    92.84 180⇓ iP       P        20 24 02.3  +1.9
      comp=Z,31nm,1.3s,mb5.6
SJPF  Ste Jean          93.02 313  eP       P        20 24 01.6  -0.4
      comp=Z,113nm,1.2s,mb5.9
SJPF  Ste Jean          93.02 313  eP       P        20 24 01.6  -0.4
SJPF                               pmax     pmax
      comp=Z,56nm,1.2s,mb5.9
AFI   Afiamalu          93.23 104  PFAKE             20 24 20.0   +16
AFI                                LR       LR
      comp=Z,2µm,21.0s,MS5.5
SGMF  Saint Gilles      93.28 318  eP       P        20 24 03.2  +0.1
      comp=Z,161nm,1.3s,mb6.0
SGMF  Saint Gilles      93.28 318  eP       P        20 24 03.2  +0.1
SGMF                               pmax     pmax
      comp=Z,81nm,1.3s,mb6.0
QUIF  Quistinic         93.74 318  eP       P        20 24 05.0  -0.2
      comp=Z,138nm,1.4s,mb5.9
QUIF  Quistinic         93.74 318  eP       P        20 24 05.0  -0.2
QUIF                               pmax     pmax
      comp=Z,69nm,1.4s,mb5.9
ROSF  Rostrenen         93.75 319  eP       P        20 24 05.3  +0.1
      comp=Z,184nm,1.4s,mb6.0
ROSF  Rostrenen         93.75 319  eP       P        20 24 05.3  +0.1
ROSF                               pmax     pmax
      comp=Z,92nm,1.4s,mb6.0
SNAA  Sanae             95.40 198⇑ iP       P        20 24 18.3  +6.0
SNAA  Sanae             95.40 198  LR       LR       21 01 04.1
      comp=Z,672nm,19.4s,MS5.1,baz=94,slow=32
ESDC  Sonseca Array     95.51 310  P        P        20 24 12.8  -0.8
      comp=Z,16nm,1.2s,mb5.3,baz=59,slow=3.3,SNR=11
ESLA  Sonseca Array     95.51 310  PFAKE             20 24 30.0   +16
ESLA                               LR       LR
      comp=Z,9µm,20.0s,MS6.2
IMA   Indian Mountai    95.64  23  eP       P        20 24 15.0  +1.5
VNA2  Neumayer--Watz    96.97 199  P        P        20 24 21.6  +2.2
COLA  College           98.34  23  PFAKE             20 24 40.0   +14
COLA                               LR       LR
      comp=Z,3µm,21.0s,MS5.8
ILAR  Eielson Array     98.76  23  P        P        20 24 27.2  -0.4
      comp=Z,0.5nm,0.7s,baz=286,slow=5.7,SNR=5.0
ILAR                               PKKPbc            20 40 56.2
      comp=Z,1.4nm,1.0s,baz=103,slow=2.8,SNR=5.6
ILAR                               LR       LR       21 18 00.3
      comp=Z,3µm,18.7s,baz=142,slow=41
ILAR  Eielson Array     98.76  23  P        P        20 24 27.2  -0.4
ILAR                               pmax     pmax
      comp=Z,1.0nm,0.7s
ILAR                               pmax     pmax
      comp=Z,1.0nm,1.0s
ILAR                               MLR      MLR
      comp=Z,3µm,18.7s
EVO   Evora             98.81 310  eP       P        20 24 29.7  +1.2
      comp=Z,70nm,1.5s,mb5.7
EVO                                eR
      comp=Z,2µm,20.5s
FIB   Fire Island       98.90  27  PFAKE             20 24 40.0   +12
FIB                                LR       LR
      comp=Z,1µm,20.0s,MS5.3
KDAK  Kodiak Island     99.00  30  PFAKE             20 24 40.0   +11
KDAK                               LR       LR
      comp=Z,755nm,19.0s,MS5.2
DBIC  Dimbokro         100.04 277  PFAKE             20 24 50.0   +15
DBIC                               LR       LR
      comp=Z,3µm,22.0s,MS5.8
DIV   Divide           100.85  26  PFAKE             20 24 50.0   +13
DIV                                LR       LR
      comp=Z,2µm,20.0s,MS5.6
INK   Inuvik           101.32  17  P        P        20 24 38.9  -0.3
      comp=Z,2.6nm,0.9s,baz=298,slow=4.5,SNR=5.3
INK   Inuvik           101.32  17  P        P        20 24 38.9  -0.3
INK                                pmax     pmax
      comp=Z,3.0nm,0.9s
SIT   Sitka            107.57  26  PFAKE             20 29 30.0
SIT                                LR       LR
      comp=Z,5µm,20.0s,MS6.0
DLBC  Dease Lake       108.94  23  PKKP     PKKP     20 40 39.7  +3.8
      comp=Z,6.0nm,1.2s,baz=164,slow=8.9,SNR=3.6
YKA   Yellowknife Ar   110.87  14  PP       PP       20 29 51.7   -10
      comp=Z,4.2nm,1.1s,baz=329,slow=6.8,SNR=9.2
OCWA  Octopus Mounta   118.74  30  PFAKE             20 29 50.0   +11
OCWA                               LR       LR
      comp=Z,3µm,20.0s,MS5.8
SCHQ  Schefferville    120.66 348  PKP      PKPdf    20 29 41.9  -0.2
      comp=Z,2.4nm,0.9s,baz=138,slow=15,SNR=4.5
SCHQ  Schefferville    120.66 348  PKP      PKPdf    20 29 41.9  -0.2
SCHQ                               LR       LR
      comp=Z,4µm,19.0s,MS6.0
COR   Corvallis        121.34  32  PFAKE             20 29 50.0  +6.3
COR                                LR       LR
      comp=Z,1µm,19.0s,MS5.5
YBH   Yreka Blue Hor   123.59  34  PKP      PKPdf    20 29 47.1  -1.0
      comp=Z,2.7nm,0.7s,baz=0.9,slow=2.8,SNR=4.1
YBH   Yreka Blue Hor   123.59  34  PKIKP    PKPdf    20 29 47.1  -1.0
YBH                                pmax     pmax
      comp=Z,3.0nm,0.7s
MSO   Missoula         124.06  24  ePKPdf   PKPdf    20 29 46.4  -2.5
BMO   Blue Mountains   124.13  28  PKIKP    PKPdf    20 29 47.4  -1.7
CHMT  Chamberlain Mo   124.27  24  ePKPdf   PKPdf    20 29 47.5  -1.7
HRY   Holter Researc   124.99  23  ePKPdf   PKPdf    20 29 50.1  -0.6
HOPS  Hopland          125.18  37  PFAKE             20 30 00.0  +8.7
HOPS                               LR       LR
      comp=Z,2µm,20.0s,MS5.7
BOZ   Bozeman (W)      125.95  23  ePKIKP   PKPdf    20 29 51.3  -1.3
DGMT  Dagmar           126.00  16  PFAKE             20 30 00.0  +7.4
DGMT                               LR       LR
      comp=Z,4µm,19.0s,MS6.1
ULM   Lac du Bonnet    126.14   9  PKP      PKPdf    20 29 52.0  -0.7
      comp=Z,17nm,0.9s,baz=341,slow=4.4,SNR=10
ULM                                PP       PP       20 31 46.8  -1.5
      comp=Z,18nm,1.3s,baz=346,slow=6.0,SNR=3.4
HLID  Hailey           126.45  27  ePKPdf   PKPdf    20 29 52.8  -0.7
EFI   East Falkland    126.64 200  PFAKE             20 30 00.0  +6.4
EFI                                LR       LR
      comp=Z,829nm,20.0s,MS5.4
QLMT  Earthquake Lak   126.70  24  ePKPdf   PKPdf    20 29 53.1  -0.8
LAO   LASA Array       127.00  19  ePKPdf   PKPdf    20 29 53.6  -0.9
YMR   Madison River    127.03  24  ePKPdf   PKPdf    20 29 54.8  +0.3
YFT   Old Faithful     127.26  24  ePKPdf   PKPdf    20 29 56.0  +0.9
LKWY  Lake             127.33  23  ePKIKP   PKPdf    20 29 55.8  +0.6
CMB   Columbia Colle   127.39  36  PFAKE             20 30 10.0   +14
CMB                                LR       LR
      comp=Z,2µm,19.0s,MS5.8
BMN   Battle Mountai   127.46  31  PFAKE             20 30 10.0   +14
BMN                                LR       LR
      comp=Z,2µm,22.0s,MS5.8
TPAW  Teton Pass       128.00  24  ePKPdf   PKPdf    20 29 56.9  +0.2
LOHW  Long Hollow      128.05  24  ePKPdf   PKPdf    20 29 55.0  -1.7
SNOW  Snow King Moun   128.11  24  ePKPdf   PKPdf    20 29 56.0  -0.8
REDW  Red Top Meadow   128.15  24  ePKPdf   PKPdf    20 29 56.0  -0.9
NVAR  Mina Array Bea   128.31  34  PKP      PKPdf    20 29 57.0  -0.3
      comp=Z,7.9nm,0.9s,baz=55,slow=2.0,SNR=12
MTUM  Tungsten Hills   128.91  35  ePKPdf   PKPdf    20 29 57.2  -1.3
EYMN  Ely              128.98   6  ePKPdf   PKPdf    20 29 56.8  -1.5
EYMN                               LR       LR
      comp=Z,4µm,20.0s,MS6.1
BGU   Big Grassy Mou   129.16  28  ePKPdf   PKPdf    20 29 58.3  -0.6
TPH   Tonopah          129.16  33  PFAKE             20 30 10.0   +11
TPH                                LR       LR
      comp=Z,2µm,21.0s,MS5.7
PDAR  Pinedale Array   129.17  24  PKP      PKPdf    20 29 57.7  -1.1
      comp=Z,48nm,1.4s,SNR=24
PDAR  Pinedale Array   129.17  24  PKP      PKPdf    20 29 57.7  -1.1
TRCR  Troy Canyon      129.84  32  ePKPdf   PKPdf    20 29 59.9  -0.4
DAC   Darwin (Calif)   130.22  35  PFAKE             20 30 10.0  +9.0
DAC                                LR       LR
      comp=Z,1µm,20.0s,MS5.7
NLU   North Lily Min   130.37  28  ePKPdf   PKPdf    20 30 00.4  -0.8
DAU   Daniels Canyon   130.38  27  ePKIKP   PKPdf    20 30 00.2  -1.0
ARUT  Antelope Range   131.38  31  ePKIKP   PKPdf    20 30 02.3  -0.9
MVU   Marysvale        131.44  29  ePKPdf   PKPdf    20 29 59.5  -3.8
MVU                                LR       LR
      comp=Z,2µm,19.0s,MS5.8
MSU   Marysvale        131.46  29  ePKIKP   PKPdf    20 30 02.6  -0.7
RCBR  Riachuelo        131.57 265  PFAKE             20 30 10.0  +5.8
RCBR                               LR       LR
      comp=Z,3µm,19.0s,MS6.0
NEN   Nelson           132.23  34  ePKPdf   PKPdf    20 30 05.3  +0.4
NCB   Newcomb          132.45 350  PFAKE             20 30 10.0  +4.9
NCB                                LR       LR
      comp=Z,3µm,20.0s,MS6.0
ISCO  Idaho Springs    133.25  23  ePKIKP   PKPdf    20 30 06.0  -0.6
HRV   Harvard--Oak R   133.33 347  PFAKE             20 30 20.0   +13
HRV                                LR       LR
      comp=Z,2µm,19.0s,MS5.9
PV01  Paradox Valley   133.44  26  PKPdf    PKPdf    20 30 06.2  -0.8
RW3   Ridgway          133.73  26  ePKIKP   PKPdf    20 30 06.5  -1.0
GENY  Geneseo          134.15 353  ePKPdf   PKPdf    20 30 06.7  -1.5
ERPA  Erie             135.01 355  PFAKE             20 30 20.0   +10
ERPA                               LR       LR
      comp=Z,4µm,21.0s,MS6.1
TUC   Tucson           136.96  33  ePKIKP   PKPdf    20 30 12.6  -1.0
ANMO  Albuquerque      137.03  27  PKP      PKPdf    20 30 12.9  -0.7
      comp=Z,15nm,1.0s,baz=265,slow=1.4,SNR=14
ANMO  Albuquerque      137.03  27  ePKIKP   PKPdf    20 30 13.7  +0.1
ANMO                               MLR      MLR
      comp=Z,2µm,19.0s
ACSO  Alum Creek Sta   137.06 358  ePKPdf   PKPdf    20 30 13.0  -0.5
ACSO                               LR       LR
      comp=Z,3µm,19.0s,MS6.1
MCWV  Mont Chateau     137.44 355  PFAKE             20 30 20.0  +5.7
MCWV                               LR       LR
      comp=Z,4µm,20.0s,MS6.2
CBN   Corbin           138.59 352  PFAKE             20 30 30.0   +13
CBN                                LR       LR
      comp=Z,4µm,22.0s,MS6.1
CCM   Cathedral Cave   138.76   8  PFAKE             20 30 30.0   +13
CCM                                LR       LR
      comp=Z,4µm,20.0s,MS6.2
TRQA  Tornquist        139.44 208  ePKPdf   PKPdf    20 30 14.4  -3.6
BLA   Blacksburg       139.92 355  PFAKE             20 30 30.0   +11
BLA                                LR       LR
      comp=Z,4µm,19.0s,MS6.1
WMOK  Wichita Mounta   140.19  19  ePKHKP            20 30 10.7
MNTX  Cornudas Mount   140.22  28  ePKPdf   PKPdf    20 30 16.9  -2.8
WVT   Waverly          141.04   4  ePKIKP   PKPdf    20 30 15.8  -5.3
MIAR  Mount Ida        141.76  12  ePKIKP   PKPdf    20 30 19.5  -2.8
BDFB  Brasilia         142.01 248  PKP      PKPdf    20 30 21.2  -2.0
      comp=Z,11nm,0.9s,baz=73,slow=4.0,SNR=9.3
BDFB  Brasilia         142.01 248  PKIKP    PKPdf    20 30 21.3  -1.9
BDFB                               pmax     pmax
      comp=Z,11nm,0.9s
OXF   Oxford           142.49   7  ePKIKP   PKPdf    20 30 20.4  -3.2
JSC   Jenkinsville     142.90 356  ePKIKP   PKPdf    20 30 22.6  -1.7
LTX   Lajitas          143.01  29  ePKIKP   PKPdf    20 30 22.5  -2.1
TXAR  Lajitas Array    143.01  29  PKhKP             20 30 20.4
      comp=Z,3.1nm,0.7s,baz=256,slow=1.4,SNR=17
TXAR                               PP       PP       20 33 32.3  -2.9
      comp=Z,11nm,1.3s,baz=315,slow=3.5,SNR=6.3
JCT   Junction City    143.69  23  ePKIKP   PKPdf    20 30 22.1  -3.6
GOGA  Godfrey          143.87 359  PFAKE             20 30 40.0   +18
GOGA                               LR       LR
      comp=Z,3µm,19.0s,MS6.1
NHSC  New Hope         143.97 354  PFAKE             20 30 40.0   +18
NHSC                               LR       LR
      comp=Z,3µm,21.0s,MS6.1
LRAL  Lakeview Retre   144.17   4  ePKPdf   PKPdf    20 30 22.6  -3.9
LRAL                               LR       LR
      comp=Z,3µm,20.0s,MS6.0
NATX  Nacogdoches      144.18  15  ePKPdf   PKPdf    20 30 23.7  -2.9
CPUP  Villa Florida    145.12 226  PKPbc    PKPbc    20 30 26.3  +0.6
HKT   Hockley          145.55  18  ePKIKP   PKPdf    20 30 27.8  -1.2
HKT                                MLR      MLR
      comp=Z,4µm,19.0s,MS6.2
DWPF  Disney           149.03 355  PFAKE             20 30 40.0  +5.2
DWPF                               LR       LR
      comp=Z,2µm,20.0s,MS5.9
TLL   Tololo Astrono   149.98 204⇑ iP       PKPdf    20 30 39.3  +3.1
LVC   Limon Verde      155.31 216  PKP      PKPdf    20 30 44.0   0.0
      comp=Z,3.5nm,1.1s,baz=326,slow=8.0,SNR=1.6
LVC                                PKPab    PKPab    20 31 09.5  +0.8
      comp=Z,20nm,1.1s,baz=162,slow=2.2,SNR=3.6
LVC   Limon Verde      155.31 216  ePKPdf   PKPdf    20 30 43.7  -0.3
LVC                                ePKPbc   PKPdf    20 30 53.5   +10
LVC                                ePKPab   PKPab    20 31 08.9  +0.2
TEIG  Tepich           156.70   9  PFAKE             20 31 00.0   +14
TEIG                               LR       LR
      comp=Z,1µm,20.0s,MS5.8
LPAZ  La Paz           159.19 229  PKP      PKPdf    20 30 49.2  +0.1
      comp=Z,17nm,1.2s,baz=346,slow=3.0,SNR=16
LPAZ                               PKPab    PKPab    20 31 26.4  +0.9
      comp=Z,18nm,1.1s,baz=79,slow=4.2,SNR=6.5
LPAZ                               PP       PP       20 35 08.3  +0.9
      comp=Z,20nm,1.5s,baz=99,slow=3.6,SNR=4.5
LPAZ  La Paz           159.19 229  ePKPdf   PKPdf    20 30 48.8  -0.3
LPAZ                               ePKPab   PKPab    20 31 26.0  +0.5
ARE   Arequipa         161.49 222  ePKIKP   PKPdf    20 30 57.0  +5.5
SDV   Santo Domingo    161.96 311  ePKPdf   PKPdf    20 30 52.1  +0.1
ROSC  El Rosal         167.33 307  PKP      PKPdf    20 30 56.7  -0.2
      comp=Z,5.2nm,0.3s,baz=272,slow=22,SNR=9.8
ROSC                               PKPab    PKPab    20 32 02.4  +1.4
      comp=Z,6.4nm,0.5s,baz=291,slow=20,SNR=4.5
OTAV  Otavalo          173.29 298  ePKPdf   PKPdf    20 30 59.3  -1.0
```

IDC ***27*** *20:16:45.5±0.7, 8.35N×93.63E, mb4.3/16, mb1 4.5/17, mb1mx4.4/23, ML4.9/1, Error ellipse: s-maj=29.4km s-min=15.7km az=43.0*

NEIC ***27*** *20:16:50.1±0.5, 8.41N×93.66E, mb4.8/7, Error ellipse: s-maj=11.5km s-min=10.7km az=84.0*

BJI ***27*** *20:16:50.0, 8.40N×93.70E, h27km, mb4.7*

ISC 27 20:16:48.2±0.5**, 8.46N**±0.07×**93.75E**±0.08**, h27**km**, h27**km±1.1km**: pP-P, n48,** σ**0**^{s}**99**/46**, mb4.6**/30**, 1C, Nicobar Islands region**

```
Code  Station Name         Δ°   AZ°    Phase ID             Time      Res
                                    Op       ISC        h  m  s     ISC
CM31  Chiang Mai Arr     11.15  26  eP       P        20 19 30.0  +0.9
      21nm,0.6s
CMAR  Chiang Mai Arr     11.15  26  Pn       P        20 19 30.6  +1.5
      2.2nm,0.3s,baz=212,slow=15,SNR=21
```

PKI	Pulchoki	20.58	339	eP	P	20 21 28.4	+0.5
DMN	Daman	20.73	338	eP	P	20 21 29.9	+0.5
	72nm,0.8s						
GUN	Gumba	20.73	340	eP	P	20 21 28.3	-1.1
	115nm,0.7s						
KKN	Kakani	20.83	338	eP	P	20 21 30.5	+0.1
	99nm,0.7s						
GKN	Gorkha	21.26	337	eP	P	20 21 33.0	-1.8
	72nm,0.7s,mb5.1						
LSA	Lhasa	21.27	354	eP	P	20 21 34.6	-0.2
	23nm,0.5s,mb4.8						
KOLN	Koldanda	21.47	335	eP	P	20 21 35.9	-1.0
	76nm,0.9s,mb5.0						
ENH	Enshi	26.23	32	eP	P	20 22 23.6	+0.6
GTA	Gaotai	31.30	9	eP	P	20 23 08.5	+0.1
GTA				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
WMQ	Urumqi	35.62	352	⇑P	P	20 23 47.0	+1.2
WMQ				AP	pP	20 23 54.0	+0.3
WMQ				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.8						
AAK	Ala-Archa	38.02	337	eP	P	20 24 05.2	-0.8
	comp=Z,13nm,0.9s,mb4.7						
AAK				e	pP	20 24 14.4	+0.4
SONM	Songino Array	40.68	13	P	P	20 24 28.1	+0.1
	comp=Z,1.4nm,0.7s,mb3.7,baz=199,slow=8.6,SNR=5.0						
SONM				PcP	PcP	20 26 30.7	+0.6
	comp=Z,1.2nm,0.5s,baz=203,slow=4.4,SNR=5.8						
ZAL	Zalesovo	45.92	353	P	P	20 25 11.0	+0.6
	comp=Z,15nm,0.9s,mb4.9,baz=294,slow=7.7,SNR=16						
RDF	Al-Radifah	47.89	301	eP	P	20 25 28.0	+1.7
RDF				AMb	AMB	20 25 29.3	
	comp=Z,82nm,0.9s,mb5.8						
UMR	Umm Al-Rimmam	47.92	302	eP	P	20 25 27.8	+1.2
UMR				AMb	AMB	20 25 29.3	
	comp=Z,39nm,0.6s,mb5.6						
MIB	Mutribah	48.31	303	eP	P	20 25 30.4	+0.9
MIB				AMb	AMB	20 25 31.9	
	comp=Z,54nm,0.8s,mb5.6						
BVAR	Borovoye Array	48.31	341	P	P	20 25 28.3	-1.0
	comp=Z,4.4nm,0.9s,mb4.5,baz=144,slow=8.8,SNR=6.2						
BRVK	Borovoye	48.38	341	P	P	20 25 29.0	-0.7
RST	Umm Al-Ruwaisa	48.51	302	eP	P	20 25 32.3	+1.2
RST				AMb	AMB	20 25 32.9	
	comp=Z,46nm,0.6s,mb5.7						
CHKZ	Chkalovo	48.80	342	eP	P	20 25 32.2	-0.8
WRA	Warramunga Arr	48.92	126	P	P	20 25 33.5	-0.9
	comp=Z,0.5nm,0.4s,mb3.9,baz=301,slow=9.7,SNR=8.7						
ASAR	Alice Springs	50.59	130	P	P	20 25 45.6	-1.5
	comp=Z,1.1nm,0.9s,mb3.8,baz=303,slow=8.0,SNR=7.2						
ARU	Arti	55.20	337	eP	P	20 26 18.7	-2.3
PMG	Port Moresby	56.08	107	P	P	20 26 28.1	+0.2
	comp=Z,3.4nm,0.7s,mb4.5,baz=352,slow=10,SNR=3.3						
KIV	Kislovodsk	56.62	318	eP	P	20 26 30.7	-0.7
	comp=Z,7.5nm,0.8s,mb4.8						
KIV				e	pP	20 26 39.1	-0.5
BRTR	Keskin Array B	61.75	311	P	P	20 27 06.0	-1.0
	comp=Z,4.3nm,0.8s,mb4.7,baz=120,slow=7.1,SNR=12						
AKASG	Malin Array Be	67.46	322	P	P	20 27 43.1	-0.8
	comp=Z,2.1nm,0.7s,mb4.3,baz=85,slow=5.3,SNR=4.8						
IDI	Anoyia	67.92	305	P	P	20 27 45.9	-1.1
	comp=Z,10nm,1.1s,mb4.8,baz=105,slow=16,SNR=4.2						
MLR	Muntele Rosu	68.48	316	P	P	20 27 50.1	-0.2
	comp=Z,4.2nm,0.9s,mb4.5,baz=90,slow=6.1,SNR=3.8						
LSZ	Lusaka	69.10	250	eP	P	20 27 55.8	+1.2
	comp=Z,13nm,1.5s,mb4.7						
SUW	Suwalki	71.81	324	eP	P	20 28 09.1	-1.3
SUW				epP	pP	20 28 17.2	-1.5
FINES	FINESS Array B	72.02	332	P	P	20 28 11.4	-0.1
	comp=Z,3.1nm,0.6s,mb4.4,baz=95,slow=5.8,SNR=12						
KAF	Kangasniemi	72.10	333	ep	P	20 28 11.3	-0.7
	comp=Z,1.0nm,0.4s,mb4.1						
KEV	Kevo	74.16	341	ep	P	20 28 26.2	+2.3
LBTB	Lobatse	74.18	241	eP	P	20 28 26.4	+1.4
LBTB				epP	pP	20 28 34.5	+1.3
ARCES	ARCESS Array B	74.59	340	P	P	20 28 26.9	+0.5
	comp=Z,6.1nm,0.9s,mb4.5,baz=104,slow=7.0,SNR=12						
MORC	Moravsky Berou	74.68	319	eP	P	20 28 26.0	-1.3
GERES	GERESS Array B	77.13	318	P	P	20 28 41.1	-0.1
	comp=Z,1.9nm,0.7s,mb4.2,baz=91,slow=5.1,SNR=7.9						
KHC	Kasperske Hory	77.22	318	eP	P	20 28 42.0	+0.3
NB2	NORSAR Subarra	79.03	331	P	P	20 28 51.1	-0.2
	comp=Z,12nm,0.9s,mb4.8,baz=92,slow=5.6						
NOA	NORSAR Array B	79.03	331	P	P	20 28 51.5	+0.2
	comp=Z,4.6nm,0.8s,mb4.5,baz=93,slow=5.6,SNR=7.1						
DAVOX	Davos	79.70	316	P	P	20 28 55.6	+0.4
	comp=Z,1.6nm,0.5s,mb4.2,baz=117,slow=4.5,SNR=5.3						
LPL	La Plagne	81.94	315	eP	P	20 29 08.4	+1.3
	comp=Z,5.8nm,0.6s,mb4.4						
ILAR	Eielson Array	94.35	22	P	P	20 30 06.8	+0.4
	comp=Z,0.6nm,0.6s,mb4.2,baz=289,slow=5.4,SNR=4.4						
PDAR	Pinedale Array	124.76	21	PKP	PKPdf	20 35 48.5	-2.4
	comp=Z,1.0nm,0.8s,baz=100,slow=1.3,SNR=6.0						
LPAZ	La Paz	160.68	245	PKPab	PKPab	20 37 31.9	+1.3
	comp=Z,0.8nm,0.5s,baz=13,slow=6.8,SNR=3.7						

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*IDC **27** 20:22:58.3±1.0, 5.27N×94.30E, mb4.4/8, mb1 4.6/9, mb1mx4.3/19, ML5.1/1, MS5.5/1, Ms1 5.6/1, ms1mx3.9/22, Error ellipse: s-maj=49.6km s-min=18.5km az=51.0*

*BJI **27** 20:23:01.3, 4.85N×94.24E, h55^{km}, mb5.1*

*NEIC **27** 20:23:02.7±0.5, 5.29N×94.35E, h30^{km}, mb4.7/6, Error ellipse: s-maj=17.9km s-min=8.8km az=52.0*

ISC 27 20:23:00.3±0.7**, 5.18N**±0.08×**94.3E**±0.1**, h30^{km}, n32, σ1^{s}11**/27**, mb4.6**/18**, MS5.6**/1**, 2C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.96	19	Pn	P	20 26 20.3	+1.6
	2.9nm,0.3s,baz=208,slow=14,SNR=50						
CMAR	Chiang Mai Arr	13.96	19	Pn	P	20 26 20.2	+1.6
CHG	Chiang Mai	14.30	18	⇑P	P	20 26 22.0	-1.1
	16nm,1.2s						
CHRT	Chiangrai	15.56	20	PG	P	20 26 42.0	+2.5
GYA	Guiyang	24.25	28	⇑iP	P	20 28 17.5	+1.4
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.7						
LSA	Lhasa	24.56	353	eP	P	20 28 20.7	+1.6
ENH	Enshi	28.79	28	eP	P	20 28 56.2	-1.8
	comp=Z,8.9nm,0.5s,mb4.8						
XAN	Xi'an	31.78	24	P	P	20 29 23.0	-1.4
XAN				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
GTA	Gaotai	34.44	8	P	P	20 29 47.0	-0.5
GTA				AMB	AMB		
	comp=Z,18nm,0.8s,mb5.0						
BJT	Baijiatuau	39.91	27	eP	P	20 30 33.8	+0.3
	comp=Z,7.6nm,0.6s,mb4.6						
BJI	Beijing	39.93	27	P	P	20 30 34.5	+0.8
BJI				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
SONM	Songino Array	43.75	12	P	P	20 31 04.6	-0.3
	comp=Z,5.7nm,0.8s,mb4.3,baz=190,slow=8.2,SNR=19						
ULN	Ulaanbaatar	43.92	12	eP	P	20 31 05.0	-1.3
	comp=Z,2.7nm,0.6s,mb4.2						
WRA	Warramunga Arr	46.65	124	P	P	20 31 29.0	+0.7
	comp=Z,6.0nm,0.7s,mb4.6,baz=302,slow=9.2,SNR=30						
WRAB	Tennant Creek	46.65	124	eP	P	20 31 28.3	0.0
	comp=Z,5.8nm,0.6s,mb4.7						
ASAR	Alice Springs	48.14	128	P	P	20 31 40.5	+0.5
	comp=Z,2.8nm,0.9s,mb4.3,baz=299,slow=7.7,SNR=18						
HIA	Hailar	48.95	22	eP	P	20 31 45.0	-0.8
ZAL	Zalesovo	49.21	353	P	P	20 31 48.0	+0.1
	comp=Z,7.4nm,0.5s,mb5.0,baz=301,slow=5.6,SNR=21						
BVAR	Borovoye Array	51.56	342	P	P	20 32 05.5	-0.3
	comp=Z,2.9nm,0.5s,mb4.5,baz=135,slow=10,SNR=10						
BRVK	Borovoye	51.62	342	eP	P	20 32 04.7	-1.6
	comp=Z,3.6nm,0.6s,mb4.5						
CHKZ	Chkalovo	52.05	342	eP	P	20 32 08.8	-0.7
	comp=Z,8.7nm,0.8s,mb4.7						
PMG	Port Moresby	54.67	105	P	P	20 32 28.4	-1.0
KIV	Kislovodsk	59.39	319	eP	P	20 33 01.8	-0.7
BRTR	Keskin Array B	64.28	312	P	P	20 33 35.3	-0.1
	comp=Z,4.0nm,1.0s,mb4.4,baz=132,slow=6.7,SNR=6.0						
KOLS	Kolonicke sedl	74.30	319	e	PcP	20 34 53.9	+2.2
KOLS	Kolonicke sedl	74.30	319	eP	PcP	20 34 53.9	+2.2
FINES	FINESS Array B	75.13	333	P	P	20 34 40.9	-0.4
	comp=Z,1.7nm,0.6s,mb4.2,baz=83,slow=4.5,SNR=7.8						
ZST	Bratislava	77.59	318	e	pP	20 35 10.7	+5.8
GERES	GERESS Array B	79.90	319	P	P	20 35 09.9	+2.0
	comp=Z,3.5nm,0.7s,mb4.4,baz=99,slow=4.9,SNR=15						
KHC	Kasperske Hory	80.00	319	eP	P	20 35 10.0	+1.5
NOA	NORSAR Array B	82.12	331	LR	LR	21 15 27.4	
	comp=Z,3µm,19.2s,MS5.6,baz=75,slow=38						
PDAR	Pinedale Array	127.61	22	PKP	PKPdf	20 42 05.8	-2.5
	comp=Z,0.9nm,0.9s,baz=135,slow=2.1,SNR=3.6						

IDC 27 20:23:16.6±5.8**, 11.31N**×**92.30E, mb3.9**/4**, mb1 4.0**/5**, mb1mx3.8**/18**, ML2.8**/1**, Error ellipse: s-maj=145.0km s-min=9.6km az=155.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.58	41	Pn	P	20 25 35.8	-3.0
	0.0nm,0.3s,baz=237,slow=15,SNR=2.1						
SONM	Songino Array	38.29	15	P	P	20 30 38.8	-1.6
	0.3nm,0.6s,baz=205,slow=8.9,SNR=4.1						
FINES	FINESS Array B	68.84	332	P	P	20 34 23.2	-1.6
	1.8nm,0.8s,baz=112,slow=7.5,SNR=4.3						
ARCES	ARCESS Array B	71.44	340	P	P	20 34 38.3	-2.1
	1.2nm,0.5s,baz=95,slow=6.4,SNR=10						
GERES	GERESS Array B	74.08	318	P	P	20 34 54.8	-1.5
	0.7nm,0.5s,baz=89,slow=5.9,SNR=14						

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*IDC **27** 20:23:40.4±0.5, 7.08N×91.76E, mb4.9/28, mb1 4.9/29, mb1mx4.9/29, ML5.1/1, MS5.3/3, Ms1 5.3/3, ms1mx4.8/21, Error ellipse: s-maj=17.2km s-min=11.1km az=44.0*

*BJI **27** 20:23:42.8, 6.91N×91.74E, h38^{km}, mB5.6, mb5.2, Ms5.8, Msz5.6*

*MOS **27** 20:23:43.5±1.0, 7.11N×91.84E, h33^{km}, mb5.3/45, MS5.6/7, Error ellipse: s-maj=10.1km s-min=6.4km az=111.6*

*NEIC **27** 20:23:44.6±2.3, 7.06N×91.79E, h29^{km}±16^{km}, mb5.1/33, MS5.6/5, Error ellipse: s-maj=6.4km s-min=5.5km az=52.0*

*HRVD **27** 20:23:44.6±0.2, 7.04N×91.78E, h14^{km}±1^{km}, MW5.7/75, Centroid moment Tensor Solution. LP body waves: s41,c64;Mantle waves: s75,c160; Half duration: 1^{s}8 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.68±.08; M$_{\theta\theta}$-1.33±.07; M$_{\phi\phi}$2.01±.08; M$_{r\theta}$-1.30±.20; M$_{\theta\phi}$-4.07±.08; M$_{\phi r}$-0.47±.18; Best double couple: M$_0$4.64×10^{17} NP1: φ$_s$10°, δ74°, λ-11°. NP2:φ$_s$103°, δ79°, λ-164°. Principal axes: T 4.76, Plg4°, Azm236°; N -.23, Plg70°, Azm135°; P -4.53, Plg19°, Azm327°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 20:23:39.9±1.2**, 7.04N**±0.04×**91.76E**±0.03**, h9^{km}**±7^{km}**, h34^{km}**±3.5^{km}**:pP-P, n207, σ1^{s}05**/220**, mb5.1**/79**, MS5.6**/14**, 8C-5D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	10.97	272	eP	P	20 26 18.6	-1.6
	83nm,0.5s						
MDRS	Chennai	12.82	299	eP	P	20 26 43.5	-1.7
MDRS				eS	rx	20 28 53.3	
MDRS				e	S	20 28 59.1	-10
	comp=N,777nm,0.3s						
MDRS				e		20 28 59.8	
	comp=E,714nm,0.2s						
CM31	Chiang Mai Arr	13.33	31	eP	P	20 26 51.4	-0.6
CMAR	Chiang Mai Arr	13.33	31	Pn	P	20 26 52.1	+0.2
	comp=E,3.0nm,0.3s,baz=232,slow=14,SNR=36						
CMAR	Chiang Mai Arr	13.33	31	P	P	20 26 52.2	+0.2
CMAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
VIS	Vishakhapatnam	13.43	323	eP	P	20 26 51.4	-1.8
VIS				eS	rx	20 29 04.8	
VIS				e	S	20 29 24.4	+0.7
	comp=E,107nm,0.8s						
VIS				e		20 29 28.4	
	comp=N,121nm,0.8s						
KKTK	Khon Kaen	14.23	49	P	P	20 27 12.0	+8.1
	comp=N,2µm,0.6s						
KOD	Kodaikanal	14.48	284	eP	P	20 27 08.9	+1.7
CHRT	Chiangrai	14.95	31	SG	P	20 27 12.5	-0.8
HYB	Hyderabad	16.51	310	i P	P	20 27 33.0	-0.4
HYB				eS	S	20 30 27.0	-9.3
BOK	Bokaro	17.59	342	eP	P	20 27 46.7	-0.3
BOK				e		20 28 00.7	
	comp=Z,280nm,1.0s						
BOK				eS	S	20 30 58.5	-2.5
BLSP	Bilaspur	17.64	329	eP	P	20 27 48.3	+0.6
BLSP				e		20 28 01.7	
	comp=Z,315nm,1.9s						
BLSP				eS	S	20 31 02.8	+0.5
IMP	Imphal	17.77	6	e	P	20 27 48.3	-0.9
SHL	Shillong	18.43	0	eP	P	20 28 00.6	+3.2
SHL				e		20 28 01.5	
	comp=Z,210nm,1.3s						
SHL				eS	S	20 31 15.8	-4.2
GOA	Goa	19.48	297	e	Px	20 28 30.9	
	comp=Z,154nm,0.8s						
GOA				eS	S	20 31 41.5	-2.3
AKL	Akola	19.71	315	eP	P	20 28 15.5	+2.9
AKL				e		20 28 22.3	
	comp=Z,270nm,1.3s						
COCO	West Island	19.76	165	eP	P	20 28 13.7	+0.4
KAD	Karad	19.96	302	eP	P	20 28 14.8	-0.7
KAD				e		20 28 23.1	
	comp=Z,297nm,1.5s						
KAD				eS	S	20 31 54.9	+0.6
KMI	Kunming	20.82	29	P	P	20 28 25.5	+1.1
KMI				AMB	AMB		
	comp=Z,121nm,0.8s						
BHPL	Bhopal	21.20	321	eP	P	20 28 29.4	+1.1
BHPL				e		20 28 41.0	
	comp=Z,197nm,1.4s						
BHPL				eS	S	20 32 16.9	-2.2
QIZ	Qiongzhong	21.24	54	P	P	20 28 28.8	+0.1
PKI	Pulchoki	21.29	344	eP	P	20 28 29.9	+0.8
	comp=Z,949nm,1.3s,mb6.0						
DMN	Daman	21.41	344	eP	P	20 28 31.4	+1.1
GUN	Gumba	21.49	346	eP	P	20 28 32.1	+0.9
	comp=Z,429nm,0.8s,mb5.8						
KKN	Kakani	21.53	344	eP	P	20 28 32.3	+0.7
	comp=Z,794nm,1.4s,mb6.0						
BOM	Bombay	21.87	304	eP	P	20 28 34.4	-0.6
BOM				e		20 28 51.3	
	comp=Z,212nm,1.3s						
BOM				eS	S	20 32 32.3	+0.7
GKN	Gorkha	21.91	343	eP	P	20 28 36.3	+0.9
KOLN	Koldanda	22.02	340	eP	P	20 28 37.5	+1.0
LSA	Lhasa	22.55	359	eP	P	20 28 44.7	+2.9
LSA				pmax	pmax		
	comp=Z,147nm,0.7s,mb5.5						
LSA	Lhasa	22.55	359	eP	P	20 28 44.7	+2.9
	comp=Z,147nm,0.7s,mb5.5						
GYA	Guiyang	23.97	35	⇑iP	P	20 28 56.3	+0.7
GYA				AP		20 29 01.0	
GYA				S	S	20 33 13.0	+3.9
GYA				AMB	AMB		
	comp=Z,160nm,0.8s,mb5.5						
GYA				AMB	AMB		
	comp=Z,1µm,5.2s						
GYA				LR	LR		
	comp=N,8µm,16.4s,MS5.5						
GYA				LR	LR		
	comp=E,9µm,14.9s,MS5.5						
GYA				LR	LR		
	comp=Z,8µm,17.0s,MS5.3						
NDI	New Delhi	25.54	329	eP	P	20 29 11.9	+1.2
NDI				e		20 29 23.1	
	comp=Z,298nm,1.4s						
CD2	Chengdu	26.27	24	⇓iP	P	20 29 17.5	0.0
CD2				AMB	AMB		
	comp=Z,160nm,0.8s,mb5.6						
ENH	Enshi	28.48	34	eP	P	20 29 35.5	-2.1
	comp=Z,40nm,0.9s,mb5.0						
TGY	Tagaytay City	29.50	74	LR	LR	20 42 12.0	
	comp=Z,10µm,18.2s,MS5.5,baz=81,slow=38						
LZH	Lanzhou	30.96	19	⇑P	P	20 29 59.3	-0.3
LZH				AMB	AMB		
	comp=Z,83nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,302nm,5.0s						
LZH				LR	LR		
	comp=E,24µm,12.0s						
LZH				LR	LR		
	comp=Z,31µm,13.5s,MS6.1						
WHN	Wuhan	31.55	39	⇓P	P	20 30 05.0	+0.1
GTA	Gaotai	33.03	11	eP	P	20 30 18.5	+0.7
GTA				AP	pP	20 30 27.8	+7.3
GTA				XP	sP	20 30 32.0	+10
GTA				PP	PP	20 31 28.5	+0.1
GTA				S	S	20 35 35.8	+0.5
GTA				SS	SS	20 37 35.8	+0.6
GTA				AMB	AMB		
	comp=Z,232nm,1.0s,mb6.1						
GTA				AMB	AMB		
	comp=Z,2µm,5.7s						
GTA				LR	LR		
	comp=N,9µm,16.7s,MS5.7						
GTA				LR	LR		
	comp=E,9µm,16.0s,MS5.7						
GTA				LR	LR		
	comp=Z,9µm,17.1s,MS5.5						
NJ2	Nanjing	35.45	42	eP	P	20 30 38.3	-0.3
NJ2				AP	pP	20 30 50.3	+8.9
NJ2				XP	sP	20 30 54.5	+12
NJ2				PP	PP	20 32 03.0	+4.6
NJ2				S	S	20 36 17.0	+4.2
NJ2				AMB	AMB		
	comp=Z,90nm,0.8s,mb5.8						
NJ2				LR	LR		
	comp=N,9µm,18.8s,MS5.6						
NJ2				LR	LR		
	comp=E,6µm,22.1s,MS5.6						
NJ2				LR	LR		
	comp=Z,8µm,19.8s,MS5.5						
SSE	Sheshan	36.47	45	P	P	20 30 49.0	+1.7
SSE				AMB	AMB		
	comp=Z,58nm,0.6s,mb5.7						
AAK	Ala-Archa	38.59	339	eP	P	20 31 05.3	+0.3
AAK				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.7						
AAK	Ala-Archa	38.59	339	eP	P	20 31 05.3	+0.3
	comp=Z,18nm,1.1s,mb4.7						
FRU	Bishkek	38.72	340	eP	P	20 31 13.0	+6.9
FRU				e		20 31 21.0	
FRU				pmax	pmax		
	comp=Z,80nm,1.8s,mb5.2						
BJT	Baijiatuau	39.46	30	eP	P	20 31 12.5	+0.3
BJT				pmax	pmax		
	comp=Z,27nm,1.0s						
BJT	Baijiatuau	39.46	30	eP	P	20 31 12.5	+0.3
	comp=Z,27nm,1.0s,mb4.9						
BJI	Beijing	39.48	30	P	P	20 31 12.3	-0.1
BJI				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.9						
JOW	Kunigami	39.87	56	P	P	20 31 17.6	+1.8
	comp=Z,15nm,0.4s,mb5.1,baz=291,slow=7.0,SNR=8.3						
DL2	Dalian	41.61	36	P	P	20 31 31.0	+1.0
DL2				AMB	AMB		
	comp=Z,30nm,0.9s,mb4.9						
SONM	Songino Array	42.52	15	P	P	20 31 38.0	+0.6
	comp=Z,64nm,1.2s,mb5.2,baz=196,slow=8.1,SNR=26						
ULN	Ulaanbaatar	42.72	15	eP	P	20 31 39.0	0.0
ULN				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.0						
ULN	Ulaanbaatar	42.72	15	eP	P	20 31 39.0	0.0
	comp=Z,29nm,0.9s,mb5.0						
ZAK	Zakamensk	44.26	11	⇓iP	P	20 31 51.9	+0.4
SNY	Shenyang	44.67	34	⇓P	P	20 31 55.0	+0.1
SNY				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.1						
TLY	Talaya	45.57	10	i P	P	20 32 02.8	+0.9
TLY				pmax	pmax		
	comp=Z,28nm,1.6s,mb4.9						
NWAO	Narrogin (SRO)	46.55	150	P	P	20 32 10.4	+0.5
	comp=Z,14nm,0.6s,mb5.0,baz=317,slow=9.1,SNR=14						
NWAO	Narrogin (SRO)	46.55	150	P	P	20 32 10.4	+0.5
NWAO				pmax	pmax		
	comp=Z,14nm,0.6s						
CN2	Changchun	47.00	33	eP	P	20 32 12.3	-1.0
CN2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.2						
ZAL	Zalesovo	47.10	354	P	P	20 32 14.3	+0.4
	comp=Z,24nm,0.4s,mb5.5,baz=296,slow=5.7,SNR=19						
ZAL	Zalesovo	47.10	354	P	P	20 32 14.4	+0.4
ZAL				pmax	pmax		
	comp=Z,24nm,0.4s						
NVS	Novosibirsk	48.16	353	eP	P	20 32 20.7	-1.5
NVS				eS	S	20 39 17.1	-3.1
NVS				pmax	pmax		
	comp=N,42nm,1.0s						
NVS				pmax	pmax		
	comp=E,32nm,1.0s						
NVS				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.8						
NVS				smax			
	comp=E,241nm,2.0s						
NVS				smax			
	comp=N,74nm,1.8s						
HIA	Hailar	48.23	24	eP	P	20 32 22.4	-0.5
HIA				pmax	pmax		
	comp=Z,39nm,1.0s						
HIA	Hailar	48.23	24	eP	P	20 32 22.4	-0.5
	comp=Z,39nm,1.0s,mb5.4						
BVAR	Borovoye Array	49.05	343	P	P	20 32 28.7	-0.5
	comp=Z,19nm,0.8s,mb5.2,baz=162,slow=9.4,SNR=6.5						
BRVK	Borovoye	49.11	343	P	P	20 32 29.4	-0.2
CHKZ	Chkalovo	49.56	344	P	P	20 32 32.9	-0.2
WRA	Warramunga Arr	49.74	123	P	P	20 32 34.2	-0.7
	comp=Z,14nm,0.7s,mb5.1,baz=300,slow=9.1,SNR=22						
WRA	Warramunga Arr	49.74	123	P	P	20 32 34.2	-0.7
WRA				pmax	pmax		
	comp=Z,14nm,0.7s						
WRAB	Tennant Creek	49.74	123	eP	P	20 32 34.0	-0.9
WRAB				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.5						
WRAB	Tennant Creek	49.74	123	eP	P	20 32 34.0	-1.0
	comp=Z,27nm,0.6s,mb5.5						
MDJ	Mudanjiang	49.83	35	P	P	20 32 35.8	+0.5
MDJ				AMB	AMB		
	comp=Z,26nm,1.2s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,395nm,9.9s						
MDJ	Mudanjiang	49.83	35	eP	P	20 32 34.9	-0.3
	comp=Z,47nm,1.3s,mb5.4						
ASAR	Alice Springs	51.23	128	P	P	20 32 46.0	-0.3
	comp=Z,3.0nm,0.7s,mb4.3,baz=300,slow=6.9,SNR=5.7						
ASAR				LR	LR	20 55 12.7	
	comp=Z,2µm,18.6s,MS5.2,baz=305,slow=37						
MAT	Matsushiro	51.47	48	P	P	20 32 47.7	-0.2
MAT	Matsushiro	51.47	48	eP	P	20 32 48.0	+0.1
MAT				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
MAT	Matsushiro	51.47	48	eP	P	20 32 48.0	+0.1
	comp=Z,9.0nm,0.8s,mb4.8						
GNI	Garni	53.35	316	P	P	20 33 02.3	+0.3
	comp=Z,12nm,0.9s,mb4.8,baz=2.7,slow=4.8,SNR=6.5						
GNI	Garni	53.35	316	eP	P	20 33 01.9	0.0
GNI				pmax	pmax		
	comp=Z,81nm,1.5s						
GNI	Garni	53.35	316	eP	P	20 33 01.9	0.0
	comp=Z,81nm,1.5s,mb5.4						
BOD	Bodaibo	53.52	15	⇑iP	P	20 33 02.7	-0.2
BOD				e		20 40 33.1	
KLR	Kul'dur	53.81	31	eP	P	20 33 00.0	-5.1
TI2	Plekhanov	54.03	317	i P	P	20 33 07.2	+0.3
TI2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
KMBO	Kilima Mbogo	54.98	264	P	P	20 33 15.8	+1.6
	comp=Z,6.4nm,0.9s,mb4.7,baz=57,slow=19,SNR=9.9						
KMBO	Kilima Mbogo	54.98	264	eP	P	20 33 15.9	+1.6
	comp=Z,7.3nm,1.0s,mb4.7						
KMBO				LR	LR		
	comp=Z,6µm,20.0s,MS5.7						
SVE	Sverdlovsk	55.33	340	⇑iP	P	20 33 16.3	+0.1
SVE				e		20 34 21.0	
SVE				e		20 35 19.0	
SVE				eS	S	20 41 00.0	+1.4
SVE				pmax	pmax		
	comp=Z,190nm,1.4s,mb5.9						
SVE				smax			
	comp=N,700nm,6.5s						
SVE				smax			
	comp=E,1µm,6.5s						
SVE				MLR	MLR		
	comp=Z,6µm,21.5s,MS5.6						
ERZM	Erzurum	55.63	314	P	P	20 33 19.6	+1.0
ARU	Arti	55.76	338	⇑iP	P	20 33 17.9	-1.4
ARU				i		20 34 17.2	
ARU				eS	S	20 41 05.6	+1.3
ARU				pmax	pmax		
	comp=Z,59nm,1.2s,mb5.5						
ARU				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.6						
ARU				MLR	MLR		
	comp=N,3µm,17.0s,MS5.5						
ARU				MLR	MLR		
	comp=E,2µm,18.0s,MS5.5						
ARU	Arti	55.76	338	eP	P	20 33 18.4	-0.9
	comp=E,7.4nm,0.9s,mb4.7						

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CLNS  Chul'man          56.05  21  eP     P      20 33 19.1 -2.2
CLNS                               pmax   pmax
      comp=Z,29nm,1.1s,mb5.2
CLNS                               pmax   pmax
      comp=N,15nm,1.3s
CLNS                               pmax   pmax
      comp=E,17nm,1.0s
KIV   Kislovodsk        56.37 319  i P    P      20 33 21.0 -2.9
KIV                                pmax   pmax
      comp=Z,15nm,1.0s,mb5.0
KIV   Kislovodsk        56.37 319  eP     P      20 33 23.1 -0.7
      comp=Z,22nm,1.0s,mb5.1
ELZG  Elazig            56.87 312  P      P      20 33 27.8 +0.3
MALT  Malatya           57.22 311  eP     P      20 33 30.1 +0.1
MALT                               pmax   pmax
      comp=Z,11nm,0.3s,mb5.4
MALT  Malatya           57.22 311  eP     P      20 33 30.1 +0.1
      comp=Z,11nm,0.3s,mb5.4
PMG   Port Moresby      57.56 106  P      P      20 33 31.8 -0.9
      comp=Z,19nm,0.7s,mb5.2,baz=337,slow=4.2,SNR=14
PMG   Port Moresby      57.56 106  eP     P      20 33 31.4 -1.3
PMG                                pmax   pmax
      comp=Z,23nm,0.8s
PMG   Port Moresby      57.56 106  eP     P      20 33 31.4 -1.3
      comp=Z,23nm,0.8s,mb5.3
GZT   Gaziantep         57.57 310  P      P      20 33 33.1 +0.6
ASAJ  Asahikawa         57.59  41  P      P      20 33 33.2 +0.7
      comp=Z,26nm,1.1s,mb5.2,baz=180,slow=1.9,SNR=4.4
ASAJ  Asahikawa         57.59  41  P      P      20 33 33.3 +0.8
ASAJ                               pmax   pmax
      comp=Z,26nm,1.1s
EIL   Elat              57.80 301  P      P      20 33 33.9 -0.3
      comp=Z,3.3nm,0.7s,mb4.5,baz=160,slow=11,SNR=2.9
KAHT  Ahir Dag          58.18 310  P      P      20 33 37.0 +0.3
SOC   Sochi             58.18 318  eP     P      20 33 30.3 -6.3
SOC                                e             20 34 22.2
SOC                                eS     S      20 41 31.6 -4.8
SOC                                pmax   pmax
      comp=Z,21nm,1.5s,mb5.0
SOC                                pmax   pmax
      comp=N,6.0nm,0.8s
SOC                                pmax   pmax
      comp=E,11nm,1.3s
COBT  Iskenderun        58.33 309  P      P      20 33 38.6 +0.7
SOKR  Solikamsk         58.75 340⇓iP     P      20 33 38.0 -2.4
SOKR                               pmax   pmax
      comp=Z,40nm,0.8s,mb5.5
YSS   Yuzh-Sakhalins    58.89  38  eP     P      20 33 36.0 -5.6
YSS                                pmax   pmax
      comp=Z,30nm,1.0s,mb5.3
CTA   Charters Tower    59.98 118  P      P      20 33 48.8 -0.7
      comp=Z,5.0nm,0.8s,mb4.6,baz=286,slow=11,SNR=5.6
CTA                                LR     LR     21 02 17.6
      comp=Z,2µm,20.2s,MS5.3,baz=288,slow=39
CTA   Charters Tower    59.98 118  P      P      20 33 48.8 -0.7
CTA                                pmax   pmax
      comp=Z,5.0nm,0.9s
CTA                                MLR    MLR
      comp=Z,2µm,20.2s
CTAO  Charters Tower    59.98 118  eP     P      20 33 48.6 -0.9
CTAO                               pmax   pmax
      comp=Z,19nm,1.4s,mb4.9
CTAO                               MLR    MLR
      comp=Z,3µm,22.0s,MS5.4
CTAO  Charters Tower    59.98 118  eP     P      20 33 48.6 -0.9
      comp=Z,19nm,1.4s,mb4.9
CTAO                               LR     LR
      comp=Z,3µm,22.0s,MS5.4
AVNT  Avonos            60.03 311  P      P      20 33 49.5 -0.1
CSS   Prodhromos        60.25 306  eP     P      20 33 49.7 -1.4
      comp=Z,30nm,1.3s,mb5.2
BRTR  Keskin Array B    61.20 312  P      P      20 33 56.8 -0.7
      comp=Z,5.6nm,0.8s,mb4.8,baz=126,slow=7.1,SNR=10
BRTR  Keskin Array B    61.20 312  P      P      20 33 56.8 -0.7
BRTR                               pmax   pmax
      comp=Z,6.0nm,0.8s
STKA  Stephens Creek    61.27 132  P      P      20 33 57.8 -0.3
      comp=Z,16nm,0.7s,mb5.3,baz=313,slow=6.6,SNR=26
STKA  Stephens Creek    61.27 132  eP     P      20 33 57.2 -0.9
YAK   Yakutsk           61.54  19  eP     P      20 33 57.6 -1.9
YAK                                e             20 34 09.1
YAK                                pmax   pmax
      comp=Z,25nm,1.2s,mb5.2
YAK                                pmax   pmax
      comp=N,9.0nm,1.1s
YAK                                pmax   pmax
      comp=E,7.0nm,1.2s
YAK                                pmax   pmax
      comp=Z,22nm,0.9s,mb5.3
YAK                                pmax   pmax
      comp=N,18nm,1.1s
YAK                                pmax   pmax
      comp=E,12nm,1.2s
YAK   Yakutsk           61.54  19  eP     P      20 33 57.8 -1.7
      comp=E,90nm,1.3s,mb5.7
MOS   Moscow            64.58 330  eP     P      20 34 20.7 +1.1
MOS                                e             20 34 55.2
MOS                                eS     S      20 43 02.6 +5.0
MOS                                pmax   pmax
      comp=Z,54nm,1.2s,mb5.5
MOS                                MLR    MLR
      comp=Z,7µm,18.8s,MS5.9
MOS                                MLR    MLR
      comp=N,3µm,19.2s,MS5.8
MOS                                MLR    MLR
      comp=E,4µm,18.2s,MS5.8
OBN   Obninsk           64.84 329  eP     P      20 34 17.8 -3.5
OBN                                eS     S      20 43 06.5 +5.7
OBN                                pmax   pmax
      comp=Z,34nm,1.9s,mb5.0
KIS   Kishinev          66.56 318  eP     P      20 34 32.0 -0.5
KIS                                e             20 34 38.0
LSZ   Lusaka            66.77 250  eP     P      20 34 34.5 +0.2
LSZ                                pmax   pmax
      comp=Z,24nm,1.4s,mb5.0
LSZ   Lusaka            66.77 250  eP     P      20 34 34.5 +0.1
      comp=Z,24nm,1.4s,mb5.0
IDI   Anoyia            67.11 305  P      P      20 34 36.6 +0.4
      comp=Z,9.6nm,0.7s,mb5.0,baz=82,slow=11,SNR=7.4
AKASG Malin Array Be    67.35 322  P      P      20 34 35.5 -2.0
      comp=Z,2.2nm,0.6s,mb4.4,baz=85,slow=5.1,SNR=7.4
AKASG Malin Array Be    67.35 322  P      P      20 34 35.5 -2.0
AKASG                              pmax   pmax
      comp=Z,2.0nm,0.6s
VRI   Vrincioaia        67.68 317⇑iP     P      20 34 40.2 +0.6
MLR   Muntele Rosu      68.13 316  P      P      20 34 41.1 -1.3
      comp=Z,17nm,0.9s,mb5.1,baz=65,slow=5.2,SNR=11
MLR   Muntele Rosu      68.13 316  P      P      20 34 41.2 -1.2
RZN   Rozhen            68.25 312  eP     P      20 34 44.0 +0.7
MA2   Magadan           68.60  28  eP     P      20 34 43.5 -1.6
KKB   Krupnik           69.48 312  eP     P      20 34 50.0 -0.9
VTS   Vitosha           69.51 313  eP     P      20 34 50.0 -1.0
BOLS  Boljevac          70.61 314⇑iP     P      20 35 02.0 +4.3
VSU   Vasula            71.11 330  i P    P      20 34 59.9 -0.6
KWP   Kalwaria          71.14 320  eP     P      20 35 10.0 +9.2
KOLS  Kolonicke sedl    71.28 319  e      P      20 35 02.8 +1.1
KOLS  Kolonicke sedl    71.28 319  eP     P      20 35 02.8 +1.1
LBTB  Lobatse           71.77 241  eP     P      20 35 05.6 +0.5
LBTB                               pmax   pmax
      comp=Z,26nm,1.1s,mb5.1
LBTB                               MLR    MLR
      comp=Z,8µm,19.0s,MS6.0
LBTB  Lobatse           71.77 241  eP     P      20 35 05.6 +0.6
      comp=Z,26nm,1.1s,mb5.1
LBTB                               LR     LR
      comp=Z,8µm,19.0s,MS6.0
SUW   Suwalki           71.81 325  eP     P      20 35 03.2 -1.5
SUW                                pmax   pmax
      comp=Z,53nm,1.0s,mb5.4
SUW   Suwalki           71.81 325  eP     P      20 35 03.2 -1.6
      comp=Z,53nm,1.0s,mb5.4
FINES FINESS Array B    72.35 333  P      P      20 35 06.8 -1.1
      comp=Z,7.4nm,0.6s,mb4.8,baz=104,slow=7.9,SNR=14
FINES FINESS Array B    72.35 333  P      P      20 35 06.8 -1.1
FINES                              pmax   pmax
      comp=Z,7.0nm,0.6s
KAF   Kangasniemi       72.46 333  ep     P      20 35 07.2 -1.3
BOSA  Boshof            73.15 237  eP     P      20 35 14.2 +1.0
BOSA                               pmax   pmax
      comp=Z,22nm,1.0s,mb5.0
BOSA                               MLR    MLR
      comp=Z,5µm,20.0s,MS5.8
BOSA  Boshof            73.15 237  eP     P      20 35 14.2 +1.0
      comp=Z,22nm,1.0s,mb5.0
BOSA                               LR     LR
      comp=Z,5µm,20.0s,MS5.8
VYHS  Vyhne             73.45 318  eP     P      20 35 14.6  0.0
VYHS  Vyhne             73.45 318  e      P      20 35 14.6  0.0
SRO   Srobarova         73.71 318  eP     P      20 35 14.7 -1.3
SRO                                epP    pP     20 35 26.9 +7.9
CASY  Casey             74.40 172  P      P      20 35 17.7 -2.0
CASY                               LR     LR
      comp=Z,2µm,20.0s,MS5.3
ZST   Bratislava        74.56 318  e      P      20 35 22.0 +1.0
ZST   Bratislava        74.56 318  eP     P      20 35 22.0 +1.0
ARCES ARCESS Array B    75.25 341  P      P      20 35 24.3 -0.3
      comp=Z,6.2nm,0.7s,mb4.7,baz=117,slow=5.4,SNR=8.4
ARCES ARCESS Array B    75.25 341  P      P      20 35 24.3 -0.3
ARCES                              pmax   pmax
      comp=Z,6.0nm,0.7s
KSP   Ksiaz             75.40 321  eP     P      20 35 26.3 +0.5
KSP                                epP    pP     20 35 33.9 +5.2
KSP   Ksiaz             75.40 321  eP     P      20 35 26.2 +0.4
PRU   Pruhonice         76.42 320  eP     P      20 35 32.5 +0.9
GEC2  GERESS Array S    76.88 318  eP     P      20 35 35.2 +1.1
GEC2                               pmax   pmax
      comp=Z,21nm,1.1s,mb5.0
GEC2  GERESS Array S    76.88 318  eP     P      20 35 35.2 +1.1
      comp=Z,21nm,1.1s,mb5.0
GERES GERESS Array B    76.88 318  P      P      20 35 35.0 +0.9
      comp=Z,5.8nm,0.7s,mb4.6,baz=90,slow=5.3,SNR=12
GERES GERESS Array B    76.88 318  P      P      20 35 35.1 +1.0
BRG   Berggiesshubel    76.89 321  i P    P      20 35 35.0 +0.9
BRG                                e             20 35 46.1
BRG                                pmax   pmax
      comp=Z,38nm,1.6s,mb5.1
BRG   Berggiesshubel    76.89 321  i P    P      20 35 35.0 +0.9
      comp=Z,38nm,1.6s,mb5.1
BRG                                e             20 35 46.1
BRG                                e             20 36 17.9
BRG                                e             20 36 26.0
KHC   Kasperske Hory    76.98 319  i P    P      20 35 31.5 -3.2
RUE   Ruedersdorf       77.13 322  eP     P      20 35 34.5 -0.9
      comp=Z,16nm,0.6s,mb5.1
MAW   Mawson            77.26 191  P      P      20 35 37.4 +1.6
      comp=Z,9.8nm,0.7s,mb4.8,baz=27,slow=8.6,SNR=6.0
MAW   Mawson            77.26 191  eP     P      20 35 37.1 +1.3
MAW                                pmax   pmax
      comp=Z,12nm,0.8s
MAW   Mawson            77.26 191  eP     P      20 35 37.1 +1.3
      comp=Z,12nm,0.8s,mb4.9
WET   Wettzell          77.44 319  eP     P      20 35 37.7 +0.5
CLL   Collm             77.51 321  eP     P      20 35 36.0 -1.6
CLL   Collm             77.51 321  P      P      20 35 36.0 -1.6
BILL  Bilibino          77.73  22  i P    P      20 35 38.6 +0.1
BILL                               pmax   pmax
      comp=Z,6.0nm,1.0s,mb4.5
MOX   Moxa              78.34 320  eP     P      20 35 42.7 +0.6
MOX   Moxa              78.34 320  i P    P      20 35 42.7 +0.6
GRA1  Grafenberg Arr    78.55 319  eP     P      20 35 44.3 +1.0
      comp=Z,25nm,0.9s,mb5.1
GRF   Grafenberg Arr    78.55 319  eP     P      20 35 44.3 +1.0
GRF                                pmax   pmax
      comp=Z,25nm,0.9s,mb5.1
GRF   Grafenberg Arr    78.55 319  eP     P      20 35 44.3 +1.0
GRF                                pmax   pmax
      comp=Z,25nm,0.9s,mb5.1
GRF   Grafenberg Arr    78.55 319  eP     P      20 35 44.3 +1.0
      comp=Z,25nm,0.9s,mb5.1
CLZ   Clausthal         79.18 321  eP     P      20 35 47.4 +0.7
      comp=Z,12nm,0.9s,mb4.8
FX1   Attu Island--F    79.24  38  P      P      20 35 46.3 -0.7
      comp=Z,46nm,0.7s,mb5.5,baz=225,slow=2.9,SNR=4.0
FX1   Attu Island--F    79.24  38  P      P      20 35 46.3 -0.7
FX1                                pmax   pmax
      comp=Z,46nm,0.7s
NB2   NORSAR Subarra    79.30 331  P      P      20 35 45.9 -1.3
      comp=Z,6.7nm,0.9s,mb4.6,baz=94,slow=5.8
NB2   NORSAR Subarra    79.30 331  P      P      20 35 45.9 -1.3
NB2                                pmax   pmax
      comp=Z,7.0nm,0.9s,mb4.6
NOA   NORSAR Array B    79.30 331  P      P      20 35 46.5 -0.7
      comp=Z,4.6nm,0.9s,mb4.4,baz=94,slow=5.6,SNR=9.4
NOA   NORSAR Array B    79.30 331  P      P      20 35 46.5 -0.7
NOA                                pmax   pmax
      comp=Z,5.0nm,0.9s
BSEG  Bad Segeberg      79.31 323  eP     P      20 35 47.8 +0.4
BFO   Black Forest      80.42 318  eP     P      20 35 54.0 +0.6
BFO                                pmax   pmax
      comp=Z,7.0nm,1.0s,mb4.5
BFO   Black Forest      80.42 318  eP     P      20 35 54.0 +0.6
      comp=Z,7.0nm,1.0s,mb4.5
BNI   Bardonecchia      81.59 314  eP     P      20 36 00.5 +0.8
BNI                                pmax   pmax
      comp=Z,18nm,0.9s,mb5.0
BNI   Bardonecchia      81.59 314  eP     P      20 36 00.5 +0.8
      comp=Z,18nm,0.9s,mb5.0
ESDC  Sonseca Array     89.94 310  P      P      20 36 41.6 +0.4
      comp=Z,1.1nm,0.6s,mb4.4,baz=58,slow=4.5,SNR=7.9
IMA   Indian Mountai    93.28  22  eP     P      20 36 57.5 +1.6
IMA                                pmax   pmax
      comp=Z,15nm,0.6s,mb5.6
IMA   Indian Mountai    93.28  22  eP     P      20 36 57.5 +1.6
      comp=Z,15nm,0.6s,mb5.6
DBIC  Dimbokro          95.71 277  P      P      20 37 10.7 +2.3
      comp=Z,3.3nm,0.9s,mb4.8,baz=90,slow=8.6,SNR=4.4
DBIC  Dimbokro          95.71 277  P      P      20 37 10.7 +2.4
DBIC                               pmax   pmax
      comp=Z,3.0nm,0.9s
RSO   Redoubt South     96.08  27  P      P      20 37 08.4 -0.4
ILAR  Eielson Array     96.39  22  P      P      20 37 10.8 +0.6
      comp=Z,0.7nm,0.6s,mb4.3,baz=282,slow=4.3,SNR=7.3
ILAR  Eielson Array     96.39  22  P      P      20 37 10.8 +0.6
ILAR                               pmax   pmax
      comp=Z,1.0nm,0.6s
SNAA  Sanae             98.08 199⇑iP     P      20 37 18.3 +0.6
SNAA  Sanae             98.08 199  P      P      20 37 17.3 -0.4
      comp=Z,1.0nm,1.0s,mb4.3,baz=31,slow=18,SNR=1.9
INK   Inuvik            98.43  15  P      P      20 37 19.8 +0.5
      comp=Z,5.7nm,1.2s,mb5.0,baz=256,slow=3.8,SNR=4.7
INK   Inuvik            98.43  15  P      P      20 37 19.8 +0.5
INK                                pmax   pmax
      comp=Z,6.0nm,1.2s
INK   Inuvik            98.43  15  P      P      20 37 19.8 +0.5
YKA   Yellowknife Ar   107.77  13  PP     PP     20 42 28.2 -4.4
      comp=Z,0.6nm,0.8s,baz=320,slow=6.7,SNR=5.3
PDAR  Pinedale Array   126.77  20  PKP    PKPdf  20 42 47.1 -0.2
      comp=Z,0.4nm,0.5s,SNR=2.8
PDAR  Pinedale Array   126.77  20  PKP    PKPdf  20 42 47.1 -0.2
TXAR  Lajitas Array    140.91  22  PKP    PKPdf  20 43 11.7 -2.5
      comp=Z,0.3nm,0.5s,baz=333,slow=2.0,SNR=2.6
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*IDC **27** 20:31:14.5±0.6, 7.17N×91.98E, mb4.3/15, mb1 4.4/16, mb1mx4.3/24, ML4.0/1, Error ellipse: s-maj=26.8km s-min=13.2km az=55.0*

*NEIC **27** 20:31:18.9±0.4, 7.19N×91.94E, h30^{km}, mb4.5/5, Error ellipse: s-maj=10.7km s-min=9.3km az=65.0*

*BJI **27** 20:31:21.9, 7.20N×91.90E, h30^{km}, mb4.4*

ISC 27 20:31:17.3±0.5, **7.18N**±0.07×**92.03E**±0.09, **h30**^{km}**, n36,** σ**1^{s}06**/34, **mb4.4**/23, **Nicobar Islands region**

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Code  Station Name       Δ°   AZ°   Phase ID         Time      Res
                                    Op     ISC     h  m  s     ISC
PALK  Pallekele         11.24 271  eP     P      20 33 54.1 -5.1
CM31  Chiang Mai Arr    13.07  30  P      P      20 34 22.5 -1.3
      7.7nm,0.8s
CMAR  Chiang Mai Arr    13.07  30  Pn     P      20 34 23.3 -0.4
      0.2nm,0.3s,baz=232,slow=14,SNR=8.2
KMI   Kunming           20.57  29  P      P      20 35 58.5 +2.0
KMI                                AMB    AMB
      comp=Z,13nm,1.0s
GYA   Guiyang           23.70  34  P      P      20 36 31.0 +3.4
GYA                                AMB    AMB
      comp=Z,10.0nm,0.8s,mb4.3
GTA   Gaotai            32.84  11  eP     P      20 37 52.9 +2.3
GTA                                AP     pP     20 38 00.3 +0.8
GTA                                XP     sP     20 38 04.0 +0.7
GTA                                AMB    AMB
      comp=Z,18nm,1.2s,mb4.9
HHC   Hu-ho-hao-te      37.78  24  eP     P      20 38 40.3 +7.6
HHC                                AMB    AMB
      comp=Z,10.0nm,1.2s,mb4.4
AAK   Ala-Archa         38.55 339  eP     P      20 38 39.2  0.0
SONM  Songino Array     42.32  14  P      P      20 39 11.3 +1.1
      comp=Z,1.8nm,0.7s,mb3.8,baz=195,slow=9.2,SNR=7.6
ULN   Ulaanbaatar       42.51  15  eP     P      20 39 11.5 -0.2
NWAO  Narrogin (SRO)    46.54 150  P      P      20 39 44.5 +0.2
      comp=Z,7.3nm,0.6s,mb4.8,baz=52,slow=6.0,SNR=7.3
NWAO  Narrogin (SRO)    46.54 150  P      P      20 39 44.5 +0.2
ZAL   Zalesovo          46.98 354  P      P      20 39 47.5  0.0
      comp=Z,1.3nm,0.5s,mb4.1,baz=316,slow=10,SNR=5.7
ZAL   Zalesovo          46.98 354  P      P      20 39 47.5  0.0
BVAR  Borovoye Array    49.00 343  P      P      20 40 02.5 -0.7
      comp=Z,1.9nm,0.6s,mb4.3,baz=135,slow=10,SNR=7.9
BRVK  Borovoye          49.06 343  eP     P      20 40 02.8 -0.9
      comp=Z,4.6nm,0.6s,mb4.7
CHKZ  Chkalovo          49.50 343  eP     P      20 40 07.0  0.0
      comp=Z,4.0nm,0.6s,mb4.6
WRA   Warramunga Arr    49.59 124  P      P      20 40 07.9 -0.3
      comp=Z,6.0nm,0.8s,mb4.7,baz=303,slow=8.7,SNR=15
ASAR  Alice Springs     51.10 128  P      P      20 40 19.1 -0.6
      comp=Z,7.4nm,0.8s,mb4.7,baz=299,slow=7.5,SNR=26
ARU   Arti              55.73 338  P      P      20 40 53.0 -0.4
PMG   Port Moresby      57.34 106  P      P      20 41 04.9 -0.7
      comp=Z,6.9nm,1.0s,mb4.6,baz=265,slow=7.0,SNR=4.9
STKA  Stephens Creek    61.16 132  P      P      20 41 31.6 -0.1
      comp=Z,6.7nm,0.7s,mb4.9,baz=319,slow=6.5,SNR=11
BRTR  Keskin Array B    61.31 312  P      P      20 41 33.0 +0.5
      comp=Z,1.1nm,0.7s,mb4.1,baz=145,slow=8.2,SNR=5.3
MLR   Muntele Rosu      68.21 316  P      P      20 42 17.6 +0.3
      comp=Z,3.0nm,0.7s,mb4.4,baz=115,slow=16,SNR=3.4
LBTB  Lobatse           72.08 241  P      P      20 42 42.2 +1.0
      comp=Z,2.1nm,0.6s,mb4.2
LBTB                               e             20 42 49.0
FINES FINESS Array B    72.35 333  P      P      20 42 40.9 -1.2
      comp=Z,1.8nm,0.8s,mb4.1,baz=124,slow=6.9,SNR=4.7
GERES GERESS Array B    76.95 318  P      P      20 43 09.5 +0.7
      comp=Z,1.0nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=6.4
KHC   Kasperske Hory    77.05 319  eP     P      20 43 12.0 +2.7
MAW   Mawson            77.45 191  P      P      20 43 11.9 +0.7
      comp=Z,3.0nm,0.7s,mb4.4,baz=294,slow=19,SNR=3.9
CLL   Collm             77.57 321  e*PP   pP     20 43 20.0 -1.7
HFS   Hagfors           78.00 330  P      P      20 43 13.4 -0.9
      comp=Z,3.1nm,0.9s,mb4.2,baz=121,slow=8.6,SNR=4.5
NB2   NORSAR Subarra    79.31 331  P      P      20 43 20.2 -1.3
      comp=Z,2.3nm,0.8s,mb4.2,baz=92,slow=5.8
DAVOX Davos             79.44 316  P      P      20 43 22.4  0.0
      comp=Z,2.5nm,0.5s,mb4.4,baz=205,slow=7.7,SNR=11
DAVOX Davos             79.44 316  P      P      20 43 22.4  0.0
LPL   La Plagne         81.64 315  eP     P      20 43 32.1 -2.0
      comp=Z,26nm,1.0s,mb4.8
LPAZ  La Paz           158.59 243  PKPab  PKPab  20 51 50.0 -0.2
      comp=Z,1.0nm,0.8s,baz=51,slow=9.8,SNR=3.4
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*IDC **27** 20:34:39.4±0.9, 5.09N×95.96E, mb4.3/9, mb1 4.4/10, mb1mx4.1/19, ML3.4/1, MS4.8/1, Ms1 5.0/1, ms1mx3.5/27, Error ellipse: s-maj=44.6km s-min=16.3km az=54.0*

*NEIC **27** 20:34:43.4±0.5, 5.07N×95.89E, h30^{km}, mb3.8/3, Error ellipse: s-maj=15.4km s-min=9.2km az=58.0*

ISC 27 20:34:41.4±0.6, **5.10N**±0.09×**95.9E**±0.1, **h30**^{km}**, n17,** σ**1^{s}00**/16, **mb4.3**/12, **Northern Sumatera**

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Code  Station Name       Δ°   AZ°   Phase ID         Time      Res
                                    Op     ISC     h  m  s     ISC
CM31  Chiang Mai Arr    13.60  12  P      P      20 37 54.1 -0.8
      4.5nm,0.7s
CMAR  Chiang Mai Arr    13.60  12  Pn     P      20 37 54.7 -0.2
      0.1nm,0.3s,baz=191,slow=15,SNR=2.6
CMAR                               LR     LR     20 43 36.0
      comp=Z,4µm,20.0s,baz=210,slow=39
PALK  Pallekele         15.27 279  eP     P      20 38 15.3 -1.5
AAK   Ala-Archa         41.93 336  P      P      20 42 32.5 +1.3
      0.8nm,0.7s,mb3.5
NWAO  Narrogin (SRO)    42.90 153  P      P      20 42 40.5 +1.3
      5.6nm,0.7s,mb4.4,baz=314,slow=13,SNR=4.9
SONM  Songino Array     43.51  10  P      P      20 42 44.3 +0.3
      2.1nm,0.8s,mb3.9,baz=191,slow=7.7,SNR=5.0
WRA   Warramunga Arr    45.24 125  P      P      20 42 57.8 -0.5
      11nm,0.7s,mb4.8,baz=302,slow=9.3,SNR=23
WRAB  Tennant Creek     45.24 125  eP     P      20 42 57.7 -0.6
      15nm,0.5s,mb5.1
ASAR  Alice Springs     46.81 129  P      P      20 43 10.7 +0.1
      15nm,0.7s,mb5.0,baz=299,slow=7.8,SNR=44
BRVK  Borovoye          52.23 341  P      P      20 43 51.3 -0.6
      0.5nm,0.6s,mb3.6
CTA   Charters Tower    55.44 119  P      P      20 44 15.1 -0.9
      4.5nm,0.9s,mb4.5,baz=287,slow=9.1,SNR=5.7
CTAO  Charters Tower    55.44 119  eP     P      20 44 15.2 -0.7
      3.6nm,0.7s,mb4.5
STKA  Stephens Creek    56.94 133  P      P      20 44 26.4 -0.2
      5.2nm,0.6s,mb4.7,baz=315,slow=8.4,SNR=13
BRTR  Keskin Array B    65.56 311  P      P      20 45 24.3 -0.4
      0.8nm,0.7s,mb3.9,baz=130,slow=4.8,SNR=3.1
DRV   Dumont d'Urvil    78.23 164  R             20 46 00.0
ARCES ARCESS Array B    78.45 340  P      P      20 46 44.0 +3.3
      22nm,1.4s,mb4.9,baz=108,slow=3.8,SNR=4.9
GERES GERESS Array B    81.05 319  P      P      20 46 56.9 +1.8
      0.7nm,0.8s,mb3.6,baz=72,slow=4.2,SNR=4.3
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*BJI **27** 20:36:11.8, 8.31N×93.51E, h30^{km}, mB5.8, mb4.8, Ms5.5, Msz5.2*

*IDC **27** 20:36:14.2±0.4, 9.01N×93.77E, mb4.9/31, mb1 5.0/32, mb1mx5.0/32, ML4.7/1, MS5.0/2, Ms1 5.0/2, ms1mx4.0/27, Error ellipse: s-maj=19.5km s-min=10.1km az=47.0*

*MOS **27** 20:36:17.3±0.9, 8.97N×93.73E, h33^{km}, mb5.4/68, Error ellipse: s-maj=10.5km s-min=4.4km az=123.9*

*NEIC **27** 20:36:18.8±0.2, 8.95N×93.68E, h30^{km}, mb5.3/62, Error ellipse: s-maj=6.0km s-min=4.6km az=50.0*

*SYO **27** 20:36:18.9, 8.98N×93.69E, h30^{km}, MB5.4*

*HRVD **27** 20:36:18.8±0.3, 8.93N×93.80E, h12^{km}, MW5.2/59, Centroid moment Tensor Solution. LP body waves: s7,c9; Mantle waves: s59,c118; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.73±.02; M$_{\theta\theta}$-0.02±.02; M$_{\phi\phi}$0.76±.02; M$_{r\theta}$0.11±.12; M$_{\theta\phi}$-0.08±.02; M$_{\phi r}$-0.42±.07; Best double couple: M$_{0}$.87×10^{17} NP1:ϕ_s178°, δ30°, λ-83°. NP2:ϕ_s350°, δ60°, λ-94°. Principal axes: T .88, Plg15°, Azm83°; N -.03, Plg4°, Azm352°; P -.85, Plg74°, Azm249°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CSEM **27** 20:36:19.7, 9.39N×93.73E, h33^{km}, mb5.7*

ISC 27 20:36:18.9±0.2, **8.95N**±0.04×**93.80E**±0.03, **h46**^{km}**, h46**^{km}±4.1^{km}**:pP-P, n403,** σ**1^{s}05**/385, **mb5.2**/108, **MS5.2**/11, **7C-13D, Nicobar Islands region**

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Code  Station Name       Δ°   AZ°   Phase ID         Time      Res
                                    Op     ISC     h  m  s     ISC
CM31  Chiang Mai Arr    10.69  27  eP     P      20 38 54.2 +2.0
      7.1nm,0.4s
CMAR  Chiang Mai Arr    10.69  27  Pn     P      20 38 52.5 +0.2
      1.5nm,0.3s,baz=212,slow=15,SNR=19
CMAR  Chiang Mai Arr    10.69  27  P      P      20 38 52.5 +0.2
CMAR                               pmax   pmax
      comp=Z,2.0nm,0.3s
PALK  Pallekele         13.07 264  P      P      20 39 25.1 +0.8
VIS   Vishakhapatnam    13.40 312  eP     P      20 39 24.9 -3.7
VIS                                eP            20 39 25.4
VIS                                eS     x      20 41 42.4
VIS                                eS     x      20 41 42.8
VIS                                e             20 41 45.6
      comp=E,319nm,0.9s
VIS                                e             20 41 46.0
      comp=E,268nm,0.5s
VIS                                e             20 41 46.8
      comp=N,363nm,0.9s
VIS                                e             20 41 47.2
      comp=N,488nm,1.3s
MDRS  Chennai           13.91 288  eP     P      20 39 32.8 -2.6
MDRS                               e             20 39 42.5
      comp=Z,500nm,1.7s
IMP   Imphal            15.74   0  e      P      20 40 04.3 +5.2
KOD   Kodaikanal        16.15 276  eP     P      20 40 05.7 +1.4
KOD                                e             20 42 42.0
BOK   Bokaro            16.58 334  eP     P      20 40 08.7 -1.0
BOK                                e             20 40 15.4
      comp=Z,274nm,1.2s
SHL   Shillong          16.62 354  eP     P      20 40 11.1 +0.9
SHL                                e             20 40 18.9
      comp=Z,118nm,1.6s
SHL                                e             20 41 42.0
BLSP  Bilaspur          17.24 321  eP     P      20 40 17.6 -0.4
BLSP                               e             20 40 22.9
      comp=Z,285nm,1.7s
KMI   Kunming           18.20  27  P      P      20 40 35.0 +5.1
KMI                                AMB    AMB
      comp=Z,78nm,2.0s
QIZ   Qiongzhong        18.50  56  P      P      20 40 35.5 +1.9
QIZ   Qiongzhong        18.50  56  eP     P      20 40 33.1 -0.6
      comp=Z,365nm,1.8s
LATR  Latur             19.19 301  eP     P      20 40 40.8 -0.9
AKL   Akola             19.96 308  eP     P      20 40 49.5 -0.6
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AKL				*e*		20 40 56.0	
	comp=Z,145nm,1.3s						
AKL				*e*		20 44 20.4	
PKI	**Pulchoki**	**20.14**	**338**	*e*P	**P**	**20 40 51.4**	**-0.5**
	comp=Z,1µm,1.7s						
GUN	**Gumba**	**20.28**	**339**	*e*P	**P**	**20 40 52.0**	**-1.4**
DMN	**Daman**	**20.29**	**337**	*e*P	**P**	**20 40 52.6**	**-0.8**
KKN	**Kakani**	**20.39**	**338**	*e*P	**P**	**20 40 53.5**	**-1.0**
GOA	**Goa**	**20.56**	**290**	*e*P	**P**	**20 40 58.1**	**+1.7**
GOA				*e*		20 41 08.5	
	comp=Z,134nm,1.2s						
GOA				*e*		20 44 38.7	
LSA	**Lhasa**	**20.79**	**354**	*e*P	**P**	**20 40 57.5**	**-1.1**
LSA				pmax	pmax		
	comp=Z,45nm,0.7s						
LSA	**Lhasa**	**20.79**	**354**	*e*P	**P**	**20 40 57.5**	**-1.1**
	comp=Z,45nm,0.7s						
KAD	**Karad**	**20.81**	**296**	*e*P	**P**	**20 40 58.7**	**-0.2**
KAD				*e*		20 41 03.9	
	comp=Z,109nm,1.6s						
KAD				*e*		20 41 06.7	
	comp=Z,163nm,2.0s						
GKN	**Gorkha**	**20.82**	**337**	*e*P	**P**	**20 40 58.7**	**-0.3**
	comp=Z,272nm,0.7s						
KOLN	**Koldanda**	**21.05**	**334**	*e*P	**P**	**20 41 01.8**	**+0.6**
	comp=Z,659nm,1.2s,mb5.8						
BHPL	**Bhopal**	**21.16**	**314**	*e*P	**P**	**20 41 03.1**	**+0.7**
BHPL				*e*P		20 41 03.5	
BHPL				*e*		20 41 05.1	
	comp=Z,120nm,0.7s						
BHPL				*e*		20 41 07.5	
	comp=Z,169nm,1.2s						
BHPL				*e*S	**S**	**20 44 57.5**	**+7.4**
COCO	**West Island**	**21.22**	**172**	*e*P	**P**	**20 41 04.2**	**+1.2**
	comp=Z,213nm,1.1s,mb5.4						
GYA	**Guiyang**	**21.26**	**33**	⇑*i*P	**P**	**20 41 05.8**	**+2.4**
GYA				AMB	AMB		
	comp=Z,70nm,1.2s,mb4.9						
GYA				AMB	AMB		
	comp=Z,970nm,3.8s						
GYA				LR	LR		
	comp=N,3µm,11.7s,MS5.1						
GYA				LR	LR		
	comp=E,4µm,13.8s,MS5.1						
GYA				LR	LR		
	comp=Z,2µm,12.0s,MS4.8						
POO	**Poona**	**21.57**	**298**	*e*P	**P**	**20 41 07.6**	**+1.2**
POO				*e*		20 41 14.1	
	comp=Z,101nm,1.9s						
BOM	**Bombay**	**22.61**	**298**	*e*P	**P**	**20 41 19.4**	**+2.4**
AGRA	**Agra**	**23.56**	**323**	*e*P	**P**	**20 41 27.3**	**+1.2**
AGRA				*e*		20 41 30.9	
	comp=Z,154nm,0.9s						
CD2	**Chengdu**	**23.74**	**22**	P	**P**	**20 41 29.5**	**+1.7**
PTH	**Pithoragarh**	**24.12**	**330**	*e*P	**P**	**20 41 34.2**	**+2.7**
PTH				*e*		20 45 54.2	
AYAN	**Aya Nagar**	**24.97**	**323**	*e*P	**P**	**20 41 40.1**	**+0.4**
AYAN				*e*		20 41 41.4	
NDI	**New Delhi**	**25.07**	**324**	*e*P	**P**	**20 41 41.3**	**+0.6**
NDI				*e*		20 41 44.5	
	comp=Z,304nm,1.3s						
NDI				*e*		20 46 24.7	
AJM	**Ajmer**	**25.17**	**316**	*e*P	**P**	**20 41 43.4**	**+1.8**
AJM				*e*P		20 41 43.5	
AJM				*e*		20 41 45.5	
	comp=Z,77nm,2.0s						
AJM				*e*		20 41 46.8	
	comp=Z,109nm,1.7s						
BHGR	**Bahadurgarh**	**25.23**	**323**	*e*P	**P**	**20 41 43.3**	**+1.0**
KHET	**Khetri**	**25.48**	**321**	*e*P	**P**	**20 41 45.5**	**+0.9**
DDI	**Dehra Dun**	**25.85**	**327**	*e*P	**P**	**20 41 47.7**	**-0.3**
DDI				*e*		20 46 35.3	
KKR	**Kurukshetra**	**26.25**	**325**	*e*P	**P**	**20 41 52.4**	**+0.6**
KKR				*e*		20 41 55.7	
	comp=Z,287nm,1.0s						
KLP	**Kalpa**	**26.72**	**329**	*e*P	**P**	**20 41 56.5**	**+0.5**
KLP				*e*		20 41 59.8	
	comp=Z,104nm,1.5s						
TGY	**Tagaytay City**	**27.07**	**77**	LR	LR	20 51 22.4	
	comp=Z,4µm,20.5s,MS5.0,baz=126,slow=34						
SDNR	**Sundarnagar**	**27.35**	**327**	*e*P	**P**	**20 42 03.1**	**+1.3**
LZH	**Lanzhou**	**28.52**	**17**	⇑P	**P**	**20 42 13.3**	**+1.0**
LZH				AMB	AMB		
	comp=Z,83nm,1.7s,mb5.2						
LZH				AMB	AMB		
	comp=Z,265nm,5.5s						
LZH				LR	LR		
	comp=E,3µm,11.2s						
LZH				LR	LR		
	comp=Z,5µm,12.6s,MS5.3						
THN	**Thein Dam**	**28.75**	**327**	*e*P	**P**	**20 42 13.6**	**-0.7**
	comp=Z,32nm,0.8s,mb5.1						
GTA	**Gaotai**	**30.80**	**9**	*e*P	**P**	**20 42 33.0**	**+0.4**
GTA				S	**S**	**20 47 38.5**	**+7.0**
GTA				AMB	AMB		
	comp=Z,26nm,1.4s,mb4.9						
NJ2	**Nanjing**	**32.69**	**42**	*e*P	**P**	**20 42 48.5**	**-0.6**
NJ2				AP	pP	20 43 02.0	+0.6
NJ2				S	**S**	**20 48 00.0**	**-1.0**
NJ2				AMB	AMB		
	comp=Z,640nm,7.0s						
NJ2				LR	LR		
	comp=N,5µm,18.8s,MS5.3						
NJ2				LR	LR		
	comp=E,5µm,22.1s,MS5.3						
NJ2				LR	LR		
	comp=Z,5µm,12.8s						
SSE	**Sheshan**	**33.70**	**45**	P	**P**	**20 42 55.5**	**-2.4**
SSE				AMB	AMB		
	comp=Z,28nm,0.6s,mb5.4						
SSE				AMB	AMB		
	comp=Z,2µm,9.5s						
KSH	**Kashi**	**34.36**	**335**	P	**P**	**20 43 04.3**	**+0.9**
KSH				AP	pP	20 43 13.5	-2.3
KSH				PPP	PPP	20 44 38.0	+0.1
KSH				PCP	PcP	20 45 39.3	+0.5
KSH				S	**S**	**20 48 27.5**	**+0.6**
KSH				PCS		20 49 24.5	
KSH				LR	LR		
	comp=N,4µm,12.3s,MS5.5						
KSH				LR	LR		
	comp=E,4µm,12.7s,MS5.5						
WMQ	**Urumqi**	**35.14**	**352**	⇓P	**P**	**20 43 10.8**	**+0.7**
WMQ				AP	pP	20 43 20.8	-1.7
WMQ				PP	PP	20 44 29.8	0.0
WMQ				PPP	PPP	20 44 48.0	-0.2
WMQ				S	**S**	**20 48 40.3**	**+1.4**
WMQ				AMB	AMB		
	comp=Z,27nm,1.3s,mb5.0						
WMQ				LR	LR		
	comp=N,1µm,19.2s,MS4.9						
WMQ				LR	LR		
	comp=E,2µm,21.0s,MS4.9						
WMQ				LR	LR		
	comp=Z,1µm,21.0s,MS4.5						
HHC	**Hu-ho-hao-te**	**35.47**	**24**	*e*P	**P**	**20 43 14.0**	**+1.1**
HHC				PP	PP	20 44 35.5	+1.8
HHC				PCP	PcP	20 45 42.8	+0.8
HHC				S	**S**	**20 48 45.0**	**+1.0**
HHC				AMB	AMB		
	comp=Z,17nm,1.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,2µm,8.0s						
HHC				LR	LR		
	comp=N,1µm,16.6s,MS5.2						
HHC				LR	LR		
	comp=E,3µm,15.5s,MS5.2						
HHC				LR	LR		
	comp=Z,2µm,13.1s,MS5.0						
ULHL	**Ulahol**	**36.58**	**338**	P	**P**	**20 43 22.8**	**+0.5**
	SNR=8.3						
KZA	**Kyzart**	**36.82**	**337**	P	**P**	**20 43 25.2**	**+0.9**
	SNR=17						
BJI	**Beijing**	**36.83**	**29**	P	**P**	**20 43 26.5**	**+2.1**
BJI				AMB	AMB		
	comp=Z,17nm,1.9s,mb4.5						
UCH	**Uchtor**	**37.23**	**336**	P	**P**	**20 43 28.9**	**+1.1**
	SNR=13						
TKM2	**Tokmak 2**	**37.41**	**338**	P	**P**	**20 43 30.0**	**+0.7**
	SNR=16						
KBK	**Karagaybulak**	**37.43**	**337**	P	**P**	**20 43 30.8**	**+1.4**
	SNR=38						
AML	**Almayashu**	**37.49**	**335**	P	**P**	**20 43 31.5**	**+1.6**
	SNR=8.7						
AAK	**Ala-Archa**	**37.58**	**336**	P	**P**	**20 43 32.0**	**+1.2**
	SNR=22						
AAK	**Ala-Archa**	**37.58**	**336**	*e*P	**P**	**20 43 30.2**	**-0.5**
AAK				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.3						
AAK	**Ala-Archa**	**37.58**	**336**	*e*P	**P**	**20 43 30.2**	**-0.5**
	comp=Z,64nm,1.1s,mb5.3						
FRU	**Bishkek**	**37.70**	**337**	*i* P	**P**	**20 43 32.0**	**+0.3**
FRU				*e*	pP	20 43 45.0	+0.8
FRU				pmax	pmax		
	comp=Z,260nm,2.0s,mb5.6						
CHMS	**Chumysh**	**37.79**	**337**	P	**P**	**20 43 32.9**	**+0.4**
	SNR=19						
EKS2	**Erkin-Say**	**37.90**	**336**	P	**P**	**20 43 34.6**	**+1.3**
	SNR=19						
USP	**Ospenovka**	**38.12**	**337**	P	**P**	**20 43 36.3**	**+1.1**
	SNR=6.8						
MKAR	**Makanchi Array**	**38.97**	**347**	*i* P	**P**	**20 43 42.1**	**-0.1**
SONM	**Songino Array**	**40.19**	**13**	P	**P**	**20 43 52.2**	**-0.1**
	comp=Z,4.6nm,1.0s,mb4.2,baz=198,slow=7.5,SNR=11						
ULN	**Ulaanbaatar**	**40.37**	**14**	*e*P	**P**	**20 43 53.2**	**-0.6**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.3						
ULN	**Ulaanbaatar**	**40.37**	**14**	*e*P	**P**	**20 43 53.2**	**-0.6**
	comp=Z,3.5nm,0.7s,mb4.2						
ZAK	**Zakamensk**	**42.04**	**9**	*e*P	**P**	**20 44 07.2**	**-0.3**
ZAK				*e*		20 46 01.5	
CN2	**Changchun**	**44.31**	**33**	*e*P	**P**	**20 44 26.8**	**+0.7**
CN2				*e*AP	pP	20 44 40.0	+1.3
CN2				*e*S	**S**	**20 50 59.0**	**+2.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
CN2				AMB	AMB		
	comp=Z,1µm,6.0s						
CN2				LR	LR		
	comp=N,5µm,16.0s,MS5.8						
CN2				LR	LR		
	comp=E,7µm,16.0s,MS5.8						
CN2				LR	LR		
	comp=Z,8µm,17.0s,MS5.7						
ZAL	**Zalesovo**	**45.44**	**353**	P	**P**	**20 44 35.3**	**+0.3**
	comp=Z,16nm,1.0s,mb4.8,baz=299,slow=7.8,SNR=42						
ZAL	**Zalesovo**	**45.44**	**353**	P	**P**	**20 44 35.3**	**+0.3**
ZAL				pmax	pmax		
	comp=Z,16nm,1.0s						
HIA	**Hailar**	**45.67**	**24**	*e*P	**P**	**20 44 37.7**	**+0.8**
HIA				pmax	pmax		
	comp=Z,28nm,1.1s						
HIA	**Hailar**	**45.67**	**24**	*e*P	**P**	**20 44 37.7**	**+0.8**
	comp=Z,28nm,1.1s,mb5.1						
NVS	**Novosibirsk**	**46.53**	**352**	*e*P	**P**	**20 44 42.3**	**-1.3**
NVS				pmax	pmax		
	comp=N,163nm,2.1s						
NVS				pmax	pmax		
	comp=E,102nm,2.1s						
NVS				pmax	pmax		
	comp=Z,247nm,2.1s,mb5.8						
MDJ	**Mudanjiang**	**47.12**	**35**	P	**P**	**20 44 48.3**	**0.0**
MDJ				AP	pP	20 45 00.8	-0.2
MDJ				PCP	PcP	20 46 18.5	-1.5
MDJ				PP	PP	20 46 38.8	-0.1
MDJ				SCP		20 50 10.0	
MDJ				PCS		20 50 14.0	
MDJ				S	**S**	**20 51 40.3**	**+4.0**
MDJ				LR	LR		
	comp=N,2µm,15.7s,MS5.3						
MDJ				LR	LR		
	comp=E,2µm,16.2s,MS5.3						
MDJ				LR	LR		
	comp=Z,2µm,12.3s,MS5.2						
NWAO	**Narrogin (SRO)**	**47.26**	**153**	P	**P**	**20 44 49.3**	**-0.3**
	comp=Z,48nm,0.8s,mb5.5,baz=316,slow=11,SNR=28						
NWAO	**Narrogin (SRO)**	**47.26**	**153**	*e*P	**P**	**20 44 48.2**	**-1.4**
NWAO				pmax	pmax		
	comp=Z,51nm,1.0s						
NWAO	**Narrogin (SRO)**	**47.26**	**153**	*e*P	**P**	**20 44 48.2**	**-1.4**
	comp=Z,51nm,1.0s,mb5.4						
QRN	**Al-Qurain**	**47.31**	**301**	*e*P	**P**	**20 44 50.0**	**-0.2**
QRN				AMb	AMB	20 44 52.6	
	comp=Z,181nm,1.0s,mb5.9						
RYDS	**Riyadh**	**47.43**	**295**	P	**P**	**20 44 53.2**	**+2.1**
RDF	**Al-Radifah**	**47.67**	**301**	*e*P	**P**	**20 44 53.3**	**+0.4**
RDF				AMb	AMB	20 44 55.3	
	comp=Z,246nm,0.9s						
UMR	**Umm Al-Rimmam**	**47.70**	**302**	*e*P	**P**	**20 44 53.5**	**+0.4**
UMR				AMb	AMB	20 44 55.2	
	comp=Z,95nm,0.7s,mb5.9						
BVA0	**Borovoye Array**	**47.86**	**341**	*i* P	**P**	**20 44 53.1**	**-1.0**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	**Borovoye Array**	**47.86**	**341**	P	**P**	**20 44 53.4**	**-0.7**
	comp=Z,6.1nm,0.5s,mb4.9,baz=144,slow=8.6,SNR=41						
BRVK	**Borovoye**	**47.93**	**341**	*e*P	**P**	**20 44 53.5**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
BRVK	**Borovoye**	**47.93**	**341**	*e*P	**P**	**20 44 53.5**	**-1.0**
	comp=Z,10nm,1.0s,mb4.8						
MIB	**Mutribah**	**48.08**	**302**	*e*P	**P**	**20 44 56.0**	**-0.1**
MIB				AMb	AMB	20 44 57.9	
	comp=Z,286nm,0.9s						
RST	**Umm Al-Ruwaisa**	**48.29**	**302**	*e*P	**P**	**20 44 58.0**	**+0.3**
RST				AMb	AMB	20 44 59.7	
	comp=Z,221nm,0.9s,mb6.2						
CHKZ	**Chkalovo**	**48.35**	**342**	*i* P	**P**	**20 44 57.5**	**-0.3**
CHKZ				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.4						
CHKZ	**Chkalovo**	**48.35**	**342**	*e*P	**P**	**20 44 57.0**	**-0.8**
	comp=Z,33nm,0.6s,mb5.5						
JHJ	**Hachijo jima 2**	**48.69**	**53**	LR	LR	21 05 42.1	
	comp=Z,1µm,19.7s,MS4.9,baz=241,slow=36						
MZLS	**Mizel**	**48.69**	**294**	P	**P**	**20 45 02.3**	**+1.5**
MAT	**Matsushiro**	**48.70**	**49**	P	**P**	**20 45 00.3**	**-0.5**
KAMS	**Al Khamasin**	**48.77**	**289**	P	**P**	**20 45 02.4**	**+0.9**
WRA	**Warramunga Arr**	**49.16**	**126**	P	**P**	**20 45 03.7**	**-0.9**
	comp=Z,5.3nm,0.7s,mb4.7,baz=300,slow=9.8,SNR=24						
WRA	**Warramunga Arr**	**49.16**	**126**	P	**P**	**20 45 03.7**	**-0.9**
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRAB	**Tennant Creek**	**49.17**	**126**	*e*P	**P**	**20 45 03.5**	**-1.1**
WRAB				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
WRAB	**Tennant Creek**	**49.17**	**126**	*e*P	**P**	**20 45 03.5**	**-1.1**
	comp=Z,14nm,0.9s,mb5.0						
TATS	**Tathlith**	**49.73**	**288**	P	**P**	**20 45 09.9**	**+1.0**
AFFS	**'Afif**	**50.67**	**294**	P	**P**	**20 45 17.7**	**+1.6**
ASAR	**Alice Springs**	**50.87**	**130**	P	**P**	**20 45 17.0**	**-0.6**
	comp=Z,8.6nm,0.8s,mb4.7,baz=309,slow=7.3,SNR=17						
NAMS	**An Nimas**	**50.90**	**287**	P	**P**	**20 45 19.9**	**+2.0**
BOD	**Bodaibo**	**51.19**	**14**	*e*P	**P**	**20 45 18.7**	**-0.8**
HILS	**Ha'il**	**52.30**	**298**	P	**P**	**20 45 29.4**	**+1.2**
GNI	**Garni**	**53.44**	**314**	P	**P**	**20 45 36.6**	**-0.1**
	comp=Z,15nm,0.8s,mb5.0,baz=346,slow=2.2,SNR=16						
GNI	**Garni**	**53.44**	**314**	*e*P	**P**	**20 45 36.0**	**-0.6**
GNI				pmax	pmax		
	comp=Z,93nm,1.4s						
GNI	**Garni**	**53.44**	**314**	*e*P	**P**	**20 45 36.0**	**-0.6**
	comp=Z,92nm,1.4s,mb5.5						
CLNS	**Chul'man**	**53.55**	**21**	*e*P	**P**	**20 45 34.1**	**-3.1**
CLNS				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.3						
CLNS				pmax	pmax		
	comp=N,15nm,0.8s						
CLNS				pmax	pmax		
	comp=E,9.0nm,0.9s						
TI2	**Plekhanov**	**54.04**	**316**	⇓*i*P	pP	20 45 50.8	-3.1
SVE	**Sverdlovsk**	**54.28**	**338**	⇓*e*P	**P**	**20 45 42.2**	**-0.3**
SVE				*e*		20 47 44.0	
SVE				pmax	pmax		
	comp=Z,270nm,2.4s,mb5.8						
SVE				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.4						
KBRS	**Khaybar**	**54.29**	**295**	P	**P**	**20 45 44.5**	**+1.5**
ARU	**Arti**	**54.77**	**337**	⇓*i*P	**P**	**20 45 45.0**	**-1.1**
ARU				*i*		20 46 41.1	
ARU				*e*PPP	PPP	20 49 02.6	-0.5
ARU				*e*S	**S**	**20 53 27.0**	**+5.3**
ARU				*e*SS	SS	20 57 08.5	+3.7
ARU				pmax	pmax		
	comp=Z,49nm,2.0s,mb5.2						
ARU	**Arti**	**54.77**	**337**	*e*P	**P**	**20 45 43.3**	**-2.8**
	comp=Z,13nm,0.6s,mb5.1						
BEST	**Besiri**	**55.24**	**310**	*i* P	**P**	**20 45 48.8**	**-1.0**
YNBS	**Yanbu' al Bahr**	**55.26**	**293**	P	**P**	**20 45 51.7**	**+1.6**
ERZM	**Erzurum**	**55.79**	**313**	*i* P	**P**	**20 45 53.4**	**-0.4**
UMJS	**Umm Lajj**	**55.97**	**294**	P	**P**	**20 45 57.0**	**+1.8**
YSS	**Yuzh-Sakhalins**	**56.15**	**38**	*e*P	**P**	**20 45 52.0**	**-4.2**
YSS				*e*	pP	20 46 09.0	-0.2
PMG	**Port Moresby**	**56.18**	**108**	P	**P**	**20 45 58.2**	**+1.3**
	comp=Z,43nm,0.9s,mb5.5,baz=318,slow=3.8,SNR=28						
PMG	**Port Moresby**	**56.18**	**108**	*e*P	**P**	**20 45 57.7**	**+0.9**
PMG				*e*		20 46 55.4	
PMG				pmax	pmax		
	comp=Z,37nm,0.8s						
PMG	**Port Moresby**	**56.18**	**108**	*e*P	**P**	**20 45 57.7**	**+0.8**
	comp=Z,37nm,0.8s,mb5.5						
PMG				*e*PcP	PcP	20 46 55.4	+1.3
KIV	**Kislovodsk**	**56.29**	**317**	P	**P**	**20 45 57.2**	**-0.1**
	comp=Z,305nm,1.0s,SNR=21						
KIV	**Kislovodsk**	**56.29**	**317**	*e*P	**P**	**20 45 56.0**	**-1.3**
KIV				*e*		20 46 51.4	
KIV				*e*		20 48 01.8	
KIV				*e*PPP	PPP	20 49 14.5	-7.3
KIV				*e*S	**S**	**20 53 44.3**	**+2.1**
KIV				*e*SS	SS	20 57 28.7	-1.0
KIV				pmax	pmax		
	comp=N,27nm,1.1s						
KIV				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.6						
KIV	**Kislovodsk**	**56.29**	**317**	*e*P	**P**	**20 45 56.4**	**-0.9**
	comp=Z,91nm,1.2s,mb5.7						
GOF	**Gofitskoye**	**56.49**	**319**	⇓*i*P	**P**	**20 45 58.0**	**-0.7**
GOF				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.3						
TBKS	**Tabuk**	**57.02**	**298**	P	**P**	**20 46 04.1**	**+1.4**
ELZG	**Elazig**	**57.14**	**310**	*i* P	**P**	**20 46 02.9**	**-0.5**
KMBO	**Kilima Mbogo**	**57.21**	**263**	P	**P**	**20 46 05.7**	**+1.4**
	comp=Z,5.5nm,0.9s,mb4.6,baz=57,slow=8.7,SNR=19						
KMBO	**Kilima Mbogo**	**57.21**	**263**	*e*P	**P**	**20 46 05.5**	**+1.3**
KMBO				pmax	pmax		
	comp=Z,201nm,2.3s						
KMBO	**Kilima Mbogo**	**57.21**	**263**	*e*P	**P**	**20 46 05.5**	**+1.3**
	comp=Z,201nm,2.3s,mb5.7						
ASF	**Jabal al Asfar**	**57.35**	**302**	P	**P**	**20 46 05.5**	**+0.5**
	comp=Z,13nm,0.9s,mb5.0,baz=355,slow=5.5,SNR=17						
MALT	**Malatya**	**57.51**	**310**	*e*P	**P**	**20 46 04.4**	**-1.6**
MALT				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.2						
MALT	**Malatya**	**57.51**	**310**	*e*P	**P**	**20 46 04.4**	**-1.6**
	comp=Z,34nm,1.3s,mb5.2						
GZT	**Gaziantep**	**57.93**	**309**	*i* P	**P**	**20 46 08.6**	**-0.3**
SOC	**Sochi**	**58.17**	**316**	*i* P	**P**	**20 46 07.9**	**-2.6**
SOC				*e*		20 47 04.7	
SOC				*e*S	**S**	**20 54 00.3**	**-6.5**
SOC				pmax	pmax		
	comp=N,20nm,1.5s						
SOC				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.2						
MKRJ	**Makawir**	**58.30**	**302**	P	**P**	**20 46 11.9**	**+0.3**
KSHT	**Keshet**	**58.40**	**303**	P	**P**	**20 46 12.3**	**0.0**
HMDT	**Nahal Hemdat**	**58.51**	**302**	P	**P**	**20 46 13.1**	**0.0**
DRGI	**Dragot**	**58.51**	**302**	P	**P**	**20 46 13.3**	**+0.2**
KAHT	**Ahir Dag**	**58.53**	**309**	P	**P**	**20 46 12.5**	**-0.6**
EIL	**Elat**	**58.60**	**299**	P	**P**	**20 46 13.9**	**+0.2**
	comp=Z,24nm,0.9s,mb5.2,baz=59,slow=4.7,SNR=18						
EIL	**Elat**	**58.60**	**299**	P	**P**	**20 46 13.8**	**+0.1**
EIL	**Elat**	**58.60**	**299**	*e*P	**P**	**20 46 13.7**	**-0.1**
	comp=Z,34nm,1.1s,mb5.3						
MMLI	**Mount Malkishu**	**58.63**	**303**	P	**P**	**20 46 14.1**	**+0.2**
MBH	**Mount Berech**	**58.65**	**299**	P	**P**	**20 46 14.3**	**+0.2**
COBT	**Iskenderun**	**58.75**	**307**	P	**P**	**20 46 14.2**	**-0.4**
KMTI	**Karmit**	**58.85**	**300**	P	**P**	**20 46 15.7**	**+0.2**
SLTI	**Sal'it**	**58.91**	**302**	P	**P**	**20 46 15.9**	**0.0**
OFRI	**'Ofer**	**59.02**	**303**	P	**P**	**20 46 16.7**	**+0.1**
YAK	**Yakutsk**	**59.09**	**19**	*e*P	**P**	**20 46 15.2**	**-1.5**
YAK				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
YAK				pmax	pmax		
	comp=N,7.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.2s						
YAK	**Yakutsk**	**59.09**	**19**	*e*P	**P**	**20 46 16.0**	**-0.7**
	comp=E,26nm,0.8s,mb5.3						
CTA	**Charters Tower**	**59.13**	**120**	P	**P**	**20 46 18.2**	**+0.6**
	comp=E,19nm,1.0s,mb5.1,baz=291,slow=8.4,SNR=17						
CTA	**Charters Tower**	**59.13**	**120**	P	**P**	**20 46 18.2**	**+0.6**
CTA				pmax	pmax		
	comp=Z,19nm,1.0s						
CTA	**Charters Tower**	**59.13**	**120**	P	**P**	**20 46 18.2**	**+0.6**
CTAO	**Charters Tower**	**59.13**	**120**	*e*P	**P**	**20 46 16.5**	**-1.1**
CTAO				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.3						
CTAO	**Charters Tower**	**59.13**	**120**	*e*P	**P**	**20 46 16.5**	**-1.1**
	comp=Z,38nm,1.1s,mb5.3						
ANN	**Anapa**	**60.12**	**317**	*e*P	**P**	**20 46 25.4**	**+1.4**
ANN				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.5						
AVNT	**Avonos**	**60.34**	**310**	P	**P**	**20 46 24.2**	**-1.4**
MEST	**Erdemli**	**60.43**	**307**	P	**P**	**20 46 24.8**	**-1.5**
CSS	**Prodhromos**	**60.78**	**305**	*e*P	**P**	**20 46 27.4**	**-1.3**
	comp=Z,196nm,2.0s,mb5.9						
CTKT	**Corum**	**60.82**	**312**	P	**P**	**20 46 28.2**	**-0.6**
BOYT	**Boyabat**	**60.94**	**313**	P	**P**	**20 46 28.4**	**-1.2**
STKA	**Stephens Creek**	**61.09**	**134**	P	**P**	**20 46 29.6**	**-1.2**
	comp=Z,4.2nm,0.7s,mb4.7,baz=325,slow=7.5,SNR=7.1						
BRTR	**Keskin Array B**	**61.47**	**310**	P	**P**	**20 46 31.4**	**-1.9**
	comp=Z,14nm,0.8s,mb5.1,baz=121,slow=7.2,SNR=50						
BRTR	**Keskin Array B**	**61.47**	**310**	P	**P**	**20 46 31.4**	**-1.9**
BRTR				pmax	pmax		
	comp=Z,14nm,0.8s						
VOR	**Voronezh**	**61.51**	**325**	*e*P	**P**	**20 46 32.0**	**-1.3**
VOR				pmax	pmax		
	comp=Z,190nm,2.4s,mb5.8						
ELDT	**Eldivan**	**61.80**	**311**	P	**P**	**20 46 34.2**	**-1.2**
BALT	**Daday**	**62.07**	**312**	P	**P**	**20 46 35.9**	**-1.3**
SIM	**Simferopol'**	**62.42**	**316**	*e*P	**P**	**20 46 34.1**	**-5.4**
SIM				*e*S	**S**	**20 55 00.0**	**-1.3**
SIM				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.3						
SGKT	**Sivrigoynuk**	**62.84**	**311**	P	**P**	**20 46 41.0**	**-1.4**
ISP	**Isparta**	**63.51**	**308**	*i* P	**P**	**20 46 45.0**	**-1.9**
MBAR	**Mbarara**	**63.51**	**265**	*e*P	**P**	**20 46 47.4**	**+0.1**
MBAR				pmax	pmax		
	comp=Z,137nm,2.0s,mb5.6						
MBAR	**Mbarara**	**63.51**	**265**	*e*P	**P**	**20 46 47.4**	**+0.1**
	comp=Z,137nm,2.0s,mb5.6						
ESKT	**Eskisehir**	**63.54**	**310**	P	**P**	**20 46 45.3**	**-1.8**
MOS	**Moscow**	**63.99**	**328**	κ *i*P	**P**	**20 46 48.7**	**-1.0**
MOS				*e*		20 47 23.3	
MOS				*i*		20 49 09.3	
MOS				*e*PPP	PPP	20 50 41.2	-3.4
MOS				*e*S	**S**	**20 55 21.2**	**+0.5**
MOS				pmax	pmax		
	comp=Z,103nm,1.4s,mb5.7						
MOS				pmax	pmax		
	comp=Z,400nm,2.4s,mb6.0						
OBN	**Obninsk**	**64.29**	**328**	⇓*i*P	**P**	**20 46 50.2**	**-1.4**
OBN				*i*		20 49 10.0	
OBN				*e*S	**S**	**20 55 27.3**	**+2.8**
OBN				pmax	pmax		
	comp=Z,121nm,2.2s,mb5.5						
OBN	**Obninsk**	**64.29**	**328**	*e*P	**P**	**20 46 50.1**	**-1.6**
	comp=Z,258nm,1.8s,mb6.0						
KIS	**Kishinev**	**66.50**	**317**	*e*P	**P**	**20 47 04.0**	**-2.0**
CFR	**Carcaliu**	**66.59**	**315**	⇑*i*P	**P**	**20 47 05.7**	**-0.9**
AKASG	**Malin Array Be**	**67.10**	**321**	P	**P**	**20 47 07.8**	**-1.9**
	comp=Z,7.9nm,0.8s,mb4.8,baz=88,slow=4.8,SNR=32						
AKASG				PP	PP	20 49 36.1	-3.4
	comp=Z,1.7nm,0.7s,baz=95,slow=7.4,SNR=6.6						
AKASG	**Malin Array Be**	**67.10**	**321**	P	**P**	**20 47 07.8**	**-1.9**
AKASG						20 49 36.1	
AKASG				pmax	pmax		
	comp=Z,8.0nm,0.8s						
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
IDI	**Anoyia**	**67.68**	**304**	P	**P**	**20 47 12.9**	**-0.7**
	comp=Z,20nm,0.8s,mb5.2,baz=107,slow=4.9,SNR=12						
VRI	**Vrincioaia**	**67.69**	**316**	⇓*i*P	**P**	**20 47 13.4**	**-0.1**
MLR	**Muntele Rosu**	**68.17**	**315**	P	**P**	**20 47 16.3**	**-0.1**
	comp=Z,25nm,0.9s,mb5.2,baz=85,slow=1.0,SNR=20						
MLR	**Muntele Rosu**	**68.17**	**315**	P	**P**	**20 47 16.3**	**-0.1**
MLR				pmax	pmax		
	comp=Z,25nm,1.0s						
RZN	**Rozhen**	**68.49**	**311**	*e*P	**P**	**20 47 18.0**	**-0.5**
MNK	**Minsk**	**68.88**	**325**	*e*P	**P**	**20 47 18.0**	**-2.7**
MNK				pmax	pmax		

	comp=Z,170nm,1.0s,mb5.9						
MMB	Musomiste	69.21	311	*e*P	P	20 47 20.0	-3.0
VTS	Vitosha	69.71	312	*e*P	P	20 47 24.0	-2.0
KKB	Krupnik	69.72	311	*e*P	P	20 47 24.0	-2.1
VSU	Vasula	70.49	329	*i* P	P	20 47 27.9	-2.6
APA	Apatity	70.72	339	⇑*i*P	P	20 47 30.4	-1.3
APA				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.2						
BOLS	Boljevac	70.76	313	⇑*i*P	P	20 47 30.9	-1.5
KWP	Kalwaria	70.99	319	*e*P	P	20 47 33.3	-0.4
KOLS	Kolonicke sedl	71.17	319	*e*P	P	20 47 35.0	+0.2
SUW	Suwalki	71.44	324	*e*P	P	20 47 35.3	-0.9
FINES	FINESS Array B	71.60	332	P	P	20 47 36.5	-0.6
	comp=Z,3.4nm,0.4s,mb4.6,baz=114,slow=8.3,SNR=28						
FINES	FINESS Array B	71.60	332	P	P	20 47 36.6	-0.5
FINES				pmax	pmax		
	comp=Z,3.0nm,0.4s						
GRUS	Gruza	71.66	313	⇑*i*P	P	20 47 36.2	-1.5
KAF	Kangasniemi	71.68	333	*e*p	P	20 47 36.8	-0.7
	comp=Z,5.8nm,0.6s,mb4.7						
KAF	Kangasniemi	71.68	333	*e*P	P	20 47 36.8	-0.7
KAF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
CRVS	Cervenica-Dubn	71.70	319	*e*P	P	20 47 38.9	+1.0
KECS	Kecovo	72.29	318	*e*P	P	20 47 40.8	-0.6
NIE	Niedzica	72.51	319	*e*P	P	20 47 43.0	+0.3
PSZ	Piszkesteto	72.62	317	⇓*e*P	P	20 47 43.1	-0.3
OJC	Ojcow	72.94	320	*e*P	P	20 47 44.1	-1.1
PKSM	Moragy	73.32	316	⇓*i*P	P	20 47 46.8	-0.7
VYHS	Vyhne	73.38	318	*i* P	P	20 47 47.4	-0.5
VYHS				*e*PP	PP	20 50 28.4	-5.3
VYHS	Vyhne	73.38	318	*i* P	P	20 47 47.4	-0.5
VYHS				*e*PP	PP	20 50 28.4	-5.3
SRO	Srobarova	73.67	317	*i* P	P	20 47 49.9	+0.3
KEV	Kevo	73.71	341	*e*p	P	20 47 49.4	0.0
	comp=Z,13nm,0.7s,mb5.0						
KEV	Kevo	73.71	341	*e*P	P	20 47 49.4	0.0
KEV				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
OKC	Ostrava-Krasne	73.95	319	*e*P	P	20 47 51.0	-0.2
ARCES	ARCESS Array B	74.14	340	P	P	20 47 52.4	+0.5
	comp=Z,9.1nm,0.6s,mb4.9,baz=102,slow=7.4,SNR=58						
ARCES	ARCESS Array B	74.14	340	P	P	20 47 52.4	+0.5
ARCES				pmax	pmax		
	comp=Z,9.0nm,0.6s						
ARE0	ARCESS Array S	74.14	340	*e*P	P	20 47 51.9	+0.1
MORC	Moravsky Berou	74.34	319	*e*P	P	20 47 53.0	-0.4
MORC				pmax	pmax		
	comp=Z,185nm,1.9s,mb5.7						
MORC	Moravsky Berou	74.34	319	*e*P	P	20 47 53.0	-0.4
	comp=Z,184nm,1.9s,mb5.7						
LBTB	Lobatse	74.46	241	*e*P	P	20 47 55.3	+0.7
LBTB				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
LBTB	Lobatse	74.46	241	*e*P	P	20 47 55.3	+0.7
	comp=Z,22nm,0.9s,mb5.1						
ZST	Bratislava	74.51	317	*e*P	P	20 47 54.3	-0.1
KTK1	Kautokeino	74.77	339	*e*P	P	20 47 55.5	0.0
KTK1				AMb	AMB	20 48 03.4	
	comp=Z,84nm,1.8s,mb5.4						
KTK1	Kautokeino	74.77	339	*e*P	P	20 47 55.5	0.0
	comp=Z,84nm,1.8s,mb5.4						
SOP	Sopron	74.84	317	⇓*e*P	P	20 47 56.1	-0.2
VRAC	Vranov	74.92	319	P	P	20 47 56.6	-0.2
	comp=Z,6.1nm,0.8s,mb4.6,baz=105,slow=5.0,SNR=8.7						
VRAC	Vranov	74.92	319	P	P	20 47 56.6	-0.2
VRAC				pmax	pmax		
	comp=Z,6.0nm,0.8s						
DPC	Dobruska-Polom	75.17	320	*e*P	P	20 47 58.9	+0.8
BILL	Bilibino	75.22	22	*e*P	P	20 47 57.9	-0.2
BILL				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.9						
BILL	Bilibino	75.22	22	*e*P	P	20 47 57.9	-0.2
	comp=Z,21nm,1.4s,mb4.9						
KSP	Ksiaz	75.22	320	*e*P	P	20 47 58.1	-0.3
KSP	Ksiaz	75.22	320	*e*P	P	20 47 59.0	+0.6
BOSA	Boshof	75.87	238	*e*P	P	20 48 03.1	+0.5
BOSA				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
BOSA	Boshof	75.87	238	*e*P	P	20 48 03.1	+0.5
	comp=Z,25nm,1.0s,mb5.1						
PRU	Pruhonice	76.29	319	*e*P	P	20 48 04.8	+0.2
TRO	Tromso	76.40	340	*e*P	P	20 48 03.8	-1.0
TRO				AMb	AMB	20 48 09.7	
	comp=Z,89nm,2.1s,mb5.3						
TRO	Tromso	76.40	340	*e*P	P	20 48 03.8	-1.0
	comp=Z,89nm,2.1s,mb5.3						
BRG	Berggiesshubel	76.71	320	*i* P	P	20 48 07.2	+0.3
BRG				*e*		20 48 11.8	
BRG				pmax	pmax		
	comp=Z,162nm,2.2s,mb5.6						
BRG	Berggiesshubel	76.71	320	*i* P	P	20 48 07.2	+0.3
	comp=Z,162nm,2.2s,mb5.6						
BRG				*e*		20 48 11.8	
GEC2	GERESS Array S	76.80	318	*e*P	P	20 48 07.8	+0.3
GEC2				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
GEC2	GERESS Array S	76.80	318	*e*P	P	20 48 07.8	+0.3
	comp=Z,30nm,1.1s,mb5.1						
GERES	GERESS Array B	76.80	318	P	P	20 48 07.7	+0.2
	comp=Z,26nm,1.1s,mb5.1,baz=89,slow=5.6,SNR=44						
GERES	GERESS Array B	76.80	318	P	P	20 48 07.7	+0.2
GERES				pmax	pmax		
	comp=Z,26nm,1.1s						
RUE	Ruedersdorf	76.87	322	*e*P	P	20 48 07.2	-0.6
	comp=Z,94nm,1.2s,mb5.6						
KHC	Kasperske Hory	76.89	318	*e*P	P	20 48 07.8	-0.2
PTCC	Patocco-Chiusa	76.99	316	*e*P	P	20 48 08.5	-0.1
CLL	Collm	77.31	321	*i* P	P	20 48 10.1	-0.2
CLL				pmax	pmax		
	comp=Z,66nm,1.8s,mb5.3						
CLL	Collm	77.31	321	*i* P	P	20 48 10.1	-0.2
	comp=Z,66nm,1.8s,mb5.3						
CLL	Collm	77.31	321	P	P	20 48 10.1	-0.2
	comp=Z,logA/T=1.6,mb5.3						
WET	Wettzell	77.35	318	*e*P	P	20 48 10.8	+0.3
HFS	Hagfors	77.36	330	P	P	20 48 10.3	0.0
	comp=Z,11nm,0.4s,mb5.1,baz=104,slow=6.1,SNR=59						
HFS	Hagfors	77.36	330	P	P	20 48 10.3	0.0
HFS				pmax	pmax		
	comp=Z,11nm,0.4s						
FVI	Forni Avoltri	77.39	316	*e*P	P	20 48 10.6	-0.2
SFI	Santa Sofia	78.06	313	*e*P	P	20 48 13.6	-0.9
PGD	Poggio Sodo	78.15	313	*e*P	P	20 48 15.8	+0.8
CTI	Castel Tesino	78.17	315	*e*P	P	20 48 15.4	+0.3
MOX	Moxa	78.18	320	*e*P	P	20 48 15.6	+0.5
MOX				pmax	pmax		
	comp=Z,175nm,2.4s,mb5.6						
MOX	Moxa	78.18	320	*i* P	P	20 48 15.6	+0.5
	comp=Z,logA/T=1.9,mb5.6						
MOX	Moxa	78.18	320	*e*P	P	20 48 15.6	+0.5
	comp=Z,175nm,2.4s,mb5.6						
FUR	Furstenfeldbru	78.41	317	*e*P	P	20 48 16.1	-0.3
SEI	Scarperia	78.41	313	*e*P	P	20 48 17.3	+0.8
GRA1	Grafenberg Arr	78.43	319	*e*P	P	20 48 17.4	+0.9
	comp=Z,65nm,1.7s,mb5.3						
GRF	Grafenberg Arr	78.43	319	*e*P	P	20 48 17.4	+0.9
GRF				pmax	pmax		
	comp=Z,65nm,1.7s,mb5.3						
GRF	Grafenberg Arr	78.43	319	*e*P	P	20 48 17.4	+0.9
GRF				pmax	pmax		
	comp=Z,65nm,1.7s,mb5.3						
GRF	Grafenberg Arr	78.43	319	*e*P	P	20 48 17.4	+0.9
	comp=Z,65nm,1.7s,mb5.3						
NB2	NORSAR Subarra	78.63	331	P	P	20 48 16.7	-0.6
	comp=Z,19nm,0.9s,mb5.0,baz=97,slow=5.0						
NB2	NORSAR Subarra	78.63	331	P	P	20 48 16.7	-0.6
	baz=96,slow=5.1						
NB2	NORSAR Subarra	78.63	331	P	P	20 48 16.7	-0.6
NB2				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
NOA	NORSAR Array B	78.63	331	P	P	20 48 16.9	-0.4
	comp=Z,6.6nm,0.6s,mb4.7,baz=92,slow=5.7,SNR=27						
NOA	NORSAR Array B	78.63	331	P	P	20 48 16.9	-0.4
NOA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
NOA	NORSAR Array B	78.63	331	P	P	20 48 16.9	-0.4
CLZ	Clausthal	78.96	321	*e*P	P	20 48 19.6	+0.3
	comp=Z,26nm,1.1s,mb5.1						
BSEG	Bad Segeberg	78.99	323	*e*P	P	20 48 19.9	+0.5
BRMO	Bormio	79.05	316	*e*P	P	20 48 19.9	0.0
ERBM	Eremo	79.08	314	*e*P	P	20 48 21.2	+1.1
DAVOX	Davos	79.38	316	P	P	20 48 22.2	+0.4
	comp=Z,8.2nm,0.6s,mb4.9,baz=119,slow=6.2,SNR=18						
MAW	Mawson	79.52	192	P	P	20 48 22.9	+0.9
	comp=Z,3.9nm,0.7s,mb4.5,baz=10,slow=12,SNR=3.5						
MAW	Mawson	79.52	192	P	P	20 48 22.9	+0.9
MAW				pmax	pmax		
	comp=Z,4.0nm,0.7s						
MUD	Monsted U'grnd	79.63	326	*e*P	P	20 48 22.9	0.0
MUD				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
MUD	Monsted U'grnd	79.63	326	*e*P	P	20 48 22.9	0.0
	comp=Z,21nm,0.8s,mb5.1						
MUD	Monsted U'grnd	79.63	326	*i* P	P	20 48 22.9	0.0
	comp=Z,21nm,0.8s,mb5.1						
STU	Stuttgart	79.78	318	*e*P	P	20 48 22.3	-1.5
STU				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
STU	Stuttgart	79.78	318	*e*P	P	20 48 22.3	-1.5
	comp=Z,10nm,0.6s,mb4.9						
TOD	Tromm	80.01	319	*e*P	P	20 48 23.6	-1.4
SPAK	Spaichingen	80.08	317	*e*P	P	20 48 22.1	-3.3
VAI	Varese	80.19	315	*e*P	P	20 48 25.6	-0.5
PGF	Pioggiola	80.19	312	*e*P	P	20 48 25.6	-0.6
	comp=Z,339nm,1.8s,mb5.7						
PGF	Pioggiola	80.19	312	*e*P	P	20 48 25.6	-0.6
PGF				pmax	pmax		
	comp=Z,169nm,1.8s,mb5.7						
BFO	Black Forest	80.37	318	*e*P	P	20 48 27.0	0.0
BFO				pmax	pmax		
	comp=Z,34nm,1.5s,mb5.1						
BFO	Black Forest	80.37	318	*e*P	P	20 48 27.0	0.0
	comp=Z,34nm,1.5s,mb5.1						
MOL	Molde	80.39	332	*e*P	P	20 48 29.1	+2.4
MOL				AMb	AMB	20 48 34.2	
	comp=Z,72nm,1.8s,mb5.3						
MOL	Molde	80.39	332	*e*P	P	20 48 29.1	+2.4
	comp=Z,72nm,1.8s,mb5.3						
FELD	Feldberg	80.61	317	*e*P	P	20 48 24.6	-3.7
SUR	Sutherland	80.66	235	*e*P	P	20 48 30.6	+1.7
	comp=Z,37nm,1.2s,mb5.2						
LANF	Langenberg	80.69	318	*e*P	P	20 48 26.1	-2.6
MCGN	Macugnaga	80.72	315	*e*P	P	20 48 29.9	+1.0
ABH	Alteburg	80.81	319	*e*P	P	20 48 28.3	-1.0
WLS	Welschbruch	81.02	318	*e*P	P	20 48 27.5	-2.9
CDF	Champ du Feu	81.07	318	*e*P	P	20 48 30.3	-0.4
	comp=Z,26nm,1.1s,mb4.8						
CDF	Champ du Feu	81.07	318	*e*P	P	20 48 30.3	-0.4
CDF				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
RUP	Ruppelstein	81.13	319	*e*P	P	20 48 28.7	-2.3
ECH	Echery	81.16	317	*e*P	P	20 48 28.2	-3.0
MOF	Molkenrain	81.20	317	*e*P	P	20 48 27.9	-3.5
SBF	Sospel	81.25	313	*e*P	P	20 48 31.6	-0.1
	comp=Z,117nm,1.2s,mb5.4						
SBF	Sospel	81.25	313	*e*P	P	20 48 31.6	-0.1
SBF				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.4						
HINF	Hinteralfeld	81.39	317	*e*P	P	20 48 31.7	-0.7
LOMF	Lomont	81.44	317	*e*P	P	20 48 28.6	-4.0
LPG	La Plagne	81.62	315	*e*P	P	20 48 34.1	+0.5
	comp=Z,57nm,0.8s,mb5.2						
LPG	La Plagne	81.62	315	*e*P	P	20 48 34.1	+0.5
LPG				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
LPL	La Plagne	81.63	315	*e*P	P	20 48 34.1	+0.4
	comp=Z,54nm,0.8s,mb5.2						
LPL	La Plagne	81.63	315	*e*P	P	20 48 34.1	+0.4
LPL				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
MBDF	Montbardon	81.66	314	*e*P	P	20 48 33.4	-0.5
	comp=Z,36nm,1.1s,mb4.9						
MBDF	Montbardon	81.66	314	*e*P	P	20 48 33.4	-0.5
MBDF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
BNI	Bardonecchia	81.70	314	*e*P	P	20 48 34.1	0.0
BNI				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
BNI	Bardonecchia	81.70	314	*e*P	P	20 48 34.1	0.0
	comp=Z,18nm,0.8s,mb5.0						
HAU	Haudompre	81.71	317	*e*P	P	20 48 33.8	-0.2
	comp=Z,72nm,1.2s,mb5.2						
HAU	Haudompre	81.71	317	*e*P	P	20 48 33.8	-0.2
HAU				pmax	pmax		
	comp=Z,36nm,1.2s,mb5.2						
WLF	Walferdange	81.72	319	*e*P	P	20 48 34.6	+0.5
FRF	La Foret Royal	81.84	313	*e*P	P	20 48 35.0	+0.2
THEF	They Montfort	81.94	318	*e*P	P	20 48 31.5	-3.7
LMR	La Mourre	81.96	313	*e*P	P	20 48 34.4	-1.0
CABF	La Chapelle	82.00	316	*e*P	P	20 48 35.8	+0.3
	comp=Z,26nm,0.8s,mb4.9						
CABF	La Chapelle	82.00	316	*e*P	P	20 48 35.8	+0.3
CABF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
ORIF	Oris-en-Rattie	82.28	314	*e*P	P	20 48 36.9	-0.1
	comp=Z,25nm,0.8s,mb4.9						
ORIF	Oris-en-Rattie	82.28	314	*e*P	P	20 48 36.9	-0.1
ORIF				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
MEZF	Maizieres J'vi	82.54	318	*e*P	P	20 48 38.4	+0.1
GIVF	Givet	82.55	320	*e*P	P	20 48 38.6	+0.3
SMRF	Simiane la Rot	82.58	313	*e*P	P	20 48 39.2	+0.6
BAIF	Baives	82.95	320	*e*P	P	20 48 40.8	+0.5
	comp=Z,26nm,0.9s,mb5.0						
BAIF	Baives	82.95	320	*e*P	P	20 48 40.8	+0.5
BAIF				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
VIVF	Saint-Julien-l	83.14	314	*e*P	P	20 48 41.6	+0.2
	comp=Z,16nm,0.8s,mb4.8						
VIVF	Saint-Julien-l	83.14	314	*e*P	P	20 48 41.6	+0.2
VIVF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
SMF	Signal de Mont	83.53	316	*e*P	P	20 48 43.3	-0.1
	comp=Z,37nm,0.9s,mb5.2						
SMF	Signal de Mont	83.53	316	*e*P	P	20 48 43.3	-0.1
SMF				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.2						
SSF	Saint Saulge	83.72	317	*e*P	P	20 48 44.4	+0.1
PLDF	La Plantade	83.76	315	*e*P	P	20 48 39.3	-5.3
LASF	Ste Croix	83.80	314	*e*P	P	20 48 45.2	+0.4
AVF	Avril sur Loir	83.85	316	*e*P	P	20 48 44.9	-0.1
	comp=Z,30nm,1.0s,mb5.1						
AVF	Avril sur Loir	83.85	316	*e*P	P	20 48 44.9	-0.1
AVF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.1						
AGO	Saint Agoulin	84.09	316	*e*P	P	20 48 39.8	-6.4
LBL	Lubilhac	84.10	315	*e*P	P	20 48 39.4	-6.9
PYM	Petit Puy Mans	84.21	315	*e*P	P	20 48 39.6	-7.2
BGF	Bois d'Agland	84.23	316	*e*P	P	20 48 47.2	+0.3
HYF	Humbligny	84.28	317	*e*P	P	20 48 47.7	+0.6
TCF	Toulx Ste Croi	84.70	316	*e*P	P	20 48 49.6	+0.4
CAF	Calviac	84.97	315	*e*P	P	20 48 51.3	+0.6
MTLF	Montolieu	85.07	313	*e*P	P	20 48 51.6	+0.4
	comp=Z,27nm,0.9s,mb5.1						
MTLF	Montolieu	85.07	313	*e*P	P	20 48 51.6	+0.4
MTLF				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.1						
RJF	Les Rejaudoux	85.31	315	*e*P	P	20 48 53.0	+0.7
	comp=Z,30nm,1.0s,mb5.1						
RJF	Les Rejaudoux	85.31	315	*e*P	P	20 48 53.0	+0.7
RJF				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.1						
LDF	La Druitiere	85.94	318	*e*P	P	20 48 55.8	+0.5
	comp=Z,26nm,0.8s,mb5.2						
LDF	La Druitiere	85.94	318	*e*P	P	20 48 55.8	+0.5
LDF				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.2						
FLN	La Foliniere	86.15	319	*e*P	P	20 48 56.6	+0.3
MFF	Saint Martin d	86.26	316	*e*P	P	20 48 57.1	+0.2
	comp=Z,40nm,1.1s,mb5.2						
MFF	Saint Martin d	86.26	316	*e*P	P	20 48 57.1	+0.2
MFF				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.3						
SYO	Syowa Base	86.33	197	⇑P	P	20 48 58.4	+1.6
SYO	Syowa Base	86.33	197	⇓PcP	PcP	20 48 59.7	0.0
EKA	Eskdalemuir Ar	86.64	325	P	P	20 48 59.8	+1.2
	comp=Z,10nm,0.6s,mb5.2,baz=100,slow=5.5,SNR=36						
EKA	Eskdalemuir Ar	86.64	325	P	P	20 48 59.8	+1.2
EKA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
SGMF	Saint Gilles	87.59	318	*e*P	P	20 49 03.7	+0.3
QUIF	Quistinic	88.06	318	*e*P	P	20 49 05.1	-0.5
ESDC	Sonseca Array	90.27	310	P	P	20 49 16.4	+0.2
	comp=Z,1.8nm,0.6s,mb4.6,baz=64,slow=4.3,SNR=12						
IMA	Indian Mountai	90.76	22	*e*P	P	20 49 20.0	+2.1
IMA				pmax	pmax		
	comp=Z,89nm,0.8s,mb6.2						
IMA	Indian Mountai	90.76	22	*e*P	P	20 49 20.0	+2.1
	comp=Z,89nm,0.8s,mb6.1						
RSO	Redoubt South	93.47	27	*e*P	P	20 49 32.5	+2.0
ILAR	Eielson Array	93.88	22	P	P	20 49 32.9	+0.6
	comp=Z,4.7nm,0.7s,mb5.0,baz=297,slow=3.4,SNR=46						
ILAR				PKKPbc		21 06 35.9	
	comp=Z,0.5nm,0.5s,baz=141,slow=1.4,SNR=10						
ILAR	Eielson Array	93.88	22	P	P	20 49 32.9	+0.6
ILAR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.5s						
VNDA	Vanda	94.05	168	P	P	20 49 33.7	+0.9
	comp=Z,7.7nm,1.3s,mb5.0,baz=348,slow=10,SNR=11						
VNDA	Vanda	94.05	168	P	P	20 49 33.7	+0.9
VNDA				pmax	pmax		
	comp=Z,8.0nm,1.3s						
INK	Inuvik	96.06	16	P	P	20 49 43.6	+1.5
	comp=Z,5.8nm,0.8s,mb5.0,baz=335,slow=5.6,SNR=17						
INK	Inuvik	96.06	16	P	P	20 49 43.6	+1.5
INK				pmax	pmax		
	comp=Z,6.0nm,0.8s						
DBIC	Dimbokro	97.46	278	P	P	20 49 50.5	+0.8
	comp=Z,2.5nm,0.8s,mb4.7,baz=113,slow=5.6,SNR=4.2						
DBIC	Dimbokro	97.46	278	*e*P	P	20 49 49.7	-0.1
YKA	Yellowknife Ar	105.46	13	PP	PP	20 54 47.2	-2.2
	comp=Z,0.8nm,0.7s,baz=336,slow=7.7,SNR=8.4						
YKA				PKKPbc		21 06 03.5	
	comp=Z,0.8nm,0.9s,baz=143,slow=2.5,SNR=8.4						
ULM	Lac du Bonnet	120.44	7	PKP	PKPdf	20 55 08.7	+3.2
	comp=Z,4.3nm,0.9s,baz=358,slow=5.2,SNR=8.3						
LKWY	Lake	122.42	20	*e*PKP	PKPdf	20 55 13.2	+3.7
LOHW	Long Hollow	123.18	21	*e*PKP	PKPdf	20 55 13.0	+2.1
WUWY	Wally Ulrich	123.19	21	*e*PKP	PKPdf	20 55 14.0	+3.0
SNOW	Snow King Moun	123.26	21	*e*PKP	PKPdf	20 55 14.3	+3.2
REDW	Red Top Meadow	123.31	21	*e*PKP	PKPdf	20 55 14.1	+2.8
NVAR	Mina Array Bea	124.17	30	PKP	PKPdf	20 55 16.0	+3.0
	comp=Z,4.2nm,0.8s,baz=270,slow=1.7,SNR=8.2						
PDAR	Pinedale Array	124.29	21	PKP	PKPdf	20 55 15.7	+2.6
	comp=Z,5.6nm,0.9s,baz=36,slow=1.7,SNR=31						
TRCR	Troy Canyon	125.55	28	*e*PKP	PKPdf	20 55 18.9	+3.2
TMUT	Trail Mountain	126.67	24	PKP	PKPdf	20 55 20.4	+2.5
MSU	Marysvale	126.94	25	*e*PKP	PKPdf	20 55 21.5	+3.1
PV10	Paradox Valley	128.32	23	*e*PKP	PKPdf	20 55 24.2	+3.1
ANMO	Albuquerque	132.32	23	PKP	PKPdf	20 55 31.7	+3.0
	comp=Z,5.0nm,0.9s,baz=164,slow=1.6,SNR=8.9						
TXAR	Lajitas Array	138.38	23	PKP	PKPdf	20 55 42.9	+2.8
	comp=Z,1.9nm,0.7s,baz=270,slow=1.3,SNR=9.7						
JCT	Junction City	138.68	18	*e*PKP	PKPdf	20 55 43.0	+2.4
BDFB	Brasilia	142.14	256	PKP	PKPdf	20 55 48.5	+1.4
	comp=Z,6.9nm,0.8s,baz=176,slow=5.6,SNR=11						
SJG	San Juan	146.60	324	PKPbc	PKPbc	20 55 56.2	0.0
	comp=Z,15nm,0.4s,baz=108,slow=19,SNR=5.2						
SJG	San Juan	146.60	324	*e*PKP	PKPdf	20 55 56.0	+1.3
PCRV	Puerto La Cruz	151.33	311	PKPbc	PKPdf	20 56 08.6	+6.3
	comp=Z,16nm,0.5s,baz=154,slow=5.6,SNR=6.9						
SDV	Santo Domingo	156.45	318	PKP	PKPdf	20 56 12.1	+2.7
	comp=Z,4.7nm,0.9s,baz=55,slow=1.6,SNR=6.5						
SDV				PKPab	PKPab	20 56 40.5	-0.1
	comp=Z,16nm,0.9s,baz=52,slow=3.4,SNR=15						
SDV	Santo Domingo	156.45	318	*e*PKP	PKPdf	20 56 11.0	+1.6
LVC	Limon Verde	158.55	229	PKP	PKPdf	20 56 16.4	+4.5
	comp=Z,7.4nm,1.0s,baz=269,slow=1.0,SNR=6.0						
LVC				PKPab	PKPab	20 56 49.9	+0.5
	comp=Z,9.7nm,0.7s,baz=147,slow=2.4,SNR=13						
LVC	Limon Verde	158.55	229	*e*PKP	PKPdf	20 56 15.6	+3.7
LPAZ	La Paz	160.93	246	PKP	PKPdf	20 56 17.8	+3.3
	comp=Z,5.0nm,1.0s,baz=75,slow=2.2,SNR=12						
LPAZ				PKPab	PKPab	20 57 00.3	+0.6
	comp=Z,4.3nm,0.7s,baz=123,slow=3.2,SNR=6.9						
LPAZ	La Paz	160.93	246	*e*PKP	PKPdf	20 56 17.4	+2.8
ROSC	El Rosal	161.88	319	PKP	PKPdf	20 56 18.4	+2.8
	comp=Z,13nm,0.9s,baz=90,slow=20,SNR=6.5						
OTAV	Otavalo	168.04	319	*e*PKP	PKPdf	20 56 24.0	+3.0

IDC ***27*** *20:37:15.8±0.1,5.75N×92.99E,mb5.0/18,mb1 5.0/19, mb1mx4.8/26,ML3.9/1,Error ellipse: s-maj=6.5km s-min=3.0km az=50.0*

BJI ***27*** *20:37:17.7,5.87N×92.58E,h41^{km},mb5.3,Ms5.4,Msz5.0*

MOS ***27*** *20:37:19.4±1.3,5.91N×93.17E,h33^{km},mb5.2/15,Error ellipse: s-maj=16.1km s-min=10.0km az=112.0*

NEIC ***27*** *20:37:20.6±0.3,5.87N×93.12E,h30^{km},mb5.0/6,Error ellipse: s-maj=9.7km s-min=8.6km az=207.0*

ISC 27 20:37:18.9±0.4,**5.91N**±0.07×**93.22E**±0.06,**h30^{km},n83, σ0^{s}91**/73,**mb5.0**/29,**MS5.2**/1,**2C,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.66	24	*e*P	P	20 40 31.6	-1.7
CMAR	Chiang Mai Arr	13.66	24	Pn	P	20 40 33.1	-0.2
	0.2nm,0.3s,baz=232,slow=14,SNR=3.6						
QIZ	Qiongzhong	20.79	50	P	P	20 42 02.0	+1.6
QIZ	Qiongzhong	20.79	50	*e*P	P	20 42 01.1	+0.7
	178nm,1.5s						
KMI	Kunming	21.17	25	P	P	20 42 04.0	-0.2
KMI				AMB	AMB		
	comp=Z,46nm,1.1s,mb4.7						
WHN	Wuhan	31.54	36	⇑P	P	20 43 41.8	+0.8
XAN	Xi'an	31.55	25	P	P	20 43 40.0	-1.0
XAN				AMB	AMB		
	comp=Z,67nm,0.8s,mb5.5						
GTA	Gaotai	33.88	9	*e*P	P	20 43 57.5	-3.8
GTA				AP	pP	20 44 06.5	-3.6
GTA				AMB	AMB		
	comp=Z,37nm,1.0s,mb5.3						
NJ2	Nanjing	35.35	39	*e*P	P	20 44 14.5	+0.5
NJ2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.7						
HHC	Hu-ho-hao-te	38.47	23	⇑*i*P	P	20 44 41.3	+1.2
HHC				AP	pP	20 44 51.0	+1.9
HHC				XP	sP	20 44 55.0	+2.1
HHC				AMB	AMB		
	comp=Z,42nm,0.9s,mb5.2						
HHC				LR	LR		
	comp=N,2µm,14.3s,MS5.3						
HHC				LR	LR		
	comp=E,3µm,14.3s,MS5.3						
HHC				LR	LR		
	comp=Z,2µm,14.3s,MS5.0						
JOW	Kunigami	39.33	54	P	P	20 44 48.5	+1.0
	comp=Z,32nm,0.9s,mb5.1,baz=231,slow=11,SNR=3.8						
AAK	Ala-Archa	40.16	338	*e*P	P	20 44 53.0	-1.1
AAK				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.0						
AAK	Ala-Archa	40.16	338	*e*P	P	20 44 53.0	-1.1
	comp=Z,30nm,1.0s,mb5.0						
SONM	Songino Array	43.27	13	P	P	20 45 20.4	+0.8
	comp=Z,9.2nm,0.8s,mb4.5,baz=194,slow=8.4,SNR=4.2						
SONM				PcP	PcP	20 47 09.5	+0.7
	comp=Z,3.6nm,0.4s,baz=198,slow=3.8,SNR=13						
ULN	Ulaanbaatar	43.44	14	*e*P	P	20 45 21.2	+0.2
ZAK	Zakamensk	45.12	9	*e*P	P	20 45 39.0	+4.6
CN2	Changchun	47.17	32	*e*P	P	20 45 51.0	+0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
WRA	Warramunga Arr	47.91	124	P	P	20 45 56.7	-0.2
	comp=Z,21nm,0.8s,mb5.2,baz=302,slow=8.9,SNR=16						
WRA	Warramunga Arr	47.91	124	P	P	20 45 56.7	-0.2
WRA				pmax	pmax		
	comp=Z,21nm,0.8s						
WRAB	Tennant Creek	47.91	124	*e*P	P	20 45 56.7	-0.2
ZAL	Zalesovo	48.37	353	P	P	20 46 00.6	+0.6
	comp=Z,18nm,0.5s,mb5.3,baz=302,slow=5.1,SNR=20						
ZAL	Zalesovo	48.37	353	P	P	20 46 00.6	+0.6
ZAL				pmax	pmax		
	comp=Z,18nm,0.5s						
ASAR	Alice Springs	49.40	128	P	P	20 46 08.2	-0.1
	comp=Z,15nm,1.0s,mb5.0,baz=299,slow=7.3,SNR=6.4						
NVS	Novosibirsk	49.45	352	*e*P	P	20 46 03.6	-4.7
BVAR	Borovoye Array	50.55	342	P	P	20 46 16.8	0.0
	comp=Z,13nm,0.8s,mb4.9,baz=141,slow=9.2,SNR=3.8						
CHKZ	Chkalovo	51.05	343	*e*P	P	20 46 19.9	-0.6
CHKZ				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
CHKZ	Chkalovo	51.05	343	*e*P	P	20 46 19.9	-0.7
	comp=Z,13nm,1.0s,mb4.8						
MAT	Matsushiro	51.15	47	*e*P	P	20 46 21.0	-0.5
MAT				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
MAT	Matsushiro	51.15	47	*e*P	P	20 46 21.0	-0.5
	comp=Z,42nm,1.5s,mb5.1						
BOD	Bodaibo	54.26	14	*e*P	P	20 46 41.9	-2.4
PMG	Port Moresby	55.86	105	P	P	20 46 56.8	+0.2
	comp=Z,24nm,0.7s,mb5.3,baz=277,slow=13,SNR=7.3						
PMG	Port Moresby	55.86	105	P	P	20 46 56.8	+0.2

PMG				pmax	pmax		
	comp=Z,24nm,0.7s						
KMBO	Kilima Mbogo	56.32	265	P	P	20 46 56.9	-3.0
SVE	Sverdlovsk	56.89	339	*e*P	P	20 47 04.0	+0.6
STKA	Stephens Creek	59.44	132	P	P	20 47 20.7	-0.9
YAK	Yakutsk	62.13	18	*e*P	P	20 47 38.4	-1.1
MBAR	Mbarara	62.71	266	P	P	20 47 39.9	-4.1
BRTR	Keskin Array B	63.03	312	P	P	20 47 44.6	-1.0
	comp=Z,7.0nm,0.6s,mb5.0,baz=142,slow=6.2,SNR=9.4						
BRTR	Keskin Array B	63.03	312	P	P	20 47 44.7	-1.0
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
IDI	Anoyia	68.94	305	P	P	20 48 23.0	-0.6
	comp=Z,12nm,0.5s,mb5.1,baz=80,slow=9.4,SNR=12						
AKASG	Malin Array Be	69.13	322	P	P	20 48 22.7	-1.8
	comp=Z,6.7nm,0.5s,mb4.8,baz=85,slow=5.0,SNR=16						
AKASG	Malin Array Be	69.13	322	P	P	20 48 22.7	-1.8
AKASG				pmax	pmax		
	comp=Z,7.0nm,0.5s						
KOLS	Kolonicke sedl	73.08	319	*e*P	P	20 48 49.6	+1.3
KOLS	Kolonicke sedl	73.08	319	*e*	P	20 48 49.6	+1.3
FINES	FINESS Array B	74.02	333	P	P	20 48 52.7	-0.8
	comp=Z,6.2nm,0.4s,mb4.8,baz=98,slow=6.3,SNR=16						
FINES	FINESS Array B	74.02	333	P	P	20 48 52.7	-0.8
FINES				pmax	pmax		
	comp=Z,6.0nm,0.4s						
FINES	FINESS Array B	74.02	333	P	P	20 48 52.7	-0.8
KAF	Kangasniemi	74.12	333	*e*p	P	20 48 53.8	-0.2
	comp=Z,5.6nm,0.3s,mb5.0						
KAF	Kangasniemi	74.12	333	*e*P	P	20 48 53.8	-0.2
KAF				pmax	pmax		
	comp=Z,6.0nm,0.3s,mb5.0						
VYHS	Vyhne	75.26	319	*e*P	P	20 49 00.8	-0.1
VYHS	Vyhne	75.26	319	*e*	P	20 49 00.8	-0.1
OKC	Ostrava-Krasne	75.89	320	*e*P	P	20 49 05.0	+0.6
ZST	Bratislava	76.37	318	*e*P	P	20 49 08.0	+0.8
ZST	Bratislava	76.37	318	*e*	P	20 49 08.0	+0.8
ARCES	ARCESS Array B	76.79	340	P	P	20 49 09.4	+0.2
	comp=Z,17nm,0.9s,mb5.0,baz=99,slow=4.9,SNR=11						
ARCES	ARCESS Array B	76.79	340	P	P	20 49 09.4	+0.2
ARCES				pmax	pmax		
	comp=Z,17nm,0.9s						
VRAC	Vranov	76.82	319	P	P	20 49 09.7	0.0
	comp=Z,2.2nm,0.5s,mb4.4,baz=71,slow=6.5,SNR=2.9						
VRAC	Vranov	76.82	319	P	P	20 49 09.7	0.0
VRAC				pmax	pmax		
	comp=Z,2.0nm,0.5s						
DPC	Dobruska-Polom	77.11	320	*e*P	P	20 49 12.6	+1.3
BRG	Berggiesshubel	78.67	321	*i* P	P	20 49 20.9	+1.0
	comp=Z,11nm,1.1s,mb4.7						
GERES	GERESS Array B	78.68	319	P	P	20 49 20.3	+0.4
	comp=Z,10nm,0.7s,mb4.9,baz=83,slow=6.5,SNR=13						
GERES	GERESS Array B	78.68	319	P	P	20 49 20.3	+0.4
GERES				pmax	pmax		
	comp=Z,10.0nm,0.7s						
KHC	Kasperske Hory	78.78	319	*e*P	P	20 49 20.9	+0.4
CLL	Collm	79.30	321	*e*P	P	20 49 23.0	-0.3
CLL	Collm	79.30	321	P	P	20 49 23.0	-0.3
NKC	Novy Kostel	79.58	320	*e*P	P	20 49 25.7	+0.9
HFS	Hagfors	79.68	330	P	P	20 49 24.8	-0.4
	comp=Z,7.1nm,0.6s,mb4.8,baz=101,slow=7.6,SNR=8.4						
HFS	Hagfors	79.68	330	P	P	20 49 24.8	-0.4
HFS				pmax	pmax		
	comp=Z,7.0nm,0.6s						
DAVOX	Davos	81.17	316	P	P	20 49 34.7	+1.4
	comp=Z,15nm,0.5s,mb5.2,baz=137,slow=6.8,SNR=14						
EKA	Eskdalemuir Ar	88.81	325	P	P	20 50 11.6	+0.3
	comp=Z,15nm,1.1s,mb5.2,baz=89,slow=5.4,SNR=6.6						
EKA	Eskdalemuir Ar	88.81	325	P	P	20 50 11.6	+0.3
EKA				pmax	pmax		
	comp=Z,15nm,1.1s						
DBIC	Dimbokro	97.30	277	P	P	20 50 51.9	+0.6
	comp=Z,1.8nm,0.6s,mb4.7,baz=155,slow=11,SNR=5.1						
DBIC	Dimbokro	97.30	277	P	P	20 50 51.9	+0.6
DBIC				pmax	pmax		
	comp=Z,2.0nm,0.6s						
SCHQ	Schefferville	117.23	347	PKP	PKPdf	20 56 02.8	-3.7
	comp=Z,3.1nm,0.8s,baz=45,slow=3.0,SNR=8.3						
ULM	Lac du Bonnet	123.52	7	PKP	PKPdf	20 56 16.8	-2.0
	comp=Z,4.4nm,0.5s,baz=360,slow=4.0,SNR=10.0						
ULM	Lac du Bonnet	123.52	7	PKP	PKPdf	20 56 16.8	-2.0
NVAR	Mina Array Bea	127.06	31	PKP	PKPdf	20 56 24.9	-1.1
	comp=Z,3.3nm,0.7s,baz=307,slow=1.6,SNR=5.9						
PDAR	Pinedale Array	127.31	21	PKP	PKPdf	20 56 23.8	-2.6
	comp=Z,3.9nm,0.9s,baz=58,slow=1.6,SNR=7.8						
ANMO	Albuquerque	135.32	23	PKP	PKPdf	20 56 39.6	-2.1
	comp=Z,4.0nm,0.8s,baz=213,slow=1.2,SNR=5.5						
TXAR	Lajitas Array	141.38	24	PKP	PKPdf	20 56 53.0	+0.1
	comp=Z,2.0nm,0.5s,baz=175,slow=0.3,SNR=11						
JCT	Junction City	141.72	18	*e*PKIKP	PKPdf	20 56 50.6	-2.8
LPAZ	La Paz	159.02	239	PKPab	PKPab	20 57 54.5	+0.8
	comp=Z,2.4nm,0.7s,baz=14,slow=2.4,SNR=5.8						
OTAV	Otavalo	169.68	306	*e*PKP	PKPdf	20 57 32.2	+2.8

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*IDC **27** 20:41:02.2±0.4, 9.01N×93.76E, mb4.7/27, mb1 4.8/27, mb1mx4.7/30, Error ellipse: s-maj=21.6km s-min=11.1km az=45.0*

*MOS **27** 20:41:05.2±1.0, 8.99N×93.79E, h33km, mb5.0/35, Error ellipse: s-maj=16.4km s-min=6.4km az=126.2*

*NEIC **27** 20:41:06.8±0.2, 9.09N×93.86E, h30km, mb4.9/21, Error ellipse: s-maj=9.0km s-min=5.6km az=52.0*

*BJI **27** 20:41:06.7, 9.26N×93.30E, h28km, mb4.5, Ms5.5, Msz5.4*

ISC 27 20:41:04.8±0.3, **8.99N**±0.06×**93.82E**±0.06, **h30km, n176,** σ**1^{s}01**/164, **mb4.8**/47, **MS5.3**/1, **1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.64	27	P	P	20 43 34.0	-4.6
KMI	Kunming	18.16	27	P	P	20 45 21.8	+5.1
KMI				AMB	AMB		
	comp=Z,20nm,1.4s						
LSA	Lhasa	20.76	353	*e*P	P	20 45 44.4	-1.5
LSA				pmax	pmax		
	comp=Z,15nm,0.5s						
LSA	Lhasa	20.76	353	*e*P	P	20 45 44.4	-1.5
	comp=Z,15nm,0.5s						
GYA	Guiyang	21.22	33	P	P	20 45 53.8	+3.2
COCO	West Island	21.25	172	P	P	20 45 52.8	+1.9
ENH	Enshi	25.75	33	P	P	20 46 38.6	+3.9
GTA	Gaotai	30.77	9	*e*P	P	20 47 20.0	+0.1
GTA				AP	pP	20 47 29.8	+1.0
GTA				XP	sP	20 47 32.8	+0.1
GTA				AMB	AMB		
	comp=Z,15nm,1.8s,mb4.5						
NJ2	Nanjing	32.64	42	*e*P	P	20 47 41.0	+4.6
NJ2				AP	pP	20 47 50.5	+5.2
NJ2				XP	sP	20 47 54.5	+5.3
NJ2				LR	LR		
	comp=N,5μm,18.8s,MS5.3						
NJ2				LR	LR		
	comp=E,5μm,22.1s,MS5.3						
NJ2				LR	LR		
	comp=Z,5μm,12.8s						
TKM2	Tokmak 2	37.39	338	P	P	20 48 17.9	+1.1
	SNR=6.8						
KBK	Karagaybulak	37.41	337	P	P	20 48 18.4	+1.4
	SNR=13						
AML	Almayashu	37.47	335	P	P	20 48 19.1	+1.6
	SNR=11						
AAK	Ala-Archa	37.56	336	*e*P	P	20 48 18.4	+0.1
AAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.8						
AAK	Ala-Archa	37.56	336	*e*P	P	20 48 18.4	0.0
	comp=Z,19nm,0.9s,mb4.8						
AAK				*e*P		20 48 18.5	
CHMS	Chumysh	37.77	337	P	P	20 48 21.0	+0.9
	SNR=9.2						
EKS2	Erkin-Say	37.88	336	P	P	20 48 22.4	+1.5
	SNR=7.2						
USP	Ospenovka	38.10	337	P	P	20 48 23.6	+0.7
	SNR=14						
SONM	Songino Array	40.16	13	P	P	20 48 40.6	+0.7
	comp=Z,2.8nm,1.1s,mb3.9,baz=203,slow=6.9,SNR=5.2						
ULN	Ulaanbaatar	40.34	14	P	P	20 48 39.7	-1.7
CN2	Changchun	44.27	33	*e*P	P	20 49 15.5	+1.9
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
ZAL	Zalesovo	45.41	353	P	P	20 49 23.0	+0.5
	comp=Z,6.5nm,0.9s,mb4.5,baz=297,slow=8.8,SNR=8.5						
ZAL	Zalesovo	45.41	353	P	P	20 49 23.0	+0.5
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.9s						
ZAL	Zalesovo	45.41	353	P	P	20 49 23.0	+0.5
NVS	Novosibirsk	46.51	352	*e*P	P	20 49 30.0	-1.2
NVS				pmax	pmax		
	comp=N,14nm,0.9s						
NVS				pmax	pmax		
	comp=E,15nm,0.9s						
NVS				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
NWAO	Narrogin (SRO)	47.27	153	P	P	20 49 37.5	-0.1
	comp=Z,53nm,1.1s,mb5.4,baz=340,slow=9.3,SNR=13						
NWAO	Narrogin (SRO)	47.27	153	P	P	20 49 37.5	-0.1
NWAO				pmax	pmax		
	comp=Z,53nm,1.1s						
QRN	Al-Qurain	47.32	301	*e*P	P	20 49 37.7	-0.3
QRN				AMb	AMB	20 49 38.7	
	comp=Z,77nm,0.7s,mb5.8						
RYDS	Riyadh	47.44	295	P	P	20 49 40.9	+1.9
RDF	Al-Radifah	47.68	301	*e*P	P	20 49 41.5	+0.6
RDF				AMb	AMB	20 49 43.0	
	comp=Z,172nm,0.9s						
UMR	Umm Al-Rimmam	47.71	302	*e*P	P	20 49 41.5	+0.4
UMR				AMb	AMB	20 49 42.9	
	comp=Z,60nm,1.0s,mb5.6						
BVAR	Borovoye Array	47.84	341	P	P	20 49 41.2	-0.6
	comp=Z,2.6nm,0.5s,mb4.5,baz=143,slow=9.6,SNR=10.0						
BRVK	Borovoye	47.90	341	*e*P	P	20 49 40.9	-1.4
MIB	Mutribah	48.09	302	*e*P	P	20 49 43.8	-0.2
MIB				AMb	AMB	20 49 45.5	
	comp=Z,144nm,0.8s						
RST	Umm Al-Ruwaisa	48.30	302	*e*P	P	20 49 45.7	+0.1
RST				AMb	AMB	20 49 47.3	
	comp=Z,119nm,0.8s,mb6.0						
CHKZ	Chkalovo	48.33	342	*e*P	P	20 49 45.0	-0.5
MZLS	Mizel	48.70	294	P	P	20 49 50.1	+1.3
KAMS	Al Khamasin	48.79	289	P	P	20 49 50.6	+1.2
WRA	Warramunga Arr	49.16	126	P	P	20 49 51.7	-0.7
	comp=Z,1.8nm,0.5s,mb4.4,baz=305,slow=8.6,SNR=6.7						
WRA	Warramunga Arr	49.16	126	P	P	20 49 51.7	-0.7
WRA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
WRAB	Tennant Creek	49.17	126	*e*P	P	20 49 50.9	-1.6
WRAB				*e*P		20 49 51.1	
TATS	Tathlith	49.75	288	P	P	20 49 58.0	+1.1
AFFS	‘Afif	50.68	294	P	P	20 50 05.5	+1.5
ARSS	Ar Rass	50.77	296	P	P	20 50 05.4	+0.8
ASAR	Alice Springs	50.87	130	P	P	20 50 04.2	-1.2
	comp=Z,4.6nm,0.8s,mb4.5,baz=311,slow=7.3,SNR=8.5						
ASAR				PcP	PcP	20 51 21.9	0.0
	comp=Z,2.1nm,0.6s,baz=312,slow=3.7,SNR=6.9						
HILS	Ha’il	52.31	298	P	P	20 50 17.5	+1.3
GNI	Garni	53.44	314	P	P	20 50 24.4	-0.1
	comp=Z,5.5nm,0.6s,mb4.6,baz=31,slow=1.2,SNR=5.6						
GNI	Garni	53.44	314	*e*P	P	20 50 23.4	-1.1
GNI				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GNI	Garni	53.44	314	*e*P	P	20 50 23.4	-1.1
	comp=Z,7.8nm,0.8s,mb4.7						
KBRS	Khaybar	54.30	295	P	P	20 50 32.2	+1.3
ZEI	Tsey	55.02	317	*e*P	P	20 50 36.5	+0.5
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
ERZM	Erzurum	55.79	312	P	P	20 50 42.4	+0.8
PMG	Port Moresby	56.16	108	P	P	20 50 45.6	+1.0
	comp=Z,20nm,0.8s,mb5.2,baz=287,slow=5.9,SNR=12						
PMG	Port Moresby	56.16	108	*e*P	P	20 50 45.2	+0.6
PMG				pmax	pmax		
	comp=Z,21nm,0.8s						
PMG	Port Moresby	56.16	108	*e*P	P	20 50 45.2	+0.6
	comp=Z,21nm,0.8s,mb5.2						
KIV	Kislovodsk	56.29	317	*e*P	P	20 50 43.6	-1.5
KIV				pmax	pmax		
	comp=N,16nm,1.1s						
KIV				pmax	pmax		
	comp=E,20nm,1.1s						
KIV				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.3						
KIV	Kislovodsk	56.29	317	*e*P	P	20 50 43.9	-1.2
	comp=Z,32nm,0.9s,mb5.4						
ELZG	Elazig	57.14	310	P	P	20 50 50.5	-0.8
KMBO	Kilima Mbogo	57.24	263	P	P	20 50 52.5	+0.1
	comp=Z,4.8nm,0.9s,mb4.5,baz=52,slow=12,SNR=10.0						
KMBO	Kilima Mbogo	57.24	263	*e*P	P	20 50 53.7	+1.3
KMBO				pmax	pmax		
	comp=Z,15nm,1.4s						
KMBO	Kilima Mbogo	57.24	263	*e*P	P	20 50 53.6	+1.3
	comp=Z,15nm,1.4s,mb4.8						
ASF	Jabal al Asfar	57.36	302	P	P	20 50 53.1	+0.2
	comp=Z,6.0nm,0.8s,mb4.7,baz=358,slow=3.7,SNR=7.4						
MALT	Malatya	57.51	310	*e*P	P	20 50 51.3	-2.6
MALT				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
MALT	Malatya	57.51	310	*e*P	P	20 50 51.3	-2.6
	comp=Z,11nm,1.1s,mb4.8						
JMQS	Jabal Moqyreh	57.70	298	P	P	20 50 56.3	+0.9
GZT	Gaziantep	57.93	309	P	P	20 50 56.1	-0.7
AYUS	‘Aynunah	58.14	298	P	P	20 50 58.3	-0.1
BDAS	Al Bad‘	58.32	298	P	P	20 51 00.3	+0.6
JMOS	Jabal al Moall	58.41	299	P	P	20 51 00.8	+0.5
KAHT	Ahir Dag	58.53	309	P	P	20 51 00.6	-0.4
HAQS	Haql	58.55	299	P	P	20 51 01.9	+0.6
EIL	Elat	58.61	299	P	P	20 51 01.2	-0.5
	comp=Z,22nm,1.2s,mb5.1,baz=130,slow=19,SNR=5.2						
EIL	Elat	58.61	299	*e*P	P	20 51 01.1	-0.6
	comp=Z,36nm,1.4s,mb5.2						
COBT	Iskenderun	58.75	307	P	P	20 51 01.9	-0.7
CTA	Charters Tower	59.12	120	P	P	20 51 05.9	+0.5
	comp=Z,7.9nm,0.9s,mb4.8,baz=293,slow=9.6,SNR=8.9						
CTA	Charters Tower	59.12	120	P	P	20 51 05.9	+0.5
CTA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
CTAO	Charters Tower	59.12	120	*e*P	P	20 51 05.4	0.0
AVNT	Avonos	60.34	310	P	P	20 51 11.7	-1.8
MEST	Erdemli	60.43	307	P	P	20 51 12.8	-1.3
CSS	Prodhromos	60.78	305	*e*P	P	20 51 13.5	-3.0
BOYT	Boyabat	60.93	313	P	P	20 51 16.5	-1.0
STKA	Stephens Creek	61.10	134	P	P	20 51 17.8	-1.0
	comp=Z,3.9nm,0.8s,mb4.6,baz=48,slow=2.7,SNR=3.2						
STKA	Stephens Creek	61.10	134	P	P	20 51 17.8	-1.0
BRTR	Keskin Array B	61.47	310	P	P	20 51 19.2	-2.0
	comp=Z,9.0nm,0.8s,mb4.9,baz=124,slow=6.7,SNR=16						
BRTR	Keskin Array B	61.47	310	P	P	20 51 19.2	-2.0
BRTR				pmax	pmax		
	comp=Z,9.0nm,0.9s						
ELDT	Eldivan	61.80	311	P	P	20 51 22.5	-0.9
BALT	Daday	62.07	312	P	P	20 51 24.4	-0.8
SGKT	Sivrigoynuk	62.84	311	P	P	20 51 28.4	-1.9
ESKT	Eskisehir	63.54	310	P	P	20 51 33.2	-1.8
MBAR	Mbarara	63.54	265	*e*P	P	20 51 33.4	-2.0
MBAR				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.9						
MBAR	Mbarara	63.54	265	*e*P	P	20 51 33.4	-2.0
	comp=Z,16nm,1.3s,mb4.9						
AKASG	Malin Array Be	67.09	321	P	P	20 51 55.6	-2.0
	comp=Z,5.3nm,0.7s,mb4.7,baz=85,slow=5.5,SNR=12						
AKASG	Malin Array Be	67.09	321	P	P	20 51 55.6	-2.1
AKASG				pmax	pmax		
	comp=Z,5.0nm,0.7s						
IDI	Anoyia	67.68	304	P	P	20 52 00.4	-1.2
	comp=Z,10nm,0.6s,mb5.0,baz=140,slow=6.8,SNR=7.4						
VRI	Vrincioaia	67.69	316	⇑*i*P	P	20 52 01.6	+0.1
MLR	Muntele Rosu	68.16	315	P	P	20 52 04.5	0.0
	comp=Z,14nm,0.8s,mb5.0,baz=151,slow=3.2,SNR=7.3						
MLR	Muntele Rosu	68.16	315	P	P	20 52 04.5	0.0
MLR				pmax	pmax		
	comp=Z,14nm,0.8s						
LSZ	Lusaka	69.35	250	*e*P	P	20 52 12.5	+0.2
KWP	Kalwaria	70.99	319	*e*P	P	20 52 21.5	-0.2
KOLS	Kolonicke sedl	71.17	319	*e*P	P	20 52 23.2	+0.4
SUW	Suwalki	71.43	324	*e*P	P	20 52 23.3	-1.0
FINES	FINESS Array B	71.59	332	P	P	20 52 24.5	-0.6
	comp=Z,4.5nm,0.8s,mb4.5,baz=108,slow=6.0,SNR=7.6						
FINES	FINESS Array B	71.59	332	P	P	20 52 24.5	-0.6
FINES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KAF	Kangasniemi	71.67	333	*e*p	P	20 52 25.3	-0.2
	comp=Z,9.0nm,0.9s,mb4.7						
KAF	Kangasniemi	71.67	333	*e*P	P	20 52 25.3	-0.2
KAF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
CRVS	Cervenica-Dubn	71.69	319	*e*P	P	20 52 26.5	+0.6
KECS	Kecovo	72.28	318	*e*P	P	20 52 31.1	+1.6
NIE	Niedzica	72.50	319	*e*P	P	20 52 31.0	+0.2
PSZ	Piszkesteto	72.62	317	*e*P	P	20 52 30.5	-1.0
OJC	Ojcow	72.93	320	*e*P	P	20 52 32.5	-0.7
VYHS	Vyhne	73.38	318	*e*P	P	20 52 35.2	-0.7
SRO	Srobarova	73.67	317	*e*P	P	20 52 37.7	+0.1
KEV	Kevo	73.69	341	*e*p	P	20 52 36.9	-0.4
	comp=Z,5.7nm,0.7s,mb4.6						
KEV	Kevo	73.69	341	*e*P	P	20 52 36.9	-0.4
KEV				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
OKC	Ostrava-Krasne	73.95	319	*e*P	P	20 52 38.7	-0.5
ARCES	ARCESS Array B	74.12	340	P	P	20 52 40.0	+0.3
	comp=Z,7.2nm,0.9s,mb4.6,baz=105,slow=4.8,SNR=13						
ARCES	ARCESS Array B	74.12	340	P	P	20 52 40.1	+0.3
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.9s						
MORC	Moravsky Berou	74.33	319	*e*P	P	20 52 40.4	-1.0
MORC				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
MORC	Moravsky Berou	74.33	319	*e*P	P	20 52 40.4	-1.0
	comp=Z,19nm,1.1s,mb4.9						
ZST	Bratislava	74.51	317	*e*P	P	20 52 42.5	+0.1
DPC	Dobruska-Polom	75.16	320	*e*P	P	20 52 46.6	+0.4
KSP	Ksiaz	75.21	320	*e*P	P	20 52 46.3	-0.1
KSP	Ksiaz	75.21	320	*e*P	P	20 52 46.5	+0.1
PRU	Pruhonice	76.28	319	*e*P	P	20 52 52.6	+0.1
BRG	Berggiesshubel	76.70	320	*e*P	P	20 52 55.3	+0.4
BRG				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
BRG	Berggiesshubel	76.70	320	*e*P	P	20 52 55.3	+0.4
	comp=Z,3.9nm,0.7s,mb4.5						
GEC2	GERESS Array S	76.79	318	*e*P	P	20 52 55.8	+0.4
GEC2				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
GEC2	GERESS Array S	76.79	318	*e*P	P	20 52 55.8	+0.4
	comp=Z,14nm,1.0s,mb4.8						
GERES	GERESS Array B	76.79	318	P	P	20 52 55.7	+0.3
	comp=Z,6.4nm,0.7s,mb4.7,baz=84,slow=6.8,SNR=29						
GERES	GERESS Array B	76.79	318	P	P	20 52 55.7	+0.3
GERES				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KHC	Kasperske Hory	76.88	318	*e*P	P	20 52 55.5	-0.4
CLL	Collm	77.31	321	*e*P	P	20 52 58.0	-0.2
CLL				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
CLL	Collm	77.31	321	*e*P	P	20 52 58.0	-0.2
	comp=Z,12nm,1.1s,mb4.7						
CLL	Collm	77.31	321	P	P	20 52 58.0	-0.2
	comp=Z,logA/T=1.0,mb4.7						
WET	Wettzell	77.34	318	*e*P	P	20 52 58.9	+0.5
HFS	Hagfors	77.34	330	P	P	20 52 58.2	0.0
	comp=Z,11nm,0.7s,mb4.9,baz=108,slow=4.7,SNR=18						
HFS	Hagfors	77.34	330	P	P	20 52 58.2	0.0
HFS				pmax	pmax		
	comp=Z,11nm,0.7s						
MOX	Moxa	78.17	320	*e*P	P	20 53 02.5	-0.5
MOX	Moxa	78.17	320	*i* P	P	20 53 02.5	-0.5
GRA1	Grafenberg Arr	78.43	319	*e*P	P	20 53 04.7	+0.3
	comp=Z,30nm,1.3s,mb5.1						
GRF	Grafenberg Arr	78.43	319	*e*P	P	20 53 04.7	+0.3
GRF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
GRF	Grafenberg Arr	78.43	319	*e*P	P	20 53 04.7	+0.3
GRF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
GRF	Grafenberg Arr	78.43	319	*e*P	P	20 53 04.7	+0.3
	comp=Z,30nm,1.3s,mb5.1						
NB2	NORSAR Subarra	78.61	331	P	P	20 53 04.7	-0.5
	comp=Z,16nm,1.1s,mb4.9,baz=97,slow=5.0						
NB2	NORSAR Subarra	78.61	331	P	P	20 53 04.7	-0.5
	baz=97,slow=5.1						
NB2	NORSAR Subarra	78.61	331	P	P	20 53 04.7	-0.5
NB2				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
NOA	NORSAR Array B	78.61	331	P	P	20 53 04.9	-0.3
	comp=Z,3.7nm,0.6s,mb4.5,baz=93,slow=5.6,SNR=14						
NOA	NORSAR Array B	78.61	331	P	P	20 53 04.9	-0.3
NOA				pmax	pmax		
	comp=Z,4.0nm,0.6s						
CLZ	Clausthal	78.95	321	*e*P	P	20 53 07.3	+0.1
	comp=Z,15nm,1.2s,mb4.8						
BSEG	Bad Segeberg	78.98	323	*e*P	P	20 53 07.5	+0.2
DAVOX	Davos	79.38	316	P	P	20 53 10.2	+0.5
	comp=Z,7.8nm,0.7s,mb4.7,baz=114,slow=6.3,SNR=15						
BFO	Black Forest	80.37	318	*e*P	P	20 53 15.0	+0.1
LPL	La Plagne	81.63	315	*e*P	P	20 53 21.9	+0.3
	comp=Z,28nm,0.7s,mb5.0						
LPL	La Plagne	81.63	315	*e*P	P	20 53 21.9	+0.3
LPL				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
EKA	Eskdalemuir Ar	86.63	325	P	P	20 53 47.8	+1.1
	comp=Z,7.6nm,0.7s,mb5.0,baz=100,slow=5.5,SNR=19						
EKA	Eskdalemuir Ar	86.63	325	P	P	20 53 47.8	+1.1
EKA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
IMA	Indian Mountai	90.72	22	*e*P	P	20 54 07.5	+1.7
IMA				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.8						
IMA	Indian Mountai	90.72	22	*e*P	P	20 54 07.5	+1.7
	comp=Z,43nm,0.9s,mb5.8						
ILAR	Eielson Array	93.84	22	P	P	20 54 20.9	+0.7
	comp=Z,2.6nm,0.8s,mb4.7,baz=306,slow=3.8,SNR=12						
ILAR	Eielson Array	93.84	22	P	P	20 54 20.9	+0.7
ILAR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
INK	Inuvik	96.02	16	P	P	20 54 31.3	+1.2
	comp=Z,3.0nm,1.0s,mb4.7,baz=347,slow=7.9,SNR=4.9						
INK	Inuvik	96.02	16	P	P	20 54 31.3	+1.2
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
INK	Inuvik	96.02	16	P	P	20 54 31.3	+1.1
DBIC	Dimbokro	97.48	278	P	P	20 54 39.5	+1.6
	comp=Z,1.3nm,0.6s,mb4.5,baz=56,slow=4.4,SNR=4.0						
DBIC	Dimbokro	97.48	278	P	P	20 54 39.6	+1.6
DBIC				pmax	pmax		
	comp=Z,1.0nm,0.6s						
MSO	Missoula	119.17	21	*e*PKP	PKPdf	20 59 52.7	-3.6
ULM	Lac du Bonnet	120.41	7	PKP	PKPdf	20 59 55.9	-2.7
	comp=Z,3.4nm,0.9s,baz=358,slow=2.3,SNR=5.6						
ULM	Lac du Bonnet	120.41	7	PKP	PKPdf	20 59 55.9	-2.7
NVAR	Mina Array Bea	124.13	30	PKP	PKPdf	21 00 04.3	-1.8
	comp=Z,0.8nm,0.4s,baz=314,slow=0.8,SNR=3.7						
PDAR	Pinedale Array	124.25	21	PKP	PKPdf	21 00 03.4	-2.8
	comp=Z,2.5nm,0.9s,baz=36,slow=1.8,SNR=12						
JCT	Junction City	138.64	18	PKP	PKPdf	21 00 30.0	-3.7
LVC	Limon Verde	158.60	229	PKP	PKPdf	21 01 04.0	-1.2
	comp=Z,2.9nm,0.8s,baz=304,slow=5.2,SNR=4.7						
LVC				PKPab	PKPab	21 01 38.9	+1.3
	comp=Z,7.8nm,0.7s,baz=202,slow=2.5,SNR=11						
LPAZ	La Paz	160.97	246	PKP	PKPdf	21 01 06.7	-1.2
	comp=Z,3.3nm,0.9s,baz=68,slow=1.4,SNR=6.3						
LPAZ				PKPab	PKPab	21 01 47.2	-0.7
	comp=Z,4.6nm,1.0s,baz=93,slow=6.0,SNR=7.0						
LPAZ	La Paz	160.97	246	PKIKP	PKPdf	21 01 06.7	-1.2
LPAZ						21 01 47.2	
LPAZ				pmax	pmax		
	comp=Z,3.0nm,0.9s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.0s						
LPAZ	La Paz	160.97	246	*e*PKPdf	PKPdf	21 01 06.0	-1.8
ROSC	El Rosal	161.87	319	PKP	PKPdf	21 01 07.9	-1.0
	comp=Z,4.3nm,0.4s,baz=282,slow=21,SNR=3.6						
OTAV	Otavalo	168.03	320	*e*PKPdf	PKPdf	21 01 12.4	-1.9

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*IDC **27** 20:41:40.9±0.5, 8.70N×93.44E, mb4.4/13, mb1 4.6/13, mb1mx4.4/21, Error ellipse: s-maj=20.6km s-min=10.7km az=46.0*

*NEIC **27** 20:41:45.6±0.6, 8.81N×93.53E, h30km, mb4.6/2, Error ellipse: s-maj=21.5km s-min=11.2km az=46.0*

ISC 27 20:41:43.6±0.6, **8.8N**±0.1×**93.5E**±0.1, **h30km, n25,** σ**0^{s}89**/24, **mb4.5**/15, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ENH	Enshi	26.08	33	*e*P	P	20 47 16.6	0.0
AAK	Ala-Archa	37.63	337	*e*P	P	20 48 57.0	-0.7
	12nm,0.8s,mb4.7						
SONM	Songino Array	40.42	13	P	P	20 49 22.4	+1.5
	2.7nm,1.0s,mb3.9,baz=193,slow=7.8,SNR=3.4						
ULN	Ulaanbaatar	40.60	14	P	P	20 49 22.1	-0.2
BVAR	Borovoye Array	47.93	341	P	P	20 50 20.6	-0.7
	2.5nm,0.7s,mb4.3,baz=142,slow=7.0,SNR=3.2						
BRVK	Borovoye	48.00	341	P	P	20 50 18.9	-2.8
CHKZ	Chkalovo	48.42	342	*e*P	P	20 50 24.5	-0.5
	4.5nm,0.9s,mb4.5						
WRA	Warramunga Arr	49.29	126	P	P	20 50 30.8	-1.4
	2.2nm,0.8s,mb4.2,baz=302,slow=9.7,SNR=5.2						
WRAB	Tennant Creek	49.30	126	P	P	20 50 32.0	-0.2
ASAR	Alice Springs	50.97	130	P	P	20 50 45.8	+0.9

	2.3nm,0.9s,mb4.1,baz=302,slow=8.0,SNR=4.2						
KIV	Kislovodsk	56.23	318	eP	P	20 51 23.8	+0.3
MALT	Malatya	57.41	310	eP	P	20 51 30.7	-1.3
BRTR	Keskin Array B	61.37	311	P	P	20 51 58.9	-0.3
	7.2nm,0.9s,mb4.8,baz=120,slow=7.0,SNR=6.8						
AKASG	Malin Array Be	67.06	322	P	P	20 52 35.9	-0.4
	4.4nm,0.7s,mb4.6,baz=87,slow=5.2,SNR=6.8						
MLR	Muntele Rosu	68.09	316	P	P	20 52 44.5	+1.7
	12nm,0.8s,mb5.0,baz=116,slow=3.9,SNR=5.4						
SUW	Suwalki	71.41	324	eP	P	20 53 03.5	+0.6
FINES	FINESS Array B	71.62	332	P	P	20 53 03.8	-0.3
	2.3nm,0.7s,mb4.2,baz=116,slow=9.6,SNR=6.1						
ARCES	ARCESS Array B	74.20	340	P	P	20 53 19.4	+0.3
	2.2nm,0.6s,mb4.3,baz=100,slow=6.2,SNR=7.0						
MORC	Moravsky Berou	74.29	319	eP	P	20 53 19.1	-0.8
GERES	GERESS Array B	76.74	318	P	P	20 53 34.8	+0.9
	6.1nm,0.8s,mb4.6,baz=90,slow=4.0,SNR=8.0						
CLL	Collm	77.27	321	P	P	20 53 37.0	+0.2
CLL				e*PP	pP	20 53 44.0	-2.3
HFS	Hagfors	77.36	330	P	P	20 53 37.8	+0.7
	1.9nm,0.3s,mb4.5,baz=94,slow=4.4,SNR=11						
NOA	NORSAR Array B	78.64	331	P	P	20 53 45.1	+1.0
	2.6nm,0.8s,mb4.2,baz=97,slow=5.3,SNR=2.4						
EKA	Eskdalemuir Ar	86.62	325	P	P	20 54 25.9	+0.5
	8.0nm,1.1s,mb4.9,baz=98,slow=5.5,SNR=4.3						
PDAR	Pinedale Array	124.54	21	PKP	PKPdf	21 00 42.9	-2.7
	2.0nm,1.1s,baz=45,slow=2.1,SNR=3.6						

IDC 27 20:42:57.5±1.8, 12.29N×92.66E, mb4.1/5, mb1 4.2/5, mb1mx3.9/18, MS2.3/1, Ms1 2.3/1, ms1mx2.2/28, Error ellipse: s-maj=81.4km s-min=23.2km az=59.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	37.26	15	P	P	20 50 11.0	-1.7
	1.6nm,0.9s,baz=204,slow=8.1,SNR=4.6						
JNU	Nakatsue	40.59	53	LR	LR	21 09 07.7	
	comp=Z,4.4nm,20.0s,baz=107,slow=39						
BVAR	Borovoye Array	44.37	341	P	P	20 51 09.0	-2.3
	5.4nm,0.9s,baz=135,slow=8.2,SNR=4.5						
WRA	Warramunga Arr	52.05	127	P	P	20 52 09.3	-2.2
	1.1nm,0.6s,baz=302,slow=9.6,SNR=4.8						
ASAR	Alice Springs	53.89	132	P	P	20 52 23.1	-2.0
	1.0nm,0.7s,baz=316,slow=7.1,SNR=5.5						
FINES	FINESS Array B	68.15	332	P	P	20 53 59.6	-1.8
	1.6nm,0.7s,baz=93,slow=7.7,SNR=3.7						

IDC 27 20:47:05.3±1.6, 3.72N×93.94E, mb3.9/6, mb1 4.1/6, mb1mx3.8/18, Error ellipse: s-maj=67.2km s-min=23.4km az=55.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	45.24	12	P	P	20 55 24.5	-1.7
	1.9nm,0.7s,baz=196,slow=8.2,SNR=9.0						
WRA	Warramunga Arr	46.12	122	P	P	20 55 31.3	-2.2
	0.9nm,0.6s,baz=302,slow=8.9,SNR=4.0						
ASAR	Alice Springs	47.50	127	P	P	20 55 42.9	-1.5
	0.4nm,0.6s,baz=294,slow=8.4,SNR=4.1						
ZAL	Zalesovo	50.62	353	P	P	20 56 06.0	-2.1
	1.7nm,0.5s,baz=309,slow=8.0,SNR=5.9						
BVAR	Borovoye Array	52.85	342	P	P	20 56 22.3	-2.6
	1.1nm,0.7s,baz=135,slow=10,SNR=4.9						
GERES	GERESS Array B	80.79	319	P	P	20 59 21.1	-1.2
	0.7nm,0.8s,baz=113,slow=7.5,SNR=3.6						

IDC 27 20:47:45.5±0.7, 8.24N×93.54E, mb4.2/13, mb1 4.4/14, mb1mx4.3/21, ML4.9/1, Error ellipse: s-maj=31.7km s-min=16.3km az=50.0
MOS 27 20:47:48.3±0.9, 8.32N×93.54E, h33^{km}, mb4.7/16, Error ellipse: s-maj=19.3km s-min=10.6km az=107.0
NEIC 27 20:47:49.7±0.4, 8.28N×93.53E, h30^{km}, mb4.7/8, Error ellipse: s-maj=12.3km s-min=9.6km az=63.0
BJI 27 20:47:50.3, 8.56N×92.60E, h30^{km}, mb4.7
ISC 27 20:47:47.8±0.5, 8.33N±0.08×93.55E±0.09, h30^{km}, n59, σ1.^{s}06/54, mb4.5/22, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.35	27	eP	P	20 50 30.8	-0.4
	10nm,0.4s						
CMAR	Chiang Mai Arr	11.35	27	Pn	P	20 50 31.1	-0.2
	2.1nm,0.3s,baz=212,slow=15,SNR=31						
CMAR	Chiang Mai Arr	11.35	27	P	P	20 50 31.1	-0.1
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PALK	Pallekele	12.77	266	P	P	20 50 42.0	-8.3
VIS	Vishakhapatnam	13.64	314	eP	P	20 50 59.8	-2.1
VIS				e		20 51 01.2	
	comp=Z,118nm,0.8s						
VIS				eS	x	20 52 44.1	
VIS				e		20 53 00.5	
	comp=E,116nm,1.2s						
VIS				e		20 53 00.5	
	comp=N,181nm,0.9s						
KMI	Kunming	18.86	27	P	P	20 52 17.5	+9.3
KMI				AMB	AMB		
	comp=Z,32nm,1.0s						
KAD	Karad	20.87	297	eP	P	20 52 40.2	+10
LSA	Lhasa	21.38	354	eP	P	20 52 35.2	0.0
LSA				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.4						
LSA	Lhasa	21.38	354	eP	P	20 52 35.2	0.0
	comp=Z,8.4nm,0.4s,mb4.4						
BHPL	Bhopal	21.43	316	eP	P	20 52 39.7	+4.0
POO	Poona	21.66	300	eP		20 52 47.5	
KLP	Kalpa	27.14	330	eP	pP	20 53 38.0	-1.2
AAK	Ala-Archa	38.06	337	eP	P	20 55 05.7	+0.2
AAK				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.6						
AAK	Ala-Archa	38.06	337	eP	P	20 55 05.7	+0.2
	comp=Z,14nm,1.2s,mb4.5						
ZAK	Zakamensk	42.70	9	eP	P	20 55 47.8	+4.1
ZAL	Zalesovo	46.03	353	P	P	20 56 10.9	+0.5
	comp=Z,5.1nm,0.9s,mb4.4,baz=295,slow=7.3,SNR=14						
ZAL	Zalesovo	46.03	353	P	P	20 56 10.9	+0.5
ZAL				pmax	pmax		
	comp=Z,5.0nm,1.0s						
ZAL	Zalesovo	46.03	353	P	P	20 56 10.9	+0.5
HIA	Hailar	46.34	24	P	P	20 56 13.7	+0.8
HIA				pmax	pmax		
	comp=Z,8.0nm,0.9s						
HIA	Hailar	46.34	24	P	P	20 56 13.7	+0.8
	comp=Z,8.0nm,0.9s,mb4.7						
NVS	Novosibirsk	47.12	352	eP	P	20 56 18.3	-0.7
NVS				pmax	pmax		
	comp=N,26nm,1.3s						
NVS				pmax	pmax		
	comp=E,17nm,1.3s						
NVS				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
BVAR	Borovoye Array	48.38	341	P	P	20 56 29.2	+0.3
	comp=Z,0.6nm,0.5s,mb3.9,baz=147,slow=10,SNR=4.9						
BVAR	Borovoye Array	48.38	341	P	P	20 56 29.2	+0.3
CHKZ	Chkalovo	48.87	342	eP	P	20 56 31.7	-0.9
CHKZ				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
CHKZ	Chkalovo	48.87	342	eP	P	20 56 31.7	-0.9
	comp=Z,5.8nm,0.8s,mb4.7						
WRA	Warramunga Arr	49.00	125	P	P	20 56 34.2	+0.1
	comp=Z,4.6nm,0.8s,mb4.5,baz=304,slow=8.9,SNR=12						
WRA	Warramunga Arr	49.00	125	P	P	20 56 34.2	+0.1
WRA				pmax	pmax		
	comp=Z,5.0nm,0.8s						
WRAB	Tennant Creek	49.00	125	eP	P	20 56 34.0	-0.1
ASAR	Alice Springs	50.65	130	P	P	20 56 47.3	+0.6
	comp=Z,3.4nm,0.6s,mb4.5,baz=298,slow=8.1,SNR=18						
BOD	Bodaibo	51.85	14	eP	P	20 56 54.5	-0.8
BOD				e		20 57 13.2	
GNI	Garni	53.70	314	eP	P	20 57 07.5	-1.9
GNI				pmax	pmax		
	comp=Z,11nm,1.1s						
GNI	Garni	53.70	314	eP	P	20 57 07.5	-1.8
	comp=Z,11nm,1.1s,mb4.7						
ZEI	Tsey	55.31	317	eP	pP	20 57 28.9	-1.4
ZEI				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
KIV	Kislovodsk	56.59	318	eP	P	20 57 30.4	+0.1
KIV				e	pP	20 57 39.1	-0.4
KIV				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
KIV	Kislovodsk	56.59	318	eP	P	20 57 30.4	+0.1
	comp=Z,8.2nm,1.0s,mb4.7						
KIV				e	pP	20 57 39.1	-0.4
KMBO	Kilima Mbogo	56.89	263	P	P	20 57 32.3	-0.6
	comp=Z,0.8nm,0.6s,mb3.9,baz=53,slow=10,SNR=2.6						
KMBO	Kilima Mbogo	56.89	263	P	P	20 57 32.3	-0.6
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.6s						
STKA	Stephens Creek	60.84	134	P	P	20 57 57.6	-2.4
	comp=Z,5.6nm,1.2s,mb4.6,baz=306,slow=14,SNR=3.0						
BRTR	Keskin Array B	61.69	311	P	P	20 58 06.5	+0.8
	comp=Z,2.3nm,0.9s,mb4.3,baz=120,slow=6.8,SNR=9.1						
BRTR	Keskin Array B	61.69	311	P	P	20 58 06.5	+0.8
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
IDI	Anoyia	67.83	305	P	P	20 58 46.9	+1.4
	comp=Z,4.6nm,0.8s,mb4.6,baz=56,slow=11,SNR=2.6						
FINES	FINESS Array B	72.04	332	P	P	20 59 11.7	+0.9
	comp=Z,3.1nm,0.9s,mb4.2,baz=90,slow=7.6,SNR=4.0						
FINES	FINESS Array B	72.04	332	P	P	20 59 11.7	+0.9
FINES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
ARCES	ARCESS Array B	74.65	340	P	P	20 59 27.1	+1.3
	comp=Z,3.4nm,0.8s,mb4.3,baz=72,slow=3.8,SNR=3.7						
ARCES	ARCESS Array B	74.65	340	P	P	20 59 27.1	+1.3
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MORC	Moravsky Berou	74.65	319	eP	P	20 59 24.6	-1.6
GERES	GERESS Array B	77.10	318	P	P	20 59 41.5	+1.4
	comp=Z,3.1nm,1.2s,mb4.1,baz=104,slow=5.5,SNR=5.3						
GERES	GERESS Array B	77.10	318	P	P	20 59 41.5	+1.4
GERES				pmax	pmax		
	comp=Z,3.0nm,1.2s						
KHC	Kasperske Hory	77.19	318	epP	pP	20 59 51.0	+0.9
HFS	Hagfors	77.77	330	P	P	20 59 44.9	+1.4
	comp=Z,2.8nm,0.8s,mb4.2,baz=104,slow=6.1,SNR=5.9						
HFS	Hagfors	77.77	330	P	P	20 59 44.9	+1.4
HFS				pmax	pmax		
	comp=Z,3.0nm,0.8s						
NB2	NORSAR Subarra	79.05	331	P	P	20 59 50.2	-0.3
	comp=Z,3.9nm,0.8s,mb4.4,baz=96,slow=5.0						
NB2	NORSAR Subarra	79.05	331	P	P	20 59 50.2	-0.3
	baz=96,slow=5.1						
NB2	NORSAR Subarra	79.05	331	P	P	20 59 50.2	-0.3
NB2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
NOA	NORSAR Array B	79.05	331	P	P	20 59 51.9	+1.3
	comp=Z,2.6nm,0.9s,mb4.2,baz=93,slow=5.4,SNR=4.3						
NOA	NORSAR Array B	79.05	331	P	P	20 59 51.9	+1.4
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
LPL	La Plagne	81.90	315	eP	P	21 00 10.8	+4.9
	comp=Z,28nm,1.0s,mb4.9						
LPL	La Plagne	81.90	315	eP	P	21 00 10.8	+4.9
LPL				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
CPUP	Villa Florida	147.07	233	PKPbc	PKPdf	21 07 30.9	-0.7
	comp=Z,0.0nm,0.3s,baz=195,slow=18,SNR=2.2						

IDC 27 20:49:55.7±0.8, 8.05N×92.08E, mb4.3/12, mb1 4.4/12, mb1mx4.3/20, Error ellipse: s-maj=31.7km s-min=21.4km az=57.0
BJI 27 20:49:56.9, 7.77N×91.41E, h54^{km}, mb4.3
NEIC 27 20:49:59.8±0.4, 8.00N×92.05E, h30^{km}, mb4.7/4, Error ellipse: s-maj=15.2km s-min=10.5km az=64.0
ISC 27 20:49:57.9±0.5, 7.96N±0.09×92.1E±0.1, h30^{km}, n26, σ0.^{s}88/22, mb4.4/18, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	Kunming	19.89	30	P	P	20 54 30.5	+0.5
KMI				AMB	AMB		
	comp=Z,12nm,1.0s						
LSA	Lhasa	21.64	358	eP	P	20 54 46.5	-1.4
	comp=Z,38nm,1.0s,mb4.8						
GYA	Guiyang	23.05	35	P	P	20 55 02.0	+0.1
GYA				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.3						
GTA	Gaotai	32.08	11	eP	P	20 56 23.5	-1.1
GTA				AP	pP	20 56 33.8	+0.4
GTA				AMB	AMB		
	comp=Z,27nm,1.1s,mb5.0						
AAK	Ala-Archa	37.84	339	eP	P	20 57 13.3	-0.4
	comp=Z,13nm,1.0s,mb4.6						
SONM	Songino Array	41.56	15	P	P	20 57 45.1	+0.5
	comp=Z,3.7nm,0.8s,mb4.0,baz=200,slow=8.0,SNR=8.3						
ZAL	Zalesovo	46.22	354	P	P	20 58 21.8	-0.2
	comp=Z,2.0nm,0.5s,mb4.3,baz=294,slow=9.7,SNR=3.2						
ZAL	Zalesovo	46.22	354	P	P	20 58 21.8	-0.2
BVAR	Borovoye Array	48.26	343	P	P	20 58 36.9	-1.1
	comp=Z,1.8nm,0.8s,mb4.1,baz=143,slow=7.2,SNR=3.9						
WRA	Warramunga Arr	50.01	124	P	P	20 58 51.6	-0.4
	comp=Z,2.5nm,0.9s,mb4.2,baz=300,slow=7.9,SNR=3.2						
WRAB	Tennant Creek	50.02	124	eP	P	20 58 51.1	-0.9
	comp=Z,4.1nm,0.5s,mb4.7						
ASAR	Alice Springs	51.58	129	P	P	20 59 04.3	+0.4
	comp=Z,2.4nm,0.7s,mb4.2,baz=316,slow=7.2,SNR=4.3						
BRTR	Keskin Array B	60.81	311	P	P	21 00 08.6	-1.1
	comp=Z,1.8nm,0.8s,mb4.3,baz=124,slow=6.6,SNR=4.9						
LSZ	Lusaka	67.35	250	eP	P	21 00 51.8	-1.2
LBTB	Lobatse	72.47	241	P	P	21 01 23.6	-0.5
	comp=Z,3.6nm,1.0s,mb4.3						
ARCES	ARCESS Array B	74.48	340	P	P	21 01 35.3	+0.3
	comp=Z,2.6nm,0.7s,mb4.3,baz=113,slow=6.9,SNR=3.4						
GERES	GERESS Array B	76.38	318	P	P	21 01 47.2	+1.1
	comp=Z,1.6nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=4.9						
KHC	Kasperske Hory	76.48	319	eP	P	21 01 47.5	+0.8
DAVOX	Davos	78.89	316	P	P	21 02 01.4	+1.3
	comp=Z,4.1nm,0.8s,mb4.4						
ILAR	Eielson Array	95.44	22	P	P	21 03 21.2	+0.6
	comp=Z,0.5nm,0.7s,mb4.0,baz=297,slow=4.4,SNR=4.5						
DBIC	Dimbokro	95.88	278	P	P	21 03 25.3	+1.5
	comp=Z,2.9nm,0.9s,mb4.7,baz=113,slow=11,SNR=4.3						
INK	Inuvik	97.47	16	P	P	21 03 30.9	+1.1
	comp=Z,0.9nm,0.6s,mb4.4,baz=333,slow=7.6,SNR=3.6						
RKT	Rikitea	132.48	114	eLR	LR	21 09 44.8	
	comp=Z,2µm,35.8s						
TXAR	Lajitas Array	139.95	22	PKP	PKPdf	21 09 26.9	-2.3
	comp=Z,0.3nm,0.5s,baz=9.5,slow=1.2,SNR=4.5						
CPUP	Villa Florida	145.65	234	PKPbc	PKPbc	21 09 37.5	+2.7
	comp=Z,0.0nm,0.3s,baz=254,slow=12,SNR=1.9						
LPAZ	La Paz	158.94	245	PKPab	PKPab	21 10 33.5	+1.2
	comp=Z,0.4nm,0.4s,baz=76,slow=1.5,SNR=3.7						

BJI 27 20:51:59.4, 6.54N×92.60E, h30^{km}, mb4.4
IDC 27 20:52:02.6±0.7, 7.11N×92.79E, mb4.4/14, mb1 4.5/15, mb1mx4.3/24, ML3.9/1, Error ellipse: s-maj=36.5km s-min=14.7km az=50.0
NEIC 27 20:52:06.9±0.5, 7.23N×92.79E, h30^{km}, mb4.6/3, Error ellipse: s-maj=14.8km s-min=9.8km az=53.0
ISC 27 20:52:04.8±0.5, 7.19N±0.07×92.78E±0.08, h30^{km}, n31, σ1.^{s}19/31, mb4.5/19, 1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.71	28	Pn	P	20 55 06.3	-0.2
	0.2nm,0.3s,baz=232,slow=14,SNR=4.1						
KMI	Kunming	20.22	27	P	P	20 56 41.8	+1.4
KMI				AMB	AMB		
	comp=Z,13nm,1.0s						
LSA	Lhasa	22.45	356	P	P	20 57 01.8	-1.0
	comp=Z,19nm,0.8s,mb4.6						
GYA	Guiyang	23.28	33	⇑iP	P	20 57 14.5	+3.4
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.5						
ENH	Enshi	27.81	32	eP	P	20 57 53.5	-0.2
ENH				e	pP	20 58 01.9	-0.5
GTA	Gaotai	32.70	10	eP	P	20 58 36.0	-0.9
GTA				AP	pP	20 58 44.3	-1.5
GTA				XP	sP	20 58 48.5	-1.1
GTA				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.8						
AAK	Ala-Archa	38.81	338	eP	P	20 59 27.0	-1.9
	comp=Z,3.8nm,0.8s,mb4.2						
SONM	Songino Array	42.13	14	P	P	20 59 55.3	-0.9
	comp=Z,3.4nm,0.9s,mb4.0,baz=192,slow=8.4,SNR=5.6						
ULN	Ulaanbaatar	42.32	14	eP	P	20 59 56.8	-0.9
NWAO	Narrogin (SRO)	46.18	151	P	P	21 00 27.9	-1.0
	comp=Z,6.8nm,0.7s,mb4.7,baz=317,slow=9.4,SNR=5.3						
ZAL	Zalesovo	47.06	354	P	P	21 00 38.6	+3.0
	comp=Z,3.0nm,0.7s,mb4.4,baz=303,slow=13,SNR=6.3						
WRA	Warramunga Arr	48.98	124	P	P	21 00 51.2	+0.2
	comp=Z,6.5nm,0.9s,mb4.7,baz=302,slow=8.7,SNR=7.8						
WRAB	Tennant Creek	48.99	124	eP	P	21 00 51.5	+0.4
BVAR	Borovoye Array	49.21	342	P	P	21 00 54.6	+2.3
	comp=Z,4.1nm,0.6s,mb4.6,baz=143,slow=7.4,SNR=10.0						
BRVK	Borovoye	49.27	342	P	P	21 00 51.5	-1.3
	comp=Z,8.4nm,0.9s,mb4.8						
CHKZ	Chkalovo	49.71	343	P	P	21 00 53.9	-2.3
CHKZ				e		21 00 58.8	
ASAR	Alice Springs	50.53	129	P	P	21 01 02.6	-0.3
	comp=Z,6.0nm,0.8s,mb4.6,baz=310,slow=7.3,SNR=12						
GNI	Garni	53.95	315	eP	P	21 01 28.0	-0.2
KMBO	Kilima Mbogo	56.00	264	P	P	21 01 42.8	-0.7
PMG	Port Moresby	56.63	106	P	P	21 01 48.1	0.0
KIV	Kislovodsk	56.92	319	eP	P	21 01 48.9	-0.8
EIL	Elat	58.59	300	eP	P	21 02 01.2	-0.4
STKA	Stephens Creek	60.63	133	P	P	21 02 15.5	-0.1
	comp=Z,5.1nm,1.0s,mb4.6,baz=269,slow=3.0,SNR=5.2						
BRTR	Keskin Array B	61.86	311	P	P	21 02 23.2	-0.6
	comp=Z,1.9nm,0.8s,mb4.3,baz=134,slow=7.4,SNR=5.5						
IDI	Anoyia	67.85	305	P	P	21 03 03.0	+0.3
	comp=Z,5.5nm,0.7s,mb4.7,baz=60,slow=11,SNR=4.3						
MLR	Muntele Rosu	68.72	316	P	P	21 03 08.8	+0.8
	comp=Z,3.0nm,0.8s,mb4.3,baz=156,slow=4.6,SNR=4.2						
FINES	FINESS Array B	72.69	332	P	P	21 03 32.9	+1.3
	comp=Z,3.0nm,0.9s,mb4.2,baz=90,slow=5.7,SNR=4.4						
GERES	GERESS Array B	77.43	318	P	P	21 04 00.7	+1.7
	comp=Z,2.3nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=10.0						
HFS	Hagfors	78.36	330	P	P	21 04 05.6	+1.7
	comp=Z,1.7nm,0.6s,mb4.2,baz=101,slow=7.6,SNR=4.2						
HFS	Hagfors	78.36	330	P	P	21 04 05.6	+1.7
DAVOX	Davos	79.94	316	P	P	21 04 14.7	+1.9
	comp=Z,4.2nm,0.7s,mb4.5,baz=114,slow=7.9,SNR=9.5						

LDG 27 20:58:11.4±0.2, 15.84N×61.75W, h10^{km}, Mb4.9/12, Error ellipse: s-maj=8.0km s-min=6.0km az=121.0
IDC 27 20:58:12.6±0.6, 15.89N×61.72W, mb4.5/25, mb1 4.6/29, mb1mx4.5/33, ML4.1/2, MS3.9/5, Ms1 3.9/5, ms1mx3.3/30, Error ellipse: s-maj=16.1km s-min=13.0km az=178.0
TRN 27 20:58:12.8, 15.85N×61.55W, h25^{km}, MD4.3
NEIC 27 20:58:15.4±3.6, 15.82N×61.75W, h19^{km}±23^{km}, mb4.8/21, Error ellipse: s-maj=7.3km s-min=5.0km az=199.0
ISC 27 20:58:14.4±0.4, 15.80N±0.02×61.68W±0.03, h27^{km}±3^{km}, n96, σ0.^{s}85/107, mb4.5/45, MS3.8/1, 11C-1D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BBL	Barber's Block	0.34	143	⇑iP	Pb	20 58 21.4	-0.7
BBL	Barber's Block	0.34	143	⇑eP	Pb	20 58 22.2	+0.1
MGG	Marie-Galante	0.37	71	⇑iP	Pb	20 58 20.6	-2.0
DWS	Wesley	0.42	122	eP	Pb	20 58 23.2	-0.2
DWS				eS	Sb	20 58 28.6	-1.0
MDN	Morne-Daniel	0.55	149	⇑eP	Pb	20 58 26.1	+0.6
MDN				eS	Sb	20 58 34.3	+1.2
DPMT	Pointe Michel	0.61	151	eP	Pb	20 58 27.4	+1.0
DBCT	Belle View Cho	0.62	148	eP	Pb	20 58 27.3	+0.7
SEG	Port Louis	0.63	16	⇓iP	Pb	20 58 25.9	-0.8
DSHT	Scott's Head	0.65	153	⇑eP	Pb	20 58 28.0	+0.8
DSHT				eS	Sb	20 58 35.1	-0.7
DSTT	Stowe	0.66	146	eP	Pb	20 58 27.7	+0.5
DEG	La Desirade	0.79	49	⇑iP	Pb	20 58 27.3	-2.1
MBRY		1.01	333	eP	Pn	20 58 33.4	+0.5
MBRY				eS	Sb	20 58 47.3	+1.3
MLYT		1.04	332	eP	Pn	20 58 33.8	+0.4
MBWH		1.06	333	eP	Pn	20 58 34.0	+0.3
MBGB		1.07	331	eP	Pn	20 58 34.3	+0.6
MBGB				i S	Sb	20 58 48.9	+1.3
FDF	Fort de France	1.18	154	⇑iP	Pn	20 58 34.9	-0.5
FDF				eS	Sn	20 58 49.2	-1.4
CRM	Caravelle	1.27	144	⇑eP	Pn	20 58 36.6	-0.2
CRM				eS	Sn	20 58 53.8	+0.7
BIM	Bigot	1.40	155	eP	Pn	20 58 38.3	-0.3
MVM	Montagne Vaucl	1.45	148	⇑iP	Pn	20 58 39.4	+0.2
MVM				i S	Sn	20 58 58.5	+0.9
SLW	Petit Monier	1.91	158	⇑iP	Pn	20 58 45.7	-0.1
SLW				⇑iS	Sn	20 59 09.0	-0.2
GRW	Mount Saint Ca	3.62	180	eP	Pn	20 59 12.0	+1.9
SJG	San Juan	4.85	299	Pn	Pn	20 59 26.9	-0.8
	16nm,0.3s,baz=335,slow=18,SNR=14						
SJG				Sn	Sn	21 00 20.1	-3.7
	29nm,0.3s,baz=326,slow=17,SNR=5.0						
SJG				LR	LR	21 00 37.3	
	comp=Z,564nm,21.9s,baz=134,slow=30						
SJG	San Juan	4.85	299	Pn	Pn	20 59 26.9	-0.8
SJG				Sn	Sn	21 00 20.1	-3.7
SJG				LR	LR	21 00 37.3	
TRN	Trinidad (W)	5.13	177	eP	Pn	20 59 31.5	0.0
TRN				eS	Sn	21 00 35.0	+4.4
PCRV	Puerto La Cruz	6.29	208	Pn	Pn	20 59 47.4	-0.5
	4.9nm,0.3s,baz=34,slow=5.7,SNR=16						
PCRV				Sn	Sn	21 00 58.5	-1.1
	8.2nm,0.3s,baz=149,slow=18,SNR=3.7						
PCRV				LR	LR	21 02 35.0	
	comp=Z,2µm,18.2s,baz=360,slow=41						
SDV	Santo Domingo	11.12	233	Pn	P	21 00 52.1	-2.8
	1.4nm,0.3s,baz=74,slow=8.4,SNR=8.1						
SDV				Sn	S	21 02 53.4	-6.0
	0.4nm,0.3s,baz=42,slow=19,SNR=1.5						
SDV				LR	LR	21 05 43.2	
	comp=Z,620nm,19.2s,baz=237,slow=40						
ROSC	El Rosal	16.51	230	Pn	P	21 02 04.8	-1.2
	0.8nm,0.3s,baz=110,slow=20,SNR=2.0						
ROSC				LR	LR	21 08 57.4	
	comp=Z,845nm,18.8s,baz=10,slow=39						
OTAV	Otavalo	22.65	229	eP	P	21 03 16.6	+1.6
	18nm,1.1s,mb4.4						
LRAL	Lakeview Retre	28.62	311	P	P	21 04 10.9	+0.1
SADO	Sadowa	32.43	337	P	P	21 04 43.0	-1.4
	15nm,1.0s,mb4.8,baz=167,slow=6.9,SNR=6.3						
BDFB	Brasilia	34.03	156	P	P	21 05 00.3	+1.7
	4.2nm,1.1s,mb4.3,baz=323,slow=13,SNR=3.3						
WMOK	Wichita Mounta	38.20	307	eP	P	21 05 33.3	-0.5
	5.8nm,0.8s,mb4.4						
LVC	Limon Verde	38.82	191	LR	LR	21 21 11.8	
	comp=Z,144nm,20.9s,MS3.8,baz=138,slow=36						
SCHQ	Schefferville	39.16	355	P	P	21 05 42.2	+0.6
	3.2nm,0.6s,mb4.2,baz=207,slow=5.0,SNR=7.1						
SCHQ	Schefferville	39.16	355	P	P	21 05 42.2	+0.6
LTX	Lajitas	40.82	297	P	P	21 05 55.5	-0.1
TXAR	Lajitas Array	40.82	297	P	P	21 05 56.7	+1.2
	3.2nm,1.0s,mb3.9,baz=120,slow=9.1,SNR=12						
TXAR				PcP	PcP	21 07 58.5	+1.7
	1.4nm,0.8s,baz=127,slow=6.3,SNR=5.2						
MNTX	Cornudas Mount	42.71	300	eP	P	21 06 11.1	-0.1
	13nm,1.1s,mb4.6						
ULM	Lac du Bonnet	44.06	329	P	P	21 06 22.2	+0.5
	6.7nm,0.5s,mb4.6,baz=127,slow=8.4,SNR=20						
ANMO	Albuquerque	44.30	304	P	P	21 06 23.9	-0.1
	4.2nm,0.9s,mb4.2,baz=123,slow=9.3,SNR=5.8						
SDCO	Great Sand Dun	44.31	308	eP	P	21 06 24.0	0.0
	10.0nm,1.3s,mb4.4						
RW3	Ridgway	46.11	308	eP	P	21 06 39.0	+0.7
PV01	Paradox Valley	46.75	308	eP	P	21 06 43.5	+0.2
FRB	Frobisher Bay	48.13	356	P	P	21 06 54.2	+0.3
	10nm,0.8s,mb4.9,baz=165,slow=8.6,SNR=19						
FRB	Frobisher Bay	48.13	356	P	P	21 06 54.2	+0.3
BW06	Boulder Array	48.81	313	eP	P	21 06 56.9	-2.5
	15nm,1.0s,mb5.0						
PDAR	Pinedale Array	48.81	313	P	P	21 06 59.1	-0.3
	9.7nm,0.8s,mb4.9,baz=118,slow=9.3,SNR=58						
DAU	Daniels Canyon	49.35	310	eP	P	21 07 02.9	-0.7
GCMT	Greycliff	49.90	317	P	P	21 07 08.6	+0.8
ARUT	Antelope Range	50.42	306	eP	P	21 07 12.2	+0.4
QLMT	Earthquake Lak	50.75	315	eP	P	21 07 15.1	+0.9
HRY	Holter Researc	51.62	318	eP	P	21 07 21.1	+0.3
MCMT	McKenzie Canyo	51.71	315	eP	P	21 07 22.1	+0.6
HLID	Hailey	52.44	313	eP	P	21 07 27.0	0.0
	3.8nm,0.9s,mb4.3						
NVAR	Mina Array Bea	54.30	306	P	P	21 07 40.4	-0.5
	3.0nm,0.8s,mb4.3,baz=127,slow=3.8,SNR=6.4						
BMO	Blue Mountains	54.77	314	eP	P	21 07 43.1	-1.1
	3.0nm,1.0s,mb4.3						
ESDC	Sonseca Array	55.33	53	P	P	21 07 48.0	-0.3
	1.0nm,0.7s,mb4.0,baz=255,slow=8.3,SNR=7.9						
NEW	Newport	55.51	318	eP	P	21 07 49.0	-0.5
	5.8nm,0.6s,mb4.8						
DBIC	Dimbokro	56.33	92	P	P	21 07 56.1	+0.2
	7.1nm,0.9s,mb4.7,baz=284,slow=8.0,SNR=8.6						
SJPF	Ste Jean	57.87	49	eP	P	21 08 06.9	+0.5
	33nm,0.8s,mb5.1						
YBH	Yreka Blue Hor	58.10	310	P	P	21 08 06.6	-1.4
	2.8nm,0.7s,mb4.4,baz=95,slow=2.2,SNR=4.7						
YKA	Yellowknife Ar	59.40	335	P	P	21 08 15.3	-1.4

	12nm,0.6s,mb5.1,baz=108,slow=7.5,SNR=174						
RJF	Les Rejaudoux	60.13	47	*e*P	P	21 08 22.0	0.0
	13nm,0.9s,mb4.7						
BGF	Bois d'Agland	61.22	45	*e*P	P	21 08 29.3	-0.1
	48nm,1.2s,mb5.2						
AVF	Avril sur Loir	61.59	45	*e*P	P	21 08 31.7	-0.2
	33nm,1.3s,mb5.0						
SSF	Saint Saulge	61.73	45	*e*P	P	21 08 32.5	-0.4
	7.8nm,0.7s,mb4.6						
SMF	Signal de Mont	61.91	45	*e*P	P	21 08 33.9	-0.2
	30nm,1.1s,mb5.0						
MEZF	Maizieres J'vi	62.94	43	*e*P	P	21 08 40.7	-0.2
	23nm,1.0s,mb5.0						
GIVF	Givet	62.99	42	*e*P	P	21 08 40.9	-0.3
HAU	Haudompre	63.75	44	*e*P	P	21 08 45.7	-0.5
	11nm,1.0s,mb4.5						
HINF	Hinteralfeld	64.07	44	*e*P	P	21 08 47.5	-0.8
SBF	Sospel	64.21	49	*e*P	P	21 08 48.8	-0.5
	20nm,0.8s,mb4.9						
CDF	Champ du Feu	64.40	44	*e*P	P	21 08 50.1	-0.4
	12nm,0.9s,mb4.6						
DLBC	Dease Lake	65.36	327	P	P	21 08 56.8	+0.3
	12nm,0.9s,mb4.9,baz=108,slow=7.0,SNR=14						
DAVOX	Davos	66.06	46	P	P	21 09 02.0	+0.9
	3.5nm,0.6s,mb4.5,baz=187,slow=17						
NKC	Novy Kostel	67.89	42	*e*P	P	21 09 13.1	+0.4
NB2	NORSAR Subarra	68.03	30	P	P	21 09 13.9	+0.5
	1.7nm,0.7s,mb4.2,baz=262,slow=6.5						
NOA	NORSAR Array B	68.03	30	P	P	21 09 14.5	+1.2
	2.5nm,1.0s,mb4.2,baz=252,slow=5.2,SNR=5.0						
CLL	Collm	68.27	41	*i* P	P	21 09 15.4	+0.3
	8.0nm,1.0s,mb4.7						
CLL	Collm	68.27	41	P	P	21 09 15.4	+0.3
	logA/T=0.9,mb4.7						
KHC	Kasperske Hory	68.60	43	*e*P	P	21 09 17.7	+0.6
GERES	GERESS Array B	68.68	43	P	P	21 09 16.9	-0.7
	1.5nm,0.8s,mb4.0,baz=284,slow=5.5,SNR=12						
INK	Inuvik	68.73	338	P	P	21 09 16.6	-1.1
	17nm,0.9s,mb5.0,baz=97,slow=6.8,SNR=44						
BRG	Berggiesshubel	68.86	41	*i* P	P	21 09 19.3	+0.6
	22nm,1.7s,mb4.8						
BRG				*e*		21 09 23.7	
PRU	Pruhonice	69.23	42	*e*P	P	21 09 21.0	0.0
DPC	Dobruska-Polom	70.37	42	*e*P	P	21 09 28.3	+0.3
VRAC	Vranov	70.58	43	P	P	21 09 29.7	+0.5
	3.5nm,0.8s,mb4.3,baz=323,slow=3.6,SNR=5.4						
ILAR	Eielson Array	73.80	334	P	P	21 09 47.5	-0.5
	5.0nm,0.7s,mb4.6,baz=78,slow=4.8,SNR=73						
ARCES	ARCESS Array B	74.34	21	P	P	21 09 50.7	-0.4
	2.6nm,0.8s,mb4.2,baz=315,slow=1.3,SNR=4.4						
FINES	FINESS Array B	75.21	30	P	P	21 09 56.3	+0.1
	2.2nm,0.6s,mb4.2,baz=270,slow=3.8,SNR=8.5						
FINES	FINESS Array B	75.21	30	P	P	21 09 56.3	+0.1
MLR	Muntele Rosu	77.27	46	P	P	21 10 09.6	+1.4
	5.9nm,0.9s,mb4.5,baz=345,slow=2.9,SNR=5.9						
AKASG	Malin Array Be	78.52	40	P	P	21 10 15.5	+0.6
	0.2nm,0.3s,mb3.6,baz=277,slow=4.5,SNR=7.7						
BRTR	Keskin Array B	84.07	51	P	P	21 10 45.5	+1.2
	1.4nm,0.7s,mb4.2,baz=297,slow=2.8,SNR=8.5						
ASAR	Alice Springs	163.38	239	PKP	PKPdf	21 18 17.4	-2.4
	1.6nm,1.0s,baz=106,slow=1.3,SNR=8.0						
ASAR				PKPab	PKPab	21 19 09.4	+1.1
	2.2nm,0.6s,baz=113,slow=4.0,SNR=25						
WRA	Warramunga Arr	164.20	253	PKP	PKPdf	21 18 17.8	-3.0
	1.7nm,0.8s,baz=90,slow=1.0,SNR=14						
WRA				PKPab	PKPab	21 19 12.7	+0.7
	0.6nm,0.6s,baz=96,slow=4.2,SNR=6.7						

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*IDC **27** 21:04:46.1±1.6, 5.21N×94.76E, mb3.8/7, mb1 4.0/8, mb1mx3.8/19, ML3.6/1, Error ellipse: s-maj=74.5km s-min=21.2km az=55.0*

*NEIC **27** 21:04:50.5±0.8, 5.20N×94.80E, h30^{km}, mb4.1/1, Error ellipse: s-maj=41.1km s-min=9.9km az=54.0*

ISC 27 21:04:48.9±1.2**, 5.3N**±0.3×**94.9E**±0.3**, h30^{km}, n12, σ0^{s}.48**/12**, mb3.8**/8**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.70	16	Pn	P	21 08 11.3	+7.6
	0.1nm,0.3s,baz=218,slow=12,SNR=8.3						
AAK	Ala-Archa	41.38	337	P	P	21 12 34.4	+0.3
SONM	Songino Array	43.54	11	P	P	21 12 52.5	+0.7
	0.4nm,0.6s,mb3.4,baz=189,slow=6.5,SNR=4.7						
WRA	Warramunga Arr	46.17	124	P	P	21 13 13.3	+0.1
	1.3nm,0.8s,mb3.9,baz=300,slow=10,SNR=10						
WRAB	Tennant Creek	46.18	124	*e*P	P	21 13 12.8	-0.5
ASAR	Alice Springs	47.70	129	P	P	21 13 25.4	+0.2
	0.5nm,0.8s,mb3.6,baz=308,slow=8.1,SNR=5.3						
ZAL	Zalesovo	49.21	352	P	P	21 13 36.2	-0.3
	1.6nm,0.3s,mb4.5,baz=309,slow=6.9,SNR=7.1						
ZAL	Zalesovo	49.21	352	P	P	21 13 36.2	-0.3
BVAR	Borovoye Array	51.68	341	P	P	21 13 54.8	-0.5
	0.6nm,0.6s,mb3.7,baz=153,slow=9.9,SNR=4.9						
CHKZ	Chkalovo	52.16	342	*e*P	P	21 13 58.1	-0.8
	1.3nm,0.5s,mb4.1						
ARCES	ARCESS Array B	77.95	340	P	P	21 16 45.8	+0.2
	2.0nm,1.0s,mb4.0,baz=107,slow=6.9,SNR=5.8						
GERES	GERESS Array B	80.25	319	P	P	21 16 59.0	+0.6
	0.3nm,0.5s,mb3.5,baz=135,slow=5.7,SNR=3.6						

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*INMG **27** 21:09:37.0±0.5, 38.15N×9.27W, h13^{km}±3^{km}, ML1.5, Error ellipse: s-maj=3.2km s-min=1.7km az=84.0*

*CSEM **27** 21:09:37.7±0.2, 38.18N×9.11W, h10^{km}, ML1.5, Error ellipse: s-maj=5.4km s-min=2.3km az=71.0*

MDD 27 21:09:37.1±0.9**, 38.15N×9.21W, mbLg1.6**/7**, Error ellipse: s-maj=8.0km s-min=3.9km az=75.0, PRXIMO, Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	Sao Teotonio	0.71	147	*e*Pg	Pg	21 09 50.4	-1.0
PTEO				*e*Sg	Sg	21 10 00.4	-0.5
	14nm,0.4s						
PTEO	Sao Teotonio	0.71	147	Pg	Pg	21 09 50.4	-1.0
PTEO				Lg		21 10 00.4	
	6.9nm,0.4s						
PTEO	Sao Teotonio	0.71	147	*e*Sg	Sg	21 10 00.4	-0.5
	14nm,0.4s						
PLOU	Loures	0.74	4	*e*Pg	Pg	21 09 50.7	-1.1
PLOU				*e*Sg	Sg	21 10 00.4	-1.2
	14nm,0.2s						
PLOU	Loures	0.74	4	*e*Pg	Pg	21 09 50.7	-1.1
PLOU				*e*Sg	Sg	21 10 00.4	-1.2
	14nm,0.2s						
MOE	Montemor	0.77	61	*e*P	Pg	21 09 51.8	-0.7
MOE				*e*S	Sg	21 10 02.9	+0.1
PBEJ	Beja	1.07	96	*e*S	Sb	21 10 11.6	-0.9
	7.1nm,0.1s						
PBEJ	Beja	1.07	96	*e*S	Sb	21 10 11.6	-0.9
	7.1nm,0.1s						
EGRO	El Granado	1.50	114	Pg	Pg	21 10 04.5	-2.6
	0.5nm,0.1s,SNR=7.9						
EGRO				Lg		21 10 24.4	
	1.6nm,0.1s,SNR=7.9						
EGRO	El Granado	1.50	114	Pg	Pg	21 10 04.5	-2.5
	0.5nm,0.1s,SNR=7.9						
PALC	Alcoutim	1.54	116	*e*Pn	Pn	21 10 03.1	-2.7
PALC				*e*Sn	Sn	21 10 24.9	-1.9
	4.3nm,0.1s						
PALC	Alcoutim	1.54	116	Pn	Pn	21 10 03.1	-2.7
PALC				Sn	Sn	21 10 24.9	-1.9
	2.2nm,0.1s						
EBAD	Badajoz	1.83	70	Pg	Pg	21 10 09.5	-4.1
	0.3nm,0.1s,SNR=6.7						
EBAD				Lg		21 10 34.2	
	2.4nm,0.1s,SNR=12						
EBAD	Badajoz	1.83	70	Pg	Pg	21 10 09.5	-4.1
	0.3nm,0.1s,SNR=6.7						
EMIN	Mina Concepcio	2.04	100	Pg	Pg	21 10 13.7	-4.1
	0.2nm,0.2s,SNR=6.1						
EMIN				Lg		21 10 41.3	
	1.3nm,0.3s,SNR=8.7						
EMIN	Mina Concepcio	2.04	100	Pg	Pg	21 10 13.7	-4.2
	0.2nm,0.2s,SNR=6.1						
ESPR	Espera	2.96	115	Lg		21 11 10.8	
	1.2nm,0.3s,SNR=4.0						
EADA	Adamuz	3.65	88	Lg		21 11 32.7	
	0.7nm,0.3s,SNR=4.0						

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*IDC **27** 21:12:55.7±1.1, 6.43N×94.62E, mb4.0/10, mb1 4.1/11, mb1mx3.9/20, ML3.7/1, Error ellipse: s-maj=42.9km s-min=20.7km az=52.0*

*NEIC **27** 21:13:00.5±0.6, 6.53N×94.72E, h30^{km}, mb3.9/2, Error ellipse: s-maj=15.2km s-min=10.3km az=71.0*

ISC 27 21:12:58.8±0.8**, 6.6N**±0.1×**94.8E**±0.1**, h30^{km}, n15, σ0^{s}.75**/15**, mb4.0**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	12.49	18	P	P	21 15 56.4	-1.1
CMAR	Chiang Mai Arr	12.49	18	Pn	P	21 15 57.7	+0.1
	0.1nm,0.3s,baz=208,slow=14,SNR=4.6						
LSA	Lhasa	23.27	352	*e*P	P	21 18 06.4	+1.4
AAK	Ala-Archa	40.16	337	*e*P	P	21 20 33.6	-0.4
	1.0nm,0.8s,mb3.6						
SONM	Songino Array	42.30	12	P	P	21 20 53.0	+1.5
	1.5nm,0.8s,mb3.7,baz=189,slow=7.1,SNR=12						
WRA	Warramunga Arr	46.98	125	P	P	21 21 29.0	-0.4
	0.6nm,0.6s,mb3.7,baz=306,slow=8.8,SNR=6.5						
ZAL	Zalesovo	47.92	352	P	P	21 21 36.4	0.0
	0.8nm,0.4s,mb4.1,baz=240,slow=9.2,SNR=5.5						
ASAR	Alice Springs	48.58	130	P	P	21 21 42.1	+0.2
	0.3nm,0.5s,mb3.6,baz=296,slow=7.8,SNR=4.0						
BVAR	Borovoye Array	50.43	341	P	P	21 21 55.0	-0.6
	1.0nm,0.8s,mb3.9,baz=143,slow=7.4,SNR=6.0						
CHKZ	Chkalovo	50.91	342	*e*P	P	21 21 58.4	-0.9
	2.5nm,0.8s,mb4.2						
BRTR	Keskin Array B	63.77	311	P	P	21 23 29.8	-0.7
	1.1nm,0.9s,mb3.9,baz=124,slow=6.4,SNR=4.5						
FINES	FINESS Array B	74.17	332	P	P	21 24 34.4	+0.2
	1.5nm,0.5s,mb4.2,baz=99,slow=6.1,SNR=29						
ARCES	ARCESS Array B	76.71	340	P	P	21 24 48.8	+0.2
	4.9nm,1.0s,mb4.4,baz=94,slow=6.4,SNR=6.4						
GERES	GERESS Array B	79.23	318	P	P	21 25 03.8	+0.9
	1.0nm,0.9s,mb3.8,baz=63,slow=6.0,SNR=5.9						
HFS	Hagfors	79.91	330	P	P	21 25 05.9	-0.3
	4.5nm,0.9s,mb4.4,baz=108,slow=9.1,SNR=4.0						

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*NEIC **27** 21:17:22.4±0.7, 6.94N×91.91E, mb4.3/5, Error ellipse: s-maj=17.4km s-min=12.8km az=50.0*

*IDC **27** 21:17:23.1±1.2, 6.97N×92.00E, h22^{km}±5^{km}, mb3.8/7, mb1 4.0/8, mb1mx3.8/16, ML3.6/1, Error ellipse: s-maj=41.7km s-min=15.5km az=58.0*

ISC 27 21:17:20.0±0.7**, 6.90N**±0.10×**91.9E**±0.1**, h21^{km}, h21^{km}**±2.9^{km}**:pP-P, n18, σ1^{s}.20**/14**, mb4.2**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	11.10	273	*e*P	P	21 19 59.8	-1.0
CMAR	Chiang Mai Arr	13.39	30	Pn	P	21 20 30.3	-1.2
	0.1nm,0.3s,baz=231,slow=14,SNR=7.8						
LSA	Lhasa	22.69	358	*e*P	P	21 22 21.4	-0.2
	5.5nm,0.8s,mb4.0						
AAK	Ala-Archa	38.76	339	*e*P	P	21 24 46.3	+1.6
	5.1nm,1.3s,mb4.1						
SONM	Songino Array	42.63	14	P	P	21 25 17.1	+0.5
	0.8nm,0.6s,mb3.6,baz=195,slow=8.0,SNR=6.9						
SONM				pP	pP	21 25 23.6	+0.7
	1.9nm,0.7s,baz=195,slow=8.3,SNR=12						
ZAL	Zalesovo	47.25	354	P	P	21 25 55.1	+1.6
	3.0nm,1.0s,mb4.2,baz=282,slow=4.3,SNR=3.5						
ZAL				pP	pP	21 26 00.2	+0.3
	2.0nm,0.8s,baz=296,slow=5.6,SNR=2.1						
BVAR	Borovoye Array	49.22	343	P	P	21 26 10.0	+1.3
	0.7nm,0.6s,mb3.9,baz=149,slow=8.6,SNR=6.7						
BVAR				pP	pP	21 26 15.2	-0.1
	2.1nm,0.6s,baz=143,slow=7.4,SNR=13						
BRVK	Borovoye	49.28	343	*e*P	P	21 26 07.2	-2.0
	2.2nm,0.8s,mb4.2						
WRA	Warramunga Arr	49.56	123	P	P	21 26 11.3	-0.5
	2.6nm,0.8s,mb4.3,baz=304,slow=8.4,SNR=13						
WRAB	Tennant Creek	49.56	123	*e*P	P	21 26 11.6	-0.3
	3.2nm,0.6s,mb4.5						
CHKZ	Chkalovo	49.73	344	*e*P	P	21 26 10.2	-2.5
	7.8nm,0.8s,mb4.8						
CHKZ				*e*		21 26 18.9	
ASAR	Alice Springs	51.05	128	P	P	21 26 22.9	-0.2
	2.9nm,0.8s,mb4.2,baz=311,slow=7.3,SNR=18						
ASAR				pP	pP	21 26 32.3	+2.7
	0.8nm,0.8s,baz=308,slow=6.9,SNR=4.0						
STKA	Stephens Creek	61.09	132	P	P	21 27 36.0	+1.0
	3.3nm,0.8s,mb4.5,baz=314,slow=11,SNR=4.1						
BRTR	Keskin Array B	61.38	312	P	P	21 27 38.0	+1.1
	0.6nm,0.8s,mb3.8,baz=117,slow=6.4,SNR=3.3						
FINES	FINESS Array B	72.53	333	pP	pP	21 28 53.3	-0.4
	1.0nm,0.7s,baz=127,slow=9.5,SNR=4.2						
GERES	GERESS Array B	77.06	318	pP	pP	21 29 21.3	+1.2
	0.9nm,0.7s,baz=90,slow=5.3,SNR=9.0						
HFS	Hagfors	78.17	330	pP	pP	21 29 26.1	+0.2
	2.3nm,0.8s,baz=82,slow=10,SNR=3.2						
NOA	NORSAR Array B	79.48	331	pP	pP	21 29 33.7	+0.6
	0.9nm,0.8s,baz=117,slow=6.2,SNR=3.0						

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*IDC **27** 21:18:47.8±0.8, 6.79N×93.07E, h37^{km}±5^{km}, mb3.7/9, mb1 3.9/10, mb1mx3.7/19, ML3.8/1, Error ellipse: s-maj=43.1km s-min=14.9km az=47.0*

*NEIC **27** 21:18:47.9±0.5, 6.86N×93.00E, mb4.3/2, Error ellipse: s-maj=13.5km s-min=10.8km az=215.0*

ISC 27 21:18:45.9±0.6**, 6.9N**±0.1×**92.98E**±0.10**, h38^{km}, h38^{km}**±2.8^{km}**:pP-P, n18, σ0^{s}.76**/18**, mb4.0**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	12.20	273	P	P	21 21 39.4	-0.7
CM31	Chiang Mai Arr	12.92	26	P	P	21 21 49.7	0.0
CMAR	Chiang Mai Arr	12.92	26	Pn	P	21 21 54.0	+4.2
	0.1nm,0.3s,baz=230,slow=14,SNR=4.4						
AAK	Ala-Archa	39.20	338	P	P	21 26 11.5	-0.6
SONM	Songino Array	42.41	13	P	P	21 26 39.3	+0.7
	0.6nm,0.4s,mb3.5,baz=220,slow=9.0,SNR=11						
ULN	Ulaanbaatar	42.60	14	*e*P	P	21 26 37.9	-2.2
ZAL	Zalesovo	47.42	353	P	P	21 27 18.1	-0.4
	0.8nm,0.6s,mb3.9,baz=324,slow=6.8,SNR=3.6						
ZAL				pP	pP	21 27 29.5	+0.1
	1.4nm,0.5s,baz=313,slow=9.8,SNR=2.8						
ZAL	Zalesovo	47.42	353	P	P	21 27 18.1	-0.4
ZAL				pP	pP	21 27 29.5	+0.1
WRA	Warramunga Arr	48.62	124	P	P	21 27 27.9	-0.4
	2.3nm,0.8s,mb4.3,baz=305,slow=8.5,SNR=7.6						
WRA				pP	pP	21 27 36.8	-2.5
	3.8nm,0.7s,baz=304,slow=9.0,SNR=7.2						
WRAB	Tennant Creek	48.63	124	*e*P	P	21 27 28.1	-0.3
	6.0nm,0.7s,mb4.7						
CHKZ	Chkalovo	50.10	343	P	P	21 27 39.6	+0.4
ASAR	Alice Springs	50.16	129	P	P	21 27 40.5	+0.4
	0.7nm,0.5s,mb4.0,baz=303,slow=7.3,SNR=4.0						
ASAR				pP	pP	21 27 49.6	-1.5
	1.3nm,0.7s,baz=302,slow=7.8,SNR=3.4						
BRTR	Keskin Array B	62.23	311	P	P	21 29 05.8	-0.5
	0.5nm,0.7s,mb3.8,baz=143,slow=6.2,SNR=3.6						
BRTR				pP	pP	21 29 17.6	0.0
	1.6nm,1.1s,baz=96,slow=6.6,SNR=3.1						
FINES	FINESS Array B	73.08	332	P	P	21 30 14.2	+0.3
	1.3nm,0.8s,mb3.9,baz=121,slow=11,SNR=4.4						
MORC	Moravsky Berou	75.40	320	P	P	21 30 28.1	+0.6
	1.2nm,0.8s,mb3.9						
ARCES	ARCESS Array B	75.84	340	P	P	21 30 30.0	+0.3
	1.0nm,0.5s,mb4.0,baz=90,slow=7.3,SNR=7.2						
GERES	GERESS Array B	77.82	318	P	P	21 30 42.5	+1.3
	0.7nm,0.7s,mb3.7,baz=104,slow=5.5,SNR=4.9						
GERES				pP	pP	21 30 54.5	+1.8
	0.8nm,0.8s,baz=108,slow=4.2,SNR=3.9						
HFS	Hagfors	78.76	330	P	P	21 30 46.6	+0.5
	2.1nm,1.0s,mb4.0,baz=90,slow=4.3,SNR=2.4						
HFS				pP	pP	21 31 00.2	+2.6
	0.6nm,0.4s,baz=100,slow=9.0,SNR=1.2						

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*IDC **27** 21:23:56.4±1.0, 17.20N×93.64E, mb3.8/10, mb1 4.0/11, mb1mx3.8/21, ML3.7/1, Error ellipse: s-maj=38.4km s-min=18.5km az=38.0*

*NEIC **27** 21:23:58.9±0.7, 17.02N×93.65E, h25^{km}, mb4.1/2, Error ellipse: s-maj=17.1km s-min=11.9km az=174.0*

*BJI **27** 21:23:58.8, 17.00N×93.70E, h25^{km}, mb4.3*

ISC 27 21:23:57.2±0.6**, 17.03N**±0.09×**93.62E**±0.06**, h25^{km}, n20, σ1^{s}.25**/21**, mb4.0**/13**, 1D, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	5.26	74	*e*P	Pn	21 25 14.7	-1.7
	3.7nm,0.5s						
CMAR	Chiang Mai Arr	5.26	74	Pn	Pn	21 25 14.9	-1.5
	0.7nm,0.3s,baz=264,slow=15,SNR=16						
CMAR				Sn	Sn	21 26 17.9	+0.8
	0.4nm,0.3s,baz=255,slow=18,SNR=5.2						
AGT	Agartala	7.17	342	⇓*i*	Pn	21 25 35.0	-8.3
AGT				*i*		21 27 22.0	
PALK	Pallekele	15.91	234	P	P	21 27 41.0	-0.5
ENH	Enshi	19.59	45	*e*P	P	21 28 27.2	+0.7
	8.1nm,0.9s						
LZH	Lanzhou	21.04	24	*e*P	P	21 28 42.5	+0.8
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.2						
GTA	Gaotai	22.94	12	*e*P	P	21 29 00.5	-0.2
GTA				AP		21 29 05.8	
GTA				XP		21 29 09.0	
GTA				AMB	AMB		
	comp=Z,16nm,1.1s,mb4.4						
BVAR	Borovoye Array	40.27	338	P	P	21 31 32.2	-1.6
	comp=Z,0.3nm,0.5s,mb3.3,baz=104,slow=5.9,SNR=3.4						
CHKZ	Chkalovo	40.72	339	*e*P	P	21 31 36.4	-1.1
	comp=Z,4.5nm,1.0s,mb4.0						
WRA	Warramunga Arr	54.30	131	P	P	21 33 25.9	+1.8
	comp=Z,1.9nm,1.0s,mb4.0,baz=320,slow=7.1,SNR=5.0						
WRAB	Tennant Creek	54.30	131	*e*P	P	21 33 22.3	-1.8
BRTR	Keskin Array B	56.33	307	P	P	21 33 39.2	+0.7
	comp=Z,0.4nm,0.6s,mb3.6,baz=112,slow=7.8,SNR=3.0						
ASAR	Alice Springs	56.43	135	P	P	21 33 40.1	+0.6
	comp=Z,0.6nm,0.8s,mb3.7,baz=317,slow=6.3,SNR=3.7						
FINES	FINESS Array B	64.48	331	P	P	21 34 33.2	-0.6
	comp=Z,1.9nm,1.0s,mb4.1,baz=104,slow=5.7,SNR=5.8						
HFS	Hagfors	70.38	328	P	P	21 35 11.0	+0.1
	comp=Z,65nm,1.6s,mb5.3,baz=90,slow=4.4,SNR=4.8						
GERES	GERESS Array B	70.78	316	P	P	21 35 14.6	+1.1
	comp=Z,0.8nm,0.9s,mb3.7,baz=90,slow=4.0,SNR=4.3						
ILAR	Eielson Array	86.49	22	P	P	21 36 42.5	+3.6
	comp=Z,0.6nm,1.0s,mb3.8,baz=287,slow=6.0,SNR=4.4						
INK	Inuvik	88.38	16	P	P	21 36 51.0	+3.1
	comp=Z,1.6nm,0.8s,mb4.3,baz=304,slow=4.9,SNR=8.7						
YKA	Yellowknife Ar	97.67	13	P	P	21 37 34.5	+3.8
	comp=Z,0.2nm,0.7s,mb3.8,baz=332,slow=4.5,SNR=5.1						
YKA	Yellowknife Ar	97.67	13	P	P	21 37 34.5	+3.7

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*IDC **27** 21:24:05.2±0.9, 17.24N×93.56E, mb4.1/8, mb1 4.2/9, mb1mx3.9/21, ML4.2/1, Error ellipse: s-maj=40.6km s-min=16.6km az=39.0*

ISC 27 21:24:04.9±0.8**, 17.4N**±0.1×**93.71E**±0.09**, h10^{km}, n10, σ0^{s}.82**/13**, mb4.1**/8**, 1D, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	5.10	77	Pn	Pn	21 25 25.8	+2.6
	2.1nm,0.3s,baz=263,slow=15,SNR=22						
CMAR				Sn	Sn	21 26 27.8	+4.9
	1.8nm,0.3s,baz=264,slow=28,SNR=5.9						
CHRT	Chiangrai	6.27	66	⇓PN	Pn	21 25 39.5	-0.3
CHRT				PG	Pg	21 26 09.0	-1.1
CHRT				SG	Sn	21 26 43.5	-8.8
BVAR	Borovoye Array	39.99	338	P	P	21 31 41.4	+0.1
	0.8nm,0.6s,mb3.6,baz=135,slow=10,SNR=5.1						
WRA	Warramunga Arr	54.46	131	P	P	21 33 35.2	+0.1
	4.2nm,1.0s,mb4.3,baz=313,slow=7.3,SNR=11						
BRTR	Keskin Array B	56.20	306	P	P	21 33 46.6	-0.9
	1.6nm,1.0s,mb4.0,baz=106,slow=9.0,SNR=5.2						
ASAR	Alice Springs	56.60	135	P	P	21 33 50.1	-0.5
	1.3nm,0.7s,mb4.1,baz=314,slow=6.8,SNR=9.0						
PMG	Port Moresby	59.13	113	P	P	21 34 08.2	-0.2
	1.8nm,0.5s,mb4.4,baz=247,slow=7.0,SNR=3.3						
FINES	FINESS Array B	64.23	330	P	P	21 34 42.2	+0.1
	2.7nm,1.0s,mb4.2,baz=101,slow=9.7,SNR=4.4						
HFS	Hagfors	70.14	328	P	P	21 35 19.8	+0.4
	7.2nm,1.1s,mb4.5,baz=104,slow=5.9,SNR=2.5						
GERES	GERESS Array B	70.60	316	P	P	21 35 22.9	+0.5
	1.2nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=9.4						

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*MOS **27** 21:24:40.4±0.9, 13.49N×92.90E, h33^{km}, mb4.9/26, Error ellipse: s-maj=13.3km s-min=6.5km az=126.3*

*NEIC **27** 21:24:42.8±0.2, 13.55N×92.94E, mb4.8/14, Error ellipse: s-maj=6.8km s-min=5.6km az=212.0*

*IDC **27** 21:24:43.1±1.0, 13.53N×92.90E, h38^{km}±7^{km}, mb4.4/19, mb1 4.4/20, mb1mx4.3/25, ML4.3/1, MS4.4/1, Ms1 4.4/1, ms1mx3.1/27, Error ellipse: s-maj=30.7km s-min=10.5km az=49.0*

ISC 27 21:24:40.8±1.4**, 13.52N**±0.06×**92.95E**±0.05**, h37^{km}**±12^{km}**, h36^{km}**±2.7^{km}**:pP-P, n121, σ0^{s}.81**/126**, mb4.6**/34**, MS4.4**/1**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	7.57	49	P	P	21 26 30.9	-0.6
CMAR	Chiang Mai Arr	7.57	49	Pn	P	21 26 34.3	+2.8
	1.2nm,0.3s,baz=240,slow=14,SNR=4.5						
CMAR				Sn	S	21 27 50.6	-6.4
	0.7nm,0.3s,baz=236,slow=23,SNR=2.6						
CMAR	Chiang Mai Arr	7.57	49	P	P	21 26 34.3	+2.8
CMAR						21 27 50.7	
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SHL	Shillong	12.03	355	*e*	S	21 29 38.0	-8.6
PALK	Pallekele	13.54	244	*e*P	P	21 27 52.1	-0.9
	comp=Z,18nm,0.8s						
HYB	Hyderabad	14.40	287	*e*P	P	21 28 03.0	-1.3
HYB				*e*		21 30 40.0	
HYB	Hyderabad	14.40	287	*e*P	P	21 28 03.0	-1.3
HYB				*e*		21 28 20.0	
HYB				*e*S	S	21 30 25.0	-19
HYB				*e*		21 30 40.0	
HYB	Hyderabad	14.40	287	*i* P	P	21 28 03.0	-1.3
HYB				*e*		21 28 20.0	
HYB				*e*		21 30 25.0	
HYB				*e*S	S	21 30 40.0	-3.6
LSA	Lhasa	16.19	354	*e*P	P	21 28 28.0	+0.8
LSA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
LSA	Lhasa	16.19	354	*e*P	P	21 28 28.0	+0.8
	comp=Z,5.1nm,0.7s						
KAD	Karad	18.47	284	*e*P	P	21 28 56.0	0.0
KAD				*i* S	S	21 32 04.0	-13
PTH	Pithoragarh	19.84	326	*e*	Px	21 29 24.3	
PTH				*e*S	S	21 32 39.2	-8.5
BOM	Bombay	20.05	288	*e*P	P	21 29 13.4	-0.4
BOM				*e*S	S	21 32 40.4	-12
	comp=Z,115nm,0.8s						
NDI	New Delhi	21.01	318	*e*	S	21 33 04.0	-6.6
DDI	Dehra Dun	21.65	323	*e*	P	21 29 29.8	-0.2
DDI				*e*S	S	21 33 20.2	-2.4
ENH	Enshi	22.61	40	*e*P	P	21 29 39.3	-0.4
	comp=Z,16nm,1.0s,mb4.4						
SDNR	Sundarnagar	23.14	323	*e*	P	21 29 47.5	+2.6
AAK	Ala-Archa	33.11	335	*e*P	P	21 31 15.3	-0.3
MKAR	Makanchi Array	34.36	347	*i* P	P	21 31 26.2	-0.1
MKAR				pmax	pmax		
	comp=Z,7.0nm,0.9s						
SONM	Songino Array	36.00	15	P	P	21 31 40.7	+0.3
	comp=Z,1.8nm,0.8s,mb4.0,baz=194,slow=10,SNR=3.9						
SONM				pP	pP	21 31 51.8	+1.1
	comp=Z,8.9nm,1.0s,baz=203,slow=9.4,SNR=13						
SONM				PcP	PcP	21 34 07.2	+0.6
	comp=Z,0.6nm,0.6s,baz=223,slow=3.7,SNR=3.0						
ZAK	Zakamensk	37.72	11	*e*P	P	21 32 00.3	+5.6
ZAK				*e*		21 33 50.2	
ZAL	Zalesovo	40.83	353	P	P	21 32 20.0	-0.6
	comp=Z,3.0nm,0.7s,mb4.1,baz=312,slow=7.0,SNR=12						
ZAL				pP	pP	21 32 31.7	+0.6
	comp=Z,4.0nm,0.9s,baz=304,slow=7.2,SNR=6.8						
ZAL	Zalesovo	40.83	353	P	P	21 32 20.0	-0.5
ZAL				*PP	pP	21 32 31.7	+0.6
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.7s						
ZAL				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ZAL	Zalesovo	40.83	353	P	P	21 32 20.0	-0.6
ZAL				pP	pP	21 32 31.7	+0.6
HIA	Hailar	41.91	26	P	P	21 32 29.2	-0.2
BVA0	Borovoye Array	43.30	340	*i* P	P	21 32 40.5	-0.3
BVA0				pmax	pmax		
	comp=Z,1.0nm,1.2s,mb3.4						
BVAR	Borovoye Array	43.30	340	P	P	21 32 40.6	-0.2
	comp=Z,1.9nm,0.5s,mb4.0,baz=143,slow=9.7,SNR=14						
BRVK	Borovoye	43.37	340	*e*P	P	21 32 40.7	-0.6
CHKZ	Chkalovo	43.78	341	P	P	21 32 44.7	0.0
CHKZ				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
CHKZ	Chkalovo	43.78	341	*e*P	P	21 32 44.3	-0.4
	comp=Z,48nm,1.1s,mb5.1						

BOD	Bodaibo	47.00	15	*e*P	P	21 33 07.9	-2.3
BOD				*e*	pP	21 33 19.5	-1.3
GNI	Garni	49.75	312	P	P	21 33 33.3	+1.5
	comp=Z,14nm,0.9s,mb5.0,baz=325,slow=0.3,SNR=12						
GNI				LR	LR	21 58 09.4	
	comp=Z,358nm,18.2s,MS4.4,baz=130,slow=40						
GNI	Garni	49.75	312	P	P	21 33 33.3	+1.5
GNI				pmax	pmax		
	comp=Z,14nm,0.9s						
GNI				MLR	MLR		
	comp=Z,358nm,18.2s						
GNI	Garni	49.75	312	*e*P	P	21 33 32.9	+1.1
	comp=Z,25nm,1.1s,mb5.2						
ZEI	Tsey	51.20	314	*e*P	P	21 33 42.9	+0.1
ZEI				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
NWAO	Narrogin (SRO)	51.69	154	P	P	21 33 46.5	-0.1
	comp=Z,7.9nm,0.5s,mb4.9,baz=352,slow=5.2,SNR=13						
NWAO	Narrogin (SRO)	51.69	154	P	P	21 33 46.5	-0.1
NWAO				pmax	pmax		
	comp=Z,8.0nm,0.5s						
BEST	Besiri	51.74	308	*i* P	P	21 33 47.9	+1.0
ERZM	Erzurum	52.17	310	*i* P	P	21 33 51.6	+1.6
KIV	Kislovodsk	52.43	316	P	P	21 33 52.5	+0.5
	comp=Z,121nm,0.8s,SNR=8.6						
KIV	Kislovodsk	52.43	316	*e*P	P	21 33 52.4	+0.4
KIV				pmax	pmax		
	comp=N,13nm,1.0s						
KIV				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
KIV	Kislovodsk	52.43	316	*e*P	P	21 33 51.8	-0.1
	comp=Z,28nm,1.1s,mb5.1						
WRA	Warramunga Arr	52.58	128	P	P	21 33 53.0	-0.5
	comp=Z,13nm,0.5s,mb5.1,baz=300,slow=9.9,SNR=18						
WRA				PcP	PcP	21 35 03.1	-0.2
	comp=Z,1.9nm,0.5s,baz=316,slow=3.2,SNR=7.3						
WRA	Warramunga Arr	52.58	128	P	P	21 33 53.0	-0.4
WRA						21 35 03.1	
WRA				pmax	pmax		
	comp=Z,13nm,0.5s						
WRA				pmax	pmax		
	comp=Z,2.0nm,0.5s						
WRAB	Tennant Creek	52.58	128	*e*P	P	21 33 52.6	-0.8
WRAB				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
WRAB	Tennant Creek	52.58	128	*e*P	P	21 33 52.6	-0.9
	comp=Z,30nm,0.6s,mb5.4						
ELZG	Elazig	53.63	308	P	P	21 34 01.7	+0.7
MALT	Malatya	54.02	308	*e*P	P	21 34 03.3	-0.6
MALT				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
MALT	Malatya	54.02	308	*e*P	P	21 34 03.3	-0.5
	comp=Z,13nm,1.2s,mb4.7						
ASAR	Alice Springs	54.50	132	P	P	21 34 07.0	-0.5
	comp=Z,9.4nm,0.5s,mb5.0,baz=310,slow=6.9,SNR=87						
GZT	Gaziantep	54.50	306	P	P	21 34 07.7	+0.3
KAHT	Ahir Dag	55.09	307	P	P	21 34 12.1	+0.4
COBT	Iskenderun	55.39	305	P	P	21 34 14.3	+0.4
AVNT	Avonos	56.86	308	P	P	21 34 24.0	-0.4
KMBO	Kilima Mbogo	57.07	260	P	P	21 34 27.6	+1.3
MEST	Erdemli	57.09	305	P	P	21 34 25.3	-0.8
BOYT	Boyabat	57.30	311	P	P	21 34 27.7	+0.3
BRTR	Keskin Array B	57.94	309	P	P	21 34 31.2	-0.8
	comp=Z,12nm,0.8s,mb5.0,baz=120,slow=7.9,SNR=57						
BRTR	Keskin Array B	57.94	309	P	P	21 34 31.2	-0.8
BRTR				pmax	pmax		
	comp=Z,12nm,0.8s						
ELDT	Eldivan	58.23	309	P	P	21 34 33.6	-0.4
PMG	Port Moresby	58.43	110	P	P	21 34 36.1	+0.4
	comp=Z,1.9nm,0.3s,mb4.6,baz=258,slow=16,SNR=5.1						
PMG	Port Moresby	58.43	110	P	P	21 34 36.1	+0.3
PMG				pmax	pmax		
	comp=Z,2.0nm,0.3s						
PMG	Port Moresby	58.43	110	*e*P	P	21 34 35.3	-0.5
OBN	Obninsk	60.03	326⇑	*e*P	P	21 34 45.7	-0.6
OBN				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
CTA	Charters Tower	62.16	122	P	P	21 35 01.4	+0.3
	comp=Z,2.9nm,0.7s,mb4.5,baz=346,slow=7.7,SNR=5.6						
CTA	Charters Tower	62.16	122	P	P	21 35 01.4	+0.2
CTA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
CTA	Charters Tower	62.16	122	P	P	21 35 01.4	+0.3
AKASG	Malin Array Be	63.06	320	P	P	21 35 05.6	-1.1
	comp=Z,2.8nm,0.8s,mb4.5,baz=88,slow=4.7,SNR=13						
AKASG	Malin Array Be	63.06	320	P	P	21 35 05.6	-1.1
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.8s						
IDI	Anoyia	64.47	303	P	P	21 35 16.3	+0.1
	comp=Z,6.8nm,0.6s,mb4.8,baz=70,slow=8.9,SNR=8.3						
STKA	Stephens Creek	64.87	135	P	P	21 35 19.1	+0.2
	comp=Z,4.0nm,0.7s,mb4.5,baz=309,slow=10.0,SNR=7.3						
KWP	Kalwaria	67.03	318	*e*P	P	21 35 31.3	-0.9
FINES	FINESS Array B	67.21	331	P	P	21 35 32.6	-0.6
	comp=Z,4.9nm,0.7s,mb4.6,baz=94,slow=6.7,SNR=19						
FINES	FINESS Array B	67.21	331	P	P	21 35 32.6	-0.6
FINES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
CRVS	Cervenica-Dubn	67.77	317	*e*P	P	21 35 38.2	+1.3
CRVS				*e*		21 35 59.2	
PSZ	Piszkesteto	68.74	316	*e*P	P	21 35 41.2	-1.8
VYHS	Vyhne	69.48	317	*e*P	P	21 35 46.8	-0.7
ARCES	ARCESS Array B	69.59	340	P	P	21 35 48.0	+0.1
	comp=Z,4.1nm,0.6s,mb4.6,baz=90,slow=6.6,SNR=27						
ARCES				pP	pP	21 35 59.2	+0.2
	comp=Z,3.5nm,0.7s,baz=104,slow=5.0,SNR=4.1						
ARCES	ARCESS Array B	69.59	340	P	P	21 35 48.0	+0.1
ARCES				*PP	pP	21 35 59.2	+0.2
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
ARCES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
ARCES	ARCESS Array B	69.59	340	P	P	21 35 48.0	+0.1
ARCES				pP	pP	21 35 59.2	+0.2
OKC	Ostrava-Krasne	69.99	318	*e*P	P	21 35 51.2	+0.6
LSZ	Lusaka	70.15	248	*e*P	P	21 35 53.3	+1.2
MORC	Moravsky Berou	70.38	318	*e*P	P	21 35 52.5	-0.5
MORC				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
MORC	Moravsky Berou	70.38	318	*e*P	P	21 35 52.5	-0.5
	comp=Z,13nm,1.1s,mb4.8						
ZST	Bratislava	70.62	317	*e*P	P	21 35 55.0	+0.5
ZST				*e*	pP	21 36 08.1	+2.5
DPC	Dobruska-Polom	71.18	319	*e*P	P	21 35 58.7	+0.9
KSP	Ksiaz	71.22	319	*e*P	P	21 35 58.2	+0.2
PRU	Pruhonice	72.33	318	*e*P	P	21 36 05.2	+0.6
BRG	Berggiesshubel	72.71	319	*i* P	P	21 36 07.2	+0.3
BRG				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
BRG	Berggiesshubel	72.71	319	*i* P	P	21 36 07.2	+0.3
	comp=Z,10nm,1.1s,mb4.7						
GEC2	GERESS Array S	72.88	317	*e*P	P	21 36 08.5	+0.5
GERES	GERESS Array B	72.88	317	P	P	21 36 08.4	+0.4
	comp=Z,5.2nm,0.7s,mb4.6,baz=84,slow=5.8,SNR=32						
GERES	GERESS Array B	72.88	317	P	P	21 36 08.4	+0.4
GERES				pmax	pmax		
	comp=Z,5.0nm,0.7s						
KHC	Kasperske Hory	72.96	318	*e*P	P	21 36 08.5	+0.1
HFS	Hagfors	73.03	329	P	P	21 36 08.5	-0.1
	comp=Z,3.7nm,0.5s,mb4.6,baz=104,slow=6.1,SNR=15						
HFS	Hagfors	73.03	329	P	P	21 36 08.5	-0.1
HFS				pmax	pmax		
	comp=Z,4.0nm,0.5s						
CLL	Collm	73.30	320	*i* P	P	21 36 10.0	-0.3
CLL				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
CLL	Collm	73.30	320	*i* P	P	21 36 10.0	-0.3
	comp=Z,11nm,1.3s,mb4.6						
CLL	Collm	73.30	320	P	P	21 36 10.0	-0.3
	comp=Z,logA/T=0.9,mb4.6						
WET	Wettzell	73.42	318	*e*P	P	21 36 11.7	+0.6
MOX	Moxa	74.19	319	*e*P	P	21 36 16.1	+0.6
MOX				pmax	pmax		
	comp=Z,20nm,1.8s,mb4.8						
MOX	Moxa	74.19	319	*i* P	P	21 36 16.1	+0.6
	comp=Z,logA/T=1.1,mb4.8						
MOX	Moxa	74.19	319	*e*P	P	21 36 16.1	+0.6
	comp=Z,20nm,1.8s,mb4.8						
NB2	NORSAR Subarra	74.28	330	P	P	21 36 15.0	-0.8
	comp=Z,3.7nm,0.6s,mb4.5,baz=91,slow=5.6						
NB2	NORSAR Subarra	74.28	330	P	P	21 36 15.0	-0.8
NB2				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
NOA	NORSAR Array B	74.28	330	P	P	21 36 15.6	-0.2
	comp=Z,3.0nm,0.6s,mb4.4,baz=90,slow=5.7,SNR=9.8						
NOA	NORSAR Array B	74.28	330	P	P	21 36 15.6	-0.2
NOA				pmax	pmax		
	comp=Z,3.0nm,0.6s						
NOA	NORSAR Array B	74.28	330	P	P	21 36 15.6	-0.3
GRA1	Grafenberg Arr	74.48	318	*e*P	P	21 36 18.4	+1.2
	comp=Z,7.0nm,1.0s,mb4.5						
GRA1				*e*pP	pP	21 36 27.8	-0.6
GRF	Grafenberg Arr	74.48	318	*e*P	P	21 36 18.4	+1.2
GRF				*e**PP	pP	21 36 27.8	-0.6
GRF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
GRF	Grafenberg Arr	74.48	318	*e*P	P	21 36 18.4	+1.2
GRF				*e**PP	pP	21 36 27.8	-0.6
GRF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
GRF	Grafenberg Arr	74.48	318	*e*P	P	21 36 18.4	+1.2
	comp=Z,7.0nm,1.0s,mb4.5						
GRF				*e*pP	pP	21 36 27.8	-0.6
BSEG	Bad Segeberg	74.86	323	*e*P	P	21 36 20.1	+0.7
CLZ	Clausthal	74.92	320	*e*P	P	21 36 20.1	+0.4
LPL	La Plagne	77.86	314	*e*P	P	21 36 35.2	-1.3
	comp=Z,30nm,0.8s,mb5.0						
LPL	La Plagne	77.86	314	*e*P	P	21 36 35.2	-1.3
LPL				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
BNI	Bardonecchia	77.95	314	P	P	21 36 36.4	-0.6
EKA	Eskdalemuir Ar	82.44	325	P	P	21 37 01.2	+0.5
	comp=Z,1.8nm,0.6s,mb4.2,baz=98,slow=5.9,SNR=4.8						
EKA	Eskdalemuir Ar	82.44	325	P	P	21 37 01.2	+0.5
EKA				pmax	pmax		
	comp=Z,2.0nm,0.6s						
ESDC	Sonseca Array	86.71	310	P	P	21 37 22.8	+0.4
	comp=Z,0.8nm,0.6s,mb4.2,baz=56,slow=4.6,SNR=7.1						
TXAR	Lajitas Array	134.48	20	PKP	PKPdf	21 44 00.1	+4.0
	comp=Z,0.3nm,0.5s,baz=131,slow=0.5,SNR=5.5						

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*IDC **27** 21:29:51.0±0.7, 7.92N×92.36E, h28^{km}±3^{km}, mb3.9/11, mb1 4.1/12, mb1mx3.9/20, ML4.3/1, MS3.5/1, Ms1 3.7/1, ms1mx2.5/30, Error ellipse: s-maj=29.9km s-min=14.7km az=52.0*

*NEIC **27** 21:29:50.8±0.6, 7.88N×92.35E, mb4.2/4, Error ellipse: s-maj=15.1km s-min=10.5km az=64.0*

*BJI **27** 21:29:50.7, 7.95N×92.62E, h29^{km}, mb4.1*

ISC 27 21:29:48.8±0.6, **7.88N**±0.08×**92.4E**±0.1, **h29**^{km}, **h29**^{km}±.9^{km}**:pP-P, n26,** σ**0^{s}74**/25, **mb4.2**/16, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.29	31	*e*P	P	21 32 45.0	+0.1
CM31				*e*		21 32 54.6	
CMAR	Chiang Mai Arr	12.29	31	Pn	P	21 32 46.1	+1.2
	0.5nm,0.3s,baz=232,slow=14,SNR=21						
CMAR				LR	LR	21 38 17.7	
	comp=Z,212nm,18.1s,baz=245,slow=41						
IMP	Imphal	16.87	5	*e*	P	21 33 45.3	+0.7
LSA	Lhasa	21.74	357	*e*P	P	21 34 40.0	+0.1
	4.9nm,0.6s,mb4.1						
ENH	Enshi	27.43	33	*e*P	P	21 35 32.3	-1.9
GTA	Gaotai	32.09	11	*e*P	P	21 36 15.5	-0.1
GTA				AP	pP	21 36 24.8	+0.5
GTA				XP	sP	21 36 28.5	+0.5
GTA				AMB	AMB		
	comp=Z,6.0nm,0.6s,mb4.6						
AAK	Ala-Archa	38.04	338	P	P	21 37 05.0	-1.4
	comp=Z,3.8nm,0.8s,mb4.2						
SONM	Songino Array	41.55	14	P	P	21 37 35.5	0.0
	comp=Z,0.5nm,0.7s,mb3.2,baz=202,slow=7.8,SNR=3.7						
SONM				pP	pP	21 37 44.4	+0.2
	comp=Z,1.9nm,0.7s,baz=196,slow=8.2,SNR=12						
ULN	Ulaanbaatar	41.75	15	P	P	21 37 37.5	+0.5
ZAL	Zalesovo	46.33	354	P	P	21 38 12.6	-1.4
	comp=Z,0.5nm,0.3s,mb3.9,baz=305,slow=7.8,SNR=2.5						
ZAL				pP	pP	21 38 22.6	-0.1
	comp=Z,1.0nm,0.5s,baz=302,slow=4.1,SNR=3.9						
BVAR	Borovoye Array	48.44	342	P	P	21 38 30.4	0.0
	comp=Z,0.6nm,0.7s,mb3.7,baz=149,slow=8.6,SNR=4.2						
BVAR				pP	pP	21 38 39.6	+0.2
	comp=Z,1.0nm,0.5s,baz=142,slow=9.8,SNR=7.7						
BRVK	Borovoye	48.51	342	*e*P	P	21 38 30.7	-0.2
CHKZ	Chkalovo	48.95	343	*e*P	P	21 38 33.9	-0.4
	comp=Z,1.6nm,0.8s,mb4.1						
WRA	Warramunga Arr	49.68	124	P	P	21 38 40.1	-0.3
	comp=Z,2.5nm,0.5s,mb4.5,baz=303,slow=8.8,SNR=26						
WRAB	Tennant Creek	49.68	124	*e*P	P	21 38 39.9	-0.6
	comp=Z,4.5nm,0.4s,mb4.8						
ASAR	Alice Springs	51.25	129	P	P	21 38 52.4	0.0
	comp=Z,3.8nm,1.0s,mb4.3,baz=303,slow=7.2,SNR=16						
ASAR				PcP	PcP	21 40 08.9	+1.5
	comp=Z,1.4nm,0.6s,baz=304,slow=3.6,SNR=8.4						
BRTR	Keskin Array B	61.12	311	P	P	21 40 02.9	0.0
	comp=Z,0.7nm,0.9s,mb3.8,baz=127,slow=7.2,SNR=2.6						
BRTR				pP	pP	21 40 11.1	-0.9
	comp=Z,1.1nm,0.8s,baz=127,slow=6.2,SNR=4.4						
BRTR	Keskin Array B	61.12	311	P	P	21 40 02.9	0.0
BRTR				pP	pP	21 40 11.1	-0.9
STKA	Stephens Creek	61.37	133	P	P	21 40 05.6	+0.9
	comp=Z,4.3nm,0.8s,mb4.6,baz=157,slow=3.4,SNR=8.0						
FINES	FINESS Array B	71.90	332	P	P	21 41 11.0	-0.1
	comp=Z,13nm,1.4s,mb4.7,baz=180,slow=8.3,SNR=3.1						
FINES				pP	pP	21 41 19.4	-0.8
	comp=Z,2.0nm,0.6s,baz=102,slow=7.3,SNR=3.5						
MORC	Moravsky Berou	74.25	319	*e*P	P	21 41 25.8	+0.9
ARCES	ARCESS Array B	74.68	340	P	P	21 41 27.8	+0.7
	comp=Z,2.4nm,1.0s,mb4.1,baz=190,slow=5.5,SNR=2.8						
ARCES				pP	pP	21 41 37.2	+0.9
	comp=Z,4.0nm,1.1s,baz=63,slow=2.7,SNR=1.6						
ARCES	ARCESS Array B	74.68	340	P	P	21 41 27.8	+0.7
ARCES				pP	pP	21 41 37.2	+0.9
GERES	GERESS Array B	76.67	318	P	P	21 41 39.6	+0.8
	comp=Z,0.4nm,0.5s,mb3.6,baz=76,slow=5.5,SNR=7.3						
GERES				pP	pP	21 41 48.0	-0.1
	comp=Z,1.2nm,0.7s,baz=90,slow=5.3,SNR=7.4						
HFS	Hagfors	77.58	330	P	P	21 41 43.8	+0.1
	comp=Z,3.1nm,1.0s,mb4.2,baz=90,slow=4.3,SNR=3.9						
HFS				pP	pP	21 41 53.1	+0.3
	comp=Z,2.6nm,0.9s,baz=108,slow=9.4,SNR=1.7						
TXAR	Lajitas Array	139.90	22	PKP	PKPdf	21 49 19.2	-0.8
	comp=Z,0.2nm,0.5s,baz=252,slow=1.0,SNR=3.8						

IDC 27 21:32:34.0±2.4, **8.12N**×**90.46E**, **mb3.8**/3, **mb1 4.0**/4, **mb1mx3.6**/19, **ML4.2**/1, **Error ellipse: s-maj=77.6km s-min=30.0km az=62.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.18	38	Pn	P	21 35 42.8	-2.3
	0.4nm,0.3s,baz=229,slow=14,SNR=5.4						
BVAR	Borovoye Array	47.66	344	P	P	21 41 11.8	-2.1
	0.6nm,0.7s,baz=162,slow=9.1,SNR=3.3						
WRA	Warramunga Arr	51.41	123	P	P	21 41 40.7	-2.5
	1.1nm,0.5s,baz=302,slow=9.0,SNR=13						
ASAR	Alice Springs	52.91	128	P	P	21 41 52.6	-1.8
	0.7nm,0.5s,baz=304,slow=7.6,SNR=6.4						

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*IDC **27** 21:39:57.5±1.1, 9.01N×91.97E, mb3.9/9, mb1 4.0/10, mb1mx3.8/21, ML3.8/1, Error ellipse: s-maj=42.6km s-min=21.4km az=51.0*

*NEIC **27** 21:40:02.2±0.5, 9.01N×92.02E, h30^{km}, mb4.1/4, Error ellipse: s-maj=16.4km s-min=9.4km az=58.0*

ISC 27 21:40:00.4±0.8, **9.1N**±0.1×**92.1E**±0.1, **h30**^{km}**, n15,** σ**0^{s}58**/15, **mb3.9**/12, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.45	35	Pn	P	21 42 45.1	-0.1
	0.2nm,0.3s,baz=225,slow=14,SNR=5.5						
LSA	Lhasa	20.56	358	*e*P	P	21 44 39.7	+0.2
	8.2nm,0.7s						
AAK	Ala-Archa	36.85	338	*e*P	P	21 47 09.1	+1.1
	2.0nm,0.7s,mb4.1						
SONM	Songino Array	40.49	15	P	P	21 47 38.2	-0.1
	1.1nm,0.8s,mb3.6,baz=204,slow=8.5,SNR=7.7						
BVAR	Borovoye Array	47.25	342	P	P	21 48 33.5	+0.8
	0.8nm,0.6s,mb3.8,baz=141,slow=9.5,SNR=7.7						
BRVK	Borovoye	47.31	342	*e*P	P	21 48 32.5	-0.7
	0.9nm,0.5s,mb4.0						
CHKZ	Chkalovo	47.75	343	*e*P	P	21 48 36.5	-0.1
WRA	Warramunga Arr	50.57	125	P	P	21 48 58.7	-0.1
	1.3nm,1.1s,mb3.8,baz=300,slow=9.4,SNR=5.4						
WRAB	Tennant Creek	50.58	125	P	P	21 48 58.6	-0.2
	5.2nm,0.9s,mb4.5						
ASAR	Alice Springs	52.20	129	P	P	21 49 11.7	+0.6
	0.4nm,0.8s,mb3.4,baz=309,slow=7.7,SNR=4.8						
FINES	FINESS Array B	70.74	332	P	P	21 51 15.0	-0.6
	1.3nm,0.7s,mb4.0,baz=45,slow=5.4,SNR=3.5						
ARCES	ARCESS Array B	73.48	340	P	P	21 51 31.7	0.0
	1.0nm,0.5s,mb4.0,baz=90,slow=4.9,SNR=8.7						
HFS	Hagfors	76.43	330	P	P	21 51 48.2	-0.6
	1.1nm,0.5s,mb4.0,baz=108,slow=4.7,SNR=4.5						
NOA	NORSAR Array B	77.73	331	P	P	21 51 55.0	-0.9
	1.1nm,0.8s,mb3.9,baz=287,slow=6.6,SNR=3.3						
DAVOX	Davos	78.16	316	P	P	21 51 59.4	+0.8
	3.9nm,1.0s,mb4.3,baz=304,slow=3.6,SNR=3.9						

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*IDC **27** 21:42:02.4±1.0, 8.28N×93.54E, mb3.7/11, mb1 3.9/12, mb1mx3.8/20, ML4.4/1, Error ellipse: s-maj=38.7km s-min=19.6km az=51.0*

*NEIC **27** 21:42:06.9±0.6, 8.34N×93.56E, h30^{km}, mb4.3/4, Error ellipse: s-maj=18.7km s-min=12.3km az=60.0*

ISC 27 21:42:05.1±0.8, **8.4N**±0.1×**93.6E**±0.2, **h30**^{km}**, n17,** σ**0^{s}83**/17, **mb3.9**/14, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.27	27	Pn	P	21 44 47.9	+0.4
	0.7nm,0.3s,baz=212,slow=15,SNR=13						
LSA	Lhasa	21.34	354	*e*P	P	21 46 50.8	-1.3
	7.8nm,0.4s,mb4.4						
AAK	Ala-Archa	38.05	337	*e*P	P	21 49 22.9	+0.2
	2.9nm,0.9s,mb4.0						
SONM	Songino Array	40.79	13	P	P	21 49 46.8	+1.4
	0.2nm,0.4s,mb3.1,baz=196,slow=10,SNR=3.1						
ZAL	Zalesovo	45.99	353	P	P	21 50 27.2	-0.2
	1.6nm,0.7s,mb4.1,baz=307,slow=3.0,SNR=7.2						
BVAR	Borovoye Array	48.35	341	P	P	21 50 45.3	-0.8
	0.2nm,0.3s,mb3.6,baz=148,slow=8.1,SNR=5.2						
BRVK	Borovoye	48.41	341	*e*P	P	21 50 45.0	-1.5
CHKZ	Chkalovo	48.84	342	*e*P	P	21 50 49.1	-0.7
	1.0nm,0.4s,mb4.2						
WRA	Warramunga Arr	48.96	126	P	P	21 50 50.4	-0.8
	0.3nm,0.6s,mb3.5,baz=300,slow=9.9,SNR=6.2						
ASAR	Alice Springs	50.62	130	P	P	21 51 03.9	0.0
	0.2nm,0.5s,mb3.4,baz=305,slow=7.5,SNR=3.2						
BRTR	Keskin Array B	61.72	311	P	P	21 52 22.9	-0.3
	0.3nm,0.5s,mb3.7,baz=140,slow=8.5,SNR=3.0						
FINES	FINESS Array B	72.03	332	P	P	21 53 28.1	+0.1
	11nm,1.3s,mb4.6,baz=90,slow=3.8,SNR=5.5						
ARCES	ARCESS Array B	74.62	340	P	P	21 53 43.6	+0.6
	4.0nm,1.0s,mb4.3,baz=90,slow=3.6,SNR=4.1						
GERES	GERESS Array B	77.12	318	P	P	21 53 59.1	+1.5
	0.3nm,0.6s,mb3.4,baz=90,slow=4.9,SNR=4.0						
HFS	Hagfors	77.77	330	P	P	21 54 01.5	+0.6
	0.9nm,0.4s,mb4.0,baz=104,slow=6.1,SNR=9.0						
NB2	NORSAR Subarra	79.05	331	P	P	21 54 08.2	+0.3
	5.7nm,1.2s,mb4.4,baz=93,slow=5.6						
NOA	NORSAR Array B	79.05	331	P	P	21 54 08.7	+0.8
	4.1nm,1.2s,mb4.2,baz=104,slow=5.2,SNR=2.8						

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*BJI **27** 21:44:02.5, 8.03N×93.32E, h26^{km}, mb4.4, Ms4.9*

*IDC **27** 21:44:03.9±0.6, 8.57N×93.67E, mb4.2/22, mb1 4.3/23, mb1mx4.3/26, ML4.6/1, Error ellipse: s-maj=26.6km s-min=13.9km az=50.0*

*MOS **27** 21:44:06.8±1.1, 8.53N×93.63E, h33^{km}, mb4.8/20, Error ellipse: s-maj=16.2km s-min=8.5km az=113.4*

*NEIC **27** 21:44:07.7±0.3, 8.58N×93.70E, mb4.8/13, Error ellipse: s-maj=9.8km s-min=7.3km az=58.0*

ISC 27 21:44:05.9±0.4, **8.53N**±0.06×**93.79E**±0.06, **h26**^{km}, **h26**^{km}±1.4^{km}**:pP-P, n117,** σ**1^{s}12**/100, **mb4.5**/38, **1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.06	26	P	P	21 46 43.7	-2.2
	4.6nm,0.4s						
CMAR	Chiang Mai Arr	11.06	26	Pn	P	21 46 48.2	+2.4
	1.2nm,0.3s,baz=213,slow=15,SNR=16						
CMAR	Chiang Mai Arr	11.06	26	P	P	21 46 48.3	+2.5
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
SHL	Shillong	17.04	354	*e*P	P	21 48 05.0	+0.8
KMI	Kunming	18.58	26	P	P	21 48 28.0	+4.6
KMI				AMB	AMB		
	comp=Z,15nm,1.2s						
PKI	Pulchoki	20.53	338	*e*P	P	21 48 45.3	+0.2
	comp=Z,60nm,1.2s						
GUN	Gumba	20.67	340	*e*P	P	21 48 46.5	-0.1
	comp=Z,40nm,0.6s						
DMN	Daman	20.67	338	*e*P	P	21 48 46.1	-0.6
KKN	Kakani	20.77	338	*e*P	P	21 48 47.5	-0.2
LSA	Lhasa	21.20	354	*e*P	P	21 48 51.8	-0.2
LSA				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.4						
LSA	Lhasa	21.20	354	*e*P	P	21 48 51.8	-0.3
	comp=Z,8.0nm,0.4s,mb4.4						
GKN	Gorkha	21.21	337	*e*P	P	21 48 52.2	+0.1
KOLN	Koldanda	21.42	335	*e*P	P	21 48 55.0	+0.8
	comp=Z,86nm,1.0s,mb5.0						
GYA	Guiyang	21.61	33	P	P	21 48 57.8	+1.6
GYA				AMB	AMB		
	comp=Z,10.0nm,1.6s,mb4.0						
PTH	Pithoragarh	24.48	330	*e*P	P	21 49 25.2	+0.8
ENH	Enshi	26.15	32	*e*P	P	21 49 39.8	-0.3
	comp=Z,5.8nm,0.7s,mb4.2						
GTA	Gaotai	31.22	9	*e*P	P	21 50 25.3	-0.3
GTA				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.4						
WMQ	Urumqi	35.55	352	*e*P	P	21 51 03.8	+0.7
KZA	Kyzart	37.20	337	P	P	21 51 17.9	+0.9
	SNR=6.1						
UCH	Uchtor	37.61	336	P	P	21 51 21.7	+1.3
	SNR=7.2						
KBK	Karagaybulak	37.81	337	P	P	21 51 23.5	+1.4
	SNR=8.8						
AML	Almayashu	37.87	335	P	P	21 51 23.7	+1.1
	SNR=14						
AAK	Ala-Archa	37.97	337	P	P	21 51 24.8	+1.4
	SNR=6.7						
AAK	Ala-Archa	37.97	337	*e*P	P	21 51 23.2	-0.2
AAK				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
AAK	Ala-Archa	37.97	337	*e*P	P	21 51 23.2	-0.2
	comp=Z,16nm,0.9s,mb4.8						
CHMS	Chumysh	38.17	337	P	P	21 51 25.3	+0.1
	SNR=6.5						
USP	Ospenovka	38.50	337	P	P	21 51 28.3	+0.4
	SNR=7.7						
SONM	Songino Array	40.60	13	P	P	21 51 45.5	+0.3
	comp=Z,1.0nm,0.9s,baz=198,slow=3.9,SNR=4.7						
ZAL	Zalesovo	45.85	353	P	P	21 52 27.8	+0.1
	comp=Z,5.6nm,0.8s,mb4.6,baz=297,slow=8.9,SNR=29						
ZAL	Zalesovo	45.85	353	P	P	21 52 27.8	+0.1
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.8s						
NWAO	Narrogin (SRO)	46.89	153	P	P	21 52 36.4	+0.1
	comp=Z,20nm,1.1s,mb5.0,baz=302,slow=7.5,SNR=5.6						
NWAO	Narrogin (SRO)	46.89	153	P	P	21 52 36.4	+0.2
NWAO				pmax	pmax		
	comp=Z,20nm,1.1s						
NVS	Novosibirsk	46.95	352	*e*P	P	21 52 34.9	-1.5
NVS				pmax	pmax		
	comp=N,52nm,1.1s						
NVS				pmax	pmax		
	comp=E,19nm,1.1s						
NVS				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.4						
QRN	Al-Qurain	47.52	301	*e*P	pP	21 52 49.6	+0.4
BVAR	Borovoye Array	48.26	341	P	P	21 52 45.6	-1.0
	comp=Z,2.4nm,0.9s,mb4.2,baz=149,slow=8.6,SNR=8.5						
MIB	Mutribah	48.30	302	*e*P	P	21 52 47.6	+0.2
MIB				AMb	AMB	21 52 57.0	
	comp=Z,70nm,0.8s						
BRVK	Borovoye	48.32	341	*e*P	P	21 52 44.9	-2.2
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
BRVK	Borovoye	48.32	341	*e*P	P	21 52 44.9	-2.2
	comp=Z,6.0nm,0.8s,mb4.7						
RST	Umm Al-Ruwaisa	48.50	302	*e*P	P	21 52 49.7	+0.8
RST				AMb	AMB	21 52 58.9	
	comp=Z,64nm,1.0s,mb5.6						
CHKZ	Chkalovo	48.74	342	*e*P	P	21 52 49.3	-1.1
CHKZ				*e**PP	pP	21 52 57.1	-1.1
CHKZ				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
CHKZ	Chkalovo	48.74	342	*e*P	P	21 52 49.3	-1.1

	comp=Z,9.7nm,0.9s,mb4.8						
CHKZ				*e*pP	pP	21 52 57.1	-1.2
MZLS	Mizel	48.85	294	P	P	21 52 53.8	+2.1
WRA	Warramunga Arr	48.93	126	P	P	21 52 53.0	+0.7
	comp=Z,0.5nm,0.5s,mb3.8,baz=304,slow=8.6,SNR=6.5						
WRA	Warramunga Arr	48.93	126	P	P	21 52 53.0	+0.7
WRA				pmax	pmax		
	comp=Z,1.0nm,0.5s						
WRAB	Tennant Creek	48.93	126	*e*P	P	21 52 51.7	-0.6
ASAR	Alice Springs	50.60	130	P	P	21 53 06.5	+1.4
	comp=Z,0.8nm,0.7s,mb3.7,baz=303,slow=7.9,SNR=3.7						
AFFS	‘Afif	50.83	294	P	P	21 53 08.9	+2.1
BOD	Bodaibo	51.59	14	*e*P	P	21 53 09.8	-2.3
HILS	Ha’il	52.48	298	P	P	21 53 21.1	+1.8
GNI	Garni	53.73	314	P	P	21 53 27.6	-0.7
	comp=Z,4.3nm,0.9s,mb4.4,baz=328,slow=5.7,SNR=4.6						
GNI	Garni	53.73	314	P	P	21 53 27.6	-0.7
GNI				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KBRS	Khaybar	54.46	296	D		21 52 35.3	
ARU	Arti	55.15	337	*e*P	P	21 53 36.0	-2.5
ARU	Arti	55.15	337	*e*P	P	21 53 36.0	-2.5
UMJS	Umm Lajj	56.13	295	P	P	21 53 48.1	+2.1
KIV	Kislovodsk	56.60	318	*e*P	P	21 53 48.4	-0.7
KIV				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
KIV	Kislovodsk	56.60	318	*e*P	P	21 53 48.4	-0.6
	comp=Z,19nm,1.0s,mb5.1						
KMBO	Kilima Mbogo	57.15	263	P	P	21 53 53.1	-0.3
	comp=Z,1.0nm,0.8s,mb3.9,baz=50,slow=23,SNR=4.1						
KMBO	Kilima Mbogo	57.15	263	P	P	21 53 53.1	-0.3
KMBO				pmax	pmax		
	comp=Z,1.0nm,0.9s						
ASF	Jabal al Asfar	57.57	303	P	P	21 53 56.4	+0.3
	comp=Z,4.1nm,1.1s,mb4.4,baz=76,slow=8.3,SNR=3.9						
MALT	Malatya	57.77	310	*e*P	P	21 53 56.6	-0.9
MALT				*e**PP	pP	21 54 03.3	-2.1
MALT				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
MALT	Malatya	57.77	310	*e*P	P	21 53 56.6	-0.9
	comp=Z,6.6nm,1.0s,mb4.6						
MALT				*e*pP	pP	21 54 03.3	-2.1
AYUS	‘Aynunah	58.32	298	P	P	21 54 02.2	+0.8
BDAS	Al Bad‘	58.50	298	P	P	21 54 03.5	+0.8
STKA	Stephens Creek	60.81	134	P	P	21 54 18.2	-0.3
	comp=Z,3.0nm,1.0s,mb4.4,baz=325,slow=12,SNR=2.4						
BRTR	Keskin Array B	61.74	311	P	P	21 54 22.9	-1.8
	comp=Z,2.6nm,0.8s,mb4.4,baz=115,slow=6.9,SNR=13						
BRTR	Keskin Array B	61.74	311	P	P	21 54 22.9	-1.8
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
MOS	Moscow	64.34	329	*e*P	pP	21 54 47.7	-2.0
OBN	Obninsk	64.64	328	⇓*i*P	pP	21 54 50.3	-1.3
OBN				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.2						
AKASG	Malin Array Be	67.42	322	P	P	21 54 59.5	-1.9
	comp=Z,3.1nm,1.0s,mb4.3,baz=89,slow=5.2,SNR=7.7						
AKASG	Malin Array Be	67.42	322	P	P	21 54 59.6	-1.9
AKASG				pmax	pmax		
	comp=Z,3.0nm,1.0s						
IDI	Anoyia	67.91	305	P	P	21 55 04.2	-0.6
	comp=Z,6.4nm,0.8s,mb4.7,baz=90,slow=4.0,SNR=2.9						
LSZ	Lusaka	69.16	250	*e*P	P	21 55 12.1	-0.7
LSZ				*e**PP	pP	21 55 20.6	-0.3
SUW	Suwalki	71.77	324	*e*P	P	21 55 25.2	-2.8
SUW				*e**PP	pP	21 55 34.3	-1.8
SUW				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.1						
SUW	Suwalki	71.77	324	*e*P	P	21 55 25.2	-2.8
	comp=Z,26nm,1.1s,mb5.1						
SUW				*e*pP	pP	21 55 34.3	-1.8
FINES	FINESS Array B	71.97	332	P	P	21 55 28.3	-0.8
	comp=Z,3.5nm,0.8s,mb4.3,baz=111,slow=6.2,SNR=8.6						
FINES	FINESS Array B	71.97	332	P	P	21 55 28.3	-0.8
FINES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
FINES	FINESS Array B	71.97	332	P	P	21 55 28.3	-0.8
KAF	Kangasniemi	72.05	333	*e*p	P	21 55 28.2	-1.4
OJC	Ojcow	73.25	320	*e*P	pP	21 55 43.1	-1.8
LBTB	Lobatse	74.25	241	*e*P	P	21 55 41.2	-2.0
LBTB				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
LBTB	Lobatse	74.25	241	*e*P	P	21 55 41.2	-1.9
	comp=Z,10nm,1.0s,mb4.7						
OKC	Ostrava-Krasne	74.27	319	*e*P	pP	21 55 50.3	-0.5
OKC	Ostrava-Krasne	74.27	319	*e*pP	pP	21 55 50.3	-0.5
ARCES	ARCESS Array B	74.53	340	P	P	21 55 43.6	-0.3
	comp=Z,2.8nm,0.9s,mb4.2,baz=97,slow=6.0,SNR=9.1						
ARCES	ARCESS Array B	74.53	340	P	P	21 55 43.6	-0.3
ARCES				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MORC	Moravsky Berou	74.65	319	*e*P	P	21 55 44.3	-0.7
MORC				*e**PP	pP	21 55 51.9	-1.2
DPC	Dobruska-Polom	75.48	320	*e*P	pP	21 55 57.9	+0.1
KSP	Ksiaz	75.54	320	*e*P	pP	21 55 57.7	-0.5
UPC	Upice	75.69	320	*e*P	P	21 55 55.9	+5.0
UPC	Upice	75.69	320	*e*pP	P	21 55 55.9	+5.0
PRU	Pruhonice	76.60	319	*e*P	P	21 55 55.8	-0.3
BRG	Berggiesshubel	77.03	320	*e*P	pP	21 56 07.1	+0.6
BRG				pmax	pmax		
	comp=Z,35nm,1.9s,mb5.0						
BRG	Berggiesshubel	77.03	320	*e*P	pP	21 56 07.1	+0.6
	comp=Z,35nm,1.9s						
GERES	GERESS Array B	77.11	318	P	P	21 55 59.5	+0.7
	comp=Z,0.9nm,0.6s,mb3.9,baz=90,slow=6.7,SNR=9.5						
GERES	GERESS Array B	77.11	318	P	P	21 55 59.5	+0.6
GERES				pmax	pmax		
	comp=Z,1.0nm,0.6s						
KHC	Kasperske Hory	77.20	318	*e*P	P	21 55 58.8	-0.6
KHC				*e*pP	pP	21 56 07.3	-0.2
CLL	Collm	77.63	321	*e**PP	pP	21 56 09.0	-0.9
HFS	Hagfors	77.72	330	P	P	21 56 01.9	-0.1
	comp=Z,3.9nm,0.8s,mb4.4,baz=104,slow=6.1,SNR=12						
HFS	Hagfors	77.72	330	P	P	21 56 01.9	-0.1
HFS				pmax	pmax		
	comp=Z,4.0nm,0.9s						
NB2	NORSAR Subarra	78.99	331	P	P	21 56 08.0	-1.0
	comp=Z,8.4nm,0.7s,mb4.8,baz=95,slow=5.0						
NB2	NORSAR Subarra	78.99	331	P	P	21 56 08.0	-1.0
NB2				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
NOA	NORSAR Array B	78.99	331	P	P	21 56 08.6	-0.3
	comp=Z,3.2nm,0.9s,mb4.3,baz=97,slow=5.1,SNR=5.2						
NOA	NORSAR Array B	78.99	331	P	P	21 56 08.7	-0.3
DAVOX	Davos	79.68	316	P	P	21 56 13.7	+0.7
	comp=Z,3.1nm,0.9s,mb4.2,baz=76,slow=3.5,SNR=4.0						
LPL	La Plagne	81.92	315	*e*P	P	21 56 25.8	+1.0
	comp=Z,12nm,0.7s,mb4.6						
LPL	La Plagne	81.92	315	*e*P	P	21 56 25.8	+1.0
LPL				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
ESDC	Sonseca Array	90.53	310	P	P	21 57 06.6	-0.7
	comp=Z,1.2nm,0.8s,mb4.3,baz=47,slow=4.3,SNR=4.8						
ILAR	Eielson Array	94.27	22	P	P	21 57 25.9	+2.0
	comp=Z,0.5nm,0.7s,mb4.0,baz=306,slow=3.8,SNR=6.1						
ILAR	Eielson Array	94.27	22	P	P	21 57 26.0	+2.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
INK	Inuvik	96.46	16	P	P	21 57 34.0	+0.2
	comp=Z,1.1nm,0.9s,mb4.3,baz=305,slow=12,SNR=3.7						
INK	Inuvik	96.46	16	P	P	21 57 34.1	+0.2
INK				pmax	pmax		
	comp=Z,1.0nm,0.9s						
PDAR	Pinedale Array	124.68	21	PKP	PKPdf	22 03 05.5	-2.9
	comp=Z,0.5nm,0.8s,baz=45,slow=2.1,SNR=4.5						
ANMO	Albuquerque	132.71	23	PKP	PKPdf	22 03 23.4	-0.7
	comp=Z,0.8nm,0.8s,baz=59,slow=5.9,SNR=2.2						
TXAR	Lajitas Array	138.77	23	PKP	PKPdf	22 03 32.0	-3.4
	comp=Z,0.2nm,0.6s,baz=297,slow=2.0,SNR=2.2						
JCT	Junction City	139.08	18	*e*PKIKP	PKPdf	22 03 33.2	-2.7
LPAZ	La Paz	160.74	245	PKPab	PKPab	22 04 48.7	-0.1
	comp=Z,1.5nm,0.8s,baz=128,slow=5.8,SNR=4.7						

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*IDC **27** 21:46:00.7±0.7, 8.36N×93.89E, mb4.2/16, mb1 4.3/17, mb1mx4.3/22, ML4.1/1, Error ellipse: s-maj=34.9km s-min=15.1km az=51.0*

*NEIC **27** 21:46:05.0±0.3, 8.34N×93.97E, h30^{km}, mb4.4/7, Error ellipse: s-maj=12.4km s-min=7.5km az=58.0*

*BJI **27** 21:46:05.0, 8.30N×94.00E, h30^{km}, mb4.3*

ISC 27 21:46:03.2±0.5**, 8.28N**±0.07×**93.92E**±0.09**, h30**^{km}**, n37,** σ**1.^{s}09**/36**, mb4.2**/24**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.24	25	Pn	P	21 48 46.0	+0.9
	0.4nm,0.3s,baz=212,slow=15,SNR=8.6						
KMI	Kunming	18.75	26	P	P	21 50 28.0	+5.7
KMI				AMB	AMB		
	comp=Z,9.0nm,1.6s						
LSA	Lhasa	21.47	353	*e*P	P	21 50 50.8	-0.8
	comp=Z,8.0nm,0.6s,mb4.2						
GYA	Guiyang	21.76	32	P	P	21 50 57.0	+2.5
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
PTH	Pithoragarh	24.76	330	*e*S	P	21 51 24.8	+0.9
ENH	Enshi	26.29	32	P	P	21 51 37.4	-0.8
GTA	Gaotai	31.45	9	*e*P	P	21 52 25.0	+0.6
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.3						
AAK	Ala-Archa	38.25	337	*e*P	P	21 53 22.0	-0.6
	comp=Z,3.7nm,0.7s,mb4.2						
SONM	Songino Array	40.82	13	P	P	21 53 43.9	+0.2
	comp=Z,1.3nm,0.9s,mb3.5,baz=201,slow=6.1,SNR=5.5						
SONM				PcP	PcP	21 55 45.9	+0.8
	comp=Z,0.5nm,0.5s,baz=193,slow=3.8,SNR=6.6						
ULN	Ulaanbaatar	41.00	13	*e*P	P	21 53 44.8	-0.4
	comp=Z,2.0nm,0.8s,mb3.8						
ZAL	Zalesovo	46.12	353	P	P	21 54 26.7	+0.1
	comp=Z,3.4nm,0.7s,mb4.4,baz=296,slow=8.4,SNR=7.1						
NWAO	Narrogin (SRO)	46.61	153	P	P	21 54 32.2	+1.4
	comp=Z,11nm,0.7s,mb4.9,baz=346,slow=18,SNR=3.5						
NWAO	Narrogin (SRO)	46.61	153	P	P	21 54 32.2	+1.4
BVAR	Borovoye Array	48.54	341	P	P	21 54 44.4	-1.1
	comp=Z,0.9nm,0.7s,mb3.9,baz=135,slow=8.2,SNR=3.5						
BRVK	Borovoye	48.60	341	P	P	21 54 45.1	-0.9
WRA	Warramunga Arr	48.68	126	P	P	21 54 47.5	+0.5
	comp=Z,2.4nm,0.7s,mb4.3,baz=303,slow=9.2,SNR=6.4						
WRAB	Tennant Creek	48.68	126	*e*P	P	21 54 45.1	-2.0
	comp=Z,3.8nm,0.8s,mb4.5						
CHKZ	Chkalovo	49.02	342	*e*P	P	21 54 48.5	-0.8
	comp=Z,3.9nm,0.7s,mb4.5						
ASAR	Alice Springs	50.34	130	P	P	21 55 00.1	+0.2
	comp=Z,1.2nm,0.7s,mb4.0,baz=307,slow=7.4,SNR=5.3						
ASAR				PcP	PcP	21 56 19.2	+0.8
	comp=Z,1.4nm,0.7s,baz=308,slow=4.1,SNR=6.8						
PMG	Port Moresby	55.86	107	P	P	21 55 39.2	-1.7
	comp=Z,3.4nm,0.6s,mb4.5,baz=260,slow=11,SNR=2.7						
KIV	Kislovodsk	56.87	318	P	P	21 55 47.5	-0.3
KMBO	Kilima Mbogo	57.25	263	P	P	21 55 54.2	+3.4
	comp=Z,2.4nm,0.8s,mb4.3,baz=49,slow=12,SNR=8.1						
KMBO	Kilima Mbogo	57.25	263	P	P	21 55 54.2	+3.4
BRTR	Keskin Array B	62.00	311	P	P	21 56 21.6	-1.6
	comp=Z,1.6nm,0.8s,mb4.2,baz=123,slow=7.6,SNR=5.0						
AKASG	Malin Array Be	67.70	322	P	P	21 56 58.1	-1.8
	comp=Z,1.5nm,0.8s,mb4.1,baz=87,slow=5.3,SNR=5.0						
LSZ	Lusaka	69.19	250	*e*P	P	21 57 11.0	+1.2
FINES	FINESS Array B	72.25	332	P	P	21 57 27.3	-0.2
	comp=Z,1.9nm,0.7s,mb4.1,baz=117,slow=4.3,SNR=5.3						
LBTB	Lobatse	74.24	241	*e*P	P	21 57 39.0	-0.8
ARCES	ARCESS Array B	74.81	340	P	P	21 57 44.6	+2.4
	comp=Z,7.7nm,1.2s,mb4.5,baz=101,slow=4.6,SNR=3.6						
MORC	Moravsky Berou	74.92	319	P	P	21 57 43.5	+0.2
GERES	GERESS Array B	77.38	318	P	P	21 57 57.9	+0.8
	comp=Z,1.4nm,0.8s,mb4.0,baz=76,slow=5.5,SNR=7.1						
HFS	Hagfors	78.00	330	P	P	21 58 00.5	+0.3
	comp=Z,4.4nm,0.9s,mb4.4,baz=112,slow=7.8,SNR=4.8						
NB2	NORSAR Subarra	79.27	331	P	P	21 58 07.2	0.0
	comp=Z,1.5nm,0.6s,mb4.1,baz=95,slow=5.0						
NOA	NORSAR Array B	79.27	331	P	P	21 58 07.5	+0.3
	comp=Z,1.2nm,0.8s,mb3.9,baz=105,slow=5.0,SNR=4.4						
LPL	La Plagne	82.19	315	*e*P	P	21 58 24.0	+1.1
	comp=Z,25nm,1.1s,mb4.8						
ILAR	Eielson Array	94.46	22	P	P	21 59 21.7	+0.2
	comp=Z,0.4nm,0.8s,mb3.9,baz=306,slow=4.2,SNR=4.4						
LPAZ	La Paz	160.75	244	PKPab	PKPab	22 06 46.5	+1.0
	comp=Z,0.8nm,0.9s,baz=90,slow=6.0,SNR=4.6						

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*IDC **27** 21:53:40.7±0.6, 8.94N×93.79E, mb4.4/20, mb1 4.4/20, mb1mx4.4/24, Error ellipse: s-maj=25.4km s-min=14.9km az=51.0*

*NEIC **27** 21:53:45.2±0.3, 8.94N×93.88E, h30^{km}, mb4.7/13, Error ellipse: s-maj=9.2km s-min=6.9km az=51.0*

*BJI **27** 21:53:45.2, 8.90N×93.90E, h30^{km}, mb4.5*

ISC 27 21:53:41.9±4.3**, 8.92N**±0.08×**93.91E**±0.08**, h21**^{km}±29^{km}**, n78,** σ**0.^{s}88**/73**, mb4.5**/36**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.66	27	P	P	21 56 15.7	-1.1
	12nm,0.7s						
SHL	Shillong	16.67	354	*e*P	P	21 57 37.0	+0.9
HYB	Hyderabad	17.16	301	*e*P	P	21 57 51.0	+8.6
KMI	Kunming	18.18	26	P	P	21 58 01.3	+6.3
KMI				AMB	AMB		
	comp=Z,8.0nm,0.5s						
PKI	Pulchoki	20.22	338	*e*P	P	21 58 18.5	0.0
	comp=Z,45nm,1.1s						
GUN	Gumba	20.36	339	*e*P	P	21 58 20.0	+0.1
DMN	Daman	20.37	337	*e*P	P	21 58 19.9	-0.2
	comp=Z,32nm,0.9s						
KKN	Kakani	20.46	338	*e*P	P	21 58 20.8	-0.3
	comp=Z,28nm,0.8s						
LSA	Lhasa	20.84	353	*e*P	P	21 58 24.4	-0.5
	comp=Z,24nm,1.2s						
GKN	Gorkha	20.90	336	*e*P	P	21 58 25.6	0.0
KOLN	Koldanda	21.13	334	*e*P	P	21 58 28.1	+0.2
	comp=Z,65nm,0.9s,mb5.0						
GYA	Guiyang	21.23	33	P		21 58 35.8	
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.1						
BHPL	Bhopal	21.27	314	*e*P	P	21 58 30.2	+0.8
AGRA	Agra	23.66	322	*e*P	P	21 58 53.7	+0.6
PTH	Pithoragarh	24.21	330	*e*P	P	21 59 00.3	+1.9
AYAN	Aya Nagar	25.07	323	*e*	P	21 58 58.5	-8.1
AYAN				*e*		21 59 00.2	
	comp=Z,13nm,0.4s						
NDI	New Delhi	25.16	324	*e*P	P	21 59 07.0	-0.5
KHET	Khetri	25.58	321	*e*P	P	21 59 11.4	-0.1
KHET				*e*		21 59 13.8	
	comp=Z,14nm,1.0s						
DDI	Dehra Dun	25.95	327	*e*P	P	21 59 15.3	+0.5
LZH	Lanzhou	28.52	17	*e*P	P	21 59 38.0	-0.2
LZH				AMB	AMB		
	comp=Z,23nm,1.6s,mb4.7						
AAK	Ala-Archa	37.66	336	*e*P	P	22 00 56.9	-0.5
	comp=Z,13nm,1.1s,mb4.6						
SONM	Songino Array	40.20	13	P	P	22 01 20.3	+1.7
	comp=Z,1.3nm,0.8s,mb3.7,baz=203,slow=8.1,SNR=6.1						
SONM				PcP	PcP	22 03 23.6	+0.4
	comp=Z,1.3nm,1.1s,baz=199,slow=2.9,SNR=4.4						
ZAL	Zalesovo	45.49	352	P	P	22 02 01.8	+0.3
	comp=Z,7.9nm,1.2s,mb4.4,baz=294,slow=9.5,SNR=16						
NWAO	Narrogin (SRO)	47.17	153	P	P	22 02 15.3	+0.1
	comp=Z,11nm,0.7s,mb4.9,baz=327,slow=13,SNR=6.2						
NWAO	Narrogin (SRO)	47.17	153	P	P	22 02 15.3	+0.1
RDF	Al-Radifah	47.79	301	*e*P	P	22 02 20.6	+0.5
RDF				AMb	AMB	22 02 25.9	
	comp=Z,88nm,1.1s,mb5.7						
BVAR	Borovoye Array	47.93	341	P	P	22 02 20.3	-0.5
	comp=Z,1.4nm,0.7s,mb4.1,baz=149,slow=8.6,SNR=7.6						
MIB	Mutribah	48.20	302	*e*P	P	22 02 23.1	-0.1
MIB				AMb	AMB	22 02 24.5	
	comp=Z,76nm,0.8s,mb5.8						
RST	Umm Al-Ruwaisa	48.41	302	*e*P	P	22 02 24.9	+0.1
RST				AMb	AMB	22 02 26.3	
	comp=Z,47nm,0.9s,mb5.5						
CHKZ	Chkalovo	48.42	342	*e*P	P	22 02 23.4	-1.2
	comp=Z,8.1nm,0.9s,mb4.8						
WRA	Warramunga Arr	49.05	126	P	P	22 02 30.3	+0.4
	comp=Z,1.0nm,0.7s,mb4.0,baz=305,slow=8.4,SNR=6.8						
WRAB	Tennant Creek	49.05	126	*e*P	P	22 02 30.5	+0.6
ASAR	Alice Springs	50.76	130	P	P	22 02 43.4	+0.5
	comp=Z,1.6nm,0.8s,mb4.0,baz=302,slow=7.1,SNR=12						
GNI	Garni	53.55	314	P	P	22 03 03.8	+0.1
	comp=Z,5.9nm,0.8s,mb4.5,baz=344,slow=5.8,SNR=5.8						
GNI	Garni	53.55	314	*e*P	P	22 03 02.9	-0.8
	comp=Z,8.7nm,0.9s,mb4.7						
PMG	Port Moresby	56.06	108	P	P	22 03 21.0	-1.3
KIV	Kislovodsk	56.40	317	*e*P	P	22 03 23.7	-0.6
	comp=Z,22nm,1.0s,mb5.1						
KMBO	Kilima Mbogo	57.32	263	P	P	22 03 31.4	0.0
	comp=Z,0.8nm,0.7s,mb3.9,baz=57,slow=15,SNR=6.2						
KMBO	Kilima Mbogo	57.32	263	*e*P	P	22 03 32.4	+1.1
ASF	Jabal al Asfar	57.47	302	P	P	22 03 31.3	-0.8
	comp=Z,5.9nm,0.9s,mb4.6,baz=358,slow=2.5,SNR=8.0						
MALT	Malatya	57.62	310	*e*P	P	22 03 32.2	-0.9
	comp=Z,5.0nm,0.9s,mb4.5						
EIL	Elat	58.72	299	*e*P	P	22 03 40.3	-0.6
	comp=Z,6.2nm,0.8s,mb4.7						
BRTR	Keskin Array B	61.58	310	P	P	22 03 58.6	-1.7
	comp=Z,6.8nm,0.8s,mb4.8,baz=121,slow=7.2,SNR=30						
MBAR	Mbarara	63.62	265	P	P	22 04 14.4	+0.1
AKASG	Malin Array Be	67.20	321	P	P	22 04 34.9	-1.8
	comp=Z,7.2nm,0.9s,mb4.7,baz=85,slow=5.2,SNR=17						
IDI	Anoyia	67.79	304	P	P	22 04 40.5	-0.3
	comp=Z,5.4nm,0.7s,mb4.7,baz=41,slow=18,SNR=4.4						
LSZ	Lusaka	69.41	250	*e*P	P	22 04 51.0	0.0
	comp=Z,3.6nm,0.9s,mb4.3						
KWP	Kalwaria	71.09	319	*e*P	P	22 05 01.5	+0.7
KOLS	Kolonicke sedl	71.28	319	*e*P	P	22 05 03.1	+1.2
KOLS				*e*	pP	22 05 10.3	+1.9
SUW	Suwalki	71.53	324	*e*P	P	22 05 02.4	-0.9
FINES	FINESS Array B	71.69	332	P	P	22 05 03.2	-0.9
	comp=Z,1.4nm,0.8s,mb3.9,baz=135,slow=2.7,SNR=4.8						
CRVS	Cervenica-Dubn	71.80	319	*e*P	P	22 05 07.7	+2.7
KECS	Kecovo	72.39	318	*e*pP	pP	22 05 16.6	+1.6
OJC	Ojcow	73.04	320	*e*P	P	22 05 12.3	0.0
VYHS	Vyhne	73.48	318	*e*P	P	22 05 13.0	-1.9
OKC	Ostrava-Krasne	74.06	319	*e*P	P	22 05 18.1	-0.1
ARCES	ARCESS Array B	74.21	340	P	P	22 05 18.8	+0.1
	comp=Z,1.5nm,0.5s,mb4.2,baz=103,slow=7.1,SNR=8.8						
MORC	Moravsky Berou	74.44	319	*e*P	P	22 05 20.6	+0.2
	comp=Z,9.0nm,1.0s,mb4.7						
LBTB	Lobatse	74.55	241	*e*P	P	22 05 20.5	-1.1
	comp=Z,6.2nm,0.8s,mb4.6						
ZST	Bratislava	74.61	317	*e*P	P	22 05 21.9	+0.4
DPC	Dobruska-Polom	75.27	320	*e*P	P	22 05 26.3	+1.1
KSP	Ksiaz	75.32	320	*e*P	P	22 05 26.2	+0.7
UPC	Upice	75.48	320	*e*P	P	22 05 27.5	+1.1
BRG	Berggiesshubel	76.81	320	*e*P	P	22 05 34.7	+0.8
	comp=Z,8.4nm,1.4s,mb4.5						
GERES	GERESS Array B	76.90	318	P	P	22 05 33.8	-0.6
	comp=Z,5.4nm,0.8s,mb4.5,baz=89,slow=5.1,SNR=32						
CLL	Collm	77.42	321	*e*P	P	22 05 37.0	-0.2
CLL	Collm	77.42	321	P	P	22 05 37.0	-0.2
HFS	Hagfors	77.45	330	P	P	22 05 37.2	0.0
	comp=Z,1.9nm,0.4s,mb4.4,baz=95,slow=4.6,SNR=18						
NB2	NORSAR Subarra	78.72	331	P	P	22 05 41.2	-3.0
	comp=Z,5.6nm,0.8s,mb4.5,baz=92,slow=5.6						
NOA	NORSAR Array B	78.72	331	P	P	22 05 44.6	+0.4
	comp=Z,3.9nm,0.8s,mb4.4,baz=94,slow=5.5,SNR=6.3						
LPL	La Plagne	81.74	315	*e*P	P	22 06 01.3	+0.7
	comp=Z,16nm,0.8s,mb4.7						
ESDC	Sonseca Array	90.38	310	P	P	22 06 43.9	+0.6
	comp=Z,2.5nm,1.0s,mb4.5,baz=52,slow=3.7,SNR=7.5						
SPU	Mount Spurr	93.45	26	P	P	22 06 55.5	-1.4
ILAR	Eielson Array	93.87	22	P	P	22 06 59.0	+0.2
	comp=Z,0.7nm,0.9s,mb4.1,baz=304,slow=3.9,SNR=6.9						
INK	Inuvik	96.06	16	P	P	22 07 11.0	+2.2
	comp=Z,0.9nm,0.8s,mb4.3,baz=353,slow=8.4,SNR=4.0						
PDAR	Pinedale Array	124.28	21	PKP	PKPdf	22 12 42.1	-1.8
	comp=Z,0.7nm,0.8s,SNR=4.8						
TXAR	Lajitas Array	138.37	23	PKP	PKPdf	22 13 09.4	-1.4
	comp=Z,0.3nm,0.6s,baz=200,slow=4.1,SNR=3.9						
LVC	Limon Verde	158.62	228	PKPab	PKPab	22 14 17.3	+1.1
	comp=Z,3.3nm,0.9s,baz=135,slow=4.3,SNR=3.3						

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*NEIC **27** 21:55:55.0±4.4, 38.98N×74.03E, h160^{km}±23^{km}, mb4.0/1, Error ellipse: s-maj=49.6km s-min=17.5km az=190.0*

*IDC **27** 21:55:55.0±13.0, 38.92N×74.04E, h163^{km}±89^{km}, mb3.5/6, mb1 3.6/8, mb1mx3.3/23, Error ellipse: s-maj=122.0km s-min=23.0km az=8.0*

ISC 27 21:55:54.5±6.5**, 39.0N**±0.5×**74.1E**±0.2**, h168**^{km}±35^{km}**, n14,** σ**0.^{s}50**/14**, mb3.7**/6**, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AAK	Ala-Archa	3.64	5	*e*P	P	21 56 51.3	-0.1
BVAR	Borovoye Array	14.25	351	P	P	21 59 09.5	0.0
	0.1nm,0.3s,baz=158,slow=10,SNR=3.5						
BVAR	Borovoye Array	14.25	351	P	P	21 59 09.5	0.0
BRVK	Borovoye	14.29	351	P	P	21 59 10.7	+0.6
	5.2nm,0.8s						
ZAL	Zalesovo	16.64	23	P	P	21 59 38.3	-0.8
	0.9nm,0.3s,baz=249,slow=5.4,SNR=7.5						
SONM	Songino Array	24.94	59	P	P	22 01 04.1	+0.6
	0.4nm,0.8s,mb3.0,baz=256,slow=12,SNR=4.0						
FINES	FINESS Array B	36.84	323	P	P	22 02 47.5	-0.2
	1.0nm,0.4s,mb3.8,baz=113,slow=10.0,SNR=15						
FINES	FINESS Array B	36.84	323	P	P	22 02 47.5	-0.2
ARCES	ARCESS Array B	39.81	336	P	P	22 03 13.1	+0.8
	1.0nm,0.3s,mb3.9,baz=113,slow=9.2,SNR=19						
ARCES	ARCESS Array B	39.81	336	P	P	22 03 13.1	+0.8
HFS	Hagfors	42.65	320	P	P	22 03 34.9	-0.5
	1.8nm,0.4s,mb4.0,baz=98,slow=10,SNR=13						
INK	Inuvik	71.03	10	P	P	22 06 54.8	-0.4
	6.6nm,1.4s,mb4.2,baz=355,slow=5.2,SNR=3.9						
YKA	Yellowknife Ar	78.61	4	P	P	22 07 38.3	0.0
	0.2nm,0.4s,mb3.1,baz=347,slow=5.5,SNR=8.6						
YKA	Yellowknife Ar	78.61	4	P	P	22 07 38.3	0.0

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*NEIC **27** 21:56:14.8±1.2, 20.28S×178.71W, h623^{km}±14^{km}, mb4.7/16, Error ellipse: s-maj=10.8km s-min=6.8km az=158.0*

*IDC **27** 21:56:16.4±1.5, 20.28S×178.78W, h637^{km}±17^{km}, mb4.1/19, mb1 4.2/21, mb1mx4.2/23, Error ellipse: s-maj=15.8km s-min=9.1km az=152.0*

*BJI **27** 21:56:17.6, 19.39S×178.94W, h623^{km}, mB4.9, mb4.8*

ISC 27 21:56:14.1±1.2**, 20.39S**±0.09×**178.72W**±0.07**, h630**^{km}±16^{km}**, n153,** σ**0.^{s}89**/72**, mb4.6**/39**, 12C-3D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	13.94	260	*e*P	P	21 59 13.7	+2.1
NOUC	Port Laguerre	14.07	260	*e*P	P	21 59 13.4	+0.5
NOUC	Port Laguerre	14.07	260	*e*P	P	21 59 13.4	+0.5
RAR	Rarotonga	17.73	96	P	P	21 59 45.9	-1.5
	1.1nm,0.3s,baz=128,slow=22,SNR=3.8						
RAR	Rarotonga	17.73	96	P	P	21 59 45.9	-1.5
URZ	Urewera	18.18	191	P	P	21 59 48.7	-2.7
	7.9nm,0.3s,baz=27,slow=2.6,SNR=38						
URZ				S	S	22 02 39.1	-6.8
	0.3nm,0.3s,baz=210,slow=20,SNR=5.1						
CTA	Charters Tower	32.83	264	P	P	22 02 00.3	+0.5
	37nm,0.5s,mb5.3,baz=94,slow=10,SNR=149						
CTA				PcP	PcP	22 04 25.3	-0.3
	3.9nm,0.7s,baz=104,slow=2.5,SNR=3.5						
CTAO	Charters Tower	32.83	264	*e*P	P	22 01 59.4	-0.4
	42nm,0.6s,mb5.2						
PMG	Port Moresby	34.66	283	P	P	22 02 14.9	-0.1
	50nm,0.7s,mb5.2,baz=82,slow=5.2,SNR=32						
PMG				PcP	PcP	22 04 31.2	+0.2
	3.0nm,0.3s,baz=344,slow=7.8,SNR=4.4						
PMG	Port Moresby	34.66	283	*e*P	P	22 02 14.1	-0.9
	46nm,0.8s,mb5.2						
STKA	Stephens Creek	37.23	244	P	P	22 02 36.9	+0.9
	14nm,0.5s,mb4.7,baz=85,slow=10,SNR=42						
STKA				PcP	PcP	22 04 38.9	+0.3
	7.3nm,0.8s,baz=31,slow=5.5,SNR=4.7						
STKA	Stephens Creek	37.23	244	P	P	22 02 36.9	+0.9
STKA				PcP	PcP	22 04 38.9	+0.2
ASAR	Alice Springs	43.89	257	P	P	22 03 28.9	-0.1
	53nm,0.8s,mb5.1,baz=94,slow=7.4,SNR=434						
ASAR				PcP	PcP	22 05 00.7	-0.3
	8.6nm,0.6s,baz=104,slow=3.7,SNR=13						
ASAR				S	S	22 09 15.8	-1.1
	2.3nm,0.9s,baz=90,slow=15,SNR=6.5						
WRAB	Tennant Creek	43.94	262	*e*P	P	22 03 28.3	-1.1
	89nm,0.9s,mb5.3						
WRA	Warramunga Arr	43.95	262	P	P	22 03 28.6	-0.9
	21nm,0.3s,mb5.1,baz=97,slow=7.4,SNR=328						
WRA				PcP	PcP	22 05 00.3	-0.9
	7.2nm,1.1s,baz=95,slow=4.3,SNR=5.5						
WRA				S	S	22 09 15.8	-2.0
	1.5nm,0.8s,baz=95,slow=13,SNR=6.8						
NWAO	Narrogin (SRO)	57.82	243	P	P	22 05 08.8	-0.5
	10.0nm,0.6s,mb4.1,baz=11,slow=19,SNR=8.5						
VNDA	Vanda	57.97	185	P	P	22 05 11.1	+1.3
	1.5nm,0.4s,mb3.4,baz=4.0,slow=6.7,SNR=16						
VNDA	Vanda	57.97	185	P	P	22 05 11.1	+1.3
QSPA	South Pole Qui	69.68	180	⇑*i*P	P	22 06 24.7	+1.3
MAT	Matsushiro	69.72	324	P	P	22 06 23.1	-1.2
MAT	Matsushiro	69.72	324	*e*P	P	22 06 23.0	-1.3
	11nm,0.8s,mb4.3						
ASAJ	Asahikawa	73.31	332	P	P	22 06 45.9	+1.1
	33nm,0.7s,mb5.0,baz=195,slow=1.5,SNR=20						
WDC	Whiskeytown Da	80.02	40	*e*P	P	22 07 21.3	+0.3
	36nm,1.5s,mb4.5						
MDJ	Mudanjiang	80.04	325	P	P	22 07 21.0	-0.1

MDJ				AMB	AMB		
	comp=Z,19nm,1.2s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,132nm,5.6s						
MDJ	Mudanjiang	80.04	325	*e*P	P	22 07 21.6	+0.5
YBH	Yreka Blue Hor	80.62	39	P	P	22 07 25.0	+0.8
	comp=Z,15nm,0.7s,mb4.5,baz=182,slow=1.7,SNR=34						
NVAR	Mina Array Bea	81.41	44	P	P	22 07 29.1	+0.9
	comp=Z,7.2nm,0.6s,mb4.3,baz=220,slow=8.9,SNR=19						
SNY	Shenyang	81.69	320	⇓P	P	22 07 29.3	-0.3
SNY				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.8						
CN2	Changchun	81.80	323	*e*P	P	22 07 30.5	+0.4
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.6						
TPNV	Topopah Spring	81.94	46	*e*P	P	22 07 31.1	+0.1
	comp=Z,13nm,0.9s,mb4.5						
MOD	Modoc	82.16	40	*e*P	P	22 07 32.2	+0.2
	comp=Z,25nm,1.1s,mb4.7						
BMN	Battle Mountai	83.22	42	*e*P	P	22 07 37.7	+0.5
	comp=Z,14nm,1.0s,mb4.5						
RSO	Redoubt South	83.27	13	*e*P	P	22 07 35.6	-1.4
BBB	Bella Bella	84.62	29	P	P	22 07 44.1	+0.3
	comp=Z,28nm,1.3s,mb4.7,baz=300,slow=2.5,SNR=3.3						
BJT	Baijiatuau	85.33	316	*e*P	P	22 07 47.8	+0.2
	comp=Z,9.6nm,0.7s,mb4.5						
BJI	Beijing	85.34	316	P	P	22 07 48.0	+0.4
BJI				AMB	AMB		
	comp=Z,18nm,0.7s,mb4.8						
ENH	Enshi	85.42	304	*e*P	P	22 07 48.6	+0.4
	comp=Z,54nm,1.3s,mb5.0						
BMO	Blue Mountains	85.65	39	*e*P	P	22 07 48.7	-0.2
	comp=Z,6.0nm,0.7s,mb4.3						
SYO	Syowa Base	86.69	193	⇑P	P	22 07 52.2	-1.1
SYO	Syowa Base	86.69	193	⇓P	P	22 07 53.4	+0.1
MNTX	Cornudas Mount	87.23	55	*e*P	P	22 07 57.0	+0.3
TXAR	Lajitas Array	87.56	58	P	P	22 07 59.4	+1.1
	comp=Z,8.7nm,0.9s,mb4.5,baz=222,slow=6.2,SNR=55						
TXAR	Lajitas Array	87.56	58	P	P	22 07 59.4	+1.1
PV10	Paradox Valley	87.59	48	*e*P	P	22 07 58.1	-0.1
ANMO	Albuquerque	87.86	52	P	P	22 08 00.1	+0.5
	comp=Z,9.5nm,1.2s,mb4.4,baz=245,slow=5.0,SNR=6.3						
ANMO	Albuquerque	87.86	52	*e*P	P	22 08 00.0	+0.4
SNAA	Sanae	88.14	179	⇑*i*	P	22 07 59.9	-0.1
SNAA	Sanae	88.14	179	P	P	22 08 00.0	0.0
	comp=Z,0.6nm,0.6s,mb3.5,baz=211,slow=10,SNR=16						
COLA	College	88.24	13	*e*P	P	22 07 59.2	-1.4
	comp=Z,34nm,0.9s,mb5.1						
IMA	Indian Mountai	88.25	10	*e*P	P	22 07 59.8	-0.9
	comp=Z,45nm,1.2s,mb5.1						
VNA3	Neumayer Olymp	88.30	176	⇑*i*	P	22 08 04.8	+4.0
MCMT	McKenzie Canyo	88.30	41	*e*P	P	22 08 02.0	+0.6
ILAR	Eielson Array	88.35	13	P	P	22 07 59.9	-1.3
	comp=Z,9.8nm,0.7s,mb4.7,baz=216,slow=5.4,SNR=118						
VNA2	Neumayer--Watz	88.73	177	⇑*i*	P	22 08 07.2	+4.4
HHC	Hu-ho-hao-te	88.79	315	*e*P	P	22 08 05.0	+1.2
HHC				AMB	AMB		
	comp=Z,7.0nm,0.3s,mb5.0						
BILL	Bilibino	88.85	354	*e*P	P	22 08 02.9	-0.6
	comp=Z,5.1nm,0.6s,mb4.5						
VNA1	Neumayer--Stat	88.96	177	⇑*i*	P	22 08 03.5	-0.4
IMW	Indian Meadow	89.01	42	*e*P	P	22 08 05.2	+0.5
CHMT	Chamberlain Mo	89.14	39	*e*P	P	22 08 04.7	-0.5
QLMT	Earthquake Lak	89.17	41	*e*P	P	22 08 06.3	+0.9
BW06	Boulder Array	89.34	43	*e*P	P	22 08 06.1	-0.2
	comp=Z,14nm,1.1s,mb4.7						
PDAR	Pinedale Array	89.34	43	P	P	22 08 06.2	0.0
	comp=Z,6.9nm,0.6s,mb4.7,baz=211,slow=3.2,SNR=42						
CMAR	Chiang Mai Arr	89.44	290	P	P	22 08 09.0	+1.7
	comp=Z,10nm,0.8s,mb4.7,baz=92,slow=3.5,SNR=5.5						
BOZ	Bozeman (W)	89.46	40	*e*P	P	22 08 06.6	-0.2
SDCO	Great Sand Dun	89.79	49	*e*P	P	22 08 08.4	0.0
	comp=Z,2.1nm,0.7s,mb4.1						
INK	Inuvik	94.34	15	P	P	22 08 27.3	-1.3
	comp=Z,3.0nm,0.7s,mb4.5,baz=207,slow=4.5,SNR=10						
INK	Inuvik	94.34	15	P	P	22 08 27.3	-1.3
SONM	Songino Array	95.23	319	P	P	22 08 33.2	+0.2
	comp=Z,1.0nm,0.8s,mb4.0,baz=141,slow=4.8,SNR=6.2						
YKA	Yellowknife Ar	96.69	25	P	P	22 08 38.4	-0.8
	comp=Z,1.1nm,0.7s,mb4.2,baz=242,slow=4.4,SNR=28						
FRB	Frobisher Bay	117.00	28	PKP	PKPdf	22 13 48.0	-0.4
	comp=Z,1.4nm,0.3s,baz=300,slow=2.5,SNR=11						
FRB	Frobisher Bay	117.00	28	PKP	PKPdf	22 13 48.0	-0.4
BVAR	Borovoye Array	118.56	320	PKP	PKPdf	22 13 52.1	+0.4
	comp=Z,8.3nm,0.4s,baz=127,slow=1.5,SNR=36						
KEV	Kevo	128.23	349	*e*p	PKPdf	22 14 08.9	-0.9
ARCES	ARCESS Array B	128.69	349	PKP	PKPdf	22 14 11.2	+0.5
	comp=Z,5.2nm,0.5s,baz=27,slow=1.0,SNR=32						
KAF	Kangasniemi	134.85	344	*e*p	PKPdf	22 14 23.2	+0.8
	comp=Z,3.5nm,0.5s						
FINES	FINESS Array B	135.47	343	PKP	PKPdf	22 14 24.2	+0.6
	comp=Z,2.4nm,0.5s,baz=79,slow=4.3,SNR=9.2						
FINES				SKP		22 17 01.2	
	comp=Z,1.2nm,0.5s,baz=117,slow=4.3,SNR=4.6						
NOA	NORSAR Array B	138.78	353	PKhKP		22 14 21.5	
	comp=Z,2.3nm,0.6s,baz=11,slow=2.3,SNR=9.5						
NOA				SKP		22 17 10.0	
	comp=Z,2.2nm,0.9s,baz=13,slow=4.5,SNR=3.4						
NOA	NORSAR Array B	138.78	353	PKP	PKPdf	22 14 21.5	-8.1
NOA				SKP		22 17 10.0	
BEST	Besiri	141.30	306	*i* P	PKPdf	22 14 32.2	-2.5
HILS	Ha'il	142.44	289	P	PKPdf	22 14 37.0	0.0
AKASG	Malin Array Be	142.59	331	PKhKP		22 14 34.4	
	comp=Z,26nm,0.5s,baz=42,slow=4.1,SNR=142						
ELZG	Elazig	142.85	307	P	PKPdf	22 14 38.1	+0.7
MALT	Malatya	143.33	307	*e*PKP	PKPdf	22 14 38.4	+0.2
MUD	Monsted U'grnd	143.50	353	*i* P	PKPbc	22 14 37.9	+0.8
	comp=Z,45nm,0.7s						
SVST	Sivas	143.90	310	P	PKPbc	22 14 41.6	+2.7
GZT	Gaziantep	144.28	306	P	PKPdf	22 14 42.1	+2.2
MBAR	Mbarara	144.41	238	*e*PKP	PKPdf	22 14 42.4	+1.5
KAHT	Ahir Dag	144.71	307	P	PKPdf	22 14 43.4	+2.8
KBRS	Khaybar	144.74	286	P	PKPdf	22 14 44.3	+3.3
CTKT	Corum	145.08	313	P	PKPdf	22 14 44.3	+3.1
COBT	Iskenderun	145.53	305	P	PKPdf	22 14 45.8	+3.7
BALT	Daday	145.62	315	P	PKPdf	22 14 45.9	+3.8
AVNT	Avonos	145.78	310	P	PKPdf	22 14 45.8	+3.4
YNBS	Yanbu‘ al Bahr	145.89	284	P	PKPdf	22 14 47.3	+4.3
DMUB	Kingscourt	145.96	9	*e*P	PKPdf	22 14 45.1	+2.9
ELDT	Eldivan	146.08	313	P	PKPdf	22 14 47.1	+4.2
ASF	Jabal al Asfar	146.13	298	PKPbc	PKPbc	22 14 47.6	+2.6
	comp=Z,14nm,0.7s,baz=338,slow=3.6,SNR=14						
BRTR	Keskin Array B	146.26	312	PKPbc	PKPbc	22 14 47.0	+1.9
	comp=Z,11nm,0.6s,baz=140,slow=3.7,SNR=18						
DCN	Croghan	146.45	9	*e*P	PKPdf	22 14 46.6	+3.6
UMJS	Umm Lajj	146.50	285	P	PKPdf	22 14 49.1	+5.1
RUE	Ruedersdorf	146.53	346	*e*PKPbc	PKPbc	22 14 46.8	+1.5
DLF	Lyons Farm	146.60	9	*e*P	PKPdf	22 14 46.4	+3.1
CFR	Carcaliu	146.80	324	⇓*i*P	PKPdf	22 14 48.2	+4.3
KOLS	Kolonicke sedl	146.92	334	*e*	PKPdf	22 14 49.2	+5.2
KOLS	Kolonicke sedl	146.92	334	*e*PKP	PKPdf	22 14 49.2	+5.2
TBKS	Tabuk	147.01	291	P	PKPdf	22 14 50.1	+5.3
MEST	Erdemli	147.11	306	P	PKPdf	22 14 49.4	+4.8
CRVS	Cervenica-Dubn	147.27	335	*e*PKP	PKPdf	22 14 49.2	+4.7
CRVS	Cervenica-Dubn	147.27	335	*e*	PKPdf	22 14 49.2	+4.7
MMLI	Mount Malkishu	147.29	299	P	PKPdf	22 14 50.8	+5.7
MKRJ	Makawir	147.30	297	P	PKPdf	22 14 50.6	+5.5
DRGI	Dragot	147.50	297	P	PKPdf	22 14 50.9	+5.4
JMQS	Jabal Moqyreh	147.53	292	P	PKPdf	22 14 51.5	+5.9
MZDA	Masada	147.58	297	P	PKPdf	22 14 51.1	+5.5
HENT	Hendek	147.61	316	P	PKPdf	22 14 50.1	+4.8
SLTI	Sal'it	147.65	298	P	PKPdf	22 14 51.5	+5.8
OKC	Ostrava-Krasne	147.69	339	*e*PKP	PKPdf	22 14 50.3	+5.1
OKC				*e*		22 14 55.6	
OKC	Ostrava-Krasne	147.69	339	⇑*e*PKPB		22 14 50.3	
OKC				*e*PKPAB	PKPab	22 14 55.6	-0.8
UPC	Upice	147.76	342	⇑*e*PKPB		22 14 51.0	
UPC				*e*PKPAB	PKPab	22 14 55.8	-0.9
CLL	Collm	147.80	346	P	PKPdf	22 14 43.0	-2.3
CLL	Collm	147.80	346	*i* PKIKP	PKPdf	22 14 47.0	+1.7
CLL				*i* PKP1	PKPdf	22 14 50.7	+5.4
CLL				*i* PKP2	PKPab	22 14 55.2	-1.6
DPC	Dobruska-Polom	147.81	342	⇑*e*PKPB		22 14 51.2	
DPC				*e*PKPAB	PKPab	22 14 56.4	-0.5
PVCC	Panska Ves	148.14	344	⇑*e*PKPB		22 14 52.0	
JMOS	Jabal al Moall	148.16	293	P	PKPdf	22 14 52.7	+6.1
ALWS	Ilw as Safayha	148.17	293	P	PKPdf	22 14 52.8	+6.2
EIL	Elat	148.22	294	PKPbc	PKPdf	22 14 52.8	+6.1
	baz=354,slow=4.8						
EIL	Elat	148.22	294	P	PKPdf	22 14 52.7	+6.0
MBH	Mount Berech	148.23	294	P	PKPdf	22 14 53.0	+6.3
BDAS	Al Bad‘	148.26	291	P	PKPdf	22 14 53.1	+6.3
CSS	Prodhromos	148.28	304	*e*PKPbc	PKPdf	22 14 51.6	+5.0
HAQS	Haql	148.33	292	P	PKPdf	22 14 53.2	+6.4
KMTI	Karmit	148.34	295	P	PKPdf	22 14 52.9	+6.1
KZIT	Kziot	148.47	296	P	PKPdf	22 14 53.5	+6.5
VYHS	Vyhne	148.60	337	*e*PKP	PKPdf	22 14 53.5	+6.9
VYHS				*e*		22 14 59.0	
VYHS	Vyhne	148.60	337	*e*	PKPdf	22 14 53.5	+6.9
VYHS				*e*		22 14 59.0	
PRU	Pruhonice	148.64	343	⇑*e*PKPB		22 14 52.8	
PRU				*e*PKPAB	PKPab	22 14 58.9	-1.3
KOLL	Kolacno	148.68	338	*e*PKP	PKPdf	22 14 53.6	+6.8
KOLL	Kolacno	148.68	338	*e*	PKPdf	22 14 53.6	+6.8
NKC	Novy Kostel	148.93	346	⇑*e*PKPB		22 14 53.7	
NKC				*e*PKPAB	PKPab	22 14 59.8	-1.6
ULDT	Uludag	149.12	316	P	PKPdf	22 14 54.3	+6.6
SRO	Srobarova	149.36	337	*e*PKP	PKPdf	22 14 55.0	+7.2
SRO				*e*		22 15 02.7	
SRO	Srobarova	149.36	337	*e*	PKPdf	22 14 55.0	+7.2
SRO				*e*		22 15 02.7	
KHC	Kasperske Hory	149.68	344	*e*PKPDF	PKPdf	22 14 50.4	+2.1
KHC				*e*PKPAB	PKPab	22 15 03.6	-0.9
GRF	Grafenberg Arr	149.70	347	*e*PKP	PKPdf	22 14 55.8	+7.5
GRF				*e*PKP	PKPab	22 15 03.7	-0.9
GERES	GERESS Array B	149.91	344	PKPbc	PKPdf	22 14 54.9	+6.2
	comp=Z,5.7nm,0.6s,baz=90,slow=2.7,SNR=4.7						
WLF	Walferdange	150.53	354	*e*PKPbc	PKPdf	22 14 57.3	+7.7
RZN	Rozhen	150.94	322	*e*P	PKPdf	22 14 57.0	+6.5
STU	Stuttgart	150.97	349	*e*PKPdf	PKPdf	22 14 52.0	+1.7
STU				*e*PKPbc	PKPdf	22 14 57.9	+7.7
STU				*e*PKPab	PKPab	22 15 08.0	-2.0
VTS	Vitosha	151.18	325	*e*P	PKPdf	22 14 58.0	+7.2
KKB	Krupnik	151.75	324	*e*P	PKPdf	22 15 00.0	+8.4
LPL	La Plagne	154.54	351	*e*P	PKPdf	22 14 58.5	+3.2
	comp=Z,31nm,1.0s						
ESDC	Sonseca Array	160.25	12	PKPab	PKPab	22 15 48.8	-1.0
	comp=Z,6.2nm,1.0s,baz=13,slow=3.6,SNR=13						
DBIC	Dimbokro	165.12	156	PKP	PKPdf	22 15 09.2	+1.1
	comp=Z,2.7nm,0.8s,baz=65,slow=3.4,SNR=4.4						

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*IDC **27** 21:57:47.7±2.8, 9.08N×93.38E, mb4.1/6, mb1 4.2/6, mb1mx3.8/18, Error ellipse: s-maj=100.0km s-min=49.9km az=94.0*

*NEIC **27** 21:57:52.4±1.2, 9.16N×93.40E, h30^{km}, mb4.1/3, Error ellipse: s-maj=31.3km s-min=21.2km az=119.0*

ISC 27 21:57:52.1±2.8**, 9.4N**±0.4×**93.3E**±0.3**, h30^{km}, n11, σ0.^{s}61**/10**, mb4.0**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LSA	Lhasa	20.33	355	*e*P	P	22 02 28.3	-0.4
	3.8nm,0.6s						
ENH	Enshi	25.69	34	P	P	22 03 21.4	-0.1
AAK	Ala-Archa	37.02	337	*e*P	P	22 05 01.4	+0.3
	3.2nm,0.9s,mb4.2						
ZAL	Zalesovo	44.97	353	P	P	22 06 07.5	+1.2
	0.8nm,0.3s,mb4.0,baz=321,slow=5.7,SNR=3.1						
CHKZ	Chkalovo	47.81	342	*e*P	P	22 06 28.2	-0.6
	3.8nm,1.1s,mb4.3						
BRTR	Keskin Array B	60.85	310	P	P	22 08 04.0	-0.3
	1.5nm,0.6s,mb4.3,baz=117,slow=7.4,SNR=9.2						
ARCES	ARCESS Array B	73.59	340	P	P	22 09 24.2	+0.2
	0.9nm,0.7s,mb3.8,baz=105,slow=6.0,SNR=5.1						
GERES	GERESS Array B	76.18	318	P	P	22 09 40.1	+0.9
	1.3nm,1.0s,mb3.8,baz=90,slow=5.3,SNR=5.8						
HFS	Hagfors	76.77	330	P	P	22 09 42.1	-0.2
	0.7nm,0.5s,mb3.9,baz=90,slow=7.4,SNR=5.4						
NOA	NORSAR Array B	78.04	330	P	P	22 09 48.4	-0.9
	2.7nm,1.1s,mb4.1,baz=96,slow=5.7,SNR=2.6						
CPUP	Villa Florida	147.50	235	PKPbc	PKPdf	22 17 33.6	-2.9
	0.0nm,0.3s,baz=320,slow=17,SNR=2.5						

WEL 27 21:59:57.2±0.3**, 39.15S**×**175.05E, h204^{km}**±2^{km}**, ML3.7**/9**, 10C-4D, Error ellipse: s-maj=4.1km s-min=2.2km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WPVZ	Whakapapa	0.39	98	⇓PN	P	22 00 24.3	-0.4
WPVZ				SN	S	22 00 45.2	-0.8
CNZ	Chateau	0.39	98	PN	P	22 00 24.1	-0.6
FWVZ	Far West T-bar	0.41	105	⇑PN	P	22 00 24.5	-0.3
FWVZ				SN	S	22 00 45.4	-0.7
MGZ	Maungaku	0.41	69	PN	P	22 00 24.1	-0.8
NGZ	Ngauruhoe	0.43	94	PN	P	22 00 24.4	-0.4
WNVZ	Wahianoa	0.46	113	PN	P	22 00 24.5	-0.4
WNVZ				SN	S	22 00 45.5	-0.9
TUVZ	Tukino	0.49	104	PN	P	22 00 25.1	0.0
MOVZ	Moawhango	0.61	115	PN	P	22 00 24.9	-0.6
WAZ	Wanganui	0.61	184	PN	P	22 00 25.1	-0.5
WAZ				SN	S	22 00 45.9	-1.6
BKZ	Black Stump Fm	1.12	91	⇓PN	P	22 00 27.8	-0.7
BKZ				SN	S	22 00 51.3	-1.4
TSZ	Takapari Road	1.15	142	PN	P	22 00 28.8	+0.1
MRZ	Mangatainoka R	1.57	165	⇑PN	P	22 00 31.6	-0.6
MRZ				SN	S	22 00 57.0	-2.3
PWZ	Pawanui	1.66	123	⇓PN	P	22 00 33.1	0.0
KIW	Kapiti Island	1.71	183	⇑PN	P	22 00 32.6	-1.0
BFZ	Birch Farm	1.79	149	PN	P	22 00 33.9	-0.4
BFZ				SN	S	22 01 02.1	-0.7
URZ	Urewera	1.84	62	⇑PN	P	22 00 32.5	-2.3
URZ				SN	S	22 00 59.3	-4.4
CAW	Cannon Point	1.96	180	⇑PN	P	22 00 35.0	-1.0
MTW	Mount Morrison	2.04	170	⇑PN	P	22 00 35.6	-1.2
KNZ	Kokohu	2.05	87	⇑PN	P	22 00 36.0	-0.9
MRW	Makara Radio	2.10	187	⇑PN	P	22 00 36.1	-1.3
MWZ	Matawai	2.10	68	⇑PN	P	22 00 35.6	-1.9
MWZ				SN	S	22 01 04.4	-4.1
BHW	Baring Head	2.26	183	PN	P	22 00 37.5	-1.7
MSWZ	Moikau Station	2.27	176	PN	P	22 00 37.9	-1.4
NNZ	Nelson	2.43	211	⇑PN	P	22 00 38.5	-2.5
TUWZ	Tuamarina	2.43	200	PN	P	22 00 39.2	-1.8
QRZ	Quartz Range	2.56	228	⇓PN	P	22 00 38.9	-3.6
BSWZ	Blackbirch Sta	2.71	199	PN	P	22 00 42.7	-1.6
MXZ	Matakaoa Point	3.01	59	PN	P	22 00 45.0	-2.7
THZ	Tophouse	3.08	211	PN	P	22 00 45.3	-3.2
KHZ	Kahutara	3.46	199	*e*PN	P	22 00 50.8	-2.3
DSZ	Denniston Nort	3.58	223	PN	P	22 00 50.4	-4.3
LTZ	Lake Taylor	4.20	209	PN	P	22 00 58.5	-3.7
MQZ	McQueen's Vall	4.90	201	SN	S	22 02 01.0	-7.3
ODZ	Otahua Downs	6.74	208	*e*PN	P	22 01 30.4	-4.4

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*IDC **27** 22:02:34.8±0.8, 8.34N×93.80E, mb4.1/13, mb1 4.3/14, mb1mx4.2/22, ML4.7/1, Error ellipse: s-maj=43.9km s-min=16.7km az=57.0*

*NEIC **27** 22:02:39.3±0.4, 8.29N×93.77E, h30^{km}, mb4.5/4, Error ellipse: s-maj=17.8km s-min=10.5km az=58.0*

*BJI **27** 22:02:39.3, 8.30N×93.80E, h30^{km}, mB5.1, mb4.7, Ms5.4*

ISC 27 22:02:35.6±7.2**, 8.21N**±0.10×**93.7E**±0.1**, h15^{km}**±44^{km}**, n49, σ1.^{s}14**/48**, mb4.4**/23**, MS5.3**/2**, 2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.38	26	Pn	P	22 05 21.2	+0.5
	1.7nm,0.3s,baz=212,slow=15,SNR=23						
IMP	Imphal	16.48	1	*e*	P	22 06 29.3	+1.4
PKI	Pulchoki	20.80	339	*e*P	P	22 07 18.0	-0.9
	90nm,1.1s						
DMN	Daman	20.94	338	*e*P	P	22 07 19.9	-0.5
	56nm,0.9s						
GUN	Gumba	20.95	340	*e*P	P	22 07 19.7	-0.7
	66nm,0.8s						
KKN	Kakani	21.04	339	*e*P	P	22 07 20.5	-0.9
	44nm,0.7s,mb4.9						
GKN	Gorkha	21.47	338	*e*P	P	22 07 25.4	-0.4
KOLN	Koldanda	21.68	335	*e*P	P	22 07 28.0	+0.2
GYA	Guiyang	21.92	33	P	P	22 07 31.3	+1.1
GYA				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.1						
GYA				LR	LR		
	comp=N,6μm,16.5s,MS5.4						
GYA				LR	LR		
	comp=E,9μm,15.3s,MS5.4						
DDI	Dehra Dun	26.44	328	*e*	P	22 08 13.7	-0.1
GTA	Gaotai	31.54	9	*e*P	P	22 09 01.0	+1.5
GTA				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.7						
KSH	Kashi	34.99	336	P	P	22 09 28.3	-1.2
KSH				AMB	AMB		
	comp=Z,110nm,3.8s						
KSH				LR	LR		
	comp=N,2μm,11.7s,MS5.3						
KSH				LR	LR		
	comp=E,3μm,13.8s,MS5.3						
UCH	Uchtor	37.88	337	P	P	22 09 54.4	+0.7
	SNR=5.2						
KBK	Karagaybulak	38.07	337	P	P	22 09 56.3	+0.9
	SNR=9.2						
AML	Almayashu	38.12	336	P	P	22 09 56.9	+1.0
	SNR=10						
AAK	Ala-Archa	38.23	337	P	P	22 09 57.8	+1.1
	SNR=5.8						
AAK	Ala-Archa	38.23	337	*e*P	P	22 09 56.1	-0.6
	comp=E,6.6nm,0.9s,mb4.4						
USP	Ospenovka	38.77	337	P	P	22 10 01.6	+0.4
	SNR=6.0						
SONM	Songino Array	40.92	13	P	P	22 10 17.0	-2.0
	comp=E,0.9nm,0.9s,mb3.4,baz=202,slow=7.5,SNR=4.7						
ZAK	Zakamensk	42.78	9	*e*P	P	22 10 31.5	-2.7
ZAL	Zalesovo	46.16	353	P	P	22 11 00.8	-0.5
	comp=E,5.5nm,0.6s,mb4.7,baz=299,slow=7.8,SNR=32						
ZAL	Zalesovo	46.16	353	P	P	22 11 00.8	-0.5
NWAO	Narrogin (SRO)	46.64	153	P	P	22 11 04.8	-0.6
	comp=E,17nm,1.0s,mb4.9,baz=310,slow=7.9,SNR=3.0						
NVS	Novosibirsk	47.25	352	*i* P	P	22 11 07.8	-2.1
NVS				pmax	pmax		
	comp=N,36nm,0.8s						
NVS				pmax	pmax		
	comp=E,13nm,0.8s						
NVS				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.5						
BVAR	Borovoye Array	48.53	341	P	P	22 11 17.3	-2.6
	comp=Z,2.3nm,0.9s,mb4.2,baz=134,slow=6.7,SNR=6.5						
WRA	Warramunga Arr	48.80	126	P	P	22 11 21.7	-0.7
	comp=Z,1.6nm,0.7s,mb4.2,baz=301,slow=9.2,SNR=8.7						
CHKZ	Chkalovo	49.02	342	*e*P	P	22 11 22.4	-1.2
ASAR	Alice Springs	50.45	130	P	P	22 11 35.7	+0.6
	comp=Z,0.7nm,0.9s,mb3.7,baz=300,slow=7.2,SNR=4.1						
BOD	Bodaibo	51.92	14	*e*P	P	22 11 42.6	-3.1
GNI	Garni	53.90	314	P	P	22 12 02.8	+2.1
	comp=Z,1.3nm,0.6s,mb4.1,baz=36,slow=8.7,SNR=2.5						
ZEI	Tsey	55.51	317	*e*P	P	22 12 12.7	+0.3
KIV	Kislovodsk	56.79	318	*e*P	P	22 12 21.1	-0.5
	comp=Z,5.0nm,0.8s,mb4.6						
MALT	Malatya	57.93	310	*e*P	P	22 12 29.2	-0.4
	comp=Z,0.9nm,0.6s,mb4.0						
BRTR	Keskin Array B	61.89	311	P	P	22 12 56.0	-0.9
	comp=Z,1.5nm,0.7s,mb4.2,baz=127,slow=8.2,SNR=9.1						
AKASG	Malin Array Be	67.63	322	P	P	22 13 30.2	-3.7
	comp=Z,2.1nm,0.9s,mb4.2,baz=90,slow=4.6,SNR=4.7						
LSZ	Lusaka	68.99	250	P	P	22 13 42.5	-0.5
FINES	FINESS Array B	72.22	332	P	P	22 14 01.3	-0.5
	comp=Z,2.2nm,0.6s,mb4.2,baz=90,slow=6.9,SNR=11						
LBTB	Lobatse	74.04	241	P	P	22 14 12.7	-0.5
MORC	Moravsky Berou	74.85	319	*e*P	P	22 14 17.5	+0.2
	comp=Z,11nm,1.3s,mb4.6						
GERES	GERESS Array B	77.30	318	P	P	22 14 32.1	+1.0
	comp=Z,0.8nm,0.6s,mb3.8,baz=90,slow=5.9,SNR=7.4						
KHC	Kasperske Hory	77.39	318	*e*P	P	22 14 33.5	+1.9
COP	Copenhagen	78.35	325	⇓*i*P	P	22 14 38.7	+1.9
COP				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.5						
COP	Copenhagen	78.35	325	⇓*i*P	P	22 14 38.7	+1.9
	comp=Z,54nm,0.9s,mb5.5						
NB2	NORSAR Subarra	79.23	331	P	P	22 14 40.9	-0.6
	comp=Z,11nm,0.8s,mb4.8,baz=92,slow=5.8						
BSEG	Bad Segeberg	79.53	323	*e*P	P	22 14 45.1	+1.8
ILAR	Eielson Array	94.59	22	P	P	22 15 56.8	+0.1
	comp=Z,0.3nm,0.6s,mb3.9,baz=308,slow=4.4,SNR=4.7						
INK	Inuvik	96.78	16	P	P	22 16 07.3	+0.8
	comp=Z,3.5nm,1.3s,mb4.6,slow=3.0,SNR=2.4						
INK	Inuvik	96.78	16	P	P	22 16 07.3	+0.8
PDAR	Pinedale Array	125.00	21	PKP	PKPdf	22 21 37.3	-2.0
	comp=Z,0.8nm,0.9s,baz=315,slow=2.1,SNR=5.1						

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*IDC **27** 22:02:42.5±0.6, 8.16N×93.67E, mb4.6/17, mb1 4.7/17, mb1mx4.6/22, Error ellipse: s-maj=28.9km s-min=12.9km az=43.0*

*MOS **27** 22:02:45.4±1.1, 8.01N×93.52E, h33^{km}, mb4.9/22, Error ellipse: s-maj=21.0km s-min=9.4km az=129.9*

*NEIC **27** 22:02:47.0±0.4, 8.01N×93.53E, h30^{km}, mb4.9/13, Error ellipse: s-maj=15.9km s-min=9.4km az=217.0*

ISC 27 22:02:45.1±0.4**, 8.15N**±0.10×**93.74E**±0.08**, h30^{km}, n90, σ1.^{s}06**/77**, mb4.8**/32**, 3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.89	98	P	Pn	22 04 25.0	-1.7
	200nm,1.0s						
PALK	Pallekele	12.95	267	*e*P	P	22 05 45.8	-4.2
	42nm,1.1s						
GYA	Guiyang	21.97	32	AP	P	22 07 40.0	+1.6
AYAN	Aya Nagar	25.59	324	*e*	P	22 08 15.4	+2.0
	comp=Z,21nm,0.7s,mb4.8						
KHET	Khetri	26.07	322	*e*	P	22 08 21.6	+3.6
	comp=Z,20nm,0.8s,mb4.7						
SMLA	Simla	27.61	328	*i*	P	22 08 38.7	+6.6
	comp=Z,72nm,0.5s,mb5.6						
GTA	Gaotai	31.60	9	AP	P	22 09 06.8	-0.8
GTA				XP	Px	22 09 09.5	
KSH	Kashi	35.06	336	AP	P	22 09 37.3	-0.3
KSH				XP	Px	22 09 42.0	
AAK	Ala-Archa	38.30	337	*e*P	P	22 10 04.6	-0.2
AAK				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.8						
AAK	Ala-Archa	38.30	337	*e*P	P	22 10 04.6	-0.2
	comp=Z,16nm,0.9s,mb4.8						
CHMS	Chumysh	38.51	337	P	P	22 10 06.7	+0.2
	SNR=5.8						
EKS2	Erkin-Say	38.60	336	P	P	22 10 05.6	-1.7
	SNR=5.6						
TLY	Talaya	44.16	9	*i* P	pP	22 11 09.8	+7.9
ZAL	Zalesovo	46.23	353	P	P	22 11 08.7	-0.6
	comp=Z,19nm,1.0s,mb5.0,baz=288,slow=10,SNR=26						
ZAL	Zalesovo	46.23	353	P	P	22 11 08.7	-0.6
ZAL				pmax	pmax		
	comp=Z,19nm,1.0s						
ZAL	Zalesovo	46.23	353	P	P	22 11 08.7	-0.6
BVAR	Borovoye Array	48.61	341	P	P	22 11 26.9	-1.0
	comp=Z,7.8nm,0.9s,mb4.7,baz=135,slow=8.4,SNR=17						
BVAR	Borovoye Array	48.61	341	P	P	22 11 26.9	-1.0
WRA	Warramunga Arr	48.74	125	P	P	22 11 29.9	+0.5
	comp=Z,14nm,0.7s,mb5.1,baz=301,slow=8.9,SNR=38						
WRA	Warramunga Arr	48.74	125	P	P	22 11 29.9	+0.5
WRA				pmax	pmax		
	comp=Z,14nm,0.7s						
WRA	Warramunga Arr	48.74	125	P	P	22 11 29.9	+0.5
WRAB	Tennant Creek	48.75	125	*e*P	P	22 11 29.7	+0.3
WRAB				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.4						
WRAB	Tennant Creek	48.75	125	*e*P	P	22 11 29.7	+0.3
	comp=Z,25nm,0.6s,mb5.4						
CHKZ	Chkalovo	49.09	342	*e*P	P	22 11 30.5	-1.2
CHKZ				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
CHKZ	Chkalovo	49.09	342	*e*P	P	22 11 30.5	-1.2
	comp=Z,12nm,0.7s,mb5.0						
ASAR	Alice Springs	50.39	130	P	P	22 11 41.0	-1.1
	comp=Z,4.2nm,0.8s,mb4.5,baz=300,slow=7.4,SNR=19						
ASAR	Alice Springs	50.39	130	P	P	22 11 41.0	-1.1
TI2	Plekhanov	54.58	316	*e*P	P	22 12 13.4	+0.4
TI2				*e*		22 12 29.4	
ARU	Arti	55.49	337	*e*P	P	22 12 18.6	-0.9
ARU				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
ARU	Arti	55.49	337	*e*P	P	22 12 18.6	-0.9
	comp=Z,7.8nm,0.8s,mb4.8						
PMG	Port Moresby	55.99	107	P	P	22 12 24.7	+1.0
	comp=Z,1.6nm,0.4s,mb4.5,baz=185,slow=17,SNR=2.0						
PMG	Port Moresby	55.99	107	P	P	22 12 24.7	+1.1
PMG				pmax	pmax		
	comp=Z,2.0nm,0.4s						
KIV	Kislovodsk	56.85	318	*e*P	P	22 12 28.9	-0.6
KIV				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
KIV	Kislovodsk	56.85	318	*e*P	P	22 12 28.9	-0.6
	comp=Z,7.0nm,0.6s,mb4.9						
KMBO	Kilima Mbogo	57.06	263	P	P	22 12 30.7	-0.6
	comp=Z,1.5nm,0.7s,mb4.2,baz=70,slow=10,SNR=9.3						
KMBO	Kilima Mbogo	57.06	263	P	P	22 12 30.7	-0.6
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MALT	Malatya	57.98	310	*e*P	P	22 12 36.6	-0.9
MALT				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
MALT	Malatya	57.98	310	*e*P	P	22 12 36.6	-0.8

	comp=Z,3.6nm,0.8s,mb4.5						
CTA	Charters Tower	58.79	119	P	P	22 12 44.1	+0.8
	comp=Z,4.9nm,0.9s,mb4.5,baz=295,slow=1.1,SNR=6.2						
CTA	Charters Tower	58.79	119	P	P	22 12 44.2	+0.9
CTA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
CTAO	Charters Tower	58.79	119	*e*P	P	22 12 45.7	+2.4
CTAO				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
CTAO	Charters Tower	58.79	119	*e*P	P	22 12 45.7	+2.4
	comp=Z,14nm,1.0s,mb5.0						
STKA	Stephens Creek	60.58	134	P	P	22 12 54.5	-1.0
	comp=Z,13nm,0.8s,mb5.1,baz=312,slow=7.9,SNR=9.3						
BRTR	Keskin Array B	61.95	311	P	P	22 13 03.9	-0.8
	comp=Z,4.5nm,0.7s,mb4.7,baz=133,slow=7.2,SNR=19						
BRTR	Keskin Array B	61.95	311	P	P	22 13 03.9	-0.8
BRTR				pmax	pmax		
	comp=Z,5.0nm,0.7s						
BRTR	Keskin Array B	61.95	311	P	P	22 13 03.9	-0.8
AKASG	Malin Array Be	67.69	322	P	P	22 13 40.0	-1.7
	comp=Z,1.9nm,0.6s,mb4.3,baz=86,slow=5.3,SNR=4.8						
AKASG	Malin Array Be	67.69	322	P	P	22 13 40.0	-1.7
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.6s						
IDI	Anoyia	68.09	305	P	P	22 13 45.1	+0.6
	comp=Z,6.7nm,0.6s,mb4.8,baz=82,slow=11,SNR=7.4						
APA	Apatity	71.46	339	⇓*i*P	P	22 14 04.4	-0.1
APA				*i*		22 14 10.4	
APA				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
FINES	FINESS Array B	72.29	332	P	P	22 14 09.2	-0.3
	comp=Z,6.5nm,0.7s,mb4.7,baz=94,slow=6.7,SNR=16						
FINES	FINESS Array B	72.29	332	P	P	22 14 09.2	-0.3
FINES				pmax	pmax		
	comp=Z,7.0nm,0.7s						
FINES	FINESS Array B	72.29	332	P	P	22 14 09.2	-0.3
KAF	Kangasniemi	72.37	333	*e*p	P	22 14 09.5	-0.5
	comp=Z,8.8nm,0.8s,mb4.7						
KAF	Kangasniemi	72.37	333	*e*P	P	22 14 09.5	-0.5
KAF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
OJC	Ojcow	73.51	320	*e*P	P	22 14 17.2	+0.3
ARCES	ARCESS Array B	74.88	340	P	P	22 14 24.3	-0.1
	comp=Z,6.6nm,0.7s,mb4.7,baz=90,slow=6.1,SNR=8.3						
ARCES	ARCESS Array B	74.88	340	P	P	22 14 24.3	-0.1
ARCES				pmax	pmax		
	comp=Z,7.0nm,0.7s						
MORC	Moravsky Berou	74.91	319	*e*P	P	22 14 24.8	-0.2
MORC				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
MORC	Moravsky Berou	74.91	319	*e*P	P	22 14 24.8	-0.2
	comp=Z,4.9nm,0.9s,mb4.4						
ZST	Bratislava	75.06	318	*e*P	P	22 14 26.9	+1.0
BSD	Bornholm Skovb	76.97	325	⇓*i*P	P	22 14 38.7	+2.2
BSD				pmax	pmax		
	comp=Z,82nm,0.9s,mb5.7						
BSD	Bornholm Skovb	76.97	325	⇓*i*P	P	22 14 38.7	+2.2
	comp=Z,82nm,0.9s,mb5.7						
BRG	Berggiesshubel	77.29	320	*e*P	P	22 14 40.0	+1.6
BRG				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
BRG	Berggiesshubel	77.29	320	*e*P	P	22 14 40.0	+1.6
	comp=Z,6.0nm,1.3s,mb4.4						
GERES	GERESS Array B	77.36	318	P	P	22 14 40.0	+1.2
	comp=Z,1.8nm,0.7s,mb4.1,baz=90,slow=4.7,SNR=13						
GERES	GERESS Array B	77.36	318	P	P	22 14 40.0	+1.2
GERES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
GERES	GERESS Array B	77.36	318	P	P	22 14 40.0	+1.2
MOX	Moxa	78.76	320	*e*P	pP	22 14 52.9	-3.1
MOX				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
NOA	NORSAR Array B	79.30	331	P	P	22 14 49.7	+0.5
	comp=Z,6.5nm,0.7s,mb4.7,baz=93,slow=5.6,SNR=11						
NOA	NORSAR Array B	79.30	331	P	P	22 14 49.7	+0.5
NOA				pmax	pmax		
	comp=Z,7.0nm,0.7s						
NOA	NORSAR Array B	79.30	331	P	P	22 14 49.7	+0.5
BFO	Black Forest	80.93	318	*e*P	P	22 14 59.8	+1.7
ILAR	Eielson Array	94.64	22	P	P	22 16 04.1	-0.1
	comp=Z,0.9nm,0.7s,mb4.3,baz=306,slow=4.5,SNR=13						
ILAR	Eielson Array	94.64	22	P	P	22 16 04.1	-0.1
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ILAR	Eielson Array	94.64	22	P	P	22 16 04.1	-0.1
INK	Inuvik	96.84	16	P	P	22 16 14.9	+0.8
	comp=Z,2.9nm,0.9s,mb4.7,baz=270,slow=7.2,SNR=7.3						
INK	Inuvik	96.84	16	P	P	22 16 14.9	+0.8
INK				pmax	pmax		
	comp=Z,3.0nm,1.0s						
INK	Inuvik	96.84	16	P	P	22 16 14.9	+0.8
NVAR	Mina Array Bea	124.89	31	PKP	PKPdf	22 21 47.3	-0.6
	comp=Z,1.3nm,0.6s,baz=274,slow=4.1,SNR=4.5						
PDAR	Pinedale Array	125.06	21	PKP	PKPdf	22 21 46.4	-1.7
	comp=Z,3.1nm,1.1s,baz=32,slow=1.0,SNR=11						
PDAR	Pinedale Array	125.06	21	PKP	PKPdf	22 21 46.4	-1.7
SADO	Sadowa	126.94	354	PKP	PKPdf	22 21 49.5	-2.1
	comp=Z,4.4nm,0.9s,baz=352,slow=2.2,SNR=2.5						
SADO	Sadowa	126.94	354	PKP	PKPdf	22 21 49.5	-2.1
TXAR	Lajitas Array	139.14	24	PKP	PKPdf	22 22 10.6	-4.3
	comp=Z,0.4nm,0.5s,baz=292,slow=0.9,SNR=7.1						
TXAR	Lajitas Array	139.14	24	PKP	PKPdf	22 22 10.6	-4.3
JCT	Junction City	139.46	18	*e*PKIKP	PKPdf	22 22 14.3	-1.2
LPAZ	La Paz	160.53	244	PKPab	PKPab	22 23 26.0	-0.3
	comp=Z,1.8nm,0.8s,baz=189,slow=5.8,SNR=4.6						
LPAZ	La Paz	160.53	244	PKP2	PKPab	22 23 26.0	-0.3
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.8s						
LPAZ	La Paz	160.53	244	PKPab	PKPab	22 23 26.0	-0.3

BJI ***27*** *22:02:53.3, 5.57N×92.67E, h30^{km}, mB5.4, mb5.0, Ms5.6, Msz5.3*

IDC ***27*** *22:02:57.1±1.0, 6.38N×92.02E, mb4.6/6, mb1 4.7/7, mb1mx4.4/20, ML4.4/1, MS4.8/2, Ms1 4.8/2, ms1mx3.9/10, Error ellipse: s-maj=32.2km s-min=26.2km az=56.0*

MOS ***27*** *22:02:58.3±1.6, 6.18N×92.13E, h33^{km}, mb5.2/24, MS5.0/7, Error ellipse: s-maj=13.2km s-min=7.8km az=112.7*

NEIC ***27*** *22:03:01.2±0.5, 6.39N×92.16E, h30^{km}, mb5.1/12, Error ellipse: s-maj=11.2km s-min=10.1km az=167.0*

HRVD ***27*** *22:03:01.2±0.3, 5.45N×92.84E, h12^{km}, MW5.1/60, Centroid moment Tensor Solution. LP body waves: s15,c16;Mantle waves: s60,c105; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.37±.20; M$_{\theta\theta}$2.78±.16; M$_{\phi\phi}$-5.15±.20; M$_{r\theta}$1.00±.53; M$_{\theta\phi}$4.57±.15; M$_{\phi r}$-0.88±.55; Best double couple: M$_0$6.19×10^{16} NP1:ϕ_s20°,δ76°,λ176°. NP2:ϕ_s111°,δ86°,λ14°. Principal axes: T 4.98, Plg12°, Azm337°; N 2.4, Plg76°, Azm126°; P -7.39, Plg7°, Azm245°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 22:02:55.4±1.0, **5.78N**±0.07×**92.59E**±0.04, **h36**^{km}±8^{km}, **h34**^{km}±6.8^{km}**:pP-P, n112,** σ1^{s}**31**/121, **mb4.9**/40, **MS5.2**/22, **5C-5D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	Nakhon Sawan	12.31	36	P	P	22 06 10.0	+19
CM31	Chiang Mai Arr	14.04	26	*e*P	P	22 06 13.4	-0.8
	29nm,0.8s						
CMAR	Chiang Mai Arr	14.04	26	Pn	P	22 06 14.4	+0.2
	0.6nm,0.3s,baz=222,slow=14,SNR=9.3						
CMAR	Chiang Mai Arr	14.04	26	P	P	22 06 14.5	+0.3
CMAR				pmax	pmax		
	comp=Z,1.0nm,0.3s						
MDRS	Chennai	14.16	302	*e*P	P	22 06 11.0	-4.8
MDRS				*e*		22 08 45.0	
KKTK	Khon Kaen	14.52	43	P	P	22 06 25.0	+4.6
	comp=Z,1µm,0.8s						
VIS	Vishakhapatnam	14.93	323	*e*P	P	22 06 24.9	-0.9
VIS				*e*S	S	22 09 01.6	-8.9
NANT	Nan	15.17	31	⇑P	P	22 06 25.0	-3.9
	comp=Z,69nm,1.0s						
KOD	Kodaikanal	15.61	287	*e*P	P	22 06 35.9	+1.2
KOD				*e*S	S	22 09 20.3	-6.3
TRD	Trivandrum	15.74	281	*e*P	P	22 06 36.1	-0.3
TRD				*e*		22 06 38.7	
	comp=Z,84nm,1.1s						
HYB	Hyderabad	17.95	311	*i* P	P	22 07 05.0	+0.9
HYB				*e*S	S	22 10 18.0	-2.2
HYB				LR	LR	22 16 00.0	
	comp=Z,6.8nm,14.0s						
AGT	Agartala	18.05	356	⇑*i*P	P	22 07 07.0	+1.7
SHL	Shillong	19.69	358	*e*P	P	22 07 23.7	-0.9
SHL				*e*S	S	22 10 58.1	-1.1
LATR	Latur	20.06	310	*e*P	P	22 07 29.5	+1.0
NGP	Nagpur	20.14	321	⇑*e*P	P	22 07 31.8	+2.4
NGP				*e*		22 11 11.2	
GOA	Goa	20.79	299	*e*P	P	22 07 38.0	+1.8
GOA				*e*S	S	22 11 20.4	-0.9
AKL	Akola	21.18	316	*e*P	P	22 07 39.8	-0.2
AKL				*e*		22 07 55.8	
	comp=Z,158nm,1.9s						
AKL				*e*S	S	22 11 27.6	-1.0
KAD	Karad	21.34	304	*e*P	P	22 07 43.8	+2.1
KAD				*e*		22 07 48.3	
	comp=Z,81nm,1.4s						
QIZ	Qiongzhong	21.36	50	P	P	22 07 39.0	-2.9
QIZ				S	S	22 11 31.8	-0.1
QIZ				LR	LR		
	comp=N,13µm,13.6s						
QIZ				LR	LR		
	comp=Z,8µm,12.7s,MS5.3						
QIZ	Qiongzhong	21.36	50	*e*P	P	22 07 38.6	-3.3
	comp=Z,196nm,1.5s,mb5.2						
KMI	Kunming	21.56	26	P	P	22 07 46.0	+2.2
KMI				S	S	22 11 44.5	+8.9
KMI				AMB	AMB		
	comp=Z,83nm,1.2s,mb5.0						
KMI				AMB	AMB		
	comp=Z,325nm,3.1s						
KMI				LR	LR		
	comp=N,6µm,12.4s,MS5.4						
KMI				LR	LR		
	comp=E,8µm,13.0s,MS5.4						
KMI				LR	LR		
	comp=Z,5µm,11.8s,MS5.1						
POO	Poona	22.24	306	*e*P	P	22 07 51.2	+0.5
POO				*e*		22 07 57.3	
	comp=Z,40nm,1.1s						
BHPL	Bhopal	22.69	321	*e*P	P	22 07 55.2	0.0
BOM	Bombay	23.27	306	*e*P	P	22 08 03.8	+2.9
BOM				*e*		22 08 09.2	
	comp=Z,76nm,1.4s						
BOM				*e*S	S	22 12 11.4	+4.6
GYA	Guiyang	24.56	32	P	P	22 08 13.0	-0.5
GYA				S	S	22 12 32.0	+2.9
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.7						
GYA				LR	LR		
	comp=N,6µm,16.5s,MS5.5						
GYA				LR	LR		
	comp=E,9µm,15.3s,MS5.5						
GYA				LR	LR		
	comp=Z,6µm,11.4s,MS5.4						
CD2	Chengdu	27.11	21	P	P	22 08 35.5	-1.7
CD2				S	S	22 13 11.3	+0.1
CD2				AMB	AMB		
	comp=Z,80nm,1.0s,mb5.2						
CD2				LR	LR		
	comp=N,5µm,10.2s						
CD2				LR	LR		
	comp=Z,5µm,10.2s,MS5.4						
ENH	Enshi	29.10	31	*e*P	P	22 08 52.3	-2.8
	comp=Z,24nm,1.0s,mb4.9						
LZH	Lanzhou	31.89	17	*e*P	P	22 09 18.0	-1.7
LZH				AMB	AMB		
	comp=Z,51nm,1.7s,mb5.1						
LZH				AMB	AMB		
	comp=Z,165nm,4.0s						
LZH				LR	LR		
	comp=E,7µm,16.3s						
LZH				LR	LR		
	comp=Z,10µm,16.8s,MS5.5						
XAN	Xi'an	31.94	26	P	P	22 09 18.0	-2.2
XAN				S	S	22 14 27.5	-0.3
XAN				SS	SS	22 16 18.8	-2.1
XAN				AMB	AMB		
	comp=Z,44nm,0.9s,mb5.3						
XAN				LR	LR		
	comp=N,4µm,13.9s,MS5.5						
XAN				LR	LR		
	comp=E,6µm,14.5s,MS5.5						
XAN				LR	LR		
	comp=Z,5µm,14.3s,MS5.3						
WHN	Wuhan	32.02	37	*e*P	P	22 09 21.5	+0.5
WHN				S	S	22 14 29.0	-0.2
WHN				LR	LR		
	comp=Z,9µm,10.8s,MS5.7						
GTA	Gaotai	34.11	10	*e*P	P	22 09 40.3	+1.3
GTA				PP	PP	22 10 55.8	+1.9
GTA				PCP	PcP	22 12 17.8	+1.9
GTA				S	S	22 15 06.0	+4.5
GTA				SS	SS	22 17 14.8	+3.9
GTA				AMB	AMB		
	comp=Z,14nm,1.5s,mb4.7						
GTA				AMB	AMB		
	comp=Z,550nm,4.2s						
GTA				LR	LR		
	comp=N,3µm,14.5s,MS5.3						
GTA				LR	LR		
	comp=E,3µm,16.4s,MS5.3						
GTA				LR	LR		
	comp=Z,3µm,14.1s,MS5.2						
NJ2	Nanjing	35.85	40	*e*P	P	22 09 58.0	+4.1
NJ2				AP	pP	22 10 08.0	+3.7
NJ2				XP	sP	22 10 12.0	+3.1
NJ2				PP	PP	22 11 11.8	-4.0
NJ2				S	S	22 15 34.0	+5.5
NJ2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,420nm,7.4s						
NJ2				LR	LR		
	comp=N,8µm,18.8s,MS5.7						
NJ2				LR	LR		
	comp=E,9µm,21.2s,MS5.7						
NJ2				LR	LR		
	comp=Z,13µm,20.6s,MS5.7						
BTO	Baotou	38.04	22	*e*P	P	22 10 12.5	+0.3
BTO				S	S	22 16 07.5	+5.7
BTO				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.6						
BTO				LR	LR		
	comp=N,1µm,12.9s,MS5.3						
BTO				LR	LR		
	comp=E,3µm,15.5s,MS5.3						
HHC	Hu-ho-hao-te	38.84	23	*e*P	P	22 10 20.0	+1.2
HHC				AP	pP	22 10 33.5	+4.3
HHC				PP	PP	22 11 56.5	+4.6
HHC				S	S	22 16 11.0	-2.9
HHC				AMB	AMB		
	comp=Z,24nm,1.2s,mb4.8						
HHC				AMB	AMB		
	comp=Z,355nm,4.5s						
HHC				LR	LR		
	comp=N,4µm,14.9s,MS5.6						
HHC				LR	LR		
	comp=E,4µm,10.6s,MS5.6						
HHC				LR	LR		
	comp=Z,2µm,12.5s,MS5.1						
AAK	Ala-Archa	40.05	339	*e*P	P	22 10 27.7	-1.2
AAK				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
AAK	Ala-Archa	40.05	339	*e*P	P	22 10 27.7	-1.1
	comp=Z,11nm,1.0s,mb4.5						
BJT	Baijiatuau	40.15	28	*e*P	P	22 10 31.6	+1.9
BJI	Beijing	40.17	28	P	P	22 10 31.3	+1.4
BJI				S	S	22 16 39.5	+5.5
BJI				AMB	AMB		
	comp=Z,14nm,1.4s,mb4.5						
BJI				AMB	AMB		
	comp=Z,247nm,4.1s						
BJI				LR	LR		
	comp=N,3µm,15.8s,MS5.4						
BJI				LR	LR		
	comp=E,3µm,15.8s,MS5.4						
BJI				LR	LR		
	comp=Z,1µm,17.7s,MS4.8						
FRU	Bishkek	40.18	339	*e*P	P	22 10 31.0	+1.0
FRU				*e*		22 10 48.0	
FRU				pmax	pmax		
	comp=Z,60nm,2.0s,mb5.0						
SONM	Songino Array	43.54	13	P	P	22 10 58.6	+1.1
	comp=Z,11nm,0.9s,mb4.5,baz=194,slow=8.0,SNR=14						
ULN	Ulaanbaatar	43.72	14	*e*P	P	22 10 59.1	+0.1
ULN				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	43.72	14	*e*P	P	22 10 59.1	+0.1
	comp=Z,7.5nm,0.9s,mb4.4						
SNY	Shenyang	45.26	33	⇑P	P	22 11 13.8	+2.4
SNY				S	S	22 17 52.3	+3.9
SNY				SS	SS	22 21 02.0	-0.8
SNY				LR	LR		
	comp=N,1µm,12.0s,MS5.4						
SNY				LR	LR		
	comp=E,3µm,14.1s,MS5.4						
SNY				LR	LR		
	comp=Z,2µm,13.3s,MS5.2						
ZAK	Zakamensk	45.35	10	*e*P	P	22 11 12.3	+0.3
CN2	Changchun	47.61	32	*e*P	P	22 11 30.0	+0.1
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
CN2				AMB	AMB		
	comp=Z,450nm,4.0s						
CN2				LR	LR		
	comp=N,2µm,15.0s,MS5.3						
CN2				LR	LR		
	comp=E,2µm,15.0s,MS5.3						
CN2				LR	LR		
	comp=Z,2µm,15.0s,MS5.2						
ZAL	Zalesovo	48.43	354	P	P	22 11 36.8	+0.7
	comp=Z,5.8nm,0.6s,mb4.8,baz=329,slow=6.4,SNR=6.4						
ZAL				LR	LR	22 35 57.9	
	comp=Z,1µm,20.5s,MS4.8,baz=294,slow=42						
ZAL	Zalesovo	48.43	354	P	P	22 11 36.8	+0.7
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ZAL				MLR	MLR		
	comp=Z,1µm,20.5s						
HIA	Hailar	49.04	23	*e*P	P	22 11 40.6	-0.3
HIA				pmax	pmax		
	comp=Z,17nm,0.9s						
HIA	Hailar	49.04	23	*e*P	P	22 11 40.6	-0.3
	comp=Z,17nm,0.9s,mb5.1						
NVS	Novosibirsk	49.50	353	*e*P	P	22 11 43.2	-1.1
NVS				*e*S	S	22 18 50.3	+2.1
NVS				pmax	pmax		
	comp=N,34nm,0.9s						
NVS				pmax	pmax		
	comp=E,13nm,0.9s						
NVS				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.5						
NVS				smax			
	comp=N,75nm,1.8s						
NVS				smax			
	comp=E,65nm,1.8s						
BVAR	Borovoye Array	50.49	343	P	P	22 11 51.6	-0.4
	comp=E,4.0nm,0.8s,mb4.5,baz=149,slow=8.6,SNR=9.0						
CHKZ	Chkalovo	51.00	343	*e*P	P	22 11 54.9	-0.9
CBIJ	Chichi jima	51.66	60	LR	LR	22 32 36.0	
	comp=E,858nm,19.5s,MS4.8,baz=282,slow=34						
KLR	Kul'dur	54.46	31	*e*P	P	22 12 18.2	-3.5
BOD	Bodaibo	54.53	14	*e*P	P	22 12 20.6	-1.5
GNI	Garni	54.82	316	*i* P	P	22 12 25.9	+1.5
GNI				pmax	pmax		
	comp=Z,28nm,2.1s						
PMG	Port Moresby	56.43	105	*e*P	pP	22 12 44.6	-2.6
PMG				pmax	pmax		
	comp=Z,8.0nm,0.7s						
PMG	Port Moresby	56.43	105	*e*P	pP	22 12 44.6	-2.5
	comp=Z,8.1nm,0.7s						
SVE	Sverdlovsk	56.79	340	*e*P	P	22 12 38.0	-0.4
SVE				*e*		22 13 30.0	
SVE				pmax	pmax		
	comp=Z,110nm,2.4s,mb5.5						
SVE				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.4						
ARU	Arti	57.23	338	*e*P	P	22 12 40.4	-1.1
ARU	Arti	57.23	338	*e*P	P	22 12 40.4	-1.1
	comp=Z,52nm,1.6s,mb5.3						
KIV	Kislovodsk	57.86	319	*e*P	P	22 12 45.6	-0.5
KIV				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
KIV				pmax	pmax		
	comp=N,5.0nm,0.9s						
KIV				MLR	MLR		
	comp=Z,677nm,23.0s,MS4.7						
KIV				MLR	MLR		
	comp=N,251nm,17.0s						
KIV				MLR	MLR		
	comp=E,312nm,23.0s						
KIV	Kislovodsk	57.86	319	*e*P	P	22 12 45.5	-0.6
	comp=E,55nm,1.8s,mb5.3						
GOF	Gofitskoye	58.12	321	⇓*i*P	P	22 12 47.0	-0.9
GOF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
MALT	Malatya	58.66	312	*e*P	P	22 12 51.5	-0.3
MALT				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
MALT	Malatya	58.66	312	*e*P	P	22 12 51.5	-0.3
	comp=Z,5.0nm,0.9s,mb4.5						
CTA	Charters Tower	58.67	118	P	pP	22 13 02.0	-0.8
	comp=Z,6.6nm,0.9s,baz=284,slow=7.7,SNR=4.6						
CTA	Charters Tower	58.67	118	P	pP	22 13 02.1	-0.8
CTA				pmax	pmax		
	comp=Z,7.0nm,0.9s						
YSS	Yuzh-Sakhalins	59.37	38	*e*P	P	22 12 51.0	-5.6
YSS				*e*S	S	22 21 03.0	+1.9
CSS	Prodhromos	61.65	307	*e*P	P	22 13 12.3	0.0
	comp=Z,48nm,1.5s,mb5.4						
YAK	Yakutsk	62.46	19*c*	*i*P	P	22 13 29.4	+12
YAK				*e**PP	pP	22 13 38.1	+10
YAK				*e*		22 15 41.9	
YAK				*e*S	S	22 21 42.9	+2.7
YAK				*e*		22 23 06.0	
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
YAK				pmax	pmax		
	comp=N,4.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.4						
YAK				pmax	pmax		
	comp=N,3.0nm,1.2s						
YAK				smax			
	comp=E,157nm,9.1s						
YAK				smax			
	comp=N,57nm,6.6s						
YAK				MLR	MLR		
	comp=N,842nm,12.0s,MS5.2						
YAK				MLR	MLR		
	comp=Z,1µm,12.0s,MS5.3						
YAK				MLR	MLR		
	comp=E,415nm,11.0s,MS5.2						
BRTR	Keskin Array B	62.65	312	P	P	22 13 19.1	+0.2
	comp=E,2.6nm,0.8s,mb4.4,baz=129,slow=7.9,SNR=8.5						
BRTR	Keskin Array B	62.65	312	P	P	22 13 19.1	+0.2
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
VOR	Voronezh	63.42	326	P	P	22 13 26.0	+2.2
VOR				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.4						
SIM	Simferopol'	63.90	318	*e*P	P	22 13 23.9	-3.2
SIM				*e*S	S	22 21 59.0	+0.5
SIM				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
ISP	Isparta	64.53	309	*i* P	P	22 13 32.8	+1.5
MOS	Moscow	66.07	330	*e*P	P	22 13 39.9	-0.9
MOS				*e*S	S	22 22 13.8	-11
MOS				pmax	pmax		
	comp=Z,47nm,1.4s,mb5.3						
OBN	Obninsk	66.33	329	⇓*e*P	P	22 13 40.6	-1.9
OBN				*e*S	S	22 22 28.9	+0.8
OBN				pmax	pmax		
	comp=Z,45nm,1.9s,mb5.2						
OBN				MLR	MLR		
	comp=Z,600nm,20.0s,MS4.8						
LSZ	Lusaka	67.12	251	*e*P	P	22 13 46.8	-1.3
LSZ				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.9						
LSZ	Lusaka	67.12	251	*e*P	P	22 13 46.8	-1.3
LSZ				pmax	pmax		
	comp=Z,19nm,1.4s,mb4.9						
LSZ	Lusaka	67.12	251	*e*P	P	22 13 46.8	-1.3
	comp=Z,19nm,1.4s,mb4.9						
IDI	Anoyia	68.50	306	P	P	22 13 56.2	-0.3
	comp=Z,9.7nm,0.7s,mb4.8,baz=68,slow=5.1,SNR=4.1						
AKASG	Malin Array Be	68.85	322	P	P	22 13 57.0	-1.4
	comp=Z,0.5nm,0.3s,mb3.9,baz=89,slow=4.7,SNR=8.0						
AKASG	Malin Array Be	68.85	322	P	P	22 13 57.0	-1.3
AKASG				pmax	pmax		

	comp=Z,1.0nm,0.4s						
VRI	Vrincioaia	69.15	317	⇓iP	P	22 14 00.4	+0.1
TIXI	Tiksi	69.58	12	eP	P	22 14 00.8	-1.7
TIXI				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,1μm,17.0s,MS5.2						
LBTB	Lobatse	71.89	241	eP	P	22 14 16.6	-0.6
LBTB				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
LBTB	Lobatse	71.89	241	eP	P	22 14 16.6	-0.6
LBTB				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
LBTB	Lobatse	71.89	241	eP	P	22 14 16.6	-0.6
	comp=Z,5.3nm,0.8s,mb4.5						
KOLS	Kolonicke sedl	72.77	319	e	pP	22 14 27.6	-5.4
VYHS	Vyhne	74.94	319	eP	P	22 14 35.0	+0.3
SRO	Srobarova	75.19	318	eP	P	22 14 36.7	+0.6
KOLL	Kolacno	75.23	319	eP	P	22 14 37.5	+1.1
MORC	Moravsky Berou	75.96	320	eP	P	22 14 40.7	+0.2
MORC				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.0						
MORC	Moravsky Berou	75.96	320	eP	P	22 14 40.7	+0.3
	comp=Z,30nm,1.4s,mb5.0						
ZST	Bratislava	76.04	318	eP	P	22 14 41.1	+0.1
ZST	Bratislava	76.04	318	e	P	22 14 41.1	+0.1
KSP	Ksiaz	76.89	321	eP	P	22 14 46.0	+0.3
KSP				epP	pP	22 14 49.8	-7.0
BRG	Berggiesshubel	78.38	321	⇓iP	P	22 14 51.4	-2.5
BRG				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.2						
BRG				MLR	MLR		
	comp=Z,930nm,17.4s,MS5.2						
BRG	Berggiesshubel	78.38	321	⇓iP	P	22 14 51.4	-2.5
	comp=Z,25nm,0.7s,mb5.2						
BRG				i		22 14 56.2	
BRG				LR	LR		
	comp=Z,930nm,17.4s,MS5.2						
KHC	Kasperske Hory	78.46	319	i P	P	22 14 55.5	+1.1
BILL	Bilibino	78.59	22	i P	P	22 14 51.7	-3.1
CLL	Collm	79.00	321	e*PP	pP	22 15 06.0	-2.5
FUR	Furstenfeldbru	79.93	318	eP	P	22 14 58.8	-3.6
BFO	Black Forest	81.90	318	eP	P	22 15 11.1	-1.7
REDW	Red Top Meadow	126.68	21	ePKP	PKPdf	22 22 01.5	+5.9
PDAR	Pinedale Array	127.66	21	PKP	PKPdf	22 22 04.5	+6.9
	comp=Z,2.9nm,1.0s,slow=1.5,SNR=9.4						
TXAR	Lajitas Array	141.75	23	PKP	PKPdf	22 22 29.7	+5.7
	comp=Z,1.3nm,0.8s,baz=131,slow=1.5,SNR=8.4						
JCT	Junction City	142.04	18	ePKIKP	PKPdf	22 22 28.4	+3.9
LPAZ	La Paz	158.41	240	PKP	PKPdf	22 22 57.5	+7.7
	comp=Z,2.8nm,1.2s,slow=2.0,SNR=5.3						
LPAZ				PKPab	PKPab	22 23 32.4	+5.6
	comp=Z,2.0nm,0.9s,baz=172,slow=3.1,SNR=4.4						
LPAZ	La Paz	158.41	240	PKIKP	PKPdf	22 22 57.5	+7.7
LPAZ				pmax	pmax		
	comp=Z,3.0nm,1.2s						
LPAZ				pmax	pmax		
	comp=Z,2.0nm,0.9s						
LPAZ	La Paz	158.41	240	PKP	PKPdf	22 22 57.5	+7.7
LPAZ				PKPab	PKPab	22 23 32.4	+5.6

IDC ***27*** *22:09:13.9±0.6, 7.22N×93.16E, mb4.2/19, mb1 4.3/20, mb1mx4.3/26, ML4.2/1, Error ellipse: s-maj=31.7km s-min=14.0km az=42.0*

NEIC ***27*** *22:09:18.6±0.4, 7.17N×93.15E, h30^{km}, mb4.7/2, Error ellipse: s-maj=17.6km s-min=8.9km az=221.0*

ISC 27 22:09:16.7±0.5**, 6.95N**±0.09×**93.06E**±0.10**, h30^{km}, n37,** σ**1^{s}21**/33**, mb4.3**/21**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.80	26	P	P	22 12 19.1	-0.4
CMAR	Chiang Mai Arr	12.80	26	Pn	P	22 12 24.7	+5.2
	0.4nm,0.3s,baz=229,slow=14,SNR=7.7						
NDI	New Delhi	26.30	327	e	pP	22 15 04.0	+3.6
UCH	Uchtor	38.79	338	P	P	22 16 42.6	+2.1
	SNR=7.7						
KBK	Karagaybulak	39.00	339	P	P	22 16 44.5	+2.3
	SNR=10.0						
AML	Almayashu	39.02	337	P	P	22 16 44.3	+1.9
	SNR=17						
AAK	Ala-Archa	39.14	338	P	P	22 16 46.1	+2.6
	SNR=5.5						
EKS2	Erkin-Say	39.44	337	P	P	22 16 47.8	+1.9
	SNR=7.2						
USP	Ospenovka	39.69	339	P	P	22 16 49.1	+1.1
	SNR=7.4						
SONM	Songino Array	42.30	13	P	P	22 17 07.1	-2.3
	0.3nm,0.5s,mb3.2,baz=220,slow=11,SNR=2.5						
SONM				PcP	PcP	22 19 02.8	-0.5
	1.2nm,0.7s,baz=198,slow=4.1,SNR=5.2						
ZAL	Zalesovo	47.33	353	P	P	22 17 50.2	+0.6
	1.0nm,0.6s,mb3.9,baz=309,slow=8.8,SNR=3.2						
ZAL	Zalesovo	47.33	353	P	P	22 17 50.2	+0.6
WRA	Warramunga Arr	48.61	124	P	P	22 18 00.8	+0.8
	2.8nm,0.7s,mb4.4,baz=303,slow=8.8,SNR=17						
WRAB	Tennant Creek	48.62	124	eP	P	22 17 59.8	-0.2
	7.4nm,0.7s,mb4.8						
BVAR	Borovoye Array	49.53	342	P	P	22 18 04.3	-2.3
	2.3nm,0.7s,mb4.3,baz=124,slow=5.3,SNR=6.9						
CHKZ	Chkalovo	50.03	343	eP	P	22 18 09.8	-0.7
CHKZ				e	pP	22 18 18.8	-0.8
ASAR	Alice Springs	50.16	129	P	P	22 18 12.3	+0.4
	1.4nm,0.5s,mb4.2,baz=301,slow=7.2,SNR=17						
ASAR				PcP	PcP	22 19 30.4	-0.8
	2.0nm,0.8s,baz=315,slow=3.7,SNR=7.2						
GNI	Garni	54.33	315	P	P	22 18 42.8	0.0
	3.9nm,0.8s,mb4.4,baz=21,slow=12,SNR=4.6						
KMBO	Kilima Mbogo	56.26	264	P	P	22 18 57.4	+0.2
	1.5nm,0.7s,mb4.2,baz=44,slow=23,SNR=5.1						
ASF	Jabal al Asfar	57.83	304	P	P	22 19 08.4	+0.3
	2.5nm,0.6s,mb4.4,baz=297,slow=4.5,SNR=5.1						
EIL	Elat	58.96	300	P	P	22 19 16.2	+0.2
	7.3nm,0.7s,mb4.8,baz=269,slow=4.7,SNR=6.9						
STKA	Stephens Creek	60.26	133	P	P	22 19 25.4	+0.5
	4.2nm,0.7s,mb4.6,baz=284,slow=23,SNR=7.7						
STKA	Stephens Creek	60.26	133	P	P	22 19 25.4	+0.5
BRTR	Keskin Array B	62.23	311	P	P	22 19 36.6	-1.6
	3.4nm,0.8s,mb4.5,baz=122,slow=7.3,SNR=15						
MBAR	Mbarara	62.62	266	eP	P	22 19 41.5	+0.4
	2.2nm,0.6s,mb4.5						
IDI	Anoyia	68.22	305	P	P	22 20 16.1	-0.8
	9.7nm,0.7s,mb4.9,baz=82,slow=10,SNR=8.6						
AKASG	Malin Array Be	68.22	322	P	P	22 20 14.4	-2.2
	0.2nm,0.3s,mb3.6,baz=89,slow=4.8,SNR=4.2						
FINES	FINESS Array B	73.03	332	P	P	22 20 44.4	-1.1
	2.4nm,0.8s,mb4.2,baz=135,slow=8.1,SNR=4.5						
ARCES	ARCESS Array B	75.77	340	P	P	22 21 00.7	-0.5
	1.3nm,0.6s,mb4.1,baz=101,slow=6.2,SNR=6.7						
GERES	GERESS Array B	77.80	318	P	P	22 21 12.0	-0.9
	2.2nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=12						
KHC	Kasperske Hory	77.90	319	eP	P	22 21 13.5	+0.1
HFS	Hagfors	78.72	330	P	P	22 21 16.9	-0.7
	0.5nm,0.4s,mb3.8,baz=83,slow=12,SNR=4.6						
DAVOX	Davos	80.31	316	P	P	22 21 26.9	+0.4
	3.4nm,0.7s,mb4.4,baz=133,slow=9.2,SNR=8.5						
EKA	Eskdalemuir Ar	87.87	325	P	P	22 22 03.2	-1.3
	3.1nm,0.8s,mb4.6,baz=90,slow=5.7,SNR=5.1						
PDAR	Pinedale Array	126.41	21	PKP	PKPdf	22 28 17.7	-4.5
	1.0nm,0.8s,slow=1.5,SNR=6.4						
TXAR	Lajitas Array	140.50	23	PKP	PKPdf	22 28 46.9	-2.2
	0.5nm,0.7s,baz=168,slow=0.7,SNR=6.2						
TXAR	Lajitas Array	140.50	23	PKP	PKPdf	22 28 46.9	-2.2

IDC ***27*** *22:10:16.5±1.1, 6.89N×91.78E, mb4.5/10, mb1 4.6/11, mb1mx4.3/22, Error ellipse: s-maj=35.9km s-min=24.5km az=50.0*

NEIC ***27*** *22:10:21.0±0.5, 6.96N×91.85E, h30^{km}, mb4.4/8, Error ellipse: s-maj=12.3km s-min=10.0km az=59.0*

BJI ***27*** *22:10:21.5, 6.84N×91.10E, h47^{km}, mb4.9*

ISC 27 22:10:19.1±0.7**, 7.0N**±0.1×**91.9E**±0.1**, h30^{km}, n22,** σ**0^{s}68**/21**, mb4.5**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.35	30	Pn	P	22 13 28.8	-0.5
	baz=232,slow=14,SNR=4.7						
KMI	Kunming	20.85	29	P		22 15 08.0	
KMI				AMB	AMB		
	comp=Z,15nm,1.2s						
LSA	Lhasa	22.64	358	P	P	22 15 20.4	+1.2
	comp=Z,16nm,0.6s,mb4.6						
GTA	Gaotai	33.10	11	eP	P	22 16 55.3	+0.6
GTA				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
AAK	Ala-Archa	38.72	339	eP	P	22 17 42.1	-0.3
	comp=Z,3.1nm,0.8s,mb4.1						
SONM	Songino Array	42.58	14	P	P	22 18 15.0	+0.9
	comp=Z,4.8nm,0.7s,mb4.3,baz=196,slow=8.5,SNR=16						
SONM				PcP	PcP	22 20 07.5	+0.8
	comp=Z,0.8nm,0.6s,baz=194,slow=3.9,SNR=3.5						
ULN	Ulaanbaatar	42.78	15	eP	P	22 18 15.4	-0.3
	comp=Z,1.5nm,0.7s,mb3.8						
ZAL	Zalesovo	47.20	354	P	P	22 18 51.1	+0.1
	comp=Z,4.7nm,0.8s,mb4.5,baz=299,slow=8.1,SNR=10						
BVAR	Borovoye Array	49.18	343	P	P	22 19 06.2	-0.2
	comp=Z,4.4nm,0.7s,mb4.6,baz=143,slow=7.4,SNR=12						
BRVK	Borovoye	49.24	343	eP	P	22 19 06.0	-0.9
	comp=Z,4.6nm,0.7s,mb4.6						
WRAB	Tennant Creek	49.59	123	P	P	22 19 10.1	+0.1
	comp=Z,2.7nm,0.7s,mb4.4						
CHKZ	Chkalovo	49.69	344	eP	P	22 19 09.5	-0.8
	comp=Z,7.1nm,0.5s,mb5.0						
STKA	Stephens Creek	61.12	132	P	P	22 20 32.9	-0.4
	comp=Z,3.7nm,1.0s,mb4.5,baz=353,slow=2.7,SNR=2.1						
BRTR	Keskin Array B	61.35	312	P	P	22 20 33.8	-1.0
	comp=Z,1.5nm,0.7s,mb4.2,baz=126,slow=7.2,SNR=6.0						
MLR	Muntele Rosu	68.28	316	P	P	22 21 20.0	+0.5
	comp=Z,5.8nm,0.8s,mb4.7,baz=101,slow=5.2,SNR=4.5						
FINES	FINESS Array B	72.49	333	P	P	22 21 44.0	-0.8
	comp=Z,3.6nm,0.6s,mb4.5,baz=96,slow=6.2,SNR=11						
PSZ	Piszkesteto	72.82	318	P	P	22 21 46.8	-0.2
GERES	GERESS Array B	77.03	318	P	P	22 22 11.8	+0.8
	comp=Z,9.3nm,1.1s,mb4.6,baz=90,slow=5.3,SNR=13						
HFS	Hagfors	78.13	330	P	P	22 22 16.5	-0.4
	comp=Z,3.0nm,0.6s,mb4.4,baz=101,slow=7.6,SNR=5.0						
NB2	NORSAR Subarra	79.44	331	P	P	22 22 23.5	-0.5
	comp=Z,1.4nm,0.7s,mb4.0,baz=98,slow=5.3						
DAVOX	Davos	79.50	316	P	P	22 22 25.9	+1.2
	comp=Z,6.6nm,0.5s,mb4.8,baz=122,slow=5.5,SNR=14						
LPG	La Plagne	81.68	315	eP	P	22 22 37.2	+1.0
	comp=Z,14nm,0.8s,mb4.7						

IDC ***27*** *22:12:55.3±1.0, 4.53N×96.25E, mb4.2/8, mb1 4.3/9, mb1mx4.0/19, Error ellipse: s-maj=57.9km s-min=19.1km az=51.0*

NEIC ***27*** *22:12:59.6±0.9, 4.48N×96.30E, h30^{km}, mb4.5/1, Error ellipse: s-maj=47.2km s-min=14.4km az=51.0*

ISC 27 22:12:58.2±1.0**, 4.6N**±0.2×**96.4E**±0.3**, h30^{km}, n11,** σ**0^{s}94**/11**, mb4.2**/9**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.02	10	Pn	P	22 16 24.6	+7.3
	baz=205,slow=15,SNR=2.7						
SONM	Songino Array	43.95	10	P	P	22 21 05.6	+1.3
	0.6nm,0.6s,mb3.5,baz=194,slow=9.9,SNR=5.6						
SONM				PcP	PcP	22 22 50.3	-0.1
	0.6nm,0.4s,baz=187,slow=4.2,SNR=9.2						
WRA	Warramunga Arr	44.50	124	P	P	22 21 09.9	+0.7
	2.9nm,0.4s,mb4.5,baz=302,slow=9.2,SNR=16						
WRA				PcP	PcP	22 22 52.9	+0.2
	0.2nm,0.5s,baz=315,slow=2.7,SNR=4.7						
WRAB	Tennant Creek	44.51	124	eP	P	22 21 07.9	-1.3
	4.2nm,0.6s,mb4.5						
ASAR	Alice Springs	46.06	129	P	P	22 21 22.0	+0.5
	1.5nm,0.5s,mb4.2,baz=300,slow=7.8,SNR=11						
ZAL	Zalesovo	50.13	351	P	P	22 21 51.5	-1.3
	1.1nm,0.3s,mb4.3,baz=322,slow=4.2,SNR=4.6						
ZAL	Zalesovo	50.13	351	P	P	22 21 51.5	-1.3
ARCES	ARCESS Array B	79.13	340	P	P	22 25 00.7	-0.6
	3.4nm,0.9s,mb4.3,baz=96,slow=7.1,SNR=9.7						
GERES	GERESS Array B	81.80	319	P	P	22 25 16.9	+1.0
	0.6nm,0.5s,mb3.8,baz=114,slow=5.1,SNR=12						
HFS	Hagfors	82.44	330	P	P	22 25 18.2	-0.8
	3.4nm,1.0s,mb4.2,baz=117,slow=9.9,SNR=4.0						
DAVOX	Davos	84.34	316	P	P	22 25 29.5	+0.5
	2.2nm,0.4s,mb4.6,baz=135,slow=5.3,SNR=11						

IDC ***27*** *22:15:03.0±1.2, 8.51N×93.52E, mb4.0/9, mb1 4.1/10, mb1mx4.0/19, ML3.9/1, Error ellipse: s-maj=51.0km s-min=21.0km az=52.0*

NEIC ***27*** *22:15:07.2±0.7, 8.45N×93.52E, h30^{km}, mb4.4/3, Error ellipse: s-maj=30.9km s-min=11.0km az=51.0*

ISC 27 22:15:04.9±0.7**, 8.3N**±0.1×**93.3E**±0.1**, h30^{km}, n15,** σ**0^{s}87**/15**, mb4.1**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.50	28	Pn	P	22 17 51.5	+1.2
	0.2nm,0.3s,baz=214,slow=15,SNR=4.3						
AAK	Ala-Archa	38.02	337	eP	P	22 22 22.4	+0.1
	4.9nm,1.1s,mb4.2						
SONM	Songino Array	40.96	13	P	P	22 22 45.4	-1.1
	2.0nm,1.0s,mb3.7,baz=198,slow=7.8,SNR=6.0						
ZAL	Zalesovo	46.05	353	P	P	22 23 27.2	-0.4
	0.9nm,0.3s,mb4.1,baz=292,slow=6.5,SNR=4.9						
CHKZ	Chkalovo	48.85	342	eP	P	22 23 48.7	-0.8
	3.4nm,0.9s,mb4.4						
WRA	Warramunga Arr	49.14	125	P	P	22 23 52.9	+0.6
	0.4nm,0.5s,mb3.7,baz=305,slow=8.8,SNR=4.7						
WRAB	Tennant Creek	49.15	125	P	P	22 23 51.1	-1.3
ASAR	Alice Springs	50.78	130	P	P	22 24 05.7	+0.8
	0.8nm,0.7s,mb3.8,baz=301,slow=6.4,SNR=5.0						
BRTR	Keskin Array B	61.56	311	P	P	22 25 21.4	-0.5
	1.9nm,1.1s,mb4.2,baz=120,slow=4.6,SNR=4.5						
MORC	Moravsky Berou	74.55	319	eP	P	22 26 42.9	+0.2
ARCES	ARCESS Array B	74.62	340	P	P	22 26 43.6	+0.9
	2.3nm,0.8s,mb4.1,baz=90,slow=6.3,SNR=5.5						
GERES	GERESS Array B	77.00	318	P	P	22 26 58.4	+1.8
	0.5nm,0.6s,mb3.6,baz=90,slow=4.9,SNR=5.7						
NB2	NORSAR Subarra	78.99	331	P	P	22 27 07.4	+0.1
	13nm,1.4s,mb4.7,baz=92,slow=5.6						
ILAR	Eielson Array	94.68	22	P	P	22 28 23.0	-1.1
	0.6nm,0.8s,mb4.0,baz=309,slow=5.8,SNR=5.8						
INK	Inuvik	96.83	16	P	P	22 28 33.5	-0.4
	1.6nm,1.0s,mb4.4,baz=315,slow=1.4,SNR=3.2						

IDC ***27*** *22:19:37.3±0.7, 12.02N×92.41E, mb4.3/17, mb1 4.4/18, mb1mx4.2/25, ML4.5/1, MS3.7/1, Ms1 3.9/1, ms1mx3.4/20, Error ellipse: s-maj=30.0km s-min=13.2km az=52.0*

BJI ***27*** *22:19:39.7, 11.89N×92.49E, h35^{km}, mB5.5, mb4.6, Ms5.0, Msz4.8*

NEIC ***27*** *22:19:41.6±0.5, 12.03N×92.42E, h30^{km}, mb4.7/7, Error ellipse: s-maj=10.7km s-min=10.3km az=217.0*

ISC 27 22:19:39.7±0.5**, 12.02N**±0.06×**92.41E**±0.07**, h30^{km}, n46,** σ**0^{s}76**/47**, mb4.5**/31**, MS4.8**/2**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	8.99	44	eP	P	22 21 46.3	-4.4
	5.5nm,0.3s						
CMAR	Chiang Mai Arr	8.99	44	Pn	P	22 21 49.5	-1.2
	1.5nm,0.3s,baz=239,slow=15,SNR=7.5						
CMAR				Sn	Sn	22 23 47.4	+16
	0.8nm,0.3s,baz=236,slow=29,SNR=5.3						
CMAR				LR	LR	22 26 01.6	
	comp=Z,411nm,18.2s,baz=250,slow=43						
CMAR	Chiang Mai Arr	8.99	44	Pn	P	22 21 49.5	-1.2
CMAR				Sn	Sn	22 23 47.4	+16
CMAR				LR	LR	22 26 01.6	
PALK	Pallekele	12.46	249	eP	P	22 22 34.5	-3.6
SHL	Shillong	13.49	358	eP	P	22 22 44.0	-7.6
KMI	Kunming	16.29	35	P	P	22 23 28.8	+0.6
KMI				AMB	AMB		
	comp=Z,15nm,1.1s						
PKI	Pulchoki	16.81	338	eP	P	22 23 34.4	-0.3
	comp=Z,12nm,0.4s						
GUN	Gumba	16.95	340	eP	P	22 23 36.2	-0.3
	comp=Z,7.4nm,0.4s						
DMN	Daman	16.95	337	eP	P	22 23 35.6	-0.9
	comp=Z,23nm,0.6s						
GKN	Gorkha	17.49	337	eP	P	22 23 41.5	-1.7
	comp=Z,20nm,0.4s						
GYA	Guiyang	19.66	41	P	P	22 24 09.5	+0.2
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CD2	Chengdu	21.54	27	P	P	22 24 28.3	-0.4
CD2				AMB	AMB		
	comp=Z,80nm,0.6s,mb5.3						
NDI	New Delhi	21.82	322	e	P	22 24 38.0	+6.5
ENH	Enshi	24.10	38	eP	P	22 24 53.3	-0.6
	comp=Z,42nm,0.6s,mb5.0						
LZH	Lanzhou	26.09	21	eP	P	22 25 13.5	+0.7
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb4.6						
LZH				LR	LR		
	comp=E,1μm,11.5s						
LZH				LR	LR		
	comp=Z,2μm,12.9s,MS4.9						
GTA	Gaotai	28.06	12	eP	P	22 25 32.0	+1.3
GTA				AP	pP	22 25 37.8	-1.7
GTA				AMB	AMB		
	comp=Z,15nm,1.2s,mb4.5						
HHC	Hu-ho-hao-te	33.29	27	eP	P	22 26 16.8	-0.1
HHC				AP	pP	22 26 23.8	-2.0
HHC				XP	sP	22 26 29.0	-0.7
HHC				AMB	AMB		
	comp=Z,11nm,1.1s,mb4.7						
HHC				AMB	AMB		
	comp=Z,1μm,9.8s						
HHC				LR	LR		
	comp=N,2μm,10.9s						
HHC				LR	LR		
	comp=Z,939nm,12.9s,MS4.7						
BJT	Baijiatuau	34.90	33	eP	P	22 26 31.1	+0.3
	comp=Z,20nm,0.6s,mb5.2						
BJI	Beijing	34.92	33	P	P	22 26 31.5	+0.5
BJI				AMB	AMB		
	comp=Z,27nm,0.7s,mb5.3						
SONM	Songino Array	37.58	15	P	P	22 26 54.2	+0.9
	comp=Z,6.8nm,1.0s,mb4.3,baz=203,slow=7.7,SNR=24						
ULN	Ulaanbaatar	37.78	16	eP	P	22 26 54.6	-0.4
	comp=Z,3.9nm,1.0s,mb4.1						
SNY	Shenyang	40.26	37	⇑P	P	22 27 16.0	+0.3
SNY				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
ZAL	Zalesovo	42.25	353	P	P	22 27 31.7	-0.2
	comp=Z,2.1nm,0.4s,mb4.1,baz=299,slow=7.2,SNR=9.2						
ZAL	Zalesovo	42.25	353	P	P	22 27 31.7	-0.2
CN2	Changchun	42.56	36	eP	P	22 27 34.0	-0.6
CN2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.1						
BVAR	Borovoye Array	44.54	341	P	P	22 27 51.6	+1.1
	comp=Z,0.9nm,0.6s,mb3.8,baz=145,slow=9.7,SNR=5.5						
CHKZ	Chkalovo	45.03	342	eP	P	22 27 54.1	-0.3
	comp=Z,7.2nm,0.8s,mb4.5						
GNI	Garni	50.36	313	P	P	22 28 38.1	+1.9
	comp=Z,1.8nm,0.5s,mb4.4,slow=13,SNR=2.8						
NWAO	Narrogin (SRO)	50.59	153	P	P	22 28 38.3	+0.2
	comp=Z,5.9nm,0.8s,mb4.6,baz=328,slow=5.0,SNR=6.3						
WRA	Warramunga Arr	52.08	127	P	P	22 28 49.1	-0.4
	comp=Z,5.3nm,0.5s,mb4.7,baz=301,slow=10.0,SNR=62						
WRAB	Tennant Creek	52.08	127	eP	P	22 28 48.6	-0.9
	comp=Z,13nm,0.5s,mb5.1						
KIV	Kislovodsk	53.14	316	eP	P	22 28 57.2	+0.1
	comp=Z,3.7nm,0.7s,mb4.4						
ASAR	Alice Springs	53.89	131	P	P	22 29 02.5	-0.4
	comp=Z,2.4nm,0.7s,mb4.2,baz=306,slow=6.7,SNR=24						
PMG	Port Moresby	58.43	109	P	P	22 29 36.0	+0.4
	comp=Z,3.9nm,0.6s,mb4.6,baz=349,slow=5.2,SNR=3.5						
BRTR	Keskin Array B	58.47	309	P	P	22 29 36.4	+0.9
	comp=Z,0.9nm,0.6s,mb4.0,baz=112,slow=7.8,SNR=5.3						
STKA	Stephens Creek	64.19	134	P	P	22 30 14.5	+0.2
	comp=Z,0.9nm,0.3s,mb4.2,baz=326,slow=4.8,SNR=5.2						
MLR	Muntele Rosu	65.05	315	P	P	22 30 23.4	+3.8
	comp=Z,4.2nm,0.9s,mb4.5,baz=124,slow=8.1,SNR=3.2						
FINES	FINESS Array B	68.28	332	P	P	22 30 39.5	-0.3
	comp=Z,1.3nm,0.7s,mb4.1,baz=101,slow=7.1,SNR=7.3						
FINES	FINESS Array B	68.28	332	P	P	22 30 39.5	-0.3
ARCES	ARCESS Array B	70.81	340	P	P	22 30 55.6	+0.4
	comp=Z,2.4nm,0.6s,mb4.3,baz=93,slow=6.8,SNR=14						
GERES	GERESS Array B	73.63	318	P	P	22 31 12.0	-0.2
	comp=Z,0.8nm,0.8s,mb3.7,baz=108,slow=4.2,SNR=17						
HFS	Hagfors	74.04	329	P	P	22 31 13.7	-0.7
	comp=Z,1.3nm,0.5s,mb4.1,baz=124,slow=5.3,SNR=5.9						
NB2	NORSAR Subarra	75.31	330	P	P	22 31 21.6	-0.1
	comp=Z,1.1nm,0.7s,mb3.9,baz=94,slow=5.3						
ILAR	Eielson Array	91.56	22	P	P	22 32 44.6	0.0
	comp=Z,0.7nm,0.6s,mb4.2,baz=300,slow=4.7,SNR=15						
INK	Inuvik	93.50	16	P	P	22 32 54.1	+0.7
	comp=Z,0.5nm,0.5s,mb4.2,baz=296,slow=4.3,SNR=5.4						
TXAR	Lajitas Array	136.06	20	PKP	PKPdf	22 39 02.2	-1.6
	comp=Z,0.4nm,0.7s,baz=63,slow=2.0,SNR=4.0						

IDC 27 22:22:00.6±1.1**, 7.64N**×**93.90E, mb4.1**/9**, mb1 4.2**/9**, mb1mx4.0**/20**, Error ellipse: s-maj=56.7km s-min=19.9km az=52.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	41.45	13	P	P	22 29 49.8	-0.9
	0.9nm,0.7s,baz=191,slow=10.0,SNR=4.3						
ZAL	Zalesovo	46.75	353	P	P	22 30 31.8	-1.5
	2.4nm,0.3s,baz=313,slow=3.8,SNR=8.0						
WRA	Warramunga Arr	48.32	125	P	P	22 30 44.1	-2.0
	1.3nm,0.7s,baz=305,slow=8.6,SNR=3.9						
BVAR	Borovoye Array	49.14	341	P	P	22 30 48.0	-4.0
	0.8nm,0.8s,baz=135,slow=6.1,SNR=2.5						
ASAR	Alice Springs	49.95	130	P	P	22 30 56.4	-2.3
	0.7nm,0.5s,baz=303,slow=7.4,SNR=3.6						
FINES	FINESS Array B	72.81	332	P	P	22 33 30.9	-1.8
	2.6nm,0.6s,baz=89,slow=7.5,SNR=14						
GERES	GERESS Array B	77.84	318	P	P	22 34 00.9	-0.8
	1.0nm,0.6s,baz=85,slow=6.6,SNR=6.8						
HFS	Hagfors	78.54	330	P	P	22 34 04.0	-1.3
	8.1nm,1.1s,baz=108,slow=4.6,SNR=6.2						
DAVOX	Davos	80.39	316	P	P	22 34 14.6	-1.0
	1.5nm,0.7s,baz=192,slow=12,SNR=3.6						

IDC ***27*** *22:33:07.9±1.3, 7.83N×92.47E, mb3.9/7, mb1 4.1/8, mb1mx3.8/19, ML3.7/1, Error ellipse: s-maj=64.8km s-min=21.7km az=52.0*

NEIC ***27*** *22:33:12.2±0.9, 7.73N×92.40E, h30^{km}, mb4.1/2, Error ellipse: s-maj=40.5km s-min=13.8km az=57.0*

ISC 27 22:33:10.2±0.9**, 7.7N**±0.1×**92.4E**±0.2**, h30^{km}, n12,** σ**0^{s}85**/12**, mb3.9**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.45	30	Pn	P	22 36 08.6	+0.1
	0.1nm,0.3s,baz=231,slow=14,SNR=6.3						
LSA	Lhasa	21.91	357	P	P	22 38 04.0	+1.1
AAK	Ala-Archa	38.20	338	eP	P	22 40 28.7	-0.4
	1.6nm,0.9s,mb3.8						
SONM	Songino Array	41.73	14	P	P	22 40 57.9	-0.4
	0.4nm,0.4s,mb3.4,baz=203,slow=6.6,SNR=5.7						
BVAR	Borovoye Array	48.61	342	P	P	22 41 51.4	-1.6
	0.9nm,0.6s,mb4.0,baz=135,slow=8.4,SNR=7.5						
CHKZ	Chkalovo	49.11	343	eP	P	22 41 56.5	-0.4
	3.1nm,0.9s,mb4.3						
WRA	Warramunga Arr	49.59	124	P	P	22 42 02.1	+1.0
	0.5nm,0.5s,mb3.8,baz=302,slow=9.0,SNR=7.3						
ASAR	Alice Springs	51.16	129	P	P	22 42 11.8	-1.1
	0.8nm,0.9s,mb3.6,baz=305,slow=6.7,SNR=4.7						
FINES	FINESS Array B	72.05	332	P	P	22 44 33.3	+0.1
	2.0nm,0.7s,mb4.2,baz=90,slow=6.9,SNR=5.8						
ARCES	ARCESS Array B	74.84	340	P	P	22 44 49.7	+0.4
	6.0nm,1.0s,mb4.5,baz=90,slow=6.3,SNR=3.8						
ARCES	ARCESS Array B	74.84	340	P	P	22 44 49.7	+0.4
GERES	GERESS Array B	76.79	318	P	P	22 45 01.9	+1.1
	0.8nm,0.7s,mb3.8,baz=76,slow=4.0,SNR=8.1						

IDC 27 22:34:46.1±1.2**, 7.69N**×**94.06E, mb3.8**/5**, mb1 4.0**/5**, mb1mx3.8**/17**, Error ellipse: s-maj=58.1km s-min=22.9km az=46.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	41.36	13	P	P	22 42 33.8	-1.6
	0.9nm,0.6s,baz=208,slow=7.5,SNR=5.3						
WRA	Warramunga Arr	48.22	125	P	P	22 43 28.0	-2.9
	0.7nm,0.7s,baz=305,slow=8.6,SNR=3.6						
ASAR	Alice Springs	49.86	130	P	P	22 43 42.4	-1.1
	0.9nm,0.5s,baz=295,slow=7.3,SNR=5.9						
BRTR	Keskin Array B	62.48	311	P	P	22 45 11.1	-2.8
	1.0nm,0.7s,baz=126,slow=6.6,SNR=6.3						
GERES	GERESS Array B	77.91	318	P	P	22 46 46.9	-0.7
	1.4nm,0.9s,baz=101,slow=5.0,SNR=7.9						

IDC ***27*** *22:46:13.1±0.9, 3.67N×96.71E, mb4.0/8, mb1 4.0/9, mb1mx3.9/19, ML4.2/1, Error ellipse: s-maj=38.6km s-min=18.5km az=63.0*

NEIC ***27*** *22:46:17.4±0.8, 3.68N×96.72E, h30^{km}, mb4.3/1, Error ellipse: s-maj=30.7km s-min=13.4km az=68.0*

ISC 27 22:46:15.5±0.8**, 3.7N**±0.1×**96.7E**±0.2**, h30^{km}, n11,**

σ1^{s}03/11,**mb4.0**/9,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.85	8	Pn	P	22 49 46.2	+0.8
	0.4nm,0.3s,baz=211,slow=15,SNR=4.3						
LSA	Lhasa	26.41	349	*e*P	P	22 51 50.5	-1.0
WRA	Warramunga Arr	43.79	124	P	P	22 54 20.8	+0.1
	1.3nm,0.6s,mb3.9,baz=301,slow=9.2,SNR=13						
WRAB	Tennant Creek	43.79	124	*e*P	P	22 54 20.3	-0.4
	3.7nm,0.7s,mb4.2						
SONM	Songino Array	44.77	9	P	P	22 54 30.3	+2.0
	0.3nm,0.4s,mb3.4,baz=190,slow=8.8,SNR=2.1						
ASAR	Alice Springs	45.30	129	P	P	22 54 32.4	-0.4
	1.2nm,0.7s,mb3.8,baz=307,slow=8.2,SNR=9.4						
ZAL	Zalesovo	51.04	351	P	P	22 55 15.1	-1.9
	0.9nm,0.3s,mb4.1,baz=270,slow=3.0,SNR=3.0						
BVAR	Borovoye Array	53.76	341	P	P	22 55 36.6	-0.7
	1.2nm,0.7s,mb3.9,baz=141,slow=9.2,SNR=6.0						
GNI	Garni	59.18	315	P	P	22 56 20.8	+4.6
	0.7nm,0.4s,mb4.1,baz=216,slow=5.3,SNR=3.4						
BRTR	Keskin Array B	67.09	312	P	P	22 57 09.3	+0.7
	0.5nm,0.8s,mb3.6,baz=127,slow=7.3,SNR=3.5						
MAW	Mawson	75.00	193	P	P	22 57 56.5	+0.8
	2.9nm,0.4s,mb4.6,baz=45,slow=1.4,SNR=5.4						

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*NEIC **27** 22:49:13.4±0.6, 13.58N×92.89E, h30^{km}, mb4.5/3, Error ellipse: s-maj=13.9km s-min=10.7km az=47.0*

*IDC **27** 22:49:15.9±6.4, 13.77N×93.04E, h46^{km}±58^{km}, mb3.8/9, mb1 4.0/10, mb1mx3.8/18, ML3.6/1, Error ellipse: s-maj=44.4km s-min=16.1km az=52.0*

ISC 27 22:49:11.6±0.7,**13.69N**±0.10×**93.00E**±0.09,**h30^{km},n16, σ0^{s}81**/17,**mb4.1**/11,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.42	50	P	Pn	22 51 01.3	+0.5
CMAR	Chiang Mai Arr	7.42	50	P	Pn	22 51 01.9	+1.1
	0.3nm,0.3s,baz=239,slow=16,SNR=3.5						
CMAR				S	Sn	22 52 21.9	-2.9
	0.2nm,0.3s,baz=239,slow=27,SNR=12						
LSA	Lhasa	16.02	354	*e*P	P	22 53 00.6	+4.0
AAK	Ala-Archa	32.98	335	P	P	22 55 44.7	-1.3
	1.4nm,0.8s,mb3.9						
SONM	Songino Array	35.82	15	P	P	22 56 10.2	-0.2
	0.3nm,0.7s,mb3.4,baz=180,slow=5.8,SNR=2.3						
ZAL	Zalesovo	40.67	353	P	P	22 56 51.8	+1.0
	1.0nm,0.6s,mb3.7,baz=304,slow=5.7,SNR=4.5						
CHKZ	Chkalovo	43.64	341	*e*P	P	22 57 15.0	0.0
CHKZ				*e*	pP	22 57 24.1	0.0
WRA	Warramunga Arr	52.64	129	P	P	22 58 25.8	+0.2
	3.0nm,0.6s,mb4.4,baz=296,slow=9.5,SNR=32						
WRA				PcP	PcP	22 59 35.7	+0.4
	0.4nm,0.5s,baz=318,slow=3.1,SNR=5.4						
WRAB	Tennant Creek	52.65	129	*e*P	P	22 58 25.0	-0.7
	6.7nm,0.5s,mb4.8						
ASAR	Alice Springs	54.57	133	P	P	22 58 39.9	+0.1
	2.5nm,0.5s,mb4.5,baz=310,slow=7.0,SNR=35						
BRTR	Keskin Array B	57.88	308	P	P	22 59 02.9	-0.4
	2.9nm,1.0s,mb4.3,baz=118,slow=8.0,SNR=10						
FINES	FINESS Array B	67.09	331	P	P	23 00 03.9	-0.4
	0.9nm,0.6s,mb4.0,baz=90,slow=5.7,SNR=7.6						
ARCES	ARCESS Array B	69.45	340	P	P	23 00 19.3	+0.5
	1.5nm,0.6s,mb4.1,baz=104,slow=5.0,SNR=8.9						
GERES	GERESS Array B	72.79	317	P	P	23 00 39.6	+0.3
	1.0nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=7.8						
NB2	NORSAR Subarra	74.15	330	P	P	23 00 42.4	-4.5
	8.4nm,1.4s,mb4.5,baz=89,slow=5.3						
NOA	NORSAR Array B	74.15	330	P	P	23 00 46.9	0.0
	1.2nm,0.7s,mb4.0,baz=90,slow=5.8,SNR=4.1						

IDC 27 22:55:17.3±8.7,**9.68N×90.61E,mb3.7**/3,**mb1 3.9**/3, **mb1mx3.5**/17,**Error ellipse: s-maj=390.0km s-min=31.4km az=62.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ZAL	Zalesovo	44.38	355	P	P	23 03 29.3	-2.0
	0.7nm,0.3s,baz=205,slow=3.0,SNR=4.4						
WRA	Warramunga Arr	52.15	125	P	P	23 04 29.7	-2.4
	0.5nm,0.5s,baz=303,slow=8.8,SNR=8.5						
ASAR	Alice Springs	53.75	129	P	P	23 04 42.0	-1.9
	0.7nm,0.8s,baz=304,slow=7.3,SNR=5.3						

IDC 27 22:55:40.7±2.5,**9.51N×91.47E,mb4.0**/4,**mb1 4.2**/4, **mb1mx3.8**/17,**Error ellipse: s-maj=101.0km s-min=27.0km az=61.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.23	16	P	P	23 03 18.5	-2.2
	0.7nm,1.0s,baz=198,slow=9.1,SNR=3.5						
WRA	Warramunga Arr	51.35	125	P	P	23 04 48.3	-1.1
	3.2nm,0.6s,baz=301,slow=9.1,SNR=18						
ASAR	Alice Springs	52.98	129	P	P	23 04 58.4	-3.3
	0.7nm,0.6s,baz=303,slow=8.1,SNR=5.9						
ARCES	ARCESS Array B	72.85	340	P	P	23 07 11.4	-1.5
	3.1nm,1.0s,baz=100,slow=5.5,SNR=4.1						

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*NEIC **27** 22:58:10.5±0.7, 12.75N×93.19E, h30^{km}, mb4.6/4, Error ellipse: s-maj=14.4km s-min=11.7km az=55.0*

*IDC **27** 22:58:13.3±8.6, 12.81N×93.24E, h51^{km}±74^{km}, mb3.7/9, mb1 3.9/10, mb1mx3.7/19, ML4.4/1, Error ellipse: s-maj=66.5km s-min=17.8km az=55.0*

ISC 27 22:58:08.5±0.8,**12.8N**±0.1×**93.2E**±0.1,**h30^{km},n16, σ0^{s}57**/16,**mb4.1**/13,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.91	43	P	Pn	23 00 04.4	0.0
	4.1nm,0.4s						
CMAR	Chiang Mai Arr	7.91	43	P	Pn	23 00 04.9	+0.5
	1.3nm,0.3s,baz=235,slow=15,SNR=25						
ENH	Enshi	23.03	38	*e*P	P	23 03 11.4	-0.9
	20nm,0.8s,mb4.6						
AAK	Ala-Archa	33.92	335	*e*P	P	23 04 50.9	-0.2
	0.6nm,0.5s,mb3.8						
SONM	Songino Array	36.67	15	P	P	23 05 14.9	+0.5
	0.6nm,0.4s,mb3.7,baz=196,slow=9.0,SNR=5.7						
ZAL	Zalesovo	41.63	353	P	P	23 05 56.0	+0.4
	1.9nm,0.4s,mb4.1,baz=309,slow=8.8,SNR=7.3						
BVAR	Borovoye Array	44.12	340	P	P	23 06 16.0	+0.1
	1.1nm,0.5s,mb3.9,baz=144,slow=9.6,SNR=9.0						
CHKZ	Chkalovo	44.60	341	*e*P	P	23 06 19.5	-0.3
	5.7nm,0.5s,mb4.7						
WRA	Warramunga Arr	51.89	128	P	P	23 07 16.6	-0.2
	2.2nm,0.6s,mb4.2,baz=301,slow=9.2,SNR=14						
WRAB	Tennant Creek	51.89	128	*e*P	P	23 07 15.9	-0.9
	3.8nm,0.5s,mb4.6						
ASAR	Alice Springs	53.78	132	P	P	23 07 32.0	+1.3
	0.6nm,0.9s,mb3.5,baz=310,slow=7.3,SNR=4.4						
AKASG	Malin Array Be	63.82	320	P	P	23 08 40.0	-0.3
	0.4nm,0.3s,mb3.9,baz=319,slow=9.9,SNR=6.1						
FINES	FINESS Array B	68.02	331	P	P	23 09 06.7	-0.2
	1.0nm,0.5s,mb4.1,baz=104,slow=6.9,SNR=13						
FINES	FINESS Array B	68.02	331	P	P	23 09 06.7	-0.2
ARCES	ARCESS Array B	70.41	340	P	P	23 09 21.1	-0.4
	2.0nm,0.8s,mb4.1,baz=91,slow=6.8,SNR=11						
GERES	GERESS Array B	73.63	317	P	P	23 09 41.8	+0.8
	0.7nm,0.6s,mb3.8,baz=90,slow=5.3,SNR=8.2						

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*IDC **27** 23:01:57.4±0.5, 9.91N×93.79E, mb4.5/18, mb1 4.6/19, mb1mx4.5/23, ML3.8/1, MS4.0/1, Ms1 4.0/1, ms1mx3.0/25, Error ellipse: s-maj=22.7km s-min=12.3km az=49.0*

*BJI **27** 23:01:58.8, 9.52N×93.58E, h42^{km}, mB5.4, mb4.8, Ms4.7, Msz4.2*

*MOS **27** 23:02:00.4±1.0, 9.87N×93.74E, h33^{km}, mb4.9/30, Error ellipse: s-maj=13.2km s-min=6.6km az=121.5*

*NEIC **27** 23:02:00.7±2.6, 9.80N×93.70E, h23^{km}±17^{km}, mb4.9/18, Error ellipse: s-maj=9.0km s-min=6.1km az=48.0*

ISC 27 23:01:60.0±2.2,**9.85N**±0.05×**93.81E**±0.04,**h29^{km}**±15^{km}, **h26^{km}**±1.4^{km}**:pP-P,n155, σ0^{s}94**/145,**mb4.8**/48,**MS4.3**/5, **4C-2D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	9.89	30	P	P	23 04 23.6	+0.1
	16nm,0.9s						
CMAR	Chiang Mai Arr	9.89	30	Pn	P	23 04 24.4	+0.8
	0.2nm,0.3s,baz=217,slow=15,SNR=12						
VIS	Vishakhapatnam	12.83	309	*e*P	P	23 05 01.7	-1.6
VIS				*e*		23 05 05.8	
	comp=Z,73nm,2.2s						
VIS				*e*		23 11 39.4	
MDRS	Chennai	13.67	285	*e*	P	23 05 14.0	-0.5
MDRS				*e*		23 07 38.0	
SHL	Shillong	15.73	354	*e*P	P	23 05 40.0	-1.4
SHL				*e*		23 10 42.0	
HYB	Hyderabad	16.61	299	*e*P	P	23 05 51.0	-1.6
HYB				pmax	pmax		
	comp=Z,40nm,1.0s						
HYB	Hyderabad	16.61	299	*e*P	P	23 05 51.0	-1.6
	comp=Z,40nm,1.0s						
HYB				*e*		23 05 57.0	
HYB	Hyderabad	16.61	299	*i* P	P	23 05 51.0	-1.6
	comp=Z,40nm,1.0s						
HYB				*e*		23 05 57.0	
KMI	Kunming	17.40	28	P	P	23 06 07.5	+5.1
KMI				AMB	AMB		
	comp=Z,22nm,1.5s						
PKI	Pulchoki	19.32	337	*e*P	P	23 06 25.4	-0.4
GUN	Gumba	19.45	338	*e*P	P	23 06 27.2	-0.1
	comp=Z,133nm,1.1s						
DMN	Daman	19.47	336	*e*P	P	23 06 27.1	-0.5
	comp=Z,32nm,0.7s						
KKN	Kakani	19.57	337	*e*P	P	23 06 28.6	0.0
	comp=Z,69nm,1.0s						
LSA	Lhasa	19.90	353	*e*P	P	23 06 31.0	-1.3
LSA				pmax	pmax		
	comp=Z,52nm,1.0s						
LSA	Lhasa	19.90	353	*e*P	P	23 06 31.0	-1.3
	comp=Z,52nm,1.0s						
GKN	Gorkha	20.01	336	*e*P	P	23 06 32.8	-0.6
	comp=Z,88nm,0.8s						
KOLN	Koldanda	20.25	333	*e*P	P	23 06 36.1	+0.2
KAD	Karad	20.45	293	*e*P	P	23 06 38.8	+0.7
KAD				*e*		23 06 42.4	
	comp=Z,45nm,0.8s						
GYA	Guiyang	20.51	35	⇓P	P	23 06 40.8	+2.2
GYA				AMB	AMB		
	comp=Z,20nm,1.2s						
GYA				LR	LR		
	comp=N,300nm,11.4s,MS4.1						
GYA				LR	LR		
	comp=E,330nm,10.2s,MS4.1						
GYA				LR	LR		
	comp=Z,320nm,11.4s,MS3.9						
BHPL	Bhopal	20.56	312	*e*P	P	23 06 38.5	-0.5
BHPL				*e*		23 06 43.5	
	comp=Z,30nm,0.7s						
POO	Poona	21.17	296	*e*P	P	23 06 46.9	+1.5
POO				*e*		23 06 48.0	
	comp=Z,31nm,0.6s						
COCO	West Island	22.11	172	P	P	23 06 52.5	-2.2
CD2	Chengdu	22.91	22	P	P	23 07 03.5	+0.8
CD2				AMB	AMB		
	comp=Z,50nm,1.3s,mb4.8						
AYAN	Aya Nagar	24.27	322	*e*P	P	23 07 16.4	+0.5
AYAN				*e*		23 07 20.4	
	comp=Z,12nm,1.0s						
NDI	New Delhi	24.36	323	*e*P	P	23 07 17.0	+0.2
KHET	Khetri	24.80	319	*e*P	P	23 07 22.2	+1.1
KHET				*e*		23 07 25.3	
	comp=Z,14nm,1.2s						
ENH	Enshi	25.03	34	*e*P	P	23 07 24.1	+0.9
	comp=Z,182nm,1.1s,mb5.5						
DDI	Dehra Dun	25.11	326	*e*	P	23 07 23.5	-0.5
KKR	Kurukshetra	25.53	324	*e*P	P	23 07 28.6	+0.6
KLP	Kalpa	25.96	328	*e*P	P	23 07 31.9	0.0
KLP				*e*		23 07 35.3	
	comp=Z,23nm,1.1s						
LZH	Lanzhou	27.66	18	⇑P	P	23 07 48.5	+1.1
LZH				AMB	AMB		
	comp=Z,44nm,1.5s,mb4.9						
GTA	Gaotai	29.92	9	*e*P	P	23 08 07.8	+0.1
GTA				AP	pP	23 08 15.0	-1.4
GTA				AMB	AMB		
	comp=Z,15nm,1.9s,mb4.4						
GTA				AMB	AMB		
	comp=Z,191nm,4.6s						
GTA				LR	LR		
	comp=N,377nm,17.1s,MS4.3						
GTA				LR	LR		
	comp=E,562nm,20.2s,MS4.3						
GTA				LR	LR		
	comp=Z,455nm,16.4s,MS4.2						
KSH	Kashi	33.55	335	P	P	23 08 39.0	-0.5
KSH				*e*AP	pP	23 08 48.0	-0.2
KSH				*e*XP	sP	23 08 52.5	+0.5
KSH				PP	PP	23 09 55.8	+3.6
KSH				*e*PCP	PcP	23 11 15.5	-4.3
WMQ	Urumqi	34.26	352	⇓P	P	23 08 46.0	+0.4
WMQ				AMB	AMB		
	comp=Z,17nm,1.1s,mb4.9						
HHC	Hu-ho-hao-te	34.64	24	*e*P	P	23 08 49.0	+0.1
HHC				AP	pP	23 08 56.5	-1.1
HHC				PP	PP	23 10 05.5	-0.4
HHC				PCP	PcP	23 11 23.5	+0.6
HHC				S	S	23 14 13.0	-2.6
HHC				AMB	AMB		
	comp=Z,15nm,1.0s,mb4.9						
HHC				AMB	AMB		
	comp=Z,153nm,6.9s						
HHC				LR	LR		
	comp=N,330nm,17.8s,MS4.6						
HHC				LR	LR		
	comp=E,727nm,13.1s,MS4.6						
HHC				LR	LR		
	comp=Z,319nm,20.2s						
KZA	Kyzart	36.00	336	P	P	23 09 01.4	+1.0
	SNR=10						
BJI	Beijing	36.04	30	P	P	23 09 01.0	+0.2
BJI				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.7						
UCH	Uchtor	36.42	336	P	P	23 09 04.3	+0.3
	SNR=14						
TKM2	Tokmak 2	36.58	337	P	P	23 09 05.9	+0.6
	SNR=11						
KBK	Karagaybulak	36.61	336	P	P	23 09 06.5	+0.9
	SNR=30						
AML	Almayashu	36.68	335	P	P	23 09 07.1	+0.9
	SNR=31						
AAK	Ala-Archa	36.77	336	P	P	23 09 08.1	+1.2
	SNR=15						
AAK	Ala-Archa	36.77	336	*e*P	P	23 09 06.3	-0.6
AAK				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.9						
AAK	Ala-Archa	36.77	336	*e*P	P	23 09 06.3	-0.6
	comp=Z,19nm,0.9s,mb4.9						
FRU	Bishkek	36.89	336	*e*P	P	23 09 09.0	+1.1
FRU				*e*		23 10 53.0	
FRU				pmax	pmax		
	comp=Z,60nm,2.0s,mb5.1						
CHMS	Chumysh	36.98	337	P	P	23 09 08.5	-0.1
	SNR=18						
EKS2	Erkin-Say	37.09	335	P	P	23 09 10.3	+0.7
	SNR=33						
USP	Ospenovka	37.30	337	P	P	23 09 11.4	+0.1
	SNR=26						
MKAR	Makanchi Array	38.10	347	*i* P	P	23 09 17.5	-0.5
MKAR				pmax	pmax		
	comp=Z,21nm,1.1s						
SONM	Songino Array	39.32	13	P	P	23 09 28.6	+0.4
	comp=Z,5.1nm,0.9s,mb4.2,baz=198,slow=7.5,SNR=27						
SONM				PcP	PcP	23 11 37.4	+0.4
	comp=Z,3.2nm,0.7s,baz=200,slow=3.7,SNR=13						
ULN	Ulaanbaatar	39.50	14	*e*P	P	23 09 29.3	-0.4
ULN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.3						
ULN	Ulaanbaatar	39.50	14	*e*P	P	23 09 29.3	-0.5
	comp=Z,4.8nm,0.8s,mb4.3						
SNY	Shenyang	41.21	34	⇑P	P	23 09 45.3	+1.4
SNY				AMB	AMB		
	comp=Z,20nm,1.7s,mb4.5						
CN2	Changchun	43.55	33	*e*P	P	23 10 04.0	+1.0
CN2				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.7						
CN2				LR	LR		
	comp=N,300nm,13.0s,MS4.6						
CN2				LR	LR		
	comp=E,400nm,13.0s,MS4.6						
CN2				LR	LR		
	comp=Z,300nm,14.0s,MS4.3						
ZAL	Zalesovo	44.55	352	P	P	23 10 10.6	-0.4
	comp=Z,6.0nm,0.8s,mb4.5,baz=304,slow=7.7,SNR=34						
ZAL	Zalesovo	44.55	352	P	P	23 10 10.6	-0.4
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.8s						
HIA	Hailar	44.85	24	*e*P	P	23 10 13.1	-0.3
HIA				pmax	pmax		
	comp=Z,9.0nm,1.2s						
HIA	Hailar	44.85	24	*e*P	P	23 10 13.1	-0.3
	comp=Z,8.9nm,1.2s,mb4.5						
NVS	Novosibirsk	45.65	351	*i* P	P	23 10 18.1	-1.6
NVS				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
NVS				pmax	pmax		
	comp=N,30nm,1.3s						
NVS				pmax	pmax		
	comp=E,16nm,1.3s						
BVA0	Borovoye Array	47.02	341	*i* P	P	23 10 29.3	-1.2
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
BVAR	Borovoye Array	47.02	341	P	P	23 10 29.9	-0.7
	comp=Z,6.6nm,1.0s,mb4.5,baz=143,slow=7.4,SNR=22						
BRVK	Borovoye	47.09	341	P	P	23 10 29.5	-1.5
BRVK				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
RDF	Al-Radifah	47.23	300	*e*P	P	23 10 33.3	+0.7
RDF				AMb	AMB	23 10 34.7	
	comp=Z,79nm,0.8s,mb5.7						
CHKZ	Chkalovo	47.50	341	P	P	23 10 33.8	-0.5
CHKZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
CHKZ	Chkalovo	47.50	341	*e*P	P	23 10 32.9	-1.4
	comp=Z,18nm,0.9s,mb5.1						
MIB	Mutribah	47.62	301	*e*P	P	23 10 35.8	+0.2
MIB				AMb	AMB	23 10 37.1	
	comp=Z,45nm,0.8s,mb5.5						
RST	Umm Al-Ruwaisa	47.84	301	*e*P	P	23 10 37.6	+0.3
RST				AMb	AMB	23 10 38.9	
	comp=Z,52nm,0.6s,mb5.7						
MZLS	Mizel	48.34	293	P	P	23 10 42.9	+1.6
KAMS	Al Khamasin	48.50	288	P	P	23 10 43.2	+0.7
TATS	Tathlith	49.47	287	P	P	23 10 51.5	+1.5
WRA	Warramunga Arr	49.69	127	P	P	23 10 51.6	-0.1
	comp=Z,6.4nm,0.8s,mb4.7,baz=304,slow=9.0,SNR=36						
WRA	Warramunga Arr	49.69	127	P	P	23 10 51.6	-0.1
WRA				pmax	pmax		
	comp=Z,6.0nm,0.8s						
WRAB	Tennant Creek	49.69	127	*e*P	P	23 10 51.2	-0.5
WRAB				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.4						
WRAB	Tennant Creek	49.69	127	*e*P	P	23 10 51.2	-0.5
	comp=Z,55nm,1.4s,mb5.4						
BOD	Bodaibo	50.31	14	*e*P	P	23 10 52.3	-3.7
AFFS	‘Afif	50.33	293	P	P	23 10 57.8	+1.3
NAMS	An Nimas	50.65	287	P	P	23 11 01.7	+2.6
ASAR	Alice Springs	51.44	131	P	P	23 11 04.3	-0.6
	comp=Z,7.4nm,0.8s,mb4.7,baz=309,slow=7.3,SNR=48						
ASAR				PcP	PcP	23 12 19.4	+0.1
	comp=Z,3.1nm,0.9s,baz=311,slow=3.9,SNR=9.5						
HILS	Ha’il	51.90	297	P	P	23 11 09.8	+1.4
GNI	Garni	52.84	313	P	P	23 11 16.2	+1.0
	comp=Z,6.4nm,0.8s,mb4.6,baz=335,slow=6.3,SNR=10.0						
GNI				LR	LR	23 35 54.8	
	comp=Z,128nm,18.9s,MS4.0,baz=279,slow=39						
GNI	Garni	52.84	313	*e*P	P	23 11 15.3	0.0
GNI				pmax	pmax		
	comp=Z,27nm,1.3s						
GNI	Garni	52.84	313	*e*P	P	23 11 15.2	0.0
	comp=Z,27nm,1.3s,mb5.0						
TI2	Plekhanov	53.41	315	*i* P	P	23 11 20.4	+0.9
TI2				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
KIV	Kislovodsk	55.65	317	P	P	23 11 35.0	-0.8
	comp=Z,179nm,0.9s,mb6.1,SNR=9.4						
KIV	Kislovodsk	55.65	317	*e*P	P	23 11 35.2	-0.6
KIV				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
KIV	Kislovodsk	55.65	317	*e*P	P	23 11 35.2	-0.6
	comp=Z,30nm,1.0s,mb5.3						
GOF	Gofitskoye	55.83	318	⇑*i*P	P	23 11 37.0	-0.1
GOF				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.9						
PMG	Port Moresby	56.44	108	P	P	23 11 41.5	-0.3
	comp=Z,14nm,0.9s,mb5.0,baz=308,slow=6.1,SNR=7.7						
PMG	Port Moresby	56.44	108	P	P	23 11 41.5	-0.4
PMG				pmax	pmax		
	comp=Z,14nm,1.0s						
PMG	Port Moresby	56.44	108	*e*P	P	23 11 40.9	-0.9
TBKS	Tabuk	56.62	297	P	P	23 11 44.3	+1.3
MALT	Malatya	56.95	309	*e*P	P	23 11 43.7	-1.5
MALT				pmax	pmax		
	comp=Z,15nm,1.6s,mb4.8						
MALT	Malatya	56.95	309	*e*P	P	23 11 43.7	-1.5
	comp=Z,15nm,1.6s,mb4.8						
JMQS	Jabal Moqyreh	57.28	298	P	P	23 11 48.0	+0.4
KMBO	Kilima Mbogo	57.34	262	P	P	23 11 49.5	+1.2
	comp=Z,5.1nm,1.0s,mb4.5,baz=60,slow=7.5,SNR=9.9						
KMBO	Kilima Mbogo	57.34	262	*e*P	P	23 11 48.1	-0.2
KMBO				pmax	pmax		
	comp=Z,43nm,1.9s						
KMBO	Kilima Mbogo	57.34	262	*e*P	P	23 11 48.1	-0.2
	comp=Z,42nm,1.9s,mb5.2						
BDAS	Al Bad‘	57.91	297	P	P	23 11 52.7	+0.7
CTA	Charters Tower	59.57	120	P	P	23 12 04.2	+0.4
	comp=Z,5.0nm,1.0s,mb4.5,baz=297,slow=12,SNR=3.1						
CTA	Charters Tower	59.57	120	P	P	23 12 04.2	+0.5
CTA				pmax	pmax		
	comp=Z,5.0nm,1.0s						
CTAO	Charters Tower	59.57	120	*e*P	P	23 12 03.1	-0.6
CTAO				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
CTAO	Charters Tower	59.57	120	*e*P	P	23 12 03.1	-0.6
	comp=Z,18nm,1.1s,mb5.0						
BRTR	Keskin Array B	60.90	310	P	P	23 12 10.8	-1.8
	comp=Z,5.5nm,0.8s,mb4.8,baz=123,slow=7.5,SNR=40						
BRTR				PcP	PcP	23 12 55.1	-0.5
	comp=Z,1.8nm,0.9s,baz=124,slow=4.5,SNR=4.7						
BRTR	Keskin Array B	60.90	310	P	P	23 12 10.8	-1.8
BRTR						23 12 55.2	
BRTR				pmax	pmax		
	comp=Z,6.0nm,0.8s						
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.9s						
STKA	Stephens Creek	61.71	134	P	P	23 12 17.8	-0.4
	comp=Z,6.7nm,0.9s,mb4.8,baz=125,slow=21,SNR=6.4						
STKA	Stephens Creek	61.71	134	P	P	23 12 17.8	-0.4
OBN	Obninsk	63.54	327	⇑*i*P	P	23 12 28.3	-1.7
OBN				pmax	pmax		
	comp=Z,26nm,1.5s,mb5.0						
AKASG	Malin Array Be	66.41	321	P	P	23 12 46.5	-2.0
	comp=Z,2.7nm,0.7s,mb4.4,baz=87,slow=4.9,SNR=16						
AKASG	Malin Array Be	66.41	321	P	P	23 12 46.6	-2.0
AKASG				pmax	pmax		
	comp=Z,3.0nm,0.7s						
LSZ	Lusaka	69.63	250	*e*P	P	23 13 09.2	0.0
LSZ				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
LSZ	Lusaka	69.63	250	*e*P	P	23 13 09.2	0.0
	comp=Z,12nm,1.3s,mb4.7						
KWP	Kalwaria	70.32	319	*e*P	P	23 13 11.1	-1.8
KOLS	Kolonicke sedl	70.51	318	*e*P	P	23 13 14.3	+0.3
KOLS				*e*pP	pP	23 13 21.6	-1.7
FINES	FINESS Array B	70.82	332	P	P	23 13 15.0	-0.7
	comp=Z,2.6nm,0.7s,mb4.2,baz=90,slow=9.5,SNR=6.2						
FINES	FINESS Array B	70.82	332	P	P	23 13 15.0	-0.7
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
FINES	FINESS Array B	70.82	332	P	P	23 13 15.0	-0.7
CRVS	Cervenica-Dubn	71.04	318	*e*P	P	23 13 18.1	+0.8
VYHS	Vyhne	72.73	318	*e*P	P	23 13 26.8	-0.5
SRO	Srobarova	73.03	317	*e*P	P	23 13 28.4	-0.7
OKC	Ostrava-Krasne	73.29	319	*e*P	P	23 13 30.2	-0.4
ARCES	ARCESS Array B	73.31	340	P	P	23 13 30.5	+0.2
	comp=Z,5.0nm,0.5s,mb4.7,baz=97,slow=5.7,SNR=41						
ARCES	ARCESS Array B	73.31	340	P	P	23 13 30.5	+0.2
ARCES				pmax	pmax		
	comp=Z,5.0nm,0.5s						
MORC	Moravsky Berou	73.67	319	*e*P	P	23 13 31.4	-1.4
MORC				pmax	pmax		
	comp=Z,53nm,1.8s,mb5.2						
MORC	Moravsky Berou	73.67	319	*e*P	P	23 13 31.4	-1.4
	comp=Z,52nm,1.8s,mb5.2						
ZST	Bratislava	73.86	317	*e*P	P	23 13 33.7	-0.2
DPC	Dobruska-Polom	74.50	320	*e*P	P	23 13 37.7	+0.1
KSP	Ksiaz	74.54	320	*e*P	P	23 13 37.7	-0.1
UPC	Upice	74.70	320	*e*P	P	23 13 38.8	0.0
PRU	Pruhonice	75.62	319	*e*P	P	23 13 44.0	0.0
BRG	Berggiesshubel	76.03	320	*e*P	P	23 13 46.5	+0.2
BRG				pmax	pmax		

	comp=Z,14nm,1.4s,mb4.7						
BRG	**Berggiesshubel**	76.03	320	*e*P	**P**	**23 13 46.5**	**+0.2**
	comp=Z,14nm,1.4s,mb4.7						
GERES	**GERESS Array B**	76.14	318	P	**P**	**23 13 47.0**	**0.0**
	comp=Z,2.5nm,0.6s,mb4.3,baz=91,slow=5.2,SNR=28						
GERES	**GERESS Array B**	76.14	318	P	**P**	**23 13 47.0**	**0.0**
GERES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
CLL	**Collm**	76.63	320	P	**P**	**23 13 49.0**	**-0.7**
NB2	**NORSAR Subarra**	77.86	330	P	**P**	**23 13 54.8**	**-1.5**
	comp=Z,4.5nm,0.8s,mb4.5,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	77.86	330	P	**P**	**23 13 54.8**	**-1.5**
NB2				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
NOA	**NORSAR Array B**	77.86	330	P	**P**	**23 13 55.5**	**-0.8**
	comp=Z,2.4nm,0.7s,mb4.2,baz=91,slow=5.9,SNR=6.9						
NOA	**NORSAR Array B**	77.86	330	P	**P**	**23 13 55.5**	**-0.8**
NOA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
MAW	**Mawson**	80.39	192	P	**P**	**23 14 10.9**	**+1.0**
	comp=Z,4.1nm,0.8s,mb4.4,baz=358,slow=7.2,SNR=4.2						
MAW	**Mawson**	80.39	192	P	**P**	**23 14 10.9**	**+1.0**
MAW				pmax	pmax		
	comp=Z,4.0nm,0.8s						
LPL	**La Plagne**	81.01	315	*e*P	**P**	**23 14 14.0**	**+0.4**
	comp=Z,20nm,0.8s,mb4.8						
LPL	**La Plagne**	81.01	315	*e*P	**P**	**23 14 14.0**	**+0.4**
LPL				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
INK	**Inuvik**	95.19	16	P	**P**	**23 15 23.1**	**+1.5**
	comp=Z,1.1nm,1.0s,mb4.2,baz=252,slow=3.9,SNR=7.7						
INK	**Inuvik**	95.19	16	P	**P**	**23 15 23.1**	**+1.5**
INK				pmax	pmax		
	comp=Z,1.0nm,1.0s						
MSO	**Missoula**	118.37	21	*e*PKP	PKPdf	23 20 44.4	-5.5
ULM	**Lac du Bonnet**	119.56	7	PKP	PKPdf	23 20 48.3	-3.8
	comp=Z,0.7nm,0.4s,baz=14,slow=2.1,SNR=3.4						
NVAR	**Mina Array Bea**	123.39	30	PKP	PKPdf	23 20 58.0	-1.8
	comp=Z,1.4nm,0.7s,baz=254,slow=3.1,SNR=5.5						
PDAR	**Pinedale Array**	123.44	20	PKP	PKPdf	23 20 56.6	-3.3
	comp=Z,1.8nm,0.7s,baz=15,slow=1.2,SNR=14						
ANMO	**Albuquerque**	131.49	22	PKP	PKPdf	23 21 13.3	-2.2
	comp=Z,1.1nm,0.6s,baz=327,slow=3.8,SNR=5.2						
TXAR	**Lajitas Array**	137.55	23	PKP	PKPdf	23 21 26.0	-0.9
	comp=Z,0.8nm,0.5s,baz=230,slow=1.3,SNR=6.9						
JCT	**Junction City**	137.82	18	*e*PKIKP	PKPdf	23 21 23.9	-3.5
SDV	**Santo Domingo**	155.78	320	PKPab	PKPab	23 22 20.6	-0.4
	comp=Z,12nm,1.1s,baz=50,slow=3.6,SNR=7.7						
SDV	**Santo Domingo**	155.78	320	*e*PKPab	PKPab	23 22 20.2	-0.8
LVC	**Limon Verde**	159.15	230	PKPab	PKPab	23 22 36.0	+0.8
	comp=Z,5.3nm,0.8s,baz=92,slow=3.6,SNR=4.2						
LPAZ	**La Paz**	161.29	248	PKPab	PKPab	23 22 44.7	+0.1
	comp=Z,1.0nm,0.6s,baz=219,slow=2.1,SNR=4.7						

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*IDC **27** 23:04:33.1±2.7, 5.03N×93.51E, mb4.1/4, mb1 4.3/5, mb1mx3.8/18, ML3.9/1, Error ellipse: s-maj=103.0km s-min=29.6km az=59.0*

*NEIC **27** 23:04:37.0±1.6, 4.97N×93.43E, h30^{km}, mb4.0/1, Error ellipse: s-maj=66.0km s-min=14.1km az=58.0*

ISC 27 23:04:33.2±1.4**, 4.6N**±0.2×**92.9E**±0.3**, h30^{km}, n9, σ0^{s}96**/9**, mb4.1**/5**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.94	23	Pn	**P**	**23 08 05.2**	**+0.9**
	0.2nm,0.3s,baz=216,slow=12,SNR=5.5						
LSA	**Lhasa**	24.99	356	*e*P	**P**	**23 09 55.8**	**-0.2**
SONM	**Songino Array**	44.57	13	P	**P**	**23 12 42.6**	**-1.7**
	1.0nm,0.8s,mb3.7,baz=199,slow=8.2,SNR=4.0						
SONM	**Songino Array**	44.57	13	P	**P**	**23 12 42.6**	**-1.7**
WRA	**Warramunga Arr**	47.45	122	P	**P**	**23 13 07.9**	**+0.4**
	3.5nm,0.7s,mb4.4,baz=301,slow=9.1,SNR=8.8						
WRAB	**Tennant Creek**	47.46	122	*e*P	**P**	**23 13 07.2**	**-0.4**
ZAL	**Zalesovo**	49.60	354	P	**P**	**23 13 23.6**	**-0.1**
	1.2nm,0.4s,mb4.3,baz=292,slow=7.2,SNR=4.1						
CHKZ	**Chkalovo**	52.19	343	P	**P**	**23 13 42.7**	**-0.6**
	0.9nm,0.4s,mb4.0						
ARCES	**ARCESS Array B**	77.90	341	P	**P**	**23 16 31.3**	**+1.8**
	1.2nm,0.6s,mb4.0,baz=101,slow=6.2,SNR=4.5						

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*IDC **27** 23:05:44.2±0.6, 3.32N×93.82E, mb4.5/16, mb1 4.6/17, mb1mx4.5/23, ML3.8/1, Error ellipse: s-maj=29.1km s-min=12.9km az=43.0*

*MOS **27** 23:05:47.0±1.0, 3.27N×93.87E, h33^{km}, mb4.9/14, Error ellipse: s-maj=13.4km s-min=8.2km az=113.4*

*BJI **27** 23:05:47.1, 3.14N×93.96E, h38^{km}, mB5.1, mb4.9, Ms4.8, Msz4.3*

*NEIC **27** 23:05:48.7±0.3, 3.35N×93.87E, h30^{km}, mb4.9/10, Error ellipse: s-maj=9.4km s-min=6.4km az=59.0*

*HRVD **27** 23:05:48.7±1.0, 2.93N×93.87E, h17^{km}±2^{km}, MW4.9/35, Centroid moment Tensor Solution. LP body waves: s8,c9; Mantle waves: s35,c50; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.14±.30; $M_{\theta\theta}$-0.92±.19; $M_{\phi\phi}$-1.22±.20; $M_{r\theta}$0.73±.54; $M_{\theta\phi}$0.84±.11; $M_{\phi r}$1.28±.45; Best double couple: $M_0$2.42×10^{16} NP1:ϕ_s122°, δ41°, λ53°. NP2:ϕ_s347°, δ58°, λ117°. Principal axes: T 2.82, Plg65°, Azm307°; N -.82, Plg23°, Azm151°; P -2.01, Plg9°, Azm57°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 23:05:47.0±0.4**, 3.30N**±0.05×**93.85E**±0.06**, h30^{km}, (h35^{km}**±.7^{km}**:pP-P), n99, σ1^{s}05**/96**, mb4.7**/36**, MS4.5**/2**, 2D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
COCO	**West Island**	15.67	169	*e*P	**P**	**23 09 30.0**	**+2.4**
CM31	**Chiang Mai Arr**	15.87	18	P	**P**	**23 09 28.4**	**-1.7**
	12nm,0.8s						
CMAR	**Chiang Mai Arr**	15.87	18	Pn	**P**	**23 09 28.9**	**-1.2**
	0.1nm,0.3s,baz=210,slow=13,SNR=14						
HYB	**Hyderabad**	20.55	314	*e*P	**P**	**23 10 20.0**	**-5.9**
HYB	**Hyderabad**	20.55	314	*i* P	**P**	**23 10 20.0**	**-5.9**
KMI	**Kunming**	23.33	21	P	**P**	**23 10 56.0**	**+2.3**
KMI				AMB	AMB		
	comp=Z,22nm,2.0s,mb4.2						
PKI	**Pulchoki**	25.45	342	*e*P	**P**	**23 11 14.8**	**+0.7**
	comp=Z,83nm,1.5s,mb5.0						
DMN	**Daman**	25.58	342	*e*P	**P**	**23 11 14.6**	**-0.7**
GUN	**Gumba**	25.63	344	*e*P	**P**	**23 11 16.5**	**+0.7**
	comp=Z,54nm,1.1s,mb5.0						
KKN	**Kakani**	25.69	342	*e*P	**P**	**23 11 15.7**	**-0.7**
	comp=Z,85nm,1.6s,mb5.0						
GKN	**Gorkha**	26.09	341	*e*P	**P**	**23 11 19.0**	**-1.1**
GYA	**Guiyang**	26.10	27	P	**P**	**23 11 16.5**	**-3.7**
GYA				AMB	AMB		
	comp=Z,10.0nm,2.1s,mb4.0						
KOLN	**Koldanda**	26.23	339	*e*P	**P**	**23 11 20.7**	**-0.7**
LSA	**Lhasa**	26.38	355	*e*P	**P**	**23 11 24.4**	**+1.6**
LSA				pmax	pmax		
	comp=Z,49nm,0.7s,mb5.2						
LSA	**Lhasa**	26.38	355	*e*P	**P**	**23 11 24.4**	**+1.6**
	comp=Z,49nm,0.7s,mb5.2						
CD2	**Chengdu**	29.01	18	P	**P**	**23 11 46.0**	**-0.6**
WHN	**Wuhan**	33.31	33	P	**P**	**23 12 25.5**	**+1.0**
LZH	**Lanzhou**	33.91	15	*e*P	**P**	**23 12 29.5**	**-0.1**
LZH				AMB	AMB		
	comp=Z,33nm,1.5s,mb5.0						
GTA	**Gaotai**	36.35	8	*e*P	**P**	**23 12 50.8**	**+0.4**
GTA				AP	pP	23 13 01.5	+2.2
GTA				XP	sP	23 13 05.5	+2.4
GTA				AMB	AMB		
	comp=Z,17nm,1.3s,mb4.8						
GTA				AMB	AMB		
	comp=Z,234nm,5.7s						
GTA				LR	LR		
	comp=N,354nm,18.6s,MS4.4						
GTA				LR	LR		
	comp=E,422nm,15.2s,MS4.4						
GTA				LR	LR		
	comp=Z,363nm,15.6s,MS4.3						
HHC	**Hu-ho-hao-te**	40.65	21	*e*P	**P**	**23 13 27.5**	**+1.3**
HHC				AP	pP	23 13 38.0	+2.8
HHC				XP	sP	23 13 40.0	+1.1
HHC				PP	PP	23 15 09.0	+5.9
HHC				S	**S**	**23 19 42.8**	**+8.9**
HHC				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.4						
HHC				AMB	AMB		
	comp=Z,179nm,8.1s						
HHC				LR	LR		
	comp=N,330nm,14.3s,MS4.7						
HHC				LR	LR		
	comp=E,727nm,16.7s,MS4.7						
HHC				LR	LR		
	comp=Z,308nm,22.6s						
WMQ	**Urumqi**	40.72	353	⇓P	**P**	**23 13 28.5**	**+1.8**
WMQ				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.5						
BJI	**Beijing**	41.79	26	P	**P**	**23 13 37.0**	**+1.4**
BJI				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.7						
KZA	**Kyzart**	42.05	339	P	**P**	**23 13 39.4**	**+1.7**
	SNR=7.8						
UCH	**Uchtor**	42.44	339	P	**P**	**23 13 42.2**	**+1.2**
	SNR=9.9						
KBK	**Karagaybulak**	42.66	339	P	**P**	**23 13 44.1**	**+1.4**
	SNR=15						
AML	**Almayashu**	42.66	338	P	**P**	**23 13 44.4**	**+1.6**
	SNR=13						
TKM2	**Tokmak 2**	42.67	340	P	**P**	**23 13 44.1**	**+1.3**
	SNR=6.4						
AAK	**Ala-Archa**	42.80	339	*e*P	**P**	**23 13 43.2**	**-0.7**
AAK				pmax	pmax		
	comp=Z,23nm,1.6s,mb4.7						
AAK	**Ala-Archa**	42.80	339	*e*P	**P**	**23 13 43.2**	**-0.7**
	comp=Z,23nm,1.6s,mb4.7						
FRU	**Bishkek**	42.94	339	*e*P	**P**	**23 13 46.0**	**+1.1**
FRU				*e*		23 15 25.0	
CHMS	**Chumysh**	43.03	339	P	**P**	**23 13 44.2**	**-1.5**
	SNR=12						
EKS2	**Erkin-Say**	43.09	338	P	**P**	**23 13 47.3**	**+1.1**
	SNR=5.2						
USP	**Ospenovka**	43.36	339	P	**P**	**23 13 48.5**	**+0.2**
	SNR=12						
SONM	**Songino Array**	45.67	12	P	**P**	**23 14 07.2**	**+0.4**
	comp=Z,7.6nm,0.9s,mb4.6,baz=192,slow=8.5,SNR=31						
ULN	**Ulaanbaatar**	45.83	12	*e*P	**P**	**23 14 07.6**	**-0.6**
ULN				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.4						
ULN	**Ulaanbaatar**	45.83	12	*e*P	**P**	**23 14 07.6**	**-0.5**
	comp=Z,6.1nm,1.2s,mb4.4						
WRA	**Warramunga Arr**	45.98	122	P	**P**	**23 14 09.8**	**+0.1**
	comp=Z,25nm,1.0s,mb5.1,baz=301,slow=8.8,SNR=30						
WRA	**Warramunga Arr**	45.98	122	P	**P**	**23 14 09.8**	**+0.2**
WRA				pmax	pmax		
	comp=Z,25nm,1.0s						
WRAB	**Tennant Creek**	45.98	122	*e*P	**P**	**23 14 09.1**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,142nm,1.5s,mb5.7						
WRAB	**Tennant Creek**	45.98	122	*e*P	**P**	**23 14 09.1**	**-0.6**
	comp=Z,142nm,1.5s,mb5.7						
ASAR	**Alice Springs**	47.32	127	P	**P**	**23 14 20.2**	**-0.1**
	comp=Z,12nm,1.0s,mb4.8,baz=304,slow=7.5,SNR=25						
ASAR				PcP	PcP	23 15 50.9	-0.3
	comp=Z,3.9nm,1.0s,baz=307,slow=3.7,SNR=7.0						
ZAK	**Zakamensk**	47.59	8	*e*P	**P**	**23 14 21.9**	**-0.1**
HIA	**Hailar**	50.84	22	*e*P	**P**	**23 14 46.9**	**-0.1**
HIA				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HIA	**Hailar**	50.84	22	*e*P	**P**	**23 14 46.9**	**-0.1**
	comp=Z,4.7nm,0.5s,mb4.7						
ZAL	**Zalesovo**	51.02	353	P	**P**	**23 14 48.3**	**0.0**
	comp=Z,7.1nm,0.5s,mb4.9,baz=305,slow=5.1,SNR=30						
ZAL	**Zalesovo**	51.02	353	P	**P**	**23 14 48.3**	**0.0**
ZAL				pmax	pmax		
	comp=Z,7.0nm,0.5s						
NVS	**Novosibirsk**	52.10	352	*e*P	**P**	**23 14 54.9**	**-1.6**
NVS				pmax	pmax		
	comp=N,43nm,1.3s						
NVS				pmax	pmax		
	comp=E,22nm,1.3s						
NVS				pmax	pmax		
	comp=Z,47nm,1.3s,mb5.3						
BVAR	**Borovoye Array**	53.22	343	P	**P**	**23 15 03.8**	**-1.0**
	comp=Z,7.0nm,0.9s,mb4.6,baz=153,slow=6.6,SNR=20						
BRVK	**Borovoye**	53.28	342	*e*P	**P**	**23 15 04.0**	**-1.3**
BRVK				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.8						
BRVK	**Borovoye**	53.28	342	*e*P	**P**	**23 15 04.0**	**-1.3**
	comp=Z,20nm,1.6s,mb4.8						
CHKZ	**Chkalovo**	53.72	343	*e*P	**P**	**23 15 07.4**	**-1.1**
CHKZ				pmax	pmax		
	comp=Z,55nm,1.4s,mb5.3						
CHKZ	**Chkalovo**	53.72	343	*e*P	**P**	**23 15 07.4**	**-1.0**
	comp=Z,55nm,1.4s,mb5.3						
PMG	**Port Moresby**	54.59	104	P	**P**	**23 15 15.1**	**-0.3**
	comp=Z,2.7nm,0.5s,mb4.6,baz=301,slow=12,SNR=3.5						
PMG	**Port Moresby**	54.59	104	P	**P**	**23 15 15.1**	**-0.3**
PMG				pmax	pmax		
	comp=Z,3.0nm,0.5s						
PMG	**Port Moresby**	54.59	104	P	**P**	**23 15 14.8**	**-0.6**
KLR	**Kul'dur**	55.97	29	*e*P	**P**	**23 15 22.3**	**-2.6**
CTA	**Charters Tower**	56.43	117	P	**P**	**23 15 28.6**	**-0.1**
	comp=Z,8.9nm,1.1s,mb4.7,baz=308,slow=9.5,SNR=7.2						
CTA	**Charters Tower**	56.43	117	P	**P**	**23 15 28.6**	**0.0**
CTA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
CTAO	**Charters Tower**	56.43	117	*e*P	**P**	**23 15 27.0**	**-1.6**
BOD	**Bodaibo**	56.64	13	⇓*i*P	**P**	**23 15 28.5**	**-1.2**
KMBO	**Kilima Mbogo**	56.74	267	P	**P**	**23 15 31.0**	**0.0**
	comp=Z,0.3nm,0.4s,mb3.7,baz=60,slow=12,SNR=4.6						
KMBO	**Kilima Mbogo**	56.74	267	*e*P	**P**	**23 15 30.3**	**-0.7**
STKA	**Stephens Creek**	57.24	132	P	**P**	**23 15 34.0**	**-0.2**
	comp=Z,6.7nm,0.9s,mb4.7,baz=341,slow=5.7,SNR=6.1						
GNI	**Garni**	57.48	317	P	**P**	**23 15 35.9**	**+0.1**
	comp=Z,6.1nm,1.0s,mb4.6,baz=176,slow=8.7,SNR=5.5						
GNI	**Garni**	57.48	317	P	**P**	**23 15 35.9**	**+0.1**
GNI				pmax	pmax		
	comp=Z,6.0nm,1.0s						
GNI	**Garni**	57.48	317	*e*P	**P**	**23 15 34.8**	**-1.0**
ASF	**Jabal al Asfar**	60.53	305	P	**P**	**23 15 57.6**	**+0.5**
	comp=Z,1.7nm,0.5s,mb4.4,baz=14,slow=6.5,SNR=4.5						
KIV	**Kislovodsk**	60.55	320	*e*P	**P**	**23 15 55.7**	**-1.3**
KIV	**Kislovodsk**	60.55	320	*e*P	**P**	**23 15 55.7**	**-1.4**
MALT	**Malatya**	61.25	312	*e*P	**P**	**23 16 01.9**	**0.0**
MALT				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.1						
MALT	**Malatya**	61.25	312	*e*P	**P**	**23 16 01.9**	**0.0**
	comp=Z,23nm,1.4s,mb5.1						
MBAR	**Mbarara**	63.20	268	*e*P	**P**	**23 16 13.7**	**-1.5**
BRTR	**Keskin Array B**	65.24	313	P	**P**	**23 16 27.3**	**-0.9**
	comp=Z,1.6nm,0.7s,mb4.2,baz=117,slow=5.5,SNR=13						
BRTR	**Keskin Array B**	65.24	313	P	**P**	**23 16 27.3**	**-0.9**
BRTR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
LSZ	**Lusaka**	67.53	252	*e*P	**P**	**23 16 41.9**	**-1.3**
AKASG	**Malin Array Be**	71.57	323	P	**P**	**23 17 05.7**	**-1.6**
	comp=Z,0.6nm,0.4s,mb3.9,baz=89,slow=4.4,SNR=12						
AKASG	**Malin Array Be**	71.57	323	P	**P**	**23 17 05.7**	**-1.6**
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
KOLS	**Kolonicke sedl**	75.46	320	*e*P	**P**	**23 17 31.2**	**+1.1**
CRVS	**Cervenica-Dubn**	75.98	320	*e*	pP	23 17 39.5	-3.0
FINES	**FINESS Array B**	76.61	333	P	**P**	**23 17 35.6**	**-0.7**
	comp=Z,1.6nm,0.5s,mb4.2,baz=90,slow=4.7,SNR=12						
FINES	**FINESS Array B**	76.61	333	P	**P**	**23 17 35.6**	**-0.7**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.5s						
OJC	**Ojcow**	77.29	321	*e*P	**P**	**23 17 40.5**	**+0.2**
VYHS	**Vyhne**	77.62	319	*e*P	**P**	**23 17 41.4**	**-0.8**
VYHS				*e*		23 17 53.9	
SRO	**Srobarova**	77.86	318	*e*P	**P**	**23 17 44.5**	**+1.0**
MORC	**Moravsky Berou**	78.66	320	*e*P	**P**	**23 17 47.6**	**-0.2**
ZST	**Bratislava**	78.72	318	*e*P	**P**	**23 17 48.9**	**+0.7**
ARCES	**ARCESS Array B**	79.45	341	P	**P**	**23 17 51.8**	**+0.1**
	comp=Z,9.1nm,1.2s,mb4.6,baz=90,slow=6.1,SNR=5.6						
ARCES	**ARCESS Array B**	79.45	341	P	**P**	**23 17 51.8**	**0.0**
ARCES				pmax	pmax		
	comp=Z,9.0nm,1.2s						
BILL	**Bilibino**	80.42	21	*e*P	**P**	**23 17 56.9**	**-0.1**
BILL	**Bilibino**	80.42	21	*e*P	**P**	**23 17 56.9**	**-0.1**
GERES	**GERESS Array B**	81.04	319	P	**P**	**23 18 01.6**	**+0.9**
	comp=Z,7.0nm,1.0s,mb4.6,baz=90,slow=5.3,SNR=30						
GERES	**GERESS Array B**	81.04	319	P	**P**	**23 18 01.6**	**+1.0**
GERES				pmax	pmax		
	comp=Z,7.0nm,1.0s						
BRG	**Berggiesshubel**	81.08	321	*e*P	**P**	**23 18 01.8**	**+1.0**
BRG				*e*	pP	23 18 13.0	+2.6
BRG				pmax	pmax		
	comp=Z,21nm,1.6s,mb4.8						
BRG	**Berggiesshubel**	81.08	321	*e*P	**P**	**23 18 01.8**	**+1.0**
	comp=Z,21nm,1.6s,mb4.8						
BRG				*e*	pP	23 18 13.0	+2.6
KHC	**Kasperske Hory**	81.15	319	*e*P	**P**	**23 18 02.0**	**+0.8**
CLL	**Collm**	81.71	321	P	**P**	**23 18 04.0**	**-0.1**
MSO	**Missoula**	124.39	23	PKP	PKPdf	23 24 43.8	-4.8
PDAR	**Pinedale Array**	129.50	22	PKP	PKPdf	23 24 55.2	-3.3
	comp=Z,0.9nm,1.1s,baz=270,slow=5.9,SNR=4.0						
TXAR	**Lajitas Array**	143.46	26	PKP	PKPdf	23 25 19.7	-4.8
	comp=Z,1.1nm,0.9s,baz=297,slow=2.8,SNR=6.1						

IDC 27 23:06:44.7±6.8**, 3.23N**×**127.57E, mb4.0**/3**, mb1 4.1**/3**, mb1mx3.8**/17**, Error ellipse: s-maj=148.0km s-min=106.2km az=77.0, Talaud Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	23.97	164	P	P	23 11 59.5	-2.3
	2.8nm,0.5s,baz=344,slow=10,SNR=22						
ASAR	**Alice Springs**	27.44	167	P	P	23 12 33.8	-0.6
	0.5nm,0.3s,baz=346,slow=12,SNR=5.3						
STKA	**Stephens Creek**	37.37	160	P	P	23 13 59.5	-1.6
	2.1nm,0.4s,baz=339,slow=9.5,SNR=4.4						

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*IDC **27** 23:08:02.7±0.6, 4.63N×93.84E, h24^{km}±3^{km}, mb4.1/14, mb1 4.2/15, mb1mx4.1/22, ML4.6/1, Error ellipse: s-maj=29.9km s-min=11.8km az=44.0*

*NEIC **27** 23:08:02.5±0.5, 4.63N×93.85E, mb4.7/6, Error ellipse: s-maj=13.6km s-min=9.4km az=221.0*

*BJI **27** 23:08:02.4, 4.60N×93.80E, h26^{km}, mB4.9, mb4.2, Ms4.7, Msz4.6*

ISC 27 23:08:00.1±4.7**, 4.57N**±0.09×**93.80E**±0.09**, h23^{km}**±33^{km}**, h26^{km}**±.8^{km}**:pP-P, n30, σ0^{s}94**/28**, mb4.3**/21**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	**Pallekele**	13.30	282	P	**P**	**23 11 10.0**	**-0.2**
CM31	**Chiang Mai Arr**	14.69	20	P	**P**	**23 11 29.1**	**+0.6**
CMAR	**Chiang Mai Arr**	14.69	20	Pn	**P**	**23 11 34.8**	**+6.2**
	0.9nm,0.3s,baz=212,slow=12,SNR=8.6						
LSA	**Lhasa**	25.12	355	P	**P**	**23 13 25.6**	**+0.6**
	15nm,0.8s,mb4.6						
ENH	**Enshi**	29.54	28	*e*P	**P**	**23 14 02.2**	**-3.2**
	13nm,0.9s,mb4.7						
BJI	**Beijing**	40.67	27	P	**P**	**23 15 41.0**	**+0.6**
BJI				AMB	AMB		
	comp=Z,9.0nm,1.3s,mb4.2						
AAK	**Ala-Archa**	41.60	338	*e*P	**P**	**23 15 45.7**	**-2.4**
	comp=Z,6.7nm,1.0s,mb4.2						
SONM	**Songino Array**	44.44	12	P	**P**	**23 16 11.9**	**+0.8**
	comp=Z,3.2nm,0.9s,mb4.1,baz=189,slow=8.0,SNR=4.6						
WRA	**Warramunga Arr**	46.70	123	P	**P**	**23 16 29.6**	**+0.2**
	comp=Z,5.5nm,0.6s,mb4.6,baz=300,slow=9.1,SNR=15						
WRA				pP	pP	23 16 36.9	+0.5
	comp=Z,10nm,0.7s,baz=300,slow=9.0,SNR=16						
WRAB	**Tennant Creek**	46.70	123	*e*P	**P**	**23 16 29.1**	**-0.4**
	comp=Z,15nm,1.0s,mb4.9						
ASAR	**Alice Springs**	48.13	128	P	**P**	**23 16 40.5**	**-0.2**
	comp=Z,1.4nm,0.7s,mb4.1,baz=305,slow=7.6,SNR=4.1						
ASAR				pP	pP	23 16 49.5	+1.9
	comp=Z,3.0nm,0.6s,baz=300,slow=7.9,SNR=7.5						
ZAL	**Zalesovo**	49.76	353	P	**P**	**23 16 53.4**	**+0.6**
	comp=Z,3.6nm,0.7s,mb4.5,baz=301,slow=6.5,SNR=5.8						
ZAL				pP	pP	23 17 00.6	+0.8
	comp=Z,3.2nm,0.4s,baz=308,slow=4.5,SNR=4.2						
BVAR	**Borovoye Array**	52.00	342	P	**P**	**23 17 09.5**	**-0.3**
	comp=Z,2.5nm,0.6s,mb4.4,baz=142,slow=11,SNR=8.3						
CHKZ	**Chkalovo**	52.49	343	*e*P	**P**	**23 17 11.7**	**-1.9**
	comp=Z,7.9nm,0.7s,mb4.8						
GNI	**Garni**	56.52	316	P	**P**	**23 17 43.8**	**+0.7**
	comp=Z,0.8nm,0.4s,mb4.1,baz=169,slow=16,SNR=2.6						
KMBO	**Kilima Mbogo**	56.78	266	P	**P**	**23 17 46.7**	**+1.4**
	comp=Z,2.8nm,1.0s,mb4.2,baz=43,slow=9.3,SNR=6.4						
KMBO	**Kilima Mbogo**	56.78	266	P	**P**	**23 17 46.7**	**+1.3**
CTA	**Charters Tower**	57.05	117	P	**P**	**23 17 47.1**	**-0.1**
	comp=Z,2.0nm,0.9s,mb4.2,baz=279,slow=13,SNR=3.0						
CTA				pP	pP	23 17 55.9	+1.6
	comp=Z,2.4nm,0.7s,baz=277,slow=12,SNR=3.7						
STKA	**Stephens Creek**	58.12	132	P	**P**	**23 17 54.0**	**-0.6**
	comp=Z,1.6nm,0.9s,mb4.0,baz=318,slow=12,SNR=3.3						
KIV	**Kislovodsk**	59.55	319	P	**P**	**23 18 02.8**	**-1.5**
	comp=Z,7.7nm,0.8s,mb4.8						
EIL	**Elat**	60.80	301	P	**P**	**23 18 14.0**	**+0.9**
	comp=Z,3.0nm,0.7s,mb4.5,baz=54,slow=14,SNR=3.6						
BRTR	**Keskin Array B**	64.34	312	P	**P**	**23 18 36.1**	**-0.4**
	comp=Z,2.2nm,0.8s,mb4.2,baz=134,slow=7.4,SNR=7.4						
BRTR				pP	pP	23 18 43.5	-0.2
	comp=Z,1.9nm,0.7s,baz=126,slow=6.8,SNR=6.7						
FINES	**FINESS Array B**	75.46	333	P	**P**	**23 19 43.4**	**-0.5**
	comp=Z,0.7nm,0.5s,mb3.9,baz=90,slow=1.9,SNR=6.5						
FINES				pP	pP	23 19 52.1	+0.9
	comp=Z,3.0nm,0.8s,baz=90,slow=5.7,SNR=3.6						
FINES	**FINESS Array B**	75.46	333	P	**P**	**23 19 43.4**	**-0.5**
FINES				pP	pP	23 19 52.1	+0.9
KAF	**Kangasniemi**	75.56	333	*e*p	**P**	**23 19 44.0**	**-0.5**
ARCES	**ARCESS Array B**	78.24	341	P	**P**	**23 19 59.4**	**+0.1**
	comp=Z,4.4nm,0.9s,mb4.4,baz=90,slow=4.9,SNR=5.3						
ARCES				pP	pP	23 20 07.2	+0.6
	comp=Z,3.9nm,0.9s,baz=100,slow=6.3,SNR=1.5						
GERES	**GERESS Array B**	80.05	319	P	**P**	**23 20 10.4**	**+0.9**
	comp=Z,1.2nm,0.7s,mb3.9,baz=108,slow=4.2,SNR=4.2						
GERES				pP	pP	23 20 18.5	+1.7
	comp=Z,1.0nm,0.7s,baz=90,slow=5.3,SNR=3.5						
SML	**Sawmill**	98.72	25	P	**P**	**23 21 40.2**	**+1.4**
TXAR	**Lajitas Array**	142.34	25	PKP	PKPdf	23 27 32.9	-3.1
	comp=Z,0.6nm,0.9s,SNR=5.1						
TXAR	**Lajitas Array**	142.34	25	PKP	PKPdf	23 27 32.9	-3.1

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*IDC **27** 23:12:35.2±1.0, 5.20N×94.67E, mb4.2/9, mb1 4.4/10, mb1mx4.2/19, ML4.3/1, Error ellipse: s-maj=50.0km s-min=18.6km az=52.0*

*NEIC **27** 23:12:39.4±0.7, 5.15N×94.67E, h30^{km}, mb4.4/3, Error ellipse: s-maj=31.3km s-min=11.3km az=54.0*

ISC 27 23:12:36.7±0.8**, 4.89N**±0.08×**94.4E**±0.1**, h30^{km}, n16, σ1^{s}02**/17**, mb4.2**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.21	18	Pn	**P**	**23 16 01.1**	**+2.9**
	0.4nm,0.3s,baz=212,slow=11,SNR=11						
CHRT	**Chiangrai**	15.80	19	SG	**S**	**23 19 12.5**	**-0.5**
CHRT				PG	**S**	**23 19 14.0**	**+1.0**
LSA	**Lhasa**	24.86	353	*e*P	**P**	**23 17 57.8**	**-0.5**
	8.3nm,0.6s,mb4.4						
AAK	**Ala-Archa**	41.52	338	*e*P	**P**	**23 20 22.5**	**-0.5**
	1.5nm,0.6s,mb3.8						
SONM	**Songino Array**	44.01	12	P	**P**	**23 20 41.7**	**-1.6**
	1.9nm,0.7s,mb4.0,baz=192,slow=8.0,SNR=12						
SONM				PcP	PcP	23 22 28.7	-0.4
	0.7nm,0.4s,baz=199,slow=3.7,SNR=13						
WRA	**Warramunga Arr**	46.41	123	P	**P**	**23 21 02.8**	**0.0**
	4.4nm,0.5s,mb4.7,baz=301,slow=9.6,SNR=32						
ASAR	**Alice Springs**	47.88	128	P	**P**	**23 21 14.3**	**0.0**
	1.0nm,0.4s,mb4.2,baz=298,slow=7.7,SNR=3.8						
ASAR				PcP	PcP	23 22 45.5	+2.5
	0.2nm,0.5s,baz=298,slow=3.6,SNR=2.4						
ASAR	**Alice Springs**	47.88	128	P	**P**	**23 21 14.3**	**0.0**
ASAR				PcP	PcP	23 22 45.5	+2.5
ZAL	**Zalesovo**	49.51	353	P	**P**	**23 21 25.4**	**-1.1**
	4.1nm,0.7s,mb4.6,baz=298,slow=5.7,SNR=25						
ZAL	**Zalesovo**	49.51	353	P	**P**	**23 21 25.4**	**-1.1**
BVAR	**Borovoye Array**	51.87	342	P	**P**	**23 21 44.4**	**0.0**
	1.5nm,0.6s,mb4.1,baz=141,slow=9.5,SNR=10						
CHKZ	**Chkalovo**	52.36	342	*e*P	**P**	**23 21 47.6**	**-0.5**
	5.8nm,0.7s,mb4.6						
BRTR	**Keskin Array B**	64.55	312	P	**P**	**23 23 14.0**	**+0.6**
	1.2nm,0.7s,mb4.0,baz=126,slow=5.8,SNR=5.4						
FINES	**FINESS Array B**	75.43	333	P	**P**	**23 24 19.2**	**-0.1**
	3.0nm,1.1s,mb4.1,baz=90,slow=3.8,SNR=5.6						
ARCES	**ARCESS Array B**	78.13	340	P	**P**	**23 24 34.5**	**+0.3**
	0.9nm,0.6s,mb3.9,baz=98,slow=6.7,SNR=8.0						
GERES	**GERESS Array B**	80.18	319	P	**P**	**23 24 48.4**	**+2.6**
	2.7nm,0.7s,mb4.3,baz=105,slow=5.2,SNR=20						

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*NEIC **27** 23:13:59.0±1.0, 24.28S×67.10W, h177^{km}±9^{km}, mb3.9/2, Error ellipse: s-maj=20.1km s-min=12.1km az=60.0*

*IDC **27** 23:13:59.5±4.3, 24.20S×67.07W, h173^{km}±20^{km}, mb3.3/4, mb1 3.7/6, mb1mx3.5/15, Error ellipse: s-maj=71.8km s-min=22.4km az=8.0*

ISC 27 23:13:58.3±1.1**, 24.3S**±0.1×**67.1W**±0.2**, h185^{km}**±9^{km}**, n12, σ0^{s}88**/13**, mb3.5**/5**, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	**Limon Verde**	2.33	315	P	**P**	**23 14 40.1**	**+0.3**
	73nm,0.3s,baz=135,slow=5.4,SNR=1390						

LVC				S	**S**	**23 15 11.5**	**-0.3**
	72nm,0.3s,baz=284,slow=23,SNR=58						
LPAZ	**La Paz**	**8.01**	**353**	P	**P**	**23 15 52.9**	**+0.4**
	0.8nm,0.3s,baz=163,slow=9.0,SNR=13						
TRQA	**Tornquist**	**14.42**	**163**	*e*P	**P**	**23 17 14.9**	**0.0**
	3.1nm,0.3s						
BDFB	**Brasilia**	**19.90**	**68**	P	**P**	**23 18 16.9**	**-0.4**
	1.6nm,0.3s,baz=248,slow=9.1,SNR=19						
TXAR	**Lajitas Array**	**63.84**	**325**	P	**P**	**23 24 12.6**	**-0.6**
	0.1nm,0.5s,mb3.0,baz=122,slow=5.4,SNR=4.0						
WMOK	**Wichita Mounta**	**65.93**	**332**	P	**P**	**23 24 25.2**	**-1.4**
MNTX	**Cornudas Mount**	**66.61**	**325**	*e*P	**P**	**23 24 29.7**	**-1.3**
	1.0nm,0.7s,mb3.8						
ANMO	**Albuquerque**	**69.72**	**326**	P	**P**	**23 24 51.6**	**+1.7**
	0.9nm,0.7s,mb3.6,baz=130,slow=7.6,SNR=3.1						
BW06	**Boulder Array**	**77.33**	**329**	P	**P**	**23 25 33.5**	**-0.4**
PDAR	**Pinedale Array**	**77.33**	**329**	P	**P**	**23 25 35.0**	**+1.2**
	0.4nm,0.8s,mb3.1,baz=134,slow=6.7,SNR=4.8						
YKA	**Yellowknife Ar**	**94.34**	**340**	P	**P**	**23 26 58.3**	**+1.0**
	0.8nm,0.7s,mb4.0,baz=130,slow=4.6,SNR=14						
YKA	**Yellowknife Ar**	**94.34**	**340**	P	**P**	**23 26 58.3**	**+1.0**

IDC 27 23:16:36.5±3.1, 2.80N×95.57E, mb3.7/4, mb1 3.9/4, mb1mx3.6/17, MS4.1/3, Ms1 4.2/3, ms1mx3.5/21, Error ellipse: s-maj=122.0km s-min=24.7km az=59.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.91**	**12**	LR	LR	23 26 56.1	
	comp=Z,660nm,18.9s,baz=215,slow=39						
WRA	**Warramunga Arr**	**44.26**	**122**	P	P	23 24 48.0	-1.8
	2.4nm,0.7s,baz=301,slow=9.2,SNR=12						
JNU	**Nakatsue**	**44.74**	**44**	LR	LR	23 42 54.3	
	comp=Z,4.4nm,20.0s,baz=234,slow=35						
ASAR	**Alice Springs**	**45.65**	**127**	P	P	23 24 59.1	-1.8
	0.6nm,0.6s,baz=301,slow=8.4,SNR=4.6						
SONM	**Songino Array**	**45.83**	**10**	P	P	23 25 00.4	-1.6
	0.4nm,0.8s,baz=191,slow=8.0,SNR=3.1						
ZAL	**Zalesovo**	**51.74**	**352**	LR	LR	23 51 08.0	
	comp=Z,291nm,19.6s,baz=291,slow=40						
BVAR	**Borovoye Array**	**54.22**	**342**	P	P	23 26 03.6	-2.5
	1.3nm,0.8s,baz=149,slow=8.4,SNR=5.6						
GNI	**Garni**	**59.02**	**316**	LR	LR	23 54 31.0	
	comp=Z,119nm,19.4s,baz=117,slow=38						

IDC 27 23:19:26.9±19.0, 11.49N×94.99E, mb3.4/3, mb1 3.6/3, mb1mx3.4/17, Error ellipse: s-maj=689.0km s-min=33.8km az=74.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**37.47**	**13**	P	P	23 26 42.2	-1.7
	0.4nm,0.6s,baz=193,slow=7.0,SNR=3.6						
WRA	**Warramunga Arr**	**49.76**	**129**	P	P	23 28 21.4	-2.0
	0.2nm,0.5s,baz=309,slow=8.0,SNR=4.5						
ASAR	**Alice Springs**	**51.66**	**133**	P	P	23 28 35.7	-2.2
	0.3nm,0.5s,baz=309,slow=6.5,SNR=4.9						

*BJI **27** 23:20:02.4, 9.32N×92.96E, h31^{km}, mB5.1, mb5.1, Ms4.5, Msz4.1*

*IDC **27** 23:20:06.3±3.4, 9.83N×92.99E, h19^{km}±20^{km}, mb4.5/23, mb1 4.5/24, mb1mx4.5/25, ML4.8/1, MS4.2/2, Ms1 4.2/2, ms1mx3.4/19, Error ellipse: s-maj=21.0km s-min=10.8km az=49.0*

*MOS **27** 23:20:06.4±1.1, 9.76N×92.94E, h33^{km}, mb4.9/35, Error ellipse: s-maj=10.8km s-min=6.2km az=116.0*

*NEIC **27** 23:20:07.8±2.7, 9.78N×92.99E, h31^{km}±18^{km}, mb5.0/24, Error ellipse: s-maj=7.6km s-min=5.4km az=219.0*

*HRVD **27** 23:20:07.8±0.9, 9.72N×93.12E, h29^{km}±1^{km}, MW4.9/44, Centroid moment Tensor Solution. LP body waves: s13,c20;Mantle waves: s44,c65; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.87±.29; $M_{\theta\theta}$2.66±.16; $M_{\phi\phi}$0.20±.17; $M_{r\theta}$0.12±.21; $M_{\theta\phi}$0.49±.12; $M_{\phi r}$-0.99±.31; Best double couple: $M_0$2.96×10^{16} NP1:ϕ_s275°,δ47°,λ-67°. NP2:ϕ_s63°,δ48°,λ-113°. Principal axes: T 2.76, Plg1°, Azm169°; N .41, Plg17°, Azm79°; P -3.17, Plg73°, Azm261°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 27 23:20:06.6±1.3, 9.71N±0.05×93.02E±0.04, h36^{km}±11^{km}, h55^{km}±4.2^{km}:pP-P, n192, σ1^{s}09/181, mb4.8/59, MS4.2/7, 5C-3D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**10.42**	**33**	P	**P**	**23 22 35.6**	**-1.2**
	31nm,0.7s						
CMAR	**Chiang Mai Arr**	**10.42**	**33**	Pn	**P**	**23 22 39.2**	**+2.4**
	2.4nm,0.3s,baz=225,slow=14,SNR=27						
CMAR	**Chiang Mai Arr**	**10.42**	**33**	P	**P**	**23 22 39.3**	**+2.5**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
VIS	**Vishakhapatnam**	**12.32**	**311**	*e*P	**P**	**23 23 00.0**	**-2.5**
VIS				*e*S	x	23 25 03.3	
VIS				*e*	**S**	**23 25 12.9**	**-6.7**
	comp=E,63nm,0.3s						
VIS				*e*		23 25 13.2	
	comp=N,102nm,0.5s						
IMP	**Imphal**	**15.02**	**3**	*e*	**P**	**23 23 37.3**	**-0.8**
KOD	**Kodaikanal**	**15.32**	**273**	*e*P	**P**	**23 23 42.0**	**-0.1**
SHL	**Shillong**	**15.81**	**356**	*e*P	**P**	**23 23 48.5**	**+0.2**
SHL				*e*		23 23 52.5	
	comp=Z,117nm,1.2s						
SHL				*e*S	**S**	**23 26 36.8**	**-5.5**
HYB	**Hyderabad**	**16.00**	**300**	*e*P	**P**	**23 23 50.0**	**-0.8**
HYB				pmax	pmax		
	comp=Z,500nm,1.0s						
HYB	**Hyderabad**	**16.00**	**300**	*i* P	**P**	**23 23 50.0**	**-0.8**
	comp=Z,50nm,1.0s						
HYB				*e*		23 23 54.0	
HYB				*e*		23 26 28.0	
HYB				*e*S	**S**	**23 26 45.0**	**-1.8**
KMI	**Kunming**	**17.91**	**30**	P	**P**	**23 24 17.0**	**+2.4**
KMI				AMB	AMB		
	comp=Z,35nm,0.9s						
MNGI	**Mangalore**	**18.12**	**282**	*e*P	**P**	**23 24 15.7**	**-1.8**
MNGI				*e*		23 27 24.9	
AKL	**Akola**	**18.90**	**307**	*e*P	**P**	**23 24 29.3**	**+2.4**
AKL				*e*		23 24 43.6	
	comp=Z,80nm,1.2s						
AKL				*e*		23 27 46.7	
PKI	**Pulchoki**	**19.16**	**339**	*e*P	**P**	**23 24 29.7**	**-0.1**
	comp=Z,431nm,1.3s						
DMN	**Daman**	**19.30**	**338**	*e*P	**P**	**23 24 31.9**	**+0.5**
	comp=Z,249nm,0.9s						
GUN	**Gumba**	**19.31**	**341**	*e*P	**P**	**23 24 31.2**	**-0.3**
	comp=Z,98nm,0.8s						
KKN	**Kakani**	**19.41**	**339**	*e*P	**P**	**23 24 32.0**	**-0.6**
GOA	**Goa**	**19.58**	**289**	*e*P	**P**	**23 24 36.9**	**+2.4**
GOA				*e*		23 24 42.1	
	comp=Z,22nm,0.8s						
GOA				*e*		23 27 59.6	
KAD	**Karad**	**19.80**	**294**	*e*P	**P**	**23 24 36.0**	**-0.8**
KAD				*i*		23 27 58.0	
GKN	**Gorkha**	**19.84**	**338**	*e*P	**P**	**23 24 36.8**	**-0.4**
LSA	**Lhasa**	**19.97**	**355**	*e*P	**P**	**23 24 37.8**	**-0.8**
LSA				pmax	pmax		
	comp=Z,68nm,0.9s						
LSA	**Lhasa**	**19.97**	**355**	*e*P	**P**	**23 24 37.8**	**-0.9**
	comp=Z,68nm,0.9s						
KOLN	**Koldanda**	**20.04**	**335**	*e*P	**P**	**23 24 39.0**	**-0.4**
BHPL	**Bhopal**	**20.09**	**314**	*e*P	**P**	**23 24 39.4**	**-0.5**
BHPL				*e*		23 24 54.7	
	comp=Z,50nm,0.6s						
POO	**Poona**	**20.53**	**297**	*e*P	**P**	**23 24 42.8**	**-1.9**
POO				*e*		23 24 48.9	
	comp=Z,28nm,0.5s						
GYA	**Guiyang**	**21.08**	**36**	⇑*i*P	**P**	**23 24 50.8**	**+0.6**
GYA				PP	PP	23 25 16.5	+2.8
GYA				S	**S**	**23 28 48.3**	**+10**
GYA				AMB	AMB		
	comp=Z,50nm,0.9s,mb4.8						
GYA				AMB	AMB		
	comp=Z,450nm,8.1s						
GYA				LR	LR		
	comp=N,820nm,13.2s,MS4.3						
GYA				LR	LR		
	comp=E,510nm,16.5s,MS4.3						
GYA				LR	LR		
	comp=Z,860nm,17.0s,MS4.2						
BOM	**Bombay**	**21.58**	**297**	*e*P	**P**	**23 24 53.5**	**-1.7**
BOM				*e*		23 25 01.4	
	comp=Z,29nm,1.1s						
BOM				*e*		23 28 43.2	
AGRA	**Agra**	**22.50**	**323**	*e*P	**P**	**23 25 05.3**	**+1.0**
PTH	**Pithoragarh**	**23.09**	**331**	*e*P	**P**	**23 25 12.1**	**+1.9**
PTH				*e*		23 29 25.1	
CD2	**Chengdu**	**23.35**	**24**	⇑*i*P	**P**	**23 25 13.0**	**+0.3**
CD2				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.4						
AYAN	**Aya Nagar**	**23.91**	**324**	*e*P	**P**	**23 25 19.8**	**+1.7**
AYAN				*e*		23 25 21.0	
	comp=Z,24nm,0.5s						
NDI	**New Delhi**	**24.01**	**324**	*e*P	**P**	**23 25 19.0**	**-0.1**
NDI				*e*P		23 25 21.0	
NDI				*e*		23 25 23.1	
	comp=Z,55nm,1.3s						
BHGR	**Bahadurgarh**	**24.17**	**324**	*e*P	**P**	**23 25 22.1**	**+1.4**
KHET	**Khetri**	**24.41**	**321**	*e*P	**P**	**23 25 25.1**	**+2.0**
DDI	**Dehra Dun**	**24.81**	**328**	*e*P	**P**	**23 25 27.0**	**+0.1**
KKR	**Kurukshetra**	**25.20**	**325**	*e*P	**P**	**23 25 31.5**	**+0.9**
ENH	**Enshi**	**25.59**	**35**	*e*P	**P**	**23 25 33.1**	**-1.2**
	comp=Z,73nm,1.1s,mb5.1						
KLP	**Kalpa**	**25.68**	**330**	*e*P	**P**	**23 25 36.5**	**+1.4**
KLP				*e*		23 25 41.1	
	comp=Z,39nm,1.1s						
SDNR	**Sundarnagar**	**26.31**	**328**	*e*P	**P**	**23 25 42.9**	**+2.0**
LZH	**Lanzhou**	**28.05**	**19**	⇑P	**P**	**23 25 57.0**	**+0.2**
LZH				AMB	AMB		
	comp=Z,70nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,289nm,5.0s						
LZH				LR	LR		
	comp=E,463nm,14.0s						
LZH				LR	LR		
	comp=Z,1µm,15.5s,MS4.5						
XAN	**Xi’an**	**28.28**	**29**	P	**P**	**23 25 57.0**	**-1.9**
XAN				AMB	AMB		
	comp=Z,26nm,1.0s,mb4.8						
GTA	**Gaotai**	**30.20**	**11**	P	**P**	**23 26 16.3**	**+0.4**
GTA				PP	PP	23 27 13.3	-1.8
GTA				S	**S**	**23 31 11.3**	**-0.1**
GTA				SCS	ScS	23 36 44.5	-4.3
GTA				AMB	AMB		
	comp=Z,50nm,1.1s,mb5.2						
GTA				AMB	AMB		
	comp=Z,104nm,3.8s						
GTA				LR	LR		
	comp=N,450nm,17.5s,MS4.4						
GTA				LR	LR		
	comp=E,559nm,18.6s,MS4.4						
GTA				LR	LR		
	comp=Z,554nm,14.8s,MS4.3						
KSH	**Kashi**	**33.35**	**336**	P	**P**	**23 26 44.3**	**+0.7**
KSH				*e*AP	pP	23 26 57.0	+3.1
KSH				*e*PP	PP	23 28 01.5	+5.7
KSH				*e*PCP	PcP	23 29 20.3	-4.6
KSH				AMB	AMB		
	comp=Z,140nm,5.3s						
BTO	**Baotou**	**34.27**	**23**	*e*P	**P**	**23 26 50.3**	**-1.1**
BTO				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.9						
WMQ	**Urumqi**	**34.30**	**353**	⇓P	**P**	**23 26 52.3**	**+0.7**
WMQ				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.3						
HHC	**Hu-ho-hao-te**	**35.10**	**25**	*e*P	**P**	**23 26 58.5**	**0.0**
HHC				AP	pP	23 27 11.8	+2.9
HHC				AMB	AMB		
	comp=Z,34nm,0.5s,mb5.5						
HHC				AMB	AMB		
	comp=Z,195nm,6.4s						
HHC				LR	LR		
	comp=N,153nm,14.3s,MS4.2						
HHC				LR	LR		
	comp=E,291nm,15.5s,MS4.2						
HHC				LR	LR		
	comp=Z,250nm,19.0s,MS4.0						
ULHL	**Ulahol**	**35.60**	**338**	P	**P**	**23 27 03.5**	**+0.8**
	SNR=7.1						
KZA	**Kyzart**	**35.83**	**337**	P	**P**	**23 27 05.7**	**+1.0**
	SNR=9.7						
UCH	**Uchtor**	**36.24**	**337**	P	**P**	**23 27 09.7**	**+1.5**
	SNR=9.9						
TKM2	**Tokmak 2**	**36.42**	**338**	P	**P**	**23 27 10.7**	**+0.9**
	SNR=16						
KBK	**Karagaybulak**	**36.44**	**337**	P	**P**	**23 27 11.2**	**+1.4**
	SNR=28						
AML	**Almayashu**	**36.49**	**336**	P	**P**	**23 27 11.5**	**+1.2**
	SNR=34						
BJT	**Baijiatuau**	**36.54**	**30**	*e*P	**P**	**23 27 11.3**	**+0.6**
BJT				pmax	pmax		
	comp=Z,40nm,1.1s						
BJT	**Baijiatuau**	**36.54**	**30**	*e*P	**P**	**23 27 11.3**	**+0.6**
	comp=Z,40nm,1.1s,mb5.2						
BJI	**Beijing**	**36.56**	**30**	P	**P**	**23 27 11.8**	**+0.9**
BJI				AMB	AMB		
	comp=Z,25nm,1.1s,mb5.0						
BJI				AMB	AMB		
	comp=Z,311nm,4.6s						
BJI				LR	LR		
	comp=N,202nm,19.9s,MS4.2						
BJI				LR	LR		
	comp=E,361nm,19.9s,MS4.2						
BJI				LR	LR		
	comp=Z,444nm,25.5s						
AAK	**Ala-Archa**	**36.59**	**337**	P	**P**	**23 27 12.8**	**+1.6**
	SNR=21						
AAK	**Ala-Archa**	**36.59**	**337**	*e*P	**P**	**23 27 10.8**	**-0.3**
AAK				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.0						
AAK	**Ala-Archa**	**36.59**	**337**	*e*P	**P**	**23 27 10.8**	**-0.3**
	comp=Z,22nm,0.9s,mb5.0						
FRU	**Bishkek**	**36.71**	**337**	*e*P	**P**	**23 27 14.0**	**+1.8**
FRU				*e*		23 27 30.0	
FRU				pmax	pmax		
	comp=Z,40nm,2.0s,mb4.9						
CHMS	**Chumysh**	**36.80**	**337**	P	**P**	**23 27 13.7**	**+0.8**
	SNR=23						
EKS2	**Erkin-Say**	**36.90**	**336**	P	**P**	**23 27 15.4**	**+1.7**
	SNR=31						
USP	**Ospenovka**	**37.13**	**337**	P	**P**	**23 27 16.7**	**+1.0**
	SNR=33						
MKAR	**Makanchi Array**	**38.07**	**348**	*i* P	**P**	**23 27 23.0**	**-0.5**
MKAR				pmax	pmax		
	comp=Z,6.0nm,0.6s						
SONM	**Songino Array**	**39.65**	**14**	P	**P**	**23 27 36.9**	**+0.3**
	comp=Z,8.3nm,0.7s,mb4.6,baz=201,slow=8.6,SNR=53						
SONM				PcP	PcP	23 29 44.8	+1.1
	comp=Z,2.0nm,0.9s,baz=211,slow=3.9,SNR=4.4						
ULN	**Ulaanbaatar**	**39.84**	**15**	*e*P	**P**	**23 27 37.3**	**-0.9**
ULN				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.4						
ULN	**Ulaanbaatar**	**39.84**	**15**	*e*P	**P**	**23 27 37.3**	**-0.9**
	comp=Z,5.6nm,0.8s,mb4.3						
ZAK	**Zakamensk**	**41.43**	**10**	*e*P	**P**	**23 27 51.5**	**+0.2**
ZAK				*e*		23 28 07.2	
ZAK				*e*		23 29 29.5	
SNY	**Shenyang**	**41.78**	**35**	⇑P	**P**	**23 27 54.5**	**+0.2**
SNY				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.4						
CN2	**Changchun**	**44.11**	**34**	*e*P	**P**	**23 28 12.8**	**-0.4**
CN2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.0						
ZAL	**Zalesovo**	**44.60**	**353**	P	**P**	**23 28 16.1**	**-0.9**
	comp=Z,5.2nm,0.5s,mb4.7,baz=301,slow=7.4,SNR=26						
ZAL	**Zalesovo**	**44.60**	**353**	P	**P**	**23 28 16.2**	**-0.8**
ZAL				pmax	pmax		
	comp=Z,5.0nm,0.5s						
HIA	**Hailar**	**45.30**	**24**	*e*P	**P**	**23 28 22.6**	**-0.1**
HIA				pmax	pmax		
	comp=Z,21nm,1.0s						
HIA	**Hailar**	**45.30**	**24**	*e*P	**P**	**23 28 22.6**	**-0.2**
	comp=Z,21nm,1.0s,mb4.9						
NVS	**Novosibirsk**	**45.68**	**352**	*e*P	**P**	**23 28 23.8**	**-1.9**
NVS				pmax	pmax		
	comp=N,17nm,1.0s						
NVS				pmax	pmax		
	comp=E,8.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
RDF	**Al-Radifah**	**46.63**	**301**	*e*P	**P**	**23 28 34.1**	**+0.6**
BVA0	**Borovoye Array**	**46.91**	**341**	*i* P	**P**	**23 28 34.8**	**-0.5**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
BVAR	**Borovoye Array**	**46.91**	**341**	P	**P**	**23 28 35.0**	**-0.3**
	comp=Z,8.0nm,0.8s,mb4.7,baz=143,slow=7.4,SNR=34						
BVAR				ScP		23 33 59.0	
	comp=Z,2.8nm,0.7s,baz=146,slow=5.3,SNR=5.0						
BRVK	**Borovoye**	**46.97**	**341**	P	**P**	**23 28 35.1**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
BRVK	**Borovoye**	**46.97**	**341**	*e*P	**P**	**23 28 34.5**	**-1.3**
	comp=Z,10.0nm,0.9s,mb4.8						
MIB	**Mutribah**	**47.03**	**302**	*e*P	**P**	**23 28 36.7**	**+0.1**
MIB				AMb	AMB	23 28 38.6	
	comp=Z,32nm,0.8s,mb5.3						
RST	**Umm Al-Ruwaisa**	**47.24**	**301**	*e*P	**P**	**23 28 38.7**	**+0.3**
RST				AMb	AMB	23 28 39.2	
	comp=Z,28nm,0.7s,mb5.3						
CHKZ	**Chkalovo**	**47.40**	**342**	*e*P	**P**	**23 28 38.0**	**-1.2**
CHKZ				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
CHKZ	**Chkalovo**	**47.40**	**342**	*e*P	**P**	**23 28 38.0**	**-1.2**
	comp=Z,28nm,0.9s,mb5.2						
MZLS	**Mizel**	**47.68**	**294**	P	**P**	**23 28 43.2**	**+1.3**
KAMS	**Al Khamasin**	**47.80**	**289**	P	**P**	**23 28 43.2**	**+0.4**
NWAO	**Narrogin (SRO)**	**48.28**	**152**	P	**P**	**23 28 46.6**	**+0.3**
	comp=Z,11nm,0.6s,mb5.1,baz=308,slow=6.4,SNR=16						
NWAO	**Narrogin (SRO)**	**48.28**	**152**	P	**P**	**23 28 46.7**	**+0.3**
NWAO				pmax	pmax		
	comp=Z,11nm,0.6s						
TATS	**Tathlith**	**48.77**	**287**	P	**P**	**23 28 51.4**	**+1.1**
AFFS	**‘Afif**	**49.66**	**293**	P	**P**	**23 28 58.6**	**+1.4**
WRA	**Warramunga Arr**	**50.23**	**126**	P	**P**	**23 29 01.5**	**-0.1**
	comp=Z,14nm,0.6s,mb5.2,baz=306,slow=8.6,SNR=115						
WRA				PcP	PcP	23 30 21.3	+0.8
	comp=Z,2.7nm,0.7s,baz=314,slow=3.1,SNR=8.3						
WRA	**Warramunga Arr**	**50.23**	**126**	P	**P**	**23 29 01.5**	**0.0**
WRA						23 30 21.3	
WRA				pmax	pmax		
	comp=Z,14nm,0.6s						
WRA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
WRAB	**Tennant Creek**	**50.23**	**126**	*e*P	**P**	**23 29 00.9**	**-0.7**
WRAB				pmax	pmax		
	comp=Z,29nm,0.6s,mb5.5						
WRAB	**Tennant Creek**	**50.23**	**126**	*e*P	**P**	**23 29 00.9**	**-0.6**
	comp=Z,29nm,0.6s,mb5.5						
BOD	**Bodaibo**	**50.65**	**14**	⇓*i*P	**P**	**23 29 03.4**	**-0.8**
BOD				*e*		23 29 20.8	
HILS	**Ha’il**	**51.27**	**297**	P	**P**	**23 29 10.6**	**+1.2**
ASAR	**Alice Springs**	**51.94**	**130**	P	**P**	**23 29 14.1**	**-0.3**
	comp=Z,6.8nm,0.6s,mb4.8,baz=305,slow=6.8,SNR=71						
ASAR				PcP	PcP	23 30 27.4	+0.6
	comp=Z,5.1nm,0.7s,baz=313,slow=3.4,SNR=13						
ASAR				ScP		23 34 23.6	
	comp=Z,2.7nm,0.8s,baz=306,slow=4.0,SNR=7.3						
ASAR				LR	LR	23 52 30.2	
	comp=Z,116nm,18.5s,MS3.9,baz=299,slow=37						
GNI	**Garni**	**52.37**	**314**	P	**P**	**23 29 17.5**	**+0.1**
	comp=Z,2.9nm,0.6s,mb4.4,baz=38,slow=8.5,SNR=8.4						
GNI	**Garni**	**52.37**	**314**	P	**P**	**23 29 17.5**	**+0.1**
GNI				pmax	pmax		
	comp=Z,3.0nm,0.6s						
GNI	**Garni**	**52.37**	**314**	*e*P	**P**	**23 29 16.3**	**-1.1**
	comp=Z,18nm,1.3s,mb4.8						
TI2	**Plekhanov**	**52.97**	**316**	*e*P	**P**	**23 29 22.4**	**+0.6**
ARU	**Arti**	**53.78**	**337**	*e*P	**P**	**23 29 27.1**	**-0.6**
ARU	**Arti**	**53.78**	**337**	*e*P	**P**	**23 29 26.6**	**-1.0**
	comp=Z,13nm,0.9s,mb4.8						
KIV	**Kislovodsk**	**55.22**	**317**	*e*P	**P**	**23 29 37.6**	**-0.8**
KIV				pmax	pmax		
	comp=E,6.0nm,0.7s						
KIV				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1						
KIV	**Kislovodsk**	**55.22**	**317**	*e*P	**P**	**23 29 37.4**	**-0.9**
	comp=Z,16nm,0.8s,mb5.1						
TBKS	**Tabuk**	**55.99**	**297**	P	**P**	**23 29 45.2**	**+1.1**
MALT	**Malatya**	**56.44**	**310**	*e*P	**P**	**23 29 45.6**	**-1.6**
MALT				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.3						
MALT	**Malatya**	**56.44**	**310**	*e*P	**P**	**23 29 45.5**	**-1.7**
	comp=Z,3.0nm,1.0s,mb4.3						
KMBO	**Kilima Mbogo**	**56.54**	**262**	P	**P**	**23 29 49.5**	**+1.2**
	comp=Z,3.7nm,0.9s,mb4.4,baz=45,slow=9.0,SNR=8.3						
KMBO				PcP	PcP	23 30 46.2	+1.7
	comp=Z,2.0nm,0.7s,baz=32,slow=8.7,SNR=4.1						
KMBO				LR	LR	23 52 36.7	
	comp=Z,292nm,18.0s,MS4.4,baz=90,slow=34						
KMBO	**Kilima Mbogo**	**56.54**	**262**	P	**P**	**23 29 49.5**	**+1.2**
KMBO						23 30 46.2	
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.9s						
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.7s						
KMBO				MLR	MLR		
	comp=Z,292nm,18.0s						
KMBO	**Kilima Mbogo**	**56.54**	**262**	*e*P	**P**	**23 29 49.0**	**+0.7**
	comp=Z,30nm,1.8s,mb5.0						
AYUS	**‘Aynunah**	**57.10**	**297**	P	**P**	**23 29 52.9**	**+0.8**
PMG	**Port Moresby**	**57.14**	**108**	P	**P**	**23 29 50.2**	**-2.3**
	comp=Z,5.8nm,0.8s,mb4.7,baz=242,slow=15,SNR=2.4						
PMG	**Port Moresby**	**57.14**	**108**	P	**P**	**23 29 50.2**	**-2.3**
PMG				pmax	pmax		
	comp=Z,6.0nm,0.8s						
PMG	**Port Moresby**	**57.14**	**108**	*e*P	**P**	**23 29 49.8**	**-2.7**
EIL	**Elat**	**57.56**	**299**	P	**P**	**23 29 55.1**	**-0.3**
	comp=Z,3.7nm,0.9s,mb4.4,baz=83,slow=8.1,SNR=3.5						
YAK	**Yakutsk**	**58.63**	**19**	*e*P	**P**	**23 30 00.8**	**-1.5**
YAK				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK	**Yakutsk**	**58.63**	**19**	*e*P	**P**	**23 30 00.4**	**-1.9**
	comp=N,25nm,0.6s,mb5.4						
CTA	**Charters Tower**	**60.17**	**120**	P	**P**	**23 30 14.2**	**+0.6**
	comp=N,5.7nm,0.7s,mb4.7,baz=293,slow=8.8,SNR=13						
CTA	**Charters Tower**	**60.17**	**120**	P	**P**	**23 30 14.2**	**+0.6**
CTA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
CTAO	**Charters Tower**	**60.17**	**120**	*e*P	**P**	**23 30 13.5**	**-0.1**
CTAO				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
CTAO	**Charters Tower**	**60.17**	**120**	*e*P	**P**	**23 30 13.5**	**-0.1**
	comp=Z,3.8nm,0.6s,mb4.6						
BRTR	**Keskin Array B**	**60.40**	**310**	P	**P**	**23 30 13.2**	**-1.7**
	comp=Z,3.1nm,0.8s,mb4.4,baz=125,slow=7.5,SNR=17						
BRTR	**Keskin Array B**	**60.40**	**310**	P	**P**	**23 30 13.2**	**-1.6**
BRTR				pmax	pmax		
	comp=Z,3.0nm,0.8s						
STKA	**Stephens Creek**	**62.17**	**134**	P	**P**	**23 30 27.2**	**+0.3**
	comp=Z,3.9nm,0.6s,mb4.7,baz=307,slow=12,SNR=6.7						
STKA	**Stephens Creek**	**62.17**	**134**	P	**P**	**23 30 27.2**	**+0.3**
MBAR	**Mbarara**	**62.81**	**264**	*e*P	**P**	**23 30 31.1**	**-0.3**
OBN	**Obninsk**	**63.24**	**328**	⇓*i*P	**P**	**23 30 33.5**	**-0.2**
OBN				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.0						
AKASG	**Malin Array Be**	**66.03**	**321**	P	**P**	**23 30 49.6**	**-2.2**
	comp=Z,1.9nm,0.7s,mb4.2,baz=87,slow=5.1,SNR=9.1						
AKASG	**Malin Array Be**	**66.03**	**321**	P	**P**	**23 30 49.6**	**-2.2**
AKASG				pmax	pmax		
	comp=Z,2.0nm,0.7s						
IDI	**Anoyia**	**66.62**	**304**	P	**P**	**23 30 54.1**	**-1.7**
	comp=Z,7.0nm,0.7s,mb4.8,baz=88,slow=1.8,SNR=9.1						
RZN	**Rozhen**	**67.42**	**311**	*e*P	**P**	**23 30 59.0**	**-1.7**
VTS	**Vitosha**	**68.64**	**312**	*e*P	**P**	**23 31 06.0**	**-2.3**
KKB	**Krupnik**	**68.65**	**311**	*e*P	**P**	**23 31 06.0**	**-2.4**
LSZ	**Lusaka**	**68.85**	**249**	*e*P	**P**	**23 31 10.2**	**+0.2**
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
LSZ	**Lusaka**	**68.85**	**249**	*e*P	**P**	**23 31 10.2**	**+0.2**
	comp=Z,3.7nm,0.6s,mb4.5						
APA	**Apatity**	**69.75**	**339**	⇑*i*P	**P**	**23 31 14.6**	**-0.1**
APA				pmax	pmax		
	comp=Z,32nm,1.4s,mb5.1						
KOLS	**Kolonicke sedl**	**70.10**	**319**	*e*P	**P**	**23 31 13.3**	**-3.8**
SUW	**Suwalki**	**70.38**	**324**	*e*P	**P**	**23 31 16.5**	**-2.2**
FINES	**FINESS Array B**	**70.58**	**332**	P	**P**	**23 31 18.8**	**-1.1**
	comp=Z,3.1nm,0.7s,mb4.4,baz=90,slow=5.7,SNR=8.5						
FINES	**FINESS Array B**	**70.58**	**332**	P	**P**	**23 31 18.8**	**-1.0**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KAF	**Kangasniemi**	**70.66**	**333**	*e*p	pP	23 31 32.2	+0.8
VYHS	**Vyhne**	**72.31**	**318**	*e*P	**P**	**23 31 29.9**	**-0.4**
SRO	**Srobarova**	**72.60**	**317**	*e*P	**P**	**23 31 31.4**	**-0.7**
OKC	**Ostrava-Krasne**	**72.88**	**319**	*e*P	**P**	**23 31 33.7**	**-0.1**
OKC				*e*pP	pP	23 31 51.1	+6.2
ARCES	**ARCESS Array B**	**73.17**	**340**	P	**P**	**23 31 34.4**	**-0.7**
	comp=Z,6.9nm,1.0s,mb4.5,baz=90,slow=9.7,SNR=6.2						
ARCES	**ARCESS Array B**	**73.17**	**340**	P	**P**	**23 31 34.4**	**-0.7**
ARCES				pmax	pmax		
	comp=Z,7.0nm,1.0s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
ARCES	**ARCESS Array B**	73.17	340	P	P	23 31 34.4	-0.7
MORC	**Moravsky Berou**	73.27	319	*e*P	P	23 31 35.4	-0.7
DPC	**Dobruska-Polom**	74.10	320	*e*P	P	23 31 41.5	+0.7
KSP	**Ksiaz**	74.15	320	*e*P	P	23 31 41.1	0.0
LBTB	**Lobatse**	74.16	241	*e*P	P	23 31 42.2	+0.5
LBTB				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
LBTB	**Lobatse**	74.16	241	*e*P	P	23 31 42.2	+0.5
	comp=Z,29nm,1.2s,mb5.1						
UPC	**Upice**	74.31	320	*e*P	P	23 31 42.5	+0.5
BILL	**Bilibino**	74.81	22	*e*P	P	23 31 44.5	-0.1
BILL				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
BILL	**Bilibino**	74.81	22	*e*P	P	23 31 44.5	-0.1
	comp=Z,3.1nm,0.6s,mb4.4						
PRU	**Pruhonice**	75.22	319	*e*P	P	23 31 47.3	0.0
PRU				*e*pP	sP	23 32 04.5	+2.0
BRG	**Berggiesshubel**	75.64	320	*i* P	P	23 31 50.1	+0.4
BRG				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
BRG	**Berggiesshubel**	75.64	320	*i* P	P	23 31 50.1	+0.4
	comp=Z,5.0nm,0.9s,mb4.4						
GERES	**GERESS Array B**	75.73	318	P	P	23 31 50.2	-0.1
	comp=Z,5.0nm,0.8s,mb4.5,baz=86,slow=6.3,SNR=42						
GERES	**GERESS Array B**	75.73	318	P	P	23 31 50.2	-0.1
GERES				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KHC	**Kasperske Hory**	75.82	318	*e*P	P	23 31 50.6	-0.2
KHC				*e*pP	sP	23 32 08.2	+2.3
CLL	**Collm**	76.25	320	*e*P	P	23 31 52.0	-1.2
CLL				pmax	pmax		
	comp=Z,15nm,1.6s,mb4.7						
CLL	**Collm**	76.25	320	*e*P	P	23 31 52.0	-1.2
	comp=Z,15nm,1.6s,mb4.7						
CLL	**Collm**	76.25	320	P	P	23 31 52.0	-1.2
	comp=Z,logA/T=1.0,mb4.7						
NB2	**NORSAR Subarra**	77.60	330	P	P	23 31 59.7	-0.8
	comp=Z,1.6nm,0.8s,mb4.0,baz=93,slow=5.3						
NB2	**NORSAR Subarra**	77.60	330	P	P	23 31 59.7	-0.8
NB2				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
NOA	**NORSAR Array B**	77.60	330	P	P	23 31 59.8	-0.8
	comp=Z,3.0nm,0.9s,mb4.2,baz=93,slow=5.6,SNR=5.7						
NOA	**NORSAR Array B**	77.60	330	P	P	23 31 59.8	-0.7
NOA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
MAW	**Mawson**	80.10	191	P	P	23 32 15.6	+1.5
	comp=Z,4.3nm,0.7s,mb4.5,baz=63,slow=6.8,SNR=4.9						
MAW	**Mawson**	80.10	191	P	P	23 32 15.6	+1.6
MAW				pmax	pmax		
	comp=Z,4.0nm,0.7s						
LPL	**La Plagne**	80.56	315	*e*P	P	23 32 17.3	+0.4
	comp=Z,36nm,0.7s,mb5.1						
LPL	**La Plagne**	80.56	315	*e*P	P	23 32 17.3	+0.4
LPL				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
ESDC	**Sonseca Array**	89.19	310	P	P	23 33 00.7	+0.5
	comp=Z,2.1nm,0.7s,mb4.6,baz=58,slow=4.2,SNR=12						
IMA	**Indian Mountai**	90.35	22	P	P	23 33 05.0	0.0
ILAR	**Eielson Array**	93.47	22	P	P	23 33 20.9	+1.5
	comp=Z,0.9nm,0.7s,mb4.3,baz=291,slow=3.8,SNR=10						
ILAR				PP	PP	23 36 57.1	-10
	comp=Z,0.4nm,0.8s,baz=289,slow=5.8,SNR=4.0						
DBIC	**Dimbokro**	96.59	278	P	P	23 33 36.8	+2.1
	comp=Z,4.7nm,1.1s,mb4.8,baz=281,slow=9.6,SNR=3.7						
DBIC	**Dimbokro**	96.59	278	P	P	23 33 36.8	+2.1
DBIC				pmax	pmax		
	comp=Z,5.0nm,1.2s						
DBIC	**Dimbokro**	96.59	278	P	P	23 33 35.3	+0.5
YKA	**Yellowknife Ar**	104.91	13	PP	PP	23 38 29.5	-4.8
	comp=Z,1.6nm,0.9s,baz=334,slow=8.1,SNR=6.0						
YBH	**Yreka Blue Hor**	119.21	30	PKP	PKPdf	23 38 57.1	+4.8
	comp=Z,0.6nm,0.4s,baz=314,slow=2.9,SNR=3.0						
YBH	**Yreka Blue Hor**	119.21	30	PKIKP	PKPdf	23 38 57.1	+4.8
YBH				pmax	pmax		
	comp=Z,1.0nm,0.4s						
PDAR	**Pinedale Array**	123.85	20	PKP	PKPdf	23 39 03.5	+2.2
	comp=Z,0.4nm,0.5s,baz=72,slow=2.9,SNR=4.8						
NVAR	**Mina Array Bea**	123.90	29	PKP	PKPdf	23 39 05.2	+3.7
	comp=Z,1.1nm,0.3s,baz=346,slow=1.8,SNR=4.2						
TXAR	**Lajitas Array**	137.99	22	PKP	PKPdf	23 39 32.0	+3.7
	comp=Z,0.4nm,0.5s,baz=114,slow=0.2,SNR=9.6						
JCT	**Junction City**	138.19	17	PKIKP	PKPdf	23 39 31.5	+2.8
BDFB	**Brasilia**	141.57	257	PKP	PKPdf	23 39 37.6	+2.5
	comp=Z,3.1nm,0.9s,baz=200,slow=2.7,SNR=5.3						
BDFB	**Brasilia**	141.57	257	PKIKP	PKPdf	23 39 37.7	+2.6
BDFB				pmax	pmax		
	comp=Z,3.0nm,0.9s						
SJG	**San Juan**	145.54	323	PKPbc	PKPbc	23 39 43.5	+0.9
	comp=Z,9.8nm,0.9s,baz=350,slow=18,SNR=3.8						
SJG	**San Juan**	145.54	323	PKIKP	PKPdf	23 39 43.5	+1.6
SJG				pmax	pmax		
	comp=Z,10.0nm,0.9s						
SJG	**San Juan**	145.54	323	PKPbc	PKPbc	23 39 43.5	+0.9
PCRV	**Puerto La Cruz**	150.26	311	PKPbc	PKPdf	23 39 56.1	+6.3
	comp=Z,12nm,1.0s,baz=184,slow=0.8,SNR=5.1						
SDV	**Santo Domingo**	155.38	318	PKPab	PKPab	23 40 24.0	-0.9
	comp=Z,1.8nm,0.4s,baz=66,slow=1.6,SNR=4.3						
LPAZ	**La Paz**	160.51	248	PKPab	PKPab	23 40 48.0	+1.1
	comp=Z,7.2nm,0.8s,baz=127,slow=3.4,SNR=26						

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*BJI **27** 23:24:08.0, 5.20N×93.32E, h30^{km}, mB5.1, mb4.6, Ms4.6, Msz4.3*

*NEIC **27** 23:24:14.1±0.3, 5.75N×93.34E, h30^{km}, mb4.3/4, Error ellipse: s-maj=10.4km s-min=8.0km az=65.0*

*IDC **27** 23:24:16.2±5.2, 5.83N×93.44E, h45^{km}±49^{km}, mb4.3/17, mb1 4.4/18, mb1mx4.3/22, Error ellipse: s-maj=25.8km s-min=12.0km az=49.0*

ISC 27 23:24:10.8±3.3**, 5.69N**±0.06×**93.33E**±0.08**, h20**^{km}±23^{km}**, h19**^{km}±3.0^{km}**:pP-P, n44, σ1**^{s}**02**/44**, mb4.5**/28**, MS4.3**/2**, 2C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	13.82	23	P	P	23 27 28.2	0.0
	42nm,0.9s						
CMAR	**Chiang Mai Arr**	13.82	23	P	P	23 27 28.2	0.0
	baz=219,slow=13,SNR=9.3						
KKTK	**Khon Kaen**	14.09	41	P	P	23 27 40.5	+8.8
	494nm,0.6s						
CHG	**Chiang Mai**	14.15	22	⇑P	P	23 27 37.2	+4.8
	27nm,0.8s						
KMI	**Kunming**	21.32	24	P	P	23 28 59.8	+1.0
KMI				AMB	AMB		
	comp=Z,29nm,0.9s,mb4.6						
LSA	**Lhasa**	23.97	355	*e*P	P	23 29 25.0	+0.1
	comp=Z,14nm,0.7s,mb4.5						
GYA	**Guiyang**	24.26	30	P	P	23 29 29.0	+1.2
GYA				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.5						
CD2	**Chengdu**	26.93	20	P	P	23 29 52.0	-0.9
LZH	**Lanzhou**	31.76	16	⇑P	P	23 30 34.5	-1.4
LZH				AMB	AMB		
	comp=Z,28nm,1.5s,mb4.9						
LZH				LR	LR		
	comp=E,379nm,13.5s						
LZH				LR	LR		
	comp=Z,699nm,15.0s,MS4.5						
GTA	**Gaotai**	34.08	9	*e*P	P	23 30 59.0	+2.9
GTA				AP	pP	23 31 04.0	+1.9
GTA				XP	sP	23 31 06.5	+1.8
GTA				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.8						
WMQ	**Urumqi**	38.30	353	⇓P	P	23 31 33.8	+2.0
WMQ				AP	pP	23 31 38.3	+0.4
WMQ				XP	sP	23 31 41.0	+0.6
HHC	**Hu-ho-hao-te**	38.63	22	*e*P	P	23 31 35.0	+0.4
HHC				AP	pP	23 31 42.8	+2.1
HHC				PP	PP	23 33 10.8	+4.0
HHC				S	S	23 37 30.0	+0.5
HHC				SCS	ScS	23 41 38.5	-3.5
HHC				AMB	AMB		
	comp=Z,322nm,11.2s						
HHC				LR	LR		
	comp=N,289nm,10.7s,MS4.4						
HHC				LR	LR		
	comp=E,266nm,15.5s,MS4.4						
HHC				LR	LR		
	comp=Z,200nm,14.3s,MS4.1						
BJI	**Beijing**	39.90	28	P	P	23 31 45.8	+0.7
BJI				AMB	AMB		
	comp=Z,7.0nm,1.3s,mb4.2						
AAK	**Ala-Archa**	40.40	338	*e*P	P	23 31 48.8	-0.5
	comp=Z,3.9nm,1.0s,mb4.1						
SONM	**Songino Array**	43.46	13	P	P	23 32 14.1	-0.1
	comp=Z,0.9nm,0.6s,mb3.7,baz=196,slow=7.9,SNR=6.6						
WRA	**Warramunga Arr**	47.69	123	P	P	23 32 48.0	-0.3
	comp=Z,27nm,0.8s,mb5.3,baz=302,slow=9.0,SNR=46						
WRAB	**Tennant Creek**	47.70	123	*e*P	P	23 32 47.9	-0.5
	comp=Z,48nm,0.8s,mb5.6						
ZAL	**Zalesovo**	48.60	353	P	P	23 32 54.5	-0.5
	comp=Z,3.0nm,0.5s,mb4.6,baz=317,slow=6.4,SNR=12						
ASAR	**Alice Springs**	49.17	128	P	P	23 32 59.5	-0.2
	comp=Z,9.6nm,0.7s,mb4.9,baz=306,slow=7.5,SNR=25						
ASAR				S	S	23 40 14.8	+12
	comp=Z,0.6nm,0.8s,baz=290,slow=12,SNR=4.1						
BVAR	**Borovoye Array**	50.80	342	P	P	23 33 11.4	-0.3
	comp=Z,2.6nm,1.1s,mb4.1,baz=153,slow=6.4,SNR=4.5						
BRVK	**Borovoye**	50.86	342	*e*P	P	23 33 09.4	-2.8
GNI	**Garni**	55.40	316	*e*P	P	23 33 45.3	-0.9
PMG	**Port Moresby**	55.70	105	P	P	23 33 48.2	-0.4
	comp=Z,17nm,0.6s,mb5.3,baz=330,slow=3.5,SNR=16						
KMBO	**Kilima Mbogo**	56.41	265	P	P	23 33 55.4	+1.6
	comp=Z,1.4nm,0.9s,mb4.0,baz=45,slow=13,SNR=3.3						
CTA	**Charters Tower**	57.97	118	P	P	23 34 04.3	-0.4
	comp=Z,6.1nm,0.9s,mb4.7,baz=300,slow=6.2,SNR=7.3						
STKA	**Stephens Creek**	59.21	132	P	P	23 34 13.2	0.0
	comp=Z,8.3nm,0.8s,mb4.8,baz=301,slow=6.6,SNR=8.8						
BRTR	**Keskin Array B**	63.26	312	P	P	23 34 39.5	-0.9
	comp=Z,1.4nm,0.9s,mb4.1,baz=108,slow=3.9,SNR=5.0						
LSZ	**Lusaka**	67.80	251	*e*P	P	23 35 10.1	+0.1
	comp=Z,2.5nm,0.8s,mb4.3						
AKASG	**Malin Array Be**	69.37	322	P	P	23 35 17.4	-1.8
	comp=Z,0.4nm,0.6s,mb3.6,baz=82,slow=5.4,SNR=4.3						
MLR	**Muntele Rosu**	70.17	316	P	P	23 35 24.1	-0.1
	comp=Z,7.6nm,1.1s,mb4.5,baz=134,slow=12,SNR=5.6						
LBTB	**Lobatse**	72.50	242	*e*P	P	23 35 37.8	-0.8
	comp=Z,2.1nm,0.8s,mb4.1						
FINES	**FINESS Array B**	74.26	333	P	P	23 35 47.4	-0.7
	comp=Z,3.4nm,0.8s,mb4.3,baz=127,slow=9.5,SNR=5.3						
KAF	**Kangasniemi**	74.36	333	*e*p	P	23 35 47.7	-1.0
MAW	**Mawson**	76.25	192	P	P	23 36 00.8	+1.5
	comp=Z,2.6nm,0.5s,mb4.4,baz=103,slow=19,SNR=9.0						
MORC	**Moravsky Berou**	76.51	320	*e*P	P	23 35 59.7	-1.5
ARCES	**ARCESS Array B**	77.04	340	P	P	23 36 03.7	-0.1
	comp=Z,7.2nm,1.1s,mb4.5,baz=90,slow=8.5,SNR=5.9						
ARCES	**ARCESS Array B**	77.04	340	P	P	23 36 03.7	-0.1
GERES	**GERESS Array B**	78.92	319	P	P	23 36 15.2	+0.8
	comp=Z,2.2nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=12						
KHC	**Kasperske Hory**	79.02	319	*e*P	P	23 36 16.0	+1.0
DAVOX	**Davos**	81.40	316	P	P	23 36 29.0	+1.3
	comp=Z,3.3nm,0.7s,mb4.4,baz=146,slow=7.3						
DAVOX	**Davos**	81.40	316	P	P	23 36 29.0	+1.3
DBIC	**Dimbokro**	97.44	277	P	P	23 37 47.2	+2.0
	comp=Z,2.9nm,1.0s,mb4.7,baz=72,slow=10,SNR=3.5						
PDAR	**Pinedale Array**	127.48	21	PKP	PKPdf	23 43 17.1	-1.9
	comp=Z,1.0nm,0.7s,slow=1.5,SNR=7.8						
TXAR	**Lajitas Array**	141.53	24	PKP	PKPdf	23 43 44.9	-0.7
	comp=Z,0.8nm,0.7s,baz=154,slow=0.3,SNR=4.5						

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*IDC **27** 23:27:17.3±0.8, 56.44N×121.00W, mb3.9/3, mb1 3.9/10, mb1mx3.7/27, ML3.6/7, Error ellipse: s-maj=12.5km s-min=9.4km az=135.0*

*NEIC **27** 23:27:19.0, 56.39N×120.74W, h10^{km}, ML3.7(PGC), After PGC.*

NEIC Felt at Fort St. John.

PGC 27 23:27:18.8, 56.39N×120.74W, h10^{km}**, MN3.7**/9**, British Columbia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BMBC	**Bull Mountain**	0.85	247	P	Pb	23 27 32.6	-2.6
BMBC				S	Sb	23 27 46.4	-0.1
BMBC				Trac		23 27 48.6	
	comp=Z,722nm,0.2s						
BMBC				Trac		23 27 48.6	
	comp=Z,722nm,0.2s						
FNBB	**Fort Nelson**	2.79	335	⇑Pn	Pn	23 28 03.0	-1.3
FNBB				Pg	Pg	23 28 11.1	-3.3
FNBB				Sn	Sn	23 28 36.4	-2.0
FNBB				Sg	Sg	23 28 45.7	-5.9
FNBB				Trac		23 28 48.5	
	comp=Z,126nm,0.2s						
FNBB				Trac		23 28 48.5	
	comp=Z,126nm,0.2s						
FSB	**Fort Saint Jam**	2.81	228	Pn	Pn	23 28 04.9	+0.3
FSB				Pg	Pg	23 28 11.1	-3.7
FSB				Sg	Sg	23 28 45.4	-6.8
FSB				Trac		23 28 50.0	
	comp=Z,211nm,0.7s						
DOWB	**Downie Slide**	5.06	164	Pg	Pg	23 28 49.1	-11
DOWB				Sg	Sg	23 29 53.6	-14
EDM	**Edmonton**	5.32	124	Pn	Pn	23 28 38.2	-2.1
EDM				Pg	Pg	23 28 55.6	-9.4
EDM				Sn	Sn	23 29 35.6	-6.8
EDM				Sg	Sg	23 30 02.2	-14
EDM				Trac		23 30 08.2	
	comp=Z,97nm,0.5s						
EDM				Trac		23 30 08.2	
	comp=Z,97nm,0.5s						
DLBC	**Dease Lake**	5.42	296	Pn	Pn	23 28 38.2	-3.5
	2.1nm,0.3s,baz=93,slow=12,SNR=25						
DLBC				Pg	Pg	23 28 55.9	-11
	2.3nm,0.3s,baz=130,slow=14,SNR=8.5						
DLBC				Lg		23 30 01.8	
	2.3nm,0.3s,baz=218,slow=23,SNR=3.8						
DLBC	**Dease Lake**	5.42	296	Pn	Pn	23 28 37.9	-3.8
DLBC				Pg	Pg	23 28 56.5	-11
DLBC				Sn	Sn	23 29 41.2	-3.8
DLBC				Sg	Sg	23 30 04.8	-15
DLBC				Trac		23 30 13.8	
	comp=Z,38nm,0.7s						
DLBC	**Dease Lake**	5.42	296	Pn	Pn	23 28 38.2	-3.5
DLBC				Pg	Pg	23 28 55.9	-11
DLBC				Lg		23 30 01.8	
SLEB	**Sale Mountain**	5.46	162	Pn	Pn	23 28 39.5	-2.6
SLEB				Pg	Pg	23 28 59.1	-8.7
SLEB				Sg	Sg	23 30 07.3	-13
SLEB				Trac		23 30 21.7	
	comp=Z,128nm,0.7s						
SLEB				Trac		23 30 21.7	
	comp=Z,128nm,0.7s						
RUBB	**Prince Rupert**	5.81	253	Pn	Pn	23 28 43.7	-3.4
RUBB				Pg	Pg	23 29 03.4	-11
RUBB				Sg	Sg	23 30 13.1	-19
RUBB				Trac		23 30 20.9	
	comp=Z,82nm,0.5s						
LLLB	**Lillooet**	5.83	187	Pn	Pn	23 28 43.9	-3.6
LLLB				Sn	Sn	23 29 51.1	-4.1
LLLB				Sg	Sg	23 30 17.4	-16
LLLB				Trac		23 30 33.4	
	comp=Z,40nm,0.7s						
BBB	**Bella Bella**	6.03	229	Pn	Pn	23 28 45.5	-4.7
	1.1nm,0.3s,baz=47,slow=6.5,SNR=16						
BBB				Lg		23 30 21.9	
	1.9nm,0.3s,baz=354,slow=13,SNR=3.2						
BBB	**Bella Bella**	6.03	229	Pn	Pn	23 28 45.7	-4.6
BBB				Pg	Pg	23 29 08.5	-11
BBB				Sg	Sg	23 30 26.7	-13
BBB				Trac		23 30 29.1	
	comp=Z,30nm,0.6s						
BBB	**Bella Bella**	6.03	229	Pn	Pn	23 28 45.5	-4.7
BBB				Lg		23 30 21.9	
BNAB	**Bonilla**	6.40	247	Sg	Sg	23 30 34.8	-17
BNAB				Trac		23 30 43.0	
	comp=Z,20nm,0.7s						
WSLR	**Whistler**	6.41	193	Trac		23 30 51.3	
	comp=Z,16nm,0.6s						
WSLR	**Whistler**	6.41	193	Sg	Sg	23 30 37.8	-14
NCRB	**Newcastle Ridg**	6.79	210	Pn	Pn	23 28 56.4	-4.5
NCRB				Sg	Sg	23 30 46.1	-19
NCRB				Trac		23 31 01.0	
	comp=Z,35nm,1.0s						
YKA	**Yellowknife Ar**	6.87	24	Pn	Pn	23 28 56.8	-5.3
	1.5nm,0.3s,baz=213,slow=13,SNR=54						
YKA				Sn	Sn	23 30 11.5	-10
	4.2nm,0.3s,baz=298,slow=11,SNR=8.3						
YKA				Lg		23 30 50.5	
	4.9nm,0.3s,baz=208,slow=31,SNR=6.0						
YKA	**Yellowknife Ar**	6.87	24	Pn	Pn	23 28 56.8	-5.3
YKA				Sn	Sn	23 30 11.6	-10
YKA				Lg		23 30 50.5	
YKW3	**Yellowknife Ar**	6.93	24	Pn	Pn	23 28 57.8	-5.1
YKW3				Pn	Pn	23 28 58.5	-4.3
YKW3				Pg	Pg	23 29 22.7	-14
YKW3				Pg	Pg	23 29 24.1	-13
YKW3				Sn	Sn	23 30 11.9	-11
YKW3				Sn	Sn	23 30 12.5	-10
YKW3				Sg	Sg	23 30 53.2	-16
YKW3				Sg	Sg	23 30 54.5	-15
YKW3				Trac		23 31 01.7	
	comp=Z,69nm,0.6s						
YKW3				Trac		23 31 01.7	
	comp=Z,69nm,0.6s						
YKW3				Trac		23 31 07.7	
	comp=Z,70nm,0.6s						
YKW3				Trac		23 31 07.7	
	comp=Z,70nm,0.6s						
PHC	**Port Hardy**	6.95	218	Trac		23 31 05.1	
	comp=Z,9.9nm,0.7s						
PHC	**Port Hardy**	6.95	218	Sg	Sg	23 30 49.0	-21
HOPB	**Hope**	7.03	184	Trac		23 31 10.9	
	comp=Z,52nm,0.5s						
HOPB	**Hope**	7.03	184	Sg	Sg	23 30 51.3	-22
SHB	**Sechelt**	7.06	197	Pn	Pn	23 29 05.0	+0.2
SHB				Sg	Sg	23 30 56.0	-18
SHB				Trac		23 31 04.8	
	comp=Z,34nm,1.2s						
PNT	**Penticton**	7.12	174	Trac		23 31 09.2	
	comp=Z,52nm,0.7s						
PNT	**Penticton**	7.12	174	Sg	Sg	23 30 56.4	-19
MAYB	**Maynard**	7.12	215	Pn	Pn	23 29 03.2	-2.4
MAYB				Sg	Sg	23 31 00.2	-16
MAYB				Trac		23 31 16.8	
	comp=Z,17nm,1.0s						
WOSB	**Woss**	7.15	212	Pn	Pn	23 29 02.2	-3.9
WOSB				Sg	Sg	23 30 55.5	-21
WOSB				Trac		23 31 05.0	
	comp=Z,11nm,0.6s						
MOBC	**Moresby Island**	7.20	248	Trac		23 31 16.5	
	comp=Z,28nm,1.1s						
MOBC	**Moresby Island**	7.20	248	Sg	Sg	23 30 58.9	-20
HNB	**Haney**	7.22	190	Pg	Pg	23 29 29.6	-13
HNB				Trac		23 31 06.0	
	comp=Z,24nm,0.8s						
BTB	**Buttle Lake**	7.51	205	Pn	Pn	23 29 09.4	-1.7
BTB				Sg	Sg	23 31 06.2	-23
BTB				Trac		23 31 26.7	
	comp=Z,20nm,0.7s						
BPBC	**Brooks Peninsu**	7.53	217	Sg	Sg	23 31 10.9	-19
BPBC				Trac		23 31 24.3	
	comp=Z,19nm,0.7s						
WALA	**Waterton Lakes**	8.43	148	Pn	P	23 29 19.6	-4.3
WALA				Pg	P	23 29 51.4	+28
WALA				Sn	Sn	23 30 49.4	-11
WALA				Sg	Sg	23 31 39.4	-20
WALA				Trac		23 31 56.7	
	comp=Z,38nm,0.8s						
WHY	**Whitehorse**	8.54	306	Trac		23 32 02.6	
	comp=Z,6.0nm,0.7s						
WHY	**Whitehorse**	8.54	306	Sg	Sg	23 31 45.4	-18
FFC	**Flin Flon**	10.75	91	*e*P	P	23 29 50.6	-5.1
HRY	**Holter Researc**	11.16	147	*e*P	P	23 29 55.3	-6.0
DAWY	**Dawson**	12.00	317	Trac		23 33 39.6	
	comp=Z,3.0nm,0.6s						
INK	**Inuvik**	13.30	339	Pn	P	23 30 23.5	-6.5
	0.4nm,0.3s,baz=148,slow=7.7,SNR=19						
INK				Sn	S	23 32 48.1	-11
	0.2nm,0.3s,baz=310,slow=18,SNR=4.0						
INK	**Inuvik**	13.30	339	P	P	23 30 23.4	-6.7
INK				Sn	S	23 32 45.6	-13
INK				Trac		23 33 16.6	
	comp=Z,3.0nm,0.6s						
INK	**Inuvik**	13.30	339	Pn	P	23 30 23.5	-6.5
INK				Sn	S	23 32 48.1	-11
FCC	**Fort Churchill**	14.45	69	P	P	23 30 38.0	-7.1
FCC				Sn	S	23 33 03.9	-22
FCC				Trac		23 34 59.8	
	comp=Z,20nm,0.7s						
FCC				Trac		23 34 59.8	
	comp=Z,20nm,0.7s						
ILAR	**Eielson Array**	15.23	314	Pn	P	23 30 56.9	+1.6
	0.1nm,0.3s,baz=112,slow=10,SNR=13						
ILAR				Lg		23 35 13.5	
	baz=106,slow=26,SNR=5.3						
PDAR	**Pinedale Array**	15.41	148	Pn	P	23 30 56.4	-1.4
	0.0nm,0.3s,baz=351,slow=9.7,SNR=6.4						
ULM	**Lac du Bonnet**	16.02	102	Pn	P	23 31 02.6	-3.0
	0.5nm,0.3s,baz=320,slow=12,SNR=4.9						
ULM				Sn	S	23 33 43.9	-19
	0.2nm,0.3s,baz=291,slow=14,SNR=3.6						
ULM				Lg		23 35 31.7	
	baz=194,slow=12,SNR=2.4						
ULM	**Lac du Bonnet**	16.02	102	P	P	23 31 02.5	-3.0
ULM				Sn	S	23 33 43.2	-20
ULM				Trac		23 35 49.4	
	comp=Z,12nm,0.8s						
ULM				Trac		23 35 49.4	
	comp=Z,12nm,0.8s						
RES	**Resolute Bay**	20.89	19	Trac		23 38 19.2	
	comp=Z,9.0nm,0.8s						
RES				Trac		23 38 19.2	
	comp=Z,9.0nm,0.8s						
FRB	**Frobisher Bay**	26.36	52	P	P	23 32 56.0	-0.3
	3.9nm,0.9s,baz=267,slow=7.5,SNR=5.2						
KEV	**Kevo**	52.02	14	*e*p	P	23 36 35.4	+5.6
SONM	**Songino Array**	68.95	328	P	P	23 38 23.1	-2.4
	0.4nm,0.6s,baz=37,slow=4.4,SNR=4.6						
BVAR	**Borovoye Array**	70.56	353	P	P	23 38 33.2	-2.0
	0.8nm,0.6s,baz=14,slow=6.1,SNR=5.0						

TRN 27 23:28:04.4, 15.85N×61.50W, h24^{km}**, MD3.6, Md3.0**(FDF)**, 6C-1D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MGG	**Marie-Galante**	0.19	69	⇑*i*P	Pb	23 28 12.4	+2.5
BBL	**Barber's Block**	0.32	175	*e*P	Pb	23 28 13.1	+1.3
BBL	**Barber's Block**	0.32	175	⇑*i*P	Pb	23 28 14.1	+2.3
BBL				*e*S	Sb	23 28 19.0	+2.3
BBL				*e*S	Sb	23 28 19.1	+2.5
DWS	**Wesley**	0.34	147	*e*P	Pb	23 28 14.1	+2.1
DWS				*e*S	Sb	23 28 19.1	+2.1
MDN	**Morne-Daniel**	0.54	169	⇑*i*P	Pb	23 28 17.8	+2.6
MDN				*i* S	Sb	23 28 25.8	+3.2
SEG	**Port Louis**	0.55	360	⇑*e*P	Pb	23 28 17.1	+1.7
DBCT	**Belle View Cho**	0.59	165	*e*P	Pb	23 28 18.9	+2.7
DEG	**La Desirade**	0.63	43	⇑*i*P	Pb	23 28 18.7	+2.1
DEG				*e*S	Sb	23 28 28.6	+3.5
DSTT	**Stowe**	0.63	162	*e*P	Pb	23 28 19.1	+2.4
FDF	**Fort de France**	1.16	163	⇓*e*P	Pn	23 28 26.6	+1.2
FDF				*e*S	Sb	23 28 42.2	+1.8
BPA	**Boggy Peak**	1.24	344	*e*P	Pn	23 28 27.9	+1.4
BPA				*e*S	Sn	23 28 43.9	+1.5
MVM	**Montagne Vaucl**	1.42	155	⇑*e*P	Pn	23 28 31.2	+2.2
MVM				*e*S	Sn	23 28 50.1	+3.2
CPB	**Codrington**	1.81	350	*e*P	Pn	23 28 36.2	+1.7
CPB				*e*S	Sn	23 28 59.1	+2.1

IDC 27 23:29:58.5±1.4**, 7.50N**×**93.87E, mb3.8**/6**, mb1 4.0**/6**, mb1mx3.7**/18**, Error ellipse: s-maj=60.8km s-min=27.9km az=51.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	41.58	13	P	P	23 37 48.3	-1.4
	0.3nm,0.5s,baz=203,slow=8.6,SNR=5.5						
ZAL	**Zalesovo**	46.88	353	P	P	23 38 30.2	-2.1
	1.3nm,0.3s,baz=295,slow=5.6,SNR=4.2						
WRA	**Warramunga Arr**	48.27	125	P	P	23 38 41.6	-2.0
	0.3nm,0.5s,baz=307,slow=8.5,SNR=3.5						
FINES	**FINESS Array B**	72.91	332	P	P	23 41 29.5	-1.7
	0.6nm,0.5s,baz=117,slow=4.3,SNR=5.6						
GERES	**GERESS Array B**	77.92	318	P	P	23 41 58.5	-1.5
	0.2nm,0.5s,baz=104,slow=4.0,SNR=3.6						
HFS	**Hagfors**	78.64	330	P	P	23 42 02.4	-1.3
	2.6nm,0.9s,baz=101,slow=7.3,SNR=6.4						

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*LDG **27** 23:33:57.9±0.2, 43.02N×0.08W, h10^{km}, Md1.8/2, Error ellipse: s-maj=16.2km s-min=2.5km az=173.0*

MDD 27 23:33:58.4±0.3**, 43.03N**×**0.08W, h10**^{km}±2^{km}**, mbLg1.2**/7**, Error ellipse: s-maj=4.1km s-min=1.6km az=12.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LABF	**Labassere**	0.12	83	Pg	Pg	23 34 01.1	-0.2
LABF				Lg		23 34 03.3	
REYF	**Montagne du Re**	0.23	279	Pg	Pg	23 34 02.8	-0.5

REYF				Lg		23 34 06.6	
EPF	**Esparros**	**0.31**	**90**	*e*Pg	Pg	23 34 03.9	-0.9
EPF				*e*Sg	Sg	23 34 08.9	-0.2
	7.3nm,0.2s						
ETSF	**Etsaut**	**0.38**	**249**	*e*Pg	Pg	23 34 05.4	-0.7
ETSF				*e*Sg	Sg	23 34 10.6	-0.6
	5.4nm,0.2s						
RESF	**Ens**	**0.38**	**126**	Pg	Pg	23 34 05.5	-0.7
RESF				Lg		23 34 11.2	
EBIE	**Bielsa**	**0.38**	**154**	Pg	Pg	23 34 05.8	-0.5
	0.7nm,0.1s,SNR=7.9						
EBIE				Lg		23 34 11.1	
	10nm,0.1s,SNR=7.9						
ATE	**Arette**	**0.46**	**277**	Pg	Pg	23 34 06.8	-0.9
ATE				Lg		23 34 13.6	
SJPF	**Ste Jean**	**0.84**	**276**	*e*Sg	Sg	23 34 25.0	-1.6
	2.7nm,0.3s						
EALK	**Alkurruntz**	**1.06**	**281**	Pg	Pg	23 34 17.9	-1.7
	0.1nm,0.1s,SNR=7.9						
EALK				Lg		23 34 32.7	
	1.0nm,0.2s,SNR=7.9						
ESAC	**San Caprasio**	**1.34**	**192**	Lg		23 34 42.6	
	12nm,0.3s,SNR=7.9						
EPOB	**Poblet**	**1.89**	**152**	Pg	Pg	23 34 33.0	-3.1
	0.1nm,0.1s,SNR=4.0						
EPOB				Lg		23 34 58.2	
	1.5nm,0.2s,SNR=7.9						

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*LDG **27** 23:34:42.9±0.0, 43.06N×0.09W, h10^{km}, Md2.6/2, Ml2.6/11, Error ellipse: s-maj=0.9km s-min=0.7km az=25.0*

*STR **27** 23:34:42.9±0.1, 43.04N×0.08W, h5^{km}±1^{km}, Ml2.5, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **27** 23:34:42.9, 43.06N×0.09W, h10^{km}, ML2.6(LDG), ML2.5(STR), MN2.2(MDD), After LDG.*

*CSEM **27** 23:34:43.0±0.0, 43.06N×0.08W, h10^{km}, ML2.5/14, Error ellipse: s-maj=1.0km s-min=0.7km az=175.0*

MDD 27 23:34:43.3±0.2**, 43.05N×0.08W, h10**^{km}±2^{km}**, mbLg2.1**/19**, Error ellipse: s-maj=2.8km s-min=1.4km az=9.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LABF	**Labassere**	**0.11**	**93**	Pg	Pg	23 34 45.9	-0.2
LABF				Sg	Sg	23 34 48.1	+0.1
LABF	**Labassere**	**0.11**	**93**	Pg	Pg	23 34 46.0	-0.1
LABF				Lg		23 34 48.2	
REYF	**Montagne du Re**	**0.23**	**274**	Pg	Pg	23 34 47.6	-0.6
REYF				Sg	Sg	23 34 51.3	-0.2
REYF	**Montagne du Re**	**0.23**	**274**	Pg	Pg	23 34 47.7	-0.5
REYF				Lg		23 34 51.4	
EPF	**Esparros**	**0.31**	**94**	*e*Pg	Pg	23 34 48.8	-0.8
EPF				*e*Sg	Sg	23 34 54.0	+0.1
	54nm,0.2s						
ETSF	**Etsaut**	**0.39**	**246**	*e*Pg	Pg	23 34 50.3	-0.9
ETSF				*e*Sg	Sg	23 34 55.7	-0.7
	56nm,0.2s						
RESF	**Ens**	**0.39**	**129**	Pg	Pg	23 34 50.4	-0.9
RESF				Sg	Sg	23 34 56.2	-0.5
RESF	**Ens**	**0.39**	**129**	Pg	Pg	23 34 50.5	-0.8
RESF				Lg		23 34 56.2	
EBIE	**Bielsa**	**0.40**	**156**	Pg	Pg	23 34 50.7	-0.8
	3.3nm,0.1s,SNR=7.9						
EBIE				Lg		23 34 56.1	
	60nm,0.1s,SNR=7.9						
EBIE	**Bielsa**	**0.40**	**156**	Pg	Pg	23 34 50.7	-0.8
	3.3nm,0.1s,SNR=7.9						
EBIE				Lg		23 34 56.1	
	60nm,0.1s,SNR=7.9						
FDAF	**Les Forges d'A**	**0.43**	**237**	Pg	Pg	23 34 39.6	-12
FDAF				Lg		23 34 45.7	
ATE	**Arette**	**0.46**	**274**	Pg	Pg	23 34 51.5	-1.1
ATE				Lg		23 34 58.3	
MELF	**Melles**	**0.64**	**106**	Pg	Pg	23 34 54.8	-1.4
MELF				Sg	Sg	23 35 04.0	-0.8
MELF	**Melles**	**0.64**	**106**	Pg	Pg	23 34 54.8	-1.4
MELF				Lg		23 35 04.0	
LARF	**Larrau**	**0.67**	**269**	Pg	Pg	23 34 55.5	-1.2
LARF				Sg	Sg	23 35 05.4	-0.2
LARF	**Larrau**	**0.67**	**269**	Pg	Pg	23 34 55.5	-1.2
LARF				Lg		23 35 05.2	
SJPF	**Ste Jean**	**0.84**	**274**	*e*Pg	Pg	23 34 58.5	-1.7
SJPF				*e*Sg	Sg	23 35 09.9	-1.6
	20nm,0.3s						
SALF	**Salau**	**0.98**	**107**	Pg	Pg	23 35 01.3	-1.5
SALF				Sg	Sg	23 35 14.3	-1.6
SALF	**Salau**	**0.98**	**107**	Pg	Pg	23 35 01.5	-1.3
SALF				Lg		23 35 14.3	
EALK	**Alkurruntz**	**1.06**	**280**	Pg	Pg	23 35 02.8	-1.6
	0.3nm,0.1s,SNR=7.9						
EALK				Lg		23 35 17.7	
	24nm,0.3s,SNR=7.9						
CSOR	**Sort**	**1.12**	**127**	Pg	Pg	23 35 04.1	-1.6
CSOR				Lg		23 35 18.7	
	5.7nm,0.2s						
CORG	**Organya**	**1.32**	**128**	Pg	Pg	23 35 07.9	-1.7
CORG				Lg		23 35 25.3	
	1.8nm,0.1s						
CAVN	**Les Avellanes**	**1.32**	**152**	Pg	Pg	23 35 08.0	-1.7
CAVN				Lg		23 35 25.7	
	15nm,0.1s						
ESAC	**San Caprasio**	**1.36**	**192**	Pg	Pg	23 35 09.4	-1.1
	21nm,0.2s,SNR=7.9						
ESAC				Lg		23 35 27.3	
	68nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**1.36**	**192**	Pg	Pg	23 35 09.4	-1.1
	21nm,0.2s,SNR=7.9						
CLLI	**Llivia**	**1.62**	**110**	Pg	Pg	23 35 13.6	-2.0
CLLI				Lg		23 35 34.8	
	9.4nm,0.2s						
MTLF	**Montolieu**	**1.70**	**80**	*e*Pn	Pn	23 35 11.0	-2.3
MTLF				*e*Pg	Pg	23 35 14.8	-2.5
MTLF				*e*Sg	Sg	23 35 37.2	-2.9
	4.6nm,0.2s						
MTLF	**Montolieu**	**1.70**	**80**	*e*Pg	Pg	23 35 14.8	-2.5
MTLF				*e*Sg	Sg	23 35 37.2	-2.9
	2.3nm,0.2s						
CBRU	**Bruguera**	**1.83**	**114**	Pg	Pg	23 35 17.8	-2.1
CBRU				Lg		23 35 42.1	
	10nm,0.4s						
EPOB	**Poblet**	**1.91**	**153**	Pg	Pg	23 35 18.5	-2.8
	0.6nm,0.2s,SNR=7.9						
EPOB				Lg		23 35 42.9	
	4.7nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**1.91**	**153**	Pg	Pg	23 35 18.5	-2.8
	0.6nm,0.2s,SNR=7.9						
LFF	**La Frestale**	**1.98**	**17**	*e*Pn	Pn	23 35 14.7	-2.5
LFF				*e*Pg	Pg	23 35 20.2	-2.6
LFF				*e*Sg	Sg	23 35 46.6	-2.5
	15nm,0.4s						
LFF	**La Frestale**	**1.98**	**17**	*e*Pg	Pg	23 35 20.2	-2.6
LFF				*e*Sg	Sg	23 35 46.6	-2.5
	7.6nm,0.4s						
ERTA	**Horta de San J**	**2.12**	**172**	Pg	Pg	23 35 23.1	-2.5
	0.9nm,0.1s,SNR=7.9						
ERTA				Lg		23 35 49.4	
	4.0nm,0.2s,SNR=7.9						
ERTA	**Horta de San J**	**2.12**	**172**	Pg	Pg	23 35 23.1	-2.5
	0.9nm,0.1s,SNR=7.9						
CFON	**Fontmartina**	**2.27**	**124**	Lg		23 35 54.0	
	15nm,0.2s						
EJON	**La Jonquera**	**2.27**	**104**	Pg	Pg	23 35 25.1	-3.5
	0.6nm,0.2s,SNR=7.9						
EJON				Lg		23 35 56.4	
	3.3nm,0.2s,SNR=4.9						
EJON	**La Jonquera**	**2.27**	**104**	Pg	Pg	23 35 25.1	-3.5
	0.6nm,0.2s,SNR=7.9						
CAF	**Calviac**	**2.43**	**39**	*e*Pn	Pn	23 35 20.9	-2.8
CAF				*e*Pg	Pg	23 35 28.0	-3.8
CAF				*e*Sn	Sn	23 35 48.1	-5.7
	3.9nm,0.2s						
CAF				*e*Sg	Sg	23 35 59.4	-4.8
	4.7nm,0.2s						
CAF	**Calviac**	**2.43**	**39**	*e*Pg	Pg	23 35 28.0	-3.8
CAF				*e*Sn	Sn	23 35 48.1	-5.7
	2.0nm,0.2s						
CAF				*e*Sg	Sg	23 35 59.4	-4.8
	2.3nm,0.2s						
ELAN	**Lanestosa**	**2.46**	**275**	Lg		23 36 01.5	
	0.4nm,0.3s,SNR=4.0						
RJF	**Les Rejaudoux**	**2.53**	**26**	*e*Pn	Pn	23 35 22.2	-2.9
RJF				*e*Pg	Pg	23 35 29.5	-4.2
RJF				*e*Sg	Sg	23 36 02.7	-4.7
	5.2nm,0.2s						
RJF	**Les Rejaudoux**	**2.53**	**26**	*e*Pg	Pg	23 35 29.5	-4.2
RJF				*e*Sg	Sg	23 36 02.7	-4.7
	2.6nm,0.2s						
EMOS	**Mosqueruela**	**2.70**	**186**	Lg		23 36 07.4	
	1.5nm,0.3s,SNR=7.9						
MFF	**Saint Martin d**	**3.55**	**359**	*e*Pn	Pn	23 35 36.2	-3.5
MFF				*e*Pg	Pg	23 35 48.7	-5.4
MFF				*e*Sg	Sg	23 36 34.1	-7.4
	2.2nm,0.3s						
MFF	**Saint Martin d**	**3.55**	**359**	*e*Pg	Pg	23 35 48.7	-5.4
MFF				*e*Sg	Sg	23 36 34.1	-7.4
	1.1nm,0.3s						
TCF	**Toulx Ste Croi**	**3.62**	**26**	*e*Pg	Pg	23 35 49.9	-5.7
TCF				*e*Sn	Sn	23 36 17.8	-6.3
	4.1nm,0.5s						
TCF				*e*Sg	Sg	23 36 36.6	-7.3
	1.5nm,0.2s						
EARI	**Arriondas**	**3.76**	**276**	Pn	Pn	23 35 41.4	-1.3
	0.2nm,0.1s,SNR=4.0						
EARI				Sn	Sn	23 36 23.7	-3.9
	0.2nm,0.2s,SNR=7.9						
EARI	**Arriondas**	**3.76**	**276**	Pn	Pn	23 35 41.4	-1.3
	0.2nm,0.1s,SNR=4.0						
EARI				Sn	Sn	23 36 23.7	-3.9
	0.2nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**3.88**	**233**	Pn	Pn	23 35 43.3	-1.1
	0.2nm,0.1s,SNR=7.9						
GUD				Sn	Sn	23 36 26.0	-4.6
	0.4nm,0.2s,SNR=4.0						
BGF	**Bois d'Agland**	**4.08**	**30**	*e*Pg	Pg	23 35 58.2	-6.4
BGF				*e*Sg	Sg	23 36 50.6	-8.4
	9.2nm,0.4s						
SMRF	**Simiane la Rot**	**4.21**	**75**	*e*Sg	Sg	23 36 55.1	-8.5
	4.9nm,0.7s						
ECAL	**Calabor**	**5.05**	**260**	Pn	Pn	23 35 58.9	-2.0
	0.6nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	23 36 54.0	-6.1
	1.2nm,0.2s,SNR=7.7						
ECAL	**Calabor**	**5.05**	**260**	Pn	Pn	23 35 58.9	-2.0
	0.6nm,0.3s,SNR=7.9						
ECAL				Sn	Sn	23 36 54.0	-6.1
	1.2nm,0.2s,SNR=7.7						

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*IDC **27** 23:40:27.2±0.6, 14.49N×93.66E, mb4.3/15, mb1 4.4/16, mb1mx4.2/25, ML4.0/1, MS3.0/1, Ms1 3.2/1, ms1mx2.5/29, Error ellipse: s-maj=24.6km s-min=12.5km az=50.0*

*BJI **27** 23:40:30.0, 14.18N×94.07E, h44^{km}, mB4.7, mb4.7, Ms4.3, Msz4.2*

*NEIC **27** 23:40:31.3±0.4, 14.47N×93.67E, h30^{km}, mb4.2/5, Error ellipse: s-maj=9.6km s-min=8.5km az=208.0*

ISC 27 23:40:29.7±0.5**, 14.50N**±0.06×**93.60E**±0.05**, h33**^{km}**, n38, σ1**^{s}**16**/39**, mb4.3**/21**, MS4.2**/1**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**6.46**	**52**	*e*P	**P**	**23 42 03.9**	**-1.0**
	31nm,0.6s						
CMAR	**Chiang Mai Arr**	**6.46**	**52**	Pn	**Pn**	**23 42 04.0**	**-1.1**
	0.8nm,0.3s,baz=240,slow=15,SNR=14						
CMAR				Sn	**Sn**	**23 43 19.9**	**+1.5**
	1.7nm,0.3s,baz=240,slow=22,SNR=4.0						
CMAR				LR	LR	23 44 53.6	
	comp=Z,133nm,18.8s,baz=220,slow=42						
PKI	**Pulchoki**	**15.07**	**331**	*e*P	**P**	**23 43 59.5**	**-2.5**
	47nm,0.5s						
GUN	**Gumba**	**15.15**	**333**	*e*P	**P**	**23 44 01.8**	**-1.2**
	76nm,0.8s						
DMN	**Daman**	**15.25**	**330**	*e*P	**P**	**23 44 01.6**	**-2.7**
	53nm,0.8s						
LSA	**Lhasa**	**15.29**	**352**	*e*P	**P**	**23 44 02.0**	**-2.9**
	7.4nm,0.5s						
KKN	**Kakani**	**15.32**	**331**	*e*P	**P**	**23 44 04.9**	**-0.3**
GKN	**Gorkha**	**15.80**	**330**	*e*P	**P**	**23 44 10.6**	**-0.9**
	35nm,0.5s						
KOLN	**Koldanda**	**16.15**	**326**	*e*P	**P**	**23 44 15.4**	**-0.4**
ENH	**Enshi**	**21.46**	**40**	*e*P	**P**	**23 45 15.8**	**-1.5**
	5.6nm,0.6s,mb4.1						
LZH	**Lanzhou**	**23.37**	**21**	⇑P	**P**	**23 45 37.5**	**+1.2**
LZH				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
LZH				LR	LR		
	comp=E,235nm,10.5s						
LZH				LR	LR		
	comp=Z,496nm,12.1s,MS4.2						
GTA	**Gaotai**	**25.41**	**11**	P	**P**	**23 45 57.5**	**+1.6**
GTA				AP	pP	23 46 04.5	-0.7
GTA				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.6						
AAK	**Ala-Archa**	**32.51**	**333**	*e*P	**P**	**23 47 00.0**	**+0.4**
SONM	**Songino Array**	**34.89**	**15**	P	**P**	**23 47 20.7**	**+0.6**
	comp=Z,4.3nm,0.8s,mb4.4,baz=203,slow=6.6,SNR=28						
SONM				PcP	PcP	23 49 53.8	+1.1
	comp=Z,0.3nm,0.8s,baz=225,slow=3.5,SNR=3.9						
ULN	**Ulaanbaatar**	**35.09**	**16**	*e*P	**P**	**23 47 21.3**	**-0.5**
ULN				*e*	pP	23 47 29.0	-2.5
ZAL	**Zalesovo**	**39.95**	**352**	P	**P**	**23 48 02.9**	**+0.5**
	comp=Z,5.2nm,0.6s,mb4.5,baz=306,slow=8.7,SNR=28						
ZAL	**Zalesovo**	**39.95**	**352**	P	**P**	**23 48 02.9**	**+0.5**
BVAR	**Borovoye Array**	**42.60**	**339**	P	**P**	**23 48 25.0**	**+0.7**
	comp=Z,1.2nm,0.9s,mb3.6,baz=146,slow=5.3,SNR=4.9						
CHKZ	**Chkalovo**	**43.07**	**340**	*e*P	**P**	**23 48 28.2**	**+0.1**
	comp=Z,2.4nm,0.5s,mb4.2						
GNI	**Garni**	**49.59**	**311**	P	**P**	**23 49 22.7**	**+3.0**
	comp=Z,5.6nm,0.8s,mb4.7,baz=167,slow=4.6,SNR=7.7						
KIV	**Kislovodsk**	**52.18**	**315**	P	**P**	**23 49 41.2**	**+1.9**
	comp=Z,100nm,0.9s,SNR=9.5						
KIV	**Kislovodsk**	**52.18**	**315**	*e*P	**P**	**23 49 40.6**	**+1.3**
	comp=Z,21nm,1.1s,mb5.0						
NWAO	**Narrogin (SRO)**	**52.30**	**155**	P	**P**	**23 49 40.5**	**+0.1**
	comp=Z,13nm,1.0s,mb4.8,baz=292,slow=19,SNR=3.6						
WRA	**Warramunga Arr**	**52.70**	**129**	P	**P**	**23 49 43.0**	**-0.6**
	comp=Z,1.6nm,0.5s,mb4.2,baz=312,slow=8.4,SNR=31						
WRA				PcP	PcP	23 50 53.6	+0.5
	comp=Z,1.6nm,0.8s,baz=317,slow=3.3,SNR=11						
WRAB	**Tennant Creek**	**52.70**	**129**	*e*P	**P**	**23 49 42.7**	**-0.9**
ASF	**Jabal al Asfar**	**54.35**	**299**	P	**P**	**23 49 56.8**	**+1.1**
	comp=Z,3.4nm,0.9s,mb4.3,baz=353,slow=8.1,SNR=4.2						
ASAR	**Alice Springs**	**54.70**	**133**	P	**P**	**23 49 58.0**	**-0.3**
	comp=Z,1.6nm,0.5s,mb4.3,baz=310,slow=6.7,SNR=31						
ASAR				PcP	PcP	23 51 00.9	+0.3
	comp=Z,0.7nm,0.6s,baz=316,slow=4.3,SNR=4.5						
BRTR	**Keskin Array B**	**57.83**	**308**	P	**P**	**23 50 21.1**	**+0.6**
	comp=Z,2.9nm,0.9s,mb4.3,baz=121,slow=7.2,SNR=17						
KMBO	**Kilima Mbogo**	**57.87**	**259**	P	**P**	**23 50 20.2**	**-0.9**
MLR	**Muntele Rosu**	**64.15**	**314**	P	**P**	**23 51 04.6**	**+1.4**
	comp=Z,5.1nm,0.9s,mb4.6,baz=193,slow=2.9,SNR=7.8						
STKA	**Stephens Creek**	**65.13**	**136**	P	**P**	**23 51 09.9**	**+0.2**
	comp=Z,3.1nm,0.6s,mb4.5,baz=335,slow=5.6,SNR=11						
FINES	**FINESS Array B**	**66.66**	**331**	P	**P**	**23 51 19.1**	**+0.2**
	comp=Z,2.1nm,0.8s,mb4.2,baz=135,slow=5.4,SNR=6.2						
MORC	**Moravsky Berou**	**70.07**	**318**	*e*P	**P**	**23 51 40.5**	**+0.1**
	comp=Z,2.2nm,0.7s,mb4.2						
LSZ	**Lusaka**	**71.10**	**248**	*e*P	**P**	**23 51 45.3**	**-1.8**
HFS	**Hagfors**	**72.52**	**329**	P	**P**	**23 51 55.0**	**+0.2**
	comp=Z,3.7nm,1.0s,mb4.3,baz=135,slow=6.3,SNR=6.6						
GERES	**GERESS Array B**	**72.60**	**317**	P	**P**	**23 51 56.9**	**+1.4**
	comp=Z,0.6nm,0.7s,mb3.6,baz=90,slow=5.3,SNR=4.1						
DAVOX	**Davos**	**75.31**	**315**	P	**P**	**23 52 12.7**	**+1.4**
	comp=Z,1.0nm,0.6s,mb3.9,baz=7.1,slow=16						
LBTB	**Lobatse**	**77.02**	**240**	*e*P	**P**	**23 52 17.0**	**-4.5**

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*IDC **27** 23:41:31.0±16.0, 16.11N×61.16W, mb3.6/3, mb1 4.0/3, mb1mx3.4/20, Error ellipse: s-maj=379.0km s-min=145.5km az=171.0*

*TRN **27** 23:41:32.7, 15.82N×61.49W, h32^{km}, MD3.7, Md3.1(FDF)*

ISC 27 23:41:34.4±0.5**, 15.83N**±0.03×**61.52W**±0.09**, h33**^{km}±8^{km}**, n18, σ0**^{s}**74**/27**, mb3.7**/3**, 9C-1D, Leeward Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MGG	**Marie-Galante**	**0.21**	**65**	⇑*i*P	**P**	**23 41 40.0**	**-1.1**
BBL	**Barber's Block**	**0.30**	**172**	⇑*e*P	**P**	**23 41 40.7**	**-1.5**
BBL	**Barber's Block**	**0.30**	**172**	⇑*i*P	**P**	**23 41 41.7**	**-0.5**
BBL				*e*S	**S**	**23 41 46.3**	**-1.4**
DWS	**Wesley**	**0.33**	**143**	⇓*i*P	**P**	**23 41 42.5**	**0.0**
DWS				*e*S	**S**	**23 41 49.6**	**+1.4**
MDN	**Morne-Daniel**	**0.52**	**167**	⇑*i*P	**P**	**23 41 45.5**	**+0.2**
MDN				*e*S	**S**	**23 41 53.2**	**+0.2**
SEG	**Port Louis**	**0.57**	**1**	⇑*e*P	**P**	**23 41 44.7**	**-1.2**
DBCT	**Belle View Cho**	**0.58**	**163**	*e*P	**P**	**23 41 46.5**	**+0.5**
DSTT	**Stowe**	**0.61**	**160**	*e*P	**P**	**23 41 46.9**	**+0.4**
DSTT				*e*S	**S**	**23 41 55.7**	**+0.3**
DSHT	**Scott's Head**	**0.63**	**167**	*e*P	**P**	**23 41 47.2**	**+0.4**
DSHT				*e*S	**S**	**23 41 55.3**	**-0.4**
DEG	**La Desirade**	**0.65**	**42**	⇑*i*P	**P**	**23 41 46.4**	**-0.7**
DEG				*e*S	**S**	**23 41 56.3**	**0.0**
FDF	**Fort de France**	**1.14**	**162**	⇑*e*P	**P**	**23 41 54.0**	**-0.2**
FDF				*e*S	**S**	**23 42 09.4**	**+0.6**
CRM	**Caravelle**	**1.22**	**151**	⇑*e*P	**P**	**23 41 55.7**	**+0.5**
BPA	**Boggy Peak**	**1.25**	**345**	*e*P	**P**	**23 41 56.4**	**+0.8**
BPA				*e*S	**S**	**23 42 12.6**	**+0.9**
BIM	**Bigot**	**1.37**	**162**	⇑*e*P	**P**	**23 41 57.4**	**-0.1**
CPB	**Codrington**	**1.83**	**351**	*e*P	**P**	**23 42 04.6**	**+0.6**
CPB				*e*S	**S**	**23 42 27.0**	**+0.9**
PDAR	**Pinedale Array**	**48.91**	**313**	P	**P**	**23 50 19.2**	**0.0**
	0.5nm,0.7s,mb3.7,baz=106,slow=11,SNR=5.0						
YKA	**Yellowknife Ar**	**59.44**	**334**	P	**P**	**23 51 34.8**	**-1.2**
	0.6nm,0.5s,mb3.9,baz=105,slow=7.4,SNR=15						
ILAR	**Eielson Array**	**73.85**	**334**	P	**P**	**23 53 06.6**	**-0.6**
	0.2nm,0.4s,mb3.4,baz=81,slow=5.7,SNR=6.7						

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*CSEM **27** 23:47:56.3±1.1, 38.62N×28.92W, h12^{km}±5^{km}, ML1.7, Error ellipse: s-maj=11.6km s-min=9.5km az=45.0, After PDA*

*PDA **27** 23:47:56.3±1.1, 38.62N×28.92W, h12^{km}±5^{km}, MD3.0, ML1.7, Error ellipse: s-maj=11.6km s-min=9.5km az=45.0*

SVSA 27 23:47:56.3±1.1**, 38.62N×28.92W, h12**^{km}±5^{km}**, MD3.0, ML1.7, Error ellipse: s-maj=11.6km s-min=9.5km az=45.0, Azores Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCED	**Cedros**	**0.17**	**85**	*e*P	Pg	23 47 59.3	-1.0
PCED				*e*S	Sg	23 48 02.5	-0.5
	40nm,0.2s						
PCED	**Cedros**	**0.17**	**85**	*e*S	Sg	23 48 02.5	-0.5
	40nm,0.2s						
CALA	**Caldeira**	**0.17**	**101**	*e*P	Pg	23 48 00.0	-0.3
CALA				*e*S	Sg	23 48 02.8	-0.2
CALA	**Caldeira**	**0.17**	**101**	*e*S	Sg	23 48 02.8	-0.2
HOR	**Horta**	**0.24**	**111**	*e*S	Sg	23 48 03.9	-1.2
PICO	**Pico**	**0.40**	**106**	*e*P	Pg	23 48 03.7	-0.9
PICO				*e*S	Sg	23 48 08.4	-1.8
ROSA	**Rosais**	**0.54**	**79**	*e*S	Sg	23 48 11.7	-2.9
PMAN	**Manadas**	**0.65**	**88**	*e*S	Sb	23 48 14.7	-3.2
	15nm,0.4s						

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*BJI **27** 23:56:35.7, 2.46N×93.34E, h30^{km}, mb4.7, Ms5.0, Msz5.0*

*IDC **27** 23:56:42.4±1.0, 3.38N×94.85E, mb4.1/11, mb1 4.2/12, mb1mx4.1/20, ML4.2/1, MS4.8/2, Ms1 4.8/2, ms1mx3.6/17, Error ellipse: s-maj=42.8km s-min=17.8km az=48.0*

*NEIC **27** 23:56:44.0±0.7, 3.08N×94.20E, h30^{km}, mb4.5/6, Error ellipse: s-maj=15.7km s-min=12.9km az=48.0*

ISC 27 23:56:44.1±0.7**, 3.18N**±0.10×**94.54E**±0.09**, h33**^{km}**, n26, σ1**^{s}**44**/26**, mb4.2**/18**, MS4.8**/2**, 1C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	**Pallekele**	**14.37**	**287**	*e*P	**P**	**00 00 00.8**	**-6.4**
	42nm,0.6s						
CM31	**Chiang Mai Arr**	**15.79**	**16**	*e*P	**P**	**00 00 26.1**	**+0.4**
	7.3nm,0.3s						
CMAR	**Chiang Mai Arr**	**15.79**	**16**	Pn	**P**	**00 00 20.6**	**-5.1**
	0.4nm,0.3s,baz=232,slow=14,SNR=9.5						
MDRS	**Chennai**	**17.21**	**306**	*e*	**S**	**00 03 53.0**	**+0.5**
CHRT	**Chiangrai**	**17.36**	**17**	PG	**P**	**00 00 44.5**	**-1.1**
CHRT				SG	Px	00 01 02.5	
JBP	**Jabalpur**	**24.36**	**326**	⇓*e*	Px	00 02 50.6	
JBP				*e*	**S**	**00 06 24.5**	**+10**
GYA	**Guiyang**	**25.91**	**26**	⇑*i*P	**P**	**00 02 16.8**	**+1.7**
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.5						
GYA				LR	LR		
	comp=N,870nm,16.4s,MS4.8						
GYA				LR	LR		
	comp=E,2μm,15.8s,MS4.8						
GYA				LR	LR		
	comp=Z,3μm,16.0s,MS4.9						
DDI	**Dehra Dun**	**31.18**	**332**	*e*	**P**	**00 02 54.8**	**-7.7**
DDI				*e*		00 08 22.7	
GTA	**Gaotai**	**36.38**	**7**	*e*P	**P**	**00 03 48.0**	**+0.7**
GTA				AP	pP	00 03 53.8	-3.2
GTA				XP	sP	00 03 57.5	-3.8
GTA				AMB	AMB		
	comp=Z,4.0nm,1.6s,mb4.1						
AAK	**Ala-Archa**	**43.17**	**338**	*e*P	**P**	**00 04 41.8**	**-1.7**
	comp=Z,7.8nm,1.4s,mb4.2						
WRA	**Warramunga Arr**	**45.33**	**122**	P	**P**	**00 05 00.9**	**-0.3**
	comp=Z,2.0nm,0.6s,mb4.1,baz=300,slow=9.1,SNR=18						
SONM	**Songino Array**	**45.65**	**11**	P	**P**	**00 05 03.8**	**+0.4**
	comp=Z,0.8nm,0.5s,mb3.9,baz=193,slow=8.9,SNR=9.1						
ULN	**Ulaanbaatar**	**45.81**	**12**	P	**P**	**00 05 03.1**	**-1.6**
	comp=Z,3.6nm,0.9s,mb4.3						
ASAR	**Alice Springs**	**46.70**	**127**	P	**P**	**00 05 12.7**	**+0.8**
	comp=Z,1.2nm,0.5s,mb4.0,baz=296,slow=7.8,SNR=13						
ZAL	**Zalesovo**	**51.23**	**353**	P	**P**	**00 05 46.2**	**-0.3**
	comp=Z,3.9nm,1.1s,mb4.3,baz=280,slow=5.7,SNR=11						
ZAL				LR	LR	00 29 04.3	
	comp=Z,904nm,22.0s,MS4.8,baz=290,slow=38						
BVAR	**Borovoye Array**	**53.55**	**342**	P	**P**	**00 06 02.8**	**-1.0**
	comp=Z,4.0nm,0.7s,mb4.5,baz=143,slow=7.4,SNR=13						
BRVK	**Borovoye**	**53.61**	**342**	*e*P	**P**	**00 06 03.5**	**-0.8**
	comp=Z,8.9nm,1.0s,mb4.7						
CHKZ	**Chkalovo**	**54.04**	**343**	*e*P	**P**	**00 06 05.4**	**-2.1**
	comp=Z,9.3nm,0.8s,mb4.8						
GNI	**Garni**	**58.04**	**316**	P	**P**	**00 06 38.6**	**+2.3**
	comp=Z,1.2nm,0.5s,mb4.2,baz=172,slow=17,SNR=3.2						
ARU	**Arti**	**60.35**	**338**	*e*P	**P**	**00 06 48.7**	**-3.5**
	comp=Z,7.3nm,1.1s,mb4.6						
BRTR	**Keskin Array B**	**65.83**	**312**	P	**P**	**00 07 29.1**	**+0.5**
	comp=Z,1.4nm,0.7s,mb4.1,baz=127,slow=6.2,SNR=8.2						
AKASG	**Malin Array Be**	**72.08**	**323**	P	**P**	**00 08 10.5**	**+3.7**
	comp=Z,0.2nm,0.2s,mb3.6,baz=83,slow=5.8,SNR=3.8						
LBTB	**Lobatse**	**72.40**	**243**	P	**P**	**00 08 06.2**	**-3.0**
FINES	**FINESS Array B**	**77.03**	**333**	P	**P**	**00 08 36.6**	**+1.3**
	comp=Z,1.9nm,0.7s,mb4.1,slow=3.8,SNR=5.0						
ARCES	**ARCESS Array B**	**79.80**	**341**	P	**P**	**00 08 52.4**	**+2.1**
	comp=Z,4.0nm,1.0s,mb4.3,baz=90,slow=5.4,SNR=3.7						
GERES	**GERESS Array B**	**81.58**	**319**	P	**P**	**00 09 02.8**	**+2.6**
	comp=Z,1.2nm,0.8s,mb3.9,baz=90,slow=4.0,SNR=6.9						

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*BJI **27** 23:57:58.7, 8.03N×91.89E, h7^{km}, mB5.3, mb5.0, Ms5.2, Msz4.9*

*IDC **27** 23:58:00.1±0.5, 8.12N×91.93E, mb4.9/25, mb1 4.9/26, mb1mx4.9/28, ML4.9/1, MS4.8/5, Ms1 4.7/5, ms1mx4.1/19, Error ellipse: s-maj=17.8km s-min=11.1km az=36.0*

*NEIC **27** 23:58:00.5±2.8, 7.99N×91.89E, h8^{km}±17^{km}, mb5.2/47, Error ellipse: s-maj=7.1km s-min=5.4km az=216.0*

*HRVD **27** 23:58:00.5±0.2, 8.19N×91.89E, h12^{km}, MW5.3/70, Centroid moment Tensor Solution. LP body waves: s45,c79;Mantle waves: s70,c135; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-0.79±.02; M$_{\theta\theta}$0.00±.02; M$_{\phi\phi}$0.80±.02; M$_{r\theta}$0.57±.05; M$_{\theta\phi}$-0.25±.01; M$_{\phi r}$-0.58±.04; Best double couple: M$_0$1.16×10^{17} NP1: φ$_s$182°, δ27°, λ-56°. NP2:φ$_s$325°, δ68°, λ-106°. Principal axes: T 1.15, Plg21°, Azm67°; N .03, Plg15°, Azm331°; P -1.18, Plg64°, Azm209°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **27** 23:58:02.5±0.9, 8.03N×91.91E, h33^{km}, mb5.3/55, MS4.7/14 Error ellipse: s-maj=9.7km s-min=5.3km az=123.5*

ISC 27 23:58:01.8±0.2**, 7.99N**±0.04×**91.92E**±0.03**, h29**^{km}**, h29**^{km}±1.4^{km}**:pP-P, n309, σ1**^{s}**20**/326**, mb5.1**/93**, MS4.9**/25**, 6C-8D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	**Pallekele**	**11.14**	**267**	*e*P	**P**	**00 00 39.2**	**-3.3**
	42nm,0.6s						
CM31	**Chiang Mai Arr**	**12.45**	**33**	P	**P**	**00 00 58.5**	**-1.7**
	41nm,0.6s						
CMAR	**Chiang Mai Arr**	**12.45**	**33**	Pn	**P**	**00 00 59.3**	**-0.8**
	2.1nm,0.3s,baz=230,slow=14,SNR=19						
CMAR	**Chiang Mai Arr**	**12.45**	**33**	P	**P**	**00 00 59.3**	**-0.8**
CMAR				pmax	pmax		
	comp=Z,2.0nm,0.3s						
MDRS	**Chennai**	**12.53**	**295**	*e*P	**P**	**00 00 57.1**	**-4.1**
MDRS				*e*S	**S**	**00 03 04.0**	**-17**
VIS	**Vishakhapatnam**	**12.79**	**320**	*e*P	**P**	**00 01 01.2**	**-3.4**

VIS				*e*S	x	00 03 10.7	
VIS				*e*	**S**	**00 03 15.8**	**-11**
	comp=E,357nm,0.6s						
VIS				*e*		00 03 16.7	
	comp=N,316nm,1.1s						
KOD	**Kodaikanal**	**14.44**	**280**	*e*P	**P**	**00 01 24.0**	**-2.5**
KOD				*e*		00 03 12.0	
TRD	**Trivandrum**	**14.81**	**273**	*e*P	**P**	**00 01 30.3**	**-1.1**
TRD				*e*		00 01 33.1	
	comp=Z,142nm,1.6s						
TRD				*e*	**S**	**00 04 00.1**	**-15**
CAL	**Calcutta**	**14.88**	**347**	*e*	**P**	**00 01 20.9**	**-11**
CAL				*e*		00 04 40.7	
AGT	**Agartala**	**15.82**	**358**	⇓*i*	**P**	**00 01 30.0**	**-14**
AGT				*i*		00 02 34.0	
HYB	**Hyderabad**	**16.05**	**307**	*e*P	**P**	**00 01 46.0**	**-1.3**
HYB				pmax	pmax		
	comp=Z,150nm,1.0s						
BLSP	**Bilaspur**	**16.93**	**327**	*e*P	**P**	**00 01 59.0**	**+0.6**
BLSP				*e*S	**S**	**00 05 05.0**	**+0.6**
SHL	**Shillong**	**17.48**	**360**	*e*		00 02 08.5	
	comp=Z,126nm,1.8s						
SHL				*e*	**S**	**00 05 03.1**	**-14**
MNGI	**Mangalore**	**17.51**	**288**	*e*P	**P**	**00 02 02.7**	**-3.1**
MNGI				*e*		00 02 12.9	
	comp=Z,255nm,1.4s						
MNGI				*e*	**S**	**00 05 03.1**	**-15**
NGP	**Nagpur**	**18.05**	**318**	⇑*e*P	**P**	**00 02 12.6**	**+0.2**
NGP				*e*	**S**	**00 05 22.3**	**-7.6**
LATR	**Latur**	**18.18**	**306**	*e*	**P**	**00 02 11.5**	**-2.6**
LATR				*e*	**S**	**00 05 16.0**	**-17**
AKL	**Akola**	**19.17**	**313**	*e*P	**P**	**00 02 24.9**	**-1.0**
AKL				*e*		00 02 42.3	
	comp=Z,221nm,1.3s						
AKL				*i*	**S**	**00 05 45.2**	**-10**
GOA	**Goa**	**19.21**	**294**	*e*	**P**	**00 02 31.7**	**+5.2**
GOA				*e*		00 02 36.4	
	comp=Z,100nm,1.7s						
GOA				*e*	**S**	**00 05 38.4**	**-18**
KAD	**Karad**	**19.61**	**300**	*e*P	**P**	**00 02 30.0**	**-1.0**
KAD				*e*		00 02 34.7	
	comp=Z,187nm,2.2s						
KAD				*e*	**S**	**00 05 48.1**	**-17**
PKI	**Pulchoki**	**20.43**	**343**	*e*P	**P**	**00 02 40.7**	**+1.0**
	comp=Z,274nm,0.9s						
POO	**Poona**	**20.45**	**303**	*e*P	**P**	**00 02 38.3**	**-1.6**
POO				*e*		00 02 42.9	
	comp=Z,173nm,2.6s						
DMN	**Daman**	**20.55**	**343**	*e*P	**P**	**00 02 41.9**	**+1.0**
	comp=Z,288nm,0.9s						
QIZ	**Qiongzhong**	**20.57**	**56**	P	**P**	**00 02 41.8**	**+0.6**
QIZ				AMB	AMB		
	comp=Z,1µm,10.4s						
QIZ				LR	LR		
	comp=N,5µm,13.8s						
QIZ				LR	LR		
	comp=Z,5µm,14.0s,MS5.0						
BHPL	**Bhopal**	**20.58**	**319**	*e*P	**P**	**00 02 40.5**	**-0.8**
BHPL				*e*		00 02 45.1	
	comp=Z,108nm,1.9s						
BHPL				*e*	**S**	**00 06 17.6**	**-7.3**
GUN	**Gumba**	**20.62**	**345**	*e*P	**P**	**00 02 43.1**	**+1.4**
	comp=Z,666nm,1.2s						
COCO	**West Island**	**20.63**	**166**	P	**P**	**00 02 40.3**	**-1.5**
KKN	**Kakani**	**20.67**	**343**	*e*P	**P**	**00 02 42.9**	**+0.7**
	comp=Z,305nm,1.1s						
GKN	**Gorkha**	**21.07**	**342**	*e*P	**P**	**00 02 47.2**	**+1.0**
	comp=Z,259nm,0.6s,mb5.7						
KOLN	**Koldanda**	**21.19**	**339**	*e*P	**P**	**00 02 48.0**	**+0.5**
	comp=Z,165nm,0.8s,mb5.4						
BOM	**Bombay**	**21.49**	**302**	*e*P	**P**	**00 02 47.4**	**-3.1**
BOM				*e*		00 02 58.5	
	comp=Z,166nm,1.4s						
BOM				*e*	**S**	**00 06 35.5**	**-6.7**
GYA	**Guiyang**	**23.11**	**36**	⇑*i*P	**P**	**00 03 07.0**	**+0.5**
GYA				AP		00 03 11.0	
GYA				XP		00 03 14.3	
GYA				S	**S**	**00 07 15.8**	**+4.1**
GYA				AMB	AMB		
	comp=Z,60nm,1.2s,mb4.9						
GYA				LR	LR		
	comp=N,870nm,16.4s,MS4.7						
GYA				LR	LR		
	comp=E,2µm,15.8s,MS4.7						
GYA				LR	LR		
	comp=Z,3µm,16.0s,MS4.9						
AGRA	**Agra**	**23.27**	**327**	*e*P	**P**	**00 03 07.5**	**-0.7**
LGTI	**Lohaghat**	**24.01**	**334**	*e*	**P**	**00 03 18.0**	**+2.7**
AJM	**Ajmer**	**24.65**	**320**	*e*P	**P**	**00 03 23.2**	**+1.7**
AJM				*e*		00 03 36.5	
	comp=Z,82nm,1.5s						
AYAN	**Aya Nagar**	**24.70**	**327**	*e*P	**P**	**00 03 22.3**	**+0.2**
AYAN				*e*		00 03 24.7	
	comp=Z,77nm,0.6s						
NDI	**New Delhi**	**24.82**	**328**	*e*P	**P**	**00 03 22.6**	**-0.5**
NDI				*e*		00 03 26.9	
	comp=Z,149nm,0.7s						
NDI				*e*	**S**	**00 07 55.6**	**+15**
KHET	**Khetri**	**25.12**	**325**	*e*P	**P**	**00 03 26.1**	**+0.1**
KHET				*e*		00 03 29.2	
	comp=Z,50nm,1.0s						
DDI	**Dehra Dun**	**25.74**	**332**	*e*	pP	00 03 32.8	-7.3
BHJ	**Bhuj**	**26.21**	**308**	*e*P	**P**	**00 03 35.6**	**-0.6**
BHJ				*e*	pP	00 03 42.7	-1.8
	comp=Z,75nm,1.4s						
KLP	**Kalpa**	**26.67**	**333**	*e*P	**P**	**00 03 41.6**	**+1.2**
ENH	**Enshi**	**27.61**	**34**	*e*P	**P**	**00 03 46.5**	**-2.5**
	comp=Z,33nm,1.0s,mb4.9						
THN	**Thein Dam**	**28.60**	**330**	*e*P	**P**	**00 03 56.9**	**-1.0**
	comp=Z,8.0nm,0.8s,mb4.5						
TGY	**Tagaytay City**	**29.11**	**75**	P	**P**	**00 04 01.9**	**-0.7**
	comp=Z,120nm,0.3s,mb6.1,baz=112,slow=7.4,SNR=4.4						
TGY				LR	LR	00 15 27.8	
	comp=Z,3µm,19.3s,MS4.9,baz=160,slow=36						
TGY	**Tagaytay City**	**29.11**	**75**	P	**P**	**00 04 01.9**	**-0.7**
TGY				pmax	pmax		
	comp=Z,120nm,0.3s						
TGY				MLR	MLR		
	comp=Z,3µm,19.3s						
LZH	**Lanzhou**	**30.02**	**20**	*e*P	**P**	**00 04 11.0**	**+0.5**
LZH				AP	pP	00 04 18.8	-0.1
LZH				XP	sP	00 04 21.5	-1.2
LZH				PP	PP	00 05 08.0	-0.7
LZH				S	**S**	**00 09 05.0**	**-0.5**
LZH				XS		00 09 16.0	
LZH				SS	SS	00 10 41.0	-2.2
LZH				AMB	AMB		
	comp=Z,70nm,1.2s,mb5.3						
LZH				AMB	AMB		
	comp=Z,270nm,5.0s						
LZH				LR	LR		
	comp=E,2µm,11.6s						
LZH				LR	LR		
	comp=Z,3µm,13.1s,MS5.2						
WHN	**Wuhan**	**30.73**	**40**	P	**P**	**00 04 17.5**	**+0.7**
WHN				S	**S**	**00 09 19.3**	**+2.5**
WHN				LR	LR		
	comp=Z,4µm,15.8s,MS5.1						
GTA	**Gaotai**	**32.08**	**12**	*e*P	**P**	**00 04 28.5**	**-0.2**
GTA				AP	pP	00 04 37.8	+0.7
GTA				XP	sP	00 04 41.5	+0.7
GTA				S	**S**	**00 09 35.0**	**-2.8**
GTA				SCS	ScS	00 14 58.0	+2.7
GTA				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.8						
GTA				AMB	AMB		
	comp=Z,367nm,3.8s						
GTA				LR	LR		
	comp=N,925nm,17.1s,MS4.7						
GTA				LR	LR		
	comp=E,987nm,14.5s,MS4.7						
GTA				LR	LR		
	comp=Z,1µm,19.0s,MS4.6						
KSH	**Kashi**	**34.50**	**338**	P	**P**	**00 04 50.0**	**+0.4**
KSH				*e*AP	pP	00 04 59.8	+1.7
KSH				*e*XP	sP	00 05 02.5	+0.8
KSH				*e*PP	PP	00 06 02.5	-3.5
KSH				AMB	AMB		
	comp=Z,150nm,3.7s						
NJ2	**Nanjing**	**34.65**	**43**	*e*P	**P**	**00 04 51.0**	**0.0**
NJ2				AP	pP	00 05 00.8	+1.4
NJ2				XP	sP	00 05 04.5	+1.4
NJ2				PP	PP	00 06 08.0	+0.1
NJ2				S	**S**	**00 10 16.0**	**-1.7**
NJ2				AMB	AMB		
	comp=Z,684nm,7.1s						
NJ2				LR	LR		
	comp=N,3µm,13.0s,MS5.4						
NJ2				LR	LR		
	comp=E,4µm,13.4s,MS5.4						
NJ2				LR	LR		
	comp=Z,1µm,11.5s,MS4.9						
SSE	**Sheshan**	**35.70**	**46**	P	**P**	**00 04 57.5**	**-2.5**
SSE				XP	sP	00 05 10.5	-1.6
SSE				S	**S**	**00 10 31.0**	**-3.1**
SSE				XS		00 10 46.0	
SSE				AMB	AMB		
	comp=Z,28nm,0.8s,mb5.2						
SSE				AMB	AMB		
	comp=Z,284nm,3.6s						
SSE				LR	LR		
	comp=N,840nm,11.7s,MS4.9						
SSE				LR	LR		
	comp=E,1µm,11.5s,MS4.9						
SSE				LR	LR		
	comp=Z,2µm,12.1s,MS5.0						
BTO	**Baotou**	**36.27**	**24**	*e*P	**P**	**00 05 03.8**	**-0.9**
BTO				S	**S**	**00 10 45.0**	**+2.3**
BTO				AMB	AMB		
	comp=Z,14nm,0.7s,mb5.0						
BTO				LR	LR		
	comp=N,480nm,13.5s,MS4.9						
BTO				LR	LR		
	comp=E,1µm,14.3s,MS4.9						
HHC	**Hu-ho-hao-te**	**37.10**	**25**	*e*P	**P**	**00 05 10.5**	**-1.2**
HHC				AP	pP	00 05 20.0	-0.2
HHC				XP	sP	00 05 24.5	+0.7
HHC				S	**S**	**00 10 51.5**	**-4.0**
HHC				AMB	AMB		
	comp=Z,21nm,1.4s,mb4.8						
HHC				AMB	AMB		
	comp=Z,309nm,5.0s						
HHC				LR	LR		
	comp=N,899nm,14.3s,MS5.0						
HHC				LR	LR		
	comp=E,2µm,14.3s,MS5.0						
HHC				LR	LR		
	comp=Z,1µm,8.3s						
KBK	**Karagaybulak**	**37.63**	**339**	P	**P**	**00 05 18.0**	**+2.0**
	SNR=8.9						
AAK	**Ala-Archa**	**37.77**	**339**	P	**P**	**00 05 16.3**	**-0.9**
	SNR=10						
AAK	**Ala-Archa**	**37.77**	**339**	*i* P	**P**	**00 05 16.6**	**-0.6**
AAK				pmax	pmax		
	comp=Z,23nm,1.5s,mb4.7						
AAK	**Ala-Archa**	**37.77**	**339**	*e*P	**P**	**00 05 17.8**	**+0.6**
	comp=Z,32nm,0.9s,mb5.0						
FRU	**Bishkek**	**37.90**	**339**	*e*P	**P**	**00 05 22.0**	**+3.7**
FRU				*e*		00 05 34.0	
CHMS	**Chumysh**	**38.00**	**339**	P	**P**	**00 05 20.6**	**+1.5**
	SNR=6.2						
EKS2	**Erkin-Say**	**38.05**	**338**	P	**P**	**00 05 22.4**	**+2.8**
	SNR=7.7						
USP	**Ospenovka**	**38.32**	**339**	P	**P**	**00 05 23.3**	**+1.4**
	SNR=8.2						
JOW	**Kunigami**	**39.22**	**57**	P	**P**	**00 05 31.4**	**+1.8**
	comp=Z,19nm,0.5s,mb5.1,baz=271,slow=8.0,SNR=5.2						
MBWA	**Marble Bar**	**39.81**	**137**	P	**P**	**00 05 34.1**	**-0.4**
SONM	**Songino Array**	**41.57**	**15**	P	**P**	**00 05 48.2**	**-0.5**
	comp=Z,23nm,0.6s,mb5.0,baz=199,slow=6.1,SNR=39						
ULN	**Ulaanbaatar**	**41.77**	**15**	*e*P	**P**	**00 05 48.9**	**-1.4**
ULN				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.8						
ULN	**Ulaanbaatar**	**41.77**	**15**	*e*P	**P**	**00 05 48.9**	**-1.4**
	comp=Z,20nm,0.9s,mb4.7						
ZAK	**Zakamensk**	**43.31**	**11**	*e*P	**P**	**00 06 02.2**	**-0.6**
ZAK				*e*		00 07 41.0	
SNY	**Shenyang**	**43.80**	**35**	⇑P	**P**	**00 06 06.5**	**-0.5**
SNY				S	**S**	**00 12 32.5**	**-2.8**
SNY				AMB	AMB		
	comp=Z,20nm,1.8s,mb4.5						
SNY				AMB	AMB		
	comp=Z,290nm,7.8s						
SNY				LR	LR		
	comp=N,1µm,18.6s						
SNY				LR	LR		
	comp=Z,870nm,21.1s,MS4.6						
MOY	**Mondy**	**44.18**	**8**	*e*P	**P**	**00 06 12.5**	**+2.6**
TLY	**Talaya**	**44.62**	**10**	*e*P	**P**	**00 06 13.6**	**+0.1**
TLY				*e*SSS	SS	00 16 06.2	+7.4
TLY				pmax	pmax		
	comp=Z,31nm,1.8s,mb4.8						
CN2	**Changchun**	**46.13**	**34**	*e*P	**P**	**00 06 29.5**	**+3.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAL	**Zalesovo**	**46.18**	**354**	P	**P**	**00 06 26.1**	**+0.3**
	comp=Z,5.5nm,0.5s,mb4.7,baz=291,slow=4.8,SNR=9.1						
ZAL	**Zalesovo**	**46.18**	**354**	P	**P**	**00 06 26.1**	**+0.3**
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.5s						
UMR	**Umm Al-Rimmam**	**46.65**	**303**	*e*P	**P**	**00 06 31.3**	**+1.4**
UMR				AMb	AMB	00 06 31.9	
	comp=Z,86nm,0.8s,mb5.7						
MIB	**Mutribah**	**47.04**	**304**	*e*P	**P**	**00 06 34.1**	**+1.1**
MIB				AMb	AMB	00 06 35.5	
	comp=Z,117nm,0.9s,mb5.8						
RST	**Umm Al-Ruwaisa**	**47.23**	**303**	*e*P	**P**	**00 06 35.8**	**+1.3**
RST				AMb	AMB	00 06 37.3	
	comp=Z,87nm,1.0s,mb5.7						
NVS	**Novosibirsk**	**47.24**	**353**	*e*P	**P**	**00 06 33.0**	**-1.2**
NVS				*e*S	**S**	**00 13 21.6**	**-2.8**
NVS				pmax	pmax		
	comp=N,15nm,1.3s						
NVS				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
NVS				smax			
	comp=E,153nm,2.3s						
NWAO	**Narrogin (SRO)**	**47.29**	**151**	P	**P**	**00 06 36.3**	**+1.4**
	comp=E,14nm,1.0s,mb4.8,baz=292,slow=18,SNR=5.7						
NWAO	**Narrogin (SRO)**	**47.29**	**151**	P	**P**	**00 06 36.3**	**+1.4**
NWAO				pmax	pmax		
	comp=Z,14nm,1.0s						
KAMS	**Al Khamasin**	**47.34**	**290**	P	**P**	**00 06 36.1**	**+0.6**
MZLS	**Mizel**	**47.40**	**295**	P	**P**	**00 06 36.4**	**+0.5**
BVAR	**Borovoye Array**	**48.20**	**343**	P	**P**	**00 06 41.6**	**-0.1**
	comp=Z,8.9nm,0.7s,mb4.9,baz=149,slow=8.6,SNR=7.9						
TATS	**Tathlith**	**48.27**	**289**	P	**P**	**00 06 44.0**	**+1.3**
AFFS	**‘Afif**	**49.36**	**295**	P	**P**	**00 06 53.3**	**+2.2**
WRA	**Warramunga Arr**	**50.13**	**124**	P	**P**	**00 06 57.5**	**+0.5**
	comp=Z,16nm,0.8s,mb5.1,baz=304,slow=8.4,SNR=18						
WRA	**Warramunga Arr**	**50.13**	**124**	P	**P**	**00 06 57.5**	**+0.5**
WRA				pmax	pmax		
	comp=Z,16nm,0.8s						
WRAB	**Tennant Creek**	**50.14**	**124**	*e*P	**P**	**00 06 55.9**	**-1.1**
WRAB				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.5						
WRAB	**Tennant Creek**	**50.14**	**124**	*e*P	**P**	**00 06 55.9**	**-1.2**
	comp=Z,62nm,1.1s,mb5.5						
HILS	**Ha’il**	**51.11**	**299**	P	**P**	**00 07 06.9**	**+2.5**
ASAR	**Alice Springs**	**51.69**	**129**	P	**P**	**00 07 09.6**	**+0.8**
	comp=Z,13nm,1.0s,mb4.8,baz=306,slow=7.1,SNR=18						
ASAR				LR	LR	00 34 16.9	
	comp=Z,671nm,18.0s,MS4.7,baz=297,slow=42						
MAK	**Makhachkala**	**52.19**	**319**	*e*P	**P**	**00 07 18.0**	**+5.7**
MAK				*e*		00 08 29.0	
MAK				*e*S	**S**	**00 14 37.0**	**+3.6**
MAK				*e*		00 16 59.0	
MAK				pmax	pmax		
	comp=Z,700nm,4.0s						
MAK				smax			
	comp=N,1µm,6.0s						
MAK				smax			
	comp=E,500nm,6.0s						
BOD	**Bodaibo**	**52.57**	**15**	*e*P	**P**	**00 07 13.5**	**-1.5**
GNI	**Garni**	**52.79**	**315**	P	**P**	**00 07 17.8**	**+0.9**
	comp=E,7.8nm,0.5s,mb4.9,baz=305,slow=2.9,SNR=12						
GNI	**Garni**	**52.79**	**315**	*e*P	**P**	**00 07 15.8**	**-1.1**
GNI				pmax	pmax		
	comp=Z,84nm,1.3s						
GNI	**Garni**	**52.79**	**315**	*e*P	**P**	**00 07 15.8**	**-1.1**
	comp=Z,84nm,1.3s,mb5.5						
TI2	**Plekhanov**	**53.45**	**317**	*i* P	**P**	**00 07 21.4**	**-0.3**
TI2				pmax	pmax		
	comp=Z,110nm,1.5s,mb5.6						
BEST	**Besiri**	**54.46**	**311**	P	**P**	**00 07 28.7**	**-0.5**
ZEI	**Tsey**	**54.46**	**318**	*i* P	**P**	**00 07 29.6**	**+0.5**
ZEI				*i* *PP	pP	00 07 39.6	+1.8
ZEI				*i*		00 09 34.1	
ZEI				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
SVE	**Sverdlovsk**	**54.51**	**339**	*e*P	**P**	**00 07 29.5**	**+0.3**
SVE				*e*		00 08 27.5	
SVE				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.8						
SVE				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.0						
ARU	**Arti**	**54.95**	**338**	⇓*i*P	**P**	**00 07 32.1**	**-0.4**
ARU				*i*		00 08 32.9	
ARU				*e*		00 09 30.3	
ARU				*e*PPP	PPP	00 10 43.5	-6.1
ARU				*i* S	**S**	**00 15 12.6**	**+2.1**
ARU				*i*		00 17 19.5	
ARU				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.4						
ARU	**Arti**	**54.95**	**338**	*e*P	**P**	**00 07 31.5**	**-1.0**
	comp=Z,57nm,1.3s,mb5.4						
ERZM	**Erzurum**	**55.09**	**314**	P	**P**	**00 07 34.6**	**+0.8**
CLNS	**Chul’man**	**55.11**	**21**	*e*P	**P**	**00 07 31.9**	**-1.8**
CLNS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
CLNS				pmax	pmax		
	comp=N,33nm,1.4s						
CLNS				pmax	pmax		
	comp=E,20nm,0.8s						
CLNS				MLR	MLR		
	comp=N,800nm,16.0s,MS4.9						
CLNS				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
CLNS				MLR	MLR		
	comp=E,200nm,15.0s,MS4.9						
KMBO	**Kilima Mbogo**	**55.25**	**263**	P	**P**	**00 07 37.3**	**+2.0**
	comp=E,12nm,1.0s,mb4.9,baz=65,slow=8.2,SNR=23						
KMBO	**Kilima Mbogo**	**55.25**	**263**	*e*P	**P**	**00 07 35.4**	**+0.1**
KMBO				pmax	pmax		
	comp=Z,66nm,1.6s						
KMBO	**Kilima Mbogo**	**55.25**	**263**	*e*P	**P**	**00 07 35.4**	**+0.1**
	comp=Z,66nm,1.6s,mb5.4						
KIV	**Kislovodsk**	**55.77**	**319**	P	**P**	**00 07 38.3**	**-0.3**
	comp=Z,178nm,1.0s,mb6.0,SNR=9.6						
KIV	**Kislovodsk**	**55.77**	**319**	*e*P	**P**	**00 07 37.4**	**-1.2**
KIV				*e*		00 08 37.3	
KIV				*e*		00 09 39.7	
KIV				*e*S	**S**	**00 15 23.4**	**+1.7**
KIV				*e*SS	SS	00 19 04.2	-3.1
KIV				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.3						
KIV				MLR	MLR		
	comp=N,274nm,21.0s,MS4.5						
KIV				MLR	MLR		
	comp=E,302nm,21.0s,MS4.5						
KIV				MLR	MLR		
	comp=Z,391nm,21.0s,MS4.5						
TBKS	**Tabuk**	**55.83**	**299**	P	**P**	**00 07 41.3**	**+2.0**
GOF	**Gofitskoye**	**56.01**	**320**	⇑*i*P	**P**	**00 07 40.0**	**-0.3**
GOF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
ELZG	**Elazig**	**56.36**	**311**	P	**P**	**00 07 43.1**	**+0.2**
JMQS	**Jabal Moqyreh**	**56.53**	**299**	P	**P**	**00 07 45.3**	**+1.1**
ASAJ	**Asahikawa**	**56.79**	**42**	P	**P**	**00 07 46.6**	**+0.8**
	comp=Z,4.9nm,0.5s,mb4.8,baz=148,slow=9.5,SNR=2.7						
ASAJ	**Asahikawa**	**56.79**	**42**	P	**P**	**00 07 46.7**	**+0.8**
ASAJ				pmax	pmax		
	comp=Z,5.0nm,0.5s						
AYUS	**‘Aynunah**	**56.94**	**298**	P	**P**	**00 07 48.9**	**+1.7**
GZT	**Gaziantep**	**57.09**	**310**	P	**P**	**00 07 47.9**	**-0.2**
BDAS	**Al Bad‘**	**57.12**	**299**	P	**P**	**00 07 50.0**	**+1.5**
JMOS	**Jabal al Moall**	**57.24**	**300**	P	**P**	**00 07 50.6**	**+1.2**
HAQS	**Haql**	**57.38**	**299**	P	**P**	**00 07 51.8**	**+1.5**
EIL	**Elat**	**57.46**	**300**	P	**P**	**00 07 52.4**	**+1.5**
	comp=Z,22nm,1.0s,mb5.1,baz=86,slow=4.4,SNR=13						
SOC	**Sochi**	**57.59**	**317**	*e*P	**P**	**00 07 47.2**	**-4.4**
SOC				*e*		00 08 40.3	
SOC				*e*S	**S**	**00 15 45.0**	**-0.8**
SOC				*e*SS	SS	00 19 34.3	-3.2
SOC				pmax	pmax		
	comp=Z,21nm,1.2s,mb5.0						
SOC				pmax	pmax		
	comp=N,4.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,8.0nm,1.3s						
SOC				MLR	MLR		
	comp=Z,298nm,18.0s,MS4.4						
SOC				MLR	MLR		
	comp=N,313nm,19.0s,MS4.6						
SOC				MLR	MLR		
	comp=E,339nm,20.0s,MS4.6						
PMG	**Port Moresby**	**57.67**	**106**	P	**P**	**00 07 53.1**	**+0.5**
	comp=E,17nm,0.9s,mb5.0,baz=322,slow=3.3,SNR=7.1						
PMG	**Port Moresby**	**57.67**	**106**	*e*P	**P**	**00 07 52.5**	**0.0**
PMG				pmax	pmax		
	comp=Z,14nm,0.8s						
PMG	**Port Moresby**	**57.67**	**106**	*e*P	**P**	**00 07 52.5**	**0.0**
	comp=Z,14nm,0.8s,mb5.0						
KAHT	**Ahir Dag**	**57.69**	**310**	P	**P**	**00 07 53.0**	**+0.6**
COBT	**Iskenderun**	**57.87**	**308**	P	**P**	**00 07 54.2**	**+0.6**
SOKR	**Solikamsk**	**57.92**	**340**	⇓*i*P	**P**	**00 07 53.3**	**-0.3**
SOKR				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,660nm,20.0s,MS4.7						
YSS	**Yuzh-Sakhalins**	**58.06**	**39**	P	**P**	**00 07 54.0**	**-0.8**
YSS				*e*	pP	00 08 04.5	+0.9
YSS				*e*S	**S**	**00 15 53.0**	**+1.0**
YSS				MLR	MLR		
	comp=N,800nm,15.0s,MS5.0						
YSS				MLR	MLR		
	comp=Z,500nm,15.0s,MS4.8						
YSS				MLR	MLR		
	comp=E,500nm,16.0s,MS5.0						
MEST	**Erdemli**	**59.53**	**308**	P	**P**	**00 08 04.1**	**-1.1**
AVNT	**Avonos**	**59.53**	**310**	P	**P**	**00 08 04.3**	**-0.9**
BOYT	**Boyabat**	**60.23**	**313**	P	**P**	**00 08 09.7**	**-0.2**
CTA	**Charters Tower**	**60.29**	**118**	P	**P**	**00 08 10.2**	**-0.4**
	comp=E,12nm,1.0s,mb4.9,baz=297,slow=8.2,SNR=8.8						
CTA				LR	LR	00 36 33.6	
	comp=E,715nm,19.4s,MS4.8,baz=289,slow=38						
CTA	**Charters Tower**	**60.29**	**118**	P	**P**	**00 08 10.2**	**-0.4**
CTA				pmax	pmax		
	comp=Z,12nm,1.0s						
CTA				MLR	MLR		
	comp=Z,715nm,19.4s						
YAK	**Yakutsk**	**60.60**	**19***c*	*i*P	**P**	**00 08 11.5**	**-0.6**
YAK				*i* *PP	pP	00 08 18.6	-2.5
YAK				*e*		00 10 26.7	
YAK				*e*S	**S**	**00 16 25.3**	**+0.7**
YAK				*i* *SS		00 16 44.7	
YAK				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.3						
YAK				pmax	pmax		
	comp=N,10.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,13nm,1.2s						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.3						
YAK				pmax	pmax		
	comp=E,3.0nm,1.0s						
YAK				smax			
	comp=N,435nm,11.8s						
YAK				smax			
	comp=Z,44nm,7.9s						
YAK				smax			
	comp=E,154nm,12.2s						
YAK				MLR	MLR		
	comp=Z,621nm,17.0s,MS4.8						
YAK				MLR	MLR		
	comp=N,549nm,16.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,493nm,15.0s,MS4.9						
YAK	**Yakutsk**	**60.60**	**19**	*e*P	**P**	**00 08 10.3**	**-1.8**
	comp=E,58nm,1.0s,mb5.7						
BRTR	**Keskin Array B**	**60.69**	**311**	P	**P**	**00 08 12.1**	**-1.0**
	comp=E,7.1nm,0.6s,mb5.0,baz=126,slow=7.5,SNR=24						
BRTR	**Keskin Array B**	**60.69**	**311**	P	**P**	**00 08 12.1**	**-1.0**
BRTR				pmax	pmax		
	comp=Z,7.0nm,0.6s						
ELDT	**Eldivan**	**61.05**	**312**	P	**P**	**00 08 15.2**	**-0.3**
BALT	**Daday**	**61.36**	**313**	P	**P**	**00 08 16.6**	**-1.0**
MBAR	**Mbarara**	**61.58**	**265**	*e*P	**P**	**00 08 18.5**	**-0.9**
MBAR				pmax	pmax		
	comp=Z,75nm,1.7s,mb5.5						
MBAR	**Mbarara**	**61.58**	**265**	*e*P	**P**	**00 08 18.5**	**-0.9**
	comp=Z,75nm,1.7s,mb5.5						
STKA	**Stephens Creek**	**61.79**	**133**	P	**P**	**00 08 22.2**	**+1.6**
	comp=Z,20nm,1.1s,mb5.2,baz=287,slow=6.9,SNR=8.8						

STKA				LR	LR	00 39 16.6	
	comp=Z,886nm,18.3s,MS5.0,baz=298,slow=40						
STKA	Stephens Creek	61.79	133	eP	P	00 08 21.0	+0.4
SIM	Simferopol'	61.84	317c	iP	P	00 08 20.1	-0.7
SIM				eS	S	00 16 36.0	-4.6
SIM				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.3						
SIM				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.7						
ISP	Isparta	62.64	308d	iP	P	00 08 24.9	-1.3
ESKT	Eskisehir	62.73	310	P	P	00 08 25.7	-1.1
MOS	Moscow	63.85	329	eP	P	00 08 33.6	-0.3
MOS				e		00 09 10.1	
MOS				e		00 10 59.7	
MOS				eS	S	00 17 03.7	-1.9
MOS				pmax	pmax		
	comp=Z,48nm,1.2s,mb5.4						
MOS				MLR	MLR		
	comp=Z,800nm,18.4s,MS4.9						
OBN	Obninsk	64.12	328d	eP	P	00 08 33.6	-2.1
OBN				iS	S	00 17 05.3	-3.7
OBN				pmax	pmax		
	comp=Z,61nm,1.6s,mb5.4						
OBN				MLR	MLR		
	comp=Z,1μm,22.0s,MS5.0						
OBN	Obninsk	64.12	328	eP	P	00 08 33.0	-2.6
	comp=Z,109nm,1.8s,mb5.6						
KIS	Kishinev	65.96	318	eP	P	00 08 45.0	-2.7
IDI	Anoyia	66.70	305	P	P	00 08 51.9	-0.7
	comp=Z,19nm,0.7s,mb5.2,baz=98,slow=6.2,SNR=15						
AKASG	Malin Array Be	66.71	322	P	P	00 08 51.0	-1.4
	comp=Z,1.1nm,0.4s,mb4.2,baz=89,slow=4.7,SNR=12						
AKASG	Malin Array Be	66.71	322	P	P	00 08 51.0	-1.4
AKASG				pmax	pmax		
	comp=Z,1.0nm,0.4s						
TIXI	Tiksi	67.57	12	iP	P	00 08 57.5	0.0
TIXI				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.4						
MA2	Magadan	67.69	28	iP	P	00 08 58.5	0.0
MA2				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.1						
RZN	Rozhen	67.73	312	eP	P	00 08 59.0	-0.1
PGB	Panagyurishte	68.28	313	eP	P	00 09 02.0	-0.4
KKB	Krupnik	68.97	312	eP	P	00 09 06.0	-0.7
VTS	Vitosha	68.98	313	eP	P	00 09 06.0	-0.8
BOLS	Boljevac	70.07	314⇓	iP	P	00 09 12.4	-0.9
KWP	Kalwaria	70.52	320	eP	P	00 09 16.1	+0.1
KWP				e	pP	00 09 24.1	-0.9
KWP				e		00 09 40.0	
APA	Apatity	70.97	340⇓	iP	P	00 09 17.7	-0.8
APA				i	pP	00 09 26.8	-0.6
APA				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
SUW	Suwalki	71.13	324	eP	P	00 09 18.9	-0.8
SUW				e	pP	00 09 26.5	-2.1
SUW				e		00 09 31.9	
FINES	FINESS Array B	71.59	332	P	P	00 09 21.6	-0.7
	comp=Z,9.3nm,0.8s,mb4.8,baz=104,slow=7.9,SNR=9.5						
FINES	FINESS Array B	71.59	332	P	P	00 09 21.6	-0.7
FINES				pmax	pmax		
	comp=Z,9.0nm,0.8s						
KAF	Kangasniemi	71.69	333	ep	P	00 09 21.9	-1.0
	comp=Z,1.0nm,0.4s,mb4.1						
KAF	Kangasniemi	71.69	333	eP	P	00 09 21.9	-1.0
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
NIE	Niedzica	72.02	319	eP	P	00 09 25.8	+0.7
PSZ	Piszkesteto	72.08	318	eP	P	00 09 23.6	-1.8
PSZ				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
PSZ	Piszkesteto	72.08	318	eP	P	00 09 23.6	-1.9
	comp=Z,28nm,1.4s,mb5.0						
LBTB	Lobatse	72.37	241	eP	P	00 09 26.0	-1.6
LBTB				pmax	pmax		
	comp=Z,46nm,1.5s,mb5.2						
LBTB	Lobatse	72.37	241	eP	P	00 09 26.0	-1.6
	comp=Z,46nm,1.5s,mb5.2						
OJC	Ojcow	72.47	320	eP	P	00 09 29.4	+1.7
PKSM	Moragy	72.71	316⇓	eP	P	00 09 28.7	-0.5
OKC	Ostrava-Krasne	73.48	320	eP	P	00 09 33.7	+0.1
BOSA	Boshof	73.78	237	eP	P	00 09 34.7	-1.2
BOSA				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.2						
BOSA	Boshof	73.78	237	eP	P	00 09 34.7	-1.1
	comp=Z,42nm,1.4s,mb5.2						
MORC	Moravsky Berou	73.86	319	eP	P	00 09 34.8	-1.0
MORC				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
MORC	Moravsky Berou	73.86	319	eP	P	00 09 34.8	-1.0
	comp=Z,28nm,1.4s,mb5.0						
KEV	Kevo	74.00	341	ep	P	00 09 27.7	-8.6
ARCES	ARCESS Array B	74.42	340	P	P	00 09 39.0	+0.4
	comp=Z,7.7nm,0.8s,mb4.7,baz=92,slow=6.1,SNR=8.4						
ARCES	ARCESS Array B	74.42	340	P	P	00 09 39.1	+0.4
ARCES				pmax	pmax		
	comp=Z,8.0nm,0.9s						
DPC	Dobruska-Polom	74.70	320	eP	P	00 09 41.2	+0.5
KSP	Ksiaz	74.77	320	eP	P	00 09 41.5	+0.4
KSP				epP	pP	00 09 45.4	-4.7
KSP	Ksiaz	74.77	320	eP	P	00 09 41.6	+0.5
KSP				e		00 09 45.9	
KSP				e		00 09 54.6	
UPC	Upice	74.92	320	eP	P	00 09 41.9	0.0
CASY	Casey	75.31	172	P	P	00 09 42.9	-1.0
PRU	Pruhonice	75.81	319	eP	P	00 09 47.9	+0.9
PVCC	Panska Ves	75.84	320	eP	P	00 09 48.0	+0.8
BRG	Berggiesshubel	76.26	320	iP	P	00 09 50.1	+0.5
BRG				e		00 10 03.1	
BRG				pmax	pmax		
	comp=Z,52nm,1.7s,mb5.2						
BRG	Berggiesshubel	76.26	320	iP	P	00 09 50.1	+0.5
	comp=Z,52nm,1.7s,mb5.2						
BRG				e		00 10 03.1	
GEC2	GERESS Array S	76.28	318	eP	P	00 09 49.7	0.0
GEC2				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.1						
GEC2	GERESS Array S	76.28	318	eP	P	00 09 49.7	0.0
	comp=Z,34nm,1.3s,mb5.1						
GERES	GERESS Array B	76.28	318	P	P	00 09 50.6	+0.9
	comp=Z,12nm,0.8s,mb4.8,baz=102,slow=5.0,SNR=22						
GERES	GERESS Array B	76.28	318	P	P	00 09 50.6	+0.9
GERES				pmax	pmax		
	comp=Z,12nm,0.8s						
KHC	Kasperske Hory	76.38	319	eP	P	00 09 49.4	-0.8
PTCC	Patocco-Chiusa	76.38	316	eP	P	00 09 50.7	+0.4
RUE	Ruedersdorf	76.48	322	eP	P	00 09 49.9	-0.9
	comp=Z,32nm,0.9s,mb5.3						
ARV	Arcevia	76.56	313	eP	P	00 09 52.0	+0.6
FVI	Forni Avoltri	76.78	316	eP	P	00 09 52.7	+0.1
BILL	Bilibino	76.80	22	eP	P	00 09 51.8	-0.4
BILL				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.0						
BILL	Bilibino	76.80	22	eP	P	00 09 51.8	-0.4
	comp=Z,26nm,1.4s,mb5.0						
WET	Wettzell	76.83	319	eP	P	00 09 53.1	+0.3
CLL	Collm	76.88	321	iP	P	00 09 52.8	-0.2
CLL				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.0						
CLL	Collm	76.88	321	iP	P	00 09 52.8	-0.2
	comp=Z,31nm,1.4s,mb5.0						
CLL	Collm	76.88	321	P	P	00 09 52.8	-0.2
	comp=Z,logA/T=1.3,mb5.0						
NKC	Novy Kostel	77.17	320	eP	P	00 09 55.4	+0.7
SFI	Santa Sofia	77.36	313	eP	P	00 09 57.6	+1.8
PGD	Poggio Sodo	77.45	313	eP	P	00 09 58.1	+1.8
CTI	Castel Tesino	77.55	315	eP	P	00 09 57.7	+0.9
SEI	Scarperia	77.72	313	eP	P	00 09 59.2	+1.4
MOX	Moxa	77.72	320	eP	P	00 09 58.6	+0.9
MOX				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.0						
MOX	Moxa	77.72	320	iP	P	00 09 58.6	+0.9
	comp=Z,logA/T=1.4,mb5.1						
MOX	Moxa	77.72	320	eP	P	00 09 58.6	+0.9
	comp=Z,31nm,1.4s,mb5.0						
FUR	Furstenfeldbru	77.86	317	eP	P	00 09 58.4	-0.1
GRA1	Grafenberg Arr	77.94	319	eP	P	00 09 58.4	-0.5
	comp=Z,73nm,1.5s,mb5.4						
GRF	Grafenberg Arr	77.94	319	eP	P	00 09 58.4	-0.5
GRF				pmax	pmax		
	comp=Z,73nm,1.5s,mb5.4						
GRF	Grafenberg Arr	77.94	319	eP	P	00 09 58.4	-0.5
GRF				pmax	pmax		
	comp=Z,73nm,1.5s,mb5.4						
GRF	Grafenberg Arr	77.94	319	eP	P	00 09 58.4	-0.5
	comp=Z,73nm,1.5s,mb5.4						
ZCCA	Zocca	77.99	314	eP	P	00 10 01.8	+2.5
MAW	Mawson	78.21	191	LR	LR	00 37 27.9	
	comp=Z,312nm,18.1s,MS4.7,baz=191,slow=30						
BDI	Bagni Di Lucca	78.26	313	eP	P	00 10 00.7	-0.1
GSCL	Gusciola	78.27	314	eP	P	00 10 02.5	+1.7
ERBM	Eremo	78.40	314	eP	P	00 10 03.1	+1.6
BRMO	Bormio	78.44	316	eP	P	00 10 02.5	+0.8
CLZ	Clausthal	78.55	321	eP	P	00 10 02.7	+0.5
	comp=Z,32nm,1.1s,mb5.2						
NB2	NORSAR Subarra	78.55	331	P	P	00 10 00.9	-1.1
	comp=Z,10nm,1.0s,mb4.7,baz=94,slow=5.6						
NB2	NORSAR Subarra	78.55	331	P	P	00 10 00.9	-1.1
NB2				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
NOA	NORSAR Array B	78.55	331	P	P	00 10 01.6	-0.4
	comp=Z,5.4nm,0.9s,mb4.5,baz=94,slow=5.6,SNR=7.1						
NOA	NORSAR Array B	78.55	331	P	P	00 10 01.6	-0.4
NOA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
BSEG	Bad Segeberg	78.65	323	eP	P	00 10 03.1	+0.4
STU	Stuttgart	79.25	318	eP	P	00 10 05.7	-0.4
STU				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
STU	Stuttgart	79.25	318	eP	P	00 10 05.7	-0.4
	comp=Z,22nm,1.0s,mb5.0						
TOD	Tromm	79.51	319	eP	P	00 10 03.6	-3.9
SPAK	Spaichingen	79.52	317	eP	P	00 10 03.6	-4.0
VAI	Varese	79.56	315	eP	P	00 10 07.8	0.0
BFO	Black Forest	79.83	318	eP	P	00 10 09.2	0.0
BFO				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
BFO	Black Forest	79.83	318	eP	P	00 10 09.2	0.0
	comp=Z,23nm,1.2s,mb5.0						
FIN	Finale Ligure	79.98	313	eP	P	00 10 11.0	+0.9
FELD	Feldberg	80.05	317	eP	P	00 10 06.7	-3.7
MCGN	Macugnaga	80.10	315	eP	P	00 10 12.4	+1.7
LANF	Langenberg	80.17	318	eP	P	00 10 06.9	-4.1
LANF	Langenberg	80.17	318	eP	P	00 10 06.9	-4.1
STR	Strasbourg	80.20	318	eP	P	00 10 07.3	-3.9
STR	Strasbourg	80.20	318	eP	P	00 10 07.3	-3.9
LIBD	Limburg	80.32	317	eP	P	00 10 08.4	-3.4
ABH	Alteburg	80.32	319	eP	P	00 10 08.2	-3.6
WLS	Welschbruch	80.48	318	eP	P	00 10 09.1	-3.6
WLS	Welschbruch	80.48	318	eP	P	00 10 09.1	-3.6
ECH	Echery	80.61	318	eP	P	00 10 10.2	-3.2
ECH	Echery	80.61	318	eP	P	00 10 10.2	-3.2
RUP	Ruppelstein	80.64	319	eP	P	00 10 09.9	-3.6
LOMF	Lomont	80.86	317	eP	P	00 10 10.8	-3.9
LOMF	Lomont	80.86	317	eP	P	00 10 10.8	-3.9
LPG	La Plagne	80.98	315	eP	P	00 10 16.5	+1.1
	comp=Z,63nm,0.9s,mb5.2						
LPG	La Plagne	80.98	315	eP	P	00 10 16.5	+1.1
LPG				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
BNI	Bardonecchia	81.05	314	eP	P	00 10 15.2	-0.5
BNI				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
BNI	Bardonecchia	81.05	314	eP	P	00 10 15.2	-0.5
	comp=Z,32nm,0.9s,mb5.2						
THEF	They Montfort	81.39	318	eP	P	00 10 13.3	-4.2
THEF	They Montfort	81.39	318	eP	P	00 10 13.3	-4.2
OG05	Jujurieux	81.86	315	eP	P	00 10 16.2	-3.7
OG05	Jujurieux	81.86	315	eP	P	00 10 16.2	-3.7
PLDF	La Plantade	83.14	315	eP	P	00 10 22.2	-4.4
PLDF	La Plantade	83.14	315	eP	P	00 10 22.2	-4.4
LBL	Lubilhac	83.46	315	eP	P	00 10 23.1	-5.1
LBL	Lubilhac	83.46	315	eP	P	00 10 23.1	-5.1
AGO	Saint Agoulin	83.47	316	eP	P	00 10 23.1	-5.2
AGO	Saint Agoulin	83.47	316	eP	P	00 10 23.1	-5.2
PYM	Petit Puy Mans	83.58	315	eP	P	00 10 23.7	-5.2
PYM	Petit Puy Mans	83.58	315	eP	P	00 10 23.7	-5.2
EPOB	Poblet	85.42	311	P	P	00 10 38.6	+0.4
	comp=Z,18nm,1.0s,mb5.2						
EBR	Ebro Roquetas	85.92	310	eP	P	00 10 43.0	+2.3
EBIE	Bielsa	85.95	312	P	P	00 10 40.0	-0.8
	comp=Z,6.3nm,0.8s,mb4.9						
ERTA	Horta de San J	86.02	311	P	P	00 10 40.9	-0.3
	comp=Z,14nm,0.8s,mb5.2						
EMOS	Mosqueruela	86.70	310	P	P	00 10 45.4	+0.8
	comp=Z,12nm,0.7s,mb5.2						
EVIA	Vianos	88.51	309	P	P	00 10 54.3	+1.0
EVIA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.2						
EVIA	Vianos	88.51	309	P	P	00 10 54.3	+1.0
	comp=Z,9.8nm,0.8s,mb5.2						
EQES	Quesada	89.08	308	P	P	00 10 55.5	-0.6
	comp=Z,10nm,1.1s,mb5.1						
GUD	Guadarrama	89.44	311	P	P	00 10 59.1	+1.4
GUD				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.3						
GUD	Guadarrama	89.44	311	P	P	00 10 59.1	+1.4
	comp=Z,15nm,1.0s,mb5.3						
ESDC	Sonseca Array	89.46	310	P	P	00 10 59.5	+1.7
	comp=Z,2.0nm,0.4s,mb4.8,baz=65,slow=4.2,SNR=41						
ESDC	Sonseca Array	89.46	310	P	P	00 10 58.8	+1.0
	comp=Z,1.8nm,0.4s,mb4.8						
EADA	Adamuz	90.19	308	P	P	00 11 01.3	+0.1
	comp=Z,12nm,1.2s,mb5.1						
EMIJ	Mijas	90.63	307	P	P	00 11 03.9	+0.5
	comp=Z,9.0nm,0.6s,mb5.3						
ECAL	Calabor	91.11	312	P	P	00 11 07.2	+1.9
	comp=Z,6.7nm,0.8s,mb5.0						
ESPR	Espera	91.43	307	P	P	00 11 06.3	-0.7
	comp=Z,5.8nm,0.7s,mb5.0						
EMIN	Mina Concepcio	91.89	308	P	P	00 11 09.4	+0.3
	comp=Z,7.6nm,0.9s,mb5.0						
EBAD	Badajoz	91.96	309	P	P	00 11 09.1	-0.3
	comp=Z,6.7nm,0.8s,mb5.0						
IMA	Indian Mountai	92.34	22	eP	P	00 11 10.7	+0.2
IMA				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.5						
IMA	Indian Mountai	92.34	22	eP	P	00 11 10.7	+0.2
	comp=Z,21nm,0.9s,mb5.5						
ILAR	Eielson Array	95.46	22	P	P	00 11 24.8	-0.1
	comp=Z,1.6nm,0.7s,mb4.6,baz=301,slow=4.5,SNR=17						
ILAR				PP	PP	00 15 04.5	-13
	comp=Z,0.6nm,0.8s,baz=310,slow=7.3,SNR=4.5						
ILAR	Eielson Array	95.46	22	P	P	00 11 24.8	0.0
ILAR				pmax	pmax		
	comp=Z,2.0nm,0.7s						
ILAR				pmax	pmax		
	comp=Z,1.0nm,0.8s						
DBIC	Dimbokro	95.75	278	P	P	00 11 29.2	+1.8
	comp=Z,4.1nm,0.9s,mb4.9,baz=72,slow=7.0,SNR=5.4						
DBIC	Dimbokro	95.75	278	eP	P	00 11 27.6	+0.3
DBIC				pmax	pmax		
	comp=Z,10.0nm,1.1s						
DBIC	Dimbokro	95.75	278	eP	P	00 11 27.6	+0.3
	comp=Z,10nm,1.1s,mb5.2						
INK	Inuvik	97.48	15	P	P	00 11 35.3	+1.4
	comp=Z,6.3nm,1.1s,mb5.0,baz=305,slow=5.4,SNR=7.3						
INK	Inuvik	97.48	15	P	P	00 11 35.3	+1.4
INK				pmax	pmax		
	comp=Z,6.0nm,1.1s						
YKA	Yellowknife Ar	106.81	13	PP	PP	00 16 37.2	-7.5
	comp=Z,0.6nm,0.8s,baz=340,slow=7.1,SNR=4.0						
MSO	Missoula	120.77	20	PKP	PKPdf	00 16 51.9	-4.6
PDAR	Pinedale Array	125.83	19	PKP	PKPdf	00 17 03.9	-2.5
	comp=Z,1.7nm,0.9s,baz=26,slow=0.7,SNR=8.2						
NVAR	Mina Array Bea	125.93	29	PKP	PKPdf	00 17 07.6	+1.0
	comp=Z,1.0nm,0.2s,baz=45,slow=1.3,SNR=3.9						
ANMO	Albuquerque	133.90	21	PKP	PKPdf	00 17 19.5	-2.4
	comp=Z,1.7nm,0.8s,baz=328,slow=0.5,SNR=6.0						
TXAR	Lajitas Array	139.98	21	PKP	PKPdf	00 17 30.4	-2.8
	comp=Z,0.6nm,0.5s,baz=30,slow=1.3,SNR=6.6						
BDFB	Brasilia	140.10	255	PKP	PKPdf	00 17 32.8	-0.9
	comp=Z,1.9nm,0.7s,baz=76,slow=4.2,SNR=2.9						
BDFB				PP	PP	00 20 28.2	-1.9
	comp=Z,1.7nm,0.4s,baz=162,slow=7.4,SNR=5.8						
BDFB	Brasilia	140.10	255	PKIKP	PKPdf	00 17 32.8	-0.9
BDFB						00 20 28.2	
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.7s						
BDFB				pmax	pmax		
	comp=Z,2.0nm,0.4s						
JCT	Junction City	140.13	16	ePKIKP	PKPdf	00 17 28.1	-5.4
LPAZ	La Paz	158.84	245	PKP	PKPdf	00 18 01.4	-1.2
	comp=Z,2.7nm,1.0s,baz=90,slow=1.0,SNR=4.6						
LPAZ				PKPab	PKPab	00 18 37.9	+1.9
	comp=Z,5.2nm,1.1s,baz=89,slow=10,SNR=5.4						
LPAZ	La Paz	158.84	245	PKIKP	PKPdf	00 18 01.4	-1.3
LPAZ				pmax	pmax		
	comp=Z,3.0nm,1.0s						
LPAZ				pmax	pmax		
	comp=Z,5.0nm,1.1s						
LPAZ	La Paz	158.84	245	PKP	PKPdf	00 18 01.4	-1.2
LPAZ				PKPab	PKPab	00 18 37.9	+1.9
OTAV	Otavalo	167.39	310	ePKPdf	PKPdf	00 18 08.1	-2.9

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*IDC **28** 00:03:58.8±0.8,7.43N×94.38E,mb4.1/14,mb1 4.2/14, mb1mx4.2/20,mbtmp4.1/14,Error ellipse: s-maj=31.3km s-min=18.9km az=46.0*

ISC 28 00:04:02.0±0.7,**7.4N**±0.2×**94.4E**±0.2,**h33**^{km},**n16,** σ**0**^{s}**81**/16,**mb4.2**/15,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.56	12	P	P	00 11 48.2	0.0
	2.2nm,0.5s,mb4.1,baz=126,slow=8.8,SNR=35						
ZAL	Zalesovo	47.05	352	P	P	00 12 32.4	+0.2
	5.2nm,0.9s,mb4.5,baz=305,slow=6.4,SNR=6.9						
WRA	Warramunga Arr	47.78	125	P	P	00 12 38.2	-0.3
	0.7nm,0.4s,mb4.0,baz=305,slow=8.5,SNR=8.8						
ASAR	Alice Springs	49.42	130	P	P	00 12 51.0	0.0
	2.1nm,0.9s,mb4.1,baz=305,slow=8.0,SNR=6.9						
BVAR	Borovoye Array	49.52	341	P	P	00 12 51.4	-0.1
	1.7nm,0.8s,mb4.1,baz=135,slow=10,SNR=5.4						
KMBO	Kilima Mbogo	57.63	264	P	P	00 13 52.2	+0.4
	7.2nm,1.0s,mb4.6,baz=62,slow=12,SNR=6.1						
ASF	Jabal al Asfar	58.69	303	P	P	00 13 59.3	+0.4
	0.6nm,0.3s,mb4.1,baz=38,slow=7.6,SNR=1.9						
BRTR	Keskin Array B	62.93	311	P	P	00 14 26.1	-1.6
	1.6nm,0.9s,mb4.2,baz=126,slow=7.1,SNR=6.4						
AKASG	Malin Array Be	68.68	322	P	P	00 15 02.4	-1.9
	0.2nm,0.3s,mb3.5,baz=89,slow=5.1,SNR=3.2						
FINES	FINESS Array B	73.25	332	P	P	00 15 31.6	0.0
	2.5nm,0.6s,mb4.3,baz=106,slow=6.9,SNR=17						
KAF	Kangasniemi	73.33	333	ep	P	00 15 32.2	+0.2
	5.0nm,1.0s,mb4.4						
ARCES	ARCESS Array B	75.79	340	P	P	00 15 46.7	+0.6
	3.7nm,1.1s,mb4.2,baz=80,slow=7.4,SNR=3.7						
GERES	GERESS Array B	78.35	318	P	P	00 16 00.9	+0.1
	1.7nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=5.9						
NB2	NORSAR Subarra	80.27	331	P	P	00 16 11.1	+0.2
	1.1nm,0.6s,mb4.0,baz=96,slow=5.0						
NOA	NORSAR Array B	80.27	331	P	P	00 16 10.7	-0.2
	1.1nm,0.7s,mb3.9,baz=94,slow=5.1,SNR=3.9						
EKA	Eskdalemuir Ar	88.25	325	P	P	00 16 53.0	+1.9
	1.8nm,0.8s,mb4.4,baz=90,slow=5.8,SNR=4.8						

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*BJI **28** 00:04:39.0,7.92N×92.91E,h30^{km},mB5.4,mb4.4*
*IDC **28** 00:04:44.1±0.5,9.07N×92.99E,mb4.4/22,mb1 4.5/22, mb1mx4.4/26,mbtmp4.4/22,Error ellipse: s-maj=27.9km s-min=11.9km az=46.0*
*NEIC **28** 00:04:48.6±0.7,8.74N×92.65E,h30^{km},mb4.9/11,Error ellipse: s-maj=21.2km s-min=13.3km az=58.0*
*HRVD **28** 00:04:48.6±1.1,8.89N×93.13E,h42^{km}±1^{km},MW5.1/33, Centroid moment Tensor Solution. LP body waves: s8,c9; Mantle waves: s33,c43; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.50±.68; $M_{\theta\theta}$-1.26±.35; $M_{\phi\phi}$-4.24±.36; $M_{r\theta}$-0.52±.26; $M_{\theta\phi}$1.04±.16; $M_{\phi r}$-1.50±.24; Best double couple: $M_0$5.26×10^{16} NP1:ϕ_s336°,δ38°,λ78°. NP2:ϕ_s171°, δ53°,λ100°. Principal axes: T 5.79, Plg79°, Azm121°; N -1.06, Plg8°, Azm345°; P -4.73, Plg7°, Azm254°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 00:04:46.5±0.4,**8.75N**±0.07×**92.77E**±0.07,**h30**^{km},**n58,** σ**0**^{s}**89**/55,**mb4.6**/33,**1C,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.36	31	eP	P	00 07 31.6	+1.5
CMAR	Chiang Mai Arr	11.36	31	Pn	P	00 07 30.8	+0.7
	1.2nm,0.3s,baz=221,slow=14,SNR=18						
LSA	Lhasa	20.90	356	P	P	00 09 28.5	-0.5
	29nm,0.5s						
GYA	Guiyang	22.00	35⇑	iP	P	00 09 40.5	+0.4
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.3						
GTA	Gaotai	31.18	11	eP	P	00 11 00.8	-4.4
GTA				PP	PP	00 12 06.5	-1.8
GTA				AMB	AMB		
	comp=Z,8.0nm,1.8s,mb4.2						
KSH	Kashi	34.13	337	eP	P	00 11 31.3	+0.3
KSH				eAP	pP	00 11 39.0	-0.8
KSH				eXP	sP	00 11 43.0	-0.7
KSH				AMB	AMB		
	comp=Z,280nm,4.6s						
UCH	Uchtor	37.02	337	P	P	00 11 56.5	+1.0
	SNR=5.4						
KBK	Karagaybulak	37.23	338	P	P	00 11 58.1	+0.9
	SNR=10.0						
AML	Almayashu	37.26	336	P	P	00 11 58.5	+1.1
	SNR=11						
AAK	Ala-Archa	37.38	338	P	P	00 11 59.5	+1.1
	SNR=6.3						
AAK	Ala-Archa	37.38	338	eP	P	00 11 57.9	-0.5
	comp=Z,12nm,0.7s,mb4.8						
CHMS	Chumysh	37.60	338	P	P	00 12 00.4	+0.1
	SNR=5.9						
EKS2	Erkin-Say	37.68	337	P	P	00 12 01.9	+0.9
	SNR=6.7						
SONM	Songino Array	40.63	14	P	P	00 12 23.3	-2.2
	comp=Z,2.6nm,0.7s,mb4.0,baz=205,slow=8.5,SNR=11						
ZAL	Zalesovo	45.52	353	P	P	00 13 03.5	-1.6
	comp=Z,1.6nm,0.4s,mb4.3,baz=299,slow=9.7,SNR=2.6						
NWAO	Narrogin (SRO)	47.54	152	P	P	00 13 23.8	+2.4
	comp=Z,17nm,0.6s,mb5.3,baz=330,slow=7.8,SNR=28						
NWAO	Narrogin (SRO)	47.54	152	eP	P	00 13 23.4	+2.1
	comp=Z,12nm,0.5s,mb5.2						
BVAR	Borovoye Array	47.74	342	P	P	00 13 20.7	-1.9
	comp=Z,1.5nm,0.7s,mb4.1,baz=141,slow=9.5,SNR=4.2						
CHKZ	Chkalovo	48.23	342	eP	P	00 13 24.8	-1.6
	comp=Z,8.6nm,0.6s,mb5.0						
WRA	Warramunga Arr	49.87	125	P	P	00 13 38.9	-0.5
	comp=Z,2.9nm,0.3s,mb4.8,baz=300,slow=9.9,SNR=45						
WRAB	Tennant Creek	49.87	125	eP	P	00 13 39.0	-0.5
	comp=Z,3.9nm,0.4s,mb4.8						
ASAR	Alice Springs	51.51	130	P	P	00 13 51.4	-0.6
	comp=Z,1.6nm,0.3s,mb4.4,baz=307,slow=8.1,SNR=29						
GNI	Garni	52.86	314	P	P	00 14 02.7	+0.8
	comp=Z,30nm,1.3s,mb5.1						
KIV	Kislovodsk	55.77	318	eP	P	00 14 23.1	+0.1
	comp=Z,22nm,0.8s,mb5.2						
ASF	Jabal al Asfar	56.61	303	P	P	00 14 29.9	+0.6
	comp=Z,1.4nm,0.5s,mb4.3,baz=162,slow=5.4,SNR=3.7						
MALT	Malatya	56.87	310	eP	P	00 14 30.2	-0.9
	comp=Z,12nm,1.3s,mb4.8						
PMG	Port Moresby	57.08	107	P	P	00 14 32.7	-0.1
	comp=Z,10.0nm,0.7s,mb5.0,baz=312,slow=3.4,SNR=4.4						
EIL	Elat	57.82	300	P	P	00 14 38.1	+0.3
	comp=Z,5.1nm,0.9s,mb4.6,baz=325,slow=10.0,SNR=3.8						
CTA	Charters Tower	59.91	119	P	P	00 14 52.5	0.0
	comp=Z,5.3nm,0.8s,mb4.6,baz=323,slow=6.9,SNR=6.0						
CTAO	Charters Tower	59.91	119	eP	P	00 14 52.6	+0.1
	comp=Z,8.3nm,1.2s,mb4.6						
BRTR	Keskin Array B	60.84	311	P	P	00 14 57.6	-0.9
	comp=Z,5.3nm,0.7s,mb4.8,baz=124,slow=7.9,SNR=20						
STKA	Stephens Creek	61.68	133	P	P	00 15 04.3	0.0
	comp=Z,12nm,1.3s,mb4.9,baz=240,slow=4.4,SNR=6.5						
AKASG	Malin Array Be	66.64	322	P	P	00 15 34.6	-1.8
	comp=Z,3.1nm,0.6s,mb4.5,baz=86,slow=5.2,SNR=11						
IDI	Anoyia	66.96	305	P	P	00 15 39.1	+0.3
	comp=Z,5.5nm,0.6s,mb4.8,baz=105,slow=15,SNR=5.8						
KOLS	Kolonicke sedl	70.66	319	eP	P	00 16 01.6	+0.2
KOLS				e		00 16 23.2	
FINES	FINESS Array B	71.31	332	P	P	00 16 03.8	-1.4
	comp=Z,1.6nm,0.6s,mb4.1,baz=90,slow=5.7,SNR=3.9						
OJC	Ojcow	72.44	320	eP	P	00 16 12.0	0.0
VYHS	Vyhne	72.86	318	eP	P	00 16 13.7	-0.8
MORC	Moravsky Berou	73.84	319	eP	P	00 16 20.4	+0.3
	comp=Z,8.6nm,1.0s,mb4.6						
ZST	Bratislava	73.98	318	eP	P	00 16 21.2	+0.2
ARCES	ARCESS Array B	73.99	340	P	P	00 16 21.2	+0.6
	comp=Z,0.8nm,0.6s,mb3.8,baz=90,slow=6.1,SNR=3.7						
DPC	Dobruska-Polom	74.67	320	eP	P	00 16 25.7	+0.7
UPC	Upice	74.88	320	eP	P	00 16 26.8	+0.6
PRU	Pruhonice	75.79	319	eP	P	00 16 31.3	-0.1
GERES	GERESS Array B	76.28	318	P	P	00 16 34.6	+0.4
	comp=Z,4.7nm,0.6s,mb4.6,baz=83,slow=6.5,SNR=28						
KHC	Kasperske Hory	76.37	318	eP	P	00 16 34.5	-0.2
KHC	Kasperske Hory	76.37	318	eP	P	00 16 34.5	-0.2
CLL	Collm	76.83	321	P	P	00 16 37.0	-0.2
NOA	NORSAR Array B	78.31	331	P	P	00 16 44.4	-0.8
	comp=Z,2.0nm,0.7s,mb4.2,baz=94,slow=5.7,SNR=3.3						
LPG	La Plagne	81.05	315	eP	P	00 17 00.8	+0.6

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	ISC
	comp=Z,18nm,0.7s,mb4.8						
EKA	Eskdalemuir Ar	86.24	325	P	P	00 17 27.2	+0.9
	comp=Z,2.1nm,0.7s,mb4.5,baz=97,slow=5.8,SNR=6.6						
ESDC	Sonseca Array	89.62	310	P	P	00 17 43.9	+0.9
	comp=Z,0.4nm,0.5s,mb4.0,baz=59,slow=4.2,SNR=4.4						
IMA	Indian Mountai	91.33	22	*e*P	P	00 17 51.1	+0.8
	comp=Z,15nm,0.8s,mb5.4						
ILAR	Eielson Array	94.45	22	P	P	00 18 03.6	-1.0
	comp=Z,0.4nm,0.7s,mb4.0,baz=304,slow=4.4,SNR=6.0						
INK	Inuvik	96.53	16	P	P	00 18 13.4	-0.6
	comp=Z,1.0nm,0.6s,mb4.4,baz=330,slow=3.2,SNR=5.8						
PDAR	Pinedale Array	124.83	20	PKP	PKPdf	00 23 45.6	-3.5
	comp=Z,0.6nm,0.6s,baz=169,slow=0.9,SNR=4.7						
TXAR	Lajitas Array	138.96	22	PKiKP		00 24 15.3	
	comp=Z,0.3nm,0.6s,baz=58,slow=1.1,SNR=4.8						
LPAZ	La Paz	159.92	246	PKPab	PKPab	00 25 28.1	+3.0
	comp=Z,0.6nm,0.6s,baz=88,slow=7.7,SNR=4.2						

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*IDC **28** 00:05:43.5±1.0, 5.36N×94.24E, mb4.4/12, mb1 4.5/12, mb1mx4.4/19, mbtmp4.3/12, Error ellipse: s-maj=46.1km s-min=19.1km az=48.0*

ISC 28 00:05:46.4±0.8**, 5.2N**±0.1×**94.1E**±0.2**, h33^{km}, n17, σ0^{s}99**/14**, mb4.3**/12**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.02	19	Pn	P	00 09 06.7	+1.8
	1.9nm,0.3s,baz=208,slow=15,SNR=5.9						
SONM	Songino Array	43.78	12	P	P	00 13 48.9	-1.8
	0.9nm,0.3s,mb4.0,baz=199,slow=7.0,SNR=10						
SONM				PcP	PcP	00 15 37.0	-0.5
	1.1nm,0.5s,baz=198,slow=3.6,SNR=6.5						
WRA	Warramunga Arr	46.77	123	P	P	00 14 14.9	0.0
	7.7nm,0.8s,mb4.7,baz=302,slow=9.0,SNR=6.7						
ASAR	Alice Springs	48.26	128	P	P	00 14 26.6	+0.1
	2.6nm,0.5s,mb4.5,baz=303,slow=7.9,SNR=7.3						
ZAL	Zalesovo	49.20	353	P	P	00 14 32.4	-0.9
	7.0nm,0.3s,mb5.1,baz=306,slow=4.9,SNR=18						
BVAR	Borovoye Array	51.52	342	P	P	00 14 50.3	-0.7
	6.9nm,0.5s,mb4.8,baz=149,slow=11,SNR=12						
BRTR	Keskin Array B	64.17	312	P	P	00 16 19.9	-0.2
	1.0nm,0.6s,mb4.0,baz=135,slow=8.8,SNR=2.3						
AKASG	Malin Array Be	70.24	322	P	P	00 16 57.1	-0.9
	1.2nm,0.5s,mb4.1,baz=84,slow=5.1,SNR=5.5						
FINES	FINESS Array B	75.06	333	P	P	00 17 26.0	-0.4
	1.2nm,0.6s,mb4.0,baz=90,slow=6.9,SNR=3.2						
ARCES	ARCESS Array B	77.77	340	P	P	00 17 42.7	+1.1
	1.3nm,0.5s,mb4.1,baz=80,slow=5.5,SNR=3.1						
GERES	GERESS Array B	79.80	319	P	P	00 17 54.5	+1.4
	2.3nm,0.6s,mb4.3,baz=116,slow=5.6,SNR=9.9						
KHC	Kasperske Hory	79.90	319	*e*P	P	00 17 55.0	+1.4
ILAR	Eielson Array	97.24	22	P	P	00 19 16.6	-0.2
	0.4nm,0.5s,mb4.1,baz=282,slow=4.2,SNR=7.2						
INK	Inuvik	99.57	16	P	P	00 19 26.8	-0.4
	1.0nm,0.8s,mb4.3,baz=245,slow=6.0,SNR=4.1						
PDAR	Pinedale Array	127.67	22	PKP	PKPdf	00 24 50.6	+1.8
	0.4nm,0.9s,baz=180,slow=3.0,SNR=3.5						
ANMO	Albuquerque	135.63	24	PKP	PKPdf	00 25 07.3	+3.2
	0.9nm,0.6s,baz=58,slow=3.7,SNR=3.2						
TXAR	Lajitas Array	141.67	25	PKiKP		00 25 19.9	
	0.4nm,0.4s,baz=190,slow=0.2,SNR=6.7						

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*IDC **28** 00:06:37.3±0.8, 31.73N×136.54E, h485^{km}±11^{km}, mb3.6/13, mb1 3.7/15, mb1mx3.5/26, mbtmp4.5/15, Error ellipse: s-maj=19.3km s-min=10.5km az=80.0*

ISC 28 00:06:35.9±0.7**, 31.73N**±0.08×**136.6E**±0.2**, h485^{km}**±8^{km}**, n19, σ0^{s}76**/21**, mb3.9**/14**, Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ	Hachijo jima 2	3.04	62	P	P	00 07 47.2	+0.7
	97nm,0.3s,baz=72,slow=23,SNR=23						
JHJ				S	S	00 08 45.5	+3.1
	25nm,0.3s,baz=66,slow=18,SNR=3.5						
MAT	Matsushiro	4.98	15	P	P	00 08 02.8	+0.2
MAT				S	S	00 09 09.6	-1.7
CBIJ	Chichi jima	6.72	132	S	S	00 09 37.8	-4.3
	31nm,0.3s,baz=285,slow=23,SNR=10						
JOW	Kunigami	8.74	238	P	P	00 08 41.0	-0.1
	3.6nm,0.3s,baz=0.9,slow=4.3,SNR=6.1						
CMAR	Chiang Mai Arr	36.37	258	P	P	00 12 59.3	+0.1
	2.7nm,0.4s,mb4.0,baz=53,slow=7.7,SNR=8.2						
ZAL	Zalesovo	42.80	317	P	P	00 13 50.8	-0.1
	2.8nm,0.5s,mb3.9						
BVAR	Borovoye Array	51.33	315	P	P	00 14 55.4	-0.5
	8.6nm,0.5s,mb4.3,baz=111,slow=8.3,SNR=20						
WRA	Warramunga Arr	51.42	183	P	P	00 14 56.6	-0.4
	11nm,0.4s,mb4.6,baz=359,slow=7.6,SNR=53						
CTA	Charters Tower	52.35	168	P	P	00 15 03.5	-0.3
	2.9nm,0.8s,mb3.6,baz=340,slow=7.2,SNR=5.0						
ASAR	Alice Springs	55.14	183	P	P	00 15 23.3	-0.3
	4.0nm,0.6s,mb3.9,baz=6.6,slow=7.4,SNR=11						
INK	Inuvik	60.89	25	P	P	00 16 01.6	-0.3
	0.8nm,0.9s,mb3.2,baz=329,slow=27,SNR=4.3						
STKA	Stephens Creek	63.44	175	P	P	00 16 18.8	-0.2
	2.8nm,0.6s,mb4.0,baz=316,slow=4.8,SNR=3.7						
ARCES	ARCESS Array B	67.53	339	P	P	00 16 44.4	+0.5
	1.4nm,0.5s,mb3.9,baz=74,slow=6.6,SNR=5.4						
KAF	Kangasniemi	71.15	332	*e*p	P	00 17 04.9	-0.7
	1.2nm,0.4s,mb3.8						
FINES	FINESS Array B	71.60	332	P	P	00 17 08.4	+0.2
	3.6nm,0.6s,mb4.1,baz=72,slow=3.9,SNR=15						
AKASG	Malin Array Be	75.98	321	P	P	00 17 33.5	+0.3
	1.0nm,0.3s,mb3.8,baz=50,slow=5.6,SNR=10						
NB2	NORSAR Subarra	77.46	336	P	P	00 17 41.5	+0.5
	3.9nm,0.8s,mb4.0,baz=46,slow=5.6						
NOA	NORSAR Array B	77.46	336	P	P	00 17 41.3	+0.3
	2.8nm,0.8s,mb3.8,baz=47,slow=5.4,SNR=4.4						
BRTR	Keskin Array B	79.28	310	P	P	00 17 52.5	+1.3
	2.1nm,0.6s,mb3.8,baz=112,slow=4.5,SNR=6.8						

IDC 28 00:13:09.2±1.6**, 7.67N**×**93.82E, mb3.8**/5**, mb1 4.0**/5**, mb1mx3.7**/17**, mbtmp3.8**/5**, Error ellipse: s-maj=67.1km s-min=28.2km az=53.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.43	13	P	P	00 20 57.4	-1.7
	0.6nm,0.7s,baz=197,slow=8.9,SNR=4.5						
ZAL	Zalesovo	46.70	353	P	P	00 21 39.8	-1.7
	1.6nm,0.4s,baz=269,slow=5.8,SNR=7.2						
WRA	Warramunga Arr	48.41	125	P	P	00 21 53.4	-2.0
	0.3nm,0.5s,baz=304,slow=8.8,SNR=4.6						
WRA				pP	pP	00 21 59.6	+4.3
	0.4nm,0.4s,baz=305,slow=8.5,SNR=3.0						
FINES	FINESS Array B	72.74	332	P	P	00 24 38.8	-2.1
	1.6nm,0.8s,baz=98,slow=5.4,SNR=9.2						
KAF	Kangasniemi	72.82	333	*e*p	P	00 24 38.9	-2.5
	0.4nm,0.3s						
GERES	GERESS Array B	77.76	318	P	P	00 25 08.6	-1.2
	0.3nm,0.5s,baz=108,slow=4.2,SNR=3.5						

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*IDC **28** 00:15:44.3±0.6, 5.03N×93.74E, mb4.3/16, mb1 4.4/16, mb1mx4.3/22, mbtmp4.3/16, Error ellipse: s-maj=29.7km s-min=14.8km az=42.0*

*NEIC **28** 00:15:47.7±0.9, 4.72N×93.52E, h30^{km}, mb4.7/9, Error ellipse: s-maj=24.6km s-min=17.7km az=221.0*

*BJI **28** 00:15:49.0, 5.08N×93.35E, h30^{km}, mB5.2, mb4.6*

ISC 28 00:15:46.9±0.5**, 4.81N**±0.09×**93.63E**±0.09**, h33^{km}, n32, σ1^{s}00**/29**, mb4.4**/23**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.52	21	Pn	P	00 19 12.2	+0.2
	0.7nm,0.3s,baz=219,slow=13,SNR=9.1						
MDRS	Chennai	15.55	303	*e*		00 19 39.0	
MDRS				*e*		00 21 43.0	
QIZ	Qiongzhong	21.21	47	P	P	00 20 34.5	+2.3
	46nm,1.1s,mb4.7						
LSA	Lhasa	24.86	355	*e*P	P	00 21 09.1	+1.0
	28nm,0.8s,mb4.8						
GYA	Guiyang	24.87	29	⇑*i*P	P	00 21 08.5	+0.3
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
AAK	Ala-Archa	41.32	339	*e*P	P	00 23 30.6	-0.6
	comp=Z,3.5nm,0.9s,mb4.0						
SONM	Songino Array	44.24	12	P	P	00 23 54.5	-0.5
	comp=Z,1.0nm,0.6s,mb3.7,baz=193,slow=8.4,SNR=8.9						
SONM				PcP	PcP	00 25 40.1	+0.5
	comp=Z,2.1nm,0.7s,baz=192,slow=3.9,SNR=9.0						
WRA	Warramunga Arr	46.97	123	P	P	00 24 17.4	+0.4
	comp=Z,5.6nm,0.9s,mb4.5,baz=300,slow=9.0,SNR=18						
WRAB	Tennant Creek	46.97	123	*e*P	P	00 24 15.9	-1.0
	comp=Z,15nm,0.6s,mb5.1						
ASAR	Alice Springs	48.40	128	P	P	00 24 27.6	-0.6
	comp=Z,0.7nm,0.6s,mb3.9,baz=302,slow=7.9,SNR=5.8						
ASAR				PcP	PcP	00 25 55.5	+0.9
	comp=Z,0.7nm,0.7s,baz=307,slow=4.5,SNR=2.3						
ZAL	Zalesovo	49.50	353	P	P	00 24 35.3	-0.9
	comp=Z,4.7nm,0.5s,mb4.8,baz=306,slow=5.2,SNR=26						
BVAR	Borovoye Array	51.72	342	P	P	00 24 52.0	-1.0
	comp=Z,3.3nm,0.8s,mb4.3,baz=135,slow=8.4,SNR=21						
CHKZ	Chkalovo	52.22	343	*e*P	P	00 24 55.8	-0.9
	comp=Z,6.6nm,0.5s,mb4.8						
KMBO	Kilima Mbogo	56.63	265	P	P	00 25 31.8	+2.1
	comp=Z,3.7nm,0.9s,mb4.4,baz=66,slow=12,SNR=9.0						
KMBO	Kilima Mbogo	56.63	265	*e*P	P	00 25 30.0	+0.4
	comp=Z,5.4nm,0.9s,mb4.6						
CTA	Charters Tower	57.30	117	P	P	00 25 35.4	+1.0
	comp=Z,2.5nm,0.9s,mb4.2,baz=328,slow=9.5,SNR=3.1						
CTA				pP	pP	00 25 44.5	0.0
	comp=Z,3.5nm,0.9s,baz=286,slow=8.5,SNR=4.2						
CTAO	Charters Tower	57.30	117	*e*P	P	00 25 33.4	-0.9
	comp=Z,8.8nm,1.1s,mb4.7						
ASF	Jabal al Asfar	59.49	305	P	P	00 25 50.6	+1.1
	comp=Z,1.8nm,0.8s,mb4.1,baz=21,slow=8.6,SNR=3.7						
BRTR	Keskin Array B	64.06	312	P	P	00 26 18.8	-1.2
	comp=Z,2.5nm,0.9s,mb4.2,baz=135,slow=7.0,SNR=11						
IDI	Anoyia	69.91	306	P	P	00 26 58.0	+1.1
	comp=Z,7.7nm,0.7s,mb4.7,baz=103,slow=11,SNR=6.1						
AKASG	Malin Array Be	70.24	322	P	P	00 26 57.0	-1.6
	comp=Z,1.1nm,0.6s,mb4.0,baz=88,slow=4.7,SNR=7.8						
FINES	FINESS Array B	75.17	333	P	P	00 27 27.1	-0.4
	comp=Z,3.2nm,0.6s,mb4.4,baz=98,slow=5.8,SNR=15						
KAF	Kangasniemi	75.28	333	*e*p	P	00 27 26.5	-1.6
	comp=Z,0.9nm,0.4s,mb4.0						
ARCES	ARCESS Array B	77.96	341	P	P	00 27 43.0	-0.1
	comp=Z,3.8nm,0.7s,mb4.4,baz=89,slow=5.5,SNR=19						
GERES	GERESS Array B	79.77	319	P	P	00 27 54.3	+0.9
	comp=Z,3.2nm,0.9s,mb4.3,baz=90,slow=5.3,SNR=22						
KHC	Kasperske Hory	79.87	319	*e*P	P	00 27 54.0	+0.1
CLL	Collm	80.40	321	P	P	00 27 58.0	+1.3
NB2	NORSAR Subarra	82.14	331	P	P	00 28 05.2	-0.4
	comp=Z,4.8nm,1.0s,mb4.4,baz=95,slow=5.8						
NOA	NORSAR Array B	82.14	331	P	P	00 28 05.8	+0.2
	comp=Z,2.0nm,0.8s,mb4.1,baz=94,slow=5.7,SNR=4.0						
EKA	Eskdalemuir Ar	89.94	325	P	P	00 28 45.1	+1.1
	comp=Z,2.7nm,0.7s,mb4.7,baz=100,slow=5.1,SNR=6.4						
PDAR	Pinedale Array	128.18	22	PKP	PKPdf	00 34 52.5	+2.0
	comp=Z,0.6nm,0.7s,baz=90,slow=1.5,SNR=4.1						
PDAR				pPKP		00 35 02.5	
	comp=Z,0.7nm,0.7s,baz=63,slow=3.3,SNR=4.7						
TXAR	Lajitas Array	142.20	25	PKhKP		00 35 15.2	
	comp=Z,0.2nm,0.6s,baz=18,slow=2.9,SNR=3.6						
TXAR				PKiKP		00 35 22.1	
	comp=Z,0.2nm,0.6s,baz=168,slow=0.8,SNR=5.2						

IDC 28 00:20:11.3±1.5**, 8.00N**×**91.86E, mb3.9**/5**, mb1 4.1**/5**, mb1mx3.8**/17**, mbtmp3.8**/5**, Error ellipse: s-maj=64.8km s-min=26.2km az=57.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.58	15	P	P	00 28 01.2	-1.3
	1.0nm,0.6s,baz=195,slow=8.3,SNR=8.6						
WRA	Warramunga Arr	50.18	124	P	P	00 29 09.1	-2.1
	1.6nm,0.6s,baz=303,slow=8.9,SNR=8.1						
ASAR	Alice Springs	51.74	129	P	P	00 29 21.1	-1.9
	2.6nm,1.2s,baz=299,slow=7.3,SNR=4.7						
GERES	GERESS Array B	76.23	318	P	P	00 32 02.1	-1.4
	0.7nm,0.9s,baz=90,slow=4.0,SNR=4.7						
ILAR	Eielson Array	95.47	22	P	P	00 33 37.1	-1.9
	0.3nm,1.0s,baz=301,slow=4.4,SNR=5.0						
PDAR	Pinedale Array	125.84	19	PKP	PKPdf	00 39 15.6	-1.9
	0.4nm,0.5s,baz=90,slow=1.5,SNR=4.0						

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*IDC **28** 00:23:18.4±1.8, 49.18S×161.09E, mb3.9/2, mb1 4.2/3, mb1mx3.8/9, mbtmp4.0/3, ML4.0/1, Error ellipse: s-maj=56.3km s-min=31.2km az=173.0*

ISC 28 00:23:20.6±1.7**, 48.9S**±0.3×**161.0E**±0.1**, h10^{km}, n12, σ1^{s}25**/13**, mb4.0**/2**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.62	60	P	Pn	00 24 47.5	+1.2
WHZ				S	Sn	00 25 51.3	-0.4
MLZ	Mavora Lakes	6.07	57	P	Pn	00 24 54.3	+1.6
MLZ				S	Sn	00 26 02.8	-0.2
TUZ	Tuapeka	6.58	67	P	Pn	00 24 59.8	-0.1
TUZ				S	Sn	00 26 12.6	-3.2
EAZ	Earnscleugh	6.78	60	P	Pn	00 25 02.8	+0.1
JCZ	Jackson Bay	7.23	51	S	Sn	00 26 33.0	+1.0
RPZ	Rata Peaks	8.70	57	Pn	P	00 25 27.5	-1.9
	1.7nm,0.3s,baz=206,slow=2.2,SNR=7.9						
RPZ				Sn	Sn	00 27 05.3	-3.4
	1.4nm,0.3s,baz=34,slow=18,SNR=4.1						
WVZ	Waitaha Valley	8.96	53	*e*P	P	00 25 34.7	+1.7
ASAR	Alice Springs	32.99	310	P	P	00 29 57.4	-0.4
	1.7nm,0.8s,mb4.0,baz=147,slow=8.6,SNR=12						
ASAR				PcP	PcP	00 32 39.1	-2.7
	0.2nm,0.7s,baz=135,slow=2.9,SNR=4.1						
WRA	Warramunga Arr	35.92	314	P	P	00 30 22.3	-0.7
	1.5nm,0.8s,mb4.0,baz=146,slow=8.0,SNR=10.0						
AKASG	Malin Array Be	149.22	292	PKPbc	PKPdf	00 43 07.7	+0.6
	2.1nm,0.9s,baz=96,slow=1.9,SNR=6.5						
ARCES	ARCESS Array B	150.31	330	PKPbc	PKPdf	00 43 10.8	+2.6
	3.7nm,0.9s,baz=56,slow=3.3,SNR=6.0						
FINES	FINESS Array B	151.96	314	PKPbc	PKPdf	00 43 14.4	+3.5
	2.3nm,0.8s,baz=108,slow=6.0,SNR=8.8						

IDC 28 00:27:31.8±5.0**, 4.20N**×**95.86E, mb3.7**/4**, mb1 3.9**/4**, mb1mx3.5**/17**, mbtmp3.7**/4**, Error ellipse: s-maj=266.1km s-min=24.4km az=56.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	44.77	124	P	P	00 35 46.4	-2.9
	0.8nm,0.4s,baz=302,slow=9.3,SNR=8.0						
ASAR	Alice Springs	46.28	129	P	P	00 36 00.3	-0.9
	0.5nm,0.4s,baz=309,slow=6.9,SNR=11						
ZAL	Zalesovo	50.40	352	P	P	00 36 32.3	-0.6
	0.6nm,0.5s,baz=310,slow=8.4,SNR=4.1						
BVAR	Borovoye Array	53.00	341	P	P	00 36 48.6	-3.9
	0.5nm,0.6s,baz=153,slow=6.6,SNR=3.8						

IDC 28 00:31:23.9±4.7**, 14.26N**×**93.00E, mb3.8**/4**, mb1 4.0**/5**, mb1mx3.7**/18**, mbtmp3.8**/5**, ML3.9**/1**, Error ellipse: s-maj=100.5km s-min=39.8km az=163.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.07	53	Pn	Pn	00 33 08.2	-2.9
	0.5nm,0.3s,baz=240,slow=15,SNR=27						
CHG	Chiang Mai	7.28	51	PG	Pg	00 34 08.0	+19
CHG				SG	Sg	00 36 00.1	+34
SONM	Songino Array	35.28	16	P	P	00 38 20.5	-1.9
	2.4nm,1.3s,baz=190,slow=8.8,SNR=4.9						
ZAL	Zalesovo	40.11	352	P	P	00 39 01.5	-1.3
	1.0nm,0.6s,baz=280,slow=7.5,SNR=8.3						
FINES	FINESS Array B	66.59	331	P	P	00 42 15.4	-2.5
	2.8nm,1.1s,baz=90,slow=1.9,SNR=4.7						
GERES	GERESS Array B	72.38	317	P	P	00 42 52.0	-1.6
	0.3nm,0.5s,baz=76,slow=5.5,SNR=5.6						

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*IDC **28** 00:34:07.9±0.8, 13.97N×93.27E, mb4.2/10, mb1 4.3/11, mb1mx4.1/20, mbtmp4.2/11, ML4.7/1, MS5.1/6, Ms1 5.0/6, ms1mx4.2/30, Error ellipse: s-maj=28.6km s-min=16.4km az=57.0*

ISC 28 00:34:10.7±0.7**, 14.05N**±0.08×**93.27E**±0.07**, h33^{km}, n17, σ0^{s}84**/18**, mb4.2**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	6.99	50	Pn	Pn	00 35 53.2	-0.3
	3.4nm,0.3s,baz=238,slow=14,SNR=19						
CMAR				Sn	Sn	00 37 12.8	+0.1
	2.7nm,0.3s,baz=242,slow=28,SNR=5.9						
PKI	Pulchoki	15.32	333	*e*P	P	00 37 45.0	-1.2
	15nm,0.3s						
GUN	Gumba	15.41	335	*e*P	P	00 37 48.0	+0.6
	45nm,0.7s						
DMN	Daman	15.49	332	*e*P	P	00 37 47.4	-1.0
	28nm,0.6s						
KKN	Kakani	15.57	333	*e*P	P	00 37 48.1	-1.3
	14nm,0.4s						
GKN	Gorkha	16.04	331	*e*P	P	00 37 54.5	-1.0
KOLN	Koldanda	16.36	328	*e*P	P	00 37 59.9	+0.4
	54nm,0.7s						
SONM	Songino Array	35.41	15	P	P	00 41 06.5	+1.0
	3.0nm,1.0s,mb4.2,baz=201,slow=11,SNR=8.0						
ZAL	Zalesovo	40.35	352	P	P	00 41 47.1	+0.3
	1.5nm,0.6s,mb3.9,baz=309,slow=8.2,SNR=9.9						
NWAO	Narrogin (SRO)	52.02	154	P	P	00 43 18.1	-1.3
	9.8nm,1.0s,mb4.7,baz=309,slow=14,SNR=4.0						
WRA	Warramunga Arr	52.66	129	P	P	00 43 24.2	-0.1
	2.5nm,0.9s,mb4.1,baz=310,slow=8.0,SNR=8.2						
ASAR	Alice Springs	54.62	133	P	P	00 43 38.4	-0.3
	1.3nm,0.6s,mb4.1,baz=312,slow=7.0,SNR=10						
BRTR	Keskin Array B	57.86	308	P	P	00 44 02.5	+0.8
	1.1nm,0.8s,mb3.9,baz=108,slow=7.8,SNR=7.0						
FINES	FINESS Array B	66.90	331	P	P	00 45 01.8	+0.3
	3.6nm,1.0s,mb4.4,baz=72,slow=6.0,SNR=4.6						
ARCES	ARCESS Array B	69.21	340	P	P	00 45 16.5	+0.7
	6.9nm,1.0s,mb4.5,baz=108,slow=2.9,SNR=3.8						
GERES	GERESS Array B	72.71	317	P	P	00 45 38.7	+1.5
	1.5nm,0.8s,mb4.0,baz=89,slow=5.8,SNR=8.6						
HFS	Hagfors	72.74	329	P	P	00 45 37.9	+0.7
	3.0nm,0.8s,mb4.3,baz=124,slow=5.3,SNR=5.1						

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*IDC **28** 00:36:21.1±0.9, 5.39N×94.33E, mb4.3/13, mb1 4.5/13, mb1mx4.3/19, mbtmp4.2/13, MS5.0/20, Ms1 5.0/20, ms1mx4.7/35, Error ellipse: s-maj=43.7km s-min=18.0km az=47.0*

ISC 28 00:36:24.3±0.8**, 5.3N**±0.2×**94.2E**±0.1**, h33^{km}, n18, σ0^{s}87**/16**, mb4.2**/13**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.60	73	P	P	00 38 02.0	+0.5
	2µm,1.0s						
CMAR	Chiang Mai Arr	13.85	19	Pn	P	00 39 44.5	+3.8
	2.3nm,0.3s,baz=208,slow=14,SNR=7.8						
SONM	Songino Array	43.63	12	P	P	00 44 26.6	-0.8
	1.5nm,0.7s,mb3.9,baz=191,slow=9.1,SNR=7.9						
WRA	Warramunga Arr	46.73	124	P	P	00 44 52.3	-0.2
	4.9nm,0.7s,mb4.6,baz=302,slow=9.0,SNR=10						
ASAR	Alice Springs	48.23	128	P	P	00 45 03.8	-0.4
	2.2nm,0.5s,mb4.5,baz=301,slow=7.8,SNR=13						
ZAL	Zalesovo	49.09	353	P	P	00 45 09.8	-0.5
	7.6nm,0.7s,mb4.9,baz=304,slow=5.8,SNR=30						
BVAR	Borovoye Array	51.44	342	P	P	00 45 27.9	-0.4
	2.9nm,0.4s,mb4.6,baz=141,slow=9.5,SNR=17						
BRTR	Keskin Array B	64.19	312	P	P	00 46 57.3	-0.9
	0.9nm,0.6s,mb4.0,baz=115,slow=7.2,SNR=4.9						
AKASG	Malin Array Be	70.22	322	P	P	00 47 34.7	-1.2
	1.5nm,0.5s,mb4.2,baz=86,slow=5.2,SNR=8.4						
MLR	Muntele Rosu	71.07	316	P	P	00 47 42.3	+1.1
	2.0nm,0.6s,mb4.2,baz=219,slow=2.9,SNR=6.8						
FINES	FINESS Array B	75.02	332	P	P	00 48 03.8	-0.2
	1.2nm,0.7s,mb3.9,baz=96,slow=4.3,SNR=8.7						
ARCES	ARCESS Array B	77.70	340	P	P	00 48 19.0	-0.1
	2.2nm,0.9s,mb4.1,baz=90,slow=6.1,SNR=8.2						
GERES	GERESS Array B	79.80	319	P	P	00 48 32.2	+1.3
	2.0nm,0.5s,mb4.3,baz=114,slow=5.3,SNR=18						
KHC	Kasperske Hory	79.90	319	*e*P	P	00 48 31.5	0.0
ESDC	Sonseca Array	92.94	310	P	P	00 49 37.5	+1.8
	0.1nm,0.3s,mb3.7,baz=79,slow=4.5,SNR=4.0						
ILAR	Eielson Array	97.07	22	P	P	00 49 53.5	-0.3
	0.4nm,0.5s,mb4.1,baz=304,slow=4.3,SNR=6.7						
PDAR	Pinedale Array	127.50	22	PKP	PKPdf	00 55 27.6	+1.2
	0.9nm,1.0s,baz=45,slow=2.1,SNR=4.3						
TXAR	Lajitas Array	141.50	26	PKP	PKPdf	00 55 52.9	0.0
	0.5nm,0.5s,SNR=5.0						

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*IDC **28** 00:37:47.7±0.4, 7.68N×94.24E, mb5.0/31, mb1 5.1/31, mb1mx5.1/31, mbtmp5.0/31, MS5.0/27, Ms1 5.0/27, ms1mx4.8/35, Error ellipse: s-maj=20.6km s-min=10.1km az=48.0*

*BJI **28** 00:37:50.7, 7.40N×93.85E, h42^{km}, mB5.4, mb5.1, Ms5.6, Msz5.3*

*ORF **28** 00:37:51.2, 7.63N×94.50E, h30^{km}, mb5.8*

*MOS **28** 00:37:51.1±0.9, 7.69N×94.11E, h33^{km}, mb5.6/63, MS5.1/31, Error ellipse: s-maj=9.9km s-min=4.7km az=123.3*

*SYO **28** 00:37:51.1, 7.65N×94.16E, h22^{km}, MB5.3, MS5.1*

*NEIC **28** 00:37:51.0±0.2, 7.66N×94.14E, mb5.4/83, MS5.1/29, Error ellipse: s-maj=7.2km s-min=6.1km az=207.0*

*HRVD **28** 00:37:51.0±0.2, 7.61N×94.32E, h22^{km}±1^{km}, MW5.5/74, Centroid moment Tensor Solution. LP body waves: s53,c92;Mantle waves: s74,c141; Half duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.03±.04; $M_{\theta\theta}$-1.98±.04; $M_{\phi\phi}$2.01±.05; $M_{r\theta}$-0.37±.08; $M_{\theta\phi}$0.50±.04; $M_{\phi r}$0.01±.07; Best double couple: $M_0$2.09×10^{17} NP1: ϕ_s143°,δ82°,λ-174°. NP2:ϕ_s52°,δ84°,λ-8°. Principal axes: T 2.07, Plg1°, Azm97°; N .04, Plg80°, Azm193°; P -2.11, Plg10°, Azm7°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 00:37:49.5±0.2**, 7.58N**±0.03×**94.14E**±0.03**, h24^{km}, h24^{km}**±.8^{km}**:pP-P, n446, σ1^{s}13**/416**, mb5.2**/142**, MS5.1**/77**, 41C-19D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	7.42	47	P	Sn	00 41 02.5	-1.1
NST	Nakhon Sawan	9.96	36	P	P	00 40 13.0	-1.4
CM31	Chiang Mai Arr	11.78	23	*e*P	P	00 40 38.3	-1.0
CMAR	Chiang Mai Arr	11.78	23	Pn	P	00 40 40.1	+0.8
	11nm,0.3s,baz=212,slow=14,SNR=27						
CMAR				LR	LR	00 45 18.6	
	comp=Z,8µm,18.4s,baz=210,slow=39						
CMAR				ScP		00 49 58.2	
	baz=199,slow=2.7,SNR=5.0						
CMAR	Chiang Mai Arr	11.78	23	LR	LR	00 45 18.6	
	comp=Z,8µm,18.4s,baz=210,slow=39						
CHG	Chiang Mai	12.11	22	⇓P	P	00 41 00.9	+17
	44nm,0.8s						
NANT	Nan	12.85	29	P	P	00 40 56.0	+2.4
UBT	Ubonrachathani	13.10	53	P	P	00 41 02.5	+5.5
PALK	Pallekele	13.33	270	*e*P	P	00 41 00.5	+0.6
VIS	Vishakhapatnam	14.58	315	*e*P	P	00 41 15.8	-0.8
VIS				*e*		00 41 26.9	
	comp=Z,338nm,1.5s						
MDRS	Chennai	14.71	293	*e*P	P	00 41 19.9	+1.7
MDRS				*e*		00 41 28.6	
	comp=Z,607nm,0.7s						
CAL	Calcutta	15.89	340	*e*	P	00 41 36.7	+3.2
CAL				*e*	S	00 44 37.0	+8.0
KOD	Kodaikanal	16.68	280	*e*P	P	00 41 49.2	+5.6
KOD				*e*S	S	00 44 52.2	+5.0
TRD	Trivandrum	17.04	274	*e*P	P	00 41 50.2	+2.1
TRD				*e*		00 42 04.3	
	comp=Z,188nm,1.5s						
BOK	Bokaro	17.96	335	*e*P	P	00 42 01.3	+1.8
BOK				*e*		00 42 08.5	
	comp=Z,288nm,1.3s						
SHL	Shillong	18.02	353	*e*P	P	00 41 56.6	-3.7
SHL				*e*		00 42 08.9	
	comp=Z,167nm,1.1s						
SHL				*e*S	S	00 45 14.0	-3.7
HYB	Hyderabad	18.07	304	⇓*e*P	P	00 42 01.5	+0.5
HYB				pmax	pmax		
	comp=Z,220nm,1.0s						
HYB	Hyderabad	18.07	304	⇓*i*P	P	00 42 01.5	+0.5
	comp=Z,220nm,1.0s						
HYB				*e*S	S	00 45 20.0	+1.0
HYB				LR	LR	00 51 16.0	
	comp=Z,4.7nm,16.0s						
BLSP	Bilaspur	18.53	323	*e*P	P	00 42 06.1	-0.4
BLSP				*e*		00 42 09.5	
	comp=Z,161nm,1.2s						
QIZ	Qiongzhong	19.04	52	P	P	00 42 16.3	+3.6
QIZ				AP		00 42 24.8	
QIZ				PP	PP	00 42 31.5	+2.2
QIZ				PPP	PPP	00 42 36.3	-2.0
QIZ				S	S	00 45 43.0	+2.2
QIZ				LR	LR		
	comp=N,30µm,12.5s						
QIZ				LR	LR		
	comp=E,12µm,13.8s						
QIZ	Qiongzhong	19.04	52	*e*P	P	00 42 12.1	-0.6
	comp=E,262nm,1.4s						

KMI	**Kunming**	19.29	24	⇑P	P	00 42 19.0	+3.4
KMI				AP		00 42 24.3	
KMI				S	S	00 45 48.5	+2.1
KMI				SS	SS	00 46 14.5	+1.9
KMI				AMB	AMB		
	comp=Z,109nm,1.3s						
KMI				AMB	AMB		
	comp=Z,1µm,5.3s						
KMI				LR	LR		
	comp=N,7µm,15.2s						
KMI				LR	LR		
	comp=E,8µm,18.3s						
KMI				LR	LR		
	comp=Z,7µm,16.3s						
MNGI	**Mangalore**	19.73	287	*e*P	P	00 42 21.2	+0.5
MNGI				*e*		00 42 26.4	
	comp=Z,254nm,1.6s						
MNGI				*e*	S	00 45 52.2	-4.0
COCO	**West Island**	19.82	172	*e*P	P	00 42 22.6	+0.9
	comp=Z,702nm,1.2s						
LATR	**Latur**	20.21	304	*e*P	P	00 42 29.2	+3.5
MNCY	**Minicoy**	20.92	273	⇓*i*P	P	00 42 36.0	+3.0
MNCY				*i*		00 43 33.0	
AKL	**Akola**	21.09	310	*e*P	P	00 42 36.7	+2.0
AKL				*e*		00 42 42.0	
	comp=Z,263nm,1.6s						
AKL				*i* S	S	00 46 29.5	+6.2
ALBI	**Allahabad**	21.20	328	*e*P	P	00 42 35.0	-0.9
GOA	**Goa**	21.39	293	*e*		00 42 44.2	
GOA				*e*		00 42 51.4	
	comp=Z,332nm,1.4s						
GOA				*e*	S	00 46 29.8	+0.8
PKI	**Pulchoki**	21.54	338	*e*P	P	00 42 38.8	-0.4
	comp=Z,814nm,1.3s,mb6.0						
GUN	**Gumba**	21.68	340	*e*P	P	00 42 40.4	-0.3
	comp=Z,630nm,0.9s,mb6.1						
DMN	**Daman**	21.68	338	*e*P	P	00 42 40.7	0.0
	comp=Z,624nm,0.9s,mb6.0						
KAD	**Karad**	21.73	298	*e*P	P	00 42 43.0	+1.8
KAD				*e*		00 42 47.7	
	comp=Z,320nm,1.1s						
KKN	**Kakani**	21.78	338	*e*P	P	00 42 40.6	-1.1
	comp=Z,548nm,1.0s,mb5.9						
LSA	**Lhasa**	22.18	353	*e*P	P	00 42 45.3	-0.4
LSA				pmax	pmax		
	comp=Z,207nm,0.7s,mb5.7						
LSA				MLR	MLR		
	comp=Z,6µm,22.0s,MS5.0						
LSA	**Lhasa**	22.18	353	*e*P	P	00 42 45.3	-0.4
	comp=Z,207nm,0.7s,mb5.7						
LSA				LR	LR		
	comp=Z,6µm,22.0s,MS5.0						
GKN	**Gorkha**	22.22	337	*e*P	P	00 42 45.9	-0.1
	comp=Z,1µm,1.4s,mb6.1						
GYA	**Guiyang**	22.24	31	⇑*i*P	P	00 42 48.5	+2.2
GYA				AP		00 42 55.0	
GYA				PP	PP	00 43 20.5	+7.4
GYA				S	S	00 46 55.5	+11
GYA				AMB	AMB		
	comp=Z,50nm,1.2s,mb4.8						
GYA				LR	LR		
	comp=N,1µm,16.7s,MS4.7						
GYA				LR	LR		
	comp=E,2µm,16.0s,MS4.7						
GYA				LR	LR		
	comp=Z,3µm,15.8s,MS4.8						
BHPL	**Bhopal**	22.37	316	*e*P	P	00 42 50.1	+2.5
BHPL				*e*		00 42 52.4	
	comp=Z,261nm,1.5s						
KOLN	**Koldanda**	22.43	335	*e*P	P	00 42 48.5	+0.4
	comp=Z,787nm,1.2s,mb6.0						
POO	**Poona**	22.54	301	*e*P	P	00 42 49.9	+0.6
POO				*e*		00 42 53.7	
	comp=Z,168nm,1.4s						
BOM	**Bombay**	23.58	301	*e*P	P	00 43 00.7	+1.2
BOM				*e*		00 43 30.4	
	comp=Z,143nm,1.3s						
BOM				*e*S	S	00 47 18.2	+9.5
AGRA	**Agra**	24.86	324	*e*P	P	00 43 11.4	-0.5
AGRA				*e*S	S	00 47 31.4	+0.9
CD2	**Chengdu**	24.90	20	P	P	00 43 12.8	+0.6
CD2				PP	PP	00 43 49.5	0.0
CD2				S	S	00 47 34.8	+3.7
CD2				SS	SS	00 48 32.5	+2.7
CD2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.2						
CD2				AMB	AMB		
	comp=Z,570nm,5.3s						
CD2				LR	LR		
	comp=N,16µm,10.8s						
CD2				LR	LR		
	comp=Z,6µm,13.2s,MS5.2						
LGTI	**Lohaghat**	25.38	331	*e*P	P	00 43 17.5	+0.7
PTH	**Pithoragarh**	25.48	331	*e*P	P	00 43 17.3	-0.4
PTH				*e*	S	00 47 55.4	+14
AYAN	**Aya Nagar**	26.27	324	*e*	P	00 43 21.0	-4.1
NDI	**New Delhi**	26.38	325	*e*P	P	00 43 25.8	-0.2
NDI				*e*		00 43 36.6	
	comp=Z,123nm,1.0s						
NDI				*e*		00 46 54.5	
AJM	**Ajmer**	26.40	318	*e*P	P	00 43 28.0	+1.7
AJM				*e*		00 43 38.3	
	comp=Z,128nm,1.0s						
KHET	**Khetri**	26.76	322	*e*P	P	00 43 29.8	+0.3
ENH	**Enshi**	26.77	31	*e*P	P	00 43 29.6	-0.1
	comp=Z,98nm,1.0s,mb5.3						
ENH				LR	LR		
	comp=Z,8µm,21.0s,MS5.2						
DDI	**Dehra Dun**	27.19	328	*e*P	P	00 43 33.0	-0.5
DDI				*e*		00 48 27.4	
KKR	**Kurukshetra**	27.57	326	*e*P	P	00 43 36.5	-0.5
RCP	**Roxas**	28.48	80	⇓*e*P	P	00 43 47.3	+2.0
WHN	**Wuhan**	29.67	37	P	P	00 43 57.3	+1.4
WHN				LR	LR		
	comp=Z,14µm,14.2s,MS5.7						
LZH	**Lanzhou**	29.73	16	*e*P	P	00 43 56.5	+0.1
LZH				AP	pP	00 44 06.5	+3.2
LZH				XP	sP	00 44 11.8	+5.4
LZH				S	S	00 48 51.0	+1.3
LZH				AMB	AMB		
	comp=Z,59nm,1.5s,mb5.1						
LZH				AMB	AMB		
	comp=Z,281nm,5.5s						
LZH				LR	LR		
	comp=E,6µm,12.3s						
LZH				LR	LR		
	comp=Z,6µm,14.3s,MS5.4						
THN	**Thein Dam**	30.08	328	*e*P	P	00 43 58.0	-1.5
	comp=Z,26nm,0.8s,mb5.0						
GTA	**Gaotai**	32.10	8	*e*P	P	00 44 16.3	-0.9
GTA				AP	pP	00 44 25.8	+1.6
GTA				XP	sP	00 44 29.8	+2.5
GTA				PCP	PcP	00 47 10.5	+4.2
GTA				S	S	00 49 18.3	-8.6
GTA				SCS	ScS	00 54 45.5	+1.1
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.4						
GTA				AMB	AMB		
	comp=Z,139nm,5.7s						
GTA				LR	LR		
	comp=N,2µm,19.0s						
GTA				LR	LR		
	comp=E,3µm,12.6s						
GTA				LR	LR		
	comp=Z,2µm,18.6s,MS4.9						
NJ2	**Nanjing**	33.50	40	*e*P	P	00 44 30.8	+1.4
NJ2				AP	pP	00 44 40.0	+3.6
NJ2				XP	sP	00 44 45.0	+5.5
NJ2				PP	PP	00 45 44.0	+2.2
NJ2				S	S	00 49 49.0	+0.3
NJ2				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.7						
NJ2				AMB	AMB		
	comp=Z,670nm,7.1s						
NJ2				LR	LR		
	comp=N,14µm,15.0s,MS6.0						
NJ2				LR	LR		
	comp=E,16µm,14.8s,MS6.0						
NJ2				LR	LR		
	comp=Z,9µm,12.4s,MS5.7						
SSE	**Sheshan**	34.44	44	P	P	00 44 37.3	-0.2
SSE				S	S	00 49 59.5	-3.8
SSE				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,161nm,5.4s						
SSE				LR	LR		
	comp=N,9µm,16.0s,MS5.6						
SSE				LR	LR		
	comp=E,4µm,16.0s,MS5.6						
SSE				LR	LR		
	comp=Z,7µm,14.1s,MS5.5						
TIA	**Tai'an**	35.40	33	*e*P	P	00 44 46.5	+0.8
KSH	**Kashi**	35.74	336	*e*P	P	00 44 49.3	+0.7
KSH				AP	pP	00 44 58.0	+2.4
KSH				XP	sP	00 45 02.3	+3.7
KSH				PP	PP	00 46 09.0	-0.6
KSH				PPP	PPP	00 46 28.8	-0.3
KSH				PCP	PcP	00 47 18.5	+1.9
KSH				S	S	00 50 22.0	-1.4
KSH				XS		00 50 38.8	
KSH				SCP		00 51 00.5	
KSH				PCS		00 51 04.0	
KSH				SS	SS	00 52 41.8	-2.5
KSH				SCS	ScS	00 55 03.0	-0.5
KSH				AMB	AMB		
	comp=Z,210nm,4.7s						
KSH				LR	LR		
	comp=N,3µm,17.0s,MS5.2						
KSH				LR	LR		
	comp=E,2µm,15.6s,MS5.2						
BTO	**Baotou**	35.81	21	*e*P	P	00 44 54.0	+4.8
BTO				S	S	00 50 18.8	-5.7
BTO				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.7						
BTO				LR	LR		
	comp=N,1µm,12.4s,MS5.2						
BTO				LR	LR		
	comp=E,2µm,14.1s,MS5.2						
WMQ	**Urumqi**	36.54	352	⇑P	P	00 44 56.5	+1.3
WMQ				AP	pP	00 45 07.0	+4.7
WMQ				XP	sP	00 45 11.5	+6.2
WMQ				PP	PP	00 46 20.5	+0.8
WMQ				PPP	PPP	00 46 40.5	+0.8
WMQ				S	S	00 50 35.5	-0.1
WMQ				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,74nm,6.8s						
WMQ				LR	LR		
	comp=N,4µm,29.0s,MS5.0						
WMQ				LR	LR		
	comp=E,2µm,26.3s,MS5.0						
WMQ				LR	LR		
	comp=Z,2µm,21.6s,MS4.8						
HHC	**Hu-ho-hao-te**	36.59	22	*e*P	P	00 44 57.3	+1.6
HHC				AP	pP	00 45 04.5	+1.7
HHC				PP	PP	00 46 19.0	-1.4
HHC				PCP	PcP	00 47 22.3	+3.2
HHC				S	S	00 50 35.3	-1.1
HHC				PCS		00 51 09.3	
HHC				AMB	AMB		
	comp=Z,21nm,1.3s,mb4.8						
HHC				AMB	AMB		
	comp=Z,460nm,5.6s						
HHC				LR	LR		
	comp=N,3µm,13.7s,MS5.6						
HHC				LR	LR		
	comp=E,6µm,13.4s,MS5.6						
HHC				LR	LR		
	comp=Z,4µm,13.4s,MS5.4						
JOW	**Kunigami**	37.62	55	LR	LR	00 59 05.6	
	comp=Z,2µm,21.8s,MS4.9,baz=254,slow=35						
JOW	**Kunigami**	37.62	55	LR	LR	00 59 05.6	
	comp=Z,2µm,21.8s,MS4.9,baz=254,slow=34						
BJT	**Baijiatuau**	37.84	28	*e*P	P	00 45 06.9	+0.7
BJT				pmax	pmax		
	comp=Z,53nm,1.0s						
BJT				MLR	MLR		
	comp=Z,5µm,22.0s						
BJT	**Baijiatuau**	37.84	28	*e*P	P	00 45 06.9	+0.7
	comp=Z,53nm,1.0s,mb5.2						
BJT				LR	LR		
	comp=Z,5µm,22.0s,MS5.2						
BJI	**Beijing**	37.87	28	P	P	00 45 08.0	+1.6
BJI				S	S	00 50 49.8	-6.1
BJI				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
BJI				LR	LR		
	comp=N,5µm,15.9s,MS5.5						
BJI				LR	LR		
	comp=E,5µm,15.6s,MS5.5						
BJI				LR	LR		
	comp=Z,2µm,19.5s,MS5.0						
ULHL	**Ulahol**	37.98	338	P	P	00 45 07.7	+0.4
	SNR=7.1						
MBWA	**Marble Bar**	38.04	139	*e*P	P	00 45 07.4	-0.7
	comp=Z,40nm,1.0s,mb5.1						
MBWA				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
KZA	**Kyzart**	38.21	337	P	P	00 45 10.1	+0.9
	SNR=11						
UCH	**Uchtor**	38.62	336	P	P	00 45 13.7	+1.0
	SNR=17						
TKM2	**Tokmak 2**	38.80	338	P	P	00 45 14.7	+0.5
	SNR=9.6						
KBK	**Karagaybulak**	38.82	337	P	P	00 45 15.6	+1.2
	SNR=27						
AML	**Almayashu**	38.87	336	P	P	00 45 15.3	+0.5
	SNR=31						
AAK	**Ala-Archa**	38.97	337	P	P	00 45 16.3	+0.6
	SNR=19						
AAK	**Ala-Archa**	38.97	337	*e*P	P	00 45 15.0	-0.7
AAK				pmax	pmax		
	comp=Z,85nm,1.1s,mb5.4						
AAK				MLR	MLR		
	comp=Z,760nm,19.0s,MS4.5						
AAK	**Ala-Archa**	38.97	337	*e*P	P	00 45 14.9	-0.7
	comp=Z,85nm,1.1s,mb5.4						
AAK				LR	LR		
	comp=Z,760nm,19.0s,MS4.5						
FRU	**Bishkek**	39.10	337	*e*P	P	00 45 19.0	+2.3
FRU				pmax	pmax		
	comp=Z,80nm,1.8s,mb5.2						
CHMS	**Chumysh**	39.19	337	P	P	00 45 17.7	+0.3
	SNR=16						
EKS2	**Erkin-Say**	39.28	336	P	P	00 45 19.3	+1.1
	SNR=11						
USP	**Ospenovka**	39.51	337	P	P	00 45 20.5	+0.4
	SNR=22						
DL2	**Dalian**	39.81	34	P	P	00 45 26.5	+3.8
DL2				S	S	00 51 28.5	+3.1
DL2				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.1						
DL2				LR	LR		
	comp=E,2µm,12.3s						
DL2				LR	LR		
	comp=Z,2µm,12.5s,MS5.1						
MKAR	**Makanchi Array**	40.37	347	*i* P	P	00 45 26.3	-0.9
MKAR				pmax	pmax		
	comp=Z,59nm,1.0s						
SONM	**Songino Array**	41.45	12	P	P	00 45 36.1	+0.1
	comp=Z,18nm,0.8s,mb4.7,baz=196,slow=6.8,SNR=40						
SONM				ScP		00 51 22.3	
	comp=Z,1.5nm,0.8s,baz=180,slow=2.5,SNR=3.6						
SONM				LR	LR	01 03 57.3	
	comp=Z,2µm,19.4s,MS5.1,baz=189,slow=38						
SONM	**Songino Array**	41.45	12	LR	LR	01 03 57.3	
	comp=Z,2µm,19.4s,MS5.1,baz=189,slow=38						
ULN	**Ulaanbaatar**	41.62	13	*e*P	P	00 45 37.3	-0.2
ULN				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.7						
ULN				MLR	MLR		
	comp=Z,2µm,19.0s,MS4.9						
ULN	**Ulaanbaatar**	41.62	13	*e*P	P	00 45 37.3	-0.2
	comp=Z,19nm,0.9s,mb4.7						
ULN				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
SNY	**Shenyang**	42.92	33	⇑P	P	00 45 50.0	+1.8
SNY				S	S	00 52 03.8	-7.6
SNY				AMB	AMB		
	comp=Z,30nm,1.6s,mb4.8						
SNY				AMB	AMB		
	comp=Z,460nm,9.2s						
SNY				LR	LR		
	comp=E,3µm,13.1s						
SNY				LR	LR		
	comp=Z,4µm,16.7s,MS5.3						
ZAK	**Zakamensk**	43.34	9	*e*P	P	00 45 50.8	-0.7
MOY	**Mondy**	44.31	6	*e*P	P	00 45 59.5	+0.1
TLY	**Talaya**	44.66	8	*e*P	P	00 46 01.9	-0.3
TLY				*e*		00 46 11.7	
TLY				*e*S	S	00 52 38.0	+1.5
TLY				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.8						
TLY				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.0						
CN2	**Changchun**	45.28	32	⇑P	P	00 46 08.5	+1.3
CN2				*e*XP	sP	00 46 23.0	+5.7
CN2				*e*S	S	00 52 46.0	+0.5
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.0						
CN2				AMB	AMB		
	comp=Z,600nm,5.0s						
CN2				LR	LR		
	comp=N,3µm,14.0s,MS5.6						
CN2				LR	LR		
	comp=E,4µm,14.0s,MS5.6						
CN2				LR	LR		
	comp=Z,3µm,15.0s,MS5.4						
NWAO	**Narrogin (SRO)**	45.89	153	*e*P	P	00 46 12.3	+0.2
NWAO				pmax	pmax		
	comp=Z,57nm,0.8s						
NWAO				MLR	MLR		
	comp=Z,2µm,20.0s						
NWAO	**Narrogin (SRO)**	45.89	153	P	P	00 46 12.3	+0.2
	comp=Z,9.4nm,0.3s,mb5.2,baz=330,slow=14,SNR=21						
NWAO	**Narrogin (SRO)**	45.89	153	*e*P	P	00 46 12.3	+0.2
	comp=Z,57nm,0.8s,mb5.5						
NWAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
HIA	**Hailar**	46.79	23	*e*P	P	00 46 20.8	+1.7
HIA				pmax	pmax		
	comp=Z,89nm,1.0s						
HIA				MLR	MLR		
	comp=Z,3µm,21.0s						
HIA	**Hailar**	46.79	23	*e*P	P	00 46 20.8	+1.7
	comp=Z,89nm,1.0s,mb5.7						
HIA				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
ZAL	**Zalesovo**	46.84	352	P	P	00 46 18.5	-0.8
	comp=Z,31nm,0.6s,mb5.4,baz=294,slow=7.6,SNR=50						
NVS	**Novosibirsk**	47.94	352	*e*P	P	00 46 25.8	-2.2
NVS				*e*S	S	00 53 20.4	-2.7
NVS				pmax	pmax		
	comp=N,24nm,0.8s						
NVS				pmax	pmax		
	comp=E,13nm,0.8s						
NVS				pmax	pmax		
	comp=Z,72nm,0.8s,mb5.8						
NVS				smax			
	comp=E,123nm,1.5s						
MDJ	**Mudanjiang**	48.05	34	P	P	00 46 30.5	+1.4
MDJ				AP	pP	00 46 39.0	+2.7
MDJ				S	S	00 53 33.8	+8.9
MDJ				AMB	AMB		
	comp=Z,25nm,2.0s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,281nm,8.8s						
MDJ				LR	LR		
	comp=N,2µm,15.8s,MS5.4						
MDJ				LR	LR		
	comp=E,3µm,14.5s,MS5.4						
MDJ				LR	LR		
	comp=Z,3µm,17.8s,MS5.3						
WRA	**Warramunga Arr**	48.09	125	P	P	00 46 28.0	-1.7
	comp=Z,6.5nm,0.7s,mb4.8,baz=306,slow=9.2,SNR=11						
WRAB	**Tennant Creek**	48.09	125	*e*P	P	00 46 27.8	-1.9
WRAB				pmax	pmax		
	comp=Z,64nm,0.9s,mb5.7						
WRAB				MLR	MLR		
	comp=Z,884nm,20.0s,MS4.7						
WRAB	**Tennant Creek**	48.09	125	*e*P	P	00 46 27.8	-2.0
	comp=Z,64nm,0.9s,mb5.7						
WRAB				LR	LR		
	comp=Z,884nm,20.0s,MS4.7						
RYDS	**Riyadh**	48.31	296	P	P	00 46 33.9	+2.5
JHJ	**Hachijo jima 2**	49.24	52	LR	LR	01 06 50.6	
	comp=Z,2µm,19.4s,MS5.2,baz=262,slow=36						
JHJ	**Hachijo jima 2**	49.24	52	LR	LR	01 06 50.6	
	comp=Z,2µm,19.3s,MS5.2,baz=261,slow=36						
BVA0	**Borovoye Array**	49.27	341	P	P	00 46 37.4	-0.9
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
BVAR	**Borovoye Array**	49.27	341	P	P	00 46 37.3	-1.0
	comp=Z,21nm,0.8s,mb5.2,baz=143,slow=7.4,SNR=29						
BRVK	**Borovoye**	49.33	341	*e*P	P	00 46 37.3	-1.5
BRVK				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.5						
BRVK				MLR	MLR		
	comp=Z,283nm,21.0s,MS4.2						
BRVK	**Borovoye**	49.33	341	*e*P	P	00 46 37.2	-1.5
	comp=Z,53nm,1.0s,mb5.5						
BRVK				LR	LR		
	comp=Z,283nm,21.0s,MS4.2						
MAT	**Matsushiro**	49.36	48	P	P	00 46 40.1	+0.8
MAT				*e*S	S	00 53 49.6	+6.3
MAT	**Matsushiro**	49.36	48	P	P	00 46 40.0	+0.7
MAT				S	S	00 53 50.0	+6.7
MAT				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
MAT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
MAT	**Matsushiro**	49.36	48	P	P	00 46 40.0	+0.7
	comp=Z,7.5nm,0.8s,mb4.8						
MAT				S	S	00 53 50.0	+6.7
MAT				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
CBIJ	**Chichi jima**	49.44	61	LR	LR	01 06 02.5	
	comp=Z,992nm,20.0s,MS4.8,baz=254,slow=35						
CBIJ	**Chichi jima**	49.44	61	LR	LR	01 06 12.1	
	comp=Z,955nm,19.2s,MS4.8,baz=253,slow=35						
KAMS	**Al Khamasin**	49.55	290	P	P	00 46 41.7	+0.8
MZLS	**Mizel**	49.57	295	P	P	00 46 42.5	+1.5
ASAR	**Alice Springs**	49.73	130	P	P	00 46 40.8	-1.5
	comp=Z,6.4nm,0.7s,mb4.8,baz=305,slow=7.5,SNR=15						
ASAR				PcP	PcP	00 48 03.3	-0.1
	comp=Z,7.4nm,1.0s,baz=302,slow=2.4,SNR=2.5						
ASAR				LR	LR	01 09 36.2	
	comp=Z,1µm,19.2s,MS5.0,baz=296,slow=38						
ASAR	**Alice Springs**	49.73	130	LR	LR	01 09 36.2	
	comp=Z,1µm,19.2s,MS5.0,baz=297,slow=39						
CHKZ	**Chkalovo**	49.75	342	⇑*e*P	P	00 46 41.4	-0.6
CHKZ				pmax	pmax		
	comp=Z,87nm,0.8s,mb5.8						
CHKZ	**Chkalovo**	49.75	342	⇑*e*P	P	00 46 41.4	-0.7
	comp=Z,87nm,0.8s,mb5.8						
TATS	**Tathlith**	50.49	289	P	P	00 46 49.5	+1.4
AFFS	**'Afif**	51.53	294	P	P	00 46 57.6	+1.7
NAMS	**An Nimas**	51.64	288	D		00 46 59.7	
ARSS	**Ar Rass**	51.68	297	P	P	00 46 58.1	+1.0
KLR	**Kul'dur**	52.14	30	*e*P	P	00 47 03.0	+2.8
KLR				*e*S	S	00 54 18.0	-3.5
KLR				*e*SS	SS	00 57 55.0	-2.1
KLR				pmax	pmax		
	comp=Z,150nm,2.6s,mb5.5						
KLR				smax			
	comp=N,600nm,15.0s						
KLR				smax			
	comp=E,1µm,15.0s						
BOD	**Bodaibo**	52.44	13	⇓*i*P	P	00 47 01.1	-1.2
HILS	**Ha'il**	53.24	299	P	P	00 47 10.3	+1.5
GNI	**Garni**	54.64	314	⇑*e*P	P	00 47 18.7	-0.1
GNI				pmax	pmax		
	comp=Z,58nm,0.9s						
GNI				MLR	MLR		
	comp=Z,573nm,20.0s						
GNI	**Garni**	54.64	314	LR	LR	01 14 48.5	
	comp=Z,372nm,20.2s,MS4.5,baz=244,slow=41						
GNI	**Garni**	54.64	314	P	P	00 47 18.9	+0.1
	comp=Z,15nm,0.7s,mb5.1,baz=349,slow=4.5,SNR=15						
GNI				LR	LR	01 15 09.5	
	comp=Z,577nm,20.6s,MS4.6,baz=244,slow=41						
GNI	**Garni**	54.64	314	⇑*e*P	P	00 47 18.7	-0.2
	comp=Z,58nm,0.9s,mb5.6						
GNI				LR	LR		
	comp=Z,573nm,20.0s,MS4.6						
CLNS	**Chul'man**	54.71	20	*e*P	P	00 47 19.4	+0.3
CLNS				pmax	pmax		
	comp=N,19nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.5						
CLNS				pmax	pmax		
	comp=E,18nm,0.9s						
CLNS				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.5						
CLNS				MLR	MLR		

	comp=N,2µm,15.0s,MS5.4						
CLNS				MLR	MLR		
	comp=E,400nm,14.0s,MS5.4						
KBRS	Khaybar	55.19	296	P	P	00 47 25.2	+2.1
TI2	Plekhanov	55.26	316⇓	*i*P	P	00 47 23.2	-0.1
PMG	Port Moresby	55.45	107	*e*P	P	00 47 24.1	-1.0
PMG				pmax	pmax		
	comp=Z,52nm,1.0s						
PMG				MLR	MLR		
	comp=Z,1µm,20.0s						
PMG	Port Moresby	55.45	107	P	P	00 47 24.7	-0.4
	comp=Z,16nm,0.7s,mb5.1,baz=289,slow=2.6,SNR=14						
PMG	Port Moresby	55.45	107	*e*P	P	00 47 24.1	-1.0
	comp=Z,52nm,1.0s,mb5.5						
PMG				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
ASAJ	Asahikawa	55.64	41	LR	LR	01 11 05.1	
	comp=Z,1µm,18.4s,MS5.0,baz=97,slow=36						
ASAJ	Asahikawa	55.64	41	LR	LR	01 11 05.1	
	comp=Z,1µm,18.3s,MS5.0,baz=91,slow=36						
SVE	Sverdlovsk	55.67	338	*e*P	P	00 47 26.0	-0.1
SVE				*e*		00 48 28.5	
SVE				*e*		00 49 26.0	
SVE				*e*S	S	00 55 08.0	-1.1
SVE				pmax	pmax		
	comp=Z,210nm,2.0s,mb5.8						
SVE				MLR	MLR		
	comp=Z,3µm,21.5s,MS5.3						
YNBS	Yanbu‘ al Bahr	56.12	294	P	P	00 47 31.3	+1.6
ARU	Arti	56.16	337⇑	*i*P	P	00 47 28.7	-0.9
ARU				*e*		00 48 25.3	
ARU				*e*		00 49 30.2	
ARU				*i* S	S	00 55 13.6	-2.0
ARU				*e*SS	SS	00 58 58.5	-3.9
ARU				*e*SSS	SSS	01 01 14.3	+3.5
ARU				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.5						
ARU				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
ARU				MLR	MLR		
	comp=N,2µm,21.0s,MS5.1						
ARU				MLR	MLR		
	comp=E,500nm,22.0s,MS5.1						
ARU	Arti	56.16	337	*e*P	P	00 47 27.9	-1.7
	comp=E,46nm,0.8s,mb5.6						
ARU				LR	LR		
	comp=Z,528nm,20.0s,MS4.6						
ZEI	Tsey	56.25	317	*i* P	P	00 47 30.5	0.0
ZEI				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
BEST	Besiri	56.39	311	P	P	00 47 30.5	-1.0
UMJS	Umm Lajj	56.85	295	P	P	00 47 37.1	+2.1
ERZM	Erzurum	56.97	313	P	P	00 47 35.5	-0.1
YSS	Yuzh-Sakhalins	57.02	38⇑	*e*P	P	00 47 34.8	-1.1
YSS				*e*S	S	00 55 32.0	+5.0
YSS				pmax	pmax		
	comp=Z,70nm,1.3s,mb5.5						
YSS				MLR	MLR		
	comp=N,2µm,15.0s,MS5.4						
YSS				MLR	MLR		
	comp=E,1µm,15.0s,MS5.4						
YSS				MLR	MLR		
	comp=Z,1µm,15.0s,MS5.2						
KMBO	Kilima Mbogo	57.39	264	*e*P	P	00 47 40.8	+1.8
KMBO				pmax	pmax		
	comp=Z,37nm,0.8s						
KMBO				MLR	MLR		
	comp=Z,2µm,19.0s						
KMBO	Kilima Mbogo	57.39	264	LR	LR	01 09 20.1	
	comp=Z,2µm,19.1s,MS5.2,baz=91,slow=34						
KMBO	Kilima Mbogo	57.39	264	P	P	00 47 41.2	+2.3
	comp=Z,26nm,0.8s,mb5.3,baz=60,slow=11,SNR=85						
KMBO				LR	LR	01 09 20.1	
	comp=Z,2µm,19.1s,MS5.2,baz=90,slow=33						
KMBO	Kilima Mbogo	57.39	264	*e*P	P	00 47 40.8	+1.9
	comp=Z,37nm,0.8s,mb5.5						
KMBO				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
KIV	Kislovodsk	57.53	318	P	P	00 47 38.5	-1.1
	comp=Z,330nm,0.8s,SNR=20						
KIV	Kislovodsk	57.53	318*c*	*i*P	P	00 47 38.7	-0.9
KIV				pmax	pmax		
	comp=N,29nm,0.9s						
KIV				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.5						
KIV				MLR	MLR		
	comp=Z,768nm,22.0s,MS4.8						
KIV				MLR	MLR		
	comp=N,272nm,17.0s,MS4.8						
KIV				MLR	MLR		
	comp=E,643nm,22.0s,MS4.8						
KIV	Kislovodsk	57.53	318	*e*P	P	00 47 38.4	-1.1
	comp=E,66nm,0.8s,mb5.7						
KIV				LR	LR		
	comp=Z,213nm,21.0s,MS4.2						
GOF	Gofitskoye	57.75	319⇓	*i*P	P	00 47 40.0	-1.1
GOF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
GOF				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.4						
TBKS	Tabuk	57.96	298	P	P	00 47 44.5	+1.8
CTA	Charters Tower	58.16	119	P	P	00 47 43.8	-0.5
	comp=Z,9.6nm,1.1s,mb4.8,baz=278,slow=10,SNR=4.1						
CTA				LR	LR	01 14 57.5	
	comp=Z,2µm,21.5s,MS5.1,baz=291,slow=38						
CTAO	Charters Tower	58.16	119	*e*P	P	00 47 43.6	-0.7
CTAO				pmax	pmax		
	comp=Z,66nm,1.6s,mb5.4						
CTAO				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.1						
CTAO	Charters Tower	58.16	119	*e*P	P	00 47 43.6	-0.7
	comp=Z,66nm,1.6s,mb5.4						
CTAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
ELZG	Elazig	58.29	311	P	P	00 47 43.9	-1.0
ASF	Jabal al Asfar	58.38	303	LR	LR	01 15 26.8	
	comp=Z,1µm,20.2s,MS5.0,baz=96,slow=39						
ASF	Jabal al Asfar	58.38	303	P	P	00 47 46.3	+0.7
	comp=Z,13nm,0.9s,mb5.0,baz=342,slow=6.2,SNR=23						
ASF				LR	LR	01 15 26.8	
	comp=Z,1µm,20.2s,MS5.0,baz=96,slow=39						
JMQS	Jabal Moqyreh	58.65	299	P	P	00 47 48.4	+0.9
MALT	Malatya	58.65	310⇑	*e*P	P	00 47 46.4	-1.1
MALT				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
MALT	Malatya	58.65	310⇑	*e*P	P	00 47 46.4	-1.0
	comp=Z,18nm,1.0s,mb5.0						
GZT	Gaziantep	59.05	309	P	P	00 47 49.9	-0.4
AYUS	‘Aynunah	59.07	298	P	P	00 47 51.3	+0.8
SOKR	Solikamsk	59.07	339⇓	*i*P	P	00 47 48.5	-1.6
SOKR				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
SOKR				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.2						
BDAS	Al Bad‘	59.25	299	P	P	00 47 52.7	+0.9
JMOS	Jabal al Moall	59.36	299	P	P	00 47 53.2	+0.7
SOC	Sochi	59.39	317	*e*P	P	00 47 50.9	-1.6
HAQS	Haql	59.49	299	P	P	00 47 54.2	+0.8
EIL	Elat	59.57	300	P	P	00 47 54.6	+0.6
	comp=Z,15nm,0.7s,mb5.1,baz=89,slow=4.2,SNR=16						
EIL	Elat	59.57	300	*e*P	P	00 47 53.9	-0.1
	comp=Z,28nm,0.7s,mb5.4						
KAHT	Ahir Dag	59.65	309	P	P	00 47 53.6	-0.7
COBT	Iskenderun	59.85	308	P	P	00 47 55.0	-0.9
STKA	Stephens Creek	59.90	134	LR	LR	01 18 55.0	
	comp=Z,2µm,18.0s,MS5.2,baz=297,slow=41						
STKA	Stephens Creek	59.90	134	P	P	00 47 55.4	-0.8
	comp=Z,5.3nm,0.7s,mb4.7,baz=283,slow=8.1,SNR=7.2						
STKA				LR	LR	01 18 55.0	
	comp=Z,2µm,18.0s,MS5.2,baz=297,slow=41						
STKA	Stephens Creek	59.90	134	*e*P	P	00 47 54.0	-2.2
YAK	Yakutsk	60.27	18	*e*P	P	00 47 56.5	-1.8
YAK				*i* *PP	pP	00 48 01.9	-3.8
YAK				*i*		00 48 39.1	
YAK				*i*		00 50 06.8	
YAK				*e*S	S	00 56 09.3	0.0
YAK				*i* SS	SS	01 00 03.4	-4.6
YAK				*i* SSS	SSS	01 02 35.3	-6.1
YAK				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,23nm,1.2s						
YAK				pmax	pmax		
	comp=E,13nm,1.1s						
YAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
YAK				smax			
	comp=N,6.0nm,1.1s						
YAK				smax			
	comp=E,4.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,2µm,14.0s,MS5.3						
YAK				MLR	MLR		
	comp=N,1µm,15.0s,MS5.3						
YAK				MLR	MLR		
	comp=E,1µm,14.0s,MS5.3						
YAK	Yakutsk	60.27	18	*e*P	P	00 47 57.0	-1.3
	comp=E,78nm,0.7s,mb5.8						
YAK				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
AVNT	Avonos	61.48	310	P	P	00 48 05.8	-1.0
MEST	Erdemli	61.52	308	P	P	00 48 05.4	-1.7
CSS	Prodhromos	61.84	306⇑	*e*P	P	00 48 07.7	-1.7
	comp=Z,19nm,0.8s,mb5.3						
BOYT	Boyabat	62.11	313	P	P	00 48 08.9	-2.2
BRTR	Keskin Array B	62.62	311	P	P	00 48 12.5	-1.9
	comp=Z,10nm,0.6s,mb5.2,baz=126,slow=7.2,SNR=44						
VOR	Voronezh	62.82	325	*e*P	P	00 48 13.5	-2.1
VOR				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.8						
ELDT	Eldivan	62.96	312	P	P	00 48 15.0	-1.6
BALT	Daday	63.24	313	P	P	00 48 17.2	-1.3
SIM	Simferopol’	63.64	317*c*	*e*P	P	00 48 19.7	-1.4
SIM				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
SIM				MLR	MLR		
	comp=Z,700nm,22.0s,MS4.8						
MBAR	Mbarara	63.74	266⇑	*e*P	P	00 48 23.4	+1.1
MBAR				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
MBAR				MLR	MLR		
	comp=Z,534nm,20.0s,MS4.7						
MBAR	Mbarara	63.74	266⇑	*e*P	P	00 48 23.4	+1.1
	comp=Z,19nm,1.0s,mb5.1						
MBAR				LR	LR		
	comp=Z,534nm,20.0s,MS4.7						
SGKT	Sivrigoynuk	64.00	312	P	P	00 48 22.2	-1.3
ESKT	Eskisehir	64.68	310	P	P	00 48 26.2	-1.8
MOS	Moscow	65.33	329α	*i*P	P	00 48 31.0	-0.9
MOS				*e*		00 49 03.9	
MOS				*e*		00 50 53.8	
MOS				*e*S	S	00 57 06.6	-6.1
MOS				pmax	pmax		
	comp=Z,400nm,1.6s,mb6.2						
MOS				pmax	pmax		
	comp=Z,174nm,0.9s,mb6.1						
MOS				MLR	MLR		
	comp=Z,2µm,19.1s,MS5.4						
OBN	Obninsk	65.63	328*d*	*i*P	P	00 48 33.0	-0.8
OBN				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.6						
OBN	Obninsk	65.63	328	*e*P	P	00 48 32.4	-1.4
	comp=Z,94nm,1.2s,mb5.7						
OBN				LR	LR		
	comp=Z,350nm,20.0s,MS4.6						
MANT	Manisa	66.25	309	P	P	00 48 37.3	-0.8
MA2	Magadan	67.03	27	*e*P	P	00 48 43.1	+0.4
MA2				*e*S	S	00 57 35.5	+2.2
MA2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
MA2				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
MA2	Magadan	67.03	27	*e*P	P	00 48 42.1	-0.5
	comp=Z,54nm,1.0s,mb5.5						
MA2				*e*	pP	00 48 51.0	+0.9
MA2				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
KDAG	Bornova	67.23	308	P	P	00 48 43.5	-0.9
KIS	Kishinev	67.74	318	*e*P	P	00 48 45.0	-2.4
AKASG	Malin Array Be	68.38	322	P	P	00 48 49.4	-2.0
	comp=Z,9.8nm,0.8s,mb4.9,baz=89,slow=4.8,SNR=31						
IDI	Anoyia	68.73	305	LR	LR	01 24 38.9	
	comp=Z,206nm,18.3s,MS4.4,baz=299,slow=41						
IDI	Anoyia	68.73	305	P	P	00 48 53.2	-0.6
	comp=Z,34nm,0.6s,mb5.5,baz=94,slow=7.7,SNR=35						
IDI				LR	LR	01 25 12.1	
	comp=Z,257nm,19.3s,MS4.5,baz=299,slow=41						
KDZ	Kurdzhali	69.12	312	*e*P	P	00 48 55.0	-1.1
LSZ	Lusaka	69.17	251⇑	*e*P	P	00 48 57.7	+1.0
LSZ				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
LSZ				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
LSZ	Lusaka	69.17	251⇑	*e*P	P	00 48 57.7	+1.0
	comp=Z,29nm,1.0s,mb5.2						
LSZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
SEY	Seymchan	69.19	25	*e*P	P	00 48 57.9	+1.8
SEY				*e*		01 05 28.9	
SEY				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.5						
MLR	Muntele Rosu	69.38	316	P	P	00 48 57.7	+0.1
	comp=Z,34nm,1.0s,mb5.2,baz=143,slow=2.4,SNR=27						
RZN	Rozhen	69.65	312	*e*P	P	00 48 57.0	-2.3
MNK	Minsk	70.20	325	*e*P	P	00 48 59.0	-3.4
MNK				pmax	pmax		
	comp=Z,240nm,1.0s,mb6.1						
VTS	Vitosha	70.88	312	*e*P	P	00 49 05.0	-1.8
KKB	Krupnik	70.88	312	*e*P	P	00 49 05.0	-1.8
IDID	Didziasalis	71.02	326	*i* P	P	00 49 06.8	-0.5
IDID				*e*pP	pP	00 49 13.8	-1.0
IDID				AMPb	AMB	00 49 16.1	
	comp=Z,32nm,1.1s,mb5.2						
IIGN	Ignalina	71.31	326	*e*P	P	00 49 08.7	-0.4
IIGN				*e*pP	pP	00 49 15.4	-1.1
IIGN				AMPb	AMB	00 49 18.0	
	comp=Z,31nm,1.2s,mb5.1						
IZAR	Zarasai	71.40	326	*e*P	P	00 49 09.0	-0.6
IZAR				AMPb	AMB	00 49 17.8	
	comp=Z,29nm,1.3s,mb5.1						
ISAL	Salakas	71.42	326	*e*P	P	00 49 09.0	-0.8
ISAL				*e*pP	pP	00 49 16.4	-0.8
BOLS	Boljevac	71.94	314⇓	*i*P	P	00 49 12.2	-0.9
APA	Apatity	72.12	339⇑	*i*P	P	00 49 13.2	-0.6
APA				*e*S	S	00 58 34.0	+0.9
APA				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
APA				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
KWP	Kalwaria	72.25	320	*e*P	P	00 49 14.8	-0.1
KWP				*e*	pP	00 49 21.6	-0.7
KOLS	Kolonicke sedl	72.42	319	*e*P	P	00 49 15.9	0.0
KOLS				*e*pP	pP	00 49 22.8	-0.5
SUW	Suwalki	72.74	324	*e*P	P	00 49 16.7	-1.0
SUW				*e*	pP	00 49 24.0	-1.1
CRVS	Cervenica-Dubn	72.95	319	*e*P	P	00 49 22.2	+3.2
FINES	FINESS Array B	72.97	332	P	P	00 49 18.3	-0.5
	comp=Z,25nm,0.7s,mb5.3,baz=104,slow=7.9,SNR=59						
FINES				LR	LR	01 28 33.8	
	comp=Z,837nm,18.6s,MS5.0,baz=287,slow=42						
FINES	FINESS Array B	72.97	332	LR	LR	01 28 33.8	
	comp=Z,838nm,18.6s,MS5.0,baz=287,slow=42						
KAF	Kangasniemi	73.05	333	*e*p	P	00 49 18.0	-1.3
	comp=Z,51nm,1.0s,mb5.4						
KAF	Kangasniemi	73.05	333	*e*P	P	00 49 18.0	-1.3
KAF				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
KECS	Kecovo	73.53	318	*e*P	P	00 49 22.2	-0.2
KECS				*e*	pP	00 49 28.5	-1.4
NIE	Niedzica	73.77	319	*e*P	P	00 49 24.2	+0.5
PSZ	Piszkesteto	73.86	318⇓	*e*P	P	00 49 24.2	-0.1
PSZ	Piszkesteto	73.86	318⇓	*e*	P	00 49 24.2	-0.1
LBTB	Lobatse	74.10	241⇑	*e*P	P	00 49 27.2	+1.1
LBTB				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
LBTB				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
LBTB	Lobatse	74.10	241⇑	*e*P	P	00 49 27.2	+1.1
	comp=Z,33nm,0.9s,mb5.3						
LBTB				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
OJC	Ojcow	74.20	320	*e*P	P	00 49 26.1	-0.1
PKSM	Moragy	74.53	316⇑	*i*P	P	00 49 27.4	-0.8
VYHS	Vyhne	74.62	318	*i* P	P	00 49 28.4	-0.3
VYHS				*e*pP	pP	00 49 35.5	-0.7
SRO	Srobarova	74.91	317	*i* P	P	00 49 30.8	+0.5
SRO				*e*pP	pP	00 49 37.4	-0.4
RHK1	Bakonya	74.92	316	*e*P	P	00 49 29.7	-0.8
KEV	Kevo	75.11	341	*e*p	P	00 49 29.8	-1.3
	comp=Z,15nm,0.8s,mb5.0						
KEV	Kevo	75.11	341	*e*P	P	00 49 29.8	-1.3
KEV				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
OKC	Ostrava-Krasne	75.21	319	*e*P	P	00 49 32.1	0.0
OKC				*e*pP	pP	00 49 39.1	-0.5
BOSA	Boshof	75.43	238⇑	*e*P	P	00 49 34.7	+1.0
BOSA				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
BOSA				MLR	MLR		
	comp=Z,902nm,20.0s,MS5.1						
BOSA	Boshof	75.43	238⇑	*e*P	P	00 49 34.7	+0.9
	comp=Z,32nm,0.8s,mb5.3						
BOSA				LR	LR		
	comp=Z,902nm,20.0s,MS5.1						
TIP	Timpagrande	75.48	308	*e*P	P	00 49 31.3	-2.5
ARCES	ARCESS Array B	75.54	340	P	P	00 49 33.7	+0.2
	comp=Z,15nm,0.9s,mb4.9,baz=93,slow=6.5,SNR=15						
ARCES				LR	LR	01 25 39.2	
	comp=Z,2µm,21.1s,MS5.4,baz=118,slow=38						
ARCES	ARCESS Array B	75.54	340	LR	LR	01 25 39.2	
	comp=Z,2µm,21.1s,MS5.4,baz=119,slow=38						
ARE0	ARCESS Array S	75.54	340	*e*P	P	00 49 33.5	-0.1
MORC	Moravsky Berou	75.60	319	*e*P	P	00 49 33.9	-0.4
MORC				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.5						
MORC	Moravsky Berou	75.60	319	*e*P	P	00 49 33.9	-0.4
	comp=Z,73nm,1.2s,mb5.5						
ZST	Bratislava	75.75	318	*e*P	P	00 49 35.2	0.0
ZST				*e*pP	pP	00 49 42.3	-0.4
SOP	Sopron	76.08	317⇓	*e*P	P	00 49 37.1	+0.1
GKP	Gorka Klasztor	76.13	323	*e*P	P	00 49 37.2	0.0
GKP				*e*	pP	00 49 43.7	-1.0
VRAC	Vranov	76.17	319	P	P	00 49 37.5	0.0
	comp=Z,4.1nm,0.4s,mb4.7,baz=69,slow=6.0,SNR=8.5						
BILL	Bilibino	76.36	22	*e*P	P	00 49 37.4	-0.8
BILL				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
BILL				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.4						
BILL	Bilibino	76.36	22	*e*P	P	00 49 37.4	-0.8
	comp=Z,29nm,1.2s,mb5.1						
BILL				LR	LR		
	comp=Z,2µm,19.0s,MS5.4						
DPC	Dobruska-Polom	76.43	320	*e*P	P	00 49 39.2	+0.3
DPC				*e*pP	pP	00 49 46.6	+0.1
KSP	Ksiaz	76.49	320	*e*P	P	00 49 39.5	+0.2
KSP				*e**PP	pP	00 49 45.1	-1.7
KSP				*e*		00 49 57.8	
KSP	Ksiaz	76.49	320	*e*P	P	00 49 40.0	+0.7
KSP				*e*		00 49 45.2	
UPC	Upice	76.64	320	*e*P	P	00 49 40.5	+0.4
UPC				*e*pP	pP	00 49 47.6	0.0
ARSA	Arzberg	76.75	317⇑	*i*P	P	00 49 40.9	+0.1
	comp=Z,43nm,1.5s,mb5.2						
BOJS	Bojanci	76.85	315	*e*P	P	00 49 40.4	-1.0
LJU	Ljubljana	77.38	315	*e*P	P	00 49 44.7	+0.4
OBKA	Obir	77.38	316⇑	*i*P	P	00 49 44.6	+0.3
	comp=Z,42nm,1.2s,mb5.2						
PRU	Pruhonice	77.55	319	*e*P	P	00 49 45.6	+0.4
PRU				*e*pP	pP	00 49 52.6	-0.1
PVCC	Panska Ves	77.56	320	*e*P	P	00 49 46.0	+0.8
MOA	Molln	77.63	317⇑	*i*P	P	00 49 45.6	0.0
	comp=Z,29nm,1.2s,mb5.1						
BSD	Bornholm Skovb	77.66	325	*e*P	P	00 49 43.4	-2.3
BSD				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
BSD	Bornholm Skovb	77.66	325	*e*P	P	00 49 43.4	-2.3
	comp=Z,38nm,1.0s,mb5.3						
BSD				*i*		00 50 14.2	
BSD	Bornholm Skovb	77.66	325	*i* P	P	00 49 43.4	-2.3
	comp=Z,38nm,1.0s,mb5.3						
BSD				*i*		00 50 14.2	
VOY	Vojsko	77.82	315	*e*P	P	00 49 46.4	-0.3
VOY				*e*		00 50 00.3	
BRG	Berggiesshubel	77.98	320	*i* P	P	00 49 47.5	0.0
BRG				*i*	pP	00 49 54.8	-0.2
BRG				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.0						
BRG				MLR	MLR		
	comp=Z,1µm,18.5s,MS5.3						
BRG	Berggiesshubel	77.98	320	*i* P	P	00 49 47.5	0.0
	comp=Z,36nm,1.6s,mb5.0						
BRG				*i*	pP	00 49 54.8	-0.2
BRG				LR	LR		
	comp=Z,1µm,18.5s,MS5.3						
GEC2	GERESS Array S	78.05	318	*e*P	P	00 49 48.4	+0.5
GEC2				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
GEC2	GERESS Array S	78.05	318	*e*P	P	00 49 48.4	+0.5
	comp=Z,39nm,1.0s,mb5.3						
GERES	GERESS Array B	78.05	318	P	P	00 49 48.3	+0.4
	comp=Z,12nm,0.7s,mb4.9,baz=85,slow=5.3,SNR=50						
GERES				PKKPbc		01 08 51.7	
	comp=Z,0.7nm,0.9s,baz=315,slow=4.2,SNR=4.1						
GERES				LR	LR	01 29 01.9	
	comp=Z,539nm,21.1s,MS4.8,baz=208,slow=39						
GERES	GERESS Array B	78.05	318	LR	LR	01 29 01.9	
	comp=Z,539nm,21.1s,MS4.8,baz=208,slow=40						
ROBS	Robic	78.09	316	*e*P	P	00 49 47.8	-0.4
KHC	Kasperske Hory	78.14	319	*e*P	P	00 49 48.4	0.0
KHC				*e*pP	pP	00 49 55.3	-0.6
RUE	Ruedersdorf	78.16	322	*e*P	P	00 49 47.1	-1.3
	comp=Z,73nm,0.9s,mb5.6						
PTCC	Patocco-Chiusa	78.20	316	*e*P	P	00 49 49.0	+0.2
KBA	Koelnbreinsper	78.23	316⇓	*i*P	P	00 49 49.1	+0.2
	comp=Z,18nm,0.9s,mb5.0						
KBA	Koelnbreinsper	78.23	316⇓	*i*P	P	00 49 49.1	+0.2
KBA				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
MAW	Mawson	78.25	192	LR	LR	01 19 54.3	
	comp=Z,770nm,18.5s,MS5.1,baz=45,slow=33						
MAW	Mawson	78.25	192	P	P	00 49 48.7	+0.1
	comp=Z,6.5nm,0.5s,mb4.9,baz=122,slow=16,SNR=15						
MAW				LR	LR	01 19 54.3	
	comp=Z,770nm,18.5s,MS5.1,baz=44,slow=32						
ARV	Arcevia	78.45	313	*e*P	P	00 49 50.3	+0.1
FSSB	Fossombrone	78.57	313	*e*P	P	00 49 50.9	0.0
CLL	Collm	78.59	321	*e*P	P	00 49 50.0	-0.8
CLL				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
CLL	Collm	78.59	321	*e*P	P	00 49 50.0	-0.8
	comp=Z,35nm,1.4s,mb5.1						
CLL	Collm	78.59	321	P	P	00 49 51.0	+0.2
	comp=Z,logA/T=1.4,mb5.1						
CLL				*i* *PP	pP	00 49 57.8	-0.6
CLL				*e**SP	sP	00 50 04.0	+3.1
CLL				*i*		00 50 10.7	
WET	Wettzell	78.60	319	*e*P	P	00 49 51.4	+0.5
FVI	Forni Avoltri	78.60	316	*e*P	P	00 49 50.7	-0.3
HFS	Hagfors	78.71	330	LR	LR	01 29 06.7	
	comp=Z,1µm,18.3s,MS5.3,baz=30,slow=39						
HFS	Hagfors	78.71	330	P	P	00 49 51.0	-0.3
	comp=Z,16nm,0.6s,mb5.2,baz=104,slow=6.1,SNR=58						
HFS				LR	LR	01 29 06.7	
	comp=Z,1µm,18.3s,MS5.3,baz=30,slow=39						
NKC	Novy Kostel	78.91	320	*e*P	P	00 49 52.1	-0.5
NKC				*e*pP	pP	00 49 59.7	-0.4
SFI	Santa Sofia	79.24	313	*e*P	P	00 49 55.6	+1.0
PGD	Poggio Sodo	79.33	313	*e*P	P	00 49 56.4	+1.3
CTI	Castel Tesino	79.38	315	*e*P	P	00 49 55.7	+0.4
WTTA	Wattenberg	79.40	317⇑	*i*P	P	00 49 55.1	-0.2
	comp=Z,36nm,0.8s,mb5.4						
WTTA	Wattenberg	79.40	317⇑	*i*P	P	00 49 55.1	-0.2
WTTA				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
WATA	Walderalm	79.44	317⇓	*i*P	P	00 49 55.3	-0.2
	comp=Z,25nm,0.9s,mb5.1						
WATA	Walderalm	79.44	317⇓	*i*P	P	00 49 55.3	-0.2
WATA				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
MOX	Moxa	79.45	320	*e*P	P	00 49 55.7	+0.2
MOX				pmax	pmax		
	comp=Z,134nm,2.4s,mb5.5						
MOX				MLR	MLR		
	comp=Z,900nm,18.0s,MS5.2						
MOX	Moxa	79.45	320	*i* P	P	00 49 55.7	+0.2
	comp=Z,logA/T=1.8,mb5.5						
MOX				L		01 31 28.0	
MOX	Moxa	79.45	320	*e*P	P	00 49 55.7	+0.2
	comp=Z,134nm,2.4s,mb5.5						
MOX				LR	LR		
	comp=Z,900nm,18.0s,MS5.2						
SEI	Scarperia	79.60	313	*e*P	P	00 49 57.1	+0.7
FUR	Furstenfeldbru	79.64	318	*e*P	P	00 49 56.0	-0.6
SQTA	Sankt Quirin	79.69	317⇑	*i*P	P	00 49 56.5	-0.4
	comp=Z,16nm,0.6s,mb5.1						

SQTA	Sankt Quirin	79.69	317	⇑*i*P	P	00 49 56.5	-0.4
SQTA				pmax	pmax		
	comp=Z,16nm,0.6s,mb5.1						
GRA1	Grafenberg Arr	79.69	319	*e*P	P	00 49 56.2	-0.7
	comp=Z,52nm,1.2s,mb5.3						
GRF	Grafenberg Arr	79.69	319	*e*P	P	00 49 56.2	-0.7
GRF				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.3						
GRF	Grafenberg Arr	79.69	319	*e*P	P	00 49 56.2	-0.7
GRF				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.3						
GRF	Grafenberg Arr	79.69	319	*e*P	P	00 49 56.2	-0.7
	comp=Z,52nm,1.2s,mb5.3						
MOTA	Moosalm	79.76	317	*i* CP		00 49 57.0	
	comp=Z,23nm,0.8s						
MOTA	Moosalm	79.76	317	⇑*i*P	P	00 49 57.0	-0.3
MOTA				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.2						
MOTA	Moosalm	79.76	317	⇑*i*P	P	00 49 57.0	-0.3
	comp=Z,23nm,0.8s,mb5.2						
ZCCA	Zocca	79.87	314	*e*P	P	00 49 59.7	+1.8
NB2	NORSAR Subarra	79.99	331	P	P	00 49 57.6	-0.6
	comp=Z,30nm,0.9s,mb5.2,baz=92,slow=5.8						
NB2	NORSAR Subarra	79.99	331	P	P	00 49 57.6	-0.6
	baz=92,slow=5.9						
NB2	NORSAR Subarra	79.99	331	P	P	00 49 57.6	-0.6
NB2				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
NOA	NORSAR Array B	79.99	331	LR	LR	01 30 23.8	
	comp=Z,616nm,18.8s,MS5.0,baz=95,slow=40						
NOA	NORSAR Array B	79.99	331	P	P	00 49 58.5	+0.3
	comp=Z,12nm,0.7s,mb5.0,baz=94,slow=5.6,SNR=15						
NOA				LR	LR	01 30 33.1	
	comp=Z,600nm,18.6s,MS5.0,baz=95,slow=40						
NAO01	NORSAR Array S	80.14	330	*e*P	P	00 49 56.6	-2.4
	comp=Z,18nm,0.7s,mb5.1						
GSCL	Gusciola	80.15	314	*e*P	P	00 50 00.5	+1.1
SUR	Sutherland	80.16	235	*e*P	P	00 50 01.5	+1.8
	comp=Z,30nm,0.9s,mb5.2						
SAL	Salo	80.17	315	*e*P	P	00 50 00.5	+1.0
CLZ	Clausthal	80.24	321	*e*P	P	00 49 59.8	0.0
	comp=Z,68nm,1.4s,mb5.4						
BRMO	Bormio	80.27	316	*e*P	P	00 50 00.3	+0.3
BSEG	Bad Segeberg	80.29	323	*e*P	P	00 50 00.4	+0.4
DAVA	Damuels	80.59	317	⇑*i*P	P	00 50 02.2	+0.5
	comp=Z,65nm,1.5s,mb5.3						
DAVOX	Davos	80.60	316	LR	LR	01 29 41.5	
	comp=Z,778nm,21.4s,MS5.0,baz=336,slow=39						
DAVOX	Davos	80.60	316	LR	LR	01 29 41.5	
	comp=Z,779nm,21.4s,MS5.0,baz=336,slow=39						
MUD	Monsted U'grnd	80.95	326	*e*P	P	00 50 04.4	+1.0
MUD				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.4						
MUD	Monsted U'grnd	80.95	326	*e*P	P	00 50 04.4	+1.0
	comp=Z,52nm,1.1s,mb5.4						
MUD	Monsted U'grnd	80.95	326	*i* P	P	00 50 04.4	+1.0
	comp=Z,52nm,1.1s,mb5.4						
STU	Stuttgart	81.02	318	*e*P	P	00 50 04.0	0.0
STU				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
STU	Stuttgart	81.02	318	*e*P	P	00 50 04.0	0.0
	comp=Z,21nm,0.9s,mb5.1						
TOD	Tromm	81.26	319	*e*P	P	00 50 03.4	-1.8
SPAK	Spaichingen	81.31	317	*e*P	P	00 50 04.0	-1.5
VAI	Varese	81.39	315	*e*P	P	00 50 05.6	-0.4
BFO	Black Forest	81.61	318	*e*P	P	00 50 06.1	-0.9
BFO				pmax	pmax		
	comp=Z,59nm,1.8s,mb5.2						
BFO	Black Forest	81.61	318	*e*P	P	00 50 06.1	-0.9
	comp=Z,59nm,1.8s,mb5.2						
FELD	Feldberg	81.84	317	*e*P	P	00 50 06.3	-1.9
LANF	Langenberg	81.93	318	*e*P	P	00 50 07.0	-1.7
MCGN	Macugnaga	81.94	315	*e*P	P	00 50 09.7	+1.0
ABH	Alteburg	82.07	319	*e*P	P	00 50 07.3	-2.1
WLS	Welschbruch	82.26	318	*e*P	P	00 50 09.2	-1.2
SAOF	Saorge	82.34	313	*e*P	P	00 50 10.5	-0.4
RUP	Ruppelstein	82.39	319	*e*P	P	00 50 09.0	-2.0
ECH	Echery	82.40	318	*e*P	P	00 50 10.2	-0.9
AUTN	L'Aution	82.43	313	*e*P	P	00 50 10.6	-0.8
MOF	Molkenrain	82.43	317	*e*P	P	00 50 10.3	-1.0
REVF	Revere	82.49	313	*e*P	P	00 50 11.0	-0.7
TOUF	Mont Tournerai	82.56	313	*e*P	P	00 50 11.9	-0.1
LOMF	Lomont	82.67	317	*e*P	P	00 50 11.1	-1.4
LPG	La Plagne	82.83	315	⇑*i*P	P	00 50 14.1	+0.7
	comp=Z,123nm,1.1s,mb5.5						
LPG	La Plagne	82.83	315	⇑*i*P	P	00 50 14.1	+0.7
LPG				pmax	pmax		
	comp=Z,62nm,1.1s,mb5.5						
BNI	Bardonecchia	82.90	314	*e*P	P	00 50 13.7	-0.1
BNI				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
BNI	Bardonecchia	82.90	314	*e*P	P	00 50 13.7	-0.1
	comp=Z,32nm,0.8s,mb5.4						
THEF	They Montfort	83.18	318	*e*P	P	00 50 12.9	-2.3
SYO	Syowa Base	85.12	197	⇑P	P	00 50 24.7	+0.2
SYO	Syowa Base	85.12	197	⇓PcP	PcP	00 50 30.3	+2.1
AGO	Saint Agoulin	85.30	316	*e*P	P	00 50 24.7	-1.2
LBL	Lubilhac	85.31	315	*e*P	P	00 50 24.8	-1.2
PYM	Petit Puy Mans	85.42	315	*e*P	P	00 50 25.8	-0.7
RPZ	Rata Peaks	85.84	135	LR	LR	01 32 25.9	
	comp=Z,1μm,20.7s,MS5.2,baz=102,slow=38						
RPZ	Rata Peaks	85.84	135	LR	LR	01 32 25.9	
	comp=Z,1μm,20.7s,MS5.2,baz=103,slow=38						
EJON	La Jonquera	85.87	312	P	P	00 50 24.6	-4.3
	comp=Z,4.0nm,0.6s,mb4.8						
EPOB	Poblet	87.34	311	P	P	00 50 36.0	-0.1
	comp=Z,15nm,0.7s,mb5.3						
EBIE	Bielsa	87.85	313	P	P	00 50 37.9	-0.6
	comp=Z,6.7nm,0.8s,mb4.9						
EBR	Ebro Roquetas	87.85	311	*e*P	P	00 50 38.0	-0.5
ERTA	Horta de San J	87.95	311	P	P	00 50 38.2	-0.8
	comp=Z,9.2nm,1.0s,mb5.0						
EKA	Eskdalemuir Ar	87.96	325	P	P	00 50 39.7	+1.0
	comp=Z,14nm,0.8s,mb5.2,baz=95,slow=5.2,SNR=7.1						
EMOS	Mosqueruela	88.65	310	P	P	00 50 43.0	+0.7
	comp=Z,15nm,0.8s,mb5.4						
EALK	Alkurruntz	88.96	313	P	P	00 50 45.0	+1.2
	comp=Z,24nm,1.3s,mb5.4						
URZ	Urewera	89.16	129	LR	LR	01 38 12.7	
	comp=Z,614nm,18.2s,MS5.1,baz=329,slow=41						
URZ	Urewera	89.16	129	LR	LR	01 27 53.2	
	comp=Z,614nm,21.1s,MS5.0,baz=314,slow=35						
URZ	Urewera	89.16	129	P	P	00 50 45.2	+0.4
	comp=Z,8.5nm,0.9s,mb5.1,baz=351,slow=6.9,SNR=3.7						
URZ				LR	LR	01 38 12.7	
	comp=Z,615nm,18.2s,MS5.1,baz=331,slow=41						
ELAN	Lanestosa	90.35	314	P	P	00 50 51.0	+0.8
	comp=Z,13nm,0.9s,mb5.3						
EVIA	Vianos	90.48	309	P	P	00 50 51.1	+0.1
EVIA				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.2						
EVIA	Vianos	90.48	309	P	P	00 50 51.1	+0.1
	comp=Z,14nm,1.1s,mb5.2						
EQES	Quesada	91.07	308	P	P	00 50 54.4	+0.7
	comp=Z,6.9nm,0.7s,mb5.1						
EBER	Berja	91.08	307	P	P	00 50 53.5	-0.4
	comp=Z,13nm,0.8s,mb5.3						
GUD	Guadarrama	91.36	311	P	P	00 50 56.5	+1.5
GUD				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.2						
GUD	Guadarrama	91.36	311	P	P	00 50 56.5	+1.5
	comp=Z,11nm,0.8s,mb5.2						
ESDC	Sonseca Array	91.41	310	P	P	00 50 56.2	+1.0
	comp=Z,5.5nm,0.7s,mb5.0,baz=63,slow=4.1,SNR=30						
ESDC	Sonseca Array	91.41	310	P	P	00 50 55.5	+0.2
	comp=Z,11nm,0.6s,mb5.4						
ESLA	Sonseca Array	91.41	310	*e*P	P	00 50 56.1	+0.8
	comp=Z,9.8nm,1.2s,mb5.0						
ESLA				LR	LR		
	comp=Z,3μm,19.0s,MS5.7						
EBAN	Banos Encina	91.56	309	P	P	00 50 56.5	+0.6
EBAN				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.2						
EBAN	Banos Encina	91.56	309	P	P	00 50 56.5	+0.6
	comp=Z,17nm,1.2s,mb5.3						
EARI	Arriondas	91.61	314	P	P	00 50 56.6	+0.6
	comp=Z,15nm,1.1s,mb5.2						
IMA	Indian Mountai	91.90	22	*e*P	P	00 50 58.1	+1.3
IMA				pmax	pmax		
	comp=Z,98nm,1.0s,mb6.1						
IMA	Indian Mountai	91.90	22	*e*P	P	00 50 58.0	+1.2
	comp=Z,98nm,1.0s,mb6.1						
EADA	Adamuz	92.17	309	P	P	00 50 59.7	+0.9
	comp=Z,6.2nm,0.8s,mb5.0						
VNDA	Vanda	92.64	168	LR	LR	01 30 15.2	
	comp=Z,570nm,18.1s,MS5.1,baz=308,slow=34						
VNDA	Vanda	92.64	168	P	P	00 51 02.1	+2.0
	comp=Z,1.8nm,0.9s,mb4.5,baz=335,slow=4.5,SNR=3.2						
VNDA				LR	LR	01 30 15.2	
	comp=Z,569nm,18.1s,MS5.1,baz=307,slow=34						
ECAL	Calabor	93.00	313	P	P	00 51 04.8	+2.3
	comp=Z,13nm,1.1s,mb5.3						
ESPR	Espera	93.42	308	P	P	00 51 06.5	+1.9
	comp=Z,23nm,1.7s,mb5.3						
EMIN	Mina Concepcio	93.87	309	P	P	00 51 07.0	+0.4
	comp=Z,3.0nm,0.9s,mb4.7						
SUMG	Summit	94.43	347	P	P	00 51 05.6	-2.8
	comp=Z,33nm,1.3s,mb5.6						
SPU	Mount Spurr	94.55	26	*e*P	P	00 51 09.8	+0.7
MCK	McKinley	94.73	23	*e*P	P	00 51 10.7	+0.8
MCK				pmax	pmax		
	comp=Z,11nm,1.0s,mb5.2						
MCK				MLR	MLR		
	comp=Z,652nm,20.0s,MS5.1						
MCK	McKinley	94.73	23	*e*P	P	00 51 10.7	+0.8
	comp=Z,11nm,1.0s,mb5.2						
MCK				LR	LR		
	comp=Z,652nm,20.0s,MS5.1						
ILAR	Eielson Array	95.02	22	P	P	00 51 11.6	+0.4
	comp=Z,1.5nm,0.7s,mb4.5,baz=286,slow=4.2,SNR=14						
ILAR				PP	PP	00 55 02.0	-0.7
	comp=Z,1.5nm,0.8s,baz=294,slow=6.2,SNR=6.4						
ILAR				PKKP	PKKP	01 08 06.9	+7.2
	comp=Z,0.6nm,0.9s,baz=153,slow=2.0,SNR=3.8						
ILAR				LR	LR	01 40 03.5	
	comp=Z,582nm,19.7s,MS5.0,baz=132,slow=39						
ILAR	Eielson Array	95.02	22	LR	LR	01 40 03.5	
	comp=Z,583nm,19.7s,MS5.1,baz=133,slow=39						
SML	Sawmill	95.87	25	*e*P	P	00 51 16.4	+1.2
INK	Inuvik	97.28	16	LR	LR	01 42 48.9	
	comp=Z,808nm,18.1s,MS5.2,baz=120,slow=40						
INK	Inuvik	97.28	16	P	P	00 51 21.9	+0.5
	comp=Z,11nm,1.1s,mb5.2,baz=301,slow=8.2,SNR=6.7						
INK				LR	LR	01 42 48.9	
	comp=Z,808nm,18.1s,MS5.2,baz=120,slow=40						
DBIC	Dimbokro	97.98	278	LR	LR	01 35 44.1	
	comp=Z,1μm,19.5s,MS5.4,baz=62,slow=36						
DBIC	Dimbokro	97.98	278	P	P	00 51 27.4	+1.6
	comp=Z,7.5nm,1.1s,mb5.1,baz=309,slow=21,SNR=5.9						
DBIC				LR	LR	01 35 44.1	
	comp=Z,1μm,19.5s,MS5.4,baz=62,slow=35						
SNAA	Sanae	99.34	199	LR	LR	01 29 25.6	
	comp=Z,67nm,18.0s,MS4.2,baz=296,slow=31						
YKA	Yellowknife Ar	106.71	13	Pdiff	Pdif	00 52 05.9	+2.3
	comp=Z,0.3nm,0.8s,baz=327,slow=4.9,SNR=3.3						
YKA				PP	PP	00 56 27.0	-5.3
	comp=Z,1.1nm,0.8s,baz=336,slow=7.5,SNR=8.0						
YKA				PKKPbc		01 07 32.7	
	comp=Z,0.4nm,0.7s,baz=150,slow=3.5,SNR=7.8						
TBI	Tubuai	117.18	112	*e*LR	LR	00 53 16.0	
	comp=Z,273nm,22.5s						
TBI	Tubuai	117.18	112	*e*LR	LR	01 33 00.9	
	comp=Z,643nm,27.8s						
PPT	Papeete	117.26	106	*e*LR	LR	00 53 15.2	
	comp=Z,523nm,33.2s						
PPT	Papeete	117.26	106	*e*LR	LR	01 33 02.2	
	comp=Z,640nm,26.0s						
MSO	Missoula	120.35	22	*e*PKPdf	PKPdf	00 56 40.4	-3.3
ULM	Lac du Bonnet	121.76	8	PKP	PKPdf	00 56 44.3	-2.0
	comp=Z,4.8nm,0.8s,baz=2.2,slow=2.8,SNR=8.1						
MCMT	McKenzie Canyo	122.45	23	*e*PKPdf	PKPdf	00 56 44.3	-3.4
WUWY	Wally Ulrich	124.34	22	*e*PKPdf	PKPdf	00 56 49.5	-2.0
SNOW	Snow King Moun	124.40	22	*e*PKPdf	PKPdf	00 56 48.3	-3.3
REDW	Red Top Meadow	124.45	22	*e*PKPdf	PKPdf	00 56 48.7	-2.9
ELK	Elko	124.83	27	*e*PKIKP	PKPdf	00 56 50.1	-2.4
NVAR	Mina Array Bea	125.17	31	PKP	PKPdf	00 56 51.6	-1.6
	comp=Z,1.6nm,0.7s,baz=260,slow=4.5,SNR=4.6						
PDAR	Pinedale Array	125.44	21	PKP	PKPdf	00 56 51.0	-2.7
	comp=Z,2.9nm,0.9s,slow=1.5,SNR=12						
MVU	Marysvale	128.01	26	*e*PKPdf	PKPdf	00 56 58.1	-0.6
MSU	Marysvale	128.02	26	*e*PKIKP	PKPdf	00 56 58.1	-0.6
PV10	Paradox Valley	129.44	24	*e*PKPdf	PKPdf	00 56 59.7	-1.7
RKT	Rikitea	130.44	114	*e*LR	LR	01 39 09.6	
	comp=Z,1μm,41.0s						
ANMO	Albuquerque	133.44	23	PKP	PKPdf	00 57 08.1	-1.0
	comp=Z,2.4nm,0.8s,baz=341,slow=2.3,SNR=4.3						
WVT	Waverly	136.49	2	*e*PKIKP	PKPdf	00 57 08.8	-5.8
MIAR	Mount Ida	137.48	9	*e*PKIKP	PKPdf	00 57 12.6	-3.9
TXAR	Lajitas Array	139.50	24	PKhKP		00 57 11.7	
	comp=Z,0.3nm,0.5s,baz=333,slow=2.0,SNR=5.1						
TXAR				PKP	PKPdf	00 57 18.3	-2.1
	comp=Z,0.9nm,0.6s,baz=132,slow=0.6,SNR=6.2						
BDFB	Brasilia	142.12	254	PKhKP		00 57 18.8	
	comp=Z,5.0nm,0.8s,baz=137,slow=5.3,SNR=7.7						
SJG	San Juan	147.90	323	*e*PKP2	PKPab	00 57 35.5	-2.9
SJG	San Juan	147.90	323	PKPbc	PKPdf	00 57 35.8	+0.7
	comp=Z,19nm,0.6s,baz=72,slow=6.5,SNR=8.0						
FCH	Farellones	150.60	207	*e*P	PKPdf	00 57 43.5	+4.4
SDV	Santo Domingo	157.69	317	PKP	PKPdf	00 57 48.7	-0.6
	comp=Z,1.3nm,0.4s,baz=357,slow=4.7,SNR=2.9						
SDV				PKPab	PKPab	00 58 19.6	0.0
	comp=Z,9.1nm,0.8s,baz=10,slow=2.4,SNR=6.2						
LPAZ	La Paz	160.63	242	*e*PKIKP	PKPdf	00 57 51.6	-1.0
LPAZ	La Paz	160.63	242	PKP	PKPdf	00 57 51.6	-0.9
	comp=Z,1.4nm,0.8s,baz=198,slow=6.4,SNR=3.7						
OTAV	Otavalo	169.28	316	*e*PKPdf	PKPdf	00 58 00.4	+0.3

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*NEIC **28** 00:39:23.7, 15.83N×96.29W, h37^{km}, MD4.4(MEX), After MEX.*

NEIC Felt at Huatulco.

*MEX **28** 00:39:23.6±0.9, 15.83N×96.29W, h36^{km}±10^{km}, MD4.4*

ISC 28 00:39:21.9±0.7, **15.88N**±0.05×**96.30W**±0.03, **h39**^{km}±11^{km}, **n34, σ1^{s}28**/60, **1C, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	Huatulco	0.21	122	⇑*i*P	P	00 39 29.0	-0.2
HUIG				*e*S	S	00 39 33.6	-0.6
HUIG	Huatulco	0.21	122	*i* P	P	00 39 28.9	-0.3
HUIG				*e*S	S	00 39 33.6	-0.6
VHO	Vista Hermosa	1.26	341	*e*P	P	00 39 44.1	+0.8
VHO				*e*S	S	00 39 59.7	+0.4
VHO	Vista Hermosa	1.26	341	*e*P	P	00 39 43.8	+0.5
VHO				*e*S	S	00 39 59.7	+0.4
OXX	Oaxaca	1.26	341	*e*P	P	00 39 43.5	+0.1
OXX				*i* S	S	00 39 60.0	+0.6
OXX	Oaxaca	1.26	341	*i* P	P	00 39 43.5	+0.2
OXX				*i* S	S	00 39 59.8	+0.3
CMIG	Matias Romero	1.81	48	*e*P	P	00 39 50.5	-0.7
CMIG				*e*S	S	00 40 13.0	-0.2
PNIG	Pinotepa	1.83	286	*e*P	P	00 39 52.0	+0.5
PNIG				*e*S	S	00 40 12.6	-1.1
PNIG	Pinotepa	1.83	286	*e*P	P	00 39 51.9	+0.4
PNIG				*e*S	S	00 40 12.6	-1.1
EVV	El Vigia	2.72	19	*e*P	P	00 40 04.9	+0.8
EVV				*i* S	S	00 40 40.6	+4.5
EVV	El Vigia	2.72	19	*e*P	P	00 40 05.1	+1.0
IISM	Ciudad Serdan	3.26	342	*e*P	P	00 40 14.7	+2.8
IISM				*i* S	S	00 40 47.3	-2.6
IISM	Ciudad Serdan	3.26	342	*i* S	S	00 40 47.3	-2.6
ACX	Acapulco	3.61	286	*e*P	P	00 40 13.8	-3.1
ACX				*i* P		00 40 16.0	
ACX				*i* S	S	00 40 59.2	+0.4
ACX	Acapulco	3.61	286	*i* P	P	00 40 16.0	-0.8
SCX	San Cristobal	3.62	76	*e*P	P	00 40 16.0	-0.9
SCX				*e*P		00 40 21.9	
SCX				*i* S	S	00 40 55.2	-3.8
SCX	San Cristobal	3.62	76	*e*P	P	00 40 16.0	-0.9
SCX				*i* S	S	00 40 55.5	-3.5
IIB	San Bernardino	3.64	328	*e*P	P	00 40 20.0	+2.8
PPM	Popocatepetl	3.87	325	*e*P	P	00 40 20.7	+0.2
PPM				*e*P		00 40 23.0	
PPM				*e*P		00 40 23.7	
PPM				*i* S	S	00 41 05.5	+0.1
PPM				*i* S	S	00 41 06.0	+0.6
PPM				*i* S	S	00 41 06.2	+0.9
PLIG	Platanillo	3.95	310	*e*P	P	00 40 23.4	+1.7
PLIG				*e*S	S	00 41 06.5	-0.9
YAIG	Yautepec	3.97	319	*e*P	P	00 40 25.2	+3.2
YAIG				*e*S	S	00 41 05.1	-2.9
YAIG	Yautepec	3.97	319	*i* P	P	00 40 23.9	+1.9
YAIG				*i* S	S	00 41 05.8	-2.2
CAIG	El Cayaco	3.98	287	*e*P	P	00 40 21.9	-0.3
CAIG				*i* S	S	00 41 04.1	-4.1
CCIG	Comitan	4.02	84	*e*P	P	00 40 24.5	+1.9
CCIG				*e*S	S	00 41 08.6	-0.5
CHVM	Chichinautzin	4.19	320	*e*P	P	00 40 25.9	+0.9
CHVM				*i* S	S	00 41 13.1	-0.4
IIZ	Mezontepec	4.33	320	*e*P	P	00 40 25.9	-1.0
IIO	Organos	4.36	328	*e*P	P	00 40 27.6	+0.2
IIO				*i* S	S	00 41 17.2	-0.4
UNM	Universidad Na	4.39	322	*e*S	S	00 41 16.6	-2.0
PTVM	Pico Tres Padr	4.56	324	*e*P	P	00 40 27.6	-2.8
MDVM	Presa Madin	4.60	323	*e*P	P	00 40 31.2	+0.3
IIC	Rita Coyotepec	4.79	324	*e*P	P	00 40 36.4	+2.9
IIC				*i* S	S	00 41 29.9	+1.5
MOIG	Morelia	6.00	310	*e*P	P	00 40 55.1	+4.6
MOIG				*e*S	S	00 42 05.2	+6.4
SFJM	Santa Fe	7.88	307	*e*P	P	00 41 12.0	-4.8
TEIG	Tepich	8.77	59	*e*P	P	00 41 23.9	-5.2

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*IDC **28** 00:42:58.8±1.2, 9.92N×92.38E, mb4.2/11, mb1 4.4/11, mb1mx4.2/20, mbtmp4.2/11, MS4.7/1, Ms1 4.7/1, ms1mx3.4/33, Error ellipse: s-maj=50.8km s-min=27.3km az=39.0*

ISC 28 00:43:02.1±1.0, **9.9N**±0.2×**92.4E**±0.2, **h33**^{km}, **n12, σ0^{s}64**/12, **mb4.2**/11, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	39.61	15	P	P	00 50 32.0	-0.2
	3.4nm,0.8s,mb4.1,baz=207,slow=5.5,SNR=3.6						
WRA	Warramunga Arr	50.83	126	P	P	00 52 02.1	+0.2
	0.8nm,0.3s,mb4.1,baz=300,slow=10.0,SNR=5.7						
BRTR	Keskin Array B	59.81	310	P	P	00 53 06.7	0.0
	0.8nm,0.7s,mb3.8,baz=127,slow=7.2,SNR=3.3						
IDI	Anoyia	66.01	304	P	P	00 53 48.4	+0.6
	4.3nm,0.7s,mb4.6,baz=90,slow=13,SNR=3.2						
FINES	FINESS Array B	70.13	332	P	P	00 54 13.8	+0.9
	5.1nm,0.9s,mb4.4,baz=106,slow=7.5,SNR=5.6						
ARCES	ARCESS Array B	72.79	340	P	P	00 54 29.0	+0.3
	2.5nm,0.9s,mb4.1,baz=99,slow=6.9,SNR=5.8						
GERES	GERESS Array B	75.18	318	P	P	00 54 43.7	+0.7
	1.3nm,0.8s,mb3.9,baz=90,slow=4.0,SNR=4.2						
HFS	Hagfors	75.85	330	P	P	00 54 46.8	+0.2
	3.8nm,0.5s,mb4.6,baz=117,slow=3.3,SNR=12						
NB2	NORSAR Subarra	77.13	330	P	P	00 54 52.6	-1.3
	3.1nm,0.7s,mb4.3,baz=97,slow=4.8						
NOA	NORSAR Array B	77.13	330	P	P	00 54 53.5	-0.4
	1.6nm,0.7s,mb4.0,baz=99,slow=5.4,SNR=3.9						
EKA	Eskdalemuir Ar	85.09	325	P	P	00 55 35.0	-0.7
	2.8nm,0.9s,mb4.4,baz=66,slow=8.6,SNR=3.5						
ESDC	Sonseca Array	88.61	310	P	P	00 55 52.0	-1.2
	1.5nm,0.8s,mb4.4,baz=77,slow=3.6,SNR=3.2						

IDC 28 00:49:18.6±1.6, **17.11S**×**174.05E, mb4.0**/4, **mb1 4.3**/4, **mb1mx4.0**/14, **mbtmp4.0**/4, **MS4.4**/2, **Ms1 4.5**/2, **ms1mx3.5**/27, **Error ellipse: s-maj=40.2km s-min=33.7km az=130.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	21.25	173	P	P	00 54 06.3	-2.3
	11nm,0.8s,baz=27,slow=6.0,SNR=6.6						
URZ				LR	LR	01 00 03.2	
	comp=Z,417nm,18.5s,baz=107,slow=30						
WRA	Warramunga Arr	37.70	259	P	P	00 56 35.8	-2.0
	1.1nm,0.8s,baz=91,slow=9.3,SNR=4.7						
ASAR	Alice Springs	38.10	253	P	P	00 56 39.7	-1.4
	1.6nm,0.7s,baz=83,slow=8.4,SNR=12						
ILAR	Eielson Array	86.90	16	P	P	01 02 04.9	-1.3
	1.1nm,1.0s,baz=223,slow=5.1,SNR=8.3						
ILAR				LR	LR	01 39 53.6	
	comp=Z,415nm,19.1s,baz=132,slow=35						

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*IDC **28** 00:54:14.1±0.8, 7.74N×94.29E, mb4.0/12, mb1 4.1/12, mb1mx4.0/20, mbtmp4.0/12, Error ellipse: s-maj=31.4km s-min=18.6km az=49.0*

ISC 28 00:54:17.5±0.7, **7.7N**±0.1×**94.3E**±0.1, **h33**^{km}, **n21, σ1^{s}09**/21, **mb4.2**/19, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.61	23	Pn	P	00 57 05.5	+1.5
	1.1nm,0.3s,baz=215,slow=14,SNR=15						
PKI	Pulchoki	21.47	338	*e*P	P	00 59 04.7	-0.6
	15nm,0.7s,mb4.5						
GUN	Gumba	21.61	339	*e*P	P	00 59 05.8	-0.9
	31nm,0.8s,mb4.8						
DMN	Daman	21.62	337	*e*P	P	00 59 06.7	-0.1
	48nm,0.9s,mb4.9						
KKN	Kakani	21.72	338	*e*P	P	00 59 07.1	-0.7
	36nm,1.0s,mb4.8						
GKN	Gorkha	22.16	337	*e*P	P	00 59 11.4	-0.7
	25nm,0.7s,mb4.8						
POO	Poona	22.59	300	*e*	P	00 59 18.0	+1.4
SONM	Songino Array	41.30	12	P	P	01 02 02.2	+0.7
	1.8nm,0.8s,mb3.7,baz=195,slow=7.7,SNR=13						
SONM				PcP	PcP	01 04 00.6	+0.2
	0.3nm,0.6s,baz=214,slow=5.2,SNR=2.7						
ZAL	Zalesovo	46.73	352	P	P	01 02 44.6	-0.6
	2.9nm,0.6s,mb4.4,baz=311,slow=4.9,SNR=18						
WRA	Warramunga Arr	48.05	126	P	P	01 02 56.8	+0.8
	2.4nm,0.8s,mb4.3,baz=305,slow=9.0,SNR=10						
BVAR	Borovoye Array	49.19	341	P	P	01 03 03.1	-1.2
	0.5nm,0.4s,mb3.9,baz=140,slow=12,SNR=4.7						
ASAR	Alice Springs	49.70	130	P	P	01 03 06.9	-1.8
	1.3nm,0.6s,mb4.1,baz=303,slow=7.4,SNR=12						
ASAR				PcP	PcP	01 04 32.0	+2.2
	2.0nm,0.8s,baz=298,slow=2.9,SNR=13						
KMBO	Kilima Mbogo	57.55	264	P	P	01 04 07.4	+0.7
	0.9nm,0.5s,mb4.0,baz=56,slow=15,SNR=4.4						
BRTR	Keskin Array B	62.65	311	P	P	01 04 40.6	-0.6
	1.0nm,0.8s,mb4.0,baz=123,slow=5.4,SNR=3.9						
FINES	FINESS Array B	72.92	332	P	P	01 05 44.0	-1.0
	1.7nm,0.8s,mb4.0,baz=119,slow=6.2,SNR=7.3						
KAF	Kangasniemi	73.00	333	*e*p	P	01 05 47.9	+2.4
	1.2nm,0.6s,mb4.0						
ARCES	ARCESS Array B	75.47	340	P	P	01 05 59.7	0.0
	4.4nm,1.1s,mb4.3,baz=80,slow=7.4,SNR=2.6						
GERES	GERESS Array B	78.05	318	P	P	01 06 13.9	-0.7
	0.4nm,0.6s,mb3.5,baz=233,slow=6.7,SNR=3.8						
HFS	Hagfors	78.67	330	P	P	01 06 17.2	-0.5
	1.4nm,0.6s,mb4.1,baz=90,slow=3.0,SNR=8.9						
NB2	NORSAR Subarra	79.95	331	P	P	01 06 27.5	+2.9
	6.0nm,1.1s,mb4.4,baz=92,slow=5.8						
DAVOX	Davos	80.61	316	P	P	01 06 29.4	+0.9
	1.4nm,0.7s,mb4.0,baz=157,slow=15,SNR=3.1						

IDC 28 00:54:28.0±1.2, **56.39S**×**25.53W, mb4.0**/1, **mb1 3.9**/2, **mb1mx3.4**/13, **mbtmp3.7**/2, **ML3.4**/1, **4C, Error ellipse: s-maj=89.1km s-min=33.5km az=75.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	Neumayer--Stat	16.14	159	⇑*i*	P	00 58 21.6	+4.2
VNA3	Neumayer Olymp	16.37	162	⇑*i*	P	00 58 21.6	+1.3
VNA2	Neumayer--Watz	16.53	159	⇑*i*	P	00 58 23.7	+1.3
SNAA	Sanae	18.06	157	⇑*i*	P	00 58 42.5	+1.0
SNAA	Sanae	18.06	157	P	P	00 58 40.3	-1.2
	0.1nm,0.3s,baz=313,slow=14,SNR=15						
VNDA	Vanda	46.27	182	P	P	01 02 54.1	-1.9
	2.1nm,0.8s,baz=178,slow=6.1,SNR=10						
PDAR	Pinedale Array	121.31	301	PKP	PKPdf	01 13 22.4	-2.0
	0.3nm,0.5s,baz=90,slow=2.7,SNR=6.5						
YKA	Yellowknife Ar	137.05	317	PKP	PKPdf	01 13 51.0	-2.3
	0.3nm,0.4s,baz=130,slow=2.1,SNR=13						
SONM	Songino Array	149.83	86	PKPbc	PKPdf	01 14 18.5	+2.7
	0.3nm,0.4s,baz=219,slow=3.7,SNR=4.0						
ILAR	Eielson Array	151.04	311	PKPbc	PKPdf	01 14 20.9	+3.8
	1.4nm,0.8s,baz=167,slow=2.5,SNR=16						

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*NEIC **28** 01:06:03.6, 35.07N×30.88E, h25^{km}, ML3.5(NIC), After NIC.*

NIC 28 01:06:03.6±0.1, **35.07N**×**30.88E, h25**^{km}**, ML3.5, MW3.0, 3C, Eastern Mediterranean Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AKMC	Akamas	1.19	91	⇑*i*P	Pn	01 06 23.1	-1.9
PPCY	Paphos	1.22	98	P	Pn	01 06 23.3	-2.0
ALFC	Alevga	1.42	86	⇑*i*P	Pn	01 06 26.3	-1.8
	5.8nm,0.2s						
ALFC				S	Sn	01 06 43.7	-2.4
SZAC	Souni-Zanaja	1.68	100	⇑P	Pn	01 06 29.9	-2.0
	3.4nm,0.2s						
SZAC				S	Sn	01 06 50.5	-2.3
MAMC	Mammari	1.92	86	P	Pn	01 06 33.3	-2.1
CSS	Prodhromos	2.02	92	P	Pn	01 06 34.4	-2.3

IDC 28 01:06:57.0±1.1, 3.29N×96.20E, mb3.9/9, mb1 4.0/9, mb1mx3.9/18, mbtmp3.9/9, Error ellipse: s-maj=53.1km s-min=20.1km az=50.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.99	123	P	P	01 15 06.7	-1.6
	1.0nm,0.5s,baz=300,slow=9.2,SNR=6.7						
SONM	Songino Array	45.24	10	P	P	01 15 16.2	-1.7
	0.9nm,0.4s,baz=191,slow=9.6,SNR=10						
ASAR	Alice Springs	45.45	128	P	P	01 15 17.8	-2.2
	0.2nm,0.3s,baz=299,slow=8.1,SNR=2.8						
ZAL	Zalesovo	51.35	351	P	P	01 16 03.0	-2.3
	0.8nm,0.7s,baz=320,slow=9.5,SNR=6.4						
BVAR	Borovoye Array	53.97	341	P	P	01 16 22.2	-2.6
	1.1nm,0.6s,baz=141,slow=9.5,SNR=7.3						
BRTR	Keskin Array B	66.98	312	P	P	01 17 51.4	-2.6
	0.4nm,0.4s,baz=146,slow=8.9,SNR=4.0						
ARCES	ARCESS Array B	80.25	340	P	P	01 19 09.6	-1.2
	1.4nm,0.8s,baz=102,slow=6.1,SNR=7.0						
GERES	GERESS Array B	82.60	319	P	P	01 19 22.8	-0.7
	0.5nm,0.8s,baz=90,slow=1.3,SNR=5.2						
DAVOX	Davos	85.10	317	P	P	01 19 35.9	-0.4
	2.2nm,0.6s,baz=118,slow=7.1,SNR=8.1						

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*IDC **28** 01:09:15.1±1.2, 7.38N×93.50E, mb4.0/7, mb1 4.2/8, mb1mx3.9/18, mbtmp3.9/8, ML4.1/1, Error ellipse: s-maj=47.2km s-min=21.3km az=57.0*

ISC 28 01:09:18.3±1.0, 7.4N±0.1×93.6E±0.2, h33^{km}, n9, σ0^{s}61/9, mb3.9/8, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.17	25	Pn	P	01 12 12.4	+0.2
	0.3nm,0.3s,baz=214,slow=13,SNR=4.7						
SONM	Songino Array	41.74	13	P	P	01 17 05.8	-0.1
	0.9nm,0.7s,mb3.5,baz=191,slow=8.5,SNR=4.2						
ZAL	Zalesovo	46.93	353	P	P	01 17 47.5	0.0
	1.7nm,0.4s,mb4.4,baz=313,slow=3.6,SNR=6.1						
WRA	Warramunga Arr	48.46	125	P	P	01 17 60.0	0.0
	0.7nm,0.5s,mb3.9,baz=303,slow=8.7,SNR=4.0						
ASAR	Alice Springs	50.06	129	P	P	01 18 12.5	+0.2
	1.0nm,0.8s,mb3.9,baz=302,slow=6.9,SNR=8.5						
FINES	FINESS Array B	72.85	332	P	P	01 20 47.0	+1.5
	2.1nm,0.7s,mb4.2,baz=104,slow=6.5,SNR=8.4						
KAF	Kangasniemi	72.94	333	*e*p	P	01 20 45.2	-0.8
	0.6nm,0.4s,mb3.9						
GERES	GERESS Array B	77.79	318	P	P	01 21 13.6	-0.3
	0.7nm,0.6s,mb3.8,baz=85,slow=6.1,SNR=6.7						
ILAR	Eielson Array	95.39	22	P	P	01 22 39.6	-0.5
	0.3nm,0.8s,mb3.8,baz=308,slow=2.9,SNR=4.6						

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*IDC **28** 01:12:11.5±0.7, 9.48N×93.74E, mb4.0/10, mb1 4.2/10, mb1mx4.0/20, mbtmp4.0/10, Error ellipse: s-maj=33.2km s-min=16.2km az=45.0*

ISC 28 01:12:14.3±0.7, 9.38N±0.10×93.7E±0.1, h33^{km}, n18, σ0^{s}60/17, mb4.1/10, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.37	29	Pn	P	01 14 45.0	+1.1
	0.1nm,0.3s,baz=220,slow=14,SNR=4.9						
HYB	Hyderabad	16.73	300	*e*P	P	01 16 13.0	+5.2
PKI	Pulchoki	19.70	338	*e*P	P	01 16 43.9	+0.2
	34nm,1.1s						
GUN	Gumba	19.84	339	*e*P	P	01 16 44.9	-0.3
	44nm,0.8s						
DMN	Daman	19.85	337	*e*P	P	01 16 45.4	+0.1
	31nm,1.0s						
KKN	Kakani	19.95	338	*e*P	P	01 16 46.3	-0.1
	16nm,0.7s						
KOLN	Koldanda	20.61	334	*e*P	P	01 16 53.0	-0.3
	23nm,0.7s						
SONM	Songino Array	39.80	13	P	P	01 19 45.8	-0.1
	0.9nm,0.9s,mb3.5,baz=191,slow=7.3,SNR=4.3						
SONM				PcP	PcP	01 21 52.9	+0.6
	0.9nm,0.9s,baz=180,slow=1.2,SNR=3.8						
ZAL	Zalesovo	45.00	353	P	P	01 20 27.6	-0.7
	0.8nm,0.7s,mb3.6,baz=312,slow=12,SNR=6.1						
BVAR	Borovoye Array	47.42	341	P	P	01 20 47.4	0.0
	3.1nm,1.1s,mb4.2,baz=186,slow=14,SNR=4.5						
WRA	Warramunga Arr	49.52	126	P	P	01 21 04.0	-0.1
	1.9nm,0.6s,mb4.3,baz=301,slow=8.7,SNR=8.8						
WRA				PcP	PcP	01 22 25.9	-0.1
	1.4nm,0.9s,baz=313,slow=2.9,SNR=5.2						
ASAR	Alice Springs	51.24	131	P	P	01 21 16.9	-0.3
	2.4nm,0.8s,mb4.2,baz=309,slow=7.2,SNR=13						
ASAR				PcP	PcP	01 22 33.0	+0.7
	1.2nm,0.7s,baz=296,slow=3.1,SNR=6.8						
PMG	Port Moresby	56.42	108	P	P	01 21 55.6	+0.1
	4.3nm,0.5s,mb4.7,baz=282,slow=1.9,SNR=5.1						
KMBO	Kilima Mbogo	57.14	263	P	P	01 22 02.2	+1.5
	1.6nm,0.8s,mb4.1,baz=37,slow=11,SNR=5.7						
CTA	Charters Tower	59.45	120	P	P	01 22 16.4	-0.2
	3.4nm,0.9s,mb4.4,baz=287,slow=6.0,SNR=5.3						
BRTR	Keskin Array B	61.10	310	P	P	01 22 26.6	-1.0
	1.0nm,0.7s,mb4.0,baz=121,slow=7.2,SNR=4.7						
GERES	GERESS Array B	76.40	318	P	P	01 24 02.6	+0.5
	2.4nm,1.1s,mb4.0,baz=90,slow=5.3,SNR=7.3						
PDAR	Pinedale Array	123.93	20	PKP	PKPdf	01 31 11.6	+2.1
	0.7nm,1.0s,SNR=3.9						

IDC 28 01:15:32.1±8.6, 8.82N×93.82E, mb3.9/6, mb1 4.1/7, mb1mx3.8/19, mbtmp4.0/7, ML4.2/1, Error ellipse: s-maj=204.0km s-min=48.0km az=139.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.79	27	Pn	P	01 18 07.0	-4.0
	0.5nm,0.3s,baz=213,slow=15,SNR=12						
ZAL	Zalesovo	45.57	353	P	P	01 23 53.1	-2.4
	1.6nm,0.6s,baz=275,slow=8.5,SNR=6.7						
BVAR	Borovoye Array	47.99	341	P	P	01 24 13.6	-1.1
	0.8nm,0.6s,baz=146,slow=11,SNR=4.2						
BRTR	Keskin Array B	61.57	310	P	P	01 25 50.6	-3.0
	0.9nm,0.7s,baz=135,slow=6.1,SNR=4.3						
FINES	FINESS Array B	71.73	332	P	P	01 26 56.3	-1.5
	1.6nm,0.8s,baz=90,slow=4.2,SNR=4.6						
GERES	GERESS Array B	76.91	318	P	P	01 27 26.2	-1.7
	0.5nm,0.7s,baz=98,slow=6.9,SNR=3.4						
NB2	NORSAR Subarra	78.75	331	P	P	01 27 37.1	-0.7
	2.0nm,0.8s,baz=96,slow=5.0						
NOA	NORSAR Array B	78.75	331	P	P	01 27 37.0	-0.9
	1.0nm,0.7s,baz=93,slow=5.5,SNR=3.1						

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*IDC **28** 01:18:09.9±1.4, 8.05N×93.45E, mb4.2/7, mb1 4.4/7, mb1mx4.0/17, mbtmp4.2/7, Error ellipse: s-maj=73.4km s-min=18.2km az=59.0*

ISC 28 01:18:12.4±0.9, 7.9N±0.1×93.2E±0.2, h33^{km}, n16, σ0^{s}57/14, mb4.4/11, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.92	27	Pn	P	01 21 03.7	+0.7
	0.2nm,0.3s,baz=220,slow=14,SNR=3.2						
PKI	Pulchoki	20.97	340	*e*P	P	01 22 55.0	-0.1
	18nm,0.7s						
DMN	Daman	21.11	340	*e*P	P	01 22 55.8	-0.7
	27nm,1.0s,mb4.5						
GUN	Gumba	21.13	342	*e*P	P	01 22 56.8	0.0
	24nm,0.6s,mb4.7						
KKN	Kakani	21.21	340	*e*P	P	01 22 57.6	0.0
	18nm,0.8s,mb4.5						
GKN	Gorkha	21.63	339	*e*P	P	01 23 02.4	+0.6
KOLN	Koldanda	21.81	336	*e*P	P	01 23 04.2	+0.6
	14nm,0.5s,mb4.6						
SONM	Songino Array	41.39	13	P	P	01 25 55.9	-1.3
	0.4nm,0.3s,mb3.5,baz=199,slow=9.5,SNR=6.4						
ZAL	Zalesovo	46.46	353	P	P	01 26 37.3	-0.6
	12nm,0.3s,mb5.2,baz=307,slow=5.1,SNR=34						
WRA	Warramunga Arr	48.98	125	P	P	01 26 58.1	0.0
	1.9nm,0.4s,mb4.5,baz=303,slow=8.8,SNR=22						
ASAR	Alice Springs	50.59	129	P	P	01 27 10.4	0.0
	0.8nm,0.4s,mb4.0,baz=304,slow=7.8,SNR=11						
STKA	Stephens Creek	60.74	133	P	P	01 28 23.6	+0.1
	1.2nm,0.6s,mb4.2,baz=293,slow=7.7,SNR=2.7						
FINES	FINESS Array B	72.31	332	P	P	01 29 37.1	+0.8
	2.8nm,1.0s,mb4.1,baz=100,slow=8.5,SNR=3.1						
ARCES	ARCESS Array B	74.98	340	P	P	01 29 51.6	-0.2
	4.9nm,1.1s,mb4.3,baz=90,slow=3.6,SNR=4.3						
PDAR	Pinedale Array	125.51	21	PKP	PKPdf	01 37 13.1	+2.4
	0.6nm,0.9s,baz=44,slow=1.4,SNR=4.6						
TXAR	Lajitas Array	139.61	23	PKiKP		01 37 42.2	
	0.2nm,0.5s,baz=50,slow=0.7,SNR=6.5						

IDC 28 01:18:49.6±1.4, 5.31N×94.25E, mb3.9/7, mb1 4.1/7, mb1mx3.9/18, mbtmp3.9/7, Error ellipse: s-maj=68.9km s-min=21.6km az=53.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.85	19	Pn	P	01 22 14.1	+4.4
	0.9nm,0.3s,baz=216,slow=12,SNR=8.9						
SONM	Songino Array	43.63	12	P	P	01 26 55.6	-1.9
	0.4nm,0.4s,baz=194,slow=8.2,SNR=4.5						
WRA	Warramunga Arr	46.72	124	P	P	01 27 19.8	-2.7
	1.8nm,0.7s,baz=306,slow=8.4,SNR=6.7						
ASAR	Alice Springs	48.22	128	P	P	01 27 33.3	-1.0
	0.4nm,0.4s,baz=299,slow=7.6,SNR=5.1						
ZAL	Zalesovo	49.09	353	P	P	01 27 38.9	-1.6
	1.5nm,0.3s,baz=310,slow=7.4,SNR=3.3						
BVAR	Borovoye Array	51.44	342	P	P	01 27 56.8	-1.8
	0.6nm,0.6s,baz=80,slow=8.8,SNR=3.7						
FINES	FINESS Array B	75.02	332	P	P	01 30 32.1	-2.4
	3.4nm,1.0s,baz=101,slow=7.1,SNR=2.8						
GERES	GERESS Array B	79.80	319	P	P	01 31 00.3	-1.1
	0.5nm,0.7s,baz=104,slow=5.5,SNR=5.4						

IDC 28 01:22:19.3±1.5, 6.68N×95.82E, mb3.8/4, mb1 4.1/4, mb1mx3.7/17, mbtmp3.8/4, Error ellipse: s-maj=89.1km s-min=28.9km az=45.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.22	126	P	P	01 30 46.2	-2.1
	0.9nm,0.5s,baz=306,slow=8.7,SNR=6.2						
ZAL	Zalesovo	47.95	351	P	P	01 30 59.3	-2.3
	1.3nm,0.4s,baz=321,slow=6.5,SNR=5.2						
BRTR	Keskin Array B	64.46	311	P	P	01 32 56.2	-3.9
	1.0nm,1.0s,baz=113,slow=9.4,SNR=3.7						
GERES	GERESS Array B	79.82	318	P	P	01 34 31.5	+0.4
	0.7nm,0.8s,baz=76,slow=4.0,SNR=3.6						

IDC 28 01:35:05.6±1.8, 7.48N×94.03E, mb3.8/5, mb1 3.8/6, mb1mx3.6/19, mbtmp3.7/6, ML3.8/1, Error ellipse: s-maj=61.3km s-min=29.2km az=62.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.91	23	Pn	P	01 37 56.7	-3.1
	0.2nm,0.3s,baz=230,slow=15,SNR=2.8						
SONM	Songino Array	41.56	13	P	P	01 42 55.5	-1.1
	0.8nm,0.9s,baz=207,slow=6.4,SNR=3.9						
ZAL	Zalesovo	46.92	353	P	P	01 43 37.3	-2.4
	1.0nm,0.4s,baz=236,slow=3.6,SNR=3.9						
BVAR	Borovoye Array	49.32	341	P	P	01 43 55.9	-2.5
	1.1nm,0.8s,baz=146,slow=5.3,SNR=6.2						
ASAR	Alice Springs	49.75	130	P	P	01 44 00.0	-2.1
	0.6nm,0.8s,baz=302,slow=8.1,SNR=4.2						
FINES	FINESS Array B	73.00	332	P	P	01 46 37.5	-1.3
	2.1nm,0.9s,baz=90,slow=9.5,SNR=5.6						

IDC 28 01:36:13.2±1.6, 9.64N×90.26E, mb3.8/4, mb1 4.1/4, mb1mx3.7/17, mbtmp3.8/4, Error ellipse: s-maj=66.4km s-min=27.6km az=55.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.44	17	P	P	01 43 53.2	-1.7
	0.9nm,0.8s,baz=196,slow=6.7,SNR=5.0						
WRA	Warramunga Arr	52.41	124	P	P	01 45 28.7	-1.2
	0.5nm,0.4s,baz=304,slow=9.0,SNR=5.9						
ASAR	Alice Springs	54.00	129	P	P	01 45 38.5	-3.0
	0.9nm,0.5s,baz=298,slow=7.8,SNR=4.8						
GERES	GERESS Array B	73.96	318	P	P	01 47 50.7	-1.5
	0.8nm,0.8s,baz=90,slow=6.7,SNR=5.0						

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*IDC **28** 01:41:20.0±1.8, 39.34N×76.92E, mb3.7/6, mb1 3.9/8, mb1mx3.7/23, mbtmp3.7/8, ML3.5/1, Error ellipse: s-maj=39.8km s-min=22.2km az=155.0*

*BJI **28** 01:41:22.2, 39.50N×77.03E, h13^{km}, mB5.0, mb4.6, ML4.2*

*NNC **28** 01:41:27.1±1.7, 39.87N×76.97E, mpv4.1, Error ellipse: s-maj=18.5km s-min=8.0km az=13.0*

ISC 28 01:41:20.6±1.8, 39.33N±0.04×77.06E±0.08, h13^{km}±12^{km}, n26, σ1^{s}09/31, mb3.7/6, 7C-3D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.86	283	⇑PG	Pg	01 41 36.8	-1.1
KSH				SG	Sg	01 41 49.0	-0.4
KSH				Smax			
	comp=N,7μm,0.8s						
KSH				Smax			
	comp=E,9μm,0.6s						
ULHL	Ulahol	2.97	348	P	Pn	01 42 10.1	+1.6
	SNR=78						
KZA	Kyzart	3.06	334	P	Pn	01 42 10.3	+0.6
	SNR=53						
UCH	Uchtor	3.48	327	P	Pn	01 42 15.8	+0.3
	SNR=17						
KBK	Karagaybulak	3.68	335	P	Pn	01 42 19.3	+0.8
	SNR=26						
TKM2	Tokmak 2	3.75	343	P	Pn	01 42 20.1	+0.6
	SNR=57						
AML	Almayashu	3.79	319	P	Pn	01 42 20.0	0.0
	SNR=5.4						
AAK	Ala-Archa	3.82	330	⇑Pn	Pn	01 42 20.9	+0.4
	comp=E,9.1nm,0.4s						
AAK				⇑Pg	Pg	01 42 27.7	-9.2
	comp=E,163nm,0.7s						
AAK				⇓Lg		01 43 13.6	
	comp=E,311nm,1.0s						
AAK	Ala-Archa	3.82	330	P	Pn	01 42 21.1	+0.6
	SNR=14						
CHMS	Chumysh	4.05	335	P	Pn	01 42 24.2	+0.4
	SNR=17						
EKS2	Erkin-Say	4.15	324	P	Pn	01 42 25.6	+0.5
	SNR=17						
USP	Ospenovka	4.38	335	P	Pn	01 42 28.5	+0.2
	SNR=17						
DLH	Dalhousie	6.84	188	*e*P	Pn	01 43 04.0	+0.9
DLH				*e*S	Sn	01 44 21.0	-0.5
MK31	Makanchi Array	8.38	25	⇓Pn	P	01 43 26.4	+1.7
	comp=E,8.8nm,0.9s,baz=197,slow=13,SNR=8.7						
MK31				⇓Lg		01 45 35.6	
	comp=E,11nm,0.8s						
DDI	Dehra Dun	9.03	174	*e*P	P	01 43 36.5	+2.8
DDI				*e*S	Sn	01 45 10.5	-5.7
WMQ	Urumqi	9.14	57	*e*P	P	01 43 33.5	-1.8
WMQ				S	Sn	01 45 17.8	-1.3
WMQ				Smax			
	comp=N,39nm,1.0s						
WMQ				Smax			
	comp=E,38nm,0.8s						
BVAR	Borovoye Array	14.44	344	Pn	P	01 44 42.0	-4.5
	comp=E,0.2nm,0.3s,baz=153,slow=13,SNR=4.9						
BVAR				Lg		01 48 48.8	
	comp=E,0.1nm,0.3s,baz=158,slow=31,SNR=3.6						
BRVK	Borovoye	14.49	343	⇑Pn	P	01 44 45.4	-1.8
	comp=E,3.5nm,1.3s						
BRVK				⇑Lg		01 48 51.9	
	comp=E,21nm,1.6s						
CHKZ	Chkalovo	15.01	345	⇑Pn	P	01 44 52.4	-1.5
	comp=E,5.4nm,1.1s						
CHKZ				⇑Lg		01 49 05.4	
	comp=E,31nm,1.4s						
ZAL	Zalesovo	15.53	17	Pn	P	01 45 00.5	-0.3
	baz=258,slow=14,SNR=3.5						
ZAL				Lg		01 49 32.4	
	comp=E,0.1nm,0.3s,baz=19,slow=21,SNR=3.1						
SONM	Songino Array	22.78	58	P	P	01 46 24.2	+0.5
	comp=E,1.3nm,0.7s,mb3.5,baz=251,slow=10,SNR=4.4						
GNI	Garni	24.79	282	P	P	01 46 43.4	0.0
	comp=E,0.9nm,0.4s,mb3.6,baz=50,slow=7.9,SNR=1.7						
BRTR	Keskin Array B	33.25	285	P	P	01 47 57.4	-2.1
	comp=E,0.6nm,0.7s,mb3.6,baz=90,slow=9.1,SNR=3.9						
INK	Inuvik	70.26	12	P	P	01 52 35.6	+0.8
	comp=E,1.1nm,0.8s,mb3.9,baz=20,slow=4.7,SNR=6.0						
ILAR	Eielson Array	70.67	18	P	P	01 52 38.6	+1.3
	comp=E,0.4nm,0.9s,mb3.4,baz=338,slow=6.5,SNR=4.8						
YKA	Yellowknife Ar	78.08	6	P	P	01 53 18.7	-1.4
	comp=E,1.9nm,0.9s,mb4.0,baz=345,slow=5.6,SNR=7.3						

IDC 28 01:47:33.1±3.8, 11.11N×91.79E, mb3.5/3, mb1 3.7/4, mb1mx3.4/18, mbtmp3.4/4, ML3.8/1, Error ellipse: s-maj=102.8km s-min=29.0km az=81.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.06	43	Pn	P	01 49 59.1	-2.9
	0.2nm,0.3s,baz=238,slow=14,SNR=3.2						
SONM	Songino Array	38.61	16	P	P	01 54 57.9	-1.7
	0.4nm,0.6s,baz=201,slow=7.3,SNR=3.7						
WRA	Warramunga Arr	52.03	126	P	P	01 56 43.6	-3.3
	0.5nm,0.5s,baz=304,slow=8.7,SNR=2.6						
ASAR	Alice Springs	53.77	130	P	P	01 56 58.9	-0.9
	0.4nm,0.6s,baz=305,slow=7.0,SNR=5.7						

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*IDC **28** 01:48:49.0±0.9, 7.49N×93.98E, mb4.1/12, mb1 4.2/13, mb1mx4.1/21, mbtmp4.1/13, ML4.5/1, Error ellipse: s-maj=37.3km s-min=19.2km az=51.0*

ISC 28 01:48:52.5±0.8, 7.6N±0.1×94.2E±0.1, h33^{km}, n22, σ0^{s}60/21, mb4.3/19, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.78	23	Pn	P	01 51 40.8	-0.5
	0.9nm,0.3s,baz=216,slow=14,SNR=9.3						
PKI	Pulchoki	21.55	338	*e*P	P	01 53 41.8	+0.7
	17nm,0.6s,mb4.6						
GUN	Gumba	21.69	340	*e*P	P	01 53 42.1	-0.4
	27nm,0.6s,mb4.8						
DMN	Daman	21.69	338	*e*P	P	01 53 42.8	+0.3
	40nm,0.8s,mb4.9						
KKN	Kakani	21.79	338	*e*P	P	01 53 43.2	-0.3
	33nm,0.9s,mb4.8						
GKN	Gorkha	22.23	337	*e*P	P	01 53 47.8	0.0
	30nm,0.7s,mb4.8						
KOLN	Koldanda	22.44	335	*e*P	P	01 53 50.6	+0.7
	16nm,0.7s,mb4.6						
SONM	Songino Array	41.45	12	P	P	01 56 38.4	+0.6
	2.7nm,0.8s,mb3.9,baz=197,slow=7.0,SNR=15						
ZAL	Zalesovo	46.85	352	P	P	01 57 20.9	-0.2
	3.3nm,0.6s,mb4.5,baz=304,slow=7.3,SNR=22						
WRA	Warramunga Arr	48.08	125	P	P	01 57 31.6	+0.4
	0.3nm,0.4s,mb3.7,baz=302,slow=9.5,SNR=5.9						
BVAR	Borovoye Array	49.28	341	P	P	01 57 39.7	-0.3
	3.1nm,0.9s,mb4.3,baz=127,slow=7.4,SNR=16						
ASAR	Alice Springs	49.71	130	P	P	01 57 43.5	-0.4
	0.3nm,0.6s,mb3.5,baz=305,slow=7.4,SNR=2.9						
BRTR	Keskin Array B	62.63	311	P	P	01 59 14.2	-1.9
	0.8nm,0.6s,mb4.0,baz=129,slow=8.1,SNR=6.0						
FINES	FINESS Array B	72.98	332	P	P	02 00 20.1	-0.3
	2.8nm,0.8s,mb4.3,baz=101,slow=5.7,SNR=9.9						
KAF	Kangasniemi	73.06	333	*e*p	P	02 00 20.8	-0.1
	5.5nm,0.9s,mb4.5						
ARCES	ARCESS Array B	75.55	340	P	P	02 00 35.1	0.0
	4.8nm,1.0s,mb4.4,baz=97,slow=7.3,SNR=4.0						
GERES	GERESS Array B	78.06	318	P	P	02 00 49.9	+0.3
	3.3nm,1.1s,mb4.2,baz=90,slow=5.3,SNR=10						
HFS	Hagfors	78.72	330	P	P	02 00 53.2	+0.2
	4.4nm,0.8s,mb4.5,baz=104,slow=6.1,SNR=10						
NB2	NORSAR Subarra	80.00	331	P	P	02 00 55.4	-4.5
	6.3nm,1.0s,mb4.5,baz=91,slow=5.8						
NOA	NORSAR Array B	80.00	331	P	P	02 01 00.1	+0.2
	2.1nm,0.8s,mb4.1,baz=91,slow=5.7,SNR=4.9						
DAVOX	Davos	80.61	316	P	P	02 01 04.6	+1.1
	1.1nm,0.6s,mb4.0,baz=76,slow=8.3,SNR=3.7						
PDAR	Pinedale Array	125.44	21	PKP	PKPdf	02 07 53.2	+2.6
	0.4nm,1.0s,baz=90,slow=1.5,SNR=3.6						

IDC 28 01:49:38.7±1.6, 5.56N×93.18E, mb3.9/6, mb1 4.1/6, mb1mx3.8/18, mbtmp3.9/6, Error ellipse: s-maj=62.3km s-min=28.3km az=52.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.62	13	P	P	01 57 44.8	-1.7
	0.7nm,0.8s,baz=202,slow=7.8,SNR=2.3						
WRA	Warramunga Arr	47.74	123	P	P	01 58 17.9	-1.9
	0.8nm,0.6s,baz=303,slow=9.1,SNR=3.3						
ZAL	Zalesovo	48.71	353	P	P	01 58 25.5	-1.3
	0.8nm,0.5s,baz=186,slow=9.4,SNR=2.3						
ARCES	ARCESS Array B	77.11	341	P	P	02 01 32.8	-2.6
	1.9nm,0.8s,baz=101,slow=6.2,SNR=4.5						
GERES	GERESS Array B	78.92	319	P	P	02 01 44.6	-1.1
	0.8nm,0.7s,baz=90,slow=6.7,SNR=4.0						
HFS	Hagfors	79.97	330	P	P	02 01 49.8	-1.4
	0.7nm,0.4s,baz=84,slow=14,SNR=2.6						

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*IDC **28** 01:51:09.3±0.7, 10.39N×92.79E, mb4.3/16, mb1 4.4/16, mb1mx4.3/23, mbtmp4.3/16, Error ellipse: s-maj=40.1km s-min=13.0km az=51.0*

ISC 28 01:51:12.1±0.6, 10.3N±0.1×92.7E±0.1, h33^{km}, n20, σ0^{s}67/17, mb4.3/16, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.12	36	Pn	P	01 53 38.8	+0.6
	2.6nm,0.3s,baz=227,slow=15,SNR=19						
SONM	Songino Array	39.17	15	P	P	01 58 37.8	-0.7
	1.6nm,0.5s,mb4.0,baz=201,slow=8.9,SNR=19						
SONM				PcP	PcP	02 00 48.5	+0.4
	0.9nm,0.6s,baz=200,slow=3.3,SNR=5.3						
ZAL	Zalesovo	44.01	353	P	P	01 59 17.5	-0.7
	2.2nm,0.3s,mb4.4,baz=321,slow=7.0,SNR=6.1						
BVAR	Borovoye Array	46.29	341	P	P	01 59 36.4	0.0
	1.5nm,0.5s,mb4.2,baz=144,slow=9.4,SNR=10						
WRA	Warramunga Arr	50.78	126	P	P	02 00 11.8	+0.2
	3.3nm,0.4s,mb4.6,baz=305,slow=8.6,SNR=24						
WRA				PcP	PcP	02 01 28.9	+0.5
	0.7nm,0.5s,baz=314,slow=2.9,SNR=3.3						
ASAR	Alice Springs	52.52	130	P	P	02 00 24.6	+0.1
	3.6nm,0.5s,mb4.5,baz=307,slow=7.3,SNR=31						
ASAR				PcP	PcP	02 01 35.5	+0.7
	1.4nm,0.9s,baz=313,slow=3.9,SNR=4.7						
PMG	Port Moresby	57.58	108	P	P	02 01 01.6	+0.1
	5.4nm,0.6s,mb4.8,baz=264,slow=9.2,SNR=3.6						
CTA	Charters Tower	60.70	120	P	P	02 01 21.8	-1.2
	0.6nm,0.4s,mb4.1,baz=303,slow=6.2,SNR=4.0						
STKA	Stephens Creek	62.76	134	P	P	02 01 37.1	+0.5
	5.3nm,0.7s,mb4.8,baz=315,slow=6.5,SNR=14						
AKASG	Malin Array Be	65.42	321	P	P	02 01 52.2	-1.5
	0.3nm,0.3s,mb3.7,baz=84,slow=5.1,SNR=4.9						
FINES	FINESS Array B	69.95	332	P	P	02 02 21.6	-0.3
	2.6nm,0.7s,mb4.3,baz=100,slow=6.6,SNR=9.7						
ARCES	ARCESS Array B	72.55	340	P	P	02 02 37.7	+0.4
	3.7nm,1.0s,mb4.3,baz=100,slow=7.0,SNR=9.0						
GERES	GERESS Array B	75.12	318	P	P	02 02 53.5	+0.8
	1.4nm,0.6s,mb4.1,baz=92,slow=5.6,SNR=14						
HFS	Hagfors	75.70	330	P	P	02 02 55.8	+0.1
	1.2nm,0.4s,mb4.2,baz=108,slow=4.7,SNR=11						
DAVOX	Davos	77.71	316	P	P	02 03 08.5	+1.1
	1.3nm,0.4s,mb4.2,baz=142,slow=12						
ILAR	Eielson Array	93.05	22	P	P	02 04 23.2	-0.1
	1.8nm,1.0s,mb4.5,baz=302,slow=4.7,SNR=19						
INK	Inuvik	95.08	16	P	P	02 04 33.2	+0.6
	0.9nm,0.5s,mb4.5,baz=331,slow=6.8,SNR=15						
PDAR	Pinedale Array	123.42	20	PKP	PKPdf	02 10 08.4	+2.0
	0.3nm,0.6s,baz=180,slow=1.5,SNR=4.0						
NVAR	Mina Array Bea	123.55	29	PKP	PKPdf	02 10 10.1	+3.3
	1.1nm,0.6s,baz=290,slow=2.2,SNR=4.7						
TXAR	Lajitas Array	137.57	21	PKiKP		02 10 38.0	
	0.4nm,0.6s,baz=327,slow=0.3,SNR=6.0						

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*NIED **28** 01:57:00, 36.30N×141.70E, h17^{km}, Mw3.8 Best double couple: $M_0$5.57×10^{14} NP1:ϕ_s34°, δ72°, λ108°. NP2:ϕ_s169°, δ25°, λ48°.*

*IDC **28** 01:57:13.1±12.0, 35.39N×141.59E, mb3.7/4, mb1 3.9/4, mb1mx3.6/21, mbtmp3.7/4, Error ellipse: s-maj=310.3km s-min=39.2km az=174.0*

*JMA **28** 01:57:20.5±0.3, 36.28N×141.70E, h57^{km}, M3.7*

ISC 28 01:57:21.1±1.2, 36.30N±0.05×141.7E±0.1, h35^{km}±12^{km}, n18, σ0^{s}67/21, mb3.6/4, 2D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHOJ	Chosi	0.93	230	P	P	01 57 37.2	-0.6
CHOJ				S	S	01 57 50.0	-0.1
JHO	Hitachi	0.99	288	⇓P	P	01 57 37.9	-0.7
ONAJ	Iwakimizuishiy	1.10	317	P	P	01 57 39.7	-0.5

JFK	Kawauchi	1.27	327	⇓P	P	01 57 42.3	-0.2
JFT	Otama	1.65	318	P	P	01 57 48.7	+0.6
JMM	Marumori	1.73	335	P	P	01 57 49.2	-0.1
BSO1	Boso 1	1.76	201	P	P	01 57 50.4	+0.8
BSO1				eS	S	01 58 11.3	+0.3
BSO3	Boso 3	1.80	214	P	P	01 57 49.7	-0.5
JAG	Ashikaga	1.85	274	P	P	01 57 50.4	-0.5
JFY	Yanaizu	1.97	305	P	P	01 57 53.3	+0.7
JKT	Katashina	2.06	284	P	P	01 57 54.3	+0.4
JRY	Ryogami san	2.31	264	P	P	01 57 56.7	-0.9
JOD2	Odawara 2	2.39	245	P	P	01 57 59.0	+0.3
MAT	Matsushiro	2.86	276	P	P	01 58 05.4	+0.1
MAT				eS	S	01 58 40.3	+1.4
SONM	Songino Array	28.41	305	P	P	02 03 13.5	-0.8
	1.4nm,0.7s,mb3.7,baz=104,slow=8.7,SNR=10						
ZAL	Zalesovo	42.61	313	P	P	02 05 14.9	-0.4
	0.5nm,0.3s,mb3.7,baz=43,slow=8.7,SNR=4.2						
ILAR	Eielson Array	49.98	32	P	P	02 06 14.8	+1.5
	0.3nm,0.9s,mb3.3,baz=281,slow=9.2,SNR=3.8						
AKASG	Malin Array Be	75.03	323	P	P	02 08 60.0	-0.5
	0.6nm,0.6s,mb3.7,baz=46,slow=5.6,SNR=6.7						

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*TIR **28** 02:02:11.5, 40.67N×20.31E, h6^{km}*

*CSEM **28** 02:02:12.1±0.1, 40.67N×20.32E, h10^{km}, MD3.3, Error ellipse: s-maj=2.2km s-min=1.9km az=149.0*

*ATH **28** 02:02:13.0, 40.65N×20.37E, h10^{km}, MD3.3/3*

*NEIC **28** 02:02:16.1, 40.40N×20.55E, h10^{km}, MD3.3(ATH), After ATH.*

ISC 28 02:02:12.6±0.5**, 40.67N**±0.03×**20.30E**±0.04**, h7**^{km}±6^{km}**, n18, σ1§14**/26**, 1D, Greece-Albania border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBN	Korca	0.37	98	i Pg	Pg	02 02 19.3	-0.8
KBN				i Sg	Sg	02 02 27.3	+2.2
TPE	Tepelena	0.44	211	i Pg	Pg	02 02 20.7	-0.8
TPE				i Sg	Sg	02 02 29.4	+2.0
LSK	Leskovik	0.57	157	i Pg	Pg	02 02 22.4	-1.6
LSK				i Sg	Sg	02 02 32.0	+0.3
OHR	Ohrid	0.58	40	i Pg	Pg	02 02 22.8	-1.4
OHR				i		02 02 24.0	
OHR				i Sg	Sg	02 02 32.6	+0.7
OHR				i		02 02 33.1	
OHR	Ohrid	0.58	40	i Pg	Pg	02 02 22.8	-1.4
OHR				i Sg	Sg	02 02 32.6	+0.7
VLO	Vlora	0.65	252	ePg	Pg	02 02 24.8	-0.8
TIR	Tirane	0.75	334	ePg	Pg	02 02 25.9	-1.7
TIR				i Sg	Sg	02 02 39.5	+1.8
BIA	Bitola	0.85	66	⇓i Pg	Pg	02 02 28.4	-1.2
BIA				i Sg	Sg	02 02 41.6	+0.7
QSH	Qafa e Shtames	0.90	341	i Pg	Pg	02 02 31.2	+0.6
QSH				i Sg	Sg	02 02 42.2	-0.4
KEK	Kerkira	1.03	202	ePB	Pb	02 02 32.5	+0.1
KZN	Kozani	1.18	108	ePN	Pn	02 02 34.0	-1.4
PUK	Puka	1.40	347	ePn	Pn	02 02 39.1	+0.4
SKO	Skopje	1.55	33	i Pn	Pn	02 02 41.5	+0.7
BCI	Bajram Curri	1.70	354	ePn	Pn	02 02 43.9	+1.0
EVR	Evrytania	2.10	146	ePN	Pn	02 02 50.5	+1.8
KKB	Krupnik	2.41	59	i P	Pn	02 02 53.0	-0.1
VTS	Vitosha	2.90	48	i P	Pn	02 02 59.0	-1.1
RZN	Rozhen	3.48	72	i P	Pn	02 03 08.0	-0.3

WEL 28 02:04:52.2±0.2**, 40.37S×174.72E, h94**^{km}±2^{km}**, ML3.6**/10**, 13C-11D, Error ellipse: s-maj=1.3km s-min=0.6km az=90.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KIW	Kapiti Island	0.51	164	⇑PN	P	02 05 07.4	-0.2
KIW				SN	S	02 05 17.7	-1.4
WAZ	Wanganui	0.65	18	⇑PN	P	02 05 08.8	0.0
WAZ				SN	S	02 05 20.5	-0.6
MRZ	Mangatainoka R	0.71	114	⇓PN	P	02 05 09.3	-0.2
MRZ				SN	S	02 05 21.2	-1.0
CAW	Cannon Point	0.78	161	⇓PN	P	02 05 10.1	0.0
CAW				SN	S	02 05 22.9	-0.4
MRW	Makara Radio	0.86	181	PN	P	02 05 10.7	-0.2
MRW				SN	S	02 05 23.2	-1.5
WEL	Wellington	0.91	178	PN	P	02 05 11.3	-0.1
MTW	Mount Morrison	0.98	143	⇓PN	P	02 05 12.0	-0.2
MTW				SN	S	02 05 26.3	-1.0
TSZ	Takapari Road	1.00	72	⇑PN	P	02 05 12.0	-0.4
TSZ				SN	S	02 05 26.4	-1.1
BHW	Baring Head	1.04	174	PN	P	02 05 12.6	-0.4
RAEZ	Rainy Point	1.11	347	⇑PN	P	02 05 14.0	+0.2
MSWZ	Moikau Station	1.12	159	⇓PN	P	02 05 13.6	-0.3
MSWZ				SN	S	02 05 28.5	-1.6
PAWZ	Paruwai Farm	1.14	152	⇓PN	P	02 05 13.9	-0.3
PAWZ				SN	S	02 05 29.2	-1.4
DFE	Dawson Falls	1.15	335	PN	P	02 05 14.0	-0.3
NRZ	Ngariki Road	1.20	329	ePN	P	02 05 14.5	-0.5
BFZ	Birch Farm	1.20	105	⇓PN	P	02 05 14.4	-0.6
BFZ				SN	S	02 05 30.5	-1.4
TUWZ	Tuamarina	1.21	209	⇓PN	P	02 05 14.3	-0.8
TUWZ				SN	S	02 05 30.2	-1.9
WNVZ	Wahianoa	1.24	33	⇑PN	P	02 05 14.8	-0.6
WNVZ				SN	S	02 05 31.9	-0.9
VRZ	Vera Road	1.24	1	⇑PN	P	02 05 14.9	-0.6
MOVZ	Moawhango	1.25	40	⇑PN	P	02 05 14.6	-0.9
MOVZ				SN	S	02 05 31.5	-1.3
DRZ	Dome Shelter	1.27	31	PN	P	02 05 14.9	-0.9
FWVZ	Far West T-bar	1.28	30	⇓PN	P	02 05 15.4	-0.6
FWVZ				SN	S	02 05 31.1	-2.6
PKE	Pukeiti	1.30	334	PN	P	02 05 15.6	-0.5
PKE				SN	S	02 05 32.6	-1.4
TUVZ	Tukino	1.31	33	PN	P	02 05 15.5	-0.7
TUVZ				SN	S	02 05 33.7	-0.5
NNZ	Nelson	1.32	230	PN	P	02 05 15.1	-1.3
WPVZ	Whakapapa	1.33	29	⇑PN	P	02 05 15.8	-0.6
CNZ	Chateau	1.33	29	⇓PN	P	02 05 15.9	-0.6
NGZ	Ngauruhoe	1.37	30	ePN	P	02 05 16.3	-0.7
OTVZ	Oturere	1.41	31	⇑PN	P	02 05 16.8	-0.6
OTVZ				SN	S	02 05 35.8	-0.3
TWVZ	Taurewa	1.41	23	⇑PN	P	02 05 16.4	-1.0
TWVZ				SN	S	02 05 34.3	-1.9
WTVZ	West Tongariro	1.42	28	⇑PN	P	02 05 16.7	-0.9
BSWZ	Blackbirch Sta	1.49	205	⇑PN	P	02 05 17.7	-0.7
MGZ	Maungaku	1.51	25	PN	P	02 05 17.6	-1.0
KATZ	Kakaramea	1.58	29	ePN	P	02 05 18.4	-1.2
PWZ	Pawanui	1.67	79	PN	P	02 05 19.8	-1.0
QRZ	Quartz Range	1.73	254	⇓PN	P	02 05 19.5	-2.0
QRZ				SN	S	02 05 40.3	-2.8
BKZ	Black Stump Fm	1.82	49	ePN	P	02 05 21.1	-1.6
HIZ	Hauiti	1.86	3	⇑PN	P	02 05 22.7	-0.4
THZ	Tophouse	1.96	224	PN	P	02 05 23.4	-1.1
KHZ	Kahutara	2.23	203	⇓PN	P	02 05 27.0	-1.2
DSZ	Denniston Nort	2.60	237	PN	P	02 05 30.8	-2.5
KNZ	Kokohu	2.65	60	ePN	P	02 05 31.3	-2.7
MWZ	Matawai	2.98	48	ePN	P	02 05 35.2	-3.4
LTZ	Lake Taylor	3.03	217	ePN	P	02 05 36.6	-2.7
MQZ	McQueen's Vall	3.67	204	ePN	P	02 05 44.0	-4.1
ODZ	Otahua Downs	5.55	211	ePN	P	02 06 09.7	-4.1

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*IDC **28** 02:05:10.7±0.5, 14.00N×93.42E, mb4.4/21, mb1 4.5/21, mb1mx4.5/24, mbtmp4.4/21, MS4.4/17, Ms1 4.4/17, ms1mx4.2/29, Error ellipse: s-maj=27.6km s-min=11.6km az=53.0*

*MOS **28** 02:05:13.6±1.1, 13.90N×93.48E, h33^{km}, mb5.0/18, Error ellipse: s-maj=19.3km s-min=10.2km az=110.9*

*BJI **28** 02:05:13.8, 13.66N×93.24E, h48^{km}, mB4.9, mb4.6, Ms4.7, Msz4.3*

*NEIC **28** 02:05:14.8±0.6, 13.87N×93.36E, h30^{km}, mb4.8/16, Error ellipse: s-maj=15.0km s-min=11.9km az=153.0*

*SYO **28** 02:05:14.9, 13.86N×93.36E, h30^{km}, MB4.8*

ISC 28 02:05:11.3±1.6**, 13.94N**±0.05×**93.35E**±0.03**, h15**^{km}±10^{km}**, h34**^{km}±1.3^{km}**: pP-P, n127, σ1§13**/125**, mb4.5**/45**, MS4.5**/21**, 3C-3D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.00	49	eP	Pn	02 06 55.9	-0.1
CMAR	Chiang Mai Arr	7.00	49	Pn	Pn	02 06 56.5	+0.5
	3.4nm,0.3s,baz=240,slow=15,SNR=82						
CMAR				Sn	Sn	02 08 14.9	-1.2
	1.5nm,0.3s,baz=239,slow=27,SNR=5.8						
CMAR				LR	LR	02 10 12.3	
	comp=Z,2µm,21.6s,baz=64,slow=44						
NANT	Nan	8.55	55	P	P	02 07 20.0	+2.4
VIS	Vishakhapatnam	10.35	293	eP	P	02 07 40.8	-1.7
VIS				eS	x	02 09 25.7	
VIS				e	S	02 09 29.4	-10
	comp=E,200nm,0.7s						
VIS				e		02 09 30.4	
	comp=N,235nm,0.7s						
IMP	Imphal	10.80	3	e	P	02 07 47.0	-1.6
SHL	Shillong	11.65	353	e	P	02 07 55.0	-5.2
SHL				eS	S	02 10 03.0	-7.9
BOK	Bokaro	12.08	325	eP	P	02 08 04.1	-1.9
BOK				e		02 10 01.2	
BLSP	Bilaspur	13.41	309	e	S	02 10 44.0	-10
KMI	Kunming	14.21	37	P	P	02 08 40.3	+6.0
KMI				S	S	02 11 17.3	+4.8
KMI				AMB	AMB		
	comp=Z,7.0nm,1.0s						
KMI				AMB	AMB		
	comp=Z,134nm,5.6s						
KMI				LR	LR		
	comp=N,2µm,13.5s						
KMI				LR	LR		
	comp=E,2µm,19.0s						
HYB	Hyderabad	14.66	286	eP	P	02 08 38.0	-2.3
HYB				e		02 11 22.0	
HYB	Hyderabad	14.66	286	eP	P	02 08 38.0	-2.3
HYB				eS	x	02 11 11.0	
HYB				e	S	02 11 22.0	-1.3
HYB	Hyderabad	14.66	286	i P	P	02 08 38.0	-2.3
HYB				e		02 11 11.0	
HYB				eS	S	02 11 22.0	-1.3
PKI	Pulchoki	15.45	333	eP	P	02 08 50.0	-0.6
	comp=E,39nm,0.3s						
GUN	Gumba	15.54	335	eP	P	02 08 50.7	-1.1
	comp=E,74nm,0.6s						
DMN	Daman	15.62	332	eP	P	02 08 51.3	-1.5
	comp=E,140nm,0.9s						
KKN	Kakani	15.70	333	eP	P	02 08 53.7	0.0
	comp=E,62nm,0.8s						
LSA	Lhasa	15.81	353	eP	P	02 08 57.0	+1.8
LSA				pmax	pmax		
	comp=Z,32nm,0.8s						
LSA	Lhasa	15.81	353	eP	P	02 08 57.0	+1.8
	comp=Z,32nm,0.8s						
GKN	Gorkha	16.17	331	eP	P	02 08 59.7	-0.1
	comp=Z,53nm,0.3s						
KOLN	Koldanda	16.49	328	eP	P	02 09 03.3	-0.5
	comp=Z,54nm,0.5s						
QIZ	Qiongzhong	16.60	70	eP	P	02 09 03.0	-2.3
QIZ				S	S	02 12 05.0	-3.7
QIZ				LR	LR		
	comp=N,2µm,16.3s						
QIZ				LR	LR		
	comp=Z,2µm,18.8s						
LATR	Latur	16.73	288	eP	P	02 09 06.5	-0.4
LATR				e		02 11 54.5	
GYA	Guiyang	17.62	43	⇓iP	P	02 09 21.5	+3.4
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
BHPL	Bhopal	17.69	304	eP	P	02 09 20.0	+1.1
BHPL				e		02 09 28.0	
	comp=Z,44nm,1.4s						
BHPL				e		02 12 22.9	
KAD	Karad	18.76	283	eP	P	02 09 33.3	+1.1
KAD				i		02 12 46.3	
POO	Poona	19.27	286	i P	P	02 09 36.0	-2.2
POO				e		02 12 59.1	
AGRA	Agra	19.54	315	eP	P	02 09 41.4	+0.1
PTH	Pithoragarh	19.72	324	eP	P	02 09 42.4	-0.9
PTH				e		02 13 18.8	
BOM	Bombay	20.30	287	eP	P	02 09 50.9	+1.3
BOM				e		02 13 20.5	
	comp=Z,79nm,0.7s						
AYAN	Aya Nagar	20.89	316	eP	P	02 09 56.4	+0.7
NDI	New Delhi	20.96	317	eP	P	02 09 54.8	-1.6
NDI				e		02 13 33.8	
AJM	Ajmer	21.50	308	⇑iP	P	02 10 03.0	+1.2
KHET	Khetri	21.55	314	eP	P	02 10 03.5	+1.2
DDI	Dehra Dun	21.55	322	eP	P	02 10 03.3	+0.9
DDI				eS	S	02 14 02.3	+6.5
ENH	Enshi	22.04	40	eP	P	02 10 07.2	0.0
	comp=Z,61nm,1.0s,mb5.0						
KLP	Kalpa	22.32	324	eP	P	02 10 11.9	+1.8
SDNR	Sundarnagar	23.05	322	eP	P	02 10 20.1	+2.9
BHK	Bhakra	23.32	321	e	S	02 14 38.2	+10
LZH	Lanzhou	23.98	21	⇑P	P	02 10 28.0	+1.8
LZH				AP		02 10 37.8	
LZH				XP		02 10 42.0	
LZH				PP	PP	02 11 07.0	+6.6
LZH				XS		02 15 03.0	
LZH				AMB	AMB		
	comp=Z,80nm,1.5s,mb4.9						
LZH				AMB	AMB		
	comp=Z,233nm,5.8s						
LZH				LR	LR		
	comp=E,2µm,14.8s						
LZH				LR	LR		
	comp=Z,3µm,15.1s,MS4.8						
THN	Thein Dam	24.46	322	eP	P	02 10 30.2	-0.7
	comp=Z,10.0nm,0.9s,mb4.2						
XAN	Xi'an	24.49	33	P	P	02 10 31.0	-0.2
XAN				AMB	AMB		
	comp=Z,8.0nm,1.4s,mb4.0						
JASL	Jaisalmer	24.63	305	e	P	02 10 29.9	-2.8
GTA	Gaotai	26.00	11	eP	P	02 10 47.0	+1.5
GTA				AP	pP	02 10 56.3	+6.6
GTA				S	S	02 15 21.5	+8.2
GTA				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.1						
GTA				AMB	AMB		
	comp=Z,201nm,6.5s						
GTA				LR	LR		
	comp=N,645nm,22.8s,MS4.2						
GTA				LR	LR		
	comp=E,368nm,21.7s,MS4.2						
GTA				LR	LR		
	comp=Z,661nm,24.0s,MS4.1						
WMQ	Urumqi	30.17	352	⇓P	P	02 11 24.5	+1.3
WMQ				AP	pP	02 11 34.3	+6.9
WMQ				XP	sP	02 11 38.0	+8.7
WMQ				PP	PP	02 12 23.8	+2.0
WMQ				PPP	PPP	02 12 38.0	+2.0
WMQ				S	S	02 16 21.0	+0.6
WMQ				AMB	AMB		
	comp=Z,2.0nm,0.6s,mb4.0						
WMQ				AMB	AMB		
	comp=Z,55nm,8.8s						
WMQ				LR	LR		
	comp=N,735nm,22.4s,MS4.4						
WMQ				LR	LR		
	comp=E,623nm,20.0s,MS4.4						
WMQ				LR	LR		
	comp=Z,677nm,21.6s,MS4.2						
MKAR	Makanchi Array	34.04	346	i P	P	02 11 57.1	+0.1
MKAR				pmax	pmax		
	comp=Z,13nm,1.0s						
JOW	Kunigami	35.04	63	LR	LR	02 28 00.3	
	comp=Z,1µm,20.3s,MS4.7,baz=273,slow=39						
SONM	Songino Array	35.49	15	P	P	02 12 09.3	-0.1
	comp=Z,1.8nm,0.5s,mb4.3,baz=204,slow=7.9,SNR=22						
SONM				ScP		02 18 25.9	
	comp=Z,1.3nm,0.9s,baz=194,slow=5.1,SNR=4.9						
SONM				LR	LR	02 28 36.1	
	comp=Z,321nm,18.2s,MS4.1,baz=185,slow=40						
ZAK	Zakamensk	37.23	11	eP	P	02 12 23.5	-0.5
ZAL	Zalesovo	40.47	352	P	P	02 12 50.8	-0.2
	comp=Z,14nm,1.2s,mb4.6,baz=296,slow=9.6,SNR=30						
ZAL				LR	LR	02 33 55.3	
	comp=Z,749nm,20.4s,MS4.5,baz=286,slow=43						
CN2	Changchun	40.48	36	eP	P	02 12 55.5	+4.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.8						
NVS	Novosibirsk	41.57	351	eP	P	02 12 58.8	-1.1
NVS				eS	S	02 19 13.5	-1.6
NVS				pmax	pmax		
	comp=N,7.0nm,1.0s						
NVS				pmax	pmax		
	comp=E,4.0nm,1.0s						
NVS				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.5						
NVS				smax			
	comp=N,31nm,2.1s						
NVS				smax			
	comp=E,28nm,2.1s						
BVAR	Borovoye Array	43.05	340	P	P	02 13 11.6	-0.5
	comp=E,1.1nm,0.4s,mb3.9,baz=145,slow=10,SNR=12						
BRVK	Borovoye	43.11	340	P	P	02 13 12.4	-0.2
BRVK				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb3.8						
CHKZ	Chkalovo	43.52	340	P	P	02 13 16.2	+0.3
CHKZ				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.5						
CHKZ	Chkalovo	43.52	340	⇑eP	P	02 13 16.1	+0.2
	comp=Z,6.2nm,0.5s,mb4.6						
JHJ	Hachijo jima 2	46.23	57	LR	LR	02 32 44.3	
	comp=Z,351nm,18.5s,MS4.3,baz=72,slow=36						
BOD	Bodaibo	46.49	15	eP	P	02 13 39.3	-0.3
CBIJ	Chichi jima	47.30	66	LR	LR	02 32 58.6	
	comp=Z,247nm,18.8s,MS4.2,baz=269,slow=35						
GNI	Garni	49.77	311	eP	P	02 14 07.0	+1.6
GNI				pmax	pmax		
	comp=Z,16nm,1.0s						
GNI	Garni	49.77	311	P	P	02 14 07.7	+2.3
	comp=Z,6.7nm,0.7s,mb4.8,baz=336,slow=6.3,SNR=11						
GNI	Garni	49.77	311	eP	P	02 14 07.0	+1.6
	comp=Z,16nm,1.0s,mb5.0						
TI2	Plekhanov	50.26	313	eP	P	02 14 11.2	+2.1
ZEI	Tsey	51.19	314	eP	P	02 14 17.8	+1.6
ZEI				i *PP	pP	02 14 29.0	+8.4
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
ASAJ	Asahikawa	51.49	44	LR	LR	02 40 09.7	
	comp=Z,390nm,18.2s,MS4.5,baz=209,slow=41						
BEST	Besiri	51.79	307	P	P	02 14 21.7	+0.9
NWAO	Narrogin (SRO)	51.89	154	P	P	02 14 22.2	+0.5
	comp=Z,20nm,0.7s,mb5.2,baz=340,slow=8.4,SNR=8.2						
ERZM	Erzurum	52.20	310	P	P	02 14 25.4	+1.6
KIV	Kislovodsk	52.41	315	eP	P	02 14 25.8	+0.4
KIV				pmax	pmax		
	comp=N,11nm,1.2s						
KIV				pmax	pmax		
	comp=E,12nm,1.2s						
KIV				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
KIV				MLR	MLR		
	comp=N,274nm,17.0s,MS4.5						
KIV				MLR	MLR		
	comp=E,280nm,17.0s,MS4.5						
KIV				MLR	MLR		
	comp=Z,386nm,17.0s,MS4.5						
KIV	Kislovodsk	52.41	315	eP	P	02 14 25.7	+0.3
	comp=Z,16nm,1.1s,mb4.8						
WRA	Warramunga Arr	52.53	129	P	P	02 14 24.8	-1.8
	comp=Z,3.7nm,0.8s,mb4.3,baz=314,slow=8.4,SNR=27						
WRA				PcP	PcP	02 15 36.1	-1.0
	comp=Z,1.8nm,0.5s,baz=326,slow=3.3,SNR=12						
WRAB	Tennant Creek	52.54	129	eP	P	02 14 24.2	-2.5
WRAB				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
WRAB	Tennant Creek	52.54	129	eP	P	02 14 24.2	-2.5
	comp=Z,9.7nm,0.6s,mb4.9						
YSS	Yuzh-Sakhalins	52.61	41	eP	P	02 14 28.0	+1.1
YSS				MLR	MLR		
	comp=N,500nm,14.0s						
YSS				MLR	MLR		
	comp=Z,700nm,14.0s,MS4.9						
MALT	Malatya	54.07	307	eP	P	02 14 38.6	+0.9
MALT				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
MALT	Malatya	54.07	307	eP	P	02 14 38.6	+0.8
	comp=Z,10nm,1.1s,mb4.7						
ASF	Jabal al Asfar	54.41	300	LR	LR	02 40 59.5	
	comp=Z,266nm,21.9s,MS4.3,baz=153,slow=40						
ASAR	Alice Springs	54.49	133	P	P	02 14 39.5	-1.6
	comp=Z,4.8nm,0.5s,mb4.7,baz=310,slow=6.8,SNR=51						
GZT	Gaziantep	54.57	306	P	P	02 14 42.1	+0.6
KAHT	Ahir Dag	55.16	306	P	P	02 14 46.4	+0.7
COBT	Iskenderun	55.48	305	P	P	02 14 48.7	+0.7
EIL	Elat	55.90	296	P	P	02 14 51.8	+0.6
	comp=Z,3.6nm,0.8s,mb4.4,baz=97,slow=8.1,SNR=2.8						
KMBO	Kilima Mbogo	57.53	260	LR	LR	02 39 37.2	
	comp=Z,313nm,19.3s,MS4.4,baz=280,slow=36						
BRTR	Keskin Array B	57.99	308	P	P	02 15 05.2	-0.6
	comp=Z,5.9nm,0.9s,mb4.6,baz=121,slow=7.2,SNR=21						
ELDT	Eldivan	58.27	309	P	P	02 15 07.8	0.0
SGKT	Sivrigoynuk	59.31	309	P	P	02 15 15.5	+0.4
OBN	Obninsk	59.90	326	eP	P	02 15 18.3	-0.6
OBN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
ESKT	Eskisehir	60.10	308	P	P	02 15 19.7	-0.8
CTA	Charters Tower	62.05	122	P	P	02 15 34.9	+0.8
	comp=Z,0.8nm,0.4s,mb4.2,baz=297,slow=5.6,SNR=4.5						
AKASG	Malin Array Be	62.98	320	P	P	02 15 38.7	-1.1
	comp=Z,1.7nm,0.7s,mb4.3,baz=89,slow=4.2,SNR=9.5						
MLR	Muntele Rosu	64.37	314	P	P	02 15 49.7	+0.7
	comp=Z,9.1nm,1.0s,mb4.8,baz=91,slow=4.2,SNR=11						
STKA	Stephens Creek	64.90	136	P	P	02 15 51.8	-0.9
	comp=Z,3.2nm,0.7s,mb4.5,baz=276,slow=10.0,SNR=6.8						
KWP	Kalwaria	66.97	318	eP	P	02 16 05.4	-0.2
KWP				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
KWP	Kalwaria	66.97	318	eP	P	02 16 05.4	-0.2
	comp=Z,19nm,0.9s,mb5.1						
FINES	FINESS Array B	67.03	331	P	P	02 16 05.0	-0.8
	comp=Z,2.0nm,0.5s,mb4.4,baz=96,slow=6.3,SNR=28						
FINES				LR	LR	02 50 30.1	
	comp=Z,362nm,18.3s,MS4.6,baz=130,slow=41						
KAF	Kangasniemi	67.09	332	ep	P	02 16 05.0	-1.1
	comp=Z,5.9nm,1.0s,mb4.6						
KAF	Kangasniemi	67.09	332	eP	P	02 16 05.0	-1.1
KAF				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
ARCES	ARCESS Array B	69.33	340	P	P	02 16 19.4	-0.6
	comp=Z,3.8nm,1.0s,mb4.3,baz=90,slow=6.3,SNR=18						
ARCES				LR	LR	02 52 30.8	
	comp=Z,464nm,19.9s,MS4.7,baz=150,slow=41						
LSZ	Lusaka	70.67	248	eP	P	02 16 29.6	+0.6
LSZ				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
LSZ	Lusaka	70.67	248	eP	P	02 16 29.6	+0.6
	comp=Z,5.9nm,0.8s,mb4.6						
BRG	Berggiesshubel	72.64	319	eP	P	02 16 39.8	-0.4
BRG				e		02 16 49.4	
BRG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
BRG	Berggiesshubel	72.64	319	eP	P	02 16 39.8	-0.4
	comp=Z,6.6nm,1.0s,mb4.5						
BRG				e		02 16 49.4	
GERES	GERESS Array B	72.84	317	P	P	02 16 41.0	-0.5
	comp=Z,3.7nm,1.0s,mb4.3,baz=90,slow=4.9,SNR=10						
GERES				LR	LR	02 54 43.0	
	comp=Z,204nm,18.9s,MS4.4,baz=252,slow=41						
HFS	Hagfors	72.87	329	P	P	02 16 41.1	-0.3
	comp=Z,3.2nm,0.4s,mb4.6,baz=104,slow=6.1,SNR=28						
CLL	Collm	73.23	320	P	P	02 16 44.0	+0.3
NB2	NORSAR Subarra	74.11	330	P	P	02 16 47.7	-0.9
	comp=Z,5.8nm,1.1s,mb4.4,baz=91,slow=5.6						
NB2	NORSAR Subarra	74.11	330	P	P	02 16 47.7	-0.9
NB2				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
NOA	NORSAR Array B	74.11	330	P	P	02 16 48.0	-0.6
	comp=Z,1.1nm,0.5s,mb4.0,baz=91,slow=5.7,SNR=4.7						
NOA				LR	LR	02 56 48.8	
	comp=Z,241nm,18.2s,MS4.5,baz=70,slow=42						
LBTB	Lobatse	76.53	240	eP	P	02 17 03.9	+0.7
LBTB				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
LBTB	Lobatse	76.53	240	eP	P	02 17 03.9	+0.8
	comp=Z,7.4nm,0.8s,mb4.7						
LPG	La Plagne	77.84	314	eP	P	02 17 02.9	-7.0
	comp=Z,14nm,0.8s,mb4.7						
LPG	La Plagne	77.84	314	eP	P	02 17 02.9	-7.0
LPG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
BOSA	Boshof	78.20	236	eP	P	02 17 12.3	0.0
BOSA				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
BOSA	Boshof	78.20	236	eP	P	02 17 12.3	0.0
	comp=Z,5.8nm,0.7s,mb4.6						
JMIC	Jan Mayen	80.75	341	LR	LR	02 56 53.6	
	comp=Z,351nm,20.7s,MS4.7,baz=259,slow=38						
MAW	Mawson	84.29	191	P	P	02 17 44.6	+1.1
	comp=Z,6.8nm,1.0s,mb4.7,baz=159,slow=6.6,SNR=4.5						
IMA	Indian Mountai	86.33	22	eP	P	02 17 55.2	+1.5
IMA				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.3						
IMA	Indian Mountai	86.33	22	eP	P	02 17 55.2	+1.5
	comp=Z,15nm,0.8s,mb5.3						
ESDC	Sonseca Array	86.74	310	P	P	02 17 57.1	+0.8
	comp=Z,1.5nm,0.9s,mb4.2,baz=65,slow=5.1,SNR=6.6						
ILAR	Eielson Array	89.44	22	P	P	02 18 08.6	-0.1

	comp=Z,1.0nm,0.7s,mb4.3,baz=296,slow=3.8,SNR=14						
ILAR				PKKPbc		02 35 44.5	
	comp=Z,0.3nm,0.7s,baz=126,slow=1.4,SNR=4.1						
ILAR				LR	LR	03 04 29.2	
	comp=Z,160nm,20.4s,MS4.4,baz=149,slow=40						
SYO	**Syowa Base**	**90.94**	**197**	⇓P	**P**	**02 18 14.8**	**-0.7**
INK	**Inuvik**	**91.41**	**16**	P	**P**	**02 18 17.9**	**+0.2**
	comp=Z,1.4nm,0.6s,mb4.5,baz=334,slow=5.8,SNR=15						
INK				LR	LR	03 04 28.4	
	comp=Z,333nm,19.4s,MS4.8,baz=176,slow=39						
DBIC	**Dimbokro**	**96.32**	**278**	LR	LR	03 01 13.9	
	comp=Z,118nm,20.4s,MS4.3,baz=39,slow=35						
YKA	**Yellowknife Ar**	**100.73**	**13**	PP	PP	02 23 08.8	-1.8
	comp=Z,0.5nm,1.1s,baz=284,slow=8.7,SNR=4.3						
YKA				PKKPbc		02 35 15.8	
	comp=Z,0.2nm,0.8s,baz=153,slow=3.0,SNR=4.4						
PDAR	**Pinedale Array**	**119.78**	**19**	PKP	PKPdf	02 24 03.1	-1.7
	comp=Z,0.4nm,0.5s,baz=111,slow=2.2,SNR=8.8						
NVAR	**Mina Array Bea**	**120.06**	**28**	PKP	PKPdf	02 24 04.9	-0.6
	comp=Z,1.0nm,0.6s,baz=344,slow=1.8,SNR=3.7						
TXAR	**Lajitas Array**	**133.95**	**21**	PKP	PKPdf	02 24 31.6	-0.7
	comp=Z,0.7nm,0.5s,baz=190,slow=0.4,SNR=20						
TRQA	**Tornquist**	**147.51**	**218**	*e*PKPbc	PKPdf	02 24 55.0	-1.2

IDC ***28*** *02:09:58.1±0.8, 7.57N×93.92E, mb4.1/13, mb1 4.2/14, mb1mx4.1/21, mbtmp4.0/14, ML3.4/1, MS4.3/1, Ms1 4.3/1, ms1mx3.1/29, Error ellipse: s-maj=37.5km s-min=18.9km az=51.0*

ISC 28 02:10:01.5±0.8**, 7.7N**±0.1×**94.2E**±0.2**, h33^{km}, n17, σ1^{s}19**/15**, mb4.1**/13**, MS4.3**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.66**	**23**	Pn	**P**	**02 12 48.0**	**-0.7**
	0.1nm,0.3s,baz=212,slow=14,SNR=3.8						
SONM	**Songino Array**	**41.33**	**12**	P	**P**	**02 17 47.2**	**+1.4**
	1.0nm,1.0s,mb3.4,baz=190,slow=8.8,SNR=4.1						
SONM				PcP	PcP	02 19 46.1	+1.7
	1.5nm,1.1s,baz=180,slow=2.5,SNR=3.5						
ZAL	**Zalesovo**	**46.74**	**352**	P	**P**	**02 18 28.8**	**-0.4**
	3.0nm,0.9s,mb4.2,baz=296,slow=9.7,SNR=13						
WRA	**Warramunga Arr**	**48.11**	**125**	P	**P**	**02 18 41.3**	**+0.8**
	1.7nm,0.8s,mb4.1,baz=302,slow=9.0,SNR=5.3						
BVAR	**Borovoye Array**	**49.18**	**341**	P	**P**	**02 18 47.4**	**-0.9**
	0.4nm,0.6s,mb3.7,baz=198,slow=9.4,SNR=3.6						
ASAR	**Alice Springs**	**49.75**	**130**	P	**P**	**02 18 51.9**	**-1.3**
	1.9nm,1.0s,mb4.1,baz=306,slow=8.0,SNR=3.8						
ASAR				PcP	PcP	02 20 14.9	+0.9
	1.0nm,0.8s,baz=302,slow=3.0,SNR=5.1						
CTA	**Charters Tower**	**58.17**	**119**	LR	LR	02 47 12.8	
	comp=Z,249nm,20.2s,MS4.3,baz=54,slow=38						
BRTR	**Keskin Array B**	**62.59**	**311**	P	**P**	**02 20 21.7**	**-3.2**
	1.1nm,0.8s,mb4.1,baz=112,slow=7.5,SNR=5.7						
AKASG	**Malin Array Be**	**68.33**	**322**	P	**P**	**02 20 59.1**	**-2.4**
	0.4nm,0.4s,mb3.8,baz=87,slow=5.2,SNR=5.4						
FINES	**FINESS Array B**	**72.90**	**332**	P	**P**	**02 21 29.3**	**+0.3**
	3.8nm,0.9s,mb4.3,baz=104,slow=7.9,SNR=7.4						
ARCES	**ARCESS Array B**	**75.46**	**340**	P	**P**	**02 21 45.3**	**+1.6**
	2.2nm,0.9s,mb4.1,baz=117,slow=5.4,SNR=3.9						
GERES	**GERESS Array B**	**78.00**	**318**	P	**P**	**02 21 59.1**	**+0.7**
	2.2nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=17						
HFS	**Hagfors**	**78.64**	**330**	P	**P**	**02 22 02.2**	**+0.5**
	9.5nm,1.1s,mb4.6,baz=90,slow=5.9,SNR=7.2						
NB2	**NORSAR Subarra**	**79.92**	**331**	P	**P**	**02 22 07.9**	**-0.6**
	7.6nm,1.1s,mb4.5,baz=93,slow=6.2						
NOA	**NORSAR Array B**	**79.92**	**331**	P	**P**	**02 22 08.2**	**-0.3**
	2.1nm,0.8s,mb4.1,baz=92,slow=6.1,SNR=4.7						
DAVOX	**Davos**	**80.56**	**316**	P	**P**	**02 22 13.5**	**+1.2**
	2.8nm,1.0s,mb4.2,baz=124,slow=12,SNR=4.6						
PDAR	**Pinedale Array**	**125.32**	**21**	PKP	PKPdf	02 29 02.6	+3.2
	0.8nm,0.8s,baz=311,slow=2.3,SNR=6.0						

IDC 28 02:14:26.0±2.9**, 1.66S×97.47E, mb3.8**/5**, mb1 4.0**/5**, mb1mx3.7**/17**, mbtmp3.8**/5**, Error ellipse: s-maj=111.7km s-min=27.3km az=59.0, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**20.04**	**4**	P	P	02 18 60.0	-3.7
	0.8nm,0.4s,baz=195,slow=11,SNR=4.2						
ASAR	**Alice Springs**	**41.51**	**125**	P	P	02 22 15.1	-1.8
	1.7nm,0.9s,baz=302,slow=13,SNR=6.9						
SONM	**Songino Array**	**49.91**	**8**	P	P	02 23 22.3	-1.0
	0.6nm,0.6s,baz=186,slow=8.3,SNR=4.2						
ZAL	**Zalesovo**	**56.40**	**351**	P	P	02 24 08.7	-2.8
	1.3nm,0.7s,baz=297,slow=4.7,SNR=5.1						
BVAR	**Borovoye Array**	**59.02**	**341**	P	P	02 24 27.6	-2.4
	1.4nm,0.9s,baz=143,slow=7.4,SNR=4.6						

IDC 28 02:14:42.5±7.0**, 8.19N×93.62E, mb3.8**/6**, mb1 4.0**/7**, mb1mx3.8**/20**, mbtmp3.8**/7**, ML4.4**/1**, Error ellipse: s-maj=162.5km s-min=39.8km az=144.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.44**	**26**	Pn	P	02 17 28.9	-1.4
	0.8nm,0.3s,baz=213,slow=15,SNR=4.1						
SONM	**Songino Array**	**40.97**	**13**	P	P	02 22 26.6	-2.0
	0.3nm,0.5s,baz=194,slow=5.9,SNR=3.3						
ZAL	**Zalesovo**	**46.17**	**353**	P	P	02 23 08.1	-2.6
	1.6nm,0.3s,baz=290,slow=8.2,SNR=8.9						
BVAR	**Borovoye Array**	**48.53**	**341**	P	P	02 23 27.4	-1.8
	0.3nm,0.4s,baz=117,slow=9.7,SNR=3.6						
BRTR	**Keskin Array B**	**61.83**	**311**	P	P	02 25 03.3	-2.5
	0.5nm,0.7s,baz=90,slow=5.8,SNR=3.4						
GERES	**GERESS Array B**	**77.25**	**318**	P	P	02 26 39.4	-0.8
	0.6nm,0.7s,baz=76,slow=5.5,SNR=6.6						
HFS	**Hagfors**	**77.93**	**330**	P	P	02 26 42.5	-1.2
	1.1nm,0.5s,baz=90,slow=8.9,SNR=6.6						

PRU ***28*** *02:15:28.5, 50.12N×19.08E*

WAR 28 02:15:27.1, 50.17N×19.31E, h0^{km}, ML2.4, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.32**	**80**	*e*PG	Pg	02 15 33.0	-0.5
OJC				*e*SG	Sg	02 15 38.0	+0.3
RAC	**Raciborz**	**0.72**	**264**	*e*(PG)	Pg	02 15 41.0	-0.5
RAC				*e*(SG)	Sg	02 15 51.0	-0.1
OKC	**Ostrava-Krasne**	**0.82**	**247**	*e*PG	Pg	02 15 41.8	-1.6
NIE	**Niedzica**	**0.99**	**139**	*e*Pg	Pg	02 15 45.7	-1.2
NIE				*e*		02 15 46.7	
NIE				*e*Sg	Sg	02 16 00.8	+0.7
LIKS	**Likavka**	**1.12**	**187**	*i* PN	Pn	02 15 49.2	-0.7
LIKS				*e*SN	Sn	02 16 03.8	-2.5
VYHS	**Vyhne**	**1.70**	**191**	*i* PN	Pn	02 15 56.5	-1.7
VYHS				*e*SN	Sn	02 16 18.8	-2.1
KECS	**Kecovo**	**1.85**	**155**	*e*PN	Pn	02 16 03.1	+2.8
KECS				*e*SN	Sn	02 16 26.4	+1.7
CRVS	**Cervenica-Dubn**	**1.89**	**131**	*e*PN	Pn	02 16 01.8	+0.9
DPC	**Dobruska-Polom**	**1.93**	**277**	*e*PG	Pg	02 15 59.5	-6.0
DPC				*e*SG	Sg	02 16 25.0	-6.2
KSP	**Ksiaz**	**2.04**	**291**	*e*PG	Pg	02 16 06.0	-1.9
KSP				*e*SN	Sn	02 16 31.0	+1.4
UPC	**Upice**	**2.14**	**280**	*e*SG	Sg	02 16 32.3	-6.0
PRU	**Pruhonice**	**3.08**	**269**	*e*SG	Sg	02 17 00.9	-8.6
	4.2nm,0.6s						
BRG	**Berggiesshubel**	**3.50**	**284**	*e*Sg	Sg	02 17 17.1	-6.4
KHC	**Kasperske Hory**	**3.87**	**257**	*e*PG	Pg	02 16 40.5	-3.8
KHC				*e*x	x	02 17 16.0	
KHC				*e*SG	Sg	02 17 29.2	-6.6

IDC ***28*** *02:19:41.0±10.0, 71.82N×3.11W, mb1 3.8/4, mb1mx3.4/23, mbtmp3.7/4, ML3.4/4, Error ellipse: s-maj=116.1km s-min=42.0km az=132.0*

BER ***28*** *02:19:55.7±3.5, 71.81N×0.78W, h10^{km}, MW2.7*

ISC 28 02:19:41.9±4.1**, 71.8N**±0.3×**2.6W**±0.7**, h10^{km}, n9, σ1^{s}04**/11**, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOF	**Lofoten**	**6.64**	**116**	*e*P	**Pn**	**02 21 24.8**	**+2.8**
TRO	**Tromso**	**7.43**	**96**	*e*P	**Pn**	**02 21 31.1**	**-2.0**
TRO				*e*		02 21 31.8	
	baz=284,slow=16						
MOR8	**Moi Rana**	**8.30**	**124**	*e*P	**P**	**02 21 45.6**	**+0.4**
KTK1	**Kautokeino**	**9.08**	**95**	*e*P	**P**	**02 21 57.0**	**+1.1**
KTK1				*e*S	**Sn**	**02 23 23.2**	**-16**
ARCES	**ARCESS Array B**	**9.54**	**90**	Pn	**P**	**02 22 02.2**	**0.0**
	0.4nm,0.3s,baz=290,slow=12,SNR=20						
ARCES				Sn	**Sn**	**02 23 50.2**	**-0.3**
	0.1nm,0.3s,baz=224,slow=25,SNR=2.0						
NOA	**NORSAR Array B**	**12.08**	**146**	Pn	**P**	**02 22 36.1**	**-0.8**
	0.2nm,0.3s,baz=342,slow=13,SNR=2.3						
HFS	**Hagfors**	**13.38**	**143**	Pn	**P**	**02 22 53.8**	**-0.4**
	0.1nm,0.3s,baz=338,slow=12,SNR=12						
KAF	**Kangasniemi**	**14.71**	**116**	*e*p	**P**	**02 23 11.1**	**-0.4**
	0.6nm,0.3s						
FINES	**FINESS Array B**	**15.19**	**118**	Pn	**P**	**02 23 18.3**	**+0.6**
	0.2nm,0.3s,baz=330,slow=9.9,SNR=7.4						

IDC 28 02:21:15.4±1.2**, 5.97N×94.29E, mb3.8**/6**, mb1 3.9**/7**, mb1mx3.8**/18**, mbtmp3.8**/7**, ML4.2**/1**, Error ellipse: s-maj=48.5km s-min=21.5km az=51.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.21**	**20**	Pn	P	02 24 25.5	-1.5
	0.4nm,0.3s,baz=205,slow=15,SNR=2.7						
SONM	**Songino Array**	**42.98**	**12**	P	P	02 29 16.4	-1.6
	1.0nm,0.7s,baz=207,slow=5.5,SNR=5.9						
WRA	**Warramunga Arr**	**47.05**	**124**	P	P	02 29 48.6	-2.4
	0.5nm,0.5s,baz=303,slow=9.3,SNR=3.9						
ASAR	**Alice Springs**	**48.60**	**129**	P	P	02 30 01.7	-1.3
	0.6nm,0.6s,baz=298,slow=7.5,SNR=6.0						
BRTR	**Keskin Array B**	**63.79**	**311**	P	P	02 31 50.3	-1.5
	0.4nm,0.8s,baz=79,slow=7.3,SNR=3.3						
FINES	**FINESS Array B**	**74.45**	**332**	P	P	02 32 55.0	-2.1
	0.7nm,0.5s,baz=117,slow=4.3,SNR=8.7						
ARCES	**ARCESS Array B**	**77.10**	**340**	P	P	02 33 10.0	-1.9
	1.8nm,0.8s,baz=96,slow=8.2,SNR=3.8						

IDC ***28*** *02:21:57.3±1.1, 5.27N×94.33E, mb4.0/8, mb1 4.2/8, mb1mx4.0/18, mbtmp4.0/8, Error ellipse: s-maj=51.1km s-min=21.4km az=47.0*

ISC 28 02:22:00.7±0.9**, 5.3N**±0.2×**94.4E**±0.2**, h33^{km}, n9, σ1^{s}01**/9**, mb4.1**/8**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.80**	**18**	Pn	**P**	**02 25 23.1**	**+6.7**
	0.5nm,0.3s,baz=212,slow=11,SNR=13						
SONM	**Songino Array**	**43.60**	**12**	P	**P**	**02 30 03.6**	**+0.1**
	1.3nm,0.7s,mb3.8,baz=192,slow=7.0,SNR=6.1						
SONM				PcP	PcP	02 31 50.5	-0.8
	0.6nm,0.5s,baz=217,slow=3.4,SNR=4.2						
WRA	**Warramunga Arr**	**46.60**	**124**	P	**P**	**02 30 26.3**	**-1.4**
	2.0nm,0.7s,mb4.2,baz=302,slow=9.3,SNR=5.8						
ASAR	**Alice Springs**	**48.10**	**128**	P	**P**	**02 30 40.9**	**+1.3**
	1.3nm,0.7s,mb4.1,baz=302,slow=7.6,SNR=5.2						
ZAL	**Zalesovo**	**49.11**	**353**	P	**P**	**02 30 47.2**	**+0.3**
	2.4nm,0.3s,mb4.6,baz=301,slow=4.8,SNR=7.0						
BRTR	**Keskin Array B**	**64.31**	**312**	P	**P**	**02 32 35.0**	**-0.4**
	0.6nm,0.7s,mb3.8,baz=129,slow=8.0,SNR=3.7						
AKASG	**Malin Array Be**	**70.32**	**322**	P	**P**	**02 33 11.2**	**-1.7**
	0.4nm,0.4s,mb3.7,baz=86,slow=5.6,SNR=4.1						
GERES	**GERESS Array B**	**79.91**	**319**	P	**P**	**02 34 08.6**	**+0.7**
	1.0nm,0.5s,mb4.0,baz=90,slow=5.3,SNR=9.6						
DAVOX	**Davos**	**82.41**	**316**	P	**P**	**02 34 22.1**	**+1.0**
	2.4nm,0.6s,mb4.3,baz=39,slow=6.5						

IDC 28 02:28:11.2±1.2**, 7.39N×91.36E, mb3.9**/8**, mb1 4.1**/8**, mb1mx3.8**/19**, mbtmp3.9**/8**, MS2.9**/1**, Ms1 3.1**/1**, ms1mx2.6**/33**, Error ellipse: s-maj=53.1km s-min=21.4km az=52.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.25**	**33**	LR	LR	02 35 43.4	
	comp=Z,59nm,21.0s,baz=145,slow=34						
SONM	**Songino Array**	**42.29**	**15**	P	P	02 36 06.2	-2.0
	0.4nm,0.6s,baz=198,slow=9.5,SNR=3.2						
ZAL	**Zalesovo**	**46.72**	**355**	P	P	02 36 42.4	-1.3
	1.4nm,0.4s,baz=331,slow=6.5,SNR=5.0						
BVAR	**Borovoye Array**	**48.61**	**343**	P	P	02 36 56.9	-1.6
	0.8nm,0.6s,baz=117,slow=6.4,SNR=4.5						
WRA	**Warramunga Arr**	**50.26**	**123**	P	P	02 37 09.4	-2.3
	0.5nm,0.5s,baz=293,slow=8.2,SNR=6.0						
ASAR	**Alice Springs**	**51.76**	**128**	P	P	02 37 21.2	-1.8
	1.0nm,0.9s,baz=300,slow=7.8,SNR=5.0						
FINES	**FINESS Array B**	**71.86**	**333**	P	P	02 39 35.0	-2.8
	4.4nm,1.2s,baz=117,slow=3.1,SNR=4.6						
GERES	**GERESS Array B**	**76.35**	**318**	P	P	02 40 02.8	-1.2
	0.5nm,0.7s,baz=104,slow=5.5,SNR=4.4						
DAVOX	**Davos**	**78.83**	**316**	P	P	02 40 16.5	-1.2
	1.4nm,0.5s,baz=157,slow=7.7,SNR=7.5						

WEL 28 02:28:28.8±0.2**, 44.41S×168.20E, h5^{km}, ML3.7**/6**, 3C-1D, Error ellipse: s-maj=1.9km s-min=1.6km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MSZ	**Milford Sound**	**0.33**	**216**	⇑PG	Pg	02 28 35.6	+0.2
MSZ				SG	Sg	02 28 39.8	0.0
MSZ				SG	Sg	02 28 39.9	+0.1
JCZ	**Jackson Bay**	**0.52**	**50**	⇑PG	Pg	02 28 39.3	0.0
JCZ				SG	Sg	02 28 46.3	+0.1
WKZ	**Wanaka**	**0.72**	**126**	⇓P*	Pb	02 28 43.0	-0.3
WKZ				S*	Sb	02 28 52.0	-1.3
MLZ	**Mavora Lakes**	**0.94**	**181**	⇑P*	Pb	02 28 46.8	-0.3
MLZ				S*	Sb	02 28 59.8	+0.1
EAZ	**Earnscleugh**	**1.14**	**137**	P*	Pb	02 28 50.3	-0.3
EAZ				S*	Sb	02 29 03.9	-1.6
DCZ	**Deep Cove**	**1.30**	**214**	P*	Pb	02 28 51.8	-1.6
FOZ	**Fox Glacier**	**1.37**	**52**	PN	Pn	02 28 54.9	+0.3
LBZ	**Lake Benmore**	**1.42**	**90**	PN	Pn	02 28 56.1	+0.7
LBZ				SN	Sn	02 29 13.2	-1.4
WHZ	**Wether Hill Ro**	**1.50**	**187**	PN	Pn	02 28 55.3	-1.0
TUZ	**Tuapeka**	**1.85**	**147**	PN	Pn	02 29 01.5	+0.1
ODZ	**Otahua Downs**	**1.85**	**111**	PN	Pn	02 29 01.5	0.0
RPZ	**Rata Peaks**	**2.17**	**72**	*e*PN	Pn	02 29 06.8	+0.8
WVZ	**Waitaha Valley**	**2.27**	**55**	*e*PN	Pn	02 29 05.8	-1.6
DSZ	**Denniston Nort**	**3.75**	**46**	*e*PN	Pn	02 29 26.7	-1.8
THZ	**Tophouse**	**4.34**	**54**	*e*PN	Pn	02 29 35.9	-1.0
THZ				SN	Sn	02 30 23.8	-4.9
QRZ	**Quartz Range**	**4.80**	**43**	*e*PN	Pn	02 29 41.2	-2.2

IDC 28 02:30:28.2±11.0**, 13.49N×91.65E, mb4.0**/2**, mb1 4.1**/3**, mb1mx3.5**/18**, mbtmp3.8**/3**, ML3.9**/1**, Error ellipse: s-maj=238.1km s-min=50.9km az=112.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.58**	**54**	Pn	P	02 32 32.7	-3.8
	0.4nm,0.3s,baz=243,slow=15,SNR=4.3						
WRA	**Warramunga Arr**	**53.55**	**128**	P	P	02 39 50.4	-3.0
	0.8nm,0.5s,baz=299,slow=9.9,SNR=5.8						
ASAR	**Alice Springs**	**55.41**	**132**	P	P	02 40 05.3	-1.6
	0.8nm,0.4s,baz=310,slow=7.1,SNR=18						

WEL 28 02:31:40.5±1.3**, 37.05S×179.21W, h33^{km}, ML3.6**/2**, Error ellipse: s-maj=11.5km s-min=10.7km az=90.0, East of North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	**Matakaoa Point**	**2.05**	**255**	PN	Pn	02 32 11.6	-1.8
MXZ				SN	Sn	02 32 35.8	-2.2
MXZ				SN	Sn	02 32 35.8	-2.1
MWZ	**Matawai**	**2.89**	**243**	PN	Pn	02 32 24.7	-0.7
MWZ				*e*SN	Sn	02 32 57.0	-2.3
MWZ				*e*SN	Sn	02 32 57.2	-2.2
KNZ	**Kokohu**	**3.15**	**230**	*e*PN	Pn	02 32 28.4	-0.7
KNZ				SN	Sn	02 33 00.6	-5.4
BFZ	**Birch Farm**	**5.07**	**223**	*e*PN	Pn	02 32 52.7	-3.6
BFZ				SN	Sn	02 33 49.5	-5.0
MRZ	**Mangatainoka R**	**5.44**	**227**	*e*PN	Pn	02 32 57.7	-3.7
MQZ	**McQueen's Vall**	**9.10**	**220**	SN	Sn	02 35 21.9	-13

IDC ***28*** *02:36:37.7±1.5, 71.80N×2.14W, mb3.5/4, mb1 3.8/8, mb1mx3.6/23, mbtmp3.7/8, ML3.5/4, MS3.3/1, Ms1 3.4/1, ms1mx2.6/28, Error ellipse: s-maj=41.8km s-min=21.8km az=41.0*

BER ***28*** *02:36:39.1±4.0, 71.81N×3.27W, h15^{km}±546^{km}, MW2.5*

ISC 28 02:36:36.7±1.2**, 71.7N**±0.1×**2.2W**±0.4**, h10^{km}, n14, σ1^{s}24**/15**, mb3.5**/4**, Jan Mayen Island region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LOF	**Lofoten**	**6.47**	**116**	*e*P	**Pn**	**02 38 16.6**	**+2.1**
TRO	**Tromso**	**7.29**	**96**	*e*P	**Pn**	**02 38 24.1**	**-1.8**
TRO				*e*		02 38 24.7	
	baz=284,slow=16						
MOR8	**Moi Rana**	**8.13**	**125**	*e*P	**P**	**02 38 38.0**	**+0.3**
NSS	**Namsos**	**8.89**	**137**	*e*P	**P**	**02 38 46.5**	**-1.8**
NSS				*e*S	**Sn**	**02 40 21.8**	**-7.8**
KTK1	**Kautokeino**	**8.93**	**95**	*e*P	**P**	**02 38 49.6**	**+0.8**
ARCES	**ARCESS Array B**	**9.40**	**90**	Pn	**P**	**02 38 54.6**	**-0.7**
	0.4nm,0.3s,baz=292,slow=12,SNR=24						
NOA	**NORSAR Array B**	**11.92**	**147**	Pn	**P**	**02 39 29.0**	**-0.5**
	0.2nm,0.3s,baz=332,slow=12,SNR=3.1						
NOA				LR	LR	02 44 04.9	
	comp=Z,130nm,18.4s,baz=260,slow=37						
HFS	**Hagfors**	**13.22**	**143**	Pn	**P**	**02 39 45.9**	**-0.9**
	0.1nm,0.3s,baz=339,slow=13,SNR=16						
KAF	**Kangasniemi**	**14.55**	**117**	*e*p	**P**	**02 40 03.7**	**-0.4**
	0.7nm,0.3s						
FINES	**FINESS Array B**	**15.03**	**119**	Pn	**P**	**02 40 11.1**	**+0.7**
	0.2nm,0.3s,baz=332,slow=11,SNR=11						
GERES	**GERESS Array B**	**24.07**	**154**	P	**P**	**02 41 56.1**	**+3.6**
	0.8nm,0.9s,mb3.1,slow=8.0,SNR=6.5						
AKASG	**Malin Array Be**	**25.34**	**129**	P	**P**	**02 42 05.7**	**+0.9**
	4.1nm,0.9s,mb4.0,baz=336,slow=9.0,SNR=7.2						
BRTR	**Keskin Array B**	**36.72**	**131**	P	**P**	**02 43 48.4**	**+3.0**
	1.6nm,1.1s,mb3.8,baz=346,slow=6.1,SNR=5.3						
YKA	**Yellowknife Ar**	**38.34**	**316**	P	**P**	**02 43 58.5**	**-0.4**
	0.5nm,1.1s,mb3.2,baz=49,slow=7.5,SNR=4.0						

IDC ***28*** *02:40:28.5±0.9, 13.92N×93.30E, mb3.9/10, mb1 4.0/11, mb1mx3.9/19, mbtmp3.9/11, ML3.8/1, MS3.4/1, Ms1 3.6/1, ms1mx2.8/34, Error ellipse: s-maj=29.1km s-min=18.3km az=49.0*

ISC 28 02:40:29.3±6.6**, 13.9N**±0.1×**93.3E**±0.1**, h17^{km}**±46^{km}**, n12, σ0^{s}48**/13**, mb3.9**/10**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.03**	**49**	Pn	**Pn**	**02 42 14.1**	**-0.1**
	0.5nm,0.3s,baz=241,slow=15,SNR=24						
CMAR				Sn	**Sn**	**02 43 34.4**	**0.0**
	0.4nm,0.3s,baz=239,slow=27,SNR=5.9						
CMAR				LR	LR	02 45 37.0	
	comp=Z,285nm,18.1s,baz=235,slow=44						
SHL	**Shillong**	**11.66**	**354**	*e*P	**P**	**02 43 13.0**	**-5.2**
SONM	**Songino Array**	**35.52**	**15**	P	**P**	**02 47 27.7**	**+0.4**
	1.4nm,0.9s,mb3.9,baz=199,slow=6.3,SNR=8.0						
ZAL	**Zalesovo**	**40.48**	**352**	P	**P**	**02 48 08.7**	**-0.1**
	1.4nm,0.9s,mb3.7,baz=292,slow=9.9,SNR=7.4						
WRA	**Warramunga Arr**	**52.53**	**129**	P	**P**	**02 49 44.3**	**-0.1**
	0.5nm,0.6s,mb3.6,baz=312,slow=8.4,SNR=3.7						
WRA				PcP	PcP	02 50 53.5	-1.2
	0.4nm,0.5s,baz=317,slow=2.9,SNR=4.8						
ASAR	**Alice Springs**	**54.49**	**133**	P	**P**	**02 49 58.7**	**0.0**
	0.5nm,0.5s,mb3.7,baz=311,slow=6.9,SNR=7.7						
BRTR	**Keskin Array B**	**57.99**	**308**	P	**P**	**02 50 24.4**	**+0.8**
	2.5nm,1.1s,mb4.2,baz=124,slow=7.6,SNR=7.8						
FINES	**FINESS Array B**	**67.04**	**331**	P	**P**	**02 51 22.5**	**-1.1**
	2.8nm,1.1s,mb4.2,baz=117,slow=8.5,SNR=4.0						
GERES	**GERESS Array B**	**72.85**	**317**	P	**P**	**02 51 59.0**	**-0.2**
	0.9nm,0.7s,mb3.8,baz=68,slow=7.2,SNR=8.8						
HFS	**Hagfors**	**72.88**	**329**	P	**P**	**02 51 58.5**	**-0.6**
	4.3nm,1.0s,mb4.3,baz=63,slow=6.4,SNR=4.5						
NOA	**NORSAR Array B**	**74.12**	**330**	P	**P**	**02 52 06.8**	**+0.5**
	1.3nm,1.0s,mb3.8,baz=96,slow=5.6,SNR=3.0						
ILAR	**Eielson Array**	**89.47**	**22**	P	**P**	**02 53 26.8**	**+0.3**
	0.3nm,0.6s,mb3.8,baz=288,slow=4.5,SNR=5.1						

IDC ***28*** *02:42:38.3±1.3, 10.00N×126.16E, mb4.0/5, mb1 4.2/5, mb1mx3.9/18, mbtmp4.0/5, Error ellipse: s-maj=103.5km s-min=27.4km az=72.0*

MAN ***28*** *02:42:40.5, 10.14N×126.62E, h14^{km}, mb4.5, ML3.4, MS3.3*

ISC 28 02:42:39.9±0.7**, 10.13N**±0.04×**126.59E**±0.05**, h14^{km}, n20, σ1^{s}10**/28**, mb4.0**/6**, 1C-2D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SCPH	**Surigao**	**1.14**	**252**	⇓*e*P	**Pb**	**02 43 00.6**	**-0.2**
SCPH				*e*S	**Sb**	**02 43 13.6**	**-1.7**
MSLP	**Maasin**	**1.70**	**270**	*e*P	**Pn**	**02 43 08.8**	**-0.6**
MSLP				*e*S	**Sn**	**02 43 29.6**	**-1.6**
BESP	**Borongan**	**1.85**	**322**	*e*P	**Pn**	**02 43 10.6**	**-0.9**
BESP				*e*S	**Sn**	**02 43 40.8**	**+6.0**
PLP	**Palo**	**1.89**	**303**	*e*P	**Pn**	**02 43 12.6**	**+0.5**
PLP				*e*S	**Sn**	**02 43 30.3**	**-5.5**
BIPH	**Bislig**	**1.95**	**187**	*i* P	**Pn**	**02 43 12.8**	**-0.1**
BIPH				*e*S	**Sn**	**02 43 35.6**	**-1.7**
LLP	**Lapu-Lapu**	**2.59**	**274**	*e*P	**Pn**	**02 43 23.3**	**+1.1**
LLP				*e*S	**Sn**	**02 43 53.1**	**-0.5**
BUKP	**Musuan**	**2.70**	**214**	*e*P	**Pn**	**02 43 25.7**	**+2.0**
BUKP				*e*S	**Sn**	**02 43 58.9**	**+2.5**
TBP	**Tagbilaran**	**2.72**	**261**	*e*P	**Pn**	**02 43 25.3**	**+1.2**
TBP				*e*S	**Sn**	**02 43 58.1**	**+1.1**
CNP	**Catarman**	**3.03**	**322**	*e*P	**Pn**	**02 43 28.2**	**-0.2**
SNPH	**Sibulan**	**3.40**	**257**	*e*P	**Pn**	**02 43 38.5**	**+4.9**
DCPH	**Dipolog City**	**3.55**	**245**	⇑*e*P	**Pn**	**02 43 35.4**	**-0.3**
PAGZ	**Pagadian**	**3.90**	**235**	*e*P	**Pn**	**02 43 41.0**	**+0.3**
GUIM	**Jordan**	**3.97**	**278**	*e*P	**Pn**	**02 43 42.0**	**+0.3**
RCP	**Roxas**	**4.04**	**291**	⇓*e*P	**Pn**	**02 43 43.8**	**+1.1**
ASAR	**Alice Springs**	**34.34**	**168**	P	**P**	**02 49 26.9**	**-1.6**
	0.2nm,0.5s,mb3.3,baz=356,slow=7.0,SNR=4.1						
SONM	**Songino Array**	**41.26**	**339**	P	**P**	**02 50 26.2**	**0.0**
	1.5nm,0.6s,mb3.8,baz=155,slow=8.4,SNR=12						
ZAL	**Zalesovo**	**54.90**	**331**	P	**P**	**02 52 08.7**	**-3.7**
	2.6nm,0.4s,mb4.6,baz=293,slow=10,SNR=8.7						
ARCES	**ARCESS Array B**	**84.44**	**340**	P	**P**	**02 55 12.5**	**-0.4**
	3.1nm,0.8s,mb4.5,baz=72,slow=7.7,SNR=6.6						
NB2	**NORSAR Subarra**	**93.02**	**334**	P	**P**	**02 56 03.6**	**+10**
	1.0nm,0.6s,mb4.4,baz=90,slow=5.8						
YKA	**Yellowknife Ar**	**93.76**	**24**	P	**P**	**02 55 58.1**	**+0.8**
	0.2nm,0.7s,mb3.7,baz=300,slow=4.4,SNR=5.9						

IDC 28 02:44:15.9±1.2**, 6.76N×95.12E, mb4.0**/6**, mb1 4.3**/6**, mb1mx3.9**/17**, mbtmp4.0**/6**, Error ellipse: s-maj=86.0km s-min=21.0km az=46.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**46.83**	**125**	P	P	02 52 47.1	-2.6
	0.9nm,0.5s,baz=300,slow=10.0,SNR=7.1						
ZAL	**Zalesovo**	**47.78**	**352**	P	P	02 52 54.3	-2.4
	2.1nm,0.8s,baz=287,slow=9.7,SNR=5.9						
ASAR	**Alice Springs**	**48.46**	**130**	P	P	02 53 00.9	-1.5
	0.3nm,0.4s,baz=314,slow=7.1,SNR=11						
BRTR	**Keskin Array B**	**63.89**	**311**	P	P	02 54 49.7	-3.2
	1.5nm,0.7s,baz=120,slow=8.0,SNR=6.9						
GERES	**GERESS Array B**	**79.30**	**318**	P	P	02 56 24.7	-0.2
	1.8nm,0.9s,baz=108,slow=4.2,SNR=6.2						
NOA	**NORSAR Array B**	**81.17**	**331**	P	P	02 56 34.1	-0.5
	3.0nm,0.9s,baz=94,slow=5.4,SNR=3.7						

IDC ***28*** *02:44:21.3±0.6, 12.49N×92.55E, mb4.2/18, mb1 4.4/18, mb1mx4.3/23, mbtmp4.2/18, Error ellipse: s-maj=35.2km s-min=12.5km az=50.0*

ISC 28 02:44:24.4±0.5**, 12.42N**±0.09×**92.43E**±0.10**, h33^{km}, n27, σ0^{s}87**/27**, mb4.2**/18**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.68**	**45**	Pn	**P**	**02 46 30.9**	**+0.3**
	0.6nm,0.3s,baz=239,slow=15,SNR=5.0						
VIS	**Vishakhapatnam**	**10.24**	**302**	*e*	**P**	**02 46 49.5**	**-2.8**
VIS				*e*		02 48 32.0	
PKI	**Pulchoki**	**16.44**	**337**	*e*P	**P**	**02 48 13.0**	**-1.3**
	51nm,0.6s						
GUN	**Gumba**	**16.58**	**339**	*e*P	**P**	**02 48 15.5**	**-0.5**
	23nm,0.5s						
KKN	**Kakani**	**16.69**	**337**	*e*P	**P**	**02 48 17.0**	**-0.4**
	20nm,0.4s						
GKN	**Gorkha**	**17.13**	**336**	*e*P	**P**	**02 48 23.0**	**+0.1**
	72nm,0.3s						
KOLN	**Koldanda**	**17.36**	**333**	*e*P	**P**	**02 48 27.1**	**+1.3**
	19nm,0.3s						

NDI	New Delhi	21.52	321	*e*P	P	02 49 12.0	-0.6
DDI	Dehra Dun	22.24	325	*e*P	P	02 49 21.0	+1.2
SONM	Songino Array	37.18	16	P	P	02 51 34.2	0.0
	2.1nm,0.6s,mb4.1,baz=203,slow=6.9,SNR=12						
BVAR	Borovoye Array	44.17	341	P	P	02 52 31.5	-0.2
	1.5nm,0.5s,mb4.0,baz=142,slow=9.0,SNR=11						
GNI	Garni	50.11	312	P	P	02 53 20.3	+1.8
	5.8nm,0.7s,mb4.7,baz=39,slow=4.4,SNR=9.7						
NWAO	Narrogin (SRO)	50.94	153	P	P	02 53 25.4	+0.5
	6.3nm,0.5s,mb4.8,baz=307,slow=12,SNR=5.7						
WRA	Warramunga Arr	52.30	127	P	P	02 53 34.9	-0.4
	3.6nm,0.5s,mb4.5,baz=300,slow=9.9,SNR=21						
WRA				PcP	PcP	02 54 44.8	-1.5
	0.4nm,0.4s,baz=321,slow=3.0,SNR=2.9						
ASAR	Alice Springs	54.14	131	P	P	02 53 48.5	-0.5
	2.6nm,0.5s,mb4.5,baz=310,slow=7.0,SNR=26						
ASAR				PcP	PcP	02 54 51.2	-2.1
	0.3nm,0.6s,baz=323,slow=3.7,SNR=4.5						
BRTR	Keskin Array B	58.23	309	P	P	02 54 17.6	-0.4
	1.4nm,0.7s,mb4.1,baz=119,slow=6.7,SNR=12						
CTA	Charters Tower	62.03	121	P	P	02 54 43.6	-0.7
	0.9nm,0.6s,mb4.1,baz=252,slow=10,SNR=4.1						
AKASG	Malin Array Be	63.58	321	P	P	02 54 53.0	-1.1
	0.3nm,0.4s,mb3.7,baz=86,slow=4.8,SNR=5.5						
STKA	Stephens Creek	64.46	134	P	P	02 55 00.0	-0.2
	2.7nm,0.8s,mb4.3,baz=323,slow=6.6,SNR=4.6						
MLR	Muntele Rosu	64.78	315	P	P	02 55 03.2	+1.2
	3.8nm,0.9s,mb4.4,baz=126,slow=2.5,SNR=6.0						
FINES	FINESS Array B	67.93	332	P	P	02 55 20.8	-0.9
	1.8nm,0.7s,mb4.2,baz=104,slow=7.9,SNR=8.3						
ARCES	ARCESS Array B	70.44	340	P	P	02 55 37.4	+0.4
	5.8nm,0.9s,mb4.5,baz=90,slow=7.3,SNR=6.9						
GERES	GERESS Array B	73.34	317	P	P	02 55 55.5	+0.8
	1.0nm,0.7s,mb3.9,baz=84,slow=5.5,SNR=9.3						
NOA	NORSAR Array B	74.97	330	P	P	02 56 03.9	+0.1
	1.5nm,0.7s,mb4.0,baz=95,slow=5.4,SNR=3.6						
ESDC	Sonseca Array	87.02	310	P	P	02 57 09.2	+1.3
	0.1nm,0.3s,mb3.5,baz=64,slow=4.6,SNR=4.3						
ILAR	Eielson Array	91.17	22	P	P	02 57 27.0	0.0
	0.5nm,0.7s,mb4.0,baz=303,slow=4.6,SNR=10.0						
INK	Inuvik	93.10	16	P	P	02 57 36.0	+0.2
	0.9nm,0.8s,mb4.2,baz=304,slow=3.6,SNR=6.9						

IDC 28 02:47:23.7±9.5, 3.55N×94.34E, mb4.0/5, mb1 4.1/5, mb1mx3.8/18, mbtmp4.0/5, Error ellipse: s-maj=244.0km s-min=68.9km az=142.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	45.32	11	P	P	02 55 43.6	-1.6
	0.4nm,0.7s,baz=191,slow=7.3,SNR=3.2						
BVAR	Borovoye Array	53.13	342	P	P	02 56 43.2	-2.2
	0.7nm,0.6s,baz=149,slow=8.6,SNR=3.8						
FINES	FINESS Array B	76.61	333	P	P	02 59 15.2	-2.4
	1.7nm,0.8s,baz=90,slow=6.9,SNR=4.5						
ARCES	ARCESS Array B	79.38	341	P	P	02 59 31.2	-1.5
	4.4nm,1.0s,baz=90,slow=8.1,SNR=3.7						
GERES	GERESS Array B	81.17	319	P	P	02 59 42.0	-0.7
	0.2nm,0.3s,baz=100,slow=6.0,SNR=3.0						

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*IDC **28** 02:49:15.0±1.0, 4.24N×93.38E, mb4.1/9, mb1 4.3/10, mb1mx4.1/21, mbtmp4.0/10, ML4.3/1, Error ellipse: s-maj=42.2km s-min=20.3km az=47.0*

ISC 28 02:49:18.3±0.9, 4.3N±0.1×93.5E±0.2, h33^{km}, n10, σ0^{s}84/10, mb4.1/9, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.09	20	Pn	P	02 52 51.5	+0.7
	0.5nm,0.3s,baz=217,slow=14,SNR=4.6						
SONM	Songino Array	44.80	12	P	P	02 57 29.2	-1.6
	0.5nm,0.6s,mb3.5,baz=191,slow=10,SNR=3.6						
SONM				PcP	PcP	02 59 13.8	+0.9
	0.8nm,0.7s,baz=202,slow=2.6,SNR=4.2						
WRA	Warramunga Arr	46.83	122	P	P	02 57 46.3	-0.9
	2.2nm,0.7s,mb4.2,baz=301,slow=8.7,SNR=8.3						
ASAR	Alice Springs	48.23	127	P	P	02 57 59.1	+1.0
	1.1nm,0.9s,mb3.9,baz=306,slow=7.9,SNR=4.3						
ZAL	Zalesovo	50.01	353	P	P	02 58 11.9	+0.5
	3.7nm,1.1s,mb4.3,baz=300,slow=6.7,SNR=9.2						
BVAR	Borovoye Array	52.17	343	P	P	02 58 27.4	-0.4
	2.2nm,0.7s,mb4.2,baz=135,slow=6.3,SNR=13						
BRTR	Keskin Array B	64.28	312	P	P	02 59 51.8	-1.0
	1.2nm,0.8s,mb4.0,baz=138,slow=7.6,SNR=9.2						
MLR	Muntele Rosu	71.27	317	P	P	03 00 37.0	+0.6
	2.8nm,0.8s,mb4.2,baz=111,slow=5.0,SNR=5.0						
GERES	GERESS Array B	80.05	319	P	P	03 01 26.6	+0.4
	1.8nm,0.8s,mb4.0,baz=104,slow=5.5,SNR=15						
DAVOX	Davos	82.50	316	P	P	03 01 39.7	+0.6
	4.1nm,0.8s,mb4.4,baz=114,slow=6.8,SNR=8.4						

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*MOS **28** 02:52:41.0±1.1, 3.31N×93.65E, h33^{km}, mb5.0/10, Error ellipse: s-maj=23.6km s-min=10.8km az=114.4*

*BJI **28** 02:52:41.5, 3.13N×93.76E, h44^{km}, mB5.0, mb4.8, Ms4.2, Msz3.9*

*NEIC **28** 02:52:42.3±0.8, 3.35N×93.73E, mb4.8/14, Error ellipse: s-maj=20.4km s-min=18.2km az=187.0*

*SYO **28** 02:52:42.3, 3.35N×93.73E, h29^{km}, MB4.9*

*IDC **28** 02:52:42.8±0.4, 3.41N×93.68E, h28^{km}±2^{km}, mb4.3/21, mb1 4.4/22, mb1mx4.4/26, mbtmp4.4/22, ML4.1/1, Error ellipse: s-maj=21.9km s-min=9.4km az=41.0*

ISC 28 02:52:40.9±0.4, 3.40N±0.07×93.72E±0.06, h29^{km}, h29^{km}±.3^{km}:pP-P, n83, σ0^{s}92/80, mb4.7/43, MS3.8/2, 7C, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.82	18	Pn	P	02 56 22.7	-0.8
	0.3nm,0.3s,baz=214,slow=13,SNR=21						
KMI	Kunming	23.28	21	P	P	02 57 50.0	+2.6
KMI				AP		02 57 58.0	
KMI				PP	PP	02 58 22.0	+3.3
KMI				S	S	03 01 59.8	+5.9
KMI				XS		03 02 14.3	
KMI				AMB	AMB		
	comp=Z,15nm,1.3s,mb4.3						
KMI				LR	LR		
	comp=N,265nm,9.6s						
KMI				LR	LR		
	comp=E,182nm,9.6s						
KMI				LR	LR		
	comp=Z,221nm,10.9s,MS3.9						
GYA	Guiyang	26.07	27	⇑*i*P	P	02 58 14.8	+0.7
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
LSA	Lhasa	26.27	355	⇑*i*P	P	02 58 18.4	+2.5
LSA				pmax	pmax		
	comp=Z,115nm,0.7s,mb5.5						
LSA	Lhasa	26.27	355	⇑*i*P	P	02 58 18.4	+2.5
	comp=Z,115nm,0.7s,mb5.5						
CD2	Chengdu	28.96	18	P	P	02 58 40.0	-0.3
CD2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.3						
ENH	Enshi	30.61	28	*e*P	P	02 58 53.6	-1.3
	comp=Z,8.8nm,0.7s,mb4.7						
XAN	Xi’an	33.62	23	P	P	02 59 20.3	-0.9
XAN				AP	pP	02 59 28.8	-0.9
XAN				AMB	AMB		
	comp=Z,23nm,0.8s,mb5.2						
GTA	Gaotai	36.27	8	*e*P	P	02 59 44.0	+0.2
GTA				AP	pP	02 59 54.0	+1.7
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.5						
WMQ	Urumqi	40.60	353	P	P	03 00 21.5	+1.6
WMQ				AP	pP	03 00 29.0	+0.5
WMQ				AMB	AMB		
	comp=Z,14nm,0.7s,mb4.7						
HHC	Hu-ho-hao-te	40.61	21	*e*P	P	03 00 21.0	+1.0
HHC				AP	pP	03 00 29.5	+1.0
HHC				XP	sP	03 00 35.0	+2.9
HHC				PP	PP	03 01 53.5	-3.3
HHC				AMB	AMB		
	comp=Z,9.0nm,0.9s,mb4.4						
HHC				AMB	AMB		
	comp=Z,119nm,5.4s						
HHC				LR	LR		
	comp=N,106nm,19.0s						
HHC				LR	LR		
	comp=E,193nm,25.0s						
HHC				LR	LR		
	comp=Z,98nm,20.2s,MS3.7						
AAK	Ala-Archa	42.66	339	*e*P	P	03 00 36.8	-0.1
AAK				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
AAK	Ala-Archa	42.66	339	*e*P	P	03 00 36.8	0.0
	comp=Z,5.2nm,0.9s,mb4.3						
MKAR	Makanchi Array	44.35	349	*i* P	P	03 00 50.7	+0.2
MKAR				pmax	pmax		
	comp=Z,12nm,0.8s						
SONM	Songino Array	45.60	12	P	P	03 01 01.0	+0.6
	comp=Z,8.5nm,0.8s,mb4.7,baz=192,slow=8.7,SNR=47						
SONM				PcP	PcP	03 02 39.6	+0.6
	comp=Z,2.2nm,0.9s,baz=215,slow=2.3,SNR=3.5						
ULN	Ulaanbaatar	45.77	13	*e*P	P	03 01 00.8	-1.0
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
ULN	Ulaanbaatar	45.77	13	*e*P	P	03 01 00.8	-1.0
	comp=Z,4.0nm,0.8s,mb4.4						
WRA	Warramunga Arr	46.14	122	P	P	03 01 05.3	+0.2
	comp=Z,11nm,0.8s,mb4.8,baz=300,slow=8.9,SNR=29						
WRA				pP	pP	03 01 14.0	+0.3
	comp=Z,20nm,0.8s,baz=299,slow=9.0,SNR=33						
WRAB	Tennant Creek	46.15	122	*e*P	P	03 01 04.6	-0.6
WRAB				*e*	pP	03 01 13.9	+0.1
WRAB				pmax	pmax		
	comp=Z,55nm,0.9s,mb5.5						
WRAB	Tennant Creek	46.15	122	*e*P	P	03 01 04.6	-0.5
	comp=Z,55nm,0.9s,mb5.5						
WRAB				*e*	pP	03 01 13.9	+0.1
ASAR	Alice Springs	47.49	127	P	P	03 01 15.7	-0.1
	comp=Z,4.4nm,0.8s,mb4.4,baz=304,slow=7.8,SNR=25						
ASAR				pP	pP	03 01 24.6	+0.3
	comp=Z,8.6nm,0.8s,baz=296,slow=7.7,SNR=23						
ASAR				PcP	PcP	03 02 46.2	+0.2
	comp=Z,2.4nm,0.7s,baz=308,slow=3.3,SNR=7.7						
CN2	Changchun	49.05	30	*e*P	P	03 01 29.0	+1.4
RDF	Al-Radifah	50.62	305	*e*P	P	03 01 40.9	+1.1
RDF				AMb	AMB	03 01 51.0	
	comp=Z,87nm,0.9s,mb5.7						
UMR	Umm Al-Rimmam	50.72	306	*e*P	P	03 01 41.5	+0.9
HIA	Hailar	50.80	22	*e*P	P	03 01 41.2	+0.4
HIA				pmax	pmax		
	comp=Z,17nm,0.9s						
HIA	Hailar	50.80	22	*e*P	P	03 01 41.2	+0.4
	comp=Z,17nm,0.9s,mb5.0						
ZAL	Zalesovo	50.91	353	P	P	03 01 41.7	+0.1
	comp=Z,3.8nm,0.6s,mb4.5,baz=302,slow=7.1,SNR=19						
ZAL				pP	pP	03 01 50.5	+0.2
	comp=Z,4.9nm,0.6s,baz=304,slow=6.6,SNR=7.7						
MIB	Mutribah	51.12	306	*e*P	P	03 01 44.1	+0.5
MIB				AMb	AMB	03 01 45.2	
	comp=Z,153nm,0.9s						
BVA0	Borovoye Array	53.09	343	*i* P	P	03 01 57.4	-0.6
BVA0				pmax	pmax		
	comp=Z,700nm,0.8s						
BVAR	Borovoye Array	53.09	343	P	P	03 01 57.5	-0.5
	comp=Z,6.9nm,0.7s,mb4.7,baz=149,slow=8.6,SNR=34						
BVAR				pP	pP	03 02 05.7	-1.1
	comp=Z,8.6nm,0.7s,baz=117,slow=9.9,SNR=17						
BRVK	Borovoye	53.15	343	*e*P	P	03 01 56.7	-1.7
BRVK				*e**PP	pP	03 02 05.7	-1.5
BRVK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
BRVK	Borovoye	53.15	343	*e*P	P	03 01 56.7	-1.7
	comp=Z,7.2nm,0.7s,mb4.7						
BRVK				*e*pP	pP	03 02 05.7	-1.4
CHKZ	Chkalovo	53.59	343	⇑*e*P	P	03 02 01.2	-0.5
CHKZ				*e**PP	pP	03 02 09.8	-0.6
CHKZ				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
CHKZ	Chkalovo	53.59	343	⇑*e*P	P	03 02 01.1	-0.5
	comp=Z,22nm,0.8s,mb5.1						
CHKZ				*e*pP	pP	03 02 09.8	-0.6
BOD	Bodaibo	56.58	13	*e*P	P	03 02 22.0	-1.3
CTA	Charters Tower	56.59	117	P	P	03 02 23.6	-0.4
	comp=Z,4.3nm,1.1s,mb4.4,baz=295,slow=11,SNR=5.1						
CTA				pP	pP	03 02 32.6	-0.1
	comp=Z,5.2nm,0.9s,baz=279,slow=8.0,SNR=6.5						
KMBO	Kilima Mbogo	56.62	266	*e*P	P	03 02 24.0	-0.2
KMBO				*e*	pP	03 02 32.7	-0.3
KMBO				pmax	pmax		
	comp=Z,3.0nm,1.1s						
KMBO	Kilima Mbogo	56.62	266	P	P	03 02 23.8	-0.5
	comp=Z,1.2nm,1.0s,mb3.9,baz=47,slow=7.9,SNR=5.4						
KMBO				pP	pP	03 02 33.0	-0.1
	comp=Z,1.9nm,0.9s,baz=210,slow=23,SNR=3.9						
KMBO	Kilima Mbogo	56.62	266	*e*P	P	03 02 24.0	-0.2
	comp=Z,2.7nm,1.1s,mb4.2						
KMBO				*e*	pP	03 02 32.7	-0.3
GNI	Garni	57.31	317	*e*P	P	03 02 28.4	-0.4
GNI				pmax	pmax		
	comp=Z,11nm,0.9s						
GNI	Garni	57.31	317	P	P	03 02 29.0	+0.2
	comp=Z,7.0nm,1.0s,mb4.7,baz=15,slow=6.1,SNR=6.4						
GNI	Garni	57.31	317	*e*P	P	03 02 28.4	-0.4
	comp=Z,11nm,0.9s,mb4.9						
STKA	Stephens Creek	57.41	131	P	P	03 02 29.0	-0.6
	comp=Z,3.4nm,0.9s,mb4.4,baz=337,slow=5.3,SNR=5.6						
STKA				pP	pP	03 02 38.0	-0.5
	comp=Z,6.4nm,0.9s,baz=317,slow=7.0,SNR=5.3						
TI2	Plekhanov	58.02	318	*i* P	P	03 02 33.4	-0.4
ERZM	Erzurum	59.56	315	P	P	03 02 45.1	+0.6
ASF	Jabal al Asfar	60.36	305	P	P	03 02 50.3	+0.3
	comp=Z,6.4nm,1.0s,mb4.6,baz=4.4,slow=2.0,SNR=9.6						
KIV	Kislovodsk	60.39	320	*e*P	P	03 02 47.9	-2.2
KIV				pmax	pmax		
	comp=N,10.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
ELZG	Elazig	60.74	313	P	P	03 02 52.8	+0.2
MALT	Malatya	61.08	312	*e*P	P	03 02 54.8	-0.1
MALT				*e*	pP	03 03 03.8	0.0
MALT				*e*		03 03 09.6	
MALT				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
MALT	Malatya	61.08	312	*e*P	P	03 02 54.8	-0.1
	comp=Z,7.6nm,0.9s,mb4.8						
MALT				*e*	pP	03 03 03.8	0.0
MALT				*e*		03 03 09.6	
EIL	Elat	61.35	302	P	P	03 02 57.2	+0.4
	comp=Z,7.6nm,0.9s,mb4.8,baz=110,slow=11,SNR=5.7						
EIL				pP	pP	03 03 05.9	+0.2
	comp=Z,12nm,0.9s,baz=44,slow=4.0,SNR=8.2						
GZT	Gaziantep	61.40	311	P	P	03 02 57.2	+0.1
KAHT	Ahir Dag	62.01	311	P	P	03 03 01.3	+0.1
AVNT	Avonos	63.88	312	P	P	03 03 12.8	-0.8
BOYT	Boyabat	64.69	315	P	P	03 03 18.5	-0.3
BRTR	Keskin Array B	65.07	313	P	P	03 03 20.3	-1.0
	comp=Z,2.6nm,0.8s,mb4.3,baz=133,slow=7.1,SNR=19						
BRTR				pP	pP	03 03 28.9	-1.2
	comp=Z,2.9nm,0.8s,baz=139,slow=7.1,SNR=13						
VRSR	Storozhevoye	65.79	326	*e*P	pP	03 03 33.5	-1.1
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.6s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.8s						
KIS	Kishinev	70.56	319	*e*P	P	03 03 50.0	-5.5
KIS				*e*		03 04 03.0	
IDI	Anoyia	70.80	306	P	P	03 03 56.4	-0.8
	comp=E,9.4nm,0.8s,mb4.7,baz=53,slow=2.7,SNR=3.0						
AKASG	Malin Array Be	71.41	323	P	P	03 03 58.9	-1.6
	comp=E,2.0nm,0.6s,mb4.2,baz=91,slow=4.6,SNR=13						
AKASG				pP	pP	03 04 08.0	-1.5
	comp=E,2.7nm,0.6s,baz=92,slow=4.7,SNR=8.5						
MLR	Muntele Rosu	72.09	317	P	P	03 04 04.8	+0.1
	comp=E,6.9nm,0.9s,mb4.6,baz=86,slow=5.4,SNR=11						
MLR				pP	pP	03 04 14.0	+0.3
	comp=E,9.4nm,0.9s,baz=181,slow=4.3,SNR=10						
KOLS	Kolonicke sedl	75.30	320	*e*P	P	03 04 23.6	+0.3
KOLS				*e*pP	pP	03 04 32.6	+0.3
SUW	Suwalki	75.89	325	*e*P	P	03 04 24.4	-2.1
SUW				*e*	pP	03 04 34.5	-1.1
SUW				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
SUW	Suwalki	75.89	325	*e*P	P	03 04 24.4	-2.1
	comp=Z,37nm,0.9s,mb5.3						
SUW				*e*	pP	03 04 34.5	-1.1
FINES	FINESS Array B	76.46	333	P	P	03 04 29.1	-0.6
	comp=Z,4.1nm,0.8s,mb4.4,baz=90,slow=3.8,SNR=6.3						
FINES				pP	pP	03 04 37.9	-0.8
	comp=Z,2.8nm,0.7s,baz=90,slow=5.7,SNR=3.5						
VYHS	Vyhne	77.46	319	*e*P	P	03 04 35.6	+0.2
VYHS				*e*pP	pP	03 04 44.4	-0.1
SMOL	Smolenice	78.39	319	*e*P	P	03 04 38.8	-1.7
ZST	Bratislava	78.56	318	*e*P	P	03 04 42.4	+0.9
ZST				*e*pP	pP	03 04 50.6	+0.1
ARCES	ARCESS Array B	79.31	341	P	P	03 04 45.0	-0.2
	comp=Z,6.7nm,1.0s,mb4.5,baz=45,slow=3.4,SNR=5.5						
ARCES				pP	pP	03 04 54.0	-0.3
	comp=Z,11nm,1.1s,baz=90,slow=6.1,SNR=2.7						
GERES	GERESS Array B	80.88	319	P	P	03 04 54.4	+0.5
	comp=Z,3.9nm,0.7s,mb4.5,baz=97,slow=5.0,SNR=38						
GERES				pP	pP	03 05 03.2	+0.2
	comp=Z,5.1nm,0.7s,baz=104,slow=5.1,SNR=19						
BRG	Berggiesshubel	80.92	321	*e*P	P	03 04 54.7	+0.6
BRG				*e*	pP	03 05 03.6	+0.4
BRG				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
BRG	Berggiesshubel	80.92	321	*e*P	P	03 04 54.7	+0.6
	comp=Z,7.2nm,1.1s,mb4.5						
BRG				*e*	pP	03 05 03.6	+0.4
KHC	Kasperske Hory	80.98	319	*e*P	P	03 04 55.5	+1.0
SYO	Syowa Base	81.03	197	⇑P	P	03 04 55.7	+1.4
SYO	Syowa Base	81.03	197	⇑PcP	PcP	03 05 01.4	+0.3
CLL	Collm	81.55	321	P	P	03 04 58.0	+0.6
DAVOX	Davos	83.31	317	P	P	03 05 07.9	+1.3
	comp=Z,10nm,0.7s,mb5.0,baz=119,slow=7.5,SNR=35						
DAVOX				pP	pP	03 05 16.6	+0.8
	comp=Z,11nm,0.6s,baz=113,slow=3.7,SNR=10						
NB2	NORSAR Subarra	83.41	331	P	P	03 05 06.1	-0.7
	comp=Z,6.7nm,1.1s,mb4.6,baz=93,slow=5.0						
NB2	NORSAR Subarra	83.41	331	P	P	03 05 06.1	-0.7
NB2				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.6						
ESDC	Sonseca Array	93.76	310	P	P	03 05 57.3	+0.5
	comp=Z,0.4nm,0.7s,mb4.0,baz=61,slow=3.6,SNR=3.3						
ESDC				pP	pP	03 06 06.5	+0.5
	comp=Z,0.8nm,0.7s,baz=48,slow=4.5,SNR=5.0						
ILAR	Eielson Array	99.02	22	P	P	03 06 20.9	+0.9
	comp=Z,0.3nm,0.9s,mb3.8,baz=310,slow=3.2,SNR=4.5						
PDAR	Pinedale Array	129.46	22	PKP	PKPdf	03 11 50.0	-2.6
	comp=Z,1.3nm,1.1s,baz=90,slow=3.0,SNR=5.4						
PDAR				pPKP		03 11 58.9	
	comp=Z,1.1nm,0.9s,slow=1.5,SNR=5.9						
TXAR	Lajitas Array	143.43	26	PKP	PKPdf	03 12 14.5	-4.0
	comp=Z,0.7nm,1.0s,baz=225,slow=1.8,SNR=5.4						

IDC 28 02:58:42.2±2.0, 11.61N×92.80E, mb3.7/4, mb1 3.9/4, mb1mx3.6/17, mbtmp3.7/4, Error ellipse: s-maj=77.3km s-min=27.9km az=57.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	9.03	40	Pn	P	03 01 00.1	+3.3
	0.3nm,0.3s,baz=229,slow=14,SNR=5.7						
SONM	Songino Array	37.87	15	P	P	03 06 00.7	-1.9
	0.5nm,0.5s,baz=201,slow=7.7,SNR=3.9						
BVAR	Borovoye Array	45.05	341	P	P	03 06 59.9	-1.6
	0.5nm,0.7s,baz=135,slow=6.1,SNR=3.4						
WRA	Warramunga Arr	51.53	127	P	P	03 07 50.2	-2.1
	0.4nm,0.5s,baz=306,slow=8.6,SNR=3.7						
FINES	FINESS Array B	68.81	332	P	P	03 09 48.0	-2.2
	6.1nm,1.2s,baz=117,slow=8.5,SNR=5.0						

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*NEIC **28** 03:01:09.1±4.8, 5.32N×92.73E, h30^{km}, mb4.8/6, Error ellipse: s-maj=95.6km s-min=17.7km az=161.0*

*BJI **28** 03:01:09.0, 5.30N×92.70E, h30^{km}, mB5.0, mb4.8*

*IDC **28** 03:01:23.5±0.8, 7.07N×91.83E, h27^{km}±3^{km}, mb3.9/16, mb1 4.1/17, mb1mx4.1/19, mbtmp4.1/17, ML4.5/1, MS4.1/1, Ms1 4.1/1, ms1mx3.1/30, Error ellipse: s-maj=32.0km s-min=15.4km az=47.0*

ISC 28 03:01:21.3±0.6, 6.91N±0.08×91.79E±0.08, h28^{km}, h28^{km}±.7^{km}:pP-P, n44, σ1^{s}08/38, mb4.5/33, MS4.1/1, 2C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	Pallekele	11.01	273	*e*P	P	03 03 59.6	-0.7
CMAR	Chiang Mai Arr	13.43	31	Pn	P	03 04 30.6	-2.0
	0.8nm,0.3s,baz=232,slow=14,SNR=25						
KMI	Kunming	20.92	29	⇑P	P	03 06 04.3	0.0
KMI				AMB	AMB		
	comp=Z,30nm,1.3s						
PKI	Pulchoki	21.42	344	*e*P	P	03 06 10.2	+0.8
	comp=Z,51nm,0.7s,mb4.9						
DMN	Daman	21.54	344	*e*P	P	03 06 11.7	+1.1
	comp=Z,120nm,1.0s,mb5.3						
GUN	Gumba	21.63	346	*e*P	P	03 06 14.4	+3.0
	comp=Z,135nm,0.8s,mb5.4						
KKN	Kakani	21.67	344	*e*P	P	03 06 12.5	+0.7
	comp=Z,47nm,1.0s,mb4.9						
GKN	Gorkha	22.05	343	*e*P	P	03 06 17.3	+1.6
	comp=Z,29nm,0.5s,mb5.0						
KOLN	Koldanda	22.16	340	*e*P	P	03 06 18.1	+1.4
	comp=Z,71nm,1.0s,mb5.0						
LSA	Lhasa	22.68	359	*e*P	P	03 06 24.2	+2.3
	comp=Z,43nm,0.7s,mb5.0						
GYA	Guiyang	24.05	34	⇑*i*P	P	03 06 35.3	-0.1
GYA				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.0						
CD2	Chengdu	26.38	24	P	P	03 06 58.0	+0.7
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.0						
DDI	Dehra Dun	26.63	333	*e*P	P	03 07 04.6	+5.0
LZH	Lanzhou	31.07	19	*e*P	P	03 07 38.3	-1.1
LZH				AP	pP	03 07 46.0	-1.6
LZH				XP	sP	03 07 51.3	0.0
LZH				AMB	AMB		
	comp=Z,22nm,1.5s,mb4.8						
GTA	Gaotai	33.16	11	*e*P	P	03 07 57.0	-0.6
GTA				AP	pP	03 08 04.0	-1.9
GTA				XP	sP	03 08 06.5	-3.0
GTA				AMB	AMB		
	comp=Z,26nm,1.0s,mb5.1						
AAK	Ala-Archa	38.72	339	*e*P	P	03 08 46.2	+1.4
	comp=Z,9.8nm,1.0s,mb4.5						
SONM	Songino Array	42.64	15	P	P	03 09 17.1	0.0
	comp=Z,6.8nm,0.8s,mb4.4,baz=196,slow=8.5,SNR=40						
ULN	Ulaanbaatar	42.84	15	*e*P	P	03 09 14.1	-4.6
	comp=Z,9.5nm,1.1s,mb4.4						
ZAL	Zalesovo	47.23	354	P	P	03 09 52.7	-1.0
	comp=Z,3.5nm,0.8s,mb4.4,baz=299,slow=6.0,SNR=14						
ZAL				LR	LR	03 33 00.1	
	comp=Z,189nm,18.8s,MS4.1,baz=115,slow=40						
HIA	Hailar	48.33	24	*e*P	P	03 09 56.5	-5.9
	comp=Z,14nm,0.9s,mb5.0						
BVAR	Borovoye Array	49.19	343	P	P	03 10 07.9	-1.0
	comp=Z,1.9nm,0.7s,mb4.2,baz=135,slow=8.4,SNR=11						
BRVK	Borovoye	49.25	343	*e*P	P	03 10 07.6	-1.8
	comp=Z,6.0nm,0.6s,mb4.8						
BRVK				*e*	pP	03 10 17.3	-0.6
WRA	Warramunga Arr	49.64	123	P	P	03 10 13.2	+0.4
	comp=Z,3.4nm,0.8s,mb4.4,baz=301,slow=9.0,SNR=12						
CHKZ	Chkalovo	49.70	344	*e*P	P	03 10 12.5	-0.3
	comp=Z,19nm,0.8s,mb5.2						
CHKZ				*e*	pP	03 10 21.1	-0.2
ASAR	Alice Springs	51.13	128	P	P	03 10 24.6	+0.5
	comp=Z,1.9nm,0.9s,mb4.0,baz=301,slow=6.7,SNR=10						
KMBO	Kilima Mbogo	55.00	264	pP	pP	03 11 03.9	+2.2
	comp=Z,1.5nm,0.7s,baz=62,slow=13,SNR=4.6						
STKA	Stephens Creek	61.16	132	P	P	03 11 37.2	+1.2
	comp=Z,5.5nm,1.2s,mb4.6,baz=135,slow=9.8,SNR=3.3						
BRTR	Keskin Array B	61.31	312	P	P	03 11 36.6	-0.3
	comp=Z,0.6nm,0.7s,mb3.8,baz=129,slow=7.9,SNR=5.1						
AKASG	Malin Array Be	67.47	322	P	P	03 12 15.7	-1.1
	comp=Z,0.1nm,0.2s,mb3.5,baz=328,slow=9.0,SNR=3.2						
MLR	Muntele Rosu	68.24	316	P	P	03 12 21.7	-0.1
	comp=Z,1.8nm,0.7s,mb4.2,baz=153,slow=4.0,SNR=4.0						
FINES	FINESS Array B	72.48	333	P	P	03 12 46.3	-0.9
	comp=Z,0.8nm,0.4s,mb4.0,baz=120,slow=8.5,SNR=13						
FINES				pP	pP	03 12 55.2	-0.8
	comp=Z,1.8nm,0.5s,baz=72,slow=6.0,SNR=3.7						
KAF	Kangasniemi	72.59	333	*e*p	P	03 12 46.4	-1.4
	comp=Z,0.4nm,0.3s,mb3.8						
ARCES	ARCESS Array B	75.39	341	P	P	03 13 03.3	-0.6
	comp=Z,2.5nm,0.9s,mb4.2,baz=72,slow=3.8,SNR=4.6						
GERES	GERESS Array B	76.99	318	P	P	03 13 14.2	+0.8
	comp=Z,0.8nm,0.6s,mb3.8,baz=76,slow=5.5,SNR=8.3						
GERES				pP	pP	03 13 23.0	+0.8
	comp=Z,1.2nm,0.7s,baz=96,slow=4.7,SNR=6.4						
KHC	Kasperske Hory	77.10	319	*e*P	P	03 13 10.5	-3.4
MAW	Mawson	77.14	191	pP	pP	03 13 25.2	+2.6
	comp=Z,4.9nm,0.9s,baz=357,slow=4.7,SNR=3.1						
HFS	Hagfors	78.12	330	P	P	03 13 19.1	-0.1
	comp=Z,2.0nm,0.7s,mb4.1,baz=102,slow=14,SNR=4.2						
HFS				pP	pP	03 13 27.6	-0.5
	comp=Z,1.8nm,0.6s,baz=90,slow=7.4,SNR=2.0						
NB2	NORSAR Subarra	79.43	331	P	pP	03 13 34.4	-0.9
	comp=Z,2.8nm,0.8s,baz=98,slow=4.8						

NOA	**NORSAR Array B**	**79.43**	**331**	P	**P**	**03 13 25.8**	**-0.6**
	comp=Z,2.1nm,1.0s,mb4.0,baz=355,slow=17,SNR=3.4						
NOA				pP	pP	03 13 34.7	-0.6
	comp=Z,1.3nm,0.7s,baz=94,slow=5.7,SNR=2.7						
DAVOX	**Davos**	**79.47**	**316**	P	**P**	**03 13 28.0**	**+1.1**
	comp=Z,2.3nm,0.4s,mb4.5,baz=130,slow=7.3,SNR=15						
DAVOX				pP	pP	03 13 36.9	+1.1
	comp=Z,4.0nm,0.6s,baz=181,slow=2.3,SNR=8.4						
EKA	**Eskdalemuir Ar**	**87.19**	**325**	pP	pP	03 14 15.9	+0.8
	comp=Z,1.8nm,0.6s,baz=90,slow=5.0,SNR=2.4						
ESDC	**Sonseca Array**	**90.05**	**310**	pP	pP	03 14 30.4	+1.2
	comp=Z,0.6nm,0.6s,baz=61,slow=3.8,SNR=4.0						
ILAR	**Eielson Array**	**96.50**	**22**	P	**P**	**03 14 48.8**	**-0.4**
	comp=Z,0.3nm,0.8s,mb3.8,baz=218,slow=16,SNR=3.9						
ILAR				pP	pP	03 14 58.5	+0.3
	comp=Z,0.3nm,0.7s,baz=310,slow=4.2,SNR=2.6						
TXAR	**Lajitas Array**	**141.02**	**22**	PKP	PKPdf	03 20 49.8	-4.9
	comp=Z,0.3nm,0.9s,baz=72,slow=2.9,SNR=2.5						
TXAR				pPKP		03 20 59.1	
	comp=Z,0.3nm,0.7s,baz=14,slow=1.2,SNR=3.6						

IDC 28 03:07:06.2±1.2**, 5.25N×94.71E, mb3.9**/9**, mb1 4.0**/9**, mb1mx3.8**/19**, mbtmp3.9**/9**, Error ellipse: s-maj=61.9km s-min=21.1km az=52.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.76**	**17**	Pn	P	03 10 28.8	+3.6
	0.5nm,0.3s,baz=207,slow=14,SNR=2.9						
SONM	**Songino Array**	**43.60**	**11**	P	P	03 15 11.9	-2.0
	0.6nm,0.6s,baz=185,slow=7.1,SNR=3.9						
WRA	**Warramunga Arr**	**46.31**	**124**	P	P	03 15 34.4	-1.5
	0.5nm,0.6s,baz=302,slow=9.4,SNR=2.8						
ASAR	**Alice Springs**	**47.82**	**129**	P	P	03 15 46.4	-1.5
	0.5nm,0.8s,baz=297,slow=7.8,SNR=4.0						
ZAL	**Zalesovo**	**49.21**	**352**	P	P	03 15 56.5	-1.6
	1.8nm,0.5s,baz=322,slow=6.0,SNR=8.8						
BVAR	**Borovoye Array**	**51.64**	**342**	P	P	03 16 15.0	-1.8
	0.7nm,0.5s,baz=156,slow=15,SNR=5.0						
FINES	**FINESS Array B**	**75.29**	**332**	P	P	03 18 50.5	-2.2
	1.4nm,1.0s,baz=117,slow=8.5,SNR=3.6						
ARCES	**ARCESS Array B**	**77.91**	**340**	P	P	03 19 06.2	-1.1
	3.9nm,0.9s,baz=104,slow=7.4,SNR=4.0						
GERES	**GERESS Array B**	**80.16**	**319**	P	P	03 19 18.4	-1.5
	0.3nm,0.5s,baz=146,slow=4.8,SNR=4.0						
DAVOX	**Davos**	**82.67**	**316**	P	P	03 19 32.6	-0.4
	1.0nm,0.6s,baz=146,slow=13,SNR=5.2						
NVAR	**Mina Array Bea**	**126.84**	**32**	PKP	PKPdf	03 26 10.3	-4.0
	0.4nm,0.4s,baz=323,slow=4.5,SNR=3.5						

IDC 28 03:11:39.7±2.8**, 8.40N×91.78E, mb3.7**/3**, mb1 4.0**/4**, mb1mx3.6**/18**, mbtmp3.8**/4**, ML4.6**/1**, Error ellipse: s-maj=85.2km s-min=29.5km az=72.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.19**	**34**	Pn	P	03 14 34.7	-2.9
	1.1nm,0.3s,baz=231,slow=15,SNR=6.5						
SONM	**Songino Array**	**41.22**	**15**	P	P	03 19 26.0	-1.8
	1.0nm,0.8s,baz=198,slow=8.0,SNR=9.0						
ZAL	**Zalesovo**	**45.76**	**354**	P	P	03 20 03.1	-1.5
	1.0nm,0.4s,baz=352,slow=9.8,SNR=3.9						
ASAR	**Alice Springs**	**52.05**	**129**	P	P	03 20 51.5	-2.2
	0.4nm,0.6s,baz=306,slow=7.8,SNR=4.2						

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*IDC **28** 03:12:19.9±0.8, 8.13N×94.03E, mb4.1/14, mb1 4.2/14, mb1mx4.1/20, mbtmp4.1/14, Error ellipse: s-maj=34.5km s-min=18.6km az=50.0*

ISC 28 03:12:22.7±0.7**, 8.0N**±0.1×**93.9E**±0.1**, h33**^{km}**, n18,** σ**1**^{s}**00**/17**, mb4.1**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.55**	**25**	Pn	**P**	**03 15 10.1**	**+1.7**
	0.7nm,0.3s,baz=216,slow=13,SNR=5.3						
SONM	**Songino Array**	**41.15**	**13**	P	**P**	**03 20 05.6**	**+0.1**
	0.6nm,0.5s,mb3.5,baz=194,slow=7.3,SNR=3.5						
ZAL	**Zalesovo**	**46.44**	**353**	P	**P**	**03 20 47.6**	**-0.5**
	4.5nm,0.4s,mb4.8,baz=293,slow=4.0,SNR=13						
WRA	**Warramunga Arr**	**48.52**	**125**	P	**P**	**03 21 04.2**	**-0.7**
	0.9nm,0.7s,mb3.9,baz=304,slow=8.9,SNR=4.3						
BVAR	**Borovoye Array**	**48.83**	**341**	P	**P**	**03 21 06.0**	**-0.9**
	0.3nm,0.5s,mb3.6,baz=143,slow=7.2,SNR=3.0						
BVAR				PcP	PcP	03 22 31.7	+0.1
	0.6nm,0.5s,baz=180,slow=1.5,SNR=3.8						
ASAR	**Alice Springs**	**50.16**	**130**	P	**P**	**03 21 17.6**	**+0.1**
	0.5nm,0.5s,mb3.8,baz=303,slow=7.2,SNR=4.5						
ASAR				PcP	PcP	03 22 36.6	-0.2
	0.6nm,0.7s,baz=300,slow=3.7,SNR=4.2						
KMBO	**Kilima Mbogo**	**57.17**	**264**	P	**P**	**03 22 12.6**	**+3.3**
	0.9nm,0.6s,mb4.0,baz=50,slow=13,SNR=4.5						
BRTR	**Keskin Array B**	**62.18**	**311**	P	**P**	**03 22 42.0**	**-1.3**
	0.4nm,0.5s,mb3.8,baz=140,slow=9.6,SNR=3.9						
FINES	**FINESS Array B**	**72.52**	**332**	P	**P**	**03 23 47.4**	**-0.5**
	9.2nm,1.1s,mb4.6,baz=107,slow=7.3,SNR=12						
KAF	**Kangasniemi**	**72.60**	**333**	*e*p	**P**	**03 23 47.0**	**-1.4**
	4.3nm,0.9s,mb4.4						
ARCES	**ARCESS Array B**	**75.11**	**340**	P	**P**	**03 24 03.0**	**+0.2**
	2.3nm,0.8s,mb4.2,baz=79,slow=6.2,SNR=5.3						
GERES	**GERESS Array B**	**77.60**	**318**	P	**P**	**03 24 17.8**	**+0.4**
	1.3nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=11						
HFS	**Hagfors**	**78.26**	**330**	P	**P**	**03 24 20.8**	**+0.1**
	2.8nm,0.5s,mb4.5,baz=102,slow=4.0,SNR=24						
NB2	**NORSAR Subarra**	**79.54**	**331**	P	**P**	**03 24 26.9**	**-0.8**
	2.5nm,0.6s,mb4.3,baz=93,slow=5.8						
NOA	**NORSAR Array B**	**79.54**	**331**	P	**P**	**03 24 27.5**	**-0.2**
	5.4nm,1.0s,mb4.4,baz=93,slow=5.6,SNR=5.8						
DAVOX	**Davos**	**80.15**	**316**	P	**P**	**03 24 31.9**	**+0.6**
	1.3nm,0.5s,mb4.2,baz=123,slow=8.2,SNR=6.0						
ESDC	**Sonseca Array**	**90.97**	**310**	P	**P**	**03 25 26.2**	**+1.2**
	0.5nm,0.5s,mb4.1,baz=74,slow=4.3,SNR=5.5						
TXAR	**Lajitas Array**	**139.26**	**24**	PKP	PKPdf	03 31 50.5	+3.3
	0.1nm,0.4s,baz=341,slow=4.9,SNR=4.0						

IDC 28 03:13:49.7±3.7**, 11.75N×92.03E, mb3.7**/3**, mb1 4.0**/4**, mb1mx3.6**/18**, mbtmp3.7**/4**, ML4.4**/1**, Error ellipse: s-maj=100.4km s-min=29.2km az=82.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.43**	**44**	Pn	P	03 16 07.0	-2.8
	1.1nm,0.3s,baz=225,slow=14,SNR=4.3						
SONM	**Songino Array**	**37.94**	**16**	P	P	03 21 08.9	-1.7
	0.4nm,0.5s,baz=199,slow=9.8,SNR=3.3						
WRA	**Warramunga Arr**	**52.21**	**127**	P	P	03 23 02.8	-2.1
	1.2nm,0.5s,baz=300,slow=10.0,SNR=8.1						
ASAR	**Alice Springs**	**53.99**	**131**	P	P	03 23 15.8	-2.3
	0.4nm,0.5s,baz=309,slow=7.0,SNR=4.3						

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*IDC **28** 03:15:12.7±7.5, 12.82N×92.34E, h40^{km}±65^{km}, mb3.8/12, mb1 4.0/13, mb1mx3.8/22, mbtmp4.0/13, ML4.1/1, Error ellipse: s-maj=47.2km s-min=17.6km az=52.0*

ISC 28 03:15:10.0±0.8**, 12.9N**±0.1×**92.3E**±0.1**, h33**^{km}**, n19,** σ**0**^{s}**75**/20**, mb4.0**/12**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.46**	**48**	Pn	**P**	**03 17 13.3**	**+0.2**
	0.6nm,0.3s,baz=234,slow=16,SNR=3.2						
CMAR				Sn	**Sn**	**03 18 39.3**	**-9.3**
	0.8nm,0.3s,baz=240,slow=25,SNR=3.1						
PKI	**Pulchoki**	**15.96**	**337**	*e*P	**P**	**03 18 53.3**	**-0.5**
GUN	**Gumba**	**16.10**	**339**	*e*P	**P**	**03 18 55.4**	**-0.2**
DMN	**Daman**	**16.12**	**336**	*e*P	**P**	**03 18 55.0**	**-0.8**
	25nm,0.7s						
KKN	**Kakani**	**16.21**	**337**	*e*P	**P**	**03 18 55.5**	**-1.5**
GKN	**Gorkha**	**16.65**	**336**	*e*P	**P**	**03 19 01.7**	**-0.8**
	21nm,0.5s						
KOLN	**Koldanda**	**16.89**	**333**	*e*P	**P**	**03 19 05.7**	**+0.2**
	25nm,0.6s						
SONM	**Songino Array**	**36.77**	**16**	P	**P**	**03 22 17.2**	**+0.9**
	2.1nm,0.8s,mb4.0,baz=204,slow=7.0,SNR=8.9						
ZAL	**Zalesovo**	**41.38**	**353**	P	**P**	**03 22 54.7**	**+0.2**
	2.0nm,0.4s,mb4.1,baz=309,slow=9.0,SNR=5.6						
BVAR	**Borovoye Array**	**43.69**	**341**	P	**P**	**03 23 14.0**	**+0.5**
	0.5nm,0.5s,mb3.5,baz=138,slow=8.9,SNR=4.0						
WRA	**Warramunga Arr**	**52.69**	**128**	P	**P**	**03 24 22.8**	**-1.0**
	0.8nm,0.7s,mb3.8,baz=300,slow=9.3,SNR=4.3						
ASAR	**Alice Springs**	**54.54**	**132**	P	**P**	**03 24 36.5**	**-0.9**
	0.5nm,0.5s,mb3.9,baz=315,slow=6.8,SNR=9.0						
BRTR	**Keskin Array B**	**57.84**	**309**	P	**P**	**03 25 00.3**	**-0.6**
	1.0nm,0.9s,mb3.9,baz=127,slow=6.2,SNR=4.5						
MLR	**Muntele Rosu**	**64.36**	**314**	P	**P**	**03 25 45.9**	**+1.0**
	3.4nm,0.9s,mb4.4,baz=179,slow=7.4,SNR=6.2						
FINES	**FINESS Array B**	**67.46**	**332**	P	**P**	**03 26 04.5**	**+0.1**
	1.0nm,0.5s,mb4.2,baz=135,slow=8.1,SNR=9.7						
ARCES	**ARCESS Array B**	**69.96**	**340**	P	**P**	**03 26 20.4**	**+0.7**
	3.4nm,0.9s,mb4.3,baz=68,slow=6.5,SNR=5.9						
GERES	**GERESS Array B**	**72.92**	**317**	P	**P**	**03 26 38.9**	**+1.1**
	0.7nm,0.7s,mb3.7,baz=79,slow=6.8,SNR=7.8						
HFS	**Hagfors**	**73.24**	**329**	P	**P**	**03 26 40.2**	**+0.7**
	1.1nm,0.4s,mb4.1,baz=108,slow=4.7,SNR=4.9						
INK	**Inuvik**	**92.69**	**15**	P	**P**	**03 28 20.2**	**+0.7**
	3.0nm,1.3s,mb4.6,baz=312,slow=5.1,SNR=3.5						

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*BJI **28** 03:20:16.4, 6.55N×92.78E, h25^{km}, mB5.3, mb5.0, Ms5.2, Msz5.0*

*IDC **28** 03:20:16.8±0.4, 6.91N×93.02E, mb4.8/25, mb1 4.9/25, mb1mx4.9/27, mbtmp4.8/25, MS4.7/21, Ms1 4.8/21, ms1mx4.5/32, Error ellipse: s-maj=22.4km s-min=9.1km az=42.0*

*NEIC **28** 03:20:18.8±3.0, 6.82N×92.81E, h13^{km}±18^{km}, mb5.3/47, MS4.6/21, Error ellipse: s-maj=8.1km s-min=6.1km az=174.0*

*HRVD **28** 03:20:18.8±0.4, 6.71N×92.88E, h12^{km}, MW5.0/59, Centroid moment Tensor Solution. LP body waves: s28,c38;Mantle waves: s59,c97; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$3.47±.11; M$_{\theta\theta}$-3.53±.08; M$_{\phi\phi}$0.06±.12; M$_{r\theta}$0.32±.29; M$_{\theta\phi}$0.34±.09; M$_{\phi r}$-0.31±.40; Best double couple: M$_{0}$3.54×10^{16} NP1:φ$_{s}$271°,δ42°,λ83°. NP2:φ$_{s}$100°,δ48°,λ96°. Principal axes: T 3.51, Plg85°, Azm65°; N .07, Plg5°, Azm276°; P -3.58, Plg3°, Azm185°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **28** 03:20:19.9±0.9, 6.85N×92.84E, h33^{km}, mb5.4/56, MS4.7/23 Error ellipse: s-maj=11.0km s-min=5.1km az=122.5*

*SYO **28** 03:20:19.0, 6.82N×92.81E, h15^{km}, MB5.2, MS4.5*

*CSEM **28** 03:20:23.1, 7.22N×92.69E, h33^{km}, mb5.5*

ISC 28 03:20:16.8±1.0**, 6.77N**±0.04×**92.86E**±0.03**, h12**^{km}±5^{km}**, h19**^{km}±1.8^{km}**:pP-P, n321,** σ**1**^{s}**09**/318**, mb5.1**/106**, MS4.8**/62**, 32C-5D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	**12.08**	**273**	*e*Pn	**P**	**03 23 09.7**	**-2.0**
CM31	**Chiang Mai Arr**	**13.04**	**26**	*e*P	**P**	**03 23 25.8**	**+1.2**
CMAR	**Chiang Mai Arr**	**13.04**	**26**	Pn	**P**	**03 23 25.6**	**+1.0**
	2.8nm,0.3s,baz=230,slow=14,SNR=46						
CMAR				LR	LR	03 28 41.6	
	comp=Z,4μm,18.8s,baz=210,slow=39						
CHG	**Chiang Mai**	**13.35**	**26**	⇑P	**P**	**03 23 32.4**	**+3.7**
	80nm,1.0s						
CHG				S	**S**	**03 26 07.1**	**+9.0**
MDRS	**Chennai**	**13.90**	**298**	*e*P	**P**	**03 23 34.0**	**-2.1**
MDRS				*e*		03 23 36.3	
	comp=Z,376nm,0.5s						
MDRS				*e*S	S	03 25 51.5	-20
VIS	**Vishakhapatnam**	**14.31**	**320**	*e*P	**P**	**03 23 38.1**	**-3.4**
VIS				*e*		03 23 48.2	
	comp=Z,296nm,1.6s						
CHRT	**Chiangrai**	**14.65**	**27**	⇑P	**P**	**03 23 47.0**	**+1.1**
	comp=Z,218nm,1.2s						
BWNR	**Bhubaneshwar**	**15.08**	**334**	*e*	**P**	**03 23 39.0**	**-13**
BWNR				*e*		03 25 35.8	
KOD	**Kodaikanal**	**15.61**	**284**	*e*P	**P**	**03 23 56.2**	**-2.2**
TRD	**Trivandrum**	**15.85**	**277**	*e*P	**P**	**03 23 58.9**	**-2.7**
TRD				*e*		03 24 02.0	
	comp=Z,161nm,1.5s						
CAL	**Calcutta**	**16.27**	**345**	*e*P	**P**	**03 24 09.9**	**+3.0**
AGT	**Agartala**	**17.08**	**355**	⇑*i*P	**P**	**03 24 16.0**	**-1.1**
AGT				*i*		03 26 17.0	
HYB	**Hyderabad**	**17.52**	**308**	*e*P	**P**	**03 24 21.0**	**-1.7**
HYB				pmax	pmax		
	comp=Z,433nm,1.6s						
HYB	**Hyderabad**	**17.52**	**308**	*e*P	**P**	**03 24 21.0**	**-1.7**
	comp=Z,433nm,1.6s						
HYB				*e*S	**S**	**03 27 47.0**	**+11**
HYB	**Hyderabad**	**17.52**	**308**	*i* P	**P**	**03 24 21.0**	**-1.7**
	comp=Z,433nm,1.6s						
HYB				*e*S	**S**	**03 27 37.0**	**+1.3**
HYB				LR	LR	03 35 50.0	
	comp=Z,3.4nm,14.0s						
IMP	**Imphal**	**17.94**	**3**	*e*	**P**	**03 24 26.3**	**-1.5**
BOK	**Bokaro**	**18.20**	**339**	*e*P	**P**	**03 24 31.8**	**+0.6**
BOK				*e*		03 24 35.0	
	comp=Z,112nm,0.9s						
BLSP	**Bilaspur**	**18.45**	**327**	*e*P	**P**	**03 24 33.9**	**-0.3**
BLSP				*e*		03 24 41.7	
	comp=Z,148nm,1.5s						
SHL	**Shillong**	**18.71**	**357**	*e*	**P**	**03 24 36.0**	**-1.3**
SHL				*e*		03 24 45.2	
	comp=Z,134nm,1.1s						
SHL				*e*S	**S**	**03 28 07.8**	**+5.1**
MNGI	**Mangalore**	**18.79**	**290**	*e*P	**P**	**03 24 38.5**	**+0.1**
MNGI				*e*		03 24 44.9	
	comp=Z,84nm,0.6s						
NGP	**Nagpur**	**19.57**	**318**	⇓*e*	**P**	**03 24 49.2**	**+1.8**
NGP				*e*		03 28 45.0	
QIZ	**Qiongzhong**	**20.53**	**52**	P	**P**	**03 24 58.5**	**+0.7**
QIZ				AP		03 25 04.5	
QIZ				XP		03 25 07.8	
QIZ				S	**S**	**03 28 45.8**	**+3.7**
QIZ				LR	LR		
	comp=N,7μm,11.8s,MS5.3						
QIZ				LR	LR		
	comp=E,4μm,13.3s,MS5.3						
QIZ	**Qiongzhong**	**20.53**	**52**	*e*P	**P**	**03 24 58.0**	**+0.2**
	comp=E,175nm,1.4s						
QIZ				LR	LR		
	comp=Z,2μm,19.0s,MS4.5						
KMI	**Kunming**	**20.55**	**26**	⇑P	**P**	**03 24 59.5**	**+1.5**
KMI				AP		03 25 05.8	
KMI				XP		03 25 07.3	
KMI				PP	PP	03 25 24.5	+5.3
KMI				PPP	PPP	03 25 33.3	+5.1
KMI				S	**S**	**03 28 47.8**	**+5.3**
KMI				XS		03 28 59.8	
KMI				SS	SS	03 29 18.3	+5.3
KMI				AMB	AMB		
	comp=Z,51nm,1.0s						
KMI				AMB	AMB		
	comp=Z,321nm,3.5s						
KMI				LR	LR		
	comp=N,4μm,16.9s,MS5.0						
KMI				LR	LR		
	comp=E,3μm,14.3s,MS5.0						
KMI				LR	LR		
	comp=Z,3μm,17.1s,MS4.7						
GOA	**Goa**	**20.57**	**297**	*e*P	**P**	**03 25 01.3**	**+3.1**
GOA				*e*		03 25 10.5	
	comp=Z,163nm,2.0s						
GOA				*e*S	**S**	**03 28 47.0**	**+4.0**
AKL	**Akola**	**20.67**	**314**	*e*P	**P**	**03 25 01.3**	**+2.1**
AKL				*e*		03 25 10.4	
	comp=Z,210nm,1.2s						
KAD	**Karad**	**21.03**	**302**	*e*P	**P**	**03 25 03.4**	**+0.4**
KAD				*e*		03 25 07.6	
	comp=Z,227nm,1.7s						
PKI	**Pulchoki**	**21.86**	**342**	*e*P	**P**	**03 25 11.8**	**+0.5**
	comp=Z,638nm,1.4s,mb5.9						
POO	**Poona**	**21.89**	**304**	*e*P	**P**	**03 25 11.1**	**-0.5**
POO				*e*		03 25 16.1	
	comp=Z,57nm,1.3s						
DMN	**Daman**	**21.99**	**341**	*e*P	**P**	**03 25 13.3**	**+0.7**
	comp=Z,326nm,1.0s,mb5.7						
GUN	**Gumba**	**22.04**	**343**	*e*P	**P**	**03 25 13.0**	**-0.1**
	comp=Z,639nm,1.1s,mb6.0						
BHPL	**Bhopal**	**22.10**	**319**	*e*P	**P**	**03 25 13.8**	**+0.1**
BHPL				*e*P		03 25 14.6	
BHPL				*e*		03 25 18.8	
	comp=Z,164nm,1.6s						
BHPL				*e*		03 25 19.8	
	comp=Z,178nm,1.3s						
BHPL				*e*S	**S**	**03 29 18.0**	**+6.0**
KKN	**Kakani**	**22.10**	**342**	*e*P	**P**	**03 25 14.2**	**+0.5**
	comp=Z,380nm,1.1s,mb5.7						
GKN	**Gorkha**	**22.51**	**341**	*e*P	**P**	**03 25 18.6**	**+0.8**
	comp=Z,717nm,1.1s,mb6.0						
KOLN	**Koldanda**	**22.65**	**338**	*e*P	**P**	**03 25 20.1**	**+0.9**
	comp=Z,580nm,1.5s,mb5.8						
LSA	**Lhasa**	**22.86**	**356**	*e*P	**P**	**03 25 23.1**	**+1.8**
LSA				pmax	pmax		
	comp=Z,44nm,0.6s,mb5.1						
LSA				MLR	MLR		
	comp=Z,2μm,20.0s,MS4.5						
LSA	**Lhasa**	**22.86**	**356**	*e*P	**P**	**03 25 23.1**	**+1.8**
	comp=Z,44nm,0.6s,mb5.1						
LSA				LR	LR		
	comp=Z,2μm,20.0s,MS4.5						
BOM	**Bombay**	**22.93**	**304**	*e*P	**P**	**03 25 24.1**	**+2.1**
BOM				*e*		03 25 29.7	
	comp=Z,126nm,1.2s						
GYA	**Guiyang**	**23.58**	**32**	⇑*i*P	**P**	**03 25 29.3**	**+1.0**
GYA				AP		03 25 34.0	
GYA				XP		03 25 36.8	
GYA				PP	PP	03 26 03.3	+2.6
GYA				S	**S**	**03 29 41.3**	**+2.7**
GYA				AMB	AMB		
	comp=Z,50nm,1.2s,mb4.8						
GYA				AMB	AMB		
	comp=Z,970nm,3.7s						
GYA				LR	LR		
	comp=N,2μm,16.7s,MS5.1						
GYA				LR	LR		
	comp=E,5μm,16.0s,MS5.1						
GYA				LR	LR		
	comp=Z,5μm,17.2s,MS5.1						
PTH	**Pithoragarh**	**25.60**	**334**	*e*	**P**	**03 25 46.5**	**-1.1**
PTH				*e*		03 30 24.0	
CD2	**Chengdu**	**26.10**	**22**	P	**P**	**03 25 52.0**	**-0.3**
CD2				PP	PP	03 26 39.5	+5.6
CD2				S	**S**	**03 30 22.8**	**+1.8**
CD2				XS		03 30 34.8	
CD2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.2						
CD2				AMB	AMB		
	comp=Z,340nm,7.5s						
CD2				LR	LR		
	comp=E,3μm,13.2s						
CD2				LR	LR		
	comp=Z,2μm,21.0s						
AJM	**Ajmer**	**26.17**	**321**	*e*P	**P**	**03 25 54.4**	**+1.4**
AJM				*e*		03 26 01.8	
	comp=Z,56nm,1.8s						
NDI	**New Delhi**	**26.34**	**328**	*e*P	**P**	**03 25 55.4**	**+0.9**
NDI				*e*	pP	03 25 59.8	+1.7
	comp=Z,109nm,1.6s						
DDI	**Dehra Dun**	**27.24**	**331**	*e*P	**P**	**03 26 02.5**	**-0.3**
ENH	**Enshi**	**28.12**	**32**	*e*P	**P**	**03 26 08.6**	**-2.1**
	comp=Z,14nm,0.7s,mb4.7						
ENH				LR	LR		
	comp=Z,4μm,19.0s,MS5.0						
LZH	**Lanzhou**	**30.86**	**18**	*e*P	**P**	**03 26 35.0**	**-0.2**
LZH				AP	pP	03 26 42.0	+3.2
LZH				XP	sP	03 26 44.8	+4.4
LZH				*e*S	**S**	**03 31 40.3**	**+2.7**
LZH				SS	SS	03 33 22.0	+1.4
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
LZH				AMB	AMB		
	comp=Z,152nm,5.4s						
LZH				LR	LR		
	comp=E,5μm,14.5s						
LZH				LR	LR		
	comp=Z,6μm,15.7s,MS5.3						
XAN	**Xi'an**	**30.93**	**27**	P	**P**	**03 26 34.3**	**-1.5**
XAN				AP	pP	03 26 39.3	-0.1
XAN				S	**S**	**03 31 36.0**	**-2.7**
XAN				AMB	AMB		
	comp=Z,19nm,0.9s,mb4.9						
XAN				LR	LR		
	comp=N,2μm,13.6s,MS5.1						
XAN				LR	LR		
	comp=E,3μm,15.0s,MS5.1						
XAN				LR	LR		
	comp=Z,3μm,18.3s,MS5.0						
WHN	**Wuhan**	**31.08**	**38**	P	**P**	**03 26 37.3**	**+0.2**
WHN				S	**S**	**03 31 49.0**	**+8.0**
WHN				LR	LR		
	comp=Z,5μm,14.0s,MS5.3						
GTA	**Gaotai**	**33.09**	**10**	*e*P	**P**	**03 26 54.5**	**-0.2**
GTA				AP	pP	03 26 59.0	+0.7
GTA				PP	PP	03 28 01.5	-4.0
GTA				PCP	PcP	03 29 39.8	+1.7
GTA				S	**S**	**03 32 06.0**	**-6.3**
GTA				AMB	AMB		
	comp=Z,15nm,1.6s,mb4.7						
GTA				AMB	AMB		
	comp=Z,210nm,4.2s						
GTA				LR	LR		
	comp=N,1μm,18.6s,MS4.7						
GTA				LR	LR		
	comp=E,566nm,20.2s,MS4.7						
GTA				LR	LR		
	comp=Z,1μm,20.2s,MS4.6						
NJ2	**Nanjing**	**34.93**	**41**	*e*P	**P**	**03 27 10.8**	**+0.2**
NJ2				AP	pP	03 27 21.0	+6.8
NJ2				XP	sP	03 27 25.3	+9.5
NJ2				PP	PP	03 28 31.8	+3.2
NJ2				S	**S**	**03 32 40.0**	**-0.8**
NJ2				XS		03 32 56.0	
NJ2				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,420nm,6.4s						
NJ2				LR	LR		
	comp=Z,10μm,12.8s,MS5.8						
SSE	**Sheshan**	**35.89**	**44**	P	**P**	**03 27 15.0**	**-3.8**
SSE				XP	sP	03 27 27.8	+3.8
SSE				S	**S**	**03 32 53.3**	**-2.5**
SSE				XS		03 33 08.0	
SSE				AMB	AMB		
	comp=Z,28nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,148nm,4.5s						
SSE				LR	LR		
	comp=N,2μm,12.5s,MS5.1						
SSE				LR	LR		
	comp=E,683nm,12.5s,MS5.1						
SSE				LR	LR		
	comp=Z,1μm,17.5s,MS4.8						
KSH	**Kashi**	**35.97**	**338**	⇑*i*P	**P**	**03 27 19.5**	**+0.1**
KSH				AP	pP	03 27 26.5	+3.5
KSH				XP	sP	03 27 30.0	+5.4
KSH				PP	PP	03 28 40.5	-0.6
KSH				PCP	PcP	03 29 49.0	+2.6
KSH				S	**S**	**03 32 54.8**	**-2.1**
KSH				SCP		03 33 32.5	
KSH				PCS		03 33 34.8	
KSH				SCS	ScS	03 37 36.3	+1.1
KSH				LR	LR		
	comp=N,890nm,8.9s						
KSH				LR	LR		
	comp=E,1μm,12.7s						
WMQ	**Urumqi**	**37.18**	**354**	⇑P	**P**	**03 27 30.0**	**+0.5**
WMQ				AP	pP	03 27 34.8	+1.7
WMQ				XP	sP	03 27 37.3	+2.6
WMQ				PP	PP	03 28 57.0	+0.5
WMQ				PPP	PPP	03 29 17.5	+0.6
WMQ				S	**S**	**03 33 16.0**	**+0.7**
WMQ				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,74nm,9.7s						
WMQ				LR	LR		
	comp=N,612nm,18.0s,MS4.5						
WMQ				LR	LR		
	comp=E,233nm,18.4s,MS4.5						
WMQ				LR	LR		
	comp=Z,664nm,18.5s,MS4.5						
HHC	**Hu-ho-hao-te**	**37.82**	**23**	*e*P	**P**	**03 27 35.0**	**+0.1**
HHC				AP	pP	03 27 40.5	+1.9
HHC				XP	sP	03 27 43.8	+3.7
HHC				PP	PP	03 29 00.0	-4.3
HHC				S	**S**	**03 33 18.5**	**-6.7**
HHC				AMB	AMB		
	comp=Z,12nm,1.6s,mb4.4						
HHC				AMB	AMB		
	comp=Z,224nm,4.9s						
HHC				LR	LR		
	comp=N,2μm,16.6s,MS5.2						
HHC				LR	LR		
	comp=E,2μm,14.9s,MS5.2						
HHC				LR	LR		
	comp=Z,382nm,17.8s,MS4.2						

ULHL	**Ulahol**	**38.27**	**340**	P	**P**	**03 27 39.4**	**+0.7**
	SNR=8.2						
KZA	**Kyzart**	**38.47**	**339**	P	**P**	**03 27 41.8**	**+1.5**
	SNR=28						
UCH	**Uchtor**	**38.87**	**338**	P	**P**	**03 27 45.2**	**+1.5**
	SNR=48						
KBK	**Karagaybulak**	**39.09**	**339**	P	**P**	**03 27 47.2**	**+1.7**
	SNR=39						
TKM2	**Tokmak 2**	**39.09**	**340**	P	**P**	**03 27 46.5**	**+1.0**
	SNR=20						
AML	**Almayashu**	**39.10**	**337**	P	**P**	**03 27 47.4**	**+1.8**
	SNR=6.0						
JOW	**Kunigami**	**39.12**	**55**	LR	LR	03 44 33.5	
	comp=Z,606nm,18.2s,MS4.5,baz=0.1,slow=37						
BJT	**Baijiatuau**	**39.15**	**29**	*e*P	**P**	**03 27 45.4**	**-0.7**
BJT				pmax	pmax		
	comp=Z,15nm,0.8s						
BJT				MLR	MLR		
	comp=Z,1µm,22.0s						
BJT	**Baijiatuau**	**39.15**	**29**	*e*P	**P**	**03 27 45.4**	**-0.7**
	comp=Z,15nm,0.8s,mb4.8						
BJT				LR	LR		
	comp=Z,1µm,22.0s,MS4.7						
BJI	**Beijing**	**39.17**	**29**	P	**P**	**03 27 47.3**	**+1.0**
BJI				S	**S**	**03 33 42.8**	**-2.9**
BJI				AMB	AMB		
	comp=Z,19nm,1.4s,mb4.6						
BJI				LR	LR		
	comp=N,2µm,15.8s,MS5.1						
BJI				LR	LR		
	comp=E,1µm,15.4s,MS5.1						
BJI				LR	LR		
	comp=Z,2µm,19.5s,MS5.0						
AAK	**Ala-Archa**	**39.23**	**338**	P	**P**	**03 27 48.2**	**+1.5**
	SNR=38						
AAK	**Ala-Archa**	**39.23**	**338**	⇑*i*P	**P**	**03 27 46.9**	**+0.2**
AAK				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.2						
AAK				MLR	MLR		
	comp=Z,291nm,19.0s,MS4.1						
AAK	**Ala-Archa**	**39.23**	**338**	⇑*i*P	**P**	**03 27 46.9**	**+0.2**
	comp=Z,56nm,1.1s,mb5.2						
AAK				LR	LR		
	comp=Z,291nm,19.0s,MS4.1						
FRU	**Bishkek**	**39.36**	**339**	*e*P	**P**	**03 27 49.0**	**+1.2**
FRU				pmax	pmax		
	comp=Z,200nm,2.1s,mb5.5						
FRU				MLR	MLR		
	comp=Z,11µm,18.0s,MS5.7						
CHMS	**Chumysh**	**39.45**	**339**	P	**P**	**03 27 49.2**	**+0.6**
	SNR=21						
EKS2	**Erkin-Say**	**39.52**	**338**	P	**P**	**03 27 50.6**	**+1.5**
	SNR=31						
USP	**Ospenovka**	**39.78**	**339**	P	**P**	**03 27 52.0**	**+0.7**
	SNR=81						
MKAR	**Makanchi Array**	**40.90**	**349**	*i* P	**P**	**03 28 00.1**	**-0.3**
SONM	**Songino Array**	**42.52**	**13**	P	**P**	**03 28 13.7**	**0.0**
	comp=Z,3.4nm,0.7s,mb4.2,baz=198,slow=8.1,SNR=21						
SONM				LR	LR	03 47 54.1	
	comp=Z,2µm,19.6s,MS5.1,baz=189,slow=39						
ULN	**Ulaanbaatar**	**42.70**	**14**	*e*P	**P**	**03 28 14.4**	**-0.8**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
ULN				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.0						
ULN	**Ulaanbaatar**	**42.70**	**14**	*e*P	**P**	**03 28 14.3**	**-0.8**
	comp=Z,2.8nm,0.8s,mb4.0						
ULN				LR	LR		
	comp=Z,2µm,21.0s,MS5.0						
SNY	**Shenyang**	**44.28**	**33**	⇑P	**P**	**03 28 28.0**	**-0.1**
SNY				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.7						
SNY				LR	LR		
	comp=N,1µm,18.6s						
SNY				LR	LR		
	comp=Z,1µm,17.6s,MS4.8						
ZAK	**Zakamensk**	**44.33**	**10**	*e*P	**P**	**03 28 21.0**	**-7.4**
ZAK				*e*		03 30 13.0	
TLY	**Talaya**	**45.65**	**9**	*e*P	**P**	**03 28 38.2**	**-0.7**
TLY				*e*		03 30 15.3	
TLY				*e*S	**S**	**03 35 22.2**	**+1.6**
TLY				pmax	pmax		
	comp=Z,27nm,2.1s,mb4.8						
TLY				MLR	MLR		
	comp=Z,799nm,19.0s,MS4.7						
TLY	**Talaya**	**45.65**	**9**	*i* P	**P**	**03 28 39.0**	**+0.1**
CN2	**Changchun**	**46.63**	**32**	⇑P	**P**	**03 28 47.3**	**+0.5**
CN2				*e*XP	sP	03 28 56.3	+4.3
CN2				*e*S	**S**	**03 35 35.0**	**+0.1**
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
CN2				AMB	AMB		
	comp=Z,300nm,5.0s						
CN2				LR	LR		
	comp=N,900nm,15.0s,MS5.1						
CN2				LR	LR		
	comp=E,1µm,15.0s,MS5.1						
CN2				LR	LR		
	comp=Z,1µm,16.0s,MS4.9						
ZAL	**Zalesovo**	**47.48**	**354**	*i* P	**P**	**03 28 53.4**	**+0.1**
ZAL	**Zalesovo**	**47.48**	**354**	P	**P**	**03 28 53.4**	**+0.1**
	comp=Z,13nm,1.0s,mb4.8,baz=297,slow=8.8,SNR=57						
HIA	**Hailar**	**48.03**	**23**	*e*P	**P**	**03 28 57.3**	**-0.4**
HIA				pmax	pmax		
	comp=Z,29nm,1.2s						
HIA				MLR	MLR		
	comp=Z,1µm,19.0s						
HIA	**Hailar**	**48.03**	**23**	*e*P	**P**	**03 28 57.3**	**-0.4**
	comp=Z,29nm,1.2s,mb5.2						
HIA				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
NVS	**Novosibirsk**	**48.55**	**353**	*e*P	**P**	**03 29 00.3**	**-1.4**
NVS				*e*S	**S**	**03 35 59.9**	**-1.9**
NVS				pmax	pmax		
	comp=N,80nm,1.5s						
NVS				pmax	pmax		
	comp=E,44nm,1.5s						
NVS				pmax	pmax		
	comp=Z,81nm,1.5s,mb5.5						
NVS				smax			
	comp=N,33nm,1.7s						
NVS				smax			
	comp=E,46nm,1.7s						
WRA	**Warramunga Arr**	**48.68**	**124**	*i* P	**P**	**03 29 03.2**	**0.0**
WRA				pmax	pmax		
	comp=Z,8.0nm,1.0s						
WRA	**Warramunga Arr**	**48.68**	**124**	P	**P**	**03 29 03.2**	**+0.1**
	comp=Z,7.8nm,1.0s,mb4.7,baz=303,slow=8.2,SNR=23						
WRA				S	**S**	**03 36 03.1**	**-1.0**
	comp=Z,5.5nm,1.2s,baz=299,slow=16,SNR=6.4						
WRAB	**Tennant Creek**	**48.69**	**124**	*i* P	**P**	**03 29 03.1**	**-0.1**
WRAB	**Tennant Creek**	**48.69**	**124**	*e*P	**P**	**03 29 03.0**	**-0.2**
	comp=Z,71nm,1.0s,mb5.7						
WRAB				LR	LR		
	comp=Z,437nm,20.0s,MS4.4						
MZLS	**Mizel**	**48.77**	**296**	P	**P**	**03 29 05.0**	**+1.3**
DJNS	**Zahran al Janu**	**49.27**	**287**	D		03 28 10.0	
TATS	**Tathlith**	**49.55**	**290**	P	**P**	**03 29 10.7**	**+0.8**
BVA0	**Borovoye Array**	**49.63**	**342**	P	**P**	**03 29 09.1**	**-0.9**
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
BVAR	**Borovoye Array**	**49.63**	**342**	P	**P**	**03 29 09.4**	**-0.7**
	comp=Z,14nm,0.7s,mb5.1,baz=143,slow=7.4,SNR=84						
BVAR				PcP	PcP	03 30 32.2	+0.4
	comp=Z,2.6nm,0.7s,baz=117,slow=6.4,SNR=2.5						
BRVK	**Borovoye**	**49.69**	**342**	⇑*e*P	**P**	**03 29 09.8**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.3						
BRVK				MLR	MLR		
	comp=Z,172nm,21.0s,MS4.0						
BRVK	**Borovoye**	**49.69**	**342**	⇑*e*P	**P**	**03 29 09.8**	**-0.7**
	comp=Z,21nm,0.7s,mb5.3						
BRVK				LR	LR		
	comp=Z,172nm,21.0s,MS4.0						
CHKZ	**Chkalovo**	**50.13**	**343**	*e*P	**P**	**03 29 12.7**	**-1.1**
CHKZ				pmax	pmax		
	comp=Z,47nm,0.7s,mb5.6						
CHKZ	**Chkalovo**	**50.13**	**343**	*e*P	**P**	**03 29 12.7**	**-1.2**
	comp=Z,47nm,0.7s,mb5.6						
ASAR	**Alice Springs**	**50.21**	**128**	P	**P**	**03 29 15.0**	**+0.1**
	comp=Z,8.8nm,0.8s,mb4.8,baz=303,slow=6.6,SNR=44						
ASAR				PcP	PcP	03 30 35.0	+0.8
	comp=Z,4.0nm,0.7s,baz=311,slow=3.7,SNR=5.8						
ASAR				S	**S**	**03 36 28.2**	**+2.9**
	comp=Z,1.6nm,0.9s,baz=295,slow=13,SNR=4.3						
ASAR				LR	LR	03 50 43.2	
	comp=Z,427nm,18.4s,MS4.5,baz=298,slow=36						
NAMS	**An Nimas**	**50.70**	**289**	P	**P**	**03 29 20.7**	**+2.1**
HILS	**Ha’il**	**52.52**	**299**	P	**P**	**03 29 34.0**	**+1.7**
BOD	**Bodaibo**	**53.51**	**14**	*e*P	**P**	**03 29 38.4**	**-0.8**
GNI	**Garni**	**54.31**	**315**	⇑*e*P	**P**	**03 29 45.0**	**-0.3**
GNI				pmax	pmax		
	comp=Z,60nm,1.1s						
GNI				MLR	MLR		
	comp=Z,297nm,19.0s						
GNI	**Garni**	**54.31**	**315**	P	**P**	**03 29 45.8**	**+0.6**
	comp=Z,12nm,0.7s,mb4.9,baz=3.7,slow=2.1,SNR=30						
GNI				LR	LR	03 56 58.4	
	comp=Z,264nm,19.8s,MS4.3,baz=283,slow=40						
GNI	**Garni**	**54.31**	**315**	⇑*e*P	**P**	**03 29 45.0**	**-0.3**
	comp=Z,60nm,1.1s,mb5.4						
GNI				LR	LR		
	comp=Z,297nm,19.0s,MS4.4						
KBRS	**Khaybar**	**54.41**	**297**	P	**P**	**03 29 48.2**	**+2.0**
CLNS	**Chul’man**	**55.90**	**21**	*e*P	**P**	**03 29 56.3**	**-0.4**
CLNS				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
CLNS				pmax	pmax		
	comp=N,20nm,1.5s						
CLNS				pmax	pmax		
	comp=E,15nm,1.3s						
CLNS				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
CLNS				MLR	MLR		
	comp=N,700nm,18.0s,MS4.8						
CLNS				MLR	MLR		
	comp=E,200nm,16.0s,MS4.8						
SVE	**Sverdlovsk**	**55.96**	**339**	⇑*i*P	**P**	**03 29 57.0**	**-0.1**
SVE				*e*		03 37 42.0	
SVE				pmax	pmax		
	comp=Z,180nm,1.6s,mb5.8						
ZEI	**Tsey**	**55.98**	**318**	*e*P	**P**	**03 29 56.0**	**-1.5**
ZEI				*i* *PP	pP	03 30 05.9	+4.7
ZEI				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
KMBO	**Kilima Mbogo**	**56.04**	**264**	*e*P	**P**	**03 29 59.6**	**+1.3**
KMBO				pmax	pmax		
	comp=Z,6.0nm,0.9s						
KMBO				MLR	MLR		
	comp=Z,340nm,19.0s						
KMBO	**Kilima Mbogo**	**56.04**	**264**	P	**P**	**03 30 00.3**	**+2.0**
	comp=Z,4.6nm,0.9s,mb4.5,baz=54,slow=9.2,SNR=13						
KMBO	**Kilima Mbogo**	**56.04**	**264**	*e*P	**P**	**03 29 59.6**	**+1.4**
	comp=Z,6.0nm,0.9s,mb4.6						
KMBO				LR	LR		
	comp=Z,340nm,19.0s,MS4.5						
UMJS	**Umm Lajj**	**56.05**	**296**	P	**P**	**03 30 00.3**	**+2.1**
ARU	**Arti**	**56.41**	**338**	⇑*i*P	**P**	**03 29 59.4**	**-0.9**
ARU				*e*		03 30 49.5	
ARU				*e*		03 32 01.1	
ARU				*e*S	**S**	**03 37 50.2**	**+1.2**
ARU				*e*SS	SS	03 41 40.6	+3.8
ARU				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
ARU	**Arti**	**56.41**	**338**	⇑*e*P	**P**	**03 29 58.9**	**-1.4**
	comp=Z,42nm,0.8s,mb5.5						
ARU				LR	LR		
	comp=Z,240nm,21.0s,MS4.3						
PMG	**Port Moresby**	**56.44**	**106**	P	**P**	**03 29 56.2**	**-4.9**
PMG				pmax	pmax		
	comp=Z,10.0nm,0.6s						
PMG				MLR	MLR		
	comp=Z,443nm,20.0s						
PMG	**Port Moresby**	**56.44**	**106**	P	**P**	**03 29 59.7**	**-1.4**
	comp=Z,6.2nm,0.5s,mb4.9,baz=222,slow=6.1,SNR=5.1						
PMG	**Port Moresby**	**56.44**	**106**	P	**P**	**03 29 56.2**	**-4.9**
	comp=Z,10nm,0.6s,mb5.0						
PMG				LR	LR		
	comp=Z,443nm,20.0s,MS4.5						
ASAJ	**Asahikawa**	**57.07**	**41**	LR	LR	03 56 23.0	
	comp=Z,639nm,18.0s,MS4.8,baz=212,slow=38						
TBKS	**Tabuk**	**57.23**	**299**	P	**P**	**03 30 08.5**	**+1.9**
KIV	**Kislovodsk**	**57.29**	**319**	P	**P**	**03 30 06.4**	**-0.4**
	comp=Z,273nm,1.0s,mb6.2,SNR=11						
KIV	**Kislovodsk**	**57.29**	**319**	⇑*i*P	**P**	**03 30 05.6**	**-1.2**
KIV				pmax	pmax		
	comp=Z,83nm,1.5s,mb5.5						
KIV	**Kislovodsk**	**57.29**	**319**	*e*P	**P**	**03 30 05.8**	**-1.0**
	comp=Z,54nm,0.9s,mb5.6						
KIV				LR	LR		
	comp=Z,100nm,20.0s,MS3.9						
GOF	**Gofitskoye**	**57.54**	**320**	⇑*i*P	**P**	**03 30 07.0**	**-1.5**
GOF				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
ELZG	**Elazig**	**57.86**	**312**	P	**P**	**03 30 10.6**	**-0.2**
JMQS	**Jabal Moqyreh**	**57.94**	**300**	P	**P**	**03 30 13.2**	**+1.6**
MALT	**Malatya**	**58.21**	**311**	*e*P	**P**	**03 30 12.6**	**-0.7**
MALT				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
MALT	**Malatya**	**58.21**	**311**	*e*P	**P**	**03 30 12.6**	**-0.7**
	comp=Z,15nm,1.0s,mb5.0						
AYUS	**‘Aynunah**	**58.34**	**299**	P	**P**	**03 30 15.8**	**+1.5**
YSS	**Yuzh-Sakhalins**	**58.43**	**38**	⇑*e*P	**P**	**03 30 09.0**	**-5.7**
YSS				S	**S**	**03 38 12.0**	**-3.7**
YSS				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.3						
YSS				MLR	MLR		
	comp=N,900nm,14.0s,MS5.1						
YSS				MLR	MLR		
	comp=E,600nm,14.0s,MS5.1						
YSS				MLR	MLR		
	comp=Z,500nm,14.0s,MS4.8						
BDAS	**Al Bad‘**	**58.52**	**299**	P	**P**	**03 30 16.7**	**+1.1**
GZT	**Gaziantep**	**58.58**	**310**	P	**P**	**03 30 15.6**	**-0.3**
JMOS	**Jabal al Moall**	**58.65**	**300**	P	**P**	**03 30 17.8**	**+1.3**
HAQS	**Haql**	**58.78**	**300**	P	**P**	**03 30 18.8**	**+1.3**
EIL	**Elat**	**58.88**	**301**	LR	LR	03 57 52.8	
	comp=Z,359nm,18.3s,MS4.5,baz=290,slow=38						
EIL	**Elat**	**58.88**	**301**	*e*P	**P**	**03 30 18.6**	**+0.5**
	comp=Z,26nm,0.9s,mb5.3						
CTA	**Charters Tower**	**58.90**	**118**	P	**P**	**03 30 17.8**	**-0.6**
	comp=Z,8.9nm,1.0s,mb4.8,baz=283,slow=9.5,SNR=10						
CTA				LR	LR	03 57 17.1	
	comp=Z,926nm,21.0s,MS4.9,baz=281,slow=38						
CTAO	**Charters Tower**	**58.90**	**118**	*e*P	**P**	**03 30 17.3**	**-1.0**
CTAO				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.2						
CTAO				MLR	MLR		
	comp=Z,894nm,20.0s,MS4.9						
CTAO	**Charters Tower**	**58.90**	**118**	*e*P	**P**	**03 30 17.3**	**-1.1**
	comp=Z,37nm,1.4s,mb5.2						
CTAO				LR	LR		
	comp=Z,894nm,20.0s,MS4.9						
SOC	**Sochi**	**59.11**	**317**	*i* P	**P**	**03 30 17.1**	**-2.4**
SOC				*e*		03 32 27.0	
SOC				*e*PPP	PPP	03 33 50.1	-6.3
SOC				*e*S	**S**	**03 38 24.4**	**-0.3**
SOC				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.2						
SOC				pmax	pmax		
	comp=N,13nm,0.9s						
SOC				pmax	pmax		
	comp=E,7.0nm,1.2s						
KAHT	**Ahir Dag**	**59.18**	**310**	P	**P**	**03 30 20.6**	**+0.5**
COBT	**Iskenderun**	**59.35**	**309**	P	**P**	**03 30 21.5**	**+0.2**
SOKR	**Solikamsk**	**59.37**	**340**	⇓*i*P	**P**	**03 30 17.9**	**-3.2**
SOKR				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
SOKR				MLR	MLR		
	comp=Z,750nm,21.0s,MS4.8						
STKA	**Stephens Creek**	**60.29**	**133**	P	**P**	**03 30 28.3**	**+0.5**
	comp=Z,17nm,1.0s,mb5.0,baz=299,slow=7.0,SNR=16						
STKA				LR	LR	03 56 25.8	
	comp=Z,932nm,20.7s,MS4.9,baz=114,slow=36						
STKA	**Stephens Creek**	**60.29**	**133**	*e*P	**P**	**03 30 27.3**	**-0.5**
MEST	**Erdemli**	**61.01**	**308**	P	**P**	**03 30 31.3**	**-1.3**
AVNT	**Avonos**	**61.03**	**311**	P	**P**	**03 30 32.0**	**-0.7**
ANN	**Anapa**	**61.09**	**318**	*e*P	**P**	**03 30 31.8**	**-1.2**
ANN				pmax	pmax		
	comp=Z,96nm,1.4s,mb5.7						
CSS	**Prodhromos**	**61.28**	**306**	*e*P	**P**	**03 30 33.6**	**-0.9**
	comp=Z,37nm,1.1s,mb5.4						
YAK	**Yakutsk**	**61.44**	**19**	*e*P	**P**	**03 30 32.8**	**-2.4**
YAK				*e*S	**S**	**03 38 53.7**	**-0.5**
YAK				pmax	pmax		
	comp=N,10.0nm,1.1s						
YAK				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.2						
YAK				pmax	pmax		
	comp=E,8.0nm,1.2s						
YAK				smax			
	comp=N,4.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,472nm,16.0s,MS4.7						
YAK				MLR	MLR		
	comp=N,412nm,15.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,387nm,14.0s,MS4.9						
BOYT	**Boyabat**	**61.74**	**314**	P	**P**	**03 30 36.4**	**-1.1**
BRTR	**Keskin Array B**	**62.19**	**311**	P	**P**	**03 30 39.2**	**-1.3**
	comp=E,13nm,0.8s,mb5.1,baz=121,slow=7.2,SNR=76						
MBAR	**Mbarara**	**62.41**	**266**	*e*P	**P**	**03 30 40.3**	**-2.1**
MBAR				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.1						
MBAR				MLR	MLR		
	comp=Z,86nm,19.0s,MS3.9						
MBAR	**Mbarara**	**62.41**	**266**	*e*P	**P**	**03 30 40.3**	**-2.1**
	comp=Z,21nm,1.3s,mb5.1						
MBAR				LR	LR		
	comp=Z,86nm,19.0s,MS3.9						
VRSR	**Storozhevoye**	**62.54**	**325**	*e*P	**P**	**03 30 40.6**	**-2.1**
VRSR				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.2						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.2s						
VRSR				pmax	pmax		
	comp=E,60nm,3.1s						
ELDT	**Eldivan**	**62.55**	**312**	P	**P**	**03 30 42.0**	**-1.0**
VOR	**Voronezh**	**62.76**	**326**	P	**P**	**03 30 40.0**	**-4.1**
VOR				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.7						
BALT	**Daday**	**62.86**	**313**	P	**P**	**03 30 43.6**	**-1.3**
SIM	**Simferopol’**	**63.36**	**317**	*ce*P	**P**	**03 30 47.0**	**-1.2**
SIM				pmax	pmax		
	comp=Z,26nm,1.7s,mb5.1						
SGKT	**Sivrigoynuk**	**63.58**	**312**	P	**P**	**03 30 48.7**	**-1.1**
ESKT	**Eskisehir**	**64.23**	**311**	P	**P**	**03 30 53.5**	**-0.6**
HENT	**Hendek**	**64.50**	**312**	P	**P**	**03 30 54.7**	**-1.0**
MOS	**Moscow**	**65.36**	**329**	⇑*i*P	**P**	**03 30 59.8**	**-1.3**
MOS				*e*		03 31 30.1	
MOS				*e*		03 33 21.6	
MOS				*e*S	S	03 39 36.2	-7.0
MOS				*e*SS	SS	03 43 51.5	-6.7
MOS				pmax	pmax		
	comp=Z,94nm,1.5s,mb5.6						
OBN	**Obninsk**	**65.63**	**328**	⇓*i*P	**P**	**03 31 01.3**	**-1.5**
OBN				pmax	pmax		
	comp=Z,66nm,1.4s,mb5.5						
OBN				MLR	MLR		
	comp=Z,500nm,18.0s,MS4.8						
OBN	**Obninsk**	**65.63**	**328**	⇑*i*P	**P**	**03 31 01.3**	**-1.5**
ULDT	**Uludag**	**65.65**	**311**	P	**P**	**03 31 02.4**	**-0.8**
BTOK	**Tokmak**	**66.41**	**310**	P	**P**	**03 31 07.4**	**-0.7**
KDAG	**Bornova**	**66.74**	**309**	P	**P**	**03 31 09.8**	**-0.4**
KIS	**Kishinev**	**67.48**	**318**	*e*P	**P**	**03 31 13.0**	**-1.8**
KIS				*e*		03 31 19.0	
LSZ	**Lusaka**	**67.70**	**251**	⇑*e*P	**P**	**03 31 17.3**	**+0.7**
LSZ				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.0						
LSZ				MLR	MLR		
	comp=Z,734nm,22.0s,MS4.9						
LSZ	**Lusaka**	**67.70**	**251**	⇑*e*P	**P**	**03 31 17.3**	**+0.7**
	comp=Z,19nm,1.1s,mb5.0						
LSZ				LR	LR		
	comp=Z,734nm,22.0s,MS4.9						
IDI	**Anoyia**	**68.15**	**305**	P	**P**	**03 31 19.8**	**+0.6**
	comp=Z,34nm,0.7s,mb5.5,baz=96,slow=6.6,SNR=18						
AKASG	**Malin Array Be**	**68.23**	**322**	P	**P**	**03 31 17.3**	**-2.1**
	comp=Z,8.8nm,0.8s,mb4.8,baz=89,slow=4.6,SNR=39						
MA2	**Magadan**	**68.32**	**28**	*e*P	**P**	**03 31 19.9**	**+0.1**
MA2				*e*		03 31 47.7	
MA2				pmax	pmax		
	comp=Z,30nm,2.1s,mb5.0						
TIXI	**Tiksi**	**68.56**	**12**	*e*P	**P**	**03 31 20.3**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,97nm,1.5s,mb5.5						
TIXI				MLR	MLR		
	comp=Z,454nm,14.0s,MS4.9						
TIXI	**Tiksi**	**68.56**	**12**	*i* P	**P**	**03 31 20.1**	**-1.0**
DIM	**Dimitrovgrad**	**68.70**	**312**	*e*P	**P**	**03 31 31.0**	**+8.6**
KDZ	**Kurdzhali**	**68.71**	**312**	*e*P	**P**	**03 31 22.0**	**-0.5**
MLR	**Muntele Rosu**	**69.07**	**316**	P	**P**	**03 31 24.6**	**0.0**
	comp=Z,42nm,0.9s,mb5.3,baz=95,slow=1.7,SNR=52						
MLR				LR	LR	04 08 10.3	
	comp=Z,261nm,19.1s,MS4.5,baz=299,slow=42						
RZN	**Rozhen**	**69.23**	**312**	*e*P	**P**	**03 31 25.0**	**-0.7**
PGB	**Panagyurishte**	**69.78**	**313**	*e*P	**P**	**03 31 28.0**	**-1.1**
SEY	**Seymchan**	**70.45**	**25**	*e*P	**P**	**03 31 32.5**	**-0.3**
SEY						03 31 54.6	
SEY				*e*		03 34 11.2	
SEY				*e*PPP	PPP	03 35 47.1	-4.2
SEY				*e*S	S	03 40 42.3	-1.8
SEY				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.2						
SEY				smax			
	comp=N,480nm,20.3s						
SEY				smax			
	comp=N,2µm,22.0s						
SEY				smax			
	comp=E,2µm,19.2s						
KKB	**Krupnik**	**70.47**	**312**	*e*P	**P**	**03 31 32.0**	**-1.2**
VTS	**Vitosha**	**70.49**	**313**	*e*P	**P**	**03 31 32.0**	**-1.3**
BOLS	**Boljevac**	**71.58**	**314**	⇓*i*P	**P**	**03 31 39.5**	**-0.4**
VSU	**Vasula**	**71.88**	**330**	*i* P	**P**	**03 31 40.4**	**-1.1**
KWP	**Kalwaria**	**72.05**	**320**	*e*P	**P**	**03 31 42.1**	**-0.5**
KOLS	**Kolonicke sedl**	**72.20**	**319**	*e*P	**P**	**03 31 43.4**	**-0.1**
APA	**Apatity**	**72.43**	**340**	⇑*i*P	**P**	**03 31 42.2**	**-2.4**
APA				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
APA				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
LBTB	**Lobatse**	**72.60**	**241**	*e*P	**P**	**03 31 47.3**	**+0.9**
LBTB				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.2						
LBTB				MLR	MLR		
	comp=Z,437nm,19.0s,MS4.8						
LBTB	**Lobatse**	**72.60**	**241**	*e*P	**P**	**03 31 47.3**	**+0.9**
	comp=Z,38nm,1.3s,mb5.2						
LBTB				LR	LR		
	comp=Z,437nm,19.0s,MS4.8						
SUW	**Suwalki**	**72.65**	**325**	*e*P	**P**	**03 31 44.7**	**-1.4**
CRVS	**Cervenica-Dubn**	**72.72**	**319**	*e*P	**P**	**03 31 47.2**	**+0.6**
FINES	**FINESS Array B**	**73.09**	**333**	*i* P	**P**	**03 31 47.7**	**-0.8**
FINES				pmax	pmax		
	comp=Z,9.0nm,0.8s						
FINES	**FINESS Array B**	**73.09**	**333**	P	**P**	**03 31 47.6**	**-0.9**
	comp=Z,9.2nm,0.8s,mb4.7,baz=104,slow=7.9,SNR=19						
FINES				LR	LR	04 10 34.3	
	comp=Z,513nm,18.3s,MS4.8,baz=131,slow=41						
KAF	**Kangasniemi**	**73.19**	**333**	*e*p	**P**	**03 31 47.2**	**-1.9**
	comp=Z,16nm,1.0s,mb4.9						
KAF	**Kangasniemi**	**73.19**	**333**	*e*P	**P**	**03 31 47.2**	**-1.9**
KAF				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
KECS	**Kecovo**	**73.29**	**319**	*e*P	**P**	**03 31 49.6**	**-0.4**
NIE	**Niedzica**	**73.55**	**319**	*e*P	**P**	**03 31 52.1**	**+0.7**
PSZ	**Piszkesteto**	**73.60**	**318**	P	**P**	**03 31 51.0**	**-0.8**
PSZ				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
PSZ	**Piszkesteto**	**73.60**	**318**	P	**P**	**03 31 51.0**	**-0.7**
	comp=Z,15nm,1.0s,mb4.9						
BOSA	**Boshof**	**73.92**	**238**	*e*P	**P**	**03 31 54.4**	**+0.3**
BOSA				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
BOSA				MLR	MLR		
	comp=Z,191nm,22.0s,MS4.3						
BOSA	**Boshof**	**73.92**	**238**	*e*P	**P**	**03 31 54.4**	**+0.3**
	comp=Z,34nm,1.1s,mb5.2						
BOSA				LR	LR		
	comp=Z,191nm,22.0s,MS4.3						
OJC	**Ojcow**	**74.00**	**320**	*e*P	**P**	**03 31 53.7**	**-0.3**
VYHS	**Vyhne**	**74.38**	**318**	*i* P	**P**	**03 31 56.0**	**-0.3**
VYHS				*e*pP	pP	03 32 01.2	+1.1
SRO	**Srobarova**	**74.64**	**318**	*e*P	**P**	**03 31 58.2**	**+0.4**
OKC	**Ostrava-Krasne**	**75.00**	**320**	*e*P	**P**	**03 31 59.9**	**+0.1**
MORC	**Moravsky Berou**	**75.38**	**320**	*e*P	**P**	**03 32 01.2**	**-0.8**
MORC				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.1						
MORC	**Moravsky Berou**	**75.38**	**320**	*e*P	**P**	**03 32 01.2**	**-0.8**
	comp=Z,32nm,1.2s,mb5.1						
KEV	**Kevo**	**75.45**	**341**	*e*p	**P**	**03 31 58.9**	**-3.1**
	comp=Z,13nm,0.9s,mb4.9						
KEV	**Kevo**	**75.45**	**341**	*e*P	**P**	**03 31 58.9**	**-3.1**
KEV				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
ZST	**Bratislava**	**75.49**	**318**	*i* P	**P**	**03 32 02.8**	**+0.1**
ARCES	**ARCESS Array B**	**75.87**	**340**	P	**P**	**03 32 04.4**	**0.0**
	comp=Z,9.9nm,0.8s,mb4.8,baz=112,slow=6.5,SNR=14						

ARCES				LR	LR	04 09 08.2	
	comp=Z,751nm,20.6s,MS5.0,baz=33,slow=39						
VRAC	**Vranov**	75.94	319	P	P	03 32 05.3	+0.1
	comp=Z,2.5nm,0.9s,mb4.2,baz=93,slow=9.9,SNR=5.8						
DPC	**Dobruska-Polom**	76.23	320	*e*P	P	03 32 07.5	+0.7
KSP	**Ksiaz**	76.30	321	⇑*e*P	P	03 32 07.5	+0.3
KSP				*e*pP	pP	03 32 12.5	+1.4
KSP	**Ksiaz**	76.30	321	*e*P	P	03 32 07.7	+0.5
BOJS	**Bojanci**	76.52	315	*e*P	P	03 32 08.5	0.0
LJU	**Ljubljana**	77.06	316	*e*P	P	03 32 12.2	+0.7
MAW	**Mawson**	77.21	191	LR	LR	04 00 37.2	
	comp=Z,463nm,19.1s,MS4.8,baz=57,slow=31						
PRU	**Pruhonice**	77.33	320	*e*P	P	03 32 13.1	+0.1
VOY	**Vojsko**	77.50	316	*e*P	P	03 32 13.7	-0.3
BILL	**Bilibino**	77.57	22	*e*P	P	03 32 14.2	+0.3
BILL				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.7						
BILL				MLR	MLR		
	comp=Z,955nm,19.0s,MS5.1						
BILL	**Bilibino**	77.57	22	*e*P	P	03 32 14.2	+0.3
	comp=Z,13nm,1.3s,mb4.7						
BILL				LR	LR		
	comp=Z,955nm,19.0s,MS5.1						
ROBS	**Robic**	77.78	316	*e*P	P	03 32 15.2	-0.3
BRG	**Berggiesshubel**	77.78	320	⇑*i*P	P	03 32 15.8	+0.4
BRG				*e*	pP	03 32 21.1	+1.8
BRG				pmax	pmax		
	comp=Z,60nm,1.9s,mb5.2						
BRG	**Berggiesshubel**	77.78	320	⇑*i*P	P	03 32 15.8	+0.4
	comp=Z,60nm,1.9s,mb5.2						
BRG				*e*	pP	03 32 21.1	+1.8
GEC2	**GERESS Array S**	77.80	318	*e*P	P	03 32 16.2	+0.6
GEC2				pmax	pmax		
	comp=Z,116nm,1.8s,mb5.5						
GEC2	**GERESS Array S**	77.80	318	*e*P	P	03 32 16.2	+0.6
	comp=Z,116nm,1.8s,mb5.5						
GERES	**GERESS Array B**	77.80	318	P	P	03 32 16.0	+0.4
	comp=Z,12nm,0.8s,mb4.9,baz=90,slow=5.3,SNR=83						
PTCC	**Patocco-Chiusa**	77.89	316	*e*P	P	03 32 16.0	-0.1
KHC	**Kasperske Hory**	77.90	319	*e*P	P	03 32 16.2	+0.1
RUE	**Ruedersdorf**	78.01	322	*e*P	P	03 32 16.0	-0.6
	comp=Z,30nm,0.9s,mb5.2						
ARV	**Arcevia**	78.06	313	*e*P	P	03 32 17.5	+0.4
FVI	**Forni Avoltri**	78.30	316	*e*P	P	03 32 18.3	0.0
WET	**Wettzell**	78.36	319	*e*P	P	03 32 19.1	+0.5
CLL	**Collm**	78.41	321	⇑*i*P	P	03 32 18.7	-0.1
CLL				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
CLL	**Collm**	78.41	321	⇑*i*P	P	03 32 18.7	-0.1
	comp=Z,26nm,1.3s,mb5.0						
CLL	**Collm**	78.41	321	⇑P	P	03 32 18.7	-0.1
	comp=Z,logA/T=1.3,mb5.0						
NKC	**Novy Kostel**	78.69	320	*e*P	P	03 32 21.2	+0.8
HFS	**Hagfors**	78.76	330	P	P	03 32 20.0	-0.6
	comp=Z,7.1nm,0.8s,mb4.6,baz=153,slow=3.3,SNR=6.1						
HFS				LR	LR	04 11 35.3	
	comp=Z,626nm,19.7s,MS5.0,baz=267,slow=39						
SFI	**Santa Sofia**	78.87	313	*e*P	P	03 32 23.0	+1.5
PGD	**Poggio Sodo**	78.96	313	*e*P	P	03 32 23.2	+1.2
CTI	**Castel Tesino**	79.06	315	*e*P	P	03 32 23.0	+0.5
SEI	**Scarperia**	79.22	313	*e*P	P	03 32 24.3	+0.9
MOX	**Moxa**	79.25	320	*e*P	P	03 32 23.6	+0.1
MOX				pmax	pmax		
	comp=Z,34nm,1.6s,mb5.0						
MOX	**Moxa**	79.25	320	*i* P	P	03 32 23.6	+0.1
	comp=Z,logA/T=1.3,mb5.0						
MOX	**Moxa**	79.25	320	*e*P	P	03 32 23.6	+0.1
	comp=Z,34nm,1.6s,mb5.0						
FUR	**Furstenfeldbru**	79.38	318	*e*P	P	03 32 24.2	0.0
GRA1	**Grafenberg Arr**	79.46	319	*e*P	P	03 32 25.3	+0.7
	comp=Z,99nm,1.6s,mb5.5						
GRF	**Grafenberg Arr**	79.46	319	*e*P	P	03 32 25.3	+0.7
GRF				pmax	pmax		
	comp=Z,99nm,1.6s,mb5.5						
GRF	**Grafenberg Arr**	79.46	319	*e*P	P	03 32 25.3	+0.7
GRF				pmax	pmax		
	comp=Z,99nm,1.6s,mb5.5						
GRF	**Grafenberg Arr**	79.46	319	*e*P	P	03 32 25.3	+0.7
	comp=Z,99nm,1.6s,mb5.5						
ZCCA	**Zocca**	79.50	314	*e*P	P	03 32 27.1	+2.1
GSCL	**Gusciola**	79.78	314	*e*P	P	03 32 27.8	+1.3
BRMO	**Bormio**	79.95	316	*e*P	P	03 32 27.8	+0.4
NB2	**NORSAR Subarra**	80.06	331	P	P	03 32 26.9	-0.7
	comp=Z,2.1nm,0.7s,mb4.2,baz=98,slow=5.0						
NB2	**NORSAR Subarra**	80.06	331	P	P	03 32 26.9	-0.7
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
NOA	**NORSAR Array B**	80.06	331	P	P	03 32 27.1	-0.5
	comp=Z,4.4nm,0.9s,mb4.4,baz=95,slow=5.4,SNR=4.8						
NOA				LR	LR	04 12 47.1	
	comp=Z,427nm,18.8s,MS4.8,baz=90,slow=39						
CLZ	**Clausthal**	80.07	321	*e*P	P	03 32 28.3	+0.4
	comp=Z,59nm,1.6s,mb5.3						
BSEG	**Bad Segeberg**	80.17	323	*e*P	P	03 32 28.6	+0.2
DAVOX	**Davos**	80.30	316	P	P	03 32 29.9	+0.7
	comp=Z,24nm,0.9s,mb5.1,baz=87,slow=7.7						
PGF	**Pioggiola**	80.94	312	*e*P	P	03 32 32.3	-0.4
	comp=Z,209nm,1.7s,mb5.5						
PGF	**Pioggiola**	80.94	312	*e*P	P	03 32 32.3	-0.4
PGF				pmax	pmax		
	comp=Z,104nm,1.7s,mb5.5						
VAI	**Varese**	81.07	315	*e*P	P	03 32 33.1	-0.2
BFO	**Black Forest**	81.35	318	*e*P	P	03 32 34.8	+0.1
BFO				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.9						
BFO	**Black Forest**	81.35	318	*e*P	P	03 32 34.8	+0.1
	comp=Z,21nm,1.4s,mb4.9						
CDF	**Champ du Feu**	82.05	318	*e*P	P	03 32 38.1	-0.2
SBF	**Sospel**	82.06	313	*e*P	P	03 32 38.8	+0.3
LPG	**La Plagne**	82.49	315	*e*P	P	03 32 40.7	0.0
	comp=Z,84nm,1.3s,mb5.2						
LPG	**La Plagne**	82.49	315	*e*P	P	03 32 40.7	0.0
LPG				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.2						
MBDF	**Montbardon**	82.50	314	*e*P	P	03 32 40.2	-0.6
	comp=Z,40nm,1.2s,mb5.0						
MBDF	**Montbardon**	82.50	314	*e*P	P	03 32 40.2	-0.6
MBDF				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.0						
HAU	**Haudompre**	82.68	317	*e*P	P	03 32 41.6	0.0
HAU				*e*R			
	comp=Z,247nm,17.2s						
SYO	**Syowa Base**	83.99	197	⇓P	P	03 32 49.8	+2.0
BAIF	**Baives**	83.99	320	*e*P	P	03 32 48.2	-0.1
	comp=Z,74nm,1.4s,mb5.3						
BAIF	**Baives**	83.99	320	*e*P	P	03 32 48.2	-0.1
BAIF				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.3						
SSF	**Saint Saulge**	84.65	317	*e*P	P	03 32 51.9	+0.2
SSF				pmax	pmax		
	comp=Z,41nm,1.6s,mb5.3						
SSF	**Saint Saulge**	84.65	317	*e*P	P	03 32 51.9	+0.2
	comp=Z,41nm,1.6s,mb5.3						
BGF	**Bois d'Agland**	85.14	316	*e*P	P	03 32 54.2	+0.1
	comp=Z,60nm,1.2s,mb5.3						
BGF	**Bois d'Agland**	85.14	316	*e*P	P	03 32 54.2	+0.1
BGF				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.3						
RPZ	**Rata Peaks**	86.18	135	LR	LR	04 12 18.6	
	comp=Z,534nm,19.2s,MS5.0,baz=282,slow=36						
RJF	**Les Rejaudoux**	86.18	315	*e*P	P	03 33 00.2	+0.8
	comp=Z,33nm,1.1s,mb5.2						
RJF				*e*R			
	comp=Z,304nm,18.2s						
RJF	**Les Rejaudoux**	86.18	315	*e*P	P	03 33 00.2	+0.8
RJF				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.2						
RJF				MLR	MLR		
	comp=Z,300nm,18.3s,MS4.7						
FLN	**La Foliniere**	87.16	319	*e*P	P	03 33 04.0	0.0
	comp=Z,68nm,1.3s,mb5.4						
FLN				*e*R			
	comp=Z,375nm,17.5s						
FLN	**La Foliniere**	87.16	319	*e*P	P	03 33 04.0	0.0
FLN				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.4						
FLN				MLR	MLR		
	comp=Z,370nm,17.5s,MS4.8						
JMIC	**Jan Mayen**	87.33	341	LR	LR	04 12 36.8	
	comp=Z,372nm,20.9s,MS4.8,baz=279,slow=36						
EKA	**Eskdalemuir Ar**	87.90	325	P	P	03 33 08.3	+0.9
	comp=Z,8.6nm,0.8s,mb5.0,baz=98,slow=5.5,SNR=13						
ETSF	**Etsaut**	87.94	313	*e*P	P	03 33 08.1	+0.2
	comp=Z,18nm,0.9s,mb5.0						
ETSF	**Etsaut**	87.94	313	*e*P	P	03 33 08.1	+0.2
ETSF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.0						
URZ	**Urewera**	89.65	128	LR	LR	04 11 48.4	
	comp=Z,559nm,20.6s,MS5.0,baz=310,slow=34						
ESDC	**Sonseca Array**	90.95	310	P	P	03 33 23.3	+1.1
	comp=Z,5.2nm,0.8s,mb4.9,baz=58,slow=4.5,SNR=21						
VNDA	**Vanda**	92.11	168	LR	LR	04 10 35.4	
	comp=Z,662nm,18.2s,MS5.1,baz=295,slow=33						
IMA	**Indian Mountai**	93.11	22	*e*P	P	03 33 33.4	+1.9
IMA				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.9						
IMA	**Indian Mountai**	93.11	22	*e*P	P	03 33 33.4	+1.9
	comp=Z,58nm,1.1s,mb5.9						
ILAR	**Eielson Array**	96.23	22	P	P	03 33 45.5	-0.4
	comp=Z,1.1nm,0.9s,mb4.3,baz=299,slow=4.7,SNR=11						
ILAR				PP	PP	03 37 38.9	-2.7
	comp=Z,0.4nm,0.7s,baz=317,slow=6.2,SNR=4.2						
ILAR				LR	LR	04 24 49.4	
	comp=Z,296nm,18.6s,MS4.8,baz=101,slow=40						
DBIC	**Dimbokro**	96.83	278	P	P	03 33 51.5	+1.8
	comp=Z,6.0nm,1.2s,mb4.9,baz=48,slow=4.9,SNR=3.9						
INK	**Inuvik**	98.39	16	P	P	03 33 55.9	+0.4
	comp=Z,5.8nm,1.1s,mb5.0,baz=281,slow=1.6,SNR=9.6						
INK				LR	LR	04 24 53.5	
	comp=Z,500nm,18.9s,MS5.0,baz=94,slow=40						
YKA	**Yellowknife Ar**	107.78	13	PP	PP	03 39 00.8	-8.4
	comp=Z,0.7nm,0.9s,baz=333,slow=7.9,SNR=6.7						
ULM	**Lac du Bonnet**	122.71	7	PKP	PKPdf	03 39 14.8	-1.1
	comp=Z,2.8nm,0.9s,baz=308,slow=0.8,SNR=4.3						
MCMT	**McKenzie Canyo**	123.67	22	*e*PKPdf	PKPdf	03 39 16.8	-1.2
LAO	**LASA Array**	124.13	16	*e*PKPdf	PKPdf	03 39 17.3	-1.6
HLID	**Hailey**	124.14	24	PKPdf	PKPdf	03 39 17.8	-1.2
YMR	**Madison River**	124.48	20	*e*PKPdf	PKPdf	03 39 19.6	-0.1
SNOW	**Snow King Moun**	125.61	21	*e*PKPdf	PKPdf	03 39 21.9	0.0
REDW	**Red Top Meadow**	125.66	21	*e*PKPdf	PKPdf	03 39 21.1	-0.9
NVAR	**Mina Array Bea**	126.51	30	PKP	PKPdf	03 39 22.9	-0.7
	comp=Z,2.7nm,0.8s,baz=276,slow=1.4,SNR=10						
PDAR	**Pinedale Array**	126.64	20	PKP	PKPdf	03 39 22.9	-0.9
	comp=Z,5.5nm,1.0s,baz=83,slow=0.6,SNR=25						
MVU	**Marysvale**	129.28	25	*e*PKPdf	PKPdf	03 39 28.7	-0.3
MSU	**Marysvale**	129.29	25	*e*PKIKP	PKPdf	03 39 29.3	+0.2
PV10	**Paradox Valley**	130.68	23	*e*PKP	PKPdf	03 39 29.9	-1.8
ANMO	**Albuquerque**	134.67	22	PKP	PKPdf	03 39 39.4	+0.1
	comp=Z,4.8nm,0.9s,baz=237,slow=1.0,SNR=15						
ANMO				SKPbc		03 43 09.7	
	comp=Z,3.2nm,1.1s,baz=298,slow=4.3,SNR=4.9						
BDFB	**Brasilia**	140.68	254	PKP	PKPdf	03 39 49.2	-1.7
	comp=Z,2.5nm,1.0s,baz=253,slow=10,SNR=3.4						
TXAR	**Lajitas Array**	140.74	23	PKP	PKPdf	03 39 50.0	-0.6
	comp=Z,2.6nm,0.9s,baz=270,slow=1.0,SNR=18						
TXAR				SKPbc		03 43 27.8	
	comp=Z,1.1nm,1.0s,baz=243,slow=2.8,SNR=4.3						
JCT	**Junction City**	141.02	18	PKIKP	PKPdf	03 39 44.7	-6.4
LVC	**Limon Verde**	156.41	226	PKPab	PKPab	03 40 44.5	+1.5
	comp=Z,7.1nm,1.0s,baz=307,slow=12,SNR=3.5						
SDV	**Santo Domingo**	157.36	313	PKP	PKPdf	03 40 16.1	-0.8
	comp=Z,6.4nm,1.0s,baz=328,slow=3.1,SNR=4.8						
SDV				PKPab	PKPab	03 40 46.6	-0.7
	comp=Z,1.3nm,0.4s,baz=244,slow=6.2,SNR=3.6						
SDV	**Santo Domingo**	157.36	313	*e*PKPdf	PKPdf	03 40 15.4	-1.4
LPAZ	**La Paz**	159.13	241	PKP	PKPdf	03 40 18.7	-0.2
	comp=Z,2.7nm,1.1s,baz=21,slow=9.7,SNR=5.7						
LPAZ				PKPab	PKPab	03 40 56.2	+1.4
	comp=Z,3.9nm,1.1s,baz=98,slow=7.8,SNR=4.3						
ROSC	**El Rosal**	162.77	312	PKP	PKPdf	03 40 21.3	-1.5
	comp=Z,6.4nm,1.1s,baz=254,slow=23,SNR=4.5						
OTAV	**Otavalo**	168.88	308	*e*PKPdf	PKPdf	03 40 27.7	-0.1

IDC ***28*** *03:25:24.3±1.4, 3.07N×96.06E, mb4.2/8, mb1 4.3/8, mb1mx4.0/18, mbtmp4.2/8, Error ellipse: s-maj=66.0km s-min=21.9km az=53.0*

ISC 28 03:25:28.0±1.2**, 3.2N**±0.3×**96.2E**±0.3**, h33^{km}, n8, σ0^{s}.50**/8**, mb4.2**/8**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	43.91	123	P	P	03 33 33.6	0.0
	1.3nm,0.5s,mb3.9,baz=300,slow=9.2,SNR=5.0						
SONM	**Songino Array**	45.33	10	P	P	03 33 45.4	+0.6
	3.3nm,0.7s,mb4.3,baz=190,slow=8.9,SNR=12						
SONM				PcP	PcP	03 35 25.0	+0.5
	0.5nm,0.6s,baz=210,slow=3.6,SNR=3.0						
ASAR	**Alice Springs**	45.36	128	P	P	03 33 45.1	-0.1
	0.7nm,0.5s,mb3.8,baz=297,slow=7.8,SNR=4.0						
ZAL	**Zalesovo**	51.45	351	P	P	03 34 31.8	-0.3
	2.5nm,0.5s,mb4.4,baz=306,slow=5.3,SNR=6.8						
BVAR	**Borovoye Array**	54.07	341	P	P	03 34 50.7	-0.9
	1.8nm,0.5s,mb4.2,baz=141,slow=9.7,SNR=8.7						
FINES	**FINESS Array B**	77.81	332	P	P	03 37 23.2	-0.2
	1.6nm,0.7s,mb4.1,baz=90,slow=3.8,SNR=4.6						
ARCES	**ARCESS Array B**	80.36	340	P	P	03 37 37.5	+0.3
	2.4nm,0.9s,mb4.2,baz=76,slow=5.0,SNR=4.3						
DAVOX	**Davos**	85.20	317	P	P	03 38 03.1	+0.7
	1.2nm,0.5s,mb4.3,baz=171,slow=6.0,SNR=6.4						

IDC ***28*** *03:29:49.5±1.6, 20.95S×178.66W, h562^{km}±16^{km}, mb3.6/10, mb1 3.8/10, mb1mx3.6/16, mbtmp4.5/10, Error ellipse: s-maj=22.6km s-min=11.0km az=155.0*

ISC 28 03:29:46.3±2.6**, 21.02S**±0.10×**178.7W**±0.1**, h536**^{km}±31^{km}**, n21, σ1^{s}.12**/16**, mb4.0**/10**, 2C, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	17.57	191	P	P	03 33 18.9	-1.8
	4.5nm,0.3s,baz=311,slow=1.2,SNR=20						
URZ				S	S	03 36 13.8	0.0
	0.3nm,0.3s,baz=202,slow=19,SNR=2.4						
CTA	**Charters Tower**	32.81	265	P	P	03 35 38.0	+1.1
	6.8nm,0.4s,mb4.6,baz=93,slow=11,SNR=23						
ASAR	**Alice Springs**	43.79	257	P	P	03 37 06.3	+0.3
	5.2nm,0.5s,mb4.3,baz=92,slow=8.1,SNR=56						
ASAR				S	S	03 42 55.9	-2.4
	2.0nm,0.8s,baz=92,slow=16,SNR=15						
WRA	**Warramunga Arr**	43.91	263	P	P	03 37 06.8	-0.2
	2.4nm,0.3s,mb4.2,baz=97,slow=7.5,SNR=48						
WRA				S	S	03 42 58.9	-1.1
	1.5nm,1.0s,baz=98,slow=13,SNR=4.0						
VNDA	**Vanda**	57.34	185	P	P	03 38 44.6	0.0
	3.4nm,0.7s,mb3.7,baz=1.0,slow=7.9,SNR=9.9						
ASAJ	**Asahikawa**	73.88	332	P	P	03 40 28.6	+0.8
	7.5nm,0.5s,mb4.4,baz=90,slow=1.0,SNR=4.6						
YBH	**Yreka Blue Hor**	81.09	39	P	P	03 41 06.7	+0.1
	3.5nm,0.8s,mb3.9,baz=252,slow=3.2,SNR=8.8						
NVAR	**Mina Array Bea**	81.83	44	P	P	03 41 10.1	-0.3
	0.7nm,0.5s,mb3.4,baz=229,slow=9.6,SNR=3.4						
VNA3	**Neumayer Olymp**	87.67	176	⇑*i*	P	03 41 39.1	+1.1
VNA2	**Neumayer--Watz**	88.10	177	⇑*i*	P	03 41 41.7	+1.6
ILAR	**Eielson Array**	88.96	13	P	P	03 41 42.3	-1.9
	1.5nm,0.8s,mb3.9,baz=225,slow=5.4,SNR=19						
CMAR	**Chiang Mai Arr**	89.69	290	P	P	03 41 50.2	+1.5
	8.9nm,1.2s,mb4.5,baz=134,slow=3.6,SNR=12						
PDAR	**Pinedale Array**	89.77	43	P	P	03 41 47.4	-1.1
	1.0nm,0.7s,mb3.8,baz=180,slow=1.5,SNR=3.8						
ARCES	**ARCESS Array B**	129.31	349	PKP	PKPdf	03 47 52.7	-0.4
	2.7nm,0.8s,baz=30,slow=2.0,SNR=8.3						
ARCES				SKPbc		03 50 24.7	
	5.7nm,0.9s,baz=304,slow=4.4,SNR=3.8						
FINES	**FINESS Array B**	136.09	343	PKP	PKPdf	03 48 06.6	+0.7
	0.8nm,0.6s,baz=63,slow=4.3,SNR=3.7						
FINES				SKPbc		03 50 46.0	
	2.3nm,0.7s,baz=63,slow=4.3,SNR=9.8						
AKASG	**Malin Array Be**	143.15	330	PKhKP		03 48 16.0	
	4.4nm,0.4s,baz=40,slow=4.2,SNR=5.6						
AKASG				SKPbc		03 51 05.0	
	0.2nm,0.3s,baz=39,slow=1.7,SNR=5.5						
BRTR	**Keskin Array B**	146.71	311	PKPbc	PKPbc	03 48 28.0	+0.8
	1.3nm,0.6s,baz=145,slow=4.6,SNR=11						
BRTR				SKPbc		03 51 14.1	
	1.8nm,1.2s,slow=4.9,SNR=3.9						
CLL	**Collm**	148.41	346	P	PKPdf	03 48 31.8	+4.3
	logA/T=0.9						
CLL				*i* *PP		03 48 37.3	
KHC	**Kasperske Hory**	150.29	344	*e*P	PKPdf	03 48 37.0	+6.5
KHC				*e*x	x	03 48 46.5	
GERES	**GERESS Array B**	150.52	343	PKPbc	PKPdf	03 48 36.9	+6.0
	1.7nm,0.8s,baz=27,slow=3.0,SNR=13						
GERES				PKPab	PKPab	03 48 46.7	-1.5
	0.3nm,0.7s,baz=346,slow=5.5,SNR=4.0						
DAVOX	**Davos**	153.37	347	PKPbc	PKPdf	03 48 43.8	+8.8
	1.2nm,0.5s,baz=233,slow=5.1,SNR=5.1						

IDC 28 03:30:30.2±2.4**, 11.12S**×**163.72E, mb3.9**/5**, mb1 4.1**/6**, mb1mx4.0**/15**, mbtmp3.9**/6**, ML3.8**/1**, Error ellipse: s-maj=96.9km s-min=24.9km az=136.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	19.02	240	P	P	03 34 54.0	-2.2
	0.2nm,0.3s,baz=70,slow=13,SNR=6.5						
WRA	**Warramunga Arr**	29.59	249	P	P	03 36 37.5	-2.0
	2.6nm,1.0s,baz=77,slow=8.9,SNR=5.5						
ASAR	**Alice Springs**	30.99	242	P	P	03 36 49.1	-2.6
	1.3nm,0.7s,baz=65,slow=9.8,SNR=12						
SONM	**Songino Array**	77.56	324	P	P	03 42 29.2	-0.6
	0.7nm,0.6s,baz=141,slow=4.9,SNR=5.7						
ILAR	**Eielson Array**	84.22	19	P	P	03 43 03.8	-0.8
	0.3nm,0.5s,baz=245,slow=5.1,SNR=6.2						
YKA	**Yellowknife Ar**	95.95	28	P	P	03 43 57.0	-3.0
	0.4nm,1.0s,baz=267,slow=4.5,SNR=3.9						

IDC 28 03:37:59.5±6.1**, 4.56N**×**93.24E, mb3.6**/3**, mb1 3.9**/4**, mb1mx3.7**/18**, mbtmp3.7**/4**, Error ellipse: s-maj=181.1km s-min=31.0km az=74.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.89	22	Pn	P	03 41 31.6	-1.8
	baz=213,slow=12,SNR=6.2						
SONM	**Songino Array**	44.57	13	P	P	03 46 13.3	-1.8
	0.3nm,0.5s,baz=198,slow=7.8,SNR=3.8						
WRA	**Warramunga Arr**	47.16	123	P	P	03 46 33.8	-2.2
	0.4nm,0.4s,baz=302,slow=9.1,SNR=7.3						
ASAR	**Alice Springs**	48.56	127	P	P	03 46 45.2	-1.7
	0.5nm,0.6s,baz=296,slow=8.0,SNR=6.4						

MEX 28 03:41:57.6±0.6**, 15.85N**×**96.27W, h37**^{km}±9^{km}**, MD3.6, Near coast of Oaxaca**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
HUIG	**Huatulco**	0.18	116	*e*P	P	03 42 02.9	-1.4
HUIG				*e*S	S	03 42 07.5	-1.4
VHO	**Vista Hermosa**	1.30	340	*e*P	P	03 42 17.7	-1.8
VHO				*e*S	S	03 42 33.5	-2.5
CMIG	**Matias Romero**	1.82	47	*e*P	P	03 42 25.4	-1.6
CMIG				*e*S	S	03 42 45.8	-3.2

IDC 28 03:42:18.7±1.4**, 6.65N**×**92.30E, mb3.8**/6**, mb1 4.1**/7**, mb1mx3.9**/19**, mbtmp3.9**/7**, ML4.5**/1**, Error ellipse: s-maj=50.6km s-min=20.9km az=58.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	13.40	28	Pn	P	03 45 31.5	-1.4
	0.7nm,0.3s,baz=226,slow=14,SNR=20						
SONM	**Songino Array**	42.77	14	P	P	03 50 17.6	-2.0
	1.6nm,1.0s,baz=194,slow=10,SNR=7.5						
ZAL	**Zalesovo**	47.54	354	P	P	03 50 55.2	-2.5
	0.8nm,0.3s,baz=258,slow=3.4,SNR=4.3						
WRA	**Warramunga Arr**	49.08	124	P	P	03 51 08.1	-2.1
	1.7nm,0.8s,baz=303,slow=8.9,SNR=9.0						
BVAR	**Borovoye Array**	49.58	343	P	P	03 51 11.9	-1.7
	0.5nm,0.6s,baz=180,slow=10,SNR=3.6						
ASAR	**Alice Springs**	50.57	128	P	P	03 51 19.6	-1.9
	1.9nm,0.9s,baz=306,slow=6.9,SNR=11						
GERES	**GERESS Array B**	77.52	318	P	P	03 54 16.7	-1.4
	0.4nm,0.6s,baz=90,slow=7.8,SNR=3.3						

IDC ***28*** *03:44:40.0±1.3, 2.24N×92.57E, mb4.0/6, mb1 4.3/7, mb1mx3.9/18, mbtmp4.0/7, ML4.1/1, Error ellipse: s-maj=49.9km s-min=22.7km az=54.0*

ISC 28 03:44:43.8±1.1**, 2.3N**±0.2×**92.7E**±0.2**, h33^{km}, n9, σ0^{s}.61**/8**, mb4.0**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	17.15	20	P	P	03 48 42.6	0.0
	0.2nm,0.3s,baz=216,slow=13,SNR=4.6						
POO	**Poona**	24.53	312	*e*P	P	03 50 15.0	+13
WRA	**Warramunga Arr**	46.44	120	P	P	03 53 09.7	0.0
	1.5nm,0.5s,mb4.2,baz=298,slow=8.6,SNR=7.6						
SONM	**Songino Array**	46.85	13	P	P	03 53 13.3	+0.8
	1.0nm,0.7s,mb3.9,baz=198,slow=6.9,SNR=7.2						
ASAR	**Alice Springs**	47.66	125	P	P	03 53 19.2	-0.1
	0.5nm,0.7s,mb3.6,baz=296,slow=7.3,SNR=3.3						
ZAL	**Zalesovo**	51.85	354	P	P	03 53 49.8	-1.2
	2.9nm,0.3s,mb4.7,baz=229,slow=3.5,SNR=4.6						
GERES	**GERESS Array B**	81.03	319	P	P	03 56 56.7	-0.3
	0.6nm,0.7s,mb3.6,baz=104,slow=5.5,SNR=5.8						
DAVOX	**Davos**	83.41	317	P	P	03 57 10.0	+0.7
	1.2nm,0.5s,mb4.2,baz=347,slow=8.7,SNR=3.5						
TXAR	**Lajitas Array**	144.82	25	PKP	PKPdf	04 04 19.1	+0.9
	0.4nm,0.7s,baz=328,slow=0.8,SNR=6.4						

IDC ***28*** *03:48:42.9±0.6, 4.16N×93.25E, mb4.3/17, mb1 4.4/18, mb1mx4.3/23, mbtmp4.2/18, ML4.6/1, Error ellipse: s-maj=27.7km s-min=15.5km az=45.0*

ISC 28 03:48:46.1±0.6**, 4.16N**±0.09×**93.4E**±0.1**, h33^{km}, n29, σ0^{s}.75**/25**, mb4.4**/23**, 1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	15.22	21	Pn	P	03 52 19.8	-0.7
	0.9nm,0.3s,baz=212,slow=14,SNR=4.2						
SHL	**Shillong**	21.33	356	⇓*e*P	P	03 53 31.0	-1.6
PKI	**Pulchoki**	24.48	343	*e*P	P	03 54 04.4	+0.7
	36nm,1.2s,mb4.7						
DMN	**Daman**	24.61	342	*e*P	P	03 54 06.2	+1.3
	18nm,0.9s,mb4.6						
GUN	**Gumba**	24.67	344	*e*P	P	03 54 06.0	+0.5
	50nm,1.1s,mb5.0						
KKN	**Kakani**	24.73	343	*e*P	P	03 54 06.4	+0.4
	26nm,0.9s,mb4.8						
GKN	**Gorkha**	25.12	342	*e*P	P	03 54 10.1	+0.3
	62nm,1.0s,mb5.1						
KOLN	**Koldanda**	25.25	339	*e*P	P	03 54 11.5	+0.5
	46nm,1.2s,mb4.9						
SONM	**Songino Array**	44.93	12	P	P	03 56 59.8	+0.1
	0.8nm,0.6s,mb3.8,baz=196,slow=8.8,SNR=5.0						
SONM				PcP	PcP	03 58 41.9	+0.7
	1.4nm,0.6s,baz=190,slow=4.0,SNR=9.2						
WRA	**Warramunga Arr**	46.85	122	P	P	03 57 15.5	+0.3
	5.1nm,0.8s,mb4.5,baz=301,slow=9.0,SNR=9.7						
ASAR	**Alice Springs**	48.23	127	P	P	03 57 25.5	-0.5
	1.1nm,0.8s,mb3.9,baz=297,slow=7.6,SNR=7.3						
ASAR				PcP	PcP	03 58 53.6	+0.4
	1.7nm,0.8s,baz=312,slow=3.2,SNR=8.9						
ZAL	**Zalesovo**	50.11	353	P	P	03 57 40.1	0.0
	5.0nm,0.5s,mb4.8,baz=298,slow=4.3,SNR=16						
BVAR	**Borovoye Array**	52.26	343	P	P	03 57 55.6	-0.6
	8.2nm,0.9s,mb4.7,baz=143,slow=7.4,SNR=17						
KMBO	**Kilima Mbogo**	56.31	266	P	P	03 58 26.2	-0.4
	1.5nm,0.9s,mb4.0,baz=235,slow=23,SNR=4.3						
CTA	**Charters Tower**	57.25	117	P	P	03 58 33.5	+0.4
	1.1nm,0.5s,mb4.1,baz=267,slow=11,SNR=4.1						
BRTR	**Keskin Array B**	64.30	312	P	P	03 59 19.8	-0.9
	2.5nm,0.7s,mb4.3,baz=134,slow=7.9,SNR=16						
AKASG	**Malin Array Be**	70.59	323	P	P	03 59 57.9	-2.1
	0.5nm,0.5s,mb3.7,baz=90,slow=4.8,SNR=5.2						
MLR	**Muntele Rosu**	71.30	317	P	P	04 00 04.8	+0.4
	7.6nm,0.8s,mb4.7,baz=163,slow=4.5,SNR=13						
FINES	**FINESS Array B**	75.62	333	P	P	04 00 28.6	-0.8
	4.3nm,1.1s,mb4.3,baz=90,slow=9.5,SNR=5.8						
ARCES	**ARCESS Array B**	78.48	341	P	P	04 00 45.1	-0.1
	4.0nm,1.0s,mb4.3,baz=72,slow=3.8,SNR=5.5						
GERES	**GERESS Array B**	80.07	319	P	P	04 00 54.8	+0.5
	3.0nm,0.7s,mb4.4,baz=90,slow=5.3,SNR=25						
KHC	**Kasperske Hory**	80.18	319	*e*x	x	04 00 02.5	
KHC				*e*P		04 00 55.0	
HFS	**Hagfors**	81.26	330	P	P	04 00 60.0	-0.3
	1.4nm,0.7s,mb4.0,baz=121,slow=8.6,SNR=5.0						
DAVOX	**Davos**	82.52	316	P	P	04 01 07.8	+0.7
	8.8nm,0.6s,mb5.0,baz=130,slow=5.7,SNR=35						
ESDC	**Sonseca Array**	93.00	310	P	P	04 01 58.4	+0.6
	0.4nm,0.6s,mb4.0,baz=65,slow=4.3,SNR=3.9						
ILAR	**Eielson Array**	98.45	22	P	P	04 02 22.8	+0.8
	0.1nm,0.6s,mb3.5,baz=312,slow=5.3,SNR=4.5						
PDAR	**Pinedale Array**	128.88	22	PKP	PKPdf	04 07 54.1	+3.2
	0.4nm,0.8s,slow=1.8,SNR=3.3						
TXAR	**Lajitas Array**	142.90	25	PKhKP		04 08 16.3	
	0.7nm,0.9s,baz=13,slow=2.4,SNR=5.3						
LPAZ	**La Paz**	158.19	235	PKPab	PKPab	04 09 16.8	-0.1
	1.5nm,0.9s,baz=86,slow=4.0,SNR=4.4						

BJI ***28*** *03:52:57.0,2.46N×95.56E,h42^{km},mB5.3,mb5.2,Ms4.8,Msz4.6*

MOS ***28*** *03:52:58.4±1.0,2.80N×95.54E,h33^{km},mb5.2/22,Error ellipse: s-maj=16.8km s-min=10.6km az=101.0*

NEIC ***28*** *03:52:59.2±0.5,2.81N×95.51E,mb5.0/18,Error ellipse: s-maj=14.8km s-min=11.7km az=120.0*

IDC ***28*** *03:52:59.3±0.5,2.86N×95.57E,h23^{km}±2^{km},mb4.4/17,mb1 4.5/18,mb1mx4.5/21,mbtmp4.5/18,ML5.0/1,MS4.0/4,Ms1 4.1/4,ms1mx3.5/29,Error ellipse: s-maj=20.8km s-min=10.1km az=43.0*

ISC 28 03:52:57.3±0.4,**2.77N**±0.06×**95.58E**±0.05,**h25^{km},h25^{km}**±.5^{km}**:pP-P,n117,**σ**0^{s}95**/103,**mb4.9**/58,**MS4.5**/8,**11C-3D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**6.66**	**49**	P	**Pn**	**03 54 37.0**	**+0.7**
	542nm,1.0s						
CM31	**Chiang Mai Arr**	**15.93**	**12**	*e*P	**P**	**03 56 41.7**	**-0.1**
	151nm,0.9s						
CMAR	**Chiang Mai Arr**	**15.93**	**12**	Pn	**P**	**03 56 42.1**	**+0.3**
	2.0nm,0.3s,baz=201,slow=11,SNR=105						
CMAR				LR	LR	04 03 09.7	
	comp=Z,494nm,18.1s,baz=200,slow=38						
CHG	**Chiang Mai**	**16.28**	**11**	⇓P	**P**	**03 56 45.7**	**-0.5**
	12nm,0.8s						
NANT	**Nan**	**16.70**	**17**	P	**P**	**03 56 52.0**	**+0.4**
QIZ	**Qiongzhong**	**21.35**	**40**	P	**P**	**03 57 45.0**	**-0.2**
SHL	**Shillong**	**22.94**	**351**	*e*S	**P**	**03 57 57.0**	**-4.0**
KMI	**Kunming**	**23.27**	**17**	P	**P**	**03 58 06.8**	**+2.6**
KMI				AP		03 58 13.0	
KMI				AMB	AMB		
	comp=Z,42nm,0.9s,mb4.9						
KMI				AMB	AMB		
	comp=Z,366nm,6.4s						
POO	**Poona**	**26.42**	**308**	*e*	**P**	**03 58 40.0**	**+5.7**
PKI	**Pulchoki**	**26.51**	**339**	*e*P	**P**	**03 58 35.1**	**+0.1**
	comp=Z,71nm,0.9s,mb5.2						
GZH	**Guangzhou**	**26.54**	**39**	P	**P**	**03 58 33.5**	**-1.8**
GZH				LR	LR		
	comp=N,617nm,16.5s,MS4.5						
GZH				LR	LR		
	comp=E,771nm,13.1s,MS4.5						
GZH				LR	LR		
	comp=Z,1μm,15.9s,MS4.5						
DMN	**Daman**	**26.65**	**339**	*e*P	**P**	**03 58 37.3**	**+1.0**
	comp=Z,42nm,0.7s,mb5.1						
GUN	**Gumba**	**26.66**	**341**	*e*P	**P**	**03 58 36.3**	**-0.1**
	comp=Z,85nm,0.6s,mb5.5						
KKN	**Kakani**	**26.75**	**339**	*e*P	**P**	**03 58 37.1**	**-0.1**
	comp=Z,87nm,0.8s,mb5.3						
GKN	**Gorkha**	**27.18**	**338**	*e*P	**P**	**03 58 41.0**	**-0.1**
	comp=Z,138nm,1.0s,mb5.5						
KOLN	**Koldanda**	**27.37**	**336**	*e*P	**P**	**03 58 42.7**	**-0.1**
	comp=Z,67nm,0.7s,mb5.3						
CD2	**Chengdu**	**29.04**	**15**	P	**P**	**03 58 57.0**	**-0.9**
CD2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.3						
ENH	**Enshi**	**30.36**	**24**	⇑*e*P	**P**	**03 59 08.2**	**-1.5**
	comp=Z,36nm,0.6s,mb5.3						
WHN	**Wuhan**	**32.84**	**31**	⇑P	**P**	**03 59 31.5**	**+0.1**
WHN				AP	pP	03 59 38.8	+0.1
XAN	**Xi'an**	**33.51**	**20**	P	**P**	**03 59 36.0**	**-1.2**
XAN				AMB	AMB		
	comp=Z,102nm,0.7s,mb5.9						
LZH	**Lanzhou**	**34.02**	**12**	⇑P	**P**	**03 59 40.8**	**-0.8**
LZH				AMB	AMB		
	comp=Z,56nm,1.5s,mb5.3						
NJ2	**Nanjing**	**36.44**	**34**	*e*P	**P**	**03 59 58.0**	**-4.2**
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,1μm,6.8s						
NJ2				LR	LR		
	comp=N,5μm,14.4s,MS5.5						
NJ2				LR	LR		
	comp=E,6μm,18.4s,MS5.5						
NJ2				LR	LR		
	comp=Z,8μm,18.2s,MS5.6						
GTA	**Gaotai**	**36.67**	**6**	*e*P	**P**	**04 00 03.5**	**-0.6**
GTA				AMB	AMB		
	comp=Z,27nm,0.8s,mb5.1						
GTA				AMB	AMB		
	comp=Z,172nm,5.7s						
GTA				LR	LR		
	comp=N,344nm,12.2s						
GTA				LR	LR		
	comp=E,320nm,22.4s						
GTA				LR	LR		
	comp=Z,361nm,14.8s,MS4.3						
JOW	**Kunigami**	**39.41**	**49**	P	**P**	**04 00 28.1**	**+0.9**
	comp=Z,23nm,0.6s,mb5.1,baz=233,slow=18,SNR=4.9						
BTO	**Baotou**	**39.86**	**17**	*e*P	**P**	**04 00 30.3**	**-0.5**
HHC	**Hu-ho-hao-te**	**40.56**	**19**	*e*P	**P**	**04 00 38.3**	**+1.7**
HHC				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.0						
HHC				AMB	AMB		
	comp=Z,222nm,4.9s						
HHC				LR	LR		
	comp=N,991nm,15.5s,MS4.8						
HHC				LR	LR		
	comp=E,773nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=Z,831nm,16.7s,MS4.7						
WMQ	**Urumqi**	**41.47**	**351**	P	**P**	**04 00 44.5**	**+0.5**
WMQ				AMB	AMB		
	comp=Z,42nm,1.0s,mb5.0						
BJT	**Baijiatuau**	**41.51**	**24**	*e*P	**P**	**04 00 45.6**	**+1.2**
BJT				*e**PP	pP	04 00 52.7	+0.9
BJT				pmax	pmax		
	comp=Z,64nm,0.8s						
BJT	**Baijiatuau**	**41.51**	**24**	*e*P	**P**	**04 00 45.6**	**+1.2**
	comp=Z,64nm,0.8s,mb5.3						
BJT				*e*pP	pP	04 00 52.7	+0.9
DL2	**Dalian**	**43.10**	**30**	P	**P**	**04 00 59.0**	**+1.6**
DL2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.3						
UCH	**Uchtor**	**43.58**	**337**	P	**P**	**04 01 02.4**	**+1.2**
	SNR=16						
TKM2	**Tokmak 2**	**43.77**	**339**	P	**P**	**04 01 03.6**	**+0.9**
	SNR=7.8						
KBK	**Karagaybulak**	**43.78**	**338**	P	**P**	**04 01 04.2**	**+1.3**
	SNR=8.8						
AML	**Almayashu**	**43.81**	**336**	P	**P**	**04 01 04.5**	**+1.3**
	SNR=11						
AAK	**Ala-Archa**	**43.93**	**338**	P	**P**	**04 01 06.3**	**+2.2**
	SNR=6.0						
AAK	**Ala-Archa**	**43.93**	**338**	*e*P	**P**	**04 01 04.0**	**-0.1**
AAK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
AAK	**Ala-Archa**	**43.93**	**338**	*e*P	**P**	**04 01 04.0**	**-0.1**
	comp=Z,7.1nm,0.7s,mb4.5						
FRU	**Bishkek**	**44.05**	**338**	*e*P	**P**	**04 01 08.0**	**+2.9**
FRU				*e*		04 01 27.0	
EKS2	**Erkin-Say**	**44.23**	**337**	P	**P**	**04 01 08.0**	**+1.4**
	SNR=8.9						
WRA	**Warramunga Arr**	**44.24**	**122**	P	**P**	**04 01 07.2**	**+0.2**
	comp=Z,7.0nm,0.6s,mb4.5,baz=299,slow=9.3,SNR=26						
WRA				pP	pP	04 01 15.3	+1.0
	comp=Z,8.8nm,0.7s,baz=300,slow=9.1,SNR=18						
WRAB	**Tennant Creek**	**44.24**	**122**	*e*P	**P**	**04 01 07.3**	**+0.3**
WRAB				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.0						
WRAB	**Tennant Creek**	**44.24**	**122**	*e*P	**P**	**04 01 07.3**	**+0.3**
	comp=Z,22nm,0.7s,mb5.0						
USP	**Ospenovka**	**44.47**	**338**	P	**P**	**04 01 08.9**	**+0.4**
	SNR=26						
MKAR	**Makanchi Array**	**45.35**	**347**	*i* P	**P**	**04 01 15.4**	**0.0**
MKAR				pmax	pmax		
	comp=Z,34nm,0.6s						
ASAR	**Alice Springs**	**45.63**	**127**	P	**P**	**04 01 18.2**	**+0.3**
	comp=Z,3.8nm,0.7s,mb4.4,baz=299,slow=7.9,SNR=32						
ASAR				pP	pP	04 01 25.2	-0.2
	comp=Z,4.1nm,0.8s,baz=305,slow=7.4,SNR=14						
ASAR				PcP	PcP	04 02 56.7	+0.2
	comp=Z,2.5nm,1.0s,baz=292,slow=4.9,SNR=3.2						
ASAR				pPcP		04 03 04.3	
	comp=Z,2.5nm,0.9s,baz=300,slow=3.3,SNR=6.2						
ASAR				LR	LR	04 23 27.6	
	comp=Z,153nm,18.6s,MS4.0,baz=163,slow=40						
SONM	**Songino Array**	**45.85**	**10**	P	**P**	**04 01 19.5**	**+0.1**
	comp=Z,19nm,0.8s,mb5.1,baz=191,slow=8.9,SNR=110						
SONM				PcP	PcP	04 02 56.7	-0.2
	comp=Z,3.1nm,0.6s,baz=192,slow=3.9,SNR=6.0						
SONM				pPcP		04 03 04.6	
	comp=Z,2.6nm,0.8s,baz=196,slow=4.2,SNR=4.3						
ULN	**Ulaanbaatar**	**46.00**	**11**	⇑*e*P	**P**	**04 01 20.2**	**-0.4**
ULN				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
ULN	**Ulaanbaatar**	**46.00**	**11**	⇑*e*P	**P**	**04 01 20.2**	**-0.4**
	comp=Z,11nm,0.8s,mb4.8						
SNY	**Shenyang**	**46.29**	**29**	⇓P	**P**	**04 01 23.5**	**+0.6**
SNY				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.4						
CN2	**Changchun**	**48.68**	**29**	⇑P	**P**	**04 01 41.3**	**-0.3**
CN2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
CBIJ	**Chichi jima**	**50.69**	**57**	LR	LR	04 21 27.6	
	comp=Z,101nm,19.8s,MS3.8,baz=135,slow=34						
HIA	**Hailar**	**50.71**	**20**	*e*P	**P**	**04 01 57.0**	**-0.1**
HIA				pmax	pmax		
	comp=Z,12nm,0.7s						
HIA	**Hailar**	**50.71**	**20**	*e*P	**P**	**04 01 57.0**	**-0.2**
	comp=Z,12nm,0.7s,mb5.0						
MDJ	**Mudanjiang**	**51.32**	**31**	P	**P**	**04 02 03.2**	**+1.3**
	comp=Z,21nm,0.9s,mb5.1						
MAT	**Matsushiro**	**51.66**	**44**	P	**P**	**04 02 05.2**	**+0.7**
MAT	**Matsushiro**	**51.66**	**44**	P	**P**	**04 02 05.0**	**+0.5**
ZAL	**Zalesovo**	**51.76**	**352**	*i* P	**P**	**04 02 04.5**	**-0.6**
ZAL				pmax	pmax		
	comp=Z,31nm,0.7s						
ZAL	**Zalesovo**	**51.76**	**352**	P	**P**	**04 02 04.5**	**-0.6**
	comp=Z,31nm,0.7s,mb5.4,baz=305,slow=5.8,SNR=131						
PMG	**Port Moresby**	**52.80**	**104**	P	**P**	**04 02 13.2**	**-0.2**
	comp=Z,18nm,1.0s,mb5.0,baz=258,slow=8.2,SNR=5.9						
NVS	**Novosibirsk**	**52.87**	**351**	*e*P	**P**	**04 02 11.6**	**-1.8**
NVS				*e*S	**S**	**04 09 39.1**	**+0.1**
NVS				pmax	pmax		
	comp=N,38nm,0.8s						
NVS				pmax	pmax		
	comp=E,28nm,0.8s						
NVS				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.6						
NVS				smax			
	comp=N,39nm,2.0s						
NVS				smax			
	comp=E,54nm,2.0s						
BVAR	**Borovoye Array**	**54.25**	**342**	P	**P**	**04 02 22.6**	**-0.9**
	comp=E,16nm,0.7s,mb5.1,baz=141,slow=9.5,SNR=65						
BVAR				pP	pP	04 02 30.2	-0.8
	comp=E,7.5nm,0.6s,baz=135,slow=10,SNR=10.0						
BRVK	**Borovoye**	**54.31**	**341**	⇑*e*P	**P**	**04 02 22.8**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
BRVK	**Borovoye**	**54.31**	**341**	⇑*e*P	**P**	**04 02 22.8**	**-1.2**
	comp=Z,15nm,0.6s,mb5.1						
CTA	**Charters Tower**	**54.65**	**117**	P	**P**	**04 02 27.6**	**+0.6**
	comp=Z,6.9nm,0.9s,mb4.7,baz=284,slow=6.7,SNR=13						
CTA				LR	LR	04 29 50.3	
	comp=Z,206nm,18.7s,MS4.2,baz=235,slow=40						
CTAO	**Charters Tower**	**54.65**	**117**	*e*P	**P**	**04 02 27.1**	**+0.2**
CTAO				*e*	pP	04 02 34.0	-0.4
CTAO				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
CTAO	**Charters Tower**	**54.65**	**117**	*e*P	**P**	**04 02 27.1**	**+0.2**
	comp=Z,18nm,1.1s,mb5.0						
CTAO				*e*	pP	04 02 34.0	-0.4
STKA	**Stephens Creek**	**55.61**	**132**	P	**P**	**04 02 33.7**	**-0.1**
	comp=Z,3.9nm,0.8s,mb4.5,baz=299,slow=6.2,SNR=4.0						
STKA				pP	pP	04 02 41.9	+0.6
	comp=Z,6.6nm,1.1s,baz=280,slow=6.7,SNR=3.6						
KLR	**Kul'dur**	**55.61**	**28**	*e*P	**P**	**04 02 28.2**	**-5.3**
BOD	**Bodaibo**	**56.79**	**12**	⇓*i*P	**P**	**04 02 40.6**	**-1.2**
ASAJ	**Asahikawa**	**58.41**	**38**	pP	pP	04 03 00.6	-0.4
	comp=Z,9.2nm,0.7s,baz=286,slow=27,SNR=2.7						
KMBO	**Kilima Mbogo**	**58.44**	**267**	*e*P	**P**	**04 02 53.8**	**-0.2**
KMBO				*e*	pP	04 03 02.0	+0.4
KMBO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KMBO	**Kilima Mbogo**	**58.44**	**267**	P	**P**	**04 02 54.5**	**+0.5**
	comp=Z,4.2nm,1.1s,mb4.4,baz=60,slow=9.9,SNR=5.9						
KMBO				pP	pP	04 03 01.9	+0.3
	comp=Z,7.8nm,1.1s,baz=52,slow=9.4,SNR=8.1						
KMBO	**Kilima Mbogo**	**58.44**	**267**	*e*P	**P**	**04 02 53.8**	**-0.2**
	comp=Z,7.7nm,0.9s,mb4.7						
KMBO				*e*	pP	04 03 02.0	+0.4
GNI	**Garni**	**59.04**	**316**	*i* P	pP	04 03 04.4	-1.1
GNI				pmax	pmax		
	comp=Z,18nm,1.5s						
GNI	**Garni**	**59.04**	**316**	pP	pP	04 03 05.3	-0.2
	comp=Z,1.6nm,0.4s,baz=1.8,slow=23,SNR=3.7						
YSS	**Yuzh-Sakhalins**	**59.99**	**35**	⇑*e*P	**P**	**04 02 57.7**	**-6.6**
YSS				*e*	pP	04 03 06.0	-6.0
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
ZEI	**Tsey**	**60.75**	**319**	*e*P	**P**	**04 03 10.3**	**+0.7**
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
ARU	**Arti**	**61.12**	**338**	⇑*i*P	**P**	**04 03 10.6**	**-1.2**
ARU				*e*		04 03 50.1	
ARU				*e*S	**S**	**04 11 25.3**	**-2.5**
ARU				*e*SS	SS	04 15 26.9	-2.3
ARU				pmax	pmax		
	comp=Z,20nm,1.4s,mb5.0						
KIV	**Kislovodsk**	**62.06**	**319**	*i* P	**P**	**04 03 24.0**	**+5.5**
KIV				pmax	pmax		
	comp=Z,27nm,2.2s,mb5.0						
SOC	**Sochi**	**63.87**	**318**	*e*P	**P**	**04 03 30.8**	**+0.4**
SOC				*e*		04 04 03.4	
SOC				*e*PPP	PPP	04 07 27.1	+2.6
SOC				*e*S	**S**	**04 12 03.2**	**+0.5**
SOC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
SOC				pmax	pmax		
	comp=N,10.0nm,0.9s						
SOC				pmax	pmax		
	comp=E,10.0nm,0.7s						
YAK	**Yakutsk**	**64.39**	**17**	*e*P	**P**	**04 03 31.9**	**-1.5**
YAK				*e*	pP	04 03 39.5	-1.6
YAK				pmax	pmax		
	comp=Z,48nm,0.7s,mb5.6						
YAK	**Yakutsk**	**64.39**	**17**	*e*P	**P**	**04 03 31.9**	**-1.5**
	comp=Z,48nm,0.7s,mb5.6						
YAK				*e*	pP	04 03 39.5	-1.7
MBAR	**Mbarara**	**64.90**	**268**	*e*P	**P**	**04 03 36.8**	**-0.8**
MBAR				*e*	pP	04 03 44.8	-0.5
MBAR				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
MBAR	**Mbarara**	**64.90**	**268**	*e*P	**P**	**04 03 36.8**	**-0.9**
	comp=Z,12nm,1.1s,mb4.8						
MBAR				*e*	pP	04 03 44.8	-0.5
BRTR	**Keskin Array B**	**66.86**	**312**	P	**P**	**04 03 49.0**	**-0.7**
	comp=Z,1.5nm,0.9s,mb4.0,baz=127,slow=6.2,SNR=5.1						
BRTR				pP	pP	04 03 57.4	0.0
	comp=Z,3.4nm,0.9s,baz=127,slow=7.0,SNR=8.6						
VRSR	**Storozhevoye**	**67.35**	**325**	*e*P	**P**	**04 03 52.4**	**-0.2**
VRSR				pmax	pmax		
	comp=Z,30nm,2.8s,mb4.8						
VRSR				pmax	pmax		
	comp=N,30nm,3.3s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.4s						
MOS	**Moscow**	**70.16**	**329**	*e*P	**P**	**04 04 16.4**	**+6.5**
OBN	**Obninsk**	**70.44**	**328**	*i* P	**P**	**04 04 16.9**	**+5.3**
OBN				pmax	pmax		
	comp=Z,52nm,1.9s,mb5.1						
TIXI	**Tiksi**	**71.94**	**11**	⇑*i*P	**P**	**04 04 19.2**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,235nm,15.0s,MS4.6						
AKASG	**Malin Array Be**	**73.03**	**322**	P	**P**	**04 04 25.8**	**-1.4**
	comp=Z,1.0nm,0.7s,mb3.9,baz=84,slow=4.9,SNR=5.5						
AKASG				pP	pP	04 04 33.7	-1.2
	comp=Z,7.2nm,0.8s,baz=87,slow=5.0,SNR=10						
LBTB	**Lobatse**	**73.14**	**243**	*e*P	**P**	**04 04 28.0**	**-0.3**
LBTB				*e*	pP	04 04 36.3	+0.3
LBTB				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
LBTB	**Lobatse**	**73.14**	**243**	*e*P	**P**	**04 04 28.0**	**-0.3**
	comp=Z,18nm,0.9s,mb5.0						
LBTB				*e*	pP	04 04 36.3	+0.2
MLR	**Muntele Rosu**	**73.82**	**317**	P	**P**	**04 04 32.1**	**+0.3**
	comp=Z,2.8nm,1.1s,mb4.1,baz=56,slow=23,SNR=3.4						
MLR				pP	pP	04 04 39.3	-0.3
	comp=Z,11nm,1.1s,baz=192,slow=2.4,SNR=8.4						
SUW	**Suwalki**	**77.46**	**325**	P	**P**	**04 04 53.6**	**+1.3**
SUW				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
SUW	**Suwalki**	**77.46**	**325**	P	**P**	**04 04 53.6**	**+1.2**
	comp=Z,37nm,0.9s,mb5.3						
FINES	**FINESS Array B**	**77.86**	**333**	*i* P	**P**	**04 04 54.4**	**0.0**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	**FINESS Array B**	**77.86**	**333**	P	**P**	**04 04 54.4**	**0.0**
	comp=Z,2.3nm,0.6s,mb4.3,baz=104,slow=7.9,SNR=14						
FINES				pP	pP	04 05 01.8	-0.4
	comp=Z,2.9nm,0.5s,baz=97,slow=6.0,SNR=6.0						
KAF	**Kangasniemi**	**77.96**	**333**	*e*p	**P**	**04 04 53.2**	**-1.7**
	comp=Z,3.7nm,0.6s,mb4.5						
KAF	**Kangasniemi**	**77.96**	**333**	*e*P	**P**	**04 04 53.2**	**-1.7**
KAF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
BILL	**Bilibino**	**80.29**	**21**	*i* P	**P**	**04 05 06.7**	**-0.7**
BILL				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.7						
ARCES	**ARCESS Array B**	**80.52**	**340**	P	**P**	**04 05 08.6**	**0.0**
	comp=Z,5.2nm,0.9s,mb4.4,baz=90,slow=4.9,SNR=9.2						
ARCES				pP	pP	04 05 16.6	+0.1
	comp=Z,9.2nm,1.0s,baz=108,slow=3.8,SNR=3.3						
GERES	**GERESS Array B**	**82.57**	**319**	P	**P**	**04 05 20.9**	**+1.2**
	comp=Z,0.8nm,0.8s,mb3.8,baz=90,slow=6.7,SNR=6.1						
GERES				pP	pP	04 05 28.1	+0.6
	comp=Z,4.7nm,1.0s,baz=106,slow=5.4,SNR=12						
HFS	**Hagfors**	**83.56**	**330**	pP	pP	04 05 32.4	0.0
	comp=Z,4.4nm,0.5s,baz=90,slow=5.9,SNR=4.8						
NB2	**NORSAR Subarra**	**84.85**	**331**	P	pP	04 05 36.2	-2.7
	comp=Z,4.6nm,1.1s,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**84.85**	**331**	pP	pP	04 05 38.0	-1.0
	comp=Z,1.8nm,0.8s,baz=96,slow=5.0,SNR=2.5						
DAVOX	**Davos**	**85.04**	**317**	P	**P**	**04 05 33.3**	**+0.9**
	comp=Z,2.0nm,0.6s,mb4.4,baz=170,slow=16,SNR=3.5						
DAVOX				pP	pP	04 05 39.8	-0.5
	comp=Z,5.0nm,0.7s,baz=266,slow=1.9,SNR=7.6						
ILAR	**Eielson Array**	**98.89**	**23**	P	**P**	**04 06 35.3**	**-1.2**
	comp=Z,0.3nm,0.6s,mb4.0,baz=296,slow=3.7,SNR=5.5						
ILAR				PP	PP	04 10 39.0	-1.5
	comp=Z,1.2nm,1.1s,baz=297,slow=6.5,SNR=5.0						
YKA	**Yellowknife Ar**	**111.00**	**14**	PP	PP	04 12 04.4	-7.0
	comp=Z,1.7nm,1.1s,baz=328,slow=7.3,SNR=9.5						
TBI	**Tubuai**	**113.98**	**114**	*e*LR	LR	04 17 27.0	
	comp=Z,313nm,22.5s						
PPT	**Papeete**	**114.51**	**108**	*e*LR	LR	04 17 32.2	
	comp=Z,238nm,22.0s						
ULM	**Lac du Bonnet**	**126.27**	**9**	PKP	PKPdf	04 11 59.8	-3.0
	comp=Z,0.8nm,0.4s,baz=292,slow=6.6,SNR=3.0						
RKT	**Rikitea**	**127.09**	**117**	*e*LR	LR	04 23 34.6	
	comp=Z,263nm,23.8s						
PDAR	**Pinedale Array**	**129.30**	**24**	PKP	PKPdf	04 12 06.8	-2.0
	comp=Z,0.3nm,0.5s,baz=225,slow=2.6,SNR=2.8						
TXAR	**Lajitas Array**	**143.13**	**29**	PKhKP		04 12 28.6	
	comp=Z,0.6nm,0.7s,baz=269,slow=1.7,SNR=6.7						
JCT	**Junction City**	**143.82**	**23**	*e*PKIKP	PKPdf	04 12 31.1	-4.6
LPAZ	**La Paz**	**159.09**	**229**	*e*PKP2	PKPab	04 13 34.6	+1.3
LPAZ	**La Paz**	**159.09**	**229**	PKPab	PKPab	04 13 34.6	+1.3
	comp=Z,1.5nm,0.7s,baz=105,slow=5.9,SNR=6.3						

IDC 28 03:58:21.6±17.0,**18.58N**×**146.55E,h143^{km}**±163^{km}**,mb3.4**/8,**mb1 3.6**/8,**mb1mx3.5**/21,**mbtmp3.8**/8,**MS4.0**/1,**Ms1 4.0**/1,**ms1mx3.0**/20,**Error ellipse: s-maj=37.4km s-min=22.3km az=86.0,Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**40.11**	**198**	P	P	04 05 43.2	-1.8
	1.0nm,0.7s,baz=22,slow=8.8,SNR=4.9						
SONM	**Songino Array**	**43.74**	**321**	P	P	04 06 13.1	-1.2
	0.7nm,0.8s,baz=123,slow=7.9,SNR=4.8						
ASAR	**Alice Springs**	**43.76**	**197**	P	P	04 06 13.3	-1.5
	0.4nm,0.6s,baz=22,slow=7.6,SNR=4.3						
STKA	**Stephens Creek**	**50.39**	**185**	LR	LR	04 29 25.8	
	comp=Z,159nm,18.5s,baz=296,slow=37						
ILAR	**Eielson Array**	**63.40**	**26**	P	P	04 08 34.8	-3.1
	0.8nm,0.8s,baz=256,slow=5.4,SNR=7.0						
BVAR	**Borovoye Array**	**67.08**	**320**	P	P	04 08 59.2	-2.4
	0.7nm,0.4s,baz=101,slow=8.4,SNR=4.5						
INK	**Inuvik**	**69.17**	**23**	P	P	04 09 12.7	-1.6
	1.5nm,0.9s,baz=229,slow=8.0,SNR=5.2						
YKA	**Yellowknife Ar**	**77.72**	**28**	P	P	04 10 02.9	-1.0
	0.9nm,0.7s,baz=287,slow=5.4,SNR=17						
YKA				pP	pP	04 10 18.9	-21
	0.7nm,0.7s,baz=293,slow=5.4,SNR=5.3						
FINES	**FINESS Array B**	**87.33**	**336**	P	P	04 10 51.9	-1.2
	2.2nm,1.0s,baz=64,slow=4.4,SNR=5.4						

IDC ***28*** *04:01:51.6±0.8,8.12N×94.03E,mb4.0/14,mb1 4.2/14,mb1mx4.2/19,mbtmp4.0/14,Error ellipse: s-maj=34.3km s-min=18.8km az=47.0*

ISC 28 04:01:54.6±0.7,**7.9N**±0.1×**93.9E**±0.1,**h33^{km},n23,**σ**1^{s}00**/23,**mb4.2**/20,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.55**	**24**	Pn	**P**	**04 04 41.6**	**+1.3**
	0.2nm,0.3s,baz=214,slow=14,SNR=31						
PKI	**Pulchoki**	**21.15**	**339**	*e*P	**P**	**04 06 39.4**	**+0.2**
	18nm,0.7s,mb4.5						
DMN	**Daman**	**21.30**	**338**	*e*P	**P**	**04 06 42.6**	**+1.9**
	40nm,1.0s,mb4.7						
GUN	**Gumba**	**21.30**	**340**	*e*P	**P**	**04 06 40.0**	**-0.7**
	34nm,0.7s,mb4.8						
KKN	**Kakani**	**21.40**	**339**	*e*P	**P**	**04 06 41.1**	**-0.6**
GKN	**Gorkha**	**21.83**	**337**	*e*P	**P**	**04 06 46.0**	**0.0**
	27nm,0.7s,mb4.8						
KOLN	**Koldanda**	**22.04**	**335**	*e*P	**P**	**04 06 49.2**	**+1.1**
	47nm,1.2s,mb4.8						
SONM	**Songino Array**	**41.16**	**13**	P	**P**	**04 09 36.9**	**-0.6**
	1.5nm,1.1s,mb3.5,baz=188,slow=9.7,SNR=5.1						
ZAL	**Zalesovo**	**46.48**	**353**	P	**P**	**04 10 19.6**	**-0.7**
	3.9nm,0.8s,mb4.4,baz=311,slow=3.8,SNR=13						
WRA	**Warramunga Arr**	**48.45**	**125**	P	**P**	**04 10 36.4**	**+0.2**
	1.3nm,0.6s,mb4.1,baz=305,slow=9.1,SNR=6.0						
ASAR	**Alice Springs**	**50.09**	**130**	P	**P**	**04 10 48.7**	**-0.1**
	1.3nm,0.9s,mb4.0,baz=298,slow=6.2,SNR=5.9						
ASAR				PcP	PcP	04 12 09.1	+0.7
	1.5nm,1.0s,baz=301,slow=3.6,SNR=4.8						
KMBO	**Kilima Mbogo**	**57.23**	**264**	P	**P**	**04 11 44.1**	**+2.5**
	0.5nm,0.6s,mb3.8,baz=80,slow=8.6,SNR=3.5						
BRTR	**Keskin Array B**	**62.25**	**311**	P	**P**	**04 12 14.1**	**-1.6**
	0.7nm,0.8s,mb3.9,baz=112,slow=6.0,SNR=5.0						
AKASG	**Malin Array Be**	**68.00**	**322**	P	**P**	**04 12 50.8**	**-1.8**
	0.2nm,0.3s,mb3.6,baz=100,slow=4.1,SNR=9.7						
FINES	**FINESS Array B**	**72.58**	**332**	P	**P**	**04 13 19.6**	**-0.5**
	0.7nm,0.4s,mb4.0,baz=109,slow=6.5,SNR=10						
KAF	**Kangasniemi**	**72.66**	**333**	*e*p	**P**	**04 13 19.5**	**-1.1**
	0.5nm,0.4s,mb3.8						
GERES	**GERESS Array B**	**77.66**	**318**	P	**P**	**04 13 50.0**	**+0.5**
	0.9nm,0.7s,mb3.8,baz=104,slow=5.5,SNR=4.5						
HFS	**Hagfors**	**78.32**	**330**	P	**P**	**04 13 52.6**	**-0.3**
	5.4nm,0.9s,mb4.5,baz=108,slow=4.7,SNR=13						
NB2	**NORSAR Subarra**	**79.60**	**331**	P	**P**	**04 13 59.1**	**-0.8**
	1.2nm,0.6s,mb4.0,baz=98,slow=4.8						
NOA	**NORSAR Array B**	**79.60**	**331**	P	**P**	**04 13 59.5**	**-0.4**
	2.2nm,0.8s,mb4.2,baz=93,slow=5.6,SNR=5.0						
EKA	**Eskdalemuir Ar**	**87.57**	**325**	P	**P**	**04 14 41.5**	**+1.0**
	1.2nm,0.7s,mb4.2,baz=104,slow=5.9,SNR=4.1						
ESDC	**Sonseca Array**	**91.04**	**310**	P	**P**	**04 14 57.9**	**+0.6**
	1.7nm,0.9s,mb4.4,baz=58,slow=5.1,SNR=5.1						
ILAR	**Eielson Array**	**94.78**	**22**	P	**P**	**04 15 13.5**	**-0.2**
	0.3nm,0.9s,mb3.7,baz=280,slow=5.5,SNR=3.0						

IDC 28 04:03:53.7±18.0,**16.31S**×**175.23W,h471^{km}**±226^{km}**,mb3.2**/6,**mb1 3.4**/6,**mb1mx3.2**/16,**mbtmp4.0**/6,**Error ellipse: s-maj=79.8km s-min=35.5km az=10.0,Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**22.88**	**196**	P	P	04 08 19.8	-1.4
	4.1nm,0.4s,baz=58,slow=6.6,SNR=6.6						
CTA	**Charters Tower**	**36.73**	**258**	P	P	04 10 20.1	-0.9
	0.5nm,0.3s,baz=62,slow=11,SNR=2.9						
STKA	**Stephens Creek**	**42.06**	**240**	P	P	04 11 03.0	-1.4
	6.1nm,1.2s,baz=78,slow=9.3,SNR=3.8						
WRA	**Warramunga Arr**	**47.93**	**258**	P	P	04 11 48.1	-2.0
	0.9nm,0.4s,baz=94,slow=6.8,SNR=12						
ASAR	**Alice Springs**	**48.16**	**253**	P	P	04 11 50.6	-1.3
	2.4nm,0.3s,baz=89,slow=7.7,SNR=55						
ILAR	**Eielson Array**	**83.68**	**12**	P	P	04 15 31.6	-0.8
	0.3nm,1.0s,baz=227,slow=5.7,SNR=4.1						

IDC 28 04:05:23.5±1.3,**13.32N**×**93.76E,mb3.8**/3,**mb1 3.9**/4,**mb1mx3.6**/18,**mbtmp3.7**/4,**ML3.7**/1,**Error ellipse:**

s-maj=36.4km s-min=26.4km az=45.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.14**	**44**	Pn	Pn	04 07 09.5	-2.2
	0.3nm,0.3s,baz=240,slow=14,SNR=3.1						
CMAR				Sn	Sn	04 08 31.9	-2.7
	0.7nm,0.3s,baz=235,slow=30,SNR=3.2						
WRA	**Warramunga Arr**	**51.84**	**129**	P	P	04 14 33.7	-2.2
	0.5nm,0.5s,baz=311,slow=7.9,SNR=5.2						
ASAR	**Alice Springs**	**53.78**	**133**	P	P	04 14 48.0	-2.2
	0.7nm,0.4s,baz=310,slow=7.0,SNR=24						
BRTR	**Keskin Array B**	**58.69**	**308**	P	P	04 15 23.1	-2.1
	0.5nm,0.6s,baz=117,slow=9.7,SNR=3.3						

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*IDC **28** 04:07:03.8±1.0, 11.57N×92.13E, mb3.9/10, mb1 4.1/10, mb1mx4.0/18, mbtmp3.9/10, Error ellipse: s-maj=46.1km s-min=18.6km az=51.0*

ISC 28 04:07:06.7±0.8, **11.5N**±0.1×**92.1E**±0.1, **h33**^{km}, **n11**, σ**0**^{s}**95**/12, **mb3.9**/10, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.55**	**43**	Pn	**P**	**04 09 28.2**	**+3.2**
	0.4nm,0.3s,baz=234,slow=15,SNR=8.9						
CMAR				Sn	**Sn**	**04 11 11.9**	**-0.5**
	0.3nm,0.3s,baz=227,slow=16,SNR=3.9						
SONM	**Songino Array**	**38.13**	**16**	P	**P**	**04 14 24.3**	**-0.1**
	1.6nm,0.8s,mb3.8,baz=204,slow=7.0,SNR=10						
ZAL	**Zalesovo**	**42.70**	**354**	P	**P**	**04 15 01.7**	**-0.4**
	1.3nm,0.3s,mb4.1,baz=304,slow=8.6,SNR=6.4						
BVAR	**Borovoye Array**	**44.91**	**342**	P	**P**	**04 15 20.2**	**+0.3**
	0.8nm,0.7s,mb3.7,baz=143,slow=7.4,SNR=5.4						
WRA	**Warramunga Arr**	**52.03**	**127**	P	**P**	**04 16 15.4**	**-0.2**
	1.2nm,0.3s,mb4.2,baz=300,slow=10.0,SNR=16						
ASAR	**Alice Springs**	**53.80**	**131**	P	**P**	**04 16 28.6**	**-0.2**
	0.6nm,0.5s,mb3.8,baz=307,slow=6.8,SNR=7.8						
BRTR	**Keskin Array B**	**58.55**	**310**	P	**P**	**04 17 01.9**	**-0.6**
	1.0nm,0.9s,mb3.9,baz=124,slow=4.5,SNR=4.2						
AKASG	**Malin Array Be**	**64.06**	**321**	P	**P**	**04 17 38.6**	**-0.9**
	0.1nm,0.3s,mb3.4,baz=100,slow=4.0,SNR=4.4						
FINES	**FINESS Array B**	**68.56**	**332**	P	**P**	**04 18 07.1**	**-0.9**
	2.1nm,0.9s,mb4.1,baz=117,slow=4.3,SNR=4.5						
ARCES	**ARCESS Array B**	**71.17**	**340**	P	**P**	**04 18 24.4**	**+0.7**
	4.1nm,0.8s,mb4.4,baz=82,slow=8.6,SNR=4.2						
GERES	**GERESS Array B**	**73.78**	**318**	P	**P**	**04 18 41.7**	**+2.1**
	0.7nm,0.7s,mb3.7,baz=90,slow=5.3,SNR=6.4						

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*TAP **28** 04:08:27.2, 24.01N×122.40E, h9^{km}±1^{km}, ML3.3*

JMA 28 04:08:28.0±0.1, **24.03N**×**122.48E**, **h14**^{km}±3^{km}, **M3.0**, **Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**0.65**	**48**	P	Pb	04 08 40.4	-0.2
YOJ				S	Sb	04 08 49.1	0.0
IRIF	**Iriomote-Funau**	**1.18**	**75**	P	Pb	04 08 49.6	-0.1
HATJ	**Hateruma jima**	**1.21**	**88**	P	Pb	04 08 50.0	-0.2
HATJ				*e*S	Sb	04 09 06.6	+1.1
JKRS	**Kuro-shima**	**1.41**	**81**	P	Pn	04 08 53.4	0.0
JIJ	**Ishigaki jima**	**1.55**	**77**	P	Pn	04 08 55.3	-0.1
JIJ				S	Sn	04 09 15.5	0.0
JTJ	**Tarama**	**2.12**	**73**	P	Pn	04 09 03.5	0.0
JTJ				*e*S	Sn	04 09 30.3	+0.6

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*IDC **28** 04:16:49.0±1.0, 9.96N×92.34E, mb3.8/11, mb1 4.0/12, mb1mx3.9/19, mbtmp3.8/12, ML4.1/1, MS3.8/2, Ms1 3.9/2, ms1mx3.2/30, Error ellipse: s-maj=36.8km s-min=18.8km az=47.0*

ISC 28 04:16:52.3±0.7, **9.76N**±0.09×**92.02E**±0.10, **h33**^{km}, **n15**, σ**1**^{s}**54**/16, **mb3.9**/14, **MS3.9**/1, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.95**	**37**	Pn	**P**	**04 19 23.6**	**-6.2**
	0.4nm,0.3s,baz=230,slow=14,SNR=2.5						
CMAR				Sn	**S**	**04 21 32.5**	**+0.4**
	baz=238,slow=29,SNR=4.1						
CMAR				LR	LR	04 24 12.7	
	comp=Z,410nm,21.0s,baz=225,slow=42						
SONM	**Songino Array**	**39.85**	**15**	P	**P**	**04 24 22.3**	**-1.9**
	0.7nm,1.0s,mb3.4,baz=207,slow=9.7,SNR=4.4						
ZAL	**Zalesovo**	**44.44**	**354**	P	**P**	**04 24 58.8**	**-3.0**
	0.8nm,0.4s,mb3.8,baz=289,slow=6.7,SNR=4.9						
ZAL				LR	LR	04 47 06.9	
	comp=Z,155nm,20.0s,MS3.9,baz=288,slow=41						
BVAR	**Borovoye Array**	**46.55**	**342**	P	**P**	**04 25 16.5**	**-2.0**
	0.5nm,0.6s,mb3.6,baz=135,slow=8.2,SNR=2.9						
WRA	**Warramunga Arr**	**51.05**	**125**	P	**P**	**04 25 52.7**	**-1.1**
	1.7nm,0.5s,mb4.2,baz=304,slow=8.6,SNR=8.8						
GNI	**Garni**	**51.63**	**314**	P	**P**	**04 25 57.2**	**-0.6**
	1.5nm,0.4s,mb4.2,baz=48,slow=16,SNR=7.0						
ASAR	**Alice Springs**	**52.72**	**130**	P	**P**	**04 26 04.2**	**-2.1**
	0.7nm,0.6s,mb3.8,baz=303,slow=7.3,SNR=6.9						
BRTR	**Keskin Array B**	**59.62**	**310**	P	**P**	**04 26 56.4**	**+0.8**
	0.9nm,0.6s,mb4.0,baz=122,slow=6.7,SNR=7.1						
CTA	**Charters Tower**	**61.05**	**119**	P	**P**	**04 27 07.4**	**+1.9**
	1.3nm,0.7s,mb4.2,baz=301,slow=5.9,SNR=3.3						
AKASG	**Malin Array Be**	**65.39**	**322**	P	**P**	**04 27 33.2**	**-0.5**
	0.1nm,0.4s,mb3.2,baz=91,slow=4.0,SNR=5.4						
FINES	**FINESS Array B**	**70.08**	**332**	P	**P**	**04 28 02.9**	**+0.1**
	1.0nm,0.5s,mb4.0,baz=98,slow=6.9,SNR=8.4						
ARCES	**ARCESS Array B**	**72.80**	**340**	P	**P**	**04 28 19.4**	**+0.5**
	3.9nm,1.0s,mb4.3,baz=37,slow=6.1,SNR=3.7						
GERES	**GERESS Array B**	**75.04**	**318**	P	**P**	**04 28 34.5**	**+2.1**
	0.9nm,0.9s,mb3.7,baz=104,slow=5.5,SNR=4.7						
ILAR	**Eielson Array**	**93.79**	**22**	P	**P**	**04 30 08.8**	**+2.0**
	0.7nm,1.0s,mb4.0,baz=284,slow=3.7,SNR=3.9						
INK	**Inuvik**	**95.76**	**15**	P	**P**	**04 30 17.9**	**+2.1**
	1.6nm,1.2s,mb4.3,baz=333,slow=2.3,SNR=4.2						

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*IDC **28** 04:16:55.0±1.7, 53.61N×163.60W, mb3.9/8, mb1 4.0/9, mb1mx3.8/24, mbtmp3.8/9, ML3.4/1, Error ellipse: s-maj=37.2km s-min=23.6km az=177.0*

*NEIC **28** 04:16:58.0, 53.42N×163.37W, h16^{km}, ML3.4(AEIC), After AEIC.*

ISC 28 04:16:57.6±1.3, **53.43N**±0.09×**163.4W**±0.1, **h39**^{km}±10^{km}, **n28**, σ**0**^{s}**87**/30, **mb3.9**/7, **Unimak Island region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WESE	**West Dahl East**	**1.28**	**326**	P	**P**	**04 17 19.0**	**-0.3**
WESS	**West Dahl Sout**	**1.33**	**323**	P	**P**	**04 17 19.8**	**-0.3**
WESN	**West Dahl Nort**	**1.35**	**328**	P	**P**	**04 17 20.4**	**-0.1**
WFAR	**Faris Peak**	**1.39**	**324**	P	**P**	**04 17 20.7**	**-0.3**
SSLW	**Shishaldin Wes**	**1.42**	**342**	P	**P**	**04 17 21.3**	**-0.1**
WPOG	**Pogromni**	**1.43**	**326**	P	**P**	**04 17 21.4**	**-0.2**
FALS	**False Pass**	**1.44**	**359**	P	**P**	**04 17 21.4**	**-0.2**
SSLN	**Shishaldin Nor**	**1.44**	**345**	P	**P**	**04 17 22.1**	**+0.4**
SSLN				S	**S**	**04 17 41.6**	**+2.0**
WTUG	**Tugumak**	**1.55**	**337**	P	**P**	**04 17 23.2**	**0.0**
AKA	**Akutan**	**1.60**	**297**	P	**P**	**04 17 24.0**	**+0.1**
AKA				S	**S**	**04 17 43.6**	**+0.1**
AHB	**Akutan Harbor**	**1.61**	**296**	P	**P**	**04 17 24.2**	**+0.1**
LVA	**Lava Point**	**1.75**	**296**	P	**P**	**04 17 26.2**	**+0.1**
DT1	**Dutton Round H**	**1.80**	**20**	P	**P**	**04 17 26.7**	**-0.1**
DTNA	**Dutton South F**	**1.85**	**20**	P	**P**	**04 17 27.5**	**0.0**
UNV	**Unalaska Valle**	**1.92**	**284**	P	**P**	**04 17 28.1**	**-0.4**
MTBL	**Makushin Table**	**2.05**	**287**	P	**P**	**04 17 30.6**	**+0.3**
MSW	**Makushin Switc**	**2.10**	**285**	P	**P**	**04 17 30.7**	**-0.3**
OKER	**East Rim**	**2.81**	**272**	P	**P**	**04 17 41.6**	**+0.5**
NIKO	**Nikolski**	**3.34**	**264**	P	**P**	**04 17 48.4**	**-0.2**
ILAR	**Eielson Array**	**14.12**	**30**	Pn	**P**	**04 20 14.1**	**-2.5**
	0.1nm,0.3s,baz=224,slow=13,SNR=9.4						
INK	**Inuvik**	**20.49**	**32**	P	**P**	**04 21 31.6**	**-2.8**
	1.0nm,0.6s,baz=248,slow=12,SNR=9.9						
YKA	**Yellowknife Ar**	**26.78**	**51**	P	**P**	**04 22 36.8**	**+1.5**
	0.6nm,0.4s,mb3.5,baz=270,slow=9.0,SNR=31						
TXAR	**Lajitas Array**	**49.14**	**95**	P	**P**	**04 25 45.5**	**+2.2**
	0.2nm,0.5s,mb3.4,baz=292,slow=5.0,SNR=7.4						
SONM	**Songino Array**	**53.82**	**303**	P	**P**	**04 26 18.1**	**-0.2**
	1.0nm,0.8s,mb3.8,baz=35,slow=8.1,SNR=5.7						
ARCES	**ARCESS Array B**	**57.18**	**356**	P	**P**	**04 26 40.7**	**-1.6**
	3.0nm,0.8s,mb4.4,baz=17,slow=8.4,SNR=7.3						
BVAR	**Borovoye Array**	**64.87**	**327**	P	**P**	**04 27 34.9**	**+0.6**
	2.4nm,0.9s,mb4.2,baz=45,slow=10,SNR=5.4						
FINES	**FINESS Array B**	**65.23**	**355**	P	**P**	**04 27 36.3**	**-0.3**
	1.9nm,0.9s,mb4.1,baz=11,slow=7.1,SNR=3.1						
AKASG	**Malin Array Be**	**75.71**	**352**	P	**P**	**04 28 40.2**	**+0.2**
	0.7nm,0.4s,mb3.9,baz=11,slow=6.0,SNR=5.9						

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*IDC **28** 04:19:27.0±0.8, 8.39N×92.48E, mb4.2/13, mb1 4.4/13, mb1mx4.2/20, mbtmp4.2/13, Error ellipse: s-maj=42.6km s-min=16.6km az=50.0*

ISC 28 04:19:29.7±0.9, **8.3N**±0.2×**92.5E**±0.2, **h33**^{km}, **n18**, σ**0**^{s}**79**/15, **mb4.1**/14, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**41.14**	**14**	P	**P**	**04 27 12.5**	**+0.1**
	1.0nm,0.6s,mb3.6,baz=196,slow=9.1,SNR=6.1						
SONM				PcP	PcP	04 29 12.3	+0.3
	0.8nm,0.4s,baz=210,slow=3.3,SNR=7.4						
ZAL	**Zalesovo**	**45.93**	**354**	P	**P**	**04 27 51.3**	**+0.2**
	1.1nm,0.5s,mb4.0,baz=300,slow=9.5,SNR=3.1						
BVAR	**Borovoye Array**	**48.07**	**342**	P	**P**	**04 28 07.6**	**-0.4**
	0.9nm,0.5s,mb4.1,baz=137,slow=8.8,SNR=5.0						
WRA	**Warramunga Arr**	**49.86**	**125**	P	**P**	**04 28 21.9**	**-0.4**
	3.2nm,0.5s,mb4.6,baz=304,slow=8.5,SNR=12						
WRA				PcP	PcP	04 29 43.8	+1.1
	1.0nm,0.5s,baz=316,slow=3.0,SNR=5.2						
ASAR	**Alice Springs**	**51.47**	**129**	P	**P**	**04 28 34.4**	**0.0**
	1.8nm,0.5s,mb4.3,baz=304,slow=7.5,SNR=13						
ASAR				PcP	PcP	04 29 49.8	+1.2
	1.7nm,0.5s,baz=308,slow=3.6,SNR=10						
BRTR	**Keskin Array B**	**60.89**	**311**	P	**P**	**04 29 41.7**	**0.0**
	1.2nm,0.7s,mb4.1,baz=130,slow=9.6,SNR=5.7						
FINES	**FINESS Array B**	**71.56**	**332**	P	**P**	**04 30 48.5**	**-0.7**
	2.0nm,0.6s,mb4.2,baz=105,slow=5.6,SNR=9.9						
KAF	**Kangasniemi**	**71.66**	**333**	*e*p	**P**	**04 30 47.4**	**-2.4**
	0.6nm,0.4s,mb3.9						
ARCES	**ARCESS Array B**	**74.31**	**340**	P	**P**	**04 31 05.5**	**+0.3**
	2.5nm,0.9s,mb4.1,baz=135,slow=3.4,SNR=5.0						
GERES	**GERESS Array B**	**76.40**	**318**	P	**P**	**04 31 18.2**	**+0.6**
	1.5nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=9.9						
NB2	**NORSAR Subarra**	**78.55**	**331**	P	**P**	**04 31 28.9**	**-0.4**
	1.3nm,0.6s,mb4.0,baz=98,slow=4.8						
NOA	**NORSAR Array B**	**78.55**	**331**	P	**P**	**04 31 28.9**	**-0.4**
	1.7nm,0.7s,mb4.1,baz=94,slow=5.8,SNR=3.9						
DAVOX	**Davos**	**78.93**	**316**	P	**P**	**04 31 33.1**	**+1.4**
	2.1nm,0.4s,mb4.4,baz=330,slow=18,SNR=11						
ILAR	**Eielson Array**	**94.97**	**22**	P	**P**	**04 32 49.8**	**0.0**
	0.6nm,0.6s,mb4.2,baz=297,slow=3.7,SNR=9.1						
INK	**Inuvik**	**97.04**	**16**	P	**P**	**04 33 00.1**	**+1.0**
	0.7nm,0.5s,mb4.4,baz=184,slow=1.3,SNR=8.4						
PDAR	**Pinedale Array**	**125.35**	**20**	PKP	PKPdf	04 38 30.2	+2.5
	0.5nm,0.7s,baz=90,slow=1.5,SNR=4.8						
ANMO	**Albuquerque**	**133.41**	**22**	PKP	PKPdf	04 38 48.0	+4.6
	0.3nm,0.5s,baz=17,slow=10,SNR=3.8						
TXAR	**Lajitas Array**	**139.49**	**22**	PKP	PKPdf	04 38 58.3	+3.7
	0.3nm,0.5s,baz=163,slow=1.6,SNR=4.3						

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*IDC **28** 04:21:55.6±7.5, 55.99S×26.95W, h78^{km}±67^{km}, mb4.0/5, mb1 3.9/6, mb1mx3.6/14, mbtmp4.1/6, ML3.6/1, Error ellipse: s-maj=35.6km s-min=19.8km az=53.0*

ISC 28 04:22:05.6±5.5, **56.0S**±0.2×**27.2W**±0.4, **h181**^{km}±56^{km}, **n13**, σ**0**^{s}**95**/9, **mb4.0**/5, **3D, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA3	**Neumayer Olymp**	**17.07**	**161**	⇓*i*	**P**	**04 25 54.5**	**+0.1**
VNA2	**Neumayer--Watz**	**17.27**	**158**	⇓*i*	**P**	**04 25 57.0**	**+0.3**
SNAA	**Sanae**	**18.82**	**156**	⇓*i*	**P**	**04 26 08.6**	**-4.7**
SNAA	**Sanae**	**18.82**	**156**	P	**P**	**04 26 07.7**	**-5.5**
	0.2nm,0.3s,baz=279,slow=12,SNR=19						
LVC	**Limon Verde**	**45.26**	**300**	P	**P**	**04 30 06.4**	**0.0**
	6.7nm,0.6s,mb4.4,baz=148,slow=4.1,SNR=9.9						
VNDA	**Vanda**	**46.67**	**183**	P	**P**	**04 30 15.2**	**-1.5**
	1.8nm,0.8s,mb3.7,baz=143,slow=6.3,SNR=8.2						
LPAZ	**La Paz**	**50.33**	**305**	P	**P**	**04 30 46.0**	**+0.3**
	2.3nm,0.3s,mb4.2,baz=162,slow=4.9,SNR=18						
DBIC	**Dimbokro**	**65.08**	**25**	P	**P**	**04 32 28.1**	**-0.6**
	0.7nm,0.5s,mb3.7,baz=170,slow=11,SNR=4.9						
ASAR	**Alice Springs**	**99.08**	**162**	P	**P**	**04 35 29.1**	**+2.3**
	0.3nm,0.8s,mb3.8,baz=190,slow=4.5,SNR=6.1						
YKA	**Yellowknife Ar**	**136.11**	**318**	PKP	PKPdf	04 41 05.4	+1.5
	0.1nm,0.4s,baz=135,slow=2.0,SNR=7.8						
INK	**Inuvik**	**145.74**	**321**	PKPbc	PKPbc	04 41 23.9	+2.3
	0.8nm,0.4s,baz=110,slow=2.8,SNR=8.2						
ILAR	**Eielson Array**	**150.06**	**312**	PKPbc	PKPdf	04 41 35.0	+7.4
	2.3nm,0.7s,baz=117,slow=0.8,SNR=36						
SONM	**Songino Array**	**150.71**	**86**	PKPbc	PKPdf	04 41 37.7	+8.6
	0.3nm,0.6s,baz=225,slow=4.7,SNR=3.4						
SONM				PKPab	PKPab	04 41 42.9	-1.9
	0.3nm,0.4s,baz=214,slow=3.7,SNR=4.5						

IDC 28 04:24:31.4±1.8, **17.35S**×**69.49W**, **h154**^{km}±12^{km}, **mb3.3**/3, **mb1 3.3**/4, **mb1mx3.1**/15, **mbtmp3.7**/4, **Error ellipse: s-maj=34.3km s-min=11.9km az=105.0, Peru-Bolivia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**1.68**	**51**	P	P	04 25 04.7	+1.2
	9.6nm,0.3s,baz=254,slow=4.3,SNR=318						
LPAZ				S	S	04 25 28.6	+0.4
	5.4nm,0.3s,baz=143,slow=25,SNR=37						
LVC	**Limon Verde**	**5.26**	**174**	P	P	04 25 50.5	+1.3
	0.7nm,0.3s,baz=343,slow=13,SNR=8.5						
LVC				S	S	04 26 48.1	-1.3
	2.2nm,0.3s,baz=51,slow=22,SNR=17						
BDFB	**Brasilia**	**20.66**	**88**	P	P	04 29 00.9	+0.2
	1.3nm,0.5s,baz=254,slow=7.4,SNR=5.6						
DBIC	**Dimbokro**	**68.14**	**75**	P	P	04 35 14.8	-2.7
	0.3nm,0.3s,baz=215,slow=7.5,SNR=5.1						
YKA	**Yellowknife Ar**	**87.11**	**341**	P	P	04 36 59.3	-1.3
	0.1nm,0.4s,baz=134,slow=5.0,SNR=10						

IDC 28 04:25:21.4±4.4, **34.99S**×**78.90E**, **mb3.8**/4, **mb1 4.0**/4, **mb1mx3.8**/12, **mbtmp3.8**/4, **Error ellipse: s-maj=172.2km s-min=34.3km az=25.0, Mid-Indian Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	**Alice Springs**	**48.73**	**92**	P	P	04 34 07.6	-2.2
	1.1nm,1.0s,baz=238,slow=8.0,SNR=5.4						
WRA	**Warramunga Arr**	**50.82**	**88**	P	P	04 34 24.2	-1.7
	1.0nm,0.9s,baz=241,slow=7.2,SNR=8.3						
BRTR	**Keskin Array B**	**85.28**	**327**	P	P	04 38 00.2	-1.1
	0.2nm,0.3s,baz=164,slow=10,SNR=3.0						
SONM	**Songino Array**	**86.05**	**18**	P	P	04 38 03.6	-1.3
	0.3nm,0.5s,baz=223,slow=4.8,SNR=3.0						

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*IDC **28** 04:36:24.3±0.5, 13.85N×93.23E, mb4.4/23, mb1 4.5/24, mb1mx4.5/27, mbtmp4.4/24, ML4.3/1, MS4.3/12, Ms1 4.3/12, ms1mx4.0/31, Error ellipse: s-maj=19.2km s-min=12.7km az=43.0*

*MOS **28** 04:36:26.4±1.1, 13.97N×93.63E, h33^{km}, mb5.0/21, Error ellipse: s-maj=18.3km s-min=8.7km az=124.1*

*BJI **28** 04:36:27.6, 13.59N×93.24E, h51^{km}, mB5.0, mb4.5, Ms4.6, Msz4.4*

*NEIC **28** 04:36:28.6±0.8, 13.86N×93.41E, h30^{km}, mb4.8/16, Error ellipse: s-maj=19.9km s-min=13.6km az=169.0*

*SYO **28** 04:36:28.6, 13.86N×93.42E, h30^{km}, MB4.8*

ISC 28 04:36:26.3±0.3, **13.85N**±0.05×**93.29E**±0.03, **h28**^{km}, **h28**^{km}±3.2^{km}**:pP-P, n142,** σ**1**^{s}**22**/141, **mb4.6**/54, **MS4.4**/19, **8C-7D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**7.11**	**49**	*e*P	**Pn**	**04 38 10.9**	**-0.3**
CMAR	**Chiang Mai Arr**	**7.11**	**49**	*i* P	**Pn**	**04 38 11.3**	**+0.1**
CMAR				pmax	pmax		
	comp=Z,31nm,0.9s						
CMAR	**Chiang Mai Arr**	**7.11**	**49**	Pn	**Pn**	**04 38 11.2**	**+0.1**
	comp=Z,1.5nm,0.3s,baz=241,slow=15,SNR=74						
CMAR				Sn	**Sn**	**04 39 40.7**	**+8.9**
	comp=Z,0.7nm,0.3s,baz=231,slow=17,SNR=3.6						
CMAR				LR	LR	04 41 37.7	
	comp=Z,1µm,21.2s,baz=225,slow=44						
CHG	**Chiang Mai**	**7.34**	**47**	⇑P	**Pn**	**04 38 14.1**	**-0.3**
	comp=Z,18nm,0.8s						
CHRT	**Chiangrai**	**8.63**	**45**	⇑P	**P**	**04 38 33.0**	**+0.6**
	comp=Z,155nm,1.0s						
NANT	**Nan**	**8.65**	**54**	P	**P**	**04 38 34.0**	**+1.3**
VIS	**Vishakhapatnam**	**10.33**	**293**	*e*P	**P**	**04 38 52.1**	**-3.8**
VIS				*e*S	x	04 40 35.6	
VIS				*e*	**S**	**04 40 57.7**	**+6.0**
	comp=Z,85nm,1.2s						
VIS				*e*		04 40 57.7	
	comp=N,220nm,0.8s						
SHL	**Shillong**	**11.73**	**354**	⇓*e*	**P**	**04 39 10.0**	**-4.9**
BLSP	**Bilaspur**	**13.42**	**309**	*e*P	**P**	**04 39 36.2**	**-1.3**
BLSP				*e*		04 42 04.0	
KMI	**Kunming**	**14.31**	**37**	P	**P**	**04 39 53.0**	**+3.7**
KMI				AP		04 40 00.5	
KMI				XP		04 40 03.5	
KMI				S	**S**	**04 42 30.0**	**+2.0**
KMI				SS	SS	04 42 48.5	+3.8
KMI				AMB	AMB		
	comp=Z,5.0nm,1.7s						
KMI				AMB	AMB		
	comp=Z,165nm,6.7s						
KMI				LR	LR		
	comp=N,1µm,15.0s						
KMI				LR	LR		
	comp=E,1µm,18.4s						
KMI				LR	LR		
	comp=Z,2µm,14.1s						
HYB	**Hyderabad**	**14.63**	**286**	*i* P	**P**	**04 39 58.0**	**+4.6**
PKI	**Pulchoki**	**15.50**	**333**	*e*P	**P**	**04 40 02.8**	**-2.0**
	comp=Z,120nm,1.0s						
GUN	**Gumba**	**15.60**	**335**	*e*P	**P**	**04 40 05.0**	**-1.0**
	comp=Z,151nm,1.0s						
DMN	**Daman**	**15.67**	**332**	*e*P	**P**	**04 40 04.4**	**-2.6**
	comp=Z,64nm,0.8s						
KKN	**Kakani**	**15.75**	**333**	*e*P	**P**	**04 40 05.2**	**-2.8**
	comp=Z,76nm,1.0s						
LSA	**Lhasa**	**15.89**	**353**	P	**P**	**04 40 07.0**	**-2.8**
LSA				pmax	pmax		
	comp=Z,42nm,0.9s						
LSA	**Lhasa**	**15.89**	**353**	P	**P**	**04 40 07.0**	**-2.8**
	comp=Z,42nm,0.9s						
GKN	**Gorkha**	**16.22**	**332**	*e*P	**P**	**04 40 11.5**	**-2.5**
	comp=Z,73nm,0.7s						
KOLN	**Koldanda**	**16.53**	**328**	*e*P	**P**	**04 40 16.5**	**-1.4**
	comp=Z,208nm,1.2s						
QIZ	**Qiongzhong**	**16.69**	**70**	*e*P	**P**	**04 40 19.5**	**-0.5**
QIZ				S	**S**	**04 43 23.0**	**-0.5**
QIZ				LR	LR		
	comp=N,2µm,15.9s						
QIZ				LR	LR		
	comp=Z,1µm,18.0s						
LATR	**Latur**	**16.70**	**288**	*e*P	**P**	**04 40 19.5**	**-0.6**
BHPL	**Bhopal**	**17.69**	**304**	*e*P	**P**	**04 40 35.0**	**+2.5**
BHPL				*e*		04 40 36.6	
	comp=Z,29nm,0.9s						
BHPL				*e*S	**S**	**04 43 54.0**	**+7.8**
GYA	**Guiyang**	**17.73**	**43**	⇑*i*P	**P**	**04 40 33.8**	**+0.9**
GYA				AP		04 40 41.0	
GYA				AMB	AMB		
	comp=Z,30nm,1.2s						
GYA				AMB	AMB		
	comp=Z,680nm,4.2s						
GYA				LR	LR		
	comp=N,1µm,16.2s						
GYA				LR	LR		
	comp=E,970nm,15.4s						
GYA				LR	LR		
	comp=Z,2µm,16.4s						
KAD	**Karad**	**18.72**	**283**	*e*P	**P**	**04 40 46.1**	**+0.9**
KAD				*i*		04 44 01.9	
POO	**Poona**	**19.23**	**287**	*e*P	**P**	**04 40 49.0**	**-2.3**
POO				*i*		04 44 15.0	
CD2	**Chengdu**	**19.52**	**28**	P	**P**	**04 40 53.8**	**-0.7**
CD2				AP		04 41 02.3	
CD2				S	**S**	**04 44 32.0**	**+4.5**
CD2				SS	SS	04 45 01.3	+6.9
CD2				AMB	AMB		
	comp=Z,20nm,0.7s						
CD2				AMB	AMB		
	comp=Z,200nm,6.2s						
CD2				LR	LR		
	comp=E,1µm,14.4s						
CD2				LR	LR		
	comp=Z,780nm,13.8s						
PTH	**Pithoragarh**	**19.76**	**324**	*e*P	**P**	**04 40 59.3**	**+2.2**
PTH				*e*		04 44 53.2	
BOM	**Bombay**	**20.27**	**287**	*e*P	**P**	**04 40 60.0**	**-2.6**
BOM				*e*		04 44 38.0	
	comp=Z,249nm,1.7s						
NDI	**New Delhi**	**20.99**	**317**	*e*P	**P**	**04 41 08.9**	**-1.0**
NDI				*e*		04 44 44.0	
GZH	**Guangzhou**	**21.10**	**61**	P	**P**	**04 41 10.8**	**-0.3**
GZH				LR	LR		
	comp=N,1µm,14.6s,MS4.5						
GZH				LR	LR		
	comp=E,674nm,18.7s,MS4.5						
GZH				LR	LR		
	comp=Z,1µm,19.0s,MS4.3						
AJM	**Ajmer**	**21.51**	**309**	*i* P	**P**	**04 41 16.0**	**+0.8**
DDI	**Dehra Dun**	**21.59**	**322**	*e*P	**P**	**04 41 16.4**	**+0.4**
DDI				*e*		04 45 11.0	
ENH	**Enshi**	**22.14**	**40**	*e*P	**P**	**04 41 20.4**	**-1.1**
	comp=Z,64nm,0.9s,mb5.0						
SDNR	**Sundarnagar**	**23.08**	**322**	*e*P	**P**	**04 41 33.4**	**+2.6**
BHK	**Bhakra**	**23.36**	**321**	*e*P	**P**	**04 41 35.1**	**+1.7**
THN	**Thein Dam**	**24.49**	**322**	*e*P	**P**	**04 41 44.1**	**-0.4**
	comp=Z,8.0nm,0.9s,mb4.2						
XAN	**Xi’an**	**24.60**	**33**	P	**P**	**04 41 50.0**	**+4.5**
XAN				AMB	AMB		
	comp=Z,9.0nm,1.1s,mb4.2						
GTA	**Gaotai**	**26.10**	**12**	*e*P	**P**	**04 42 01.0**	**+1.4**
GTA				AP	pP	04 42 10.5	+2.7
GTA				XP	sP	04 42 14.3	+2.8
GTA				AMB	AMB		
	comp=Z,7.0nm,1.6s,mb3.9						
GTA				AMB	AMB		
	comp=Z,202nm,8.4s						
GTA				LR	LR		
	comp=N,417nm,17.5s,MS4.3						
GTA				LR	LR		
	comp=E,582nm,15.6s,MS4.3						
GTA				LR	LR		
	comp=Z,418nm,20.5s,MS4.0						
NJ2	**Nanjing**	**29.58**	**48**	*e*P	**P**	**04 42 30.3**	**-0.9**
NJ2				AP	pP	04 42 39.8	+0.3
NJ2				S	**S**	**04 47 21.0**	**-2.2**
NJ2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,400nm,5.2s						
NJ2				LR	LR		
	comp=N,3µm,18.2s,MS5.0						
NJ2				LR	LR		
	comp=E,2µm,14.9s,MS5.0						
NJ2				LR	LR		
	comp=Z,3µm,17.9s,MS4.9						
KSH	**Kashi**	**29.77**	**332**	P	**P**	**04 42 34.3**	**+1.5**
KSH				PP	PP	04 43 32.5	+2.5
KSH				*e*PCP	PcP	04 45 38.8	+2.6
KSH				*e*S	**S**	**04 47 28.0**	**+2.0**
KSH				SS	SS	04 49 04.0	+2.3
KSH				*e*PCS		04 49 20.5	
KSH				*e*SCS	ScS	04 53 10.3	+1.8
KSH				AMB	AMB		
	comp=Z,200nm,4.9s						
KSH				LR	LR		
	comp=N,590nm,8.9s						
KSH				LR	LR		
	comp=E,550nm,10.2s						
WMQ	**Urumqi**	**30.25**	**352**	⇑P	**P**	**04 42 38.5**	**+1.5**
WMQ				AP	pP	04 42 48.3	+3.0
WMQ				XP	sP	04 42 52.0	+3.0
WMQ				PP	PP	04 43 37.8	+1.6
WMQ				PPP	PPP	04 43 52.0	+1.6
WMQ				S	**S**	**04 47 34.5**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.4						
WMQ				AMB	AMB		
	comp=Z,31nm,6.6s						
WMQ				LR	LR		
	comp=N,570nm,22.0s,MS4.3						
WMQ				LR	LR		
	comp=E,456nm,18.4s,MS4.3						
WMQ				LR	LR		
	comp=Z,481nm,24.3s						
SSE	**Sheshan**	**30.84**	**52**	P	**P**	**04 42 38.8**	**-3.5**
SSE				S	**S**	**04 47 40.8**	**-2.3**
SSE				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.8						
SSE				AMB	AMB		
	comp=Z,106nm,4.0s						
SSE				LR	LR		
	comp=N,897nm,16.7s,MS4.5						

SSE				LR	LR		
	comp=E,353nm,17.0s,MS4.5						
SSE				LR	LR		
	comp=Z,629nm,22.4s						
HHC	**Hu-ho-hao-te**	**31.28**	**27**	*e*P	**P**	**04 42 50.5**	**+4.4**
HHC				AP	pP	04 43 00.3	+5.9
HHC				XP	sP	04 43 03.3	+5.2
HHC				SCS	ScS	04 53 13.0	-2.8
HHC				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,170nm,4.8s						
HHC				LR	LR		
	comp=N,452nm,19.0s,MS4.4						
HHC				LR	LR		
	comp=E,615nm,19.0s,MS4.4						
HHC				LR	LR		
	comp=Z,586nm,22.6s,MS4.2						
AAK	**Ala-Archa**	**32.95**	**334**	*d* *i*P	**P**	**04 43 01.0**	**+0.3**
AAK				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.4						
AAK	**Ala-Archa**	**32.95**	**334**	*e*P	**P**	**04 43 00.0**	**-0.7**
	comp=Z,12nm,1.2s,mb4.7						
JOW	**Kunigami**	**35.13**	**63**	LR	LR	04 57 59.8	
	comp=Z,776nm,21.3s,MS4.4,baz=148,slow=37						
SONM	**Songino Array**	**35.59**	**15**	P	**P**	**04 43 24.7**	**+1.3**
	comp=Z,5.4nm,1.0s,mb4.4,baz=196,slow=9.0,SNR=19						
ULN	**Ulaanbaatar**	**35.79**	**16**	*e*P	**P**	**04 43 25.6**	**+0.5**
ULN				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
ULN	**Ulaanbaatar**	**35.79**	**16**	*e*P	**P**	**04 43 25.6**	**+0.5**
	comp=Z,12nm,1.1s,mb4.7						
ZAK	**Zakamensk**	**37.33**	**11**	*e*P	**P**	**04 43 30.4**	**-7.6**
TLY	**Talaya**	**38.64**	**10**	*i* P	**P**	**04 43 46.0**	**-3.0**
TLY				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
ZAL	**Zalesovo**	**40.55**	**352**	P	**P**	**04 44 04.8**	**0.0**
	comp=Z,4.0nm,0.9s,mb4.1,baz=298,slow=8.5,SNR=20						
CN2	**Changchun**	**40.58**	**36**	*e*P	**P**	**04 44 06.3**	**+1.2**
BVAR	**Borovoye Array**	**43.11**	**340**	P	**P**	**04 44 25.6**	**-0.1**
	comp=Z,5.8nm,1.2s,mb4.2,baz=143,slow=7.4,SNR=7.2						
MDJ	**Mudanjiang**	**43.49**	**38**	P	**P**	**04 44 28.3**	**-0.6**
MDJ				S	**S**	**04 50 59.3**	**+4.0**
MDJ				AMB	AMB		
	comp=Z,7.0nm,2.2s,mb4.0						
MDJ				AMB	AMB		
	comp=Z,103nm,9.5s						
MDJ				LR	LR		
	comp=N,322nm,20.9s,MS4.3						
MDJ				LR	LR		
	comp=E,209nm,20.0s,MS4.3						
MDJ				LR	LR		
	comp=Z,180nm,24.8s,MS3.9						
CHKZ	**Chkalovo**	**43.58**	**341**	*i* P	**P**	**04 44 29.5**	**0.0**
CHKZ				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.5						
CHKZ	**Chkalovo**	**43.58**	**341**	*e*P	**P**	**04 44 29.4**	**-0.1**
	comp=Z,7.1nm,0.5s,mb4.7						
BOD	**Bodaibo**	**46.59**	**15**	*e*P	**P**	**04 44 53.0**	**-0.5**
CBIJ	**Chichi jima**	**47.39**	**66**	LR	LR	05 02 49.3	
	comp=Z,163nm,21.6s,MS4.0,baz=324,slow=33						
GNI	**Garni**	**49.78**	**311**	*d* *i*P	**P**	**04 45 20.6**	**+2.0**
GNI				pmax	pmax		
	comp=Z,34nm,1.3s						
GNI	**Garni**	**49.78**	**311**	P	**P**	**04 45 20.4**	**+1.8**
	comp=Z,35nm,1.2s,mb5.3,baz=17,slow=2.5,SNR=12						
GNI				LR	LR	05 10 55.3	
	comp=Z,217nm,20.0s,MS4.2,baz=315,slow=42						
GNI	**Garni**	**49.78**	**311**	⇑*e*P	**P**	**04 45 20.3**	**+1.7**
	comp=Z,49nm,1.1s,mb5.5						
ARU	**Arti**	**50.11**	**336**	⇓*i*P	**P**	**04 45 20.9**	**0.0**
ARU				*e*		04 46 35.0	
ARU				*e*		04 47 13.1	
ARU				*e*S	**S**	**04 52 32.6**	**+3.4**
ARU				*e*SS	SS	04 56 04.9	+5.6
ARU				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.6						
TI2	**Plekhanov**	**50.27**	**313**	*i* P	**P**	**04 45 23.2**	**+0.9**
ZEI	**Tsey**	**51.21**	**314**	*e*P	**P**	**04 45 31.1**	**+1.7**
ZEI				*i* *PP	pP	04 45 36.7	-1.3
ZEI				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
ASAJ	**Asahikawa**	**51.60**	**44**	P	**P**	**04 45 32.8**	**+0.4**
	comp=Z,9.3nm,0.8s,mb4.8,baz=284,slow=17,SNR=2.5						
NWAO	**Narrogin (SRO)**	**51.84**	**154**	P	**P**	**04 45 34.6**	**+0.3**
	comp=Z,18nm,0.7s,mb5.1,baz=290,slow=10,SNR=4.2						
ERZM	**Erzurum**	**52.21**	**310**	P	**P**	**04 45 39.0**	**+2.0**
KIV	**Kislovodsk**	**52.43**	**315**	⇑*e*P	**P**	**04 45 39.0**	**+0.4**
KIV				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
KIV	**Kislovodsk**	**52.43**	**315**	⇑*e*P	**P**	**04 45 39.0**	**+0.4**
	comp=Z,26nm,0.9s,mb5.2						
WRA	**Warramunga Arr**	**52.52**	**129**	P	**P**	**04 45 39.3**	**-0.4**
	comp=Z,3.5nm,0.8s,mb4.3,baz=310,slow=8.1,SNR=11						
WRA				PcP	PcP	04 46 48.9	-0.9
	comp=Z,1.7nm,0.5s,baz=320,slow=3.1,SNR=7.9						
WRAB	**Tennant Creek**	**52.53**	**129**	*e*P	**P**	**04 45 37.7**	**-2.0**
WRAB				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
WRAB	**Tennant Creek**	**52.53**	**129**	*e*P	**P**	**04 45 37.7**	**-2.0**
	comp=Z,8.4nm,0.8s,mb4.7						
YSS	**Yuzh-Sakhalins**	**52.72**	**41**	P	**P**	**04 45 47.4**	**+6.7**
YSS				*e*		04 45 58.8	
SOKR	**Solikamsk**	**52.97**	**338**	⇓*i*P	**P**	**04 45 41.2**	**-1.2**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,350nm,18.0s,MS4.5						
ELZG	**Elazig**	**53.69**	**308**	P	**P**	**04 45 48.5**	**+0.6**
MALT	**Malatya**	**54.08**	**307**	*e*P	**P**	**04 45 49.8**	**-1.0**
MALT				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
MALT	**Malatya**	**54.08**	**307**	*e*P	**P**	**04 45 49.8**	**-1.1**
	comp=Z,16nm,1.2s,mb4.8						
SOC	**Sochi**	**54.37**	**314**	*e*P	**P**	**04 45 51.2**	**-1.7**
SOC				*e*		04 46 58.4	
SOC				*e*		04 47 52.9	
SOC				*e*PPP	PPP	04 49 10.4	+3.0
SOC				*e*S	**S**	**04 53 27.7**	**+0.1**
SOC				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
SOC				pmax	pmax		
	comp=N,8.0nm,0.8s						
SOC				pmax	pmax		
	comp=E,6.0nm,0.9s						
ASF	**Jabal al Asfar**	**54.41**	**300**	P	**P**	**04 45 53.0**	**-0.3**
	comp=E,3.7nm,0.8s,mb4.4,SNR=5.3						
ASF				LR	LR	05 12 01.0	
	comp=E,270nm,21.5s,MS4.3,baz=156,slow=39						
ASAR	**Alice Springs**	**54.48**	**133**	P	**P**	**04 45 53.3**	**-0.6**
	comp=E,2.8nm,0.5s,mb4.5,baz=308,slow=6.7,SNR=33						
ASAR				S	**S**	**04 53 29.1**	**-0.1**
	comp=E,1.1nm,0.9s,baz=295,slow=14,SNR=5.5						
GZT	**Gaziantep**	**54.58**	**306**	P	**P**	**04 45 55.0**	**+0.5**
KAHT	**Ahir Dag**	**55.16**	**306**	P	**P**	**04 45 59.2**	**+0.4**
COBT	**Iskenderun**	**55.48**	**305**	P	**P**	**04 46 01.6**	**+0.5**
EIL	**Elat**	**55.88**	**297**	P	**P**	**04 46 04.5**	**+0.4**
	comp=E,8.0nm,1.0s,mb4.7,baz=36,slow=8.5,SNR=3.6						
ANN	**Anapa**	**56.28**	**315**	*e*P	**P**	**04 45 58.7**	**-8.0**
ANN				pmax	pmax		
	comp=Z,94nm,1.2s,mb5.7						
AVNT	**Avonos**	**56.92**	**307**	P	**P**	**04 46 11.2**	**-0.2**
KMBO	**Kilima Mbogo**	**57.46**	**260**	*i* P	pP	04 46 26.3	+2.0
KMBO				pmax	pmax		
	comp=Z,2.0nm,1.0s						
KMBO	**Kilima Mbogo**	**57.46**	**260**	P	**P**	**04 46 17.1**	**+1.6**
	comp=Z,0.4nm,0.4s,mb3.8,baz=52,slow=19,SNR=3.1						
KMBO				LR	LR	05 10 10.0	
	comp=Z,166nm,19.4s,MS4.2,baz=274,slow=35						
BRTR	**Keskin Array B**	**58.00**	**308**	P	**P**	**04 46 18.0**	**-1.0**
	comp=Z,8.2nm,0.9s,mb4.8,baz=121,slow=7.2,SNR=43						
ELDT	**Eldivan**	**58.28**	**309**	P	**P**	**04 46 20.5**	**-0.4**
SIM	**Simferopol’**	**58.60**	**314**	*c*P	**P**	**04 46 30.1**	**+7.0**
SIM				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
OBN	**Obninsk**	**59.94**	**326**	*e*P	**P**	**04 46 31.0**	**-1.2**
OBN				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.2						
ESKT	**Eskisehir**	**60.10**	**308**	P	**P**	**04 46 32.8**	**-0.8**
TIXI	**Tiksi**	**61.58**	**12**	*i* P	**P**	**04 46 42.6**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.8						
CTA	**Charters Tower**	**62.06**	**122**	P	**P**	**04 46 52.2**	**+5.1**
	comp=Z,1.7nm,0.8s,mb4.2,baz=249,slow=8.6,SNR=2.7						
AKASG	**Malin Array Be**	**63.02**	**320**	P	**P**	**04 46 51.4**	**-1.6**
	comp=Z,0.7nm,0.3s,mb4.2,baz=83,slow=4.9,SNR=11						
IDI	**Anoyia**	**64.57**	**303**	P	**P**	**04 47 03.3**	**-0.2**
	comp=Z,6.7nm,0.8s,mb4.7,baz=72,slow=9.9,SNR=3.8						
STKA	**Stephens Creek**	**64.87**	**135**	P	**P**	**04 47 05.2**	**-0.3**
	comp=Z,3.0nm,0.6s,mb4.5,baz=262,slow=8.1,SNR=3.7						
STKA				LR	LR	05 16 09.0	
	comp=Z,283nm,21.3s,MS4.4,baz=230,slow=37						
FINES	**FINESS Array B**	**67.08**	**331**	P	**P**	**04 47 18.4**	**-0.7**
	comp=Z,3.0nm,0.7s,mb4.5,baz=92,slow=6.5,SNR=16						
FINES				LR	LR	05 21 02.1	
	comp=Z,300nm,21.0s,MS4.5,baz=303,slow=40						
CRVS	**Cervenica-Dubn**	**67.75**	**317**	*e*P	**P**	**04 47 26.0**	**+2.5**
CRVS				*e*		04 47 42.9	
CRVS	**Cervenica-Dubn**	**67.75**	**317**	*e*	**P**	**04 47 26.0**	**+2.5**
CRVS				*e*		04 47 42.9	
PSZ	**Piszkesteto**	**68.73**	**316**	*e*P	**P**	**04 47 29.6**	**0.0**
PSZ				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
PSZ	**Piszkesteto**	**68.73**	**316**	*e*P	**P**	**04 47 29.6**	**0.0**
	comp=Z,7.2nm,0.9s,mb4.6						
OJC	**Ojcow**	**68.92**	**319**	*e*P	**P**	**04 47 30.4**	**-0.4**
KEV	**Kevo**	**68.96**	**340**	*e*p	**P**	**04 47 26.4**	**-4.3**
ARCES	**ARCESS Array B**	**69.40**	**340**	P	**P**	**04 47 33.3**	**-0.1**
	comp=Z,4.4nm,1.1s,mb4.3,baz=81,slow=5.0,SNR=11						
ARCES				LR	LR	05 23 35.2	
	comp=Z,516nm,18.3s,MS4.8,baz=16,slow=41						
VYHS	**Vyhne**	**69.46**	**317**	*e*P	**P**	**04 47 30.6**	**-3.5**
MORC	**Moravsky Berou**	**70.36**	**318**	*e*P	**P**	**04 47 38.2**	**-1.3**
MORC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
MORC	**Moravsky Berou**	**70.36**	**318**	*e*P	**P**	**04 47 38.2**	**-1.4**
	comp=Z,7.9nm,0.8s,mb4.7						
LSZ	**Lusaka**	**70.58**	**248**	*e*P	**P**	**04 47 42.6**	**+1.1**
LSZ				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
LSZ	**Lusaka**	**70.58**	**248**	*e*P	**P**	**04 47 42.6**	**+1.1**
	comp=Z,14nm,1.2s,mb4.8						
DPC	**Dobruska-Polom**	**71.16**	**319**	*e*P	**P**	**04 47 44.7**	**+0.3**
KSP	**Ksiaz**	**71.18**	**319**	*e*P	**P**	**04 47 44.5**	**0.0**
KSP				*e**PP	pP	04 47 49.7	-3.7
BRG	**Berggiesshubel**	**72.67**	**319**	*i* P	**P**	**04 47 54.1**	**+0.7**
BRG				*e*		04 48 00.7	
BRG				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BRG	**Berggiesshubel**	**72.67**	**319**	*i* P	**P**	**04 47 54.1**	**+0.7**
	comp=Z,6.0nm,0.9s,mb4.5						
BRG				*e*		04 48 00.7	
GERES	**GERESS Array B**	**72.87**	**317**	P	**P**	**04 47 54.5**	**-0.1**
	comp=Z,6.2nm,0.9s,mb4.5,baz=89,slow=5.4,SNR=36						
KHC	**Kasperske Hory**	**72.94**	**317**	*e*P	**P**	**04 47 55.5**	**+0.5**
CLL	**Collm**	**73.26**	**320**	P	**P**	**04 47 56.0**	**-0.8**
NB2	**NORSAR Subarra**	**74.16**	**330**	P	**P**	**04 48 01.0**	**-0.8**
	comp=Z,7.7nm,1.0s,mb4.6,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**74.16**	**330**	P	**P**	**04 48 01.0**	**-0.8**
NB2				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
NOA	**NORSAR Array B**	**74.16**	**330**	P	**P**	**04 48 01.3**	**-0.5**
	comp=Z,2.0nm,0.7s,mb4.2,baz=89,slow=5.8,SNR=5.2						
NOA				LR	LR	05 23 53.7	
	comp=Z,200nm,19.8s,MS4.4,baz=245,slow=38						
DAVOX	**Davos**	**75.56**	**315**	P	**P**	**04 48 10.4**	**+0.2**
	comp=Z,4.1nm,0.9s,mb4.3,baz=134,slow=8.2,SNR=5.8						
LPG	**La Plagne**	**77.86**	**314**	*e*P	**P**	**04 48 23.7**	**+0.7**
	comp=Z,34nm,1.0s,mb4.9						
LPG	**La Plagne**	**77.86**	**314**	*e*P	**P**	**04 48 23.7**	**+0.7**
LPG				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
BOSA	**Boshof**	**78.10**	**236**	*e*P	**P**	**04 48 25.6**	**+0.9**
BOSA				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
BOSA	**Boshof**	**78.10**	**236**	*e*P	**P**	**04 48 25.6**	**+0.8**
	comp=Z,14nm,1.0s,mb4.8						
ESDC	**Sonseca Array**	**86.75**	**310**	P	**P**	**04 49 10.2**	**+0.9**
	comp=Z,0.2nm,0.3s,mb3.8,baz=117,slow=5.7,SNR=4.1						
ILAR	**Eielson Array**	**89.55**	**22**	P	**P**	**04 49 24.5**	**+2.4**
	comp=Z,0.8nm,0.7s,mb4.2,baz=300,slow=4.3,SNR=12						
ILAR				LR	LR	05 38 09.7	
	comp=Z,134nm,19.9s,MS4.4,baz=142,slow=41						
RPZ	**Rata Peaks**	**90.84**	**135**	LR	LR	05 28 12.3	
	comp=Z,190nm,21.4s,MS4.5,baz=88,slow=34						
SYO	**Syowa Base**	**90.84**	**197**	⇓PcP	PcP	04 49 33.0	+3.7
SYO	**Syowa Base**	**90.84**	**197**	⇓pP	pP	04 49 37.6	+0.6
INK	**Inuvik**	**91.51**	**16**	P	**P**	**04 49 34.1**	**+3.0**
	comp=Z,4.4nm,1.1s,mb4.7,baz=321,slow=4.1,SNR=10						
YKA	**Yellowknife Ar**	**100.83**	**13**	P	P	04 50 19.6	+5.9
	comp=Z,0.1nm,0.6s,baz=337,slow=4.2,SNR=3.7						
YKA				PP	PP	04 54 23.6	-0.7
	comp=Z,0.4nm,0.8s,baz=342,slow=7.7,SNR=3.0						
PDAR	**Pinedale Array**	**119.88**	**19**	PKP	PKPdf	04 55 19.4	+0.1
	comp=Z,0.8nm,0.7s,baz=13,slow=1.2,SNR=7.7						
NVAR	**Mina Array Bea**	**120.17**	**28**	PKP	PKPdf	04 55 19.8	-0.2
	comp=Z,1.6nm,0.8s,baz=301,slow=3.4,SNR=3.8						
MSU	**Marysvale**	**122.71**	**24**	*e*PKIKP	PKPdf	04 55 24.6	-0.2
MNTX	**Cornudas Mount**	**131.30**	**21**	*e*PKPdf	PKPdf	04 55 42.5	+0.8
TXAR	**Lajitas Array**	**134.05**	**21**	PKP	PKPdf	04 55 46.3	-0.5
	comp=Z,0.6nm,0.7s,baz=194,slow=0.7,SNR=8.4						
JCT	**Junction City**	**134.16**	**16**	*e*PKIKP	PKPdf	04 55 45.4	-1.6
BDFB	**Brasilia**	**142.57**	**262**	PKP	PKPdf	04 56 02.5	-0.1
	comp=Z,1.0nm,0.7s,baz=129,slow=6.5,SNR=2.7						
LPAZ	**La Paz**	**161.89**	**260**	PKPab	PKPab	04 57 16.2	+2.5
	comp=Z,2.0nm,1.1s,baz=90,slow=3.0,SNR=3.8						

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*IDC **28** 04:39:38.8±1.2, 8.93N×93.69E, mb4.1/11, mb1 4.3/11, mb1mx4.1/19, mbtmp4.1/11, Error ellipse: s-maj=44.7km s-min=25.4km az=47.0*

ISC 28 04:39:42.4±1.1**, 9.0N**±0.2×**93.7E**±0.2**, h33^{km}, n12, σ0^{s}57**/11**, mb4.1**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**40.21**	**13**	P	**P**	**04 47 17.6**	**+0.2**
	1.1nm,0.9s,mb3.6,baz=198,slow=9.1,SNR=3.0						
SONM				PcP	PcP	04 49 20.9	-0.8
	0.5nm,0.7s,baz=194,slow=5.0,SNR=3.1						
ZAL	**Zalesovo**	**45.43**	**353**	P	**P**	**04 47 59.8**	**-0.1**
	5.8nm,0.7s,mb4.5,baz=299,slow=8.1,SNR=17						
BVAR	**Borovoye Array**	**47.84**	**341**	P	**P**	**04 48 18.3**	**-0.5**
	1.1nm,0.6s,mb4.1,baz=135,slow=8.4,SNR=4.5						
WRA	**Warramunga Arr**	**49.23**	**126**	P	**P**	**04 48 29.7**	**-0.3**
	0.6nm,0.6s,mb3.8,baz=306,slow=9.0,SNR=3.3						
BRTR	**Keskin Array B**	**61.41**	**310**	P	**P**	**04 49 56.6**	**-1.2**
	3.0nm,1.1s,mb4.3,baz=121,slow=8.0,SNR=5.5						
FINES	**FINESS Array B**	**71.56**	**332**	P	**P**	**04 51 01.9**	**0.0**
	2.8nm,1.0s,mb4.2,baz=117,slow=6.2,SNR=3.6						
ARCES	**ARCESS Array B**	**74.11**	**340**	P	**P**	**04 51 17.0**	**+0.3**
	4.0nm,0.9s,mb4.3,baz=68,slow=6.5,SNR=4.0						
GERES	**GERESS Array B**	**76.74**	**318**	P	**P**	**04 51 32.4**	**+0.2**
	0.9nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=6.1						
ESDC	**Sonseca Array**	**90.20**	**310**	P	**P**	**04 52 42.4**	**+1.3**
	0.4nm,0.5s,mb4.0,baz=56,slow=4.6,SNR=4.6						
ILAR	**Eielson Array**	**93.91**	**22**	P	**P**	**04 52 57.3**	**-0.2**
	0.8nm,0.8s,mb4.2,baz=310,slow=4.4,SNR=7.5						
INK	**Inuvik**	**96.08**	**16**	P	**P**	**04 53 07.5**	**+0.2**
	1.3nm,0.8s,mb4.4,baz=0.5,slow=5.0,SNR=4.6						
TXAR	**Lajitas Array**	**138.41**	**23**	PKP	PKPdf	04 59 06.2	+0.9
	0.5nm,1.0s,baz=22,slow=4.9,SNR=2.9						

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*IDC **28** 04:45:53.1±7.6, 7.97N×93.88E, h57^{km}±66^{km}, mb3.7/8, mb1 3.9/9, mb1mx3.7/18, mbtmp4.0/9, Error ellipse: s-maj=57.0km s-min=18.0km az=52.0*

ISC 28 04:45:48.2±0.9**, 7.9N**±0.1×**93.8E**±0.2**, h33^{km}, n9, σ0^{s}60**/9**, mb3.9**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.65**	**25**	P	**P**	**04 48 35.5**	**+0.3**
	baz=212,slow=14,SNR=10						
SONM	**Songino Array**	**41.24**	**13**	P	**P**	**04 53 31.0**	**-0.7**
	0.4nm,0.7s,mb3.1,baz=198,slow=8.1,SNR=2.9						
ZAL	**Zalesovo**	**46.51**	**353**	P	**P**	**04 54 14.5**	**+0.3**
	1.9nm,0.8s,mb4.1,baz=308,slow=4.5,SNR=6.4						
WRA	**Warramunga Arr**	**48.53**	**125**	P	**P**	**04 54 30.7**	**+0.2**
	1.7nm,0.6s,mb4.3,baz=306,slow=8.5,SNR=8.4						
ASAR	**Alice Springs**	**50.17**	**130**	P	**P**	**04 54 42.9**	**-0.2**
	1.1nm,0.7s,mb4.0,baz=301,slow=6.7,SNR=6.7						
ASAR				PcP	PcP	04 56 03.2	+1.0
	0.8nm,0.7s,baz=312,slow=3.4,SNR=3.7						
BRTR	**Keskin Array B**	**62.18**	**311**	P	**P**	**04 56 08.4**	**-0.4**
	0.3nm,0.6s,mb3.6,baz=127,slow=7.2,SNR=3.5						
FINES	**FINESS Array B**	**72.56**	**332**	P	**P**	**04 57 13.6**	**0.0**
	2.2nm,1.0s,mb4.0,baz=104,slow=7.9,SNR=4.1						
GERES	**GERESS Array B**	**77.61**	**318**	P	**P**	**04 57 44.2**	**+1.3**
	1.1nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=7.8						
NOA	**NORSAR Array B**	**79.57**	**331**	P	**P**	**04 57 52.5**	**-0.8**
	1.6nm,0.9s,mb3.9,baz=130,slow=6.0,SNR=3.5						

IDC 28 04:50:44.1±11.0**, 9.10N**×**92.06E, mb4.0**/4**, mb1 4.1**/4**, mb1mx3.7**/17**, mbtmp4.0**/4**, Error ellipse: s-maj=273.9km s-min=59.4km az=146.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**40.47**	**15**	P	P	04 58 24.5	-1.6
	3.3nm,1.2s,baz=200,slow=7.7,SNR=9.8						
ZAL	**Zalesovo**	**45.09**	**354**	P	P	04 59 01.9	-1.8
	1.0nm,0.3s,baz=6.4,slow=1.2,SNR=2.3						
FINES	**FINESS Array B**	**70.67**	**332**	P	P	05 02 01.1	-2.3
	0.8nm,0.6s,baz=112,slow=7.5,SNR=4.7						
GERES	**GERESS Array B**	**75.54**	**318**	P	P	05 02 31.0	-1.3
	0.6nm,0.7s,baz=90,slow=6.7,SNR=5.6						

IDC 28 04:57:47.1±1.6**, 7.39N**×**92.99E, mb3.7**/5**, mb1 3.9**/5**, mb1mx3.6**/18**, mbtmp3.7**/5**, Error ellipse: s-maj=71.1km s-min=23.4km az=54.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**41.88**	**14**	P	P	05 05 39.9	-0.8
	0.5nm,0.5s,baz=200,slow=7.2,SNR=4.4						
WRA	**Warramunga Arr**	**48.92**	**124**	P	P	05 06 34.5	-2.8
	1.3nm,0.9s,baz=304,slow=8.9,SNR=7.2						
BVAR	**Borovoye Array**	**49.08**	**342**	P	P	05 06 35.0	-3.0
	0.5nm,0.5s,baz=173,slow=12,SNR=3.1						
ASAR	**Alice Springs**	**50.49**	**129**	P	P	05 06 48.0	-1.3
	0.6nm,0.8s,baz=311,slow=7.7,SNR=5.2						
GERES	**GERESS Array B**	**77.42**	**318**	P	P	05 09 44.9	-1.0
	0.7nm,0.8s,baz=90,slow=4.0,SNR=6.0						

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*IDC **28** 04:58:47.5±0.7, 3.56N×94.52E, mb4.2/16, mb1 4.4/17, mb1mx4.3/23, mbtmp4.2/17, ML4.5/1, MS4.1/6, Ms1 4.1/6, ms1mx3.7/24, Error ellipse: s-maj=37.3km s-min=14.0km az=45.0*

*MOS **28** 04:58:54.2±1.3, 4.14N×95.38E, h33^{km}, mb4.8/9, Error ellipse: s-maj=41.0km s-min=16.6km az=111.1*

ISC 28 04:58:47.9±3.4**, 3.43N**±0.08×**94.53E**±0.09**, h14^{km}**±20^{km}**, n45, σ1^{s}15**/43**, mb4.5**/30**, MS4.3**/7**, 1C-2D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	**Songkhla**	**7.11**	**58**	P	**Pn**	**05 00 34.0**	**-0.2**
	542nm,1.0s						
CMAR	**Chiang Mai Arr**	**15.55**	**16**	Pn	**P**	**05 02 28.6**	**0.0**
	0.7nm,0.3s,baz=202,slow=11,SNR=18						
CHG	**Chiang Mai**	**15.89**	**15**	⇓P	**P**	**05 02 37.7**	**+4.7**
	12nm,0.9s						
NANT	**Nan**	**16.43**	**21**	P	**P**	**05 02 41.0**	**+1.2**
HYB	**Hyderabad**	**20.95**	**313**	*e*P	**P**	**05 03 32.0**	**-1.1**
SHL	**Shillong**	**22.16**	**354**	*e*P	**P**	**05 03 46.0**	**+0.8**
PKI	**Pulchoki**	**25.54**	**341**	*e*P	**P**	**05 04 19.6**	**+1.5**
	43nm,0.9s,mb5.0						
DMN	**Daman**	**25.68**	**340**	*e*P	**P**	**05 04 20.8**	**+1.5**
	100nm,1.2s,mb5.2						
GUN	**Gumba**	**25.71**	**342**	*e*P	**P**	**05 04 20.1**	**+0.5**
	125nm,1.1s,mb5.3						
KKN	**Kakani**	**25.79**	**341**	*e*P	**P**	**05 04 20.5**	**+0.1**
	51nm,0.9s,mb5.1						
GKN	**Gorkha**	**26.20**	**340**	*e*P	**P**	**05 04 25.0**	**+0.8**
	48nm,0.8s,mb5.1						
KOLN	**Koldanda**	**26.36**	**338**	*e*P	**P**	**05 04 25.5**	**-0.2**
	47nm,0.9s,mb5.0						
AAK	**Ala-Archa**	**42.93**	**338**	*i* P	**P**	**05 06 49.8**	**+1.7**
AAK				pmax	pmax		
	comp=Z,8.0nm,1.5s,mb4.2						
SONM	**Songino Array**	**45.41**	**11**	P	**P**	**05 07 07.2**	**-0.8**
	comp=Z,2.7nm,0.9s,mb4.1,baz=190,slow=8.5,SNR=12						
WRA	**Warramunga Arr**	**45.47**	**122**	P	**P**	**05 07 09.3**	**+0.4**
	comp=Z,5.3nm,0.7s,mb4.5,baz=300,slow=9.0,SNR=12						
WRAB	**Tennant Creek**	**45.47**	**122**	*i* P	**P**	**05 07 09.6**	**+0.7**
ASAR	**Alice Springs**	**46.85**	**127**	P	**P**	**05 07 20.2**	**+0.4**
	comp=Z,4.5nm,0.9s,mb4.4,baz=295,slow=8.1,SNR=19						
ZAK	**Zakamensk**	**47.37**	**8**	*e*P	**P**	**05 07 21.2**	**-2.3**
TLY	**Talaya**	**48.69**	**8**	*i* P	**P**	**05 07 30.7**	**-3.0**
TLY				pmax	pmax		
	comp=Z,13nm,1.8s,mb4.7						
ZAL	**Zalesovo**	**50.98**	**353**	*i* P	**P**	**05 07 49.4**	**-1.8**
ZAL				pmax	pmax		
	comp=Z,3.0nm,0.4s						
ZAL	**Zalesovo**	**50.98**	**353**	P	**P**	**05 07 49.6**	**-1.6**
	comp=Z,3.3nm,0.4s,mb4.6,baz=274,slow=5.7,SNR=6.8						
BVAR	**Borovoye Array**	**53.30**	**342**	P	**P**	**05 08 06.3**	**-2.4**
	comp=Z,2.0nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=9.4						
CTA	**Charters Tower**	**55.88**	**117**	P	**P**	**05 08 28.9**	**+1.0**
	comp=Z,3.9nm,0.9s,mb4.4,baz=280,slow=9.3,SNR=7.8						
STKA	**Stephens Creek**	**56.82**	**132**	P	**P**	**05 08 33.9**	**-0.6**
	comp=Z,3.3nm,0.7s,mb4.5,baz=298,slow=5.7,SNR=5.4						
GNI	**Garni**	**57.85**	**316**	*i* P	**P**	**05 08 45.6**	**+3.9**
GNI				pmax	pmax		
	comp=Z,11nm,1.5s						
GNI	**Garni**	**57.85**	**316**	LR	LR	05 37 06.0	
	comp=Z,98nm,18.3s,MS4.0,baz=311,slow=40						
ARU	**Arti**	**60.12**	**338**	⇓*i*P	**P**	**05 08 58.2**	**+1.0**
ARU				*e*		05 09 44.4	
ARU				*e*		05 11 13.5	
ARU				*e*PPP	PPP	05 12 39.9	+1.8
ARU				*e*S	**S**	**05 17 09.5**	**+1.3**
ARU				pmax	pmax		
	comp=Z,14nm,1.4s,mb4.8						
KIV	**Kislovodsk**	**60.89**	**319**	*e*P	**P**	**05 09 03.5**	**+0.8**
KIV				pmax	pmax		
	comp=E,5.0nm,1.0s						
KIV				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
ASF	**Jabal al Asfar**	**61.01**	**305**	P	**P**	**05 09 03.9**	**+0.3**
	comp=Z,1.6nm,0.6s,mb4.3,baz=27,slow=4.5,SNR=2.5						
ASF				LR	LR	05 36 50.4	
	comp=Z,241nm,18.4s,MS4.4,baz=252,slow=38						
EIL	**Elat**	**62.02**	**302**	LR	LR	05 37 10.4	
	comp=Z,277nm,18.1s,MS4.5,baz=7.1,slow=37						
BRTR	**Keskin Array B**	**65.65**	**312**	P	**P**	**05 09 33.5**	**-0.7**
	comp=Z,0.9nm,0.9s,mb3.8,baz=129,slow=9.2,SNR=4.8						
OBN	**Obninsk**	**69.34**	**329**	*i* P	**P**	**05 10 00.8**	**+3.7**
OBN				pmax	pmax		
	comp=Z,12nm,1.8s,mb4.5						
TIXI	**Tiksi**	**71.49**	**11**	⇑*i*P	**P**	**05 10 08.1**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,330nm,13.0s,MS4.8						
AKASG	**Malin Array Be**	**71.88**	**323**	P	**P**	**05 10 12.8**	**+0.3**
	comp=Z,0.7nm,0.6s,mb3.8,baz=92,slow=4.8,SNR=4.8						
MLR	**Muntele Rosu**	**72.63**	**317**	P	**P**	**05 10 16.8**	**-0.3**
	comp=Z,3.2nm,1.0s,mb4.2,baz=180,slow=1.0,SNR=4.7						
FINES	**FINESS Array B**	**76.81**	**333**	P	**P**	**05 10 38.7**	**-2.0**
	comp=Z,1.9nm,0.7s,mb4.2,baz=112,slow=10,SNR=4.2						
FINES				LR	LR	05 48 27.8	
	comp=Z,196nm,19.6s,MS4.4,baz=359,slow=39						
KAF	**Kangasniemi**	**76.91**	**333**	*e*p	**P**	**05 10 34.6**	**-6.7**
	comp=Z,0.3nm,0.4s,mb3.6						
ARCES	**ARCESS Array B**	**79.56**	**340**	P	**P**	**05 10 55.7**	**0.0**
	comp=Z,2.8nm,0.8s,mb4.2,baz=72,slow=3.8,SNR=4.8						
ARCES				LR	LR	05 54 27.0	
	comp=Z,237nm,18.3s,MS4.6,baz=204,slow=42						
FX1	**Attu Island--F**	**80.42**	**37**	LR	LR	05 50 38.2	
	comp=Z,14nm,18.0s,MS3.4,baz=63,slow=39						
PRU	**Pruhonice**	**80.95**	**320**	*e*P	**P**	**05 11 05.9**	**+2.4**
GERES	**GERESS Array B**	**81.39**	**319**	P	**P**	**05 11 05.5**	**-0.3**
	comp=Z,1.7nm,0.8s,mb4.0,baz=108,slow=4.2,SNR=13						
BRG	**Berggiesshubel**	**81.41**	**321**	*e*P	**P**	**05 11 11.1**	**+5.2**
BRG				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
KHC	**Kasperske Hory**	**81.50**	**319**	*e*P	**P**	**05 11 05.5**	**-0.9**
NOA	**NORSAR Array B**	**83.78**	**331**	P	**P**	**05 11 17.0**	**-0.9**
	comp=Z,1.3nm,0.9s,mb4.0,baz=94,slow=18,SNR=2.8						
DAVOX	**Davos**	**83.85**	**317**	P	**P**	**05 11 18.6**	**0.0**
	comp=Z,4.2nm,0.9s,mb4.6,baz=124,slow=14,SNR=6.4						

IDC 28 05:02:45.2±1.3**, 3.53N**×**94.20E, mb4.0**/6**, mb1 4.3**/7**, mb1mx4.0**/19**, mbtmp4.0**/7**, ML4.5**/1**, Error ellipse: s-maj=48.4km s-min=26.4km az=46.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.55**	**17**	Pn	P	05 06 27.0	-0.6
	0.7nm,0.3s,baz=212,slow=12,SNR=9.7						
SONM	**Songino Array**	**45.37**	**12**	P	P	05 11 06.3	-0.9

	1.3nm,1.0s,baz=184,slow=6.6,SNR=4.2						
WRA	Warramunga Arr	45.80	122	P	P	05 11 09.0	-1.9
	5.4nm,0.9s,baz=301,slow=8.9,SNR=9.7						
BVAR	Borovoye Array	53.11	342	P	P	05 12 02.6	-4.1
	0.9nm,0.6s,baz=149,slow=8.4,SNR=3.9						
BRTR	Keskin Array B	65.34	312	P	P	05 13 30.6	-1.1
	0.5nm,0.9s,baz=121,slow=8.4,SNR=3.0						
GERES	GERESS Array B	81.10	319	P	P	05 15 03.3	-0.6
	1.0nm,0.7s,baz=90,slow=4.0,SNR=6.4						
NOA	NORSAR Array B	83.53	331	P	P	05 15 14.2	-2.0
	0.6nm,0.9s,baz=49,slow=4.1,SNR=2.5						

IDC ***28*** *05:03:26.7±7.0, 62.63N×150.83W, h68^{km}±67^{km}, mb3.1/1, mb1 3.5/3, mb1mx3.2/19, mbtmp3.4/3, ML3.5/2, Error ellipse: s-maj=54.7km s-min=24.7km az=38.0*
NEIC ***28*** *05:03:27.8, 62.52N×150.82W, h74^{km}, After AEIC.*
ISC 28 05:03:25.9±0.4,**62.53N**±0.02×**150.79W**±0.07,**h87**^{km}±6^{km},**n57,σ0^{s}70**/64,**mb3.2**/1,**Central Alaska**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CUT	Chulitna	0.28	117	P	P	05 03 38.6	-0.3
TRF	Thorofare Moun	0.95	14	P	P	05 03 45.7	+0.7
TRF				S	S	05 03 59.9	+0.5
PWA	Palmer West	0.98	154	P	P	05 03 45.2	-0.2
KTH	Kantishna Hill	1.03	357	P	P	05 03 46.7	+0.8
KTH				S	S	05 04 01.0	0.0
STLK	Strandline Lak	1.15	206	P	P	05 03 47.1	-0.3
GHO	Glory Hole Cre	1.16	130	P	P	05 03 47.8	+0.2
PMR	Palmer	1.23	140	P	P	05 03 48.5	0.0
PMR				S	S	05 04 05.2	-0.1
RND	Reindeer	1.25	44	P	P	05 03 49.0	+0.3
CGLM	Capps Glacier	1.36	206	P	P	05 03 49.6	-0.5
SML	Sawmill	1.36	121	P	P	05 03 50.6	+0.4
SML				S	S	05 04 09.1	+0.8
FIB	Fire Island	1.40	168	P	P	05 03 51.2	+0.5
FIB				S	S	05 04 11.1	+2.0
CRP	Crater Peak	1.42	208	P	P	05 03 50.8	-0.2
CRP				S	S	05 04 09.3	-0.3
CP2	Crater Peak Tw	1.45	209	P	P	05 03 51.2	-0.1
CKN	Chakachatna No	1.47	207	P	P	05 03 51.6	0.0
MCK	McKinley	1.47	34	P	P	05 03 52.0	+0.4
BGL	Barrier Glacie	1.48	211	P	P	05 03 51.8	0.0
SPU	Mount Spurr	1.48	204	P	P	05 03 51.3	-0.4
CKL	Chakachamna La	1.53	209	P	P	05 03 52.2	-0.1
RC01	Rabbit Creek A	1.53	160	P	P	05 03 51.6	-0.8
KNK	Knik Glacier	1.57	134	P	P	05 03 53.0	+0.1
BWN	Browne	1.75	19	P	P	05 03 55.9	+0.7
SCM	Sheep Creek Mo	1.77	112	P	P	05 03 55.5	0.0
SLKM	Skilak Lake	2.05	172	P	P	05 03 59.0	-0.2
RDT	Redoubt	2.11	202	P	P	05 04 00.3	+0.2
DFR	Drift River	2.15	206	P	P	05 04 00.8	+0.2
NEA	Nenana	2.19	20	P	P	05 04 01.0	-0.2
NCT	North Crescent	2.23	208	P	P	05 04 02.0	+0.3
RDN	Redoubt North	2.23	206	P	P	05 04 01.9	+0.1
REF	Redoubt East F	2.25	205	P	P	05 04 02.2	+0.3
RSO	Redoubt South	2.28	205	*e*P	P	05 04 02.4	-0.1
GLI	Glacier Island	2.42	132	P	P	05 04 03.8	-0.6
TT01	Tatalina	2.44	281	P	P	05 04 04.2	-0.4
THY	Trims Highway	2.47	67	*e*P	P	05 04 05.7	+0.7
PAX	Paxson	2.49	77	P	P	05 04 06.4	+1.1
CCB	Clear Creek Bu	2.51	31	P	P	05 04 05.3	-0.3
MLY	Manley	2.51	1	P	P	05 04 05.9	+0.3
SEW	Seward	2.52	165	P	P	05 04 05.2	-0.6
HDA	Harding Lake	2.55	41	P	P	05 04 06.2	0.0
ILIM	Iliamna	2.67	204	P	P	05 04 07.9	0.0
COLA	College	2.69	28	P	P	05 04 07.9	-0.3
INE	Iliamna NE	2.71	205	P	P	05 04 08.5	+0.1
ILW	Iliamna West	2.73	206	P	P	05 04 08.7	+0.1
FID	Port Fidalgo	2.73	129	P	P	05 04 07.5	-1.2
DIV	Divide	2.77	118	*e*P	P	05 04 07.4	-1.8
ILAR	Eielson Array	2.84	36	P	P	05 04 09.1	-1.2
	34nm,0.3s,baz=220,slow=14,SNR=2045						
ILAR				S	S	05 04 41.2	-2.3
	9.7nm,0.3s,baz=221,slow=20,SNR=16						
IL1	Eielson Array	2.84	36	P	P	05 04 10.0	-0.3
GLM	Gilmore Dome	2.89	30	P	P	05 04 10.8	-0.1
CNPM	China Poot	3.02	184	P	P	05 04 12.6	-0.2
DOT	Dot Lake	3.26	67	P	P	05 04 16.0	-0.1
MENT	Mentasta	3.28	80	*e*P	P	05 04 18.5	+2.2
IMA	Indian Mountai	3.77	342	*e*P	P	05 04 23.4	+0.4
BCA3	Beaver Creek A	4.17	79	P	P	05 04 28.1	-0.6
BALM	Baldy	4.28	107	P	P	05 04 28.6	-1.5
COLD	Coldfoot	4.72	3	P	P	05 04 36.0	-0.3
INK	Inuvik	9.21	44	P	P	05 05 37.2	-0.5
	0.5nm,0.3s,baz=242,slow=15,SNR=38						
YKA	Yellowknife Ar	16.57	74	P	P	05 07 15.0	+1.4
	0.1nm,0.3s,baz=286,slow=10,SNR=7.1						
TXAR	Lajitas Array	44.98	115	P	P	05 11 35.2	+1.4
	0.3nm,0.6s,mb3.2,baz=315,slow=6.6,SNR=6.3						

IDC ***28*** *05:03:30.7±0.6, 4.72N×94.71E, mb4.4/17, mb1 4.5/17, mb1mx4.4/22, mbtmp4.4/17, Error ellipse: s-maj=31.3km s-min=13.4km az=43.0*
ISC 28 05:03:33.8±0.5,**4.51N**±0.10×**94.7E**±0.1,**h33**^{km}**,n29,σ0^{s}98**/26,**mb4.6**/24,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.48	17	Pn	P	05 06 59.9	+1.4
	0.4nm,0.3s,baz=207,slow=12,SNR=3.8						
PKI	Pulchoki	24.56	340	*e*P	P	05 08 51.3	-0.8
	135nm,1.6s,mb5.2						
DMN	Daman	24.70	339	*e*P	P	05 08 54.2	+0.8
	64nm,1.1s,mb5.1						
GUN	Gumba	24.72	341	*e*P	P	05 08 54.7	+1.1
	113nm,1.2s,mb5.3						
KKN	Kakani	24.81	340	*e*P	P	05 08 54.6	+0.2
	49nm,1.0s,mb5.0						
GKN	Gorkha	25.23	339	*e*P	P	05 08 59.1	+0.7
	124nm,1.1s,mb5.3						
KOLN	Koldanda	25.41	337	*e*P	P	05 09 01.2	+1.0
	106nm,1.0s,mb5.3						
SONM	Songino Array	44.33	11	P	P	05 11 41.6	-0.9
	4.2nm,0.8s,mb4.2,baz=192,slow=8.2,SNR=8.6						
SONM				PcP	PcP	05 13 27.2	+0.4
	2.1nm,0.7s,baz=198,slow=3.7,SNR=3.9						
WRA	Warramunga Arr	45.96	123	P	P	05 11 57.0	+1.1
	9.5nm,0.5s,mb5.0,baz=302,slow=9.2,SNR=18						
ASAR	Alice Springs	47.42	128	P	P	05 12 07.9	+0.5
	5.6nm,0.7s,mb4.6,baz=298,slow=7.8,SNR=16						
ZAL	Zalesovo	49.92	352	P	P	05 12 25.5	-0.8
	7.2nm,0.9s,mb4.7,baz=295,slow=7.8,SNR=16						
BVAR	Borovoye Array	52.31	342	P	P	05 12 43.6	-0.7
	3.8nm,0.8s,mb4.4,baz=143,slow=7.2,SNR=8.4						
PMG	Port Moresby	54.12	105	P	P	05 12 57.9	-0.4
	2.9nm,0.3s,mb4.6,baz=267,slow=18,SNR=3.0						
CTA	Charters Tower	56.27	118	P	P	05 13 12.8	-0.9
	8.1nm,1.1s,mb4.7,baz=293,slow=7.4,SNR=6.0						
STKA	Stephens Creek	57.45	132	P	P	05 13 22.4	+0.3
	5.7nm,1.1s,mb4.5,baz=172,slow=6.5,SNR=3.1						
KMBO	Kilima Mbogo	57.62	266	P	P	05 13 25.6	+2.1
	0.7nm,0.5s,mb3.9,baz=233,slow=20,SNR=2.5						
BRTR	Keskin Array B	65.01	312	P	P	05 14 12.3	-0.7
	1.7nm,0.8s,mb4.1,baz=127,slow=6.2,SNR=7.4						
AKASG	Malin Array Be	71.10	322	P	P	05 14 49.7	-1.0
	4.5nm,1.0s,mb4.3,baz=92,slow=4.2,SNR=8.8						
MLR	Muntele Rosu	71.93	316	P	P	05 14 54.0	-1.7
	5.2nm,1.0s,mb4.4,baz=5.7,slow=4.2,SNR=4.3						
FINES	FINESS Array B	75.90	333	P	P	05 15 17.9	-0.7
	2.1nm,0.7s,mb4.2,baz=90,slow=5.6,SNR=13						
KAF	Kangasniemi	76.00	333	*e*p	P	05 15 19.2	+0.1
	3.8nm,0.7s,mb4.4						
OJC	Ojcow	76.86	320	*e*PX	P	05 15 25.9	+1.6
ARCES	ARCESS Array B	78.58	340	P	P	05 15 32.5	-0.9
	1.3nm,0.5s,mb4.1,baz=99,slow=6.7,SNR=11						
GERES	GERESS Array B	80.66	319	P	P	05 15 45.8	+0.8
	1.9nm,0.8s,mb4.0,baz=90,slow=5.9,SNR=6.8						
KHC	Kasperske Hory	80.76	319	*e*P	pP	05 15 55.5	-0.5
NOA	NORSAR Array B	82.89	331	P	P	05 15 54.9	-1.5
	1.5nm,0.9s,mb4.0,baz=108,slow=1.8,SNR=2.8						
DAVOX	Davos	83.15	316	P	P	05 15 57.6	-0.3
	8.2nm,1.1s,mb4.7,baz=121,slow=7.0,SNR=3.7						
PDAR	Pinedale Array	128.08	23	PKP	PKPdf	05 22 38.0	+0.9
	0.6nm,0.8s,baz=134,slow=1.9,SNR=4.3						
TXAR	Lajitas Array	142.03	26	PKP	PKPdf	05 23 05.9	+2.6
	0.4nm,0.7s,baz=120,slow=0.4,SNR=4.0						

IDC ***28*** *05:03:59.9±5.0, 23.05S×179.05W, h422^{km}±54^{km}, mb3.5/10, mb1 3.8/11, mb1mx3.7/15, mbtmp4.3/11, Error ellipse: s-maj=26.3km s-min=19.3km az=23.0*
ISC 28 05:04:00.4±3.1,**23.2S**±0.1×**179.1W**±0.1,**h440**^{km}±34^{km},**n16,σ0^{s}80**/14,**mb3.8**/11,**South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	15.36	191	P	P	05 07 15.6	-1.1
	3.6nm,0.3s,baz=40,slow=2.0,SNR=16						
URZ				S	S	05 09 55.5	+0.2
	1.4nm,0.3s,baz=196,slow=10,SNR=11						
CTA	Charters Tower	32.30	269	P	P	05 09 53.0	+0.3
	8.2nm,0.5s,mb4.4,baz=96,slow=11,SNR=24						
PMG	Port Moresby	35.05	287	P	P	05 10 16.1	+0.2
	5.7nm,0.8s,mb4.0,baz=147,slow=7.4,SNR=3.6						
STKA	Stephens Creek	35.74	247	P	P	05 10 22.3	+0.7
	1.8nm,0.5s,mb3.7,baz=96,slow=10,SNR=4.6						
ASAR	Alice Springs	42.96	260	P	P	05 11 20.5	0.0
	2.4nm,0.7s,mb3.6,baz=97,slow=8.2,SNR=18						
WRA	Warramunga Arr	43.27	265	P	P	05 11 22.7	-0.4
	1.5nm,0.4s,mb3.7,baz=93,slow=8.3,SNR=20						
WRA				S	S	05 17 16.3	-1.2
	0.8nm,0.7s,baz=104,slow=14,SNR=3.1						
VNDA	Vanda	55.14	185	P	P	05 12 51.7	+0.4
	1.1nm,0.5s,mb3.3,baz=60,slow=7.6,SNR=8.9						
NVAR	Mina Array Bea	83.68	44	P	P	05 15 42.8	+0.1
	0.8nm,0.4s,mb3.8,baz=194,slow=6.1,SNR=4.9						
TXAR	Lajitas Array	89.37	58	P	P	05 16 10.6	+0.6
	1.6nm,0.9s,mb3.8,baz=213,slow=6.9,SNR=17						
CMAR	Chiang Mai Arr	90.05	290	P	P	05 16 16.6	+3.3
	3.9nm,1.0s,mb4.2,baz=135,slow=2.6,SNR=5.9						
ILAR	Eielson Array	91.16	13	P	P	05 16 16.1	-1.4
	0.5nm,0.8s,mb3.4,baz=246,slow=3.9,SNR=6.6						
PDAR	Pinedale Array	91.62	44	P	P	05 16 20.0	-0.1
	1.1nm,0.8s,mb3.8,baz=223,slow=2.5,SNR=10						
ARCES	ARCESS Array B	131.37	349	PKP	PKPdf	05 22 20.9	0.0
	3.6nm,0.9s,baz=12,slow=2.1,SNR=5.1						
AKASG	Malin Array Be	144.81	328	PKP	PKPdf	05 22 44.5	-1.0
	1.0nm,0.4s,baz=43,slow=4.1,SNR=14						
BRTR	Keskin Array B	147.79	308	PKPbc	PKPdf	05 22 55.9	+5.0
	0.7nm,0.8s,baz=90,slow=2.5,SNR=4.1						
BRTR				PKPab	PKPab	05 23 01.1	+0.4
	0.6nm,0.6s,baz=18,slow=3.9,SNR=3.9						
GERES	GERESS Array B	152.47	342	PKPbc	PKPdf	05 23 06.1	+8.5
	0.5nm,0.8s,baz=45,slow=1.9,SNR=4.1						

IDC 28 05:08:59.4±1.1,**5.22N**×**94.40E,mb3.9**/8,**mb1 4.1**/8,**mb1mx3.9**/18,**mbtmp3.9**/8,**Error ellipse: s-maj=54.0km s-min=19.7km az=50.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.88	18	Pn	P	05 12 24.7	+4.6
	0.7nm,0.3s,baz=209,slow=16,SNR=5.3						
SONM	Songino Array	43.69	12	P	P	05 17 06.2	-1.6
	0.8nm,0.8s,baz=190,slow=8.8,SNR=4.3						
WRA	Warramunga Arr	46.55	124	P	P	05 17 30.0	-1.1
	5.8nm,0.7s,baz=302,slow=9.3,SNR=14						
ASAR	Alice Springs	48.05	128	P	P	05 17 40.0	-2.9
	1.6nm,0.6s,baz=305,slow=7.5,SNR=6.7						
ZAL	Zalesovo	49.19	353	P	P	05 17 48.6	-2.6
	1.4nm,0.3s,baz=72,slow=3.2,SNR=2.0						
BVAR	Borovoye Array	51.57	342	P	P	05 18 07.6	-1.8
	0.3nm,0.3s,baz=146,slow=10,SNR=2.5						
BRTR	Keskin Array B	64.36	312	P	P	05 19 36.8	-2.7
	0.6nm,0.6s,baz=121,slow=7.2,SNR=4.1						
FINES	FINESS Array B	75.16	332	P	P	05 20 43.2	-2.0
	2.2nm,1.0s,baz=90,slow=5.7,SNR=8.2						
GERES	GERESS Array B	79.96	319	P	P	05 21 11.7	-0.4
	0.2nm,0.4s,baz=104,slow=4.0,SNR=3.4						

IDC ***28*** *05:13:31.7±1.1, 8.87N×92.47E, mb4.1/10, mb1 4.2/10, mb1mx4.0/20, mbtmp4.0/10, Error ellipse: s-maj=45.5km s-min=19.9km az=50.0*
ISC 28 05:13:34.8±0.9,**8.8N**±0.2×**92.5E**±0.2,**h33**^{km}**,n17,σ0^{s}52**/16,**mb4.0**/10,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	Pulchoki	19.85	341	*e*P	P	05 18 07.3	+1.4
	45nm,1.1s						
DMN	Daman	19.99	341	*e*P	P	05 18 07.4	+0.1
	14nm,0.6s						
GUN	Gumba	20.03	343	*e*P	P	05 18 07.8	+0.1
	22nm,0.6s						
KKN	Kakani	20.10	341	*e*P	P	05 18 09.0	+0.5
	19nm,0.8s						
GKN	Gorkha	20.51	340	*e*P	P	05 18 12.6	-0.2
	36nm,0.6s						
KOLN	Koldanda	20.67	337	*e*P	P	05 18 14.3	-0.2
	20nm,0.6s						
SONM	Songino Array	40.68	14	P	P	05 21 12.9	-0.8
	1.8nm,0.7s,mb3.8,baz=197,slow=7.7,SNR=12						
ZAL	Zalesovo	45.46	354	P	P	05 21 52.0	-0.4
	1.1nm,0.3s,mb4.1,baz=311,slow=4.3,SNR=3.8						
BVAR	Borovoye Array	47.62	342	P	P	05 22 09.2	-0.3
	2.9nm,0.9s,mb4.3,baz=127,slow=7.4,SNR=8.4						
WRA	Warramunga Arr	50.13	125	P	P	05 22 29.5	+0.2
	0.5nm,0.4s,mb3.9,baz=308,slow=8.4,SNR=3.9						
ASAR	Alice Springs	51.76	129	P	P	05 22 41.9	+0.3
	0.9nm,0.7s,mb3.8,baz=313,slow=7.8,SNR=6.2						
BRTR	Keskin Array B	60.59	311	P	P	05 23 44.1	-0.5
	2.6nm,1.1s,mb4.3,baz=124,slow=7.5,SNR=7.3						
ARCES	ARCESS Array B	73.87	340	P	P	05 25 07.2	-0.5
	5.9nm,1.0s,mb4.5,baz=97,slow=6.7,SNR=5.6						
VRAC	Vranov	74.19	319	P	P	05 25 09.6	-0.4
	1.0nm,0.4s,mb4.1,baz=51,slow=3.8,SNR=3.6						
GERES	GERESS Array B	76.06	318	P	P	05 25 21.2	+0.5
	0.3nm,0.5s,mb3.5,baz=76,slow=4.0,SNR=3.9						
INK	Inuvik	96.59	16	P	P	05 27 02.3	+0.3
	0.6nm,0.7s,mb4.2,baz=245,slow=12,SNR=4.7						
TXAR	Lajitas Array	139.05	22	PKP	PKPdf	05 33 02.7	+3.8
	0.3nm,1.0s,baz=302,slow=1.0,SNR=3.8						

IDC ***28*** *05:15:34.6±0.8, 13.76N×92.98E, mb4.0/11, mb1 4.2/12, mb1mx4.1/19, mbtmp4.0/12, ML3.8/1, Error ellipse: s-maj=29.5km s-min=17.0km az=48.0*
ISC 28 05:15:37.7±0.8,**13.8N**±0.1×**93.09E**±0.09,**h33**^{km}**,n12,σ0^{s}74**/13,**mb4.0**/11,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.30	50	Pn	Pn	05 17 24.6	-0.3
	0.4nm,0.3s,baz=245,slow=16,SNR=6.4						
CMAR				Sn	Sn	05 18 47.1	-0.3
	0.9nm,0.3s,baz=238,slow=22,SNR=3.0						
SONM	Songino Array	35.71	15	P	P	05 22 36.3	+1.1
	1.5nm,1.0s,mb3.9,baz=198,slow=7.8,SNR=4.3						
ZAL	Zalesovo	40.59	352	P	P	05 23 15.0	-0.8
	0.7nm,0.4s,mb3.6,baz=34,slow=3.6,SNR=2.5						
WRA	Warramunga Arr	52.63	129	P	P	05 24 50.7	-0.4
	2.0nm,0.4s,mb4.4,baz=299,slow=9.9,SNR=19						
WRA				PcP	PcP	05 26 01.7	+0.8
	0.5nm,0.4s,baz=317,slow=3.0,SNR=6.0						
ASAR	Alice Springs	54.57	133	P	P	05 25 05.4	0.0
	2.6nm,0.4s,mb4.7,baz=310,slow=6.9,SNR=60						
BRTR	Keskin Array B	57.88	308	P	P	05 25 27.9	-1.1
	1.1nm,0.7s,mb4.0,baz=123,slow=7.4,SNR=7.1						
MLR	Muntele Rosu	64.29	314	P	P	05 26 12.1	0.0
	1.8nm,0.9s,mb4.1,baz=86,slow=8.0,SNR=3.2						
FINES	FINESS Array B	67.05	331	P	P	05 26 29.1	-0.4
	1.3nm,0.8s,mb4.0,baz=121,slow=8.1,SNR=5.3						
ARCES	ARCESS Array B	69.39	340	P	P	05 26 44.0	0.0
	1.8nm,0.6s,mb4.2,baz=72,slow=7.7,SNR=5.5						
GERES	GERESS Array B	72.78	317	P	P	05 27 05.2	+0.5
	0.6nm,0.6s,mb3.7,baz=76,slow=5.5,SNR=4.9						
NOA	NORSAR Array B	74.11	330	P	P	05 27 12.1	-0.1
	1.1nm,0.9s,mb3.8,baz=84,slow=6.2,SNR=2.4						
ILAR	Eielson Array	89.68	22	P	P	05 28 35.3	+1.9
	0.3nm,0.7s,mb3.7,baz=302,slow=4.9,SNR=4.8						

IDC 28 05:27:46.9±3.1,**6.05N**×**92.38E,mb3.8**/4,**mb1 4.2**/5,**mb1mx3.8**/18,**mbtmp3.9**/5,**Error ellipse: s-maj=102.3km s-min=25.0km az=68.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.90	27	Pn	P	05 31 06.2	-1.4
	1.3nm,0.3s,baz=228,slow=13,SNR=12						
SONM	Songino Array	43.33	14	P	P	05 35 50.1	-2.2
	0.6nm,0.6s,baz=193,slow=6.8,SNR=3.6						
ZAL	Zalesovo	48.14	354	P	P	05 36 28.8	-1.8
	1.3nm,0.4s,baz=266,slow=4.0,SNR=5.4						
WRA	Warramunga Arr	48.68	123	P	P	05 36 32.8	-2.4
	0.5nm,0.4s,baz=308,slow=8.6,SNR=3.1						
ASAR	Alice Springs	50.14	128	P	P	05 36 44.8	-1.6
	1.0nm,0.6s,baz=300,slow=7.1,SNR=9.3						

IDC ***28*** *05:36:08.1±0.4, 9.50N×93.80E, mb5.0/28, mb1 5.1/28, mb1mx5.1/28, mbtmp5.0/28, MS4.8/26, Ms1 4.8/26, ms1mx4.7/32, Error ellipse: s-maj=17.8km s-min=10.3km az=48.0*
MOS ***28*** *05:36:11.9±1.1, 9.47N×93.66E, h33^{km}, mb5.5/50, MS4.9/28, Error ellipse: s-maj=10.0km s-min=4.6km az=122.4*
DHMR ***28*** *05:36:11.0±3.0, 9.51N×93.77E, h10^{km}, mb5.4*
BJI ***28*** *05:36:11.5, 9.22N×93.41E, h45^{km}, mB5.5, mb5.1, Ms5.3, Msz5.0*
NEIC ***28*** *05:36:12.9±0.2, 9.45N×93.71E, h30^{km}, mb5.3/53, MS4.8/24, Error ellipse: s-maj=7.6km s-min=5.8km az=53.0*
HRVD ***28*** *05:36:12.9±0.2, 9.48N×93.77E, h12^{km}, MW5.4/69, Centroid moment Tensor Solution. LP body waves: s55,c99;Mantle waves: s69,c149; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$-1.49±.02; M$_{\theta\theta}$0.06±.02; M$_{\phi\phi}$1.43±.02; M$_{r\theta}$0.19±.07; M$_{\theta\phi}$0.25±.02; M$_{\phi r}$-0.52±.06; Best double couple: M$_{0}$1.58×10^{17} NP1: ϕ_s199°,δ37°,λ-74°. NP2:ϕ_s0°,δ55°,λ-101°. Principal axes: T 1.55, Plg9°, Azm98°; N .06, Plg9°, Azm7°; P -1.61, Plg77°, Azm232°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
CSEM ***28*** *05:36:13.0, 9.81N×93.90E, h33^{km}, mb5.6*
SYO ***28*** *05:36:13.1, 9.48N×93.73E, h30^{km}, MB5.3, MS4.8*
ISC 28 05:36:11.8±1.1,**9.39N**±0.03×**93.73E**±0.03,**h33**^{km}±7^{km},**h31**^{km}±1.6^{km}**:pP-P,n375,σ1^{s}17**/356,**mb5.2**/101,**MS4.9**/70,**30C-24D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNT	Nongplab	6.70	61	P	Sn	05 39 15.0	+8.5
SNG	Songkhla	7.17	107	P	Pn	05 37 55.0	-2.1
	506nm,1.0s						
NST	Nakhon Sawan	8.83	44	P	P	05 38 20.0	-0.1
CM31	Chiang Mai Arr	10.33	29	*e*P	P	05 38 42.7	+1.8
CMAR	Chiang Mai Arr	10.33	29	Pn	P	05 38 41.1	+0.2
	1.0nm,0.3s,baz=216,slow=14,SNR=27						
CMAR				LR	LR	05 42 30.4	
	comp=Z,3µm,20.3s,baz=210,slow=37						
UBT	Ubonrachathani	12.47	61	P	P	05 39 15.0	+5.1
VIS	Vishakhapatnam	13.06	310	*e*P	P	05 39 13.4	-4.3
VIS				*e*		05 41 36.4	
	comp=N,370nm,0.6s						
VIS				*e*		05 41 37.3	
	comp=E,274nm,0.3s						
MDRS	Chennai	13.72	287	*e*P	P	05 39 25.3	-1.1
MDRS				*e*		05 39 26.9	
	comp=Z,437nm,0.8s						
CAL	Calcutta	14.06	339	*e*P	P	05 39 30.0	-0.9
AGT	Agartala	14.60	351	*e*P	P	05 39 40.0	+2.0
IMP	Imphal	15.31	1	*e*	P	05 39 51.5	+4.3
KOD	Kodaikanal	16.05	274	*e*P	P	05 39 56.2	-0.6
KOD				*e*P		05 40 00.0	
KOD				*e*		05 42 40.9	
BOK	Bokaro	16.16	333	*e*P	P	05 39 57.3	-0.8
BOK				*e*		05 40 04.6	
	comp=Z,342nm,1.0s						
SHL	Shillong	16.18	354	*e*P	P	05 39 56.6	-1.8
SHL				*e*		05 40 01.5	
	comp=Z,88nm,1.0s						
SHL				*e*S	S	05 42 57.5	+1.1
TRD	Trivandrum	16.59	268	*e*P	P	05 40 04.1	+0.5
TRD				*e*		05 40 10.1	
	comp=Z,126nm,1.3s						
HYB	Hyderabad	16.77	300	*e*P	P	05 40 06.5	+0.7
HYB				*e*S	S	05 43 02.0	-8.0
HYB				pmax	pmax		
	comp=Z,190nm,1.0s						
HYB	Hyderabad	16.77	300	*e*P	P	05 40 06.5	+0.7
	comp=Z,190nm,1.0s						
HYB				*e*S	S	05 43 02.0	-8.0
HYB	Hyderabad	16.77	300	*i* P	P	05 40 06.5	+0.7
	comp=Z,190nm,1.0s						
HYB				*e*S	S	05 43 11.0	+1.0
HYB				LR	LR	05 45 36.0	
	comp=Z,8.5nm,24.0s						
BLSP	Bilaspur	16.86	320	*e*P	P	05 40 06.0	-1.0
BLSP				*e*		05 40 12.2	
	comp=Z,410nm,1.1s						
BLSP				*e*		05 43 07.0	
KMI	Kunming	17.84	28	P	P	05 40 23.0	+3.8
KMI				AP		05 40 28.0	
KMI				PP	PP	05 40 37.5	+3.6
KMI				S	S	05 43 37.5	+3.1
KMI				SS	SS	05 44 03.0	+5.8
KMI				AMB	AMB		
	comp=Z,160nm,1.6s						
KMI				AMB	AMB		
	comp=Z,3µm,4.2s						
KMI				LR	LR		
	comp=N,4µm,12.2s						
KMI				LR	LR		
	comp=E,4µm,13.2s						
KMI				LR	LR		
	comp=Z,3µm,13.4s						
QIZ	Qiongzhong	18.31	57⇑	*i*P	P	05 40 27.0	+1.8
QIZ				S	S	05 43 43.5	-1.6
QIZ				AMB	AMB		
	comp=Z,2µm,8.4s						
QIZ				LR	LR		
	comp=N,8µm,16.4s						
QIZ				LR	LR		
	comp=Z,5µm,16.5s						
NGP	Nagpur	18.34	311⇑	*e*P	P	05 40 26.3	+0.8
NGP				*e*		05 43 38.3	
MNGI	Mangalore	18.88	283	*i* P	P	05 40 33.3	+1.2
	comp=Z,294nm,1.4s						
MNGI				*e*		05 40 44.0	
	comp=Z,298nm,1.7s						
MNGI				*e*		05 43 51.3	
ALBI	Allahabad	19.47	326	*e*P	P	05 40 37.5	-1.2
AKL	Akola	19.64	307	*e*P	P	05 40 43.1	+2.4
AKL				*e*		05 40 47.2	
	comp=Z,274nm,0.7s						
AKL				*e*		05 44 05.0	
PKI	Pulchoki	19.71	338	*e*P	P	05 40 41.1	-0.3
	comp=Z,1µm,1.5s						
GUN	Gumba	19.85	339	*e*P	P	05 40 42.4	-0.5
	comp=Z,580nm,0.8s						
DMN	Daman	19.86	337	*e*P	P	05 40 43.0	0.0
	comp=Z,400nm,1.1s						
KKN	Kakani	19.96	338	*e*P	P	05 40 43.6	-0.4
	comp=Z,344nm,1.0s						
LSA	Lhasa	20.35	354	*e*P	P	05 40 47.1	-1.0
LSA				pmax	pmax		
	comp=Z,74nm,0.6s						
LSA				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.6						
LSA	Lhasa	20.35	354	*e*P	P	05 40 47.1	-1.0
	comp=Z,74nm,0.6s						
LSA				LR	LR		
	comp=Z,3µm,20.0s,MS4.6						
GOA	Goa	20.35	289	*e*		05 40 56.6	
GOA				*e*		05 40 59.7	
	comp=Z,107nm,1.2s						
GOA				*e*		05 44 19.7	
GKN	Gorkha	20.40	336	*e*P	P	05 40 48.1	-0.6
	comp=Z,439nm,0.8s						
KAD	Karad	20.56	295	*e*P	P	05 40 48.3	-2.2
KAD				*e*		05 41 01.6	
	comp=Z,344nm,1.7s						
KOLN	Koldanda	20.62	334	*e*P	P	05 40 50.9	-0.1
	comp=Z,1µm,1.5s						
BHPL	Bhopal	20.81	313	*e*P	P	05 40 53.3	+0.3
BHPL				*e*		05 40 59.0	
	comp=Z,456nm,1.7s						
GYA	Guiyang	20.93	34⇑	*i*P	P	05 40 55.5	+1.3
GYA				AP		05 41 03.5	
GYA				AMB	AMB		
	comp=Z,200nm,1.0s						
GYA				AMB	AMB		
	comp=Z,810nm,3.8s						
GYA				LR	LR		
	comp=N,3µm,16.4s,MS4.9						
GYA				LR	LR		

	comp=E,2μm,16.0s,MS4.9						
GYA				LR	LR		
	comp=Z,4μm,17.1s,MS4.9						
POO	**Poona**	**21.30**	**297**	*e*P	**P**	**05 40 59.0**	**+1.0**
POO				*e*		05 41 01.5	
	comp=Z,178nm,0.4s						
POO				*e*S	**S**	**05 44 52.8**	**+5.1**
COCO	**West Island**	**21.66**	**172**	⇑*e*P	**P**	**05 41 04.6**	**+3.0**
	comp=Z,214nm,0.9s,mb5.6						
COCO				LR	LR		
	comp=Z,641nm,21.0s,MS4.0						
BOM	**Bombay**	**22.35**	**297**	*e*P	**P**	**05 41 10.0**	**+1.6**
BOM				*e*		05 41 13.1	
	comp=Z,275nm,1.5s						
BOM				*e*S	**S**	**05 45 17.3**	**+10**
CD2	**Chengdu**	**23.36**	**22**	⇑*i*P	**P**	**05 41 20.0**	**+1.7**
CD2				PP	PP	05 41 55.0	+4.9
CD2				S	**S**	**05 45 36.5**	**+11**
CD2				XS		05 45 44.0	
CD2				AMB	AMB		
	comp=Z,70nm,0.8s,mb5.1						
CD2				AMB	AMB		
	comp=Z,1μm,5.7s						
CD2				LR	LR		
	comp=E,5μm,10.8s						
CD2				LR	LR		
	comp=Z,3μm,11.4s,MS5.0						
HKC	**Hong Kong**	**23.45**	**54**	⇑*i*P		05 41 31.0	
PTH	**Pithoragarh**	**23.71**	**330**	*e*P	**P**	**05 41 24.2**	**+2.4**
PTH				*e*		05 45 46.3	
NDI	**New Delhi**	**24.68**	**323**	*e*P	**P**	**05 41 31.7**	**+0.5**
NDI				*e*		05 41 35.8	
	comp=Z,372nm,0.8s						
NDI				*e*		05 45 11.2	
AJM	**Ajmer**	**24.81**	**316**	*e*P	**P**	**05 41 34.2**	**+1.8**
AJM				*e*		05 41 36.9	
	comp=Z,147nm,0.7s						
DDI	**Dehra Dun**	**25.45**	**327**	*e*P	**P**	**05 41 39.9**	**+1.4**
DDI				*e*		05 46 24.6	
ENH	**Enshi**	**25.46**	**33**	*e*P	**P**	**05 41 38.6**	**0.0**
	comp=Z,99nm,0.9s,mb5.3						
ENH				LR	LR		
	comp=Z,2μm,19.0s,MS4.6						
BHJ	**Bhuj**	**26.84**	**304**	*e*P	**P**	**05 41 54.6**	**+3.2**
BHJ				*e*		05 41 59.5	
	comp=Z,84nm,1.5s						
SDNR	**Sundarnagar**	**26.95**	**327**	*e*P	**P**	**05 41 52.8**	**+0.4**
LZH	**Lanzhou**	**28.12**	**18**	*e*P	**P**	**05 42 03.8**	**+0.8**
LZH				AP	pP	05 42 13.8	+1.3
LZH				XP	sP	05 42 16.8	+0.1
LZH				PP	PP	05 42 53.5	-0.1
LZH				S	**S**	**05 46 43.0**	**-1.3**
LZH				AMB	AMB		
	comp=Z,85nm,1.5s,mb5.2						
LZH				AMB	AMB		
	comp=Z,460nm,5.3s						
LZH				LR	LR		
	comp=N,2μm,13.6s						
LZH				LR	LR		
	comp=Z,3μm,16.4s,MS5.0						
XAN	**Xi'an**	**28.22**	**27**	P	**P**	**05 42 01.0**	**-2.9**
XAN				S	**S**	**05 46 54.5**	**+8.6**
XAN				LR	LR		
	comp=N,2μm,13.5s,MS5.1						
XAN				LR	LR		
	comp=E,3μm,14.8s,MS5.1						
XAN				LR	LR		
	comp=Z,3μm,16.1s,MS4.9						
QZH	**Quanzhou**	**28.27**	**54**	⇓*i*P	**P**	**05 42 07.0**	**+2.6**
QZH				S	**S**	**05 46 55.5**	**+8.8**
QZH				AMB	AMB		
	comp=Z,260nm,0.9s,mb5.9						
QZH				LR	LR		
	comp=N,3μm,6.6s						
QZH				LR	LR		
	comp=E,6μm,12.8s						
THN	**Thein Dam**	**28.34**	**327**	*e*P	**P**	**05 42 04.5**	**-0.5**
	comp=E,19nm,0.6s,mb4.9						
WHN	**Wuhan**	**28.51**	**40**	P	**P**	**05 42 07.8**	**+1.3**
WHN				S	**S**	**05 47 00.8**	**+10**
WHN				LR	LR		
	comp=Z,4μm,16.0s,MS5.1						
GTA	**Gaotai**	**30.38**	**9**	*e*P	**P**	**05 42 22.5**	**-0.6**
GTA				AP	pP	05 42 31.8	-0.9
GTA				PP	PP	05 43 21.8	-1.1
GTA				PCP	PcP	05 45 23.8	+1.2
GTA				S	**S**	**05 47 12.0**	**-8.2**
GTA				AMB	AMB		
	comp=Z,6.0nm,1.1s,mb4.2						
GTA				AMB	AMB		
	comp=Z,382nm,6.5s						
GTA				LR	LR		
	comp=N,1μm,20.5s,MS4.7						
GTA				LR	LR		
	comp=E,1μm,17.9s,MS4.7						
GTA				LR	LR		
	comp=Z,1μm,22.0s,MS4.5						
TIY	**Taiyuan**	**32.86**	**28**	*e*P	**P**	**05 42 48.0**	**+3.1**
TIY				LR	LR		
	comp=E,2μm,12.0s						
TIY				LR	LR		
	comp=Z,968nm,11.0s,MS4.8						
KSH	**Kashi**	**33.93**	**335**	*i* PR		05 42 54.5	
KSH				AP	pP	05 43 03.8	+0.1
KSH				XP	sP	05 43 07.3	-0.8
KSH				*e*PP	PP	05 44 09.3	+1.2
KSH				PPP	PPP	05 44 25.3	-0.7
KSH				PCP	PcP	05 45 33.0	+0.8
KSH				S	**S**	**05 48 14.8**	**-0.8**
KSH				SCP		05 49 14.0	
KSH				PCS		05 49 18.3	
KSH				SS	SS	05 50 18.8	-4.6
KSH				SCS	ScS	05 53 14.8	+1.2
KSH				LR	LR		
	comp=N,670nm,9.0s						
KSH				LR	LR		
	comp=E,2μm,18.3s						
BTO	**Baotou**	**34.28**	**22**	*e*P	**P**	**05 42 56.0**	**-1.1**
BTO				S	**S**	**05 48 29.3**	**+8.2**
WMQ	**Urumqi**	**34.70**	**352**	⇑*i*P	**P**	**05 43 01.5**	**+0.9**
WMQ				AP	pP	05 43 11.5	+1.2
WMQ				XP	sP	05 43 15.5	+0.9
WMQ				PP	PP	05 44 18.5	+0.5
WMQ				PPP	PPP	05 44 36.5	+0.5
WMQ				S	**S**	**05 48 27.5**	**+0.1**
WMQ				AMB	AMB		
	comp=Z,28nm,1.1s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,98nm,6.7s						
WMQ				LR	LR		
	comp=N,553nm,29.8s,MS4.6						
WMQ				LR	LR		
	comp=E,2μm,32.4s,MS4.6						
WMQ				LR	LR		
	comp=Z,981nm,28.2s,MS4.4						
HHC	**Hu-ho-hao-te**	**35.09**	**24**	*e*P	**P**	**05 43 05.3**	**+1.3**
HHC				AP	pP	05 43 14.8	+1.1
HHC				XP	sP	05 43 18.5	+0.5
HHC				S	**S**	**05 48 28.3**	**-5.3**
HHC				AMB	AMB		
	comp=Z,27nm,0.9s,mb5.2						
HHC				AMB	AMB		
	comp=Z,475nm,7.1s						
HHC				LR	LR		
	comp=N,959nm,17.8s,MS4.9						
HHC				LR	LR		
	comp=E,2μm,13.7s,MS4.9						
HHC				LR	LR		
	comp=Z,1μm,17.8s,MS4.7						
ULHL	**Ulahol**	**36.15**	**338**	P	**P**	**05 43 13.5**	**+0.5**
	SNR=7.7						
KZA	**Kyzart**	**36.39**	**337**	P	**P**	**05 43 15.7**	**+0.7**
	SNR=21						
BJT	**Baijiatuau**	**36.46**	**30**	*e*P	**P**	**05 43 15.9**	**+0.3**
BJT				pmax	pmax		
	comp=Z,18nm,0.6s						
BJT				MLR	MLR		
	comp=Z,2μm,19.0s						
BJT	**Baijiatuau**	**36.46**	**30**	*e*P	**P**	**05 43 15.9**	**+0.3**
	comp=Z,18nm,0.6s,mb5.2						
BJT				LR	LR		
	comp=Z,2μm,19.0s,MS4.8						
BJI	**Beijing**	**36.48**	**30**	P	**P**	**05 43 16.8**	**+1.0**
BJI				AMB	AMB		
	comp=Z,32nm,1.0s,mb5.2						
BJI				LR	LR		
	comp=N,2μm,23.7s,MS4.9						
BJI				LR	LR		
	comp=E,2μm,18.7s,MS4.9						
BJI				LR	LR		
	comp=Z,287nm,24.1s						
UCH	**Uchtor**	**36.81**	**336**	P	**P**	**05 43 19.0**	**+0.5**
	SNR=50						
JOW	**Kunigami**	**36.96**	**57**	P	**P**	**05 43 20.1**	**+0.1**
	comp=Z,14nm,0.7s,mb4.9,baz=221,slow=9.3						
JOW				LR	LR	05 59 52.2	
	comp=Z,1μm,18.9s,MS4.8,baz=206,slow=39						
TKM2	**Tokmak 2**	**36.98**	**338**	P	**P**	**05 43 20.2**	**+0.3**
	SNR=23						
KBK	**Karagaybulak**	**37.00**	**337**	P	**P**	**05 43 21.2**	**+1.1**
	SNR=18						
AML	**Almayashu**	**37.06**	**335**	P	**P**	**05 43 21.3**	**+0.7**
	SNR=102						
AAK	**Ala-Archa**	**37.16**	**336**	P	**P**	**05 43 22.0**	**+0.5**
	SNR=56						
AAK	**Ala-Archa**	**37.16**	**336**	*e*P	**P**	**05 43 20.8**	**-0.6**
AAK				*e*		05 45 41.1	
AAK				pmax	pmax		
	comp=Z,82nm,0.9s,mb5.6						
AAK				MLR	MLR		
	comp=Z,817nm,22.0s,MS4.5						
AAK	**Ala-Archa**	**37.16**	**336**	*e*P	**P**	**05 43 20.8**	**-0.7**
	comp=Z,82nm,0.9s,mb5.6						
AAK				*e*PcP	PcP	05 45 41.0	-0.6
AAK				LR	LR		
	comp=Z,817nm,22.0s,MS4.5						
FRU	**Bishkek**	**37.28**	**337**	*e*P	**P**	**05 43 24.0**	**+1.5**
FRU				*e*		05 44 53.0	
FRU				pmax	pmax		
	comp=Z,240nm,2.2s,mb5.6						
FRU				MLR	MLR		
	comp=Z,2μm,22.0s,MS5.0						
CHMS	**Chumysh**	**37.36**	**337**	P	**P**	**05 43 22.7**	**-0.5**
	SNR=38						
EKS2	**Erkin-Say**	**37.47**	**336**	P	**P**	**05 43 24.8**	**+0.7**
	SNR=57						
USP	**Ospenovka**	**37.69**	**337**	P	**P**	**05 43 25.9**	**-0.1**
	SNR=58						
MKAR	**Makanchi Array**	**38.52**	**347**	*i* P	**P**	**05 43 32.1**	**-0.7**
MKAR				pmax	pmax		
	comp=Z,34nm,1.1s						
DL2	**Dalian**	**38.57**	**36**	P	**P**	**05 43 35.5**	**+2.2**
DL2				S	**S**	**05 49 37.3**	**+10**
DL2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.0						
DL2				AMB	AMB		
	comp=Z,300nm,5.8s						
DL2				LR	LR		
	comp=N,720nm,14.4s,MS4.8						
DL2				LR	LR		
	comp=E,750nm,15.0s,MS4.8						
DL2				LR	LR		
	comp=Z,770nm,17.0s,MS4.6						
SONM	**Songino Array**	**39.78**	**13**	P	**P**	**05 43 42.4**	**-0.9**
	comp=Z,12nm,1.0s,mb4.6,baz=202,slow=4.9,SNR=49						
SONM				PcP	PcP	05 45 48.9	-0.9
	comp=Z,6.2nm,0.6s,baz=206,slow=3.6,SNR=15						
SONM				ScP		05 49 37.4	
	comp=Z,1.8nm,1.0s,baz=198,slow=3.9,SNR=4.1						
SONM				LR	LR	06 01 51.6	
	comp=Z,1μm,18.4s,MS4.8,baz=191,slow=39						
ULN	**Ulaanbaatar**	**39.97**	**14**	*e*P	**P**	**05 43 44.3**	**-0.5**
ULN				*e*		05 45 50.3	
ULN				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
ULN				MLR	MLR		
	comp=Z,1μm,22.0s,MS4.7						
ULN	**Ulaanbaatar**	**39.97**	**14**	*e*P	**P**	**05 43 44.3**	**-0.5**
	comp=Z,9.2nm,1.0s,mb4.5						
ULN				*e*PcP	PcP	05 45 50.3	0.0
ULN				LR	LR		
	comp=Z,1μm,22.0s,MS4.7						
ZAK	**Zakamensk**	**41.62**	**9**	*e*P	**P**	**05 43 57.0**	**-1.5**
SNY	**Shenyang**	**41.64**	**34**	⇓P	**P**	**05 43 59.3**	**+0.6**
SNY				S	**S**	**05 50 23.5**	**+11**
SNY				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.8						
SNY				AMB	AMB		
	comp=Z,450nm,11.0s						
SNY				LR	LR		
	comp=E,2μm,13.1s						
SNY				LR	LR		
	comp=Z,2μm,13.5s,MS5.1						
MOY	**Mondy**	**42.57**	**7**	*e*P	**P**	**05 44 05.3**	**-0.9**
TLY	**Talaya**	**42.94**	**9**	*e*P	**P**	**05 44 10.7**	**+1.5**
TLY				*e*		05 46 00.8	
TLY				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.7						
TLY				MLR	MLR		
	comp=Z,616nm,13.0s,MS4.7						
CN2	**Changchun**	**43.98**	**33**	⇑P	**P**	**05 44 18.5**	**+0.7**
CN2				*e*AP	pP	05 44 28.0	+0.3
CN2				*e*S	**S**	**05 50 47.8**	**+0.8**
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
CN2				AMB	AMB		
	comp=Z,600nm,6.0s						
CN2				LR	LR		
	comp=N,1μm,16.0s,MS5.1						
CN2				LR	LR		
	comp=E,2μm,16.0s,MS5.1						
CN2				LR	LR		
	comp=Z,2μm,17.0s,MS5.0						
HASS	**Wahat al Ahsa'**	**44.65**	**296**	P	**P**	**05 44 26.7**	**+3.2**
ZAL	**Zalesovo**	**45.00**	**353**	P	**P**	**05 44 24.5**	**-1.2**
	comp=Z,9.3nm,0.6s,mb4.8,baz=298,slow=9.0,SNR=57						
ZAL	**Zalesovo**	**45.00**	**353**	*i* P	**P**	**05 44 25.5**	**-0.3**
HIA	**Hailar**	**45.30**	**24**	*e*P	**P**	**05 44 28.5**	**+0.2**
HIA				pmax	pmax		
	comp=Z,21nm,0.8s						
HIA				MLR	MLR		
	comp=Z,1μm,21.0s						
HIA	**Hailar**	**45.30**	**24**	*e*P	**P**	**05 44 28.5**	**+0.2**
	comp=Z,21nm,0.8s,mb5.0						
HIA				LR	LR		
	comp=Z,1μm,21.0s,MS4.8						
NVS	**Novosibirsk**	**46.09**	**352**	*e*P	**P**	**05 44 33.3**	**-1.2**
NVS				*e*		05 46 22.9	
NVS				pmax	pmax		
	comp=N,88nm,1.4s						
NVS				pmax	pmax		
	comp=E,47nm,1.4s						
NVS				pmax	pmax		
	comp=Z,88nm,1.4s,mb5.5						
MDJ	**Mudanjiang**	**46.80**	**35**	P	**P**	**05 44 41.3**	**+1.2**
MDJ				AP	pP	05 44 50.0	0.0
MDJ				PCP	PcP	05 46 13.0	-0.4
MDJ				PP	PP	05 46 31.3	+1.4
MDJ				S	**S**	**05 51 30.0**	**+2.8**
MDJ				AMB	AMB		
	comp=Z,12nm,1.9s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,376nm,7.4s						
MDJ				LR	LR		
	comp=N,472nm,19.2s,MS5.0						
MDJ				LR	LR		
	comp=E,1μm,16.0s,MS5.0						
MDJ				LR	LR		
	comp=Z,1μm,13.2s,MS5.0						
BDHA	**Al Bayda'**	**47.32**	**280**	⇑*e*P	**P**	**05 44 47.0**	**+2.3**
BDHA				AMb	AMB	05 44 47.9	
	comp=Z,45nm,0.9s,mb5.4						
BVA0	**Borovoye Array**	**47.43**	**341**	*i* P	**P**	**05 44 44.4**	**-0.6**
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
BVAR	**Borovoye Array**	**47.43**	**341**	P	**P**	**05 44 43.9**	**-1.1**
	comp=Z,7.5nm,0.6s,mb4.8,baz=143,slow=7.4,SNR=38						
BVAR				PcP	PcP	05 46 14.0	-1.6
	comp=Z,7.1nm,0.6s,baz=186,slow=3.9,SNR=6.7						
BRVK	**Borovoye**	**47.49**	**341**	⇓*e*P	**P**	**05 44 43.5**	**-2.0**
BRVK				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
BRVK				MLR	MLR		
	comp=Z,195nm,20.0s,MS4.1						
BRVK	**Borovoye**	**47.49**	**341**	⇓*e*P	**P**	**05 44 43.5**	**-2.0**
	comp=Z,25nm,0.9s,mb5.2						
BRVK				LR	LR		
	comp=Z,195nm,20.0s,MS4.1						
LBOS		**47.63**	**280**	⇑*e*P	**P**	**05 44 49.4**	**+2.3**
NWAO	**Narrogin (SRO)**	**47.68**	**153**	*e*P	**P**	**05 44 45.9**	**-1.4**
NWAO				pmax	pmax		
	comp=Z,23nm,0.7s						
NWAO				MLR	MLR		
	comp=Z,2μm,21.0s						
NWAO	**Narrogin (SRO)**	**47.68**	**153**	P	**P**	**05 44 46.5**	**-0.8**
	comp=Z,19nm,0.6s,mb5.3,baz=322,slow=6.8,SNR=18						
NWAO	**Narrogin (SRO)**	**47.68**	**153**	*e*P	**P**	**05 44 45.9**	**-1.4**
	comp=Z,23nm,0.7s,mb5.3						
NWAO				LR	LR		
	comp=Z,2μm,21.0s,MS5.0						
CHKZ	**Chkalovo**	**47.91**	**342**	*e*P	**P**	**05 44 47.6**	**-1.2**
CHKZ				*e*		05 46 16.8	
CHKZ				pmax	pmax		
	comp=Z,32nm,0.7s,mb5.5						
CHKZ	**Chkalovo**	**47.91**	**342**	*e*P	**P**	**05 44 47.6**	**-1.2**
	comp=Z,32nm,0.7s,mb5.5						
CHKZ				*e*PcP	PcP	05 46 16.8	-0.5
MZLS	**Mizel**	**48.45**	**294**	P	**P**	**05 44 54.5**	**+1.1**
MAT	**Matsushiro**	**48.46**	**49**	P	**P**	**05 44 53.9**	**+0.6**
MAT				S	**S**	**05 51 55.0**	**+4.1**
MAT	**Matsushiro**	**48.46**	**49**	P	**P**	**05 44 54.0**	**+0.7**
MAT				*e*S	**S**	**05 51 55.0**	**+4.1**
MAT				LR	LR		
	comp=Z,1μm,22.0s,MS4.9						
JHJ	**Hachijo jima 2**	**48.48**	**54**	LR	LR	06 04 06.6	
	comp=Z,843nm,20.7s,MS4.7,baz=262,slow=35						
KAMS	**Al Khamasin**	**48.56**	**289**	P	**P**	**05 44 55.3**	**+1.0**
TRBA	**At Turbah**	**48.74**	**279**	⇑*e*P	**P**	**05 44 57.9**	**+2.2**
CBIJ	**Chichi jima**	**48.94**	**62**	LR	LR	06 07 35.5	
	comp=Z,474nm,19.0s,MS4.5,baz=250,slow=39						
WRA	**Warramunga Arr**	**49.48**	**126**	P	**P**	**05 45 00.4**	**-1.0**
	comp=Z,17nm,0.7s,mb5.2,baz=303,slow=8.6,SNR=49						
WRA				PcP	PcP	05 46 22.4	-1.0
	comp=Z,5.9nm,0.6s,baz=314,slow=2.9,SNR=9.6						
WRAB	**Tennant Creek**	**49.48**	**126**	*e*P	**P**	**05 45 00.7**	**-0.7**
WRAB				*e*		05 46 22.9	
WRAB				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.4						
WRAB				MLR	MLR		
	comp=Z,357nm,19.0s,MS4.4						
WRAB	**Tennant Creek**	**49.48**	**126**	*e*P	**P**	**05 45 00.7**	**-0.7**
	comp=Z,38nm,0.9s,mb5.4						
WRAB				*e*PcP	PcP	05 46 22.9	-0.5
WRAB				LR	LR		
	comp=Z,357nm,19.0s,MS4.4						
TATS	**Tathlith**	**49.53**	**288**	P	**P**	**05 45 03.3**	**+1.5**
AFFS	**'Afif**	**50.43**	**293**	P	**P**	**05 45 10.0**	**+1.4**
ARSS	**Ar Rass**	**50.51**	**296**	P	**P**	**05 45 10.5**	**+1.3**
NAMS	**An Nimas**	**50.70**	**287**	P	**P**	**05 45 12.0**	**+1.2**
ASAR	**Alice Springs**	**51.20**	**131**	P	**P**	**05 45 13.0**	**-1.5**
	comp=Z,21nm,0.8s,mb5.1,baz=307,slow=6.7,SNR=74						
ASAR				PcP	PcP	05 46 29.2	-0.4
	comp=Z,25nm,1.1s,baz=312,slow=3.2,SNR=11						
ASAR				ScP		05 50 24.5	
	comp=Z,1.5nm,0.8s,baz=298,slow=4.2,SNR=4.4						
ASAR				LR	LR	06 07 28.3	
	comp=Z,564nm,20.2s,MS4.6,baz=299,slow=37						
HILS	**Ha'il**	**52.03**	**297**	P	**P**	**05 45 22.3**	**+1.6**
MAK	**Makhachkala**	**52.32**	**318**	P	**P**	**05 45 20.0**	**-2.5**
MAK				*e*PPP	PPP	05 48 28.0	+1.2
MAK				*e*S	**S**	**05 52 50.0**	**+5.8**
MAK				*i* PS	PS	05 53 05.0	+6.6
MAK				smax			
	comp=E,1μm,6.0s						
MAK				MLR	MLR		
	comp=N,2μm,16.0s,MS5.3						
MAK				MLR	MLR		
	comp=E,2μm,16.0s,MS5.3						
MAK				MLR	MLR		
	comp=Z,1μm,16.0s,MS5.0						
GNI	**Garni**	**53.09**	**314**	*e*P	**P**	**05 45 28.5**	**+0.1**
GNI				pmax	pmax		
	comp=Z,52nm,1.0s						
GNI				MLR	MLR		
	comp=Z,898nm,19.0s						
GNI	**Garni**	**53.09**	**314**	P	**P**	**05 45 28.7**	**+0.3**
	comp=Z,8.6nm,0.5s,mb4.9,baz=0.9,slow=5.5,SNR=19						
GNI				LR	LR	06 13 01.3	
	comp=Z,792nm,19.5s,MS4.8,baz=293,slow=42						
GNI	**Garni**	**53.09**	**314**	*e*P	**P**	**05 45 28.5**	**+0.1**
	comp=Z,52nm,1.0s,mb5.4						
GNI				LR	LR		
	comp=Z,898nm,19.0s,MS4.8						
TI2	**Plekhanov**	**53.68**	**316**	⇑*i*P	**P**	**05 45 33.0**	**+0.3**
TI2				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.6						
SVE	**Sverdlovsk**	**53.85**	**338**	*e*P	**P**	**05 45 33.0**	**-0.7**
SVE				*e*		05 46 46.0	
SVE				*e*		05 47 41.0	
SVE				*e*S	**S**	**05 53 00.0**	**-4.8**
SVE				pmax	pmax		
	comp=Z,216nm,2.4s,mb5.7						
SVE				MLR	MLR		
	comp=Z,3μm,23.5s,MS5.3						
KBRS	**Khaybar**	**54.04**	**295**	P	**P**	**05 45 37.9**	**+2.3**
ARU	**Arti**	**54.34**	**337**	⇓*i*P	**P**	**05 45 35.6**	**-1.8**
ARU				*e*		05 46 41.1	
ARU				*e*		05 47 39.5	
ARU				*e*S	**S**	**05 53 12.3**	**+0.9**
ARU				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
ARU				MLR	MLR		
	comp=N,1μm,22.0s,MS5.2						
ARU				MLR	MLR		
	comp=Z,3μm,22.0s,MS5.2						
ARU				MLR	MLR		
	comp=E,2μm,21.0s,MS5.2						
ARU	**Arti**	**54.34**	**337**	*e*P	**P**	**05 45 35.5**	**-1.8**
	comp=E,39nm,1.0s,mb5.3						
ARU				LR	LR		
	comp=Z,692nm,21.0s,MS4.7						
ZEI	**Tsey**	**54.66**	**316**	*e*P	**P**	**05 45 39.2**	**-0.7**
ZEI				*i*		05 47 42.7	
ZEI				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.3						
BEST	**Besiri**	**54.91**	**310**	P	**P**	**05 45 41.2**	**-0.5**
YNBS	**Yanbu' al Bahr**	**55.02**	**293**	P	**P**	**05 45 44.8**	**+2.0**
ERZM	**Erzurum**	**55.45**	**312**	P	**P**	**05 45 45.4**	**-0.2**
UMJS	**Umm Lajj**	**55.73**	**294**	P	**P**	**05 45 49.6**	**+1.7**
YSS	**Yuzh-Sakhalins**	**55.85**	**39**	⇑*i*P	**P**	**05 45 43.6**	**-4.8**
YSS				*e*	pP	05 45 52.8	-5.8
YSS				S	**S**	**05 53 36.0**	**+4.2**
YSS				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
YSS				MLR	MLR		
	comp=Z,600nm,15.0s,MS4.8						
YSS				MLR	MLR		
	comp=N,800nm,16.0s						
YSS	**Yuzh-Sakhalins**	**55.85**	**39**	P	**P**	**05 45 47.0**	**-1.4**
	comp=N,30nm,0.5s,mb5.6						
YSS				LR	LR		
	comp=Z,1μm,22.0s,MS4.9						
KIV	**Kislovodsk**	**55.93**	**317**	P	**P**	**05 45 48.1**	**-0.9**
	comp=Z,325nm,0.9s,SNR=11						
KIV	**Kislovodsk**	**55.93**	**317**	*e*P	**P**	**05 45 48.4**	**-0.6**
KIV				*e*		05 46 46.9	
KIV				*e*		05 47 53.3	
KIV				*e*S	**S**	**05 53 35.2**	**+2.3**
KIV				pmax	pmax		
	comp=N,35nm,1.1s						
KIV				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.6						
KIV				MLR	MLR		
	comp=Z,884nm,24.0s,MS4.8						
KIV				MLR	MLR		
	comp=N,434nm,18.0s						
KIV				MLR	MLR		
	comp=E,434nm,18.0s						
KIV	**Kislovodsk**	**55.93**	**317**	*e*P	**P**	**05 45 47.7**	**-1.3**
	comp=E,46nm,0.7s,mb5.6						
KIV				LR	LR		
	comp=Z,222nm,22.0s,MS4.2						
GOF	**Gofitskoye**	**56.12**	**319**	⇑*i*P	**P**	**05 45 48.0**	**-2.4**
GOF				pmax	pmax		
	comp=Z,57nm,1.4s,mb5.4						
PMG	**Port Moresby**	**56.38**	**108**	*e*P	**P**	**05 45 52.8**	**+0.2**
PMG				pmax	pmax		
	comp=Z,72nm,0.9s						
PMG				MLR	MLR		
	comp=Z,489nm,22.0s						
PMG	**Port Moresby**	**56.38**	**108**	P	**P**	**05 45 52.2**	**-0.4**
	comp=Z,49nm,0.8s,mb5.6,baz=313,slow=5.4,SNR=26						
PMG				LR	LR	06 12 50.6	
	comp=Z,319nm,20.3s,MS4.4,baz=116,slow=39						
PMG	**Port Moresby**	**56.38**	**108**	*e*P	**P**	**05 45 52.8**	**+0.2**
	comp=Z,72nm,0.9s,mb5.7						
PMG				LR	LR		

	comp=Z,489nm,22.0s,MS4.5						
TBKS	Tabuk	56.75	298	P	P	05 45 56.5	+1.3
ELZG	Elazig	56.80	310	P	P	05 45 54.6	-0.9
ASF	Jabal al Asfar	57.06	302	P	P	05 45 57.4	0.0
	comp=Z,11nm,0.9s,mb4.9,baz=337,slow=3.9,SNR=12						
ASF				LR	LR	06 14 01.7	
	comp=Z,2µm,18.6s,MS5.2,baz=133,slow=40						
MALT	Malatya	57.18	310	eP	P	05 45 56.8	-1.3
MALT				e		05 46 04.0	
MALT				pmax	pmax		
	comp=Z,15nm,1.3s,mb4.9						
MALT	Malatya	57.18	310	eP	P	05 45 56.8	-1.3
	comp=Z,15nm,1.3s,mb4.8						
MALT				e		05 46 04.0	
KMBO	Kilima Mbogo	57.20	263	⇓eP	P	05 46 00.6	+2.0
KMBO				pmax	pmax		
	comp=Z,61nm,1.1s						
KMBO				MLR	MLR		
	comp=Z,2µm,20.0s						
KMBO	Kilima Mbogo	57.20	263	P	P	05 46 00.3	+1.7
	comp=Z,30nm,0.9s,mb5.3,baz=56,slow=9.7,SNR=67						
KMBO				LR	LR	06 07 44.7	
	comp=Z,2µm,20.3s,MS5.3,baz=84,slow=33						
KMBO	Kilima Mbogo	57.20	263	⇓eP	P	05 46 00.6	+2.0
	comp=Z,61nm,1.1s,mb5.5						
KMBO				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
SOKR	Solikamsk	57.24	339	⇓iP	P	05 45 56.9	-1.3
SOKR				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.3						
JMQS	Jabal Moqyreh	57.42	298	P	P	05 46 01.3	+1.4
GZT	Gaziantep	57.60	308	P	P	05 46 00.3	-0.7
SOC	Sochi	57.81	316	i P	P	05 46 00.8	-1.6
SOC				e		05 46 54.3	
SOC				e		05 48 06.3	
SOC				ePPP	PPP	05 49 30.5	-4.1
SOC				eS	S	05 53 56.8	-0.8
SOC				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.4						
SOC				pmax	pmax		
	comp=N,20nm,1.2s						
SOC				pmax	pmax		
	comp=E,7.0nm,0.7s						
SOC				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.1						
SOC				MLR	MLR		
	comp=N,1µm,23.0s,MS5.1						
SOC				MLR	MLR		
	comp=E,1µm,24.0s,MS5.1						
AYUS	‘Aynunah	57.87	297	P	P	05 46 04.3	+1.2
BDAS	Al Bad‘	58.04	298	P	P	05 46 05.3	+1.0
JMOS	Jabal al Moall	58.13	298	P	P	05 46 05.9	+1.0
KAHT	Ahir Dag	58.20	309	P	P	05 46 04.1	-1.1
HAQS	Haql	58.27	298	P	P	05 46 06.9	+1.0
EIL	Elat	58.33	299	P	P	05 46 05.9	-0.4
	comp=E,23nm,1.0s,mb5.2,baz=48,slow=6.9,SNR=13						
EIL	Elat	58.33	299	eP	P	05 46 05.4	-0.9
	comp=E,50nm,1.1s,mb5.5						
COBT	Iskenderun	58.43	307	P	P	05 46 06.4	-0.5
YAK	Yakutsk	58.70	19	eP	P	05 46 06.7	-1.7
YAK				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,0.9s						
YAK				MLR	MLR		
	comp=Z,331nm,12.0s,MS4.7						
YAK				MLR	MLR		
	comp=N,301nm,13.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,497nm,14.0s,MS4.9						
CTA	Charters Tower	59.41	120	LR	LR	06 16 41.0	
	comp=E,934nm,19.3s,MS4.9,baz=286,slow=41						
CTAO	Charters Tower	59.41	120	⇓eP	P	05 46 13.7	-0.2
CTAO				e		05 47 01.6	
CTAO				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.3						
CTAO				MLR	MLR		
	comp=Z,891nm,19.0s,MS4.9						
CTAO	Charters Tower	59.41	120	⇓eP	P	05 46 13.7	-0.2
	comp=Z,38nm,1.1s,mb5.3						
CTAO				ePcP	PcP	05 47 01.6	+0.4
CTAO				LR	LR		
	comp=Z,891nm,19.0s,MS4.9						
ANN	Anapa	59.75	317	eP	P	05 46 05.4	-11
AVNT	Avonos	60.01	309	P	P	05 46 16.7	-1.1
MEST	Erdemli	60.11	307	P	P	05 46 16.9	-1.6
CTKT	Corum	60.48	311	P	P	05 46 20.3	-0.7
BOYT	Boyabat	60.59	312	P	P	05 46 19.7	-2.0
VRSR	Storozhevoye	60.91	324	eP	P	05 46 22.5	-1.2
VRSR				e*PP	pP	05 46 32.6	-1.3
VRSR				e*SP	sP	05 46 36.2	-1.5
VRSR				e		05 48 34.3	
VRSR				pmax	pmax		
	comp=N,10.0nm,1.1s						
VRSR				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.3						
VRSR				pmax	pmax		
	comp=E,20nm,1.0s						
VRSR				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
VRSR				MLR	MLR		
	comp=N,800nm,19.0s,MS5.0						
VRSR				MLR	MLR		
	comp=E,570nm,19.0s,MS5.0						
BRTR	Keskin Array B	61.14	310	P	P	05 46 22.7	-2.7
	comp=E,20nm,1.1s,mb5.2,baz=123,slow=6.8,SNR=52						
STKA	Stephens Creek	61.45	134	P	P	05 46 26.0	-1.6
	comp=E,14nm,1.0s,mb5.0,baz=322,slow=8.1,SNR=11						
STKA				LR	LR	06 13 44.7	
	comp=E,1µm,21.0s,MS5.1,baz=299,slow=37						
STKA	Stephens Creek	61.45	134	eP	P	05 46 25.7	-1.9
ELDT	Eldivan	61.46	311	P	P	05 46 26.6	-1.0
BALT	Daday	61.73	312	P	P	05 46 26.6	-2.8
SIM	Simferopol’	62.05	316	ceP	P	05 46 30.5	-1.0
SIM				eS	S	05 55 16.0	+24
SIM				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.2						
SIM				MLR	MLR		
	comp=Z,500nm,21.0s,MS4.7						
SGKT	Sivrigoynuk	62.50	311	P	P	05 46 33.3	-1.3
ESKT	Eskisehir	63.21	310	P	P	05 46 36.6	-2.7
MBAR	Mbarara	63.48	265	⇓eP	P	05 46 41.5	+0.1
MBAR				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.6						
MBAR				MLR	MLR		
	comp=Z,619nm,21.0s,MS4.8						
MBAR	Mbarara	63.48	265	⇓eP	P	05 46 41.5	0.0
	comp=Z,64nm,1.2s,mb5.6						
MBAR				LR	LR		
	comp=Z,619nm,21.0s,MS4.8						
MOS	Moscow	63.58	328	eP	P	05 46 38.2	-3.2
MOS				e		05 47 21.5	
MOS				pmax	pmax		
	comp=Z,103nm,1.7s,mb5.6						
OBN	Obninsk	63.88	327	d iP	P	05 46 41.5	-1.9
OBN				i		05 46 49.5	
OBN				e		05 49 01.1	
OBN				eS	S	05 55 21.7	+6.7
OBN				pmax	pmax		
	comp=Z,72nm,1.4s,mb5.5						
OBN	Obninsk	63.88	327	eP	P	05 46 41.5	-1.9
ULDT	Uludag	64.61	310	P	P	05 46 46.1	-2.4
TIXI	Tiksi	65.83	12	⇓iP	P	05 46 54.0	-1.8
AKASG	Malin Array Be	66.72	321	P	P	05 46 58.9	-2.8
	comp=Z,9.6nm,0.8s,mb4.8,baz=88,slow=4.8,SNR=25						
AKASG				PP	PP	05 49 23.8	-6.8
	comp=Z,8.2nm,1.2s,baz=88,slow=7.4,SNR=4.8						
IDI	Anoyia	67.38	304	P	P	05 47 05.1	-1.0
	comp=Z,9.8nm,0.5s,mb5.1,baz=69,slow=8.5,SNR=13						
IDI				LR	LR	06 21 00.1	
	comp=Z,402nm,19.9s,MS4.6,baz=84,slow=40						
SEY	Seymchan	67.73	25	eP	P	05 47 07.7	-0.1
SEY				e		05 56 00.3	
MLR	Muntele Rosu	67.81	315	LR	LR	06 22 40.4	
	comp=Z,681nm,18.5s,MS4.9,baz=333,slow=41						
RZN	Rozhen	68.15	311	eP	P	05 47 10.0	-0.9
VTS	Vitosha	69.37	312	eP	P	05 47 16.0	-2.4
KKB	Krupnik	69.38	311	eP	P	05 47 16.0	-2.5
LSZ	Lusaka	69.40	250	eP	P	05 47 19.7	+0.7
LSZ				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
LSZ				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
LSZ	Lusaka	69.40	250	eP	P	05 47 19.7	+0.7
	comp=Z,18nm,0.7s,mb5.1						
LSZ				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
LVZ	Lovozero	70.00	340	⇑eP	P	05 47 19.6	-2.2
LVZ				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
LVZ				pmax	pmax		
	comp=N,8.0nm,1.3s						
LVZ				pmax	pmax		
	comp=E,6.0nm,1.4s						
LVZ				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.5						
LVZ				MLR	MLR		
	comp=N,897nm,17.0s,MS5.3						
LVZ				MLR	MLR		
	comp=E,1µm,18.0s,MS5.3						
VSU	Vasula	70.08	329	eP	P	05 47 20.8	-1.6
APA	Apatity	70.29	339	⇓iP	P	05 47 23.8	+0.2
APA				i		05 47 40.5	
APA				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
APA				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						
BOLS	Boljevac	70.41	313	⇓iP	P	05 47 23.8	-0.8
KWP	Kalwaria	70.62	319	eP	P	05 47 25.8	0.0
KOLS	Kolonicke sedl	70.80	319	eP	P	05 47 27.3	+0.3
KOLS				esP	sP	05 47 40.0	-1.0
SUW	Suwalki	71.04	324	eP	P	05 47 27.3	-1.1
FINES	FINESS Array B	71.19	332	eP	P	05 47 27.6	-1.5
FINES	FINESS Array B	71.19	332	P	P	05 47 28.5	-0.6
	comp=Z,12nm,0.9s,mb4.8,baz=101,slow=5.1,SNR=21						
FINES				LR	LR	06 24 48.0	
	comp=Z,1µm,18.3s,MS5.1,baz=294,slow=41						
KAF	Kangasniemi	71.26	333	ep	P	05 47 27.8	-1.7
	comp=Z,15nm,0.9s,mb4.9						
KAF	Kangasniemi	71.26	333	eP	P	05 47 27.8	-1.7
KAF				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
CRVS	Cervenica-Dubn	71.33	318	i P	P	05 47 31.7	+1.6
KECS	Kecovo	71.92	318	eP	P	05 47 32.8	-0.8
NIE	Niedzica	72.14	319	eP	P	05 47 35.7	+0.8
PSZ	Piszkesteto	72.25	317	eP	P	05 47 35.3	-0.3
OJC	Ojcow	72.56	320	eP	P	05 47 36.9	-0.5
PKSM	Moragy	72.96	315	⇓eP	P	05 47 38.5	-1.4
VYHS	Vyhne	73.01	318	eP	P	05 47 39.4	-0.8
KEV	Kevo	73.28	340	ep	P	05 47 40.4	-0.9
	comp=Z,26nm,0.9s,mb5.2						
KEV	Kevo	73.28	340	eP	P	05 47 40.4	-0.9
KEV				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
SRO	Srobarova	73.30	317	eP	P	05 47 41.7	-0.2
RHK1	Bakonya	73.35	315	⇑iP	P	05 47 41.6	-0.6
OKC	Ostrava-Krasne	73.58	319	eP	P	05 47 43.8	+0.3
OKC				ex	x	05 48 05.5	
ARCES	ARCESS Array B	73.71	340	P	P	05 47 43.7	-0.1
	comp=Z,18nm,0.7s,mb5.1,baz=92,slow=5.8,SNR=58						
ARCES				LR	LR	06 22 59.0	
	comp=Z,2µm,21.0s,MS5.5,baz=126,slow=38						
ARE0	ARCESS Array S	73.71	340	eP	P	05 47 43.2	-0.6
SMOL	Smolenice	73.95	318	eP	P	05 47 45.0	-0.6
MORC	Moravsky Berou	73.97	319	eP	P	05 47 44.1	-1.6
MORC				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
MORC	Moravsky Berou	73.97	319	eP	P	05 47 44.1	-1.6
	comp=Z,28nm,1.0s,mb5.1						
ZST	Bratislava	74.14	317	eP	P	05 47 47.3	+0.6
ZST				e		05 47 53.5	
ZST				e		05 48 11.5	
SOP	Sopron	74.48	317	eP	P	05 47 48.8	+0.1
LBTB	Lobatse	74.61	241	eP	P	05 47 51.0	+1.0
LBTB				e		05 47 57.8	
LBTB				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.4						
LBTB				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.1						
LBTB	Lobatse	74.61	241	eP	P	05 47 51.0	+1.0
	comp=Z,37nm,0.8s,mb5.4						
LBTB				e		05 47 57.8	
LBTB				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
DPC	Dobruska-Polom	74.79	320	eP	P	05 47 50.3	-0.2
DPC				epP	Px	05 48 16.0	
KSP	Ksiaz	74.84	320	⇑eP	P	05 47 50.7	0.0
KSP	Ksiaz	74.84	320	eP	P	05 47 51.2	+0.5
UPC	Upice	75.00	320	eP	P	05 47 51.7	0.0
UPC				epP	pP	05 48 00.4	-1.6
UPC				ex	x	05 48 16.9	
ARSA	Arzberg	75.16	316	⇑iP	P	05 47 53.5	+0.8
	comp=Z,33nm,1.6s,mb5.0						
BOJS	Bojanci	75.29	315	eP	P	05 47 52.7	-0.8
OBKA	Obir	75.80	316	⇑iP	P	05 47 57.1	+0.7
	comp=Z,39nm,1.6s,mb5.1						
LJU	Ljubljana	75.81	315	eP	P	05 47 56.8	+0.4
PRU	Pruhonice	75.92	319	eP	P	05 47 56.3	-0.6
	comp=Z,77nm,2.0s,mb5.3						
PRU				epP	pP	05 48 05.7	-1.5
PRU				epP	Px	05 48 22.2	
PVCC	Panska Ves	75.92	320	eP	P	05 47 56.8	-0.1
PVCC				epP	pP	05 48 05.4	-1.8
PVCC				epP	Px	05 48 22.0	
MOA	Molln	76.03	317	⇑iP	P	05 47 57.8	+0.2
	comp=Z,16nm,1.2s,mb4.8						
BOSA	Boshof	76.05	237	eP	P	05 47 58.9	+0.8
BOSA				pmax	pmax		
	comp=Z,81nm,1.0s,mb5.6						
BOSA				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.1						
BOSA	Boshof	76.05	237	eP	P	05 47 58.9	+0.8
	comp=Z,81nm,1.0s,mb5.6						
BOSA				LR	LR		
	comp=Z,1µm,21.0s,MS5.1						
BRG	Berggiesshubel	76.33	320	i P	P	05 47 58.9	-0.3
BRG				e		05 48 06.0	
BRG				pmax	pmax		
	comp=Z,75nm,1.8s,mb5.3						
BRG	Berggiesshubel	76.33	320	i P	P	05 47 58.9	-0.3
	comp=Z,75nm,1.8s,mb5.3						
BRG				e		05 48 06.0	
BRG				i		05 48 24.7	
GEC2	GERESS Array S	76.43	318	eP	P	05 47 59.5	-0.4
GEC2				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.2						
GEC2	GERESS Array S	76.43	318	eP	P	05 47 59.5	-0.4
	comp=Z,35nm,1.1s,mb5.2						
GERES	GERESS Array B	76.43	318	P	P	05 47 59.4	-0.4
	comp=Z,12nm,0.6s,mb5.0,baz=92,slow=5.1,SNR=94						
KHC	Kasperske Hory	76.52	318	eP	P	05 47 59.7	-0.6
KHC				epP	pP	05 48 14.8	+4.1
ROBS	Robic	76.52	315	eP	P	05 47 59.4	-1.0
PTCC	Patocco-Chiusa	76.63	315	eP	P	05 48 00.1	-0.9
KBA	Koelnbreinsper	76.64	316	⇑iP	P	05 48 01.5	+0.4
	comp=Z,27nm,1.2s,mb5.1						
KBA	Koelnbreinsper	76.64	316	⇑iP	P	05 48 01.5	+0.4
KBA				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.0						
CLL	Collm	76.93	321	i P	P	05 48 02.5	-0.2
CLL	Collm	76.93	321	P	P	05 48 02.5	-0.2
CLL				e		05 48 18.0	
HFS	Hagfors	76.95	330	P	P	05 48 01.6	-1.0
	comp=Z,7.7nm,0.5s,mb4.9,baz=117,slow=6.6,SNR=45						
HFS				LR	LR	06 26 40.7	
	comp=Z,1µm,22.0s,MS5.2,baz=98,slow=39						
WET	Wettzell	76.98	318	eP	P	05 48 02.7	-0.3
FVI	Forni Avoltri	77.03	316	eP	P	05 48 02.9	-0.4
SFI	Santa Sofia	77.71	313	eP	P	05 48 08.1	+0.9
MOX	Moxa	77.80	320	eP	P	05 48 05.5	-2.0
MOX				pmax	pmax		
	comp=Z,67nm,2.0s,mb5.2						
MOX	Moxa	77.80	320	i P	P	05 48 05.5	-2.0
	comp=Z,logA/T=1.5,mb5.2						
MOX	Moxa	77.80	320	eP	P	05 48 05.5	-2.0
	comp=Z,67nm,2.0s,mb5.2						
PGD	Poggio Sodo	77.81	313	eP	P	05 48 08.1	+0.4
WTTA	Wattenberg	77.81	316	⇑iP	P	05 48 06.8	-0.8
	comp=Z,18nm,0.6s,mb5.2						
WTTA	Wattenberg	77.81	316	⇑iP	P	05 48 06.8	-0.8
WTTA				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
CTI	Castel Tesino	77.81	315	eP	P	05 48 08.0	+0.3
FUR	Furstenfeldbru	78.04	317	eP	P	05 48 08.0	-0.8
GRA1	Grafenberg Arr	78.06	319	eP	P	05 48 09.0	+0.1
	comp=Z,322nm,2.5s,mb5.8						
GRF	Grafenberg Arr	78.06	319	eP	P	05 48 09.0	+0.1
GRF				pmax	pmax		
	comp=Z,322nm,2.5s,mb5.8						
GRF	Grafenberg Arr	78.06	319	eP	P	05 48 09.0	+0.1
GRF				pmax	pmax		
	comp=Z,322nm,2.5s,mb5.8						
GRF	Grafenberg Arr	78.06	319	eP	P	05 48 09.0	+0.1
	comp=Z,322nm,2.5s,mb5.8						
SEI	Scarperia	78.06	313	eP	P	05 48 09.9	+0.9
SQTA	Sankt Quirin	78.10	316	⇑iP	P	05 48 08.4	-0.8
	comp=Z,18nm,0.6s,mb5.2						
SQTA	Sankt Quirin	78.10	316	⇑iP	P	05 48 08.4	-0.8
SQTA				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
MOTA	Moosalm	78.17	316	⇑iP	P	05 48 08.7	-0.9
	comp=Z,30nm,1.1s,mb5.1						
MOTA	Moosalm	78.17	316	⇑iP	P	05 48 08.7	-0.9
MOTA				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
NB2	NORSAR Subarra	78.22	330	P	P	05 48 08.2	-1.3
	comp=Z,27nm,0.9s,mb5.2,baz=95,slow=5.0						
NB2	NORSAR Subarra	78.22	330	P	P	05 48 08.2	-1.3
	baz=95,slow=5.3						
NB2	NORSAR Subarra	78.22	330	P	P	05 48 08.2	-1.3
NB2				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.2						
NOA	NORSAR Array B	78.22	330	P	P	05 48 08.6	-0.9
	comp=Z,13nm,0.8s,mb4.9,baz=93,slow=5.5,SNR=22						
NOA				LR	LR	06 27 10.8	
	comp=Z,569nm,21.5s,MS4.9,baz=110,slow=39						
ZCCA	Zocca	78.33	313	eP	P	05 48 11.7	+1.2
NAO01	NORSAR Array S	78.37	330	eP	P	05 48 09.2	-1.1
	comp=Z,24nm,0.8s,mb5.2						
CLZ	Clausthal	78.58	321	eP	P	05 48 11.4	-0.3
	comp=Z,39nm,1.2s,mb5.2						
BSEG	Bad Segeberg	78.60	323	eP	P	05 48 11.8	0.0
BDI	Bagni Di Lucca	78.61	313	eP	P	05 48 11.2	-0.9
BRMO	Bormio	78.69	316	eP	P	05 48 12.2	-0.2
MAIM		78.69	313	P	P	05 48 13.8	+1.3
VALM		78.85	313	P	P	05 48 13.6	+0.2
BACM		78.98	313	P	P	05 48 14.2	+0.1
DAVA	Damuels	79.00	316	⇓iP	P	05 48 13.7	-0.5
	comp=Z,41nm,1.0s,mb5.3						
DAVOX	Davos	79.02	316	LR	LR	06 28 34.9	
	comp=Z,552nm,18.6s,MS4.9,baz=87,slow=40						
CODM		79.13	313	P	P	05 48 15.3	+0.4
VAI	Varese	79.83	315	eP	P	05 48 18.0	-0.7
MAW	Mawson	79.93	192	eP	P	05 48 19.2	+0.4
MAW				pmax	pmax		
	comp=Z,38nm,0.9s						
MAW	Mawson	79.93	192	P	P	05 48 19.6	+0.8
	comp=Z,48nm,1.2s,mb5.3,baz=10,slow=6.5,SNR=16						
MAW				LR	LR	06 18 42.6	
	comp=Z,281nm,18.2s,MS4.7,baz=54,slow=32						
MAW	Mawson	79.93	192	eP	P	05 48 19.2	+0.4
	comp=Z,38nm,0.9s,mb5.3						
BFO	Black Forest	80.00	318	eP	P	05 48 18.9	-0.6
BFO				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.0						
BFO	Black Forest	80.00	318	eP	P	05 48 18.9	-0.6
	comp=Z,26nm,1.2s,mb5.0						
PCP	Pian Castagno	80.06	314	P	P	05 48 18.6	-1.3
FIN	Finale Ligure	80.32	313	P	P	05 48 20.8	-0.5
ORX	Oropa	80.39	315	P	P	05 48 20.0	-1.7
ROB	Roburent	80.56	313	P	P	05 48 22.2	-0.4
IMI	Imperia	80.57	313	P	P	05 48 24.3	+1.7
MONE	Monesi	80.66	313	P	P	05 48 22.1	-1.0
SUR	Sutherland	80.86	235	eP	P	05 48 26.7	+2.3
	comp=Z,67nm,0.9s,mb5.6						
SUR				e		05 48 32.7	
SUR				LR	LR		
	comp=Z,200nm,19.0s,MS4.5						
ENR	Entracque	80.89	313	P	P	05 48 23.7	-0.6
RSP	Reno Superiore	80.93	314	P	P	05 48 23.8	-0.7
STV2	Anna di Valdie	80.95	313	P	P	05 48 24.5	-0.1
BHB	Bricherasio	80.95	314	P	P	05 48 22.9	-1.8
STV	Sta Anna Valdi	80.95	313	P	P	05 48 23.9	-0.8
LSD	Ceresole Reale	80.98	315	P	P	05 48 25.0	+0.2
FENE	Fenestrelle	81.08	314	P	P	05 48 23.9	-1.4
PZZ	Prazzo	81.09	314	P	P	05 48 24.4	-1.0
LPG	La Plagne	81.26	315	eP	P	05 48 25.8	-0.5
	comp=Z,96nm,0.8s,mb5.5						
LPG	La Plagne	81.26	315	eP	P	05 48 25.8	-0.5
LPG				pmax	pmax		
	comp=Z,48nm,0.8s,mb5.5						
RRL	Cesana Torines	81.28	314	P	P	05 48 24.9	-1.5
BNI	Bardonecchia	81.35	314	eP	P	05 48 26.1	-0.6
BNI				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
BNI	Bardonecchia	81.35	314	eP	P	05 48 26.1	-0.6
	comp=Z,42nm,1.0s,mb5.3						
ANM	Nome	86.23	25	eP	P	05 48 53.3	+2.4
EKA	Eskdalemuir Ar	86.25	325	P	P	05 48 51.0	-0.2
	comp=Z,16nm,0.8s,mb5.3,baz=89,slow=5.9,SNR=18						
SYO	Syowa Base	86.73	197	⇑P	P	05 48 54.1	+0.9
SYO	Syowa Base	86.73	197	⇓PcP	PcP	05 48 55.0	-1.0
SYO	Syowa Base	86.73	197	⇓pP	pP	05 49 05.9	+2.1
RPZ	Rata Peaks	87.40	135	LR	LR	06 28 34.0	
	comp=Z,674nm,20.8s,MS5.0,baz=294,slow=36						
ESDC	Sonseca Array	89.93	310	P	P	05 49 09.4	+0.1
	comp=Z,2.4nm,0.6s,mb4.7,baz=57,slow=4.4,SNR=16						
IMA	Indian Mountai	90.38	22	eP	P	05 49 13.2	+2.5
IMA				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.3						
IMA	Indian Mountai	90.38	22	eP	P	05 49 13.2	+2.5
	comp=Z,12nm,0.8s,mb5.3						
URZ	Urewera	90.60	129	LR	LR	06 32 51.9	
	comp=Z,450nm,19.2s,MS4.9,baz=281,slow=38						
SUMG	Summit	92.58	347	eP	P	05 49 21.1	+0.3
	comp=Z,30nm,1.0s,mb5.7						
COLA	College	93.09	22	eP	P	05 49 24.0	+0.7
COLA				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb5.1						
COLA				MLR	MLR		
	comp=Z,526nm,22.0s,MS5.0						
COLA	College	93.09	22	eP	P	05 49 24.0	+0.7
	comp=Z,7.8nm,1.0s,mb5.1						
COLA				LR	LR		
	comp=Z,526nm,22.0s,MS5.0						
ILAR	Eielson Array	93.50	22	P	P	05 49 24.6	-0.6
	comp=Z,4.2nm,0.7s,mb5.0,baz=297,slow=4.2,SNR=42						
ILAR				PP	PP	05 53 07.8	-4.7
	comp=Z,0.6nm,0.9s,baz=299,slow=6.5,SNR=3.8						
ILAR				PKKPbc		06 06 31.5	
	comp=Z,1.2nm,0.9s,baz=148,slow=1.2,SNR=8.9						
ILAR				LR	LR	06 34 03.1	
	comp=Z,359nm,18.6s,MS4.9,baz=126,slow=37						
PMR	Palmer	94.18	25	eP	P	05 49 28.7	+0.5
PMR				pmax	pmax		
	comp=Z,163nm,2.3s,mb6.0						
PMR	Palmer	94.18	25	eP	P	05 49 28.7	+0.5
	comp=Z,163nm,2.3s,mb6.0						
VNDA	Vanda	94.49	168	P	P	05 49 30.2	+0.8
	comp=Z,3.0nm,0.9s,mb4.7,baz=282,slow=8.1,SNR=4.9						
VNDA				LR	LR	06 27 26.9	
	comp=Z,317nm,19.7s,MS4.8,baz=298,slow=33						
INK	Inuvik	95.65	16	P	P	05 49 34.9	0.0
	comp=Z,9.3nm,0.6s,mb5.4,baz=324,slow=4.1,SNR=82						
INK				PKKPbc		06 06 25.1	
	comp=Z,0.5nm,0.5s,baz=153,slow=2.3,SNR=4.2						
INK				LR	LR	06 33 49.9	
	comp=Z,446nm,20.7s,MS4.9,baz=286,slow=36						
DBIC	Dimbokro	97.33	278	P	P	05 49 45.5	+1.8
	comp=Z,3.3nm,0.8s,mb4.8,baz=79,slow=7.8,SNR=4.3						
DBIC				LR	LR	06 31 34.8	
	comp=Z,515nm,21.0s,MS5.0,baz=54,slow=34						
SNAA	Sanae	100.92	199	e	PP	05 54 12.4	+2.6
SNAA	Sanae	100.92	199	⇓iP	P	05 49 57.1	-1.6
SNAA				e		05 54 12.4	
VNA2	Neumayer--Watz	102.46	199	e	PP	05 54 19.6	-1.5
VNA2	Neumayer--Watz	102.46	199	⇑iP	Pdif	05 50 04.3	-1.2
VNA2				e		05 54 19.6	
VNA3	Neumayer Olymp	103.14	199	e	PP	05 54 22.4	-4.0
VNA3	Neumayer Olymp	103.14	199	⇓iP	Pdif	05 50 07.4	-1.2
VNA3				e		05 54 22.4	
YKA	Yellowknife Ar	105.05	13	Pdiff	Pdif	05 50 17.3	+0.2
	comp=Z,1.1nm,0.9s,baz=328,slow=4.5,SNR=14						
YKA				PP	PP	05 54 34.1	-6.8
	comp=Z,1.2nm,1.0s,baz=332,slow=7.9,SNR=8.3						
YKA				PKKPbc		06 05 58.1	
	comp=Z,1.2nm,0.8s,baz=156,slow=2.7,SNR=19						
PPT	Papeete	118.14	105	ePS	PS	06 05 54.8	-3.1
PPT				eLR	LR	06 31 39.2	
	comp=Z,601nm,24.8s						

TBI	Tubuai	118.23	111	*e*PS	PS	06 05 57.3	-1.3
TBI				*e*LR	LR	06 31 39.1	
	comp=Z,586nm,37.5s						
MSO	Missoula	118.83	21	*e*PKPdf	PKPdf	05 54 57.3	+0.2
ULM	Lac du Bonnet	120.02	7	PKP	PKPdf	05 55 00.1	+0.8
	comp=Z,3.5nm,0.8s,baz=288,slow=1.7,SNR=6.0						
ULM				PKKPbc		06 05 09.1	
	comp=Z,2.2nm,0.7s,baz=298,slow=2.5,SNR=5.3						
MCMT	McKenzie Canyo	120.94	22	*e*PKPdf	PKPdf	05 55 02.3	+1.1
LAO	LASA Array	121.39	16	*e*PKPdf	PKPdf	05 55 04.3	+2.3
TPAW	Teton Pass	122.78	21	*e*PKPdf	PKPdf	05 55 06.0	+1.2
SNOW	Snow King Moun	122.87	21	*e*PKPdf	PKPdf	05 55 07.2	+2.2
REDW	Red Top Meadow	122.92	21	*e*PKPdf	PKPdf	05 55 06.5	+1.4
NVAR	Mina Array Bea	123.83	30	PKP	PKPdf	05 55 09.2	+2.2
	comp=Z,2.6nm,0.5s,baz=256,slow=2.7,SNR=4.9						
PDAR	Pinedale Array	123.90	21	PKP	PKPdf	05 55 08.4	+1.5
	comp=Z,3.3nm,0.7s,baz=60,slow=1.0,SNR=26						
PDAR				PKKPbc		06 04 53.9	
	comp=Z,1.6nm,0.7s,baz=138,slow=5.0,SNR=14						
HWUT	Hardware Ranch	124.18	23	*e*PKPdf	PKPdf	05 55 09.0	+1.5
TRCR	Troy Canyon	125.19	28	*e*PKPdf	PKPdf	05 55 12.7	+3.1
MVU	Marysvale	126.56	25	*e*PKPdf	PKPdf	05 55 14.9	+2.6
MSU	Marysvale	126.57	25	*e*PKIKP	PKPdf	05 55 14.4	+2.1
PV10	Paradox Valley	127.95	23	*e*PKPdf	PKPdf	05 55 17.1	+2.1
RKT	Rikitea	131.52	113	*e*LR	LR	06 37 56.9	
	comp=Z,537nm,37.0s						
MIAR	Mount Ida	135.76	9	*e*PKIKP	PKPdf	05 55 31.4	+1.7
TXAR	Lajitas Array	138.00	23	PKhKP		05 55 24.2	
	comp=Z,0.7nm,0.6s,baz=69,slow=0.1,SNR=19						
TXAR				PKP	PKPdf	05 55 35.9	+1.9
	comp=Z,1.9nm,0.5s,baz=234,slow=0.2,SNR=17						
JCT	Junction City	138.28	18	*e*PKHKP		05 55 27.0	
BDFB	Brasilia	142.18	257	PKhKP		05 55 39.2	
	comp=Z,2.8nm,0.8s,baz=110,slow=2.6,SNR=6.0						
TRQA	Tornquist	144.05	214	*e*PKPdf	PKPdf	05 55 43.8	-0.6
SJG	San Juan	146.21	324	*e*PKP2	PKPab	05 55 50.9	-1.7
TEIG	Tepich	150.50	4	*e*PKPbc	PKPdf	05 56 03.1	+7.5
FCH	Farellones	151.99	209	⇓*i*P	PKPdf	05 56 07.3	+10
CLCH	Cerro Calan	152.06	209	⇓*i*P	PKPdf	05 56 06.9	+9.4
SDV	Santo Domingo	156.08	319	*e*PKPdf	PKPdf	05 56 04.7	+1.2
LPAZ	La Paz	161.04	247	*e*PKIKP	PKPdf	05 56 12.4	+3.1
LPAZ	La Paz	161.04	247	PKP	PKPdf	05 56 12.1	+2.7
	comp=Z,3.1nm,0.9s,baz=29,slow=7.2,SNR=10						
LPAZ				PKPab	PKPab	05 56 55.2	+0.5
	comp=Z,6.5nm,0.9s,baz=213,slow=4.5,SNR=8.6						
ROSC	El Rosal	161.50	319	PKP	PKPdf	05 56 13.1	+3.1
	comp=Z,12nm,0.9s,baz=93,slow=9.9,SNR=11						
ROSC				PKPab	PKPab	05 56 56.7	-0.2
	comp=Z,7.0nm,0.8s,baz=94,slow=5.5,SNR=4.5						
OTAV	Otavalo	167.66	320	*e*PKPdf	PKPdf	05 56 17.5	+2.0
OTAV				*e*PKPab	PKPab	05 57 24.3	+0.5

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*IDC **28** 05:51:14.3±1.2, 9.07N×91.24E, mb3.9/5, mb1 4.1/6, mb1mx3.8/18, mbtmp3.9/6, ML4.2/1, Error ellipse: s-maj=39.9km s-min=22.6km az=50.0*

ISC 28 05:51:17.9±1.0, **9.2N**±0.2×**91.5E**±0.1, **h33^{km}, n7, σ0^{s}81**/7, **mb3.9**/5, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.76	37	Pn	P	05 54 06.2	-0.2
	0.5nm,0.3s,baz=224,slow=14,SNR=5.7						
BOM	Bombay	20.50	300	*e*P	P	05 55 57.2	+1.2
SONM	Songino Array	40.57	15	P	P	05 58 56.8	+0.8
	1.7nm,0.7s,mb3.8,baz=196,slow=8.4,SNR=15						
WRA	Warramunga Arr	51.16	125	P	P	06 00 20.4	+0.2
	3.0nm,0.7s,mb4.4,baz=301,slow=9.1,SNR=10						
ASAR	Alice Springs	52.77	129	P	P	06 00 32.4	+0.1
	1.2nm,0.8s,mb3.9,baz=309,slow=7.3,SNR=6.5						
BRTR	Keskin Array B	59.60	311	P	P	06 01 19.7	-1.3
	0.7nm,0.6s,mb3.9,baz=143,slow=7.2,SNR=3.6						
GERES	GERESS Array B	75.11	318	P	P	06 02 57.7	-0.8
	0.5nm,0.8s,mb3.5,baz=80,slow=8.1,SNR=3.6						

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*IDC **28** 05:52:09.3±0.5, 11.00N×91.79E, h23^{km}±2^{km}, mb4.1/18, mb1 4.2/19, mb1mx4.2/23, mbtmp4.2/19, Error ellipse: s-maj=21.8km s-min=10.6km az=47.0*

ISC 28 05:52:07.3±0.5, **11.02N**±0.10×**91.9E**±0.1, **h24^{km}, h24^{km}**±.4^{km}**:pP-P, n25, σ0^{s}63**/23, **mb4.2**/18, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.07	42	Pn	P	05 54 32.5	-1.3
	baz=227,slow=16,SNR=5.4						
POO	Poona	18.94	295	*e*P	P	05 56 22.0	-7.3
POO				*i* S	S	05 59 44.0	-12
BOM	Bombay	19.99	295	*e*S	S	06 00 10.6	-8.7
	197nm,0.8s						
SONM	Songino Array	38.68	16	P	P	05 59 32.0	+1.0
	1.7nm,1.2s,mb3.6,baz=203,slow=9.4,SNR=4.1						
SONM				pP	pP	05 59 38.6	+0.5
	5.1nm,1.0s,baz=198,slow=7.8,SNR=7.6						
SONM				PcP	PcP	06 01 44.1	+0.9
	0.6nm,0.6s,baz=208,slow=3.5,SNR=3.1						
GNI	Garni	50.65	313	P	P	06 01 07.4	+0.5
	8.7nm,0.8s,mb4.8,baz=331,slow=2.1,SNR=9.7						
WRA	Warramunga Arr	51.91	126	P	P	06 01 16.7	0.0
	2.4nm,0.7s,mb4.2,baz=305,slow=8.6,SNR=7.4						
WRA				pP	pP	06 01 24.1	+0.1
	9.0nm,0.8s,baz=304,slow=8.5,SNR=14						
ASAR	Alice Springs	53.65	130	P	P	06 01 29.9	+0.4
	2.7nm,0.8s,mb4.2,baz=310,slow=7.4,SNR=7.5						
ASAR				pP	pP	06 01 37.1	+0.3
	7.2nm,0.9s,baz=305,slow=6.5,SNR=17						
KMBO	Kilima Mbogo	55.62	261	P	P	06 01 42.8	-1.3
	0.3nm,0.2s,mb3.9,baz=72,slow=13,SNR=1.7						
BRTR	Keskin Array B	58.69	310	P	P	06 02 05.3	-0.2
	3.1nm,0.8s,mb4.4,baz=121,slow=7.2,SNR=12						
CTA	Charters Tower	61.80	120	P	P	06 02 27.1	0.0
	1.7nm,0.9s,mb4.2,baz=264,slow=10,SNR=2.8						
CTA				pP	pP	06 02 35.4	+0.9
	5.1nm,0.9s,baz=304,slow=9.0,SNR=5.6						
STKA	Stephens Creek	63.89	134	P	P	06 02 41.4	+0.6
	2.8nm,0.9s,mb4.3,baz=325,slow=18,SNR=1.6						
AKASG	Malin Array Be	64.31	321	P	P	06 02 42.5	-0.7
	1.0nm,0.6s,mb4.0,baz=96,slow=4.1,SNR=7.9						
AKASG				pP	pP	06 02 50.0	-0.6
	0.3nm,0.3s,baz=94,slow=4.4,SNR=3.3						
MLR	Muntele Rosu	65.37	315	P	P	06 02 50.8	+0.7
	5.2nm,0.8s,mb4.6,baz=123,slow=6.5,SNR=9.2						
FINES	FINESS Array B	68.90	332	P	P	06 03 12.4	+0.3
	2.0nm,0.8s,mb4.1,baz=129,slow=12,SNR=8.7						
FINES				pP	pP	06 03 20.1	+0.5
	2.3nm,0.5s,baz=102,slow=5.7,SNR=4.9						
KAF	Kangasniemi	68.98	333	*e*p	pP	06 03 17.8	-2.2
	0.6nm,0.4s						
ARCES	ARCESS Array B	71.56	340	P	P	06 03 28.2	0.0
	3.0nm,0.8s,mb4.3,baz=90,slow=3.6,SNR=4.8						
GERES	GERESS Array B	74.00	318	P	P	06 03 43.6	+0.7
	1.3nm,0.8s,mb3.9,baz=76,slow=5.5,SNR=7.9						
GERES				pP	pP	06 03 50.3	0.0
	1.7nm,1.0s,baz=76,slow=5.5,SNR=4.7						
HFS	Hagfors	74.62	329	P	P	06 03 46.4	+0.2
	2.8nm,0.7s,mb4.3,baz=113,slow=11,SNR=3.5						
HFS				pP	pP	06 03 53.8	+0.1
	1.2nm,0.5s,baz=127,slow=7.4,SNR=1.8						
NB2	NORSAR Subarra	75.91	330	P	P	06 03 53.1	-0.4
	5.8nm,1.0s,mb4.5,baz=93,slow=5.8						
NOA	NORSAR Array B	75.91	330	P	P	06 03 53.4	-0.2
	2.8nm,0.9s,mb4.2,baz=92,slow=6.1,SNR=3.9						
NOA				pP	pP	06 04 01.1	0.0
	2.0nm,0.8s,baz=91,slow=6.2,SNR=3.3						
MAW	Mawson	81.16	191	P	P	06 04 21.5	-0.6
	7.2nm,1.1s,mb4.5,baz=80,slow=18,SNR=3.1						
ILAR	Eielson Array	92.68	22	P	P	06 05 18.1	-0.2
	0.6nm,0.7s,mb4.2,baz=301,slow=4.3,SNR=8.9						
ILAR				pP	pP	06 05 25.6	-0.2
	1.9nm,0.8s,baz=291,slow=4.0,SNR=12						
INK	Inuvik	94.59	15	P	P	06 05 26.9	-0.1
	0.7nm,0.8s,mb4.2,baz=299,slow=5.0,SNR=2.7						
PDAR	Pinedale Array	123.00	19	PKP	PKPdf	06 11 03.4	-3.2
	0.2nm,0.7s,baz=45,slow=3.8,SNR=2.2						
TXAR	Lajitas Array	137.18	20	PKP	PKPdf	06 11 33.0	-0.8
	0.2nm,0.7s,baz=90,slow=4.5,SNR=3.3						
TXAR				pPKP		06 11 39.6	
	3.0nm,1.2s,baz=58,slow=0.3,SNR=4.8						

IDC 28 05:54:02.2±6.8, **7.28N**×**93.94E, mb4.1**/4, **mb1 4.2**/4, **mb1mx3.8**/18, **mbtmp4.1**/4, **Error ellipse: s-maj=176.1km s-min=72.4km az=145.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.78	13	P	P	06 01 53.3	-1.6
	1.0nm,0.8s,baz=195,slow=8.1,SNR=4.0						
FINES	FINESS Array B	73.14	332	P	P	06 05 34.5	-1.7
	1.4nm,0.7s,baz=100,slow=8.5,SNR=6.2						
ARCES	ARCESS Array B	75.75	340	P	P	06 05 49.9	-1.3
	5.9nm,1.1s,baz=106,slow=6.6,SNR=4.1						
HFS	Hagfors	78.86	330	P	P	06 06 06.9	-1.7
	2.2nm,0.8s,baz=104,slow=12,SNR=3.6						
TXAR	Lajitas Array	139.85	24	PKP	PKPdf	06 13 32.4	-2.5
	0.2nm,0.4s,baz=356,slow=0.6,SNR=7.1						

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*IDC **28** 05:59:40.9±0.5, 9.61N×93.77E, mb4.3/21, mb1 4.5/21, mb1mx4.4/25, mbtmp4.3/21, Error ellipse: s-maj=26.4km s-min=12.7km az=42.0*

ISC 28 05:59:43.7±0.5, **9.37N**±0.08×**93.70E**±0.07, **h33^{km}, n47, σ0^{s}92**/46, **mb4.4**/22, **1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.37	29	Pn	P	06 02 13.7	+0.4
	0.5nm,0.3s,baz=217,slow=14,SNR=9.8						
VIS	Vishakhapatnam	13.05	311	*e*P	P	06 02 47.0	-2.5
VIS				*e*S	x	06 04 56.9	
VIS				*e*	S	06 05 06.0	-8.5
	comp=N,59nm,0.2s						
VIS				*e*		06 05 06.4	
	comp=E,48nm,0.7s						
BWNR	Bhubaneshwar	13.27	326	*e*	P	06 02 54.3	+1.9
BWNR				*e*S	x	06 04 59.9	
HYB	Hyderabad	16.76	300	*e*P	P	06 03 42.0	+4.4
HYB				*e*		06 06 30.0	
HYB				*e*S	S	06 06 42.0	+0.3
PKI	Pulchoki	19.72	338	*e*P	P	06 04 13.6	+0.2
GUN	Gumba	19.86	339	*e*P	P	06 04 15.1	+0.2
	comp=E,83nm,0.7s						
DMN	Daman	19.87	337	*e*P	P	06 04 15.1	+0.1
	comp=E,50nm,0.8s						
KKN	Kakani	19.97	338	*e*P	P	06 04 15.8	-0.3
	comp=E,18nm,0.5s						
GKN	Gorkha	20.41	336	*e*P	P	06 04 20.5	-0.2
	comp=E,51nm,0.4s						
KOLN	Koldanda	20.63	334	*e*P	P	06 04 23.2	+0.2
	comp=E,59nm,0.7s						
BHPL	Bhopal	20.81	313	*e*P	P	06 04 25.6	+0.7
BHPL				*e*S	S	06 08 13.9	+3.7
POO	Poona	21.29	297	⇑*i*P	P	06 04 29.0	-0.8
POO				*e*		06 08 15.0	
NDI	New Delhi	24.68	323	*e*P	P	06 05 03.0	-0.1
DDI	Dehra Dun	25.45	327	*e*P	P	06 05 11.4	+0.9
UCH	Uchtor	36.82	336	P	P	06 06 51.6	+1.1
	SNR=7.1						
AML	Almayashu	37.07	335	P	P	06 06 53.7	+1.0
	SNR=19						
AAK	Ala-Archa	37.17	336	P	P	06 06 53.5	0.0
	SNR=9.4						
CHMS	Chumysh	37.38	337	P	P	06 06 55.2	0.0
	SNR=6.2						
EKS2	Erkin-Say	37.48	336	P	P	06 06 57.4	+1.3
	SNR=9.9						
USP	Ospenovka	37.70	337	P	P	06 06 58.2	+0.3
	SNR=13						
SONM	Songino Array	39.81	13	P	P	06 07 14.9	-0.6
	comp=E,1.8nm,0.9s,mb3.8,baz=202,slow=6.7,SNR=9.5						
SONM				PcP	PcP	06 09 21.9	+0.1
	comp=E,1.1nm,0.5s,baz=194,slow=3.6,SNR=5.5						
ZAL	Zalesovo	45.02	353	P	P	06 07 56.7	-1.1
	comp=E,2.4nm,0.3s,mb4.5,baz=246,slow=5.5,SNR=10						
BVAR	Borovoye Array	47.44	341	P	P	06 08 14.9	-2.1
	comp=E,3.4nm,0.9s,mb4.3,baz=149,slow=8.6,SNR=10.0						
BVAR				PcP	PcP	06 09 47.7	+0.2
	comp=E,2.1nm,0.8s,baz=135,slow=4.2,SNR=4.4						
WRA	Warramunga Arr	49.48	126	P	P	06 08 33.9	+0.5
	comp=E,2.6nm,0.5s,mb4.5,baz=305,slow=8.7,SNR=16						
WRA				PcP	PcP	06 09 55.8	+0.5
	comp=E,1.3nm,0.5s,baz=314,slow=3.0,SNR=5.2						
ASAR	Alice Springs	51.21	131	P	P	06 08 46.0	-0.4
	comp=E,2.9nm,0.7s,mb4.3,baz=309,slow=7.2,SNR=19						
ASAR				PcP	PcP	06 10 02.5	+0.9
	comp=E,2.7nm,0.9s,baz=311,slow=3.5,SNR=10						
GNI	Garni	53.09	314	P	P	06 09 00.7	+0.4
	comp=E,2.3nm,0.3s,mb4.5,baz=9.6,slow=7.6,SNR=3.7						
PMG	Port Moresby	56.39	108	P	P	06 09 24.9	+0.3
	comp=E,21nm,1.1s,mb5.1,baz=294,slow=3.7,SNR=6.4						
KMBO	Kilima Mbogo	57.17	263	P	P	06 09 32.7	+2.4
	comp=E,5.0nm,0.8s,mb4.6,baz=58,slow=12,SNR=14						
CTA	Charters Tower	59.42	120	P	P	06 09 46.2	+0.3
	comp=E,4.3nm,0.9s,mb4.5,baz=282,slow=7.1,SNR=6.7						
BRTR	Keskin Array B	61.13	310	P	P	06 09 55.7	-1.6
	comp=E,3.6nm,0.8s,mb4.5,baz=126,slow=7.2,SNR=15						
AKASG	Malin Array Be	66.72	321	P	P	06 10 31.6	-2.0
	comp=E,1.4nm,0.7s,mb4.1,baz=91,slow=4.5,SNR=6.7						
IDI	Anoyia	67.37	304	P	P	06 10 37.3	-0.7
	comp=E,11nm,1.0s,mb4.8,baz=73,slow=11,SNR=3.3						
MLR	Muntele Rosu	67.81	315	P	P	06 10 40.5	0.0
	comp=E,4.5nm,0.8s,mb4.5,baz=51,slow=1.2,SNR=8.2						
FINES	FINESS Array B	71.19	332	P	P	06 11 00.1	-1.0
	comp=E,1.0nm,0.6s,mb3.9,baz=90,slow=3.8,SNR=6.2						
KAF	Kangasniemi	71.27	333	*e*p	pP	06 11 08.5	-3.3
	comp=E,6.1nm,0.9s						
ARCES	ARCESS Array B	73.72	340	P	P	06 11 15.4	-0.4
	comp=E,2.9nm,0.7s,mb4.3,baz=88,slow=5.3,SNR=11						
GERES	GERESS Array B	76.43	318	P	P	06 11 31.8	0.0
	comp=E,3.2nm,0.8s,mb4.3,baz=89,slow=5.8,SNR=22						
KHC	Kasperske Hory	76.52	318	*e*P	P	06 11 32.5	+0.2
NOA	NORSAR Array B	78.22	330	P	P	06 11 40.8	-0.7
	comp=E,0.7nm,0.7s,mb3.7,baz=112,slow=4.3,SNR=3.1						
DAVOX	Davos	79.02	316	P	P	06 11 46.3	+0.1
	comp=E,3.2nm,0.6s,mb4.4,baz=111,slow=8.3,SNR=9.1						
LPG	La Plagne	81.26	315	*e*P	P	06 11 57.2	-1.0
	comp=E,20nm,0.9s,mb4.7						
ESDC	Sonseca Array	89.93	310	P	P	06 12 42.1	+1.0
	comp=E,0.5nm,0.4s,mb4.2,baz=79,slow=4.0,SNR=4.5						
ILAR	Eielson Array	93.53	22	P	P	06 12 57.0	-0.1
	comp=E,0.5nm,1.0s,mb3.9,baz=300,slow=4.1,SNR=4.1						
INK	Inuvik	95.68	16	P	P	06 13 07.5	+0.7
	comp=E,1.5nm,0.7s,mb4.5,baz=340,slow=3.5,SNR=14						
PDAR	Pinedale Array	123.93	21	PKP	PKPdf	06 18 40.9	+1.9
	comp=E,0.8nm,0.7s,baz=162,slow=0.4,SNR=6.9						
TXAR	Lajitas Array	138.04	23	PKhKP		06 18 57.6	
	comp=E,0.6nm,1.0s,baz=337,slow=0.7,SNR=4.0						
TXAR				PKP	PKPdf	06 19 09.1	+3.1
	comp=E,0.4nm,0.5s,baz=148,slow=1.3,SNR=15						
BDFB	Brasilia	142.15	257	PKP	PKPdf	06 19 15.3	+1.6
	comp=E,1.1nm,0.6s,baz=206,slow=20,SNR=3.2						

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*IDC **28** 06:04:51.6±63.0, 12.86S×170.04E, mb3.8/3, mb1 4.0/3, mb1mx3.7/14, mbtmp3.8/3, Error ellipse: s-maj=1086.0km s-min=119.2km az=65.0*

ISC 28 06:05:34.9±5.7, **14.8S**±0.3×**166.5E**±0.7, **h100^{km}, n4, σ0^{s}24**/5, **mb3.6**/3, **Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	7.27	180	*e*P	P	06 07 20.0	0.0
DZM				*e*S	S	06 08 41.5	0.0
STKA	Stephens Creek	28.37	229	P	P	06 11 22.1	+0.3
	2.0nm,0.4s,mb4.0,baz=54,slow=9.1,SNR=10						
WRA	Warramunga Arr	31.05	256	P	P	06 11 45.6	0.0
	0.4nm,0.6s,mb3.3,baz=85,slow=8.5,SNR=2.7						
ASAR	Alice Springs	31.92	249	P	P	06 11 53.0	-0.2
	0.6nm,0.7s,mb3.4,baz=78,slow=9.8,SNR=6.1						

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*IDC **28** 06:10:32.9±11.0, 6.15N×95.65E, mb4.1/6, mb1 4.2/7, mb1mx3.9/19, mbtmp4.0/7, ML4.0/1, Error ellipse: s-maj=318.0km s-min=53.0km az=134.0*

ISC 28 06:10:55.5±2.1, **8.8N**±0.2×**93.3E**±0.2, **h33^{km}, n13, σ0^{s}90**/13, **mb4.0**/6, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.05	29	Pn	P	06 13 35.5	+1.0
	0.2nm,0.3s,baz=217,slow=13,SNR=4.6						
PKI	Pulchoki	20.09	339	*e*P	P	06 15 28.8	-0.4
	46nm,1.2s						
DMN	Daman	20.23	339	*e*P	P	06 15 29.8	-0.9
	16nm,0.7s						
GUN	Gumba	20.25	341	*e*P	P	06 15 30.5	-0.3
	47nm,1.0s						
KKN	Kakani	20.34	339	*e*P	P	06 15 31.5	-0.3
	26nm,1.0s						
GKN	Gorkha	20.76	338	*e*P	P	06 15 37.0	+0.8
	22nm,0.4s						
KOLN	Koldanda	20.96	335	*e*P	P	06 15 39.3	+1.1
	17nm,0.7s						
SONM	Songino Array	40.45	14	P	P	06 18 29.6	-2.9
	0.2nm,0.3s,mb3.3,baz=35,slow=27,SNR=4.3						
FINES	FINESS Array B	71.49	332	P	P	06 22 14.1	-0.6
	6.0nm,1.2s,mb4.4,baz=110,slow=6.8,SNR=5.3						
ARCES	ARCESS Array B	74.11	340	P	P	06 22 30.3	+0.5
	1.1nm,0.4s,mb4.1,baz=99,slow=6.6,SNR=14						
GERES	GERESS Array B	76.57	318	P	P	06 22 45.1	+0.8
	0.6nm,0.7s,mb3.6,baz=90,slow=4.0,SNR=6.0						
HFS	Hagfors	77.23	330	P	P	06 22 47.9	0.0
	3.2nm,0.8s,mb4.3,baz=90,slow=7.4,SNR=7.0						
NOA	NORSAR Array B	78.51	331	P	P	06 22 55.0	+0.1
	2.1nm,1.0s,mb4.0,baz=103,slow=7.4,SNR=3.1						

IDC 28 06:13:14.2±5.8, **5.21N**×**92.85E, mb3.8**/3, **mb1 4.0**/4, **mb1mx3.7**/17, **mbtmp3.7**/4, **ML4.1**/1, **Error ellipse: s-maj=168.4km s-min=30.9km az=75.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.45	24	Pn	P	06 16 39.8	-2.5
	0.3nm,0.3s,baz=219,slow=13,SNR=4.6						
SONM	Songino Array	44.03	13	P	P	06 21 23.7	-1.6
	0.8nm,1.0s,baz=203,slow=9.4,SNR=3.7						
WRA	Warramunga Arr	47.83	123	P	P	06 21 54.3	-1.7
	3.2nm,0.7s,baz=301,slow=9.1,SNR=12						
ASAR	Alice Springs	49.26	127	P	P	06 22 04.6	-2.3
	0.5nm,0.6s,baz=296,slow=7.6,SNR=5.6						

IDC 28 06:13:49.2±12.0, **5.81N**×**93.63E, mb3.8**/3, **mb1 4.1**/3, **mb1mx3.7**/17, **mbtmp3.8**/3, **Error ellipse: s-maj=428.0km s-min=33.3km az=70.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.28	13	P	P	06 21 52.5	-1.7
	0.8nm,0.7s,baz=192,slow=7.8,SNR=5.3						
WRA	Warramunga Arr	47.51	124	P	P	06 22 26.7	-1.7
	1.8nm,0.5s,baz=302,slow=9.0,SNR=5.2						
ASAR	Alice Springs	49.01	128	P	P	06 22 37.9	-2.1
	0.7nm,0.5s,baz=300,slow=8.1,SNR=5.5						

NDI 28 06:13:57.0±1.8, **23.58N**×**70.07E, h5^{km}, ML3.7, 1D, Southern India**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BHJ	Bhuj	0.50	230	⇓*e*P	Pg	06 14 06.1	-0.9
	831nm,0.2s						
BHJ				*e*S	Sg	06 14 13.8	+0.2
	5µm,0.2s						
BHV	Bhavnagar	2.64	133	*e*S	Sn	06 15 11.5	-2.4
POO	Poona	6.14	144	*e*PB	Pb	06 15 45.0	+0.7

IDC 28 06:17:18.6±1.3, **40.11N**×**63.00E, mb3.9**/5, **mb1 4.1**/6, **mb1mx3.7**/19, **mbtmp3.9**/6, **ML4.2**/1, **Error ellipse: s-maj=34.8km s-min=19.9km az=93.0, Northwestern Uzbekistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BVAR	Borovoye Array	13.87	19	Pn	P	06 20 33.3	-5.4
	1.1nm,0.3s,baz=216,slow=12,SNR=14						
BVAR				Sn	S	06 22 57.8	-17
	0.9nm,0.3s,baz=194,slow=18,SNR=4.4						
BVAR				Lg		06 24 40.2	
	baz=192,slow=27,SNR=2.0						
FINES	FINESS Array B	30.97	326	P	P	06 23 37.5	-1.8
	0.7nm,0.5s,baz=125,slow=11,SNR=8.0						
ARCES	ARCESS Array B	35.44	338	P	P	06 24 16.0	-2.1
	2.0nm,0.8s,baz=137,slow=8.7,SNR=5.3						
YKA	Yellowknife Ar	77.72	359	P	P	06 29 16.3	-2.0
	0.6nm,0.6s,baz=357,slow=6.3,SNR=20						
WRA	Warramunga Arr	89.24	117	P	P	06 30 16.8	-1.2
	0.5nm,0.7s,baz=311,slow=4.2,SNR=3.4						
ASAR	Alice Springs	91.50	120	P	P	06 30 26.8	-1.6
	0.4nm,0.8s,baz=320,slow=4.6,SNR=4.2						

IDC 28 06:18:02.5±1.3, **5.28N**×**93.21E, mb4.0**/6, **mb1 4.2**/7, **mb1mx3.9**/18, **mbtmp3.9**/7, **Error ellipse: s-maj=53.3km s-min=21.2km az=56.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.24	23	Pn	P	06 21 26.1	-1.7
	baz=220,slow=14,SNR=8.2						
IMP	Imphal	19.41	2	*e*P	P	06 22 17.2	-16
SONM	Songino Array	43.88	13	P	P	06 26 10.8	-1.6
	1.6nm,1.0s,baz=202,slow=7.2,SNR=6.5						
SONM				PcP	PcP	06 27 57.3	-2.0
	0.2nm,0.4s,baz=184,slow=4.6,SNR=2.9						
WRA	Warramunga Arr	47.57	123	P	P	06 26 39.5	-2.7
	6.7nm,0.8s,baz=302,slow=9.0,SNR=29						
ZAL	Zalesovo	48.99	353	P	P	06 26 51.0	-1.8
	0.9nm,0.5s,baz=266,slow=12,SNR=3.8						
ASAR	Alice Springs	49.02	128	P	P	06 26 52.2	-1.2
	1.7nm,0.9s,baz=309,slow=7.5,SNR=9.0						
ARCES	ARCESS Array B	77.38	341	P	P	06 29 58.0	-2.6
	2.9nm,0.8s,baz=97,slow=7.3,SNR=3.3						
GERES	GERESS Array B	79.14	319	P	P	06 30 09.9	-0.8
	0.2nm,0.5s,baz=117,slow=6.6,SNR=2.3						

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*MOS **28** 06:19:29.0±0.9, 41.04N×34.46E, h10^{km}, mb3.7/1, Error ellipse: s-maj=16.8km s-min=7.8km az=77.1*

*ISK **28** 06:19:29.6, 41.13N×34.42E, h5^{km}, MD3.9*

*IDC **28** 06:19:29.4±1.4, 41.13N×34.59E, mb3.7/4, mb1 3.9/7, mb1mx3.7/21, mbtmp3.8/7, ML3.6/3, Error ellipse: s-maj=22.3km s-min=10.2km az=96.0*

*CSEM **28** 06:19:29.6, 41.13N×34.42E, h5^{km}, MD3.9, After ISK*

ISC 28 06:19:29.8±0.5, **41.15N**±0.02×**34.43E**±0.03, **h0^{km}**±4^{km}**, n54, σ1^{s}03**/70, **mb3.9**/3, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOS	Tosya	0.33	250	*i* PG	Pg	06 19 36.9	+0.5
BYBT	Boyabat	0.41	38	*i* PG	Pg	06 19 38.9	+0.9
BOYT	Boyabat	0.45	52	*i* P	Pg	06 19 39.3	+0.6
BOYT				*i* S	Sg	06 19 44.6	-0.2
CTKT	Corum	0.59	153	*i* P	Pg	06 19 40.9	-0.7
CTKT				*i* S	Sg	06 19 48.3	-1.1
CANT	Cankiri	0.82	229	*i* PG	Pg	06 19 46.2	0.0
BZK	Bozkurt	0.87	338	PG	Pg	06 19 47.8	+0.5
BALT	Daday	0.88	296	*i* P	Pg	06 19 47.0	-0.4
BALT				*i* S	Sg	06 19 58.7	-0.4
CORM	Corum	0.98	171	PG	Pg	06 19 48.8	-0.6
CORM				SG	Sg	06 20 02.9	+0.5
ELDT	Eldivan	1.01	230	*i* P	Pb	06 19 48.9	-0.9
ELDT				*i* S	Sg	06 20 05.2	+1.9
KVT	Kavak	1.22	93	PN	Pn	06 19 53.6	-0.5
SAFT	Safranbolu	1.32	275	PN	Pn	06 19 54.9	-0.6
BRTR	Keskin Array B	1.54	203	Pg	Pg	06 19 58.0	-2.7
	108nm,0.3s,baz=29,slow=14,SNR=1188						
BRTR				Lg		06 20 18.5	
	102nm,0.3s,baz=19,slow=26,SNR=13						
YOZ	Yozgat	1.65	155	PN	Pn	06 20 00.8	+0.6
ANTO	Ankara	1.79	225	*e*PN	Pn	06 20 01.7	-0.5
LOD	Lodumlu	1.79	226	*e*PN	Pn	06 20 02.5	+0.3
TOKT	Tokat	1.80	117	*e*PN	Pn	06 20 03.7	+1.3
KAMT	Kaman	1.86	197	*e*PN	Pn	06 20 03.4	+0.2
SGKT	Sivrigoynuk	1.89	253	*i* P	Pn	06 20 05.1	+1.4
SGKT				*i* S	Sn	06 20 37.7	+9.2
AVNT	Avonos	2.39	172	*i* P	Pn	06 20 10.8	+0.1
AVNT				*i* S	Sn	06 20 40.8	-0.4
BNN	Bunyan	2.54	154	*e*PN	Pn	06 20 13.8	+0.9
MDU	Mudurnu	2.54	255	*e*PN	Pn	06 20 13.6	+0.7
KIZT	Kizilcal	3.00	222	*e*PN	Pn	06 20 18.5	-1.0
NIG	Nigde	3.04	177	*e*PN	Pn	06 20 20.6	+0.6
ESKT	Eskisehir	3.19	240	*e*PN	Pn	06 20 21.6	-0.6
YAL	Yalta	3.34	357	*e*P	Pn	06 20 23.0	-1.4
YAL				*e*S	Sn	06 21 02.5	-2.9
YAL				pmax	pmax		
	comp=Z,30nm,0.5s						
YAL				smax			
	comp=N,70nm,0.6s						

SEV	Sevastopol’	3.44	351	*e*P	Pn	06 20 25.8	0.0
SEV				*e*S	Sn	06 21 08.8	+0.9
SEV				pmax	pmax		
	comp=Z,40nm,0.5s						
SEV				smax			
	comp=N,70nm,0.8s						
SEV				smax			
	comp=E,50nm,0.8s						
ALU	Alushta	3.53	360	*e*P	Pn	06 20 27.1	0.0
ALU				*e*S	Sn	06 21 09.0	-1.2
ALU				pmax	pmax		
	comp=Z,40nm,0.4s						
ALU				smax			
	comp=N,120nm,0.4s						
ALU				smax			
	comp=E,90nm,0.5s						
HRT	Hereke	3.62	266	*e*PN	Pn	06 20 28.6	+0.2
SUDU	Sudak	3.76	6	*e*P	Pn	06 20 30.7	+0.3
SUDU				*e*S	Sn	06 21 15.7	-0.4
SUDU				pmax	pmax		
	comp=Z,90nm,0.9s						
SUDU				smax			
	comp=N,170nm,0.6s						
SUDU				smax			
	comp=E,100nm,0.6s						
SIM	Simferopol’	3.81	357	*e*P	Pn	06 20 32.5	+1.5
SIM				*i* S	Sn	06 21 19.5	+2.4
SIM				smax			
	comp=N,210nm,0.7s						
SIM				smax			
	comp=E,220nm,0.9s						
YLV	Yalova	3.88	263	*e*PN	Pn	06 20 32.6	+0.5
GUMT	Gumushane	3.89	99	*e*PN	Pn	06 20 33.1	+0.9
ALT	Altintas	3.92	239	*e*PN	Pn	06 20 32.6	0.0
FEO	Feodosiya	3.93	10	*e*P	Pn	06 20 33.5	+0.7
FEO				*e*S	Sn	06 21 20.2	-0.1
FEO				pmax	pmax		
	comp=Z,110nm,0.5s						
FEO				smax			
	comp=N,100nm,0.6s						
MYA	Malataya	4.17	131	*e*PN	Pn	06 20 37.1	+0.9
MALT	Malatya	4.18	131	*e*PN	Pn	06 20 37.1	+0.8
ANN	Anapa	4.26	30	*e*P	Pn	06 20 37.3	-0.2
ANN				*e*S	Sn	06 21 30.8	+2.1
ANN				pmax	pmax		
	comp=Z,132nm,2.0s						
PTK	Pertek	4.42	119	*e*PN	Pn	06 20 40.3	+0.5
ISP	Isparta	4.48	224	*e*P	Pn	06 20 36.9	-3.7
SOC	Sochi	4.61	56	*e*P	Pn	06 20 41.9	-0.5
SOC				*e*		06 21 37.1	
SOC				pmax	pmax		
	comp=Z,29nm,0.8s						
SOC				pmax	pmax		
	comp=N,29nm,0.9s						
SOC				pmax	pmax		
	comp=E,45nm,0.8s						
VRT	Varto	5.80	108	*e*PN	Pn	06 21 00.7	+1.5
KIV	Kislovodsk	6.71	63	*e*P	Pn	06 21 10.3	-1.7
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s						
KIV				pmax	pmax		
	comp=N,8.0nm,0.8s						
ZEI	Tsey	7.24	74	*e*P	Pn	06 21 18.0	-1.5
ZEI				*e*		06 22 41.1	
ZEI				pmax	pmax		
	comp=Z,19nm,0.6s						
ZEI				smax			
	comp=Z,15nm,1.1s						
MLR	Muntele Rosu	7.56	308	Pn	Pn	06 21 22.3	-1.6
	comp=Z,0.3nm,0.3s,baz=156,slow=12,SNR=5.3						
MLR				Sn	Sn	06 22 51.4	-0.1
	comp=Z,0.2nm,0.3s,baz=143,slow=20,SNR=2.6						
GNI	Garni	7.90	94	*e*P	Pn	06 21 26.1	-2.7
GNI				pmax	pmax		
	comp=Z,4.0nm,1.1s						
AKASG	Malin Array Be	10.22	341	Pn	P	06 21 55.3	-5.4
	comp=Z,2.7nm,0.3s,baz=151,slow=13,SNR=24						
AKASG				Sn	S	06 23 46.0	-11
	comp=Z,1.4nm,0.3s,baz=155,slow=24,SNR=3.5						
VRSR	Storozhevoye	10.59	16	*e*P	P	06 21 56.5	-9.4
VRSR				*e*SS	SS	06 24 10.9	-8.7
VRSR				pmax	pmax		
	comp=Z,3µm,0.9s						
GERES	GERESS Array B	16.53	305	Pn	P	06 23 25.9	+1.5
	comp=Z,0.1nm,0.3s,baz=102,slow=12,SNR=8.1						
FINES	FINESS Array B	20.95	349	*i* P	P	06 24 17.2	+0.7
FINES				pmax	pmax		
	comp=Z,1.0nm,0.5s						
FINES	FINESS Array B	20.95	349	P	P	06 24 13.9	-2.6
	comp=Z,1.0nm,0.5s,baz=146,slow=10.0,SNR=6.5						
HFS	Hagfors	22.93	333	P	P	06 24 35.8	-0.5
	comp=Z,4.3nm,0.9s,mb4.0,baz=148,slow=14,SNR=3.3						
ARCES	ARCESS Array B	28.84	354	P	P	06 25 30.1	-1.3
	comp=Z,1.2nm,0.5s,mb4.0,baz=170,slow=7.4,SNR=8.5						
YKA	Yellowknife Ar	73.75	346	*i* P	P	06 31 06.1	-0.8
YKA	Yellowknife Ar	73.75	346	P	P	06 31 06.1	-0.7
	comp=Z,0.4nm,0.6s,mb3.6,baz=25,slow=5.6,SNR=8.5						

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*IDC **28** 06:28:07.9±0.8, 5.35N×94.34E, mb4.6/13, mb1 4.6/14, mb1mx4.5/22, mbtmp4.5/14, MS3.9/4, Ms1 4.0/4, ms1mx3.4/32, Error ellipse: s-maj=40.0km s-min=17.4km az=46.0*

*MOS **28** 06:28:11.3±1.2, 5.32N×94.34E, h33^{km}, mb5.2/12, Error ellipse: s-maj=27.2km s-min=10.1km az=111.2*

*BJI **28** 06:28:11.9, 4.99N×94.43E, h53^{km}, mB5.1, mb4.9, Ms4.5, Msz4.1*

*NEIC **28** 06:28:12.8±0.9, 5.40N×94.49E, h30^{km}, mb4.9/7, Error ellipse: s-maj=34.4km s-min=19.2km az=50.0*

*SYO **28** 06:28:12.6, 5.38N×94.46E, h30^{km}, MB4.9*

ISC 28 06:28:11.3±0.5, **5.32N**±0.07×**94.44E**±0.08, **h33^{km}, n72,** σ**1^{s}09**/66, **mb4.8**/42, **MS4.1**/7, **3C-5D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.77	18	*e*P	P	06 31 32.5	+5.8
CMAR	Chiang Mai Arr	13.77	18	Pn	P	06 31 25.1	-1.5
	baz=223,slow=15,SNR=4.4						
CMAR				LR	LR	06 37 30.5	
	comp=Z,371nm,18.7s,baz=235,slow=41						
CHG	Chiang Mai	14.11	18	⇓P	P	06 31 36.8	+5.7
	16nm,0.8s						
NANT	Nan	14.72	24	P	P	06 31 46.5	+7.4
KMI	Kunming	21.24	21	P	P	06 33 01.5	+4.7
KMI				AP		06 33 10.5	
KMI				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.5						
PKI	Pulchoki	23.74	340	*e*P	P	06 33 21.1	-0.5
	comp=Z,26nm,0.6s,mb4.8						
DMN	Daman	23.88	339	*e*P	P	06 33 23.3	+0.4
	comp=Z,35nm,0.8s,mb4.8						
GUN	Gumba	23.89	341	*e*P	P	06 33 23.6	+0.5
	comp=Z,51nm,0.5s,mb5.2						
KKN	Kakani	23.98	340	*e*P	P	06 33 24.4	+0.5
	comp=Z,49nm,0.7s,mb5.0						
GYA	Guiyang	24.04	28	⇑*i*P	P	06 33 26.8	+2.3
GYA				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.1						
GKN	Gorkha	24.41	339	*e*P	P	06 33 29.6	+1.5
	comp=Z,34nm,0.3s,mb5.2						
LSA	Lhasa	24.45	353	*e*P	P	06 33 29.4	+1.0
LSA				pmax	pmax		
	comp=Z,41nm,0.5s,mb5.1						
LSA	Lhasa	24.45	353	*e*P	P	06 33 29.4	+1.0
	comp=Z,41nm,0.5s,mb5.1						
KOLN	Koldanda	24.59	336	*e*P	P	06 33 31.8	+1.9
	comp=Z,47nm,0.6s,mb5.2						
XAN	Xi’an	31.57	23	P	P	06 34 32.0	-1.2
XAN				AMB	AMB		
	comp=Z,34nm,0.7s,mb5.3						
NJ2	Nanjing	35.05	38	*e*P	P	06 35 04.3	+1.0
NJ2				AMB	AMB		
	comp=Z,140nm,1.8s,mb5.6						
NJ2				LR	LR		
	comp=N,690nm,22.0s,MS4.4						
NJ2				LR	LR		
	comp=E,360nm,20.0s,MS4.4						
NJ2				LR	LR		
	comp=Z,690nm,20.0s,MS4.4						
HHC	Hu-ho-hao-te	38.56	21	*e*P	P	06 35 33.5	+0.8
HHC				AP	pP	06 35 43.5	+1.0
HHC				PP	PP	06 37 04.5	-0.4
HHC				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.6						
HHC				LR	LR		
	comp=N,248nm,23.8s						
HHC				LR	LR		
	comp=E,307nm,17.8s						
HHC				LR	LR		
	comp=Z,313nm,21.4s,MS4.1						
WMQ	Urumqi	38.80	352	P	P	06 35 36.0	+1.3
WMQ				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.7						
BJI	Beijing	39.72	26	P	P	06 35 40.5	-1.8
BJI				AMB	AMB		
	comp=Z,16nm,0.6s,mb4.9						
BJI				LR	LR		
	comp=N,284nm,12.8s,MS4.3						
BJI				LR	LR		
	comp=E,204nm,15.1s,MS4.3						
BJI				LR	LR		
	comp=Z,163nm,25.5s						
AAK	Ala-Archa	41.16	338	P	P	06 35 54.1	-0.1
AAK				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb3.8						
AAK	Ala-Archa	41.16	338	P	P	06 35 54.1	-0.1
	comp=Z,2.4nm,0.8s,mb3.9						
MKAR	Makanchi Array	42.63	348	*i* P	P	06 36 06.9	+0.6
MKAR				pmax	pmax		
	comp=Z,14nm,0.6s						
SONM	Songino Array	43.58	12	P	P	06 36 13.4	-0.6
	comp=Z,5.2nm,0.7s,mb4.4,baz=193,slow=8.6,SNR=38						
SONM				PcP	PcP	06 38 02.2	+0.4
	comp=Z,2.4nm,0.5s,baz=196,slow=3.8,SNR=9.7						
SONM				LR	LR	06 57 05.7	
	comp=Z,169nm,19.5s,MS4.0,baz=184,slow=40						
ULN	Ulaanbaatar	43.74	12	*e*P	P	06 36 14.6	-0.7
ULN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
ULN	Ulaanbaatar	43.74	12	*e*P	P	06 36 14.6	-0.8
	comp=Z,5.7nm,0.6s,mb4.5						
ZAK	Zakamensk	45.52	8	*e*P	P	06 36 29.2	-0.3
ZAK				*e*		06 36 42.8	
WRA	Warramunga Arr	46.57	124	P	P	06 36 38.6	+0.4
	comp=Z,12nm,0.9s,mb4.8,baz=302,slow=9.1,SNR=42						
WRAB	Tennant Creek	46.58	124	*d* *i*P	P	06 36 39.0	+0.8
WRAB	Tennant Creek	46.58	124	*e*P	P	06 36 38.5	+0.3
	comp=Z,21nm,0.7s,mb5.2						
ASAR	Alice Springs	48.08	128	P	P	06 36 50.5	+0.5
	comp=Z,2.1nm,0.6s,mb4.3,baz=300,slow=7.7,SNR=19						
NVS	Novosibirsk	50.20	352	*e*P	P	06 37 04.7	-1.2
NVS				*e*S	S	06 44 16.8	+2.5
NVS				pmax	pmax		
	comp=N,15nm,0.6s						
NVS				pmax	pmax		
	comp=E,15nm,0.6s						
NVS				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.3						
NVS				smax			
	comp=N,26nm,1.6s						
NVS				smax			
	comp=E,28nm,1.6s						
CBIJ	Chichi jima	50.30	59	LR	LR	06 58 16.3	
	comp=E,38nm,18.3s,MS3.5,baz=165,slow=36						
BVA0	Borovoye Array	51.49	342	*i* P	P	06 37 15.5	-0.2
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.1s,mb4.0						
BVAR	Borovoye Array	51.49	342	P	P	06 37 15.5	-0.2
	comp=Z,7.2nm,0.6s,mb4.8,baz=141,slow=9.5,SNR=32						
BRVK	Borovoye	51.55	342	*e*P	P	06 37 15.6	-0.6
BRVK				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
BRVK	Borovoye	51.55	342	*e*P	P	06 37 15.6	-0.5
	comp=Z,9.5nm,0.5s,mb5.0						
CHKZ	Chkalovo	51.98	342	P	P	06 37 19.8	+0.5
CHKZ				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.3						
BOD	Bodaibo	54.55	13	*e*P	P	06 37 37.1	-1.3
BOD				*e*		06 37 49.2	
GNI	Garni	56.44	315	*i* P	P	06 37 47.1	-5.2
ZEI	Tsey	58.11	318	*e*P	P	06 38 04.2	+0.2
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
ARU	Arti	58.34	338	⇓*i*P	pP	06 38 14.4	-1.2
ARU				*e*		06 38 55.9	
ARU				*e*S	Sx	06 46 29.9	
ARU				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.1						
KIV	Kislovodsk	59.41	319	*e*P	P	06 38 12.3	-0.8
KIV				pmax	pmax		
	comp=N,12nm,1.1s						
KIV				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
SOC	Sochi	61.24	317	*e*P	P	06 38 23.4	-2.2
SOC				*e*		06 39 02.1	
SOC				*e*		06 40 42.7	
SOC				*e*S	S	06 46 41.8	+0.3
SOC				*e*		06 48 08.5	
SOC				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.2						
SOC				pmax	pmax		
	comp=N,20nm,0.9s						
SOC				pmax	pmax		
	comp=E,35nm,0.9s						
ANN	Anapa	63.21	318	*e*P	P	06 38 36.4	-2.3
ANN				pmax	pmax		
	comp=Z,104nm,1.4s,mb5.8						
BRTR	Keskin Array B	64.33	312	P	P	06 38 45.3	-0.8
	comp=Z,2.7nm,0.6s,mb4.5,baz=117,slow=7.6,SNR=4.3						
TIXI	Tiksi	69.66	11	*e*P	P	06 39 18.0	-1.2
TIXI				*e*S	S	06 48 33.8	+10
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
TIXI				MLR	MLR		
	comp=Z,112nm,19.0s,MS4.1						
AKASG	Malin Array Be	70.33	322	P	P	06 39 21.7	-1.9
	comp=Z,2.7nm,0.5s,mb4.5,baz=85,slow=5.0,SNR=14						
MLR	Muntele Rosu	71.20	316	P	P	06 39 30.1	+1.1
	comp=Z,4.6nm,0.7s,mb4.5,baz=135,slow=9.9,SNR=7.9						
KOLS	Kolonicke sedl	74.32	319	*e*P	P	06 39 48.4	+1.1
SUW	Suwalki	74.74	325	*e*P	P	06 39 49.2	-0.4
FINES	FINESS Array B	75.10	332	P	P	06 39 50.5	-1.0
	comp=Z,2.1nm,0.5s,mb4.3,baz=135,slow=2.7,SNR=10						
OJC	Ojcow	76.11	320	*e*P	P	06 39 58.0	+0.5
ZST	Bratislava	77.61	318	*e*P	P	06 40 06.8	+0.8
ZST				*e*		06 40 21.2	
ARCES	ARCESS Array B	77.75	340	P	P	06 40 06.7	+0.3
	comp=Z,1.4nm,0.4s,mb4.2,baz=97,slow=6.0,SNR=12						
KSP	Ksiaz	78.41	321	*e*P	P	06 40 11.4	+1.1
BRG	Berggiesshubel	79.90	321	*i* P	P	06 40 19.3	+0.9
BRG				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
BRG	Berggiesshubel	79.90	321	*i* P	P	06 40 19.3	+0.9
	comp=Z,3.3nm,0.5s,mb4.5						
GERES	GERESS Array B	79.92	319	P	P	06 40 17.4	-1.2
	comp=Z,7.5nm,0.8s,mb4.7,baz=90,slow=5.3,SNR=35						
KHC	Kasperske Hory	80.02	319	*e*P	P	06 40 16.9	-2.2
CLL	Collm	80.52	321	P	P	06 40 22.0	+0.3
HFS	Hagfors	80.80	330	P	P	06 40 22.0	-1.0
	comp=Z,11nm,1.1s,mb4.7,baz=124,slow=5.3,SNR=7.5						
DAVOX	Davos	82.43	316	P	P	06 40 33.3	+1.6
	comp=Z,7.8nm,0.5s,mb4.9,baz=124,slow=5.2,SNR=28						
SYO	Syowa Base	83.07	197	⇓P	P	06 40 34.5	-0.1
SYO	Syowa Base	83.07	197	⇓pP	pP	06 40 46.4	+1.3
LPL	La Plagne	84.64	315	⇑*i*P	P	06 40 44.0	+1.0
	comp=Z,18nm,0.9s,mb4.9						
LPL	La Plagne	84.64	315	⇑*i*P	P	06 40 44.0	+1.0
LPL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
EKA	Eskdalemuir Ar	89.98	326	P	P	06 41 09.2	+0.6
	comp=Z,2.0nm,0.6s,mb4.7,baz=92,slow=5.2,SNR=8.3						
DBIC	Dimbokro	98.58	278	LR	LR	07 28 38.4	
	comp=Z,154nm,18.0s,MS4.5,baz=37,slow=37						
YKA	Yellowknife Ar	108.82	14	PP	PP	06 47 01.2	-7.4
	comp=Z,0.3nm,0.6s,baz=335,slow=7.8,SNR=6.2						
PDAR	Pinedale Array	127.41	22	PKP	PKPdf	06 47 14.6	+1.3
	comp=Z,0.8nm,0.7s,baz=59,slow=2.6,SNR=7.1						
ANMO	Albuquerque	135.36	25	PKP	PKPdf	06 47 28.3	-0.2
	comp=Z,0.6nm,0.7s,baz=333,slow=23,SNR=2.1						
TXAR	Lajitas Array	141.40	26	PKhKP		06 47 34.7	
	comp=Z,0.5nm,0.4s,baz=295,slow=0.9,SNR=14						

IDC 28 06:30:05.1±6.9, **10.23N**×**93.17E, mb4.2**/3, **mb1 4.4**/4, **mb1mx3.8**/17, **mbtmp4.1**/4, **Error ellipse: s-maj=161.7km s-min=43.2km az=96.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.91	34	Pn	P	06 32 28.8	-3.2
	baz=225,slow=14,SNR=2.0						
WRA	Warramunga Arr	50.41	127	P	P	06 39 04.6	-2.1
	3.2nm,0.6s,baz=307,slow=8.5,SNR=5.4						
ASAR	Alice Springs	52.16	131	P	P	06 39 18.4	-1.5
	2.4nm,0.9s,baz=304,slow=7.4,SNR=4.0						
STKA	Stephens Creek	62.42	134	P	P	06 40 29.4	-3.1
	2.5nm,0.8s,baz=328,slow=5.3,SNR=3.0						

IDC 28 06:33:27.7±3.4, **10.70N**×**91.79E, mb3.9**/4, **mb1 4.0**/5, **mb1mx3.7**/18, **mbtmp3.8**/5, **ML3.7**/1, **Error ellipse: s-maj=98.1km s-min=27.4km az=82.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.37	41	Pn	P	06 35 58.5	-2.4
	0.2nm,0.3s,baz=234,slow=16,SNR=3.3						
SONM	Songino Array	39.01	16	P	P	06 40 55.8	-1.9
	1.0nm,0.8s,baz=211,slow=8.3,SNR=6.9						
WRA	Warramunga Arr	51.79	126	P	P	06 42 36.6	-3.2
	1.2nm,0.6s,baz=306,slow=8.4,SNR=5.1						
ASAR	Alice Springs	53.50	130	P	P	06 42 50.3	-2.2
	0.9nm,0.8s,baz=305,slow=6.9,SNR=6.2						
STKA	Stephens Creek	63.72	134	P	P	06 44 02.4	-1.4
	1.4nm,0.5s,baz=311,slow=9.2,SNR=4.5						

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*IDC **28** 06:34:28.6±0.7, 8.53N×92.45E, mb4.4/18, mb1 4.5/19, mb1mx4.4/25, mbtmp4.4/19, ML3.6/1, MS4.3/1, Ms1 4.3/1, ms1mx3.1/32, Error ellipse: s-maj=33.0km s-min=14.1km az=48.0*

ISC 28 06:34:32.2±0.6, **8.58N**±0.10×**92.6E**±0.1, **h33^{km}, n31,** σ**0^{s}94**/27, **mb4.4**/19, **MS4.4**/1, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.58	31	Pn	P	06 37 18.4	+0.1
	0.1nm,0.3s,baz=223,slow=14,SNR=3.5						
IMP	Imphal	16.16	4	*e*	P	06 38 17.3	-1.2
UCH	Uchtor	37.12	338	P	P	06 41 42.5	+1.0
	SNR=5.4						
AML	Almayashu	37.35	337	P	P	06 41 44.4	+0.9
	SNR=16						
AAK	Ala-Archa	37.47	338	P	P	06 41 45.7	+1.1
	SNR=7.0						
EKS2	Erkin-Say	37.77	337	P	P	06 41 47.7	+0.7
	SNR=7.5						
USP	Ospenovka	38.02	338	P	P	06 41 49.2	+0.1
	SNR=9.4						
SONM	Songino Array	40.83	14	P	P	06 42 12.4	+0.1
	2.4nm,0.9s,mb3.9,baz=199,slow=9.3,SNR=13						
SONM				PcP	PcP	06 44 14.0	+0.5
	1.1nm,0.5s,baz=212,slow=2.9,SNR=5.3						
ZAL	Zalesovo	45.66	354	P	P	06 42 50.9	-0.7
	2.1nm,0.5s,mb4.4,baz=293,slow=6.1,SNR=5.1						
BVAR	Borovoye Array	47.85	342	P	P	06 43 07.4	-1.3
	2.4nm,0.8s,mb4.3,baz=149,slow=8.6,SNR=7.6						
WRA	Warramunga Arr	49.90	125	P	P	06 43 24.6	-0.4
	7.2nm,0.7s,mb4.8,baz=308,slow=8.6,SNR=16						
ASAR	Alice Springs	51.52	129	P	P	06 43 37.9	+0.6
	5.3nm,0.7s,mb4.6,baz=301,slow=8.0,SNR=14						
KMBO	Kilima Mbogo	56.01	263	LR	LR	07 05 50.0	
	comp=Z,291nm,20.4s,MS4.4,baz=99,slow=34						
CTA	Charters Tower	59.96	119	P	P	06 44 37.2	-0.9
	1.2nm,0.6s,mb4.1,baz=326,slow=3.6,SNR=3.2						
BRTR	Keskin Array B	60.83	311	P	P	06 44 41.1	-2.7
	4.6nm,1.2s,mb4.5,baz=135,slow=7.0,SNR=8.4						
STKA	Stephens Creek	61.68	133	P	P	06 44 50.1	+0.5
	2.7nm,0.6s,mb4.6,baz=311,slow=3.1,SNR=4.1						
MLR	Muntele Rosu	67.62	316	P	P	06 45 27.1	-0.7
	6.0nm,0.9s,mb4.6,baz=118,slow=3.5,SNR=7.1						
FINES	FINESS Array B	71.39	332	P	P	06 45 49.8	-0.9
	1.8nm,0.8s,mb4.1,baz=102,slow=7.3,SNR=7.2						
ARCES	ARCESS Array B	74.09	340	P	P	06 46 08.2	+1.7
	2.9nm,0.8s,mb4.3,baz=27,slow=2.7,SNR=4.5						
GERES	GERESS Array B	76.30	318	P	P	06 46 19.2	-0.3
	2.8nm,0.8s,mb4.2,baz=90,slow=5.3,SNR=13						
HFS	Hagfors	77.09	330	P	P	06 46 25.1	+1.4
	4.3nm,0.8s,mb4.5,baz=90,slow=12,SNR=4.4						
NB2	NORSAR Subarra	78.38	331	P	P	06 46 29.4	-1.4
	1.4nm,0.8s,mb3.9,baz=94,slow=5.6						
NOA	NORSAR Array B	78.38	331	P	P	06 46 30.2	-0.7
	2.8nm,0.9s,mb4.2,baz=95,slow=5.4,SNR=3.9						
DAVOX	Davos	78.84	316	P	P	06 46 33.5	-0.1
	4.4nm,0.7s,mb4.5,baz=90,slow=5.0,SNR=5.7						
LPL	La Plagne	81.07	315	*e*P	P	06 46 45.4	-0.2
	30nm,1.0s,mb4.9						
EKA	Eskdalemuir Ar	86.29	325	P	P	06 47 12.6	+0.8
	2.5nm,0.7s,mb4.5,baz=92,slow=5.8,SNR=5.1						
ILAR	Eielson Array	94.65	22	P	P	06 47 50.2	-0.5
	0.9nm,0.6s,mb4.4,baz=294,slow=4.4,SNR=8.0						
INK	Inuvik	96.73	16	P	P	06 48 01.3	+1.2
	2.0nm,0.5s,mb4.8,baz=351,slow=4.8,SNR=11						
YKA	Yellowknife Ar	106.08	13	PP	PP	06 53 06.4	-2.3
	0.1nm,0.4s,baz=337,slow=8.0,SNR=4.7						
PDAR	Pinedale Array	125.04	20	PKP	PKPdf	06 53 31.1	+1.5
	0.6nm,0.7s,baz=270,slow=1.5,SNR=4.5						
TXAR	Lajitas Array	139.17	22	PKP	PKPdf	06 53 59.5	+3.0
	0.3nm,0.6s,baz=355,slow=0.9,SNR=4.9						

BJI 28 06:41:42.7, 24.69N×**101.53E, h15^{km}, ML3.8, Ms3.4, Msz3.5, 1C, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	Kunming	1.18	68	⇑PG	Pg	06 42 04.0	-2.4
KMI				SG	Sg	06 42 20.3	-2.0
KMI				Smax			
	comp=N,2µm,1.5s						
KMI				Smax			
	comp=E,2µm,1.7s						
GYA	Guiyang	4.96	68	P	Pn	06 42 57.0	-1.5
GYA				S	Sn	06 43 50.8	-5.4
GYA				LR	LR		
	comp=N,420nm,10.2s						
GYA				LR	LR		
	comp=E,320nm,10.3s						
GYA				LR	LR		
	comp=Z,480nm,8.7s						

IDC 28 06:42:25.0±1.1, **5.27N**×**94.23E, mb4.1**/10, **mb1 4.2**/10, **mb1mx4.0**/19, **mbtmp4.1**/10, **Error ellipse: s-maj=55.2km s-min=19.7km az=50.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	43.68	12	P	P	06 50 31.5	-1.8
	0.4nm,0.3s,baz=188,slow=9.1,SNR=2.3						
WRA	Warramunga Arr	46.72	124	P	P	06 50 55.2	-2.7
	1.6nm,0.6s,baz=302,slow=9.3,SNR=10						
ASAR	Alice Springs	48.22	128	P	P	06 51 08.7	-1.0
	0.5nm,0.4s,baz=301,slow=7.3,SNR=7.4						
ZAL	Zalesovo	49.13	353	P	P	06 51 14.7	-1.6
	1.8nm,0.3s,baz=54,slow=3.0,SNR=3.1						
BVAR	Borovoye Array	51.47	342	P	P	06 51 32.3	-1.9
	0.5nm,0.4s,baz=120,slow=12,SNR=3.7						
BRTR	Keskin Array B	64.20	312	P	P	06 53 01.5	-2.6
	1.7nm,1.0s,baz=121,slow=7.2,SNR=3.9						
FINES	FINESS Array B	75.04	333	P	P	06 54 07.9	-2.2
	1.1nm,0.5s,baz=96,slow=5.9,SNR=14						
KAF	Kangasniemi	75.14	333	*e*p	P	06 54 03.6	-7.1
	0.7nm,0.4s						
ARCES	ARCESS Array B	77.73	340	P	P	06 54 23.9	-1.2
	4.0nm,1.0s,baz=106,slow=6.6,SNR=3.3						
GERES	GERESS Array B	79.82	319	P	P	06 54 36.8	0.0
	0.7nm,0.7s,baz=45,slow=3.8,SNR=3.7						
HFS	Hagfors	80.74	330	P	P	06 54 39.7	-1.9
	4.9nm,1.0s,baz=162,slow=4.7,SNR=6.0						

IDC 28 06:52:43.4±1.4, **13.65N**×**93.31E, mb3.5**/4, **mb1 3.8**/5, **mb1mx3.6**/18, **mbtmp3.5**/5, **ML3.6**/1, **Error ellipse: s-maj=36.0km s-min=24.2km az=66.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.22	48	Pn	Pn	06 54 31.4	-1.4
	0.3nm,0.3s,baz=239,slow=15,SNR=5.0						
CMAR				Sn	Sn	06 55 55.1	-1.5
	0.6nm,0.3s,baz=239,slow=26,SNR=5.8						
POO	Poona	19.32	287	*e*	S	07 00 35.0	-11

SONM	**Songino Array**	**35.79**	**15**	P	P	06 59 43.9	-2.3
	0.5nm,1.0s,baz=205,slow=8.7,SNR=3.1						
WRA	**Warramunga Arr**	**52.38**	**129**	P	P	07 01 56.0	-3.9
	0.3nm,0.5s,baz=307,slow=7.2,SNR=3.3						
ASAR	**Alice Springs**	**54.32**	**133**	P	P	07 02 12.8	-1.3
	0.5nm,0.6s,baz=313,slow=6.6,SNR=5.5						
GERES	**GERESS Array B**	**73.03**	**317**	P	P	07 04 16.5	-0.6
	0.5nm,0.7s,baz=82,slow=6.9,SNR=4.6						

IDC 28 06:56:40.8±1.5**, 6.03N×92.22E, mb3.9**/6**, mb1 4.1**/7**, mb1mx3.9**/19**, mbtmp3.9**/7**, MS3.2**/1**, Ms1 3.4**/1**, ms1mx2.9**/30**, Error ellipse: s-maj=59.0km s-min=21.5km az=59.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.99**	**27**	Pn	P	07 00 00.6	-2.3
	baz=225,slow=14,SNR=16						
CMAR				LR	LR	07 06 44.0	
	comp=Z,82nm,18.3s,baz=205,slow=43						
SONM	**Songino Array**	**43.39**	**14**	P	P	07 04 45.2	-1.5
	6.6nm,1.1s,baz=196,slow=8.6,SNR=25						
SONM				PcP	PcP	07 06 35.0	-0.9
	0.4nm,0.7s,baz=190,slow=5.1,SNR=2.6						
ZAL	**Zalesovo**	**48.15**	**354**	P	P	07 05 21.6	-2.9
	1.4nm,0.6s,baz=81,slow=2.9,SNR=4.8						
WRA	**Warramunga Arr**	**48.81**	**123**	P	P	07 05 27.3	-2.8
	1.2nm,0.5s,baz=300,slow=9.1,SNR=5.8						
BVAR	**Borovoye Array**	**50.15**	**343**	P	P	07 05 37.9	-2.1
	0.5nm,0.5s,baz=149,slow=8.4,SNR=4.0						
ASAR	**Alice Springs**	**50.26**	**128**	P	P	07 05 39.5	-1.7
	0.3nm,0.6s,baz=295,slow=7.7,SNR=4.8						
FINES	**FINESS Array B**	**73.45**	**333**	P	P	07 08 14.6	-2.1
	1.1nm,0.8s,baz=117,slow=6.2,SNR=2.3						

IDC 28 07:03:20.3±3.4**, 2.23S×34.54E, mb4.0**/4**, mb1 4.2**/5**, mb1mx3.8**/19**, mbtmp4.1**/5**, ML4.3**/1**, Error ellipse: s-maj=79.1km s-min=15.5km az=171.0, Lake Victoria region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMBO	**Kilima Mbogo**	**2.93**	**68**	Pn	Pn	07 04 06.7	-2.3
	43nm,0.3s,baz=226,slow=23,SNR=693						
KMBO				Pg	Pg	07 04 15.1	-3.7
	225nm,0.3s,baz=224,slow=19,SNR=81						
KMBO				Sn	Sn	07 04 43.8	-1.6
	261nm,0.3s,baz=193,slow=23,SNR=8.8						
KMBO				Lg		07 04 54.2	
	623nm,0.3s,baz=262,slow=19,SNR=12						
DBIC	**Dimbokro**	**40.30**	**283**	P	P	07 11 00.5	-0.8
	2.8nm,0.8s,baz=87,slow=6.1,SNR=5.3						
BRTR	**Keskin Array B**	**41.76**	**359**	P	P	07 11 12.6	-0.5
	1.5nm,0.7s,baz=170,slow=7.5,SNR=8.2						
GERES	**GERESS Array B**	**53.99**	**343**	P	P	07 12 44.9	-3.4
	1.3nm,0.8s,baz=169,slow=6.8,SNR=6.7						
KHC	**Kasperske Hory**	**54.28**	**343**	*e*P	P	07 12 47.0	-3.4
ESDC	**Sonseca Array**	**54.62**	**324**	P	P	07 12 50.4	-2.7
	0.3nm,0.4s,baz=132,slow=5.9,SNR=5.7						

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*IDC **28** 07:04:11.5±1.5, 2.45N×95.60E, mb4.2/7, mb1 4.4/8, mb1mx4.2/18, mbtmp4.2/8, ML4.5/1, Error ellipse: s-maj=65.4km s-min=19.7km az=56.0*

ISC 28 07:04:14.7±1.2**, 2.4N**±0.2×**95.6E**±0.3**, h33^{km}, n9, σ0^{s}61**/8**, mb4.2**/7**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**16.26**	**11**	Pn	**P**	**07 08 03.0**	**+0.7**
	0.6nm,0.3s,baz=200,slow=11,SNR=11						
WRA	**Warramunga Arr**	**44.04**	**122**	P	**P**	**07 12 21.6**	**+0.1**
	1.6nm,0.5s,mb4.0,baz=302,slow=9.1,SNR=7.2						
ASAR	**Alice Springs**	**45.41**	**127**	P	**P**	**07 12 32.5**	**0.0**
	1.2nm,0.9s,mb3.7,baz=301,slow=7.9,SNR=14						
SONM	**Songino Array**	**46.18**	**10**	P	**P**	**07 12 37.4**	**-0.9**
	4.4nm,0.7s,mb4.5,baz=192,slow=9.1,SNR=14						
ZAL	**Zalesovo**	**52.10**	**352**	P	**P**	**07 13 22.7**	**-1.0**
	4.8nm,0.4s,mb4.8,baz=303,slow=4.6,SNR=12						
BVAR	**Borovoye Array**	**54.58**	**342**	P	**P**	**07 13 42.2**	**+0.1**
	2.1nm,0.7s,mb4.3,baz=139,slow=10,SNR=5.7						
FINES	**FINESS Array B**	**78.18**	**333**	P	**P**	**07 16 12.2**	**0.0**
	1.5nm,0.6s,mb4.1,baz=104,slow=7.9,SNR=7.5						
ARCES	**ARCESS Array B**	**80.85**	**340**	P	**P**	**07 16 27.5**	**+0.9**
	1.4nm,0.4s,mb4.2,baz=96,slow=5.1,SNR=16						
TXAR	**Lajitas Array**	**143.42**	**29**	PKP	PKPdf	07 23 46.2	-0.4
	0.1nm,0.5s,baz=158,slow=1.9,SNR=5.7						

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*IDC **28** 07:04:42.9±0.8, 10.26N×93.72E, mb4.2/11, mb1 4.3/12, mb1mx4.2/22, mbtmp4.2/12, ML3.8/1, Error ellipse: s-maj=34.5km s-min=15.0km az=49.0*

ISC 28 07:04:46.7±0.7**, 10.3N**±0.1×**94.0E**±0.1**, h33^{km}, n21, σ1^{s}01**/19**, mb4.2**/11**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.39**	**30**	Pn	**P**	**07 07 01.2**	**-1.5**
	0.3nm,0.3s,baz=229,slow=17,SNR=3.3						
PKI	**Pulchoki**	**18.97**	**336**	*e*P	**P**	**07 09 08.4**	**+0.3**
	64nm,1.5s						
GUN	**Gumba**	**19.09**	**338**	*e*P	**P**	**07 09 10.0**	**+0.6**
	174nm,1.5s						
DMN	**Daman**	**19.13**	**335**	*e*P	**P**	**07 09 10.4**	**+0.6**
	44nm,1.1s						
KKN	**Kakani**	**19.22**	**336**	*e*P	**P**	**07 09 11.4**	**+0.6**
	55nm,1.3s						
GKN	**Gorkha**	**19.67**	**335**	*e*P	**P**	**07 09 15.9**	**+0.1**
KOLN	**Koldanda**	**19.93**	**332**	*e*P	**P**	**07 09 19.9**	**+1.3**
	40nm,1.2s						
DDI	**Dehra Dun**	**24.84**	**326**	*e*	**P**	**07 10 09.1**	**+1.5**
SONM	**Songino Array**	**38.82**	**13**	P	**P**	**07 12 10.7**	**+0.5**
	1.6nm,1.0s,mb3.7,baz=202,slow=6.7,SNR=7.4						
ZAL	**Zalesovo**	**44.12**	**352**	P	**P**	**07 12 53.4**	**-0.3**
	1.6nm,0.7s,mb3.9,baz=294,slow=9.6,SNR=5.4						
BVAR	**Borovoye Array**	**46.65**	**341**	P	**P**	**07 13 13.5**	**-0.2**
	0.6nm,0.5s,mb3.8,baz=238,slow=37,SNR=3.4						
WRA	**Warramunga Arr**	**49.81**	**127**	P	**P**	**07 13 39.1**	**+0.3**
	3.6nm,0.8s,mb4.4,baz=305,slow=8.9,SNR=7.9						
ASAR	**Alice Springs**	**51.60**	**131**	P	**P**	**07 13 52.5**	**+0.2**
	3.5nm,0.8s,mb4.4,baz=313,slow=7.5,SNR=17						
GNI	**Garni**	**52.66**	**313**	P	**P**	**07 13 57.1**	**-3.0**
	3.2nm,0.4s,mb4.6,baz=187,slow=13,SNR=3.0						
CTA	**Charters Tower**	**59.63**	**121**	P	**P**	**07 14 50.5**	**+0.2**
	0.9nm,0.4s,mb4.1,baz=296,slow=9.0,SNR=3.8						
BRTR	**Keskin Array B**	**60.76**	**310**	P	**P**	**07 14 55.2**	**-2.5**
	2.7nm,0.8s,mb4.4,baz=120,slow=8.2,SNR=10.0						
STKA	**Stephens Creek**	**61.89**	**135**	P	**P**	**07 15 06.2**	**+0.8**
	4.3nm,0.8s,mb4.7,baz=315,slow=9.9,SNR=5.7						
MLR	**Muntele Rosu**	**67.35**	**315**	P	**P**	**07 15 39.9**	**-0.7**
	7.8nm,1.1s,mb4.7,baz=254,slow=0.3,SNR=5.7						
GERES	**GERESS Array B**	**75.93**	**318**	P	**P**	**07 16 30.9**	**-1.0**
	1.2nm,0.8s,mb3.9,baz=76,slow=5.5,SNR=7.9						
PDAR	**Pinedale Array**	**122.94**	**21**	PKP	PKPdf	07 23 41.5	+1.5
	1.0nm,1.1s,slow=1.5,SNR=3.9						
BDFB	**Brasilia**	**142.66**	**258**	PKP	PKPdf	07 24 19.0	+1.5
	2.2nm,0.9s,baz=344,slow=16,SNR=3.3						

WEL 28 07:06:51.9±0.3**, 41.29S×172.56E, h213^{km}**±2^{km}**, ML3.8**/9**, 12C-1D, Error ellipse: s-maj=2.1km s-min=2.1km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
QRZ	**Quartz Range**	**0.46**	**357**	⇑PN	P	07 07 20.2	-0.5
QRZ				SN	S	07 07 41.3	-1.7
THZ	**Tophouse**	**0.54**	**152**	⇑PN	P	07 07 20.9	-0.1
THZ				SN	S	07 07 42.5	-0.9
NNZ	**Nelson**	**0.62**	**84**	⇑PN	P	07 07 20.7	-0.6
NNZ				SN	S	07 07 42.7	-1.3
DSZ	**Denniston Nort**	**0.73**	**231**	⇑PN	P	07 07 21.1	-0.6
DSZ				SN	S	07 07 43.1	-1.7
TUWZ	**Tuamarina**	**1.05**	**98**	⇓PN	P	07 07 23.5	0.0
TUWZ				SN	S	07 07 47.1	-1.0
BSWZ	**Blackbirch Sta**	**1.07**	**114**	⇑PN	P	07 07 23.6	-0.1
KHZ	**Kahutara**	**1.34**	**147**	PN	P	07 07 25.3	-0.5
LTZ	**Lake Taylor**	**1.51**	**188**	⇑PN	P	07 07 26.6	-0.6
LTZ				SN	S	07 07 52.4	-2.0
MRW	**Makara Radio**	**1.61**	**89**	⇑PN	P	07 07 27.5	-0.7
MRW				SN	S	07 07 54.1	-2.0
WEL	**Wellington**	**1.66**	**91**	⇑PN	P	07 07 27.9	-0.7
BHW	**Baring Head**	**1.74**	**95**	⇑PN	P	07 07 28.5	-0.8
KIW	**Kapiti Island**	**1.82**	**77**	⇑PN	P	07 07 29.4	-0.7
KIW				SN	S	07 07 57.1	-2.3
CAW	**Cannon Point**	**1.90**	**85**	PN	P	07 07 30.1	-0.7
CAW				SN	S	07 07 59.0	-1.8
MSWZ	**Moikau Station**	**2.03**	**94**	*e*PN	P	07 07 31.5	-0.5
MTW	**Mount Morrison**	**2.22**	**88**	⇑PN	P	07 07 33.3	-0.8
MTW				SN	S	07 08 04.2	-2.4
WVZ	**Waitaha Valley**	**2.24**	**217**	⇑PN	P	07 07 32.8	-1.5
WVZ				SN	S	07 08 03.1	-3.9
CRLZ	**Canterbury Las**	**2.29**	**179**	*e*PN	P	07 07 33.2	-1.6
MRZ	**Mangatainoka R**	**2.37**	**76**	PN	P	07 07 34.6	-1.1
MRZ				SN	S	07 08 06.9	-2.6
WAZ	**Wanganui**	**2.40**	**51**	PN	P	07 07 35.0	-1.0
MQZ	**McQueen's Vall**	**2.42**	**178**	PN	P	07 07 34.5	-1.7
BFZ	**Birch Farm**	**2.85**	**79**	PN	P	07 07 40.2	-0.8
TSZ	**Takapari Road**	**2.86**	**66**	*e*PN	P	07 07 39.5	-1.6
FWVZ	**Far West T-bar**	**3.06**	**49**	*e*PN	P	07 07 41.3	-2.1
CNZ	**Chateau**	**3.10**	**49**	*e*PN	P	07 07 41.4	-2.4
TUVZ	**Tukino**	**3.11**	**51**	*e*PN	P	07 07 42.0	-2.0
FOZ	**Fox Glacier**	**3.11**	**222**	PN	P	07 07 40.6	-3.4
FOZ				SN	S	07 08 17.7	-6.8
NGZ	**Ngauruhoe**	**3.14**	**49**	*e*PN	P	07 07 42.0	-2.4
MGZ	**Maungaku**	**3.23**	**46**	*e*PN	P	07 07 42.5	-2.9
LBZ	**Lake Benmore**	**3.56**	**209**	PN	P	07 07 47.4	-1.9
LBZ				SN	S	07 08 29.5	-4.3
BKZ	**Black Stump Fm**	**3.68**	**56**	*e*PN	P	07 07 48.2	-2.6
ODZ	**Otahua Downs**	**4.01**	**200**	*e*PN	P	07 07 53.4	-1.4
ODZ				SN	S	07 08 40.4	-3.2
WKZ	**Wanaka**	**4.39**	**215**	*e*PN	P	07 07 56.1	-3.5
EAZ	**Earnscleugh**	**4.60**	**210**	*e*PN	P	07 07 58.7	-3.6

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*IDC **28** 07:09:16.4±3.7, 8.62N×93.62E, mb4.2/12, mb1 4.3/13, mb1mx4.1/21, mbtmp4.1/13, ML3.8/1, Error ellipse: s-maj=89.2km s-min=36.3km az=151.0*

ISC 28 07:09:21.0±1.5**, 8.8N**±0.2×**93.6E**±0.2**, h33^{km}, n22, σ0^{s}44**/22**, mb4.2**/14**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.91**	**28**	Pn	**P**	**07 11 58.2**	**+0.4**
	0.2nm,0.3s,baz=211,slow=16,SNR=4.0						
PKI	**Pulchoki**	**20.16**	**339**	*e*P	**P**	**07 13 55.2**	**-0.2**
	38nm,1.0s						
DMN	**Daman**	**20.31**	**338**	*e*P	**P**	**07 13 56.6**	**-0.3**
	27nm,0.8s						
GUN	**Gumba**	**20.31**	**340**	*e*P	**P**	**07 13 56.7**	**-0.2**
	44nm,0.7s						
KKN	**Kakani**	**20.41**	**339**	*e*P	**P**	**07 13 57.8**	**-0.2**
	36nm,1.0s						
GKN	**Gorkha**	**20.84**	**337**	*e*P	**P**	**07 14 02.7**	**+0.3**
	69nm,0.5s						
KOLN	**Koldanda**	**21.05**	**335**	*e*P	**P**	**07 14 05.2**	**+0.7**
	52nm,0.7s,mb5.0						
NDI	**New Delhi**	**25.02**	**324**	*e*	**P**	**07 14 44.0**	**+0.4**
SONM	**Songino Array**	**40.37**	**13**	P	**P**	**07 16 57.1**	**-0.1**
	0.3nm,0.4s,mb3.4,baz=190,slow=5.3,SNR=4.1						
ZAL	**Zalesovo**	**45.53**	**353**	P	**P**	**07 17 39.1**	**-0.1**
	2.3nm,0.5s,mb4.4,baz=316,slow=10,SNR=3.4						
BVAR	**Borovoye Array**	**47.90**	**341**	P	**P**	**07 17 57.1**	**-0.8**
	1.1nm,0.6s,mb4.0,baz=135,slow=6.1,SNR=4.7						
BRTR	**Keskin Array B**	**61.37**	**311**	P	**P**	**07 19 35.6**	**-0.5**
	3.7nm,1.0s,mb4.5,baz=114,slow=7.7,SNR=9.7						
AKASG	**Malin Array Be**	**67.05**	**322**	P	**P**	**07 20 12.5**	**-0.3**
	0.4nm,0.3s,mb4.0,baz=94,slow=5.5,SNR=4.1						
MLR	**Muntele Rosu**	**68.08**	**315**	P	**P**	**07 20 20.2**	**+0.7**
	2.2nm,0.5s,mb4.4,baz=198,slow=13,SNR=5.1						
FINES	**FINESS Array B**	**71.60**	**332**	P	**P**	**07 20 40.4**	**-0.3**
	1.2nm,0.5s,mb4.1,baz=97,slow=6.7,SNR=8.9						
KEV	**Kevo**	**73.74**	**341**	*e*p	**P**	**07 20 52.4**	**-0.8**
	7.0nm,0.8s,mb4.6						
ARCES	**ARCESS Array B**	**74.17**	**340**	P	**P**	**07 20 56.1**	**+0.4**
	1.5nm,0.4s,mb4.3,baz=98,slow=7.1,SNR=16						
GERES	**GERESS Array B**	**76.73**	**318**	P	**P**	**07 21 11.5**	**+0.8**
	1.4nm,0.7s,mb4.0,baz=88,slow=5.1,SNR=12						
HFS	**Hagfors**	**77.34**	**330**	P	**P**	**07 21 14.2**	**+0.3**
	1.5nm,0.4s,mb4.3,baz=108,slow=4.7,SNR=9.9						
NB2	**NORSAR Subarra**	**78.61**	**331**	P	**P**	**07 21 20.5**	**-0.4**
	1.9nm,0.7s,mb4.1,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**78.61**	**331**	P	**P**	**07 21 21.1**	**+0.2**
	0.5nm,0.5s,mb3.7,baz=98,slow=5.1,SNR=3.1						
ILAR	**Eielson Array**	**94.08**	**22**	P	**P**	**07 22 36.9**	**0.0**
	0.8nm,0.9s,mb4.2,baz=304,slow=4.5,SNR=7.7						

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*IDC **28** 07:10:02.7±1.0, 5.21N×94.72E, mb4.5/10, mb1 4.6/10, mb1mx4.3/21, mbtmp4.5/10, Error ellipse: s-maj=51.8km s-min=18.4km az=54.0*

ISC 28 07:10:06.3±1.1**, 5.3N**±0.2×**94.8E**±0.3**, h33^{km}, n14, σ0^{s}41**/11**, mb4.5**/10**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.71**	**17**	Pn	**P**	**07 13 27.5**	**+6.6**
	0.9nm,0.3s,baz=207,slow=14,SNR=13						
SONM	**Songino Array**	**43.55**	**11**	P	**P**	**07 18 08.9**	**+0.1**
	3.3nm,0.8s,mb4.1,baz=192,slow=7.9,SNR=14						
SONM				PcP	PcP	07 19 56.4	-0.3
	0.8nm,0.4s,baz=198,slow=3.8,SNR=8.1						
WRA	**Warramunga Arr**	**46.22**	**124**	P	**P**	**07 18 30.4**	**-0.1**
	8.3nm,0.7s,mb4.8,baz=303,slow=9.1,SNR=26						
ASAR	**Alice Springs**	**47.74**	**129**	P	**P**	**07 18 42.2**	**-0.2**
	2.2nm,0.4s,mb4.5,baz=299,slow=7.8,SNR=18						
ZAL	**Zalesovo**	**49.20**	**352**	P	**P**	**07 18 53.0**	**-0.4**
	9.7nm,0.4s,mb5.2,baz=302,slow=6.0,SNR=23						
BVAR	**Borovoye Array**	**51.66**	**341**	P	**P**	**07 19 11.8**	**-0.3**
	3.1nm,0.5s,mb4.5,baz=139,slow=11,SNR=12						
FINES	**FINESS Array B**	**75.32**	**332**	P	**P**	**07 21 47.2**	**-0.6**
	4.5nm,1.1s,mb4.3,baz=96,slow=5.4,SNR=8.4						
ARCES	**ARCESS Array B**	**77.94**	**340**	P	**P**	**07 22 02.5**	**+0.1**
	1.1nm,0.4s,mb4.1,baz=105,slow=6.8,SNR=16						
HFS	**Hagfors**	**81.04**	**330**	P	**P**	**07 22 19.4**	**0.0**
	2.1nm,0.6s,mb4.2,baz=180,slow=4.4,SNR=5.2						
DAVOX	**Davos**	**82.74**	**316**	P	**P**	**07 22 29.0**	**+0.6**
	5.8nm,0.4s,mb5.0,baz=130,slow=5.1,SNR=18						
INK	**Inuvik**	**99.29**	**16**	P	**P**	**07 23 46.6**	**+0.8**
	0.7nm,0.8s,mb4.2,baz=351,slow=2.9,SNR=3.9						
PDAR	**Pinedale Array**	**127.31**	**22**	PKP	PKPdf	07 29 09.1	+0.9
	0.5nm,0.7s,baz=99,slow=2.1,SNR=5.6						
TXAR	**Lajitas Array**	**141.28**	**26**	PKhKP		07 29 32.4	
	0.1nm,0.4s,baz=182,slow=0.7,SNR=5.1						
LPAZ	**La Paz**	**160.02**	**235**	PKP	PKPdf	07 30 05.5	+2.6
	0.8nm,0.8s,baz=202,slow=6.2,SNR=5.3						

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*IDC **28** 07:14:34.3±1.5, 7.47N×92.37E, mb4.0/3, mb1 4.3/4, mb1mx3.8/18, mbtmp3.9/4, ML4.2/1, Error ellipse: s-maj=60.3km s-min=28.6km az=49.0*

ISC 28 07:14:37.5±1.1**, 7.6N**±0.1×**92.5E**±0.2**, h33^{km}, n10, σ0^{s}54**/10**, mb4.5**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.46**	**29**	Pn	**P**	**07 17 35.7**	**+0.3**
	0.4nm,0.3s,baz=231,slow=15,SNR=10						
PKI	**Pulchoki**	**20.97**	**342**	*e*P	**P**	**07 19 19.6**	**-0.6**
	23nm,0.5s						
DMN	**Daman**	**21.10**	**341**	*e*P	**P**	**07 19 21.8**	**+0.3**
	33nm,0.8s,mb4.7						
GUN	**Gumba**	**21.15**	**344**	*e*P	**P**	**07 19 21.7**	**-0.3**
	98nm,1.3s,mb5.0						
KKN	**Kakani**	**21.21**	**342**	*e*P	**P**	**07 19 22.4**	**-0.3**
	23nm,0.7s,mb4.6						
GKN	**Gorkha**	**21.61**	**341**	*e*P	**P**	**07 19 26.9**	**+0.2**
	44nm,0.9s,mb4.9						
KOLN	**Koldanda**	**21.76**	**338**	*e*P	**P**	**07 19 28.1**	**-0.1**
	32nm,0.7s,mb4.8						
WRA	**Warramunga Arr**	**49.42**	**124**	P	**P**	**07 23 27.3**	**+0.7**
	1.4nm,0.6s,mb4.2,baz=304,slow=8.8,SNR=7.4						
ASAR	**Alice Springs**	**50.99**	**129**	P	**P**	**07 23 37.5**	**-1.0**
	1.9nm,0.8s,mb4.1,baz=308,slow=6.7,SNR=8.4						
GERES	**GERESS Array B**	**76.96**	**318**	P	**P**	**07 26 29.3**	**+0.8**
	0.9nm,0.7s,mb3.8,baz=90,slow=4.0,SNR=6.0						

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*CSEM **28** 07:16:02.7±0.2, 39.62N×29.36E, h20^{km}, MD2.7, Error ellipse: s-maj=5.8km s-min=3.8km az=41.0*

*ISK **28** 07:16:03.0, 39.60N×29.35E, h24^{km}, MD2.7*

ISC 28 07:16:03.8±0.6**, 39.64N**±0.05×**29.36E**±0.06**, h25^{km}**±10^{km}**, n12, σ0^{s}74**/16**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ULDT	**Uludag**	**0.53**	**341**	*i* P	**Pb**	**07 16 13.4**	**-1.1**
ULDT				*i* S	**Sb**	**07 16 21.9**	**+0.1**
DST	**Dursunbey**	**0.57**	**267**	PG	**Pb**	**07 16 14.2**	**-0.9**
ALT	**Altintas**	**0.82**	**135**	PG	**Pb**	**07 16 19.7**	**+0.3**
ALT				SG	**Sb**	**07 16 29.8**	**-0.3**
YLV	**Yalova**	**0.92**	**0**	PG	**Pb**	**07 16 21.5**	**+0.4**
KCT	**Karacabey**	**0.99**	**309**	PG	**Pb**	**07 16 22.2**	**-0.1**
BTOK	**Tokmak**	**1.03**	**277**	*i* P	**Pb**	**07 16 25.9**	**+2.9**
BTOK				*i* S	**Sb**	**07 16 42.2**	**+6.1**
ESKT	**Eskisehir**	**1.16**	**96**	PN	**Pn**	**07 16 24.1**	**-0.5**
ESKT	**Eskisehir**	**1.16**	**96**	*i* P	**Pn**	**07 16 23.9**	**-0.8**
ESKT				*i* S	**Sb**	**07 16 40.0**	**+0.3**
HRT	**Hereke**	**1.20**	**11**	*e*PN	**Pn**	**07 16 25.1**	**-0.2**
BADT	**Buyukada**	**1.22**	**351**	*e*PN	**Pn**	**07 16 25.8**	**+0.2**
AKS	**Akhisar**	**1.42**	**238**	*e*PN	**Pn**	**07 16 28.5**	**+0.1**
KIZT	**Kizilcal**	**2.10**	**110**	*e*PN	**Pn**	**07 16 38.4**	**+0.3**

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*BJI **28** 07:20:49.1, 10.68N×92.86E, h10^{km}, mB5.0, mb4.6, Ms4.4, Msz4.2*

*IDC **28** 07:20:54.6±0.4, 11.40N×92.81E, mb4.6/24, mb1 4.7/24, mb1mx4.7/25, mbtmp4.5/24, MS4.0/3, Ms1 4.1/3, ms1mx3.3/28, Error ellipse: s-maj=23.5km s-min=10.7km az=52.0*

*MOS **28** 07:20:57.9±0.9, 11.40N×92.90E, h33^{km}, mb4.9/25, Error ellipse: s-maj=14.9km s-min=8.2km az=100.9*

*NEIC **28** 07:20:59.3±0.4, 11.39N×92.88E, h30^{km}, mb4.8/22, Error ellipse: s-maj=12.7km s-min=9.6km az=87.0*

*SYO **28** 07:20:59.4, 11.38N×92.91E, h30^{km}, MB4.9*

ISC 28 07:20:58.9±1.1**, 11.34N**±0.04×**92.77E**±0.04**, h43^{km}**±9^{km}**, h22^{km}**±5.2^{km}**:pP-P, n142, σ1^{s}14**/129**, mb4.7**/62**, MS4.1**/6**, 8C-4D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**8.36**	**58**	P	**P**	**07 23 00.0**	**-0.3**
CM31	**Chiang Mai Arr**	**9.26**	**39**	*e*P	**P**	**07 23 12.6**	**-0.2**
	37nm,0.6s						
CMAR	**Chiang Mai Arr**	**9.26**	**39**	Pn	**P**	**07 23 14.3**	**+1.6**
	1.7nm,0.3s,baz=233,slow=14,SNR=42						
CMAR				LR	LR	07 27 24.8	
	comp=Z,392nm,18.8s,baz=220,slow=42						
CHG	**Chiang Mai**	**9.53**	**38**	⇓P	**P**	**07 23 19.7**	**+3.1**
	20nm,0.8s						
NANT	**Nan**	**10.66**	**45**	P	**P**	**07 23 33.2**	**+1.1**
VIS	**Vishakhapatnam**	**11.12**	**306**	*e*P	**P**	**07 23 34.7**	**-3.8**
VIS				*e*S	x	07 25 27.4	
VIS				*e*	**S**	**07 25 30.4**	**-12**
	comp=E,501nm,0.3s						
VIS				*e*		07 25 30.4	
	comp=N,659nm,0.3s						
BWNR	**Bhubaneshwar**	**11.14**	**324**	*e*P	**P**	**07 23 26.8**	**-12**
BWNR				*e*S	x	07 25 20.9	
BWNR				*e*	**S**	**07 25 25.0**	**-18**
	comp=N,187nm,0.3s						
IMP	**Imphal**	**13.42**	**5**	*e*	**P**	**07 24 04.3**	**-4.7**
HYB	**Hyderabad**	**15.04**	**295**	*e*P	**P**	**07 24 36.0**	**+5.7**
HYB	**Hyderabad**	**15.04**	**295**	*i* P	**P**	**07 24 36.0**	**+5.7**
HYB				*e*		07 27 04.0	
HYB				*e*S	**S**	**07 27 14.0**	**-2.1**
KMI	**Kunming**	**16.65**	**33**	P	**P**	**07 24 53.0**	**+2.2**
KMI				XP		07 25 02.5	
KMI				S	**S**	**07 27 56.3**	**+2.8**
KMI				AMB	AMB		
	comp=Z,16nm,1.3s						
KMI				AMB	AMB		
	comp=Z,65nm,4.3s						
KMI				LR	LR		
	comp=N,432nm,15.6s						
KMI				LR	LR		
	comp=E,333nm,23.4s						
KMI				LR	LR		
	comp=Z,375nm,17.5s						
PKI	**Pulchoki**	**17.57**	**338**	*e*P	**P**	**07 25 01.7**	**-0.7**
	comp=Z,52nm,0.8s						
GUN	**Gumba**	**17.71**	**340**	*e*P	**P**	**07 25 04.9**	**+0.8**
	comp=Z,69nm,0.9s						
DMN	**Daman**	**17.71**	**337**	*e*P	**P**	**07 25 03.8**	**-0.4**
	comp=Z,69nm,0.7s						
KKN	**Kakani**	**17.81**	**338**	*e*P	**P**	**07 25 05.3**	**-0.1**
	comp=Z,30nm,0.6s						
GKN	**Gorkha**	**18.25**	**336**	*e*P	**P**	**07 25 10.5**	**-0.4**
	comp=Z,45nm,0.5s						
LSA	**Lhasa**	**18.33**	**356**	*e*P	**P**	**07 25 12.0**	**+0.1**
LSA				pmax	pmax		
	comp=Z,20nm,0.7s						
LSA	**Lhasa**	**18.33**	**356**	*e*P	**P**	**07 25 12.0**	**+0.1**
	comp=Z,20nm,0.7s						
KOLN	**Koldanda**	**18.47**	**334**	*e*P	**P**	**07 25 14.3**	**+0.7**
	comp=Z,36nm,0.6s						
POO	**Poona**	**19.62**	**294**	*e*	**P**	**07 25 22.0**	**-4.7**
POO				*i*		07 28 46.0	
GYA	**Guiyang**	**19.95**	**39**	P	**P**	**07 25 30.5**	**+0.3**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
BOM	**Bombay**	**20.67**	**294**	*e*S	**S**	**07 29 26.2**	**+4.9**
	comp=Z,59nm,0.4s						
CD2	**Chengdu**	**21.98**	**26**	⇑*i*P	**P**	**07 25 51.0**	**+0.1**
CD2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.0						
NDI	**New Delhi**	**22.57**	**322**	*e*P	**P**	**07 25 56.0**	**-0.8**
DDI	**Dehra Dun**	**23.32**	**326**	*e*P	**P**	**07 26 08.1**	**+4.0**
COCO	**West Island**	**23.72**	**170**	*e*P	**P**	**07 26 11.4**	**+3.3**
	comp=Z,272nm,1.0s,mb5.6						
COCO				*e*		07 26 18.7	
ENH	**Enshi**	**24.42**	**37**	*e*P	**P**	**07 26 13.3**	**-1.5**
	comp=Z,24nm,0.6s,mb4.8						
SDNR	**Sundarnagar**	**24.82**	**326**	*e*P	**P**	**07 26 21.4**	**+2.7**
LZH	**Lanzhou**	**26.60**	**20**	*e*P	**P**	**07 26 36.0**	**+0.7**
LZH				AP	pP	07 26 42.3	-4.3
LZH				XP	sP	07 26 45.5	-6.3
LZH				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.6						
LZH				AMB	AMB		
	comp=Z,198nm,4.5s						
LZH				LR	LR		
	comp=E,661nm,14.6s						
LZH				LR	LR		
	comp=Z,851nm,16.5s,MS4.4						
GTA	**Gaotai**	**28.65**	**11**	*e*P	**P**	**07 26 54.0**	**+0.2**
GTA				AP	pP	07 26 58.0	-7.2
GTA				XP	sP	07 27 01.0	-10
GTA				AMB	AMB		
	comp=Z,5.0nm,1.3s,mb4.1						
NJ2	**Nanjing**	**31.66**	**45**	*e*P	**P**	**07 27 20.5**	**-0.1**
NJ2				AP	pP	07 27 29.8	-2.4
NJ2				S	**S**	**07 32 27.0**	**+1.2**
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,842nm,6.2s						
NJ2				LR	LR		
	comp=Z,290nm,14.0s,MS4.1						
WMQ	**Urumqi**	**32.66**	**353**	⇑P	**P**	**07 27 30.5**	**+1.3**
WMQ				AP	pP	07 27 40.0	-0.8
WMQ				XP	sP	07 27 44.0	-2.2
WMQ				PP	PP	07 28 39.5	+0.5
WMQ				PPP	PPP	07 28 55.3	+0.5
WMQ				S	**S**	**07 32 42.8**	**+1.6**
WMQ				AMB	AMB		
	comp=Z,2.0nm,0.5s,mb4.3						
WMQ				AMB	AMB		
	comp=Z,51nm,8.7s						
WMQ				LR	LR		
	comp=Z,190nm,20.0s,MS3.8						
SSE	**Sheshan**	**32.83**	**49**	P	**P**	**07 27 28.3**	**-2.5**
SSE				AMB	AMB		
	comp=Z,23nm,0.6s,mb5.3						
SSE				AMB	AMB		
	comp=Z,160nm,5.6s						
HHC	**Hu-ho-hao-te**	**33.74**	**26**	*e*P	**P**	**07 27 39.0**	**+0.4**
HHC				AP	pP	07 27 46.5	-3.7
HHC				XP	sP	07 27 49.3	-6.3
HHC				AMB	AMB		
	comp=Z,14nm,0.7s,mb5.0						
HHC				LR	LR		
	comp=N,158nm,18.4s,MS3.9						
HHC				LR	LR		
	comp=E,170nm,19.0s,MS3.9						
HHC				LR	LR		
	comp=Z,137nm,17.8s,MS3.7						
AAK	**Ala-Archa**	**35.01**	**336**	⇓*i*P	**P**	**07 27 48.8**	**-0.6**
AAK				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
AAK	**Ala-Archa**	**35.01**	**336**	*e*P	**P**	**07 27 49.8**	**+0.3**
	comp=Z,6.7nm,0.8s,mb4.6						

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BJI   Beijing           35.30  32    P       P      07 27 48.8 -3.2
BJI                                  AMB     AMB
      comp=Z,15nm,1.0s,mb4.9
MKAR  Makanchi Array    36.44 348  i P       P      07 28 01.1 -0.4
MKAR                                 pmax    pmax
      comp=Z,3.0nm,0.5s
SONM  Songino Array     38.14  15    P       P      07 28 15.8 +0.1
      comp=Z,3.0nm,0.5s,mb4.3,baz=201,slow=8.9,SNR=35
SONM                                 PcP     PcP    07 30 30.9 +0.4
      comp=Z,6.7nm,0.7s,baz=208,slow=3.4,SNR=17
ULN   Ulaanbaatar       38.34  16   eP       P      07 28 14.7 -2.7
ULN                                  pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.3
ULN   Ulaanbaatar       38.34  16   eP       P      07 28 14.7 -2.7
      comp=Z,4.5nm,0.7s,mb4.3
ZAK   Zakamensk         39.88  10   eP       P      07 28 30.7 +0.5
TLY   Talaya            41.19  10⇓ iP       P      07 28 40.3 -0.7
TLY                                  pmax    pmax
      comp=Z,8.0nm,0.9s,mb4.3
MBWA  Marble Bar        41.77 141⇑ eP       P      07 28 44.8 -1.3
      comp=Z,50nm,0.9s,mb5.1
CN2   Changchun         42.91  35  ⇑P       P      07 28 54.8 -0.4
CN2                                  AMB     AMB
      comp=Z,30nm,1.1s,mb4.9
ZAL   Zalesovo          42.96 353  i P       P      07 28 56.1 +0.6
ZAL                                  pmax    pmax
      comp=Z,2.0nm,0.3s
ZAL   Zalesovo          42.96 353    P       P      07 28 55.1 -0.4
      comp=Z,2.4nm,0.3s,mb4.4,baz=306,slow=3.7,SNR=7.7
HIA   Hailar            43.93  25    P       P      07 29 02.7 -0.7
HIA                                  pmax    pmax
      comp=Z,6.0nm,0.6s
HIA   Hailar            43.93  25    P       P      07 29 02.7 -0.7
      comp=Z,5.8nm,0.6s,mb4.5
BVA0  Borovoye Array    45.30 341  i P       P      07 29 15.0 +0.7
BVA0                                 pmax    pmax
      comp=Z,1.0nm,1.1s,mb3.6
BVAR  Borovoye Array    45.30 341    P       P      07 29 14.1 -0.2
      comp=Z,8.3nm,1.0s,mb4.5,baz=153,slow=6.6,SNR=17
BRVK  Borovoye          45.36 341   eP       P      07 29 15.4 +0.6
BRVK                                 pmax    pmax
      comp=Z,8.0nm,0.9s,mb4.5
BRVK  Borovoye          45.36 341   eP       P      07 29 15.4 +0.6
      comp=Z,8.5nm,0.9s,mb4.6
MDJ   Mudanjiang        45.78  37    P       P      07 29 17.3 -1.0
MDJ                                  XP      sP     07 29 30.0 -5.3
MDJ                                  PCP     PcP    07 30 55.0 -0.8
MDJ                                  PP      PP     07 31 04.3 -1.8
MDJ                                  S       S      07 35 59.0 +0.9
MDJ                                  SCS     ScS    07 39 10.5 +2.6
MDJ                                  AMB     AMB
      comp=Z,5.0nm,1.4s,mb4.2
MDJ                                  AMB     AMB
      comp=Z,67nm,4.8s
MDJ                                  LR      LR
      comp=N,23nm,24.3s
MDJ                                  LR      LR
      comp=E,103nm,18.6s
MDJ                                  LR      LR
      comp=Z,124nm,17.9s
CHKZ  Chkalovo          45.78 342  i P       P      07 29 18.3 +0.1
CHKZ                                 pmax    pmax
      comp=Z,23nm,1.1s,mb5.0
BOD   Bodaibo           49.14  15   eP       P      07 29 43.0 -1.3
NWAO  Narrogin (SRO)    49.83 153    P       P      07 29 50.2 +0.2
      comp=Z,7.4nm,0.6s,mb4.9,baz=328,slow=9.8,SNR=7.6
GNI   Garni             51.08 313   eP       P      07 29 59.7 +0.3
GNI                                  pmax    pmax
      comp=Z,17nm,1.7s
GNI   Garni             51.08 313   eP       P      07 30 01.3 +1.8
      comp=Z,18nm,1.0s,mb5.0
WRA   Warramunga Arr    51.39 127  i P       P      07 30 01.2 -0.8
WRA                                  pmax    pmax
      comp=Z,9.0nm,0.8s
WRA   Warramunga Arr    51.39 127    P       P      07 30 01.2 -0.7
      comp=Z,9.3nm,0.8s,mb4.8,baz=304,slow=8.5,SNR=40
WRA                                  PcP     PcP    07 31 15.7 -0.7
      comp=Z,2.7nm,0.8s,baz=318,slow=2.9,SNR=5.1
WRAB  Tennant Creek     51.39 127   eP       P      07 30 00.9 -1.1
WRAB                                 pmax    pmax
      comp=Z,11nm,0.8s,mb4.8
WRAB  Tennant Creek     51.39 127   eP       P      07 30 00.9 -1.1
      comp=Z,11nm,0.8s,mb4.8
ARU   Arti              52.19 337   eP       P      07 30 07.1 -0.4
ZEI   Tsey              52.62 316   eP       P      07 30 14.6 +3.7
ZEI                                  pmax    pmax
      comp=Z,3.0nm,0.5s,mb4.5
ASAR  Alice Springs     53.18 131    P       P      07 30 14.4 -1.0
      comp=Z,5.3nm,0.6s,mb4.7,baz=304,slow=6.7,SNR=63
ASAR                                 PcP     PcP    07 31 22.4 -0.6
      comp=Z,2.6nm,0.8s,baz=321,slow=3.5,SNR=4.9
KIV   Kislovodsk        53.87 317   eP       P      07 30 20.9 +0.7
KIV                                  pmax    pmax
      comp=Z,17nm,0.6s,mb5.2
KIV   Kislovodsk        53.87 317   eP       P      07 30 20.9 +0.7
      comp=Z,17nm,0.6s,mb5.2
YSS   Yuzh-Sakhalins    54.95  40   eP       P      07 30 26.6 -1.4
MALT  Malatya           55.23 309   eP       P      07 30 30.0 -0.2
MALT                                 pmax    pmax
      comp=Z,5.0nm,0.9s,mb4.5
MALT  Malatya           55.23 309   eP       P      07 30 30.0 -0.2
      comp=Z,4.7nm,0.9s,mb4.5
ASF   Jabal al Asfar    55.24 301    LR      LR     07 56 43.1
      comp=Z,175nm,18.6s,MS4.2,baz=320,slow=39
SOC   Sochi             55.77 315   eP       P      07 30 31.4 -2.6
SOC                                 eS       S      07 38 15.7 -0.3
SOC                                 eSS      SS     07 41 58.8 -2.9
SOC                                  pmax    pmax
      comp=Z,18nm,1.0s,mb5.1
SOC                                  pmax    pmax
      comp=N,17nm,1.3s
SOC                                  pmax    pmax
      comp=E,7.0nm,0.8s
KMBO  Kilima Mbogo      56.54 261  i P       P      07 30 40.5 +0.6
KMBO                                 pmax    pmax
      comp=Z,1.0nm,0.7s
KMBO  Kilima Mbogo      56.54 261    P       P      07 30 40.2 +0.2
      comp=Z,1.3nm,0.7s,mb4.1,baz=248,slow=23,SNR=4.1
YAK   Yakutsk           57.18  20   eP       P      07 30 40.8 -3.1
YAK                                  pmax    pmax
      comp=Z,13nm,0.9s,mb5.0
PMG   Port Moresby      57.88 109    P       P      07 30 48.8 -0.6
      comp=Z,6.6nm,0.5s,mb4.9,baz=276,slow=3.1,SNR=4.3
BRTR  Keskin Array B    59.17 310    P       P      07 30 56.8 -1.3
      comp=Z,2.6nm,1.1s,mb4.2,baz=112,slow=6.7,SNR=6.6
CTA   Charters Tower    61.20 120    P       P      07 31 10.5 -1.6
      comp=Z,3.3nm,0.7s,mb4.6,baz=299,slow=9.8,SNR=6.6
OBN   Obninsk           61.75 327   eP       P      07 31 13.6 -1.8
OBN                                  pmax    pmax
      comp=Z,43nm,1.9s,mb5.2
STKA  Stephens Creek    63.47 134    P       P      07 31 27.0 -0.1
      comp=Z,16nm,1.1s,mb5.1,baz=310,slow=7.3,SNR=10
STKA  Stephens Creek    63.47 134   eP       P      07 31 26.6 -0.6
TIXI  Tiksi             64.13  12   eP       P      07 31 29.3 -1.6
TIXI                                 pmax    pmax
      comp=Z,24nm,0.9s,mb5.2
AKASG Malin Array Be    64.62 321    P       P      07 31 33.1 -1.2
      comp=Z,0.3nm,0.3s,mb3.8,baz=89,slow=4.5,SNR=8.9
IDI   Anoyia            65.52 304    P       P      07 31 39.9 -0.6
      comp=Z,16nm,1.1s,mb5.0,baz=70,slow=8.8,SNR=5.9
MLR   Muntele Rosu      65.78 315    P       P      07 31 42.5 +0.6
      comp=Z,5.4nm,0.7s,mb4.7,baz=51,slow=3.0,SNR=9.1
FINES FINESS Array B    69.04 332  i P       P      07 32 01.7 -0.3
FINES                                pmax    pmax
      comp=Z,2.0nm,0.5s
FINES FINESS Array B    69.04 332    P       P      07 32 01.7 -0.3
      comp=Z,2.4nm,0.5s,mb4.4,baz=105,slow=7.8,SNR=20
KAF   Kangasniemi       69.11 333   ep       P      07 32 01.3 -1.2
      comp=Z,0.6nm,0.3s,mb4.0
KAF   Kangasniemi       69.11 333   eP       P      07 32 01.3 -1.2
KAF                                  pmax    pmax
      comp=Z,1.0nm,0.3s,mb4.2
LSZ   Lusaka            69.20 249   eP       P      07 32 05.2 +1.4
LSZ                                  pmax    pmax
      comp=Z,5.0nm,0.5s,mb4.7
LSZ   Lusaka            69.20 249   eP       P      07 32 05.2 +1.4
      comp=Z,5.0nm,0.5s,mb4.7
ARCES ARCESS Array B    71.57 340    P       P      07 32 17.6 +0.3
      comp=Z,3.8nm,0.7s,mb4.4,baz=97,slow=5.0,SNR=11
KSP   Ksiaz             72.76 320   eP       P      07 32 24.9 +0.3
BILL  Bilibino          73.40  22   eP       P      07 32 27.3 -0.7
BILL                                 pmax    pmax
      comp=Z,8.0nm,1.0s,mb4.6
BILL  Bilibino          73.40  22   eP       P      07 32 27.3 -0.7
      comp=Z,8.2nm,1.0s,mb4.6
BRG   Berggiesshubel    74.25 320    P       P      07 32 33.7 +0.4
BRG                                  pmax    pmax
      comp=Z,16nm,1.4s,mb4.8
BRG   Berggiesshubel    74.25 320    P       P      07 32 33.7 +0.4
      comp=Z,16nm,1.4s,mb4.8
GERES GERESS Array B    74.37 318    P       P      07 32 34.2 +0.1
      comp=Z,2.0nm,0.7s,mb4.1,baz=90,slow=4.0,SNR=14
KHC   Kasperske Hory    74.45 318   eP       P      07 32 39.0 +4.5
LBTB  Lobatse           74.75 240⇑ eP       P      07 32 38.3 +1.5
LBTB                                 pmax    pmax
      comp=Z,10.0nm,0.5s,mb5.0
LBTB  Lobatse           74.75 240⇑ eP       P      07 32 38.3 +1.6
      comp=Z,9.7nm,0.5s,mb5.0
HFS   Hagfors           74.80 329    P       P      07 32 36.3  0.0
      comp=Z,3.5nm,0.5s,mb4.6,baz=108,slow=4.7,SNR=21
CLL   Collm             74.85 320    P       P      07 32 38.0 +1.2
NB2   NORSAR Subarra    76.07 330    P       P      07 32 43.0 -0.6
      comp=Z,1.4nm,0.6s,mb4.1,baz=92,slow=5.6
NB2   NORSAR Subarra    76.07 330    P       P      07 32 43.0 -0.6
NB2                                  pmax    pmax
      comp=Z,1.0nm,0.6s,mb3.9
NOA   NORSAR Array B    76.07 330    P       P      07 32 42.8 -0.8
      comp=Z,2.8nm,0.9s,mb4.2,baz=92,slow=5.7,SNR=7.9
NOA                                  LR      LR     08 13 58.2
      comp=Z,133nm,18.6s,MS4.3,baz=285,slow=42
BOSA  Boshof            76.31 237   eP       P      07 32 46.7 +1.1
BOSA                                 pmax    pmax
      comp=Z,7.0nm,0.7s,mb4.7
BOSA  Boshof            76.31 237   eP       P      07 32 46.7 +1.1
      comp=Z,7.5nm,0.7s,mb4.7
DAVOX Davos             76.98 316    P       P      07 32 50.6 +1.5
      comp=Z,2.7nm,0.5s,mb4.5,baz=136,slow=16,SNR=5.9
LPL   La Plagne         79.25 314   eP       P      07 33 01.9 +0.4
      comp=Z,30nm,1.0s,mb4.9
LPL   La Plagne         79.25 314   eP       P      07 33 01.9 +0.4
LPL                                  pmax    pmax
      comp=Z,15nm,1.0s,mb4.9
MAW   Mawson            81.64 191   eP       P      07 33 15.1 +1.3
MAW                                  pmax    pmax
      comp=Z,14nm,0.6s
MAW   Mawson            81.64 191    P       P      07 33 15.6 +1.8
      comp=Z,9.1nm,0.7s,mb4.8,baz=43,slow=5.0,SNR=13
MAW   Mawson            81.64 191   eP       P      07 33 15.1 +1.3
      comp=Z,14nm,0.6s,mb5.1
EKA   Eskdalemuir Ar    84.12 325    P       P      07 33 27.3 +0.7
      comp=Z,3.9nm,0.7s,mb4.7,baz=92,slow=5.8,SNR=14
ESDC  Sonseca Array     87.97 310    P       P      07 33 46.8 +0.9
      comp=Z,0.2nm,0.3s,mb3.8,baz=63,slow=4.6,SNR=5.8
SYO   Syowa Base        88.30 197  ⇓P       P      07 33 48.9 +2.1
SYO   Syowa Base        88.30 197  ⇑PcP     PcP    07 33 51.0 +2.1
SYO   Syowa Base        88.30 197  ⇑sP      sP     07 34 01.7 -2.4
IMA   Indian Mountai    88.94  22   eP       P      07 33 51.3 +1.4
IMA                                  pmax    pmax
      comp=Z,25nm,0.7s,mb5.7
IMA   Indian Mountai    88.94  22   eP       P      07 33 51.3 +1.4
      comp=Z,25nm,0.7s,mb5.7
ILAR  Eielson Array     92.06  22    P       P      07 34 04.3 -0.2
      comp=Z,4.1nm,0.7s,mb4.9,baz=300,slow=4.1,SNR=46
ILAR                                 PP      PP     07 37 39.4 -7.6
      comp=Z,0.5nm,0.8s,baz=298,slow=7.6,SNR=4.6
VNDA  Vanda             96.57 168    P       P      07 34 26.6 +1.7
      comp=Z,1.7nm,0.8s,mb4.6,baz=350,slow=3.1,SNR=6.3
YKA   Yellowknife Ar   103.38  13    PP      PP     07 39 08.8 -5.5
      comp=Z,0.4nm,0.8s,baz=332,slow=7.8,SNR=7.7
ULM   Lac du Bonnet    118.21   6    PKP     PKPdf  07 39 44.5 +2.9
      comp=Z,2.8nm,0.5s,baz=333,slow=3.2,SNR=7.4
LAO   LASA Array       119.78  15   ePKP     PKPdf  07 39 44.9 +0.1
SNOW  Snow King Moun   121.39  20   ePKPdf   PKPdf  07 39 49.8 +1.8
REDW  Red Top Meadow   121.45  20   ePKPdf   PKPdf  07 39 50.4 +2.2
PDAR  Pinedale Array   122.41  19    PKP     PKPdf  07 39 52.0 +2.1
      comp=Z,3.1nm,0.7s,baz=30,slow=0.7,SNR=32
NVAR  Mina Array Bea   122.61  29    PKP     PKPdf  07 39 53.5 +3.0
      comp=Z,5.5nm,0.8s,baz=88,slow=0.8,SNR=6.3
MVU   Marysvale        125.20  24    PKPdf   PKPdf  07 39 57.3 +1.8
MSU   Marysvale        125.20  24   ePKIKP   PKPdf  07 39 58.7 +3.2
PV10  Paradox Valley   126.51  21   ePKPdf   PKPdf  07 39 59.8 +1.7
ANMO  Albuquerque      130.49  21    PKP     PKPdf  07 40 08.9 +3.2
      comp=Z,2.6nm,0.7s,baz=252,slow=0.6,SNR=15
MIAR  Mount Ida        133.97   7   ePKPdf   PKPdf  07 40 12.7 +0.3
TXAR  Lajitas Array    136.57  21    PKhKP          07 40 08.2
      comp=Z,0.2nm,0.5s,baz=279,slow=0.9,SNR=4.4
TXAR                                 PKP     PKPdf  07 40 19.6 +2.4
      comp=Z,1.3nm,0.6s,baz=211,slow=0.9,SNR=20
JCT   Junction City    136.70  16   ePKIKP   PKPdf  07 40 19.3 +1.8
BDFB  Brasilia         141.66 259    PKP     PKPdf  07 40 27.9 +1.1
      comp=Z,3.8nm,1.1s,baz=128,slow=5.4,SNR=5.1
TRQA  Tornquist        145.10 216   ePKP     PKPdf  07 40 33.7 +1.5
PCRV  Puerto La Cruz   149.00 313    PKPbc   PKPdf  07 40 42.8 +3.5
      comp=Z,5.6nm,0.5s,baz=123,slow=19,SNR=6.5
LPAZ  La Paz           160.82 253    PKP     PKPdf  07 40 58.8 +3.8
      comp=Z,2.9nm,1.2s,baz=355,slow=8.6,SNR=5.0
```

IDC 28 07:24:26.8±1.2**,7.18N**×**91.12E,mb3.9**/4**,mb1 4.2**/5**, mb1mx3.8**/18**,mbtmp4.0**/5**,ML4.5**/1**,Error ellipse: s-maj=61.8km s-min=25.0km az=41.0,Nicobar Islands region**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op      ISC        h  m  s   ISC
CMAR  Chiang Mai Arr    13.55  33    Pn      P      07 27 41.8 -1.2
      0.8nm,0.3s,baz=219,slow=14,SNR=5.8
WRA   Warramunga Arr    50.35 123    P       P      07 33 25.1 -2.8
      1.7nm,0.7s,baz=306,slow=9.1,SNR=4.8
ASAR  Alice Springs     51.83 128    P       P      07 33 37.8 -1.3
      1.7nm,0.8s,baz=307,slow=7.3,SNR=5.3
BRTR  Keskin Array B    60.62 312    P       P      07 34 40.9 -1.0
      1.2nm,0.6s,baz=126,slow=7.9,SNR=5.6
GERES GERESS Array B    76.34 318    P       P      07 36 16.6 -2.9
      0.6nm,0.7s,baz=90,slow=5.3,SNR=4.3
TXAR  Lajitas Array    141.00  21    PKhKP          07 43 51.1
      2.3nm,1.0s,baz=270,slow=1.3,SNR=9.8
```

IDC ***28*** *07:31:42.2±1.1,7.07N×93.56E,mb4.3/11,mb1 4.4/11, mb1mx4.2/20,mbtmp4.2/11,Error ellipse: s-maj=53.8km s-min=18.9km az=53.0*

ISC 28 07:31:45.6±1.1**,7.1N**±0.2×**93.6E**±0.3**,h33^{km},n12, σ0^{s}34**/11**,mb4.2**/11**,Nicobar Islands region**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op      ISC        h  m  s   ISC
SONM  Songino Array     42.05  13    P       P      07 39 35.6 -0.2
      0.9nm,0.5s,mb3.7,baz=201,slow=9.4,SNR=12
ZAL   Zalesovo          47.27 353    P       P      07 40 17.4 -0.2
      6.8nm,0.3s,mb5.0,baz=303,slow=3.8,SNR=15
WRA   Warramunga Arr    48.23 125    P       P      07 40 25.4 -0.1
      1.4nm,0.3s,mb4.4,baz=303,slow=8.8,SNR=11
BVAR  Borovoye Array    49.58 342    P       P      07 40 35.5  0.0
      0.7nm,0.3s,mb4.1,baz=130,slow=12,SNR=4.8
ASAR  Alice Springs     49.81 129    P       P      07 40 37.5 -0.1
      2.9nm,0.4s,mb4.7,baz=302,slow=7.9,SNR=73
FINES FINESS Array B    73.17 332    P       P      07 43 14.0 -0.7
      1.8nm,0.8s,mb4.0,baz=94,slow=7.1,SNR=10
ARCES ARCESS Array B    75.84 340    P       P      07 43 30.0 +0.1
      0.8nm,0.5s,mb3.9,baz=104,slow=5.0,SNR=7.6
GERES GERESS Array B    78.07 318    P       P      07 43 43.3 +0.5
      0.7nm,0.7s,mb3.7,baz=90,slow=5.9,SNR=6.6
HFS   Hagfors           78.88 330    P       P      07 43 46.8 -0.3
      2.6nm,0.8s,mb4.2,baz=112,slow=8.0,SNR=4.2
ILAR  Eielson Array     95.68  22    P       P      07 45 09.3 +0.5
      0.3nm,0.8s,mb3.8,baz=327,slow=4.4,SNR=4.9
INK   Inuvik            97.90  16    P       P      07 45 19.2 +0.4
      0.4nm,0.5s,mb4.2,baz=159,slow=20,SNR=7.4
TXAR  Lajitas Array    140.17  24    PKP     PKPdf  07 51 13.9 +2.2
      0.2nm,0.7s,baz=322,slow=0.4,SNR=4.2
```

IDC ***28*** *07:32:08.1±0.6,9.19N×93.91E,mb4.5/15,mb1 4.5/15, mb1mx4.5/20,mbtmp4.5/15,MS3.5/3,Ms1 3.6/3, ms1mx3.1/23,Error ellipse: s-maj=28.2km s-min=17.8km az=59.0*

MOS ***28*** *07:32:09.9±2.5,9.76N×94.77E,h33^{km},mb5.0/9,Error ellipse: s-maj=41.0km s-min=14.6km az=124.5*

ISC 28 07:32:11.3±0.6**,9.2N**±0.1×**93.9E**±0.1**,h33^{km},n45, σ1^{s}12**/40**,mb4.5**/24**,MS3.8**/2**,1C-2D,Nicobar Islands region**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op      ISC        h  m  s   ISC
CMAR  Chiang Mai Arr    10.39  27    Pn      P      07 34 42.8 +1.6
      1.5nm,0.3s,baz=213,slow=15,SNR=26
CMAR                                 LR      LR     07 38 21.6
      comp=Z,91nm,18.9s,baz=200,slow=36
PKI   Pulchoki          19.95 337   eP       P      07 36 37.2 -6.2
      111nm,1.2s
GUN   Gumba             20.09 339   eP       P      07 36 38.8 -6.1
      99nm,0.8s
DMN   Daman             20.11 337   eP       P      07 36 38.8 -6.2
      54nm,0.9s
KKN   Kakani            20.20 337   eP       P      07 36 39.5 -6.5
      60nm,0.9s
GKN   Gorkha            20.64 336   eP       P      07 36 44.1 -6.6
      98nm,0.8s
KOLN  Koldanda          20.87 333   eP       P      07 36 46.4 -6.6
      39nm,0.6s
AAK   Ala-Archa         37.40 336⇓ iP       P      07 39 22.2 -0.8
AAK                                  pmax    pmax
      comp=Z,11nm,1.0s,mb4.6
SONM  Songino Array     39.91  13    P       P      07 39 45.3 +1.6
      comp=Z,1.0nm,0.6s,mb3.7,baz=202,slow=6.7,SNR=5.8
ZAL   Zalesovo          45.20 352    P       P      07 40 27.6 +0.8
      comp=Z,4.2nm,0.5s,mb4.5,baz=295,slow=7.6,SNR=12
CBIJ  Chichi jima       48.84  62    LR      LR     08 01 21.8
      comp=Z,54nm,20.7s,MS3.5,baz=278,slow=36
WRAB  Tennant Creek     49.21 126  i P       P      07 40 52.4 -6.3
BOD   Bodaibo           50.90  14   e        P      07 41 09.4 -1.7
ASAR  Alice Springs     50.93 131    P       P      07 41 10.2 -1.6
      comp=Z,2.1nm,0.8s,mb4.1,baz=303,slow=7.1,SNR=6.4
GNI   Garni             53.36 314   eP       P      07 41 29.6 -0.3
GNI                                  pmax    pmax
      comp=Z,14nm,1.8s
ARU   Arti              54.58 337⇑ iP       P      07 41 36.6 -2.0
ARU                                 e               07 42 37.8
ARU                                 e               07 43 37.5
ARU                                 eS       S      07 49 18.0 +3.8
ARU                                  pmax    pmax
      comp=Z,9.0nm,0.9s,mb4.8
ZEI   Tsey              54.93 316   eP       P      07 41 41.9 +0.6
ZEI                                  pmax    pmax
      comp=Z,4.0nm,0.9s,mb4.5
KIV   Kislovodsk        56.20 317⇓ eP       P      07 41 49.6 -0.8
KIV                                  pmax    pmax
      comp=Z,12nm,0.7s,mb5.0
KMBO  Kilima Mbogo      57.38 263    LR      LR     08 02 03.3
      comp=Z,142nm,19.3s,MS4.1,baz=94,slow=31
SOC   Sochi             58.08 316   eP       P      07 41 59.7 -4.0
SOC                                 ePPP     PPP    07 45 31.8 -5.4
SOC                                 eS       S      07 49 59.8 -0.8
SOC                                  pmax    pmax
      comp=Z,8.0nm,0.7s,mb4.9
SOC                                  pmax    pmax
      comp=N,8.0nm,0.9s
SOC                                  pmax    pmax
      comp=E,6.0nm,0.4s
CTA   Charters Tower    59.14 120    P       P      07 42 10.8 -0.6
      comp=E,7.2nm,1.1s,mb4.6,baz=290,slow=7.7,SNR=7.3
BRTR  Keskin Array B    61.41 310    P       P      07 42 25.5 -1.2
      comp=E,3.3nm,0.9s,mb4.5,baz=120,slow=7.4,SNR=12
OBN   Obninsk           64.14 327   eP       P      07 42 44.4 -0.2
OBN                                  pmax    pmax
      comp=Z,8.0nm,0.6s,mb4.9
TIXI  Tiksi             65.97  11   eP       P      07 42 54.2 -1.9
TIXI                                 pmax    pmax
      comp=Z,13nm,1.4s,mb4.8
AKASG Malin Array Be    66.98 321    P       P      07 42 58.9 -3.9
      comp=Z,4.6nm,1.0s,mb4.5,baz=87,slow=5.2,SNR=7.8
SUW   Suwalki           71.31 324   eP       P      07 43 29.1 -0.3
FINES FINESS Array B    71.44 332    P       P      07 43 29.2 -0.8
      comp=Z,2.5nm,0.7s,mb4.2,baz=117,slow=6.2,SNR=7.2
ARCES ARCESS Array B    73.94 340    P       P      07 43 44.4 -0.3
      comp=Z,5.5nm,0.9s,mb4.5,baz=125,slow=11,SNR=6.2
KSP   Ksiaz             75.11 320   eP       P      07 43 52.1 +0.4
GERES GERESS Array B    76.70 318    P       P      07 44 01.6 +0.7
      comp=Z,5.3nm,0.8s,mb4.5,baz=90,slow=4.9,SNR=27
KHC   Kasperske Hory    76.79 318   eP       P      07 44 01.8 +0.5
HFS   Hagfors           77.20 330    P       P      07 44 03.6 +0.2
      comp=Z,8.6nm,1.1s,mb4.6,baz=90,slow=5.8,SNR=3.8
NB2   NORSAR Subarra    78.47 330    P       P      07 44 10.4  0.0
      comp=Z,1.3nm,0.7s,mb4.0,baz=95,slow=5.6
NOA   NORSAR Array B    78.47 330    P       P      07 44 10.3 -0.1
      comp=Z,11nm,1.2s,mb4.7,baz=92,slow=5.7,SNR=5.8
DAVOX Davos             79.29 316    P       P      07 44 16.1 +0.9
      comp=Z,6.0nm,0.8s,mb4.5,baz=113,slow=11,SNR=8.4
MAW   Mawson            79.80 192    P       P      07 44 18.6 +1.1
      comp=Z,1.9nm,0.3s,mb4.4,baz=109,slow=23,SNR=4.0
LPG   La Plagne         81.53 315   eP       P      07 44 27.9 +0.8
      comp=Z,20nm,0.8s,mb4.8
ILAR  Eielson Array     93.58  22    P       P      07 45 26.7 +1.7
      comp=Z,0.6nm,0.8s,mb4.0,baz=286,slow=3.5,SNR=6.8
INK   Inuvik            95.77  16    P       P      07 45 36.1 +1.3
      comp=Z,1.8nm,0.8s,mb4.5,baz=314,slow=3.6,SNR=6.4
DBIC  Dimbokro          97.56 278    P       P      07 45 45.9 +1.7
      comp=Z,0.6nm,0.6s,mb4.3,baz=135,slow=4.3,SNR=3.2
PDAR  Pinedale Array   123.99  21    PKP     PKPdf  07 51 08.3 +1.7
      comp=Z,1.2nm,0.8s,slow=1.5,SNR=9.1
ANMO  Albuquerque      132.02  23    PKP     PKPdf  07 51 25.7 +3.4
      comp=Z,1.2nm,0.9s,baz=298,slow=5.1,SNR=5.6
TXAR  Lajitas Array    138.09  23    PKP     PKPdf  07 51 36.2 +2.6
      comp=Z,0.5nm,0.7s,baz=180,slow=0.9,SNR=6.4
LVC   Limon Verde      158.83 229    PKPab   PKPab  07 52 45.8 +1.2
      comp=Z,2.4nm,0.7s,baz=306,slow=0.7,SNR=5.7
LPAZ  La Paz           161.16 246    PKPab   PKPab  07 52 55.0 +0.2
      comp=Z,1.8nm,1.1s,baz=113,slow=12,SNR=4.2
```

IDC ***28*** *07:31:15.8±31.0,57.37S×173.47E,mb4.2/4,mb1 4.3/4, mb1mx3.9/11,mbtmp4.2/4,Error ellipse: s-maj=575.1km s-min=177.8km az=131.0*

ISC 28 07:32:39.0±7.8**,51 S**±1 ×**161.6E**±0.4**,h33^{km},n8,σ0^{s}56**/8**, mb4.1**/4**,North of Macquarie Island**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op      ISC        h  m  s   ISC
WHZ   Wether Hill Ro     6.30  45   eP       P      07 34 12.3 +0.4
MLZ   Mavora Lakes       6.82  43    P       P      07 34 19.2 -0.1
TUZ   Tuapeka            7.06  53   eP       P      07 34 23.2 +0.6
EAZ   Earnscleugh        7.42  47   eP       P      07 34 26.6 -1.0
STKA  Stephens Creek    23.82 314    P       P      07 37 57.5 +7.9
      4.8nm,1.1s,mb3.9,baz=149,slow=12,SNR=3.1
CTA   Charters Tower    32.72 333    P       P      07 39 11.0 +0.4
      3.6nm,1.0s,mb4.3,baz=134,slow=9.1,SNR=6.5
ASAR  Alice Springs     34.37 311    P       P      07 39 25.1 +0.3
      2.4nm,1.0s,mb4.1,baz=143,slow=8.1,SNR=10
WRA   Warramunga Arr    37.37 315    P       P      07 39 49.6 -0.6
      3.6nm,0.9s,mb4.2,baz=145,slow=8.0,SNR=11
```

IDC 28 07:34:45.8±15.0**,12.68N**×**143.15E,h305**^{km}±157^{km}**, mb3.5**/7**,mb1 3.6**/7**,mb1mx3.4**/21**,mbtmp4.2**/7**,Error ellipse: s-maj=96.6km s-min=24.2km az=74.0,South of Mariana Islands**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op      ISC        h  m  s   ISC
CTA   Charters Tower    32.70 175    P       P      07 40 50.6 -1.7
      2.2nm,0.6s,baz=354,slow=7.8,SNR=4.6
WRA   Warramunga Arr    33.55 195  i P       P      07 40 57.2 -2.4
WRA                                  pmax    pmax
      comp=Z,5.0nm,0.5s
WRA   Warramunga Arr    33.55 195    P       P      07 40 57.2 -2.3
      comp=Z,4.7nm,0.5s,baz=17,slow=9.5,SNR=25
ASAR  Alice Springs     37.24 194    P       P      07 41 29.7 -0.7
      comp=Z,1.4nm,0.4s,baz=20,slow=12,SNR=9.1
STKA  Stephens Creek    44.32 182    P       P      07 42 26.1 -1.9
      comp=Z,1.5nm,0.4s,baz=14,slow=11,SNR=5.2
SONM  Songino Array     46.53 326    P       P      07 42 43.3 -1.8
      comp=Z,0.7nm,0.5s,baz=150,slow=7.6,SNR=4.3
BVAR  Borovoye Array    69.61 322    P       P      07 45 22.7 -1.1
      comp=Z,1.6nm,0.4s,baz=110,slow=8.4,SNR=10.0
FINES FINESS Array B    91.27 335    P       P      07 47 16.2 -1.5
      comp=Z,1.8nm,0.9s,baz=63,slow=4.3,SNR=6.1
```

IDC 28 07:39:25.2±13.0**,3.81N**×**93.13E,mb3.5**/2**,mb1 4.0**/3**, mb1mx3.6**/17**,mbtmp3.7**/3**,ML4.4**/1**,Error ellipse: s-maj=315.9km s-min=51.5km az=84.0,Off west coast of northern Sumatera**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op      ISC        h  m  s   ISC
CMAR  Chiang Mai Arr    15.63  21    Pn      P      07 43 07.2 -1.5
      0.5nm,0.3s,baz=214,slow=13,SNR=7.9
WRA   Warramunga Arr    46.86 122    P       P      07 47 57.3 -1.9
      0.8nm,0.6s,baz=300,slow=9.1,SNR=5.2
ASAR  Alice Springs     48.20 127    P       P      07 48 07.9 -1.9
      0.4nm,0.5s,baz=291,slow=8.4,SNR=3.8
```

MAN ***28*** *07:47:08.1, 18.38N×119.98E, h5^{km}, mb5.3, ML4.3, MS4.6*
MAN INTENSITY III LAOAG CITY INTENSITY II PASUQUIN ILOCOS NORTE CABUGAO ILOCOS SUR SINAIT

ILOCOS SUR.

*NEIC **28** 07:47:09.5±7.6, 18.02N×120.41E, h17^{km}±47^{km}, mb4.7/11, Error ellipse: s-maj=23.1km s-min=15.7km az=131.0*

NEIC Felt [III PIVS] at Laoag; [II PIVS] at Cabuyao, Pasuquin, Santo Domingo and Sinait.

*BJI **28** 07:47:09.2, 18.18N×120.34E, h16^{km}, mB5.0, mb4.7, ML4.6, Ms4.4, Msz4.0*

*IDC **28** 07:47:14.8±7.3, 17.98N×120.34E, h51^{km}±68^{km}, mb4.0/16, mb1 4.2/16, mb1mx4.1/21, mbtmp4.3/16, MS4.0/5, Ms1 4.0/5, ms1mx3.4/24, Error ellipse: s-maj=32.9km s-min=13.4km az=60.0*

ISC 28 07:47:11.7±1.0, **18.35N**±0.03×**120.18E**±0.04, **h22**^{km}±8^{km}, **h41**^{km}±4.6^{km}**:pP-P, n78,** σ**1**^{s}**31**/83, **mb4.6**/34, **MS4.0**/6, **4C-7D, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABRA	Dolores	0.86	144	eP	Pb	07 47 27.7	-0.1
APYP	Conner	1.12	115	eP	Pn	07 47 31.8	-0.4
APYP				eS	Sb	07 47 46.3	-0.1
CVP	Callao Caves	1.69	112	⇓iP	Pn	07 47 40.5	+0.2
SGCP	Mt. Cagua	1.78	93	eP	Pn	07 47 42.2	+0.6
SGCP				eS	Sn	07 48 04.7	+1.0
BOLP	Bolinao	1.97	187	eP	Pn	07 47 41.9	-2.5
BCPH	Baguio City Da	1.99	169	⇑iP	Pn	07 47 44.0	-0.7
BCPH				i S	Sn	07 48 08.8	-0.4
CAUP	Cauayan	2.10	131	eP	Pn	07 47 48.5	+2.3
SCZP	Santa Cruz	2.57	186	eP	Pn	07 47 50.6	-2.3
BBP	Basco	2.68	39	eP	Pn	07 47 53.3	-1.2
PCPH	Palayan	2.91	162	⇓eP	Pn	07 47 58.3	+0.6
PCPH				eS	Sn	07 48 34.0	+1.6
BALP	Baler	2.92	153	eP	Pn	07 47 58.7	+0.8
TGY	Tagaytay City	4.28	170	P	Pn	07 48 19.0	+1.7
	66nm,0.3s,baz=303,slow=6.2,SNR=10						
LQP	Lukban	4.41	163	⇓eP	Pn	07 48 19.1	0.0
LUBP	Lubang	4.59	179	⇓eP	Pn	07 48 22.9	+1.3
LUBP	Lubang	4.59	179	eP	Pn	07 48 22.1	+0.5
GQP	Guinayangan	4.92	153	⇓eP	Pn	07 48 29.3	+2.9
GQP				eS	Sn	07 49 20.9	-2.6
SJMP	San Jose	5.92	171	eP	Pn	07 48 36.7	-3.8
PVCP	Virac	6.08	140	eP	Pn	07 48 42.3	-0.3
TATO	Taipei	6.71	10	eP	Pn	07 48 53.4	+1.9
QZH	Quanzhou	6.73	348	⇓iP	Pn	07 48 50.3	-1.5
QZH				S	Sn	07 50 05.3	-3.2
QZH				Smax			
	comp=N,320nm,1.1s						
QZH				Smax			
	comp=E,170nm,1.0s						
ENPP	El Nido	7.14	186	eP	Pn	07 48 52.7	-4.8
GZH	Guangzhou	7.95	308	P	Pn	07 49 07.5	-1.3
GZH				S	Sn	07 50 35.0	-4.0
GZH				Smax			
	comp=N,180nm,0.7s						
GZH				Smax			
	comp=E,196nm,0.8s						
GZH				LR	LR		
	comp=N,2µm,19.3s						
GZH				LR	LR		
	comp=E,2µm,17.4s						
GZH				LR	LR		
	comp=Z,1µm,18.7s						
QIZ	Qiongzhong	9.82	276	P	P	07 49 31.5	-3.4
QIZ				PP	PP	07 49 40.0	-2.6
QIZ				eS	Sn	07 51 25.0	-0.5
QIZ				LR	LR		
	comp=Z,986nm,19.0s						
QIZ	Qiongzhong	9.82	276	eP	P	07 49 31.7	-3.2
JOW	Kunigami	11.27	40	P	P	07 49 52.5	-2.2
	comp=Z,5.4nm,0.3s,baz=240,slow=9.9,SNR=9.4						
GYA	Guiyang	14.87	305	⇑iP	P	07 50 42.5	0.0
GYA				AMB	AMB		
	comp=Z,30nm,0.9s						
GYA				LR	LR		
	comp=N,960nm,15.2s						
GYA				LR	LR		
	comp=E,670nm,14.2s						
GYA				LR	LR		
	comp=Z,460nm,15.0s						
ENH	Enshi	15.35	323	eP	P	07 50 50.8	+2.1
	comp=Z,47nm,1.3s						
KMI	Kunming	17.54	296	P	P	07 51 19.8	+3.2
KMI				AP		07 51 28.0	
KMI				S	S	07 54 37.3	+8.1
KMI				AMB	AMB		
	comp=Z,19nm,1.5s						
KMI				LR	LR		
	comp=N,706nm,17.4s						
KMI				LR	LR		
	comp=E,671nm,18.0s						
KMI				LR	LR		
	comp=Z,549nm,19.2s						
CD2	Chengdu	19.44	313	P	P	07 51 41.5	+1.8
CD2				AP		07 51 45.0	
CD2				XP		07 51 49.0	
CD2				AMB	AMB		
	comp=Z,30nm,0.4s						
CD2				AMB	AMB		
	comp=Z,210nm,4.8s						
CD2				LR	LR		
	comp=E,1µm,14.4s						
CD2				LR	LR		
	comp=Z,600nm,17.4s						
CM31	Chiang Mai Arr	20.15	274	eP	P	07 51 46.8	-0.7
	comp=Z,17nm,0.6s						
CMAR	Chiang Mai Arr	20.15	274	P	P	07 51 47.9	+0.4
	comp=Z,24nm,0.9s,baz=90,slow=8.4,SNR=80						
BJT	Baijiatuau	21.87	352	⇑eP	P	07 52 04.8	0.0
	comp=Z,54nm,0.9s,mb5.0						
BJT				e		07 52 12.1	
BJI	Beijing	21.89	352	P	P	07 52 05.5	+0.4
BJI				AMB	AMB		
	comp=Z,47nm,1.0s,mb4.9						
SNY	Shenyang	23.58	6	⇓P	P	07 52 22.0	+0.3
SNY				AMB	AMB		
	comp=Z,20nm,0.5s,mb4.8						
HHC	Hu-ho-hao-te	23.62	344	eP	P	07 52 24.5	+2.5
HHC				PP	PP	07 53 00.0	+5.3
HHC				PCP	PcP	07 56 09.0	+0.8
HHC				S	S	07 56 38.3	+6.6
HHC				AMB	AMB		
	comp=Z,239nm,6.5s						
HHC				LR	LR		
	comp=N,286nm,21.4s,MS4.0						
HHC				LR	LR		
	comp=E,566nm,22.6s,MS4.0						
HHC				LR	LR		
	comp=Z,230nm,21.4s,MS3.6						
BTO	Baotou	23.84	341	eP	P	07 52 24.8	+0.6
MAT	Matsushiro	24.10	38	P	P	07 52 24.5	-2.3
MAT	Matsushiro	24.10	38	P	P	07 52 25.0	-1.8
	comp=Z,16nm,1.0s,mb4.4						
CN2	Changchun	25.76	9	eP	P	07 52 44.5	+2.0
MDJ	Mudanjiang	27.35	15	P	P	07 52 56.5	-0.6
MDJ				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.5						
MDJ				AMB	AMB		
	comp=Z,127nm,6.2s						
MDJ	Mudanjiang	27.35	15	eP	P	07 52 53.1	-4.0
	comp=Z,19nm,1.0s,mb4.6						
GTA	Gaotai	27.42	324	eP	P	07 53 00.0	+2.2
GTA				AP	pP	07 53 04.3	-0.1
GTA				XP	sP	07 53 07.5	+0.2
GTA				AMB	AMB		
	comp=Z,3.0nm,1.6s,mb3.6						
HIA	Hailar	30.84	359	eP	P	07 53 26.7	-1.7
	comp=Z,22nm,1.2s,mb4.9						
ULN	Ulaanbaatar	31.33	343	eP	P	07 53 32.1	-0.5
	comp=Z,3.4nm,0.6s,mb4.3						
SONM	Songino Array	31.49	342	P	P	07 53 34.6	+0.5
	comp=Z,2.2nm,0.7s,mb4.1,baz=157,slow=9.9,SNR=15						
SONM				LR	LR	08 07 03.6	
	comp=Z,219nm,19.4s,MS3.8,baz=188,slow=37						
ASAJ	Asahikawa	31.85	31	LR	LR	08 05 47.9	
	comp=Z,132nm,21.2s,MS3.6,baz=2.4,slow=35						
GUN	Gumba	32.85	293	eP	P	07 53 46.7	+0.5
	comp=Z,75nm,1.1s,mb5.5						
PKI	Pulchoki	33.21	292	eP	P	07 53 49.1	-0.2
	comp=Z,15nm,0.7s,mb5.0						
KKN	Kakani	33.36	293	eP	P	07 53 50.0	-0.6
	comp=Z,39nm,1.1s,mb5.2						
DMN	Daman	33.48	292	eP	P	07 53 51.4	-0.3
	comp=Z,53nm,1.2s,mb5.3						
GKN	Gorkha	33.95	293	eP	P	07 53 55.2	-0.5
	comp=Z,37nm,1.0s,mb5.3						
KOLN	Koldanda	34.83	292	eP	P	07 54 03.0	-0.3
	comp=Z,48nm,1.2s,mb5.3						
WMQ	Urumqi	37.27	320	⇑P	P	07 54 23.5	-0.2
WMQ				AP	pP	07 54 33.8	+3.4
WMQ				XP	sP	07 54 37.8	+4.6
WMQ				PP	PP	07 55 52.5	+1.2
WMQ				S	S	08 00 10.5	+1.3
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,68nm,9.0s						
WMQ				LR	LR		
	comp=N,510nm,27.5s						
WMQ				LR	LR		
	comp=E,264nm,22.3s						
WMQ				LR	LR		
	comp=Z,296nm,19.0s						
DDI	Dehra Dun	39.98	295	e	P	07 54 47.0	+0.5
WRAB	Tennant Creek	40.50	159	eP	P	07 54 44.6	-6.3
	comp=Z,12nm,0.9s,mb4.5						
WRA	Warramunga Arr	40.51	159	P	P	07 54 44.8	-6.2
	comp=Z,5.2nm,1.0s,mb4.1,baz=338,slow=9.4,SNR=14						
ASAR	Alice Springs	43.85	162	P	P	07 55 13.2	-5.1
	comp=Z,3.7nm,0.4s,mb4.4,baz=339,slow=7.0,SNR=43						
CTA	Charters Tower	45.97	145	P	P	07 55 29.3	-6.0
	comp=Z,0.8nm,0.4s,mb4.0,baz=9.5,slow=6.1,SNR=2.9						
BVAR	Borovoye Array	51.70	324	P	P	07 56 19.9	+0.7
	comp=Z,1.0nm,0.6s,mb3.9,baz=113,slow=11,SNR=8.5						
BVAR				PcP	PcP	07 57 30.6	-2.0
	comp=Z,2.3nm,0.7s,baz=124,slow=5.2,SNR=4.3						
STKA	Stephens Creek	54.00	157	P	P	07 56 31.9	-4.7
	comp=Z,5.3nm,0.9s,mb4.5,baz=327,slow=4.5,SNR=6.8						
STKA				pP	pP	07 56 44.1	+0.8
	comp=Z,5.5nm,0.7s,baz=319,slow=8.7,SNR=5.3						
BILL	Bilibino	57.48	19	eP	P	07 56 59.0	-2.2
	comp=Z,6.3nm,0.7s,mb4.8						
GNI	Garni	67.42	307	LR	LR	08 30 17.3	
	comp=Z,89nm,20.6s,MS4.0,baz=280,slow=38						
IMA	Indian Mountai	71.84	25	P	P	07 58 32.4	-2.0
	comp=Z,284nm,2.4s,mb5.8						
ARCES	ARCESS Array B	74.59	339	P	P	07 58 52.0	+1.6
	comp=Z,1.8nm,0.6s,mb4.2,baz=18,slow=3.8,SNR=9.4						
ILAR	Eielson Array	74.82	26	P	P	07 58 52.1	+0.3
	comp=Z,0.9nm,0.5s,mb4.0,baz=266,slow=4.5,SNR=19						
ILAR				pP	pP	07 59 08.3	+9.4
	comp=Z,0.7nm,0.7s,baz=246,slow=2.8,SNR=4.3						
FINES	FINESS Array B	76.01	330	P	P	07 58 57.1	-1.5
	comp=Z,2.1nm,0.7s,mb4.2,baz=63,slow=6.2,SNR=9.3						
AKASG	Malin Array Be	76.62	319	P	P	07 59 00.7	-1.6
	comp=Z,1.6nm,0.6s,mb4.1,baz=61,slow=5.4,SNR=5.7						
INK	Inuvik	78.97	21	P	P	07 59 13.9	-1.0
	comp=Z,3.7nm,0.7s,mb4.4,baz=303,slow=6.3,SNR=17						
NB2	NORSAR Subarra	82.93	332	P	P	07 59 34.9	-1.0
	comp=Z,3.2nm,0.7s,mb4.5,baz=63,slow=5.0						
NOA	NORSAR Array B	82.93	332	P	P	07 59 34.9	-1.0
	comp=Z,3.3nm,0.7s,mb4.5,baz=64,slow=4.9,SNR=8.7						
NOA				LR	LR	08 38 22.5	
	comp=Z,125nm,19.1s,MS4.3,baz=255,slow=37						
BRG	Berggiesshubel	85.77	322	P	P	07 59 51.8	+1.4
	comp=Z,6.1nm,1.1s,mb4.7						
GERES	GERESS Array B	86.74	321	P	P	07 59 56.4	+1.1
	comp=Z,0.2nm,0.4s,mb3.7,baz=56,slow=4.8,SNR=4.4						
GERES				LR	LR	08 41 30.9	
	comp=Z,161nm,19.6s,MS4.4,baz=58,slow=37						
YKA	Yellowknife Ar	88.69	22	P	P	08 00 03.7	-0.6
	comp=Z,4.3nm,0.6s,mb4.9,baz=314,slow=4.6,SNR=67						
DAVOX	Davos	89.95	320	P	P	08 00 11.9	+1.2
	comp=Z,2.2nm,0.7s,mb4.6,baz=108,slow=7.2,SNR=3.8						
PPT	Papeete	95.61	107	eLR	LR	08 31 32.1	
	comp=Z,91nm,23.2s						
TBI	Tubuai	97.40	112	eLR	LR	08 32 20.9	
	comp=Z,80nm,26.5s						
TXAR	Lajitas Array	116.46	43	PKP	PKPdf	08 05 54.2	-4.5
	comp=Z,0.6nm,0.8s,baz=231,slow=0.8,SNR=6.9						
SDV	Santo Domingo	150.91	22	ePKPbc	PKPdf	08 07 03.7	+1.5

IDC 28 07:52:57.9±1.4, **8.36N**×**91.87E, mb3.7**/5, **mb1 3.9**/6, **mb1mx3.7**/18, **mbtmp3.7**/6, **ML4.1**/1, **Error ellipse: s-maj=40.8km s-min=28.4km az=47.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.16	34	Pn	P	07 55 53.8	-1.8
	0.4nm,0.3s,baz=225,slow=15,SNR=2.8						
SONM	Songino Array	41.23	15	P	P	08 00 44.7	-1.5
	1.4nm,1.0s,baz=194,slow=7.4,SNR=7.3						
BVAR	Borovoye Array	47.83	343	P	P	08 01 35.9	-3.3
	0.7nm,0.8s,baz=162,slow=9.1,SNR=2.2						
ASAR	Alice Springs	51.96	129	P	P	08 02 08.9	-2.3
	1.0nm,0.8s,baz=300,slow=7.5,SNR=5.1						
BRTR	Keskin Array B	60.42	311	P	P	08 03 09.6	-2.1
	0.4nm,0.4s,baz=294,slow=31,SNR=2.4						
GERES	GERESS Array B	75.97	318	P	P	08 04 47.7	-0.8
	0.6nm,0.9s,baz=90,slow=5.9,SNR=2.8						

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*IDC **28** 07:54:14.6±1.6, 7.10N×92.75E, mb4.0/6, mb1 4.2/6, mb1mx3.9/17, mbtmp4.0/6, Error ellipse: s-maj=65.5km s-min=29.3km az=50.0*

ISC 28 07:54:17.2±1.2, **6.7N**±0.2×**92.3E**±0.2, **h33**^{km}**, n8,** σ**1**^{s}**22**/7, **mb3.9**/6, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.32	28	Pn	P	07 57 27.9	+1.3
	0.5nm,0.3s,baz=231,slow=14,SNR=9.0						
SONM	Songino Array	42.69	14	P	P	08 02 09.4	-3.3
	0.6nm,0.7s,mb3.4,baz=198,slow=4.6,SNR=2.6						
SONM				PcP	PcP	08 04 01.1	-3.6
	0.2nm,0.5s,baz=208,slow=3.9,SNR=3.6						
WRA	Warramunga Arr	49.09	124	P	P	08 03 03.9	+0.1
	1.2nm,0.7s,mb4.0,baz=304,slow=8.9,SNR=5.2						
BVAR	Borovoye Array	49.52	343	P	P	08 03 07.0	+0.3
	1.3nm,0.8s,mb4.0,baz=121,slow=8.6,SNR=3.9						
FINES	FINESS Array B	72.89	333	P	P	08 05 44.4	-0.2
	1.4nm,0.7s,mb4.0,baz=104,slow=7.9,SNR=5.2						
ARCES	ARCESS Array B	75.74	341	P	P	08 06 00.6	-0.4
	2.7nm,1.0s,mb4.2,baz=90,slow=6.1,SNR=5.3						
GERES	GERESS Array B	77.49	318	P	P	08 06 12.4	+1.1
	0.6nm,0.6s,mb3.7,baz=76,slow=5.5,SNR=5.0						
TXAR	Lajitas Array	140.99	22	PKP	PKPdf	08 13 45.5	+0.6
	0.1nm,0.5s,baz=138,slow=1.2,SNR=4.6						

IDC 28 08:04:49.1±1.1, **7.48S**×**130.56E, h32**^{km}±18^{km}, **mb3.9**/1, **mb1 4.2**/3, **mb1mx3.8**/10, **mbtmp4.2**/3, **ML3.9**/2, **Error ellipse: s-maj=47.6km s-min=9.8km az=66.0, Tanimbar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	12.92	164	Pn	P	08 07 50.5	-2.8
	0.8nm,0.3s,baz=339,slow=13,SNR=29						
WRA				Sn	S	08 10 13.6	-3.3
	0.7nm,0.3s,baz=335,slow=23,SNR=8.3						
ASAR	Alice Springs	16.41	169	Pn	P	08 08 37.1	-1.7
	0.9nm,0.3s,baz=331,slow=9.9,SNR=44						
ASAR				Sn	S	08 11 40.2	+1.0
	0.2nm,0.3s,baz=326,slow=20,SNR=4.5						
STKA	Stephens Creek	26.36	158	P	P	08 10 21.9	-2.4
	7.0nm,1.2s,baz=338,slow=11,SNR=3.4						

IDC 28 08:13:50.1±8.3, **8.60N**×**93.79E, h61**^{km}±72^{km}, **mb3.5**/6, **mb1 3.9**/7, **mb1mx3.6**/18, **mbtmp3.9**/7, **ML5.0**/1, **Error ellipse: s-maj=65.5km s-min=24.8km az=50.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.01	27	P	P	08 16 24.9	-2.2
	3.1nm,0.3s,baz=211,slow=15,SNR=16						
SONM	Songino Array	40.54	13	P	P	08 21 22.6	-2.3
	0.6nm,0.7s,baz=187,slow=7.5,SNR=5.2						
BVAR	Borovoye Array	48.20	341	P	P	08 22 25.1	-1.2
	0.3nm,0.5s,baz=100,slow=8.8,SNR=3.0						
WRA	Warramunga Arr	48.96	126	P	P	08 22 30.7	-2.0
	0.4nm,0.6s,baz=303,slow=9.0,SNR=3.1						
BRTR	Keskin Array B	61.70	311	P	P	08 24 01.3	-3.1
	2.0nm,0.9s,baz=112,slow=6.7,SNR=4.7						
GERES	GERESS Array B	77.06	318	P	P	08 25 37.3	-1.1
	0.5nm,0.8s,baz=104,slow=5.5,SNR=6.4						
NOA	NORSAR Array B	78.94	331	P	P	08 25 47.1	-1.3
	0.7nm,0.8s,baz=117,slow=3.9,SNR=2.4						

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*BJI **28** 08:19:49.8, 5.80N×93.30E, h24^{km}, mB5.0, mb4.6, Ms4.6, Msz4.4*

*MOS **28** 08:19:50.2±1.1, 5.84N×93.32E, h33^{km}, mb5.1/16, Error ellipse: s-maj=21.1km s-min=9.0km az=124.9*

*NEIC **28** 08:19:50.9±0.4, 5.80N×93.28E, mb4.8/14, Error ellipse: s-maj=15.8km s-min=8.8km az=216.0*

*IDC **28** 08:19:51.2±0.6, 5.89N×93.29E, h25^{km}±3^{km}, mb4.5/15, mb1 4.6/15, mb1mx4.4/20, mbtmp4.6/15, Error ellipse: s-maj=31.9km s-min=10.9km az=43.0*

*CSEM **28** 08:20:01.5, 6.81N×91.83E, h33^{km}, mb5.5*

ISC 28 08:19:48.9±0.4, **5.69N**±0.07×**93.21E**±0.06, **h26**^{km}, **h26**^{km}±1.2^{km}**:pP-P, n88,** σ**1**^{s}**17**/88, **mb4.8**/38, **MS4.2**/4, **4C-4D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.87	23	eP	P	08 23 11.6	+5.2
CM31				e		08 23 22.0	
CMAR	Chiang Mai Arr	13.87	23	Pn	P	08 23 07.5	+1.1
	0.6nm,0.3s,baz=219,slow=14,SNR=12						
CHG	Chiang Mai	14.19	23	⇓P	P	08 23 14.1	+3.5
	14nm,0.9s						
NANT	Nan	14.94	29	P		08 23 37.0	
VIS	Vishakhapatnam	15.37	322	eP	P	08 23 24.9	-1.2
HYB	Hyderabad	18.47	310	eP	P	08 24 05.0	-0.2
HYB				eS	S	08 27 20.0	-7.1
HYB	Hyderabad	18.47	310	i P	P	08 24 05.0	-0.2
HYB				eS	S	08 27 28.0	+0.9
QIZ	Qiongzhong	20.94	49	eP	P	08 24 32.4	-0.1
	22nm,0.7s						
KMI	Kunming	21.37	24	P	P	08 24 40.5	+3.7
KMI				AP		08 24 47.0	
KMI				S	S	08 28 34.0	+6.2
KMI				AMB	AMB		
	comp=Z,19nm,1.0s,mb4.4						
KMI				AMB	AMB		
	comp=Z,120nm,4.3s						
KMI				LR	LR		
	comp=N,316nm,14.8s,MS4.0						
KMI				LR	LR		
	comp=E,343nm,17.7s,MS4.0						
KMI				LR	LR		
	comp=Z,237nm,19.6s,MS3.6						
POO	Poona	22.79	306	⇓iP	P	08 24 51.0	-0.1
	comp=Z,24nm,0.5s,mb4.9						
POO				eS	S	08 28 56.0	+2.0
PKI	Pulchoki	22.99	342	eP		08 25 09.1	
	comp=Z,140nm,0.6s						
DMN	Daman	23.12	341	eP		08 25 11.6	
	comp=Z,63nm,0.3s						
GUN	Gumba	23.17	343	eP		08 25 11.5	
	comp=Z,111nm,0.7s						
KKN	Kakani	23.23	342	eP		08 25 11.8	
	comp=Z,47nm,0.4s						
GKN	Gorkha	23.63	341	eP		08 25 16.9	
	comp=Z,128nm,0.4s						
KOLN	Koldanda	23.78	338	eP		08 25 20.1	
	comp=Z,101nm,0.5s						
LSA	Lhasa	23.96	356	eP	P	08 25 03.0	+0.7
LSA				pmax	pmax		
	comp=Z,30nm,0.6s,mb4.9						
LSA	Lhasa	23.96	356	eP	P	08 25 03.0	+0.7
	comp=Z,30nm,0.6s,mb4.9						
GYA	Guiyang	24.32	30	⇑iP	P	08 25 06.8	+0.9
GYA				S	S	08 29 17.5	-3.0
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
GYA				LR	LR		
	comp=N,1µm,16.4s,MS4.7						
GYA				LR	LR		
	comp=E,1µm,16.0s,MS4.7						
GYA				LR	LR		
	comp=Z,1µm,15.8s,MS4.5						
NDI	New Delhi	27.43	328	eP	P	08 25 34.0	-0.9
ENH	Enshi	28.86	30	P	P	08 25 51.4	+3.7
	comp=Z,12nm,0.7s,mb4.7						
GTA	Gaotai	34.09	9	eP	P	08 26 36.0	+2.3
GTA				AMB	AMB		
	comp=Z,3.0nm,0.8s,mb4.3						
NJ2	Nanjing	35.53	39	eP	P	08 26 43.5	-2.5
NJ2				AP	pP	08 26 52.5	-1.1
NJ2				XP	sP	08 26 56.8	-0.1
NJ2				PP	PP	08 28 04.5	-1.9
NJ2				PPP	PPP	08 28 24.3	-1.1
NJ2				S	S	08 32 16.0	-3.2
NJ2				XS		08 32 33.0	
NJ2				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.7						
NJ2				AMB	AMB		
	comp=Z,640nm,5.8s						
NJ2				LR	LR		
	comp=N,450nm,26.0s,MS4.5						
NJ2				LR	LR		
	comp=E,830nm,22.0s,MS4.5						
NJ2				LR	LR		
	comp=Z,2µm,24.0s,MS4.7						
SSE	Sheshan	36.43	43	P	P	08 26 49.5	-4.2
SSE				XP	sP	08 27 02.3	-2.2
SSE				S	S	08 32 29.5	-3.7
SSE				XS		08 32 43.8	
SSE				AMB	AMB		
	comp=Z,15nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,114nm,4.5s						
SSE				LR	LR		
	comp=N,171nm,19.7s,MS3.9						
SSE				LR	LR		
	comp=E,126nm,20.2s,MS3.9						
SSE				LR	LR		
	comp=Z,132nm,14.1s						
MBWA	Marble Bar	37.27	137	eP	P	08 27 00.4	-0.4
	comp=Z,4.9nm,0.6s,mb4.5						
WMQ	Urumqi	38.28	354	P	P	08 27 10.0	+0.9
WMQ				AP	pP	08 27 14.5	-2.2
WMQ				XP	sP	08 27 17.5	-2.4
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.6						
KZA	Kyzart	39.60	339	P	P	08 27 21.3	+1.2
	SNR=9.9						
UCH	Uchtor	39.99	338	P	P	08 27 24.7	+1.3
	SNR=16						
AML	Almayashu	40.22	337	P	P	08 27 26.8	+1.6
	SNR=26						
AAK	Ala-Archa	40.35	339	P	P	08 27 27.7	+1.4
	SNR=8.9						
AAK	Ala-Archa	40.35	339	eP	P	08 27 26.1	-0.2
AAK				pmax	pmax		
	comp=Z,24nm,1.2s,mb4.8						
AAK	Ala-Archa	40.35	339	eP	P	08 27 26.1	-0.2
	comp=Z,24nm,1.2s,mb4.8						
EKS2	Erkin-Say	40.64	338	P	P	08 27 30.1	+1.4
	SNR=6.3						
USP	Ospenovka	40.90	339	P	P	08 27 31.2	+0.4
	SNR=11						
SONM	Songino Array	43.48	13	P	P	08 27 51.3	-0.5
	comp=Z,4.1nm,0.8s,mb4.2,baz=198,slow=7.5,SNR=24						
ULN	Ulaanbaatar	43.66	13	eP	P	08 27 52.2	-1.1
ULN				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
ULN	Ulaanbaatar	43.66	13	eP	P	08 27 52.2	-1.1
	comp=Z,5.5nm,1.0s,mb4.2						
WRA	Warramunga Arr	47.80	123	P	P	08 28 26.9	+0.3
	comp=Z,24nm,0.7s,mb5.3,baz=302,slow=9.0,SNR=99						
WRA				pP	pP	08 28 34.7	+0.3
	comp=Z,9.6nm,0.5s,baz=303,slow=9.2,SNR=13						
WRAB	Tennant Creek	47.80	123	⇑eP	P	08 28 27.0	+0.3
WRAB				e*PP	pP	08 28 34.6	+0.2
WRAB				pmax	pmax		
	comp=Z,48nm,0.6s,mb5.7						
WRAB	Tennant Creek	47.80	123	⇑eP	P	08 28 27.0	+0.3
	comp=Z,48nm,0.6s,mb5.7						
WRAB				epP	pP	08 28 34.5	+0.1
ASAR	Alice Springs	49.27	128	P	P	08 28 38.1	+0.2
	comp=Z,7.8nm,0.6s,mb4.9,baz=298,slow=7.8,SNR=67						
BVAR	Borovoye Array	50.76	342	P	P	08 28 47.9	-1.0
	comp=Z,5.1nm,0.7s,mb4.5,baz=149,slow=8.6,SNR=20						
BOD	Bodaibo	54.47	14	eP	P	08 29 13.3	-3.2
BOD				e	pP	08 29 22.8	-1.5
GNI	Garni	55.31	316	eP	P	08 29 22.7	-0.3
GNI				pmax	pmax		
	comp=Z,10.0nm,0.6s						
GNI	Garni	55.31	316	P	P	08 29 23.2	+0.3
	comp=Z,3.8nm,0.4s,mb4.8,baz=160,slow=13,SNR=6.1						
GNI	Garni	55.31	316	eP	P	08 29 22.7	-0.3

	comp=Z,9.6nm,0.6s,mb5.0						
PMG	**Port Moresby**	**55.82**	**105**	*e*P	**P**	**08 29 26.4**	**-0.5**
PMG				pmax	pmax		
	comp=Z,25nm,0.6s						
PMG	**Port Moresby**	**55.82**	**105**	P	**P**	**08 29 26.8**	**-0.1**
	comp=Z,21nm,0.5s,mb5.4,baz=348,slow=2.3,SNR=16						
PMG	**Port Moresby**	**55.82**	**105**	*e*P	**P**	**08 29 26.4**	**-0.4**
	comp=Z,25nm,0.6s,mb5.4						
TI2	**Plekhanov**	**55.99**	**317**	⇑*i*P	**P**	**08 29 27.4**	**-0.4**
TI2				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.5						
KMBO	**Kilima Mbogo**	**56.28**	**265**	*e*P	**P**	**08 29 32.1**	**+1.8**
KMBO				pmax	pmax		
	comp=Z,7.0nm,1.1s						
KMBO	**Kilima Mbogo**	**56.28**	**265**	P	**P**	**08 29 32.3**	**+2.0**
	comp=Z,0.4nm,0.2s,mb4.0,baz=95,slow=21,SNR=4.5						
KMBO	**Kilima Mbogo**	**56.28**	**265**	*e*P	**P**	**08 29 32.1**	**+1.8**
	comp=Z,6.6nm,1.1s,mb4.6						
ZEI	**Tsey**	**57.02**	**318**	*e*P	**P**	**08 29 34.9**	**-0.2**
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
SVE	**Sverdlovsk**	**57.09**	**339**	*e*P	**P**	**08 29 34.5**	**-0.9**
SVE				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.4						
ARU	**Arti**	**57.54**	**338**	⇓*i*P	**P**	**08 29 35.8**	**-2.8**
ARU				*e*		08 30 29.3	
ARU				*e*		08 31 43.9	
ARU				*e*S	**S**	**08 37 31.6**	**-1.2**
ARU				*e*SS	SS	08 41 21.0	-3.3
ARU				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
CTA	**Charters Tower**	**58.09**	**118**	P	**P**	**08 29 42.5**	**-0.3**
	comp=Z,4.8nm,0.8s,mb4.6,baz=304,slow=4.7,SNR=7.6						
CTAO	**Charters Tower**	**58.09**	**118**	*e*P	**P**	**08 29 42.6**	**-0.3**
CTAO				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
CTAO	**Charters Tower**	**58.09**	**118**	*e*P	**P**	**08 29 42.6**	**-0.3**
	comp=Z,8.0nm,1.0s,mb4.7						
KIV	**Kislovodsk**	**58.33**	**319**	*e*P	**P**	**08 29 42.7**	**-1.6**
KIV				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
STKA	**Stephens Creek**	**59.30**	**132**	P	**P**	**08 29 52.1**	**+0.8**
	comp=Z,4.7nm,0.7s,mb4.6,baz=340,slow=6.3,SNR=8.2						
STKA				pP	pP	08 29 59.6	+0.4
	comp=Z,5.7nm,0.8s,baz=313,slow=9.0,SNR=4.6						
SOC	**Sochi**	**60.14**	**318**	*e*P	**P**	**08 29 51.0**	**-5.8**
SOC				*e*		08 30 38.0	
SOC				*e*S	**S**	**08 38 04.9**	**-1.9**
SOC				*i* SS	SS	08 41 59.7	-5.4
SOC				*i* SSS	SSS	08 44 36.6	-1.1
SOC				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.8						
BRTR	**Keskin Array B**	**63.16**	**312**	P	**P**	**08 30 16.4**	**-0.8**
	comp=Z,4.4nm,0.8s,mb4.7,baz=122,slow=7.1,SNR=22						
OBN	**Obninsk**	**66.73**	**329**	⇓*i*P	**P**	**08 30 38.5**	**-1.5**
OBN				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
AKASG	**Malin Array Be**	**69.29**	**322**	P	**P**	**08 30 53.9**	**-2.2**
	comp=Z,2.1nm,0.5s,mb4.3,baz=88,slow=4.7,SNR=13						
AKASG				pP	pP	08 31 02.6	-1.5
	comp=Z,1.5nm,0.5s,baz=85,slow=5.2,SNR=5.3						
TIXI	**Tiksi**	**69.54**	**11**	*e*P	**P**	**08 30 56.1**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
KOLS	**Kolonicke sedl**	**73.24**	**319**	*e*P	**P**	**08 31 20.8**	**+1.0**
KOLS				*e*pP	pP	08 31 28.9	+1.0
SUW	**Suwalki**	**73.73**	**325**	*e*P	**P**	**08 31 22.2**	**-0.4**
FINES	**FINESS Array B**	**74.20**	**333**	P	**P**	**08 31 24.8**	**-0.4**
	comp=Z,4.6nm,0.6s,mb4.6,baz=101,slow=7.3,SNR=20						
FINES				pP	pP	08 31 33.9	+0.7
	comp=Z,2.6nm,0.5s,baz=105,slow=5.6,SNR=4.2						
KAF	**Kangasniemi**	**74.30**	**333**	*e*p	**P**	**08 31 24.3**	**-1.4**
	comp=Z,6.1nm,0.6s,mb4.7						
KAF	**Kangasniemi**	**74.30**	**333**	*e*P	**P**	**08 31 24.3**	**-1.4**
KAF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
KECS	**Kecovo**	**74.32**	**319**	*e*P	**P**	**08 31 25.3**	**-0.8**
VYHS	**Vyhne**	**75.41**	**319**	*i* P	**P**	**08 31 32.6**	**+0.2**
VYHS				*e*pP	pP	08 31 41.0	+0.5
ZST	**Bratislava**	**76.52**	**318**	*i* P	**P**	**08 31 39.4**	**+0.7**
ZST				*e*	pP	08 31 45.6	-1.1
KEV	**Kevo**	**76.58**	**341**	*e*p	**P**	**08 31 37.6**	**-1.0**
	comp=Z,9.5nm,0.7s,mb4.8						
KEV	**Kevo**	**76.58**	**341**	*e*P	**P**	**08 31 37.6**	**-1.0**
KEV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
ARCES	**ARCESS Array B**	**77.00**	**340**	P	**P**	**08 31 41.2**	**+0.3**
	comp=Z,4.3nm,0.5s,mb4.7,baz=96,slow=6.1,SNR=33						
DPC	**Dobruska-Polom**	**77.27**	**320**	*e*P	**P**	**08 31 44.0**	**+1.2**
KSP	**Ksiaz**	**77.35**	**321**	*e*P	**P**	**08 31 43.9**	**+0.7**
KSP	**Ksiaz**	**77.35**	**321**	*e*P	**P**	**08 31 44.2**	**+1.0**
UPC	**Upice**	**77.49**	**320**	*e*P	**P**	**08 31 45.0**	**+1.0**
GERES	**GERESS Array B**	**78.83**	**319**	P	**P**	**08 31 52.4**	**+1.0**
	comp=Z,3.2nm,0.7s,mb4.4,baz=90,slow=5.3,SNR=25						
GERES				pP	pP	08 32 00.1	+0.6
	comp=Z,2.3nm,0.8s,baz=90,slow=5.3,SNR=5.5						
KHC	**Kasperske Hory**	**78.93**	**319**	*e*P	**P**	**08 31 53.0**	**+1.0**
NB2	**NORSAR Subarra**	**81.17**	**331**	P	**P**	**08 32 02.4**	**-1.2**
	comp=Z,8.4nm,1.1s,mb4.6,baz=95,slow=5.3						
NB2	**NORSAR Subarra**	**81.17**	**331**	P	**P**	**08 32 02.4**	**-1.2**
NB2				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
NOA	**NORSAR Array B**	**81.17**	**331**	P	**P**	**08 32 03.0**	**-0.6**
	comp=Z,2.5nm,0.8s,mb4.2,baz=95,slow=5.4,SNR=4.1						
PDAR	**Pinedale Array**	**127.52**	**21**	PKP	PKPdf	08 38 54.6	-2.4
	comp=Z,1.7nm,1.1s,SNR=5.3						
TXAR	**Lajitas Array**	**141.58**	**24**	PKP	PKPdf	08 39 22.4	-1.1
	comp=Z,0.2nm,0.6s,baz=229,slow=0.1,SNR=6.3						

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*IDC **28** 08:24:43.9±1.1, 6.11N×94.82E, mb4.0/7, mb1 4.2/8, mb1mx4.0/17, mbtmp4.0/8, ML4.2/1, Error ellipse: s-maj=50.8km s-min=20.9km az=52.0*

ISC 28 08:24:47.5±0.9**, 6.2N**±0.1×**95.0E**±0.2**, h33**$^{\text{km}}$**, n9,** σ**0**$\overset{\text{s}}{.}$**46**/9**,** **mb4.0**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.77**	**17**	Pn	**P**	**08 27 49.3**	**-0.2**
	0.4nm,0.3s,baz=213,slow=14,SNR=5.3						
SONM	**Songino Array**	**42.61**	**11**	P	**P**	**08 32 42.8**	**+0.5**
	1.6nm,0.8s,mb3.8,baz=195,slow=7.9,SNR=6.8						
WRA	**Warramunga Arr**	**46.62**	**125**	P	**P**	**08 33 14.7**	**-0.1**
	0.4nm,0.4s,mb3.7,baz=301,slow=10.0,SNR=4.6						
ASAR	**Alice Springs**	**48.21**	**129**	P	**P**	**08 33 27.2**	**0.0**
	0.4nm,0.7s,mb3.5,baz=306,slow=6.1,SNR=4.1						
FINES	**FINESS Array B**	**74.57**	**332**	P	**P**	**08 36 24.0**	**-0.6**
	2.2nm,0.5s,mb4.4,baz=93,slow=5.4,SNR=18						
KAF	**Kangasniemi**	**74.65**	**333**	*e*p	**P**	**08 36 24.3**	**-0.8**
	2.2nm,0.4s,mb4.4						
ARCES	**ARCESS Array B**	**77.11**	**340**	P	**P**	**08 36 39.2**	**+0.2**
	1.2nm,0.6s,mb4.0,baz=96,slow=7.0,SNR=7.0						
GERES	**GERESS Array B**	**79.62**	**318**	P	**P**	**08 36 53.4**	**+0.2**
	1.1nm,0.6s,mb4.0,baz=88,slow=5.4,SNR=8.0						
NOA	**NORSAR Array B**	**81.58**	**331**	P	**P**	**08 37 04.0**	**+0.7**
	1.8nm,1.0s,mb4.0,baz=103,slow=5.1,SNR=3.0						

IDC 28 08:33:57.1±9.2**, 13.05N**×**92.39E, mb3.7**/2**, mb1 3.9**/3**, mb1mx3.5**/17**, mbtmp3.6**/3**, ML3.8**/1**, Error ellipse: s-maj=192.2km s-min=48.2km az=107.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.29**	**49**	Pn	P	08 35 58.3	-3.1
	0.3nm,0.3s,baz=238,slow=15,SNR=5.2						
WRA	**Warramunga Arr**	**52.72**	**128**	P	P	08 43 14.9	-1.3
	0.6nm,0.5s,baz=307,slow=8.1,SNR=6.6						
ASAR	**Alice Springs**	**54.59**	**132**	P	P	08 43 26.8	-3.1
	0.4nm,0.5s,baz=309,slow=6.6,SNR=7.5						

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*IDC **28** 08:37:23.8±1.4, 4.34N×95.93E, mb3.8/6, mb1 4.0/6, mb1mx3.8/16, mbtmp3.8/6, Error ellipse: s-maj=69.3km s-min=20.5km az=55.0*

ISC 28 08:37:21.6±1.7**, 3.9N**±0.6×**95.6E**±0.7**, n7,** σ**0**$\overset{\text{s}}{.}$**90**/7**,** **mb3.9**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.82**	**13**	Pn	**P**	**08 41 03.6**	**+9.2**
	0.3nm,0.3s,baz=210,slow=12,SNR=3.1						
SONM	**Songino Array**	**44.73**	**10**	P	**P**	**08 45 33.8**	**-4.5**
	1.3nm,0.9s,mb3.9,baz=196,slow=9.0,SNR=8.7						
WRA	**Warramunga Arr**	**44.88**	**123**	P	**P**	**08 45 41.3**	**+1.4**
	1.6nm,0.7s,mb4.1,baz=300,slow=9.0,SNR=8.6						
ASAR	**Alice Springs**	**46.34**	**128**	P	**P**	**08 45 51.2**	**-0.3**
	0.9nm,0.7s,mb3.9,baz=295,slow=7.7,SNR=11						
BVAR	**Borovoye Array**	**53.16**	**341**	P	**P**	**08 46 43.0**	**-0.5**
	0.8nm,0.5s,mb3.9,baz=162,slow=9.4,SNR=4.7						
STKA	**Stephens Creek**	**56.39**	**133**	P	**P**	**08 47 06.2**	**-1.1**
	1.7nm,0.8s,mb4.1,baz=321,slow=8.9,SNR=4.0						
GERES	**GERESS Array B**	**81.70**	**319**	P	**P**	**08 49 43.9**	**+0.6**
	0.2nm,0.5s,mb3.5,baz=135,slow=5.6,SNR=3.0						

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*IDC **28** 08:40:17.4±9.9, 30.12N×100.18E, mb3.8/2, mb1 4.2/3, mb1mx3.7/17, mbtmp3.9/3, ML4.0/1, Error ellipse: s-maj=213.5km s-min=71.3km az=128.0*

BJI 28 08:40:38.0, 26.35N×99.97E, h10$^{\text{km}}$**, ML3.6, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	**Kunming**	**2.78**	**115**	PG	Pg	08 41 26.0	-7.5
KMI				SG	Sg	08 42 02.8	-7.8
KMI				Smax			
	comp=N,279nm,1.0s						
KMI				Smax			
	comp=E,152nm,0.9s						
CMAR	**Chiang Mai Arr**	**7.91**	**187**	Pn	Pg	08 43 06.6	-9.4
	comp=E,0.3nm,0.3s,baz=0.3,slow=17,SNR=15						
WRA	**Warramunga Arr**	**56.83**	**141**	P	P	08 50 23.6	-1.8
	comp=E,0.3nm,0.4s,baz=328,slow=7.6,SNR=6.7						
ASAR	**Alice Springs**	**59.58**	**144**	P	P	08 50 42.7	-1.8
	comp=E,0.4nm,0.5s,baz=323,slow=6.5,SNR=7.2						

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*IDC **28** 08:42:51.0±8.9, 30.29N×100.99E, mb4.0/2, mb1 4.4/3, mb1mx3.7/15, mbtmp4.1/3, ML4.6/1, Error ellipse: s-maj=200.1km s-min=11.1km az=128.0*

BJI 28 08:43:12.2, 26.40N×100.01E, h15$^{\text{km}}$**, ML3.6, Ms3.5, Msz3.5, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	**Kunming**	**2.77**	**117**	PG	Pg	08 44 00.0	-7.6
KMI				SG	Sg	08 44 36.8	-7.7
KMI				Smax			
	comp=N,303nm,1.2s						
KMI				Smax			
	comp=E,188nm,1.2s						
CD2	**Chengdu**	**5.57**	**35**	P	Pn	08 44 33.8	-2.8
GYA	**Guiyang**	**5.97**	**88**	P	Pn	08 44 43.8	+1.6
GYA				S	Sn	08 45 54.5	+3.5
GYA				LR	LR		
	comp=N,280nm,7.5s						
GYA				LR	LR		
	comp=E,240nm,7.8s						
GYA				LR	LR		
	comp=Z,360nm,8.4s						
CMAR	**Chiang Mai Arr**	**7.97**	**187**	Pn	Pg	08 45 42.4	-8.8
	comp=Z,1.2nm,0.3s,baz=359,slow=17,SNR=10						
WRA	**Warramunga Arr**	**56.85**	**141**	P	P	08 52 54.0	-4.9
	comp=Z,1.9nm,0.7s,baz=328,slow=7.6,SNR=7.8						
ASAR	**Alice Springs**	**59.60**	**144**	P	P	08 53 15.2	-2.8
	comp=Z,0.8nm,0.5s,baz=324,slow=6.5,SNR=14						

BJI 28 08:44:07.0, 26.46N×99.82E, h16$^{\text{km}}$**, ML3.8, Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	**Kunming**	**2.95**	**116**	PG	Pn	08 44 55.5	+1.3
KMI				SG	Sn	08 45 32.3	+2.7
KMI				Smax			
	comp=N,471nm,1.2s						
KMI				Smax			
	comp=E,353nm,1.0s						
CD2	**Chengdu**	**5.62**	**37**	PG	Pn	08 45 51.0	+19

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*IDC **28** 08:44:11.3±3.8, 22.70N×94.67E, h112$^{\text{km}}$±33$^{\text{km}}$, mb3.8/7, mb1 3.9/8, mb1mx3.6/18, mbtmp4.1/8, MS2.6/1, Ms1 2.8/1, ms1mx2.5/20, Error ellipse: s-maj=113.1km s-min=14.5km az=53.0*

ISC 28 08:44:10.1±1.1**, 22.4N**±0.2×**94.1E**±0.2**, h127**$^{\text{km}}$±12$^{\text{km}}$**, n19,** σ**1**$\overset{\text{s}}{.}$**07**/21**, mb4.1**/7**, 1D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	**Shillong**	**3.81**	**328**	⇓*i*PN	**P**	**08 45 08.0**	**-0.2**
SHL				*e*SN	**S**	**08 45 43.0**	**-10**
CMAR	**Chiang Mai Arr**	**5.94**	**130**	P	**P**	**08 45 35.5**	**-1.3**
	0.6nm,0.3s,baz=311,slow=13,SNR=4.6						
CMAR				S	**S**	**08 46 37.4**	**-6.7**
	1.4nm,0.3s,baz=0.5,slow=17,SNR=10						
CMAR				LR	LR	08 48 14.4	
	comp=Z,54nm,18.7s,baz=35,slow=42						
GUN	**Gumba**	**9.31**	**308**	*e*P	**P**	**08 46 23.6**	**+1.4**
	73nm,0.2s						
GUN				*e*S	**S**	**08 48 04.1**	**-1.5**
PKI	**Pulchoki**	**9.48**	**305**	*e*P	**P**	**08 46 25.6**	**+1.2**
	44nm,0.2s						
KKN	**Kakani**	**9.69**	**306**	*e*P	**P**	**08 46 28.7**	**+1.4**
	41nm,0.3s						
DMN	**Daman**	**9.73**	**304**	*e*P	**P**	**08 46 28.8**	**+1.0**
	21nm,0.2s						
GKN	**Gorkha**	**10.28**	**305**	*e*P	**P**	**08 46 36.2**	**+1.0**
	171nm,0.3s						
GKN				*e*S	**S**	**08 48 28.4**	**-0.4**
KOLN	**Koldanda**	**10.97**	**302**	*e*P	**P**	**08 46 43.5**	**-0.9**
	40nm,0.3s						
KOLN				*e*S	**S**	**08 48 43.2**	**-2.0**
BVAR	**Borovoye Array**	**35.60**	**335**	P	**P**	**08 50 55.4**	**-1.6**
	0.7nm,0.3s,mb4.0,baz=130,slow=11,SNR=4.2						
BVAR				PcP	PcP	08 53 24.1	+0.7
	0.8nm,0.3s,baz=151,slow=3.8,SNR=5.0						
WRA	**Warramunga Arr**	**57.52**	**134**	P	**P**	**08 53 48.3**	**-0.4**
	1.7nm,0.3s,mb4.5,baz=321,slow=7.5,SNR=24						
ASAR	**Alice Springs**	**59.89**	**137**	P	**P**	**08 54 05.0**	**-0.1**
	1.4nm,0.5s,mb4.2,baz=321,slow=6.8,SNR=31						
FINES	**FINESS Array B**	**60.15**	**329**	P	**P**	**08 54 06.8**	**+0.5**
	1.0nm,0.4s,mb4.2,baz=104,slow=5.9,SNR=8.1						
ARCES	**ARCESS Array B**	**61.80**	**338**	P	**P**	**08 54 17.6**	**+0.2**
	1.1nm,0.4s,mb4.2,baz=100,slow=8.1,SNR=21						
NB2	**NORSAR Subarra**	**67.31**	**328**	P	**P**	**08 54 52.7**	**-0.3**
	0.8nm,0.5s,mb3.8,baz=85,slow=6.2						
NOA	**NORSAR Array B**	**67.31**	**328**	P	**P**	**08 54 53.0**	**0.0**
	1.2nm,0.7s,mb3.8,baz=123,slow=3.8,SNR=3.8						
GERES	**GERESS Array B**	**67.33**	**315**	P	**P**	**08 54 55.0**	**+1.6**
	2.1nm,1.0s,mb3.9,baz=76,slow=5.5,SNR=8.9						
TXAR	**Lajitas Array**	**125.83**	**19**	PKP	PKPdf	09 02 59.4	+2.0
	0.2nm,0.7s,baz=57,slow=1.8,SNR=3.9						
SDV	**Santo Domingo**	**145.56**	**333**	PKPbc	PKPbc	09 03 37.1	+2.3
	6.5nm,0.4s,baz=36,slow=2.6,SNR=23						
ROSC	**El Rosal**	**150.70**	**336**	PKPbc	PKPdf	09 03 50.1	+7.8
	8.1nm,0.7s,baz=78,slow=19,SNR=5.8						

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*IDC **28** 08:48:34.6±0.9, 8.59N×93.66E, mb4.1/10, mb1 4.2/11, mb1mx4.1/19, mbtmp4.1/11, ML3.6/1, MS3.9/1, Ms1 3.9/1, ms1mx3.2/15, Error ellipse: s-maj=34.5km s-min=20.4km az=54.0*

ISC 28 08:48:37.9±0.7**, 8.7N**±0.1×**93.8E**±0.1**, h33**$^{\text{km}}$**, n19,** σ**0**$\overset{\text{s}}{.}$**77**/18**, mb4.2**/12**, MS4.0**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.97**	**27**	Pn	**P**	**08 51 14.8**	**-0.8**
	0.1nm,0.3s,baz=222,slow=13,SNR=2.3						
PKI	**Pulchoki**	**20.39**	**338**	*e*P	**P**	**08 53 14.4**	**-0.3**
	117nm,1.5s						
GUN	**Gumba**	**20.54**	**340**	*e*P	**P**	**08 53 15.9**	**-0.3**
	79nm,1.1s						
DMN	**Daman**	**20.54**	**338**	*e*P	**P**	**08 53 16.9**	**+0.7**
	49nm,1.1s						
KKN	**Kakani**	**20.64**	**338**	*e*P	**P**	**08 53 16.2**	**-1.0**
	28nm,0.9s						
GKN	**Gorkha**	**21.07**	**337**	*e*P	**P**	**08 53 21.5**	**-0.2**
	45nm,0.8s,mb4.9						
KOLN	**Koldanda**	**21.29**	**335**	*e*P	**P**	**08 53 24.2**	**+0.4**
	82nm,1.3s,mb4.9						
SONM	**Songino Array**	**40.48**	**13**	P	**P**	**08 56 16.0**	**+0.8**
	1.3nm,0.9s,mb3.6,baz=198,slow=7.8,SNR=7.6						
NWAO	**Narrogin (SRO)**	**47.02**	**153**	P	**P**	**08 57 07.5**	**-0.6**
	12nm,1.0s,mb4.8,baz=330,slow=14,SNR=2.9						
WRA	**Warramunga Arr**	**49.03**	**126**	P	**P**	**08 57 24.0**	**0.0**
	0.8nm,0.5s,mb4.0,baz=303,slow=8.9,SNR=4.8						
KMBO	**Kilima Mbogo**	**57.13**	**263**	LR	LR	09 20 14.3	
	comp=Z,116nm,21.2s,MS4.0,baz=91,slow=33						
ASF	**Jabal al Asfar**	**57.47**	**303**	P	**P**	**08 58 26.9**	**+0.7**
	1.4nm,0.3s,mb4.5,baz=45,slow=2.9,SNR=3.7						
BRTR	**Keskin Array B**	**61.62**	**311**	P	**P**	**08 58 52.9**	**-1.9**
	1.1nm,0.6s,mb4.2,baz=112,slow=6.7,SNR=5.5						
FINES	**FINESS Array B**	**71.84**	**332**	P	**P**	**08 59 58.7**	**-0.3**
	5.6nm,1.1s,mb4.4,baz=90,slow=3.8,SNR=7.9						
ARCES	**ARCESS Array B**	**74.40**	**340**	P	**P**	**09 00 14.5**	**+0.6**
	3.4nm,0.9s,mb4.3,baz=112,slow=6.5,SNR=5.2						
GERES	**GERESS Array B**	**76.98**	**318**	P	**P**	**09 00 29.5**	**+0.4**
	0.7nm,0.8s,mb3.7,baz=76,slow=5.5,SNR=7.1						
NB2	**NORSAR Subarra**	**78.86**	**331**	P	**P**	**09 00 39.2**	**+0.1**
	0.8nm,0.5s,mb3.9,baz=98,slow=4.8						
NOA	**NORSAR Array B**	**78.86**	**331**	P	**P**	**09 00 40.1**	**+1.0**
	1.2nm,0.7s,mb4.0,baz=94,slow=5.1,SNR=3.3						
ILAR	**Eielson Array**	**94.16**	**22**	P	**P**	**09 01 55.4**	**+1.2**
	0.4nm,0.8s,mb3.9,baz=284,slow=3.7,SNR=4.9						

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*IDC **28** 08:49:54.7±0.9, 8.15N×93.83E, h25$^{\text{km}}$±3$^{\text{km}}$, mb3.9/10, mb1 4.0/11, mb1mx3.9/19, mbtmp4.0/11, ML4.5/1, Error ellipse: s-maj=35.4km s-min=18.5km az=47.0*

ISC 28 08:49:52.5±0.8**, 8.2N**±0.1×**93.8E**±0.1**, h25**$^{\text{km}}$**, (h26**$^{\text{km}}$±.2$^{\text{km}}$**:pP-P), n21,** σ**0**$\overset{\text{s}}{.}$**76**/19**, mb4.3**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.35**	**25**	Pn	**P**	**08 52 37.3**	**+1.0**
	1.0nm,0.3s,baz=215,slow=14,SNR=6.9						
PKI	**Pulchoki**	**20.87**	**339**	*e*P	**P**	**08 54 34.2**	**-1.1**
	30nm,0.7s						
DMN	**Daman**	**21.01**	**338**	*e*P	**P**	**08 54 36.4**	**-0.4**
	30nm,0.7s,mb4.7						
GUN	**Gumba**	**21.01**	**340**	*e*P	**P**	**08 54 36.1**	**-0.7**
	48nm,0.6s,mb5.0						
KKN	**Kakani**	**21.11**	**339**	*e*P	**P**	**08 54 37.2**	**-0.6**
	34nm,0.7s,mb4.8						
GKN	**Gorkha**	**21.54**	**337**	*e*P	**P**	**08 54 41.5**	**-0.7**
	47nm,0.6s,mb5.1						
KOLN	**Koldanda**	**21.75**	**335**	*e*P	**P**	**08 54 44.3**	**0.0**
	53nm,0.9s,mb5.0						
SONM	**Songino Array**	**40.92**	**13**	P	**P**	**08 57 34.7**	**+0.1**
	0.2nm,0.3s,mb3.2,baz=200,slow=9.3,SNR=2.4						
SONM				PcP	PcP	08 59 36.0	+0.6
	1.1nm,0.6s,baz=197,slow=2.3,SNR=6.2						
SONM				pPcP		08 59 45.0	
	1.5nm,0.9s,baz=214,slow=3.5,SNR=6.2						
BVAR	**Borovoye Array**	**48.60**	**341**	P	**P**	**08 58 36.0**	**0.0**
	0.6nm,0.5s,mb3.9,baz=164,slow=10,SNR=2.6						
BVAR				pP	pP	08 58 43.8	+0.2
	2.2nm,0.8s,baz=135,slow=8.4,SNR=5.2						
WRA	**Warramunga Arr**	**48.68**	**126**	P	**P**	**08 58 36.8**	**-0.3**
	0.8nm,0.5s,mb4.0,baz=305,slow=8.4,SNR=4.9						
ASAR	**Alice Springs**	**50.34**	**130**	P	**P**	**08 58 49.0**	**-0.8**
	0.8nm,0.9s,mb3.7,baz=309,slow=5.8,SNR=2.9						
BRTR	**Keskin Array B**	**62.00**	**311**	P	**P**	**09 00 12.5**	**-0.7**
	1.8nm,0.7s,mb4.3,baz=130,slow=6.4,SNR=6.5						
BRTR				pP	pP	09 00 20.4	-0.6
	3.1nm,0.7s,baz=119,slow=6.9,SNR=8.3						
MLR	**Muntele Rosu**	**68.74**	**316**	P	**P**	**09 00 57.5**	**+1.0**
	baz=23,slow=9.3						
FINES	**FINESS Array B**	**72.30**	**332**	P	**P**	**09 01 17.5**	**-0.3**
	1.0nm,0.4s,mb4.1,baz=91,slow=5.4,SNR=11						
FINES				pP	pP	09 01 25.8	+0.3
	3.9nm,0.8s,baz=90,slow=13,SNR=6.4						
ARCES	**ARCESS Array B**	**74.87**	**340**	P	**P**	**09 01 32.8**	**+0.3**
	6.8nm,1.0s,mb4.5,baz=100,slow=5.5,SNR=3.1						
ARCES				pP	pP	09 01 40.8	+0.4
	4.9nm,0.8s,baz=80,slow=7.4,SNR=3.5						
GERES	**GERESS Array B**	**77.40**	**318**	P	**P**	**09 01 48.8**	**+1.6**
	0.7nm,0.6s,mb3.8,baz=92,slow=5.8,SNR=5.8						
GERES				pP	pP	09 01 56.8	+1.8
	1.7nm,0.8s,baz=90,slow=4.0,SNR=6.9						
NB2	**NORSAR Subarra**	**79.31**	**331**	P	**P**	**09 01 57.7**	**+0.3**
	4.5nm,0.8s,mb4.5,baz=95,slow=5.0						
NOA	**NORSAR Array B**	**79.31**	**331**	P	**P**	**09 01 57.7**	**+0.3**
	1.4nm,0.6s,mb4.0,baz=95,slow=5.2,SNR=4.6						
DAVOX	**Davos**	**79.96**	**316**	P	**P**	**09 02 02.5**	**+1.4**
	1.5nm,0.5s,mb4.2,baz=165,slow=12,SNR=3.8						
PDAR	**Pinedale Array**	**124.98**	**21**	PKP	PKPdf	09 08 55.2	-0.5
	0.3nm,0.6s,baz=270,slow=1.5,SNR=3.6						
PDAR				pPKP		09 09 03.1	
	0.9nm,0.7s,baz=48,slow=1.1,SNR=6.2						
TXAR	**Lajitas Array**	**139.06**	**24**	pPKP		09 09 30.2	
	0.1nm,0.4s,baz=18,slow=3.1,SNR=3.1						

MAN 28 09:15:08.6, 8.32N×126.46E, h12$^{\text{km}}$**, mb3.8, ML2.6, MS2.2, 1C, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BUTP	**Butuan**	**1.05**	**308**	*e*P	Pb	09 15 30.1	+1.8
BUKP	**Musuan**	**1.45**	**252**	*e*P	Pn	09 15 34.1	-0.7
SCPH	**Surigao**	**1.74**	**327**	⇑*e*P	Pn	09 15 38.5	-0.5

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*NIED **28** 09:30:00, 37.30N×139.00E, h5$^{\text{km}}$, Mw4.7 Best double couple: $M_0$1.22×10^{16} NP1:ϕ_s219°, δ48°, λ102°. NP2:ϕ_s22°, δ43°, λ77°.*

*BJI **28** 09:30:33.1, 37.08N×139.54E, h35$^{\text{km}}$, mB5.0, mb4.7, Ms4.4, Msz4.1*

*IDC **28** 09:30:34.9±0.5, 37.32N×138.70E, mb4.7/18, mb1 4.8/21, mb1mx4.8/24, mbtmp4.7/21, ML4.2/3, MS4.0/9, Ms1 4.0/9, ms1mx3.6/28, Error ellipse: s-maj=18.5km s-min=12.7km az=86.0*

*JMA **28** 09:30:36.8, 37.32N×138.98E, h8$^{\text{km}}$±2$^{\text{km}}$, M5.0 Broadband fault plane solution: P waves. NP1:ϕ_s31°, δ47°, λ71°. NP2:ϕ_s239°, δ47°, λ109°. Principal axes: T Plg76°, Azm225°; N Plg14°, Azm45°; P Plg0°, Azm135°;*

*MOS **28** 09:30:38.9±1.0, 37.36N×138.76E, h33$^{\text{km}}$, mb5.4/45 Error ellipse: s-maj=10.7km s-min=5.5km az=111.5*

*NEIC **28** 09:30:40.2±0.7, 37.24N×138.79E, h36$^{\text{km}}$±6$^{\text{km}}$, mb5.2/59, MS4.2/8, MW4.7(NIED), Error ellipse: s-maj=7.2km s-min=4.6km az=177.0*

NEIC Recorded [5L JMA] in Niigata; [3 JMA] in Fukushima; [2 JMA] in Gumma, Nagano and Yamagata; [1 JMA] in Ibaraki, Ishikawa, Miyagi, Saitama, Tochigi and Tokyo Prefectures. Also recorded [2 JMA] on Sadoga-shima.

*HRVD **28** 09:30:40.2±0.7, 37.44N×138.92E, h12$^{\text{km}}$±1$^{\text{km}}$, MW4.8/47, Centroid moment Tensor Solution. LP body waves: s14,c17;Mantle waves: s47,c75; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}1.73±.18; $M_{\theta\theta}$-0.47±.11; $M_{\phi\phi}$-1.26±.11; $M_{r\theta}$-0.74±.33; $M_{\theta\phi}$-0.50±.07; $M_{\phi r}$-0.80±.31; Best double couple: $M_0$1.94×10^{16} NP1:ϕ_s19°, δ29°, λ77°. NP2:ϕ_s215°, δ62°, λ97°. Principal axes: T 2.08, Plg72°, Azm141°; N -.26, Plg6°, Azm31°; P -1.81, Plg17°, Azm299°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CSEM **28** 09:30:50.4, 39.29N×137.90E, h33$^{\text{km}}$, mb5.5*

ISC 28 09:30:35.3±0.1**, 37.37N**±0.01×**138.90E**±0.02**, h8**$^{\text{km}}$**, (h31**$^{\text{km}}$±2.1$^{\text{km}}$**:pP-P), n334,** σ**1**$\overset{\text{s}}{.}$**03**/356**, mb5.0**/94**, MS4.2**/21**, 42C-17D, Near west coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHK	**Hiroka**	**0.15**	**141**	⇓P	**Pg**	**09 30 38.8**	**+0.2**
JHK				S	**Sg**	**09 30 40.5**	**-0.3**
JIZZ	**Izumozaki**	**0.22**	**318**	⇓P	**Pg**	**09 30 43.3**	**+3.3**
JNS	**Sasagawa**	**0.56**	**36**	⇑P	**Pg**	**09 30 47.3**	**+0.8**
JNS				S	**Sg**	**09 30 54.8**	**+0.7**
JFY	**Yanaizu**	**0.64**	**86**	⇓P	**Pg**	**09 30 48.0**	**-0.2**
JFY				S	**Sg**	**09 30 55.8**	**-1.0**
JJN	**Nakama**	**0.64**	**246**	⇑P	**Pg**	**09 30 50.0**	**+1.8**
JJN				S	**Sg**	**09 30 59.9**	**+3.1**
JKT	**Katashina**	**0.66**	**155**	⇓P	**Pg**	**09 30 48.1**	**-0.4**
JKT				S	**Sg**	**09 30 56.0**	**-1.4**
JSD	**Sado**	**0.84**	**323**	⇓P	**Pb**	**09 30 52.8**	**+1.1**
JSD				S	**Sb**	**09 31 05.2**	**+2.3**
JSB	**Shiboa**	**0.91**	**116**	⇓P	**Pb**	**09 30 53.2**	**+0.4**
MAJO	**Matsushiro**	**0.99**	**214**	*e*P	**Pb**	**09 30 54.5**	**+0.2**
MAT	**Matsushiro**	**0.99**	**214**	P	**Pb**	**09 30 54.7**	**+0.4**
MAT				S	**Sb**	**09 31 07.5**	**+0.2**
MAT	**Matsushiro**	**0.99**	**214**	*e*P	**Pb**	**09 30 55.0**	**+0.7**
MAT				*e*S	**Sb**	**09 31 08.0**	**+0.7**
JAG	**Ashikaga**	**1.04**	**155**	⇓P	**Pb**	**09 30 55.2**	**+0.1**
JAG				S	**Sb**	**09 31 08.1**	**-0.6**
JAW	**Awa shima**	**1.12**	**14**	⇑P	**Pb**	**09 30 57.3**	**+0.8**
JAW				S	**Sb**	**09 31 13.4**	**+2.3**
JNG	**Nsakai**	**1.15**	**214**	⇑P	**Pb**	**09 30 57.5**	**+0.5**
JNG				S	**Sb**	**09 31 12.6**	**+0.7**
JFT	**Otama**	**1.15**	**82**	⇓P	**Pb**	**09 30 57.0**	**0.0**

JFT				S	Sb	09 31 12.1	+0.1
JSZ	**Suzu**	1.23	274	P	Pb	09 30 59.1	+0.8
JSZ				S	Sb	09 31 16.2	+2.1
JYS	**Shirataka**	1.26	47	⇑P	Pb	09 30 59.6	+0.8
JRY	**Ryogami san**	1.35	180	⇑P	Pb	09 31 00.2	-0.1
JRY				S	Sb	09 31 17.8	+0.2
JYA	**Atsumi**	1.38	27	⇑P	Pn	09 31 01.2	+0.2
JTT	**Ttatey**	1.47	239	⇑P	Pn	09 31 03.9	+1.8
JTT				S	Sb	09 31 25.2	+4.1
JHO	**Hitachi**	1.54	119	⇓P	Pn	09 31 02.8	-0.3
JHO				S	Sb	09 31 22.3	-0.7
ONAJ	**Iwakimizuishiy**	1.54	99	⇓P	Pn	09 31 03.3	+0.1
JFK	**Kawauchi**	1.57	89	⇓P	Pn	09 31 03.9	+0.2
JFK				S	Sb	09 31 24.1	-0.1
JMM	**Marumori**	1.58	71	P	Pn	09 31 04.2	+0.4
JMM				S	Sb	09 31 25.5	+1.0
JNT	**Takato**	1.61	203	⇑P	Pn	09 31 05.2	+1.0
JHG	**Hegura jima**	1.64	288	⇓P	Pn	09 31 05.3	+0.6
JHG				S	Sn	09 31 26.6	+0.4
JGN	**Niukaw**	1.71	229	⇑P	Pn	09 31 07.0	+1.4
JGN				S	Sn	09 31 31.9	+4.1
JOU	**Okura**	1.72	54	⇑P	Pn	09 31 06.6	+0.9
JOU				S	Sn	09 31 29.8	+1.8
JJH	**Hakui**	1.75	256	P	Pn	09 31 06.7	+0.5
JJH				S	Sn	09 31 30.0	+1.2
TOK	**Tokyo**	1.81	157	P	Pn	09 31 08.1	+1.0
JYN	**Shimob**	1.89	189	⇑P	Pn	09 31 09.1	+1.0
JYK	**Kaneyama**	1.93	36	⇑P	Pn	09 31 09.2	+0.4
JNY	**Yasuok**	2.17	203	⇑P	Pn	09 31 13.1	+0.9
JIO	**Ouri**	2.22	60	⇑P	Pn	09 31 13.5	+0.6
SHZ3	**Shizuoka 3**	2.36	194	P	Pn	09 31 17.2	+2.2
JGM	**Miyama**	2.42	227	⇑P	Pn	09 31 17.0	+1.2
JMK	**Ichinoseki**	2.42	48	⇑P	Pn	09 31 16.4	+0.6
JMK				S	Sn	09 31 49.9	+4.0
JRG	**Rokugo**	2.44	33	⇑P	Pn	09 31 16.9	+0.8
OFUJ	**Ofunato**	2.77	51	⇑P	Pn	09 31 21.7	+0.9
JOM	**Ohasama**	2.82	41	⇑P	Pn	09 31 22.3	+0.8
JAH	**Hinai**	3.13	25	P	Pn	09 31 26.5	+0.6
JKZ	**Kuzumaki**	3.23	35	P	Pn	09 31 28.2	+0.8
JHJ	**Hachijo jima 2**	4.30	170	Pn	Pn	09 31 43.2	+0.7
	84nm,0.3s,baz=199,slow=4.1,SNR=23						
JHJ				Sn	Sn	09 32 35.0	+1.6
	34nm,0.3s,baz=77,slow=22,SNR=5.9						
JHJ				LR	LR	09 33 16.3	
	comp=Z,1µm,18.4s,baz=8.7,slow=38						
JKD	**Kudamatsu**	6.60	242	P	Pn	09 32 17.1	+2.1
ASAJ	**Asahikawa**	7.30	21	Pn	Pn	09 32 26.1	+1.2
	1.7nm,0.3s,baz=202,slow=6.7,SNR=8.1						
ASAJ				LR	LR	09 35 05.8	
	comp=Z,149nm,21.7s,baz=326,slow=37						
YUK	**Yuzh-Kuril'sk**	8.50	36	P	P	09 32 37.8	-3.8
YUK				*e*S	Sn	09 34 17.5	-1.3
YUK				pmax	pmax		
	comp=N,190nm,0.5s						
YUK				pmax	pmax		
	comp=E,190nm,0.5s						
YUK				pmax	pmax		
	comp=Z,190nm,0.5s						
YUK				smax			
	comp=E,820nm,1.0s						
YUK				smax			
	comp=N,200nm,0.5s						
JZO	**Okuchi**	8.59	235	P	P	09 32 44.2	+1.3
KS15	**Wonju Array Si**	8.77	274	⇑*e*Pn	P	09 32 45.7	+0.4
YSS	**Yuzh-Sakhalins**	10.00	15	⇑*e*P	P	09 32 56.0	-6.2
YSS				pmax	pmax		
	comp=N,30nm,0.8s						
YSS				pmax	pmax		
	comp=Z,40nm,0.8s						
YSS				MLR	MLR		
	comp=Z,1µm,13.0s						
YSS				MLR	MLR		
	comp=N,500nm,10.0s						
YSS	**Yuzh-Sakhalins**	10.00	15	*e*P	P	09 33 02.0	-0.2
MDJ	**Mudanjiang**	10.09	319	P	P	09 33 07.5	+4.0
MDJ				AP		09 33 16.5	
MDJ				S	S	09 35 05.0	+6.9
MDJ				AMB	AMB		
	comp=Z,25nm,1.2s						
MDJ				AMB	AMB		
	comp=Z,187nm,7.6s						
MDJ				LR	LR		
	comp=N,325nm,14.5s						
MDJ				LR	LR		
	comp=E,770nm,12.6s						
MDJ				LR	LR		
	comp=Z,1µm,17.9s						
MDJ	**Mudanjiang**	10.09	319	P	P	09 33 03.7	+0.2
CBIJ	**Chichi jima**	10.61	164	Pn	P	09 33 07.4	-3.3
	comp=Z,9.7nm,0.3s,baz=300,slow=20,SNR=4.3						
CN2	**Changchun**	12.07	306	⇑P	P	09 33 33.5	+3.0
CN2				*e*XP		09 33 43.5	
CN2				*e*S	S	09 35 48.8	+2.4
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CN2				LR	LR		
	comp=N,1µm,12.0s						
CN2				LR	LR		
	comp=E,1µm,12.0s						
CN2				LR	LR		
	comp=Z,1µm,15.0s						
NJ2	**Nanjing**	17.30	258	*e*P	P	09 34 37.8	-1.0
NJ2				AP		09 34 45.5	
NJ2				XP		09 34 50.0	
NJ2				PP	PP	09 34 52.3	-1.0
NJ2				PPP	PPP	09 34 59.0	-2.6
NJ2				S	S	09 37 47.0	-3.0
NJ2				AMB	AMB		
	comp=Z,30nm,1.3s						
NJ2				AMB	AMB		
	comp=Z,2µm,4.2s						
NJ2				LR	LR		
	comp=N,760nm,16.0s						
NJ2				LR	LR		
	comp=E,1µm,14.0s						
BJI	**Beijing**	17.93	286	P	P	09 34 47.3	+0.8
BJI				AMB	AMB		
	comp=Z,37nm,1.5s						
BJI				LR	LR		
	comp=N,419nm,14.1s						
BJI				LR	LR		
	comp=E,379nm,12.0s						
BJI				LR	LR		
	comp=Z,465nm,28.9s						
BJT	**Baijiatuau**	17.93	285	*e*P	P	09 34 47.8	+1.2
BJT				pmax	pmax		
	comp=Z,44nm,1.0s						
BJT	**Baijiatuau**	17.93	285	*e*P	P	09 34 47.8	+1.2
	comp=Z,44nm,1.0s						
HIA	**Hailar**	18.26	317	*e*P	P	09 34 50.8	+0.1
HIA				pmax	pmax		
	comp=Z,15nm,0.8s						
HIA	**Hailar**	18.26	317	*e*P	P	09 34 50.8	+0.2
	comp=Z,15nm,0.8s						
WHN	**Wuhan**	21.44	259	P	P	09 35 27.0	+1.0
HHC	**Hu-ho-hao-te**	21.46	288	*e*P	P	09 35 31.5	+5.4
HHC				AP		09 35 38.5	
HHC				XP		09 35 42.0	
HHC				PCP	PcP	09 39 26.5	-3.2
HHC				SCP		09 43 00.5	
HHC				AMB	AMB		
	comp=Z,16nm,0.5s,mb4.6						
HHC				AMB	AMB		
	comp=Z,149nm,4.5s						
HHC				LR	LR		
	comp=N,334nm,11.4s,MS4.0						
HHC				LR	LR		
	comp=E,265nm,15.5s,MS4.0						
HHC				LR	LR		
	comp=Z,241nm,16.7s,MS3.7						
MA2	**Magadan**	23.50	15	*e*P	P	09 35 45.2	-0.9
MA2				*e*		09 36 24.5	
MA2				*e*S	S	09 39 55.8	-0.4
MA2				pmax	pmax		
	comp=Z,20nm,1.1s,mb4.5						
MA2	**Magadan**	23.50	15	*e*P	P	09 35 45.6	-0.5
	comp=Z,32nm,0.9s,mb4.8						
YAK	**Yakutsk**	25.35	350	*e*P	P	09 36 04.3	+0.4
YAK				*e*S	S	09 40 32.8	+5.2
YAK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.2						
YAK				pmax	pmax		
	comp=N,8.0nm,1.1s						
YAK				smax			
	comp=N,4.0nm,1.2s						
YAK				smax			
	comp=E,3.0nm,1.0s						
ENH	**Enshi**	25.37	263	*e*P	P	09 36 01.8	-2.6
	comp=E,54nm,0.9s,mb5.1						
ENH				LR	LR		
	comp=Z,421nm,22.0s,MS3.9						
ULN	**Ulaanbaatar**	25.51	304	⇑*e*P	P	09 36 04.4	-1.1
ULN				*e*		09 39 36.4	
ULN				pmax	pmax		
	comp=Z,28nm,1.1s,mb4.7						
ULN				MLR	MLR		
	comp=Z,348nm,20.0s,MS3.9						
ULN	**Ulaanbaatar**	25.51	304	⇑*e*P	P	09 36 04.4	-1.2
	comp=Z,28nm,1.1s,mb4.7						
ULN				*e*PcP	PcP	09 39 36.4	-1.5
ULN				LR	LR		
	comp=Z,348nm,20.0s,MS3.9						
SONM	**Songino Array**	25.94	304	P	P	09 36 08.3	-1.2
	comp=Z,12nm,0.9s,mb4.4,baz=100,slow=7.5,SNR=45						
SONM				PcP	PcP	09 39 38.2	-0.7
	comp=Z,1.4nm,0.9s,baz=270,slow=1.2,SNR=4.1						
SONM				LR	LR	09 46 41.2	
	comp=Z,434nm,18.8s,MS4.0,baz=12,slow=37						
BOD	**Bodaibo**	26.20	329	*e*P	P	09 36 10.1	-1.7
LZH	**Lanzhou**	28.03	278	*e*P	P	09 36 27.0	-1.8
LZH				PP	PP	09 37 20.0	+1.3
LZH				S	S	09 41 13.0	+1.1
LZH				XS		09 41 29.3	
LZH				AMB	AMB		
	comp=Z,42nm,1.7s,mb4.8						
LZH				AMB	AMB		
	comp=Z,140nm,4.2s						
LZH				LR	LR		
	comp=E,1µm,13.8s						
LZH				LR	LR		
	comp=Z,2µm,16.3s,MS4.7						
ZAK	**Zakamensk**	28.49	309	*e*P	P	09 36 30.3	-2.5
GYA	**Guiyang**	29.31	258	⇑*i*P	P	09 36 38.5	-2.0
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
GTA	**Gaotai**	30.55	286	*e*P	P	09 36 48.8	-2.5
GTA				AP	pP	09 36 58.0	+4.4
GTA				XP	sP	09 37 02.3	+7.6
GTA				PCP	PcP	09 39 49.8	-0.4
GTA				AMB	AMB		
	comp=Z,50nm,5.3s						
GTA				LR	LR		
	comp=N,193nm,14.4s,MS4.2						
GTA				LR	LR		
	comp=E,303nm,14.8s,MS4.2						
GTA				LR	LR		
	comp=Z,339nm,19.4s,MS4.0						
KMI	**Kunming**	33.04	259	P	P	09 37 14.3	+1.0
KMI				S	S	09 42 28.8	-2.3
KMI				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
KMI				LR	LR		
	comp=N,314nm,11.9s,MS4.4						
KMI				LR	LR		
	comp=E,484nm,16.4s,MS4.4						
KMI				LR	LR		
	comp=Z,371nm,15.8s,MS4.2						
BILL	**Bilibino**	34.30	18	⇓*i*P	P	09 37 21.2	-2.6
BILL				pmax	pmax		
	comp=Z,10.0nm,1.5s,mb4.5						
TIXI	**Tiksi**	34.74	354	*e*P	P	09 37 25.6	-2.0
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
TIXI				MLR	MLR		
	comp=Z,244nm,16.0s,MS4.0						
WMQ	**Urumqi**	38.90	296	P	P	09 38 03.0	+0.1
WMQ				AP	pP	09 38 12.8	+7.6
WMQ				XP	sP	09 38 17.3	+11
WMQ				PP	PP	09 39 36.5	+0.7
WMQ				PPP	PPP	09 39 59.3	+0.5
WMQ				S	S	09 43 58.0	-2.8
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.5s,mb4.5						
WMQ				AMB	AMB		
	comp=Z,41nm,6.5s						
WMQ				LR	LR		
	comp=N,180nm,21.8s,MS4.0						
WMQ				LR	LR		
	comp=E,165nm,20.1s,MS4.0						
WMQ				LR	LR		
	comp=Z,250nm,21.5s,MS4.0						
CMAR	**Chiang Mai Arr**	39.66	253	PcP	PcP	09 40 16.4	-0.6
	comp=Z,1.3nm,0.4s,baz=27,slow=2.2,SNR=8.7						
ANM	**Nome**	42.37	32	*e*P	P	09 38 32.6	+1.5
GUN	**Gumba**	45.13	274	*e*P	P	09 38 53.4	-0.6
	comp=Z,41nm,0.9s,mb5.2						
KKN	**Kakani**	45.66	274	*e*P	P	09 38 56.8	-1.4
	comp=Z,31nm,1.0s,mb5.2						
GKN	**Gorkha**	46.07	275	*e*P	P	09 39 00.4	-1.1
	comp=Z,53nm,1.1s,mb5.4						
KOLN	**Koldanda**	47.00	275	*e*P	P	09 39 07.9	-0.9
	comp=Z,12nm,0.8s,mb4.9						
PMG	**Port Moresby**	47.16	169	LR	LR	09 57 19.0	
	comp=Z,141nm,18.0s,MS4.0,baz=124,slow=34						
IMA	**Indian Mountai**	47.43	31	*e*P	P	09 39 12.4	+0.7
IMA				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
IMA	**Indian Mountai**	47.43	31	*e*P	P	09 39 12.4	+0.7
	comp=Z,7.3nm,0.9s,mb4.6						
RSO	**Redoubt South**	47.89	38	*e*P	P	09 39 15.0	-0.3
KSH	**Kashi**	48.43	293	P	P	09 39 19.3	-0.6
KSH				AP	pP	09 39 28.5	+6.2
KSH				*e*XP	sP	09 39 34.0	+11
KSH				*e*PP	PP	09 41 10.0	-2.3
KSH				*e*S	S	09 46 14.5	-5.2
KSH				*e*SCS	ScS	09 49 09.8	-0.5
KSH				AMB	AMB		
	comp=Z,90nm,4.3s						
KSH				LR	LR		
	comp=N,350nm,5.3s						
KSH				LR	LR		
	comp=E,350nm,6.0s						
AAK	**Ala-Archa**	48.56	297	*e*P	P	09 39 18.1	-2.7
AAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
AAK	**Ala-Archa**	48.56	297	*e*P	P	09 39 19.1	-1.7
	comp=Z,3.3nm,0.7s,mb4.5						
AAK				LR	LR		
	comp=Z,183nm,22.0s,MS4.0						
CHKZ	**Chkalovo**	48.62	313	⇑*e*P	P	09 39 19.1	-2.0
CHKZ				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1						
CHKZ	**Chkalovo**	48.62	313	⇑*e*P	P	09 39 19.1	-1.9
	comp=Z,15nm,0.7s,mb5.1						
BRVK	**Borovoye**	48.92	312	*e*P	P	09 39 22.0	-1.4
BRVK				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
BRVK	**Borovoye**	48.92	312	*e*P	P	09 39 22.0	-1.4
	comp=Z,16nm,1.0s,mb5.0						
COLA	**College**	49.87	32	⇑*i*P	P	09 39 29.2	-1.4
ILAR	**Eielson Array**	50.29	32	P	P	09 39 33.0	-0.8
	comp=Z,2.9nm,0.7s,mb4.4,baz=277,slow=6.2,SNR=28						
ILAR				LR	LR	10 01 52.6	
	comp=Z,95nm,18.1s,MS3.8,baz=176,slow=37						
NDI	**New Delhi**	51.64	279	*e*	P	09 39 41.5	-3.0
SVE	**Sverdlovsk**	53.56	318	⇑*e*P	P	09 39 58.0	-0.5
SVE				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.3						
ARU	**Arti**	54.78	318	⇑*i*P	P	09 40 04.3	-3.1
ARU				*e*		09 41 03.3	
ARU				*e*		09 42 04.9	
ARU				*e*S	S	09 47 44.7	-1.8
ARU				*e*SS	SS	09 51 32.0	+2.6
ARU				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.5						
ARU	**Arti**	54.78	318	*e*P	P	09 40 06.1	-1.3
	comp=Z,53nm,0.9s,mb5.6						
SOKR	**Solikamsk**	54.84	322	⇑*i*P	P	09 40 05.2	-2.6
SOKR				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,230nm,19.0s,MS4.3						
WRAB	**Tennant Creek**	57.15	185	*e*P	P	09 40 21.9	-3.1
WRAB				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.2						
WRAB	**Tennant Creek**	57.15	185	*e*P	P	09 40 21.9	-3.1
	comp=Z,24nm,0.9s,mb5.2						
WRA	**Warramunga Arr**	57.16	185	P	P	09 40 22.3	-2.8
	comp=Z,4.0nm,0.5s,mb4.8,baz=0.6,slow=7.6,SNR=44						
WRA				PcP	PcP	09 41 18.6	-1.0
	comp=Z,3.2nm,0.8s,baz=357,slow=4.0,SNR=4.8						
ASAR	**Alice Springs**	60.89	185	P	P	09 40 48.7	-2.1
	comp=Z,2.2nm,0.7s,mb4.4,baz=14,slow=6.7,SNR=17						
ARCES	**ARCESS Array B**	62.97	339	P	P	09 41 01.8	-2.4
	comp=Z,17nm,1.0s,mb5.1,baz=45,slow=6.9,SNR=11						
YKA	**Yellowknife Ar**	64.52	30	P	P	09 41 13.0	-1.3
	comp=Z,1.1nm,0.8s,mb4.0,baz=304,slow=6.5,SNR=24						
OBN	**Obninsk**	66.62	322	⇑*e*P	P	09 41 24.9	-3.0
OBN				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.3						
KAF	**Kangasniemi**	67.08	332	*e*p	P	09 41 25.7	-5.1
	comp=Z,14nm,0.7s,mb5.1						
KAF	**Kangasniemi**	67.08	332	*e*P	P	09 41 25.7	-5.1
KAF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.1						
VRSR	**Storozhevoye**	67.34	318	*e*P	P	09 41 31.3	-1.3
VRSR				*e*		09 42 01.1	
VRSR				*e*S	S	09 50 23.5	-3.2
VRSR				*e*		09 50 40.9	
VRSR				*e*		09 51 26.9	
VRSR				pmax	pmax		
	comp=N,30nm,0.7s						
VRSR				pmax	pmax		
	comp=E,20nm,0.7s						
VRSR				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.6						
VRSR				smax			
	comp=N,9.0nm,1.1s						
VRSR				smax			
	comp=Z,3.0nm,1.4s						
VRSR				smax			
	comp=E,5.0nm,0.9s						
FINES	**FINESS Array B**	67.58	331	P	P	09 41 32.5	-1.4
	comp=E,21nm,0.8s,mb5.2,baz=63,slow=8.5,SNR=49						
FINES				PP	PP	09 44 02.2	-2.5
	comp=E,4.0nm,0.9s,slow=5.6,SNR=3.6						
FINES				LR	LR	10 15 37.8	
	comp=E,155nm,18.7s,MS4.3,baz=165,slow=40						
GOF	**Gofitskoye**	68.37	311	⇑*i*P	P	09 41 37.6	-1.6
GOF				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.2						
JCW	**Jim Creek**	68.64	45	P	P	09 41 41.2	+0.4
STKA	**Stephens Creek**	68.93	178	P	P	09 41 40.9	-1.9
	comp=Z,6.2nm,1.1s,mb4.5,baz=286,slow=6.2,SNR=4.1						
ZEI	**Tsey**	69.04	308	*e*P	P	09 41 41.1	-2.2
ZEI				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.5						
TI2	**Plekhanov**	69.05	307	*e*P	P	09 41 43.0	-0.4
VSU	**Vasula**	69.14	329	⇓*i*P	P	09 41 41.9	-1.8
KIV	**Kislovodsk**	69.16	310	P	P	09 41 43.3	-0.8
	comp=Z,244nm,1.1s,mb6.0,SNR=9.5						
KIV	**Kislovodsk**	69.16	310	⇓*i*P	P	09 41 43.0	-1.1
KIV				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
KIV	**Kislovodsk**	69.16	310	*e*P	P	09 41 42.9	-1.2
	comp=Z,49nm,1.0s,mb5.4						
KIV				LR	LR		
	comp=Z,38nm,19.0s,MS3.7						
ETW	**Entiat**	69.87	45	P	P	09 41 48.6	+0.3
GNI	**Garni**	69.89	305	*e*P	P	09 41 47.6	-1.0
GNI				pmax	pmax		
	comp=Z,42nm,1.6s						
GNI	**Garni**	69.89	305	LR	LR	10 15 46.4	
	comp=Z,145nm,20.5s,MS4.2,baz=57,slow=39						
GNI	**Garni**	69.89	305	*e*P	P	09 41 48.4	-0.1
	comp=Z,31nm,1.1s,mb5.1						
GNI				LR	LR		
	comp=Z,221nm,21.0s,MS4.4						
WTV	**Waterville**	70.03	45	P	P	09 41 49.2	0.0
EBG	**Ellensburg**	70.12	46	P	P	09 41 50.5	+0.6
VLL	**Laurance Lake**	70.27	48	P	P	09 41 51.6	+0.8
SUMG	**Summit**	70.34	359	*e*P	P	09 41 49.9	-0.9
	comp=Z,39nm,1.1s,mb5.2						
VFP	**Flag Point**	70.48	48	P	P	09 41 52.8	+0.7
IRO	**Indian Ridge**	70.73	49	P	P	09 41 54.4	+0.7
OD2	**Odessa Site #2**	70.90	45	P	P	09 41 54.5	-0.1
SOC	**Sochi**	71.17	311	*e*P	P	09 41 52.1	-4.2
SOC				*e*		09 42 22.8	
SOC				*e*S	S	09 51 07.5	-4.6
SOC				*e*		09 51 49.7	
SOC				*e*SS	SS	09 55 49.5	+1.8
SOC				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.1						
SOC				pmax	pmax		
	comp=E,22nm,1.1s						
NEW	**Newport**	71.28	43	*e*P	P	09 41 56.6	-0.3
NEW				pmax	pmax		
	comp=Z,12nm,0.8s						
NEW	**Newport**	71.28	43	*e*P	P	09 41 56.6	-0.3
	comp=Z,12nm,0.8s,mb4.9						
YBH	**Yreka Blue Hor**	71.72	51	P	P	09 42 00.4	+0.8
	comp=Z,4.7nm,0.8s,mb4.5,baz=307,slow=2.9,SNR=12						
LTIM	**Timbered Crate**	72.79	51	P	P	09 42 06.9	+0.9
AKASG	**Malin Array Be**	72.80	321	P	P	09 42 04.0	-1.8
	comp=Z,21nm,0.8s,mb5.1,baz=47,slow=6.1,SNR=67						
LBCM	**Butte Creek Ri**	73.07	51	P	P	09 42 08.3	+0.8
NB2	**NORSAR Subarra**	73.09	336	P	P	09 42 06.4	-0.9
	comp=Z,35nm,1.0s,mb5.2,baz=41,slow=6.2						
NB2	**NORSAR Subarra**	73.09	336	P	P	09 42 06.4	-0.9
	baz=40,slow=6.2						
NB2	**NORSAR Subarra**	73.09	336	P	P	09 42 06.4	-0.9
NB2				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.2						
NOA	**NORSAR Array B**	73.09	336	P	P	09 42 06.5	-0.9
	comp=Z,18nm,0.9s,mb5.0,baz=40,slow=5.9,SNR=30						
NOA				LR	LR	10 18 03.7	
	comp=Z,126nm,19.3s,MS4.2,baz=30,slow=39						
BMO	**Blue Mountains**	73.16	46	*e*P	P	09 42 07.9	-0.1
	comp=Z,15nm,0.9s,mb4.9						
BMO				LR	LR		
	comp=Z,277nm,19.0s,MS4.6						
SUW	**Suwalki**	73.51	326	*e*P	P	09 42 08.2	-1.7
SIM	**Simferopol'**	73.67	314	*ce*P	P	09 42 10.4	-0.6
SIM				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
OHCM	**Honcut**	73.84	53	*e*P	P	09 42 11.2	-1.0
QRN	**Al-Qurain**	73.91	294	*e*P	P	09 42 11.8	-0.9
RDF	**Al-Radifah**	74.08	294	*e*P	P	09 42 13.6	-0.1
RDF				AMb	AMB	09 42 15.8	
	comp=Z,136nm,1.1s,mb5.8						
RST	**Umm Al-Ruwaisa**	74.16	295	*e*P	P	09 42 12.9	-1.2
RST				AMb	AMB	09 42 15.6	
	comp=Z,41nm,1.2s,mb5.2						
CHMT	**Chamberlain Mo**	74.18	43	*e*P	P	09 42 12.9	-1.1
MALT	**Malatya**	74.98	307	*e*P	P	09 42 18.6	-0.1
MALT				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
MALT	**Malatya**	74.98	307	*e*P	P	09 42 18.6	-0.2
	comp=Z,16nm,1.2s,mb4.8						
HRY	**Holter Researc**	75.08	42	*e*P	P	09 42 19.7	+0.6
CMB	**Columbia Colle**	75.30	53	*e*P	P	09 42 20.3	-0.3
CMB				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
CMB	**Columbia Colle**	75.30	53	*e*P	P	09 42 20.3	-0.2
	comp=Z,16nm,0.8s,mb5.0						
BOYT	**Boyabat**	75.32	311	*i* P	P	09 42 18.5	-2.1
HLID	**Hailey**	75.60	46	*e*P	P	09 42 22.4	+0.2
	comp=Z,9.3nm,0.9s,mb4.7						
BMN	**Battle Mountai**	75.85	50	*e*P	P	09 42 23.2	-0.5
BMN				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
BMN	**Battle Mountai**	75.85	50	*e*P	P	09 42 23.2	-0.4
	comp=Z,18nm,0.9s,mb5.0						
BOZ	**Bozeman (W)**	75.85	43	⇑*e*P	P	09 42 24.0	+0.4
BOZ				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
BOZ				MLR	MLR		
	comp=Z,557nm,19.0s,MS4.9						
BOZ	**Bozeman (W)**	75.85	43	⇑*e*P	P	09 42 24.0	+0.4
	comp=Z,17nm,0.8s,mb5.0						
BOZ				LR	LR		
	comp=Z,557nm,19.0s,MS4.9						
GZT	**Gaziantep**	76.09	306	*i* P	P	09 42 25.1	0.0
BALT	**Daday**	76.16	312	*i* P	P	09 42 25.4	0.0
NVAR	**Mina Array Bea**	76.38	52	P	P	09 42 27.4	+0.7
	comp=Z,13nm,0.8s,mb4.9,baz=282,slow=7.1,SNR=21						
MNV	**Mina**	76.47	52	*e*P	P	09 42 27.6	+0.4
MNV				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
MNV	**Mina**	76.47	52	*e*P	P	09 42 27.6	+0.4
	comp=Z,15nm,1.0s,mb4.9						
KWP	**Kalwaria**	76.68	323	*e*P	P	09 42 28.3	+0.2
ELDT	**Eldivan**	76.78	311	*i* P	P	09 42 29.1	+0.2
ELK	**Elko**	76.85	49	*e*P	P	09 42 29.5	+0.2
ELK				pmax	pmax		
	comp=Z,7.0nm,0.8s						

ELK	**Elko**	**76.85**	**49**	*e*P	**P**	**09 42 29.5**	**+0.2**
	comp=Z,6.7nm,0.8s,mb4.6						
MTUM	**Tungsten Hills**	**76.86**	**53**	*e*P	**P**	**09 42 30.2**	**+0.8**
AVNT	**Avonos**	**76.95**	**309**	*i* P	**P**	**09 42 29.8**	**0.0**
YFT	**Old Faithful**	**77.05**	**44**	*e*P	**P**	**09 42 32.9**	**+2.6**
BRTR	**Keskin Array B**	**77.12**	**310**	P	**P**	**09 42 30.9**	**+0.2**
	comp=Z,13nm,0.9s,mb4.8,baz=90,slow=4.9,SNR=48						
VRI	**Vrincioaia**	**77.16**	**318**	P	**P**	**09 42 32.2**	**+1.3**
LKWY	**Lake**	**77.22**	**43**	*e*P	**P**	**09 42 33.6**	**+2.4**
LKWY				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
LKWY	**Lake**	**77.22**	**43**	*e*P	**P**	**09 42 33.5**	**+2.3**
	comp=Z,25nm,1.0s,mb5.1						
TPH	**Tonopah**	**77.27**	**52**	*e*P	**P**	**09 42 31.7**	**0.0**
TPH				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
TPH	**Tonopah**	**77.27**	**52**	*e*P	**P**	**09 42 31.7**	**0.0**
	comp=Z,29nm,0.9s,mb5.2						
IMW	**Indian Meadow**	**77.35**	**44**	*e*P	**P**	**09 42 33.4**	**+1.4**
KOLS	**Kolonicke sedl**	**77.36**	**323**	*i* P	**P**	**09 42 31.8**	**-0.1**
COBT	**Iskenderun**	**77.43**	**306**	*i* P	**P**	**09 42 33.1**	**+0.5**
SGKT	**Sivrigoynuk**	**77.55**	**312**	*i* P	**P**	**09 42 33.2**	**+0.1**
TPAW	**Teton Pass**	**77.60**	**44**	*e*P	**P**	**09 42 33.9**	**+0.5**
OJC	**Ojcow**	**77.63**	**325**	*e*P	**P**	**09 42 33.5**	**+0.1**
LOHW	**Long Hollow**	**77.72**	**44**	*e*P	**P**	**09 42 34.7**	**+0.7**
SNOW	**Snow King Moun**	**77.73**	**44**	*e*P	**P**	**09 42 34.5**	**+0.4**
REDW	**Red Top Meadow**	**77.74**	**44**	*e*P	**P**	**09 42 34.9**	**+0.8**
CRVS	**Cervenica-Dubn**	**77.77**	**323**	*e*P	**P**	**09 42 35.6**	**+1.4**
DGMT	**Dagmar**	**77.81**	**37**	*e*P	**P**	**09 42 32.6**	**-1.8**
	comp=Z,27nm,1.1s,mb5.1						
DGMT				LR	LR		
	comp=Z,486nm,21.0s,MS4.8						
MLR	**Muntele Rosu**	**77.82**	**318**	P	**P**	**09 42 35.0**	**+0.5**
NIE	**Niedzica**	**77.95**	**324**	*e*P	**P**	**09 42 35.7**	**+0.5**
AHID	**Auburn Hatcher**	**77.99**	**45**	*e*P	**P**	**09 42 35.9**	**+0.4**
	comp=Z,11nm,0.8s,mb4.8						
HENT	**Hendek**	**78.07**	**312**	*i* P	**P**	**09 42 30.4**	**-5.6**
HWUT	**Hardware Ranch**	**78.47**	**46**	*e*P	**P**	**09 42 39.0**	**+0.8**
	comp=Z,21nm,1.1s,mb5.0						
KECS	**Kecovo**	**78.53**	**323**	*e*P	**P**	**09 42 38.4**	**+0.1**
TPNV	**Topopah Spring**	**78.58**	**52**	*e*P	**P**	**09 42 38.7**	**-0.1**
TPNV				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
TPNV	**Topopah Spring**	**78.58**	**52**	*e*P	**P**	**09 42 38.7**	**-0.2**
	comp=Z,25nm,0.9s,mb5.1						
MZLS	**Mizel**	**78.59**	**291**	P	**P**	**09 42 39.0**	**-0.2**
OKC	**Ostrava-Krasne**	**78.65**	**325**	*e*P	**P**	**09 42 39.4**	**+0.4**
KSP	**Ksiaz**	**78.75**	**327**	⇑*e*P	**P**	**09 42 39.6**	**+0.1**
KSP	**Ksiaz**	**78.75**	**327**	*e*P	**P**	**09 42 39.6**	**+0.1**
BSEG	**Bad Segeberg**	**78.84**	**332**	*e*P	**P**	**09 42 40.1**	**+0.2**
PDAR	**Pinedale Array**	**78.85**	**44**	P	**P**	**09 42 40.7**	**+0.5**
	comp=Z,11nm,0.9s,mb4.8,baz=283,slow=2.3,SNR=45						
ESKT	**Eskisehir**	**78.93**	**311**	*i* P	**P**	**09 42 39.6**	**-1.1**
ARSS	**Ar Rass**	**78.96**	**294**	P	**P**	**09 42 40.9**	**-0.3**
MORC	**Moravsky Berou**	**78.97**	**326**	P	**P**	**09 42 41.0**	**+0.3**
MORC	**Moravsky Berou**	**78.97**	**326**	*e*P	**P**	**09 42 40.5**	**-0.2**
	comp=Z,30nm,1.1s,mb5.1						
DPC	**Dobruska-Polom**	**79.09**	**327**	*e*P	**P**	**09 42 41.8**	**+0.4**
UPC	**Upice**	**79.11**	**327**	*e*P	**P**	**09 42 41.7**	**+0.2**
HILS	**Ha’il**	**79.12**	**296**	P	**P**	**09 42 42.5**	**+0.5**
PSZ	**Piszkesteto**	**79.21**	**323**	⇓*e*P	**P**	**09 42 42.7**	**+0.6**
NLU	**North Lily Min**	**79.23**	**48**	*e*P	**P**	**09 42 42.9**	**+0.5**
VYHS	**Vyhne**	**79.30**	**324**	*e*P	**P**	**09 42 43.1**	**+0.6**
MPU	**Maple Canyon**	**79.45**	**47**	*e*P	**P**	**09 42 44.2**	**+0.6**
ULDT	**Uludag**	**79.54**	**313**	*i* P	**P**	**09 42 44.2**	**+0.2**
BRG	**Berggiesshubel**	**79.73**	**328**	*i* P	**P**	**09 42 44.9**	**+0.1**
BRG				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
BRG	**Berggiesshubel**	**79.73**	**328**	*i* P	**P**	**09 42 44.9**	**+0.1**
	comp=Z,24nm,1.2s,mb5.0						
VRAC	**Vranov**	**79.73**	**326**	P	**P**	**09 42 45.7**	**+0.8**
ARUT	**Antelope Range**	**79.79**	**50**	*e*P	**P**	**09 42 46.1**	**+0.7**
CLL	**Collm**	**79.79**	**329**	⇑*i*P	**P**	**09 42 44.5**	**-0.7**
CLL				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
CLL	**Collm**	**79.79**	**329**	⇑*i*P	**P**	**09 42 44.5**	**-0.7**
	comp=Z,25nm,1.0s,mb5.1						
CLL	**Collm**	**79.79**	**329**	⇑P	**P**	**09 42 44.5**	**-0.7**
	comp=Z,logA/T=1.4,mb5.1						
CLL				*e*	pP	09 42 47.0	-0.7
SMOL	**Smolenice**	**79.93**	**325**	*e*P	**P**	**09 42 46.7**	**+0.7**
SRO	**Srobarova**	**80.03**	**324**	*e*P	**P**	**09 42 46.9**	**+0.4**
MVU	**Marysvale**	**80.08**	**49**	P	**P**	**09 42 44.3**	**-2.7**
	comp=Z,8.1nm,0.9s,mb4.7						
MSU	**Marysvale**	**80.09**	**49**	*e*P	**P**	**09 42 47.8**	**+0.8**
PRU	**Pruhonice**	**80.14**	**327**	*e*P	**P**	**09 42 47.2**	**+0.2**
ISP	**Isparta**	**80.20**	**310**	⇓*i*P	**P**	**09 42 47.1**	**-0.5**
CSS	**Prodhromos**	**80.27**	**307**	*e*P	**P**	**09 42 47.0**	**-1.0**
	comp=Z,22nm,0.9s,mb5.1						
NEN	**Nelson**	**80.27**	**52**	*e*P	**P**	**09 42 48.4**	**+0.3**
AFFS	**‘Afif**	**80.28**	**293**	P	**P**	**09 42 48.6**	**+0.2**
ULM	**Lac du Bonnet**	**80.31**	**32**	P	**P**	**09 42 48.7**	**+0.8**
	comp=Z,8.1nm,1.1s,mb4.6,baz=315,slow=7.6,SNR=6.3						
ZST	**Bratislava**	**80.31**	**325**	*e*P	**P**	**09 42 48.8**	**+0.8**
CLZ	**Clausthal**	**80.44**	**331**	*e*P	**P**	**09 42 48.5**	**-0.1**
	comp=Z,46nm,1.2s,mb5.3						
MMLI	**Mount Malkishu**	**80.47**	**304**	P	**P**	**09 42 49.6**	**+0.4**
HMDT	**Nahal Hemdat**	**80.52**	**303**	P	**P**	**09 42 49.7**	**+0.3**
SRU	**San Rafael**	**80.69**	**48**	*e*P	**P**	**09 42 50.7**	**+0.5**
NKC	**Novy Kostel**	**80.84**	**328**	*e*P	**P**	**09 42 51.1**	**+0.4**
MOX	**Moxa**	**80.87**	**329**	*e*P	**P**	**09 42 50.7**	**-0.2**
MOX				pmax	pmax		
	comp=Z,39nm,1.5s,mb5.1						
MOX	**Moxa**	**80.87**	**329**	*i* P	**P**	**09 42 50.7**	**-0.2**
	comp=Z,logA/T=1.4,mb5.1						
MOX	**Moxa**	**80.87**	**329**	*e*P	**P**	**09 42 50.7**	**-0.2**
	comp=Z,39nm,1.5s,mb5.1						
MKRJ	**Makawir**	**80.87**	**303**	P	**P**	**09 42 51.6**	**+0.3**
KHC	**Kasperske Hory**	**81.19**	**327**	*e*P	**P**	**09 42 52.7**	**+0.1**
VTS	**Vitosha**	**81.23**	**318**	P	**P**	**09 42 53.9**	**+0.9**
GEC2	**GERESS Array S**	**81.36**	**327**	*e*P	**P**	**09 42 53.2**	**-0.3**
GEC2				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
GEC2	**GERESS Array S**	**81.36**	**327**	*e*P	**P**	**09 42 53.2**	**-0.3**
	comp=Z,15nm,1.0s,mb4.9						
GERES	**GERESS Array B**	**81.36**	**327**	P	**P**	**09 42 53.5**	**0.0**
	comp=Z,6.9nm,0.7s,mb4.7,baz=34,slow=4.8,SNR=48						
GERES				LR	LR	10 24 20.2	
	comp=Z,236nm,19.6s,MS4.5,baz=244,slow=40						
RHK1	**Bakonya**	**81.38**	**323**	*e*P	**P**	**09 42 53.6**	**-0.1**
WET	**Wettzell**	**81.48**	**328**	*e*P	**P**	**09 42 54.2**	**+0.1**
WET				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
WET	**Wettzell**	**81.48**	**328**	*e*P	**P**	**09 42 54.2**	**+0.1**
	comp=Z,17nm,1.1s,mb4.9						
GRA1	**Grafenberg Arr**	**81.76**	**329**	*e*P	**P**	**09 42 55.6**	**0.0**
	comp=Z,76nm,1.1s,mb5.5						
GRF	**Grafenberg Arr**	**81.76**	**329**	*e*P	**P**	**09 42 55.6**	**0.0**
GRF				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.5						
GRF	**Grafenberg Arr**	**81.76**	**329**	*e*P	**P**	**09 42 55.6**	**0.0**
GRF				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.5						
GRF	**Grafenberg Arr**	**81.76**	**329**	*e*P	**P**	**09 42 55.6**	**0.0**
	comp=Z,76nm,1.1s,mb5.5						
KBRS	**Khaybar**	**81.88**	**296**	P	**P**	**09 42 57.6**	**+0.9**
PRNI	**Paran**	**82.04**	**302**	P	**P**	**09 42 57.8**	**+0.4**
PV10	**Paradox Valley**	**82.04**	**47**	*e*P	**P**	**09 42 58.4**	**+1.1**
JMQS	**Jabal Moqyreh**	**82.36**	**300**	P	**P**	**09 42 59.8**	**+0.7**
MBH	**Mount Berech**	**82.45**	**302**	P	**P**	**09 42 59.7**	**+0.1**
PV01	**Paradox Valley**	**82.48**	**47**	*e*P	**P**	**09 43 00.2**	**+0.7**
EIL	**Elat**	**82.50**	**302**	P	**P**	**09 42 59.9**	**+0.1**
EIL	**Elat**	**82.50**	**302**	*e*P	**P**	**09 42 57.9**	**-1.9**
	comp=Z,33nm,1.0s,mb5.3						
TATS	**Tathlith**	**82.53**	**289**	P	**P**	**09 43 00.4**	**+0.2**
ALWS	**Ilw as Safayha**	**82.65**	**301**	P	**P**	**09 43 01.2**	**+0.6**
JMOS	**Jabal al Moall**	**82.71**	**301**	P	**P**	**09 43 01.6**	**+0.7**
TOD	**Tromm**	**82.81**	**330**	*e*P	**P**	**09 43 00.4**	**-0.6**
HAQS	**Haql**	**82.90**	**301**	P	**P**	**09 43 02.0**	**+0.1**
RW3	**Ridgway**	**82.92**	**47**	*e*P	**P**	**09 43 03.0**	**+1.2**
FUR	**Furstenfeldbru**	**82.92**	**328**	*e*P	**P**	**09 43 01.7**	**+0.1**
FUR				pmax	pmax		
	comp=Z,53nm,0.9s,mb5.6						
FUR	**Furstenfeldbru**	**82.92**	**328**	*e*P	**P**	**09 43 01.7**	**+0.1**
	comp=Z,53nm,0.9s,mb5.6						
ABH	**Alteburg**	**83.09**	**331**	*e*P	**P**	**09 42 58.7**	**-3.8**
BDAS	**Al Bad‘**	**83.17**	**301**	P	**P**	**09 43 03.4**	**+0.1**
AYUS	**‘Aynunah**	**83.21**	**300**	P	**P**	**09 43 03.7**	**+0.1**
STU	**Stuttgart**	**83.31**	**329**	*e*P	**P**	**09 43 03.6**	**0.0**
STU				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.7						
STU	**Stuttgart**	**83.31**	**329**	*e*P	**P**	**09 43 03.6**	**0.0**
	comp=Z,56nm,0.8s,mb5.7						
RUP	**Ruppelstein**	**83.42**	**331**	*e*P	**P**	**09 43 02.0**	**-2.2**
UMJS	**Umm Lajj**	**83.61**	**297**	D		09 43 07.9	
BFO	**Black Forest**	**84.02**	**329**	*e*P	**P**	**09 43 06.5**	**-0.6**
BFO				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.5						
BFO	**Black Forest**	**84.02**	**329**	*e*P	**P**	**09 43 06.5**	**-0.6**
	comp=Z,37nm,1.0s,mb5.5						
BAIF	**Baives**	**84.21**	**333**	*e*P	**P**	**09 43 07.6**	**-0.5**
	comp=Z,12nm,0.8s,mb4.8						
BAIF	**Baives**	**84.21**	**333**	*e*P	**P**	**09 43 07.6**	**-0.5**
BAIF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
WLS	**Welschbruch**	**84.34**	**330**	*e*P	**P**	**09 43 08.5**	**-0.3**
CDF	**Champ du Feu**	**84.37**	**330**	*e*P	**P**	**09 43 08.8**	**-0.1**
	comp=Z,80nm,1.0s,mb5.5						
CDF	**Champ du Feu**	**84.37**	**330**	*e*P	**P**	**09 43 08.8**	**-0.1**
CDF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.5						
FELD	**Feldberg**	**84.51**	**329**	*e*P	**P**	**09 43 09.0**	**-0.6**
ECH	**Echery**	**84.58**	**330**	*e*P	**P**	**09 43 09.5**	**-0.5**
BRMO	**Bormio**	**84.62**	**327**	*e*P	**P**	**09 43 10.8**	**+0.6**
MOF	**Molkenrain**	**84.88**	**330**	*e*P	**P**	**09 43 10.9**	**-0.6**
TUC	**Tucson**	**85.00**	**53**	*e*P	**P**	**09 43 13.0**	**+0.5**
TUC				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
TUC	**Tucson**	**85.00**	**53**	*e*P	**P**	**09 43 13.0**	**+0.5**
	comp=Z,5.5nm,0.8s,mb4.7						
HINF	**Hinteralfeld**	**85.02**	**330**	*e*P	**P**	**09 43 11.5**	**-0.7**
	comp=Z,27nm,1.0s,mb5.0						
HINF	**Hinteralfeld**	**85.02**	**330**	*e*P	**P**	**09 43 11.5**	**-0.7**
HINF				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
THEF	**They Montfort**	**85.03**	**331**	*e*P	**P**	**09 43 09.5**	**-2.7**
HAU	**Haudompre**	**85.07**	**330**	*e*P	**P**	**09 43 11.7**	**-0.7**
	comp=Z,35nm,0.8s,mb5.2						
HAU	**Haudompre**	**85.07**	**330**	*e*P	**P**	**09 43 11.7**	**-0.7**
HAU				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
MEZF	**Maizieres J’vi**	**85.17**	**331**	*e*P	**P**	**09 43 12.8**	**-0.1**
	comp=Z,59nm,1.0s,mb5.4						
SCHQ	**Schefferville**	**85.55**	**15**	P	**P**	**09 43 14.6**	**0.0**
	comp=Z,2.4nm,0.7s,mb4.5,baz=315,slow=11,SNR=3.0						
VAI	**Varese**	**85.78**	**328**	*e*P	**P**	**09 43 15.4**	**-0.7**
ANMO	**Albuquerque**	**85.89**	**48**	*e*P	**P**	**09 43 15.6**	**-1.2**
SNTG	**Esanatoglia**	**85.94**	**324**	*e*P	**P**	**09 43 17.1**	**+0.3**
SFI	**Santa Sofia**	**85.95**	**325**	*e*P	**P**	**09 43 17.8**	**+0.9**
CABF	**La Chapelle**	**86.30**	**330**	*e*P	**P**	**09 43 18.1**	**-0.5**
	comp=Z,28nm,1.1s,mb5.1						
CABF	**La Chapelle**	**86.30**	**330**	*e*P	**P**	**09 43 18.1**	**-0.5**
CABF				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.1						
PPT	**Papeete**	**86.58**	**115**	*e*LR	LR	10 09 47.9	
	comp=Z,218nm,30.2s						
SSF	**Saint Saulge**	**86.95**	**331**	*e*P	**P**	**09 43 21.2**	**-0.6**
SSF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.3						
SSF	**Saint Saulge**	**86.95**	**331**	*e*P	**P**	**09 43 21.2**	**-0.6**
	comp=Z,20nm,1.0s,mb5.3						
FLN	**La Foliniere**	**86.97**	**334**	*e*P	**P**	**09 43 21.2**	**-0.6**
LDF	**La Druitiere**	**86.99**	**334**	*e*P	**P**	**09 43 21.1**	**-0.8**
	comp=Z,133nm,1.3s,mb5.7						
LDF	**La Druitiere**	**86.99**	**334**	*e*P	**P**	**09 43 21.1**	**-0.8**
LDF				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.7						
SMF	**Signal de Mont**	**87.17**	**331**	*e*P	**P**	**09 43 22.1**	**-0.7**
AVF	**Avril sur Loir**	**87.23**	**331**	*e*P	**P**	**09 43 22.6**	**-0.5**
	comp=Z,39nm,0.9s,mb5.3						
AVF	**Avril sur Loir**	**87.23**	**331**	*e*P	**P**	**09 43 22.6**	**-0.5**
AVF				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.3						
GRR	**Gorron**	**87.42**	**334**	*e*P	**P**	**09 43 23.6**	**-0.4**
	comp=Z,39nm,0.9s,mb5.3						
GRR	**Gorron**	**87.42**	**334**	*e*P	**P**	**09 43 23.6**	**-0.4**
GRR				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.3						
BGF	**Bois d’Agland**	**87.62**	**331**	*e*P	**P**	**09 43 24.5**	**-0.5**
SGMF	**Saint Gilles**	**88.11**	**335**	*e*P	**P**	**09 43 27.1**	**-0.2**
	comp=Z,59nm,1.1s,mb5.4						
SGMF	**Saint Gilles**	**88.11**	**335**	*e*P	**P**	**09 43 27.1**	**-0.2**
SGMF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.4						
ROSF	**Rostrenen**	**88.27**	**336**	*e*P	**P**	**09 43 28.0**	**-0.1**
VIVF	**Saint-Julien-l**	**88.31**	**329**	*e*P	**P**	**09 43 26.9**	**-1.4**
KSU1	**Kansas State U**	**88.37**	**40**	*e*P	**P**	**09 43 28.4**	**-0.3**
TBI	**Tubuai**	**90.43**	**119**	*e*LR	LR	10 11 34.0	
	comp=Z,126nm,33.0s						
MTLF	**Montolieu**	**90.55**	**330**	*e*P	**P**	**09 43 38.8**	**-0.1**
	comp=Z,34nm,1.1s,mb5.3						
MTLF	**Montolieu**	**90.55**	**330**	*e*P	**P**	**09 43 38.8**	**-0.1**
MTLF				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.3						
TXAR	**Lajitas Array**	**91.49**	**51**	P	**P**	**09 43 44.3**	**+0.7**
	comp=Z,2.8nm,0.8s,mb4.6,baz=293,slow=3.3,SNR=32						
RKT	**Rikitea**	**100.74**	**111**	*e*LR	LR	10 16 22.0	
	comp=Z,144nm,33.0s						
DBIC	**Dimbokro**	**124.65**	**314**	PKP	PKPdf	09 49 36.3	-2.6
	comp=Z,3.4nm,0.9s,baz=306,slow=2.9,SNR=4.1						
QSPA	**South Pole Qui**	**127.11**	**180**	⇑*i*P	PKPdf	09 49 40.1	-1.7
LPAZ	**La Paz**	**148.22**	**56**	*e*PKP2	PKPab	09 50 24.2	-3.1
LPAZ	**La Paz**	**148.22**	**56**	PKPbc	PKPdf	09 50 24.4	+2.8
	comp=Z,11nm,1.1s,baz=345,slow=4.2,SNR=22						
LVC	**Limon Verde**	**151.91**	**66**	*e*PKPbc	PKPdf	09 50 32.8	+5.6
BDFB	**Brasilia**	**157.51**	**18**	PKPab	PKPab	09 51 06.3	-0.1
	comp=Z,5.3nm,0.7s,baz=76,slow=0.1,SNR=8.8						

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*IDC **28** 09:42:38.0±0.6, 8.28N×93.94E, mb4.6/15, mb1 4.7/15, mb1mx4.6/18, mbtmp4.5/15, MS3.9/3, Ms1 3.8/3, ms1mx3.2/24, Error ellipse: s-maj=25.1km s-min=14.7km az=56.0*

*MOS **28** 09:42:44.7±0.8, 9.03N×94.01E, h33^{km}, mb5.1/18, Error ellipse: s-maj=25.6km s-min=9.9km az=119.4*

ISC 28 09:42:41.3±0.4**, 8.27N**±0.07×**94.07E**±0.08**, h33^{km}, n72,** σ1^{s}**05**/67**, mb4.8**/35**, MS4.0**/4**, 3C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.18**	**25**	Pn	**P**	**09 45 23.2**	**+1.2**
	0.5nm,0.3s,baz=212,slow=14,SNR=19						
PKI	**Pulchoki**	**20.87**	**338**	*e*P	**P**	**09 47 22.9**	**-0.2**
	329nm,1.3s						
GUN	**Gumba**	**21.01**	**339**	*e*P	**P**	**09 47 24.6**	**+0.1**
	155nm,1.2s,mb5.2						
DMN	**Daman**	**21.02**	**337**	*e*P	**P**	**09 47 24.8**	**+0.2**
KKN	**Kakani**	**21.12**	**338**	*e*P	**P**	**09 47 25.4**	**-0.2**
GKN	**Gorkha**	**21.55**	**337**	*e*P	**P**	**09 47 30.2**	**+0.2**
	119nm,0.9s,mb5.3						
KOLN	**Koldanda**	**21.77**	**334**	*e*P	**P**	**09 47 32.9**	**+0.7**
	113nm,0.8s,mb5.4						
JOW	**Kunigami**	**37.29**	**56**	P	**P**	**09 49 53.5**	**+1.2**
	14nm,0.5s,mb5.0,baz=233,slow=20,SNR=5.4						
UCH	**Uchtor**	**37.96**	**336**	P	**P**	**09 49 58.6**	**+0.9**
	SNR=10						
TKM2	**Tokmak 2**	**38.14**	**338**	P	**P**	**09 49 59.5**	**+0.3**
	SNR=5.6						
KBK	**Karagaybulak**	**38.16**	**337**	P	**P**	**09 50 00.3**	**+0.9**
	SNR=12						
AML	**Almayashu**	**38.22**	**335**	P	**P**	**09 50 01.0**	**+1.1**
	SNR=22						
AAK	**Ala-Archa**	**38.31**	**336**	P	**P**	**09 50 01.7**	**+1.0**
	SNR=9.2						
AAK	**Ala-Archa**	**38.31**	**336**	⇑*i*P	**P**	**09 49 59.6**	**-1.1**
AAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
CHMS	**Chumysh**	**38.52**	**337**	P	**P**	**09 50 02.8**	**+0.4**
	SNR=5.5						
EKS2	**Erkin-Say**	**38.62**	**336**	P	**P**	**09 50 04.3**	**+1.1**
	SNR=9.7						
USP	**Ospenovka**	**38.85**	**337**	P	**P**	**09 50 05.5**	**+0.4**
	SNR=12						
SONM	**Songino Array**	**40.79**	**13**	P	**P**	**09 50 22.0**	**+0.8**
	comp=Z,4.9nm,0.9s,mb4.1,baz=199,slow=6.8,SNR=28						
SONM				PcP	PcP	09 52 23.0	+0.4
	comp=Z,2.0nm,0.5s,baz=204,slow=3.2,SNR=11						
SONM				LR	LR	10 08 18.8	
	comp=Z,99nm,19.8s,MS3.7,baz=43,slow=38						
NWAO	**Narrogin (SRO)**	**46.53**	**153**	P	**P**	**09 51 09.5**	**+1.7**
	comp=Z,6.3nm,0.6s,mb4.7,baz=282,slow=13,SNR=5.3						
WRA	**Warramunga Arr**	**48.55**	**126**	P	**P**	**09 51 22.6**	**-1.1**
	comp=Z,1.9nm,1.0s,mb4.1,baz=305,slow=9.2,SNR=9.0						
ASAR	**Alice Springs**	**50.22**	**130**	P	**P**	**09 51 35.9**	**-0.7**
	comp=Z,3.1nm,1.1s,mb4.3,baz=307,slow=7.1,SNR=9.7						
ASAR				PcP	PcP	09 52 55.1	-0.5
	comp=Z,2.2nm,0.8s,baz=305,slow=3.6,SNR=10						
BOD	**Bodaibo**	**51.78**	**13**	*e*P	**P**	**09 51 47.0**	**-0.8**
GNI	**Garni**	**54.11**	**314**	*e*P	**P**	**09 52 03.2**	**-2.3**
GNI				pmax	pmax		
	comp=Z,12nm,1.2s						
ARU	**Arti**	**55.50**	**337**	⇓*i*P	**P**	**09 52 13.4**	**-1.9**
ARU				*e*		09 53 09.2	
ARU				*e*		09 54 14.1	
ARU				*e*S	**S**	**09 59 58.8**	**+2.3**
ARU				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ZEI	**Tsey**	**55.70**	**317**	*e*P	**P**	**09 52 16.1**	**-0.9**
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
KIV	**Kislovodsk**	**56.98**	**318**	⇑*i*P	**P**	**09 52 24.2**	**-1.9**
KIV				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
KMBO	**Kilima Mbogo**	**57.40**	**263**	P	**P**	**09 52 31.5**	**+2.0**
	comp=Z,7.2nm,0.8s,mb4.8,baz=59,slow=11,SNR=21						
CTA	**Charters Tower**	**58.56**	**120**	LR	LR	10 18 07.7	
	comp=Z,94nm,18.4s,MS3.9,baz=237,slow=36						
SOC	**Sochi**	**58.85**	**316**	*e*P	**P**	**09 52 34.2**	**-5.0**
SOC				*e*S	**S**	**10 00 37.4**	**-3.4**
SOC				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.9						
SOC				pmax	pmax		
	comp=N,11nm,0.7s						
SOC				pmax	pmax		
	comp=E,13nm,0.7s						
SOC				MLR	MLR		
	comp=Z,263nm,18.0s,MS4.4						
SOC				MLR	MLR		
	comp=N,232nm,17.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,181nm,17.0s,MS4.5						
YAK	**Yakutsk**	**59.64**	**19**	*e*P	**P**	**09 52 42.0**	**-2.5**
YAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
YAK				pmax	pmax		
	comp=N,5.0nm,1.1s						
STKA	**Stephens Creek**	**60.43**	**134**	LR	LR	10 22 18.9	
	comp=N,115nm,20.0s,MS4.0,baz=25,slow=39						
BRTR	**Keskin Array B**	**62.12**	**311**	P	**P**	**09 52 59.6**	**-1.9**
	comp=N,4.0nm,0.8s,mb4.6,baz=123,slow=7.3,SNR=22						
OBN	**Obninsk**	**65.01**	**328**	⇓*e*P	**P**	**09 53 17.5**	**-2.8**
OBN				pmax	pmax		
	comp=Z,50nm,1.9s,mb5.2						
MA2	**Magadan**	**66.45**	**28**	*i* P	**P**	**09 53 28.2**	**-1.2**
TIXI	**Tiksi**	**66.86**	**11**	*d i*P	**P**	**09 53 30.9**	**-0.9**
TIXI				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.1						
AKASG	**Malin Array Be**	**67.80**	**322**	P	**P**	**09 53 35.5**	**-2.6**
	comp=Z,2.8nm,0.5s,mb4.5,baz=89,slow=4.8,SNR=12						
KOLS	**Kolonicke sedl**	**71.86**	**319**	*e*P	**P**	**09 54 04.2**	**+1.4**
KOLS				*e*		09 54 10.8	
FINES	**FINESS Array B**	**72.33**	**332**	*e*P	**P**	**09 54 04.9**	**-0.5**
FINES	**FINESS Array B**	**72.33**	**332**	P	**P**	**09 54 05.1**	**-0.3**
	comp=Z,6.7nm,0.5s,mb4.8,baz=95,slow=5.8,SNR=42						
CRVS	**Cervenica-Dubn**	**72.39**	**319**	*e*P	**P**	**09 54 06.1**	**+0.2**
KAF	**Kangasniemi**	**72.41**	**333**	*e*p	**P**	**09 54 05.0**	**-0.8**
	comp=Z,6.8nm,0.6s,mb4.8						
KAF	**Kangasniemi**	**72.41**	**333**	*e*P	**P**	**09 54 05.0**	**-0.8**
KAF				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
OJC	**Ojcow**	**73.63**	**320**	*e*P	**P**	**09 54 13.3**	**0.0**
VYHS	**Vyhne**	**74.07**	**318**	*e*P	**P**	**09 54 15.7**	**-0.1**
KEV	**Kevo**	**74.44**	**341**	*e*p	**P**	**09 54 16.6**	**-1.0**
	comp=Z,8.0nm,0.6s,mb4.8						
KEV	**Kevo**	**74.44**	**341**	*e*P	**P**	**09 54 16.6**	**-1.0**
KEV				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.8						
ARCES	**ARCESS Array B**	**74.87**	**340**	P	**P**	**09 54 20.4**	**+0.4**
	comp=Z,4.4nm,0.5s,mb4.7,baz=96,slow=5.9,SNR=30						
ZST	**Bratislava**	**75.19**	**318**	*e*P	**P**	**09 54 22.8**	**+0.4**
ZST				*e*		09 54 28.7	
BILL	**Bilibino**	**75.75**	**22**	⇑*i*P	**P**	**09 54 24.4**	**-0.7**
BILL				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
DPC	**Dobruska-Polom**	**75.86**	**320**	*e*P	**P**	**09 54 26.8**	**+0.7**
BRG	**Berggiesshubel**	**77.40**	**320**	*i* P	**P**	**09 54 35.0**	**+0.2**
BRG				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GEC2	**GERESS Array S**	**77.49**	**318**	*e*P	**P**	**09 54 35.4**	**+0.1**
GEC2				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
GERES	**GERESS Array B**	**77.49**	**318**	P	**P**	**09 54 35.8**	**+0.5**
	comp=Z,6.5nm,0.7s,mb4.7,baz=87,slow=5.5,SNR=58						
KHC	**Kasperske Hory**	**77.58**	**318**	*e*P	**P**	**09 54 36.1**	**+0.3**
WET	**Wettzell**	**78.04**	**318**	*e*P	**P**	**09 54 38.6**	**+0.3**
MOX	**Moxa**	**78.88**	**320**	*e*P	**P**	**09 54 43.2**	**+0.3**
MOX	**Moxa**	**78.88**	**320**	*i* P	**P**	**09 54 43.2**	**+0.3**
MAW	**Mawson**	**78.91**	**192**	P	**P**	**09 54 43.0**	**+0.2**
	comp=Z,2.3nm,0.7s,mb4.2,baz=52,slow=12,SNR=3.1						
GRF	**Grafenberg Arr**	**79.12**	**319**	*e*P	**P**	**09 54 44.5**	**+0.2**
GRF				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
NB2	**NORSAR Subarra**	**79.35**	**331**	P	**P**	**09 54 44.6**	**-0.7**
	comp=Z,10nm,0.8s,mb4.8,baz=95,slow=5.0						
NOA	**NORSAR Array B**	**79.35**	**331**	P	**P**	**09 54 45.0**	**-0.3**
	comp=Z,5.7nm,0.7s,mb4.6,baz=92,slow=5.6,SNR=14						
BSEG	**Bad Segeberg**	**79.69**	**323**	*e*P	**P**	**09 54 47.7**	**+0.4**
BSEG				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
BFO	**Black Forest**	**81.06**	**318**	*e*P	**P**	**09 54 54.4**	**-0.2**
BFO				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
LPG	**La Plagne**	**82.29**	**315**	*e*P	**P**	**09 55 01.6**	**+0.5**
	comp=Z,44nm,0.8s,mb5.1						
ESDC	**Sonseca Array**	**90.91**	**310**	P	**P**	**09 55 44.8**	**+1.5**
	comp=Z,2.9nm,0.5s,mb4.8,baz=61,slow=4.2,SNR=16						
ILAR	**Eielson Array**	**94.41**	**22**	P	**P**	**09 56 00.2**	**+1.4**
	comp=Z,0.9nm,0.9s,mb4.2,baz=301,slow=4.3,SNR=10						
INK	**Inuvik**	**96.63**	**16**	P	**P**	**09 56 09.0**	**+0.2**
	comp=Z,3.2nm,1.0s,mb4.7,baz=320,slow=5.1,SNR=8.2						
YKA	**Yellowknife Ar**	**106.06**	**13**	PP	PP	10 01 10.7	-6.9
	comp=Z,0.9nm,1.2s,baz=333,slow=7.9,SNR=6.0						
PDAR	**Pinedale Array**	**124.82**	**21**	PKP	PKPdf	10 01 40.2	+1.9
	comp=Z,1.1nm,0.9s,baz=14,slow=1.3,SNR=7.7						
TXAR	**Lajitas Array**	**138.89**	**24**	PKhKP		10 02 01.2	
	comp=Z,0.2nm,0.6s,baz=270,slow=0.9,SNR=4.2						
TXAR				PKP	PKPdf	10 02 07.2	+2.0
	comp=Z,0.3nm,0.5s,baz=354,slow=1.8,SNR=5.6						
BDFB	**Brasilia**	**142.24**	**255**	PKP	PKPdf	10 02 13.8	+2.4
	comp=Z,1.2nm,0.4s,baz=308,slow=2.2,SNR=3.7						
LPAZ	**La Paz**	**160.88**	**244**	PKP	PKPdf	10 02 42.2	+3.5
	comp=Z,0.4nm,0.5s,baz=15,slow=4.3,SNR=4.3						
LPAZ				PKPab	PKPab	10 03 24.0	+0.4
	comp=Z,1.1nm,0.8s,baz=69,slow=8.0,SNR=3.8						

IDC 28 09:53:40.1±1.6**, 3.21N**×**93.98E, mb3.9**/5**, mb1 4.2**/6**, mb1mx3.9**/18**, mbtmp3.9**/6**, ML3.2**/1**, Error ellipse: s-maj=59.5km s-min=21.9km az=57.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.91**	**17**	Pn	P	09 57 26.2	-1.0
	0.0nm,0.3s,baz=212,slow=11,SNR=19						
SONM	**Songino Array**	**45.72**	**12**	P	P	10 02 03.2	-1.6
	1.6nm,0.8s,baz=191,slow=9.0,SNR=16						
WRA	**Warramunga Arr**	**45.83**	**122**	P	P	10 02 04.0	-2.0
	1.5nm,0.6s,baz=303,slow=8.5,SNR=15						
ASAR	**Alice Springs**	**47.17**	**127**	P	P	10 02 14.7	-1.9
	0.8nm,0.5s,baz=295,slow=7.5,SNR=9.5						
BVAR	**Borovoye Array**	**53.34**	**342**	P	P	10 03 00.6	-2.7
	1.3nm,0.7s,baz=135,slow=8.4,SNR=5.9						
GERES	**GERESS Array B**	**81.19**	**319**	P	P	10 05 58.2	-1.0
	0.2nm,0.5s,baz=108,slow=3.1,SNR=4.2						

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*IDC **28** 09:58:02.9±1.1, 5.73N×92.81E, mb4.1/6, mb1 4.2/7, mb1mx4.0/16, mbtmp4.0/7, ML4.4/1, Error ellipse: s-maj=67.7km s-min=20.0km az=49.0*

ISC 28 09:58:06.2±1.0**, 5.7N**±0.1×**92.9E**±0.2**, h33^{km}, n8,** σ**0^{s}67**/7**, mb4.0**/6**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.96**	**25**	Pn	**P**	**10 01 24.2**	**+0.2**
	0.5nm,0.3s,baz=232,slow=15,SNR=7.0						
SONM	**Songino Array**	**43.51**	**13**	P	pP	10 06 15.3	-2.9
	0.4nm,0.7s,baz=195,slow=6.9,SNR=3.5						
WRA	**Warramunga Arr**	**48.09**	**123**	P	**P**	**10 06 44.8**	**-0.2**
	2.1nm,0.7s,mb4.2,baz=303,slow=9.2,SNR=17						
ASAR	**Alice Springs**	**49.55**	**128**	P	**P**	**10 06 56.2**	**0.0**
	1.7nm,0.5s,mb4.4,baz=299,slow=7.9,SNR=28						
STKA	**Stephens Creek**	**59.57**	**132**	P	**P**	**10 08 09.4**	**+0.2**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	0.9nm,0.4s,mb4.2,baz=333,slow=7.7,SNR=4.2						
FINES	**FINESS Array B**	**74.02**	**333**	P	**P**	**10 09 39.1**	**-1.0**
	1.2nm,0.6s,mb4.0,baz=117,slow=3.1,SNR=4.1						
ARCES	**ARCESS Array B**	**76.85**	**341**	P	**P**	**10 09 55.8**	**-0.5**
	0.7nm,0.4s,mb4.0,baz=98,slow=6.4,SNR=6.3						
GERES	**GERESS Array B**	**78.59**	**319**	P	**P**	**10 10 07.6**	**+1.3**
	0.4nm,0.6s,mb3.5,baz=79,slow=5.0,SNR=3.0						

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*IDC **28** 09:58:42.0±0.7, 7.79N×93.40E, h18^{km}±4^{km}, mb3.9/8, mb1 4.1/9, mb1mx3.9/18, mbtmp4.0/9, ML4.0/1, Error ellipse: s-maj=30.3km s-min=14.7km az=48.0*

ISC 28 09:58:40.3±0.7, 7.7N±0.1×93.5E±0.1, h21^{km}, h21^{km}±.4^{km}:pP-P, n10, σ0^{s}72/9, mb4.1/8, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.94**	**26**	Pn	**P**	**10 01 32.9**	**+0.3**
	0.3nm,0.3s,baz=229,slow=14,SNR=12						
SONM	**Songino Array**	**41.47**	**13**	P	**P**	**10 06 27.4**	**-0.1**
	0.6nm,0.8s,mb3.3,baz=200,slow=8.2,SNR=4.0						
WRA	**Warramunga Arr**	**48.73**	**125**	P	**P**	**10 07 26.2**	**+0.4**
	3.6nm,0.9s,mb4.4,baz=303,slow=8.8,SNR=12						
WRA				pP	pP	10 07 32.8	+0.6
	3.3nm,0.7s,baz=304,slow=8.9,SNR=7.5						
BVAR	**Borovoye Array**	**48.92**	**342**	P	**P**	**10 07 27.9**	**+1.0**
	1.0nm,0.8s,mb3.9,baz=166,slow=5.9,SNR=4.4						
ASAR	**Alice Springs**	**50.34**	**129**	P	**P**	**10 07 38.2**	**0.0**
	3.2nm,0.9s,mb4.4,baz=308,slow=7.4,SNR=11						
ASAR				pP	pP	10 07 44.3	-0.2
	3.7nm,0.9s,baz=305,slow=7.1,SNR=6.6						
ASAR				PcP	PcP	10 08 58.2	+1.2
	1.1nm,0.9s,baz=307,slow=4.5,SNR=4.0						
KMBO	**Kilima Mbogo**	**56.72**	**264**	P	**P**	**10 08 26.4**	**+0.9**
	1.6nm,0.7s,mb4.2,baz=45,slow=19,SNR=3.3						
STKA	**Stephens Creek**	**60.50**	**133**	P	**P**	**10 08 51.1**	**-0.4**
	3.5nm,0.8s,mb4.4,baz=313,slow=7.0,SNR=3.9						
FINES	**FINESS Array B**	**72.53**	**332**	P	**P**	**10 10 06.2**	**-1.4**
	2.0nm,0.8s,mb4.1,baz=97,slow=11,SNR=2.9						
FINES				pP	pP	10 10 12.9	-1.1
	1.1nm,0.6s,baz=102,slow=13,SNR=2.1						
GERES	**GERESS Array B**	**77.49**	**318**	P	**P**	**10 10 35.3**	**-0.9**
	0.9nm,0.7s,mb3.8,baz=90,slow=3.9,SNR=5.6						
GERES				pP	pP	10 10 41.5	-1.2
	1.1nm,0.7s,baz=90,slow=4.0,SNR=6.0						
PDAR	**Pinedale Array**	**125.56**	**21**	PKP	PKPdf	10 17 42.8	-2.1
	0.4nm,0.9s,baz=45,slow=2.1,SNR=4.1						

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*IDC **28** 10:08:03.4±0.8, 9.31N×93.56E, mb4.0/10, mb1 4.2/10, mb1mx4.0/19, mbtmp4.0/10, Error ellipse: s-maj=46.2km s-min=16.1km az=55.0*

ISC 28 10:08:06.5±0.8, 9.2N±0.2×93.6E±0.2, h33^{km}, n16, σ0^{s}85/15, mb4.1/10, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUN	**Gumba**	**19.97**	**340**	*e*P	**P**	**10 12 38.9**	**0.0**
	73nm,0.8s						
DMN	**Daman**	**19.97**	**338**	*e*P	**P**	**10 12 40.8**	**+1.9**
	32nm,0.8s						
KKN	**Kakani**	**20.07**	**338**	*e*P	**P**	**10 12 40.0**	**0.0**
GKN	**Gorkha**	**20.51**	**337**	*e*P	**P**	**10 12 44.6**	**+0.1**
KOLN	**Koldanda**	**20.72**	**334**	*e*P	**P**	**10 12 47.0**	**+0.2**
	60nm,0.8s						
SONM	**Songino Array**	**40.01**	**13**	P	**P**	**10 15 39.0**	**-0.8**
	0.6nm,0.9s,mb3.3,baz=186,slow=13,SNR=3.8						
BVAR	**Borovoye Array**	**47.55**	**341**	P	**P**	**10 16 39.9**	**-0.8**
	1.0nm,0.8s,mb3.9,baz=153,slow=9.9,SNR=4.1						
NWAO	**Narrogin (SRO)**	**47.58**	**153**	P	**P**	**10 16 41.5**	**+0.2**
	7.1nm,0.6s,mb4.9,baz=270,slow=12,SNR=3.8						
WRA	**Warramunga Arr**	**49.50**	**126**	P	**P**	**10 16 56.8**	**+0.6**
	1.9nm,0.5s,mb4.4,baz=304,slow=8.7,SNR=26						
WRA				PcP	PcP	10 18 18.9	+0.7
	0.8nm,0.5s,baz=314,slow=2.8,SNR=6.6						
ASAR	**Alice Springs**	**51.20**	**130**	P	**P**	**10 17 08.8**	**-0.4**
	1.7nm,0.9s,mb4.0,baz=304,slow=7.0,SNR=8.4						
ASAR				PcP	PcP	10 18 24.4	0.0
	2.3nm,1.1s,baz=314,slow=4.0,SNR=5.7						
BRTR	**Keskin Array B**	**61.13**	**310**	P	**P**	**10 18 19.5**	**-0.6**
	0.6nm,0.4s,mb4.1,baz=120,slow=7.1,SNR=3.4						
FINES	**FINESS Array B**	**71.28**	**332**	P	**P**	**10 19 22.0**	**-2.4**
	0.5nm,0.6s,mb3.7,baz=101,slow=14,SNR=3.6						
ARCES	**ARCESS Array B**	**73.83**	**340**	P	**P**	**10 19 39.3**	**+0.1**
	4.1nm,1.0s,mb4.3,baz=96,slow=7.0,SNR=10						
GERES	**GERESS Array B**	**76.46**	**318**	P	**P**	**10 19 55.5**	**+0.7**
	0.6nm,0.4s,mb3.8,baz=90,slow=5.3,SNR=6.5						
INK	**Inuvik**	**95.88**	**16**	P	**P**	**10 21 31.2**	**+0.7**
	0.6nm,0.5s,mb4.3,baz=75,slow=2.1,SNR=8.3						
TXAR	**Lajitas Array**	**138.24**	**23**	PKP	PKPdf	10 27 29.7	+0.6
	0.2nm,0.5s,baz=297,slow=2.0,SNR=5.3						

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*IDC **28** 10:10:24.5±0.8, 8.52N×92.20E, mb4.2/12, mb1 4.3/13, mb1mx4.3/18, mbtmp4.2/13, ML4.4/1, MS4.1/5, Ms1 4.1/5, ms1mx3.8/24, Error ellipse: s-maj=36.6km s-min=17.7km az=48.0*

ISC 28 10:10:28.4±0.6, 8.61N±0.08×92.48E±0.07, h33^{km}, n43, σ1^{s}08/40, mb4.2/14, MS4.1/4, 1C-1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.63**	**32**	Pn	**P**	**10 13 16.0**	**+0.8**
	0.7nm,0.3s,baz=231,slow=14,SNR=11						
CMAR				Sn	**S**	**10 15 23.1**	**-1.7**
	0.4nm,0.3s,baz=201,slow=30,SNR=3.7						
CMAR				LR	LR	10 18 41.0	
	comp=Z,1μm,18.4s,baz=215,slow=42						
MDRS	**Chennai**	**12.81**	**291**	*e*P	**P**	**10 13 32.0**	**+1.0**
MDRS				*e*		10 17 21.0	
HYB	**Hyderabad**	**16.14**	**304**	*e*P	**P**	**10 14 13.0**	**-1.6**
HYB				*e*		10 14 29.0	
SHL	**Shillong**	**16.87**	**358**	*e*P		10 14 33.0	
	20nm,0.8s						
MNGI	**Mangalore**	**17.87**	**285**	*i* P	**P**	**10 14 35.2**	**-1.1**
MNGI				*e*S	**S**	**10 17 39.5**	**-12**
GOA	**Goa**	**19.48**	**292**	⇓*e*P	**P**	**10 15 00.2**	**+4.7**
KAD	**Karad**	**19.80**	**298**	*e*P	**P**	**10 14 59.3**	**+0.2**
KAD				*i*		10 18 11.9	
PKI	**Pulchoki**	**20.01**	**341**	*e*P	**P**	**10 15 01.5**	**+0.3**
	70nm,0.9s						
DMN	**Daman**	**20.14**	**341**	*e*P	**P**	**10 15 02.1**	**-0.5**
	32nm,0.6s						
GUN	**Gumba**	**20.18**	**343**	*e*P	**P**	**10 15 02.8**	**-0.3**
	121nm,1.1s						
KKN	**Kakani**	**20.25**	**341**	*e*P	**P**	**10 15 03.8**	**0.0**
	57nm,1.0s						
POO	**Poona**	**20.60**	**301**	⇑*i*P	**P**	**10 15 07.0**	**-0.5**
POO				*i*		10 18 40.0	
GKN	**Gorkha**	**20.66**	**340**	*e*P	**P**	**10 15 07.8**	**-0.3**
	48nm,0.5s						
KOLN	**Koldanda**	**20.82**	**337**	*e*P	**P**	**10 15 09.4**	**-0.3**
	170nm,1.4s						
NDI	**New Delhi**	**24.60**	**326**	*e*P	**P**	**10 15 46.5**	**-0.6**
DDI	**Dehra Dun**	**25.47**	**330**	*e*P	**P**	**10 15 57.2**	**+1.8**
KZA	**Kyzart**	**36.64**	**338**	P	**P**	**10 17 35.3**	**+1.6**
	SNR=5.4						
KBK	**Karagaybulak**	**37.25**	**338**	P	**P**	**10 17 40.5**	**+1.7**
	SNR=7.2						
AML	**Almayashu**	**37.27**	**337**	P	**P**	**10 17 40.6**	**+1.5**
	SNR=18						
AAK	**Ala-Archa**	**37.40**	**338**	P	**P**	**10 17 41.5**	**+1.4**
	SNR=7.4						
CHMS	**Chumysh**	**37.62**	**339**	P	**P**	**10 17 43.0**	**+1.0**
	SNR=5.1						
EKS2	**Erkin-Say**	**37.69**	**337**	P	**P**	**10 17 44.1**	**+1.5**
	SNR=7.2						
USP	**Ospenovka**	**37.94**	**338**	P	**P**	**10 17 45.6**	**+0.9**
	SNR=11						
SONM	**Songino Array**	**40.83**	**14**	P	**P**	**10 18 09.0**	**+0.4**
	3.6nm,0.8s,mb4.0,baz=200,slow=7.4,SNR=14						
BVAR	**Borovoye Array**	**47.78**	**342**	P	**P**	**10 19 03.4**	**-1.1**
	2.5nm,0.7s,mb4.4,baz=146,slow=11,SNR=5.0						
WRA	**Warramunga Arr**	**50.02**	**125**	P	**P**	**10 19 22.3**	**+0.1**
	1.2nm,0.4s,mb4.2,baz=302,slow=9.1,SNR=12						
ASAR	**Alice Springs**	**51.65**	**129**	P	**P**	**10 19 34.1**	**-0.3**
	0.5nm,0.4s,mb3.8,baz=304,slow=8.1,SNR=5.9						
ASAR				PcP	PcP	10 20 49.1	+1.2
	0.6nm,0.4s,baz=311,slow=3.3,SNR=5.7						
ASAR				LR	LR	10 45 56.2	
	comp=Z,102nm,18.7s,MS3.9,baz=298,slow=41						
KMBO	**Kilima Mbogo**	**55.88**	**263**	P	**P**	**10 20 06.2**	**+0.5**
	0.8nm,0.7s,mb3.9,baz=52,slow=9.9,SNR=4.0						
ASF	**Jabal al Asfar**	**56.44**	**303**	LR	LR	10 45 47.0	
	comp=Z,65nm,21.4s,MS3.7,baz=138,slow=38						
BRTR	**Keskin Array B**	**60.71**	**311**	P	**P**	**10 20 37.4**	**-1.8**
	3.1nm,1.1s,mb4.4,baz=127,slow=6.2,SNR=8.6						
AKASG	**Malin Array Be**	**66.56**	**322**	P	**P**	**10 21 14.2**	**-3.1**
	1.2nm,0.6s,mb4.1,baz=97,slow=3.9,SNR=6.8						
FINES	**FINESS Array B**	**71.30**	**332**	P	**P**	**10 21 45.7**	**-0.7**
	2.5nm,0.6s,mb4.3,baz=94,slow=6.7,SNR=12						
KAF	**Kangasniemi**	**71.39**	**333**	*e*p	**P**	**10 21 44.4**	**-2.5**
	1.2nm,0.4s,mb4.2						
KEV	**Kevo**	**73.60**	**341**	*e*p	**P**	**10 21 59.2**	**-0.7**
ARCES	**ARCESS Array B**	**74.02**	**340**	P	**P**	**10 22 02.4**	**+0.1**
	2.1nm,0.4s,mb4.4,baz=102,slow=6.6,SNR=25						
ARCES				LR	LR	10 56 53.8	
	comp=Z,201nm,20.3s,MS4.4,baz=15,slow=38						
GERES	**GERESS Array B**	**76.19**	**318**	P	**P**	**10 22 15.2**	**0.0**
	1.7nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=9.4						
HFS	**Hagfors**	**77.00**	**330**	P	**P**	**10 22 19.1**	**-0.4**
	2.5nm,0.5s,mb4.4,baz=117,slow=6.6,SNR=8.2						
NB2	**NORSAR Subarra**	**78.29**	**331**	P	**P**	**10 22 25.3**	**-1.3**
	2.3nm,0.6s,mb4.3,baz=94,slow=5.6						
NOA	**NORSAR Array B**	**78.29**	**331**	P	**P**	**10 22 25.6**	**-1.0**
	2.8nm,0.8s,mb4.2,baz=94,slow=5.5,SNR=5.0						
NOA				LR	LR	11 01 26.9	
	comp=Z,142nm,18.3s,MS4.3,baz=250,slow=39						
ILAR	**Eielson Array**	**94.68**	**22**	P	**P**	**10 23 48.2**	**+1.1**
	0.6nm,0.5s,mb4.2,baz=307,slow=3.5,SNR=10						
YKA	**Yellowknife Ar**	**106.08**	**13**	PP	PP	10 28 59.6	-5.3
	0.3nm,0.9s,baz=338,slow=8.0,SNR=4.6						
PDAR	**Pinedale Array**	**125.06**	**20**	PKP	PKPdf	10 29 26.1	+0.2
	0.4nm,0.8s,baz=84,slow=2.3,SNR=4.2						
TXAR	**Lajitas Array**	**139.19**	**22**	PKP	PKPdf	10 29 55.2	+2.4
	0.2nm,0.4s,baz=270,slow=0.9,SNR=8.7						

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*IDC **28** 10:13:20.6±0.8, 5.79N×93.15E, h28^{km}±4^{km}, mb3.9/10, mb1 4.0/11, mb1mx3.9/18, mbtmp4.1/11, ML4.3/1, MS4.2/2, Ms1 4.2/2, ms1mx3.4/24, Error ellipse: s-maj=42.9km s-min=14.1km az=49.0*

ISC 28 10:13:19.3±0.8, 5.7N±0.1×93.1E±0.2, h33^{km}, (h26^{km}±1.3^{km}:pP-P), n15, σ0^{s}85/11, mb4.1/10, MS4.3/2, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.86**	**24**	Pn	**P**	**10 16 36.4**	**+0.6**
	0.4nm,0.3s,baz=219,slow=13,SNR=6.0						
SONM	**Songino Array**	**43.46**	**13**	P	**P**	**10 21 20.6**	**-0.4**
	1.2nm,0.9s,mb3.6,baz=196,slow=7.6,SNR=3.8						
WRA	**Warramunga Arr**	**47.88**	**123**	P	**P**	**10 21 57.0**	**+0.5**
	3.9nm,0.9s,mb4.4,baz=302,slow=9.1,SNR=6.1						
ASAR	**Alice Springs**	**49.35**	**128**	P	**P**	**10 22 08.2**	**+0.4**
	1.1nm,0.8s,mb3.9,baz=304,slow=8.2,SNR=4.6						
ASAR				pP	pP	10 22 16.7	-1.0
	2.7nm,0.9s,baz=298,slow=6.9,SNR=6.1						
BVAR	**Borovoye Array**	**50.70**	**342**	P	**P**	**10 22 17.4**	**-0.4**
	0.9nm,0.6s,mb3.9,baz=153,slow=9.7,SNR=3.4						
BVAR				pP	pP	10 22 25.9	-1.8
	2.3nm,0.8s,baz=162,slow=9.4,SNR=6.0						
PMG	**Port Moresby**	**55.89**	**105**	P	**P**	**10 22 54.6**	**-2.0**
	10nm,0.8s,mb4.9,baz=255,slow=12,SNR=3.0						
CTA	**Charters Tower**	**58.16**	**118**	LR	LR	10 48 17.6	
	comp=Z,212nm,19.6s,MS4.3,baz=66,slow=36						
STKA	**Stephens Creek**	**59.38**	**132**	P	**P**	**10 23 21.6**	**+0.5**
	1.1nm,0.6s,mb4.0,baz=343,slow=11,SNR=3.0						
STKA				LR	LR	10 51 48.3	
	comp=Z,207nm,19.4s,MS4.3,baz=28,slow=39						
BRTR	**Keskin Array B**	**63.09**	**312**	P	**P**	**10 23 45.2**	**-0.8**
	0.9nm,0.6s,mb4.1,baz=126,slow=7.4,SNR=4.1						
AKASG	**Malin Array Be**	**69.22**	**322**	pP	pP	10 24 32.5	-2.6
	1.1nm,0.5s,baz=84,slow=5.4,SNR=3.2						
FINES	**FINESS Array B**	**74.14**	**333**	P	**P**	**10 24 53.2**	**-0.7**
	0.8nm,0.6s,mb3.9,baz=72,slow=4.4,SNR=3.1						
FINES				pP	pP	10 25 02.1	-2.1
	3.2nm,1.0s,baz=90,slow=9.5,SNR=2.7						
ARCES	**ARCESS Array B**	**76.94**	**340**	P	**P**	**10 25 10.6**	**+0.8**
	2.8nm,0.9s,mb4.2,baz=97,slow=7.3,SNR=3.9						
GERES	**GERESS Array B**	**78.76**	**319**	P	**P**	**10 25 21.4**	**+1.2**
	1.0nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=6.8						
GERES				pP	pP	10 25 29.6	-1.0
	1.7nm,0.8s,baz=90,slow=4.0,SNR=6.0						
PDAR	**Pinedale Array**	**127.51**	**21**	pPKP		10 32 35.3	
	0.6nm,0.8s,baz=300,slow=0.6,SNR=4.5						
TXAR	**Lajitas Array**	**141.58**	**24**	pPKP		10 32 59.9	
	0.1nm,0.5s,baz=252,slow=2.9,SNR=2.4						

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*IDC **28** 10:15:05.4±3.2, 19.12S×68.92E, mb3.9/4, mb1 4.1/4, mb1mx3.7/17, mbtmp3.9/4, Error ellipse: s-maj=142.5km s-min=28.6km az=41.0*

ISC 28 10:15:01.6±2.3, 20.0S±0.4×68.2E±0.4, h10^{km}, n6, σ1^{s}52/5, mb3.9/4, Mid-Indian Ridge

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AGT	**Agartala**	**49.08**	**28**	*e*P	**P**	**10 23 52.0**	**+0.7**
AGT				*e*P		10 23 52.0	
ASAR	**Alice Springs**	**60.67**	**106**	P	**P**	**10 25 15.1**	**-0.5**
	0.8nm,0.6s,mb4.0,baz=271,slow=6.2,SNR=4.6						
WRA	**Warramunga Arr**	**61.80**	**102**	P	**P**	**10 25 23.9**	**+0.6**
	0.8nm,0.8s,mb3.9,baz=261,slow=6.2,SNR=4.1						
BRTR	**Keskin Array B**	**67.59**	**332**	P	**P**	**10 26 01.6**	**+1.0**
	0.4nm,0.5s,mb3.7,baz=117,slow=13,SNR=3.3						
BVAR	**Borovoye Array**	**72.74**	**1**	P	**P**	**10 26 29.7**	**-2.0**
	0.9nm,0.7s,mb3.8,baz=162,slow=4.6,SNR=2.9						
YKA	**Yellowknife Ar**	**137.50**	**2**	PKP	PKPdf	10 34 28.4	0.0
	0.6nm,1.0s,baz=349,slow=2.6,SNR=3.3						

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*IDC **28** 10:20:07.4±0.9, 13.42N×92.91E, h15^{km}±4^{km}, mb3.8/9, mb1 4.0/10, mb1mx3.9/16, mbtmp3.9/10, Error ellipse: s-maj=31.0km s-min=14.8km az=53.0*

ISC 28 10:20:05.9±0.8, 13.5N±0.1×93.0E±0.1, h17^{km}, h17^{km}±1.2^{km}:pP-P, n12, σ1^{s}15/10, mb3.9/9, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.54**	**48**	Pn	**Pn**	**10 21 57.3**	**-0.6**
	baz=243,slow=15,SNR=2.8						
SONM	**Songino Array**	**36.02**	**15**	P	**P**	**10 27 08.0**	**-0.2**
	1.2nm,0.8s,mb3.9,baz=203,slow=6.6,SNR=5.5						
SONM				pP	pP	10 27 14.0	+0.6
	1.0nm,0.5s,baz=199,slow=7.8,SNR=4.4						
BVAR	**Borovoye Array**	**43.38**	**340**	P	**P**	**10 28 09.2**	**+0.1**
	0.6nm,0.5s,mb3.6,baz=140,slow=11,SNR=2.8						
WRA	**Warramunga Arr**	**52.48**	**128**	P	**P**	**10 29 19.2**	**-1.2**
	0.5nm,0.4s,mb3.8,baz=300,slow=9.6,SNR=11						
WRA				PcP	PcP	10 30 30.9	-0.2
	0.3nm,0.5s,baz=320,slow=3.0,SNR=2.9						
ASAR	**Alice Springs**	**54.40**	**132**	P	**P**	**10 29 34.3**	**-0.3**
	0.9nm,0.4s,mb4.0,baz=312,slow=6.7,SNR=9.0						
ASAR				pP	pP	10 29 39.4	-0.5
	1.0nm,0.5s,baz=315,slow=6.4,SNR=6.6						
BRTR	**Keskin Array B**	**58.04**	**309**	P	**P**	**10 29 58.5**	**-2.0**
	1.2nm,0.6s,mb4.1,baz=124,slow=8.9,SNR=7.6						
STKA	**Stephens Creek**	**64.78**	**135**	P	**P**	**10 30 47.4**	**+1.3**
	1.9nm,0.8s,mb4.2,baz=315,slow=2.9,SNR=4.2						
FINES	**FINESS Array B**	**67.30**	**331**	pP	pP	10 31 05.4	-1.7
	3.9nm,1.0s,baz=108,slow=6.0,SNR=3.6						
ARCES	**ARCESS Array B**	**69.67**	**340**	pP	pP	10 31 19.9	-1.8
	3.5nm,0.8s,baz=92,slow=7.4,SNR=2.2						
GERES	**GERESS Array B**	**72.98**	**317**	P	**P**	**10 31 36.3**	**-0.2**
	1.2nm,0.6s,mb4.0,baz=90,slow=5.9,SNR=3.1						
GERES				pP	pP	10 31 41.1	-0.9
	1.6nm,0.6s,baz=90,slow=5.3,SNR=8.1						
NOA	**NORSAR Array B**	**74.36**	**330**	P	**P**	**10 31 45.5**	**+1.2**
	0.9nm,0.6s,mb3.9,baz=96,slow=5.3,SNR=2.6						
ILAR	**Eielson Array**	**89.99**	**22**	P	**P**	**10 33 07.8**	**+2.3**
	0.5nm,0.9s,mb3.8,baz=293,slow=4.6,SNR=6.6						

IDC 28 10:24:05.5±1.9, 4.53N×94.80E, mb4.0/6, mb1 4.2/6, mb1mx3.9/17, mbtmp4.0/6, Error ellipse: s-maj=138.8km s-min=21.1km az=49.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.42**	**16**	Pn	P	10 27 37.7	+4.6
	0.3nm,0.3s,baz=209,slow=11,SNR=6.9						
WRA	**Warramunga Arr**	**45.84**	**123**	P	P	10 32 29.6	-2.0
	2.8nm,0.7s,baz=302,slow=9.2,SNR=13						
ASAR	**Alice Springs**	**47.32**	**128**	P	P	10 32 41.5	-1.6
	0.4nm,0.4s,baz=297,slow=7.6,SNR=4.9						
BVAR	**Borovoye Array**	**52.34**	**342**	P	P	10 33 19.5	-1.8
	7.8nm,1.1s,baz=135,slow=8.4,SNR=13						
FINES	**FINESS Array B**	**75.95**	**333**	P	P	10 35 53.3	-2.5
	0.9nm,0.4s,baz=105,slow=5.8,SNR=9.7						
ARCES	**ARCESS Array B**	**78.61**	**340**	P	P	10 36 08.9	-1.5
	4.8nm,1.0s,baz=98,slow=6.8,SNR=10						
GERES	**GERESS Array B**	**80.74**	**319**	P	P	10 36 21.7	-0.6
	0.3nm,0.3s,baz=124,slow=4.8,SNR=3.7						

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*LDG **28** 10:25:10.5±0.2, 41.68N×0.90E, h11^{km}±1^{km}, Ml2.6/5, Error ellipse: s-maj=2.7km s-min=1.9km az=18.0*

*CSEM **28** 10:25:10.8±0.1, 41.71N×0.92E, h10^{km}, ML2.6/5, Error ellipse: s-maj=2.2km s-min=1.6km az=109.0*

*NEIC **28** 10:25:11.3, 41.69N×0.88E, ML2.6(LDG), MN2.4(MDD), After MDD.*

MDD 28 10:25:11.2±0.2, 41.68N×0.91E, h11^{km}, mbLg2.1/18, 1D, Error ellipse: s-maj=3.0km s-min=1.8km az=77.0, PRXIMO, Spain

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAVN	**Les Avellanes**	**0.23**	**330**	Pg	Pg	10 25 15.9	-0.4
CAVN				Lg		10 25 19.5	
	34nm,0.1s						
EPOB	**Poblet**	**0.35**	**159**	⇓Pg	Pg	10 25 17.9	-0.6
	7.8nm,0.0s,SNR=18						
EPOB				Lg		10 25 22.9	
	37nm,0.1s,SNR=7.9						
EPOB	**Poblet**	**0.35**	**159**	Pg	Pg	10 25 17.9	-0.6
	7.8nm,0.0s,SNR=18						
EPOB				Lg		10 25 22.9	
	37nm,0.1s,SNR=7.9						
CGAR	**Garraf**	**0.42**	**156**	Lg		10 25 38.3	
	4.4nm,0.1s						
CORG	**Organya**	**0.63**	**29**	Pg	Pg	10 25 22.8	-1.1
CORG				Lg		10 25 31.6	
	4.1nm,0.0s						
CSOR	**Sort**	**0.71**	**14**	Pg	Pg	10 25 24.4	-1.2
CSOR				Lg		10 25 34.5	
	7.0nm,0.1s						
ERTA	**Horta de San J**	**0.84**	**211**	Pg	Pg	10 25 26.6	-1.5
	3.6nm,0.1s,SNR=10						
ERTA				Lg		10 25 37.7	
	20nm,0.1s,SNR=7.9						
ERTA	**Horta de San J**	**0.84**	**211**	Pg	Pg	10 25 26.6	-1.6
	3.6nm,0.1s,SNR=10						
EBR	**Ebro Roquetas**	**0.92**	**200**	*e*SG	Sg	10 25 39.8	-2.0
ESAC	**San Caprasio**	**1.03**	**273**	Pg	Pg	10 25 29.8	-2.1
	20nm,0.1s,SNR=11						
ESAC				Lg		10 25 43.9	
	14nm,0.1s,SNR=7.9						
ESAC	**San Caprasio**	**1.03**	**273**	Pg	Pg	10 25 29.8	-2.1
	20nm,0.1s,SNR=11						
CBRU	**Bruguera**	**1.12**	**57**	Pg	Pg	10 25 31.7	-2.0
CBRU				Lg		10 25 46.8	
	5.6nm,0.2s						
CLLI	**Llivia**	**1.12**	**45**	Pg	Pg	10 25 31.7	-2.0
CLLI				Lg		10 25 46.6	
	5.8nm,0.1s						
CFON	**Fontmartina**	**1.15**	**85**	Pg	Pg	10 25 32.0	-2.2
CFON				Lg		10 25 47.3	
	6.6nm,0.1s						
EBIE	**Bielsa**	**1.15**	**331**	Pg	Pg	10 25 32.0	-2.3
EBIE				Lg		10 25 46.8	
EBIE	**Bielsa**	**1.15**	**331**	Pg	Pg	10 25 32.0	-2.3
	1.5nm,0.1s,SNR=24						
EBIE				Lg		10 25 46.8	
	16nm,0.1s,SNR=7.9						
EBIE	**Bielsa**	**1.15**	**331**	Pg	Pg	10 25 32.0	-2.3
	1.5nm,0.1s,SNR=24						
EPF	**Esparros**	**1.41**	**343**	*e*Pn	Pn	10 25 34.8	-2.1
EPF				*e*Pg	Pg	10 25 36.6	-2.9
EPF				*e*Sg	Sg	10 25 54.8	-3.6
	23nm,0.2s						
EPF	**Esparros**	**1.41**	**343**	*e*Pg	Pg	10 25 36.6	-2.9
EPF				*e*Sg	Sg	10 25 54.8	-3.6
	11nm,0.2s						
ETSF	**Etsaut**	**1.63**	**319**	*e*Pg	Pg	10 25 40.5	-3.4
ETSF				*e*Sg	Sg	10 26 01.6	-4.1
	13nm,0.3s						
EJON	**La Jonquera**	**1.66**	**62**	Pn	Pn	10 25 41.1	+0.6
	0.2nm,0.1s,SNR=7.9						
EJON				Lg		10 26 02.4	
	5.4nm,0.2s,SNR=7.9						
EJON	**La Jonquera**	**1.66**	**62**	Pn	Pn	10 25 41.1	+0.6
	0.2nm,0.1s,SNR=7.9						
EMOS	**Mosqueruela**	**1.68**	**219**	Pg	Pg	10 25 42.5	-2.3
EMOS				Lg		10 26 02.1	
EMOS	**Mosqueruela**	**1.68**	**219**	Pg	Pg	10 25 42.5	-2.3
	0.5nm,0.3s,SNR=7.9						
EMOS				Lg		10 26 02.1	
	13nm,0.8s,SNR=7.9						
EMOS	**Mosqueruela**	**1.68**	**219**	Pg	Pg	10 25 42.5	-2.3
	0.5nm,0.3s,SNR=7.9						
MTLF	**Montolieu**	**1.92**	**30**	*e*Pg	Pg	10 25 45.5	-4.1
MTLF				*e*Sg	Sg	10 26 10.0	-5.2
	6.3nm,0.3s						
SJPF	**Ste Jean**	**2.13**	**313**	*e*Sg	Sg	10 26 16.8	-5.5
	3.5nm,0.3s						
EALK	**Alkurruntz**	**2.36**	**312**	Pg	Pg	10 25 54.1	-4.2
	2.3nm,0.3s,SNR=4.0						
EALK				Sn	Sn	10 26 22.0	+2.3
	1.4nm,0.2s,SNR=7.9						
EALK				Lg		10 26 26.6	
	12nm,0.5s,SNR=7.9						
LASF	**Ste Croix**	**3.23**	**41**	*e*Pn	Pn	10 25 59.7	-3.2
LASF				*e*Pg	Pg	10 26 10.1	-5.6
LASF				*e*Sg	Sg	10 26 52.0	-6.7
	2.1nm,0.3s						
LASF	**Ste Croix**	**3.23**	**41**	*e*Pg	Pg	10 26 10.1	-5.6
LASF				*e*Sg	Sg	10 26 52.0	-6.7
	1.0nm,0.3s						

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*PRU **28** 10:27:37.2, 50.11N×18.36E*

WAR 28 10:27:35.8, 50.07N×18.46E, h0^{km}, ML2.6, 2D, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	**Raciborz**	**0.17**	**276**	⇓*i*PG	Pg	10 27 40.1	+0.8
RAC				⇓*e*SG	Sg	10 27 43.1	+1.5
RAC	**Raciborz**	**0.17**	**276**	*i* Pg	Pg	10 27 40.1	+0.8
RAC				*e*Sg	Sg	10 27 43.4	+1.8
OKC	**Ostrava-Krasne**	**0.31**	**222**	*e*PG	Pg	10 27 42.0	+0.1
OKC				*e*SG	Sg	10 27 47.3	+1.3
OJC	**Ojcow**	**0.87**	**79**	*e*PG	Pg	10 27 53.0	-0.2
OJC				*e*SG	Sg	10 28 05.0	+0.1
OJC	**Ojcow**	**0.87**	**79**	*e*Pg	Pg	10 27 52.7	-0.5
OJC				*e*Sg	Sg	10 28 04.7	-0.2
LIKS	**Likavka**	**1.10**	**157**	*e*SN	Sn	10 28 15.6	+1.3
NIE	**Niedzica**	**1.36**	**118**	*e*PG	Pg	10 28 02.0	-1.0
NIE				*e*SG	Sg	10 28 22.0	+0.8
NIE	**Niedzica**	**1.36**	**118**	*e*Pg	Pg	10 28 02.0	-1.0
NIE				*e*Sg	Sg	10 28 21.8	+0.6
DPC	**Dobruska-Polom**	**1.41**	**283**	*e*PG	Pg	10 28 01.8	-2.0
DPC				*e*SG	Sg	10 28 20.7	-1.9
KOLL	**Kolacno**	**1.49**	**182**	*e*PN	Pn	10 28 03.0	-0.8
KOLL				*e*SN	Sn	10 28 24.0	-0.2
KSP	**Ksiaz**	**1.59**	**300**	*e*PN	Pn	10 28 04.0	-1.3
KSP				*e*SG	Sg	10 28 26.0	-2.7
VYHS	**Vyhne**	**1.59**	**171**	*i* PG	Pg	10 28 04.1	-3.5
VYHS				*e*SN	Sn	10 28 27.5	+0.7
UPC	**Upice**	**1.63**	**287**	*e*PG	Pg	10 28 06.7	-1.7
UPC				*e*SG	Sg	10 28 27.8	-2.4
SMOL	**Smolenice**	**1.69**	**204**	*i* PN	Pn	10 28 05.8	-1.0
SMOL				*e*SN	Sn	10 28 28.3	-1.1
CRVS	**Cervenica-Dubn**	**2.28**	**120**	*e*PN	Pn	10 28 18.2	+3.1
CRVS				*e*SN	Sn	10 28 50.4	+6.2
PRU	**Pruhonice**	**2.53**	**270**	*e*PG	Pg	10 28 21.0	-5.3
PRU				*e*SG	Sg	10 28 53.2	-6.8
	16nm,0.6s						
KOLS	**Kolonicke sedl**	**2.73**	**113**	*e*PG	Pg	10 28 28.8	-1.5
KHC	**Kasperske Hory**	**3.31**	**255**	*e*PG	Pg	10 28 38.2	-3.7
KHC				*e*SG	Sg	10 29 21.5	-4.6
CLL	**Collm**	**3.69**	**292**	*e*SG	Sg	10 29 33.0	-5.6

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*IDC **28** 10:28:02.5±1.4, 26.58N×100.47E, mb4.1/5, mb1 4.3/6, mb1mx3.9/17, mbtmp4.0/6, MS2.9/1, Ms1 3.1/1, ms1mx2.7/28, Error ellipse: s-maj=62.3km s-min=20.7km az=87.0*

*BJI **28** 10:28:05.4, 26.44N×99.97E, h16^{km}, mb3.7, ML3.8, Ms3.8, Msz3.9*

ISC 28 10:28:05.1±1.0, 26.5N±0.1×99.66E±0.09, h33^{km}, n9,

σ1^{s}73/13,**mb4.0**/6,**Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KMI	**Kunming**	**3.09**	**116**	P	**P**	**10 28 49.0**	**-3.7**
KMI				PG	**P**	**10 28 54.5**	**+1.8**
KMI				SG	**S**	**10 29 27.5**	**-1.5**
KMI				Smax			
	comp=N,407nm,1.0s						
KMI				Smax			
	comp=E,297nm,1.2s						
GYA	**Guiyang**	**6.28**	**89**	P	**P**	**10 29 36.3**	**-1.4**
GYA				PG	**P**	**10 29 54.5**	**+17**
GYA				S	**S**	**10 30 51.5**	**+2.4**
GYA				LR	LR		
	comp=N,660nm,8.4s						
GYA				LR	LR		
	comp=E,280nm,7.2s						
GYA				LR	LR		
	comp=Z,760nm,8.1s						
CMAR	**Chiang Mai Arr**	**8.03**	**185**	Pn	**P**	**10 30 03.8**	**+1.5**
	baz=3.8,slow=14,SNR=3.7						
CMAR				Pg	P	10 30 33.5	+31
	comp=Z,0.7nm,0.3s,baz=360,slow=17,SNR=16						
CMAR				Lg		10 32 16.1	
	comp=Z,0.8nm,0.3s,baz=19,slow=32,SNR=4.3						
CMAR				LR	LR	10 33 38.0	
	comp=Z,81nm,18.0s,baz=220,slow=41						
SONM	**Songino Array**	**21.94**	**12**	P	**P**	**10 33 01.6**	**+4.2**
	comp=Z,3.1nm,0.9s,mb3.8,baz=203,slow=8.7,SNR=19						
WRA	**Warramunga Arr**	**57.12**	**140**	P	**P**	**10 37 48.0**	**-3.1**
	comp=Z,2.7nm,0.7s,mb4.4,baz=328,slow=7.6,SNR=22						
ASAR	**Alice Springs**	**59.86**	**143**	P	**P**	**10 38 07.4**	**-2.7**
	comp=Z,1.3nm,0.6s,mb4.2,baz=326,slow=6.3,SNR=16						
ILAR	**Eielson Array**	**75.63**	**24**	P	**P**	**10 39 46.6**	**-1.5**
	comp=Z,1.2nm,1.2s,mb3.7,baz=280,slow=5.5,SNR=4.1						
INK	**Inuvik**	**77.74**	**18**	P	**P**	**10 39 59.6**	**-0.2**
	comp=Z,3.4nm,0.8s,mb4.3,baz=327,slow=4.8,SNR=10						
YKA	**Yellowknife Ar**	**87.18**	**15**	P	**P**	**10 40 49.2**	**+0.7**
	comp=Z,0.6nm,0.7s,mb3.9,baz=326,slow=4.6,SNR=11						

IDC 28 10:39:45.9±4.3,**10.59N**×**94.01E**,**mb3.5**/3,**mb1 3.8**/4,**mb1mx3.6**/17,**mbtmp3.5**/4,**Error ellipse: s-maj=127.1km s-min=27.2km az=80.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.16**	**31**	Pn	P	10 41 58.9	-3.5
	baz=214,slow=13,SNR=3.9						
SONM	**Songino Array**	**38.56**	**13**	P	P	10 47 10.6	-1.5
	0.2nm,0.4s,baz=211,slow=8.4,SNR=3.2						
WRA	**Warramunga Arr**	**49.96**	**127**	P	P	10 48 42.2	-1.9
	0.5nm,0.6s,baz=305,slow=8.6,SNR=4.9						
ASAR	**Alice Springs**	**51.77**	**132**	P	P	10 48 55.5	-2.2
	1.1nm,0.7s,baz=306,slow=6.9,SNR=11						

IDC 28 10:47:32.9±1.2,**10.76N**×**92.29E**,**mb3.9**/5,**mb1 4.0**/5,**mb1mx3.9**/16,**mbtmp3.9**/5,**Error ellipse: s-maj=55.1km s-min=22.2km az=50.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.00**	**39**	Pn	P	10 50 04.7	+3.7
	0.3nm,0.3s,baz=228,slow=13,SNR=3.0						
SONM	**Songino Array**	**38.82**	**15**	P	P	10 54 59.1	-2.1
	0.4nm,0.8s,baz=217,slow=7.2,SNR=3.4						
WRA	**Warramunga Arr**	**51.42**	**126**	P	P	10 56 40.3	-1.8
	1.7nm,0.4s,baz=300,slow=10,SNR=13						
ASAR	**Alice Springs**	**53.16**	**130**	P	P	10 56 52.5	-2.6
	1.0nm,0.6s,baz=307,slow=6.2,SNR=7.7						
BRTR	**Keskin Array B**	**59.18**	**310**	P	P	10 57 35.3	-2.8
	0.4nm,0.4s,baz=112,slow=7.8,SNR=3.0						
FINES	**FINESS Array B**	**69.32**	**332**	P	P	10 58 43.3	-0.7
	1.1nm,0.8s,baz=108,slow=6.0,SNR=3.4						

IDC 28 10:50:21.8±1.2,**8.63N**×**92.05E**,**mb3.8**/5,**mb1 4.0**/6,**mb1mx3.9**/18,**mbtmp3.9**/6,**ML4.4**/1,**Error ellipse: s-maj=41.8km s-min=20.8km az=57.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.85**	**34**	Pn	P	10 53 12.5	-2.7
	0.7nm,0.3s,baz=225,slow=15,SNR=11						
SONM	**Songino Array**	**40.92**	**15**	P	P	10 58 06.0	-1.5
	2.4nm,0.8s,baz=199,slow=8.2,SNR=14						
BVAR	**Borovoye Array**	**47.63**	**342**	P	P	10 58 59.4	-2.1
	0.3nm,0.4s,baz=135,slow=8.2,SNR=2.4						
WRA	**Warramunga Arr**	**50.39**	**125**	P	P	10 59 20.9	-2.4
	0.9nm,0.4s,baz=305,slow=8.4,SNR=13						
ASAR	**Alice Springs**	**51.99**	**129**	P	P	10 59 32.9	-2.5
	1.0nm,0.7s,baz=304,slow=7.9,SNR=6.5						
ASAR				PcP	PcP	11 00 46.7	-1.2
	0.3nm,0.8s,baz=311,slow=2.5,SNR=3.9						
BRTR	**Keskin Array B**	**60.37**	**311**	P	P	11 00 33.0	-2.2
	0.7nm,0.6s,baz=90,slow=5.8,SNR=3.4						

BJI ***28*** *10:51:45.0,10.29N×92.32E,h45^{km},mB5.2,mb5.2,Ms4.8,Msz4.6*

IDC ***28*** *10:51:46.1±0.5,10.57N×92.21E,h22^{km}±3^{km},mb4.7/18,mb1 4.8/19,mb1mx4.7/23,mbtmp4.8/19,ML4.7/1,MS4.5/4,Ms1 4.6/4,ms1mx4.0/25,Error ellipse: s-maj=20.5km s-min=10.6km az=48.0*

MOS ***28*** *10:51:47.0±1.2,10.72N×92.29E,h33^{km},mb5.3/35,MS4.6/4,Error ellipse: s-maj=12.1km s-min=7.2km az=107.1*

NEIC ***28*** *10:51:47.3±0.4,10.55N×92.35E,h30^{km},mb5.0/29,Error ellipse: s-maj=10.3km s-min=8.8km az=175.0*

HRVD ***28*** *10:51:47.3±0.3,10.61N×92.20E,h12^{km},MW5.3/44,Centroid moment Tensor Solution. LP body waves: s39,c57;Mantle waves: s44,c56; Half duration: 1^{s}3 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.19±.02; M$_{\theta\theta}$0.08±.01; M$_{\phi\phi}$-0.27±.01; M$_{r\theta}$0.32±.04; M$_{\theta\phi}$0.02±.01; M$_{\phi r}$-0.96±.04; Best double couple: M$_{0}$1.04×10^{17} NP1:ϕ_s22°,δ8°,λ130°. NP2:ϕ_s162°,δ84°,λ85°. Principal axes: T 1.01, Plg51°, Azm66°; N .06, Plg5°, Azm162°; P -1.07, Plg39°, Azm257°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 10:51:44.1±0.3,**10.46N**±0.04×**92.33E**±0.03,**h24**^{km},**h24**^{km}±1.2^{km}**:pP-P,n188,**σ**1^{s}20**/183,**mb5.1**/65,**MS4.6**/14,**22C-5D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**10.21**	**38**	*e*P	**P**	**10 54 09.7**	**-2.7**
CMAR	**Chiang Mai Arr**	**10.21**	**38**	Pn	**P**	**10 54 12.7**	**+0.2**
	1.9nm,0.3s,baz=232,slow=14,SNR=46						
CMAR				Sn	**S**	**10 56 14.1**	**+7.0**
	0.4nm,0.3s,baz=234,slow=20,SNR=3.4						
CMAR				LR	LR	10 58 55.2	
	comp=Z,3µm,18.2s,baz=220,slow=42						
VIS	**Vishakhapatnam**	**11.33**	**311**	*e*P	**P**	**10 54 23.6**	**-4.1**
VIS				*e*S	x	10 56 13.5	
VIS				*e*	**S**	**10 56 21.6**	**-13**
	comp=N,370nm,0.7s						
VIS				*e*		10 56 21.7	
	comp=E,229nm,0.4s						
PALK	**Pallekele**	**11.92**	**256**	*e*P	**P**	**10 54 33.6**	**-2.1**
PALK				*e*S	**S**	**10 56 35.1**	**-14**
MDRS	**Chennai**	**12.11**	**284**	*e*P	**P**	**10 54 33.9**	**-4.5**
MDRS				*e*S	x	10 56 27.2	
MDRS				*e*	**S**	**10 56 44.9**	**-8.8**
	comp=N,879nm,0.3s						
MDRS				*e*		10 56 45.2	
	comp=E,490nm,0.2s						
BOK	**Bokaro**	**14.62**	**336**	*e*P	**P**	**10 55 10.4**	**-1.1**
BOK				*e*		10 55 28.0	
	comp=Z,75nm,1.0s						
KOD	**Kodaikanal**	**14.62**	**270**	*e*P	**P**	**10 55 10.6**	**-1.1**
SHL	**Shillong**	**15.03**	**358**	*e*P	**P**	**10 55 18.9**	**+2.0**
SHL				*e*		10 55 22.4	
	comp=Z,45nm,0.9s						
HYB	**Hyderabad**	**15.05**	**299**	*e*P	**P**	**10 55 15.0**	**-2.2**
HYB				*e*S	**S**	**10 57 50.0**	**-14**
HYB	**Hyderabad**	**15.05**	**299**	*i* P	**P**	**10 55 15.0**	**-2.2**
HYB				*e*		10 57 50.0	
HYB				*e*S	**S**	**10 57 58.0**	**-5.8**
BLSP	**Bilaspur**	**15.17**	**321**	*e*P	**P**	**10 55 15.6**	**-3.2**
BLSP				*e*		10 55 18.4	
	comp=Z,62nm,1.0s						
TRD	**Trivandrum**	**15.29**	**264**	*e*P	**P**	**10 55 18.0**	**-2.3**
TRD				*e*		10 55 20.5	
	comp=Z,53nm,1.6s						
MNGI	**Mangalore**	**17.32**	**280**	*e*P	**P**	**10 55 45.5**	**-0.7**
MNGI				*e*		10 55 50.2	
	comp=Z,120nm,1.3s						
KMI	**Kunming**	**17.62**	**33**	⇑P	**P**	**10 55 51.0**	**+1.2**
KMI				AP		10 55 56.0	
KMI				AMB	AMB		
	comp=Z,75nm,1.4s						
KMI				AMB	AMB		
	comp=Z,464nm,4.4s						
KMI				LR	LR		
	comp=N,2µm,19.8s						
KMI				LR	LR		
	comp=E,3µm,15.3s						
KMI				LR	LR		
	comp=Z,2µm,19.4s						
ALBI	**Allahabad**	**17.83**	**327**	*e*S	**S**	**10 59 01.5**	**-6.3**
AKL	**Akola**	**17.91**	**306**	*e*P	**P**	**10 55 55.5**	**+2.0**
AKL				*e*		10 55 59.2	
	comp=Z,62nm,0.7s						
AKL				*e*		10 58 56.0	
AKL				*e*S	**S**	**10 58 58.6**	**-11**
PKI	**Pulchoki**	**18.23**	**340**	*e*P	**P**	**10 55 57.2**	**-0.2**
	comp=Z,114nm,0.6s						
PKI	**Pulchoki**	**18.23**	**340**	*e*P	**P**	**10 55 57.3**	**-0.1**
	comp=Z,114nm,0.6s						
DMN	**Daman**	**18.37**	**339**	*e*P	**P**	**10 55 59.5**	**+0.4**
	comp=Z,164nm,0.8s						
DMN	**Daman**	**18.37**	**339**	*e*P	**P**	**10 55 59.9**	**+0.8**
	comp=Z,164nm,0.8s						
GUN	**Gumba**	**18.39**	**342**	*e*P	**P**	**10 55 59.2**	**-0.2**
	comp=Z,127nm,0.7s						
GUN	**Gumba**	**18.39**	**342**	*e*P	**P**	**10 55 59.2**	**-0.2**
	comp=Z,81nm,0.7s						
KKN	**Kakani**	**18.47**	**340**	*e*P	**P**	**10 56 01.0**	**+0.6**
KKN	**Kakani**	**18.47**	**340**	*e*P	**P**	**10 56 01.0**	**+0.6**
GOA	**Goa**	**18.71**	**287**	*e*	**P**	**10 56 10.4**	**+7.0**
GOA				*e*		10 56 13.5	
	comp=Z,80nm,1.6s						
KAD	**Karad**	**18.88**	**293**	*e*P	**P**	**10 56 03.9**	**-1.4**
KAD				*e*		10 56 08.4	
	comp=Z,49nm,1.4s						
GKN	**Gorkha**	**18.89**	**339**	*e*P	**P**	**10 56 05.9**	**+0.5**
	comp=Z,55nm,0.4s						
GKN	**Gorkha**	**18.89**	**339**	*e*P	**P**	**10 56 06.4**	**+1.0**
QIZ	**Qiongzhong**	**18.95**	**61**	P	**P**	**10 56 06.0**	**-0.1**
QIZ				LR	LR		
	comp=N,2µm,17.5s						
QIZ				LR	LR		
	comp=E,1µm,18.4s						
QIZ				LR	LR		
	comp=Z,2µm,18.1s						
KOLN	**Koldanda**	**19.08**	**336**	*e*P	**P**	**10 56 10.1**	**+2.4**
	comp=Z,74nm,0.6s						
KOLN	**Koldanda**	**19.08**	**336**	*e*P	**P**	**10 56 10.0**	**+2.3**
	comp=Z,74nm,0.6s						
BHPL	**Bhopal**	**19.08**	**314**	*e*P	**P**	**10 56 08.1**	**+0.3**
BHPL				*e*		10 56 09.7	
	comp=Z,62nm,1.3s						
BHPL				*i* S	**S**	**10 59 27.9**	**-8.4**
	comp=Z,62nm,1.2s						
LSA	**Lhasa**	**19.18**	**357**	⇑*e*P	**P**	**10 56 08.2**	**-0.6**
LSA				pmax	pmax		
	comp=Z,69nm,0.6s						
LSA	**Lhasa**	**19.18**	**357**	⇑*e*P	**P**	**10 56 08.2**	**-0.6**
	comp=Z,69nm,0.6s						
POO	**Poona**	**19.60**	**296**	*e*P	**P**	**10 56 13.3**	**-0.4**
POO				*e*		10 56 16.5	
	comp=Z,77nm,1.3s						
BOM	**Bombay**	**20.64**	**296**	*e*P	**P**	**10 56 25.5**	**+0.8**
	comp=Z,341nm,2.4s						
BOM				*e*		11 00 00.8	
GYA	**Guiyang**	**20.90**	**38**	⇑*i*P	**P**	**10 56 26.5**	**-0.8**
GYA				AMB	AMB		
	comp=Z,70nm,1.0s						
GYA				AMB	AMB		
	comp=Z,1µm,4.2s						
GYA				LR	LR		
	comp=N,4µm,16.8s,MS5.1						
GYA				LR	LR		
	comp=E,5µm,17.0s,MS5.1						
GYA				LR	LR		
	comp=Z,7µm,16.4s,MS5.1						
PTH	**Pithoragarh**	**22.11**	**331**	*e*P	**P**	**10 56 42.3**	**+2.8**
PTH				*e*S	**S**	**11 00 38.4**	**+1.6**
CD2	**Chengdu**	**22.95**	**26**	P	**P**	**10 56 47.8**	**-0.1**
NDI	**New Delhi**	**23.01**	**324**	*e*P	**P**	**10 56 51.6**	**+3.2**
NDI				*e*		10 56 58.9	
	comp=Z,88nm,1.0s						
NDI				*e*S	**S**	**11 00 52.9**	**-0.2**
AJM	**Ajmer**	**23.09**	**316**	*e*P	**P**	**10 56 50.0**	**+0.8**
AJM				*e*		10 57 00.1	
	comp=Z,55nm,1.1s						
DDI	**Dehra Dun**	**23.82**	**328**	*e*P	**P**	**10 56 59.1**	**+2.8**
DDI				*e*		11 01 24.9	
ENH	**Enshi**	**25.38**	**37**	⇑*e*P	**P**	**10 57 10.3**	**-1.0**
	comp=Z,166nm,0.8s,mb5.6						
LZH	**Lanzhou**	**27.57**	**20**	⇑P	**P**	**10 57 31.3**	**-0.1**
LZH				AP	pP	10 57 43.0	+4.5
LZH				XP	sP	10 57 47.3	+5.5
LZH				AMB	AMB		
	comp=Z,160nm,1.3s,mb5.5						
LZH				AMB	AMB		
	comp=Z,340nm,4.6s						
LZH				LR	LR		
	comp=E,2µm,13.2s						
LZH				LR	LR		
	comp=Z,4µm,18.6s						
XAN	**Xi’an**	**27.96**	**30**	P	**P**	**10 57 32.0**	**-3.0**
XAN				AMB	AMB		
	comp=Z,26nm,0.8s,mb4.9						
TGY	**Tagaytay City**	**28.18**	**80**	P	**P**	**10 57 37.7**	**+0.7**
	comp=Z,78nm,0.3s,mb5.8,baz=139,slow=7.7,SNR=3.1						
WHN	**Wuhan**	**28.61**	**42**	⇓P	**P**	**10 57 40.5**	**-0.3**
WHN				S	**S**	**11 02 32.0**	**+5.6**
WHN				AMB	AMB		
	comp=Z,80nm,1.3s,mb5.3						
WHN				LR	LR		
	comp=Z,4µm,16.3s,MS5.0						
GTA	**Gaotai**	**29.59**	**12**	*e*P	**P**	**10 57 49.5**	**-0.1**
GTA				AP	pP	10 57 56.8	0.0
GTA				PP	PP	10 58 47.3	+1.3
GTA				S	**S**	**11 02 42.0**	**0.0**
GTA				SS	SS	11 04 15.0	-1.0
GTA				AMB	AMB		
	comp=Z,39nm,1.8s,mb4.8						
GTA				AMB	AMB		
	comp=Z,298nm,3.8s						
GTA				LR	LR		
	comp=N,596nm,18.2s,MS4.4						
GTA				LR	LR		
	comp=E,595nm,19.4s,MS4.4						
GTA				LR	LR		
	comp=Z,795nm,17.1s,MS4.4						
KSH	**Kashi**	**32.40**	**336**	*e*P	**P**	**10 58 14.8**	**+0.5**
KSH				*e*AP	pP	10 58 23.0	+1.5
KSH				XP	sP	10 58 27.3	+2.7
KSH				*e*PCP	PcP	11 01 00.5	-1.1
KSH				AMB	AMB		
	comp=Z,180nm,5.5s						
NJ2	**Nanjing**	**32.59**	**45**	*e*P	**P**	**10 58 16.0**	**0.0**
NJ2				AP	pP	10 58 26.3	+3.1
NJ2				XP	sP	10 58 29.5	+3.1
NJ2				PP	PP	10 59 21.3	-3.7
NJ2				PPP	PPP	10 59 37.5	-3.1
NJ2				S	**S**	**11 03 22.0**	**-7.0**
NJ2				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.9						
NJ2				AMB	AMB		
	comp=Z,600nm,6.0s						
NJ2				LR	LR		
	comp=N,632nm,14.2s,MS4.5						
NJ2				LR	LR		
	comp=E,240nm,12.4s,MS4.5						
NJ2				LR	LR		
	comp=Z,402nm,14.0s,MS4.3						
WMQ	**Urumqi**	**33.48**	**354**	P	**P**	**10 58 23.5**	**-0.1**
WMQ				AMB	AMB		
	comp=Z,21nm,0.8s,mb5.1						
BTO	**Baotou**	**33.86**	**25**	*e*P	**P**	**10 58 24.8**	**-2.2**
BTO				AMB	AMB		
	comp=Z,53nm,0.9s,mb5.5						
HHC	**Hu-ho-hao-te**	**34.71**	**26**	*e*P	**P**	**10 58 33.8**	**-0.5**
HHC				AMB	AMB		
	comp=Z,55nm,1.1s,mb5.4						
HHC				AMB	AMB		
	comp=Z,176nm,5.8s						
HHC				LR	LR		
	comp=N,575nm,16.6s,MS4.7						
HHC				LR	LR		
	comp=E,884nm,13.5s,MS4.7						
HHC				LR	LR		
	comp=Z,705nm,20.1s						
KZA	**Kyzart**	**34.88**	**338**	P	**P**	**10 58 37.3**	**+1.6**
	SNR=6.4						
KBK	**Karagaybulak**	**35.49**	**338**	P	**P**	**10 58 42.3**	**+1.4**
	SNR=7.0						
AML	**Almayashu**	**35.53**	**336**	P	**P**	**10 58 42.0**	**+0.7**
	SNR=13						
AAK	**Ala-Archa**	**35.64**	**337**	P	**P**	**10 58 44.3**	**+2.1**
	SNR=7.1						
AAK	**Ala-Archa**	**35.64**	**337**	⇑*i*P	**P**	**10 58 41.9**	**-0.3**
AAK	**Ala-Archa**	**35.64**	**337**	*e*P	**P**	**10 58 41.1**	**-1.1**
	comp=Z,22nm,1.0s,mb5.0						
EKS2	**Erkin-Say**	**35.94**	**336**	P	**P**	**10 58 45.7**	**+1.0**
	SNR=9.4						
USP	**Ospenovka**	**36.18**	**338**	P	**P**	**10 58 47.1**	**+0.3**
	SNR=12						
BJT	**Baijiatuau**	**36.25**	**32**	⇑*e*P	**P**	**10 58 47.5**	**+0.1**
BJT				pmax	pmax		
	comp=Z,60nm,0.8s						
BJT	**Baijiatuau**	**36.25**	**32**	⇑*e*P	**P**	**10 58 47.5**	**+0.1**
	comp=Z,60nm,0.8s,mb5.6						
BJI	**Beijing**	**36.27**	**32**	P	**P**	**10 58 47.5**	**0.0**
BJI				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.4						
BJI				LR	LR		
	comp=N,419nm,14.1s,MS4.5						
BJI				LR	LR		
	comp=E,379nm,12.0s,MS4.5						
BJI				LR	LR		
	comp=Z,2µm,17.9s						
MKAR	**Makanchi Array**	**37.20**	**349**	*i* P	**P**	**10 58 54.9**	**-0.4**
MKAR				pmax	pmax		
	comp=Z,108nm,1.4s						
JOW	**Kunigami**	**37.58**	**59**	P	**P**	**10 58 59.1**	**+0.4**
	comp=Z,26nm,1.0s,mb4.9,baz=320,slow=24,SNR=7.2						
SONM	**Songino Array**	**39.09**	**15**	P	**P**	**10 59 11.3**	**+0.1**
	comp=Z,52nm,1.1s,mb5.2,baz=202,slow=6.7,SNR=93						
SONM				PcP	PcP	11 01 21.7	+0.5
	comp=Z,3.1nm,0.7s,baz=225,slow=4.1,SNR=5.1						
SONM				LR	LR	11 19 21.7	
	comp=Z,653nm,18.2s,MS4.5,baz=30,slow=42						
ULN	**Ulaanbaatar**	**39.29**	**16**	⇑*i*P	**P**	**10 59 12.5**	**-0.3**
ULN				pmax	pmax		
	comp=Z,24nm,1.0s,mb4.9						
ULN	**Ulaanbaatar**	**39.29**	**16**	⇑*i*P	**P**	**10 59 12.5**	**-0.3**
	comp=Z,24nm,1.0s,mb4.9						
ZAK	**Zakamensk**	**40.82**	**11**	⇑*i*P	**P**	**10 59 25.6**	**+0.3**
MBWA	**Marble Bar**	**41.38**	**139**	*e*P	**P**	**10 59 28.9**	**-1.4**
	comp=Z,40nm,1.4s,mb4.9						
KS15	**Wonju Array Si**	**41.75**	**44**	*e*P	**P**	**10 59 31.6**	**-1.5**
TLY	**Talaya**	**42.13**	**10**	*e*P	**P**	**10 59 36.5**	**+0.4**
TLY				*e*S	**S**	**11 05 41.5**	**-13**
TLY				*e*SS	SS	11 08 54.2	-2.3
TLY				pmax	pmax		
	comp=Z,29nm,1.1s,mb4.8						
TLY				MLR	MLR		
	comp=Z,582nm,23.0s,MS4.4						
TLY	**Talaya**	**42.13**	**10**	*e*P	**P**	**10 59 36.0**	**-0.1**
	comp=Z,16nm,0.9s,mb4.6						
CN2	**Changchun**	**43.87**	**35**	⇑P	**P**	**10 59 48.0**	**-2.4**
CN2				AMB	AMB		
	comp=Z,80nm,0.7s,mb5.6						
HIA	**Hailar**	**44.91**	**25**	⇑*e*P	**P**	**10 59 58.0**	**-0.7**
HIA				pmax	pmax		
	comp=Z,30nm,1.0s						
HIA	**Hailar**	**44.91**	**25**	⇑*e*P	**P**	**10 59 58.0**	**-0.7**
	comp=Z,30nm,1.0s,mb5.1						
BVA0	**Borovoye Array**	**45.99**	**342**	*i* P	**P**	**11 00 06.1**	**-1.0**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s						
BVAR	**Borovoye Array**	**45.99**	**342**	P	**P**	**11 00 06.4**	**-0.7**
	comp=Z,4.6nm,0.6s,baz=143,slow=7.4,SNR=17						
BRVK	**Borovoye**	**46.05**	**342**	*e*P	**P**	**11 00 06.8**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BRVK	**Borovoye**	**46.05**	**342**	*e*P	**P**	**11 00 06.8**	**-0.8**
	comp=Z,7.7nm,0.8s,mb4.7						
CHKZ	**Chkalovo**	**46.48**	**342**	*e*P	**P**	**11 00 10.8**	**-0.2**
CHKZ				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.3						
CHKZ	**Chkalovo**	**46.48**	**342**	*e*P	**P**	**11 00 10.8**	**-0.3**
	comp=Z,26nm,0.7s,mb5.3						
MDJ	**Mudanjiang**	**46.74**	**36**	P	**P**	**11 00 13.8**	**+0.6**
MDJ				AMB	AMB		
	comp=Z,16nm,1.9s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,131nm,6.7s						
MDJ				LR	LR		
	comp=N,584nm,19.1s,MS4.6						
MDJ				LR	LR		
	comp=E,317nm,18.7s,MS4.6						
MDJ				LR	LR		
	comp=Z,659nm,17.7s,MS4.6						
MAJO	**Matsushiro**	**48.82**	**50**	*e*P	**P**	**11 00 29.0**	**-0.6**
MAJO				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.3						
MAJO	**Matsushiro**	**48.82**	**50**	*e*P	**P**	**11 00 29.0**	**-0.6**
	comp=Z,38nm,1.1s,mb5.3						
MAT	**Matsushiro**	**48.82**	**50**	P	**P**	**11 00 28.6**	**-1.0**
MAT				*e*S	**S**	**11 07 31.2**	**+0.9**
MAT	**Matsushiro**	**48.82**	**50**	*e*P	**P**	**11 00 29.0**	**-0.6**
MAT				S	**S**	**11 07 31.0**	**+0.7**
MAT				pmax	pmax		
	comp=Z,137nm,1.9s,mb5.7						
MAT	**Matsushiro**	**48.82**	**50**	*e*P	**P**	**11 00 29.0**	**-0.6**
	comp=Z,137nm,1.9s,mb5.7						
MAT				S	**S**	**11 07 31.0**	**+0.7**
NWAO	**Narrogin (SRO)**	**49.25**	**152**	P	**P**	**11 00 34.2**	**+1.3**
	comp=Z,27nm,1.0s,mb5.2,baz=307,slow=5.2,SNR=8.9						
BOD	**Bodaibo**	**50.09**	**15**	⇓*i*P	**P**	**11 00 38.0**	**-1.1**
WRA	**Warramunga Arr**	**51.21**	**126**	P	**P**	**11 00 48.5**	**+0.4**
	comp=Z,35nm,0.4s,mb5.6,baz=306,slow=8.3,SNR=356						
WRA				S	**S**	**11 08 01.2**	**-2.4**
	comp=Z,2.1nm,0.9s,baz=295,slow=16,SNR=6.4						
WRAB	**Tennant Creek**	**51.22**	**126**	⇓*i*P	**P**	**11 00 46.7**	**-1.4**
WRAB	**Tennant Creek**	**51.22**	**126**	⇑*i*P	**P**	**11 00 48.4**	**+0.3**
	comp=Z,90nm,0.4s,mb6.0						
GNI	**Garni**	**51.37**	**314**	*e*P	**P**	**11 00 50.7**	**+1.7**
GNI				pmax	pmax		
	comp=Z,39nm,1.0s						
GNI	**Garni**	**51.37**	**314**	P	**P**	**11 00 51.4**	**+2.4**
	comp=Z,16nm,0.8s,mb5.0,baz=356,slow=23,SNR=4.6						
GNI	**Garni**	**51.37**	**314**	*e*P	**P**	**11 00 50.7**	**+1.7**
	comp=Z,39nm,1.0s,mb5.3						
TI2	**Plekhanov**	**51.96**	**315**	*e*P	pP	11 01 01.4	+0.4
SVE	**Sverdlovsk**	**52.36**	**339**	⇑*e*P	**P**	**11 00 56.0**	**-0.2**
SVE				pmax	pmax		
	comp=Z,90nm,1.6s,mb5.5						
CLNS	**Chul’man**	**52.68**	**22**	*e*P	**P**	**11 00 57.9**	**-0.8**
CLNS				pmax	pmax		
	comp=N,24nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,53nm,0.8s,mb5.5						
CLNS				pmax	pmax		
	comp=E,29nm,1.0s						
ARU	**Arti**	**52.83**	**337**	⇑*i*P	**P**	**11 00 56.3**	**-3.5**
ARU				*e*		11 02 04.2	
ARU				*e*		11 02 59.1	
ARU				*e*S	**S**	**11 08 22.0**	**-3.2**
ARU				*e*SS	SS	11 12 04.5	+1.3
ARU				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
ASAR	**Alice Springs**	**52.94**	**130**	P	**P**	**11 01 01.1**	**+0.1**
	comp=Z,27nm,0.5s,mb5.5,baz=304,slow=7.2,SNR=315						
ASAR				ScP		11 06 06.4	
	comp=Z,2.8nm,1.1s,baz=311,slow=5.0,SNR=5.9						
ASAR				S	**S**	**11 08 26.5**	**-0.6**
	comp=Z,3.2nm,1.1s,baz=301,slow=13,SNR=8.1						
ASAR				LR	LR	11 24 17.1	
	comp=Z,286nm,20.2s,MS4.3,baz=121,slow=37						
ZEI	**Tsey**	**52.94**	**316**	*e*P	**P**	**11 01 00.6**	**-0.2**
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
KIV	**Kislovodsk**	**54.22**	**317**	P	**P**	**11 01 14.2**	**+4.1**
KIV				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.2						
KIV	**Kislovodsk**	**54.22**	**317**	P	**P**	**11 01 14.2**	**+4.1**

	comp=Z,19nm,0.6s,mb5.2						
GOF	Gofitskoye	54.42	319	*e*P	P	11 01 10.0	-1.6
ASAJ	Asahikawa	54.69	43	P	P	11 01 13.8	+0.2
	comp=Z,14nm,0.6s,mb5.2,baz=292,slow=9.9,SNR=12						
ASF	Jabal al Asfar	55.33	302	LR	LR	11 28 22.0	
	comp=Z,648nm,18.7s,MS4.7,baz=333,slow=40						
MALT	Malatya	55.44	309	*e*P	pP	11 01 26.2	-0.5
MALT				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
MALT	Malatya	55.44	309	*e*P	pP	11 01 26.2	-0.6
	comp=Z,13nm,1.1s						
SOKR	Solikamsk	55.76	339⇑	*i*P	P	11 01 20.9	-0.3
SOKR				MLR	MLR		
	comp=Z,630nm,20.0s,MS4.7						
YSS	Yuzh-Sakhalins	55.90	40⇑	*e*P	P	11 01 16.1	-6.2
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
SOC	Sochi	56.09	316	*e*P	P	11 01 22.2	-1.6
SOC				*e*PPP	PPP	11 04 47.8	+1.4
SOC				*e*S	S	11 09 11.8	+2.5
SOC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
SOC				pmax	pmax		
	comp=N,7.0nm,0.5s						
SOC				pmax	pmax		
	comp=E,3.0nm,0.4s						
SOC				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.9						
SOC				MLR	MLR		
	comp=N,304nm,22.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,371nm,23.0s,MS4.5						
PMG	Port Moresby	58.01	108	P	P	11 01 38.5	+0.7
	comp=E,60nm,1.1s,mb5.5,baz=288,slow=6.1,SNR=8.3						
YAK	Yakutsk	58.15	20	*e*P	P	11 01 36.6	-1.5
YAK				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.3						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,14nm,1.2s						
VRSR	Storozhevoye	59.25	324	*e*P	P	11 01 45.1	-0.8
VRSR				*e**PP	pP	11 01 51.7	-1.8
VRSR				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.9						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.5s						
BRTR	Keskin Array B	59.40	310	P	P	11 01 46.1	-1.0
	comp=E,0.7nm,0.7s,baz=121,slow=7.2,SNR=4.4						
BRTR				pP	pP	11 01 53.1	-1.7
	comp=E,3.6nm,1.0s,baz=121,slow=7.2,SNR=7.1						
SIM	Simferopol’	60.34	316	P	pP	11 02 01.3	+0.2
SIM				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.2						
CTA	Charters Tower	61.13	120	P	P	11 02 00.2	+1.0
	comp=Z,38nm,1.2s,mb5.4,baz=304,slow=8.9,SNR=14						
CTAO	Charters Tower	61.13	120⇑	*e*P	P	11 02 00.1	+0.9
CTAO				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.5						
CTAO	Charters Tower	61.13	120⇑	*e*P	P	11 02 00.1	+0.9
	comp=Z,53nm,1.2s,mb5.5						
MOS	Moscow	61.96	328	*e*P	pP	11 02 10.7	-1.2
MOS				pmax	pmax		
	comp=Z,53nm,0.7s,mb5.8						
OBN	Obninsk	62.25	328⇓	*i*P	P	11 02 04.7	-1.6
OBN				*i*	pP	11 02 13.6	-0.3
OBN				*e*		11 02 44.8	
OBN				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.4						
OBN				MLR	MLR		
	comp=Z,500nm,18.0s,MS4.7						
STKA	Stephens Creek	63.17	134	P	P	11 02 14.3	+1.6
	comp=Z,13nm,0.5s,mb5.3,baz=310,slow=5.7,SNR=43						
STKA				pP	pP	11 02 22.0	+1.7
	comp=Z,19nm,0.6s,baz=308,slow=5.9,SNR=9.5						
STKA	Stephens Creek	63.17	134	*e*P	P	11 02 13.8	+1.1
AKASG	Malin Array Be	65.03	321	P	P	11 02 22.0	-2.6
	comp=Z,0.5nm,0.3s,mb4.0,baz=89,slow=4.7,SNR=4.2						
AKASG				pP	pP	11 02 28.9	-3.3
	comp=Z,1.7nm,0.4s,baz=88,slow=5.3,SNR=9.1						
LSZ	Lusaka	68.48	249	*e*P	P	11 02 51.4	+4.4
LSZ				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
LSZ	Lusaka	68.48	249	*e*P	P	11 02 51.4	+4.4
	comp=Z,9.1nm,1.0s,mb4.8						
APA	Apatity	68.81	339⇓	*i*P	P	11 02 47.5	-0.7
APA				*i*		11 03 03.5	
KWP	Kalwaria	68.92	319	*e*P	pP	11 02 55.1	-1.7
KOLS	Kolonicke sedl	69.09	318	*e*P	pP	11 02 57.2	-0.7
KOLS	Kolonicke sedl	69.09	318	*e*pP	pP	11 02 57.2	-0.7
SUW	Suwalki	69.38	324	*e*P	pP	11 02 58.9	-0.6
FINES	FINESS Array B	69.61	332	P	P	11 02 52.2	-1.0
	comp=Z,2.1nm,0.7s,mb4.2,baz=104,slow=7.9,SNR=9.1						
FINES				pP	pP	11 03 00.1	-0.7
	comp=Z,4.0nm,0.6s,baz=106,slow=8.2,SNR=6.1						
KAF	Kangasniemi	69.69	333	*e*p	P	11 02 50.1	-3.6
OJC	Ojcow	70.86	320	*e*P	P	11 03 07.6	+6.6
VYHS	Vyhne	71.30	318	*e*	pP	11 03 09.8	-1.6
ARCES	ARCESS Array B	72.24	340	P	P	11 03 09.0	0.0
	comp=Z,5.5nm,0.6s,mb4.7,baz=76,slow=5.0,SNR=24						
ARCES				pP	pP	11 03 16.1	-0.6
	comp=Z,6.3nm,0.7s,baz=79,slow=6.2,SNR=5.0						
ZST	Bratislava	72.43	317	*e*pP	pP	11 03 18.2	+0.1
KSP	Ksiaz	73.15	320	*e*P	P	11 03 20.9	+6.3
KSP				*e**PP	pP	11 03 31.8	+10
LBTB	Lobatse	73.94	240	*e*P	P	11 03 20.1	+0.4
LBTB				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
LBTB	Lobatse	73.94	240	*e*P	P	11 03 20.1	+0.4
	comp=Z,5.8nm,0.7s,mb4.6						
PRU	Pruhonice	74.21	319	*e*pP	pP	11 03 28.1	-0.4
BRG	Berggiesshubel	74.64	320	*e*P	P	11 03 24.7	+1.5
BRG				*i*	pP	11 03 31.0	+0.1
BRG				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.6						
BRG	Berggiesshubel	74.64	320	*e*P	P	11 03 24.7	+1.5
	comp=Z,12nm,1.5s,mb4.6						
BRG				*i*	pP	11 03 31.0	+0.1
GEC2	GERESS Array S	74.72	318	*e*P	P	11 03 24.7	+1.0
GEC2				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GEC2	GERESS Array S	74.72	318	*e*P	P	11 03 24.7	+1.0
	comp=Z,7.0nm,0.9s,mb4.6						
GERES	GERESS Array B	74.72	318	P	P	11 03 23.9	+0.2
	comp=Z,3.5nm,1.1s,mb4.2,baz=76,slow=5.5,SNR=10						
GERES				pP	pP	11 03 30.7	-0.7
	comp=Z,6.5nm,0.8s,baz=90,slow=5.3,SNR=19						
KHC	Kasperske Hory	74.81	318	*e*pP	pP	11 03 31.3	-0.7
KHC				*e*x	x	11 03 42.0	
CLL	Collm	75.24	320	*e*P	P	11 03 27.0	+0.3
CLL				*e*	pP	11 03 34.0	-0.4
CLL				pmax	pmax		
	comp=Z,19nm,1.6s,mb4.8						
CLL	Collm	75.24	320	*e*P	P	11 03 27.0	+0.3
	comp=Z,19nm,1.6s,mb4.8						
CLL				*e*	pP	11 03 34.0	-0.4
CLL	Collm	75.24	320	P	P	11 03 27.0	+0.3
	comp=Z,logA/T=1.1,mb4.8						
CLL				*e**PP	pP	11 03 34.0	-0.4
WET	Wettzell	75.27	318	*e*P	P	11 03 27.9	+1.0
BOSA	Boshof	75.47	237	*e*P	P	11 03 30.2	+1.8
BOSA				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
BOSA	Boshof	75.47	237	*e*P	P	11 03 30.2	+1.8
	comp=Z,9.5nm,0.8s,mb4.8						
MOX	Moxa	76.11	320	*e*P	P	11 03 32.3	+0.7
MOX	Moxa	76.11	320	*i* P	P	11 03 32.3	+0.7
GRA1	Grafenberg Arr	76.36	319	*e*P	P	11 03 34.6	+1.6
	comp=Z,8.0nm,0.9s,mb4.7						
GRA1				*e*pP	pP	11 03 41.1	+0.3
GRF	Grafenberg Arr	76.36	319	*e*P	P	11 03 34.6	+1.6
GRF				*e**PP	pP	11 03 41.1	+0.3
GRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	Grafenberg Arr	76.36	319	*e*P	P	11 03 34.6	+1.6
	comp=Z,8.0nm,0.9s,mb4.7						
GRF				*e*pP	pP	11 03 41.1	+0.3
NB2	NORSAR Subarra	76.62	330	P	P	11 03 33.3	-0.9
	comp=Z,6.7nm,0.8s,mb4.6,baz=95,slow=5.0						
NB2	NORSAR Subarra	76.62	330	P	P	11 03 33.3	-0.9
NB2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
NOA	NORSAR Array B	76.62	330	P	P	11 03 33.6	-0.7
	comp=Z,2.8nm,0.7s,mb4.3,baz=97,slow=5.7,SNR=8.1						
NOA				pP	pP	11 03 41.3	-0.7
	comp=Z,4.9nm,0.7s,baz=94,slow=5.7,SNR=8.1						
CLZ	Clausthal	76.89	321	*e*P	P	11 03 37.2	+1.2
	comp=Z,6.0nm,0.8s,mb4.6						
BSEG	Bad Segeberg	76.92	323	*e*P	P	11 03 37.6	+1.5
BFO	Black Forest	78.29	317	*e*P	P	11 03 44.6	+0.8
LPL	La Plagne	79.55	315	*e*P	P	11 03 52.4	+1.7
	comp=Z,61nm,1.1s,mb5.2						
LPL	La Plagne	79.55	315	*e*P	P	11 03 52.4	+1.7
LPL				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
ANM	Nome	85.86	25	*e*P	P	11 04 25.0	+2.3
ESDC	Sonseca Array	88.20	310	P	P	11 04 36.5	+1.8
	comp=Z,1.6nm,0.7s,mb4.3,baz=50,slow=4.5,SNR=4.2						
IMA	Indian Mountai	89.91	22	*e*P	P	11 04 43.8	+1.6
IMA				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.4						
IMA	Indian Mountai	89.91	22	*e*P	P	11 04 43.8	+1.6
	comp=Z,12nm,0.7s,mb5.3						
ILAR	Eielson Array	93.03	22	P	P	11 04 56.7	+0.1
	comp=Z,3.9nm,0.7s,mb4.9,baz=297,slow=4.2,SNR=68						
ILAR				PP	PP	11 08 39.2	-3.1
	comp=Z,0.9nm,0.9s,baz=298,slow=6.8,SNR=6.1						
PMR	Palmer	93.81	25	*e*P	P	11 05 01.1	+0.9
PMR				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.4						
PMR	Palmer	93.81	25	*e*P	P	11 05 01.1	+0.9
	comp=Z,14nm,0.9s,mb5.4						
INK	Inuvik	95.01	16	P	P	11 05 06.4	+0.8
	comp=Z,3.2nm,0.6s,mb4.9,baz=313,slow=5.7,SNR=20						
YKA	Yellowknife Ar	104.33	13	Pdiff	Pdif	11 05 47.9	+0.3
	comp=Z,0.5nm,1.0s,baz=332,slow=5.8,SNR=5.1						
YKA				PP	PP	11 10 03.0	-5.8
	comp=Z,0.9nm,0.8s,baz=332,slow=7.6,SNR=11						
YKA				PKKP	PKKP	11 21 42.6	+5.2
	comp=Z,0.3nm,0.8s,baz=156,slow=2.7,SNR=6.4						
PDAR	Pinedale Array	123.38	19	PKP	PKPdf	11 10 41.8	-2.4
	comp=Z,0.6nm,0.6s,slow=1.5,SNR=5.7						
NVAR	Mina Array Bea	123.58	29	PKP	PKPdf	11 10 43.7	-1.0
	comp=Z,2.8nm,0.7s,baz=298,slow=3.2,SNR=9.0						
MVU	Marysvale	126.17	24	*e*PKP	PKPdf	11 10 48.3	-1.3
MSU	Marysvale	126.18	24	*e*PKIKP	PKPdf	11 10 49.0	-0.7
PV10	Paradox Valley	127.48	21	*e*PKP	PKPdf	11 10 51.6	-0.6
MNTX	Cornudas Mount	134.78	21	*e*PKP	PKPdf	11 11 04.4	-1.8
TXAR	Lajitas Array	137.54	21	PKhKP		11 10 57.7	
	comp=Z,0.3nm,0.7s,baz=332,slow=1.9,SNR=3.9						
TXAR				PKP	PKPdf	11 11 09.8	-1.5
	comp=Z,2.0nm,1.1s,baz=106,slow=0.5,SNR=7.9						
TXAR				PP	PP	11 13 54.6	-2.2
	comp=Z,0.4nm,0.8s,baz=349,slow=4.6,SNR=3.1						
TXAR				SKPbc		11 14 41.7	
	comp=Z,2.6nm,1.1s,baz=270,slow=1.3,SNR=8.3						
JCT	Junction City	137.66	16	*e*PKIKP	PKPdf	11 11 08.1	-3.4
BDFB	Brasilia	141.07	258	PKP	PKPdf	11 11 15.6	-2.6
	comp=Z,0.9nm,0.3s,baz=153,slow=2.3,SNR=2.3						
LPAZ	La Paz	160.13	251	PKPab	PKPab	11 12 25.1	+0.6
	comp=Z,0.8nm,0.7s,baz=126,slow=6.9,SNR=3.1						
OTAV	Otavalo	165.97	319	*e*PKPab	PKPab	11 12 51.1	+1.0

NEIC ***28*** *10:51:58.3,44.00S×169.33E,h5^{km},ML3.9(WEL),After WEL.*

WEL 28 10:51:57.9±0.1,**43.98S×169.32E,h5^{km},ML3.9**/7,**3C-4D, Error ellipse: s-maj=1.8km s-min=1.2km az=90.0,South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JCZ	Jackson Bay	0.42	256	P	Pg	10 52 06.6	+0.3
JCZ				S	Sg	10 52 12.0	+0.1
JCZ	Jackson Bay	0.42	256	⇑PG	Pg	10 52 06.6	+0.3
JCZ				SG	Sg	10 52 12.1	+0.2
FOZ	Fox Glacier	0.49	33	⇑PG	Pg	10 52 09.0	+1.3
FOZ				SG	Sg	10 52 16.0	+1.7
LBZ	Lake Benmore	0.74	124	P	Pg	10 52 12.7	-0.1
LBZ				S	Sg	10 52 22.2	-0.5
LBZ	Lake Benmore	0.74	124	⇓P*	Pb	10 52 12.7	-0.2
LBZ				S*	Sb	10 52 22.2	-0.9
WKZ	Wanaka	0.88	194	P	Pb	10 52 14.3	-0.9
WKZ	Wanaka	0.88	194	⇓P*	Pb	10 52 14.2	-1.0
WKZ				S*	Sb	10 52 25.8	-1.2
MSZ	Milford Sound	1.22	235	P*	Pb	10 52 19.8	-1.2
MSZ				S*	Sb	10 52 36.2	-0.7
EAZ	Earnscleugh	1.25	180	P	Pb	10 52 20.9	-0.8
EAZ	Earnscleugh	1.25	180	⇓P*	Pb	10 52 20.9	-0.7
EAZ				S*	Sb	10 52 38.4	+0.5
RPZ	Rata Peaks	1.28	79	*e*P	Pb	10 52 22.3	+0.2
RPZ	Rata Peaks	1.28	79	⇑P*	Pb	10 52 22.3	+0.2
RPZ				S*	Sb	10 52 37.2	-1.6
WVZ	Waitaha Valley	1.37	49	PN	Pn	10 52 22.8	-0.9
WVZ				S*	Sb	10 52 42.1	+0.9
ODZ	Otahua Downs	1.43	139	P	Pn	10 52 24.4	-0.1
ODZ	Otahua Downs	1.43	139	⇓PN	Pn	10 52 24.3	-0.2
ODZ				SN	Sn	10 52 41.1	-2.7
MLZ	Mavora Lakes	1.60	210	P	Pn	10 52 27.9	+1.0
MLZ	Mavora Lakes	1.60	210	PN	Pn	10 52 27.6	+0.6
MLZ				SN	Sn	10 52 48.0	-0.2
TUZ	Tuapeka	1.99	174	*e*P	Pn	10 52 31.9	-0.7
TUZ	Tuapeka	1.99	174	PN	Pn	10 52 31.9	-0.7
TUZ				SN	Sn	10 52 55.6	-2.6
WHZ	Wether Hill Ro	2.15	207	*e*P	Pn	10 52 34.7	-0.2
WHZ	Wether Hill Ro	2.15	207	PN	Pn	10 52 34.6	-0.3
WHZ				SN	Sn	10 53 03.8	+1.6
MQZ	McQueen’s Vall	2.42	85	*e*P	Pn	10 52 43.7	+4.9
MQZ	McQueen’s Vall	2.42	85	*e*PN	Pn	10 52 39.9	+1.1
MQZ				SN	Sn	10 53 12.8	+3.6
LTZ	Lake Taylor	2.46	62	*e*P	Pn	10 52 39.1	-0.2
LTZ	Lake Taylor	2.46	62	PN	Pn	10 52 39.1	-0.2
LTZ				SN	Sn	10 53 10.2	+0.2
DSZ	Denniston Nort	2.88	40	*e*P	Pn	10 52 44.1	-1.2
DSZ	Denniston Nort	2.88	40	*e*PN	Pn	10 52 44.1	-1.2
DSZ				SN	Sn	10 53 24.8	+4.0
THZ	Tophouse	3.44	51	*e*P	Pn	10 52 52.5	-0.8
THZ	Tophouse	3.44	51	*e*PN	Pn	10 52 52.5	-0.7
KHZ	Kahutara	3.46	65	*e*PN	Pn	10 52 53.8	+0.3
QRZ	Quartz Range	3.94	38	*e*PN	Pn	10 52 58.5	-1.9
NNZ	Nelson	4.07	49	*e*P	Pn	10 53 01.4	-0.8
NNZ	Nelson	4.07	49	PN	Pn	10 53 01.4	-0.9
NNZ				SN	Sn	10 53 47.1	-3.8

CSEM ***28*** *10:57:44.7±0.2,39.61N×29.49E,h5^{km},MD2.8,Error ellipse: s-maj=4.0km s-min=3.5km az=48.0*

ISK ***28*** *10:57:45.2,39.61N×29.44E,h10^{km},MD2.8*

ISC 28 10:57:46.1±0.9,**39.64N**±0.06×**29.44E**±0.07,**h5^{km},n9,** σ**1ˢ14**/13,**Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ORLT	Orhaneli	0.58	315	PG	Pg	10 57 57.4	-0.4
YLV	Yalova	0.93	357	PG	Pg	10 58 03.7	-1.0
YLV				SG	Sg	10 58 18.2	+1.1
KCT	Karacabey	1.04	307	PG	Pg	10 58 05.8	-1.1
BTOK	Tokmak	1.09	277	*i* P	Pb	10 58 08.6	+1.5
BTOK				*i* S	Sb	10 58 24.5	+3.0
ESKT	Eskisehir	1.10	96	*e*PN	Pn	10 58 06.8	-1.2
ESKT	Eskisehir	1.10	96	*i* P	Pb	10 58 08.7	+1.6
ESKT				*i* S	Sb	10 58 26.1	+4.6
BADT	Buyukada	1.24	349	*e*PN	Pn	10 58 09.4	-0.6
MANT	Manisa	1.33	211	*i* P	Pb	10 57 59.9	-11
MANT				*i* S	Sb	10 58 12.5	-16
AKS	Akhisar	1.47	240	*e*PN	Pn	10 58 13.1	-0.2

IDC ***28*** *10:58:06.8±1.1,6.64N×93.16E,mb3.9/8,mb1 4.1/8, mb1mx4.0/17,mbtmp3.9/8,Error ellipse: s-maj=55.4km s-min=20.5km az=49.0*

ISC 28 10:58:09.9±1.0,**6.6N**±0.2×**93.2E**±0.3,**h33^{km},n9,** σ**0ˢ37**/9, **mb3.9**/8,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.02	25	Pn	P	11 01 21.8	+6.5
	0.6nm,0.3s,baz=230,slow=14,SNR=23						
SONM	Songino Array	42.58	13	P	P	11 06 04.5	0.0
	0.4nm,0.7s,mb3.2,baz=201,slow=12,SNR=2.9						
WRA	Warramunga Arr	48.33	124	P	P	11 06 50.7	+0.1
	2.1nm,0.8s,mb4.2,baz=303,slow=9.1,SNR=9.7						
ASAR	Alice Springs	49.86	129	P	P	11 07 02.2	-0.1
	0.8nm,0.6s,mb3.9,baz=297,slow=8.0,SNR=5.1						
BVAR	Borovoye Array	49.87	342	P	P	11 07 01.9	-0.1
	0.8nm,0.7s,mb3.9,baz=143,slow=7.2,SNR=3.8						
BVAR				PcP	PcP	11 08 22.5	0.0
	0.6nm,0.6s,baz=135,slow=6.1,SNR=3.3						
BRTR	Keskin Array B	62.53	311	P	P	11 08 32.6	-0.3
	0.7nm,0.5s,mb4.0,baz=140,slow=9.6,SNR=5.0						
FINES	FINESS Array B	73.37	332	P	P	11 09 39.6	-0.5
	2.3nm,0.8s,mb4.2,baz=45,slow=5.4,SNR=5.1						
ARCES	ARCESS Array B	76.11	340	P	P	11 09 56.0	+0.2
	2.7nm,0.8s,mb4.2,baz=104,slow=7.4,SNR=3.2						
GERES	GERESS Array B	78.12	318	P	P	11 10 08.0	+0.6
	1.0nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=7.5						

MAN 28 10:59:48.5,10.69N×124.95E,h4^{km},mb4.7,ML3.6,MS3.6, 1C-1D,Leyte

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PLP	Palo	0.48	4	*i* P	Pg	10 59 58.3	+0.2
PLP				*i* S	Sg	11 00 05.4	+0.9
OCLP	Ormoc	0.49	318	*e*P	Pg	10 59 58.0	-0.3
MSLP	Maasin	0.56	189	*e*P	Pg	11 00 00.3	+0.7
MSLP				*e*S	Sg	11 00 08.9	+1.9
BESP	Borongan	1.03	28	*e*P	Pb	11 00 06.7	-1.8
BESP				*e*S	Sb	11 00 22.1	-0.1
LLP	Lapu-Lapu	1.03	249	*i* P	Pb	11 00 07.7	-0.9
LLP				*e*S	Sb	11 00 21.2	-1.0
TBP	Tagbilaran	1.45	227	*e*P	Pn	11 00 15.4	-0.2
TBP				*e*S	Sb	11 00 31.9	-2.6
BUTP	Butuan	1.83	159	*e*P	Pn	11 00 21.5	+0.5
BUTP				*e*S	Sn	11 00 53.9	+9.0
CNP	Catarman	1.83	351	*e*P	Pn	11 00 20.8	-0.3
CNP				*e*S	Sn	11 00 46.7	+1.7
SNPH	Sibulan	2.15	232	*e*P	Pn	11 00 26.5	+0.9
SNPH				*i* S	Sn	11 01 02.0	+9.0
CGP	Cagayan de Oro	2.23	186	*e*P	Pn	11 00 26.9	+0.2
CGP				*i* S	Sn	11 00 54.6	-0.5
GUIM	Jordan	2.32	269	*e*P	Pn	11 00 27.1	-0.9
GUIM				*e*S	Sn	11 01 03.1	+5.9
RCP	Roxas	2.33	292⇓	*e*P	Pn	11 00 28.7	+0.6
DCPH	Dipolog City	2.61	217⇑	*e*P	Pn	11 00 36.0	+3.8
DCPH				*i* S	Sn	11 01 11.5	+6.7
BUKP	Musuan	2.79	178	*e*P	Pn	11 00 34.0	-0.8
PVCP	Virac	2.99	345	*e*P	Pn	11 00 38.0	+0.4
PAGZ	Pagadian	3.21	209	*e*P	Pn	11 00 40.0	-0.7
OTRP	Odiongan	3.31	300	*e*P	Pn	11 00 42.2	0.0
MATI	Mati	3.94	161	*e*P	Pn	11 00 55.4	+4.4
SJMP	San Jose	4.14	296	*e*P	Pn	11 00 54.8	+0.9

NEIC ***28*** *11:05:09.2,30.83S×71.45W,h61^{km},MD3.9(GUC),After GUC.*

GUC 28 11:05:09.2±0.9,**30.83S×71.45W,h61^{km}**±5^{km},**MD3.9, ML4.1,15C-2D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OVCH	Ovalle	0.31	44⇑	*i*P	P	11 05 20.1	+0.6
OVCH				*i* S	S	11 05 27.7	+0.6
OVCH				AMP		11 05 28.1	
	comp=E,12µm,0.3s						
CMCH	Combarbala	0.51	131⇑	*i*P	P	11 05 21.8	+0.4
CMCH				*i* S	S	11 05 30.7	+0.3
ILCH	Illapel	0.84	163⇑	*i*P	P	11 05 25.7	+0.4
ILCH				*i* S	S	11 05 37.9	+0.6
ILCH				AMP		11 05 38.6	
	comp=E,5µm,0.1s						
TLL	Tololo Astrono	0.87	40⇑	*i*P	P	11 05 26.3	+0.6
TLL				*i* S	S	11 05 39.1	+1.1
TLL				AMP		11 05 41.1	
	comp=N,14µm,0.5s						
LSCH	La Serena	0.94	11⇑	*i*P		11 07 15.4	
LSCH				*i* S		11 07 28.5	
PTCH	Petorca	1.49	163⇓	*i*P	P	11 05 34.2	-0.2
PTCH				*i* S	S	11 05 52.6	-0.4
PTCH				AMP		11 05 57.0	
	comp=N,5µm,0.1s						
PACH	Papudo	1.70	180⇑	*i*P	P	11 05 36.7	-0.4
PACH				*i* S	S	11 05 58.0	+0.2
JACH	Jahuel	1.98	159⇑	*i*P	P	11 05 41.2	+0.1
JACH				*i* S	S	11 06 05.7	+1.0
ROCH	El Roble	2.17	170⇓	*i*P	P	11 05 43.5	-0.2
PEL	Peldehue	2.39	164	*e*P	P	11 05 46.8	-0.2
PEL				*i* S	S	11 06 15.1	0.0
LCCH	Las Cruces	2.64	182⇑	*i*P	P	11 05 49.2	-1.1
DSCH	Colegio Aleman	2.67	164	*i* P	P	11 05 50.7	-0.1
DSCH				*i* S	S	11 06 21.9	-0.1
DSCH				AMP		11 06 24.0	
	comp=N,879nm,0.5s						
CLCH	Cerro Calan	2.67	163⇑	*i*P	P	11 05 50.7	-0.2
CLCH				*i* S	S	11 06 22.1	0.0
CLCH				AMP		11 06 38.7	
	comp=E,788nm,0.5s						
FCH	Farellones	2.67	159⇑	*i*P	P	11 05 51.2	+0.3
FCH				*i* S	S	11 06 23.0	+0.8
FCH				AMP		11 06 28.3	
	comp=E,640nm,0.2s						
RCDM	Rinconada Maip	2.70	169	*e*P	P	11 05 50.8	-0.6
RCDM				*i* S	S	11 06 22.0	-1.0
RCDM				AMP		11 06 25.7	
	comp=E,1µm,0.1s						
ANTU	Antumapu	2.81	166	*e*P	P	11 05 52.8	-0.1
ANTU				*i* S	S	11 06 25.3	-0.4
ANTU				AMP		11 06 26.7	
	comp=N,532nm,0.1s						
TACH	Talagante	2.84	171⇑	*i*P	P	11 05 52.6	-0.7
TACH				*i* S	S	11 06 25.6	-0.9
PCH	Pirque	2.89	164⇑	*i*P	P	11 05 53.6	-0.4
PCH				*i* S	S	11 06 27.7	0.0
LNV	Longovilo	3.11	179⇑	*i*P	P	11 05 55.3	-1.9
CHCH	Chadas Angostu	3.16	168⇑	*i*P	P	11 05 57.2	-0.7
CHCH				*i* S	S	11 06 33.8	-0.8
LMEL	Las Melosas	3.19	161⇑	*i*P	P	11 05 58.6	+0.4
LMEL				*i* S	S	11 06 35.9	+0.8
LMEL				AMP		11 06 38.0	
	comp=E,807nm,0.1s						
SFDO	San Fernando	3.79	175	*e*P	P	11 06 05.9	-0.7

IDC ***28*** *11:06:59.7±1.2,15.24N×92.85E,mb3.9/7,mb1 4.1/8, mb1mx3.9/18,mbtmp3.9/8,ML3.9/1,MS3.6/1,Ms1 3.8/1, ms1mx3.0/28,Error ellipse: s-maj=32.3km s-min=23.5km az=27.0*

ISC 28 11:07:02.5±1.1,**15.2N**±0.2×**92.84E**±0.09,**h33^{km},n9,** σ**1ˢ17**/10,**mb4.0**/7,**Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	6.69	60	Pn	Pn	11 08 39.0	-2.2
	0.7nm,0.3s,baz=241,slow=14,SNR=24						
CMAR				Sn	Sn	11 09 58.2	+1.1
	baz=242,slow=25,SNR=2.7						
CMAR				LR	LR	11 12 11.3	
	comp=Z,410nm,18.1s,baz=210,slow=47						
SHL	Shillong	10.37	355	*e*P	P	11 09 38.0	+5.9
SONM	Songino Array	34.44	16	P	P	11 13 47.8	-1.3
	0.6nm,0.7s,mb3.6,baz=192,slow=10,SNR=4.2						
BVAR	Borovoye Array	41.72	340	P	P	11 14 49.1	-0.7
	0.8nm,0.5s,mb3.6,baz=146,slow=11,SNR=6.6						
ASAR	Alice Springs	55.70	133	P	P	11 16 38.2	-0.1
	0.8nm,0.7s,mb3.9,baz=310,slow=6.8,SNR=2.8						
BRTR	Keskin Array B	56.84	308	P	P	11 16 46.0	-0.4
	1.8nm,0.8s,mb4.2,baz=121,slow=7.2,SNR=8.1						
FINES	FINESS Array B	65.71	331	P	P	11 17 47.5	+1.7
	8.1nm,1.2s,mb4.6,baz=108,slow=6.0,SNR=4.0						
GERES	GERESS Array B	71.60	317	P	P	11 18 22.6	+0.2
	0.9nm,0.6s,mb3.9,baz=90,slow=6.7,SNR=7.8						
ILAR	Eielson Array	88.48	22	P	P	11 19 53.9	+1.5
	0.6nm,0.8s,mb3.9,baz=296,slow=4.5,SNR=5.8						

CSEM ***28*** *11:11:07.8±0.5,59.28N×27.10E,h2^{km},ML1.6,Error ellipse: s-maj=31.0km s-min=8.0km az=92.0,Mining explosion.*

BER ***28*** *11:11:08.5±2.2,59.21N×27.16E,ML2.5(NAO), Suspected explosion*

NAO ***28*** *11:11:09.1±3.9,59.27N×26.87E,ML2.5*

HEL ***28*** *11:11:09.9±0.2,59.32N×27.13E,ML1.6,ML2.5(NAO), Explosion*

ISC 28 11:11:08.3±0.9,**59.32N**±0.03×**27.1E**±0.2,**n15,** σ**0ˢ51**/22, **Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VSU	Vasula	0.88	193	*e*P	Pg	11 11 25.8	0.0

VSU				*e*S	Sg	11 11 37.4	-0.1
VSU	Vasula	0.88	193	P	Pg	11 11 25.7	-0.1
VSU				S	Sg	11 11 37.4	-0.1
VJF	Virojoki	1.25	10	*e*P	Pb	11 11 32.0	-0.4
VJF				*e*S	Sb	11 11 48.7	-0.3
VJF	Virojoki	1.25	10	P	Pb	11 11 32.0	-0.5
VJF				S	Sb	11 11 48.6	-0.4
PVF	Pernaja	1.38	334	*e*P	Pb	11 11 34.3	-0.4
PVF				*e*S	Sb	11 11 52.3	-0.5
FIA0	FINESS Array S	2.19	347	Pn	Pn	11 11 46.9	+0.4
	baz=166,slow=18						
FIA0				Sn	Sn	11 12 15.3	+0.5
	baz=163,slow=28						
FIA0				Lg		11 12 18.7	
	baz=163,slow=28						
FIA0	FINESS Array S	2.19	347	*e*P	Pn	11 11 47.2	+0.7
FIA0				*e*S	Sn	11 12 15.8	+1.0
FIA0				MSG		11 12 18.9	
	comp=Z,2.0nm,0.1s						
FIA0	FINESS Array S	2.19	347	P	Pn	11 11 47.1	+0.6
FIA0				S	Sn	11 12 15.7	+0.9
	comp=Z,2.0nm,0.1s						
KAF	Kangasniemi	2.83	352	*e*P	Pn	11 11 56.3	+0.7
KAF				*e*S	Sn	11 12 31.0	0.0
KAF				MSG		11 12 41.4	
	comp=Z,1.4nm,0.2s						
KAF	Kangasniemi	2.83	352	P	Pn	11 11 56.3	+0.6
KAF				S	Sn	11 12 30.9	-0.1
	comp=Z,1.4nm,0.2s						
SUF	Sumiainen	3.45	353	MSG		11 12 59.5	
	comp=Z,1.4nm,0.2s						
HFS	Hagfors	6.83	283	Lg		11 14 40.5	
	baz=89,slow=37						
HFS	Hagfors	6.83	283	Lg		11 14 40.5	
	baz=89,slow=37						
ARA0	ARCESS Array S	10.29	357	Pn	P	11 13 35.8	-4.3
	baz=178,slow=12						
ARA0	ARCESS Array S	10.29	357	*e*P	P	11 13 35.8	-4.3

IDC ***28*** *11:17:24.5±4.1, 13.55N×92.92E, mb3.9/7, mb1 4.0/8, mb1mx3.9/17, mbtmp3.8/8, ML4.1/1, Error ellipse: s-maj=97.2km s-min=33.9km az=164.0*

ISC 28 11:17:31.0±1.4**, 14.1N**±0.2×**93.00E**±0.08**, h33^{km}, n15, σ0^{s}87**/16**, mb3.9**/8**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.16	52	Pn	Pn	11 19 16.6	+0.4
	0.8nm,0.3s,baz=240,slow=16,SNR=11						
CMAR				Sn	Sn	11 20 36.6	-0.7
	2.1nm,0.3s,baz=240,slow=32,SNR=6.3						
PKI	Pulchoki	15.16	333	*e*P	P	11 21 04.0	-0.4
GUN	Gumba	15.26	335	*e*P	P	11 21 06.1	+0.4
DMN	Daman	15.32	333	*e*P	P	11 21 06.6	0.0
KKN	Kakani	15.40	333	*e*P	P	11 21 08.4	+0.8
GKN	Gorkha	15.87	332	*e*P	P	11 21 13.5	-0.1
	30nm,0.3s						
KOLN	Koldanda	16.18	329	*e*P	P	11 21 16.8	-0.7
	32nm,0.5s						
SONM	Songino Array	35.43	16	P	P	11 24 27.1	+1.1
	2.8nm,1.2s,mb4.1,baz=191,slow=7.3,SNR=7.0						
BVAR	Borovoye Array	42.78	340	P	P	11 25 27.9	+0.8
	0.5nm,0.5s,mb3.5,baz=135,slow=8.2,SNR=3.6						
BRTR	Keskin Array B	57.63	308	P	P	11 27 19.2	-1.2
	0.5nm,0.4s,mb3.9,baz=100,slow=9.7,SNR=3.7						
FINES	FINESS Array B	66.73	331	P	P	11 28 19.6	-1.2
	1.3nm,0.6s,mb4.1,baz=80,slow=12,SNR=4.2						
ARCES	ARCESS Array B	69.07	340	P	P	11 28 34.7	-0.6
	3.7nm,0.9s,mb4.3,baz=104,slow=7.4,SNR=3.8						
GERES	GERESS Array B	72.50	317	P	P	11 28 55.5	-0.7
	0.8nm,0.7s,mb3.8,baz=68,slow=7.2,SNR=5.5						
NOA	NORSAR Array B	73.80	330	P	P	11 29 06.1	+2.4
	0.7nm,0.6s,mb3.7,baz=96,slow=5.6,SNR=2.6						
ILAR	Eielson Array	89.42	22	P	P	11 30 25.6	+0.2
	0.2nm,0.6s,mb3.6,baz=306,slow=4.2,SNR=4.9						

MOS ***28*** *11:17:42.5±0.9, 4.82N×95.16E, h33^{km}, mb6.0/84, MS5.4/56, Error ellipse: s-maj=7.8km s-min=3.9km az=126.1*

NEIC ***28*** *11:17:43.9±0.1, 4.73N×95.21E, h36^{km}, mb5.8/96, ME5.9, MS5.5/121, MW5.8, Error ellipse: s-maj=4.8km s-min=3.0km az=32.0 Broadband fault plane solution: P waves. NP1:φ$_s$145°,δ70°,λ70°. NP2:φ$_s$12°,δ28°,λ133°. Principal axes: T Plg60°, Azm26°; N Plg0°, Azm0°; P Plg22°, Azm250°; Moment Tensor Solution. s13 Moment tensor: Scale 10^{17} Nm; M$_{rr}$3.29; M$_{\theta\theta}$1.29; M$_{\phi\phi}$-4.58; M$_{r\theta}$2.25; M$_{\theta\phi}$0.83; M$_{\phi r}$-1.99; Best double couple: M$_0$5.1×10^{17} NP1:φ$_s$20°,δ37°,λ137°. NP2:φ$_s$147°, δ66°,λ61°. Principal axes: T 4.92, Plg59°, Azm15°; N .42, Plg26°, Azm159°; P -5.34, Plg16°, Azm257°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

HRVD ***28*** *11:17:43.9±0.2, 4.39N×95.04E, h49^{km}, MW5.7/70, Centroid moment Tensor Solution. LP body waves: s69,c142;Mantle waves: s70,c143; Half duration: 1^{s}7 Moment tensor: Scale 10^{17}Nm; M$_{rr}$3.41±.08; M$_{\theta\theta}$-2.08±.06; M$_{\phi\phi}$-1.33±.07; M$_{r\theta}$1.94±.05; M$_{\theta\phi}$2.08±.05; M$_{\phi r}$-2.07±.07; Best double couple: M$_0$4.6×10^{17} NP1: φ$_s$304°,δ26°,λ81°. NP2:φ$_s$135°,δ64°,λ94°. Principal axes: T 4.4, Plg71°, Azm54°; N .38, Plg4°, Azm313°; P -4.79, Plg19°, Azm221°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***28*** *11:17:43.9, 4.73N×95.22E, h36^{km}, MB5.8, MS5.5*

BJI ***28*** *11:17:43.7, 4.70N×95.07E, h40^{km}, mB5.7, mb5.8, Ms5.5, Msz5.4*

CSEM ***28*** *11:17:45.2, 5.20N×94.92E, h33^{km}, mb6.0*

IDC ***28*** *11:17:45.4±2.0, 4.74N×95.23E, h46^{km}±18^{km}, mb5.3/30, mb1 5.3/30, mb1mx5.3/30, mbtmp5.5/30, MS5.1/23, Ms1 5.1/23, ms1mx4.9/30, Error ellipse: s-maj=14.5km s-min=9.3km az=40.0*

DJA ***28*** *11:17:52.7±4.2, 3.99N×96.52E, h2^{km}, mb5.7/6, Error ellipse: s-maj=165.1km s-min=25.7km az=86.0*

ISC 28 11:17:44.0±0.1**, 4.65N**±0.03×**95.17E**±0.02**, h52^{km}, h53^{km}**±1.7^{km}**:pP-P, n760, σ0^{s}94**/634**, mb5.8**/171**, MS5.4**/175**, 140C-33D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	5.97	65	P	P	11 19 13.0	+1.1
	2μm,1.0s						
NST	Nakhon Sawan	11.99	24	P	P	11 20 37.0	+2.3
KKTK	Khon Kaen	13.83	32	P	P	11 21 02.0	+2.8
CM31	Chiang Mai Arr	14.21	15	*e*P	P	11 21 10.2	+6.1
CMAR	Chiang Mai Arr	14.21	15	P	P	11 21 07.7	+3.6
	12nm,0.3s,baz=203,slow=10,SNR=13						
CMAR				LR	LR	11 26 32.8	
	comp=Z,10μm,20.6s,baz=195,slow=37						
PENI	Pendagan	14.24	135	⇓*e*P	P	11 20 58.8	-5.7
PENI				pmax	pmax		
	comp=Z,411nm,0.5s						
PENI	Pendagan	14.24	135	⇓*e*P	P	11 20 58.8	-5.7
	comp=Z,822nm,0.5s						
UBT	Ubonrachathani	14.30	42	P	P	11 21 09.0	+3.6
	comp=Z,556nm,1.2s						
PALK	Pallekele	14.62	281	⇓*e*P	P	11 21 08.8	-0.7
	comp=Z,211nm,1.3s						
NANT	Nan	15.06	21	P	P	11 21 18.0	+2.8
	comp=Z,422nm,1.0s						
CHRT	Chiangrai	15.78	16	⇑P	P	11 21 26.0	+1.6
	comp=Z,1μm,1.2s						
PACI	Pancar Gunung	16.19	134	⇓*e*P	P	11 21 23.9	-5.7
COCO	West Island	16.81	174	⇓*i*P	P	11 21 36.3	-1.2
	comp=Z,904nm,1.1s						
SINI	Singah	16.90	133	⇓*e*P	P	11 21 34.8	-3.8
MDRS	Chennai	16.94	301	*e*P	P	11 21 39.2	+0.1
VIS	Vishakhapatnam	17.41	319	*e*P	P	11 21 44.9	0.0
VIS				*e*		11 22 02.4	
	comp=Z,560nm,1.3s						
KOD	Kodaikanal	18.40	289	*e*P	P	11 21 58.3	+1.1
TRD	Trivandrum	18.49	283	*e*P	P	11 21 59.2	+0.9
TRD				*e*		11 22 04.4	
	comp=Z,139nm,1.3s						
IMP	Imphal	20.05	357	*i* P	P	11 22 11.5	-4.1
QIZ	Qiongzhong	20.23	44	⇑*i*P	P	11 22 18.5	+1.0
QIZ				AP		11 22 28.8	
QIZ				XP		11 22 34.5	
QIZ				S	S	11 25 57.5	+0.9
QIZ				LR	LR		
	comp=E,8μm,22.4s						
QIZ				LR	LR		
	comp=Z,9μm,23.6s,MS5.0						
QIZ	Qiongzhong	20.23	44	⇑*i*P	P	11 22 18.5	+1.0
	comp=Z,420nm,1.3s						
QIZ				LR	LR		
	comp=Z,9μm,20.0s,MS5.1						
HYB	Hyderabad	20.64	309	⇑*e*P	P	11 22 22.0	+0.3
HYB				*e*S	S	11 26 08.0	+3.6
HYB				pmax	pmax		
	comp=Z,314nm,1.2s						
HYB	Hyderabad	20.64	309	⇑*e*P	P	11 22 22.0	+0.3
	comp=Z,314nm,1.2s						
HYB				*e*S	S	11 26 08.0	+3.6
HYB	Hyderabad	20.64	309	⇑*i*P	P	11 22 22.0	+0.3
	comp=Z,314nm,1.2s						
HYB				*e*S	S	11 26 08.0	+3.6
HYB				LR	LR	11 30 00.0	
	comp=Z,4.1nm,18.0s						
BOK	Bokaro	21.03	336	*e*P	P	11 22 22.6	-3.1
BOK				*e*		11 22 29.3	
	comp=Z,341nm,0.7s						
SHL	Shillong	21.03	352	*e*P	P	11 22 22.0	-3.7
SHL				*e*		11 23 00.2	
	comp=Z,219nm,1.1s						
SHL				*e*S	S	11 26 12.8	+0.9
BLSP	Bilaspur	21.48	325	*e*P	P	11 22 29.0	-1.2
BLSP				*e*		11 22 32.9	
	comp=Z,809nm,1.5s						
KMI	Kunming	21.61	19	⇑P	P	11 22 33.5	+2.0
KMI				AP		11 22 44.5	
KMI				XP		11 22 50.5	
KMI				PP	PP	11 23 00.5	+3.2
KMI				S	S	11 26 29.5	+6.8
KMI				XS		11 26 47.5	
KMI				SS	SS	11 27 06.8	+5.2
KMI				AMB	AMB		
	comp=Z,412nm,1.3s,mb5.7						
KMI				AMB	AMB		
	comp=Z,2μm,5.3s						
KMI				LR	LR		
	comp=N,11μm,16.7s,MS5.4						
KMI				LR	LR		
	comp=E,6μm,18.6s,MS5.4						
KMI				LR	LR		
	comp=Z,12μm,24.7s						
MNGI	Mangalore	21.71	294	*e*P	P	11 22 35.0	+2.4
MNGI				*e*		11 22 46.9	
	comp=Z,228nm,1.2s						
NGP	Nagpur	22.67	318	⇑*e*P	P	11 22 43.6	+1.6
NGP				*e*S	S	11 26 48.9	+6.8
SRDI	Scrawed	22.98	125	⇑*e*P	P	11 22 45.7	+0.5
SRDI				pmax	pmax		
	comp=Z,234nm,0.9s,mb5.6						
SRDI	Scrawed	22.98	125	⇑*e*P	P	11 22 45.7	+0.5
	comp=Z,469nm,0.9s,mb5.6						
KELI	Kelakatan	23.12	124	⇑*e*P	P	11 22 45.8	-0.8
	comp=Z,376nm,1.1s,mb5.4						
GOA	Goa	23.59	299	*e*P		11 22 59.1	
GOA				*e*		11 23 04.0	
	comp=Z,194nm,1.5s						
GOA				*e*S	S	11 27 09.3	+11
AKL	Akola	23.79	314	*e*P	P	11 22 57.5	+4.5
AKL				*e*		11 23 19.6	
	comp=Z,591nm,1.5s						
AKL				*e*S	S	11 27 05.5	+3.8
KAD	Karad	24.10	303	*e*P	P	11 22 57.1	+1.1
KAD				*e*		11 23 00.9	
	comp=Z,222nm,1.6s						
ALBI	Allahabad	24.22	329	*i* P	P	11 22 56.0	-1.1
RATI	Rata	24.26	123	⇑*e*P	P	11 22 58.5	+0.9
	comp=Z,659nm,0.8s,mb5.8						
GYA	Guiyang	24.31	26	⇑*i*P	P	11 22 59.0	+1.0
GYA				AP		11 23 06.8	
GYA				XP		11 23 11.3	
GYA				PP	PP	11 23 36.0	+1.6
GYA				S	S	11 27 14.5	+3.9
GYA				AMB	AMB		
	comp=Z,94nm,1.2s,mb5.1						
GYA				AMB	AMB		
	comp=Z,1μm,8.4s						
GYA				LR	LR		
	comp=N,8μm,20.6s,MS5.3						
GYA				LR	LR		
	comp=E,6μm,17.3s,MS5.3						
GYA				LR	LR		
	comp=Z,9μm,20.0s,MS5.3						
PKI	Pulchoki	24.62	339	*e*P	P	11 22 59.8	-1.2
	comp=Z,112nm,0.6s,mb5.6						
KEDI	Kedomdong	24.63	122	⇑*e*P	P	11 23 00.1	-1.1
KEDI				pmax	pmax		
	comp=Z,265nm,0.8s,mb5.8						
KEDI	Kedomdong	24.63	122	⇑*e*P	P	11 23 00.1	-1.1
	comp=Z,529nm,0.8s,mb5.8						
DMN	Daman	24.76	338	*e*P	P	11 23 01.5	-0.9
	comp=Z,161nm,0.7s,mb5.6						
GUN	Gumba	24.77	340	*e*P	P	11 23 01.2	-1.2
	comp=Z,316nm,0.7s,mb6.0						
KKN	Kakani	24.86	339	*e*P	P	11 23 02.7	-0.6
	comp=Z,422nm,1.1s,mb5.9						
ENPP	El Nido	24.88	73	*e*P	P	11 23 03.8	+0.3
POO	Poona	24.98	305	*e*P	P	11 23 05.6	+1.0
POO				*e*		11 23 08.4	
	comp=Z,187nm,1.5s						
LSA	Lhasa	25.20	352	⇑*i*P	P	11 23 06.6	+0.1
LSA				pmax	pmax		
	comp=Z,154nm,0.8s,mb5.6						
LSA				MLR	MLR		
	comp=Z,5μm,21.0s,MS5.0						
LSA	Lhasa	25.20	352	⇑*i*P	P	11 23 06.6	+0.1
	comp=Z,154nm,0.8s,mb5.6						
LSA				LR	LR		
	comp=Z,5μm,21.0s,MS5.0						
BHPL	Bhopal	25.20	319	*e*P	P	11 23 07.9	+1.3
BHPL				*e*		11 23 12.7	
	comp=Z,236nm,1.2s						
BHPL				*e*S	S	11 27 28.5	+3.0
GKN	Gorkha	25.29	338	*e*P	P	11 23 07.2	-0.2
	comp=Z,399nm,0.8s,mb6.0						
GZH	Guangzhou	25.38	42	P	P	11 23 14.0	+5.8
GZH				S	S	11 27 34.5	+6.0
GZH				LR	LR		
	comp=N,5μm,15.9s,MS5.3						
GZH				LR	LR		
	comp=E,6μm,20.8s,MS5.3						
GZH				LR	LR		
	comp=Z,9μm,21.8s,MS5.2						
HKC	Hong Kong	25.42	45	*e*P	P	11 23 12.0	+3.4
TANI	Tanete Lipujan	25.49	108	⇑*e*P	P	11 23 09.8	+0.4
TANI				pmax	pmax		
	comp=Z,138nm,0.7s,mb5.6						
TANI	Tanete Lipujan	25.49	108	⇑*e*P	P	11 23 09.8	+0.4
	comp=Z,276nm,0.7s,mb5.6						
KOLN	Koldanda	25.50	336	*e*P	P	11 23 09.3	0.0
	comp=Z,370nm,0.6s,mb6.1						
DGAR	Diego Garcia	25.64	242	*e*P	P	11 23 12.2	+1.4
DGAR				pmax	pmax		
	comp=Z,2μm,1.6s,mb6.3						
DGAR				MLR	MLR		
	comp=Z,2μm,21.0s,MS4.7						
DGAR	Diego Garcia	25.64	242	*e*P	P	11 23 12.2	+1.4
	comp=Z,2μm,1.6s,mb6.3						
DGAR				LR	LR		
	comp=Z,2μm,21.0s,MS4.7						
BOM	Bombay	26.02	305	*e*P	P	11 23 16.2	+2.0
BOM				*e*		11 23 38.7	
	comp=Z,675nm,1.5s						
BOM				*e*S	S	11 27 44.0	+5.0
LUBP	Lubang	26.32	68	*e*P	P	11 23 16.8	-0.2
SCZP	Santa Cruz	26.70	64	*e*P	P	11 23 19.6	-1.0
SJMP	San Jose	26.79	72	*e*P	P	11 23 19.9	-1.4
BOLP	Bolinao	26.93	62	*e*P	P	11 23 23.9	+1.3
TGY	Tagaytay City	27.07	68	P	P	11 23 24.2	+0.3
	comp=Z,654nm,0.9s,mb6.1,baz=249,slow=5.8,SNR=14						
CD2	Chengdu	27.34	16	⇑*i*P	P	11 23 25.0	-1.3
CD2				PP	PP	11 24 09.0	-5.8
CD2				PPP	PPP	11 24 25.3	-1.7
CD2				S	S	11 28 01.0	+0.4
CD2				SS	SS	11 29 24.0	+3.9
CD2				AMB	AMB		
	comp=Z,403nm,0.9s,mb6.0						
CD2				LR	LR		
	comp=E,9μm,15.0s						
BCPH	Baguio City Da	27.52	63	⇑*i*P	P	11 23 27.6	-0.4
OTRP	Odiongan	27.62	72	*e*P	P	11 23 27.7	-1.2
LQP	Lukban	27.63	68	⇑*e*P	P	11 23 29.2	+0.2
PCPH	Palayan	27.69	65	⇓*e*P	P	11 23 29.2	-0.4
BOAC	Boac	27.73	70	*e*P	P	11 23 30.0	0.0
RCP	Roxas	28.13	74	⇓*e*P	P	11 23 34.1	+0.5
ABRA	Dolores	28.14	61	*e*P	P	11 23 34.6	+1.0
BALP	Baler	28.18	65	*e*P	P	11 23 34.5	+0.4
PTH	Pithoragarh	28.52	332	*e*P	P	11 23 36.7	-0.2
PTH				*e*S	S	11 28 23.4	+3.8
APYP	Conner	28.69	61	*e*P	P	11 23 38.8	+0.3
CAUP	Cauayan	28.84	63	*e*P	P	11 23 38.6	-1.3
ENH	Enshi	28.84	26	⇑*i*P	P	11 23 38.7	-1.1
	comp=E,164nm,1.0s,mb5.7						
ENH				LR	LR		
	comp=Z,10μm,20.0s,MS5.4						
CVP	Callao Caves	29.13	61	⇑*e*P	P	11 23 42.5	+0.1
AJM	Ajmer	29.27	320	*i* P	P	11 23 42.0	-1.6
NDI	New Delhi	29.36	326	*e*P	P	11 23 43.1	-1.3
NDI				*e*		11 23 45.9	
	comp=Z,108nm,1.2s						
BUKP	Musuan	29.88	82	*e*P	P	11 23 49.8	+0.7
PVCP	Virac	29.93	71	*e*P	P	11 23 49.3	-0.3
DDI	Dehra Dun	30.21	330	*e*P	P	11 23 57.9	+5.9
DDI				*e*S	S	11 28 54.1	+7.7
QZH	Quanzhou	30.22	46	⇑*i*P	P	11 23 52.5	+0.4
QZH				S	S	11 28 51.5	+5.0
QZH				AMB	AMB		
	comp=Z,540nm,1.0s,mb6.2						
QZH				LR	LR		
	comp=N,9μm,16.1s,MS5.7						
QZH				LR	LR		
	comp=E,10μm,19.0s,MS5.7						
QZH				LR	LR		
	comp=Z,15μm,25.5s						
DAV	Davao City (W)	30.34	84	*e*P	P	11 23 53.0	-0.3
BBP	Basco	30.42	57	*e*P	P	11 23 53.8	-0.1
BESP	Borongan	30.73	75	*e*P	P	11 23 58.2	+1.5
BHJ	Bhuj	30.80	309	*e*P	P	11 23 57.1	-0.2
BHJ				*e*		11 24 01.9	
	comp=Z,133nm,1.5s						
WHN	Wuhan	31.47	33	P	P	11 24 03.5	+0.5
WHN				AMB	AMB		
	comp=Z,420nm,1.1s,mb6.2						
WHN				LR	LR		
	comp=Z,15μm,13.4s,MS5.8						
SDNR	Sundarnagar	31.71	329	*e*P	P	11 24 05.0	-0.2
XAN	Xi'an	31.91	22	P	P	11 24 06.0	-0.9
XAN				AMB	AMB		
	comp=Z,680nm,1.0s,mb6.4						
XAN				LR	LR		
	comp=N,2μm,25.7s						
XAN				LR	LR		
	comp=E,4μm,18.7s						
XAN				LR	LR		
	comp=Z,11μm,16.2s						
LZH	Lanzhou	32.29	13	⇑*i*P	P	11 24 09.0	-1.1
LZH				*e*S	S	11 29 20.0	+1.2
LZH				SCP		11 30 38.5	
LZH				SS	SS	11 31 15.5	-0.5
LZH				SCS	ScS	11 34 35.0	+2.0
LZH				AMB	AMB		
	comp=Z,161nm,1.0s,mb5.8						
LZH				AMB	AMB		
	comp=Z,540nm,5.4s						
LZH				LR	LR		
	comp=N,6μm,13.7s						
LZH				LR	LR		
	comp=Z,8μm,15.0s,MS5.5						
TATO	Taipei	32.36	49	PFAKE		11 24 20.0	+9.1
TATO				LR	LR		
	comp=Z,5μm,22.0s,MS5.2						
DLH	Dalhousie	33.05	329	*e*P	P	11 24 16.0	-0.8
DLH				*e*	pP	11 24 33.0	+2.6
THN	Thein Dam	33.09	329	*e*P	P	11 24 15.7	-1.5
THN				*e*		11 29 44.0	
GTA	Gaotai	34.86	6	⇑*i*P	P	11 24 31.3	-0.9
GTA				PP	PP	11 25 46.5	-4.6
GTA				PCP	PcP	11 27 05.0	+0.4
GTA				S	S	11 29 54.0	-4.6
GTA				SCP		11 30 46.3	
GTA				SCS	ScS	11 34 47.0	+0.6
GTA				AMB	AMB		
	comp=Z,197nm,1.0s,mb6.0						
GTA				AMB	AMB		
	comp=Z,974nm,5.0s						
GTA				LR	LR		
	comp=N,2μm,19.4s,MS5.0						
GTA				LR	LR		
	comp=E,2μm,21.7s,MS5.0						
GTA				LR	LR		
	comp=Z,4μm,26.6s,MS5.0						
NJ2	Nanjing	35.15	36	*e*P	P	11 24 35.3	+0.5
NJ2				AP	pP	11 24 45.5	-3.0
NJ2				XP	sP	11 24 48.8	-6.3
NJ2				PP	PP	11 25 55.8	+1.0
NJ2				PPP	PPP	11 26 14.0	+0.8
NJ2				S	S	11 30 06.0	+2.8
NJ2				XS		11 30 22.0	
NJ2				PCS		11 30 52.0	
NJ2				AMB	AMB		
	comp=Z,630nm,1.1s,mb6.5						
NJ2				AMB	AMB		
	comp=Z,1μm,10.0s						
NJ2				LR	LR		
	comp=N,7μm,12.2s,MS5.9						
NJ2				LR	LR		
	comp=E,11μm,12.6s,MS5.9						
NJ2				LR	LR		
	comp=Z,9μm,13.6s,MS5.7						
MBWA	Marble Bar	35.19	138	⇑*i*P	P	11 24 34.8	-0.5
	comp=Z,62nm,1.1s,mb5.5						
MBWA				*e*PcP	PcP	11 27 06.1	+0.4
MBWA				LR	LR		
	comp=Z,3μm,20.0s,MS5.0						
SSE	Sheshan	35.92	40	P	P	11 24 42.5	+1.1
SSE				XP	sP	11 24 55.8	-5.9
SSE				PP	PP	11 26 05.3	+1.2
SSE				S	S	11 30 20.5	+5.3
SSE				XS		11 30 36.0	
SSE				AMB	AMB		
	comp=Z,87nm,0.9s,mb5.7						
SSE				AMB	AMB		
	comp=Z,647nm,5.2s						
SSE				LR	LR		
	comp=N,4μm,17.8s,MS5.3						
SSE				LR	LR		
	comp=E,3μm,18.2s,MS5.3						
SSE				LR	LR		
	comp=Z,5μm,20.0s,MS5.2						
TIY	Taiyuan	36.49	23	⇑P	P	11 24 47.0	+0.9
TIY				S	S	11 30 25.0	+1.2
TIY				LR	LR		
	comp=N,9μm,16.0s						
TIY				LR	LR		
	comp=Z,2μm,14.0s,MS5.0						
TIA	Tai'an	37.34	30	P	P	11 24 53.5	+0.2
TIA				PP	PP	11 26 23.0	+1.3
TIA				S	S	11 30 42.0	+5.2
TIA				AMB	AMB		
	comp=Z,136nm,1.1s,mb5.7						
TIA				LR	LR		
	comp=N,3μm,14.0s,MS5.4						
TIA				LR	LR		
	comp=E,3μm,14.0s,MS5.4						
BTO	Baotou	38.21	18	*e*P	P	11 25 00.0	-0.4
BTO				AMB	AMB		
	comp=Z,74nm,1.1s,mb5.3						
JOW	Kunigami	38.53	52	P	P	11 25 04.5	+1.2
	comp=Z,363nm,0.8s,mb6.2,baz=303,slow=10.0						
JOW				LR	LR	11 40 49.4	
	comp=Z,5μm,21.6s,MS5.3,baz=250,slow=36						
KSH	Kashi	38.81	336	⇑*i*P	P	11 25 06.0	+0.5
KSH				AP	pP	11 25 17.0	-2.3
KSH				XP	sP	11 25 21.8	-3.9
KSH				PP	PP	11 26 40.3	+1.5
KSH				PPP	PPP	11 27 03.3	+0.7
KSH				PCP	PcP	11 27 16.8	+0.2
KSH				S	S	11 31 00.3	+1.2
KSH				PCS		11 31 06.3	
KSH				XS		11 31 20.5	
KSH				SS	SS	11 33 41.3	-2.5
KSH				SCS	ScS	11 35 10.3	+1.8
KSH				AMB	AMB		
	comp=Z,2μm,2.5s,mb6.4						
KSH				LR	LR		

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         comp=N,2µm,17.9s,MS5.2
KSH                                    LR      LR
         comp=E,3µm,19.7s,MS5.2
HHC      Hu-ho-hao-te      38.93  20⇑iP      P       11 25 06.8 +0.3
HHC                                    AP      pP      11 25 16.5  -3.8
HHC                                    XP      sP      11 25 20.5  -6.1
HHC                                    PP      PP      11 26 39.5  -0.7
HHC                                    PCP     PcP     11 27 17.5 +0.6
HHC                                    S       S       11 31 02.5 +1.6
HHC                                    SS      SS      11 33 45.3  -1.1
HHC                                    SCS     ScS     11 35 12.0 +2.8
HHC                                    AMB     AMB
         comp=Z,227nm,1.2s,mb5.8
HHC                                    LR      LR
         comp=N,9µm,17.2s,MS5.7
HHC                                    LR      LR
         comp=E,3µm,16.7s,MS5.7
HHC                                    LR      LR
         comp=Z,9µm,16.5s,MS5.7
WMQ      Urumqi            39.56 351⇑iP      P       11 25 12.0 +0.3
WMQ                                    AP      pP      11 25 24.0  -1.5
WMQ                                    XP      sP      11 25 29.3  -2.5
WMQ                                    PP      PP      11 26 47.5 +0.6
WMQ                                    PPP     PPP     11 27 12.0  -0.2
WMQ                                    S       S       11 31 11.0 +0.6
WMQ                                    AMB     AMB
         comp=Z,127nm,1.1s,mb5.6
WMQ                                    AMB     AMB
         comp=Z,169nm,5.7s
WMQ                                    LR      LR
         comp=N,2µm,25.4s,MS5.0
WMQ                                    LR      LR
         comp=E,2µm,24.4s,MS5.0
WMQ                                    LR      LR
         comp=Z,1µm,22.8s,MS4.7
BJT      Baijiatuau        39.98  25⇑iP      P       11 25 16.8 +1.6
BJT                                    pmax    pmax
         comp=Z,550nm,0.9s
BJT                                    MLR     MLR
         comp=Z,3µm,19.0s
BJT      Baijiatuau        39.98  25⇑iP      P       11 25 16.8 +1.6
         comp=Z,550nm,0.9s,mb6.3
BJT                                    LR      LR
         comp=Z,3µm,19.0s,MS5.2
BJI      Beijing           40.00  25   P       P       11 25 17.0 +1.6
BJI                                    S       S       11 31 17.3 +0.3
BJI                                    AMB     AMB
         comp=Z,742nm,0.9s,mb6.4
BJI                                    LR      LR
         comp=N,5µm,18.9s,MS5.4
BJI                                    LR      LR
         comp=E,3µm,20.8s,MS5.4
BJI                                    LR      LR
         comp=Z,6µm,26.8s
ULHL     Ulahol            41.06 338   P       P       11 25 25.1 +1.1
         SNR=14
KZA      Kyzart            41.28 337   P       P       11 25 27.5 +1.6
         SNR=207
UCH      Uchtor            41.70 337   P       P       11 25 30.9 +1.6
         SNR=353
DL2      Dalian            41.70  32 ⇑P      P       11 25 30.5 +1.1
DL2                                    PPP     PPP     11 27 34.5  -6.6
DL2                                    S       S       11 31 44.0 +1.7
DL2                                    AMB     AMB
         comp=Z,330nm,0.9s,mb6.0
DL2                                    AMB     AMB
         comp=Z,380nm,4.0s
DL2                                    LR      LR
         comp=N,2µm,17.1s,MS5.2
DL2                                    LR      LR
         comp=E,1µm,15.7s,MS5.2
DL2                                    LR      LR
         comp=Z,2µm,20.6s,MS5.1
TKM2     Tokmak 2          41.88 338   P       P       11 25 32.1 +1.2
         SNR=269
KBK      Karagaybulak      41.90 338   P       P       11 25 32.5 +1.5
         SNR=483
AML      Almayashu         41.94 336   P       P       11 25 33.0 +1.7
         SNR=497
AAK      Ala-Archa         42.05 337   P       P       11 25 33.5 +1.3
         SNR=226
AAK      Ala-Archa         42.05 337⇑iP      P       11 25 32.4 +0.2
AAK                                    pmax    pmax
         comp=Z,586nm,1.2s,mb6.1
AAK                                    MLR     MLR
         comp=Z,577nm,21.0s,MS4.4
AAK      Ala-Archa         42.05 337⇑iP      P       11 25 32.4 +0.2
         comp=Z,586nm,1.2s,mb6.1
AAK                                    LR      LR
         comp=Z,577nm,21.0s,MS4.4
CHMS     Chumysh           42.26 338   P       P       11 25 34.7 +0.7
         SNR=152
EKS2     Erkin-Say         42.36 336   P       P       11 25 36.3 +1.5
         SNR=153
USP      Ospenovka         42.59 338   P       P       11 25 37.6 +0.9
         SNR=546
NWAO     Narrogin (SRO)    42.83 152⇑eP      P       11 25 39.0 +0.2
NWAO                                   pmax    pmax
         comp=Z,214nm,1.3s
NWAO                                   MLR     MLR
         comp=Z,2µm,21.0s
NWAO     Narrogin (SRO)    42.83 152   P       P       11 25 39.6 +0.8
         comp=Z,46nm,1.0s,mb5.2,baz=322,slow=11,SNR=11
NWAO     Narrogin (SRO)    42.83 152⇑eP      P       11 25 39.0 +0.2
         comp=Z,214nm,1.3s,mb5.7
NWAO                                   LR      LR
         comp=Z,2µm,21.0s,MS5.1
MKAR     Makanchi Array    43.44 347 i P       P       11 25 43.2  -0.3
MKAR                                   pmax    pmax
         comp=Z,27nm,0.5s
INCN     Inchon            43.52  37 eP      P       11 25 43.2  -1.1
         comp=Z,310nm,1.1s,mb6.0
INCN                                   LR      LR
         comp=Z,5µm,21.0s,MS5.4
SONM     Songino Array     44.09  11   P       P       11 25 48.1  -0.7
         comp=Z,26nm,0.8s,mb5.0,baz=189,slow=8.6,SNR=72
SONM                                   PcP     PcP     11 27 33.4  -0.4
         comp=Z,54nm,0.8s,baz=208,slow=4.1,SNR=12
SONM                                   ScP             11 31 21.4
         comp=Z,4.2nm,0.9s,baz=180,slow=4.9,SNR=5.9
SONM                                   LR      LR      11 46 00.9
         comp=Z,5µm,21.7s,MS5.3,baz=191,slow=38
ULN      Ulaanbaatar       44.25  11⇑iP      P       11 25 48.6  -1.4
ULN                                  e                 11 27 34.2
ULN                                    pmax    pmax
         comp=Z,14nm,0.6s,mb4.9
ULN                                    MLR     MLR
         comp=Z,5µm,21.0s,MS5.4
ULN      Ulaanbaatar       44.25  11⇑iP      P       11 25 48.6  -1.4
         comp=Z,14nm,0.6s,mb4.9
ULN                                  ePcP    PcP     11 27 34.2  -0.2
ULN                                  eScP            11 31 22.1
ULN                                    LR      LR
         comp=Z,5µm,21.0s,MS5.4
KS15     Wonju Array Si    44.25  38⇑eP      P       11 25 50.0  -0.2
SNY      Shenyang          44.87  30 ⇑P      P       11 25 55.0  -0.1
SNY                                    AMB     AMB
         comp=Z,330nm,0.9s,mb6.2
SNY                                    LR      LR
         comp=E,3µm,18.6s
SNY                                    LR      LR
         comp=Z,4µm,19.8s,MS5.3
WRA      Warramunga Arr    45.60 124   P       P       11 26 00.6  -0.6
         comp=Z,428nm,0.8s,mb6.5,baz=302,slow=9.2,SNR=1053
WRA                                    S       S       11 32 35.5  -3.5
         comp=Z,10nm,0.9s,baz=293,slow=16,SNR=11
WRAB     Tennant Creek     45.60 124⇑iP      P       11 26 01.8 +0.6
WRAB                                   pmax    pmax
         comp=Z,1µm,0.9s,mb6.8
WRAB                                   MLR     MLR
         comp=Z,823nm,21.9s,MS4.6
WRAB     Tennant Creek     45.60 124⇑iP      P       11 26 01.8 +0.6
         comp=Z,1µm,0.9s,mb6.8
WRAB                                   LR      LR
         comp=Z,823nm,21.9s,MS4.6
ZAK      Zakamensk         46.08   7⇓iP      P       11 26 02.6  -2.0
ASAR     Alice Springs     47.10 128   P       P       11 26 12.9  -0.1
         comp=Z,103nm,0.7s,mb5.9,baz=298,slow=7.9,SNR=976
ASAR                                   PcP     PcP     11 27 45.0 +0.4
         comp=Z,33nm,0.8s,baz=297,slow=3.1,SNR=5.7
ASAR                                   S       S       11 32 59.3  -1.1
         comp=Z,3.6nm,0.8s,baz=293,slow=15,SNR=3.8
ASAR                                   LR      LR      11 49 33.4
         comp=Z,1µm,19.7s,MS5.0,baz=299,slow=40
MOY      Mondy             47.11   5 eP      P       11 26 12.0  -0.7
CN2      Changchun         47.25  30 ⇑P      P       11 26 14.0 +0.1
CN2                                  eAP     pP      11 26 24.0  -3.9
CN2                                  eS      S       11 33 04.3 +2.1
CN2                                    AMB     AMB
         comp=Z,200nm,1.0s,mb6.0
CN2                                    AMB     AMB
         comp=Z,1µm,6.0s
CN2                                    LR      LR
         comp=N,2µm,15.0s,MS5.5
CN2                                    LR      LR
         comp=E,3µm,15.0s,MS5.5
CN2                                    LR      LR
         comp=Z,4µm,16.0s,MS5.5
TLY      Talaya            47.40   7   P       P       11 26 15.3 +0.3
         comp=Z,227nm,1.1s,mb6.0,SNR=11
TLY      Talaya            47.40   7 eP      P       11 26 14.7  -0.3
TLY                                  e                 11 28 00.4
TLY                                  eS      S       11 32 59.7  -4.6
TLY                                  eSS     ScS     11 35 58.6  -2.7
TLY                                    pmax    pmax
         comp=Z,51nm,1.1s,mb5.4
TLY                                    MLR     MLR
         comp=Z,6µm,25.0s,MS5.4
TLY      Talaya            47.40   7 eP      P       11 26 14.6  -0.4
         comp=Z,52nm,1.0s,mb5.4
TLY                                  ePcP    PcP     11 27 45.2  -0.1
TLY                                    LR      LR
         comp=Z,721nm,21.0s,MS4.6
IRK      Irkutsk           48.03   8 eP      P       11 26 19.0  -0.9
IRK                                  e       pP      11 26 32.4  -1.5
HASS     Wahat al Ahsa’    48.14 300   P       P       11 26 22.2 +1.1
HIA      Hailar            49.10  21⇑iP      P       11 26 27.9  -0.3
HIA                                  e                 11 27 50.6
HIA                                    pmax    pmax
         comp=Z,152nm,1.0s
HIA                                    MLR     MLR
         comp=Z,9µm,21.0s
HIA      Hailar            49.10  21⇑iP      P       11 26 27.9  -0.3
         comp=Z,152nm,1.0s,mb6.0
HIA                                  ePcP    PcP     11 27 50.6  -0.9
HIA                                    LR      LR
         comp=Z,9µm,21.0s,MS5.8
GUMO     Guam              49.78  76   PFAKE           11 26 50.0  +16
GUMO                                   LR      LR
         comp=Z,1µm,20.0s,MS4.9
MDJ      Mudanjiang        49.94  32   P       P       11 26 35.0 +0.3
MDJ                                    AP      pP      11 26 47.5  -1.3
MDJ                                    PCP     PcP     11 27 54.5   0.0
MDJ                                    PP      PP      11 28 30.5  -0.2
MDJ                                    SCP             11 31 47.0
MDJ                                    S       S       11 33 44.5 +4.6
MDJ                                    AMB     AMB
         comp=Z,248nm,1.5s,mb6.0
MDJ                                    AMB     AMB
         comp=Z,588nm,9.0s
MDJ                                    LR      LR
         comp=N,2µm,21.1s,MS5.3
MDJ                                    LR      LR
         comp=E,3µm,21.4s,MS5.3
MDJ                                    LR      LR
         comp=Z,4µm,22.3s,MS5.4
MDJ      Mudanjiang        49.94  32⇑iP      P       11 26 35.3 +0.5
         comp=Z,214nm,1.1s,mb6.1
MDJ                                    LR      LR
         comp=Z,4µm,22.0s,MS5.4
LBOS                       50.02 284⇑eP      P       11 26 35.6  -0.2
CBIJ     Chichi jima       50.03  58   LR      LR      11 44 58.0
         comp=Z,832nm,19.8s,MS4.7,baz=282,slow=33
VLA      Vladivostok       50.22  35⇓iP      P       11 26 37.0 +0.1
VLA                                  i       pP      11 26 48.0  -3.0
VLA                                  e                 11 28 35.0
VLA                                  i S     S       11 33 45.0 +1.2
VLA                                    pmax    pmax
         comp=Z,1µm,3.0s
VLA                                    pmax    pmax
         comp=N,1µm,5.0s
VLA                                    pmax    pmax
         comp=E,1µm,5.0s
VLA                                    pmax    pmax
         comp=Z,1µm,9.0s
VLA                                    pmax    pmax
         comp=N,1µm,15.0s
VLA                                    pmax    pmax
         comp=E,600nm,10.0s
VLA                                    smax
         comp=E,1µm,11.0s
VLA                                    MLR     MLR
         comp=N,4µm,15.0s,MS5.6
VLA                                    MLR     MLR
         comp=E,3µm,15.0s,MS5.6
VLA                                    MLR     MLR
         comp=Z,6µm,15.0s,MS5.7
JHJ      Hachijo jima 2    50.26  50   P       P       11 26 37.0  -0.4
         comp=Z,246nm,0.9s,mb6.2,baz=234,slow=14,SNR=4.2
JHJ                                    LR      LR      11 49 39.5
         comp=Z,1µm,19.7s,MS4.9,baz=81,slow=38
MAJO     Matsushiro        50.62  45 eP      P       11 26 38.0  -2.0
MAJO                                 e                 11 27 56.9
MAJO                                   pmax    pmax
         comp=Z,69nm,1.0s,mb5.5
MAJO                                   MLR     MLR
         comp=Z,3µm,21.0s,MS5.3
MAJO     Matsushiro        50.62  45 eP      P       11 26 38.0  -2.1
         comp=Z,69nm,1.0s,mb5.5
MAJO                                 ePcP    PcP     11 27 56.9  -0.3
MAJO                                   LR      LR
         comp=Z,3µm,21.0s,MS5.3
MAT      Matsushiro        50.62  45   P       P       11 26 37.7  -2.3
MAT                                  eS      S       11 33 37.0   -12
MAT      Matsushiro        50.62  45 eP      P       11 26 38.0  -2.0
MAT                                    pmax    pmax
         comp=Z,138nm,1.2s,mb5.8
MAT                                    MLR     MLR
         comp=Z,3µm,21.0s,MS5.3
MAT      Matsushiro        50.62  45 eP      P       11 26 38.0  -2.0
         comp=Z,138nm,1.2s,mb5.8
MAT                                    S       S       11 33 38.0   -11
MAT                                    LR      LR
         comp=Z,3µm,21.0s,MS5.3
QRN      Al-Qurain         50.76 304 eP      P       11 26 41.2   0.0
NVS      Novosibirsk       50.96 351 i P     P       11 26 40.0  -2.4
NVS                                  i       pP      11 26 57.6 +1.1
NVS                                  i                 11 27 55.6
NVS                                  i S     S       11 33 53.2  -0.7
NVS                                    pmax    pmax
         comp=N,107nm,1.0s
NVS                                    pmax    pmax
         comp=E,68nm,1.0s
NVS                                    pmax    pmax
         comp=Z,110nm,1.0s,mb5.7
NVS                                    smax
         comp=N,212nm,1.9s
NVS                                    smax
         comp=E,44nm,1.9s
RDF      Al-Radifah        51.12 304 eP      P       11 26 44.8 +0.9
RDF                                    AMb     AMB     11 27 05.8
         comp=Z,583nm,1.1s,mb6.4
KAMS     Al Khamasin       51.56 292   P       P       11 26 47.8 +0.5
RST      Umm Al-Ruwaisa    51.76 304 eP      P       11 26 49.2 +0.4
RST                                    AMb     AMB     11 27 10.1
         comp=Z,532nm,1.0s,mb6.4
MZLS     Mizel             51.77 297   P       P       11 26 49.4 +0.6
BVA0     Borovoye Array    52.35 341 i P     P       11 26 52.2  -0.6
BVA0                                   pmax    pmax
         comp=Z,46nm,1.0s,mb5.4
BVAR     Borovoye Array    52.35 341   P       P       11 26 52.1  -0.7
         comp=Z,168nm,0.7s,mb6.1,baz=143,slow=7.4,SNR=552
BRVK     Borovoye          52.41 341   P       P       11 26 52.5  -0.8
BRVK                                   pmax    pmax
         comp=Z,310nm,0.9s,mb6.2
BRVK     Borovoye          52.41 341⇑iP      P       11 26 52.3  -1.0
         comp=Z,474nm,1.0s,mb6.4
BRVK                                   LR      LR
         comp=Z,344nm,22.0s,MS4.3
TATS     Tathlith          52.45 291   P       P       11 26 54.4 +0.4
CHKZ     Chkalovo          52.83 342 eP      P       11 26 56.1  -0.3
CHKZ                                   pmax    pmax
         comp=Z,14nm,0.4s,mb5.2
CHKZ     Chkalovo          52.83 342⇑iP      P       11 26 56.0  -0.4
         comp=Z,1µm,1.0s,mb6.8
FRSS     Farasan al Kab    53.34 287   P       P       11 27 02.2 +1.6
PMG      Port Moresby      53.66 105   P       P       11 27 02.4  -0.7
PMG                                    pmax    pmax
         comp=Z,89nm,0.7s
PMG      Port Moresby      53.66 105   P       P       11 27 02.6  -0.5
         comp=Z,70nm,0.7s,mb5.7,baz=300,slow=3.1,SNR=32
PMG      Port Moresby      53.66 105⇑iP      P       11 27 02.3  -0.8
         comp=Z,205nm,0.9s,mb6.1
PMG                                    LR      LR
         comp=Z,666nm,19.0s,MS4.7
AFFS     ‘Afif             53.71 296   P       P       11 27 04.2 +0.9
ARSS     Ar Rass           53.94 299   P       P       11 27 05.1 +0.1
BOD      Bodaibo           55.05  12⇓eP      P       11 27 10.9  -1.7
HILS     Ha’il             55.56 300   P       P       11 27 17.8 +1.1
CTA      Charters Tower    55.87 118   P       P       11 27 18.9  -0.2
         comp=Z,136nm,1.0s,mb6.0,baz=290,slow=8.7,SNR=134
CTA                                    LR      LR      11 52 30.5
         comp=Z,3µm,21.9s,MS5.3,baz=285,slow=37
CTAO     Charters Tower    55.87 118   P       P       11 27 18.7  -0.4
CTAO                                   pmax    pmax
         comp=Z,200nm,1.0s,mb6.1
CTAO     Charters Tower    55.87 118⇑iP      P       11 27 18.6  -0.5
         comp=Z,234nm,1.0s,mb6.2
CTAO                                   LR      LR
         comp=Z,3µm,22.0s,MS5.4
MAK      Makhachkala       56.81 320 eP      pP      11 27 33.0  -6.9
MAK                                  i                 11 28 18.0
MAK                                  i PPP   PPP     11 30 54.0 +1.0
MAK                                  i S     S       11 35 10.0  -2.9
MAK                                  ePS     PS      11 35 26.0  -7.1
MAK                                  e                 11 37 10.0
MAK                                    pmax    pmax
         comp=Z,2µm,7.0s
MAK                                    smax
         comp=N,2µm,6.0s
CLNS     Chul’man          57.11  19⇑iP      P       11 27 26.9  -0.5
CLNS                                 e*PP    pP      11 27 32.4  -9.4
CLNS                                 e                 11 28 27.6
CLNS                                   pmax    pmax
         comp=Z,39nm,0.8s,mb5.5
CLNS                                   pmax    pmax
         comp=N,43nm,1.1s
CLNS                                   pmax    pmax
         comp=E,28nm,1.0s
CLNS                                   pmax    pmax
         comp=Z,23nm,1.0s,mb5.2
CLNS                                   pmax    pmax
         comp=N,31nm,1.1s
CLNS                                   pmax    pmax
         comp=E,15nm,0.9s
CLNS                                   MLR     MLR
         comp=N,5µm,17.0s,MS5.7
CLNS                                   MLR     MLR
         comp=Z,10µm,17.0s,MS6.0
CLNS                                   MLR     MLR
         comp=E,1µm,16.0s,MS5.7
STKA     Stephens Creek    57.16 133   P       P       11 27 27.7  -0.5
         comp=E,52nm,0.9s,mb5.5,baz=305,slow=6.8,SNR=52
STKA                                   LR      LR      11 55 04.3
         comp=E,2µm,20.6s,MS5.1,baz=301,slow=39
STKA     Stephens Creek    57.16 133⇑iP      P       11 27 27.5  -0.7
ASAJ     Asahikawa         57.21  39   P       P       11 27 27.9  -0.4
         comp=E,67nm,1.0s,mb5.6,baz=220,slow=13,SNR=13
KBRS     Khaybar           57.42 298   P       P       11 27 31.0 +1.0
GNI      Garni             57.42 315   P       P       11 27 27.8  -2.1
GNI      Garni             57.42 315   P       P       11 27 29.6  -0.3
GNI                                    pmax    pmax
         comp=Z,180nm,1.2s
GNI      Garni             57.42 315   P       P       11 27 29.6  -0.2
         comp=Z,47nm,0.9s,mb5.5,baz=330,slow=2.3,SNR=32
GNI      Garni             57.42 315⇑iP      P       11 27 29.3  -0.6
         comp=Z,251nm,1.3s,mb6.1
GNI                                    LR      LR
         comp=Z,437nm,19.0s,MS4.6
VANB     Van               57.77 313   P       P       11 27 30.9  -1.5
TI2      Plekhanov         58.08 317⇑iP      P       11 27 32.8  -1.6
TI2                                  i       pP      11 27 50.2 +1.4
TI2                                  eS      S       11 35 28.0  -1.6
TI2                                    pmax    pmax
         comp=Z,250nm,0.8s,mb6.3
KMBO     Kilima Mbogo      58.15 266   P       P       11 27 36.5 +1.2
KMBO                                   pmax    pmax
         comp=Z,28nm,1.0s
KMBO     Kilima Mbogo      58.15 266   P       P       11 27 37.1 +1.8
         comp=Z,24nm,0.9s,mb5.2,baz=56,slow=9.2,SNR=42
KMBO                                   LR      LR      11 48 15.5
         comp=Z,3µm,21.5s,MS5.3,baz=94,slow=31
KMBO     Kilima Mbogo      58.15 266 eP      P       11 27 36.4 +1.1
         comp=Z,53nm,1.0s,mb5.5
KMBO                                   LR      LR
         comp=Z,3µm,22.0s,MS5.4
YNBS     Yanbu‘ al Bahr    58.28 296   P       P       11 27 36.8 +0.7
YSS      Yuzh-Sakhalins    58.72  36⇑iP      P       11 27 38.6  -0.2
         comp=Z,375nm,1.0s,mb6.4
YSS                                    LR      LR
         comp=Z,2µm,21.0s,MS5.2
SVE      Sverdlovsk        58.76 339⇑iP      P       11 27 39.0 +0.1
SVE                                  e                 11 29 56.0
SVE                                  eS      S       11 35 37.0  -1.2
SVE                                    pmax    pmax
         comp=Z,210nm,1.5s,mb6.0
SVE                                    smax
         comp=N,1µm,8.6s
SVE                                    smax
         comp=E,1µm,8.6s
SVE                                    MLR     MLR
         comp=Z,2µm,18.5s,MS5.3
UMJS     Umm Lajj          59.04 297   P       P       11 27 42.5 +1.2
ZEI      Tsey              59.09 318 i P     P       11 27 41.1  -0.3
ZEI                                  i *PP   pP      11 27 58.6 +2.7
ZEI                                  i                 11 29 54.5
ZEI                                    pmax    pmax
         comp=Z,78nm,0.9s,mb5.7
ARU      Arti              59.24 337⇑iP      P       11 27 41.1  -1.1
ARU                                  e                 11 28 25.3
ARU                                  e                 11 29 49.2
ARU                                  ePPP    PPP     11 31 16.1  -4.2
ARU                                  eS      S       11 35 50.7 +6.2
ARU                                  e                 11 37 27.7
ARU                                  eSS     SS      11 39 46.6 +5.4
ARU                                    pmax    pmax
         comp=Z,207nm,1.3s,mb6.0
ARU      Arti              59.24 337⇑iP      P       11 27 40.9  -1.3
         comp=Z,338nm,1.2s,mb6.2
ARU                                  e       pP      11 27 59.5 +2.8
ARU                                    LR      LR
         comp=Z,399nm,19.0s,MS4.6
YUK      Yuzh-Kuril’sk     59.25  40   P       P       11 27 40.9  -1.6
YUK                                    pmax    pmax
         comp=Z,370nm,0.8s,mb6.5
YUK                                    MLR     MLR
         comp=Z,3µm,13.0s,MS5.5
VRT      Varto             59.32 313   P       P       11 27 43.2 +0.1
ERZM     Erzurum           59.72 314 i P     P       11 27 45.7  -0.1
EZM      Erzurum           59.72 314   P       P       11 27 45.8  -0.1
BINT     Bingol            59.99 313   P       P       11 27 47.1  -0.6
BCA      Borcka            60.11 316   P       P       11 27 47.0  -1.5
TBKS     Tabuk             60.27 300   P       P       11 27 51.0 +1.2
KIV      Kislovodsk        60.39 319   P       P       11 27 49.8  -0.6
         comp=Z,828nm,1.1s,mb6.7,SNR=19
KIV      Kislovodsk        60.39 319⇑iP      P       11 27 49.2  -1.2
KIV                                    pmax    pmax
         comp=Z,161nm,1.0s,mb6.0
KIV                                    MLR     MLR
         comp=Z,112nm,20.0s
KIV      Kislovodsk        60.39 319⇑iP      P       11 27 49.2  -1.2
         comp=Z,162nm,1.0s,mb6.0
KIV                                    LR      LR
         comp=Z,112nm,20.0s
GOF      Gofitskoye        60.63 320 i P     P       11 27 50.5  -1.5
GOF                                    pmax    pmax
         comp=Z,110nm,1.4s,mb5.8
URFA     Urfa              60.77 311   P       P       11 27 53.0   0.0
PTK      Pertek            60.80 312   P       P       11 27 52.8  -0.5
ASF      Jabal al Asfar    60.84 304   P       P       11 27 54.4 +0.8
         comp=Z,12nm,1.0s,mb5.0,baz=354,slow=3.1,SNR=12
ASF                                    LR      LR      11 56 22.6
         comp=Z,2µm,18.2s,MS5.2,baz=338,slow=38
ELZG     Elazig            60.98 312 i P     P       11 27 54.0  -0.4
JMQS     Jabal Moqyreh     60.98 300   P       P       11 27 55.2 +0.6
GUMT     Gumushane         61.27 314   P       P       11 27 56.1  -0.2
MALT     Malatya           61.33 311   P       P       11 27 56.7  -0.1
MALT                                   pmax    pmax
         comp=Z,87nm,1.2s,mb5.8
MALT     Malatya           61.33 311⇑iP      P       11 27 56.5  -0.3
         comp=Z,126nm,1.3s,mb5.9
MYA      Malataya          61.34 311   P       P       11 27 56.7  -0.2
AYUS     ‘Aynunah          61.38 300   P       P       11 27 57.8 +0.5
BDAS     Al Bad‘           61.56 300   P       P       11 27 58.9 +0.4
GZT      Gaziantep         61.69 310 i P     P       11 27 59.4 +0.1
JMOS     Jabal al Moall    61.70 301   P       P       11 27 59.7 +0.3
MKRJ     Makawir           61.74 303   P       P       11 28 00.2 +0.5
ALWS     Ilw as Safayha    61.76 301   P       P       11 28 00.2 +0.3
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HAQS	**Haql**	61.83	300	P	P	11 28 01.0	+0.7
GAZ	**Gaziantep**	61.91	310	P	P	11 28 01.0	+0.3
KSHT	**Keshet**	61.93	305	P	P	11 28 01.9	+1.0
EIL	**Elat**	61.93	301	P	P	11 28 01.3	+0.4
EIL	**Elat**	61.93	301	P	P	11 28 01.6	+0.7
	baz=78,slow=4.2						
EIL	**Elat**	61.93	301⇑	iP	P	11 28 00.9	0.0
	comp=Z,135nm,1.1s,mb6.0						
EIL				e	pP	11 28 15.8	+0.3
DRGI	**Dragot**	61.96	303	P	P	11 28 01.6	+0.5
HMDT	**Nahal Hemdat**	61.99	304	P	P	11 28 01.9	+0.6
PRNI	**Paran**	62.02	302	P	P	11 28 02.1	+0.6
MMLI	**Mount Malkishu**	62.12	304	P	P	11 28 03.1	+0.9
SOKR	**Solikamsk**	62.16	339⇑	iP	P	11 27 58.7	-3.3
SOKR				pmax	pmax		
	comp=Z,190nm,0.9s,mb6.2						
SOKR				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
KMTI	**Karmit**	62.21	302	P	P	11 28 02.1	-0.7
SOC	**Sochi**	62.22	317	i P	P	11 28 00.7	-2.0
SOC				e		11 28 40.7	
SOC				e		11 30 18.8	
SOC				i S	S	11 36 25.4	+2.6
SOC				eSS	SS	11 40 31.0	+2.7
SOC				pmax	pmax		
	comp=N,40nm,1.0s						
SOC				pmax	pmax		
	comp=Z,126nm,1.0s,mb6.0						
SOC				pmax	pmax		
	comp=E,18nm,0.9s						
SOC				MLR	MLR		
	comp=Z,344nm,15.0s,MS4.6						
SOC				MLR	MLR		
	comp=N,231nm,14.0s,MS4.8						
SOC				MLR	MLR		
	comp=E,519nm,17.0s,MS4.8						
SLTI	**Sal'it**	62.39	304	P	P	11 28 04.7	+0.7
HTY	**Hatay**	62.45	308	P	P	11 28 04.5	+0.2
COBT	**Iskenderun**	62.47	309	i P	P	11 28 04.8	+0.4
OFRI	**'Ofer**	62.52	304	P	P	11 28 05.4	+0.5
YAK	**Yakutsk**	62.72	17	P	P	11 28 04.1	-1.7
YAK				pmax	pmax		
	comp=Z,240nm,0.9s,mb6.3						
YAK	**Yakutsk**	62.72	17⇑	iP	P	11 28 04.0	-1.8
	comp=Z,226nm,0.7s,mb6.4						
YAK				LR	LR		
	comp=Z,7µm,20.0s,MS5.8						
CEYT	**Ceyhan**	62.99	309	P	P	11 28 08.2	+0.3
TOKT	**Tokat**	63.34	313	P	P	11 28 09.8	-0.4
BNN	**Bunyan**	63.42	311	P	P	11 28 10.1	-0.6
KVT	**Kavak**	63.93	314	P	P	11 28 13.6	-0.5
MEST	**Erdemli**	64.12	309	i P	P	11 28 14.8	-0.6
AVNT	**Avonos**	64.15	311	i P	P	11 28 14.7	-0.8
NIG	**Nigde**	64.15	310	P	P	11 28 15.7	+0.2
ANN	**Anapa**	64.19	318	eP	P	11 28 06.6	-9.1
ANN				pmax	pmax		
	comp=Z,89nm,1.3s,mb5.6						
CSS	**Prodhromos**	64.39	307⇑	iP	P	11 28 16.2	-0.9
	comp=Z,110nm,1.1s,mb5.8						
IKL	**Isikli**	64.40	308	P	P	11 28 14.5	-2.7
MBAR	**Mbarara**	64.58	267	eP	P	11 28 17.9	-0.8
MBAR				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.6						
MBAR				MLR	MLR		
	comp=Z,793nm,20.0s,MS4.9						
MBAR	**Mbarara**	64.58	267	eP	P	11 28 17.9	-0.9
	comp=Z,75nm,1.3s,mb5.6						
MBAR				LR	LR		
	comp=Z,793nm,20.0s,MS4.9						
CORM	**Corum**	64.70	312	P	P	11 28 18.7	-0.4
CTKT	**Corum**	64.71	313	i P	P	11 28 18.2	-0.9
LEF	**Lefka**	64.77	307	P	P	11 28 19.2	-0.5
BOYT	**Boyabat**	64.86	314	i P	P	11 28 19.4	-0.7
KAMT	**Kaman**	65.16	311	P	P	11 28 21.1	-1.0
BRTR	**Keskin Array B**	65.31	312	P	P	11 28 22.0	-1.0
	comp=Z,27nm,0.6s,mb5.5,baz=127,slow=7.3,SNR=72						
BR131	**Keskin Array S**	65.31	312	PFAKE		11 28 30.0	+7.0
BR131				LR	LR		
	comp=Z,484nm,20.0s,MS4.7						
TOS	**Tosya**	65.38	313	P	P	11 28 22.7	-0.8
HDMB	**Hadim**	65.51	309	P	P	11 28 23.8	-0.5
CANT	**Cankiri**	65.56	313	P	P	11 28 24.1	-0.5
VRSR	**Storozhevoye**	65.58	325	eP	P	11 28 22.5	-2.1
VRSR				e*PP	pP	11 28 32.6	-6.7
VRSR				e		11 28 54.8	
VRSR				e		11 30 48.9	
VRSR				eS	S	11 37 00.7	-3.6
VRSR				e		11 38 11.1	
VRSR				eSS	SS	11 41 14.8	-5.6
VRSR				eSSS	SSS	11 44 06.3	-8.2
VRSR				pmax	pmax		
	comp=Z,200nm,1.1s,mb6.1						
VRSR				pmax	pmax		
	comp=N,70nm,1.0s						
VRSR				pmax	pmax		
	comp=E,160nm,0.9s						
VRSR				smax			
	comp=N,90nm,1.1s						
VRSR				smax			
	comp=Z,7.0nm,1.1s						
VRSR				smax			
	comp=E,30nm,1.3s						
BZK	**Bozkurt**	65.66	314	P	P	11 28 24.8	-0.4
KONT	**Konya--Tatoy**	65.83	310	P	P	11 28 25.8	-0.6
ANTO	**Ankara**	65.98	312	P	P	11 28 26.1	-1.2
BALT	**Daday**	65.98	314	i P	P	11 28 26.6	-0.7
SAFT	**Safranbolu**	66.41	313	P	P	11 28 29.4	-0.5
KIZT	**Kizilcal**	66.42	310	P	P	11 28 29.0	-1.1
SIM	**Simferopol'**	66.47	317c	eP	P	11 28 29.4	-0.9
SIM				eS	S	11 37 15.0	-0.2
SIM				pmax	pmax		
	comp=Z,99nm,0.7s,mb6.0						
SIM	**Simferopol'**	66.47	317⇑	iP	P	11 28 29.2	-1.1
SGKT	**Sivrigoynuk**	66.70	312	i P	P	11 28 31.2	-0.6
ISP	**Isparta**	67.24	309	P	P	11 28 33.5	-1.7
ISP	**Isparta**	67.24	309	P	P	11 28 34.7	-0.5
ISP				pmax	pmax		
	comp=Z,250nm,1.6s,mb6.0						
MDU	**Mudurnu**	67.30	312	P	P	11 28 34.7	-0.9
ESKT	**Eskisehir**	67.35	311	P	P	11 28 35.2	-0.7
ESKT	**Eskisehir**	67.35	311	i P	P	11 28 34.6	-1.3
HENT	**Hendek**	67.61	312	i P	P	11 28 36.4	-1.1
ALT	**Altintas**	67.80	310	P	P	11 28 38.1	-0.6
FETY	**Fethiye**	68.11	308	P	P	11 28 39.7	-1.0
SKR	**Severo-Kuril's**	68.28	37	eP	P	11 28 37.5	-4.0
SKR				e	pP	11 28 50.0	-6.3
SKR				e		11 31 20.0	
SKR				ePPP	PPP	11 32 51.0	-1.1
SKR				S	S	11 37 46.0	+9.1
SKR				ePS	PS	11 38 06.0	-3.0
SKR				e		11 38 24.0	
SKR				pmax	pmax		
	comp=Z,2µm,4.0s						
SKR				pmax	pmax		
	comp=N,130nm,1.0s						
SKR				pmax	pmax		
	comp=E,220nm,1.0s						
SKR				pmax	pmax		
	comp=Z,450nm,1.0s,mb6.5						
SKR				smax			
	comp=E,3µm,12.0s						
SKR				MLR	MLR		
	comp=N,3µm,18.0s,MS5.7						
SKR				MLR	MLR		
	comp=E,3µm,18.0s,MS5.7						
SKR				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.5						
MOS	**Moscow**	68.35	329α	iP	P	11 28 41.1	-0.8
MOS				i	pP	11 28 55.4	-1.3
MOS				e		11 29 07.3	
MOS				eS	S	11 37 34.0	-3.6
MOS				pmax	pmax		
	comp=Z,1µm,1.8s,mb6.6						
MOS				pmax	pmax		
	comp=Z,560nm,1.5s,mb6.4						
MOS				smax			
	comp=E,1µm,3.8s						
MOS				MLR	MLR		
	comp=Z,1µm,19.6s,MS5.1						
DALT	**Dalyan (Mudla)**	68.49	308	P	P	11 28 43.2	+0.2
HRT	**Hereke**	68.52	312	P	P	11 28 42.4	-0.8
OBN	**Obninsk**	68.64	328⇓	iP	P	11 28 39.5	-4.2
OBN				i	pP	11 28 57.4	-1.1
OBN				i		11 29 08.8	
OBN				i S	S	11 37 38.2	-2.8
OBN				pmax	pmax		
	comp=Z,311nm,1.2s,mb6.1						
OBN				MLR	MLR		
	comp=Z,600nm,19.0s,MS4.8						
OBN	**Obninsk**	68.64	328⇓	iP	P	11 28 39.5	-4.2
OBN				LR	LR		
	comp=Z,239nm,21.0s,MS4.4						
YLV	**Yalova**	68.69	312	P	P	11 28 42.3	-2.0
ISK	**Istanbul-Kandi**	69.03	312	P	P	11 28 45.6	-0.7
MA2	**Magadan**	69.15	27c	iP	P	11 28 46.3	-0.4
MA2				eS	S	11 37 46.5	-0.5
MA2				pmax	pmax		
	comp=Z,120nm,1.4s,mb5.6						
MA2				pmax	pmax		
	comp=E,50nm,1.3s						
MA2				pmax	pmax		
	comp=N,20nm,1.0s						
MA2				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.8						
MA2	**Magadan**	69.15	27⇑	iP	P	11 28 46.2	-0.5
	comp=Z,124nm,0.9s,mb5.8						
MA2				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
LSZ	**Lusaka**	69.20	252	eP	P	11 28 48.1	+0.3
LSZ				e	pP	11 29 04.1	+1.5
LSZ				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
LSZ				MLR	MLR		
	comp=Z,4µm,20.0s,MS5.7						
LSZ	**Lusaka**	69.20	252	eP	P	11 28 48.1	+0.3
	comp=Z,70nm,1.0s,mb5.5						
LSZ				e	pP	11 29 04.1	+1.5
LSZ				LR	LR		
	comp=Z,4µm,20.0s,MS5.7						
AKS	**Akhisar**	69.52	310	P	P	11 28 49.1	-0.3
BTOK	**Tokmak**	69.53	311	i P	P	11 28 48.7	-0.7
BALB	**Balikesir**	69.62	311	P	P	11 28 49.3	-0.6
BNT	**Bandirma**	69.73	311	P	P	11 28 50.4	-0.2
KDAG	**Bornova**	69.85	309	i P	P	11 28 50.4	-1.0
MRMT	**Marmara Adasi**	70.02	312	P	P	11 28 51.7	-0.7
TIXI	**Tiksi**	70.18	11⇑	iP	P	11 28 51.0	-1.8
TIXI				pmax	pmax		
	comp=Z,243nm,0.9s,mb6.1						
TIXI				pmax	pmax		
	comp=N,39nm,1.0s						
TIXI				pmax	pmax		
	comp=E,30nm,1.1s						
TIXI				pmax	pmax		
	comp=Z,386nm,1.1s,mb6.2						
TIXI				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.7						
TIXI	**Tiksi**	70.18	11	eP	P	11 28 47.0	-5.8
TIXI				LR	LR		
	comp=Z,5µm,19.0s,MS5.8						
TIRR	**Tirgusor**	70.25	316	P	P	11 28 53.3	-0.4
PET	**Petropavlovsk**	70.55	35	eP	P	11 28 54.7	-0.7
PET				eS	S	11 38 11.9	+8.4
PET				pmax	pmax		
	comp=Z,172nm,0.9s,mb6.0						
PET				pmax	pmax		
	comp=E,66nm,1.0s						
PET				pmax	pmax		
	comp=N,55nm,0.9s						
PET				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
PET	**Petropavlovsk**	70.55	35	eP	P	11 28 54.3	-1.0
	comp=Z,146nm,0.9s,mb5.9						
PET				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
PRD	**Provadia**	70.69	314	eP	P	11 28 55.0	-1.4
WAKE	**Wake Island**	71.01	71	PFAKE		11 29 10.0	+11
WAKE				LR	LR		
	comp=Z,143µm,21.0s						
IDI	**Anoyia**	71.25	306	P	P	11 28 59.8	-0.2
	comp=Z,31nm,0.6s,mb5.5,baz=86,slow=7.2,SNR=21						
IDI				LR	LR	12 06 28.4	
	comp=Z,604nm,19.6s,MS4.9,baz=359,slow=41						
AKASG	**Malin Array Be**	71.31	322	P	P	11 28 58.5	-1.5
	comp=Z,41nm,0.6s,mb5.6,baz=93,slow=4.5,SNR=157						
AKASG				S	S	11 38 10.1	-2.2
	comp=Z,0.3nm,0.3s,baz=108,slow=11,SNR=6.1						
AKASG				PKPPKP		11 56 50.1	
	comp=Z,0.1nm,0.2s,baz=294,slow=3.8,SNR=5.0						
SEY	**Seymchan**	71.42	24	eP	P	11 28 59.8	-0.7
SEY					pP	11 29 17.9	+2.6
SEY				eS	S	11 38 15.8	+2.4
SEY				eSS	SS	11 42 49.8	-1.0
SEY				eSSS	SSS	11 46 04.0	+5.6
SEY				pmax	pmax		
	comp=N,70nm,1.0s						
SEY				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.6						
SEY				pmax	pmax		
	comp=E,10.0nm,0.7s						
SEY				smax			
	comp=N,2µm,17.9s						
SEY				smax			
	comp=E,1µm,22.2s						
SEY				MLR	MLR		
	comp=N,7µm,24.0s						
SEY				MLR	MLR		
	comp=Z,11µm,24.0s,MS6.0						
CASY	**Casey**	71.63	174	eP	P	11 29 02.5	+0.9
	comp=Z,39nm,1.1s,mb5.2						
CASY				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
VRI	**Vrincioaia**	71.73	317	P	P	11 29 03.1	+0.5
KDZ	**Kurdzhali**	71.83	312	eP	P	11 29 03.0	-0.3
PVL	**Pavlikeni**	72.17	314	eP	P	11 29 05.0	-0.3
MLR	**Muntele Rosu**	72.19	316	P	P	11 29 05.7	+0.4
MLR	**Muntele Rosu**	72.19	316	LR	LR	12 05 09.9	
	comp=Z,587nm,20.0s,MS4.8,baz=256,slow=39						
RZN	**Rozhen**	72.35	312	eP	P	11 29 05.0	-1.4
SNX	**Sinaia**	72.45	316	P	P	11 29 07.3	+0.4
PGB	**Panagyurishte**	72.90	313	eP	P	11 29 08.0	-1.6
MNK	**Minsk**	73.17	326	eP	P	11 29 08.0	-3.0
MNK				pmax	pmax		
	comp=Z,840nm,1.2s,mb6.5						
MNK				pmax	pmax		
	comp=E,560nm,1.6s						
PUL	**Pulkovo**	73.51	331⇓	eP	P	11 29 12.8	0.0
PUL				pmax	pmax		
	comp=Z,227nm,0.9s,mb6.1						
PUL				pmax	pmax		
	comp=E,102nm,0.8s						
PUL				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
PUL				MLR	MLR		
	comp=N,1µm,17.0s						
PUL	**Pulkovo**	73.51	331⇓	iP	P	11 29 10.6	-2.2
KKB	**Krupnik**	73.59	312	eP	P	11 29 12.0	-1.7
VTS	**Vitosha**	73.61	313	eP	P	11 29 13.0	-0.8
VTS	**Vitosha**	73.61	313	P	P	11 29 13.5	-0.3
LBTB	**Lobatse**	73.64	242⇓	eP	P	11 29 15.3	+1.0
LBTB				pmax	pmax		
	comp=Z,85nm,1.3s,mb5.5						
LBTB				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.8						
LBTB	**Lobatse**	73.64	242⇓	eP	P	11 29 15.3	+1.0
	comp=Z,85nm,1.3s,mb5.5						
LBTB				LR	LR		
	comp=Z,5µm,21.0s,MS5.8						
VAY	**Valandovo**	73.89	312	i P	P	11 29 14.4	-1.0
NOUC	**Port Laguerre**	74.41	114	eP	P	11 29 17.9	-0.9
NOUC	**Port Laguerre**	74.41	114	eP	P	11 29 17.9	-0.9
DZM	**Mont Dzumac**	74.53	114	eP	P	11 29 19.8	+0.2
BOLS	**Boljevac**	74.70	314⇑	iP	P	11 29 19.3	-0.8
BOSA	**Boshof**	74.78	239	P	P	11 29 22.0	+1.2
BOSA				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.3						
BOSA	**Boshof**	74.78	239⇓	eP	P	11 29 21.4	+0.5
	comp=Z,191nm,1.6s,mb5.8						
BOSA				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
SKO	**Skopje**	74.82	312	i P	P	11 29 19.2	-1.6
SKO				i	pP	11 29 39.0	+3.3
VSU	**Vasula**	74.87	330⇓	iP	P	11 29 17.2	-3.5
LVZ	**Lovozero**	74.92	340⇑	eP	P	11 29 20.3	-0.5
LVZ				eS	S	11 38 49.7	-3.1
LVZ				pmax	pmax		
	comp=Z,85nm,0.8s,mb5.7						
LVZ				pmax	pmax		
	comp=E,61nm,1.7s						
LVZ				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.3						
LVZ	**Lovozero**	74.92	340	i Pr		11 29 19.3	
KWP	**Kalwaria**	75.14	320⇑	eP	P	11 29 22.8	+0.4
KWP				epP	pP	11 29 30.1	-7.3
KWP				ePcP	PcP	11 29 37.1	+1.0
KWP				eS	S	11 38 56.8	+1.2
KWP				eSKS	SKS	11 39 19.9	-2.2
KWP	**Kalwaria**	75.14	320	eP	P	11 29 22.8	+0.4
KWP				epP	pP	11 29 30.1	-7.3
KWP				ePcP	PcP	11 29 37.1	+1.0
KWP				eS	S	11 38 56.8	+1.2
KWP				eSKS	SKS	11 39 19.9	-2.2
KWP				MLR	MLR	12 10 40.4	
	comp=Z,500nm,23.2s,MS4.8						
OHR	**Ohrid**	75.19	311	eP	P	11 29 21.4	-1.5
OHR				i	pP	11 29 40.8	+2.9
OHR	**Ohrid**	75.19	311	eP	P	11 29 21.4	-1.5
OHR				i		11 29 22.1	
OHR				i	pP	11 29 40.8	+2.9
APA	**Apatity**	75.21	340⇓	iP	P	11 29 22.0	-0.5
APA				i	pP	11 29 40.3	+2.9
APA				eS		11 39 18.0	
APA				pmax	pmax		
	comp=Z,160nm,1.0s,mb5.9						
APA				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
KOLS	**Kolonicke sedl**	75.29	319	i P	P	11 29 24.1	+0.7
KOLS				e	pP	11 29 43.3	+5.0
GRUS	**Gruza**	75.59	314⇓	iP	P	11 29 24.9	-0.3
MAW	**Mawson**	75.61	192	eP	P	11 29 26.5	+1.7
MAW				pmax	pmax		
	comp=Z,38nm,1.4s						
MAW	**Mawson**	75.61	192	P	P	11 29 27.0	+2.2
	comp=Z,4.6nm,0.7s,baz=82,slow=21,SNR=3.6						
MAW				LR	LR	11 56 28.3	
	comp=Z,1µm,20.8s,baz=23,slow=31						
MAW	**Mawson**	75.61	192	eP	P	11 29 26.5	+1.7
	comp=Z,38nm,1.4s,mb5.1						
SUW	**Suwalki**	75.70	325⇑	eP	P	11 29 25.0	-0.6
SUW				ePcP	PcP	11 29 39.4	+0.9
SUW				eS	S	11 38 58.2	-3.5
SUW				eSS		11 39 14.6	
SUW	**Suwalki**	75.70	325	eP	P	11 29 25.0	-0.6
	comp=Z,100nm,0.3s,mb6.2						
SUW				ePcP	PcP	11 29 39.4	+0.9
SUW				eS	S	11 38 58.2	-3.5
SUW				esS		11 39 14.6	
SUW				MLR	MLR	12 01 54.0	
	comp=Z,900nm,24.9s,MS5.0						
CRVS	**Cervenica-Dubn**	75.82	319	eP	P	11 29 27.1	+0.8
CRVS				e		11 29 33.5	
CRVS				e		11 29 49.8	
BEO	**Belgrade**	75.90	315⇑	iP	P	11 29 26.6	-0.4
PVY	**Plav**	75.97	313⇓	iP	P	11 29 26.6	-0.8
FINES	**FINESS Array B**	76.02	332	P	P	11 29 26.8	-0.5
	comp=Z,84nm,0.9s,mb5.7,baz=104,slow=6.1,SNR=173						
FINES				LR	LR	12 07 55.6	
	comp=Z,794nm,19.8s,MS5.0,baz=105,slow=40						
IVA	**Berane**	76.06	313⇓	iP	P	11 29 26.7	-1.2
KAF	**Kangasniemi**	76.11	333	ep	P	11 29 26.3	-1.4
	comp=Z,104nm,0.9s,mb5.8						
KAF	**Kangasniemi**	76.11	333	eP	P	11 29 26.3	-1.4
KAF				pmax	pmax		
	comp=Z,104nm,0.9s,mb5.8						
KECS	**Kecovo**	76.39	319	i P	P	11 29 29.9	+0.3
KECS				epP	pP	11 29 39.4	-5.2
KECS				esP	sP	11 29 44.5	-5.8
ULC	**Ulcinj**	76.44	312⇓	iP	P	11 29 29.0	-1.1
TTG	**Podgorica**	76.48	312⇓	iP	P	11 29 28.9	-1.3
PLE	**Pljevlja**	76.48	313⇓	iP	P	11 29 30.3	+0.1
NIE	**Niedzica**	76.64	320	eP	P	11 29 31.8	+0.8
WAR	**Warsaw**	76.65	323	eP	P	11 29 31.5	+0.5
WAR				e*PP	pP	11 29 38.1	-7.8
WAR				e	pP	11 29 45.2	-0.7
WAR				eS	S	11 39 12.1	0.0
WAR				MLR	MLR		
	comp=Z,1µm,23.2s,MS5.1						
WAR	**Warsaw**	76.65	323	eP	P	11 29 31.5	+0.5
WAR				epP	pP	11 29 38.1	-7.8
WAR				ePcP	PcP	11 29 45.2	+2.6
WAR				eS	S	11 39 12.1	0.0
WAR				eSKSac		11 39 33.0	
WAR				MLR	MLR	12 08 09.5	
	comp=Z,1µm,23.2s,MS5.1						
PSZ	**Piszkesteto**	76.70	318⇑	iP	P	11 29 31.4	0.0
PSZ				pmax	pmax		
	comp=Z,111nm,0.9s,mb5.8						
PSZ	**Piszkesteto**	76.70	318⇑	iP	P	11 29 31.4	0.0
	comp=Z,111nm,0.9s,mb5.8						
NKY	**Niksic**	76.71	313⇓	iP	P	11 29 30.6	-1.0
BUM	**Brajici-Budva**	76.73	312⇓	iP	P	11 29 29.9	-1.7
UPM	**Unac-Piva**	76.82	313⇓	iP	P	11 29 31.4	-0.7
HCY	**Herceg Novi**	77.04	312⇓	iP	P	11 29 32.9	-0.6
BRY	**Bratogost**	77.05	313⇓	iP	P	11 29 32.5	-0.9
OJC	**Ojcow**	77.09	320⇑	iP	P	11 29 33.9	+0.4
OJC	**Ojcow**	77.09	320	i P	P	11 29 33.9	+0.4
PKSM	**Moragy**	77.34	316⇑	iP	P	11 29 34.8	-0.2
VYHS	**Vyhne**	77.48	319	i P	P	11 29 36.1	+0.4
VYHS				e	pP	11 29 53.9	+3.2
SRO2	**Moca**	77.69	318	eP	P	11 29 37.1	+0.2
SRO2				e	pP	11 29 51.3	-0.5
RHK1	**Bakonya**	77.72	316⇑	iP	P	11 29 36.7	-0.4
SRO	**Srobarova**	77.75	318	i P	P	11 29 37.9	+0.7
SRO				e	pP	11 29 51.5	-0.7
KOLL	**Kolacno**	77.78	319	eP	P	11 29 37.7	+0.4
KOLL				e	pP	11 29 51.0	-1.3
SRO1	**Iza**	77.79	318	eP	P	11 29 37.9	+0.5
SRO1				esP	sP	11 29 52.9	-5.3
DRV	**Dumont d'Urvil**	78.01	163	P	P	11 29 27.0	-11
DRV				S	S	11 39 20.0	-6.5
OKC	**Ostrava-Krasne**	78.09	320	eP	P	11 29 39.6	+0.6
OKC				epP	pP	11 29 54.7	+0.7
RAC	**Raciborz**	78.09	320	eP	P	11 29 40.3	+1.3
TIP	**Timpagrande**	78.09	309	eP	P	11 29 38.8	-0.4
KEV	**Kevo**	78.20	341	ep	P	11 29 38.1	-1.1
	comp=Z,68nm,0.8s,mb5.6						
KEV	**Kevo**	78.20	341	eP	P	11 29 38.1	-1.1
KEV				pmax	pmax		
	comp=Z,68nm,0.8s,mb5.6						
GRI	**Girifalco**	78.34	309	eP	P	11 29 41.1	+0.5
SMOL	**Smolenice**	78.41	318	eP	P	11 29 41.2	+0.4
SMOL				e	pP	11 29 54.4	-1.4
MORC	**Moravsky Berou**	78.48	320⇑	iP	P	11 29 41.5	+0.4
MORC				pmax	pmax		
	comp=Z,146nm,1.1s,mb5.8						
MORC	**Moravsky Berou**	78.48	320⇑	iP	P	11 29 41.5	+0.4
	comp=Z,146nm,1.1s,mb5.8						
ZST	**Bratislava**	78.59	318	i P	P	11 29 42.5	+0.7
ZST				e	pP	11 29 57.0	+0.2
ARCES	**ARCESS Array B**	78.62	340	P	P	11 29 41.8	+0.2
	comp=Z,65nm,0.7s,mb5.7,baz=93,slow=5.6,SNR=153						
ARCES				LR	LR	12 07 44.0	
	comp=Z,2µm,21.6s,MS5.3,baz=113,slow=38						
ARE0	**ARCESS Array S**	78.62	340⇑	iP	P	11 29 41.0	-0.6
BILL	**Bilibino**	78.69	21⇑	iP	P	11 29 40.9	-1.1
BILL				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.7						
BILL				MLR	MLR		
	comp=Z,4µm,21.0s,MS5.7						
BILL	**Bilibino**	78.69	21⇑	iP	P	11 29 40.9	-1.0
	comp=Z,110nm,1.1s,mb5.7						
BILL				LR	LR		
	comp=Z,4µm,21.0s,MS5.7						
SOP	**Sopron**	78.91	318⇑	iP	P	11 29 43.9	+0.3
VRAC	**Vranov**	79.04	319	P	P	11 29 44.7	+0.4
FX1	**Attu Island--F**	79.06	37	P	P	11 29 44.3	0.0
	comp=Z,82nm,0.4s,mb6.0,baz=321,slow=3.8,SNR=14						
FX1	**Attu Island--F**	79.06	37	eP	P	11 29 43.7	-0.6
GKP	**Gorka Klasztor**	79.07	323⇑	eP	P	11 29 44.1	-0.3
GKP				eS	S	11 39 36.3	-1.8
GKP				pmax	pmax		
	comp=Z,1.0nm,2.0s						
GKP				MLR	MLR		
	comp=Z,900nm,23.6s,MS5.0						
GKP	**Gorka Klasztor**	79.07	323⇑	eP	P	11 29 44.1	-0.3
	comp=Z,0.6nm,2.0s						
GKP				eS	S	11 39 36.3	-1.8
GKP				LR	LR		
	comp=Z,900nm,23.6s,MS5.0						
GKP	**Gorka Klasztor**	79.07	323	eP	P	11 29 44.1	-0.3
	comp=Z,600nm,2.0s,mb6.2						
GKP				eS	S	11 39 36.3	-1.8
GKP				MLR	MLR	12 09 48.0	

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      comp=Z,900nm,23.6s,MS5.0
KTK1  Kautokeino        79.25 340⇑iP      P        11 29 44.8 -0.2
KTK1                               AMb    AMB      11 29 47.3
      comp=Z,324nm,1.6s,mb6.0
KTK1  Kautokeino        79.25 340⇑iP      P        11 29 44.8 -0.2
      comp=Z,324nm,1.6s,mb6.0
DPC   Dobruska-Polom    79.32 320 eP      P        11 29 46.6 +0.8
DPC                               epP     pP       11 30 02.1 +1.3
SUR   Sutherland        79.37 236⇓eP      P        11 29 48.5 +2.0
      comp=Z,146nm,1.6s,mb5.7
SUR                                LR     LR
      comp=Z,332nm,19.0s,MS4.7
KSP   Ksiaz             79.39 321⇑eP      P        11 29 46.6 +0.5
KSP                               ePcP    PcP      11 29 55.4 +1.0
KSP                               epP     pP       11 30 01.3 +0.2
KSP   Ksiaz             79.39 321 eP      P        11 29 46.7 +0.6
      comp=Z,500nm,1.6s,mb6.2
KSP                               ePcP    PcP      11 29 51.9 -2.5
KSP                               epP     pP       11 30 01.2 +0.1
KSP                               eS      S        11 39 41.9 +0.5
KSP                                MLR    MLR      12 10 32.3
      comp=Z,1μm,19.0s,MS5.3
UPC   Upice             79.53 320 eP      P        11 29 47.5 +0.6
UPC                               epP     pP       11 30 02.8 +0.9
ARSA  Arzberg           79.57 317⇑iP      P        11 29 47.8 +0.6
      comp=Z,147nm,1.5s,mb5.7
SMY   Shemya            79.61  37  PFAKE           11 30 00.0  +13
SMY                                LR     LR
      comp=Z,14μm,21.0s,MS6.3
BOJS  Bojanci           79.63 315 eP      P        11 29 47.7 +0.2
BOJS                              e       pP       11 30 02.8 +0.2
LJU   Ljubljana         80.17 316 i P     P        11 29 51.1 +0.7
LJU                               ePcP    PcP      11 29 59.5 +1.7
LJU                               e       pP       11 30 05.9 +0.4
OBKA  Obir              80.19 316⇑iP      P        11 29 51.1 +0.6
      comp=Z,154nm,1.8s,mb5.6
PRU   Pruhonice         80.43 320 eP      P        11 29 52.3 +0.6
      comp=Z,204nm,1.9s,mb5.7
PRU                               epP     pP       11 30 07.4 +0.6
PVCC  Panska Ves        80.45 320 eP      P        11 29 52.5 +0.7
PVCC                              epP     pP       11 30 07.2 +0.3
MOA   Molln             80.46 318⇑iP      P        11 29 52.0 +0.1
      comp=Z,77nm,1.7s,mb5.3
SDI   San Donato        80.47 311 eP      P        11 29 51.7 -0.4
VOY   Vojsko            80.61 316 eP      P        11 29 52.8  0.0
VOY                               e       pP       11 30 07.7 -0.1
BSD   Bornholm Skovb    80.63 325 i P     P        11 29 51.9 -0.8
BSD                               i       pP       11 30 07.5 -0.2
BSD                                pmax   pmax
      comp=Z,59nm,0.9s,mb5.5
BSD   Bornholm Skovb    80.63 325 i P     P        11 29 51.9 -0.8
      comp=Z,58nm,0.9s,mb5.5
BSD                               i       pP       11 30 07.5 -0.2
PTQR  Pietraquaria      80.79 312 eP      P        11 29 53.9  0.0
AQU   L'Aquila          80.80 312  P      P        11 29 54.6 +0.7
AQU                                pmax   pmax
      comp=Z,350nm,1.5s,mb6.1
AQU   L'Aquila          80.80 312 eP      P        11 29 54.5 +0.6
BRG   Berggiesshubel    80.87 321⇑iP      P        11 29 54.5 +0.5
BRG                               e       pP       11 30 09.8 +0.7
BRG                                pmax   pmax
      comp=Z,310nm,2.0s,mb5.9
BRG   Berggiesshubel    80.87 321⇑iP      P        11 29 54.5 +0.5
      comp=Z,310nm,2.0s,mb5.9
BRG                               e       pP       11 30 09.8 +0.7
TRO   Tromso            80.88 340 eP      P        11 29 51.7 -2.0
TRO                                AMb    AMB      11 29 54.6
      comp=Z,224nm,1.5s,mb5.9
TRO                               esP     sP       11 30 09.5 -5.1
TRO   Tromso            80.88 340 eP      P        11 29 51.7 -2.0
      comp=Z,224nm,1.5s,mb5.9
ROBS  Robic             80.89 316 eP      P        11 29 54.0 -0.2
GEC2  GERESS Array S    80.90 319 eP      P        11 29 54.9 +0.7
GEC2                               pmax   pmax
      comp=Z,536nm,2.0s,mb6.1
GEC2  GERESS Array S    80.90 319 eP      P        11 29 54.9 +0.7
      comp=Z,536nm,2.0s,mb6.1
GERES GERESS Array B    80.90 319  P      P        11 29 54.8 +0.6
      comp=Z,41nm,0.9s,mb5.4,baz=90,slow=5.3,SNR=126
KHC   Kasperske Hory    81.00 319 i Pr             11 29 51.9
KHC                               eP               11 29 55.0
KHC                               epP     pP       11 30 10.2 +0.4
KHC   Kasperske Hory    81.00 319 eP      P        11 29 55.0 +0.3
KHC                               epP     pP       11 30 10.2 +0.4
PTCC  Patocco-Chiusa    81.01 316 eP      P        11 29 55.0 +0.2
NRCA  Norcia            81.03 312 eP      P        11 29 55.1  0.0
KBA   Koelnbreinsper    81.05 317⇑iP      P        11 29 55.0  0.0
      comp=Z,59nm,1.1s,mb5.4
KBA   Koelnbreinsper    81.05 317⇑iP      P        11 29 55.0  0.0
KBA                                pmax   pmax
      comp=Z,59nm,1.1s,mb5.4
GMNA  Gemona            81.08 316 eP      P        11 29 55.2  0.0
RUE   Ruedersdorf       81.08 322⇑iP      P        11 29 55.3 +0.1
      comp=Z,239nm,1.0s,mb6.1
RUE                               e       pP       11 30 10.2  0.0
CERT  Cerreto           81.10 312 eP      P        11 29 54.7 -0.8
SNTG  Esanatoglia       81.17 313⇑iP      P        11 29 56.0 +0.3
ARV   Arcevia           81.18 313⇑iP      P        11 29 56.5 +0.7
FSSB  Fossombrone       81.31 313 eP      P        11 29 57.0 +0.5
MNS   Montasola         81.34 312 eP      P        11 29 56.2 -0.5
FVI   Forni Avoltri     81.41 316 eP      P        11 29 57.1 +0.1
WET   Wettzell          81.46 319 eP      P        11 29 57.5 +0.4
CLL   Collm             81.49 321⇑iP      P        11 29 57.4 +0.1
CLL                                pmax   pmax
      comp=Z,311nm,2.2s,mb5.8
CLL   Collm             81.49 321⇑iP      P        11 29 57.4 +0.1
      comp=Z,311nm,2.2s,mb5.8
CLL   Collm             81.49 321 ⇑P      P        11 29 57.4 +0.1
      comp=Z,logA/T=2.2,mb5.9
CLL                               e*PP    pP       11 30 07.0 -5.4
CLL                               i *SP   sP       11 30 12.0 -6.2
HFS   Hagfors           81.74 330  LR     LR       12 11 43.0
      comp=Z,1μm,21.0s,MS5.2,baz=85,slow=40
NKC   Novy Kostel       81.79 320 eP      P        11 29 59.2 +0.4
NKC                               epP     pP       11 30 16.5 +2.6
SFI   Santa Sofia       81.99 314 eP      P        11 30 01.5 +1.5
MOR8  Moi Rana          82.02 336⇑iP      P        11 29 59.0 -0.7
MOR8                               AMb    AMB      11 30 01.6
      comp=Z,210nm,1.5s,mb5.8
MOR8                              esP     sP       11 30 14.1 -6.5
MOR8  Moi Rana          82.02 336⇑iP      P        11 29 59.0 -0.7
      comp=Z,210nm,1.5s,mb5.8
PGD   Poggio Sodo       82.08 313⇑iP      P        11 30 01.7 +1.2
CTI   Castel Tesino     82.18 316⇑iP      P        11 30 01.6 +0.7
WTTA  Wattenberg        82.22 317⇑iP      P        11 30 01.1  0.0
      comp=Z,54nm,0.7s,mb5.6
WTTA  Wattenberg        82.22 317⇑iP      P        11 30 01.1  0.0
WTTA                               pmax   pmax
      comp=Z,54nm,0.7s,mb5.6
WATA  Walderalm         82.26 317⇑iP      P        11 30 01.1 -0.2
      comp=Z,16nm,0.6s,mb5.1
WATA  Walderalm         82.26 317⇑iP      P        11 30 01.1 -0.2
WATA                               pmax   pmax
      comp=Z,16nm,0.6s,mb5.1
MOX   Moxa              82.34 320 eP      P        11 30 02.1 +0.5
MOX                                pmax   pmax
      comp=Z,231nm,2.0s,mb5.8
MOX   Moxa              82.34 320 i P     P        11 30 02.1 +0.5
      comp=Z,logA/T=2.1,mb5.8
MOX   Moxa              82.34 320 eP      P        11 30 02.1 +0.5
      comp=Z,231nm,2.0s,mb5.8
SEI   Scarperia         82.34 314 eP      P        11 30 02.8 +0.9
FUR   Furstenfeldbru    82.48 318 eP      P        11 30 02.3 -0.1
SQTA  Sankt Quirin      82.51 317⇑iP      P        11 30 02.6  0.0
      comp=Z,28nm,0.5s,mb5.6
SQTA  Sankt Quirin      82.51 317⇑iP      P        11 30 02.6  0.0
SQTA                               pmax   pmax
      comp=Z,29nm,0.5s,mb5.6
FNVD  Fontana Vidola    82.51 314 eP      P        11 30 04.1 +1.4
GRA1  Grafenberg Arr    82.56 319 eP      P        11 30 03.5 +0.7
      comp=Z,130nm,1.2s,mb5.8
GRF   Grafenberg Arr    82.56 319 eP      P        11 30 03.5 +0.7
GRF                                pmax   pmax
      comp=Z,130nm,1.2s,mb5.8
GRF   Grafenberg Arr    82.56 319 eP      P        11 30 03.5 +0.7
GRF                                pmax   pmax
      comp=Z,130nm,1.2s,mb5.8
GRF   Grafenberg Arr    82.56 319 eP      P        11 30 03.5 +0.7
      comp=Z,130nm,1.2s,mb5.8
MOTA  Moosalm           82.58 317⇑iP      P        11 30 02.9 -0.1
      comp=Z,51nm,1.1s,mb5.5
MOTA  Moosalm           82.58 317⇑iP      P        11 30 02.9 -0.1
MOTA                               pmax   pmax
      comp=Z,51nm,1.1s,mb5.5
GRFL  Gerfalco          82.61 313 eP      P        11 30 02.9 -0.3
ZCCA  Zocca             82.62 314 eP      P        11 30 05.2 +1.9
SYO   Syowa Base        82.65 197 ⇑P      P        11 30 04.8 +1.9
BDI   Bagni Di Lucca    82.89 314 eP      P        11 30 03.7 -0.9
NSS   Namsos            82.90 334 eP      P        11 30 03.1 -1.1
NSS                                AMb    AMB      11 30 06.9
      comp=Z,233nm,1.7s,mb6.0
NSS   Namsos            82.90 334 eP      P        11 30 03.1 -1.1
      comp=Z,233nm,1.7s,mb5.9
GSCL  Gusciola          82.90 314 eP      P        11 30 05.9 +1.3
SAL   Salo              82.95 315 eP      P        11 30 05.8 +0.9
ERBM  Eremo             83.03 314 eP      P        11 30 06.7 +1.4
NB2   NORSAR Subarra    83.03 331  P      P        11 30 04.3 -0.6
      comp=Z,156nm,1.4s,mb5.8,baz=97,slow=5.0
NB2   NORSAR Subarra    83.03 331  P      P        11 30 04.3 -0.6
      baz=96,slow=5.1
NB2   NORSAR Subarra    83.03 331  P      P        11 30 04.3 -0.6
NB2                                pmax   pmax
      comp=Z,156nm,1.4s,mb5.8
NOA   NORSAR Array B    83.03 331  P      P        11 30 04.5 -0.4
      comp=Z,53nm,1.1s,mb5.5,baz=94,slow=5.2,SNR=22
NOA                                PP     PP       11 33 19.7 +1.8
      comp=Z,8.0nm,0.8s,baz=84,slow=8.5,SNR=5.1
NOA                                LR     LR       12 13 00.7
      comp=Z,586nm,18.7s,MS5.0,baz=65,slow=40
RPZ   Rata Peaks        83.06 135  P      P        11 30 05.7 +0.2
      comp=Z,46nm,0.9s,mb5.5,baz=62,slow=12,SNR=7.6
BRMO  Bormio            83.07 316 eP      P        11 30 06.1 +0.6
CLZ   Clausthal         83.15 322 eP      P        11 30 06.4 +0.6
      comp=Z,426nm,2.2s,mb6.1
NAO01 NORSAR Array S    83.17 331⇑eP      P        11 30 05.0 -0.7
      comp=Z,78nm,1.1s,mb5.7
HDH   Heidenheim        83.20 318⇑eP      P        11 30 06.0 -0.1
BSEG  Bad Segeberg      83.23 324 eP      P        11 30 06.8 +0.7
UBR   Uberruh           83.26 317⇑eP      P        11 30 06.5 +0.1
DAVA  Damuels           83.41 317⇑iP      P        11 30 07.7 +0.5
      comp=Z,68nm,1.0s,mb5.6
SIND  Sindeldorf        83.61 319⇑eP      P        11 30 08.6 +0.5
BOB   Bobbio (Coli)     83.72 314 eP      P        11 30 09.6 +0.8
BUCH  Bad Urach         83.77 318⇑eP      P        11 30 09.3 +0.3
STU   Stuttgart         83.88 318  P      P        11 30 09.8 +0.3
STU                                pmax   pmax
      comp=Z,30nm,0.9s,mb5.4
STU   Stuttgart         83.88 318 eP      P        11 30 09.1 -0.4
      comp=Z,22nm,0.6s,mb5.5
GUT   Gutenstein        83.93 318⇑eP      P        11 30 10.0 +0.2
MUD   Monsted U'grnd    83.94 326 i P     P        11 30 12.8 +3.2
MUD                               i       pP       11 30 29.5 +4.7
MUD                                pmax   pmax
      comp=Z,99nm,1.1s,mb5.8
MUD   Monsted U'grnd    83.94 326 i P     P        11 30 12.8 +3.2
      comp=Z,99nm,1.1s,mb5.9
MUD                               i       pP       11 30 29.5 +4.7
PGF   Pioggiola         84.06 312 eP      P        11 30 10.9 +0.3
      comp=Z,352nm,1.6s,mb5.9
PGF   Pioggiola         84.06 312 eP      P        11 30 10.9 +0.3
PGF                                pmax   pmax
      comp=Z,176nm,1.6s,mb5.9
TOD   Tromm             84.13 319⇑eP      P        11 30 11.3 +0.5
TOD   Tromm             84.13 319 eP      P        11 30 11.1 +0.3
LBG   Lerchenberg       84.14 318⇑eP      P        11 30 11.0 +0.2
SPAK  Spaichingen       84.15 318 eP      P        11 30 11.5 +0.6
SPAK  Spaichingen       84.15 318 eP      P        11 30 11.4 +0.5
VAI   Varese            84.19 315 eP      P        11 30 10.5 -0.6
SWS   Schriesheim       84.20 319⇑eP      P        11 30 11.6 +0.5
BFO   Black Forest      84.45 318 eP      P        11 30 12.5 +0.1
BFO                                pmax   pmax
      comp=Z,69nm,1.2s,mb5.7
BFO   Black Forest      84.45 318 eP      P        11 30 12.5 +0.1
      comp=Z,69nm,1.2s,mb5.7
KTD   Kalmit            84.60 319 eP      P        11 30 13.6 +0.5
KTD   Kalmit            84.60 319 eP      P        11 30 13.7 +0.6
FIN   Finale Ligure     84.61 314 eP      P        11 30 13.6 +0.3
FELD  Feldberg          84.68 318 eP      P        11 30 13.7 +0.1
MCGN  Macugnaga         84.73 316 eP      P        11 30 14.9 +1.0
KIZ   Kirchzarten       84.74 318⇑eP      P        11 30 13.9 +0.1
LANF  Langenberg        84.79 319 eP      P        11 30 14.7 +0.6
MOL   Molde             84.81 332 eP      P        11 30 17.0 +3.2
MOL                                AMb    AMB      11 30 19.2
      comp=Z,207nm,1.3s,mb6.1
MOL   Molde             84.81 332 eP      P        11 30 17.0 +3.2
      comp=Z,207nm,1.3s,mb6.1
KIWB  Kanaga Island     84.94  38 eP      P        11 30 14.9 +0.1
ABH   Alteburg          84.94 320⇑eP      P        11 30 15.5 +0.7
ABH   Alteburg          84.94 320 eP      P        11 30 15.6 +0.8
LIBD  Limburg           84.94 318⇑eP      P        11 30 15.5 +0.6
LIBD  Limburg           84.94 318 eP      P        11 30 15.4 +0.5
BBS   Basel-Blauen      85.02 317 eP      P        11 30 15.4 +0.1
BBS   Basel-Blauen      85.02 317 eP      P        11 30 15.1 -0.2
SAOF  Saorge            85.08 314 eP      P        11 30 16.1 +0.4
WLS   Welschbruch       85.10 318 eP      P        11 30 15.6 -0.1
CDF   Champ du Feu      85.16 318 eP      P        11 30 16.1 +0.2
      comp=Z,62nm,1.1s,mb5.4
CDF   Champ du Feu      85.16 318 eP      P        11 30 16.1 +0.2
CDF                                pmax   pmax
      comp=Z,31nm,1.1s,mb5.3
SBF   Sospel            85.18 314 eP      P        11 30 16.6 +0.5
      comp=Z,262nm,1.1s,mb6.0
SBF   Sospel            85.18 314 eP      P        11 30 16.6 +0.5
SBF                                pmax   pmax
      comp=Z,131nm,1.0s,mb6.0
AUTN  L'Aution          85.18 314 eP      P        11 30 16.2 +0.1
REVF  Revere            85.23 313 eP      P        11 30 16.9 +0.5
ECH   Echery            85.24 318 eP      P        11 30 16.1 -0.2
RUP   Ruppelstein       85.26 319⇑eP      P        11 30 17.0 +0.6
RUP   Ruppelstein       85.26 319 eP      P        11 30 16.7 +0.3
MOF   Molkenrain        85.27 318 eP      P        11 30 16.5  0.0
TOUF  Mont Tournerai    85.31 314 eP      P        11 30 15.7 -1.1
MVIF  Mont Vial         85.38 314 eP      P        11 30 15.9 -1.2
LOMF  Lomont            85.49 317 eP      P        11 30 17.7 +0.1
MIDW  Midway            85.59  62  PFAKE           11 30 30.0  +11
MIDW                               LR     LR
      comp=Z,2μm,19.0s,MS5.5
LPG   La Plagne         85.61 315 eP      P        11 30 19.1 +0.9
      comp=Z,134nm,1.0s,mb5.8
LPG   La Plagne         85.61 315 eP      P        11 30 19.1 +0.9
LPG                                pmax   pmax
      comp=Z,67nm,1.0s,mb5.8
MBDF  Montbardon        85.62 314 eP      P        11 30 18.1 -0.2
      comp=Z,101nm,1.2s,mb5.6
MBDF  Montbardon        85.62 314 eP      P        11 30 18.1 -0.2
MBDF                               pmax   pmax
      comp=Z,51nm,1.2s,mb5.6
OG01  Vacheresse        85.62 316 eP      P        11 30 17.2 -1.1
BNI   Bardonecchia      85.68 315 eP      P        11 30 18.5 -0.1
BNI                                pmax   pmax
      comp=Z,37nm,1.0s,mb5.6
BNI   Bardonecchia      85.68 315 eP      P        11 30 18.5  0.0
      comp=Z,37nm,1.0s,mb5.6
HAU   Haudompre         85.79 318 eP      P        11 30 19.2 +0.2
      comp=Z,149nm,1.1s,mb5.8
HAU                               eR
      comp=Z,643nm,23.0s
HAU   Haudompre         85.79 318 eP      P        11 30 19.2 +0.2
HAU                                pmax   pmax
      comp=Z,75nm,1.1s,mb5.8
HAU                                MLR    MLR
      comp=Z,640nm,23.0s,MS5.0
THEF  They Montfort     86.02 318 eP      P        11 30 20.3 +0.1
GDM   Grand'Maison      86.07 315 eP      P        11 30 20.9 +0.4
OG25  Le Caire          86.14 314 eP      P        11 30 21.5 +0.7
GRN   Grenoble          86.33 315 eP      P        11 30 22.6 +0.9
OG05  Jujurieux         86.49 316 eP      P        11 30 23.2 +0.7
URZ   Urewera           86.54 129  P      P        11 30 22.4 -0.5
      comp=Z,68nm,0.9s,mb5.8,baz=310,slow=0.8,SNR=29
URZ                                LR     LR       12 11 46.8
      comp=Z,1μm,20.7s,MS5.2,baz=250,slow=38
BAIF  Baives            87.09 320 eP      P        11 30 26.2 +0.9
      comp=Z,102nm,1.1s,mb5.7
BAIF  Baives            87.09 320 eP      P        11 30 26.2 +0.9
BAIF                               pmax   pmax
      comp=Z,51nm,1.1s,mb5.7
SSF   Saint Saulge      87.77 317 eP      P        11 30 28.6 -0.1
SSF                                pmax   pmax
      comp=Z,74nm,1.4s,mb5.7
SSF   Saint Saulge      87.77 317 eP      P        11 30 28.6 -0.1
      comp=Z,74nm,1.4s,mb5.7
PLDF  La Plantade       87.77 316 eP      P        11 30 24.7 -4.0
LBL   Lubilhac          88.09 315 eP      P        11 30 26.6 -3.7
AGO   Saint Agoulin     88.10 316 eP      P        11 30 26.8 -3.5
RJF   Les Rejaudoux     89.30 315 eP      P        11 30 35.8 -0.2
      comp=Z,96nm,1.3s,mb5.7
RJF                               eR
      comp=Z,699nm,21.5s
RJF   Les Rejaudoux     89.30 315 eP      P        11 30 35.8 -0.2
RJF                                pmax   pmax
      comp=Z,48nm,1.3s,mb5.7
RJF                                MLR    MLR
      comp=Z,700nm,21.5s,MS5.0
RAO   Raoul Island      89.55 119  PFAKE           11 30 50.0  +12
RAO                                LR     LR
      comp=Z,980nm,20.0s,MS5.2
VNDA  Vanda             89.59 168 eP      P        11 30 37.9 +1.2
VNDA                               pmax   pmax
      comp=Z,27nm,1.2s
VNDA                               MLR    MLR
      comp=Z,2μm,19.0s
VNDA  Vanda             89.59 168  P      P        11 30 37.3 +0.6
      comp=Z,12nm,1.1s,mb5.1,baz=293,slow=6.2,SNR=9.7
VNDA                               LR     LR       12 09 27.0
      comp=Z,2μm,18.1s,MS5.6,baz=301,slow=35
VNDA  Vanda             89.59 168 eP      P        11 30 37.9 +1.2
      comp=Z,27nm,1.2s,mb5.5
VNDA                               LR     LR
      comp=Z,2μm,19.0s,MS5.5
ANM   Nome              89.89  25 eP      P        11 30 39.4 +1.1
NIKO  Nikolski          89.92  37 eP      P        11 30 37.8 -0.9
JMIC  Jan Mayen         90.07 341  LR     LR       12 18 21.1
      comp=Z,1μm,19.0s,MS5.3,baz=310,slow=40
FLN   La Foliniere      90.26 319 eP      P        11 30 40.6 +0.2
      comp=Z,156nm,1.0s,mb6.0
FLN                               eR
      comp=Z,1μm,19.5s
FLN   La Foliniere      90.26 319 eP      P        11 30 40.6 +0.2
FLN                                pmax   pmax
      comp=Z,78nm,1.0s,mb6.0
FLN                                MLR    MLR
      comp=Z,1μm,19.5s,MS5.3
SBA   Scott Base        90.69 168  PFAKE           11 30 50.0 +8.1
SBA                                LR     LR
      comp=Z,1μm,19.0s,MS5.4
ETSF  Etsaut            91.06 313 eP      P        11 30 44.2 -0.1
      comp=Z,138nm,1.2s,mb5.8
ETSF  Etsaut            91.06 313 eP      P        11 30 44.2 -0.1
ETSF                               pmax   pmax
      comp=Z,69nm,1.2s,mb5.9
UNV   Unalaska Valle    91.18  36 eP      P        11 30 43.7 -0.9
      comp=Z,120nm,1.2s,mb6.1
UNV                                LR     LR
      comp=Z,3μm,20.0s,MS5.7
NVL   N'lazarevskaya    92.16 199⇑eP      sP       11 31 07.0 -2.5
NVL                               eS      S        11 41 53.0 +8.7
NVL                                pmax   pmax
      comp=Z,179nm,2.5s,mb6.0
ESDC  Sonseca Array     94.07 310  P      P        11 30 59.5 +1.4
      comp=Z,5.9nm,0.9s,mb5.0,baz=60,slow=4.1,SNR=14
ESDC                               PKKPbc          11 48 01.7
      comp=Z,3.9nm,0.9s,baz=292,slow=2.9,SNR=9.6
ESLA  Sonseca Array     94.07 310  PFAKE           11 31 10.0  +12
ESLA                               LR     LR
      comp=Z,5μm,22.0s,MS5.9
IMA   Indian Mountai    94.20  22 eP      P        11 30 59.4 +1.3
IMA                                pmax   pmax
      comp=Z,78nm,1.0s,mb6.1
IMA   Indian Mountai    94.20  22 eP      P        11 30 59.4 +1.3
      comp=Z,78nm,1.0s,mb6.1
QSPA  South Pole Qui    94.57 180  P      P        11 31 00.9 +1.4
      comp=Z,10nm,0.9s,mb5.3
QSPA                              e       pP       11 31 12.9 -2.1
QSPA                               LR     LR
      comp=Z,5μm,20.0s,MS6.0
SPU   Mount Spurr       96.69  27 eP      P        11 31 09.2 -0.3
BORG  Borgarnes         96.78 337  LR     LR       12 18 31.0
      comp=Z,988nm,21.2s,MS5.3,baz=18,slow=38
COLA  College           96.91  23⇓iP      P        11 31 07.6 -2.9
COLA                               MLR    MLR
      comp=Z,2μm,22.0s,MS5.4
MCK   McKinley          96.98  24 eP      P        11 31 09.8 -1.1
MCK                               e       pP       11 31 22.1 -4.2
MCK                                pmax   pmax
      comp=Z,22nm,1.1s,mb5.5
MCK                                MLR    MLR
      comp=Z,967nm,20.0s,MS5.3
MCK   McKinley          96.98  24 eP      P        11 31 09.8 -1.1
      comp=Z,22nm,1.1s,mb5.5
MCK                               e       pP       11 31 22.1 -4.2
MCK                                LR     LR
      comp=Z,967nm,20.0s,MS5.3
ILAR  Eielson Array     97.32  22  P      P        11 31 12.9 +0.5
      comp=Z,5.5nm,0.9s,mb5.0,baz=294,slow=4.3,SNR=34
ILAR                               PP     PP       11 35 02.4  -10
      comp=Z,1.7nm,0.9s,baz=306,slow=8.6,SNR=4.2
ILAR                               PKKPbc          11 47 51.5
      comp=Z,0.8nm,0.8s,baz=166,slow=2.3,SNR=5.4
ILAR                               LR     LR       12 20 30.3
      comp=Z,943nm,19.4s,MS5.3,baz=321,slow=39
PWA   Palmer West       97.46  26 eP      P        11 31 13.6 +0.5
PWA                                pmax   pmax
      comp=Z,39nm,0.9s,mb5.8
PWA   Palmer West       97.46  26 eP      P        11 31 13.6 +0.5
      comp=Z,39nm,0.9s,mb5.8
SUMG  Summit            97.49 347 eP      P        11 31 13.6 +0.6
      comp=Z,16nm,1.0s,mb5.4
FIB   Fire Island       97.53  26  PFAKE           11 31 20.0 +6.6
FIB                                LR     LR
      comp=Z,2μm,21.0s,MS5.6
KDAK  Kodiak Island     97.71  30  PFAKE           11 31 30.0  +16
KDAK                               LR     LR
      comp=Z,506nm,21.0s,MS5.0
SML   Sawmill           98.06  25  P      P        11 31 16.8 +1.0
SML   Sawmill           98.06  25 eP      P        11 31 14.8 -1.0
DBIC  Dimbokro          99.39 278  P      P        11 31 24.4 +1.5
      comp=Z,2.0nm,0.7s,mb4.8,baz=78,slow=5.7,SNR=6.9
DBIC                               LR     LR       12 16 13.8
      comp=Z,923nm,19.4s,MS5.3,baz=67,slow=35
DBIC  Dimbokro          99.39 278  PFAKE           11 31 30.0 +7.1
DBIC                               LR     LR
      comp=Z,1μm,20.0s,MS5.3
MENT  Mentasta          99.43  23 eP      P        11 31 23.8 +1.8
INK   Inuvik            99.78  16  P      P        11 31 23.5 +0.1
      comp=Z,12nm,0.9s,mb5.3,baz=304,slow=5.3,SNR=25
YKA   Yellowknife Ar   109.29  14  Pdiff  Pdif     11 32 07.2 +1.6
      comp=Z,0.8nm,0.9s,baz=334,slow=5.1,SNR=9.3
YKA                                PKiKP           11 36 08.8
      comp=Z,1.7nm,1.0s,baz=325,slow=3.9,SNR=7.9
YKA                                PP     PP       11 36 32.0  -11
      comp=Z,2.1nm,0.8s,baz=333,slow=7.8,SNR=9.9
YKA                                PKKPbc          11 47 15.8
      comp=Z,0.6nm,0.8s,baz=147,slow=3.3,SNR=9.8
TBI   Tubuai           115.10 113 ePP     PP       11 37 19.9 -5.4
TBI                               ePS     PS       11 47 05.3 +4.5
TBI                               eLR     LR       12 11 11.1
      comp=Z,1μm,23.2s
PPT   Papeete          115.45 107 ePP     PP       11 37 19.1 -8.8
PPT                               ePS     PS       11 47 07.9 +3.8
PPT                               eSS     SS       11 53 24.0 +5.1
PPT                               eLR     LR       12 11 21.8
      comp=Z,1μm,24.0s
OCWA  Octopus Mounta   117.43  29  PFAKE           11 36 40.0  +16
OCWA                               LR     LR
      comp=Z,1μm,19.0s,MS5.5
SCHQ  Schefferville    118.87 348  PKP    PKPdf    11 36 28.5 +1.9
      comp=Z,4.5nm,0.6s,baz=40,slow=3.3,SNR=13
SCHQ  Schefferville    118.87 348  PFAKE           11 36 40.0  +13
SCHQ                               LR     LR
      comp=Z,1μm,19.0s,MS5.5
FFC   Flin Flon        119.14  11  PFAKE           11 36 40.0  +13
FFC                                LR     LR
      comp=Z,534nm,21.0s,MS5.2
TBM   Table Mountain   119.53  27  P      PKPdf    11 36 30.6 +2.5
EBG   Ellensburg       119.74  27  P      PKPdf    11 36 30.8 +2.2
EPH   Ephrata          119.85  27  P      PKPdf    11 36 30.5 +1.7
COR   Corvallis        120.08  31  PFAKE           11 36 40.0  +11
COR                                LR     LR
      comp=Z,970nm,20.0s,MS5.4
NEW   Newport          120.20  24  PKIKP  PKPdf    11 36 31.4 +1.9
NEW   Newport          120.20  24 ePKPdf  PKPdf    11 36 30.1 +0.7
NEW                                LR     LR
      comp=Z,2μm,20.0s,MS5.8
OD2   Odessa Site #2   120.21  26  P      PKPdf    11 36 31.1 +1.7
VFP   Flag Point       120.48  29  P      PKPdf    11 36 32.8 +2.7
CROR  Criterion Ridg   120.96  29  P      PKPdf    11 36 33.4 +2.4
BSMT  Bassoo Peak      121.47  23  P      PKPdf    11 36 33.9 +2.0
HUMO  Hull Mountain    121.64  32 ePKPdf  PKPdf    11 36 34.4 +2.0
HUMO                               LR     LR
      comp=Z,868nm,22.0s,MS5.4
YBH   Yreka Blue Hor   122.37  33  PKP    PKPdf    11 36 35.7 +1.9
      comp=Z,4.0nm,1.1s,baz=207,slow=2.3,SNR=5.7
YBH   Yreka Blue Hor   122.37  33  PFAKE           11 36 50.0  +16
YBH                                LR     LR
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	comp=Z,891nm,21.0s,MS5.4						
MSO	**Missoula**	**122.64**	**23**	*e*PKPdf	PKPdf	11 36 35.1	+0.9
MSO				*e*		11 36 48.6	
MSO				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
BMO	**Blue Mountains**	**122.78**	**27**	PKIKP	PKPdf	11 36 36.2	+1.7
BMO	**Blue Mountains**	**122.78**	**27**	*e*PKPdf	PKPdf	11 36 35.0	+0.5
BMO				LR	LR		
	comp=Z,788nm,20.0s,MS5.4						
CHMT	**Chamberlain Mo**	**122.84**	**23**	*e*PKPdf	PKPdf	11 36 35.5	+0.9
CHMT				*e*PP	PP	11 38 14.9	-3.1
WDC	**Whiskeytown Da**	**123.26**	**34**	PFAKE		11 36 50.0	+14
WDC				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
LTIM	**Timbered Crate**	**123.42**	**33**	P	PKPdf	11 36 38.3	+2.5
MOD	**Modoc**	**123.53**	**31**	PFAKE		11 36 50.0	+14
MOD				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
HRY	**Holter Researc**	**123.55**	**22**	*e*PKPdf	PKPdf	11 36 37.5	+1.5
DGMT	**Dagmar**	**124.45**	**16**	*e*PKPdf	PKPdf	11 36 39.4	+1.8
DGMT				*e*		11 36 54.1	
DGMT				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
ULM	**Lac du Bonnet**	**124.49**	**9**	PKP	PKPdf	11 36 40.1	+2.4
	comp=Z,13nm,0.8s,baz=16,slow=2.0,SNR=24						
ULM	**Lac du Bonnet**	**124.49**	**9**	*e*PKPdf	PKPdf	11 36 39.9	+2.2
ULM				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
BOZ	**Bozeman (W)**	**124.52**	**23**	PKIKP	PKPdf	11 36 39.7	+1.8
BOZ	**Bozeman (W)**	**124.52**	**23**	*e*PKPdf	PKPdf	11 36 39.4	+1.5
BOZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
OHCM	**Honcut**	**124.70**	**34**	*e*PKPdf	PKPdf	11 36 40.3	+1.9
HLID	**Hailey**	**125.08**	**26**⇑	*e*PKPdf	PKPdf	11 36 41.1	+2.1
HLID				*e*PP	PP	11 38 26.4	-6.4
HLID				LR	LR		
	comp=Z,967nm,20.0s,MS5.5						
LAO	**LASA Array**	**125.48**	**18**	PFAKE		11 36 50.0	+10
LAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
YMR	**Madison River**	**125.60**	**23**⇑	*e*PKPdf	PKPdf	11 36 41.4	+1.4
YFT	**Old Faithful**	**125.83**	**23**	*e*PKPdf	PKPdf	11 36 44.2	+3.8
LKWY	**Lake**	**125.90**	**22**	*e*PKIKP	PKPdf	11 36 44.4	+3.9
LKWY				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.8						
BMN	**Battle Mountai**	**126.19**	**30**	PFAKE		11 36 50.0	+8.8
BMN				LR	LR		
	comp=Z,552nm,22.0s,MS5.2						
CMB	**Columbia Colle**	**126.22**	**35**	PFAKE		11 36 50.0	+8.6
CMB				LR	LR		
	comp=Z,794nm,21.0s,MS5.4						
IMW	**Indian Meadow**	**126.25**	**23**	*e*PKPdf	PKPdf	11 36 42.6	+1.3
MOOW	**Moose Ponds**	**126.46**	**23**	*e*PKPdf	PKPdf	11 36 43.6	+1.9
SAO	**San Andreas Ge**	**126.47**	**37**	PFAKE		11 37 00.0	+18
SAO				LR	LR		
	comp=Z,738nm,20.0s,MS5.4						
TPAW	**Teton Pass**	**126.59**	**24**	*e*PKPdf	PKPdf	11 36 44.2	+2.3
LOHW	**Long Hollow**	**126.63**	**23**	*e*PKPdf	PKPdf	11 36 44.1	+2.1
WUWY	**Wally Ulrich**	**126.63**	**23**	*e*PKPdf	PKPdf	11 36 43.9	+1.9
REDW	**Red Top Meadow**	**126.74**	**24**	*e*PKPdf	PKPdf	11 36 44.1	+1.9
PQI	**Presque Isle**	**126.77**	**346**	PFAKE		11 37 00.0	+18
PQI				LR	LR		
	comp=Z,17µm,20.0s						
ELK	**Elko**	**126.92**	**29**⇑	*e*PKIKP	PKPdf	11 36 45.1	+2.4
ELK				MLR	MLR		
	comp=Z,1µm,22.0s						
NVAR	**Mina Array Bea**	**127.09**	**33**	PKP	PKPdf	11 36 45.7	+2.7
	comp=Z,11nm,0.9s,baz=266,slow=2.6,SNR=29						
AHID	**Auburn Hatcher**	**127.14**	**24**	PFAKE		11 37 00.0	+17
AHID				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
MNV	**Mina**	**127.17**	**33**	*e*PKIKP	PKPdf	11 36 45.7	+2.5
MNV				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.5						
HVU	**Hansel Valley**	**127.24**	**26**	*e*PKIKP	PKPdf	11 36 44.8	+1.6
EYMN	**Ely**	**127.30**	**6**	*e*PKPdf	PKPdf	11 36 44.6	+1.4
EYMN				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
MTUM	**Tungsten Hills**	**127.72**	**34**	*e*PKPdf	PKPdf	11 36 46.9	+2.6
BW06	**Boulder Array**	**127.75**	**23**	PFAKE		11 37 00.0	+16
BW06				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
PDAR	**Pinedale Array**	**127.75**	**23**	PKP	PKPdf	11 36 45.6	+1.4
	comp=Z,14nm,0.9s,SNR=63						
BGU	**Big Grassy Mou**	**127.81**	**27**	*e*PKPdf	PKPdf	11 36 45.8	+1.5
HWUT	**Hardware Ranch**	**127.90**	**25**⇑	*e*PKPdf	PKPdf	11 36 46.1	+1.5
HWUT				*e*PP	PP	11 38 47.0	-4.5
HWUT				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
TPH	**Tonopah**	**127.94**	**32**	PFAKE		11 37 00.0	+15
TPH				LR	LR		
	comp=Z,844nm,21.0s,MS5.4						
EFI	**East Falkland**	**128.11**	**201**	PFAKE		11 37 00.0	+15
EFI				LR	LR		
	comp=Z,362nm,20.0s,MS5.1						
RKT	**Rikitea**	**128.28**	**116**	*e*PP	PP	11 38 50.4	-4.3
RKT				*e*PS	PS	11 49 00.5	+2.9
RKT				*e*SS	SS	11 56 14.8	+12
RKT				*e*LR	LR	12 17 19.7	
	comp=Z,1µm,23.5s						
NOQ	**North Oquirrh**	**128.44**	**26**	*e*PKPdf	PKPdf	11 36 46.7	+1.1
RSSD	**Black Hills**	**128.47**	**18**	PFAKE		11 37 00.0	+14
RSSD				LR	LR		
	comp=Z,3.0nm,22.0s						
TRCR	**Troy Canyon**	**128.59**	**31**	*e*PKPdf	PKPdf	11 36 48.3	+2.4
TRCR				*e*		11 37 03.5	
ISA	**Isabella**	**128.97**	**35**	PFAKE		11 37 00.0	+13
ISA				LR	LR		
	comp=Z,267nm,19.0s,MS5.0						
DAU	**Daniels Canyon**	**129.01**	**26**	PKIKP	PKPdf	11 36 49.6	+2.9
DAU				*e*		11 37 04.2	
DAU	**Daniels Canyon**	**129.01**	**26**	*e*PKPdf	PKPdf	11 36 48.3	+1.6
NLU	**North Lily Min**	**129.02**	**27**	*e*PKPdf	PKPdf	11 36 48.7	+2.0
DAC	**Darwin (Calif)**	**129.04**	**34**	PFAKE		11 37 00.0	+13
DAC				LR	LR		
	comp=Z,865nm,21.0s,MS5.4						
WVL	**Waterville**	**129.15**	**346**	PFAKE		11 37 00.0	+13
WVL				LR	LR		
	comp=Z,8µm,21.0s,MS6.4						
MPU	**Maple Canyon**	**129.17**	**27**	*e*PKPdf	PKPdf	11 36 48.9	+1.9
TPNV	**Topopah Spring**	**129.29**	**33**	*e*PKIKP	PKPdf	11 36 49.1	+1.8
TPNV				MLR	MLR		
	comp=Z,995nm,20.0s,MS5.5						
RWWY	**Rawlins**	**129.56**	**22**	*e*PKPdf	PKPdf	11 36 49.6	+1.9
RWWY				*e*		11 37 05.3	
TMUT	**Trail Mountain**	**129.95**	**27**	*e*PKPdf	PKPdf	11 36 49.4	+0.9
ARUT	**Antelope Range**	**130.10**	**30**	*e*PKIKP	PKPdf	11 36 49.8	+1.0
MVU	**Marysvale**	**130.13**	**28**	*e*PKPdf	PKPdf	11 36 51.8	+2.9
MVU				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
MSU	**Marysvale**	**130.14**	**28**	*e*PKIKP	PKPdf	11 36 51.6	+2.7
SRU	**San Rafael**	**130.41**	**26**	*e*PKIKP	PKPdf	11 36 51.6	+2.2
NCB	**Newcomb**	**130.67**	**350**	PFAKE		11 37 00.0	+10
NCB				LR	LR		
	comp=Z,2µm,19.0s,MS5.8						
NEN	**Nelson**	**131.01**	**33**	*e*PKPdf	PKPdf	11 36 53.4	+2.7
RCBR	**Riachuelo**	**131.27**	**266**	PFAKE		11 37 10.0	+18
RCBR				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
HRV	**Harvard--Oak R**	**131.54**	**347**	PFAKE		11 37 00.0	+8.6
HRV				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
PFO	**Pinyon Flat Ob**	**131.60**	**36**	PFAKE		11 37 10.0	+18
PFO				LR	LR		
	comp=Z,252nm,20.0s,MS4.9						
WES	**Weston**	**131.60**	**347**	PFAKE		11 37 00.0	+8.5
WES				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
PV10	**Paradox Valley**	**131.66**	**26**	*e*PKPdf	PKPdf	11 36 54.4	+2.6
ISCO	**Idaho Springs**	**131.80**	**22**	PFAKE		11 37 10.0	+18
ISCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
PV01	**Paradox Valley**	**132.06**	**25**	*e*PKPdf	PKPdf	11 36 55.1	+2.6
RW3	**Ridgway**	**132.34**	**24**	PKIKP	PKPdf	11 36 56.6	+3.5
JFWS	**Jewell Farm**	**132.40**	**5**	PFAKE		11 37 10.0	+17
JFWS				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
ERPA	**Erie**	**133.25**	**355**	PFAKE		11 37 10.0	+15
ERPA				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
AAM	**Ann Arbor**	**133.26**	**359**	PFAKE		11 37 10.0	+15
AAM				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
SDCO	**Great Sand Dun**	**133.64**	**23**	PFAKE		11 37 10.0	+14
SDCO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
SSPA	**Standing Stone**	**134.49**	**353**	PFAKE		11 37 10.0	+13
SSPA				LR	LR		
	comp=Z,968nm,19.0s,MS5.5						
KSU1	**Kansas State U**	**135.12**	**13**	*e*PKPdf	PKPdf	11 36 59.1	+0.9
ACSO	**Alum Creek Sta**	**135.31**	**358**	*e*PKPdf	PKPdf	11 36 59.5	+1.0
ACSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
ANMO	**Albuquerque**	**135.66**	**26**	*e*PKIKP	PKPdf	11 36 59.9	+0.6
ANMO				MLR	MLR		
	comp=Z,1µm,22.0s						
ANMO	**Albuquerque**	**135.66**	**26**	PKhKP		11 36 47.8	
	comp=Z,1.7nm,0.9s,baz=338,slow=1.4,SNR=6.9						
ANMO				PKP	PKPdf	11 37 02.1	+2.8
	comp=Z,22nm,1.1s,baz=257,slow=0.6,SNR=22						
ANMO				SKPbc		11 40 28.5	
	comp=Z,9.8nm,1.0s,baz=305,slow=3.5,SNR=7.6						
MCWV	**Mont Chateau**	**135.67**	**354**	PFAKE		11 37 10.0	+11
MCWV				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
TUC	**Tucson**	**135.73**	**32**	*e*PKIKP	PKPdf	11 37 02.3	+2.8
TUC				MLR	MLR		
	comp=Z,751nm,20.0s,MS5.4						
CBN	**Corbin**	**136.80**	**351**	PFAKE		11 37 10.0	+8.7
CBN				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
CCM	**Cathedral Cave**	**137.09**	**7**	PFAKE		11 37 20.0	+18
CCM				LR	LR		
	comp=Z,974nm,20.0s,MS5.5						
FVM	**French Village**	**137.26**	**7**	PKIKP	PKPdf	11 37 05.3	+3.1
FVM				*e*		11 37 20.8	
WCI	**Wyandotte Cave**	**137.32**	**2**	*e*PKIKP	PKPdf	11 37 03.6	+1.3
WCI				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.7						
WCI	**Wyandotte Cave**	**137.32**	**2**	*e*PKPdf	PKPdf	11 37 03.6	+1.4
WCI				*e*SKP		11 40 33.1	
WCI				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
AMTX	**Amarillo**	**137.59**	**21**	PFAKE		11 37 20.0	+17
AMTX				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
BLA	**Blacksburg**	**138.15**	**355**	PFAKE		11 37 20.0	+16
BLA				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
WMOK	**Wichita Mounta**	**138.68**	**18**	*e*PKHKP		11 36 56.8	
WMOK				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.7						
MNTX	**Cornudas Mount**	**138.89**	**27**	PFAKE		11 37 20.0	+15
MNTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.7						
GLAT	**Glass**	**139.08**	**6**	*e*PKP	PKPdf	11 37 04.7	-0.9
WVT	**Waverly**	**139.34**	**4**	PKHKP		11 36 57.3	
WVT	**Waverly**	**139.34**	**4**	PFAKE		11 37 20.0	+14
WVT				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
MIAR	**Mount Ida**	**140.15**	**11**	*e*PKHKP		11 37 00.4	
MIAR				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.6						
UALR	**University of**	**140.15**	**10**	*e*PKPdf	PKPdf	11 37 09.8	+2.3
MYNC	**Murphy**	**140.48**	**359**	PKIKP	PKPdf	11 37 10.4	+2.3
MYNC	**Murphy**	**140.48**	**359**	*e*PKPdf	PKPdf	11 37 08.5	+0.5
MYNC				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
TRQA	**Tornquist**	**140.76**	**209**	PFAKE		11 37 20.0	+11
TRQA				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
OXF	**Oxford**	**140.81**	**6**	*e*PKHKP		11 37 03.2	
OXF				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.7						
JSC	**Jenkinsville**	**141.13**	**355**	PKIKP	PKPdf	11 37 10.8	+1.5
LTX	**Lajitas**	**141.67**	**27**	*e*PKHKP		11 37 06.8	
LTX				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.6						
TXAR	**Lajitas Array**	**141.67**	**27**	PKhKP		11 37 05.1	
	comp=Z,1.9nm,1.0s,baz=176,slow=1.2,SNR=3.6						
TXAR				PP	PP	11 40 15.3	-3.1
	comp=Z,5.7nm,0.9s,baz=315,slow=3.5,SNR=7.0						
GOGA	**Godfrey**	**142.12**	**358**	PKIKP	PKPdf	11 37 13.9	+2.9
GOGA				*e*		11 37 28.6	
GOGA	**Godfrey**	**142.12**	**358**	*e*PKPdf	PKPdf	11 37 12.7	+1.7
GOGA				*e*SKP		11 40 45.5	
GOGA				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
NHSC	**New Hope**	**142.19**	**354**	PFAKE		11 37 20.0	+8.8
NHSC				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
BDFB	**Brasilia**	**142.22**	**250**	PKhKP		11 37 06.0	
	comp=Z,1.3nm,0.5s,baz=186,slow=9.2,SNR=2.6						
BDFB				PKP	PKPdf	11 37 14.4	+2.7
	comp=Z,8.5nm,0.7s,baz=89,slow=1.1,SNR=3.1						
JCT	**Junction City**	**142.24**	**21**	*e*PKHKP		11 37 07.3	
JCT				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.7						
JCT	**Junction City**	**142.24**	**21**	*e*PKP	PKPdf	11 37 07.3	-4.1
JCT				*e*SKP		11 40 44.1	
JCT				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
LRAL	**Lakeview Retre**	**142.47**	**3**	PFAKE		11 37 30.0	+18
LRAL				LR	LR		
	comp=Z,1µm,19.0s,MS5.8						
NATX	**Nacogdoches**	**142.60**	**14**	*e*PKPdf	PKPdf	11 37 09.2	-2.7
NATX				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
HKT	**Hockley**	**144.01**	**16**	*e*PKIKP	PKPdf	11 37 13.0	-1.4
HKT				MLR	MLR		
	comp=Z,962nm,20.0s,MS5.6						
HKT	**Hockley**	**144.01**	**16**	*e*PKPdf	PKPdf	11 37 13.0	-1.4
HKT				*e*SKP		11 40 51.5	
HKT				LR	LR		
	comp=Z,962nm,20.0s,MS5.6						
CPUP	**Villa Florida**	**146.00**	**228**	PKPdf	PKPdf	11 37 20.1	+2.1
CPUP				SKKPdf		12 15 04.7	
DWPF	**Disney**	**147.26**	**354**	*e*PKPbc	PKPdf	11 37 24.4	+4.4
DWPF				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
SJG	**San Juan**	**150.83**	**321**	PKIKP	PKPdf	11 37 28.1	+2.2
SJG	**San Juan**	**150.83**	**321**	*e*PKPbc	PKPdf	11 37 33.1	+7.2
SJG				LR	LR		
	comp=Z,951nm,22.0s,MS5.5						
TEIG	**Tepich**	**155.05**	**8**	PFAKE		11 37 40.0	+8.2
TEIG				LR	LR		
	comp=Z,442nm,21.0s,MS5.3						
LVC	**Limon Verde**	**156.42**	**219**	*e*PKPdf	PKPdf	11 37 36.7	+3.2
LVC				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
LPAZ	**La Paz**	**159.94**	**234**⇑	*e*PKIKP	PKPdf	11 37 41.4	+3.4
LPAZ				MLR	MLR		
	comp=Z,1µm,20.0s						
LPAZ	**La Paz**	**159.94**	**234**	PKP	PKPdf	11 37 41.5	+3.6
	comp=Z,13nm,1.0s,baz=68,slow=2.4,SNR=42						
LPAZ				PKPab	PKPab	11 38 22.2	+2.2
	comp=Z,8.7nm,1.1s,baz=90,slow=3.0,SNR=5.0						
SDV	**Santo Domingo**	**160.48**	**314**	*e*PKPdf	PKPdf	11 37 40.4	+1.8
SDV				LR	LR		
	comp=Z,562nm,20.0s						
JTS	**JuntasAbangare**	**165.16**	**0**	PFAKE		11 38 00.0	+17
JTS				LR	LR		
	comp=Z,298nm,22.0s						
ROSC	**El Rosal**	**165.89**	**312**	PKP	PKPdf	11 37 47.0	+3.0
	comp=Z,24nm,0.9s,baz=186,slow=1.1,SNR=22						
NNA	**Nana**	**169.25**	**227**	PFAKE		11 38 00.0	+14
NNA				LR	LR		
	comp=Z,308nm,22.0s						
OTAV	**Otavalo**	**171.99**	**307**	*e*PKPdf	PKPdf	11 37 50.5	+2.7
OTAV				*e*PKPab	PKPab	11 39 13.8	+1.0
OTAV				LR	LR		
	comp=Z,1µm,19.0s						
PAYG	**Puerto Ayora**	**173.27**	**54**	PFAKE		11 38 00.0	+12
PAYG				LR	LR		
	comp=Z,1µm,20.0s						

IDC 28 11:25:23.6±1.5**, 8.45N**×**92.04E, mb4.1**/6**, mb1 4.2**/6**, mb1mx4.0**/17**, mbtmp4.1**/6**, Error ellipse: s-maj=68.7km s-min=21.3km az=57.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**41.10**	**15**	P	P	11 33 08.8	-2.0
	2.6nm,0.7s,baz=201,slow=9.5,SNR=6.4						
BVAR	**Borovoye Array**	**47.80**	**342**	P	P	11 34 02.9	-1.6
	1.8nm,0.8s,baz=108,slow=4.6,SNR=2.8						
WRA	**Warramunga Arr**	**50.30**	**125**	P	P	11 34 22.3	-2.0
	0.9nm,0.4s,baz=300,slow=9.7,SNR=7.1						
ASAR	**Alice Springs**	**51.89**	**129**	P	P	11 34 34.4	-1.9
	2.2nm,0.9s,baz=310,slow=7.0,SNR=3.5						
STKA	**Stephens Creek**	**62.02**	**133**	P	P	11 35 45.9	-2.4
	2.0nm,0.7s,baz=342,slow=10,SNR=3.2						
GERES	**GERESS Array B**	**76.01**	**318**	P	P	11 37 12.6	-1.8
	0.8nm,0.7s,baz=90,slow=4.0,SNR=3.6						

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*IDC **28** 11:27:59.6±3.4, 23.38N×94.18E, h87^{km}±32^{km}, mb3.8/5, mb1 4.1/6, mb1mx3.7/18, mbtmp4.1/6, Error ellipse: s-maj=64.4km s-min=16.4km az=49.0*

ISC 28 11:27:56.6±1.2**, 23.3N**±0.2×**94.0E**±0.3**, h78**^{km}±13^{km}**, n9,** σ**0**^{s}**89**/10**, mb4.2**/5**, 1C, Myanmar-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IMP	**Imphal**	**1.46**	**357**	*e*	**P**	**11 28 21.8**	**0.0**
SHL	**Shillong**	**2.97**	**319**⇑	*e*PN	**P**	**11 28 44.0**	**+1.4**
SHL				*e*SN	**S**	**11 29 15.5**	**-1.6**
CMAR	**Chiang Mai Arr**	**6.68**	**136**	P	**P**	**11 29 34.6**	**+0.7**
	2.1nm,0.3s,baz=311,slow=13,SNR=20						
CMAR				S	**S**	**11 30 48.7**	**-0.5**
	0.8nm,0.3s,baz=317,slow=21,SNR=3.9						
BVAR	**Borovoye Array**	**34.67**	**335**	P	**P**	**11 34 41.0**	**+0.6**
	3.3nm,0.8s,mb4.2,baz=137,slow=11,SNR=2.3						
AKASG	**Malin Array Be**	**56.45**	**316**	P	**P**	**11 37 31.8**	**-0.6**
	0.7nm,0.4s,mb4.0,baz=80,slow=6.6,SNR=3.9						
WRA	**Warramunga Arr**	**58.27**	**134**	P	**P**	**11 37 44.7**	**-0.9**
	3.4nm,0.5s,mb4.6,baz=322,slow=7.4,SNR=38						
ASAR	**Alice Springs**	**60.68**	**138**	P	**P**	**11 38 02.0**	**-0.2**
	3.5nm,0.5s,mb4.7,baz=319,slow=6.8,SNR=57						
GERES	**GERESS Array B**	**66.57**	**315**	P	**P**	**11 38 41.5**	**+1.1**
	0.5nm,0.4s,mb3.7,baz=76,slow=5.5,SNR=5.3						
GERES				pP	pP	11 39 02.3	+1.4
	0.9nm,0.7s,baz=79,slow=6.8,SNR=4.0						
SDV	**Santo Domingo**	**144.65**	**333**	PKP	PKPdf	11 47 26.5	+1.5
	4.3nm,0.7s,slow=3.0,SNR=4.4						

IDC 28 11:36:24.3±1.0**, 7.02N**×**92.48E, mb3.9**/7**, mb1 4.0**/8**, mb1mx3.8**/19**, mbtmp3.8**/8**, ML3.9**/1**, Error ellipse: s-maj=40.4km s-min=19.7km az=56.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.00**	**28**	Pn	P	11 39 30.5	-2.6
	0.2nm,0.3s,baz=232,slow=14,SNR=3.3						
SONM	**Songino Array**	**42.37**	**14**	P	P	11 44 20.4	-1.5
	0.5nm,0.5s,baz=200,slow=8.0,SNR=6.0						
JNU	**Nakatsue**	**44.04**	**49**	P	P	11 44 34.2	-1.5
	0.4nm,0.3s,baz=259,slow=16,SNR=3.1						
WRA	**Warramunga Arr**	**49.13**	**124**	P	P	11 45 13.9	-2.2
	2.4nm,0.7s,baz=305,slow=8.9,SNR=24						
WRA				PcP	PcP	11 46 37.6	-2.3
	0.5nm,0.5s,baz=315,slow=2.9,SNR=5.5						
BVAR	**Borovoye Array**	**49.28**	**343**	P	P	11 45 14.2	-2.6
	0.4nm,0.5s,baz=135,slow=10,SNR=3.9						
BVAR				PcP	PcP	11 46 38.2	-1.8
	0.4nm,0.6s,baz=153,slow=3.2,SNR=2.0						
ASAR	**Alice Springs**	**50.66**	**128**	P	P	11 45 25.2	-2.5
	1.2nm,0.5s,baz=302,slow=8.0,SNR=22						
ASAR				PcP	PcP	11 46 43.8	-1.6
	1.0nm,0.8s,baz=305,slow=3.6,SNR=5.3						
FINES	**FINESS Array B**	**72.70**	**333**	P	P	11 47 53.1	-2.7
	1.1nm,0.8s,baz=90,slow=9.5,SNR=3.8						
GERES	**GERESS Array B**	**77.36**	**318**	P	P	11 48 21.7	-1.0
	0.3nm,0.5s,baz=90,slow=5.3,SNR=6.1						

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*IDC **28** 11:41:31.1±0.8, 12.88N×92.44E, mb4.2/11, mb1 4.3/12, mb1mx4.2/21, mbtmp4.1/12, ML3.5/1, Error ellipse: s-maj=36.0km s-min=15.4km az=45.0*

ISC 28 11:41:34.6±0.7**, 13.07N**±0.10×**92.72E**±0.08**, h33**^{km}**, n13,** σ**1**^{s}**06**/14**, mb4.2**/11**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.04**	**47**	Pn	**P**	**11 43 34.1**	**+2.3**
	0.1nm,0.3s,baz=238,slow=14,SNR=8.1						
CMAR				Sn	**Sn**	**11 45 01.1**	**-1.6**
	0.5nm,0.3s,baz=239,slow=33,SNR=4.9						
DDI	**Dehra Dun**	**21.87**	**324**	*e*	**P**	**11 46 27.2**	**+0.8**
SONM	**Songino Array**	**36.49**	**16**	P	**P**	**11 48 40.4**	**+1.8**
	0.5nm,0.8s,mb3.5,baz=198,slow=7.8,SNR=4.2						
BVAR	**Borovoye Array**	**43.65**	**341**	P	**P**	**11 49 37.8**	**+0.1**
	1.4nm,0.8s,mb3.8,baz=135,slow=6.3,SNR=6.2						
WRA	**Warramunga Arr**	**52.48**	**128**	P	**P**	**11 50 46.1**	**-0.7**
	4.6nm,0.7s,mb4.5,baz=305,slow=8.4,SNR=54						
WRA				PcP	PcP	11 51 57.8	+0.7
	0.4nm,0.6s,baz=320,slow=3.1,SNR=5.4						
ASAR	**Alice Springs**	**54.36**	**132**	P	**P**	**11 51 00.4**	**-0.3**
	2.4nm,0.6s,mb4.3,baz=312,slow=6.6,SNR=36						
BRTR	**Keskin Array B**	**58.05**	**309**	P	**P**	**11 51 25.4**	**-1.5**
	4.3nm,1.0s,mb4.4,baz=112,slow=6.7,SNR=12						
CTA	**Charters Tower**	**62.12**	**121**	P	**P**	**11 51 56.0**	**+0.9**
	2.1nm,0.7s,mb4.4,baz=306,slow=4.6,SNR=3.8						
AKASG	**Malin Array Be**	**63.26**	**320**	P	**P**	**11 52 00.9**	**-1.3**
	0.2nm,0.2s,mb3.8,baz=88,slow=5.4,SNR=5.6						
MLR	**Muntele Rosu**	**64.53**	**314**	P	**P**	**11 52 10.4**	**-0.1**
	7.0nm,0.9s,mb4.7,baz=103,slow=2.5,SNR=9.6						
ARCES	**ARCESS Array B**	**69.93**	**340**	P	**P**	**11 52 44.1**	**0.0**
	3.8nm,0.8s,mb4.4,baz=97,slow=7.3,SNR=3.8						
GERES	**GERESS Array B**	**73.06**	**317**	P	**P**	**11 53 03.4**	**+0.2**
	1.0nm,0.8s,mb3.8,baz=90,slow=5.9,SNR=9.0						
HFS	**Hagfors**	**73.30**	**329**	P	**P**	**11 53 04.3**	**-0.1**
	3.6nm,0.7s,mb4.4,baz=90,slow=4.3,SNR=3.6						

IDC 28 11:46:18.8±1.9**, 5.61N**×**93.45E, mb3.6**/4**, mb1 3.9**/4**, mb1mx3.7**/16**, mbtmp3.6**/4**, Error ellipse: s-maj=74.8km s-min=27.6km az=57.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.51**	**13**	P	P	11 54 24.1	-1.7
	0.9nm,0.8s,baz=190,slow=8.5,SNR=6.8						
WRA	**Warramunga Arr**	**47.55**	**123**	P	P	11 54 56.6	-1.7
	1.0nm,0.7s,baz=302,slow=8.9,SNR=8.4						
ASAR	**Alice Springs**	**49.03**	**128**	P	P	11 55 07.5	-2.2
	0.5nm,0.6s,baz=298,slow=7.8,SNR=4.9						
GERES	**GERESS Array B**	**79.05**	**319**	P	P	11 58 25.1	-1.3
	0.2nm,0.4s,baz=90,slow=4.9,SNR=2.6						

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*IDC **28** 11:53:00.6±1.1, 10.16N×92.74E, mb4.1/8, mb1 4.3/9, mb1mx4.1/18, mbtmp4.0/9, ML3.6/1, Error ellipse: s-maj=46.4km s-min=18.9km az=60.0*

ISC 28 11:53:04.2±0.9**, 10.3N**±0.1×**93.0E**±0.2**, h33**^{km}**, n9,** σ**0**^{s}**90**/9**, mb4.1**/8**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.00**	**35**	Pn	**P**	**11 55 27.9**	**-0.7**
	0.1nm,0.3s,baz=230,slow=14,SNR=5.2						
SONM	**Songino Array**	**39.13**	**14**	P	**P**	**12 00 31.7**	**+1.6**
	1.7nm,0.8s,mb3.8,baz=199,slow=9.1,SNR=9.8						
SONM				PcP	PcP	12 02 41.0	+0.9
	0.4nm,0.5s,baz=209,slow=4.5,SNR=3.5						
BVAR	**Borovoye Array**	**46.37**	**341**	P	**P**	**12 01 27.3**	**-1.7**
	0.4nm,0.5s,mb3.6,baz=140,slow=11,SNR=3.3						
WRA	**Warramunga Arr**	**50.60**	**126**	P	**P**	**12 02 02.4**	**+0.1**
	3.4nm,0.6s,mb4.5,baz=306,slow=8.4,SNR=24						
ASAR	**Alice Springs**	**52.34**	**131**	P	**P**	**12 02 14.9**	**-0.4**
	3.1nm,0.5s,mb4.5,baz=307,slow=7.1,SNR=30						
STKA	**Stephens Creek**	**62.59**	**134**	P	**P**	**12 03 27.4**	**-0.2**
	3.2nm,0.9s,mb4.4,baz=299,slow=12,SNR=3.4						
ARCES	**ARCESS Array B**	**72.64**	**340**	P	**P**	**12 04 29.7**	**-0.1**
	3.2nm,0.9s,mb4.2,baz=90,slow=5.1,SNR=5.8						
GERES	**GERESS Array B**	**75.28**	**318**	P	**P**	**12 04 45.9**	**+0.2**
	0.2nm,0.3s,mb3.5,baz=90,slow=3.9,SNR=3.5						
ILAR	**Eielson Array**	**92.98**	**22**	P	**P**	**12 06 16.3**	**+1.2**
	0.7nm,0.7s,mb4.2,baz=304,slow=4.8,SNR=8.5						

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*NNC **28** 11:53:11.7±2.8, 43.17N×84.54E, mpv2.5, Error ellipse: s-maj=101.5km s-min=27.6km az=67.0*

BJI 28 11:53:14.3, 43.09N×84.36E, h13^{km}**, ML2.8, 3C, Northern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WMQ	**Urumqi**	**2.54**	**72**	*e*P	Pn	11 53 57.8	+1.9
WMQ				SG	Sg	11 54 33.0	-5.8
WMQ				Smax			
	comp=N,20nm,0.2s						

WMQ				Smax			
	comp=E,34nm,0.4s						
MK31	**Makanchi Array**	**3.98**	**339**	⇑Pn	Pn	11 54 16.6	+0.1
	comp=E,0.1nm,0.2s						
MK31				⇑Pg	Pg	11 54 23.5	-10
	comp=E,1.7nm,0.6s,baz=157,slow=11,SNR=12						
MK31				⇑Lg		11 55 16.5	
	comp=E,0.8nm,0.2s,baz=154,slow=30,SNR=6.9						

IDC 28 11:53:37.2±3.7**, 7.24S×120.34E, h526**^{km}±55^{km}**, mb2.9**/4**, mb1 3.0**/5**, mb1mx2.9**/15**, mbtmp3.8**/5**, Error ellipse: s-maj=101.4km s-min=13.8km az=55.0, Flores Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**18.54**	**134**	P	P	11 57 21.1	-0.5
	0.5nm,0.3s,baz=304,slow=12,SNR=22						
WRA				S	S	12 00 24.5	+2.2
	baz=317,slow=18,SNR=2.8						
ASAR	**Alice Springs**	**20.89**	**143**	P	P	11 57 42.4	-1.2
	0.9nm,0.3s,baz=320,slow=8.6,SNR=27						
STKA	**Stephens Creek**	**31.52**	**144**	P	P	11 59 16.5	-0.9
	1.1nm,0.4s,baz=330,slow=9.8,SNR=6.6						
SONM	**Songino Array**	**56.20**	**349**	P	P	12 02 27.5	-1.4
	0.5nm,0.4s,baz=168,slow=8.1,SNR=4.9						
BVAR	**Borovoye Array**	**73.39**	**331**	P	P	12 04 15.1	-1.6
	0.4nm,0.5s,baz=135,slow=2.0,SNR=4.0						

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*IDC **28** 11:55:26.4±0.4, 4.22N×93.92E, mb4.9/25, mb1 4.9/26, mb1mx4.9/28, mbtmp4.9/26, ML4.2/1, MS4.0/2, Ms1 4.1/2, ms1mx3.6/24, Error ellipse: s-maj=22.0km s-min=10.6km az=44.0*

*BJI **28** 11:55:28.6, 3.92N×94.09E, h41^{km}, mB5.1, mb5.2, Ms4.8, Msz4.5*

*MOS **28** 11:55:29.4±1.1, 4.39N×94.08E, h33^{km}, mb5.3/31, Error ellipse: s-maj=16.2km s-min=7.4km az=119.4*

*NEIC **28** 11:55:30.3±0.4, 4.18N×93.95E, mb5.2/26, Error ellipse: s-maj=9.4km s-min=8.2km az=186.0*

*HRVD **28** 11:55:30.3±0.7, 4.14N×93.77E, h16^{km}±1^{km}, MW4.9/41, Centroid moment Tensor Solution. LP body waves: s15,c18;Mantle waves: s41,c64; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.75±.23; M$_{\theta\theta}$1.27±.14; M$_{\phi\phi}$1.48±.16; M$_{r\theta}$0.47±.48; M$_{\theta\phi}$-0.56±.09; M$_{\phi r}$0.17±.45; Best double couple: M$_0$2.38×10^{16} NP1:φ$_s$147°,δ43°,λ-79°. NP2:φ$_s$313°,δ48°,λ-100°. Principal axes: T 1.95, Plg2°, Azm49°; N .87, Plg7°, Azm319°; P -2.82, Plg82°, Azm156°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 11:55:30.0±1.2**, 4.20N**±0.05×**93.95E**±0.04**, h38**^{km}±10^{km}**, h29**^{km}±1.6^{km}**:pP-P, n182, σ0**^{s}**99**/173**, mb5.1**/80**, MS4.8**/8**, 8C-21D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	**Songkhla**	**7.26**	**66**	P	**P**	**11 57 17.0**	**+0.7**
	228nm,0.9s						
KKTK	**Khon Kaen**	**14.88**	**35**	P	**P**	**11 59 07.0**	**+7.4**
CM31	**Chiang Mai Arr**	**14.98**	**19**	P	**P**	**11 59 00.7**	**-0.3**
	69nm,0.6s						
CM31				*e*		11 59 06.0	
CMAR	**Chiang Mai Arr**	**14.98**	**19**	Pn	**P**	**11 59 00.6**	**-0.4**
	0.3nm,0.3s,baz=215,slow=13,SNR=41						
CMAR				LR	LR	12 03 56.0	
	comp=Z,382nm,20.6s,baz=205,slow=34						
KOD	**Kodaikanal**	**17.41**	**291**	*e*P	**P**	**11 59 30.5**	**-1.3**
HYB	**Hyderabad**	**20.00**	**312**	*e*P	**P**	**12 00 02.5**	**+0.1**
HYB	**Hyderabad**	**20.00**	**312**	*i* P	**P**	**12 00 02.5**	**+0.1**
HYB				*e*S	**S**	**12 03 42.0**	**+1.8**
IMP	**Imphal**	**20.46**	**360**	*e*P	**P**	**12 00 05.3**	**-1.8**
MNGI	**Mangalore**	**20.80**	**296**	*e*P	**P**	**12 00 09.5**	**-1.1**
SHL	**Shillong**	**21.34**	**355**	*e*P	**P**	**12 00 13.6**	**-2.4**
SHL				*e*		12 00 15.3	
	comp=Z,56nm,0.9s						
SHL				*e*S	**S**	**12 04 11.3**	**+5.5**
KMI	**Kunming**	**22.45**	**21**	P	**P**	**12 00 29.0**	**+1.9**
KMI				AP		12 00 34.5	
KMI				S	**S**	**12 04 24.0**	**-2.4**
KMI				AMB	AMB		
	comp=Z,57nm,1.2s,mb4.9						
KMI				AMB	AMB		
	comp=Z,253nm,7.4s						
KMI				LR	LR		
	comp=N,729nm,12.5s,MS4.5						
KMI				LR	LR		
	comp=E,907nm,13.4s,MS4.5						
KMI				LR	LR		
	comp=Z,798nm,11.5s,MS4.4						
GOA	**Goa**	**22.75**	**301**	*e*P	**P**	**12 00 29.9**	**-0.4**
GOA				*e*		12 00 41.3	
	comp=Z,52nm,1.2s						
AKL	**Akola**	**23.25**	**316**	*e*P	**P**	**12 00 37.9**	**+2.8**
AKL				*e*		12 00 40.9	
	comp=Z,65nm,1.5s						
POO	**Poona**	**24.27**	**307**	⇑*i*P	**P**	**12 00 44.0**	**-1.0**
POO				*e*		12 06 08.0	
PKI	**Pulchoki**	**24.63**	**342**	*e*P	**P**	**12 00 48.3**	**-0.1**
	comp=Z,89nm,1.2s,mb5.2						
DMN	**Daman**	**24.76**	**341**	*e*P	**P**	**12 00 50.0**	**+0.3**
	comp=Z,47nm,0.8s,mb5.1						
BHPL	**Bhopal**	**24.77**	**321**	*e*P	**P**	**12 00 51.0**	**+1.1**
BHPL				*e*		12 00 53.0	
	comp=Z,61nm,1.1s						
BHPL				*e*S	**S**	**12 05 10.4**	**+3.6**
GUN	**Gumba**	**24.80**	**343**	*e*P	**P**	**12 00 50.7**	**+0.6**
	comp=Z,72nm,0.7s,mb5.3						
KKN	**Kakani**	**24.87**	**341**	*e*P	**P**	**12 00 50.9**	**+0.1**
	comp=Z,96nm,0.9s,mb5.3						
GYA	**Guiyang**	**25.26**	**28**	⇑*i*P	**P**	**12 00 55.3**	**+0.8**
GYA				AP	pP	12 01 01.8	-2.9
GYA				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.1						
GYA				LR	LR		
	comp=N,380nm,14.4s,MS4.3						
GYA				LR	LR		
	comp=E,610nm,13.2s,MS4.3						
GYA				LR	LR		
	comp=Z,480nm,13.5s,MS4.2						
GKN	**Gorkha**	**25.28**	**340**	*e*P	**P**	**12 00 55.1**	**+0.5**
	comp=Z,150nm,0.7s,mb5.6						
KOLN	**Koldanda**	**25.43**	**338**	*e*P	**P**	**12 00 56.6**	**+0.5**
	comp=Z,262nm,0.9s,mb5.8						
LSA	**Lhasa**	**25.50**	**354**	⇓*i*P	**P**	**12 00 58.7**	**+2.0**
LSA				*e*	pP	12 01 07.2	+0.3
LSA				pmax	pmax		
	comp=Z,119nm,0.6s,mb5.6						
LSA	**Lhasa**	**25.50**	**354**	⇓*i*P	**P**	**12 00 58.7**	**+2.0**
	comp=Z,119nm,0.6s,mb5.6						
LSA				*e*	pP	12 01 07.2	+0.2
CD2	**Chengdu**	**28.13**	**18**	P	**P**	**12 01 20.8**	**0.0**
CD2				AMB	AMB		
	comp=Z,60nm,0.5s,mb5.5						
NDI	**New Delhi**	**29.08**	**329**	*e*P	**P**	**12 01 28.3**	**-1.0**
NDI				*e*		12 01 29.5	
	comp=Z,45nm,0.6s						
ENH	**Enshi**	**29.80**	**28**	*e*P	**P**	**12 01 34.3**	**-1.4**
	comp=Z,23nm,0.7s,mb5.0						
ENH				*e*		12 01 41.6	
WHN	**Wuhan**	**32.51**	**34**	P	**P**	**12 02 01.3**	**+1.7**
WHN				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.5						
WHN				LR	LR		
	comp=Z,3µm,12.9s,MS5.2						
XAN	**Xi'an**	**32.79**	**23**	P	**P**	**12 02 00.8**	**-1.2**
XAN				AP	pP	12 02 09.0	-3.6
XAN				AMB	AMB		
	comp=Z,35nm,1.0s,mb5.2						
LZH	**Lanzhou**	**33.01**	**15**	*e*P	**P**	**12 02 03.8**	**-0.1**
LZH				AP	pP	12 02 14.0	-0.6
LZH				XP	sP	12 02 18.5	-0.9
LZH				*e*S	**S**	**12 07 11.0**	**-7.8**
LZH				AMB	AMB		
	comp=Z,74nm,1.7s,mb5.3						
LZH				AMB	AMB		
	comp=Z,310nm,5.0s						
LZH				LR	LR		
	comp=E,2µm,12.5s						
LZH				LR	LR		
	comp=Z,3µm,16.3s,MS5.0						
GTA	**Gaotai**	**35.45**	**8**	⇓P	**P**	**12 02 25.0**	**+0.2**
GTA				AP	pP	12 02 33.3	-2.2
GTA				XP	sP	12 02 37.5	-2.8
GTA				PCP	PcP	12 04 55.5	+1.3
GTA				AMB	AMB		
	comp=Z,64nm,0.9s,mb5.5						
NJ2	**Nanjing**	**36.23**	**37**	*e*P	**P**	**12 02 31.3**	**-0.2**
NJ2				AP	pP	12 02 41.0	-1.2
NJ2				XP	sP	12 02 45.3	-1.7
NJ2				PP	PP	12 03 54.3	-0.7
NJ2				PPP	PPP	12 04 15.0	0.0
NJ2				S	**S**	**12 08 08.0**	**-0.6**
NJ2				XS		12 08 23.0	
NJ2				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.7						
NJ2				AMB	AMB		
	comp=Z,1µm,4.2s						
NJ2				LR	LR		
	comp=N,3µm,12.7s,MS5.4						
NJ2				LR	LR		
	comp=E,2µm,11.6s,MS5.4						
SSE	**Sheshan**	**37.05**	**41**	P	**P**	**12 02 33.8**	**-4.6**
SSE				S	**S**	**12 08 17.5**	**-3.6**
SSE				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,212nm,6.9s						
SSE				LR	LR		
	comp=N,430nm,11.8s,MS4.8						
SSE				LR	LR		
	comp=E,740nm,11.7s,MS4.8						
SSE				LR	LR		
	comp=Z,1µm,11.2s,MS4.9						
KSH	**Kashi**	**38.74**	**338**	*e*P	**P**	**12 02 52.0**	**-0.4**
KSH				*e*AP	pP	12 03 02.5	-0.7
KSH				*e*XP	sP	12 03 07.0	-0.9
KSH				*e*PP	PP	12 04 26.3	+1.0
KSH				*e*PCP	PcP	12 05 02.0	-2.2
KSH				AMB	AMB		
	comp=Z,190nm,3.7s						
JOW	**Kunigami**	**39.76**	**52**	LR	LR	12 21 08.8	
	comp=Z,378nm,20.2s,MS4.2,baz=118,slow=39						
HHC	**Hu-ho-hao-te**	**39.77**	**21**	*e*P	**P**	**12 03 01.8**	**+0.8**
HHC				AP	pP	12 03 11.0	-0.8
HHC				XP	sP	12 03 15.8	-0.7
HHC				PP	PP	12 04 39.0	+2.6
HHC				S	**S**	**12 09 11.0**	**+8.7**
HHC				XS		12 09 29.0	
HHC				SCS	ScS	12 13 04.5	+1.2
HHC				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,159nm,7.2s						
HHC				LR	LR		
	comp=N,497nm,11.8s,MS4.7						
HHC				LR	LR		
	comp=E,441nm,14.0s,MS4.7						
HHC				LR	LR		
	comp=Z,521nm,13.0s,MS4.6						
WMQ	**Urumqi**	**39.84**	**353**	⇓P	**P**	**12 03 03.0**	**+1.5**
WMQ				AMB	AMB		
	comp=Z,42nm,1.1s,mb5.1						
BJT	**Baijiatuau**	**40.91**	**26**	⇓*e*P	**P**	**12 03 12.0**	**+1.6**
BJT				*e*		12 03 19.8	
BJT				pmax	pmax		
	comp=Z,73nm,0.9s						
BJT	**Baijiatuau**	**40.91**	**26**	⇓*e*P	**P**	**12 03 12.0**	**+1.6**
	comp=Z,73nm,0.9s,mb5.3						
BJT				*e*		12 03 19.8	
BJI	**Beijing**	**40.94**	**26**	P	**P**	**12 03 12.0**	**+1.4**
BJI				AMB	AMB		
	comp=Z,61nm,0.9s,mb5.2						
ULHL	**Ulahol**	**41.04**	**340**	P	**P**	**12 03 12.2**	**+0.8**
	SNR=17						
KZA	**Kyzart**	**41.24**	**339**	P	**P**	**12 03 14.3**	**+1.2**
	SNR=18						
UCH	**Uchtor**	**41.65**	**338**	P	**P**	**12 03 17.7**	**+1.2**
	SNR=32						
KBK	**Karagaybulak**	**41.86**	**339**	P	**P**	**12 03 19.6**	**+1.3**
	SNR=32						
TKM2	**Tokmak 2**	**41.86**	**340**	P	**P**	**12 03 18.8**	**+0.6**
	SNR=13						
AML	**Almayashu**	**41.87**	**337**	P	**P**	**12 03 19.6**	**+1.3**
	SNR=53						
AAK	**Ala-Archa**	**42.00**	**338**	P	**P**	**12 03 20.9**	**+1.5**
	SNR=15						
AAK	**Ala-Archa**	**42.00**	**338**	*e*P	**P**	**12 03 19.1**	**-0.3**
AAK				*e*		12 05 14.3	
AAK				pmax	pmax		
	comp=Z,25nm,1.0s,mb4.8						
AAK	**Ala-Archa**	**42.00**	**338**	*e*P	**P**	**12 03 19.1**	**-0.2**
	comp=Z,25nm,1.0s,mb4.8						
AAK				*e*PcP	PcP	12 05 14.3	-0.4
CHMS	**Chumysh**	**42.23**	**339**	P	**P**	**12 03 22.0**	**+0.8**
	SNR=6.4						
EKS2	**Erkin-Say**	**42.29**	**338**	P	**P**	**12 03 22.9**	**+1.2**
	SNR=19						
USP	**Ospenovka**	**42.55**	**339**	P	**P**	**12 03 24.3**	**+0.4**
	SNR=25						
NWAO	**Narrogin (SRO)**	**43.02**	**151**	P	**P**	**12 03 28.1**	**+0.2**
	comp=Z,18nm,1.2s,mb4.7,baz=302,slow=4.9,SNR=7.6						
MKAR	**Makanchi Array**	**43.61**	**348**	*e*P	**P**	**12 03 32.9**	**+0.4**
MKAR				pmax	pmax		
	comp=Z,46nm,0.9s						
SONM	**Songino Array**	**44.77**	**12**	P	**P**	**12 03 42.2**	**+0.5**
	comp=Z,63nm,0.8s,mb5.5,baz=193,slow=8.3,SNR=353						
SONM				PcP	PcP	12 05 24.4	+0.4
	comp=Z,5.8nm,0.7s,baz=194,slow=3.4,SNR=4.1						
ULN	**Ulaanbaatar**	**44.94**	**12**	⇓*i*P	**P**	**12 03 43.1**	**0.0**
ULN				*e*	pP	12 03 51.9	-2.0
ULN				*e*		12 05 24.4	
ULN				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.4						
ULN	**Ulaanbaatar**	**44.94**	**12**	⇓*i*P	**P**	**12 03 43.1**	**+0.1**
	comp=Z,47nm,0.8s,mb5.4						
ULN				*e*	pP	12 03 51.9	-2.0
ULN				*e*PcP	PcP	12 05 24.4	-0.1
SNY	**Shenyang**	**45.87**	**31**	⇓P	**P**	**12 03 50.5**	**-0.1**
SNY				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.2						
WRA	**Warramunga Arr**	**46.37**	**123**	P	**P**	**12 03 54.5**	**-0.3**
	comp=Z,25nm,0.7s,mb5.3,baz=301,slow=9.0,SNR=82						
WRAB	**Tennant Creek**	**46.38**	**123**	*e*P	**P**	**12 03 54.8**	**-0.1**
WRAB				pmax	pmax		
	comp=Z,45nm,0.6s,mb5.6						
WRAB	**Tennant Creek**	**46.38**	**123**	*e*P	**P**	**12 03 54.8**	**-0.1**
	comp=Z,45nm,0.6s,mb5.6						
ZAK	**Zakamensk**	**46.69**	**8**	⇑*i*P	**P**	**12 03 56.9**	**0.0**
ZAK				*e*		12 05 30.4	
ASAR	**Alice Springs**	**47.78**	**127**	P	**P**	**12 04 05.9**	**0.0**
	comp=Z,9.3nm,0.7s,mb4.9,baz=304,slow=7.6,SNR=44						
ASAR				PcP	PcP	12 05 33.8	-1.1
	comp=Z,4.4nm,0.7s,baz=299,slow=3.1,SNR=8.8						
TLY	**Talaya**	**48.01**	**8**	⇓*i*P	**P**	**12 04 04.6**	**-2.7**
TLY				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
CN2	**Changchun**	**48.24**	**30**	⇓P	**P**	**12 04 09.0**	**-0.2**
CN2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.3						
HIA	**Hailar**	**49.97**	**22**	⇓*i*P	**P**	**12 04 22.5**	**+0.1**
HIA				pmax	pmax		
	comp=Z,29nm,0.6s						
HIA	**Hailar**	**49.97**	**22**	⇓*i*P	**P**	**12 04 22.4**	**0.0**
	comp=Z,29nm,0.6s,mb5.5						
RDF	**Al-Radifah**	**50.36**	**304**	*e*P	**P**	**12 04 26.5**	**+0.8**
MDJ	**Mudanjiang**	**50.96**	**32**	P	**P**	**12 04 31.0**	**+0.9**
MDJ				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.7						
MDJ				AMB	AMB		
	comp=Z,215nm,11.8s						
MDJ	**Mudanjiang**	**50.96**	**32**	*e*P	**P**	**12 04 30.0**	**-0.1**
	comp=Z,15nm,0.9s,mb4.9						
RST	**Umm Al-Ruwaisa**	**51.01**	**305**	*e*P	**P**	**12 04 31.1**	**+0.5**
BVA0	**Borovoye Array**	**52.39**	**342**	*i* P	**P**	**12 04 40.0**	**-0.7**
BVA0				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
BVAR	**Borovoye Array**	**52.39**	**342**	P	**P**	**12 04 40.0**	**-0.6**
	comp=Z,18nm,0.7s,mb5.1,baz=143,slow=7.4,SNR=95						
BVAR				PcP	PcP	12 05 51.2	-0.1
	comp=Z,4.2nm,0.8s,baz=153,slow=3.2,SNR=2.3						
BRVK	**Borovoye**	**52.45**	**342**	*e*P	**P**	**12 04 40.2**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
BRVK	**Borovoye**	**52.45**	**342**	*e*P	**P**	**12 04 40.2**	**-0.9**
	comp=Z,37nm,0.9s,mb5.3						
AFFS	**'Afif**	**52.82**	**297**	P	**P**	**12 04 34.9**	**-9.4**
CHKZ	**Chkalovo**	**52.89**	**343**	P	**P**	**12 04 44.2**	**-0.2**
CHKZ				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
CHKZ	**Chkalovo**	**52.89**	**343**	⇓*i*P	**P**	**12 04 44.0**	**-0.4**
	comp=Z,62nm,0.8s,mb5.6						
ARSS	**Ar Rass**	**53.09**	**299**	P	**P**	**12 04 45.5**	**-0.8**
PMG	**Port Moresby**	**54.72**	**105**	P	**P**	**12 04 58.5**	**+0.1**
	comp=Z,20nm,0.7s,mb5.2,baz=357,slow=8.6,SNR=13						
BOD	**Bodaibo**	**55.74**	**13**	⇑*i*P	**P**	**12 05 04.4**	**-0.8**
BOD				*e*		12 05 11.0	
CTA	**Charters Tower**	**56.74**	**117**	P	**P**	**12 05 13.3**	**+0.4**
	comp=Z,15nm,0.8s,mb5.1,baz=292,slow=8.7,SNR=20						
CTAO	**Charters Tower**	**56.74**	**117**	*e*P	**P**	**12 05 12.3**	**-0.6**
CTAO				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
CTAO	**Charters Tower**	**56.74**	**117**	*e*P	**P**	**12 05 12.3**	**-0.6**
	comp=Z,18nm,1.0s,mb5.0						
GNI	**Garni**	**56.89**	**316**	*d* *i*P	**P**	**12 05 12.0**	**-1.7**
GNI				pmax	pmax		
	comp=Z,24nm,1.7s						
GNI	**Garni**	**56.89**	**316**	P	**P**	**12 05 13.6**	**-0.1**
	comp=Z,3.3nm,0.5s,mb4.7,baz=273,slow=7.8,SNR=5.1						
GNI	**Garni**	**56.89**	**316**	*e*P	**P**	**12 05 12.8**	**-0.9**
	comp=Z,14nm,1.0s,mb5.0						
KMBO	**Kilima Mbogo**	**56.90**	**266**	*e*P	**P**	**12 05 14.3**	**+0.2**
KMBO				*e*	pP	12 05 22.6	-2.7
KMBO				pmax	pmax		
	comp=Z,13nm,1.2s						
KMBO	**Kilima Mbogo**	**56.90**	**266**	P	**P**	**12 05 14.4**	**+0.3**
	comp=Z,4.1nm,0.8s,mb4.5,baz=45,slow=24,SNR=5.4						
KMBO	**Kilima Mbogo**	**56.90**	**266**	*e*P	**P**	**12 05 14.3**	**+0.2**
	comp=Z,13nm,1.2s,mb4.8						
KMBO				*e*	pP	12 05 22.6	-2.8
STKA	**Stephens Creek**	**57.76**	**132**	P	**P**	**12 05 19.7**	**-0.2**
	comp=Z,5.2nm,0.6s,mb4.7,baz=332,slow=4.6,SNR=15						
UMJS	**Umm Lajj**	**58.16**	**297**	P	**P**	**12 05 11.6**	**-11**
ZEI	**Tsey**	**58.61**	**319**	*e*P	**P**	**12 05 24.6**	**-1.1**
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
SVE	**Sverdlovsk**	**58.73**	**339**	⇓*i*P	**P**	**12 05 25.0**	**-1.4**
SVE				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.6						
ARU	**Arti**	**59.19**	**338**	⇓*i*P	**P**	**12 05 26.2**	**-3.3**
ARU				*e*		12 07 34.4	
ARU				*e*S	**S**	**12 13 32.8**	**0.0**
ARU				*e*SS	SS	12 17 23.9	-5.1
ARU				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.3						
ARU	**Arti**	**59.19**	**338**	*e*P	**P**	**12 05 28.0**	**-1.5**
	comp=Z,57nm,1.1s,mb5.5						
ARU				*e*		12 05 45.2	
YSS	**Yuzh-Sakhalins**	**59.80**	**37**	*e*P	**P**	**12 05 28.0**	**-5.9**
YSS				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
KIV	**Kislovodsk**	**59.93**	**319**	⇑*i*P	**P**	**12 05 32.1**	**-2.7**
KIV				pmax	pmax		
	comp=Z,19nm,1.7s,mb4.8						
ASF	**Jabal al Asfar**	**60.09**	**305**	P	**P**	**12 05 37.0**	**+0.9**
	comp=Z,4.3nm,0.6s,mb4.6,baz=328,slow=2.5,SNR=6.5						
JMQS	**Jabal Moqyreh**	**60.16**	**301**	P	**P**	**12 05 37.9**	**+1.2**
AYUS	**'Aynunah**	**60.54**	**300**	P	**P**	**12 05 38.5**	**-0.7**
MALT	**Malatya**	**60.72**	**312**	⇓*e*P	**P**	**12 05 39.9**	**-0.4**
MALT				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.3						
MALT	**Malatya**	**60.72**	**312**	⇓*e*P	**P**	**12 05 39.9**	**-0.4**
	comp=Z,30nm,1.3s,mb5.3						
BDAS	**Al Bad'**	**60.73**	**300**	P	**P**	**12 05 40.1**	**-0.5**
EIL	**Elat**	**61.12**	**302**	P	**P**	**12 05 43.4**	**+0.3**
	comp=Z,30nm,1.2s,mb5.3,baz=111,slow=9.4,SNR=10						
EIL	**Elat**	**61.12**	**302**	⇓*e*P	**P**	**12 05 43.2**	**0.0**
	comp=Z,22nm,0.9s,mb5.3						
EIL				*e*	pP	12 05 52.7	-1.6
SOC	**Sochi**	**61.73**	**318**	*e*P	**P**	**12 05 42.8**	**-4.2**
SOC				*e*		12 06 22.1	
SOC				*e*S	**S**	**12 14 01.0**	**-4.5**
SOC				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
SOC				pmax	pmax		
	comp=N,9.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,4.0nm,0.7s						
YAK	**Yakutsk**	**63.52**	**18**	*e*P	**P**	**12 05 57.1**	**-1.5**
YAK				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
YAK				pmax	pmax		
	comp=N,14nm,1.1s						
YAK				pmax	pmax		
	comp=E,13nm,1.3s						
YAK	**Yakutsk**	**63.52**	**18**	*e*P	**P**	**12 05 57.5**	**-1.1**
	comp=E,106nm,0.9s,mb5.9						
BRTR	**Keskin Array B**	**64.70**	**312**	P	**P**	**12 06 05.6**	**-1.1**
	comp=E,9.5nm,0.8s,mb4.9,baz=125,slow=7.2,SNR=46						
SIM	**Simferopol'**	**65.97**	**318**	*ce*P	**P**	**12 06 14.2**	**-0.6**
SIM				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
ISP	**Isparta**	**66.58**	**309**	*e*P	**P**	**12 06 17.4**	**-1.3**
OBN	**Obninsk**	**68.38**	**329**	⇓*i*P	**P**	**12 06 26.4**	**-3.3**
OBN				pmax	pmax		
	comp=Z,44nm,1.7s,mb5.2						
SKR	**Severo-Kuril's**	**69.36**	**37**	*e*P	**P**	**12 06 32.0**	**-3.9**
SKR				pmax	pmax		
	comp=Z,80nm,0.5s,mb5.9						
MA2	**Magadan**	**70.09**	**27**	*e*P	**P**	**12 06 38.0**	**-2.1**
MA2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
IDI	**Anoyia**	**70.52**	**306**	P	**P**	**12 06 43.7**	**+0.5**
	comp=Z,27nm,0.6s,mb5.4,baz=93,slow=7.9,SNR=18						
TIXI	**Tiksi**	**70.85**	**11**	⇑*e*P	**P**	**12 06 40.4**	**-4.2**
TIXI				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.2						
AKASG	**Malin Array Be**	**70.92**	**323**	P	**P**	**12 06 42.8**	**-2.5**
	comp=Z,2.6nm,0.6s,mb4.4,baz=91,slow=4.3,SNR=10						
AKASG				PP	PP	12 09 22.2	-2.7
	comp=Z,4.1nm,1.0s,baz=104,slow=6.9,SNR=6.5						
MLR	**Muntele Rosu**	**71.67**	**317**	P	**P**	**12 06 50.4**	**+0.5**
	comp=Z,17nm,0.8s,mb5.0,baz=157,slow=3.2,SNR=28						
KWP	**Kalwaria**	**74.70**	**320**	*e*P	**P**	**12 07 07.6**	**0.0**
KOLS	**Kolonicke sedl**	**74.84**	**320**	*i* P	**P**	**12 07 09.2**	**+0.7**
KOLS				*e*		12 07 14.1	
CRVS	**Cervenica-Dubn**	**75.36**	**319**	*e*P	**P**	**12 07 14.8**	**+3.4**
SUW	**Suwalki**	**75.37**	**325**	*e*P	**P**	**12 07 10.7**	**-0.7**
FINES	**FINESS Array B**	**75.86**	**333**	P	**P**	**12 07 13.4**	**-0.6**
	comp=Z,8.2nm,0.6s,mb4.8,baz=95,slow=6.4,SNR=35						
KECS	**Kecovo**	**75.92**	**319**	*e*P	**P**	**12 07 14.8**	**+0.1**
KAF	**Kangasniemi**	**75.96**	**333**	*e*p	**P**	**12 07 13.5**	**-1.1**
	comp=Z,23nm,0.9s,mb5.1						
KAF	**Kangasniemi**	**75.96**	**333**	*e*P	**P**	**12 07 13.5**	**-1.1**
KAF				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
OJC	**Ojcow**	**76.66**	**321**	*e*P	**P**	**12 07 18.5**	**-0.3**
VYHS	**Vyhne**	**77.01**	**319**	*e*P	**P**	**12 07 20.6**	**-0.2**
SRO	**Srobarova**	**77.26**	**318**	*e*P	**P**	**12 07 22.8**	**+0.6**
ZST	**Bratislava**	**78.12**	**318**	*i* P	**P**	**12 07 27.2**	**+0.3**
ZST				*e*		12 07 34.7	
KEV	**Kevo**	**78.22**	**341**	*e*p	**P**	**12 07 26.4**	**-0.7**
	comp=Z,16nm,0.7s,mb5.1						
KEV	**Kevo**	**78.22**	**341**	*e*P	**P**	**12 07 26.4**	**-0.7**
KEV				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
ARCES	**ARCESS Array B**	**78.64**	**341**	P	**P**	**12 07 29.7**	**+0.3**
	comp=Z,16nm,0.7s,mb5.1,baz=93,slow=5.4,SNR=55						
KSP	**Ksiaz**	**78.96**	**321**	*e*P	**P**	**12 07 31.9**	**+0.4**
KSP	**Ksiaz**	**78.96**	**321**	*e*P	**P**	**12 07 32.1**	**+0.6**
BILL	**Bilibino**	**79.55**	**21**	⇑*i*P	**P**	**12 07 32.4**	**-2.0**
BILL				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.6						
PRU	**Pruhonice**	**79.98**	**320**	*e*P	**P**	**12 07 37.7**	**+0.6**
GEC2	**GERESS Array S**	**80.43**	**319**	*e*P	**P**	**12 07 39.8**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
GEC2	**GERESS Array S**	**80.43**	**319**	*e*P	**P**	**12 07 39.8**	**+0.3**
	comp=Z,17nm,1.1s,mb4.9						
GERES	**GERESS Array B**	**80.43**	**319**	P	**P**	**12 07 39.9**	**+0.4**
	comp=Z,9.2nm,0.8s,mb4.7,baz=105,slow=4.9,SNR=47						
BRG	**Berggiesshubel**	**80.45**	**321**	*i* P	**P**	**12 07 39.8**	**+0.3**
BRG				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
KHC	**Kasperske Hory**	**80.53**	**319**	*e*P	**P**	**12 07 40.5**	**+0.5**
WET	**Wettzell**	**81.00**	**319**	*e*P	**P**	**12 07 42.8**	**+0.4**
CLL	**Collm**	**81.07**	**321**	*e*P	**P**	**12 07 42.0**	**-0.8**
CLL				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
CLL	**Collm**	**81.07**	**321**	P	**P**	**12 07 42.0**	**-0.8**
	comp=Z,logA/T=0.9,mb4.6						
HFS	**Hagfors**	**81.52**	**330**	P	**P**	**12 07 44.6**	**-0.3**
	comp=Z,8.3nm,0.8s,mb4.7,baz=108,slow=4.7,SNR=16						
MOX	**Moxa**	**81.91**	**320**	*e*P	**P**	**12 07 47.1**	**0.0**
MOX	**Moxa**	**81.91**	**320**	*i* P	**P**	**12 07 47.1**	**0.0**

GRA1	Grafenberg Arr	82.11	319	eP	P	12 07 48.8	+0.6
	comp=Z,8.0nm,0.8s,mb4.7						
GRF	Grafenberg Arr	82.11	319	eP	P	12 07 48.8	+0.6
GRF				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
CLZ	Clausthal	82.75	322	eP	P	12 07 51.7	+0.3
	comp=Z,7.0nm,0.8s,mb4.7						
NB2	NORSAR Subarra	82.82	331	P	P	12 07 50.9	-0.7
	comp=Z,7.4nm,0.9s,mb4.7,baz=92,slow=5.6						
NB2	NORSAR Subarra	82.82	331	P	P	12 07 50.9	-0.7
NB2				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
NOA	NORSAR Array B	82.82	331	P	P	12 07 51.5	-0.2
	comp=Z,4.4nm,0.8s,mb4.5,baz=94,slow=5.4,SNR=7.4						
DAVOX	Davos	82.90	316	P	P	12 07 53.0	+0.7
	comp=Z,21nm,0.6s,mb5.3,baz=123,slow=6.0,SNR=39						
BFO	Black Forest	83.97	318	eP	P	12 07 57.7	0.0
BFO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
BFO	Black Forest	83.97	318	eP	P	12 07 57.7	0.0
	comp=Z,3.0nm,0.8s,mb4.5						
LPG	La Plagne	85.07	315	eP	P	12 08 03.6	+0.3
	comp=Z,24nm,0.8s,mb5.1						
LPG	La Plagne	85.07	315	eP	P	12 08 03.6	+0.3
LPG				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
VNDA	Vanda	89.39	168	P	P	12 08 24.9	+1.4
	comp=Z,0.7nm,0.7s,mb4.1,baz=308,slow=12,SNR=2.6						
EKA	Eskdalemuir Ar	90.62	325	P	P	12 08 29.9	+0.2
	comp=Z,3.9nm,0.7s,mb4.8,baz=103,slow=4.9,SNR=8.4						
ESDC	Sonseca Array	93.42	310	P	P	12 08 43.9	+0.9
	comp=Z,2.3nm,0.6s,mb4.8,baz=52,slow=4.3,SNR=7.8						
ILAR	Eielson Array	98.19	22	P	P	12 09 06.4	+2.3
	comp=Z,0.4nm,0.6s,mb4.2,baz=290,slow=4.4,SNR=10.0						
ILAR				PP	PP	12 12 51.9	-15
	comp=Z,1.3nm,1.1s,baz=282,slow=7.0,SNR=5.2						
YKA	Yellowknife Ar	110.02	14	PKiKP		12 13 57.7	
	comp=Z,0.3nm,0.7s,baz=339,slow=2.0,SNR=7.2						
YKA				PP	PP	12 14 23.3	-12
	comp=Z,0.8nm,1.0s,baz=335,slow=7.3,SNR=6.5						
SCHQ	Schefferville	119.05	347	PKP	PKPdf	12 14 16.5	+1.6
	comp=Z,7.6nm,1.2s,baz=307,slow=5.1,SNR=4.1						
YBH	Yreka Blue Hor	123.41	32	PKP	PKPdf	12 14 25.9	+2.2
	comp=Z,0.3nm,0.2s,baz=270,slow=4.0,SNR=3.9						
ULM	Lac du Bonnet	125.11	8	PKP	PKPdf	12 14 29.5	+2.8
	comp=Z,4.4nm,0.7s,baz=0.8,slow=4.3,SNR=12						
LAO	LASA Array	126.28	17	ePKP	PKPdf	12 14 31.3	+2.2
NVAR	Mina Array Bea	128.13	32	PKP	PKPdf	12 14 35.4	+2.5
	comp=Z,2.3nm,0.6s,baz=262,slow=2.7,SNR=6.3						
PDAR	Pinedale Array	128.63	22	PKP	PKPdf	12 14 35.8	+2.0
	comp=Z,2.5nm,0.7s,baz=69,slow=1.9,SNR=22						
PDAR				PP	PP	12 16 39.3	-4.9
	comp=Z,0.3nm,0.5s,baz=315,slow=2.6,SNR=3.0						
SADO	Sadowa	130.86	353	PKP	PKPdf	12 14 40.0	+2.0
	comp=Z,12nm,1.1s,baz=347,slow=9.6,SNR=4.2						
ANMO	Albuquerque	136.58	25	PKP	PKPdf	12 14 52.2	+3.4
	comp=Z,6.1nm,1.1s,baz=245,slow=0.7,SNR=12						
WVT	Waverly	139.84	2	ePKIKP	PKPdf	12 14 56.1	+1.3
BDFB	Brasilia	140.93	250	PKhKP		12 14 55.5	
	comp=Z,1.5nm,0.3s,baz=108,slow=3.2,SNR=2.8						
TXAR	Lajitas Array	142.61	26	PKhKP		12 14 58.5	
	comp=Z,0.8nm,0.5s,baz=17,slow=0.7,SNR=26						
JCT	Junction City	143.09	20	ePKIKP	PKPdf	12 14 58.5	-2.1
LVC	Limon Verde	155.30	221	PKPab	PKPab	12 15 46.9	-0.7
	comp=Z,3.4nm,0.7s,baz=177,slow=3.5,SNR=7.0						
LPAZ	La Paz	158.69	234	ePKIKP	PKPdf	12 15 27.8	+3.3
LPAZ				e		12 16 01.9	
LPAZ	La Paz	158.69	234	PKP	PKPdf	12 15 28.4	+3.9
	comp=Z,1.9nm,0.8s,baz=105,slow=1.8,SNR=8.8						
LPAZ				PKPab	PKPab	12 16 02.6	+0.3
	comp=Z,2.2nm,0.7s,baz=113,slow=6.0,SNR=8.3						
SDV	Santo Domingo	159.87	310	PKPab	PKPab	12 16 06.9	-0.6
	comp=Z,2.7nm,0.6s,baz=63,slow=9.0,SNR=4.7						
ROSC	El Rosal	165.24	307	PKP	PKPdf	12 15 34.6	+3.3
	comp=Z,4.3nm,0.5s,baz=90,slow=20,SNR=3.9						

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*NEIC **28** 11:57:43.7, 15.85N×92.87W, h166^{km}, mb3.9/3, MD4.4(MEX), After MEX.*

*MEX **28** 11:57:43.6±1.2, 15.81N×92.88W, h166^{km}±13^{km}, MD4.3*

*IDC **28** 11:57:43.2±1.1, 16.40N×91.73W, h164^{km}±8^{km}, mb3.5/6, mb1 3.5/7, mb1mx3.2/21, mbtmp3.8/7, Error ellipse: s-maj=81.4km s-min=13.7km az=59.0*

ISC 28 11:57:41.8±0.5**, 15.86N**±0.07×**92.84W**±0.03**, h167**^{km}±5^{km}**, n28,** σ**1^{s}34**/43**, mb3.8**/7**, 5C-5D, Mexico-Guatemala border region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CCIG	Comitan	0.79	58	⇓iP	P	11 58 07.8	+0.8
CCIG				i S	S	11 58 26.6	+0.2
CCIG	Comitan	0.79	58	⇓iP	P	11 58 07.8	+0.8
CCIG				i S	S	11 58 26.7	+0.3
SCX	San Cristobal	0.89	13	i P	P	11 58 08.0	+0.4
SCX				i S	S	11 58 28.0	+0.5
CMIG	Matias Romero	2.31	302	⇑iP	P	11 58 22.2	+0.2
CMIG				i S	S	11 58 51.6	-1.4
CMIG	Matias Romero	2.31	302	i P	P	11 58 22.2	+0.1
CMIG				i S	S	11 58 51.6	-1.4
HUIG	Huatulco	3.15	269	i P	P	11 58 30.9	-1.5
HUIG				i S	S	11 59 07.1	-4.2
HUIG	Huatulco	3.15	269	i P	P	11 58 30.9	-1.5
HUIG				i S	S	11 59 08.1	-3.2
SCIG		3.46	27	⇓iP	P	11 58 35.5	-0.9
SCIG				i S	S	11 59 17.8	-0.6
OXX	Oaxaca	3.92	289	i P	P	11 58 43.5	+1.3
OXX				i S	S	11 59 28.0	-0.8
VHO	Vista Hermosa	3.93	288	⇑iP	P	11 58 43.8	+1.4
VHO				i S	S	11 59 27.4	-1.5
PNIG	Pinotepa	5.11	277	⇑eP	P	11 58 57.7	0.0
PNIG				i S	S	11 59 55.8	-0.7
TEIG	Tepich	6.13	44	⇓iPn	P	11 59 08.8	-2.4
PPM	Popocatepetl	6.38	301	⇓iP	P	11 59 18.3	+3.9
PPM				i S	S	12 00 26.7	+0.1
YAIG	Yautepec	6.65	298	⇑iP	P	11 59 20.8	+2.6
YAIG				i S	S	12 00 33.6	+0.5
PLIG	Platanillo	6.85	292	⇑iP	P	11 59 23.1	+2.3
PLIG				i S	S	12 00 37.8	-0.1
CAIG	El Cayaco	7.23	280	i P	P	11 59 26.5	+0.8
CAIG				i S	S	12 00 45.9	-0.9
MOIG	Morelia	8.81	297	eP	P	11 59 48.5	+1.7
JTS	JuntasAbangare	9.47	125	eP	P	11 59 54.3	-1.0
JCT	Junction City	15.89	338	eP	P	12 01 26.0	+8.5
	9.5nm,0.4s						
TXAR	Lajitas Array	16.71	325	P	P	12 01 31.3	+3.7
	0.0nm,0.3s,baz=146,slow=9.8,SNR=2.8						
OTAV	Otavalo	21.04	136	eP	P	12 02 16.1	+2.4
	8.4nm,0.8s,mb4.1						
ANMO	Albuquerque	22.59	330	P	P	12 02 30.9	+2.1
	0.5nm,0.4s,mb3.3,baz=157,slow=12,SNR=4.1						
ANMO				pP		12 03 02.5	
	0.6nm,0.5s,baz=145,slow=13,SNR=2.9						
ANMO				sP		12 03 20.8	
	1.5nm,0.7s,baz=145,slow=12,SNR=5.0						
LPAZ	La Paz	40.19	142	P	P	12 05 02.3	-1.1
	1.6nm,0.5s,mb3.9,baz=336,slow=5.9,SNR=12						
LPAZ	La Paz	40.19	142	eP	P	12 05 01.9	-1.5
	2.3nm,0.6s,mb4.0						
LVC	Limon Verde	44.84	148	P	P	12 05 40.9	-0.2
	3.5nm,1.0s,mb4.0,baz=306,slow=8.5,SNR=5.6						
YKA	Yellowknife Ar	49.04	347	P	P	12 06 11.4	-1.9
	0.8nm,0.6s,mb3.5,baz=150,slow=7.5,SNR=23						
YKA				pP	pP	12 06 47.9	-3.1
	0.7nm,0.6s,baz=148,slow=7.4,SNR=6.1						
BDFB	Brasilia	54.21	123	P	P	12 06 48.1	-4.4
	2.0nm,0.4s,mb4.2,baz=278,slow=7.1,SNR=3.6						
ILAR	Eielson Array	60.82	337	P	P	12 07 36.8	-1.4
	0.8nm,0.8s,mb3.6,baz=123,slow=5.2,SNR=9.0						
ILAR				pP	pP	12 08 15.7	-1.8
	0.3nm,0.7s,baz=132,slow=3.7,SNR=2.6						

IDC 28 12:03:18.1±1.2**, 5.36N**×**93.22E, h24**^{km}±5^{km}**, mb3.6**/4**, mb1 3.9**/5**, mb1mx3.7**/16**, mbtmp3.8**/5**, Error ellipse: s-maj=41.9km s-min=20.2km az=54.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.17	23	Pn	P	12 06 37.6	-2.1
	baz=219,slow=14,SNR=9.7						
SONM	Songino Array	43.80	13	P	P	12 11 22.1	-1.7
	1.4nm,0.9s,baz=198,slow=7.8,SNR=7.0						
SONM				pP	pP	12 11 29.5	-1.6
	1.7nm,0.8s,baz=188,slow=8.7,SNR=8.2						
WRA	Warramunga Arr	47.60	123	P	P	12 11 52.2	-2.3
	2.6nm,0.8s,baz=301,slow=9.3,SNR=12						
WRA				pP	pP	12 11 59.9	-1.9
	5.6nm,0.7s,baz=302,slow=9.1,SNR=21						
ASAR	Alice Springs	49.06	128	pP	pP	12 12 12.0	-1.0
	1.0nm,0.6s,baz=299,slow=8.0,SNR=6.2						
BVAR	Borovoye Array	51.08	342	P	P	12 12 17.8	-2.9
	0.5nm,0.7s,baz=180,slow=2.9,SNR=3.0						
BVAR				PcP	PcP	12 13 34.7	-1.9
	0.4nm,0.6s,baz=117,slow=3.2,SNR=2.5						
BVAR				pPcP		12 13 42.9	
	0.7nm,0.7s,baz=146,slow=5.2,SNR=3.4						
STKA	Stephens Creek	59.07	132	pP	pP	12 13 24.7	-1.8
	4.8nm,1.1s,baz=312,slow=12,SNR=2.7						
GERES	GERESS Array B	79.09	319	P	P	12 15 20.8	-1.5
	0.5nm,0.7s,baz=90,slow=2.0,SNR=3.4						
GERES				pP	pP	12 15 28.7	-1.2
	0.7nm,0.7s,baz=76,slow=5.5,SNR=4.2						

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*NAO **28** 12:09:33.8±3.7, 68.00N×32.61E, ML2.1*

HEL 28 12:09:33.3±0.4**, 68.06N**×**33.02E, ML1.6, ML1.4**(UPP)**, ML2.1**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA0	Apatity Array	0.45	182	Pg	Pg	12 09 41.2	-1.1
	baz=355,slow=16						
APA0				Lg		12 09 47.6	
	baz=350,slow=22						
APA0				Rg		12 09 49.5	
	baz=3.9,slow=37						
APA0	Apatity Array	0.45	182	i P	Pg	12 09 41.2	-1.1
APA0				i S	Sg	12 09 47.6	-0.7
APA0				eRG		12 09 49.5	
KU4	Oulanka	2.17	220	eP	Pn	12 10 10.9	-0.2
KU4				eS	Sn	12 10 37.5	-1.5
SGF	Sodankyl	2.55	259	eP	Pn	12 10 15.7	-0.8
SGF				eS	Sn	12 10 47.3	-1.5
SGF				MSG		12 10 52.2	
	comp=Z,1.9nm,0.1s						
MSF	Maaselka	2.66	218	eP	Pn	12 10 18.1	-0.1
MSF				eS	Sn	12 10 50.0	-1.7
MSF				MSG		12 10 58.7	
	comp=Z,0.9nm,0.1s						
KEV	Kevo	2.77	311	eP	Pn	12 10 19.4	-0.3
KEV				eS	Sn	12 10 53.3	-0.9
KEV				MSG		12 10 58.3	
	comp=Z,3.9nm,0.3s						
ARA0	ARCESS Array S	3.11	302	Pn	Pn	12 10 23.4	-1.2
	baz=118,slow=16						
ARA0				Pg	Pg	12 10 29.8	-5.6
	baz=113,slow=16						
ARA0				Lg		12 11 06.6	
	baz=115,slow=37						
ARA0				Rg		12 11 25.2	
	baz=115,slow=37						
ARA0	ARCESS Array S	3.11	302	eP	Pn	12 10 23.4	-1.2
ARA0				ePG	Pg	12 10 29.8	-5.6
ARA0				eSB	Sb	12 11 06.6	-1.4
ARA0				eRG		12 11 25.2	
PAJU	Pajala	3.94	259	eP	Pn	12 10 34.3	-2.1
OUL	Oulu	4.12	227	eSG	Sg	12 11 40.2	-10
OUL				MSG		12 11 42.9	
	comp=Z,1.2nm,0.2s						
MASU	Masugnsbyn	4.24	267	eP	Pn	12 10 38.1	-2.4
ERTU	Ertsjaerv	4.46	255	eP	Pn	12 10 41.5	-2.3
KUA	Kurravaara	4.77	275	eP	Pn	12 10 45.6	-2.6
DUNU	Dundret	4.86	265	eP	Pn	12 10 47.3	-2.1
SJUU	Sjulsmark	5.19	246	eP	Pn	12 10 51.4	-2.7
SJUU				eS	Sn	12 11 50.0	-5.6

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*IDC **28** 12:09:49.6±0.7, 8.10N×93.69E, mb4.0/10, mb1 4.1/11, mb1mx4.0/19, mbtmp4.0/11, ML4.0/1, Error ellipse: s-maj=32.4km s-min=16.6km az=53.0*

ISC 28 12:09:52.7±0.6**, 8.21N**±0.09×**93.7E**±0.1**, h33**^{km}**, n22,** σ**1^{s}07**/21**, mb4.2**/16**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.37	26	Pn	P	12 12 34.6	-1.4
	0.3nm,0.3s,baz=213,slow=14,SNR=15						
CHG	Chiang Mai	11.69	25	PG	P	12 12 56.1	+16
PKI	Pulchoki	20.80	339	eP	P	12 14 34.0	+0.2
	41nm,1.0s						
DMN	Daman	20.95	338	eP	P	12 14 34.9	-0.4
	39nm,1.0s						
GUN	Gumba	20.95	340	eP	P	12 14 35.8	+0.5
	80nm,1.2s						
KKN	Kakani	21.05	339	eP	P	12 14 36.1	-0.2
	33nm,0.8s,mb4.7						
GKN	Gorkha	21.48	338	eP	P	12 14 39.3	-1.3
	43nm,0.8s,mb4.8						
KOLN	Koldanda	21.69	335	eP	P	12 14 41.7	-1.0
	60nm,1.3s,mb4.8						
SONM	Songino Array	40.92	13	P	P	12 17 35.3	+1.7
	0.7nm,0.9s,mb3.3,baz=194,slow=5.9,SNR=2.3						
NWAO	Narrogin (SRO)	46.63	153	P	P	12 18 18.2	-1.8
	14nm,0.7s,mb5.0,baz=345,slow=9.7,SNR=8.9						
BVAR	Borovoye Array	48.54	341	P	P	12 18 33.5	-1.1
	0.4nm,0.6s,mb3.6,baz=130,slow=11,SNR=3.4						
WRA	Warramunga Arr	48.78	126	P	P	12 18 36.9	0.0
	1.1nm,0.5s,mb4.2,baz=304,slow=8.7,SNR=22						
WRA				PcP	PcP	12 20 06.3	+4.5
	0.3nm,0.5s,baz=306,slow=3.7,SNR=3.1						
ASAR	Alice Springs	50.44	130	P	P	12 18 48.7	-0.9
	1.3nm,0.7s,mb4.1,baz=302,slow=8.0,SNR=12						
ASAR				PcP	PcP	12 20 08.8	+1.0
	0.5nm,0.5s,baz=307,slow=3.4,SNR=6.0						
PMG	Port Moresby	56.01	107	P	P	12 19 33.1	+2.1
	11nm,1.0s,mb4.8,baz=277,slow=8.1,SNR=2.9						
KMBO	Kilima Mbogo	57.06	263	P	P	12 19 38.1	-0.4
	0.6nm,0.3s,mb4.1,baz=60,slow=16,SNR=3.4						
BRTR	Keskin Array B	61.91	311	P	P	12 20 11.5	0.0
	0.8nm,0.7s,mb4.0,baz=126,slow=11,SNR=4.2						
FINES	FINESS Array B	72.23	332	P	P	12 21 17.1	+1.0
	1.2nm,0.7s,mb4.0,baz=90,slow=5.7,SNR=4.7						
GERES	GERESS Array B	77.31	318	P	P	12 21 47.3	+1.5
	0.6nm,0.7s,mb3.6,baz=63,slow=6.0,SNR=4.0						
HFS	Hagfors	77.97	330	P	P	12 21 50.2	+1.1
	1.8nm,0.6s,mb4.2,baz=117,slow=6.4,SNR=6.5						
NB2	NORSAR Subarra	79.24	331	P	P	12 21 56.7	+0.6
	5.4nm,1.1s,mb4.4,baz=93,slow=5.6						
ILAR	Eielson Array	94.58	22	P	P	12 23 16.3	+5.4
	0.4nm,0.8s,mb3.9,baz=309,slow=5.8,SNR=4.5						
PDAR	Pinedale Array	125.00	21	PKP	PKPdf	12 28 52.1	+2.0
	0.5nm,0.9s,baz=297,slow=2.0,SNR=2.9						

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*IDC **28** 12:13:58.7±0.5, 24.51S×177.22W, h144^{km}±4^{km}, mb4.2/16, mb1 4.3/18, mb1mx4.3/22, mbtmp4.6/18, MS3.9/2, Ms1 3.9/2, ms1mx3.3/27, Error ellipse: s-maj=14.6km s-min=11.1km az=161.0*

ISC 28 12:13:57.4±0.5**, 25.10S**±0.04×**177.15W**±0.08**, h142**^{km}**, h142**^{km}±1.1^{km}**:pP-P, n71,** σ**1^{s}57**/52**, mb4.3**/15**, 5C, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MXZ	Matakaoa Point	13.01	196	S	S	12 19 18.7	-1.1
PUZ	Puketiti	13.51	196	eP	P	12 17 06.2	+2.0
PUZ				S	S	12 19 30.4	-0.9
MWZ	Matawai	13.95	198	eP	P	12 17 12.6	+2.8
URZ	Urewera	13.99	199	P	P	12 17 18.2	+7.8
	5.5nm,0.3s,baz=295,slow=4.2,SNR=26						
URZ				S	S	12 19 43.8	+1.3
	9.3nm,0.3s,baz=325,slow=23,SNR=17						
URZ	Urewera	13.99	199	eP	P	12 17 12.4	+2.0
KNZ	Kokohu	14.55	196	S	S	12 19 55.5	+0.2
BKZ	Black Stump Fm	15.02	199	eP	P	12 17 24.8	+1.4
DZM	Mont Dzumac	15.34	278	eP	P	12 17 30.9	+3.3
NOUC	Port Laguerre	15.46	278	eP	P	12 17 33.1	+4.1
PWZ	Pawanui	15.71	197	S	S	12 20 16.5	-5.2
TSZ	Takapari Road	16.00	200	eP	P	12 17 37.8	+2.2
RAR	Rarotonga	16.44	80	P	P	12 17 41.3	+0.1
	1.4nm,0.3s,baz=237,slow=20,SNR=9.3						
RAR				S	S	12 20 24.9	-13
	1.4nm,0.3s,baz=54,slow=18,SNR=5.2						
RAR				LR	LR	12 22 28.0	
	comp=Z,348nm,20.9s,baz=268,slow=31						
BFZ	Birch Farm	16.49	198	eP	P	12 17 41.7	0.0
BFZ				S	S	12 20 34.4	-4.8
MRZ	Mangatainoka R	16.66	200	eP	P	12 17 43.3	-0.6
MRZ				S	S	12 20 37.5	-5.7
KIW	Kapiti Island	17.06	201	S	S	12 20 49.2	-2.8
MTW	Mount Morrison	17.14	199	S	S	12 20 50.7	-3.2
CAW	Cannon Point	17.23	200	eP	P	12 17 51.5	+0.8
MRW	Makara Radio	17.46	201	S	S	12 20 58.9	-2.0
BHW	Baring Head	17.56	200	S	S	12 20 59.9	-3.4
QRZ	Quartz Range	17.89	206	S	S	12 21 12.4	+1.9
NNZ	Nelson	17.90	204	eP	P	12 17 57.4	-1.3
NNZ				S	S	12 21 10.2	-0.5
THZ	Tophouse	18.55	204	eP	P	12 18 05.8	+0.1
THZ				S	S	12 21 23.1	-1.4
MQZ	McQueen's Vall	20.35	202	S	S	12 22 00.1	+0.9
RPZ	Rata Peaks	20.93	205	P	P	12 18 34.1	+4.0
	9.9nm,0.4s,baz=98,slow=3.3,SNR=9.3						
RPZ				S	S	12 22 13.4	+3.5
	11nm,0.6s,baz=349,slow=17,SNR=7.9						
CTA	Charters Tower	34.09	271	P	P	12 20 30.0	-0.4
	24nm,0.4s,mb5.3,baz=97,slow=10,SNR=92						
STKA	Stephens Creek	36.72	250	P	P	12 20 54.0	+1.4
	9.3nm,0.5s,mb4.7,baz=98,slow=10,SNR=44						
STKA				PcP	PcP	12 23 12.5	0.0
	4.1nm,0.7s,baz=95,slow=8.8,SNR=4.3						
PMG	Port Moresby	37.34	288	P	P	12 20 56.1	-1.8
	38nm,0.9s,mb5.0,baz=112,slow=4.5,SNR=13						
PMG				LR	LR	12 32 13.9	
	comp=Z,203nm,19.7s,baz=1.1,slow=30						
ASAR	Alice Springs	44.41	261	P	P	12 21 55.0	-0.8
	29nm,0.8s,mb5.0,baz=102,slow=8.0,SNR=122						
ASAR				PcP	PcP	12 23 36.6	-0.9
	2.1nm,0.7s,baz=90,slow=2.2,SNR=4.0						
ASAR				S	S	12 28 18.7	-0.2
	0.4nm,0.7s,baz=95,slow=14,SNR=4.7						
WRA	Warramunga Arr	44.92	266	P	P	12 21 58.5	-1.4
	12nm,0.5s,mb4.8,baz=100,slow=6.9,SNR=127						
WRA				PcP	PcP	12 23 38.6	-0.8
	4.8nm,1.0s,baz=104,slow=3.8,SNR=7.1						
WRA				S	S	12 28 24.5	-1.8
	1.0nm,1.0s,baz=104,slow=14,SNR=3.3						
VNDA	Vanda	53.42	186	P	P	12 23 08.0	+3.7
	2.0nm,0.7s,mb4.0,baz=45,slow=5.7,SNR=9.3						
NWAO	Narrogin (SRO)	57.11	246	P	P	12 23 31.4	0.0
	13nm,1.0s,mb4.7,baz=154,slow=3.6,SNR=4.5						
MAW	Mawson	77.52	200	P	P	12 25 41.6	+3.2
	9.6nm,0.7s,mb4.5,baz=143,slow=10,SNR=7.1						
USHA	Ushuaia	79.87	146	P	P	12 25 52.4	+0.9
	11nm,1.0s,mb4.4,baz=200,slow=5.9,SNR=3.8						
SYO	Syowa Base	82.43	193	⇑P	P	12 26 06.0	+1.4
YBH	Yreka Blue Hor	83.40	38	pP	pP	12 26 43.6	-2.4
	2.3nm,0.8s,baz=181,slow=6.5,SNR=5.1						
SNAA	Sanae	83.41	178	⇑i	P	12 26 11.7	+2.2
SNAA	Sanae	83.41	178	e	P	12 26 17.8	+8.3
SNAA	Sanae	83.41	178	e	pP	12 26 49.1	+3.7
SNAA	Sanae	83.41	178	P	P	12 26 12.1	+2.6
	5.6nm,0.9s,mb4.3,baz=200,slow=4.2,SNR=20						
SNAA				pP	pP	12 26 49.1	+3.7
	1.8nm,0.9s,baz=192,slow=2.8,SNR=3.2						
VNA3	Neumayer Olymp	83.52	176	⇑i	PcP	12 26 15.4	+1.1
VNA3	Neumayer Olymp	83.52	176	e	tx	12 26 21.9	
VNA3	Neumayer Olymp	83.52	176	e	pP	12 26 52.6	+6.7
NVAR	Mina Array Bea	83.84	43	P	P	12 26 11.0	-1.3
	0.9nm,0.4s,mb3.9,baz=243,slow=6.0,SNR=2.8						
NVAR				pP	pP	12 26 46.5	-1.8
	5.0nm,1.1s,baz=229,slow=8.3,SNR=3.7						
VNA2	Neumayer--Watz	83.97	177	⇑i	PcP	12 26 18.1	+1.9
VNA2	Neumayer--Watz	83.97	177	e	tx	12 26 24.4	
VNA2	Neumayer--Watz	83.97	177	e	pP	12 26 54.7	+6.6
VNA1	Neumayer--Stat	84.19	176	⇑i	PcP	12 26 19.3	+2.1
VNA1	Neumayer--Stat	84.19	176	e	tx	12 26 26.5	
TXAR	Lajitas Array	88.88	57	P	P	12 26 36.4	-0.6
	0.2nm,0.8s,mb3.1,baz=198,slow=4.0,SNR=4.6						
TXAR				pP	pP	12 27 11.9	-1.5
	3.1nm,1.0s,baz=214,slow=6.5,SNR=14						
ANMO	Albuquerque	89.67	51	P	P	12 26 39.2	-1.4
	0.6nm,0.8s,mb3.6,baz=293,slow=13,SNR=2.6						
ANMO				pP	pP	12 27 15.7	-1.3
	4.0nm,0.9s,baz=207,slow=5.6,SNR=9.7						
PDAR	Pinedale Array	91.77	43	P	P	12 26 47.5	-2.7
	1.0nm,1.2s,mb3.7,baz=270,slow=0.9,SNR=4.5						
PDAR				pP	pP	12 27 24.1	-2.6
	1.7nm,1.0s,baz=207,slow=3.3,SNR=7.1						
PDAR				PKKPbc		12 44 09.2	
	0.3nm,0.6s,baz=72,slow=2.9,SNR=4.0						
ILAR	Eielson Array	92.61	12	P	P	12 26 49.5	-4.0
	0.5nm,0.6s,mb3.8,baz=216,slow=5.3,SNR=11						
ILAR				pP	pP	12 27 26.1	-3.9
	0.6nm,0.6s,baz=214,slow=4.7,SNR=3.7						
YKA	Yellowknife Ar	100.34	25	pP		12 28 03.9	
	0.1nm,0.9s,baz=243,slow=5.5,SNR=2.1						
YKA				PKKPbc		12 43 44.5	
	0.4nm,0.5s,baz=39,slow=2.7,SNR=12						
BVAR	Borovoye Array	123.06	318	PKP	PKPdf	12 32 35.3	-1.5
	1.3nm,0.5s,baz=90,slow=4.4,SNR=4.1						
ARCES	ARCESS Array B	133.57	349	PKP	PKPdf	12 32 55.6	-0.9
	3.4nm,0.7s,baz=63,slow=2.7,SNR=7.4						
NOA	NORSAR Array B	143.62	353	PKhKP		12 33 10.7	
	1.8nm,0.8s,baz=44,slow=4.0,SNR=4.5						
NOA				PKP	PKPdf	12 33 15.1	+0.5
	1.0nm,0.8s,baz=53,slow=5.8,SNR=2.9						
AKASG	Malin Array Be	147.37	328	PKPbc	PKPdf	12 33 21.9	+0.5
	11nm,0.8s,baz=40,slow=3.8,SNR=38						
AKASG				pPKPbc		12 34 01.4	
	11nm,0.7s,baz=39,slow=4.1,SNR=6.2						
ASF	Jabal al Asfar	149.39	291	PKPbc	PKPdf	12 33 31.3	+6.1
	7.3nm,0.6s,baz=107,slow=18,SNR=6.2						
EKA	Eskdalemuir Ar	149.48	7	PKPbc	PKPdf	12 33 29.4	+4.8
	2.3nm,0.8s,baz=342,slow=2.6,SNR=4.3						
BRTR	Keskin Array B	150.37	307	PKPbc	PKPdf	12 33 32.4	+5.9
	5.5nm,0.7s,baz=135,slow=3.5,SNR=19						
BRTR				PKPab	PKPab	12 33 38.9	-2.2
	4.3nm,0.7s,baz=77,slow=3.3,SNR=9.5						
HMDT	Nahal Hemdat	150.54	292	P	PKPdf	12 33 33.9	+7.0
MMLI	Mount Malkishu	150.61	292	P	PKPdf	12 33 34.5	+7.5
PRNI	Paran	151.12	288	P	PKPdf	12 33 35.3	+7.4
EIL	Elat	151.19	286	P	PKPdf	12 33 35.5	+7.5
KOLS	Kolonicke sedl	151.77	332	e	PKPdf	12 33 35.6	+7.4
KOLS				e		12 33 52.5	
KOLS				e		12 34 20.4	
MLR	Muntele Rosu	152.44	323	PKPbc	PKPdf	12 33 36.3	+7.0
	1.7nm,0.6s,baz=74,slow=3.8,SNR=4.2						
CLL	Collm	152.70	346	P	PKPdf	12 33 36.7	+7.2
	logA/T=1.0						
CLL				e	PKPab	12 33 45.0	-5.5
CLL	Collm	152.70	346	P		12 34 15.2	
	logA/T=1.1						
VYHS	Vyhne	153.48	336	e	PKPab	12 33 51.0	-2.8
KHC	Kasperske Hory	154.59	343	eP	PKPdf	12 33 45.0	+13
KHC				ex	PKPab	12 33 55.5	-3.0
DBIC	Dimbokro	160.24	157	PKPab	PKPab	12 34 24.7	+0.9
	4.7nm,1.2s,baz=186,slow=4.7,SNR=5.6						

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*IDC **28** 12:20:39.6±1.4, 2.43N×95.75E, mb4.1/7, mb1 4.2/7, mb1mx4.0/17, mbtmp4.1/7, Error ellipse: s-maj=71.5km s-min=19.2km az=51.0*

ISC 28 12:20:42.6±1.4**, 2.4N**±0.3×**95.8E**±0.4**, h33**^{km}**, n9,** σ**0^{s}58**/7**, mb4.1**/7**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	43.89	122	P	P	12 28 47.7	-0.5
	1.7nm,0.7s,mb3.9,baz=298,slow=9.4,SNR=8.0						
ASAR	Alice Springs	45.27	127	P	P	12 28 58.8	-0.4
	1.0nm,0.7s,mb3.8,baz=306,slow=8.2,SNR=9.0						
SONM	Songino Array	46.14	10	P	P	12 29 05.6	-0.2
	4.4nm,0.9s,mb4.4,baz=191,slow=8.6,SNR=12						
CTA	Charters Tower	54.33	117	P	P	12 30 09.6	+1.0
	3.1nm,1.1s,mb4.2,baz=292,slow=11,SNR=4.2						
BVAR	Borovoye Array	54.62	341	P	P	12 30 10.1	-0.2
	2.3nm,0.7s,mb4.3,baz=143,slow=7.4,SNR=11						
AKASG	Malin Array Be	73.42	323	P	P	12 32 12.9	-0.4
	0.3nm,0.2s,mb3.8,baz=88,slow=4.2,SNR=4.8						
FINES	FINESS Array B	78.25	333	P	P	12 32 41.3	+0.8
	2.2nm,0.8s,mb4.2,baz=90,slow=4.2,SNR=4.6						
ULM	Lac du Bonnet	126.57	9	PKP	PKPdf	12 39 45.9	+3.1
	1.0nm,0.6s,baz=10.0,slow=5.9,SNR=3.3						
TXAR	Lajitas Array	143.32	29	PKhKP		12 40 13.5	
	0.3nm,0.8s,baz=45,slow=3.8,SNR=3.7						

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*IDC **28** 12:21:05.3±0.8, 13.87N×93.20E, mb4.0/11, mb1 4.2/12, mb1mx4.1/19, mbtmp4.0/12, ML4.1/1, Error ellipse: s-maj=28.5km s-min=16.6km az=55.0*

ISC 28 12:21:08.1±0.6**, 13.95N**±0.07×**93.20E**±0.06**, h33**^{km}**, n19,** σ**0^{s}89**/20**, mb4.0**/11**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.11**	**50**	Pn	**Pn**	**12 22 52.5**	**-0.1**
	0.9nm,0.3s,baz=241,slow=15,SNR=61						
CMAR				Sn	**Sn**	**12 24 13.1**	**+0.1**
	0.5nm,0.3s,baz=241,slow=28,SNR=4.6						
CHG	**Chiang Mai**	**7.33**	**48**	SG	**S**	**12 24 18.4**	**-0.1**
PKI	**Pulchoki**	**15.38**	**333**	*e*P	**P**	**12 24 43.6**	**-0.8**
	10.0nm,0.3s						
GUN	**Gumba**	**15.48**	**335**	*e*P	**P**	**12 24 45.9**	**+0.3**
	18nm,0.6s						
DMN	**Daman**	**15.55**	**332**	*e*P	**P**	**12 24 45.2**	**-1.3**
	11nm,0.5s						
KKN	**Kakani**	**15.62**	**333**	*e*P	**P**	**12 24 45.8**	**-1.8**
GKN	**Gorkha**	**16.10**	**332**	*e*P	**P**	**12 24 48.3**	**-5.3**
	8.2nm,0.2s						
KOLN	**Koldanda**	**16.41**	**328**	*e*P	**P**	**12 24 56.8**	**-0.7**
	26nm,0.9s						
SONM	**Songino Array**	**35.52**	**15**	P	**P**	**12 28 04.9**	**+1.0**
	2.3nm,1.0s,mb4.1,baz=203,slow=9.4,SNR=8.6						
NWAO	**Narrogin (SRO)**	**51.96**	**154**	P	**P**	**12 30 15.3**	**-0.9**
	6.8nm,0.9s,mb4.6,baz=330,slow=8.1,SNR=3.7						
WRA	**Warramunga Arr**	**52.65**	**129**	P	**P**	**12 30 20.7**	**-0.9**
	1.6nm,0.9s,mb4.0,baz=314,slow=8.3,SNR=7.7						
WRA				PcP	PcP	12 31 33.4	+2.1
	0.4nm,0.4s,baz=322,slow=3.1,SNR=7.8						
ASAR	**Alice Springs**	**54.60**	**133**	P	**P**	**12 30 35.4**	**-0.5**
	1.4nm,0.6s,mb4.2,baz=307,slow=6.9,SNR=19						
BRTR	**Keskin Array B**	**57.87**	**308**	P	**P**	**12 31 00.0**	**+0.9**
	0.4nm,0.3s,mb3.9,baz=108,slow=4.6,SNR=2.1						
MLR	**Muntele Rosu**	**64.26**	**314**	P	**P**	**12 31 42.4**	**+0.1**
	1.5nm,0.7s,mb4.1,baz=60,slow=8.1,SNR=2.1						
FINES	**FINESS Array B**	**66.96**	**331**	P	**P**	**12 31 59.4**	**+0.2**
	2.4nm,1.0s,mb4.2,baz=124,slow=5.0,SNR=2.9						
ARCES	**ARCESS Array B**	**69.28**	**340**	P	**P**	**12 32 14.6**	**+1.0**
	3.3nm,0.9s,mb4.2,baz=97,slow=7.3,SNR=3.0						
GERES	**GERESS Array B**	**72.74**	**317**	P	**P**	**12 32 36.4**	**+1.7**
	0.7nm,0.6s,mb3.8,baz=79,slow=6.8,SNR=6.8						
NOA	**NORSAR Array B**	**74.03**	**330**	P	**P**	**12 32 42.8**	**+0.8**
	0.5nm,0.8s,mb3.5,baz=113,slow=4.2,SNR=2.9						
ILAR	**Eielson Array**	**89.49**	**22**	P	**P**	**12 34 03.9**	**+1.1**
	0.8nm,0.8s,mb4.1,baz=296,slow=4.0,SNR=4.4						

IDC 28 12:23:27.9±1.7**,5.42N×94.58E,mb3.8**/4**,mb1 4.0**/4**,**
mb1mx3.8/16**,mbtmp3.8**/4**,Error ellipse: s-maj=75.9km**
s-min=27.9km az=54.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.64**	**18**	Pn	P	12 26 48.4	+3.1
	0.5nm,0.3s,baz=209,slow=14,SNR=4.4						
SONM	**Songino Array**	**43.46**	**12**	P	P	12 31 32.9	-1.5
	1.1nm,0.7s,baz=192,slow=9.2,SNR=4.2						
WRA	**Warramunga Arr**	**46.51**	**124**	P	P	12 31 57.4	-1.8
	1.0nm,0.6s,baz=304,slow=9.2,SNR=6.2						
ASAR	**Alice Springs**	**48.03**	**129**	P	P	12 32 09.1	-2.0
	0.6nm,0.6s,baz=303,slow=7.3,SNR=4.1						
GERES	**GERESS Array B**	**79.94**	**319**	P	P	12 35 39.0	-1.4
	0.8nm,0.6s,baz=100,slow=6.0,SNR=4.4						
TXAR	**Lajitas Array**	**141.25**	**26**	PKP	PKPdf	12 43 00.2	-3.0
	0.2nm,0.5s,baz=288,slow=2.9,SNR=4.5						

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*IDC **28** 12:27:27.3±0.9,17.30N×93.02E,mb4.0/7,mb1 4.2/8,*
mb1mx4.0/17,mbtmp4.0/8,ML4.5/1,Error ellipse:
s-maj=30.2km s-min=16.6km az=32.0
ISC 28 12:27:27.2±3.5**,17.6N**±0.1×**93.01E**±0.07**,h15**^{km}±23^{km}**,**
n16,σ**1**^{s}.**30**/17**,mb3.9**/7**,1C,Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**5.71**	**81**	Pn	**Pn**	**12 28 54.5**	**+1.0**
	3.0nm,0.3s,baz=262,slow=15,SNR=24						
CMAR				Sn	**Sn**	**12 29 59.7**	**+0.2**
	2.4nm,0.3s,baz=262,slow=31,SNR=8.6						
CMAR				Lg		12 30 31.8	
	7.5nm,0.3s,baz=253,slow=28,SNR=12						
CHG	**Chiang Mai**	**5.76**	**77**	⇑P	**Sn**	**12 29 58.3**	**-2.6**
	58nm,1.0s						
NST	**Nakhon Sawan**	**7.09**	**105**	P	**Pn**	**12 29 14.0**	**+1.0**
PKI	**Pulchoki**	**12.15**	**326**	*e*P	**P**	**12 30 21.5**	**-1.3**
	21nm,0.4s						
GUN	**Gumba**	**12.19**	**329**	*e*P	**P**	**12 30 23.3**	**0.0**
	22nm,0.4s						
DMN	**Daman**	**12.35**	**325**	*e*P	**P**	**12 30 24.6**	**-0.8**
	28nm,0.5s						
KKN	**Kakani**	**12.39**	**326**	*e*P	**P**	**12 30 25.4**	**-0.7**
GKN	**Gorkha**	**12.91**	**325**	*e*P	**P**	**12 30 31.4**	**-1.5**
	22nm,0.4s						
KOLN	**Koldanda**	**13.33**	**321**	*e*P	**P**	**12 30 38.2**	**-0.3**
	29nm,0.5s						
WRA	**Warramunga Arr**	**55.12**	**131**	P	**P**	**12 37 00.8**	**-0.7**
	1.6nm,0.5s,mb4.3,baz=306,slow=8.5,SNR=19						
ASAR	**Alice Springs**	**57.24**	**134**	P	**P**	**12 37 14.7**	**-2.0**
	0.4nm,0.5s,mb3.7,baz=305,slow=6.9,SNR=7.7						
FINES	**FINESS Array B**	**63.70**	**330**	P	**P**	**12 38 01.8**	**+1.7**
	0.9nm,0.5s,mb4.0,baz=104,slow=6.3,SNR=9.4						
ARCES	**ARCESS Array B**	**65.82**	**339**	P	**P**	**12 38 15.3**	**+1.6**
	5.4nm,1.0s,mb4.5,baz=90,slow=6.3,SNR=5.1						
STKA	**Stephens Creek**	**67.74**	**136**	P	**P**	**12 38 25.1**	**-1.5**
	1.4nm,0.8s,mb4.0,baz=335,slow=14,SNR=2.4						
GERES	**GERESS Array B**	**69.97**	**316**	P	**P**	**12 38 43.5**	**+3.5**
	0.3nm,0.5s,mb3.5,baz=90,slow=4.9,SNR=8.5						
NOA	**NORSAR Array B**	**70.81**	**329**	P	**P**	**12 38 46.6**	**+1.7**
	0.4nm,0.6s,mb3.5,baz=85,slow=6.1,SNR=2.6						

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*IDC **28** 12:29:54.0±1.0,5.36N×93.29E,mb4.1/10,mb1 4.3/11,*
mb1mx4.1/20,mbtmp4.1/11,Error ellipse: s-maj=49.0km
s-min=17.9km az=51.0
ISC 28 12:29:57.4±0.8**,5.4N**±0.1×**93.4E**±0.2**,h33**^{km}**,n12,**
σ**0**^{s}.**44**/11**,mb4.1**/10**,Off west coast of northern**
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.07**	**22**	Pn	**P**	**12 33 16.7**	**+0.1**
	baz=228,slow=14,SNR=3.3						
SONM	**Songino Array**	**43.73**	**13**	P	**P**	**12 38 01.5**	**+0.2**
	0.6nm,0.5s,mb3.6,baz=192,slow=8.0,SNR=4.8						
SONM				PcP	PcP	12 39 48.3	0.0
	0.9nm,0.6s,baz=192,slow=2.4,SNR=4.7						
WRA	**Warramunga Arr**	**47.48**	**123**	P	**P**	**12 38 31.5**	**0.0**
	5.0nm,0.8s,mb4.5,baz=301,slow=9.1,SNR=13						
ASAR	**Alice Springs**	**48.94**	**128**	P	**P**	**12 38 42.8**	**0.0**
	1.3nm,0.8s,mb4.0,baz=295,slow=8.0,SNR=6.5						
BVAR	**Borovoye Array**	**51.10**	**342**	P	**P**	**12 38 58.3**	**-0.5**
	1.3nm,0.7s,mb4.0,baz=135,slow=6.3,SNR=6.1						
STKA	**Stephens Creek**	**58.97**	**132**	P	**P**	**12 39 56.1**	**-0.1**
	2.3nm,0.9s,mb4.2,baz=290,slow=12,SNR=3.2						
MLR	**Muntele Rosu**	**70.43**	**316**	P	**P**	**12 41 10.9**	**+0.6**
	1.5nm,0.6s,mb4.1,baz=135,slow=14,SNR=3.5						
FINES	**FINESS Array B**	**74.55**	**333**	P	**P**	**12 41 33.5**	**-0.9**
	2.0nm,0.9s,mb4.0,baz=124,slow=6.9,SNR=6.9						
ARCES	**ARCESS Array B**	**77.34**	**340**	P	**P**	**12 41 50.4**	**+0.3**
	7.3nm,1.1s,mb4.5,baz=76,slow=5.0,SNR=6.0						
GERES	**GERESS Array B**	**79.18**	**319**	P	**P**	**12 42 01.3**	**+0.6**
	0.9nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=7.8						
HFS	**Hagfors**	**80.22**	**330**	P	**P**	**12 42 05.7**	**-0.3**
	1.7nm,0.6s,mb4.1,baz=164,slow=10,SNR=3.2						
TXAR	**Lajitas Array**	**141.78**	**24**	PKP	PKPdf	12 49 29.1	+2.7
	0.2nm,0.7s,baz=315,slow=1.3,SNR=4.2						

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*CASC **28** 12:30:13.2±2.0,13.27N×89.75W,h34^{km}±15^{km},MD3.6,*
ML4.0
*GCG **28** 12:30:13.9,13.37N×90.00W,MD3.6,ML3.9*
SSS 28 12:30:14.4,13.34N×89.69W,h32^{km}**,MD3.0,ML3.3,**
3C-10D,El Salvador

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SBLS	**San Blas**	**0.50**	**7**	⇓*e*P	Pb	12 30 25.6	+0.6
SBLS				*e*S	Sb	12 30 35.3	+3.1
SNJE	**San Jose**	**0.53**	**8**	⇓*e*P	Pb	12 30 25.9	+0.5
SNJE				*e*S	Sb	12 30 34.2	+1.3
RTR	**El Retiro**	**0.55**	**4**	⇓*e*P	Pb	12 30 26.3	+0.5
RTR				*e*S	Sb	12 30 38.0	+4.4
BOQS	**Boqueron**	**0.56**	**45**	⇓*e*P	Pb	12 30 26.4	+0.5
BOQS				*e*S	Sb	12 30 36.3	+2.7
LFRS	**El Faro**	**0.67**	**65**	⇓*i*P	Pn	12 30 27.6	0.0
LFRS				*e*S	Sb	12 30 39.5	+2.8
LFU	**La Fuente**	**0.69**	**54**	⇓*e*P	Pn	12 30 28.1	+0.3
LFU				*e*S	Sb	12 30 39.3	+2.1
LBRS	**Las Brisas**	**0.74**	**58**	⇓*e*P	Pn	12 30 28.9	+0.3
LBRS				*e*S	Sb	12 30 40.6	+1.9
LCBS	**La Ceiba**	**0.76**	**65**	⇓*e*P	Pn	12 30 28.7	-0.1
LCBS				*e*S	Sb	12 30 40.7	+1.6
RBDL	**Robledal**	**0.77**	**360**	⇑*e*P	Pn	12 30 29.3	+0.2
RBDL				*e*S	Sb	12 30 41.9	+2.5
SNVI	**San Vicente**	**0.87**	**72**	⇑*e*P	Pn	12 30 30.4	0.0
SNVI				*e*S	Sn	12 30 43.6	+1.6
MTO2	**Montecristo 2**	**1.10**	**17**	⇓*e*P	Pn	12 30 33.4	-0.3
MTO2				*e*S	Sn	12 30 49.0	+1.0
IXG	**Ixpaco**	**1.12**	**318**	⇓*e*P	Pn	12 30 32.4	-1.7
IXG				*e*S	Sn	12 30 46.5	-1.9
IXG				AML	AML	12 30 49.6	
	comp=E,6μm,0.3s						
NBG	**Las Nubes**	**1.40**	**333**	⇑*e*P	Pn	12 30 37.5	-0.5
NBG				*e*S	Sn	12 30 57.3	+1.8
NBG				AML	AML	12 31 01.8	
	comp=N,2μm,0.3s						
BLLM	**Bellamira**	**1.41**	**86**	*e*P	Pn	12 30 37.9	-0.4
BLLM				*e*S	Sn	12 30 57.4	+1.5
CAHU	**Cacacuatique**	**1.50**	**73**	*e*P	Pn	12 30 38.3	-1.1
JAT	**Jato**	**2.13**	**297**	*e*P	Pn	12 30 46.8	-1.8
JAT				*e*S	Sn	12 31 12.3	-1.9

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*IDC **28** 12:31:53.5±0.8,7.20N×93.72E,mb4.3/11,mb1 4.4/11,*
mb1mx4.2/20,mbtmp4.3/11,Error ellipse: s-maj=48.1km
s-min=17.4km az=43.0
ISC 28 12:31:56.6±0.7**,7.1N**±0.2×**93.7E**±0.2**,h33**^{km}**,n11,**
σ**0**^{s}.**44**/11**,mb4.3**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.18**	**125**	P	**P**	**12 40 36.2**	**+0.1**
	3.8nm,0.7s,mb4.5,baz=304,slow=9.1,SNR=14						
BVAR	**Borovoye Array**	**49.55**	**342**	P	**P**	**12 40 46.3**	**+0.1**
	0.6nm,0.6s,mb3.8,baz=117,slow=6.4,SNR=3.2						
ASAR	**Alice Springs**	**49.77**	**129**	P	**P**	**12 40 48.1**	**-0.2**
	1.8nm,0.5s,mb4.4,baz=301,slow=7.4,SNR=14						
ASAR				PcP	PcP	12 42 09.6	+0.4
	0.5nm,0.6s,baz=315,slow=3.8,SNR=3.1						
KMBO	**Kilima Mbogo**	**56.94**	**264**	P	**P**	**12 41 41.7**	**+0.2**
	1.3nm,0.7s,mb4.1,baz=45,slow=13,SNR=4.1						
BRTR	**Keskin Array B**	**62.60**	**311**	P	**P**	**12 42 18.8**	**-1.2**
	1.5nm,0.7s,mb4.2,baz=129,slow=7.9,SNR=7.0						
IDI	**Anoyia**	**68.65**	**305**	P	**P**	**12 42 59.0**	**+0.1**
	4.3nm,0.6s,mb4.5,baz=94,slow=17,SNR=3.8						
MLR	**Muntele Rosu**	**69.41**	**316**	P	**P**	**12 43 03.5**	**+0.2**
	3.9nm,0.8s,mb4.4,baz=172,slow=6.8,SNR=6.6						
FINES	**FINESS Array B**	**73.17**	**332**	P	**P**	**12 43 25.4**	**-0.2**
	2.2nm,0.8s,mb4.2,baz=108,slow=6.0,SNR=6.3						
ARCES	**ARCESS Array B**	**75.81**	**340**	P	**P**	**12 43 40.8**	**+0.1**
	5.7nm,0.9s,mb4.5,baz=72,slow=7.7,SNR=4.9						
GERES	**GERESS Array B**	**78.10**	**318**	P	**P**	**12 43 54.6**	**+0.7**
	4.8nm,1.1s,mb4.3,baz=90,slow=5.3,SNR=12						
HFS	**Hagfors**	**78.88**	**330**	P	**P**	**12 43 58.2**	**+0.2**
	1.5nm,0.6s,mb4.1,baz=169,slow=7.3,SNR=4.4						

IDC 28 12:35:40.1±2.9**,2.34N×95.57E,mb3.9**/3**,mb1 4.0**/4**,**
mb1mx3.7/17**,mbtmp3.8**/4**,ML2.8**/1**,Error ellipse:**
s-maj=96.2km s-min=31.8km az=60.0,Off west coast of
northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**16.36**	**11**	Pn	P	12 39 32.8	-0.1
	0.0nm,0.3s,baz=199,slow=12,SNR=6.4						
WRA	**Warramunga Arr**	**44.01**	**122**	P	P	12 43 49.8	-1.7
	0.8nm,0.9s,baz=300,slow=9.1,SNR=3.6						
SONM	**Songino Array**	**46.28**	**10**	P	P	12 44 07.1	-2.1
	1.8nm,0.8s,baz=189,slow=8.3,SNR=12						
BVAR	**Borovoye Array**	**54.66**	**342**	P	P	12 45 10.6	-2.4
	1.2nm,0.6s,baz=143,slow=7.4,SNR=6.3						

IDC 28 12:40:42.4±10.0**,4.28N×96.10E,mb3.4**/3**,mb1 3.7**/3**,**
mb1mx3.5/15**,mbtmp3.4**/3**,Error ellipse:**
s-maj=368.5km s-min=30.6km az=68.0,Northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**44.29**	**10**	P	P	12 48 53.9	-1.7
	0.4nm,0.8s,baz=197,slow=7.5,SNR=2.9						
WRA	**Warramunga Arr**	**44.63**	**124**	P	P	12 48 57.3	-1.4
	0.5nm,0.4s,baz=302,slow=9.0,SNR=9.7						
ASAR	**Alice Springs**	**46.15**	**129**	P	P	12 49 08.4	-2.4
	0.4nm,0.7s,baz=304,slow=7.8,SNR=5.6						

IDC 28 12:45:48.5±4.7**,8.42N×94.05E,mb3.5**/3**,mb1 3.7**/4**,**
mb1mx3.6/17**,mbtmp3.5**/4**,ML3.5**/1**,Error ellipse:**
s-maj=136.1km s-min=29.7km az=78.0,Nicobar Islands
region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.05**	**25**	Pn	P	12 48 28.9	-2.1
	0.1nm,0.3s,baz=211,slow=15,SNR=5.7						
SONM	**Songino Array**	**40.66**	**13**	P	P	12 53 29.8	-2.2
	0.6nm,1.1s,baz=188,slow=10,SNR=2.8						
WRA	**Warramunga Arr**	**48.65**	**126**	P	P	12 54 35.2	-1.3
	0.6nm,0.7s,baz=304,slow=8.9,SNR=5.8						
ASAR	**Alice Springs**	**50.33**	**130**	P	P	12 54 46.9	-2.5
	0.5nm,0.6s,baz=310,slow=7.0,SNR=6.4						

IDC 28 12:51:56.4±2.4**,49.28S×162.22E,mb4.0**/3**,mb1 4.3**/3**,**
mb1mx3.9/8**,mbtmp4.0**/3**,MS3.7**/1**,Ms1 3.7**/1**,**
ms1mx2.3/14**,Error ellipse: s-maj=285.1km**
s-min=54.2km az=37.0,Auckland Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MRZ	**Mangatainoka R**	**12.78**	**53**	S	S	12 57 10.2	-16
BFZ	**Birch Farm**	**13.12**	**54**	S	S	12 57 09.9	-24
ASAR	**Alice Springs**	**33.88**	**309**	P	P	12 58 41.6	-1.2
	1.4nm,0.7s,baz=142,slow=8.0,SNR=14						
WRA	**Warramunga Arr**	**36.79**	**313**	P	P	12 59 05.0	-2.6
	2.0nm,0.9s,baz=148,slow=9.2,SNR=11						
PMG	**Port Moresby**	**41.69**	**337**	LR	LR	13 15 12.3	
	comp=Z,104nm,20.4s,baz=220,slow=34						
CMAR	**Chiang Mai Arr**	**87.61**	**302**	P	P	13 04 46.0	-1.8
	1.3nm,0.9s,baz=158,slow=3.8,SNR=7.2						
ARCES	**ARCESS Array B**	**151.06**	**330**	PKPbc	PKPdf	13 11 50.2	+4.6
	3.3nm,0.8s,baz=63,slow=2.0,SNR=6.3						
FINES	**FINESS Array B**	**152.83**	**313**	PKPbc	PKPdf	13 11 53.5	+5.0
	2.5nm,0.9s,baz=127,slow=6.9,SNR=2.5						

IDC 28 12:56:30.6±6.5**,4.49N×93.88E,mb3.5**/3**,mb1 3.7**/4**,**
mb1mx3.6/17**,mbtmp3.5**/4**,ML3.6**/1**,Error ellipse:**
s-maj=194.4km s-min=30.3km az=73.0,Off west coast
of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.74**	**19**	Pn	P	13 00 01.5	-0.9
	0.1nm,0.3s,baz=229,slow=14,SNR=12						
SONM	**Songino Array**	**44.50**	**12**	P	P	13 04 43.6	-2.0
	0.8nm,1.0s,baz=192,slow=9.2,SNR=5.0						
WRA	**Warramunga Arr**	**46.59**	**123**	P	P	13 04 59.4	-3.1
	0.9nm,0.7s,baz=301,slow=8.9,SNR=6.1						
ASAR	**Alice Springs**	**48.01**	**128**	P	P	13 05 13.3	-0.4
	0.3nm,0.7s,baz=296,slow=7.7,SNR=4.1						

IDC 28 12:58:34.3±2.5**,2.64N×95.34E,mb3.6**/4**,mb1 3.8**/5**,**
mb1mx3.7/18**,mbtmp3.7**/5**,ML3.9**/1**,Error ellipse:**
s-maj=91.9km s-min=24.5km az=61.0,Off west coast of
northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**16.11**	**12**	Pn	P	13 02 24.4	+0.5
	0.2nm,0.3s,baz=201,slow=12,SNR=16						
WRA	**Warramunga Arr**	**44.37**	**122**	P	P	13 06 46.2	-2.4
	0.5nm,0.7s,baz=300,slow=9.2,SNR=4.7						
ASAR	**Alice Springs**	**45.74**	**127**	P	P	13 06 58.4	-1.0
	0.3nm,0.5s,baz=301,slow=8.2,SNR=4.1						
SONM	**Songino Array**	**46.02**	**10**	P	P	13 06 58.9	-2.4
	0.9nm,0.7s,baz=189,slow=9.3,SNR=6.5						
BVAR	**Borovoye Array**	**54.30**	**342**	P	P	13 08 02.2	-2.3
	1.2nm,0.6s,baz=135,slow=8.4,SNR=8.6						

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*PRU **28** 13:01:30.7,50.19N×19.10E*
WAR 28 13:01:30.6,50.10N×19.18E,h0^{km}**,ML2.4,Mining**
Induced,Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	**Ojcow**	**0.41**	**73**	*e*PG	Pg	13 01 38.0	-0.9
OJC				*e*SG	Sg	13 01 45.0	+0.6
OJC	**Ojcow**	**0.41**	**73**	*e*Pg	Pg	13 01 38.3	-0.6
OJC				*e*Sg	Sg	13 01 44.6	+0.2
OKC	**Ostrava-Krasne**	**0.72**	**249**	*e*PG	Pg	13 01 43.6	-1.3
OKC				*e*SG	Sg	13 01 53.9	-0.6
NIE	**Niedzica**	**1.00**	**133**	*e*PG	Pg	13 01 50.0	-0.6
NIE				*e*SG	Sg	13 02 04.0	0.0
NIE	**Niedzica**	**1.00**	**133**	*e*Pg	Pg	13 01 49.7	-0.9
NIE				*e*Sg	Sg	13 02 04.2	+0.2
LIKS	**Likavka**	**1.05**	**183**	*e*PN	Pn	13 01 51.6	-0.8
KOLL	**Kolacno**	**1.61**	**199**	*e*SN	Sn	13 02 21.3	-0.8
VYHS	**Vyhne**	**1.63**	**188**	*i* PN	Pn	13 01 59.1	-1.5
DPC	**Dobruska-Polom**	**1.85**	**279**	*e*PG	Pg	13 02 03.4	-4.2
DPC				*e*SG	Sg	13 02 28.4	-3.9
CRVS	**Cervenica-Dubn**	**1.91**	**128**	*e*PN	Pn	13 02 06.1	+1.4
CRVS				*e*SN	Sn	13 02 31.6	+1.8
KSP	**Ksiaz**	**1.99**	**293**	*e*PG	Pg	13 02 08.0	-2.3
KSP				*e*SN	Sn	13 02 32.0	+0.3
UPC	**Upice**	**2.07**	**282**	*e*SG	Sg	13 02 36.1	-3.5
PRU	**Pruhonice**	**2.99**	**270**	*e*SG	Sg	13 03 03.8	-6.4
KHC	**Kasperske Hory**	**3.77**	**257**	*e*PG	Pg	13 02 40.5	-5.4
KHC				*e*SG	Sg	13 03 30.0	-6.1

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*BJI **28** 13:06:40.0,6.38N×92.94E,h37^{km},mB5.3,mb4.8,Ms4.6,*
Msz4.3
*MOS **28** 13:06:41.5±0.8,6.64N×93.09E,h33^{km},mb5.2/25,*
MS4.3/9,Error ellipse: s-maj=14.3km s-min=8.8km
az=113.2
*IDC **28** 13:06:41.9±0.4,6.80N×93.16E,h19^{km}±2^{km},mb4.5/26,*
mb1 4.6/26,mb1mx4.5/27,mbtmp4.6/26,MS4.1/4,
Ms1 4.1/4,ms1mx3.7/22,Error ellipse: s-maj=20.6km
s-min=8.3km az=41.0
*NEIC **28** 13:06:42.1±0.4,6.70N×93.01E,mb5.0/23,MS4.4/10,*
Error ellipse: s-maj=9.6km s-min=8.2km az=149.0
*SYO **28** 13:06:42.0,6.70N×93.01E,h20^{km},MB5.0,MS4.2*
*HRVD **28** 13:06:42.1±1.4,6.73N×93.01E,h23^{km}±3^{km},MW4.8/22,*
Centroid moment Tensor Solution. LP body waves: s8,c9;
Mantle waves: s22,c32; Half duration: 0 Moment tensor:
Scale 10^{16}Nm; M_{rr}1.07±.35; $M_{\theta\theta}$-0.56±.19; $M_{\phi\phi}$-0.51±.21;
$M_{r\theta}$0.04±.26; $M_{\theta\phi}$1.32±.14; $M_{\phi r}$1.11±.29; Best double
couple: $M_0$1.95×10^{16} NP1:ϕ_s101°,δ43°,λ33°. NP2:ϕ_s345°,
δ68°,λ128°. Principal axes: T 1.85, Plg52°, Azm300°; N .2,
Plg35°, Azm149°; P -2.05, Plg15°, Azm49°; nsta1 refers
to body waves, cutoff=40s. nsta2 refers to surface waves,
cutoff=50s.
ISC 28 13:06:39.9±0.3**,6.60N**±0.04×**92.98E**±0.04**,h20**^{km}**,**
h20^{km}±.3^{km}**:pP-P,n154,**σ**1**^{s}.**07**/158**,mb4.9**/71**,MS4.2**/26**,**
14C-1D,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	**Songkhla**	**7.60**	**85**	P	**Pn**	**13 08 35.0**	**+2.6**
	184nm,1.0s						
CM31	**Chiang Mai Arr**	**13.14**	**26**	*e*P	**P**	**13 09 45.6**	**-2.6**
CM31				*e*		13 09 59.4	
CMAR	**Chiang Mai Arr**	**13.14**	**26**	Pn	**P**	**13 09 48.9**	**+0.7**
	1.5nm,0.3s,baz=226,slow=6.3,SNR=50						
CMAR				LR	LR	13 14 56.9	
	comp=Z,613nm,20.1s,baz=185,slow=38						
CHG	**Chiang Mai**	**13.46**	**25**	⇑P	**P**	**13 09 55.3**	**+2.9**
	29nm,0.8s						
CHG	**Chiang Mai**	**13.46**	**25**	P	Px	13 10 10.0	
	26nm,1.0s						
MDRS	**Chennai**	**14.09**	**298**	*e*P	**P**	**13 09 59.4**	**-1.5**
MDRS				*e*		13 10 00.8	
	comp=Z,185nm,0.6s						
NANT	**Nan**	**14.27**	**31**	P	**P**	**13 10 08.5**	**+5.3**
NANT	**Nan**	**14.27**	**31**	P	**P**	**13 10 08.5**	**+5.3**
VIS	**Vishakhapatnam**	**14.52**	**320**	*e*P	**P**	**13 10 04.4**	**-2.2**
VIS				*e*		13 10 07.8	
	comp=Z,161nm,0.5s						
VIS				*e*S	**S**	**13 12 48.9**	**+1.0**
VIS				*i*		13 14 36.8	
UBT	**Ubonrachathani**	**14.60**	**53**	⇓P	**P**	**13 10 15.0**	**+7.4**
HYB	**Hyderabad**	**17.73**	**309**	*e*P	**P**	**13 10 46.5**	**-1.0**
HYB				*e*S	**S**	**13 13 53.0**	**-9.1**
HYB				pmax	pmax		
	comp=Z,50nm,1.0s						
HYB	**Hyderabad**	**17.73**	**309**	*e*P	**P**	**13 10 46.5**	**-1.0**
	comp=Z,50nm,1.0s						
HYB				*e*S	**S**	**13 13 53.0**	**-9.1**
HYB	**Hyderabad**	**17.73**	**309**	*i* P	**P**	**13 10 46.5**	**-1.0**
	comp=Z,50nm,1.0s						
HYB				*e*		13 13 53.0	
HYB				*e*S	**S**	**13 14 04.0**	**+1.9**
BOK	**Bokaro**	**18.41**	**339**	*e*P	**P**	**13 10 54.5**	**-1.4**
BOK				*e*		13 11 06.4	
	comp=Z,89nm,0.9s						
BLSP	**Bilaspur**	**18.66**	**327**	*e*P	**P**	**13 10 58.4**	**-0.6**
BLSP				*e*		13 11 01.1	
	comp=Z,150nm,0.9s						
BLSP				*i*		13 17 09.0	
BLSP				*i*		13 17 34.1	
QIZ	**Qiongzhong**	**20.54**	**51**	P	**P**	**13 11 20.8**	**+0.8**
QIZ				S	**S**	**13 14 56.8**	**-7.0**
QIZ				LR	LR		
	comp=N,876nm,14.0s						
QIZ				LR	LR		
	comp=Z,791nm,11.4s,MS4.3						
QIZ	**Qiongzhong**	**20.54**	**51**	*e*P	**P**	**13 11 19.9**	**-0.1**
	comp=Z,97nm,1.1s						
QIZ				LR	LR		
	comp=Z,541nm,19.0s,MS3.9						
KMI	**Kunming**	**20.65**	**26**	⇑P	**P**	**13 11 22.5**	**+1.4**
KMI				AP		13 11 26.5	
KMI				PP	PP	13 11 43.5	+0.7
KMI				S	**S**	**13 15 13.5**	**+7.5**
KMI				XS		13 15 20.0	
KMI				SS	SS	13 15 45.0	+8.0
KMI				AMB	AMB		
	comp=Z,46nm,1.0s						
KMI				LR	LR		
	comp=N,615nm,14.7s,MS4.2						
KMI				LR	LR		
	comp=E,525nm,18.7s,MS4.2						
KMI				LR	LR		
	comp=Z,430nm,18.9s,MS3.8						
KAD	**Karad**	**21.22**	**302**	*e*P	**P**	**13 11 26.6**	**-0.4**
KAD				*e*		13 11 31.8	
	comp=E,106nm,0.7s						
KAD				*i*		13 16 27.9	
KAD				*i*		13 17 17.1	
PKI	**Pulchoki**	**22.06**	**342**	*e*P	**P**	**13 11 35.7**	**+0.3**
	comp=E,220nm,0.9s,mb5.6						
POO	**Poona**	**22.09**	**304**	*e*P	**P**	**13 11 35.7**	**0.0**
POO				*e*		13 11 40.9	
	comp=Z,34nm,0.7s						
DMN	**Daman**	**22.19**	**341**	*e*P	**P**	**13 11 37.0**	**+0.3**
	comp=Z,197nm,0.9s,mb5.5						
GUN	**Gumba**	**22.24**	**343**	*e*P	**P**	**13 11 37.7**	**+0.6**
	comp=Z,103nm,0.7s,mb5.4						
KKN	**Kakani**	**22.30**	**342**	*e*P	**P**	**13 11 38.1**	**+0.3**
	comp=Z,123nm,0.7s,mb5.4						
BHPL	**Bhopal**	**22.31**	**319**	*e*P	**P**	**13 11 38.5**	**+0.6**
BHPL				*e*		13 11 44.7	
	comp=Z,51nm,1.6s						
GKN	**Gorkha**	**22.71**	**341**	*e*P	**P**	**13 11 42.4**	**+0.5**
	comp=Z,183nm,0.8s,mb5.6						
KOLN	**Koldanda**	**22.86**	**338**	*e*P	**P**	**13 11 44.3**	**+0.9**
	comp=Z,129nm,0.8s,mb5.4						
LSA	**Lhasa**	**23.04**	**356**	*e*P	**P**	**13 11 46.7**	**+1.6**
LSA				pmax	pmax		
	comp=Z,20nm,0.6s,mb4.7						
LSA				MLR	MLR		
	comp=Z,458nm,21.0s,MS3.9						
LSA	**Lhasa**	**23.04**	**356**	*e*P	**P**	**13 11 46.7**	**+1.6**
	comp=Z,20nm,0.6s,mb4.7						
LSA				LR	LR		
	comp=Z,458nm,21.0s,MS3.9						
GYA	**Guiyang**	**23.66**	**32**	⇑*i*P	**P**	**13 11 52.5**	**+1.3**
GYA				AP		13 11 57.0	
GYA				AMB	AMB		
	comp=Z,60nm,1.1s,mb4.9						
GYA				LR	LR		

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        comp=N,800nm,16.1s,MS4.4
GYA                                     LR        LR
        comp=E,780nm,15.2s,MS4.4
GYA                                     LR        LR
        comp=Z,930nm,17.6s,MS4.3
CD2     Chengdu             26.21  21⇑iP          P         13 12 15.0  -0.4
CD2                                    eS         S         13 16 41.3  -2.9
CD2                                     AMB       AMB
        comp=Z,70nm,1.1s,mb5.1
CD2                                     LR        LR
        comp=E,800nm,12.0s
CD2                                     LR        LR
        comp=Z,480nm,16.8s,MS4.1
ENH     Enshi               28.20  31  eP         P         13 12 32.3  -1.2
        comp=Z,19nm,0.5s,mb5.0
ENH                                     LR        LR
        comp=Z,884nm,20.0s,MS4.3
LZH     Lanzhou             30.99  17  eP         P         13 12 57.8  -0.6
LZH                                     AP        pP        13 13 04.5  +0.2
LZH                                     AMB       AMB
        comp=Z,24nm,1.5s,mb4.8
WHN     Wuhan               31.14  37   P         P         13 12 59.3  -0.4
GTA     Gaotai              33.24  10  eP         P         13 13 18.0   0.0
GTA                                     AP        pP        13 13 24.3  +0.3
GTA                                     PP        PP        13 14 35.0  +5.5
GTA                                     AMB       AMB
        comp=Z,6.0nm,1.2s,mb4.4
NJ2     Nanjing             34.98  40  eP         P         13 13 28.0  -5.1
NJ2                                     S         S         13 18 55.0  -7.9
NJ2                                     AMB       AMB
        comp=Z,20nm,0.7s,mb5.2
NJ2                                     AMB       AMB
        comp=Z,402nm,5.4s
NJ2                                     LR        LR
        comp=N,530nm,16.2s,MS4.7
NJ2                                     LR        LR
        comp=E,780nm,13.4s,MS4.7
NJ2                                     LR        LR
        comp=Z,560nm,14.3s,MS4.5
SSE     Sheshan             35.93  44   P         P         13 13 42.0  +0.8
SSE                                     XP        sP        13 13 54.8  +5.0
SSE                                     S         S         13 19 13.8  -3.8
SSE                                     AMB       AMB
        comp=Z,47nm,0.8s,mb5.5
SSE                                     AMB       AMB
        comp=Z,133nm,4.8s
SSE                                     LR        LR
        comp=N,155nm,21.2s,MS3.9
SSE                                     LR        LR
        comp=E,136nm,21.2s,MS3.9
SSE                                     LR        LR
        comp=Z,135nm,17.1s,MS3.8
KSH     Kashi               36.17 337⇑iP          P         13 13 43.3  +0.2
KSH                                     AP        pP        13 13 49.3  +0.1
KSH                                    ePP        PP        13 15 03.8  -2.1
KSH                                    ePPP       PPP       13 15 23.3  -2.6
KSH                                    ePCP       PcP       13 16 09.8  +0.9
KSH                                     S         S         13 19 20.5  -0.8
KSH                                    ePCS                 13 19 58.3
KSH                                     AMB       AMB
        comp=Z,270nm,7.6s
KSH                                     LR        LR
        comp=N,560nm,7.0s
KSH                                     LR        LR
        comp=E,610nm,7.1s
WMQ     Urumqi              37.36 354 ⇑P          P         13 13 53.8  +0.7
WMQ                                     AP        pP        13 13 59.8  +0.7
WMQ                                     XP        sP        13 14 02.8  +1.1
WMQ                                     PP        PP        13 15 21.3  +0.4
WMQ                                     PPP       PPP       13 15 41.5  -0.1
WMQ                                     S         S         13 19 39.8  +0.4
WMQ                                     AMB       AMB
        comp=Z,6.0nm,0.8s,mb4.5
WMQ                                     LR        LR
        comp=N,125nm,20.3s,MS3.9
WMQ                                     LR        LR
        comp=E,164nm,22.0s,MS3.9
WMQ                                     LR        LR
        comp=Z,137nm,19.7s,MS3.8
HHC     Hu-ho-hao-te        37.93  23  eP         P         13 13 58.5  +0.6
HHC                                     AP        pP        13 14 04.8  +0.9
HHC                                     XP        sP        13 14 07.8  +1.3
HHC                                     PP        PP        13 15 27.3  -0.5
HHC                                     PCP       PcP       13 16 15.5  +1.3
HHC                                     S         S         13 19 47.5  -0.6
HHC                                     SCP                 13 20 00.5
HHC                                     SS        SS        13 22 23.5  -1.3
HHC                                     AMB       AMB
        comp=Z,21nm,1.0s,mb4.8
HHC                                     AMB       AMB
        comp=Z,146nm,4.7s
HHC                                     LR        LR
        comp=N,293nm,15.5s
HHC                                     LR        LR
        comp=E,313nm,21.4s
HHC                                     LR        LR
        comp=Z,373nm,16.6s,MS4.3
ULHL    Ulahol              38.47 340   P         P         13 14 03.1  +0.7
        SNR=13
KZA     Kyzart              38.67 339   P         P         13 14 05.4  +1.3
        SNR=16
UCH     Uchtor              39.07 338   P         P         13 14 08.8  +1.4
        SNR=47
JOW     Kunigami            39.12  55   P         P         13 14 09.4  +1.5
        comp=Z,20nm,0.7s,mb5.0,baz=263,slow=13,SNR=3.0
BJT     Baijiatuau          39.24  29  eP         P         13 14 08.6  -0.3
BJT                                     pmax      pmax
        comp=Z,25nm,0.7s
BJT                                     MLR       MLR
        comp=Z,337nm,20.0s
BJT     Baijiatuau          39.24  29  eP         P         13 14 08.6  -0.3
        comp=Z,25nm,0.7s,mb5.1
BJT                                     LR        LR
        comp=Z,337nm,20.0s,MS4.2
KBK     Karagaybulak        39.29 339   P         P         13 14 10.4  +1.2
        SNR=58
TKM2    Tokmak 2            39.29 340   P         P         13 14 10.0  +0.8
        SNR=12
AML     Almayashu           39.30 337   P         P         13 14 10.9  +1.6
        SNR=101
AAK     Ala-Archa           39.43 338   P         P         13 14 11.8  +1.3
        SNR=24
AAK     Ala-Archa           39.43 338  eP         P         13 14 10.6  +0.2
AAK                                     pmax      pmax
        comp=Z,30nm,0.8s,mb5.1
AAK                                     MLR       MLR
        comp=Z,98nm,19.0s,MS3.7
AAK     Ala-Archa           39.43 338  eP         P         13 14 10.6  +0.1
        comp=Z,30nm,0.8s,mb5.1
AAK                                     LR        LR
        comp=Z,98nm,19.0s,MS3.7
CHMS    Chumysh             39.66 339   P         P         13 14 12.9  +0.6
        SNR=11
EKS2    Erkin-Say           39.72 338   P         P         13 14 14.2  +1.4
        SNR=27
USP     Ospenovka           39.98 339   P         P         13 14 15.6  +0.7
        SNR=33
SONM    Songino Array       42.65  13   P         P         13 14 36.5  -0.3
        comp=Z,2.8nm,0.6s,mb4.2,baz=195,slow=9.1,SNR=21
SONM                                    PcP       PcP       13 16 29.7  +0.4
        comp=Z,2.5nm,0.6s,baz=211,slow=3.3,SNR=7.6
SONM                                    pPcP                13 16 36.1
        comp=Z,3.3nm,0.7s,baz=200,slow=3.9,SNR=5.4
SONM                                    LR        LR        13 34 09.5
        comp=Z,430nm,18.5s,MS4.4,baz=199,slow=39
ULN     Ulaanbaatar         42.84  14  eP         P         13 14 37.6  -0.7
ULN                                     pmax      pmax
        comp=Z,5.0nm,0.8s,mb4.3
ULN                                     MLR       MLR
        comp=Z,489nm,19.1s,MS4.4
ULN     Ulaanbaatar         42.84  14  eP         P         13 14 37.6  -0.7
        comp=Z,4.8nm,0.8s,mb4.3
ULN                                     LR        LR
        comp=Z,489nm,19.1s,MS4.4
ZAK     Zakamensk           44.48   9  eP         P         13 14 55.9  +4.3
ZAK                                    e                    13 16 34.5
NWAO    Narrogin (SRO)      45.57 151   P         P         13 15 00.6   0.0
        comp=Z,8.7nm,0.9s,mb4.7,baz=354,slow=10,SNR=3.4
TLY     Talaya              45.80   9  eP         P         13 14 58.5  -3.6
TLY                                     pmax      pmax
        comp=Z,11nm,1.2s,mb4.7
CN2     Changchun           46.71  32  eP         P         13 15 11.5  +2.1
CN2                                     AMB       AMB
        comp=Z,10.0nm,0.6s,mb4.9
HIA     Hailar              48.14  23  eP         P         13 15 19.8  -0.8
HIA                                     pmax      pmax
        comp=Z,14nm,0.8s
HIA                                     MLR       MLR
        comp=Z,504nm,20.2s
HIA     Hailar              48.14  23  eP         P         13 15 19.8  -0.7
        comp=Z,14nm,0.8s,mb5.0
HIA                                     LR        LR
        comp=Z,504nm,20.2s,MS4.5
WRA     Warramunga Arr      48.48 124   P         P         13 15 23.1  -0.6
        comp=Z,5.3nm,0.7s,mb4.7,baz=303,slow=8.9,SNR=40
WRA                                     PcP       PcP       13 16 49.9  -0.1
        comp=Z,3.0nm,0.8s,baz=309,slow=2.9,SNR=5.7
WRA                                     pPcP                13 16 56.1
        comp=Z,4.1nm,0.8s,baz=308,slow=2.9,SNR=6.5
WRA                                     S         S         13 22 21.8  -0.7
        comp=Z,1.5nm,1.0s,baz=298,slow=18,SNR=4.8
WRAB    Tennant Creek       48.49 124  eP         P         13 15 22.0  -1.7
WRAB    Tennant Creek       48.49 124  eP         P         13 15 23.2  -0.5
        comp=Z,47nm,1.0s,mb5.5
WRAB                                    LR        LR
        comp=Z,105nm,20.0s,MS3.8
NVS     Novosibirsk         48.74 353  i P        P         13 15 23.6  -1.5
NVS                                     pmax      pmax
        comp=Z,22nm,1.2s,mb5.1
NVS                                     pmax      pmax
        comp=N,15nm,1.1s
NVS                                     pmax      pmax
        comp=E,8.0nm,1.1s
MDJ     Mudanjiang          49.50  34   P         P         13 15 31.5  +0.4
MDJ                                     AP        pP        13 15 38.0  +0.7
MDJ                                     PP        PP        13 17 25.3  -0.7
MDJ                                     S         S         13 22 38.8  +2.4
MDJ                                     XS                  13 22 50.0
MDJ                                     AMB       AMB
        comp=Z,13nm,1.4s,mb4.8
MDJ                                     AMB       AMB
        comp=Z,78nm,5.4s
MDJ                                     LR        LR
        comp=N,62nm,20.8s,MS4.0
MDJ                                     LR        LR
        comp=E,121nm,19.0s,MS4.0
MDJ                                     LR        LR
        comp=Z,116nm,18.2s,MS3.9
BVAR    Borovoye Array      49.83 342   P         P         13 15 32.4  -1.1
        comp=Z,8.6nm,0.8s,mb4.8,baz=135,slow=8.4,SNR=44
BVAR                                    pP        pP        13 15 39.5  -0.3
        comp=Z,6.8nm,0.7s,baz=135,slow=8.4,SNR=15
BVAR                                    PcP       PcP       13 16 54.1  -0.3
        comp=Z,2.5nm,0.7s,baz=135,slow=6.3,SNR=3.5
BVAR                                    pPcP                13 17 00.7
        comp=Z,2.3nm,0.7s,baz=146,slow=5.3,SNR=3.7
BRVK    Borovoye            49.89 342  eP         P         13 15 33.1  -0.9
BRVK                                    pmax      pmax
        comp=Z,11nm,0.8s,mb4.9
BRVK                                    MLR       MLR
        comp=Z,25nm,19.0s,MS3.2
BRVK    Borovoye            49.89 342  eP         P         13 15 33.1  -0.9
        comp=Z,10nm,0.8s,mb4.9
BRVK                                    LR        LR
        comp=Z,25nm,19.0s,MS3.2
ASAR    Alice Springs       50.01 128   P         P         13 15 34.9  -0.4
        comp=Z,6.3nm,0.8s,mb4.7,baz=299,slow=7.2,SNR=59
ASAR                                    PcP       PcP       13 16 55.6  +0.2
        comp=Z,4.1nm,0.8s,baz=314,slow=4.1,SNR=5.5
ASAR                                    pPcP                13 17 01.4
        comp=Z,6.5nm,0.7s,baz=308,slow=3.8,SNR=9.5
ASAR                                    S         S         13 22 46.7  +3.0
        comp=Z,0.7nm,1.0s,baz=288,slow=14,SNR=3.0
ASAR                                    LR        LR        13 36 32.1
        comp=Z,104nm,21.9s,MS3.8,baz=182,slow=36
CHKZ    Chkalovo            50.33 343⇑eP          P         13 15 36.8  -0.6
CHKZ                                    pmax      pmax
        comp=Z,25nm,0.8s,mb5.3
CHKZ    Chkalovo            50.33 343⇑eP          P         13 15 36.8  -0.5
        comp=Z,25nm,0.8s,mb5.3
BOD     Bodaibo             53.65  14  eP         P         13 16 01.1  -1.1
GNI     Garni               54.51 315   P         P         13 16 09.1  +0.3
        comp=Z,3.2nm,0.4s,mb4.7,baz=34,slow=10,SNR=8.7
TI2     Plekhanov           55.18 317  i P        P         13 16 12.6  -1.1
CLNS    Chul'man            56.02  21  eP         P         13 16 18.3  -1.2
CLNS                                    pmax      pmax
        comp=N,11nm,0.9s
CLNS                                    pmax      pmax
        comp=Z,20nm,0.9s,mb5.2
CLNS                                    pmax      pmax
        comp=E,10.0nm,1.0s
KMBO    Kilima Mbogo        56.15 264  eP         P         13 16 22.6  +1.6
KMBO                                   e          pP        13 16 28.7  +1.4
KMBO                                    pmax      pmax
        comp=Z,15nm,1.0s
KMBO                                    MLR       MLR
        comp=Z,219nm,19.0s
KMBO    Kilima Mbogo        56.15 264   P         P         13 16 22.9  +1.9
        comp=Z,2.7nm,0.8s,mb4.3,baz=50,slow=11,SNR=8.4
KMBO                                    pP        pP        13 16 29.0  +1.7
        comp=Z,9.7nm,1.0s,baz=60,slow=11,SNR=9.7
KMBO                                    LR        LR        13 39 21.1
        comp=Z,226nm,18.5s,MS4.3,baz=99,slow=35
KMBO    Kilima Mbogo        56.15 264  eP         P         13 16 22.6  +1.5
        comp=Z,15nm,1.0s,mb5.0
KMBO                                   e          pP        13 16 28.7  +1.4
KMBO                                    LR        LR
        comp=Z,219nm,19.0s,MS4.3
SVE     Sverdlovsk          56.16 339  eP         P         13 16 20.0  -0.6
SVE                                     pmax      pmax
        comp=Z,70nm,1.4s,mb5.5
ZEI     Tsey                56.19 318  eP         P         13 16 20.9  -0.1
ZEI                                     pmax      pmax
        comp=Z,5.0nm,0.7s,mb4.7
PMG     Port Moresby        56.27 106   P         P         13 16 21.5  -0.4
        comp=Z,12nm,0.8s,mb5.0,baz=360,slow=3.4,SNR=6.2
PMG                                     pP        pP        13 16 27.8  -0.4
        comp=Z,6.4nm,0.6s,baz=337,slow=16,SNR=2.3
ARU     Arti                56.62 338⇑iP          P         13 16 19.3  -4.5
ARU                                    e                    13 17 12.3
ARU                                    eS         S         13 24 09.8  -3.1
ARU                                    e                    13 26 03.6
ARU                                    eSS        SS        13 27 55.9  -5.6
ARU                                    eSSS       SSS       13 30 16.2  +3.8
ARU                                     pmax      pmax
        comp=Z,21nm,1.1s,mb5.1
ARU     Arti                56.62 338  eP         P         13 16 21.9  -2.0
        comp=Z,26nm,1.0s,mb5.2
ARU                                    e          pP        13 16 28.5  -1.6
KIV     Kislovodsk          57.50 319⇑iP          P         13 16 27.4  -2.9
KIV                                     pmax      pmax
        comp=Z,32nm,1.9s,mb5.0
ASF     Jabal al Asfar      57.95 304   P         P         13 16 35.1  +1.5
        comp=Z,7.5nm,0.7s,mb4.8,baz=336,slow=6.3,SNR=11
ASF                                     pP        pP        13 16 40.9  +1.1
        comp=Z,10nm,0.9s,baz=343,slow=7.1,SNR=5.3
YSS     Yuzh-Sakhalins      58.48  38  eP         P         13 16 32.0  -5.1
CTA     Charters Tower      58.71 118   P         P         13 16 38.8  -0.2
        comp=Z,5.3nm,1.0s,mb4.5,baz=277,slow=7.5,SNR=6.1
CTAO    Charters Tower      58.71 118  eP         P         13 16 37.4  -1.6
CTAO                                    pmax      pmax
        comp=Z,13nm,1.1s,mb4.9
CTAO                                    MLR       MLR
        comp=Z,243nm,20.0s,MS4.3
CTAO    Charters Tower      58.71 118  eP         P         13 16 37.4  -1.6
        comp=Z,13nm,1.1s,mb4.9
CTAO                                    LR        LR
        comp=Z,243nm,20.0s,MS4.3
EIL     Elat                59.07 301   P         P         13 16 42.3  +0.9
        comp=Z,10nm,0.8s,mb4.9,baz=266,slow=2.6,SNR=7.8
EIL                                     pP        pP        13 16 48.6  +0.9
        comp=Z,11nm,0.8s,baz=336,slow=6.9,SNR=6.0
SOC     Sochi               59.32 317  eP         P         13 16 36.6  -6.4
SOC                                    e                    13 17 30.2
SOC                                    e                    13 18 51.4
SOC                                    ePPP       PPP       13 20 15.5  -5.2
SOC                                    eS         S         13 24 39.9  -8.7
SOC                                    eSS        SS        13 28 50.1  +5.1
SOC                                     pmax      pmax
        comp=Z,16nm,1.0s,mb5.0
SOC                                     pmax      pmax
        comp=N,10.0nm,0.8s
SOC                                     pmax      pmax
        comp=E,9.0nm,0.8s
STKA    Stephens Creek      60.08 133   P         P         13 16 48.2  -0.1
        comp=E,4.3nm,0.7s,mb4.6,baz=301,slow=6.0,SNR=9.2
STKA                                    pP        pP        13 16 54.5  -0.2
        comp=E,5.6nm,0.7s,baz=308,slow=14,SNR=5.7
YAK     Yakutsk             61.56  19⇑eP          P         13 16 56.7  -1.3
YAK                                     pmax      pmax
        comp=Z,50nm,1.0s,mb5.6
YAK                                     MLR       MLR
        comp=Z,241nm,22.0s,MS4.3
YAK     Yakutsk             61.56  19⇑eP          P         13 16 56.7  -1.2
        comp=Z,50nm,1.0s,mb5.6
YAK                                     LR        LR
        comp=Z,241nm,22.0s,MS4.3
BRTR    Keskin Array B      62.40 312   P         P         13 17 02.9  -1.1
        comp=Z,4.5nm,0.7s,mb4.7,baz=123,slow=7.7,SNR=25
BRTR                                    pP        pP        13 17 08.6  -1.6
        comp=Z,6.2nm,0.7s,baz=120,slow=7.4,SNR=15
ISP     Isparta             64.33 309  eP         P         13 17 13.0  -3.7
OBN     Obninsk             65.84 328⇑eP          P         13 17 21.9  -4.2
OBN                                     pmax      pmax
        comp=Z,35nm,1.4s,mb5.2
LSZ     Lusaka              67.76 251  eP         P         13 17 39.4  +0.4
LSZ                                     pmax      pmax
        comp=Z,6.0nm,0.9s,mb4.6
LSZ                                     MLR       MLR
        comp=Z,475nm,19.0s,MS4.7
LSZ     Lusaka              67.76 251  eP         P         13 17 39.4  +0.4
        comp=Z,6.2nm,0.9s,mb4.6
LSZ                                     LR        LR
        comp=Z,475nm,19.0s,MS4.7
IDI     Anoyia              68.35 305   P         P         13 17 42.9  +0.5
        comp=Z,9.6nm,0.8s,mb4.9,baz=104,slow=12,SNR=5.1
IDI                                     pP        pP        13 17 48.7  -0.1
        comp=Z,17nm,0.8s,baz=68,slow=10,SNR=4.2
MA2     Magadan             68.42  28  eP         P         13 17 42.2  -0.1
MA2                                    e          pP        13 17 49.9  +1.2
MA2                                     pmax      pmax
        comp=Z,20nm,1.2s,mb5.0
AKASG   Malin Array Be      68.44 322   P         P         13 17 40.5  -2.2
        comp=Z,7.5nm,1.0s,mb4.7,baz=92,slow=4.6,SNR=12
AKASG                                   pP        pP        13 17 47.0  -1.9
        comp=Z,3.4nm,0.7s,baz=91,slow=4.9,SNR=6.2
TIXI    Tiksi               68.70  11⇑iP          P         13 17 43.1  -0.8
TIXI                                    pmax      pmax
        comp=Z,45nm,0.9s,mb5.4
TIXI                                    MLR       MLR
        comp=Z,203nm,19.0s,MS4.4
MLR     Muntele Rosu        69.28 316   P         P         13 17 48.2  +0.3
        comp=Z,12nm,0.9s,mb4.8,baz=105,slow=4.4,SNR=16
MLR                                     pP        pP        13 17 53.4  -0.8
        comp=Z,10nm,1.0s,baz=323,slow=0.8,SNR=7.0
KWP     Kalwaria            72.26 320  eP         P         13 18 05.6  -0.2
KOLS    Kolonicke sedl      72.41 319  eP         P         13 18 06.4  -0.3
KOLS                                   e                    13 46 24.5
LBTB    Lobatse             72.63 241  eP         P         13 18 09.4  +0.8
LBTB                                   e          pP        13 18 15.9  +1.0
LBTB                                    pmax      pmax
        comp=Z,20nm,1.0s,mb5.0
LBTB    Lobatse             72.63 241  eP         P         13 18 09.3  +0.8
        comp=Z,20nm,1.0s,mb5.0
LBTB                                   e          pP        13 18 15.9  +1.0
SUW     Suwalki             72.86 325  eP         P         13 18 08.4  -0.9
FINES   FINESS Array B      73.30 333   P         P         13 18 10.8  -0.9
        comp=Z,6.3nm,0.7s,mb4.7,baz=112,slow=10,SNR=15
FINES                                   pP        pP        13 18 17.1  -1.0
        comp=Z,17nm,1.0s,baz=104,slow=7.9,SNR=10
KAF     Kangasniemi         73.40 333  ep         P         13 18 10.1  -2.2
        comp=Z,9.7nm,0.9s,mb4.7
KAF     Kangasniemi         73.40 333  eP         P         13 18 10.1  -2.2
KAF                                     pmax      pmax
        comp=Z,10.0nm,0.9s,mb4.8
BOSA    Boshof              73.94 238  eP         P         13 18 16.8  +0.7
BOSA                                   e          pP        13 18 23.3  +0.8
BOSA                                    pmax      pmax
        comp=Z,20nm,1.0s,mb5.0
BOSA                                    MLR       MLR
        comp=Z,200nm,20.0s,MS4.4
BOSA    Boshof              73.94 238  eP         P         13 18 16.8  +0.7
        comp=Z,20nm,1.0s,mb5.0
BOSA                                   e          pP        13 18 23.2  +0.8
BOSA                                    LR        LR
        comp=Z,200nm,20.0s,MS4.4
OJC     Ojcow               74.21 320  eP         P         13 18 16.9  -0.3
ZST     Bratislava          75.70 318  eP         P         13 18 26.1  +0.3
ZST                                    epP        pP        13 18 32.1  -0.1
ARCES   ARCESS Array B      76.07 340   P         P         13 18 27.4  -0.2
        comp=Z,4.3nm,0.7s,mb4.5,baz=101,slow=6.2,SNR=8.0
ARCES                                   pP        pP        13 18 33.2  -0.8
        comp=Z,6.8nm,0.8s,baz=90,slow=3.6,SNR=4.0
DPC     Dobruska-Polom      76.44 320  eP         P         13 18 30.5  +0.6
DPC                                    ex         x         13 18 45.5
KSP     Ksiaz               76.51 321  eP         P         13 18 30.6  +0.3
KSP                                    epP        pP        13 18 36.8  +0.1
KSP     Ksiaz               76.51 321  eP         P         13 18 30.9  +0.6
BILL    Bilibino            77.69  22  eP         P         13 18 36.6  +0.1
BILL                                    pmax      pmax
        comp=Z,27nm,1.6s,mb4.9
BILL                                    MLR       MLR
        comp=Z,272nm,21.0s,MS4.5
BILL    Bilibino            77.69  22  eP         P         13 18 36.6  +0.1
        comp=Z,27nm,1.6s,mb4.9
BILL                                    LR        LR
        comp=Z,272nm,21.0s,MS4.5
BRG     Berggiesshubel      77.99 321   P         P         13 18 39.3  +0.8
BRG                                     pmax      pmax
        comp=Z,3.0nm,0.9s,mb4.2
BRG     Berggiesshubel      77.99 321   P         P         13 18 39.3  +0.8
        comp=Z,3.3nm,0.9s,mb4.3
GERES   GERESS Array B      78.01 318   P         P         13 18 39.2  +0.6
        comp=Z,4.3nm,0.7s,mb4.5,baz=90,slow=5.3,SNR=32
GERES                                   pP        pP        13 18 45.6  +0.5
        comp=Z,4.1nm,0.7s,baz=90,slow=5.3,SNR=15
KHC     Kasperske Hory      78.11 319  eP         P         13 18 39.3  +0.1
CLL     Collm               78.62 321   P         P         13 18 41.0  -0.9
HFS     Hagfors             78.97 330   P         P         13 18 42.4  -1.3
        comp=Z,2.9nm,0.7s,mb4.3,baz=90,slow=3.0,SNR=5.4
HFS                                     pP        pP        13 18 49.3  -0.8
        comp=Z,3.8nm,0.6s,baz=117,slow=6.6,SNR=3.2
NB2     NORSAR Subarra      80.27 331   P         P         13 18 49.8  -0.9
        comp=Z,22nm,1.7s,mb4.8,baz=94,slow=5.6
NB2     NORSAR Subarra      80.27 331   P         P         13 18 49.8  -0.9
NB2                                     pmax      pmax
        comp=Z,22nm,1.7s,mb4.8
NOA     NORSAR Array B      80.27 331   P         P         13 18 50.0  -0.7
        comp=Z,3.1nm,0.9s,mb4.2,baz=97,slow=5.6,SNR=4.5
NOA                                     pP        pP        13 18 56.4  -0.8
        comp=Z,2.3nm,0.8s,baz=94,slow=5.5,SNR=4.7
DAVOX   Davos               80.51 316   P         P         13 18 53.2  +1.0
        comp=Z,8.1nm,0.9s,mb4.7,baz=140,slow=7.9,SNR=12
DAVOX                                   pP        pP        13 18 59.2  +0.5
        comp=Z,6.1nm,0.7s,baz=103,slow=14,SNR=5.5
LPG     La Plagne           82.70 315  eP         P         13 19 04.1  +0.4
        comp=Z,7.5nm,0.6s,mb4.6
LPG     La Plagne           82.70 315  eP         P         13 19 04.1  +0.4
LPG                                     pmax      pmax
        comp=Z,4.0nm,0.6s,mb4.6
SYO     Syowa Base          83.86 197 ⇑pP         pP        13 19 17.3  +1.7
ESDC    Sonseca Array       91.15 310   P         P         13 19 45.7  +0.7
        comp=Z,0.6nm,0.4s,mb4.2,baz=56,slow=3.9,SNR=8.3
VNDA    Vanda               91.92 168   P         P         13 19 48.0  +0.3
        comp=Z,2.1nm,1.2s,mb4.4,baz=310,slow=16,SNR=2.6
ILAR    Eielson Array       96.35  22   P         P         13 20 07.0  -1.3
        comp=Z,0.4nm,0.7s,mb4.0,baz=305,slow=4.1,SNR=6.0
ILAR                                    PP        PP        13 24 03.2  -1.2
        comp=Z,0.8nm,1.0s,baz=299,slow=10.0,SNR=4.7
DBIC    Dimbokro            96.97 278   P         P         13 20 14.3  +2.0
        comp=Z,11nm,1.4s,mb5.1,baz=148,slow=9.5,SNR=3.2
YKA     Yellowknife Ar     107.92  13   PP        PP        13 25 26.1  -6.0
        comp=Z,0.4nm,0.8s,baz=336,slow=8.3,SNR=3.6
YKA                                     PKKPbc              13 36 19.3
        comp=Z,0.1nm,0.5s,baz=146,slow=4.1,SNR=3.2
YKA                                     PKKPab              13 36 34.1
        comp=Z,0.2nm,0.7s,baz=142,slow=4.3,SNR=6.8
ULM     Lac du Bonnet      122.86   7   PKP       PKPdf     13 25 37.6  -1.3
        comp=Z,2.2nm,0.8s,baz=24,slow=2.7,SNR=3.5
SNOW    Snow King Moun     125.72  21  ePKPdf     PKPdf     13 25 43.3  -1.5
NVAR    Mina Array Bea     126.59  31   PKP       PKPdf     13 25 45.9  -0.7
        comp=Z,7.4nm,1.1s,baz=302,slow=2.1,SNR=6.0
PDAR    Pinedale Array     126.76  21   PKP       PKPdf     13 25 44.9  -1.9
        comp=Z,3.0nm,0.8s,baz=42,slow=1.7,SNR=23
PDAR                                    pPKP                13 25 51.1
        comp=Z,3.0nm,0.9s,baz=15,slow=3.4,SNR=12
MVU     Marysvale          129.38  26  ePKPdf     PKPdf     13 25 52.0   0.0
PV10    Paradox Valley     130.79  23  ePKPdf     PKPdf     13 25 52.9  -1.8
BDFB    Brasilia           140.75 253   PKP       PKPdf     13 26 12.4  -1.3
        comp=Z,1.2nm,0.5s,baz=174,slow=10,SNR=2.5
BDFB                                    pPKP                13 26 18.6
        comp=Z,2.0nm,0.6s,baz=159,slow=5.7,SNR=2.4
TXAR    Lajitas Array      140.85  23   PKP       PKPdf     13 26 12.1  -1.5
        comp=Z,1.0nm,0.7s,baz=50,slow=1.9,SNR=9.6
JCT     Junction City      141.15  18  ePKIKP     PKPdf     13 26 12.7  -1.3
LPAZ    La Paz             159.16 241   PKP       PKPdf     13 26 40.9  -0.8
        comp=Z,3.4nm,1.2s,baz=146,slow=1.1,SNR=5.5
LPAZ                                    pPKP                13 26 47.2
        comp=Z,1.4nm,0.9s,baz=65,slow=4.8,SNR=3.5
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*IDC **28** 13:09:17.7±1.1, 3.68N×94.38E, h35^{km}±6^{km}, mb4.1/10, mb1 4.3/11, mb1mx4.1/19, mbtmp4.4/11, ML4.9/1, Error ellipse: s-maj=44.7km s-min=15.4km az=50.0*

ISC 28 13:09:15.4±0.8**, 3.6N**±0.1×**94.4E**±0.2**, h33^{km}, (h37^{km}**±1.4^{km}**:pP-P), n12,** σ**0^{s}67**/11**, mb4.4**/10**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.42	17	Pn	P	13 12 53.1	+0.8
	1.9nm,0.3s,baz=210,slow=12,SNR=15						
SONM	Songino Array	45.26	11	P	P	13 17 30.7	-0.9
	1.5nm,0.6s,mb4.0,baz=188,slow=9.2,SNR=5.4						
SONM				pP	pP	13 17 42.3	+0.8
	3.2nm,0.7s,baz=196,slow=7.8,SNR=4.7						
WRA	Warramunga Arr	45.72	122	P	P	13 17 35.7	+0.1
	23nm,0.7s,mb5.2,baz=300,slow=9.2,SNR=23						
ASAR	Alice Springs	47.11	127	P	P	13 17 46.6	+0.1
	10nm,0.6s,mb4.9,baz=296,slow=7.8,SNR=20						
BVAR	Borovoye Array	53.07	342	P	P	13 18 30.7	-1.0
	1.6nm,0.6s,mb4.2,baz=137,slow=10,SNR=5.3						
BVAR				pP	pP	13 18 40.7	-0.9
	2.2nm,0.5s,baz=140,slow=12,SNR=6.0						
CTA	Charters Tower	56.12	117	P	P	13 18 54.5	+0.1
	7.2nm,0.8s,mb4.7,baz=297,slow=8.8,SNR=7.1						
STKA	Stephens Creek	57.07	132	P	P	13 19 00.8	-0.3
	4.5nm,0.6s,mb4.7,baz=324,slow=8.3,SNR=7.9						
BRTR	Keskin Array B	65.39	312	P	P	13 19 57.3	+0.2
	0.6nm,0.6s,mb3.8,baz=151,slow=7.3,SNR=2.3						
KOLS	Kolonicke sedl	75.55	320	*e*	pP	13 21 05.5	-3.3
FINES	FINESS Array B	76.56	333	P	P	13 21 03.4	-0.6
	2.2nm,1.0s,mb4.0,baz=90,slow=5.7,SNR=4.8						
FINES				pP	pP	13 21 14.8	+0.5
	1.7nm,0.5s,baz=110,slow=7.1,SNR=3.0						
ARCES	ARCESS Array B	79.32	340	P	P	13 21 19.1	0.0
	5.6nm,1.1s,mb4.4,baz=90,slow=4.9,SNR=3.7						
ARCES				pP	pP	13 21 30.2	+0.8
	2.5nm,0.6s,baz=108,slow=3.8,SNR=1.8						
GERES	GERESS Array B	81.14	319	P	P	13 21 30.6	+1.5
	1.0nm,0.8s,mb3.8,baz=101,slow=5.0,SNR=4.3						

IDC 28 13:21:26.9±1.5**, 3.26N×93.95E, mb3.8**/5**, mb1 4.0**/6**, mb1mx3.9**/18**, mbtmp3.8**/6**, Error ellipse: s-maj=58.2km s-min=21.8km az=56.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.88	18	Pn	P	13 25 12.4	-1.1
	0.3nm,0.3s,baz=215,slow=11,SNR=12						
SONM	Songino Array	45.68	12	P	P	13 29 49.7	-1.6
	1.4nm,0.8s,baz=196,slow=7.6,SNR=10						
WRA	Warramunga Arr	45.87	122	P	P	13 29 51.3	-1.8
	1.1nm,0.6s,baz=302,slow=8.7,SNR=13						
ASAR	Alice Springs	47.22	127	P	P	13 30 01.8	-1.9
	0.4nm,0.5s,baz=296,slow=7.6,SNR=10						
BVAR	Borovoye Array	53.28	342	P	P	13 30 47.0	-2.7
	1.1nm,0.7s,baz=143,slow=7.4,SNR=6.3						
GERES	GERESS Array B	81.13	319	P	P	13 33 44.6	-1.1
	0.8nm,0.6s,baz=108,slow=4.2,SNR=6.2						

IDC 28 13:24:31.2±12.0**, 6.34N×93.29E, mb3.7**/2**, mb1 3.9**/3**, mb1mx3.5**/17**, mbtmp3.6**/3**, ML3.1**/1**, Error ellipse: s-maj=302.9km s-min=47.9km az=88.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.24	24	Pn	P	13 27 39.8	-3.4
	0.0nm,0.3s,baz=212,slow=11,SNR=4.2						
WRA	Warramunga Arr	48.09	124	P	P	13 33 13.5	-1.4
	1.7nm,0.6s,baz=300,slow=9.2,SNR=15						
ASAR	Alice Springs	49.61	128	P	P	13 33 24.1	-2.5
	0.5nm,0.6s,baz=302,slow=8.1,SNR=7.9						

IDC 28 13:28:02.7±3.0**, 5.49N×94.72E, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.6**/17**, mbtmp3.5**/4**, Error ellipse: s-maj=122.9km s-min=25.2km az=61.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.53	17	Pn	P	13 31 24.1	+5.4
	0.2nm,0.3s,baz=212,slow=12,SNR=9.3						
SONM	Songino Array	43.36	11	P	P	13 36 06.9	-1.5
	0.4nm,0.6s,baz=192,slow=8.5,SNR=5.5						
WRA	Warramunga Arr	46.43	124	P	P	13 36 31.7	-1.7
	0.7nm,0.6s,baz=304,slow=9.6,SNR=10.0						
ASAR	Alice Springs	47.97	129	P	P	13 36 43.4	-2.1
	0.4nm,0.7s,baz=298,slow=7.7,SNR=6.7						
BVAR	Borovoye Array	51.42	341	P	P	13 37 09.1	-2.4
	0.4nm,0.4s,baz=153,slow=9.7,SNR=4.4						

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*IDC **28** 13:28:46.1±1.2, 6.01N×94.81E, mb3.9/8, mb1 4.1/9, mb1mx3.9/19, mbtmp3.9/9, ML4.4/1, Error ellipse: s-maj=51.5km s-min=21.5km az=54.0*

ISC 28 13:28:49.5±0.9**, 6.0N**±0.1×**94.9E**±0.2**, h33^{km}, n9,** σ**0^{s}57**/9**, mb3.9**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.96	17	Pn	P	13 31 54.6	+0.5
	0.6nm,0.3s,baz=208,slow=14,SNR=12						
SONM	Songino Array	42.79	11	P	P	13 36 45.5	-0.4
	1.3nm,0.9s,mb3.7,baz=197,slow=7.8,SNR=7.7						
WRA	Warramunga Arr	46.59	125	P	P	13 37 16.5	-0.1
	0.5nm,0.5s,mb3.7,baz=308,slow=8.3,SNR=5.0						
ASAR	Alice Springs	48.17	129	P	P	13 37 29.1	+0.1
	0.8nm,0.7s,mb3.8,baz=291,slow=6.8,SNR=5.5						
BVAR	Borovoye Array	50.96	341	P	P	13 37 49.0	-1.0
	0.9nm,0.8s,mb3.8,baz=108,slow=4.7,SNR=4.4						
FINES	FINESS Array B	74.68	332	P	P	13 40 27.2	-0.2
	1.2nm,0.5s,mb4.1,baz=97,slow=5.6,SNR=11						
ARCES	ARCESS Array B	77.24	340	P	P	13 40 41.7	-0.1
	3.5nm,0.8s,mb4.4,baz=79,slow=6.2,SNR=7.4						
GERES	GERESS Array B	79.69	318	P	P	13 40 56.8	+1.2
	0.2nm,0.4s,mb3.4,baz=117,slow=3.0,SNR=4.1						
HFS	Hagfors	80.41	330	P	P	13 40 59.1	-0.1
	5.1nm,1.1s,mb4.3,baz=112,slow=8.0,SNR=4.1						

IDC 28 13:31:30.3±4.8**, 7.49N×94.36E, mb3.4**/3**, mb1 3.6**/4**, mb1mx3.5**/17**, mbtmp3.4**/4**, ML3.4**/1**, Error ellipse: s-maj=145.6km s-min=28.2km az=76.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.78	22	Pn	P	13 34 19.0	-3.8
	0.1nm,0.3s,baz=218,slow=14,SNR=4.0						
SONM	Songino Array	41.49	12	P	P	13 39 19.5	-1.2
	0.5nm,0.8s,baz=181,slow=6.6,SNR=3.4						
WRA	Warramunga Arr	47.86	125	P	P	13 40 10.5	-1.8
	0.3nm,0.5s,baz=305,slow=8.6,SNR=4.6						
ASAR	Alice Springs	49.50	130	P	P	13 40 22.6	-2.3
	0.5nm,0.7s,baz=304,slow=7.5,SNR=4.8						

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*IDC **28** 13:35:01.9±0.9, 8.24N×93.85E, h25^{km}±6^{km}, mb4.0/16, mb1 4.1/17, mb1mx4.1/22, mbtmp4.1/17, ML3.8/1, Error ellipse: s-maj=37.4km s-min=15.9km az=47.0*

ISC 28 13:34:60.0±0.6**, 8.4N**±0.1×**93.9E**±0.1**, h25^{km}, (h27^{km}**±1.9^{km}**:pP-P), n25,** σ**1^{s}54**/24**, mb4.3**/18**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.17	26	Pn	P	13 37 43.1	+1.7
	0.2nm,0.3s,baz=211,slow=15,SNR=4.4						
PKI	Pulchoki	20.71	338	*e*P	P	13 39 39.8	-1.5
	49nm,1.1s						
DMN	Daman	20.86	338	*e*P	P	13 39 41.5	-1.3
	34nm,1.0s						
KKN	Kakani	20.96	338	*e*P	P	13 39 41.6	-2.2
	25nm,1.0s						
GKN	Gorkha	21.39	337	*e*P	P	13 39 46.3	-1.9
	102nm,1.1s,mb5.1						
KOLN	Koldanda	21.61	335	*e*P	P	13 39 48.8	-1.5
	39nm,0.8s,mb4.9						
SONM	Songino Array	40.74	13	P	P	13 42 40.3	-0.2
	0.4nm,0.6s,mb3.2,baz=191,slow=7.3,SNR=3.3						
BVAR	Borovoye Array	48.44	341	P	P	13 43 41.0	-1.3
	0.6nm,0.5s,mb3.9,baz=149,slow=8.4,SNR=5.9						
WRA	Warramunga Arr	48.75	126	P	P	13 43 45.2	0.0
	3.4nm,0.7s,mb4.5,baz=301,slow=9.0,SNR=19						
WRA				pP	pP	13 43 52.2	-0.5
	7.9nm,1.2s,baz=302,slow=9.4,SNR=11						
WRA				pPcP		13 45 16.4	
	0.6nm,0.6s,baz=311,slow=3.0,SNR=5.0						
ASAR	Alice Springs	50.43	130	P	P	13 43 56.4	-1.6
	0.8nm,0.7s,mb3.9,baz=311,slow=8.3,SNR=6.3						
ASAR				pP	pP	13 44 05.7	+0.2
	1.1nm,0.7s,baz=300,slow=7.3,SNR=6.1						
ASAR				pPcP		13 45 22.5	
	0.9nm,0.6s,baz=306,slow=3.8,SNR=7.6						
STKA	Stephens Creek	60.63	134	P	P	13 45 09.2	-2.2
	1.4nm,0.8s,mb4.1,baz=20,slow=12,SNR=3.1						
STKA				pP	pP	13 45 17.9	-1.4
	1.2nm,0.7s,baz=302,slow=9.5,SNR=1.1						
BRTR	Keskin Array B	61.91	311	P	P	13 45 18.8	-1.3
	3.2nm,0.8s,mb4.5,baz=121,slow=7.2,SNR=15						
AKASG	Malin Array Be	67.61	322	P	P	13 45 56.1	-0.8
	0.4nm,0.3s,mb3.9,baz=91,slow=4.8,SNR=8.2						
MLR	Muntele Rosu	68.64	316	P	P	13 46 04.4	+1.0
	5.0nm,0.8s,mb4.5,baz=55,slow=4.2,SNR=6.9						
FINES	FINESS Array B	72.16	332	P	P	13 46 25.0	+0.6
	3.4nm,1.0s,mb4.2,baz=104,slow=7.9,SNR=4.1						
CRVS	Cervenica-Dubn	72.19	319	*e*	P	13 46 29.0	+4.2
VYHS	Vyhne	73.87	318	*e*	P	13 46 37.9	+3.2
ARCES	ARCESS Array B	74.72	340	P	P	13 46 40.2	+1.1
	3.1nm,0.8s,mb4.3,baz=100,slow=7.4,SNR=7.6						
GERES	GERESS Array B	77.29	318	P	P	13 46 56.2	+2.1
	8.7nm,1.2s,mb4.6,baz=94,slow=4.5,SNR=13						
HFS	Hagfors	77.90	330	P	P	13 46 58.5	+1.2
	2.7nm,0.5s,mb4.4,baz=104,slow=6.1,SNR=6.0						
NOA	NORSAR Array B	79.18	331	P	P	13 47 05.0	+0.8
	1.3nm,0.6s,mb4.0,baz=95,slow=5.0,SNR=3.7						
DAVOX	Davos	79.86	316	P	P	13 47 10.0	+1.9
	1.1nm,0.4s,mb4.1,baz=350,slow=5.3,SNR=3.7						
EKA	Eskdalemuir Ar	87.17	325	P	P	13 47 47.3	+2.1
	3.3nm,0.7s,mb4.7,baz=102,slow=5.7,SNR=5.0						
ILAR	Eielson Array	94.39	22	P	P	13 48 21.4	+2.8
	0.5nm,0.7s,mb4.0,baz=310,slow=4.6,SNR=6.0						
PDAR	Pinedale Array	124.80	21	PKP	PKPdf	13 54 01.0	-1.8
	2.1nm,1.3s,baz=27,slow=3.3,SNR=3.7						

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*IDC **28** 13:35:03.4±1.2, 3.52N×94.57E, mb4.4/10, mb1 4.5/11, mb1mx4.2/21, mbtmp4.4/11, ML3.8/1, Error ellipse: s-maj=42.1km s-min=26.0km az=41.0*

ISC 28 13:35:06.9±1.0**, 3.6N**±0.2×**94.7E**±0.2**, h33^{km}, n13,** σ**1^{s}20**/13**, mb4.3**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.35	15	Pn	P	13 38 42.6	-0.3
	0.1nm,0.3s,baz=215,slow=13,SNR=4.7						
SONM	Songino Array	45.21	11	P	P	13 43 23.9	+1.2
	2.1nm,0.7s,mb4.1,baz=191,slow=8.2,SNR=12						
WRA	Warramunga Arr	45.43	123	P	P	13 43 24.3	-0.5
	0.4nm,0.7s,mb3.4,baz=302,slow=13,SNR=3.3						
BVAR	Borovoye Array	53.19	342	P	P	13 44 21.6	-2.5
	2.4nm,0.7s,mb4.2,baz=146,slow=11,SNR=9.5						
BRTR	Keskin Array B	65.65	312	P	P	13 45 48.4	-1.9
	1.4nm,0.5s,mb4.2,baz=127,slow=7.9,SNR=4.8						
IDI	Anoyia	71.47	306	P	P	13 46 26.2	-0.2
	7.1nm,0.6s,mb4.8,baz=50,slow=7.9,SNR=5.2						
MLR	Muntele Rosu	72.61	317	P	P	13 46 32.7	-0.3
	1.3nm,0.5s,mb4.2,baz=190,slow=12,SNR=6.0						
FINES	FINESS Array B	76.73	333	P	P	13 46 56.0	-0.4
	1.9nm,0.5s,mb4.2,baz=90,slow=5.6,SNR=8.7						
KAF	Kangasniemi	76.83	333	*e*p	P	13 46 55.9	-1.1
	2.5nm,0.5s,mb4.4						
ARCES	ARCESS Array B	79.45	340	P	P	13 47 12.2	+0.9
	38nm,1.4s,mb5.1,baz=98,slow=6.1,SNR=7.3						
GERES	GERESS Array B	81.37	319	P	P	13 47 23.4	+1.6
	1.1nm,0.7s,mb3.9,baz=101,slow=6.8,SNR=4.5						
HFS	Hagfors	82.41	330	P	P	13 47 28.1	+1.1
	1.5nm,0.4s,mb4.2,baz=127,slow=7.2,SNR=2.5						
DAVOX	Davos	83.84	316	P	P	13 47 36.4	+1.8
	3.1nm,0.5s,mb4.7,baz=174,slow=24,SNR=6.6						

IDC 28 13:37:41.1±4.4**, 7.61N×95.45E, mb4.0**/4**, mb1 4.2**/4**, mb1mx3.8**/17**, mbtmp4.0**/4**, Error ellipse: s-maj=314.5km s-min=24.6km az=53.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	47.05	126	P	P	13 46 15.0	-1.7
	1.9nm,0.9s,baz=306,slow=8.4,SNR=5.8						
ASAR	Alice Springs	48.75	131	P	P	13 46 27.8	-2.1
	0.9nm,0.8s,baz=315,slow=7.5,SNR=4.9						
BVAR	Borovoye Array	49.66	340	P	P	13 46 35.3	-1.2
	2.0nm,0.7s,baz=135,slow=6.3,SNR=6.3						
ARCES	ARCESS Array B	75.95	340	P	P	13 49 29.0	-2.3
	2.6nm,0.8s,baz=102,slow=8.3,SNR=3.8						

CASC 28 13:46:00.6±2.4**, 13.34N×91.05W, h15^{km}**±13^{km}**, MD3.9, 1C-6D, Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IXG	Ixpaco	1.01	35	⇓*e*P	Pb	13 46 19.0	-0.3
IXG				*e*S	Sb	13 46 35.2	+3.0
JAT	Jato	1.13	330	⇓*e*P	Pb	13 46 21.9	+0.5
JAT				*e*S	Sb	13 46 34.6	-1.0
NBG	Las Nubes	1.42	29	*e*P	Pn	13 46 25.5	-0.5
RTR	El Retiro	1.47	68	⇓*e*P	Pn	13 46 26.3	-0.5
RTR				*e*S	Sb	13 46 46.2	+0.7
SBLS	San Blas	1.47	70	*e*P	Pn	13 46 26.2	-0.6
SBLS				*e*S	Sb	13 46 46.8	+1.2
SNJE	San Jose	1.50	69	*e*P	Pn	13 46 26.9	-0.2
SNJE				*e*S	Sb	13 46 46.7	+0.4
RBDL	Robledal	1.53	60	*e*P	Pn	13 46 27.4	-0.2
RBDL				*e*S	Sb	13 46 50.2	+2.9
BOQS	Boqueron	1.77	77	*e*P	Pn	13 46 31.4	+0.5
BOQS				*e*S	Sn	13 46 52.8	-0.4
LFU	La Fuente	1.93	77	⇓*e*P	Pn	13 46 33.5	+0.2
LFU				*e*S	Sn	13 46 58.1	+0.8
MTO2	Montecristo 2	1.95	57	⇓*e*P	Pn	13 46 33.5	0.0
MTO2				*e*S	Sn	13 46 58.7	+0.8
LFRS	El Faro	1.95	81	*e*P	Pn	13 46 33.7	0.0
LFRS				*e*S	Sn	13 46 58.0	-0.1
LBRS	Las Brisas	1.99	78	*e*P	Pn	13 46 34.1	-0.1
LBRS				*e*S	Sn	13 46 58.0	-0.9
LCBS	La Ceiba	2.04	81	⇑*e*P	Pn	13 46 34.6	-0.2
LCBS				*e*S	Sn	13 47 01.5	+1.3
SNVI	San Vicente	2.17	82	*e*P	Pn	13 46 36.5	-0.2
SNVI				*e*S	Sn	13 47 04.5	+1.1
BLLM	Bellamira	2.74	87	*e*P	Pn	13 46 42.3	-2.5
CAHU	Cacacuatique	2.79	81	⇓*e*P	Pn	13 46 44.1	-1.6
CNCH	Conchagua	3.13	91	*e*P	Pn	13 46 49.2	-1.3

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*IDC **28** 13:45:59.6±2.3, 5.37N×96.40E, h9^{km}±13^{km}, mb4.7/23, mb1 4.8/23, mb1mx4.8/25, mbtmp4.8/23, MS4.3/6, Ms1 4.3/6, ms1mx3.8/20, Error ellipse: s-maj=26.4km s-min=9.7km az=44.0*

*MOS **28** 13:46:01.1±1.1, 5.33N×96.30E, h33^{km}, mb5.2/34, Error ellipse: s-maj=13.8km s-min=7.8km az=128.8*

*BJI **28** 13:46:01.0, 4.84N×95.99E, h43^{km}, mB5.2, mb5.0, Ms5.0, Msz4.8*

*NEIC **28** 13:46:02.8±0.4, 5.11N×96.16E, h30^{km}, mb5.1/37, Error ellipse: s-maj=13.2km s-min=10.4km az=52.0*

*HRVD **28** 13:46:02.8±0.3, 5.05N×96.18E, h18^{km}±1^{km}, MW5.0/54, Centroid moment Tensor Solution. LP body waves: s19,c27;Mantle waves: s54,c91; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-1.22±.16; $M_{\theta\theta}$-3.13±.13; $M_{\phi\phi}$4.35±.16; $M_{r\theta}$-1.60±.38; $M_{\theta\phi}$1.16±.13; $M_{\phi r}$-0.91±.37; Best double couple: $M_0$4.41×10^{16} NP1:ϕ_s146°,δ62°, λ-167°. NP2:ϕ_s50°,δ79°,λ-29°. Principal axes: T 4.75, Plg11°, Azm101°; N -.67, Plg59°, Azm210°; P -4.08, Plg28°, Azm5°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **28** 13:46:03.3, 5.06N×96.16E, h30^{km}, MB5.1*

ISC 28 13:46:01.4±0.2**, 5.01N**±0.04×**96.15E**±0.03**, h33^{km}, (h32^{km}**±2.9^{km}**:pP-P), n202,** σ**1^{s}35**/202**, mb4.9**/86**, MS4.7**/17**, 10C-16D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	4.93	64	P	P	13 47 15.0	-0.2
	724nm,1.0s						
NST	Nakhon Sawan	11.30	20	P	P	13 48 44.0	+0.3
KKTK	Khon Kaen	13.02	30	P	P	13 49 23.0	+16
	648nm,0.7s						
UBT	Ubonrachathani	13.40	40	P	P	13 49 14.5	+2.7
CM31	Chiang Mai Arr	13.64	11	P	P	13 49 15.8	+0.7
CMAR	Chiang Mai Arr	13.64	11	Pn	P	13 49 16.9	+1.8
	0.6nm,0.3s,baz=200,slow=13,SNR=28						
CMAR				LR	LR	13 55 07.3	
	comp=Z,1µm,20.3s,baz=200,slow=41						
CMAR				ScP		13 58 12.9	
	0.1nm,0.3s,baz=229,slow=3.3,SNR=9.6						
MDRS	Chennai	17.62	298	*e*P	P	13 50 08.0	+1.8
MDRS				*i*		13 50 17.0	
MDRS				*e*		13 52 23.0	
VIS	Vishakhapatnam	17.81	316	*e*P	P	13 50 07.5	-1.0
VIS				*i*		13 50 18.4	
	comp=Z,255nm,1.8s						
VIS				*e*		13 53 17.3	
VIS				*e*S	S	13 53 25.1	+1.8
BWNR	Bhubaneshwar	18.23	327	*e*P	P	13 50 04.2	-10
BWNR				*e*		13 50 06.2	
	comp=Z,41nm,1.2s						
BWNR				*i*		13 56 17.2	
KOD	Kodaikanal	19.23	287	⇑*i*P	P	13 50 30.0	+4.2
QIZ	Qiongzhong	19.30	43	*e*P	P	13 50 26.5	-0.1
QIZ				S	S	13 53 55.8	-1.3
QIZ				LR	LR		
	comp=N,2µm,19.5s						
QIZ				LR	LR		
	comp=E,2µm,18.2s						
TRD	Trivandrum	19.37	281	*e*P	P	13 50 29.1	+1.7
TRD				*e*S	S	13 54 04.9	+6.1
IMP	Imphal	19.78	354	*e*	P	13 50 32.2	+0.4
SHL	Shillong	20.85	349	⇓*i*P	P	13 50 44.0	+1.0
KMI	Kunming	20.98	17	⇓P	P	13 50 47.5	+3.2
KMI				PP	PP	13 51 10.5	+3.2
KMI				SS	SS	13 55 11.0	+6.9
KMI				AMB	AMB		
	comp=Z,52nm,1.5s						
KMI				LR	LR		
	comp=N,2µm,12.5s,MS4.8						
KMI				LR	LR		
	comp=E,2µm,16.1s,MS4.8						
KMI				LR	LR		
	comp=Z,2µm,13.0s,MS4.7						
HYB	Hyderabad	21.19	307	*e*P	P	13 50 47.0	+0.5
HYB				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.1						
HYB	Hyderabad	21.19	307	*e*P	P	13 50 47.0	+0.5
	comp=Z,100nm,1.0s,mb5.1						
HYB	Hyderabad	21.19	307	*i* P	P	13 50 47.0	+0.5
	comp=Z,100nm,1.0s,mb5.1						
HYB				*e*S	S	13 54 48.0	+13
GYA	Guiyang	23.58	24	⇑*i*P	P	13 51 13.0	+2.8
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
GYA				LR	LR		
	comp=N,740nm,16.2s,MS4.4						
GYA				LR	LR		
	comp=E,840nm,16.8s,MS4.4						
GYA				LR	LR		
	comp=Z,670nm,16.2s,MS4.2						
GOA	Goa	24.29	297	*e*P	P	13 51 22.2	+5.0
	comp=Z,55nm,0.7s,mb5.1						
GOA				*e*S	S	13 55 38.5	+7.4
PKI	Pulchoki	24.66	337	*e*P	P	13 51 23.3	+2.6
	comp=Z,13nm,0.6s,mb4.6						
KAD	Karad	24.74	301	*e*P	P	13 51 23.0	+1.5
GUN	Gumba	24.79	338	*e*P	P	13 51 23.2	+1.3
	comp=Z,32nm,0.7s,mb5.0						
DMN	Daman	24.82	336	*e*P	P	13 51 23.3	+1.1
	comp=Z,28nm,1.0s,mb4.8						
KKN	Kakani	24.91	337	*e*P	P	13 51 25.2	+2.1
	comp=Z,28nm,0.9s,mb4.8						
LSA	Lhasa	25.01	350	*e*P	P	13 51 24.9	+0.9
LSA				pmax	pmax		
	comp=Z,26nm,0.6s,mb4.9						
LSA	Lhasa	25.01	350	*e*P	P	13 51 24.9	+0.9
	comp=Z,26nm,0.6s,mb4.9						
GKN	Gorkha	25.36	336	*e*P	P	13 51 26.8	-0.5
	comp=Z,29nm,0.7s,mb4.9						
KOLN	Koldanda	25.60	334	*e*P	P	13 51 28.6	-1.0
	comp=Z,28nm,0.7s,mb4.9						
TGY	Tagaytay City	26.03	68	P	P	13 51 33.0	-0.7
	comp=Z,100nm,0.4s,mb5.7,baz=180,slow=11,SNR=3.8						
CD2	Chengdu	26.74	15	⇓*i*P	P	13 51 41.5	+1.4
CD2				S	S	13 56 08.5	-3.2
CD2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.2						
CD2				LR	LR		
	comp=E,4µm,13.2s						
CD2				LR	LR		
	comp=Z,3µm,11.4s,MS5.1						
ENH	Enshi	28.10	25	*e*P	P	13 51 52.8	+0.3
	comp=Z,73nm,1.4s,mb5.1						
DDI	Dehra Dun	30.42	328	*e*P	P	13 52 11.2	-1.9
WHN	Wuhan	30.64	32	P	P	13 52 17.5	+2.4
WHN				S	S	13 57 14.0	0.0
WHN				AMB	AMB		
	comp=Z,120nm,1.2s,mb5.6						
WHN				LR	LR		
	comp=Z,3µm,12.7s,MS5.2						
LZH	Lanzhou	31.73	12	*e*P	P	13 52 26.3	+1.6
LZH				PP	PP	13 53 32.5	+2.4
LZH				*e*S	S	13 57 34.0	+3.0
LZH				*e*SS	SS	13 59 27.5	+5.4
LZH				AMB	AMB		
	comp=Z,130nm,1.6s,mb5.5						
LZH				AMB	AMB		
	comp=Z,250nm,4.5s						
LZH				LR	LR		
	comp=E,2µm,13.4s						
LZH				LR	LR		
	comp=Z,3µm,15.6s,MS5.1						
NJ2	Nanjing	34.29	36	*e*P	P	13 52 45.5	-1.4
NJ2				S	S	13 58 10.0	-0.8
NJ2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,1µm,5.6s						
NJ2				LR	LR		
	comp=N,3µm,11.0s,MS5.4						
NJ2				LR	LR		
	comp=E,4µm,12.2s,MS5.4						
NJ2				LR	LR		
	comp=Z,3µm,11.4s,MS5.3						
GTA	Gaotai	34.41	5	*e*P	P	13 52 48.3	+0.5
GTA				AMB	AMB		
	comp=Z,22nm,1.3s,mb4.9						
MBWA	Marble Bar	34.80	139	*e*P	P	13 52 52.2	+0.8
	comp=Z,17nm,1.2s,mb4.8						
JOW	Kunigami	37.55	51	P	P	13 53 17.3	+2.8
	comp=Z,36nm,0.9s,mb5.1,baz=233,slow=5.1,SNR=4.3						
BTO	Baotou	37.57	17	*e*P	P	13 53 16.0	+1.4
BTO				S	S	13 58 55.3	-6.0
BTO				AMB	AMB		
	comp=Z,39nm,1.2s,mb5.0						
BTO				LR	LR		
	comp=N,520nm,10.6s,MS5.2						
BTO				LR	LR		
	comp=E,2µm,13.1s,MS5.2						
HHC	Hu-ho-hao-te	38.27	19	*e*P	P	13 53 23.5	+3.0
HHC				AP	pP	13 53 33.3	+3.1
HHC				PP	PP	13 54 55.5	+3.8
HHC				PCP	PcP	13 55 37.5	+2.8
HHC				S	S	13 59 06.3	-5.7
HHC				SS	SS	14 01 56.5	+4.9
HHC				AMB	AMB		
	comp=Z,50nm,1.4s,mb5.0						
HHC				AMB	AMB		
	comp=Z,210nm,5.6s						
HHC				LR	LR		
	comp=N,1µm,14.3s,MS4.9						
HHC				LR	LR		
	comp=E,762nm,15.5s,MS4.9						
HHC				LR	LR		
	comp=Z,1µm,11.9s,MS4.9						
KSH	Kashi	38.90	335	*e*P	P	13 53 24.3	-1.4
KSH				*e*PP	PP	13 54 56.0	-2.9
KSH				*e*PCP	PcP	13 55 35.8	-0.9
KSH				*e*S	S	13 59 17.8	-3.7

KSH				ePCS		13 59 20.5	
KSH				eSCS	ScS	14 03 30.8	+0.1
KSH				LR	LR		
	comp=N,580nm,7.2s						
KSH				LR	LR		
	comp=E,580nm,10.7s						
BJT	**Baijiatuau**	**39.25**	**25**	⇓eP	**P**	**13 53 31.5**	**+2.9**
BJT				e		13 55 40.0	
BJT				pmax	pmax		
	comp=Z,45nm,0.9s						
BJT	**Baijiatuau**	**39.25**	**25**	⇓eP	**P**	**13 53 31.5**	**+3.0**
	comp=Z,46nm,0.9s,mb5.2						
BJT				ePcP	PcP	13 55 40.0	+2.2
BJI	**Beijing**	**39.27**	**25**	P	**P**	**13 53 32.0**	**+3.3**
BJI				S	**S**	**13 59 25.3**	**-1.8**
BJI				AMB	AMB		
	comp=Z,38nm,1.5s,mb4.9						
BJI				LR	LR		
	comp=N,687nm,14.5s,MS4.8						
BJI				LR	LR		
	comp=E,704nm,14.5s,MS4.8						
BJI				LR	LR		
	comp=Z,470nm,16.7s,MS4.4						
WMQ	**Urumqi**	**39.37**	**350**	⇑P	**P**	**13 53 30.5**	**+1.0**
WMQ				AP	pP	13 53 40.3	+1.0
WMQ				PP	PP	13 55 05.5	+1.6
WMQ				S	**S**	**13 59 30.5**	**+2.0**
WMQ				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.7						
WMQ				AMB	AMB		
	comp=Z,29nm,6.7s						
WMQ				LR	LR		
	comp=N,100nm,24.1s,MS4.4						
WMQ				LR	LR		
	comp=E,687nm,22.8s,MS4.4						
WMQ				LR	LR		
	comp=Z,260nm,24.1s,MS4.0						
AAK	**Ala-Archa**	**42.12**	**336**	eP	**P**	**13 53 48.3**	**-4.0**
AAK				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.5						
AAK	**Ala-Archa**	**42.12**	**336**	eP	**P**	**13 53 51.8**	**-0.4**
	comp=Z,20nm,1.2s,mb4.6						
NWAO	**Narrogin (SRO)**	**42.70**	**154**	eP	**P**	**13 53 58.3**	**+1.1**
NWAO				pmax	pmax		
	comp=Z,54nm,0.8s						
NWAO	**Narrogin (SRO)**	**42.70**	**154**	P	**P**	**13 53 58.0**	**+0.8**
	comp=Z,45nm,0.8s,mb5.2,baz=339,slow=12,SNR=16						
NWAO	**Narrogin (SRO)**	**42.70**	**154**	eP	**P**	**13 53 58.2**	**+1.0**
	comp=Z,54nm,0.8s,mb5.3						
KS15	**Wonju Array Si**	**43.37**	**38**	eP	**P**	**13 54 03.8**	**+1.2**
SONM	**Songino Array**	**43.56**	**10**	P	**P**	**13 54 04.5**	**+0.5**
	comp=Z,20nm,1.0s,mb4.8,baz=191,slow=7.2,SNR=72						
SONM				ScP		13 59 42.1	
	comp=Z,0.8nm,0.9s,baz=214,slow=5.2,SNR=2.9						
ULN	**Ulaanbaatar**	**43.71**	**11**	eP	**P**	**13 54 05.5**	**+0.3**
ULN				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
ULN	**Ulaanbaatar**	**43.71**	**11**	eP	**P**	**13 54 05.5**	**+0.3**
	comp=Z,7.0nm,0.6s,mb4.6						
WRA	**Warramunga Arr**	**44.99**	**125**	P	**P**	**13 54 15.5**	**-0.3**
	comp=Z,18nm,0.7s,mb5.0,baz=302,slow=9.3,SNR=71						
WRA				PcP	PcP	13 55 57.1	0.0
	comp=Z,5.5nm,0.8s,baz=311,slow=2.7,SNR=5.9						
WRA				ScP		13 59 50.0	
	comp=Z,18nm,1.1s,baz=309,slow=3.8,SNR=22						
WRAB	**Tennant Creek**	**44.99**	**125**	⇑eP	**P**	**13 54 15.6**	**-0.2**
WRAB				pmax	pmax		
	comp=Z,58nm,0.6s,mb5.6						
WRAB	**Tennant Creek**	**44.99**	**125**	⇑eP	**P**	**13 54 15.6**	**-0.3**
	comp=Z,58nm,0.6s,mb5.6						
WRAB				eScP		13 59 49.9	
CN2	**Changchun**	**46.46**	**29**	eP	**P**	**13 54 29.0**	**+1.8**
CN2				eS	**S**	**14 01 14.0**	**+1.9**
CN2				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.1						
CN2				AMB	AMB		
	comp=Z,600nm,4.0s						
CN2				LR	LR		
	comp=N,600nm,16.0s,MS4.9						
CN2				LR	LR		
	comp=E,800nm,16.0s,MS4.9						
CN2				LR	LR		
	comp=Z,900nm,17.0s,MS4.8						
ASAR	**Alice Springs**	**46.56**	**129**	P	**P**	**13 54 28.1**	**-0.1**
	comp=Z,33nm,0.8s,mb5.3,baz=299,slow=8.1,SNR=119						
ASAR				PcP	PcP	13 56 01.9	-0.6
	comp=Z,5.5nm,0.6s,baz=313,slow=3.3,SNR=5.4						
ASAR				ScP		13 59 56.1	
	comp=Z,6.7nm,0.9s,baz=303,slow=3.9,SNR=13						
ASAR				S	**S**	**14 01 16.4**	**+2.6**
	comp=Z,2.9nm,1.2s,baz=293,slow=14,SNR=4.6						
ASAR				LR	LR	14 17 56.9	
	comp=Z,444nm,18.1s,MS4.5,baz=294,slow=41						
HASS	**Wahat al Ahsa’**	**48.82**	**299**	D		13 54 46.8	
MDJ	**Mudanjiang**	**49.12**	**31**	P	**P**	**13 54 50.0**	**+2.1**
MDJ				S	**S**	**14 01 56.0**	**+6.3**
MDJ				AMB	AMB		
	comp=Z,17nm,1.3s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,92nm,7.5s						
MDJ				LR	LR		
	comp=N,165nm,23.5s,MS4.5						
MDJ				LR	LR		
	comp=E,474nm,21.8s,MS4.5						
MDJ				LR	LR		
	comp=Z,299nm,22.4s,MS4.2						
MDJ	**Mudanjiang**	**49.12**	**31**	P	**P**	**13 54 50.5**	**+2.5**
	comp=Z,14nm,0.8s,mb5.0						
MAJO	**Matsushiro**	**49.67**	**45**	eP	**P**	**13 54 49.6**	**-2.7**
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb5.0						
MAJO	**Matsushiro**	**49.67**	**45**	eP	**P**	**13 54 49.6**	**-2.7**
	comp=Z,6.6nm,0.5s,mb4.9						
MAT	**Matsushiro**	**49.67**	**45**	P	**P**	**13 54 55.2**	**+2.9**
MAT				S	**S**	**14 01 55.0**	**-2.5**
MAT	**Matsushiro**	**49.67**	**45**	P	**P**	**13 54 55.0**	**+2.7**
BVAR	**Borovoye Array**	**52.33**	**341**	P	**P**	**13 55 10.3**	**-1.9**
	comp=Z,2.7nm,0.7s,mb4.3,baz=130,slow=12,SNR=12						
BVAR				ScP		14 00 19.9	
	comp=Z,0.9nm,0.7s,baz=104,slow=5.9,SNR=3.2						
KAMS	**Al Khamasin**	**52.33**	**292**	D		13 55 12.5	
BRVK	**Borovoye**	**52.40**	**341**	eP	**P**	**13 55 11.6**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BRVK	**Borovoye**	**52.40**	**341**	eP	**P**	**13 55 11.6**	**-1.0**
	comp=Z,2.7nm,0.7s,mb4.3						
BRVK				e		13 55 32.8	
MZLS	**Mizel**	**52.48**	**296**	P	**P**	**13 55 14.3**	**+0.6**
CHKZ	**Chkalovo**	**52.81**	**341**	eP	**P**	**13 55 13.8**	**-1.9**
CHKZ				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
CHKZ	**Chkalovo**	**52.81**	**341**	eP	**P**	**13 55 13.8**	**-1.9**
	comp=Z,16nm,0.7s,mb5.1						
CHKZ				e		13 55 36.1	
PMG	**Port Moresby**	**52.81**	**106**	eP	**P**	**13 55 15.4**	**-0.9**
PMG				pmax	pmax		
	comp=Z,20nm,0.8s						
PMG	**Port Moresby**	**52.81**	**106**	P	**P**	**13 55 15.7**	**-0.6**
	comp=Z,23nm,0.8s,mb5.2,baz=305,slow=6.1,SNR=10						
PMG	**Port Moresby**	**52.81**	**106**	eP	**P**	**13 55 15.4**	**-0.9**
	comp=Z,20nm,0.8s,mb5.1						
AFFS	**‘Afif**	**54.43**	**296**	P	**P**	**13 55 28.9**	**+0.8**
BOD	**Bodaibo**	**54.50**	**12**	eP	**P**	**13 55 27.2**	**-0.9**
ARSS	**Ar Rass**	**54.63**	**298**	D		13 55 29.7	
CTA	**Charters Tower**	**55.18**	**119**	P	**P**	**13 55 33.1**	**-0.5**
	comp=Z,28nm,0.9s,mb5.3,baz=293,slow=8.8,SNR=44						
CTA				ScP		14 00 34.5	
	comp=Z,5.6nm,1.0s,baz=294,slow=4.9,SNR=4.3						
CTAO	**Charters Tower**	**55.18**	**119**	⇑eP	**P**	**13 55 32.9**	**-0.7**
CTAO				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.3						
CTAO	**Charters Tower**	**55.18**	**119**	⇑eP	**P**	**13 55 32.9**	**-0.8**
	comp=Z,28nm,0.9s,mb5.3						
HILS	**Ha’il**	**56.23**	**300**	P	**P**	**13 55 42.2**	**+1.1**
STKA	**Stephens Creek**	**56.69**	**134**	P	**P**	**13 55 44.1**	**-0.3**
	comp=Z,13nm,0.7s,mb5.1,baz=322,slow=9.5,SNR=20						
STKA				LR	LR	14 22 12.3	
	comp=Z,369nm,18.9s,MS4.5,baz=109,slow=38						
STKA	**Stephens Creek**	**56.69**	**134**	eP	**P**	**13 55 44.0**	**-0.4**
YSS	**Yuzh-Sakhalins**	**57.85**	**36**	⇑iP	**P**	**13 55 49.0**	**-3.4**
YSS				pmax	pmax		
	comp=Z,90nm,1.6s,mb5.5						
GNI	**Garni**	**57.86**	**315**	P	**P**	**13 55 51.7**	**-0.8**
	comp=Z,2.4nm,0.4s,mb4.6,baz=36,slow=17,SNR=6.5						
TI2	**Plekhanov**	**58.49**	**317**	⇑iP	**P**	**13 55 53.8**	**-3.1**
KMBO	**Kilima Mbogo**	**59.15**	**266**	eP	**P**	**13 56 03.6**	**+1.7**
KMBO				pmax	pmax		
	comp=Z,13nm,1.0s						
KMBO	**Kilima Mbogo**	**59.15**	**266**	P	**P**	**13 56 03.7**	**+1.8**
	comp=Z,2.4nm,0.6s,mb4.4,baz=55,slow=18,SNR=9.0						
KMBO	**Kilima Mbogo**	**59.15**	**266**	eP	**P**	**13 56 03.6**	**+1.7**
	comp=Z,13nm,1.0s,mb4.9						
ARU	**Arti**	**59.29**	**337**	⇓iP	**P**	**13 55 58.2**	**-4.1**
ARU				e		13 58 08.7	
ARU				ePPP	PPP	13 59 32.2	-7.8
ARU				eS	**S**	**14 04 05.4**	**-1.1**
ARU				eSS	SS	14 07 58.9	-3.9
ARU				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.7						
ZEI	**Tsey**	**59.49**	**317**	eP	**P**	**13 56 04.5**	**+0.7**
ZEI				i *PP	pP	13 56 16.1	+2.2
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
UMJS	**Umm Lajj**	**59.76**	**296**	P	**P**	**13 56 07.4**	**+1.4**
KIV	**Kislovodsk**	**60.77**	**318**	⇓iP	**P**	**13 56 09.2**	**-3.4**
KIV				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.1						
TBKS	**Tabuk**	**60.95**	**299**	D		13 56 15.1	
ASF	**Jabal al Asfar**	**61.46**	**304**	P	**P**	**13 56 17.9**	**+0.5**
	comp=Z,9.3nm,0.8s,mb5.0,baz=345,slow=4.4,SNR=14						
JMQS	**Jabal Moqyreh**	**61.65**	**300**	P	**P**	**13 56 19.1**	**+0.4**
MALT	**Malatya**	**61.84**	**311**	⇓eP	**P**	**13 56 18.5**	**-1.3**
MALT				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.9						
MALT	**Malatya**	**61.84**	**311**	⇓eP	**P**	**13 56 18.5**	**-1.3**
	comp=Z,12nm,1.1s,mb5.0						
AYUS	**‘Aynunah**	**62.05**	**299**	P	**P**	**13 56 21.7**	**+0.3**
YAK	**Yakutsk**	**62.09**	**17**	eP	**P**	**13 56 19.2**	**-2.0**
YAK				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=N,5.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,3.0nm,1.1s						
BDAS	**Al Bad‘**	**62.24**	**299**	P	**P**	**13 56 22.8**	**+0.1**
JMOS	**Jabal al Moall**	**62.36**	**300**	P	**P**	**13 56 23.5**	**0.0**
MKRJ	**Makawir**	**62.37**	**303**	P	**P**	**13 56 23.5**	**+0.1**
HAQS	**Haql**	**62.50**	**300**	P	**P**	**13 56 24.5**	**+0.1**
KSHT	**Keshet**	**62.53**	**305**	P	**P**	**13 56 24.9**	**+0.4**
DRGI	**Dragot**	**62.58**	**303**	P	**P**	**13 56 24.9**	**0.0**
EIL	**Elat**	**62.59**	**301**	P	**P**	**13 56 24.8**	**-0.2**
EIL	**Elat**	**62.59**	**301**	P	**P**	**13 56 25.3**	**+0.3**
	comp=E,19nm,0.7s,mb5.3,baz=46,slow=3.8,SNR=12						
EIL	**Elat**	**62.59**	**301**	⇓eP	**P**	**13 56 24.7**	**-0.3**
	comp=E,28nm,0.8s,mb5.5						
GLH	**Golan-Tel Qazi**	**62.60**	**304**	P	**P**	**13 56 25.4**	**+0.4**
HMDT	**Nahal Hemdat**	**62.61**	**304**	P	**P**	**13 56 25.0**	**0.0**
SOC	**Sochi**	**62.63**	**317**	eP	**P**	**13 56 18.5**	**-6.5**
SOC				e		13 58 35.9	
SOC				eSS	SS	14 08 49.6	-6.0
SOC				pmax	pmax		
	comp=N,11nm,0.8s						
SOC				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
SOC				pmax	pmax		
	comp=E,9.0nm,0.7s						
MBH	**Mount Berech**	**62.64**	**301**	P	**P**	**13 56 25.5**	**+0.2**
PRNI	**Paran**	**62.67**	**302**	P	**P**	**13 56 25.6**	**+0.1**
MMLI	**Mount Malkishu**	**62.73**	**304**	P	**P**	**13 56 26.2**	**+0.3**
CSS	**Prodhromos**	**64.96**	**306**	eP	**P**	**13 56 39.3**	**-1.2**
	comp=E,68nm,1.1s,mb5.6						
MBAR	**Mbarara**	**65.57**	**267**	eP	**P**	**13 56 43.6**	**-1.1**
MBAR				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.1						
MBAR	**Mbarara**	**65.57**	**267**	eP	**P**	**13 56 43.6**	**-1.2**
	comp=Z,28nm,1.4s,mb5.1						
BRTR	**Keskin Array B**	**65.81**	**311**	P	**P**	**13 56 43.8**	**-2.1**
	comp=Z,8.2nm,0.7s,mb4.9,baz=127,slow=6.2,SNR=28						
BRTR				PcP	PcP	13 57 14.6	-2.0
	comp=Z,2.8nm,0.6s,baz=123,slow=6.9,SNR=3.6						
ISP	**Isparta**	**67.78**	**309**	⇓iP	**P**	**13 56 55.5**	**-2.7**
MA2	**Magadan**	**68.39**	**27**	eP	**P**	**13 57 00.4**	**-1.3**
MA2				pmax	pmax		
	comp=Z,33nm,1.9s,mb5.0						
OBN	**Obninsk**	**68.85**	**328**	eP	**P**	**13 57 01.0**	**-3.6**
OBN				pmax	pmax		
	comp=Z,46nm,1.8s,mb5.1						
TIXI	**Tiksi**	**69.65**	**11**	⇓iP	**P**	**13 57 06.0**	**-3.3**
TIXI				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
LSZ	**Lusaka**	**70.25**	**252**	eP	**P**	**13 57 15.9**	**+2.1**
LSZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
LSZ	**Lusaka**	**70.25**	**252**	eP	**P**	**13 57 15.9**	**+2.1**
	comp=Z,9.0nm,0.8s,mb4.8						
AKASG	**Malin Array Be**	**71.63**	**322**	P	**P**	**13 57 18.5**	**-3.0**
	comp=Z,0.8nm,0.4s,mb4.0,baz=89,slow=4.7,SNR=8.9						
IDI	**Anoyia**	**71.84**	**305**	P	**P**	**13 57 22.4**	**-0.7**
	comp=Z,20nm,0.6s,mb5.2,baz=90,slow=6.2,SNR=15						
MLR	**Muntele Rosu**	**72.61**	**316**	P	**P**	**13 57 27.0**	**-0.5**
	comp=Z,16nm,1.2s,mb4.8,baz=38,slow=2.7,SNR=7.5						
LBTB	**Lobatse**	**74.67**	**243**	eP	**P**	**13 57 42.3**	**+2.4**
LBTB				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.2						
LBTB	**Lobatse**	**74.67**	**243**	eP	**P**	**13 57 42.3**	**+2.4**
	comp=Z,24nm,0.8s,mb5.2						
KWP	**Kalwaria**	**75.50**	**320**	eP	**P**	**13 57 43.7**	**-0.5**
KWP				e		13 57 48.7	
KOLS	**Kolonicke sedl**	**75.67**	**319**	eP	**P**	**13 57 45.7**	**+0.5**
BOSA	**Boshof**	**75.80**	**239**	eP	**P**	**13 57 48.7**	**+2.3**
BOSA				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
BOSA	**Boshof**	**75.80**	**239**	eP	**P**	**13 57 48.7**	**+2.3**
	comp=Z,17nm,0.8s,mb5.0						
SUW	**Suwalki**	**75.98**	**324**	eP	**P**	**13 57 45.8**	**-1.1**
FINES	**FINESS Array B**	**76.16**	**332**	P	**P**	**13 57 46.0**	**-1.8**
	comp=Z,1.3nm,0.4s,mb4.2,baz=108,slow=6.0,SNR=26						
FINES				LR	LR	14 38 20.0	
	comp=Z,225nm,19.4s,MS4.5,baz=288,slow=41						
MAW	**Mawson**	**76.17**	**193**	P	**P**	**13 57 49.5**	**+1.8**
	comp=Z,7.2nm,0.8s,mb4.7,baz=40,slow=6.1,SNR=5.1						
CRVS	**Cervenica-Dubn**	**76.19**	**319**	eP	**P**	**13 57 50.4**	**+2.2**
KAF	**Kangasniemi**	**76.24**	**333**	ep	**P**	**13 57 44.6**	**-3.5**
	comp=Z,0.6nm,0.3s,mb4.0						
KAF	**Kangasniemi**	**76.24**	**333**	eP	**P**	**13 57 44.6**	**-3.5**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
PSZ	**Piszkesteto**	**77.09**	**318**	eP	**P**	**13 57 51.8**	**-1.5**
PSZ				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.1						
PSZ	**Piszkesteto**	**77.09**	**318**	eP	**P**	**13 57 51.8**	**-1.5**
	comp=Z,31nm,1.3s,mb5.1						
OJC	**Ojcow**	**77.44**	**320**	eP	**P**	**13 57 54.3**	**-0.9**
VYHS	**Vyhne**	**77.86**	**318**	eP	**P**	**13 57 57.1**	**-0.4**
BILL	**Bilibino**	**78.01**	**21**	⇓iP	**P**	**13 57 57.1**	**-0.8**
BILL				pmax	pmax		
	comp=Z,8.0nm,1.6s,mb4.4						
SRO	**Srobarova**	**78.14**	**318**	eP	**P**	**13 57 59.7**	**+0.6**
ARCES	**ARCESS Array B**	**78.62**	**340**	P	**P**	**13 58 00.2**	**-1.0**
	comp=Z,2.3nm,0.4s,mb4.5,baz=99,slow=6.8,SNR=44						
ZST	**Bratislava**	**78.99**	**318**	eP	**P**	**13 58 03.5**	**-0.2**
ZST				e	pP	13 58 11.9	-2.2
KSP	**Ksiaz**	**79.73**	**321**	eP	**P**	**13 58 07.2**	**-0.5**
KSP				e		13 58 13.5	
SUR	**Sutherland**	**80.38**	**236**	eP	**P**	**13 58 14.8**	**+3.2**
	comp=Z,19nm,0.9s,mb5.0						
BRG	**Berggiesshubel**	**81.22**	**321**	i P	**P**	**13 58 15.4**	**-0.2**
BRG				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.8						
BRG	**Berggiesshubel**	**81.22**	**321**	i P	**P**	**13 58 15.4**	**-0.2**
	comp=Z,17nm,1.4s,mb4.8						
BRG				e		13 58 19.2	
GERES	**GERESS Array B**	**81.28**	**319**	P	**P**	**13 58 15.6**	**-0.3**
	comp=Z,5.3nm,0.9s,mb4.5,baz=90,slow=6.7,SNR=21						
KHC	**Kasperske Hory**	**81.38**	**319**	⇓iP	**P**	**13 58 14.7**	**-1.7**
KHC	**Kasperske Hory**	**81.38**	**319**	eP	**P**	**13 58 15.5**	**-0.9**
CLL	**Collm**	**81.83**	**321**	P	**P**	**13 58 18.0**	**-0.8**
HFS	**Hagfors**	**81.92**	**330**	P	**P**	**13 58 17.1**	**-1.9**
	comp=Z,3.7nm,0.6s,mb4.5,baz=108,slow=4.7,SNR=9.5						
RPZ	**Rata Peaks**	**82.62**	**135**	LR	LR	14 33 46.0	
	comp=Z,462nm,19.9s,MS4.8,baz=275,slow=35						
NB2	**NORSAR Subarra**	**83.19**	**331**	P	**P**	**13 58 24.5**	**-1.0**
	comp=Z,9.6nm,1.4s,mb4.6,baz=89,slow=5.3						
NB2	**NORSAR Subarra**	**83.19**	**331**	P	**P**	**13 58 24.5**	**-1.0**
NB2				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.7						
NOA	**NORSAR Array B**	**83.19**	**331**	P	**P**	**13 58 24.4**	**-1.1**
	comp=Z,0.8nm,0.8s,baz=95,slow=5.3,SNR=3.3						
SYO	**Syowa Base**	**83.29**	**198**	⇓P	**P**	**13 58 25.1**	**-0.7**
SYO	**Syowa Base**	**83.29**	**198**	⇑PcP	PcP	13 58 31.6	+0.9
SYO	**Syowa Base**	**83.29**	**198**	⇓pP	pP	13 58 34.6	-1.7
DAVOX	**Davos**	**83.83**	**316**	P	**P**	**13 58 29.1**	**+0.1**
	comp=Z,13nm,0.5s,mb5.3,baz=167,slow=2.9,SNR=12						
PGF	**Pioggiola**	**84.55**	**312**	eP	**P**	**13 58 31.2**	**-1.6**
CDF	**Champ du Feu**	**85.55**	**318**	eP	**P**	**13 58 36.3**	**-1.3**
	comp=Z,4.1nm,0.6s,mb4.5						
CDF	**Champ du Feu**	**85.55**	**318**	eP	**P**	**13 58 36.3**	**-1.3**
CDF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.5						
SBF	**Sospel**	**85.64**	**314**	eP	**P**	**13 58 36.9**	**-1.3**
	comp=Z,50nm,1.0s,mb5.4						
SBF	**Sospel**	**85.64**	**314**	eP	**P**	**13 58 36.9**	**-1.3**
SBF				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.4						
LPG	**La Plagne**	**86.05**	**315**	eP	**P**	**13 58 39.0**	**-1.1**
	comp=Z,24nm,0.9s,mb5.1						
LPG	**La Plagne**	**86.05**	**315**	eP	**P**	**13 58 39.0**	**-1.1**
LPG				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.1						
MBDF	**Montbardon**	**86.07**	**314**	eP	**P**	**13 58 39.4**	**-0.9**
	comp=Z,33nm,1.2s,mb5.1						
MBDF	**Montbardon**	**86.07**	**314**	eP	**P**	**13 58 39.4**	**-0.9**
MBDF				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.1						
HAU	**Haudompre**	**86.19**	**318**	eP	**P**	**13 58 40.1**	**-0.6**
	comp=Z,11nm,0.6s,mb4.9						
HAU	**Haudompre**	**86.19**	**318**	eP	**P**	**13 58 40.1**	**-0.6**
HAU				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.9						
BAIF	**Baives**	**87.45**	**320**	eP	**P**	**13 58 45.9**	**-0.9**
	comp=Z,10nm,0.6s,mb4.9						
BAIF	**Baives**	**87.45**	**320**	eP	**P**	**13 58 45.9**	**-0.9**
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.9						
SSF	**Saint Saulge**	**88.18**	**317**	eP	**P**	**13 58 49.3**	**-1.1**
SSF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.8						
SSF	**Saint Saulge**	**88.18**	**317**	eP	**P**	**13 58 49.3**	**-1.1**
	comp=Z,6.8nm,1.0s,mb4.8						
RJF	**Les Rejaudoux**	**89.74**	**315**	eP	**P**	**13 58 56.7**	**-1.2**
VNDA	**Vanda**	**89.74**	**169**	P	**P**	**13 58 59.3**	**+2.1**
	comp=Z,1.5nm,0.8s,mb4.4,baz=358,slow=5.8,SNR=2.7						
FLN	**La Foliniere**	**90.64**	**319**	eP	**P**	**13 59 00.8**	**-1.2**
	comp=Z,14nm,0.4s,mb5.3						
FLN	**La Foliniere**	**90.64**	**319**	eP	**P**	**13 59 00.8**	**-1.2**
FLN				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb5.3						
EKA	**Eskdalemuir Ar**	**91.20**	**326**	P	**P**	**13 59 04.8**	**+0.3**
	comp=Z,3.3nm,0.8s,mb4.7,baz=98,slow=5.9,SNR=4.6						
ETSF	**Etsaut**	**91.53**	**313**	eP	**P**	**13 59 04.3**	**-2.0**
	comp=Z,141nm,1.7s,mb5.7						
ETSF	**Etsaut**	**91.53**	**313**	eP	**P**	**13 59 04.3**	**-2.0**
ETSF				pmax	pmax		
	comp=Z,70nm,1.7s,mb5.7						
SNAA	**Sanae**	**97.56**	**198**	LR	LR	14 37 01.1	
	comp=Z,21nm,18.6s,MS3.6,baz=11,slow=31						
TBI	**Tubuai**	**114.34**	**113**	eLR	LR	14 39 05.6	
	comp=Z,134nm,23.5s						
PPT	**Papeete**	**114.62**	**107**	eLR	LR	14 39 13.7	
	comp=Z,124nm,23.0s						
ULM	**Lac du Bonnet**	**123.99**	**9**	PKP	PKPdf	14 04 58.6	+2.0
	comp=Z,2.6nm,0.7s,baz=0.6,slow=1.3,SNR=4.6						
NVAR	**Mina Array Bea**	**126.26**	**33**	PKP	PKPdf	14 05 05.6	+4.2
	comp=Z,1.1nm,0.6s,baz=262,slow=2.3,SNR=6.0						
PDAR	**Pinedale Array**	**127.04**	**24**	PKP	PKPdf	14 05 05.2	+2.4
	comp=Z,0.5nm,0.6s,baz=97,slow=3.2,SNR=6.1						
RKT	**Rikitea**	**127.55**	**115**	eLR	LR	14 45 12.7	
	comp=Z,152nm,22.2s						
TXAR	**Lajitas Array**	**140.91**	**28**	PKP	PKPdf	14 05 29.0	0.0
	comp=Z,1.0nm,0.7s,baz=355,slow=0.5,SNR=8.0						
JCT	**Junction City**	**141.55**	**22**	PKIKP	PKPdf	14 05 28.5	-1.6
BDFB	**Brasilia**	**143.26**	**251**	PKP	PKPdf	14 05 34.0	+0.7
	comp=Z,5.6nm,0.9s,baz=52,slow=2.7,SNR=4.1						
LPAZ	**La Paz**	**160.94**	**233**	ePKIKP	PKPdf	14 06 02.9	+4.0
LPAZ	**La Paz**	**160.94**	**233**	PKP	PKPdf	14 06 03.4	+4.5
	comp=Z,2.1nm,0.9s,baz=63,slow=2.3,SNR=4.9						
LPAZ				PKPab	PKPab	14 06 48.3	+4.3
	comp=Z,4.1nm,1.0s,baz=130,slow=4.8,SNR=6.1						

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*IDC **28** 13:48:04.8±0.9, 5.19N×94.68E, mb4.7/14, mb1 4.8/14, mb1mx4.6/21, mbtmp4.7/14, MS4.0/2, Ms1 4.0/2, ms1mx3.3/23, Error ellipse: s-maj=44.8km s-min=16.7km az=41.0*

ISC 28 13:48:08.2±0.7**, 5.2N**±0.2×**94.7E**±0.2**, h33**km**, n22,** σ**0.s76**/18**, mb4.5**/16**, MS4.1**/2**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.80**	**17**	Pn	**P**	**13 51 29.1**	**+5.2**
	1.7nm,0.3s,baz=208,slow=14,SNR=9.6						
SONM	**Songino Array**	**43.63**	**11**	P	**P**	**13 56 11.3**	**-0.1**
	2.3nm,0.5s,mb4.2,baz=190,slow=8.9,SNR=7.2						
SONM				PcP	PcP	13 57 58.5	-0.4
	2.4nm,0.6s,baz=201,slow=4.0,SNR=9.5						
WRA	**Warramunga Arr**	**46.27**	**124**	P	**P**	**13 56 32.7**	**-0.1**
	18nm,0.6s,mb5.2,baz=307,slow=8.6,SNR=9.1						
ASAR	**Alice Springs**	**47.79**	**129**	P	**P**	**13 56 44.5**	**-0.2**
	7.3nm,0.7s,mb4.8,baz=300,slow=7.4,SNR=5.4						
CBIJ	**Chichi jima**	**50.12**	**59**	LR	LR	14 16 12.2	
	comp=Z,102nm,18.0s,MS3.9,baz=22,slow=34						
BVAR	**Borovoye Array**	**51.68**	**342**	P	**P**	**13 57 13.9**	**-0.1**
	10nm,0.7s,mb4.9,baz=137,slow=12,SNR=10						
PMG	**Port Moresby**	**54.23**	**105**	P	**P**	**13 57 33.4**	**-0.1**
	7.7nm,0.5s,mb4.9,baz=252,slow=19,SNR=8.9						
BRTR	**Keskin Array B**	**64.61**	**312**	P	**P**	**13 58 43.9**	**-0.9**
	3.3nm,0.8s,mb4.4,baz=126,slow=6.5,SNR=3.6						
IDI	**Anoyia**	**70.56**	**305**	P	**P**	**13 59 22.7**	**+0.5**
	9.5nm,0.8s,mb4.8,baz=146,slow=4.4,SNR=5.5						
AKASG	**Malin Array Be**	**70.60**	**322**	P	**P**	**13 59 20.1**	**-2.0**
	1.7nm,0.5s,mb4.3,baz=87,slow=5.1,SNR=4.0						
FINES	**FINESS Array B**	**75.33**	**332**	P	**P**	**13 59 49.7**	**0.0**
	1.6nm,0.4s,mb4.3,baz=99,slow=6.1,SNR=6.8						
KAF	**Kangasniemi**	**75.41**	**333**	ep	**P**	**13 59 49.5**	**-0.7**
	0.8nm,0.4s,mb4.0						
KEV	**Kevo**	**77.53**	**341**	ep	**P**	**14 00 01.3**	**-0.7**
	0.8nm,0.4s,mb4.0						
ARCES	**ARCESS Array B**	**77.95**	**340**	P	**P**	**14 00 04.5**	**+0.2**
	4.8nm,0.6s,mb4.6,baz=106,slow=6.7,SNR=10						
GERES	**GERESS Array B**	**80.19**	**319**	P	**P**	**14 00 17.9**	**+1.0**
	5.0nm,0.6s,mb4.6,baz=119,slow=5.3,SNR=13						
KHC	**Kasperske Hory**	**80.29**	**319**	eP	**P**	**14 00 18.0**	**+0.5**
HFS	**Hagfors**	**81.04**	**330**	P	**P**	**14 00 21.6**	**+0.4**
	1.1nm,0.4s,mb4.2,baz=90,slow=5.9,SNR=5.2						
DAVOX	**Davos**	**82.70**	**316**	P	**P**	**14 00 31.2**	**+1.1**
	14nm,0.5s,mb5.3,baz=130,slow=4.3,SNR=12						
ILAR	**Eielson Array**	**96.98**	**22**	P	**P**	**14 01 38.4**	**+1.0**
	0.3nm,0.5s,mb4.0,baz=289,slow=4.4,SNR=9.8						
DBIC	**Dimbokro**	**98.87**	**278**	LR	LR	14 42 14.7	
	comp=Z,101nm,21.7s,MS4.3,baz=57,slow=33						
PDAR	**Pinedale Array**	**127.41**	**22**	PKP	PKPdf	14 07 10.3	+0.1
	0.9nm,0.5s,baz=113,slow=2.7,SNR=6.6						
TXAR	**Lajitas Array**	**141.38**	**26**	PKhKP		14 07 33.6	
	0.7nm,0.5s,baz=154,slow=1.3,SNR=3.7						
TXAR				PKP	PKPdf	14 07 39.8	+3.2
	0.9nm,0.5s,baz=17,slow=0.4,SNR=6.3						

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*IDC **28** 14:01:36.3±1.1, 4.77N×96.48E, mb4.1/7, mb1 4.1/8, mb1mx4.0/18, mbtmp4.0/8, ML3.4/1, Error ellipse: s-maj=49.4km s-min=17.7km az=56.0*

ISC 28 14:01:40.0±0.8**, 4.8N**±0.1×**96.7E**±0.2**, h33**km**, n17,** σ**0.s91**/14**, mb4.3**/12**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.74**	**9**	Pn	**P**	**14 04 54.2**	**-0.8**
	0.1nm,0.3s,baz=198,slow=13,SNR=3.9						
PKI	**Pulchoki**	**25.05**	**336**	eP	**P**	**14 07 04.4**	**+1.3**
	9.4nm,0.6s,mb4.5						
GUN	**Gumba**	**25.17**	**337**	eP	**P**	**14 07 05.3**	**+1.2**
	37nm,0.6s,mb5.1						
DMN	**Daman**	**25.21**	**335**	eP	**P**	**14 07 05.3**	**+0.7**
	11nm,0.9s,mb4.4						
KKN	**Kakani**	**25.30**	**336**	eP	**P**	**14 07 05.7**	**+0.3**
	14nm,0.6s,mb4.6						
GKN	**Gorkha**	**25.76**	**335**	eP	**P**	**14 07 10.0**	**+0.3**
KOLN	**Koldanda**	**26.01**	**333**	eP	**P**	**14 07 11.4**	**-0.6**
	19nm,0.7s,mb4.8						
SONM	**Songino Array**	**43.67**	**9**	P	**P**	**14 09 43.8**	**+0.3**
	1.0nm,0.6s,mb3.8,baz=194,slow=8.3,SNR=10						
SONM				PcP	PcP	14 11 30.2	-0.6
	1.8nm,0.7s,baz=187,slow=4.1,SNR=7.5						
WRA	**Warramunga Arr**	**44.44**	**125**	P	**P**	**14 09 50.0**	**0.0**
	3.1nm,0.7s,mb4.2,baz=302,slow=9.3,SNR=29						
ASAR	**Alice Springs**	**46.02**	**130**	P	**P**	**14 10 03.2**	**+0.5**
	3.5nm,1.1s,mb4.2,baz=301,slow=7.8,SNR=20						
BVAR	**Borovoye Array**	**52.70**	**340**	P	**P**	**14 10 52.0**	**-1.5**

	1.2nm,0.6s,mb4.0,baz=141,slow=9.5,SNR=8.0						
CTA	**Charters Tower**	**54.62**	**119**	P	**P**	**14 11 07.5**	**-0.6**
	4.2nm,1.0s,mb4.4,baz=345,slow=12,SNR=5.3						
STKA	**Stephens Creek**	**56.18**	**134**	P	**P**	**14 11 19.7**	**+0.5**
	2.2nm,0.7s,mb4.3,baz=309,slow=12,SNR=4.9						
BRTR	**Keskin Array B**	**66.33**	**311**	P	**P**	**14 12 25.7**	**-2.0**
	0.6nm,0.5s,mb3.9,baz=129,slow=7.9,SNR=3.7						
TXAR	**Lajitas Array**	**140.83**	**29**	PKhKP		14 21 04.5	
	0.5nm,0.9s,baz=315,slow=1.8,SNR=3.6						
BDFB	**Brasilia**	**143.69**	**250**	PKP	PKPdf	14 21 14.4	+1.8
	3.9nm,0.8s,baz=112,slow=2.6,SNR=5.2						
LPAZ	**La Paz**	**161.23**	**231**	PKP	PKPdf	14 21 41.2	+3.4
	2.4nm,1.1s,baz=24,slow=4.9,SNR=4.4						
LPAZ				PKPab	PKPab	14 22 28.1	+4.2
	0.5nm,0.5s,baz=146,slow=3.6,SNR=4.8						

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*NEIC **28** 14:02:22.8, 32.91S×71.58W, h59km, MD3.4(GUC), After GUC.*

GUC 28 14:02:22.8±0.7**, 32.91S×71.58W, h59km±3km, MD3.4, ML3.5, 14C-9D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
IHA	**Instituto Hidr**	**0.13**	**204**	⇑*i*P	P	14 02 32.1	+0.3
IHA				*i* S	S	14 02 38.8	+0.4
PACH	**Papudo**	**0.39**	**18**	⇓*i*P	P	14 02 34.0	+0.4
PACH				*i* S	S	14 02 42.3	+0.7
ROCH	**El Roble**	**0.48**	**98**	⇓*i*P	P	14 02 35.4	+0.8
ROCH				*i* S	S	14 02 44.5	+1.4
LCCH	**Las Cruces**	**0.57**	**179**	⇑*i*P	P	14 02 35.5	+0.1
LCCH				*i* S	S	14 02 44.6	-0.2
PEL	**Peldehue**	**0.79**	**108**	⇓*i*P	P	14 02 38.8	+0.6
PEL				*i* S	S	14 02 50.7	+1.1
PTCH	**Petorca**	**0.84**	**41**	⇓*i*P	P	14 02 39.4	+0.5
PTCH				*i* S	S	14 02 51.7	+0.8
PTCH				AMP		14 02 52.2	
	comp=E,7µm,0.2s						
JACH	**Jahuel**	**0.86**	**75**	⇑*i*P	P	14 02 39.5	+0.3
JACH				*i* S	S	14 02 51.6	+0.3
RCDM	**Rinconada Maip**	**0.87**	**132**	⇑*i*P	P	14 02 39.3	+0.1
RCDM				*i* S	S	14 02 51.8	+0.3
RCDM				AMP		14 02 52.7	
	comp=N,3µm,0.2s						
PUEX	**Pudahuel**	**0.87**	**128**	*i* S	S	14 02 52.6	+1.1
PUEX				AMP		14 02 55.2	
	comp=E,4µm,0.6s						
TACH	**Talagante**	**0.92**	**144**	⇓*i*P	P	14 02 40.1	+0.2
TACH				*i* S	S	14 02 53.4	+0.8
SAN	**Santiago**	**0.94**	**125**	*i* S	S	14 02 53.8	+0.6
SAN				AMP		14 02 54.4	
	comp=N,2µm,0.3s						
STL	**Santa Lucia**	**0.95**	**124**	⇓*i*P	P	14 02 40.7	+0.4
STL				*i* S	S	14 02 54.0	+0.7
STL				AMP		14 02 54.3	
	comp=N,582nm,0.3s						
DSCH	**Colegio Aleman**	**0.98**	**120**	⇑*i*P	P	14 02 41.3	+0.6
DSCH				*i* S	S	14 02 55.0	+0.9
DSCH				AMP		14 02 56.1	
	comp=N,3µm,0.5s						
CLCH	**Cerro Calan**	**1.00**	**119**	⇑*i*P	P	14 02 41.6	+0.5
CLCH				*i* S	S	14 02 55.6	+1.0
CLCH				AMP		14 02 56.3	
	comp=E,1µm,0.3s						
CLCH				AMP		14 02 57.6	
	comp=N,2µm,0.4s						
ANTU	**Antumapu**	**1.03**	**130**	⇑*i*P	P	14 02 41.9	+0.4
ANTU				*i* S	S	14 02 55.9	+0.6
ANTU				AMP		14 02 56.6	
	comp=E,2µm,0.5s						
FSR	**Penalolen**	**1.05**	**123**	*e*P	P	14 02 42.3	+0.6
FSR				*i* S	S	14 02 56.7	+1.0
FSR				AMP		14 02 57.5	
	comp=E,2µm,0.2s						
PCH	**Pirque**	**1.14**	**129**	⇓*i*P	P	14 02 43.1	+0.2
PCH				*i* S	S	14 02 58.4	+0.5
FCH	**Farellones**	**1.16**	**112**	⇑*i*P	P	14 02 43.7	+0.6
FCH				*i* S	S	14 02 59.3	+1.0
FCH				AMP		14 02 59.7	
	comp=N,2µm,0.2s						
CHCH	**Chadas Angostu**	**1.28**	**143**	⇓*i*P	P	14 02 45.0	0.0
CHCH				*i* S	S	14 03 01.6	+0.2
ILCH	**Illapel**	**1.31**	**15**	⇑*i*P	P	14 02 46.0	+0.5
ILCH				*i* S	S	14 03 02.8	+0.5
ILCH				AMP		14 03 04.0	
	comp=E,1µm,0.1s						
CACH	**El Canelo**	**1.46**	**146**	⇑*i*P	P	14 02 48.1	+0.7
LMEL	**Las Melosas**	**1.48**	**130**	⇑*i*P	P	14 02 48.0	+0.2
LMEL				*i* S	S	14 03 07.1	+0.8
LMEL				AMP		14 03 08.2	
	comp=N,1µm,0.2s						
CICH	**Cipreses**	**1.71**	**146**	⇓*i*P	P	14 02 51.1	+0.2
CICH				*i* S	S	14 03 12.1	+0.5
SFDO	**San Fernando**	**1.77**	**165**	⇑*i*P	P	14 02 51.7	0.0
CMCH	**Combarbala**	**1.80**	**16**	⇑*i*P	P	14 02 52.2	+0.1
CMCH				*i* S	S	14 03 14.2	+0.5
CMCH				AMP		14 03 18.8	
	comp=E,1µm,0.8s						
TLL	**Tololo Astrono**	**2.81**	**14**	⇑*i*P	P	14 03 06.4	0.0
TLL				*i* S	S	14 03 39.2	0.0
TLL				AMP		14 03 52.5	
	comp=N,158nm,0.8s						

IDC 28 14:07:31.8±4.3**, 17.17S×177.25W, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.8**/14**, mbtmp3.8**/4**, Error ellipse: s-maj=184.1km s-min=34.1km az=139.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**39.95**	**241**	P	P	14 15 08.8	-0.9
	1.8nm,0.9s,baz=5.7,slow=10,SNR=3.6						
WRA	**Warramunga Arr**	**45.85**	**259**	P	P	14 15 55.9	-1.9
	0.4nm,0.3s,baz=95,slow=7.6,SNR=15						
ASAR	**Alice Springs**	**46.05**	**253**	P	P	14 15 57.3	-2.1
	1.1nm,0.4s,baz=90,slow=8.2,SNR=32						
ILAR	**Eielson Array**	**84.93**	**13**	P	P	14 20 08.3	-1.3
	0.3nm,0.9s,baz=220,slow=4.9,SNR=5.9						

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*BJI **28** 14:08:42.0, 10.01N×92.99E, h53km, mB5.4, mb5.3, Ms4.6, Msz4.3*

*MOS **28** 14:08:43.0±1.0, 10.57N×93.00E, h33km, mb5.4/32, Error ellipse: s-maj=11.8km s-min=6.3km az=112.9*

*NEIC **28** 14:08:43.6±0.2, 10.42N×93.02E, h30km, mb5.2/41, Error ellipse: s-maj=7.4km s-min=6.2km az=220.0*

*SYO **28** 14:08:43.6, 10.43N×93.02E, h30km, MB5.2, MS4.2*

*IDC **28** 14:08:47.5±0.6, 10.36N×93.02E, h66km±4km, mb4.7/24, mb1 4.8/25, mb1mx4.7/28, mbtmp5.0/25, MS4.2/7, Ms1 4.2/7, ms1mx3.9/27, Error ellipse: s-maj=17.6km s-min=7.8km az=48.0*

ISC 28 14:08:45.7±0.7**, 10.34N**±0.03×**93.00E**±0.03**, h66km±6km, h63km±2.8km:pP-P, n220, σ1s12**/224**, mb5.1**/81**, 37C-6D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNT	**Nongplab**	**6.97**	**71**	⇓P	**S**	**14 11 56.0**	**+10**
SNG	**Songkhla**	**8.16**	**112**	P	**P**	**14 10 44.0**	**+0.3**
	222nm,1.0s						
NST	**Nakhon Sawan**	**8.74**	**52**	P	**P**	**14 10 53.0**	**+1.3**
CM31	**Chiang Mai Arr**	**9.92**	**35**	*e*P	**P**	**14 11 08.6**	**+0.7**
	88nm,0.6s						
CMAR	**Chiang Mai Arr**	**9.92**	**35**	P	**P**	**14 11 08.2**	**+0.4**
	8.4nm,0.3s,baz=228,slow=14,SNR=102						
CMAR				S	**S**	**14 13 05.0**	**+6.5**
	baz=229,slow=25,SNR=2.1						
CMAR				LR	LR	14 15 03.0	
	comp=Z,904nm,21.6s,baz=220,slow=38						
CMAR				ScP		14 20 43.6	
	baz=249,slow=2.7,SNR=4.1						
CHG	**Chiang Mai**	**10.20**	**34**	⇑P	**P**	**14 11 13.9**	**+2.1**
	74nm,0.9s						
KKTK	**Khon Kaen**	**11.27**	**57**	P	**P**	**14 11 29.0**	**+2.9**
VIS	**Vishakhapatnam**	**11.91**	**309**	*e*P	**P**	**14 11 30.9**	**-3.8**
VIS				*e*		14 13 37.5	
	comp=E,402nm,0.3s						
VIS				*e*		14 13 38.5	
	comp=N,326nm,0.3s						
UBT	**Ubonrachathani**	**12.70**	**66**	⇓P	**P**	**14 11 56.0**	**+11**
IMP	**Imphal**	**14.40**	**3**	*e*P	**P**	**14 12 05.8**	**-1.7**
SHL	**Shillong**	**15.19**	**356**	*e*P	**P**	**14 12 13.0**	**-4.7**
SHL				*e*		14 12 21.1	
	comp=Z,96nm,0.8s						
SHL				*e*S	**S**	**14 15 03.7**	**-0.7**
KOD	**Kodaikanal**	**15.28**	**271**	*e*P	**P**	**14 12 16.8**	**-2.2**
KOD				*e*		14 12 25.4	
	comp=Z,105nm,1.4s						
HYB	**Hyderabad**	**15.68**	**298**	*e*P	**P**	**14 12 22.0**	**-2.1**
HYB				*e*S	**S**	**14 15 00.0**	**-16**
HYB	**Hyderabad**	**15.68**	**298**	*i* P	**P**	**14 12 22.0**	**-2.1**
HYB				*e*		14 15 00.0	
HYB				*e*S	**S**	**14 15 12.0**	**-3.9**
TRD	**Trivandrum**	**15.93**	**265**	*e*P	**P**	**14 12 27.0**	**-0.2**
TRD				*e*		14 12 33.5	
	comp=Z,49nm,0.8s						
KMI	**Kunming**	**17.38**	**31**	⇑P	**P**	**14 12 46.8**	**+1.5**
KMI				PP	PP	14 13 00.5	0.0
KMI				S	**S**	**14 15 56.5**	**+2.1**
KMI				SS	SS	14 16 19.8	+1.5
KMI				AMB	AMB		
	comp=Z,29nm,1.2s						
KMI				AMB	AMB		
	comp=Z,315nm,5.2s						
KMI				LR	LR		
	comp=N,630nm,13.4s						
KMI				LR	LR		
	comp=E,618nm,17.2s						
KMI				LR	LR		
	comp=Z,771nm,24.1s						
MNGI	**Mangalore**	**17.99**	**280**	*e*P	**P**	**14 12 52.8**	**-0.1**
MNGI				*e*		14 12 55.3	
	comp=Z,77nm,1.5s						
QIZ	**Qiongzhong**	**18.43**	**60**	P	**P**	**14 12 57.0**	**-1.3**
QIZ				*e*S	**S**	**14 16 18.8**	**+0.5**
QIZ				LR	LR		
	comp=Z,784nm,20.2s						
QIZ	**Qiongzhong**	**18.43**	**60**	*e*P	**P**	**14 12 57.4**	**-0.9**
	comp=Z,45nm,1.0s						
AKL	**Akola**	**18.51**	**306**	*e*P	**P**	**14 13 01.6**	**+2.5**
AKL				*e*		14 13 04.7	
	comp=Z,54nm,1.0s						
PKI	**Pulchoki**	**18.57**	**338**	*e*P	**P**	**14 12 59.9**	**0.0**
	comp=Z,146nm,1.1s						
DMN	**Daman**	**18.72**	**338**	*e*P	**P**	**14 13 01.4**	**-0.2**
	comp=Z,111nm,0.6s						
GUN	**Gumba**	**18.72**	**340**	*e*P	**P**	**14 13 01.5**	**-0.1**
	comp=Z,169nm,0.8s						
KKN	**Kakani**	**18.82**	**338**	*e*P	**P**	**14 13 02.3**	**-0.4**
	comp=Z,74nm,0.7s						
GKN	**Gorkha**	**19.25**	**337**	*e*P	**P**	**14 13 07.3**	**-0.2**
	comp=Z,105nm,0.5s						
LSA	**Lhasa**	**19.34**	**355**	⇑*e*P	**P**	**14 13 07.9**	**-0.6**
LSA				pmax	pmax		
	comp=Z,62nm,0.6s						
LSA	**Lhasa**	**19.34**	**355**	⇑*e*P	**P**	**14 13 07.8**	**-0.7**
	comp=Z,62nm,0.6s						
GOA	**Goa**	**19.37**	**287**	*e*P	**P**	**14 13 13.9**	**+5.0**
KOLN	**Koldanda**	**19.47**	**334**	*e*P	**P**	**14 13 09.8**	**-0.1**
	comp=Z,83nm,0.7s						
KAD	**Karad**	**19.53**	**293**	*e*P	**P**	**14 13 10.9**	**+0.3**
BHPL	**Bhopal**	**19.64**	**313**	*e*P	**P**	**14 13 12.4**	**+0.6**
BHPL				*e*		14 13 27.7	
	comp=Z,58nm,1.6s						
BHPL				*e*		14 16 35.9	
BHPL				*e*S	**S**	**14 16 54.6**	**+10**
POO	**Poona**	**20.24**	**296**	*e*P	**P**	**14 13 18.0**	**-0.1**
POO				*e*		14 13 23.2	
	comp=Z,80nm,1.7s						
GYA	**Guiyang**	**20.59**	**37**	⇑*i*P	**P**	**14 13 21.0**	**-0.7**
GYA				AMB	AMB		
	comp=Z,110nm,0.9s						
BOM	**Bombay**	**21.29**	**296**	*e*P	**P**	**14 13 30.0**	**+1.2**
	comp=Z,118nm,1.7s,mb4.9						
BOM				*e*S	**S**	**14 17 25.7**	**+9.4**
PTH	**Pithoragarh**	**22.54**	**330**	*e*P	**P**	**14 13 42.7**	**+1.5**
PTH				*e*S	**S**	**14 17 51.1**	**+12**
COCO	**West Island**	**22.70**	**170**	*e*P	**P**	**14 13 44.8**	**+1.9**
	comp=Z,107nm,1.0s,mb5.1						
CD2	**Chengdu**	**22.78**	**24**	*e*P	**P**	**14 13 43.5**	**0.0**
CD2				*e*S	**S**	**14 17 47.5**	**+4.0**
CD2				AMB	AMB		
	comp=Z,150nm,0.8s,mb5.4						
CD2				LR	LR		
	comp=E,650nm,14.4s						
CD2				LR	LR		
	comp=Z,640nm,13.2s						
NDI	**New Delhi**	**23.49**	**323**	*e*P	**P**	**14 13 52.0**	**+1.5**
NDI				*e*		14 13 53.8	
	comp=Z,50nm,0.9s						
DDI	**Dehra Dun**	**24.27**	**327**	*e*P	**P**	**14 13 59.9**	**+1.9**
ENH	**Enshi**	**25.09**	**35**	*e*P	**P**	**14 14 04.5**	**-1.3**
	comp=Z,76nm,0.5s,mb5.4						
ENH				*e*PcP	PcP	14 17 39.5	-0.1
LZH	**Lanzhou**	**27.46**	**19**	⇑*i*P	**P**	**14 14 27.5**	**-0.2**
LZH				AP	pP	14 14 37.0	-6.4
LZH				PP	PP	14 15 16.0	-1.3
LZH				*e*S	**S**	**14 19 04.5**	**+2.7**
LZH				*e*SS	SS	14 20 25.3	+1.7
LZH				AMB	AMB		
	comp=Z,110nm,1.2s,mb5.3						
LZH				AMB	AMB		
	comp=Z,370nm,5.2s						
LZH				LR	LR		
	comp=N,3µm,15.5s						
LZH				LR	LR		
	comp=Z,4µm,16.0s						
TGY	**Tagaytay City**	**27.55**	**79**	P	**P**	**14 14 29.0**	**+0.3**
	comp=Z,206nm,0.3s,mb6.2,baz=165,slow=15,SNR=2.9						
XAN	**Xi'an**	**27.74**	**29**	P	**P**	**14 14 27.0**	**-3.3**
GTA	**Gaotai**	**29.59**	**11**	⇑P	**P**	**14 14 46.8**	**+0.1**
GTA				AP	pP	14 14 56.0	-6.6
GTA				PP	PP	14 15 40.8	-4.1
GTA				PCP	PcP	14 17 51.3	+1.0
GTA				S	**S**	**14 19 33.5**	**-2.2**
GTA				SCP		14 21 28.3	
GTA				SCS	ScS	14 25 22.0	+3.5
GTA				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.1						
GTA				AMB	AMB		
	comp=Z,366nm,4.6s						
GTA				LR	LR		
	comp=N,300nm,16.0s						
GTA				LR	LR		
	comp=E,188nm,19.4s						
GTA				LR	LR		
	comp=Z,260nm,17.1s						
NJ2	**Nanjing**	**32.22**	**44**	*e*P	**P**	**14 15 07.5**	**-2.4**
NJ2				PP	PP	14 16 15.5	-3.2
NJ2				S	**S**	**14 20 18.0**	**+0.9**
NJ2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,686nm,5.6s						
NJ2				LR	LR		
	comp=N,660nm,16.0s						
NJ2				LR	LR		
	comp=E,830nm,17.2s						
NJ2				LR	LR		
	comp=Z,840nm,14.9s						
KSH	**Kashi**	**32.78**	**335**	P	**P**	**14 15 14.0**	**-0.7**
KSH				*e*PP	PP	14 16 23.5	-2.4
KSH				PPP	PPP	14 16 41.5	-0.5
KSH				PCP	PcP	14 17 57.8	-0.9
KSH				*e*S	**S**	**14 20 26.0**	**+0.2**
KSH				*e*SCP		14 21 37.0	
KSH				*e*PCS		14 21 41.0	
KSH				SS	SS	14 22 30.5	+2.9
KSH				SCS	ScS	14 25 35.8	+1.6
KSH				AMB	AMB		
	comp=Z,280nm,4.8s						
KSH				LR	LR		
	comp=N,550nm,7.4s						
KSH				LR	LR		
	comp=E,350nm,7.8s						
SSE	**Sheshan**	**33.32**	**48**	P	**P**	**14 15 14.3**	**-5.2**
SSE				AMB	AMB		
	comp=Z,35nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,307nm,8.8s						
WMQ	**Urumqi**	**33.68**	**353**	⇑P	**P**	**14 15 22.8**	**+0.4**
WMQ				AP	pP	14 15 32.3	-6.4
WMQ				PP	PP	14 16 35.8	-1.0
WMQ				S	**S**	**14 20 42.0**	**+2.3**
WMQ				AMB	AMB		
	comp=Z,11nm,0.5s,mb4.9						
WMQ				LR	LR		
	comp=N,106nm,20.4s						
WMQ				LR	LR		
	comp=E,325nm,20.6s						
WMQ				LR	LR		
	comp=Z,185nm,24.8s						
BTO	**Baotou**	**33.70**	**24**	*e*P	**P**	**14 15 21.3**	**-1.4**
BTO				AMB	AMB		
	comp=Z,47nm,0.7s,mb5.4						
HHC	**Hu-ho-hao-te**	**34.54**	**25**	⇑*i*P	**P**	**14 15 30.0**	**+0.1**
HHC				AP	pP	14 15 39.3	-6.8
HHC				PP	PP	14 16 45.0	-2.8
HHC				S	**S**	**14 20 52.0**	**-1.0**
HHC				SCS	ScS	14 25 48.0	+4.6
HHC				AMB	AMB		
	comp=Z,51nm,0.7s,mb5.5						
HHC				AMB	AMB		
	comp=Z,408nm,11.5s						
HHC				LR	LR		
	comp=N,357nm,13.1s						
HHC				LR	LR		
	comp=E,353nm,14.1s						
HHC				LR	LR		
	comp=Z,347nm,25.0s						
ULHL	**Ulahol**	**35.01**	**338**	P	**P**	**14 15 34.5**	**+0.6**
	SNR=8.0						
KZA	**Kyzart**	**35.24**	**337**	P	**P**	**14 15 36.9**	**+1.1**
	SNR=22						
UCH	**Uchtor**	**35.66**	**336**	P	**P**	**14 15 40.6**	**+1.2**
	SNR=16						
TKM2	**Tokmak 2**	**35.84**	**338**	P	**P**	**14 15 41.5**	**+0.6**
	SNR=16						
KBK	**Karagaybulak**	**35.85**	**337**	P	**P**	**14 15 42.4**	**+1.4**
	SNR=39						
AML	**Almayashu**	**35.91**	**335**	P	**P**	**14 15 42.5**	**+1.0**
	SNR=40						
AAK	**Ala-Archa**	**36.01**	**337**	P	**P**	**14 15 43.7**	**+1.4**
	SNR=21						
AAK	**Ala-Archa**	**36.01**	**337**	⇑*e*P	**P**	**14 15 42.5**	**+0.1**
AAK				*e*		14 18 08.0	
AAK				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
AAK	**Ala-Archa**	**36.01**	**337**	⇑*e*P	**P**	**14 15 42.5**	**+0.1**
	comp=Z,21nm,0.8s,mb5.1						
AAK				*e*PcP	PcP	14 18 08.0	0.0
BJT	**Baijiatuau**	**36.01**	**31**	⇑*e*P	**P**	**14 15 42.5**	**+0.1**
BJT				pmax	pmax		
	comp=Z,39nm,0.9s						
BJT	**Baijiatuau**	**36.01**	**31**	⇑*e*P	**P**	**14 15 42.5**	**0.0**
	comp=Z,39nm,0.9s,mb5.3						
BJI	**Beijing**	**36.03**	**31**	P	**P**	**14 15 42.8**	**+0.2**
BJI				AMB	AMB		
	comp=Z,37nm,0.9s,mb5.3						
BJI				LR	LR		
	comp=N,556nm,17.4s						
BJI				LR	LR		
	comp=E,390nm,18.1s						
BJI				LR	LR		
	comp=Z,662nm,22.7s						
CHMS	**Chumysh**	**36.22**	**337**	P	**P**	**14 15 44.8**	**+0.6**
	SNR=18						
EKS2	**Erkin-Say**	**36.32**	**336**	P	**P**	**14 15 46.0**	**+1.0**
	SNR=27						
USP	**Ospenovka**	**36.55**	**337**	P	**P**	**14 15 47.6**	**+0.7**
	SNR=61						
JOW	**Kunigami**	**37.08**	**59**	P	**P**	**14 15 52.0**	**+0.4**
	comp=Z,7.4nm,0.3s,mb5.1,baz=274,slow=18,SNR=8.0						
JOW				LR	LR	14 30 13.2	
	comp=Z,495nm,21.0s,baz=14,slow=35						
MKAR	**Makanchi Array**	**37.46**	**348**	*i* P	**P**	**14 15 54.1**	**-0.3**
MKAR				pmax	pmax		
	comp=Z,26nm,0.8s						
SONM	**Songino Array**	**39.05**	**14**	P	**P**	**14 16 07.8**	**+0.2**
	comp=Z,21nm,0.6s,mb5.1,baz=200,slow=8.0,SNR=166						
SONM				PcP	PcP	14 18 17.6	+0.4
	comp=Z,8.3nm,0.7s,baz=202,slow=3.4,SNR=9.6						
SONM				ScP		14 22 01.5	
	comp=Z,1.8nm,0.9s,baz=207,slow=5.5,SNR=5.4						
ULN	**Ulaanbaatar**	**39.24**	**15**	⇑*i*P	**P**	**14 16 09.1**	**-0.1**
ULN				*e*		14 18 18.6	
ULN				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.0						
ULN	**Ulaanbaatar**	**39.24**	**15**	⇑*i*P	**P**	**14 16 09.1**	**-0.2**
	comp=Z,22nm,0.8s,mb5.0						
ULN				*e*PcP	PcP	14 18 18.6	+0.7
MBWA	**Marble Bar**	**40.86**	**140**	*e*P	**P**	**14 16 21.7**	**-1.3**
	comp=Z,4.8nm,0.6s,mb4.5						
SNY	**Shenyang**	**41.27**	**35**	⇑P	**P**	**14 16 26.5**	**+0.4**
MOY	**Mondy**	**41.73**	**7**	*e*P	**P**	**14 16 30.8**	**+1.1**
TLY	**Talaya**	**42.13**	**10**	⇑*i*P	**P**	**14 16 30.8**	**-2.3**
TLY				*e*P		14 16 34.0	
CN2	**Changchun**	**43.60**	**34**	⇑P	**P**	**14 16 45.5**	**+0.3**
CN2				*e*AP	pP	14 16 55.0	-6.8
CN2				PCP	PcP	14 18 32.0	-0.2
CN2				*e*S	**S**	**14 23 12.3**	**+3.1**
CN2				AMB	AMB		
	comp=Z,80nm,0.7s,mb5.6						
CN2				AMB	AMB		
	comp=Z,900nm,5.0s						
CN2				LR	LR		
	comp=N,300nm,14.0s						
CN2				LR	LR		
	comp=E,500nm,14.0s						
CN2				LR	LR		
	comp=Z,500nm,15.0s						
HIA	**Hailar**	**44.74**	**25**	*e*P	**P**	**14 16 53.8**	**-0.5**
HIA				*e*		14 18 35.9	
HIA				pmax	pmax		
	comp=Z,29nm,0.8s						
HIA	**Hailar**	**44.74**	**25**	*e*P	**P**	**14 16 53.8**	**-0.5**
	comp=Z,29nm,0.8s,mb5.1						
HIA				*e*PcP	PcP	14 18 35.9	-0.1
BVA0	**Borovoye Array**	**46.31**	**341**	*i* P	**P**	**14 17 06.3**	**-0.3**
BVA0				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.1						
BVAR	**Borovoye Array**	**46.31**	**341**	P	**P**	**14 17 06.0**	**-0.6**
	comp=Z,15nm,0.6s,mb4.9,baz=143,slow=7.4,SNR=91						
BVAR				PcP	PcP	14 18 41.4	-0.1
	comp=Z,5.1nm,0.6s,baz=153,slow=3.3,SNR=4.2						
BVAR				S	**S**	**14 23 47.8**	**-0.2**
	comp=Z,1.4nm,0.8s,baz=146,slow=16,SNR=5.1						
BRVK	**Borovoye**	**46.37**	**341**	*e*P	**P**	**14 17 06.3**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.0						
BRVK	**Borovoye**	**46.37**	**341**	*e*P	**P**	**14 17 06.3**	**-0.8**
	comp=Z,26nm,0.8s,mb5.0						
MDJ	**Mudanjiang**	**46.45**	**36**	P	**P**	**14 17 07.3**	**-0.6**
MDJ				AMB	AMB		
	comp=Z,267nm,12.0s						
MDJ				LR	LR		
	comp=N,93nm,25.0s						
MDJ				LR	LR		
	comp=E,180nm,22.8s						
MDJ				LR	LR		
	comp=Z,234nm,22.4s						
CHKZ	**Chkalovo**	**46.80**	**342**	P	**P**	**14 17 10.5**	**0.0**
CHKZ				pmax	pmax		
	comp=Z,63nm,0.9s,mb5.3						
CHKZ	**Chkalovo**	**46.80**	**342**	⇑*i*P	**P**	**14 17 10.4**	**-0.1**
	comp=Z,75nm,0.8s,mb5.5						
MAT	**Matsushiro**	**48.40**	**50**	P	**P**	**14 17 22.4**	**-0.8**
MAT	**Matsushiro**	**48.40**	**50**	*e*P	**P**	**14 17 22.0**	**-1.2**
NWAO	**Narrogin (SRO)**	**48.84**	**153**	P	**P**	**14 17 25.4**	**-1.2**
	comp=Z,12nm,0.6s,mb5.0,baz=312,slow=9.2,SNR=25						
BOD	**Bodaibo**	**50.05**	**14**	⇓*i*P	**P**	**14 17 34.6**	**-1.0**
WRA	**Warramunga Arr**	**50.61**	**126**	P	**P**	**14 17 39.5**	**-0.9**
	comp=Z,34nm,0.5s,mb5.6,baz=304,slow=8.8,SNR=380						
WRA				PcP	PcP	14 18 57.6	+0.2
	comp=Z,3.3nm,0.5s,baz=316,slow=2.7,SNR=5.1						
WRA				ScP		14 22 47.8	
	comp=Z,2.8nm,1.0s,baz=316,slow=3.8,SNR=5.7						
WRA				S	**S**	**14 24 48.4**	**-0.3**
	comp=Z,4.7nm,1.1s,baz=293,slow=17,SNR=7.8						
WRAB	**Tennant Creek**	**50.62**	**126**	⇓*i*P	**P**	**14 17 38.1**	**-2.4**
WRAB	**Tennant Creek**	**50.62**	**126**	⇑*e*P	**P**	**14 17 39.9**	**-0.6**
	comp=Z,81nm,0.4s,mb6.1						
GNI	**Garni**	**51.93**	**313**	P	**P**	**14 17 51.0**	**+0.9**
	comp=Z,26nm,1.1s,mb5.2,baz=17,slow=1.4,SNR=6.4						
ASAR	**Alice Springs**	**52.36**	**131**	P	**P**	**14 17 52.5**	**-1.0**
	comp=Z,80nm,0.6s,mb5.9,baz=305,slow=6.9,SNR=670						
ASAR				PcP	PcP	14 19 04.5	+0.6
	comp=Z,10nm,0.8s,baz=307,slow=4.0,SNR=6.5						
ASAR				ScP		14 22 55.0	
	comp=Z,3.1nm,0.7s,baz=311,slow=4.2,SNR=9.9						
ASAR				S	**S**	**14 25 10.8**	**-1.8**
	comp=Z,1.4nm,0.8s,baz=293,slow=14,SNR=5.0						
TI2	**Plekhanov**	**52.51**	**315**	*e*P	**P**	**14 17 45.2**	**-9.2**

CLNS	Chul'man	52.55	21	eP	P	14 17 52.0	-2.5
CLNS				pmax	pmax		
	comp=Z,69nm,0.7s,mb5.8						
CLNS				pmax	pmax		
	comp=N,38nm,0.8s						
CLNS				pmax	pmax		
	comp=E,35nm,0.8s						
SVE	Sverdlovsk	52.71	338⇑	iP	P	14 17 55.5	-0.2
SVE				pmax	pmax		
	comp=Z,120nm,1.2s,mb5.8						
ARU	Arti	53.20	337⇑	iP	P	14 17 57.2	-2.1
ARU				e		14 19 03.9	
ARU				e		14 19 54.9	
ARU				eS	S	14 25 28.4	+4.9
ARU				eSS	SS	14 29 04.8	+1.7
ARU				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.4						
ARU	Arti	53.20	337⇑	eP	P	14 17 58.3	-1.0
	comp=Z,28nm,0.7s,mb5.4						
ZEI	Tsey	53.48	316	eP	P	14 18 01.9	+0.2
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
ASAJ	Asahikawa	54.34	42	LR	LR	14 42 11.0	
	comp=Z,186nm,20.8s,baz=352,slow=37						
KIV	Kislovodsk	54.75	317⇑	eP	P	14 18 10.9	0.0
KIV				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.4						
KIV	Kislovodsk	54.75	317⇑	eP	P	14 18 10.8	0.0
	comp=Z,34nm,0.9s,mb5.4						
GOF	Gofitskoye	54.94	318	eP	P	14 18 01.0	-11
YSS	Yuzh-Sakhalins	55.58	39⇑	iP	P	14 18 11.0	-5.8
YSS				pmax	pmax		
	comp=E,30nm,0.6s						
YSS				pmax	pmax		
	comp=Z,70nm,0.6s,mb5.9						
YSS	Yuzh-Sakhalins	55.58	39	eP	P	14 18 16.4	-0.4
	comp=Z,54nm,0.6s,mb5.8						
ASF	Jabal al Asfar	55.95	302	LR	LR	14 44 10.9	
	comp=Z,144nm,20.0s,baz=328,slow=38						
MALT	Malatya	56.03	309	P	P	14 18 18.0	-2.2
MALT				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.7						
MALT	Malatya	56.03	309	P	P	14 18 18.0	-2.2
	comp=Z,11nm,1.4s,mb4.7						
SOKR	Solikamsk	56.11	339⇑	iP	P	14 18 19.1	-1.4
SOKR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.5						
KMBO	Kilima Mbogo	56.61	262	LR	LR	14 38 33.9	
	comp=Z,221nm,20.9s,baz=91,slow=32						
SOC	Sochi	56.63	316	eP	P	14 18 19.2	-5.3
SOC				ePPP	PPP	14 21 53.2	+1.9
SOC				eS	S	14 26 11.6	+1.9
SOC				pmax	pmax		
	comp=N,19nm,1.4s						
SOC				pmax	pmax		
	comp=Z,24nm,1.4s,mb5.0						
SOC				pmax	pmax		
	comp=E,31nm,1.3s						
YAK	Yakutsk	58.05	19c	iP	P	14 18 32.7	-1.4
YAK				eS	S	14 26 27.4	-0.6
YAK				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.5						
YAK				pmax	pmax		
	comp=N,18nm,1.2s						
YAK				pmax	pmax		
	comp=E,15nm,1.2s						
YAK				smax			
	comp=E,3.0nm,1.3s						
YAK	Yakutsk	58.05	19⇑	iP	P	14 18 32.6	-1.5
	comp=E,123nm,0.8s,mb6.0						
VRSR	Storozhevoye	59.73	324	eP	P	14 18 44.7	-1.2
VRSR				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.2						
VRSR				pmax	pmax		
	comp=N,6.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,30nm,1.0s						
BRTR	Keskin Array B	59.98	310	P	P	14 18 45.9	-1.9
	comp=E,1.7nm,0.5s,mb4.3,baz=122,slow=7.2,SNR=10						
CTA	Charters Tower	60.50	120	P	P	14 18 52.0	+0.4
	comp=E,8.7nm,0.8s,mb4.8,baz=303,slow=7.9,SNR=14						
CTA				PcP	PcP	14 19 36.4	+1.0
	comp=E,4.5nm,0.4s,baz=278,slow=5.1,SNR=12						
CTAO	Charters Tower	60.50	120	eP	P	14 18 51.7	+0.1
CTAO				e	pP	14 19 08.4	-0.6
CTAO				e		14 19 35.8	
CTAO				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
CTAO	Charters Tower	60.50	120	eP	P	14 18 51.7	0.0
	comp=Z,30nm,1.2s,mb5.2						
CTAO				e	pP	14 19 08.4	-0.6
CTAO				ePcP	PcP	14 19 35.8	+0.3
ISP	Isparta	62.05	307	eP	P	14 18 59.0	-2.8
MOS	Moscow	62.40	328	eP	P	14 19 02.6	-1.3
MOS				e	pP	14 19 18.1	-3.3
MOS				eS	S	14 27 38.8	+15
MOS				pmax	pmax		
	comp=Z,73nm,0.8s,mb5.8						
STKA	Stephens Creek	62.62	134	P	P	14 19 05.8	+0.1
	comp=Z,37nm,0.5s,mb5.5,baz=314,slow=6.0,SNR=153						
STKA				LR	LR	14 48 39.9	
	comp=Z,182nm,18.9s,baz=113,slow=38						
STKA	Stephens Creek	62.62	134	eP	P	14 19 05.6	-0.1
STKA				e	pP	14 19 23.5	+0.3
OBN	Obninsk	62.71	327⇑	iP	P	14 19 03.8	-2.2
OBN				i		14 19 10.0	
OBN				e		14 19 42.7	
OBN				e		14 21 21.4	
OBN				i S	S	14 27 29.1	+1.3
OBN				pmax	pmax		
	comp=Z,80nm,1.6s,mb5.4						
OBN	Obninsk	62.71	327	eP	P	14 19 04.9	-1.1
	comp=Z,63nm,1.3s,mb5.4						
OBN				e	pP	14 19 23.8	+0.3
TIXI	Tiksi	65.06	12⇑	iP	P	14 19 19.9	-1.2
TIXI				pmax	pmax		
	comp=Z,90nm,0.6s,mb5.8						
TIXI				pmax	pmax		
	comp=N,18nm,0.5s						
TIXI				pmax	pmax		
	comp=E,16nm,0.6s						
TIXI				pmax	pmax		
	comp=Z,105nm,0.6s,mb5.8						
TIXI	Tiksi	65.06	12⇑	eP	P	14 19 16.7	-4.4
MA2	Magadan	65.13	28	eP	P	14 19 20.0	-1.7
MA2				e		14 28 02.5	
MA2				pmax	pmax		
	comp=E,20nm,1.2s						
MA2				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.1						
MA2				pmax	pmax		
	comp=N,10.0nm,0.9s						
MA2	Magadan	65.13	28	eP	P	14 19 20.8	-0.9
	comp=N,88nm,0.9s,mb5.6						
AKASG	Malin Array Be	65.54	321	P	P	14 19 22.6	-1.8
	comp=N,11nm,0.9s,mb4.7,baz=87,slow=4.9,SNR=23						
AKASG				pP	pP	14 19 41.6	-0.5
	comp=N,8.1nm,0.8s,baz=85,slow=5.1,SNR=8.1						
IDI	Anoyia	66.25	304	P	P	14 19 28.9	-0.4
	comp=N,7.0nm,0.7s,mb4.6,baz=82,slow=7.1,SNR=4.2						
MLR	Muntele Rosu	66.64	315	P	P	14 19 31.8	+0.3
	comp=N,8.9nm,0.9s,mb4.6,baz=122,slow=1.7,SNR=11						
LSZ	Lusaka	69.05	249	eP	P	14 19 49.3	+2.3
LSZ				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
LSZ	Lusaka	69.05	249	eP	P	14 19 49.3	+2.2
	comp=Z,7.9nm,1.0s,mb4.5						
APA	Apatity	69.16	339⇑	iP	P	14 19 45.7	-1.2
APA				i	pP	14 20 04.3	-0.4
APA				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.1						
KWP	Kalwaria	69.44	319	eP	P	14 19 48.8	-0.1
KOLS	Kolonicke sedl	69.62	318	eP	P	14 19 50.1	+0.1
SUW	Suwalki	69.86	324	eP	P	14 19 50.3	-1.1
FINES	FINESS Array B	70.02	332	P	P	14 19 51.5	-0.7
	comp=Z,12nm,0.7s,mb4.8,baz=105,slow=7.4,SNR=46						
KAF	Kangasniemi	70.10	333	ep	P	14 19 51.2	-1.5
	comp=Z,8.8nm,0.9s,mb4.6						
KAF	Kangasniemi	70.10	333	eP	P	14 19 51.2	-1.5
KAF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.6						
CRVS	Cervenica-Dubn	70.15	318	eP	P	14 19 54.8	+1.6
CRVS				e	pP	14 20 13.4	+2.4
VYHS	Vyhne	71.83	318	i P	P	14 20 03.0	-0.3
VYHS				e	pP	14 20 20.0	-1.2
KEV	Kevo	72.15	340	ep	P	14 20 03.2	-1.7
	comp=Z,16nm,0.6s,mb5.0						
KEV	Kevo	72.15	340	eP	P	14 20 03.2	-1.7
KEV				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.0						
ARCES	ARCESS Array B	72.58	340	P	P	14 20 07.5	+0.1
	comp=Z,9.7nm,0.5s,mb4.9,baz=91,slow=6.2,SNR=72						
ARE0	ARCESS Array S	72.58	340	eP	P	14 20 07.1	-0.3
MORC	Moravsky Berou	72.79	319	eP	P	14 20 08.9	0.0
MORC				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.7						
MORC	Moravsky Berou	72.79	319	eP	P	14 20 08.9	0.0
	comp=Z,15nm,1.1s,mb4.7						
ZST	Bratislava	72.97	317	eP	P	14 20 10.5	+0.5
ZST				e	pP	14 20 28.7	+0.8
VRAC	Vranov	73.37	318	P	P	14 20 11.4	-1.0
	comp=Z,2.1nm,0.5s,mb4.2,baz=76,slow=9.9,SNR=2.6						
VRAC				pP	pP	14 20 30.5	+0.2
	comp=Z,3.9nm,0.7s,baz=74,slow=7.2,SNR=4.0						
DPC	Dobruska-Polom	73.61	319	eP	P	14 20 14.0	+0.3
KSP	Ksiaz	73.66	320⇑	eP	P	14 20 14.3	+0.3
KSP				e	pP	14 20 30.9	-1.1
KSP	Ksiaz	73.66	320	eP	P	14 20 14.7	+0.7
UPC	Upice	73.82	320	eP	P	14 20 15.6	+0.6
BILL	Bilibino	74.24	22	eP	P	14 20 16.5	-0.6
BILL				pmax	pmax		
	comp=Z,16nm,0.5s,mb5.0						
BILL	Bilibino	74.24	22	eP	P	14 20 16.5	-0.6
	comp=Z,16nm,0.5s,mb5.0						
LBTB	Lobatse	74.45	240	eP	P	14 20 21.0	+1.9
LBTB				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
LBTB	Lobatse	74.45	240	eP	P	14 20 21.0	+1.9
	comp=Z,6.6nm,0.8s,mb4.4						
PRU	Pruhonice	74.74	319	eP	P	14 20 20.7	+0.4
BRG	Berggiesshubel	75.15	320	i P	P	14 20 22.9	+0.3
BRG				e	pP	14 20 37.5	-3.1
BRG				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.7						
BRG	Berggiesshubel	75.15	320	i P	P	14 20 22.9	+0.3
	comp=Z,17nm,1.0s,mb4.7						
BRG				e	pP	14 20 37.5	-3.1
GEC2	GERESS Array S	75.25	318	eP	P	14 20 23.3	+0.1
GEC2				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.8						
GEC2	GERESS Array S	75.25	318	eP	P	14 20 23.3	+0.1
	comp=Z,20nm,1.0s,mb4.8						
GERES	GERESS Array B	75.25	318	P	P	14 20 23.5	+0.2
	comp=Z,10nm,0.7s,mb4.7,baz=87,slow=5.5,SNR=82						
GERES				pP	pP	14 20 41.1	-0.1
	comp=Z,7.3nm,0.7s,baz=85,slow=5.5,SNR=7.7						
RUE	Ruedersdorf	75.31	322	eP	P	14 20 23.6	+0.1
	comp=Z,47nm,0.7s,mb5.3						
KHC	Kasperske Hory	75.34	318	eP	P	14 20 23.8	+0.1
KHC				ex	x	14 20 41.0	
CLL	Collm	75.75	320⇑	iP	P	14 20 25.7	-0.4
CLL				pmax	pmax		
	comp=Z,16nm,1.3s,mb4.6						
CLL	Collm	75.75	320⇑	iP	P	14 20 25.7	-0.4
	comp=Z,16nm,1.3s,mb4.6						
CLL	Collm	75.75	320	⇑P	P	14 20 25.7	-0.4
	comp=Z,logA/T=1.1,mb4.6						
WET	Wettzell	75.80	318	eP	P	14 20 26.4	0.0
BOSA	Boshof	75.95	237	eP	P	14 20 29.4	+1.7
BOSA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
BOSA	Boshof	75.95	237	eP	P	14 20 29.4	+1.8
	comp=Z,7.4nm,0.7s,mb4.5						
MOX	Moxa	76.62	320	eP	P	14 20 31.3	+0.3
MOX				pmax	pmax		
	comp=Z,36nm,1.9s,mb4.8						
MOX	Moxa	76.62	320	i P	P	14 20 31.3	+0.3
	comp=Z,logA/T=1.3,mb4.8						
MOX	Moxa	76.62	320	eP	P	14 20 31.3	+0.3
	comp=Z,36nm,1.9s,mb4.8						
GRA1	Grafenberg Arr	76.88	319	eP	P	14 20 32.4	-0.1
	comp=Z,23nm,1.2s,mb4.8						
GRF	Grafenberg Arr	76.88	319	eP	P	14 20 32.4	-0.1
GRF				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.8						
GRF	Grafenberg Arr	76.88	319	eP	P	14 20 32.4	-0.1
GRF				pmax	pmax		
	comp=Z,23nm,1.2s,mb4.8						
GRF	Grafenberg Arr	76.88	319	eP	P	14 20 32.4	-0.1
	comp=Z,23nm,1.2s,mb4.8						
NB2	NORSAR Subarra	77.05	330	P	P	14 20 32.4	-0.7
	comp=Z,4.5nm,0.6s,mb4.4,baz=96,slow=5.0						
NB2	NORSAR Subarra	77.05	330	P	P	14 20 32.4	-0.7
NB2				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.4						
NOA	NORSAR Array B	77.05	330	P	P	14 20 32.2	-0.9
	comp=Z,8.1nm,0.8s,mb4.5,baz=92,slow=5.7,SNR=19						
CLZ	Clausthal	77.40	321	eP	P	14 20 35.7	+0.4
	comp=Z,24nm,1.0s,mb4.9						
BSEG	Bad Segeberg	77.41	323	eP	P	14 20 35.7	+0.4
DAVOX	Davos	77.85	316	P	P	14 20 37.8	-0.1
	comp=Z,10.0nm,0.8s,mb4.6,baz=118,slow=7.7,SNR=17						
LPG	La Plagne	80.09	315	eP	P	14 20 50.7	+0.6
	comp=Z,30nm,0.8s,mb4.9						
LPG	La Plagne	80.09	315	eP	P	14 20 50.7	+0.6
LPG				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
BNI	Bardonecchia	80.18	314	eP	P	14 20 53.3	+2.7
BNI				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
BNI	Bardonecchia	80.18	314	eP	P	14 20 53.3	+2.7
	comp=Z,20nm,0.9s,mb5.0						
MAW	Mawson	80.71	191	P	P	14 20 55.0	+2.1
	comp=Z,4.1nm,0.7s,mb4.4,baz=17,slow=11,SNR=3.0						
ANM	Nome	85.69	25	eP	P	14 21 19.5	+1.3
SYO	Syowa Base	87.42	197	⇓P	P	14 21 28.7	+2.1
SYO	Syowa Base	87.42	197	⇓PcP	PcP	14 21 31.4	+2.5
RPZ	Rata Peaks	88.57	135	P	P	14 21 34.1	+1.4
	comp=Z,14nm,0.7s,mb5.1,baz=348,slow=9.3,SNR=6.0						
IMA	Indian Mountai	89.78	22	eP	P	14 21 39.9	+2.1
IMA				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.3						
IMA	Indian Mountai	89.78	22	eP	P	14 21 39.9	+2.1
	comp=Z,16nm,0.7s,mb5.2						
URZ	Urewera	91.75	128	P	P	14 21 47.2	-0.5
	comp=Z,5.8nm,0.6s,mb5.0,baz=217,slow=2.4,SNR=6.4						
MCK	McKinley	92.66	23	eP	P	14 21 51.9	+0.7
MCK				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.3						
MCK	McKinley	92.66	23	eP	P	14 21 51.9	+0.7
	comp=Z,13nm,0.9s,mb5.3						
ILAR	Eielson Array	92.90	22	P	P	14 21 52.0	-0.3
	comp=Z,9.6nm,0.7s,mb5.2,baz=300,slow=4.2,SNR=126						
ILAR				PKKP	PKKP	14 39 03.0	+13
	comp=Z,0.2nm,0.5s,baz=150,slow=1.2,SNR=6.6						
PMR	Palmer	93.64	25	eP	P	14 21 56.6	+0.9
PMR				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.5						
PMR	Palmer	93.64	25	eP	P	14 21 56.6	+0.9
	comp=Z,12nm,0.5s,mb5.5						
VNDA	Vanda	95.55	168	P	P	14 22 05.2	+1.0
	comp=Z,1.6nm,0.7s,mb4.5,baz=231,slow=4.1,SNR=8.0						
DBIC	Dimbokro	96.49	278	LR	LR	15 03 39.8	
	comp=Z,112nm,18.4s,baz=58,slow=34						
YKA	Yellowknife Ar	104.30	13	Pdiff	Pdif	14 22 44.4	+0.7
	comp=Z,0.9nm,0.9s,baz=328,slow=4.1,SNR=13						
YKA				PP	PP	14 27 00.2	-5.1
	comp=Z,3.1nm,0.8s,baz=334,slow=7.8,SNR=19						
YKA				PKKPbc		14 38 30.9	
	comp=Z,0.2nm,0.5s,baz=160,slow=2.4,SNR=4.3						
ULM	Lac du Bonnet	119.17	7	PKP	PKPdf	14 27 29.2	+1.9
	comp=Z,1.8nm,0.5s,baz=276,slow=1.5,SNR=4.3						
REDW	Red Top Meadow	122.31	20	ePKPdf	PKPdf	14 27 36.3	+2.7
PDAR	Pinedale Array	123.27	20	PKP	PKPdf	14 27 37.7	+2.2
	comp=Z,1.9nm,0.5s,baz=91,slow=2.4,SNR=20						
PDAR				pPKP		14 27 55.5	
	comp=Z,2.2nm,0.7s,baz=140,slow=2.0,SNR=6.6						
PDAR				PP	PP	14 29 12.4	-8.8
	comp=Z,0.5nm,0.8s,baz=34,slow=3.3,SNR=2.5						
NVAR	Mina Array Bea	123.37	29	PKP	PKPdf	14 27 39.3	+3.5
	comp=Z,4.5nm,0.7s,baz=333,slow=1.2,SNR=20						
NEN	Nelson	127.25	29	ePKPdf	PKPdf	14 27 46.0	+2.6
PV10	Paradox Valley	127.35	22	ePKPdf	PKPdf	14 27 46.4	+2.9
TUC	Tucson	131.89	27	ePKIKP	PKPdf	14 27 55.7	+3.4
TXAR	Lajitas Array	137.41	22	PKhKP		14 27 53.4	
	comp=Z,0.9nm,0.4s,baz=257,slow=0.4,SNR=20						
TXAR				PKP	PKPdf	14 28 05.8	+3.2
	comp=Z,0.9nm,0.4s,baz=270,slow=2.5,SNR=10						
TXAR				pPKP		14 28 24.4	
	comp=Z,1.7nm,0.7s,baz=147,slow=0.9,SNR=4.3						
TXAR				PP	PP	14 30 45.2	-7.1
	comp=Z,0.8nm,0.7s,baz=18,slow=4.0,SNR=5.3						
TXAR				SKP		14 31 33.8	
	comp=Z,4.6nm,0.9s,baz=270,slow=1.8,SNR=17						
JCT	Junction City	137.60	16	ePKPdf	PKPdf	14 28 05.3	+2.4
JCT				epPKP		14 28 23.2	
BDFB	Brasilia	141.68	258	PKP	PKPdf	14 28 11.4	+0.7
	comp=Z,1.2nm,0.4s,baz=358,slow=4.6,SNR=3.2						
BDFB				SKPbc		14 31 44.0	
	comp=Z,1.9nm,0.6s,baz=100,slow=3.2,SNR=3.1						
TRQA	Tornquist	144.42	215	ePKPdf	PKPdf	14 28 15.3	+0.5
SJG	San Juan	145.03	324	ePKIKP	PKPdf	14 28 17.3	+0.9
ROSC	El Rosal	160.32	320	PKPab	PKPab	14 29 22.7	+0.9
	comp=Z,4.9nm,0.5s,baz=102,slow=19,SNR=4.0						
LPAZ	La Paz	160.71	250	ePKIKP	PKPdf	14 28 42.3	+3.6
LPAZ	La Paz	160.71	250	PKP	PKPdf	14 28 42.6	+4.0
	comp=Z,2.6nm,0.7s,baz=123,slow=1.3,SNR=13						
LPAZ				PKPab	PKPab	14 29 24.3	+1.0
	comp=Z,3.1nm,0.9s,baz=100,slow=3.8,SNR=6.6						

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*NEIC **28** 14:11:27.4, 18.02N×100.48W, h60^{km}, MD4.0(MEX), After MEX.*

MEX 28 14:11:27.4±0.9**, 17.98N×100.54W, h62^{km}**±17^{km}**, MD4.0, Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CAIG	El Cayaco	0.96	164	eP	P	14 11 43.1	-2.1
CAIG				eS	S	14 11 56.6	-1.9
ZIIG	Zihuatanejo	0.96	248	i P	P	14 11 43.2	-2.0
ZIIG				i S	S	14 11 56.4	-2.1
PLIG	Platanillo	1.06	67	eP	P	14 11 44.9	-1.8
PLIG				eS	S	14 11 56.6	-4.4
PLIG	Platanillo	1.06	67	eP	P	14 11 44.9	-1.8
PLIG				i S	S	14 11 58.7	-2.3
ACX	Acapulco	1.25	152	i P	P	14 11 47.6	-1.6
ACX				i S	S	14 12 03.8	-1.6
YAIG	Yautepec	1.65	57	eP	P	14 11 51.2	-3.5
YAIG				eS	S	14 12 07.4	-7.5
YAIG	Yautepec	1.65	57	i P	P	14 11 52.9	-1.9
YAIG				i S	S	14 12 12.9	-2.0
MOIG	Morelia	1.80	340	eP	P	14 11 56.4	-0.4
MOIG				eS	S	14 12 18.6	+0.1
MOIG	Morelia	1.80	340	eP	P	14 11 56.4	-0.4
MOIG				eS	S	14 12 17.6	-0.9
UNM	Universidad Na	1.86	43	eP	P	14 11 59.3	+1.6
PPM	Popocatepetl	2.11	59	eP	P	14 11 59.5	-1.7
PPM				eP		14 11 59.6	
PPM				eS	S	14 12 20.6	-5.6
IISM	Ciudad Serdan	3.16	71	eP	P	14 12 22.6	+6.6
COLM	Colima	3.22	292	eP	P	14 12 17.2	+0.3
COLM				eS	S	14 12 42.1	-12
COLM	Colima	3.22	292	eP	P	14 12 17.2	+0.3
COLM				i S	S	14 12 51.4	-2.9

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*IDC **28** 14:12:46.9±6.1, 17.82N×93.29E, h41^{km}±54^{km}, mb3.7/6, mb1 4.0/7, mb1mx3.8/17, mbtmp3.9/7, ML4.3/1, MS4.0/2, Ms1 4.0/2, ms1mx3.5/27, Error ellipse: s-maj=41.1km s-min=21.6km az=44.0*

ISC 28 14:12:44.6±4.5**, 17.8N**±0.2×**93.3E**±0.2**, h39^{km}**±39^{km}**, n9, σ0^{s}81**/8**, mb3.9**/6**, MS4.0**/2**, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	5.41	82	P	P	14 14 05.3	+0.3
	2.7nm,0.3s,baz=262,slow=15,SNR=11						
CMAR				S	S	14 15 06.7	-0.2
	1.2nm,0.3s,baz=264,slow=28,SNR=3.1						
SONM	Songino Array	31.84	17	P	P	14 19 07.3	-0.7
	0.6nm,0.4s,mb3.8,baz=188,slow=10,SNR=2.3						
WRA	Warramunga Arr	55.03	131	P	P	14 22 15.2	+0.3
	4.8nm,1.0s,mb4.5,baz=316,slow=7.7,SNR=7.5						
BRTR	Keskin Array B	55.64	306	P	P	14 22 18.5	-0.6
	0.7nm,0.7s,mb3.8,baz=124,slow=5.2,SNR=3.3						
ASAR	Alice Springs	57.17	135	P	P	14 22 29.7	-0.6
	1.0nm,0.6s,mb4.0,baz=315,slow=7.3,SNR=4.6						
IDI	Anoyia	62.52	301	LR	LR	14 53 16.4	
	comp=Z,82nm,21.0s,MS3.9,baz=281,slow=39						
FINES	FINESS Array B	63.68	330	LR	LR	14 53 12.7	
	comp=Z,176nm,21.0s,MS4.2,baz=112,slow=38						
GERES	GERESS Array B	70.03	316	P	P	14 23 54.9	+0.6
	0.8nm,0.8s,mb3.7,baz=80,slow=6.0,SNR=4.2						
ILAR	Eielson Array	85.92	22	P	P	14 25 22.2	+0.9
	0.5nm,0.8s,mb3.8,baz=280,slow=7.6,SNR=4.9						

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*IDC **28** 14:17:07.6±0.9, 12.23N×93.58E, mb4.0/8, mb1 4.2/9, mb1mx4.0/16, mbtmp4.0/9, ML4.0/1, Error ellipse: s-maj=38.5km s-min=17.5km az=51.0*

ISC 28 14:17:11.1±0.8**, 12.3N**±0.1×**93.8E**±0.1**, h33^{km}, n16, σ0^{s}93**/16**, mb4.0**/9**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.92	38	Pn	Pn	14 19 06.2	-0.7
	0.5nm,0.3s,baz=233,slow=15,SNR=9.6						
PKI	Pulchoki	17.15	334	eP	P	14 21 10.8	+0.9
	15nm,0.5s						
GUN	Gumba	17.26	336	eP	P	14 21 12.2	+1.0
DMN	Daman	17.32	333	eP	P	14 21 11.4	-0.5
	18nm,0.5s						
KKN	Kakani	17.40	334	eP	P	14 21 12.7	-0.3
GKN	Gorkha	17.86	333	eP	P	14 21 18.5	-0.3
	19nm,0.3s						
KOLN	Koldanda	18.16	330	eP	P	14 21 24.2	+1.7
	10nm,0.5s						
SONM	Songino Array	37.01	14	P	P	14 24 19.8	+0.4
	1.8nm,0.9s,mb3.9,baz=210,slow=6.9,SNR=4.2						
WRA	Warramunga Arr	51.14	128	P	P	14 26 13.6	+0.3
	2.0nm,0.9s,mb4.1,baz=300,slow=10.0,SNR=19						
ASAR	Alice Springs	53.03	132	P	P	14 26 27.7	+0.3
	3.8nm,0.9s,mb4.3,baz=312,slow=6.5,SNR=15						
BRTR	Keskin Array B	59.38	309	P	P	14 27 11.4	-1.3
	0.4nm,0.4s,mb3.8,baz=141,slow=9.2,SNR=2.9						
STKA	Stephens Creek	63.39	135	P	P	14 27 40.5	+0.6
	1.6nm,0.4s,mb4.5,baz=325,slow=6.7,SNR=6.1						
FINES	FINESS Array B	68.72	332	P	P	14 28 11.1	-2.2
	2.9nm,1.1s,mb4.1,baz=63,slow=4.3,SNR=3.4						
ARCES	ARCESS Array B	71.07	340	P	P	14 28 27.4	-0.1
	2.2nm,0.8s,mb4.1,baz=94,slow=14,SNR=5.0						
GERES	GERESS Array B	74.38	317	P	P	14 28 46.9	-0.5
	0.5nm,0.5s,mb3.7,baz=90,slow=4.0,SNR=6.5						
NOA	NORSAR Array B	75.79	330	P	P	14 28 59.2	+4.0
	1.4nm,1.0s,mb3.8,baz=96,slow=5.4,SNR=3.1						

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*BJI **28** 14:30:36.9, 4.22N×95.12E, h47^{km}, mB5.1, mb5.1, Ms4.7, Msz4.3*

*MOS **28** 14:30:38.8±1.3, 4.71N×95.26E, h33^{km}, mb5.3/22, MS4.3/6, Error ellipse: s-maj=14.7km s-min=8.6km az=109.2*

*NEIC **28** 14:30:42.3±0.5, 4.69N×95.26E, mb5.2/28, MS4.2/9, Error ellipse: s-maj=13.0km s-min=10.7km az=190.0*

*IDC **28** 14:30:42.5±0.4, 4.57N×95.22E, h55^{km}±3^{km}, mb4.4/27, mb1 4.4/27, mb1mx4.3/30, mbtmp4.6/27, MS4.1/4, Ms1 4.1/4, ms1mx3.6/27, Error ellipse: s-maj=18.5km s-min=8.6km az=41.0*

*SYO **28** 14:30:42.2, 4.69N×95.26E, h47^{km}, MB5.2, MS4.1*

*HRVD **28** 14:30:42.3±0.4, 4.49N×95.06E, h46^{km}±2^{km}, MW5.0/52, Centroid moment Tensor Solution. LP body waves: s26,c40;Mantle waves: s52,c81; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.02±.20; $M_{\theta\theta}$-0.36±.15; $M_{\phi\phi}$0.39±.17; $M_{r\theta}$1.18±.14; $M_{\theta\phi}$-3.87±.13; $M_{\phi r}$-0.72±.19; Best double couple: $M_0$4.11×10^{16} NP1:ϕ_s184°,δ74°,λ8°. NP2:ϕ_s92°,δ82°,λ163°. Principal axes: T 4.31, Plg17°, Azm47°; N -.39, Plg72°, Azm248°; P -3.92, Plg6°, Azm139°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 14:30:41.9±0.9**, 4.50N**±0.04×**95.16E**±0.04**, h66^{km}**±7^{km}**, h52^{km}**±1.2^{km}**:pP-P, n177, σ1^{s}17**/181**, mb4.9**/81**, 15C-9D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.04	64	P	P	14 32 10.0	-0.5
	430nm,1.0s						
NST	Nakhon Sawan	12.13	23	P	P	14 33 35.0	+1.1
KKTK	Khon Kaen	13.96	32	P	P	14 34 00.0	+1.9
	648nm,0.7s						
CM31	Chiang Mai Arr	14.36	15	eP	P	14 34 08.5	+5.3

CMAR	**Chiang Mai Arr**	**14.36**	**15**	P	**P**	**14 34 04.8**	**+1.6**
	6.7nm,0.3s,baz=206,slow=12,SNR=94						
CMAR				LR	LR	14 39 47.3	
	comp=Z,400nm,20.8s,baz=180,slow=38						
UBT	**Ubonrachathani**	**14.42**	**42**	⇓P	**P**	**14 34 06.0**	**+1.9**
NANT	**Nan**	**15.21**	**20**	P	**P**	**14 34 15.5**	**+1.3**
CHRT	**Chiangrai**	**15.93**	**16**	⇑P	**P**	**14 34 24.0**	**+0.6**
	113nm,1.0s						
VIS	**Vishakhapatnam**	**17.52**	**320**	*e*P	**P**	**14 34 41.0**	**-2.3**
VIS				*e*		14 34 44.9	
	comp=Z,98nm,1.1s						
VIS				*e*		14 37 39.4	
KOD	**Kodaikanal**	**18.45**	**289**	*e*P	**P**	**14 34 53.4**	**-1.2**
KOD				*e*		14 34 55.8	
	comp=Z,163nm,2.0s						
QIZ	**Qiongzhong**	**20.34**	**44**	P	**P**	**14 35 14.5**	**-0.8**
QIZ				*e*S	**S**	**14 38 53.0**	**-1.7**
QIZ				LR	LR		
	comp=N,785nm,16.3s						
QIZ				LR	LR		
	comp=Z,663nm,19.2s						
HYB	**Hyderabad**	**20.73**	**310**	⇓*e*P	**P**	**14 35 20.0**	**+0.7**
HYB				*e*S	**S**	**14 38 58.0**	**-3.9**
HYB				pmax	pmax		
	comp=Z,60nm,1.0s						
HYB	**Hyderabad**	**20.73**	**310**	⇓*e*P	**P**	**14 35 20.0**	**+0.7**
	comp=Z,60nm,1.0s						
HYB				*e*S	**S**	**14 38 58.0**	**-3.9**
HYB	**Hyderabad**	**20.73**	**310**	⇓*i*P	**P**	**14 35 20.0**	**+0.7**
	comp=Z,60nm,1.0s						
HYB				*e*		14 38 58.0	
HYB				*e*S	**S**	**14 39 12.0**	**+10**
SHL	**Shillong**	**21.18**	**352**	*e*P	**P**	**14 35 21.4**	**-2.5**
SHL				*e*S	**S**	**14 39 18.8**	**+8.3**
KMI	**Kunming**	**21.76**	**19**	⇑P	**P**	**14 35 32.0**	**+2.4**
KMI				AP		14 35 41.5	
KMI				XP		14 35 46.8	
KMI				PP	PP	14 35 54.5	-1.9
KMI				S	**S**	**14 39 22.0**	**+0.9**
KMI				AMB	AMB		
	comp=Z,45nm,1.4s,mb4.6						
KMI				LR	LR		
	comp=N,599nm,19.7s						
KMI				LR	LR		
	comp=E,897nm,18.9s						
KMI				LR	LR		
	comp=Z,582nm,14.4s						
MNGI	**Mangalore**	**21.77**	**294**	*e*P	**P**	**14 35 29.3**	**-0.5**
MNGI				*e*		14 35 38.2	
	comp=Z,112nm,0.9s						
GOA	**Goa**	**23.65**	**299**	*e*	**P**	**14 35 58.1**	**+10**
GOA				*e*		14 36 01.2	
	comp=Z,76nm,1.7s						
AKL	**Akola**	**23.89**	**314**	*e*P	**P**	**14 35 51.8**	**+1.3**
AKL				*e*S	**S**	**14 40 08.3**	**+9.4**
GYA	**Guiyang**	**24.45**	**26**	⇑*i*P	**P**	**14 35 56.0**	**+0.1**
GYA				AMB	AMB		
	comp=Z,40nm,0.6s,mb4.9						
GYA				LR	LR		
	comp=N,660nm,16.5s						
GYA				LR	LR		
	comp=E,530nm,17.1s						
GYA				LR	LR		
	comp=Z,470nm,14.2s						
PKI	**Pulchoki**	**24.76**	**339**	*e*P	**P**	**14 35 58.4**	**-0.5**
	comp=Z,18nm,0.5s,mb4.8						
DMN	**Daman**	**24.90**	**338**	*e*P	**P**	**14 35 59.9**	**-0.3**
	comp=Z,42nm,0.7s,mb5.0						
GUN	**Gumba**	**24.90**	**340**	*e*P	**P**	**14 35 59.4**	**-0.9**
	comp=Z,65nm,0.6s,mb5.2						
KKN	**Kakani**	**25.00**	**339**	*e*P	**P**	**14 36 00.4**	**-0.8**
	comp=Z,59nm,0.9s,mb5.0						
POO	**Poona**	**25.06**	**306**	⇑*i*P	**P**	**14 36 02.0**	**+0.1**
POO				*e*		14 36 06.8	
	comp=Z,46nm,1.1s						
BHPL	**Bhopal**	**25.31**	**319**	*e*P	**P**	**14 36 04.8**	**+0.6**
BHPL				*e*		14 36 11.7	
	comp=Z,36nm,1.3s						
LSA	**Lhasa**	**25.35**	**352**	*e*P	**P**	**14 36 04.3**	**-0.2**
LSA				pmax	pmax		
	comp=Z,35nm,0.6s,mb5.0						
LSA				MLR	MLR		
	comp=Z,252nm,21.0s						
LSA	**Lhasa**	**25.35**	**352**	*e*P	**P**	**14 36 04.3**	**-0.2**
	comp=Z,36nm,0.6s,mb5.0						
LSA				LR	LR		
	comp=Z,252nm,21.0s						
GKN	**Gorkha**	**25.43**	**338**	*e*P	**P**	**14 36 05.1**	**-0.1**
	comp=Z,38nm,0.4s,mb5.2						
KOLN	**Koldanda**	**25.63**	**336**	*e*P	**P**	**14 36 07.3**	**+0.2**
	comp=Z,48nm,0.6s,mb5.1						
CD2	**Chengdu**	**27.49**	**16**	⇑*i*P	**P**	**14 36 23.0**	**-1.2**
CD2				AP	pP	14 36 34.5	-5.5
CD2				PP	PP	14 37 09.3	-4.6
CD2				PPP	PPP	14 37 21.3	-4.9
CD2				S	**S**	**14 40 58.5**	**0.0**
CD2				AMB	AMB		
	comp=Z,90nm,0.4s,mb5.7						
CD2				AMB	AMB		
	comp=Z,150nm,6.4s						
CD2				LR	LR		
	comp=E,1µm,16.8s						
CD2				LR	LR		
	comp=Z,420nm,14.4s						
PTH	**Pithoragarh**	**28.65**	**332**	*e*P	**P**	**14 36 34.1**	**-0.5**
ENH	**Enshi**	**28.98**	**26**	*e*P	**P**	**14 36 35.0**	**-2.5**
	comp=Z,19nm,0.4s,mb5.1						
XAN	**Xi’an**	**32.05**	**22**	P	**P**	**14 37 03.0**	**-1.6**
XAN				AMB	AMB		
	comp=Z,128nm,0.5s,mb5.9						
LZH	**Lanzhou**	**32.44**	**13**	*e*P	**P**	**14 37 07.0**	**-0.9**
LZH				AP	pP	14 37 22.3	-1.9
LZH				XP	sP	14 37 28.5	-3.8
LZH				AMB	AMB		
	comp=Z,25nm,1.6s,mb4.7						
LZH				AMB	AMB		
	comp=Z,105nm,5.8s						
LZH				LR	LR		
	comp=E,1µm,12.8s						
LZH				LR	LR		
	comp=Z,2µm,14.8s						
NJ2	**Nanjing**	**35.27**	**36**	*e*P	**P**	**14 37 32.5**	**+0.1**
NJ2				AP	pP	14 37 42.0	-6.8
NJ2				XP	sP	14 37 45.5	-11
NJ2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.6						
NJ2				LR	LR		
	comp=N,920nm,12.0s						
NJ2				LR	LR		
	comp=E,780nm,11.8s						
NJ2				LR	LR		
	comp=Z,3µm,14.1s						
JOW	**Kunigami**	**38.63**	**51**	P	**P**	**14 38 01.6**	**+1.1**
	comp=Z,30nm,0.5s,mb5.4,baz=222,slow=9.5,SNR=13						
KSH	**Kashi**	**38.95**	**336**	*i* PR		14 38 04.5	
KSH				AP	pP	14 38 15.0	-4.6
KSH				XP	sP	14 38 20.3	-7.2
KSH				PP	PP	14 39 35.0	-2.0
KSH				*e*S	**S**	**14 43 58.5**	**+2.0**
KSH				XS		14 44 17.5	
KSH				AMB	AMB		
	comp=Z,200nm,3.9s						
KSH				LR	LR		
	comp=N,750nm,7.5s						
KSH				LR	LR		
	comp=E,610nm,7.4s						
HHC	**Hu-ho-hao-te**	**39.08**	**20**	*e*P	**P**	**14 38 05.0**	**+0.9**
HHC				AP	pP	14 38 17.0	-3.7
HHC				XP	sP	14 38 22.3	-6.3
HHC				PP	PP	14 39 38.5	0.0
HHC				S	**S**	**14 43 59.3**	**+0.9**
HHC				XS		14 44 19.5	
HHC				SCS	ScS	14 48 09.3	+4.5
HHC				AMB	AMB		
	comp=Z,28nm,1.1s,mb5.0						
HHC				AMB	AMB		
	comp=Z,143nm,5.1s						
HHC				LR	LR		
	comp=N,408nm,20.2s						
HHC				LR	LR		
	comp=E,929nm,16.6s						
HHC				LR	LR		
	comp=Z,367nm,19.0s						
WMQ	**Urumqi**	**39.71**	**352**	⇓P	**P**	**14 38 09.0**	**-0.4**
WMQ				AP	pP	14 38 21.5	-4.5
WMQ				XP	sP	14 38 27.0	-6.8
WMQ				PP	PP	14 39 44.5	-0.8
WMQ				PPP	PPP	14 40 09.0	-2.2
WMQ				S	**S**	**14 44 08.0**	**+0.1**
WMQ				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,38nm,7.9s						
WMQ				LR	LR		
	comp=N,106nm,26.4s						
WMQ				LR	LR		
	comp=E,325nm,26.4s						
WMQ				LR	LR		
	comp=Z,185nm,24.8s						
BJT	**Baijiatuau**	**40.12**	**25**	⇑*e*P	**P**	**14 38 13.8**	**+1.0**
BJT				*e*	pP	14 38 26.5	-2.9
BJT				pmax	pmax		
	comp=Z,74nm,0.8s						
BJT				MLR	MLR		
	comp=Z,421nm,20.0s						
BJT	**Baijiatuau**	**40.12**	**25**	⇑*e*P	**P**	**14 38 13.8**	**+1.0**
	comp=Z,74nm,0.8s,mb5.6						
BJT				*e*	pP	14 38 26.4	-3.0
BJT				LR	LR		
	comp=Z,421nm,20.0s						
BJI	**Beijing**	**40.14**	**25**	P	**P**	**14 38 14.0**	**+1.0**
BJI				AMB	AMB		
	comp=Z,65nm,1.2s,mb5.3						
BJI				LR	LR		
	comp=N,185nm,29.9s						
BJI				LR	LR		
	comp=E,341nm,37.2s						
BJI				LR	LR		
	comp=Z,662nm,22.7s						
ULHL	**Ulahol**	**41.20**	**339**	P	**P**	**14 38 22.9**	**+1.3**
	SNR=11						
KZA	**Kyzart**	**41.42**	**337**	P	**P**	**14 38 24.8**	**+1.4**
	SNR=23						
DL2	**Dalian**	**41.83**	**31**	P	**P**	**14 38 28.0**	**+1.1**
DL2				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.3						
UCH	**Uchtor**	**41.83**	**337**	P	**P**	**14 38 28.2**	**+1.3**
	SNR=38						
TKM2	**Tokmak 2**	**42.02**	**338**	P	**P**	**14 38 29.3**	**+0.9**
	SNR=31						
KBK	**Karagaybulak**	**42.03**	**338**	P	**P**	**14 38 30.3**	**+1.8**
	SNR=42						
AML	**Almayashu**	**42.08**	**336**	P	**P**	**14 38 30.4**	**+1.5**
	SNR=38						
AAK	**Ala-Archa**	**42.19**	**337**	P	**P**	**14 38 31.9**	**+2.1**
	SNR=18						
AAK	**Ala-Archa**	**42.19**	**337**	⇑*e*P	**P**	**14 38 30.2**	**+0.4**
AAK				*e*	pP	14 38 43.8	-2.6
AAK				pmax	pmax		
	comp=Z,95nm,1.1s,mb5.4						
AAK				MLR	MLR		
	comp=Z,65nm,21.0s						
AAK	**Ala-Archa**	**42.19**	**337**	⇑*e*P	**P**	**14 38 30.2**	**+0.4**
	comp=Z,95nm,1.1s,mb5.4						
AAK				*e*	pP	14 38 43.8	-2.6
AAK				LR	LR		
	comp=Z,65nm,21.0s						
CHMS	**Chumysh**	**42.40**	**338**	P	**P**	**14 38 32.5**	**+0.9**
	SNR=15						
EKS2	**Erkin-Say**	**42.49**	**337**	P	**P**	**14 38 33.4**	**+1.1**
	SNR=22						
NWAO	**Narrogin (SRO)**	**42.70**	**152**	P	**P**	**14 38 34.4**	**+0.2**
	comp=Z,3.3nm,0.5s,mb4.4,baz=324,slow=11,SNR=6.9						
USP	**Ospenovka**	**42.73**	**338**	P	**P**	**14 38 34.9**	**+0.7**
	SNR=46						
MKAR	**Makanchi Array**	**43.58**	**347**	*i* P	**P**	**14 38 40.7**	**-0.4**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.4s						
SONM	**Songino Array**	**44.24**	**11**	P	**P**	**14 38 45.3**	**-1.1**
	comp=Z,5.3nm,0.9s,mb4.3,baz=190,slow=9.1,SNR=28						
SONM				PcP	PcP	14 40 30.1	-0.4
	comp=Z,1.5nm,0.4s,baz=192,slow=4.4,SNR=5.5						
KS15	**Wonju Array Si**	**44.38**	**38**	*e*P	**P**	**14 38 47.2**	**-0.4**
ULN	**Ulaanbaatar**	**44.40**	**11**	*e*P	**P**	**14 38 45.9**	**-1.8**
ULN				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
ULN				MLR	MLR		
	comp=Z,224nm,20.0s						
ULN	**Ulaanbaatar**	**44.40**	**11**	*e*P	**P**	**14 38 45.9**	**-1.8**
	comp=Z,3.0nm,0.6s,mb4.2						
ULN				LR	LR		
	comp=Z,224nm,20.0s						
SNY	**Shenyang**	**45.00**	**30**	⇑P	**P**	**14 38 51.5**	**-1.1**
SNY				AMB	AMB		
	comp=Z,40nm,0.5s,mb5.4						
WRA	**Warramunga Arr**	**45.52**	**124**	P	**P**	**14 38 56.9**	**-0.1**
	comp=Z,25nm,0.8s,mb5.0,baz=301,slow=9.2,SNR=179						
WRA				S	**S**	**14 45 32.1**	**-1.2**
	comp=Z,0.8nm,0.9s,baz=294,slow=16,SNR=3.1						
WRAB	**Tennant Creek**	**45.52**	**124**	⇓*e*P	**P**	**14 38 56.8**	**-0.2**
WRAB				pmax	pmax		
	comp=Z,46nm,0.5s,mb5.5						
WRAB				MLR	MLR		
	comp=Z,213nm,25.1s						
WRAB	**Tennant Creek**	**45.52**	**124**	⇓*e*P	**P**	**14 38 56.8**	**-0.3**
	comp=Z,46nm,0.5s,mb5.5						
WRAB				LR	LR		
	comp=Z,213nm,25.1s						
ZAK	**Zakamensk**	**46.23**	**7**	*e*P	**P**	**14 39 00.3**	**-1.9**
ZAK				*e*		14 40 50.1	
ASAR	**Alice Springs**	**47.01**	**128**	P	**P**	**14 39 08.4**	**-0.3**
	comp=Z,14nm,0.5s,mb4.9,baz=298,slow=8.1,SNR=226						
ASAR				pP	pP	14 39 23.6	-1.9
	comp=Z,24nm,0.9s,baz=299,slow=7.6,SNR=11						
ASAR				sP	sP	14 39 28.4	-4.8
	comp=Z,31nm,0.7s,baz=303,slow=7.8,SNR=13						
ASAR				LR	LR	14 58 40.3	
	comp=Z,171nm,19.4s,baz=298,slow=36						
CN2	**Changchun**	**47.38**	**30**	⇑P	**P**	**14 39 10.5**	**-0.9**
CN2				*e*XP	sP	14 39 28.8	-7.0
CN2				*e*S	**S**	**14 46 00.0**	**+0.6**
CN2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.3						
CN2				LR	LR		
	comp=N,300nm,14.0s						
CN2				LR	LR		
	comp=E,400nm,14.0s						
CN2				LR	LR		
	comp=Z,500nm,15.0s						
HIA	**Hailar**	**49.25**	**21**	*e*P	**P**	**14 39 25.0**	**-0.7**
HIA				*e*	pP	14 39 38.8	-3.9
HIA				pmax	pmax		
	comp=Z,22nm,0.6s						
HIA				MLR	MLR		
	comp=Z,620nm,16.3s						
HIA	**Hailar**	**49.25**	**21**	*e*P	**P**	**14 39 25.0**	**-0.8**
	comp=Z,22nm,0.6s,mb5.3						
HIA				*e*	pP	14 39 38.8	-3.9
HIA				LR	LR		
	comp=Z,620nm,16.3s						
MDJ	**Mudanjiang**	**50.07**	**32**	P	**P**	**14 39 32.5**	**+0.4**
MDJ				AMB	AMB		
	comp=Z,28nm,1.7s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,113nm,7.7s						
MDJ				LR	LR		
	comp=N,254nm,18.2s						
MDJ				LR	LR		
	comp=E,166nm,17.7s						
MDJ				LR	LR		
	comp=Z,274nm,17.7s						
MDJ	**Mudanjiang**	**50.07**	**32**	*e*P	**P**	**14 39 32.1**	**-0.1**
	comp=Z,15nm,0.6s,mb5.1						
MDJ				LR	LR		
	comp=Z,412nm,24.2s						
CBIJ	**Chichi jima**	**50.12**	**58**	P	**P**	**14 39 31.0**	**-1.7**
	comp=Z,49nm,0.7s,mb5.6,baz=262,slow=18,SNR=3.8						
MAT	**Matsushiro**	**50.73**	**45**	P	**P**	**14 39 37.3**	**0.0**
MAT				*e*S	**S**	**14 46 48.0**	**+1.8**
MAT	**Matsushiro**	**50.73**	**45**	*e*P	**P**	**14 39 37.0**	**-0.3**
MAT				S	**S**	**14 46 48.0**	**+1.8**
NVS	**Novosibirsk**	**51.11**	**351**	*i* P	**P**	**14 39 37.6**	**-2.3**
NVS				*i* S	**S**	**14 46 50.9**	**-0.3**
NVS				pmax	pmax		
	comp=N,7.0nm,0.6s						
NVS				pmax	pmax		
	comp=E,3.0nm,0.6s						
NVS				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
NVS				smax			
	comp=N,19nm,2.0s						
NVS				smax			
	comp=E,40nm,2.0s						
BVA0	**Borovoye Array**	**52.49**	**341**	*i* P	**P**	**14 39 49.4**	**-0.9**
BVA0				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
BVAR	**Borovoye Array**	**52.49**	**341**	P	**P**	**14 39 49.4**	**-0.8**
	comp=Z,11nm,0.6s,mb5.1,baz=141,slow=9.5,SNR=68						
BVAR				pP	pP	14 40 04.1	-3.3
	comp=Z,32nm,0.8s,baz=149,slow=8.6,SNR=23						
BRVK	**Borovoye**	**52.55**	**341**	⇑*e*P	**P**	**14 39 49.6**	**-1.1**
BRVK				*e*	pP	14 40 03.7	-4.1
BRVK				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
BRVK	**Borovoye**	**52.55**	**341**	⇑*e*P	**P**	**14 39 49.6**	**-1.1**
	comp=Z,32nm,0.8s,mb5.4						
BRVK				*e*	pP	14 40 03.7	-4.1
CHKZ	**Chkalovo**	**52.98**	**342**	*e*P	**P**	**14 39 53.4**	**-0.5**
CHKZ				*e*		14 40 05.3	
CHKZ				pmax	pmax		
	comp=Z,93nm,0.8s,mb5.9						
CHKZ	**Chkalovo**	**52.98**	**342**	*e*P	**P**	**14 39 53.4**	**-0.5**
	comp=Z,93nm,0.8s,mb5.9						
CHKZ				*e*		14 40 05.3	
PMG	**Port Moresby**	**53.63**	**105**	*e*P	**P**	**14 39 59.6**	**+0.4**
PMG				pmax	pmax		
	comp=Z,24nm,0.9s						
PMG	**Port Moresby**	**53.63**	**105**	*e*P	**P**	**14 39 59.6**	**+0.4**
	comp=Z,24nm,0.9s,mb5.2						
BOD	**Bodaibo**	**55.19**	**12**	*e*P	**P**	**14 40 07.1**	**-3.0**
CTA	**Charters Tower**	**55.81**	**118**	P	**P**	**14 40 15.3**	**+0.3**
	comp=Z,3.1nm,0.6s,mb4.5,baz=286,slow=7.8,SNR=10						
CTA				LR	LR	15 04 58.7	
	comp=Z,176nm,20.3s,baz=23,slow=37						
CTAO	**Charters Tower**	**55.81**	**118**	*e*P	**P**	**14 40 14.7**	**-0.3**
CTAO				*e*	pP	14 40 27.1	-5.2
CTAO				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
CTAO				MLR	MLR		
	comp=Z,258nm,21.0s						
CTAO	**Charters Tower**	**55.81**	**118**	*e*P	**P**	**14 40 14.7**	**-0.3**
	comp=Z,11nm,1.0s,mb4.8						
CTAO				*e*	pP	14 40 27.1	-5.2
CTAO				LR	LR		
	comp=Z,258nm,21.0s						
STKA	**Stephens Creek**	**57.07**	**133**	P	**P**	**14 40 23.3**	**-0.5**
	comp=Z,4.8nm,0.9s,mb4.5,baz=275,slow=6.7,SNR=6.4						
ASAJ	**Asahikawa**	**57.33**	**39**	P	**P**	**14 40 25.8**	**+0.3**
	comp=Z,4.1nm,0.4s,mb4.8,baz=171,slow=19,SNR=2.3						
GNI	**Garni**	**57.52**	**316**	P	**P**	**14 40 26.9**	**-0.1**
	comp=Z,2.2nm,0.4s,mb4.5,baz=311,slow=15,SNR=3.8						
GNI				pP	pP	14 40 42.1	-2.3
	comp=Z,26nm,0.9s,baz=148,slow=9.6,SNR=4.7						
KMBO	**Kilima Mbogo**	**58.13**	**266**	P	**P**	**14 40 33.2**	**+1.7**
KMBO				pmax	pmax		
	comp=Z,2.0nm,0.6s						
KMBO				MLR	MLR		
	comp=Z,138nm,21.0s						
KMBO	**Kilima Mbogo**	**58.13**	**266**	P	**P**	**14 40 33.0**	**+1.4**
	comp=Z,1.0nm,0.4s,mb4.2,baz=68,slow=11,SNR=4.4						
KMBO	**Kilima Mbogo**	**58.13**	**266**	P	**P**	**14 40 33.1**	**+1.6**
	comp=Z,2.0nm,0.6s,mb4.3						
KMBO				LR	LR		
	comp=Z,138nm,21.0s						
YSS	**Yuzh-Sakhalins**	**58.84**	**36**	*e*P	**P**	**14 40 31.0**	**-5.0**
SVE	**Sverdlovsk**	**58.89**	**339**	*e*P	**P**	**14 40 35.0**	**-1.2**
SVE				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.2						
ZEI	**Tsey**	**59.20**	**318**	*e*P	**P**	**14 40 38.1**	**-0.4**
ZEI				*i*	pP	14 40 53.2	-2.8
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
ARU	**Arti**	**59.37**	**337**	*e*P	**P**	**14 40 38.3**	**-1.2**
ARU				*e*	pP	14 40 51.1	-5.9
ARU				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.5						
ARU	**Arti**	**59.37**	**337**	*e*P	**P**	**14 40 38.3**	**-1.2**
	comp=Z,56nm,1.1s,mb5.5						
ARU				*e*	pP	14 40 51.1	-5.9
ERZM	**Erzurum**	**59.82**	**314**	*i* P	**P**	**14 40 41.8**	**-1.1**
KIV	**Kislovodsk**	**60.50**	**319**	*e*P	**P**	**14 40 46.4**	**-1.0**
KIV				*e*	pP	14 41 00.9	-4.1
KIV				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.5						
KIV	**Kislovodsk**	**60.50**	**319**	*e*P	**P**	**14 40 46.4**	**-1.0**
	comp=Z,53nm,1.1s,mb5.5						
KIV				*e*	pP	14 41 00.9	-4.0
ASF	**Jabal al Asfar**	**60.92**	**304**	P	**P**	**14 40 54.3**	**+3.8**
	comp=Z,1.4nm,0.4s,mb4.4,baz=45,slow=1.4,SNR=2.4						
MALT	**Malatya**	**61.43**	**311**	*e*P	**P**	**14 40 53.6**	**-0.2**
MALT				*e*		14 41 04.9	
MALT				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
MALT	**Malatya**	**61.43**	**311**	*e*P	**P**	**14 40 53.6**	**-0.2**
	comp=Z,14nm,1.1s,mb4.9						
MALT				*e*		14 41 04.9	
GZT	**Gaziantep**	**61.79**	**310**	*i* P	**P**	**14 40 55.9**	**-0.4**
EIL	**Elat**	**62.00**	**301**	P	**P**	**14 40 57.1**	**-0.7**
	comp=Z,2.3nm,0.4s,mb4.6,baz=135,slow=11,SNR=4.7						
EIL				pP	pP	14 41 13.2	-2.2
	comp=Z,8.1nm,0.7s,baz=143,slow=3.4,SNR=4.7						
EIL	**Elat**	**62.00**	**301**	*e*P	**P**	**14 40 56.9**	**-0.9**
	comp=Z,13nm,0.7s,mb5.1						
SOKR	**Solikamsk**	**62.29**	**339**	⇓*i*P	pP	14 41 10.0	-6.9
SOKR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
SOC	**Sochi**	**62.33**	**317**	*e*P	pP	14 41 13.3	-4.0
SOC				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
SOC				pmax	pmax		
	comp=N,7.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,14nm,1.0s						
KAHT	**Ahir Dag**	**62.39**	**310**	*i* P	**P**	**14 40 59.3**	**-1.0**
COBT	**Iskenderun**	**62.55**	**309**	*i* P	**P**	**14 41 00.3**	**-1.0**
YAK	**Yakutsk**	**62.87**	**17**	*e*P	**P**	**14 41 00.8**	**-2.3**
YAK				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
YAK				MLR	MLR		
	comp=Z,388nm,19.6s						
YAK	**Yakutsk**	**62.87**	**17**	*e*P	**P**	**14 41 00.8**	**-2.3**
	comp=Z,18nm,0.7s,mb5.1						
YAK				LR	LR		
	comp=Z,388nm,19.6s						
AVNT	**Avonos**	**64.24**	**311**	*i* P	**P**	**14 41 11.8**	**-0.7**
CSS	**Prodhromos**	**64.47**	**307**	*e*P	**P**	**14 41 14.0**	**0.0**
	comp=Z,22nm,1.0s,mb4.9						
CSS				*e*	pP	14 41 29.0	-2.7
BRTR	**Keskin Array B**	**65.41**	**312**	P	**P**	**14 41 18.6**	**-1.4**
	comp=Z,4.4nm,0.9s,mb4.3,baz=129,slow=7.3,SNR=17						
BRTR				pP	pP	14 41 35.1	-2.6
	comp=Z,12nm,1.0s,baz=135,slow=7.0,SNR=7.1						
ELDT	**Eldivan**	**65.77**	**313**	*i* P	**P**	**14 41 22.0**	**-0.2**
BALT	**Daday**	**66.08**	**314**	*i* P	**P**	**14 41 24.0**	**-0.2**
OBN	**Obninsk**	**68.76**	**328**	*e*P	**P**	**14 41 47.6**	**+6.8**
OBN				*i*		14 41 55.5	
OBN				*i*		14 41 59.4	
OBN				pmax	pmax		
	comp=Z,43nm,1.4s,mb5.1						
TIXI	**Tiksi**	**70.33**	**11**	*e*P	**P**	**14 41 40.8**	**-9.3**
IDI	**Anoyia**	**71.33**	**306**	P	**P**	**14 41 56.4**	**-0.4**
	comp=Z,21nm,1.1s,mb4.9,baz=141,slow=6.5,SNR=6.6						
AKASG	**Malin Array Be**	**71.42**	**322**	P	**P**	**14 41 55.6**	**-1.3**
	comp=Z,4.1nm,0.6s,mb4.4,baz=83,slow=5.2,SNR=13						
AKASG				pP	pP	14 42 11.8	-3.2
	comp=Z,5.6nm,0.5s,baz=86,slow=5.2,SNR=8.5						
MLR	**Muntele Rosu**	**72.29**	**316**	P	**P**	**14 42 02.4**	**+0.2**
	comp=Z,7.8nm,0.9s,mb4.5,baz=174,slow=11,SNR=9.4						
MLR				pP	pP	14 42 17.4	-2.9
	comp=Z,13nm,1.1s,baz=203,slow=7.4,SNR=13						
LBTB	**Lobatse**	**73.56**	**242**	*e*P	**P**	**14 42 12.5**	**+2.4**
LBTB				*e*	pP	14 42 25.9	-2.3
LBTB				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.7						
LBTB				MLR	MLR		
	comp=Z,500nm,22.0s						
LBTB	**Lobatse**	**73.56**	**242**	*e*P	**P**	**14 42 12.5**	**+2.4**
	comp=Z,15nm,0.9s,mb4.7						
LBTB				*e*	pP	14 42 25.9	-2.3
LBTB				LR	LR		
	comp=Z,500nm,22.0s						
BOSA	**Boshof**	**74.69**	**239**	*e*P	**P**	**14 42 21.1**	**+4.5**
BOSA				*e*	pP	14 42 34.3	-0.5
BOSA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
BOSA				MLR	MLR		
	comp=Z,211nm,19.0s						
BOSA	**Boshof**	**74.69**	**239**	*e*P	**P**	**14 42 21.1**	**+4.4**

	comp=Z,11nm,0.8s,mb4.6						
BOSA				*e*	pP	14 42 34.3	-0.5
BOSA				LR	LR		
	comp=Z,211nm,19.0s						
APA	Apatity	75.34	340	⇑*e*P	P	14 42 16.5	-3.1
APA				*i*	pP	14 42 34.2	-3.5
APA				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.9						
KOLS	Kolonicke sedl	75.40	319	*e*	P	14 42 21.6	+1.3
KOLS				*e*pP	pP	14 42 36.4	-2.0
SUW	Suwalki	75.82	325	*e*P	P	14 42 20.8	-1.7
SUW				pmax	pmax		
	comp=Z,104nm,1.2s,mb5.4						
SUW	Suwalki	75.82	325	*e*P	P	14 42 20.8	-1.7
	comp=Z,104nm,1.2s,mb5.4						
CRVS	Cervenica-Dubn	75.93	319	*e*P	P	14 42 25.0	+1.8
CRVS				*e*sP	sP	14 42 43.8	-4.8
CRVS	Cervenica-Dubn	75.93	319	*e*	P	14 42 25.0	+1.8
CRVS				*e*	sP	14 42 43.8	-4.8
FINES	FINESS Array B	76.15	332	P	P	14 42 23.8	-0.5
	comp=Z,3.8nm,0.5s,mb4.4,baz=102,slow=5.8,SNR=30						
KAF	Kangasniemi	76.24	333	*e*p	P	14 42 24.5	-0.2
	comp=Z,1.9nm,0.4s,mb4.2						
KAF	Kangasniemi	76.24	333	*e*P	P	14 42 24.5	-0.2
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.2						
PSZ	Piszkesteto	76.81	318	*e*P	P	14 42 26.7	-1.6
PSZ				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.0						
PSZ	Piszkesteto	76.81	318	*e*P	P	14 42 26.6	-1.6
	comp=Z,30nm,1.0s,mb5.0						
VYHS	Vyhne	77.59	319	*e*	P	14 42 35.5	+2.9
VYHS				*e*pP	pP	14 42 49.2	-1.6
KEV	Kevo	78.34	341	*e*p	P	14 42 36.1	-0.1
	comp=Z,1.0nm,0.4s,mb3.9						
KEV	Kevo	78.34	341	*e*P	P	14 42 36.1	-0.1
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.9						
MORC	Moravsky Berou	78.59	320	P	P	14 42 34.6	-3.4
MORC				pmax	pmax		
	comp=Z,18nm,1.0s,mb4.9						
MORC	Moravsky Berou	78.59	320	P	P	14 42 34.6	-3.4
	comp=Z,18nm,1.0s,mb4.8						
ZST	Bratislava	78.70	318	*e*	P	14 42 39.7	+1.0
ZST				*e*	pP	14 42 55.5	-1.4
ARCES	ARCESS Array B	78.76	340	P	P	14 42 38.9	+0.3
	comp=Z,4.8nm,0.5s,mb4.6,baz=95,slow=6.2,SNR=35						
ARCES				LR	LR	15 18 47.1	
	comp=Z,194nm,20.2s,baz=15,slow=37						
ARE0	ARCESS Array S	78.76	340	*e*P	P	14 42 38.9	+0.3
BILL	Bilibino	78.83	21	*e*P	P	14 42 33.1	-5.9
BILL				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.0						
VRAC	Vranov	79.15	319	pP	pP	14 42 57.6	-1.8
	comp=Z,3.8nm,0.7s,baz=83,slow=4.6,SNR=2.6						
FX1	Attu Island--F	79.19	37	P	P	14 42 41.0	-0.2
	comp=Z,43nm,0.5s,mb5.5,baz=28,slow=7.4						
FX1	Attu Island--F	79.19	37	*e*P	P	14 42 39.9	-1.4
PRU	Pruhonice	80.54	320	*e*P	P	14 42 52.0	+3.4
GERES	GERESS Array B	81.01	319	P	P	14 42 52.2	+1.1
	comp=Z,4.8nm,0.9s,mb4.3,baz=104,slow=5.5,SNR=24						
GERES				pP	pP	14 43 07.3	-2.1
	comp=Z,7.7nm,0.8s,baz=76,slow=5.5,SNR=12						
KHC	Kasperske Hory	81.11	319	*e*P	P	14 42 53.5	+1.9
KHC				*e*pP	pP	14 43 08.0	-1.9
CLL	Collm	81.60	321	P	P	14 42 55.0	+0.9
CLL				*e**PP	pP	14 43 11.0	-1.4
CLL				*e*		14 43 28.0	
HFS	Hagfors	81.87	330	P	P	14 42 55.5	+0.3
	comp=Z,2.2nm,0.5s,mb4.2,baz=108,slow=4.7,SNR=10						
SYO	Syowa Base	82.51	197	⇓PcP	PcP	14 43 06.1	+2.3
SYO	Syowa Base	82.51	197	⇑sP	sP	14 43 19.5	-4.6
NB2	NORSAR Subarra	83.15	331	P	P	14 43 02.9	+1.1
	comp=Z,7.7nm,1.0s,mb4.5,baz=96,slow=4.8						
NB2	NORSAR Subarra	83.15	331	P	P	14 43 02.9	+1.1
NB2				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
NOA	NORSAR Array B	83.15	331	P	P	14 43 02.3	+0.5
	comp=Z,0.9nm,0.7s,mb3.7,baz=127,slow=3.4,SNR=3.0						
NOA				pP	pP	14 43 16.6	-3.6
	comp=Z,4.4nm,0.8s,baz=95,slow=5.4,SNR=7.0						
DAVOX	Davos	83.52	316	P	P	14 43 05.0	+1.0
	comp=Z,6.4nm,0.7s,mb4.6,baz=98,slow=8.1,SNR=10						
DAVOX				pP	pP	14 43 20.6	-1.8
	comp=Z,8.3nm,0.4s,baz=100,slow=4.5,SNR=8.9						
LPL	La Plagne	85.72	315	*e*P	P	14 43 16.4	+1.4
	comp=Z,29nm,0.8s,mb4.9						
LPL	La Plagne	85.72	315	*e*P	P	14 43 16.4	+1.4
LPL				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
URZ	Urewera	86.45	129	P	P	14 43 19.1	+0.4
	comp=Z,6.9nm,1.0s,mb4.5,baz=252,slow=16,SNR=2.4						
VNDA	Vanda	89.44	168	P	P	14 43 35.0	+2.8
	comp=Z,1.4nm,1.0s,mb3.9,baz=342,slow=5.7,SNR=3.4						
EKA	Eskdalemuir Ar	91.06	326	P	P	14 43 42.5	+2.2
	comp=Z,4.8nm,1.1s,mb4.6,baz=90,slow=5.7,SNR=3.8						
IMA	Indian Mountai	94.34	22	*e*P	P	14 43 56.5	+1.5
IMA				*e*		14 44 09.1	
IMA				pmax	pmax		
	comp=Z,118nm,1.9s,mb5.9						
IMA	Indian Mountai	94.34	22	*e*P	P	14 43 56.5	+1.6
	comp=Z,118nm,1.9s,mb5.9						
IMA				*e*		14 44 09.1	
ILAR	Eielson Array	97.46	22	P	P	14 44 08.7	-0.6
	comp=Z,0.8nm,1.0s,mb4.1,baz=291,slow=3.6,SNR=6.9						
ILAR				PP	PP	14 48 02.7	-7.0
	comp=Z,0.5nm,1.1s,baz=259,slow=9.2,SNR=4.2						
YKA	Yellowknife Ar	109.44	14	PP	PP	14 49 34.1	-5.9
	comp=Z,0.3nm,0.6s,baz=332,slow=7.4,SNR=4.0						
ULM	Lac du Bonnet	124.64	9	PKP	PKPdf	14 49 37.0	+2.9
	comp=Z,1.6nm,0.6s,baz=358,slow=9.4,SNR=3.7						
NVAR	Mina Array Bea	127.23	33	PKP	PKPdf	14 49 42.0	+2.6
	comp=Z,0.3nm,0.3s,baz=270,slow=5.4,SNR=2.8						
NVAR				pPKP		14 49 58.5	
	comp=Z,1.1nm,0.6s,baz=284,slow=6.1,SNR=3.7						
PDAR	Pinedale Array	127.89	23	PKP	PKPdf	14 49 43.0	+2.3
	comp=Z,0.5nm,0.6s,baz=45,slow=2.1,SNR=3.7						
PDAR				pPKP		14 49 59.6	
	comp=Z,2.7nm,1.1s,slow=3.0,SNR=5.1						
TXAR	Lajitas Array	141.81	27	PKhKP		14 50 04.5	
	comp=Z,0.3nm,0.4s,baz=48,slow=1.5,SNR=4.9						
BDFB	Brasilia	142.16	250	PKhKP		14 50 05.6	
	comp=Z,1.0nm,0.4s,baz=22,slow=5.4,SNR=2.7						

*IDC **28** 14:42:51.7±2.8, 30.22S×177.49W, mb4.3/4, mb1 4.3/5, mb1mx4.1/15, mbtmp4.2/5, ML3.2/1, Error ellipse: s-maj=59.1km s-min=34.7km az=114.0*

ISC 28 14:42:50.1±3.5, **30.42S**±0.09×**177.3W**±0.5, **h10**^{km}, **n9**, σ**0**$\overset{s}{.}$**73**/10, **mb4.3**/4, **Kermadec Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PUZ	Puketiti	8.47	205	*e*P	P	14 44 55.9	+0.1
PUZ				S	Sn	14 46 32.0	-0.5
URZ	Urewera	9.08	209	Pn	P	14 45 04.5	+0.2
	0.3nm,0.3s,baz=349,slow=18,SNR=2.4						
URZ				Sn	Sn	14 46 47.9	+0.3
	2.6nm,0.3s,baz=79,slow=22,SNR=22						
BFZ	Birch Farm	11.51	205	S	S	14 47 42.1	-5.0
MRZ	Mangatainoka R	11.75	208	S	S	14 47 46.1	-6.9
CTA	Charters Tower	34.41	279	P	P	14 49 40.2	+0.4
	3.2nm,0.5s,mb4.5,baz=107,slow=11,SNR=18						
STKA	Stephens Creek	35.07	257	P	P	14 49 46.7	+1.4
	2.9nm,0.5s,mb4.5,baz=98,slow=6.9,SNR=11						
ASAR	Alice Springs	43.72	267	P	P	14 50 56.7	-0.6
	1.3nm,0.7s,mb3.8,baz=102,slow=7.6,SNR=17						
WRA	Warramunga Arr	44.71	272	P	P	14 51 04.1	-1.3
	3.8nm,0.7s,mb4.4,baz=110,slow=7.9,SNR=34						
FINES	FINESS Array B	145.38	340	PKPbc	PKPbc	15 02 29.2	+1.2
	2.7nm,0.6s,baz=45,slow=2.0,SNR=11						

*IDC **28** 14:45:13.0±1.0, 9.56S×79.16W, mb4.3/14, mb1 4.5/15, mb1mx4.3/21, mbtmp4.3/15, ML4.2/1, MS3.6/4, Ms1 3.6/4, ms1mx2.9/25, Error ellipse: s-maj=35.4km s-min=19.5km az=38.0*

*NEIC **28** 14:45:18.8, 9.75S×78.90W, h33^{km}, mb4.5/9, ML4.3(LIM), After LIM.*

NEIC Felt [III] at Casma and Chimbote.

*BJI **28** 14:45:18.7, 9.80S×78.90W, h33^{km}, mB5.3*

*SYO **28** 14:45:18.7, 9.75S×78.90W, h33^{km}, MB4.5*

ISC 28 14:45:20.8±1.8, **9.37S**±0.09×**79.0W**±0.1, **h65**^{km}±16^{km}, **n47**, σ**1**$\overset{s}{.}$**03**/30, **mb4.3**/19, **1C-3D, Off coast of northern Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NNA	Nana	3.35	141	*e*Pn	P	14 46 11.9	-0.2
OTAV	Otavalo	9.56	3	*e*P	P	14 47 38.9	+0.8
LPAZ	La Paz	12.63	124	Pn	P	14 48 16.4	-3.0
	0.6nm,0.3s,baz=236,slow=7.8,SNR=12						
LPAZ	La Paz	12.63	124	P	P	14 48 22.9	+3.5
ROSC	El Rosal	14.88	18	LR	LR	14 55 40.1	
	comp=Z,216nm,18.2s,baz=341,slow=42						
LVC	Limon Verde	16.34	145	Pn	P	14 49 08.6	+1.2
	0.2nm,0.3s,baz=336,slow=11,SNR=7.7						
LVC				LR	LR	14 56 21.2	
	comp=Z,120nm,18.7s,baz=19,slow=41						
LVC	Limon Verde	16.34	145	*e*P	P	14 49 04.2	-3.2
	15nm,1.1s						
LVC				*e*		14 49 11.5	
SDV	Santo Domingo	19.96	25	P	P	14 49 51.4	+1.1
	2.8nm,0.6s,baz=195,slow=12,SNR=3.6						
SDV	Santo Domingo	19.96	25	*e*P	P	14 49 50.8	+0.4
	13nm,0.9s						
PCRV	Puerto La Cruz	24.11	37	LR	LR	15 01 41.9	
	comp=Z,190nm,18.4s,baz=311,slow=41						
BDFB	Brasilia	30.86	105	P	P	14 51 32.6	-0.7
	1.5nm,0.5s,mb4.0,baz=252,slow=3.2,SNR=3.4						
BDFB				LR	LR	15 04 33.5	
	comp=Z,183nm,20.3s,baz=258,slow=38						
TRQA	Tornquist	32.41	154	P	P	14 51 41.0	-5.6
	6.4nm,1.0s,mb4.3						
TXAR	Lajitas Array	45.24	329	P	P	14 53 34.3	+0.7
	0.7nm,0.5s,mb3.6,baz=149,slow=7.3,SNR=7.2						
WMOK	Wichita Mounta	47.70	338	P	P	14 53 52.8	-0.2
	4.7nm,1.0s,mb4.3						
HWUT	Hardware Ranch	58.89	332	*e*P	P	14 55 15.2	-0.2
	10nm,0.8s,mb4.9						
PDAR	Pinedale Array	58.91	334	P	P	14 55 14.9	-0.6
	1.3nm,0.7s,mb4.1,baz=131,slow=8.0,SNR=10						
PDAR				PcP	PcP	14 56 02.5	-1.5
	0.6nm,0.5s,baz=129,slow=5.8,SNR=5.9						
NVAR	Mina Array Bea	60.03	325	P	P	14 55 23.8	+0.5
	1.5nm,0.7s,mb4.1,baz=139,slow=7.2,SNR=6.7						
ULM	Lac du Bonnet	61.17	348	P	P	14 55 30.9	0.0
	3.8nm,0.9s,mb4.4,baz=167,slow=7.1,SNR=5.0						
BOZ	Bozeman (W)	62.12	335	*e*P	P	14 55 35.2	-2.0
	2.4nm,0.7s,mb4.3						
YBH	Yreka Blue Hor	64.75	325	P	P	14 55 53.6	-1.1
	1.5nm,0.9s,mb3.8,baz=159,slow=6.9,SNR=6.6						
SCHQ	Schefferville	64.78	8	P	P	14 55 53.4	-1.2
	2.5nm,0.8s,mb4.1,baz=243,slow=6.8,SNR=2.8						
FRB	Frobisher Bay	73.34	5	P	P	14 56 46.4	-0.6
	3.2nm,0.8s,mb4.2,baz=187,slow=10,SNR=5.3						
VNA2	Neumayer--Watz	75.22	161		P	14 57 02.7	+5.0
DBIC	Dimbokro	75.57	81	P	P	14 57 01.3	+0.4
	3.1nm,0.8s,mb4.1,baz=248,slow=5.4,SNR=6.6						
DBIC	Dimbokro	75.57	81	*e*P	P	14 56 59.9	-1.0
	2.2nm,0.5s,mb4.1						
YKA	Yellowknife Ar	76.75	344	P	P	14 57 06.1	-0.4
	2.2nm,0.6s,mb4.1,baz=141,slow=5.9,SNR=53						
SNAA	Sanae	76.81	162	⇑*i*	P	14 57 06.6	-0.2
QSPA	South Pole Qui	80.74	180	⇓*i*P	P	14 57 30.1	+2.1
	8.5nm,0.7s,mb4.7						
ESDC	Sonseca Array	84.62	48	P	P	14 57 50.7	+2.0
	0.9nm,0.5s,mb4.0,baz=258,slow=5.2,SNR=6.8						
INK	Inuvik	86.40	342	P	P	14 57 57.6	+0.9
	9.8nm,1.1s,mb4.7,baz=117,slow=6.2,SNR=15						
ILAR	Eielson Array	89.25	337	P	P	14 58 10.7	+0.2
	3.5nm,0.8s,mb4.5,baz=152,slow=3.2,SNR=32						
COLA	College	89.67	337	*e*P	P	14 58 12.9	+0.5
	9.2nm,0.8s,mb5.0						
SYO	Syowa Base	91.10	162	⇓PcP	PcP	14 58 17.2	-3.0
SYO	Syowa Base	91.10	162	⇓pP	pP	14 58 29.9	-7.7
CTA	Charters Tower	126.70	236	PKP	PKPdf	15 04 18.5	+0.7
	3.0nm,0.7s,baz=114,slow=3.2,SNR=4.7						
ASAR	Alice Springs	134.03	224	PKP	PKPdf	15 04 33.1	+1.4
	1.5nm,0.7s,baz=125,slow=2.0,SNR=13						
WRAB	Tennant Creek	136.11	228	*e*PKPdf	PKPdf	15 04 37.1	+1.6
WRA	Warramunga Arr	136.11	228	PKP	PKPdf	15 04 37.2	+1.6
	2.6nm,0.7s,baz=127,slow=1.9,SNR=23						
SONM	Songino Array	141.40	354	PKhKP		15 04 39.8	
	1.2nm,0.9s,baz=333,slow=3.6,SNR=4.5						
SONM				PKP	PKPdf	15 04 46.1	+1.7
	1.3nm,0.7s,slow=2.9,SNR=7.1						
MBWA	Marble Bar	144.51	211	*e*PKPdf	PKPdf	15 04 50.5	-0.1
HHC	Hu-ho-hao-te	147.28	345	*e*PKP	PKPdf	15 04 58.5	+3.8
HHC				APKP		15 05 03.8	
HHC				XPKP		15 05 06.0	
HHC				PP	PP		
	comp=Z,162nm,6.2s						
GKN	Gorkha	155.90	38	*e*P	PKPab	15 05 37.4	-0.1
KKN	Kakani	156.44	37	*e*P	PKPab	15 05 37.9	-1.9
	comp=Z,16nm,0.8s						
DMN	Daman	156.47	37	*e*P	PKPab	15 05 40.2	+0.3
	comp=Z,13nm,0.8s						
PKI	Pulchoki	156.68	37	*e*P	PKPab	15 05 40.8	0.0
GUN	Gumba	156.70	36	*e*P	PKPab	15 05 41.0	+0.1
	comp=Z,23nm,0.8s						
CMAR	Chiang Mai Arr	170.75	12	PKPab	PKPab	15 06 41.6	-0.7
	comp=Z,2.3nm,0.8s,baz=328,slow=5.3,SNR=13						

MOS 28 14:46:50.5±2.6, **59.80N**×**152.12E, h8**^{km}, **mb4.0**/1, **Error ellipse: s-maj=35.5km s-min=16.2km az=93.0, Eastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MA2	Magadan	0.72	252	*i* P	Pb	14 47 04.4	-0.5
MA2				*e*S	Sg	14 47 14.2	-0.5
MA2				pmax	pmax		
	comp=Z,240nm,0.2s						
MA2				smax			
	comp=N,960nm,0.2s						
MGD	Magadan 1	0.74	290	*i* P	Pb	14 47 05.1	-0.1
MGD				*e*S	Sb	14 47 14.9	-0.4
MGD				pmax	pmax		
	comp=Z,200nm,0.1s						
MGD				smax			
	comp=N,300nm,0.2s						
MGD				smax			
	comp=E,2µm,0.2s						
TLAR	Talaya	1.34	6	*e*P	Pb	14 47 16.9	+1.4
TLAR				*i* S	Sb	14 47 34.8	+2.1
TLAR				pmax	pmax		
	comp=Z,30nm,0.2s						
TLAR				smax			
	comp=N,100nm,0.2s						
TLAR				smax			
	comp=E,340nm,0.2s						
OCHR	Omchak	2.81	314	*e*P	Pn	14 47 39.9	+3.4
OCHR				*e*S	Sn	14 48 18.4	+7.5
OCHR				pmax	pmax		
	comp=Z,30nm,0.3s						
OCHR				smax			
	comp=E,380nm,0.2s						
SEY	Seymchan	3.15	2	*e*P	Pn	14 47 41.4	0.0
SEY				*e*S	Sn	14 48 20.0	+0.4
SEY				pmax	pmax		
	comp=Z,10.0nm,0.3s						
SEY				smax			
	comp=N,180nm,0.2s						
SEY				smax			
	comp=E,130nm,0.2s						
OMS	Omsukchan	3.25	31	*e*P	Pn	14 47 48.8	+6.0
OMS				*e*S	Sn	14 48 30.5	+8.4
OMS				pmax	pmax		
	comp=Z,40nm,0.3s						
OMS				smax			
	comp=N,100nm,1.2s						
OMS				smax			
	comp=E,100nm,1.2s						
SUUS	Susuman	3.54	329	*e*P	Pn	14 47 56.7	+10
SUUS				pmax	pmax		
	comp=Z,20nm,0.3s						

*IDC **28** 14:47:39.5±10.0, 48.84S×161.24E, mb4.3/3, mb1 4.5/5, mb1mx4.2/10, mbtmp4.4/5, ML4.0/2, Error ellipse: s-maj=214.6km s-min=26.5km az=172.0*

ISC 28 14:47:26.2±2.2, **50.3S**±0.3×**162.2E**±0.2, **h10**^{km}, **n9**, σ**0**$\overset{s}{.}$**70**/14, **mb4.3**/3, **Auckland Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.87	43	P	Pn	14 48 56.2	+0.8
WHZ				S	Sn	14 50 03.3	-0.2
MLZ	Mavora Lakes	6.40	41	P	Pn	14 49 03.9	+1.0
MLZ				S	Sn	14 50 17.0	+0.2
TUZ	Tuapeka	6.61	51	P	Pn	14 49 05.7	-0.2
TUZ				S	Sn	14 50 21.3	-0.9
EAZ	Earnscleugh	6.99	46	*e*P	Pn	14 49 10.8	-0.4
EAZ				S	Sn	14 50 32.8	+1.3
RPZ	Rata Peaks	8.95	46	Pn	P	14 49 45.3	+6.7
	2.9nm,0.3s,baz=154,slow=23,SNR=6.1						
RPZ				Sn	Sn	14 51 19.3	-1.2
	1.3nm,0.3s,baz=330,slow=14,SNR=3.3						
URZ	Urewera	16.06	47	Pn	P	14 51 20.6	+7.0
	0.4nm,0.3s,baz=220,slow=4.7,SNR=11						
STKA	Stephens Creek	23.99	312	P	P	14 52 41.7	0.0
	15nm,1.3s,mb4.3,baz=138,slow=14,SNR=6.8						
ASAR	Alice Springs	34.56	310	P	P	14 54 16.8	-0.2
	4.5nm,0.6s,mb4.6,baz=146,slow=8.2,SNR=49						
WRA	Warramunga Arr	37.53	314	P	P	14 54 41.8	-0.3
	4.1nm,0.8s,mb4.2,baz=147,slow=8.0,SNR=19						

*MOS **28** 14:48:29.1±1.3, 3.39N×93.69E, h33^{km}, mb5.4/37, Error ellipse: s-maj=11.3km s-min=6.5km az=118.5*

*BJI **28** 14:48:29.2, 3.19N×93.70E, h43^{km}, mB5.4, mb5.2, Ms4.8, Msz4.8*

*SYO **28** 14:48:29.9, 3.38N×93.74E, h30^{km}, MB5.1, MS4.3*

*NEIC **28** 14:48:30.1±0.3, 3.37N×93.76E, mb5.2/37, MS4.3/13, Error ellipse: s-maj=9.1km s-min=8.1km az=49.0*

*IDC **28** 14:48:30.3±0.4, 3.42N×93.80E, h28^{km}±2^{km}, mb4.8/26, mb1 4.9/27, mb1mx4.9/28, mbtmp5.0/27, ML4.1/1, MS4.2/7, Ms1 4.2/7, ms1mx4.0/24, Error ellipse: s-maj=17.2km s-min=8.1km az=46.0*

*HRVD **28** 14:48:30.1±0.6, 3.24N×93.68E, h12^{km}, MW4.9/46, Centroid moment Tensor Solution. LP body waves: s21,c29;Mantle waves: s46,c81; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.59±.10; $M_{\theta\theta}$-0.76±.08; $M_{\phi\phi}$-1.83±.11; $M_{r\theta}$-0.03±.32; $M_{\theta\phi}$1.08±.08; $M_{\phi r}$0.61±.32; Best double couple: $M_0$2.62×10^{16} NP1:ϕ_s142°, δ39°, λ81°. NP2:ϕ_s334°, δ51°, λ98°. Principal axes: T 2.68, Plg82°, Azm284°; N -.12, Plg6°, Azm150°; P -2.56, Plg6°, Azm59°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 14:48:28.3±0.2, **3.36N**±0.04×**93.80E**±0.03, **h29**^{km}, **h29**^{km}±.4^{km}**:pP-P, n268,** σ**0**$\overset{s}{.}$**96**/258, **mb5.2**/91, **MS4.5**/32, **46C-9D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.82	18	⇑*e*P	P	14 52 10.1	-0.8
	127nm,0.9s						
CMAR	Chiang Mai Arr	15.82	18	Pn	P	14 52 10.1	-0.9
	0.3nm,0.3s,baz=214,slow=13,SNR=52						
CMAR				LR	LR	14 59 17.3	
	comp=Z,610nm,18.9s,baz=205,slow=41						
UBT	Ubonrachathani	16.17	42	P	P	14 52 18.0	+2.6
MDRS	Chennai	16.51	307	*e*P	P	14 52 20.0	+0.3
MDRS				*e*		14 52 25.4	
	comp=Z,81nm,1.0s						
NANT	Nan	16.76	23	P	P	14 52 24.0	+1.1
CHRT	Chiangrai	17.41	19	⇑P	P	14 52 31.0	0.0
	comp=Z,255nm,1.0s						
TRD	Trivandrum	17.51	288	*e*P	P	14 52 32.3	0.0
TRD				*e*		14 52 35.4	
	comp=Z,87nm,1.4s						
VIS	Vishakhapatnam	17.58	325	*e*P	P	14 52 31.8	-1.3
VIS				*e*		14 52 33.9	
	comp=Z,118nm,1.3s						
KOD	Kodaikanal	17.59	294	*e*P	P	14 52 33.9	+0.6
HYB	Hyderabad	20.46	314	*e*P	P	14 53 06.0	-0.6
HYB	Hyderabad	20.46	314	*i* P	P	14 53 06.0	-0.6
MNGI	Mangalore	21.04	298	*e*P	P	14 53 12.2	-0.3
MNGI				*e*		14 53 17.4	
	comp=Z,124nm,2.1s						
MNGI				*e*S	S	14 57 08.4	+8.1
IMP	Imphal	21.30	0	*e*P	P	14 53 13.8	-1.2
BOK	Bokaro	21.70	340	*e*P	P	14 53 19.1	0.0
BOK				*e*		14 53 20.9	
	comp=Z,313nm,1.2s						
BLSP	Bilaspur	21.82	330	*e*P	P	14 53 20.1	-0.3
BLSP				*e*		14 53 23.3	
	comp=Z,104nm,1.3s						
QIZ	Qiongzhong	22.10	44	P	P	14 53 22.8	-0.3
QIZ				*e*S	S	14 57 18.5	-1.5
QIZ				LR	LR		
	comp=N,3µm,15.7s						
QIZ				LR	LR		
	comp=Z,2µm,16.4s,MS4.5						
SHL	Shillong	22.15	355	*e*P	P	14 53 22.2	-1.4
SHL				*e*		14 53 27.9	
	comp=Z,147nm,1.6s						
SHL				*e*S	S	14 57 27.4	+6.4
NGP	Nagpur	22.77	322	⇑*e*P	P	14 53 30.5	+0.6
NGP				*e*		14 57 52.4	
GOA	Goa	23.07	303	*e*P	P	14 53 35.0	+2.2
GOA				*e*		14 53 42.1	
	comp=Z,172nm,1.6s						
GOA				*e*S	S	14 57 47.0	+10
KMI	Kunming	23.28	21	P	P	14 53 37.3	+2.5
KMI				AP		14 53 45.0	
KMI				XP		14 53 50.0	
KMI				S	S	14 57 52.3	+11
KMI				XS		14 58 01.5	
KMI				SS	SS	14 58 30.5	+2.4
KMI				AMB	AMB		
	comp=Z,54nm,1.7s,mb4.7						
KMI				LR	LR		
	comp=N,2µm,10.6s,MS4.8						
KMI				LR	LR		
	comp=E,1µm,10.9s,MS4.8						
KMI				LR	LR		
	comp=Z,2µm,10.1s,MS4.7						
KAD	Karad	23.72	307	*e*P	P	14 53 40.4	+1.3
KAD				*e*		14 53 45.5	
	comp=Z,46nm,1.6s						
AKL	Akola	23.75	318	*e*P	P	14 53 42.0	+2.6
AKL				*e*		14 53 44.5	
	comp=Z,51nm,1.0s						
POO	Poona	24.67	309	⇑*i*P	P	14 53 47.0	-1.3
BHPL	Bhopal	25.33	323	*e*P	P	14 53 55.4	+0.8
BHPL				*e*		14 53 57.6	
	comp=Z,63nm,1.3s						
PKI	Pulchoki	25.37	342	*e*P	P	14 53 55.0	+0.1
	comp=Z,109nm,1.4s,mb5.2						
DMN	Daman	25.50	342	*e*P	P	14 53 56.5	+0.4
	comp=Z,35nm,0.8s,mb4.9						
GUN	Gumba	25.55	344	*e*P	P	14 53 57.2	+0.6
	comp=Z,115nm,0.9s,mb5.4						
KKN	Kakani	25.62	342	*e*P	P	14 53 57.1	-0.1
	comp=Z,97nm,1.2s,mb5.2						
BOM	Bombay	25.68	309	*e*P	P	14 53 56.9	-1.0
GKN	Gorkha	26.02	341	*e*P	P	14 54 01.1	+0.2
	comp=Z,112nm,0.9s,mb5.4						
GYA	Guiyang	26.07	27	⇑*i*P	P	14 54 01.3	0.0
GYA				S	S	14 58 30.3	+1.9
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
GYA				LR	LR		
	comp=N,380nm,16.2s,MS4.2						
GYA				LR	LR		
	comp=E,480nm,16.8s,MS4.2						
GYA				LR	LR		
	comp=Z,280nm,16.0s,MS3.9						
KOLN	Koldanda	26.15	339	*e*P	P	14 54 02.4	+0.3
	comp=Z,165nm,1.2s,mb5.5						
LSA	Lhasa	26.31	355	⇑*i*P	P	14 54 06.0	+2.4
LSA				pmax	pmax		
	comp=Z,206nm,0.8s,mb5.7						
LSA				MLR	MLR		
	comp=Z,436nm,19.0s,MS4.0						
LSA	Lhasa	26.31	355	⇑*i*P	P	14 54 06.0	+2.4
	comp=Z,206nm,0.8s,mb5.7						
LSA				LR	LR		
	comp=Z,436nm,19.0s,MS4.0						
GZH	Guangzhou	27.24	42	P	P	14 54 18.0	+5.8
GZH				LR	LR		
	comp=Z,3µm,10.9s,MS5.1						
CD2	Chengdu	28.97	18	P	P	14 54 27.0	-0.7
CD2				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.5						
SONA	Sohna	29.43	329	*e*P	P	14 54 31.6	-0.3
AYAN	Aya Nagar	29.60	329	*e*P	P	14 54 33.0	-0.4
AYAN				*e*		14 54 33.9	
	comp=Z,23nm,0.3s						
KUDL	Kundal	29.66	328	*e*P	P	14 54 34.2	+0.3
KUDL				*e*		14 54 36.5	

	comp=Z,29nm,1.6s						
NDI	**New Delhi**	**29.72**	**330**	*e*P	**P**	**14 54 34.0**	**-0.5**
NDI				*e*		14 54 36.2	
	comp=Z,58nm,1.3s						
KHET	**Khetri**	**29.97**	**327**	*e*P	**P**	**14 54 36.6**	**-0.1**
KHET				*e*		14 54 39.8	
	comp=Z,63nm,1.8s						
ENH	**Enshi**	**30.60**	**27**⇑	*e*P	**P**	**14 54 41.2**	**-1.1**
	comp=Z,28nm,0.8s,mb5.2						
ENH				LR	LR		
	comp=Z,985nm,20.0s,MS4.5						
DDI	**Dehra Dun**	**30.67**	**333**	*e*P	**P**	**14 54 42.5**	**-0.4**
KLP	**Kalpa**	**31.62**	**334**	*e*P	**P**	**14 54 50.6**	**-0.6**
KLP				*e*		14 54 56.4	
	comp=Z,38nm,1.1s						
WHN	**Wuhan**	**33.29**	**33**	P	**P**	**14 55 06.8**	**+1.1**
WHN				AMB	AMB		
	comp=Z,70nm,1.2s,mb5.5						
WHN				LR	LR		
	comp=Z,5µm,11.5s,MS5.5						
XAN	**Xi'an**	**33.62**	**23**	P	**P**	**14 55 07.8**	**-0.8**
XAN				AMB	AMB		
	comp=Z,66nm,0.8s,mb5.6						
LZH	**Lanzhou**	**33.86**	**15** ⇓	P	**P**	**14 55 10.8**	**+0.2**
LZH				AP	pP	14 55 19.3	0.0
LZH				XP	sP	14 55 23.5	+0.5
LZH				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,280nm,4.2s						
LZH				LR	LR		
	comp=E,1µm,10.6s						
LZH				LR	LR		
	comp=Z,3µm,12.8s,MS5.2						
MBWA	**Marble Bar**	**35.20**	**135**	*e*P	**P**	**14 55 22.1**	**-0.2**
	comp=Z,20nm,1.0s,mb5.0						
MBWA				LR	LR		
	comp=Z,373nm,19.0s,MS4.2						
GTA	**Gaotai**	**36.29**	**8**	P	**P**	**14 55 31.8**	**+0.4**
GTA				AP	pP	14 55 40.8	+0.7
GTA				XP	sP	14 55 45.0	+1.2
GTA				AMB	AMB		
	comp=Z,22nm,1.4s,mb4.9						
GTA				AMB	AMB		
	comp=Z,197nm,5.3s						
GTA				LR	LR		
	comp=N,467nm,12.5s,MS4.6						
GTA				LR	LR		
	comp=E,420nm,11.4s,MS4.6						
GTA				LR	LR		
	comp=Z,388nm,10.6s,MS4.5						
NJ2	**Nanjing**	**36.99**	**37**	*e*P	**P**	**14 55 37.3**	**0.0**
NJ2				AP	pP	14 55 46.3	+0.3
NJ2				XP	sP	14 55 50.3	+0.6
NJ2				PP	PP	14 57 03.0	-0.9
NJ2				PPP	PPP	14 57 22.3	-1.6
NJ2				S	**S**	**15 01 12.0**	**-8.2**
NJ2				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,940nm,4.6s						
NJ2				LR	LR		
	comp=Z,2µm,14.8s,MS5.0						
SSE	**Sheshan**	**37.78**	**40**	P	**P**	**14 55 40.5**	**-3.4**
SSE				S	**S**	**15 01 29.3**	**-3.1**
SSE				AMB	AMB		
	comp=Z,31nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,53nm,3.6s						
SSE				LR	LR		
	comp=Z,2µm,11.0s,MS5.2						
KSH	**Kashi**	**39.46**	**338**⇑	*i*P	**P**	**14 55 58.5**	**+0.6**
KSH				*e*AP	pP	14 56 10.3	+3.6
KSH				*e*XP	sP	14 56 14.8	+4.5
KSH				*e*PP	PP	14 57 31.5	-0.9
KSH				AMB	AMB		
	comp=Z,170nm,4.7s						
BTO	**Baotou**	**39.86**	**19**	*e*P	**P**	**14 56 01.3**	**+0.1**
HHC	**Hu-ho-hao-te**	**40.61**	**21**	*e*P	**P**	**14 56 08.5**	**+1.2**
HHC				AP	pP	14 56 15.8	-0.3
HHC				PP	PP	14 57 45.8	+1.7
HHC				PCP	PcP	14 58 11.8	+2.2
HHC				PCS		15 02 00.5	
HHC				S	**S**	**15 02 11.0**	**-3.8**
HHC				SS	SS	15 05 12.0	+1.7
HHC				AMB	AMB		
	comp=Z,32nm,1.0s,mb4.9						
HHC				AMB	AMB		
	comp=Z,418nm,7.2s						
HHC				LR	LR		
	comp=N,509nm,13.1s,MS4.9						
HHC				LR	LR		
	comp=E,979nm,14.3s,MS4.9						
HHC				LR	LR		
	comp=Z,398nm,11.9s,MS4.5						
WMQ	**Urumqi**	**40.65**	**353**	P	**P**	**14 56 08.5**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,41nm,1.0s,mb5.0						
BJT	**Baijiatuau**	**41.73**	**26**⇑	*e*P	**P**	**14 56 18.1**	**+1.5**
BJT				pmax	pmax		
	comp=Z,47nm,0.8s						
BJT				MLR	MLR		
	comp=Z,476nm,20.0s						
BJT	**Baijiatuau**	**41.73**	**26**⇑	*e*P	**P**	**14 56 18.1**	**+1.5**
	comp=Z,47nm,0.8s,mb5.2						
BJT				LR	LR		
	comp=Z,476nm,20.0s,MS4.4						
BJI	**Beijing**	**41.75**	**26**	P	**P**	**14 56 18.5**	**+1.8**
BJI				S	**S**	**15 02 31.3**	**-0.5**
BJI				AMB	AMB		
	comp=Z,69nm,0.9s,mb5.3						
BJI				LR	LR		
	comp=N,295nm,28.4s,MS4.2						
BJI				LR	LR		
	comp=E,328nm,25.5s,MS4.2						
BJI				LR	LR		
	comp=Z,662nm,22.7s,MS4.5						
KZA	**Kyzart**	**41.97**	**339**	P	**P**	**14 56 19.7**	**+1.1**
	SNR=20						
UCH	**Uchtor**	**42.36**	**339**	P	**P**	**14 56 22.9**	**+1.2**
	SNR=27						
NWAO	**Narrogin (SRO)**	**42.37**	**150**	P	**P**	**14 56 21.6**	**-0.3**
	comp=Z,9.1nm,0.7s,mb4.5,baz=308,slow=5.8,SNR=6.7						
NWAO				PcP	PcP	14 58 14.6	-1.0
	comp=Z,5.8nm,0.8s,baz=298,slow=3.0,SNR=2.6						
AML	**Almayashu**	**42.58**	**338**	P	**P**	**14 56 24.8**	**+1.2**
	SNR=39						
KBK	**Karagaybulak**	**42.58**	**339**	P	**P**	**14 56 24.9**	**+1.3**
	SNR=36						
TKM2	**Tokmak 2**	**42.59**	**340**	P	**P**	**14 56 24.3**	**+0.7**
	SNR=19						
AAK	**Ala-Archa**	**42.73**	**339**	P	**P**	**14 56 25.8**	**+1.1**
	SNR=14						
AAK	**Ala-Archa**	**42.73**	**339**⇑	*i*P	**P**	**14 56 20.9**	**-3.8**
CHMS	**Chumysh**	**42.95**	**339**	P	**P**	**14 56 27.3**	**+0.8**
	SNR=7.8						
EKS2	**Erkin-Say**	**43.01**	**338**	P	**P**	**14 56 28.0**	**+1.0**
	SNR=17						
USP	**Ospenovka**	**43.28**	**339**	P	**P**	**14 56 29.7**	**+0.5**
	SNR=36						
SONM	**Songino Array**	**45.61**	**12**	P	**P**	**14 56 48.5**	**+0.6**
	comp=Z,24nm,0.8s,mb5.1,baz=192,slow=8.7,SNR=160						
SONM				pP	pP	14 56 57.2	+0.5
	comp=Z,14nm,0.8s,baz=194,slow=8.2,SNR=11						
SONM				PcP	PcP	14 58 26.7	+0.3
	comp=Z,8.2nm,0.9s,baz=208,slow=1.5,SNR=6.2						
SONM				pPcP		14 58 35.9	
	comp=Z,8.4nm,1.0s,baz=188,slow=3.1,SNR=4.0						
SONM				LR	LR	15 18 46.4	
	comp=Z,352nm,18.2s,MS4.3,baz=164,slow=40						
ULN	**Ulaanbaatar**	**45.78**	**12**⇑	*e*P	**P**	**14 56 49.4**	**+0.2**
ULN				*e*		14 58 27.3	
ULN				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
ULN				MLR	MLR		
	comp=Z,263nm,20.0s,MS4.2						
ULN	**Ulaanbaatar**	**45.78**	**12**⇑	*e*P	**P**	**14 56 49.4**	**+0.2**
	comp=Z,12nm,0.8s,mb4.9						
ULN				*e*PcP	PcP	14 58 27.2	+0.3
ULN				LR	LR		
	comp=Z,263nm,20.0s,MS4.2						
WRA	**Warramunga Arr**	**46.05**	**122**	P	**P**	**14 56 51.9**	**+0.2**
	comp=Z,58nm,0.7s,mb5.6,baz=300,slow=8.9,SNR=255						
WRA				pP	pP	14 57 01.0	+0.4
	comp=Z,29nm,0.6s,baz=299,slow=8.9,SNR=16						
WRA				PcP	PcP	14 58 28.3	0.0
	comp=Z,5.8nm,0.9s,baz=289,slow=2.7,SNR=4.8						
WRAB	**Tennant Creek**	**46.06**	**122**⇑	*i*P	**P**	**14 56 52.0**	**+0.2**
WRAB				*e*	pP	14 57 00.9	+0.3
WRAB				*e*		14 58 28.1	
WRAB				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.6						
WRAB	**Tennant Creek**	**46.06**	**122**⇑	*i*P	**P**	**14 56 52.0**	**+0.2**
	comp=Z,70nm,0.8s,mb5.6						
WRAB				*e*	pP	14 57 00.9	+0.3
WRAB				*e*PcP	PcP	14 58 28.1	-0.2
ASAR	**Alice Springs**	**47.40**	**127**	P	**P**	**14 57 02.4**	**0.0**
	comp=Z,22nm,0.8s,mb5.2,baz=304,slow=7.7,SNR=127						
ASAR				pP	pP	14 57 11.0	-0.2
	comp=Z,24nm,1.0s,baz=294,slow=7.8,SNR=14						
ASAR				PcP	PcP	14 58 33.2	+0.2
	comp=Z,12nm,0.7s,baz=303,slow=3.4,SNR=13						
ASAR				pPcP		14 58 42.0	
	comp=Z,15nm,0.9s,baz=303,slow=3.4,SNR=9.4						
ZAK	**Zakamensk**	**47.53**	**8**	*e*P	**P**	**14 57 02.1**	**-0.9**
TLY	**Talaya**	**48.85**	**8**⇑	*e*P	**P**	**14 57 10.5**	**-2.7**
TLY				MLR	MLR		
	comp=Z,82nm,19.0s,MS3.7						
CN2	**Changchun**	**49.04**	**30**	*e*P	**P**	**14 57 14.8**	**0.0**
CN2				PP	PP	14 59 13.3	+4.8
CN2				*e*S	**S**	**15 04 15.3**	**-1.1**
CN2				SS	SS	15 07 39.0	-4.1
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.9						
CN2				AMB	AMB		
	comp=Z,320nm,4.0s						
CN2				LR	LR		
	comp=Z,700nm,15.0s,MS4.8						
QRN	**Al-Qurain**	**50.35**	**305**	*e*P	**P**	**14 57 25.1**	**0.0**
QRN				AMb	AMB	14 57 26.2	
	comp=Z,167nm,1.0s,mb6.0						
RDF	**Al-Radifah**	**50.71**	**305**	*e*P	**P**	**14 57 28.4**	**+0.6**
RDF				AMb	AMB	14 57 29.8	
	comp=Z,217nm,1.0s,mb6.0						
HIA	**Hailar**	**50.80**	**22**⇑	*e*P	**P**	**14 57 28.6**	**+0.5**
HIA				pmax	pmax		
	comp=Z,39nm,0.8s						
HIA				MLR	MLR		
	comp=Z,746nm,19.0s						
HIA	**Hailar**	**50.80**	**22**⇑	*e*P	**P**	**14 57 28.6**	**+0.5**
	comp=Z,39nm,0.8s,mb5.4						
HIA				LR	LR		
	comp=Z,746nm,19.0s,MS4.7						
UMR	**Umm Al-Rimmam**	**50.81**	**306**	*e*P	**P**	**14 57 29.2**	**+0.7**
UMR				AMb	AMB	14 57 30.4	
	comp=Z,192nm,0.9s,mb6.0						
MZLS	**Mizel**	**51.15**	**298**	P	**P**	**14 57 31.4**	**+0.3**
MIB	**Mutribah**	**51.21**	**306**	*e*P	**P**	**14 57 31.8**	**+0.2**
MIB				AMb	AMB	14 57 33.1	
	comp=Z,418nm,0.8s						
RST	**Umm Al-Ruwaisa**	**51.37**	**306**	*e*P	**P**	**14 57 33.1**	**+0.3**
RST				AMb	AMB	14 57 34.5	
	comp=Z,137nm,1.1s,mb5.8						
TATS	**Tathlith**	**51.65**	**292**	P	**P**	**14 57 34.6**	**-0.5**
MDJ	**Mudanjiang**	**51.75**	**32**	P	**P**	**14 57 36.0**	**+0.6**
MDJ				AMB	AMB		
	comp=Z,21nm,1.4s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,74nm,3.9s						
MDJ				LR	LR		
	comp=N,154nm,15.9s,MS4.4						
MDJ				LR	LR		
	comp=E,244nm,15.9s,MS4.4						
MDJ				LR	LR		
	comp=Z,277nm,15.9s,MS4.4						
NVS	**Novosibirsk**	**52.03**	**352**	*i* P	**P**	**14 57 36.3**	**-1.1**
NVS				*i*	pP	14 57 45.4	-1.0
NVS				*i*		15 00 45.2	
NVS				*e*S	**S**	**15 04 56.1**	**-1.5**
NVS				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.3						
NVS				pmax	pmax		
	comp=N,33nm,0.9s						
NVS				pmax	pmax		
	comp=E,20nm,0.9s						
NVS				smax			
	comp=N,17nm,2.2s						
NVS				smax			
	comp=E,20nm,2.2s						
FRSS	**Farasan al Kab**	**52.43**	**288**	P	**P**	**14 57 41.7**	**+0.8**
MAT	**Matsushiro**	**52.49**	**45**	P	**P**	**14 57 40.5**	**-0.7**
MAT	**Matsushiro**	**52.49**	**45**	*e*P	**P**	**14 57 41.0**	**-0.2**
MAT				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
MAT	**Matsushiro**	**52.49**	**45**	*e*P	**P**	**14 57 41.0**	**-0.2**
	comp=Z,6.8nm,0.7s,mb4.7						
AFFS	**'Afif**	**53.07**	**297**	P	**P**	**14 57 45.7**	**+0.1**
BVAR	**Borovoye Array**	**53.14**	**343**	P	**P**	**14 57 44.8**	**-0.9**
	comp=Z,22nm,0.8s,mb5.1,baz=143,slow=7.4,SNR=108						
BVAR				pP	pP	14 57 54.4	-0.4
	comp=Z,20nm,0.8s,baz=135,slow=8.2,SNR=21						
BRVK	**Borovoye**	**53.20**	**342**	*e*P	**P**	**14 57 42.8**	**-3.4**
ARSS	**Ar Rass**	**53.38**	**300**	P	**P**	**14 57 47.5**	**-0.4**
CHKZ	**Chkalovo**	**53.64**	**343**⇑	*i*P	**P**	**14 57 48.9**	**-0.5**
CHKZ				*e**PP	pP	14 57 58.3	-0.1
CHKZ				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.6						
CHKZ	**Chkalovo**	**53.64**	**343**⇑	*i*P	**P**	**14 57 48.9**	**-0.5**
	comp=Z,82nm,1.1s,mb5.6						
CHKZ				*e*pP	pP	14 57 58.3	0.0
HILS	**Ha'il**	**55.04**	**301**	P	**P**	**14 58 00.6**	**+0.6**
CTA	**Charters Tower**	**56.50**	**117**	P	**P**	**14 58 10.3**	**-0.3**
	comp=Z,13nm,0.9s,mb5.0,baz=285,slow=8.6,SNR=16						
CTA				pP	pP	14 58 19.9	+0.2
	comp=Z,13nm,0.9s,baz=284,slow=8.7,SNR=8.0						
CTA				LR	LR	15 24 12.1	
	comp=Z,160nm,19.3s,MS4.1,baz=121,slow=38						
CTAO	**Charters Tower**	**56.50**	**117**⇑	*e*P	**P**	**14 58 10.3**	**-0.3**
CTAO				*e*	pP	14 58 19.3	-0.3
CTAO				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
CTAO	**Charters Tower**	**56.50**	**117**⇑	*e*P	**P**	**14 58 10.2**	**-0.4**
	comp=Z,15nm,1.0s,mb5.0						
CTAO				*e*	pP	14 58 19.3	-0.3
BOD	**Bodaibo**	**56.59**	**13**⇓	*i*P	**P**	**14 58 09.1**	**-1.7**
KMBO	**Kilima Mbogo**	**56.70**	**266**	*e*P	**P**	**14 58 11.1**	**-1.1**
KMBO				*e*	pP	14 58 21.2	0.0
KMBO				pmax	pmax		
	comp=Z,17nm,1.1s						
KMBO				MLR	MLR		
	comp=Z,276nm,19.0s						
KMBO	**Kilima Mbogo**	**56.70**	**266**	P	**P**	**14 58 12.3**	**+0.1**
	comp=Z,7.5nm,0.9s,mb4.7,baz=56,slow=10,SNR=14						
KMBO				pP	pP	14 58 21.2	0.0
	comp=Z,2.4nm,0.9s,baz=80,slow=15,SNR=5.7						
KMBO				LR	LR	15 20 31.7	
	comp=Z,281nm,18.1s,MS4.4,baz=95,slow=34						
KMBO	**Kilima Mbogo**	**56.70**	**266**	*e*P	**P**	**14 58 11.1**	**-1.1**
	comp=Z,17nm,1.1s,mb5.0						
KMBO				*e*	pP	14 58 21.2	0.0
KMBO				LR	LR		
	comp=Z,276nm,19.0s,MS4.4						
KBRS	**Khaybar**	**56.81**	**299**	P	**P**	**14 58 13.7**	**+0.8**
STKA	**Stephens Creek**	**57.32**	**132**	P	**P**	**14 58 15.9**	**-0.4**
	comp=Z,20nm,0.7s,mb5.2,baz=307,slow=6.7,SNR=45						
STKA				pP	pP	14 58 24.6	-0.8
	comp=Z,17nm,0.7s,baz=311,slow=4.6,SNR=10						
STKA	**Stephens Creek**	**57.32**	**132**	*e*P	**P**	**14 58 15.8**	**-0.5**
STKA				*e*pP	pP	14 58 24.1	-1.3
GNI	**Garni**	**57.39**	**317**	P	**P**	**14 58 16.7**	**0.0**
	comp=Z,16nm,0.8s,mb5.1,baz=29,slow=3.9,SNR=14						
TI2	**Plekhanov**	**58.11**	**318**⇑	*i*P	**P**	**14 58 20.6**	**-1.1**
TI2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
UMJS	**Umm Lajj**	**58.41**	**298**	P	**P**	**14 58 25.2**	**+1.1**
ZEI	**Tsey**	**59.14**	**319**	*e*P	**P**	**14 58 28.0**	**-0.9**
ZEI				*i* *PP	pP	14 58 44.4	+6.4
ZEI				*i*		15 00 39.2	
ZEI				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
SVE	**Sverdlovsk**	**59.46**	**340**	*e*P	**P**	**14 58 30.0**	**-0.9**
SVE				pmax	pmax		
	comp=Z,120nm,1.6s,mb5.7						
ERZM	**Erzurum**	**59.64**	**315**	*i* P	**P**	**14 58 32.8**	**+0.4**
TBKS	**Tabuk**	**59.74**	**301**	P	**P**	**14 58 34.1**	**+0.9**
ARU	**Arti**	**59.91**	**338**⇑	*i*P	**P**	**14 58 28.5**	**-5.5**
ARU				*e*		14 59 13.9	
ARU				*e*S	**S**	**15 06 38.0**	**-4.2**
ARU				*e*		15 08 12.2	
ARU				*e*SS	SS	15 10 40.5	+0.7
ARU				*e*SSS	SSS	15 13 15.5	+4.4
ARU				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.2						
ARU	**Arti**	**59.91**	**338**	*e*P	**P**	**14 58 28.3**	**-5.7**
ASF	**Jabal al Asfar**	**60.45**	**305**	P	**P**	**14 58 38.6**	**+0.6**
	comp=Z,6.2nm,0.3s,mb5.0,baz=0.5,slow=0.5,SNR=15						
ASF				LR	LR	15 27 57.4	
	comp=Z,222nm,18.1s,MS4.3,baz=180,slow=39						
JMQS	**Jabal Moqyreh**	**60.47**	**301**	P	**P**	**14 58 38.7**	**+0.5**
KIV	**Kislovodsk**	**60.47**	**320**	*e*P	**P**	**14 58 34.2**	**-3.8**
KIV				*e*		14 58 45.9	
KIV	**Kislovodsk**	**60.47**	**320**	*e*P	**P**	**14 58 34.2**	**-3.8**
KIV			⇑	*e*P		14 58 36.7	
KIV				*e*		14 58 45.9	
YSS	**Yuzh-Sakhalins**	**60.56**	**36**	*e*P	**P**	**14 58 39.0**	**+0.5**
	comp=Z,39nm,0.8s,mb5.6						
GOF	**Gofitskoye**	**60.75**	**321**	*e*P	**P**	**14 58 38.0**	**-1.9**
ELZG	**Elazig**	**60.83**	**313**	*i* P	**P**	**14 58 41.1**	**+0.6**
AYUS	**'Aynunah**	**60.83**	**300**	P	**P**	**14 58 40.8**	**+0.2**
BDAS	**Al Bad'**	**61.03**	**301**	P	**P**	**14 58 42.1**	**+0.2**
MALT	**Malatya**	**61.17**	**312**⇑	*i*P	**P**	**14 58 42.6**	**-0.2**
MALT				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.4						
MALT	**Malatya**	**61.17**	**312**⇑	*i*P	**P**	**14 58 42.6**	**-0.2**
	comp=Z,34nm,1.0s,mb5.4						
EIL	**Elat**	**61.44**	**302**	P	**P**	**14 58 44.9**	**+0.1**
	comp=Z,24nm,0.9s,mb5.3,baz=39,slow=6.4,SNR=15						
EIL				pP	pP	14 58 53.6	-0.2
	comp=Z,36nm,1.2s,baz=93,slow=5.0,SNR=5.9						
EIL	**Elat**	**61.44**	**302**⇑	*i*P	**P**	**14 58 44.8**	**+0.1**
	comp=Z,37nm,0.9s,mb5.5						
EIL				*e*pP	pP	14 58 54.0	+0.2
GZT	**Gaziantep**	**61.49**	**311**	*i* P	**P**	**14 58 45.4**	**+0.4**
KAHT	**Ahir Dag**	**62.10**	**311**	*i* P	**P**	**14 58 48.8**	**-0.3**
COBT	**Iskenderun**	**62.22**	**310**	*i* P	**P**	**14 58 50.1**	**+0.2**
SOC	**Sochi**	**62.25**	**318**	*i* P	**P**	**14 58 47.6**	**-2.5**
SOC				*e*S	**S**	**15 07 06.7**	**-5.6**
SOC				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.5						
SOC				pmax	pmax		
	comp=N,31nm,1.8s						
SOC				pmax	pmax		
	comp=E,12nm,1.2s						
SOKR	**Solikamsk**	**62.87**	**340**⇑	*i*P	**P**	**14 58 49.7**	**-4.2**
SOKR				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
MBAR	**Mbarara**	**63.15**	**268**⇑	*e*P	**P**	**14 58 55.1**	**-1.3**
MBAR				pmax	pmax		
	comp=Z,15nm,1.1s,mb5.0						
MBAR				MLR	MLR		
	comp=Z,50nm,21.0s,MS3.7						
MBAR	**Mbarara**	**63.15**	**268**⇑	*e*P	**P**	**14 58 55.1**	**-1.2**
	comp=Z,15nm,1.1s,mb5.0						
MBAR				LR	LR		
	comp=Z,50nm,21.0s,MS3.7						
AVNT	**Avonos**	**63.97**	**312**	*i* P	**P**	**14 59 01.0**	**-0.5**
CSS	**Prodhromos**	**64.06**	**307**	*e*P	**P**	**14 59 01.4**	**-0.8**
	comp=Z,57nm,1.3s,mb5.4						
YAK	**Yakutsk**	**64.36**	**18**⇑	*i*P	**P**	**14 59 02.7**	**-0.9**
YAK				*e**PP	pP	14 59 11.9	-0.8
YAK				*e*		14 59 36.1	
YAK				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.5						
YAK				MLR	MLR		
	comp=Z,256nm,19.0s,MS4.4						
YAK	**Yakutsk**	**64.36**	**18**⇑	*i*P	**P**	**14 59 02.7**	**-0.9**
	comp=Z,42nm,0.8s,mb5.5						
YAK				*e*pP	pP	14 59 11.9	-0.8
YAK				*e*PcP	PcP	14 59 36.0	-1.7
YAK				LR	LR		
	comp=Z,256nm,19.0s,MS4.4						
CTKT	**Corum**	**64.59**	**314**	*i* P	**P**	**14 59 04.7**	**-0.8**
BRTR	**Keskin Array B**	**65.16**	**313**	P	**P**	**14 59 08.1**	**-1.1**
	comp=Z,6.8nm,0.8s,mb4.7,baz=127,slow=6.2,SNR=32						
BALT	**Daday**	**65.89**	**314**	*i* P	**P**	**14 59 13.3**	**-0.5**
SIM	**Simferopol'**	**66.49**	**318**	*e*P	**P**	**14 59 16.8**	**-0.8**
SIM				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.5						
ISP	**Isparta**	**67.00**	**310***d*	*i*P	**P**	**14 59 18.3**	**-2.7**
ESKT	**Eskisehir**	**67.17**	**312**	*i* P	**P**	**14 59 21.2**	**-0.8**
LSZ	**Lusaka**	**67.51**	**252**⇑	*e*P	**P**	**14 59 24.0**	**-0.5**
LSZ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
LSZ				MLR	MLR		
	comp=Z,291nm,19.0s,MS4.5						
LSZ	**Lusaka**	**67.51**	**252**⇑	*e*P	**P**	**14 59 24.0**	**-0.5**
	comp=Z,12nm,0.9s,mb4.9						
LSZ				LR	LR		
	comp=Z,291nm,19.0s,MS4.5						
ULDT	**Uludag**	**68.60**	**312**	*i* P	**P**	**14 59 30.4**	**-0.6**
MOS	**Moscow**	**68.76**	**330**	*e*P	**P**	**14 59 28.8**	**-2.8**
MOS				pmax	pmax		
	comp=Z,72nm,1.0s,mb5.6						
AYDN	**Tasoluk**	**68.98**	**309**	*i* P	**P**	**14 59 31.1**	**-2.2**
OBN	**Obninsk**	**69.02**	**329**⇑	*i*P	**P**	**14 59 31.2**	**-2.0**
OBN				*i*	pP	14 59 40.5	-1.9
OBN				pmax	pmax		
	comp=Z,59nm,1.8s,mb5.2						
OBN	**Obninsk**	**69.02**	**329**	*e*P	**P**	**14 59 28.8**	**-4.4**
CASY	**Casey**	**70.52**	**173**	*e*P	**P**	**14 59 42.6**	**+0.4**
	comp=Z,20nm,1.1s,mb5.0						
CASY				*e*pP	pP	14 59 51.4	0.0
IDI	**Anoyia**	**70.89**	**306**	P	**P**	**14 59 44.5**	**-0.5**
	comp=Z,14nm,0.7s,mb5.0,baz=114,slow=4.0,SNR=10						
MA2	**Magadan**	**70.91**	**27**⇑	*i*P	**P**	**14 59 44.1**	**-0.6**
AKASG	**Malin Array Be**	**71.49**	**323**	P	**P**	**14 59 46.6**	**-1.7**
	comp=Z,8.0nm,0.8s,mb4.7,baz=90,slow=4.5,SNR=33						
AKASG				pP	pP	14 59 55.3	-2.2
	comp=Z,8.9nm,1.0s,baz=90,slow=4.6,SNR=7.1						
AKASG				PP	PP	15 02 28.0	-0.9
	comp=Z,0.7nm,0.6s,baz=94,slow=7.1,SNR=5.0						
TIXI	**Tiksi**	**71.69**	**11**⇑	*i*P	**P**	**14 59 48.9**	**-0.4**
TIXI				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.5						
TIXI				MLR	MLR		
	comp=Z,243nm,13.0s,MS4.7						
TIXI	**Tiksi**	**71.69**	**11**	*e*P	**P**	**14 59 45.3**	**-4.0**
LBTB	**Lobatse**	**71.83**	**242**	*e*P	**P**	**14 59 50.2**	**-0.7**
LBTB				*e**PP	pP	14 59 59.6	-0.4
LBTB				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
LBTB				MLR	MLR		
	comp=Z,470nm,20.0s,MS4.8						
LBTB	**Lobatse**	**71.83**	**242**	*e*P	**P**	**14 59 50.1**	**-0.7**
	comp=Z,26nm,0.9s,mb5.2						
LBTB				*e*pP	pP	14 59 59.6	-0.5
LBTB				LR	LR		
	comp=Z,470nm,20.0s,MS4.8						
MLR	**Muntele Rosu**	**72.17**	**317**	P	**P**	**14 59 52.6**	**+0.1**
	comp=Z,26nm,1.0s,mb5.1,baz=104,slow=2.9,SNR=24						
MLR				pP	pP	15 00 01.8	+0.1
	comp=Z,10nm,0.8s,baz=86,slow=2.1,SNR=9.4						
BOSA	**Boshof**	**72.95**	**239**	*e*P	**P**	**14 59 56.2**	**-1.3**
BOSA				*e**PP	pP	15 00 06.0	-0.7
BOSA				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
BOSA				MLR	MLR		
	comp=Z,180nm,19.0s,MS4.4						
BOSA	**Boshof**	**72.95**	**239**	*e*P	**P**	**14 59 56.2**	**-1.3**
	comp=Z,12nm,0.9s,mb4.8						
BOSA				*e*pP	pP	15 00 06.0	-0.7
BOSA				LR	LR		
	comp=Z,180nm,19.0s,MS4.4						
MAW	**Mawson**	**74.08**	**192**	P	**P**	**15 00 03.9**	**+0.7**
	comp=Z,8.3nm,1.0s,mb4.6,baz=330,slow=5.2,SNR=3.6						
MAW				LR	LR	15 25 47.0	
	comp=Z,91nm,18.7s,MS4.1,baz=70,slow=30						
BOLS	**Boljevac**	**74.61**	**314**⇓	*i*P	**P**	**15 00 05.2**	**-1.6**
KWP	**Kalwaria**	**75.25**	**320**	*e*P	**P**	**15 00 10.0**	**-0.4**
VSU	**Vasula**	**75.28**	**330**⇓	*i*P	**P**	**15 00 08.3**	**-2.1**
KOLS	**Kolonicke sedl**	**75.38**	**320**	*i* P	**P**	**15 00 11.6**	**+0.5**
KOLS				*e*pP	pP	15 00 20.6	+0.3
CRVS	**Cervenica-Dubn**	**75.90**	**320**	*e*P	**P**	**15 00 15.0**	**+0.9**
SUW	**Suwalki**	**75.96**	**325**	*e*P	**P**	**15 00 12.8**	**-1.5**
KECS	**Kecovo**	**76.46**	**319**	*e*P	**P**	**15 00 17.0**	**-0.2**
FINES	**FINESS Array B**	**76.53**	**333**	P	**P**	**15 00 16.8**	**-0.5**
	comp=Z,4.7nm,0.5s,mb4.7,baz=101,slow=5.9,SNR=33						
FINES				pP	pP	15 00 25.5	-1.1
	comp=Z,5.6nm,1.0s,baz=97,slow=5.5,SNR=5.1						
KAF	**Kangasniemi**	**76.64**	**333**	*e*p	**P**	**15 00 16.4**	**-1.5**
	comp=Z,13nm,0.9s,mb4.9						
KAF	**Kangasniemi**	**76.64**	**333**	*e*P	**P**	**15 00 16.4**	**-1.5**
KAF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
PSZ	**Piszkesteto**	**76.75**	**318**	*e*P	**P**	**15 00 18.5**	**-0.3**
PSZ				pmax	pmax		

	comp=Z,11nm,1.0s,mb4.7						
PSZ	**Piszkesteto**	76.75	318	*e*P	P	15 00 18.5	-0.4
	comp=Z,11nm,1.0s,mb4.8						
OJC	**Ojcow**	77.21	321	*e*P	P	15 00 21.2	-0.2
VYHS	**Vyhne**	77.54	319	*i* P	P	15 00 23.1	-0.1
VYHS				*e*	pP	15 00 31.8	-0.7
SRO	**Srobarova**	77.78	318	*e*P	P	15 00 25.1	+0.6
SRO1	**Iza**	77.83	318	*e*P	P	15 00 25.2	+0.4
KOLL	**Kolacno**	77.84	319	*e*pP	pP	15 00 33.5	-0.6
OKC	**Ostrava-Krasne**	78.20	320	*e*P	P	15 00 27.4	+0.6
OKC				*e*pP	pP	15 00 36.7	+0.6
MORC	**Moravsky Berou**	78.57	320	*e*P	P	15 00 29.1	+0.2
MORC				*e*	pP	15 00 38.4	+0.3
MORC				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
MORC	**Moravsky Berou**	78.57	320	*e*P	P	15 00 29.1	+0.2
	comp=Z,13nm,1.2s,mb4.7						
MORC				*e*	pP	15 00 38.4	+0.2
ZST	**Bratislava**	78.64	318	*i* P	P	15 00 29.3	0.0
ZST				*e*	pP	15 00 39.1	+0.6
ARCES	**ARCESS Array B**	79.37	341	P	P	15 00 33.1	+0.3
	comp=Z,15nm,0.9s,mb4.9,baz=135,slow=5.1,SNR=14						
DPC	**Dobruska-Polom**	79.43	320	*e*P	P	15 00 34.4	+0.9
DPC				*e*pP	pP	15 00 43.5	+0.7
KSP	**Ksiaz**	79.52	321	⇑*e*P	P	15 00 34.1	+0.1
KSP	**Ksiaz**	79.52	321	*e*P	P	15 00 34.5	+0.5
UPC	**Upice**	79.65	321	*e*P	P	15 00 35.4	+0.7
UPC				*e*pP	pP	15 00 44.2	+0.2
BILL	**Bilibino**	80.38	21	⇓*i*P	P	15 00 36.8	-1.5
PRU	**Pruhonice**	80.53	320	*e*P	P	15 00 39.7	+0.3
	comp=Z,24nm,1.2s,mb5.0						
PRU				*e*pP	pP	15 00 49.3	+0.6
GEC2	**GERESS Array S**	80.96	319	*e*P	P	15 00 42.0	+0.3
GEC2				pmax	pmax		
	comp=Z,73nm,1.4s,mb5.4						
GEC2	**GERESS Array S**	80.96	319	*e*P	P	15 00 42.0	+0.3
	comp=Z,73nm,1.4s,mb5.4						
GERES	**GERESS Array B**	80.96	319	P	P	15 00 42.2	+0.6
	comp=Z,18nm,0.8s,mb5.0,baz=90,slow=5.3,SNR=98						
PTCC	**Patocco-Chiusa**	80.98	316	*e*P	P	15 00 41.9	0.0
BRG	**Berggiesshubel**	81.00	321	*e*P	P	15 00 42.4	+0.6
BRG				*e*	pP	15 00 50.7	-0.5
BRG				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.0						
BRG	**Berggiesshubel**	81.00	321	*e*P	P	15 00 42.4	+0.6
	comp=Z,29nm,1.4s,mb5.0						
BRG				*e*	pP	15 00 50.7	-0.5
SYO	**Syowa Base**	81.03	197	⇓P	P	15 00 42.7	+1.1
SYO	**Syowa Base**	81.03	197	⇓PcP	PcP	15 00 49.1	+0.7
SYO	**Syowa Base**	81.03	197	⇓sP	sP	15 00 58.7	+4.7
ARV	**Arcevia**	81.06	313	*e*P	P	15 00 42.9	+0.6
KHC	**Kasperske Hory**	81.07	319	⇑*i*P	P	15 00 39.9	-2.3
FVI	**Forni Avoltri**	81.39	316	*e*P	P	15 00 44.0	0.0
WET	**Wettzell**	81.53	319	*e*P	P	15 00 45.0	+0.4
CLL	**Collm**	81.63	321	⇑*i*P	P	15 00 44.9	-0.2
CLL				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
CLL	**Collm**	81.63	321	⇑*i*P	P	15 00 44.9	-0.2
	comp=Z,18nm,1.0s,mb5.0						
CLL	**Collm**	81.63	321	⇑P	P	15 00 44.9	-0.2
	comp=Z,logA/T=1.3,mb5.0						
CLL				*e**SP	sP	15 00 54.0	-3.5
SFI	**Santa Sofia**	81.88	314	*e*P	P	15 00 48.1	+1.5
VMG	**Vicchio**	82.10	314	*e*P	P	15 00 49.1	+1.4
CTI	**Castel Tesino**	82.14	316	*e*P	P	15 00 48.6	+0.7
HFS	**Hagfors**	82.17	330	P	P	15 00 47.7	0.0
	comp=Z,22nm,1.1s,mb5.0,baz=180,slow=5.9,SNR=6.8						
SEI	**Scarperia**	82.24	314	*e*P	P	15 00 49.6	+1.1
MOX	**Moxa**	82.45	320	*e*P	P	15 00 50.0	+0.6
MOX				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
MOX	**Moxa**	82.45	320	*i* P	P	15 00 50.0	+0.6
	comp=Z,logA/T=1.2,mb4.9						
MOX	**Moxa**	82.45	320	*e*P	P	15 00 50.0	+0.6
	comp=Z,16nm,0.9s,mb5.0						
GRA1	**Grafenberg Arr**	82.64	320	*e*P	P	15 00 51.4	+1.0
	comp=Z,30nm,1.1s,mb5.2						
GRF	**Grafenberg Arr**	82.64	320	*e*P	P	15 00 51.4	+1.0
GRF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
GRF	**Grafenberg Arr**	82.64	320	*e*P	P	15 00 51.4	+1.0
GRF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
GRF	**Grafenberg Arr**	82.64	320	*e*P	P	15 00 51.4	+1.0
	comp=Z,30nm,1.1s,mb5.2						
GSCL	**Gusciola**	82.81	314	*e*P	P	15 00 53.0	+1.7
BRMO	**Bormio**	83.05	316	*e*P	P	15 00 53.3	+0.7
RPZ	**Rata Peaks**	83.13	135	P	P	15 00 53.2	+0.1
	comp=Z,16nm,0.8s,mb5.1,baz=9.0,slow=19,SNR=3.5						
CLZ	**Clausthal**	83.31	322	*e*P	P	15 00 54.2	+0.4
	comp=Z,14nm,1.0s,mb5.0						
BSEG	**Bad Segeberg**	83.45	324	*e*P	P	15 00 54.9	+0.4
NB2	**NORSAR Subarra**	83.48	331	P	P	15 00 54.0	-0.5
	comp=Z,2.8nm,0.8s,mb4.3,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	83.48	331	P	P	15 00 54.0	-0.5
NB2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
NOA	**NORSAR Array B**	83.48	331	P	P	15 00 53.9	-0.6
	comp=Z,6.0nm,0.9s,mb4.6,baz=94,slow=5.4,SNR=8.3						
NOA				pP	pP	15 01 02.8	-1.0
	comp=Z,7.2nm,1.0s,baz=94,slow=5.5,SNR=6.2						
BFO	**Black Forest**	84.49	318	*e*P	P	15 00 59.8	-0.1
BFO				pmax	pmax		
	comp=Z,19nm,1.3s,mb5.1						
BFO	**Black Forest**	84.49	318	*e*P	P	15 00 59.8	-0.1
	comp=Z,19nm,1.3s,mb5.1						
LPG	**La Plagne**	85.55	315	⇑*i*P	P	15 01 05.8	+0.6
	comp=Z,43nm,1.0s,mb5.3						
LPG	**La Plagne**	85.55	315	⇑*i*P	P	15 01 05.8	+0.6
LPG				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.3						
URZ	**Urewera**	86.81	128	P	P	15 01 11.4	-0.3
	comp=Z,33nm,1.0s,mb5.5,baz=248,slow=1.3,SNR=12						
VNDA	**Vanda**	88.61	168	*e*P	P	15 01 20.5	+1.1
VNDA				pmax	pmax		
	comp=Z,15nm,1.2s						
VNDA	**Vanda**	88.61	168	P	P	15 01 20.9	+1.4
	comp=Z,25nm,1.5s,mb5.3,baz=298,slow=4.4,SNR=6.6						
VNDA	**Vanda**	88.61	168	*e*P	P	15 01 20.5	+1.0
	comp=Z,15nm,1.2s,mb5.2						
ANM	**Nome**	91.63	25	*e*P	P	15 01 36.0	+2.3
ESDC	**Sonseca Array**	93.84	310	P	P	15 01 45.1	+0.6
	comp=Z,0.4nm,0.4s,mb4.2,baz=65,slow=4.5,SNR=8.0						
ESDC				pP	pP	15 01 53.7	-0.2
	comp=Z,1.5nm,0.6s,baz=63,slow=3.3,SNR=2.9						
SNAA	**Sanae**	95.27	198	⇑*i*	P	15 01 49.1	-1.2
IMA	**Indian Mountai**	95.90	22	*e*P	P	15 01 55.9	+2.6
IMA				pmax	pmax		
	comp=Z,11nm,1.4s,mb5.1						
IMA	**Indian Mountai**	95.90	22	*e*P	P	15 01 55.9	+2.6
	comp=Z,11nm,1.4s,mb5.1						
DBIC	**Dimbokro**	98.20	277	LR	LR	15 44 36.2	
	comp=Z,132nm,19.5s,MS4.4,baz=77,slow=34						
ILAR	**Eielson Array**	99.02	22	P	P	15 02 06.8	-0.6
	comp=Z,0.7nm,0.9s,mb4.2,baz=290,slow=2.3,SNR=4.3						
ILAR				PP	PP	15 06 02.1	-10
	comp=Z,0.6nm,0.8s,baz=300,slow=4.9,SNR=4.2						
ILAR				PKKPbc		15 18 33.0	
	comp=Z,0.5nm,0.8s,baz=153,slow=2.0,SNR=4.4						
INK	**Inuvik**	101.39	16	P	P	15 02 19.0	+0.9
	comp=Z,2.2nm,1.1s,baz=239,slow=1.9,SNR=5.3						
YKA	**Yellowknife Ar**	110.86	14	Pdiff	Pdif	15 03 03.1	+3.2
	comp=Z,0.1nm,0.6s,baz=295,slow=3.2,SNR=3.7						
YKA				PP	PP	15 07 30.9	-10
	comp=Z,0.8nm,0.9s,baz=330,slow=7.9,SNR=5.4						
YKA				PKKPbc		15 17 57.5	
	comp=Z,0.3nm,0.8s,baz=146,slow=3.6,SNR=4.1						
YKA				PKKPab		15 18 05.9	
	comp=Z,0.8nm,0.9s,baz=139,slow=3.9,SNR=8.6						
YKA				PKKP	PKKP	15 18 17.2	+8.7
	comp=Z,0.4nm,0.9s,baz=145,slow=5.1,SNR=4.2						
SCHQ	**Schefferville**	119.83	347	PKP	PKPdf	15 07 17.6	-3.3
	comp=Z,11nm,1.3s,baz=80,slow=6.1,SNR=3.1						
CHMT	**Chamberlain Mo**	124.55	22	*e*PKPdf	PKPdf	15 07 26.2	-4.2
ULM	**Lac du Bonnet**	125.95	8	PKP	PKPdf	15 07 30.6	-2.3
	comp=Z,3.9nm,0.8s,baz=296,slow=2.6,SNR=8.0						
ULM				pPKP		15 07 39.5	
	comp=Z,3.9nm,0.9s,baz=335,slow=4.8,SNR=4.5						
NVAR	**Mina Array Bea**	128.91	32	PKP	PKPdf	15 07 37.8	-1.2
	comp=Z,2.0nm,0.7s,baz=279,slow=3.4,SNR=8.3						
NVAR				pPKP		15 07 46.8	
	comp=Z,1.6nm,0.7s,baz=241,slow=2.3,SNR=3.9						
PDAR	**Pinedale Array**	129.46	22	PKP	PKPdf	15 07 37.4	-2.5
	comp=Z,2.3nm,0.9s,slow=1.5,SNR=14						
PDAR				pPKP		15 07 46.8	
	comp=Z,2.3nm,0.9s,baz=315,slow=2.1,SNR=7.6						
PDAR				PP	PP	15 09 46.5	-2.5
	comp=Z,0.8nm,0.9s,baz=56,slow=3.3,SNR=4.0						
MSU	**Marysvale**	131.91	27	*e*PKIKP	PKPdf	15 07 42.7	-2.0
PV10	**Paradox Valley**	133.40	25	*e*PKPdf	PKPdf	15 07 45.9	-1.6
BDFB	**Brasilia**	140.50	249	PKP	PKPdf	15 07 57.7	-3.3
	comp=Z,3.0nm,1.1s,baz=76,slow=6.4,SNR=3.2						
TXAR	**Lajitas Array**	143.43	26	PKP	PKPdf	15 08 00.9	-4.9
	comp=Z,2.9nm,0.8s,baz=198,slow=1.2,SNR=22						
JCT	**Junction City**	143.92	20	*e*PKIKP	PKPdf	15 08 00.6	-6.0
NATX	**Nacogdoches**	144.16	12	*e*PKPdf	PKPdf	15 08 01.8	-5.2
HKT	**Hockley**	145.62	15	*e*PKP2	PKPab	15 08 06.9	-0.3
LVC	**Limon Verde**	154.57	220	PKPbc	PKPdf	15 08 30.2	+6.7
	comp=Z,5.2nm,0.8s,baz=133,slow=2.9,SNR=8.3						
LVC				PKPab	PKPab	15 08 45.2	+1.1
	comp=Z,11nm,0.9s,baz=141,slow=2.3,SNR=8.6						
LVC	**Limon Verde**	154.57	220	*e*PKPbc	PKPdf	15 08 29.3	+5.8
LVC				*e*PKPab	PKPab	15 08 44.4	+0.3
LPAZ	**La Paz**	158.08	233	*e*PKIKP	PKPdf	15 08 26.1	-2.2
LPAZ				*e*		15 08 58.9	
LPAZ	**La Paz**	158.08	233	PKP	PKPdf	15 08 26.6	-1.7
	comp=Z,2.3nm,0.9s,baz=39,slow=3.2,SNR=8.7						
LPAZ				PKPab	PKPab	15 09 00.1	+0.9
	comp=Z,3.6nm,0.8s,baz=113,slow=6.5,SNR=9.7						
SDV	**Santo Domingo**	160.28	308	PKPab	PKPab	15 09 08.5	-0.2
	comp=Z,9.1nm,1.0s,baz=70,slow=2.2,SNR=7.9						
ROSC	**El Rosal**	165.60	304	PKP	PKPdf	15 08 34.1	-2.1
	comp=Z,3.9nm,0.3s,baz=109,slow=20,SNR=5.3						
ROSC				PKPab	PKPab	15 09 32.1	+0.1
	comp=Z,8.8nm,0.3s,baz=89,slow=16,SNR=3.6						

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*IDC **28** 14:51:34.5±1.2,2.87N×95.41E,h24^{km}±5^{km},mb4.3/8, mb1 4.4/8,mb1mx4.1/18,mbtmp4.4/8,Error ellipse: s-maj=56.6km s-min=17.0km az=54.0*

ISC 28 14:51:32.5±0.9,2.7N±0.2×95.3E±0.2,h27^{km}, h27^{km}±1.0^{km}:pP-P,n10,σ0^{s}78/9,mb4.4/8,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	16.07	13	Pn	P	14 55 19.4	+1.0
	0.7nm,0.3s,baz=202,slow=11,SNR=17						
WRA	**Warramunga Arr**	44.42	122	P	P	14 59 43.3	0.0
	5.2nm,0.9s,mb4.3,baz=299,slow=9.1,SNR=4.5						
WRA				pP	pP	14 59 51.5	+0.1
	5.9nm,0.8s,baz=300,slow=9.3,SNR=5.0						
ASAR	**Alice Springs**	45.80	127	P	P	14 59 54.2	0.0
	1.9nm,0.7s,mb4.1,baz=297,slow=7.8,SNR=3.7						
ASAR				pP	pP	15 00 03.1	+0.9
	2.1nm,0.7s,baz=301,slow=8.0,SNR=3.5						
SONM	**Songino Array**	45.98	10	P	P	14 59 54.2	-1.1
	8.8nm,0.8s,mb4.8,baz=188,slow=8.5,SNR=10.0						
SONM				pP	pP	15 00 01.7	-1.7
	2.5nm,0.9s,baz=187,slow=9.4,SNR=4.7						
SONM				PcP	PcP	15 01 32.2	-0.1
	2.2nm,0.7s,baz=188,slow=3.5,SNR=9.7						
SONM				pPcP		15 01 40.4	
	1.7nm,0.6s,baz=184,slow=3.6,SNR=4.9						
BVAR	**Borovoye Array**	54.24	342	P	P	15 00 56.9	-1.4
	5.6nm,0.8s,mb4.5,baz=140,slow=11,SNR=8.2						
BVAR				pP	pP	15 01 04.7	-1.8
	2.2nm,0.7s,baz=149,slow=8.6,SNR=5.2						
FINES	**FINESS Array B**	77.81	333	P	P	15 03 28.6	-0.4
	3.2nm,0.6s,mb4.4,baz=106,slow=7.3,SNR=5.5						
ARCES	**ARCESS Array B**	80.50	340	P	P	15 03 43.8	+0.4
	4.2nm,0.7s,mb4.5,baz=95,slow=5.0,SNR=11						
GERES	**GERESS Array B**	82.45	319	P	P	15 03 55.0	+1.1
	2.1nm,0.8s,mb4.1,baz=117,slow=6.0,SNR=4.8						
HFS	**Hagfors**	83.49	330	P	P	15 03 59.5	+0.4
	2.4nm,0.6s,mb4.4,baz=108,slow=4.7,SNR=7.4						
TXAR	**Lajitas Array**	143.33	28	PKP	PKPdf	15 11 05.2	-4.8
	0.6nm,0.8s,baz=236,slow=3.3,SNR=2.7						
TXAR				pPKP		15 11 13.8	
	0.5nm,0.6s,baz=205,slow=1.7,SNR=3.8						

IDC 28 15:04:25.1±4.5,7.15N×92.74E,mb3.9/3,mb1 4.1/3, mb1mx3.7/16,mbtmp3.9/3,Error ellipse: s-maj=321.0km s-min=30.8km az=51.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	48.99	124	P	P	15 03 13.6	-2.2
	0.5nm,0.3s,baz=301,slow=9.8,SNR=18						
ASAR	**Alice Springs**	50.54	129	P	P	15 03 25.9	-1.6
	0.4nm,0.5s,baz=307,slow=8.1,SNR=8.6						
ARCES	**ARCESS Array B**	75.47	340	P	P	15 06 10.7	-1.8
	4.7nm,0.9s,baz=98,slow=6.4,SNR=5.1						

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*INMG **28** 14:55:19.0±1.0,38.63N×9.49W,h17^{km}±10^{km},ML1.9, Error ellipse: s-maj=13.1km s-min=4.9km az=63.0*

MDD 28 14:55:16.9±1.6,38.57N×9.59W,mbLg1.9/7,Error ellipse: s-maj=13.0km s-min=6.1km az=95.0,PRXIMO, Portugal

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PLOU	**Loures**	0.47	47	*e*Pg	Pg	14 55 26.1	-0.1
PLOU				*e*Sg	Sg	14 55 31.5	-1.0
	76nm,0.1s						
PLOU	**Loures**	0.47	47	P	Pg	14 55 26.1	-0.1
PLOU				S	Sg	14 55 31.5	-1.0
	38nm,0.1s						
MOE	**Montemor**	0.97	92	*e*P	Pb	14 55 35.3	-1.1
MOE				*e*S	Sg	14 55 47.2	-2.2
PTEO	**Sao Teotonio**	1.23	146	*e*P	Pb	14 55 39.8	-0.9
PTEO				*e*S	Sb	14 55 55.4	-1.6
	16nm,0.2s						
PTEO	**Sao Teotonio**	1.23	146	P	Pb	14 55 39.8	-0.9
PTEO				S	Sb	14 55 55.4	-1.6
	7.8nm,0.2s						
EGRO	**El Granado**	1.96	121	P	Pn	14 55 49.6	-2.2
	0.5nm,0.2s,SNR=4.0						
EGRO				S	Sn	14 56 14.6	-2.8
	9.1nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	2.03	84	S	Sn	14 56 17.7	-1.4
	8.9nm,0.3s,SNR=7.9						
EMIN	**Mina Concepcio**	2.44	108	P	Pn	14 55 56.0	-2.6
	2.1nm,0.4s,SNR=7.7						
EMIN				S	Sn	14 56 26.9	-2.7
	1.2nm,0.7s,SNR=7.9						
ELOB	**Lobios**	3.50	19	P	Pn	14 56 09.5	-4.1
	0.7nm,0.2s,SNR=7.9						
ELOB				S	Sn	14 56 46.2	-10
	1.6nm,0.6s,SNR=7.9						
EADA	**Adamuz**	3.96	94	S	Sn	14 57 00.7	-7.5
	4.7nm,0.4s,SNR=7.9						

IDC 28 15:04:39.7±1.1,8.10N×91.75E,h30^{km}±6^{km},mb3.2/4, mb1 3.4/5,mb1mx3.3/17,mbtmp3.4/5,ML3.6/1,Error ellipse: s-maj=36.3km s-min=19.8km az=51.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	12.45	33	Pn	P	15 07 33.5	-4.4
	0.1nm,0.3s,baz=228,slow=14,SNR=8.8						
SONM	**Songino Array**	41.51	15	P	P	15 12 24.5	-1.5
	0.6nm,0.9s,baz=191,slow=7.3,SNR=4.6						
SONM				pP	pP	15 12 33.4	-1.4
	0.8nm,0.8s,baz=192,slow=7.5,SNR=5.9						
WRA	**Warramunga Arr**	50.33	124	P	P	15 13 34.1	-2.2
	0.4nm,0.6s,baz=305,slow=8.5,SNR=5.6						
WRA				pP	pP	15 13 43.7	-1.7
	0.3nm,0.6s,baz=302,slow=8.9,SNR=4.7						
ASAR	**Alice Springs**	51.89	129	P	P	15 13 45.3	-2.8
	0.6nm,1.0s,baz=299,slow=7.3,SNR=5.3						
BRTR	**Keskin Array B**	60.49	311	P	P	15 14 47.6	-1.9
	0.2nm,0.3s,baz=100,slow=7.2,SNR=2.7						
BRTR				pP	pP	15 14 56.0	-2.8
	0.6nm,0.7s,baz=104,slow=10,SNR=3.7						

JMA 28 15:05:37.7±0.1,41.23N×142.56E,h37^{km}±5^{km},M3.5,4D, Hokkaido region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JEM	**Erimo**	0.90	30	P	P	15 05 54.1	+0.1
JEM				*e*S	S	15 06 05.9	-0.1
JNBK	**Urakawa-nobuka**	1.06	8	⇓P	P	15 05 56.6	+0.4
JNBK				*e*S	S	15 06 10.7	+0.7
JOT	**Ohata**	1.15	278	⇓P	P	15 05 57.7	+0.2
JOT				*e*S	S	15 06 12.8	+0.5
JANG	**Nango**	1.17	223	P	P	15 05 57.8	+0.1
JTM	**Tenmabayashi**	1.21	249	⇓P	P	15 05 59.3	+0.9
JTM				*e*S	S	15 06 14.7	+0.8
JKB	**Kayabe**	1.32	300	P	P	15 05 59.6	-0.4
JKB				*e*S	S	15 06 16.3	-0.4
JCH	**Churui**	1.51	23	P	P	15 06 02.8	+0.1
JCH				*e*S	S	15 06 21.5	+0.2
JEW	**Eniwo**	1.81	333	⇓P	P	15 06 07.5	+0.5
JEW				*e*S	S	15 06 29.6	+0.7
JFR	**Furan**	1.93	1	P	P	15 06 09.8	+1.1
JOM	**Ohasama**	2.00	209	P	P	15 06 11.0	+1.2
JOM				*e*S	S	15 06 35.6	+1.8

IDC 28 15:11:09.1±6.9,8.91N×94.53E,mb3.8/2,mb1 4.0/3, mb1mx3.6/17,mbtmp3.7/3,ML3.8/1,Error ellipse: s-maj=166.4km s-min=41.5km az=87.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	10.41	24	Pn	P	15 13 39.9	-3.0
	0.2nm,0.3s,baz=218,slow=14,SNR=6.9						
WRA	**Warramunga Arr**	48.56	127	P	P	15 19 54.5	-2.0
	1.2nm,0.5s,baz=306,slow=8.5,SNR=14						
ASAR	**Alice Springs**	50.29	131	P	P	15 20 07.8	-2.0
	0.5nm,0.5s,baz=308,slow=6.9,SNR=8.7						

IDC 28 15:12:27.0±1.0,5.57N×93.00E,mb3.9/6,mb1 4.1/7, mb1mx3.8/16,mbtmp3.8/7,ML3.9/1,Error ellipse: s-maj=39.4km s-min=22.2km az=53.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.06	24	Pn	P	15 15 49.0	-1.0
	0.2nm,0.3s,baz=228,slow=14,SNR=6.3						
CMAR				Sn	S	15 18 27.9	-0.1
	0.5nm,0.3s,baz=241,slow=29,SNR=6.2						
SONM	**Songino Array**	43.65	13	P	P	15 20 32.2	-2.8
	0.4nm,0.6s,baz=201,slow=7.8,SNR=4.1						
WRA	**Warramunga Arr**	47.91	123	P	P	15 21 07.4	-2.0
	1.5nm,0.7s,baz=302,slow=9.0,SNR=7.3						
ASAR	**Alice Springs**	49.36	128	P	P	15 21 18.7	-1.9
	0.6nm,0.5s,baz=301,slow=7.7,SNR=7.0						
FINES	**FINESS Array B**	74.22	333	P	P	15 24 05.8	-1.6
	3.1nm,1.1s,baz=130,slow=15,SNR=4.4						
ARCES	**ARCESS Array B**	77.04	341	P	P	15 24 22.0	-1.3
	3.5nm,0.9s,baz=88,slow=5.3,SNR=6.1						
GERES	**GERESS Array B**	78.79	319	P	P	15 24 32.1	-1.2
	0.2nm,0.3s,baz=56,slow=7.1,SNR=3.8						
DBIC	**Dimbokro**	97.12	277	P	P	15 26 01.7	-1.7
	3.1nm,1.1s,baz=123,slow=6.1,SNR=3.5						

IDC 28 15:15:08.4±1.3,13.53N×92.36E,mb3.8/5,mb1 4.0/6, mb1mx3.8/17,mbtmp3.7/6,ML3.0/1,Error ellipse: s-maj=35.4km s-min=24.9km az=64.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	8.00	51	Pn	P	15 17 08.0	-0.8
	0.1nm,0.3s,baz=240,slow=16,SNR=4.6						
CMAR				Sn	Sn	15 18 38.5	-2.6
	0.4nm,0.3s,baz=235,slow=26,SNR=7.8						
SONM	**Songino Array**	36.15	16	P	P	15 22 12.1	-2.2
	0.3nm,0.7s,baz=204,slow=7.4,SNR=2.8						
WRA	**Warramunga Arr**	53.03	128	P	P	15 24 27.7	-2.1
	4.1nm,0.9s,baz=306,slow=8.4,SNR=14						
ASAR	**Alice Springs**	54.92	132	P	P	15 24 41.2	-2.4
	1.6nm,0.5s,baz=310,slow=7.1,SNR=24						
BRTR	**Keskin Array B**	57.49	309	P	P	15 25 00.5	-1.4
	0.4nm,0.4s,baz=117,slow=3.2,SNR=3.1						
ILAR	**Eielson Array**	90.18	22	P	P	15 28 09.3	-2.3
	0.3nm,0.8s,baz=286,slow=4.2,SNR=4.2						

IDC 28 15:15:30.6±5.9,3.90N×92.39E,mb3.7/3,mb1 4.1/4, mb1mx3.8/17,mbtmp3.8/4,ML4.4/1,Error ellipse: s-maj=169.3km s-min=31.0km az=73.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	15.82	23	Pn	P	15 19 14.7	-1.9
	0.5nm,0.3s,baz=216,slow=12,SNR=9.8						
SONM	**Songino Array**	45.40	13	P	P	15 23 50.9	-1.8
	1.0nm,1.1s,baz=186,slow=7.3,SNR=4.3						
WRA	**Warramunga Arr**	47.54	122	P	P	15 24 08.8	-1.3
	2.0nm,0.7s,baz=297,slow=9.3,SNR=11						
ASAR	**Alice Springs**	48.86	126	P	P	15 24 17.5	-2.8
	0.3nm,0.9s,baz=304,slow=8.3,SNR=4.7						

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*NEIC **28** 15:19:37.3,34.10S×72.26W,h40^{km},MD3.7(GUC),After GUC.*

GUC 28 15:19:37.3±0.8,34.10S×72.26W,h40^{km}±3^{km},MD3.7, ML2.4,5C-1D,Near coast of central Chile

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LNV	**Longovilo**	0.72	79	⇓*i*P	P	15 19 50.7	-0.3
LNV				*i* S	S	15 20 01.1	+0.1
LCCH	**Las Cruces**	0.84	43	⇑*i*P	P	15 19 53.4	+0.6
LCCH				*i* S	S	15 20 05.7	+1.5
SFDO	**San Fernando**	1.15	117	⇑*i*P	P	15 19 57.8	+0.8
SFDO				*i* S	S	15 20 14.0	+2.1
TACH	**Talagante**	1.18	68	*i* P	P	15 19 58.0	+0.4
TACH				*i* S	S	15 20 14.2	+1.4
CHCH	**Chadas Angostu**	1.34	83	⇑*i*P	P	15 20 00.9	+0.9
CHCH				*i* S	S	15 20 18.6	+1.7
RCDM	**Rinconada Maip**	1.35	64	*e*P	P	15 20 00.5	+0.4
RCDM				*i* S	S	15 20 17.9	+0.8
RCDM				AMP		15 20 23.7	
	comp=N,88nm,0.1s						
RCDM				AMP		15 20 24.8	
	comp=E,93nm,0.2s						
CACH	**El Canelo**	1.37	91	⇑*i*P	P	15 20 01.9	+1.4
CACH				*i* S	S	15 20 21.0	+3.4
PCH	**Pirque**	1.53	72	*e*P	P	15 20 03.1	+0.5
CICH	**Cipreses**	1.54	99	⇑*i*P	P	15 20 03.7	+0.9
FCH	**Farellones**	1.81	65	*e*P	P	15 20 08.2	+1.6
FCH				*i* S	S	15 20 31.3	+2.8
FCH				AMP		15 20 36.7	
	comp=N,68nm,0.2s						
FCH				AMP		15 20 39.0	
	comp=E,80nm,0.5s						

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*IDC **28** 15:19:43.5±1.0,54.77S×33.07W,mb4.5/4,mb1 4.5/4, mb1mx4.0/12,mbtmp4.5/4,MS3.9/2,Ms1 3.9/2, ms1mx2.9/14,Error ellipse: s-maj=41.9km s-min=23.9km az=48.0*

ISC 28 15:19:44.9±0.8,54.5S±0.2×33.0W±0.4,h10^{km},n18, σ1^{s}10/12,mb4.2/5,MS3.8/2,4C-2D,South Georgia Island region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	**Neumayer--Stat**	19.56	155	⇑*i*	P	15 24 15.4	+0.2
VNA3	**Neumayer Olymp**	19.66	158	⇑*i*	P	15 24 17.0	+0.7
VNA3	**Neumayer Olymp**	19.66	158	⇑*i*	P	15 24 26.3	+10
VNA2	**Neumayer--Watz**	19.96	155		P	15 24 16.6	-3.1
VNA2	**Neumayer--Watz**	19.96	155	⇓*i*	P	15 24 25.1	+5.4
USHA	**Ushuaia**	20.40	254	LR	LR	15 30 24.5	
	comp=Z,389nm,18.6s,MS3.8,baz=191,slow=32						
SNAA	**Sanae**	21.57	154	⇓*i*	P	15 24 31.5	-4.7
SNAA	**Sanae**	21.57	154	⇑*i*	P	15 24 35.6	-0.6
SNAA	**Sanae**	21.57	154	P	P	15 24 31.4	-4.9
	1.2nm,0.9s,mb3.3,baz=334,slow=10,SNR=5.5						
BDFB	**Brasilia**	40.48	337	P	P	15 27 24.2	-1.1
	1.4nm,0.4s,mb4.0,baz=105,slow=12,SNR=2.1						
LVC	**Limon Verde**	41.66	305	P	P	15 27 34.1	-0.8
	13nm,0.8s,mb4.6,baz=157,slow=5.6,SNR=16						
LPAZ	**La Paz**	46.80	311	P	P	15 28 18.2	+1.8
	6.7nm,0.8s,mb4.6,baz=142,slow=6.1,SNR=38						
VNDA	**Vanda**	47.96	184	LR	LR	15 45 59.5	
	comp=Z,104nm,18.4s,MS3.8,baz=166,slow=33						
DBIC	**Dimbokro**	65.30	31	P	P	15 30 29.7	+0.5
	4.6nm,0.8s,mb4.6,baz=156,slow=5.1,SNR=8.6						
FINES	**FINESS Array B**	124.59	30	PKP	PKPdf	15 38 43.1	-3.4

	1.2nm,0.6s,baz=162,slow=4.4,SNR=5.2						
YKA	**Yellowknife Ar**	**132.82**	**321**	PKP	PKPdf	15 38 58.6	-3.6
	0.5nm,0.6s,baz=128,slow=2.2,SNR=7.7						
ILAR	**Eielson Array**	**146.62**	**315**	PKPbc	PKPbc	15 39 25.2	+0.3
	8.2nm,0.7s,baz=126,slow=1.8,SNR=71						
SONM	**Songino Array**	**153.95**	**88**	PKPbc	PKPdf	15 39 44.3	+6.1
	1.3nm,0.7s,baz=270,slow=1.2,SNR=4.0						

IDC 28 15:20:27.8±1.2**,7.20N×93.00E,mb3.8**/6**,mb1 4.0**/7**, mb1mx3.9**/17**,mbtmp3.8**/7**,ML4.0**/1**,Error ellipse: s-maj=46.2km s-min=21.8km az=50.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.60**	**27**	Pn	P	15 23 29.1	-2.2
	0.3nm,0.3s,baz=211,slow=16,SNR=3.8						
PKI	**Pulchoki**	**21.50**	**341**	*e*P	P	15 25 10.0	-10
	28nm,1.2s						
DMN	**Daman**	**21.64**	**341**	*e*P	P	15 25 11.1	-11
	11nm,0.8s						
GUN	**Gumba**	**21.68**	**343**	*e*P	P	15 25 12.6	-10
	41nm,1.0s						
KKN	**Kakani**	**21.75**	**341**	*e*P	P	15 25 13.0	-10
	17nm,0.8s						
KOLN	**Koldanda**	**22.31**	**338**	*e*P	P	15 25 20.6	-8.0
	47nm,1.3s						
SONM	**Songino Array**	**42.07**	**13**	P	P	15 28 21.6	-1.4
	0.3nm,0.6s,baz=202,slow=8.8,SNR=3.7						
WRA	**Warramunga Arr**	**48.81**	**124**	P	P	15 29 14.4	-2.6
	2.1nm,0.8s,baz=300,slow=10,SNR=15						
ASAR	**Alice Springs**	**50.37**	**129**	P	P	15 29 27.7	-1.3
	0.6nm,0.5s,baz=307,slow=6.8,SNR=8.0						
BRTR	**Keskin Array B**	**62.01**	**311**	P	P	15 30 50.0	-2.4
	1.6nm,1.0s,baz=112,slow=6.7,SNR=4.6						
ARCES	**ARCESS Array B**	**75.52**	**340**	P	P	15 32 12.4	-3.0
	4.0nm,1.1s,baz=96,slow=8.2,SNR=3.1						
GERES	**GERESS Array B**	**77.57**	**318**	P	P	15 32 27.2	-0.2
	1.6nm,0.8s,baz=108,slow=4.2,SNR=3.8						

IDC 28 15:27:18.9±3.5**,12.54N×93.19E,mb3.4**/3**,mb1 3.5**/4**, mb1mx3.4**/17**,mbtmp3.3**/4**,ML2.9**/1**,Error ellipse: s-maj=95.1km s-min=28.5km az=82.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.09**	**43**	Pn	P	15 29 17.6	-2.7
	0.0nm,0.3s,baz=234,slow=16,SNR=3.1						
SONM	**Songino Array**	**36.88**	**15**	P	P	15 34 29.1	-1.8
	0.5nm,0.8s,baz=198,slow=11,SNR=2.9						
WRA	**Warramunga Arr**	**51.79**	**128**	P	P	15 36 28.8	-2.1
	0.4nm,0.7s,baz=306,slow=8.7,SNR=6.9						
ASAR	**Alice Springs**	**53.67**	**132**	P	P	15 36 42.7	-2.2
	0.4nm,0.9s,baz=313,slow=7.0,SNR=4.3						

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*IDC **28** 15:28:23.3±1.7,6.85N×92.62E,h38^{km}±8^{km},mb3.6/4, mb1 3.9/5,mb1mx3.6/17,mbtmp3.8/5,ML4.2/1,MS4.1/2, Ms1 4.0/2,ms1mx3.3/22,Error ellipse: s-maj=54.1km s-min=19.8km az=66.0*

ISC 28 15:28:22.5±1.1**,6.7N**±0.1×**92.8E**±0.2**,h39**^{km}**, h39**^{km}±1.8^{km}**:pP-P,n13,**σ**1**^{s}**08**/11**,mb4.1**/6**,MS4.1**/2**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.12**	**27**	Pn	**P**	**15 31 28.8**	**-0.1**
	0.4nm,0.3s,baz=229,slow=14,SNR=18						
IMP	**Imphal**	**18.00**	**3**	*e*	**P**	**15 32 31.5**	**-0.1**
PKI	**Pulchoki**	**21.90**	**342**	*e*P	**P**	**15 33 16.3**	**+2.2**
	23nm,0.8s,mb4.7						
DMN	**Daman**	**22.03**	**342**	*e*P	**P**	**15 33 16.5**	**+1.1**
GUN	**Gumba**	**22.08**	**344**	*e*P	**P**	**15 33 16.4**	**+0.5**
	24nm,0.7s,mb4.7						
KKN	**Kakani**	**22.15**	**342**	*e*P	**P**	**15 33 16.8**	**+0.3**
KOLN	**Koldanda**	**22.69**	**338**	*e*P	**P**	**15 33 20.6**	**-1.4**
SONM	**Songino Array**	**42.59**	**14**	P	**P**	**15 36 15.0**	**-1.5**
	0.9nm,0.9s,mb3.5,baz=198,slow=7.8,SNR=5.0						
SONM				pP	pP	15 36 25.1	-2.4
	1.0nm,0.8s,baz=193,slow=8.3,SNR=5.0						
WRA	**Warramunga Arr**	**48.69**	**124**	P	**P**	**15 37 05.6**	**+0.3**
	2.3nm,0.9s,mb4.2,baz=304,slow=9.0,SNR=10						
WRA				pP	pP	15 37 17.2	+0.7
	1.7nm,0.7s,baz=308,slow=7.9,SNR=5.8						
ASAR	**Alice Springs**	**50.21**	**128**	P	**P**	**15 37 17.5**	**+0.5**
	1.5nm,0.7s,mb4.1,baz=303,slow=7.5,SNR=14						
ASAR				pP	pP	15 37 29.0	+0.9
	1.9nm,0.6s,baz=300,slow=7.4,SNR=9.9						
CTA	**Charters Tower**	**58.91**	**118**	LR	LR	16 05 33.8	
	comp=Z,130nm,18.5s,MS4.1,baz=105,slow=38						
MAW	**Mawson**	**77.14**	**191**	LR	LR	16 07 17.0	
	comp=Z,105nm,18.4s,MS4.2,baz=246,slow=30						
GERES	**GERESS Array B**	**77.81**	**318**	P	**P**	**15 40 15.9**	**-1.7**
	0.3nm,0.6s,mb3.4,baz=79,slow=5.0,SNR=3.5						

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*JMA **28** 15:28:50.9,38.85N×141.60E,h74^{km}±1^{km},M3.5 Broadband fault plane solution: P waves. NP1:ϕ_s24°,δ21°, λ131°. NP2:ϕ_s161°,δ75°,λ76°. Principal axes: T Plg58°, Azm52°; N Plg14°, Azm165°; P Plg28°, Azm262°;*

JMA Felt I J1.

ISC 28 15:28:50.5±1.0**,38.83N**±0.04×**141.64E**±0.10**,h73**^{km}±7^{km}**, n13,**σ**0**^{s}**36**/23**,7C,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OFUJ	**Ofunato**	**0.25**	**5**	⇑P	**P**	**15 29 02.3**	**+0.5**
OFUJ				*e*S	**S**	**15 29 10.4**	**+0.2**
JMK	**Ichinoseki**	**0.35**	**291**	⇑P	**P**	**15 29 02.5**	**+0.1**
JMK				S	**S**	**15 29 11.0**	**-0.4**
JIO	**Ouri**	**0.44**	**211**	⇑P	**P**	**15 29 03.5**	**+0.4**
JIO				S	**S**	**15 29 12.7**	**+0.1**
JOM	**Ohasama**	**0.70**	**337**	⇑P	**P**	**15 29 05.8**	**+0.1**
JOM				S	**S**	**15 29 16.7**	**-0.4**
JOU	**Okura**	**0.89**	**239**	⇑P	**P**	**15 29 08.3**	**+0.3**
JOU				S	**S**	**15 29 21.4**	**+0.3**
JYK	**Kaneyama**	**1.00**	**275**	⇑P	**P**	**15 29 09.4**	**0.0**
JYK				*e*S	**S**	**15 29 23.9**	**+0.3**
JMM	**Marumori**	**1.17**	**215**	P	**P**	**15 29 11.3**	**-0.3**
JMM				*e*S	**S**	**15 29 26.4**	**-1.0**
JYS	**Shirataka**	**1.38**	**244**	P	**P**	**15 29 14.6**	**+0.2**
JYA	**Atsumi**	**1.52**	**262**	P	**P**	**15 29 16.3**	**-0.1**
JYA				S	**S**	**15 29 35.5**	**0.0**
JANG	**Nango**	**1.54**	**356**	P	**P**	**15 29 16.0**	**-0.7**
JANG				S	**S**	**15 29 35.8**	**-0.2**
JAH	**Hinai**	**1.56**	**331**	P	**P**	**15 29 17.3**	**+0.4**
JFK	**Kawauchi**	**1.58**	**203**	⇑P	**P**	**15 29 17.1**	**0.0**
JFK				S	**S**	**15 29 36.6**	**-0.2**
MAT	**Matsushiro**	**3.55**	**231**	P	**P**	**15 29 45.2**	**+0.6**

IDC 28 15:31:15.4±3.5**,11.87N×92.77E,mb3.8**/3**,mb1 4.0**/4**, mb1mx3.7**/17**,mbtmp3.7**/4**,Error ellipse: s-maj=96.7km s-min=27.9km az=81.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.85**	**42**	Pn	P	15 33 23.6	-3.9
	baz=229,slow=14,SNR=2.3						
SONM	**Songino Array**	**37.63**	**15**	P	P	15 38 32.1	-1.6
	0.6nm,0.7s,baz=192,slow=6.7,SNR=3.5						
WRA	**Warramunga Arr**	**51.71**	**127**	P	P	15 40 25.5	-1.3
	1.2nm,0.6s,baz=303,slow=8.9,SNR=8.1						
ASAR	**Alice Springs**	**53.53**	**131**	P	P	15 40 37.5	-2.9
	2.0nm,1.0s,baz=305,slow=7.3,SNR=8.0						

ISC 28 15:32:09.6±0.9**,36.16N**±0.05×**71.0E**±0.1**,h161**^{km}±26^{km}**, n18,**σ**0**^{s}**63**/22**,Hindu Kush region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CEP	**Cherat**	**2.45**	**161**	P	**P**	**15 32 51.3**	**+0.1**
CEP				S	**S**	**15 33 23.0**	**-0.2**
CHCP	**Chirah Chowk**	**3.12**	**142**	P	**P**	**15 33 00.9**	**+1.3**
THW	**Thamme Wali**	**3.41**	**169**	P	**P**	**15 33 03.3**	**0.0**
SBDP	**Sheikh Budin**	**3.85**	**182**	P	**P**	**15 33 08.8**	**-0.2**
DRP	**Derazinda**	**4.45**	**188**	P	**P**	**15 33 16.6**	**-0.2**
SARP	**Sargodha**	**4.45**	**161**	P	**P**	**15 33 16.6**	**-0.2**
SARP				S	**S**	**15 34 08.0**	**-0.7**
DLH	**Dalhousie**	**5.48**	**130**	*e*P	**P**	**15 33 31.0**	**+0.7**
DLH				*e*S	**S**	**15 34 33.0**	**0.0**
AML	**Almayashu**	**6.33**	**19**	P	**P**	**15 33 41.3**	**-0.3**
	SNR=51						
UCH	**Uchtor**	**6.66**	**23**	P	**P**	**15 33 45.9**	**-0.1**
	SNR=27						
KZA	**Kyzart**	**6.78**	**28**	P	**P**	**15 33 47.7**	**0.0**
	SNR=27						
SDNR	**Sundarnagar**	**6.82**	**131**	*e*P	**P**	**15 33 50.0**	**+1.9**
SDNR				*e*S	**S**	**15 35 03.4**	**-1.4**
EKS2	**Erkin-Say**	**6.85**	**18**	P	**P**	**15 33 48.2**	**-0.4**
	SNR=22						
AAK	**Ala-Archa**	**7.02**	**22**	P	**P**	**15 33 50.6**	**-0.2**
	SNR=38						
KBK	**Karagaybulak**	**7.18**	**24**	P	**P**	**15 33 53.5**	**+0.5**
	SNR=12						
ULHL	**Ulahol**	**7.33**	**32**	P	**P**	**15 33 55.0**	**0.0**
	SNR=8.3						
CHMS	**Chumysh**	**7.43**	**22**	P	**P**	**15 33 56.2**	**0.0**
	SNR=20						
USP	**Ospenovka**	**7.60**	**20**	P	**P**	**15 33 57.9**	**-0.7**
	SNR=14						
TKM2	**Tokmak 2**	**7.64**	**26**	P	**P**	**15 33 59.3**	**+0.2**
	SNR=20						

IDC 28 15:35:43.5±1.2**,5.28N×92.60E,mb3.6**/6**,mb1 3.8**/6**, mb1mx3.7**/17**,mbtmp3.6**/6**,Error ellipse: s-maj=55.1km s-min=21.6km az=47.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	**Songino Array**	**44.02**	**13**	P	P	15 43 53.8	-0.7
	0.3nm,0.6s,baz=207,slow=9.7,SNR=2.7						
WRA	**Warramunga Arr**	**48.08**	**123**	P	P	15 44 24.0	-3.2
	0.9nm,0.6s,baz=302,slow=9.3,SNR=5.8						
ASAR	**Alice Springs**	**49.50**	**127**	P	P	15 44 37.0	-1.1
	0.3nm,0.6s,baz=297,slow=8.1,SNR=3.3						
BVAR	**Borovoye Array**	**50.97**	**343**	P	P	15 44 45.0	-3.8
	1.0nm,0.6s,baz=129,slow=9.5,SNR=5.9						
BRTR	**Keskin Array B**	**62.99**	**312**	P	P	15 46 12.6	-1.9
	0.4nm,0.6s,baz=124,slow=5.2,SNR=2.8						
GERES	**GERESS Array B**	**78.74**	**319**	P	P	15 47 48.6	-0.8
	0.7nm,0.7s,baz=90,slow=5.3,SNR=6.9						

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*IDC **28** 15:37:54.8±1.2,37.05N×28.35E,mb4.2/6,mb1 4.3/11, mb1mx4.0/23,mbtmp4.2/11,ML4.0/4,Error ellipse: s-maj=20.8km s-min=19.2km az=135.0*

*NEIC **28** 15:37:55.9,37.08N×28.23E,h20^{km},mb4.3/20, MD3.7(ATH),ML3.9(NIC),After ATH.*

*ATH **28** 15:37:55.7,37.08N×28.22E,h18^{km}±4^{km},MD3.8/7*

*ISK **28** 15:37:55.5,36.98N×28.21E,h14^{km},MD4.2,ML4.0*

*CSEM **28** 15:37:55.8±0.1,37.03N×28.23E,h15^{km},mb4.3/20, MD3.7/1,Error ellipse: s-maj=1.7km s-min=1.0km az=27.0*

*NIC **28** 15:37:57.7±0.3,37.09N×28.10E,h25^{km},mb4.3,ML3.9*

ISC 28 15:37:56.5±0.5**,37.04N**±0.02×**28.24E**±0.02**,h19**^{km}±4^{km}**, n123,**σ**0**^{s}**93**/139**,mb4.2**/13**,1C,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DALT	**Dalyan (Mudla)**	**0.42**	**129**	*i* PG	**Pb**	**15 38 04.3**	**-0.8**
MLSB	**Milas**	**0.45**	**305**	*i* PG	**Pb**	**15 38 05.1**	**-0.6**
MLSB				*i* SG	**Sb**	**15 38 12.4**	**+0.5**
BDRM	**Kayabasi**	**0.64**	**273**	*i* P	**Pb**	**15 38 08.2**	**-0.6**
BDRM				*i* S	**Sb**	**15 38 18.2**	**+1.0**
AYDN	**Tasoluk**	**0.69**	**336**	*i* P	**Pb**	**15 38 08.7**	**-0.9**
AYDN				*i* S	**Sb**	**15 38 18.1**	**-0.6**
FETY	**Fethiye**	**0.79**	**120**	PG	**Pb**	**15 38 10.3**	**-1.1**
ARG	**Arkhangelos**	**0.82**	**186**	*e*PN	**Pn**	**15 38 11.3**	**-1.7**
ARG	**Arkhangelos**	**0.82**	**186**	Pn	**Pn**	**15 38 11.3**	**-1.7**
ARG				Sn	**Sn**	**15 38 25.3**	**+0.7**
ARG	**Arkhangelos**	**0.82**	**186**	Sn	**Sn**	**15 38 25.3**	**+0.7**
DNZL	**Cakiroluk**	**0.92**	**44**	*i* P	**Pb**	**15 38 12.3**	**-1.3**
DNZL				*i* S	**Sb**	**15 38 27.0**	**+1.6**
SMG	**Samos**	**1.30**	**302**	*e*PN	**Pn**	**15 38 20.6**	**+0.7**
SMG	**Samos**	**1.30**	**302**	Pn	**Pn**	**15 38 20.6**	**+0.7**
SMG				Sn	**Sn**	**15 38 38.3**	**+1.5**
ELL	**Elmali**	**1.37**	**102**	PN	**Pn**	**15 38 21.1**	**+0.2**
KSL	**Kastellorizon**	**1.40**	**129**	*e*PN	**Pn**	**15 38 23.0**	**+1.8**
MANT	**Manisa**	**1.48**	**10**	*i* P	**Pn**	**15 38 22.5**	**+0.1**
MANT				*i* S	**Sn**	**15 38 41.2**	**-0.1**
IZM	**Izmir**	**1.56**	**331**	PN	**Pn**	**15 38 24.0**	**+0.4**
KDAG	**Bornova**	**1.57**	**331**	*i* P	**Pn**	**15 38 24.1**	**+0.4**
KHL	**Karahalli**	**1.64**	**38**	*e*PN	**Pn**	**15 38 25.7**	**+1.0**
BLCB	**Balcova**	**1.65**	**325**	PN	**Pn**	**15 38 25.6**	**+0.8**
KARP	**Karpathos**	**1.72**	**211**	*e*PN	**Pn**	**15 38 26.7**	**+0.8**
KARP				*e*SN	**Sn**	**15 38 51.2**	**+3.7**
AKS	**Akhisar**	**1.87**	**350**	*e*PN	**Pn**	**15 38 27.9**	**-0.1**
BCK	**Bucak**	**1.92**	**77**	PN	**Pn**	**15 38 29.8**	**+1.0**
ANTB	**Antalya**	**1.94**	**93**	*e*PN	**Pn**	**15 38 29.5**	**+0.5**
ISP	**Isparta**	**1.98**	**65**	*e*PN	**Pn**	**15 38 30.2**	**+0.6**
ISP	**Isparta**	**1.98**	**65**	*e*Pn	**Pn**	**15 38 30.2**	**+0.7**
APE	**Apeiranthos**	**2.17**	**272**	*e*PN	**Pn**	**15 38 32.3**	**+0.1**
APE	**Apeiranthos**	**2.17**	**272**	*e*PN	**Pn**	**15 38 33.1**	**+0.9**
SANT	**Santorini**	**2.33**	**254**	*e*Pn	**Pn**	**15 38 39.8**	**+5.2**
AYVA	**Ayvalik**	**2.58**	**332**	*i* P	**Pn**	**15 38 40.8**	**+2.6**
DST	**Dursunbey**	**2.58**	**7**	*e*PN	**Pn**	**15 38 38.1**	**-0.1**
BALB	**Balikesir**	**2.62**	**354**	*e*PN	**Pn**	**15 38 39.2**	**+0.5**
PRK	**Paraskevi**	**2.70**	**326**	*e*PN	**Pn**	**15 38 39.8**	**0.0**
BTOK	**Tokmak**	**2.73**	**357**	*i* P	**Pn**	**15 38 40.1**	**-0.1**
NPS	**Neapolis**	**2.76**	**231**	*e*PN	**Pn**	**15 38 42.0**	**+1.2**
XRY	**Khrisi**	**2.98**	**224**	*e*Pn	**Pn**	**15 38 41.5**	**-2.4**
ORLT	**Orhaneli**	**3.05**	**10**	*e*PN	**Pn**	**15 38 46.4**	**+1.5**
ULDT	**Uludag**	**3.18**	**13**	*i* P	**Pn**	**15 38 43.8**	**-2.9**
IDI	**Anoyia**	**3.22**	**238**	Pn	**Pn**	**15 38 48.6**	**+1.3**
	8.5nm,0.3s,baz=62,slow=16,SNR=49						
IDI				Sn	**Sn**	**15 39 28.3**	**+2.8**
	4.3nm,0.3s,baz=351,slow=4.3,SNR=15						
ESKT	**Eskisehir**	**3.22**	**39**	*e*PN	**Pn**	**15 38 49.0**	**+1.7**
ESKT	**Eskisehir**	**3.22**	**39**	*i* P	**Pn**	**15 38 47.3**	**0.0**
KCT	**Karacabey**	**3.23**	**2**	*e*PN	**Pn**	**15 38 49.0**	**+1.6**
BNT	**Bandirma**	**3.33**	**356**	*e*PN	**Pn**	**15 38 48.5**	**-0.3**
HDMB	**Hadim**	**3.40**	**90**	*e*PN	**Pn**	**15 38 50.6**	**+0.8**
KONT	**Konya--Tatoy**	**3.40**	**73**	*e*PN	**Pn**	**15 38 50.6**	**+0.7**
KIZT	**Kizilcal**	**3.42**	**56**	PN	**Pn**	**15 38 50.9**	**+0.8**
MRMT	**Marmara Adasi**	**3.60**	**352**	*e*PN	**Pn**	**15 38 53.7**	**+1.1**
YLV	**Yalova**	**3.64**	**14**	*e*PN	**Pn**	**15 38 53.9**	**+0.7**
SART	**Tekirdag**	**3.74**	**348**	*i* P	**Pn**	**15 38 53.6**	**-1.0**
MFT	**Murefte**	**3.82**	**349**	*e*PN	**Pn**	**15 38 55.8**	**0.0**
AKMC	**Akamas**	**3.88**	**120**	P	**Pn**	**15 38 56.6**	**0.0**
AKMC				S	**Sn**	**15 39 42.3**	**+0.2**
HRT	**Hereke**	**3.94**	**16**	*e*PN	**Pn**	**15 38 57.8**	**+0.3**
HRT	**Hereke**	**3.94**	**16**	*e*PN	**Pn**	**15 38 58.2**	**+0.7**
PPCY	**Paphos**	**3.96**	**122**	P	**Pn**	**15 38 57.6**	**-0.2**
ALFC	**Alevga**	**4.00**	**117**	P	**Pn**	**15 38 57.9**	**-0.4**
	2.0nm,0.3s						
ALFC				S	**Sn**	**15 39 44.8**	**-0.4**
GVD	**Gavdhos**	**4.02**	**238**	*e*Pn	**Pn**	**15 38 59.2**	**+0.6**
GVD	**Gavdhos**	**4.02**	**238**	*e*Pn	**Pn**	**15 38 59.2**	**+0.6**
LEF	**Lefka**	**4.23**	**116**	PN	**Pn**	**15 39 00.8**	**-0.8**
HENT	**Hendek**	**4.32**	**28**	*i* P	**Pn**	**15 39 02.9**	**+0.1**
SZAC	**Souni-Zanaja**	**4.40**	**120**	⇑*i*P	**Pn**	**15 39 03.4**	**-0.7**
SZAC				S	**Sn**	**15 39 56.1**	**+0.6**
MAMC	**Mammari**	**4.44**	**113**	P	**Pn**	**15 39 04.4**	**-0.2**
IKL	**Isikli**	**4.45**	**99**	*e*PN	**Pn**	**15 39 05.3**	**+0.5**
ANTO	**Ankara**	**4.56**	**50**	*e*PN	**Pn**	**15 39 06.2**	**-0.1**
CSS	**Prodhromos**	**4.62**	**115**	P	**Pn**	**15 39 07.1**	**0.0**
CSS				S	**Sn**	**15 40 01.3**	**+0.4**
SGKT	**Sivrigoynuk**	**4.62**	**39**	*i* P	**Pn**	**15 39 00.9**	**-6.3**
MEST	**Erdemli**	**4.76**	**94**	*i* P	**Pn**	**15 39 11.7**	**+2.5**
KAMT	**Kaman**	**4.90**	**60**	*e*PN	**Pn**	**15 39 11.9**	**+0.8**
BRTR	**Keskin Array B**	**5.02**	**56**	Pn	**Pn**	**15 39 12.4**	**-0.4**
	4.1nm,0.3s,baz=238,slow=15,SNR=96						
BRTR				Sn	**Sn**	**15 40 09.3**	**-1.8**
	0.9nm,0.3s,baz=180,slow=31,SNR=5.1						
PHNC	**Paralimni**	**5.12**	**112**	P	**Pn**	**15 39 14.6**	**+0.5**
NIG	**Nigde**	**5.17**	**76**	*e*PN	**Pn**	**15 39 15.5**	**+0.5**
ELDT	**Eldivan**	**5.32**	**48**	*i* P	**Pn**	**15 39 17.0**	**-0.1**
RZN	**Rozhen**	**5.39**	**331**	*i* P	**Pn**	**15 39 17.0**	**-1.0**
AVNT	**Avonos**	**5.51**	**70**	*i* P	**Pn**	**15 39 20.2**	**+0.5**
BALT	**Daday**	**6.01**	**40**	*i* P	**Pn**	**15 39 26.7**	**-0.1**
CTKT	**Corum**	**6.25**	**53**	*i* P	**Pn**	**15 39 29.0**	**-1.1**
KKB	**Krupnik**	**6.26**	**322**	*e*P	**Pn**	**15 39 30.0**	**-0.3**
COBT	**Iskenderun**	**6.46**	**92**	*i* P	**Pn**	**15 39 34.1**	**+1.0**
VTS	**Vitosha**	**6.76**	**327**	*e*P	**Pn**	**15 39 37.0**	**-0.4**
BOYT	**Boyabat**	**6.78**	**48**	*i* P	**Pn**	**15 39 36.7**	**-0.9**
MALT	**Malatya**	**8.18**	**78**	*e*P	**P**	**15 39 58.1**	**+0.9**
MLR	**Muntele Rosu**	**8.62**	**349**	Pn	**P**	**15 40 01.1**	**-2.2**
	0.3nm,0.3s,baz=185,slow=5.6,SNR=15						
ASF	**Jabal al Asfar**	**8.63**	**122**	Pn	**P**	**15 39 58.6**	**-4.8**
	0.8nm,0.3s,baz=309,slow=2.1,SNR=3.0						
ASF				Sn	**Sn**	**15 41 34.9**	**-6.3**
	baz=256,slow=8.3,SNR=2.0						
EIL	**Elat**	**9.24**	**141**	Pn	**P**	**15 40 08.8**	**-3.1**
	3.1nm,0.3s,baz=356,slow=14,SNR=16						
EIL				Sn	**Sn**	**15 41 48.8**	**-7.6**
	1.0nm,0.3s,baz=113,slow=18,SNR=4.5						
EIL	**Elat**	**9.24**	**141**	*e*P	**P**	**15 40 08.7**	**-3.2**
TIP	**Timpagrande**	**9.30**	**287**	*e*P	**P**	**15 40 12.7**	**0.0**
TIP	**Timpagrande**	**9.30**	**287**	*e*P	**P**	**15 40 12.6**	**-0.1**
ALWS	**Ilw as Safayha**	**9.59**	**141**	P	**P**	**15 40 15.7**	**-1.1**
HAQS	**Haql**	**9.74**	**143**	P	**P**	**15 40 15.2**	**-3.5**
BDAS	**Al Bad‘**	**10.34**	**144**	P	**P**	**15 40 23.1**	**-4.0**
JMQS	**Jabal Moqyreh**	**10.35**	**140**	P	**P**	**15 40 24.0**	**-3.1**
AYUS	**‘Aynunah**	**10.62**	**144**	P	**P**	**15 40 27.4**	**-3.5**
PGF	**Pioggiola**	**15.77**	**296**	*e*P	**P**	**15 41 37.3**	**-1.9**
	332nm,1.8s						
GERES	**GERESS Array B**	**15.86**	**323**	Pn	**P**	**15 41 46.0**	**+5.7**
	0.4nm,0.3s,baz=134,slow=12,SNR=23						
KHC	**Kasperske Hory**	**16.11**	**323**	*e*P	**P**	**15 41 48.5**	**+5.0**
SBF	**Sospel**	**17.22**	**300**	*e*P	**P**	**15 41 57.2**	**-0.3**
	35nm,0.8s						
MBDF	**Montbardon**	**17.93**	**302**	*e*P	**P**	**15 42 06.9**	**+0.6**
	23nm,0.9s						
LPG	**La Plagne**	**18.19**	**304**	*e*P	**P**	**15 42 10.1**	**+0.4**
	17nm,0.8s						
LPL	**La Plagne**	**18.21**	**304**	*e*P	**P**	**15 42 10.5**	**+0.6**
	15nm,0.7s						
ORIF	**Oris-en-Rattie**	**18.59**	**302**	*e*P	**P**	**15 42 14.7**	**+0.2**
	17nm,0.9s						
CABF	**La Chapelle**	**19.02**	**307**	*e*P	**P**	**15 42 19.5**	**-0.3**
	72nm,1.3s						
CDF	**Champ du Feu**	**19.08**	**313**	*e*P	**P**	**15 42 20.0**	**-0.3**
	7.5nm,0.7s						
VIVF	**Saint-Julien-l**	**19.39**	**301**	*e*P	**P**	**15 42 23.8**	**-0.3**
	25nm,0.9s						
HAU	**Haudompre**	**19.44**	**311**	*e*P	**P**	**15 42 24.2**	**-0.4**
LASF	**Ste Croix**	**19.77**	**298**	*e*P	**P**	**15 42 28.4**	**+0.1**
MEZF	**Maizieres J’vi**	**20.43**	**311**	*e*P	**P**	**15 42 34.6**	**-0.7**
SMF	**Signal de Mont**	**20.48**	**306**	*e*P	**P**	**15 42 35.6**	**-0.2**
	25nm,0.7s						
MTLF	**Montolieu**	**20.81**	**296**	*e*P	**P**	**15 42 39.4**	**+0.2**
	28nm,1.2s						
SSF	**Saint Saulge**	**20.84**	**306**	*e*P	**P**	**15 42 38.7**	**-0.8**
	17nm,0.8s						
AVF	**Avril sur Loir**	**20.85**	**306**	*e*P	**P**	**15 42 39.0**	**-0.6**
	32nm,1.1s						
BAIF	**Baives**	**21.63**	**315**	*e*P	**P**	**15 42 46.3**	**-1.1**
RJF	**Les Rejaudoux**	**21.67**	**301**	*e*P	**P**	**15 42 47.9**	**0.0**
	28nm,1.0s,mb4.3						
EPF	**Esparros**	**22.13**	**294**	*e*P	**P**	**15 42 52.3**	**-0.2**
	36nm,1.3s,mb4.3						
ETSF	**Etsaut**	**22.77**	**294**	*e*P	**P**	**15 42 59.1**	**+0.3**
	111nm,1.6s,mb4.7						
MFF	**Saint Martin d**	**23.11**	**303**	*e*P	**P**	**15 43 02.0**	**0.0**
	58nm,1.2s,mb4.6						
LDF	**La Druitiere**	**23.66**	**308**	*e*P	**P**	**15 43 06.9**	**-0.4**
	78nm,1.3s,mb4.7						
GRR	**Gorron**	**24.06**	**307**	*e*P	**P**	**15 43 10.8**	**-0.5**
	28nm,1.0s,mb4.3						
FINES	**FINESS Array B**	**24.47**	**357**	P	**P**	**15 43 14.2**	**-0.9**
	5.6nm,0.7s,mb4.1,baz=149,slow=11,SNR=13						
HFS	**Hagfors**	**24.92**	**343**	P	**P**	**15 43 19.6**	**+0.1**
	1.7nm,0.6s,mb3.8,baz=146,slow=11,SNR=6.0						
KAF	**Kangasniemi**	**25.13**	**358**	*e*p	**P**	**15 43 21.2**	**-0.3**
	5.3nm,0.8s,mb4.1						
ESDC	**Sonseca Array**	**25.32**	**286**	P	**P**	**15 43 23.9**	**+0.5**
	3.4nm,0.7s,mb4.0,baz=79,slow=9.8,SNR=15						
QUIF	**Quistinic**	**25.42**	**305**	*e*P	**P**	**15 43 23.8**	**-0.5**
ROSF	**Rostrenen**	**25.59**	**306**	*e*P	**P**	**15 43 25.0**	**-0.9**
NOA	**NORSAR Array B**	**26.32**	**341**	P	**P**	**15 43 31.9**	**-0.7**
	1.2nm,0.7s,mb3.5,baz=145,slow=8.8,SNR=3.6						
EKA	**Eskdalemuir Ar**	**28.06**	**321**	P	**P**	**15 43 48.4**	**-0.1**
	5.9nm,1.1s,mb4.2,baz=102,slow=10,SNR=3.8						
ARCES	**ARCESS Array B**	**32.59**	**358**	P	**P**	**15 44 28.1**	**-0.5**
	3.2nm,0.9s,mb4.3,baz=198,slow=5.7,SNR=5.5						

IDC 28 15:39:25.6±1.3**,6.11N×92.80E,mb3.7**/5**,mb1 4.0**/5**, mb1mx3.8**/16**,mbtmp3.7**/5**,Error ellipse: s-maj=63.6km s-min=24.8km az=44.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.65**	**25**	Pn	P	15 42 43.6	+0.4
	0.3nm,0.3s,baz=230,slow=14,SNR=27						
SONM	**Songino Array**	**43.17**	**13**	P	P	15 47 28.0	-1.7
	0.4nm,0.7s,baz=198,slow=6.3,SNR=3.7						
WRA	**Warramunga Arr**	**48.37**	**123**	P	P	15 48 08.5	-2.9
	0.9nm,0.7s,baz=301,slow=8.9,SNR=4.6						
ASAR	**Alice Springs**	**49.85**	**128**	P	P	15 48 21.7	-1.1
	0.7nm,0.6s,baz=301,slow=7.2,SNR=3.2						
BRTR	**Keskin Array B**	**62.59**	**312**	P	P	15 49 51.4	-2.6
	0.8nm,0.6s,baz=125,slow=7.2,SNR=6.1						
GERES	**GERESS Array B**	**78.25**	**319**	P	P	15 51 27.9	-0.9
	1.1nm,0.8s,baz=124,slow=7.1,SNR=7.1						
TXAR	**Lajitas Array**	**141.36**	**23**	PKP	PKPdf	15 59 01.2	+0.1
	0.2nm,0.4s,baz=315,slow=1.3,SNR=4.2						

IDC 28 15:40:22.7±13.0**,18.54S×177.98W,h665**^{km}±188^{km}**, mb3.3**/6**,mb1 3.6**/6**,mb1mx3.3**/15**,mbtmp4.4**/6**,Error ellipse: s-maj=64.6km s-min=33.2km az=80.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**33.75**	**261**	P	P	15 46 12.9	-1.4
	8.3nm,0.7s,baz=100,slow=9.2,SNR=18						
STKA	**Stephens Creek**	**38.69**	**242**	P	P	15 46 53.4	-1.1
	3.0nm,0.3s,baz=99,slow=8.4,SNR=21						
WRA	**Warramunga Arr**	**44.92**	**260**	P	P	15 47 41.6	-1.9
	5.2nm,0.3s,baz=98,slow=6.9,SNR=253						
ASAR	**Alice Springs**	**45.02**	**255**	P	P	15 47 42.5	-1.7
	7.3nm,0.4s,baz=92,slow=7.3,SNR=273						
VNDA	**Vanda**	**59.85**	**185**	P	P	15 49 26.4	-2.0
	0.9nm,1.1s,baz=20,slow=8.8,SNR=2.9						
TXAR	**Lajitas Array**	**85.99**	**57**	P	P	15 51 55.5	-1.1
	0.8nm,0.6s,baz=218,slow=5.9,SNR=11						

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*NEIC **28** 15:40:44.0,60.98N×138.33W,h1^{km},mb3.9/2, ML4.0(PGC),ML3.8(AEIC),After PGC.*

*PGC **28** 15:40:44.1,60.98N×138.33W,h1^{km},ML4.0/3,St. Elias Mountains, Yukon Territory*

ISC 28 15:40:41.8±0.4**,61.11N**±0.04×**138.28W**±0.08**,h1**^{km}**,n19,** σ**1**^{s}**06**/29**,mb4.0**/2**,Southern Yukon Territory**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
HYT	**Haines Junctio**	**0.47**	**127**	P	**Pg**	**15 40 51.9**	**+0.6**
HYT				S	**Sg**	**15 40 57.9**	**+0.3**
HYT				Trac		15 40 59.2	
	comp=Z,1μm,0.2s						
PNL	**Peninsula**	**1.55**	**202**	P	**Pn**	**15 41 09.5**	**-1.1**
PNL				S	**Sb**	**15 41 28.1**	**-2.9**
WHY	**Whitehorse**	**1.72**	**104**	Pn	**Pn**	**15 41 14.3**	**+1.2**
WHY				Sg	**Sg**	**15 41 38.0**	**-1.1**
WHY				Trac		15 41 41.4	
	comp=Z,1μm,0.3s						
YAH	**Yahtse**	**1.86**	**248**	P	**Pn**	**15 41 14.4**	**-0.7**
BCA3	**Beaver Creek A**	**2.56**	**321**	P	**Pn**	**15 41 25.5**	**+0.3**
DAWY	**Dawson**	**3.01**	**351**	Pn	**Pn**	**15 41 33.4**	**+1.8**
DAWY				Pg	**Pg**	**15 41 40.9**	**-1.0**
DAWY				Sg	**Sg**	**15 42 21.1**	**-1.0**
DAWY				Trac		15 42 26.0	
	comp=Z,61nm,0.1s						
EYAK	**Cordova Ski Ar**	**3.70**	**265**	P	**Pn**	**15 41 42.9**	**+1.6**
DOT	**Dot Lake**	**3.71**	**316**	P	**Pn**	**15 41 41.3**	**-0.2**
DLBC	**Dease Lake**	**4.96**	**119**	Pn	**Pn**	**15 41 58.5**	**-0.7**
DLBC				Pg	**Pg**	**15 42 14.4**	**-6.3**
DLBC				Sg	**Sg**	**15 43 16.6**	**-10**
DLBC				Trac		15 43 24.4	
	comp=Z,142nm,0.7s						
COLA	**College**	**5.77**	**315**	*e*P	**Pn**	**15 42 10.6**	**-0.1**
INK	**Inuvik**	**7.51**	**14**	Pn	**Pn**	**15 42 35.3**	**+0.2**
INK				Sg	**Sg**	**15 44 45.3**	**-6.4**
INK				Trac		15 44 57.5	
	comp=Z,36nm,0.8s						
FNBB	**Fort Nelson**	**7.97**	**99**	Pn	**Pn**	**15 42 41.1**	**-0.5**
FNBB				Sn	**Sn**	**15 44 03.8**	**-10**
FNBB				Sg	**Sg**	**15 44 52.9**	**-14**
FNBB				Trac		15 45 11.7	
	comp=Z,17nm,0.7s						
YKW3	**Yellowknife Ar**	**11.26**	**72**	P	**P**	**15 43 24.8**	**-1.9**
YKW3				P		15 43 25.0	

YKW3				Trac		15 46 52.8	
	comp=Z,7.0nm,1.0s						
YKW3				Trac		15 46 53.8	
	comp=Z,55nm,1.7s						
FFC	Flin Flon	20.10	92	P	P	15 45 20.4	+1.0
CHMT	Chamberlain Mo	20.27	123	*e*P	P	15 45 22.2	+1.0
HRY	Holter Researc	21.01	121	*e*P	P	15 45 27.9	-1.0
MCMT	McKenzie Canyo	22.14	126	*e*P	P	15 45 40.9	+0.6
HLID	Hailey	22.61	130	P	P	15 45 45.0	+0.1
	3.2nm,1.0s,mb3.8						
BW06	Boulder Array	25.17	124	*e*P	P	15 46 11.4	+1.7
	3.8nm,0.9s,mb4.1						

IDC 28 15:44:35.3±1.6**,5.89N**×**92.57E,mb3.7**/4**,mb1 4.0**/5**, mb1mx3.8**/17**,mbtmp3.8**/5**,ML3.9**/1**,Error ellipse: s-maj=54.5km s-min=25.1km az=60.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.95	26	Pn	P	15 47 56.5	-0.4
	0.2nm,0.3s,baz=230,slow=14,SNR=8.4						
SONM	Songino Array	43.44	14	P	P	15 52 39.4	-2.2
	0.2nm,0.5s,baz=198,slow=10,SNR=3.4						
WRA	Warramunga Arr	48.44	123	P	P	15 53 19.5	-2.2
	1.5nm,0.8s,baz=302,slow=9.1,SNR=9.7						
ASAR	Alice Springs	49.90	128	P	P	15 53 31.2	-1.6
	1.3nm,0.8s,baz=299,slow=7.7,SNR=9.9						
GERES	GERESS Array B	78.26	319	P	P	15 56 37.4	-1.2
	0.4nm,0.8s,baz=90,slow=4.0,SNR=5.3						

IDC 28 15:44:47.2±3.2**,6.30N**×**93.46E,mb3.8**/3**,mb1 4.0**/3**, mb1mx3.7**/16**,mbtmp3.8**/3**,Error ellipse: s-maj=124.1km s-min=30.6km az=66.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.21	23	Pn	P	15 48 04.9	+6.0
	0.7nm,0.3s,baz=231,slow=14,SNR=12						
SONM	Songino Array	42.84	13	P	P	15 52 47.3	-1.4
	0.5nm,0.6s,baz=198,slow=8.8,SNR=6.0						
WRA	Warramunga Arr	47.92	124	P	P	15 53 27.7	-2.0
	1.6nm,0.8s,baz=303,slow=9.6,SNR=7.3						
ASAR	Alice Springs	49.45	128	P	P	15 53 39.7	-1.8
	0.9nm,0.6s,baz=307,slow=7.4,SNR=9.1						
PDAR	Pinedale Array	126.87	21	PKP	PKPdf	16 03 53.0	-2.2
	0.6nm,0.7s,baz=356,slow=1.8,SNR=5.2						
TXAR	Lajitas Array	140.93	24	PKP	PKPdf	16 04 19.9	-2.1
	0.2nm,0.5s,baz=315,slow=5.1,SNR=3.1						

*IDC **28** 15:46:12.5±0.8, 6.79N×92.44E, h20^{km}±4^{km}, mb3.8/9, mb1 4.2/10, mb1mx4.0/19, mbtmp4.0/10, ML4.5/1, Error ellipse: s-maj=32.4km s-min=15.8km az=46.0*

ISC 28 15:46:10.3±0.7**,6.8N**±0.1×**92.4E**±0.1**,h21^{km}, h21^{km}±.8^{km}:pP-P,n17,**σ**0^{s}64**/16**,mb4.2**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.26	28	Pn	P	15 49 20.6	+0.4
	0.8nm,0.3s,baz=230,slow=14,SNR=28						
PKI	Pulchoki	21.74	343	*e*P	P	15 51 02.4	0.0
	277nm,1.2s						
DMN	Daman	21.86	342	*e*P	P	15 51 03.5	-0.2
GUN	Gumba	21.93	344	*e*P	P	15 51 03.7	-0.6
	86nm,0.8s,mb5.2						
KKN	Kakani	21.98	343	*e*P	P	15 51 04.7	-0.2
GKN	Gorkha	22.37	342	*e*P	P	15 51 08.2	-0.6
KOLN	Koldanda	22.50	339	*e*P	P	15 51 10.1	0.0
	49nm,0.7s,mb5.0						
SONM	Songino Array	42.64	14	P	P	15 54 08.2	+1.2
	0.3nm,0.5s,mb3.3,baz=199,slow=8.5,SNR=3.3						
SONM				pP	pP	15 54 13.9	+0.6
	1.5nm,0.9s,baz=200,slow=8.0,SNR=5.2						
WRA	Warramunga Arr	49.06	124	P	P	15 54 58.1	-0.2
	6.9nm,0.8s,mb4.8,baz=303,slow=8.8,SNR=21						
BVAR	Borovoye Array	49.51	343	P	P	15 55 00.1	-1.3
	0.5nm,0.6s,mb3.7,baz=108,slow=4.6,SNR=2.7						
BVAR				pP	pP	15 55 06.1	-1.7
	1.7nm,0.8s,baz=143,slow=7.4,SNR=7.8						
ASAR	Alice Springs	50.56	128	P	P	15 55 09.9	+0.1
	3.8nm,0.6s,mb4.5,baz=307,slow=7.5,SNR=21						
CTA	Charters Tower	59.29	118	P	P	15 56 12.7	-0.7
	3.6nm,1.0s,mb4.4,baz=307,slow=7.0,SNR=4.3						
STKA	Stephens Creek	60.61	132	P	P	15 56 22.4	+0.2
	1.5nm,0.6s,mb4.3,baz=295,slow=11,SNR=3.0						
BRTR	Keskin Array B	61.86	312	P	P	15 56 30.8	+0.2
	0.4nm,0.7s,mb3.6,baz=90,slow=4.3,SNR=2.2						
BRTR				pP	pP	15 56 37.2	+0.1
	1.1nm,0.8s,baz=109,slow=1.3,SNR=3.9						
MLR	Muntele Rosu	68.77	316	P	P	15 57 16.4	+1.3
	2.2nm,1.0s,mb4.0,baz=180,slow=13,SNR=2.9						
MLR				pP	pP	15 57 23.0	+1.4
	4.6nm,0.8s,baz=186,slow=8.4,SNR=4.2						
FINES	FINESS Array B	72.89	333	pP	pP	15 57 46.2	0.0
	1.4nm,0.7s,baz=95,slow=15,SNR=1.5						
GERES	GERESS Array B	77.50	318	P	P	15 58 06.7	+0.5
	0.5nm,0.9s,mb3.5,baz=141,slow=6.3,SNR=2.7						
GERES				pP	pP	15 58 14.2	+1.4
	2.1nm,0.8s,baz=90,slow=4.0,SNR=6.4						

*IDC **28** 15:46:28.5±8.2, 6.95N×92.54E, h52^{km}±71^{km}, mb4.1/11, mb1 4.4/12, mb1mx4.1/21, mbtmp4.4/12, ML4.6/1, MS4.2/1, Ms1 4.2/1, ms1mx3.1/26, Error ellipse: s-maj=60.6km s-min=15.6km az=51.0*

ISC 28 15:46:24.5±0.7**,6.9N**±0.1×**92.5E**±0.1**,h33^{km},n14,** σ**0^{s}83**/12**,mb4.3**/11**,MS4.2**/1**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.10	28	P	P	15 49 31.2	+0.3
	0.9nm,0.3s,baz=232,slow=14,SNR=5.8						
SONM	Songino Array	42.49	14	P	P	15 54 19.0	+0.6
	1.2nm,0.7s,mb3.6,baz=198,slow=9.6,SNR=5.3						
SONM				LR	LR	16 14 23.8	
	comp=Z,278nm,19.4s,MS4.2,baz=125,slow=40						
WRA	Warramunga Arr	49.02	124	P	P	15 55 10.5	0.0
	3.3nm,0.8s,mb4.4,baz=304,slow=8.9,SNR=8.1						
BVAR	Borovoye Array	49.43	343	P	P	15 55 11.5	-1.7
	2.2nm,0.7s,mb4.3,baz=135,slow=8.4,SNR=8.5						
ASAR	Alice Springs	50.53	128	P	P	15 55 21.7	-0.4
	5.2nm,0.7s,mb4.6,baz=306,slow=7.3,SNR=14						
STKA	Stephens Creek	60.60	132	P	P	15 56 34.5	-0.1
	4.6nm,0.8s,mb4.7,baz=312,slow=8.5,SNR=6.7						
MLR	Muntele Rosu	68.77	316	P	P	15 57 27.6	+0.3
	7.1nm,0.9s,mb4.6,baz=142,slow=4.8,SNR=9.6						
FINES	FINESS Array B	72.84	333	P	P	15 57 50.3	-1.3
	3.0nm,0.9s,mb4.2,baz=131,slow=13,SNR=3.6						
GERES	GERESS Array B	77.50	318	P	P	15 58 18.3	-0.3
	2.7nm,0.7s,mb4.3,baz=90,slow=5.3,SNR=15						
DAVOX	Davos	79.99	316	P	P	15 58 32.6	+0.4
	4.2nm,0.8s,mb4.5,baz=134,slow=18,SNR=7.2						
EKA	Eskdalemuir Ar	87.63	325	P	P	15 59 10.8	+0.3
	2.7nm,0.8s,mb4.5,baz=72,slow=2.6,SNR=3.7						
ESDC	Sonseca Array	90.63	310	P	P	15 59 27.0	+1.8
	0.7nm,0.6s,mb4.2,baz=71,slow=4.5,SNR=4.0						
PDAR	Pinedale Array	126.66	20	PKP	PKPdf	16 05 26.2	+1.2
	0.5nm,0.8s,SNR=3.8						
TXAR	Lajitas Array	140.77	23	PKP	PKPdf	16 05 52.8	+1.0
	0.4nm,0.8s,baz=225,slow=3.8,SNR=2.5						

*IDC **28** 15:47:11.5±0.5, 9.25N×92.69E, h29^{km}±3^{km}, mb4.2/14, mb1 4.3/14, mb1mx4.2/19, mbtmp4.4/14, MS3.9/1, Ms1 3.9/1, ms1mx2.9/25, Error ellipse: s-maj=26.7km s-min=10.7km az=53.0*

ISC 28 15:47:09.3±0.5**,9.2N**±0.1×**92.7E**±0.1**,h31^{km}, h31^{km}±.6^{km}:pP-P,n24,**σ**0^{s}69**/17**,mb4.3**/17**,MS3.9**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	40.18	14	P	P	15 54 45.9	+1.4
	0.9nm,0.3s,mb3.9,baz=197,slow=8.0,SNR=20						
SONM				PcP	PcP	15 56 50.0	+1.1
	2.3nm,0.6s,baz=208,slow=3.5,SNR=8.9						
SONM				pPcP		15 56 58.9	
	1.7nm,0.7s,baz=197,slow=3.7,SNR=6.2						
BVAR	Borovoye Array	47.27	342	P	P	15 55 41.9	+0.2
	1.3nm,0.5s,mb4.2,baz=146,slow=9.2,SNR=8.3						
BVAR				pP	pP	15 55 51.3	+0.4
	2.0nm,0.7s,baz=148,slow=9.1,SNR=3.6						
BVAR				PP	PP	15 57 32.4	+0.3
	0.9nm,0.4s,baz=117,slow=6.4,SNR=4.1						
NWAO	Narrogin (SRO)	47.99	152	P	P	15 55 48.4	+0.8
	14nm,0.7s,mb5.1,baz=329,slow=9.3,SNR=14						
NWAO				pP	pP	15 55 57.5	+0.5
	8.4nm,0.6s,baz=297,slow=6.5,SNR=3.1						
WRA	Warramunga Arr	50.19	126	P	P	15 56 04.2	-0.5
	7.0nm,0.7s,mb4.8,baz=303,slow=9.0,SNR=14						
WRA				pP	pP	15 56 14.1	0.0
	3.2nm,0.5s,baz=304,slow=8.6,SNR=3.5						
WRA				PcP	PcP	15 57 24.8	+0.9
	1.3nm,0.8s,baz=307,slow=3.3,SNR=3.1						
WRA				pPcP		15 57 34.3	
	2.0nm,0.9s,baz=311,slow=2.8,SNR=5.9						
ASAR	Alice Springs	51.86	130	P	P	15 56 16.8	-0.6
	6.6nm,0.7s,mb4.7,baz=309,slow=7.1,SNR=9.2						
ASAR				pP	pP	15 56 26.2	-0.5
	4.0nm,0.7s,baz=300,slow=7.0,SNR=4.1						
ASAR				PcP	PcP	15 57 30.9	+0.9
	2.1nm,0.6s,baz=301,slow=3.4,SNR=5.4						
ASAR				pPcP		15 57 40.8	
	3.1nm,0.6s,baz=306,slow=3.7,SNR=10						
ASAR				LR	LR	16 19 37.9	
	comp=Z,112nm,18.3s,MS3.9,baz=297,slow=38						
KMBO	Kilima Mbogo	56.19	262	P	P	15 56 50.2	+0.9
	0.4nm,0.2s,mb4.0,baz=54,slow=9.8,SNR=3.3						
CTA	Charters Tower	60.19	119	P	P	15 57 17.6	+0.4
	13nm,0.9s,mb5.0,baz=312,slow=8.5,SNR=13						
BRTR	Keskin Array B	60.48	311	P	P	15 57 17.9	-1.1
	0.9nm,1.0s,mb3.8,baz=118,slow=6.5,SNR=3.9						
STKA	Stephens Creek	62.05	133	P	P	15 57 29.4	-0.3
	4.5nm,0.8s,mb4.7,baz=333,slow=9.4,SNR=4.7						
STKA				pP	pP	15 57 38.8	-0.4
	5.0nm,0.7s,baz=292,slow=6.9,SNR=3.8						
MLR	Muntele Rosu	67.22	315	P	P	15 58 03.1	+0.1
	1.5nm,0.6s,mb4.2,baz=42,slow=14,SNR=3.1						
FINES	FINESS Array B	70.86	332	P	P	15 58 24.7	-0.5
	1.0nm,0.6s,mb4.0,baz=90,slow=7.6,SNR=8.7						
FINES				pP	pP	15 58 34.5	-0.2
	4.7nm,0.9s,baz=92,slow=6.5,SNR=3.6						
KAF	Kangasniemi	70.95	333	*e*p	P	15 58 24.4	-1.3
	6.0nm,0.9s,mb4.5						
ARCES	ARCESS Array B	73.52	340	P	P	15 58 41.2	+0.4
	2.6nm,0.6s,mb4.3,baz=100,slow=5.5,SNR=8.0						
ARCES				pP	pP	15 58 50.5	+0.1
	2.3nm,0.8s,baz=135,slow=1.7,SNR=1.6						
GERES	GERESS Array B	75.89	318	P	P	15 58 55.0	+0.3
	0.3nm,0.4s,mb3.6,baz=56,slow=3.5,SNR=2.4						
GERES				pP	pP	15 59 03.5	-0.9
	1.5nm,0.8s,baz=105,slow=6.2,SNR=3.2						
HFS	Hagfors	76.58	330	P	P	15 58 58.6	+0.2
	5.3nm,1.0s,mb4.4,baz=108,slow=4.6,SNR=3.1						
HFS				pP	pP	15 59 07.8	-0.3
	6.1nm,0.8s,baz=117,slow=6.6,SNR=3.8						
NB2	NORSAR Subarra	77.87	331	P	P	15 59 14.8	+9.3
	1.4nm,0.6s,mb4.1,baz=97,slow=5.0						
NOA	NORSAR Array B	77.87	331	pP	pP	15 59 14.8	-0.4
	1.9nm,0.6s,baz=93,slow=5.7,SNR=3.7						
EKA	Eskdalemuir Ar	85.81	325	pP	pP	15 59 57.0	+0.1
	3.8nm,0.7s,baz=100,slow=5.1,SNR=4.7						
ILAR	Eielson Array	94.02	22	P	P	16 00 25.1	-0.4
	0.4nm,0.6s,mb4.0,baz=305,slow=4.9,SNR=8.2						
ILAR				pP	pP	16 00 36.0	+0.8
	0.7nm,0.7s,baz=302,slow=4.2,SNR=4.6						
YKA	Yellowknife Ar	105.43	13	PP	PP	16 05 35.4	-6.1
	0.5nm,0.8s,baz=332,slow=7.6,SNR=7.6						
PDAR	Pinedale Array	124.40	20	PKP	PKPdf	16 06 08.2	-2.9
	1.2nm,0.7s,baz=29,slow=1.4,SNR=8.2						
NVAR	Mina Array Bea	124.46	29	PKP	PKPdf	16 06 09.9	-1.4
	1.4nm,0.6s,baz=299,slow=4.8,SNR=5.9						
NVAR				pPKP		16 06 19.2	
	0.9nm,0.4s,baz=360,slow=1.6,SNR=3.6						
TXAR	Lajitas Array	138.54	22	PKP	PKPdf	16 06 35.5	-2.6
	0.5nm,0.5s,baz=197,slow=0.4,SNR=7.1						
LPAZ	La Paz	160.06	247	PKP	PKPdf	16 07 09.3	-2.1
	0.8nm,0.5s,baz=153,slow=2.3,SNR=3.7						
LPAZ				PKPab	PKPab	16 07 49.6	+1.1
	0.7nm,0.7s,baz=99,slow=2.3,SNR=4.2						

IDC 28 15:52:49.6±2.1**,3.52N**×**94.32E,mb3.9**/3**,mb1 4.2**/4**, mb1mx3.7**/17**,mbtmp4.0**/4**,ML4.2**/1**,Error ellipse: s-maj=88.1km s-min=29.6km az=54.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.52	17	Pn	P	15 56 29.9	-1.7
	0.3nm,0.3s,baz=208,slow=11,SNR=21						
WRA	Warramunga Arr	45.70	122	P	P	16 01 12.4	-2.0
	2.2nm,0.6s,baz=300,slow=9.1,SNR=9.0						
ASAR	Alice Springs	47.08	127	P	P	16 01 23.6	-1.7
	0.7nm,0.6s,baz=296,slow=7.7,SNR=4.6						
FINES	FINESS Array B	76.63	333	P	P	16 04 42.0	-1.6
	2.1nm,1.0s,baz=90,slow=3.8,SNR=4.2						

IDC 28 15:56:28.4±1.0**,7.27N**×**92.77E,mb3.9**/8**,mb1 4.1**/8**, mb1mx3.9**/17**,mbtmp3.9**/8**,MS2.8**/1**,Ms1 3.0**/1**, ms1mx2.6**/30**,Error ellipse: s-maj=53.3km s-min=18.0km az=50.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.64	28	Pn	P	15 59 35.6	+3.3
	0.1nm,0.3s,baz=231,slow=14,SNR=4.6						
CMAR				LR	LR	16 05 11.0	
	comp=Z,52nm,21.7s,baz=47,slow=41						
SONM	Songino Array	42.05	14	P	P	16 04 21.9	-1.4
	1.0nm,0.8s,baz=205,slow=6.5,SNR=8.2						
WRA	Warramunga Arr	49.03	124	P	P	16 05 17.5	-1.8
	1.8nm,0.8s,baz=304,slow=8.7,SNR=13						
BVAR	Borovoye Array	49.13	342	P	P	16 05 16.7	-3.0
	1.8nm,0.8s,baz=174,slow=13,SNR=2.8						
ASAR	Alice Springs	50.58	129	P	P	16 05 29.5	-1.7
	2.1nm,0.8s,baz=307,slow=7.4,SNR=16						
STKA	Stephens Creek	60.68	133	P	P	16 06 40.7	-3.4
	2.6nm,0.9s,baz=313,slow=4.8,SNR=3.0						
BRTR	Keskin Array B	61.80	311	P	P	16 06 48.3	-3.2
	0.5nm,0.7s,baz=126,slow=8.4,SNR=2.4						
FINES	FINESS Array B	72.61	332	P	P	16 07 57.8	-1.5
	1.1nm,0.8s,baz=153,slow=8.5,SNR=3.5						
GERES	GERESS Array B	77.37	318	P	P	16 08 27.0	+0.2
	0.9nm,0.8s,baz=63,slow=3.0,SNR=6.9						

IDC 28 15:59:18.1±3.1**,2.51N**×**98.33E,mb3.6**/3**,mb1 3.8**/4**, mb1mx3.5**/17**,mbtmp3.6**/4**,ML3.8**/1**,Error ellipse: s-maj=114.3km s-min=29.1km az=60.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.86	2	Pn	P	16 03 05.0	+0.5
	0.1nm,0.3s,baz=200,slow=11,SNR=10						
WRA	Warramunga Arr	41.79	124	P	P	16 07 09.7	-1.7
	0.4nm,0.4s,baz=306,slow=8.9,SNR=6.4						
SONM	Songino Array	45.69	8	P	P	16 07 40.5	-1.9
	0.3nm,0.4s,baz=189,slow=9.4,SNR=5.0						
BVAR	Borovoye Array	55.41	340	P	P	16 08 53.7	-2.7
	0.5nm,0.5s,baz=149,slow=8.6,SNR=4.2						

*IDC **28** 16:05:14.6±1.0, 12.79N×92.52E, mb3.9/8, mb1 4.0/9, mb1mx3.9/18, mbtmp3.8/9, Error ellipse: s-maj=36.8km s-min=20.8km az=49.0*

ISC 28 16:05:18.5±0.8**,12.90N**±0.09×**92.80E**±0.08**,h33^{km},n14,** σ**1^{s}04**/15**,mb3.9**/8**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.09	46	Pn	P	16 07 17.3	+0.8
	baz=240,slow=15,SNR=3.0						
CMAR				Sn	Sn	16 08 47.0	-1.0
	0.3nm,0.3s,baz=241,slow=26,SNR=4.3						
PKI	Pulchoki	16.16	336	*e*P	P	16 09 09.0	+4.3
	7.8nm,0.5s						
GUN	Gumba	16.28	338	*e*P	P	16 09 06.1	-0.2
DMN	Daman	16.31	335	*e*P	P	16 09 09.7	+3.0
	23nm,0.7s						
KKN	Kakani	16.40	336	*e*P	P	16 09 07.0	-0.9
KOLN	Koldanda	17.12	331	*e*P	P	16 09 17.4	+0.6
	13nm,0.6s						
SONM	Songino Array	36.63	15	P	P	16 12 24.8	+1.1
	0.8nm,0.8s,mb3.6,baz=196,slow=9.0,SNR=6.3						
WRA	Warramunga Arr	52.30	128	P	P	16 14 29.6	+0.1
	1.0nm,0.7s,mb3.9,baz=301,slow=9.5,SNR=9.9						
ASAR	Alice Springs	54.18	132	P	P	16 14 43.3	0.0
	0.7nm,0.7s,mb3.7,baz=307,slow=6.6,SNR=11						
BRTR	Keskin Array B	58.22	309	P	P	16 15 09.5	-2.5
	1.2nm,0.7s,mb4.0,baz=121,slow=7.2,SNR=6.8						
FINES	FINESS Array B	67.69	332	P	P	16 16 13.6	-0.7
	2.4nm,0.9s,mb4.2,baz=63,slow=4.3,SNR=3.9						
GERES	GERESS Array B	73.25	317	P	P	16 16 47.8	-0.4
	0.3nm,0.3s,mb3.7,baz=104,slow=5.5,SNR=5.0						
ILAR	Eielson Array	90.60	22	P	P	16 18 19.2	+0.8
	0.5nm,1.0s,mb3.8,baz=307,slow=4.0,SNR=4.8						
INK	Inuvik	92.55	16	P	P	16 18 27.4	0.0
	0.6nm,0.7s,mb4.1,baz=284,slow=5.0,SNR=3.8						

*IDC **28** 16:06:00.8±0.8, 6.75N×92.43E, mb4.1/10, mb1 4.2/11, mb1mx4.1/20, mbtmp4.1/11, ML4.4/1, Error ellipse: s-maj=39.0km s-min=15.8km az=53.0*

ISC 28 16:06:01.1±2.6**,6.69N**±0.08×**92.56E**±0.08**,h10^{km}**±16^{km}**, n29,**σ**1^{s}12**/30**,mb4.5**/16**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.25	27	Pn	P	16 09 11.3	-0.7
	0.6nm,0.3s,baz=216,slow=14,SNR=6.7						
VIS	Vishakhapatnam	14.19	321	*e*P	P	16 09 22.7	-1.8
VIS				*e*S	Sx	16 11 42.4	
VIS				*e*S	S	16 11 46.4	-17
CHRT	Chiangrai	14.86	27	P	P	16 09 32.0	-1.3
	105nm,1.3s						
UBT	Ubonrachathani	14.89	54	P	P	16 09 36.0	+2.3
HYB	Hyderabad	17.34	309	*e*P	P	16 10 08.0	+2.9
MNGI	Mangalore	18.54	291	*e*	P	16 10 19.1	-0.9
SHL	Shillong	18.78	358	*e*	P	16 10 23.0	+0.1
SHL				*e*		16 13 40.0	
KAD	Karad	20.82	302	*e*	P	16 10 46.4	+0.9
POO	Poona	21.70	305	*e*P	P	16 11 09.0	+15
POO				*e*		16 14 37.0	
POO				*i*		16 14 48.0	
PKI	Pulchoki	21.85	343	*e*P	P	16 10 56.5	+0.6
	115nm,0.9s,mb5.3						
DMN	Daman	21.98	342	*e*P	P	16 10 58.0	+0.9
	63nm,0.8s,mb5.1						
BHPL	Bhopal	21.98	320	*e*P		16 11 05.2	
BHPL				*e*S	S	16 14 55.7	+1.1
GUN	Gumba	22.04	344	*e*P	P	16 10 58.8	+1.1
	107nm,0.8s,mb5.3						
KKN	Kakani	22.09	343	*e*P	P	16 10 59.5	+1.2
	64nm,0.8s,mb5.1						
GKN	Gorkha	22.49	341	*e*P	P	16 11 02.8	+0.6
	83nm,0.8s,mb5.2						
KOLN	Koldanda	22.62	339	*e*P	P	16 11 03.1	-0.6
	39nm,0.8s,mb4.9						
BOM	Bombay	22.73	304	*e*	P	16 11 06.0	+1.2
BOM				*e*S	S	16 15 27.8	+19
	189nm,1.8s						
AJM	Ajmer	26.05	321	*e*P	sP	16 11 44.8	+4.0
AJM				*e*S	S	16 16 05.4	+0.1
DDI	Dehra Dun	27.18	332	*e*	sP	16 11 58.0	+6.9
SONM	Songino Array	42.66	14	P	P	16 13 59.0	-0.7
	1.9nm,0.9s,mb3.8,baz=192,slow=7.4,SNR=11						
NWAO	Narrogin (SRO)	45.85	151	P	P	16 14 25.9	+0.4
	5.4nm,0.8s,mb4.5,baz=344,slow=7.2,SNR=5.2						
WRA	Warramunga Arr	48.88	124	P	P	16 14 49.6	+0.2
	6.1nm,0.9s,mb4.6,baz=303,slow=9.0,SNR=19						
BVAR	Borovoye Array	49.62	343	P	P	16 14 53.3	-1.3
	4.0nm,1.1s,mb4.3,baz=150,slow=12,SNR=5.9						
ASAR	Alice Springs	50.39	128	P	P	16 15 01.6	+0.7
	2.0nm,0.6s,mb4.3,baz=301,slow=7.6,SNR=13						
STKA	Stephens Creek	60.45	132	P	P	16 16 13.2	-0.4
	1.6nm,0.6s,mb4.2,baz=329,slow=5.9,SNR=4.7						
BRTR	Keskin Array B	62.02	312	P	P	16 16 23.2	-1.0
	0.9nm,0.9s,mb3.9,baz=117,slow=6.4,SNR=2.9						
FINES	FINESS Array B	73.03	333	P	P	16 17 30.7	-2.2
	0.5nm,0.6s,mb3.6,baz=100,slow=8.5,SNR=3.2						
GERES	GERESS Array B	77.66	318	P	P	16 17 58.6	-1.0
	0.3nm,0.3s,mb3.7,baz=90,slow=5.3,SNR=5.0						
DAVOX	Davos	80.15	316	P	P	16 18 12.7	-0.5
	1.6nm,0.4s,mb4.3,baz=4.8,slow=5.1,SNR=4.5						

*IDC **28** 16:07:04.5±2.0, 8.29N×92.17E, mb4.1/5, mb1 4.3/5, mb1mx4.0/17, mbtmp4.1/5, Error ellipse: s-maj=88.9km s-min=23.0km az=59.0*

ISC 28 16:07:07.3±1.0**,8.3N**±0.2×**92.1E**±0.2**,h33^{km},n8,**σ**0^{s}89**/8**, mb4.2**/6**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MDRS	Chennai	12.61	293	*e*	P	16 10 08.0	+0.7
MDRS				*e*		16 11 29.0	
BHPL	Bhopal	20.50	318	*e*	P	16 11 37.7	-7.6
	comp=Z,39nm,1.1s						
AJM	Ajmer	24.55	320	*e*	P	16 12 23.2	-2.3
	comp=Z,15nm,1.0s,mb4.5						
SONM	Songino Array	41.21	15	P	P	16 14 50.9	+0.3
	comp=Z,1.5nm,0.6s,mb3.8,baz=206,slow=8.3,SNR=7.2						
BVAR	Borovoye Array	47.97	342	P	P	16 15 45.1	+0.3
	comp=Z,2.3nm,0.8s,mb4.2,baz=150,slow=12,SNR=4.4						
WRA	Warramunga Arr	50.12	125	P	P	16 16 01.9	+0.1
	comp=Z,1.1nm,0.3s,mb4.3,baz=301,slow=9.7,SNR=9.8						
ASAR	Alice Springs	51.71	129	P	P	16 16 13.5	-0.3
	comp=Z,0.7nm,0.4s,mb4.0,baz=305,slow=7.4,SNR=6.0						
ARCES	ARCESS Array B	74.20	340	P	P	16 18 42.9	+0.7
	comp=Z,1.2nm,0.5s,mb4.1,baz=104,slow=7.0,SNR=6.8						

*IDC **28** 16:12:08.8±1.0, 3.51N×94.19E, mb4.1/9, mb1 4.3/10, mb1mx4.1/19, mbtmp4.1/10, ML4.1/1, Error ellipse: s-maj=44.8km s-min=18.9km az=47.0*

ISC 28 16:12:12.1±0.8**,3.6N**±0.1×**94.3E**±0.2**,h33^{km},n10,** σ**0^{s}83**/10**,mb4.2**/9**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.49	17	Pn	P	16 15 50.1	+0.1
	0.3nm,0.3s,baz=214,slow=11,SNR=24						
SONM	Songino Array	45.33	11	P	P	16 20 29.1	+0.3
	1.8nm,0.9s,mb3.9,baz=193,slow=7.7,SNR=8.9						
SONM				PcP	PcP	16 22 09.2	+0.7
	1.7nm,0.8s,baz=192,slow=5.5,SNR=4.7						
WRA	Warramunga Arr	45.76	122	P	P	16 20 32.5	-0.1
	5.2nm,0.8s,mb4.5,baz=301,slow=8.9,SNR=17						
ASAR	Alice Springs	47.14	127	P	P	16 20 43.4	-0.1
	1.4nm,0.5s,mb4.2,baz=298,slow=7.3,SNR=9.9						
BVAR	Borovoye Array	53.10	342	P	P	16 21 28.1	-0.5
	4.6nm,0.9s,mb4.4,baz=149,slow=8.6,SNR=17						
BRTR	Keskin Array B	65.37	312	P	P	16 22 53.2	-0.5
	1.6nm,1.0s,mb4.0,baz=127,slow=6.2,SNR=5.3						
AKASG	Malin Array Be	71.62	323	P	P	16 23 30.6	-1.5
	0.7nm,0.6s,mb3.8,baz=90,slow=5.3,SNR=4.9						
FINES	FINESS Array B	76.57	333	P	P	16 24 00.3	-0.5
	2.0nm,0.8s,mb4.1,baz=143,slow=9.5,SNR=4.4						
GERES	GERESS Array B	81.12	319	P	P	16 24 27.2	+1.4
	2.3nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=16						
DAVOX	Davos	83.58	317	P	P	16 24 39.9	+1.4
	3.9nm,0.7s,mb4.7,baz=118,slow=2.9,SNR=7.3						

*IDC **28** 16:13:43.3±1.1, 7.08N×93.72E, mb4.0/7, mb1 4.1/8, mb1mx3.9/19, mbtmp3.9/8, Error ellipse: s-maj=45.8km s-min=21.2km az=54.0*

ISC 28 16:13:47.0±0.9**,7.1N**±0.1×**93.9E**±0.2**,h33^{km},n15,** σ**1^{s}04**/14**,mb4.3**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.29	23	Pn	P	16 16 42.5	-0.1
	baz=212,slow=11,SNR=1.8						
CAL	Calcutta	16.25	341	*e*	P	16 17 25.4	-9.0
CAL				*e*		16 18 20.6	
PKI	Pulchoki	21.89	339	*e*P	P	16 18 40.8	+1.9
	44nm,0.6s,mb5.0						
DMN	Daman	22.03	339	*e*P	P	16 18 42.2	+1.9
	23nm,0.4s,mb4.9						
GUN	Gumba	22.04	341	*e*P	P	16 18 37.7	-2.8
	50nm,0.7s,mb5.1						
KKN	Kakani	22.13	339	*e*P	P	16 18 41.4	0.0
	57nm,1.0s,mb4.9						
GKN	Gorkha	22.56	338	*e*P	P	16 18 46.3	+0.6
KOLN	Koldanda	22.75	336	*e*P		16 18 53.3	
	24nm,0.6s						
SONM	Songino Array	41.95	13	P	P	16 21 36.0	-0.3
	0.7nm,0.9s,mb3.3,baz=188,slow=11,SNR=2.4						
WRA	Warramunga Arr	48.01	125	P	P	16 22 25.6	+0.4
	1.5nm,0.8s,mb4.1,baz=304,slow=8.4,SNR=6.6						
ASAR	Alice Springs	49.60	129	P	P	16 22 37.5	+0.1

	0.8nm,0.9s,mb3.7,baz=301,slow=7.6,SNR=4.7						
BVAR	Borovoye Array	49.63	342	P	P	16 22 36.0	-1.3
	1.6nm,0.8s,mb4.1,baz=169,slow=7.3,SNR=3.1						
FINES	FINESS Array B	73.28	332	P	P	16 25 16.1	-0.6
	4.9nm,1.2s,mb4.3,baz=117,slow=4.3,SNR=3.7						
GERES	GERESS Array B	78.24	318	P	P	16 25 44.6	-0.5
	0.3nm,0.3s,mb3.7,baz=104,slow=5.5,SNR=4.4						
DAVOX	Davos	80.78	316	P	P	16 25 58.8	-0.1
	2.0nm,0.4s,mb4.4,baz=189,slow=9.8,SNR=5.7						

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*IDC **28** 16:16:21.7±1.2, 15.38N×145.02E, mb4.0/8, mb1 4.2/8, mb1mx4.0/18, mbtmp4.0/8, MS4.1/13, Ms1 4.1/13, ms1mx3.9/26, Error ellipse: s-maj=36.2km s-min=27.2km az=112.0*

ISC 28 16:16:25.1±1.0**, 15.3N**±0.2×**145.0E**±0.2**, h33^{km}, n17, σ0^{s}75**/8**, mb4.0**/8**, MS4.1**/10**, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	11.98	348	LR	LR	16 22 54.9	
	comp=Z,551nm,21.8s,baz=93,slow=33						
JHJ	Hachijo jima 2	18.32	346	LR	LR	16 26 46.7	
	comp=Z,291nm,18.4s,baz=142,slow=34						
JOW	Kunigami	19.30	309	LR	LR	16 26 27.1	
	comp=Z,1µm,20.8s,baz=292,slow=31						
ASAJ	Asahikawa	28.75	356	LR	LR	16 34 05.4	
	comp=Z,218nm,19.7s,MS3.8,baz=355,slow=37						
WRA	Warramunga Arr	36.59	197	P	P	16 23 30.2	+0.1
	2.3nm,1.0s,mb4.0,baz=18,slow=8.8,SNR=5.5						
ASAR	Alice Springs	40.25	196	LR	LR	16 39 44.3	
	comp=Z,99nm,19.3s,MS3.7,baz=305,slow=35						
CMAR	Chiang Mai Arr	44.07	281	P	P	16 24 31.4	-0.6
	1.7nm,0.9s,mb3.8,baz=76,slow=6.3,SNR=9.0						
CMAR				LR	LR	16 39 51.8	
	comp=Z,215nm,21.4s,MS4.0,baz=80,slow=32						
SONM	Songino Array	45.38	324	P	P	16 24 42.6	+0.4
	0.5nm,0.9s,mb3.3,baz=104,slow=5.9,SNR=2.2						
SONM				LR	LR	16 42 41.6	
	comp=Z,289nm,20.0s,MS4.2,baz=141,slow=35						
RPZ	Rata Peaks	63.43	159	LR	LR	16 49 44.0	
	comp=Z,204nm,20.7s,MS4.3,baz=3.4,slow=32						
ILAR	Eielson Array	66.95	26	P	P	16 27 14.8	-1.3
	0.9nm,0.9s,mb3.8,baz=261,slow=4.8,SNR=5.1						
ILAR				LR	LR	16 52 44.4	
	comp=Z,95nm,19.5s,MS4.0,baz=341,slow=33						
BVAR	Borovoye Array	68.63	321	P	P	16 27 27.2	+0.3
	2.4nm,0.7s,mb4.2,baz=90,slow=7.4,SNR=14						
PPT	Papeete	72.33	114	LR	LR	16 55 23.6	
	comp=Z,313nm,19.2s,MS4.6,baz=170,slow=32						
YKA	Yellowknife Ar	81.27	28	P	P	16 28 40.1	+1.0
	0.7nm,0.9s,mb3.6,baz=289,slow=5.4,SNR=6.5						
YKA				LR	LR	17 00 28.3	
	comp=Z,112nm,19.9s,MS4.2,baz=290,slow=33						
ARCES	ARCESS Array B	85.46	342	P	P	16 28 59.5	-0.7
	2.4nm,0.8s,mb4.4,baz=74,slow=8.8,SNR=4.1						
NVAR	Mina Array Bea	85.75	51	LR	LR	17 02 37.2	
	comp=Z,150nm,18.2s,MS4.4,baz=90,slow=32						
FINES	FINESS Array B	89.63	335	P	P	16 29 21.3	+0.8
	2.5nm,0.9s,mb4.5,baz=146,slow=15,SNR=3.8						
PDAR	Pinedale Array	90.66	45	LR	LR	17 02 21.0	
	comp=Z,97nm,20.7s,MS4.2,baz=95,slow=30						

IDC 28 16:24:04.9±1.9**, 7.81N×93.18E, mb3.8**/4**, mb1 4.0**/4**, mb1mx3.6**/16**, mbtmp3.8**/4**, Error ellipse: s-maj=221.0km s-min=24.6km az=45.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	49.00	125	P	P	16 32 53.6	-2.1
	0.6nm,0.5s,baz=306,slow=8.4,SNR=9.9						
ASAR	Alice Springs	50.61	129	P	P	16 33 06.0	-2.0
	0.6nm,0.8s,baz=302,slow=8.0,SNR=5.3						
FINES	FINESS Array B	72.33	332	P	P	16 35 32.7	-1.5
	3.9nm,1.0s,baz=124,slow=5.0,SNR=4.8						
GERES	GERESS Array B	77.24	318	P	P	16 36 00.9	-1.7
	0.2nm,0.3s,baz=90,slow=4.9,SNR=3.2						

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*IDC **28** 16:31:34.7±1.6, 8.21N×92.09E, mb3.8/5, mb1 4.0/6, mb1mx3.8/18, mbtmp3.9/6, ML4.4/1, Error ellipse: s-maj=56.3km s-min=22.0km az=61.0*

ISC 28 16:31:38.8±1.1**, 8.3N**±0.1×**92.4E**±0.2**, h33^{km}, n12, σ0^{s}38**/12**, mb4.0**/6**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.89	32	Pn	P	16 34 28.9	-0.1
	0.7nm,0.3s,baz=233,slow=14,SNR=19						
PKI	Pulchoki	20.25	342	*e*P	P	16 36 15.1	+0.9
	25nm,0.7s						
DMN	Daman	20.39	341	*e*P	P	16 36 15.6	+0.1
	12nm,0.4s						
GUN	Gumba	20.43	343	*e*P	P	16 36 16.1	+0.1
	20nm,0.7s						
KKN	Kakani	20.50	342	*e*P	P	16 36 16.3	-0.4
	9.6nm,0.5s						
GKN	Gorkha	20.90	340	*e*P	P	16 36 20.6	-0.3
	20nm,0.3s						
KOLN	Koldanda	21.06	338	*e*P	P	16 36 22.3	-0.2
	25nm,0.8s,mb4.6						
SONM	Songino Array	41.11	14	P	P	16 39 21.6	+0.3
	1.6nm,0.7s,mb3.7,baz=198,slow=8.6,SNR=17						
BVAR	Borovoye Array	48.02	342	P	P	16 40 16.3	-0.4
	1.2nm,0.7s,mb4.1,baz=146,slow=11,SNR=7.0						
WRA	Warramunga Arr	49.91	125	P	P	16 40 31.3	-0.4
	0.3nm,0.4s,mb3.7,baz=302,slow=8.9,SNR=11						
ASAR	Alice Springs	51.51	129	P	P	16 40 44.1	+0.4
	0.2nm,0.4s,mb3.4,baz=302,slow=7.9,SNR=5.8						
ARCES	ARCESS Array B	74.26	340	P	P	16 43 14.1	+0.1
	5.8nm,1.0s,mb4.5,baz=90,slow=8.1,SNR=5.0						

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*IDC **28** 16:34:02.9±0.6, 3.27N×94.54E, mb4.5/16, mb1 4.6/17, mb1mx4.4/23, mbtmp4.5/17, ML4.9/1, MS4.0/1, Ms1 4.0/1, ms1mx2.9/26, Error ellipse: s-maj=31.2km s-min=12.5km az=49.0*

*MOS **28** 16:34:05.4±0.9, 3.40N×94.64E, h33^{km}, mb5.0/10, Error ellipse: s-maj=32.7km s-min=12.9km az=107.1*

ISC 28 16:34:06.2±0.4**, 3.30N**±0.07×**94.67E**±0.07**, h33^{km}, n65, σ1^{s}04**/61**, mb4.7**/36**, MS4.0**/1**, 2C-3D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	7.06	57	P	P	16 35 51.0	+1.2
	160nm,0.9s						
CMAR	Chiang Mai Arr	15.63	15	Pn	P	16 37 47.0	+1.2
	1.8nm,0.3s,baz=208,slow=12,SNR=39						
UBT	Ubonrachathani	15.64	40	P	P	16 37 51.6	+5.6
HYB	Hyderabad	21.14	313	*e*P	P	16 38 51.0	+0.3
SHL	Shillong	22.30	353	*e*P	P	16 39 01.0	-1.3
PKI	Pulchoki	25.70	341	*e*P	P	16 39 35.2	-0.1
	24nm,0.5s,mb5.0						
DMN	Daman	25.84	340	*e*P	P	16 39 37.0	+0.4
	45nm,0.7s,mb5.1						
GUN	Gumba	25.87	342	*e*P	P	16 39 37.4	+0.6
	118nm,0.9s,mb5.4						
KKN	Kakani	25.95	341	*e*P	P	16 39 37.6	0.0
	61nm,0.7s,mb5.3						
GKN	Gorkha	26.36	340	*e*P	P	16 39 41.9	+0.5
	81nm,0.8s,mb5.3						
KOLN	Koldanda	26.53	338	*e*P	P	16 39 43.3	+0.4
	44nm,0.8s,mb5.0						
DDI	Dehra Dun	31.14	331	*e*	P	16 40 23.5	-0.7
NWAO	Narrogin (SRO)	41.89	151	P	P	16 41 56.2	+0.9
	6.6nm,0.5s,mb4.5,baz=321,slow=7.3,SNR=16						
KZA	Kyzart	42.34	338	P	P	16 42 00.2	+1.4
	SNR=8.8						
UCH	Uchtor	42.74	338	P	P	16 42 03.5	+1.3
	SNR=16						
TKM2	Tokmak 2	42.95	339	P	P	16 42 04.8	+0.9
	SNR=10						
KBK	Karagaybulak	42.95	339	P	P	16 42 05.7	+1.9
	SNR=16						
AML	Almayashu	42.98	337	P	P	16 42 05.3	+1.2
	SNR=22						
AAK	Ala-Archa	43.10	338	P	P	16 42 07.3	+2.3
	SNR=6.7						
AAK	Ala-Archa	43.10	338	⇑*i*P	P	16 42 03.2	-1.9
AAK				pmax	pmax		
	comp=Z,16nm,1.7s,mb4.5						
EKS2	Erkin-Say	43.40	337	P	P	16 42 08.7	+1.2
	SNR=12						
USP	Ospenovka	43.65	339	P	P	16 42 10.2	+0.7
	SNR=23						
MKAR	Makanchi Array	44.64	348	*i* P	P	16 42 17.9	+0.5
MKAR				pmax	pmax		
	comp=Z,19nm,0.9s						
WRA	Warramunga Arr	45.28	122	P	P	16 42 22.9	0.0
	comp=Z,7.8nm,0.5s,mb4.8,baz=300,slow=9.0,SNR=69						
WRAB	Tennant Creek	45.29	122	*e*P	P	16 42 23.2	+0.2
SONM	Songino Array	45.50	11	P	P	16 42 24.6	+0.3
	comp=Z,4.0nm,0.6s,mb4.5,baz=190,slow=8.8,SNR=38						
SONM				PcP	PcP	16 44 03.6	+0.4
	comp=Z,1.4nm,0.6s,baz=194,slow=2.6,SNR=3.7						
ASAR	Alice Springs	46.67	127	P	P	16 42 33.9	0.0
	comp=Z,5.4nm,0.5s,mb4.7,baz=295,slow=7.8,SNR=75						
ASAR				PcP	PcP	16 44 07.8	+0.2
	comp=Z,1.6nm,0.6s,baz=300,slow=3.7,SNR=7.3						
ZAK	Zakamensk	47.47	7	⇓*i*P	P	16 42 38.3	-1.5
RDF	Al-Radifah	51.46	305	*e*P	P	16 43 11.8	+1.0
RDF				AMb	AMB	16 43 21.1	
	comp=Z,103nm,1.6s,mb5.5						
UMR	Umm Al-Rimmam	51.55	306	*e*P	P	16 43 12.0	+0.6
UMR				AMb	AMB	16 43 13.0	
	comp=Z,45nm,0.5s,mb5.7						
RST	Umm Al-Ruwaisa	52.12	305	*e*P	P	16 43 16.1	+0.5
RST				AMb	AMB	16 43 27.6	
	comp=Z,49nm,1.3s,mb5.3						
BVA0	Borovoye Array	53.47	342	*i* P	P	16 43 24.9	-0.5
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.8						
BVAR	Borovoye Array	53.47	342	P	P	16 43 24.8	-0.6
	comp=Z,7.9nm,0.7s,mb4.8,baz=143,slow=7.4,SNR=49						
CHKZ	Chkalovo	53.96	343	*i* P	P	16 43 28.4	-0.6
CHKZ				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
CTA	Charters Tower	55.70	117	P	P	16 43 42.0	0.0
	comp=Z,2.6nm,0.7s,mb4.4,baz=287,slow=9.4,SNR=5.5						
BOD	Bodaibo	56.46	12	*e*P	P	16 43 45.2	-1.8
STKA	Stephens Creek	56.63	132	P	P	16 43 48.6	0.0
	comp=Z,3.5nm,0.5s,mb4.6,baz=307,slow=6.8,SNR=13						
GNI	Garni	58.04	316	LR	LR	17 11 42.4	
	comp=Z,128nm,19.7s,MS4.0,baz=12,slow=39						
ASAJ	Asahikawa	58.56	39	P	P	16 44 03.0	+0.9
	comp=Z,10nm,0.8s,mb4.9,baz=304,slow=16,SNR=4.6						
ZEI	Tsey	59.76	319	*e*P	P	16 44 09.2	-1.2
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
YSS	Yuzh-Sakhalins	60.09	36	*e*P	P	16 44 07.6	-5.0
ARU	Arti	60.29	338	⇓*i*P	P	16 44 10.5	-3.3
ARU				*e*		16 44 51.9	
ARU				*e*S	S	16 52 23.7	-0.3
ARU				*e*		16 53 57.6	
ARU				*e*SS	SS	16 56 24.5	+1.8
ARU				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
KIV	Kislovodsk	61.08	319	*e*P	P	16 44 16.9	-2.5
KIV				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.8						
EIL	Elat	62.21	302	P	P	16 44 27.4	+0.3
	comp=Z,4.1nm,0.8s,mb4.6,baz=54,slow=8.7,SNR=4.5						
YAK	Yakutsk	64.15	17	*e*P	P	16 44 37.7	-1.7
YAK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
BRTR	Keskin Array B	65.84	312	P	P	16 44 50.0	-0.8
	comp=Z,2.3nm,0.9s,mb4.2,baz=121,slow=7.2,SNR=13						
MOS	Moscow	69.25	330	*e*P	P	16 45 10.4	-1.4
MOS				*e*	pP	16 45 20.6	-1.5
OBN	Obninsk	69.52	329	⇑*i*P	P	16 45 12.3	-1.1
OBN				*i*		16 45 25.2	
OBN				pmax	pmax		
	comp=Z,34nm,1.7s,mb5.0						
TIXI	Tiksi	71.59	11	⇓*i*P	P	16 45 23.7	-2.0
TIXI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
AKASG	Malin Array Be	72.06	323	P	P	16 45 27.6	-1.3
	comp=Z,2.4nm,0.7s,mb4.2,baz=91,slow=5.2,SNR=14						
FINES	FINESS Array B	76.98	333	P	P	16 45 56.9	-0.3
	comp=Z,2.5nm,0.6s,mb4.3,baz=93,slow=5.2,SNR=13						
KAF	Kangasniemi	77.08	333	*e*p	P	16 45 56.8	-0.9
	comp=Z,0.5nm,0.4s,mb3.8						
KAF	Kangasniemi	77.08	333	*e*P	P	16 45 56.8	-0.9
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
ARCES	ARCESS Array B	79.72	340	P	P	16 46 12.4	+0.4
	comp=Z,6.2nm,1.0s,mb4.5,baz=98,slow=6.0,SNR=11						
BILL	Bilibino	80.12	21	*e*P	P	16 46 12.6	-1.6
BILL				pmax	pmax		
	comp=Z,8.0nm,1.9s,mb4.3						
PRU	Pruhonice	81.13	320	*e*P	P	16 46 24.0	+4.1
GERES	GERESS Array B	81.58	319	P	P	16 46 23.0	+0.8
	comp=Z,2.7nm,0.8s,mb4.2,baz=90,slow=5.3,SNR=16						
KHC	Kasperske Hory	81.68	319	*e*P	P	16 46 24.0	+1.2
KHC				*e*x	x	16 46 34.5	
NB2	NORSAR Subarra	83.95	331	P	P	16 46 33.8	-0.3
	comp=Z,2.2nm,0.8s,mb4.3,baz=93,slow=5.6						
NOA	NORSAR Array B	83.95	331	P	P	16 46 33.9	-0.2
	comp=Z,1.5nm,0.9s,mb4.1,baz=132,slow=3.5,SNR=2.9						
DAVOX	Davos	84.04	317	P	P	16 46 35.6	+0.7
	comp=Z,3.7nm,0.7s,mb4.6,baz=126,slow=18,SNR=3.6						
PPT	Papeete	115.53	108	*e*LR	LR	16 49 15.8	
	comp=Z,401nm,23.0s,baz=281						
RKT	Rikitea	128.13	117	*e*LR	LR	16 55 59.5	
	comp=Z,352nm,25.8s						
PDAR	Pinedale Array	129.18	23	PKP	PKPdf	16 53 13.5	+1.9
	comp=Z,0.4nm,0.7s,baz=56,slow=5.3,SNR=3.9						
TXAR	Lajitas Array	143.09	27	PKP	PKPdf	16 53 37.5	+0.1
	comp=Z,0.6nm,0.8s,baz=271,slow=2.2,SNR=5.2						

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*IDC **28** 16:37:00.4±1.2, 58.78S×25.93W, mb4.2/2, mb1 4.1/3, mb1mx3.6/14, mbtmp4.0/3, ML3.7/1, Error ellipse: s-maj=78.9km s-min=39.2km az=80.0*

ISC 28 16:36:59.0±2.4**, 58.6S**±0.2×**2 7W**± **, h10^{km}, n12, σ1^{s}09**/8**, mb4.0**/2**, 2C, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA1	Neumayer--Stat	14.45	154		P	16 40 26.0	+0.8
VNA3	Neumayer Olymp	14.60	157	⇑*i*	P	16 40 27.8	+0.7
VNA2	Neumayer--Watz	14.85	154		P	16 40 31.0	+0.6
SNAA	Sanae	16.43	152	⇑*i*	P	16 40 48.4	-2.5
SNAA	Sanae	16.43	152	Pn	P	16 40 48.1	-2.8
	0.3nm,0.3s,baz=324,slow=15,SNR=17						
SNAA				Sn	S	16 43 27.7	-25
	0.1nm,0.3s,baz=335,slow=19,SNR=2.8						
DBIC	Dimbokro	67.53	24	P	P	16 47 57.7	+0.2
	0.8nm,0.5s,mb4.0,baz=186,slow=6.6,SNR=3.4						
ASAR	Alice Springs	96.54	163	P	P	16 50 29.4	-0.3
	0.4nm,0.6s,mb4.0,baz=179,slow=4.1,SNR=5.0						
FINES	FINESS Array B	126.67	29	PKP	PKPdf	16 56 02.9	-1.5
	1.6nm,0.9s,baz=146,slow=5.0,SNR=5.0						
BVAR	Borovoye Array	136.16	60	PKP	PKPdf	16 56 22.2	-0.4
	0.4nm,0.5s,baz=162,slow=4.6,SNR=3.7						
YKA	Yellowknife Ar	138.03	316	PKP	PKPdf	16 56 26.6	+0.8
	1.6nm,0.5s,baz=129,slow=2.2,SNR=42						
SONM	Songino Array	150.82	91	PKPbc	PKPdf	16 56 51.2	+3.4
	0.3nm,0.4s,baz=218,slow=4.3,SNR=5.2						
ILAR	Eielson Array	151.74	308	PKPbc	PKPdf	16 56 56.9	+8.2
	1.5nm,0.9s,baz=143,slow=3.1,SNR=13						

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*IDC **28** 16:39:21.2±1.2, 10.72N×91.96E, mb4.0/7, mb1 4.2/8, mb1mx3.9/18, mbtmp3.9/8, ML3.6/1, MS4.0/1, Ms1 4.0/1, ms1mx2.9/30, Error ellipse: s-maj=45.5km s-min=19.1km az=61.0*

ISC 28 16:39:24.4±0.8**, 10.7N**±0.1×**92.0E**±0.1**, h33^{km}, n10, σ0^{s}35**/11**, mb4.0**/7**, MS4.0**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.17	40	Pn	P	16 41 50.9	-0.3
	0.1nm,0.3s,baz=233,slow=14,SNR=5.2						
HYB	Hyderabad	14.66	298	*e*P	P	16 42 38.0	-13
HYB				*e*S	S	16 45 24.0	-10
POO	Poona	19.21	296	*e*P	P	16 43 48.0	-0.5
SONM	Songino Array	38.90	15	P	P	16 46 48.7	+0.3
	0.6nm,0.5s,mb3.6,baz=208,slow=8.1,SNR=8.7						
SONM				LR	LR	17 06 08.3	
	comp=Z,188nm,18.3s,MS4.0,baz=147,slow=41						
BVAR	Borovoye Array	45.63	342	P	P	16 47 43.6	+0.2
	0.9nm,0.8s,mb3.7,baz=131,slow=15,SNR=4.4						
WRA	Warramunga Arr	51.61	126	P	P	16 48 29.7	-0.4
	2.0nm,0.6s,mb4.3,baz=306,slow=8.2,SNR=26						
ASAR	Alice Springs	53.34	130	P	P	16 48 42.8	-0.2
	1.7nm,0.6s,mb4.2,baz=305,slow=7.0,SNR=17						
STKA	Stephens Creek	63.57	134	P	P	16 49 54.9	+0.5
	2.5nm,0.6s,mb4.4,baz=298,slow=7.0,SNR=8.3						
GERES	GERESS Array B	74.32	318	P	P	16 51 00.7	+0.4
	1.0nm,1.0s,mb3.7,baz=63,slow=6.0,SNR=5.0						
ILAR	Eielson Array	92.87	22	P	P	16 52 34.8	0.0
	0.5nm,0.8s,mb4.0,baz=296,slow=4.3,SNR=5.2						

IDC 28 16:41:51.5±1.4**, 6.06N×92.79E, mb3.7**/4**, mb1 4.0**/5**, mb1mx3.8**/17**, mbtmp3.7**/5**, ML3.7**/1**, Error ellipse: s-maj=47.4km s-min=28.8km az=43.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.71	25	Pn	P	16 45 08.8	-1.0
	0.1nm,0.3s,baz=230,slow=13,SNR=11						
SONM	Songino Array	43.22	13	P	P	16 49 53.8	-2.3
	0.7nm,0.8s,baz=198,slow=7.8,SNR=3.8						
WRA	Warramunga Arr	48.35	123	P	P	16 50 35.4	-1.9
	1.2nm,0.8s,baz=301,slow=9.4,SNR=6.5						
BRTR	Keskin Array B	62.61	312	P	P	16 52 17.9	-2.1
	0.7nm,0.8s,baz=114,slow=5.0,SNR=3.4						
GERES	GERESS Array B	78.28	319	P	P	16 53 53.9	-1.1
	0.6nm,0.7s,baz=104,slow=5.5,SNR=4.9						

IDC 28 16:48:29.3±17.0**, 17.23S×179.39W, h666^{km}**±232^{km}**, mb3.1**/5**, mb1 3.3**/5**, mb1mx3.0**/15**, mbtmp4.2**/5**, Error ellipse: s-maj=104.2km s-min=80.1km az=113.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	32.64	260	P	P	16 54 10.2	-1.4
	2.4nm,0.8s,baz=96,slow=8.2,SNR=4.7						
STKA	Stephens Creek	38.14	240	P	P	16 54 55.1	-1.5
	2.1nm,0.4s,baz=94,slow=8.8,SNR=23						
WRA	Warramunga Arr	43.84	259	P	P	16 55 39.8	-2.0
	1.5nm,0.7s,baz=95,slow=7.9,SNR=36						
ASAR	Alice Springs	44.08	254	P	P	16 55 42.2	-1.4
	10nm,0.6s,baz=89,slow=7.8,SNR=268						
ILAR	Eielson Array	85.45	13	P	P	16 59 58.4	-1.3
	0.1nm,0.3s,baz=225,slow=5.5,SNR=8.6						

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*IDC **28** 16:51:40.6±0.9, 6.18N×92.89E, mb3.9/8, mb1 4.0/9, mb1mx3.9/18, mbtmp3.9/9, ML4.6/1, MS3.2/1, Ms1 3.4/1, ms1mx2.8/29, Error ellipse: s-maj=32.5km s-min=20.1km az=47.0*

ISC 28 16:51:43.7±0.8**, 6.1N**±0.1×**93.0E**±0.1**, h33^{km}, n17, σ0^{s}91**/15**, mb4.2**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.57	25	Pn	P	16 54 56.1	-0.3
	0.9nm,0.3s,baz=231,slow=14,SNR=30						
CMAR				LR	LR	17 00 36.9	
	comp=Z,88nm,18.0s,baz=34,slow=40						
PKI	Pulchoki	22.49	342	*e*P	P	16 56 42.7	+1.0
DMN	Daman	22.62	342	*e*P	P	16 56 43.1	0.0
	32nm,0.7s,mb4.8						
GUN	Gumba	22.68	344	*e*P	P	16 56 43.3	-0.3
	21nm,0.6s,mb4.8						
KKN	Kakani	22.74	342	*e*P	P	16 56 45.0	+0.8
	17nm,0.7s,mb4.6						
GKN	Gorkha	23.14	341	*e*P	P	16 56 48.7	+0.5
	18nm,0.5s,mb4.8						
KOLN	Koldanda	23.28	339	*e*P	P	16 56 50.0	+0.5
	26nm,0.7s,mb4.8						
SONM	Songino Array	43.11	13	P	P	16 59 42.2	-0.4
	0.8nm,0.6s,mb3.6,baz=196,slow=8.9,SNR=11						
SONM				PcP	PcP	17 01 32.4	-0.2
	0.6nm,0.6s,baz=198,slow=4.8,SNR=4.2						
WRA	Warramunga Arr	48.25	124	P	P	17 00 23.8	0.0
	1.6nm,1.1s,mb4.0,baz=305,slow=8.6,SNR=9.5						
ASAR	Alice Springs	49.74	128	P	P	17 00 35.6	+0.3
	1.0nm,0.6s,mb4.0,baz=298,slow=8.0,SNR=15						
BVAR	Borovoye Array	50.26	342	P	P	17 00 36.9	-2.0
	1.3nm,1.0s,mb3.9,baz=153,slow=9.9,SNR=3.5						
KMBO	Kilima Mbogo	56.08	265	P	P	17 01 22.6	+0.1
	0.7nm,0.4s,mb4.0,baz=96,slow=9.2,SNR=4.0						
BRTR	Keskin Array B	62.69	312	P	P	17 02 05.8	-2.0
	0.7nm,0.6s,mb4.0,baz=121,slow=7.2,SNR=3.9						
FINES	FINESS Array B	73.70	333	P	P	17 03 17.6	+1.7
	2.7nm,0.8s,mb4.2,baz=252,slow=6.0,SNR=4.2						
GERES	GERESS Array B	78.34	318	P	P	17 03 42.2	-0.2
	0.7nm,0.8s,mb3.7,baz=90,slow=4.0,SNR=4.9						
PDAR	Pinedale Array	127.20	21	PKP	PKPdf	17 10 47.5	+2.2
	0.3nm,0.7s,baz=45,slow=1.3,SNR=3.1						
TXAR	Lajitas Array	141.28	24	PKP	PKPdf	17 11 17.4	+5.5
	0.2nm,0.4s,baz=180,slow=0.9,SNR=2.6						

IDC 28 16:55:54.5±1.5**, 13.50N×93.08E, mb3.6**/3**, mb1 3.8**/4**, mb1mx3.6**/17**, mbtmp3.5**/4**, ML3.3**/1**, Error ellipse: s-maj=38.4km s-min=30.3km az=54.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.49	48	Pn	Pn	16 57 46.1	-1.6
	0.1nm,0.3s,baz=241,slow=15,SNR=5.4						
CMAR				Sn	Sn	16 59 10.2	-4.2
	0.1nm,0.3s,baz=240,slow=27,SNR=5.1						
WRA	Warramunga Arr	52.46	129	P	P	17 05 08.7	-2.9
	0.8nm,0.8s,baz=301,slow=10,SNR=5.0						
ASAR	Alice Springs	54.39	132	P	P	17 05 23.9	-1.9
	0.3nm,0.5s,baz=308,slow=7.0,SNR=6.2						
GERES	GERESS Array B	72.99	317	P	P	17 07 26.6	-1.3
	0.2nm,0.3s,baz=90,slow=5.3,SNR=3.8						

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*NEIC **28** 16:58:02.9, 19.57N×68.20W, h23^{km}, MD3.9(RSPR), After RSPR.*

RSPR 28 16:58:02.9, 19.57N×68.20W, h23^{km}±41^{km}**, MD3.9**/11**, MD3.9**/11**, 12C-1D, North Atlantic Ocean**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MPR	Mayaguez	1.69	143	*e*S	Sn	16 58 48.5	-4.0
MPR	Mayaguez	1.69	143	⇑*e*P	Pn	16 58 29.3	-2.2
MPR				*e*S	Sn	16 58 48.5	-4.0
LSP	Las Mesas	1.74	142	⇑*e*P	Pn	16 58 30.1	-2.2
MGP	Maguayo	1.88	146	⇑*e*P	Pn	16 58 31.2	-3.1
MGP				*e*S	Sn	16 58 53.7	-3.8
MGP	Maguayo	1.88	146	⇑*e*P	Pn	16 58 31.5	-2.7
MGP	Maguayo	1.88	146	*e*S	Sn	16 58 53.8	-3.7
MGP	Maguayo	1.88	146	⇑*e*P	Pn	16 58 31.5	-2.7
MGP				*e*S	Sn	16 58 53.8	-3.7
PORP	Portuguez	2.12	135	⇑*e*P	Pn	16 58 35.6	-2.1
PORP				*e*S	Sn	16 58 59.8	-3.7
CELP	Cerrillos	2.14	134	⇑*e*P	Pn	16 58 35.4	-2.5
CSB	Colonia Sabana	2.32	123	⇑*e*P	Pn	16 58 36.8	-3.7
SJG	San Juan	2.43	126	*e*S	Sn	16 59 08.3	-3.1
SJG	San Juan	2.43	126	⇑*e*P	Pn	16 58 39.1	-3.0
SJG				*e*S	Sn	16 59 06.8	-4.6
SJG	San Juan	2.43	126	⇑*e*P	Pn	16 58 39.3	-2.7
SJG				*e*S	Sn	16 59 08.3	-3.1
CBYP	Canovanas	2.57	120	*e*S	Sn	16 59 10.4	-4.6
CBYP	Canovanas	2.57	120	⇑*e*P	Pn	16 58 40.8	-3.3
CBYP				*e*S	Sn	16 59 10.4	-4.6
CPD	Cerro la Pandu	2.65	125	*e*S	Sn	16 59 13.9	-3.1
CPD	Cerro la Pandu	2.65	125	⇑*e*P	Pn	16 58 43.0	-2.2
CPD				*e*S	Sn	16 59 13.9	-3.1
MTP	Monte Pirata	2.91	120	*e*S	Sn	16 59 20.1	-3.4
MTP	Monte Pirata	2.91	120	⇓*e*P	Pn	16 58 45.2	-3.7
MTP				*e*S	Sn	16 59 20.1	-3.4
SDV	Santo Domingo	10.88	193	*e*P	P	17 00 37.4	-3.2

IDC 28 17:00:23.0±2.0**, 5.85N×91.75E, mb3.7**/4**, mb1 3.9**/5**, mb1mx3.6**/17**, mbtmp3.7**/5**, ML4.0**/1**, Error ellipse: s-maj=66.9km s-min=26.5km az=62.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.36	29	Pn	P	17 03 47.4	-2.6
	0.2nm,0.3s,baz=234,slow=14,SNR=9.9						
SONM	Songino Array	43.67	14	P	P	17 08 30.0	-1.2
	0.7nm,0.8s,baz=205,slow=8.4,SNR=5.4						
WRA	Warramunga Arr	49.10	123	P	P	17 09 12.0	-2.6
	1.0nm,0.9s,baz=302,slow=9.0,SNR=3.5						
ASAR	Alice Springs	50.52	127	P	P	17 09 24.1	-1.3
	0.6nm,0.8s,baz=309,slow=6.9,SNR=5.3						
FINES	FINESS Array B	73.39	333	P	P	17 11 56.5	-2.1

1.0nm,0.8s,baz=80,slow=8.5,SNR=3.9

IDC 28 17:07:59.0±1.8**, 5.23N×94.51E, mb3.5**/4**, mb1 3.8**/4**,**
mb1mx3.6/16**, mbtmp3.5**/4**, Error ellipse: s-maj=73.6km**
s-min=26.8km az=56.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.84**	**18**	Pn	P	17 11 23.0	+4.0
	0.3nm,0.3s,baz=208,slow=14,SNR=11						
SONM	**Songino Array**	**43.65**	**12**	P	P	17 16 05.3	-1.8
	0.2nm,0.3s,baz=192,slow=9.2,SNR=3.5						
WRA	**Warramunga Arr**	**46.46**	**124**	P	P	17 16 28.3	-1.6
	1.0nm,0.6s,baz=301,slow=9.5,SNR=9.3						
ASAR	**Alice Springs**	**47.97**	**128**	P	P	17 16 39.6	-2.1
	0.2nm,0.5s,baz=296,slow=7.6,SNR=5.0						
GERES	**GERESS Array B**	**80.03**	**319**	P	P	17 20 10.7	-1.3
	0.5nm,0.8s,baz=90,slow=6.7,SNR=3.8						

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*IDC **28** 17:11:12.3±3.4, 9.92N×93.88E, h19^{km}±20^{km}, mb5.0/30,*
mb1 5.0/30, mb1mx5.0/30, mbtmp5.0/30, MS4.9/23,
Ms1 4.9/23, ms1mx4.7/30, Error ellipse: s-maj=17.7km
s-min=9.5km az=44.0
*BJI **28** 17:11:14.9, 9.89N×93.59E, h57^{km}, mB5.7, mb5.2, Ms5.4,*
Msz5.1
*MOS **28** 17:11:15.1±1.3, 10.18N×93.50E, h33^{km}, mb5.7/48,*
MS4.9/23, Error ellipse: s-maj=11.4km s-min=5.8km
az=113.6
*CSEM **28** 17:11:16.8, 10.61N×93.77E, h33^{km}, mb5.6*
*SYO **28** 17:11:16.2, 9.93N×93.83E, h47^{km}, MB5.4, MS5.0*
*NEIC **28** 17:11:16.6±1.9, 9.94N×93.80E, h52^{km}±16^{km}, mb5.4/59,*
MS5.1/89, Error ellipse: s-maj=9.8km s-min=7.2km
az=222.0
*HRVD **28** 17:11:16.6±0.2, 9.90N×93.99E, h14^{km}±1^{km}, MW5.3/67,*
Centroid moment Tensor Solution. LP body waves:
s50,c80;Mantle waves: s67,c120; Half duration: 1^{s}1
Moment tensor: Scale 10^{17}Nm; M_{rr}-0.07±.02;
$M_{\theta\theta}$-0.97±.03; $M_{\phi\phi}$1.04±.03; $M_{r\theta}$0.05±.05; $M_{\theta\phi}$0.65±.02;
$M_{\phi r}$0.07±.05; Best double couple: $M_0$1.2×10^{17} NP1:ϕ_s331°,
δ87°, λ179°. NP2:ϕ_s62°, δ89°, λ3°. Principal axes: T 1.24,
Plg3°, Azm287°; N -.08, Plg86°, Azm82°; P -1.16, Plg2°,
Azm196°; nsta1 refers to body waves, cutoff=40s. nsta2
refers to surface waves, cutoff=50s.
ISC 28 17:11:13.8±0.2**, 9.89N**±0.03×**93.78E**±0.03**, h41**^{km}**,**
h41^{km}±2.6^{km}**:pP-P, n475,** σ1^{s}**18**/407**, mb5.3**/117**, MS5.0**/129**,**
25C-15D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**8.45**	**47**	P	**P**	**17 13 14.0**	**-2.5**
CM31	**Chiang Mai Arr**	**9.88**	**30**	⇑*e*P	**P**	**17 13 35.7**	**-0.6**
CMAR	**Chiang Mai Arr**	**9.88**	**30**	Pn	**P**	**17 13 35.4**	**-0.9**
	0.7nm,0.3s,baz=218,slow=15,SNR=70						
CMAR				LR	LR	17 17 27.9	
	comp=Z,4μm,18.0s,baz=215,slow=38						
CHG	**Chiang Mai**	**10.18**	**29**	⇓P	**P**	**17 13 40.3**	**-0.2**
	92nm,1.0s						
CHG				S	**S**	**17 15 47.9**	**+13**
KKTK	**Khon Kaen**	**10.89**	**53**	P	**P**	**17 13 44.0**	**-6.2**
	432nm,0.7s						
NANT	**Nan**	**11.11**	**36**	P	**P**	**17 13 54.0**	**+0.9**
UBT	**Ubonrachathani**	**12.19**	**63**	P	**P**	**17 14 05.0**	**-2.7**
VIS	**Vishakhapatnam**	**12.78**	**309**	*e*P	**P**	**17 14 12.0**	**-3.6**
VIS				*e*S	**S**	**17 16 19.1**	**-18**
MDRS	**Chennai**	**13.63**	**285**	*e*P	**P**	**17 14 23.8**	**-3.1**
AGT	**Agartala**	**14.12**	**350**	⇑*i*P	**P**	**17 14 32.0**	**-1.3**
SHL	**Shillong**	**15.69**	**354**	*e*P	**P**	**17 14 55.4**	**+1.7**
SHL				*e*		17 14 57.1	
	comp=Z,287nm,1.2s						
SHL				*e*S	**S**	**17 17 47.8**	**+1.4**
BOK	**Bokaro**	**15.74**	**332**	*e*P	**P**	**17 14 53.9**	**-0.5**
BOK				*e*		17 15 01.7	
	comp=Z,161nm,0.9s						
KOD	**Kodaikanal**	**16.07**	**273**	⇑*i*P	**P**	**17 14 56.4**	**-2.0**
BLSP	**Bilaspur**	**16.52**	**319**	*e*P	**P**	**17 15 03.4**	**-0.7**
BLSP				*e*S	**S**	**17 18 03.0**	**-2.5**
BLSP				*e*		17 21 49.4	
	comp=Z,2μm,18.7s						
HYB	**Hyderabad**	**16.57**	**298**	*i* P	**P**	**17 15 04.5**	**-0.3**
	comp=Z,180nm,1.0s						
HYB				*e*		17 18 01.0	
HYB				*e*S	**S**	**17 18 12.0**	**+5.3**
HYB				LR	LR	17 20 32.0	
	comp=Z,5.4nm,24.0s						
TRD	**Trivandrum**	**16.66**	**267**	*e*P	**P**	**17 15 06.1**	**+0.1**
TRD				*e*		17 15 53.5	
	comp=Z,64nm,1.2s						
TRD				*e*S	**S**	**17 18 07.6**	**-1.2**
TRD				*e*		17 21 25.7	
	comp=Z,4μm,15.0s						
KMI	**Kunming**	**17.38**	**28**	⇑P	**P**	**17 15 18.3**	**+3.3**
KMI				AP		17 15 26.3	
KMI				XP		17 15 31.0	
KMI				PP	PP	17 15 33.5	+3.9
KMI				AMB	AMB		
	comp=Z,117nm,1.7s						
KMI				AMB	AMB		
	comp=Z,2μm,4.5s						
KMI				LR	LR		
	comp=N,7μm,12.0s						
KMI				LR	LR		
	comp=E,4μm,16.9s						
KMI				LR	LR		
	comp=Z,7μm,12.4s						
QIZ	**Qiongzhong**	**18.00**	**58**	*i* PR		17 15 24.5	
QIZ				AP		17 15 33.8	
QIZ				S	**S**	**17 18 42.8**	**+3.6**
QIZ				AMB	AMB		
	comp=Z,78nm,1.2s						
QIZ				LR	LR		
	comp=N,11μm,16.0s						
QIZ				LR	LR		
	comp=Z,5μm,14.7s						
NGP	**Nagpur**	**18.05**	**310**	⇑*e*P	**P**	**17 15 23.4**	**0.0**
NGP				*e*S	**S**	**17 18 39.0**	**-1.4**
MNGI	**Mangalore**	**18.82**	**281**	*e*P	**P**	**17 15 33.6**	**+0.7**
ALBI	**Allahabad**	**19.09**	**325**	*e*P	**P**	**17 15 34.5**	**-1.3**
PKI	**Pulchoki**	**19.27**	**337**	*e*P	**P**	**17 15 37.5**	**-0.4**
	comp=Z,908nm,1.4s						
AKL	**Akola**	**19.39**	**306**	*e*P	**P**	**17 15 42.2**	**+3.0**
AKL				*e*		17 15 55.4	
	comp=Z,289nm,1.3s						
AKL				*e*S	**S**	**17 19 17.5**	**+6.9**
GUN	**Gumba**	**19.41**	**339**	*e*P	**P**	**17 15 39.0**	**-0.3**
	comp=Z,1μm,1.3s						
DMN	**Daman**	**19.43**	**336**	*e*P	**P**	**17 15 38.9**	**-0.7**
	comp=Z,477nm,1.3s						
KKN	**Kakani**	**19.52**	**337**	*e*P	**P**	**17 15 40.0**	**-0.6**
	comp=Z,675nm,1.2s						
LSA	**Lhasa**	**19.86**	**353**	⇑*e*P	**P**	**17 15 42.8**	**-1.5**
LSA				pmax	pmax		
	comp=Z,260nm,1.1s						
LSA	**Lhasa**	**19.86**	**353**	⇑*e*P	**P**	**17 15 42.8**	**-1.4**
	comp=Z,258nm,1.2s						
GKN	**Gorkha**	**19.96**	**336**	*e*P	**P**	**17 15 44.4**	**-1.0**
	comp=Z,941nm,1.2s						
KOLN	**Koldanda**	**20.20**	**333**	*e*P	**P**	**17 15 47.8**	**-0.1**
	comp=Z,694nm,1.3s						
GOA	**Goa**	**20.24**	**288**	*e*P	**P**	**17 15 54.7**	**+6.4**
GOA				*e*		17 15 58.5	
	comp=Z,315nm,1.9s						
GOA				*e*S	**S**	**17 19 39.0**	**+11**
KAD	**Karad**	**20.41**	**293**	*e*P	**P**	**17 15 49.8**	**-0.3**
KAD				*e*S	**S**	**17 19 34.8**	**+3.3**
KAD				*e*		17 24 12.3	
	comp=Z,4μm,21.2s						
GYA	**Guiyang**	**20.50**	**35**	⇑*i*P	**P**	**17 15 51.3**	**+0.3**
GYA				AMB	AMB		
	comp=Z,340nm,1.1s						
GYA				AMB	AMB		
	comp=Z,1μm,6.2s						
GYA				LR	LR		
	comp=N,5μm,14.9s,MS5.2						
GYA				LR	LR		
	comp=E,5μm,13.2s,MS5.2						
GYA				LR	LR		
	comp=Z,7μm,14.4s,MS5.1						
BHPL	**Bhopal**	**20.51**	**312**	*e*P	**P**	**17 15 51.5**	**+0.4**
BHPL				*e*		17 24 01.7	
	comp=Z,4μm,20.0s						
POO	**Poona**	**21.12**	**296**	*e*P	**P**	**17 15 58.5**	**+1.1**
POO				*e*		17 16 02.6	
	comp=Z,312nm,1.5s						
POO				*e*S	**S**	**17 19 50.0**	**+4.8**
POO				*e*		17 24 02.9	
	comp=Z,2μm,21.2s						
COCO	**West Island**	**22.15**	**172**	*e*P	**P**	**17 16 08.8**	**+1.2**
	comp=Z,406nm,1.1s,mb5.8						
COCO				LR	LR		
	comp=Z,738nm,19.0s,MS4.1						
BOM	**Bombay**	**22.17**	**296**	⇑*i*P	**P**	**17 16 09.3**	**+1.4**
BOM				*e*		17 20 16.9	
GZH	**Guangzhou**	**22.85**	**53**	P	**P**	**17 16 15.8**	**+1.1**
GZH				LR	LR		
	comp=N,5μm,12.9s,MS5.2						
GZH				LR	LR		
	comp=E,5μm,13.3s,MS5.2						
GZH				LR	LR		
	comp=Z,6μm,13.9s,MS5.2						
CD2	**Chengdu**	**22.88**	**23**	⇓*i*P	**P**	**17 16 15.8**	**+0.9**
CD2				S	**S**	**17 20 24.8**	**+7.4**
CD2				XS		17 20 35.8	
CD2				AMB	AMB		
	comp=Z,190nm,1.1s,mb5.4						
CD2				AMB	AMB		
	comp=Z,1μm,3.8s						
CD2				LR	LR		
	comp=E,8μm,10.8s						
CD2				LR	LR		
	comp=Z,5μm,10.2s,MS5.3						
PTH	**Pithoragarh**	**23.31**	**329**	*e*P	**P**	**17 16 20.2**	**+1.1**
NDI	**New Delhi**	**24.31**	**323**	*e*P	**P**	**17 16 29.4**	**+0.6**
NDI				*e*		17 16 34.5	
	comp=Z,221nm,1.5s						
AJM	**Ajmer**	**24.49**	**315**	*e*P	**P**	**17 16 31.7**	**+1.1**
AJM				*e*S	**S**	**17 20 50.6**	**+5.2**
AJM				*e*		17 26 35.7	
	comp=Z,3μm,16.2s						
ENH	**Enshi**	**25.02**	**34**	⇑*e*P	**P**	**17 16 35.8**	**+0.2**
	comp=Z,224nm,1.2s,mb5.6						
ENH				LR	LR		
	comp=Z,4μm,19.0s,MS4.9						
DDI	**Dehra Dun**	**25.06**	**326**	*e*P	**P**	**17 16 36.0**	**-0.1**
DDI				*e*S	**S**	**17 21 03.6**	**+8.6**
SDNR	**Sundarnagar**	**26.56**	**326**	*e*P	**P**	**17 16 50.8**	**+0.8**
BHJ	**Bhuj**	**26.61**	**303**	*e*P	**P**	**17 16 52.1**	**+1.6**
BHJ				*e*		17 17 11.8	
	comp=Z,110nm,1.7s						
TGY	**Tagaytay City**	**26.88**	**78**	P	**P**	**17 16 50.0**	**-3.1**
	comp=Z,33nm,0.3s,mb5.3,baz=118,slow=17,SNR=2.4						
DGAR	**Diego Garcia**	**27.32**	**232**	PFAKE		17 17 10.0	+13
DGAR				LR	LR		
	comp=Z,391nm,19.0s,MS4.0						
LZH	**Lanzhou**	**27.64**	**18**	⇑*i*P	**P**	**17 17 00.5**	**+0.7**
LZH				AP	pP	17 17 12.3	+1.6
LZH				XP	sP	17 17 18.3	+2.5
LZH				PP	PP	17 17 51.0	+2.2
LZH				S	**S**	**17 21 40.3**	**+3.3**
LZH				XS		17 22 01.0	
LZH				AMB	AMB		
	comp=Z,90nm,1.4s,mb5.2						
LZH				AMB	AMB		
	comp=Z,450nm,4.2s						
LZH				LR	LR		
	comp=N,10μm,15.6s						
LZH				LR	LR		
	comp=Z,11μm,16.0s,MS5.5						
XAN	**Xi'an**	**27.76**	**28**	P	**P**	**17 17 00.0**	**-1.0**
XAN				S	**S**	**17 21 40.5**	**+1.4**
XAN				AMB	AMB		
	comp=Z,88nm,1.1s,mb5.3						
XAN				LR	LR		
	comp=N,2μm,14.8s,MS5.1						
XAN				LR	LR		
	comp=E,3μm,14.8s,MS5.1						
XAN				LR	LR		
	comp=Z,5μm,12.6s,MS5.3						
QZH	**Quanzhou**	**27.93**	**54**	*e*P	**P**	**17 17 03.8**	**+1.2**
QZH				S	**S**	**17 21 45.0**	**+3.0**
QZH				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.4						
QZH				LR	LR		
	comp=N,5μm,9.0s						
QZH				LR	LR		
	comp=E,6μm,10.7s						
QZH				LR	LR		
	comp=Z,8μm,14.1s,MS5.4						
WHN	**Wuhan**	**28.09**	**40**	P	**P**	**17 17 05.3**	**+1.3**
WHN				S	**S**	**17 21 49.8**	**+5.3**
WHN				AMB	AMB		
	comp=Z,150nm,1.4s,mb5.4						
WHN				LR	LR		
	comp=Z,8μm,12.6s,MS5.5						
GTA	**Gaotai**	**29.89**	**9**	*e*P	**P**	**17 17 19.8**	**0.0**
GTA				AP	pP	17 17 31.0	+0.1
GTA				XP	sP	17 17 37.0	+0.9
GTA				PP	PP	17 18 14.3	-3.8
GTA				PPP	PPP	17 18 27.5	-4.4
GTA				S	**S**	**17 22 13.5**	**+0.6**
GTA				AMB	AMB		
	comp=Z,11nm,1.5s,mb4.4						
GTA				AMB	AMB		
	comp=Z,305nm,6.8s						
GTA				LR	LR		
	comp=N,2μm,18.2s						
GTA				LR	LR		
	comp=E,2μm,23.9s						
GTA				LR	LR		
	comp=Z,2μm,19.8s,MS4.7						
TATO	**Taipei**	**30.30**	**57**	PFAKE		17 17 40.0	+16
TATO				LR	LR		
	comp=Z,2μm,21.0s,MS4.6						
NJ2	**Nanjing**	**32.01**	**43**	*e*P	**P**	**17 17 39.0**	**+0.3**
NJ2				AP	pP	17 17 48.8	-1.0
NJ2				PP	PP	17 18 45.8	+0.2
NJ2				PPP	PPP	17 19 01.3	+0.6
NJ2				S	**S**	**17 22 48.0**	**+1.7**
NJ2				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.8						
NJ2				AMB	AMB		
	comp=Z,1μm,5.4s						
NJ2				LR	LR		
	comp=N,5μm,16.7s,MS5.4						
NJ2				LR	LR		
	comp=E,4μm,16.5s,MS5.4						
NJ2				LR	LR		
	comp=Z,3μm,14.5s,MS5.1						
TIY	**Taiyuan**	**32.40**	**28**	*e*P	**P**	**17 17 44.0**	**+2.0**
TIY				LR	LR		
	comp=N,8μm,17.0s						
TIY				LR	LR		
	comp=Z,3μm,17.0s,MS5.1						
KSH	**Kashi**	**33.50**	**335**	⇑*i*P	**P**	**17 17 51.0**	**-0.6**
KSH				AP	pP	17 18 01.3	-1.5
KSH				PP	PP	17 19 02.0	-2.5
KSH				PCP	PcP	17 20 33.5	+1.5
KSH				S	**S**	**17 23 06.5**	**-3.1**
KSH				SCP		17 24 12.5	
KSH				PCS		17 24 18.5	
KSH				AMB	AMB		
	comp=Z,520nm,4.5s						
KSH				LR	LR		
	comp=N,2μm,16.6s,MS5.0						
KSH				LR	LR		
	comp=E,2μm,16.6s,MS5.0						
TIA	**Tai'an**	**33.69**	**35**	P	**P**	**17 17 54.0**	**+0.8**
TIA				S	**S**	**17 23 17.0**	**+4.5**
TIA				LR	LR		
	comp=N,2μm,12.0s,MS5.2						
TIA				LR	LR		
	comp=E,2μm,12.0s,MS5.2						
BTO	**Baotou**	**33.81**	**23**	*e*P	**P**	**17 17 52.8**	**-1.4**
BTO				S	**S**	**17 23 15.0**	**+0.7**
BTO				AMB	AMB		
	comp=Z,30nm,1.4s,mb5.0						
BTO				LR	LR		
	comp=N,1μm,8.4s						
BTO				LR	LR		
	comp=E,3μm,11.1s						
WMQ	**Urumqi**	**34.21**	**352**	P	**P**	**17 17 57.8**	**+0.2**
WMQ				AP	pP	17 18 09.8	+0.9
WMQ				XP	sP	17 18 15.0	+0.9
WMQ				PP	PP	17 19 13.5	+0.4
WMQ				PPP	PPP	17 19 31.8	+0.6
WMQ				S	**S**	**17 23 20.3**	**-0.2**
WMQ				AMB	AMB		
	comp=Z,42nm,1.0s,mb5.3						
WMQ				LR	LR		
	comp=N,597nm,26.4s,MS4.8						
WMQ				LR	LR		
	comp=E,2μm,26.4s,MS4.8						
WMQ				LR	LR		
	comp=Z,1μm,24.8s,MS4.5						
HHC	**Hu-ho-hao-te**	**34.62**	**24**	*e*P	**P**	**17 18 01.5**	**+0.4**
HHC				AP	pP	17 18 13.8	+1.4
HHC				XP	sP	17 18 18.8	+1.2
HHC				PP	PP	17 19 18.5	0.0
HHC				S	**S**	**17 23 22.8**	**-4.0**
HHC				PCS		17 24 21.0	
HHC				SS	SS	17 25 38.3	-2.1
HHC				AMB	AMB		
	comp=Z,55nm,1.3s,mb5.3						
HHC				AMB	AMB		
	comp=Z,431nm,3.7s						
HHC				LR	LR		
	comp=N,2μm,13.1s,MS5.2						
HHC				LR	LR		
	comp=E,2μm,14.3s,MS5.2						
HHC				LR	LR		
	comp=Z,2μm,10.5s,MS5.1						
ULHL	**Ulahol**	**35.71**	**337**	P	**P**	**17 18 10.2**	**-0.3**
	SNR=7.4						
KZA	**Kyzart**	**35.95**	**336**	P	**P**	**17 18 13.0**	**+0.5**
	SNR=76						
BJT	**Baijiatuau**	**36.01**	**30**	*e*P	**P**	**17 18 14.2**	**+1.2**
BJT				*e*	pP	17 18 23.6	-0.6
BJT				pmax	pmax		
	comp=Z,45nm,0.8s						
BJT				MLR	MLR		
	comp=Z,3μm,20.0s						
BJT	**Baijiatuau**	**36.01**	**30**	*e*P	**P**	**17 18 14.2**	**+1.2**
	comp=Z,45nm,0.8s,mb5.5						
BJT				*e*	pP	17 18 23.6	-0.6
BJT				LR	LR		
	comp=Z,3μm,20.0s,MS5.1						
UCH	**Uchtor**	**36.38**	**336**	P	**P**	**17 18 16.5**	**+0.4**
	SNR=42						
TKM2	**Tokmak 2**	**36.54**	**337**	P	**P**	**17 18 17.5**	**+0.1**
	SNR=43						
KBK	**Karagaybulak**	**36.56**	**336**	P	**P**	**17 18 18.4**	**+0.8**
	SNR=84						
AML	**Almayashu**	**36.64**	**335**	P	**P**	**17 18 19.2**	**+1.0**
	SNR=129						
AAK	**Ala-Archa**	**36.72**	**336**	P	**P**	**17 18 19.8**	**+0.8**
	SNR=60						
AAK	**Ala-Archa**	**36.72**	**336**	P	**P**	**17 18 18.7**	**-0.3**
AAK				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.6						
AAK				MLR	MLR		
	comp=Z,410nm,20.0s,MS4.2						
AAK	**Ala-Archa**	**36.72**	**336**	*e*P	**P**	**17 18 18.5**	**-0.4**
	comp=Z,102nm,0.9s,mb5.7						
AAK				LR	LR		
	comp=Z,415nm,20.0s,MS4.2						
CHMS	**Chumysh**	**36.93**	**337**	P	**P**	**17 18 20.7**	**0.0**
	SNR=59						
EKS2	**Erkin-Say**	**37.04**	**335**	P	**P**	**17 18 22.6**	**+0.9**
	SNR=69						
USP	**Ospenovka**	**37.26**	**337**	P	**P**	**17 18 23.6**	**+0.2**
	SNR=98						
MKAR	**Makanchi Array**	**38.05**	**347**	*i* P	**P**	**17 18 29.3**	**-0.8**
MKAR				pmax	pmax		
	comp=Z,48nm,1.0s						
MKAR	**Makanchi Array**	**38.05**	**347**	*i* P	**P**	**17 18 29.4**	**-0.7**
DL2	**Dalian**	**38.14**	**36**	P	**P**	**17 18 33.8**	**+2.9**
DL2				S	**S**	**17 24 27.0**	**+6.1**
DL2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.2						
DL2				AMB	AMB		
	comp=Z,310nm,4.9s						
DL2				LR	LR		
	comp=N,720nm,11.4s,MS4.9						
DL2				LR	LR		
	comp=E,880nm,12.9s,MS4.9						
DL2				LR	LR		
	comp=Z,1μm,11.4s,MS4.9						
SONM	**Songino Array**	**39.29**	**13**	P	**P**	**17 18 40.0**	**-0.3**
	comp=Z,10.0nm,0.8s,mb4.6,baz=196,slow=9.0,SNR=42						
SONM				PcP	PcP	17 20 49.9	+0.7
	comp=Z,5.9nm,0.9s,baz=206,slow=2.9,SNR=11						
SONM				ScP		17 24 35.4	
	comp=Z,3.0nm,1.3s,baz=180,slow=3.7,SNR=3.7						
SONM				LR	LR	17 36 46.3	
	comp=Z,3μm,18.1s,MS5.2,baz=186,slow=39						
ULN	**Ulaanbaatar**	**39.47**	**14**	P	**P**	**17 18 41.6**	**-0.2**
ULN				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.8						
ULN				MLR	MLR		
	comp=Z,3μm,19.0s,MS5.2						
ULN	**Ulaanbaatar**	**39.47**	**14**	*e*P	**P**	**17 18 41.1**	**-0.8**
	comp=Z,21nm,1.1s,mb4.8						
ULN				LR	LR		
	comp=Z,3μm,19.0s,MS5.2						
MBWA	**Marble Bar**	**40.03**	**141**	*e*P	**P**	**17 18 44.2**	**-2.5**
	comp=Z,28nm,1.1s,mb4.9						
MBWA				LR	LR		
	comp=Z,995nm,22.0s,MS4.6						
INCN	**Inchon**	**40.37**	**42**	PFAKE		17 19 00.0	+11
INCN				LR	LR		
	comp=Z,3μm,20.0s,MS5.2						
ZAK	**Zakamensk**	**41.12**	**9**	⇑*i*P	**P**	**17 18 55.3**	**-0.2**
MOY	**Mondy**	**42.07**	**7**	*e*P	**P**	**17 19 03.9**	**+0.7**
TLY	**Talaya**	**42.44**	**9**	*e*P	**P**	**17 19 08.6**	**+2.3**
TLY				*e*		17 20 41.7	
TLY				*e*S	**S**	**17 25 28.3**	**+3.4**
TLY				*e*SSS	SSS	17 28 59.3	-17
TLY				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.6						
TLY				MLR	MLR		
	comp=Z,1μm,15.0s,MS4.9						
TLY	**Talaya**	**42.44**	**9**	PFAKE		17 19 20.0	+14
TLY				LR	LR		
	comp=Z,209nm,19.0s,MS4.0						
CN2	**Changchun**	**43.54**	**33**	⇑P	**P**	**17 19 15.3**	**-0.1**
CN2				*e*AP	pP	17 19 28.5	+1.7
CN2				PP	PP	17 20 57.0	-1.7
CN2				*e*S	**S**	**17 25 41.0**	**0.0**
CN2				SS	SS	17 28 47.5	-1.5
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
CN2				LR	LR		
	comp=N,2μm,18.0s,MS5.2						
CN2				LR	LR		
	comp=E,2μm,18.0s,MS5.2						
CN2				LR	LR		
	comp=Z,2μm,19.0s,MS5.1						
HASS	**Wahat al Ahsa'**	**44.48**	**296**	P	**P**	**17 19 26.1**	**+3.0**
HIA	**Hailar**	**44.83**	**24**	P	**P**	**17 19 27.0**	**+1.4**
HIA				pmax	pmax		
	comp=Z,51nm,1.3s						
HIA				MLR	MLR		
	comp=Z,2μm,20.0s						
HIA	**Hailar**	**44.83**	**24**	*e*P	**P**	**17 19 26.9**	**+1.3**
	comp=Z,54nm,1.2s,mb5.3						
HIA				LR	LR		
	comp=Z,2μm,20.0s,MS5.1						
NVS	**Novosibirsk**	**45.61**	**351**	*i* P	**P**	**17 19 30.0**	**-1.8**
NVS				*i*		17 21 24.9	
NVS				*i* S	**S**	**17 26 08.3**	**-2.4**
NVS				pmax	pmax		
	comp=N,38nm,1.4s						
NVS				pmax	pmax		
	comp=E,23nm,1.4s						
NVS				pmax	pmax		
	comp=Z,39nm,1.4s,mb5.1						
NVS				smax			
	comp=N,20nm,1.7s						
NVS				smax			
	comp=E,29nm,1.7s						
MDJ	**Mudanjiang**	**46.36**	**35**	P	**P**	**17 19 39.8**	**+1.9**
MDJ				AP	pP	17 19 51.0	+1.6
MDJ				XP	sP	17 19 56.0	+1.7
MDJ				PP	PP	17 21 29.0	+2.1
MDJ				S	**S**	**17 26 26.3**	**+4.7**
MDJ				AMB	AMB		
	comp=Z,27nm,2.4s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,333nm,5.6s						
MDJ				LR	LR		
	comp=N,1μm,18.9s,MS4.9						
MDJ				LR	LR		

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        comp=E,668nm,18.9s,MS4.9
MDJ                               LR     LR
        comp=Z,1µm,22.1s,MS4.8
MDJ    Mudanjiang        46.36  35  PFAKE         17 19 50.0  +12
MDJ                               LR     LR
        comp=Z,1µm,20.0s,MS4.8
QRN    Al-Qurain         46.83 300  eP     P      17 19 43.3 +1.6
QRN                               AMb    AMB      17 19 44.7
        comp=Z,267nm,1.1s,mb6.1
BVA0   Borovoye Array    46.98 341  i P    P      17 19 41.6 -1.0
BVA0                              pmax   pmax
        comp=Z,5.0nm,1.0s,mb4.4
BVAR   Borovoye Array    46.98 341  P      P      17 19 42.0 -0.6
        comp=Z,21nm,1.0s,mb5.0,baz=143,slow=7.4,SNR=44
BVAR                              PcP    PcP      17 21 15.5 +0.6
        comp=Z,4.4nm,0.7s,baz=207,slow=3.2,SNR=3.4
RYDS   Riyadh            47.03 294  P      P      17 19 46.9 +3.5
BRVK   Borovoye          47.04 341  P      P      17 19 41.7 -1.4
BRVK                              pmax   pmax
        comp=Z,52nm,1.2s,mb5.3
BRVK                              MLR    MLR
        comp=Z,230nm,19.0s,MS4.2
BRVK   Borovoye          47.04 341  eP     P      17 19 41.6 -1.4
        comp=Z,31nm,1.1s,mb5.2
BRVK                              LR     LR
        comp=Z,233nm,19.0s,MS4.2
RDF    Al-Radifah        47.18 300  eP     P      17 19 46.3 +1.8
RDF                               AMb    AMB      17 19 48.2
        comp=Z,305nm,0.9s,mb6.2
CHKZ   Chkalovo          47.46 341  i P    P      17 19 45.7 -0.7
CHKZ                              pmax   pmax
        comp=Z,82nm,1.1s,mb5.6
CHKZ   Chkalovo          47.46 341  eP     P      17 19 45.6 -0.7
        comp=Z,61nm,0.9s,mb5.5
RST    Umm Al-Ruwaisa    47.79 301  eP     P      17 19 49.4  0.0
RST                               AMb    AMB      17 19 52.5
        comp=Z,208nm,0.8s,mb6.2
NWAO   Narrogin (SRO)    48.10 153  P      P      17 19 49.0 -2.6
        comp=Z,12nm,0.8s,mb5.0,baz=311,slow=9.8,SNR=9.5
NWAO   Narrogin (SRO)    48.10 153  PFAKE         17 20 00.0 +8.3
NWAO                              LR     LR
        comp=Z,2µm,21.0s,MS5.0
MAJO   Matsushiro        48.10  49  PFAKE         17 20 00.0 +8.3
MAJO                              LR     LR
        comp=Z,1µm,20.0s,MS4.9
MAT    Matsushiro        48.10  49  P      P      17 19 50.6 -1.1
MAT                               S      S        17 26 54.0 +7.7
MAT    Matsushiro        48.10  49  eP     P      17 19 51.0 -0.7
        comp=Z,106nm,2.0s,mb5.5
MAT                               eS     S        17 26 54.0 +7.7
MAT                               LR     LR
        comp=Z,1µm,21.0s,MS4.8
MZLS   Mizel             48.30 293  P      P      17 19 54.8 +1.4
KAMS   Al Khamasin       48.45 288  P      P      17 19 55.7 +1.1
TATS   Tathlith          49.43 287  P      P      17 20 03.3 +1.2
WRA    Warramunga Arr    49.73 127  P      P      17 20 03.0 -1.4
        comp=Z,26nm,0.7s,mb5.3,baz=303,slow=8.9,SNR=104
WRAB   Tennant Creek     49.74 127⇓iP      P      17 20 03.1 -1.4
WRAB                              pmax   pmax
        comp=Z,72nm,0.9s,mb5.7
WRAB                              MLR    MLR
        comp=Z,340nm,19.0s,MS4.4
WRAB   Tennant Creek     49.74 127⇓iP      P      17 20 03.1 -1.3
        comp=Z,72nm,0.9s,mb5.7
WRAB                              LR     LR
        comp=Z,341nm,19.0s,MS4.4
GUMO   Guam              50.09  81  PFAKE         17 20 20.0  +13
GUMO                              LR     LR
        comp=Z,971nm,21.0s,MS4.8
AFFS   ‘Afif             50.28 293  P      P      17 20 10.5 +1.9
BOD    Bodaibo           50.28  14  eP     P      17 20 07.1 -1.1
ARSS   Ar Rass           50.34 295  P      P      17 20 11.3 +2.2
ASAR   Alice Springs     51.49 131  P      P      17 20 16.1 -1.7
        comp=Z,49nm,0.8s,mb5.5,baz=307,slow=7.1,SNR=192
ASAR                              PcP    PcP      17 21 31.4 -0.4
        comp=Z,12nm,0.7s,baz=315,slow=3.0,SNR=9.6
ASAR                              LR     LR       17 43 14.4
        comp=Z,776nm,21.4s,MS4.7,baz=297,slow=37
HILS   Ha’il             51.85 297  P      P      17 20 21.7 +1.3
CLNS   Chul’man          52.68  21  eP     P      17 20 27.9 +1.7
CLNS                              e*PP   pP       17 20 35.6 -2.2
CLNS                              e               17 21 36.4
CLNS                              e               17 22 26.1
CLNS                              ePPP   PPP      17 23 27.6 -4.8
CLNS                              eS     S        17 27 56.4 +7.0
CLNS                              pmax   pmax
        comp=Z,38nm,0.9s,mb5.3
CLNS                              pmax   pmax
        comp=N,24nm,1.3s
CLNS                              pmax   pmax
        comp=E,19nm,0.9s
CLNS                              pmax   pmax
        comp=N,6.0nm,0.7s
CLNS                              pmax   pmax
        comp=Z,4.0nm,0.7s,mb4.5
CLNS                              pmax   pmax
        comp=E,5.0nm,0.9s
CLNS                              smax
        comp=N,117nm,12.0s
CLNS                              smax
        comp=Z,138nm,12.5s
CLNS                              smax
        comp=E,74nm,14.4s
CLNS                              MLR    MLR
        comp=Z,3µm,14.0s,MS5.5
CLNS                              MLR    MLR
        comp=N,2µm,13.0s,MS5.4
CLNS                              MLR    MLR
        comp=E,500nm,13.0s,MS5.4
GNI    Garni             52.79 313  P      P      17 20 28.3 +1.1
        comp=E,21nm,0.6s,mb5.2,baz=6.0,slow=3.5,SNR=35
GNI                               LR     LR       17 45 31.3
        comp=E,794nm,21.9s,MS4.7,baz=100,slow=39
TI2    Plekhanov         53.36 315⇑iP      P      17 20 32.0 +0.5
TI2                               i S    S        17 28 02.6 +3.7
TI2                               pmax   pmax
        comp=Z,50nm,1.0s,mb5.4
TI2                               pmax   pmax
        comp=Z,110nm,1.0s,mb5.7
SVE    Sverdlovsk        53.41 338  eP     P      17 20 32.5 +0.9
SVE                               pmax   pmax
        comp=Z,150nm,1.5s,mb5.7
ARU    Arti              53.91 337  P      P      17 20 33.8 -1.5
ARU                               pmax   pmax
        comp=Z,130nm,1.5s,mb5.6
ARU                               MLR    MLR
        comp=Z,570nm,19.0s,MS4.7
ARU    Arti              53.91 337  eP     P      17 20 33.8 -1.5
        comp=Z,42nm,0.9s,mb5.4
ARU                               LR     LR
        comp=Z,574nm,19.0s,MS4.7
ASAJ   Asahikawa         54.15  42  LR     LR     17 44 10.9
        comp=Z,1µm,18.2s,MS5.0,baz=115,slow=37
ZEI    Tsey              54.34 316  i P    P      17 20 39.5 +0.9
ZEI                               i *PP  pP       17 20 53.2 +2.8
ZEI                               i               17 22 40.8
ZEI                               pmax   pmax
        comp=Z,55nm,1.2s,mb5.4
ERZM   Erzurum           55.15 312  i P    P      17 20 44.6  0.0
YSS    Yuzh-Sakhalins    55.43  39⇑iP      P      17 20 41.0 -5.6
YSS                               e      pP       17 20 50.0 -8.3
YSS                               eS     S        17 28 26.0 -0.7
YSS                               eSS    SS       17 32 14.0 +2.5
YSS                               pmax   pmax
        comp=Z,90nm,1.2s,mb5.7
YSS                               MLR    MLR
        comp=E,1µm,15.0s
YSS                               MLR    MLR
        comp=Z,1µm,15.0s,MS5.2
YSS    Yuzh-Sakhalins    55.43  39  eP     P      17 20 46.7 +0.2
        comp=Z,37nm,0.8s,mb5.5
YSS                               e      pP       17 20 56.3 -2.1
YSS                               LR     LR
        comp=Z,925nm,20.0s,MS4.9
KIV    Kislovodsk        55.60 317  P      P      17 20 47.7 -0.1
        comp=Z,652nm,0.8s,SNR=35
KIV    Kislovodsk        55.60 317  P      P      17 20 46.4 -1.4
KIV                               pmax   pmax
        comp=Z,180nm,1.1s,mb6.0
KIV                               MLR    MLR
        comp=Z,210nm,22.0s,MS4.2
KIV    Kislovodsk        55.60 317⇑eP      P      17 20 47.4 -0.4
        comp=Z,253nm,1.1s,mb6.2
KIV                               LR     LR
        comp=Z,207nm,22.0s,MS4.2
GOF    Gofitskoye        55.78 318⇓iP      P      17 20 48.0 -1.1
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GOF                               eS     S        17 28 35.0 +3.6
GOF                               pmax   pmax
        comp=Z,100nm,1.1s,mb5.8
QURS   Qurayyt al Mil    56.35 301  P      P      17 20 55.2 +1.9
PMG    Port Moresby      56.48 108  P      P      17 20 53.8 -0.7
PMG                               pmax   pmax
        comp=Z,39nm,0.8s
PMG                               MLR    MLR
        comp=Z,640nm,22.0s
PMG    Port Moresby      56.48 108  P      P      17 20 53.8 -0.7
        comp=Z,45nm,0.9s,mb5.5,baz=268,slow=6.2,SNR=21
PMG    Port Moresby      56.48 108  eP     P      17 20 53.6 -0.9
        comp=Z,62nm,0.9s,mb5.6
PMG                               LR     LR
        comp=Z,645nm,22.0s,MS4.7
TBKS   Tabuk             56.57 297  P      P      17 20 56.5 +1.5
SOKR   Solikamsk         56.80 339⇓iP      P      17 20 53.3 -2.9
SOKR                              pmax   pmax
        comp=Z,50nm,1.0s,mb5.5
SOKR                              MLR    MLR
        comp=Z,1µm,22.0s,MS5.0
ASF    Jabal al Asfar    56.84 302  LR     LR     17 49 02.4
        comp=Z,894nm,20.1s,MS4.9,baz=324,slow=40
MALT   Malatya           56.90 309  P      P      17 20 56.9 -0.3
MALT                              pmax   pmax
        comp=Z,29nm,1.2s,mb5.2
MALT   Malatya           56.90 309  eP     P      17 20 56.3 -0.9
        comp=Z,32nm,1.0s,mb5.3
JMQS   Jabal Moqyreh     57.23 298  P      P      17 21 00.5 +0.8
KMBO   Kilima Mbogo      57.31 262  eP     P      17 21 02.8 +2.3
KMBO                              pmax   pmax
        comp=Z,18nm,1.0s
KMBO                              MLR    MLR
        comp=Z,940nm,19.0s
KMBO   Kilima Mbogo      57.31 262  P      P      17 21 01.4 +1.0
        comp=Z,15nm,1.0s,mb5.0,baz=50,slow=9.5,SNR=30
KMBO                              LR     LR       17 45 36.2
        comp=Z,960nm,18.1s,MS4.9,baz=92,slow=36
KMBO   Kilima Mbogo      57.31 262  eP     P      17 21 02.8 +2.3
        comp=Z,18nm,1.0s,mb5.1
KMBO                              LR     LR
        comp=Z,936nm,19.0s,MS4.9
GZT    Gaziantep         57.33 308  i P    P      17 20 59.5 -0.8
SOC    Sochi             57.49 316  eP     P      17 20 58.4 -2.9
SOC                               e               17 21 50.6
SOC                               ePPP   PPP      17 24 29.7 -2.3
SOC                               eS     S        17 28 52.5 -1.4
SOC                               pmax   pmax
        comp=Z,82nm,1.2s,mb5.6
SOC                               pmax   pmax
        comp=N,27nm,1.4s
SOC                               pmax   pmax
        comp=E,12nm,1.0s
AYUS   ‘Aynunah          57.69 297  P      P      17 21 03.6 +0.7
MKRJ   Makawir           57.80 301  P      P      17 21 03.9 +0.3
BDAS   Al Bad‘           57.86 297  P      P      17 21 04.6 +0.5
KAHT   Ahir Dag          57.93 308  i P    P      17 21 03.6 -0.8
JMOS   Jabal al Moall    57.94 298  P      P      17 21 06.6 +1.9
GLH    Golan-Tel Qazi    57.97 302  P      P      17 21 05.2 +0.4
ALWS   Ilw as Safayha    57.99 298  P      P      17 21 06.9 +1.9
HMDT   Nahal Hemdat      58.00 302  P      P      17 21 05.2 +0.2
DRGI   Dragot            58.01 301  P      P      17 21 05.3 +0.2
AQBJ   Aqaba             58.05 299  P      P      17 21 05.5 +0.1
HAQS   Haql              58.08 298  P      P      17 21 07.4 +1.7
MMLI   Mount Malkishu    58.11 302  P      P      17 21 06.2 +0.4
EIL    Elat              58.13 299  P      P      17 21 06.1 +0.1
EIL    Elat              58.13 299  P      P      17 21 06.2 +0.2
        comp=E,17nm,0.8s,mb5.1,baz=116,slow=0.9,SNR=18
EIL                               LR     LR       17 47 22.2
        comp=E,902nm,20.3s,MS4.9,baz=100,slow=37
EIL    Elat              58.13 299  eP     P      17 21 04.5 -1.4
        comp=E,45nm,1.1s,mb5.4
PRNI   Paran             58.17 300  P      P      17 21 06.6 +0.4
COBT   Iskenderun        58.17 307  i P    P      17 21 06.0 -0.2
MBH    Mount Berech      58.18 299  P      P      17 21 06.6 +0.3
YAK    Yakutsk           58.21  19  eP     P      17 21 04.4 -1.7
YAK                               eS     S        17 29 06.6 +3.5
YAK                               pmax   pmax
        comp=Z,21nm,0.9s,mb5.2
YAK                               smax
        comp=E,2.0nm,1.1s
YAK                               MLR    MLR
        comp=Z,1µm,15.0s,MS5.1
YAK                               MLR    MLR
        comp=N,795nm,16.0s,MS5.1
YAK                               MLR    MLR
        comp=E,788nm,16.0s,MS5.1
YAK    Yakutsk           58.21  19  eP     P      17 21 04.0 -2.0
        comp=E,83nm,0.9s,mb5.8
YAK                               LR     LR
        comp=Z,2µm,19.0s,MS5.3
SLTI   Sal’it            58.40 302  P      P      17 21 08.0 +0.2
OFRI   ‘Ofer             58.51 302  P      P      17 21 08.7 +0.1
ANN    Anapa             59.43 317  eP     P      17 21 11.0 -3.8
ANN                               pmax   pmax
        comp=Z,56nm,1.1s,mb5.5
CTA    Charters Tower    59.61 120  P      P      17 21 15.7 -0.7
        comp=Z,66nm,1.0s,mb5.6,baz=299,slow=8.3,SNR=61
CTA                               LR     LR       17 48 39.8
        comp=Z,543nm,21.3s,MS4.7,baz=287,slow=38
CTAO   Charters Tower    59.61 120  P      P      17 21 15.5 -0.9
CTAO                              pmax   pmax
        comp=Z,110nm,1.1s,mb5.8
CTAO                              MLR    MLR
        comp=Z,1µm,22.0s,MS5.0
CTAO   Charters Tower    59.61 120⇓iP      P      17 21 15.5 -0.9
        comp=Z,131nm,1.1s,mb5.9
CTAO                              LR     LR
        comp=Z,1µm,22.0s,MS5.0
AVNT   Avonos            59.73 309  i P    P      17 21 16.0 -1.0
CTKT   Corum             60.19 311  i P    P      17 21 19.5 -0.6
CSS    Prodhromos        60.23 305  eP     P      17 21 19.7 -0.8
        comp=Z,35nm,1.0s,mb5.3
BOYT   Boyabat           60.29 312  i P    P      17 21 19.9 -0.9
VRSR   Storozhevoye      60.54 324  eP     P      17 21 20.9 -1.4
VRSR                              pmax   pmax
        comp=Z,40nm,1.0s,mb5.5
VRSR                              pmax   pmax
        comp=N,30nm,1.1s
VRSR                              pmax   pmax
        comp=E,50nm,1.1s
VOR    Voronezh          60.74 324  eP     P      17 21 22.0 -1.6
VOR                               pmax   pmax
        comp=Z,200nm,1.5s,mb6.0
BR131  Keskin Array S    60.86 310  PFAKE         17 21 40.0  +15
BR131                             LR     LR
        comp=Z,457nm,21.0s,MS4.6
BRTR   Keskin Array B    60.86 310  P      P      17 21 22.8 -1.9
        comp=Z,20nm,0.7s,mb5.3,baz=124,slow=7.3,SNR=65
BRTR                              ScP             17 26 07.2
        comp=Z,3.1nm,1.1s,baz=135,slow=3.5,SNR=4.7
BALT   Daday             61.43 312  i P    P      17 21 27.1 -1.4
SIM    Simferopol’       61.73 316ceP      P      17 21 30.8 +0.4
SIM                               pmax   pmax
        comp=Z,53nm,1.0s,mb5.6
SIM                               MLR    MLR
        comp=Z,500nm,18.0s,MS4.7
STKA   Stephens Creek    61.76 134  P      P      17 21 29.5 -1.3
        comp=Z,40nm,1.0s,mb5.5,baz=312,slow=7.0,SNR=36
STKA                              LR     LR       17 48 39.8
        comp=Z,1µm,20.7s,MS5.1,baz=298,slow=36
STKA   Stephens Creek    61.76 134⇓eP      P      17 21 29.1 -1.6
SGKT   Sivrigoynuk       62.22 311  i P    P      17 21 27.5 -6.2
ISP    Isparta           62.92 307  P      P      17 21 37.9 -0.6
ISP                               pmax   pmax
        comp=Z,77nm,1.1s,mb5.8
ISP    Isparta           62.92 307  eP     P      17 21 36.9 -1.6
        comp=Z,115nm,1.2s,mb5.9
ESKT   Eskisehir         62.93 309  i P    P      17 21 37.1 -1.5
HENT   Hendek            63.13 311  i P    P      17 21 38.2 -1.7
MOS    Moscow            63.18 328  eP     P      17 21 38.9 -1.1
MOS                               eS     S        17 30 17.0  +10
MOS                               pmax   pmax
        comp=Z,177nm,1.7s,mb5.9
OBN    Obninsk           63.49 327c iP     P      17 21 39.5 -2.5
OBN                               i               17 21 46.1
OBN                               i      pP       17 21 51.9 -2.1
OBN                               i               17 22 12.0
OBN                               e               17 23 58.0
OBN                               i S    S        17 30 11.0 +0.4
OBN                               i SS   SS       17 34 16.8 -3.0
OBN                               pmax   pmax
        comp=Z,138nm,1.6s,mb5.8
OBN    Obninsk           63.49 327  eP     P      17 21 39.4 -2.6
        comp=Z,142nm,1.3s,mb5.9
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OBN                               LR     LR
        comp=Z,265nm,20.0s,MS4.4
MBAR   Mbarara           63.58 264  eP     P      17 21 45.6 +2.3
MBAR                              pmax   pmax
        comp=Z,35nm,1.2s,mb5.3
MBAR                              MLR    MLR
        comp=Z,290nm,20.0s,MS4.5
MBAR   Mbarara           63.58 264  eP     P      17 21 45.6 +2.3
        comp=Z,35nm,1.2s,mb5.3
MBAR                              LR     LR
        comp=Z,288nm,20.0s,MS4.5
MA2    Magadan           65.16  28  eP     P      17 21 53.8 +1.1
MA2                               pmax   pmax
        comp=Z,37nm,1.1s,mb5.3
MA2                               MLR    MLR
        comp=Z,690nm,20.0s,MS4.8
MA2    Magadan           65.16  28  eP     P      17 21 53.8 +1.0
        comp=Z,37nm,1.1s,mb5.3
MA2                               LR     LR
        comp=Z,688nm,20.0s,MS4.8
TIXI   Tiksi             65.34  12  eP     P      17 21 52.5 -1.2
TIXI                              pmax   pmax
        comp=Z,54nm,1.4s,mb5.4
TIXI                              MLR    MLR
        comp=Z,1µm,18.0s,MS5.2
TIXI   Tiksi             65.34  12⇑eP      P      17 21 50.6 -3.1
TIXI                              LR     LR
        comp=Z,805nm,19.0s,MS4.9
KDAG   Bornova           65.53 308  i P    P      17 21 55.2 -0.3
TIRR   Tirgusor          65.59 314  P      P      17 21 56.5 +0.7
HARR   Harsova           65.97 315  P      P      17 21 59.1 +0.9
AKASG  Malin Array Be    66.36 321  P      P      17 21 58.5 -2.1
        comp=Z,20nm,1.0s,mb5.1,baz=86,slow=5.4,SNR=42
VRI    Vrincioaia        67.01 316  P      P      17 22 05.6 +0.9
PET    Petropavlovsk     67.12  36  PFAKE         17 22 20.0  +15
PET                               LR     LR
        comp=Z,1µm,21.0s,MS5.0
IDI    Anoyia            67.14 304  P      P      17 22 05.0 -0.7
        comp=Z,8.8nm,0.5s,mb5.0,baz=94,slow=8.6,SNR=13
MLR    Muntele Rosu      67.49 315  P      P      17 22 07.8 +0.1
        comp=Z,56nm,1.0s,mb5.5,baz=80,slow=2.4,SNR=40
MLR    Muntele Rosu      67.49 315  P      P      17 22 07.7 -0.1
SNX    Sinaia            67.77 315  P      P      17 22 09.1 -0.4
RZN    Rozhen            67.86 311  eP     P      17 22 09.0 -1.1
MNK    Minsk             68.11 325⇑eP      P      17 22 08.0 -3.4
MNK                               pmax   pmax
        comp=Z,270nm,1.5s,mb6.1
VTS    Vitosha           69.08 312  eP     P      17 22 16.0 -1.7
VTS    Vitosha           69.08 312  P      P      17 22 18.7 +1.1
KKB    Krupnik           69.10 311  eP     P      17 22 16.0 -1.8
LVZ    Lovozero          69.55 340⇓eP      P      17 22 21.1 +0.9
LVZ                               pmax   pmax
        comp=Z,41nm,0.9s,mb5.4
LVZ                               pmax   pmax
        comp=E,27nm,2.1s
LVZ                               MLR    MLR
        comp=Z,2µm,19.0s,MS5.3
LVZ                               MLR    MLR
        comp=N,675nm,12.0s
LVZ                               MLR    MLR
        comp=E,568nm,15.0s
LSZ    Lusaka            69.61 250  P      P      17 22 22.7 +1.3
LSZ                               pmax   pmax
        comp=Z,50nm,1.3s,mb5.3
LSZ                               MLR    MLR
        comp=Z,660nm,19.0s,MS4.9
LSZ    Lusaka            69.61 250  eP     P      17 22 22.2 +0.8
        comp=Z,16nm,0.8s,mb5.0
LSZ                               LR     LR
        comp=Z,656nm,19.0s,MS4.9
VSU    Vasula            69.68 329  eP     P      17 22 19.4 -1.7
APA    Apatity           69.85 339⇓iP      P      17 22 22.1 +0.2
APA                               i               17 22 27.7
APA                               pmax   pmax
        comp=Z,47nm,1.0s,mb5.4
APA                               MLR    MLR
        comp=Z,2µm,19.0s,MS5.3
BOLS   Boljevac          70.11 313⇓iP      P      17 22 23.1 -0.8
KWP    Kalwaria          70.28 319  P      P      17 22 23.9 -0.9
KWP                               pmax   pmax
        comp=Z,62nm,1.0s,mb5.5
KWP    Kalwaria          70.28 319  eP     P      17 22 23.9 -1.0
        comp=Z,116nm,1.2s,mb5.7
KOLS   Kolonicke sedl    70.46 318  i P    P      17 22 26.1 +0.1
KOLS                              e               17 22 42.6
SUW    Suwalki           70.67 324  P      P      17 22 24.9 -2.3
SUW                               pmax   pmax
        comp=Z,110nm,1.0s,mb5.7
SUW    Suwalki           70.67 324  eP     P      17 22 24.5 -2.7
        comp=Z,142nm,1.1s,mb5.8
FINES  FINESS Array B    70.77 332  P      P      17 22 26.7 -0.9
        comp=Z,5.6nm,0.7s,mb4.6,baz=104,slow=6.7,SNR=21
FINES                             LR     LR       18 00 17.1
        comp=Z,707nm,18.9s,MS4.9,baz=287,slow=42
KAF    Kangasniemi       70.84 333  ep     P      17 22 27.3 -0.8
        comp=Z,0.8nm,0.4s
KAF    Kangasniemi       70.84 333  eP     P      17 22 27.3 -0.8
KAF                               pmax   pmax
        comp=Z,1.0nm,0.4s,mb4.1
CRVS   Cervenica-Dubn    70.99 318  eP     P      17 22 31.7 +2.5
GRUS   Gruza             71.01 313⇑iP      P      17 22 30.4 +1.0
DIVS   Divcibare         71.54 313⇑iP      P      17 22 31.1 -1.5
KECS   Kecovo            71.59 318  eP     P      17 22 33.7 +0.9
KECS                              epP    pP       17 22 48.2 +3.4
NIE    Niedzica          71.80 319  eP     P      17 22 35.9 +1.9
PSZ    Piszkesteto       71.92 317  P      P      17 22 34.5 -0.3
PSZ                               pmax   pmax
        comp=Z,37nm,1.2s,mb5.2
PSZ    Piszkesteto       71.92 317⇓eP      P      17 22 34.9 +0.1
OJC    Ojcow             72.21 320  eP     P      17 22 36.5 +0.1
PKSM   Moragy            72.64 315⇑eP      P      17 22 38.0 -1.1
VYHS   Vyhne             72.68 318  eP     P      17 22 39.6 +0.4
KEV    Kevo              72.83 340  ep     P      17 22 39.1 -0.6
SRO2   Moca              72.92 317  eP     P      17 22 41.1 +0.4
SRO    Srobarova         72.98 317  eP     P      17 22 41.4 +0.4
SRO1   Iza               73.03 317  eP     P      17 22 42.3 +1.0
SRO1                              e               17 22 46.6
RHK1   Bakonya           73.03 315⇓eP      P      17 22 42.3 +0.9
OKC    Ostrava-Krasne    73.24 319  eP     P      17 22 43.5 +1.0
ARCES  ARCESS Array B    73.26 340  P      P      17 22 42.3  0.0
        comp=Z,17nm,0.5s,mb5.2,baz=97,slow=6.7,SNR=64
ARCES                             LR     LR       17 57 31.0
        comp=Z,1µm,22.0s,MS5.2,baz=120,slow=38
ARE0   ARCESS Array S    73.26 340  eP     P      17 22 40.8 -1.5
MORC   Moravsky Berou    73.62 319  P      P      17 22 44.2 -0.6
MORC                              pmax   pmax
        comp=Z,84nm,1.4s,mb5.5
MORC   Moravsky Berou    73.62 319  eP     P      17 22 44.5 -0.3
        comp=Z,44nm,1.0s,mb5.3
ZST    Bratislava        73.81 317  eP     P      17 22 44.9 -1.0
ZST                               e               17 22 51.0
SOP    Sopron            74.15 317  eP     P      17 22 49.5 +1.6
VRAC   Vranov            74.21 318  P      P      17 22 47.2 -1.0
        comp=Z,7.4nm,0.9s,mb4.6,baz=91,slow=6.3,SNR=7.1
BILL   Bilibino          74.36  22  P      P      17 22 50.9 +2.2
BILL                              pmax   pmax
        comp=Z,6.0nm,1.1s,mb4.4
BILL                              MLR    MLR
        comp=Z,1µm,20.0s,MS5.2
BILL   Bilibino          74.36  22⇑iP      P      17 22 44.0 -4.7
BILL                              eP              17 22 48.1
BILL                              LR     LR
        comp=Z,1µm,20.0s,MS5.1
LBTB   Lobatse           74.90 241  P      P      17 22 54.4 +1.7
LBTB                              pmax   pmax
        comp=Z,37nm,0.9s,mb5.3
LBTB                              MLR    MLR
        comp=Z,450nm,19.0s,MS4.8
LBTB   Lobatse           74.90 241⇓eP      P      17 22 53.6 +0.9
        comp=Z,32nm,0.7s,mb5.4
LBTB                              LR     LR
        comp=Z,453nm,19.0s,MS4.8
BOJS   Bojanci           74.98 314  eP     P      17 22 53.2 +0.5
LJU    Ljubljana         75.50 315  eP     P      17 22 56.2 +0.6
PRU    Pruhonice         75.57 319  eP     P      17 22 49.9 -6.1
PRU                               e               17 23 09.0
PRU    Pruhonice         75.57 319  eP     P      17 23 01.4 +5.4
VOY    Vojsko            75.94 315  eP     P      17 22 57.8 -0.4
GEC2   GERESS Array S    76.10 318  eP     P      17 22 59.4 +0.4
GEC2                              pmax   pmax
        comp=Z,50nm,1.3s,mb5.3
GEC2   GERESS Array S    76.10 318  eP     P      17 22 59.4 +0.4
        comp=Z,50nm,1.3s,mb5.3
GERES  GERESS Array B    76.10 318  P      P      17 22 59.0  0.0
        comp=Z,17nm,0.9s,mb5.0,baz=90,slow=5.3,SNR=56
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GERES				LR	LR	18 01 27.8	
	comp=Z,587nm,18.7s,MS4.9,baz=190,slow=40						
RUE	Ruedersdorf	76.13	322	P	P	17 22 58.1	-1.0
	comp=Z,90nm,1.1s,mb5.6						
KHC	Kasperske Hory	76.18	318	*e*P	P	17 23 00.0	+0.5
KHC	Kasperske Hory	76.18	318	*e*P	P	17 22 59.9	+0.4
KHC				*e*pP	pP	17 23 04.3	-7.3
ROBS	Robic	76.20	315	*e*P	P	17 22 59.0	-0.7
AQU	L'Aquila	76.31	311	P	P	17 23 01.2	+0.8
AQU				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.2						
AQU	L'Aquila	76.31	311	P	P	17 23 01.2	+0.8
	comp=Z,33nm,1.1s,mb5.2						
PTCC	Patocco-Chiusa	76.31	315	*e*P	P	17 23 00.4	+0.1
BOSA	Boshof	76.36	237	P	P	17 23 02.1	+1.2
BOSA				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.4						
BOSA				MLR	MLR		
	comp=Z,440nm,20.0s,MS4.8						
BOSA	Boshof	76.36	237	*e*P	P	17 23 01.7	+0.8
	comp=Z,35nm,0.7s,mb5.4						
BOSA				LR	LR		
	comp=Z,441nm,20.0s,MS4.8						
GMNA	Gemona	76.39	315	*e*P	P	17 23 01.2	+0.5
HFS	Hagfors	76.55	330	P	P	17 23 00.7	-0.6
	comp=Z,18nm,0.9s,mb5.0,baz=108,slow=4.7,SNR=17						
HFS				LR	LR	17 59 45.0	
	comp=Z,1µm,19.7s,MS5.2,baz=94,slow=38						
CLL	Collm	76.58	320	*e*P	P	17 23 02.0	+0.3
	comp=Z,40nm,1.3s,mb5.2						
CLL	Collm	76.58	320	P	P	17 23 02.0	+0.3
	comp=Z,logA/T=1.5,mb5.2						
ARV	Arcevia	76.63	312	*e*P	P	17 23 02.5	+0.4
WET	Wettzell	76.64	318	*e*P	P	17 23 03.0	+0.9
FVI	Forni Avoltri	76.71	316	*e*P	P	17 23 03.2	+0.7
CASY	Casey	76.96	173	PFAKE		17 23 20.0	+16
CASY				LR	LR		
	comp=Z,960nm,19.0s,MS5.1						
SFI	Santa Sofia	77.41	313	*e*P	P	17 23 08.5	+2.0
MOX	Moxa	77.46	320	*i* P	P	17 23 02.3	-4.3
MOX	Moxa	77.46	320	*e*P	P	17 23 02.3	-4.3
CTI	Castel Tesino	77.50	315	*e*P	P	17 23 07.7	+0.8
PGD	Poggio Sodo	77.50	313	*e*P	P	17 23 08.6	+1.6
VMG	Vicchio	77.63	313	*e*P	P	17 23 08.9	+1.2
FUR	Furstenfeldbru	77.71	317	*e*P	P	17 23 09.1	+1.0
GRA1	Grafenberg Arr	77.72	319	*e*P	P	17 23 09.4	+1.3
	comp=Z,103nm,1.5s,mb5.5						
GRF	Grafenberg Arr	77.72	319	*e*P	P	17 23 09.4	+1.3
GRF				pmax	pmax		
	comp=Z,103nm,1.5s,mb5.5						
GRF	Grafenberg Arr	77.72	319	*e*P	P	17 23 09.4	+1.3
	comp=Z,103nm,1.5s,mb5.5						
SEI	Scarperia	77.76	313	*e*P	P	17 23 10.5	+2.0
NB2	NORSAR Subarra	77.81	330	P	P	17 23 07.3	-1.1
	comp=Z,19nm,0.8s,mb5.1,baz=91,slow=5.6						
NB2	NORSAR Subarra	77.81	330	P	P	17 23 07.3	-1.1
	baz=91,slow=5.9						
NOA	NORSAR Array B	77.81	330	P	P	17 23 07.6	-0.8
	comp=Z,11nm,0.8s,mb4.8,baz=92,slow=5.6,SNR=21						
NOA				LR	LR	18 01 25.6	
	comp=Z,403nm,20.9s,MS4.7,baz=75,slow=39						
ZCCA	Zocca	78.03	313	*e*P	P	17 23 13.1	+3.2
CLZ	Clausthal	78.23	321	*e*P	P	17 23 11.9	+1.1
	comp=Z,49nm,1.1s,mb5.3						
BSEG	Bad Segeberg	78.23	323	*e*P	P	17 23 12.0	+1.2
SAL	Salo	78.30	315	*e*P	P	17 23 12.4	+1.1
GSCL	Gusciola	78.30	313	*e*P	P	17 23 13.0	+1.6
BDI	Bagni Di Lucca	78.31	313	*e*P	P	17 23 10.6	-0.8
BRMO	Bormio	78.37	316	*e*P	P	17 23 12.7	+0.9
MAIM		78.39	313	P	P	17 23 10.5	-1.4
ERBM	Eremo	78.43	313	*e*P	P	17 23 14.0	+1.9
VALM		78.55	313	P	P	17 23 11.9	-0.9
VINC	Vinca	78.63	313	P	P	17 23 13.1	-0.1
GRAM		78.67	313	P	P	17 23 13.0	-0.5
BACM		78.68	313	P	P	17 23 13.2	-0.2
DAVOX	Davos	78.70	316	P	P	17 23 13.9	+0.3
	comp=Z,13nm,0.6s,mb5.0,baz=107,slow=7.8,SNR=25						
CODM		78.83	313	P	P	17 23 13.2	-1.1
MUD	Monsted U'grnd	78.85	326	*i* P	P	17 23 15.0	+0.8
MUD				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
MUD	Monsted U'grnd	78.85	326	*i* P	P	17 23 15.0	+0.8
	comp=Z,42nm,1.0s,mb5.3						
TOD	Tromm	79.29	319	*e*P	P	17 23 14.5	-2.2
VAI	Varese	79.52	315	*e*P	P	17 23 17.7	-0.3
PGF	Pioggiola	79.56	312	*e*P	P	17 23 17.6	-0.7
	comp=Z,225nm,1.5s,mb5.6						
BFO	Black Forest	79.67	317	*e*P	P	17 23 20.2	+1.4
BFO				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
BFO	Black Forest	79.67	317	*e*P	P	17 23 20.2	+1.4
	comp=Z,30nm,1.2s,mb5.1						
PCP	Pian Castagno	79.75	314	P	P	17 23 19.6	+0.3
FELD	Feldberg	79.92	317	*e*P	P	17 23 18.0	-2.1
LANF	Langenberg	79.98	318	*e*P	P	17 23 18.5	-1.9
FIN	Finale Ligure	80.02	313	P	P	17 23 20.5	-0.3
STR	Strasbourg	80.03	318	*e*P	P	17 23 19.1	-1.6
ORX	Oropa	80.08	315	P	P	17 23 20.9	-0.2
TRAV		80.25	315	P	P	17 23 20.6	-1.4
ROB	Roburent	80.25	313	P	P	17 23 21.4	-0.6
IMI	Imperia	80.27	313	P	P	17 23 21.8	-0.3
WLS	Welschbruch	80.32	318	*e*P	P	17 23 20.2	-2.0
MONE	Monesi	80.35	313	P	P	17 23 22.7	+0.2
CDF	Champ du Feu	80.37	318	*e*P	P	17 23 22.6	+0.1
	comp=Z,61nm,1.3s,mb5.1						
NEGI	Negi	80.41	313	P	P	17 23 22.5	-0.4
RUP	Ruppelstein	80.42	319	*e*P	P	17 23 20.4	-2.4
MAW	Mawson	80.42	192	P	P	17 23 23.3	+0.9
MAW				pmax	pmax		
	comp=Z,42nm,1.0s						
MAW	Mawson	80.42	192	P	P	17 23 21.7	-0.8
	comp=Z,13nm,0.7s,mb4.9,baz=357,slow=6.5,SNR=14						
MAW				LR	LR	17 54 11.3	
	comp=Z,822nm,18.8s,MS5.1,baz=60,slow=32						
MAW	Mawson	80.42	192	*e*P	P	17 23 22.7	+0.3
	comp=Z,33nm,0.9s,mb5.3						
ECH	Echery	80.46	317	*e*P	P	17 23 21.0	-2.0
ENR	Entracque	80.58	313	P	P	17 23 23.9	+0.2
AUTN	L'Aution	80.60	313	*e*P	P	17 23 22.0	-1.8
SBF	Sospel	80.60	313	*e*P	P	17 23 23.0	-0.9
	comp=Z,157nm,1.2s,mb5.5						
RSP	Reno Superiore	80.62	314	P	P	17 23 23.4	-0.6
BHB	Bricherasio	80.64	314	P	P	17 23 23.1	-1.0
STV	Sta Anna Valdi	80.65	313	P	P	17 23 23.7	-0.4
LSD	Ceresole Reale	80.67	315	P	P	17 23 25.2	+1.0
TOUF	Mont Tournerai	80.72	313	*e*P	P	17 23 24.1	-0.4
LOMF	Lomont	80.75	317	*e*P	P	17 23 22.5	-2.1
FENE	Fenestrelle	80.77	314	P	P	17 23 24.5	-0.3
PZZ	Prazzo	80.79	314	P	P	17 23 24.1	-0.8
LPG	La Plagne	80.95	315	*e*P	P	17 23 26.0	+0.3
	comp=Z,70nm,0.8s,mb5.3						
RRL	Cesana Torines	80.98	314	P	P	17 23 26.1	+0.3
MBDF	Montbardon	81.00	314	*e*P	P	17 23 26.4	+0.4
	comp=Z,62nm,1.0s,mb5.2						
HAU	Haudompre	81.02	317	*e*P	P	17 23 26.0	0.0
	comp=Z,95nm,1.1s,mb5.3						
HAU				*e*R			
	comp=Z,681nm,20.2s						
RSL	Roselend	81.02	315	*e*P	P	17 23 25.3	-0.7
BNI	Bardonecchia	81.04	314	P	P	17 23 26.0	-0.2
BNI				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.4						
BNI	Bardonecchia	81.04	314	*e*P	P	17 23 27.4	+1.3
	comp=Z,37nm,1.1s,mb5.2						
SUR	Sutherland	81.18	235	*e*P	P	17 23 29.0	+1.8
	comp=Z,58nm,0.7s,mb5.6						
SUR				LR	LR		
	comp=Z,57nm,19.0s,MS4.0						
THEF	They Montfort	81.24	317	*e*P	P	17 23 25.1	-2.0
OG05	Jujurieux	81.80	315	*e*P	P	17 23 29.1	-1.0
BAIF	Baives	82.23	319	*e*P	P	17 23 32.1	-0.1
	comp=Z,75nm,1.1s,mb5.2						
SSF	Saint Saulge	83.03	316	*e*P	P	17 23 36.5	+0.2
	comp=Z,150nm,1.6s,mb5.5						
AGO	Saint Agoulin	83.41	315	*e*P	P	17 23 36.2	-2.1
LBL	Lubilhac	83.44	315	*e*P	P	17 23 37.2	-1.3
PYM	Petit Puy Mans	83.54	315	*e*P	P	17 23 37.2	-1.8
RJF	Les Rejaudoux	84.64	315	*e*P	P	17 23 44.5	0.0
	comp=Z,67nm,1.0s,mb5.4						
RJF				*e*R			
	comp=Z,765nm,19.2s						
JMIC	Jan Mayen	84.69	341	LR	LR	18 03 46.8	
	comp=Z,698nm,20.7s,MS5.0,baz=85,slow=37						
FLN	La Foliniere	85.44	319	*e*P	P	17 23 47.8	-0.6
	comp=Z,88nm,1.1s,mb5.5						
FLN				*e*R			
	comp=Z,606nm,17.2s						
ANM	Nome	85.77	25	*e*P	P	17 23 53.8	+4.2
EKA	Eskdalemuir Ar	85.87	325	P	P	17 23 51.9	+1.6
	comp=Z,18nm,0.8s,mb5.3,baz=92,slow=5.1,SNR=18						
ETSF	Etsaut	86.50	313	*e*P	P	17 23 53.6	-0.2
	comp=Z,73nm,1.2s,mb5.5						
SYO	Syowa Base	87.22	197	⇑P	P	17 23 57.5	+0.9
SYO	Syowa Base	87.22	197	⇓pP	pP	17 24 11.4	+2.4
RPZ	Rata Peaks	87.72	135	LR	LR	18 03 17.3	
	comp=Z,1µm,19.2s,MS5.2,baz=203,slow=36						
ESDC	Sonseca Array	89.65	310	P	P	17 24 09.5	+0.6
	comp=Z,18nm,1.1s,mb5.3,baz=52,slow=4.5,SNR=16						
IMA	Indian Mountai	89.90	22	*e*P	P	17 24 12.3	+2.8
IMA				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.5						
IMA	Indian Mountai	89.90	22	*e*P	P	17 24 12.6	+3.1
	comp=Z,6.0nm,1.1s,mb4.8						
URZ	Urewera	90.87	129	LR	LR	18 05 51.0	
	comp=Z,481nm,19.7s,MS4.9,baz=181,slow=36						
SUMG	Summit	92.11	347	*e*P	P	17 24 21.3	+1.7
	comp=Z,14nm,0.9s,mb5.3						
COLA	College	92.61	22	PFAKE		17 24 30.0	+7.9
COLA				LR	LR		
	comp=Z,552nm,20.0s,MS5.0						
ILAR	Eielson Array	93.02	22	P	P	17 24 25.0	+1.0
	comp=Z,1.8nm,0.8s,mb4.6,baz=294,slow=4.5,SNR=19						
ILAR				PP	PP	17 28 11.0	+1.2
	comp=Z,1.3nm,1.0s,baz=275,slow=8.0,SNR=5.0						
ILAR				LR	LR	18 09 38.8	
	comp=Z,438nm,18.6s,MS4.9,baz=176,slow=38						
FIB	Fire Island	93.47	26	PFAKE		17 24 40.0	+14
FIB				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
VNDA	Vanda	94.97	168	*e*P	P	17 24 33.4	+0.8
VNDA				pmax	pmax		
	comp=Z,4.0nm,0.9s						
VNDA				MLR	MLR		
	comp=Z,850nm,19.0s						
VNDA	Vanda	94.97	168	P	P	17 24 32.5	-0.1
	comp=Z,2.5nm,0.8s,mb4.7,baz=286,slow=6.4,SNR=9.8						
VNDA				LR	LR	18 03 32.7	
	comp=Z,474nm,18.2s,MS5.0,baz=301,slow=33						
VNDA	Vanda	94.97	168	*e*P	P	17 24 33.4	+0.8
	comp=Z,3.7nm,0.9s,mb4.8						
VNDA				LR	LR		
	comp=Z,849nm,19.0s,MS5.2						
INK	Inuvik	95.16	16	P	P	17 24 34.0	+0.4
	comp=Z,2.4nm,0.7s,mb4.8,baz=354,slow=5.5,SNR=14						
INK				LR	LR	18 13 28.8	
	comp=Z,635nm,20.3s,MS5.1,baz=287,slow=39						
SBA	Scott Base	96.07	168	PFAKE		17 24 50.0	+12
SBA				LR	LR		
	comp=Z,511nm,19.0s,MS5.0						
DBIC	Dimbokro	97.31	278	P	P	17 24 46.2	+1.6
	comp=Z,5.4nm,1.2s,mb4.9,baz=130,slow=5.3,SNR=3.9						
DBIC				LR	LR	18 09 11.1	
	comp=Z,316nm,19.8s,MS4.8,baz=59,slow=36						
DBIC	Dimbokro	97.31	278	PFAKE		17 25 00.0	+15
DBIC				LR	LR		
	comp=Z,368nm,20.0s,MS4.9						
QSPA	South Pole Qui	99.78	180	PFAKE		17 25 10.0	+16
QSPA				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
YKA	Yellowknife Ar	104.56	13	PP	PP	17 29 36.3	-1.9
	comp=Z,1.3nm,0.9s,baz=333,slow=7.6,SNR=7.6						
YKA				PKKPbc		17 41 01.1	
	comp=Z,0.4nm,0.7s,baz=166,slow=2.6,SNR=6.9						
OCWA	Octopus Mounta	113.48	27	PFAKE		17 30 00.0	+12
OCWA				LR	LR		
	comp=Z,645nm,21.0s,MS5.2						
SCHQ	Schefferville	113.49	348	PFAKE		17 30 00.0	+13
SCHQ				LR	LR		
	comp=Z,768nm,19.0s,MS5.3						
FFC	Flin Flon	114.27	10	PFAKE		17 30 00.0	+11
FFC				LR	LR		
	comp=Z,145nm,20.0s,MS4.6						
NEW	Newport	115.98	22	PFAKE		17 30 10.0	+18
NEW				LR	LR		
	comp=Z,324nm,19.0s,MS5.0						
HUMO	Hull Mountain	117.90	30	PFAKE		17 30 10.0	+14
HUMO				LR	LR		
	comp=Z,359nm,20.0s,MS5.0						
PPT	Papeete	118.21	105	*e*PS	PS	17 41 00.4	+0.6
PPT				*e*LR	LR	18 05 57.4	
	comp=Z,401nm,24.0s						
MSO	Missoula	118.35	21	*e*PKPdf	PKPdf	17 29 57.9	+0.8
MSO				LR	LR		
	comp=Z,467nm,20.0s,MS5.1						
TBI	Tubuai	118.36	111	*e*PS	PS	17 41 07.0	+6.0
TBI				*e*LR	LR	18 06 00.9	
	comp=Z,593nm,24.0s						
BMO	Blue Mountains	118.70	25	PFAKE		17 30 10.0	+12
BMO				LR	LR		
	comp=Z,515nm,19.0s,MS5.2						
ULM	Lac du Bonnet	119.52	7	PKP	PKPdf	17 30 02.3	+3.0
	comp=Z,3.6nm,0.8s,baz=24,slow=2.6,SNR=4.8						
MOD	Modoc	119.72	29	PFAKE		17 30 10.0	+10
MOD				LR	LR		
	comp=Z,248nm,19.0s,MS4.9						
DGMT	Dagmar	119.76	14	PFAKE		17 30 10.0	+10
DGMT				LR	LR		
	comp=Z,745nm,19.0s,MS5.3						
BOZ	Bozeman (W)	120.18	20	PFAKE		17 30 10.0	+9.3
BOZ				LR	LR		
	comp=Z,587nm,19.0s,MS5.2						
LAO	LASA Array	120.91	16	*e*PKPdf	PKPdf	17 30 03.5	+1.5
HLID	Hailey	120.94	24	PFAKE		17 30 20.0	+18
HLID				LR	LR		
	comp=Z,222nm,19.0s,MS4.8						
LKWY	Lake	121.55	20	PFAKE		17 30 20.0	+17
LKWY				LR	LR		
	comp=Z,782nm,19.0s,MS5.4						
EYMN	Ely	122.23	4	PFAKE		17 30 20.0	+15
EYMN				LR	LR		
	comp=Z,397nm,19.0s,MS5.1						
TPAW	Teton Pass	122.30	21	*e*PKPdf	PKPdf	17 30 06.3	+1.5
LOHW	Long Hollow	122.31	21	*e*PKPdf	PKPdf	17 30 06.7	+1.8
SNOW	Snow King Moun	122.39	21	*e*PKPdf	PKPdf	17 30 06.4	+1.4
REDW	Red Top Meadow	122.44	21	*e*PKPdf	PKPdf	17 30 07.2	+2.1
CMB	Columbia Colle	122.62	32	PFAKE		17 30 20.0	+14
CMB				LR	LR		
	comp=Z,589nm,22.0s,MS5.2						
AHID	Auburn Hatcher	122.88	22	PFAKE		17 30 20.0	+14
AHID				LR	LR		
	comp=Z,635nm,22.0s,MS5.2						
ELK	Elko	122.94	26	PKIKP	PKPdf	17 30 08.8	+2.6
ELK	Elko	122.94	26	*e*PKPdf	PKPdf	17 30 07.8	+1.6
NVAR	Mina Array Bea	123.37	30	PKP	PKPdf	17 30 09.2	+2.1
	comp=Z,4.4nm,0.7s,baz=270,slow=4.3,SNR=12						
BW06	Boulder Array	123.42	20	PFAKE		17 30 20.0	+13
BW06				LR	LR		
	comp=Z,500nm,21.0s,MS5.2						
PDAR	Pinedale Array	123.42	20	PKP	PKPdf	17 30 08.6	+1.5
	comp=Z,5.4nm,0.7s,baz=43,slow=1.9,SNR=28						
PDAR				PKKPbc		17 40 00.6	
	comp=Z,0.6nm,0.9s,baz=153,slow=3.3,SNR=3.5						
MNV	Mina	123.44	30	PKIKP	PKPdf	17 30 10.2	+3.0
MNV				MLR	MLR		
	comp=Z,590nm,21.0s,MS5.2						
MNV	Mina	123.44	30	*e*PKPdf	PKPdf	17 30 09.4	+2.3
MNV				LR	LR		
	comp=Z,588nm,21.0s,MS5.2						
HWUT	Hardware Ranch	123.71	23	PFAKE		17 30 20.0	+12
HWUT				LR	LR		
	comp=Z,587nm,19.0s,MS5.3						
TPH	Tonopah	124.18	29	PFAKE		17 30 20.0	+11
TPH				LR	LR		
	comp=Z,383nm,20.0s,MS5.1						
TRCR	Troy Canyon	124.73	28	*e*PKPdf	PKPdf	17 30 10.9	+1.2
DAU	Daniels Canyon	124.85	23	PKIKP	PKPdf	17 30 14.7	+4.8
NCB	Newcomb	125.30	349	PFAKE		17 30 20.0	+9.4
NCB				LR	LR		
	comp=Z,794nm,22.0s,MS5.3						
ISA	Isabella	125.42	32	PFAKE		17 30 20.0	+8.9
ISA				LR	LR		
	comp=Z,267nm,19.0s,MS4.9						
TMUT	Trail Mountain	125.83	24	*e*PKPdf	PKPdf	17 30 13.5	+1.7
MVU	Marysvale	126.09	25	*e*PKPdf	PKPdf	17 30 15.2	+2.9
MVU				LR	LR		
	comp=Z,396nm,19.0s,MS5.1						
MSU	Marysvale	126.10	25	PKIKP	PKPdf	17 30 15.6	+3.3
MSU	Marysvale	126.10	25	*e*PKPdf	PKPdf	17 30 14.5	+2.2
NEN	Nelson	127.26	29	*e*PKPdf	PKPdf	17 30 15.6	+0.9
JFWS	Jewell Farm	127.32	4	PFAKE		17 30 30.0	+15
JFWS				LR	LR		
	comp=Z,649nm,21.0s,MS5.3						
ISCO	Idaho Springs	127.39	19	PFAKE		17 30 30.0	+15
ISCO				LR	LR		
	comp=Z,454nm,19.0s,MS5.2						
PV10	Paradox Valley	127.47	23	*e*PKPdf	PKPdf	17 30 17.4	+2.4
PV01	Paradox Valley	127.86	22	*e*PKPdf	PKPdf	17 30 18.3	+2.5
RW3	Ridgway	128.08	21	*e*PKIKP	PKPdf	17 30 24.3	+8.1
PAL	Palisades	128.10	348	PKIKP	PKPdf	17 30 15.5	-0.6
PAL	Palisades	128.10	348	*e*PKPdf	PKPdf	17 30 15.3	-0.9
SDCO	Great Sand Dun	129.29	20	PFAKE		17 30 30.0	+12
SDCO				LR	LR		
	comp=Z,501nm,20.0s,MS5.2						
RCBR	Riachuelo	130.03	271	PFAKE		17 30 30.0	+9.5
RCBR				LR	LR		
	comp=Z,330nm,19.0s,MS5.0						
ACSO	Alum Creek Sta	130.04	357	PFAKE		17 30 30.0	+10
ACSO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
CBN	Corbin	131.45	351	PFAKE		17 30 40.0	+17
CBN				LR	LR		
	comp=Z,726nm,20.0s,MS5.4						
TUC	Tucson	131.92	28	PKIKP	PKPdf	17 30 27.5	+3.9
TUC				MLR	MLR		
	comp=Z,270nm,19.0s,MS5.0						
TUC	Tucson	131.92	28	*e*PKPdf	PKPdf	17 30 27.4	+3.8
TUC				LR	LR		
	comp=Z,268nm,19.0s,MS5.0						
BLA	Blacksburg	132.83	354	PFAKE		17 30 40.0	+15
BLA				LR	LR		
	comp=Z,474nm,20.0s,MS5.2						
AMTX	Amarillo	133.12	17	PFAKE		17 30 40.0	+14
AMTX				LR	LR		
	comp=Z,409nm,19.0s,MS5.2						
MYNC	Murphy	135.24	358	PFAKE		17 30 40.0	+10
MYNC				LR	LR		
	comp=Z,677nm,21.0s,MS5.3						
MIAR	Mount Ida	135.26	9	PFAKE		17 30 40.0	+10
MIAR				LR	LR		
	comp=Z,946nm,20.0s,MS5.5						
OXF	Oxford	135.74	4	PFAKE		17 30 40.0	+9.4
OXF				LR	LR		
	comp=Z,611nm,20.0s,MS5.3						
JSC	Jenkinsville	135.82	354	P	Pdif	17 27 35.5	+1.2
NHSC	New Hope	136.86	353	PFAKE		17 30 50.0	+17
NHSC				LR	LR		
	comp=Z,673nm,21.0s,MS5.3						
GOGA	Godfrey	136.86	357	PFAKE		17 30 50.0	+17
GOGA				LR	LR		
	comp=Z,423nm,22.0s,MS5.1						
LTX	Lajitas	137.53	23	PFAKE		17 30 50.0	+16
LTX				LR	LR		
	comp=Z,474nm,21.0s,MS5.2						
TXAR	Lajitas Array	137.53	23	PKP	PKPdf	17 30 38.0	+3.8
	comp=Z,1.8nm,0.6s,baz=218,slow=1.6,SNR=18						
JCT	Junction City	137.79	18	PKIKP	PKPdf	17 30 36.7	+2.1
JCT				MLR	MLR		
	comp=Z,35nm,21.0s,MS4.1						
JCT	Junction City	137.79	18	*e*PKPdf	PKPdf	17 30 36.5	+1.9
JCT				LR	LR		
	comp=Z,584nm,21.0s,MS5.3						
NATX	Nacogdoches	137.81	11	PFAKE		17 30 50.0	+15
NATX				LR	LR		
	comp=Z,458nm,19.0s,MS5.2						
HKT	Hockley	139.32	13	PFAKE		17 30 50.0	+13
HKT				LR	LR		
	comp=Z,535nm,21.0s,MS5.3						
DWPF	Disney	141.94	353	PFAKE		17 31 00.0	+18
DWPF				LR	LR		
	comp=Z,798nm,19.0s,MS5.5						
BDFB	Brasilia	142.34	257	PKP	PKPdf	17 30 47.4	+4.4
	comp=Z,13nm,1.0s,baz=202,slow=4.1,SNR=11						
TRQA	Tornquist	144.49	214	*e*PKPdf	PKPdf	17 30 46.0	-0.2
TRQA				LR	LR		
	comp=Z,481nm,19.0s,MS5.3						
SJG	San Juan	145.84	324	PKIKP	PKPdf	17 30 53.1	+4.0
SJG				MLR	MLR		
	comp=Z,500nm,21.0s						
SJG	San Juan	145.84	324	*e*PKPdf	PKPdf	17 30 52.0	+2.9
SJG				LR	LR		
	comp=Z,498nm,21.0s,MS5.3						
TEIG	Tepich	150.00	4	*e*PKPbc	PKPdf	17 31 04.8	+9.1
TEIG				LR	LR		
	comp=Z,271nm,20.0s,MS5.0						
PCRV	Puerto La Cruz	150.70	312	PKPbc	PKPdf	17 31 04.8	+7.7
	comp=Z,125nm,1.3s,baz=22,slow=3.7,SNR=8.2						
SDV	Santo Domingo	155.73	320	PFAKE		17 31 20.0	+16
SDV				LR	LR		
	comp=Z,215nm,20.0s,MS5.0						
LVC	Limon Verde	159.15	231	PKPab	PKPab	17 31 48.2	+0.7
	comp=Z,15nm,0.7s,baz=80,slow=2.4,SNR=19						
LVC	Limon Verde	159.15	231	PFAKE		17 31 20.0	+12
LVC				LR	LR		
	comp=Z,421nm,19.0s,MS5.3						
JTS	JuntasAbangare	159.91	356	PFAKE		17 31 20.0	+11
JTS				LR	LR		
	comp=Z,86nm,20.0s,MS4.6						
ROSC	El Rosal	161.16	321	PKPab	PKPab	17 31 58.3	+1.9
	comp=Z,12nm,0.8s,baz=94,slow=19,SNR=8.3						
LPAZ	La Paz	161.27	248	PKIKP	PKPdf	17 31 13.9	+3.4
LPAZ				MLR	MLR		
	comp=Z,300nm,20.0s						
LPAZ	La Paz	161.27	248	PKP	PKPdf	17 31 13.4	+2.9
	comp=Z,4.2nm,1.1s,baz=24,slow=3.0,SNR=3.8						
LPAZ				PKPab	PKPab	17 31 58.9	+2.0
	comp=Z,7.9nm,1.0s,baz=115,slow=4.2,SNR=10						
LPAZ	La Paz	161.27	248	*e*PKPdf	PKPdf	17 31 13.6	+3.1
LPAZ				*e*PKPab	PKPab	17 31 57.0	+0.2
LPAZ				LR	LR		
	comp=Z,305nm,20.0s						
OTAV	Otavalo	167.31	322	*e*PKPdf	PKPdf	17 31 16.5	+0.3
OTAV				*e*PKPab	PKPab	17 32 25.5	+2.2
OTAV				LR	LR		
	comp=Z,228nm,19.0s						
NNA	Nana	170.56	256	PFAKE		17 31 30.0	+12
NNA				LR	LR		
	comp=Z,106nm,22.0s						

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*PRU **28** 17:22:18.1, 51.56N×16.07E, Felt In Harrachov*
*WAR **28** 17:22:19.0, 51.54N×16.03E, h1^{km}, ML3.0, Mining Induced*

ISC 28 17:22:15.9±0.9**, 51.57N**±0.04×**16.03E**±0.06**, n10,** σ1^{s}**21**/24**, Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.75	167	*e*Pg	Pg	17 22 32.1	+1.2
KSP				*e*Sg	Sg	17 22 41.7	+0.8
UPC	Upice	1.07	180	*e*PG	Pg	17 22 38.0	+0.8
UPC				*e*SG	Sg	17 22 52.5	+1.1
DPC	Dobruska-Polom	1.24	171	*e*PG	Pg	17 22 40.9	+0.3
DPC				*e*SG	Sg	17 22 57.3	+0.2
PVCC	Panska Ves	1.39	222	*e*PG	Pg	17 22 44.7	+1.0
PVCC				*e*SG	Sg	17 23 03.1	+0.8
PRU	Pruhonice	1.84	211	*i* PN	Pn	17 22 50.0	+0.9
PRU				PG	Pg	17 22 51.8	-0.9
PRU				*i* x	x	17 23 08.8	
PRU				SG	Sg	17 23 15.6	-1.7
	16nm,0.4s						
CLL	Collm	1.91	263	*i* PN	Pn	17 22 50.9	+0.9
CLL				*i* PG	Pg	17 22 53.7	-0.4
CLL				*e*		17 22 58.0	
CLL				*e*SG	Sg	17 23 20.0	+0.5
OKC	Ostrava-Krasne	2.20	141	*e*PG	Pg	17 22 57.8	-2.0
OKC				*e*SG	Sg	17 23 26.5	-2.6
KHC	Kasperske Hory	2.90	214	*e*PN	Pn	17 23 05.5	+1.3
KHC				*e*PG	Pg	17 23 10.8	-3.1
KHC				*e*SN	Sn	17 23 41.3	+0.9
KHC				*e*SG	Sg	17 23 49.5	-3.1
MOX	Moxa	2.93	253	*e*Pg	Pg	17 23 13.3	-1.1
MOX				*e*Sg	Sg	17 23 52.3	-1.2
BSD	Bornholm Skovb	3.61	350	*i* P	Pn	17 23 14.4	+0.1
BSD				*i* S	Sn	17 23 52.6	-5.7

IDC 28 17:24:21.2±1.4**, 6.90N×94.49E, mb3.8**/5**, mb1 4.0**/6**, mb1mx3.7**/18**, mbtmp3.8**/6**, ML3.9**/1**, Error ellipse: s-maj=47.7km s-min=28.0km az=51.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.28	20	Pn	P	17 27 18.6	-1.7

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	0.2nm,0.3s,baz=210,slow=14,SNR=15						
SONM	**Songino Array**	**42.04**	**12**	P	P	17 32 14.4	-1.7
	1.1nm,0.8s,baz=198,slow=7.6,SNR=7.1						
WRA	**Warramunga Arr**	**47.41**	**125**	P	P	17 32 57.7	-1.9
	0.1nm,0.5s,baz=306,slow=8.5,SNR=3.9						
FINES	**FINESS Array B**	**73.73**	**332**	P	P	17 35 56.2	-2.5
	3.1nm,0.9s,baz=90,slow=3.8,SNR=6.5						
GERES	**GERESS Array B**	**78.78**	**318**	P	P	17 36 26.8	-0.6
	0.6nm,0.7s,baz=72,slow=4.2,SNR=6.1						
HFS	**Hagfors**	**79.47**	**330**	P	P	17 36 29.5	-1.4
	2.1nm,0.7s,baz=90,slow=7.4,SNR=6.8						

IDC 28 17:27:44.1±16.0,**5.94N**×**95.48E**,**mb3.9**/2,**mb1 4.2**/3,
mb1mx3.7/17,**mbtmp3.9**/3,**ML4.1**/1,**Error ellipse:**
s-maj=422.4km s-min=42.5km az=82.0,Northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.89**	**15**	Pn	P	17 30 49.0	-2.4
	0.3nm,0.3s,baz=213,slow=15,SNR=21						
WRA	**Warramunga Arr**	**46.07**	**125**	P	P	17 36 09.8	-2.1
	0.9nm,0.4s,baz=306,slow=8.4,SNR=13						
ASAR	**Alice Springs**	**47.67**	**130**	P	P	17 36 22.8	-1.7
	1.1nm,0.7s,baz=302,slow=7.1,SNR=12						

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*IDC **28** 17:31:21.8±0.7,7.55N×94.03E,mb4.0/11,mb1 4.2/12,*
mb1mx4.1/19,mbtmp4.0/12,ML4.3/1,MS3.6/1,Ms1 3.8/1,
ms1mx2.7/28,Error ellipse: s-maj=38.4km s-min=16.1km
az=55.0

ISC 28 17:31:25.3±5.5,**7.6N**±0.2×**94.2E**±0.2,**h38**^{km}±48^{km},**n19**,
σ**0^{s}78**/18,**mb4.4**/16,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.77**	**23**	Pn	**P**	**17 34 14.0**	**+0.3**
	0.6nm,0.3s,baz=212,slow=14,SNR=12						
CMAR				LR	LR	17 38 42.1	
	comp=Z,249nm,19.1s,baz=225,slow=37						
PKI	**Pulchoki**	**21.54**	**338**	*e*P	**P**	**17 36 13.8**	**+0.5**
	27nm,0.7s,mb4.8						
GUN	**Gumba**	**21.68**	**340**	*e*P	**P**	**17 36 14.7**	**0.0**
	46nm,0.8s,mb5.0						
DMN	**Daman**	**21.68**	**338**	*e*P	**P**	**17 36 15.0**	**+0.3**
	49nm,0.7s,mb5.1						
KKN	**Kakani**	**21.78**	**338**	*e*P	**P**	**17 36 16.3**	**+0.6**
	44nm,0.9s,mb4.9						
GKN	**Gorkha**	**22.21**	**337**	*e*P	**P**	**17 36 19.2**	**-0.8**
KOLN	**Koldanda**	**22.42**	**335**	*e*P	**P**	**17 36 21.3**	**-0.8**
	34nm,0.7s,mb4.9						
SONM	**Songino Array**	**41.44**	**12**	P	**P**	**17 39 10.1**	**+0.1**
	2.6nm,0.8s,mb3.9,baz=198,slow=8.5,SNR=10						
SONM				PcP	PcP	17 41 09.9	+2.0
	1.4nm,0.6s,baz=200,slow=4.2,SNR=7.6						
NWAO	**Narrogin (SRO)**	**45.89**	**153**	P	**P**	**17 39 47.8**	**+1.6**
	26nm,1.2s,mb5.0,baz=334,slow=6.6,SNR=4.1						
WRA	**Warramunga Arr**	**48.09**	**125**	P	**P**	**17 40 02.4**	**-1.2**
	3.1nm,0.9s,mb4.3,baz=305,slow=8.5,SNR=8.9						
WRA				PcP	PcP	17 41 35.3	+4.1
	0.8nm,1.0s,baz=305,slow=3.2,SNR=5.4						
BVAR	**Borovoye Array**	**49.26**	**341**	P	**P**	**17 40 11.5**	**-0.7**
	1.8nm,0.9s,mb4.1,baz=143,slow=7.4,SNR=5.2						
BVAR				PcP	PcP	17 41 37.9	+2.9
	1.3nm,0.7s,baz=143,slow=7.4,SNR=4.8						
ASAR	**Alice Springs**	**49.72**	**130**	P	**P**	**17 40 15.4**	**-0.7**
	2.0nm,0.8s,mb4.2,baz=300,slow=7.1,SNR=7.0						
ASAR				PcP	PcP	17 41 38.3	+1.2
	2.9nm,0.8s,baz=302,slow=3.5,SNR=13						
BRTR	**Keskin Array B**	**62.62**	**311**	P	**P**	**17 41 46.8**	**-1.5**
	0.8nm,0.5s,mb4.1,baz=143,slow=7.2,SNR=3.8						
AKASG	**Malin Array Be**	**68.39**	**322**	P	**P**	**17 42 25.2**	**+0.1**
	2.0nm,0.9s,mb4.1,baz=86,slow=5.6,SNR=4.3						
FINES	**FINESS Array B**	**72.97**	**332**	P	**P**	**17 42 52.5**	**0.0**
	1.9nm,0.8s,mb4.1,baz=124,slow=6.9,SNR=7.1						
ARCES	**ARCESS Array B**	**75.54**	**340**	P	**P**	**17 43 07.8**	**+0.5**
	1.0nm,0.5s,mb4.0,baz=90,slow=8.1,SNR=3.5						
GERES	**GERESS Array B**	**78.05**	**318**	P	**P**	**17 43 22.3**	**+0.6**
	0.7nm,0.7s,mb3.7,baz=90,slow=4.0,SNR=5.2						
NOA	**NORSAR Array B**	**79.99**	**331**	P	**P**	**17 43 33.1**	**+1.1**
	0.5nm,0.6s,mb3.6,baz=98,slow=5.1,SNR=2.6						
PDAR	**Pinedale Array**	**125.43**	**21**	PKP	PKPdf	17 50 27.3	+4.6
	1.1nm,0.8s,baz=41,slow=2.2,SNR=8.2						

IDC 28 17:37:28.6±1.6,**7.85N**×**93.81E**,**mb3.9**/5,**mb1 4.1**/5,
mb1mx3.8/16,**mbtmp3.9**/5,**Error ellipse: s-maj=78.6km**
s-min=23.5km az=57.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**41.26**	**13**	P	P	17 45 15.5	-1.6
	1.1nm,0.8s,baz=195,slow=9.1,SNR=8.4						
WRA	**Warramunga Arr**	**48.52**	**125**	P	P	17 46 13.7	-2.0
	0.9nm,0.6s,baz=306,slow=8.5,SNR=10						
ASAR	**Alice Springs**	**50.15**	**130**	P	P	17 46 26.4	-1.7
	0.9nm,1.0s,baz=302,slow=7.5,SNR=5.7						
FINES	**FINESS Array B**	**72.58**	**332**	P	P	17 48 57.5	-1.9
	1.8nm,0.8s,baz=90,slow=11,SNR=5.3						
ARCES	**ARCESS Array B**	**75.18**	**340**	P	P	17 49 13.3	-1.0
	4.8nm,1.0s,baz=72,slow=3.8,SNR=4.8						
PDAR	**Pinedale Array**	**125.31**	**21**	PKP	PKPdf	17 56 30.8	-3.0
	0.4nm,0.6s,baz=180,slow=1.5,SNR=4.0						

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*IDC **28** 17:38:39.2±0.8,5.54N×94.38E,mb4.1/12,mb1 4.2/12,*
mb1mx4.1/18,mbtmp4.1/12,Error ellipse: s-maj=47.4km
s-min=16.0km az=49.0

ISC 28 17:38:42.4±0.8,**5.5N**±0.2×**94.4E**±0.2,**h33**^{km},**n15**,
σ**0^{s}59**/13,**mb4.1**/12,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.59**	**19**	Pn	**P**	**17 42 00.4**	**+5.0**
	baz=212,slow=12,SNR=8.3						
SONM	**Songino Array**	**43.38**	**12**	P	**P**	**17 46 43.4**	**-0.2**
	1.4nm,0.6s,mb3.9,baz=193,slow=9.4,SNR=12						
SONM				PcP	PcP	17 48 32.1	-0.1
	0.4nm,0.4s,baz=195,slow=3.5,SNR=4.8						
WRA	**Warramunga Arr**	**46.71**	**124**	P	**P**	**17 47 10.8**	**+0.4**
	2.3nm,0.6s,mb4.3,baz=303,slow=10.0,SNR=22						
ASAR	**Alice Springs**	**48.23**	**129**	P	**P**	**17 47 22.3**	**0.0**
	1.4nm,0.5s,mb4.2,baz=299,slow=8.0,SNR=25						
BVAR	**Borovoye Array**	**51.29**	**342**	P	**P**	**17 47 45.5**	**+0.2**
	3.0nm,0.5s,mb4.5,baz=138,slow=13,SNR=21						
STKA	**Stephens Creek**	**58.31**	**133**	P	**P**	**17 48 36.1**	**-0.5**
	2.2nm,1.0s,mb4.1,baz=318,slow=12,SNR=2.9						
BRTR	**Keskin Array B**	**64.17**	**312**	P	**P**	**17 49 15.7**	**-0.5**
	0.6nm,0.6s,mb3.8,baz=121,slow=7.2,SNR=4.2						
AKASG	**Malin Array Be**	**70.16**	**322**	P	**P**	**17 49 52.7**	**-1.0**
	0.4nm,0.3s,mb3.8,baz=89,slow=5.6,SNR=5.8						
FINES	**FINESS Array B**	**74.90**	**332**	P	**P**	**17 50 21.1**	**-0.5**
	0.7nm,0.6s,mb3.8,baz=110,slow=5.8,SNR=6.5						
ARCES	**ARCESS Array B**	**77.55**	**340**	P	**P**	**17 50 36.4**	**-0.1**
	4.9nm,0.9s,mb4.4,baz=90,slow=7.2,SNR=3.8						
GERES	**GERESS Array B**	**79.75**	**319**	P	**P**	**17 50 50.0**	**+1.2**
	1.7nm,0.6s,mb4.2,baz=104,slow=5.5,SNR=16						
DAVOX	**Davos**	**82.26**	**316**	P	**P**	**17 51 02.8**	**+0.8**
	3.0nm,0.5s,mb4.5,baz=139,slow=5.3,SNR=8.8						
ILAR	**Eielson Array**	**96.80**	**22**	P	**P**	**17 52 10.9**	**+0.1**
	0.2nm,0.6s,mb3.8,baz=306,slow=4.6,SNR=4.7						
PDAR	**Pinedale Array**	**127.23**	**22**	PKP	PKPdf	17 57 45.5	+1.4
	0.4nm,0.6s,baz=135,slow=2.1,SNR=3.5						
TXAR	**Lajitas Array**	**141.22**	**26**	PKP	PKPdf	17 58 12.8	+2.3
	0.4nm,0.6s,baz=163,slow=0.6,SNR=4.6						

IDC 28 17:45:31.9±10.0,**9.78N**×**91.92E**,**mb3.6**/2,**mb1 3.7**/3,
mb1mx3.4/17,**mbtmp3.4**/3,**ML3.0**/1,**Error ellipse:**
s-maj=225.5km s-min=47.4km az=98.0,Nicobar Islands
region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.99**	**38**	Pn	P	17 48 10.0	-3.6
	0.0nm,0.3s,baz=230,slow=14,SNR=4.5						
WRA	**Warramunga Arr**	**51.15**	**125**	P	P	17 54 37.6	-1.5
	0.8nm,0.7s,baz=303,slow=9.3,SNR=6.0						
ASAR	**Alice Springs**	**52.81**	**130**	P	P	17 54 48.9	-2.7
	0.5nm,0.7s,baz=302,slow=6.8,SNR=6.9						

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*IDC **28** 17:46:15.7±0.5,8.32N×92.09E,mb4.4/17,mb1 4.5/18,*
mb1mx4.5/22,mbtmp4.4/18,ML4.8/1,MS4.3/5,Ms1 4.4/5,
ms1mx3.8/24,Error ellipse: s-maj=24.7km s-min=13.0km
az=43.0

*BJI **28** 17:46:18.4,8.27N×92.27E,h30^{km},mB5.1,mb4.8,Ms4.7,*
Msz4.4

*MOS **28** 17:46:19.2±1.6,8.23N×92.25E,h33^{km},mb5.3/39,Error*
ellipse: s-maj=11.6km s-min=7.4km az=115.5

*NEIC **28** 17:46:20.7±0.4,8.30N×92.27E,mb5.1/38,Error ellipse:*
s-maj=12.2km s-min=9.6km az=185.0

*HRVD **28** 17:46:20.7±0.6,8.33N×92.20E,h15^{km}±3^{km},MW4.9/52,*
Centroid moment Tensor Solution. LP body waves:
s10,c13;Mantle waves: s52,c84; Half duration: 0 Moment
tensor: Scale 10^{16}Nm; M_{rr}0.25±.16; $M_{\theta\theta}$-2.04±.14;
$M_{\phi\phi}$1.80±.12; $M_{r\theta}$-0.57±.27; $M_{\theta\phi}$1.10±.11; $M_{\phi r}$-1.39±.42;
Best double couple: $M_0$2.64×10^{16} NP1:ϕ_s146°,δ66°,λ162°.
NP2:ϕ_s243°,δ74°,λ25°. Principal axes: T 2.92, Plg29°,
Azm106°; N -.57, Plg60°, Azm274°; P -2.35, Plg5°,
Azm13°; nsta1 refers to body waves, cutoff=40s. nsta2
refers to surface waves, cutoff=50s.

ISC 28 17:46:18.2±0.3,**8.29N**±0.05×**92.35E**±0.04,**h25**^{km},
h25^{km}±1.3^{km}**:pP-P**,**n202**,σ**1^{s}22**/179,**mb4.9**/71,**MS4.5**/10,
8C-2D,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.97**	**32**	*e*P	**P**	**17 49 09.9**	**-0.5**
CMAR	**Chiang Mai Arr**	**11.97**	**32**	Pn	**P**	**17 49 09.9**	**-0.5**
	1.7nm,0.3s,baz=224,slow=14,SNR=58						
CMAR				LR	LR	17 54 21.1	
	comp=Z,725nm,19.1s,baz=215,slow=40						
CHG	**Chiang Mai**	**12.27**	**31**	P	**P**	**17 49 13.7**	**-0.8**
	26nm,0.9s						
VIS	**Vishakhapatnam**	**12.85**	**318**	*e*P	**P**	**17 49 18.2**	**-4.0**
VIS				*e*		17 51 29.7	
	comp=E,183nm,0.3s						
VIS				*e*		17 51 31.5	
	comp=N,191nm,0.5s						
NANT	**Nan**	**13.23**	**37**	P	**P**	**17 49 29.5**	**+2.3**
CHRT	**Chiangrai**	**13.58**	**31**	⇓P	**P**	**17 49 32.0**	**0.0**
	comp=N,474nm,0.8s						
KOD	**Kodaikanal**	**14.82**	**279**	*e*P	**P**	**17 49 47.7**	**-0.6**
KOD				*e*		17 50 08.9	
	comp=Z,140nm,1.1s						
HYB	**Hyderabad**	**16.22**	**305**	*i* P	**P**	**17 50 08.0**	**+1.7**
HYB				*e*		17 52 50.0	
HYB				*e*S	**S**	**17 53 00.0**	**-5.0**
BLSP	**Bilaspur**	**16.92**	**326**	*e*P	**P**	**17 50 17.1**	**+2.0**
BLSP				*e*		17 50 26.2	
	comp=Z,120nm,1.2s						
SHL	**Shillong**	**17.19**	**359**	*e*P	**P**	**17 50 19.6**	**+1.1**
SHL				*e*		17 50 29.0	
	comp=Z,96nm,0.9s						
MNGI	**Mangalore**	**17.84**	**287**	*e*P	**P**	**17 50 25.6**	**-1.0**
MNGI				*e*		17 50 31.1	
	comp=Z,77nm,1.4s						
AKL	**Akola**	**19.29**	**311**	*e*P	**P**	**17 50 45.5**	**+1.3**
AKL				*e*		17 50 55.0	
	comp=Z,142nm,1.6s						
KMI	**Kunming**	**19.46**	**29**	⇑P	**P**	**17 50 47.8**	**+1.7**
KMI				AP		17 50 52.5	
KMI				XP		17 50 55.8	
KMI				S	**S**	**17 54 15.5**	**-3.1**
KMI				AMB	AMB		
	comp=Z,50nm,1.3s						
KMI				AMB	AMB		
	comp=Z,248nm,4.8s						
KMI				LR	LR		
	comp=N,869nm,14.6s						
KMI				LR	LR		
	comp=E,868nm,15.9s						
KMI				LR	LR		
	comp=Z,701nm,17.8s						
GOA	**Goa**	**19.48**	**293**	*e*		17 50 52.3	
GOA				*e*		17 51 09.2	
	comp=Z,66nm,1.5s						
KAD	**Karad**	**19.84**	**299**	*e*P	**P**	**17 50 51.4**	**+1.0**
QIZ	**Qiongzhong**	**20.05**	**56**	*e*P	**P**	**17 50 53.0**	**+0.4**
QIZ				S	**S**	**17 54 34.5**	**+3.2**
QIZ				LR	LR		
	comp=N,2μm,17.5s						
QIZ				LR	LR		
	comp=Z,1μm,15.5s,MS4.4						
QIZ	**Qiongzhong**	**20.05**	**56**	*e*P	**P**	**17 50 53.1**	**+0.5**
	comp=Z,35nm,0.9s						
PKI	**Pulchoki**	**20.27**	**342**	*e*P	**P**	**17 50 54.6**	**-0.3**
	comp=Z,178nm,0.7s						
DMN	**Daman**	**20.41**	**341**	*e*P	**P**	**17 50 56.3**	**0.0**
	comp=Z,215nm,0.7s						
GUN	**Gumba**	**20.46**	**343**	*e*P	**P**	**17 50 55.8**	**-1.0**
	comp=Z,208nm,0.8s						
KKN	**Kakani**	**20.52**	**342**	*e*P	**P**	**17 50 56.5**	**-0.9**
	comp=Z,107nm,0.7s						
BHPL	**Bhopal**	**20.64**	**318**	*e*P	**P**	**17 50 59.6**	**+0.8**
BHPL				*e*		17 51 10.3	
	comp=Z,106nm,2.0s						
POO	**Poona**	**20.66**	**301**	*e*P	**P**	**17 50 58.1**	**-0.8**
GKN	**Gorkha**	**20.92**	**341**	*e*P	**P**	**17 51 00.5**	**-1.1**
	comp=Z,155nm,0.6s						
KOLN	**Koldanda**	**21.07**	**338**	*e*P	**P**	**17 51 02.4**	**-0.7**
	comp=Z,133nm,0.7s,mb5.4						
LSA	**Lhasa**	**21.33**	**357**	*e*P	**P**	**17 51 04.6**	**-1.1**
LSA				pmax	pmax		
	comp=Z,170nm,0.8s,mb5.4						
LSA	**Lhasa**	**21.33**	**357**	*e*P	**P**	**17 51 04.6**	**-1.1**
	comp=Z,170nm,0.8s,mb5.4						
BOM	**Bombay**	**21.70**	**301**	*e*P	**P**	**17 51 10.1**	**+0.7**
BOM				*e*		17 51 18.6	
	comp=Z,58nm,1.2s						
GYA	**Guiyang**	**22.61**	**35**	⇑*i*P	**P**	**17 51 19.0**	**+0.4**
GYA				AP		17 51 24.3	
GYA				XP		17 51 27.0	
GYA				PP	PP	17 51 48.0	+1.0
GYA				S	**S**	**17 55 24.8**	**+4.7**
GYA				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.8						
GYA				AMB	AMB		
	comp=Z,870nm,3.8s						
GYA				LR	LR		
	comp=N,1μm,16.4s,MS4.6						
GYA				LR	LR		
	comp=E,2μm,16.8s,MS4.6						
GYA				LR	LR		
	comp=Z,1μm,17.0s,MS4.4						
PTH	**Pithoragarh**	**24.03**	**333**	*e*P	**P**	**17 51 34.2**	**+1.8**
PTH				*e*S	**S**	**17 55 55.1**	**+10**
CD2	**Chengdu**	**24.90**	**24**	P	**P**	**17 51 41.0**	**+0.2**
CD2				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.2						
DDI	**Dehra Dun**	**25.69**	**330**	*e*P	**P**	**17 51 50.0**	**+1.8**
ENH	**Enshi**	**27.13**	**34**	*e*P	**P**	**17 52 00.3**	**-1.1**
	comp=Z,58nm,0.7s,mb5.2						
SDNR	**Sundarnagar**	**27.18**	**330**	*e*	pP	17 52 09.8	+0.4
LZH	**Lanzhou**	**29.59**	**19**	*e*P	**P**	**17 52 23.3**	**-0.4**
LZH				AP	pP	17 52 31.0	-0.1
LZH				XP	sP	17 52 35.0	+0.6
LZH				AMB	AMB		
	comp=Z,23nm,1.6s,mb4.7						
LZH				AMB	AMB		
	comp=Z,120nm,4.5s						
LZH				LR	LR		
	comp=E,1μm,13.0s						
LZH				LR	LR		
	comp=Z,2μm,16.5s,MS4.9						
GTA	**Gaotai**	**31.70**	**11**	P	**P**	**17 52 42.0**	**-0.3**
GTA				AP	pP	17 52 48.8	-1.0
GTA				XP	sP	17 52 51.8	-1.2
GTA				AMB	AMB		
	comp=Z,6.0nm,1.2s,mb4.3						
GTA				AMB	AMB		
	comp=Z,322nm,6.8s						
GTA				LR	LR		
	comp=E,360nm,17.1s,MS4.3						
GTA				LR	LR		
	comp=N,420nm,19.4s,MS4.3						
GTA				LR	LR		
	comp=Z,444nm,16.4s,MS4.2						
WMQ	**Urumqi**	**35.63**	**354**	*e*P	**P**	**17 53 15.8**	**-0.3**
WMQ				AP	pP	17 53 20.3	-3.4
WMQ				AMB	AMB		
	comp=Z,16nm,0.9s,mb5.0						
HHC	**Hu-ho-hao-te**	**36.65**	**25**	*e*P	**P**	**17 53 24.5**	**-0.3**
HHC				AP	pP	17 53 33.0	+0.7
HHC				XP	sP	17 53 37.8	+2.2
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,439nm,9.7s						
HHC				LR	LR		
	comp=N,401nm,15.5s,MS4.6						
HHC				LR	LR		
	comp=E,628nm,14.3s,MS4.6						
HHC				LR	LR		
	comp=Z,489nm,14.3s,MS4.4						
KZA	**Kyzart**	**36.89**	**339**	P	pP	17 53 33.7	-0.6
	SNR=7.0						
UCH	**Uchtor**	**37.29**	**338**	P	**P**	**17 53 31.9**	**+1.8**
	SNR=6.0						
KBK	**Karagaybulak**	**37.50**	**339**	P	**P**	**17 53 33.1**	**+1.2**
	SNR=7.9						
TKM2	**Tokmak 2**	**37.51**	**340**	P	pP	17 53 37.8	-1.7
	SNR=9.5						
AML	**Almayashu**	**37.52**	**337**	P	**P**	**17 53 33.2**	**+1.2**
	SNR=17						
AAK	**Ala-Archa**	**37.65**	**338**	P	**P**	**17 53 34.8**	**+1.7**
	SNR=7.8						
AAK	**Ala-Archa**	**37.65**	**338**	*e*P	**P**	**17 53 32.8**	**-0.3**
AAK				pmax	pmax		
	comp=Z,81nm,1.1s,mb5.4						
AAK	**Ala-Archa**	**37.65**	**338**	*e*P	**P**	**17 53 32.8**	**-0.2**
	comp=Z,81nm,1.1s,mb5.4						
CHMS	**Chumysh**	**37.87**	**339**	P	pP	17 53 39.8	-2.7
	SNR=8.3						
EKS2	**Erkin-Say**	**37.94**	**338**	P	**P**	**17 53 36.6**	**+1.0**
	SNR=7.9						
BJT	**Baijiatuau**	**38.09**	**30**	*e*P	**P**	**17 53 37.1**	**+0.2**
BJT				pmax	pmax		
	comp=Z,13nm,0.6s						
BJT	**Baijiatuau**	**38.09**	**30**	*e*P	**P**	**17 53 37.1**	**+0.2**
	comp=Z,13nm,0.6s,mb4.8						
BJI	**Beijing**	**38.11**	**30**	P	**P**	**17 53 37.3**	**+0.3**
BJI				AMB	AMB		
	comp=Z,14nm,0.9s,mb4.7						
USP	**Ospenovka**	**38.20**	**339**	P	**P**	**17 53 37.1**	**-0.6**
	SNR=10						
SONM	**Songino Array**	**41.18**	**14**	P	**P**	**17 54 02.7**	**+0.4**
	comp=Z,12nm,0.8s,mb4.6,baz=196,slow=7.7,SNR=90						
SONM				PcP	PcP	17 56 02.6	+0.7
	comp=Z,1.8nm,0.6s,baz=229,slow=3.2,SNR=3.3						
SONM				LR	LR	18 15 20.0	
	comp=Z,404nm,18.3s,MS4.3,baz=23,slow=42						
ULN	**Ulaanbaatar**	**41.37**	**15**	⇑*e*P	**P**	**17 54 03.6**	**-0.3**
ULN				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.5						
ULN	**Ulaanbaatar**	**41.37**	**15**	⇑*e*P	**P**	**17 54 03.5**	**-0.4**
	comp=Z,9.3nm,0.7s,mb4.5						
ZAK	**Zakamensk**	**42.94**	**10**	⇑*i*P	**P**	**17 54 16.7**	**0.0**
MOY	**Mondy**	**43.83**	**8**	*e*P	**P**	**17 54 24.6**	**+0.7**
TLY	**Talaya**	**44.25**	**10**	*e*P	pP	17 54 33.3	-1.7
TLY				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.7						
CN2	**Changchun**	**45.65**	**34**	*e*P	**P**	**17 54 38.5**	**-0.1**
CN2				AMB	AMB		
	comp=Z,20nm,0.6s,mb5.2						
RDF	**Al-Radifah**	**46.80**	**302**	*e*P	pP	17 54 56.2	+0.5
RDF				AMb	AMB	17 54 57.5	
	comp=Z,77nm,1.0s,mb5.6						
UMR	**Umm Al-Rimmam**	**46.85**	**303**	*e*P	pP	17 54 56.1	+0.1
UMR				AMb	AMB	17 54 57.7	
	comp=Z,69nm,1.0s,mb5.5						
RST	**Umm Al-Ruwaisa**	**47.43**	**303**	*e*P	pP	17 55 00.7	0.0
RST				AMb	AMB	17 55 02.1	
	comp=Z,92nm,0.9s,mb5.7						
MZLS	**Mizel**	**47.66**	**295**	P	**P**	**17 54 57.7**	**+2.9**
BVA0	**Borovoye Array**	**48.05**	**342**	*i* P	**P**	**17 55 02.0**	**+4.6**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
BVAR	**Borovoye Array**	**48.05**	**342**	P	**P**	**17 54 56.1**	**-1.3**
	comp=Z,1.9nm,0.9s,mb4.1,baz=162,slow=9.1,SNR=7.9						
BRVK	**Borovoye**	**48.11**	**342**	*e*P	**P**	**17 54 58.4**	**+0.5**
BRVK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
BRVK	**Borovoye**	**48.11**	**342**	*e*P	**P**	**17 54 58.4**	**+0.5**
	comp=Z,9.7nm,0.7s,mb4.9						
CHKZ	**Chkalovo**	**48.55**	**343**	*i* P	**P**	**17 55 00.1**	**-1.2**
CHKZ				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.3						
CHKZ	**Chkalovo**	**48.55**	**343**	*e*P	**P**	**17 55 00.2**	**-1.1**
	comp=Z,28nm,0.6s,mb5.5						
WRA	**Warramunga Arr**	**49.95**	**125**	P	**P**	**17 55 12.4**	**-0.1**
	comp=Z,8.7nm,0.7s,mb4.9,baz=304,slow=8.7,SNR=38						
WRAB	**Tennant Creek**	**49.95**	**125**	*e*P	**P**	**17 55 12.2**	**-0.3**
WRAB				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
WRAB	**Tennant Creek**	**49.95**	**125**	*e*P	**P**	**17 55 12.2**	**-0.3**
	comp=Z,11nm,0.7s,mb5.0						
MAJO	**Matsushiro**	**50.21**	**49**	P	**P**	**17 55 17.6**	**+3.3**
MAJO				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
MAJO	**Matsushiro**	**50.21**	**49**	P	**P**	**17 55 17.6**	**+3.3**
	comp=Z,17nm,1.0s,mb5.0						
MAT	**Matsushiro**	**50.21**	**49**	P	**P**	**17 55 12.9**	**-1.4**
MAT	**Matsushiro**	**50.21**	**49**	P	**P**	**17 55 13.0**	**-1.3**
MAT				pmax	pmax		
	comp=Z,37nm,0.6s,mb5.6						
MAT	**Matsushiro**	**50.21**	**49**	P	**P**	**17 55 13.0**	**-1.3**
	comp=Z,37nm,0.6s,mb5.6						
ASAR	**Alice Springs**	**51.54**	**129**	P	**P**	**17 55 24.8**	**+0.2**
	comp=Z,7.5nm,0.9s,mb4.6,baz=304,slow=6.8,SNR=25						
ASAR				PcP	PcP	17 56 39.3	+0.7
	comp=Z,2.3nm,0.7s,baz=304,slow=3.0,SNR=4.3						
BOD	**Bodaibo**	**52.18**	**14**	*e*P	**P**	**17 55 27.8**	**-1.1**
BOD				*e*	pP	17 55 35.2	-1.5
GNI	**Garni**	**52.89**	**315**	P	**P**	**17 55 35.8**	**+1.3**
	comp=Z,12nm,0.9s,mb4.8,baz=76,slow=8.8,SNR=3.8						
TI2	**Plekhanov**	**53.53**	**317**	*i* P	**P**	**17 55 43.0**	**+3.8**
SVE	**Sverdlovsk**	**54.38**	**339**	*e*P	**P**	**17 55 46.0**	**+0.8**
SVE				pmax	pmax		
	comp=Z,110nm,1.2s,mb5.7						
ZEI	**Tsey**	**54.53**	**317**	*e*P	pP	17 55 53.5	-0.8
ZEI				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
ARU	**Arti**	**54.83**	**338**	⇑*i*P	**P**	**17 55 46.5**	**-2.0**
ARU				*e*		17 56 46.8	
ARU				*e*S	**S**	**18 03 24.5**	**-1.7**
ARU				*e*		18 05 34.1	
ARU				*e*SS	SS	18 07 10.6	+1.3
ARU				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
ARU	**Arti**	**54.83**	**338**	P	**P**	**17 55 45.3**	**-3.2**
	comp=Z,45nm,0.8s,mb5.5						
UMJS	**Umm Lajj**	**54.95**	**295**	P	**P**	**17 55 51.5**	**+1.7**
KMBO	**Kilima Mbogo**	**55.71**	**263**	*e*P	**P**	**17 55 52.1**	**-3.4**
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KMBO	**Kilima Mbogo**	**55.71**	**263**	P	**P**	**17 55 54.2**	**-1.3**
	comp=Z,1.6nm,0.7s,mb4.2,baz=58,slow=10,SNR=5.6						
KMBO	**Kilima Mbogo**	**55.71**	**263**	*e*P	**P**	**17 55 52.1**	**-3.4**
	comp=Z,5.2nm,0.8s,mb4.6						
KIV	**Kislovodsk**	**55.83**	**318**	P	**P**	**17 55 53.9**	**-2.0**
KIV				pmax	pmax		
	comp=Z,48nm,0.9s,mb5.5						
KIV	**Kislovodsk**	**55.83**	**318**	P	**P**	**17 55 53.9**	**-2.0**
	comp=Z,48nm,0.9s,mb5.5						
TBKS	**Tabuk**	**56.07**	**298**	P	**P**	**17 55 58.4**	**+0.5**
ASF	**Jabal al Asfar**	**56.51**	**303**	LR	LR	18 22 06.8	
	comp=Z,226nm,18.3s,MS4.3,baz=99,slow=38						
JMQS	**Jabal Moqyreh**	**56.76**	**299**	P	**P**	**17 56 07.2**	**+4.4**
MALT	**Malatya**	**56.85**	**311**	*e*P	**P**	**17 56 01.7**	**-1.6**
MALT				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
MALT	**Malatya**	**56.85**	**311**	*e*P	**P**	**17 56 01.7**	**-1.7**
	comp=Z,13nm,0.9s,mb5.0						
AYUS	**‘Aynunah**	**57.18**	**298**	P	**P**	**17 56 08.3**	**+2.4**
PMG	**Port Moresby**	**57.35**	**107**	*e*P	**P**	**17 56 08.3**	**+1.1**
PMG				pmax	pmax		
	comp=Z,17nm,0.9s						
PMG	**Port Moresby**	**57.35**	**107**	P	**P**	**17 56 08.3**	**+1.1**
	comp=Z,10.0nm,0.9s,mb4.8,baz=286,slow=8.2,SNR=4.4						
PMG	**Port Moresby**	**57.35**	**107**	*e*P	**P**	**17 56 08.3**	**+1.1**
	comp=Z,16nm,0.9s,mb5.1						
BDAS	**Al Bad‘**	**57.36**	**298**	P	**P**	**17 56 10.2**	**+3.1**
MKRJ	**Makawir**	**57.43**	**302**	P	**P**	**17 56 08.0**	**+0.4**
JMOS	**Jabal al Moall**	**57.47**	**299**	P	**P**	**17 56 09.1**	**+1.2**
YSS	**Yuzh-Sakhalins**	**57.56**	**39**	*e*P	**P**	**17 56 12.0**	**+3.8**
HAQS	**Haql**	**57.60**	**299**	P	**P**	**17 56 09.9**	**+1.1**
DRGI	**Dragot**	**57.65**	**302**	P	**P**	**17 56 10.1**	**+1.0**
HMDT	**Nahal Hemdat**	**57.66**	**303**	P	**P**	**17 56 07.9**	**-1.3**
SOC	**Sochi**	**57.67**	**317**	*e*P	**P**	**17 56 10.8**	**+1.8**
SOC				*e*		17 58 12.5	
SOC				*e*S	**S**	**18 04 01.7**	**-2.3**
SOC				pmax	pmax		

	comp=N,9.0nm,1.0s						
SOC				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
SOC				pmax	pmax		
	comp=E,6.0nm,0.8s						
EIL	**Elat**	**57.69**	**300**	P	**P**	**17 56 08.1**	**-1.2**
EIL	**Elat**	**57.69**	**300**	P	**P**	**17 56 08.4**	**-1.0**
	comp=E,22nm,1.0s,mb5.1						
EIL				*e*	pP	17 56 16.6	-0.6
MBH	**Mount Berech**	**57.73**	**300**	P	**P**	**17 56 08.7**	**-1.0**
PRNI	**Paran**	**57.75**	**301**	P	**P**	**17 56 09.0**	**-0.8**
SOKR	**Solikamsk**	**57.79**	**340**	⇑*i*P	pP	17 56 16.7	-0.8
SOKR				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,300nm,21.0s,MS4.4						
SLTI	**Sal'it**	**58.06**	**303**	P	**P**	**17 56 11.0**	**-0.9**
OFRI	**'Ofer**	**58.18**	**303**	P	**P**	**17 56 12.3**	**-0.5**
CSS	**Prodhromos**	**59.99**	**306**	*e*P	**P**	**17 56 24.0**	**-1.3**
	comp=Z,12nm,1.0s,mb4.9						
CTA	**Charters Tower**	**60.05**	**119**	P	**P**	**17 56 26.8**	**+0.9**
	comp=Z,9.0nm,1.0s,mb4.8,baz=292,slow=8.6,SNR=8.6						
CTAO	**Charters Tower**	**60.05**	**119**	*e*P	**P**	**17 56 24.7**	**-1.2**
CTAO				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.7						
CTAO	**Charters Tower**	**60.05**	**119**	*e*P	**P**	**17 56 24.7**	**-1.2**
	comp=Z,9.1nm,1.1s,mb4.7						
YAK	**Yakutsk**	**60.18**	**19**	*e*P	**P**	**17 56 24.6**	**-1.6**
YAK				*e*	pP	17 56 33.5	-0.6
YAK				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.3						
YAK	**Yakutsk**	**60.18**	**19**	*e*P	**P**	**17 56 24.6**	**-1.6**
	comp=Z,21nm,0.6s,mb5.3						
YAK				*e*	pP	17 56 33.5	-0.7
BRTR	**Keskin Array B**	**60.82**	**311**	P	**P**	**17 56 28.1**	**-2.8**
	comp=Z,1.0nm,0.5s,mb4.2,baz=127,slow=6.2,SNR=8.7						
STKA	**Stephens Creek**	**61.68**	**133**	P	**P**	**17 56 37.7**	**+0.9**
	comp=Z,7.8nm,0.8s,mb4.9,baz=319,slow=6.1,SNR=11						
STKA	**Stephens Creek**	**61.68**	**133**	*e*P	**P**	**17 56 37.1**	**+0.3**
SIM	**Simferopol'**	**61.91**	**317**	P	pP	17 56 44.3	-1.8
SIM				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.4						
ISP	**Isparta**	**62.79**	**308**	*e*P	**P**	**17 56 40.9**	**-3.2**
MOS	**Moscow**	**63.81**	**329**	*e*P	pP	17 56 56.8	-1.7
MOS				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.5						
OBN	**Obninsk**	**64.09**	**328**	⇓*i*P	**P**	**17 56 49.7**	**-2.7**
OBN				*i*		17 59 09.0	
OBN				pmax	pmax		
	comp=Z,29nm,1.7s,mb5.0						
AKASG	**Malin Array Be**	**66.74**	**322**	P	**P**	**17 57 06.5**	**-3.0**
	comp=Z,0.8nm,0.6s,mb4.0,baz=89,slow=5.7,SNR=6.7						
TIXI	**Tiksi**	**67.19**	**12**	⇑*i*P	**P**	**17 57 10.6**	**-1.4**
MA2	**Magadan**	**67.23**	**28**	*i* P	**P**	**17 57 18.3**	**+5.8**
MA2				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.1						
VSU	**Vasula**	**70.33**	**329**	*e*P	**P**	**17 57 31.6**	**-0.1**
KOLS	**Kolonicke sedl**	**70.73**	**319**	*e*	pP	17 57 39.1	-3.1
KOLS				*e*		17 57 50.2	
SUW	**Suwalki**	**71.14**	**324**	P	**P**	**17 57 34.1**	**-2.5**
SUW				pmax	pmax		
	comp=Z,138nm,1.1s,mb5.8						
SUW	**Suwalki**	**71.14**	**324**	P	**P**	**17 57 34.1**	**-2.5**
	comp=Z,138nm,1.1s,mb5.8						
CRVS	**Cervenica-Dubn**	**71.25**	**319**	*e*pP	pP	17 57 47.0	+1.6
CRVS				*e*		17 57 56.6	
FINES	**FINESS Array B**	**71.52**	**332**	P	**P**	**17 57 37.2**	**-1.6**
	comp=Z,2.6nm,1.0s,mb4.1,baz=117,slow=4.3,SNR=5.4						
KAF	**Kangasniemi**	**71.62**	**333**	*e*p	pP	17 57 46.1	-1.2
	comp=Z,0.7nm,0.4s						
OJC	**Ojcow**	**72.52**	**320**	*e*P	**P**	**17 57 49.4**	**+4.4**
LBTB	**Lobatse**	**72.89**	**241**	*e*P	**P**	**17 57 47.0**	**-0.7**
LBTB				*e*	pP	17 57 55.7	+0.1
LBTB				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
LBTB	**Lobatse**	**72.89**	**241**	*e*P	**P**	**17 57 47.0**	**-0.7**
	comp=Z,13nm,0.8s,mb4.9						
LBTB				*e*	pP	17 57 55.7	0.0
VYHS	**Vyhne**	**72.92**	**318**	*e*	pP	17 57 54.3	-1.0
VYHS				*e*sP	sP	17 58 01.7	+3.6
KEV	**Kevo**	**73.86**	**341**	*e*p	pP	17 57 59.3	-1.1
	comp=Z,12nm,0.7s						
MORC	**Moravsky Berou**	**73.91**	**319**	*e*P	**P**	**17 57 52.7**	**-0.3**
MORC				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
MORC	**Moravsky Berou**	**73.91**	**319**	*e*P	**P**	**17 57 52.7**	**-0.4**
	comp=Z,23nm,1.1s,mb5.0						
ZST	**Bratislava**	**74.04**	**318**	*e*P	**P**	**17 57 58.8**	**+5.0**
ZST				*e*	pP	17 58 07.0	+5.2
ZST	**Bratislava**	**74.04**	**318**	*e*P	**P**	**17 57 58.8**	**+5.0**
ZST				*e*		17 58 01.5	
ZST				*e*	pP	17 58 07.0	+5.2
ZST	**Bratislava**	**74.04**	**318**	*e*	**P**	**17 57 58.8**	**+5.0**
ZST				*e*	pP	17 58 01.5	-0.3
ZST				*e*sP	PcP	17 58 07.0	-2.2
ARCES	**ARCESS Array B**	**74.28**	**340**	P	**P**	**17 57 54.8**	**0.0**
	comp=Z,4.1nm,0.9s,mb4.3,baz=108,slow=2.9,SNR=4.2						
BOSA	**Boshof**	**74.31**	**237**	*e*P	**P**	**17 57 55.2**	**-0.6**
BOSA				*e*	pP	17 58 04.5	+0.7
BOSA				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.1						
BOSA	**Boshof**	**74.31**	**237**	*e*P	**P**	**17 57 55.2**	**-0.6**
	comp=Z,29nm,1.2s,mb5.1						
BOSA				*e*	pP	17 58 04.5	+0.7
DPC	**Dobruska-Polom**	**74.75**	**320**	*e*P	**P**	**17 57 57.6**	**-0.3**
DPC				*e*pP	pP	17 58 05.9	0.0
KSP	**Ksiaz**	**74.82**	**320**	*e*P	**P**	**17 57 57.6**	**-0.7**
KSP				*e**PP	pP	17 58 05.1	-1.2
PVCC	**Panska Ves**	**75.88**	**320**	*e*pP	pP	17 58 17.6	+5.2
BRG	**Berggiesshubel**	**76.30**	**320**	*e*P	**P**	**17 58 07.5**	**+0.8**
BRG				*i*	pP	17 58 14.7	-0.1
BRG				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
BRG	**Berggiesshubel**	**76.30**	**320**	*e*P	**P**	**17 58 07.5**	**+0.8**
	comp=Z,7.9nm,1.1s,mb4.6						
BRG				*e*		17 58 12.1	
BRG				*i*	pP	17 58 14.7	-0.1
GEC2	**GERESS Array S**	**76.34**	**318**	*e*P	**P**	**17 58 07.0**	**0.0**
GEC2				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
GEC2	**GERESS Array S**	**76.34**	**318**	*e*P	**P**	**17 58 07.0**	**0.0**
	comp=Z,20nm,1.1s,mb5.0						
GERES	**GERESS Array B**	**76.34**	**318**	P	**P**	**17 58 04.8**	**-2.2**
	comp=Z,1.0nm,0.6s,mb3.9,baz=79,slow=6.8,SNR=8.5						
BILL	**Bilibino**	**76.36**	**22**	*e*P	**P**	**17 58 06.3**	**-0.4**
BILL				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
BILL	**Bilibino**	**76.36**	**22**	*e*P	**P**	**17 58 06.3**	**-0.4**
	comp=Z,9.9nm,0.9s,mb4.7						
KHC	**Kasperske Hory**	**76.44**	**318**	*e*P	**P**	**17 58 05.5**	**-2.0**
KHC	**Kasperske Hory**	**76.44**	**318**	*e*P	**P**	**17 58 06.5**	**-1.0**
KHC				pP	pP	17 58 14.9	-0.7
WET	**Wettzell**	**76.90**	**318**	*e*P	**P**	**17 58 10.3**	**+0.2**
CLL	**Collm**	**76.92**	**321**	*e*P	**P**	**17 58 17.0**	**+6.8**
	comp=Z,20nm,1.3s,mb4.9						
HFS	**Hagfors**	**77.21**	**330**	P	**P**	**17 58 09.9**	**-1.7**
	comp=Z,1.2nm,0.4s,mb4.2,baz=124,slow=5.3,SNR=8.7						
MOX	**Moxa**	**77.77**	**320**	*e*P	**P**	**17 58 15.8**	**+0.9**
MOX				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.0						
MOX	**Moxa**	**77.77**	**320**	*i* P	**P**	**17 58 15.8**	**+0.9**
	comp=Z,logA/T=1.3,mb5.0						
MOX	**Moxa**	**77.77**	**320**	*e*P	**P**	**17 58 15.8**	**+0.9**
	comp=Z,29nm,1.4s,mb5.0						
FUR	**Furstenfeldbru**	**77.93**	**317**	*e*P	**P**	**17 58 15.9**	**+0.1**
GRA1	**Grafenberg Arr**	**78.00**	**319**	*e*P	**P**	**17 58 17.0**	**+0.9**
	comp=Z,35nm,1.1s,mb5.2						
GRF	**Grafenberg Arr**	**78.00**	**319**	*e*P	**P**	**17 58 17.0**	**+0.9**
GRF				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.2						
GRF	**Grafenberg Arr**	**78.00**	**319**	*e*P	**P**	**17 58 17.0**	**+0.9**
GRF				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.2						
GRF	**Grafenberg Arr**	**78.00**	**319**	*e*P	**P**	**17 58 17.0**	**+0.9**
	comp=Z,35nm,1.1s,mb5.2						
NB2	**NORSAR Subarra**	**78.50**	**331**	P	**P**	**17 58 20.9**	**+2.2**
	comp=Z,6.3nm,0.8s,mb4.6,baz=92,slow=5.3						
NB2	**NORSAR Subarra**	**78.50**	**331**	P	**P**	**17 58 20.9**	**+2.2**
NB2				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
NOA	**NORSAR Array B**	**78.50**	**331**	LR	LR	18 33 44.2	
	comp=Z,170nm,18.6s,MS4.4,baz=325,slow=36						
CLZ	**Clausthal**	**78.58**	**321**	*e*P	**P**	**17 58 19.9**	**+0.6**
	comp=Z,24nm,1.1s,mb5.0						
BSEG	**Bad Segeberg**	**78.66**	**323**	*e*P	**P**	**17 58 20.8**	**+1.1**
DAVOX	**Davos**	**78.86**	**316**	P	**P**	**17 58 20.4**	**-0.6**
	comp=Z,3.4nm,0.5s,mb4.5,baz=164,slow=3.7,SNR=9.3						
BFO	**Black Forest**	**79.90**	**318**	*e*P	**P**	**17 58 26.6**	**+0.1**
BFO				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
BFO	**Black Forest**	**79.90**	**318**	*e*P	**P**	**17 58 26.6**	**+0.1**
	comp=Z,9.0nm,1.0s,mb4.7						
LPL	**La Plagne**	**81.08**	**315**	*e*P	**P**	**17 58 32.7**	**-0.2**
	comp=Z,112nm,1.1s,mb5.4						
LPL	**La Plagne**	**81.08**	**315**	*e*P	**P**	**17 58 32.7**	**-0.2**
LPL				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.4						
BNI	**Bardonecchia**	**81.15**	**314**	*e*P	**P**	**17 58 35.5**	**+2.3**
BNI				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
BNI	**Bardonecchia**	**81.15**	**314**	*e*P	**P**	**17 58 35.5**	**+2.3**
	comp=Z,39nm,1.0s,mb5.3						
EKA	**Eskdalemuir Ar**	**86.38**	**325**	P	**P**	**17 58 58.9**	**-0.7**
	comp=Z,1.2nm,0.6s,mb4.3,baz=82,slow=5.9,SNR=4.6						
ANM	**Nome**	**87.81**	**25**	*e*P	**P**	**17 59 08.5**	**+2.3**
IMA	**Indian Mountai**	**91.91**	**22**	*e*P	**P**	**17 59 27.0**	**+1.6**
IMA				*e*P		17 59 28.0	
VNDA	**Vanda**	**93.69**	**168**	LR	LR	18 35 10.8	
	comp=Z,174nm,18.9s,MS4.5,baz=292,slow=31						
ILAR	**Eielson Array**	**95.03**	**22**	P	**P**	**17 59 40.5**	**+0.7**
	comp=Z,0.9nm,0.8s,mb4.3,baz=305,slow=5.1,SNR=9.6						
ILAR				PP	PP	18 03 30.0	-1.3
	comp=Z,0.6nm,1.0s,baz=278,slow=6.0,SNR=4.7						
DBIC	**Dimbokro**	**96.13**	**278**	P	**P**	**17 59 46.0**	**0.0**
DBIC				pmax	pmax		
	comp=Z,12nm,0.9s						
DBIC	**Dimbokro**	**96.13**	**278**	P	**P**	**17 59 45.4**	**-0.7**
	comp=Z,3.4nm,0.9s,mb4.8,baz=82,slow=5.7,SNR=3.0						
DBIC	**Dimbokro**	**96.13**	**278**	P	**P**	**17 59 46.0**	**-0.1**
	comp=Z,12nm,0.9s,mb5.3						
YKA	**Yellowknife Ar**	**106.43**	**13**	PP	PP	18 04 52.6	-6.0
	comp=Z,0.4nm,0.8s,baz=334,slow=7.5,SNR=8.9						
SNOW	**Snow King Moun**	**124.38**	**20**	*e*PKP	PKPdf	18 05 18.8	-1.4
SNOW				*e*		18 05 27.1	
REDW	**Red Top Meadow**	**124.44**	**20**	*e*PKP	PKPdf	18 05 18.2	-2.1
PDAR	**Pinedale Array**	**125.40**	**20**	PKP	PKPdf	18 05 19.5	-2.7
	comp=Z,0.7nm,0.6s,baz=224,slow=0.5,SNR=5.4						
NVAR	**Mina Array Bea**	**125.46**	**29**	PKP	PKPdf	18 05 19.2	-3.3
	comp=Z,0.5nm,0.3s,baz=83,slow=4.1,SNR=3.8						
MSU	**Marysvale**	**128.14**	**24**	*e*PKIKP	PKPdf	18 05 27.4	-0.2
MSU				*e*		18 05 35.7	
TXAR	**Lajitas Array**	**139.54**	**22**	PKP	PKPdf	18 05 46.1	-3.0
	comp=Z,0.6nm,0.6s,baz=133,slow=0.6,SNR=6.7						
LPAZ	**La Paz**	**159.35**	**245**	PKPab	PKPab	18 06 54.5	-0.6
	comp=Z,3.8nm,1.1s,baz=75,slow=6.4,SNR=5.7						

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*IDC **28** 18:16:39.6±1.0, 9.20N×93.37E, mb3.9/8, mb1 4.1/8, mb1mx3.9/17, mbtmp3.9/8, Error ellipse: s-maj=52.3km s-min=18.9km az=48.0*

ISC 28 18:16:42.7±0.9**, 9.2N**±0.2×**93.4E**±0.3**, h33**^{km}**, n15, σ0**^{s}**.84**/15**, mb4.0**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHRT	**Chiangrai**	**12.23**	**29**	PG	**P**	**18 19 29.0**	**-8.5**
CHRT				SG	Px	18 19 41.0	
PKI	**Pulchoki**	**19.75**	**339**	*e*P	**P**	**18 21 12.8**	**+0.1**
	15nm,0.6s						
DMN	**Daman**	**19.89**	**338**	*e*P	**P**	**18 21 14.5**	**+0.3**
	18nm,0.8s						
GUN	**Gumba**	**19.89**	**340**	*e*P	**P**	**18 21 14.2**	**0.0**
	36nm,0.6s						
KKN	**Kakani**	**19.99**	**338**	*e*P	**P**	**18 21 14.6**	**-0.7**
	13nm,0.7s						
GKN	**Gorkha**	**20.42**	**337**	*e*P	**P**	**18 21 19.6**	**-0.3**
	36nm,0.7s						
KOLN	**Koldanda**	**20.63**	**335**	*e*P	**P**	**18 21 22.1**	**0.0**
	40nm,0.9s						
SONM	**Songino Array**	**40.01**	**14**	P	**P**	**18 24 16.8**	**+0.8**
	0.9nm,0.8s,mb3.5,baz=198,slow=9.1,SNR=5.8						
BVAR	**Borovoye Array**	**47.48**	**341**	P	**P**	**18 25 15.8**	**-0.5**
	0.9nm,0.6s,mb3.9,baz=146,slow=11,SNR=5.8						
WRA	**Warramunga Arr**	**49.63**	**126**	P	**P**	**18 25 33.6**	**+0.2**
	1.3nm,0.7s,mb4.1,baz=306,slow=8.6,SNR=12						
ASAR	**Alice Springs**	**51.33**	**130**	P	**P**	**18 25 45.8**	**-0.5**
	1.0nm,0.7s,mb3.9,baz=303,slow=7.1,SNR=15						
BRTR	**Keskin Array B**	**61.01**	**310**	P	**P**	**18 26 55.0**	**-0.5**
	1.7nm,0.6s,mb4.3,baz=118,slow=7.0,SNR=11						
AKASG	**Malin Array Be**	**66.65**	**321**	P	**P**	**18 27 32.0**	**-0.2**
	1.1nm,0.8s,mb3.9,baz=92,slow=3.2,SNR=4.8						
ARCES	**ARCESS Array B**	**73.75**	**340**	P	**P**	**18 28 15.3**	**+0.3**
	4.2nm,0.9s,mb4.4,baz=98,slow=6.4,SNR=3.8						
GERES	**GERESS Array B**	**76.35**	**318**	P	**P**	**18 28 31.5**	**+1.2**
	1.1nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=10						

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*IDC **28** 18:20:23.4±0.7, 8.99N×93.53E, mb4.2/14, mb1 4.3/15, mb1mx4.2/21, mbtmp4.1/15, MS3.7/1, Ms1 3.7/1, ms1mx2.9/29, Error ellipse: s-maj=36.3km s-min=14.6km az=46.0*

ISC 28 18:20:29.3±4.0**, 9.1N**±0.2×**93.7E**±0.1**, h55**^{km}±33^{km}**, n31, σ0**^{s}**.93**/28**, mb4.2**/14**, MS3.7**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.60**	**28**	Pn	**P**	**18 23 01.2**	**0.0**
	baz=223,slow=13,SNR=4.5						
SHL	**Shillong**	**16.48**	**354**	*e*P	**P**	**18 24 19.0**	**+0.6**
PKI	**Pulchoki**	**20.00**	**338**	*e*P	**P**	**18 25 00.2**	**+0.1**
	28nm,0.8s						
GUN	**Gumba**	**20.14**	**339**	*e*P	**P**	**18 25 01.2**	**-0.4**
	44nm,0.6s						
DMN	**Daman**	**20.14**	**337**	*e*P	**P**	**18 25 01.0**	**-0.6**
	26nm,0.7s						
KKN	**Kakani**	**20.24**	**338**	*e*P	**P**	**18 25 02.2**	**-0.5**
	46nm,1.0s						
GKN	**Gorkha**	**20.68**	**337**	*e*P	**P**	**18 25 06.9**	**-0.3**
	43nm,0.6s						
KOLN	**Koldanda**	**20.90**	**334**	*e*P	**P**	**18 25 09.6**	**+0.2**
	30nm,0.7s						
DDI	**Dehra Dun**	**25.71**	**327**	*e*	**P**	**18 25 58.3**	**+2.0**
SONM	**Songino Array**	**40.08**	**13**	P	**P**	**18 28 00.7**	**-0.3**
	0.9nm,0.8s,mb3.5,baz=202,slow=8.0,SNR=5.2						
SONM				PcP	PcP	18 30 06.3	+0.8
	0.7nm,0.6s,baz=212,slow=4.3,SNR=6.7						
RDF	**Al-Radifah**	**47.55**	**301**	*e*P	**P**	**18 29 03.0**	**+1.4**
BVAR	**Borovoye Array**	**47.72**	**341**	P	**P**	**18 29 01.3**	**-1.2**
	0.7nm,0.5s,mb4.0,baz=153,slow=9.9,SNR=5.5						
BVAR				PcP	PcP	18 30 31.6	+0.2
	2.0nm,1.0s,baz=153,slow=6.6,SNR=3.6						
RST	**Umm Al-Ruwaisa**	**48.16**	**302**	*e*P	**P**	**18 29 07.2**	**+0.9**
WRA	**Warramunga Arr**	**49.30**	**126**	P	**P**	**18 29 14.4**	**-0.8**
	1.4nm,0.6s,mb4.2,baz=305,slow=8.8,SNR=8.4						
WRA				PcP	PcP	18 30 37.6	+0.1
	0.6nm,0.6s,baz=315,slow=2.7,SNR=6.0						
ASAR	**Alice Springs**	**51.00**	**130**	P	**P**	**18 29 26.9**	**-1.3**
	0.9nm,0.8s,mb3.8,baz=303,slow=7.4,SNR=5.8						
ASAR				PcP	PcP	18 30 44.5	+0.7
	0.6nm,0.6s,baz=312,slow=3.4,SNR=6.2						
PMG	**Port Moresby**	**56.28**	**108**	P	**P**	**18 30 08.5**	**+1.4**
	8.7nm,0.8s,mb4.8,baz=274,slow=21,SNR=5.0						
EIL	**Elat**	**58.48**	**299**	LR	LR	18 57 01.8	
	comp=Z,56nm,18.5s,MS3.7,baz=41,slow=38						
CTA	**Charters Tower**	**59.26**	**120**	P	**P**	**18 30 28.6**	**+0.6**
	4.1nm,0.8s,mb4.5,baz=309,slow=8.4,SNR=5.2						
BRTR	**Keskin Array B**	**61.34**	**310**	P	**P**	**18 30 40.5**	**-1.3**
	3.2nm,0.7s,mb4.6,baz=125,slow=7.2,SNR=17						
AKASG	**Malin Array Be**	**66.96**	**321**	P	**P**	**18 31 16.8**	**-1.5**
	2.0nm,0.8s,mb4.2,baz=85,slow=5.8,SNR=8.6						
FINES	**FINESS Array B**	**71.46**	**332**	P	**P**	**18 31 45.6**	**-0.1**
	1.7nm,0.6s,mb4.1,baz=91,slow=4.2,SNR=15						
KAF	**Kangasniemi**	**71.53**	**333**	*e*p	**P**	**18 31 44.3**	**-1.9**
ARCES	**ARCESS Array B**	**73.99**	**340**	P	**P**	**18 32 01.2**	**+0.7**
	4.6nm,0.9s,mb4.4,baz=98,slow=6.4,SNR=20						
GERES	**GERESS Array B**	**76.66**	**318**	P	**P**	**18 32 17.0**	**+0.9**
	2.0nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=15						
KHC	**Kasperske Hory**	**76.75**	**318**	*e*P	**P**	**18 32 16.5**	**-0.1**
NB2	**NORSAR Subarra**	**78.48**	**330**	P	**P**	**18 32 25.8**	**-0.2**
	0.9nm,0.5s,mb4.0,baz=95,slow=5.0						
NOA	**NORSAR Array B**	**78.48**	**330**	P	**P**	**18 32 26.0**	**0.0**
	1.1nm,0.6s,mb4.0,baz=95,slow=5.2,SNR=3.8						
ILAR	**Eielson Array**	**93.78**	**22**	P	**P**	**18 33 41.7**	**+0.4**
	1.1nm,0.7s,mb4.4,baz=304,slow=4.1,SNR=14						
INK	**Inuvik**	**95.95**	**16**	P	**P**	**18 33 52.2**	**+1.2**
	1.4nm,0.7s,mb4.5,baz=314,slow=8.5,SNR=7.0						
PDAR	**Pinedale Array**	**124.19**	**21**	PKP	PKPdf	18 39 24.3	+2.0
	0.6nm,0.8s,slow=1.5,SNR=5.1						
TXAR	**Lajitas Array**	**138.29**	**23**	PKP	PKPdf	18 39 54.3	+5.0
	0.2nm,0.5s,baz=90,slow=0.9,SNR=3.4						

IDC 28 18:28:59.5±7.4**, 8.48N**×**91.55E, mb3.5**/2**, mb1 3.8**/3**, mb1mx3.4**/17**, mbtmp3.5**/3**, ML3.6**/1**, Error ellipse: s-maj=161.4km s-min=47.0km az=94.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.25**	**35**	Pn	P	18 31 56.0	-2.2
	0.1nm,0.3s,baz=230,slow=14,SNR=9.6						
WRA	**Warramunga Arr**	**50.71**	**124**	P	P	18 38 00.4	-3.0
	0.3nm,0.3s,baz=307,slow=8.3,SNR=3.1						
ASAR	**Alice Springs**	**52.28**	**129**	P	P	18 38 14.0	-1.3
	0.6nm,0.7s,baz=308,slow=7.0,SNR=5.9						

IDC 28 18:38:39.0±1.8**, 12.58N**×**93.24E, mb3.7**/4**, mb1 3.9**/4**, mb1mx3.6**/16**, mbtmp3.7**/4**, Error ellipse: s-maj=85.5km s-min=25.3km az=59.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.02**	**43**	Pn	P	18 40 41.6	+2.0
	0.1nm,0.3s,baz=235,slow=15,SNR=3.0						
CMAR				Sn	Sn	18 42 09.9	-2.2
	0.2nm,0.3s,baz=238,slow=28,SNR=4.4						
SONM	**Songino Array**	**36.83**	**15**	P	P	18 45 48.6	-2.0
	0.5nm,0.6s,baz=213,slow=7.2,SNR=2.3						
WRA	**Warramunga Arr**	**51.78**	**128**	P	P	18 47 48.7	-2.2
	0.7nm,0.7s,baz=301,slow=8.1,SNR=7.2						
ASAR	**Alice Springs**	**53.66**	**132**	P	P	18 48 02.7	-2.2
	0.3nm,0.4s,baz=311,slow=7.3,SNR=14						
FINES	**FINESS Array B**	**68.17**	**332**	P	P	18 49 41.0	-2.0
	1.2nm,0.7s,baz=90,slow=9.5,SNR=5.9						

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*IDC **28** 18:45:52.9±0.8, 12.92N×91.80E, mb4.3/11, mb1 4.3/12, mb1mx4.2/21, mbtmp4.2/12, ML3.4/1, Error ellipse: s-maj=33.2km s-min=14.8km az=49.0*

ISC 28 18:45:56.1±0.6**, 13.13N**±0.07×**92.01E**±0.07**, h33**^{km}**, n19, σ0**^{s}**.91**/21**, mb4.3**/11**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.52**	**51**	Pn	**P**	**18 48 00.6**	**+0.6**
	0.1nm,0.3s,baz=243,slow=15,SNR=6.9						
CMAR				Sn	**Sn**	**18 49 35.2**	**-1.0**
	0.2nm,0.3s,baz=239,slow=28,SNR=6.8						
PKI	**Pulchoki**	**15.63**	**338**	*e*P	**P**	**18 49 35.0**	**-0.7**
	17nm,0.8s						
GUN	**Gumba**	**15.78**	**340**	*e*P	**P**	**18 49 38.4**	**+0.9**
	28nm,0.8s						
DMN	**Daman**	**15.78**	**337**	*e*P	**P**	**18 49 37.4**	**-0.2**
	19nm,0.7s						
KKN	**Kakani**	**15.88**	**338**	*e*P	**P**	**18 49 38.8**	**0.0**
GKN	**Gorkha**	**16.32**	**336**	*e*P	**P**	**18 49 43.2**	**-1.2**
KOLN	**Koldanda**	**16.55**	**333**	*e*P	**P**	**18 49 46.6**	**-0.7**
	11nm,0.6s						
DDI	**Dehra Dun**	**21.42**	**325**	*e*P	**P**	**18 50 49.7**	**+6.3**
DDI				*e*S	**S**	**18 54 49.5**	**+15**
SONM	**Songino Array**	**36.62**	**16**	P	**P**	**18 53 03.5**	**+2.4**
	2.5nm,0.8s,mb4.1,baz=202,slow=6.7,SNR=14						
BVAR	**Borovoye Array**	**43.37**	**341**	P	**P**	**18 53 58.5**	**+1.5**
	1.4nm,0.9s,mb3.7,baz=127,slow=7.4,SNR=4.6						
NWAO	**Narrogin (SRO)**	**51.75**	**153**	P	**P**	**18 55 01.9**	**-0.9**
	9.7nm,0.9s,mb4.7,baz=181,slow=1.8,SNR=4.2						
WRA	**Warramunga Arr**	**53.06**	**128**	P	**P**	**18 55 12.0**	**-0.7**
	5.6nm,0.6s,mb4.7,baz=305,slow=8.4,SNR=25						
ASAR	**Alice Springs**	**54.92**	**132**	P	**P**	**18 55 25.6**	**-0.7**
	5.1nm,0.6s,mb4.7,baz=308,slow=6.4,SNR=32						
BRTR	**Keskin Array B**	**57.47**	**309**	P	**P**	**18 55 44.0**	**-0.4**
	1.7nm,0.8s,mb4.1,baz=124,slow=7.4,SNR=8.1						
PMG	**Port Moresby**	**59.16**	**109**	P	**P**	**18 55 57.6**	**+1.0**
	7.0nm,0.8s,mb4.8,baz=263,slow=9.9,SNR=4.7						
CTA	**Charters Tower**	**62.74**	**121**	P	**P**	**18 56 21.3**	**+0.6**
	6.9nm,0.9s,mb4.8,baz=286,slow=7.2,SNR=5.8						
AKASG	**Malin Array Be**	**62.77**	**321**	P	**P**	**18 56 20.0**	**-0.5**
	0.2nm,0.2s,mb3.9,baz=89,slow=4.7,SNR=3.3						
FINES	**FINESS Array B**	**67.11**	**332**	P	**P**	**18 56 47.9**	**-0.4**
	2.4nm,0.8s,mb4.3,baz=124,slow=6.9,SNR=3.7						
GERES	**GERESS Array B**	**72.55**	**317**	P	**P**	**18 57 22.5**	**+0.9**
	1.0nm,0.8s,mb3.8,baz=72,slow=4.2,SNR=5.7						

IDC 28 18:49:12.1±1.1**, 9.16N**×**93.31E, mb3.9**/8**, mb1 4.1**/8**, mb1mx3.9**/17**, mbtmp3.9**/8**, Error ellipse: s-maj=53.1km s-min=20.5km az=50.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
POO	**Poona**	**21.04**	**298**	*e*P	P	18 53 55.0	-5.2
SONM	**Songino Array**	**40.11**	**14**	P	P	18 56 50.3	-0.9
	0.9nm,0.9s,baz=208,slow=10,SNR=5.9						
SONM				PcP	PcP	18 58 54.0	-2.5
	0.8nm,0.9s,baz=227,slow=2.4,SNR=3.3						
BVAR	**Borovoye Array**	**47.52**	**341**	P	P	18 57 47.1	-3.9
	0.5nm,0.4s,baz=151,slow=15,SNR=4.6						
WRA	**Warramunga Arr**	**49.68**	**126**	P	P	18 58 06.3	-1.8
	0.6nm,0.5s,baz=300,slow=10,SNR=5.0						
ASAR	**Alice Springs**	**51.37**	**130**	P	P	18 58 18.5	-2.4
	2.0nm,0.9s,baz=310,slow=8.3,SNR=7.8						
BRTR	**Keskin Array B**	**60.97**	**310**	P	P	18 59 27.6	-2.0
	1.8nm,1.0s,baz=112,slow=6.7,SNR=5.6						
FINES	**FINESS Array B**	**71.20**	**332**	P	P	19 00 33.8	-0.8
	3.0nm,1.1s,baz=98,slow=5.6,SNR=7.1						
ARCES	**ARCESS Array B**	**73.79**	**340**	P	P	19 00 47.8	-2.0
	1.3nm,0.6s,baz=104,slow=5.0,SNR=5.2						
GERES	**GERESS Array B**	**76.33**	**318**	P	P	19 01 03.6	-1.2
	1.1nm,0.8s,baz=108,slow=8.4,SNR=6.3						

IDC 28 18:51:09.5±1.7**, 8.41N**×**94.77E, mb3.5**/4**, mb1 3.7**/4**, mb1mx3.5**/17**, mbtmp3.5**/4**, Error ellipse: s-maj=139.6km s-min=25.2km az=49.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.07**	**126**	P	P	18 59 50.3	-2.8
	0.2nm,0.4s,baz=299,slow=9.6,SNR=1.4						
BVAR	**Borovoye Array**	**48.69**	**341**	P	P	18 59 54.9	-2.5
	0.3nm,0.4s,baz=131,slow=13,SNR=3.7						
ASAR	**Alice Springs**	**49.78**	**131**	P	P	19 00 04.9	-1.4
	0.3nm,0.6s,baz=308,slow=7.0,SNR=4.7						
GERES	**GERESS Array B**	**77.85**	**318**	P	P	19 03 09.5	-1.0
	0.6nm,0.7s,baz=90,slow=3.9,SNR=3.7						

IDC 28 18:54:41.9±1.2**, 4.38N**×**93.19E, mb3.6**/5**, mb1 3.8**/6**, mb1mx3.7**/17**, mbtmp3.6**/6**, ML3.9**/1**, Error ellipse: s-maj=63.8km s-min=21.8km az=46.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.08**	**21**	Pn	P	18 58 16.5	-1.7
	0.2nm,0.3s,baz=225,slow=15,SNR=5.5						
SONM	**Songino Array**	**44.76**	**13**	PcP	PcP	19 04 38.9	-2.7
	0.3nm,0.7s,baz=204,slow=4.6,SNR=3.0						
WRA	**Warramunga Arr**	**47.11**	**122**	P	P	19 03 16.4	-1.6
	1.2nm,0.7s,baz=302,slow=9.0,SNR=6.0						
ASAR	**Alice Springs**	**48.50**	**127**	P	P	19 03 26.4	-2.3
	0.8nm,1.0s,baz=293,slow=6.9,SNR=3.2						
BVAR	**Borovoye Array**	**51.99**	**343**	P	P	19 03 52.6	-2.5
	0.2nm,0.4s,baz=164,slow=10,SNR=2.6						
BRTR	**Keskin Array B**	**64.02**	**312**	P	P	19 05 17.2	-2.6
	0.7nm,0.8s,baz=124,slow=10,SNR=3.4						
GERES	**GERESS Array B**	**79.79**	**319**	P	P	19 06 53.2	-0.4
	0.2nm,0.3s,baz=104,slow=5.5,SNR=5.2						

IDC 28 19:04:00.8±1.3**, 5.98N**×**92.64E, mb3.5**/5**, mb1 3.8**/6**, mb1mx3.7**/17**, mbtmp3.6**/6**, ML3.9**/1**, Error ellipse: s-maj=47.0km s-min=24.6km az=51.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.85**	**26**	Pn	P	19 07 20.1	-0.8
	0.2nm,0.3s,baz=230,slow=14,SNR=13						
SONM	**Songino Array**	**43.34**	**13**	P	P	19 12 04.0	-2.2
	0.2nm,0.5s,baz=201,slow=6.6,SNR=3.3						
WRA	**Warramunga Arr**	**48.42**	**123**	P	P	19 12 45.1	-2.0
	0.4nm,0.6s,baz=301,slow=9.6,SNR=4.6						
ASAR	**Alice Springs**	**49.89**	**128**	P	P	19 12 56.4	-2.0
	0.6nm,0.7s,baz=299,slow=7.5,SNR=5.3						
BRTR	**Keskin Array B**	**62.55**	**312**	P	P	19 14 26.6	-2.4

	1.1nm,1.0s,baz=106,slow=9.0,SNR=3.5						
GERES	GERESS Array B	78.25	319	P	P	19 16 03.4	-0.7
	0.2nm,0.4s,baz=214,slow=4.8,SNR=3.7						

JMA ***28*** *19:07:37.7±0.1,40.15N×142.41E,h36^{km}±1^{km},M3.6*

ISC 28 19:07:36.8±1.8,**40.17N**±0.06×**142.5E**±0.1,**h25**^{km}±7^{km},**n10,**σ**0$\overset{s}{.}$37**/17,**7D,Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTH	Tanohata	0.52	243	⇓P	Pb	19 07 47.9	+0.6
JTH				S	Sb	19 07 55.3	+0.9
JANG	Nango	0.75	286	⇓P	Pb	19 07 51.2	0.0
JANG				S	Sb	19 08 00.6	-0.5
MIYJ	Miyakonagasawa	0.78	220	P	Pb	19 07 51.3	-0.3
MIYJ				S	Sb	19 08 01.0	-0.7
JKZ	Kuzumaki	0.89	258	⇓P	Pb	19 07 53.5	0.0
JKZ				S	Sb	19 08 04.8	-0.2
JOM	Ohasama	1.14	233	⇓P	Pn	19 07 57.3	-0.1
JTM	Tenmabayashi	1.23	300	⇓P	Pn	19 07 58.6	0.0
JTM				*e*S	Sn	19 08 14.4	-0.1
OFUJ	Ofunato	1.25	210	⇓P	Pn	19 07 58.6	-0.3
JAH	Hinai	1.40	271	⇓P	Pn	19 08 01.2	+0.1
JAH				*e*S	Sn	19 08 19.0	+0.1
JMK	Ichinoseki	1.55	219	P	Pn	19 08 03.2	0.0
JMK				S	Sn	19 08 22.8	+0.1
MAT	Matsushiro	4.93	224	P	Pn	19 08 51.7	+0.4

IDC 28 19:15:16.4±1.4,**5.56N**×**93.30E,mb3.8**/7,**mb1 4.0**/7,**mb1mx3.7**/17,**mbtmp3.8**/7,**Error ellipse: s-maj=72.2km s-min=21.6km az=52.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.95	23	Pn	P	19 18 44.4	+6.5
	0.0nm,0.3s,baz=208,slow=10,SNR=3.6						
SONM	Songino Array	43.59	13	P	P	19 23 22.2	-1.7
	0.6nm,0.8s,baz=188,slow=8.5,SNR=4.6						
WRA	Warramunga Arr	47.65	123	P	P	19 23 54.2	-2.5
	1.5nm,0.6s,baz=301,slow=9.3,SNR=6.1						
ASAR	Alice Springs	49.12	128	P	P	19 24 06.6	-1.4
	0.3nm,0.7s,baz=303,slow=8.2,SNR=2.8						
BVAR	Borovoye Array	50.91	342	P	P	19 24 19.5	-1.9
	0.9nm,0.6s,baz=140,slow=12,SNR=6.2						
FINES	FINESS Array B	74.36	333	P	P	19 26 55.4	-2.2
	1.0nm,0.8s,baz=100,slow=12,SNR=4.0						
ARCES	ARCESS Array B	77.15	340	P	P	19 27 11.8	-1.4
	3.4nm,0.9s,baz=88,slow=4.9,SNR=7.7						
GERES	GERESS Array B	78.99	319	P	P	19 27 22.4	-1.3
	0.4nm,0.7s,baz=27,slow=3.0,SNR=4.2						

IDC 28 19:19:36.8±4.1,**10.33N**×**91.97E,mb3.9**/3,**mb1 4.1**/4,**mb1mx3.7**/17,**mbtmp3.8**/4,**ML3.9**/1,**Error ellipse: s-maj=111.8km s-min=28.8km az=81.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.53	39	Pn	P	19 22 09.1	-3.0
	0.3nm,0.3s,baz=234,slow=14,SNR=5.4						
SONM	Songino Array	39.31	15	P	P	19 27 07.6	-1.6
	0.4nm,0.6s,baz=209,slow=8.7,SNR=5.2						
WRA	Warramunga Arr	51.42	126	P	P	19 28 43.7	-2.3
	1.9nm,0.5s,baz=306,slow=8.5,SNR=19						
ASAR	Alice Springs	53.12	130	P	P	19 28 56.7	-2.1
	1.8nm,0.6s,baz=304,slow=6.7,SNR=15						

IDC ***28*** *19:21:58.5±0.9,6.46N×93.24E,mb4.3/13,mb1 4.4/13,mb1mx4.3/19,mbtmp4.3/13,Error ellipse: s-maj=45.8km s-min=18.6km az=44.0*

MOS ***28*** *19:22:06.0±1.4,7.32N×93.01E,h33^{km},mb4.9/10,Error ellipse: s-maj=37.9km s-min=15.7km az=111.3*

ISC 28 19:22:01.4±0.6,**6.36N**±0.09×**93.36E**±0.09,**h33**^{km},**n51,**σ**1$\overset{s}{.}$12**/50,**mb4.6**/29,**3C-1D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.20	24	Pn	P	19 25 09.8	+0.6
	0.7nm,0.3s,baz=213,slow=14,SNR=14						
CHG	Chiang Mai	13.52	23	⇑P	P	19 25 19.4	+5.9
	15nm,0.8s						
NANT	Nan	14.29	29	P	P	19 25 25.0	+1.5
HYB	Hyderabad	18.17	309	*e*P	P	19 26 15.0	+2.0
HYB				*e*S	S	19 29 24.0	-7.4
SHL	Shillong	19.15	356	*e*P	P	19 26 24.0	-0.9
PKI	Pulchoki	22.41	341	*e*P	P	19 26 58.9	+0.3
	18nm,0.6s,mb4.7						
DMN	Daman	22.54	341	*e*P	P	19 27 00.4	+0.4
	32nm,0.8s,mb4.8						
GUN	Gumba	22.58	343	*e*P	P	19 27 00.6	+0.2
	27nm,0.6s,mb4.9						
KKN	Kakani	22.65	341	*e*P	P	19 27 00.8	-0.3
	27nm,1.0s,mb4.6						
GKN	Gorkha	23.06	340	*e*P	P	19 27 05.6	+0.5
	66nm,0.9s,mb5.1						
KOLN	Koldanda	23.22	338	*e*P	P	19 27 07.5	+0.8
	48nm,0.9s,mb5.0						
KZA	Kyzart	39.03	338	P	P	19 29 27.9	+1.2
	SNR=6.0						
UCH	Uchtor	39.44	338	P	P	19 29 31.4	+1.4
	SNR=17						
KBK	Karagaybulak	39.65	339	P	P	19 29 33.4	+1.5
	SNR=19						
AML	Almayashu	39.67	337	P	P	19 29 33.5	+1.5
	SNR=27						
AAK	Ala-Archa	39.80	338	P	P	19 29 34.2	+1.2
	SNR=8.1						
AAK	Ala-Archa	39.80	338	⇑*e*P	P	19 29 30.2	-2.9
AAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
CHMS	Chumysh	40.02	339	P	P	19 29 35.7	+0.8
	SNR=5.2						
EKS2	Erkin-Say	40.09	337	P	P	19 29 36.4	+0.9
	SNR=9.8						
USP	Ospenovka	40.34	339	P	P	19 29 38.3	+0.7
	SNR=14						
SONM	Songino Array	42.80	13	P	P	19 29 57.3	-0.6
	comp=Z,1.2nm,0.6s,mb3.8,baz=192,slow=10,SNR=9.2						
SONM				PcP	PcP	19 31 49.3	0.0
	comp=Z,0.4nm,0.6s,baz=198,slow=4.1,SNR=3.2						
WRA	Warramunga Arr	48.04	124	P	P	19 30 41.0	+1.1
	comp=Z,1.1nm,0.5s,mb4.2,baz=305,slow=8.5,SNR=6.6						
WRAB	Tennant Creek	48.05	124	*e*P	pP	19 30 51.3	+1.5
NVS	Novosibirsk	49.02	352	*i* P	P	19 30 46.0	-1.0
NVS				*e*S	S	19 37 46.0	-2.2
NVS				pmax	pmax		
	comp=N,11nm,1.1s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.1s						
NVS				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
NVS				smax			
	comp=N,12nm,1.6s						
NVS				smax			
	comp=E,16nm,1.6s						
ASAR	Alice Springs	49.56	128	P	P	19 30 52.5	+0.9
	comp=E,1.7nm,0.9s,mb4.1,baz=294,slow=6.8,SNR=7.5						
BVAR	Borovoye Array	50.17	342	P	P	19 30 55.4	-0.5
	comp=E,12nm,1.1s,mb4.8,baz=143,slow=7.4,SNR=22						
BVAR				PcP	PcP	19 32 15.4	+0.3
	comp=E,1.3nm,0.6s,baz=180,slow=3.0,SNR=4.3						
BOD	Bodaibo	53.79	14	*e*P	P	19 31 22.4	-0.6
GNI	Garni	54.95	315	P	P	19 31 31.3	-0.4
	comp=E,3.5nm,0.7s,mb4.5,baz=145,slow=5.4,SNR=4.1						
ZEI	Tsey	56.62	318	*e*P	P	19 31 43.5	-0.2
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
ARU	Arti	56.98	338	⇓*i*P	P	19 31 42.0	-4.1
ARU				*e*S	S	19 39 29.3	-7.0
ARU				*e*SS	SS	19 43 12.9	-13
ARU				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
KIV	Kislovodsk	57.92	319	*e*P	P	19 31 49.2	-3.7
KIV				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.7						
YSS	Yuzh-Sakhalins	58.45	38	P	pP	19 32 05.0	-1.6
YAK	Yakutsk	61.67	18	⇑*i*P	P	19 32 16.1	-2.2
YAK				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.8						
BRTR	Keskin Array B	62.84	312	P	P	19 32 25.4	-1.0
	comp=Z,2.1nm,0.7s,mb4.4,baz=121,slow=7.2,SNR=14						
OBN	Obninsk	66.25	328	*e*P	P	19 32 45.5	-2.8
OBN				pmax	pmax		
	comp=Z,39nm,1.9s,mb5.1						
AKASG	Malin Array Be	68.86	322	P	P	19 33 02.3	-2.5
	comp=Z,2.5nm,0.7s,mb4.2,baz=90,slow=5.6,SNR=12						
TIXI	Tiksi	68.86	11	*e*P	P	19 33 02.2	-2.2
TIXI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
SUW	Suwalki	73.28	325	*e*P	P	19 33 29.9	-1.4
FINES	FINESS Array B	73.68	332	P	P	19 33 33.1	-0.4
	comp=Z,5.5nm,0.7s,mb4.6,baz=101,slow=7.3,SNR=17						
KAF	Kangasniemi	73.78	333	*e*p	P	19 33 33.1	-0.9
	comp=Z,8.6nm,0.9s,mb4.7						
KAF	Kangasniemi	73.78	333	*e*P	P	19 33 33.1	-0.9
KAF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
ARCES	ARCESS Array B	76.42	340	P	P	19 33 48.2	-0.9
	comp=Z,3.4nm,0.7s,mb4.4,baz=56,slow=4.4,SNR=6.1						
KSP	Ksiaz	76.93	321	*e*P	P	19 33 52.7	+0.4
GERES	GERESS Array B	78.44	318	P	P	19 34 01.3	+0.6
	comp=Z,2.6nm,0.7s,mb4.3,baz=90,slow=5.3,SNR=20						
KHC	Kasperske Hory	78.53	319	*e*P	P	19 34 01.5	+0.3
NOA	NORSAR Array B	80.66	331	P	P	19 34 12.0	-0.5
	comp=Z,1.1nm,0.8s,mb3.8,baz=95,slow=5.6,SNR=3.2						
DAVOX	Davos	80.94	316	P	P	19 34 14.4	+0.2
	comp=Z,4.8nm,0.7s,mb4.5,baz=122,slow=7.4,SNR=11						
LPG	La Plagne	83.13	315	*e*P	P	19 34 26.1	+0.6
	comp=Z,8.7nm,0.8s,mb4.5						
ESDC	Sonseca Array	91.59	310	P	P	19 35 07.0	+0.4
	comp=Z,1.7nm,0.8s,mb4.5,baz=34,slow=5.3,SNR=5.6						
ULM	Lac du Bonnet	123.06	7	PKP	PKPdf	19 40 57.2	+2.4
	comp=Z,1.1nm,0.5s,baz=359,slow=5.4,SNR=3.3						
PDAR	Pinedale Array	126.85	21	PKP	PKPdf	19 41 04.7	+2.3
	comp=Z,0.6nm,0.8s,slow=1.5,SNR=4.7						

IDC 28 19:24:25.3±1.3,**6.83N**×**92.79E,mb3.7**/4,**mb1 4.0**/5,**mb1mx3.7**/17,**mbtmp3.8**/5,**MS3.6**/1,**Ms1 3.6**/1,**ms1mx2.6**/23,**Error ellipse: s-maj=63.2km s-min=24.9km az=47.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.03	27	Pn	P	19 27 32.3	-2.1
	baz=209,slow=11,SNR=2.9						
WRA	Warramunga Arr	48.77	124	P	P	19 33 11.6	-2.7
	0.8nm,0.7s,baz=303,slow=9.5,SNR=4.2						
ASAR	Alice Springs	50.30	128	P	P	19 33 25.1	-0.9
	0.5nm,0.7s,baz=301,slow=7.0,SNR=1.6						
ASAR				LR	LR	19 57 41.3	
	comp=Z,62nm,19.8s,baz=94,slow=40						
FINES	FINESS Array B	73.01	333	P	P	19 35 56.5	-2.1
	0.8nm,0.6s,baz=100,slow=8.5,SNR=3.7						
GERES	GERESS Array B	77.71	318	P	P	19 36 24.4	-1.2
	0.5nm,0.6s,baz=96,slow=8.9,SNR=3.0						

IDC 28 19:28:28.0±1.0,**4.51N**×**93.25E,mb3.9**/8,**mb1 4.0**/9,**mb1mx3.9**/18,**mbtmp3.8**/9,**ML3.6**/1,**Error ellipse: s-maj=46.9km s-min=19.5km az=50.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.94	21	Pn	P	19 32 00.9	-1.5
	0.1nm,0.3s,baz=220,slow=13,SNR=4.3						
SONM	Songino Array	44.62	13	P	P	19 36 42.3	-1.6
	0.5nm,0.9s,baz=207,slow=9.7,SNR=3.2						
SONM				PcP	PcP	19 38 24.8	-2.5
	0.5nm,0.5s,baz=208,slow=3.0,SNR=4.7						
WRA	Warramunga Arr	47.13	122	P	P	19 37 01.9	-2.3
	2.0nm,0.7s,baz=300,slow=9.2,SNR=8.0						
ASAR	Alice Springs	48.52	127	P	P	19 37 13.1	-2.0
	0.4nm,0.7s,baz=300,slow=8.4,SNR=3.2						
ASAR				PcP	PcP	19 38 39.2	-2.2
	0.5nm,0.5s,baz=304,slow=3.7,SNR=4.4						
BVAR	Borovoye Array	51.89	343	P	P	19 37 38.3	-2.1
	0.7nm,0.7s,baz=129,slow=9.2,SNR=4.7						
BRTR	Keskin Array B	63.98	312	P	P	19 39 03.6	-2.0
	0.7nm,0.5s,baz=129,slow=8.3,SNR=6.3						
FINES	FINESS Array B	75.27	333	P	P	19 40 11.5	-2.9
	1.9nm,0.9s,baz=63,slow=4.3,SNR=3.4						
ARCES	ARCESS Array B	78.12	341	P	P	19 40 28.4	-1.7
	3.3nm,0.9s,baz=86,slow=6.2,SNR=6.8						
GERES	GERESS Array B	79.74	319	P	P	19 40 38.6	-0.8
	0.9nm,0.7s,baz=101,slow=6.8,SNR=6.1						
NVAR	Mina Array Bea	128.24	32	PKP	PKPdf	19 47 38.2	-0.7
	0.9nm,0.7s,baz=297,slow=3.3,SNR=3.8						

IDC 28 19:39:43.9±1.8,**5.62N**×**93.32E,mb3.5**/4,**mb1 3.7**/4,**mb1mx3.6**/16,**mbtmp3.5**/4,**Error ellipse: s-maj=75.1km s-min=27.3km az=55.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.89	23	Pn	P	19 43 06.6	+2.1
	baz=220,slow=14,SNR=3.3						
SONM	Songino Array	43.52	13	P	P	19 47 49.3	-1.6
	0.6nm,0.6s,baz=188,slow=6.9,SNR=5.1						
WRA	Warramunga Arr	47.67	123	P	P	19 48 22.7	-1.6
	0.8nm,0.8s,baz=301,slow=9.2,SNR=3.5						
ASAR	Alice Springs	49.14	128	P	P	19 48 33.4	-2.3
	0.3nm,0.7s,baz=315,slow=13,SNR=3.1						
GERES	GERESS Array B	78.96	319	P	P	19 51 49.7	-1.4
	0.7nm,0.8s,baz=76,slow=5.5,SNR=3.6						

IDC 28 19:42:00.0±6.6,**3.22N**×**92.93E,mb3.6**/2,**mb1 3.9**/3,**mb1mx3.5**/17,**mbtmp3.6**/3,**Error ellipse: s-maj=186.0km s-min=36.8km az=72.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	16.25	21	Pn	P	19 45 50.0	-1.5
	baz=216,slow=12,SNR=6.1						
SONM	Songino Array	45.94	13	P	P	19 50 24.8	-1.7
	0.7nm,0.9s,baz=196,slow=8.2,SNR=4.4						
WRA	Warramunga Arr	46.72	121	P	P	19 50 31.0	-2.0
	0.8nm,0.6s,baz=301,slow=8.9,SNR=4.9						

IDC ***28*** *19:48:13.4±1.3,8.71N×93.38E,mb3.9/5,mb1 4.0/6,mb1mx3.7/17,mbtmp3.8/6,ML3.1/1,Error ellipse: s-maj=54.2km s-min=27.8km az=43.0*

ISC 28 19:48:16.8±1.1,**8.9N**±0.1×**93.5E**±0.2,**h33**^{km},**n12,**σ**1$\overset{s}{.}$00**/12,**mb3.9**/5,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.89	29	Pn	P	19 50 54.1	+0.6
	0.0nm,0.3s,baz=211,slow=14,SNR=2.9						
PKI	Pulchoki	20.08	339	*e*P	P	19 52 48.2	-2.1
	19nm,1.1s						
DMN	Daman	20.23	338	*e*P	P	19 52 50.4	-1.4
GUN	Gumba	20.23	340	*e*P	P	19 52 52.9	+1.0
	23nm,0.8s						
KKN	Kakani	20.33	339	*e*P	P	19 52 51.8	-1.1
GKN	Gorkha	20.76	337	*e*P	P	19 52 57.7	+0.3
	22nm,0.5s						
KOLN	Koldanda	20.96	335	*e*P	P	19 53 00.5	+1.0
	16nm,0.7s						
WRA	Warramunga Arr	49.39	126	P	P	19 57 05.0	-0.7
	0.4nm,0.9s,mb3.5,baz=302,slow=9.0,SNR=4.5						
BRTR	Keskin Array B	61.27	311	P	P	19 58 31.6	+0.3
	1.5nm,1.0s,mb4.1,baz=135,slow=7.0,SNR=5.1						
FINES	FINESS Array B	71.51	332	P	P	19 59 35.8	-0.2
	0.7nm,0.6s,mb3.7,baz=104,slow=7.9,SNR=3.7						
ARCES	ARCESS Array B	74.09	340	P	P	19 59 51.8	+0.8
	9.6nm,1.3s,mb4.6,baz=98,slow=6.4,SNR=3.9						
GERES	GERESS Array B	76.63	318	P	P	20 00 07.1	+1.1
	0.7nm,0.6s,mb3.8,baz=117,slow=6.0,SNR=5.4						

IDC ***28*** *19:48:26.8±12.0,14.65N×91.01W,mb3.7/3,mb1 4.0/4,mb1mx3.5/19,mbtmp3.6/4,ML4.1/1,Error ellipse: s-maj=254.2km s-min=101.1km az=6.0*

CASC ***28*** *19:48:34.5±2.2,14.27N×91.82W,h78^{km}±23^{km},MD4.1,ML4.2*

ISC 28 19:48:33.5±1.0,**14.2N**±0.1×**91.92W**±0.07,**h70**^{km}±7^{km},**n21,**σ**0$\overset{s}{.}$86**/32,**mb3.5**/3,**12C-1D,Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAT	Jato	0.30	63	⇑*e*P	P	19 48 44.2	-0.6
JAT				*e*S	S	19 48 53.8	+0.6
TP2	Tecpan 2	1.05	55	⇑*e*P	P	19 48 53.1	+0.2
TP2				*e*S	S	19 49 06.8	-0.6
	comp=E,2µm,0.4s						
TP2				AML	AML	19 49 12.4	
	comp=E,2µm,0.4s						
IXG	Ixpaco	1.42	90	⇑*e*P	P	19 48 57.4	-0.4
IXG				*e*S	S	19 49 15.7	-0.2
IXG				AML	AML	19 49 19.5	
	comp=E,14µm,0.3s						
NBG	Las Nubes	1.57	75	⇑*e*P	P	19 49 00.7	+0.8
NBG				AML	AML	19 49 26.8	
	comp=E,5µm,0.4s						
RBDL	Robledal	2.16	92	⇑*e*P	P	19 49 08.1	+0.1
RBDL				*e*S	S	19 49 34.7	+1.0
RTR	El Retiro	2.22	97	⇑*e*P	P	19 49 09.0	+0.2
SBLS	San Blas	2.25	98	⇑*e*P	P	19 49 09.3	0.0
SBLS				*e*S	S	19 49 36.7	+0.9
SNJE	San Jose	2.26	98	⇑*e*P	P	19 49 09.9	+0.5
SNJE				*e*S	S	19 49 36.9	+0.7
MTO2	Montecristo 2	2.48	85	⇑*e*P	P	19 49 12.1	-0.5
BOQS	Boqueron	2.60	100	*e*P	P	19 49 14.0	-0.2
BOQS				*e*S	S	19 49 44.2	-0.3
PICS	Picacho	2.62	99	*e*P	P	19 49 11.7	-2.8
LFU	La Fuente	2.75	99	⇑*e*P	P	19 49 16.2	-0.2
LFU				*e*S	S	19 49 47.5	-1.0
LBRS	Las Brisas	2.82	99	⇓*e*P	P	19 49 17.3	-0.1
LFRS	El Faro	2.83	101	⇑*e*P	P	19 49 17.5	+0.1
LFRS				*e*S	S	19 49 49.5	-0.8
LCBS	La Ceiba	2.90	100	*e*P	P	19 49 18.1	-0.3
LCBS				*e*S	S	19 49 53.0	+0.8
SNVI	San Vicente	3.04	100	⇑*e*P	P	19 49 20.2	-0.1
SNVI				*e*S	S	19 49 55.5	-0.2
VSM	San Miguel	3.62	102	*e*P	P	19 49 29.2	+0.8
TXAR	Lajitas Array	18.59	326	P	P	19 52 46.6	-0.9
	comp=E,0.1nm,0.3s,baz=153,slow=11,SNR=10						
ANMO	Albuquerque	24.49	330	P	P	19 53 48.7	+1.3
	comp=E,0.4nm,0.5s,mb3.0,baz=130,slow=14,SNR=3.3						
NVAR	Mina Array Bea	33.58	321	P	P	19 55 11.3	+2.4
	comp=E,1.2nm,0.6s,mb3.9,baz=124,slow=9.1,SNR=5.5						
YKA	Yellowknife Ar	50.87	347	P	P	19 57 26.8	-2.2
	comp=E,0.3nm,0.6s,mb3.5,baz=155,slow=7.2,SNR=9.6						

IDC ***28*** *19:49:15.2±0.7,12.69N×93.76E,mb4.3/10,mb1 4.4/11,mb1mx4.2/18,mbtmp4.3/11,ML4.0/1,Error ellipse: s-maj=28.5km s-min=14.9km az=58.0*

ISC 28 19:49:18.3±0.7,**12.63N**±0.08×**93.7E**±0.1,**h33**^{km},**n15,**σ**0$\overset{s}{.}$72**/12,**mb4.4**/10,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.68	40	Pn	Pn	19 51 07.5	-3.2
	0.5nm,0.3s,baz=232,slow=15,SNR=25						
CMAR				Sn	Sn	19 52 38.2	+0.8
	baz=241,slow=19,SNR=2.6						
SONM	Songino Array	36.66	14	P	P	19 56 23.3	-0.5
	4.6nm,0.9s,mb4.3,baz=198,slow=9.1,SNR=15						
NWAO	Narrogin (SRO)	50.56	154	P	P	19 58 16.0	+0.1
	4.4nm,0.5s,mb4.7,baz=328,slow=7.2,SNR=6.2						
WRA	Warramunga Arr	51.43	128	P	P	19 58 22.3	-0.3
	6.1nm,0.8s,mb4.6,baz=307,slow=8.2,SNR=31						
WRA				PcP	PcP	19 59 35.5	-1.5
	0.6nm,0.6s,baz=320,slow=3.2,SNR=5.4						
ASAR	Alice Springs	53.34	132	P	P	19 58 37.1	+0.3
	8.8nm,0.9s,mb4.7,baz=310,slow=6.7,SNR=39						
BRTR	Keskin Array B	59.09	309	P	P	19 59 17.9	0.0
	2.1nm,0.7s,mb4.3,baz=120,slow=8.1,SNR=11						
STKA	Stephens Creek	63.71	135	P	P	19 59 49.5	+0.3
	6.5nm,0.8s,mb4.7,baz=267,slow=3.1,SNR=13						
FINES	FINESS Array B	68.36	331	P	P	20 00 17.9	-0.4
	6.0nm,1.1s,mb4.5,baz=117,slow=9.5,SNR=9.1						
ARCES	ARCESS Array B	70.69	340	P	P	20 00 33.1	+0.7
	1.0nm,0.4s,mb4.1,baz=97,slow=7.3,SNR=3.5						
GERES	GERESS Array B	74.05	317	P	P	20 00 53.3	+0.7
	1.8nm,0.6s,mb4.2,baz=87,slow=5.4,SNR=14						
ILAR	Eielson Array	90.52	22	P	P	20 02 17.1	-0.7
	0.3nm,0.7s,mb3.7,baz=315,slow=3.8,SNR=3.1						
PDAR	Pinedale Array	120.89	20	PKP	PKPdf	20 08 08.7	+1.1
	0.2nm,0.5s,baz=90,slow=1.5,SNR=4.6						
NVAR	Mina Array Bea	121.03	29	PKP	PKPdf	20 08 09.9	+1.9
	1.2nm,0.6s,baz=293,slow=4.3,SNR=5.0						
TXAR	Lajitas Array	135.03	22	PKP	PKPdf	20 08 38.1	+3.1
	0.5nm,0.6s,baz=117,slow=0.9,SNR=4.3						
BDFB	Brasilia	142.81	261	PKP	PKPdf	20 08 51.8	+2.5
	1.2nm,0.4s,baz=168,slow=9.3,SNR=3.5						

DHMR ***28*** *19:55:10.9±2.7,9.40N×93.69E,h5^{km},mb5.3*

IDC ***28*** *19:55:10.6±3.0,9.51N×93.82E,h21^{km}±18^{km},mb4.9/24,mb1 5.0/24,mb1mx5.0/24,mbtmp5.0/24,MS4.4/16,Ms1 4.4/16,ms1mx4.2/27,Error ellipse: s-maj=21.2km s-min=10.7km az=52.0*

MOS ***28*** *19:55:11.3±0.9,9.60N×93.62E,h33^{km},mb5.6/59,MS4.4/20,Error ellipse: s-maj=9.7km s-min=4.6km az=124.4*

NEIC ***28*** *19:55:11.8±0.2,9.49N×93.70E,h30^{km},mb5.4/62,MS4.3/20,Error ellipse: s-maj=7.4km s-min=5.8km az=206.0*

BJI ***28*** *19:55:11.3,9.24N×93.39E,h50^{km},mB5.4,mb5.1,Ms4.8,Msz4.7*

SYO ***28*** *19:55:11.8,9.49N×93.72E,h30^{km},MB5.4,MS4.3*

HRVD ***28*** *19:55:11.8±0.2,9.44N×93.76E,h12^{km},MW5.2/61,Centroid moment Tensor Solution. LP body waves: s42,c64;Mantle waves: s61,c125; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-6.32±.14; $M_{\theta\theta}$0.35±.12; $M_{\phi\phi}$5.97±.13; $M_{r\theta}$0.74±.46; $M_{\theta\phi}$1.03±.11; $M_{\phi r}$-1.91±.35; Best double couple: $M_0$6.56×10^{16} NP1: ϕ_s199°,δ38°,λ-76°. NP2:ϕ_s1°,δ54°,λ-101°. Principal axes: T 6.4, Plg8°, Azm99°; N .33, Plg8°, Azm8°; P -6.72, Plg78°, Azm231°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

CSEM ***28*** *19:55:12.3,10.10N×94.06E,h33^{km},mb5.5*

ISC 28 19:55:09.1±0.2,**9.41N**±0.03×**93.74E**±0.03,**h23**^{km},**h23**^{km}±.9^{km}**:pP-P,n413,**σ**1$\overset{s}{.}$12**/400,**mb5.3**/109,**MS4.5**/49,**14C-54D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NNT	Nongplab	6.68	61	P	Sn	19 58 12.5	+7.9
SNG	Songkhla	7.16	108	P	Pn	19 56 53.0	-2.2
	320nm,1.0s						
NST	Nakhon Sawan	8.81	44	P	P	19 57 19.0	+0.8
CM31	Chiang Mai Arr	10.31	29	P	P	19 57 41.3	+2.3
CMAR	Chiang Mai Arr	10.31	29	Pn	P	19 57 42.0	+3.0
	0.9nm,0.3s,baz=217,slow=15,SNR=21						
CMAR				LR	LR	20 01 28.9	
	comp=Z,1µm,20.0s,baz=210,slow=37						
CHG	Chiang Mai	10.62	28	⇑P	P	19 57 46.9	+3.7
KKTK	Khon Kaen	11.22	51	P	P	19 57 55.0	+3.7
NANT	Nan	11.52	35	P	P	19 57 59.7	+4.3
UBT	Ubonrachathani	12.45	61	P	P	19 58 12.5	+4.5
VIS	Vishakhapatnam	13.05	310	*e*P	P	19 58 14.1	-1.9
VIS				*e*S	S	20 00 24.6	-17
MDRS	Chennai	13.72	287	*e*P	P	19 58 24.1	-0.8
AGT	Agartala	14.59	351	*i*	P	19 58 52.0	+16
AGT				*i*		19 59 09.0	
KOD	Kodaikanal	16.05	274	*e*P	P	19 58 57.9	+2.7
KOD				*e*		19 59 04.6	
	comp=Z,137nm,0.9s						
BOK	Bokaro	16.15	333	*e*P	P	19 58 55.4	-1.0
BOK				*e*		19 59 03.0	
	comp=Z,387nm,0.8s						
BOK				*e*S	S	20 01 49.9	-4.7
SHL	Shillong	16.16	354	*e*P	P	19 58 57.4	+0.8
SHL				*e*		19 58 59.5	
	comp=Z,125nm,0.6s						
SHL				*e*S	S	20 01 50.5	-4.4
TRD	Trivandrum	16.60	268	*e*P	P	19 59 05.4	+3.2
TRD				*e*		19 59 41.5	
	comp=Z,65nm,1.4s						
HYB	Hyderabad	16.77	300	*e*P	P	19 59 04.0	-0.3
HYB				pmax	pmax		
	comp=Z,180nm,1.0s						
HYB	Hyderabad	16.77	300	*e*P	P	19 59 04.0	-0.3
	comp=Z,180nm,1.0s						
HYB				*e*S	S	20 01 55.0	-14
HYB	Hyderabad	16.77	300	*i* P	P	19 59 04.0	-0.3
	comp=Z,180nm,1.0s						
HYB				*e*		20 01 55.0	

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HYB                               eS     S      20 02 09.0 +0.1
BLSP  Bilaspur         16.86 320  eP     P      19 59 06.2 +0.8
BLSP                              e             19 59 10.8
      comp=Z,323nm,0.9s
BLSP                              eS     S      20 02 04.5  -6.3
KMI   Kunming          17.82  28 ⇓P      P      19 59 22.3 +4.9
KMI                               AP            19 59 31.0
KMI                               PP     PP     19 59 37.5 +5.4
KMI                               S      S      20 02 44.5  +12
KMI                               XS            20 03 01.3
KMI                               SS     SS     20 03 07.3  +12
KMI                               AMB    AMB
      comp=Z,133nm,1.3s
KMI                               AMB    AMB
      comp=Z,1µm,4.4s
KMI                               LR     LR
      comp=N,1µm,11.4s
KMI                               LR     LR
      comp=E,1µm,14.9s
KMI                               LR     LR
      comp=Z,1µm,13.3s
QIZ   Qiongzhong       18.29  57  P      P      19 59 27.5 +4.1
QIZ                               S      S      20 02 48.5 +4.9
QIZ                               AMB    AMB
      comp=Z,930nm,8.2s
QIZ                               LR     LR
      comp=N,3µm,16.5s
QIZ                               LR     LR
      comp=Z,2µm,11.3s
QIZ   Qiongzhong       18.29  57  eP     P      19 59 25.7 +2.3
      comp=Z,87nm,1.1s
NGP   Nagpur           18.34 311⇑eP     P      19 59 26.1 +2.3
NGP                               eS     S      20 02 44.3  -0.3
MNGI  Mangalore        18.88 282  eP     P      19 59 32.3 +1.8
MNGI                              e             19 59 42.5
      comp=Z,196nm,1.2s
ALBI  Allahabad        19.46 326  eP     P      19 59 36.0  -1.2
AKL   Akola            19.64 307  eP     P      19 59 42.2 +2.9
AKL                               e             19 59 50.4
      comp=Z,197nm,1.3s
PKI   Pulchoki         19.70 338  eP     P      19 59 40.0 +0.1
      comp=Z,191nm,0.6s
GUN   Gumba            19.84 339  eP     P      19 59 41.7 +0.3
      comp=Z,624nm,0.8s
DMN   Daman            19.85 337  eP     P      19 59 41.8 +0.3
      comp=Z,301nm,0.8s
KKN   Kakani           19.95 338  eP     P      19 59 42.4  -0.2
      comp=Z,506nm,1.1s
LSA   Lhasa            20.33 354⇓iP     P      19 59 46.1  -0.4
LSA                               pmax   pmax
      comp=Z,82nm,0.5s
LSA                               MLR    MLR
      comp=Z,1µm,21.0s,MS4.2
LSA   Lhasa            20.33 354⇓iP     P      19 59 46.1  -0.5
      comp=Z,82nm,0.5s
LSA                               LR     LR
      comp=Z,1µm,21.0s,MS4.2
GOA   Goa              20.35 289  eP     P      19 59 46.3  -0.5
GOA                               e             20 00 03.8
      comp=Z,115nm,1.3s
GKN   Gorkha           20.39 336  eP     P      19 59 47.3 +0.2
      comp=Z,438nm,0.6s
KAD   Karad            20.57 294  eP     P      19 59 50.1 +1.0
KAD                               e             20 00 00.7
      comp=Z,190nm,1.5s
KOLN  Koldanda         20.61 334  eP     P      19 59 50.0 +0.5
      comp=Z,859nm,1.1s
BHPL  Bhopal           20.80 313  eP     P      19 59 52.2 +0.7
BHPL                              e             19 59 53.6
      comp=Z,421nm,0.9s
BHPL                              eS     S      20 03 36.2  -1.4
POO   Poona            21.30 297  eP     P      19 59 57.2 +0.6
POO                               e             20 00 03.5
      comp=Z,141nm,1.2s
BOM   Bombay           22.35 297  eP     P      20 00 09.2 +2.2
BOM                               e             20 00 18.1
      comp=Z,239nm,1.6s
BOM                               eS     S      20 04 07.3 +0.9
CD2   Chengdu          23.34  22⇓iP     P      20 00 18.0 +1.3
CD2                               AMB    AMB
      comp=Z,50nm,0.7s,mb5.0
CD2                               AMB    AMB
      comp=Z,530nm,5.9s
CD2                               LR     LR
      comp=Z,2µm,11.4s,MS4.8
PTH   Pithoragarh      23.70 330  eP     P      20 00 21.3 +1.0
PTH                               e             20 04 46.1
NDI   New Delhi        24.67 323  eP     P      20 00 31.2 +1.6
NDI                               e             20 00 33.5
      comp=Z,524nm,1.4s
NDI                               eS     S      20 04 45.7  -1.3
AJM   Ajmer            24.80 316  eP     P      20 00 33.1 +2.2
AJM                               e             20 00 35.8
      comp=Z,157nm,1.0s
AJM                               eS     S      20 04 52.0 +2.8
ENH   Enshi            25.44  33⇓eP     P      20 00 37.6 +0.6
      comp=Z,137nm,1.1s,mb5.4
ENH                               LR     LR
      comp=Z,326nm,22.0s,MS3.8
DDI   Dehra Dun        25.44 327  eP     P      20 00 38.5 +1.5
DDI                               e             20 05 22.3
BHJ   Bhuj             26.84 304  eP     P      20 00 51.2 +1.3
BHJ                               e             20 00 53.8
      comp=Z,111nm,0.9s
SDNR  Sundarnagar      26.94 327  eP     P      20 00 52.8 +2.0
LZH   Lanzhou          28.10  18 ⇑P      P      20 01 02.3 +1.0
LZH                               PP     PP     20 01 53.5 +1.7
LZH                               eS     S      20 05 44.0 +0.6
LZH                               SS     SS     20 07 09.0 +2.6
LZH                               AMB    AMB
      comp=Z,60nm,1.5s,mb5.0
LZH                               AMB    AMB
      comp=Z,170nm,5.4s
LZH                               LR     LR
      comp=Z,2µm,14.3s,MS4.9
XAN   Xi'an            28.20  27  P      P      20 01 01.0  -1.3
XAN                               AMB    AMB
      comp=Z,35nm,0.9s,mb5.0
QZH   Quanzhou         28.25  54⇓iP     P      20 01 05.0 +2.3
QZH                               AMB    AMB
      comp=Z,170nm,0.8s,mb5.7
QZH                               LR     LR
      comp=Z,2µm,12.9s,MS4.9
DLH   Dalhousie        28.28 327  eP     P      20 01 02.0  -1.0
THN   Thein Dam        28.34 327  eP     P      20 01 03.1  -0.3
      comp=Z,23nm,0.5s,mb5.1
WHN   Wuhan            28.49  40  P      P      20 01 06.8 +1.9
WHN                               AMB    AMB
      comp=Z,90nm,1.2s,mb5.3
WHN                               LR     LR
      comp=Z,2µm,12.3s,MS5.0
GTA   Gaotai           30.36   9  eP     P      20 01 21.8 +0.3
GTA                               PP     PP     20 02 19.8  -1.3
GTA                               PPP    PPP    20 02 34.0  -1.5
GTA                               PCP    PcP    20 04 22.5 +1.2
GTA                               S      S      20 06 17.5  -1.9
GTA                               AMB    AMB
      comp=Z,32nm,1.1s,mb5.0
GTA                               AMB    AMB
      comp=Z,89nm,5.7s
GTA                               LR     LR
      comp=N,295nm,14.8s,MS4.3
GTA                               LR     LR
      comp=E,401nm,12.2s,MS4.3
GTA                               LR     LR
      comp=Z,410nm,16.7s,MS4.2
NJ2   Nanjing          32.39  42  eP     P      20 01 41.5 +2.1
NJ2                               AP     pP     20 01 50.3 +4.0
NJ2                               PP     PP     20 02 47.0  -0.5
NJ2                               PPP    PPP    20 03 02.0  -0.9
NJ2                               S      S      20 06 47.0  -4.1
NJ2                               AMB    AMB
      comp=Z,100nm,0.9s,mb5.7
NJ2                               AMB    AMB
      comp=Z,1µm,6.0s
NJ2                               LR     LR
      comp=Z,5µm,10.6s,MS5.5
KSH   Kashi            33.92 335  i PR          20 01 53.0
KSH                               PP     PP     20 03 05.5  -0.9
KSH                               PPP    PPP    20 03 23.0  -1.3
KSH                               PCP    PcP    20 04 33.0 +2.1
KSH                               S      S      20 07 13.5  -1.3
KSH                               PCS           20 08 18.0
KSH                               SCS    ScS    20 12 12.8  -0.6
WMQ   Urumqi           34.68 352 ⇓P      P      20 01 59.3 +0.2
WMQ                               PP     PP     20 03 16.3 +0.1
WMQ                               PPP    PPP    20 03 34.3 +0.1
WMQ                               S      S      20 07 25.3  -1.3
HHC   Hu-ho-hao-te     35.07  24  eP     P      20 02 03.5 +1.0
HHC                               PP     PP     20 03 22.0 +0.8
HHC                               PCP    PcP    20 04 35.3 +1.0
HHC                               S      S      20 07 31.3  -1.4
HHC                               SCP           20 08 16.0
HHC                               AMB    AMB
      comp=Z,30nm,0.8s,mb5.3
HHC                               AMB    AMB
      comp=Z,169nm,4.5s
HHC                               LR     LR
      comp=N,472nm,11.9s,MS4.7
HHC                               LR     LR
      comp=E,729nm,13.1s,MS4.7
HHC                               LR     LR
      comp=Z,563nm,12.4s,MS4.5
ULHL  Ulahol           36.14 338  P      P      20 02 12.4 +0.8
      SNR=20
KZA   Kyzart           36.38 337  P      P      20 02 14.6 +1.1
      SNR=28
BJT   Baijiatuau       36.44  30  eP     P      20 02 15.9 +1.8
BJT                               pmax   pmax
      comp=Z,31nm,0.8s
BJT                               MLR    MLR
      comp=Z,643nm,22.0s
BJT   Baijiatuau       36.44  30  eP     P      20 02 15.9 +1.9
      comp=Z,31nm,0.8s,mb5.3
BJT                               LR     LR
      comp=Z,643nm,22.0s,MS4.4
UCH   Uchtor           36.80 336  P      P      20 02 18.2 +1.2
      SNR=76
JOW   Kunigami         36.95  57  LR     LR     20 17 31.8
      comp=Z,142nm,19.3s,MS3.8,baz=228,slow=36
TKM2  Tokmak 2         36.96 338  P      P      20 02 19.0 +0.5
      SNR=43
KBK   Karagaybulak     36.99 337  P      P      20 02 19.9 +1.2
      SNR=114
AML   Almayashu        37.05 335  P      P      20 02 20.6 +1.4
      SNR=211
AAK   Ala-Archa        37.14 336  P      P      20 02 21.2 +1.2
      SNR=83
AAK   Ala-Archa        37.14 336⇓eP     P      20 02 20.0  0.0
AAK                               e             20 03 44.2
AAK                               e             20 04 40.3
AAK                               pmax   pmax
      comp=Z,80nm,0.8s,mb5.6
AAK                               MLR    MLR
      comp=Z,288nm,21.0s,MS4.0
AAK   Ala-Archa        37.14 336⇓eP     P      20 02 20.0  0.0
      comp=Z,80nm,0.8s,mb5.6
AAK                               ePP    PP     20 03 44.2  -2.9
AAK                               ePcP   PcP    20 04 40.3  -0.1
AAK                               LR     LR
      comp=Z,288nm,21.0s,MS4.0
CHMS  Chumysh          37.35 337  P      P      20 02 22.0 +0.3
      SNR=67
EKS2  Erkin-Say        37.46 336  P      P      20 02 23.8 +1.2
      SNR=170
USP   Ospenovka        37.68 337  P      P      20 02 25.1 +0.7
      SNR=117
MKAR  Makanchi Array   38.51 347  i P    P      20 02 31.1  -0.3
MKAR                              pmax   pmax
      comp=Z,2.0nm,0.4s
SONM  Songino Array    39.76  13  P      P      20 02 42.2 +0.4
      comp=Z,14nm,1.0s,mb4.7,baz=198,slow=9.9,SNR=61
SONM                              PcP    PcP    20 04 48.6 +0.1
      comp=Z,9.6nm,0.9s,baz=201,slow=3.9,SNR=8.3
SONM                              LR     LR     20 20 49.4
      comp=Z,434nm,18.5s,MS4.3,baz=358,slow=39
ULN   Ulaanbaatar      39.95  14  eP     P      20 02 39.3  -4.0
ULN                               e             20 04 48.0
ULN                               MLR    MLR
      comp=Z,593nm,22.0s,MS4.4
ULN   Ulaanbaatar      39.95  14  eP     P      20 02 39.3  -4.0
ULN                               eP            20 02 43.2
ULN                               ePcP   PcP    20 04 48.0  -1.1
ULN                               LR     LR
      comp=Z,593nm,22.0s,MS4.4
MOY   Mondy            42.55   7  eP     P      20 03 05.6 +0.9
TLY   Talaya           42.92   9  eP     P      20 03 08.4 +0.7
TLY                               pmax   pmax
      comp=Z,21nm,1.3s,mb4.7
TLY                               MLR    MLR
      comp=Z,214nm,12.0s,MS4.3
TLY   Talaya           42.92   9  eP     P      20 03 04.4  -3.3
CN2   Changchun        43.96  33 ⇑P      P      20 03 17.0 +0.8
CN2                               PCP    PcP    20 05 01.8  -0.6
CN2                               eS     S      20 09 47.0 +0.9
CN2                               AMB    AMB
      comp=Z,40nm,0.9s,mb5.2
CN2                               AMB    AMB
      comp=Z,450nm,5.0s
CN2                               LR     LR
      comp=N,500nm,14.0s,MS4.7
CN2                               LR     LR
      comp=E,500nm,14.0s,MS4.7
CN2                               LR     LR
      comp=Z,700nm,15.0s,MS4.7
MUKL  Al Mukalla       43.97 281⇑eP     P      20 03 18.8 +2.2
MUKL                              AMb    AMB    20 03 19.2
      comp=Z,26nm,0.5s,mb5.2
HASS  Wahat al Ahsa'   44.65 296  P      P      20 03 23.9 +1.8
HIA   Hailar           45.28  24⇓eP     P      20 03 26.9 +0.1
HIA                               e             20 05 06.5
HIA                               pmax   pmax
      comp=Z,35nm,1.0s
HIA                               MLR    MLR
      comp=Z,482nm,20.0s
HIA   Hailar           45.28  24⇓eP     P      20 03 26.9 +0.2
      comp=Z,35nm,1.0s,mb5.1
HIA                               ePcP   PcP    20 05 06.5  -0.3
HIA                               LR     LR
      comp=Z,482nm,20.0s,MS4.4
MDJ   Mudanjiang       46.78  35  P      P      20 03 40.3 +1.7
MDJ                               PP     PP     20 05 30.5 +2.1
MDJ                               S      S      20 10 33.0 +6.5
MDJ                               AMB    AMB
      comp=Z,16nm,2.2s,mb4.6
MDJ                               AMB    AMB
      comp=Z,175nm,7.2s
MDJ                               LR     LR
      comp=N,118nm,22.7s,MS4.2
MDJ                               LR     LR
      comp=E,235nm,20.6s,MS4.2
MDJ                               LR     LR
      comp=Z,261nm,22.7s,MS4.1
RYDS  Riyadh           47.19 294  P      P      20 03 44.1 +2.0
BDHA  Al Bayda'        47.33 280⇓eP     P      20 03 45.6 +2.3
RDF   Al-Radifah       47.39 301  eP     P      20 03 44.5 +0.7
RDF                               AMb    AMB    20 03 46.4
      comp=Z,413nm,0.8s,mb6.4
UMR   Umm Al-Rimmam    47.41 302  eP     P      20 03 44.5 +0.5
UMR                               AMb    AMB    20 03 46.2
      comp=Z,131nm,0.9s,mb5.9
BVA0  Borovoye Array   47.41 341  i P    P      20 03 42.8  -0.8
BVA0                              pmax   pmax
      comp=Z,2.0nm,0.9s
BVAR  Borovoye Array   47.41 341  P      P      20 03 42.9  -0.7
      comp=Z,27nm,1.0s,mb5.2,baz=143,slow=7.4,SNR=62
BVAR                              PcP    PcP    20 05 13.8  -0.6
      comp=Z,14nm,0.8s,baz=162,slow=9.4,SNR=5.1
BRVK  Borovoye         47.48 341⇓eP     P      20 03 43.2  -0.9
BRVK                              e             20 05 14.2
BRVK                              pmax   pmax
      comp=Z,39nm,1.0s,mb5.3
BRVK                              MLR    MLR
      comp=Z,126nm,22.0s,MS3.8
BRVK  Borovoye         47.48 341⇓eP     P      20 03 43.2  -0.9
      comp=Z,39nm,1.0s,mb5.3
BRVK                            ⇓ePcP   PcP    20 05 14.2  -0.3
BRVK                              LR     LR
      comp=Z,126nm,22.0s,MS3.8
LBOS                   47.63 280⇓eP     P      20 03 48.2 +2.4
NWAO  Narrogin (SRO)   47.69 153  eP     P      20 03 44.4  -1.6
NWAO                              pmax   pmax
      comp=Z,15nm,0.6s
NWAO                              MLR    MLR
      comp=Z,690nm,20.0s
NWAO  Narrogin (SRO)   47.69 153  P      P      20 03 45.4  -0.7
      comp=Z,17nm,0.5s,mb5.3,baz=319,slow=8.6,SNR=36
NWAO  Narrogin (SRO)   47.69 153  eP     P      20 03 44.4  -1.7
      comp=Z,15nm,0.6s,mb5.2
NWAO                              LR     LR
      comp=Z,690nm,20.0s,MS4.6
CHKZ  Chkalovo         47.90 342⇓iP     P      20 03 46.9  -0.5
CHKZ                              e             20 05 14.6
CHKZ                              pmax   pmax
      comp=Z,72nm,1.0s,mb5.7
CHKZ  Chkalovo         47.90 342⇓iP     P      20 03 46.9  -0.5
      comp=Z,72nm,1.0s,mb5.7
CHKZ                              ePcP   PcP    20 05 14.6  -1.5
RST   Umm Al-Ruwaisa   48.00 301  eP     P      20 03 48.9 +0.3
RST                               AMb    AMB    20 03 50.5
      comp=Z,332nm,0.6s
MAJO  Matsushiro       48.44  49  P      P      20 03 50.6  -1.2
MAJO                              e             20 05 18.3
MAJO                              pmax   pmax
      comp=Z,8.0nm,0.8s,mb4.8
MAJO                              MLR    MLR
      comp=Z,485nm,20.0s,MS4.5
MAJO  Matsushiro       48.44  49  P      P      20 03 50.6  -1.3
      comp=Z,8.3nm,0.8s,mb4.8
MAJO                              ePcP   PcP    20 05 18.3 +0.1
MAJO                              LR     LR
      comp=Z,485nm,20.0s,MS4.5
MAT   Matsushiro       48.44  49  P      P      20 03 52.0 +0.2
MAT                               eS     S      20 10 56.6 +6.4
MAT   Matsushiro       48.44  49  eP     P      20 03 52.0 +0.2
MAT                               S      S      20 10 57.0 +6.8
MZLS  Mizel            48.45 294  P      P      20 03 53.7 +1.6
KAMS  Al Khamasin      48.57 289  P      P      20 03 54.1 +1.1
TRBA  At Turbah        48.74 279⇓eP     P      20 03 56.6 +2.3
WRA   Warramunga Arr   49.48 126  P      P      20 03 59.4  -0.7
      comp=Z,12nm,0.6s,mb5.1,baz=307,slow=8.6,SNR=124
WRA                               PcP    PcP    20 05 22.4 +0.2
      comp=Z,7.8nm,0.6s,baz=313,slow=2.8,SNR=12
WRAB  Tennant Creek    49.48 126  eP     P      20 03 59.2  -0.9
WRAB                              e             20 05 21.1
WRAB                              pmax   pmax
      comp=Z,18nm,0.6s,mb5.3
WRAB                              MLR    MLR
      comp=Z,159nm,20.0s,MS4.0
WRAB  Tennant Creek    49.48 126  eP     P      20 03 59.2  -0.9
      comp=Z,18nm,0.6s,mb5.3
WRAB                              ePcP   PcP    20 05 21.1  -1.1
WRAB                              LR     LR
      comp=Z,159nm,20.0s,MS4.0
TATS  Tathlith         49.54 288  P      P      20 04 01.9 +1.4
AFFS  'Afif            50.43 293  P      P      20 04 09.1 +1.9
ARSS  Ar Rass          50.51 296  P      P      20 04 08.8 +1.0
BOD   Bodaibo          50.76  14⇑iP     P      20 04 08.4  -0.9
ASAR  Alice Springs    51.21 131  P      P      20 04 11.9  -1.2
      comp=Z,20nm,1.0s,mb5.0,baz=303,slow=6.5,SNR=77
ASAR                              PcP    PcP    20 05 28.0  -0.5
      comp=Z,10nm,0.7s,baz=312,slow=3.7,SNR=14
ASAR                              ScP           20 09 22.9
      comp=Z,0.8nm,0.7s,baz=311,slow=3.5,SNR=4.3
ASAR                              LR     LR     20 26 25.9
      comp=Z,214nm,18.1s,MS4.2,baz=302,slow=37
HILS  Ha'il            52.04 297  P      P      20 04 20.9 +1.5
GNI   Garni            53.09 314  P      P      20 04 28.0 +1.0
      comp=Z,16nm,0.6s,mb5.2,baz=164,slow=6.0,SNR=32
GNI                               LR     LR     20 31 50.1
      comp=Z,191nm,18.1s,MS4.2,baz=293,slow=41
CLNS  Chul'man         53.15  21⇓eP     P      20 04 27.3  0.0
CLNS                              e             20 05 34.7
CLNS                              pmax   pmax
      comp=Z,22nm,0.7s,mb5.2
CLNS                              pmax   pmax
      comp=N,15nm,1.0s
CLNS                              pmax   pmax
      comp=E,16nm,0.9s
CLNS                              pmax   pmax
      comp=Z,9.0nm,0.9s,mb4.7
CLNS                              pmax   pmax
      comp=N,8.0nm,1.1s
CLNS                              pmax   pmax
      comp=E,6.0nm,0.8s
CLNS                              MLR    MLR
      comp=Z,1µm,12.0s,MS5.1
CLNS                              MLR    MLR
      comp=N,600nm,13.0s,MS4.8
CLNS                              MLR    MLR
      comp=E,100nm,12.0s,MS4.8
TI2   Plekhanov        53.67 315⇓iP     P      20 04 31.4 +0.1
TI2                               pmax   pmax
      comp=Z,80nm,1.0s,mb5.6
SVE   Sverdlovsk       53.83 338⇓eP     P      20 04 32.5 +0.2
SVE                               e             20 05 44.7
SVE                               pmax   pmax
      comp=Z,130nm,1.4s,mb5.7
KBRS  Khaybar          54.04 295  P      P      20 04 35.9 +1.7
ARU   Arti             54.33 337⇓eP     P      20 04 34.3  -1.6
ARU                               pmax   pmax
      comp=Z,36nm,0.8s,mb5.3
ARU                               MLR    MLR
      comp=Z,243nm,21.0s,MS4.2
ARU   Arti             54.33 337⇓eP     P      20 04 34.3  -1.6
      comp=Z,36nm,0.8s,mb5.3
ARU                               LR     LR
      comp=Z,243nm,21.0s,MS4.2
ZEI   Tsey             54.65 316  i P    P      20 04 38.0  -0.5
ZEI                               i *PP  pP     20 04 53.8 +8.1
ZEI                               i             20 06 41.9
ZEI                               pmax   pmax
      comp=Z,37nm,1.0s,mb5.4
YNBS  Yanbu' al Bahr   55.03 293  P      P      20 04 42.9 +1.4
UMJS  Umm Lajj         55.73 294  P      P      20 04 48.6 +2.0
YSS   Yuzh-Sakhalins   55.83  39⇑iP     P      20 04 43.8  -3.2
YSS                               pmax   pmax
      comp=Z,44µm,1.0s
KIV   Kislovodsk       55.92 317  P      P      20 04 47.5  -0.2
      comp=Z,518nm,1.0s,SNR=25
KIV   Kislovodsk       55.92 317⇓iP     P      20 04 46.7  -1.0
KIV                               pmax   pmax
      comp=Z,72nm,0.9s,mb5.7
KIV                               MLR    MLR
      comp=Z,98nm,20.0s,MS3.9
KIV   Kislovodsk       55.92 317⇓iP     P      20 04 46.7  -1.0
      comp=Z,72nm,0.9s,mb5.7
KIV                               LR     LR
      comp=Z,98nm,20.0s,MS3.9
GOF   Gofitskoye       56.12 319⇓iP     P      20 04 48.0  -1.1
GOF                               pmax   pmax
      comp=Z,70nm,1.3s,mb5.5
PMG   Port Moresby     56.37 108  eP     P      20 04 52.1 +0.8
PMG                               pmax   pmax
      comp=Z,44nm,0.7s
PMG                               MLR    MLR
      comp=Z,315nm,22.0s
PMG   Port Moresby     56.37 108  eP     P      20 04 52.1 +0.8
      comp=Z,44nm,0.7s,mb5.6
PMG                               LR     LR
      comp=Z,315nm,22.0s,MS4.4
QURS  Qurayyt al Mil   56.56 301  P      P      20 04 52.8 +0.3
TBKS  Tabuk            56.75 298  P      P      20 04 55.2 +1.3
ELZG  Elazig           56.80 310  i P    P      20 04 53.6  -0.5
ASF   Jabal al Asfar   57.06 302  P      P      20 04 56.2 +0.2
      comp=Z,20nm,1.0s,mb5.1,baz=5.3,slow=1.3,SNR=26
MALT  Malatya          57.17 310  eP     P      20 04 55.1  -1.7
MALT                              pmax   pmax
      comp=Z,53nm,1.3s,mb5.4
MALT  Malatya          57.17 310  eP     P      20 04 55.0  -1.7
      comp=Z,53nm,1.3s,mb5.4
KMBO  Kilima Mbogo     57.21 263⇓iP     P      20 04 59.4 +2.1
KMBO                              pmax   pmax
      comp=Z,36nm,0.9s
KMBO                              MLR    MLR
      comp=Z,673nm,20.0s
KMBO  Kilima Mbogo     57.21 263  P      P      20 04 59.7 +2.4
      comp=Z,35nm,0.8s,mb5.4,baz=58,slow=9.6,SNR=90
KMBO  Kilima Mbogo     57.21 263⇓iP     P      20 04 59.4 +2.1
      comp=Z,36nm,0.9s,mb5.4
KMBO                              LR     LR
      comp=Z,673nm,20.0s,MS4.7
SOKR  Solikamsk        57.23 339⇑iP     P      20 04 55.6  -1.3
SOKR                              pmax   pmax
      comp=Z,50nm,0.9s,mb5.5
SOKR                              MLR    MLR
      comp=Z,850nm,22.0s,MS4.8
JMQS  Jabal Moqyreh    57.42 298  P      P      20 04 59.3 +0.6
GZT   Gaziantep        57.60 308  i P    P      20 04 59.0  -0.8
SOC   Sochi            57.80 316  i P    P      20 04 59.4  -1.7
SOC                               e             20 05 52.0
SOC                               eS     S      20 12 49.8  -7.3
SOC                               i SS   SS     20 16 41.5  -7.9
SOC                               pmax   pmax
      comp=Z,37nm,1.1s,mb5.3
SOC                               pmax   pmax
      comp=N,16nm,1.4s
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SOC				pmax	pmax		
	comp=E,15nm,1.3s						
SOC				MLR	MLR		
	comp=N,407nm,18.0s,MS4.7						
SOC				MLR	MLR		
	comp=Z,538nm,18.0s,MS4.7						
SOC				MLR	MLR		
	comp=E,492nm,22.0s,MS4.7						
AYUS	‘Aynunah	57.87	297	P	P	20 05 02.4	+0.6
MKRJ	Makawir	58.01	301	P	P	20 05 02.8	+0.1
BDAS	Al Bad‘	58.05	298	P	P	20 05 03.3	+0.4
KSHT	Keshet	58.10	303	P	P	20 05 03.8	+0.5
JMOS	Jabal al Moall	58.13	298	P	P	20 05 04.3	+0.8
ALWS	Ilw as Safayha	58.18	299	P	P	20 05 04.6	+0.7
KAHT	Ahir Dag	58.20	309	i P	P	20 05 03.2	-0.7
MZDA	Masada	58.21	301	P	P	20 05 04.4	+0.3
HMDT	Nahal Hemdat	58.22	302	P	P	20 05 04.2	+0.1
DRGI	Dragot	58.22	301	P	P	20 05 04.4	+0.2
AQBJ	Aqaba	58.25	299	P	P	20 05 04.6	+0.2
HAQS	Haql	58.27	298	P	P	20 05 04.9	+0.3
EIL	Elat	58.33	299	P	P	20 05 05.2	+0.3
EIL	Elat	58.33	299	⇓eP	P	20 05 05.0	+0.1
	comp=E,73nm,1.1s,mb5.6						
MMLI	Mount Malkishu	58.33	302	P	P	20 05 05.4	+0.5
PRNI	Paran	58.37	300	P	P	20 05 05.6	+0.4
MBH	Mount Berech	58.38	299	P	P	20 05 05.6	+0.3
COBT	Iskenderun	58.43	307	i P	P	20 05 02.8	-2.8
SLTI	Sal’it	58.62	302	P	P	20 05 07.2	+0.2
HNTI	Hanita	58.65	303	P	P	20 05 07.3	+0.2
YAK	Yakutsk	58.68	19	eP	P	20 05 05.2	-1.7
YAK				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
YAK				pmax	pmax		
	comp=N,9.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.1s						
YAK	Yakutsk	58.68	19	eP	P	20 05 01.7	-5.2
YAK				⇓eP		20 05 05.5	
YAK				LR	LR		
	comp=Z,271nm,20.0s,MS4.4						
OFRI	‘Ofer	58.73	302	P	P	20 05 07.9	+0.2
KZIT	Kziot	58.97	300	P	P	20 05 09.4	0.0
CTA	Charters Tower	59.41	120	LR	LR	20 31 23.0	
	comp=Z,340nm,21.3s,MS4.5,baz=286,slow=37						
CTAO	Charters Tower	59.41	120	⇓eP	P	20 05 12.6	0.0
CTAO				e	pP	20 05 21.6	+1.7
CTAO				pmax	pmax		
	comp=Z,35nm,1.1s,mb5.3						
CTAO				MLR	MLR		
	comp=Z,338nm,21.0s,MS4.5						
CTAO	Charters Tower	59.41	120	⇓eP	P	20 05 12.6	0.0
	comp=Z,34nm,1.1s,mb5.3						
CTAO				e	pP	20 05 21.6	+1.7
CTAO				LR	LR		
	comp=Z,338nm,21.0s,MS4.5						
AVNT	Avonos	60.01	309	i P	P	20 05 14.9	-1.6
MEST	Erdemli	60.11	307	i P	P	20 05 15.4	-1.7
CSS	Prodhromos	60.47	305	eP	P	20 05 17.8	-1.9
	comp=Z,73nm,1.4s,mb5.5						
BOYT	Boyabat	60.59	312	i P	P	20 05 17.1	-3.3
VRSR	Storozhevoye	60.90	324	eP	P	20 05 20.1	-2.3
VRSR				eS		20 14 01.8	
VRSR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
VRSR				pmax	pmax		
	comp=N,6.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,20nm,1.0s						
BRTR	Keskin Array B	61.13	310	P	P	20 05 22.2	-1.9
	comp=E,16nm,0.9s,mb5.2,baz=124,slow=7.3,SNR=64						
STKA	Stephens Creek	61.45	134	P	P	20 05 25.7	-0.7
	comp=E,9.6nm,0.9s,mb4.9,baz=324,slow=6.0,SNR=15						
STKA				LR	LR	20 32 53.5	
	comp=E,465nm,20.8s,MS4.6,baz=292,slow=37						
STKA	Stephens Creek	61.45	134	eP	P	20 05 25.3	-1.0
ELDT	Eldivan	61.46	311	i P	P	20 05 25.5	-0.8
BALT	Daday	61.72	312	i P	P	20 05 26.7	-1.3
SIM	Simferopol’	62.05	316	deP	P	20 05 28.6	-1.6
SIM				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.2						
SGKT	Sivrigoynuk	62.50	311	i P	P	20 05 32.2	-1.1
ISP	Isparta	63.18	308	⇓eP	P	20 05 36.0	-1.8
ISP				pmax	pmax		
	comp=Z,63nm,1.1s,mb5.7						
ISP	Isparta	63.18	308	⇓eP	P	20 05 36.0	-1.9
	comp=Z,63nm,1.1s,mb5.7						
ESKT	Eskisehir	63.20	310	i P	P	20 05 36.7	-1.2
HENT	Hendek	63.41	311	i P	P	20 05 37.1	-2.1
MBAR	Mbarara	63.49	265	⇓eP	P	20 05 40.2	0.0
MBAR				pmax	pmax		
	comp=Z,66nm,1.2s,mb5.6						
MBAR				MLR	MLR		
	comp=Z,181nm,20.0s,MS4.2						
MBAR	Mbarara	63.49	265	⇓eP	P	20 05 40.2	0.0
	comp=Z,66nm,1.2s,mb5.6						
MBAR				LR	LR		
	comp=Z,181nm,20.0s,MS4.2						
MOS	Moscow	63.57	328	eP	P	20 05 38.6	-1.5
MOS				e	pP	20 05 46.6	-0.8
MOS				pmax	pmax		
	comp=Z,121nm,1.5s,mb5.7						
OBN	Obninsk	63.88	327	c iP	P	20 05 41.0	-1.1
OBN				i	pP	20 05 48.4	-1.0
OBN				e		20 08 02.4	
OBN				i S	S	20 14 15.9	+1.4
OBN				pmax	pmax		
	comp=Z,86nm,1.7s,mb5.5						
OBN				MLR	MLR		
	comp=Z,400nm,20.0s,MS4.6						
OBN	Obninsk	63.88	327	eP	P	20 05 41.1	-1.0
	comp=Z,122nm,1.5s,mb5.7						
ULDT	Uludag	64.61	310	i P	P	20 05 46.2	-1.0
MA2	Magadan	65.60	28	eP	P	20 05 50.2	-3.0
TIXI	Tiksi	65.81	12	⇓iP	P	20 05 53.1	-1.3
TIXI				pmax	pmax		
	comp=Z,66nm,1.1s,mb5.6						
TIXI				MLR	MLR		
	comp=Z,181nm,17.0s,MS4.3						
TIXI	Tiksi	65.81	12	eP	P	20 05 51.1	-3.3
TIRR	Tirgusor	65.90	315	P	P	20 05 54.4	-1.0
AKASG	Malin Array Be	66.71	321	P	P	20 05 58.4	-2.0
	comp=Z,8.7nm,0.7s,mb4.9,baz=86,slow=5.6,SNR=34						
AKASG				PP	PP	20 08 25.6	-3.6
	comp=Z,2.5nm,0.8s,baz=88,slow=7.5,SNR=6.3						
VRI	Vrincioaia	67.33	316	P	P	20 06 04.3	-0.1
IDI	Anoyia	67.37	304	P	P	20 06 03.6	-1.3
	comp=Z,16nm,0.7s,mb5.2,baz=82,slow=3.8,SNR=15						
MLR	Muntele Rosu	67.80	315	P	P	20 06 07.3	-0.1
MLR	Muntele Rosu	67.80	315	LR	LR	20 41 49.5	
	comp=Z,444nm,18.9s,MS4.7,baz=336,slow=41						
RZN	Rozhen	68.15	311	eP	P	20 06 08.0	-1.7
MNK	Minsk	68.47	325	⇑eP	P	20 06 08.0	-3.5
VTS	Vitosha	69.36	312	eP	P	20 06 16.0	-1.2
VTS	Vitosha	69.36	312	P	P	20 06 16.2	-0.9
KKB	Krupnik	69.38	311	eP	P	20 06 15.0	-2.3
LSZ	Lusaka	69.41	250	⇓eP	P	20 06 18.9	+1.0
LSZ				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
LSZ				MLR	MLR		
	comp=Z,274nm,19.0s,MS4.5						
LSZ	Lusaka	69.41	250	⇓eP	P	20 06 18.9	+1.0
	comp=Z,32nm,0.8s,mb5.3						
LSZ				LR	LR		
	comp=Z,274nm,19.0s,MS4.5						
LVZ	Lovozero	69.99	340	eP	P	20 06 18.9	-1.6
LVZ				pmax	pmax		
	comp=Z,32nm,0.9s,mb5.2						
LVZ				pmax	pmax		
	comp=E,8.0nm,1.5s						
VSU	Vasula	70.07	329	eP	P	20 06 19.2	-2.0
APA	Apatity	70.28	339	⇓iP	P	20 06 21.2	-1.1
APA				i	pP	20 06 28.1	-1.5
APA				i		20 06 44.1	
APA				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.4						
BOLS	Boljevac	70.40	313	⇓iP	P	20 06 22.4	-1.1
KWP	Kalwaria	70.61	319	eP	P	20 06 23.8	-0.8
KWP				e	pP	20 06 30.7	-1.3
KOLS	Kolonicke sedl	70.79	319	i P	P	20 06 25.8	+0.1
KOLS				ePP	PP	20 08 59.2	-5.5
KOLS				e		20 37 24.9	
KOLS				e		20 53 22.5	
SUW	Suwalki	71.03	324	eP	P	20 06 25.6	-1.5
FINES	FINESS Array B	71.17	332	P	P	20 06 27.2	-0.6
	comp=Z,6.4nm,0.6s,mb4.8,baz=96,slow=6.5,SNR=35						
FINES				LR	LR	20 43 58.9	
	comp=Z,318nm,21.6s,MS4.5,baz=342,slow=41						
KAF	Kangasniemi	71.25	333	ep	P	20 06 26.5	-1.8
	comp=Z,18nm,1.0s,mb5.0						
KAF	Kangasniemi	71.25	333	eP	P	20 06 26.5	-1.8
KAF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
CRVS	Cervenica-Dubn	71.32	318	eP	P	20 06 29.2	+0.3
CRVS				ePP	PP	20 09 08.4	-0.8
KECS	Kecovo	71.91	318	eP	P	20 06 32.0	-0.5
NIE	Niedzica	72.13	319	eP	P	20 06 35.6	+1.8
PSZ	Piszkesteto	72.25	317	⇓eP	P	20 06 33.7	-0.8
OJC	Ojcow	72.55	320	eP	P	20 06 35.6	-0.6
PKSM	Moragy	72.95	315	⇓eP	P	20 06 37.6	-1.1
VYHS	Vyhne	73.01	318	eP	P	20 06 38.3	-0.6
VYHS				e		20 37 33.5	
SRO2	Moca	73.24	317	eP	P	20 06 40.2	-0.1
KEV	Kevo	73.26	340	ep	P	20 06 39.3	-0.7
	comp=Z,32nm,0.7s,mb5.4						
KEV	Kevo	73.26	340	eP	P	20 06 39.3	-0.7
KEV				pmax	pmax		
	comp=Z,32nm,0.7s,mb5.4						
SRO	Srobarova	73.30	317	eP	P	20 06 40.8	+0.1
OKC	Ostrava-Krasne	73.57	319	eP	P	20 06 42.2	0.0
OKC				epP	pP	20 06 49.1	-0.5
ARCES	ARCESS Array B	73.69	340	P	P	20 06 42.6	0.0
	comp=Z,39nm,0.9s,mb5.3,baz=93,slow=6.9,SNR=52						
ARCES				LR	LR	20 41 57.0	
	comp=Z,782nm,18.2s,MS5.0,baz=282,slow=38						
ARE0	ARCESS Array S	73.69	340	eP	P	20 06 42.7	+0.1
MORC	Moravsky Berou	73.96	319	eP	P	20 06 44.0	-0.4
MORC				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.1						
MORC	Moravsky Berou	73.96	319	eP	P	20 06 44.0	-0.4
	comp=Z,23nm,1.0s,mb5.1						
ZST	Bratislava	74.14	317	eP	P	20 06 45.2	-0.3
KTK1	Kautokeino	74.32	339	eP	P	20 06 47.1	+0.9
KTK1				AMb	AMB	20 06 48.4	
	comp=Z,64nm,1.1s,mb5.5						
KTK1	Kautokeino	74.32	339	eP	P	20 06 47.1	+0.9
	comp=Z,64nm,1.1s,mb5.5						
VRAC	Vranov	74.54	319	P	P	20 06 48.1	+0.3
LBTB	Lobatse	74.63	241	⇓eP	P	20 06 50.0	+1.1
LBTB				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.3						
LBTB				MLR	MLR		
	comp=Z,450nm,22.0s,MS4.7						
LBTB	Lobatse	74.63	241	⇓eP	P	20 06 50.0	+1.1
	comp=Z,32nm,0.8s,mb5.3						
LBTB				LR	LR		
	comp=Z,450nm,22.0s,MS4.7						
DPC	Dobruska-Polom	74.78	320	eP	P	20 06 49.6	+0.4
BILL	Bilibino	74.82	22	eP	P	20 06 44.9	-4.2
BILL				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
BILL	Bilibino	74.82	22	eP	P	20 06 44.0	-5.1
KSP	Ksiaz	74.83	320	⇓eP	P	20 06 49.3	-0.2
KSP				epP	pP	20 06 56.3	-0.6
KSP				e		20 07 12.2	
KSP	Ksiaz	74.83	320	eP	P	20 06 49.6	+0.1
KSP				e	pP	20 06 57.3	+0.4
UPC	Upice	74.99	320	eP	P	20 06 50.6	+0.2
UPC				epP	pP	20 06 57.0	-0.8
UPC				e		20 09 40.8	
PRU	Pruhonice	75.91	319	eP	P	20 06 56.1	+0.5
PRU				e*PP	pP	20 07 03.2	+0.1
PRU	Pruhonice	75.91	319	P	P	20 06 56.1	+0.5
	comp=Z,55nm,1.5s,mb5.3						
PRU				epP	pP	20 07 03.2	+0.1
TRO	Tromso	75.95	340	eP	P	20 06 54.1	-1.4
BOSA	Boshof	76.06	237	⇓eP	P	20 06 58.0	+1.0
BOSA				e	pP	20 07 05.2	+0.8
BOSA				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.3						
BOSA				MLR	MLR		
	comp=Z,401nm,19.0s,MS4.8						
BOSA	Boshof	76.06	237	⇓eP	P	20 06 58.0	+1.0
	comp=Z,28nm,0.6s,mb5.4						
BOSA				e	pP	20 07 05.2	+0.8
BOSA				LR	LR		
	comp=Z,401nm,19.0s,MS4.8						
VOY	Vojsko	76.25	315	eP	P	20 06 56.3	-1.3
BRG	Berggiesshubel	76.32	320	i P	P	20 06 58.0	0.0
BRG				i	pP	20 07 05.0	-0.4
BRG				pmax	pmax		
	comp=Z,78nm,1.9s,mb5.3						
BRG	Berggiesshubel	76.32	320	i P	P	20 06 58.0	0.0
	comp=Z,78nm,1.9s,mb5.3						
BRG				i	pP	20 07 05.0	-0.4
GEC2	GERESS Array S	76.42	318	eP	P	20 06 58.3	-0.3
GEC2				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.2						
GEC2	GERESS Array S	76.42	318	eP	P	20 06 58.3	-0.3
	comp=Z,26nm,0.9s,mb5.2						
GERES	GERESS Array B	76.42	318	P	P	20 06 58.5	0.0
	comp=Z,13nm,0.6s,mb5.0,baz=87,slow=5.5,SNR=123						
RUE	Ruedersdorf	76.48	322	eP	P	20 06 58.5	-0.3
	comp=Z,34nm,0.6s,mb5.5						
CASY	Casey	76.49	173	eP	P	20 06 58.4	-0.2
	comp=Z,8.1nm,0.8s,mb4.7						
KHC	Kasperske Hory	76.51	318	eP	P	20 06 58.6	-0.5
PTCC	Patocco-Chiusa	76.62	315	eP	P	20 06 59.2	-0.6
CLL	Collm	76.93	321	i P	P	20 07 00.6	-0.7
CLL				pmax	pmax		
	comp=Z,70nm,2.0s,mb5.2						
CLL	Collm	76.93	321	i P	P	20 07 00.6	-0.7
	comp=Z,70nm,2.0s,mb5.2						
CLL	Collm	76.93	321	P	P	20 07 00.6	-0.7
	comp=Z,logA/T=1.5,mb5.2						
HFS	Hagfors	76.94	330	P	P	20 07 00.5	-0.7
	comp=Z,7.4nm,0.5s,mb4.9,baz=108,slow=4.7,SNR=36						
HFS				LR	LR	20 43 03.5	
	comp=Z,496nm,20.4s,MS4.8,baz=43,slow=37						
WET	Wettzell	76.97	318	eP	P	20 07 01.4	-0.2
FVI	Forni Avoltri	77.02	316	eP	P	20 07 01.9	-0.1
MOR8	Moi Rana	77.12	336	eP	P	20 07 01.4	-0.8
SFI	Santa Sofia	77.71	313	eP	P	20 07 06.8	+1.0
MOX	Moxa	77.80	320	eP	P	20 07 06.1	0.0
MOX				pmax	pmax		
	comp=Z,37nm,1.6s,mb5.1						
MOX	Moxa	77.80	320	i P	P	20 07 06.1	0.0
	comp=Z,logA/T=1.4,mb5.1						
MOX	Moxa	77.80	320	eP	P	20 07 06.1	0.0
	comp=Z,37nm,1.6s,mb5.1						
PGD	Poggio Sodo	77.80	313	eP	P	20 07 07.4	+1.1
CTI	Castel Tesino	77.81	315	eP	P	20 07 06.3	0.0
NSS	Namsos	78.02	334	eP	P	20 07 06.1	-0.9
NSS				AMb	AMB	20 07 13.4	
	comp=Z,120nm,1.6s,mb5.6						
NSS	Namsos	78.02	334	eP	P	20 07 06.1	-0.9
	comp=Z,120nm,1.6s,mb5.6						
FUR	Furstenfeldbru	78.03	317	eP	P	20 07 07.0	-0.5
GRA1	Grafenberg Arr	78.05	319	eP	P	20 07 07.5	-0.1
	comp=Z,114nm,2.0s,mb5.5						
GRF	Grafenberg Arr	78.05	319	eP	P	20 07 07.5	-0.1
GRF				pmax	pmax		
	comp=Z,114nm,2.0s,mb5.5						
GRF	Grafenberg Arr	78.05	319	eP	P	20 07 07.5	-0.1
GRF				pmax	pmax		
	comp=Z,114nm,2.0s,mb5.5						
GRF	Grafenberg Arr	78.05	319	eP	P	20 07 07.5	-0.1
	comp=Z,114nm,2.0s,mb5.5						
SEI	Scarperia	78.06	313	eP	P	20 07 08.5	+0.8
NB2	NORSAR Subarra	78.20	330	P	P	20 07 07.4	-0.8
	comp=Z,30nm,1.0s,mb5.2,baz=94,slow=5.6						
NB2	NORSAR Subarra	78.20	330	P	P	20 07 07.4	-0.8
	baz=94,slow=5.6						
NB2	NORSAR Subarra	78.20	330	P	P	20 07 07.4	-0.8
NB2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
NOA	NORSAR Array B	78.20	330	P	P	20 07 07.7	-0.5
	comp=Z,16nm,0.9s,mb5.0,baz=93,slow=5.5,SNR=30						
NOA				LR	LR	20 43 16.4	
	comp=Z,234nm,21.4s,MS4.5,baz=125,slow=37						
ZCCA	Zocca	78.32	313	eP	P	20 07 10.6	+1.4
CLZ	Clausthal	78.57	321	eP	P	20 07 10.3	-0.1
	comp=Z,26nm,0.9s,mb5.2						
BSEG	Bad Segeberg	78.59	323	eP	P	20 07 10.5	+0.1
BRMO	Bormio	78.68	316	eP	P	20 07 11.3	+0.2
MAIM		78.69	313	P	P	20 07 09.5	-1.7
VALM		78.85	313	P	P	20 07 12.3	+0.2
VINC	Vinca	78.92	313	P	P	20 07 11.8	-0.7
GRAM		78.97	314	P	P	20 07 12.7	0.0
BACM		78.97	313	P	P	20 07 11.9	-0.9
DAVOX	Davos	79.01	316	P	P	20 07 13.0	+0.1
	comp=Z,23nm,0.8s,mb5.2,baz=114,slow=10.0,SNR=5.2						
DAVOX				LR	LR	20 43 31.0	
	comp=Z,294nm,21.9s,MS4.6,baz=262,slow=37						
CODM		79.13	313	P	P	20 07 13.3	-0.2
MUD	Monsted U’grnd	79.22	326	eP	P	20 07 13.4	-0.4
MUD	Monsted U’grnd	79.22	326	i P	P	20 07 13.4	-0.4
STU	Stuttgart	79.40	318	eP	P	20 07 14.3	-0.7
STU				pmax	pmax		
	comp=Z,33nm,0.7s,mb5.4						
STU	Stuttgart	79.40	318	eP	P	20 07 14.3	-0.7
	comp=Z,33nm,0.7s,mb5.4						
VAI	Varese	79.82	315	eP	P	20 07 16.8	-0.5
PGF	Pioggiola	79.84	312	eP	P	20 07 17.0	-0.5
	comp=Z,60nm,1.1s,mb5.2						
PGF	Pioggiola	79.84	312	eP	P	20 07 17.0	-0.5
PGF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
MAW	Mawson	79.95	192	eP	P	20 07 18.4	+0.9
MAW				pmax	pmax		
	comp=Z,38nm,1.0s						
MAW	Mawson	79.95	192	P	P	20 07 18.5	+1.0
	comp=Z,20nm,0.8s,mb5.1,baz=3.8,slow=7.1,SNR=14						
MAW				LR	LR	20 39 24.8	
	comp=Z,147nm,18.0s,MS4.4,baz=214,slow=33						
MAW	Mawson	79.95	192	eP	P	20 07 18.4	+0.9
	comp=Z,38nm,1.0s,mb5.3						
MOL	Molde	79.96	332	eP	pP	20 07 23.4	-1.8
MOL				AMb	AMB	20 07 28.4	
	comp=Z,117nm,1.8s,mb5.5						
BFO	Black Forest	80.00	318	eP	P	20 07 18.0	-0.2
BFO				pmax	pmax		
	comp=Z,144nm,2.6s,mb5.4						
BFO	Black Forest	80.00	318	eP	P	20 07 18.0	-0.2
	comp=Z,144nm,2.6s,mb5.4						
PCP	Pian Castagno	80.06	314	P	P	20 07 17.9	-0.7
FELD	Feldberg	80.24	317	eP	P	20 07 19.4	-0.1
LANF	Langenberg	80.31	318	eP	P	20 07 19.8	0.0
FIN	Finale Ligure	80.32	313	P	P	20 07 19.3	-0.7
MCGN	Macugnaga	80.36	315	eP	P	20 07 20.2	0.0
ORX	Oropa	80.39	315	P	P	20 07 18.1	-2.2
ABH	Alteburg	80.43	319	eP	P	20 07 21.2	+0.8
ROB	Roburent	80.55	313	P	P	20 07 20.5	-0.7
TRAV		80.56	315	P	P	20 07 20.2	-1.0
IMI	Imperia	80.57	313	P	P	20 07 20.9	-0.4
BBS	Basel-Blauen	80.60	317	eP	P	20 07 21.9	+0.5
WLS	Welschbruch	80.64	318	eP	P	20 07 21.7	+0.1
MONE	Monesi	80.65	313	P	P	20 07 20.2	-1.5
CDF	Champ du Feu	80.69	318	eP	P	20 07 21.3	-0.6
	comp=Z,19nm,0.8s,mb4.8						
CDF	Champ du Feu	80.69	318	eP	P	20 07 21.3	-0.6
CDF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
NEGI	Negi	80.70	313	P	P	20 07 21.3	-0.7
RUP	Ruppelstein	80.75	319	eP	P	20 07 22.1	-0.1
ECH	Echery	80.78	317	eP	P	20 07 21.0	-1.3
SUR	Sutherland	80.88	235	eP	P	20 07 25.3	+2.1
	comp=Z,23nm,0.8s,mb5.2						
SUR				e	pP	20 07 32.2	+1.5
ENR	Entracque	80.88	313	P	P	20 07 22.5	-0.4
SBF	Sospel	80.90	313	eP	P	20 07 22.7	-0.3
	comp=Z,112nm,0.9s,mb5.5						
SBF	Sospel	80.90	313	eP	P	20 07 22.7	-0.3
SBF				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.5						
RSP	Reno Superiore	80.93	314	P	P	20 07 22.5	-0.7
BHB	Bricherasio	80.95	314	P	P	20 07 21.4	-1.9
STV	Sta Anna Valdi	80.95	313	P	P	20 07 22.0	-1.3
LSD	Ceresole Reale	80.98	315	P	P	20 07 23.1	-0.3
LOMF	Lomont	81.07	317	eP	P	20 07 24.1	+0.3
FENE	Fenestrelle	81.08	314	P	P	20 07 23.1	-0.8
PZZ	Prazzo	81.09	314	P	P	20 07 22.9	-1.1
LPG	La Plagne	81.26	315	eP	P	20 07 25.1	+0.2
	comp=Z,84nm,0.8s,mb5.4						
LPG	La Plagne	81.26	315	eP	P	20 07 25.1	+0.2
LPG				pmax	pmax		
	comp=Z,42nm,0.8s,mb5.4						
RRL	Cesana Torines	81.28	314	P	P	20 07 24.2	-0.8
MBDF	Montbardon	81.31	314	eP	P	20 07 24.4	-0.8
	comp=Z,57nm,1.0s,mb5.1						
MBDF	Montbardon	81.31	314	eP	P	20 07 24.4	-0.8
MBDF				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
HAU	Haudompre	81.34	317	eP	P	20 07 24.8	-0.5
	comp=Z,59nm,0.8s,mb5.2						
HAU	Haudompre	81.34	317	eP	P	20 07 24.8	-0.5
HAU				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
BNI	Bardonecchia	81.34	314	eP	P	20 07 23.8	-1.6
BNI				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.4						
BNI	Bardonecchia	81.34	314	eP	P	20 07 23.8	-1.5
	comp=Z,49nm,0.9s,mb5.4						
THEF	They Montfort	81.56	318	eP	P	20 07 24.6	-1.8
BAIF	Baives	82.56	319	eP	P	20 07 31.8	+0.2
	comp=Z,49nm,1.0s,mb5.2						
BAIF	Baives	82.56	319	eP	P	20 07 31.8	+0.2
BAIF				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
SSF	Saint Saulge	83.35	317	eP	P	20 07 35.4	-0.3
SSF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.2						
SSF	Saint Saulge	83.35	317	eP	P	20 07 35.4	-0.3
	comp=Z,30nm,1.3s,mb5.2						
BGF	Bois d’Agland	83.86	316	eP	P	20 07 38.4	+0.1
	comp=Z,72nm,1.1s,mb5.4						
BGF	Bois d’Agland	83.86	316	eP	P	20 07 38.4	+0.1
BGF				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.4						
RJF	Les Rejaudoux	84.94	315	eP	P	20 07 43.4	-0.4
	comp=Z,28nm,0.8s,mb5.1						
RJF	Les Rejaudoux	84.94	315	eP	P	20 07 43.4	-0.4
RJF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
FLN	La Foliniere	85.77	319	eP	P	20 07 47.7	-0.1
	comp=Z,86nm,1.1s,mb5.6						
FLN	La Foliniere	85.77	319	eP	P	20 07 47.7	-0.1
FLN				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.6						
ANM	Nome	86.22	25	eP	P	20 07 51.6	+1.9
EKA	Eskdalemuir Ar	86.24	325	P	P	20 07 50.9	+0.9
	comp=Z,21nm,0.8s,mb5.4,baz=97,slow=5.4,SNR=25						
SYO	Syowa Base	86.75	197	⇓P	P	20 07 54.1	+1.9
SYO	Syowa Base	86.75	197	⇓PcP	PcP	20 07 57.9	+3.0
SYO	Syowa Base	86.75	197	⇓pP	pP	20 08 00.5	+0.8
ETSF	Etsaut	86.80	313	eP	P	20 07 53.4	+0.4
	comp=Z,24nm,0.8s,mb5.2						
ETSF	Etsaut	86.80	313	eP	P	20 07 53.4	+0.4
ETSF				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.2						
ESDC	Sonseca Array	89.93	310	P	P	20 08 08.9	+0.9
	comp=Z,3.3nm,0.6s,mb4.8,baz=56,slow=4.5,SNR=19						
IMA	Indian Mountai	90.36	22	eP	P	20 08 11.4	+2.0
IMA				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.6						
IMA	Indian Mountai	90.36	22	eP	P	20 08 11.4	+2.0
	comp=Z,41nm,1.2s,mb5.6						
SUMG	Summit	92.56	347	eP	P	20 08 20.5	+1.1
	comp=Z,33nm,1.0s,mb5.7						
MCK	McKinley	93.22	23	⇑eP	P	20 08 23.5	+0.9
MCK				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.3						
MCK	McKinley	93.22	23	⇑eP	P	20 08 23.5	+0.9
	comp=Z,13nm,1.0s,mb5.3						
ILAR	Eielson Array	93.48	22	P	P	20 08 23.8	0.0
	comp=Z,6.3nm,0.8s,mb5.1,baz=300,slow=4.3,SNR=58						
ILAR				PKKPbc		20 25 31.1	
	comp=Z,1.0nm,0.6s,baz=145,slow=2.0,SNR=13						
PWA	Palmer West	93.82	25	eP	P	20 08 26.6	+1.2
PWA				pmax	pmax		
	comp=Z,58nm,0.9s,mb6.0						
PWA	Palmer West	93.82	25	eP	P	20 08 26.6	+1.2
	comp=Z,58nm,0.9s,mb6.0						
VNDA	Vanda	94.50	168	P	P	20 08 29.4	+1.1
	comp=Z,4.1nm,1.2s,mb4.8,baz=282,slow=7.4,SNR=5.2						
VNDA				LR	LR	20 45 03.0	
	comp=Z,104nm,19.4s,MS4.3,baz=305,slow=32						
DBIC	Dimbokro	97.34	278	P	P	20 08 43.9	+1.3
	comp=Z,2.3nm,0.6s,mb4.8,baz=46,slow=7.2,SNR=6.1						
DBIC				PP	PP	20 12 43.9	+1.7
	comp=Z,4.3nm,0.9s,baz=100,slow=11,SNR=4.7						
DBIC				LR	LR	20 50 33.0	
	comp=Z,208nm,19.5s,MS4.6,baz=46,slow=34						
YKA	Yellowknife Ar	105.03	13	Pdiff	Pdif	20 09 16.0	+0.2
	comp=Z,1.1nm,0.9s,baz=326,slow=4.3,SNR=13						

YKA				PP	PP	20 13 34.3	-5.2
	comp=Z,1.6nm,0.9s,baz=334,slow=7.3,SNR=9.1						
YKA				PKKPbc		20 24 57.5	
	comp=Z,1.0nm,0.6s,baz=153,slow=2.8,SNR=20						
MSO	**Missoula**	118.81	21	*e*PKPdf	PKPdf	20 13 56.8	-3.5
CHMT	**Chamberlain Mo**	118.98	21	*e*PKPdf	PKPdf	20 13 57.8	-2.8
ULM	**Lac du Bonnet**	120.00	7	PKP	PKPdf	20 14 00.8	-1.6
	comp=Z,3.4nm,0.7s,baz=360,slow=3.8,SNR=6.5						
ULM				PKKPbc		20 24 08.4	
	comp=Z,1.8nm,0.6s,baz=134,slow=3.1,SNR=4.0						
SNOW	**Snow King Moun**	122.85	21	*e*PKPdf	PKPdf	20 14 05.8	-2.3
REDW	**Red Top Meadow**	122.91	21	*e*PKPdf	PKPdf	20 14 03.9	-4.3
ELK	**Elko**	123.38	26	*e*PKIKP	PKPdf	20 14 07.2	-2.1
NVAR	**Mina Array Bea**	123.81	30	PKP	PKPdf	20 14 08.8	-1.4
	comp=Z,6.7nm,0.8s,baz=312,slow=1.6,SNR=16						
PDAR	**Pinedale Array**	123.88	21	PKP	PKPdf	20 14 07.7	-2.5
	comp=Z,4.9nm,0.8s,baz=45,slow=2.1,SNR=14						
PDAR				PKKPbc		20 23 53.1	
	comp=Z,1.5nm,0.8s,baz=138,slow=5.6,SNR=11						
MVU	**Marysvale**	126.54	25	*e*PKPdf	PKPdf	20 14 12.8	-2.6
MSU	**Marysvale**	126.55	25	*e*PKIKP	PKPdf	20 14 13.6	-1.8
NEN	**Nelson**	127.70	29	*e*PKPdf	PKPdf	20 14 16.2	-1.6
PV10	**Paradox Valley**	127.93	23	*e*PKPdf	PKPdf	20 14 16.6	-1.6
RW3	**Ridgway**	128.54	22	PKIKP	PKPdf	20 14 17.5	-1.8
ANMO	**Albuquerque**	131.92	22	PKP	PKPdf	20 14 23.5	-2.4
	comp=Z,5.6nm,1.1s,baz=15,slow=1.8,SNR=6.4						
WVT	**Waverly**	134.68	2	*e*PKIKP	PKPdf	20 14 27.2	-3.8
TXAR	**Lajitas Array**	137.99	23	PKhKP		20 14 24.6	
	comp=Z,1.1nm,0.8s,baz=184,slow=0.7,SNR=7.2						
TXAR				PKP	PKPdf	20 14 35.8	-1.5
	comp=Z,4.9nm,1.2s,baz=180,slow=1.3,SNR=4.4						
TXAR				PP	PP	20 17 23.1	-2.1
	comp=Z,1.4nm,0.9s,slow=5.0,SNR=4.5						
TXAR				SKPbc		20 18 06.3	
	comp=Z,1.6nm,1.0s,baz=15,slow=0.8,SNR=3.7						
JCT	**Junction City**	138.26	18	*e*PKIKP	PKPdf	20 14 35.4	-2.3
BDFB	**Brasilia**	142.19	257	PKhKP		20 14 37.8	
	comp=Z,3.2nm,0.6s,baz=149,slow=3.3,SNR=5.7						
BDFB				PKP	PKPdf	20 14 43.0	-2.1
	comp=Z,5.0nm,0.6s,baz=150,slow=3.9,SNR=6.9						
TRQA	**Tornquist**	144.07	214	*e*PKPdf	PKPdf	20 14 42.8	-4.9
CRM	**Caravelle**	145.24	313	⇑*e*P	PKPbc	20 14 47.6	+1.2
MVM	**Montagne Vaucl**	145.36	313	*e*P	PKPbc	20 14 40.8	-5.9
FDF	**Fort de France**	145.43	314	⇓*e*P	PKPbc	20 14 48.0	+1.2
BIM	**Bigot**	145.51	313	⇑*e*P	PKPbc	20 14 48.7	+1.7
SJG	**San Juan**	146.20	324	PKPbc	PKPbc	20 14 48.8	+0.1
	comp=Z,17nm,0.3s,baz=316,slow=17,SNR=5.4						
TEIG	**Tepich**	150.48	4	*e*PKPbc	PKPdf	20 15 01.6	+2.8
PCRV	**Puerto La Cruz**	150.99	312	PKPbc	PKPdf	20 15 01.8	+2.1
	comp=Z,18nm,0.6s,baz=163,slow=1.3,SNR=9.8						
SDV	**Santo Domingo**	156.07	319	*e*PKPdf	PKPdf	20 15 04.7	-2.1
SDV				*e*PKPab	PKPab	20 15 31.7	-0.6
LPAZ	**La Paz**	161.06	247	*e*PKIKP	PKPdf	20 15 11.1	-1.5
LPAZ				*e*		20 15 54.3	
LPAZ	**La Paz**	161.06	247	PKP	PKPdf	20 15 11.6	-1.0
	comp=Z,3.4nm,0.9s,baz=52,slow=4.8,SNR=11						
LPAZ				PKPab	PKPab	20 15 54.4	+0.8
	comp=Z,7.4nm,0.9s,baz=93,slow=6.4,SNR=17						
OTAV	**Otavalo**	167.66	321	*e*PKPdf	PKPdf	20 15 16.9	-1.8
OTAV				*e*PKPab	PKPab	20 16 23.5	+0.9

WEL 28 20:05:03.2±0.3, 39.19S×178.07E, h22^{km}±1^{km}, ML3.5/9, 1C-1D, Error ellipse: s-maj=2.4km s-min=1.7km az=90.0, Off east coast of North Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KNZ	**Kokohu**	0.35	298	⇓P*	Pb	20 05 10.0	-0.7
KNZ				S*	Sb	20 05 16.1	+0.2
KNZ				S*	Sb	20 05 16.1	+0.3
MWZ	**Matawai**	0.95	333	⇑P*	Pb	20 05 20.9	0.0
MWZ				S*	Sb	20 05 33.5	+0.4
URZ	**Urewera**	1.19	321	PN	Pn	20 05 23.7	-1.1
URZ				SN	Sn	20 05 39.6	-0.8
BKZ	**Black Stump Fm**	1.23	271	PN	Pn	20 05 24.7	-0.5
MXZ	**Matakaoa Point**	1.63	7	PN	Pn	20 05 30.4	-0.7
TSZ	**Takapari Road**	1.85	241	*e*PN	Pn	20 05 33.0	-1.1
NGZ	**Ngauruhoe**	1.92	270	*e*PN	Pn	20 05 33.2	-1.9
BFZ	**Birch Farm**	2.05	223	*e*PN	Pn	20 05 36.2	-0.8
BFZ				SN	Sn	20 06 00.3	-1.8
BFZ				SN	Sn	20 06 00.5	-1.6
MRZ	**Mangatainoka R**	2.41	232	*e*PN	Pn	20 05 40.2	-2.0
MRZ				SN	Sn	20 06 08.7	-2.8
QRZ	**Quartz Range**	4.56	247	*e*PN	Pn	20 06 09.5	-3.2
MQZ	**McQueen's Vall**	6.08	220	SN	Sn	20 07 32.8	-11

*IDC **28** 20:11:42.5±0.9, 11.77N×92.35E, mb4.0/7, mb1 4.1/8, mb1mx4.0/16, mbtmp3.9/8, ML3.0/1, Error ellipse: s-maj=50.7km s-min=18.6km az=43.0*

ISC 28 20:11:45.7±0.9, 11.9N±0.2×92.5E±0.1, h33^{km}, n9, σ1^{s}09/9, mb4.0/8, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	8.99	43	Pn	P	20 13 55.5	-0.8
	0.1nm,0.3s,baz=228,slow=15,SNR=4.3						
SONM	**Songino Array**	37.67	15	P	P	20 19 02.9	+3.3
	0.4nm,0.5s,mb3.4,baz=194,slow=9.0,SNR=3.7						
WRA	**Warramunga Arr**	51.90	127	P	P	20 20 53.9	+0.3
	2.1nm,0.7s,mb4.2,baz=306,slow=8.5,SNR=23						
ASAR	**Alice Springs**	53.72	131	P	P	20 21 06.8	-0.3
	1.0nm,0.8s,mb3.8,baz=304,slow=6.5,SNR=11						
BRTR	**Keskin Array B**	58.65	309	P	P	20 21 40.5	-1.8
	2.0nm,0.7s,mb4.3,baz=129,slow=7.0,SNR=11						
AKASG	**Malin Array Be**	64.05	321	P	P	20 22 17.6	-0.9
	0.7nm,0.6s,mb3.9,baz=90,slow=5.5,SNR=5.9						
FINES	**FINESS Array B**	68.44	332	P	P	20 22 47.0	+0.8
	2.4nm,0.7s,mb4.4,baz=98,slow=7.9,SNR=11						
GERES	**GERESS Array B**	73.80	318	P	P	20 23 19.1	+0.5
	1.0nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=8.8						
NOA	**NORSAR Array B**	75.48	330	P	P	20 23 29.2	+1.1
	1.1nm,0.7s,mb3.9,baz=97,slow=5.0,SNR=3.0						

*IDC **28** 20:20:15.5±0.6, 12.91N×92.36E, mb4.0/17, mb1 4.2/17, mb1mx4.1/21, mbtmp4.0/17, Error ellipse: s-maj=35.8km s-min=13.5km az=51.0*

ISC 28 20:20:16.5±3.1, 12.93N±0.08×92.30E±0.07, h15^{km}±19^{km}, n31, σ1^{s}05/34, mb4.1/17, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	8.43	48	Pn	P	20 22 21.2	+0.2
	0.3nm,0.3s,baz=234,slow=16,SNR=7.2						
CMAR				Sn	Sn	20 23 50.7	-6.1
	0.3nm,0.3s,baz=238,slow=29,SNR=5.5						
VIS	**Vishakhapatnam**	9.88	300	*e*P	P	20 22 40.2	-1.0
VIS				*e*S	Sn	20 24 21.9	-11
SHL	**Shillong**	12.57	358	*e*P	P	20 23 15.0	-2.8
PKI	**Pulchoki**	15.93	337	*e*P	P	20 24 00.5	-1.3
	47nm,0.9s						
GUN	**Gumba**	16.06	339	*e*P	P	20 24 03.2	-0.4
	27nm,0.8s						
DMN	**Daman**	16.08	336	*e*P	P	20 24 03.1	-0.7
KKN	**Kakani**	16.17	337	*e*P	P	20 24 04.5	-0.5
	5.5nm,0.4s						
GKN	**Gorkha**	16.61	336	*e*P	P	20 24 09.9	-0.7
	39nm,0.6s						
KOLN	**Koldanda**	16.85	332	*e*P	P	20 24 13.8	+0.2
	19nm,0.5s						
BHPL	**Bhopal**	17.45	308	*e*P	P	20 24 22.9	+1.7
BHPL				*e*		20 24 33.6	
	comp=Z,29nm,0.3s						
BHPL				*e*S	S	20 27 30.4	-2.9
KAD	**Karad**	18.02	286	*e*P	P	20 24 27.0	-1.3
POO	**Poona**	18.61	290	*e*P	P	20 24 35.6	0.0
POO				*e*		20 27 09.0	
DDI	**Dehra Dun**	21.75	325	*e*	P	20 25 11.5	+2.0
SONM	**Songino Array**	36.73	16	P	P	20 27 24.6	-0.4
	comp=Z,0.5nm,0.7s,mb3.5,baz=196,slow=10,SNR=3.9						
ZAL	**Zalesovo**	41.33	353	P	P	20 28 02.9	-0.3
	comp=Z,1.3nm,0.4s,mb3.9,baz=231,slow=6.4,SNR=6.1						
GNI	**Garni**	49.67	312	P	P	20 29 10.8	+1.0
	comp=Z,3.2nm,0.7s,mb4.5,baz=153,slow=23,SNR=4.4						
NWAO	**Narrogin (SRO)**	51.45	153	P	P	20 29 22.3	-1.1
	comp=Z,3.2nm,0.5s,mb4.5,baz=332,slow=4.3,SNR=9.6						
WRA	**Warramunga Arr**	52.71	128	P	P	20 29 31.2	-2.0
	comp=Z,1.4nm,0.9s,mb3.9,baz=300,slow=9.9,SNR=12						
ASAR	**Alice Springs**	54.57	132	P	P	20 29 44.9	-1.9
	comp=Z,3.1nm,1.1s,mb4.2,baz=308,slow=6.9,SNR=12						
ASAR				PcP	PcP	20 30 49.1	-0.7
	comp=Z,0.4nm,0.5s,baz=321,slow=3.6,SNR=4.8						
BRTR	**Keskin Array B**	57.82	309	P	P	20 30 08.7	-1.1
	comp=Z,1.3nm,0.6s,mb4.2,baz=127,slow=8.4,SNR=8.7						
AKASG	**Malin Array Be**	63.10	321	P	P	20 30 44.9	-0.9
	comp=Z,0.3nm,0.3s,mb3.9,baz=85,slow=6.0,SNR=4.5						
MLR	**Muntele Rosu**	64.33	314	P	P	20 30 54.2	+0.3
	comp=Z,5.5nm,0.9s,mb4.6,baz=63,slow=6.6,SNR=4.1						
STKA	**Stephens Creek**	64.91	135	P	P	20 30 58.1	+0.3
	comp=Z,2.7nm,1.0s,mb4.2,baz=301,slow=5.9,SNR=2.9						
FINES	**FINESS Array B**	67.42	332	P	P	20 31 12.7	-0.7
	comp=Z,2.8nm,0.9s,mb4.3,baz=108,slow=6.0,SNR=12						
ARCES	**ARCESS Array B**	69.92	340	P	P	20 31 28.6	-0.1
	comp=Z,2.0nm,0.7s,mb4.1,baz=97,slow=9.8,SNR=3.6						
GERES	**GERESS Array B**	72.89	317	P	P	20 31 47.1	+0.2
	comp=Z,1.0nm,0.6s,mb3.9,baz=96,slow=6.4,SNR=10						
NB2	**NORSAR Subarra**	74.47	330	P	P	20 31 54.6	-1.2
	comp=Z,3.6nm,0.8s,mb4.3,baz=91,slow=5.8						
NOA	**NORSAR Array B**	74.47	330	P	P	20 31 55.6	-0.2
	comp=Z,1.3nm,0.9s,mb3.8,baz=96,slow=5.5,SNR=3.0						
DAVOX	**Davos**	75.53	315	P	P	20 32 02.6	+0.5
	comp=Z,1.6nm,0.6s,mb4.1,baz=108,slow=3.2,SNR=3.8						
ESDC	**Sonseca Array**	86.60	310	P	P	20 33 01.4	+0.6
	comp=Z,1.2nm,0.9s,mb4.1,baz=61,slow=4.5,SNR=4.0						
ILAR	**Eielson Array**	90.75	22	P	P	20 33 21.1	+1.2
	comp=Z,0.2nm,0.6s,mb3.6,baz=303,slow=4.8,SNR=4.3						

*IDC **28** 20:21:50.9±1.7, 2.25N×92.46E, mb3.9/5, mb1 4.2/6, mb1mx3.8/18, mbtmp3.9/6, Error ellipse: s-maj=58.3km s-min=28.9km az=56.0*

ISC 28 20:21:54.5±1.4, 2.3N±0.2×92.7E±0.2, h33^{km}, n8, σ0^{s}98/7, mb3.9/5, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	17.16	20	P	P	20 25 53.3	-0.2
	baz=215,slow=12,SNR=6.3						
VJD	**Vijayawada**	18.46	321	*i*	S	20 29 32.0	+0.8
WRA	**Warramunga Arr**	46.42	120	P	P	20 30 21.1	+0.8
	2.2nm,0.8s,mb4.1,baz=301,slow=8.8,SNR=6.3						
SONM	**Songino Array**	46.86	13	P	P	20 30 24.4	+1.1
	1.0nm,0.6s,mb3.9,baz=192,slow=8.0,SNR=7.2						
ZAL	**Zalesovo**	51.87	354	P	P	20 31 01.2	-0.6
	1.4nm,0.4s,mb4.2,baz=218,slow=6.9,SNR=7.3						
BVAR	**Borovoye Array**	53.83	343	P	P	20 31 14.3	-2.1
	0.5nm,0.6s,mb3.7,baz=180,slow=3.0,SNR=3.6						
GERES	**GERESS Array B**	81.05	319	P	P	20 34 07.5	-0.3
	0.5nm,0.7s,mb3.6,baz=112,slow=7.2,SNR=4.5						
TXAR	**Lajitas Array**	144.83	25	PKPbc	PKPbc	20 41 30.6	+1.7
	0.8nm,0.8s,baz=270,slow=1.3,SNR=5.4						

IDC 28 20:29:58.8±1.1, 11.17N×92.79E, mb4.0/6, mb1 4.1/7, mb1mx3.9/18, mbtmp3.9/7, ML4.4/1, Error ellipse: s-maj=42.9km s-min=19.8km az=59.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	9.37	39	Pn	P	20 32 15.7	-2.4
	1.0nm,0.3s,baz=231,slow=15,SNR=24						
CMAR				Sn	Sn	20 33 57.2	-8.3
	0.1nm,0.3s,baz=241,slow=19,SNR=3.4						
SONM	**Songino Array**	38.29	15	P	P	20 37 20.9	-1.9
	0.7nm,0.7s,baz=198,slow=8.2,SNR=7.5						
WRA	**Warramunga Arr**	51.27	127	P	P	20 39 04.7	-2.2
	1.5nm,0.3s,baz=300,slow=10.0,SNR=48						
WRA				PcP	PcP	20 40 20.2	-2.0
	0.4nm,0.4s,baz=316,slow=2.8,SNR=6.8						
ASAR	**Alice Springs**	53.06	131	P	P	20 39 18.0	-2.3
	1.5nm,0.5s,baz=308,slow=7.2,SNR=13						
STKA	**Stephens Creek**	63.34	134	P	P	20 40 30.1	-2.2
	1.2nm,0.6s,baz=337,slow=11,SNR=3.7						
FINES	**FINESS Array B**	69.19	332	P	P	20 41 07.0	-2.1
	1.0nm,0.7s,baz=101,slow=7.1,SNR=2.9						
GERES	**GERESS Array B**	74.50	318	P	P	20 41 39.6	-1.4
	0.3nm,0.5s,baz=90,slow=4.0,SNR=4.6						

*IDC **28** 20:30:11.2±1.1, 28.17N×53.95E, mb4.0/17, mb1 4.1/19, mb1mx4.0/25, mbtmp4.0/19, Error ellipse: s-maj=29.8km s-min=17.6km az=18.0*

*THR **28** 20:30:13.2±0.9, 28.19N×54.18E, h14^{km}±9^{km}, ML4.0*

*KISR **28** 20:30:13.8±0.7, 28.57N×53.93E, h3^{km}±999^{km}, ML3.8*

*CSEM **28** 20:30:13.5±0.0, 28.14N×54.14E, h30^{km}, ML4.7/1*

ISC 28 20:30:15.8±0.8, 28.22N±0.06×53.98E±0.04, h46^{km}±8^{km}, n49, σ1^{s}05/56, mb3.9/17, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	**Ghir-Karzin**	0.88	274	*e*PG	P	20 30 32.8	+0.8
GHIR				AMP		20 30 54.6	
	comp=E,3μm,0.4s						
GHIR				AMP		20 31 03.0	
	comp=N,3μm,0.4s						
GHIR	**Ghir-Karzin**	0.88	274	*e*Pg	P	20 30 32.8	+0.8
	comp=N,3μm,0.4s						
BNDS	**Bandar-Abbas**	2.10	112	*e*PG	P	20 30 48.5	-0.9
BNDS				AMP		20 31 30.5	
	comp=N,736nm,0.5s						
BNDS				AMP		20 31 35.0	
	comp=E,957nm,0.5s						
BNDS	**Bandar-Abbas**	2.10	112	*e*Pg	P	20 30 48.5	-0.9
	comp=E,957nm,0.5s						
KRBR	**Kerman**	3.00	54	*e*PN	P	20 31 01.5	-0.6
KRBR				*e*SG	S	20 31 43.3	+6.2
KRBR				AMP		20 31 47.9	
	comp=N,515nm,0.6s						
KRBR				AMP		20 31 48.0	
	comp=E,712nm,0.8s						
KRBR	**Kerman**	3.00	54	*e*Pn	P	20 31 01.5	-0.6
KRBR				*e*Sg	S	20 31 43.3	+6.2
	comp=E,712nm,0.8s						
HASS	**Wahat al Ahsa'**	4.88	233	P	P	20 31 31.4	+2.7
QRN	**Al-Qurain**	5.36	277	*e*P	P	20 31 36.9	+1.5
QRN				*e*S	S	20 32 37.3	+0.6
QRN	**Al-Qurain**	5.36	277	*e*P	P	20 31 36.8	+1.4
QRN				*e*S	S	20 32 37.3	+0.6
RDF	**Al-Radifah**	5.70	279	*e*P	P	20 31 40.4	+0.3
RDF				AML	AML	20 32 43.5	
	comp=Z,35nm,0.5s						
RDF				*e*S	S	20 32 45.4	+0.3
RDF	**Al-Radifah**	5.70	279	*e*P	P	20 31 40.4	+0.3
RDF				*e*S	S	20 32 45.4	+0.3
SHGR	**Shooshtar-Gavs**	5.92	312	*e*PN	P	20 31 45.0	+1.7
RST	**Umm Al-Ruwaisa**	6.26	283	*e*P	P	20 31 48.2	+0.3
RST				AML	AML	20 32 39.6	
	comp=Z,30nm,0.5s						
RST				*e*S	S	20 32 58.2	-0.8
RST	**Umm Al-Ruwaisa**	6.26	283	*e*S	S	20 32 58.2	-0.8
RYDS	**Riyadh**	7.72	240	P	P	20 32 07.9	-0.4
MZLS	**Mizel**	8.92	244	P	P	20 32 24.7	-0.2
ARSS	**Ar Rass**	9.86	259	P	P	20 32 35.5	-2.4
AFFS	**'Afif**	10.76	249	P	P	20 32 49.2	-0.9
HILS	**Ha'il**	10.83	268	P	P	20 32 48.3	-2.8
KAMS	**Al Khamasin**	11.64	229	P	P	20 33 02.5	+0.4
TATS	**Tathlith**	12.92	230	P	P	20 33 20.6	+1.4
KBRS	**Khaybar**	13.35	263	P	P	20 33 22.8	-2.0
GNI	**Garni**	14.13	330	Pn	P	20 33 34.4	-0.6
	comp=Z,0.3nm,0.3s,baz=222,slow=15,SNR=2.2						
ASF	**Jabal al Asfar**	15.29	289	Pn	P	20 33 46.5	-3.7
	comp=Z,1.2nm,0.3s,baz=251,slow=3.5,SNR=5.2						
MEST	**Erdemli**	18.69	302	*i* P	P	20 34 25.0	-7.7
CTKT	**Corum**	20.04	313	*i* P	P	20 34 47.0	-0.7
BRTR	**Keskin Array B**	20.35	310	P	P	20 34 51.0	0.0
	comp=Z,7.0nm,0.7s,baz=128,slow=12,SNR=18						
BOYT	**Boyabat**	20.40	315	*i* P	P	20 34 45.2	-6.2
BOYT	**Boyabat**	20.40	315	*i* P	P	20 34 52.5	+1.0
SGKT	**Sivrigoynuk**	21.82	310	*i* P	P	20 35 06.4	+0.6
BVAR	**Borovoye Array**	27.59	22	P	P	20 36 01.2	+0.4
	comp=Z,2.1nm,1.0s,mb3.7,baz=234,slow=9.2,SNR=5.7						
AKASG	**Malin Array Be**	29.23	327	P	P	20 36 14.1	-1.3
	comp=Z,1.3nm,0.6s,mb3.9,baz=136,slow=8.4,SNR=8.1						
GERES	**GERESS Array B**	37.07	315	P	P	20 37 22.8	-0.4
	comp=Z,0.4nm,0.7s,mb3.4,baz=106,slow=7.1,SNR=4.0						
KHC	**Kasperske Hory**	37.24	315	*e*P	P	20 37 24.5	-0.2
FINES	**FINESS Array B**	38.07	339	P	P	20 37 31.3	-0.1
	comp=Z,2.6nm,0.6s,mb4.2,baz=138,slow=9.4,SNR=33						
KAF	**Kangasniemi**	38.50	339	*e*p	P	20 37 34.5	-0.5
	comp=Z,0.9nm,0.3s,mb4.0						
DAVOX	**Davos**	38.99	311	P	P	20 37 39.6	+0.4
	comp=Z,1.7nm,0.5s,mb4.1,baz=119,slow=10,SNR=6.7						
HFS	**Hagfors**	41.91	331	P	P	20 38 03.0	-0.2
	comp=Z,2.4nm,0.6s,mb4.0,baz=130,slow=8.3,SNR=13						
CMAR	**Chiang Mai Arr**	42.21	93	P	P	20 38 05.8	-0.4
	comp=Z,0.9nm,0.6s,mb3.6,baz=286,slow=8.8,SNR=5.1						
NB2	**NORSAR Subarra**	43.43	331	P	P	20 38 14.5	-1.1
	comp=Z,11nm,1.4s,mb4.4,baz=119,slow=7.9						
NOA	**NORSAR Array B**	43.43	331	P	P	20 38 15.0	-0.6
	comp=Z,1.3nm,0.7s,mb3.8,baz=121,slow=8.2,SNR=4.1						
ARCES	**ARCESS Array B**	44.51	346	P	P	20 38 24.0	-0.2
	comp=Z,3.6nm,1.0s,mb4.2,baz=154,slow=7.8,SNR=12						
SONM	**Songino Array**	44.74	49	P	P	20 38 28.1	+1.7
	comp=Z,0.9nm,1.0s,mb3.5,baz=248,slow=6.7,SNR=3.7						
ESDC	**Sonseca Array**	48.66	299	P	P	20 38 57.9	+0.6
	comp=Z,0.4nm,0.4s,mb3.8,baz=73,slow=7.5,SNR=4.7						
EKA	**Eskdalemuir Ar**	48.73	320	P	P	20 38 56.6	-1.0
	comp=Z,2.8nm,0.9s,mb4.3,baz=97,slow=7.8,SNR=6.5						
DBIC	**Dimbokro**	59.48	261	P	P	20 40 16.9	0.0
	comp=Z,2.4nm,1.0s,mb4.2,baz=71,slow=12,SNR=3.7						
ILAR	**Eielson Array**	85.89	9	P	P	20 42 53.6	+2.2
	comp=Z,0.3nm,0.8s,mb3.6,baz=304,slow=3.3,SNR=4.2						
YKA	**Yellowknife Ar**	89.14	355	P	P	20 43 08.7	+1.6
	comp=Z,0.7nm,0.7s,mb4.1,baz=5.1,slow=4.9,SNR=24						
ASAR	**Alice Springs**	92.65	115	P	P	20 43 24.0	-0.4
	comp=Z,0.9nm,0.7s,mb4.3,baz=311,slow=4.3,SNR=4.7						

MEX 28 20:31:02.5±0.6, 18.08N×100.17W, h65^{km}±17^{km}, MD3.6, Guerrero

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PLIG	**Platanillo**	0.71	63	*i* P	P	20 31 15.7	-1.6
PLIG				*i* S	S	20 31 26.6	-1.7
CAIG	**El Cayaco**	1.03	185	*i* P	P	20 31 19.6	-1.8
CAIG				*i* S	S	20 31 33.1	-2.2
ACX	**Acapulco**	1.23	169	*i* P	P	20 31 22.7	-1.3
ACX				*i* S	S	20 31 37.1	-3.0

IDC 28 20:32:55.9±1.2, 9.02N×91.14E, mb4.0/6, mb1 4.2/7, mb1mx3.9/19, mbtmp3.9/7, ML3.5/1, Error ellipse: s-maj=32.8km s-min=28.7km az=9.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	12.06	38	Pn	P	20 35 48.7	-3.4
	0.1nm,0.3s,baz=235,slow=14,SNR=5.7						
SONM	**Songino Array**	40.78	16	P	P	20 40 38.6	-1.9
	1.1nm,0.7s,baz=193,slow=8.9,SNR=8.0						
ASAR	**Alice Springs**	52.93	129	P	P	20 42 14.6	-2.0
	0.8nm,0.8s,baz=304,slow=7.0,SNR=4.0						
KMBO	**Kilima Mbogo**	54.62	262	P	P	20 42 26.3	-2.7
	0.9nm,0.6s,baz=51,slow=19,SNR=4.1						
BRTR	**Keskin Array B**	59.44	311	P	P	20 43 01.1	-1.9
	2.1nm,1.0s,baz=130,slow=7.3,SNR=6.4						
MLR	**Muntele Rosu**	66.28	316	P	P	20 43 47.3	-0.9
	1.7nm,0.8s,baz=59,slow=6.6,SNR=3.6						
GERES	**GERESS Array B**	75.00	318	P	P	20 44 39.3	-1.7
	1.7nm,0.8s,baz=108,slow=4.2,SNR=10						

*BJI **28** 20:34:06.0, 36.75N×27.71E, h16^{km}, mB5.2, mb4.6, Ms5.0, Msz4.7*

*MOS **28** 20:34:09.9±1.2, 37.01N×28.27E, h10^{km}, mb4.8/20, Error ellipse: s-maj=6.3km s-min=4.2km az=124.5*

*ATH **28** 20:34:10.7, 37.07N×28.23E, h16^{km}±3^{km}, MD4.1/12, ML4.4*

*ISK **28** 20:34:10.4, 36.94N×28.20E, h19^{km}, MD4.2, ML4.3*

*IDC **28** 20:34:10.2±1.0, 37.06N×28.22E, mb4.3/9, mb1 4.5/14, mb1mx4.3/24, mbtmp4.3/14, ML4.1/5, MS4.0/3, Ms1 4.0/3, ms1mx3.4/36, Error ellipse: s-maj=19.5km s-min=17.1km az=178.0*

*CSEM **28** 20:34:11.2±0.0, 36.87N×28.26E, h30^{km}, mb4.5/38, Error ellipse: s-maj=1.9km s-min=1.0km az=39.0*

*NIC **28** 20:34:12.7±0.3, 36.69N×27.95E, h55^{km}, mb4.6, ML4.2, MW4.0*

*NEIC **28** 20:34:12.8±0.9, 37.00N×28.27E, h16^{km}±6^{km}, mb4.5/42, ML4.4(ATH), ML4.2(ISK), ML4.2(NIC), Error ellipse: s-maj=4.5km s-min=3.0km az=201.0*

NEIC Felt at Marmaris, Turkey.

*MED_RC **28** 20:34:12.3±0.5, 37.00N×28.49E, h15^{km}, MW4.4/10, Moment Tensor Solution. Body waves: s10,c10; Duration: 1^{s}0 Moment tensor: Scale 10^{15}Nm; M_{rr}-4.16±.30; $M_{\theta\theta}$3.69±.43; $M_{\phi\phi}$0.46±.32; $M_{r\theta}$-0.55±1.35; $M_{\theta\phi}$0.73±.21; $M_{\phi r}$-2.51±.56; Best double couple: $M_0$4.64×10^{15} NP1:ϕ_s276°,δ41°,λ-56°. NP2:ϕ_s54°,δ57°,λ-116°. Principal axes: T 4.02, Plg9°, Azm162°; N 1.24, Plg22°, Azm69°; P -5.26, Plg66°, Azm274°; nsta1 refers to waves, cutoff=35s.*

*ZUR_RM **28** 20:34:12, 37.00N×28.27E, h4^{km}, Mw4.3/15, Moment Tensor Solution. s15 Moment tensor: Scale 10^{15}Nm; M_{rr}-3.46; $M_{\theta\theta}$3.23; $M_{\phi\phi}$0.23; $M_{r\theta}$0.37; $M_{\theta\phi}$0.47; $M_{\phi r}$-0.62; Best double couple: $M_0$3.45×10^{15} NP1:ϕ_s271°,δ48°,λ-76°. NP2:ϕ_s71°,δ44°,λ-105°. Principal axes: T 3.314, Plg2°, Azm352°; N .275, Plg10°, Azm82°; P -3.59, Plg80°, Azm249°;*

ISC 28 20:34:11.3±0.4, 36.95N±0.02×28.26E±0.02, h24^{km}±3^{km}, n267, σ1^{s}26/293, mb4.5/33, MS4.6/3, 6C-4D, Dodecanese Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	**Dalyan (Mudla)**	0.35	121	Pg	Pb	20 34 20.5	+1.5
DALT				Sg	Sb	20 34 27.5	+3.2
DALT	**Dalyan (Mudla)**	0.35	121	*i* Pg	Pb	20 34 19.3	+0.3
DALT				Sg	Sb	20 34 27.5	+3.2
MLSB	**Milas**	0.52	312	*i* PG	Pb	20 34 20.3	-1.4
MLSB	**Milas**	0.52	312	Pg	Pb	20 34 22.2	+0.5
MLSB	**Milas**	0.52	312	Pg	Pb	20 34 22.2	+0.5
BDRM	**Kayabasi**	0.67	280	*i* P	Pb	20 34 24.0	-0.2
BDRM				*i* S	Sb	20 34 33.1	+0.1
FETY	**Fethiye**	0.73	115	*i* PG	Pb	20 34 25.1	-0.2
FETY				*i* SG	Sb	20 34 37.5	+2.7
ARG	**Arkhangelos**	0.74	189	*e*PB	Pn	20 34 26.4	+0.1
ARG	**Arkhangelos**	0.74	189	Pn	Pn	20 34 26.4	+0.1
ARG				Sn	Sn	20 34 40.3	+3.5
AYDN	**Tasoluk**	0.77	337	*i* P	Pb	20 34 24.0	-2.0
AYDN				*i* S	Sb	20 34 32.7	-3.4
DNZL	**Cakiroluk**	0.97	40	*i* P	Pb	20 34 27.6	-1.7
DNZL				*i* S	Sb	20 34 34.4	-7.2
DENT	**Denizli**	1.01	37	Pn	Pn	20 34 28.1	-1.9
KSL	**Kastellorizon**	1.33	127	*e*PN	Pn	20 34 37.0	+2.3
KSL				*e*SN	Sn	20 34 58.0	+6.3
ELL	**Elmali**	1.33	98	PN	Pn	20 34 35.3	+0.6
ELL	**Elmali**	1.33	98	Pn	Pn	20 34 35.4	+0.7
SMG	**Samos**	1.36	304	*e*PN	Pn	20 34 35.4	+0.2
SMG				*e*SN	Sn	20 34 52.7	+0.1
MANT	**Manisa**	1.55	9	*i* P	Pn	20 34 37.6	-0.3
MANT				*i* S	Sn	20 34 54.2	-3.2
IZM	**Izmir**	1.65	331	PN	Pn	20 34 39.1	-0.1
IZM	**Izmir**	1.65	331	Pn	Pn	20 34 39.1	-0.1
KDAG	**Bornova**	1.65	332	*i* P	Pn	20 34 39.0	-0.3
KDAG				*i* S	Sn	20 34 52.3	-7.5
KARP	**Karpathos**	1.66	213	*e*PN	Pn	20 34 41.8	+2.4
KHL	**Karahalli**	1.70	36	PN	Pn	20 34 40.7	+0.8
BLCB	**Balcova**	1.73	326	PN	Pn	20 34 40.1	-0.3
BLCB	**Balcova**	1.73	326	Pn	Pn	20 34 40.2	-0.2
BLCB	**Balcova**	1.73	326	Pn	Pn	20 34 40.2	-0.2
ANTB	**Antalya**	1.92	91	PN	Pn	20 34 43.4	+0.4
BCK	**Bucak**	1.93	74	PN	Pn	20 34 43.9	+0.7
BCK	**Bucak**	1.93	74	Pn	Pn	20 34 44.0	+0.8
AKS	**Akhisar**	1.96	350	PN	Pn	20 34 43.9	+0.3
AKS	**Akhisar**	1.96	350	Pn	Pn	20 34 44.0	+0.4
AKS	**Akhisar**	1.96	350	Pn	Pn	20 34 44.0	+0.4
ISP	**Isparta**	2.00	63	PN	Pn	20 34 45.1	+0.9
ISP	**Isparta**	2.00	63	Pn	Pn	20 34 45.1	+0.9
APE	**Apeiranthos**	2.19	274	PN	Pn	20 34 46.8	-0.2
APE	**Apeiranthos**	2.19	274	*e*PN	Pn	20 34 48.6	+1.6
APE	**Apeiranthos**	2.19	274	⇑*i*P	Pn	20 34 47.0	0.0
SANT	**Santorini**	2.33	256	Pn	Pn	20 34 50.0	+1.0
SANT	**Santorini**	2.33	256	Pn	Pn	20 34 50.0	+1.1
ALT	**Altintas**	2.56	34	PN	Pn	20 34 53.2	+1.0
ALT	**Altintas**	2.56	34	Pn	Pn	20 34 53.3	+1.0
ALT	**Altintas**	2.56	34	Pn	Pn	20 34 53.3	+1.1
AYVA	**Ayvalik**	2.66	333	*i* P	Pn	20 34 48.8	-4.9
DST	**Dursunbey**	2.67	6	Pn	Pn	20 34 53.3	-0.5
BALB	**Balikesir**	2.70	354	PN	Pn	20 34 53.9	-0.4
BALB	**Balikesir**	2.70	354	Pn	Pn	20 34 54.0	-0.3
BALB	**Balikesir**	2.70	354	Pn	Pn	20 34 54.0	-0.3
NPS	**Neapolis**	2.73	233	*e*PN	Pn	20 34 57.0	+2.3
XRY	**Khrisi**	2.94	226	*e*PB	Pb	20 35 01.0	-1.8
ORLT	**Orhaneli**	3.13	9	PN	Pn	20 35 00.2	-0.1

ORLT	Orhaneli	3.13	9	Pn	Pn	20 35 00.2	-0.1
IDI	Anoyia	3.20	240	Pn	Pn	20 35 03.0	+1.8
	14nm,0.3s,baz=54,slow=16,SNR=36						
IDI				Sn	Sn	20 35 42.6	+3.5
	9.7nm,0.3s,baz=120,slow=5.3,SNR=9.4						
ULDT	Uludag	3.26	12	*i* P	Pn	20 35 02.1	-0.1
ESKT	Eskisehir	3.27	38	PN	Pn	20 35 03.1	+0.7
ESKT	Eskisehir	3.27	38	Pn	Pn	20 35 03.1	+0.7
ESKT	Eskisehir	3.27	38	*i* P	Pn	20 35 02.5	+0.1
HDMB	Hadim	3.38	89	PN	Pn	20 35 04.2	+0.3
HDMB	Hadim	3.38	89	Pn	Pn	20 35 04.3	+0.3
KONT	Konya--Tatoy	3.41	72	*e*PN	Pn	20 35 04.8	+0.5
KONT	Konya--Tatoy	3.41	72	Pn	Pn	20 35 04.8	+0.5
KIZT	Kizilcal	3.45	55	*e*PN	Pn	20 35 06.0	+1.1
VAM	Vamos	3.63	246	*e*P	Pn	20 35 13.0	+5.5
YLV	Yalova	3.71	13	*e*PN	Pn	20 35 08.9	+0.3
YLV	Yalova	3.71	13	Pn	Pn	20 35 08.9	+0.3
ATH	Athens Observa	3.76	287	*e*PN	Pn	20 35 10.4	+1.1
MPAR	Parnis Oros	3.79	290	*e*PN	Pn	20 35 11.0	+1.2
AKMC	Akamas	3.82	119	P	Pn	20 35 11.4	+1.3
PPCY	Paphos	3.90	121	⇓*i*P	Pn	20 35 12.5	+1.2
MFT	Murefte	3.91	349	*e*PN	Pn	20 35 11.8	+0.4
MFT	Murefte	3.91	349	Pn	Pn	20 35 11.8	+0.4
NSAL	Nisos Salamina	3.94	285	*e*PN	Pn	20 35 12.0	+0.2
ALFC	Alevga	3.94	116	P	Pn	20 35 13.1	+1.2
	3.6nm,0.3s						
ALFC				S	Sn	20 36 00.7	+2.7
GVD	Gavdhos	3.99	239	*e*Pn	Pn	20 35 16.2	+3.6
HRT	Hereke	4.02	15	*e*PN	Pn	20 35 13.5	+0.5
HRT	Hereke	4.02	15	Pn	Pn	20 35 13.6	+0.6
HRT	Hereke	4.02	15	Pn	Pn	20 35 13.6	+0.6
ISK	Istanbul-Kandi	4.16	8	*e*PN	Pn	20 35 15.8	+0.9
ISK	Istanbul-Kandi	4.16	8	Pn	Pn	20 35 15.9	+0.9
LEF	Lefka	4.17	115	*e*PN	Pn	20 35 15.8	+0.6
LEF	Lefka	4.17	115	Pn	Pn	20 35 15.9	+0.7
SZAC	Souni-Zanaja	4.34	119	⇑P	Pn	20 35 18.4	+0.8
	4.4nm,0.3s						
SZAC				S	Sn	20 36 11.2	+3.0
SZAC	Souni-Zanaja	4.34	119	⇑*i*P	Pn	20 35 18.4	+0.8
SZAC				S	Sn	20 36 11.2	+3.0
SZAC	Souni-Zanaja	4.34	119	S	Sn	20 36 11.2	+3.0
SZAC	Souni-Zanaja	4.34	119	⇑*i*P	Pn	20 35 18.4	+0.8
	4.4nm,0.3s						
MAMC	Mammari	4.39	112	P	Pn	20 35 20.1	+1.8
IKL	Isikli	4.42	98	*e*PN	Pn	20 35 19.3	+0.6
IKL	Isikli	4.42	98	Pn	Pn	20 35 19.3	+0.6
CSS	Prodhromos	4.56	114	P	Pn	20 35 22.0	+1.3
CSS				S	Sn	20 36 16.2	+2.5
CSS	Prodhromos	4.56	114	S	Sn	20 36 16.2	+2.5
ANTO	Ankara	4.60	49	*e*PN	Pn	20 35 22.2	+1.0
ANTO	Ankara	4.60	49	Pn	Pn	20 35 22.2	+1.0
RDO	Rodhopi	4.70	334	*e*PN	Pn	20 35 21.7	-0.9
MEST	Erdemli	4.74	93	*i* P	Pn	20 35 25.6	+2.4
EDRB	Edirne	5.03	347	*e*PN	Pn	20 35 26.8	-0.5
EDRB	Edirne	5.03	347	Pn	Pn	20 35 26.9	-0.4
EDRB	Edirne	5.03	347	Pn	Pn	20 35 26.9	-0.4
BRTR	Keskin Array B	5.05	55	Pn	Pn	20 35 28.1	+0.5
	4.4nm,0.3s,baz=238,slow=15,SNR=51						
BRTR				Sn	Sn	20 36 27.6	+1.6
	1.2nm,0.3s,baz=220,slow=29,SNR=8.4						
PHNC	Paralimni	5.07	111	P	Pn	20 35 30.2	+2.4
EVR	Evrytania	5.47	293	*e*PN	Pn	20 35 34.5	+1.0
RZN	Rozhen	5.47	331	*e*P	Pn	20 35 32.0	-1.5
SAFT	Safranbolu	5.49	37	Pn	Pn	20 35 34.4	+0.6
SAFT	Safranbolu	5.49	37	Pn	Pn	20 35 34.4	+0.6
CORM	Corum	5.94	55	*e*PN	Pn	20 35 40.2	+0.1
KKB	Krupnik	6.34	322	*e*P	Pn	20 35 44.0	-1.8
HTY	Hatay	6.39	95	*e*PN	Pn	20 35 46.5	-0.1
HTY	Hatay	6.39	95	Pn	Pn	20 35 46.6	0.0
VTS	Vitosha	6.85	327	*e*P	Pn	20 35 52.0	-0.9
HNTI	Hanita	6.86	122	P	Pn	20 35 51.5	-1.6
HNTI				S	Sn	20 37 07.6	-3.6
HAF	Haifa	6.94	125	P	Pn	20 35 52.3	-2.0
OFRI	‘Ofer	7.02	126	P	Pn	20 35 54.3	-1.0
SKO	Skopje	7.28	316	*i* Pn	Pn	20 36 03.0	+4.0
SLTI	Sal’it	7.30	128	P	Pn	20 35 57.2	-2.1
SLTI				S	Sn	20 37 17.9	-4.3
KSHT	Keshet	7.35	120	P	Pn	20 35 58.8	-1.2
MMLI	Mount Malkishu	7.42	125	P	Pn	20 35 59.6	-1.3
HMDT	Nahal Hemdat	7.60	126	P	Pn	20 36 02.3	-1.2
KZIT	Kziot	7.89	138	P	Pn	20 36 06.5	-1.1
KZIT				S	Sn	20 37 32.3	-4.7
RTMM	Retamin	7.94	136	P	Pn	20 36 06.6	-1.6
DRGI	Dragot	7.96	130	P	Pn	20 36 06.8	-1.7
MASH	Mash‘abbe Sade	8.04	136	P	P	20 36 08.0	-1.6
MKRJ	Makawir	8.14	129	P	P	20 36 10.0	-1.0
MZDA	Masada	8.14	132	P	P	20 36 09.2	-1.8
MZDA				S	Sn	20 37 37.9	-5.3
MALT	Malatya	8.18	77	*e*P	P	20 36 12.4	+0.9
ASF	Jabal al Asfar	8.57	121	Pn	P	20 36 16.8	-0.1
	1.0nm,0.3s,baz=185,slow=9.1,SNR=7.1						
ASF				Sn	Sn	20 37 52.0	-1.9
	0.6nm,0.3s,baz=333,slow=22,SNR=2.0						
PRNI	Paran	8.65	138	P	P	20 36 16.3	-1.8
PRNI				S	Sn	20 37 50.7	-5.2
MLR	Muntele Rosu	8.71	349	Pn	P	20 36 17.3	-1.6
	0.3nm,0.3s,baz=158,slow=4.8,SNR=28						
MBH	Mount Berech	9.05	140	P	P	20 36 22.0	-1.6
EIL	Elat	9.16	140	P	P	20 36 23.9	-1.3
EIL	Elat	9.16	140	Pn	P	20 36 23.6	-1.6
	5.4nm,0.3s,baz=328,slow=8.6,SNR=36						
EIL				Sn	Sn	20 38 04.8	-3.9
	2.1nm,0.3s,baz=98,slow=36,SNR=4.9						
EIL				LR	LR	20 40 34.1	
	comp=Z,178nm,18.3s,baz=154,slow=41						
EIL	Elat	9.16	140	*e*P	P	20 36 23.7	-1.5
EIL				*e*S	Sn	20 38 05.2	-3.4
EIL	Elat	9.16	140	*e*P	P	20 36 23.7	-1.5
EIL				*e*S	Sn	20 38 05.2	-3.4
AQBJ	Aqaba	9.17	140	P	P	20 36 23.7	-1.6
TIP	Timpagrande	9.34	287	*e*P	P	20 36 27.4	-0.2
TIP	Timpagrande	9.34	287	*e*P	P	20 36 27.4	-0.2
ALWS	Ilw as Safayha	9.51	141	P	P	20 36 29.3	-0.7
JMOS	Jabal al Moall	9.65	142	P	P	20 36 32.7	+0.7
HAQS	Haql	9.66	143	P	P	20 36 30.6	-1.4
BDAS	Al Bad‘	10.26	144	P	P	20 36 38.2	-2.0
JMQS	Jabal Moqyreh	10.27	139	P	P	20 36 39.2	-1.3
AYUS	‘Aynunah	10.54	144	P	P	20 36 42.1	-2.1
AQU	L’Aquila	12.65	300	*e*P	P	20 37 12.9	+0.2
KIV	Kislovodsk	13.01	53	*i* P	P	20 37 15.1	-2.3
ZEI	Tsey	13.34	59	*e*P	P	20 37 24.1	+2.4
GOF	Gofitskoye	13.77	49	*e*P	P	20 37 36.0	+8.7
VRAC	Vranov	14.98	329	Pn	P	20 37 48.0	+4.9
	0.3nm,0.3s,baz=116,slow=9.0,SNR=4.0						
PGF	Pioggiola	15.82	297	*e*P	P	20 37 53.3	-0.9
	89nm,1.1s						
PGF	Pioggiola	15.82	297	*e*P	P	20 37 53.3	-0.9
PGF				pmax	pmax		
	comp=Z,44nm,1.1s						
GEC2	GERESS Array S	15.94	323	*e*P	P	20 38 00.9	+5.3
GEC2				pmax	pmax		
	comp=Z,24nm,1.1s						
GEC2	GERESS Array S	15.94	323	*e*P	P	20 38 00.9	+5.3
	comp=Z,24nm,1.1s						
GERES	GERESS Array B	15.94	323	Pn	P	20 38 00.3	+4.7
	comp=Z,0.3nm,0.3s,baz=135,slow=11,SNR=46						
GERES				LR	LR	20 44 19.2	
	comp=Z,385nm,20.2s,baz=313,slow=38						
UPC	Upice	16.16	331	*e*P	P	20 38 02.8	+4.5
KHC	Kasperske Hory	16.19	323	⇑*i*P	P	20 37 58.5	-0.3
KHC	Kasperske Hory	16.19	323	*e*P	P	20 38 03.5	+4.7
PRU	Pruhonice	16.36	327	*e*P	P	20 38 06.9	+5.9
WET	Wettzell	16.54	322	*e*P	P	20 38 07.0	+3.8
WET				pmax	pmax		
	comp=Z,28nm,1.0s						
WET	Wettzell	16.54	322	*e*P	P	20 38 07.0	+3.8
	comp=Z,28nm,1.0s						
PVCC	Panska Ves	16.76	328	*e*P	P	20 38 10.2	+4.3
DAVOX	Davos	16.81	311	Pn	P	20 38 09.3	+2.6
	comp=Z,0.2nm,0.3s,baz=101,slow=14,SNR=3.9						
SBF	Sospel	17.28	300	*e*P	P	20 38 12.5	0.0
	comp=Z,74nm,0.9s						
SBF	Sospel	17.28	300	*e*P	P	20 38 12.5	0.0
SBF				pmax	pmax		
	comp=Z,37nm,0.9s						
BRG	Berggiesshubel	17.28	328	P	P	20 38 15.0	+2.5
BRG				pmax	pmax		
	comp=Z,9.0nm,1.1s						
BRG	Berggiesshubel	17.28	328	P	P	20 38 15.0	+2.5
	comp=Z,9.1nm,1.1s						
SUW	Suwalki	17.42	350	*e*P	P	20 38 15.2	+0.9
SUW				pmax	pmax		
	comp=Z,54nm,1.1s						
SUW	Suwalki	17.42	350	*e*P	P	20 38 15.2	+1.0
	comp=Z,54nm,1.1s						
SUW	Suwalki	17.42	350	*e*P	P	20 38 15.2	+0.9
	comp=Z,54nm,1.1s						
GRA1	Grafenberg Arr	17.72	321	*e*P	P	20 38 20.6	+2.6
	comp=Z,27nm,1.1s						
GRF	Grafenberg Arr	17.72	321	*e*P	P	20 38 20.6	+2.6
GRF				pmax	pmax		
	comp=Z,27nm,1.1s						
GRF	Grafenberg Arr	17.72	321	*e*P	P	20 38 20.6	+2.6
GRF				pmax	pmax		
	comp=Z,27nm,1.1s						
GRF	Grafenberg Arr	17.72	321	*e*P	P	20 38 20.6	+2.6
	comp=Z,27nm,1.1s						
FRF	La Foret Royal	17.75	299	*e*P	P	20 38 19.6	+1.2
	comp=Z,119nm,1.4s						
FRF	La Foret Royal	17.75	299	*e*P	P	20 38 19.6	+1.2
FRF				pmax	pmax		
	comp=Z,59nm,1.4s						
MBDF	Montbardon	17.99	302	*e*P	P	20 38 22.5	+1.1
	comp=Z,49nm,0.9s						
MBDF	Montbardon	17.99	302	*e*P	P	20 38 22.5	+1.1
MBDF				pmax	pmax		
	comp=Z,24nm,0.9s						
CLL	Collm	18.00	328	*e*P	P	20 38 29.0	+7.5
CLL	Collm	18.00	328	*e*	P	20 38 29.0	+7.5
BNI	Bardonecchia	18.15	303	P	P	20 38 21.3	-2.2
BNI				pmax	pmax		
	comp=Z,35nm,1.1s						
BNI	Bardonecchia	18.15	303	P	P	20 38 21.2	-2.2
	comp=Z,35nm,1.1s						
BNI	Bardonecchia	18.15	303	P	P	20 38 21.2	-2.3
	comp=Z,35nm,1.1s						
MOX	Moxa	18.16	324	*e*P	P	20 38 26.4	+2.9
MOX				pmax	pmax		
	comp=Z,31nm,1.3s						
MOX	Moxa	18.16	324	*i* P	P	20 38 26.4	+2.9
	comp=Z,logA/T=1.4						
MOX	Moxa	18.16	324	*e*P	P	20 38 26.4	+2.9
	comp=Z,31nm,1.3s						
LPG	La Plagne	18.26	305	*e*P	P	20 38 26.1	+1.4
	comp=Z,70nm,0.9s						
LPG	La Plagne	18.26	305	*e*P	P	20 38 26.1	+1.4
LPG				pmax	pmax		
	comp=Z,35nm,0.9s						
LPL	La Plagne	18.27	305	*e*P	P	20 38 25.9	+0.9
	comp=Z,48nm,1.0s						
LPL	La Plagne	18.27	305	*e*P	P	20 38 25.9	+0.9
LPL				pmax	pmax		
	comp=Z,24nm,1.0s						
ORIF	Oris-en-Rattie	18.65	302	*e*P	P	20 38 30.2	+0.6
	comp=Z,28nm,0.8s						
ORIF	Oris-en-Rattie	18.65	302	*e*P	P	20 38 30.2	+0.6
ORIF				pmax	pmax		
	comp=Z,14nm,0.8s						
OBN	Obninsk	19.03	15	*e*P	P	20 38 30.5	-3.6
OBN				pmax	pmax		
	comp=Z,7.0nm,1.3s						
CABF	La Chapelle	19.09	307	*e*P	P	20 38 35.2	+0.4
	comp=Z,155nm,1.5s						
CABF	La Chapelle	19.09	307	*e*P	P	20 38 35.2	+0.4
CABF				pmax	pmax		
	comp=Z,78nm,1.5s						
CDF	Champ du Feu	19.15	313	*e*P	P	20 38 35.5	+0.1
	comp=Z,41nm,1.1s						
CDF	Champ du Feu	19.15	313	*e*P	P	20 38 35.5	+0.1
CDF				pmax	pmax		
	comp=Z,21nm,1.1s						
VIVF	Saint-Julien-l	19.45	301	*e*P	P	20 38 38.3	-0.7
	comp=Z,138nm,1.3s						
VIVF	Saint-Julien-l	19.45	301	*e*P	P	20 38 38.3	-0.7
VIVF				pmax	pmax		
	comp=Z,69nm,1.3s						
HAU	Haudompre	19.51	311	*e*P	P	20 38 39.4	-0.2
	comp=Z,41nm,1.1s						
HAU	Haudompre	19.51	311	*e*P	P	20 38 39.4	-0.2
HAU				pmax	pmax		
	comp=Z,21nm,1.1s						
CLZ	Clausthal	19.54	325	*e*P	P	20 38 41.1	+1.2
	comp=Z,23nm,1.3s						
LASF	Ste Croix	19.83	299	*e*P	P	20 38 42.1	-1.1
	comp=Z,89nm,1.3s						
WLF	Walferdange	20.41	315	P	P	20 38 49.7	+0.5
	comp=Z,37nm,2.8s						
SMF	Signal de Mont	20.55	306	*e*P	P	20 38 50.6	-0.1
	comp=Z,152nm,1.2s						
SMF	Signal de Mont	20.55	306	*e*P	P	20 38 50.6	-0.1
SMF				pmax	pmax		
	comp=Z,76nm,1.2s						
BUG	Bochum--Univer	20.78	321	*e*P	P	20 38 53.0	-0.1
	comp=Z,40nm,1.2s						
MTLF	Montolieu	20.86	296	*e*P	P	20 38 53.1	-0.8
	comp=Z,81nm,1.5s						
MTLF	Montolieu	20.86	296	*e*P	P	20 38 53.1	-0.8
MTLF				pmax	pmax		
	comp=Z,40nm,1.5s						
SSF	Saint Saulge	20.91	307	*e*P	P	20 38 53.9	-0.5
SSF				pmax	pmax		
	comp=Z,32nm,0.9s						
SSF	Saint Saulge	20.91	307	*e*P	P	20 38 53.9	-0.5
	comp=Z,32nm,0.9s						
AVF	Avril sur Loir	20.92	306	*e*P	P	20 38 53.8	-0.7
	comp=Z,84nm,1.0s						
AVF	Avril sur Loir	20.92	306	*e*P	P	20 38 53.8	-0.7
AVF				pmax	pmax		
	comp=Z,42nm,1.0s						
MEM	Membach	20.98	318	P	P	20 38 54.7	-0.4
IBBN	Ibbenburen	21.07	323	*e*P	P	20 38 56.6	+0.6
BGF	Bois d’Agland	21.17	305	*e*P	P	20 38 56.6	-0.5
	comp=Z,130nm,1.1s,mb4.9						
BGF	Bois d’Agland	21.17	305	*e*P	P	20 38 56.6	-0.5
BGF				pmax	pmax		
	comp=Z,65nm,1.1s,mb4.9						
CAF	Calviac	21.27	300	*e*P	P	20 38 58.0	-0.1
	comp=Z,52nm,1.1s,mb4.5						
CAF	Calviac	21.27	300	*e*P	P	20 38 58.0	-0.1
CAF				pmax	pmax		
	comp=Z,26nm,1.1s,mb4.5						
DOU	Dourbes	21.50	315	P	P	20 38 59.8	-0.5
	comp=Z,43nm,2.9s,mb4.3						
VSU	Vasula	21.55	358	*e*P	P	20 38 58.8	-2.0
BAIF	Baives	21.70	315	*e*P	P	20 39 01.9	-0.5
	comp=Z,65nm,1.1s,mb4.7						
BAIF	Baives	21.70	315	*e*P	P	20 39 01.9	-0.5
BAIF				pmax	pmax		
	comp=Z,33nm,1.1s,mb4.7						
RJF	Les Rejaudoux	21.73	301	*e*P	P	20 39 03.1	+0.4
	comp=Z,66nm,1.0s,mb4.7						
RJF	Les Rejaudoux	21.73	301	*e*P	P	20 39 03.1	+0.4
RJF				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.7						
SNF	Seneffe	21.87	316	P	P	20 39 05.3	+1.2
	comp=Z,32nm,1.8s,mb4.4						
EPF	Esparros	22.18	295	*e*P	P	20 39 07.0	-0.2
	comp=Z,53nm,1.4s,mb4.5						
EPF	Esparros	22.18	295	*e*P	P	20 39 07.0	-0.2
EPF				pmax	pmax		
	comp=Z,27nm,1.4s,mb4.5						
LFF	La Frestale	22.19	300	*e*P	P	20 39 07.3	0.0
	comp=Z,30nm,1.0s,mb4.4						
LFF	La Frestale	22.19	300	*e*P	P	20 39 07.3	0.0
LFF				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.4						
ETSF	Etsaut	22.82	294	*e*P	P	20 39 13.6	+0.1
	comp=Z,76nm,1.4s,mb4.6						
ETSF	Etsaut	22.82	294	*e*P	P	20 39 13.6	+0.1
ETSF				pmax	pmax		
	comp=Z,38nm,1.4s,mb4.6						
MFF	Saint Martin d	23.17	304	*e*P	P	20 39 16.8	0.0
	comp=Z,54nm,0.9s,mb4.7						
MFF	Saint Martin d	23.17	304	*e*P	P	20 39 16.8	0.0
MFF				pmax	pmax		
	comp=Z,27nm,0.9s,mb4.7						
SJPF	Ste Jean	23.33	294	*e*P	P	20 39 18.3	-0.1
	comp=Z,117nm,1.4s,mb4.8						
SJPF	Ste Jean	23.33	294	*e*P	P	20 39 18.3	-0.1
SJPF				pmax	pmax		
	comp=Z,58nm,1.4s,mb4.8						
LDF	La Druitiere	23.72	308	*e*P	P	20 39 21.7	-0.5
	comp=Z,185nm,1.8s,mb4.9						
LDF	La Druitiere	23.72	308	*e*P	P	20 39 21.7	-0.5
LDF				pmax	pmax		
	comp=Z,92nm,1.8s,mb4.9						
FLN	La Foliniere	24.00	309	*e*P	P	20 39 23.2	-1.7
	comp=Z,146nm,1.4s,mb4.9						
FLN	La Foliniere	24.00	309	*e*P	P	20 39 23.2	-1.7
FLN				pmax	pmax		
	comp=Z,73nm,1.4s,mb4.9						
GRR	Gorron	24.12	307	*e*P	P	20 39 25.7	-0.4
	comp=Z,127nm,1.3s,mb4.9						
GRR	Gorron	24.12	307	*e*P	P	20 39 25.7	-0.4
GRR				pmax	pmax		
	comp=Z,64nm,1.3s,mb4.9						
FINES	FINESS Array B	24.55	357	P	P	20 39 30.6	+0.4
	comp=Z,14nm,0.8s,mb4.6,baz=149,slow=11,SNR=24						
HFS	Hagfors	25.01	343	P	P	20 39 34.7	+0.2
	comp=Z,14nm,0.9s,mb4.5,baz=153,slow=6.6,SNR=8.4						
KAF	Kangasniemi	25.22	358	*e*p	P	20 39 34.9	-1.5
	comp=Z,18nm,0.9s,mb4.6						
KAF	Kangasniemi	25.22	358	*e*P	P	20 39 34.9	-1.5
KAF				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.6						
ESDC	Sonseca Array	25.36	286	P	P	20 39 39.1	+1.1
	comp=Z,16nm,0.9s,mb4.6,baz=80,slow=9.6,SNR=35						
NB2	NORSAR Subarra	26.41	341	P	P	20 39 46.7	-0.9
	comp=Z,1.5nm,0.7s,mb3.6,baz=143,slow=9.3						
NB2	NORSAR Subarra	26.41	341	P	P	20 39 46.7	-0.9
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
NOA	NORSAR Array B	26.41	341	P	P	20 39 46.7	-0.8
	comp=Z,3.0nm,0.8s,mb3.9,baz=146,slow=8.8,SNR=5.4						
EKA	Eskdalemuir Ar	28.14	321	P	P	20 40 01.6	-1.7
	comp=Z,6.2nm,0.9s,mb4.2,baz=100,slow=9.3,SNR=5.0						
APA	Apatity	30.80	4	⇑*i*P	P	20 40 26.8	-0.3
APA				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.9						
ARCES	ARCESS Array B	32.68	358	P	P	20 40 42.7	-0.7
	comp=Z,14nm,0.9s,mb4.9,baz=169,slow=6.2,SNR=16						
CHKZ	Chkalovo	33.56	46	*e*P	P	20 40 50.5	-0.8
CHKZ				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.3						
CHKZ	Chkalovo	33.56	46	*e*P	P	20 40 50.5	-0.8
	comp=Z,4.7nm,1.2s,mb4.3						
AAK	Ala-Archa	35.62	66	⇓*i*P	P	20 41 07.2	-1.9
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
AAK	Ala-Archa	35.62	66	*e*P	P	20 41 06.9	-2.2
	comp=Z,2.5nm,0.8s,mb4.2						
ZAL	Zalesovo	41.94	48	P	P	20 42 01.4	-0.1
	comp=Z,0.7nm,0.3s,mb3.7,baz=74,slow=18,SNR=3.4						
WMQ	Urumqi	44.94	62	⇓P	P	20 42 27.0	+1.0
WMQ				AP	pP	20 42 31.5	-1.7
WMQ				XP	sP	20 42 34.3	-1.9
WMQ				PP	PP	20 44 12.5	+0.6
WMQ				PPP	PPP	20 44 52.5	+0.1
WMQ				S	S	20 49 03.3	+1.3
WMQ				AMB	AMB		
	comp=Z,1.0nm,0.8s,mb3.7						
WMQ				LR	LR		
	comp=N,317nm,25.0s,MS4.5						
WMQ				LR	LR		
	comp=E,590nm,25.0s,MS4.5						
WMQ				LR	LR		
	comp=Z,320nm,28.2s,MS4.1						
LSZ	Lusaka	51.95	180	*e*P	P	20 43 22.7	+2.0
LSZ				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
LSZ	Lusaka	51.95	180	*e*P	P	20 43 22.7	+2.0
	comp=Z,8.0nm,1.2s,mb4.5						
SONM	Songino Array	56.41	52	P	P	20 43 53.6	+0.7
	comp=Z,0.8nm,0.8s,mb3.8,baz=292,slow=7.0,SNR=5.8						
SONM				PcP	PcP	20 44 50.4	+0.7
	comp=Z,1.1nm,1.0s,baz=288,slow=3.9,SNR=4.3						
BOD	Bodaibo	57.49	39	*e*P	P	20 43 57.9	-2.6
LBTB	Lobatse	61.68	183	*e*P	P	20 44 32.2	+2.3
LBTB				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.1						
LBTB	Lobatse	61.68	183	*e*P	P	20 44 32.2	+2.3
	comp=Z,15nm,0.9s,mb5.1						
HHC	Hu-ho-hao-te	62.56	58	*e*P	P	20 44 36.0	+0.5
HHC				AP	pP	20 44 40.8	-2.2
HHC				XP	sP	20 44 43.0	-2.7
HHC				PCP	PcP	20 45 16.5	+2.3
HHC				PP	PP	20 46 55.5	+0.5
HHC				S	S	20 53 00.5	+0.5
HHC				SCS	ScS	20 54 24.5	+2.0
HHC				SS	SS	20 57 06.3	0.0
HHC				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,194nm,6.8s						
HHC				LR	LR		
	comp=N,499nm,14.3s,MS4.8						
HHC				LR	LR		
	comp=E,251nm,17.8s,MS4.8						
HHC				LR	LR		
	comp=Z,336nm,19.0s,MS4.5						
KMI	Kunming	63.44	78	P	P	20 44 43.0	+1.5
KMI				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.5						
CHRT	Chiangrai	63.82	84	⇓P	P	20 44 43.5	-0.6
	comp=Z,197nm,1.0s						
CN2	Changchun	70.11	50	*e*P	P	20 45 23.8	+0.4
NJ2	Nanjing	72.00	63	*e*P	P	20 45 32.5	-2.5
NJ2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
MDJ	Mudanjiang	72.15	47	P	P	20 45 35.0	-0.7
MDJ				AMB	AMB		
	comp=Z,205nm,4.9s						
YKA	Yellowknife Ar	76.49	343	P	P	20 45 60.0	-0.4
	comp=Z,0.7nm,0.9s,mb3.6,baz=37,slow=5.3,SNR=7.3						
ANMO	Albuquerque	96.99	324	LR	LR	21 32 49.0	
	comp=Z,423nm,19.5s,MS4.9,slow=36						
RKT	Rikitea	160.03	309	*e*LR	LR	20 55 56.9	
	comp=Z,174nm,35.8s						

IDC 28 20:40:23.8±1.6**, 9.81N**×**92.85E, mb3.6**/3**, mb1 3.9**/4**, mb1mx3.5**/18**, mbtmp3.5**/4**, ML3.7**/1**, MS4.0**/1**, Ms1 4.0**/1**, ms1mx2.8**/29**, Error ellipse: s-maj=56.3km s-min=29.5km az=49.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.43	34	Pn	P	20 42 54.0	-3.8
	0.2nm,0.3s,baz=232,slow=15,SNR=5.4						
WRA	Warramunga Arr	50.42	126	P	P	20 49 23.3	-2.2
	0.4nm,1.1s,baz=298,slow=8.5,SNR=4.6						
ASAR	Alice Springs	52.13	130	P	P	20 49 35.6	-2.7
	0.6nm,0.8s,baz=304,slow=7.1,SNR=4.3						
GERES	GERESS Array B	75.54	318	P	P	20 52 11.1	-0.8
	0.3nm,0.5s,baz=76,slow=5.5,SNR=5.2						

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*MOS **28** 20:41:54.2±1.8, 10.02N×93.23E, h33^{km}, mb5.3/22, Error ellipse: s-maj=14.0km s-min=8.8km az=109.2*

*NEIC **28** 20:41:55.9±0.5, 10.06N×93.16E, h30^{km}, mb5.1/23, Error ellipse: s-maj=13.3km s-min=11.1km az=71.0*

*HRVD **28** 20:41:55.9±0.9, 10.12N×93.22E, h20^{km}±2^{km}, MW4.9/38, Centroid moment Tensor Solution. LP body waves: s14,c17;Mantle waves: s38,c62; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.45±.19; $M_{\theta\theta}$0.15±.15; $M_{\phi\phi}$0.30±.14; $M_{r\theta}$1.24±.36; $M_{\theta\phi}$-2.48±.13; $M_{\phi r}$1.21±.32; Best double couple: $M_0$3.01×10^{16} NP1:ϕ_s275°,δ68°, λ-157°. NP2:ϕ_s176°,δ69°,λ-23°. Principal axes: T 2.71, Plg0°, Azm226°; N .6, Plg59°, Azm316°; P -3.31, Plg31°, Azm136°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **28** 20:41:55.4, 10.22N×92.95E, h26^{km}, mB4.8, mb4.6, Ms4.3, Msz4.2*

*IDC **28** 20:41:55.6±2.7, 10.12N×93.21E, h29^{km}±18^{km}, mb4.3/24, mb1 4.4/24, mb1mx4.4/26, mbtmp4.4/24, MS4.4/5, Ms1 4.4/5, ms1mx3.7/32, Error ellipse: s-maj=24.0km s-min=10.5km az=49.0*

ISC 28 20:41:53.7±0.3**, 10.00N**±0.04×**93.11E**±0.04**, h31^{km}, h31^{km}**±2.3^{km}**:pP-P, n151,** σ1§**31**/124**, mb4.8**/53**, MS4.5**/9**, 6C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	7.93	110	P	Pn	20 43 50.0	+0.1
	262nm,0.9s						
NST	Nakhon Sawan	8.87	50	P	P	20 44 04.0	+1.0
	283nm,0.5s						
CM31	Chiang Mai Arr	10.13	33	*e*P	P	20 44 21.2	+0.8
CMAR	Chiang Mai Arr	10.13	33	Pn	P	20 44 21.4	+1.0
	1.3nm,0.3s,baz=223,slow=14,SNR=80						
CMAR				LR	LR	20 48 44.0	
	comp=Z,1μm,18.1s,baz=215,slow=41						

CHG	**Chiang Mai**	10.43	32	⇓P	P	**20 44 26.2**	**+1.7**
	34nm,0.9s						
NANT	**Nan**	11.43	39	P	P	**20 44 40.5**	**+2.4**
VIS	**Vishakhapatnam**	12.21	310	eP	P	**20 44 46.7**	**-2.0**
VIS				eS	S	**20 46 50.1**	**-15**
KOD	**Kodaikanal**	15.40	272	eP	P	**20 45 30.0**	**-0.8**
KOD				e		20 45 38.8	
	comp=Z,96nm,1.0s						
KOD				e		20 48 02.9	
SHL	**Shillong**	15.53	356	eP	P	**20 45 33.0**	**+0.7**
SHL				e		20 45 48.6	
	comp=Z,163nm,1.6s						
HYB	**Hyderabad**	15.94	299	eP	P	**20 45 41.0**	**+3.3**
HYB	**Hyderabad**	15.94	299	i P	P	**20 45 41.0**	**+3.3**
TRD	**Trivandrum**	16.01	266	eP	P	**20 45 36.9**	**-1.7**
TRD				e		20 46 01.1	
	comp=Z,55nm,1.9s						
KMI	**Kunming**	17.61	30	P	P	**20 46 00.0**	**+1.4**
KMI				AP		20 46 07.0	
KMI				XP		20 46 10.5	
KMI				PP	PP	20 46 17.8	+4.7
KMI				LR	LR		
	comp=N,842nm,19.3s						
KMI				LR	LR		
	comp=E,861nm,18.3s						
KMI				LR	LR		
	comp=Z,656nm,19.8s						
MNGI	**Mangalore**	18.16	281	eP	P	**20 46 05.7**	**+0.1**
MNGI				e		20 46 21.3	
	comp=Z,58nm,1.5s						
AKL	**Akola**	18.80	306	e	P	**20 46 16.7**	**+3.3**
AKL				e		20 46 30.4	
	comp=Z,89nm,1.0s						
PKI	**Pulchoki**	18.93	338	eP	P	**20 46 14.9**	**+0.1**
	comp=Z,266nm,1.1s						
DMN	**Daman**	19.07	338	eP	P	**20 46 15.8**	**-0.7**
	comp=Z,413nm,1.4s						
GUN	**Gumba**	19.08	340	eP	P	**20 46 16.2**	**-0.4**
	comp=Z,319nm,1.2s						
KKN	**Kakani**	19.18	338	eP	P	**20 46 17.3**	**-0.4**
	comp=Z,198nm,1.3s						
GOA	**Goa**	19.58	288	e		20 46 38.5	
GOA				e		20 46 52.0	
	comp=Z,48nm,1.1s						
GKN	**Gorkha**	19.61	337	eP	P	**20 46 22.1**	**-0.5**
	comp=Z,330nm,1.2s						
LSA	**Lhasa**	19.69	355	eP	P	**20 46 22.8**	**-0.7**
LSA				pmax	pmax		
	comp=Z,43nm,0.6s						
LSA	**Lhasa**	19.69	355	eP	P	**20 46 22.8**	**-0.8**
	comp=Z,43nm,0.6s						
KOLN	**Koldanda**	19.82	334	eP	P	**20 46 24.3**	**-0.7**
	comp=Z,267nm,1.1s						
BHPL	**Bhopal**	19.96	313	eP	P	**20 46 24.8**	**-1.7**
BHPL				e		20 46 39.8	
	comp=Z,64nm,0.9s						
POO	**Poona**	20.49	297	eP	P	**20 46 33.5**	**+1.6**
POO				e		20 46 46.4	
	comp=Z,124nm,1.1s						
GYA	**Guiyang**	20.80	36	⇑iP	P	**20 46 33.8**	**-1.3**
GYA				AMB	AMB		
	comp=Z,30nm,1.2s						
COCO	**West Island**	22.35	170	eP	P	**20 46 52.9**	**+2.1**
	comp=Z,233nm,1.1s,mb5.5						
PTH	**Pithoragarh**	22.89	330	eP	P	**20 46 58.2**	**+2.1**
PTH				e		20 51 20.3	
CD2	**Chengdu**	23.05	24	P	P	**20 46 57.3**	**-0.3**
NDI	**New Delhi**	23.83	323	eP	P	**20 47 05.8**	**+0.6**
NDI				e		20 47 20.6	
	comp=Z,142nm,1.2s						
DDI	**Dehra Dun**	24.62	327	eP	P	**20 47 14.5**	**+1.7**
DDI				e		20 49 30.4	
ENH	**Enshi**	25.30	35	eP	P	**20 47 18.5**	**-0.8**
	comp=Z,19nm,0.7s,mb4.7						
LZH	**Lanzhou**	27.74	19	eP	P	**20 47 41.3**	**-0.4**
LZH				AP	pP	20 47 50.5	-0.3
LZH				XP	sP	20 47 55.8	+1.0
LZH				PP	PP	20 48 30.0	-0.8
LZH				eS	S	**20 52 24.0**	**+3.4**
LZH				XS		20 52 36.0	
LZH				AMB	AMB		
	comp=Z,22nm,1.6s,mb4.5						
LZH				AMB	AMB		
	comp=Z,96nm,5.5s						
LZH				LR	LR		
	comp=E,440nm,14.6s						
LZH				LR	LR		
	comp=Z,770nm,15.8s,MS4.4						
GTA	**Gaotai**	29.90	10	P	P	**20 47 59.0**	**-2.1**
GTA				AMB	AMB		
	comp=Z,170nm,8.4s						
GTA				LR	LR		
	comp=N,327nm,20.2s,MS4.1						
GTA				LR	LR		
	comp=E,354nm,21.7s,MS4.1						
GTA				LR	LR		
	comp=Z,278nm,24.7s,MS3.8						
NJ2	**Nanjing**	32.38	44	eP	P	**20 48 21.8**	**-1.2**
NJ2				PP	PP	20 49 30.8	-0.4
NJ2				PPP	PPP	20 49 47.3	+0.7
NJ2				S	S	**20 53 34.0**	**0.0**
NJ2				XS		20 53 50.0	
NJ2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,624nm,6.2s						
NJ2				LR	LR		
	comp=Z,4μm,17.0s,MS5.2						
UCH	**Uchtor**	36.01	336	P	P	**20 48 51.9**	**-2.2**
	SNR=5.3						
KBK	**Karagaybulak**	36.21	337	P	P	**20 48 56.9**	**+1.1**
	SNR=17						
AML	**Almayashu**	36.27	335	P	P	**20 48 57.7**	**+1.5**
	SNR=16						
AAK	**Ala-Archa**	36.37	337	P	P	**20 48 58.3**	**+1.2**
	SNR=9.6						
AAK	**Ala-Archa**	36.37	337	eP	P	**20 48 56.9**	**-0.2**
AAK				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.2						
AAK	**Ala-Archa**	36.37	337	eP	P	**20 48 56.9**	**-0.2**
	comp=Z,37nm,1.3s,mb5.2						
AAK				ePP	PP	20 50 31.9	+11
CHMS	**Chumysh**	36.58	337	P	P	**20 48 59.2**	**+0.4**
	SNR=9.1						
EKS2	**Erkin-Say**	36.67	336	P	P	**20 49 01.2**	**+1.5**
	SNR=16						
USP	**Ospenovka**	36.90	337	P	P	**20 49 02.4**	**+0.8**
	SNR=11						
JOW	**Kunigami**	37.16	58	LR	LR	21 05 37.4	
	comp=Z,768nm,19.3s,MS4.5,baz=242,slow=38						
SONM	**Songino Array**	39.35	14	P	P	**20 49 20.7**	**-1.3**
	comp=Z,3.2nm,0.6s,mb4.2,baz=199,slow=7.2,SNR=16						
SONM				PcP	PcP	20 51 32.0	+1.3
	comp=Z,1.9nm,0.6s,baz=205,slow=3.2,SNR=4.5						
SONM				ScP		20 55 17.1	
	comp=Z,1.3nm,1.0s,baz=135,slow=2.0,SNR=4.4						
SONM				LR	LR	21 07 58.9	
	comp=Z,659nm,19.5s,MS4.5,baz=191,slow=40						
ULN	**Ulaanbaatar**	39.54	15	eP	P	**20 49 22.5**	**-1.1**
ULN				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.7						
ULN	**Ulaanbaatar**	39.54	15	eP	P	**20 49 22.5**	**-1.1**
	comp=Z,14nm,0.9s,mb4.7						
ZAK	**Zakamensk**	41.13	10	eP	P	**20 49 38.6**	**+1.9**
MOY	**Mondy**	42.05	7	eP	P	**20 49 46.3**	**+2.1**
TLY	**Talaya**	42.45	10	eP	P	**20 49 45.8**	**-1.7**
TLY				pmax	pmax		
	comp=Z,13nm,1.7s,mb4.3						
ZAL	**Zalesovo**	44.33	353	P	P	**20 50 02.2**	**-0.5**
	comp=Z,2.3nm,0.4s,mb4.2,baz=224,slow=6.1,SNR=8.7						
BVAR	**Borovoye Array**	46.67	341	P	P	**20 50 20.1**	**-1.1**
	comp=Z,2.4nm,0.5s,mb4.4,baz=135,slow=8.4,SNR=23						
BRVK	**Borovoye**	46.73	341	eP	P	**20 50 21.3**	**-0.4**
BRVK				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
BRVK	**Borovoye**	46.73	341	eP	P	**20 50 21.3**	**-0.5**
	comp=Z,14nm,0.8s,mb4.9						
CHKZ	**Chkalovo**	47.15	342	eP	P	**20 50 24.4**	**-0.7**
CHKZ				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
CHKZ	**Chkalovo**	47.15	342	eP	P	**20 50 24.4**	**-0.7**
	comp=Z,23nm,0.7s,mb5.2						
NWAO	**Narrogin (SRO)**	48.49	153	P	P	**20 50 34.8**	**-1.1**
	comp=Z,10nm,0.9s,mb4.9,baz=227,slow=23,SNR=5.8						
WRA	**Warramunga Arr**	50.32	126	P	P	**20 50 49.2**	**-0.9**
	comp=Z,9.5nm,0.5s,mb5.0,baz=307,slow=8.5,SNR=79						
WRA				ScP		20 56 00.8	
	comp=Z,1.6nm,0.8s,baz=318,slow=4.1,SNR=6.9						
WRAB	**Tennant Creek**	50.33	126	eP	P	**20 50 49.7**	**-0.4**
WRAB				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
WRAB	**Tennant Creek**	50.33	126	eP	P	**20 50 49.6**	**-0.5**
	comp=Z,23nm,0.6s,mb5.4						
BOD	**Bodaibo**	50.35	14	eP	P	**20 50 48.5**	**-1.2**
ASAR	**Alice Springs**	52.05	131	P	P	**20 51 02.2**	**-1.0**
	comp=Z,20nm,1.0s,mb5.0,baz=305,slow=6.7,SNR=63						
ASAR				PcP	PcP	20 52 16.2	+1.2
	comp=Z,4.5nm,0.8s,baz=304,slow=3.4,SNR=8.2						
ASAR				ScP		20 56 08.9	
	comp=Z,1.7nm,0.8s,baz=301,slow=4.4,SNR=6.3						
GNI	**Garni**	52.24	314	P	P	**20 51 05.6**	**+1.3**
	comp=Z,4.7nm,0.9s,mb4.4,baz=33,slow=4.0,SNR=4.5						
TI2	**Plekhanov**	52.83	315	i P	pP	20 51 18.8	+0.7
SVE	**Sverdlovsk**	53.07	338	⇓eP	pP	20 51 17.0	-2.7
SVE				pmax	pmax		
	comp=Z,100nm,1.5s,mb5.5						
ARU	**Arti**	53.55	337	eP	P	**20 51 12.1**	**-1.7**
ARU				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
ARU	**Arti**	53.55	337	eP	P	**20 51 12.1**	**-1.7**
	comp=Z,32nm,1.1s,mb5.2						
ZEI	**Tsey**	53.81	316	eP	sP	20 51 25.9	-3.0
ZEI				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
KIV	**Kislovodsk**	55.08	317	P	P	**20 51 27.3**	**+2.1**
	comp=Z,204nm,1.1s,mb6.1,SNR=9.1						
KIV	**Kislovodsk**	55.08	317	eP	P	**20 51 25.7**	**+0.5**
KIV				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.3						
KIV	**Kislovodsk**	55.08	317	eP	P	**20 51 25.7**	**+0.5**
	comp=Z,29nm,0.9s,mb5.3						
GOF	**Gofitskoye**	55.27	319	eP	pP	20 51 35.0	-1.0
YSS	**Yuzh-Sakhalins**	55.77	39	eP	P	**20 51 29.8**	**-0.3**
MALT	**Malatya**	56.33	310	eP	pP	20 51 40.4	-3.4
MALT				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.8						
MALT	**Malatya**	56.33	310	eP	pP	20 51 40.4	-3.4
	comp=Z,13nm,1.3s						
KMBO	**Kilima Mbogo**	56.68	262	P	P	**20 51 38.8**	**+1.6**
	comp=Z,2.6nm,0.9s,mb4.2,baz=52,slow=24,SNR=4.7						
KMBO				LR	LR	21 14 35.8	
	comp=Z,209nm,18.8s,MS4.3,baz=91,slow=34						
PMG	**Port Moresby**	57.14	108	eP	P	**20 51 41.1**	**+0.7**
PMG				pmax	pmax		
	comp=Z,15nm,0.7s						
PMG	**Port Moresby**	57.14	108	P	P	**20 51 41.2**	**+0.8**
	comp=Z,15nm,0.7s,mb5.1,baz=315,slow=7.7,SNR=7.1						
PMG	**Port Moresby**	57.14	108	eP	P	**20 51 41.0**	**+0.7**
	comp=Z,15nm,0.7s,mb5.1						
EIL	**Elat**	57.51	299	LR	LR	21 17 51.7	
	comp=Z,116nm,18.3s,MS4.0,baz=276,slow=39						
YAK	**Yakutsk**	58.33	19	eP	P	**20 51 45.7**	**-2.4**
YAK				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.3						
YAK	**Yakutsk**	58.33	19	eP	P	**20 51 45.6**	**-2.4**
	comp=Z,21nm,0.7s,mb5.3						
CSS	**Prodhromos**	59.63	305	P	P	**20 51 59.5**	**+2.0**
	comp=Z,5.2nm,0.8s,mb4.6						
VRSR	**Storozhevoye**	60.07	324	eP	P	**20 51 59.5**	**-0.8**
VRSR				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
VRSR				pmax	pmax		
	comp=N,5.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,9.0nm,0.9s						
CTA	**Charters Tower**	60.23	120	P	P	**20 52 00.6**	**-1.2**
	comp=E,5.9nm,0.8s,mb4.7,baz=347,slow=7.3,SNR=5.8						
CTA				PcP	PcP	20 52 47.5	+0.8
	comp=E,5.5nm,0.7s,baz=250,slow=5.8,SNR=3.7						
BRTR	**Keskin Array B**	60.29	310	P	P	**20 52 00.9**	**-1.0**
	comp=E,1.6nm,0.8s,mb4.1,baz=114,slow=6.4,SNR=5.6						
STKA	**Stephens Creek**	62.30	134	P	P	**20 52 15.2**	**-0.5**
	comp=E,23nm,0.7s,mb5.4,baz=311,slow=7.4,SNR=31						
STKA	**Stephens Creek**	62.30	134	eP	P	**20 52 15.8**	**+0.2**
ISP	**Isparta**	62.34	307	eP	P	**20 52 18.1**	**+2.3**
MOS	**Moscow**	62.75	328	⇑iP	sP	20 52 27.8	-3.5
MOS				pmax	pmax		
	comp=Z,127nm,1.3s,mb5.9						
MBAR	**Mbarara**	62.94	264	eP	P	**20 52 17.6**	**-2.5**
OBN	**Obninsk**	63.05	327	c iP	P	**20 52 19.4**	**-0.9**
OBN				i	pP	20 52 29.7	-0.2
OBN				pmax	pmax		
	comp=Z,32nm,1.8s,mb5.2						
OBN	**Obninsk**	63.05	327	P	P	**20 52 19.7**	**-0.6**
	comp=Z,30nm,0.7s,mb5.5						
TIXI	**Tiksi**	65.37	12	⇑iP	P	**20 52 32.1**	**-3.0**
TIXI				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.5						
TIXI				MLR	MLR		
	comp=Z,1μm,13.0s,MS5.3						
AKASG	**Malin Array Be**	65.87	321	P	P	**20 52 36.4**	**-2.2**
	comp=Z,6.6nm,1.1s,mb4.6,baz=87,slow=5.4,SNR=12						
MLR	**Muntele Rosu**	66.95	315	P	P	**20 52 45.7**	**0.0**
	comp=Z,4.3nm,0.8s,mb4.5,baz=202,slow=4.1,SNR=6.4						
LSZ	**Lusaka**	69.03	249	eP	P	**20 52 58.9**	**-0.2**
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LSZ	**Lusaka**	69.03	249	eP	P	**20 52 58.9**	**-0.3**
	comp=Z,4.2nm,0.8s,mb4.4						
KWP	**Kalwaria**	69.77	319	eP	pP	20 53 13.0	+0.4
KOLS	**Kolonicke sedl**	69.95	318	i pP	pP	20 53 14.2	+0.4
SUW	**Suwalki**	70.20	324	eP	P	**20 53 10.0**	**+4.4**
SUW				e		20 53 14.6	
FINES	**FINESS Array B**	70.37	332	P	P	**20 53 05.4**	**-1.1**
	comp=Z,2.4nm,0.9s,mb4.1,baz=90,slow=7.6,SNR=8.3						
CRVS	**Cervenica-Dubn**	70.48	318	eP	P	**20 53 11.7**	**+4.3**
CRVS				e		20 53 18.6	
CRVS	**Cervenica-Dubn**	70.48	318	e	P	**20 53 11.7**	**+4.3**
CRVS				epP	pP	20 53 18.6	+1.6
NIE	**Niedzica**	71.29	319	eP	P	**20 53 17.5**	**+5.2**
PSZ	**Piszkesteto**	71.40	317	P	P	**20 53 13.4**	**+0.4**
PSZ				e	pP	20 53 22.9	+0.3
PSZ				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
PSZ	**Piszkesteto**	71.40	317	P	P	**20 53 13.4**	**+0.4**
	comp=Z,8.4nm,0.8s,mb4.7						
PSZ				e	pP	20 53 22.9	+0.3
VYHS	**Vyhne**	72.16	318	epP	pP	20 53 26.8	-0.4
SRO2	**Moca**	72.39	317	e	pP	20 53 26.3	-2.3
SRO	**Srobarova**	72.45	317	epP	pP	20 53 28.9	0.0
OKC	**Ostrava-Krasne**	72.73	319	eP	P	**20 53 22.6**	**+1.7**
OKC				epP	pP	20 53 30.8	+0.3
ARCES	**ARCESS Array B**	72.94	340	P	P	**20 53 21.8**	**+0.1**
	comp=Z,4.8nm,0.9s,mb4.4,baz=90,slow=7.3,SNR=6.5						
SMOL	**Smolenice**	73.09	318	eP	pP	20 53 34.0	+1.3
SMOL	**Smolenice**	73.09	318	epP	pP	20 53 34.0	+1.3
ZST	**Bratislava**	73.29	317	epP	pP	20 53 33.9	+0.1
DPC	**Dobruska-Polom**	73.94	320	eP	P	**20 53 26.6**	**-1.3**
DPC				epP	pP	20 53 38.8	+1.2
KSP	**Ksiaz**	73.99	320	eP	pP	20 53 37.8	0.0
UPC	**Upice**	74.15	320	eP	P	**20 53 34.5**	**+5.4**
UPC				epP	pP	20 53 40.3	+1.5
LBTB	**Lobatse**	74.38	241	⇑eP	P	**20 53 32.4**	**+1.5**
LBTB				e	pP	20 53 43.4	+2.8
LBTB				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
LBTB	**Lobatse**	74.38	241	⇑eP	P	**20 53 32.4**	**+1.5**
	comp=Z,12nm,0.8s,mb4.9						
LBTB				e	pP	20 53 43.4	+2.8
BILL	**Bilibino**	74.51	22	eP	P	**20 53 29.4**	**-1.4**
BILL				pmax	pmax		
	comp=Z,13nm,1.9s,mb4.5						
PRU	**Pruhonice**	75.06	319	eP	pP	20 53 39.7	-4.4
BRG	**Berggiesshubel**	75.48	320	eP	pP	20 53 43.1	-3.4
BRG				i		20 53 47.4	
BRG				e		20 54 01.4	
BRG				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.1						
GERES	**GERESS Array B**	75.58	318	P	P	**20 53 36.9**	**-0.5**
	comp=Z,2.8nm,0.7s,mb4.3,baz=90,slow=5.3,SNR=18						
KHC	**Kasperske Hory**	75.67	318	eP	P	**20 53 36.0**	**-1.8**
KHC				pP	pP	20 53 48.0	+0.4
BOSA	**Boshof**	75.86	237	eP	P	**20 53 40.3**	**+0.9**
BOSA				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
BOSA	**Boshof**	75.86	237	eP	P	**20 53 40.3**	**+0.9**
	comp=Z,15nm,0.9s,mb4.9						
CLL	**Collm**	76.09	320	i P	pP	20 53 50.2	+0.3
CLL				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.0						
CLL	**Collm**	76.09	320	i P	pP	20 53 50.2	+0.3
	comp=Z,29nm,1.4s						
CLL	**Collm**	76.09	320	i *PP	pP	20 53 50.2	+0.3
HFS	**Hagfors**	76.12	330	P	P	**20 53 39.0**	**-1.2**
	comp=Z,1.5nm,0.4s,mb4.3,baz=104,slow=6.1,SNR=8.5						
NB2	**NORSAR Subarra**	77.39	330	P	P	**20 53 47.3**	**0.0**
	comp=Z,30nm,1.7s,mb5.0,baz=93,slow=5.6						
NB2	**NORSAR Subarra**	77.39	330	P	P	**20 53 47.3**	**0.0**
	baz=92,slow=5.9						
NB2	**NORSAR Subarra**	77.39	330	P	P	**20 53 47.3**	**0.0**
NB2				pmax	pmax		
	comp=Z,31nm,1.7s,mb5.0						
NOA	**NORSAR Array B**	77.39	330	P	P	**20 53 47.7**	**+0.4**
	comp=Z,0.7nm,0.7s,mb3.7,baz=85,slow=8.3,SNR=2.9						
DAVOX	**Davos**	78.17	316	P	P	**20 53 53.7**	**+1.9**
	comp=Z,4.1nm,0.8s,mb4.4,baz=99,slow=13,SNR=6.6						
LPG	**La Plagne**	80.41	315	eP	P	**20 54 03.8**	**-0.2**
	comp=Z,47nm,0.9s,mb5.1						
LPG	**La Plagne**	80.41	315	eP	P	**20 54 03.8**	**-0.2**
LPG				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
EKA	**Eskdalemuir Ar**	85.41	325	P	P	**20 54 30.6**	**+1.2**
	comp=Z,3.8nm,1.1s,mb4.5,baz=45,slow=1.2,SNR=3.6						
RPZ	**Rata Peaks**	88.26	135	LR	LR	21 32 13.9	
	comp=Z,279nm,19.5s,MS4.7,baz=131,slow=34						
ESDC	**Sonseca Array**	89.08	310	P	P	**20 54 49.4**	**+1.8**
	comp=Z,0.7nm,0.7s,mb4.1,baz=65,slow=4.3,SNR=3.8						
ILAR	**Eielson Array**	93.17	22	P	P	**20 55 06.6**	**+0.7**
	comp=Z,1.6nm,0.7s,mb4.5,baz=299,slow=4.0,SNR=18						
SLKM	**Skilak Lake**	93.95	26	P	P	**20 55 11.6**	**+2.0**
VNDA	**Vanda**	95.20	168	P	P	**20 55 18.1**	**+3.1**
	comp=Z,0.6nm,0.6s,mb4.2,baz=299,slow=7.8,SNR=3.8						
YKA	**Yellowknife Ar**	104.61	13	Pdiff	Pdif	20 55 58.1	+0.7
	comp=Z,0.1nm,0.6s,baz=327,slow=3.9,SNR=5.3						
YKA				PP	PP	21 00 14.8	-4.8
	comp=Z,0.6nm,0.9s,baz=334,slow=8.0,SNR=4.1						
YKA				PKKPbc		21 11 42.8	
	comp=Z,0.3nm,0.8s,baz=155,slow=2.6,SNR=5.6						
PDAR	**Pinedale Array**	123.55	20	PKP	PKPdf	21 00 51.7	-2.0
	comp=Z,0.8nm,0.6s,baz=322,slow=0.6,SNR=7.2						
NVAR	**Mina Array Bea**	123.61	29	PKP	PKPdf	21 00 53.3	-0.7
	comp=Z,1.4nm,0.8s,baz=3.1,slow=1.8,SNR=4.0						
TXAR	**Lajitas Array**	137.69	22	PKP	PKPdf	21 01 18.6	-2.2
	comp=Z,0.4nm,0.5s,baz=191,slow=0.8,SNR=6.1						
LPAZ	**La Paz**	160.70	249	PKP	PKPdf	21 01 58.2	+1.8
	comp=Z,1.1nm,0.9s,baz=63,slow=6.8,SNR=3.6						
LPAZ				PKPab	PKPab	21 02 36.3	+0.8
	comp=Z,1.3nm,0.7s,baz=123,slow=4.2,SNR=6.0						

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*IDC **28** 20:48:20.9±0.5, 4.94N×93.79E, mb4.6/21, mb1 4.7/21, mb1mx4.6/25, mbtmp4.6/21, Error ellipse: s-maj=26.1km s-min=12.8km az=43.0*

*BJI **28** 20:48:23.9, 4.96N×93.76E, h26^{km}, mB5.2, mb4.6*

*NEIC **28** 20:48:25.4±0.5, 4.95N×93.79E, h30^{km}, mb4.8/15, Error ellipse: s-maj=13.8km s-min=11.2km az=211.0*

ISC 28 20:48:23.8±0.4**, 4.86N**±0.06×**93.79E**±0.06**, h33^{km}, n78, σ0^{s}77**/72**, mb4.6**/44**, 4C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	14.42	20	eP	P	**20 51 53.9**	**+6.1**
CMAR	**Chiang Mai Arr**	14.42	20	Pn	P	**20 51 48.8**	**+1.0**
	0.1nm,0.3s,baz=216,slow=13,SNR=11						
CHG	**Chiang Mai**	14.76	20	⇑P	P	**20 51 57.9**	**+5.8**
	33nm,0.8s						
NANT	**Nan**	15.41	25	P	P	**20 52 06.2**	**+5.6**
SHL	**Shillong**	20.67	355	⇑eP	P	**20 53 02.5**	**-1.1**
SHL				eS	S	**20 56 47.5**	**-0.2**
KMI	**Kunming**	21.91	22	⇑P	P	**20 53 17.5**	**+1.5**
KMI				AMB	AMB		
	comp=Z,25nm,1.2s,mb4.5						
PKI	**Pulchoki**	23.95	341	eP	P	**20 53 36.6**	**+0.4**
DMN	**Daman**	24.09	341	eP	P	**20 53 37.1**	**-0.4**
	comp=Z,18nm,0.7s,mb4.6						
GUN	**Gumba**	24.13	343	eP	P	**20 53 38.3**	**+0.4**
	comp=Z,27nm,0.8s,mb4.8						
KKN	**Kakani**	24.20	341	eP	P	**20 53 38.6**	**0.0**
	comp=Z,29nm,1.0s,mb4.7						
GKN	**Gorkha**	24.61	340	eP	P	**20 53 43.1**	**+0.5**
GYA	**Guiyang**	24.76	28	⇑iP	P	**20 53 44.5**	**+0.5**
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.6						
KOLN	**Koldanda**	24.76	338	eP	P	**20 53 44.7**	**+0.6**
	comp=Z,50nm,0.9s,mb5.0						
LSA	**Lhasa**	24.83	355	⇓eP	P	**20 53 46.2**	**+1.5**
	comp=Z,42nm,0.7s,mb5.1						
CD2	**Chengdu**	27.56	19	P	P	**20 54 09.3**	**-0.7**
CD2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.0						
ENH	**Enshi**	29.30	29	eP	P	**20 54 24.2**	**-1.4**
	comp=Z,11nm,0.8s,mb4.7						
WHN	**Wuhan**	32.07	35	P	P	**20 54 50.5**	**+0.4**
GTA	**Gaotai**	34.83	8	eP	P	**20 55 13.3**	**-0.5**
GTA				AP	pP	20 55 19.3	-4.2
GTA				XP	sP	20 55 22.8	-5.0
GTA				AMB	AMB		
	comp=Z,6.0nm,1.3s,mb4.4						
WMQ	**Urumqi**	39.17	353	P	P	**20 55 51.5**	**+1.2**
WMQ				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.4						
HHC	**Hu-ho-hao-te**	39.23	21	eP	P	**20 55 50.8**	**0.0**
HHC				AP	pP	20 55 57.0	-3.6
HHC				XP	sP	20 56 01.8	-3.0
HHC				PP	PP	20 57 26.8	+1.9
HHC				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.4						
HHC				AMB	AMB		
	comp=Z,131nm,6.2s						
BJT	**Baijiatuau**	40.41	27	P	P	**20 56 01.1**	**+0.5**
	comp=Z,5.0nm,0.5s,mb4.5						
UCH	**Uchtor**	40.98	338	P	P	**20 56 06.3**	**+1.0**
	SNR=8.1						
KBK	**Karagaybulak**	41.19	339	P	P	**20 56 08.0**	**+0.9**
	SNR=9.7						
AML	**Almayashu**	41.21	337	P	P	**20 56 08.1**	**+0.9**
	SNR=12						
AAK	**Ala-Archa**	41.34	338	eP	P	**20 56 07.2**	**-1.1**
	comp=Z,7.0nm,0.9s,mb4.3						
EKS2	**Erkin-Say**	41.63	338	P	P	**20 56 11.2**	**+0.5**
	SNR=5.1						
USP	**Ospenovka**	41.88	339	P	P	**20 56 12.8**	**0.0**
	SNR=6.6						
SONM	**Songino Array**	44.16	12	P	P	**20 56 31.2**	**0.0**
	comp=Z,3.0nm,0.8s,mb4.1,baz=191,slow=8.7,SNR=15						
SONM				PcP	PcP	20 58 16.7	+0.4
	comp=Z,2.9nm,0.6s,baz=188,slow=4.1,SNR=10						
ULN	**Ulaanbaatar**	44.34	13	eP	P	**20 56 31.9**	**-0.7**
	comp=Z,1.8nm,0.7s,mb3.9						
WRA	**Warramunga Arr**	46.86	123	P	P	**20 56 53.1**	**+0.1**
	comp=Z,15nm,0.8s,mb5.0,baz=301,slow=9.1,SNR=47						
WRAB	**Tennant Creek**	46.87	123	eP	P	**20 56 53.6**	**+0.5**
	comp=Z,28nm,0.6s,mb5.4						
ASAR	**Alice Springs**	48.31	128	P	P	**20 57 04.5**	**+0.1**
	comp=Z,3.6nm,0.9s,mb4.4,baz=307,slow=7.9,SNR=16						
ASAR				PcP	PcP	20 58 31.2	+0.1
	comp=Z,2.3nm,0.7s,baz=304,slow=3.8,SNR=8.3						
HIA	**Hailar**	49.42	22	eP	P	**20 57 12.1**	**-0.5**
	comp=Z,8.5nm,0.8s,mb4.8						
ZAL	**Zalesovo**	49.47	353	P	P	**20 57 12.4**	**-0.5**
	comp=Z,7.6nm,0.5s,mb5.0,baz=213,slow=5.9,SNR=29						
BVAR	**Borovoye Array**	51.72	342	P	P	**20 57 29.2**	**-0.8**
	comp=Z,4.5nm,0.7s,mb4.5,baz=143,slow=7.4,SNR=25						
BVAR				PcP	PcP	20 58 43.2	-0.1
	comp=Z,3.7nm,1.0s,baz=146,slow=5.3,SNR=4.2						
BRVK	**Borovoye**	51.78	342	eP	P	**20 57 29.2**	**-1.2**
	comp=Z,5.2nm,0.7s,mb4.6						
CHKZ	**Chkalovo**	52.22	343	eP	P	**20 57 32.8**	**-0.9**
	comp=Z,11nm,0.6s,mb5.0						
GNI	**Garni**	56.31	316	P	P	**20 58 03.4**	**-0.5**
	comp=Z,4.5nm,0.9s,mb4.5,baz=346,slow=13,SNR=4.0						
KMBO	**Kilima Mbogo**	56.79	265	P	P	**20 58 08.3**	**+0.6**
	comp=Z,3.3nm,0.9s,mb4.4,baz=49,slow=7.2,SNR=8.7						
KMBO	**Kilima Mbogo**	56.79	265	eP	P	**20 58 07.9**	**+0.2**
	comp=Z,6.9nm,1.0s,mb4.6						
CTA	**Charters Tower**	57.19	118	P	P	**20 58 10.3**	**-0.1**
	comp=Z,13nm,1.1s,mb4.9,baz=319,slow=5.8,SNR=6.1						
CTAO	**Charters Tower**	57.19	118	eP	P	**20 58 10.3**	**-0.1**
	comp=Z,24nm,1.1s,mb5.1						
STKA	**Stephens Creek**	58.32	132	P	P	**20 58 17.9**	**-0.3**
	comp=Z,2.1nm,0.7s,mb4.3,baz=288,slow=17,SNR=6.2						
ARU	**Arti**	58.52	338	eP	P	**20 58 17.9**	**-1.4**
	comp=Z,13nm,1.0s,mb4.9						
TBKS	**Tabuk**	58.98	300	P	P	**20 58 23.7**	**+0.9**
JMQS	**Jabal Moqyreh**	59.69	301	P	P	**20 58 28.5**	**+0.7**
AYUS	**‘Aynunah**	60.07	300	P	P	**20 58 30.9**	**+0.4**

MALT	Malatya	60.16	312	*e*P	P	20 58 30.3	-0.6
	comp=Z,5.5nm,1.0s,mb4.5						
BDAS	Al Bad‘	60.27	300	P	P	20 58 32.4	+0.6
HAQS	Haql	60.54	301	D		20 58 30.1	
EIL	Elat	60.64	301	P	P	20 58 34.8	+0.5
	comp=Z,6.6nm,0.8s,mb4.8,baz=108,slow=7.9,SNR=6.8						
EIL	Elat	60.64	301	*e*P	P	20 58 34.3	0.0
	comp=Z,12nm,0.9s,mb5.0						
BRTR	Keskin Array B	64.14	312	P	P	20 58 56.1	-1.3
	comp=Z,4.3nm,0.9s,mb4.5,baz=129,slow=7.9,SNR=18						
IDI	Anoyia	70.01	306	P	P	20 59 34.5	+0.1
	comp=Z,20nm,0.7s,mb5.2,baz=72,slow=4.6,SNR=13						
AKASG	Malin Array Be	70.30	322	P	P	20 59 33.5	-2.4
	comp=Z,0.6nm,0.4s,mb3.9,baz=90,slow=5.0,SNR=11						
MLR	Muntele Rosu	71.08	316	P	P	20 59 41.1	+0.3
	comp=Z,18nm,0.9s,mb5.0,baz=147,slow=2.5,SNR=26						
KOLS	Kolonicke sedl	74.24	319	*i* P	P	20 59 59.5	+0.1
FINES	FINESS Array B	75.20	333	P	P	21 00 04.1	-0.6
	comp=Z,4.1nm,0.6s,mb4.5,baz=104,slow=7.9,SNR=13						
KAF	Kangasniemi	75.30	333	*e*p	P	21 00 03.4	-1.8
	comp=Z,10nm,0.9s,mb4.8						
VYHS	Vyhne	76.41	319	*i* P	P	21 00 11.5	-0.3
SRO	Srobarova	76.67	318	*e*P	P	21 00 14.0	+0.7
ZST	Bratislava	77.52	318	*e*P	P	21 00 18.2	+0.1
ARCES	ARCESS Array B	77.97	340	P	P	21 00 20.4	+0.3
	comp=Z,4.2nm,0.7s,mb4.5,baz=90,slow=3.6,SNR=9.7						
PRU	Pruhonice	79.38	320	*e*P	P	21 00 28.3	+0.1
GERES	GERESS Array B	79.83	319	P	P	21 00 31.2	+0.5
	comp=Z,4.8nm,0.8s,mb4.5,baz=104,slow=5.5,SNR=33						
KHC	Kasperske Hory	79.94	319	*e*P	P	21 00 30.5	-0.7
CLL	Collm	80.46	321	P	P	21 00 34.0	0.0
HFS	Hagfors	80.87	330	P	P	21 00 35.4	-0.5
	comp=Z,6.0nm,1.0s,mb4.5,baz=112,slow=8.0,SNR=9.3						
NOA	NORSAR Array B	82.17	331	P	P	21 00 42.1	-0.6
	comp=Z,1.3nm,0.8s,mb3.9,baz=123,slow=3.7,SNR=4.0						
DAVOX	Davos	82.31	316	P	P	21 00 44.6	+0.9
	comp=Z,14nm,0.8s,mb5.0,baz=129,slow=14,SNR=24						
EKA	Eskdalemuir Ar	89.99	325	P	P	21 01 21.7	+0.5
	comp=Z,3.1nm,0.8s,mb4.7,baz=117,slow=5.6,SNR=5.2						
ESDC	Sonseca Array	92.88	310	P	P	21 01 35.5	+0.5
	comp=Z,0.4nm,0.7s,mb4.0,baz=45,slow=2.1,SNR=4.5						
YKA	Yellowknife Ar	109.42	14	PP	PP	21 07 17.5	-8.1
	comp=Z,0.9nm,1.1s,baz=332,slow=7.2,SNR=5.0						
ULM	Lac du Bonnet	124.48	8	PKP	PKPdf	21 07 22.4	+2.5
	comp=Z,1.8nm,0.6s,baz=27,slow=4.1,SNR=4.1						
NVAR	Mina Array Bea	127.66	32	PKP	PKPdf	21 07 29.6	+3.2
	comp=Z,0.8nm,0.5s,baz=331,slow=1.5,SNR=5.9						
PDAR	Pinedale Array	128.08	22	PKP	PKPdf	21 07 29.6	+2.5
	comp=Z,1.6nm,0.8s,baz=45,slow=2.1,SNR=13						
TXAR	Lajitas Array	142.09	25	PKP	PKPdf	21 07 57.4	+3.9
	comp=Z,1.0nm,0.7s,baz=180,slow=1.3,SNR=3.9						
LPAZ	La Paz	158.93	236	PKPab	PKPab	21 08 58.8	+1.1
	comp=Z,2.2nm,0.9s,baz=71,slow=6.3,SNR=7.3						

IDC 28 20:50:40.5±1.0**, 8.59N**×**92.63E, mb4.0**/7**, mb1 4.3**/7**, mb1mx4.0**/18**, mbtmp4.0**/7**, MS4.7**/1**, Ms1 4.7**/1**, ms1mx3.1**/30**, Error ellipse: s-maj=99.3km s-min=19.1km az=42.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GTA	Gaotai	31.36	11	PPP	P	20 57 13.8	+8.6
WRA	Warramunga Arr	49.89	125	P	P	20 59 36.2	-2.0
	2.4nm,0.7s,baz=308,slow=8.5,SNR=9.2						
ASAR	Alice Springs	51.52	129	P	P	20 59 48.0	-2.5
	1.8nm,0.7s,baz=305,slow=6.9,SNR=6.2						
BRTR	Keskin Array B	60.83	311	P	P	21 00 54.4	-2.7
	1.1nm,0.9s,baz=117,slow=6.4,SNR=3.5						
STKA	Stephens Creek	61.68	133	P	P	21 01 01.0	-2.0
	1.8nm,0.7s,baz=316,slow=11,SNR=4.3						
MLR	Muntele Rosu	67.62	316	P	P	21 01 40.1	-1.3
	2.9nm,0.9s,baz=183,slow=17,SNR=3.3						
GERES	GERESS Array B	76.30	318	P	P	21 02 31.6	-1.5
	0.7nm,0.8s,baz=72,slow=3.1,SNR=3.5						
ILAR	Eielson Array	94.65	22	P	P	21 04 03.1	-1.3
	0.3nm,0.6s,baz=285,slow=3.6,SNR=4.7						

*IDC **28** 20:54:34.3±0.8, 12.86N×92.29E, mb4.0/11, mb1 4.2/11, mb1mx4.1/18, mbtmp4.0/11, Error ellipse: s-maj=43.9km s-min=17.0km az=51.0*

ISC 28 20:54:36.7±0.8**, 12.7N**±0.1×**92.18E**±0.09**, h33^{km}, n13, σ1^{s}00**/14**, mb4.0**/12**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.67	48	Pn	P	20 56 43.3	+0.7
	0.1nm,0.3s,baz=240,slow=15,SNR=3.1						
CMAR				Sn	Sn	20 58 20.4	-0.1
	0.4nm,0.3s,baz=237,slow=30,SNR=5.3						
SONM	Songino Array	36.98	16	P	P	21 01 44.6	-0.1
	1.5nm,1.1s,mb3.8,baz=209,slow=6.1,SNR=5.2						
ZAL	Zalesovo	41.54	353	P	P	21 02 21.1	-1.4
	1.3nm,0.4s,mb3.9,baz=186,slow=6.6,SNR=5.8						
BVAR	Borovoye Array	43.81	341	P	P	21 02 41.0	-0.2
	0.6nm,0.6s,mb3.5,baz=127,slow=7.4,SNR=4.7						
WRA	Warramunga Arr	52.68	127	P	P	21 03 50.3	-0.1
	0.8nm,0.8s,mb3.7,baz=309,slow=7.6,SNR=6.6						
WRA				PcP	PcP	21 05 01.4	+1.4
	0.6nm,0.6s,baz=322,slow=3.2,SNR=7.3						
ASAR	Alice Springs	54.52	131	P	P	21 04 03.7	-0.3
	0.7nm,0.8s,mb3.7,baz=311,slow=6.9,SNR=5.4						
ASAR				PcP	PcP	21 05 08.6	+1.6
	0.5nm,1.0s,baz=344,slow=4.3,SNR=4.8						
BRTR	Keskin Array B	57.86	309	P	P	21 04 26.8	-0.9
	1.7nm,0.7s,mb4.2,baz=107,slow=8.2,SNR=10						
AKASG	Malin Array Be	63.20	321	P	P	21 05 01.4	-2.5
	0.8nm,0.5s,mb4.1,baz=86,slow=5.9,SNR=6.0						
MLR	Muntele Rosu	64.40	314	P	P	21 05 13.5	+1.7
	5.0nm,0.9s,mb4.6,baz=44,slow=0.8,SNR=7.8						
FINES	FINESS Array B	67.56	332	P	P	21 05 31.7	0.0
	1.8nm,0.6s,mb4.3,baz=117,slow=4.3,SNR=11						
ARCES	ARCESS Array B	70.09	340	P	P	21 05 47.9	+0.8
	4.4nm,0.9s,mb4.4,baz=90,slow=9.0,SNR=4.6						
GERES	GERESS Array B	72.97	317	P	P	21 06 06.4	+1.6
	0.9nm,0.6s,mb3.9,baz=76,slow=5.5,SNR=10.0						
NOA	NORSAR Array B	74.60	330	P	P	21 06 14.2	+0.3
	0.8nm,0.8s,mb3.7,baz=96,slow=5.6,SNR=2.7						

*IDC **28** 20:58:30.1±0.5, 9.14N×93.76E, mb4.4/24, mb1 4.5/24, mb1mx4.5/29, mbtmp4.4/24, MS3.5/1, Ms1 3.7/1, ms1mx3.0/29, Error ellipse: s-maj=24.4km s-min=11.7km az=44.0*

*NEIC **28** 20:58:33.8±1.1, 9.21N×94.03E, h30^{km}, mb4.7/13, Error ellipse: s-maj=28.7km s-min=16.2km az=109.0*

*BJI **28** 20:58:35.2, 8.83N×93.51E, h60^{km}, mB5.2, mb4.5*

ISC 28 20:58:33.5±0.4**, 9.08N**±0.06×**93.79E**±0.07**, h33^{km}, n77, σ1^{s}05**/76**, mb4.6**/42**, 1C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.58	28	Pn	P	21 01 08.6	+2.6
	0.5nm,0.3s,baz=211,slow=14,SNR=18						
CMAR				LR	LR	21 05 08.7	
	comp=Z,214nm,18.1s,baz=205,slow=38						
SHL	Shillong	16.50	354	*e*P	P	21 02 26.0	+1.9
HYB	Hyderabad	16.98	301	*e*P	P	21 02 31.0	+0.9
HYB	Hyderabad	16.98	301	*i* P	P	21 02 31.0	+0.9
KMI	Kunming	18.09	27	⇓P	P	21 02 48.5	+4.4
KMI				AMB	AMB		
	comp=Z,25nm,1.2s						
KMI				AMB	AMB		
	comp=Z,253nm,5.5s						
PKI	Pulchoki	20.02	338	*e*P	P	21 03 06.0	-0.4
	comp=Z,86nm,1.0s						
GUN	Gumba	20.16	339	*e*P	P	21 03 07.6	-0.3
	comp=Z,88nm,0.7s						
DMN	Daman	20.17	337	*e*P	P	21 03 07.8	-0.2
	comp=Z,49nm,0.8s						
KKN	Kakani	20.27	338	*e*P	P	21 03 08.8	-0.2
LSA	Lhasa	20.66	353	⇓*e*P	P	21 03 12.1	-1.0
	comp=Z,20nm,0.5s						
GKN	Gorkha	20.71	337	*e*P	P	21 03 13.1	-0.5
	comp=Z,91nm,0.6s						
KOLN	Koldanda	20.93	334	*e*P	P	21 03 15.3	-0.5
	comp=Z,62nm,0.7s						
GYA	Guiyang	21.16	34	⇑*i*P	P	21 03 20.5	+2.3
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.5						
CD2	Chengdu	23.63	22	P	P	21 03 45.0	+2.4
CD2				AMB	AMB		
	comp=Z,10.0nm,0.4s,mb4.6						
GTA	Gaotai	30.68	9	*e*P	P	21 04 47.5	+0.1
GTA				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.4						
KSH	Kashi	34.24	335	P	P	21 05 18.5	+0.1
KSH				*e*PP	PP	21 06 30.0	-3.7
KSH				*e*PCP	PcP	21 07 57.8	+3.1
KSH				AMB	AMB		
	comp=Z,320nm,9.1s						
UCH	Uchtor	37.12	336	P	P	21 05 43.5	+0.7
	SNR=5.7						
KBK	Karagaybulak	37.31	337	P	P	21 05 45.2	+0.8
	SNR=14						
AML	Almayashu	37.37	335	P	P	21 05 45.9	+0.9
	SNR=18						
AAK	Ala-Archa	37.47	336	P	P	21 05 46.9	+1.1
	SNR=5.5						
AAK	Ala-Archa	37.47	336	*e*P	P	21 05 45.0	-0.7
	comp=Z,21nm,1.0s,mb4.9						
CHMS	Chumysh	37.68	337	P	P	21 05 47.4	-0.1
	SNR=5.5						
EKS2	Erkin-Say	37.78	336	P	P	21 05 49.1	+0.8
	SNR=7.6						
USP	Ospenovka	38.00	337	P	P	21 05 50.2	+0.1
	SNR=7.7						
SONM	Songino Array	40.08	13	P	P	21 06 07.8	+0.5
	comp=Z,1.6nm,0.8s,mb3.8,baz=193,slow=10,SNR=11						
SONM				PcP	PcP	21 08 12.3	-0.1
	comp=Z,1.7nm,0.7s,baz=198,slow=3.9,SNR=11						
ZAL	Zalesovo	45.32	353	P	P	21 06 49.9	-0.1
	comp=Z,3.5nm,0.6s,mb4.3,baz=218,slow=5.7,SNR=18						
NWAO	Narrogin (SRO)	47.37	153	P	P	21 07 06.3	-0.2
	comp=Z,7.4nm,0.8s,mb4.7,baz=351,slow=8.9,SNR=10						
RDF	Al-Radifah	47.60	301	*e*P	P	21 07 09.1	+0.7
RDF				AMb	AMB	21 07 11.2	
	comp=Z,90nm,1.1s,mb5.7						
UMR	Umm Al-Rimmam	47.63	302	*e*P	P	21 07 08.7	+0.1
UMR				AMb	AMB	21 07 10.2	
	comp=Z,52nm,1.0s,mb5.5						
BVAR	Borovoye Array	47.74	341	P	P	21 07 07.9	-1.3
	comp=Z,1.0nm,0.5s,mb4.2,baz=141,slow=9.5,SNR=10						
BVAR				PcP	PcP	21 08 38.2	-0.2
	comp=Z,1.2nm,0.6s,baz=180,slow=3.0,SNR=3.9						
BRVK	Borovoye	47.81	341	*e*P	P	21 07 08.6	-1.1
	comp=Z,4.2nm,1.1s,mb4.4						
MIB	Mutribah	48.01	302	*e*P	P	21 07 11.6	0.0
MIB				AMb	AMB	21 07 12.7	
	comp=Z,63nm,0.8s,mb5.7						
RST	Umm Al-Ruwaisa	48.22	302	*e*P	P	21 07 13.2	0.0
RST				AMb	AMB	21 07 14.4	
	comp=Z,36nm,0.6s,mb5.6						
CHKZ	Chkalovo	48.23	342	*e*P	P	21 07 12.0	-0.9
	comp=Z,8.2nm,1.0s,mb4.7						
MZLS	Mizel	48.63	294	P	P	21 07 18.6	+2.1
WRA	Warramunga Arr	49.24	126	P	P	21 07 20.9	-0.3
	comp=Z,2.6nm,0.7s,mb4.4,baz=304,slow=8.9,SNR=23						
WRA				PcP	PcP	21 08 44.1	-0.1
	comp=Z,0.8nm,0.5s,baz=317,slow=2.8,SNR=7.9						
AFFS	‘Afif	50.61	293	P	P	21 07 33.4	+1.8
ASAR	Alice Springs	50.95	130	P	P	21 07 33.1	-1.1
	comp=Z,1.7nm,0.7s,mb4.1,baz=306,slow=7.0,SNR=10.0						
ASAR				PcP	PcP	21 08 50.6	+0.2
	comp=Z,0.9nm,0.6s,baz=310,slow=3.2,SNR=7.5						
HILS	Ha’il	52.23	298	P	P	21 07 45.3	+1.5
GNI	Garni	53.35	314	P	P	21 07 52.7	+0.7
	comp=Z,2.0nm,0.4s,mb4.4,baz=17,slow=5.4,SNR=4.4						
ARU	Arti	54.65	337	*e*P	P	21 07 59.4	-1.9
	comp=Z,4.6nm,1.0s,mb4.5						
KIV	Kislovodsk	56.20	317	*e*P	P	21 08 11.9	-0.8
	comp=Z,11nm,0.8s,mb4.9						
PMG	Port Moresby	56.22	108	P	P	21 08 13.5	+0.3
	comp=Z,11nm,0.7s,mb5.0,baz=258,slow=5.6,SNR=5.8						
TBKS	Tabuk	56.95	298	P	P	21 08 19.4	+1.1
KMBO	Kilima Mbogo	57.22	263	P	P	21 08 21.6	+1.2
	comp=Z,1.7nm,0.7s,mb4.2,baz=61,slow=14,SNR=5.4						
ASF	Jabal al Asfar	57.28	302	P	P	21 08 21.1	+0.5
	comp=Z,1.4nm,0.3s,mb4.4,baz=290,slow=0.8,SNR=4.7						
JMQS	Jabal Moqyreh	57.62	298	P	P	21 08 23.7	+0.7
AYUS	‘Aynunah	58.07	297	P	P	21 08 26.8	+0.7
BDAS	Al Bad‘	58.24	298	P	P	21 08 27.8	+0.5
EIL	Elat	58.53	299	P	P	21 08 29.3	0.0
	comp=Z,5.6nm,0.7s,mb4.7,baz=145,slow=3.9,SNR=7.9						
CTA	Charters Tower	59.20	120	P	P	21 08 34.5	+0.4
	comp=Z,7.3nm,1.0s,mb4.7,baz=303,slow=9.8,SNR=4.4						
BRTR	Keskin Array B	61.38	310	P	P	21 08 46.9	-1.9
	comp=Z,5.7nm,0.7s,mb4.8,baz=125,slow=7.4,SNR=27						
AKASG	Malin Array Be	67.00	321	P	P	21 09 22.9	-2.2
	comp=Z,3.7nm,0.8s,mb4.5,baz=88,slow=5.5,SNR=14						
IDI	Anoyia	67.60	304	P	P	21 09 28.2	-1.0
	comp=Z,11nm,0.8s,mb4.9,baz=78,slow=8.3,SNR=5.3						
MLR	Muntele Rosu	68.07	315	P	P	21 09 31.4	-0.6
	comp=Z,7.7nm,0.8s,mb4.8,baz=158,slow=5.7,SNR=12						
LSZ	Lusaka	69.34	250	P	P	21 09 41.5	+1.2
	comp=Z,15nm,1.5s,mb4.7						
KOLS	Kolonicke sedl	71.07	319	*e*P	P	21 09 47.8	-2.5
SUW	Suwalki	71.33	324	P	P	21 09 50.0	-1.8
FINES	FINESS Array B	71.49	332	P	P	21 09 51.9	-0.7
	comp=Z,1.8nm,0.6s,mb4.2,baz=97,slow=6.6,SNR=25						
KAF	Kangasniemi	71.57	333	*e*p	P	21 09 51.2	-1.8
	comp=Z,0.6nm,0.4s,mb3.9						
OJC	Ojcow	72.83	320	*e*P	P	21 10 00.0	-0.7
KEV	Kevo	73.59	341	*e*p	P	21 10 02.2	-2.6
	comp=Z,0.5nm,0.4s,mb3.8						
ARCES	ARCESS Array B	74.02	340	P	P	21 10 07.4	+0.1
	comp=Z,2.7nm,0.6s,mb4.3,baz=101,slow=7.2,SNR=22						
MORC	Moravsky Berou	74.24	319	*e*P	P	21 10 08.2	-0.7
LBTB	Lobatse	74.51	241	*e*P	P	21 10 12.6	+1.5
	comp=Z,17nm,1.2s,mb4.8						
DPC	Dobruska-Polom	75.07	320	*e*P	P	21 10 13.7	0.0
DPC				*e*pP	pP	21 10 20.2	-3.8
BRG	Berggiesshubel	76.61	320	*e*P	P	21 10 22.5	0.0
	comp=Z,7.8nm,1.3s,mb4.5						
BRG				*e*		21 10 28.6	
GERES	GERESS Array B	76.70	318	P	P	21 10 23.1	0.0
	comp=Z,3.9nm,0.7s,mb4.5,baz=90,slow=5.3,SNR=36						
KHC	Kasperske Hory	76.79	318	*e*P	P	21 10 23.3	-0.3
KHC				*e*pP	pP	21 10 29.9	-4.0
NB2	NORSAR Subarra	78.52	330	P	P	21 10 31.9	-1.0
	comp=Z,1.7nm,0.6s,mb4.2,baz=96,slow=5.0						
NOA	NORSAR Array B	78.52	330	P	P	21 10 32.1	-0.8
	comp=Z,2.2nm,0.7s,mb4.2,baz=93,slow=5.6,SNR=5.7						
DAVOX	Davos	79.29	316	P	P	21 10 36.3	-1.1
	comp=Z,4.3nm,0.8s,mb4.4,baz=91,slow=4.9,SNR=7.6						
STU	Stuttgart	79.68	318	P	P	21 10 39.6	+0.1
	comp=Z,9.7nm,0.8s,mb4.8						
EKA	Eskdalemuir Ar	86.54	325	P	P	21 11 14.8	+0.5
	comp=Z,3.0nm,0.7s,mb4.6,baz=95,slow=5.4,SNR=8.7						
ESDC	Sonseca Array	90.18	310	P	P	21 11 30.8	-1.2
	comp=Z,0.9nm,0.7s,mb4.2,baz=77,slow=4.2,SNR=3.6						
INK	Inuvik	95.94	16	P	P	21 11 58.4	+0.6
	comp=Z,3.0nm,0.8s,mb4.8,baz=338,slow=4.7,SNR=11						
LPAZ	La Paz	160.97	246	PKPab	PKPab	21 19 16.8	+0.7
	comp=Z,0.6nm,0.5s,baz=130,slow=1.4,SNR=3.7						

*ORF **28** 21:07:12.0, 52.97N×173.20W, h30^{km}, mb5.6*

*BJI **28** 21:07:33.3, 53.35N×173.92W, h241^{km}, mB4.9, mb5.0*

*MOS **28** 21:07:34.8±1.0, 53.27N×173.68W, h248^{km}, mb5.3/101, MS4.5/5, Error ellipse: s-maj=7.7km s-min=4.1km az=88.1*

*SYO **28** 21:07:35.8, 53.28N×173.83W, h251^{km}, MB5.4*

*NEIC **28** 21:07:36.2±0.1, 53.22N×173.80W, mb5.3/158, MW5.8, Error ellipse: s-maj=4.1km s-min=2.4km az=186.0, Moment Tensor Solution. s31 Moment tensor: Scale 10^{17} Nm; M_{rr}0.43; $M_{\theta\theta}$-2.91; $M_{\phi\phi}$2.48; $M_{r\theta}$3.38; $M_{\theta\phi}$-3.11; $M_{\phi r}$-1.93; Best double couple: $M_0$5.7×10^{17} NP1:ϕ_s204°, δ47°, λ6°. NP2:ϕ_s110°, δ86°, λ137°. Principal axes: T 5.91, Plg32°, Azm57°; N -.49, Plg47°, Azm285°; P -5.42, Plg25°, Azm165°;*

*HRVD **28** 21:07:36.2±0.2, 53.18N×173.79W, h258^{km}±1^{km}, MW5.8/74, Centroid moment Tensor Solution. LP body waves: s68,c137; Mantle waves: s74,c157; Half duration: 2^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.11±.07; $M_{\theta\theta}$-3.36±.10; $M_{\phi\phi}$3.24±.08; $M_{r\theta}$4.30±.08; $M_{\theta\phi}$-2.88±.07; $M_{\phi r}$-2.09±.08; Best double couple: $M_0$6.48×10^{17} NP1: ϕ_s205°, δ43°, λ1°. NP2:ϕ_s114°, δ89°, λ133°. Principal axes: T 6.53, Plg32°, Azm59°; N -.1, Plg43°, Azm294°; P -6.44, Plg31°, Azm170°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **28** 21:07:36.8±0.5, 53.27N×173.89W, h257^{km}±4^{km}, mb4.9/33, mb1 5.1/35, mb1mx5.1/37, mbtmp5.6/35 Error ellipse: s-maj=8.1km s-min=5.5km az=168.0*

ISC 28 21:07:36.0±0.2**, 53.19N**±0.03×**173.76W**±0.03**, h263**^{km}±2^{km}**, h259**^{km}±2.3^{km}**: pP-P, n664, σ1^{s}02**/660**, mb5.2**/209**, 24C-7D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ATKA	Atka Island	1.02	195	P	P	21 08 12.5	-0.1
ATKA				S	S	21 08 40.3	-1.0
GSTR	Great Sitkin T	1.77	233	P	P	21 08 18.5	+0.6
GSIG	Igitkin Island	1.78	229	P	P	21 08 18.1	+0.1
GSMY	Great Sitkin M	1.81	232	P	P	21 08 18.4	+0.3
GSTD	Great Sitkin T	1.84	233	P	P	21 08 18.8	+0.3
ETKA	Kagalaska Isla	2.09	232	P	P	21 08 20.9	+0.3
ADAG	Mount Adagdak	2.11	236	P	P	21 08 21.1	+0.3
KIKV	Kanaga Island	2.46	239	P	P	21 08 24.6	+0.5
KIWB	Kanaga Island	2.46	239	P	P	21 08 24.6	+0.4
KIMD	Kanaga Island	2.56	238	P	P	21 08 25.0	-0.1
NIKO	Nikolski	2.97	92	P	P	21 08 28.8	-0.5
NIKO				S	S	21 09 08.4	-2.3
OKCE	Okmok Cone E	3.37	84	P	P	21 08 34.0	+0.3
OKCD	Okmok Cone D	3.40	84	P	P	21 08 34.6	+0.6
OKER	East Rim	3.44	83	P	P	21 08 35.0	+0.5
MGOD	Makushin Gods	4.16	79	P	P	21 08 42.8	+0.1
MSW	Makushin Switc	4.23	77	P	P	21 08 43.6	+0.1
MNAT	Makushin Natee	4.28	78	P	P	21 08 44.8	+0.6
MTBL	Makushin Table	4.29	77	P	P	21 08 44.8	+0.5
UNV	Unalaska Valle	4.38	78	P	P	21 08 45.3	-0.1
SPIA	Saint Paul Isl	4.48	25	P	P	21 08 47.2	+0.7
AHB	Akutan Harbor	4.82	76	P	P	21 08 50.6	+0.1
AKA	Akutan	4.85	75	P	P	21 08 51.3	+0.4
WFAR	Faris Peak	5.49	72	P	P	21 08 58.9	+0.2
WESS	West Dahl Sout	5.51	73	P	P	21 08 59.4	+0.4
WESE	West Dahl East	5.59	73	P	P	21 08 59.8	0.0
WESN	West Dahl Nort	5.61	72	P	P	21 09 00.4	+0.3
WTUG	Tugumak	5.77	69	P	P	21 09 02.5	+0.4
SSLW	Shishaldin Wes	5.91	71	P	P	21 09 03.7	-0.1
SSLS	Shishaldin Sou	5.96	71	P	P	21 09 04.6	0.0
SSLN	Shishaldin Nor	5.99	70	P	P	21 09 05.3	+0.5
FALS	False Pass	6.33	71	P	P	21 09 08.9	-0.1
DT1	Dutton Round H	7.01	69	P	P	21 09 17.3	-0.4
DTNA	Dutton South F	7.04	69	P	P	21 09 17.4	-0.6
SMY	Shemya	7.35	271	P	P	21 09 22.0	+0.1
FX1	Attu Island--F	7.89	273	P	P	21 09 28.0	-0.6
	404nm,0.3s,baz=85,slow=8.6,SNR=766						
FX1				S	S	21 10 56.4	-0.7
	783nm,0.3s,baz=95,slow=23,SNR=34						
FX1	Attu Island--F	7.89	273	P	P	21 09 28.5	-0.2
GAMB	Gambell	10.68	5	P	P	21 10 04.6	+1.1
ANM	Nome	12.20	17	P	P	21 10 24.1	+1.6
KDAK	Kodiak Island	12.84	61	*e*P	P	21 10 28.3	-2.2
	2µm,0.4s						
AUL	Augustine Lava	12.85	53	P	P	21 10 32.5	+1.9
TT01	Tatalina	13.48	37	P	P	21 10 39.6	+1.3
RSO	Redoubt South	13.57	49	*e*P	P	21 10 40.1	+0.9
SPU	Mount Spurr	14.18	47	*e*P	P	21 10 48.1	+1.4
SLKM	Skilak Lake	14.76	51	*e*P	P	21 10 51.6	-2.2
FIB	Fire Island	15.01	49	*e*P	P	21 10 55.6	-1.2
PMR	Palmer	15.63	48	*e*P	P	21 11 02.1	-2.0
PMR				pmax	pmax		
	comp=Z,112nm,0.6s						
PMR	Palmer	15.63	48	*e*P	P	21 11 02.1	-2.0
	comp=Z,112nm,0.6s						
SML	Sawmill	16.07	47	*e*P	P	21 11 06.8	-2.1
IMA	Indian Mountai	16.32	30	*e*P	P	21 11 11.9	+0.2
IMA				pmax	pmax		
	comp=Z,891nm,0.9s						
IMA	Indian Mountai	16.32	30	*e*P	P	21 11 11.9	+0.2
	comp=Z,891nm,0.9s						
PET	Petropavlovsk	16.53	281	*e*P	P	21 11 14.2	+0.1
PET				*e*S	S	21 14 11.0	+2.1
PET				pmax	pmax		
	comp=Z,308nm,1.2s						
PET				pmax	pmax		
	comp=Z,500nm,13.5s						
PET				smax			
	comp=E,2µm,11.4s						
PET				smax			
	comp=N,5µm,15.6s						
PET				MLR	MLR		
	comp=Z,2µm,13.0s						
PET	Petropavlovsk	16.53	281	*e*P	P	21 11 13.0	-1.1
	comp=Z,533nm,1.4s						
MCK	McKinley	16.61	41	*e*P	P	21 11 13.3	-1.6
MCK				pmax	pmax		
	comp=Z,238nm,0.4s						
MCK	McKinley	16.61	41	*e*P	P	21 11 13.3	-1.7
	comp=Z,238nm,0.4s						
EYAK	Cordova Ski Ar	16.89	53	*e*P	P	21 11 14.7	-3.2
COLA	College	17.58	38	⇑*i*P	P	21 11 22.2	-2.9
COLA	College	17.58	38	*e*P	P	21 11 22.8	-2.3
	comp=Z,903nm,0.9s						
BILL	Bilibino	17.68	335	*e*P	P	21 11 22.5	-3.7
BILL	Bilibino	17.68	335	*e*P	P	21 11 26.0	-0.2
	comp=Z,490nm,0.7s						
THY	Trims Highway	17.77	44	*e*P	P	21 11 26.9	-0.2
ILAR	Eielson Array	17.89	39	P	P	21 11 25.5	-2.8
	comp=Z,39nm,0.3s,baz=239,slow=9.4,SNR=1701						
ILAR				S	S	21 14 38.5	+2.9
	comp=Z,2.0nm,0.3s,baz=236,slow=18,SNR=3.3						
ILAR				ScP		21 18 56.9	
	comp=Z,1.4nm,0.3s,baz=286,slow=3.5,SNR=13						
MENT	Mentasta	18.47	46	*e*P	P	21 11 34.4	+0.1
SEY	Seymchan	20.15	312	*e*P	P	21 11 50.8	-0.3
SEY				pmax	pmax		
	comp=E,140nm,0.7s						
SEY				pmax	pmax		
	comp=Z,300nm,0.7s						
MA2	Magadan	20.46	302	P	P	21 11 55.6	+1.4
MA2				pmax	pmax		
	comp=Z,170nm,0.8s						
MA2	Magadan	20.46	302	*e*P	P	21 11 54.9	+0.7
	comp=Z,168nm,0.8s						
SIT	Sitka	22.11	64	*e*P	P	21 12 10.8	+0.5
SIT				pmax	pmax		
	comp=Z,233nm,0.7s,mb5.6						
SIT	Sitka	22.11	64	*e*P	P	21 12 10.8	+0.5
	comp=Z,232nm,0.7s,mb5.6						
INK	Inuvik	24.19	36	P	P	21 12 29.7	+0.1
	comp=Z,338nm,0.4s,mb6.0,baz=252,slow=7.8,SNR=611						
INK				PcP	PcP	21 16 01.4	-2.1
	comp=Z,21nm,0.5s,baz=325,slow=2.5,SNR=5.1						
INK				S	S	21 16 28.3	+1.9
	comp=Z,24nm,1.0s,baz=122,slow=19,SNR=2.8						
INK				ScP		21 19 13.1	
	comp=Z,9.4nm,0.7s,baz=184,slow=4.3,SNR=4.8						
DLBC	Dease Lake	24.78	60	P	P	21 12 36.2	+1.2
	comp=Z,36nm,0.5s,mb5.0,baz=267,slow=7.4,SNR=76						
MIDW	Midway	25.09	188	*e*P	P	21 12 35.7	-2.5
	comp=Z,172nm,0.8s,mb5.5						
BBB	Bella Bella	27.34	73	P	P	21 12 59.5	+1.1
	comp=Z,32nm,0.7s,mb4.9,baz=297,slow=11,SNR=9.7						
YSS	Yuzh-Sakhalins	28.24	275	P	P	21 13 02.0	-4.6
YSS				*e*		21 13 47.0	
YSS				*e*S	S	21 17 30.0	-1.9
YSS				*e**SS		21 18 58.0	
YSS				MLR	MLR		
	comp=N,700nm,12.0s						
YSS				MLR	MLR		
	comp=Z,800nm,12.0s						
YSS				MLR	MLR		
	comp=E,1µm,14.0s						
ASAJ	Asahikawa	29.81	270	LR	LR	21 24 16.6	
	comp=E,642nm,19.5s,baz=321,slow=36						
YAK	Yakutsk	30.61	309	*e*P	P	21 13 25.4	-1.9
YAK				*i* *PP	pP	21 14 15.2	-4.0
YAK				*i*		21 16 16.3	
YAK				*e*S	S	21 18 05.7	-3.2
YAK				*i* *SS		21 19 30.3	
YAK				*e*		21 23 27.6	
YAK				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,8.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,35nm,1.2s						
YAK				pmax	pmax		
	comp=N,8.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,33nm,1.0s,mb4.8						
YAK				pmax	pmax		
	comp=E,27nm,1.2s						
YAK				smax			
	comp=E,15nm,1.2s						
YAK	Yakutsk	30.61	309	*e*P	P	21 13 24.8	-2.4
	comp=E,73nm,0.7s,mb5.3						
TIXI	Tiksi	30.65	328	⇓*i*P	P	21 13 26.8	-0.7
TIXI				*e**PP	pP	21 14 18.1	-1.5
TIXI				*e*		21 14 40.3	

TIXI				*e*S	**S**	**21 18 14.2**	**+4.7**
TIXI				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.4						
OBC	**Olympics--Boni**	**31.42**	**79**	P	**P**	**21 13 35.9**	**+1.5**
OCWA	**Octopus Mounta**	**31.50**	**80**	*e*P	**P**	**21 13 36.4**	**+1.3**
	comp=Z,301nm,0.6s,mb6.0						
YKA	**Yellowknife Ar**	**31.73**	**49**	P	**P**	**21 13 36.0**	**-0.9**
	comp=Z,59nm,0.5s,mb5.4,baz=280,slow=8.5,SNR=164						
YKA				ScP		21 19 36.6	
	comp=Z,11nm,0.4s,baz=283,slow=3.4,SNR=24						
YKA				P3KPbc		21 45 03.6	
	comp=Z,0.3nm,0.4s,baz=99,slow=5.2,SNR=9.6						
YKA				P3KP		21 46 10.2	
	comp=Z,1.0nm,1.1s,baz=94,slow=5.3,SNR=4.6						
TTW	**Tolt Reservoir**	**32.99**	**78**	P	**P**	**21 13 48.6**	**+0.6**
KIP	**Kipapa**	**33.93**	**153**	P	**P**	**21 13 58.3**	**+2.1**
KIP				pmax	pmax		
	comp=Z,1µm,1.3s,mb6.2						
KIP	**Kipapa**	**33.93**	**153**	*e*P	**P**	**21 13 57.3**	**+1.0**
	comp=Z,1µm,1.4s,mb6.2						
HON	**Honolulu**	**34.03**	**153**	P	**P**	**21 13 58.7**	**+1.6**
HON	**Honolulu**	**34.03**	**153**	*e*P	**P**	**21 13 57.8**	**+0.7**
BROR	**Big Rock Looko**	**34.33**	**84**	P	**P**	**21 14 00.8**	**+1.4**
WIFE	**Three Sisters-**	**34.83**	**84**	P	**P**	**21 14 05.2**	**+1.7**
HUMO	**Hull Mountain**	**34.97**	**87**	*e*P	**P**	**21 14 05.7**	**+0.9**
	comp=Z,63nm,0.9s,mb5.2						
NEW	**Newport**	**35.38**	**75**	*e*P	**P**	**21 14 07.9**	**-0.3**
NEW				pmax	pmax		
	comp=Z,108nm,0.6s						
NEW	**Newport**	**35.38**	**75**	*e*P	**P**	**21 14 07.9**	**-0.3**
	comp=Z,108nm,0.6s,mb5.5						
KHMM	**Horse Mountain**	**35.53**	**90**	*e*P	**P**	**21 14 10.9**	**+1.4**
YBH	**Yreka Blue Hor**	**35.63**	**88**	P	**P**	**21 14 07.8**	**-2.5**
YBH				pmax	pmax		
	comp=Z,130nm,0.7s						
YBH	**Yreka Blue Hor**	**35.63**	**88**	P	**P**	**21 14 12.5**	**+2.1**
	comp=Z,185nm,0.7s,mb5.7,baz=327,slow=5.1,SNR=233						
YBH				S	**S**	**21 19 32.7**	**+6.1**
	comp=Z,7.0nm,1.3s,baz=159,slow=21,SNR=5.8						
YBH	**Yreka Blue Hor**	**35.63**	**88**	*e*P	**P**	**21 14 12.0**	**+1.7**
	comp=Z,131nm,0.6s,mb5.6						
WDC	**Whiskeytown Da**	**36.43**	**89**	*e*P	**P**	**21 14 18.4**	**+1.3**
WDC				pmax	pmax		
	comp=Z,213nm,1.1s,mb5.6						
WDC	**Whiskeytown Da**	**36.43**	**89**	*e*P	**P**	**21 14 18.4**	**+1.4**
	comp=Z,213nm,1.1s,mb5.6						
MOD	**Modoc**	**36.98**	**86**	*e*P	**P**	**21 14 22.6**	**+1.0**
	comp=Z,124nm,0.6s,mb5.5						
BMO	**Blue Mountains**	**37.07**	**80**	*e*P	**P**	**21 14 22.9**	**+0.5**
	comp=Z,287nm,0.6s,mb5.9						
HOPS	**Hopland**	**37.10**	**92**	*e*P	**P**	**21 14 23.5**	**+0.8**
	comp=Z,251nm,1.0s,mb5.6						
MAJO	**Matsushiro**	**37.10**	**263**	P	**P**	**21 14 21.8**	**-1.0**
MAJO				pmax	pmax		
	comp=Z,33nm,1.1s,mb4.7						
MAJO	**Matsushiro**	**37.10**	**263**	*e*P	**P**	**21 14 20.4**	**-2.4**
	comp=Z,33nm,1.1s,mb4.7						
MAT	**Matsushiro**	**37.10**	**263**	P	**P**	**21 14 21.1**	**-1.7**
MAT				S	**S**	**21 19 57.0**	**+8.0**
MAT	**Matsushiro**	**37.10**	**263**	*e*P	**P**	**21 14 21.0**	**-1.8**
MAT				*e*S	**S**	**21 19 57.0**	**+8.0**
MAT				pmax	pmax		
	comp=Z,40nm,1.4s,mb4.7						
MAT				MLR	MLR		
	comp=Z,1µm,20.0s						
MAT	**Matsushiro**	**37.10**	**263**	*e*P	**P**	**21 14 21.0**	**-1.8**
	comp=Z,40nm,1.4s,mb4.7						
MAT				*e*S	**S**	**21 19 57.0**	**+8.0**
MAT				LR	LR		
	comp=Z,1µm,20.0s						
MDJ	**Mudanjiang**	**37.31**	**280**	P	**P**	**21 14 24.0**	**-0.4**
MDJ				AP	pP	21 15 15.0	-3.1
MDJ				PP	PP	21 15 51.5	-5.3
MDJ				S	**S**	**21 19 49.8**	**-2.3**
MDJ				PCS		21 20 27.8	
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.3s,mb4.1						
MDJ				AMB	AMB		
	comp=Z,165nm,5.6s						
MDJ	**Mudanjiang**	**37.31**	**280**	P	**P**	**21 14 21.6**	**-2.8**
NSHM	**Saint Helena R**	**37.68**	**92**	*e*P	**P**	**21 14 28.8**	**+1.2**
OHCM	**Honcut**	**37.84**	**90**	*e*P	**P**	**21 14 29.3**	**+0.5**
MSO	**Missoula**	**37.97**	**75**	*e*P	**P**	**21 14 28.7**	**-1.2**
	comp=Z,58nm,0.7s,mb5.1						
CHMT	**Chamberlain Mo**	**38.32**	**74**	*e*P	**P**	**21 14 31.9**	**-0.9**
SAC	**San Andreas**	**38.40**	**93**	*e*P	**P**	**21 14 33.5**	**0.0**
PAHR	**Pah Rah Range**	**38.87**	**88**	*e*P	**P**	**21 14 38.6**	**+1.2**
	comp=Z,160nm,1.0s,mb5.4						
WCN	**Washoe City**	**38.90**	**89**	*e*P	**P**	**21 14 38.4**	**+0.8**
WCN				pmax	pmax		
	comp=Z,288nm,1.1s,mb5.6						
WCN	**Washoe City**	**38.90**	**89**	*e*P	**P**	**21 14 38.4**	**+0.8**
	comp=Z,288nm,1.1s,mb5.6						
HRY	**Holter Researc**	**39.26**	**74**	*e*P	**P**	**21 14 40.0**	**-0.4**
CMB	**Columbia Colle**	**39.33**	**91**	P	**P**	**21 14 42.4**	**+1.3**
CMB				S	**S**	**21 20 27.5**	**+5.2**
CMB	**Columbia Colle**	**39.33**	**91**	*e*P	**P**	**21 14 42.1**	**+1.0**
CMB				pmax	pmax		
	comp=Z,163nm,1.0s,mb5.4						
CMB	**Columbia Colle**	**39.33**	**91**	*e*P	**P**	**21 14 42.1**	**+1.0**
	comp=Z,163nm,1.0s,mb5.4						
BOD	**Bodaibo**	**39.38**	**307**	⇓*i*P	**P**	**21 14 40.1**	**-1.2**
HLID	**Hailey**	**39.52**	**79**	*e*P	**P**	**21 14 42.8**	**+0.2**
	comp=Z,116nm,0.6s,mb5.4						
SAO	**San Andreas Ge**	**39.52**	**93**	*e*P	**P**	**21 14 43.6**	**+0.9**
SAO				pmax	pmax		
	comp=Z,84nm,0.7s,mb5.2						
SAO	**San Andreas Ge**	**39.52**	**93**	*e*P	**P**	**21 14 43.6**	**+0.8**
	comp=Z,84nm,0.7s,mb5.2						
MCMT	**McKenzie Canyo**	**39.71**	**77**	*e*P	**P**	**21 14 43.8**	**-0.4**
BMN	**Battle Mountai**	**39.72**	**85**	*e*P	**P**	**21 14 45.0**	**+0.7**
BMN				pmax	pmax		
	comp=Z,97nm,0.6s,mb5.3						
BMN	**Battle Mountai**	**39.72**	**85**	*e*P	**P**	**21 14 45.0**	**+0.7**
	comp=Z,97nm,0.6s,mb5.3						
BOZ	**Bozeman (W)**	**39.96**	**75**	*e*P	**P**	**21 14 45.6**	**-0.6**
BOZ				pmax	pmax		
	comp=Z,105nm,0.6s,mb5.3						
BOZ	**Bozeman (W)**	**39.96**	**75**	*e*P	**P**	**21 14 45.6**	**-0.6**
	comp=Z,105nm,0.6s,mb5.3						
LRV	**Little Rabbit**	**40.01**	**93**	*e*P	**P**	**21 14 48.7**	**+2.0**
CN2	**Changchun**	**40.23**	**282**	⇑P	**P**	**21 14 47.3**	**-1.1**
CN2				*e*S	**S**	**21 20 32.5**	**-3.1**
CN2				SS	SS	21 23 31.3	-7.1
CN2				AMB	AMB		
	comp=Z,30nm,0.9s,mb4.6						
CN2				AMB	AMB		
	comp=Z,300nm,4.0s						
NVAR	**Mina Array Bea**	**40.33**	**89**	P	**P**	**21 14 50.8**	**+1.5**
	comp=Z,70nm,0.5s,mb5.2,baz=300,slow=7.4,SNR=260						
NVAR				ScP		21 20 11.1	
	comp=Z,6.7nm,0.6s,baz=310,slow=5.2,SNR=6.8						
NVAR				S	**S**	**21 20 42.4**	**+5.2**
	comp=Z,2.0nm,0.6s,baz=280,slow=5.5,SNR=2.1						
OMM	**Old Mammoth Mi**	**40.44**	**90**	*e*P	**P**	**21 14 52.1**	**+1.8**
QLMT	**Earthquake Lak**	**40.54**	**76**	*e*P	**P**	**21 14 50.9**	**-0.1**
FFC	**Flin Flon**	**40.57**	**58**	*e*P	**P**	**21 14 49.4**	**-1.7**
FFC				pmax	pmax		
	comp=Z,47nm,0.6s,mb4.9						
FFC	**Flin Flon**	**40.57**	**58**	*e*P	**P**	**21 14 49.4**	**-1.7**
	comp=Z,47nm,0.6s,mb4.9						
ELK	**Elko**	**40.71**	**83**	*e*P	**P**	**21 14 53.2**	**+0.8**
ELK				pmax	pmax		
	comp=Z,193nm,0.7s						
ELK	**Elko**	**40.71**	**83**	*e*P	**P**	**21 14 53.2**	**+0.7**
	comp=Z,193nm,0.7s,mb5.4						
MTUM	**Tungsten Hills**	**40.87**	**90**	*e*P	**P**	**21 14 55.3**	**+1.5**
YMR	**Madison River**	**40.90**	**76**	*e*P	**P**	**21 14 53.7**	**-0.2**
GCMT	**Greycliff**	**41.02**	**74**	*e*P	**P**	**21 14 54.8**	**-0.1**
YNR	**Norris Junctio**	**41.04**	**76**	*e*P	**P**	**21 14 55.9**	**+0.8**
YFT	**Old Faithful**	**41.10**	**76**	*e*P	**P**	**21 14 56.1**	**+0.5**
LKWY	**Lake**	**41.29**	**76**	*e*P	**P**	**21 14 57.7**	**+0.6**
LKWY				pmax	pmax		
	comp=Z,138nm,1.0s,mb5.1						
LKWY	**Lake**	**41.29**	**76**	*e*P	**P**	**21 14 57.7**	**+0.6**
	comp=Z,138nm,1.0s,mb5.1						
IMW	**Indian Meadow**	**41.37**	**77**	*e*P	**P**	**21 14 58.0**	**+0.2**
HVU	**Hansel Valley**	**41.55**	**80**	*e*P	**P**	**21 14 59.7**	**+0.6**
MOOW	**Moose Ponds**	**41.57**	**77**	*e*P	**P**	**21 14 59.1**	**-0.1**
TPAW	**Teton Pass**	**41.60**	**77**	*e*P	**P**	**21 14 60.0**	**+0.4**
WUWY	**Wally Ulrich**	**41.69**	**77**	*e*P	**P**	**21 15 00.2**	**0.0**
LOHW	**Long Hollow**	**41.73**	**77**	*e*P	**P**	**21 15 00.6**	**0.0**
SNOW	**Snow King Moun**	**41.73**	**77**	*e*P	**P**	**21 15 01.2**	**+0.6**
REDW	**Red Top Meadow**	**41.73**	**77**	*e*P	**P**	**21 15 01.0**	**+0.4**
BGU	**Big Grassy Mou**	**41.92**	**82**	*e*P	**P**	**21 15 02.4**	**+0.2**
TRCR	**Troy Canyon**	**42.02**	**87**	*e*P	**P**	**21 15 03.5**	**+0.5**
SPUT	**South Promonto**	**42.03**	**81**	*e*P	**P**	**21 15 03.4**	**+0.3**
DAC	**Darwin (Calif)**	**42.16**	**90**	*e*P	**P**	**21 15 05.4**	**+1.2**
DAC				pmax	pmax		
	comp=Z,150nm,1.0s,mb5.2						
DAC	**Darwin (Calif)**	**42.16**	**90**	*e*P	**P**	**21 15 05.4**	**+1.2**
	comp=Z,150nm,1.0s,mb5.2						
LAO	**LASA Array**	**42.48**	**70**	*e*P	**P**	**21 15 06.2**	**-0.4**
	comp=Z,158nm,0.5s,mb5.5						
DGMT	**Dagmar**	**42.62**	**67**	*e*P	**P**	**21 15 06.6**	**-1.1**
	comp=Z,77nm,0.6s,mb5.1						
NOQ	**North Oquirrh**	**42.63**	**81**	*e*P	**P**	**21 15 08.4**	**+0.5**
CTU	**Camp Tracy**	**42.83**	**81**	*e*P	**P**	**21 15 09.8**	**+0.3**
BW06	**Boulder Array**	**42.85**	**77**	*e*P	**P**	**21 15 09.5**	**-0.1**
	comp=Z,445nm,0.8s,mb5.8						
PDAR	**Pinedale Array**	**42.85**	**77**	P	**P**	**21 15 09.7**	**+0.1**
	comp=Z,237nm,0.6s,mb5.6,baz=302,slow=3.6,SNR=1204						
PDAR				pP	pP	21 16 02.8	-1.5
	comp=Z,30nm,0.9s,baz=304,slow=5.3,SNR=1.8						
PDAR				ScP		21 20 19.6	
	comp=Z,5.8nm,0.9s,baz=100,slow=1.0,SNR=5.2						
PDAR				P3KPbc		21 44 18.2	
	comp=Z,0.3nm,0.6s,baz=113,slow=6.3,SNR=3.5						
NLU	**North Lily Min**	**43.09**	**82**	*e*P	**P**	**21 15 12.0**	**+0.4**
MWC	**Mount Wilson**	**43.27**	**93**	*e*P	**P**	**21 15 13.7**	**+0.6**
DAU	**Daniels Canyon**	**43.29**	**81**	*e*P	**P**	**21 15 14.0**	**+0.8**
MPU	**Maple Canyon**	**43.32**	**82**	*e*P	**P**	**21 15 13.7**	**+0.3**
ARUT	**Antelope Range**	**43.67**	**86**	*e*P	**P**	**21 15 16.8**	**+0.6**
MVU	**Marysvale**	**43.94**	**84**	*e*P	**P**	**21 15 18.9**	**+0.6**
	comp=Z,137nm,0.8s,mb5.2						
MSU	**Marysvale**	**43.95**	**84**	*e*P	**P**	**21 15 19.3**	**+0.8**
TMUT	**Trail Mountain**	**44.03**	**82**	*e*P	**P**	**21 15 20.1**	**+1.0**
NEN	**Nelson**	**44.24**	**89**	*e*P	**P**	**21 15 21.5**	**+0.7**
LDFC	**Landfair**	**44.47**	**90**	*e*P	**P**	**21 15 22.7**	**+0.1**
SRU	**San Rafael**	**44.55**	**82**	*e*P	**P**	**21 15 23.7**	**+0.4**
PFO	**Pinyon Flat Ob**	**44.66**	**92**	*e*P	**P**	**21 15 24.7**	**+0.5**
PFO				pmax	pmax		
	comp=Z,34nm,0.6s,mb4.8						
PFO	**Pinyon Flat Ob**	**44.66**	**92**	*e*P	**P**	**21 15 24.7**	**+0.6**
	comp=Z,34nm,0.6s,mb4.8						
RWWY	**Rawlins**	**44.88**	**77**	*e*P	**P**	**21 15 25.0**	**-0.9**
BAR	**Barrett**	**45.18**	**93**	*e*P	**P**	**21 15 29.1**	**+0.8**
PV10	**Paradox Valley**	**45.91**	**82**	*e*P	**P**	**21 15 34.1**	**+0.2**
ULM	**Lac du Bonnet**	**46.10**	**61**	P	**P**	**21 15 35.3**	**+0.1**
	comp=Z,40nm,0.4s,mb5.1,baz=304,slow=8.1,SNR=123						
ULM				PcP	PcP	21 17 04.8	-2.4
	comp=Z,15nm,0.5s,baz=347,slow=4.2,SNR=5.4						
ULM				ScP		21 20 33.8	
	comp=Z,6.0nm,0.6s,baz=324,slow=4.8,SNR=3.0						
ULM	**Lac du Bonnet**	**46.10**	**61**	*e*P	**P**	**21 15 34.8**	**-0.4**
	comp=Z,59nm,0.5s,mb5.2						
PHWY	**Pilot Hill**	**46.15**	**76**	*e*P	**P**	**21 15 34.9**	**-0.9**
PV01	**Paradox Valley**	**46.35**	**82**	*e*P	**P**	**21 15 37.3**	**-0.1**
RW3	**Ridgway**	**46.80**	**81**	P	**P**	**21 15 39.2**	**-1.6**
RW3	**Ridgway**	**46.80**	**81**	*e*P	**P**	**21 15 40.9**	**0.0**
ISCO	**Idaho Springs**	**47.02**	**78**	*e*P	**P**	**21 15 42.5**	**0.0**
ISCO				pmax	pmax		
	comp=Z,48nm,0.5s,mb5.1						
ISCO	**Idaho Springs**	**47.02**	**78**	*e*P	**P**	**21 15 42.5**	**0.0**
	comp=Z,48nm,0.5s,mb5.1						
IRK	**Irkutsk**	**47.04**	**304**	*e*P	**P**	**21 15 41.8**	**-0.7**
IRK				*e*		21 17 12.4	
TLY	**Talaya**	**47.68**	**303**	*c i*P	**P**	**21 15 47.7**	**+0.2**
TLY				*e*	pP	21 16 45.5	+2.0
TLY				*e*		21 17 13.7	
TLY				*e*PPP	PPP	21 18 45.2	+4.9
TLY				*e*S	**S**	**21 22 20.4**	**-1.8**
TLY				pmax	pmax		
	comp=Z,34nm,0.9s,mb4.7						
TLY				MLR	MLR		
	comp=Z,671nm,15.0s						
TLY	**Talaya**	**47.68**	**303**	*e*P	**P**	**21 15 47.1**	**-0.4**
	comp=Z,29nm,0.8s,mb4.7						
ULN	**Ulaanbaatar**	**48.20**	**297**	P	**P**	**21 15 51.1**	**-0.4**
ULN				pmax	pmax		
	comp=Z,29nm,0.8s,mb4.7						
ULN	**Ulaanbaatar**	**48.20**	**297**	*e*P	**P**	**21 15 50.8**	**-0.8**
	comp=Z,29nm,0.8s,mb4.7						
SONM	**Songino Array**	**48.57**	**298**	P	**P**	**21 15 54.4**	**+0.1**
	comp=Z,28nm,0.8s,mb4.7,baz=57,slow=5.6,SNR=90						
SONM				ScP		21 20 42.1	
	comp=Z,9.2nm,0.6s,baz=36,slow=4.0,SNR=13						
SONM				S	**S**	**21 22 37.1**	**+2.4**
	comp=Z,1.1nm,0.9s,baz=108,slow=4.6,SNR=2.6						
ZAK	**Zakamensk**	**48.64**	**302**	*e*P	**P**	**21 15 53.5**	**-1.3**
TUC	**Tucson**	**48.98**	**89**	*e*P	**P**	**21 15 57.9**	**+0.3**
TUC				pmax	pmax		
	comp=Z,84nm,0.7s,mb5.2						
TUC	**Tucson**	**48.98**	**89**	*e*P	**P**	**21 15 57.9**	**+0.3**
	comp=Z,84nm,0.7s,mb5.2						
MOY	**Mondy**	**49.01**	**305**	*e*P	**P**	**21 15 57.7**	**+0.1**
DAG	**Danmarks Havn**	**49.35**	**7**	⇑*i*P	**P**	**21 15 59.2**	**-0.7**
DAG				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.4						
DAG	**Danmarks Havn**	**49.35**	**7**	⇑*i*P	**P**	**21 15 59.2**	**-0.7**
	comp=Z,16nm,0.8s,mb4.4						
LAZ	**Ladron**	**49.72**	**84**	*e*P	**P**	**21 16 03.8**	**+0.6**
ANMO	**Albuquerque**	**49.74**	**83**	*e*P	**P**	**21 16 01.7**	**-1.7**
ANMO	**Albuquerque**	**49.74**	**83**	P	**P**	**21 16 03.6**	**+0.3**
	comp=Z,28nm,0.6s,mb4.8,baz=325,slow=8.6,SNR=75						
ANMO				PcP	PcP	21 17 20.0	-0.6
	comp=Z,8.3nm,0.6s,baz=250,slow=3.4,SNR=3.8						
ANMO				ScP		21 20 47.9	
	comp=Z,1.9nm,0.8s,baz=300,slow=3.4,SNR=4.9						
ANMO	**Albuquerque**	**49.74**	**83**	*e*P	**P**	**21 16 03.1**	**-0.3**
	comp=Z,111nm,1.2s,mb5.1						
EYMN	**Ely**	**49.79**	**61**	*e*P	**P**	**21 16 01.2**	**-2.3**
	comp=Z,57nm,0.4s,mb5.3						
FRB	**Frobisher Bay**	**49.83**	**34**	P	**P**	**21 16 03.0**	**-0.7**
	comp=Z,698nm,0.6s,mb6.1,baz=312,slow=7.8,SNR=1871						
FRB				S	**S**	**21 22 51.1**	**-0.7**
	comp=Z,27nm,1.2s,baz=113,slow=15,SNR=6.8						
LENM	**Lemitar**	**49.98**	**84**	*e*P	**P**	**21 16 05.8**	**+0.7**
LPM	**Los Pinos Moun**	**50.08**	**84**	*e*P	**P**	**21 16 06.3**	**+0.4**
HHC	**Hu-ho-hao-te**	**50.13**	**288**	*e*P	**P**	**21 16 06.5**	**+0.3**
HHC				AP	pP	21 16 53.3	-10
HHC				XP	sP	21 17 20.0	-12
HHC				SCS	ScS	21 25 29.5	+2.9
HHC				AMB	AMB		
	comp=Z,13nm,0.8s,mb4.3						
HHC				AMB	AMB		
	comp=Z,189nm,6.1s						
BNM	**Barren Site**	**50.19**	**84**	*e*P	**P**	**21 16 07.2**	**+0.5**
SUMG	**Summit**	**50.76**	**16**	*e*P	**P**	**21 16 10.1**	**-0.3**
	comp=Z,22nm,0.6s,mb4.7						
SUMG				*e*pP	pP	21 17 04.9	-2.3
BTO	**Baotou**	**51.18**	**288**	*e*P	**P**	**21 16 13.5**	**-0.4**
BTO				AMB	AMB		
	comp=Z,117nm,0.6s,mb5.4						
CPRX	**Cap Rock**	**52.62**	**83**	*e*P	**P**	**21 16 24.5**	**-0.3**
AMTX	**Amarillo**	**52.63**	**80**	*e*P	**P**	**21 16 24.2**	**-0.6**
	comp=Z,262nm,0.5s,mb5.8						
KSU1	**Kansas State U**	**52.72**	**72**	*e*P	**P**	**21 16 23.3**	**-2.0**
GDL2	**Guadalupe Moun**	**52.91**	**84**	*e*P	**P**	**21 16 26.4**	**-0.5**
CLNB	**Carlsbad**	**53.16**	**84**	*e*P	**P**	**21 16 27.8**	**-0.8**
WMOK	**Wichita Mounta**	**54.45**	**78**	*e*P	**P**	**21 16 36.7**	**-1.2**
WMOK				pmax	pmax		
	comp=Z,95nm,0.8s,mb5.2						
WMOK	**Wichita Mounta**	**54.45**	**78**	*e*P	**P**	**21 16 36.6**	**-1.2**
	comp=Z,95nm,0.8s,mb5.2						
SCO	**Scoresbysund**	**54.98**	**11**	*i* P	**P**	**21 16 40.4**	**-0.8**
	comp=Z,22nm,0.6s,mb4.8						
LTX	**Lajitas**	**55.38**	**86**	*e*P	**P**	**21 16 44.2**	**-0.5**
LTX				pmax	pmax		
	comp=Z,124nm,0.6s,mb5.5						
LTX	**Lajitas**	**55.38**	**86**	*e*P	**P**	**21 16 44.2**	**-0.4**
	comp=Z,124nm,0.6s,mb5.5						
TXAR	**Lajitas Array**	**55.38**	**86**	P	**P**	**21 16 44.5**	**-0.2**
	comp=Z,115nm,0.6s,mb5.5,baz=301,slow=4.7,SNR=1131						
TXAR				ScP		21 21 13.7	
	comp=Z,15nm,1.1s,baz=280,slow=2.3,SNR=5.9						
TXAR				S	**S**	**21 24 10.3**	**+3.3**
	comp=Z,0.5nm,0.8s,baz=342,slow=2.9,SNR=4.0						
KEV	**Kevo**	**56.44**	**351**	*e*p	**P**	**21 16 49.3**	**-2.3**
	comp=Z,17nm,0.5s,mb4.7						
KEV	**Kevo**	**56.44**	**351**	*e*P	**P**	**21 16 49.3**	**-2.3**
KEV				pmax	pmax		
	comp=Z,17nm,0.5s,mb4.7						
CCM	**Cathedral Cave**	**56.49**	**70**	P	**P**	**21 16 50.0**	**-2.4**
CCM				pmax	pmax		
	comp=Z,36nm,0.5s,mb5.1						
CCM	**Cathedral Cave**	**56.49**	**70**	*e*P	**P**	**21 16 49.5**	**-2.8**
	comp=Z,36nm,0.4s,mb5.2						
SCHQ	**Schefferville**	**56.63**	**42**	P	**P**	**21 16 52.2**	**-0.9**
	comp=Z,71nm,0.7s,mb5.2,baz=321,slow=7.1,SNR=93						
SCHQ	**Schefferville**	**56.63**	**42**	*e*P	**P**	**21 16 51.6**	**-1.6**
	comp=Z,105nm,0.8s,mb5.3						
SLM	**Saint Louis**	**56.65**	**69**	*e*P	**P**	**21 16 51.6**	**-1.9**
SLM				pmax	pmax		
	comp=Z,57nm,0.4s,mb5.3						
SLM	**Saint Louis**	**56.65**	**69**	*e*P	**P**	**21 16 51.6**	**-1.9**
	comp=Z,57nm,0.4s,mb5.4						
ARCES	**ARCESS Array B**	**56.78**	**352**	P	**P**	**21 16 52.9**	**-1.2**
	comp=Z,12nm,0.5s,mb4.5,baz=20,slow=6.6,SNR=52						
ARCES				PcP	PcP	21 17 45.6	-1.2
	comp=Z,23nm,0.6s,baz=18,slow=4.4,SNR=17						
ARE0	**ARCESS Array S**	**56.78**	**352**	*e*P	**P**	**21 16 52.7**	**-1.3**
JCT	**Junction City**	**56.87**	**82**	*e*P	**P**	**21 16 54.0**	**-1.1**
JCT				pmax	pmax		
	comp=Z,450nm,0.5s,mb6.2						
JCT	**Junction City**	**56.87**	**82**	*e*P	**P**	**21 16 54.0**	**-1.1**
	comp=Z,450nm,0.5s,mb6.2						
FVM	**French Village**	**57.00**	**69**	*e*P	**P**	**21 16 53.5**	**-2.5**
FVM				pmax	pmax		
	comp=Z,80nm,0.5s,mb5.4						
FVM	**French Village**	**57.00**	**69**	*e*P	**P**	**21 16 53.5**	**-2.5**
	comp=Z,80nm,0.5s,mb5.4						
QZH	**Quanzhou**	**57.13**	**268**	⇑P	**P**	**21 16 56.5**	**-0.6**
QZH				AMB	AMB		
	comp=Z,220nm,1.3s,mb5.4						
TRO	**Tromso**	**57.15**	**355**	*e*P	**P**	**21 16 54.5**	**-2.1**
KTK1	**Kautokeino**	**57.48**	**353**	*e*P	**P**	**21 16 58.9**	**0.0**
KTK1				AMb	AMB	21 17 00.5	
	comp=Z,69nm,1.6s,mb4.8						
MIAR	**Mount Ida**	**57.63**	**74**	*e*P	**P**	**21 16 58.6**	**-1.8**
MIAR				pmax	pmax		
	comp=Z,152nm,0.7s,mb5.5						
MIAR	**Mount Ida**	**57.63**	**74**	*e*P	**P**	**21 16 58.6**	**-1.8**
	comp=Z,152nm,0.7s,mb5.5						
AAM	**Ann Arbor**	**57.68**	**61**	*e*P	**P**	**21 16 59.3**	**-1.4**
AAM				pmax	pmax		
	comp=Z,115nm,0.5s,mb5.6						
AAM	**Ann Arbor**	**57.68**	**61**	*e*P	**P**	**21 16 59.3**	**-1.4**
	comp=Z,115nm,0.5s,mb5.6						
LZH	**Lanzhou**	**57.80**	**288**	*e*P	**P**	**21 17 01.5**	**-0.1**
LZH				AMB	AMB		
	comp=Z,140nm,1.6s,mb5.1						
APA	**Apatity**	**57.86**	**348**	⇓*e*P	**P**	**21 17 01.5**	**-0.1**
UALR	**University of**	**58.17**	**73**	*e*P	**P**	**21 17 02.1**	**-2.1**
	comp=Z,41nm,0.6s,mb5.0						
SADO	**Sadowa**	**58.27**	**57**	P	**P**	**21 17 03.2**	**-1.5**
	comp=Z,66nm,0.5s,mb5.4,baz=337,slow=7.2,SNR=83						
BLO	**Bloomington**	**58.34**	**66**	*e*P	**P**	**21 17 02.9**	**-2.4**
BLO				pmax	pmax		
	comp=Z,101nm,0.6s,mb5.4						
BLO	**Bloomington**	**58.34**	**66**	*e*P	**P**	**21 17 02.9**	**-2.4**
	comp=Z,101nm,0.6s,mb5.4						
USIN	**University of**	**58.56**	**68**	*e*P	**P**	**21 17 04.7**	**-2.1**
	comp=Z,286nm,0.6s,mb5.9						
HBAR	**Harrisburg**	**58.59**	**72**	*e*P	**P**	**21 17 05.4**	**-1.7**
NATX	**Nacogdoches**	**58.99**	**77**	*e*P	**P**	**21 17 09.3**	**-0.5**
	comp=Z,136nm,0.5s,mb5.6						
UTMT	**University of**	**59.04**	**70**	*e*P	**P**	**21 17 08.4**	**-1.8**
MET	**Memphis--Engin**	**59.31**	**71**	*e*P	**P**	**21 17 10.8**	**-1.2**
HKT	**Hockley**	**59.61**	**80**	*e*P	**P**	**21 17 13.4**	**-0.7**
HKT				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.1						
HKT	**Hockley**	**59.61**	**80**	*e*P	**P**	**21 17 13.4**	**-0.8**
	comp=Z,50nm,0.8s,mb5.1						
ERPA	**Erie**	**59.73**	**59**	*e*P	**P**	**21 17 13.3**	**-1.5**
	comp=Z,94nm,0.6s,mb5.5						
WVT	**Waverly**	**59.78**	**69**	*e*P	**P**	**21 17 12.9**	**-2.3**
WVT				pmax	pmax		
	comp=Z,42nm,0.6s,mb5.2						
WVT	**Waverly**	**59.78**	**69**	*e*P	**P**	**21 17 12.9**	**-2.3**
	comp=Z,42nm,0.6s,mb5.1						
ALLY	**Alegheny Colle**	**59.98**	**60**	*e*P	**P**	**21 17 15.1**	**-1.4**
ALLY				*e*pP	pP	21 18 12.3	-3.3
OXF	**Oxford**	**60.05**	**72**	*e*P	**P**	**21 17 15.2**	**-1.9**
OXF				pmax	pmax		
	comp=Z,316nm,0.6s,mb6.0						
OXF	**Oxford**	**60.05**	**72**	*e*P	**P**	**21 17 15.2**	**-1.9**
	comp=Z,316nm,0.6s,mb6.0						
GENY	**Geneseo**	**60.37**	**57**	*e*P	**P**	**21 17 17.1**	**-2.0**
PTN	**Potsdam (NY)**	**60.47**	**54**	*e*P	**P**	**21 17 17.3**	**-2.5**
SOKR	**Solikamsk**	**60.48**	**333**	⇓*e*P	**P**	**21 17 18.1**	**-1.5**
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb4.7						
SOKR				MLR	MLR		
	comp=Z,450nm,21.0s						
BORG	**Borgarnes**	**60.49**	**13**	P	**P**	**21 17 20.3**	**+0.6**
	comp=Z,20nm,0.6s,mb4.9,baz=248,slow=6.7,SNR=9.9						
CVP	**Callao Caves**	**60.72**	**260**	*e*P	pP	21 18 19.0	-2.1
MOR8	**Moi Rana**	**60.81**	**356**	*e*P	**P**	**21 17 19.5**	**-2.2**
MOR8				AMb	AMB	21 17 22.2	
	comp=Z,38nm,0.8s,mb5.0						
CHKZ	**Chkalovo**	**60.85**	**322**	*e*P	**P**	**21 17 20.7**	**-1.5**
CHKZ				pmax	pmax		
	comp=Z,54nm,1.4s,mb4.9						
CHKZ	**Chkalovo**	**60.85**	**322**	*e*P	**P**	**21 17 20.7**	**-1.5**
	comp=Z,54nm,1.4s,mb4.9						
WMQ	**Urumqi**	**60.90**	**305**	P	**P**	**21 17 23.3**	**+0.6**
WMQ				PCP	PcP	21 18 04.5	+1.0
WMQ				PP	PP	21 19 42.8	+0.9
WMQ				S	**S**	**21 25 18.8**	**+0.5**
WMQ				AMB	AMB		
	comp=Z,87nm,10.4s						
FRNY	**Flat Rock**	**60.95**	**53**	*e*P	**P**	**21 17 20.0**	**-3.0**
NCB	**Newcomb**	**61.28**	**54**	*e*P	**P**	**21 17 23.0**	**-2.2**
	comp=Z,31nm,0.6s,mb5.0						
BVAR	**Borovoye Array**	**61.45**	**322**	P	**P**	**21 17 25.6**	**-0.6**
	comp=Z,18nm,0.7s,mb4.7,baz=45,slow=6.3,SNR=82						
BVAR				PcP	PcP	21 18 04.9	-0.7
	comp=Z,20nm,0.6s,baz=42,slow=6.3,SNR=10						
BVAR				S	**S**	**21 25 27.2**	**+2.2**
	comp=Z,1.3nm,1.0s,baz=72,slow=4.6,SNR=2.8						
BRVK	**Borovoye**	**61.46**	**322**	P	**P**	**21 17 25.9**	**-0.3**
BRVK				pmax	pmax		
	comp=Z,65nm,1.2s,mb5.0						
BRVK	**Borovoye**	**61.46**	**322**	*e*P	**P**	**21 17 25.2**	**-1.1**
	comp=Z,65nm,1.3s,mb5.0						
MIV	**Mineville/With**	**61.54**	**54**	*e*P	**P**	**21 17 24.4**	**-2.5**
MCWV	**Mont Chateau**	**61.58**	**61**	*e*P	**P**	**21 17 25.6**	**-1.7**
	comp=Z,163nm,0.6s,mb5.8						
SVE	**Sverdlovsk**	**61.67**	**329**	⇑*i*P	**P**	**21 17 27.5**	**-0.1**
SVE				*e*		21 25 21.0	
SVE				pmax	pmax		
	comp=Z,170nm,2.4s,mb5.2						
GZH	**Guangzhou**	**61.68**	**271**	P	**P**	**21 17 25.5**	**-2.6**
GZH				AMB	AMB		
	comp=Z,710nm,4.3s						
MDV	**Middlebury**	**61.77**	**54**	*e*P	**P**	**21 17 25.8**	**-2.6**
SSPA	**Standing Stone**	**61.89**	**59**	*e*P	**P**	**21 17 27.7**	**-1.5**
	comp=Z,174nm,0.6s,mb5.9						
ACCN	**Adirondack Com**	**61.98**	**54**	*e*P	**P**	**21 17 27.7**	**-2.2**
CPCT	**Cooper Cave**	**62.12**	**67**	*e*P	**P**	**21 17 28.7**	**-2.2**
LRAL	**Lakeview Retre**	**62.49**	**71**	*e*P	**P**	**21 17 30.7**	**-2.6**
	comp=Z,71nm,0.7s,mb5.4						
NSS	**Namsos**	**62.54**	**357**	*e*P	**P**	**21 17 31.6**	**-1.6**
FWV	**Forest Hill**	**62.59**	**63**	*e*P	**P**	**21 17 32.7**	**-1.2**
MYNC	**Murphy**	**62.61**	**67**	*e*P	**P**	**21 17 32.2**	**-1.9**
MYNC				pmax	pmax		
	comp=Z,121nm,0.7s,mb5.6						
MYNC	**Murphy**	**62.61**	**67**	*e*P	**P**	**21 17 32.2**	**-1.9**
	comp=Z,121nm,0.7s,mb5.6						
ARU	**Arti**	**62.63**	**330**	⇑*i*P	**P**	**21 17 31.0**	**-2.9**
ARU				*e*		21 18 03.7	
ARU				*e*S	**S**	**21 25 39.5**	**-0.2**
ARU				*e*		21 26 53.1	
ARU				*e*SSS	SSS	21 32 49.4	+7.3
ARU				pmax	pmax		
	comp=Z,43nm,1.5s,mb4.9						
ARU	**Arti**	**62.63**	**330**	*e*P	**P**	**21 17 32.5**	**-1.4**
	comp=Z,111nm,1.5s,mb5.3						
PWV	**Princeton**	**62.64**	**64**	*e*P	**P**	**21 17 33.1**	**-1.1**
ELN	**Prospectdale**	**62.88**	**64**	*e*P	**P**	**21 17 34.2**	**-1.6**
FFD	**Franklin Falls**	**62.90**	**53**	*e*P	**P**	**21 17 34.2**	**-1.6**
	comp=Z,52nm,0.6s,mb5.3						
GYA	**Guiyang**	**63.16**	**279**	⇑*i*P	**P**	**21 17 37.0**	**-0.7**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.5						
SDMD	**Soldier’s Deli**	**63.33**	**59**	*e*P	**P**	**21 17 36.9**	**-1.8**
BRNJ	**Basking Ridge**	**63.55**	**57**	*e*P	**P**	**21 17 39.6**	**-0.4**
PAL	**Palisades**	**63.64**	**56**	*e*P	**P**	**21 17 38.5**	**-2.1**
PAL				pmax	pmax		
	comp=Z,49nm,0.6s,mb5.3						
PAL	**Palisades**	**63.64**	**56**	*e*P	**P**	**21 17 38.5**	**-2.1**
	comp=Z,49nm,0.6s,mb5.3						
CPNY	**Central Park**	**63.77**	**57**	*e*P	**P**	**21 17 40.2**	**-1.3**
WES	**Weston**	**63.88**	**54**	*e*P	**P**	**21 17 40.2**	**-1.9**

WES				pmax	pmax		
	comp=Z,106nm,0.6s,mb5.7						
WES	Weston	63.88	54	eP	P	21 17 40.2	-1.9
	comp=Z,106nm,0.6s,mb5.7						
CBN	Corbin	63.95	61	eP	P	21 17 41.4	-1.3
	comp=Z,72nm,0.5s,mb5.6						
KAF	Kangasniemi	63.96	350	ep	P	21 17 40.8	-1.5
	comp=Z,14nm,0.5s,mb4.8						
KAF	Kangasniemi	63.96	350	eP	P	21 17 40.8	-1.5
KAF				pmax	pmax		
	comp=Z,14nm,0.5s,mb4.8						
TGY	Tagaytay City	64.06	259	P	P	21 17 44.1	+0.4
	comp=Z,182nm,0.5s,mb5.9,baz=321,slow=5.2,SNR=6.4						
BRYW	Bryant College	64.12	54	eP	P	21 17 41.9	-1.8
GOGA	Godfrey	64.21	68	P	P	21 17 42.2	-2.2
GOGA				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.2						
GOGA	Godfrey	64.21	68	eP	P	21 17 42.5	-1.9
	comp=Z,67nm,0.6s,mb5.5						
MOL	Molde	64.58	359	eP	P	21 17 50.9	+4.6
MOL				AMb	AMB	21 17 58.5	
	comp=Z,96nm,2.1s,mb5.1						
FINES	FINESS Array B	64.64	350	P	P	21 17 45.5	-1.2
	comp=Z,9.8nm,0.6s,mb4.6,baz=24,slow=8.9,SNR=51						
FINES				PcP	PcP	21 18 16.2	-2.2
	comp=Z,12nm,0.6s,baz=26,slow=5.3,SNR=12						
JSC	Jenkinsville	64.78	66	eP	P	21 17 46.8	-1.3
DOMB	Dombas	65.10	359	eP	P	21 17 49.1	-0.4
DOMB				AMb	AMB	21 17 51.7	
	comp=Z,52nm,1.4s,mb5.0						
COW	Cow Castle Cre	65.77	66	eP	P	21 17 53.7	-0.6
NB2	NORSAR Subarra	66.06	357	P	P	21 17 55.0	-0.7
	comp=Z,9.8nm,0.6s,mb4.7,baz=5.0,slow=6.5						
NB2	NORSAR Subarra	66.06	357	P	P	21 17 55.0	-0.7
	baz=5.0,slow=6.9						
NB2	NORSAR Subarra	66.06	357	P	P	21 17 55.0	-0.7
NB2				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.7						
NOA	NORSAR Array B	66.06	357	P	P	21 17 55.2	-0.5
	comp=Z,7.4nm,0.6s,mb4.6,baz=3.5,slow=6.4,SNR=31						
NOA				pP	pP	21 18 53.0	-3.1
	comp=Z,7.9nm,0.8s,baz=1.5,slow=5.7,SNR=4.1						
NAO01	NORSAR Array S	66.26	358	P	P	21 17 57.0	+0.1
NHSC	New Hope	66.26	66	eP	P	21 17 57.0	-0.4
	comp=Z,322nm,0.5s						
NHSC				epP	pP	21 18 54.0	-4.0
HBF	Harts Bluff	66.28	66	eP	P	21 17 57.2	-0.4
TWB	Tillmans-White	66.30	66	eP	P	21 17 57.2	-0.4
RGRS	Roger Stewart	66.40	66	eP	P	21 17 57.9	-0.5
CSU	Charleston Sou	66.41	66	eP	P	21 17 57.8	-0.7
KMI	Kunming	66.49	281	P	P	21 17 58.5	-0.5
KMI				AP	pP	21 18 55.5	-4.0
KMI				S	S	21 26 27.8	+0.7
KMI				AMB	AMB		
	comp=Z,23nm,1.4s,mb4.7						
KMI				AMB	AMB		
	comp=Z,152nm,5.2s						
BLS5	Blasjo	67.75	360	eP	P	21 18 06.6	+0.3
AAK	Ala-Archa	68.01	312	eP	P	21 18 07.2	-1.0
AAK				pmax	pmax		
	comp=Z,100nm,1.7s,mb5.3						
MOS	Moscow	68.40	342	eP	P	21 18 10.0	-0.4
MOS				pmax	pmax		
	comp=Z,84nm,1.3s,mb5.3						
OBN	Obninsk	69.19	342⇓	iP	P	21 18 15.2	0.0
OBN				e		21 18 34.5	
OBN				i *PP	pP	21 19 13.0	-3.1
OBN				pmax	pmax		
	comp=Z,51nm,1.3s,mb5.1						
LSA	Lhasa	69.68	292	eP	P	21 18 19.5	+0.9
LSA				pmax	pmax		
	comp=Z,114nm,0.7s,mb5.7						
LSA	Lhasa	69.68	292	eP	P	21 18 19.5	+0.9
	comp=Z,114nm,0.7s,mb5.7						
KSH	Kashi	69.83	309	P	P	21 18 20.0	+0.7
KSH				PCP	PcP	21 18 43.8	+3.3
KSH				PP	PP	21 20 56.0	-3.1
KSH				eS	S	21 27 02.8	-3.5
KSH				SCS	ScS	21 27 51.0	-1.4
KSH				eXS		21 28 43.0	
KSH				AMB	AMB		
	comp=Z,190nm,1.8s,mb5.5						
PMG	Port Moresby	70.65	221	P	P	21 18 24.7	0.0
	comp=Z,76nm,0.8s,mb5.4,baz=26,slow=5.1,SNR=34						
MUD	Monsted U’grnd	70.70	358	i P	P	21 18 24.4	+0.1
MUD				pmax	pmax		
	comp=Z,18nm,0.6s,mb4.9						
MUD	Monsted U’grnd	70.70	358	i P	P	21 18 24.4	+0.1
	comp=Z,18nm,0.6s,mb4.9						
TEIG	Tepich	71.40	81	eP	P	21 18 28.7	-0.4
	comp=Z,23nm,0.6s,mb5.0						
EKA	Eskdalemuir Ar	71.57	6	P	P	21 18 29.1	-0.5
	comp=Z,7.5nm,0.5s,mb4.6,baz=343,slow=4.6,SNR=40						
BSD	Bornholm Skovb	71.83	355	eP	P	21 18 31.1	0.0
BSD				pmax	pmax		
	comp=Z,28nm,0.8s,mb4.9						
BSD	Bornholm Skovb	71.83	355	eP	P	21 18 31.1	0.0
	comp=Z,28nm,0.8s,mb4.9						
BSD	Bornholm Skovb	71.83	355	i P	P	21 18 31.1	0.0
	comp=Z,28nm,0.8s,mb4.9						
SUW	Suwalki	72.25	350	eP	P	21 18 32.2	-1.4
DMUB	Kingscourt	72.73	8	eP	P	21 18 36.2	-0.1
BSEG	Bad Segeberg	73.20	357	eP	P	21 18 39.5	+0.4
DCN	Croghan	73.25	8	eP	P	21 18 38.8	-0.6
DLF	Lyons Farm	73.36	8	eP	P	21 18 39.9	-0.1
PPT	Papeete	73.49	156	ePP	PP	21 21 12.9	-18
PPT				eS	S	21 27 33.2	-15
PPT				eLR	LR	21 41 44.0	
	comp=Z,375nm,23.2s						
GKP	Gorka Klasztor	73.52	353	eP	P	21 18 40.7	-0.3
GKP				epP	pP	21 19 46.4	+4.0
CM31	Chiang Mai Arr	73.84	279	eP	P	21 18 42.7	-0.8
	comp=Z,17nm,0.6s,mb4.8						
CMAR	Chiang Mai Arr	73.84	279	P	P	21 18 43.0	-0.5
	comp=Z,15nm,0.7s,mb4.8,baz=25,slow=6.8,SNR=35						
CMAR				pP	pP	21 19 43.9	-1.1
	comp=Z,8.8nm,0.7s,baz=23,slow=6.6,SNR=1.9						
GUN	Gumba	73.97	295	eP	P	21 18 44.0	-0.1
	comp=Z,234nm,0.4s,mb6.2						
WAR	Warsaw	74.22	351	eP	P	21 18 45.8	+0.8
KKN	Kakani	74.39	295	eP	P	21 18 46.2	-0.3
	comp=Z,150nm,0.5s,mb5.9						
PKI	Pulchoki	74.50	295	eP	P	21 18 46.5	-0.6
	comp=Z,118nm,0.8s,mb5.6						
GKN	Gorkha	74.57	296	eP	P	21 18 47.2	-0.4
	comp=Z,200nm,0.5s,mb6.0						
DMN	Daman	74.63	295	eP	P	21 18 47.3	-0.6
	comp=Z,86nm,0.5s,mb5.6						
AKASG	Malin Array Be	74.69	345	P	P	21 18 46.2	-1.5
	comp=Z,5.9nm,0.3s,mb4.6,baz=12,slow=5.4,SNR=29						
AKASG				pP	pP	21 19 46.0	-3.3
	comp=Z,17nm,0.7s,baz=15,slow=5.9,SNR=2.3						
CLZ	Clausthal	75.29	357	eP	P	21 18 51.1	0.0
	comp=Z,175nm,1.8s,mb5.4						
KOLN	Koldanda	75.32	297	eP	P	21 18 51.4	-0.4
	comp=Z,94nm,0.6s,mb5.6						
DLH	Dalhousie	75.44	305	e	P	21 18 51.0	-1.4
THN	Thein Dam	75.65	305	e	P	21 18 53.1	-0.4
	comp=Z,23nm,0.6s,mb5.0						
CLL	Collm	75.73	356	eP	P	21 18 53.0	-0.6
CLL				eS	S	21 28 12.0	0.0
CLL				pmax	pmax		
	comp=Z,81nm,1.5s,mb5.1						
CLL	Collm	75.73	356	eP	P	21 18 53.0	-0.6
	comp=Z,81nm,1.5s,mb5.1						
CLL				i pP	pP	21 19 59.4	+4.2
CLL				eS	S	21 28 12.0	0.0
CLL	Collm	75.73	356	P	P	21 18 53.0	-0.6
	comp=Z,logA/T=1.7,mb5.1						
CLL				i *PP	pP	21 19 59.4	+4.2
CLL				eS	S	21 28 12.0	0.0
SDNR	Sundarnagar	75.78	304	e	P	21 18 53.8	-0.5
KSP	Ksiaz	76.00	353	eP	P	21 18 54.8	-0.3
KSP				epP	pP	21 19 53.6	-3.2
KSP				e	pP	21 20 00.6	+3.8
KSP	Ksiaz	76.00	353	eP	P	21 18 55.3	+0.2
KSP				ePcP	PcP	21 19 09.8	+3.3
KSP				epP	pP	21 19 54.0	-2.8
BRG	Berggiesshubel	76.11	355	i P	P	21 18 55.8	+0.1
BRG				e		21 19 03.1	
BRG				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.0						
BRG	Berggiesshubel	76.11	355	i P	P	21 18 55.8	+0.1
	comp=Z,57nm,1.3s,mb5.0						
BRG				e		21 19 03.1	
OJC	Ojcow	76.34	351	eP	P	21 18 56.8	-0.2
UPC	Upice	76.36	354	eP	P	21 18 57.0	-0.1
UPC				ex	x	21 20 02.8	
PVCC	Panska Ves	76.42	355	eP	P	21 18 57.9	+0.5
PVCC				ex	x	21 20 04.1	
MOX	Moxa	76.45	356	eP	P	21 18 57.7	+0.1
MOX				pmax	pmax		
	comp=Z,153nm,1.8s,mb5.3						
MOX	Moxa	76.45	356	i P	P	21 18 57.7	+0.1
	comp=Z,logA/T=1.9,mb5.3						
MOX				pP	pP	21 20 03.0	+3.7
MOX	Moxa	76.45	356	eP	P	21 18 57.7	+0.1
	comp=Z,153nm,1.8s,mb5.3						
MOX				epP	pP	21 20 03.2	+3.9
DPC	Dobruska-Polom	76.49	353	eP	P	21 18 57.9	+0.1
DPC				ex	x	21 20 03.9	
KWP	Kalwaria	76.62	349	eP	P	21 18 58.9	+0.4
NKC	Novy Kostel	76.83	356	eP	P	21 19 00.3	+0.7
NKC				ex	x	21 20 05.9	
OKC	Ostrava-Krasne	76.86	352	eP	P	21 19 00.1	+0.3
OKC				ex	x	21 20 05.4	
DZM	Mont Dzumac	76.89	199	eP	P	21 19 01.1	+0.5
DZM	Mont Dzumac	76.89	199	eP	P	21 19 01.1	+0.5
NOUC	Port Laguerre	76.94	199	eP	P	21 19 01.1	+0.3
NOUC	Port Laguerre	76.94	199	eP	P	21 19 01.1	+0.3
PRU	Pruhonice	76.96	355	eP	P	21 19 00.5	+0.1
	comp=Z,78nm,1.7s,mb5.2						
PRU				ex	x	21 20 06.2	
MORC	Moravsky Berou	76.97	353	eP	P	21 19 00.3	-0.1
MORC				e*PP	pP	21 19 59.0	-3.3
MORC				pmax	pmax		
	comp=Z,30nm,1.3s,mb4.9						
MORC	Moravsky Berou	76.97	353	eP	P	21 19 00.3	-0.2
	comp=Z,30nm,1.3s,mb4.9						
MORC				epP	pP	21 19 59.0	-3.3
NIE	Niedzica	77.08	351	eP	P	21 19 02.8	+1.7
BAIF	Baives	77.12	1	eP	P	21 19 01.5	+0.3
	comp=Z,43nm,0.8s,mb4.9						
BAIF				epP	pP	21 20 03.1	0.0
BAIF	Baives	77.12	1	eP	P	21 19 01.5	+0.3
BAIF				e*PP	pP	21 20 03.1	0.0
BAIF				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.9						
GOF	Gofitskoye	77.19	334⇑	iP	P	21 19 02.5	+0.8
GOF				eS	S	21 28 30.0	+2.2
GOF				pmax	pmax		
	comp=Z,120nm,1.3s,mb5.5						
ABH	Alteburg	77.30	359⇑	eP	P	21 19 02.8	+0.5
ABH	Alteburg	77.30	359	eP	P	21 19 02.7	+0.4
KOLS	Kolonicke sedl	77.35	349	eP	P	21 19 02.7	+0.1
KOLS				e		21 19 08.6	
KOLS				e	pP	21 20 04.7	+0.2
KOLS				e	pP	21 20 08.9	+4.4
GRA1	Grafenberg Arr	77.41	357	eP	P	21 19 03.6	+0.7
	comp=Z,137nm,1.2s,mb5.6						
GRA1				epP	pP	21 20 08.0	+3.2
GRF	Grafenberg Arr	77.41	357	eP	P	21 19 03.6	+0.7
GRF				pmax	pmax		
	comp=Z,137nm,1.2s,mb5.6						
GRF	Grafenberg Arr	77.41	357	eP	P	21 19 03.6	+0.7
GRF				pmax	pmax		
	comp=Z,137nm,1.2s,mb5.6						
GRF	Grafenberg Arr	77.41	357	eP	P	21 19 03.6	+0.7
	comp=Z,137nm,1.2s,mb5.6						
GRF				epP	pP	21 20 08.0	+3.2
CRVS	Cervenica-Dubn	77.47	350	eP	P	21 19 05.6	+2.4
CRVS				e		21 19 16.3	
CRVS				e	pP	21 20 09.5	+4.3
CRVS				e		21 20 15.9	
RUP	Ruppelstein	77.49	359	eP	P	21 19 03.9	+0.6
VRAC	Vranov	77.51	353	P	P	21 19 03.5	+0.1
	baz=6.6,slow=7.7						
WLF	Walferdange	77.53	0	eP	P	21 19 02.9	-0.6
WLF				pmax	pmax		
	comp=Z,99nm,1.7s,mb5.3						
WLF	Walferdange	77.53	0	eP	P	21 19 02.9	-0.6
	comp=Z,99nm,1.7s,mb5.3						
LIKS	Likavka	77.56	351	eP	P	21 19 05.2	+1.5
LIKS				e		21 19 10.6	
LIKS				e	pP	21 20 08.2	+2.5
LIKS				e	pP	21 20 10.4	+4.7
TOD	Tromm	77.56	358	eP	P	21 19 04.3	+0.6
TOD	Tromm	77.56	358	eP	P	21 19 04.1	+0.4
SWS	Schriesheim	77.69	358	eP	P	21 19 04.7	+0.3
SIND	Sindeldorf	77.80	358⇑	eP	P	21 19 05.3	+0.3
KTD	Kalmit	77.86	359	eP	P	21 19 05.8	+0.4
KHC	Kasperske Hory	77.87	355	eP	P	21 19 03.8	-1.6
KHC	Kasperske Hory	77.87	355	eP	P	21 19 06.0	+0.6
KHC				ex	x	21 20 11.8	
WET	Wettzell	77.89	356	eP	P	21 19 05.8	+0.3
KECS	Kecovo	77.99	350	eP	P	21 19 07.0	+0.9
KECS				e	pP	21 20 12.4	+4.3
VYHS	Vyhne	78.14	351	i P	P	21 19 07.1	+0.2
VYHS				e	pP	21 20 05.8	-3.1
VYHS				e	pP	21 20 13.0	+4.1
GEC2	GERESS Array S	78.15	355	eP	P	21 19 07.2	+0.2
GEC2				pmax	pmax		
	comp=Z,42nm,1.3s,mb5.0						
GEC2	GERESS Array S	78.15	355	eP	P	21 19 07.2	+0.2
	comp=Z,42nm,1.3s,mb5.0						
GERES	GERESS Array B	78.15	355	P	P	21 19 07.1	+0.1
	comp=Z,14nm,1.0s,mb4.6,baz=14,slow=5.5,SNR=39						
GERES				pP	pP	21 20 05.8	-3.2
	comp=Z,2.7nm,0.7s,baz=18,slow=4.2,SNR=2.7						
LANF	Langenberg	78.20	359	eP	P	21 19 07.8	+0.6
SMOL	Smolenice	78.23	352	eP	P	21 19 08.2	+0.8
SMOL				e	pP	21 20 07.7	-1.8
SMOL				e	pP	21 20 14.5	+5.0
SMOL				e		21 20 18.3	
FLN	La Foliniere	78.27	5	eP	P	21 19 07.8	+0.2
	comp=Z,40nm,0.7s,mb4.9						
FLN	La Foliniere	78.27	5	eP	P	21 19 07.8	+0.2
FLN				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.0						
KIV	Kislovodsk	78.30	334	P	P	21 19 08.3	+0.4
	comp=Z,139nm,1.1s,mb5.6,SNR=10						
KIV	Kislovodsk	78.30	334	eP	P	21 19 06.6	-1.3
KIV				e		21 19 15.3	
KIV				e*PP	pP	21 20 07.9	-2.1
KIV				e		21 22 07.8	
KIV				i S	S	21 28 42.5	+2.9
KIV				eSS	SS	21 33 51.1	-0.2
KIV				eSSS	SSS	21 37 17.6	+5.1
KIV				pmax	pmax		
	comp=N,24nm,1.0s						
KIV				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.9						
KIV				smax			
	comp=N,237nm,4.0s						
KIV				smax			
	comp=E,265nm,2.7s						
KIV	Kislovodsk	78.30	334	eP	P	21 19 07.6	-0.3
	comp=E,24nm,0.9s,mb4.9						
STU	Stuttgart	78.39	358	eP	P	21 19 08.2	0.0
STU				pmax	pmax		
	comp=Z,71nm,1.1s,mb5.3						
STU	Stuttgart	78.39	358	eP	P	21 19 08.2	0.0
	comp=Z,71nm,1.1s,mb5.3						
LDF	La Druitiere	78.46	4	eP	P	21 19 08.2	-0.4
	comp=Z,61nm,0.6s,mb5.2						
LDF	La Druitiere	78.46	4	eP	P	21 19 08.2	-0.4
LDF				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.2						
LBG	Lerchenberg	78.50	358⇑	eP	P	21 19 09.4	+0.6
ROSF	Rostrenen	78.53	6	eP	P	21 19 08.9	-0.1
	comp=Z,26nm,0.6s,mb4.8						
ROSF	Rostrenen	78.53	6	eP	P	21 19 08.9	-0.1
ROSF				pmax	pmax		
	comp=Z,13nm,0.6s,mb4.8						
HDH	Heidenheim	78.55	357	eP	P	21 19 09.7	+0.6
ZST	Bratislava	78.58	353	eP	P	21 19 10.4	+1.2
ZST				e	pP	21 20 11.3	-0.1
ZST				e	pP	21 20 16.4	+5.0
ZST				e		21 20 20.6	
STR	Strasbourg	78.60	359	eP	P	21 19 10.2	+0.8
PSZ	Piszkesteto	78.61	351	eP	P	21 19 09.1	-0.3
PSZ				e*PP	pP	21 20 09.5	-2.1
PSZ				pmax	pmax		
	comp=Z,84nm,1.8s,mb5.2						
PSZ	Piszkesteto	78.61	351	eP	P	21 19 09.1	-0.3
	comp=Z,84nm,1.8s,mb5.2						
PSZ				epP	pP	21 20 09.5	-2.0
GRR	Gorron	78.62	5	eP	P	21 19 09.3	-0.2
	comp=Z,78nm,0.9s,mb5.1						
GRR	Gorron	78.62	5	eP	P	21 19 09.3	-0.2
GRR				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.1						
SGMF	Saint Gilles	78.66	6	eP	P	21 19 09.6	-0.1
	comp=Z,47nm,0.5s,mb5.2						
SGMF	Saint Gilles	78.66	6	eP	P	21 19 09.6	-0.1
SGMF				pmax	pmax		
	comp=Z,24nm,0.5s,mb5.2						
BUCH	Bad Urach	78.71	358	eP	P	21 19 09.8	-0.1
WLS	Welschbruch	78.78	359	eP	P	21 19 08.3	-2.0
CDF	Champ du Feu	78.78	359	eP	P	21 19 10.5	+0.2
	comp=Z,28nm,0.7s,mb4.8						
CDF	Champ du Feu	78.78	359	eP	P	21 19 10.5	+0.2
CDF				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.8						
ANN	Anapa	78.80	338	eP	P	21 19 04.4	-6.1
ANN				i	pP	21 20 08.2	-4.5
ANN				pmax	pmax		
	comp=Z,112µm,1.8s						
BFO	Black Forest	78.85	359	eP	P	21 19 11.2	+0.5
BFO				pmax	pmax		
	comp=Z,127nm,1.9s,mb5.3						
BFO	Black Forest	78.85	359	eP	P	21 19 11.2	+0.5
	comp=Z,127nm,1.9s,mb5.3						
SRO	Srobarova	78.86	352	eP	P	21 19 11.9	+1.2
SRO				e		21 19 17.0	
SRO				e	pP	21 20 18.2	+5.3
SRO2	Moca	78.90	352	eP	P	21 19 12.2	+1.2
SRO2				e	pP	21 20 17.9	+4.7
FUR	Furstenfeldbru	78.94	357	eP	P	21 19 11.9	+0.8
QUIF	Quistinic	78.96	6	eP	P	21 19 11.1	-0.2
	comp=Z,34nm,0.7s,mb4.9						
QUIF	Quistinic	78.96	6	eP	P	21 19 11.1	-0.2
QUIF				pmax	pmax		
	comp=Z,17nm,0.7s,mb4.9						
THEF	They Montfort	78.97	0	eP	P	21 19 10.2	-1.1
ECH	Echery	78.97	359	eP	P	21 19 11.6	+0.3
LIBD	Limburg	79.04	359⇑	eP	P	21 19 12.6	+0.9
LIBD	Limburg	79.04	359	eP	P	21 19 12.3	+0.6
SPAK	Spaichingen	79.07	358	eP	P	21 19 12.7	+0.9
TBI	Tubuai	79.08	157	ePP	PP	21 22 02.3	-15
TBI				eS	S	21 28 33.2	-15
TBI				eLR	LR	21 43 39.4	
	comp=Z,294nm,28.0s						
GUT	Gutenstein	79.09	358	eP	P	21 19 12.7	+0.7
SOP	Sopron	79.13	353	eP	P	21 19 13.1	+0.9
HAU	Haudompre	79.19	360	eP	P	21 19 12.5	0.0
	comp=Z,45nm,0.7s,mb5.0						
HAU				epP	pP	21 20 13.0	-1.7
HAU	Haudompre	79.19	360	eP	P	21 19 12.5	0.0
HAU				e*PP	pP	21 20 13.0	-1.7
HAU				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.0						
KIZ	Kirchzarten	79.23	359	eP	P	21 19 13.0	+0.3
FELD	Feldberg	79.31	359	eP	P	21 19 13.6	+0.5
MOF	Molkenrain	79.34	359	eP	P	21 19 12.8	-0.5
SIM	Simferopol’	79.37	340c	eP	P	21 19 14.0	+0.5
SIM				eS	S	21 28 46.0	-4.8
SIM				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.7						
SOC	Sochi	79.41	336	i P	P	21 19 12.3	-1.4
SOC				e		21 19 16.6	
SOC				i *PP	pP	21 20 11.0	-5.0
SOC				eS	S	21 28 51.9	+0.7
SOC				eSSS	SSS	21 37 35.7	+5.5
SOC				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.8						
SOC				pmax	pmax		
	comp=N,5.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,12nm,0.8s						
UBR	Uberruh	79.46	357⇑	eP	P	21 19 14.5	+0.6
BBS	Basel-Blauen	79.72	359	eP	P	21 19 16.1	+0.8
LOMF	Lomont	79.84	360	eP	P	21 19 16.1	+0.1
HYF	Humbligny	79.88	2	eP	P	21 19 16.2	0.0
SSF	Saint Saulge	80.11	2	eP	P	21 19 17.6	+0.2
SSF				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.2						
SSF	Saint Saulge	80.11	2	eP	P	21 19 17.6	+0.2
	comp=Z,31nm,0.6s,mb5.2						
MLR	Muntele Rosu	80.27	346	P	P	21 19 19.5	+1.2
	comp=Z,8.3nm,0.7s,mb4.6,baz=12,slow=4.4,SNR=12						
AVF	Avril sur Loir	80.37	2	eP	P	21 19 18.8	0.0
	comp=Z,41nm,0.6s,mb5.0						
AVF				epP	pP	21 20 19.2	-2.0
AVF	Avril sur Loir	80.37	2	eP	P	21 19 18.8	0.0
AVF				e*PP	pP	21 20 19.2	-2.0
AVF				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.0						
FVI	Forni Avoltri	80.44	355	eP	P	21 19 19.7	+0.6
MFF	Saint Martin d	80.44	4	eP	P	21 19 19.3	+0.2
	comp=Z,75nm,0.7s,mb5.2						
MFF				epP	pP	21 20 19.5	-2.1
MFF	Saint Martin d	80.44	4	eP	P	21 19 19.3	+0.2
MFF				e*PP	pP	21 20 19.5	-2.1
MFF				pmax	pmax		
	comp=Z,38nm,0.7s,mb5.2						
SMF	Signal de Mont	80.53	2	eP	P	21 19 19.7	+0.1
	comp=Z,59nm,0.6s,mb5.2						
SMF	Signal de Mont	80.53	2	eP	P	21 19 19.7	+0.1
SMF				pmax	pmax		
	comp=Z,29nm,0.6s,mb5.2						
CABF	La Chapelle	80.58	0	eP	P	21 19 20.7	+0.8
	comp=Z,46nm,0.8s,mb5.0						
CABF	La Chapelle	80.58	0	eP	P	21 19 20.7	+0.8
CABF				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.0						
BGF	Bois d’Agland	80.59	2	eP	P	21 19 20.1	+0.2
	comp=Z,27nm,0.7s,mb4.8						
BGF	Bois d’Agland	80.59	2	eP	P	21 19 20.1	+0.2
BGF				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.8						
PTCC	Patocco-Chiusa	80.60	355	eP	P	21 19 19.8	-0.2
BRMO	Bormio	80.66	357	eP	P	21 19 21.3	+1.1
CTA	Charters Tower	80.75	218	P	P	21 19 21.8	+0.5
	comp=Z,113nm,0.8s,mb5.6,baz=15,slow=6.4,SNR=27						
AGO	Saint Agoulin	81.11	2	eP	P	21 19 24.5	+1.9
PLDF	La Plantade	81.20	2	eP	P	21 19 25.2	+2.1
MCGN	Macugnaga	81.22	359	eP	P	21 19 24.9	+1.7
VAI	Varese	81.30	358	eP	P	21 19 24.2	+0.6
JCR	Jicaral	81.39	85	eP	P	21 19 26.2	+1.5
ORX	Oropa	81.55	359	P	P	21 19 25.9	+1.0
ORO	Oropa	81.56	359	eP	P	21 19 26.0	+1.1
TRTC	Tortuguero	81.66	84⇑	eP	P	21 19 28.0	+1.9
TRAV		81.67	359	P	P	21 19 26.6	+1.1
LPL	La Plagne	81.68	360	eP	P	21 19 26.2	+0.6
	comp=Z,25nm,0.8s,mb4.7						
LPL	La Plagne	81.68	360	eP	P	21 19 26.2	+0.6
LPL				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.7						
LPG	La Plagne	81.70	360	eP	P	21 19 26.5	+0.8
	comp=Z,49nm,1.1s,mb4.9						
LPG	La Plagne	81.70	360	eP	P	21 19 26.5	+0.8
LPG				pmax	pmax		
	comp=Z,25nm,1.1s,mb4.9						
LSD	Ceresole Reale	81.73	359	P	P	21 19 27.6	+1.7
RJF	Les Rejaudoux	81.81	3	eP	P	21 19 26.2	0.0
	comp=Z,40nm,0.6s,mb5.0						
RJF	Les Rejaudoux	81.81	3	eP	P	21 19 26.2	0.0
RJF				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.0						
LBL	Lubilhac	81.93	2	eP	P	21 19 29.0	+2.1
LAJ	Bijagual	81.97	84	eP	P	21 19 29.3	+1.6
RSP	Reno Superiore	82.04	359	P	P	21 19 28.4	+1.0
LCR2	La Lucha 2	82.14	84	eP	P	21 19 30.3	+1.7
BNI	Bardonecchia	82.14	360	eP	P	21 19 29.2	+1.2
BNI				e*PP	pP	21 20 29.4	-1.3
BNI				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.2						
BNI	Bardonecchia	82.14	360	eP	P	21 19 29.2	+1.2
	comp=Z,54nm,1.0s,mb5.2						
BNI				epP	pP	21 20 29.4	-1.3
LFF	La Frestale	82.14	4	eP	P	21 19 28.3	+0.3
	comp=Z,91nm,0.5s,mb5.4						
LFF	La Frestale	82.14	4	eP	P	21 19 28.3	+0.3
LFF				pmax	pmax		
	comp=Z,45nm,0.5s,mb5.5						
FENE	Fenestrelle	82.16	359	P	P	21 19 29.9	+1.9
URSC	Urasca	82.20	84⇑	eP	P	21 19 30.4	+1.5
CAF	Calviac	82.20	3	eP	P	21 19 28.6	+0.3
	comp=Z,24nm,0.6s,mb4.8						
CAF				epP	pP	21 20 29.2	-1.8
CAF	Calviac	82.20	3	eP	P	21 19 28.6	+0.3

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CAF                                  e*PP    pP      21 20 29.2  -1.8
CAF                                   pmax   pmax
      comp=Z,12nm,0.6s,mb4.8
RRL   Cesana Torines     82.27 360    P      P       21 19 30.5 +1.8
ORIF  Oris-en-Rattie     82.28   0   eP      P       21 19 29.2 +0.5
      comp=Z,28nm,0.7s,mb4.8
ORIF  Oris-en-Rattie     82.28   0   eP      P       21 19 29.2 +0.5
ORIF                                  pmax   pmax
      comp=Z,14nm,0.7s,mb4.8
VIVF  Saint-Julien-l     82.33   1   eP      P       21 19 29.6 +0.7
      comp=Z,41nm,0.7s,mb5.0
VIVF  Saint-Julien-l     82.33   1   eP      P       21 19 29.6 +0.7
VIVF                                  pmax   pmax
      comp=Z,21nm,0.7s,mb5.0
BHB   Bricherasio        82.35 359    P      P       21 19 29.1 +0.1
BOB   Bobbio (Coli)      82.39 358   eP      P       21 19 30.6 +1.3
MBDF  Montbardon         82.47 360   eP      P       21 19 30.8 +1.1
      comp=Z,53nm,0.6s,mb5.2
MBDF  Montbardon         82.47 360   eP      P       21 19 30.8 +1.1
MBDF                                  pmax   pmax
      comp=Z,26nm,0.6s,mb5.1
GRUS  Gruza              82.51 349⇑ iP      P       21 19 28.8  -1.1
BOYT  Boyabat            82.58 339   i P     P       21 19 30.3   0.0
PCP   Pian Castagno      82.63 358    P      P       21 19 30.9 +0.4
GRAM                     82.65 357    P      P       21 19 31.5 +0.9
PZZ   Prazzo             82.69 359    P      P       21 19 31.3 +0.5
CODM                     82.75 357    P      P       21 19 32.2 +1.1
VALM                     82.78 357    P      P       21 19 32.2 +0.9
BALT  Daday              82.79 340   i P     P       21 19 33.0 +1.6
BACM                     82.86 357    P      P       21 19 32.5 +0.8
ROB   Roburent           82.89 359    P      P       21 19 31.4  -0.4
STV   Sta Anna Valdi     82.95 359    P      P       21 19 31.7  -0.4
ENR   Entracque          82.96 359    P      P       21 19 31.8  -0.4
FIN   Finale Ligure      82.97 359    P      P       21 19 33.6 +1.3
VINC  Vinca              83.00 357    P      P       21 19 32.4   0.0
SEI   Scarperia          83.04 356   eP      P       21 19 34.2 +1.6
LASF  Ste Croix          83.10   2   eP      P       21 19 32.9   0.0
RKT   Rikitea            83.10 144   ePP     PP      21 22 43.8  -5.8
RKT                                  eS      S       21 29 13.5   -16
RKT                                  eSS     SS      21 34 51.8   -11
RKT                                  eLR     LR      21 45 23.7
      comp=Z,253nm,29.0s
MONE  Monesi             83.11 359    P      P       21 19 33.6 +0.7
SFI   Santa Sofia        83.17 356   eP      P       21 19 34.7 +1.4
TOUF  Mont Tournerai     83.18 359   eP      P       21 19 34.6 +1.3
EPON  Pontenova          83.18  10    P      P       21 19 33.8 +0.5
      comp=Z,53nm,0.7s,mb5.5
AUTN  L'Aution           83.19 359   eP      P       21 19 32.7  -0.7
MAIM                     83.21 357    P      P       21 19 33.4  -0.1
SMRF  Simiane la Rot     83.22   0   eP      P       21 19 33.5   0.0
      comp=Z,99nm,0.9s,mb5.3
IMI   Imperia            83.27 359    P      P       21 19 35.1 +1.3
MVIF  Mont Vial          83.30 359   eP      P       21 19 34.2 +0.3
SBF   Sospel             83.33 359   eP      P       21 19 34.4 +0.3
      comp=Z,94nm,0.7s,mb5.4
SBF   Sospel             83.33 359   eP      P       21 19 34.4 +0.3
SBF                                   pmax   pmax
      comp=Z,47nm,0.7s,mb5.4
FSSB  Fossombrone        83.34 355   eP      P       21 19 35.4 +1.2
NEGI  Negi               83.34 359    P      P       21 19 34.9 +0.8
EMAZ  Mazaricos          83.35  11    P      P       21 19 33.8  -0.5
      comp=Z,16nm,0.5s,mb5.1
CTKT  Corum              83.36 339   i P     P       21 19 35.2 +0.9
EARI  Arriondas          83.39   8    P      P       21 19 35.3 +0.9
      comp=Z,34nm,0.5s,mb5.4
REVF  Revere             83.45 359   eP      P       21 19 34.5  -0.2
VTS   Vitosha            83.49 347   eP      P       21 19 34.0  -0.9
ACR   Cerro Adams        83.50  84⇓ eP      P       21 19 38.5 +3.0
CSNT  Castellina Chi     83.62 356   eP      P       21 19 35.5 +0.1
FRF   La Foret Royal     83.63 360   eP      P       21 19 35.6 +0.1
      comp=Z,60nm,0.7s,mb5.2
FRF   La Foret Royal     83.63 360   eP      P       21 19 35.6 +0.1
FRF                                   pmax   pmax
      comp=Z,30nm,0.7s,mb5.2
EALK  Alkurruntz         83.74   6    P      P       21 19 37.6 +1.5
      comp=Z,23nm,0.6s,mb5.2
SNTG  Esanatoglia        83.77 355   eP      P       21 19 37.1 +1.0
ELDT  Eldivan            83.79 339   i P     P       21 19 37.9 +1.6
MTLF  Montolieu          83.79   3   eP      P       21 19 36.4 +0.1
      comp=Z,30nm,0.6s,mb5.0
MTLF  Montolieu          83.79   3   eP      P       21 19 36.4 +0.1
MTLF                                  pmax   pmax
      comp=Z,15nm,0.6s,mb5.0
LMR   La Mourre          83.86 360   eP      P       21 19 37.0 +0.4
      comp=Z,49nm,0.7s,mb5.1
LMR   La Mourre          83.86 360   eP      P       21 19 37.0 +0.4
LMR                                   pmax   pmax
      comp=Z,25nm,0.7s,mb5.2
SJPF  Ste Jean           83.86   5   eP      P       21 19 37.7 +1.0
      comp=Z,52nm,0.6s,mb5.2
SJPF  Ste Jean           83.86   5   eP      P       21 19 37.7 +1.0
SJPF                                  pmax   pmax
      comp=Z,26nm,0.6s,mb5.2
GRFL  Gerfalco           83.96 357   eP      P       21 19 37.6 +0.5
SGKT  Sivrigoynuk        83.99 341   i P     P       21 19 38.3 +1.0
EPF   Esparros           84.03   4   eP      P       21 19 37.4  -0.1
      comp=Z,40nm,0.8s,mb5.0
EPF   Esparros           84.03   4   eP      P       21 19 37.4  -0.1
EPF                                   pmax   pmax
      comp=Z,20nm,0.8s,mb5.0
ETSF  Etsaut             84.12   5   eP      P       21 19 38.9 +1.0
      comp=Z,48nm,0.5s,mb5.2
ETSF  Etsaut             84.12   5   eP      P       21 19 38.9 +1.0
ETSF                                  pmax   pmax
      comp=Z,24nm,0.5s,mb5.3
RZN   Rozhen             84.17 346   eP      P       21 19 38.0  -0.2
EZAM  Zamans             84.17  11    P      P       21 19 38.8 +0.6
EZAM                                  pmax   pmax
      comp=Z,13nm,0.6s,mb4.9
EZAM  Zamans             84.17  11    P      P       21 19 38.8 +0.6
      comp=Z,13nm,0.6s,mb4.9
NRCA  Norcia             84.18 355   eP      P       21 19 39.3 +1.1
KKB   Krupnik            84.22 347   eP      P       21 19 39.0 +0.6
SKO   Skopje             84.32 349   i P     P       21 19 40.1 +1.2
SKO                                   pmax   pmax
      comp=Z,122nm,1.3s,mb5.6
SKO   Skopje             84.32 349   i P     P       21 19 40.1 +1.2
      comp=Z,0.1nm,1.3s
SKO                                  i       pP      21 20 45.6 +3.7
EBIE  Bielsa             84.36   5    P      P       21 19 40.8 +1.7
      comp=Z,19nm,0.5s,mb5.2
BRTR  Keskin Array B     84.47 339    P      P       21 19 40.6 +0.8
      comp=Z,14nm,0.9s,mb4.8,baz=45,slow=1.7,SNR=30
BRTR                                  PKKPbc         21 37 48.5
      comp=Z,0.7nm,0.6s,baz=180,slow=6.2,SNR=3.7
ELOB  Lobios             84.53  11    P      P       21 19 41.2 +1.3
      comp=Z,12nm,0.5s,mb5.0
PGF   Pioggiola          84.62 358   eP      P       21 19 40.8 +0.4
      comp=Z,212nm,1.2s,mb5.6
PGF   Pioggiola          84.62 358   eP      P       21 19 40.8 +0.4
PGF                                   pmax   pmax
      comp=Z,106nm,1.2s,mb5.5
AQU   L'Aquila           84.64 355   eP      P       21 19 40.6 +0.1
AQU                                   pmax   pmax
      comp=Z,22nm,0.7s,mb5.1
AQU   L'Aquila           84.64 355   eP      P       21 19 40.6 +0.1
      comp=Z,22nm,0.7s,mb5.1
MALT  Malatya            84.70 335    P      P       21 19 41.0 +0.1
MALT                                  pmax   pmax
      comp=Z,22nm,1.1s,mb4.9
MALT  Malatya            84.70 335    P      P       21 19 41.0 +0.1
      comp=Z,22nm,1.1s,mb4.9
EJON  La Jonquera        84.70   2    P      P       21 19 39.4  -1.4
      comp=Z,11nm,1.0s,mb4.6
PBRG  Braganca           84.73  10   eP      P       21 19 41.3 +0.3
PTQR  Pietraquaria       84.97 355   eP      P       21 19 42.6 +0.4
FGMS  Monte Sant'Ang     85.11 353   eP      P       21 19 43.1 +0.1
PVRL  Vila Real          85.15  11   eP      P       21 19 43.4 +0.3
CII   Carovilli          85.21 354   eP      P       21 19 44.1 +0.7
      comp=Z,40nm,0.8s,mb5.3
OHR   Ohrid              85.24 349   i P     P       21 19 43.8 +0.2
ESKT  Eskisehir          85.24 341   i P     P       21 19 43.3  -0.3
SDI   San Donato         85.26 354   eP      P       21 19 43.4  -0.2
ESAC  San Caprasio       85.29   5    P      P       21 19 43.9 +0.1
      comp=Z,45nm,0.6s,mb5.5
WRAB  Tennant Creek      85.48 228    P      P       21 19 46.0 +0.8
WRAB  Tennant Creek      85.48 228   eP      P       21 19 45.0  -0.3
WRA   Warramunga Arr     85.49 228    P      P       21 19 44.8  -0.5
      comp=Z,50nm,0.9s,mb5.3,baz=36,slow=5.4,SNR=33
WRA                                   S      S       21 29 43.9  -8.5
      comp=Z,18nm,1.5s,baz=34,slow=6.6,SNR=15
SGG   Gregorio Mates     85.54 354   eP      P       21 19 46.4 +1.4
PVIS  Viseu              85.68  11   eP      P       21 19 45.6  -0.2
EPOB  Poblet             85.73   4    P      P       21 19 45.9  -0.1
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      comp=Z,20nm,0.7s,mb5.1
SJG   San Juan           85.78  65   eP      P       21 19 45.9  -0.8
SJG                                   pmax   pmax
      comp=Z,23nm,0.5s
SJG   San Juan           85.78  65    P      P       21 19 46.4  -0.3
      comp=Z,36nm,0.6s,mb5.4,baz=34,slow=1.2,SNR=16
SJG   San Juan           85.78  65   eP      P       21 19 45.9  -0.9
      comp=Z,23nm,0.5s,mb5.3
MTE   Manteigas          86.03  11   eP      P       21 19 47.4  -0.1
GUD   Guadarrama         86.12   8    P      P       21 19 48.2 +0.3
GUD                                   pmax   pmax
      comp=Z,14nm,0.5s,mb5.0
GUD   Guadarrama         86.12   8    P      P       21 19 48.2 +0.3
      comp=Z,14nm,0.5s,mb5.1
HYB   Hyderabad          86.39 294   eP      P       21 19 49.0  -0.7
HYB                                   pmax   pmax
      comp=Z,80nm,1.0s,mb5.5
HYB   Hyderabad          86.39 294   eP      P       21 19 49.0  -0.7
      comp=Z,80nm,1.0s,mb5.5
HYB   Hyderabad          86.39 294   i P     P       21 19 49.0  -0.7
      comp=Z,80nm,1.0s,mb5.5
PCBR  Castelo Branco     86.59  11   eP      P       21 19 49.8  -0.4
ISP   Isparta            86.93 341   eP      P       21 19 50.3  -1.6
ISP   Isparta            86.93 341   eP      P       21 19 50.3  -1.6
ESDC  Sonseca Array      87.09   8    P      P       21 19 52.4  -0.2
      comp=Z,7.6nm,0.5s,mb4.8,baz=348,slow=4.2,SNR=87
ESDC                                  pP     pP      21 20 53.8  -2.1
      comp=Z,3.7nm,0.5s,baz=346,slow=4.2,SNR=2.8
ESDC  Sonseca Array      87.09   8    P      P       21 19 52.6   0.0
      comp=Z,8.2nm,0.6s,mb4.7
ESLA  Sonseca Array      87.09   8   eP      P       21 19 51.5  -1.1
PLOU  Loures             87.34  12   eP      P       21 19 54.2 +0.4
EBAD  Badajoz            87.72  10    P      P       21 19 54.1  -1.5
      comp=Z,7.7nm,0.6s,mb4.7
EVIA  Vianos             88.24   7    P      P       21 19 58.7 +0.7
EVIA                                  pmax   pmax
      comp=Z,11nm,0.6s,mb4.9
EVIA  Vianos             88.24   7    P      P       21 19 58.7 +0.7
      comp=Z,11nm,0.6s,mb4.8
EADA  Adamuz             88.54   9    P      P       21 19 59.6 +0.2
      comp=Z,5.1nm,0.5s,mb4.6
EMIN  Mina Concepcio     88.73  10    P      P       21 19 59.6  -0.7
      comp=Z,7.4nm,0.6s,mb4.7
PALC  Alcoutim           88.94  11   eP      P       21 20 01.1  -0.2
ASAR  Alice Springs      88.94 227    P      P       21 20 01.9 +0.3
      comp=Z,80nm,0.9s,mb5.6,baz=31,slow=4.4,SNR=56
ASAR                                  pP     pP      21 21 03.9  -1.3
      comp=Z,16nm,0.8s,baz=29,slow=4.9,SNR=4.4
EQES  Quesada            89.03   7    P      P       21 20 00.5  -1.2
      comp=Z,5.2nm,0.6s,mb4.5
ELOJ  Sierra Loja        89.59   8    P      P       21 20 05.3 +0.9
ELOJ                                  pmax   pmax
      comp=Z,8.0nm,0.6s,mb4.7
ELOJ  Sierra Loja        89.59   8    P      P       21 20 05.3 +1.0
      comp=Z,7.6nm,0.6s,mb4.7
ESPR  Espera             89.70  10    P      P       21 20 07.7 +2.8
      comp=Z,8.2nm,0.7s,mb4.7
EMIJ  Mijas              90.11   9    P      P       21 20 07.6 +0.8
      comp=Z,20nm,0.7s,mb5.0
SDV   Santo Domingo      90.72  74    P      P       21 20 10.8 +0.7
      comp=Z,26nm,0.5s,mb5.3,baz=79,slow=3.7,SNR=24
SDV   Santo Domingo      90.72  74   eP      P       21 20 10.0  -0.1
      comp=Z,24nm,0.4s,mb5.4
URZ   Urewera            91.42 187    P      P       21 20 11.0  -1.8
      comp=Z,28nm,0.9s,mb5.1,baz=8.0,slow=5.1,SNR=7.7
OTAV  Otavalo            93.00  86   eP      P       21 20 22.3 +1.5
      comp=Z,5.3nm,0.6s,mb4.7
STKA  Stephens Creek     93.18 217    P      P       21 20 21.7 +0.6
      comp=Z,18nm,0.9s,mb5.0,baz=0.7,slow=4.7,SNR=5.7
STKA                                  PP     PP      21 24 06.5  -3.6
      comp=Z,7.8nm,1.0s,baz=8.9,slow=12,SNR=3.7
STKA  Stephens Creek     93.18 217   eP      P       21 20 20.9  -0.2
DBIC  Dimbokro          119.64  13   ePKIKP  PKPdf   21 25 54.0  -0.6
DBIC  Dimbokro          119.64  13    PKP    PKPdf   21 25 54.1  -0.5
      comp=Z,5.7nm,0.4s,baz=348,slow=2.2,SNR=40
KMBO  Kilima Mbogo      122.09 323   ePKIKP  PKPdf   21 26 00.7 +1.3
KMBO  Kilima Mbogo      122.09 323    PKP    PKPdf   21 26 00.4 +1.1
      comp=Z,3.2nm,0.8s,baz=339,slow=2.8,SNR=8.9
KMBO                                  PP     PP      21 27 39.4  -2.0
      comp=Z,2.0nm,0.7s,baz=14,slow=8.0,SNR=3.8
BDFB  Brasilia          123.55  70    PKP    PKPdf   21 26 02.3 +0.2
      comp=Z,4.9nm,0.6s,baz=26,slow=3.0,SNR=9.5
BDFB                                  PP     PP      21 27 47.9  -3.5
      comp=Z,2.3nm,0.6s,baz=317,slow=17,SNR=3.0
CPUP  Villa Florida     126.35  86    PKPdf  PKPdf   21 26 07.8 +0.6
VNDA  Vanda             131.32 187    PKP    PKPdf   21 26 15.6 +0.1
      comp=Z,1.7nm,0.6s,baz=330,slow=4.1,SNR=6.4
VNDA                                  SKPbc          21 29 15.4
      comp=Z,21nm,0.7s,baz=337,slow=4.4,SNR=34
TRQA  Tornquist         131.80 100   ePKP    PKPdf   21 26 17.4   0.0
USHA  Ushuaia           138.02 123    SKPbc          21 29 38.2
      comp=Z,10nm,0.6s,baz=340,slow=3.7,SNR=11
LSZ   Lusaka            138.40 327   ePKHKP          21 26 22.3
QSPA  South Pole Qui    142.94 180   eP      PKPdf   21 26 35.0  -1.2
LBTB  Lobatse           148.32 325   ePKPdf  PKPdf   21 26 48.2 +1.3
LBTB                                 ePKPbc  PKPdf   21 26 51.9 +5.0
MAW   Mawson            149.83 220    PKPbc  PKPdf   21 26 54.8 +6.9
      comp=Z,38nm,0.8s,baz=47,slow=0.9,SNR=34
MAW   Mawson            149.83 220   ePKPdf  PKPdf   21 26 49.4 +1.5
MAW                                  ePKPbc  PKPdf   21 26 54.5 +6.6
BOSA  Boshof            151.73 323   ePKIKP  PKPdf   21 26 53.9 +1.9
BOSA                                 e               21 27 09.3
BOSA  Boshof            151.73 323   ePKPdf  PKPdf   21 26 53.9 +1.9
BOSA                                 ePKPbc  PKPdf   21 26 59.3 +7.3
BOSA                                 ePKPab  PKPab   21 27 09.3  -1.6
SYO   Syowa Base        157.84 212  ⇓PKPab   PKPab   21 27 34.7  -0.9
SYO   Syowa Base        157.84 212  ⇑pPKPab          21 28 37.3
VNA3  Neumayer Olymp    160.55 165⇑ i        PKPab   21 27 50.4 +3.2
SNAA  Sanae             161.02 171⇑ i        PKPab   21 27 48.9  -0.4
SNAA  Sanae             161.02 171    PKP    PKPdf   21 27 04.3 +1.9
      comp=Z,0.8nm,0.8s,baz=217,slow=2.3,SNR=6.7
SNAA                                  PKPab  PKPab   21 27 48.9  -0.4
      comp=Z,9.2nm,0.5s,baz=213,slow=7.2,SNR=65
VNA2  Neumayer--Watz    161.18 166⇑ i        PKPab   21 27 53.6 +3.6
VNA1  Neumayer--Stat    161.29 165⇑ i        PKPab   21 27 53.5 +3.0
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*IDC **28** 21:09:00.8±0.6, 3.68N×94.67E, mb4.7/13, mb1 4.8/14, mb1mx4.7/21, mbtmp4.7/14, ML4.5/1, MS4.7/11, Ms1 4.7/11, ms1mx4.3/30, Error ellipse: s-maj=31.1km s-min=13.7km az=47.0*

*BJI **28** 21:09:02.1, 3.70N×94.60E, h10^{km}, mB5.1, mb5.3, Ms5.3, Msz5.1*

*MOS **28** 21:09:04.3±2.3, 3.71N×94.70E, h33^{km}, mb5.6/15, Error ellipse: s-maj=17.8km s-min=10.8km az=114.6*

*NEIC **28** 21:09:05.4±0.5, 3.71N×94.61E, h30^{km}, mb5.3/19, Error ellipse: s-maj=13.5km s-min=10.0km az=78.0*

*HRVD **28** 21:09:05.4±0.4, 3.54N×94.33E, h12^{km}, MW5.1/52, Centroid moment Tensor Solution. LP body waves: s21,c22;Mantle waves: s52,c84; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.38±.22; $M_{\theta\theta}$-4.29±.18; $M_{\phi\phi}$3.91±.21; $M_{r\theta}$1.36±.56; $M_{\theta\phi}$2.42±.20; $M_{\phi r}$2.25±.63; Best double couple: $M_0$5.41×10^{16} NP1:ϕ_s327°,δ66°,λ168°. NP2:ϕ_s62°,δ79°,λ25°. Principal axes: T 5.77, Plg25°, Azm287°; N -.71, Plg63°, Azm86°; P -5.06, Plg9°, Azm193°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 21:09:03.1±2.0**, 3.69N**±0.05×**94.57E**±0.05**, h28**^{km}±14^{km}**, n135, σ**1^{s}**53**/124**, mb5.2**/43**, MS5.0**/23**, 7C-2D, Off west coast of northern Sumatera**

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Code  Station Name         Δ°   AZ°    Phase ID          Time     Res
                                     Op      ISC      h  m  s    ISC
SNG   Songkhla            6.95  60    P      Pn      21 10 47.0 +1.2
      706nm,1.0s
NST   Nakhon Sawan       13.11  24    P      P       21 12 13.0 +2.7
CM31  Chiang Mai Arr     15.29  16   eP      P       21 12 38.8  -0.3
      21nm,0.6s
CMAR  Chiang Mai Arr     15.29  16    Pn     P       21 12 38.0  -1.1
      0.7nm,0.3s,baz=204,slow=12,SNR=37
CMAR                                  LR     LR      21 18 40.7
      comp=Z,1μm,19.9s,baz=210,slow=38
UBT   Ubonrachathani     15.42  41    P      P       21 12 46.0 +5.2
CHG   Chiang Mai         15.63  16   ⇓P      P       21 12 44.3 +0.8
      56nm,1.1s
COCO  West Island        15.93 172    P      P       21 12 49.0 +1.7
      92nm,0.5s
NANT  Nan                16.17  21    P      P       21 12 49.0  -1.4
CHRT  Chiangrai          16.87  17   ⇑P      P       21 13 01.0 +1.8
      455nm,1.3s
VIS   Vishakhapatnam     17.77 323   eP      P       21 13 08.7  -1.8
VIS                                  e               21 13 27.7
      comp=Z,160nm,1.2s
TRD   Trivandrum         18.15 286   eP      P       21 13 13.6  -1.7
TRD                                  e               21 13 21.1
      comp=Z,96nm,1.1s
AGT   Agartala           20.33 351   eP      P       21 13 42.0 +1.8
HYB   Hyderabad          20.81 312   eP      P       21 13 45.0  -0.1
HYB                                   pmax   pmax
      comp=Z,367nm,1.6s
HYB   Hyderabad          20.81 312   eP      P       21 13 45.0  -0.1
      comp=Z,367nm,1.6s
HYB   Hyderabad          20.81 312   i P     P       21 13 45.0  -0.1
      comp=Z,367nm,1.6s
QIZ   Qiongzhong         21.34  43   eP      P       21 13 53.8 +3.3
QIZ                                  eS      S       21 17 37.8  -3.2
QIZ                                   LR     LR
      comp=N,5μm,15.5s,MS5.1
QIZ                                   LR     LR
      comp=E,4μm,16.7s,MS5.1
QIZ                                   LR     LR
      comp=Z,3μm,15.0s,MS4.8
QIZ   Qiongzhong         21.34  43   eP      P       21 13 50.7 +0.2
      comp=Z,226nm,1.4s,mb5.3
MNGI  Mangalore          21.58 296   i P     P       21 13 55.6 +2.7
MNGI                                 eS      S       21 17 55.2   +10
      comp=Z,173nm,1.5s
SHL   Shillong           21.91 353   eP      P       21 13 53.0  -3.2
SHL                                  e       S       21 18 06.0   +14
BLSP  Bilaspur           21.95 328   eP      P       21 13 56.4  -0.2
KMI   Kunming            22.72  19    P      P       21 14 04.3   0.0
KMI                                   AP             21 14 08.5
KMI                                   XP             21 14 10.5
KMI                                   S      S       21 18 15.5 +9.1
KMI                                   XS             21 18 22.5
KMI                                   AMB    AMB
      comp=Z,168nm,3.6s
KMI                                   LR     LR
      comp=N,5μm,15.8s,MS5.1
KMI                                   LR     LR
      comp=E,4μm,15.8s,MS5.1
KMI                                   LR     LR
      comp=Z,4μm,14.0s,MS5.0
GOA   Goa                23.55 301⇑ e                21 14 23.8
      comp=Z,142nm,1.8s
GOA                                  e       S       21 18 13.7  -7.4
KAD   Karad              24.15 306⇑ iP      P       21 14 20.4 +2.1
KAD                                  e       S       21 18 40.7 +9.3
ALBI  Allahabad          24.75 331   eP      P       21 14 26.5 +2.4
POO   Poona              25.07 308   eP      P       21 14 24.6  -2.5
POO                                  e               21 19 52.4
PKI   Pulchoki           25.31 341   eP      P       21 14 28.6  -0.7
      comp=Z,68nm,0.7s,mb5.3
GYA   Guiyang            25.44  26⇑ iP      P       21 14 30.3  -0.2
GYA                                   AP     pP      21 14 35.0  -3.5
GYA                                   XP     sP      21 14 37.8  -4.4
GYA                                   AMB    AMB
      comp=Z,80nm,0.9s,mb5.2
GYA                                   AMB    AMB
      comp=Z,280nm,5.1s
GYA                                   LR     LR
      comp=N,3μm,15.8s,MS5.0
GYA                                   LR     LR
      comp=E,970nm,13.8s,MS5.0
GYA                                   LR     LR
      comp=Z,5μm,17.4s,MS5.1
DMN   Daman              25.45 340   eP      P       21 14 28.7  -1.9
      comp=Z,91nm,0.7s,mb5.4
GUN   Gumba              25.48 342   eP      P       21 14 29.8  -1.1
      comp=Z,254nm,0.9s,mb5.7
BHPL  Bhopal             25.55 321   eP      P       21 14 30.5  -1.1
BHPL                                 e               21 19 25.5
KKN   Kakani             25.56 341   eP      P       21 14 30.2  -1.4
      comp=Z,176nm,1.0s,mb5.5
GKN   Gorkha             25.97 340   eP      P       21 14 34.0  -1.5
      comp=Z,242nm,1.1s,mb5.6
LSA   Lhasa              26.07 353   eP      P       21 14 36.7 +0.3
LSA                                   pmax   pmax
      comp=Z,121nm,0.7s,mb5.5
LSA   Lhasa              26.07 353   eP      P       21 14 36.7 +0.3
      comp=Z,121nm,0.7s,mb5.5
BOM   Bombay             26.09 307   eP      P       21 14 39.7 +3.1
BOM                                  e       S       21 18 56.5  -7.5
      comp=Z,343nm,1.5s
KOLN  Koldanda           26.14 337   eP      P       21 14 36.0  -1.0
      comp=Z,71nm,0.8s,mb5.2
PTH   Pithoragarh        29.10 334   eP      P       21 15 05.9 +2.0
PTH                                  e               21 18 53.2
NDI   New Delhi          29.84 328   eP      P       21 15 07.0  -3.6
NDI                                  e               21 19 05.0
ENH   Enshi              29.97  26   eP      P       21 15 09.4  -2.3
      comp=Z,24nm,0.6s,mb5.1
DDI   Dehra Dun          30.75 331   eP      P       21 15 20.2 +1.6
DDI                                  e               21 18 56.9
WHN   Wuhan              32.60  33    P      P       21 15 35.5 +0.8
WHN                                   AMB    AMB
      comp=Z,50nm,1.1s,mb5.4
WHN                                   LR     LR
      comp=Z,12μm,14.4s,MS5.7
XAN   Xi'an              33.03  22    P      P       21 15 36.5  -1.9
XAN                                   AP     pP      21 15 50.3 +3.7
XAN                                   SS     SS      21 22 58.5 +3.6
XAN                                   AMB    AMB
      comp=Z,48nm,1.0s,mb5.4
XAN                                   LR     LR
      comp=N,3μm,14.4s,MS5.2
XAN                                   LR     LR
      comp=E,948nm,12.7s,MS5.2
XAN                                   LR     LR
      comp=Z,4μm,13.9s,MS5.3
LZH   Lanzhou            33.36  14   eP      P       21 15 44.3 +3.0
LZH                                   AMB    AMB
      comp=Z,80nm,1.5s,mb5.4
LZH                                   AMB    AMB
      comp=Z,300nm,5.0s
LZH                                   LR     LR
      comp=N,2μm,12.6s
LZH                                   LR     LR
      comp=Z,2μm,16.1s,MS4.9
GTA   Gaotai             35.88   7   eP      P       21 16 01.5  -1.4
GTA                                   AMB    AMB
      comp=Z,17nm,0.9s,mb5.0
GTA                                   AMB    AMB
      comp=Z,246nm,7.2s
GTA                                   LR     LR
      comp=N,1μm,19.8s,MS4.9
GTA                                   LR     LR
      comp=E,2μm,21.3s,MS4.9
GTA                                   LR     LR
      comp=Z,828nm,16.7s,MS4.6
NJ2   Nanjing            36.27  36   eP      P       21 16 08.8 +2.5
NJ2                                   AMB    AMB
      comp=Z,60nm,0.9s,mb5.5
NJ2                                   AMB    AMB
      comp=Z,2μm,6.4s
NJ2                                   LR     LR
      comp=N,5μm,12.5s,MS5.7
NJ2                                   LR     LR
      comp=E,6μm,12.0s,MS5.7
NJ2                                   LR     LR
      comp=Z,6μm,12.3s,MS5.6
SSE   Sheshan            37.04  40    P      P       21 16 10.8  -2.0
SSE                                   LR     LR
      comp=N,2μm,16.3s,MS5.0
SSE                                   LR     LR
      comp=E,1μm,16.9s,MS5.0
SSE                                   LR     LR
      comp=Z,3μm,12.5s,MS5.2
TIA   Tai'an             38.47  30    P      P       21 16 31.3 +6.6
TIA                                   LR     LR
      comp=N,1μm,14.2s,MS5.1
TIA                                   LR     LR
      comp=E,1μm,14.7s,MS5.1
TIA                                   LR     LR
      comp=N,2μm,12.0s
KSH   Kashi              39.45 337    P      P       21 16 36.5 +3.6
KSH                                  eAP     pP      21 16 45.5 +4.4
KSH                                  eXP     sP      21 16 48.3 +3.7
KSH                                   AMB    AMB
      comp=Z,200nm,4.4s
JOW   Kunigami           39.60  51    LR     LR      21 32 02.5
      comp=Z,1μm,21.4s,MS4.7,baz=74,slow=35
BJT   Baijiatuau         41.11  25   eP      P       21 16 50.0 +3.6
BJT                                   pmax   pmax
      comp=Z,85nm,0.8s
BJT   Baijiatuau         41.11  25   eP      P       21 16 50.0 +3.6
      comp=Z,85nm,0.8s,mb5.4
ULHL  Ulahol             41.74 339    P      P       21 16 56.4 +4.8
      SNR=7.5
```

KZA	Kyzart	41.95	338	P	P	21 16 53.0	-0.4
	SNR=10						
NWAO	Narrogin (SRO)	42.27	151	P	P	21 16 54.9	-1.3
NWAO				pmax	pmax		
	comp=Z,7.0nm,0.6s						
NWAO	Narrogin (SRO)	42.27	151	P	P	21 16 55.2	-1.0
	comp=Z,6.9nm,0.8s,mb4.4,baz=309,slow=6.5,SNR=2.7						
NWAO	Narrogin (SRO)	42.27	151	P	P	21 16 54.9	-1.3
	comp=Z,7.3nm,0.6s,mb4.5						
UCH	Uchtor	42.35	338	P	P	21 16 56.3	-0.4
	SNR=18						
KBK	Karagaybulak	42.56	339	P	P	21 16 58.2	-0.2
	SNR=13						
AML	Almayashu	42.58	337	P	P	21 16 58.3	-0.3
	SNR=16						
AAK	Ala-Archa	42.71	338	P	pP	21 17 07.6	-0.3
	SNR=6.0						
AAK	Ala-Archa	42.71	338	*e*P	P	21 16 58.6	-1.0
AAK				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.2						
AAK	Ala-Archa	42.71	338	*e*P	P	21 16 58.6	-1.0
	comp=Z,46nm,0.9s,mb5.2						
CHMS	Chumysh	42.93	339	P	P	21 17 02.9	+1.5
	SNR=6.6						
EKS2	Erkin-Say	43.00	337	P	P	21 17 01.5	-0.5
	SNR=18						
USP	Ospenovka	43.25	339	P	P	21 17 03.0	-1.0
	SNR=14						
MKAR	Makanchi Array	44.24	348	*e*P	P	21 17 10.8	-1.2
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.5s						
SONM	Songino Array	45.15	11	LR	LR	21 37 03.5	
	comp=Z,1μm,19.4s,MS4.8,baz=49,slow=37						
WRA	Warramunga Arr	45.58	123	P	P	21 17 22.5	-0.5
	comp=Z,30nm,0.8s,mb5.3,baz=301,slow=8.9,SNR=137						
WRAB	Tennant Creek	45.58	123	⇑*e*P	P	21 17 22.7	-0.3
WRAB				pmax	pmax		
	comp=Z,53nm,0.7s,mb5.6						
WRAB	Tennant Creek	45.58	123	⇑*e*P	P	21 17 22.7	-0.4
	comp=Z,53nm,0.7s,mb5.6						
ASAR	Alice Springs	46.98	127	P	P	21 17 33.5	-0.5
	comp=Z,8.7nm,0.7s,mb4.8,baz=296,slow=8.1,SNR=78						
HIA	Hailar	50.22	21	*e*P	P	21 17 57.9	-0.9
HIA				*e*		21 18 09.2	
HIA				pmax	pmax		
	comp=Z,53nm,0.7s						
HIA	Hailar	50.22	21	*e*P	P	21 17 57.9	-0.9
	comp=Z,53nm,0.7s,mb5.7						
HIA				*e*		21 18 09.2	
ZAL	Zalesovo	50.73	353	LR	LR	21 52 23.1	
	comp=Z,483nm,19.1s,MS4.5,baz=201,slow=39						
BVAR	Borovoye Array	53.07	342	P	P	21 18 20.4	+0.1
	comp=Z,12nm,0.8s,mb4.9,baz=135,slow=8.4,SNR=4.2						
CHKZ	Chkalovo	53.56	343	P	P	21 18 23.0	-0.9
CHKZ				pmax	pmax		
	comp=Z,83nm,0.9s,mb5.7						
CHKZ	Chkalovo	53.56	343	P	P	21 18 23.0	-0.9
	comp=Z,83nm,0.9s,mb5.7						
CTA	Charters Tower	55.96	117	P	P	21 18 41.4	-0.4
	comp=Z,9.5nm,0.9s,mb4.8,baz=297,slow=7.6,SNR=7.6						
CTA				LR	LR	21 44 03.0	
	comp=Z,725nm,20.6s,MS4.8,baz=92,slow=38						
CTAO	Charters Tower	55.96	117	*e*P	P	21 18 41.3	-0.5
CTAO				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.4						
CTAO	Charters Tower	55.96	117	*e*P	P	21 18 41.3	-0.5
	comp=Z,57nm,1.3s,mb5.4						
BOD	Bodaibo	56.11	12	*e*P	P	21 18 38.2	-4.1
STKA	Stephens Creek	56.96	132	P	P	21 18 48.1	-0.7
	comp=Z,5.5nm,0.8s,mb4.7,baz=298,slow=6.8,SNR=8.5						
STKA	Stephens Creek	56.96	132	*e*P	P	21 18 47.4	-1.5
KMBO	Kilima Mbogo	57.48	266	*e*P	P	21 18 53.7	+0.9
KMBO				pmax	pmax		
	comp=Z,6.0nm,0.7s						
KMBO	Kilima Mbogo	57.48	266	P	P	21 18 53.9	+1.1
	comp=Z,4.3nm,0.8s,mb4.5,baz=67,slow=10,SNR=8.2						
KMBO				LR	LR	21 41 41.9	
	comp=Z,1μm,18.2s,MS5.0,baz=277,slow=34						
KMBO	Kilima Mbogo	57.48	266	*e*P	P	21 18 53.7	+1.0
	comp=Z,5.5nm,0.7s,mb4.7						
GNI	Garni	57.69	316	P	P	21 18 54.8	+0.9
	comp=Z,7.3nm,0.7s,mb4.8,baz=349,slow=8.5,SNR=10.0						
ASAJ	Asahikawa	58.33	39	LR	LR	21 44 15.7	
	comp=Z,754nm,19.3s,MS4.8,baz=233,slow=36						
TI2	Plekhanov	58.38	318	*e*P	P	21 19 01.0	+2.4
ZEI	Tsey	59.41	319	*e*P	P	21 19 08.9	+3.1
ZEI				*i* *PP	PcP	21 19 58.8	+5.7
ZEI				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
YSS	Yuzh-Sakhalins	59.85	36	*e*P	pP	21 19 19.1	+1.8
YSS				*e*		21 19 52.0	
ERZM	Erzurum	59.96	315	*i* P	P	21 19 07.6	-2.0
KIV	Kislovodsk	60.72	319	P	P	21 19 08.0	-6.7
KIV				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.3						
ASF	Jabal al Asfar	60.90	305	LR	LR	21 46 32.4	
	comp=Z,595nm,19.8s,MS4.7,baz=132,slow=37						
MALT	Malatya	61.52	312	P	P	21 19 18.8	-1.5
GZT	Gaziantep	61.86	311	*i* P	P	21 19 21.0	-1.5
EIL	Elat	61.92	302	LR	LR	21 45 46.8	
	comp=Z,968nm,20.8s,MS4.9,baz=291,slow=36						
EIL	Elat	61.92	302	*e*P	P	21 19 20.9	-2.1
	comp=Z,13nm,0.8s,mb5.1						
KAHT	Ahir Dag	62.47	311	*i* P	P	21 19 25.2	-1.4
YAK	Yakutsk	63.82	18	*e*P	P	21 19 31.5	-3.6
YAK				*e*S	S	21 28 07.0	+0.2
YAK				pmax	pmax		
	comp=N,6.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
YAK				smax			
	comp=N,5.0nm,1.2s						
YAK				MLR	MLR		
	comp=Z,590nm,13.0s,MS5.0						
YAK				MLR	MLR		
	comp=N,578nm,14.0s,MS5.1						
YAK				MLR	MLR		
	comp=E,726nm,15.0s,MS5.1						
MEST	Erdemli	64.26	309	*i* P	P	21 19 36.4	-2.1
AVNT	Avonos	64.33	312	*i* P	P	21 19 41.8	+2.9
CSS	Prodhromos	64.48	307	*e*P	P	21 19 39.8	-0.1
	comp=E,46nm,1.0s,mb5.5						
OBN	Obninsk	69.14	329	⇓*i*P	P	21 20 10.2	+1.2
OBN				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.4						
IDI	Anoyia	71.32	306	LR	LR	21 55 20.5	
	comp=Z,408nm,21.3s,MS4.7,baz=250,slow=39						
MLR	Muntele Rosu	72.47	317	P	P	21 20 29.9	+0.6
	comp=Z,12nm,0.8s,mb4.9,baz=200,slow=6.0,SNR=4.5						
LBTB	Lobatse	72.66	243	*e*P	P	21 20 30.0	-0.9
LBTB				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.1						
LBTB	Lobatse	72.66	243	*e*P	P	21 20 30.0	-0.9
	comp=Z,28nm,1.1s,mb5.1						
BOSA	Boshof	73.77	239	*e*P	P	21 20 37.3	0.0
BOSA				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.1						
BOSA	Boshof	73.77	239	*e*P	P	21 20 37.3	0.0
	comp=Z,36nm,1.3s,mb5.1						
MAW	Mawson	74.55	192	LR	LR	21 46 36.0	
	comp=Z,308nm,20.3s,MS4.6,baz=181,slow=30						
APA	Apatity	75.90	340	⇑*i*P	P	21 20 51.9	+3.2
APA				*i*		21 21 04.5	
APA				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
APA				MLR	MLR		
	comp=Z,1μm,18.0s,MS5.3						
FINES	FINESS Array B	76.60	333	P	P	21 20 53.7	+1.0
	comp=Z,8.6nm,0.8s,mb4.7,baz=90,slow=4.2,SNR=4.5						
VYHS	Vyhne	77.80	319	*e*P	P	21 21 03.1	+3.4
VYHS	Vyhne	77.80	319	*e*	P	21 21 03.1	+3.4
ZST	Bratislava	78.91	318	*e*P	P	21 21 08.2	+2.4
ZST	Bratislava	78.91	318	*e*	P	21 21 08.2	+2.4
ARCES	ARCESS Array B	79.33	340	P	P	21 21 07.1	-0.5
	comp=Z,1.9nm,0.6s,mb4.2,baz=53,slow=4.5,SNR=2.9						
ARCES				LR	LR	21 58 43.9	
	comp=Z,584nm,18.3s,MS5.0,baz=177,slow=38						
KSP	Ksiaz	79.75	321	*e*P	P	21 21 13.0	+2.7
BILL	Bilibino	79.80	21	P	P	21 21 12.5	+2.3
BILL				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
BILL	Bilibino	79.80	21	P	P	21 21 12.5	+2.2
	comp=Z,14nm,0.9s,mb4.9						
BOJS	Bojanci	79.89	315	*i* P	P	21 21 14.5	+3.4
LJU	Ljubljana	80.44	316	*e*P	P	21 21 18.4	+4.3
VOY	Vojsko	80.88	316	*e*P	P	21 21 19.9	+3.5
VOY				*e*		21 21 24.3	
VOY				*e*		21 21 35.0	
ROBS	Robic	81.16	316	*e*P	P	21 21 21.8	+3.9
GERES	GERESS Array B	81.22	319	P	P	21 21 19.5	+1.4
	comp=Z,12nm,0.8s,mb4.9,baz=90,slow=5.3,SNR=10						
VNDA	Vanda	88.77	168	P	P	21 21 54.7	-0.6
	comp=Z,3.2nm,1.2s,mb4.5,baz=300,slow=9.0,SNR=3.3						
ILAR	Eielson Array	98.43	22	PP	PP	21 26 42.0	-0.8
	comp=Z,0.7nm,0.8s,baz=309,slow=7.1,SNR=4.6						
YKA	Yellowknife Ar	110.37	14	PP	PP	21 28 07.8	-4.6
	comp=Z,0.5nm,0.6s,baz=333,slow=7.3,SNR=3.8						
YKA				PKKPbc		21 38 38.7	
	comp=Z,0.1nm,0.6s,baz=145,slow=2.8,SNR=4.5						
ULM	Lac du Bonnet	125.53	8	PKP	PKPdf	21 28 04.2	-2.8
	comp=Z,4.1nm,1.0s,baz=135,slow=2.9,SNR=2.3						
NVAR	Mina Array Bea	128.23	33	PKP	PKPdf	21 28 13.6	+1.0
	comp=Z,2.0nm,0.8s,baz=241,slow=1.7,SNR=5.8						
PDAR	Pinedale Array	128.87	23	PKP	PKPdf	21 28 09.7	-4.0
	comp=Z,0.5nm,0.7s,baz=90,slow=3.6,SNR=2.0						
TXAR	Lajitas Array	142.80	27	PKP	PKPdf	21 28 36.6	-3.1
	comp=Z,1.8nm,0.8s,baz=253,slow=1.6,SNR=7.5						
LPAZ	La Paz	158.88	232	*e*PKIKP	PKPdf	21 29 03.6	-0.6
LPAZ	La Paz	158.88	232	PKPab	PKPab	21 29 38.5	+0.7
	comp=Z,1.5nm,0.8s,baz=190,slow=6.1,SNR=3.1						

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*IDC **28** 21:20:48.0±0.9, 6.25N×94.51E, mb4.0/10, mb1 4.1/11, mb1mx4.0/18, mbtmp3.9/11, ML3.8/1, MS4.5/1, Ms1 4.5/1, ms1mx3.2/31, Error ellipse: s-maj=44.8km s-min=17.5km az=51.0*

ISC 28 21:20:51.3±0.8**, 6.3N**±0.1×**94.6E**±0.2**, h33^{km}, n12, σ0^{s}83**/12**, mb4.0**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.78	19	Pn	P	21 23 53.1	-0.3
	0.2nm,0.3s,baz=206,slow=14,SNR=4.3						
SONM	Songino Array	42.57	12	P	P	21 28 46.4	+0.6
	1.3nm,0.7s,mb3.8,baz=192,slow=8.9,SNR=6.8						
WRA	Warramunga Arr	46.99	125	P	P	21 29 21.4	-0.1
	1.5nm,0.8s,mb4.0,baz=302,slow=9.2,SNR=3.4						
ASAR	Alice Springs	48.57	129	P	P	21 29 32.5	-1.3
	1.2nm,0.8s,mb4.0,baz=297,slow=7.7,SNR=3.6						
BVAR	Borovoye Array	50.60	341	P	P	21 29 48.6	-0.4
	0.9nm,0.9s,mb3.7,baz=127,slow=7.2,SNR=2.8						
STKA	Stephens Creek	58.71	133	P	P	21 30 49.7	+1.3
	3.0nm,1.1s,mb4.3,baz=292,slow=11,SNR=3.1						
BRTR	Keskin Array B	63.79	311	P	P	21 31 22.4	-0.3
	1.0nm,0.8s,mb3.9,baz=124,slow=7.5,SNR=4.4						
AKASG	Malin Array Be	69.65	322	P	P	21 31 58.3	-1.2
	0.5nm,0.5s,mb3.8,baz=88,slow=5.5,SNR=4.4						
FINES	FINESS Array B	74.29	332	P	P	21 32 27.1	+0.3
	1.8nm,0.6s,mb4.2,baz=104,slow=7.9,SNR=9.4						
KAF	Kangasniemi	74.37	333	*e*p	P	21 32 26.5	-0.8
	3.6nm,1.0s,mb4.3						
ARCES	ARCESS Array B	76.87	340	P	P	21 32 42.5	+1.1
	3.8nm,1.0s,mb4.3,baz=113,slow=6.9,SNR=2.5						
GERES	GERESS Array B	79.29	318	P	P	21 32 56.2	+1.0
	1.5nm,1.0s,mb3.9,baz=102,slow=12,SNR=5.4						

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*IDC **28** 21:22:30.0±1.2, 5.20N×94.73E, mb4.1/8, mb1 4.2/8, mb1mx4.0/18, mbtmp4.1/8, Error ellipse: s-maj=63.4km s-min=20.7km az=49.0*

ISC 28 21:22:33.5±1.0**, 5.3N**±0.3×**94.9E**±0.3**, h33^{km}, n9, σ0^{s}25**/9**, mb4.0**/8**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.70	17	Pn	P	21 25 55.4	+7.4
	0.2nm,0.3s,baz=211,slow=11,SNR=5.7						
SONM	Songino Array	43.55	11	P	P	21 30 36.3	+0.3
	0.6nm,0.5s,mb3.6,baz=197,slow=7.0,SNR=4.6						
SONM				PcP	PcP	21 32 23.3	-0.6
	0.9nm,1.1s,baz=180,slow=2.5,SNR=4.2						
WRA	Warramunga Arr	46.19	124	P	P	21 30 57.5	0.0
	2.9nm,0.6s,mb4.4,baz=303,slow=9.1,SNR=8.0						
ASAR	Alice Springs	47.71	129	P	P	21 31 09.3	-0.1
	0.6nm,0.5s,mb3.9,baz=297,slow=7.9,SNR=3.0						
BVAR	Borovoye Array	51.67	341	P	P	21 31 38.9	-0.5
	1.0nm,0.6s,mb4.0,baz=135,slow=10,SNR=4.8						
FINES	FINESS Array B	75.34	332	P	P	21 34 15.3	+0.1
	1.6nm,0.8s,mb4.0,baz=108,slow=8.8,SNR=3.2						
ARCES	ARCESS Array B	77.95	340	P	P	21 34 29.4	-0.2
	3.5nm,0.9s,mb4.3,baz=103,slow=6.6,SNR=5.2						
GERES	GERESS Array B	80.24	319	P	P	21 34 42.6	+0.1
	0.7nm,0.6s,mb3.8,baz=120,slow=5.4,SNR=6.2						
DAVOX	Davos	82.76	316	P	P	21 34 56.0	+0.3
	2.4nm,0.5s,mb4.5,baz=175,slow=11,SNR=6.1						

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*INMG **28** 21:24:56.8±0.3, 37.13N×8.51W, h4^{km}±1^{km}, ML1.7, Error ellipse: s-maj=2.1km s-min=0.8km az=31.0*

MDD 28 21:24:57.0±1.5**, 37.15N**×**8.49W, mbLg1.8**/7**, 1D, Error ellipse: s-maj=11.7km s-min=4.0km az=24.0, PRXIMO, Portugal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PTEO	Sao Teotonio	0.43	334	*i* Pg	Pg	21 25 04.9	-0.8
PTEO				*e*Sg	Sg	21 25 11.1	-0.4
	25nm,0.2s						
PTEO	Sao Teotonio	0.43	334	⇓Pg	Pg	21 25 04.9	-0.8
PTEO				Lg		21 25 11.1	
	13nm,0.2s						
PALC	Alcoutim	0.86	69	*e*P	Pg	21 25 13.1	-1.2
PALC				*e*S	Sg	21 25 25.1	-0.7
	14nm,0.1s						
PALC	Alcoutim	0.86	69	Pg	Pg	21 25 13.1	-1.2
PALC				Lg		21 25 25.1	
	6.9nm,0.1s						
EGRO	El Granado	0.89	64	Pg	Pg	21 25 13.5	-1.2
	1.6nm,0.1s,SNR=7.9						
EGRO				Lg		21 25 25.9	
	14nm,0.1s,SNR=7.9						
PBEJ	Beja	1.00	29	*e*P	Pb	21 25 15.4	-1.5
PBEJ				*e*S	Sg	21 25 29.6	-0.8
	3.8nm,0.1s						
PBEJ	Beja	1.00	29	Pg	Pg	21 25 15.4	-1.6
PBEJ				Lg		21 25 29.6	
	1.9nm,0.1s						
MOE	Montemor	1.37	4	*e*S	Sb	21 25 39.9	-1.4
EMIN	Mina Concepcio	1.57	66	Pg	Pg	21 25 24.4	-3.9
	0.3nm,0.1s,SNR=7.9						
EMIN				Lg		21 25 45.6	
	2.5nm,0.2s,SNR=10						
EBAD	Badajoz	1.98	36	Pg	Pg	21 25 33.4	-3.1
	0.5nm,0.1s,SNR=4.0						
EBAD				Lg		21 25 59.5	
	3.3nm,0.2s,SNR=7.3						
ESPR	Espera	2.12	97	Lg		21 26 05.0	
	2.3nm,0.2s,SNR=4.0						

IDC 28 21:25:35.6±2.6**, 6.39N**×**92.05E, mb3.4**/3**, mb1 3.7**/4**, mb1mx3.5**/18**, mbtmp3.5**/4**, ML3.9**/1**, Error ellipse: s-maj=77.4km s-min=31.5km az=63.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.75	29	Pn	P	21 28 51.1	-3.2
	0.2nm,0.3s,baz=231,slow=14,SNR=8.6						
SONM	Songino Array	43.08	14	P	P	21 33 38.2	-0.8
	0.3nm,0.9s,baz=198,slow=9.1,SNR=2.4						
WRA	Warramunga Arr	49.14	123	P	P	21 34 25.2	-2.2
	0.4nm,0.6s,baz=306,slow=8.4,SNR=4.9						
BVAR	Borovoye Array	49.76	343	P	P	21 34 29.1	-2.6
	0.3nm,0.5s,baz=164,slow=10,SNR=2.2						

IDC 28 21:27:35.5±1.0**, 6.54N**×**93.10E, mb3.8**/7**, mb1 4.0**/7**, mb1mx3.9**/16**, mbtmp3.8**/7**, Error ellipse: s-maj=55.1km s-min=20.3km az=48.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.14	25	Pn	P	21 30 51.5	+5.3
	0.2nm,0.3s,baz=231,slow=14,SNR=5.5						
SONM	Songino Array	42.68	13	P	P	21 35 34.2	-1.5
	0.7nm,0.9s,baz=195,slow=7.0,SNR=3.0						
WRA	Warramunga Arr	48.35	124	P	P	21 36 19.3	-2.0
	0.5nm,0.4s,baz=303,slow=9.1,SNR=9.5						
ASAR	Alice Springs	49.88	128	P	P	21 36 30.6	-2.4
	0.4nm,0.4s,baz=306,slow=8.2,SNR=5.2						
ASAR				PcP	PcP	21 37 52.1	-1.7
	1.0nm,0.6s,baz=307,slow=3.5,SNR=6.7						
BRTR	Keskin Array B	62.52	312	P	P	21 38 01.3	-2.2
	0.5nm,0.5s,baz=124,slow=10,SNR=3.4						
FINES	FINESS Array B	73.41	333	P	P	21 39 08.6	-2.5
	1.3nm,0.7s,baz=76,slow=5.7,SNR=3.8						
ARCES	ARCESS Array B	76.17	340	P	P	21 39 25.3	-1.6
	2.5nm,0.9s,baz=107,slow=5.6,SNR=6.3						
GERES	GERESS Array B	78.13	318	P	P	21 39 37.2	-0.9
	0.4nm,0.6s,baz=90,slow=4.9,SNR=2.8						

WEL 28 21:30:08.1±0.4**, 40.15S**×**173.70E, h132^{km}**±4^{km}**, ML3.5**/8**, 2C, Error ellipse: s-maj=2.1km s-min=1.6km az=90.0, Cook Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WAZ	Wanganui	1.06	69	PN	P	21 30 32.4	+0.4
WAZ				SN	S	21 30 49.7	-0.5
NNZ	Nelson	1.10	193	⇑PN	P	21 30 32.1	-0.3
NNZ				SN	S	21 30 50.3	-0.5
QRZ	Quartz Range	1.12	232	⇑PN	P	21 30 32.0	-0.7
QRZ				SN	S	21 30 49.9	-1.3
KIW	Kapiti Island	1.17	128	PN	P	21 30 33.1	+0.1
KIW				SN	S	21 30 50.6	-1.5
TUWZ	Tuamarina	1.30	172	PN	P	21 30 34.1	-0.4
VRZ	Vera Road	1.30	39	PN	P	21 30 33.5	-1.1
VRZ				SN	S	21 30 54.0	-0.9
MRW	Makara Radio	1.32	145	PN	P	21 30 34.7	-0.1
MRW				SN	S	21 30 53.7	-1.6
CAW	Cannon Point	1.42	133	PN	P	21 30 35.6	-0.2
CAW				SN	S	21 30 55.5	-1.5
MRZ	Mangatainoka R	1.53	110	PN	P	21 30 36.4	-0.6
MRZ				SN	S	21 30 56.7	-2.4
BHW	Baring Head	1.54	145	PN	P	21 30 36.6	-0.6
BSWZ	Blackbirch Sta	1.57	175	*e*PN	P	21 30 37.1	-0.4
FWVZ	Far West T-bar	1.68	59	PN	P	21 30 37.8	-1.0
MTW	Mount Morrison	1.71	127	PN	P	21 30 38.5	-0.6
THZ	Tophouse	1.73	200	PN	P	21 30 38.3	-1.0
MSWZ	Moikau Station	1.73	138	PN	P	21 30 38.7	-0.7
MSWZ				SN	S	21 31 00.6	-2.6
TSZ	Takapari Road	1.74	88	PN	P	21 30 38.5	-0.9
TUVZ	Tukino	1.74	61	PN	P	21 30 38.7	-0.8
MOVZ	Moawhango	1.75	66	PN	P	21 30 38.1	-1.4
PAWZ	Paruwai Farm	1.80	134	PN	P	21 30 39.6	-0.6
MGZ	Maungaku	1.82	52	PN	P	21 30 39.5	-1.0
BFZ	Birch Farm	2.02	106	PN	P	21 30 41.8	-1.0
BFZ				SN	S	21 31 06.0	-3.2
KHZ	Kahutara	2.27	183	PN	P	21 30 44.8	-1.3
BKZ	Black Stump Fm	2.37	67	PN	P	21 30 45.0	-2.2
LTZ	Lake Taylor	2.85	202	*e*PN	P	21 30 51.3	-2.3
MQZ	McQueen’s Vall	3.65	192	*e*PN	P	21 30 59.9	-4.2

IDC 28 21:30:20.0±1.6**, 9.55N**×**93.47E, mb3.8**/3**, mb1 4.0**/4**, mb1mx3.6**/17**, mbtmp3.7**/4**, Error ellipse: s-maj=56.6km s-min=29.7km az=52.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.33	30	Pn	P	21 32 49.7	-2.9
	baz=216,slow=13,SNR=2.6						
WRA	Warramunga Arr	49.78	126	P	P	21 39 15.0	-1.7
	1.7nm,0.9s,baz=306,slow=8.7,SNR=7.5						
ASAR	Alice Springs	51.50	131	P	P	21 39 27.6	-2.2
	0.3nm,0.4s,baz=305,slow=7.5,SNR=3.9						
GERES	GERESS Array B	76.14	318	P	P	21 42 09.8	-1.8
	0.9nm,0.6s,baz=135,slow=7.5,SNR=4.9						

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*IDC **28** 21:32:39.0±0.5, 9.43N×93.75E, mb4.3/20, mb1 4.4/20, mb1mx4.4/23, mbtmp4.3/20, MS3.7/1, Ms1 3.9/1, ms1mx2.9/27, Error ellipse: s-maj=27.4km s-min=12.3km az=48.0*

ISC 28 21:32:42.5±0.4**, 9.35N**±0.07×**93.84E**±0.08**, h33^{km}, n53, σ0^{s}99**/47**, mb4.4**/21**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.32	28	Pn	P	21 35 13.4	+2.0
	0.1nm,0.3s,baz=217,slow=14,SNR=10						
CMAR				LR	LR	21 39 50.7	
	comp=Z,349nm,18.5s,baz=5.0,slow=42						
PKI	Pulchoki	19.79	337	*e*P	P	21 37 12.6	-0.3
	232nm,1.6s						
GUN	Gumba	19.93	339	*e*P	P	21 37 13.9	-0.5
	177nm,1.0s						
DMN	Daman	19.94	337	*e*P	P	21 37 14.4	-0.1
	62nm,1.0s						
KKN	Kakani	20.04	337	*e*P	P	21 37 14.6	-1.0
	80nm,1.0s						
GKN	Gorkha	20.48	336	*e*P	P	21 37 19.8	-0.4
	83nm,0.7s						
KOLN	Koldanda	20.71	334	*e*P	P	21 37 22.1	-0.5
	124nm,0.8s						
UCH	Uchtor	36.89	336	P	P	21 39 50.5	+0.6
	SNR=9.8						
KBK	Karagaybulak	37.08	337	P	P	21 39 52.2	+0.8
	SNR=18						
AML	Almayashu	37.15	335	P	P	21 39 53.0	+0.9
	SNR=25						
AAK	Ala-Archa	37.24	336	P	P	21 39 53.9	+1.1
	SNR=9.6						
CHMS	Chumysh	37.45	337	P	P	21 39 54.5	0.0
	SNR=11						
EKS2	Erkin-Say	37.55	335	P	P	21 39 56.2	+0.8
	SNR=19						
USP	Ospenovka	37.77	337	P	P	21 39 57.3	0.0
	SNR=14						
SONM	Songino Array	39.80	13	P	P	21 40 13.8	-0.3
	1.7nm,0.9s,mb3.8,baz=199,slow=8.2,SNR=11						
SONM				PcP	PcP	21 42 21.1	+0.6
	0.9nm,0.5s,baz=204,slow=4.6,SNR=11						
BVAR	Borovoye Array	47.51	341	P	P	21 41 15.1	-1.2
	2.0nm,0.7s,mb4.2,baz=135,slow=8.4,SNR=11						
BVAR				PcP	PcP	21 42 45.8	-0.7
	1.1nm,0.6s,baz=162,slow=4.7,SNR=4.0						
NWAO	Narrogin (SRO)	47.59	153	P	P	21 41 16.8	-0.5
	7.0nm,0.8s,mb4.7,baz=309,slow=5.1,SNR=10						
MIB	Mutribah	47.91	302	*e*P	P	21 41 19.5	-0.3
RST	Umm Al-Ruwaisa	48.12	301	*e*P	P	21 41 21.0	-0.4
MZLS	Mizel	48.56	294	P	P	21 41 26.2	+1.3
KAMS	Al Khamasin	48.68	289	P	P	21 41 26.2	+0.3
WRA	Warramunga Arr	49.37	126	P	P	21 41 30.4	-0.7
	2.5nm,0.6s,mb4.5,baz=306,slow=8.6,SNR=17						
WRA				PcP	PcP	21 42 53.9	+0.2
	1.3nm,0.6s,baz=319,slow=2.9,SNR=9.8						
TATS	Tathlith	49.65	288	P	P	21 41 34.4	+1.1
AFFS	‘Afif	50.55	293	D		21 41 41.5	
ARSS	Ar Rass	50.63	296	P	P	21 41 41.0	+0.3
ASAR	Alice Springs	51.09	131	P	P	21 41 43.9	-0.4
	3.0nm,0.7s,mb4.3,baz=304,slow=7.0,SNR=19						
ASAR				PcP	PcP	21 43 00.4	+0.5
	1.9nm,0.8s,baz=306,slow=3.6,SNR=7.8						
HILS	Ha’il	52.15	297	D		21 41 53.4	
GNI	Garni	53.20	314	P	P	21 41 58.4	-1.5
	4.7nm,1.0s,mb4.4,baz=142,slow=7.1,SNR=4.1						
KBRS	Khaybar	54.16	295	P	P	21 42 08.3	+1.2
UMJS	Umm Lajj	55.84	294	P	P	21 42 21.3	+2.0
PMG	Port Moresby	56.26	108	P	P	21 42 24.3	+1.9
	7.0nm,0.9s,mb4.7,baz=275,slow=9.4,SNR=5.4						
TBKS	Tabuk	56.87	298	D		21 42 27.7	
KMBO	Kilima Mbogo	57.30	263	P	P	21 42 30.9	+1.0
	4.1nm,0.9s,mb4.4,baz=58,slow=9.3,SNR=9.9						
AYUS	‘Aynunah	57.98	297	P	P	21 42 34.9	+0.4
BDAS	Al Bad‘	58.16	298	P	P	21 42 36.0	+0.2
BRTR	Keskin Array B	61.25	310	P	P	21 42 54.5	-2.4
	2.4nm,1.0s,mb4.3,baz=127,slow=7.4,SNR=8.7						
STKA	Stephens Creek	61.34	134	P	P	21 42 56.6	-0.9
	2.1nm,0.8s,mb4.3,baz=322,slow=10,SNR=3.4						
AKASG	Malin Array Be	66.82	321	P	P	21 43 30.5	-2.5
	0.6nm,0.5s,mb3.9,baz=90,slow=5.3,SNR=7.1						
FINES	FINESS Array B	71.28	332	P	P	21 43 58.4	-1.9
	2.8nm,0.9s,mb4.2,baz=108,slow=6.0,SNR=8.0						
ARCES	ARCESS Array B	73.78	340	P	P	21 44 14.6	-0.4
	4.9nm,0.9s,mb4.5,baz=95,slow=7.2,SNR=14						
GERES	GERESS Array B	76.53	318	P	P	21 44 30.2	-0.9
	1.9nm,0.7s,mb4.2,baz=76,slow=5.5,SNR=8.4						
KHC	Kasperske Hory	76.62	318	*e*P	P	21 44 31.0	-0.6
KHC				*e*x	x	21 44 36.5	
NB2	NORSAR Subarra	78.31	330	P	P	21 44 39.7	-1.0
	4.5nm,1.0s,mb4.3,baz=92,slow=5.6						
NOA	NORSAR Array B	78.31	330	P	P	21 44 39.6	-1.1

	2.9nm,0.9s,mb4.2,baz=93,slow=5.4,SNR=5.4						
DAVOX	**Davos**	**79.13**	**316**	P	**P**	**21 44 45.1**	**-0.3**
	1.7nm,0.4s,mb4.3,baz=31,slow=4.3,SNR=5.1						
LPG	**La Plagne**	**81.37**	**315**	*e*P	**P**	**21 44 56.7**	**-0.8**
	36nm,0.9s,mb5.0						
DRV	**Dumont d’Urvil**	**82.86**	**163**	R		21 45 00.0	
EKA	**Eskdalemuir Ar**	**86.34**	**325**	P	**P**	**21 45 23.1**	**+0.8**
	3.2nm,0.9s,mb4.6,baz=104,slow=3.4,SNR=3.9						
ESDC	**Sonseca Array**	**90.04**	**310**	P	**P**	**21 45 41.5**	**+1.1**
	0.4nm,0.5s,mb4.0,baz=59,slow=4.2,SNR=4.8						
ILAR	**Eielson Array**	**93.50**	**22**	P	**P**	**21 45 56.4**	**+0.6**
	1.3nm,0.8s,mb4.4,baz=297,slow=3.6,SNR=9.8						
INK	**Inuvik**	**95.67**	**16**	P	**P**	**21 46 06.3**	**+0.8**
	1.9nm,0.6s,mb4.7,baz=333,slow=3.2,SNR=7.3						
NVAR	**Mina Array Bea**	**123.81**	**30**	PKP	PKPdf	21 51 40.8	+3.2
	0.4nm,0.3s,baz=200,slow=1.8,SNR=3.7						
TXAR	**Lajitas Array**	**138.00**	**23**	PKP	PKPdf	21 52 07.5	+2.8
	0.3nm,0.5s,baz=177,slow=0.4,SNR=9.6						

IDC 28 21:34:28.1±7.0**, 7.47N**×**94.03E, mb3.9**/2**, mb1 4.0**/3**, mb1mx3.6**/17**, mbtmp3.9**/3**, ML4.3**/1**, Error ellipse: s-maj=156.4km s-min=56.2km az=147.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.92**	**23**	Pn	P	21 37 19.0	-3.4
	0.6nm,0.3s,baz=213,slow=15,SNR=8.7						
BRTR	**Keskin Array B**	**62.61**	**311**	P	P	21 44 54.1	-2.5
	0.7nm,0.7s,baz=121,slow=8.2,SNR=3.0						
FINES	**FINESS Array B**	**73.01**	**332**	P	P	21 46 00.3	-1.2
	2.1nm,0.9s,baz=104,slow=7.9,SNR=4.1						

*IDC **28** 21:39:41.7±0.8, 0.42N×96.89E, mb4.3/12, mb1 4.4/13, mb1mx4.2/19, mbtmp4.2/13, ML4.3/1, Error ellipse: s-maj=40.7km s-min=15.1km az=47.0*

ISC 28 21:39:45.1±0.8**, 0.5N**±0.1×**97.0E**±0.2**, h33**^{km}**, n14,** σ**0**^{s}**81**/13**, mb4.2**/12**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**17.97**	**6**	P	**P**	**21 43 54.5**	**+0.3**
	0.4nm,0.3s,baz=196,slow=11,SNR=16						
WRA	**Warramunga Arr**	**41.84**	**121**	P	**P**	**21 47 33.9**	**0.0**
	3.4nm,0.7s,mb4.1,baz=301,slow=9.0,SNR=12						
ASAR	**Alice Springs**	**43.13**	**126**	P	**P**	**21 47 44.9**	**+0.4**
	1.8nm,0.8s,mb3.9,baz=302,slow=8.1,SNR=14						
SONM	**Songino Array**	**47.87**	**9**	P	**P**	**21 48 22.3**	**+0.4**
	1.9nm,0.8s,mb4.2,baz=189,slow=9.3,SNR=9.0						
SONM				PcP	PcP	21 49 50.3	-0.2
	0.5nm,0.6s,baz=185,slow=3.6,SNR=4.1						
PMG	**Port Moresby**	**50.90**	**102**	P	**P**	**21 48 44.1**	**-1.5**
	6.1nm,0.7s,mb4.6,baz=290,slow=12,SNR=3.4						
STKA	**Stephens Creek**	**53.03**	**132**	P	**P**	**21 49 02.0**	**+0.7**
	2.7nm,0.9s,mb4.2,baz=296,slow=6.9,SNR=7.9						
ZAL	**Zalesovo**	**54.23**	**351**	P	**P**	**21 49 09.6**	**-0.2**
	4.2nm,0.5s,mb4.7,baz=224,slow=6.1,SNR=16						
BVAR	**Borovoye Array**	**56.86**	**341**	P	**P**	**21 49 28.2**	**-0.7**
	1.2nm,0.6s,mb4.1,baz=140,slow=12,SNR=5.7						
BRTR	**Keskin Array B**	**69.44**	**313**	P	**P**	**21 50 52.0**	**-0.1**
	1.0nm,0.6s,mb3.9,baz=140,slow=7.2,SNR=3.5						
IDI	**Anoyia**	**75.16**	**306**	P	**P**	**21 51 26.5**	**+0.3**
	3.2nm,0.6s,mb4.4,baz=40,slow=17,SNR=3.4						
AKASG	**Malin Array Be**	**75.70**	**323**	P	**P**	**21 51 27.2**	**-1.7**
	1.2nm,0.5s,mb4.1,baz=94,slow=4.4,SNR=7.2						
FINES	**FINESS Array B**	**80.54**	**333**	P	**P**	**21 51 55.9**	**+0.5**
	1.1nm,0.6s,mb4.0,baz=117,slow=4.3,SNR=7.2						
ARCES	**ARCESS Array B**	**83.14**	**340**	P	**P**	**21 52 10.1**	**+1.4**
	5.2nm,1.1s,mb4.5,baz=108,slow=3.8,SNR=8.4						
TXAR	**Lajitas Array**	**144.39**	**32**	PKP	PKPdf	21 59 19.8	+1.2
	0.3nm,0.6s,baz=250,slow=1.6,SNR=4.7						

*JMA **28** 21:40:46.9±0.1, 28.98N×130.29E, h67^{km}±4^{km}, M4.1*

*IDC **28** 21:40:47.7±2.6, 28.96N×130.30E, h43^{km}±26^{km}, mb3.7/8, mb1 4.0/10, mb1mx3.8/25, mbtmp4.1/10, ML4.1/2, MS3.1/1, Ms1 3.1/1, ms1mx2.3/38, Error ellipse: s-maj=20.8km s-min=17.4km az=100.0*

ISC 28 21:40:46.7±0.6**, 28.94N**±0.04×**130.39E**±0.08**, h56**^{km}±7^{km}**, n21,** σ**0**^{s}**69**/30**, mb4.0**/8**, Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JZK	**Kikaishima**	**0.72**	**210**	P	**P**	**21 41 01.9**	**+0.9**
JAM	**Amami Oshima**	**0.86**	**233**	P	**P**	**21 41 03.0**	**+0.1**
JAM				S	**S**	**21 41 15.7**	**+0.7**
JNN	**Nakanoshima**	**1.00**	**334**	P	**P**	**21 41 04.5**	**-0.3**
JNN				S	**S**	**21 41 17.9**	**-0.4**
JKC	**Kuchinoerabu**	**1.53**	**354**	P	**P**	**21 41 12.5**	**+0.3**
JKC				S	**S**	**21 41 31.8**	**+0.7**
JTK	**Tokunoshima**	**1.71**	**228**	P	**P**	**21 41 15.1**	**+0.4**
JTK				S	**S**	**21 41 36.7**	**+1.2**
JTN	**Tanegashima 3**	**1.79**	**17**	P	**P**	**21 41 15.6**	**-0.2**
JTN				S	**S**	**21 41 37.5**	**+0.2**
JTSR	**Tashiro 2**	**2.27**	**12**	P	**P**	**21 41 22.6**	**0.0**
JTSR				S	**S**	**21 41 48.7**	**-0.6**
JOW	**Kunigami**	**2.81**	**222**	P	**P**	**21 41 29.9**	**-0.4**
JOW				S	**S**	**21 42 03.3**	**+0.2**
JOW	**Kunigami**	**2.81**	**222**	P	**P**	**21 41 29.9**	**-0.4**
	21nm,0.3s,baz=109,slow=25,SNR=22						
JOW				S	**S**	**21 42 02.3**	**-0.8**
	52nm,0.3s,baz=115,slow=28,SNR=7.9						
JOW				LR	LR	21 42 16.4	
	comp=Z,380nm,21.9s,baz=90,slow=32						
JIH	**Iheya**	**2.86**	**229**	P	**P**	**21 41 30.5**	**-0.5**
JIH				S	**S**	**21 42 03.0**	**-1.3**
JJT2	**Tamagusuku 2**	**3.64**	**221**	P	**P**	**21 41 42.2**	**+0.2**
JKE	**Kume jima 2**	**4.12**	**232**	P	**P**	**21 41 47.7**	**-1.0**
CBIJ	**Chichi jima**	**10.59**	**97**	P	**P**	**21 43 17.2**	**-1.0**
	14nm,0.3s,baz=274,slow=19,SNR=6.3						
SONM	**Songino Array**	**26.46**	**322**	P	**P**	**21 46 19.1**	**-1.1**
	0.6nm,0.7s,mb3.2,baz=134,slow=9.3,SNR=4.4						
WRA	**Warramunga Arr**	**48.74**	**175**	P	**P**	**21 49 27.3**	**-0.7**
	1.8nm,0.8s,mb4.2,baz=352,slow=8.3,SNR=10						
BVAR	**Borovoye Array**	**49.58**	**317**	P	**P**	**21 49 34.1**	**+0.2**
	2.7nm,0.6s,mb4.5,baz=96,slow=10,SNR=13						
ASAR	**Alice Springs**	**52.41**	**176**	P	**P**	**21 49 56.6**	**+0.8**
	1.6nm,0.6s,mb4.1,baz=6.8,slow=14,SNR=15						
INK	**Inuvik**	**65.65**	**24**	P	**P**	**21 51 27.4**	**+0.6**
	1.1nm,0.6s,mb4.0,baz=322,slow=8.1,SNR=4.1						
FINES	**FINESS Array B**	**71.45**	**331**	P	**P**	**21 52 02.8**	**0.0**
	0.9nm,0.7s,mb3.8,baz=76,slow=5.7,SNR=9.1						
AKASG	**Malin Array Be**	**74.72**	**320**	P	**P**	**21 52 22.2**	**+0.2**
	2.3nm,0.8s,mb4.2,baz=60,slow=6.0,SNR=4.1						
YKA	**Yellowknife Ar**	**75.27**	**26**	P	**P**	**21 52 26.1**	**+1.2**
	1.5nm,0.8s,mb4.0,baz=304,slow=5.4,SNR=24						

*IDC **28** 21:42:48.7±0.6, 8.87N×93.65E, mb4.4/17, mb1 4.5/17, mb1mx4.4/21, mbtmp4.3/17, Error ellipse: s-maj=32.0km s-min=13.5km az=52.0*

ISC 28 21:42:52.3±0.5**, 8.95N**±0.09×**93.86E**±0.09**, h33**^{km}**, n50,** σ**0**^{s}**85**/45**, mb4.4**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.66**	**27**	Pn	**P**	**21 45 30.1**	**+4.2**
	0.3nm,0.3s,baz=213,slow=15,SNR=5.6						
PKI	**Pulchoki**	**20.17**	**338**	*e*P	**P**	**21 47 26.9**	**+0.1**
GUN	**Gumba**	**20.31**	**339**	*e*P	**P**	**21 47 28.3**	**0.0**
	108nm,0.8s						
DMN	**Daman**	**20.32**	**337**	*e*P	**P**	**21 47 27.9**	**-0.5**
KKN	**Kakani**	**20.41**	**338**	*e*P	**P**	**21 47 29.0**	**-0.4**
	49nm,0.7s						
GKN	**Gorkha**	**20.85**	**337**	*e*P	**P**	**21 47 34.0**	**+0.1**
	86nm,0.7s						
KOLN	**Koldanda**	**21.07**	**334**	*e*P	**P**	**21 47 36.6**	**+0.4**
	92nm,0.8s,mb5.2						
SONM	**Songino Array**	**40.18**	**13**	P	**P**	**21 50 28.0**	**+0.9**
	2.1nm,0.8s,mb3.9,baz=198,slow=7.5,SNR=5.7						
SONM				PcP	PcP	21 52 32.1	+0.5
	1.7nm,0.7s,baz=191,slow=3.3,SNR=6.6						
ZAL	**Zalesovo**	**45.45**	**352**	P	**P**	**21 51 10.2**	**+0.3**
	2.9nm,0.7s,mb4.2,baz=210,slow=8.0,SNR=13						
NWAO	**Narrogin (SRO)**	**47.23**	**153**	P	**P**	**21 51 24.1**	**-0.1**
	10nm,0.6s,mb4.9,baz=322,slow=7.5,SNR=12						
BVAR	**Borovoye Array**	**47.89**	**341**	P	**P**	**21 51 28.4**	**-0.8**
	1.6nm,0.5s,mb4.3,baz=142,slow=10,SNR=9.6						
BVAR				PcP	PcP	21 52 57.3	-0.4
	2.2nm,0.7s,baz=135,slow=4.2,SNR=5.8						
MIB	**Mutribah**	**48.14**	**302**	*e*P	**P**	**21 51 31.1**	**-0.4**
RST	**Umm Al-Ruwaisa**	**48.35**	**302**	*e*P	**P**	**21 51 32.6**	**-0.5**
MZLS	**Mizel**	**48.75**	**294**	P	**P**	**21 51 37.3**	**+1.1**
KAMS	**Al Khamasin**	**48.83**	**289**	P	**P**	**21 51 37.1**	**+0.1**
WRA	**Warramunga Arr**	**49.11**	**126**	P	**P**	**21 51 38.6**	**-0.5**
	1.5nm,0.9s,mb4.0,baz=304,slow=8.9,SNR=7.4						
WRA				PcP	PcP	21 53 01.6	-1.0
	1.1nm,0.8s,baz=316,slow=2.3,SNR=5.4						
AFFS	**‘Afif**	**50.73**	**294**	P	**P**	**21 51 52.3**	**+0.9**
ASAR	**Alice Springs**	**50.82**	**130**	P	**P**	**21 51 51.1**	**-0.9**
	2.0nm,0.8s,mb4.1,baz=310,slow=7.6,SNR=13						
ASAR				PcP	PcP	21 53 08.8	0.0
	1.6nm,0.8s,baz=308,slow=3.9,SNR=6.6						
HILS	**Ha’il**	**52.36**	**298**	P	**P**	**21 52 04.7**	**+1.1**
PMG	**Port Moresby**	**56.11**	**108**	P	**P**	**21 52 32.4**	**+1.1**
	6.0nm,0.7s,mb4.7,baz=43,slow=0.8,SNR=4.9						
QURS	**Qurayyt al Mil**	**56.91**	**302**	P	**P**	**21 52 36.4**	**-0.4**
TBKS	**Tabuk**	**57.07**	**298**	P	**P**	**21 52 39.0**	**+0.9**
KMBO	**Kilima Mbogo**	**57.27**	**263**	P	**P**	**21 52 40.1**	**+0.5**
	1.0nm,0.7s,mb4.0,baz=59,slow=14,SNR=5.2						
JMQS	**Jabal Moqyreh**	**57.75**	**298**	P	**P**	**21 52 43.0**	**+0.2**
BDAS	**Al Bad‘**	**58.37**	**298**	P	**P**	**21 52 46.8**	**-0.3**
JMOS	**Jabal al Moall**	**58.45**	**299**	P	**P**	**21 52 47.2**	**-0.5**
HAQS	**Haql**	**58.59**	**299**	P	**P**	**21 52 48.7**	**+0.1**
BRTR	**Keskin Array B**	**61.52**	**310**	P	**P**	**21 53 06.4**	**-2.2**
	3.2nm,0.7s,mb4.6,baz=125,slow=7.6,SNR=13						
AKASG	**Malin Array Be**	**67.14**	**321**	P	**P**	**21 53 42.5**	**-2.4**
	1.1nm,0.5s,mb4.2,baz=86,slow=5.4,SNR=8.5						
KOLS	**Kolonicke sedl**	**71.22**	**319**	*e*P	**P**	**21 54 09.6**	**-0.4**
FINES	**FINESS Array B**	**71.64**	**332**	P	**P**	**21 54 11.3**	**-1.0**
	2.7nm,0.8s,mb4.2,baz=90,slow=5.7,SNR=7.0						
KAF	**Kangasniemi**	**71.71**	**333**	*e*p	**P**	**21 54 08.9**	**-3.8**
CRVS	**Cervenica-Dubn**	**71.74**	**319**	*e*P	**P**	**21 54 14.6**	**+1.5**
KECS	**Kecovo**	**72.33**	**318**	*e*P	**P**	**21 54 15.7**	**-0.9**
OJC	**Ojcow**	**72.98**	**320**	*e*P	**P**	**21 54 19.8**	**-0.7**
SRO	**Srobarova**	**73.72**	**317**	*e*P	**P**	**21 54 27.6**	**+2.8**
ARCES	**ARCESS Array B**	**74.16**	**340**	P	**P**	**21 54 27.3**	**+0.3**
	4.2nm,0.6s,mb4.5,baz=96,slow=5.9,SNR=13						
ZST	**Bratislava**	**74.56**	**317**	*e*P	**P**	**21 54 29.6**	**-0.1**
GERES	**GERESS Array B**	**76.84**	**318**	P	**P**	**21 54 42.7**	**0.0**
	2.2nm,0.6s,mb4.3,baz=96,slow=5.8,SNR=14						
NB2	**NORSAR Subarra**	**78.66**	**331**	P	**P**	**21 54 51.6**	**-0.9**
	2.4nm,0.6s,mb4.3,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**78.66**	**331**	P	**P**	**21 54 51.9**	**-0.6**
	2.4nm,0.6s,mb4.3,baz=92,slow=5.7,SNR=11						
EKA	**Eskdalemuir Ar**	**86.68**	**325**	P	**P**	**21 55 34.7**	**+0.9**
	4.6nm,0.7s,mb4.8,baz=98,slow=5.6,SNR=16						
ESDC	**Sonseca Array**	**90.31**	**310**	P	**P**	**21 55 51.6**	**0.0**
	0.1nm,0.4s,mb3.5,baz=60,slow=3.3,SNR=4.1						
ILAR	**Eielson Array**	**93.86**	**22**	P	**P**	**21 56 07.5**	**+0.3**
	1.2nm,0.7s,mb4.5,baz=304,slow=3.9,SNR=20						
INK	**Inuvik**	**96.04**	**16**	P	**P**	**21 56 17.6**	**+0.6**
	2.0nm,0.8s,mb4.6,baz=353,slow=7.3,SNR=4.7						
ULM	**Lac du Bonnet**	**120.44**	**7**	PKP	PKPdf	22 01 42.6	+1.9
	0.7nm,0.6s,baz=359,slow=22,SNR=3.2						
NVAR	**Mina Array Bea**	**124.14**	**30**	PKP	PKPdf	22 01 50.8	+2.7
	1.4nm,0.6s,baz=306,slow=2.6,SNR=5.1						
PDAR	**Pinedale Array**	**124.27**	**21**	PKP	PKPdf	22 01 50.2	+2.0
	1.3nm,0.7s,baz=48,slow=1.5,SNR=12						
TXAR	**Lajitas Array**	**138.36**	**23**	PKP	PKPdf	22 02 18.0	+2.8
	0.6nm,0.6s,baz=170,slow=0.9,SNR=8.2						
LPAZ	**La Paz**	**160.99**	**246**	PKPab	PKPab	22 03 35.3	+0.2
	1.9nm,0.8s,baz=263,slow=0.8,SNR=6.7						

*IDC **28** 21:47:25.3±0.4, 8.97N×93.78E, mb5.0/25, mb1 5.1/25, mb1mx5.1/25, mbtmp5.0/25, ML4.3/1, MS4.8/17, Ms1 4.8/17, ms1mx4.6/27, Error ellipse: s-maj=19.4km s-min=10.4km az=50.0*

*NEIC **28** 21:47:27.4±2.9, 8.96N×93.77E, h13^{km}±17^{km}, mb5.4/52, MS4.8/27, Error ellipse: s-maj=6.6km s-min=5.3km az=217.0*

*HRVD **28** 21:47:27.4±0.2, 9.06N×93.78E, h12^{km}, MW5.4/63, Centroid moment Tensor Solution. LP body waves: s43,c73;Mantle waves: s63,c129; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}-1.10±.02; $M_{\theta\theta}$-0.25±.02; $M_{\phi\phi}$1.34±.02; $M_{r\theta}$0.59±.07; $M_{\theta\phi}$0.05±.02; $M_{\phi r}$-0.61±.06; Best double couple: $M_0$1.5×10^{17} NP1: ϕ_s205°,δ37°,λ-49°. NP2:ϕ_s338°,δ63°,λ-116°. Principal axes: T 1.49, Plg14°, Azm87°; N .02, Plg23°, Azm351°; P -1.51, Plg62°, Azm205°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **28** 21:47:27.4, 8.77N×93.46E, h30^{km}, mB5.3, mb4.9, Ms5.3, Msz5.2*

*SYO **28** 21:47:27.5, 8.96N×93.77E, h14^{km}, MB5.4, MS4.8*

*MOS **28** 21:47:30.5±1.0, 9.25N×93.59E, h33^{km}, mb5.6/53, MS4.9/27, Error ellipse: s-maj=9.5km s-min=5.0km az=121.0*

*CSEM **28** 21:47:33.8, 9.86N×93.53E, h33^{km}, mb5.6*

ISC 28 21:47:27.1±0.2**, 8.86N**±0.03×**93.76E**±0.03**, h23**^{km}**, h23**^{km}±2.2^{km}**:pP-P, n368,** σ**1**^{s}**12**/349**, mb5.3**/103**, MS4.9**/61**, 15C-16D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**7.00**	**103**	P	**Pn**	**21 49 12.0**	**+1.1**
	996nm,1.0s						
NST	**Nakhon Sawan**	**9.20**	**42**	P	**P**	**21 49 43.0**	**+1.5**
CM31	**Chiang Mai Arr**	**10.79**	**27**	*e*P	**P**	**21 50 00.7**	**-2.7**
CMAR	**Chiang Mai Arr**	**10.79**	**27**	*i* P	**P**	**21 50 00.7**	**-2.7**
CMAR	**Chiang Mai Arr**	**10.79**	**27**	Pn	**P**	**21 50 00.7**	**-2.7**
	0.6nm,0.3s,baz=251,slow=19,SNR=11						
CMAR				LR	LR	21 54 08.1	
	comp=Z,2µm,20.1s,baz=225,slow=38						
CHG	**Chiang Mai**	**11.10**	**26**	⇑P	**P**	**21 50 10.9**	**+3.2**
	50nm,0.9s						
NANT	**Nan**	**11.96**	**34**	P	**P**	**21 50 23.5**	**+4.2**
CHRT	**Chiangrai**	**12.40**	**27**	⇑P	**P**	**21 50 28.0**	**+2.7**
	303nm,1.3s						
VIS	**Vishakhapatnam**	**13.43**	**312**	*e*P	**P**	**21 50 36.4**	**-2.5**
VIS				*e*S	x	21 52 48.9	
VIS				*e*	**S**	**21 53 00.2**	**-8.2**
	comp=N,1µm,1.2s						
VIS				*e*		21 53 00.9	
	comp=E,545nm,1.0s						
KOD	**Kodaikanal**	**16.12**	**276**	*e*P	**P**	**21 51 17.8**	**+3.6**
KOD				*e*		21 51 33.9	
	comp=Z,285nm,1.8s						
SHL	**Shillong**	**16.71**	**354**	*e*P	**P**	**21 51 21.7**	**+0.2**
SHL				*e*		21 51 35.0	
	comp=Z,195nm,1.2s						
SHL				*e*S	**S**	**21 54 19.9**	**-5.6**
HYB	**Hyderabad**	**17.06**	**301**	*e*P	**P**	**21 51 25.5**	**-0.5**
HYB				*e*S	**S**	**21 54 23.0**	**-11**
HYB	**Hyderabad**	**17.06**	**301**	*i* P	**P**	**21 51 25.5**	**-0.5**
HYB				*e*		21 54 23.0	
HYB				*e*S	**S**	**21 54 35.0**	**+1.4**
HYB				LR	LR	21 56 56.0	
	comp=Z,13nm,12.0s						
BLSP	**Bilaspur**	**17.29**	**321**	*e*P	**P**	**21 51 29.0**	**+0.2**
KMI	**Kunming**	**18.30**	**27**	⇑P	**P**	**21 51 46.3**	**+4.9**
KMI				AP		21 51 49.8	
KMI				XP		21 51 51.0	
KMI				S	**S**	**21 55 14.5**	**+13**
KMI				XS		21 55 18.0	
KMI				AMB	AMB		
	comp=Z,64nm,1.6s						
KMI				AMB	AMB		
	comp=Z,1µm,3.9s						
KMI				LR	LR		
	comp=N,3µm,13.7s						
KMI				LR	LR		
	comp=E,5µm,11.7s						
KMI				LR	LR		
	comp=Z,4µm,18.8s						
QIZ	**Qiongzhong**	**18.58**	**55**	P	**P**	**21 51 46.0**	**+1.1**
QIZ				AP		21 51 58.0	
QIZ				S	**S**	**21 55 10.3**	**+2.2**
QIZ				LR	LR		
	comp=Z,9µm,10.5s						
QIZ	**Qiongzhong**	**18.58**	**55**	*e*P	**P**	**21 51 45.2**	**+0.4**
	comp=Z,228nm,1.4s						
NGP	**Nagpur**	**18.71**	**312**	⇑*e*P	**P**	**21 51 48.8**	**+2.3**
NGP				*e*S	**S**	**21 55 14.9**	**+3.8**
MNGI	**Mangalore**	**19.03**	**284**	*e*P	**P**	**21 51 53.3**	**+3.1**
MNGI				*e*		21 52 17.7	
	comp=Z,256nm,1.2s						
AKL	**Akola**	**19.99**	**308**	*e*P	**P**	**21 52 04.2**	**+3.1**
AKL				*e*		21 52 11.1	
	comp=Z,286nm,1.4s						
PKI	**Pulchoki**	**20.21**	**338**	*e*P	**P**	**21 52 03.6**	**+0.3**
	comp=Z,909nm,1.2s						
GUN	**Gumba**	**20.35**	**340**	*e*P	**P**	**21 52 04.5**	**-0.3**
	comp=Z,937nm,1.1s						
DMN	**Daman**	**20.36**	**337**	*e*P	**P**	**21 52 04.4**	**-0.5**
	comp=Z,411nm,0.9s						
KKN	**Kakani**	**20.46**	**338**	*e*P	**P**	**21 52 05.4**	**-0.5**
	comp=Z,601nm,1.1s						
GOA	**Goa**	**20.56**	**291**	*e*		21 52 15.4	
GOA				*e*		21 52 27.8	
	comp=Z,198nm,1.5s						
GOA				*e*S	**S**	**21 55 58.0**	**+7.3**
KAD	**Karad**	**20.81**	**296**	⇑*i*P	**P**	**21 52 10.8**	**+1.2**
LSA	**Lhasa**	**20.87**	**354**	*e*P	**P**	**21 52 09.5**	**-0.7**
LSA				pmax	pmax		
	comp=Z,118nm,0.7s						
LSA				MLR	MLR		
	comp=Z,2µm,22.0s,MS4.4						
LSA	**Lhasa**	**20.87**	**354**	*e*P	**P**	**21 52 09.5**	**-0.7**
	comp=Z,118nm,0.7s						
LSA				LR	LR		
	comp=Z,2µm,22.0s,MS4.4						
GKN	**Gorkha**	**20.89**	**337**	*e*P	**P**	**21 52 10.0**	**-0.4**
	comp=Z,993nm,1.1s						
KOLN	**Koldanda**	**21.11**	**334**	*e*P	**P**	**21 52 12.8**	**+0.2**
	comp=Z,456nm,0.7s,mb5.9						
COCO	**West Island**	**21.14**	**172**	*e*P	**P**	**21 52 14.2**	**+1.3**
	comp=Z,1.9nm,0.8s						
BHPL	**Bhopal**	**21.20**	**314**	*e*P	**P**	**21 52 14.3**	**+0.8**
BHPL				*e*		21 52 21.2	
	comp=Z,224nm,1.3s						
BHPL				*e*S	**S**	**21 56 09.3**	**+6.2**
GYA	**Guiyang**	**21.36**	**33**	⇑*i*P	**P**	**21 52 17.3**	**+2.2**
GYA				AP		21 52 26.5	
GYA				XP		21 52 30.8	
GYA				S	**S**	**21 56 17.8**	**+12**
GYA				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.0						
GYA				AMB	AMB		
	comp=Z,870nm,4.5s						
GYA				LR	LR		
	comp=N,5µm,16.5s,MS5.3						
GYA				LR	LR		
	comp=E,8µm,16.8s,MS5.3						
GYA				LR	LR		
	comp=Z,9µm,17.0s,MS5.2						
POO	**Poona**	**21.57**	**299**	*e*P	**P**	**21 52 17.3**	**0.0**
POO				*e*		21 52 24.4	
	comp=Z,145nm,1.3s						
BOM	**Bombay**	**22.62**	**298**	*e*P	**P**	**21 52 29.1**	**+1.3**
BOM				*e*		21 52 42.3	
	comp=Z,280nm,1.6s						
BOM				*e*S	**S**	**21 56 33.0**	**+3.5**
GZH	**Guangzhou**	**23.51**	**51**	P	**P**	**21 52 34.8**	**-1.6**
GZH				AMB	AMB		
	comp=Z,623nm,3.9s						
GZH				LR	LR		
	comp=Z,4µm,11.4s,MS5.1						
CD2	**Chengdu**	**23.84**	**22**	P	**P**	**21 52 39.8**	**+0.2**
CD2				S	**S**	**21 56 51.0**	**+0.2**
CD2				AMB	AMB		
	comp=Z,110nm,1.4s,mb5.1						
CD2				AMB	AMB		
	comp=Z,920nm,6.0s						
CD2				LR	LR		
	comp=N,5µm,10.8s						
CD2				LR	LR		
	comp=Z,7µm,10.8s,MS5.4						
PTH	**Pithoragarh**	**24.18**	**330**	*e*P	**P**	**21 52 44.9**	**+1.9**
PTH				*e*	**S**	**21 56 50.3**	**-6.4**
NDI	**New Delhi**	**25.12**	**324**	*e*P	**P**	**21 52 52.8**	**+0.8**
NDI				*e*		21 52 57.2	
	comp=Z,247nm,0.6s						
NDI				*e*S	**S**	**21 57 13.8**	**+1.3**
AJM	**Ajmer**	**25.21**	**316**	*i* P	**P**	**21 52 54.0**	**+1.2**
ENH	**Enshi**	**25.89**	**32**	*e*P	**P**	**21 52 58.3**	**-0.8**
	comp=Z,64nm,1.0s,mb5.1						
ENH				LR	LR		
	comp=Z,2µm,19.0s,MS4.7						
DDI	**Dehra Dun**	**25.91**	**328**	*e*P	**P**	**21 53 00.4**	**+1.0**
DDI				*e*S	**S**	**21 57 29.4**	**+3.7**
SDNR	**Sundarnagar**	**27.41**	**328**	*e*P	**P**	**21 53 13.8**	**+0.7**
QZH	**Quanzhou**	**28.56**	**53**	*e*P	**P**	**21 53 25.0**	**+1.5**
QZH				S	**S**	**21 58 16.0**	**+7.2**
QZH				LR	LR		
	comp=Z,7µm,13.6s,MS5.4						
LZH	**Lanzhou**	**28.62**	**17**	*e*P	**P**	**21 53 26.0**	**+2.0**
LZH				AP	pP	21 53 33.8	+3.0
LZH				XP	sP	21 53 38.8	+4.9
LZH				PP	PP	21 54 19.0	+2.5
LZH				*e*S	**S**	**21 58 12.0**	**+2.4**
LZH				XS		21 58 28.0	
LZH				*e*SS	SS	21 59 40.0	+3.8
LZH				AMB	AMB		
	comp=Z,100nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,340nm,5.7s						
LZH				LR	LR		
	comp=E,4µm,14.2s						
LZH				LR	LR		
	comp=Z,4µm,16.5s,MS5.1						
DLH	**Dalhousie**	**28.75**	**328**	*e*P	**P**	**21 53 25.0**	**-0.2**
THN	**Thein Dam**	**28.80**	**327**	*e*P	**P**	**21 53 25.9**	**+0.2**
	comp=Z,27nm,0.8s,mb5.0						
THN				*e*S	**S**	**21 58 11.3**	**-1.3**
GTA	**Gaotai**	**30.90**	**9**	*e*P	**P**	**21 53 44.0**	**-0.2**
GTA				PP	PP	21 54 42.5	-3.6
GTA				SCS	ScS	22 04 20.3	+4.2
GTA				AMB	AMB		
	comp=Z,322nm,6.8s						
GTA				LR	LR		
	comp=N,2µm,11.8s,MS5.0						
GTA				LR	LR		
	comp=E,981nm,12.9s,MS5.0						
GTA				LR	LR		
	comp=Z,1µm,16.0s,MS4.6						
DAV	**Davao City (W)**	**31.56**	**91**	*e*P	**P**	**21 53 55.0**	**+4.7**
KSH	**Kashi**	**34.42**	**335**	P	**P**	**21 54 16.0**	**+1.0**
KSH				AP	pP	21 54 20.3	-1.6
KSH				XP	sP	21 54 23.0	-1.9
KSH				PP	PP	21 55 32.0	+1.1
KSH				PPP	PPP	21 55 52.5	+3.6
KSH				PCP	PcP	21 56 49.8	-0.6
KSH				S	**S**	**21 59 44.5**	**+3.9**
KSH				XS		21 59 50.8	
KSH				SCP		22 00 32.5	
KSH				PCS		22 00 35.5	
KSH				*e*SS	SS	22 01 50.3	-1.4
KSH				SCS	ScS	22 04 34.5	+0.4
KSH				AMB	AMB		
	comp=Z,270nm,1.9s,mb5.8						
KSH				LR	LR		
	comp=N,1µm,8.4s						
KSH				LR	LR		
	comp=E,1µm,14.6s						
WMQ	**Urumqi**	**35.22**	**352**	⇓P	**P**	**21 54 23.3**	**+1.5**
WMQ				AP	pP	21 54 34.8	+6.0
WMQ				XP	sP	21 54 36.8	+5.1
WMQ				PP	PP	21 55 42.0	+1.0
WMQ				PPP	PPP	21 56 00.0	+0.5
WMQ				S	**S**	**21 59 52.3**	**-0.7**
WMQ				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,142nm,7.2s						
WMQ				LR	LR		
	comp=N,2µm,25.9s,MS4.7						
WMQ				LR	LR		
	comp=E,665nm,27.0s,MS4.7						
WMQ				LR	LR		
	comp=Z,952nm,27.0s,MS4.4						
HHC	**Hu-ho-hao-te**	**35.56**	**24**	*e*P	**P**	**21 54 26.5**	**+1.8**
HHC				AP	pP	21 54 30.5	-1.2
HHC				XP	sP	21 54 34.0	-0.7
HHC				PP	PP	21 55 47.0	+1.8
HHC				PCP	PcP	21 56 53.5	-0.2
HHC				S	**S**	**21 59 53.3**	**-5.0**
HHC				PCS		22 00 40.5	
HHC				SS	SS	22 02 20.8	+2.9
HHC				SCS	ScS	22 04 42.8	+2.6
HHC				AMB	AMB		
	comp=Z,15nm,0.8s,mb5.0						
HHC				AMB	AMB		
	comp=Z,387nm,5.9s						
HHC				LR	LR		
	comp=N,3µm,10.7s,MS5.3						
HHC				LR	LR		
	comp=E,2µm,14.3s,MS5.3						
HHC				LR	LR		

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      comp=Z,2µm,11.9s,MS5.1
KZA   Kyzart            36.88 337  P       P       21 54 36.4 +0.6
      SNR=39
BJT   Baijiatuau        36.91  29 eP       P       21 54 35.2 -0.8
BJT                                pmax    pmax
      comp=Z,21nm,0.9s
BJT                                MLR     MLR
      comp=Z,2µm,20.0s
BJT   Baijiatuau        36.91  29 eP       P       21 54 35.2 -0.8
      comp=Z,20nm,0.9s,mb5.0
BJT                                LR      LR
      comp=Z,2µm,20.0s,MS4.9
BJI   Beijing           36.93  29  P       P       21 54 37.8 +1.6
JOW   Kunigami          37.22  57  LR      LR      22 11 20.6
      comp=Z,2µm,18.1s,MS4.8,baz=270,slow=39
UCH   Uchtor            37.30 336  P       P       21 54 40.1 +0.8
      SNR=45
TKM2  Tokmak 2          37.48 338  P       P       21 54 41.1 +0.3
      SNR=15
KBK   Karagaybulak      37.49 337  P       P       21 54 41.9 +1.0
      SNR=72
AML   Almayashu         37.55 335  P       P       21 54 42.4 +1.0
      SNR=76
AAK   Ala-Archa         37.65 337  P       P       21 54 43.4 +1.2
      SNR=47
AAK   Ala-Archa         37.65 337 eP       P       21 54 41.6 -0.6
AAK                                pmax    pmax
      comp=Z,68nm,1.0s,mb5.3
AAK                                MLR     MLR
      comp=Z,495nm,20.0s,MS4.3
AAK   Ala-Archa         37.65 337 eP       P       21 54 41.6 -0.7
      comp=Z,68nm,1.0s,mb5.3
AAK                                LR      LR
      comp=Z,495nm,20.0s,MS4.3
FRU   Bishkek           37.77 337 i P      P       21 54 45.5 +2.2
FRU                                                21 56 07.0
FRU                                pmax    pmax
      comp=Z,260nm,2.2s,mb5.6
FRU                                MLR     MLR
      comp=Z,2µm,20.0s,MS4.8
CHMS  Chumysh           37.86 337  P       P       21 54 43.9 -0.1
      SNR=44
EKS2  Erkin-Say         37.96 336  P       P       21 54 45.8 +0.9
      SNR=42
USP   Ospenovka         38.19 337  P       P       21 54 46.8 +0.1
      SNR=53
MBWA  Marble Bar        39.26 140 eP       P       21 54 53.7 -2.2
SONM  Songino Array     40.29  13  P       P       21 55 04.0 -0.1
      comp=Z,9.7nm,0.9s,mb4.5,baz=191,slow=6.3,SNR=21
SONM                               PcP     PcP     21 57 08.3 +0.1
      comp=Z,5.5nm,0.9s,baz=189,slow=3.2,SNR=5.0
SONM                               LR      LR      22 14 16.7
      comp=Z,2µm,18.2s,MS4.9,baz=8.0,slow=40
ULN   Ulaanbaatar       40.47  14 eP       P       21 55 05.4 -0.2
ULN                                pmax    pmax
      comp=Z,8.0nm,0.9s,mb4.5
ULN                                MLR     MLR
      comp=Z,2µm,22.0s,MS4.9
ULN   Ulaanbaatar       40.47  14 eP       P       21 55 05.4 -0.3
      comp=Z,7.9nm,0.9s,mb4.4
ULN                                LR      LR
      comp=Z,2µm,22.0s,MS4.9
ZAK   Zakamensk         42.14   9 eP       P       21 55 20.0 +0.7
MOY   Mondy             43.09   7 eP       P       21 55 29.7 +2.6
TLY   Talaya            43.45   9 eP       P       21 55 34.1 +4.1
TLY                               e                21 57 11.9
TLY                                pmax    pmax
      comp=Z,48nm,2.3s,mb4.8
TLY                                MLR     MLR
      comp=Z,674nm,15.0s,MS4.7
TLY   Talaya            43.45   9 eP       P       21 55 28.1 -1.9
CN2   Changchun         44.41  33 eP       P       21 55 37.8 -0.1
CN2                               eS       S       22 02 11.5 +0.9
CN2                                SCS     ScS     22 05 32.0 -0.1
CN2                                AMB     AMB
      comp=Z,10.0nm,0.6s,mb4.7
CN2                                AMB     AMB
      comp=Z,300nm,4.0s
CN2                                LR      LR
      comp=N,1µm,14.0s,MS5.3
CN2                                LR      LR
      comp=E,2µm,14.0s,MS5.3
CN2                                LR      LR
      comp=Z,1µm,15.0s,MS5.0
ZAL   Zalesovo          45.52 353  P       P       21 55 45.8 -0.9
      comp=Z,14nm,0.8s,mb5.0,baz=222,slow=5.8,SNR=39
HIA   Hailar            45.77  24 eP       P       21 55 48.7 +0.1
HIA                                pmax    pmax
      comp=Z,105nm,1.2s
HIA                                MLR     MLR
      comp=Z,1µm,19.0s
HIA   Hailar            45.77  24 eP       P       21 55 48.7  0.0
      comp=Z,105nm,1.2s,mb5.6
HIA                                LR      LR
      comp=Z,1µm,19.0s,MS4.8
NVS   Novosibirsk       46.62 352 eP       P       21 55 53.8 -1.4
NVS                               e                21 57 38.6
NVS                               i S      S       22 02 38.5 -3.6
NVS                                pmax    pmax
      comp=N,43nm,1.2s
NVS                                pmax    pmax
      comp=E,25nm,1.2s
NVS                                pmax    pmax
      comp=Z,49nm,1.2s,mb5.3
NVS                                pmax    pmax
      comp=Z,27nm,1.8s,mb4.9
NVS                                pmax    pmax
      comp=N,41nm,2.3s
NVS                                pmax    pmax
      comp=E,14nm,2.0s
NVS                                smax
      comp=N,17nm,1.9s
NVS                                smax
      comp=E,24nm,1.8s
NWAO  Narrogin (SRO)    47.19 153 eP       P       21 56 00.1 -0.1
NWAO                               pmax    pmax
      comp=Z,112nm,0.9s
NWAO                               MLR     MLR
      comp=Z,1µm,22.0s
NWAO  Narrogin (SRO)    47.19 153  P       P       21 56 00.5 +0.3
      comp=Z,99nm,0.8s,mb5.8,baz=322,slow=9.3,SNR=44
NWAO  Narrogin (SRO)    47.19 153 eP       P       21 56 00.1 -0.1
      comp=Z,112nm,0.9s,mb5.8
NWAO                               LR      LR
      comp=Z,1µm,22.0s,MS4.8
MDJ   Mudanjiang        47.21  35  P       P       21 56 01.3 +1.2
MDJ                                AP      pP      21 56 11.0 +3.8
MDJ                                S       S       22 02 57.0 +6.3
MDJ                                AMB     AMB
      comp=Z,27nm,1.8s,mb4.9
MDJ                                AMB     AMB
      comp=Z,339nm,8.3s
MDJ                                LR      LR
      comp=N,291nm,17.6s,MS4.6
MDJ                                LR      LR
      comp=E,465nm,17.9s,MS4.6
MDJ                                LR      LR
      comp=Z,466nm,19.2s,MS4.5
RYDS  Riyadh            47.43 295  P       P       21 56 04.3 +2.2
RDF   Al-Radifah        47.69 301 eP       P       21 56 04.5 +0.4
RDF                                AMb     AMB     21 56 08.4
      comp=Z,297nm,0.9s,mb6.3
UMR   Umm Al-Rimmam     47.72 302 eP       P       21 56 04.7 +0.4
UMR                                AMb     AMB     21 56 08.3
      comp=Z,158nm,0.8s,mb6.1
BVAR  Borovoye Array    47.94 341  P       P       21 56 04.7 -1.0
      comp=Z,13nm,0.8s,mb5.0,baz=143,slow=8.8,SNR=33
BVAR                               PcP     PcP     21 57 32.7 -1.5
      comp=Z,13nm,1.0s,baz=135,slow=6.3,SNR=4.1
BRVK  Borovoye          48.00 341 eP       P       21 56 05.0 -1.2
BRVK                               pmax    pmax
      comp=Z,16nm,0.8s,mb5.1
BRVK                               MLR     MLR
      comp=Z,195nm,19.0s,MS4.1
BRVK  Borovoye          48.00 341 eP       P       21 56 05.0 -1.2
      comp=Z,16nm,0.8s,mb5.1
BRVK                               LR      LR
      comp=Z,195nm,19.0s,MS4.1
MIB   Mutribah          48.10 302 eP       P       21 56 07.5 +0.2
MIB                                AMb     AMB     21 56 10.9
      comp=Z,376nm,0.9s,mb6.4
RST   Umm Al-Ruwaisa    48.30 302 eP       P       21 56 08.8 -0.1
RST                                AMb     AMB     21 56 11.7
      comp=Z,276nm,1.2s,mb6.2
CHKZ  Chkalovo          48.42 342⇓eP       P       21 56 08.6 -0.8
CHKZ                               pmax    pmax
      comp=Z,38nm,0.8s,mb5.5
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CHKZ  Chkalovo          48.42 342⇓eP       P       21 56 08.6 -0.8
      comp=Z,38nm,0.8s,mb5.5
MZLS  Mizel             48.69 294  P       P       21 56 13.3 +1.4
KAMS  Al Khamasin       48.76 289  P       P       21 56 15.3 +2.8
JHJ   Hachijo jima 2    48.77  53  LR      LR      22 17 03.8
      comp=Z,944nm,19.3s,MS4.8,baz=107,slow=36
MAJO  Matsushiro        48.79  49 eP       P       21 56 11.9 -0.6
MAJO                               MLR     MLR
      comp=Z,2µm,21.0s,MS5.0
MAT   Matsushiro        48.79  49  P       P       21 56 12.3 -0.2
MAT                                S       S       22 03 09.0 -4.0
MAT   Matsushiro        48.79  49  P       P       21 56 12.0 -0.5
MAT                               eS       S       22 03 09.0 -4.0
MAT                                pmax    pmax
      comp=Z,146nm,2.2s,mb5.6
MAT                                MLR     MLR
      comp=Z,2µm,21.0s,MS5.0
MAT   Matsushiro        48.79  49  P       P       21 56 12.0 -0.5
      comp=Z,146nm,2.2s,mb5.6
MAT                               eS       S       22 03 09.0 -4.0
MAT                                LR      LR
      comp=Z,2µm,21.0s,MS5.0
WRA   Warramunga Arr    49.14 126  P       P       21 56 14.7 -0.8
      comp=Z,7.1nm,0.6s,mb4.9,baz=306,slow=8.5,SNR=40
WRA                                PcP     PcP     21 57 38.8 -0.2
      comp=Z,7.8nm,0.9s,baz=314,slow=2.7,SNR=6.2
WRAB  Tennant Creek     49.15 126⇓iP       P       21 56 14.2 -1.3
WRAB  Tennant Creek     49.15 126 eP       P       21 56 14.5 -1.0
      comp=Z,19nm,0.7s,mb5.2
WRAB                               LR      LR
      comp=Z,476nm,21.0s,MS4.5
CBIJ  Chichi jima       49.16  62  LR      LR      22 15 33.2
      comp=Z,551nm,19.1s,MS4.6,baz=147,slow=34
TATS  Tathlith          49.72 288  P       P       21 56 21.8 +1.9
AFFS  ‘Afif             50.67 294  P       P       21 56 28.6 +1.6
ASAR  Alice Springs     50.84 130  P       P       21 56 27.4 -0.9
      comp=Z,12nm,0.7s,mb4.9,baz=309,slow=7.4,SNR=75
ASAR                               PcP     PcP     21 57 45.4 +0.3
      comp=Z,9.0nm,0.9s,baz=316,slow=3.2,SNR=9.5
ASAR                               LR      LR      22 18 36.8
      comp=Z,528nm,18.4s,MS4.6,baz=297,slow=37
FRSS  Farasan al Kab    50.84 284  P       P       21 56 30.5 +2.1
BOD   Bodaibo           51.28  14 eP       P       21 56 29.9 -1.4
HILS  Ha’il             52.30 298  P       P       21 56 40.8 +1.3
GNI   Garni             53.48 314  P       P       21 56 48.2 +0.3
      comp=Z,23nm,1.0s,mb5.1,baz=24,slow=3.7,SNR=21
CLNS  Chul’man          53.65  21 eP       P       21 56 50.3 +1.4
CLNS                               pmax    pmax
      comp=N,25nm,0.9s
CLNS                               pmax    pmax
      comp=E,21nm,0.9s
CLNS                               pmax    pmax
      comp=Z,38nm,0.9s,mb5.3
CLNS                               MLR     MLR
      comp=Z,2µm,13.0s,MS5.4
CLNS                               MLR     MLR
      comp=N,1µm,12.0s,MS5.2
CLNS                               MLR     MLR
      comp=E,300nm,12.0s,MS5.2
TI2   Plekhanov         54.08 316⇓iP       P       21 56 52.4 +0.1
TI2                                pmax    pmax
      comp=Z,80nm,1.0s,mb5.6
KBRS  Khaybar           54.29 295  P       P       21 56 55.8 +1.7
SVE   Sverdlovsk        54.35 338⇑eP       P       21 56 53.5 -0.6
SVE                               e                21 57 57.0
SVE                                pmax    pmax
      comp=Z,80nm,1.6s,mb5.4
SVE                                MLR     MLR
      comp=Z,4µm,19.0s,MS5.5
ARU   Arti              54.84 337⇓iP       P       21 56 55.6 -2.1
ARU                               e                21 57 55.2
ARU                               e                21 58 54.0
ARU                               eS       S       22 04 35.8 +0.2
ARU                               e                22 06 39.4
ARU                               eSS      SS      22 08 13.2 -5.5
ARU                                pmax    pmax
      comp=Z,29nm,1.1s,mb5.2
ARU   Arti              54.84 337 eP       P       21 56 55.4 -2.3
      comp=Z,33nm,1.0s,mb5.3
ARU                                LR      LR
      comp=Z,411nm,21.0s,MS4.5
ASAJ  Asahikawa         54.93  41  LR      LR      22 22 22.1
      comp=Z,912nm,18.2s,MS4.9,baz=192,slow=38
ZEI   Tsey              55.06 317 eP       P       21 56 59.3 -0.2
ZEI                               i *PP    pP      21 57 08.2 +1.5
ZEI                               i                21 59 01.0
ZEI                                pmax    pmax
      comp=Z,32nm,1.4s,mb5.2
YNBS  Yanbu‘ al Bahr    55.26 293  P       P       21 57 02.6 +1.4
ERZM  Erzurum           55.83 313 i P      P       21 57 04.4 -0.7
UMJS  Umm Lajj          55.97 294  P       P       21 57 08.4 +2.1
PMG   Port Moresby      56.19 108 eP       P       21 57 08.4 +0.4
PMG                                pmax    pmax
      comp=Z,69nm,0.8s
PMG                                MLR     MLR
      comp=Z,572nm,20.0s
PMG   Port Moresby      56.19 108  P       P       21 57 08.8 +0.8
      comp=Z,54nm,0.7s,mb5.7,baz=301,slow=3.7,SNR=26
PMG   Port Moresby      56.19 108 eP       P       21 57 08.4 +0.4
      comp=Z,69nm,0.8s,mb5.7
PMG                                LR      LR
      comp=Z,572nm,20.0s,MS4.7
YSS   Yuzh-Sakhalins    56.24  38⇑iP       P       21 57 12.0 +4.0
YSS                                MLR     MLR
      comp=N,900nm,14.0s,MS5.3
YSS                                MLR     MLR
      comp=Z,1µm,14.0s,MS5.1
YSS                                MLR     MLR
      comp=E,1µm,13.0s,MS5.3
YSS   Yuzh-Sakhalins    56.24  38  P       P       21 57 07.2 -0.8
      comp=E,69nm,1.1s,mb5.6
YSS                                LR      LR
      comp=Z,906nm,22.0s,MS4.8
KIV   Kislovodsk        56.34 318  P       P       21 57 08.1 -0.6
      comp=Z,370nm,1.1s,mb6.3,SNR=20
KIV   Kislovodsk        56.34 318 eP       P       21 57 07.6 -1.1
KIV                                pmax    pmax
      comp=Z,71nm,1.0s,mb5.7
KIV                                MLR     MLR
      comp=Z,99nm,20.0s,MS3.9
KIV   Kislovodsk        56.34 318 eP       P       21 57 07.6 -1.0
      comp=Z,71nm,1.0s,mb5.7
KIV                                LR      LR
      comp=Z,99nm,20.0s,MS3.9
GOF   Gofitskoye        56.54 319 eP       P       21 57 09.0 -1.1
GOF                                pmax    pmax
      comp=Z,60nm,1.3s,mb5.5
QURS  Qurayyt al Mil    56.86 302  P       P       21 57 13.0 +0.3
TBKS  Tabuk             57.02 298  P       P       21 57 14.9 +1.1
KMBO  Kilima Mbogo      57.16 263 eP       P       21 57 16.4 +1.4
KMBO                               pmax    pmax
      comp=Z,24nm,1.1s
KMBO                               MLR     MLR
      comp=Z,2µm,21.0s
KMBO  Kilima Mbogo      57.16 263  P       P       21 57 16.6 +1.6
      comp=Z,9.5nm,0.7s,mb4.9,baz=50,slow=11,SNR=25
KMBO                               LR      LR      22 20 50.5
      comp=Z,2µm,18.3s,MS5.3,baz=90,slow=35
KMBO  Kilima Mbogo      57.16 263 eP       P       21 57 16.4 +1.4
      comp=Z,24nm,1.1s,mb5.1
KMBO                               LR      LR
      comp=Z,2µm,21.0s,MS5.2
ELZG  Elazig            57.17 310 i P      P       21 57 13.8 -0.9
ASF   Jabal al Asfar    57.37 303  LR      LR      22 24 45.3
      comp=Z,1µm,21.2s,MS4.9,baz=143,slow=39
MALT  Malatya           57.54 310 eP       P       21 57 16.4 -0.9
MALT                               pmax    pmax
      comp=Z,37nm,1.2s,mb5.3
MALT  Malatya           57.54 310 eP       P       21 57 16.4 -1.0
      comp=Z,37nm,1.2s,mb5.3
JMQS  Jabal Moqyreh     57.70 299  P       P       21 57 19.0 +0.5
SOKR  Solikamsk         57.75 339⇑iP       P       21 57 17.2 -1.3
SOKR                               pmax    pmax
      comp=Z,30nm,1.0s,mb5.3
SOKR                               MLR     MLR
      comp=Z,2µm,22.0s,MS5.1
GZT   Gaziantep         57.95 309 i P      P       21 57 19.4 -0.8
AYUS  ‘Aynunah          58.14 298  P       P       21 57 22.1 +0.4
SOC   Sochi             58.21 316 eP       P       21 57 20.3 -1.6
SOC                                pmax    pmax
      comp=Z,40nm,1.2s,mb5.3
SOC                                pmax    pmax
      comp=N,20nm,1.0s
SOC                                pmax    pmax
      comp=E,12nm,0.6s
SOC                                MLR     MLR
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      comp=Z,609nm,19.0s,MS4.7
SOC                                MLR     MLR
      comp=N,833nm,21.0s,MS4.9
SOC                                MLR     MLR
      comp=E,348nm,20.0s,MS4.9
MKRJ  Makawir           58.31 302  P       P       21 57 22.5 -0.3
BDAS  Al Bad‘           58.32 298  P       P       21 57 23.1 +0.2
JMOS  Jabal al Moall    58.41 299  P       P       21 57 24.0 +0.5
ALWS  Ilw as Safayha    58.46 299  P       P       21 57 24.4 +0.5
MZDA  Masada            58.50 301  P       P       21 57 24.8 +0.6
HMDT  Nahal Hemdat      58.52 302  P       P       21 57 23.7 -0.6
DRGI  Dragot            58.52 302  P       P       21 57 23.9 -0.4
AQBJ  Aqaba             58.53 299  P       P       21 57 24.3 -0.1
HAQS  Haql              58.55 299  P       P       21 57 25.0 +0.5
KAHT  Ahir Dag          58.55 309 i P      P       21 57 23.6 -0.8
EIL   Elat              58.61 299  P       P       21 57 24.7 -0.2
EIL   Elat              58.61 299 eP       P       21 57 24.5 -0.4
      comp=E,66nm,1.2s,mb5.5
MMLI  Mount Malkishu    58.64 303  P       P       21 57 25.4 +0.3
MBH   Mount Berech      58.66 299  P       P       21 57 25.3  0.0
PRNI  Paran             58.66 300  P       P       21 57 25.4 +0.1
SLTI  Sal’it            58.93 302  P       P       21 57 27.2 +0.1
MASH  Mash‘abbe Sade    58.95 301  P       P       21 57 26.6 -0.7
OFRI  ‘Ofer             59.04 303  P       P       21 57 27.6 -0.3
RTMM  Retamin           59.04 301  P       P       21 57 27.6 -0.3
CTA   Charters Tower    59.12 120  P       P       21 57 29.2 +0.6
      comp=E,29nm,0.9s,mb5.3,baz=295,slow=8.4,SNR=21
CTA                                LR      LR      22 23 22.8
      comp=E,944nm,19.9s,MS4.9,baz=289,slow=36
CTAO  Charters Tower    59.12 120 eP       P       21 57 28.7 +0.1
CTAO                               pmax    pmax
      comp=Z,64nm,1.2s,mb5.5
CTAO                               MLR     MLR
      comp=Z,885nm,22.0s,MS4.8
CTAO  Charters Tower    59.12 120 eP       P       21 57 28.6  0.0
      comp=Z,64nm,1.2s,mb5.5
CTAO                               LR      LR
      comp=Z,885nm,22.0s,MS4.8
YAK   Yakutsk           59.19  19  P       P       21 57 28.6 +0.1
YAK                                pmax    pmax
      comp=Z,33nm,0.6s,mb5.5
YAK                                MLR     MLR
      comp=Z,1µm,20.0s,MS5.0
YAK   Yakutsk           59.19  19 eP       P       21 57 25.4 -3.1
YAK                                P               21 57 28.6
YAK                                LR      LR
      comp=Z,1µm,20.0s,MS5.0
KZIT  Kziot             59.26 301  P       P       21 57 28.9 -0.5
AVNT  Avonos            60.37 310 i P      P       21 57 36.7 -0.3
CSS   Prodhromos        60.80 305 eP       P       21 57 38.7 -1.2
      comp=Z,22nm,1.0s,mb5.2
STKA  Stephens Creek    61.06 134  P       P       21 57 39.9 -1.9
      comp=Z,13nm,0.9s,mb5.1,baz=303,slow=7.2,SNR=17
STKA  Stephens Creek    61.06 134 eP       P       21 57 40.4 -1.3
VRSR  Storozhevoye      61.36 324 eP       P       21 57 42.8 -0.7
VRSR                               pmax    pmax
      comp=Z,40nm,1.0s,mb5.5
VRSR                               pmax    pmax
      comp=N,30nm,0.9s
VRSR                               pmax    pmax
      comp=E,40nm,1.0s
BRTR  Keskin Array B    61.50 310  P       P       21 57 42.8 -1.8
      comp=E,21nm,1.0s,mb5.2,baz=123,slow=7.2,SNR=56
VOR   Voronezh          61.56 325 eP       P       21 57 45.0 +0.2
VOR                                pmax    pmax
      comp=Z,100nm,1.0s,mb5.9
ELDT  Eldivan           61.83 311 i P      P       21 57 45.5 -1.4
BALT  Daday             62.10 312 i P      P       21 57 47.6 -1.0
SIM   Simferopol’       62.45 316ceP       P       21 57 50.7 -0.2
SIM                                pmax    pmax
      comp=Z,34nm,1.0s,mb5.4
SIM                                MLR     MLR
      comp=Z,700nm,20.0s,MS4.8
SGKT  Sivrigoynuk       62.87 311 i P      P       21 57 52.0 -1.7
MBAR  Mbarara           63.47 265⇑iP       P       21 57 58.0  0.0
MBAR  Mbarara           63.47 265 eP       P       21 57 58.6 +0.6
      comp=Z,37nm,1.2s,mb5.4
MBAR                               LR      LR
      comp=Z,508nm,20.0s,MS4.7
ISP   Isparta           63.53 308⇑iP       P       21 57 55.4 -2.8
ESKT  Eskisehir         63.57 310 i P      P       21 57 56.4 -2.0
HENT  Hendek            63.78 311 i P      P       21 57 58.8 -1.0
MOS   Moscow            64.04 329 eP       P       21 58 01.3 +0.1
MOS                               e                21 58 38.3
MOS                               e                22 00 22.6
MOS                               ePPP     PPP     22 01 55.8 -0.2
MOS                               eS       S       22 06 37.4 +2.8
MOS                                pmax    pmax
      comp=Z,105nm,1.1s,mb5.8
MOS                                MLR     MLR
      comp=Z,1µm,17.6s,MS5.1
MOS                                MLR     MLR
      comp=E,1µm,18.5s
OBN   Obninsk           64.35 328⇑eP       P       21 58 00.7 -2.5
OBN                               i        pP      21 58 09.7 -0.8
OBN                               i                21 58 45.0
OBN                               e                22 00 21.7
OBN                               i S      S       22 06 36.8 -1.5
OBN                                pmax    pmax
      comp=Z,71nm,1.3s,mb5.5
OBN                                MLR     MLR
      comp=Z,800nm,19.0s,MS4.9
OBN   Obninsk           64.35 328 eP       P       21 58 02.1 -1.1
      comp=Z,86nm,1.1s,mb5.7
OBN                                LR      LR
      comp=Z,289nm,19.0s,MS4.5
MA2   Magadan           66.07  28 eP       P       21 58 14.1 -0.1
MA2                                pmax    pmax
      comp=Z,71nm,1.3s,mb5.5
MA2                                MLR     MLR
      comp=Z,575nm,20.0s,MS4.8
MA2   Magadan           66.07  28 eP       P       21 58 14.1 -0.1
      comp=Z,71nm,1.3s,mb5.5
MA2                                LR      LR
      comp=Z,575nm,20.0s,MS4.8
TIXI  Tiksi             66.34  11 eP       P       21 58 14.5 -1.3
TIXI                               pmax    pmax
      comp=Z,48nm,1.0s,mb5.5
TIXI                               MLR     MLR
      comp=Z,535nm,14.0s,MS4.9
TIXI  Tiksi             66.34  11⇓iP       P       21 58 12.7 -3.1
AKASG Malin Array Be    67.15 321  P       P       21 58 18.9 -2.4
      comp=Z,15nm,0.8s,mb5.0,baz=86,slow=5.2,SNR=25
AKASG                              PP      PP      22 00 42.6 -8.3
      comp=Z,2.2nm,0.8s,baz=92,slow=8.9,SNR=4.1
IDI   Anoyia            67.70 304  P       P       21 58 23.6 -1.3
      comp=Z,21nm,0.8s,mb5.2,baz=83,slow=4.9,SNR=8.4
IDI                                LR      LR      22 31 52.8
      comp=Z,408nm,21.2s,MS4.6,baz=86,slow=39
RZN   Rozhen            68.52 311 eP       P       21 58 28.0 -2.0
MNK   Minsk             68.93 325⇓eP       P       21 58 30.0 -2.3
MNK                                pmax    pmax
      comp=Z,450nm,1.5s,mb6.2
LSZ   Lusaka            69.24 250 eP       P       21 58 35.4 +0.6
LSZ                                pmax    pmax
      comp=Z,21nm,0.9s,mb5.1
LSZ                                MLR     MLR
      comp=Z,1µm,22.0s,MS5.2
LSZ   Lusaka            69.24 250 eP       P       21 58 35.4 +0.5
      comp=Z,21nm,0.9s,mb5.1
LSZ                                LR      LR
      comp=Z,1µm,22.0s,MS5.2
VTS   Vitosha           69.74 312 eP       P       21 58 35.0 -2.5
KKB   Krupnik           69.75 311 eP       P       21 58 35.0 -2.6
LVZ   Lovozero          70.51 340⇑eP       P       21 58 41.0 -0.7
LVZ                                pmax    pmax
      comp=Z,25nm,0.9s,mb5.1
LVZ                                pmax    pmax
      comp=E,11nm,1.2s
LVZ                                MLR     MLR
      comp=Z,1µm,11.0s,MS5.3
LVZ                                MLR     MLR
      comp=N,990nm,20.0s
LVZ                                MLR     MLR
      comp=E,685nm,10.0s
VSU   Vasula            70.55 329 eP       P       21 58 39.7 -2.4
BOLS  Boljevac          70.79 313⇓iP       P       21 58 43.2 -0.6
APA   Apatity           70.80 339⇓iP       P       21 58 42.3 -1.2
APA                                pmax    pmax
      comp=Z,37nm,0.9s,mb5.3
APA                                MLR     MLR
      comp=Z,2µm,18.0s,MS5.3
KWP   Kalwaria          71.04 319 eP       P       21 58 44.6 -0.6
KOLS  Kolonicke sedl    71.22 319 eP       P       21 58 46.0 -0.3
SUW   Suwalki           71.49 324 eP       P       21 58 46.7 -1.2
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SUW				e	pP	21 58 54.6	-0.6
FINES	FINESS Array B	71.67	332	P	P	21 58 47.8	-1.0
	comp=Z,21nm,0.8s,mb5.1,baz=109,slow=5.7,SNR=22						
FINES				LR	LR	22 33 11.8	
	comp=Z,579nm,20.2s,MS4.8,baz=112,slow=38						
GRUS	Gruza	71.69	313	⇓iP	P	21 58 48.2	-1.0
CRVS	Cervenica-Dubn	71.74	319	eP	P	21 58 50.8	+1.3
KAF	Kangasniemi	71.74	333	ep	P	21 58 47.3	-2.0
	comp=Z,25nm,0.9s,mb5.1						
KAF	Kangasniemi	71.74	333	eP	P	21 58 47.3	-2.0
KAF				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.1						
DIVS	Divcibare	72.23	313	eP	P	21 58 50.0	-2.5
KECS	Kecovo	72.33	318	eP	P	21 58 52.4	-0.6
NIE	Niedzica	72.55	319	eP	P	21 58 54.4	+0.1
PSZ	Piszkesteto	72.66	317	eP	P	21 58 54.1	-0.9
OJC	Ojcow	72.98	320	eP	P	21 58 56.2	-0.6
PKSM	Moragy	73.36	316	⇓eP	P	21 58 57.7	-1.4
VYHS	Vyhne	73.42	318	i P	P	21 58 58.6	-0.8
VYHS				e		21 59 19.0	
SRO2	Moca	73.65	317	eP	P	21 59 00.4	-0.3
SRO	Srobarova	73.71	317	eP	P	21 59 00.6	-0.5
KEV	Kevo	73.78	341	ep	P	21 58 59.9	-1.2
	comp=Z,30nm,0.9s,mb5.2						
KEV	Kevo	73.78	341	eP	P	21 58 59.9	-1.2
KEV				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.2						
OKC	Ostrava-Krasne	74.00	319	eP	P	21 59 04.2	+1.5
ARCES	ARCESS Array B	74.21	340	P	P	21 59 03.6	+0.1
	comp=Z,24nm,0.8s,mb5.2,baz=102,slow=6.8,SNR=48						
ARCES				LR	LR	22 34 19.4	
	comp=Z,1µm,20.8s,MS5.2,baz=354,slow=38						
SMOL	Smolenice	74.36	318	eP	P	21 59 04.2	-0.6
LBTB	Lobatse	74.38	241	eP	P	21 59 06.6	+1.2
LBTB				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.4						
LBTB				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
LBTB	Lobatse	74.38	241	eP	P	21 59 06.6	+1.2
	comp=Z,56nm,1.1s,mb5.4						
LBTB				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
MORC	Moravsky Berou	74.38	319	eP	P	21 59 03.8	-1.1
MORC				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.3						
MORC	Moravsky Berou	74.38	319	eP	P	21 59 03.8	-1.2
	comp=Z,52nm,1.2s,mb5.3						
ZST	Bratislava	74.55	318	i P	P	21 59 06.0	+0.1
KTK1	Kautokeino	74.84	339	eP	P	21 59 06.4	-0.8
KTK1				epP	pP	21 59 10.7	-3.9
KTK1				AMb	AMB	21 59 11.6	
	comp=Z,83nm,1.1s,mb5.6						
KTK1	Kautokeino	74.84	339	eP	P	21 59 07.9	+0.7
	comp=Z,83nm,1.1s,mb5.6						
GKP	Gorka Klasztor	74.89	323	eP	P	21 59 09.1	+1.3
GKP				e	pP	21 59 15.1	-0.1
DPC	Dobruska-Polom	75.21	320	eP	P	21 59 09.9	+0.2
KSP	Ksiaz	75.26	320	⇓eP	P	21 59 09.8	-0.2
KSP				e		21 59 31.4	
KSP	Ksiaz	75.26	320	eP	P	21 59 10.2	+0.2
BILL	Bilibino	75.31	22	eP	P	21 59 09.4	-0.5
BILL				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.0						
BILL	Bilibino	75.31	22	eP	P	21 59 09.4	-0.5
	comp=Z,26nm,1.4s,mb5.0						
UPC	Upice	75.42	320	eP	P	21 59 10.9	0.0
BOJS	Bojanci	75.68	315	eP	P	21 59 11.8	-0.7
BOSA	Boshof	75.79	238	eP	P	21 59 14.2	+0.8
BOSA				pmax	pmax		
	comp=Z,57nm,1.1s,mb5.4						
BOSA				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
BOSA	Boshof	75.79	238	eP	P	21 59 14.2	+0.8
	comp=Z,57nm,1.1s,mb5.4						
BOSA				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
CASY	Casey	75.95	173	eP	P	21 59 13.6	0.0
	comp=Z,41nm,1.2s,mb5.2						
CASY				LR	LR		
	comp=Z,664nm,20.0s,MS4.9						
LJU	Ljubljana	76.20	315	eP	P	21 59 15.1	-0.3
PRU	Pruhonice	76.33	319	eP	P	21 59 15.8	-0.3
	comp=Z,41nm,1.5s,mb5.1						
BSD	Bornholm Skovb	76.40	325	i P	pP	21 59 24.1	+0.4
	comp=Z,32nm,0.9s						
TRO	Tromso	76.47	340	eP	P	21 59 15.3	-1.2
VOY	Vojsko	76.65	315	eP	P	21 59 17.3	-0.6
VOY				e		21 59 26.9	
BRG	Berggiesshubel	76.75	320	i P	P	21 59 18.5	+0.1
BRG				e	pP	21 59 25.6	-0.2
BRG				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
BRG	Berggiesshubel	76.75	320	i P	P	21 59 18.5	+0.1
	comp=Z,32nm,1.2s,mb5.1						
BRG				e	pP	21 59 25.6	-0.2
BRG				e		21 59 42.1	
GEC2	GERESS Array S	76.84	318	eP	P	21 59 18.7	-0.2
GEC2				pmax	pmax		
	comp=Z,41nm,1.2s,mb5.2						
GEC2	GERESS Array S	76.84	318	eP	P	21 59 18.7	-0.2
	comp=Z,41nm,1.2s,mb5.2						
GERES	GERESS Array B	76.84	318	P	P	21 59 19.0	+0.1
	comp=Z,13nm,0.7s,mb4.9,baz=88,slow=5.4,SNR=36						
ROBS	Robic	76.92	315	eP	P	21 59 17.2	-2.2
RUE	Ruedersdorf	76.92	322	eP	P	21 59 18.7	-0.5
	comp=Z,112nm,1.2s,mb5.7						
KHC	Kasperske Hory	76.93	318	eP	P	21 59 18.8	-0.6
PTCC	Patocco-Chiusa	77.03	316	eP	P	21 59 19.6	-0.4
ARV	Arcevia	77.31	313	eP	P	21 59 21.1	-0.5
CLL	Collm	77.36	321	eP	P	21 59 21.0	-0.7
CLL				i	pP	21 59 28.4	-0.8
CLL				pmax	pmax		
	comp=Z,44nm,1.5s,mb5.2						
CLL	Collm	77.36	321	eP	P	21 59 21.0	-0.7
	comp=Z,44nm,1.5s,mb5.2						
CLL				i	pP	21 59 28.4	-0.8
CLL	Collm	77.36	321	P	P	21 59 21.0	-0.7
	comp=Z,logA/T=1.5,mb5.2						
CLL				i *SP	sP	21 59 28.4	-3.3
WET	Wettzell	77.39	318	eP	P	21 59 21.9	0.0
FVI	Forni Avoltri	77.42	316	eP	P	21 59 21.7	-0.5
MOR8	Moi Rana	77.63	336	eP	P	21 59 23.5	+0.6
MOR8				AMb	AMB	21 59 27.3	
	comp=Z,76nm,2.0s,mb5.3						
MOR8	Moi Rana	77.63	336	eP	P	21 59 23.5	+0.6
	comp=Z,76nm,2.0s,mb5.3						
SFI	Santa Sofia	78.09	313	eP	P	21 59 27.2	+1.3
PGD	Poggio Sodo	78.19	313	eP	P	21 59 27.3	+0.9
CTI	Castel Tesino	78.21	315	eP	P	21 59 26.6	+0.1
MOX	Moxa	78.23	320	eP	P	21 59 22.1	-4.4
MOX				pmax	pmax		
	comp=Z,40nm,1.6s,mb5.1						
MOX	Moxa	78.23	320	i P	P	21 59 22.1	-4.4
	comp=Z,logA/T=1.4,mb5.1						
MOX	Moxa	78.23	320	eP	P	21 59 22.1	-4.4
	comp=Z,40nm,1.6s,mb5.1						
GRA1	Grafenberg Arr	78.48	319	eP	P	21 59 28.1	+0.2
	comp=Z,50nm,1.1s,mb5.4						
GRF	Grafenberg Arr	78.48	319	eP	P	21 59 28.1	+0.2
GRF				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
GRF	Grafenberg Arr	78.48	319	eP	P	21 59 28.1	+0.2
GRF				pmax	pmax		
	comp=Z,50nm,1.1s,mb5.4						
GRF	Grafenberg Arr	78.48	319	eP	P	21 59 28.1	+0.2
	comp=Z,50nm,1.1s,mb5.4						
NSS	Namsos	78.52	334	eP	P	21 59 26.9	-0.9
NB2	NORSAR Subarra	78.69	331	P	P	21 59 27.7	-1.1
	comp=Z,31nm,0.9s,mb5.2,baz=92,slow=5.6						
NB2	NORSAR Subarra	78.69	331	P	P	21 59 27.7	-1.1
	baz=92,slow=5.9						
NB2	NORSAR Subarra	78.69	331	P	P	21 59 27.7	-1.1
NB2				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.2						
NOA	NORSAR Array B	78.69	331	P	P	21 59 28.2	-0.6
	comp=Z,20nm,0.8s,mb5.1,baz=93,slow=5.5,SNR=23						
NOA				LR	LR	22 38 01.0	
	comp=Z,396nm,20.6s,MS4.7,baz=75,slow=39						
NAO01	NORSAR Array S	78.84	330	eP	P	21 59 28.5	-1.1
	comp=Z,44nm,1.0s,mb5.3						
CLZ	Clausthal	79.01	321	eP	P	21 59 30.6	-0.2
	comp=Z,46nm,1.1s,mb5.3						
BSEG	Bad Segeberg	79.04	323	eP	P	21 59 30.4	-0.5
BRMO	Bormio	79.09	316	eP	P	21 59 31.5	+0.1
MAW	Mawson	79.42	192	P	P	21 59 33.7	+1.0
	comp=Z,19nm,1.2s,mb4.9,baz=52,slow=9.6,SNR=4.3						
MUD	Monsted U'grnd	79.68	326	i P	P	21 59 36.8	+2.5
MUD				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.5						
MUD	Monsted U'grnd	79.68	326	i P	P	21 59 36.8	+2.5
	comp=Z,70nm,1.0s,mb5.5						
STU	Stuttgart	79.82	318	eP	P	21 59 34.6	-0.6
STU				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
STU	Stuttgart	79.82	318	eP	P	21 59 34.6	-0.6
	comp=Z,16nm,0.8s,mb5.0						
TOD	Tromm	80.05	319	eP	P	21 59 38.4	+2.0
SPAK	Spaichingen	80.12	317	eP	P	21 59 37.9	+1.1
VAI	Varese	80.22	315	eP	P	21 59 36.8	-0.6
BFO	Black Forest	80.41	318	eP	P	21 59 38.4	0.0
BFO				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
BFO	Black Forest	80.41	318	eP	P	21 59 38.4	0.0
	comp=Z,25nm,1.2s,mb5.0						
MOL	Molde	80.45	332	eP	pP	21 59 44.9	-0.8
MOL				AMb	AMB	21 59 48.3	
	comp=Z,107nm,2.0s,mb5.4						
SUR	Sutherland	80.58	235	eP	P	21 59 41.1	+1.5
	comp=Z,32nm,0.8s,mb5.3						
SUR				LR	LR		
	comp=Z,312nm,19.0s,MS4.7						
FELD	Feldberg	80.65	317	eP	P	21 59 39.5	-0.2
LANF	Langenberg	80.73	318	eP	P	21 59 39.5	-0.6
MCGN	Macugnaga	80.76	315	eP	P	21 59 43.2	+2.9
LIBD	Limburg	80.91	317	eP	P	21 59 42.1	+1.1
WLS	Welschbruch	81.06	318	eP	P	21 59 42.4	+0.6
RUP	Ruppelstein	81.18	319	eP	P	21 59 43.7	+1.3
ECH	Echery	81.20	317	eP	P	21 59 43.3	+0.8
MOF	Molkenrain	81.24	317	eP	P	21 59 43.6	+0.9
LOMF	Lomont	81.48	317	eP	P	21 59 43.6	-0.4
LPG	La Plagne	81.66	315	eP	P	21 59 44.0	-1.0
	comp=Z,71nm,0.8s,mb5.4						
LPG	La Plagne	81.66	315	eP	P	21 59 44.0	-1.0
LPG				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
BNI	Bardonecchia	81.74	314	eP	P	21 59 45.2	-0.2
BNI				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.3						
BNI	Bardonecchia	81.74	314	eP	P	21 59 45.2	-0.2
	comp=Z,58nm,1.3s,mb5.3						
THEF	They Montfort	81.98	318	eP	P	21 59 45.7	-0.9
SYO	Syowa Base	86.23	197	⇓P	P	22 00 08.1	+0.4
SYO	Syowa Base	86.23	197	⇓PcP	PcP	22 00 10.5	-0.2
SYO	Syowa Base	86.23	197	⇑pP	pP	22 00 15.5	+0.3
SYO	Syowa Base	86.23	197	⇓PP	PP	22 03 32.1	+1.8
EKA	Eskdalemuir Ar	86.70	325	P	P	22 00 11.0	+0.8
	comp=Z,20nm,0.8s,mb5.4,baz=97,slow=5.3,SNR=21						
ESDC	Sonseca Array	90.29	310	P	P	22 00 28.1	+0.3
	comp=Z,3.6nm,0.8s,mb4.8,baz=56,slow=4.0,SNR=12						
IMA	Indian Mountai	90.86	22	eP	P	22 00 30.8	+1.1
IMA				pmax	pmax		
	comp=Z,117nm,1.1s,mb6.1						
IMA	Indian Mountai	90.86	22	eP	P	22 00 30.8	+1.1
	comp=Z,117nm,1.1s,mb6.1						
SUMG	Summit	93.10	347	eP	P	22 00 41.0	+1.1
	comp=Z,19nm,1.1s,mb5.4						
COLA	College	93.57	22	eP	P	22 00 42.5	+0.3
RSO	Redoubt South	93.57	27	P	P	22 00 43.0	+0.7
VNDA	Vanda	93.97	168	P	P	22 00 44.7	+0.9
	comp=Z,2.2nm,0.8s,mb4.7,baz=276,slow=8.2,SNR=15						
VNDA				PP	PP	22 04 34.0	+1.2
	comp=Z,1.5nm,0.9s,baz=271,slow=8.1,SNR=3.1						
VNDA				LR	LR	22 38 39.0	
	comp=Z,490nm,18.9s,MS5.0,baz=317,slow=33						
ILAR	Eielson Array	93.98	22	P	P	22 00 43.9	-0.2
	comp=Z,4.2nm,0.8s,mb4.9,baz=300,slow=4.5,SNR=26						
ILAR				PP	PP	22 04 34.2	+1.1
	comp=Z,1.5nm,0.9s,baz=305,slow=7.7,SNR=5.8						
ILAR				PKKPbc		22 17 48.1	
	comp=Z,0.9nm,0.8s,baz=179,slow=2.7,SNR=6.3						
ILAR				LR	LR	22 49 40.5	
	comp=Z,338nm,20.5s,MS4.8,baz=153,slow=40						
INK	Inuvik	96.15	16	P	P	22 00 54.6	+0.6
	comp=Z,8.7nm,0.8s,mb5.2,baz=310,slow=4.9,SNR=14						
INK				PKKPbc		22 17 41.2	
	comp=Z,2.2nm,1.1s,baz=72,slow=2.6,SNR=3.6						
DBIC	Dimbokro	97.43	278	eP	P	22 01 02.4	+1.4
DBIC				MLR	MLR		
	comp=Z,777nm,19.0s						
DBIC	Dimbokro	97.43	278	P	P	22 01 03.0	+1.9
	comp=Z,9.9nm,1.2s,mb5.1,baz=71,slow=5.7,SNR=7.4						
DBIC				LR	LR	22 43 23.0	
	comp=Z,653nm,20.5s,MS5.1,baz=54,slow=34						
YKA	Yellowknife Ar	105.56	13	Pdiff	Pdif	22 01 37.1	+0.9
	comp=Z,0.7nm,0.9s,baz=330,slow=5.4,SNR=7.2						
YKA				PP	PP	22 06 00.2	-1.0
	comp=Z,0.9nm,0.8s,baz=336,slow=7.7,SNR=8.4						
YKA				PKKPbc		22 17 14.0	
	comp=Z,1.3nm,1.0s,baz=154,slow=2.9,SNR=15						
PPT	Papeete	117.97	105	eLR	LR	22 43 17.7	
	comp=Z,735nm,30.5s						
TBI	Tubuai	118.01	112	eLR	LR	22 43 19.3	
	comp=Z,488nm,39.0s						
ULM	Lac du Bonnet	120.54	7	PKP	PKPdf	22 06 19.6	-1.9
	comp=Z,7.3nm,1.0s,baz=349,slow=3.3,SNR=9.2						
ULM				PKKPbc		22 16 25.0	
	comp=Z,1.2nm,0.4s,baz=139,slow=3.9,SNR=4.3						
HLID	Hailey	121.88	24	ePKP	PKPdf	22 06 22.1	-2.2
QLMT	Earthquake Lak	121.92	21	ePKP	PKPdf	22 06 22.5	-1.8
BMN	Battle Mountai	123.22	28	ePKIKP	PKPdf	22 06 24.6	-2.4
SNOW	Snow King Moun	123.35	21	ePKP	PKPdf	22 06 25.3	-1.9
REDW	Red Top Meadow	123.41	21	ePKP	PKPdf	22 06 24.8	-2.4
ELK	Elko	123.86	26	ePKIKP	PKPdf	22 06 26.0	-2.2
HVU	Hansel Valley	124.03	24	ePKIKP	PKPdf	22 06 26.2	-2.4
NVAR	Mina Array Bea	124.27	30	PKP	PKPdf	22 06 27.1	-2.0
	comp=Z,6.3nm,0.9s,baz=310,slow=1.2,SNR=14						
MNV	Mina	124.34	30	ePKIKP	PKPdf	22 06 26.9	-2.3
PDAR	Pinedale Array	124.39	21	PKP	PKPdf	22 06 27.3	-1.9
	comp=Z,11nm,1.0s,baz=315,slow=2.6,SNR=12						
BGU	Big Grassy Mou	124.65	25	ePKPdf	PKPdf	22 06 27.5	-2.3
MVU	Marysvale	127.03	25	ePKPdf	PKPdf	22 06 33.0	-1.4
MSU	Marysvale	127.03	25	ePKIKP	PKPdf	22 06 32.6	-1.8
PV10	Paradox Valley	128.42	23	ePKP	PKPdf	22 06 34.0	-3.2
RKT	Rikitea	131.29	113	eLR	LR	22 49 28.7	
	comp=Z,475nm,34.2s						
ANMO	Albuquerque	132.41	23	ePKIKP	PKPdf	22 06 43.4	-1.4
ANMO	Albuquerque	132.41	23	SKPbc		22 10 08.6	
	comp=Z,4.8nm,0.8s,baz=330,slow=3.2,SNR=10						
TUC	Tucson	132.83	29	ePKIKP	PKPdf	22 06 44.4	-1.3
BNM	Barren Site	133.06	23	ePKPdf	PKPdf	22 06 44.8	-1.2
CPRX	Cap Rock	135.09	21	ePKPdf	PKPdf	22 06 47.5	-2.3
GDL2	Guadalupe Moun	135.65	22	ePKPdf	PKPdf	22 06 48.1	-2.8
MNTX	Cornudas Mount	135.71	24	ePKPdf	PKPdf	22 06 48.8	-2.2
TXAR	Lajitas Array	138.48	23	PKP	PKPdf	22 06 54.1	-2.1
	comp=Z,5.9nm,1.1s,baz=270,slow=1.3,SNR=12						
TXAR				PP	PP	22 09 47.5	+1.4
	comp=Z,1.1nm,1.0s,baz=346,slow=5.2,SNR=4.3						
TXAR				SKPbc		22 10 27.2	
	comp=Z,5.0nm,0.8s,baz=266,slow=1.7,SNR=14						
JCT	Junction City	138.77	18	ePKIKP	PKPdf	22 06 54.1	-2.5
TRQA	Tornquist	143.62	213	ePKPdf	PKPdf	22 07 00.1	-4.9
SJG	San Juan	146.65	324	ePKP2	PKPab	22 07 09.6	-1.5
CPUP	Villa Florida	147.55	234	SKiKP		22 11 28.0	
TEIG	Tepich	151.03	4	ePKPbc	PKPdf	22 07 21.1	+3.5
SDV	Santo Domingo	156.49	318	ePKPdf	PKPdf	22 07 22.5	-2.8
SDV				ePKPab	PKPab	22 07 51.1	-1.0
LVC	Limon Verde	158.47	229	ePKPdf	PKPdf	22 07 26.3	-1.4
LVC				ePKPab	PKPab	22 08 01.4	+1.0
LPAZ	La Paz	160.85	246	ePKIKP	PKPdf	22 07 29.8	-0.6
LPAZ				e		22 08 11.1	
LPAZ	La Paz	160.85	246	PKP	PKPdf	22 07 29.7	-0.7
	comp=Z,9.2nm,1.1s,baz=38,slow=2.1,SNR=15						
LPAZ				PKPab	PKPab	22 08 11.6	+0.8
	comp=Z,7.5nm,0.8s,baz=187,slow=3.2,SNR=9.0						
ROSC	El Rosal	161.92	318	PKP	PKPdf	22 07 30.6	-1.0
	comp=Z,23nm,1.0s,baz=103,slow=7.7,SNR=9.6						
OTAV	Otavalo	168.08	319	ePKPdf	PKPdf	22 07 35.3	-1.6
OTAV				ePKPab	PKPab	22 08 43.6	+1.2

IDC ***28*** *21:51:50.2±0.5, 3.68N×94.40E, mb4.8/19, mb1 4.9/19, mb1mx4.9/21, mbtmp4.8/19, MS4.6/1, Ms1 4.6/1, ms1mx3.3/26, Error ellipse: s-maj=26.6km s-min=12.4km az=43.0*

MOS ***28*** *21:51:52.7±1.1, 3.63N×94.47E, h33^{km}, mb5.3/34, MS4.8/12, Error ellipse: s-maj=13.1km s-min=6.5km az=121.0*

CSEM ***28*** *21:51:53.2, 3.78N×94.96E, h33^{km}, mb5.5*

BJI ***28*** *21:51:53.0, 3.12N×94.51E, h56^{km}, mB5.4, mb4.9, Ms5.2, Msz5.1*

NEIC ***28*** *21:51:54.0±0.5, 3.61N×94.40E, h30^{km}, mb5.2/33, MS4.7/20, Error ellipse: s-maj=12.5km s-min=10.9km az=143.0*

HRVD ***28*** *21:51:54.0±1.0, 3.41N×94.60E, h22^{km}±2^{km}, MW5.0/35, Centroid moment Tensor Solution. LP body waves: s4,c4; Mantle waves: s35,c52; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.38±.68; M$_{\theta\theta}$2.19±.38; M$_{\phi\phi}$0.19±.39; M$_{r\theta}$-0.91±.43; M$_{\theta\phi}$-1.33±.20; M$_{\phi r}$-3.62±.76; Best double couple: M$_0$4.22×10^{16} NP1:ϕ_s99°, δ36°, λ-148°. NP2: ϕ_s342°, δ72°, λ-59°. Principal axes: T 3.19, Plg21°, Azm49°; N 2.06, Plg30°, Azm152°; P -5.25, Plg52°, Azm289°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***28*** *21:51:54.0, 3.62N×94.40E, h30^{km}, MB5.1, MS4.7*

ISC 28 21:51:53.6±0.3**, 3.59N**±0.05×**94.44E**±0.05**, h38^{km}, h38^{km}**±2.7^{km}**:pP-P, n199, σ1^{s}02**/180**, mb5.1**/64**, MS4.8**/24**, 7C-19D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.42	16	P	P	21 55 30.8	+0.5
	17nm,0.6s						
CMAR	Chiang Mai Arr	15.42	16	Pn	P	21 55 31.8	+1.5
	2.1nm,0.3s,baz=205,slow=12,SNR=38						
QIZ	Qiongzhong	21.50	43	PFAKE		21 56 50.0	+8.7
QIZ				LR	LR		
	comp=Z,5µm,21.0s,MS4.9						
KMI	Kunming	22.85	20	⇓P	P	21 56 57.5	+2.7
KMI				AMB	AMB		
	comp=Z,18nm,1.2s,mb4.4						
LSA	Lhasa	26.16	354	eP	P	21 57 28.8	+2.4
LSA				pmax	pmax		
	comp=Z,103nm,0.8s,mb5.4						
LSA				MLR	MLR		
	comp=Z,2µm,22.0s,MS4.5						
LSA	Lhasa	26.16	354	eP	P	21 57 28.8	+2.4
	comp=Z,102nm,0.8s,mb5.4						
LSA				LR	LR		
	comp=Z,2µm,22.0s,MS4.5						
ENH	Enshi	30.12	27	eP	P	21 58 01.3	-0.8
	comp=Z,30nm,0.9s,mb5.0						
ENH				LR	LR		
	comp=Z,2µm,21.0s,MS4.8						
WHN	Wuhan	32.75	33	P	P	21 58 26.3	+1.0
XAN	Xi'an	33.17	22	P	P	21 58 28.0	-0.9
XAN				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.2						
NJ2	Nanjing	36.43	36	eP	P	21 58 56.0	-0.8
NJ2				PP	PP	22 00 18.0	-3.1
NJ2				PPP	PPP	22 00 38.0	-3.2
NJ2				S	S	22 04 32.0	-3.2
NJ2				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,1µm,4.6s						
NJ2				LR	LR		
	comp=Z,5µm,14.8s,MS5.4						
SSE	Sheshan	37.20	40	P	P	21 58 59.5	-3.8
SSE				AMB	AMB		
	comp=Z,16nm,0.6s,mb5.0						
SSE				AMB	AMB		
	comp=Z,168nm,5.2s						
KSH	Kashi	39.49	337	eP	P	21 59 23.0	+0.7
KSH				AMB	AMB		
	comp=Z,210nm,4.8s						
WMQ	Urumqi	40.51	352	P	P	21 59 31.8	+1.2
WMQ				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.5						
BJT	Baijiatuau	41.25	26	eP	P	21 59 38.5	+1.7
BJT				e	pP	21 59 47.4	-0.3
BJT				pmax	pmax		
	comp=Z,44nm,1.0s						
BJT				MLR	MLR		
	comp=Z,2µm,20.0s						
BJT	Baijiatuau	41.25	26	eP	P	21 59 38.5	+1.7
	comp=Z,44nm,1.0s,mb5.0						
BJT				e	pP	21 59 47.4	-0.3
BJT				LR	LR		
	comp=Z,2µm,20.0s,MS5.0						
BJI	Beijing	41.27	26	P	P	21 59 38.8	+1.8
BJI				AMB	AMB		
	comp=Z,19nm,1.3s,mb4.6						
KZA	Kyzart	41.99	339	P	P	21 59 44.3	+1.4
	SNR=6.6						
UCH	Uchtor	42.39	338	P	P	21 59 47.3	+1.1
	SNR=19						
KBK	Karagaybulak	42.60	339	P	P	21 59 49.4	+1.5
	SNR=17						
TKM2	Tokmak 2	42.60	339	P	P	21 59 49.2	+1.3
	SNR=9.2						
AML	Almayashu	42.62	337	P	P	21 59 49.1	+1.1
	SNR=26						
AAK	Ala-Archa	42.75	338	P	P	21 59 51.3	+2.2
	SNR=9.0						
AAK	Ala-Archa	42.75	338	⇓iP	P	21 59 46.9	-2.2
AAK				LR	LR		
	comp=Z,495nm,20.0s,MS4.4						
CHMS	Chumysh	42.97	339	P	P	21 59 51.8	+0.9
	SNR=5.3						
EKS2	Erkin-Say	43.04	338	P	P	21 59 52.9	+1.4
	SNR=14						
USP	Ospenovka	43.30	339	P	P	21 59 54.2	+0.7
	SNR=17						
MKAR	Makanchi Array	44.31	348	i P	P	22 00 02.1	+0.4
SONM	Songino Array	45.27	11	P	P	22 00 09.7	+0.4
	comp=Z,4.4nm,0.9s,mb4.3,baz=193,slow=9.9,SNR=9.2						
SONM				PcP	PcP	22 01 49.8	+0.6
	comp=Z,9.0nm,0.9s,baz=200,slow=3.4,SNR=9.9						
ULN	Ulaanbaatar	45.43	12	eP	P	22 00 07.7	-2.9
ULN				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.0						
WRA	Warramunga Arr	45.63	122	i P	P	22 00 13.4	+0.8
WRA				pmax	pmax		
	comp=Z,53nm,0.9s						
WRA	Warramunga Arr	45.63	122	P	P	22 00 12.8	+0.2
	comp=Z,53nm,0.9s,mb5.5,baz=301,slow=9.0,SNR=52						
WRAB	Tennant Creek	45.64	122	eP	P	22 00 09.7	-3.0
WRAB	Tennant Creek	45.64	122	⇓eP	P	22 00 12.8	+0.1
	comp=Z,126nm,1.0s,mb5.8						
WRAB				LR	LR		
	comp=Z,476nm,21.0s,MS4.4						
ASAR	Alice Springs	47.03	127	P	P	22 00 23.8	+0.2
	comp=Z,19nm,0.8s,mb5.1,baz=304,slow=7.7,SNR=28						
ASAR				PcP	PcP	22 01 56.2	+0.5
	comp=Z,4.8nm,0.8s,baz=305,slow=3.1,SNR=6.0						
ZAK	Zakamensk	47.22	8	eP	P	22 00 25.2	+0.5
ZAK				e		22 01 53.7	
TLY	Talaya	48.54	8	⇑iP	P	22 00 33.2	-1.8
TLY				MLR	MLR		
	comp=Z,259nm,21.0s,MS4.2						
HIA	Hailar	50.35	21	eP	P	22 00 48.6	-0.4
HIA				pmax	pmax		
	comp=Z,12nm,0.8s						
HIA				MLR	MLR		
	comp=Z,1µm,19.0s						
HIA	Hailar	50.35	21	eP	P	22 00 48.6	-0.4
	comp=Z,12nm,0.8s,mb5.0						
HIA				LR	LR		
	comp=Z,1µm,19.0s,MS4.9						
QRN	Al-Qurain	50.74	305	eP	P	22 00 52.2	0.0
QRN				AMb	AMB	22 00 53.1	
	comp=Z,84nm,0.7s,mb5.8						
RDF	Al-Radifah	51.11	305	eP	P	22 00 55.7	+0.7
RDF				AMb	AMB	22 00 56.6	
	comp=Z,127nm,0.6s						
UMR	Umm Al-Rimmam	51.19	306	eP	P	22 00 56.3	+0.7
UMR				AMb	AMB	22 00 57.0	
	comp=Z,165nm,0.6s,mb6.1						
KAMS	Al Khamasin	51.29	293	P	P	22 00 55.6	-0.8
MIB	Mutribah	51.59	306	eP	P	22 00 58.8	+0.2
MIB				AMb	AMB	22 01 00.4	
	comp=Z,309nm,0.7s						
MZLS	Mizel	51.60	298	P	P	22 00 59.2	+0.5
RST	Umm Al-Ruwaisa	51.76	305	eP	P	22 01 00.2	+0.3
RST				AMb	AMB	22 01 02.1	
	comp=Z,116nm,1.2s,mb5.7						
DJNS	Zahran al Janu	51.77	290	D		22 00 01.3	
TATS	Tathlith	52.15	292	P	P	22 01 02.8	-0.1
FRSS	Farasan al Kab	52.97	288	P	P	22 01 10.4	+1.4
BVA0	Borovoye Array	53.12	342	i P	P	22 01 09.2	-0.5
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.8s						

BVAR	Borovoye Array	53.12	342	P	P	22 01 09.0	-0.7
	comp=Z,9.8nm,0.7s,mb4.9,baz=149,slow=8.6,SNR=21						
BRVK	Borovoye	53.18	342⇑	iP	P	22 01 07.8	-2.4
BRVK				MLR	MLR		
	comp=Z,195nm,19.0s,MS4.2						
AFFS	‘Afif	53.53	297	P	P	22 01 13.8	+0.7
CHKZ	Chkalovo	53.62	343	i P	P	22 01 12.9	-0.5
CHKZ				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
CHKZ	Chkalovo	53.62	343	eP	P	22 01 12.5	-0.8
	comp=Z,19nm,0.7s,mb5.1						
PMG	Port Moresby	54.10	104	LR	LR	22 21 49.9	
	comp=Z,578nm,21.5s,MS4.6,baz=119,slow=33						
HILS	Ha’il	55.46	301	P	P	22 01 28.2	+0.9
CTA	Charters Tower	56.03	117	P	P	22 01 31.9	+0.5
	comp=Z,14nm,0.8s,mb5.0,baz=291,slow=9.3,SNR=8.8						
CTAO	Charters Tower	56.03	117⇓	eP	P	22 01 31.8	+0.4
CTAO				e		22 01 37.7	
CTAO				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.2						
CTAO				MLR	MLR		
	comp=Z,885nm,22.0s,MS4.8						
CTAO	Charters Tower	56.03	117⇓	eP	P	22 01 31.8	+0.4
	comp=Z,24nm,0.9s,mb5.2						
CTAO				e		22 01 37.7	
CTAO				LR	LR		
	comp=Z,885nm,22.0s,MS4.8						
BOD	Bodaibo	56.23	12	eP	P	22 01 31.6	-0.7
STKA	Stephens Creek	56.99	132	P	P	22 01 38.3	+0.1
	comp=Z,14nm,0.8s,mb5.1,baz=303,slow=7.7,SNR=15						
KBRS	Khaybar	57.27	298	P	P	22 01 41.3	+1.1
KMBO	Kilima Mbogo	57.35	266	i P	P	22 01 41.3	+0.4
KMBO				pmax	pmax		
	comp=Z,7.0nm,0.8s						
KMBO	Kilima Mbogo	57.35	266	P	P	22 01 41.2	+0.4
	comp=Z,6.8nm,0.8s,mb4.7,baz=62,slow=11,SNR=19						
GNI	Garni	57.67	316	P	P	22 01 42.2	-0.6
	comp=Z,6.4nm,0.8s,mb4.7,baz=42,slow=5.4,SNR=4.6						
TI2	Plekhanov	58.36	318⇓	iP	P	22 01 46.6	-1.0
ZEI	Tsey	59.39	319	eP	P	22 01 54.5	-0.2
ZEI				i *PP	pP	22 02 04.6	-1.4
ZEI				i		22 04 06.7	
ZEI				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
SVE	Sverdlovsk	59.48	339⇓	eP	P	22 01 54.0	-1.1
SVE				pmax	pmax		
	comp=Z,60nm,1.6s,mb5.4						
ERZM	Erzurum	59.93	315	i P	P	22 01 58.8	+0.3
ARU	Arti	59.94	338	i P	P	22 01 55.9	-2.4
ARU				pmax	pmax		
	comp=Z,48nm,1.7s,mb5.2						
ARU	Arti	59.94	338	i P	P	22 01 55.0	-3.3
ARU				LR	LR		
	comp=Z,411nm,21.0s,MS4.5						
TBKS	Tabuk	60.17	301	P	P	22 02 01.4	+1.1
QURS	Qurayyt al Mil	60.28	304	P	P	22 02 01.7	+0.7
KIV	Kislovodsk	60.71	319⇑	iP	P	22 02 01.6	-2.1
KIV				MLR	MLR		
	comp=Z,97nm,20.0s,MS4.0						
ASF	Jabal al Asfar	60.84	305	P	P	22 02 05.5	+0.7
	comp=Z,8.5nm,0.9s,mb4.9,baz=354,slow=5.5,SNR=12						
JMQS	Jabal Moqyreh	60.89	301	D		22 02 05.9	
AYUS	‘Aynunah	61.27	300	P	P	22 02 08.2	+0.5
BDAS	Al Bad‘	61.46	300	P	P	22 02 09.4	+0.4
MALT	Malatya	61.49	312⇓	eP	P	22 02 08.8	-0.3
MALT				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.3						
MALT	Malatya	61.49	312⇓	eP	P	22 02 08.8	-0.3
	comp=Z,25nm,1.0s,mb5.3						
HAQS	Haql	61.74	301	P	P	22 02 11.2	+0.3
GZT	Gaziantep	61.82	311	i P	P	22 02 11.0	-0.3
EIL	Elat	61.86	302⇓	eP	P	22 02 11.5	-0.2
	comp=Z,18nm,0.8s,mb5.2						
KAHT	Ahir Dag	62.43	311	i P	P	22 02 15.8	+0.4
SOC	Sochi	62.51	318	eP	P	22 02 10.7	-5.1
SOC				eS	S	22 10 36.4	-2.5
SOC				eSS	SS	22 14 41.2	-3.8
SOC				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.2						
SOC				pmax	pmax		
	comp=N,10.0nm,0.8s						
SOC				pmax	pmax		
	comp=E,6.0nm,0.8s						
MBAR	Mbarara	63.80	268	eP	P	22 02 23.1	-1.8
MBAR				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
MBAR				MLR	MLR		
	comp=Z,508nm,20.0s,MS4.7						
MBAR	Mbarara	63.80	268	eP	P	22 02 23.1	-1.7
	comp=Z,14nm,1.2s,mb4.9						
MBAR				LR	LR		
	comp=Z,508nm,20.0s,MS4.7						
YAK	Yakutsk	63.95	18⇑	iP	P	22 02 23.5	-1.5
YAK				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
MEST	Erdemli	64.22	309	i P	P	22 02 26.4	-0.8
BOYT	Boyabat	65.07	314	i P	P	22 02 31.0	-1.6
BRTR	Keskin Array B	65.47	312	P	P	22 02 34.0	-1.2
	comp=Z,8.0nm,0.9s,mb4.8,baz=127,slow=6.8,SNR=20						
ELDT	Eldivan	65.85	313	i P	P	22 02 36.9	-0.8
BALT	Daday	66.19	314	i P	P	22 02 39.4	-0.4
SIM	Simferopol’	66.75	318	P	P	22 02 42.7	-0.6
SIM				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
SIM				MLR	MLR		
	comp=Z,400nm,18.0s,MS4.7						
SGKT	Sivrigoynuk	66.88	313	i P	P	22 02 43.2	-0.9
ISP	Isparta	67.34	310	eP	P	22 02 46.1	-1.0
ESKT	Eskisehir	67.49	311	i P	P	22 02 46.7	-1.3
LSZ	Lusaka	68.18	252⇓	eP	P	22 02 52.2	-0.5
LSZ				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.2						
LSZ				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.2						
LSZ	Lusaka	68.18	252⇓	eP	P	22 02 52.2	-0.5
	comp=Z,36nm,1.6s,mb5.2						
LSZ				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
OBN	Obninsk	69.15	329⇑	iP	P	22 02 55.1	-3.0
OBN				i	pP	22 03 08.1	-1.5
OBN				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.0						
OBN	Obninsk	69.15	329⇑	iP	P	22 02 55.1	-3.0
OBN				LR	LR		
	comp=Z,289nm,19.0s,MS4.5						
MA2	Magadan	70.42	27	eP	P	22 03 03.4	-2.3
MA2				MLR	MLR		
	comp=Z,575nm,20.0s,MS4.8						
IDI	Anoyia	71.27	306	P	P	22 03 11.0	-0.3
	comp=Z,16nm,0.6s,mb5.1,baz=93,slow=7.2,SNR=16						
TIXI	Tiksi	71.35	11	eP	P	22 03 10.7	-0.5
TIXI				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,605nm,12.0s,MS5.1						
TIXI	Tiksi	71.35	11⇓	iP	P	22 03 09.0	-2.2
AKASG	Malin Array Be	71.69	323	P	P	22 03 12.1	-1.5
	comp=Z,4.7nm,0.7s,mb4.5,baz=88,slow=4.9,SNR=12						
BOSA	Boshof	73.61	239⇓	eP	P	22 03 24.3	-1.0
BOSA				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
BOSA				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.2						
BOSA	Boshof	73.61	239⇓	eP	P	22 03 24.3	-1.0
	comp=Z,30nm,1.1s,mb5.1						
BOSA				LR	LR		
	comp=Z,1µm,21.0s,MS5.2						
VSU	Vasula	75.41	330	eP	P	22 03 32.7	-2.4
KWP	Kalwaria	75.48	320	eP	P	22 03 35.8	+0.1
KOLS	Kolonicke sedl	75.62	320	eP	P	22 03 37.2	+0.7
KOLS				e		22 03 44.2	
CRVS	Cervenica-Dubn	76.14	319	esP	sP	22 03 54.3	-1.0
SUW	Suwalki	76.14	325	eP	P	22 03 38.8	-0.6
FINES	FINESS Array B	76.62	333	i P	P	22 03 41.5	-0.4
FINES				pmax	pmax		
	comp=Z,7.0nm,0.8s						
FINES	FINESS Array B	76.62	333	P	P	22 03 41.5	-0.4
	comp=Z,7.1nm,0.8s,mb4.7,baz=90,slow=9.5,SNR=11						
KAF	Kangasniemi	76.72	333	ep	P	22 03 41.0	-1.5
	comp=Z,14nm,0.9s,mb4.9						
KAF	Kangasniemi	76.72	333	eP	P	22 03 41.0	-1.5
KAF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
PSZ	Piszkesteto	77.00	318	P	P	22 03 43.5	-0.9
PSZ				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
PSZ	Piszkesteto	77.00	318	P	P	22 03 43.5	-0.8
	comp=Z,11nm,1.1s,mb4.7						
OJC	Ojcow	77.44	321	eP	P	22 03 46.9	+0.1
VYHS	Vyhne	77.79	319	eP	P	22 03 49.0	+0.3
MORC	Moravsky Berou	78.81	320	eP	P	22 03 54.4	+0.1
MORC				e		22 04 01.4	
MORC				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
MORC	Moravsky Berou	78.81	320	eP	P	22 03 54.4	+0.1
	comp=Z,10nm,1.4s,mb4.6						
MORC				e		22 04 01.4	
ZST	Bratislava	78.89	318	eP	P	22 03 55.1	+0.3
ZST				e		22 04 01.9	
ARCES	ARCESS Array B	79.38	340	P	P	22 03 57.0	0.0
	comp=Z,10nm,1.0s,mb4.7,baz=129,slow=7.8,SNR=7.9						
DPC	Dobruska-Polom	79.66	320	eP	P	22 03 59.8	+0.9
DPC				epP	pP	22 04 11.9	+1.4
KSP	Ksiaz	79.74	321⇓	eP	P	22 03 59.7	+0.4
KSP				e*PP	pP	22 04 12.7	+1.7
KSP	Ksiaz	79.74	321	eP	P	22 04 00.0	+0.7
BOJS	Bojanci	79.87	315	eP	P	22 04 00.3	+0.2
UPC	Upice	79.88	321	eP	P	22 04 00.7	+0.6
UPC				epP	pP	22 04 14.7	+3.0
BILL	Bilibino	79.94	21⇓	iP	P	22 03 59.0	-1.1
BILL				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.2						
LJU	Ljubljana	80.42	316	eP	P	22 04 03.5	+0.4
PRU	Pruhonice	80.76	320	eP	P	22 04 05.5	+0.7
PRU				epP	pP	22 04 15.1	-1.3
PVCC	Panska Ves	80.80	320	eP	P	22 04 06.0	+1.0
PVCC				epP	pP	22 04 20.0	+3.4
ROBS	Robic	81.14	316	eP	P	22 04 06.8	0.0
GEC2	GERESS Array S	81.21	319	eP	P	22 04 07.8	+0.6
GEC2				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
GEC2	GERESS Array S	81.21	319	eP	P	22 04 07.8	+0.6
	comp=Z,34nm,1.1s,mb5.2						
GERES	GERESS Array B	81.21	319	P	P	22 04 08.0	+0.9
	comp=Z,12nm,0.8s,mb4.9,baz=104,slow=5.5,SNR=35						
BRG	Berggiesshubel	81.23	321	i P	P	22 04 07.7	+0.5
BRG				e	pP	22 04 18.6	-0.3
BRG				pmax	pmax		
	comp=Z,37nm,1.6s,mb5.1						
BRG	Berggiesshubel	81.23	321	i P	P	22 04 07.7	+0.5
	comp=Z,37nm,1.6s,mb5.1						
BRG				e	pP	22 04 18.6	-0.3
KHC	Kasperske Hory	81.31	319	eP	P	22 04 07.9	+0.2
KHC				epP	pP	22 04 17.3	-2.1
SYO	Syowa Base	81.43	197	⇑P	P	22 04 09.5	+1.6
SYO	Syowa Base	81.43	197	⇓pP	pP	22 04 18.4	-1.2
SYO	Syowa Base	81.43	197	⇓sP	sP	22 04 22.3	-1.4
WET	Wettzell	81.77	319	eP	P	22 04 10.6	+0.5
CLL	Collm	81.85	321	i P	P	22 04 10.5	+0.1
CLL				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
CLL	Collm	81.85	321	i P	P	22 04 10.5	+0.1
	comp=Z,12nm,1.0s,mb4.8						
CLL	Collm	81.85	321	P	P	22 04 10.5	+0.1
	comp=Z,logA/T=1.1,mb4.8						
MOX	Moxa	82.68	320	eP	P	22 04 11.0	-3.7
MOX				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
MOX	Moxa	82.68	320	i P	P	22 04 11.0	-3.7
	comp=Z,logA/T=1.0,mb4.8						
MOX	Moxa	82.68	320	eP	P	22 04 11.0	-3.7
	comp=Z,12nm,1.1s,mb4.8						
GRA1	Grafenberg Arr	82.89	319	eP	P	22 04 16.6	+0.8
	comp=Z,20nm,1.0s,mb5.1						
GRF	Grafenberg Arr	82.89	319	eP	P	22 04 16.6	+0.8
GRF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
GRF	Grafenberg Arr	82.89	319	eP	P	22 04 16.6	+0.8
GRF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
GRF	Grafenberg Arr	82.89	319	eP	P	22 04 16.6	+0.8
	comp=Z,20nm,1.0s,mb5.1						
CLZ	Clausthal	83.52	322	eP	P	22 04 19.3	+0.3
	comp=Z,23nm,1.2s,mb5.2						
NB2	NORSAR Subarra	83.59	331	P	P	22 04 18.6	-0.5
	comp=Z,0.5nm,0.8s,baz=95,slow=6.2						
NB2	NORSAR Subarra	83.59	331	P	P	22 04 18.6	-0.5
NB2				pmax	pmax		
	comp=Z,1.0nm,0.8s						
NOA	NORSAR Array B	83.59	331	P	P	22 04 19.2	+0.1
	comp=Z,5.8nm,0.9s,mb4.7,baz=94,slow=5.5,SNR=6.7						
BSEG	Bad Segeberg	83.65	324	eP	P	22 04 20.1	+0.5
PGF	Pioggiola	84.23	312	eP	P	22 04 22.3	-0.5
	comp=Z,236nm,1.5s,mb5.8						
PGF	Pioggiola	84.23	312	eP	P	22 04 22.3	-0.5
PGF				pmax	pmax		
	comp=Z,118nm,1.5s,mb5.8						
BFO	Black Forest	84.75	318	eP	P	22 04 25.2	0.0
BFO				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
BFO	Black Forest	84.75	318	eP	P	22 04 25.2	0.0
	comp=Z,8.0nm,0.9s,mb4.8						
SBF	Sospel	85.37	314	eP	P	22 04 28.0	-0.4
	comp=Z,118nm,1.1s,mb5.6						
SBF	Sospel	85.37	314	eP	P	22 04 28.0	-0.4
SBF				pmax	pmax		
	comp=Z,59nm,1.1s,mb5.6						
CDF	Champ du Feu	85.45	318	eP	P	22 04 27.9	-0.8
MBDF	Montbardon	85.84	314	eP	P	22 04 31.4	+0.7
	comp=Z,20nm,0.9s,mb5.0						
MBDF	Montbardon	85.84	314	eP	P	22 04 31.4	+0.7
MBDF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
LPG	La Plagne	85.84	315	eP	P	22 04 30.7	0.0
	comp=Z,31nm,0.9s,mb5.2						
LPG	La Plagne	85.84	315	eP	P	22 04 30.7	0.0
LPG				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
HAU	Haudompre	86.08	318	eP	P	22 04 31.1	-0.7
	comp=Z,27nm,0.9s,mb5.2						
HAU	Haudompre	86.08	318	eP	P	22 04 31.1	-0.7
HAU				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.2						
BAIF	Baives	87.42	320	eP	P	22 04 38.4	+0.1
	comp=Z,20nm,0.9s,mb5.0						
BAIF	Baives	87.42	320	eP	P	22 04 38.4	+0.1
BAIF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
SSF	Saint Saulge	88.04	317	eP	P	22 04 41.2	-0.1
SSF				pmax	pmax		
	comp=Z,26nm,1.5s,mb5.2						
SSF	Saint Saulge	88.04	317	eP	P	22 04 41.2	-0.1
	comp=Z,26nm,1.5s,mb5.2						
BGF	Bois d’Agland	88.52	316	eP	P	22 04 43.7	+0.1
	comp=Z,41nm,1.1s,mb5.4						
BGF	Bois d’Agland	88.52	316	eP	P	22 04 43.7	+0.1
BGF				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.4						
VNDA	Vanda	88.70	168	P	P	22 04 45.5	+1.7
	comp=Z,3.6nm,0.9s,mb4.7,baz=298,slow=6.3,SNR=6.1						
FLN	La Foliniere	90.57	319	eP	P	22 04 53.1	-0.2
	comp=Z,103nm,1.4s,mb5.7						
FLN	La Foliniere	90.57	319	eP	P	22 04 53.1	-0.2
FLN				pmax	pmax		
	comp=Z,51nm,1.4s,mb5.7						
ETSF	Etsaut	91.24	313	eP	P	22 04 55.6	-0.9
EKA	Eskdalemuir Ar	91.40	325	P	P	22 04 58.0	+1.0
	comp=Z,4.6nm,0.8s,mb4.9,baz=108,slow=5.3,SNR=6.5						
ESDC	Sonseca Array	94.19	310	P	P	22 05 11.3	+1.2
	comp=Z,2.6nm,0.7s,mb4.8,baz=58,slow=4.3,SNR=11						
ILAR	Eielson Array	98.57	22	PKKPbc		22 21 59.0	
	comp=Z,0.7nm,0.9s,baz=136,slow=3.2,SNR=4.9						
YKA	Yellowknife Ar	110.49	14	PP	PP	22 10 55.7	-6.6
	comp=Z,0.2nm,0.6s,baz=330,slow=7.7,SNR=3.4						
YKA				PKKPbc		22 21 23.1	
	comp=Z,1.1nm,1.1s,baz=151,slow=3.0,SNR=8.1						
TBI	Tubuai	115.35	114	eLR	LR	22 10 27.1	
	comp=Z,319nm,23.5s						
PPT	Papeete	115.84	108	eLR	LR	22 06 38.0	
	comp=Z,393nm,25.5s						
ULM	Lac du Bonnet	125.64	8	PKP	PKPdf	22 10 54.0	+2.7
	comp=Z,4.5nm,0.8s,baz=330,slow=1.9,SNR=7.2						
ELK	Elko	128.20	29	PKIKP	PKPdf	22 11 00.1	+3.5
NVAR	Mina Array Bea	128.38	33	PKP	PKPdf	22 11 00.9	+4.0
	comp=Z,3.6nm,0.8s,baz=256,slow=1.7,SNR=7.4						
RKT	Rikitea	128.47	117	eLR	LR	22 11 15.8	
	comp=Z,320nm,26.5s						
PDAR	Pinedale Array	129.01	23	PKP	PKPdf	22 11 00.2	+2.2
	comp=Z,2.7nm,0.9s,SNR=9.8						
MNTX	Cornudas Mount	140.16	27	ePKPdf	PKPdf	22 11 19.0	-0.1
TXAR	Lajitas Array	142.94	27	PKhKP		22 11 23.2	
	comp=Z,1.7nm,0.9s,SNR=2.8						
JCT	Junction City	143.49	21	ePKIKP	PKPdf	22 11 22.6	-2.3
LPAZ	La Paz	158.72	232	ePKIKP	PKPdf	22 11 50.9	+2.8
LPAZ	La Paz	158.72	232	PKPab	PKPab	22 12 27.3	+1.3
	comp=Z,5.7nm,0.7s,baz=94,slow=6.2,SNR=14						

IDC 28 22:13:26.8±5.3**, 12.95N×92.88E, mb3.9**/4**, mb1 3.9**/5**, mb1mx3.7**/18**, mbtmp3.8**/5**, ML3.4**/1**, Error ellipse: s-maj=109.8km s-min=46.0km az=167.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.01	46	Pn	P	22 15 26.6	-0.5
	0.1nm,0.3s,baz=237,slow=15,SNR=4.5						
AGT	Agartala	10.99	352	e	S	22 18 16.0	+2.7
SONM	Songino Array	36.57	15	P	P	22 20 32.9	-3.2
	0.4nm,0.7s,baz=214,slow=5.2,SNR=3.7						
BVAR	Borovoye Array	43.82	341	P	P	22 21 35.5	-0.6
	1.3nm,0.9s,baz=141,slow=9.2,SNR=4.7						
FINES	FINESS Array B	67.68	331	P	P	22 24 25.6	-2.1
	3.0nm,1.0s,baz=117,slow=8.5,SNR=3.7						
ARCES	ARCESS Array B	70.11	340	P	P	22 24 40.5	-2.0
	5.8nm,1.0s,baz=104,slow=3.7,SNR=5.0						

IDC 28 22:15:51.9±2.0**, 11.44N×91.76E, mb4.1**/3**, mb1 4.2**/4**, mb1mx3.7**/18**, mbtmp4.0**/4**, Error ellipse: s-maj=64.3km s-min=27.4km az=62.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.84	44	Pn	P	22 18 14.8	-3.0
	baz=229,slow=15,SNR=5.3						
BWNR	Bhubaneshwar	10.51	328	eP	P	22 18 46.0	+19
BWNR				eS	S	22 20 24.0	-2.6
BVAR	Borovoye Array	44.89	342	P	P	22 24 07.1	-2.8
	0.5nm,0.5s,baz=156,slow=10,SNR=4.6						
WRA	Warramunga Arr	52.24	126	P	P	22 25 06.1	-1.3
	2.3nm,0.5s,baz=302,slow=9.1,SNR=10.0						
ASAR	Alice Springs	53.99	130	P	P	22 25 17.9	-2.4
	3.8nm,0.9s,baz=305,slow=7.1,SNR=14						

IDC 28 22:16:48.9±3.0**, 5.58S×147.17E, h231**^{km}±29^{km}**, mb3.7**/3**, mb1 3.9**/5**, mb1mx3.6**/12**, mbtmp4.3**/5**, Error ellipse: s-maj=59.9km s-min=16.9km az=125.0, Eastern New Guinea region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.80	180	P	P	22 17 50.4	+0.4
	16nm,0.3s,baz=3.5,slow=5.0,SNR=102						
PMG				S	S	22 18 36.7	-0.7
	44nm,0.3s,baz=175,slow=22,SNR=12						
CTA	Charters Tower	14.45	183	P	P	22 20 06.8	+2.3
	0.9nm,0.3s,baz=6.9,slow=12,SNR=11						
WRA	Warramunga Arr	18.96	220	P	P	22 20 54.0	-0.8
	3.5nm,0.3s,baz=47,slow=10,SNR=54						
WRA				S	S	22 24 14.5	+1.4
	0.2nm,0.3s,baz=37,slow=20,SNR=4.9						
ASAR	Alice Springs	22.05	214	P	P	22 21 26.6	+1.1
	17nm,0.6s,baz=43,slow=7.3,SNR=255						
STKA	Stephens Creek	26.67	191	P	P	22 22 07.8	-0.9
	1.4nm,0.6s,baz=27,slow=6.9,SNR=4.9						
ILAR	Eielson Array	85.03	23	P	P	22 28 56.6	-2.7
	0.5nm,0.7s,baz=248,slow=5.0,SNR=9.8						

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*IDC **28** 22:16:49.4±0.5, 13.53N×92.95E, mb4.4/23, mb1 4.5/24, mb1mx4.5/25, mbtmp4.4/24, ML4.4/1, MS4.4/3, Ms1 4.5/3, ms1mx3.7/13, Error ellipse: s-maj=20.8km s-min=10.9km az=42.0*

*BJI **28** 22:16:52.4, 13.23N×92.99E, h54^{km}, mB5.2, mb4.9, Ms4.8, Msz4.5*

*MOS **28** 22:16:53.7±1.2, 13.76N×93.01E, h33^{km}, mb5.2/39, Error ellipse: s-maj=12.2km s-min=6.2km az=119.1*

*NEIC **28** 22:16:54.6±0.6, 13.85N×92.85E, mb5.0/34, Error ellipse: s-maj=14.1km s-min=9.3km az=148.0*

*HRVD **28** 22:16:54.6±0.4, 13.60N×93.06E, h15^{km}±1^{km}, MW5.1/55, Centroid moment Tensor Solution. LP body waves: s18,c24;Mantle waves: s55,c91; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.94±.24; $M_{\theta\theta}$4.49±.20; $M_{\phi\phi}$-3.55±.16; $M_{r\theta}$1.91±.58; $M_{\theta\phi}$-1.33±.13; $M_{\phi r}$-1.29±.64; Best double couple: $M_0$4.76×10^{16} NP1:ϕ_s53°,δ62°,λ-179°. NP2:ϕ_s323°,δ89°,λ-28°. Principal axes: T 5.4, Plg18°, Azm11°; N -1.29, Plg62°, Azm141°; P -4.12, Plg20°, Azm274°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 22:16:53.7±0.9**, 13.67N**±0.05×**93.05E**±0.03**, h38**^{km}±7^{km}**, n195, σ1^{s}15**/205**, mb4.8**/77**, MS4.7**/9**, 9C-2D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	7.14	73	P	P	22 18 40.0	+1.7
CM31	Chiang Mai Arr	7.40	49	eP	P	22 18 41.5	-0.5
CMAR	Chiang Mai Arr	7.40	49	Pn	P	22 18 41.4	-0.6
	1.4nm,0.3s,baz=241,slow=14,SNR=45						
CMAR				Sn	S	22 20 05.6	0.0
	baz=243,slow=28,SNR=2.5						
KKTK	Khon Kaen	9.81	73	P	P	22 19 20.0	+4.6
VIS	Vishakhapatnam	10.19	295	i P	P	22 19 15.4	-5.2
VIS				i S	S	22 20 54.4	-20
UBT	Ubonrachathani	11.70	81	P	P	22 19 46.0	+4.9
BLSP	Bilaspur	13.36	311	e	P	22 20 05.2	+1.9
BLSP				e	S	22 22 36.6	+5.2
HYB	Hyderabad	14.45	287	eP	P	22 20 14.5	-3.2
HYB	Hyderabad	14.45	287	i P	P	22 20 14.5	-3.2
HYB				eS	S	22 22 56.0	-1.5
KMI	Kunming	14.60	37	P	P	22 20 22.5	+2.9
KMI				AP		22 20 28.5	
KMI				S	S	22 23 00.8	-0.2
KMI				LR	LR		
	comp=N,2µm,14.9s						
KMI				LR	LR		
	comp=E,3µm,18.2s						
KMI				LR	LR		
	comp=Z,2µm,18.5s						
PKI	Pulchoki	15.56	334	eP	P	22 20 31.1	-0.9
GUN	Gumba	15.67	336	eP	P	22 20 34.1	+0.7
DMN	Daman	15.73	333	eP	P	22 20 31.9	-2.2
	comp=Z,127nm,0.7s						
KKN	Kakani	15.81	334	eP	P	22 20 34.0	-1.2
	comp=Z,72nm,0.8s						
LSA	Lhasa	16.05	354	eP	P	22 20 38.0	-0.3
LSA				pmax	pmax		
	comp=Z,53nm,0.8s						
LSA	Lhasa	16.05	354	eP	P	22 20 38.0	-0.2
	comp=Z,53nm,0.8s						
GKN	Gorkha	16.28	333	eP	P	22 20 39.9	-1.2
LATR	Latur	16.53	289	eP	P	22 20 43.5	-0.9
LATR				eS	S	22 23 30.0	-16
KOLN	Koldanda	16.57	329	eP	P	22 20 43.5	-1.3
	comp=Z,144nm,0.8s						
AKL	Akola	16.83	297⇑	iP	P	22 20 48.9	+0.8
AKL				i	S	22 23 42.1	-11
	comp=Z,172nm,1.3s						
MNGI	Mangalore	17.75	270	i P	P	22 21 01.1	+1.4
MNGI				eS	S	22 23 59.3	-14
	comp=Z,94nm,1.4s						
GYA	Guiyang	18.02	43⇑	iP	P	22 21 03.5	+0.5
GYA				AMB	AMB		
	comp=Z,60nm,2.0s						
GYA				LR	LR		
	comp=N,870nm,15.6s						
GYA				LR	LR		
	comp=E,970nm,16.4s						
GYA				LR	LR		
	comp=Z,1µm,16.0s						
KAD	Karad	18.54	284	eP	P	22 21 08.0	-1.4
KAD				i	S	22 24 18.0	-13
POO	Poona	19.06	287⇑	iP	P	22 21 13.0	-2.7
	comp=Z,40nm,1.0s						
POO				i	S	22 24 34.0	-9.3
PTH	Pithoragarh	19.77	325	eP	P	22 21 24.8	+1.4
PTH				e	S	22 24 55.4	-3.5
CD2	Chengdu	19.79	28	P	P	22 21 23.3	-0.3
CD2				AMB	AMB		
	comp=Z,20nm,0.7s						
BOM	Bombay	20.10	288	eP	P	22 21 28.4	+1.4

BOM				*e*	**S**	**22 24 55.4**	**-10**
	comp=Z,156nm,0.8s						
NDI	**New Delhi**	**20.97**	**318**	*e*P	**P**	**22 21 38.0**	**+2.1**
NDI				*e*S	**S**	**22 25 08.5**	**-14**
AJM	**Ajmer**	**21.44**	**309**	⇑*i*	**P**	**22 21 40.0**	**-0.7**
AJM	**Ajmer**	**21.44**	**309**	*i*	**P**	**22 21 40.0**	**-0.7**
DDI	**Dehra Dun**	**21.59**	**323**	*e*	**P**	**22 21 43.4**	**+1.2**
DDI				*e*		22 25 57.4	
ENH	**Enshi**	**22.43**	**40**	*e*P	**P**	**22 21 50.5**	**0.0**
	comp=Z,108nm,1.0s,mb5.2						
SDNR	**Sundarnagar**	**23.09**	**323**	*e*	**P**	**22 22 00.0**	**+3.0**
BHK	**Bhakra**	**23.35**	**322**	*e*	**S**	**22 26 17.8**	**+12**
LZH	**Lanzhou**	**24.34**	**22**	⇑P	**P**	**22 22 11.5**	**+2.3**
LZH				AP		22 22 23.5	
LZH				XP		22 22 28.3	
LZH				AMB	AMB		
	comp=Z,170nm,1.2s,mb5.3						
LZH				AMB	AMB		
	comp=Z,800nm,4.7s						
LZH				LR	LR		
	comp=N,2μm,12.8s						
LZH				LR	LR		
	comp=Z,4μm,13.7s,MS5.0						
THN	**Thein Dam**	**24.49**	**323**	*e*	**P**	**22 22 10.7**	**0.0**
XAN	**Xi'an**	**24.88**	**33**	P	**P**	**22 22 14.0**	**-0.4**
XAN				AP		22 22 24.0	
XAN				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.2						
WHN	**Wuhan**	**25.84**	**46**	P	**P**	**22 22 23.8**	**+0.3**
GTA	**Gaotai**	**26.33**	**12**	P	**P**	**22 22 29.5**	**+1.6**
GTA				AMB	AMB		
	comp=Z,22nm,1.3s,mb4.5						
GTA				AMB	AMB		
	comp=Z,416nm,8.4s						
GTA				LR	LR		
	comp=N,1μm,17.1s,MS4.6						
GTA				LR	LR		
	comp=E,695nm,17.9s,MS4.6						
GTA				LR	LR		
	comp=Z,1μm,19.8s,MS4.5						
NJ2	**Nanjing**	**29.88**	**48**	*e*P	**P**	**22 22 58.8**	**-1.2**
NJ2				AP	pP	22 23 08.8	-1.8
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,1μm,4.2s						
NJ2				LR	LR		
	comp=N,5μm,15.2s,MS5.4						
NJ2				LR	LR		
	comp=E,4μm,14.2s,MS5.4						
NJ2				LR	LR		
	comp=Z,7μm,16.2s,MS5.4						
WMQ	**Urumqi**	**30.40**	**352**	P	**P**	**22 23 05.3**	**+0.8**
WMQ				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.3						
BTO	**Baotou**	**30.68**	**26**	*e*P	**P**	**22 23 06.0**	**-1.0**
SSE	**Sheshan**	**31.14**	**51**	P	**P**	**22 23 08.0**	**-3.2**
SSE				S	**S**	**22 28 12.3**	**-0.7**
SSE				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,164nm,5.4s						
SSE				LR	LR		
	comp=N,1μm,25.7s,MS4.5						
SSE				LR	LR		
	comp=E,789nm,26.0s,MS4.5						
SSE				LR	LR		
	comp=Z,402nm,17.7s						
HHC	**Hu-ho-hao-te**	**31.55**	**27**	*e*P	**P**	**22 23 15.5**	**+0.8**
HHC				S	**S**	**22 28 29.5**	**+10**
HHC				XS		22 28 47.3	
HHC				AMB	AMB		
	comp=Z,22nm,1.2s,mb4.9						
HHC				AMB	AMB		
	comp=Z,418nm,10.6s						
HHC				LR	LR		
	comp=N,781nm,15.5s,MS4.7						
HHC				LR	LR		
	comp=E,867nm,15.5s,MS4.7						
HHC				LR	LR		
	comp=Z,1μm,21.4s						
AAK	**Ala-Archa**	**33.02**	**334**	*e*P	**P**	**22 23 27.2**	**-0.3**
AAK				pmax	pmax		
	comp=Z,16nm,1.7s,mb4.7						
BJT	**Baijiatuau**	**33.19**	**33**	*e*P	**P**	**22 23 30.1**	**+1.1**
BJT				pmax	pmax		
	comp=Z,15nm,0.8s						
BJT	**Baijiatuau**	**33.19**	**33**	*e*P	**P**	**22 23 30.1**	**+1.2**
	comp=Z,15nm,0.8s,mb5.0						
BJI	**Beijing**	**33.20**	**33**	P	**P**	**22 23 29.3**	**+0.2**
BJI				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.9						
MKAR	**Makanchi Array**	**34.24**	**347**	*i* P	**P**	**22 23 38.1**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,16nm,0.8s						
JOW	**Kunigami**	**35.42**	**63**	P	**P**	**22 23 48.6**	**+0.4**
	comp=Z,42nm,0.5s,mb5.7,baz=167,slow=15,SNR=4.8						
SONM	**Songino Array**	**35.83**	**15**	P	**P**	**22 23 52.8**	**+1.2**
	comp=Z,16nm,1.0s,mb4.9,baz=201,slow=6.5,SNR=62						
ULN	**Ulaanbaatar**	**36.04**	**16**	⇑*e*P	**P**	**22 23 53.7**	**+0.4**
ULN				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
ULN	**Ulaanbaatar**	**36.04**	**16**	⇑*e*P	**P**	**22 23 53.7**	**+0.5**
	comp=Z,24nm,1.1s,mb5.0						
ZAK	**Zakamensk**	**37.55**	**11**	*e*P	**P**	**22 24 07.0**	**+1.0**
CN2	**Changchun**	**40.87**	**36**	*e*P	**P**	**22 24 31.8**	**-1.8**
CN2				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.8						
HIA	**Hailar**	**41.73**	**26**	*e*P	**P**	**22 24 40.5**	**-0.1**
HIA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
HIA	**Hailar**	**41.73**	**26**	*e*P	**P**	**22 24 40.5**	**-0.1**
	comp=Z,9.0nm,0.8s,mb4.5						
NVS	**Novosibirsk**	**41.79**	**351**	*i* P	**P**	**22 24 40.2**	**-0.9**
NVS				*i* PPP	PP	22 26 26.6	+5.7
NVS				*i* S	**S**	**22 30 46.4**	**-9.3**
NVS				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb4.2						
NVS				pmax	pmax		
	comp=N,11nm,1.5s						
NVS				pmax	pmax		
	comp=E,5.0nm,1.3s						
NVS				smax			
	comp=N,12nm,1.7s						
NVS				smax			
	comp=E,14nm,1.8s						
BVA0	**Borovoye Array**	**43.20**	**340**	*i* P	**P**	**22 24 52.7**	**+0.1**
BVA0				pmax	pmax		
	comp=Z,1.0nm,1.1s						
BVAR	**Borovoye Array**	**43.20**	**340**	P	**P**	**22 24 52.7**	**0.0**
	comp=Z,7.0nm,1.0s,mb4.3,baz=149,slow=8.6,SNR=17						
BRVK	**Borovoye**	**43.26**	**340**	*e*P	**P**	**22 24 53.2**	**+0.1**
BRVK				*e*		22 25 00.1	
BRVK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
BRVK	**Borovoye**	**43.26**	**340**	*e*P	**P**	**22 24 53.1**	**0.0**
	comp=Z,14nm,1.0s,mb4.6						
BRVK				*e*		22 25 00.1	
CHKZ	**Chkalovo**	**43.68**	**341**	*e*P	**P**	**22 24 56.6**	**+0.1**
CHKZ				*e*		22 25 03.8	
CHKZ				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.8						
CHKZ	**Chkalovo**	**43.68**	**341**	*e*P	**P**	**22 24 56.6**	**+0.1**
	comp=Z,19nm,0.9s,mb4.8						
CHKZ				*e*		22 25 03.8	
MZLS	**Mizel**	**46.24**	**290**	P	**P**	**22 25 19.0**	**+1.6**
BOD	**Bodaibo**	**46.83**	**15**	*e*P	**P**	**22 25 21.1**	**-0.4**
HILS	**Ha'il**	**49.58**	**294**	P	**P**	**22 25 44.1**	**+0.7**
SVE	**Sverdlovsk**	**49.66**	**337**	⇑*e*P	**P**	**22 25 42.7**	**-0.9**
SVE				pmax	pmax		
	comp=Z,60nm,2.0s,mb5.3						
GNI	**Garni**	**49.73**	**311**	P	**P**	**22 25 46.5**	**+2.2**
	comp=Z,16nm,0.9s,mb5.0,baz=294,slow=6.5,SNR=9.8						
GNI				LR	LR	22 52 26.0	
	comp=Z,178nm,18.4s,MS4.1,baz=279,slow=43						
ARU	**Arti**	**50.18**	**336**	⇓*i*P	**P**	**22 25 46.0**	**-1.5**
ARU				*e*		22 27 01.4	
ARU				*e*		22 27 40.6	
ARU				*e*PPP	PPP	22 28 37.3	-3.3
ARU				*e*S	**S**	**22 32 58.6**	**+3.2**
ARU				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
TI2	**Plekhanov**	**50.23**	**313**	⇓*i*P	**P**	**22 25 49.8**	**+1.7**
ZEI	**Tsey**	**51.17**	**314**	*e*P	**P**	**22 25 56.9**	**+1.7**
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
NWAO	**Narrogin (SRO)**	**51.77**	**154**	*e*P	**P**	**22 26 04.0**	**+4.1**
NWAO				pmax	pmax		
	comp=Z,38nm,0.9s						
NWAO	**Narrogin (SRO)**	**51.77**	**154**	P	**P**	**22 25 58.0**	**-1.9**
	comp=Z,3.4nm,0.3s,mb4.7,baz=324,slow=7.3,SNR=14						
NWAO	**Narrogin (SRO)**	**51.77**	**154**	*e*P	**P**	**22 26 04.0**	**+4.1**
	comp=Z,38nm,0.9s,mb5.3						
ERZM	**Erzurum**	**52.15**	**310**	*i* P	pP	22 26 09.4	-4.2
KIV	**Kislovodsk**	**52.39**	**315**	*e*P	**P**	**22 26 05.2**	**+0.8**
KIV				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
KIV	**Kislovodsk**	**52.39**	**315**	*e*P	**P**	**22 26 05.2**	**+0.8**
	comp=Z,28nm,0.8s,mb5.2						
WRA	**Warramunga Arr**	**52.59**	**129**	P	**P**	**22 26 04.7**	**-1.5**
	comp=Z,10nm,0.9s,mb4.8,baz=309,slow=7.8,SNR=11						
WRA				PcP	PcP	22 27 16.0	-0.1
	comp=Z,2.9nm,0.7s,baz=312,slow=3.7,SNR=3.1						
WRAB	**Tennant Creek**	**52.59**	**129**	*e*P	**P**	**22 26 05.3**	**-0.9**
WRAB				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.3						
WRAB	**Tennant Creek**	**52.59**	**129**	*e*P	**P**	**22 26 05.3**	**-0.9**
	comp=Z,27nm,0.7s,mb5.3						
YSS	**Yuzh-Sakhalins**	**53.01**	**41**	P	**P**	**22 26 13.0**	**+4.0**
SOKR	**Solikamsk**	**53.05**	**338**	⇑*i*P	**P**	**22 26 07.0**	**-2.1**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,430nm,18.0s,MS4.5						
UMJS	**Umm Lajj**	**53.47**	**291**	P	**P**	**22 26 13.9**	**+1.2**
ELZG	**Elazig**	**53.62**	**308**	*i* P	**P**	**22 26 14.2**	**+0.6**
MALT	**Malatya**	**54.01**	**308**	*e*P	**P**	**22 26 17.0**	**+0.6**
MALT				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
MALT	**Malatya**	**54.01**	**308**	*e*P	**P**	**22 26 17.0**	**+0.6**
	comp=Z,12nm,1.1s,mb4.7						
TBKS	**Tabuk**	**54.27**	**295**	D		22 26 19.7	
ASF	**Jabal al Asfar**	**54.30**	**300**	P	**P**	**22 26 17.8**	**-0.9**
	comp=Z,2.3nm,0.7s,mb4.2,baz=7.8,slow=6.6,SNR=3.2						
SOC	**Sochi**	**54.33**	**314**	*e*P	**P**	**22 26 20.1**	**+1.4**
SOC				*e*PPP	PPP	22 29 36.1	+2.7
SOC				*e*S	**S**	**22 33 51.2**	**-1.1**
SOC				*e*SS	SS	22 37 38.1	+4.0
SOC				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
SOC				pmax	pmax		
	comp=N,14nm,0.9s						
SOC				pmax	pmax		
	comp=E,8.0nm,0.8s						
ASAR	**Alice Springs**	**54.52**	**133**	P	**P**	**22 26 19.2**	**-1.2**
	comp=E,3.2nm,0.4s,mb4.7,baz=313,slow=6.8,SNR=31						
JMQS	**Jabal Moqyreh**	**54.90**	**296**	P	**P**	**22 26 23.6**	**+0.5**
YAK	**Yakutsk**	**54.91**	**20**	*e*P	**P**	**22 26 21.6**	**-1.1**
YAK				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
YAK	**Yakutsk**	**54.91**	**20**	*e*P	**P**	**22 26 21.6**	**-1.2**
	comp=Z,20nm,0.6s,mb5.3						
KAHT	**Ahir Dag**	**55.09**	**306**	*i* P	**P**	**22 26 25.2**	**+0.8**
BDAS	**Al Bad'**	**55.56**	**295**	P	**P**	**22 26 28.2**	**+0.3**
JMOS	**Jabal al Moall**	**55.59**	**296**	P	**P**	**22 26 26.9**	**-1.2**
ALWS	**Ilw as Safayha**	**55.63**	**296**	P	**P**	**22 26 29.5**	**+1.1**
HAQS	**Haql**	**55.74**	**296**	P	**P**	**22 26 29.4**	**+0.2**
EIL	**Elat**	**55.76**	**297**	P	**P**	**22 26 27.8**	**-1.5**
	comp=Z,3.8nm,0.7s,mb4.5,baz=18,slow=1.8,SNR=6.5						
EIL	**Elat**	**55.76**	**297**	*e*P	**P**	**22 26 28.5**	**-0.8**
	comp=Z,9.7nm,1.0s,mb4.8						
MEST	**Erdemli**	**57.08**	**305**	*i* P	**P**	**22 26 37.9**	**-0.8**
KMBO	**Kilima Mbogo**	**57.20**	**260**	P	**P**	**22 26 40.6**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,3.0nm,1.0s						
KMBO	**Kilima Mbogo**	**57.20**	**260**	P	**P**	**22 26 38.9**	**-0.9**
	comp=Z,1.9nm,0.9s,mb4.1,baz=51,slow=16,SNR=4.0						
KMBO				LR	LR	22 50 03.5	
	comp=Z,409nm,18.6s,MS4.6,baz=278,slow=35						
KMBO	**Kilima Mbogo**	**57.20**	**260**	P	**P**	**22 26 40.5**	**+0.7**
	comp=Z,3.1nm,1.0s,mb4.3						
BOYT	**Boyabat**	**57.28**	**311**	*i* P	**P**	**22 26 39.6**	**-0.4**
CSS	**Prodhromos**	**57.55**	**303**	P	**P**	**22 26 38.8**	**-3.2**
	comp=Z,8.6nm,0.6s,mb5.0						
BRTR	**Keskin Array B**	**57.93**	**308**	P	**P**	**22 26 44.0**	**-0.6**
	comp=Z,8.2nm,0.8s,mb4.8,baz=121,slow=7.2,SNR=41						
PMG	**Port Moresby**	**58.39**	**110**	P	**P**	**22 26 47.7**	**-0.4**
	comp=Z,10nm,1.0s,mb4.8,baz=241,slow=9.3,SNR=2.8						
SIM	**Simferopol'**	**58.56**	**315**	P	**P**	**22 26 49.7**	**+0.8**
SIM				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
SGKT	**Sivrigoynuk**	**59.26**	**309**	*i* P	**P**	**22 26 53.4**	**-0.5**
MOS	**Moscow**	**59.63**	**327**	*e*P	**P**	**22 26 56.5**	**+0.3**
OBN	**Obninsk**	**59.96**	**326**	*e*P	**P**	**22 26 55.3**	**-3.2**
OBN				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
ESKT	**Eskisehir**	**60.03**	**308**	*i* P	**P**	**22 26 58.1**	**-1.1**
ISP	**Isparta**	**60.11**	**306**	*e*P	**P**	**22 26 59.0**	**-0.7**
TIXI	**Tiksi**	**61.81**	**12**	*e*P	**P**	**22 27 09.7**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.2						
CTA	**Charters Tower**	**62.16**	**122**	P	**P**	**22 27 13.8**	**0.0**
	comp=Z,2.5nm,0.9s,mb4.3,baz=21,slow=16,SNR=2.1						
AKASG	**Malin Array Be**	**63.01**	**320**	P	**P**	**22 27 17.5**	**-1.5**
	comp=Z,0.6nm,0.4s,mb4.1,baz=84,slow=4.7,SNR=9.4						
IDI	**Anoyia**	**64.48**	**303**	P	**P**	**22 27 27.7**	**-1.2**
	comp=Z,4.9nm,0.6s,mb4.7,baz=290,slow=21,SNR=5.0						
STKA	**Stephens Creek**	**64.91**	**135**	P	**P**	**22 27 30.4**	**-1.3**
	comp=Z,1.8nm,0.4s,mb4.5,baz=327,slow=7.1,SNR=12						
KWP	**Kalwaria**	**66.98**	**318**	*e*P	**P**	**22 27 44.1**	**-0.5**
FINES	**FINESS Array B**	**67.13**	**331**	P	**P**	**22 27 45.0**	**-0.3**
	comp=Z,3.2nm,0.7s,mb4.5,baz=108,slow=7.5,SNR=13						
KAF	**Kangasniemi**	**67.19**	**332**	*e*p	**P**	**22 27 46.9**	**+1.2**
	comp=Z,8.7nm,0.9s,mb4.8						
KAF	**Kangasniemi**	**67.19**	**332**	*e*P	**P**	**22 27 46.9**	**+1.2**
KAF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
KOLS	**Kolonicke sedl**	**67.20**	**318**	*e*P	**P**	**22 27 49.4**	**+3.4**
KOLS	**Kolonicke sedl**	**67.20**	**318**	*e*	**P**	**22 27 49.4**	**+3.4**
SUW	**Suwalki**	**67.23**	**323**	*e*P	**P**	**22 27 45.4**	**-0.7**
CRVS	**Cervenica-Dubn**	**67.73**	**317**	*e*P	**P**	**22 27 52.0**	**+2.7**
NIE	**Niedzica**	**68.52**	**318**	*e*P	**P**	**22 27 55.0**	**+0.8**
OJC	**Ojcow**	**68.91**	**319**	*e*P	**P**	**22 27 57.1**	**+0.5**
KEV	**Kevo**	**69.05**	**340**	*e*p	**P**	**22 27 56.9**	**-0.3**
	comp=Z,7.7nm,0.7s,mb4.7						
KEV	**Kevo**	**69.05**	**340**	*e*P	**P**	**22 27 56.9**	**-0.3**
KEV				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
VYHS	**Vyhne**	**69.44**	**317**	*e*P	**P**	**22 27 59.5**	**-0.4**
ARCES	**ARCESS Array B**	**69.49**	**340**	P	**P**	**22 28 00.5**	**+0.6**
	comp=Z,3.4nm,0.7s,mb4.4,baz=103,slow=7.3,SNR=13						
SRO2	**Moca**	**69.70**	**316**	*e*P	**P**	**22 28 02.7**	**+1.1**
LSZ	**Lusaka**	**70.30**	**248**	*e*P	**P**	**22 28 06.3**	**+0.6**
LSZ				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
LSZ	**Lusaka**	**70.30**	**248**	*e*P	**P**	**22 28 06.3**	**+0.6**
	comp=Z,10nm,1.3s,mb4.6						
MORC	**Moravsky Berou**	**70.34**	**318**	*e*P	**P**	**22 28 05.5**	**+0.1**
MORC				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
MORC	**Moravsky Berou**	**70.34**	**318**	*e*P	**P**	**22 28 05.5**	**+0.2**
	comp=Z,8.2nm,0.8s,mb4.7						
ZST	**Bratislava**	**70.58**	**317**	*e*P	**P**	**22 28 08.7**	**+1.8**
ZST				*e*		22 28 27.6	
BILL	**Bilibino**	**71.15**	**22**	*e*P	**P**	**22 28 08.0**	**-2.0**
BILL				pmax	pmax		
	comp=Z,6.0nm,1.3s,mb4.4						
KSP	**Ksiaz**	**71.17**	**319**	*e*P	**P**	**22 28 10.9**	**+0.5**
PRU	**Pruhonice**	**72.28**	**318**	*e*P	**P**	**22 28 23.4**	**+6.4**
PRU	**Pruhonice**	**72.28**	**318**	*e*pP	pP	22 28 23.4	-5.1
BRG	**Berggiesshubel**	**72.66**	**319**	*e*P	**P**	**22 28 20.5**	**+1.3**
BRG				*i*	pP	22 28 34.1	+3.4
BRG				pmax	pmax		
	comp=Z,8.0nm,1.3s,mb4.5						
GERES	**GERESS Array B**	**72.84**	**317**	P	**P**	**22 28 21.2**	**+0.8**
	comp=Z,6.3nm,0.9s,mb4.5,baz=90,slow=5.3,SNR=17						
KHC	**Kasperske Hory**	**72.92**	**318**	*e*P	**P**	**22 28 21.2**	**+0.4**
HFS	**Hagfors**	**72.95**	**329**	P	**P**	**22 28 21.1**	**+0.3**
	comp=Z,11nm,1.0s,mb4.7,baz=101,slow=7.6,SNR=7.9						
CLL	**Collm**	**73.25**	**320**	*e*P	**P**	**22 28 23.0**	**+0.3**
CLL	**Collm**	**73.25**	**320**	P	**P**	**22 28 23.0**	**+0.3**
MOX	**Moxa**	**74.14**	**319**	*e*P	**P**	**22 28 34.0**	**+6.1**
NB2	**NORSAR Subarra**	**74.20**	**330**	P	**P**	**22 28 27.2**	**-0.8**
	comp=Z,7.0nm,0.8s,mb4.6,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**74.20**	**330**	P	**P**	**22 28 27.2**	**-0.8**
NB2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
NOA	**NORSAR Array B**	**74.20**	**330**	P	**P**	**22 28 28.1**	**0.0**
	comp=Z,2.4nm,0.7s,mb4.2,baz=91,slow=5.6,SNR=9.0						
LBTB	**Lobatse**	**76.14**	**240**	*e*P	**P**	**22 28 40.9**	**+1.0**
LBTB				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
LBTB	**Lobatse**	**76.14**	**240**	*e*P	**P**	**22 28 40.9**	**+1.0**
	comp=Z,8.2nm,0.7s,mb4.8						
PGF	**Pioggiola**	**76.55**	**311**	*e*P	**P**	**22 28 41.0**	**-0.9**
	comp=Z,84nm,1.0s,mb5.3						
PGF	**Pioggiola**	**76.55**	**311**	*e*P	**P**	**22 28 41.0**	**-0.9**
PGF				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
CDF	**Champ du Feu**	**77.12**	**317**	*e*P	**P**	**22 28 43.9**	**-1.1**
	comp=Z,14nm,1.1s,mb4.5						
CDF	**Champ du Feu**	**77.12**	**317**	*e*P	**P**	**22 28 43.9**	**-1.1**
CDF				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
SBF	**Sospel**	**77.53**	**312**	*e*P	**P**	**22 28 46.0**	**-1.4**
	comp=Z,50nm,1.0s,mb5.1						
SBF	**Sospel**	**77.53**	**312**	*e*P	**P**	**22 28 46.0**	**-1.4**
SBF				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
HAU	**Haudompre**	**77.79**	**317**	*e*P	**P**	**22 28 48.6**	**-0.1**
	comp=Z,18nm,0.9s,mb4.7						
HAU	**Haudompre**	**77.79**	**317**	*e*P	**P**	**22 28 48.6**	**-0.1**
HAU				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
BOSA	**Boshof**	**77.81**	**236**	*e*P	**P**	**22 28 49.7**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
BOSA	**Boshof**	**77.81**	**236**	*e*P	**P**	**22 28 49.7**	**+0.5**
	comp=Z,15nm,0.8s,mb5.0						
LPG	**La Plagne**	**77.81**	**314**	*e*P	**P**	**22 28 49.5**	**+0.6**
	comp=Z,42nm,1.0s,mb5.0						
LPG	**La Plagne**	**77.81**	**314**	*e*P	**P**	**22 28 49.5**	**+0.6**
LPG				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
MBDF	**Montbardon**	**77.90**	**313**	*e*P	**P**	**22 28 49.4**	**+0.1**
BAIF	**Baives**	**78.92**	**319**	*e*P	**P**	**22 28 55.0**	**+0.2**
	comp=Z,25nm,1.1s,mb4.8						
BAIF	**Baives**	**78.92**	**319**	*e*P	**P**	**22 28 55.0**	**+0.2**
BAIF				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
SSF	**Saint Saulge**	**79.83**	**316**	*e*P	**P**	**22 28 59.1**	**-0.7**
SSF				pmax	pmax		
	comp=Z,22nm,1.4s,mb4.9						
SSF	**Saint Saulge**	**79.83**	**316**	*e*P	**P**	**22 28 59.1**	**-0.7**
	comp=Z,22nm,1.4s,mb4.9						
BGF	**Bois d'Agland**	**80.35**	**316**	*e*P	**P**	**22 29 01.6**	**-1.0**
	comp=Z,82nm,1.5s,mb5.1						
BGF	**Bois d'Agland**	**80.35**	**316**	*e*P	**P**	**22 29 01.6**	**-1.0**
BGF				pmax	pmax		
	comp=Z,41nm,1.5s,mb5.1						
RJF	**Les Rejaudoux**	**81.49**	**314**	*e*P	**P**	**22 29 07.4**	**-1.2**
	comp=Z,32nm,1.0s,mb4.9						
RJF	**Les Rejaudoux**	**81.49**	**314**	*e*P	**P**	**22 29 07.4**	**-1.2**
RJF				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
FLN	**La Foliniere**	**82.16**	**318**	*e*P	**P**	**22 29 11.1**	**-0.9**
	comp=Z,22nm,0.9s,mb4.8						
FLN	**La Foliniere**	**82.16**	**318**	*e*P	**P**	**22 29 11.1**	**-0.9**
FLN				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
EKA	**Eskdalemuir Ar**	**82.38**	**325**	P	**P**	**22 29 14.4**	**+1.4**
	comp=Z,73nm,1.5s,mb5.4,baz=85,slow=5.3,SNR=5.3						
ETSF	**Etsaut**	**83.44**	**312**	*e*P	**P**	**22 29 17.3**	**-1.4**
	comp=Z,74nm,1.6s,mb5.2						
ETSF	**Etsaut**	**83.44**	**312**	*e*P	**P**	**22 29 17.3**	**-1.4**
ETSF				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.2						
MAW	**Mawson**	**83.96**	**191**	P	**P**	**22 29 28.0**	**+7.2**
	comp=Z,8.1nm,0.8s,mb4.9,baz=51,slow=4.6,SNR=5.2						
ESDC	**Sonseca Array**	**86.69**	**310**	P	**P**	**22 29 36.1**	**+1.1**
	comp=Z,2.0nm,0.8s,mb4.4,baz=64,slow=4.7,SNR=6.6						
IMA	**Indian Mountai**	**86.69**	**22**	*e*P	**P**	**22 29 36.7**	**+2.4**
IMA				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.4						
IMA	**Indian Mountai**	**86.69**	**22**	*e*P	**P**	**22 29 36.6**	**+2.3**
	comp=Z,20nm,0.8s,mb5.4						
COLA	**College**	**89.40**	**22**	*e*P	**P**	**22 29 46.8**	**-0.5**
ILAR	**Eielson Array**	**89.81**	**22**	P	**P**	**22 29 49.5**	**+0.2**
	comp=Z,1.6nm,0.9s,mb4.4,baz=273,slow=4.5,SNR=8.6						
INK	**Inuvik**	**91.75**	**16**	P	**P**	**22 29 58.0**	**-0.2**
	comp=Z,2.3nm,1.1s,mb4.4,baz=301,slow=6.7,SNR=3.6						
DBIC	**Dimbokro**	**96.07**	**278**	P	**P**	**22 30 21.5**	**+2.4**
	comp=Z,3.2nm,1.0s,mb4.7,baz=39,slow=2.3,SNR=3.1						
VNDA	**Vanda**	**98.78**	**168**	LR	LR	23 13 26.2	
	comp=Z,262nm,18.4s,MS4.8,baz=298,slow=34						
YKA	**Yellowknife Ar**	**101.06**	**13**	*i* P	P	22 30 45.3	+4.7
YKA	**Yellowknife Ar**	**101.06**	**13**	P	P	22 30 42.1	+1.5
	comp=Z,0.4nm,0.9s,baz=322,slow=3.7,SNR=4.2						
TXAR	**Lajitas Array**	**134.31**	**21**	PKP	PKPdf	22 36 08.7	+0.3
	comp=Z,0.5nm,0.6s,baz=90,slow=1.3,SNR=3.5						
TRQA	**Tornquist**	**147.11**	**218**	*e*PKPbc	PKPdf	22 36 39.9	+9.1

SKHL ***28*** *22:21:43.8±2.5, 42.85N×145.25E, h50^{km}±7^{km}, mb4.8/3, Ms4.2/2*
JMA ***28*** *22:21:44.4±0.1, 42.94N×145.03E, h52^{km}±1^{km}, M4.1*
JMA Felt II J1.
IDC ***28*** *22:21:47.8±2.8, 43.11N×144.92E, h78^{km}±21^{km}, mb3.7/14, mb1 3.9/14, mb1mx3.7/24, mbtmp4.0/14, Error ellipse: s-maj=22.1km s-min=16.9km az=145.0*
ISC 28 22:21:43.1±0.6**, 42.93N**±0.05×**145.08E**±0.05**, h58**^{km}±4^{km}**, n31,** $\sigma0^{s}.77$/41**, mb4.0**/14**, 1C-7D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	**Akkeshi**	**0.29**	**283**	⇓P	**P**	**22 21 53.3**	**+0.4**
JAK				S	**S**	**22 21 59.6**	**-0.5**
NEM2	**Nemuro 2**	**0.65**	**48**	⇑P	**P**	**22 21 57.4**	**+0.8**
NEM2				*e*S	**S**	**22 22 06.7**	**0.0**
JNK	**Nakash**	**0.71**	**338**	⇓P	**P**	**22 21 57.6**	**+0.3**
JNK				*e*S	**S**	**22 22 07.2**	**-0.7**
JOB	**Onbets**	**0.92**	**269**	⇓P	**P**	**22 22 00.5**	**+0.4**
JOB				*e*S	**S**	**22 22 12.0**	**-0.8**
JRA	**Rausu**	**1.01**	**2**	⇓P	**P**	**22 22 02.1**	**+0.8**
JRA				*e*S	**S**	**22 22 15.1**	**+0.2**
JAR	**Ashorobuto**	**1.03**	**291**	⇓P	**P**	**22 22 02.1**	**+0.5**
JAR				*e*S	**S**	**22 22 15.1**	**-0.3**
YUK	**Yuzh-Kuril'sk**	**1.24**	**27**	*i* P	**P**	**22 22 04.7**	**+0.1**
YUK				AMB	AMB	22 22 05.2	
	2μm,0.4s						
YUK				AMB	AMB	22 22 05.7	
	770nm,0.3s						
YUK				AMB	AMB	22 22 05.7	
	580nm,0.3s						
YUK				AMB	AMB	22 22 05.7	
	1μm,0.3s						
YUK				*i* S	**S**	**22 22 20.4**	**-0.1**
YUK				A		22 22 21.5	
	8μm,1.0s						
YUK				A		22 22 21.5	
	10μm,1.0s						
YUK				A		22 22 21.5	
	7μm,0.3s						
YUK				A		22 22 21.5	
	5μm,0.3s						
JCH	**Churui**	**1.30**	**257**	⇓P	**P**	**22 22 05.3**	**-0.3**
JCH				*e*S	**S**	**22 22 20.3**	**-2.0**
JTKR	**Abashiri--Toko**	**1.34**	**321**	⇓P	**P**	**22 22 07.0**	**+0.9**
JTKR				*e*S	**S**	**22 22 24.1**	**+0.9**
ASAJ	**Asahikawa**	**2.16**	**304**	P	**P**	**22 22 18.9**	**+1.5**
	75nm,0.3s,baz=132,slow=8.8,SNR=60						
ASAJ				S	**S**	**22 22 43.4**	**+0.3**
	32nm,0.3s,baz=250,slow=20,SNR=3.9						
KUR	**Kuril'sk**	**3.05**	**40**	*e*P	**P**	**22 22 28.8**	**-1.3**
KUR				AMB	AMB	22 22 37.8	
	80nm,0.5s						
KUR				AMB	AMB	22 22 37.8	
	150nm,0.5s						
KUR				*e*S	**S**	**22 23 04.5**	**-1.1**
KUR				A		22 23 14.3	
	150nm,0.6s						
KUR				A		22 23 14.3	
	380nm,0.6s						
YSS	**Yuzh-Sakhalins**	**4.35**	**338**	*e*rx	rx	22 23 09.7	
YSS				AMS	AMS	22 24 50.0	
	900nm,14.0s						
YSS				AMS	AMS	22 24 50.0	
	1μm,14.0s						
YSS				AMS	AMS	22 24 50.0	
	1μm,14.0s						
MAT	**Matsushiro**	**8.29**	**222**	P	**P**	**22 23 39.1**	**-4.0**
MAT				S	**S**	**22 25 16.7**	**+0.5**
NKL	**Nikolayevsk**	**10.64**	**345**	*e*rx	rx	22 26 13.0	
NKL				AMS	AMS	22 26 37.0	
	1μm,15.0s						

NKL				AMS	AMS	22 26 37.0	
	2µm,11.0s						
KROS	Kirovskiy	16.54	320	*e*P	P	22 25 32.2	-0.1
KROS				AMB	AMB	22 25 33.5	
	6.0nm,0.9s						
SONM	Songino Array	27.41	294	P	P	22 27 24.9	0.0
	3.1nm,0.9s,mb3.9,baz=74,slow=7.5,SNR=10						
ILAR	Eielson Array	43.04	36	P	P	22 29 39.0	+0.9
	1.8nm,1.1s,mb3.7,baz=266,slow=6.5,SNR=13						
CMAR	Chiang Mai Arr	45.84	253	P	P	22 30 02.3	+1.0
	0.9nm,0.6s,mb3.9,baz=43,slow=7.6,SNR=8.0						
INK	Inuvik	47.87	30	P	P	22 30 17.1	+0.5
	1.7nm,0.5s,mb4.4,baz=328,slow=8.4,SNR=8.7						
BVAR	Borovoye Array	48.85	309	P	P	22 30 23.9	-0.5
	0.7nm,0.4s,mb4.0,baz=72,slow=7.5,SNR=8.4						
YKA	Yellowknife Ar	57.31	33	P	P	22 31 26.4	-0.5
	0.4nm,0.8s,mb3.5,baz=302,slow=6.4,SNR=5.9						
FINES	FINESS Array B	64.91	332	P	P	22 32 16.9	-1.2
	3.0nm,0.8s,mb4.4,baz=55,slow=8.2,SNR=13						
ASAR	Alice Springs	67.06	191	P	P	22 32 33.3	+0.9
	1.0nm,0.7s,mb4.0,baz=9.5,slow=5.4,SNR=9.0						
NB2	NORSAR Subarra	69.81	338	P	P	22 32 48.1	-0.6
	1.1nm,0.5s,mb4.0,baz=32,slow=6.5						
NOA	NORSAR Array B	69.81	338	P	P	22 32 48.1	-0.7
	1.0nm,0.5s,mb4.0,baz=35,slow=6.1,SNR=4.5						
HFS	Hagfors	69.85	336	P	P	22 32 48.4	-0.6
	2.6nm,0.5s,mb4.4,baz=45,slow=8.4,SNR=10						
FRB	Frobisher Bay	70.38	15	P	P	22 32 51.5	-0.6
	1.6nm,0.9s,mb4.0,baz=21,slow=6.7,SNR=4.6						
AKASG	Malin Array Be	71.33	323	P	P	22 32 57.1	-1.0
	1.0nm,0.5s,mb4.0,baz=39,slow=5.8,SNR=10						
PDAR	Pinedale Array	71.59	48	P	P	22 33 00.3	+0.6
	0.5nm,0.4s,mb3.8,baz=80,slow=0.6,SNR=5.2						
KHC	Kasperske Hory	78.93	330	*e*P	P	22 33 42.5	+1.0
GERES	GERESS Array B	79.12	330	P	P	22 33 42.2	-0.4
	0.4nm,0.6s,mb3.5,baz=72,slow=3.1,SNR=3.9						

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*IDC **28** 22:27:17.7±1.1, 6.08N×94.62E, mb3.9/8, mb1 4.1/9, mb1mx4.0/17, mbtmp3.9/9, ML4.1/1, Error ellipse: s-maj=45.6km s-min=20.7km az=49.0*

ISC 28 22:27:21.2±0.9,**6.2N**±0.1×**94.8E**±0.2,**h33**^{km}**,n9,**σ**0**^{s}**74**/9,**mb3.9**/8,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.84	18	Pn	P	22 30 23.4	-0.7
	0.3nm,0.3s,baz=209,slow=14,SNR=7.2						
SONM	Songino Array	42.66	12	P	P	22 35 17.4	+1.1
	2.1nm,0.9s,mb3.9,baz=200,slow=7.7,SNR=8.0						
WRA	Warramunga Arr	46.78	125	P	P	22 35 50.2	+0.5
	2.0nm,1.1s,mb4.0,baz=304,slow=8.9,SNR=7.0						
ASAR	Alice Springs	48.37	129	P	P	22 36 01.4	-0.7
	1.3nm,0.8s,mb4.0,baz=302,slow=7.3,SNR=6.9						
BRTR	Keskin Array B	64.00	311	P	P	22 37 53.1	-0.7
	1.2nm,0.9s,mb3.9,baz=133,slow=8.6,SNR=4.2						
AKASG	Malin Array Be	69.85	322	P	P	22 38 29.5	-1.1
	0.5nm,0.4s,mb3.8,baz=88,slow=5.4,SNR=4.4						
FINES	FINESS Array B	74.48	332	P	P	22 38 58.3	+0.5
	1.2nm,0.5s,mb4.1,baz=112,slow=5.4,SNR=9.3						
ARCES	ARCESS Array B	77.05	340	P	P	22 39 12.8	+0.5
	1.3nm,0.6s,mb4.0,baz=90,slow=6.1,SNR=5.2						
GERES	GERESS Array B	79.49	318	P	P	22 39 26.9	+0.8
	0.5nm,0.6s,mb3.6,baz=76,slow=5.5,SNR=4.3						

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*IDC **28** 22:29:16.9±7.0, 37.43N×72.61E, h199^{km}±67^{km}, mb3.5/12, mb1 3.7/12, mb1mx3.6/19, mbtmp4.1/12, Error ellipse: s-maj=25.8km s-min=15.3km az=9.0*

ISC 28 22:29:10.5±0.4,**37.73N**±0.02×**72.79E**±0.07,**h144**^{km}±6^{km},**n58,**σ**1**^{s}**21**/73,**mb3.9**/11,**2C-2D,Tajikistan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CEP	Cherat	3.96	191	P	P	22 30 12.4	+1.5
CHCP	Chirah Chowk	4.08	174	⇓P	P	22 30 15.3	+2.8
AML	Almayashu	4.46	9	P	P	22 30 16.6	-0.9
	SNR=218						
UCH	Uchtor	4.69	16	P	P	22 30 20.5	-0.1
	SNR=260						
KZA	Kyzart	4.74	23	P	P	22 30 20.9	-0.3
	SNR=104						
EKS2	Erkin-Say	4.99	8	P	P	22 30 23.5	-1.0
	SNR=141						
THW	Thamme Wali	4.99	190	⇑P	P	22 30 25.2	+0.5
AAK	Ala-Archa	5.07	14	P	P	22 30 25.8	+0.1
	SNR=201						
KBK	Karagaybulak	5.20	18	P	P	22 30 27.3	0.0
	SNR=54						
ULHL	Ulahol	5.23	29	P	P	22 30 27.6	-0.2
	SNR=8.4						
CHMS	Chumysh	5.48	15	P	P	22 30 30.8	-0.3
	SNR=96						
TKM2	Tokmak 2	5.62	22	P	P	22 30 32.8	-0.1
	SNR=12						
SBDP	Sheikh Budin	5.65	197	⇑P	P	22 30 33.6	+0.2
USP	Ospenovka	5.69	13	P	P	22 30 33.1	-0.8
	SNR=46						
DLH	Dalhousie	5.79	152	*e*P	P	22 30 38.0	+2.8
DLH				*e*S	S	22 31 40.0	-1.0
SARP	Sargodha	5.79	181	P	P	22 30 35.6	+0.4
SARP				S	S	22 31 39.0	-2.0
THN	Thein Dam	5.80	155	*e*P	P	22 30 36.4	+1.1
	195nm,0.3s						
THN				*e*S	S	22 31 40.5	-0.7
PONG	Pong	6.32	155	*e*P	P	22 30 44.0	+1.7
DRP	Derazinda	6.34	200	P	P	22 30 43.0	+0.4
BHK	Bhakra	6.97	154	*e*P	P	22 30 53.3	+2.2
BHK				*e*S	S	22 32 08.6	-0.7
SDNR	Sundarnagar	7.10	150	*e*P	P	22 30 53.8	+0.9
SDNR				*e*S	S	22 32 09.2	-3.3
SMLA	Simla	7.51	150	⇓*i*	P	22 31 13.0	+15
	4µm,0.6s						
SMLA				*i*		22 32 32.4	
	5µm,0.5s						
KLP	Kalpa	7.64	142	*e*P	P	22 31 01.9	+1.7
KLP				*e*S	S	22 32 26.2	+0.7
KLP				*e*S	S	22 32 27.0	+1.5
KLP				*e*		22 32 35.7	
	comp=E,2µm,1.3s						
KLP				*e*		22 32 43.7	
	comp=N,1µm,0.8s						
KKR	Kurukshetra	8.44	155	*e*P	P	22 31 11.8	+1.1
KKR				*e*S	S	22 32 42.1	-2.5
KKR				*e*		22 32 49.7	
	comp=Z,148nm,0.6s						
DDI	Dehra Dun	8.58	148	*e*P	P	22 31 14.2	+1.6
DDI				*e*S	S	22 32 48.6	+0.6
KALG	Kalgarh	9.58	147	*e*	P	22 31 14.3	-12
NDI	New Delhi	9.75	156	*e*P	P	22 31 26.0	-2.1
NDI				*e*		22 33 08.0	
NDI				*e*S	S	22 33 12.8	-3.0
NDI				*e*		22 36 53.0	
AYAN	Aya Nagar	9.91	157	*e*P	P	22 31 30.0	-0.2
AYAN				*e*S	S	22 33 14.8	-4.8
KHET	Khetri	9.95	164	*e*P	P	22 31 28.7	-2.1
KHET				*e*S	S	22 33 14.4	-6.3
KHET				*e*		22 33 21.9	
	comp=E,94nm,0.3s						
KHET				*e*		22 33 21.9	
KUDL	Kundal	10.04	161	*e*P	P	22 31 30.9	-1.1
KUDL				*e*S	S	22 33 14.9	-8.0
KUDL				*e*		22 33 25.2	
	comp=Z,56nm,0.9s						
PTH	Pithoragarh	10.23	141	*e*P	P	22 31 35.8	+1.3
PTH				*e*S	S	22 33 27.2	-0.1
LGTI	Lohaghat	10.33	141	*e*P	P	22 31 36.0	+0.2
LGTI				*e*S	S	22 33 25.0	-4.6
JASL	Jaisalmer	10.89	189	*e*P	P	22 31 36.4	-6.8
KOLN	Koldanda	13.45	134	*e*P	P	22 32 16.7	+0.2
	comp=Z,38nm,0.4s						
GKN	Gorkha	13.88	131	*e*P	P	22 32 21.9	-0.1
	comp=Z,111nm,0.4s						
KKN	Kakani	14.43	130	*e*P	P	22 32 28.4	-0.5
	comp=Z,52nm,0.5s						
DMN	Daman	14.45	131	*e*P	P	22 32 29.1	-0.1
	comp=Z,42nm,0.5s						
PKI	Pulchoki	14.66	130	*e*P	P	22 32 32.3	+0.4
	comp=Z,17nm,0.3s						
GUN	Gumba	14.71	128	*e*P	P	22 32 31.7	-0.8
	comp=Z,46nm,0.5s						
BVAR	Borovoye Array	15.39	355	P	P	22 32 38.5	-2.4
	comp=Z,2.2nm,0.3s,baz=161,slow=11,SNR=21						
BOM	Bombay	18.76	180	*e*	S	22 36 26.3	-15
	comp=Z,135nm,0.8s						
POO	Poona	19.15	177	*e*	P	22 33 21.0	-4.0
POO				*i*		22 35 53.0	
SHL	Shillong	20.23	121	*e*	P	22 33 40.0	+3.9
SHL				*e*		22 35 46.5	
KAD	Karad	20.38	176	*e*	P	22 33 27.3	-10
SONM	Songino Array	26.46	57	P	P	22 34 38.5	+2.8
	comp=Z,2.4nm,0.7s,mb3.9,baz=262,slow=9.1,SNR=20						
BRTR	Keskin Array B	30.45	286	P	P	22 35 11.5	-0.1
	comp=Z,1.0nm,0.5s,mb3.8,baz=90,slow=7.4,SNR=6.5						
AKASG	Malin Array Be	33.32	307	P	P	22 35 36.7	+0.3
	comp=Z,1.1nm,0.5s,mb3.8,baz=112,slow=9.0,SNR=7.9						
FINES	FINESS Array B	37.29	325	P	P	22 36 10.0	+0.2
	comp=Z,4.3nm,0.9s,mb4.1,baz=118,slow=11,SNR=12						
ARCES	ARCESS Array B	40.58	337	P	P	22 36 37.4	+0.4
	comp=Z,3.8nm,0.9s,mb4.0,baz=112,slow=9.1,SNR=14						
GERES	GERESS Array B	43.41	304	P	P	22 37 00.1	0.0
	comp=Z,0.1nm,0.3s,baz=249,slow=8.4,SNR=3.1						
NB2	NORSAR Subarra	44.28	322	P	P	22 37 06.5	-0.5
	comp=Z,2.2nm,0.5s,mb4.0,baz=92,slow=7.9						
NOA	NORSAR Array B	44.28	322	P	P	22 37 06.9	-0.1
	comp=Z,2.9nm,0.6s,mb4.1,baz=93,slow=7.7,SNR=11						
ESDC	Sonseca Array	58.15	298	P	P	22 38 50.0	-1.3
	comp=Z,0.7nm,0.6s,mb3.7,baz=60,slow=7.2,SNR=6.5						
FX1	Attu Island--F	66.54	41	P	P	22 39 49.9	+3.2
	comp=Z,17nm,0.3s,baz=300,slow=21,SNR=11						
INK	Inuvik	72.46	10	P	P	22 40 23.9	+1.5
	comp=Z,3.3nm,0.5s,mb4.3,baz=339,slow=5.5,SNR=14						
ILAR	Eielson Array	73.21	17	P	P	22 40 27.3	+0.6
	comp=Z,3.2nm,1.1s,mb4.0,baz=320,slow=5.0,SNR=17						
FRB	Frobisher Bay	74.32	343	P	P	22 40 33.6	+0.4
	comp=Z,1.2nm,0.8s,mb3.7,baz=60,slow=7.1,SNR=3.1						
WRA	Warramunga Arr	81.44	123	P	P	22 41 11.1	-1.9
	comp=Z,1.5nm,0.6s,mb3.8,baz=322,slow=4.9,SNR=30						

IDC 28 22:30:26.6±4.5,**13.25N**×**92.95E,mb3.6**/2,**mb1 3.8**/3,**mb1mx3.4**/17,**mbtmp3.5**/3,**ML3.6**/1,**Error ellipse: s-maj=94.2km s-min=44.8km az=97.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.75	47	Pn	Pn	22 32 19.6	-3.8
	0.2nm,0.3s,baz=238,slow=16,SNR=5.9						
CMAR				Sn	Sn	22 33 39.0	-14
	0.2nm,0.3s,baz=245,slow=27,SNR=4.4						
WRA	Warramunga Arr	52.41	128	P	P	22 39 41.2	-2.1
	0.4nm,0.4s,baz=301,slow=9.7,SNR=4.3						
ASAR	Alice Springs	54.32	132	P	P	22 39 55.3	-2.0
	0.4nm,0.4s,baz=304,slow=6.3,SNR=7.7						

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*IDC **28** 22:33:06.6±0.6, 13.64N×92.86E, h17^{km}±3^{km}, mb4.0/11, mb1 4.2/12, mb1mx4.1/16, mbtmp4.1/12, ML4.3/1, MS3.7/1, Ms1 3.9/1, ms1mx2.9/25, Error ellipse: s-maj=25.8km s-min=12.2km az=49.0*

ISC 28 22:33:04.9±0.6,**13.62N**±0.07×**92.93E**±0.06,**h18**^{km}**, h18**^{km}±1.0^{km}**:pP-P,n26,**σ**1**^{s}**03**/21,**mb4.1**/11,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	7.26	73	P	Pn	22 34 55.0	+2.2
CMAR	Chiang Mai Arr	7.52	49	Pn	Pn	22 34 57.0	+0.5
	1.2nm,0.3s,baz=238,slow=14,SNR=12						
CMAR				Sn	Sn	22 36 20.4	-1.7
	baz=243,slow=26,SNR=2.3						
CMAR				LR	LR	22 38 36.1	
	comp=Z,476nm,18.6s,baz=235,slow=44						
PKI	Pulchoki	15.56	334	*e*P	P	22 36 45.4	+0.2
	41nm,0.6s						
GUN	Gumba	15.67	336	*e*P	P	22 36 50.1	+3.5
DMN	Daman	15.72	334	*e*P	P	22 36 47.2	-0.1
	53nm,0.7s						
KKN	Kakani	15.80	334	*e*P	P	22 36 49.3	+1.0
GKN	Gorkha	16.27	333	*e*P	P	22 36 53.9	-0.3
KOLN	Koldanda	16.55	330	*e*P	P	22 36 57.6	-0.3
	52nm,0.6s						
SONM	Songino Array	35.91	16	P	P	22 40 06.7	+0.7
	7.7nm,1.0s,mb4.6,baz=205,slow=7.0,SNR=19						
SONM				pPcP		22 42 38.7	
	1.3nm,0.7s,baz=189,slow=3.2,SNR=5.2						
BVAR	Borovoye Array	43.21	340	pP	pP	22 41 10.7	-1.2
	1.6nm,0.7s,baz=146,slow=11,SNR=5.3						
GNI	Garni	49.68	311	P	P	22 41 57.8	0.0
	2.9nm,0.8s,mb4.4,baz=21,slow=8.6,SNR=3.6						
NWAO	Narrogin (SRO)	51.78	154	P	P	22 42 14.3	+0.4
	4.7nm,0.8s,mb4.5,baz=311,slow=9.3,SNR=2.4						
WRA	Warramunga Arr	52.65	128	P	P	22 42 19.6	-1.0
	1.3nm,0.6s,mb4.0,baz=306,slow=8.3,SNR=5.6						
WRA				pP	pP	22 42 26.7	+0.7
	1.8nm,0.4s,baz=309,slow=8.1,SNR=12						
WRA				PcP	PcP	22 43 30.6	+0.1
	0.4nm,0.4s,baz=321,slow=3.0,SNR=3.1						
WRA				pPcP		22 43 37.7	
	1.2nm,0.4s,baz=318,slow=3.2,SNR=8.8						
ASAR	Alice Springs	54.57	132	P	P	22 42 34.4	-0.3
	1.5nm,0.5s,mb4.3,baz=310,slow=7.0,SNR=21						
ASAR				pP	pP	22 42 40.1	-0.1
	3.3nm,0.5s,baz=308,slow=6.8,SNR=20						
ASAR				pPcP		22 43 43.0	
	1.8nm,0.9s,baz=315,slow=4.1,SNR=4.6						
BRTR	Keskin Array B	57.87	308	P	P	22 42 57.8	-0.4
	1.4nm,0.7s,mb4.1,baz=121,slow=7.2,SNR=8.5						
AKASG	Malin Array Be	62.97	320	P	P	22 43 31.0	-1.8
	0.1nm,0.3s,mb3.4,baz=330,slow=33,SNR=3.0						
AKASG				pP	pP	22 43 36.3	-2.0
	0.3nm,0.3s,baz=82,slow=4.8,SNR=3.3						
STKA	Stephens Creek	64.95	135	pP	pP	22 43 50.9	-0.8
	3.5nm,0.6s,baz=324,slow=7.7,SNR=4.8						
FINES	FINESS Array B	67.12	331	P	P	22 43 57.7	-1.7
	1.5nm,0.6s,mb4.2,baz=94,slow=7.8,SNR=9.8						
FINES				pP	pP	22 44 03.5	-1.4
	1.2nm,0.5s,baz=93,slow=6.7,SNR=2.7						
ARCES	ARCESS Array B	69.50	340	pP	pP	22 44 19.6	-0.1
	2.9nm,0.8s,baz=79,slow=6.2,SNR=2.4						
GERES	GERESS Array B	72.80	317	P	P	22 44 35.5	+1.2
	1.3nm,0.8s,mb3.9,baz=56,slow=4.8,SNR=4.6						
GERES				pP	pP	22 44 40.3	+0.4
	2.6nm,0.7s,baz=117,slow=6.0,SNR=12						
NB2	NORSAR Subarra	74.18	330	P	P	22 44 47.3	+5.2
	1.4nm,0.7s,mb4.0,baz=90,slow=5.6						
NOA	NORSAR Array B	74.18	330	P	P	22 44 42.1	0.0
	1.1nm,0.8s,mb3.8,baz=193,slow=16,SNR=2.4						
NOA				pP	pP	22 44 47.2	-0.5
	1.5nm,0.7s,baz=90,slow=5.7,SNR=4.5						
ESDC	Sonseca Array	86.64	310	pP	pP	22 45 54.7	+0.1
	0.5nm,0.5s,baz=64,slow=4.6,SNR=5.4						
ILAR	Eielson Array	89.89	22	P	P	22 46 04.7	+0.9
	0.4nm,1.1s,mb3.7,baz=169,slow=23,SNR=4.8						
ILAR				pP	pP	22 46 09.8	+0.3
	1.0nm,0.7s,baz=300,slow=4.4,SNR=9.2						
PDAR	Pinedale Array	120.21	19	PKP	PKPdf	22 51 56.5	-2.5
	0.2nm,0.4s,baz=230,slow=23,SNR=2.7						
PDAR				pPKP		22 52 02.6	
	0.4nm,0.7s,slow=3.0,SNR=3.5						
TXAR	Lajitas Array	134.39	20	PKP	PKPdf	22 52 24.2	-2.5
	0.2nm,0.7s,baz=138,slow=41,SNR=2.9						
TXAR				pPKP		22 52 31.1	
	0.9nm,0.9s,baz=207,slow=2.8,SNR=5.6						

IDC 28 22:41:11.2±15.0,**6.45N**×**93.35E,mb3.7**/3,**mb1 4.0**/3,**mb1mx3.6**/16,**mbtmp3.7**/3,**Error ellipse: s-maj=521.1km s-min=35.3km az=71.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.12	24	Pn	P	22 44 26.9	+5.3
	baz=230,slow=14,SNR=9.6						
KKTK	Khon Kaen	13.51	43	P	P	22 44 40.0	+13
SONM	Songino Array	42.72	13	P	P	22 49 10.0	-1.7
	0.4nm,0.6s,baz=180,slow=5.8,SNR=3.3						
WRA	Warramunga Arr	48.10	124	P	P	22 49 54.0	-1.0
	1.3nm,0.7s,baz=303,slow=9.1,SNR=5.3						
ASAR	Alice Springs	49.63	129	P	P	22 50 03.8	-2.9
	2.9nm,1.1s,baz=306,slow=7.7,SNR=6.3						

IDC 28 22:42:03.3±6.3,**5.88S**×**108.46E,mb4.0**/3,**mb1 4.2**/3,**mb1mx3.8**/15,**mbtmp4.0**/3,**Error ellipse: s-maj=243.8km s-min=29.9km az=59.0,Java Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	28.77	121	P	P	22 48 03.7	-1.4
	0.5nm,0.4s,baz=303,slow=9.1,SNR=11						
ASAR	Alice Springs	30.20	128	P	P	22 48 15.1	-2.8
	1.1nm,0.6s,baz=300,slow=8.2,SNR=9.9						
SONM	Songino Array	53.52	358	P	P	22 51 25.7	-2.1
	0.8nm,0.6s,baz=183,slow=9.2,SNR=4.7						

IDC 28 22:44:32.4±1.6,**6.57N**×**93.57E,mb3.8**/4,**mb1 4.0**/4,**mb1mx3.7**/16,**mbtmp3.8**/4,**Error ellipse: s-maj=334.3km s-min=24.8km az=40.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	47.99	124	P	P	22 53 13.3	-2.0
	0.5nm,0.4s,baz=305,slow=8.3,SNR=6.3						
ASAR	Alice Springs	49.53	129	P	P	22 53 25.1	-2.1
	0.4nm,0.5s,baz=304,slow=7.6,SNR=5.1						
BRTR	Keskin Array B	62.85	311	P	P	22 54 59.6	-2.9
	1.6nm,1.0s,baz=117,slow=5.5,SNR=5.7						
GERES	GERESS Array B	78.41	318	P	P	22 56 36.3	-0.2
	0.8nm,0.8s,baz=104,slow=4.0,SNR=4.0						

IDC 28 22:44:56.3±1.1,**13.37N**×**92.80E,mb3.9**/4,**mb1 4.0**/5,**mb1mx3.7**/17,**mbtmp3.8**/5,**ML3.7**/1,**Error ellipse: s-maj=49.4km s-min=22.6km az=43.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.78	49	Pn	Pn	22 46 51.0	-2.6
	0.3nm,0.3s,baz=241,slow=15,SNR=6.4						
CMAR				Sn	Sn	22 48 15.2	-8.3
	0.5nm,0.3s,baz=244,slow=28,SNR=5.8						
WRA	Warramunga Arr	52.60	128	P	P	22 54 11.9	-2.5
	1.7nm,0.5s,baz=310,slow=7.9,SNR=13						
ASAR	Alice Springs	54.50	132	P	P	22 54 26.2	-2.2
	1.0nm,0.5s,baz=307,slow=6.7,SNR=11						
BRTR	Keskin Array B	57.92	309	P	P	22 54 50.8	-2.0
	0.4nm,0.6s,baz=127,slow=7.2,SNR=3.1						
FINES	FINESS Array B	67.28	331	P	P	22 55 52.6	-2.1
	1.7nm,0.9s,baz=124,slow=6.9,SNR=3.9						

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*IDC **28** 22:56:45.3±1.2, 8.06N×93.21E, mb3.8/6, mb1 4.0/7, mb1mx3.8/17, mbtmp3.8/7, ML3.6/1, Error ellipse: s-maj=44.5km s-min=22.5km az=50.0*

ISC 28 22:56:46.5±1.0,**8.3N**±0.1×**93.1E**±0.2,**h33**^{km}**,n12,** σ**0**^{s}**95**/12,**mb4.0**/8,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.57	29	Pn	P	22 59 33.1	+0.7
	0.1nm,0.3s,baz=222,slow=13,SNR=5.9						
PKI	Pulchoki	20.47	340	*e*P	P	23 01 23.4	-0.7
	14nm,0.7s						
DMN	Daman	20.61	340	*e*P	P	23 01 25.3	-0.3
GUN	Gumba	20.64	342	*e*P	P	23 01 24.8	-1.0
	23nm,0.5s						
GKN	Gorkha	21.14	339	*e*P	P	23 01 30.7	-0.2
	22nm,0.6s,mb4.7						
KOLN	Koldanda	21.32	336	*e*P	P	23 01 32.7	0.0
	24nm,0.9s,mb4.5						
SONM	Songino Array	40.96	14	P	P	23 04 31.7	+4.0
	0.5nm,0.7s,mb3.2,baz=194,slow=8.7,SNR=4.1						
WRA	Warramunga Arr	49.37	125	P	P	23 05 35.5	+0.3
	0.6nm,0.8s,mb3.7,baz=305,slow=10,SNR=4.3						
ASAR	Alice Springs	51.01	130	P	P	23 05 46.8	-0.9
	0.8nm,0.7s,mb3.8,baz=300,slow=7.5,SNR=5.5						
BRTR	Keskin Array B	61.34	311	P	P	23 07 03.6	+2.2
	0.7nm,0.6s,mb4.0,baz=90,slow=4.3,SNR=4.5						
FINES	FINESS Array B	71.83	332	P	P	23 08 13.1	+5.6
	2.4nm,1.1s,mb4.1,baz=90,slow=1.9,SNR=3.4						
GERES	GERESS Array B	76.80	318	P	P	23 08 41.2	+4.6
	0.5nm,0.5s,mb3.7,baz=104,slow=5.5,SNR=4.2						

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*IDC **28** 23:02:25.0±0.6, 7.87N×92.30E, h30^{km}±3^{km}, mb3.9/10, mb1 4.1/10, mb1mx4.0/16, mbtmp4.1/10, Error ellipse: s-maj=24.7km s-min=14.5km az=46.0*

ISC 28 23:02:22.9±0.7,**7.7N**±0.1×**92.3E**±0.2,**h30**^{km}**, h30**^{km}±.6^{km}**:pP-P,n18,**σ**0**^{s}**91**/16,**mb4.2**/11,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	Pulchoki	20.80	343	*e*P	P	23 07 05.2	+0.7
	35nm,0.4s						
DMN	Daman	20.93	342	*e*P	P	23 07 05.0	-0.8
GUN	Gumba	20.98	344	*e*P	P	23 07 07.0	+0.6
	33nm,0.7s						
KKN	Kakani	21.04	343	*e*P	P	23 07 07.3	+0.4
GKN	Gorkha	21.44	341	*e*P	P	23 07 11.9	+0.9
KOLN	Koldanda	21.58	339	*e*P	P	23 07 13.2	+0.9
	53nm,0.7s,mb5.1						
SONM	Songino Array	41.75	14	P	P	23 10 11.5	+0.4
	1.4nm,0.7s,mb3.7,baz=201,slow=11,SNR=8.8						
SONM				pP	pP	23 10 19.8	-0.3
	2.6nm,0.8s,baz=194,slow=8.2,SNR=9.4						
BVAR	Borovoye Array	48.57	343	P	P	23 11 05.5	0.0
	2.1nm,0.7s,mb4.3,baz=149,slow=8.6,SNR=12						
BVAR				pP	pP	23 11 14.2	-0.4
	2.8nm,0.7s,baz=141,slow=9.5,SNR=8.4						
WRA	Warramunga Arr	49.68	124	P	P	23 11 14.5	0.0
	2.3nm,0.8s,mb4.2,baz=303,slow=8.9,SNR=6.8						
WRA				pP	pP	23 11 25.0	+1.3
	1.7nm,0.8s,baz=305,slow=8.6,SNR=3.3						
ASAR	Alice Springs	51.24	129	P	P	23 11 26.9	+0.5
	1.8nm,1.0s,mb4.0,baz=312,slow=7.5,SNR=6.2						
ASAR				pP	pP	23 11 35.8	+0.3
	1.6nm,0.9s,baz=312,slow=7.3,SNR=5.5						
KMBO	Kilima Mbogo	55.57	263	P	P	23 12 00.1	+1.5
	2.5nm,0.9s,mb4.2,baz=51,slow=14,SNR=5.5						
KMBO				pP	pP	23 12 09.4	+1.7
	1.3nm,0.7s,baz=47,slow=19,SNR=3.5						
BRTR	Keskin Array B	61.14	311	P	P	23 12 36.1	-1.0
	1.3nm,0.7s,mb4.2,baz=127,slow=6.2,SNR=7.9						
BRTR				pP	pP	23 12 45.0	-1.4
	1.7nm,0.7s,baz=126,slow=6.3,SNR=8.1						
FINES	FINESS Array B	72.00	332	P	P	23 13 44.0	-1.7
	2.3nm,0.7s,mb4.2,baz=90,slow=5.7,SNR=6.6						
FINES				pP	pP	23 13 53.6	-1.4
	1.7nm,0.8s,baz=135,slow=5.4,SNR=1.6						
ARCES	ARCESS Array B	74.80	340	P	P	23 14 00.4	-1.5
	2.1nm,0.7s,mb4.2,baz=90,slow=4.9,SNR=5.0						
GERES	GERESS Array B	76.72	318	P	P	23 14 13.2	+0.1
	2.3nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=11						
GERES				pP	pP	23 14 22.6	0.0
	2.6nm,0.8s,baz=76,slow=5.5,SNR=11						
NOA	NORSAR Array B	78.97	331	P	P	23 14 24.1	-1.2
	1.2nm,0.7s,mb3.9,baz=92,slow=5.6,SNR=3.6						
NOA				pP	pP	23 14 33.6	-1.2
	0.8nm,0.8s,baz=130,slow=12,SNR=1.7						
ESDC	Sonseca Array	89.91	310	pP	pP	23 15 31.6	+1.1
	1.5nm,0.8s,baz=77,slow=3.5,SNR=4.5						
PDAR	Pinedale Array	125.97	20	PKP	PKPdf	23 21 23.5	-4.2
	0.5nm,0.9s,baz=90,slow=1.5,SNR=4.0						
PDAR				pPKP		23 21 33.5	
	0.5nm,0.7s,baz=90,slow=1.5,SNR=4.1						

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*IDC **28** 23:07:48.2±0.5, 6.81N×93.09E, mb4.6/19, mb1 4.7/19, mb1mx4.6/22, mbtmp4.6/19, MS4.8/13, Ms1 4.8/13, ms1mx4.5/21, Error ellipse: s-maj=25.8km s-min=12.4km az=41.0*

*MOS **28** 23:07:51.5±0.9, 6.71N×93.07E, h33^{km}, mb5.2/37, MS4.9/15, Error ellipse: s-maj=11.9km s-min=6.6km az=116.4*

*BJI **28** 23:07:51.6, 6.52N×92.87E, h42^{km}, mB5.3, mb4.9, Ms5.1, Msz5.0*

*CSEM **28** 23:07:52.3, 7.17N×93.46E, h33^{km}, mb5.6*

*NEIC **28** 23:07:53.1±0.4, 6.72N×93.00E, h30^{km}, mb5.1/32, MS4.6/15, Error ellipse: s-maj=10.5km s-min=8.4km az=194.0*

*HRVD **28** 23:07:53.1±0.3, 6.60N×92.86E, h12^{km}, MW5.1/54, Centroid moment Tensor Solution. LP body waves: s23,c35;Mantle waves: s54,c107; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}4.72±.15; $M_{\theta\theta}$-2.68±.11; $M_{\phi\phi}$-2.04±.15; $M_{r\theta}$1.21±.41; $M_{\theta\phi}$2.70±.11; $M_{\phi r}$-3.78±.47; Best double couple: $M_0$6.31×10^{16} NP1: ϕ_s294°,δ30°,λ58°. NP2:ϕ_s150°,δ65°,λ107°. Principal axes: T 6.41, Plg66°, Azm90°; N -.2, Plg15°, Azm323°; P*

-6.21, Plg18°, Azm227°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

SYO ***28*** *23:07:53.2, 6.72N×93.02E, h30^{km}, MB5.1, MS4.6*

ISC 28 23:07:51.0±0.3**, 6.67N**±0.04×**93.10E**±0.03**, h30^{km}, h30^{km}**±2.2^{km}**: pP-P, n196,** σ**1^{s}03**/206**, mb5.0**/80**, MS4.8**/46**, 13C-10D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**7.48**	**86**	P	**Pn**	**23 09 40.0**	**-1.0**
	240nm,0.9s						
CMAR	**Chiang Mai Arr**	**13.03**	**25**	Pn	**P**	**23 11 01.2**	**+4.3**
	1.9nm,0.3s,baz=233,slow=14,SNR=22						
CMAR				LR	LR	23 16 22.0	
	comp=Z,4µm,18.1s,baz=210,slow=40						
MDRS	**Chennai**	**14.17**	**298**	*e*P	**P**	**23 11 10.2**	**-1.9**
MDRS				*e*		23 11 19.0	
	comp=Z,248nm,0.8s						
KOD	**Kodaikanal**	**15.87**	**284**	*e*P	**P**	**23 11 32.5**	**-1.7**
KOD				*e*		23 11 42.5	
	comp=Z,69nm,1.5s						
HYB	**Hyderabad**	**17.78**	**308**	*e*P	**P**	**23 11 58.0**	**-0.2**
HYB				*e*S	**S**	**23 15 02.0**	**-11**
HYB				pmax	pmax		
	comp=Z,50nm,1.0s						
HYB	**Hyderabad**	**17.78**	**308**	*e*P	**P**	**23 11 58.0**	**-0.2**
	comp=Z,50nm,1.0s						
HYB				*e*S	**S**	**23 15 02.0**	**-11**
HYB	**Hyderabad**	**17.78**	**308**	*i* P	**P**	**23 11 58.0**	**-0.2**
	comp=Z,50nm,1.0s						
HYB				*e*		23 15 02.0	
HYB				*e*S	**S**	**23 15 15.0**	**+2.2**
BOK	**Bokaro**	**18.39**	**339**	*e*P	**P**	**23 12 04.7**	**-1.1**
BOK				*e*		23 12 20.2	
	comp=Z,66nm,0.6s						
BOK				*e*S	**S**	**23 15 28.6**	**+2.0**
SHL	**Shillong**	**18.83**	**357**	*e*P	**P**	**23 12 09.2**	**-1.8**
SHL				*e*		23 12 13.3	
	comp=Z,45nm,1.2s						
SHL				*e*S	**S**	**23 15 42.0**	**+5.4**
MNGI	**Mangalore**	**19.05**	**290**	*e*P	**P**	**23 12 13.5**	**-0.3**
MNGI				*e*		23 12 27.8	
	comp=Z,82nm,1.6s						
MNGI				*e*S	**S**	**23 15 42.8**	**+1.0**
NGP	**Nagpur**	**19.81**	**318**	⇓*e*P	**P**	**23 12 23.2**	**+0.9**
NGP				*e*	**S**	**23 15 57.3**	**-0.9**
QIZ	**Qiongzhong**	**20.40**	**51**	⇓*i*P	**P**	**23 12 30.8**	**+2.3**
QIZ				S	**S**	**23 16 11.0**	**+0.6**
QIZ				AMB	AMB		
	comp=Z,85nm,1.6s						
QIZ				LR	LR		
	comp=Z,3µm,11.4s,MS5.0						
QIZ	**Qiongzhong**	**20.40**	**51**	*e*P	**P**	**23 12 29.9**	**+1.4**
	comp=Z,84nm,0.9s						
QIZ				LR	LR		
	comp=Z,2µm,20.0s,MS4.5						
KMI	**Kunming**	**20.54**	**26**	⇑P	**P**	**23 12 31.3**	**+1.4**
KMI				S	**S**	**23 16 23.3**	**+10**
KMI				XS		23 16 29.5	
KMI				AMB	AMB		
	comp=Z,41nm,1.2s						
KMI				AMB	AMB		
	comp=Z,408nm,3.7s						
KMI				LR	LR		
	comp=N,3µm,16.6s,MS4.9						
KMI				LR	LR		
	comp=E,3µm,13.5s,MS4.9						
GOA	**Goa**	**20.84**	**297**	*e*P	**P**	**23 12 43.2**	**+10**
GOA				*e*		23 12 48.6	
	comp=Z,91nm,1.6s						
GOA				*e*S	**S**	**23 16 35.6**	**+17**
AKL	**Akola**	**20.92**	**313**	*e*P	**P**	**23 12 33.1**	**-0.8**
AKL				*e*		23 12 46.4	
	comp=Z,81nm,1.8s						
KAD	**Karad**	**21.29**	**301**	*e*P	**P**	**23 12 35.8**	**-1.8**
KAD				*e*		23 12 47.8	
	comp=Z,70nm,1.7s						
KAD				*e*S	**S**	**23 16 35.5**	**+8.0**
PKI	**Pulchoki**	**22.04**	**342**	*e*P	**P**	**23 12 45.5**	**+0.5**
	comp=Z,149nm,0.8s,mb5.5						
DMN	**Daman**	**22.17**	**341**	*e*P	**P**	**23 12 46.5**	**+0.2**
	comp=Z,148nm,0.8s,mb5.5						
GUN	**Gumba**	**22.21**	**343**	*e*P	**P**	**23 12 46.7**	**-0.1**
	comp=Z,108nm,0.7s,mb5.4						
KKN	**Kakani**	**22.28**	**341**	*e*P	**P**	**23 12 47.6**	**+0.2**
	comp=Z,113nm,0.9s,mb5.3						
GKN	**Gorkha**	**22.69**	**340**	*e*P	**P**	**23 12 52.2**	**+0.6**
	comp=Z,187nm,0.9s,mb5.5						
KOLN	**Koldanda**	**22.84**	**338**	*e*P	**P**	**23 12 53.9**	**+0.8**
	comp=Z,114nm,1.1s,mb5.2						
LSA	**Lhasa**	**22.99**	**356**	*e*P	**P**	**23 12 55.4**	**+0.9**
LSA				pmax	pmax		
	comp=Z,39nm,0.8s,mb4.9						
LSA				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.6						
LSA	**Lhasa**	**22.99**	**356**	*e*P	**P**	**23 12 55.4**	**+0.9**
	comp=Z,39nm,0.8s,mb4.9						
LSA				LR	LR		
	comp=Z,2µm,20.0s,MS4.6						
BOM	**Bombay**	**23.19**	**304**	*e*P	**P**	**23 12 59.5**	**+3.1**
BOM				*e*		23 13 27.6	
	comp=Z,70nm,1.3s						
GYA	**Guiyang**	**23.55**	**32**	⇑*i*P	**P**	**23 13 01.3**	**+1.4**
GYA				AP		23 13 09.8	
GYA				XP		23 13 14.5	
GYA				PP	PP	23 13 40.0	+7.7
GYA				XS		23 17 29.3	
GYA				AMB	AMB		
	comp=Z,50nm,0.9s,mb4.9						
GYA				AMB	AMB		
	comp=Z,970nm,4.1s						
GYA				LR	LR		
	comp=N,1µm,16.8s,MS4.9						
GYA				LR	LR		
	comp=E,3µm,17.0s,MS4.9						
GYA				LR	LR		
	comp=Z,4µm,16.8s,MS4.9						
PTH	**Pithoragarh**	**25.80**	**333**	*e*P	**P**	**23 13 21.3**	**-0.1**
CD2	**Chengdu**	**26.11**	**21**	P	**P**	**23 13 24.5**	**+0.2**
CD2				PP	PP	23 14 12.0	+5.9
CD2				PPP	PPP	23 14 19.0	+0.9
CD2				S	**S**	**23 17 54.3**	**+2.8**
CD2				SS	SS	23 19 00.5	+1.1
CD2				AMB	AMB		
	comp=Z,40nm,1.1s,mb4.9						
CD2				AMB	AMB		
	comp=Z,290nm,5.1s						
CD2				LR	LR		
	comp=N,3µm,10.8s						
CD2				LR	LR		
	comp=Z,2µm,10.8s,MS5.0						
NDI	**New Delhi**	**26.55**	**327**	*e*P	**P**	**23 13 27.0**	**-1.4**
NDI				*e*	pP	23 13 37.1	-0.1
	comp=Z,31nm,1.6s						
DDI	**Dehra Dun**	**27.45**	**331**	*e*P	**P**	**23 13 37.4**	**+0.8**
DDI				*e*	**S**	**23 18 10.3**	**-3.2**
ENH	**Enshi**	**28.08**	**31**	*e*P	**P**	**23 13 40.9**	**-1.4**
	comp=Z,21nm,0.6s,mb5.0						
ENH				LR	LR		
	comp=Z,3µm,20.0s,MS4.9						
LZH	**Lanzhou**	**30.89**	**17**	*e*P	**P**	**23 14 05.5**	**-1.8**
LZH				PP	PP	23 15 11.0	+1.8
LZH				*e*S	**S**	**23 19 14.0**	**+5.7**
LZH				XS		23 19 25.5	
LZH				AMB	AMB		
	comp=Z,25nm,1.4s,mb4.8						
LZH				AMB	AMB		
	comp=Z,140nm,5.2s						
LZH				LR	LR		
	comp=N,1µm,12.1s						
LZH				LR	LR		
	comp=Z,3µm,15.1s,MS5.1						
XAN	**Xi’an**	**30.92**	**26**	P	**P**	**23 14 06.5**	**-1.1**
XAN				AP	pP	23 14 19.3	+2.8
XAN				AMB	AMB		
	comp=Z,31nm,0.9s,mb5.1						
XAN				LR	LR		
	comp=Z,4µm,17.5s,MS5.1						
WHN	**Wuhan**	**31.02**	**37**	P	**P**	**23 14 08.5**	**0.0**
WHN				LR	LR		
	comp=Z,5µm,12.4s,MS5.4						
GTA	**Gaotai**	**33.16**	**10**	*e*P	**P**	**23 14 27.5**	**+0.4**
GTA				AMB	AMB		
	comp=Z,9.0nm,1.4s,mb4.5						
NJ2	**Nanjing**	**34.85**	**40**	*e*P	**P**	**23 14 42.5**	**+0.7**
NJ2				AP	pP	23 14 51.0	+0.3
NJ2				PP	PP	23 15 59.0	-0.7
NJ2				PPP	PPP	23 16 15.0	-2.7
NJ2				S	**S**	**23 20 05.0**	**-4.8**
NJ2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.4						
NJ2				LR	LR		
	comp=Z,8µm,15.1s,MS5.6						
SSE	**Sheshan**	**35.80**	**44**	P	**P**	**23 14 48.0**	**-1.9**
SSE				S	**S**	**23 20 20.0**	**-4.6**
SSE				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,109nm,3.9s						
SSE				LR	LR		
	comp=N,903nm,15.3s,MS5.0						
SSE				LR	LR		
	comp=E,2µm,15.1s,MS5.0						
SSE				LR	LR		
	comp=Z,2µm,15.9s,MS5.0						
KSH	**Kashi**	**36.16**	**337**	P	**P**	**23 14 53.3**	**+0.5**
KSH				AP	pP	23 15 02.0	+0.2
KSH				XP	sP	23 15 05.0	-0.6
KSH				PP	PP	23 16 14.5	-1.1
KSH				PPP	PPP	23 16 34.0	-1.6
KSH				PCP	PcP	23 17 19.8	+1.5
KSH				S	**S**	**23 20 29.0**	**-1.0**
KSH				*e*SCP		23 21 03.5	
KSH				PCS		23 21 07.5	
KSH				SS	SS	23 22 49.5	-4.8
KSH				SCS	ScS	23 25 05.5	-0.1
KSH				LR	LR		
	comp=N,710nm,10.6s,MS5.1						
KSH				LR	LR		
	comp=E,1µm,10.2s,MS5.1						
WMQ	**Urumqi**	**37.31**	**354**	⇓P	**P**	**23 15 03.0**	**+0.6**
WMQ				AP	pP	23 15 13.0	+1.6
WMQ				XP	sP	23 15 17.0	+1.8
WMQ				PP	PP	23 16 30.5	+0.3
WMQ				PPP	PPP	23 16 51.0	+0.1
WMQ				S	**S**	**23 20 47.3**	**-0.3**
WMQ				AMB	AMB		
	comp=Z,17nm,0.8s,mb4.9						
WMQ				LR	LR		
	comp=N,802nm,22.0s,MS4.6						
WMQ				LR	LR		
	comp=E,596nm,21.0s,MS4.6						
WMQ				LR	LR		
	comp=Z,713nm,19.0s,MS4.5						
HHC	**Hu-ho-hao-te**	**37.83**	**23**	*e*P	**P**	**23 15 07.8**	**+1.0**
HHC				AP	pP	23 15 16.5	+0.7
HHC				XP	sP	23 15 21.5	+2.0
HHC				PP	PP	23 16 36.8	+0.4
HHC				PCP	PcP	23 17 27.0	+3.6
HHC				S	**S**	**23 20 54.0**	**-1.4**
HHC				SCS	ScS	23 25 18.0	+3.1
HHC				AMB	AMB		
	comp=Z,14nm,1.6s,mb4.4						
HHC				AMB	AMB		
	comp=Z,264nm,4.9s						
HHC				LR	LR		
	comp=N,1µm,14.3s,MS5.0						
HHC				LR	LR		
	comp=E,1µm,14.3s,MS5.0						
HHC				LR	LR		
	comp=Z,1µm,17.8s,MS4.8						
KZA	**Kyzart**	**38.66**	**339**	P	**P**	**23 15 15.1**	**+1.3**
	SNR=9.4						
JOW	**Kunigami**	**38.98**	**55**	LR	LR	23 33 30.3	
	comp=Z,1µm,18.1s,MS4.7,baz=206,slow=40						
UCH	**Uchtor**	**39.06**	**338**	P	**P**	**23 15 18.1**	**+1.0**
	SNR=26						
BJT	**Baijiatuau**	**39.13**	**28**	*e*P	**P**	**23 15 18.7**	**+1.0**
BJT				pmax	pmax		
	comp=Z,20nm,0.6s						
BJT				MLR	MLR		
	comp=Z,1µm,19.0s						
BJT	**Baijiatuau**	**39.13**	**28**	*e*P	**P**	**23 15 18.7**	**+0.9**
	comp=Z,20nm,0.6s,mb5.0						
BJT				LR	LR		
	comp=Z,1µm,19.0s,MS4.7						
BJI	**Beijing**	**39.15**	**28**	P	**P**	**23 15 19.0**	**+1.1**
BJI				AMB	AMB		
	comp=Z,26nm,0.7s,mb5.1						
KBK	**Karagaybulak**	**39.27**	**339**	P	**P**	**23 15 19.6**	**+0.8**
	SNR=28						
AML	**Almayashu**	**39.29**	**337**	P	**P**	**23 15 19.9**	**+0.8**
	SNR=53						
AAK	**Ala-Archa**	**39.42**	**338**	P	**P**	**23 15 21.3**	**+1.2**
	SNR=17						
AAK	**Ala-Archa**	**39.42**	**338**	⇑*e*P	**P**	**23 15 19.6**	**-0.5**
AAK				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.0						
AAK				MLR	MLR		
	comp=Z,501nm,20.0s,MS4.3						
AAK	**Ala-Archa**	**39.42**	**338**	⇑*e*P	**P**	**23 15 19.6**	**-0.5**
	comp=Z,25nm,0.7s,mb5.1						
AAK				LR	LR		
	comp=Z,501nm,20.0s,MS4.3						
FRU	**Bishkek**	**39.55**	**339**	*e*P	**P**	**23 15 22.0**	**+0.8**
FRU				pmax	pmax		
	comp=Z,80nm,2.1s,mb5.1						
CHMS	**Chumysh**	**39.64**	**339**	P	**P**	**23 15 22.7**	**+0.7**
	SNR=6.8						
EKS2	**Erkin-Say**	**39.71**	**338**	P	**P**	**23 15 23.0**	**+0.5**
	SNR=17						
USP	**Ospenovka**	**39.97**	**339**	P	**P**	**23 15 25.5**	**+0.9**
	SNR=11						
SONM	**Songino Array**	**42.56**	**13**	P	**P**	**23 15 45.6**	**-0.3**
	comp=Z,2.6nm,0.9s,mb4.0,baz=196,slow=7.6,SNR=14						
SONM				PcP	PcP	23 17 38.2	-0.4
	comp=Z,2.8nm,0.8s,baz=203,slow=3.8,SNR=7.6						
SONM				LR	LR	23 35 26.5	
	comp=Z,2µm,19.0s,MS5.1,baz=189,slow=39						
ULN	**Ulaanbaatar**	**42.74**	**14**	*e*P	**P**	**23 15 46.3**	**-1.1**
SNY	**Shenyang**	**44.24**	**33**	⇑P	**P**	**23 15 59.5**	**-0.1**
SNY				S	**S**	**23 22 35.0**	**+4.4**
SNY				AMB	AMB		
	comp=Z,30nm,1.5s,mb4.8						
SNY				LR	LR		
	comp=E,1µm,13.8s						
SNY				LR	LR		
	comp=Z,1µm,15.7s,MS4.9						
ZAK	**Zakamensk**	**44.40**	**9**	*e*P	**P**	**23 16 01.5**	**+0.8**
CN2	**Changchun**	**46.59**	**32**	*e*P	**P**	**23 16 18.0**	**-0.3**
CN2				*e*S	**S**	**23 23 06.5**	**+2.1**
CN2				SS	SS	23 26 25.3	+2.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
CN2				LR	LR		
	comp=N,900nm,13.0s,MS5.0						
CN2				LR	LR		
	comp=E,800nm,13.0s,MS5.0						
CN2				LR	LR		
	comp=Z,1µm,14.0s,MS5.0						
HIA	**Hailar**	**48.03**	**23**	*e*P	**P**	**23 16 29.8**	**+0.3**
HIA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HIA				MLR	MLR		
	comp=Z,2µm,19.0s						
HIA	**Hailar**	**48.03**	**23**	*e*P	**P**	**23 16 29.8**	**+0.3**
	comp=Z,8.9nm,0.6s,mb5.0						
HIA				LR	LR		
	comp=Z,2µm,19.0s,MS5.1						
WRA	**Warramunga Arr**	**48.42**	**124**	*i* P	**P**	**23 16 34.1**	**+1.2**
WRA				pmax	pmax		
	comp=Z,10.0nm,0.6s						
WRA	**Warramunga Arr**	**48.42**	**124**	P	**P**	**23 16 33.1**	**+0.2**
	comp=Z,10.0nm,0.6s,mb5.1,baz=306,slow=8.3,SNR=48						
WRAB	**Tennant Creek**	**48.43**	**124**	*e*P	**P**	**23 16 33.2**	**+0.3**
WRAB				pmax	pmax		
	comp=Z,22nm,0.6s,mb5.4						
WRAB				MLR	MLR		
	comp=Z,338nm,20.0s,MS4.3						
WRAB	**Tennant Creek**	**48.43**	**124**	*e*P	**P**	**23 16 33.1**	**+0.2**
	comp=Z,22nm,0.6s,mb5.4						
WRAB				LR	LR		
	comp=Z,338nm,20.0s,MS4.3						
NVS	**Novosibirsk**	**48.69**	**352**	*i* P	**P**	**23 16 33.3**	**-1.2**
NVS				*i* S	**S**	**23 23 34.4**	**+0.6**
NVS				*i*		23 26 57.9	
NVS				*i*		23 28 16.9	
NVS				pmax	pmax		
	comp=N,38nm,2.2s						
NVS				pmax	pmax		
	comp=Z,59nm,2.2s,mb5.2						
NVS				pmax	pmax		
	comp=E,16nm,1.6s						
NVS				smax			
	comp=N,20nm,1.7s						
NVS				smax			
	comp=E,14nm,2.0s						
MIB	**Mutribah**	**48.75**	**304**	*e*P	**P**	**23 16 35.4**	**0.0**
KAMS	**Al Khamasin**	**48.91**	**291**	P	**P**	**23 16 36.2**	**-0.4**
RST	**Umm Al-Ruwaisa**	**48.94**	**304**	*e*P	**P**	**23 16 36.4**	**-0.4**
MZLS	**Mizel**	**49.03**	**296**	P	**P**	**23 16 38.5**	**+1.0**
MDJ	**Mudanjiang**	**49.38**	**34**	P	**P**	**23 16 40.8**	**+0.8**
MDJ				AP	pP	23 16 48.8	-0.4
MDJ				XP	sP	23 16 53.3	+0.6
MDJ				S	**S**	**23 23 48.8**	**+5.2**
MDJ				XS		23 24 03.0	
MDJ				AMB	AMB		
	comp=Z,10.0nm,1.6s,mb4.6						
MDJ				AMB	AMB		
	comp=Z,245nm,7.3s						
MDJ				LR	LR		
	comp=N,509nm,15.8s,MS4.7						
MDJ				LR	LR		
	comp=E,291nm,15.4s,MS4.7						
MDJ				LR	LR		
	comp=Z,590nm,19.5s,MS4.6						
BVAR	**Borovoye Array**	**49.81**	**342**	P	**P**	**23 16 41.8**	**-1.3**
	comp=Z,5.3nm,0.8s,mb4.6,baz=143,slow=7.4,SNR=25						
TATS	**Tathlith**	**49.82**	**290**	P	**P**	**23 16 43.9**	**+0.2**
BRVK	**Borovoye**	**49.87**	**342**	*e*P	**P**	**23 16 42.3**	**-1.3**
BRVK				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
BRVK				MLR	MLR		
	comp=Z,201nm,19.0s,MS4.1						
BRVK	**Borovoye**	**49.87**	**342**	*e*P	**P**	**23 16 42.3**	**-1.3**
	comp=Z,12nm,0.7s,mb5.0						
BRVK				LR	LR		
	comp=Z,201nm,19.0s,MS4.1						
ASAR	**Alice Springs**	**49.95**	**128**	P	**P**	**23 16 44.9**	**+0.2**
	comp=Z,6.2nm,0.6s,mb4.8,baz=307,slow=7.4,SNR=42						
ASAR				PcP	PcP	23 18 05.6	+0.8
	comp=Z,4.2nm,0.8s,baz=302,slow=3.9,SNR=5.2						
CHKZ	**Chkalovo**	**50.30**	**343**	⇑*e*P	**P**	**23 16 45.9**	**-1.0**
CHKZ				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.4						
CHKZ	**Chkalovo**	**50.30**	**343**	⇑*e*P	**P**	**23 16 45.9**	**-1.0**
	comp=Z,26nm,0.7s,mb5.4						
MAJO	**Matsushiro**	**50.73**	**47**	PFAKE		23 17 00.0	+10
MAJO				LR	LR		
	comp=Z,795nm,20.0s,MS4.7						
MAT	**Matsushiro**	**50.73**	**47**	P	**P**	**23 16 51.6**	**+1.2**
MAT	**Matsushiro**	**50.73**	**47**	P	**P**	**23 16 52.0**	**+1.6**
AFFS	**‘Afif**	**50.98**	**295**	P	**P**	**23 16 53.6**	**+1.1**
ARSS	**Ar Rass**	**51.18**	**298**	P	**P**	**23 16 54.5**	**+0.5**
HILS	**Ha’il**	**52.78**	**299**	P	**P**	**23 17 07.5**	**+1.5**
BOD	**Bodaibo**	**53.56**	**14**	*e*P	**P**	**23 17 10.7**	**-0.6**
GNI	**Garni**	**54.55**	**315**	P	**P**	**23 17 18.4**	**-0.4**
	comp=Z,10nm,0.9s,mb4.8,baz=332,slow=2.6,SNR=6.4						
GNI				LR	LR	23 44 53.3	
	comp=Z,315nm,20.3s,MS4.4,baz=262,slow=41						
KBRS	**Khaybar**	**54.67**	**297**	P	**P**	**23 17 21.3**	**+1.4**
TI2	**Plekhanov**	**55.21**	**317**	⇓*i*P	**P**	**23 17 22.6**	**-1.1**
TI2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
CLNS	**Chul’man**	**55.92**	**20**	*e*P	**P**	**23 17 28.7**	**+0.2**
CLNS				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
CLNS				pmax	pmax		
	comp=N,10.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,12nm,1.3s						
CLNS				MLR	MLR		
	comp=N,1µm,16.0s,MS5.1						
CLNS				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
CLNS				MLR	MLR		
	comp=E,200nm,15.0s,MS5.1						
SVE	**Sverdlovsk**	**56.15**	**339**	⇓*e*P	**P**	**23 17 30.0**	**-0.2**
SVE				*e*		23 17 42.0	
SVE				*e*		23 18 30.0	
SVE				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.5						
SVE				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.1						
PMG	**Port Moresby**	**56.18**	**106**	P	**P**	**23 17 30.6**	**-0.4**
	comp=Z,17nm,0.6s,mb5.2,baz=281,slow=6.1,SNR=8.0						
ZEI	**Tsey**	**56.23**	**318**	*e*P	**P**	**23 17 30.8**	**-0.1**
ZEI				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
KMBO	**Kilima Mbogo**	**56.27**	**264**	*e*P	**P**	**23 17 32.7**	**+1.0**
KMBO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KMBO				MLR	MLR		
	comp=Z,846nm,19.0s						
KMBO	**Kilima Mbogo**	**56.27**	**264**	P	**P**	**23 17 31.4**	**-0.2**
	comp=Z,5.9nm,1.0s,mb4.6,baz=59,slow=11,SNR=12						
KMBO				LR	LR	23 40 22.2	
	comp=Z,835nm,18.0s,MS4.9,baz=94,slow=35						
KMBO	**Kilima Mbogo**	**56.27**	**264**	*e*P	**P**	**23 17 32.7**	**+1.0**
	comp=Z,7.2nm,0.9s,mb4.7						
KMBO				LR	LR		
	comp=Z,846nm,19.0s,MS4.8						
UMJS	**Umm Lajj**	**56.31**	**296**	P	**P**	**23 17 33.3**	**+1.6**
ARU	**Arti**	**56.60**	**338**	⇑*i*P	**P**	**23 17 31.2**	**-2.2**
ARU				*e*		23 18 23.4	
ARU				*e*S	**S**	**23 25 22.5**	**+1.0**
ARU				*e*SS	SS	23 29 10.4	+0.4
ARU				*e*SSS	SSS	23 31 24.5	+3.1
ARU				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
ARU	**Arti**	**56.60**	**338**	*e*P	**P**	**23 17 32.5**	**-1.0**
	comp=Z,19nm,0.8s,mb5.2						
ARU				LR	LR		
	comp=Z,192nm,20.0s,MS4.2						
QURS	**Qurayyt al Mil**	**57.48**	**303**	P	**P**	**23 17 41.2**	**+1.1**
TBKS	**Tabuk**	**57.50**	**299**	P	**P**	**23 17 41.8**	**+1.6**
KIV	**Kislovodsk**	**57.53**	**319**	*e*P	**P**	**23 17 39.1**	**-1.1**
KIV				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
KIV				MLR	MLR		
	comp=Z,114nm,19.0s,MS4.0						
KIV	**Kislovodsk**	**57.53**	**319**	*e*P	**P**	**23 17 39.1**	**-1.1**
	comp=Z,19nm,0.8s,mb5.2						
KIV				LR	LR		
	comp=Z,114nm,19.0s,MS4.0						
ASF	**Jabal al Asfar**	**58.02**	**304**	P	**P**	**23 17 44.5**	**+0.7**
	comp=Z,7.2nm,0.9s,mb4.7,baz=308,slow=2.3,SNR=11						
JMQS	**Jabal Moqyreh**	**58.20**	**300**	P	**P**	**23 17 46.2**	**+1.1**
YSS	**Yuzh-Sakhalins**	**58.36**	**38**	⇑*i*P	**P**	**23 17 42.5**	**-3.5**
YSS				pmax	pmax		
	comp=Z,33nm,2.2s,mb5.0						
AYUS	**‘Aynunah**	**58.60**	**299**	P	**P**	**23 17 48.8**	**+0.9**
CTA	**Charters Tower**	**58.63**	**118**	P	**P**	**23 17 47.7**	**-0.5**
	comp=Z,10nm,1.1s,mb4.8,baz=295,slow=8.0,SNR=5.0						
CTA				LR	LR	23 49 16.5	
	comp=Z,538nm,18.3s,MS4.7,baz=286,slow=42						
CTAO	**Charters Tower**	**58.63**	**118**	*e*P	**P**	**23 17 47.3**	**-0.9**
CTAO				pmax	pmax		
	comp=Z,19nm,1.1s,mb5.0						
CTAO				MLR	MLR		
	comp=Z,664nm,19.0s,MS4.8						
CTAO	**Charters Tower**	**58.63**	**118**	*e*P	**P**	**23 17 47.3**	**-0.9**
	comp=Z,19nm,1.1s,mb5.0						
CTAO				LR	LR		
	comp=Z,664nm,19.0s,MS4.8						
JMOS	**Jabal al Moall**	**58.91**	**300**	P	**P**	**23 17 50.7**	**+0.6**
EIL	**Elat**	**59.14**	**301**	⇑*e*P	**P**	**23 17 51.4**	**-0.2**
	comp=Z,16nm,0.7s,mb5.2						
SOC	**Sochi**	**59.35**	**317**	*e*P	**P**	**23 17 53.0**	**+0.1**
SOC				*e*		23 18 37.1	
SOC				*e*		23 20 01.8	
SOC				*e*S	**S**	**23 26 00.2**	**+2.4**
SOC				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
SOC				pmax	pmax		
	comp=N,22nm,1.1s						
SOC				pmax	pmax		
	comp=E,10.0nm,1.1s						
SOKR	**Solikamsk**	**59.56**	**340**	⇓*i*P	**P**	**23 17 52.6**	**-1.5**
SOKR				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
SOKR				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.9						
STKA	**Stephens Creek**	**60.03**	**133**	P	**P**	**23 17 57.9**	**+0.1**
	comp=Z,13nm,1.1s,mb4.9,baz=326,slow=7.4,SNR=9.2						
STKA				LR	LR	23 48 31.4	
	comp=Z,526nm,19.4s,MS4.7,baz=135,slow=41						

STKA	Stephens Creek	60.03	133	eP	P	23 17 58.0	+0.2
YAK	Yakutsk	61.46	19	eP	P	23 18 05.9	-1.1
YAK				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,6.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
CSS	Prodhromos	61.54	306	eP	P	23 18 05.6	-2.4
	comp=E,30nm,1.3s,mb5.3						
BRTR	Keskin Array B	62.44	311	P	P	23 18 11.7	-2.2
	comp=E,6.7nm,0.9s,mb4.8,baz=121,slow=7.2,SNR=24						
VRSR	Storozhevoye	62.77	325	eP	P	23 18 14.3	-1.6
VRSR				pmax	pmax		
	comp=N,10.0nm,1.0s						
VRSR				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.8						
VRSR				pmax	pmax		
	comp=E,6.0nm,0.8s						
ISP	Isparta	64.38	309	eP	P	23 18 25.4	-1.3
MOS	Moscow	65.58	329	eP	sP	23 18 44.4	-2.5
MOS				MLR	MLR		
	comp=Z,1µm,20.5s,MS5.0						
OBN	Obninsk	65.85	328	eP	P	23 18 34.6	-1.3
OBN				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.2						
OBN				MLR	MLR		
	comp=Z,700nm,20.0s,MS4.9						
LSZ	Lusaka	67.90	251	eP	P	23 18 49.6	+0.1
LSZ				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
LSZ				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
LSZ	Lusaka	67.90	251	eP	P	23 18 49.6	+0.1
	comp=Z,3.9nm,1.0s,mb4.4						
LSZ				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
MA2	Magadan	68.31	28	⇑iP	P	23 18 48.9	-2.4
MA2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.3						
AKASG	Malin Array Be	68.46	322	P	P	23 18 50.0	-2.5
	comp=Z,3.2nm,0.8s,mb4.4,baz=89,slow=4.8,SNR=13						
TIXI	Tiksi	68.61	11	⇑iP	P	23 18 52.2	-0.9
TIXI				pmax	pmax		
	comp=Z,47nm,0.9s,mb5.4						
TIXI				MLR	MLR		
	comp=Z,681nm,17.0s,MS5.0						
PET	Petropavlovsk	70.11	36	eP	P	23 19 03.7	+1.2
PET				MLR	MLR		
	comp=Z,500nm,16.0s,MS4.9						
VSU	Vasula	72.10	330	⇑eP	P	23 19 13.5	-0.9
KWP	Kalwaria	72.28	320	eP	P	23 19 15.5	-0.2
KWP				e		23 19 20.3	
KOLS	Kolonicke sedl	72.44	319	eP	P	23 19 17.1	+0.5
LBTB	Lobatse	72.76	241	eP	P	23 19 19.9	+0.9
LBTB				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
LBTB				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
LBTB	Lobatse	72.76	241	eP	P	23 19 19.9	+0.9
	comp=Z,8.3nm,0.8s,mb4.7						
LBTB				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
SUW	Suwalki	72.88	325	eP	P	23 19 17.8	-1.3
SUW				e		23 19 22.5	
FINES	FINESS Array B	73.30	332	i P	P	23 19 20.7	-0.7
FINES				pmax	pmax		
	comp=Z,14nm,1.1s						
FINES	FINESS Array B	73.30	332	P	P	23 19 20.1	-1.2
	comp=Z,14nm,1.1s,mb4.8,baz=96,slow=5.7,SNR=12						
FINES				LR	LR	23 55 01.2	
	comp=Z,503nm,20.5s,MS4.8,baz=125,slow=39						
KAF	Kangasniemi	73.39	333	ep	P	23 19 20.7	-1.2
	comp=Z,7.6nm,0.7s,mb4.7						
KAF	Kangasniemi	73.39	333	eP	P	23 19 20.7	-1.2
KAF				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
NIE	Niedzica	73.78	319	eP	P	23 19 24.9	+0.5
OJC	Ojcow	74.23	320	eP	P	23 19 27.0	0.0
LIKS	Likavka	74.51	319	epP	pP	23 19 36.2	-2.0
SRO	Srobarova	74.88	318	eP	P	23 19 30.5	-0.3
ZST	Bratislava	75.73	318	eP	P	23 19 36.0	+0.3
ZST				e		23 19 40.9	
ARCES	ARCESS Array B	76.05	340	P	P	23 19 36.5	-0.6
	comp=Z,7.1nm,0.9s,mb4.6,baz=96,slow=4.1,SNR=13						
ARCES				LR	LR	23 56 41.1	
	comp=Z,868nm,18.5s,MS5.1,baz=1.5,slow=39						
KSP	Ksiaz	76.53	321	eP	P	23 19 40.8	+0.7
KSP				e		23 19 46.7	
MAW	Mawson	77.15	191	LR	LR	23 49 11.6	
	comp=Z,579nm,18.0s,MS4.9,baz=188,slow=32						
BILL	Bilibino	77.58	22	eP	P	23 19 44.5	-1.1
BILL				pmax	pmax		
	comp=Z,15nm,1.7s,mb4.7						
BRG	Berggiesshubel	78.02	320	eP	P	23 19 48.5	+0.2
BRG				i		23 19 54.6	
BRG				pmax	pmax		
	comp=Z,7.0nm,1.1s,mb4.5						
BRG	Berggiesshubel	78.02	320	eP	P	23 19 48.5	+0.2
	comp=Z,7.4nm,1.1s,mb4.5						
BRG				i		23 19 54.6	
GERES	GERESS Array B	78.04	318	P	P	23 19 48.4	-0.1
	comp=Z,12nm,1.2s,mb4.7,baz=90,slow=5.3,SNR=15						
KHC	Kasperske Hory	78.14	319	⇓iP	P	23 19 48.3	-0.7
KHC	Kasperske Hory	78.14	319	eP	P	23 19 48.5	-0.5
KHC				epP	pP	23 19 55.0	-3.6
CLL	Collm	78.64	321	P	P	23 19 52.0	+0.3
NB2	NORSAR Subarra	80.27	331	P	P	23 19 58.8	-1.6
	comp=Z,4.8nm,1.0s,mb4.4,baz=96,slow=5.0						
NB2	NORSAR Subarra	80.27	331	P	P	23 19 58.8	-1.6
NB2				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
NOA	NORSAR Array B	80.27	331	P	P	23 19 59.6	-0.8
	comp=Z,1.9nm,0.6s,mb4.2,baz=95,slow=5.4,SNR=7.5						
NOA				LR	LR	00 01 26.7	
	comp=Z,437nm,19.2s,MS4.8,baz=95,slow=40						
PGF	Pioggiola	81.19	312	eP	P	23 20 06.5	+0.9
	comp=Z,175nm,1.2s,mb5.5						
PGF	Pioggiola	81.19	312	eP	P	23 20 06.5	+0.9
PGF				pmax	pmax		
	comp=Z,88nm,1.2s,mb5.6						
CDF	Champ du Feu	82.29	318	eP	P	23 20 11.5	+0.3
SBF	Sospel	82.31	313	eP	P	23 20 11.4	+0.1
	comp=Z,197nm,1.3s,mb5.6						
SBF	Sospel	82.31	313	eP	P	23 20 11.4	+0.1
SBF				pmax	pmax		
	comp=Z,98nm,1.3s,mb5.6						
LPG	La Plagne	82.74	315	eP	P	23 20 14.1	+0.5
	comp=Z,43nm,1.1s,mb5.1						
LPG	La Plagne	82.74	315	eP	P	23 20 14.1	+0.5
LPG				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
MBDF	Montbardon	82.75	314	eP	P	23 20 13.8	+0.1
	comp=Z,32nm,1.2s,mb4.9						
MBDF	Montbardon	82.75	314	eP	P	23 20 13.8	+0.1
MBDF				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
HAU	Haudompre	82.92	317	eP	P	23 20 14.1	-0.4
	comp=Z,13nm,0.8s,mb4.7						
HAU	Haudompre	82.92	317	eP	P	23 20 14.1	-0.4
HAU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
SYO	Syowa Base	83.95	197	⇓P	P	23 20 21.2	+1.9
SYO	Syowa Base	83.95	197	⇓PcP	PcP	23 20 24.6	+1.0
SYO	Syowa Base	83.95	197	⇓pP	pP	23 20 32.0	+3.1
BAIF	Baives	84.23	320	eP	P	23 20 20.8	-0.3
	comp=Z,69nm,1.6s,mb5.2						
BAIF	Baives	84.23	320	eP	P	23 20 20.8	-0.3
BAIF				pmax	pmax		
	comp=Z,35nm,1.5s,mb5.3						
SSF	Saint Saulge	84.90	317	eP	P	23 20 24.7	+0.2
BGF	Bois d'Agland	85.39	316	eP	P	23 20 25.9	-1.1
	comp=Z,62nm,1.3s,mb5.3						
BGF	Bois d'Agland	85.39	316	eP	P	23 20 25.9	-1.1
BGF				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.3						
RJF	Les Rejaudoux	86.43	315	eP	P	23 20 32.1	-0.1
	comp=Z,30nm,1.2s,mb5.1						
RJF	Les Rejaudoux	86.43	315	eP	P	23 20 32.1	-0.1
RJF				pmax	pmax		
	comp=Z,15nm,1.2s,mb5.1						
FLN	La Foliniere	87.40	319	eP	P	23 20 36.6	-0.2
	comp=Z,77nm,1.4s,mb5.4						
FLN	La Foliniere	87.40	319	eP	P	23 20 36.6	-0.2
FLN				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.4						
ETSF	Etsaut	88.19	313	eP	P	23 20 40.7	0.0
	comp=Z,146nm,1.9s,mb5.6						
ETSF	Etsaut	88.19	313	eP	P	23 20 40.7	0.0
ETSF				pmax	pmax		
	comp=Z,73nm,1.9s,mb5.6						
ESDC	Sonseca Array	91.20	310	P	P	23 20 55.3	+0.4
	comp=Z,1.7nm,0.7s,mb4.5,baz=56,slow=4.2,SNR=6.9						
VNDA	Vanda	91.96	168	LR	LR	23 58 59.4	
	comp=Z,462nm,18.1s,MS5.0,baz=290,slow=33						
IMA	Indian Mountai	93.12	22	eP	P	23 21 06.0	+2.9
IMA				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.8						
IMA	Indian Mountai	93.12	22	eP	P	23 21 06.0	+2.9
	comp=Z,43nm,1.1s,mb5.8						
ILAR	Eielson Array	96.24	22	P	P	23 21 17.4	0.0
	comp=Z,1.1nm,0.9s,mb4.3,baz=307,slow=5.5,SNR=7.9						
ILAR				LR	LR	00 09 24.0	
	comp=Z,336nm,20.0s,MS4.8,baz=98,slow=38						
INK	Inuvik	98.43	16	P	P	23 21 27.4	+0.1
	comp=Z,5.1nm,1.0s,mb5.0,baz=291,slow=7.0,SNR=6.5						
REDW	Red Top Meadow	125.67	21	ePKPdf	PKPdf	23 26 52.3	-2.9
NVAR	Mina Array Bea	126.48	31	PKP	PKPdf	23 26 54.5	-2.4
	comp=Z,1.7nm,0.7s,baz=271,slow=3.5,SNR=7.7						
PDAR	Pinedale Array	126.66	21	PKP	PKPdf	23 26 53.8	-3.3
	comp=Z,3.0nm,0.9s,baz=37,slow=1.4,SNR=16						
MSU	Marysvale	129.28	26	ePKIKP	PKPdf	23 27 00.7	-1.6
TXAR	Lajitas Array	140.74	23	PKP	PKPdf	23 27 19.4	-4.5
	comp=Z,5.9nm,1.2s,baz=270,slow=1.3,SNR=8.4						
JCT	Junction City	141.05	18	ePKIKP	PKPdf	23 27 17.7	-6.7
LPAZ	La Paz	159.29	241	PKP	PKPdf	23 27 50.5	-1.9
	comp=Z,1.4nm,1.0s,baz=70,slow=6.7,SNR=4.5						
LPAZ				PKPab	PKPab	23 28 27.8	+0.8
	comp=Z,1.4nm,0.9s,baz=54,slow=1.4,SNR=3.0						

IDC 28 23:17:36.5±1.4**, 6.73N**×**92.38E, mb3.8**/4**, mb1 4.1**/5**, mb1mx3.8**/17**, mbtmp3.8**/5**, Error ellipse: s-maj=52.6km s-min=25.2km az=59.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.29	28	Pn	P	23 20 47.6	-1.6
	baz=231,slow=14,SNR=17						
SONM	Songino Array	42.67	14	P	P	23 25 34.5	-2.0
	0.4nm,0.7s,baz=214,slow=5.2,SNR=3.2						
WRA	Warramunga Arr	49.06	124	P	P	23 26 25.2	-2.5
	2.3nm,0.8s,baz=302,slow=8.8,SNR=8.9						
ASAR	Alice Springs	50.56	128	P	P	23 26 37.4	-1.8
	1.2nm,0.6s,baz=300,slow=7.4,SNR=18						
ASAR				PcP	PcP	23 27 55.5	-1.8
	0.5nm,0.6s,baz=310,slow=4.1,SNR=5.6						
GERES	GERESS Array B	77.51	318	P	P	23 29 34.3	-1.4
	0.9nm,0.7s,baz=112,slow=5.3,SNR=5.7						

IDC ***28*** *23:19:33.6±0.8, 3.84N×94.21E, h31^{km}±4^{km}, mb4.1/9, mb1 4.2/10, mb1mx4.0/18, mbtmp4.2/10, ML4.5/1, Error ellipse: s-maj=41.7km s-min=13.4km az=47.0*

ISC 28 23:19:32.1±0.8**, 3.9N**±0.1×**94.3E**±0.2**, h31**^{km}**, h31**^{km}±1.3^{km}**:pP-P, n18,** σ**0^{s}89**/17**, mb4.5**/16**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.19	17	Pn	P	23 23 05.1	-1.2
	0.7nm,0.3s,baz=221,slow=15,SNR=6.3						
PKI	Pulchoki	25.04	341	eP	P	23 24 56.3	+1.1
	32nm,0.8s,mb4.9						
DMN	Daman	25.18	341	eP	P	23 24 58.2	+1.7
	26nm,0.8s,mb4.8						
GUN	Gumba	25.21	342	eP	P	23 24 57.6	+0.8
	38nm,0.7s,mb5.0						
KKN	Kakani	25.29	341	eP	P	23 24 58.2	+0.7
	34nm,0.9s,mb4.9						
GKN	Gorkha	25.70	340	eP	P	23 25 01.0	-0.4
	38nm,0.6s,mb5.1						
KOLN	Koldanda	25.86	338	eP	P	23 25 03.6	+0.7
	27nm,0.7s,mb4.9						
SONM	Songino Array	45.02	12	P	P	23 27 46.7	0.0
	1.3nm,0.7s,mb3.9,baz=194,slow=8.8,SNR=8.1						
SONM				PcP	PcP	23 29 28.3	+0.6
	0.9nm,0.7s,baz=218,slow=3.5,SNR=3.9						
WRA	Warramunga Arr	45.91	123	P	P	23 27 54.5	+0.4
	4.3nm,0.6s,mb4.6,baz=300,slow=9.0,SNR=5.4						
WRA				pP	pP	23 28 02.6	-0.9
	11nm,0.9s,baz=301,slow=8.9,SNR=18						
ASAR	Alice Springs	47.32	127	P	P	23 28 05.5	+0.4
	1.7nm,0.4s,mb4.3,baz=297,slow=7.9,SNR=18						
ASAR				pP	pP	23 28 13.7	-1.0
	3.1nm,0.7s,baz=304,slow=8.0,SNR=12						
ASAR				PcP	PcP	23 29 36.6	+0.6
	2.0nm,0.9s,baz=298,slow=3.1,SNR=6.6						
BVAR	Borovoye Array	52.81	342	P	P	23 28 45.7	-1.0
	3.0nm,0.6s,mb4.4,baz=141,slow=9.5,SNR=18						
BVAR				pP	pP	23 28 56.1	-0.3
	1.6nm,0.5s,baz=135,slow=10,SNR=6.2						
BRTR	Keskin Array B	65.17	312	P	P	23 30 11.2	-1.5
	1.7nm,0.9s,mb4.1,baz=132,slow=7.0,SNR=8.4						
BRTR				pP	pP	23 30 21.1	-1.4
	1.3nm,0.8s,baz=121,slow=7.2,SNR=5.8						
FINES	FINESS Array B	76.30	333	P	P	23 31 19.1	-0.4
	1.9nm,0.5s,mb4.3,baz=98,slow=6.2,SNR=24						
FINES				pP	pP	23 31 29.9	+0.5
	1.7nm,0.7s,baz=99,slow=5.8,SNR=2.3						
KAF	Kangasniemi	76.40	333	ep	P	23 31 19.2	-0.8
	3.4nm,0.6s,mb4.5						
ARCES	ARCESS Array B	79.06	340	P	P	23 31 34.9	+0.4
	2.6nm,0.7s,mb4.2,baz=79,slow=6.2,SNR=7.7						
GERES	GERESS Array B	80.90	319	P	P	23 31 45.1	+0.3
	2.4nm,0.7s,mb4.2,baz=90,slow=6.7,SNR=11						
GERES				pP	pP	23 31 56.0	+1.2
	2.4nm,0.8s,baz=108,slow=4.2,SNR=5.9						
NOA	NORSAR Array B	83.27	331	P	P	23 31 55.5	-1.3
	0.6nm,0.8s,mb3.7,baz=153,slow=4.0,SNR=3.5						
TXAR	Lajitas Array	142.76	26	PKP	PKPdf	23 39 02.3	-5.9
	0.2nm,0.6s,baz=188,slow=4.0,SNR=4.6						

IDC ***28*** *23:26:45.4±1.0, 8.84N×93.14E, mb4.1/9, mb1 4.2/9, mb1mx4.1/16, mbtmp4.1/9, Error ellipse: s-maj=51.6km s-min=17.2km az=51.0*

ISC 28 23:26:48.2±0.9**, 8.9N**±0.2×**93.2E**±0.3**, h33**^{km}**, n11,** σ**0^{s}91**/11**, mb4.2**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	40.42	14	P	P	23 34 26.5	+1.5
	4.2nm,0.7s,mb4.3,baz=193,slow=9.1,SNR=12						
BVAR	Borovoye Array	47.75	342	P	P	23 35 23.4	-0.6
	0.4nm,0.5s,mb3.7,baz=166,slow=6.1,SNR=3.0						
WRA	Warramunga Arr	49.61	126	P	P	23 35 39.0	+0.3
	1.8nm,0.6s,mb4.3,baz=306,slow=8.9,SNR=6.6						
ASAR	Alice Springs	51.27	130	P	P	23 35 51.4	0.0
	2.2nm,0.7s,mb4.2,baz=309,slow=7.3,SNR=10						
BRTR	Keskin Array B	61.07	311	P	P	23 37 02.6	+1.2
	1.5nm,0.8s,mb4.2,baz=121,slow=7.4,SNR=7.5						
STKA	Stephens Creek	61.47	134	P	P	23 37 04.3	+0.1
	2.2nm,0.7s,mb4.4,baz=324,slow=14,SNR=4.5						
AKASG	Malin Array Be	66.79	322	P	P	23 37 38.2	-0.3
	3.2nm,0.8s,mb4.4,baz=89,slow=5.3,SNR=6.4						
FINES	FINESS Array B	71.40	332	P	P	23 38 07.3	+0.6
	3.5nm,0.7s,mb4.4,baz=108,slow=8.1,SNR=13						
KAF	Kangasniemi	71.48	333	ep	P	23 38 06.0	-1.2
	5.1nm,1.0s,mb4.4						
ARCES	ARCESS Array B	74.02	340	P	P	23 38 22.3	+0.3
	2.9nm,0.8s,mb4.2,baz=90,slow=6.3,SNR=5.2						
ILAR	Eielson Array	94.19	22	P	P	23 40 02.9	-1.8
	0.5nm,0.7s,mb4.1,baz=299,slow=4.3,SNR=6.0						

IDC 28 23:28:46.0±0.8**, 16.44S**×**172.86W, mb4.0**/8**, mb1 4.3**/8**, mb1mx4.2**/16**, mbtmp4.0**/8**, MS3.4**/1**, Ms1 3.4**/1**, ms1mx3.0**/21**, Error ellipse: s-maj=39.2km s-min=19.6km az=133.0, Samoa Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAR	Rarotonga	13.26	113	Pn	P	23 31 50.1	-8.2
	2.2nm,0.3s,baz=270,slow=12,SNR=3.6						
RAR				LR	LR	23 35 21.7	
	comp=Z,157nm,20.9s,baz=290,slow=30						
URZ	Urewera	23.46	200	P	P	23 33 57.3	-0.7
	12nm,0.6s,baz=33,slow=3.4,SNR=12						
WRA	Warramunga Arr	50.12	258	P	P	23 37 43.9	-1.5
	0.4nm,0.5s,baz=95,slow=6.6,SNR=3.2						
ASAR	Alice Springs	50.29	253	P	P	23 37 43.8	-2.9
	9.5nm,1.0s,baz=89,slow=8.5,SNR=43						
VNDA	Vanda	62.40	186	P	P	23 39 10.3	-2.4
	0.9nm,0.9s,baz=341,slow=11,SNR=3.9						
NVAR	Mina Array Bea	74.75	42	P	P	23 40 28.9	-1.0
	1.5nm,0.8s,baz=229,slow=8.1,SNR=5.3						
TXAR	Lajitas Array	80.76	56	P	P	23 41 01.5	-1.7
	0.6nm,0.9s,baz=284,slow=3.7,SNR=3.4						
PDAR	Pinedale Array	82.69	42	P	P	23 41 11.6	-1.5
	0.6nm,0.8s,baz=90,slow=1.5,SNR=4.1						
ILAR	Eielson Array	83.36	11	P	P	23 41 14.3	-1.7
	0.6nm,0.8s,baz=226,slow=5.5,SNR=4.4						
BRTR	Keskin Array B	147.29	320	PKPbc	PKPdf	23 48 32.5	+1.3
	2.1nm,1.1s,baz=90,slow=2.5,SNR=3.8						

IDC ***28*** *23:35:10.2±0.5, 8.90N×93.61E, mb4.6/18, mb1 4.7/18, mb1mx4.6/22, mbtmp4.6/18, Error ellipse: s-maj=26.9km s-min=11.9km az=46.0*

MOS ***28*** *23:35:14.8±1.0, 9.12N×93.67E, h33^{km}, mb5.1/29, Error ellipse: s-maj=17.6km s-min=7.1km az=122.6*

NEIC ***28*** *23:35:16.7±0.8, 9.08N×93.46E, mb4.9/24, Error ellipse: s-maj=19.0km s-min=13.1km az=139.0*

BJI ***28*** *23:35:22.3, 9.88N×92.89E, h28^{km}, mB5.3, mb4.8*

ISC 28 23:35:12.9±0.3**, 8.94N**±0.06×**93.84E**±0.06**, h27**^{km}**, h27**^{km}±2.1^{km}**:pP-P, n148,** σ**1^{s}05**/147**, mb4.8**/60**, 6C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.68	27	Pn	P	23 37 51.4	+3.9
	0.5nm,0.3s,baz=213,slow=15,SNR=16						
CHG	Chiang Mai	11.00	26	⇑P	P	23 38 09.3	+18
	12nm,0.8s						
NANT	Nan	11.85	33	P	P	23 38 08.5	+5.2
HYB	Hyderabad	17.09	301	eP	P	23 39 10.0	-1.8
HYB				eS	S	23 42 07.0	-13
HYB	Hyderabad	17.09	301	i P	P	23 39 10.0	-1.8
HYB				eS	S	23 42 07.0	-13
KMI	Kunming	18.20	27	⇑P	P	23 39 31.3	+5.8
KMI				AMB	AMB		
	comp=Z,8.0nm,1.2s						
PKI	Pulchoki	20.17	338	eP	P	23 39 48.1	-0.2
	comp=Z,112nm,1.0s						
GUN	Gumba	20.31	339	eP	P	23 39 49.7	0.0
	comp=Z,224nm,0.8s						
DMN	Daman	20.32	337	eP	P	23 39 49.9	+0.1
	comp=Z,84nm,0.9s						
KKN	Kakani	20.42	338	eP	P	23 39 50.7	-0.1
	comp=Z,97nm,0.9s						
LSA	Lhasa	20.81	353	eP	P	23 39 54.4	-0.4
LSA				pmax	pmax		
	comp=Z,21nm,0.4s						
LSA	Lhasa	20.81	353	eP	P	23 39 54.4	-0.4
	comp=Z,21nm,0.4s						
GKN	Gorkha	20.86	337	eP	P	23 39 55.2	-0.1
	comp=Z,334nm,0.8s						
KOLN	Koldanda	21.08	334	eP	P	23 39 57.8	+0.2
	comp=Z,193nm,0.8s,mb5.5						
GYA	Guiyang	21.25	33	⇑iP	P	23 40 04.3	+5.0
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.3						
CD2	Chengdu	23.74	22	P	P	23 40 32.3	+8.4
CD2				AMB	AMB		
	comp=Z,20nm,0.4s,mb4.9						
PTH	Pithoragarh	24.16	330	e	P	23 40 30.2	+2.1
ENH	Enshi	25.78	32	P	P	23 40 48.8	+5.4
	comp=Z,8.3nm,0.6s,mb4.4						
DDI	Dehra Dun	25.89	327	e	P	23 40 46.6	+2.1
LZH	Lanzhou	28.52	17	eP	P	23 41 17.0	+8.6
LZH				AP	pP	23 41 24.3	+7.9
LZH				XP	sP	23 41 26.3	+6.3
LZH				AMB	AMB		
	comp=Z,23nm,1.6s,mb4.7						
GTA	Gaotai	30.81	9	eP	P	23 41 29.5	+0.7
GTA				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.3						
HHC	Hu-ho-hao-te	35.47	23	eP	P	23 42 17.0	+7.9
HHC				AP	pP	23 42 24.8	+7.6
HHC				XP	sP	23 42 30.3	+10
HHC				AMB	AMB		
	comp=Z,13nm,0.5s,mb5.1						
HHC				AMB	AMB		
	comp=Z,434nm,9.5s						
UCH	Uchtor	37.27	336	P	P	23 42 25.5	+1.2
	SNR=12						
TKM2	Tokmak 2	37.44	338	P	P	23 42 26.4	+0.6
	SNR=5.7						
KBK	Karagaybulak	37.46	337	P	P	23 42 26.6	+0.7
	SNR=20						
AML	Almayashu	37.52	335	P	P	23 42 27.3	+0.9
	SNR=24						
AAK	Ala-Archa	37.62	336	P	P	23 42 28.4	+1.2
	SNR=14						
AAK	Ala-Archa	37.62	336	eP	P	23 42 26.7	-0.5
AAK				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.6						
AAK	Ala-Archa	37.62	336	eP	P	23 42 26.7	-0.5
	comp=Z,10nm,0.8s,mb4.6						
CHMS	Chumysh	37.83	337	P	P	23 42 29.2	+0.2
	SNR=8.7						
EKS2	Erkin-Say	37.93	336	P	P	23 42 30.9	+1.1
	SNR=15						
USP	Ospenovka	38.15	337	P	P	23 42 31.9	+0.2
	SNR=20						
SONM	Songino Array	40.20	13	P	P	23 42 49.5	+0.8
	comp=Z,0.4nm,0.5s,baz=196,slow=8.9,SNR=6.1						
SONM				PcP	PcP	23 44 53.4	+0.3
	comp=Z,1.3nm,0.6s,baz=208,slow=3.6,SNR=6.0						
ULN	Ulaanbaatar	40.38	14	eP	P	23 42 49.1	-1.1
HIA	Hailar	45.67	24	eP	P	23 43 34.2	+1.1
HIA				e	pP	23 43 43.2	+1.9
HIA				pmax	pmax		
	comp=Z,10.0nm,0.8s						
HIA	Hailar	45.67	24	eP	P	23 43 34.2	+1.1
	comp=Z,10.0nm,0.8s,mb4.8						
HIA				e	pP	23 43 43.2	+1.8
NWAO	Narrogin (SRO)	47.22	153	P	P	23 43 45.6	-0.1
	comp=Z,19nm,0.7s,mb5.1,baz=324,slow=7.5,SNR=13						
RDF	Al-Radifah	47.72	301	eP	P	23 43 50.3	+0.7
RDF				AMb	AMB	23 43 54.2	
	comp=Z,79nm,0.8s,mb5.8						
UMR	Umm Al-Rimmam	47.75	302	eP	P	23 43 50.6	+0.8
UMR				AMb	AMB	23 43 52.1	
	comp=Z,50nm,0.9s,mb5.5						
BVAR	Borovoye Array	47.89	341	P	P	23 43 49.8	-0.8
	comp=Z,3.0nm,0.5s,mb4.6,baz=141,slow=9.5,SNR=26						
BVAR				PcP	PcP	23 45 18.9	-0.3
	comp=Z,2.5nm,0.8s,baz=153,slow=3.3,SNR=5.3						
BRVK	Borovoye	47.96	341	eP	P	23 43 50.0	-1.1
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BRVK	Borovoye	47.96	341	eP	P	23 43 50.0	-1.2
	comp=Z,5.0nm,0.8s,mb4.6						
MIB	Mutribah	48.13	302	eP	P	23 43 52.6	-0.2
MIB				AMb	AMB	23 43 55.5	
	comp=Z,86nm,0.8s,mb5.8						
RST	Umm Al-Ruwaisa	48.34	302	eP	P	23 43 54.4	0.0
RST				AMb	AMB	23 43 56.5	
	comp=Z,56nm,0.8s,mb5.7						
CHKZ	Chkalovo	48.38	342	eP	P	23 43 53.3	-1.0
CHKZ				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
CHKZ	Chkalovo	48.38	342	eP	P	23 43 53.3	-1.0
	comp=Z,14nm,0.8s,mb5.1						
MZLS	Mizel	48.73	294	P	P	23 43 59.7	+2.2
KAMS	Al Khamasin	48.82	289	P	P	23 43 59.0	+0.8
CBIJ	Chichi jima	49.06	62	P	P	23 44 00.5	+0.5
	comp=Z,114nm,0.8s						
WRA	Warramunga Arr	49.12	126	P	P	23 44 00.6	0.0
	comp=Z,3.4nm,0.8s,mb4.5,baz=305,slow=8.4,SNR=15						
WRA				PcP	PcP	23 45 24.0	-0.1
	comp=Z,1.3nm,0.7s,baz=319,slow=2.9,SNR=5.3						
AFFS	'Afif	50.71	294	P	P	23 44 14.9	+2.3
ASAR	Alice Springs	50.82	130	P	P	23 44 13.0	-0.5
	comp=Z,3.8nm,0.7s,mb4.4,baz=308,slow=7.4,SNR=28						
ASAR				PcP	PcP	23 45 30.6	+0.4
	comp=Z,2.4nm,0.8s,baz=310,slow=3.4,SNR=10.0						
BOD	Bodaibo	51.19	14	eP	P	23 44 12.4	-3.4
HILS	Ha'il	52.34	298	P	P	23 44 26.5	+1.5
GNI	Garni	53.49	314	P	P	23 44 34.2	+1.0
	comp=Z,6.7nm,0.7s,mb4.7,baz=41,slow=8.5,SNR=6.3						
TI2	Plekhanov	54.08	316	i P	P	23 44 37.4	-0.2
ARU	Arti	54.80	337	⇑iP	P	23 44 40.2	-2.5
ARU				ePPP	PPP	23 47 53.7	-5.5
ARU				eS	S	23 52 22.2	+2.2
ARU				e		23 54 21.1	

ARU				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
ZEI	**Tsey**	**55.06**	**317**	*e*P	**P**	**23 44 45.0**	**+0.2**
ZEI				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.9						
UMJS	**Umm Lajj**	**56.02**	**294**	P	**P**	**23 44 53.6**	**+1.8**
PMG	**Port Moresby**	**56.13**	**108**	P	**P**	**23 44 54.2**	**+1.4**
	comp=Z,19nm,0.8s,mb5.2,baz=318,slow=1.9,SNR=5.7						
KIV	**Kislovodsk**	**56.34**	**317**	*e*P	**P**	**23 44 52.6**	**-1.3**
KIV				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
KIV	**Kislovodsk**	**56.34**	**317**	*e*P	**P**	**23 44 52.6**	**-1.3**
	comp=Z,17nm,0.6s,mb5.2						
QURS	**Qurayyt al Mil**	**56.90**	**302**	P	**P**	**23 44 58.2**	**0.0**
TBKS	**Tabuk**	**57.06**	**298**	P	**P**	**23 45 00.5**	**+1.2**
MALT	**Malatya**	**57.55**	**310**	*e*P	**P**	**23 45 02.1**	**-0.6**
MALT				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
MALT	**Malatya**	**57.55**	**310**	*e*P	**P**	**23 45 02.1**	**-0.6**
	comp=Z,9.9nm,1.0s,mb4.8						
JMQS	**Jabal Moqyreh**	**57.74**	**298**	P	**P**	**23 45 04.7**	**+0.6**
AYUS	**‘Aynunah**	**58.18**	**298**	P	**P**	**23 45 07.7**	**+0.5**
SOC	**Sochi**	**58.21**	**316**	*e*P	**P**	**23 45 03.2**	**-4.0**
SOC				*e*S	**S**	**23 53 06.9**	**+1.5**
SOC				*i* SSS	SSS	23 59 20.0	+0.4
SOC				pmax	pmax		
	comp=N,11nm,1.0s						
SOC				pmax	pmax		
	comp=E,12nm,1.0s						
SOC				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
BDAS	**Al Bad‘**	**58.35**	**298**	P	**P**	**23 45 08.8**	**+0.4**
HAQS	**Haql**	**58.58**	**299**	P	**P**	**23 45 10.2**	**+0.2**
EIL	**Elat**	**58.65**	**299**	*e*P	**P**	**23 45 10.1**	**-0.3**
	comp=Z,8.0nm,0.9s,mb4.8						
CTA	**Charters Tower**	**59.09**	**120**	P	**P**	**23 45 13.8**	**+0.1**
	comp=Z,2.7nm,0.8s,mb4.4,baz=300,slow=9.3,SNR=4.8						
YAK	**Yakutsk**	**59.09**	**19**	*e*P	**P**	**23 45 09.7**	**-3.4**
YAK				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
STKA	**Stephens Creek**	**61.05**	**134**	P	**P**	**23 45 26.4**	**-0.6**
	comp=Z,2.0nm,0.8s,mb4.3,baz=311,slow=13,SNR=3.3						
VRSR	**Storozhevoye**	**61.35**	**324**	*e*P	**P**	**23 45 26.8**	**-1.8**
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.1						
VRSR				pmax	pmax		
	comp=N,9.0nm,1.1s						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.9s						
BRTR	**Keskin Array B**	**61.52**	**310**	P	**P**	**23 45 27.8**	**-2.1**
	comp=E,9.8nm,0.8s,mb5.0,baz=123,slow=7.5,SNR=56						
SIM	**Simferopol’**	**62.46**	**316**	*de*P	**P**	**23 45 35.0**	**-1.2**
SIM				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
OBN	**Obninsk**	**64.33**	**328**	⇑*e*P	**P**	**23 45 46.1**	**-2.2**
OBN				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
OBN	**Obninsk**	**64.33**	**328**	*e*P	**P**	**23 45 45.9**	**-2.4**
	comp=Z,15nm,0.9s,mb5.0						
MA2	**Magadan**	**65.97**	**28**	*e*P	**P**	**23 45 54.9**	**-3.9**
MA2				pmax	pmax		
	comp=Z,28nm,1.7s,mb5.0						
TIXI	**Tiksi**	**66.26**	**11**	⇑*i*P	**P**	**23 45 59.0**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
AKASG	**Malin Array Be**	**67.14**	**321**	P	**P**	**23 46 04.4**	**-2.0**
	comp=Z,6.6nm,0.8s,mb4.7,baz=87,slow=5.0,SNR=22						
AKASG				PP	PP	23 48 40.9	+4.8
	comp=Z,0.2nm,0.3s,baz=94,slow=8.1,SNR=4.5						
IDI	**Anoyia**	**67.72**	**304**	P	**P**	**23 46 09.3**	**-1.1**
	comp=Z,10.0nm,0.7s,mb4.9,baz=135,slow=9.7,SNR=6.0						
VSU	**Vasula**	**70.53**	**329**	*e*P	**P**	**23 46 25.3**	**-1.9**
KWP	**Kalwaria**	**71.03**	**319**	*e*P	**P**	**23 46 29.3**	**-1.1**
KWP				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
KWP	**Kalwaria**	**71.03**	**319**	*e*P	**P**	**23 46 29.3**	**-1.1**
	comp=Z,20nm,1.0s,mb5.0						
KOLS	**Kolonicke sedl**	**71.21**	**319**	*e*P	**P**	**23 46 31.2**	**-0.3**
KOLS				*e*	pP	23 46 37.9	-2.2
SUW	**Suwalki**	**71.48**	**324**	*e*P	**P**	**23 46 31.2**	**-1.8**
SUW				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
SUW	**Suwalki**	**71.48**	**324**	*e*P	**P**	**23 46 31.2**	**-1.8**
	comp=Z,24nm,0.9s,mb5.1						
FINES	**FINESS Array B**	**71.64**	**332**	*i* P	**P**	**23 46 33.0**	**-0.9**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	**FINESS Array B**	**71.64**	**332**	P	**P**	**23 46 32.4**	**-1.5**
	comp=Z,2.4nm,0.6s,mb4.3,baz=104,slow=7.9,SNR=10						
KAF	**Kangasniemi**	**71.72**	**333**	*e*p	**P**	**23 46 33.8**	**-0.5**
CRVS	**Cervenica-Dubn**	**71.74**	**319**	*e*P	**P**	**23 46 35.3**	**+0.6**
CRVS				*e*pP	pP	23 46 45.9	+2.7
NIE	**Niedzica**	**72.55**	**319**	*e*P	**P**	**23 46 39.4**	**-0.1**
OJC	**Ojcow**	**72.98**	**320**	*e*P	**P**	**23 46 41.6**	**-0.4**
VYHS	**Vyhne**	**73.42**	**318**	*e*P	**P**	**23 46 44.0**	**-0.6**
SRO	**Srobarova**	**73.71**	**317**	*e*P	**P**	**23 46 46.4**	**+0.1**
KEV	**Kevo**	**73.74**	**341**	*e*p	**P**	**23 46 46.5**	**+0.4**
	comp=Z,7.4nm,0.8s,mb4.7						
KEV	**Kevo**	**73.74**	**341**	*e*P	**P**	**23 46 46.5**	**+0.4**
KEV				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
SRO1	**Iza**	**73.76**	**317**	*e*pP	pP	23 46 57.2	+2.0
OKC	**Ostrava-Krasne**	**74.00**	**319**	*e*P	**P**	**23 46 48.0**	**+0.1**
ARCES	**ARCESS Array B**	**74.17**	**340**	P	**P**	**23 46 47.9**	**-0.7**
	comp=Z,4.3nm,0.8s,mb4.4,baz=90,slow=7.3,SNR=7.3						
SMOL	**Smolenice**	**74.36**	**318**	*e*P	**P**	**23 46 47.4**	**-2.6**
MORC	**Moravsky Berou**	**74.38**	**319**	*e*P	**P**	**23 46 49.8**	**-0.3**
MORC				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
MORC	**Moravsky Berou**	**74.38**	**319**	*e*P	**P**	**23 46 49.8**	**-0.3**
	comp=Z,8.9nm,0.9s,mb4.7						
LBTB	**Lobatse**	**74.49**	**241**	*e*P	**P**	**23 46 51.3**	**0.0**
LBTB				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
LBTB	**Lobatse**	**74.49**	**241**	*e*P	**P**	**23 46 51.3**	**0.0**
	comp=Z,13nm,0.9s,mb4.8						
ZST	**Bratislava**	**74.55**	**317**	*e*P	**P**	**23 46 51.0**	**-0.2**
DPC	**Dobruska-Polom**	**75.21**	**320**	*e*P	**P**	**23 46 55.1**	**+0.2**
BILL	**Bilibino**	**75.22**	**22**	*e*P	**P**	**23 46 52.5**	**-2.1**
BILL				pmax	pmax		
	comp=Z,5.0nm,1.7s,mb4.2						
KSP	**Ksiaz**	**75.26**	**320**	*e*P	**P**	**23 46 55.2**	**0.0**
UPC	**Upice**	**75.42**	**320**	*e*P	**P**	**23 46 56.6**	**+0.5**
BOSA	**Boshof**	**75.89**	**238**	*e*P	**P**	**23 47 00.3**	**+1.0**
BOSA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BOSA	**Boshof**	**75.89**	**238**	*e*P	**P**	**23 47 00.2**	**+1.0**
	comp=Z,8.0nm,0.8s,mb4.7						
PRU	**Pruhonice**	**76.33**	**319**	*e*P	**P**	**23 47 01.7**	**+0.4**
BRG	**Berggiesshubel**	**76.75**	**320**	*e*P	**P**	**23 47 03.7**	**+0.1**
BRG				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BRG	**Berggiesshubel**	**76.75**	**320**	*e*P	**P**	**23 47 03.7**	**+0.1**
	comp=Z,6.4nm,0.9s,mb4.5						
GERES	**GERESS Array B**	**76.84**	**318**	P	**P**	**23 47 03.6**	**-0.5**
	comp=Z,7.5nm,0.8s,mb4.7,baz=76,slow=5.5,SNR=31						
KHC	**Kasperske Hory**	**76.93**	**318**	*e*P	**P**	**23 47 04.3**	**-0.3**
CLL	**Collm**	**77.36**	**321**	*i* P	**P**	**23 47 06.9**	**0.0**
CLL				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
CLL	**Collm**	**77.36**	**321**	*i* P	**P**	**23 47 06.9**	**0.0**
	comp=Z,6.0nm,1.0s,mb4.5						
CLL	**Collm**	**77.36**	**321**	P	**P**	**23 47 06.9**	**0.0**
	comp=Z,logA/T=0.8,mb4.5						
WET	**Wettzell**	**77.39**	**318**	*e*P	**P**	**23 47 07.3**	**+0.1**
WET				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
WET	**Wettzell**	**77.39**	**318**	*e*P	**P**	**23 47 07.3**	**+0.1**
	comp=Z,9.0nm,1.0s,mb4.7						
MOX	**Moxa**	**78.22**	**320**	*e*P	**P**	**23 47 12.1**	**+0.4**
MOX	**Moxa**	**78.22**	**320**	*i* P	**P**	**23 47 12.1**	**+0.4**
GRA1	**Grafenberg Arr**	**78.47**	**319**	*e*P	**P**	**23 47 13.8**	**+0.7**
	comp=Z,17nm,0.9s,mb5.0						
GRF	**Grafenberg Arr**	**78.47**	**319**	*e*P	**P**	**23 47 13.8**	**+0.7**
GRF				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
GRF	**Grafenberg Arr**	**78.47**	**319**	*e*P	**P**	**23 47 13.9**	**+0.8**
GRF				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
GRF	**Grafenberg Arr**	**78.47**	**319**	*e*P	**P**	**23 47 13.9**	**+0.8**
	comp=Z,17nm,0.9s,mb5.0						
NB2	**NORSAR Subarra**	**78.67**	**331**	P	**P**	**23 47 12.8**	**-1.1**
	comp=Z,2.3nm,0.7s,mb4.2,baz=94,slow=5.3						
NB2	**NORSAR Subarra**	**78.67**	**331**	P	**P**	**23 47 12.8**	**-1.1**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
NOA	**NORSAR Array B**	**78.67**	**331**	P	**P**	**23 47 13.4**	**-0.6**
	comp=Z,4.2nm,0.8s,mb4.4,baz=92,slow=5.7,SNR=7.7						
CLZ	**Clausthal**	**79.00**	**321**	*e*P	**P**	**23 47 16.3**	**+0.3**
	comp=Z,14nm,1.1s,mb4.8						
BSEG	**Bad Segeberg**	**79.03**	**323**	*e*P	**P**	**23 47 16.3**	**+0.2**
DAVOX	**Davos**	**79.42**	**316**	P	**P**	**23 47 18.2**	**-0.2**
	comp=Z,9.5nm,0.9s,mb4.7,baz=113,slow=5.9,SNR=13						
LPG	**La Plagne**	**81.66**	**315**	*e*P	**P**	**23 47 29.9**	**-0.3**
	comp=Z,45nm,1.0s,mb5.1						
LPG	**La Plagne**	**81.66**	**315**	*e*P	**P**	**23 47 29.9**	**-0.3**
LPG				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.0						
ESDC	**Sonseca Array**	**90.31**	**310**	P	**P**	**23 48 12.6**	**-0.5**
	comp=Z,4.9nm,1.1s,mb4.7,baz=46,slow=4.2,SNR=5.5						
IMA	**Indian Mountai**	**90.76**	**22**	*e*P	**P**	**23 48 16.6**	**+2.1**
IMA				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.6						
IMA	**Indian Mountai**	**90.76**	**22**	*e*P	**P**	**23 48 16.6**	**+2.2**
	comp=Z,28nm,0.9s,mb5.6						
ILAR	**Eielson Array**	**93.88**	**22**	P	**P**	**23 48 29.6**	**+0.8**
	comp=Z,1.4nm,0.7s,mb4.5,baz=300,slow=4.3,SNR=18						
INK	**Inuvik**	**96.06**	**16**	P	**P**	**23 48 40.0**	**+1.2**
	comp=Z,2.2nm,0.9s,mb4.6,baz=314,slow=11,SNR=4.3						
NVAR	**Mina Array Bea**	**124.16**	**30**	PKP	PKPdf	23 54 12.0	-2.4
	comp=Z,1.3nm,0.8s,baz=275,slow=1.1,SNR=6.1						
PDAR	**Pinedale Array**	**124.29**	**21**	PKP	PKPdf	23 54 12.0	-2.6
	comp=Z,3.3nm,1.1s,baz=22,slow=1.9,SNR=12						
TXAR	**Lajitas Array**	**138.38**	**23**	PKhKP		23 54 30.3	
	comp=Z,0.1nm,0.3s,baz=254,slow=2.0,SNR=3.8						
TXAR				PKP	PKPdf	23 54 39.2	-2.3
	comp=Z,0.4nm,0.5s,baz=205,slow=1.9,SNR=5.6						
LPAZ	**La Paz**	**160.96**	**246**	PKP	PKPdf	23 55 14.6	-1.5
	comp=Z,1.3nm,0.9s,baz=259,slow=3.5,SNR=4.2						
LPAZ				PKPab	PKPab	23 55 56.2	-0.2
	comp=Z,1.8nm,1.0s,baz=79,slow=2.7,SNR=4.9						

BJI ***28*** *23:39:58.0, 10.92N×92.09E, h36^{km}, mB5.3, mb4.9, Ms4.8, Msz4.5*

MOS ***28*** *23:39:59.1±1.1, 11.09N×92.11E, h33^{km}, mb5.3/28, Error ellipse: s-maj=13.8km s-min=7.2km az=110.0*

NEIC ***28*** *23:39:59.4±0.3, 11.08N×92.12E, mb5.2/28, Error ellipse: s-maj=9.9km s-min=6.5km az=49.0*

IDC ***28*** *23:39:59.1±0.4, 11.00N×91.92E, h25^{km}±2^{km}, mb4.4/21, mb1 4.5/22, mb1mx4.5/24, mbtmp4.5/22, ML4.2/1, MS4.4/8, Ms1 4.4/8, ms1mx4.0/26, Error ellipse: s-maj=20.2km s-min=8.1km az=46.0*

HRVD ***28*** *23:39:59.4±0.3, 11.12N×92.04E, h12^{km}, MW5.0/46, Centroid moment Tensor Solution. LP body waves: s29,c43;Mantle waves: s46,c88; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.72±.12; $M_{\theta\theta}$-0.81±.10; $M_{\phi\phi}$3.53±.10; $M_{r\theta}$1.62±.42; $M_{\theta\phi}$0.25±.09; $M_{\phi r}$0.55±.28; Best double couple: $M_0$3.64×10^{16} NP1:ϕ_s337°,δ46°, λ-132°. NP2:ϕ_s209°,δ57°,λ-55°. Principal axes: T 3.61, Plg6°, Azm276°; N .05, Plg29°, Azm9°; P -3.66, Plg61°, Azm174°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 28 23:39:57.6±0.3**, 11.01N**±0.04×**92.10E**±0.03**, h25^{km}, h25^{km}**±.4^{km}**:pP-P, n170,** σ**1^{s}02**/170**, mb4.9**/65**, MS4.6**/13**, 5C-12D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**9.09**	**58**	P	**P**	**23 42 11.0**	**+0.7**
CM31	**Chiang Mai Arr**	**9.93**	**41**	*e*P	**P**	**23 42 24.6**	**+2.5**
CMAR	**Chiang Mai Arr**	**9.93**	**41**	Pn	**P**	**23 42 21.5**	**-0.5**
	0.6nm,0.3s,baz=236,slow=14,SNR=12						
CMAR				LR	LR	23 47 09.9	
	comp=Z,1μm,18.3s,baz=220,slow=43						
VIS	**Vishakhapatnam**	**10.80**	**309**	*e*P	**P**	**23 42 29.4**	**-4.5**
VIS				*e*S	x	23 44 19.4	
VIS				*e*		23 44 26.9	
	comp=E,167nm,0.4s						
VIS				*e*	**S**	**23 44 27.3**	**-7.7**
	comp=N,256nm,0.9s						
NANT	**Nan**	**11.36**	**46**	P	**P**	**23 42 42.0**	**+0.5**
AGT	**Agartala**	**12.83**	**356**	*e*P	**P**	**23 43 00.0**	**-1.3**
KOD	**Kodaikanal**	**14.40**	**268**	*e*P	**P**	**23 43 20.4**	**-1.8**
KOD				*e*		23 43 22.6	
	comp=Z,110nm,1.3s						
SHL	**Shillong**	**14.48**	**359**	*e*P	**P**	**23 43 19.2**	**-3.9**
SHL				*e*		23 43 47.0	
	comp=Z,85nm,1.3s						
SHL				*e*S	**S**	**23 45 58.3**	**-5.4**
HYB	**Hyderabad**	**14.59**	**297**	*e*P	**P**	**23 43 30.0**	**+5.4**
HYB				*e*S	**S**	**23 46 02.0**	**-4.3**
HYB	**Hyderabad**	**14.59**	**297**	*i* P	**P**	**23 43 30.0**	**+5.4**
HYB				*e*S	**S**	**23 46 02.0**	**-4.3**
TRD	**Trivandrum**	**15.13**	**262**	*e*P	**P**	**23 43 30.4**	**-1.3**
MNGI	**Mangalore**	**17.01**	**278**	*e*P	**P**	**23 43 55.1**	**-0.6**
MNGI				*e*		23 44 01.1	
	comp=Z,92nm,1.6s						
KMI	**Kunming**	**17.29**	**34**	⇑P	**P**	**23 44 01.0**	**+1.9**
KMI				AP		23 44 08.0	
KMI				XP		23 44 11.8	
KMI				PP	PP	23 44 18.5	+5.1
KMI				AMB	AMB		
	comp=Z,52nm,1.4s						
KMI				AMB	AMB		
	comp=Z,602nm,8.4s						
KMI				LR	LR		
	comp=N,2μm,16.7s						
KMI				LR	LR		
	comp=E,2μm,20.0s						
KMI				LR	LR		
	comp=Z,2μm,17.3s						
AKL	**Akola**	**17.41**	**305**	⇑*i*P	**P**	**23 44 00.2**	**-0.4**
	comp=Z,158nm,1.1s						
AKL				*i*	**S**	**23 47 01.7**	**-10**
PKI	**Pulchoki**	**17.64**	**340**	*e*P	**P**	**23 44 02.4**	**-1.0**
DMN	**Daman**	**17.77**	**339**	*e*P	**P**	**23 44 04.8**	**-0.3**
	comp=Z,132nm,0.8s						
GUN	**Gumba**	**17.80**	**342**	*e*P	**P**	**23 44 04.0**	**-1.4**
KKN	**Kakani**	**17.88**	**340**	*e*P	**P**	**23 44 06.5**	**0.0**
GKN	**Gorkha**	**18.30**	**339**	*e*P	**P**	**23 44 12.1**	**+0.4**
GOA	**Goa**	**18.34**	**286**	*e*		23 44 19.4	
GOA				*e*		23 44 30.9	
	comp=Z,81nm,1.7s						
GOA				*e*	**S**	**23 47 38.8**	**+6.0**
KAD	**Karad**	**18.46**	**292**	*e*		23 44 18.9	
KAD				*i*		23 47 56.8	
KOLN	**Koldanda**	**18.49**	**336**	*e*P	**P**	**23 44 14.7**	**+0.7**
	comp=Z,68nm,0.5s						
BHPL	**Bhopal**	**18.54**	**313**	*e*P	**P**	**23 44 14.3**	**-0.4**
BHPL				*e*		23 44 25.6	
	comp=Z,82nm,1.7s						
BHPL				*e*	**S**	**23 47 43.9**	**+6.5**
LSA	**Lhasa**	**18.62**	**357**	*e*P	**P**	**23 44 15.2**	**-0.4**
LSA				pmax	pmax		
	comp=Z,134nm,1.2s						
LSA	**Lhasa**	**18.62**	**357**	*e*P	**P**	**23 44 15.2**	**-0.4**
	comp=Z,134nm,1.2s						
POO	**Poona**	**19.16**	**295**	*e*P	**P**	**23 44 21.6**	**-0.4**
POO				*e*		23 44 34.3	
	comp=Z,92nm,1.4s						
BOM	**Bombay**	**20.20**	**295**	*e*P	**P**	**23 44 33.4**	**-0.1**
BOM				*e*		23 44 55.8	
	comp=Z,92nm,1.9s						
BOM				*e*S	**S**	**23 48 16.2**	**+2.5**
GYA	**Guiyang**	**20.62**	**40**	⇓*i*P	**P**	**23 44 37.8**	**0.0**
GYA				AP		23 44 46.8	
GYA				PP	PP	23 45 03.5	+4.2
GYA				S	**S**	**23 48 30.8**	**+8.8**
GYA				AMB	AMB		
	comp=Z,130nm,1.0s						
GYA				AMB	AMB		
	comp=Z,970nm,3.6s						
GYA				LR	LR		
	comp=N,1μm,16.8s,MS4.8						
GYA				LR	LR		
	comp=E,3μm,17.0s,MS4.8						
GYA				LR	LR		
	comp=Z,3μm,16.0s,MS4.8						
NDI	**New Delhi**	**22.43**	**324**	*e*P	**P**	**23 44 57.2**	**+1.1**
NDI				*e*		23 45 07.1	
	comp=Z,104nm,1.3s						
NDI				*e*S	**S**	**23 49 00.2**	**+4.1**
CD2	**Chengdu**	**22.57**	**27**	P	**P**	**23 44 57.5**	**+0.1**
CD2				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.1						
DDI	**Dehra Dun**	**23.24**	**328**	*e*P	**P**	**23 45 06.4**	**+2.4**
DDI				*e*		23 49 28.4	
SDNR	**Sundarnagar**	**24.73**	**328**	*e*P	**P**	**23 45 21.2**	**+2.7**
ENH	**Enshi**	**25.08**	**38**	⇓*e*P	**P**	**23 45 21.3**	**-0.5**
	comp=Z,116nm,0.6s,mb5.6						
LZH	**Lanzhou**	**27.14**	**21**	⇑P	**P**	**23 45 41.3**	**+0.5**
LZH				AP	pP	23 45 50.5	+2.2
LZH				XP	sP	23 45 54.8	+3.2
LZH				AMB	AMB		
	comp=Z,110nm,1.6s,mb5.1						
LZH				AMB	AMB		
	comp=Z,370nm,5.3s						
LZH				LR	LR		
	comp=N,2μm,12.4s						
LZH				LR	LR		
	comp=Z,4μm,17.6s						
XAN	**Xi’an**	**27.61**	**31**	P	**P**	**23 45 43.0**	**-2.1**
XAN				AMB	AMB		
	comp=Z,17nm,1.4s,mb4.5						
WHN	**Wuhan**	**28.37**	**43**	P	**P**	**23 45 51.3**	**-0.7**
WHN				S	**S**	**23 50 43.0**	**+7.3**
WHN				LR	LR		
	comp=Z,2μm,16.2s,MS4.9						
GTA	**Gaotai**	**29.11**	**12**	*e*P	**P**	**23 45 59.0**	**+0.4**
GTA				AP	pP	23 46 07.0	+1.0
GTA				XP	sP	23 46 10.5	+1.1
GTA				AMB	AMB		
	comp=Z,22nm,1.4s,mb4.7						
GTA				AMB	AMB		
	comp=Z,360nm,8.4s						
GTA				LR	LR		
	comp=N,462nm,16.0s,MS4.3						
GTA				LR	LR		
	comp=E,522nm,17.9s,MS4.3						
GTA				LR	LR		
	comp=Z,642nm,16.3s,MS4.3						
KSH	**Kashi**	**31.81**	**336**	P	**P**	**23 46 23.3**	**+0.8**
KSH				AP	pP	23 46 31.5	+1.5
KSH				XP	sP	23 46 34.8	+1.5
KSH				AMB	AMB		
	comp=Z,350nm,8.5s						
NJ2	**Nanjing**	**32.36**	**46**	*e*P	**P**	**23 46 28.0**	**+0.6**
NJ2				AP	pP	23 46 36.5	+1.6
NJ2				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.5						
WMQ	**Urumqi**	**32.91**	**354**	⇓P	**P**	**23 46 32.3**	**+0.2**
WMQ				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
WMQ				LR	LR		
	comp=N,375nm,21.8s,MS4.5						
WMQ				LR	LR		
	comp=E,1μm,23.6s,MS4.5						
WMQ				LR	LR		
	comp=Z,227nm,21.7s,MS3.8						
BTO	**Baotou**	**33.46**	**25**	*e*P	**P**	**23 46 35.3**	**-1.6**
KZA	**Kyzart**	**34.29**	**337**	P	**P**	**23 46 46.1**	**+2.1**
	SNR=5.5						
HHC	**Hu-ho-hao-te**	**34.32**	**27**	*e*P	**P**	**23 46 44.5**	**+0.2**
HHC				AP	pP	23 46 52.0	+0.1
HHC				XP	sP	23 46 56.0	+0.9
HHC				S	**S**	**23 52 06.3**	**-2.8**
HHC				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.8						
HHC				AMB	AMB		
	comp=Z,277nm,7.6s						
HHC				LR	LR		
	comp=N,316nm,11.9s,MS4.7						
HHC				LR	LR		
	comp=E,778nm,14.3s,MS4.7						
HHC				LR	LR		
	comp=Z,470nm,13.1s,MS4.4						
UCH	**Uchtor**	**34.70**	**337**	P	**P**	**23 46 48.4**	**+0.8**
	SNR=6.8						
KBK	**Karagaybulak**	**34.90**	**338**	P	**P**	**23 46 50.3**	**+1.0**
	SNR=9.1						
AML	**Almayashu**	**34.94**	**336**	P	**P**	**23 46 50.5**	**+0.9**
	SNR=20						
AAK	**Ala-Archa**	**35.05**	**337**	P	**P**	**23 46 51.5**	**+1.0**
	SNR=10						
AAK	**Ala-Archa**	**35.05**	**337**	*e*P	**P**	**23 46 50.1**	**-0.4**
AAK				pmax	pmax		
	comp=Z,49nm,1.3s,mb5.3						
AAK	**Ala-Archa**	**35.05**	**337**	*e*P	**P**	**23 46 50.1**	**-0.4**
	comp=Z,49nm,1.3s,mb5.3						
FRU	**Bishkek**	**35.17**	**337**	*e*P	**P**	**23 46 53.5**	**+1.9**
FRU				pmax	pmax		
	comp=Z,90nm,2.1s,mb5.3						
CHMS	**Chumysh**	**35.27**	**338**	P	**P**	**23 46 52.9**	**+0.5**
	SNR=6.6						
EKS2	**Erkin-Say**	**35.35**	**336**	P	**P**	**23 46 54.0**	**+0.9**
	SNR=13						
USP	**Ospenovka**	**35.59**	**338**	P	**P**	**23 46 55.5**	**+0.3**
	SNR=14						
BJT	**Baijiatuau**	**35.91**	**32**	*e*P	**P**	**23 46 57.9**	**+0.1**
BJT				*e*	pP	23 47 06.3	+0.9
BJT				pmax	pmax		
	comp=Z,27nm,0.8s						
BJT	**Baijiatuau**	**35.91**	**32**	*e*P	**P**	**23 46 57.9**	**0.0**
	comp=Z,27nm,0.8s,mb5.2						
BJT				*e*	pP	23 47 06.3	+0.9
BJI	**Beijing**	**35.93**	**32**	P	**P**	**23 46 58.0**	**0.0**
BJI				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.1						
MK02	**Makanchi Array**	**36.60**	**349**	P	**P**	**23 47 03.2**	**-0.4**
SONM	**Songino Array**	**38.63**	**15**	P	**P**	**23 47 21.0**	**+0.4**
	comp=Z,12nm,1.1s,mb4.5,baz=202,slow=6.7,SNR=37						
SONM				pP	pP	23 47 29.2	+0.9
	comp=Z,16nm,1.0s,baz=202,slow=6.7,SNR=20						
ULN	**Ulaanbaatar**	**38.83**	**16**	*e*P	**P**	**23 47 21.9**	**-0.4**
ULN				*e**PP	pP	23 47 30.2	+0.3
ULN				pmax	pmax		
	comp=Z,13nm,1.3s,mb4.5						
ULN	**Ulaanbaatar**	**38.83**	**16**	*e*P	**P**	**23 47 21.9**	**-0.5**
	comp=Z,13nm,1.3s,mb4.5						
ULN				*e*pP	pP	23 47 30.2	+0.3
ZAK	**Zakamensk**	**40.32**	**11**	*e*P	**P**	**23 47 34.7**	**+0.1**
SNY	**Shenyang**	**41.25**	**36**	⇑P	**P**	**23 47 42.8**	**+0.5**
SNY				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.6						
MBWA	**Marble Bar**	**41.94**	**140**	*e*P	**P**	**23 47 47.7**	**-0.5**
	comp=Z,75nm,1.3s,mb5.2						
CN2	**Changchun**	**43.55**	**35**	⇓P	**P**	**23 48 01.5**	**+0.3**
CN2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
RDF	**Al-Radifah**	**45.20**	**300**	*e*P	pP	23 48 23.3	+1.0
RDF				AMb	AMB	23 48 25.1	
	comp=Z,72nm,0.8s,mb5.6						
BVA0	**Borovoye Array**	**45.40**	**342**	*i* P	**P**	**23 48 15.3**	**-0.6**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
BVAR	**Borovoye Array**	**45.40**	**342**	P	**P**	**23 48 15.4**	**-0.4**
	comp=Z,3.5nm,0.5s,mb4.5,baz=142,slow=10.0,SNR=24						
BVAR				pP	pP	23 48 23.4	-0.1
	comp=Z,4.1nm,0.5s,baz=142,slow=10,SNR=13						
BRVK	**Borovoye**	**45.46**	**342**	*e*P	**P**	**23 48 15.5**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.0						
BRVK	**Borovoye**	**45.46**	**342**	*e*P	**P**	**23 48 15.5**	**-0.8**
	comp=Z,23nm,1.0s,mb5.0						
MIB	**Mutribah**	**45.59**	**301**	*e*P	**P**	**23 48 18.4**	**+0.7**
MIB				AMb	AMB	23 48 19.5	
	comp=Z,31nm,1.0s,mb5.2						
RST	**Umm Al-Ruwaisa**	**45.81**	**301**	*e*P	**P**	**23 48 19.8**	**+0.4**
RST				AMb	AMB	23 48 29.5	
	comp=Z,44nm,0.8s,mb5.5						
CHKZ	**Chkalovo**	**45.89**	**342**	⇓*e*P	**P**	**23 48 19.7**	**0.0**
CHKZ				*e*	pP	23 48 27.5	+0.1
CHKZ				pmax	pmax		
	comp=Z,23nm,0.5s,mb5.4						
CHKZ	**Chkalovo**	**45.89**	**342**	⇓*e*P	**P**	**23 48 19.6**	**-0.1**
	comp=Z,23nm,0.5s,mb5.4						
CHKZ				*e*	pP	23 48 27.5	+0.1
MZLS	**Mizel**	**46.35**	**293**	P	**P**	**23 48 25.3**	**+1.5**
TATS	**Tathlith**	**47.53**	**286**	P	**P**	**23 48 29.0**	**-4.2**
AFFS	**‘Afif**	**48.34**	**292**	P	**P**	**23 48 40.1**	**+0.7**
MAT	**Matsushiro**	**48.65**	**51**	P	**P**	**23 48 40.6**	**-1.0**
MAT	**Matsushiro**	**48.65**	**51**	P	**P**	**23 48 41.0**	**-0.6**
MAT				pmax	pmax		
	comp=Z,82nm,1.8s,mb5.5						
MAT	**Matsushiro**	**48.65**	**51**	P	**P**	**23 48 41.0**	**-0.6**
	comp=Z,82nm,1.8s,mb5.5						
BOD	**Bodaibo**	**49.63**	**15**	*e*P	**P**	**23 48 48.3**	**-0.6**
BOD				*e*	pP	23 48 55.8	-0.8
NWAO	**Narrogin (SRO)**	**49.84**	**152**	*e*P	**P**	**23 48 51.0**	**+0.2**
NWAO				*e*	pP	23 48 58.9	+0.3
NWAO				pmax	pmax		

	comp=Z,36nm,0.8s						
NWAO	**Narrogin (SRO)**	**49.84**	**152**	P	**P**	**23 48 50.7**	**-0.2**
	comp=Z,26nm,1.0s,mb5.2,baz=325,slow=10,SNR=7.5						
NWAO				pP	pP	23 48 58.7	+0.1
	comp=Z,36nm,0.8s,baz=308,slow=9.5,SNR=11						
NWAO	**Narrogin (SRO)**	**49.84**	**152**	*e*P	**P**	**23 48 51.0**	**+0.1**
	comp=Z,36nm,0.8s,mb5.5						
NWAO				*e*	pP	23 48 58.9	+0.2
HILS	**Ha’il**	**49.88**	**297**	P	**P**	**23 48 52.9**	**+1.6**
TI2	**Plekhanov**	**51.41**	**315**	*e*P	**P**	**23 49 03.4**	**+0.7**
WRA	**Warramunga Arr**	**51.72**	**126**	P	**P**	**23 49 05.1**	**-0.2**
	comp=Z,14nm,0.7s,mb5.0,baz=305,slow=8.6,SNR=39						
WRA				pP	pP	23 49 13.1	0.0
	comp=Z,36nm,0.6s,baz=306,slow=8.6,SNR=40						
WRAB	**Tennant Creek**	**51.72**	**126**	*e*P	**P**	**23 49 05.0**	**-0.3**
WRAB				*e**PP	pP	23 49 12.8	-0.3
WRAB				pmax	pmax		
	comp=Z,48nm,0.6s,mb5.6						
WRAB	**Tennant Creek**	**51.72**	**126**	*e*P	**P**	**23 49 05.0**	**-0.3**
	comp=Z,48nm,0.6s,mb5.6						
WRAB				*e*pP	pP	23 49 12.8	-0.3
SVE	**Sverdlovsk**	**51.77**	**339**	⇓*e*P	**P**	**23 49 03.0**	**-2.1**
SVE				pmax	pmax		
	comp=Z,60nm,2.0s,mb5.2						
ARU	**Arti**	**52.24**	**337**	*e*P	**P**	**23 49 07.7**	**-1.0**
ZEI	**Tsey**	**52.39**	**316**	*e*P	**P**	**23 49 11.1**	**+1.0**
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
ASAR	**Alice Springs**	**53.46**	**130**	P	**P**	**23 49 17.9**	**-0.3**
	comp=Z,15nm,1.1s,mb4.8,baz=306,slow=6.2,SNR=30						
ASAR				pP	pP	23 49 26.1	+0.1
	comp=Z,20nm,0.6s,baz=305,slow=6.8,SNR=38						
KIV	**Kislovodsk**	**53.66**	**317**	*e*P	**P**	**23 49 19.2**	**-0.2**
KIV				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.4						
KIV	**Kislovodsk**	**53.66**	**317**	*e*P	**P**	**23 49 19.2**	**-0.2**
	comp=Z,38nm,0.8s,mb5.4						
GOF	**Gofitskoye**	**53.86**	**318**	*e*P	**P**	**23 49 21.0**	**+0.2**
GOF				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
TBKS	**Tabuk**	**54.60**	**297**	P	**P**	**23 49 28.0**	**+1.5**
ASF	**Jabal al Asfar**	**54.85**	**302**	P	**P**	**23 49 27.1**	**-1.3**
	comp=Z,1.1nm,0.4s,mb4.3,baz=72,slow=0.9,SNR=5.2						
MALT	**Malatya**	**54.92**	**309**	*e*P	**P**	**23 49 27.9**	**-0.9**
MALT				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
MALT	**Malatya**	**54.92**	**309**	*e*P	**P**	**23 49 27.9**	**-0.9**
	comp=Z,10nm,1.2s,mb4.7						
MALT				*e*P		23 49 28.1	
JMQS	**Jabal Moqyreh**	**55.26**	**297**	P	**P**	**23 49 32.7**	**+1.4**
AYUS	**‘Aynunah**	**55.72**	**297**	P	**P**	**23 49 36.0**	**+1.3**
KMBO	**Kilima Mbogo**	**55.84**	**261**	*e*P	**P**	**23 49 37.3**	**+1.5**
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.1s						
KMBO	**Kilima Mbogo**	**55.84**	**261**	P	**P**	**23 49 37.1**	**+1.3**
	comp=Z,2.6nm,1.1s,mb4.2,baz=54,slow=7.3,SNR=4.6						
KMBO				LR	LR	00 09 43.7	
	comp=Z,213nm,21.0s,MS4.2,baz=276,slow=32						
KMBO	**Kilima Mbogo**	**55.84**	**261**	*e*P	**P**	**23 49 37.3**	**+1.6**
	comp=Z,9.4nm,1.1s,mb4.7						
BDAS	**Al Bad‘**	**55.89**	**297**	P	**P**	**23 49 37.0**	**+1.2**
HAQS	**Haql**	**56.10**	**298**	P	**P**	**23 49 38.4**	**+1.0**
EIL	**Elat**	**56.15**	**298**	P	**P**	**23 49 37.2**	**-0.5**
	comp=Z,8.0nm,0.8s,mb4.8,baz=0.3,slow=4.3,SNR=7.9						
EIL				pP	pP	23 49 44.5	-1.2
	comp=Z,14nm,1.1s,baz=10,slow=2.6,SNR=6.6						
YAK	**Yakutsk**	**57.71**	**20**	*e*P	**P**	**23 49 46.1**	**-2.3**
YAK				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.4						
YAK	**Yakutsk**	**57.71**	**20**	*e*P	**P**	**23 49 46.1**	**-2.3**
	comp=Z,26nm,0.6s,mb5.4						
PMG	**Port Moresby**	**58.39**	**108**	⇓*e*P	**P**	**23 49 54.2**	**+0.4**
PMG				*e**PP	pP	23 50 01.7	0.0
PMG				pmax	pmax		
	comp=Z,28nm,0.7s						
PMG	**Port Moresby**	**58.39**	**108**	P	**P**	**23 49 54.2**	**+0.4**
	comp=Z,75nm,1.3s,mb5.5,baz=317,slow=4.5,SNR=5.8						
PMG				pP	pP	23 50 02.1	+0.4
	comp=Z,19nm,0.7s,baz=300,slow=5.1,SNR=6.0						
PMG	**Port Moresby**	**58.39**	**108**	⇓*e*P	**P**	**23 49 54.1**	**+0.3**
	comp=Z,28nm,0.7s,mb5.4						
PMG				*e*pP	pP	23 50 01.7	0.0
BRTR	**Keskin Array B**	**58.88**	**310**	P	**P**	**23 49 55.1**	**-1.8**
	comp=Z,3.4nm,0.9s,mb4.4,baz=121,slow=7.2,SNR=12						
BRTR				pP	pP	23 50 02.8	-2.0
	comp=Z,6.1nm,0.7s,baz=123,slow=7.5,SNR=15						
MOS	**Moscow**	**61.37**	**328**	⇓*i*P	**P**	**23 50 12.2**	**-1.5**
MOS				*i*	pP	23 50 20.3	-1.3
MOS				pmax	pmax		
	comp=Z,98nm,1.4s,mb5.8						
CTA	**Charters Tower**	**61.60**	**120**	P	**P**	**23 50 15.9**	**+0.2**
	comp=Z,22nm,1.2s,mb5.2,baz=298,slow=8.9,SNR=9.8						
CTA				pP	pP	23 50 23.9	+0.3
	comp=Z,14nm,1.1s,baz=315,slow=8.4,SNR=4.2						
CTAO	**Charters Tower**	**61.60**	**120**	*e*P	**P**	**23 50 15.9**	**+0.2**
CTAO				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.2						
CTAO	**Charters Tower**	**61.60**	**120**	*e*P	**P**	**23 50 15.9**	**+0.1**
	comp=Z,28nm,1.4s,mb5.2						
OBN	**Obninsk**	**61.67**	**327**	⇓*i*P	**P**	**23 50 14.5**	**-1.2**
OBN				pmax	pmax		
	comp=Z,66nm,1.5s,mb5.5						
OBN	**Obninsk**	**61.67**	**327**	*e*P	**P**	**23 50 15.2**	**-0.6**
	comp=Z,63nm,1.2s,mb5.6						
OBN				*e*	pP	23 50 21.6	-2.1
STKA	**Stephens Creek**	**63.71**	**134**	P	**P**	**23 50 29.3**	**-0.4**
	comp=Z,14nm,1.1s,mb4.9,baz=306,slow=7.6,SNR=11						
STKA				pP	pP	23 50 38.0	+0.4
	comp=Z,7.9nm,0.7s,baz=303,slow=6.7,SNR=6.5						
STKA				LR	LR	00 19 40.0	
	comp=Z,238nm,19.8s,MS4.4,baz=112,slow=37						
STKA	**Stephens Creek**	**63.71**	**134**	*e*P	**P**	**23 50 29.9**	**+0.3**
AKASG	**Malin Array Be**	**64.47**	**321**	P	**P**	**23 50 32.3**	**-1.9**
	comp=Z,2.9nm,0.8s,mb4.4,baz=93,slow=4.5,SNR=20						
AKASG				pP	pP	23 50 40.4	-1.8
	comp=Z,3.6nm,0.7s,baz=94,slow=4.5,SNR=7.7						
TIXI	**Tiksi**	**64.59**	**12**	⇓*i*P	**P**	**23 50 33.5**	**-1.2**
TIXI				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.2						
MA2	**Magadan**	**64.97**	**29**	*e*P	**P**	**23 50 36.6**	**-0.7**
MA2				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.4						
MA2	**Magadan**	**64.97**	**29**	*e*P	**P**	**23 50 36.6**	**-0.8**
	comp=Z,42nm,1.0s,mb5.4						
IDI	**Anoyia**	**65.15**	**304**	P	**P**	**23 50 36.4**	**-2.6**
	comp=Z,4.3nm,0.6s,mb4.6,baz=100,slow=17,SNR=3.4						
IDI				pP	pP	23 50 44.5	-2.4
	comp=Z,11nm,0.7s,baz=100,slow=12,SNR=3.3						
APA	**Apatity**	**68.22**	**339**	⇑*i*P	**P**	**23 50 51.5**	**-6.4**
APA				*i*		23 51 05.8	
APA				pmax	pmax		
	comp=Z,74nm,1.7s,mb5.4						
APA				MLR	MLR		
	comp=Z,2μm,17.0s,MS5.3						
SUW	**Suwalki**	**68.80**	**324**	*e*P	**P**	**23 51 01.0**	**-0.7**
SUW				*e*	pP	23 51 08.7	-1.0
SUW				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.3						
SUW	**Suwalki**	**68.80**	**324**	*e*P	**P**	**23 51 00.9**	**-0.8**
	comp=Z,48nm,1.1s,mb5.3						
SUW				*e*	pP	23 51 08.7	-1.0
FINES	**FINESS Array B**	**69.02**	**332**	P	**P**	**23 51 02.1**	**-0.8**
	comp=Z,3.5nm,0.6s,mb4.4,baz=104,slow=7.4,SNR=22						
FINES				pP	pP	23 51 08.6	-2.3
	comp=Z,6.3nm,0.6s,baz=103,slow=6.4,SNR=8.7						
KAF	**Kangasniemi**	**69.10**	**333**	*e*p	**P**	**23 51 02.5**	**-0.9**
	comp=Z,10nm,1.1s,mb4.7						
KAF	**Kangasniemi**	**69.10**	**333**	*e*P	**P**	**23 51 02.5**	**-0.9**
KAF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
OJC	**Ojcow**	**70.30**	**319**	*e*P	**P**	**23 51 10.7**	**-0.2**
OKC	**Ostrava-Krasne**	**71.32**	**319**	*e*P	**P**	**23 51 16.1**	**-1.0**
ARCES	**ARCESS Array B**	**71.65**	**340**	P	**P**	**23 51 18.8**	**-0.1**
	comp=Z,2.7nm,0.6s,mb4.3,baz=90,slow=6.1,SNR=9.9						
ARCES				pP	pP	23 51 25.8	-0.9
	comp=Z,7.7nm,0.7s,baz=76,slow=4.0,SNR=6.3						
ARCES				LR	LR	00 25 35.0	
	comp=Z,435nm,18.5s,MS4.8,baz=150,slow=38						
DPC	**Dobruska-Polom**	**72.53**	**319**	*e*P	**P**	**23 51 25.0**	**+0.7**
DPC				*e*pP	pP	23 51 32.1	-0.2
KSP	**Ksiaz**	**72.58**	**320**	*e*P	**P**	**23 51 24.1**	**-0.5**
KSP				*e**PP	pP	23 51 31.0	-1.6
KSP				*e*		23 51 44.0	
PRU	**Pruhonice**	**73.66**	**319**	*e*P	**P**	**23 51 31.5**	**+0.6**
BILL	**Bilibino**	**73.95**	**22**	*e*P	**P**	**23 51 32.1**	**-0.1**
BILL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
BILL	**Bilibino**	**73.95**	**22**	*e*P	**P**	**23 51 32.1**	**-0.1**
	comp=Z,9.1nm,0.9s,mb4.7						
BRG	**Berggiesshubel**	**74.07**	**320**	*e*P	**P**	**23 51 33.7**	**+0.4**
BRG				*e*	pP	23 51 40.8	-0.5
BRG				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.9						
BRG	**Berggiesshubel**	**74.07**	**320**	*e*P	**P**	**23 51 33.7**	**+0.4**
	comp=Z,26nm,1.5s,mb4.9						
BRG				*e*	pP	23 51 40.8	-0.5
GERES	**GERESS Array B**	**74.17**	**318**	P	**P**	**23 51 33.7**	**-0.2**
	comp=Z,2.2nm,0.9s,mb4.1,baz=104,slow=5.5,SNR=8.0						
GERES				pP	pP	23 51 40.8	-1.1
	comp=Z,2.5nm,0.6s,baz=76,slow=5.5,SNR=9.5						
GERES				LR	LR	00 25 33.1	
	comp=Z,214nm,19.4s,MS4.5,baz=267,slow=37						
KHC	**Kasperske Hory**	**74.25**	**318**	*e*P	**P**	**23 51 34.5**	**+0.1**
KHC				*e*pP	pP	23 51 42.5	+0.1
CLL	**Collm**	**74.68**	**320**	*e*P	**P**	**23 51 36.0**	**-0.8**
CLL				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.5						
CLL	**Collm**	**74.68**	**320**	*e*P	**P**	**23 51 36.0**	**-0.8**
	comp=Z,8.0nm,1.2s,mb4.5						
CLL	**Collm**	**74.68**	**320**	P	**P**	**23 51 36.0**	**-0.8**
	comp=Z,logA/T=0.8,mb4.5						
NB2	**NORSAR Subarra**	**76.03**	**330**	P	**P**	**23 51 43.3**	**-1.0**
	comp=Z,6.6nm,0.8s,mb4.6,baz=92,slow=6.2						
NB2	**NORSAR Subarra**	**76.03**	**330**	P	**P**	**23 51 43.3**	**-1.0**
NB2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
NOA	**NORSAR Array B**	**76.03**	**330**	P	**P**	**23 51 43.4**	**-0.9**
	comp=Z,3.8nm,0.8s,mb4.3,baz=93,slow=5.7,SNR=5.8						
NOA				pP	pP	23 51 50.7	-1.7
	comp=Z,4.0nm,0.7s,baz=95,slow=5.4,SNR=7.8						
DAVOX	**Davos**	**76.75**	**316**	P	**P**	**23 51 47.7**	**-0.9**
	comp=Z,2.8nm,0.7s,mb4.3,baz=18,slow=4.4,SNR=3.5						
DAVOX				pP	pP	23 51 56.6	-0.1
	comp=Z,1.6nm,0.4s,baz=83,slow=6.2,SNR=3.2						
DAVOX				LR	LR	00 30 32.3	
	comp=Z,210nm,20.9s,MS4.4,baz=262,slow=40						
LPG	**La Plagne**	**79.00**	**314**	*e*P	**P**	**23 52 01.0**	**0.0**
	comp=Z,20nm,0.8s,mb4.8						
LPG	**La Plagne**	**79.00**	**314**	*e*P	**P**	**23 52 01.0**	**0.0**
LPG				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ANM	**Nome**	**85.46**	**25**	*e*P	**P**	**23 52 35.9**	**+1.8**
ESDC	**Sonseca Array**	**87.67**	**310**	P	**P**	**23 52 45.4**	**-0.1**
	comp=Z,1.2nm,0.8s,mb4.2,baz=45,slow=2.1,SNR=5.0						
ESDC				pP	pP	23 52 54.4	+0.7
	comp=Z,1.3nm,0.6s,baz=61,slow=4.2,SNR=6.5						
IMA	**Indian Mountai**	**89.49**	**22**	*e*P	**P**	**23 52 55.5**	**+1.9**
IMA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.9						
IMA	**Indian Mountai**	**89.49**	**22**	*e*P	**P**	**23 52 55.5**	**+1.9**
	comp=Z,4.8nm,0.8s,mb4.9						
RPZ	**Rata Peaks**	**89.67**	**135**	LR	LR	00 35 33.3	
	comp=Z,248nm,19.3s,MS4.7,baz=278,slow=37						
MCK	**McKinley**	**92.39**	**23**	*e*P	**P**	**23 53 08.1**	**+1.1**
MCK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb5.0						
MCK	**McKinley**	**92.39**	**23**	*e*P	**P**	**23 53 08.1**	**+1.1**
	comp=Z,8.2nm,1.0s,mb5.0						
ILAR	**Eielson Array**	**92.60**	**22**	P	**P**	**23 53 07.8**	**-0.2**
	comp=Z,1.6nm,0.8s,mb4.5,baz=297,slow=4.4,SNR=20						
ILAR				PP	PP	23 56 53.5	+1.2
	comp=Z,1.1nm,0.9s,baz=298,slow=7.9,SNR=4.7						
URZ	**Urewera**	**92.85**	**128**	LR	LR	00 35 41.3	
	comp=Z,247nm,18.7s,MS4.7,baz=162,slow=36						
VNDA	**Vanda**	**96.39**	**168**	P	**P**	**23 53 26.1**	**+1.0**
	comp=Z,1.1nm,0.9s,mb4.3,baz=324,slow=1.3,SNR=3.2						
PDAR	**Pinedale Array**	**122.93**	**19**	PKP	PKPdf	23 58 53.8	-2.9
	comp=Z,1.4nm,0.9s,baz=315,slow=2.1,SNR=7.3						
NVAR	**Mina Array Bea**	**123.21**	**28**	PKP	PKPdf	23 58 55.2	-2.1
	comp=Z,2.1nm,0.8s,baz=336,slow=1.1,SNR=9.8						
NVAR				pPKP		23 59 03.5	
	comp=Z,1.5nm,0.7s,baz=301,slow=1.7,SNR=5.4						
MSU	**Marysvale**	**125.77**	**23**	*e*PKIKP	PKPdf	23 58 58.2	-4.1
GDL2	**Guadalupe Moun**	**134.24**	**20**	*e*PKP	PKPdf	23 59 14.7	-3.9
MNTX	**Cornudas Mount**	**134.35**	**21**	*e*PKP	PKPdf	23 59 15.2	-3.7
TXAR	**Lajitas Array**	**137.11**	**20**	PKP	PKPdf	23 59 22.9	-1.0
	comp=Z,1.1nm,0.7s,baz=180,slow=1.3,SNR=6.5						
TXAR				pPKP		23 59 30.4	
	comp=Z,0.6nm,0.5s,baz=94,slow=1.3,SNR=3.1						
LPAZ	**La Paz**	**160.09**	**253**	*e*PKIKP	PKPdf	23 59 58.6	-1.4

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*PRU **28** 23:42:16.0, 50.20N×19.17E, h10^{km}*

WAR 28 23:42:14.9, 50.16N×19.31E, h0^{km}, ML2.6, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.32**	**80**	*e*PG	Pg	23 42 21.0	-0.3
OJC				*e*SG	Sg	23 42 26.0	+0.5
RAC	**Raciborz**	**0.72**	**264**	*e*PG	Pg	23 42 30.0	+0.7
RAC				*e*SG	Sg	23 42 41.0	+2.1
RAC	**Raciborz**	**0.72**	**264**	*e*Pg	Pg	23 42 30.0	+0.7
RAC				*e*Sg	Sg	23 42 40.8	+1.9
OKC	**Ostrava-Krasne**	**0.82**	**247**	*e*PG	Pg	23 42 30.2	-1.0
OKC				*e*SG	Sg	23 42 42.6	+0.5
NIE	**Niedzica**	**0.99**	**139**	*e*PG	Pg	23 42 34.0	-0.7
NIE				*e*(SG)	Sg	23 42 49.0	+1.1
NIE	**Niedzica**	**0.99**	**139**	*e*Pg	Pg	23 42 33.9	-0.8
NIE				*e*Sg	Sg	23 42 49.2	+1.3
DPC	**Dobruska-Polom**	**1.93**	**277**	*e*PG	Pg	23 42 47.9	-5.5
DPC				*e*SG	Sg	23 43 15.4	-3.6
KSP	**Ksiaz**	**2.04**	**291**	*e*PN	Pn	23 42 51.0	+0.2
KSP				*e*PG	Pg	23 42 53.0	-2.7
KSP				*e*(SN)	Sn	23 43 17.0	-0.4
KSP	**Ksiaz**	**2.04**	**291**	*e*Pn	Pn	23 42 51.4	+0.6
KSP				*e*Pg	Pg	23 42 55.8	+0.1
KSP				*e*Sg	Sg	23 43 20.0	-2.9
UPC	**Upice**	**2.14**	**281**	*e*PG	Pg	23 42 53.7	-3.9
UPC				*e*SG	Sg	23 43 22.9	-3.3
PSZ	**Piszkesteto**	**2.28**	**170**	*e*	Pn	23 42 57.9	+3.6
PRU	**Pruhonice**	**3.08**	**269**	*e*PG	Pg	23 43 09.6	-6.7
PRU				*e*SG	Sg	23 43 49.2	-8.1
	11nm,0.6s						
KHC	**Kasperske Hory**	**3.87**	**257**	*e*PN	Pn	23 43 16.0	-0.8
KHC				*e*PG	Pg	23 43 28.5	-3.6
KHC				*e*SN	Sn	23 44 01.5	-2.1
KHC				*e*x	x	23 44 04.5	
KHC				*e*SG	Sg	23 44 19.0	-4.6
CLL	**Collm**	**4.17**	**288**	*e*SG	Sg	23 44 29.0	-4.6

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*BJI **28** 23:46:31.7, 9.15N×93.38E, h31^{km}, mB5.3, mb5.0, Ms5.0, Msz4.7*

*IDC **28** 23:46:31.2±0.5, 9.43N×93.12E, mb4.6/17, mb1 4.7/17, mb1mx4.5/21, mbtmp4.5/17, Error ellipse: s-maj=30.7km s-min=11.8km az=51.0*

*MOS **28** 23:46:33.6±1.2, 9.34N×93.07E, h33^{km}, mb5.1/14, Error ellipse: s-maj=21.8km s-min=9.7km az=108.0*

*NEIC **28** 23:46:35.1±0.8, 9.34N×93.05E, h30^{km}, mb5.0/11, Error ellipse: s-maj=19.1km s-min=15.1km az=215.0*

ISC 28 23:46:34.1±0.4**, 9.32N**±0.07×**93.11E**±0.07**, h33^{km}, (h29^{km}**±2.2^{km}**:pP-P), n82,** σ1**§12**/79**, mb4.8**/40**, 8C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**10.70**	**31**	*e*P	**P**	**23 49 12.1**	**+3.8**
CMAR	**Chiang Mai Arr**	**10.70**	**31**	Pn	**P**	**23 49 11.1**	**+2.9**
	2.0nm,0.3s,baz=226,slow=15,SNR=34						
LSA	**Lhasa**	**20.36**	**355**	*e*P	**P**	**23 51 09.4**	**-1.2**
LSA				pmax	pmax		
	comp=Z,30nm,0.7s						
LSA	**Lhasa**	**20.36**	**355**	*e*P	**P**	**23 51 09.4**	**-1.1**
	comp=Z,30nm,0.7s						
GYA	**Guiyang**	**21.34**	**35**	⇑*i*P	**P**	**23 51 21.0**	**+0.4**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.2						
CD2	**Chengdu**	**23.66**	**23**	P	**P**	**23 51 43.8**	**+0.2**
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb4.9						
ENH	**Enshi**	**25.85**	**34**	*e*P	**P**	**23 52 03.3**	**-1.3**
	comp=Z,24nm,0.7s,mb4.8						
LZH	**Lanzhou**	**28.38**	**18**	*e*P	**P**	**23 52 27.5**	**-0.1**
LZH				AP	pP	23 52 37.0	-0.1
LZH				XP	sP	23 52 41.5	+0.1
LZH				AMB	AMB		
	comp=Z,30nm,1.5s,mb4.7						
GTA	**Gaotai**	**30.56**	**10**	*e*P	**P**	**23 52 46.8**	**-0.1**
GTA				AP	pP	23 52 56.0	-0.6
GTA				XP	sP	23 52 59.0	-1.9
GTA				PPP	PPP	23 54 29.0	+27
GTA				AMB	AMB		
	comp=Z,24nm,1.0s,mb5.0						
KSH	**Kashi**	**33.75**	**336**	*e*P	**P**	**23 53 15.3**	**+0.5**
KSH				*e*AP	pP	23 53 23.3	-1.2
KSH				*e*XP	sP	23 53 28.5	-0.3
SSE	**Sheshan**	**33.93**	**46**	P	**P**	**23 53 09.5**	**-6.9**
SSE				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,170nm,6.4s						
HHC	**Hu-ho-hao-te**	**35.41**	**24**	*e*P	**P**	**23 53 28.8**	**-0.2**
HHC				AMB	AMB		
	comp=Z,214nm,7.5s						
UCH	**Uchtor**	**36.63**	**337**	P	**P**	**23 53 40.9**	**+1.6**
	SNR=12						
TKM2	**Tokmak 2**	**36.82**	**338**	P	**P**	**23 53 42.2**	**+1.3**
	SNR=11						
BJT	**Baijiatuau**	**36.83**	**30**	*e*P	**P**	**23 53 41.8**	**+0.8**
BJT				pmax	pmax		
	comp=Z,16nm,0.5s						
BJT	**Baijiatuau**	**36.83**	**30**	*e*P	**P**	**23 53 41.8**	**+0.8**
	comp=Z,16nm,0.5s,mb5.1						
KBK	**Karagaybulak**	**36.83**	**337**	P	**P**	**23 53 42.7**	**+1.7**
	SNR=29						
AML	**Almayashu**	**36.88**	**336**	P	**P**	**23 53 43.4**	**+2.0**
	SNR=46						
AAK	**Ala-Archa**	**36.98**	**337**	P	**P**	**23 53 44.1**	**+1.8**
	SNR=18						
AAK	**Ala-Archa**	**36.98**	**337**	*e*P	**P**	**23 53 42.6**	**+0.3**
AAK				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.1						
AAK	**Ala-Archa**	**36.98**	**337**	*e*P	**P**	**23 53 42.6**	**+0.3**
	comp=Z,23nm,0.8s,mb5.1						
CHMS	**Chumysh**	**37.20**	**338**	P	**P**	**23 53 45.3**	**+1.2**
	SNR=20						
EKS2	**Erkin-Say**	**37.29**	**336**	P	**P**	**23 53 46.7**	**+1.8**
	SNR=32						
USP	**Ospenovka**	**37.52**	**337**	P	**P**	**23 53 47.9**	**+1.1**
	SNR=42						
SONM	**Songino Array**	**40.00**	**14**	P	**P**	**23 54 07.7**	**+0.4**
	comp=Z,16nm,1.0s,mb4.7,baz=200,slow=6.8,SNR=50						
SONM				PcP	PcP	23 56 13.1	+0.3
	comp=Z,3.1nm,0.7s,baz=198,slow=3.5,SNR=8.7						
ULN	**Ulaanbaatar**	**40.19**	**15**	⇓*i*P	**P**	**23 54 08.1**	**-0.8**
ULN	**Ulaanbaatar**	**40.19**	**15**	*e*P	**P**	**23 54 08.6**	**-0.3**
	comp=Z,14nm,0.8s,mb4.7						
CN2	**Changchun**	**44.37**	**34**	⇓P	**P**	**23 54 43.8**	**+0.5**
CN2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
BVAR	**Borovoye Array**	**47.30**	**341**	P	**P**	**23 55 05.8**	**-0.5**
	comp=Z,10nm,1.0s,mb4.7,baz=141,slow=9.5,SNR=24						
BVAR				PcP	PcP	23 56 37.4	0.0
	comp=Z,1.8nm,0.8s,baz=135,slow=2.0,SNR=3.6						
BRVK	**Borovoye**	**47.37**	**341**	*e*P	**P**	**23 55 05.8**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
BRVK	**Borovoye**	**47.37**	**341**	*e*P	**P**	**23 55 05.8**	**-1.0**
	comp=Z,4.8nm,0.7s,mb4.5						
CHKZ	**Chkalovo**	**47.79**	**342**	*e*P	**P**	**23 55 09.9**	**-0.3**
CHKZ				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
CHKZ	**Chkalovo**	**47.79**	**342**	*e*P	**P**	**23 55 09.9**	**-0.3**
	comp=Z,20nm,0.6s,mb5.3						
NWAO	**Narrogin (SRO)**	**47.89**	**152**	P	**P**	**23 55 11.8**	**+0.5**
	comp=Z,9.2nm,0.5s,mb5.1,baz=329,slow=7.2,SNR=15						
WRA	**Warramunga Arr**	**49.92**	**126**	P	**P**	**23 55 27.1**	**0.0**
	comp=Z,9.2nm,0.5s,mb5.1,baz=304,slow=8.7,SNR=32						
WRA				PcP	PcP	23 56 47.7	+0.4
	comp=Z,2.1nm,0.5s,baz=308,slow=3.2,SNR=9.3						
WRAB	**Tennant Creek**	**49.93**	**126**	*e*P	**P**	**23 55 27.1**	**0.0**
WRAB				*e*		23 56 47.3	
WRAB				pmax	pmax		
	comp=Z,21nm,0.5s,mb5.4						
WRAB	**Tennant Creek**	**49.93**	**126**	*e*P	**P**	**23 55 27.1**	**0.0**
	comp=Z,21nm,0.5s,mb5.4						
WRAB				*e*PcP	PcP	23 56 47.2	-0.1
BOD	**Bodaibo**	**50.99**	**14**	⇑*i*P	**P**	**23 55 33.9**	**-0.8**
ASAR	**Alice Springs**	**51.62**	**130**	P	**P**	**23 55 39.5**	**-0.4**
	comp=Z,5.8nm,0.6s,mb4.7,baz=304,slow=6.9,SNR=38						
ASAR				PcP	PcP	23 56 54.5	+1.0
	comp=Z,4.2nm,0.6s,baz=310,slow=4.0,SNR=12						
GNI	**Garni**	**52.71**	**314**	P	**P**	**23 55 48.7**	**+0.9**
	comp=Z,4.8nm,0.7s,mb4.5,baz=19,slow=5.9,SNR=3.6						
ARU	**Arti**	**54.17**	**337**	⇑*i*P	**P**	**23 55 56.0**	**-2.4**
ARU				*e*		23 57 57.6	
ARU				*e*S	**S**	**00 03 32.4**	**+0.9**
ARU				*e*SS	SS	00 07 08.7	-4.1
ARU				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
ZEI	**Tsey**	**54.30**	**317**	*e*P	**P**	**23 56 00.7**	**+1.1**
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
KIV	**Kislovodsk**	**55.57**	**318**	⇓*i*P	**P**	**23 56 08.3**	**-0.5**
KIV				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
SOC	**Sochi**	**57.44**	**316**	*e*P	**P**	**23 56 17.0**	**-5.2**
SOC				*e*		23 58 24.1	
SOC				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
SOC				pmax	pmax		
	comp=N,10.0nm,1.1s						
SOC				pmax	pmax		
	comp=E,8.0nm,1.1s						
YAK	**Yakutsk**	**58.96**	**19**	⇑*i*P	**P**	**23 56 29.5**	**-3.0**
YAK				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
CTA	**Charters Tower**	**59.90**	**120**	P	**P**	**23 56 40.4**	**+0.8**
	comp=Z,11nm,0.8s,mb5.0,baz=302,slow=7.6,SNR=12						
BRTR	**Keskin Array B**	**60.72**	**310**	P	**P**	**23 56 44.0**	**-0.9**
	comp=Z,4.1nm,0.8s,mb4.6,baz=121,slow=7.7,SNR=19						
STKA	**Stephens Creek**	**61.83**	**134**	P	**P**	**23 56 52.2**	**-0.3**
	comp=Z,5.0nm,0.7s,mb4.7,baz=271,slow=3.1,SNR=7.7						
OBN	**Obninsk**	**63.62**	**328**	⇑*e*P	**P**	**23 57 01.9**	**-2.2**
OBN				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
MA2	**Magadan**	**65.97**	**28**	⇑*i*P	**P**	**23 57 14.6**	**-4.5**
MA2				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
TIXI	**Tiksi**	**66.03**	**12**	⇑*i*P	**P**	**23 57 18.2**	**-1.1**
TIXI				pmax	pmax		
	comp=Z,30nm,0.5s,mb5.6						
AKASG	**Malin Array Be**	**66.40**	**321**	P	**P**	**23 57 20.5**	**-1.5**
	comp=Z,3.4nm,0.7s,mb4.5,baz=88,slow=4.9,SNR=14						
IDI	**Anoyia**	**66.92**	**304**	P	**P**	**23 57 25.8**	**+0.3**
	comp=Z,9.1nm,1.0s,mb4.8,baz=158,slow=23,SNR=3.1						
VSU	**Vasula**	**69.83**	**329**	*e*P	**P**	**23 57 41.7**	**-1.5**
KOLS	**Kolonicke sedl**	**70.45**	**319**	*e*P	**P**	**23 57 45.5**	**-1.7**
SUW	**Suwalki**	**70.75**	**324**	*e*P	**P**	**23 57 48.1**	**-0.8**
FINES	**FINESS Array B**	**70.97**	**332**	*i* P	**P**	**23 57 49.4**	**-0.7**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.8s						
FINES	**FINESS Array B**	**70.97**	**332**	P	**P**	**23 57 49.4**	**-0.7**
	comp=Z,2.8nm,0.8s,mb4.3,baz=90,slow=5.7,SNR=8.9						
KAF	**Kangasniemi**	**71.05**	**333**	*e*p	**P**	**23 57 48.4**	**-2.2**
NIE	**Niedzica**	**71.79**	**319**	*e*P	**P**	**23 57 56.0**	**+0.8**
OJC	**Ojcow**	**72.22**	**320**	*e*P	**P**	**23 57 57.8**	**+0.1**
VYHS	**Vyhne**	**72.66**	**318**	*e*P	**P**	**23 57 59.8**	**-0.6**
ARCES	**ARCESS Array B**	**73.57**	**340**	P	**P**	**23 58 05.4**	**0.0**
	comp=Z,5.6nm,0.9s,mb4.5,baz=108,slow=6.5,SNR=5.6						
KSP	**Ksiaz**	**74.51**	**320**	*e*P	**P**	**23 58 11.8**	**+0.7**
BILL	**Bilibino**	**75.13**	**22**	⇑*i*P	**P**	**23 58 12.4**	**-2.0**
PRU	**Pruhonice**	**75.58**	**319**	*e*P	**P**	**23 58 18.3**	**+1.0**
GERES	**GERESS Array B**	**76.08**	**318**	P	**P**	**23 58 20.3**	**+0.1**
	comp=Z,3.3nm,0.8s,mb4.3,baz=76,slow=5.5,SNR=17						
KHC	**Kasperske Hory**	**76.17**	**318**	*e*P	**P**	**23 58 19.4**	**-1.3**
KHC	**Kasperske Hory**	**76.17**	**318**	*e*P	**P**	**23 58 21.0**	**+0.3**
NB2	**NORSAR Subarra**	**77.98**	**330**	P	**P**	**23 58 29.6**	**-1.0**
	comp=Z,1.1nm,0.6s,mb4.0,baz=89,slow=5.8						
NB2	**NORSAR Subarra**	**77.98**	**330**	P	**P**	**23 58 29.6**	**-1.0**
NB2				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.9						
NOA	**NORSAR Array B**	**77.98**	**330**	P	**P**	**23 58 30.1**	**-0.5**
	comp=Z,1.4nm,0.7s,mb4.0,baz=92,slow=5.5,SNR=5.2						
LPG	**La Plagne**	**80.89**	**315**	*e*P	**P**	**23 58 47.4**	**+0.8**
	comp=Z,27nm,1.1s,mb4.8						
LPG	**La Plagne**	**80.89**	**315**	*e*P	**P**	**23 58 47.4**	**+0.8**
LPG				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
IMA	**Indian Mountai**	**90.67**	**22**	*e*P	**P**	**23 59 35.5**	**+1.1**
IMA				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.8						
IMA	**Indian Mountai**	**90.67**	**22**	*e*P	**P**	**23 59 35.5**	**+1.1**
	comp=Z,51nm,0.9s,mb5.8						
ILAR	**Eielson Array**	**93.79**	**22**	P	**P**	**23 59 48.7**	**0.0**

	comp=Z,3.2nm,0.6s,mb4.9,baz=301,slow=4.1,SNR=33						
VNDA	**Vanda**	**94.54**	**168**	P	**P**	**23 59 54.6**	**+2.7**
	comp=Z,0.9nm,0.6s,mb4.4,baz=274,slow=7.9,SNR=5.6						
PDAR	**Pinedale Array**	**124.18**	**20**	PKP	PKPdf	00 05 31.9	+2.0
	comp=Z,1.4nm,0.8s,baz=76,slow=1.3,SNR=9.8						
NVAR	**Mina Array Bea**	**124.19**	**30**	PKP	PKPdf	00 05 33.2	+3.3
	comp=Z,2.2nm,1.0s,baz=35,slow=0.8,SNR=6.9						
TXAR	**Lajitas Array**	**138.31**	**22**	PKhKP		00 05 51.0	
	comp=Z,0.2nm,0.3s,baz=177,slow=5.0,SNR=3.6						
TXAR				PKP	PKPdf	00 05 58.9	+2.0
	comp=Z,0.5nm,0.6s,baz=275,slow=0.9,SNR=4.5						
LPAZ	**La Paz**	**160.45**	**247**	PKP	PKPdf	00 06 35.2	+4.1
	comp=Z,0.8nm,0.9s,baz=142,slow=5.3,SNR=2.5						
LPAZ				PKPab	PKPab	00 07 16.4	+1.8
	comp=Z,0.8nm,0.7s,baz=207,slow=4.1,SNR=4.0						

IDC 28 23:59:28.0±6.8**, 14.74N×95.34E, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.4**/18**, mbtmp3.5**/3**, ML3.7**/1**, MS2.9**/1**, Ms1 3.1**/1**, ms1mx2.9**/25**, Error ellipse: s-maj=147.5km s-min=43.8km az=101.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**5.06**	**43**	Pn	Pn	00 00 45.0	-2.0
	0.7nm,0.3s,baz=228,slow=14,SNR=5.4						
CMAR				LR	LR	00 02 50.8	
	comp=Z,126nm,18.9s,baz=40,slow=40						
WRA	**Warramunga Arr**	**51.56**	**131**	P	P	00 08 37.2	-1.2
	0.6nm,0.7s,baz=310,slow=7.7,SNR=6.5						
ASAR	**Alice Springs**	**53.65**	**135**	P	P	00 08 50.6	-3.2
	0.4nm,0.7s,baz=304,slow=6.6,SNR=5.1						

IDC 29 00:01:04.4±1.9**, 9.30N×92.94E, mb3.7**/5**, mb1 3.8**/5**, mb1mx3.6**/17**, mbtmp3.7**/5**, Error ellipse: s-maj=84.9km s-min=23.4km az=58.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**40.06**	**14**	P	P	00 08 41.0	-2.0
	0.9nm,0.8s,baz=197,slow=10.0,SNR=5.7						
BVAR	**Borovoye Array**	**47.27**	**342**	P	P	00 09 40.1	-1.1
	0.4nm,0.5s,baz=117,slow=6.4,SNR=3.6						
WRA	**Warramunga Arr**	**50.05**	**126**	P	P	00 10 01.4	-1.8
	0.8nm,0.5s,baz=303,slow=8.8,SNR=5.3						
ASAR	**Alice Springs**	**51.73**	**130**	P	P	00 10 13.8	-2.1
	0.5nm,0.5s,baz=308,slow=7.3,SNR=5.9						
FINES	**FINESS Array B**	**70.91**	**332**	P	P	00 12 22.6	-2.6
	1.7nm,1.0s,slow=2.8,SNR=3.4						

IDC 29 00:06:34.1±5.0**, 6.75N×91.71E, mb3.5**/3**, mb1 3.8**/4**, mb1mx3.5**/17**, mbtmp3.5**/4**, ML3.6**/1**, Error ellipse: s-maj=145.3km s-min=30.3km az=76.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.60**	**31**	Pn	P	00 09 49.0	-2.1
	0.1nm,0.3s,baz=222,slow=13,SNR=5.2						
SONM	**Songino Array**	**42.81**	**15**	P	P	00 14 33.7	-1.7
	0.2nm,0.5s,baz=214,slow=5.2,SNR=3.4						
WRA	**Warramunga Arr**	**49.62**	**123**	P	P	00 15 27.3	-2.4
	0.4nm,0.8s,baz=303,slow=9.0,SNR=4.6						
ASAR	**Alice Springs**	**51.10**	**128**	P	P	00 15 39.1	-1.7
	0.3nm,0.8s,baz=315,slow=8.1,SNR=4.7						

IDC ***29*** *00:10:29.4±1.4, 13.64N×93.64E, mb3.7/4, mb1 3.9/5, mb1mx3.7/17, mbtmp3.8/5, ML4.2/1, Error ellipse: s-maj=34.4km s-min=29.8km az=51.0*

ISC 29 00:10:29.2±1.4**, 13.9N**±0.1×**93.19E**±0.08**, h33^{km}, n11,** σ**0^{s}84**/12**, mb3.8**/4**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.16**	**50**	Pn	**Pn**	**00 12 15.3**	**+0.9**
	1.1nm,0.3s,baz=242,slow=13,SNR=5.6						
CMAR				Sn	**Sn**	**00 13 34.6**	**-0.8**
	0.5nm,0.3s,baz=238,slow=29,SNR=4.8						
PKI	**Pulchoki**	**15.44**	**333**	*e*P	**P**	**00 14 06.0**	**-0.2**
	5.2nm,0.3s						
GUN	**Gumba**	**15.54**	**335**	*e*P	**P**	**00 14 07.5**	**0.0**
	3.2nm,0.4s						
DMN	**Daman**	**15.61**	**332**	*e*P	**P**	**00 14 08.2**	**-0.2**
	3.1nm,0.3s						
KKN	**Kakani**	**15.69**	**333**	*e*P	**P**	**00 14 09.5**	**+0.1**
	3.3nm,0.4s						
GKN	**Gorkha**	**16.16**	**332**	*e*P	**P**	**00 14 15.1**	**-0.3**
	5.4nm,0.3s						
KOLN	**Koldanda**	**16.46**	**329**	*e*P	**P**	**00 14 19.0**	**-0.3**
	2.4nm,0.2s						
SONM	**Songino Array**	**35.59**	**15**	P	**P**	**00 17 28.4**	**+2.9**
	1.7nm,1.2s,mb3.9,baz=202,slow=9.7,SNR=4.0						
ASAR	**Alice Springs**	**54.56**	**133**	P	**P**	**00 19 56.1**	**-0.7**
	0.4nm,0.5s,mb3.7,baz=315,slow=7.3,SNR=5.8						
FINES	**FINESS Array B**	**67.02**	**331**	P	**P**	**00 21 27.1**	**+6.4**
	3.3nm,1.1s,mb4.3,baz=117,slow=8.5,SNR=4.4						
GERES	**GERESS Array B**	**72.79**	**317**	P	**P**	**00 22 03.0**	**+6.8**
	0.3nm,0.5s,mb3.5,baz=90,slow=5.9,SNR=3.2						

NEIC ***29*** *00:14:23.2±0.7, 20.22S×177.89W, h400^{km}, mb4.4/10, Error ellipse: s-maj=20.4km s-min=20.0km az=194.0*

IDC ***29*** *00:14:37.7±2.7, 20.29S×178.27W, h558^{km}±30^{km}, mb3.5/11, mb1 3.8/11, mb1mx3.7/15, mbtmp4.5/11, Error ellipse: s-maj=20.6km s-min=14.2km az=161.0*

ISC 29 00:14:33.1±2.8**, 20.4S**±0.1×**178.3W**±0.1**, h516**^{km}±32^{km}**, n46,** σ**1^{s}03**/26**, mb4.1**/18**, 2D, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**18.29**	**192**	P	**P**	**00 18 14.1**	**-1.2**
	2.7nm,0.3s,baz=275,slow=3.3,SNR=8.7						
CTA	**Charters Tower**	**33.26**	**264**	P	**P**	**00 20 29.8**	**+1.1**
	11nm,0.4s,mb4.7,baz=91,slow=10,SNR=24						
CTAO	**Charters Tower**	**33.26**	**264**	*e*P	**P**	**00 20 29.5**	**+0.9**
	24nm,0.9s,mb4.7						
PMG	**Port Moresby**	**35.07**	**283**	P	**P**	**00 20 44.6**	**+0.8**
	19nm,0.9s,mb4.6,baz=111,slow=7.1,SNR=5.5						
PMG	**Port Moresby**	**35.07**	**283**	*e*P	**P**	**00 20 45.0**	**+1.2**
	27nm,1.0s,mb4.7						
STKA	**Stephens Creek**	**37.63**	**244**	P	**P**	**00 21 05.4**	**+0.7**
	6.3nm,1.0s,mb4.1,baz=78,slow=8.9,SNR=10						
STKA	**Stephens Creek**	**37.63**	**244**	*e*P	**P**	**00 21 05.5**	**+0.8**
ASAR	**Alice Springs**	**44.31**	**257**	P	**P**	**00 21 58.6**	**+0.3**
	14nm,0.5s,mb4.8,baz=88,slow=8.5,SNR=148						
ASAR				PcP	PcP	00 23 30.6	-1.2
	2.0nm,0.9s,baz=94,slow=4.1,SNR=6.1						
ASAR				S	**S**	**00 27 53.1**	**-1.8**
	1.3nm,0.9s,baz=98,slow=15,SNR=3.8						
WRAB	**Tennant Creek**	**44.37**	**262**	*e*P	**P**	**00 21 58.2**	**-0.6**
	9.9nm,0.5s,mb4.6						
WRA	**Warramunga Arr**	**44.37**	**262**	P	**P**	**00 21 58.5**	**-0.4**
	6.6nm,0.3s,mb4.6,baz=97,slow=7.5,SNR=87						
MBWA	**Marble Bar**	**57.64**	**257**	*e*P	**P**	**00 23 34.8**	**-0.9**
	11nm,0.9s,mb4.1						
VNDA	**Vanda**	**58.03**	**185**	P	**P**	**00 23 37.9**	**+0.2**
	1.1nm,0.5s,mb3.4,baz=344,slow=7.8,SNR=10						
VNDA	**Vanda**	**58.03**	**185**	*e*P	**P**	**00 23 37.3**	**-0.3**
	1.9nm,0.8s,mb3.4						
NWAO	**Narrogin (SRO)**	**58.21**	**243**	*e*P	**P**	**00 23 38.4**	**-1.1**
	8.4nm,1.0s,mb3.9						
QSPA	**South Pole Qui**	**69.71**	**180**	*e*P	**P**	**00 24 50.8**	**-0.9**
	8.0nm,0.7s,mb4.4						
NVAR	**Mina Array Bea**	**81.09**	**43**	P	**P**	**00 25 55.6**	**+0.4**
	1.2nm,0.9s,mb3.3,baz=224,slow=9.3,SNR=4.3						
ENH	**Enshi**	**85.75**	**304**	*e*P	**P**	**00 26 19.4**	**+0.9**
	3.6nm,0.6s,mb4.2						
MCK	**McKinley**	**86.89**	**13**	*e*P	**P**	**00 26 23.1**	**0.0**
	3.9nm,1.0s,mb4.0						
TXAR	**Lajitas Array**	**87.19**	**57**	P	**P**	**00 26 25.6**	**+0.3**
	0.5nm,0.5s,mb3.4,baz=214,slow=7.4,SNR=9.8						
COLA	**College**	**88.12**	**12**	*e*P	**P**	**00 26 27.0**	**-1.8**
	5.0nm,0.7s,mb4.3						
ILAR	**Eielson Array**	**88.23**	**13**	P	**P**	**00 26 28.1**	**-1.3**
	7.1nm,1.3s,mb4.2,baz=236,slow=5.3,SNR=7.7						
VNA3	**Neumayer Olymp**	**88.30**	**176**	⇓*i*	**P**	**00 26 31.3**	**+1.7**
VNA2	**Neumayer--Watz**	**88.74**	**177**	⇓*i*	**P**	**00 26 33.6**	**+1.9**
PDAR	**Pinedale Array**	**89.03**	**43**	P	**P**	**00 26 33.4**	**-0.3**
	0.8nm,0.8s,mb3.6,baz=203,slow=3.9,SNR=4.3						
CMAR	**Chiang Mai Arr**	**89.83**	**290**	P	**P**	**00 26 39.3**	**+1.3**
	2.3nm,0.6s,mb4.2,baz=124,slow=3.2,SNR=15						
BVAR	**Borovoye Array**	**118.81**	**320**	PKP	PKPdf	00 32 21.3	-0.8
	0.6nm,0.3s,baz=153,slow=3.3,SNR=6.5						
ARU	**Arti**	**124.94**	**325**	*e*PKPdf	PKPdf	00 32 32.8	-1.0
FINES	**FINESS Array B**	**135.56**	**344**	PKP	PKPdf	00 32 52.2	-1.6
	6.9nm,1.2s,baz=45,slow=2.7,SNR=4.4						
HFS	**Hagfors**	**139.36**	**351**	PKhKP		00 32 53.3	
	2.8nm,0.9s,baz=63,slow=6.6,SNR=7.6						
HFS				PKP	PKPdf	00 32 59.7	-1.0
	2.0nm,0.8s,baz=180,slow=40,SNR=2.6						
AKASG	**Malin Array Be**	**142.77**	**331**	PKP	PKPdf	00 33 04.5	-2.3
	3.4nm,0.5s,baz=41,slow=4.4,SNR=44						
MALT	**Malatya**	**143.65**	**308**	*e*PKPdf	PKPdf	00 33 09.1	+0.3
KWP	**Kalwaria**	**146.35**	**335**	*e*PKPdf	PKPdf	00 33 16.2	+3.1
ASF	**Jabal al Asfar**	**146.49**	**298**	PKPbc	PKPbc	00 33 17.5	+1.7
	4.8nm,0.9s,baz=264,slow=3.0,SNR=8.4						
BRTR	**Keskin Array B**	**146.56**	**312**	PKPbc	PKPbc	00 33 16.7	+1.0
	2.7nm,0.9s,baz=135,slow=3.5,SNR=12						
KOLS	**Kolonicke sedl**	**147.08**	**335**	*e*PKP	PKPdf	00 33 22.6	+8.4
BRG	**Berggiesshubel**	**148.06**	**345**	*i* P	PKPdf	00 33 20.5	+4.8
BRG				*e*		00 33 25.4	
VYHS	**Vyhne**	**148.73**	**338**	*e*P	PKPdf	00 33 22.8	+5.9
VYHS				*e*		00 33 29.2	
VYHS	**Vyhne**	**148.73**	**338**	*e*PKP	PKPab	00 33 29.2	-0.4
VYHS	**Vyhne**	**148.73**	**338**	*e*	PKPdf	00 33 22.8	+5.9
VRAC	**Vranov**	**148.76**	**341**	PKPbc	PKPdf	00 33 22.7	+5.8
	1.7nm,0.9s,baz=63,slow=7.3,SNR=3.1						
SMOL	**Smolenice**	**149.20**	**339**	*e*P	PKPdf	00 33 23.2	+5.5
SMOL				*e*		00 33 31.3	
SMOL	**Smolenice**	**149.20**	**339**	*e*	PKPdf	00 33 23.2	+5.5
SMOL	**Smolenice**	**149.20**	**339**	*e*PKP	PKPab	00 33 31.3	-0.2
KHC	**Kasperske Hory**	**149.76**	**344**	*e*PKP	PKPdf	00 33 25.0	+6.4
KHC				*e*x	x	00 33 33.0	
GERES	**GERESS Array B**	**150.00**	**344**	PKPbc	PKPdf	00 33 24.6	+5.6
	1.6nm,0.8s,baz=27,slow=3.0,SNR=6.4						
GERES				PKPab	PKPab	00 33 33.0	-1.8
	0.8nm,0.8s,baz=45,slow=5.7,SNR=3.5						
DBIC	**Dimbokro**	**164.97**	**154**	PKPab	PKPab	00 34 38.4	-1.5
	1.1nm,0.6s,baz=248,slow=6.2,SNR=4.8						

IDC 29 00:18:06.6±5.9**, 19.44S×175.92W, mb4.3**/3**, mb1 4.5**/3**, mb1mx3.9**/15**, mbtmp4.3**/3**, Error ellipse: s-maj=254.4km s-min=97.0km az=157.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**35.55**	**262**	P	P	00 25 07.3	-0.4
	1.9nm,0.4s,baz=84,slow=9.1,SNR=6.0						
ASAR	**Alice Springs**	**46.67**	**255**	P	P	00 26 36.6	-2.3
	2.7nm,0.5s,baz=90,slow=7.7,SNR=24						
WRA	**Warramunga Arr**	**46.69**	**261**	P	P	00 26 36.7	-2.5
	1.3nm,0.3s,baz=97,slow=7.5,SNR=13						
AKASG	**Malin Array Be**	**143.00**	**333**	PKP	PKPdf	00 37 42.1	-1.8
	1.2nm,0.5s,baz=41,slow=4.3,SNR=9.5						

IDC ***29*** *00:25:03.3±2.6, 12.92N×93.22E, h42^{km}±20^{km}, mb3.8/11, mb1 4.0/12, mb1mx3.8/19, mbtmp4.0/12, ML4.9/1, MS3.3/1, Ms1 3.5/1, ms1mx2.5/22, Error ellipse: s-maj=24.7km s-min=17.3km az=47.0*

NEIC ***29*** *00:25:06.1±1.3, 13.53N×93.09E, h30^{km}, mb4.1/5, Error ellipse: s-maj=24.8km s-min=20.8km az=58.0*

BJI ***29*** *00:25:06.0, 13.50N×93.10E, h30^{km}, mb4.6*

ISC 29 00:25:01.4±2.3**, 12.9N**±0.1×**93.24E**±0.07**, h41**^{km}±18^{km}**, n31,** σ**0^{s}79**/31**, mb4.1**/18**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**7.76**	**44**	*e*P	**P**	**00 26 54.3**	**-0.3**
	22nm,0.4s						
CMAR	**Chiang Mai Arr**	**7.76**	**44**	P	**P**	**00 26 54.3**	**-0.3**
	4.7nm,0.3s,baz=234,slow=15,SNR=50						
CMAR				S	**S**	**00 28 22.1**	**-0.1**
	1.2nm,0.3s,baz=236,slow=28,SNR=7.1						
CMAR				LR	LR	00 30 14.4	
	comp=Z,197nm,18.5s,baz=230,slow=40						
KMI	**Kunming**	**15.08**	**35**	P	**P**	**00 28 35.8**	**+2.4**
KMI				AMB	AMB		
	comp=Z,10.0nm,1.1s						
PKI	**Pulchoki**	**16.30**	**334**	*e*P	**P**	**00 28 48.7**	**-0.3**
	comp=Z,21nm,0.6s						
GUN	**Gumba**	**16.41**	**336**	*e*P	**P**	**00 28 50.8**	**+0.4**
	comp=Z,22nm,0.6s						
DMN	**Daman**	**16.47**	**334**	*e*P	**P**	**00 28 51.3**	**+0.2**
KKN	**Kakani**	**16.55**	**334**	*e*P	**P**	**00 28 51.8**	**-0.3**
	comp=Z,11nm,0.5s						
LSA	**Lhasa**	**16.80**	**354**	*e*P	**P**	**00 28 52.4**	**-2.8**
	comp=Z,3.5nm,0.3s						
GKN	**Gorkha**	**17.01**	**333**	*e*P	**P**	**00 28 58.8**	**+0.9**
	comp=Z,8.6nm,0.2s						
KOLN	**Koldanda**	**17.30**	**330**	*e*P	**P**	**00 29 02.1**	**+0.6**
	comp=Z,39nm,0.8s						
ENH	**Enshi**	**22.88**	**38**	*e*P	**P**	**00 30 01.4**	**-1.1**
	comp=Z,46nm,0.9s,mb4.9						
LZH	**Lanzhou**	**24.95**	**21**	*e*P	**P**	**00 30 22.5**	**-0.1**
LZH				AMB	AMB		
	comp=Z,31nm,1.2s,mb4.7						
GTA	**Gaotai**	**27.01**	**11**	*e*P	**P**	**00 30 42.0**	**+0.4**
GTA				AMB	AMB		
	comp=Z,13nm,1.4s,mb4.3						
SONM	**Songino Array**	**36.49**	**15**	P	**P**	**00 32 04.5**	**0.0**
	comp=Z,2.5nm,1.0s,mb4.1,baz=207,slow=7.6,SNR=10						
SONM				PcP	PcP	00 34 28.8	+0.7
	comp=Z,0.3nm,0.6s,baz=180,slow=4.9,SNR=3.5						
ULN	**Ulaanbaatar**	**36.69**	**16**	*e*P	**P**	**00 32 06.1**	**-0.1**
	comp=Z,1.5nm,0.9s,mb3.8						
CN2	**Changchun**	**41.35**	**36**	⇑P	**P**	**00 32 44.8**	**-0.2**
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb4.9						
CHKZ	**Chkalovo**	**44.43**	**341**	*e*P	**P**	**00 33 09.8**	**-0.1**
	comp=Z,2.4nm,0.6s,mb4.1						
ARU	**Arti**	**50.93**	**336**	P	**P**	**00 33 59.7**	**-1.0**
	comp=Z,1.3nm,0.6s,mb4.0						
WRA	**Warramunga Arr**	**51.99**	**128**	P	**P**	**00 34 09.0**	**-0.1**
	comp=Z,1.1nm,0.6s,mb4.0,baz=309,slow=7.9,SNR=5.3						
WRA				PcP	PcP	00 35 18.7	-2.5
	comp=Z,0.5nm,0.4s,baz=326,slow=3.1,SNR=5.0						
ASAR	**Alice Springs**	**53.89**	**132**	P	**P**	**00 34 23.1**	**-0.2**
	comp=Z,0.5nm,0.4s,mb3.8,baz=307,slow=6.7,SNR=12						
BRTR	**Keskin Array B**	**58.53**	**309**	P	**P**	**00 34 55.6**	**-0.6**
	comp=Z,0.8nm,0.8s,mb3.8,baz=135,slow=7.0,SNR=2.5						
STKA	**Stephens Creek**	**64.25**	**135**	P	**P**	**00 35 42.6**	**+7.7**
FINES	**FINESS Array B**	**67.86**	**331**	P	**P**	**00 35 56.1**	**-1.3**
	comp=Z,1.4nm,0.7s,mb4.1,baz=116,slow=9.4,SNR=9.2						
ARCES	**ARCESS Array B**	**70.24**	**340**	P	**P**	**00 36 12.0**	**+0.1**
	comp=Z,4.7nm,0.8s,mb4.4,baz=97,slow=5.9,SNR=8.9						
GERES	**GERESS Array B**	**73.51**	**317**	P	**P**	**00 36 32.4**	**+0.7**
	comp=Z,0.3nm,0.6s,mb3.4,baz=286,slow=25,SNR=2.6						
HFS	**Hagfors**	**73.68**	**329**	P	**P**	**00 36 32.8**	**+0.3**
	comp=Z,0.9nm,0.5s,mb4.0,baz=124,slow=5.3,SNR=5.6						
NOA	**NORSAR Array B**	**74.93**	**330**	P	**P**	**00 36 39.9**	**+0.2**
	comp=Z,0.9nm,0.8s,mb3.8,baz=358,slow=13,SNR=2.7						
IMA	**Indian Mountai**	**87.30**	**22**	*e*P	**P**	**00 37 46.4**	**+1.7**
ILAR	**Eielson Array**	**90.41**	**22**	P	**P**	**00 37 59.1**	**-0.4**
	comp=Z,0.6nm,0.6s,mb4.1,baz=292,slow=4.1,SNR=13						
INK	**Inuvik**	**92.40**	**16**	P	**P**	**00 38 09.3**	**+0.7**
	comp=Z,1.0nm,0.4s,mb4.5,baz=345,slow=5.4,SNR=6.6						
TXAR	**Lajitas Array**	**134.92**	**21**	PKP	PKPdf	00 44 19.9	+3.0
	comp=Z,0.4nm,0.7s,baz=305,slow=0.4,SNR=7.1						
TXAR				SKPbc		00 47 45.0	
	comp=Z,1.3nm,1.0s,baz=340,slow=1.1,SNR=8.5						

IDC ***29*** *00:32:20.0±0.6, 8.71N×93.38E, mb4.1/19, mb1 4.2/20, mb1mx4.2/24, mbtmp4.1/20, Error ellipse: s-maj=34.1km s-min=12.7km az=49.0*

NEIC ***29*** *00:32:25.2±0.7, 8.94N×93.63E, h30^{km}, mb4.5/9, Error ellipse: s-maj=27.7km s-min=14.0km az=71.0*

ISC 29 00:32:23.6±0.4**, 8.79N**±0.07×**93.59E**±0.09**, h33^{km}, n46,** σ**1^{s}03**/45**, mb4.3**/26**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.93**	**28**	Pn	**P**	**00 35 01.6**	**+0.8**
	baz=212,slow=15,SNR=3.6						
HYB	**Hyderabad**	**16.96**	**302**	*e*P	**P**	**00 36 25.0**	**+4.9**
HYB	**Hyderabad**	**16.96**	**302**	*i* P	**P**	**00 36 25.0**	**+4.9**
PKI	**Pulchoki**	**20.22**	**339**	*e*P	**P**	**00 36 58.8**	**+0.2**
	46nm,1.1s						
DMN	**Daman**	**20.37**	**338**	*e*P	**P**	**00 37 00.8**	**+0.7**
GUN	**Gumba**	**20.37**	**340**	*e*P	**P**	**00 37 00.4**	**+0.3**
	48nm,0.7s						
KKN	**Kakani**	**20.47**	**339**	*e*P	**P**	**00 37 01.2**	**0.0**
	15nm,0.8s						
GKN	**Gorkha**	**20.90**	**337**	*e*P	**P**	**00 37 05.9**	**+0.3**
	53nm,0.8s						
LSA	**Lhasa**	**20.93**	**354**	*e*P	**P**	**00 37 03.8**	**-2.2**
	4.7nm,0.4s						
KOLN	**Koldanda**	**21.11**	**335**	*e*P	**P**	**00 37 08.3**	**+0.5**
	38nm,0.8s,mb4.8						
NDI	**New Delhi**	**25.08**	**324**	*e*P	**P**	**00 37 47.0**	**+0.2**
DDI	**Dehra Dun**	**25.89**	**328**	*e*	**P**	**00 37 56.3**	**+1.9**
AAK	**Ala-Archa**	**37.66**	**337**	*e*P	**P**	**00 39 37.4**	**0.0**
	9.0nm,1.3s,mb4.3						
SONM	**Songino Array**	**40.40**	**13**	P	**P**	**00 40 01.8**	**+1.6**
	0.9nm,0.9s,mb3.5,baz=196,slow=8.6,SNR=3.7						
SONM				PcP	PcP	00 42 02.9	-0.6
	0.3nm,0.6s,baz=198,slow=4.6,SNR=2.7						
NWAO	**Narrogin (SRO)**	**47.20**	**153**	P	**P**	**00 40 56.3**	**+1.0**
	9.8nm,0.6s,mb4.9,baz=323,slow=7.5,SNR=11						
NWAO	**Narrogin (SRO)**	**47.20**	**153**	*e*P	**P**	**00 40 55.9**	**+0.6**
	8.6nm,0.7s,mb4.8						
BVAR	**Borovoye Array**	**47.95**	**341**	P	**P**	**00 40 59.9**	**-1.0**
	0.5nm,0.4s,mb3.9,baz=142,slow=7.5,SNR=5.1						
MIB	**Mutribah**	**48.00**	**302**	*e*P	**P**	**00 41 02.7**	**+1.1**
BRVK	**Borovoye**	**48.02**	**341**	*e*P	**P**	**00 40 59.5**	**-2.0**
	2.1nm,0.7s,mb4.3						
RST	**Umm Al-Ruwaisa**	**48.21**	**302**	*e*P	**P**	**00 41 04.7**	**+1.5**
CHKZ	**Chkalovo**	**48.44**	**342**	*e*P	**P**	**00 41 04.0**	**-0.7**
	3.0nm,0.5s,mb4.6						
WRA	**Warramunga Arr**	**49.23**	**126**	P	**P**	**00 41 10.8**	**-0.5**
	0.9nm,0.4s,mb4.1,baz=305,slow=8.7,SNR=17						
ASAR	**Alice Springs**	**50.91**	**130**	P	**P**	**00 41 23.4**	**-0.7**
	1.9nm,0.7s,mb4.1,baz=302,slow=7.2,SNR=15						
ASAR				PcP	PcP	00 42 40.7	+0.3
	0.7nm,0.5s,baz=306,slow=3.6,SNR=6.1						
ARU	**Arti**	**54.84**	**337**	P	**P**	**00 41 51.9**	**-1.0**
KIV	**Kislovodsk**	**56.28**	**318**	*e*P	**P**	**00 42 02.8**	**-0.6**
	7.5nm,0.9s,mb4.7						
PMG	**Port Moresby**	**56.32**	**107**	P	**P**	**00 42 04.8**	**+0.8**
	5.2nm,0.8s,mb4.6,baz=313,slow=8.1,SNR=4.1						
CTA	**Charters Tower**	**59.23**	**120**	P	**P**	**00 42 25.2**	**+0.8**
	20nm,1.4s,mb5.0,baz=278,slow=7.1,SNR=3.6						
CTAO	**Charters Tower**	**59.23**	**120**	*e*P	**P**	**00 42 24.9**	**+0.5**
STKA	**Stephens Creek**	**61.12**	**134**	P	**P**	**00 42 36.1**	**-1.2**
	2.4nm,1.0s,mb4.3,baz=348,slow=5.5,SNR=3.0						
BRTR	**Keskin Array B**	**61.43**	**311**	P	**P**	**00 42 37.6**	**-1.5**
	1.4nm,0.7s,mb4.2,baz=127,slow=6.5,SNR=8.0						
AKASG	**Malin Array Be**	**67.11**	**322**	P	**P**	**00 43 13.8**	**-2.2**
	0.3nm,0.4s,mb3.7,baz=86,slow=5.2,SNR=5.0						
KWP	**Kalwaria**	**70.99**	**319**	*e*P	**P**	**00 43 39.4**	**-0.5**
FINES	**FINESS Array B**	**71.66**	**332**	P	**P**	**00 43 43.1**	**-0.5**
	1.7nm,0.8s,mb4.0,baz=101,slow=9.7,SNR=5.3						
LBTB	**Lobatse**	**74.21**	**241**	*e*P	**P**	**00 43 58.2**	**-1.2**
	5.8nm,1.0s,mb4.5						
ARCES	**ARCESS Array B**	**74.23**	**340**	P	**P**	**00 43 58.9**	**+0.3**
	5.6nm,0.9s,mb4.5,baz=90,slow=6.1,SNR=8.1						
BOSA	**Boshof**	**75.61**	**238**	*e*P	**P**	**00 44 10.5**	**+3.0**
BRG	**Berggiesshubel**	**76.71**	**320**	*e*P	**P**	**00 44 13.9**	**+0.7**
	14nm,1.8s,mb4.6						
GERES	**GERESS Array B**	**76.79**	**318**	P	**P**	**00 44 14.4**	**+0.7**
	1.1nm,0.6s,mb4.0,baz=80,slow=5.7,SNR=6.9						
HFS	**Hagfors**	**77.40**	**330**	P	**P**	**00 44 16.5**	**-0.4**
	1.4nm,0.4s,mb4.2,baz=117,slow=3.3,SNR=16						
NB2	**NORSAR Subarra**	**78.67**	**331**	P	**P**	**00 44 20.6**	**-3.3**
	2.2nm,0.9s,mb4.1,baz=91,slow=5.8						
NOA	**NORSAR Array B**	**78.67**	**331**	P	**P**	**00 44 23.7**	**-0.1**
	0.9nm,0.8s,mb3.7,baz=108,slow=5.3,SNR=3.6						
DAVOX	**Davos**	**79.36**	**316**	P	**P**	**00 44 27.8**	**-0.1**
	2.8nm,0.8s,mb4.2,baz=143,slow=5.1,SNR=6.7						
EKA	**Eskdalemuir Ar**	**86.67**	**325**	P	**P**	**00 45 05.2**	**+0.2**
	1.8nm,0.7s,mb4.4,baz=99,slow=5.5,SNR=6.4						
ESDC	**Sonseca Array**	**90.22**	**310**	P	**P**	**00 45 23.5**	**+1.1**
	0.4nm,0.5s,mb4.0,baz=60,slow=4.0,SNR=4.4						
ILAR	**Eielson Array**	**94.11**	**22**	P	**P**	**00 45 39.9**	**+0.2**
	0.5nm,0.8s,mb4.0,baz=296,slow=4.7,SNR=6.0						
PDAR	**Pinedale Array**	**124.51**	**21**	PKP	PKPdf	00 51 21.8	+1.8
	0.6nm,0.8s,baz=45,slow=2.1,SNR=3.9						

WEL 29 00:35:09.3±1.4**, 46.14S×165.11E, h33^{km}, ML4.5**/5**, Error ellipse: s-maj=16.0km s-min=13.8km az=90.0, Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DCZ	**Deep Cove**	**1.58**	**66**	PN	Pn	00 35 33.3	-2.1
DCZ				SN	Sn	00 35 53.5	-1.3
WHZ	**Wether Hill Ro**	**1.99**	**84**	PN	Pn	00 35 39.9	-1.5
WHZ				SN	Sn	00 36 00.8	-4.6
WHZ				SN	Sn	00 36 01.3	-4.1
MLZ	**Mavora Lakes**	**2.29**	**71**	PN	Pn	00 35 44.6	-1.0
MLZ				SN	Sn	00 36 11.0	-1.9
WKZ	**Wanaka**	**3.05**	**66**	*e*PN	Pn	00 35 55.0	-1.4
EAZ	**Earnscleugh**	**3.08**	**74**	PN	Pn	00 35 55.9	-0.9
TUZ	**Tuapeka**	**3.15**	**88**	PN	Pn	00 35 56.3	-1.6
TUZ				SN	Sn	00 36 30.4	-4.5
LBZ	**Lake Benmore**	**3.99**	**66**	PN	Pn	00 36 07.7	-2.1
ODZ	**Otahua Downs**	**4.04**	**76**	PN	Pn	00 36 07.2	-3.3
LTZ	**Lake Taylor**	**6.12**	**59**	PN	Pn	00 36 38.8	-1.2
THZ	**Tophouse**	**7.12**	**55**	PN	Pn	00 36 50.1	-4.0
THZ				SN	Sn	00 38 07.5	-7.2

IDC ***29*** *00:40:54.5±0.7, 3.86N×95.43E, mb4.3/17, mb1 4.4/17, mb1mx4.3/22, mbtmp4.3/17, Error ellipse: s-maj=34.2km s-min=14.1km az=40.0*

ISC 29 00:40:57.8±0.6**, 3.9N**±0.2×**95.5E**±0.1**, h33^{km}, n17,** σ**0^{s}66**/17**, mb4.3**/17**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**44.81**	**10**	P	**P**	**00 49 10.6**	**+0.3**
	1.5nm,0.6s,mb4.0,baz=195,slow=9.4,SNR=9.6						
SONM				PcP	PcP	00 50 53.1	+0.7
	0.7nm,0.6s,baz=180,slow=3.7,SNR=4.0						
WRA	**Warramunga Arr**	**44.89**	**123**	P	**P**	**00 49 12.0**	**+0.7**
	2.5nm,0.9s,mb4.0,baz=300,slow=9.3,SNR=6.2						
ASAR	**Alice Springs**	**46.35**	**128**	P	**P**	**00 49 23.4**	**+0.5**
	1.0nm,0.8s,mb3.8,baz=299,slow=7.6,SNR=7.0						
PMG	**Port Moresby**	**53.14**	**105**	P	**P**	**00 50 14.2**	**-0.8**
	2.9nm,0.4s,mb4.6,baz=225,slow=7.1,SNR=4.0						
BVAR	**Borovoye Array**	**53.21**	**341**	P	**P**	**00 50 14.9**	**-0.1**
	5.8nm,1.0s,mb4.5,baz=141,slow=9.5,SNR=7.9						
CTA	**Charters Tower**	**55.21**	**118**	P	**P**	**00 50 30.3**	**+0.1**
	3.6nm,0.7s,mb4.5,baz=265,slow=10,SNR=5.8						
STKA	**Stephens Creek**	**56.39**	**133**	P	**P**	**00 50 37.6**	**-0.8**
	1.3nm,0.8s,mb4.0,baz=304,slow=15,SNR=3.8						
KMBO	**Kilima Mbogo**	**58.42**	**266**	P	**P**	**00 50 53.3**	**+0.3**
	0.8nm,0.5s,mb4.0,baz=73,slow=8.8,SNR=5.4						
BRTR	**Keskin Array B**	**66.08**	**312**	P	**P**	**00 51 42.5**	**-1.3**
	1.5nm,0.9s,mb4.0,baz=121,slow=7.2,SNR=4.8						
IDI	**Anoyia**	**71.98**	**306**	P	**P**	**00 52 20.5**	**+0.3**
	8.7nm,1.0s,mb4.6,baz=41,slow=11,SNR=4.9						
AKASG	**Malin Array Be**	**72.14**	**322**	P	**P**	**00 52 19.9**	**-0.9**
	1.7nm,0.4s,mb4.3,baz=82,slow=5.4,SNR=11						
MLR	**Muntele Rosu**	**72.99**	**316**	P	**P**	**00 52 25.4**	**-0.7**
	3.1nm,0.6s,mb4.4,baz=90,slow=4.4,SNR=7.9						
FINES	**FINESS Array B**	**76.88**	**332**	P	**P**	**00 52 48.4**	**+0.2**
	1.7nm,0.4s,mb4.3,baz=106,slow=6.3,SNR=23						
ARCES	**ARCESS Array B**	**79.48**	**340**	P	**P**	**00 53 03.0**	**+0.7**
	4.0nm,1.1s,mb4.3,baz=90,slow=6.3,SNR=6.4						
GERES	**GERESS Array B**	**81.71**	**319**	P	**P**	**00 53 15.2**	**+0.7**
	2.0nm,0.6s,mb4.3,baz=104,slow=5.5,SNR=8.7						
NOA	**NORSAR Array B**	**83.88**	**331**	P	**P**	**00 53 25.1**	**-0.2**
	1.0nm,0.7s,mb4.1,baz=95,slow=4.9,SNR=3.3						
DAVOX	**Davos**	**84.21**	**316**	P	**P**	**00 53 28.5**	**+1.1**
	4.2nm,0.6s,mb4.8,baz=112,slow=4.2,SNR=15						

IDC ***29*** *00:41:31.3±0.7, 13.18N×93.08E, mb4.1/14, mb1 4.3/15, mb1mx4.2/20, mbtmp4.1/15, ML4.0/1, MS3.3/1, Ms1 3.5/1, ms1mx3.1/23, Error ellipse: s-maj=28.0km s-min=14.9km az=53.0*

NEIC ***29*** *00:41:35.7±0.8, 13.33N×93.17E, h30^{km}, mb4.4/9, Error ellipse: s-maj=27.1km s-min=15.1km az=73.0*

BJI ***29*** *00:41:35.7, 13.26N×92.94E, h35^{km}, mB4.8, mb4.2*

ISC 29 00:41:33.8±0.5**, 13.20N**±0.07×**93.06E**±0.06**, h30^{km}, n45,** σ**1^{s}34**/45**, mb4.2**/23**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**7.28**	**69**	P	**Pn**	**00 43 17.0**	**-3.9**
CM31	**Chiang Mai Arr**	**7.70**	**47**	P	**Pn**	**00 43 28.6**	**+1.7**
	9.1nm,0.3s						
CMAR	**Chiang Mai Arr**	**7.70**	**47**	Pn	**Pn**	**00 43 26.3**	**-0.6**
	0.6nm,0.3s,baz=234,slow=16,SNR=30						
CMAR				Sn	**Sn**	**00 44 53.0**	**-1.0**
	2.4nm,0.3s,baz=241,slow=30,SNR=7.7						
CMAR				LR	LR	00 46 57.8	
	comp=Z,214nm,21.8s,baz=230,slow=42						
NANT	**Nan**	**9.21**	**52**	P	**P**	**00 43 52.0**	**+4.2**

HYB	Hyderabad	14.61	288	eP	P	00 45 06.5	+6.0
HYB				eS	Sx	00 47 20.0	
HYB	Hyderabad	14.61	288	i P	P	00 45 06.5	+6.0
HYB				e		00 47 20.0	
HYB				eS	S	00 47 30.0	-12
PKI	Pulchoki	15.98	335	eP	P	00 45 11.7	-6.7
GUN	Gumba	16.10	336	eP	P	00 45 14.1	-5.7
	27nm,0.5s						
DMN	Daman	16.15	334	eP	P	00 45 13.4	-7.0
	62nm,0.7s						
KKN	Kakani	16.23	335	eP	P	00 45 15.9	-5.6
LSA	Lhasa	16.51	354	eP	P	00 45 22.3	-2.7
	6.3nm,0.5s						
GKN	Gorkha	16.69	333	eP	P	00 45 21.6	-5.7
	50nm,0.4s						
KOLN	Koldanda	16.98	330	eP	P	00 45 24.8	-6.1
	43nm,0.6s						
GYA	Guiyang	18.35	42	⇑iP	P	00 45 49.5	+1.4
GYA				AMB	AMB		
	comp=Z,10.0nm,1.0s						
POO	Poona	19.22	288	e	S	00 49 20.0	-8.2
DDI	Dehra Dun	21.97	323	e	P	00 46 25.2	-1.9
DDI				e		00 50 18.4	
ENH	Enshi	22.78	39	eP	P	00 46 34.7	-0.4
	comp=Z,21nm,1.1s,mb4.5						
GTA	Gaotai	26.78	12	eP	P	00 47 14.8	+1.7
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb3.9						
WMQ	Urumqi	30.86	352	eP	P	00 47 49.5	-0.2
HHC	Hu-ho-hao-te	31.95	27	eP	P	00 48 03.0	+3.7
HHC				AP	pP	00 48 10.0	+1.8
HHC				XP	sP	00 48 16.3	+4.2
HHC				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.6						
HHC				AMB	AMB		
	comp=Z,86nm,5.2s						
AAK	Ala-Archa	33.44	335	eP	P	00 48 13.1	+0.8
	comp=Z,6.5nm,1.3s,mb4.4						
SONM	Songino Array	36.27	15	P	P	00 48 35.5	-0.9
	comp=Z,1.0nm,0.6s,mb3.9,baz=192,slow=6.5,SNR=7.4						
ULN	Ulaanbaatar	36.48	16	eP	P	00 48 38.1	+0.1
	comp=Z,5.2nm,1.2s,mb4.3						
BVAR	Borovoye Array	43.64	340	P	P	00 49 36.9	-0.4
	comp=Z,0.7nm,0.6s,mb3.6,baz=90,slow=4.4,SNR=3.4						
CHKZ	Chkalovo	44.12	341	eP	P	00 49 38.5	-2.6
	comp=Z,3.2nm,0.5s,mb4.3						
GNI	Garni	50.05	312	P	P	00 50 27.4	-0.5
	comp=Z,5.3nm,1.0s,mb4.5,baz=41,slow=21,SNR=2.5						
NWAO	Narrogin (SRO)	51.35	154	P	P	00 50 37.3	-0.6
	comp=Z,5.5nm,0.7s,mb4.6,baz=296,slow=5.5,SNR=5.0						
NWAO	Narrogin (SRO)	51.35	154	eP	P	00 50 37.6	-0.3
	comp=Z,5.2nm,0.7s,mb4.6						
WRA	Warramunga Arr	52.29	128	P	P	00 50 44.5	-0.7
	comp=Z,1.5nm,0.5s,mb4.2,baz=303,slow=8.9,SNR=4.4						
WRAB	Tennant Creek	52.30	128	eP	P	00 50 44.9	-0.3
	comp=Z,6.5nm,0.7s,mb4.7						
KIV	Kislovodsk	52.73	316	eP	P	00 50 49.1	+0.9
	comp=Z,3.9nm,0.8s,mb4.4						
ASAR	Alice Springs	54.20	132	P	P	00 50 58.6	-0.5
	comp=Z,2.2nm,0.5s,mb4.3,baz=306,slow=6.6,SNR=14						
BRTR	Keskin Array B	58.23	309	P	P	00 51 24.9	-3.0
	comp=Z,1.1nm,0.7s,mb4.0,baz=119,slow=8.9,SNR=6.7						
STKA	Stephens Creek	64.57	135	P	P	00 52 10.4	-0.4
	comp=Z,1.8nm,0.7s,mb4.2,baz=300,slow=12,SNR=3.2						
MLR	Muntele Rosu	64.68	314	P	P	00 52 10.6	-0.7
	comp=Z,1.9nm,0.7s,mb4.3,baz=81,slow=4.3,SNR=3.7						
FINES	FINESS Array B	67.54	331	P	P	00 52 29.9	+0.7
	comp=Z,1.4nm,0.7s,mb4.1,baz=117,slow=8.5,SNR=9.3						
KAF	Kangasniemi	67.60	332	ep	pP	00 52 42.5	+3.5
	comp=Z,0.6nm,0.3s						
ARCES	ARCESS Array B	69.93	340	P	P	00 52 45.4	+1.5
	comp=Z,3.9nm,0.8s,mb4.4,baz=27,slow=8.1,SNR=8.5						
GERES	GERESS Array B	73.19	317	P	P	00 53 05.2	+1.5
	comp=Z,0.9nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=6.1						
KHC	Kasperske Hory	73.27	318	eP	P	00 53 07.0	+2.8
KHC				epP	pP	00 53 15.5	+1.9
NB2	NORSAR Subarra	74.61	330	P	P	00 53 11.9	+0.2
	comp=Z,3.4nm,0.9s,mb4.3,baz=90,slow=5.8						
NOA	NORSAR Array B	74.61	330	P	P	00 53 11.8	+0.1
	comp=Z,1.0nm,0.7s,mb3.9,baz=90,slow=5.9,SNR=4.2						
ESDC	Sonseca Array	87.00	310	P	P	00 54 20.0	+2.3
	comp=Z,0.2nm,0.4s,mb3.7,baz=90,slow=4.4,SNR=4.9						
ILAR	Eielson Array	90.23	22	P	P	00 54 34.5	+2.0
	comp=Z,0.5nm,0.7s,mb4.0,baz=304,slow=4.6,SNR=8.1						
SNAA	Sanae	104.30	199	ePdif	Pdif	00 55 37.0	+1.0

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*NEIC **29** 00:49:04.1±0.3, 16.32S×74.04W, mb4.9/12, ML4.6(LIM), Error ellipse: s-maj=16.4km s-min=6.9km az=58.0*

NEIC Felt [III] at Atico and Chala.

*HRVD **29** 00:49:04.1±0.4, 16.41S×74.24W, h26^{km}±1^{km}, MW5.3/44, Centroid moment Tensor Solution. LP body waves: s42,c61;Mantle waves: s44,c71; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}0.44±.03; $M_{\theta\theta}$-0.01±.02; $M_{\phi\phi}$-0.43±.03; $M_{r\theta}$0.28±.05; $M_{\theta\phi}$0.32±.02; $M_{\phi r}$-0.88±.07; Best double couple: $M_0$1.06×10^{17} NP1: ϕ_s315°,δ16°,λ63°. NP2:ϕ_s162°,δ76°,λ97°. Principal axes: T .99, Plg59°, Azm82°; N .15, Plg7°, Azm340°; P -1.13, Plg30°, Azm246°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **29** 00:49:04.0, 16.32S×74.04W, h26^{km}, MB4.9*

*BJI **29** 00:49:06.0, 16.30S×74.00W, h26^{km}, mB5.6, Ms5.0, Msz4.7*

*IDC **29** 00:49:09.5±3.3, 16.28S×74.03W, h74^{km}±28^{km}, mb4.3/14, mb1 4.5/15, mb1mx4.5/17, mbtmp4.6/15, MS4.7/14, Ms1 4.7/14, ms1mx4.3/25, Error ellipse: s-maj=21.9km s-min=12.9km az=66.0*

ISC 29 00:49:03.7±0.3**, 16.31S**±0.05×**74.21W**±0.06**, h33^{km}, (h23^{km}**±2.2^{km}**:pP-P), n101,** σ1^s**10**/62**, mb4.7**/23**, MS4.7**/14**, 7C-4D, Near coast of Peru**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NNA	Nana	5.00	329	ePn	Pn	00 50 19.2	+0.7
	54nm,0.8s						
LPAZ	La Paz	5.84	91	P	P	00 50 32.0	+1.9
	4.6nm,0.3s,baz=260,slow=13,SNR=234						
LPAZ				S	S	00 51 37.7	+0.9
	baz=228,slow=15,SNR=1.3						
LPAZ				LR	LR	00 53 14.7	
	comp=Z,8µm,19.1s,baz=271,slow=43						
LPAZ	La Paz	5.84	91	ePn	Pn	00 50 29.7	-0.6
	875nm,1.1s						
LVC	Limon Verde	8.02	142	P	P	00 50 56.4	-4.2
	6.6nm,0.3s,baz=315,slow=9.8,SNR=51						
LVC				S	S	00 52 20.7	-10
	9.4nm,0.3s,baz=322,slow=19,SNR=4.7						
LVC				LR	LR	00 54 08.3	
	comp=Z,5µm,19.8s,baz=311,slow=38						
LVC	Limon Verde	8.02	142	ePn	P	00 50 56.2	-4.4
	31nm,0.5s						
LVC	Limon Verde	8.02	142	⇑iP	P	00 50 56.2	-4.4
OTAV	Otavalo	16.97	345	eP	P	00 53 02.5	+2.3
	11nm,0.9s						
FCH	Farellones	17.31	169	⇑iP	P	00 53 06.2	+1.8
ROSC	El Rosal	21.03	360	P	P	00 53 48.3	+1.2
	42nm,1.0s,mb4.7,baz=45,slow=3.6,SNR=12						
LPA	La Plata	23.57	145	ceP	P	00 54 10.0	-2.2
LPA				epP		00 54 17.0	
LPA				esP		00 54 21.0	
LPA				ePP	PP	00 54 38.0	-6.8
LPA				eS	S	00 58 23.0	+2.3
LPA				eSP		00 58 28.0	
LPA				esS		00 58 53.0	
TRQA	Tornquist	24.19	156	eP	P	00 54 16.1	-2.1
SDV	Santo Domingo	25.28	8	P	P	00 54 27.8	-1.1
	12nm,0.8s,mb4.5,baz=293,slow=7.7,SNR=15						
SDV				LR	LR	01 05 15.9	
	comp=Z,2µm,19.5s,MS4.6,baz=31,slow=38						
SDV	Santo Domingo	25.28	8	eP	P	00 54 27.5	-1.4
	26nm,1.1s,mb4.7						
USHA	Ushuaia	38.70	175	P	P	00 56 24.2	-1.9
	5.5nm,0.8s,mb4.4,baz=291,slow=7.9,SNR=5.4						
TEIG	Tepich	38.85	339	P	P	00 56 27.2	-0.4
NHSC	New Hope	49.47	353	eP	P	00 57 52.0	-1.0
HKT	Hockley	50.49	336	P	P	00 57 58.9	-1.9
	56nm,1.7s,mb5.3						
JCT	Junction City	52.64	332	P	P	00 58 17.1	+0.1
	17nm,1.1s,mb4.9						
JCT				epP	pP	00 58 23.4	-3.5
TXAR	Lajitas Array	53.55	328	P	P	00 58 23.4	-0.4
	3.5nm,0.7s,mb4.4,baz=152,slow=8.4,SNR=41						
TXAR				LR	LR	01 20 04.4	
	comp=Z,685nm,18.6s,MS4.7,baz=195,slow=35						
USIN	University of	55.45	347	P	P	00 58 32.6	-4.8
GDL2	Guadalupe Moun	56.22	329	eP	P	00 58 42.8	-0.4
CPRX	Cap Rock	56.66	330	eP	P	00 58 46.5	+0.2
RKT	Rikitea	57.26	253	eS	S	01 06 45.7	+3.1
RKT				eLR	LR	01 15 15.2	
	1µm,27.5s,baz=96						
BNM	Barren Site	58.91	329	P	P	00 59 01.7	-0.4
BNM				epP	pP	00 59 09.1	-3.1
LPM	Los Pinos Moun	59.05	329	eP	P	00 59 03.5	+0.5
TUC	Tucson	59.70	324	eP	P	00 59 07.2	-0.4
	10nm,1.1s,mb4.8						
RW3	Ridgway	62.71	331	eP	P	00 59 28.1	+0.3
PV01	Paradox Valley	63.03	330	eP	P	00 59 30.4	+0.4
PV10	Paradox Valley	63.45	330	eP	P	00 59 32.3	-0.4
MSU	Marysvale	65.11	328	eP	P	00 59 43.8	+0.3
MVU	Marysvale	65.12	328	eP	P	00 59 44.2	+0.6
	19nm,1.1s,mb5.0						
ARUT	Antelope Range	65.23	327	eP	P	00 59 44.6	+0.4
NLU	North Lily Min	66.16	329	eP	P	00 59 50.7	+0.6
JLU	Jordanelle	66.35	330	eP	P	00 59 51.1	-0.2
JLU				epP	pP	00 59 59.1	-2.6
VNA3	Neumayer Olymp	66.57	161	e	pP	01 00 02.4	-0.2
VNA3	Neumayer Olymp	66.57	161	⇓iP	P	00 59 53.6	+1.4
VNA3				e	pP	01 00 02.4	-0.2
TRCR	Troy Canyon	66.79	326	P	P	00 59 55.2	+1.1
VNA1	Neumayer--Stat	66.82	161	e	pP	01 00 05.4	+1.3
VNA1	Neumayer--Stat	66.82	161	⇓iP	P	00 59 56.5	+2.7
VNA1				e	pP	01 00 05.4	+1.3
PDAR	Pinedale Array	67.17	332	P	P	00 59 55.6	-0.9
	1.2nm,1.0s,mb3.9,baz=162,slow=4.7,SNR=5.4						
PDAR				LR	LR	01 29 47.0	
	comp=Z,370nm,21.0s,MS4.6,baz=145,slow=36						
VNA2	Neumayer--Watz	67.18	161	e	pP	01 00 06.4	0.0
VNA2	Neumayer--Watz	67.18	161	⇓iP	P	00 59 57.7	+1.6
VNA2				e	pP	01 00 06.4	0.0
MTUM	Tungsten Hills	67.76	323	eP	P	01 00 01.1	+0.8
ELK	Elko	68.35	328	eP	P	01 00 04.1	+0.2
	12nm,1.3s,mb4.8						
NVAR	Mina Array Bea	68.35	324	P	P	01 00 04.3	+0.3
	2.6nm,0.8s,mb4.3,baz=133,slow=7.5,SNR=13						
NVAR				LR	LR	01 29 57.6	
	comp=Z,309nm,18.1s,MS4.6,baz=215,slow=36						
SNAA	Sanae	68.79	161	e	pP	01 00 13.1	-3.3
SNAA	Sanae	68.79	161	P	P	01 00 05.0	-1.1
	4.7nm,0.8s,mb4.5,baz=289,slow=5.2,SNR=23						
SNAA	Sanae	68.79	161	⇑iP	P	01 00 04.8	-1.3
SNAA				e		01 00 13.1	
ULM	Lac du Bonnet	68.97	345	P	P	01 00 07.0	-0.6
	5.2nm,0.8s,mb4.5,baz=147,slow=6.3,SNR=7.8						
ULM				LR	LR	01 32 14.9	
	comp=Z,372nm,19.6s,MS4.6,baz=171,slow=38						
CMB	Columbia Colle	69.28	322	eP	P	01 00 10.1	+0.4
	10nm,1.3s,mb4.6						
MCMT	McKenzie Canyo	70.27	332	eP	P	01 00 15.6	0.0
TBI	Tubuai	70.45	251	eS	S	01 09 29.0	+2.7
TBI				eLR	LR	01 21 22.5	
	515nm,28.3s,baz=100						
SCHQ	Schefferville	71.14	5	P	P	01 00 19.0	-1.7
	6.6nm,0.9s,mb4.6,baz=355,slow=0.9,SNR=4.0						
PPT	Papeete	71.63	257	eS	S	01 09 42.5	+2.4
PPT				eLR	LR	01 21 43.9	
	826nm,23.5s,baz=103						
PPT	Papeete	71.63	257	LR	LR	01 23 51.1	
	comp=Z,701nm,18.1s,MS5.0,baz=90,slow=29						
DBIC	Dimbokro	72.30	77	P	P	01 00 25.2	-3.1
	36nm,1.0s,mb5.2,baz=226,slow=5.9,SNR=54						
DBIC				LR	LR	01 31 35.6	
	comp=Z,976nm,18.3s,MS5.1,baz=224,slow=35						
DBIC	Dimbokro	72.30	77	eP	P	01 00 24.9	-3.3
	40nm,0.9s,mb5.3						
BMO	Blue Mountains	72.39	329	eP	P	01 00 28.1	-0.1
	3.1nm,0.8s,mb4.3						
YBH	Yreka Blue Hor	73.07	324	LR	LR	01 32 50.4	
	comp=Z,327nm,19.5s,MS4.6,baz=129,slow=36						
QSPA	South Pole Qui	73.85	180	⇑iP	P	01 00 36.8	+0.5
	21nm,1.1s,mb5.0						
VNDA	Vanda	81.04	191	P	P	01 01 17.5	+1.2
	2.5nm,0.9s,mb4.2,baz=111,slow=4.0,SNR=11						
VNDA				LR	LR	01 32 46.5	
	comp=Z,333nm,18.1s,MS4.7,baz=128,slow=32						
VNDA	Vanda	81.04	191	eP	P	01 01 17.3	+1.0
	3.6nm,1.0s,mb4.3						
SYO	Syowa Base	83.07	161	⇓P	P	01 01 26.1	-0.7
SYO	Syowa Base	83.07	161	⇑pP	pP	01 01 32.1	-5.2
SYO	Syowa Base	83.07	161	⇑sP	sP	01 01 37.9	-2.9
YKA	Yellowknife Ar	84.70	342	P	P	01 01 34.6	-0.5
	12nm,0.8s,mb5.1,baz=136,slow=5.1,SNR=198						
YKA				LR	LR	01 41 21.5	
	comp=Z,335nm,19.3s,MS4.7,baz=105,slow=37						
ESDC	Sonseca Array	85.81	47	P	P	01 01 41.2	-0.1
	6.0nm,0.9s,mb4.8,baz=254,slow=5.3,SNR=15						
DLBC	Dease Lake	87.34	334	LR	LR	01 43 28.6	
	comp=Z,198nm,18.1s,MS4.6,baz=103,slow=37						
SUMG	Summit	91.80	10	eP	P	01 02 09.2	+0.2
	42nm,1.0s,mb5.7						
INK	Inuvik	94.41	341	LR	LR	01 49 05.6	
	comp=Z,482nm,18.5s,MS5.0,baz=54,slow=38						
ILAR	Eielson Array	97.45	336	P	P	01 02 33.6	-1.2
	0.9nm,0.8s,mb4.2,baz=167,slow=5.3,SNR=8.5						
BRTR	Keskin Array B	113.87	53	PKiKP		01 07 39.7	
	0.7nm,0.9s,baz=225,slow=2.0,SNR=3.5						
ASF	Jabal al Asfar	116.18	62	PKP	PKPdf	01 07 44.4	+0.4
	2.1nm,0.8s,baz=98,slow=8.0,SNR=4.2						
STKA	Stephens Creek	121.06	216	PKP	PKPdf	01 07 54.9	+1.3
	1.3nm,0.6s,baz=324,slow=8.0,SNR=3.2						
GNI	Garni	122.38	53	PKP	PKPdf	01 07 56.8	+0.9
	1.1nm,0.5s,baz=21,slow=13,SNR=3.5						
ASAR	Alice Springs	131.69	215	PKP	PKPdf	01 08 15.0	+0.8
	2.3nm,0.9s,baz=144,slow=2.8,SNR=14						
WRA	Warramunga Arr	134.34	219	PKP	PKPdf	01 08 20.2	+0.9
	3.6nm,0.8s,baz=144,slow=1.6,SNR=15						
AAK	Ala-Archa	142.55	39	PKP	PKPdf	01 08 30.2	-3.2
MAJO	Matsushiro	144.91	311	ePKPdf	PKPdf	01 08 38.1	+0.4
MAT	Matsushiro	144.91	311	ePKP	PKPdf	01 08 36.4	-1.4
MAT	Matsushiro	144.91	311	P	PKPdf	01 08 38.0	+0.2
KSH	Kashi	145.22	42	PKP	PKPdf	01 08 40.0	+1.8
KSH				eAPKP		01 08 50.8	
KSH				PP	PP		
	comp=Z,430nm,3.8s						
HIA	Hailar	145.22	344	ePKPdf	PKPdf	01 08 38.2	+0.4
MDJ	Mudanjiang	145.37	330	PKP	PKPdf	01 08 38.5	+0.2
MDJ				APKP		01 08 49.0	
MDJ				XPKP		01 08 52.5	
MDJ				PP	PP		
	comp=Z,192nm,5.3s						
MDJ				LR	LR		
	comp=N,26nm,16.9s						
MDJ				LR	LR		
	comp=Z,36nm,16.6s,MS4.2						
MDJ	Mudanjiang	145.37	330	ePKPdf	PKPdf	01 08 38.2	0.0
ULN	Ulaanbaatar	148.52	358	ePKPdf	PKPdf	01 08 45.0	+1.7
SONM	Songino Array	148.56	359	PKPbc	PKPdf	01 08 48.9	+5.4
	comp=Z,20nm,0.8s,baz=327,slow=1.7,SNR=53						
WMQ	Urumqi	148.57	26	PKP	PKPdf	01 08 45.3	+1.7
WMQ				APKP		01 08 49.8	
NDI	New Delhi	150.96	60	eP	PKPdf	01 08 54.5	+6.7
DDI	Dehra Dun	151.06	56	eP	PKPdf	01 08 55.4	+7.5
KS15	Wonju Array Si	151.30	321	ePKPdf	PKPdf	01 08 50.5	+2.5
HHC	Hu-ho-hao-te	155.04	350	ePKP	PKPdf	01 08 55.8	+2.7
HHC				APKP		01 09 04.3	
HHC				PP	PP		
	comp=Z,135nm,6.5s						
HHC				LR	LR		
	comp=N,237nm,13.1s,MS5.4						
HHC				LR	LR		
	comp=E,264nm,10.7s,MS5.4						
HHC				LR	LR		
	comp=Z,161nm,11.9s,MS5.1						
GTA	Gaotai	156.40	12	ePKP	PKPdf	01 08 53.3	-1.7
KOLN	Koldanda	156.53	57	eP	PKPab	01 09 28.3	+1.5
GKN	Gorkha	157.26	56	eP	PKPab	01 09 28.1	-1.9
	comp=Z,45nm,1.0s						
DMN	Daman	157.80	56	eP	PKPab	01 09 30.7	-1.6
	comp=Z,63nm,1.4s						
KKN	Kakani	157.86	55	eP	PKPab	01 09 30.9	-1.7
	comp=Z,30nm,0.9s						
PKI	Pulchoki	158.06	56	eP	PKPab	01 09 31.4	-2.0
GUN	Gumba	158.28	55	eP	PKPab	01 09 31.4	-3.0
	comp=Z,51nm,1.0s						
LSA	Lhasa	161.07	43	ePKPdf	PKPdf	01 09 03.5	+2.7
CMAR	Chiang Mai Arr	173.12	71	PKP	PKPdf	01 09 11.6	+1.4
	comp=Z,1.2nm,0.6s,baz=276,slow=0.7,SNR=7.2						
CMAR				PKPab	PKPab	01 10 38.0	-1.5
	comp=Z,2.7nm,0.9s,baz=277,slow=7.6,SNR=12						

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*IDC **29** 00:50:16.9±1.0, 54.46N×167.38E, mb3.8/9, mb1 4.1/10, mb1mx3.9/21, mbtmp3.8/10, ML3.4/1, Error ellipse: s-maj=25.9km s-min=13.1km az=28.0*

*KRSC **29** 00:50:18.6±0.4, 54.14N×167.58E, h40^{km}±8^{km}, ML4.5*

*MOS **29** 00:50:19.0±0.7, 54.09N×167.21E, h15^{km}, mb4.0/1, Error ellipse: s-maj=39.0km s-min=25.5km az=7.2*

ISC 29 00:50:19.9±0.6**, 54.15N**±0.04×**167.34E**±0.05**, h43^{km}**±8^{km}**, n44,** σ1^s**01**/72**, mb3.7**/9**, Komandorsky Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
BKI	Bering	1.32	323	i P	P	00 50 40.7	-1.6
BKI				i S	S	00 50 57.2	-1.7
KBTR	Krutoberegovo	3.31	310	P	P	00 51 10.7	+0.2
KBTR				S	S	00 51 48.4	-0.7
KBTR	Krutoberegovo	3.31	310	eP	P	00 51 10.9	+0.4
KBTR				eS	S	00 51 49.7	+0.6
KBG	Krutoberegovo	3.39	310	eP	P	00 51 11.3	-0.4
KBG				eS	S	00 51 49.9	-1.2
FX1	Attu Island--F	3.70	108	Pn	P	00 51 15.3	-0.7
	9.4nm,0.3s,baz=335,slow=10.0,SNR=38						
FX1				Sn	S	00 51 56.8	-2.1
	16nm,0.3s,baz=172,slow=20,SNR=5.4						
ZLN	Zelenaya	4.20	299	eP	P	00 51 24.4	+1.3
ZLN				eS	S	00 52 12.5	+1.1
SVLR	Shiveluch	4.25	307	eP	P	00 51 25.3	+1.4
SVLR				eS	S	00 52 14.0	+1.1
CIRR	Tsirk	4.26	300	eP	P	00 51 24.7	+0.7
CIRR				eS	S	00 52 12.8	-0.4
LGNR	Loginova	4.28	300	eP	P	00 51 25.3	+1.0
LGNR				eS	S	00 52 13.8	+0.2
TUMR	Tumrok	4.32	288	eP	P	00 51 25.5	+0.6
TUMR				eS	S	00 52 14.4	-0.3
KLY	Klyuchi	4.40	302	eP	P	00 51 24.1	-1.8
KLY				eS	S	00 52 12.0	-4.6
KMNR	Kamenistaya	4.40	294	eP	P	00 51 26.3	+0.4
KMNR				eS	S	00 52 15.8	-0.8
KRSR	Krestovskiy	4.40	301	eP	P	00 51 27.0	+1.0
KRSR				eS	S	00 52 16.8	+0.2
KPT	Kopyto	4.48	297	eP	P	00 51 27.7	+0.6
KPT				eS	S	00 52 17.8	-0.8
SPN	Mys Shipunski	4.49	259	P	P	00 51 27.6	+0.5
SPN				S	S	00 52 17.0	-1.7
SPN	Mys Shipunski	4.49	259	eP	P	00 51 27.6	+0.5
SPN				eS	S	00 52 17.5	-1.2
KOZR	Kozyr	4.69	297	PN	P	00 51 30.9	+0.9
KOZ	Kozyrevsk	4.70	297	P	P	00 51 30.9	+0.8
KOZ				S	S	00 52 24.1	+0.1
KOZ	Kozyrevsk	4.70	297	eP	P	00 51 31.3	+1.2
KOZ				eS	S	00 52 24.1	+0.1
NLC	Nalytchevo	4.86	262	P	P	00 51 32.7	+0.3
NLC				S	S	00 52 26.3	-1.8
NLC	Nalytchevo	4.86	262	eP	P	00 51 32.8	+0.4
NLC				eS	S	00 52 26.9	-1.2
SRDR	Sredinnyy	4.87	299	eP	P	00 51 33.6	+1.0
SRDR				eS	S	00 52 28.1	-0.4
SDLR	Sedlovina	5.10	264	eP	P	00 51 36.3	+0.5
UGLR	Uglovaya	5.15	263	eP	P	00 51 37.3	+0.8
SMAR	Somma	5.15	263	eP	P	00 51 37.1	+0.6
AVH	Avacha	5.19	264	eP	P	00 51 37.8	+0.8
AVH				eS	S	00 52 35.0	-1.4
KOK	Koryaka	5.24	264	eP	P	00 51 38.4	+0.6
ESO	Esso	5.28	293	eP	P	00 51 37.3	-1.0
PET	Petropavlovsk	5.30	261	P	P	00 51 39.7	+1.1
PET				S	S	00 52 37.7	-1.5
PET	Petropavlovsk	5.30	261	eP	P	00 51 39.5	+0.9
PET				eS	S	00 52 38.2	-1.0
RUS	Russkaya	5.57	256	P	P	00 51 42.8	+0.5
RUS				S	S	00 52 43.6	-2.4
RUS	Russkaya	5.57	256	eP	P	00 51 43.1	+0.8
RUS				eS	S	00 52 44.4	-1.6
GNL	Ganaly	5.58	269	eP	P	00 51 43.8	+1.4
GNL				eS	S	00 52 46.0	-0.1
KRMR	Karymshinskiy	5.66	260	eS	S	00 52 47.1	-1.1
GRL	Gorelyy	5.78	258	eP	P	00 51 46.6	+1.3
GRL				eS	S	00 52 50.7	-0.5
ILAR	Eielson Array	24.97	47	P	P	00 55 39.0	-1.3
	3.5nm,0.8s,mb3.9,baz=256,slow=8.3,SNR=34						
SONM	Songino Array	37.81	286	P	P	00 57 34.8	+1.2
	0.4nm,0.5s,mb3.4,baz=56,slow=7.0,SNR=4.4						
YKA	Yellowknife Ar	39.39	46	P	P	00 57 46.2	-0.3
	0.5nm,0.6s,mb3.4,baz=296,slow=8.2,SNR=12						
NVAR	Mina Array Bea	51.30	76	P	P	00 59 21.9	+0.4
	0.2nm,0.3s,mb3.5,baz=301,slow=8.6,SNR=3.8						
PDAR	Pinedale Array	53.19	66	P	P	00 59 35.0	-0.6
	0.5nm,0.4s,mb3.8,baz=315,slow=1.9,SNR=8.2						
SCHQ	Schefferville	62.59	32	P	P	01 00 40.4	-1.0
	3.2nm,0.7s,mb4.5,baz=247,slow=7.7,SNR=3.7						
NOA	NORSAR Array B	63.60	347	P	P	01 00 47.2	-0.6
	0.9nm,0.9s,mb3.8,baz=5.7,slow=5.0,SNR=2.2						
TXAR	Lajitas Array	66.22	73	P	P	01 01 05.8	+0.5
	0.3nm,0.4s,mb3.7,baz=294,slow=4.6,SNR=7.6						
ASAR	Alice Springs	82.69	211	P	P	01 02 42.5	+2.3
	0.5nm,0.8s,mb3.6,baz=25,slow=4.6,SNR=4.5						

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*NEIC **29** 01:05:05.8±7.1, 35.73N×0.51E, h10^{km}, MG3.8(MDD), Error ellipse: s-maj=79.6km s-min=14.9km az=134.0*

*CSEM **29** 01:05:06.4±0.1, 35.72N×0.61E, h20^{km}, ML3.0/7, Error ellipse: s-maj=2.8km s-min=1.7km az=20.0*

*MDD **29** 01:05:07.7±0.4, 35.74N×0.58E, h22^{km}±5^{km}, mb3.8/11, Error ellipse: s-maj=6.3km s-min=5.2km az=149.0, PRXIMO*

ISC 29 01:05:06.5±0.7**, 35.74N**±0.06×**0.50E**±0.05**, h36^{km}**±16^{km}**, n37,** σ**0^{s}97**/56**, 1D, Northern Algeria**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OJBR	Djebel Berber	0.20	218	P	P	01 05 13.5	+0.2
OJGS	Djebel Guires	0.31	139	P	P	01 05 14.0	-0.6
OKGL	Djebel Kef Gue	0.32	22	P	P	01 05 14.0	-0.6
EANR	'Ain N'Sour	0.53	67	P	P	01 05 17.0	-0.5
ETRT	Tiaret	0.74	118	P	P	01 05 20.0	-0.5
ECHF	Ech Chlef	0.80	59	P	P	01 05 21.5	+0.2
ECHA	Ech Chlef	0.81	60	P	P	01 05 21.5	0.0
EBNR	Beni Rached	1.00	57	P	P	01 05 24.5	+0.3
OTSS	Djebel Tessala	1.15	247	P	P	01 05 16.0	-10
EMHD	Djebel Mahouad	2.04	76	P	P	01 05 45.0	+5.9
ENIJ	Nijar	2.50	300	⇓P	P	01 05 46.4	+0.7
	1.1nm,0.2s,SNR=18						
ENIJ				S	S	01 06 15.5	+0.2
	9.6nm,0.3s,SNR=7.9						
ENIJ	Nijar	2.50	300	Sn	S	01 06 15.5	+0.1
	9.6nm,0.3s,SNR=7.9						
EMUR	La Murta	2.52	327	P	P	01 05 46.1	+0.2
	4.9nm,0.6s,SNR=16						
EMUR				S	S	01 06 14.0	-1.7
	4.9nm,0.2s						
EMUR	La Murta	2.52	327	Pn	P	01 05 46.1	+0.2
	4.9nm,0.6s,SNR=16						
EMUR	La Murta	2.52	327	Sn	S	01 06 14.0	-1.7
	4.9nm,0.2s						
EBER	Berja	2.97	294	P	P	01 05 53.3	+1.0
	5.7nm,0.2s,SNR=39						
EBER				S	S	01 06 27.9	+0.7
	6.2nm,0.3s						
EBER	Berja	2.97	294	Pn	P	01 05 53.3	+1.0
	5.7nm,0.2s,SNR=39						
EBER				Sn	S	01 06 27.9	+0.8
	6.2nm,0.3s						
EBEN	Beniarda	3.01	349	P	P	01 05 54.1	+1.2
	16nm,0.9s,SNR=4.0						
EBEN				S	S	01 06 28.4	+0.1
	2.3nm,0.2s,SNR=7.9						
EBEN	Beniarda	3.01	349	Pn	P	01 05 54.1	+1.2
	16nm,0.9s,SNR=4.0						
EBEN				Sn	S	01 06 28.4	+0.2
	2.3nm,0.2s,SNR=7.9						
EQES	Quesada	3.53	307	Pn	P	01 06 02.4	+2.1
EQES				Sn	S	01 06 41.3	-0.1
EQES	Quesada	3.53	307	P	P	01 06 03.1	+2.8
	4.2nm,0.3s,SNR=49						
EQES				S	S	01 06 44.9	+3.5
	9.3nm,0.2s,SNR=7.3						
EQES	Quesada	3.53	307	Pn	P	01 06 02.4	+2.1
EQES				Sn	S	01 06 41.3	0.0
EVIA	Vianos	3.75	321	Pn	P	01 06 04.4	+0.9
EVIA				Sn	S	01 06 41.7	-5.4
EVIA	Vianos	3.75	321	P	P	01 06 05.8	+2.3
	2.5nm,0.2s,SNR=8.2						
EVIA				S	S	01 06 48.1	+1.0

	3.5nm,0.2s						
EVIA	**Vianos**	3.75	321	Pn	P	01 06 04.4	+0.9
EVIA				Sn	S	01 06 48.1	+1.0
	3.5nm,0.2s						
EMIJ	**Mijas**	4.34	282	P	P	01 06 12.1	+0.3
	1.4nm,0.2s,SNR=7.2						
EMIJ				S	S	01 06 59.1	-2.9
	9.0nm,0.5s						
EADA	**Adamuz**	4.73	302	P	P	01 06 17.6	+0.3
	1.4nm,0.6s,SNR=7.9						
EADA				S	S	01 07 08.3	-3.5
	1.4nm,0.3s,SNR=7.9						
EADA	**Adamuz**	4.73	302	Pn	P	01 06 17.6	+0.3
	1.4nm,0.6s,SNR=7.9						
EADA				Sn	S	01 07 08.3	-3.4
	1.4nm,0.3s,SNR=7.9						
ESDC	**Sonseca Array**	5.28	319	Pn	P	01 06 24.6	-0.5
ESDC				Sn	S	01 07 20.5	-5.1
ESDC	**Sonseca Array**	5.28	319	P	P	01 06 24.6	-0.5
	1.2nm,0.2s,baz=134,slow=13,SNR=13						
ESDC				S	S	01 07 23.2	-2.4
	2.6nm,0.5s,baz=134,slow=23,SNR=6.0						
ESDC	**Sonseca Array**	5.28	319	Pn	P	01 06 24.6	-0.5
	1.2nm,0.2s,SNR=13						
ESDC				Sn	S	01 07 23.2	-2.4
	2.6nm,0.5s,SNR=6.0						
EMIN	**Mina Concepcio**	6.10	291	P	P	01 06 35.8	-0.7
	3.0nm,0.7s,SNR=7.9						
EMIN	**Mina Concepcio**	6.10	291	Pn	P	01 06 35.8	-0.8
	3.0nm,0.7s,SNR=7.9						
GUD	**Guadarrama**	6.11	325	Pn	P	01 06 36.4	-0.3
GUD				Sn	S	01 07 41.0	-5.4
GUD	**Guadarrama**	6.11	325	P	P	01 06 36.4	-0.3
	2.0nm,0.4s,SNR=4.0						
ECAL	**Calabor**	8.38	320	P	P	01 07 07.9	-0.4
	5.2nm,0.5s,SNR=4.9						
ECAL	**Calabor**	8.38	320	Pn	P	01 07 07.9	-0.4

IDC 29 01:12:34.5±7.8**, 11.08N**×**91.75E, h61**^{km}±69^{km}**, mb3.6**/5**, mb1 3.7**/6**, mb1mx3.5**/17**, mbtmp3.8**/6**, ML3.9**/1**, Error ellipse: s-maj=57.8km s-min=20.7km az=51.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	10.11	43	P	P	01 14 57.6	-1.8
	0.3nm,0.3s,baz=239,slow=16,SNR=2.7						
SONM	**Songino Array**	38.65	16	P	P	01 19 51.8	-1.8
	0.8nm,0.5s,baz=210,slow=7.4,SNR=7.9						
WRA	**Warramunga Arr**	52.03	126	P	P	01 21 37.9	-2.6
	1.2nm,0.5s,baz=307,slow=8.2,SNR=9.3						
ASAR	**Alice Springs**	53.77	130	P	P	01 21 51.0	-2.3
	1.3nm,0.6s,baz=310,slow=6.9,SNR=13						
ASAR				PcP	PcP	01 22 57.6	-0.8
	0.6nm,0.6s,baz=303,slow=3.8,SNR=5.4						
BRTR	**Keskin Array B**	58.57	310	P	P	01 22 25.2	-2.2
	0.3nm,0.3s,baz=121,slow=8.4,SNR=2.6						
STKA	**Stephens Creek**	64.01	134	P	P	01 23 01.5	-2.7
	1.1nm,0.7s,baz=319,slow=8.4,SNR=4.6						

IDC 29 01:19:08.9±1.7**, 5.44N**×**94.30E, mb3.7**/5**, mb1 3.9**/6**, mb1mx3.7**/18**, mbtmp3.7**/6**, ML4.1**/1**, Error ellipse: s-maj=68.7km s-min=22.5km az=59.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	13.71	19	Pn	P	01 22 25.1	-2.1
	0.3nm,0.3s,baz=215,slow=11,SNR=4.1						
SONM	**Songino Array**	43.50	12	P	P	01 27 13.8	-1.9
	0.2nm,0.4s,baz=207,slow=6.4,SNR=4.4						
WRA	**Warramunga Arr**	46.75	124	P	P	01 27 40.1	-2.0
	0.4nm,0.5s,baz=304,slow=8.9,SNR=2.9						
ASAR	**Alice Springs**	48.26	128	P	P	01 27 52.0	-1.8
	0.8nm,0.8s,baz=306,slow=7.2,SNR=7.3						
BVAR	**Borovoye Array**	51.34	342	P	P	01 28 15.3	-1.7
	0.5nm,0.4s,baz=146,slow=11,SNR=7.5						
FINES	**FINESS Array B**	74.93	332	P	P	01 30 51.2	-2.1
	6.1nm,1.2s,baz=143,slow=9.5,SNR=3.6						

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*IDC **29** 01:22:11.2±1.1, 4.45N×95.34E, mb4.1/9, mb1 4.2/9, mb1mx4.0/19, mbtmp4.1/9, Error ellipse: s-maj=63.4km s-min=19.2km az=49.0*

ISC 29 01:22:14.8±1.0**, 4.5N**±0.3×**95.5E**±0.3**, h33**^{km}**, n10, σ0.**^{s}**51**/10**, mb4.0**/9**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.24	13	Pn	**P**	**01 25 46.1**	**+10**
	0.2nm,0.3s,baz=204,slow=12,SNR=11						
SONM	**Songino Array**	44.14	11	P	**P**	**01 30 22.4**	**+0.3**
	0.2nm,0.4s,mb3.2,baz=194,slow=8.5,SNR=5.1						
SONM				PcP	PcP	01 32 07.2	0.0
	0.3nm,0.4s,baz=203,slow=3.7,SNR=5.5						
WRA	**Warramunga Arr**	45.27	124	P	**P**	**01 30 31.5**	**0.0**
	2.6nm,0.5s,mb4.4,baz=301,slow=9.2,SNR=14						
ASAR	**Alice Springs**	46.77	129	P	**P**	**01 30 43.2**	**-0.1**
	1.5nm,0.4s,mb4.3,baz=299,slow=7.9,SNR=22						
BVAR	**Borovoye Array**	52.56	341	P	**P**	**01 31 26.9**	**-0.4**
	2.0nm,1.1s,mb4.0,baz=146,slow=5.2,SNR=5.1						
FINES	**FINESS Array B**	76.27	332	P	**P**	**01 34 01.3**	**-0.4**
	0.6nm,0.5s,mb3.8,baz=112,slow=5.8,SNR=10						
ARCES	**ARCESS Array B**	78.84	340	P	**P**	**01 34 16.2**	**+0.4**
	5.3nm,0.8s,mb4.5,baz=90,slow=4.9,SNR=9.8						
GERES	**GERESS Array B**	81.20	319	P	**P**	**01 34 29.5**	**+0.6**
	0.3nm,0.4s,mb3.5,baz=90,slow=2.0,SNR=3.3						
HFS	**Hagfors**	82.00	330	P	**P**	**01 34 31.8**	**-1.0**
	3.5nm,0.9s,mb4.3,baz=100,slow=9.0,SNR=5.2						
DAVOX	**Davos**	83.72	316	P	**P**	**01 34 42.5**	**+0.6**
	0.8nm,0.4s,mb4.2,baz=151,slow=19,SNR=5.0						

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*IDC **29** 01:29:36.0±1.4, 7.30N×94.35E, h43^{km}±8^{km}, mb3.5/4, mb1 3.8/4, mb1mx3.5/17, mbtmp3.8/4, Error ellipse: s-maj=59.9km s-min=19.8km az=59.0*

ISC 29 01:29:35.7±1.1**, 7.2N**±0.1×**94.7E**±0.2**, h33**^{km}**, (h42**^{km}±1.0^{km}**:pP-P), n13, σ1.**^{s}**02**/11**, mb4.2**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	11.97	20	P	**P**	**01 32 27.6**	**+0.7**
	0.3nm,0.3s,baz=218,slow=16,SNR=3.5						
PKI	**Pulchoki**	22.14	338	*e*P	**P**	**01 34 29.5**	**-0.6**
	17nm,0.6s,mb4.7						
GUN	**Gumba**	22.27	339	*e*P	**P**	**01 34 31.4**	**-0.1**
	6.2nm,0.4s,mb4.4						
DMN	**Daman**	22.29	337	*e*P	**P**	**01 34 31.2**	**-0.4**
	6.8nm,0.3s,mb4.6						
KKN	**Kakani**	22.38	338	*e*P	**P**	**01 34 32.3**	**-0.3**
	6.4nm,0.6s,mb4.3						
GKN	**Gorkha**	22.82	337	*e*P	**P**	**01 34 37.9**	**+0.9**
KOLN	**Koldanda**	23.05	334	*e*P	**P**	**01 34 40.7**	**+1.5**
	17nm,0.5s,mb4.7						
SONM	**Songino Array**	41.74	12	P	**P**	**01 37 20.8**	**-2.6**
	0.2nm,0.4s,mb3.1,baz=198,slow=8.9,SNR=4.5						
SONM				pP	pP	01 37 32.0	-1.2
	0.8nm,0.8s,baz=196,slow=9.0,SNR=3.9						
WRA	**Warramunga Arr**	47.39	125	P	**P**	**01 38 09.5**	**+0.5**
	1.2nm,0.5s,mb4.1,baz=306,slow=8.7,SNR=8.4						
WRA				pP	pP	01 38 21.2	+2.3
	1.2nm,0.6s,baz=301,slow=9.0,SNR=5.6						
ASAR	**Alice Springs**	49.03	130	P	**P**	**01 38 21.6**	**-0.1**
	0.8nm,0.4s,mb4.1,baz=301,slow=7.8,SNR=12						
ASAR				pP	pP	01 38 33.8	+2.2
	0.7nm,0.5s,baz=301,slow=7.3,SNR=4.1						
GERES	**GERESS Array B**	78.73	318	P	**P**	**01 41 32.7**	**-3.8**
	0.7nm,0.7s,mb3.7,baz=76,slow=5.5,SNR=6.5						
PDAR	**Pinedale Array**	125.63	22	PKP	PKPdf	01 48 31.8	-2.4
	0.1nm,0.4s,baz=350,slow=41,SNR=3.1						
TXAR	**Lajitas Array**	139.64	25	PKP	PKPdf	01 48 57.8	-3.0
	0.2nm,0.5s,baz=193,slow=1.3,SNR=6.8						
TXAR				pPKP		01 49 13.2	
	0.2nm,0.5s,baz=106,slow=0.9,SNR=2.7						

IDC 29 01:33:34.0±2.7**, 5.03N**×**93.73E, mb4.0**/6**, mb1 4.2**/6**, mb1mx3.9**/18**, mbtmp4.0**/6**, Error ellipse: s-maj=114.4km s-min=20.5km az=62.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.28	20	Pn	P	01 37 08.9	+9.0
	0.5nm,0.3s,baz=214,slow=12,SNR=8.6						
SONM	**Songino Array**	44.01	12	P	P	01 41 43.3	-1.6
	1.1nm,0.6s,baz=199,slow=7.8,SNR=8.2						
WRA	**Warramunga Arr**	47.01	123	P	P	01 42 07.3	-2.0
	1.6nm,0.6s,baz=306,slow=8.6,SNR=8.1						
ASAR	**Alice Springs**	48.46	128	P	P	01 42 19.1	-1.5
	1.1nm,0.5s,baz=302,slow=8.0,SNR=14						
ZAL	**Zalesovo**	49.29	353	P	P	01 42 25.1	-1.5
	1.5nm,0.4s,baz=221,slow=8.1,SNR=4.9						
BVAR	**Borovoye Array**	51.54	342	P	P	01 42 41.0	-2.8
	0.3nm,0.6s,baz=164,slow=10,SNR=4.1						
STKA	**Stephens Creek**	58.48	132	P	P	01 43 31.6	-2.9
	2.9nm,1.0s,baz=321,slow=6.5,SNR=4.5						

IDC 29 01:36:16.8±4.0**, 14.02N**×**92.67E, mb4.0**/5**, mb1 4.1**/5**, mb1mx3.8**/17**, mbtmp4.0**/5**, Error ellipse: s-maj=94.3km s-min=79.3km az=151.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	7.47	53	Pn	Pn	01 38 18.9	+9.2
	0.7nm,0.3s,baz=232,slow=14,SNR=11						
ZAL	**Zalesovo**	40.31	353	P	P	01 43 55.2	-2.2
	0.8nm,0.4s,baz=254,slow=4.3,SNR=3.2						
BRTR	**Keskin Array B**	57.43	308	P	P	01 46 07.2	-2.5
	0.9nm,0.9s,baz=133,slow=8.6,SNR=4.2						
FINES	**FINESS Array B**	66.65	331	P	P	01 47 09.0	-2.2
	1.3nm,0.8s,baz=117,slow=6.2,SNR=4.1						
ARCES	**ARCESS Array B**	69.04	340	P	P	01 47 24.7	-1.4
	4.2nm,1.0s,baz=100,slow=5.5,SNR=3.5						
GERES	**GERESS Array B**	72.34	317	P	P	01 47 44.9	-1.5
	1.3nm,0.7s,baz=90,slow=5.3,SNR=9.8						
NB2	**NORSAR Subarra**	73.72	330	P	P	01 47 51.6	-2.6
	0.8nm,0.6s,baz=89,slow=5.6						
TXAR	**Lajitas Array**	134.11	20	PKP	PKPdf	01 55 36.5	-2.3
	0.1nm,0.5s,baz=276,slow=0.3,SNR=4.6						

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*IDC **29** 01:36:22.3±0.7, 9.79N×92.88E, mb4.4/14, mb1 4.5/15, mb1mx4.4/21, mbtmp4.4/15, ML4.7/1, Error ellipse: s-maj=34.7km s-min=14.0km az=59.0*

*NEIC **29** 01:36:27.6±0.6, 10.06N×93.28E, h30^{km}, mb4.7/12, Error ellipse: s-maj=17.8km s-min=12.6km az=72.0*

*BJI **29** 01:36:29.5, 10.10N×93.30E, h30^{km}, mB5.2, mb4.3*

ISC 29 01:36:27.3±1.9**, 9.99N**±0.07×**93.15E**±0.07**, h43**^{km}±16^{km}**, n49, σ1.**^{s}**01**/46**, mb4.5**/26**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	7.89	110	P	**P**	**01 38 22.5**	**+0.3**
	1μm,1.2s						
NST	**Nakhon Sawan**	8.85	50	P	**P**	**01 38 35.0**	**-0.5**
CM31	**Chiang Mai Arr**	10.12	33	*e*P	**P**	**01 38 54.1**	**+1.0**
	28nm,0.8s						
CMAR	**Chiang Mai Arr**	10.12	33	Pn	**P**	**01 38 53.4**	**+0.3**
	1.7nm,0.3s,baz=222,slow=14,SNR=19						
HYB	**Hyderabad**	15.98	299	*i* P	**P**	**01 40 18.0**	**+7.2**
HYB				*e*		01 42 18.0	
HYB				*e*S	**S**	**01 43 05.0**	**-1.4**
PKI	**Pulchoki**	18.95	338	*e*P	**P**	**01 40 48.0**	**+0.4**
	119nm,1.2s						
DMN	**Daman**	19.10	338	*e*P	**P**	**01 40 50.2**	**+0.9**
GUN	**Gumba**	19.10	340	*e*P	**P**	**01 40 48.7**	**-0.6**
	50nm,0.8s						
KKN	**Kakani**	19.20	338	*e*P	**P**	**01 40 51.5**	**+1.1**
GKN	**Gorkha**	19.63	337	*e*P	**P**	**01 40 54.5**	**-0.6**
	56nm,0.6s						
LSA	**Lhasa**	19.70	355	*e*P	**P**	**01 40 55.4**	**-0.5**
	8.0nm,0.6s						
KOLN	**Koldanda**	19.84	334	*e*P	**P**	**01 40 59.0**	**+1.6**
	21nm,0.7s						
GYA	**Guiyang**	20.78	36	⇑*i*P	**P**	**01 41 06.3**	**-1.0**
GYA				AMB	AMB		
	comp=Z,20nm,1.2s						
ENH	**Enshi**	25.29	35	*e*P	**P**	**01 41 49.4**	**-2.1**
	comp=Z,21nm,1.1s,mb4.6						
GTA	**Gaotai**	29.90	10	*e*P	**P**	**01 42 32.5**	**-0.8**
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.3						
HHC	**Hu-ho-hao-te**	34.79	25	*e*P	**P**	**01 43 17.0**	**+1.1**
HHC				AP	pP	01 43 24.5	-3.2
HHC				XP	sP	01 43 29.3	-3.8
HHC				AMB	AMB		
	comp=Z,8.0nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,167nm,5.1s						
AAK	**Ala-Archa**	36.39	337	*e*P	**P**	**01 43 29.5**	**+0.1**
	comp=Z,47nm,1.8s,mb5.1						
SONM	**Songino Array**	39.35	14	P	**P**	**01 43 54.2**	**+0.1**
	comp=Z,5.5nm,1.1s,mb4.2,baz=201,slow=7.7,SNR=14						
SONM				PcP	PcP	01 46 03.6	+1.0
	comp=Z,4.7nm,0.9s,baz=198,slow=3.6,SNR=4.3						
ULN	**Ulaanbaatar**	39.54	15	*e*P	**P**	**01 43 54.6**	**-1.0**
	comp=Z,4.9nm,1.0s,mb4.2						
ZAL	**Zalesovo**	44.34	353	P	**P**	**01 44 35.6**	**+0.7**
	comp=Z,2.1nm,0.4s,mb4.2,baz=226,slow=6.8,SNR=6.6						
BVAR	**Borovoye Array**	46.69	341	P	**P**	**01 44 53.0**	**-0.6**
	comp=Z,1.4nm,0.4s,mb4.2,baz=144,slow=9.0,SNR=11						
BRVK	**Borovoye**	46.75	341	*e*P	**P**	**01 44 53.2**	**-0.9**
CHKZ	**Chkalovo**	47.17	342	*e*P	**P**	**01 44 55.8**	**-1.6**
	comp=Z,7.0nm,0.5s,mb4.8						
NWAO	**Narrogin (SRO)**	48.46	153	P	**P**	**01 45 04.7**	**-3.1**
	comp=Z,4.6nm,0.7s,mb4.6,baz=283,slow=6.2,SNR=5.7						
NWAO	**Narrogin (SRO)**	48.46	153	*e*P	**P**	**01 45 01.5**	**-6.3**
	comp=Z,14nm,1.2s,mb4.9						
WRA	**Warramunga Arr**	50.29	126	P	**P**	**01 45 21.6**	**-0.3**
	comp=Z,7.7nm,0.5s,mb5.0,baz=304,slow=8.8,SNR=27						
WRAB	**Tennant Creek**	50.29	126	*e*P	**P**	**01 45 21.4**	**-0.5**
	comp=Z,15nm,0.6s,mb5.2						
ASAR	**Alice Springs**	52.02	131	P	**P**	**01 45 34.2**	**-0.8**
	comp=Z,7.2nm,1.0s,mb4.6,baz=305,slow=7.0,SNR=27						
ASAR				PcP	PcP	01 46 46.7	-0.2
	comp=Z,2.2nm,0.7s,baz=309,slow=3.4,SNR=2.9						
ARU	**Arti**	53.58	337	*e*P	**P**	**01 45 45.8**	**-0.3**
	comp=Z,7.5nm,1.1s,mb4.5						
KIV	**Kislovodsk**	55.11	317	*e*P	**P**	**01 45 59.0**	**+1.5**
	comp=Z,2.2nm,0.6s,mb4.4						
STKA	**Stephens Creek**	62.27	134	P	**P**	**01 46 47.7**	**+0.3**
	comp=Z,5.8nm,0.5s,mb5.0,baz=307,slow=6.3,SNR=14						
STKA	**Stephens Creek**	62.27	134	*e*P	**P**	**01 46 47.5**	**0.0**
AKASG	**Malin Array Be**	65.90	321	P	**P**	**01 47 10.2**	**-0.7**
	comp=Z,0.3nm,0.3s,mb3.8,baz=89,slow=4.7,SNR=5.4						
KWP	**Kalwaria**	69.80	319	P	**P**	**01 47 34.2**	**-1.0**
SUW	**Suwalki**	70.23	324	*e*P	**P**	**01 47 37.2**	**-0.5**
FINES	**FINESS Array B**	70.40	332	P	**P**	**01 47 37.5**	**-1.1**
	comp=Z,1.7nm,0.7s,mb4.1,baz=104,slow=7.9,SNR=6.1						
KAF	**Kangasniemi**	70.48	333	*e*p	**P**	**01 47 40.7**	**+1.6**
	comp=Z,0.4nm,0.4s,mb3.7						
ARCES	**ARCESS Array B**	72.96	340	P	**P**	**01 47 55.3**	**+1.5**
	comp=Z,1.0nm,0.5s,mb4.0,baz=95,slow=7.1,SNR=7.0						
LBTB	**Lobatse**	74.40	241	*e*P	**P**	**01 48 04.2**	**+1.2**
GERES	**GERESS Array B**	75.61	318	P	**P**	**01 48 08.7**	**-0.8**
	comp=Z,1.8nm,0.6s,mb4.2,baz=90,slow=5.9,SNR=10.0						
KHC	**Kasperske Hory**	75.70	318	*e*pP	pP	01 48 21.0	-1.7
BOSA	**Boshof**	75.88	237	*e*P	**P**	**01 48 11.6**	**+0.2**
	comp=Z,10nm,1.1s,mb4.7						
LPG	**La Plagne**	80.44	315	*e*P	**P**	**01 48 37.0**	**+0.8**
	comp=Z,20nm,0.9s,mb4.8						
ESDC	**Sonseca Array**	89.12	310	P	**P**	**01 49 19.9**	**+0.3**
	comp=Z,0.4nm,0.6s,mb3.9,baz=55,slow=4.2,SNR=4.8						
ILAR	**Eielson Array**	93.17	22	P	**P**	**01 49 40.0**	**+2.2**
	comp=Z,1.1nm,0.7s,mb4.4,baz=346,slow=5.9,SNR=9.6						
INK	**Inuvik**	95.25	16	P	**P**	**01 49 48.9**	**+1.7**
	comp=Z,2.5nm,0.5s,mb4.9,baz=0.2,slow=2.8,SNR=7.4						
PDAR	**Pinedale Array**	123.55	20	PKP	PKPdf	01 55 21.8	+1.3
	comp=Z,0.5nm,0.7s,baz=11,slow=4.6,SNR=5.3						
NVAR	**Mina Array Bea**	123.60	29	PKP	PKPdf	01 55 23.7	+3.0
	comp=Z,0.8nm,0.7s,baz=319,slow=1.0,SNR=5.7						
TXAR	**Lajitas Array**	137.68	22	PKP	PKPdf	01 55 49.2	+1.6
	comp=Z,0.3nm,0.5s,baz=196,slow=0.6,SNR=7.1						

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*IDC **29** 01:38:36.5±0.5, 9.49N×93.72E, h22^{km}±2^{km}, mb4.4/23, mb1 4.5/23, mb1mx4.5/27, mbtmp4.5/23, Error ellipse: s-maj=19.7km s-min=10.1km az=43.0*

ISC 29 01:38:34.7±0.4**, 9.42N**±0.07×**93.87E**±0.08**, h23**^{km}**, h23**^{km}±.6^{km}**:pP-P, n72, σ0.**^{s}**96**/63**, mb4.7**/28**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	10.24	28	Pn	**P**	**01 41 08.2**	**+4.5**
	0.3nm,0.3s,baz=218,slow=15,SNR=3.4						
PKI	**Pulchoki**	19.74	337	*e*P	**P**	**01 43 06.4**	**+0.4**
	43nm,0.6s						
GUN	**Gumba**	19.87	339	*e*P	**P**	**01 43 07.4**	**-0.1**
	101nm,0.5s						
DMN	**Daman**	19.89	337	*e*P	**P**	**01 43 06.9**	**-0.8**
	30nm,0.7s						
KKN	**Kakani**	19.99	337	*e*P	**P**	**01 43 08.6**	**-0.1**
	50nm,0.7s						
GKN	**Gorkha**	20.43	336	*e*P	**P**	**01 43 13.4**	**+0.2**
	105nm,0.6s						
KOLN	**Koldanda**	20.66	333	*e*P	**P**	**01 43 16.3**	**+0.7**
	47nm,0.6s						
SDNR	**Sundarnagar**	27.00	327	*e*	**P**	**01 44 18.0**	**+0.9**
UCH	**Uchtor**	36.84	336	P	**P**	**01 45 43.7**	**+0.6**
	SNR=11						
TKM2	**Tokmak 2**	37.00	338	P	**P**	**01 45 44.8**	**+0.3**
	SNR=6.7						
KBK	**Karagaybulak**	37.03	337	P	**P**	**01 45 45.5**	**+0.8**
	SNR=17						
AML	**Almayashu**	37.10	335	P	**P**	**01 45 46.2**	**+0.9**
	SNR=23						
AAK	**Ala-Archa**	37.19	336	P	**P**	**01 45 47.0**	**+1.0**
	SNR=13						
CHMS	**Chumysh**	37.39	337	P	**P**	**01 45 47.8**	**+0.1**
	SNR=14						
EKS2	**Erkin-Say**	37.50	335	P	**P**	**01 45 49.5**	**+0.9**
	SNR=22						
USP	**Ospenovka**	37.72	337	P	**P**	**01 45 50.6**	**+0.1**
	SNR=23						
SONM	**Songino Array**	39.73	13	P	**P**	**01 46 07.9**	**+0.7**
	4.3nm,0.8s,mb4.2,baz=194,slow=6.1,SNR=11						
ZAL	**Zalesovo**	44.99	352	P	**P**	**01 46 49.8**	**-0.3**
	3.9nm,0.9s,mb4.2,baz=218,slow=6.3,SNR=8.2						
ZAL				pP	pP	01 46 56.4	-0.6
	3.6nm,0.3s,baz=201,slow=7.0,SNR=7.1						
QRN	**Al-Qurain**	47.14	301	*e*P	pP	01 47 13.4	-1.0
QRN				AMb	AMB	01 47 15.9	
	comp=Z,121nm,1.4s,mb5.6						
BVAR	**Borovoye Array**	47.45	341	P	**P**	**01 47 08.4**	**-1.1**
	comp=Z,4.6nm,0.8s,mb4.4,baz=127,slow=7.4,SNR=5.7						
BVAR				pP	pP	01 47 15.1	-1.4
	comp=Z,2.4nm,0.5s,baz=141,slow=9.0,SNR=8.1						
NWAO	**Narrogin (SRO)**	47.64	153	P	**P**	**01 47 10.4**	**-0.9**
	comp=Z,7.3nm,0.4s,mb5.0,baz=320,slow=8.6,SNR=11						
MIB	**Mutribah**	47.90	302	*e*P	**P**	**01 47 12.7**	**-0.8**
MIB				AMb	AMB	01 47 20.3	
	comp=Z,67nm,0.8s,mb5.7						
RST	**Umm Al-Ruwaisa**	48.11	301	*e*P	**P**	**01 47 14.4**	**-0.6**
RST				AMb	AMB	01 47 16.0	
	comp=Z,68nm,0.9s,mb5.7						
MZLS	**Mizel**	48.56	294	P	**P**	**01 47 19.2**	**+0.6**
KAMS	**Al Khamasin**	48.69	289	P	**P**	**01 47 19.7**	**+0.1**
WRA	**Warramunga Arr**	49.38	126	P	**P**	**01 47 25.2**	**+0.2**
	comp=Z,3.0nm,0.5s,mb4.6,baz=305,slow=8.6,SNR=7.2						
TATS	**Tathlith**	49.66	288	P	**P**	**01 47 27.5**	**+0.5**
AFFS	**‘Afif**	50.55	293	P	**P**	**01 47 34.8**	**+0.9**
ARSS	**Ar Rass**	50.62	296	P	**P**	**01 47 34.4**	**0.0**
FRSS	**Farasan al Kab**	50.81	284	P	**P**	**01 47 37.7**	**+1.7**
ASAR	**Alice Springs**	51.12	131	P	**P**	**01 47 37.3**	**-0.8**
	comp=Z,6.5nm,0.9s,mb4.5,baz=309,slow=7.0,SNR=6.4						
ASAR				pP	pP	01 47 46.0	+0.8
	comp=Z,7.8nm,1.1s,baz=304,slow=6.9,SNR=4.0						
HILS	**Ha’il**	52.15	297	P	**P**	**01 47 46.3**	**+0.4**
GNI	**Garni**	53.17	314	P	**P**	**01 47 53.4**	**0.0**
	comp=Z,2.8nm,0.5s,mb4.5,baz=274,slow=4.8,SNR=4.5						
UMJS	**Umm Lajj**	55.84	294	P	**P**	**01 48 14.3**	**+1.2**
PMG	**Port Moresby**	56.25	108	P	**P**	**01 48 17.8**	**+1.6**
	comp=Z,17nm,0.7s,mb5.2,baz=287,slow=5.8,SNR=10						
PMG				pP	pP	01 48 24.8	+1.6
	comp=Z,13nm,0.7s,baz=317,slow=2.7,SNR=4.2						
TBKS	**Tabuk**	56.86	298	P	**P**	**01 48 21.0**	**+0.7**
ASF	**Jabal al Asfar**	57.16	302	P	**P**	**01 48 22.3**	**-0.2**
	comp=Z,3.0nm,0.9s,mb4.3,baz=104,slow=4.8,SNR=4.6						
ASF				pP	pP	01 48 28.9	-0.6
	comp=Z,4.6nm,0.9s,baz=156,slow=10.0,SNR=7.7						
KMBO	**Kilima Mbogo**	57.34	263	P	**P**	**01 48 24.3**	**+0.4**
	comp=Z,5.4nm,0.7s,mb4.7,baz=60,slow=10,SNR=10.0						
JMQS	**Jabal Moqyreh**	57.53	298	P	**P**	**01 48 25.1**	**0.0**
AYUS	**‘Aynunah**	57.98	297	P	**P**	**01 48 28.2**	**0.0**
BDAS	**Al Bad‘**	58.15	298	P	**P**	**01 48 29.0**	**-0.4**
CTA	**Charters Tower**	59.30	120	P	**P**	**01 48 38.7**	**+1.2**
	comp=Z,18nm,1.1s,mb5.0,baz=280,slow=8.2,SNR=5.3						
CTA				pP	pP	01 48 46.0	+1.3
	comp=Z,7.1nm,0.8s,baz=303,slow=10,SNR=4.5						
BRTR	**Keskin Array B**	61.22	310	P	**P**	**01 48 47.8**	**-2.6**
	comp=Z,3.1nm,0.6s,mb4.6,baz=127,slow=7.1,SNR=13						
BRTR				pP	pP	01 48 54.6	-2.9
	comp=Z,4.9nm,0.8s,baz=121,slow=7.2,SNR=10						
SGKT	**Sivrigoynuk**	62.59	311	*i* P	sP	01 49 07.2	-2.1
HENT	**Hendek**	63.50	311	*i* P	**P**	**01 49 08.8**	**+3.3**
BTOK	**Tokmak**	65.48	309	*i* P	**P**	**01 49 22.2**	**+3.7**
KDAG	**Bornova**	65.89	308	*i* P	**P**	**01 49 25.0**	**+3.9**
AYVA	**Ayvalik**	66.45	309	*i* P	**P**	**01 49 27.2**	**+2.6**
AKASG	**Malin Array Be**	66.78	321	P	**P**	**01 49 23.9**	**-2.7**
	comp=Z,0.7nm,0.4s,mb4.0,baz=84,slow=5.7,SNR=4.8						
IDI	**Anoyia**	67.47	304	P	**P**	**01 49 29.6**	**-1.7**
	comp=Z,6.7nm,0.7s,mb4.8,baz=100,slow=11,SNR=4.9						
IDI				pP	pP	01 49 36.6	-1.8
	comp=Z,11nm,1.0s,baz=80,slow=5.0,SNR=6.1						
MLR	**Muntele Rosu**	67.89	315	P	**P**	**01 49 32.5**	**-1.1**
	comp=Z,5.7nm,0.8s,mb4.7,baz=50,slow=5.9,SNR=8.0						
FINES	**FINESS Array B**	71.23	332	P	**P**	**01 49 53.1**	**-0.7**
	comp=Z,2.5nm,0.5s,mb4.4,baz=89,slow=6.0,SNR=11						
KAF	**Kangasniemi**	71.30	333	*e*p	**P**	**01 49 52.5**	**-1.8**
OJC	**Ojcow**	72.63	320	*e*P	**P**	**01 50 01.2**	**-1.2**
KEV	**Kevo**	73.30	340	*e*p	**P**	**01 50 04.9**	**-1.0**
	comp=Z,13nm,0.8s,mb4.9						
ARCES	**ARCESS Array B**	73.73	340	P	**P**	**01 50 08.1**	**-0.3**
	comp=Z,5.3nm,0.7s,mb4.6,baz=95,slow=6.7,SNR=18						
GERES	**GERESS Array B**	76.50	318	P	**P**	**01 50 24.0**	**-0.7**
	comp=Z,4.8nm,0.7s,mb4.5,baz=87,slow=5.4,SNR=22						
GERES				pP	pP	01 50 31.1	-0.9
	comp=Z,3.4nm,0.6s,baz=94,slow=5.4,SNR=13						
KHC	**Kasperske Hory**	76.59	318	*e*P	**P**	**01 50 24.5**	**-0.7**
HFS	**Hagfors**	76.99	330	P	**P**	**01 50 26.4**	**-0.8**
	comp=Z,1.9nm,0.3s,mb4.5,baz=104,slow=5.9,SNR=22						
NB2	**NORSAR Subarra**	78.26	330	P	**P**	**01 50 32.7**	**-1.4**
	comp=Z,4.3nm,0.8s,mb4.4,baz=91,slow=5.6						
NOA	**NORSAR Array B**	78.26	330	P	**P**	**01 50 33.1**	**-1.0**
	comp=Z,4.0nm,0.9s,mb4.4,baz=93,slow=5.5,SNR=7.3						
LPG	**La Plagne**	81.34	315	*e*P	**P**	**01 50 50.4**	**-0.6**
	comp=Z,27nm,0.7s,mb5.0						
ESDC	**Sonseca Array**	90.02	310	P	**P**	**01 51 34.3**	**+0.1**
	comp=Z,0.7nm,0.4s,mb4.3,baz=62,slow=4.1,SNR=8.4						
ESDC				pP	pP	01 51 41.4	-0.1
	comp=Z,1.6nm,0.6s,baz=52,slow=4.4,SNR=7.8						
ILAR	**Eielson Array**	93.42	22	P	**P**	**01 51 49.1**	**0.0**
	comp=Z,1.6nm,0.7s,mb4.5,baz=298,slow=4.5,SNR=13						
ILAR				pP	pP	01 51 56.6	+0.1
	comp=Z,0.9nm,0.8s,baz=282,slow=4.5,SNR=4.5						
INK	**Inuvik**	95.59	16	P	**P**	**01 51 59.8**	**+0.7**
	comp=Z,3.0nm,0.6s,mb4.9,baz=317,slow=4.2,SNR=17						
YKA	**Yellowknife Ar**	104.99	13	PKKPbc		02 08 22.6	
	comp=Z,0.3nm,0.4s,baz=153,slow=3.1,SNR=5.3						
NVAR	**Mina Array Bea**	123.73	30	PKP	PKPdf	01 57 34.0	-1.7
	comp=Z,1.2nm,0.5s,baz=311,slow=2.0,SNR=5.8						
NVAR				pPKP		01 57 41.3	
	comp=Z,1.1nm,0.6s,slow=3.0,SNR=4.7						
NVAR				PP	PP	01 59 15.8	-2.9
	comp=Z,7.1nm,0.8s,baz=292,slow=1.8,SNR=3.6						
PDAR	**Pinedale Array**	123.83	21	PKP	PKPdf	01 57 33.0	-2.7
	comp=Z,0.9nm,0.6s,baz=121,slow=1.8,SNR=7.6						
PDAR				pPKP		01 57 40.3	
	comp=Z,0.9nm,0.8s,baz=63,slow=3.3,SNR=3.4						
TXAR	**Lajitas Array**	137.93	23	PKhKP		01 57 51.7	
	comp=Z,0.3nm,0.5s,baz=209,slow=0.2,SNR=3.9						
TXAR				PKP	PKPdf	01 58 00.7	-2.1
	comp=Z,0.8nm,0.5s,baz=303,slow=0.4,SNR=14						
SDV	**Santo Domingo**	156.15	319	PKPab	PKPab	01 58 57.5	-0.8
	comp=Z,1.5nm,0.2s,baz=234,slow=1.8,SNR=3.8						
LVC	**Limon Verde**	158.91	229	PKPab	PKPab	01 59 10.6	+0.6
	comp=Z,12nm,1.1s,baz=352,slow=1.1,SNR=8.1						
LPAZ	**La Paz**	161.18	247	PKPab	PKPab	01 59 19.9	+0.1
	comp=Z,2.0nm,0.6s,baz=137,slow=7.7,SNR=7.6						

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*BJI **29** 01:39:40.1, 8.25N×93.08E, h47^{km}, mB6.0, mb5.6, Ms5.7, Msz5.5*

*MOS **29** 01:39:41.0±1.0, 8.64N×93.01E, h33^{km}, mb5.7/64, MS5.5/17, Error ellipse: s-maj=8.4km s-min=4.1km az=123.6*

*NEIC **29** 01:39:41.2±0.1, 8.38N×93.16E, h34^{km}, mb5.5/78, ME5.5, MW5.8, Error ellipse: s-maj=6.2km s-min=4.2km az=209.0 Broadband fault plane solution: P waves. NP1:ϕ_s160°, δ75°, λ90°. NP2:ϕ_s340°, δ15°, λ90°. Principal axes: T Plg60°, Azm70°; N Plg0°, Azm0°; P Plg30°, Azm250°; Moment Tensor Solution. s23 Moment tensor: Scale*

10^{17} Nm; M_{rr}3.08; $M_{\theta\theta}$-0.54; $M_{\phi\phi}$-2.53; $M_{r\theta}$2.02; $M_{\theta\phi}$0.29; $M_{\phi r}$-5.67; Best double couple: $M_0$6.6×10^{17} NP1:ϕ_s357°, δ13°,λ105°. NP2:ϕ_s162°,δ78°,λ87°. Principal axes: T 6.93, Plg57°, Azm67°; N -.57, Plg3°, Azm162°; P -6.35, Plg32°, Azm254°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.

*HRVD **29** 01:39:41.2±0.2, 8.22N×93.02E, h39^{km}, MW5.9/68, Centroid moment Tensor Solution. LP body waves: s68,c137;Mantle waves: s62,c114; Half duration: 2^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}3.26±.09; $M_{\theta\theta}$-0.02±.09; $M_{\phi\phi}$-3.24±.09; $M_{r\theta}$1.07±.12; $M_{\theta\phi}$1.78±.08; $M_{\phi r}$-6.66±.12; Best double couple: $M_0$7.68×10^{17} NP1: ϕ_s318°,δ16°,λ60°. NP2:ϕ_s170°,δ76°,λ98°. Principal axes: T 7.42, Plg58°, Azm91°; N .52, Plg8°, Azm348°; P -7.94, Plg31°, Azm253°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **29** 01:39:41.2, 8.39N×93.19E, h34^{km}, MB5.7, MS5.6*

*IDC **29** 01:39:44.0±1.4, 8.34N×93.41E, h58^{km}±11^{km}, mb5.2/28, mb1 5.2/28, mb1mx5.2/28, mbtmp5.4/28, MS5.5/9, Ms1 5.5/9, ms1mx4.9/31, Error ellipse: s-maj=14.4km s-min=8.1km az=43.0*

ISC 29 01:39:40.2±0.2**, 8.30N**±0.03×**93.19E**±0.02**, h42^{km}, h42^{km}**±1.0^{km}**:pP-P, n675,** σ**1^{s}15**/592**, mb5.5**/148**, MS5.6**/41**, 56C-51D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNG	**Songkhla**	**7.44**	**98**	⇑P	**S**	**01 42 45.0**	**-8.0**
	374nm,0.7s						
NST	**Nakhon Sawan**	**9.99**	**42**	P	**P**	**01 42 06.0**	**+1.8**
CM31	**Chiang Mai Arr**	**11.54**	**28**	*e*Pn	**P**	**01 42 26.0**	**+0.6**
	158nm,0.6s						
CMAR	**Chiang Mai Arr**	**11.54**	**28**	P	**P**	**01 42 27.9**	**+2.5**
	13nm,0.3s,baz=214,slow=14,SNR=23						
CMAR				LR	LR	01 46 50.7	
	comp=Z,18µm,21.4s,baz=210,slow=37						
CMAR				PcP	PcP	01 48 16.0	+1.6
	0.3nm,0.3s,baz=238,slow=2.8,SNR=4.3						
CMAR				ScP		01 51 44.5	
	0.6nm,0.3s,baz=240,slow=3.1,SNR=38						
KKTK	**Khon Kaen**	**12.34**	**49**	P	**P**	**01 42 39.0**	**+2.9**
	2µm,0.9s						
VIS	**Vishakhapatnam**	**13.41**	**315**	⇓*e*P	**P**	**01 42 47.4**	**-2.9**
	comp=Z,776nm,1.2s						
VIS				*e*S	**S**	**01 45 00.0**	**-19**
VIS				*i*	AMS	01 48 23.9	
	comp=Z,24µm,21.9s						
UBT	**Ubonrachathani**	**13.47**	**58**	⇑P	**P**	**01 42 54.5**	**+3.4**
	comp=Z,417nm,1.1s						
MDRS	**Chennai**	**13.57**	**292**	*e*P	**P**	**01 42 51.6**	**-1.0**
MDRS				*i*	AMS	01 48 12.8	
	comp=Z,30µm,21.5s						
VJD	**Vijayawada**	**14.71**	**305**	*i* P	**P**	**01 43 05.0**	**-2.5**
VJD				*i*	**S**	**01 45 31.0**	**-19**
CAL	**Calcutta**	**14.91**	**342**	*e*P	**P**	**01 43 13.5**	**+3.5**
CAL				*e*		01 46 07.2	
AGT	**Agartala**	**15.61**	**353**	⇑*i*P	**P**	**01 43 18.0**	**-1.0**
KOD	**Kodaikanal**	**15.64**	**278**	⇓*e*P	**P**	**01 43 18.0**	**-1.5**
KOD				*e*		01 47 45.6	
TRD	**Trivandrum**	**16.06**	**272**	⇓*e*P	**P**	**01 43 22.9**	**-1.9**
TRD				*e*S	**S**	**01 46 16.3**	**-5.0**
TRD				*i*		01 49 25.2	
	comp=Z,23µm,21.0s						
IMP	**Imphal**	**16.41**	**2**	*i* P	**P**	**01 43 28.4**	**-0.7**
HYB	**Hyderabad**	**16.89**	**304**	⇓*e*P	**P**	**01 43 33.0**	**-2.3**
HYB	**Hyderabad**	**16.89**	**304**	⇓*i*P	**P**	**01 43 33.0**	**-2.3**
HYB				*e*S	**S**	**01 46 48.0**	**+7.5**
HYB				LR	LR	01 49 12.0	
	comp=Z,22nm,22.0s						
BOK	**Bokaro**	**16.92**	**336**	⇑*e*P	**P**	**01 43 36.4**	**+0.7**
BOK				*e*		01 43 41.6	
	comp=Z,368nm,1.2s						
BOK				*e*	**S**	**01 46 32.1**	**-9.0**
SHL	**Shillong**	**17.22**	**356**	*e*P	**P**	**01 43 38.0**	**-1.3**
SHL				*e*	**S**	**01 46 44.0**	**-3.8**
BLSP	**Bilaspur**	**17.39**	**323**	⇓*e*P	**P**	**01 43 41.3**	**-0.2**
BLSP				*e*		01 43 46.7	
	comp=Z,428nm,1.5s						
BLSP				*e*S	**S**	**01 46 51.5**	**-0.2**
MNGI	**Mangalore**	**18.63**	**286**	⇓*e*P	**P**	**01 43 57.6**	**+0.7**
MNGI				*e*	**S**	**01 47 11.0**	**-8.8**
	comp=Z,2µm,1.1s						
NGP	**Nagpur**	**18.69**	**315**	⇓*e*P	**P**	**01 43 58.0**	**+0.3**
NGP				*e*	**S**	**01 47 13.8**	**-7.3**
SLGI	**Shiliguri**	**18.85**	**347**	*e*	**P**	**01 44 01.8**	**+2.3**
LATR	**Latur**	**19.03**	**304**	*e*P	**P**	**01 43 59.0**	**-2.7**
KMI	**Kunming**	**19.05**	**27**	⇑P	**P**	**01 44 03.8**	**+2.0**
KMI				AP		01 44 13.3	
KMI				XP		01 44 17.5	
KMI				PP	PP	01 44 21.3	+2.6
KMI				PPP	PPP	01 44 29.8	+1.8
KMI				S	**S**	**01 47 37.0**	**+7.9**
KMI				XS		01 47 50.0	
KMI				SS	SS	01 48 00.5	+5.2
KMI				AMB	AMB		
	comp=Z,296nm,1.2s						
KMI				AMB	AMB		
	comp=Z,4µm,5.9s						
KMI				LR	LR		
	comp=N,12µm,23.2s						
KMI				LR	LR		
	comp=Z,20µm,27.6s						
QIZ	**Qiongzhong**	**19.36**	**55**	⇑*i*P	**P**	**01 44 06.5**	**+1.2**
QIZ				S	**S**	**01 47 37.5**	**+1.4**
QIZ				XS		01 47 49.5	
QIZ				AMB	AMB		
	comp=Z,180nm,1.2s						
QIZ				AMB	AMB		
	comp=Z,5µm,9.3s						
QIZ				LR	LR		
	comp=N,19µm,17.1s						
QIZ				LR	LR		
	comp=E,9µm,22.7s						
QIZ				LR	LR		
	comp=Z,15µm,24.6s						
QIZ	**Qiongzhong**	**19.36**	**55**	*e*P	**P**	**01 44 06.5**	**+1.3**
	comp=Z,263nm,1.0s						
AKL	**Akola**	**19.91**	**310**	*e*P	**P**	**01 44 12.5**	**+1.3**
AKL				*i*	**S**	**01 47 35.9**	**-12**
MNCY	**Minicoy**	**19.95**	**271**	⇓*i*		01 44 23.0	
MNCY				*i*		01 46 29.0	
ALBI	**Allahabad**	**20.10**	**329**	*e*P	**P**	**01 44 13.0**	**-0.2**
PKI	**Pulchoki**	**20.53**	**340**	*e*P	**P**	**01 44 18.2**	**+0.5**
	comp=Z,1µm,1.2s						
KAD	**Karad**	**20.57**	**298**	⇓*e*P	**P**	**01 44 17.2**	**-0.9**
KAD				*e*		01 44 21.9	
	comp=Z,579nm,1.4s						
KAD				*e*S	**S**	**01 48 02.5**	**+1.7**
DMN	**Daman**	**20.67**	**339**	*e*P	**P**	**01 44 19.9**	**+0.7**
GUN	**Gumba**	**20.69**	**341**	*e*P	**P**	**01 44 20.1**	**+0.7**
	comp=Z,2µm,1.0s						
KKN	**Kakani**	**20.78**	**340**	*e*P	**P**	**01 44 20.6**	**+0.3**
	comp=Z,1µm,1.2s						
GKN	**Gorkha**	**21.20**	**339**	*e*P	**P**	**01 44 25.3**	**+0.8**
	comp=Z,2µm,1.1s,mb6.3						
BHPL	**Bhopal**	**21.20**	**316**	⇓*e*P	**P**	**01 44 25.1**	**+0.5**
BHPL				*e*		01 44 30.1	
	comp=Z,394nm,1.1s						
BHPL				*e*S	**S**	**01 48 16.3**	**+3.4**
POO	**Poona**	**21.36**	**300**	⇓*e*P	**P**	**01 44 25.8**	**-0.4**
POO				*e*		01 44 31.7	
	comp=Z,334nm,1.5s						
POO				*e*S	**S**	**01 48 19.2**	**+3.2**
LSA	**Lhasa**	**21.38**	**355**	*e*P	**P**	**01 44 26.5**	**+0.2**
LSA				pmax	pmax		
	comp=Z,311nm,0.8s,mb5.7						
LSA	**Lhasa**	**21.38**	**355**	*e*P	**P**	**01 44 26.4**	**+0.2**
	comp=Z,311nm,0.8s,mb5.7						
KOLN	**Koldanda**	**21.38**	**336**	*e*P	**P**	**01 44 27.6**	**+1.2**
	comp=Z,1µm,1.2s,mb6.1						
GYA	**Guiyang**	**22.13**	**34**	⇑*i*P	**P**	**01 44 35.0**	**+1.2**
GYA				AP		01 44 43.8	
GYA				PP	PP	01 45 02.5	+1.7
GYA				S	**S**	**01 48 35.3**	**+5.2**
GYA				XS		01 48 52.5	
GYA				AMB	AMB		
	comp=Z,290nm,1.1s,mb5.6						
GYA				AMB	AMB		
	comp=Z,7µm,6.2s						
GYA				LR	LR		
	comp=N,11µm,21.5s,MS5.3						
GYA				LR	LR		
	comp=E,6µm,18.8s,MS5.3						
GYA				LR	LR		
	comp=Z,15µm,20.3s,MS5.4						
BOM	**Bombay**	**22.41**	**300**	⇓*e*P	**P**	**01 44 38.1**	**+1.6**
BOM				*e*S	**S**	**01 48 40.6**	**+5.5**
BHV	**Bhavnagar**	**24.29**	**306**	*e*P	**P**	**01 44 58.0**	**+3.0**
GZH	**Guangzhou**	**24.29**	**50**	P	**P**	**01 45 00.0**	**+4.9**
GZH				AMB	AMB		
	comp=Z,4µm,7.8s						
GZH				LR	LR		
	comp=N,6µm,24.0s,MS5.3						
GZH				LR	LR		
	comp=E,9µm,20.6s,MS5.3						
GZH				LR	LR		
	comp=Z,16µm,22.1s,MS5.5						
LGTI	**Lohaghat**	**24.30**	**332**	*e*P	**P**	**01 44 57.3**	**+2.2**
BATP	**Bataraza**	**24.34**	**87**	*e*P	**P**	**01 44 56.5**	**+0.9**
PTH	**Pithoragarh**	**24.40**	**332**	*e*P	**P**	**01 44 57.8**	**+1.7**
PTH				*e*S	**S**	**01 49 13.9**	**+3.8**
HKC	**Hong Kong**	**24.51**	**53**	⇑*i*P	**P**	**01 45 00.0**	**+2.8**
HKC				*i* S	**S**	**01 49 22.0**	**+10**
CD2	**Chengdu**	**24.57**	**22**	⇑*i*P	**P**	**01 44 58.3**	**+0.6**
CD2				S	**S**	**01 49 13.5**	**+0.6**
CD2				SS	SS	01 50 08.0	-2.1
CD2				AMB	AMB		
	comp=Z,120nm,0.6s,mb5.6						
CD2				AMB	AMB		
	comp=Z,4µm,4.8s						
CD2				LR	LR		
	comp=N,7µm,18.6s						
CD2				LR	LR		
	comp=Z,9µm,25.8s						
AJM	**Ajmer**	**25.24**	**318**	⇓*e*P	**P**	**01 45 05.2**	**+1.1**
AJM				*e*		01 45 08.7	
	comp=Z,144nm,1.6s						
AJM				*e*S	**S**	**01 49 27.2**	**+3.0**
NDI	**New Delhi**	**25.25**	**325**	⇑*e*P	**P**	**01 45 05.7**	**+1.4**
NDI				*e*	**S**	**01 49 22.0**	**-2.4**
DGAR	**Diego Garcia**	**25.91**	**234**	⇓*i*P	**P**	**01 45 11.4**	**+0.9**
DGAR	**Diego Garcia**	**25.91**	**234**	*e*P	**P**	**01 45 10.8**	**+0.3**
	comp=Z,1µm,1.6s,mb6.3						
ENPP	**El Nido**	**26.01**	**81**	*e*P	**P**	**01 45 11.2**	**-0.3**
DDI	**Dehra Dun**	**26.09**	**329**	*e*P	**P**	**01 45 14.3**	**+2.2**
DDI				*e*	**S**	**01 49 46.5**	**+8.2**
ENH	**Enshi**	**26.66**	**33**	⇑*i*P	**P**	**01 45 16.7**	**-0.6**
	comp=Z,328nm,0.9s,mb5.9						
SRDI	**Scrawed**	**26.71**	**128**	⇓*e*P	**P**	**01 45 15.0**	**-3.0**
KELI	**Kelakatan**	**26.83**	**127**	⇑*e*P	**P**	**01 45 17.2**	**-1.8**
BHJ	**Bhuj**	**27.03**	**306**	*e*P	**P**	**01 45 21.1**	**+0.3**
BHJ				*e*		01 45 24.5	
	comp=Z,84nm,1.5s						
BHJ				*e*S	**S**	**01 49 55.4**	**+1.7**
LUBP	**Lubang**	**27.09**	**76**	*e*P	**P**	**01 45 21.1**	**-0.2**
CUYO	**Cuyo Island**	**27.55**	**82**	*e*P	**P**	**01 45 25.4**	**-0.2**
SJMP	**San Jose**	**27.77**	**79**	*e*P	**P**	**01 45 27.6**	**+0.1**
TGY	**Tagaytay City**	**27.80**	**76**	P	**P**	**01 45 27.4**	**-0.5**
	comp=Z,149nm,0.3s,mb6.1,baz=252,slow=8.8,SNR=5.3						
BHK	**Bhakra**	**27.81**	**328**	*e*P	pP	01 45 41.4	+2.4
RATI	**Rata**	**27.95**	**127**	⇓*e*P	**P**	**01 45 30.9**	**+1.6**
KEDI	**Kedomdong**	**28.28**	**126**	⇑*e*P	**P**	**01 45 27.6**	**-4.6**
KEDI				pmax	pmax		
	comp=Z,123nm,0.7s,mb5.6						
KEDI	**Kedomdong**	**28.28**	**126**	⇑*e*P	**P**	**01 45 27.6**	**-4.6**
	comp=Z,123nm,0.7s,mb5.7						
ABRA	**Dolores**	**28.34**	**68**	*e*P	**P**	**01 45 36.2**	**+3.5**
LQP	**Lukban**	**28.38**	**76**	⇑*e*P	**P**	**01 45 33.9**	**+0.8**
PONG	**Pong**	**28.48**	**328**	*e*P	**P**	**01 45 35.0**	**+1.2**
OTRP	**Odiongan**	**28.64**	**79**	*e*P	**P**	**01 45 35.0**	**-0.3**
BALP	**Baler**	**28.70**	**72**	*e*P	**P**	**01 45 35.7**	**-0.2**
POLP	**Polilio Island**	**28.86**	**75**	*e*P	**P**	**01 45 36.8**	**-0.6**
APYP	**Conner**	**28.89**	**68**	*e*P	**P**	**01 45 37.4**	**-0.1**
DLH	**Dalhousie**	**28.93**	**329**	*e*P	**P**	**01 45 38.0**	**+0.2**
THN	**Thein Dam**	**28.98**	**328**	*e*P	**P**	**01 45 38.1**	**-0.1**
	comp=Z,47nm,0.9s,mb5.2						
THN				*e*S	**S**	**01 50 24.8**	**0.0**
GUIM	**Jordan**	**29.08**	**83**	*e*P	**P**	**01 45 39.5**	**+0.2**
RCP	**Roxas**	**29.28**	**81**	⇑*e*P	**P**	**01 45 42.4**	**+1.3**
LZH	**Lanzhou**	**29.32**	**18**	⇑P	**P**	**01 45 41.0**	**-0.2**
LZH				AP	pP	01 45 49.8	-2.7
LZH				XP	sP	01 45 53.8	-3.9
LZH				PP	PP	01 46 34.0	-3.1
LZH				S	**S**	**01 50 26.0**	**-4.2**
LZH				SCS	ScS	01 56 18.8	+1.6
LZH				AMB	AMB		
	comp=Z,165nm,1.4s,mb5.6						
LZH				AMB	AMB		
	comp=Z,1µm,4.8s						
LZH				LR	LR		
	comp=N,5µm,11.8s						
LZH				LR	LR		
	comp=Z,16µm,14.5s,MS5.8						
QZH	**Quanzhou**	**29.34**	**53**	⇑*i*P	**P**	**01 45 42.0**	**+0.5**
QZH				S	**S**	**01 50 37.0**	**+6.3**
QZH				AMB	AMB		
	comp=Z,290nm,1.1s,mb5.9						
QZH				AMB	AMB		
	comp=Z,3µm,5.1s						
QZH				LR	LR		
	comp=N,9µm,12.5s						
QZH				LR	LR		
	comp=E,18µm,20.0s						
QZH				LR	LR		
	comp=Z,18µm,17.5s,MS5.8						
XAN	**Xi'an**	**29.43**	**27**	P	**P**	**01 45 40.0**	**-2.2**
XAN				AMB	AMB		
	comp=Z,150nm,0.8s,mb5.8						
WHN	**Wuhan**	**29.68**	**39**	⇑P	**P**	**01 45 45.0**	**+0.5**
WHN				S	**S**	**01 50 40.0**	**+3.9**
WHN				LR	LR		
	comp=N,10µm,14.0s,MS5.7						
WHN				LR	LR		
	comp=E,8µm,13.0s,MS5.7						
SNPH	**Sibulan**	**29.70**	**86**	*e*P	**P**	**01 45 45.5**	**+0.7**
PAGZ	**Pagadian**	**29.89**	**89**	*e*P	**P**	**01 45 46.8**	**+0.3**
TBP	**Tagbilaran**	**30.32**	**85**	⇑*e*P	**P**	**01 45 50.9**	**+0.6**
OCLP	**Ormoc**	**31.08**	**82**	*e*P	**P**	**01 45 56.8**	**-0.3**
GTA	**Gaotai**	**31.54**	**10**	⇑*i*P	**P**	**01 46 01.0**	**+0.1**
GTA				AP	pP	01 46 12.5	+0.3
GTA				XP	sP	01 46 17.5	-0.1
GTA				PP	PP	01 47 04.3	-1.6
GTA				PPP	PPP	01 47 10.0	-11
GTA				PCP	PcP	01 48 53.8	+0.8
GTA				S	**S**	**01 51 02.3**	**-2.9**
GTA				XS		01 51 23.0	
GTA				SCP		01 52 32.3	
GTA				PCS		01 52 37.8	
GTA				SS	SS	01 52 50.5	-5.1
GTA				SCS	ScS	01 56 28.0	+0.2
GTA				AMB	AMB		
	comp=Z,465nm,1.2s,mb6.2						
GTA				AMB	AMB		
	comp=Z,2µm,7.2s						
GTA				LR	LR		
	comp=N,10µm,21.7s,MS5.6						
GTA				LR	LR		
	comp=E,8µm,20.2s,MS5.6						
GTA				LR	LR		
	comp=Z,11µm,25.9s						
BUKP	**Musuan**	**31.55**	**88**	*e*P	**P**	**01 46 01.4**	**+0.2**
DAV	**Davao City (W)**	**32.12**	**90**	*e*P	**P**	**01 46 08.0**	**+1.8**
NJ2	**Nanjing**	**33.57**	**42**	*e*P	**P**	**01 46 19.0**	**+0.4**
NJ2				AP	pP	01 46 28.5	-1.5
NJ2				XP	sP	01 46 33.8	-1.6
NJ2				PP	PP	01 47 29.3	-2.4
NJ2				S	**S**	**01 51 34.0**	**-2.9**
NJ2				XS		01 51 54.0	
NJ2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,6µm,6.8s						
NJ2				LR	LR		
	comp=N,12µm,20.2s,MS5.7						
NJ2				LR	LR		
	comp=E,9µm,25.0s,MS5.7						
NJ2				LR	LR		
	comp=Z,15µm,21.1s,MS5.7						
TIY	**Taiyuan**	**34.07**	**28**	⇑P	**P**	**01 46 20.0**	**-2.8**
TIY				S	**S**	**01 51 42.0**	**-2.6**
TIY				LR	LR		
	comp=N,11µm,18.0s						
SSE	**Sheshan**	**34.58**	**45**	P	**P**	**01 46 28.5**	**+1.2**
SSE				XP	sP	01 46 41.3	-2.8
SSE				PP	PP	01 47 47.0	+2.5
SSE				S	**S**	**01 51 56.5**	**+3.9**
SSE				XS		01 52 11.0	
SSE				AMB	AMB		
	comp=Z,161nm,1.1s,mb5.9						
SSE				AMB	AMB		
	comp=Z,911nm,5.9s						
SSE				LR	LR		
	comp=N,20µm,12.3s,MS6.2						
SSE				LR	LR		
	comp=E,22µm,12.3s,MS6.2						
SSE				LR	LR		
	comp=Z,15µm,11.6s,MS6.0						
KSH	**Kashi**	**34.70**	**336**	*i* P	**P**	**01 46 29.5**	**+1.3**
KSH				AP	pP	01 46 38.5	-1.2
KSH				XP	sP	01 46 43.5	-1.6
KSH				PP	PP	01 47 46.0	0.0
KSH				PPP	PPP	01 48 03.8	-0.2
KSH				PCP	PcP	01 49 03.0	+1.3
KSH				S	**S**	**01 51 56.0**	**+1.6**
KSH				XS		01 52 11.3	
KSH				*e*PCS		01 52 50.0	
KSH				SS	SS	01 54 07.5	-1.2
KSH				SCS	ScS	01 56 46.3	+2.1
KSH				AMB	AMB		
	comp=Z,1µm,5.6s						
KSH				LR	LR		
	comp=N,4µm,7.4s						
KSH				LR	LR		
	comp=E,4µm,6.6s						
TIA	**Tai'an**	**35.32**	**35**	P	**P**	**01 46 34.0**	**+0.4**
TIA				AMB	AMB		
	comp=Z,75nm,1.0s,mb5.6						
BTO	**Baotou**	**35.49**	**22**	*e*P	**P**	**01 46 33.8**	**-1.2**
BTO				S	**S**	**01 52 03.0**	**-3.6**
BTO				AMB	AMB		
	comp=Z,46nm,0.9s,mb5.4						
BTO				LR	LR		
	comp=N,2µm,4.7s						
BTO				LR	LR		
	comp=E,3µm,14.7s						
WMQ	**Urumqi**	**35.71**	**353**	⇑P	**P**	**01 46 37.3**	**+0.5**
WMQ				AP	pP	01 46 47.3	-1.0
WMQ				XP	sP	01 46 51.5	-2.1
WMQ				PP	PP	01 47 58.8	+0.5
WMQ				PPP	PPP	01 48 18.5	+0.7
WMQ				S	**S**	**01 52 11.8**	**+1.9**
WMQ				AMB	AMB		
	comp=Z,11nm,0.5s,mb5.0						
WMQ				LR	LR		
	comp=N,10µm,33.2s,MS5.4						
WMQ				LR	LR		
	comp=E,2µm,33.3s,MS5.4						
WMQ				LR	LR		
	comp=Z,5µm,27.4s						
HHC	**Hu-ho-hao-te**	**36.30**	**24**	⇑*i*P	**P**	**01 46 41.3**	**-0.5**
HHC				AP	pP	01 46 51.0	-2.3
HHC				XP	sP	01 46 54.8	-3.8
HHC				PP	PP	01 48 03.3	-2.4
HHC				PCP	PcP	01 49 06.0	-0.4
HHC				S	**S**	**01 52 15.3**	**-3.7**
HHC				PCS		01 52 53.5	
HHC				SS	SS	01 54 41.3	-3.7
HHC				SCS	ScS	01 56 53.5	+0.7
HHC				AMB	AMB		
	comp=Z,83nm,0.9s,mb5.7						
HHC				AMB	AMB		
	comp=Z,1µm,5.9s						
HHC				LR	LR		
	comp=N,6µm,23.8s,MS5.4						
HHC				LR	LR		
	comp=E,6µm,20.8s,MS5.4						
HHC				LR	LR		
	comp=Z,8µm,27.4s						
ULHL	**Ulahol**	**36.97**	**339**	P	**P**	**01 46 48.4**	**+1.0**
	SNR=6.0						
KZA	**Kyzart**	**37.18**	**338**	P	**P**	**01 46 50.9**	**+1.7**
	SNR=17						
UCH	**Uchtor**	**37.59**	**337**	P	**P**	**01 46 54.0**	**+1.4**
	SNR=26						
AAA	**Alma-Ata**	**37.63**	**340**	*e*P	**P**	**01 46 53.0**	**0.0**
AAA				*e*S	**S**	**01 52 40.0**	**+0.7**
AAA				pmax	pmax		
	comp=Z,2µm,4.0s						
AAA				smax			
	comp=E,2µm,8.0s						
AAA				MLR	MLR		
	comp=Z,4µm,18.0s,MS5.3						
BJT	**Baijiatuau**	**37.67**	**29**	⇑*e*P	**P**	**01 46 54.5**	**+1.2**
BJT				pmax	pmax		
	comp=Z,130nm,0.8s						
BJT	**Baijiatuau**	**37.67**	**29**	⇑*e*P	**P**	**01 46 54.5**	**+1.2**
	comp=Z,130nm,0.8s,mb5.7						
BJI	**Beijing**	**37.69**	**29**	P	**P**	**01 46 54.5**	**+1.1**
BJI				PP	PP	01 48 21.3	-1.5
BJI				S	**S**	**01 52 42.5**	**+2.3**
BJI				AMB	AMB		
	comp=Z,121nm,1.2s,mb5.5						
BJI				AMB	AMB		
	comp=Z,3µm,5.4s						
BJI				LR	LR		
	comp=N,6µm,21.7s,MS5.5						
BJI				LR	LR		
	comp=E,6µm,21.7s,MS5.5						
BJI				LR	LR		
	comp=Z,9µm,25.0s,MS5.5						
TKM2	**Tokmak 2**	**37.79**	**339**	P	**P**	**01 46 57.5**	**+3.3**
	SNR=14						
KBK	**Karagaybulak**	**37.80**	**338**	P	**P**	**01 46 55.9**	**+1.6**
	SNR=28						
AML	**Almayashu**	**37.83**	**336**	P	**P**	**01 46 56.3**	**+1.6**
	SNR=44						
AAK	**Ala-Archa**	**37.95**	**337**	P	**P**	**01 46 56.7**	**+1.1**
	SNR=31						
AAK	**Ala-Archa**	**37.95**	**337**	*e*P	**P**	**01 46 55.5**	**-0.1**
AAK				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.5						
AAK	**Ala-Archa**	**37.95**	**337**	⇓*i*P	**P**	**01 46 52.4**	**-3.2**
JOW	**Kunigami**	**38.00**	**57**	P	**P**	**01 46 56.6**	**+0.5**
	comp=Z,35nm,0.3s,mb5.5,baz=118,slow=22,SNR=5.4						
JOW				LR	LR	02 02 34.8	
	comp=Z,8µm,22.0s,MS5.5,baz=102,slow=36						
FRU	**Bishkek**	**38.07**	**338**	*e*P	**P**	**01 46 58.5**	**+1.9**
FRU				*i*	pP	01 47 11.0	+2.8
FRU				*e*S	**S**	**01 52 48.5**	**+2.5**
FRU				pmax	pmax		
	comp=Z,390nm,2.0s,mb5.8						
FRU				MLR	MLR		
	comp=Z,9µm,22.0s,MS5.5						
CHMS	**Chumysh**	**38.16**	**338**	P	**P**	**01 46 58.5**	**+1.1**
	SNR=27						
EKS2	**Erkin-Say**	**38.25**	**337**	P	**P**	**01 46 59.6**	**+1.5**
	SNR=22						
USP	**Ospenovka**	**38.49**	**338**	P	**P**	**01 47 00.9**	**+0.8**
	SNR=33						
TAS	**Tashkent**	**39.12**	**331**	α*e*P	**P**	**01 47 02.5**	**-2.8**
TAS				*e*S	**S**	**01 52 58.0**	**-3.9**
TAS				pmax	pmax		
	comp=Z,2µm,4.0s						
MBWA	**Marble Bar**	**39.20**	**139**	*e*P	**P**	**01 47 05.1**	**-1.1**
	comp=Z,126nm,1.1s,mb5.6						
MK02	**Makanchi Array**	**39.45**	**348**	P	**P**	**01 47 07.8**	**-0.2**
MK02				pmax	pmax		
	comp=Z,64nm,0.9s,mb5.3						
DL2	**Dalian**	**39.76**	**36**	⇑*i*P	**P**	**01 47 12.5**	**+1.8**
DL2				PP	PP	01 48 49.0	+2.8
DL2				S	**S**	**01 53 08.3**	**-3.3**
DL2				AMB	AMB		
	comp=Z,170nm,1.0s,mb5.7						
DL2				AMB	AMB		
	comp=Z,1µm,5.5s						
DL2				LR	LR		
	comp=N,3µm,15.9s,MS5.4						
DL2				LR	LR		
	comp=E,3µm,11.1s,MS5.4						
DL2				LR	LR		
	comp=Z,2µm,30.8s						
SONM	**Songino Array**	**40.96**	**14**	P	**P**	**01 47 20.5**	**0.0**
	comp=Z,80nm,1.0s,mb5.3,baz=198,slow=7.8,SNR=58						
SONM				PcP	PcP	01 49 21.4	+0.5
	comp=Z,31nm,0.9s,baz=188,slow=1.6,SNR=6.3						
SONM				ScP		01 53 06.9	
	comp=Z,6.9nm,0.8s,baz=198,slow=4.2,SNR=5.6						
SONM				LR	LR	02 06 10.3	
	comp=Z,11µm,19.9s,MS5.7,baz=191,slow=39						
ULN	**Ulaanbaatar**	**41.15**	**14**	⇑*i*P	**P**	**01 47 21.7**	**-0.4**
ULN				pmax	pmax		

	comp=Z,43nm,0.8s,mb5.1						
ULN	**Ulaanbaatar**	**41.15**	**14**⇑	*i*P	**P**	**01 47 21.7**	**-0.4**
	comp=Z,44nm,0.8s,mb5.1						
INCN	**Inchon**	**41.94**	**41**	*e*P	**P**	**01 47 29.1**	**+0.3**
	comp=Z,250nm,1.2s,mb5.7						
KS15	**Wonju Array Si**	**42.74**	**42**	*e*P	**P**	**01 47 35.7**	**+0.4**
ZAK	**Zakamensk**	**42.78**	**10**⇓	*i*P	**P**	**01 47 35.1**	**-0.4**
SNY	**Shenyang**	**42.83**	**34**	⇑P	**P**	**01 47 36.5**	**+0.5**
SNY				XP	sP	01 47 50.5	-2.3
SNY				PP	PP	01 49 20.5	+2.5
SNY				S	**S**	**01 53 55.3**	**-1.7**
SNY				AMB	AMB		
	comp=Z,210nm,1.3s,mb5.7						
SNY				AMB	AMB		
	comp=Z,1µm,8.2s						
SNY				LR	LR		
	comp=N,4µm,19.1s,MS5.6						
SNY				LR	LR		
	comp=E,6µm,21.9s,MS5.6						
SNY				LR	LR		
	comp=Z,6µm,20.6s,MS5.5						
MOY	**Mondy**	**43.71**	**7**	*e*P	**P**	**01 47 43.2**	**+0.2**
TLY	**Talaya**	**44.09**	**9**	P	**P**	**01 47 47.2**	**+1.1**
	comp=Z,241nm,1.0s,mb5.9,SNR=9.8						
TLY	**Talaya**	**44.09**	**9**	*e*P	**P**	**01 47 46.7**	**+0.6**
TLY				*e*		01 49 33.6	
TLY				*e*S	**S**	**01 54 12.8**	**-2.5**
TLY				*e*SS	SS	01 57 36.5	+11
TLY				pmax	pmax		
	comp=Z,86nm,1.3s,mb5.3						
TLY				MLR	MLR		
	comp=Z,6µm,29.0s,MS5.3						
TLY	**Talaya**	**44.09**	**9**	*e*P	**P**	**01 47 46.4**	**+0.3**
	comp=Z,47nm,1.1s,mb5.1						
HASS	**Wahat al Ahsa’**	**44.67**	**298**	P	**P**	**01 47 52.6**	**+1.5**
IRK	**Irkutsk**	**44.74**	**10**	*e*P	**P**	**01 47 48.3**	**-3.0**
IRK				*e*	pP	01 48 02.7	-0.3
IRK				*e*		01 49 32.0	
CN2	**Changchun**	**45.18**	**33**	⇑P	**P**	**01 47 55.5**	**+0.6**
CN2				XP	sP	01 48 08.8	-2.8
CN2				PP	PP	01 49 43.0	+1.5
CN2				*e*S	**S**	**01 54 29.5**	**-1.5**
CN2				AMB	AMB		
	comp=Z,160nm,0.8s,mb5.9						
CN2				AMB	AMB		
	comp=Z,2µm,5.0s						
CN2				LR	LR		
	comp=N,9µm,15.0s,MS5.9						
CN2				LR	LR		
	comp=E,5µm,15.0s,MS5.9						
CN2				LR	LR		
	comp=Z,5µm,17.0s,MS5.5						
ZAL	**Zalesovo**	**46.01**	**353**	P	**P**	**01 48 01.4**	**0.0**
	comp=Z,852nm,1.4s,mb6.5,baz=207,slow=9.4,SNR=80						
ZAL				ScP		01 53 26.0	
	comp=Z,8.6nm,1.0s,baz=194,slow=4.1,SNR=5.4						
HIA	**Hailar**	**46.51**	**24**	*e*P	**P**	**01 48 05.1**	**-0.2**
HIA				pmax	pmax		
	comp=Z,207nm,1.0s						
HIA	**Hailar**	**46.51**	**24**	*e*P	**P**	**01 48 05.1**	**-0.2**
	comp=Z,207nm,1.0s,mb6.0						
NWAO	**Narrogin (SRO)**	**46.96**	**152**	P	**P**	**01 48 09.2**	**+0.1**
NWAO				S	**S**	**01 54 57.5**	**+1.0**
NWAO	**Narrogin (SRO)**	**46.96**	**152**	*e*P	**P**	**01 48 09.2**	**+0.1**
NWAO				pmax	pmax		
	comp=Z,146nm,0.9s						
NWAO	**Narrogin (SRO)**	**46.96**	**152**	P	**P**	**01 48 09.3**	**+0.2**
	comp=Z,164nm,0.8s,mb6.0,baz=319,slow=8.7,SNR=58						
NWAO	**Narrogin (SRO)**	**46.96**	**152**	*e*P	**P**	**01 48 09.2**	**+0.1**
	comp=Z,146nm,0.9s,mb5.9						
NVS	**Novosibirsk**	**47.09**	**352**	*i* P	**P**	**01 48 08.4**	**-1.4**
NVS				*i*		01 48 24.0	
NVS				*i* S	**S**	**01 54 55.2**	**-2.9**
NVS				*i*		01 57 54.9	
NVS				pmax	pmax		
	comp=N,128nm,1.3s						
NVS				pmax	pmax		
	comp=E,76nm,1.2s						
NVS				pmax	pmax		
	comp=Z,45nm,1.4s,mb5.2						
NVS				pmax	pmax		
	comp=E,13nm,1.3s						
NVS				pmax	pmax		
	comp=N,55nm,1.7s						
NVS				smax			
	comp=E,268nm,3.3s						
NVS				smax			
	comp=N,41nm,1.5s						
RYDS	**Riyadh**	**47.16**	**295**	P	**P**	**01 48 13.0**	**+2.2**
LBOS		**47.31**	**281**⇓	*e*P	**P**	**01 48 14.0**	**+1.9**
RDF	**Al-Radifah**	**47.50**	**302**	*e*P	**P**	**01 48 14.4**	**+0.9**
RDF				AMb	AMB	01 48 32.1	
	comp=Z,362nm,0.9s,mb6.4						
UMR	**Umm Al-Rimmam**	**47.54**	**303**	*e*P	**P**	**01 48 14.5**	**+0.7**
UMR				AMb	AMB	01 48 28.9	
	comp=Z,248nm,1.2s,mb6.1						
MIB	**Mutribah**	**47.93**	**303**	*e*P	**P**	**01 48 17.1**	**+0.3**
MIB				AMb	AMB	01 48 35.8	
	comp=Z,440nm,0.9s,mb6.5						
MDJ	**Mudanjiang**	**47.99**	**35**	P	**P**	**01 48 17.8**	**+0.8**
MDJ				AP	pP	01 48 26.5	-2.3
MDJ				XP	sP	01 48 31.3	-2.5
MDJ				PP	PP	01 50 08.5	0.0
MDJ				S	**S**	**01 55 14.5**	**+3.6**
MDJ				XS		01 55 32.3	
MDJ				SCS	ScS	01 58 06.0	+2.2
MDJ				SS	SS	01 58 38.3	+3.6
MDJ				AMB	AMB		
	comp=Z,125nm,1.0s,mb5.9						
MDJ				AMB	AMB		
	comp=Z,1µm,4.3s						
MDJ				LR	LR		
	comp=N,4µm,17.5s,MS5.7						
MDJ				LR	LR		
	comp=E,6µm,19.9s,MS5.7						
MDJ				LR	LR		
	comp=Z,6µm,18.3s,MS5.6						
MDJ	**Mudanjiang**	**47.99**	**35**	*e*P	**P**	**01 48 17.5**	**+0.5**
	comp=Z,72nm,0.8s,mb5.8						
RST	**Umm Al-Ruwaisa**	**48.13**	**302**	*e*P	**P**	**01 48 18.9**	**+0.6**
RST				AMb	AMB	01 48 37.5	
	comp=Z,396nm,0.9s,mb6.5						
BVA0	**Borovoye Array**	**48.29**	**342**	*i* P	**P**	**01 48 18.0**	**-1.2**
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
BVAR	**Borovoye Array**	**48.29**	**342**	P	**P**	**01 48 18.7**	**-0.5**
	comp=Z,11nm,0.5s,mb5.1,baz=143,slow=7.4,SNR=20						
BVAR				ScP		01 53 35.2	
	comp=Z,11nm,1.1s,baz=153,slow=3.3,SNR=4.3						
BRVK	**Borovoye**	**48.35**	**342**	*e*P	**P**	**01 48 18.6**	**-1.1**
BRVK				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
BRVK	**Borovoye**	**48.35**	**342**	*e*P	**P**	**01 48 18.6**	**-1.1**
	comp=Z,30nm,0.8s,mb5.4						
VLA	**Vladivostok**	**48.45**	**38**⇓	*i*P	**P**	**01 48 22.0**	**+1.3**
VLA				*i*		01 48 37.0	
VLA				*i*		01 50 13.0	
VLA				*i*		01 50 58.0	
VLA				pmax	pmax		
	comp=Z,2µm,7.0s						
VLA				pmax	pmax		
	comp=E,2µm,8.0s						
CHKZ	**Chkalovo**	**48.78**	**342**	*i* P	**P**	**01 48 22.6**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,116nm,1.3s,mb5.8						
CHKZ	**Chkalovo**	**48.78**	**342**	*e*P	**P**	**01 48 22.2**	**-0.8**
	comp=Z,120nm,1.0s,mb5.9						
WRA	**Warramunga Arr**	**49.27**	**125**	P	**P**	**01 48 25.4**	**-1.8**
	comp=Z,39nm,0.5s,mb5.7,baz=304,slow=8.5,SNR=49						
WRA				PcP	PcP	01 49 48.5	-1.5
	comp=Z,24nm,0.6s,baz=304,slow=8.9,SNR=6.7						
WRA				ScP		01 53 39.2	
	comp=Z,13nm,0.7s,baz=316,slow=3.9,SNR=8.5						
WRA				S	**S**	**01 55 24.8**	**-4.4**
	comp=Z,7.4nm,1.0s,baz=301,slow=15,SNR=8.7						
WRAB	**Tennant Creek**	**49.28**	**125**⇑	*i*P	**P**	**01 48 25.5**	**-1.8**
WRAB	**Tennant Creek**	**49.28**	**125**	*e*P	**P**	**01 48 25.1**	**-2.1**
	comp=Z,79nm,0.5s,mb6.0						
TATS	**Tathlith**	**49.37**	**289**	P	**P**	**01 48 29.3**	**+1.3**
JHJ	**Hachijo jima 2**	**49.55**	**53**	LR	LR	02 09 15.2	
	comp=Z,4µm,21.3s,MS5.4,baz=80,slow=36						
MAJO	**Matsushiro**	**49.58**	**48**	*e*P	**P**	**01 48 29.3**	**-0.1**
MAJO				pmax	pmax		
	comp=Z,32nm,0.7s,mb5.5						
MAJO	**Matsushiro**	**49.58**	**48**	*e*P	**P**	**01 48 29.3**	**-0.1**
	comp=Z,32nm,0.7s,mb5.5						
MAT	**Matsushiro**	**49.58**	**48**	P	**P**	**01 48 29.4**	**0.0**
MAT				S	**S**	**01 55 33.0**	**-0.2**
MAT	**Matsushiro**	**49.58**	**48**	*e*P	**P**	**01 48 29.0**	**-0.4**
MAT				S	**S**	**01 55 39.0**	**+5.8**
MAT				pmax	pmax		
	comp=Z,126nm,1.4s,mb5.8						
MAT				MLR	MLR		
	comp=Z,7µm,22.0s,MS5.6						
MAT	**Matsushiro**	**49.58**	**48**	*e*P	**P**	**01 48 29.0**	**-0.4**
	comp=Z,126nm,1.4s,mb5.8						
MAT				S	**S**	**01 55 39.0**	**+5.8**
MAT				LR	LR		
	comp=Z,7µm,22.0s,MS5.6						
CBIJ	**Chichi jima**	**49.92**	**62**	P	**P**	**01 48 30.2**	**-1.9**
	comp=Z,392nm,0.6s,baz=257,slow=2.2,SNR=21						
AFFS	**‘Afif**	**50.38**	**294**	P	**P**	**01 48 37.6**	**+1.9**
FRSS	**Farasan al Kab**	**50.45**	**285**	P	**P**	**01 48 38.2**	**+1.9**
ARSS	**Ar Rass**	**50.52**	**297**	P	**P**	**01 48 37.9**	**+1.1**
ASAR	**Alice Springs**	**50.91**	**130**	P	**P**	**01 48 37.9**	**-1.8**
	comp=Z,109nm,0.9s,mb5.8,baz=307,slow=7.4,SNR=82						
ASAR				PcP	PcP	01 49 55.6	-0.3
	comp=Z,32nm,0.8s,baz=306,slow=4.4,SNR=9.1						
ASAR				ScP		01 53 46.2	
	comp=Z,28nm,1.2s,baz=312,slow=3.8,SNR=6.1						
ASAR				S	**S**	**01 55 47.8**	**-4.0**
	comp=Z,3.6nm,0.8s,baz=292,slow=13,SNR=4.4						
BOD	**Bodaibo**	**51.96**	**14**⇓	*i*P	**P**	**01 48 46.3**	**-0.8**
KLR	**Kul’dur**	**52.00**	**31**κ	*i*P	**P**	**01 48 44.7**	**-2.9**
KLR				*e*		01 50 40.0	
KLR				*e*S	**S**	**01 56 06.0**	**-0.5**
KLR				pmax	pmax		
	comp=N,100nm,2.4s						
KLR				pmax	pmax		
	comp=E,160nm,2.4s						
KLR				pmax	pmax		
	comp=Z,220nm,2.4s,mb5.7						
KLR				pmax	pmax		
	comp=N,800nm,7.0s						
KLR				pmax	pmax		
	comp=E,700nm,7.0s						
KLR				pmax	pmax		
	comp=Z,2µm,7.0s						
HILS	**Ha’il**	**52.08**	**298**	P	**P**	**01 48 50.1**	**+1.6**
MAK	**Makhachkala**	**52.78**	**319**	*e*P	**P**	**01 48 54.0**	**+0.5**
MAK				*e*		01 50 03.0	
MAK				*i* S	**S**	**01 56 16.5**	**-0.7**
MAK				*i*		01 58 38.0	
MAK				pmax	pmax		
	comp=Z,2µm,7.0s						
MAK				smax			
	comp=N,4µm,8.0s						
GNI	**Garni**	**53.47**	**314**	P	**P**	**01 48 59.5**	**+0.8**
	comp=N,37nm,0.9s,mb5.3,baz=129,slow=2.6,SNR=20						
KBRS	**Khaybar**	**54.03**	**296**	P	**P**	**01 49 04.6**	**+1.6**
TI2	**Plekhanov**	**54.09**	**316**⇓	*i*P	**P**	**01 49 02.6**	**-0.6**
TI2				*i*	pP	01 49 15.6	+0.4
TI2				*e*S	**S**	**01 56 36.0**	**+1.0**
TI2				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.7						
CLNS	**Chul’man**	**54.37**	**21**	*e*P	**P**	**01 49 04.9**	**-0.1**
CLNS				pmax	pmax		
	comp=Z,81nm,1.0s,mb5.6						
CLNS				pmax	pmax		
	comp=N,58nm,0.9s						
CLNS				pmax	pmax		
	comp=E,59nm,1.1s						
SVE	**Sverdlovsk**	**54.66**	**339**	*e*P	**P**	**01 49 06.0**	**-1.2**
SVE				*e*		01 50 09.0	
SVE				*e*		01 51 10.0	
SVE				*e*S	**S**	**01 56 40.0**	**-2.5**
SVE				pmax	pmax		
	comp=Z,240nm,1.7s,mb6.0						
SVE				smax			
	comp=N,2µm,8.6s						
SVE				smax			
	comp=E,900nm,8.6s						
SVE				MLR	MLR		
	comp=Z,7µm,21.5s,MS5.7						
YNBS	**Yanbu‘ al Bahr**	**54.97**	**294**	P	**P**	**01 49 11.2**	**+1.3**
ZEI	**Tsey**	**55.09**	**317**	*e*P	**P**	**01 49 10.9**	**+0.4**
ZEI				*i* *PP	pP	01 49 20.8	-1.7
ZEI				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.3						
ARU	**Arti**	**55.13**	**337**⇓	*i*P	**P**	**01 49 07.6**	**-3.0**
ARU				*i*		01 50 10.6	
ARU				*i*		01 51 09.3	
ARU				*i* PPP	PPP	01 52 21.5	-7.7
ARU				*i* S	**S**	**01 56 47.7**	**-1.1**
ARU				*i*		01 58 52.3	
ARU				*e*SS	SS	02 00 34.1	+1.3
ARU				pmax	pmax		
	comp=Z,65nm,0.9s,mb5.7						
ARU				MLR	MLR		
	comp=Z,4µm,23.0s,MS5.4						
ARU				MLR	MLR		
	comp=N,3µm,21.0s,MS5.6						
ARU				MLR	MLR		
	comp=E,4µm,20.0s,MS5.6						
ARU	**Arti**	**55.13**	**337**	*e*P	**P**	**01 49 09.1**	**-1.6**
	comp=E,85nm,1.1s,mb5.7						
BTMT	**Batman**	**55.14**	**311**	*e*P	**P**	**01 49 11.5**	**+0.6**
BEST	**Besiri**	**55.21**	**311**	*i* P	**P**	**01 49 11.1**	**-0.3**
VRT	**Varto**	**55.42**	**312**	*e*P	**P**	**01 49 14.0**	**+1.1**
UMJS	**Umm Lajj**	**55.70**	**295**	P	**P**	**01 49 17.1**	**+2.0**
ERZM	**Erzurum**	**55.80**	**313**	*i* P	**P**	**01 49 16.0**	**+0.4**
EZM	**Erzurum**	**55.80**	**313**	*e*P	**P**	**01 49 16.6**	**+0.9**
BINT	**Bingol**	**56.10**	**312**	*e*P	**P**	**01 49 18.2**	**+0.3**
KIV	**Kislovodsk**	**56.37**	**318**	P	**P**	**01 49 19.7**	**0.0**
	comp=E,595nm,1.0s,mb6.6,SNR=16						
KIV	**Kislovodsk**	**56.37**	**318**	*e*P	**P**	**01 49 16.7**	**-3.0**
KIV				*e*		01 50 11.7	
KIV				*e*		01 51 21.9	
KIV				*i* S	**S**	**01 57 05.1**	**-0.4**
KIV				pmax	pmax		
	comp=N,79nm,1.3s						
KIV				pmax	pmax		
	comp=E,61nm,1.3s						
KIV				pmax	pmax		
	comp=Z,132nm,1.3s,mb5.8						
KIV				smax			
	comp=N,955nm,4.2s						
KIV				smax			
	comp=E,462nm,4.2s						
KIV				MLR	MLR		
	comp=Z,3µm,27.0s,MS5.3						
KIV				MLR	MLR		
	comp=N,1µm,18.0s						
KIV				MLR	MLR		
	comp=E,795nm,15.0s						
KIV	**Kislovodsk**	**56.37**	**318**⇓	*i*P	**P**	**01 49 16.6**	**-3.1**
KMBO	**Kilima Mbogo**	**56.54**	**263**	*i* P	**P**	**01 49 23.1**	**+1.8**
KMBO				pmax	pmax		
	comp=Z,32nm,0.9s						
KMBO	**Kilima Mbogo**	**56.54**	**263**	P	**P**	**01 49 23.1**	**+1.8**
	comp=Z,32nm,0.9s,mb5.3,baz=55,slow=9.3,SNR=34						
KMBO	**Kilima Mbogo**	**56.54**	**263**	*e*P	**P**	**01 49 22.7**	**+1.4**
	comp=Z,255nm,1.8s,mb6.0						
PMG	**Port Moresby**	**56.55**	**107**	P	**P**	**01 49 20.8**	**-0.6**
	comp=Z,128nm,0.7s,mb6.1,baz=304,slow=4.9,SNR=45						
GOF	**Gofitskoye**	**56.59**	**319**	*e*P	**P**	**01 49 19.0**	**-2.3**
GOF				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.6						
TBKS	**Tabuk**	**56.79**	**298**	P	**P**	**01 49 24.6**	**+1.6**
EZC	**Erzincan**	**56.87**	**312**	*e*P	**P**	**01 49 25.2**	**+1.9**
PTK	**Pertek**	**56.92**	**311**	*e*P	**P**	**01 49 23.9**	**+0.2**
URFA	**Urfa**	**56.93**	**309**	*e*P	**P**	**01 49 24.4**	**+0.6**
YSS	**Yuzh-Sakhalins**	**57.03**	**38**⇓	*e*P	**P**	**01 49 20.1**	**-4.3**
ELZG	**Elazig**	**57.11**	**311**	*i* P	**P**	**01 49 24.1**	**-0.9**
ASF	**Jabal al Asfar**	**57.20**	**303**	P	**P**	**01 49 26.8**	**+1.0**
	comp=Z,22nm,1.1s,mb5.1,baz=358,slow=1.0,SNR=20						
GUMT	**Gumushane**	**57.34**	**313**	*e*P	**P**	**01 49 25.7**	**-1.0**
MALT	**Malatya**	**57.47**	**310**	*e*P	**P**	**01 49 26.9**	**-0.7**
MALT				pmax	pmax		
	comp=Z,63nm,1.2s,mb5.5						
MALT	**Malatya**	**57.47**	**310**	*e*P	**P**	**01 49 26.9**	**-0.7**
	comp=Z,63nm,1.2s,mb5.5						
MYA	**Malataya**	**57.48**	**310**	*e*P	**P**	**01 49 27.0**	**-0.6**
JMQS	**Jabal Moqyreh**	**57.48**	**299**	P	**P**	**01 49 28.9**	**+1.1**
YUK	**Yuzh-Kuril’sk**	**57.85**	**43**	*e*P	**P**	**01 49 28.0**	**-2.2**
YUK				pmax	pmax		
	comp=Z,2µm,2.5s						
GZT	**Gaziantep**	**57.87**	**309**	*i* P	**P**	**01 49 30.0**	**-0.4**
AYUS	**‘Aynunah**	**57.91**	**298**	P	**P**	**01 49 31.8**	**+1.0**
SOKR	**Solikamsk**	**58.07**	**339**⇑	*i*P	**P**	**01 49 30.2**	**-1.3**
SOKR				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.6						
SOKR				MLR	MLR		
	comp=Z,7µm,23.0s,MS5.7						
BDAS	**Al Bad‘**	**58.09**	**298**	P	**P**	**01 49 32.8**	**+0.8**
GAZ	**Gaziantep**	**58.09**	**309**	*e*P	**P**	**01 49 31.5**	**-0.4**
MKRJ	**Makawir**	**58.13**	**302**	P	**P**	**01 49 33.0**	**+0.7**
JMOS	**Jabal al Moall**	**58.19**	**299**	P	**P**	**01 49 33.4**	**+0.7**
SOC	**Sochi**	**58.23**	**317**	*i* P	**P**	**01 49 31.7**	**-1.1**
SOC				*e*		01 50 23.6	
SOC				*e*		01 51 43.1	
SOC				*e*PPP	PPP	01 53 00.0	-7.0
SOC				*i* S	**S**	**01 57 26.6**	**-3.2**
SOC				pmax	pmax		
	comp=Z,78nm,1.1s,mb5.7						
SOC				pmax	pmax		
	comp=N,22nm,1.0s						
SOC				pmax	pmax		
	comp=E,20nm,1.1s						
ALWS	**Ilw as Safayha**	**58.25**	**299**	P	**P**	**01 49 34.3**	**+1.1**
KSHT	**Keshet**	**58.26**	**304**	P	**P**	**01 49 34.0**	**+0.8**
MZDA	**Masada**	**58.32**	**302**	P	**P**	**01 49 34.5**	**+0.9**
AQBJ	**Aqaba**	**58.32**	**300**	P	**P**	**01 49 34.4**	**+0.7**
HAQS	**Haql**	**58.33**	**299**	P	**P**	**01 49 34.6**	**+0.9**
DRGI	**Dragot**	**58.34**	**302**	P	**P**	**01 49 34.5**	**+0.7**
EIL	**Elat**	**58.40**	**300**	P	**P**	**01 49 34.9**	**+0.7**
EIL	**Elat**	**58.40**	**300**	*e*P	**P**	**01 49 34.6**	**+0.4**
	comp=E,192nm,1.4s,mb5.9						
MBH	**Mount Berech**	**58.45**	**300**	P	**P**	**01 49 35.5**	**+0.9**
PRNI	**Paran**	**58.46**	**300**	P	**P**	**01 49 35.4**	**+0.8**
KAHT	**Ahir Dag**	**58.47**	**309**	*i* P	**P**	**01 49 33.9**	**-0.7**
MMLI	**Mount Malkishu**	**58.48**	**303**	P	**P**	**01 49 35.6**	**+0.9**
ANTT		**58.68**	**307**	Pn	PcP	01 50 22.1	-3.4
MASH	**Mash‘abbe Sade**	**58.75**	**301**	P	**P**	**01 49 37.2**	**+0.5**
SLTI	**Sal’it**	**58.76**	**303**	P	**P**	**01 49 37.4**	**+0.7**
HNTI	**Hanita**	**58.80**	**304**	P	**P**	**01 49 37.7**	**+0.7**
RTMM	**Retamin**	**58.85**	**301**	P	**P**	**01 49 37.7**	**+0.4**
HAF	**Haifa**	**58.87**	**303**	P	**P**	**01 49 37.9**	**+0.5**
OFRI	**‘Ofer**	**58.87**	**303**	P	**P**	**01 49 38.1**	**+0.6**
KZIT	**Kziot**	**59.07**	**301**	P	**P**	**01 49 39.4**	**+0.5**
CEYT	**Ceyhan**	**59.19**	**308**	*e*P	**P**	**01 49 40.8**	**+1.2**
CTA	**Charters Tower**	**59.33**	**119**	P	**P**	**01 49 39.6**	**-1.2**
	comp=E,39nm,0.7s,mb5.5,baz=303,slow=8.3,SNR=23						
CTAO	**Charters Tower**	**59.33**	**119**	P	**P**	**01 49 39.7**	**-1.1**
CTAO	**Charters Tower**	**59.33**	**119**	P	**P**	**01 49 40.7**	**-0.1**
CTAO	**Charters Tower**	**59.33**	**119**⇑	*e*P	**P**	**01 49 39.5**	**-1.3**
	comp=E,50nm,0.9s,mb5.5						
TOKT	**Tokat**	**59.44**	**312**	*e*P	**P**	**01 49 39.7**	**-1.6**
BNN	**Bunyan**	**59.57**	**310**	*e*P	**P**	**01 49 40.6**	**-1.6**
YAK	**Yakutsk**	**59.89**	**19***c*	*i*P	**P**	**01 49 42.6**	**-1.5**
YAK				*e*		01 50 28.4	
YAK				*e*		01 51 55.0	
YAK				*e*PPP	PPP	01 53 18.3	-6.0
YAK				*e*S	**S**	**01 57 45.4**	**-5.8**
YAK				*e*SS	SS	02 01 52.5	+3.5
YAK				pmax	pmax		
	comp=Z,82nm,1.0s,mb5.7						
YAK				pmax	pmax		
	comp=N,28nm,0.9s						
YAK				pmax	pmax		
	comp=E,26nm,1.1s						
YAK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
YAK				pmax	pmax		
	comp=N,8.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.1s						
YAK				smax			
	comp=E,17nm,1.1s						
YAK				smax			
	comp=N,18nm,1.0s						
YAK	**Yakutsk**	**59.89**	**19**⇓	*i*P	**P**	**01 49 40.4**	**-3.7**
AVNT	**Avonos**	**60.30**	**310**	*i* P	**P**	**01 49 46.6**	**-0.6**
NIG	**Nigde**	**60.32**	**309**	*e*P	**P**	**01 49 47.8**	**+0.4**
MEST	**Erdemli**	**60.34**	**307**	*i* P	**P**	**01 49 46.4**	**-1.1**
CSS	**Prodhromos**	**60.66**	**305**	*e*P	**P**	**01 49 49.2**	**-0.6**
	comp=N,87nm,1.4s,mb5.7						
CTKT	**Corum**	**60.81**	**312**	*i* P	**P**	**01 49 48.6**	**-2.0**
CORM	**Corum**	**60.81**	**312**	*e*P	**P**	**01 49 51.0**	**+0.4**
BOYT	**Boyabat**	**60.94**	**313**	*i* P	**P**	**01 49 50.3**	**-1.2**
LEF	**Lefka**	**61.05**	**306**	*e*P	**P**	**01 49 51.4**	**-1.0**
BYBT	**Boyabat**	**61.05**	**313**	*e*P	**P**	**01 49 48.7**	**-3.6**
STKA	**Stephens Creek**	**61.08**	**133**	P	**P**	**01 49 51.4**	**-1.2**
	comp=N,162nm,0.8s,mb6.2,baz=310,slow=6.7,SNR=107						
STKA	**Stephens Creek**	**61.08**	**133**⇑	*i*P	**P**	**01 49 51.2**	**-1.4**
KAMT	**Kaman**	**61.30**	**310**	*e*P	**P**	**01 49 53.3**	**-0.7**
BRTR	**Keskin Array B**	**61.44**	**311**	P	**P**	**01 49 53.6**	**-1.3**
	comp=N,32nm,1.0s,mb5.4,baz=121,slow=7.2,SNR=30						
TOS	**Tosya**	**61.48**	**312**	*e*P	**P**	**01 49 53.2**	**-2.0**
VRSR	**Storozhevoye**	**61.49**	**325**	*e*P	**P**	**01 49 52.3**	**-2.8**
VRSR				*e**PP	pP	01 50 02.3	-4.9
VRSR				*e*SP	pP	01 50 06.3	-0.9
VRSR				*e*		01 50 34.2	
VRSR				*e*		01 52 09.2	
VRSR				*e*S	**S**	**01 58 07.3**	**-4.4**
VRSR				*e**SS		01 58 25.7	
VRSR				*e*		01 59 37.4	
VRSR				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.6						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,20nm,0.9s						
VRSR				smax			
	comp=N,30nm,1.2s						
VRSR				smax			
	comp=Z,3.0nm,0.6s						
VRSR				smax			
	comp=E,10.0nm,1.2s						
VRSR				MLR	MLR		
	comp=Z,3µm,24.0s,MS5.3						
VRSR				MLR	MLR		
	comp=N,3µm,25.0s,MS5.4						
VRSR				MLR	MLR		
	comp=E,1µm,22.0s,MS5.4						
CANT	**Cankiri**	**61.67**	**312**	*e*P	**P**	**01 49 55.5**	**-1.0**
BZK	**Bozkurt**	**61.73**	**313**	*e*P	**P**	**01 49 55.5**	**-1.4**
ELDT	**Eldivan**	**61.78**	**312**	*i* P	**P**	**01 49 55.8**	**-1.4**
ANTO	**Ankara**	**62.11**	**311**	*e*P	**P**	**01 49 59.1**	**-0.3**
LOD	**Lodumlu**	**62.13**	**311**	*e*P	**P**	**01 49 56.8**	**-2.8**
SIM	**Simferopol’**	**62.48**	**317**⇑	*e*P	**P**	**01 50 01.2**	**-0.6**
SIM				S	**S**	**01 58 25.7**	**+1.4**
SIM				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.7						
SAFT	**Safranbolu**	**62.51**	**312**	*e*P	**P**	**01 50 00.9**	**-1.2**
KIZT	**Kizilcal**	**62.58**	**310**	*e*P	**P**	**01 49 59.5**	**-3.1**
MBAR	**Mbarara**	**62.86**	**265**	*e*P	**P**	**01 50 05.6**	**+0.8**
MBAR				pmax	pmax		
	comp=Z,54nm,1.2s,mb5.5						
MBAR	**Mbarara**	**62.86**	**265**	*e*P	**P**	**01 50 05.6**	**+0.8**
	comp=Z,54nm,1.2s,mb5.5						
BCK	**Bucak**	**63.30**	**308**	*e*P	**P**	**01 50 04.9**	**-2.5**
MDU	**Mudurnu**	**63.42**	**311**	*e*P	**P**	**01 50 05.8**	**-2.3**
ISP	**Isparta**	**63.44**	**308**	*e*P	**P**	**01 50 06.7**	**-1.6**
ESKT	**Eskisehir**	**63.50**	**310**	*e*P	**P**	**01 50 06.7**	**-1.9**
ELL	**Elmali**	**63.72**	**307**	*e*P	**P**	**01 50 10.2**	**0.0**
ALT	**Altintas**	**63.97**	**309**	*e*P	**P**	**01 50 09.1**	**-2.6**
MOS	**Moscow**	**64.23**	**329**⇓	*i*P	**P**	**01 50 12.3**	**-0.8**
MOS				*i*	pP	01 50 24.1	-1.2
MOS				*e*		01 50 29.4	
MOS				*i*		01 50 45.8	
MOS				*e*		01 52 33.8	
MOS				*e*S	**S**	**01 58 43.0**	**-3.0**
MOS				pmax	pmax		
	comp=Z,136nm,1.3s,mb5.8						
MOS				smax			
	comp=N,2µm,4.8s						
MOS				smax			
	comp=E,1µm,5.0s						
MOS				MLR	MLR		
	comp=Z,6µm,19.2s,MS5.8						
OBN	**Obninsk**	**64.52**	**328***d*	*i*P	**P**	**01 50 14.0**	**-1.0**
OBN				*i*	pP	01 50 26.9	-0.4
OBN				*e*		01 50 43.1	
OBN				*i* S	**S**	**01 58 44.5**	**-5.1**
OBN				*e*PS	PS	01 59 05.9	-9.3
OBN				*e*		01 59 58.2	
OBN				*i* SSS	SSS	02 05 49.9	-2.6
OBN				pmax	pmax		
	comp=Z,115nm,1.2s,mb5.8						
OBN				pmax	pmax		
	comp=Z,500nm,2.8s,mb6.0						
OBN				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.5						

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OBN   Obninsk            64.52 328⇑iP    P       01 50 11.7 -3.3
HRT   Hereke             64.64 311 eP    P       01 50 13.9 -2.2
HRT   Hereke             64.64 311 eP    P       01 50 15.3 -0.8
AKS   Akhisar            65.70 309 eP    P       01 50 15.3 -7.7
IZM   Izmir              66.05 308 eP    P       01 50 20.7 -4.5
TIRR  Tirgusor           66.29 315  P    P       01 50 25.9 -0.7
PSN   Preselentsi        66.29 314 i P   P       01 50 25.0 -1.6
CFR   Carcaliu           66.64 316⇓iP    P       01 50 27.5 -1.2
HARR  Harsova            66.68 315  P    P       01 50 28.9 -0.1
HARR  Harsova            66.68 315⇑iP    P       01 50 28.3 -0.7
HARR  Harsova            66.68 315⇑iP    P       01 50 28.3 -0.7
PRD   Provadia           66.76 313 i P   P       01 50 28.0 -1.6
MA2   Magadan            66.83  28⇓eP    P       01 50 27.5 -2.2
TIXI  Tiksi              67.00  12 eP    P       01 50 29.0 -1.6
TIXI                               eS    S       01 59 22.5 +2.9
TIXI                               eSS   SS      02 03 33.9 -6.6
TIXI                                pmax pmax
      comp=Z,234nm,1.0s,mb6.2
TIXI                                pmax pmax
      comp=N,45nm,1.2s
TIXI                                pmax pmax
      comp=E,43nm,1.4s
TIXI                                pmax pmax
      comp=Z,353nm,1.2s,mb6.3
TIXI                                MLR  MLR
      comp=Z,3µm,19.0s,MS5.5
TIXI  Tiksi              67.00  12⇓iP    P       01 50 27.4 -3.2
AKASG Malin Array Be     67.24 322  P    P       01 50 30.0 -2.4
      comp=Z,21nm,0.8s,mb5.2,baz=88,slow=4.7,SNR=36
IDI   Anoyia             67.55 305  P    P       01 50 34.0 -0.7
      comp=Z,22nm,0.6s,mb5.4,baz=78,slow=5.6,SNR=13
ISR   Istrita            67.73 315⇑iP    P       01 50 36.4 +0.8
VRI   Vrincioaia         67.75 316⇓iP    P       01 50 35.7  0.0
RDO   Rodhopi            67.78 311 eP    P       01 50 35.0 -1.0
KDZ   Kurdzhali          67.95 312 i P   P       01 50 36.0 -1.0
BUC1  Bucharest          67.95 314  P    P       01 50 37.3 +0.3
VAM   Vamos              68.13 305 eP    P       01 50 37.5 -0.8
MLR   Muntele Rosu       68.21 316  P    P       01 50 38.7 +0.1
MLR   Muntele Rosu       68.21 316  P    P       01 50 38.5 -0.1
      comp=Z,64nm,0.9s,mb5.7,baz=92,slow=3.2,SNR=33
MLR   Muntele Rosu       68.21 316⇓iP    P       01 50 38.6  0.0
MLR   Muntele Rosu       68.21 316⇓iP    P       01 50 38.6  0.0
RZN   Rozhen             68.47 311 i P   P       01 50 39.0 -1.3
LSZ   Lusaka             68.53 250 eP    P       01 50 41.2 +0.2
PET   Petropavlovsk      68.74  36 eP    P       01 50 40.8 -1.0
PET                                e             01 51 04.7
PET                                e             01 53 18.8
PET                                ePPP  PPP     01 54 53.6 -0.2
PET                                eS    S       01 59 43.3 +2.6
PET                                ePS   PS      02 00 08.8 -2.8
PET                                 pmax pmax
      comp=Z,92nm,1.1s,mb5.6
PET                                 pmax pmax
      comp=Z,300nm,10.7s
PET                                 pmax pmax
      comp=Z,29nm,1.2s,mb5.1
PET                                 pmax pmax
      comp=Z,500nm,22.4s
PET                                 pmax pmax
      comp=Z,100nm,9.1s
PET                                 smax
      comp=N,1µm,21.2s
PET                                 MLR  MLR
      comp=Z,3µm,21.0s,MS5.5
PET   Petropavlovsk      68.74  36⇑iP    P       01 50 39.3 -2.5
MTUR  Matau              68.78 315  P    P       01 50 41.7 -0.4
MTUR  Matau              68.78 315⇑iP    P       01 50 41.5 -0.6
MTUR  Matau              68.78 315⇑iP    P       01 50 41.5 -0.6
SEY   Seymchan           68.94  25 eP    P       01 50 41.8 -1.0
SEY                                              01 51 07.2
SEY                                              01 53 13.5
SEY                                eS    S       01 59 43.2 +0.4
SEY                                 PS   PS      02 00 07.7 -6.2
SEY                                              02 00 38.5
SEY                                 pmax pmax
      comp=N,40nm,0.8s
SEY                                 pmax pmax
      comp=Z,50nm,0.8s,mb5.5
SEY                                 MLR  MLR
      comp=Z,15µm,20.0s,MS6.2
SEY                                 MLR  MLR
      comp=E,14µm,19.0s
PGB   Panagyurishte      69.00 312 i P   P       01 50 43.0 -0.5
MNK   Minsk              69.07 325⇓eP    P       01 50 40.0 -3.8
MNK                                 pmax pmax
      comp=Z,350nm,1.0s,mb6.2
KYTH  Kithira            69.15 306 eP    P       01 50 44.0 -0.6
PLG   Polygyros          69.25 310 eP    P       01 50 44.0 -1.1
COZ   Cozia              69.29 315⇓eP    P       01 50 35.6  -10
PUL   Pulkovo            69.39 331 eP    P       01 50 45.0 -0.6
PUL                                eS    S       01 59 45.9 -2.3
PUL                                 pmax pmax
      comp=Z,60nm,0.6s,mb5.7
PUL   Pulkovo            69.39 331 eP    P       01 50 43.4 -2.2
KKB   Krupnik            69.70 312 i P   P       01 50 46.0 -1.9
VTS   Vitosha            69.70 312 i P   P       01 50 47.0 -0.9
VTS   Vitosha            69.70 312  P    P       01 50 47.2 -0.7
VAY   Valandovo          70.02 311⇓iP    P       01 50 48.5 -1.3
VAY                                i             01 50 56.8
EVR   Evrytania          70.36 308 eP    P       01 50 49.0 -2.9
VSU   Vasula             70.74 329⇑iP    P       01 50 51.2 -2.7
BOLS  Boljevac           70.77 313⇓iP    P       01 50 53.3 -1.0
LVZ   Lovozero           70.84 340 eP    P       01 50 51.5 -2.8
LVZ                                eS    S       02 00 02.8 -2.2
LVZ                                 pmax pmax
      comp=Z,22nm,1.0s,mb5.0
LVZ                                 smax
      comp=N,1µm,4.7s
LVZ   Lovozero           70.84 340 eP    P       01 50 51.2 -3.1
SKO   Skopje             70.94 311 i P   P       01 50 54.0 -1.4
SKO                                i     pP      01 51 06.7 -1.0
KWP   Kalwaria           71.10 320 eP    P       01 50 55.8 -0.4
KWP   Kalwaria           71.10 320 eP    P       01 50 56.0 -0.2
KWP                                e     pP      01 51 08.9 +0.3
APA   Apatity            71.12 339 eP    P       01 50 55.5 -0.5
APA                                i             01 51 13.5
APA                                 pmax pmax
      comp=Z,33nm,0.9s,mb5.3
APA                                 MLR  MLR
      comp=Z,4µm,20.0s,MS5.6
KOLS  Kolonicke sedl     71.27 319 eP    P       01 50 57.0 -0.2
KOLS                               e     pP      01 51 11.3 +1.7
SUW   Suwalki            71.61 324 eP    P       01 50 58.6 -0.6
SUW                                e     pP      01 51 11.2 -0.3
GRUS  Gruza              71.67 313⇑iP    P       01 50 58.9 -0.8
CRVS  Cervenica-Dubn     71.79 319 eP    P       01 51 02.1 +1.8
CRVS                               e             01 51 19.0
FINES FINESS Array B     71.90 332  P    P       01 51 00.6 -0.1
      comp=Z,29nm,1.1s,mb5.1,baz=104,slow=7.9,SNR=16
KAF   Kangasniemi        71.99 333 ep    P       01 50 59.7 -1.5
      comp=Z,2.8nm,0.4s,mb4.5
KAF   Kangasniemi        71.99 333 eP    P       01 50 59.7 -1.5
KAF                                 pmax pmax
      comp=Z,3.0nm,0.4s,mb4.6
DIVS  Divcibare          72.21 314⇓iP    P       01 51 02.0 -0.8
KECS  Kecovo             72.37 318 eP    P       01 51 02.7 -1.1
KECS                               e     pP      01 51 16.5 +0.4
PKSN  Nyarlorinc         72.59 316⇑eP    P       01 51 05.4 +0.3
NIE   Niedzica           72.61 319 eP    P       01 51 05.3 +0.1
PSZ   Piszkesteto        72.70 318  P    P       01 51 05.9 +0.2
PSZ   Piszkesteto        72.70 318⇑iP    P       01 51 05.8 +0.1
OJC   Ojcow              73.05 320 eP    P       01 51 15.2 +7.4
PKSM  Moragy             73.36 316⇓eP    P       01 51 08.8 -0.9
VYHS  Vyhne              73.47 318 eP    P       01 51 09.8 -0.4
VYHS                               e     pP      01 51 23.0 +0.4
LBTB  Lobatse            73.62 241  P    P       01 51 13.1 +1.4
LBTB                                S    S       02 00 40.7 +3.1
LBTB  Lobatse            73.62 241 eP    P       01 51 13.0 +1.3
LBTB                                pmax pmax
      comp=Z,135nm,0.9s,mb5.9
LBTB  Lobatse            73.62 241 eP    P       01 51 13.0 +1.3
      comp=Z,135nm,0.9s,mb5.9
SRO   Srobarova          73.74 317 i P   P       01 51 12.3 +0.4
SRO                                e     pP      01 51 25.2 +0.9
RHK1  Bakonya            73.75 316⇑iP    P       01 51 11.4 -0.6
OKC   Ostrava-Krasne     74.06 319 eP    P       01 51 12.7 -1.0
OKC                                epP   pP      01 51 26.3 +0.3
KEV   Kevo               74.12 341 ep    P       01 51 12.0 -1.7
      comp=Z,20nm,0.7s,mb5.2
KEV   Kevo               74.12 341 eP    P       01 51 12.0 -1.7
KEV                                 pmax pmax
      comp=Z,20nm,0.7s,mb5.2
TIP   Timpagrande        74.30 308 eP    P       01 51 15.3 +0.1
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SMOL  Smolenice          74.40 318 eP    pP      01 51 28.9 +0.9
SMOL  Smolenice          74.40 318 e     pP      01 51 28.9 +0.9
MORC  Moravsky Berou     74.44 319  P    P       01 51 16.1 +0.2
MORC  Moravsky Berou     74.44 319 eP    P       01 51 15.4 -0.5
      comp=Z,108nm,1.3s,mb5.6
GRI   Girifalco          74.55 308 eP    P       01 51 16.9 +0.2
ARCES ARCESS Array B     74.55 340  P    P       01 51 16.2 +0.1
      comp=Z,5.0nm,0.5s,mb4.7,baz=100,slow=6.9,SNR=25
ZST   Bratislava         74.59 318 eP    P       01 51 16.7 -0.1
ZST                                e     pP      01 51 29.0 -0.1
SOP   Sopron             74.91 317⇑eP    P       01 51 18.8 +0.2
GKP   Gorka Klasztor     74.99 323 eP    P       01 51 18.8 -0.2
GKP                                e     pP      01 51 30.9 -0.5
BOSA  Boshof             75.02 238  P    P       01 51 20.9 +1.3
BOSA                                S    S       02 00 55.8 +2.6
BOSA  Boshof             75.02 238 eP    P       01 51 20.8 +1.1
BOSA                               e     pP      01 51 33.7 +1.7
BOSA                                pmax pmax
      comp=Z,95nm,0.9s,mb5.7
BOSA  Boshof             75.02 238 eP    P       01 51 20.8 +1.1
      comp=Z,95nm,0.9s,mb5.7
BOSA                               e     pP      01 51 33.7 +1.7
MTTG  Motta San Giov     75.10 307 eP    P       01 51 20.6 +0.7
KTK1  Kautokeino         75.17 340 eP    P       01 51 19.4 -0.2
KTK1                                AMb  AMB     01 51 29.5
      comp=Z,98nm,1.3s,mb5.6
KTK1  Kautokeino         75.17 340 eP    P       01 51 19.4 -0.2
      comp=Z,98nm,1.3s,mb5.6
DPC   Dobruska-Polom     75.28 320 eP    P       01 51 20.8 +0.1
DPC                                epP   pP      01 51 33.6 +0.5
KSP   Ksiaz              75.34 320⇑eP    P       01 51 20.5 -0.5
KSP                                e*PP  pP      01 51 33.6 +0.2
KSP                                eS    S       02 00 52.0 -4.2
KSP   Ksiaz              75.34 320⇑eP    P       01 51 20.5 -0.5
KSP                                epP   pP      01 51 33.6 +0.2
KSP                                e             01 51 46.0
KSP                                e             01 52 01.1
KSP                                eS    S       02 00 52.0 -4.2
KSP   Ksiaz              75.34 320 eP    P       01 51 21.2 +0.2
KSP                                e     pP      01 51 34.3 +0.9
CASY  Casey              75.46 173 eP    P       01 51 21.7 +0.3
      comp=Z,28nm,0.9s,mb5.2
UPC   Upice              75.49 320 eP    P       01 51 22.3 +0.4
UPC                                epP   pP      01 51 33.8 -0.5
BOJS  Bojanci            75.68 315 eP    P       01 51 22.7 -0.4
PERS  Pernice            75.83 316⇓iP    P       01 51 23.9  0.0
BILL  Bilibino           76.04  22⇓iP    P       01 51 22.2 -2.5
LJU   Ljubljana          76.21 315 eP    P       01 51 26.1  0.0
LJU                                e     pP      01 51 38.1 -0.4
PRU   Pruhonice          76.39 319 eP    P       01 51 27.1 +0.1
PRU                                e*PP  pP      01 51 40.2 +0.8
PRU   Pruhonice          76.39 319 i P   P       01 51 27.1 +0.1
      comp=Z,48nm,1.3s,mb5.3
PRU                                epP   pP      01 51 40.2 +0.8
PVCC  Panska Ves         76.41 320 eP    P       01 51 27.6 +0.5
PVCC                               epP   pP      01 51 39.8 +0.3
BSD   Bornholm Skovb     76.53 325 eP    pP      01 51 40.7 +0.6
BSD   Bornholm Skovb     76.53 325 i P   pP      01 51 40.7 +0.6
      comp=Z,73nm,1.1s
VOY   Vojsko             76.65 315 eP    P       01 51 28.0 -0.6
VOY                                e     pP      01 51 39.3 -1.7
TRO   Tromso             76.80 340 eP    P       01 51 27.8 -1.2
BRG   Berggiesshubel     76.83 320⇓iP    P       01 51 29.7 +0.2
BRG                                i     pP      01 51 42.7 +0.8
BRG                                              01 54 25.3
BRG                                 pmax pmax
      comp=Z,43nm,1.3s,mb5.2
BRG   Berggiesshubel     76.83 320⇓iP    P       01 51 29.7 +0.2
      comp=Z,43nm,1.3s,mb5.2
BRG                                i     pP      01 51 42.7 +0.8
BRG                                 PP   PP      01 54 25.3 +1.3
GEC2  GERESS Array S     76.89 318 eP    P       01 51 30.1 +0.2
GEC2                                pmax pmax
      comp=Z,59nm,1.1s,mb5.4
GEC2  GERESS Array S     76.89 318 eP    P       01 51 30.1 +0.2
      comp=Z,59nm,1.1s,mb5.4
GERES GERESS Array B     76.89 318  P    P       01 51 29.9  0.0
      comp=Z,26nm,1.0s,mb5.1,baz=90,slow=5.3,SNR=32
AQU   L'Aquila           76.92 312  P    P       01 51 30.2  0.0
AQU   L'Aquila           76.92 312 eP    P       01 51 29.2 -1.0
KHC   Kasperske Hory     76.98 318 eP    P       01 51 29.6 -0.8
KHC                                epP   pP      01 51 41.8 -1.0
KHC                                esP   sP      01 51 45.1 -2.3
RUE   Ruedersdorf        77.02 322 eP    P       01 51 30.0 -0.5
      comp=Z,93nm,1.1s,mb5.6
GMNA  Gemona             77.11 316 eP    P       01 51 30.8 -0.4
SNTG  Esanatoglia        77.27 312 eP    P       01 51 32.0 -0.1
ARV   Arcevia            77.27 313 eP    P       01 51 32.4 +0.3
FX1   Attu Island--F     77.38  38 eP    P       01 51 32.3 -0.2
FSSB  Fossombrone        77.39 313 eP    P       01 51 32.6 -0.2
FVI   Forni Avoltri      77.44 316 eP    P       01 51 32.4 -0.6
CLL   Collm              77.44 321⇓iP    P       01 51 32.5 -0.4
CLL                                i *SP sP      01 51 45.7 -4.2
CLL                                eS    S       02 01 20.0 +0.9
CLL                                 pmax pmax
      comp=Z,31nm,1.3s,mb5.1
CLL   Collm              77.44 321⇓iP    P       01 51 32.5 -0.4
      comp=Z,31nm,1.3s,mb5.1
CLL                                i sP  sP      01 51 45.7 -4.2
CLL                                eS    S       02 01 20.0 +0.9
CLL   Collm              77.44 321 ⇓P    P       01 51 32.5 -0.4
      comp=Z,logA/T=1.4,mb5.1
CLL                                i *SP sP      01 51 45.7 -4.2
CLL                                eS    S       02 01 20.0 +0.9
WET   Wettzell           77.44 318 eP    P       01 51 33.2 +0.3
HFS   Hagfors            77.62 330  P    P       01 51 34.5 +0.8
      comp=Z,11nm,0.8s,mb4.8,baz=76,slow=6.1,SNR=8.5
RSM   Repubblica di      77.63 313 eP    P       01 51 34.6 +0.5
NOUC  Port Laguerre      77.70 115⇑eP    P       01 51 35.6 +0.7
NKC   Novy Kostel        77.75 320 eP    P       01 51 35.4 +0.8
NKC                                epP   pP      01 51 47.8 +0.7
DZM   Mont Dzumac        77.82 115⇑eP    P       01 51 36.6 +1.0
MOR8  Moi Rana           77.91 336 eP    P       01 51 35.1  0.0
SFI   Santa Sofia        78.07 313 eP    P       01 51 37.8 +1.3
PGD   Poggio Sodo        78.16 313 eP    P       01 51 36.0 -1.0
CTI   Castel Tesino      78.21 315 eP    P       01 51 37.3 +0.1
MOX   Moxa               78.29 320 eP    P       01 51 38.0 +0.4
MOX                                 pmax pmax
      comp=Z,104nm,2.2s,mb5.4
MOX   Moxa               78.29 320 i P   P       01 51 38.0 +0.4
      comp=Z,logA/T=1.7,mb5.4
MOX   Moxa               78.29 320 eP    P       01 51 38.0 +0.4
      comp=Z,104nm,2.2s,mb5.4
SEI   Scarperia          78.42 313 eP    P       01 51 39.1 +0.7
FUR   Furstenfeldbru     78.48 317 eP    P       01 51 38.4 -0.3
GRA1  Grafenberg Arr     78.53 319 eP    P       01 51 39.0 +0.1
      comp=Z,48nm,1.1s,mb5.3
GRA1                               epP   pP      01 51 51.9 +0.5
GRF   Grafenberg Arr     78.53 319 eP    P       01 51 39.0 +0.1
GRF                                e*PP  pP      01 51 51.9 +0.5
GRF                                 pmax pmax
      comp=Z,48nm,1.1s,mb5.3
GRF   Grafenberg Arr     78.53 319 eP    P       01 51 39.0 +0.1
GRF                                e*PP  pP      01 51 51.9 +0.5
GRF                                 pmax pmax
      comp=Z,48nm,1.1s,mb5.3
GRF   Grafenberg Arr     78.53 319 eP    P       01 51 39.0 +0.1
      comp=Z,48nm,1.1s,mb5.3
GRF                                epP   pP      01 51 51.9 +0.5
ZCCA  Zocca              78.69 314 eP    P       01 51 41.3 +1.4
MAW   Mawson             78.76 191 eP    P       01 51 41.2 +1.4
MAW   Mawson             78.76 191  P    P       01 51 41.9 +2.1
      comp=Z,22nm,1.0s,mb5.1,baz=19,slow=7.5,SNR=10
MAW                                LR    LR      02 19 20.1
      comp=Z,3µm,22.0s,MS5.6,baz=41,slow=30
NSS   Namsos             78.78 334 eP    P       01 51 39.4 -0.5
NB2   NORSAR Subarra     78.90 331  P    P       01 51 39.4 -1.3
      comp=Z,40nm,1.1s,mb5.3,baz=93,slow=5.8
NB2   NORSAR Subarra     78.90 331  P    P       01 51 39.4 -1.3
      baz=93,slow=5.9
NB2   NORSAR Subarra     78.90 331  P    P       01 51 39.4 -1.3
NB2                                 pmax pmax
      comp=Z,40nm,1.1s,mb5.3
NOA   NORSAR Array B     78.90 331  P    P       01 51 40.0 -0.7
      comp=Z,14nm,1.1s,mb4.8,baz=95,slow=5.2,SNR=7.0
GSCL  Gusciola           78.97 314 eP    P       01 51 42.4 +0.9
SAL   Salo               79.00 315 eP    P       01 51 42.4 +0.8
MAIM                     79.05 313  P    pP      01 51 53.6 -0.7
NAO01 NORSAR Array S     79.05 330  P    P       01 51 43.4 +1.9
      comp=Z,14nm,0.8s,mb4.9
CLZ   Clausthal          79.09 321 eP    P       01 51 42.1 +0.1
      comp=Z,46nm,1.1s,mb5.3
ERBM  Eremo              79.10 314 eP    P       01 51 43.6 +1.5
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BRMO  Bormio             79.10 316 eP    P       01 51 42.1  0.0
VLC   Villacollemand     79.12 313  P    P       01 51 49.6 +7.4
BSEG  Bad Segeberg       79.15 323 eP    P       01 51 41.9 -0.3
VALM                     79.22 314  P    pP      01 51 54.2 -1.0
BACM                     79.34 313  P    pP      01 51 55.3 -0.7
GRAM                     79.34 314  P    pP      01 51 55.5 -0.4
CODM                     79.50 314  P    pP      01 51 55.0 -1.8
SUR   Sutherland         79.80 235 eP    P       01 51 48.6 +2.4
      comp=Z,138nm,1.0s,mb5.8
SUR                                e     pP      01 52 01.3 +2.6
MUD   Monsted U'grnd     79.83 326 i P   pP      01 51 58.6 +0.3
      comp=Z,74nm,0.9s
MUD                                i             01 55 19.4
STU   Stuttgart          79.86 318 eP    P       01 51 46.3 +0.1
TOD   Tromm              80.10 319 eP    P       01 51 48.7 +1.3
SPAK  Spaichingen        80.15 317 eP    P       01 51 48.2 +0.5
PGF   Pioggiola          80.18 312 eP    P       01 51 49.8 +1.8
VAI   Varese             80.22 315 eP    P       01 51 47.5 -0.7
PCP   Pian Castagno      80.43 314  P    pP      01 52 01.3 -0.5
BFO   Black Forest       80.45 318 eP    P       01 51 49.2 -0.1
BFO                                 pmax pmax
      comp=Z,45nm,1.3s,mb5.2
BFO   Black Forest       80.45 318 eP    P       01 51 49.2 -0.1
      comp=Z,45nm,1.3s,mb5.2
KTD   Kalmit             80.58 319 eP    P       01 51 51.2 +1.2
FELD  Feldberg           80.68 317 eP    P       01 51 50.9 +0.3
MOL   Molde              80.68 332 eP    pP      01 51 59.3 -3.4
FIN   Finale Ligure      80.68 313  P    pP      01 52 02.3 -0.9
MCGN  Macugnaga          80.77 315 eP    P       01 51 52.1 +1.1
LANF  Langenberg         80.77 318 eP    P       01 51 51.6 +0.6
ORX   Oropa              80.78 315  P    pP      01 52 02.1 -1.6
STR   Strasbourg         80.81 318 eP    P       01 51 51.7 +0.5
ABH   Alteburg           80.91 319 eP    P       01 51 52.4 +0.7
ROB   Roburent           80.92 314  P    pP      01 52 03.3 -1.1
IMI   Imperia            80.93 313  P    pP      01 52 01.8 -2.7
LIBD  Limburg            80.94 317 eP    P       01 51 52.5 +0.6
TRAV                     80.95 315  P    pP      01 52 02.8 -1.7
MONE  Monesi             81.02 313  P    pP      01 52 03.2 -1.7
BBS   Basel-Blauen       81.03 317 eP    P       01 51 52.2 -0.2
WLS   Welschbruch        81.09 318 eP    P       01 51 53.0 +0.3
CDF   Champ du Feu       81.15 318 eP    P       01 51 52.4 -0.6
      comp=Z,37nm,1.1s,mb4.9
CDF   Champ du Feu       81.15 318 eP    P       01 51 52.4 -0.6
CDF                                 pmax pmax
      comp=Z,18nm,1.1s,mb4.9
ECH   Echery             81.23 318 eP    P       01 51 53.5  0.0
ENR   Entracque          81.25 313  P    pP      01 52 03.3 -2.8
SBF   Sospel             81.26 313 eP    P       01 51 53.2 -0.5
      comp=Z,179nm,1.2s,mb5.6
SBF   Sospel             81.26 313 eP    P       01 51 53.2 -0.5
SBF                                 pmax pmax
      comp=Z,90nm,1.2s,mb5.6
MOF   Molkenrain         81.27 317 eP    P       01 51 53.5 -0.1
RSP   Reno Superiore     81.32 314  P    pP      01 52 05.1 -1.4
STV   Sta Anna Valdi     81.32 314  P    pP      01 52 03.9 -2.6
BHB   Bricherasio        81.33 314  P    pP      01 52 04.1 -2.4
LSD   Ceresole Reale     81.37 315  P    pP      01 52 05.6 -1.2
FENE  Fenestrelle        81.46 314  P    pP      01 52 07.1 -0.1
PZZ   Prazzo             81.46 314  P    pP      01 52 06.5 -0.8
LPG   La Plagne          81.65 315 eP    P       01 51 55.8 +0.1
      comp=Z,113nm,1.0s,mb5.5
LPG   La Plagne          81.65 315 eP    P       01 51 55.8 +0.1
LPG                                 pmax pmax
      comp=Z,57nm,1.0s,mb5.5
OG01  Vacheresse         81.65 316 eP    P       01 51 54.8 -0.9
RRL   Cesana Torines     81.66 314  P    pP      01 52 05.1 -3.2
MBDF  Montbardon         81.69 314 eP    P       01 51 55.0 -0.9
      comp=Z,42nm,1.1s,mb5.0
MBDF  Montbardon         81.69 314 eP    P       01 51 55.0 -0.9
MBDF                                pmax pmax
      comp=Z,21nm,1.1s,mb5.0
BNI   Bardonecchia       81.73 314 eP    P       01 51 56.0 -0.1
BNI                                 pmax pmax
      comp=Z,63nm,1.1s,mb5.5
BNI   Bardonecchia       81.73 314 eP    P       01 51 56.0 -0.1
      comp=Z,64nm,1.1s,mb5.5
HAU   Haudompre          81.79 317 eP    P       01 51 55.7 -0.6
      comp=Z,89nm,1.0s,mb5.3
HAU                                eR
      comp=Z,2µm,22.0s
HAU   Haudompre          81.79 317 eP    P       01 51 55.7 -0.6
HAU                                 pmax pmax
      comp=Z,45nm,1.0s,mb5.3
HAU                                 MLR  MLR
      comp=Z,2µm,22.0s,MS5.4
WLF   Walferdange        81.82 319 eP    P       01 51 57.6 +1.1
THEF  They Montfort      82.02 318 eP    P       01 51 57.8 +0.3
OG05  Jujurieux          82.52 315 eP    P       01 52 00.9 +0.8
BAIF  Baives             83.05 320 eP    P       01 52 02.9 +0.1
      comp=Z,89nm,1.3s,mb5.3
BAIF  Baives             83.05 320 eP    P       01 52 02.9 +0.1
BAIF                                pmax pmax
      comp=Z,44nm,1.3s,mb5.3
SSF   Saint Saulge       83.78 317 eP    P       01 52 06.4 -0.1
SSF                                 pmax pmax
      comp=Z,28nm,1.3s,mb5.2
SSF   Saint Saulge       83.78 317 eP    P       01 52 06.4 -0.1
      comp=Z,28nm,1.3s,mb5.2
BGF   Bois d'Agland      84.28 316 eP    P       01 52 09.2 +0.1
      comp=Z,86nm,1.3s,mb5.4
BGF   Bois d'Agland      84.28 316 eP    P       01 52 09.2 +0.1
BGF                                 pmax pmax
      comp=Z,43nm,1.3s,mb5.4
RJF   Les Rejaudoux      85.34 315 eP    P       01 52 14.6 +0.2
      comp=Z,55nm,1.2s,mb5.3
RJF                                eR
      comp=Z,2µm,22.2s
RJF   Les Rejaudoux      85.34 315 eP    P       01 52 14.6 +0.2
RJF                                 pmax pmax
      comp=Z,27nm,1.2s,mb5.2
RJF                                 MLR  MLR
      comp=Z,2µm,22.3s,MS5.4
SYO   Syowa Base         85.54 197 ⇑P    P       01 52 16.8 +2.0
SYO   Syowa Base         85.54 197 ⇓PcP  PcP     01 52 19.7 +1.5
SYO   Syowa Base         85.54 197 ⇑pP   pP      01 52 29.4 +2.0
EPOB  Poblet             86.16 311  P    P       01 52 15.2 -3.3
      comp=Z,8.4nm,0.7s,mb5.1
FLN   La Foliniere       86.24 319 eP    P       01 52 18.6 -0.1
      comp=Z,108nm,1.2s,mb5.7
FLN                                eR
      comp=Z,3µm,20.0s
FLN   La Foliniere       86.24 319 eP    P       01 52 18.6 -0.1
FLN                                 pmax pmax
      comp=Z,54nm,1.2s,mb5.7
FLN                                 MLR  MLR
      comp=Z,3µm,20.0s,MS5.6
EBIE  Bielsa             86.67 312  P    P       01 52 17.2 -3.8
      comp=Z,4.3nm,0.7s,mb4.8
DAG   Danmarks Havn      86.86 348⇑eP    P       01 52 20.2 -1.0
DAG                                 pmax pmax
      comp=Z,39nm,1.0s,mb5.6
DAG   Danmarks Havn      86.86 348⇑eP    P       01 52 20.2 -1.0
      comp=Z,39nm,1.0s,mb5.6
DAG   Danmarks Havn      86.86 348⇑iP    P       01 52 20.2 -1.0
      comp=Z,39nm,1.0s,mb5.6
ETSF  Etsaut             87.15 313 eP    P       01 52 23.5 +0.2
      comp=Z,47nm,1.1s,mb5.3
ETSF  Etsaut             87.15 313 eP    P       01 52 23.5 +0.2
ETSF                                pmax pmax
      comp=Z,24nm,1.1s,mb5.3
EMOS  Mosqueruela        87.47 310  P    P       01 52 21.8 -3.1
      comp=Z,17nm,0.8s,mb5.3
EMUR  La Murta           88.45 308  P    P       01 52 30.0 +0.4
      comp=Z,8.1nm,0.9s,mb5.0
EVIA  Vianos             89.30 309  P    P       01 52 32.3 -1.4
EVIA                                pmax pmax
      comp=Z,15nm,1.0s,mb5.3
EVIA  Vianos             89.30 309  P    P       01 52 32.3 -1.4
      comp=Z,15nm,1.0s,mb5.3
EQES  Quesada            89.89 308  P    P       01 52 37.3 +0.9
      comp=Z,9.5nm,0.9s,mb5.1
EBER  Berja              89.90 307  P    P       01 52 37.1 +0.5
      comp=Z,21nm,0.9s,mb5.5
GUD   Guadarrama         90.19 311  P    P       01 52 37.7 -0.1
GUD                                 pmax pmax
      comp=Z,28nm,1.1s,mb5.5
GUD   Guadarrama         90.19 311  P    P       01 52 37.7 -0.1
      comp=Z,28nm,1.1s,mb5.5
ESDC  Sonseca Array      90.23 310  P    P       01 52 39.2 +1.2
      comp=Z,20nm,1.1s,mb5.3,baz=62,slow=4.8,SNR=21
ESDC  Sonseca Array      90.23 310  P    P       01 52 38.3 +0.3
      comp=Z,14nm,1.0s,mb5.2
ESLA  Sonseca Array      90.23 310 eP    P       01 52 38.9 +0.9
      comp=Z,8.8nm,1.2s,mb5.0
URZ   Urewera            90.34 128  P    P       01 52 37.8 -0.8
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	comp=Z,20nm,0.8s,mb5.5,baz=284,slow=5.1,SNR=8.9						
URZ				LR	LR	02 35 51.1	
	comp=Z,3μm,20.0s,MS5.7,baz=277,slow=37						
SCO	**Scoresbysund**	**90.36**	**342**	*i* P	**P**	**01 52 39.7**	**+1.8**
EADA	**Adamuz**	**90.98**	**309**	P	**P**	**01 52 41.5**	**-0.1**
	comp=Z,17nm,1.1s,mb5.3						
EMIJ	**Mijas**	**91.45**	**307**	P	**P**	**01 52 41.5**	**-2.3**
	comp=Z,14nm,1.0s,mb5.2						
IMA	**Indian Mountai**	**91.58**	**22**	*e*P	**P**	**01 52 45.1**	**+1.4**
IMA				pmax	pmax		
	comp=Z,103nm,0.8s,mb6.2						
IMA	**Indian Mountai**	**91.58**	**22**	*e*P	**P**	**01 52 45.1**	**+1.4**
	comp=Z,103nm,0.8s,mb6.2						
EPON	**Pontenova**	**91.81**	**314**	P	**P**	**01 52 41.5**	**-3.8**
	comp=Z,16nm,0.8s,mb5.4						
ESPR	**Espera**	**92.24**	**308**	P	**P**	**01 52 47.7**	**+0.2**
	comp=Z,13nm,0.9s,mb5.3						
EMIN	**Mina Concepcio**	**92.69**	**309**	P	**P**	**01 52 49.4**	**0.0**
	comp=Z,7.3nm,1.0s,mb5.1						
EBAD	**Badajoz**	**92.73**	**310**	P	**P**	**01 52 49.9**	**+0.2**
	comp=Z,5.1nm,1.0s,mb4.9						
ELOB	**Lobios**	**92.80**	**313**	P	**P**	**01 52 48.4**	**-1.4**
	comp=Z,12nm,1.0s,mb5.3						
SUMG	**Summit**	**93.52**	**347**	*e*P	**P**	**01 52 54.1**	**+1.7**
	comp=Z,85nm,1.1s,mb6.1						
VNDA	**Vanda**	**93.53**	**168**	*e*P	**P**	**01 52 52.9**	**+0.5**
VNDA				pmax	pmax		
	comp=Z,15nm,0.9s						
VNDA	**Vanda**	**93.53**	**168**	P	**P**	**01 52 53.4**	**+1.0**
	comp=Z,14nm,1.0s,mb5.3,baz=281,slow=5.9,SNR=33						
VNDA	**Vanda**	**93.53**	**168**	*e*P	**P**	**01 52 52.9**	**+0.5**
	comp=Z,15nm,0.9s,mb5.4						
COLA	**College**	**94.30**	**22**	*e*P	**P**	**01 52 55.1**	**-1.0**
RSO	**Redoubt South**	**94.32**	**27**	*e*P	**P**	**01 52 55.6**	**-0.7**
SBA	**Scott Base**	**94.64**	**168**	P	**P**	**01 52 57.8**	**+0.4**
SBA	**Scott Base**	**94.64**	**168**	*e*P	**P**	**01 52 57.1**	**-0.4**
ILAR	**Eielson Array**	**94.70**	**22**	P	**P**	**01 52 57.6**	**-0.3**
	comp=Z,6.6nm,0.9s,mb5.1,baz=302,slow=4.4,SNR=21						
ILAR				PP	PP	01 56 46.8	-2.1
	comp=Z,3.1nm,0.8s,baz=290,slow=7.6,SNR=5.6						
ILAR				PKKPbc		02 09 56.2	
	comp=Z,1.6nm,0.9s,baz=140,slow=2.1,SNR=4.9						
ILAR				LR	LR	02 40 08.6	
	comp=Z,1μm,18.7s,MS5.5,baz=65,slow=38						
INK	**Inuvik**	**96.84**	**16**	P	**P**	**01 53 07.8**	**+0.2**
	comp=Z,36nm,1.1s,mb5.7,baz=314,slow=5.2,SNR=22						
INK				LR	LR	02 42 38.3	
	comp=Z,2μm,21.9s,MS5.5,baz=103,slow=39						
DBIC	**Dimbokro**	**96.95**	**278**	*e*P	**P**	**01 53 10.2**	**+0.8**
DBIC				pmax	pmax		
	comp=Z,40nm,1.2s						
DBIC	**Dimbokro**	**96.95**	**278**	P	**P**	**01 53 11.1**	**+1.6**
	comp=Z,12nm,0.9s,mb5.3,baz=80,slow=4.9,SNR=15						
DBIC	**Dimbokro**	**96.95**	**278**	*e*P	**P**	**01 53 10.2**	**+0.8**
	comp=Z,40nm,1.2s,mb5.7						
SNAA	**Sanae**	**99.73**	**199**	*e*P	**P**	**01 53 24.1**	**+3.5**
SNAA	**Sanae**	**99.73**	**199**	LR	LR	02 36 20.5	
	comp=Z,1μm,18.1s,MS5.4,baz=83,slow=34						
YKA	**Yellowknife Ar**	**106.23**	**13**	Pdiff	Pdif	01 53 50.3	+0.6
	comp=Z,1.7nm,1.1s,baz=328,slow=4.8,SNR=11						
YKA				PKiKP		01 58 01.2	
	comp=Z,1.6nm,0.9s,baz=318,slow=2.4,SNR=9.7						
YKA				PP	PP	01 58 11.3	-5.5
	comp=Z,3.6nm,0.9s,baz=330,slow=7.9,SNR=11						
SCHQ	**Schefferville**	**114.91**	**347**	PKKPbc		02 08 55.5	
	comp=Z,5.0nm,0.8s,baz=247,slow=6.0,SNR=4.1						
EBG	**Ellensburg**	**117.37**	**25**	P	PKPdf	01 58 23.9	+2.4
NEW	**Newport**	**117.66**	**22**	PKIKP	PKPdf	01 58 24.3	+2.3
NEW	**Newport**	**117.66**	**22**	*e*PKPdf	PKPdf	01 58 23.3	+1.3
COR	**Corvallis**	**117.92**	**29**	*e*PKIKP	PKPdf	01 58 25.1	+2.5
VFP	**Flag Point**	**118.21**	**27**	P	PKPdf	01 58 26.0	+2.9
HBO	**Huckleberry Mo**	**118.94**	**29**	P	PKPdf	01 58 26.9	+2.2
HUMO	**Hull Mountain**	**119.56**	**30**	*e*PKPdf	PKPdf	01 58 28.2	+2.3
MSO	**Missoula**	**120.03**	**21**	*e*PKPdf	PKPdf	01 58 27.9	+1.1
CHMT	**Chamberlain Mo**	**120.20**	**21**	*e*PKPdf	PKPdf	01 58 28.1	+1.1
BMO	**Blue Mountains**	**120.38**	**25**	*e*PKIKP	PKPdf	01 58 28.2	+0.7
LHEM	**Herd Peak**	**120.65**	**30**	P	PKPdf	01 58 30.6	+2.5
HRY	**Holter Researc**	**120.87**	**20**	*e*PKPdf	PKPdf	01 58 30.0	+1.7
ULM	**Lac du Bonnet**	**121.16**	**7**	PKP	PKPdf	01 58 31.6	+2.8
	comp=Z,27nm,0.9s,baz=348,slow=3.1,SNR=38						
ULM				PKKPbc		02 08 33.4	
	comp=Z,1.7nm,0.4s,baz=207,slow=4.5,SNR=4.5						
ULM	**Lac du Bonnet**	**121.16**	**7**	*e*PKPdf	PKPdf	01 58 31.0	+2.2
WDC	**Whiskeytown Da**	**121.26**	**31**	*e*PKIKP	PKPdf	01 58 30.7	+1.5
MOD	**Modoc**	**121.38**	**29**	*e*PKPdf	PKPdf	01 58 31.9	+2.4
DGMT	**Dagmar**	**121.43**	**13**	*e*PKPdf	PKPdf	01 58 31.7	+2.3
BOZ	**Bozeman (W)**	**121.86**	**20**	*e*PKIKP	PKPdf	01 58 32.0	+1.7
HOPS	**Hopland**	**122.14**	**33**	*e*PKPdf	PKPdf	01 58 33.5	+2.5
MCMT	**McKenzie Canyo**	**122.14**	**22**	P	PKPdf	01 58 33.4	+2.6
GCMT	**Greycliff**	**122.39**	**19**	*e*PKPdf	PKPdf	01 58 33.4	+2.1
LAO	**LASA Array**	**122.58**	**16**	*e*PKPdf	PKPdf	01 58 34.2	+2.6
HLID	**Hailey**	**122.62**	**24**	*e*PKPdf	PKPdf	01 58 34.0	+2.2
QLMT	**Earthquake Lak**	**122.64**	**21**	*e*PKPdf	PKPdf	01 58 34.7	+2.8
YMR	**Madison River**	**122.95**	**20**	*e*PKPdf	PKPdf	01 58 35.6	+3.2
YFT	**Old Faithful**	**123.18**	**20**	*e*PKPdf	PKPdf	01 58 36.9	+4.0
IMW	**Indian Meadow**	**123.63**	**21**	*e*PKPdf	PKPdf	01 58 36.0	+2.2
WCN	**Washoe City**	**123.64**	**30**	*e*PKIKP	PKPdf	01 58 36.4	+2.5
MOOW	**Moose Ponds**	**123.83**	**21**	*e*PKPdf	PKPdf	01 58 36.3	+2.2
EYMN	**Ely**	**123.85**	**4**	*e*PKPdf	PKPdf	01 58 35.6	+1.5
BMN	**Battle Mountai**	**123.98**	**28**	*e*PKIKP	PKPdf	01 58 36.9	+2.4
TPAW	**Teton Pass**	**123.98**	**21**	*e*PKPdf	PKPdf	01 58 37.1	+2.7
LOHW	**Long Hollow**	**124.00**	**21**	*e*PKPdf	PKPdf	01 58 36.7	+2.2
WUWY	**Wally Ulrich**	**124.01**	**21**	*e*PKPdf	PKPdf	01 58 36.8	+2.3
SNOW	**Snow King Moun**	**124.08**	**21**	*e*PKPdf	PKPdf	01 58 37.4	+2.8
REDW	**Red Top Meadow**	**124.13**	**21**	*e*PKPdf	PKPdf	01 58 37.3	+2.5
CMB	**Columbia Colle**	**124.27**	**32**	*e*PKIKP	PKPdf	01 58 34.4	-0.7
ELK	**Elko**	**124.61**	**26**	*e*PKIKP	PKPdf	01 58 38.5	+2.7
HVU	**Hansel Valley**	**124.77**	**23**	*e*PKIKP	PKPdf	01 58 38.2	+2.2
NVAR	**Mina Array Bea**	**125.03**	**30**	PKP	PKPdf	01 58 40.0	+3.3
	comp=Z,34nm,0.9s,baz=350,slow=0.6,SNR=69						
MNV	**Mina**	**125.10**	**30**	*e*PKIKP	PKPdf	01 58 39.4	+2.6
PDAR	**Pinedale Array**	**125.10**	**20**	PKP	PKPdf	01 58 38.7	+2.1
	comp=Z,40nm,0.9s,baz=58,slow=0.9,SNR=99						
PDAR				PKKPbc		02 08 18.7	
	comp=Z,0.6nm,0.6s,baz=135,slow=5.1,SNR=4.3						
LRV	**Little Rabbit**	**125.12**	**34**	*e*PKPdf	PKPdf	01 58 40.4	+3.6
SPUT	**South Promonto**	**125.30**	**24**	*e*PKPdf	PKPdf	01 58 38.9	+1.9
BGU	**Big Grassy Mou**	**125.39**	**24**	*e*PKPdf	PKPdf	01 58 39.5	+2.3
MTUM	**Tungsten Hills**	**125.73**	**31**	*e*PKPdf	PKPdf	01 58 40.6	+2.6
TPH	**Tonopah**	**125.84**	**30**	*e*PKIKP	PKPdf	01 58 40.4	+2.2
TCUT	**Toone Canyon**	**125.87**	**23**	*e*P	PKPdf	01 58 40.6	+2.5
NOQ	**North Oquirrh**	**125.99**	**24**	*e*PKPdf	PKPdf	01 58 41.0	+2.6
JLU	**Jordanelle**	**126.30**	**23**	*e*PKPdf	PKPdf	01 58 41.3	+2.3
TRCR	**Troy Canyon**	**126.40**	**28**	*e*PKPdf	PKPdf	01 58 42.0	+2.7
NLU	**North Lily Min**	**126.60**	**24**	*e*PKPdf	PKPdf	01 58 42.1	+2.5
RWWY	**Rawlins**	**126.85**	**19**	*e*PKPdf	PKPdf	01 58 42.1	+2.0
DAC	**Darwin (Calif)**	**127.05**	**31**	*e*PKIKP	PKPdf	01 58 43.5	+2.9
TMUT	**Trail Mountain**	**127.51**	**24**	*e*PKPdf	PKPdf	01 58 44.0	+2.6
PHWY	**Pilot Hill**	**127.75**	**18**	*e*PKPdf	PKPdf	01 58 43.2	+1.4
MVU	**Marysvale**	**127.77**	**25**	*e*P	PKPdf	01 58 45.3	+3.3
MSU	**Marysvale**	**127.78**	**25**	*e*PKIKP	PKPdf	01 58 45.4	+3.5
SRU	**San Rafael**	**127.94**	**23**	*e*PKIKP	PKPdf	01 58 43.8	+1.6
NEN	**Nelson**	**128.92**	**29**	*e*PKPdf	PKPdf	01 58 47.1	+2.9
ISCO	**Idaho Springs**	**129.07**	**19**	*e*PKIKP	PKPdf	01 58 46.7	+2.3
PV10	**Paradox Valley**	**129.15**	**23**	*e*PKPdf	PKPdf	01 58 47.1	+2.6
LDFC	**Landfair**	**129.25**	**30**	*e*PKPdf	PKPdf	01 58 47.9	+3.1
PV01	**Paradox Valley**	**129.54**	**22**	*e*PKPdf	PKPdf	01 58 48.1	+2.8
RW3	**Ridgway**	**129.76**	**21**	*e*PKIKP	PKPdf	01 58 47.9	+2.2
SDCO	**Great Sand Dun**	**130.97**	**20**	*e*PKPdf	PKPdf	01 58 49.5	+1.4
USHA	**Ushuaia**	**131.33**	**194**	SKPbc		02 02 11.9	
	comp=Z,66nm,0.9s,baz=118,slow=4.4,SNR=27						
KSU1	**Kansas State U**	**131.97**	**10**	*e*PKPdf	PKPdf	01 58 51.1	+1.2
ANMO	**Albuquerque**	**133.14**	**22**	PKIKP	PKPdf	01 58 54.5	+2.3
ANMO	**Albuquerque**	**133.14**	**22**	SKPbc		02 02 17.7	
	comp=Z,8.3nm,0.7s,baz=300,slow=1.9,SNR=21						
ANMO	**Albuquerque**	**133.14**	**22**	*e*PKPdf	PKPdf	01 58 54.7	+2.4
LAZ	**Ladron**	**133.37**	**23**	*e*PKPdf	PKPdf	01 58 55.6	+3.0
TUC	**Tucson**	**133.59**	**28**	PKIKP	PKPdf	01 58 55.3	+2.1
TUC	**Tucson**	**133.59**	**28**	*e*PKPdf	PKPdf	01 58 55.8	+2.6
LENM	**Lemitar**	**133.64**	**23**	*e*PKPdf	PKPdf	01 58 56.2	+3.0
LPM	**Los Pinos Moun**	**133.64**	**23**	*e*PKPdf	PKPdf	01 58 55.7	+2.5
BNM	**Barren Site**	**133.79**	**23**	*e*PKPdf	PKPdf	01 58 55.6	+2.1
FVM	**French Village**	**133.83**	**4**	*e*PKIKP	PKPdf	01 58 54.0	+0.5
PWV	**Princeton**	**134.28**	**354**	*e*PKPdf	PKPdf	01 58 55.7	+1.4
ELN	**Prospectdale**	**134.36**	**353**	*e*PKPdf	PKPdf	01 58 56.3	+1.9
GLAT	**Glass**	**135.61**	**3**	*e*PKPdf	PKPdf	01 58 59.0	+2.2
WMOK	**Wichita Mounta**	**135.72**	**14**	PKIKP	PKPdf	01 58 59.1	+2.1
WMOK	**Wichita Mounta**	**135.72**	**14**	*e*PKPpre		01 58 44.6	
WMOK				*e*PKPdf	PKPdf	01 58 57.1	+0.1
WVT	**Waverly**	**135.80**	**1**	*e*PKIKP	PKPdf	01 58 58.9	+1.8
CPRX	**Cap Rock**	**135.81**	**21**	*e*PKPdf	PKPdf	01 58 59.6	+2.5
GDL2	**Guadalupe Moun**	**136.38**	**22**	*e*PKPdf	PKPdf	01 59 00.4	+2.1
CPCT	**Cooper Cave**	**136.43**	**357**	*e*PKPdf	PKPdf	01 59 00.2	+1.9
CLNB	**Carlsbad**	**136.50**	**21**	*e*PKPdf	PKPdf	01 58 59.6	+1.1
UALR	**University of**	**136.84**	**7**	*e*PKPdf	PKPdf	01 59 00.8	+1.8
MIAR	**Mount Ida**	**136.91**	**8**	*e*PKIKP	PKPdf	01 59 01.3	+2.1
JSC	**Jenkinsville**	**137.33**	**353**	*e*PKHKP		01 58 39.4	
OXF	**Oxford**	**137.35**	**3**	*e*PKIKP	PKPdf	01 59 01.3	+1.3
GOGA	**Godfrey**	**138.40**	**356**	*e*PKIKP	PKPdf	01 59 04.0	+2.1
LRAL	**Lakeview Retre**	**138.90**	**0**	*e*PKPdf	PKPdf	01 59 04.1	+1.3
LTX	**Lajitas**	**139.21**	**23**	*e*PKIKP	PKPdf	01 59 01.5	-2.0
TXAR	**Lajitas Array**	**139.21**	**23**	PKhKP		01 58 57.9	
	comp=Z,2.1nm,0.7s,baz=96,slow=0.6,SNR=6.6						
TXAR				PKP	PKPdf	01 59 06.0	+2.5
	comp=Z,12nm,0.9s,baz=270,slow=1.3,SNR=27						
TXAR				SKPbc		02 02 37.1	
	comp=Z,83nm,1.2s,baz=69,slow=0.3,SNR=47						
JCT	**Junction City**	**139.47**	**17**	*e*PKHKP		01 58 56.4	
JCT				*e*		01 59 06.3	
HKT	**Hockley**	**140.99**	**12**	*e*PKHKP		01 59 01.7	
MDZ	**Mendoza**	**150.42**	**212**	*e*P	PKPdf	01 59 26.7	+4.2
MDZ				*e*P		01 59 30.7	
MDZ				*e*		01 59 30.8	
FCH	**Farellones**	**150.79**	**209**	*e*P	PKPdf	01 59 25.8	+2.8
CLCH	**Cerro Calan**	**150.85**	**209**	*e*P	PKPdf	01 59 22.9	-0.2
PCRV	**Puerto La Cruz**	**151.29**	**309**	PKPbc	PKPdf	01 59 32.1	+7.9
	comp=Z,9.6nm,0.5s,baz=185,slow=12,SNR=3.8						
PCRV				PKPab	PKPab	01 59 41.2	+0.5
	comp=Z,16nm,0.6s,baz=308,slow=1.8,SNR=5.3						
RPN	**Rapa Nui**	**151.62**	**134**	*e*PKPdf	PKPdf	01 59 33.7	+9.3
TEIG	**Tepich**	**151.62**	**3**	*e*PKPdf	PKPdf	01 59 32.8	+8.3
SDV	**Santo Domingo**	**156.52**	**316**	PKP	PKPdf	01 59 34.0	+2.6
	comp=Z,4.9nm,0.6s,baz=143,slow=1.3,SNR=5.3						
SDV				PKPab	PKPab	02 00 03.0	+0.2
	comp=Z,7.0nm,0.6s,baz=81,slow=4.5,SNR=3.6						
SDV	**Santo Domingo**	**156.52**	**316**	*e*PKPdf	PKPdf	01 59 32.0	+0.5
LVC	**Limon Verde**	**157.68**	**228**	PKP	PKPdf	01 59 35.9	+3.1
	comp=Z,8.9nm,0.9s,baz=297,slow=0.9,SNR=5.2						
LVC				PKPab	PKPab	02 00 09.2	+1.7
	comp=Z,20nm,0.8s,baz=109,slow=3.7,SNR=8.5						
LVC	**Limon Verde**	**157.68**	**228**	*e*PKPdf	PKPdf	01 59 36.8	+4.0
LPAZ	**La Paz**	**160.11**	**245**	PKP	PKPdf	01 59 38.6	+2.9
	comp=Z,7.5nm,0.9s,baz=27,slow=3.6,SNR=11						
LPAZ				PKPab	PKPab	02 00 19.6	+1.4
	comp=Z,7.9nm,0.7s,baz=90,slow=9.7,SNR=10.0						
LPAZ	**La Paz**	**160.11**	**245**	*e*PKPdf	PKPdf	01 59 39.2	+3.5
ROSC	**El Rosal**	**161.95**	**316**	PKP	PKPdf	01 59 41.1	+3.4
	comp=Z,35nm,1.2s,baz=168,slow=2.3,SNR=9.3						
OTAV	**Otavalo**	**168.11**	**315**	*e*PKPdf	PKPdf	01 59 46.0	+2.9

BJI ***29*** *01:50:51.4, 8.71N×93.54E, h32^{km}, mB6.2, mb5.7, Ms6.1, Msz5.9*

NEIC ***29*** *01:50:52.6±0.1, 9.11N×93.76E, h8^{km}, mb6.0/111, ME6.0, MS5.7/108, MW6.1, Error ellipse: s-maj=5.6km s-min=3.5km az=207.0 Broadband fault plane solution: P waves. NP1:ϕ_s345°, δ60°, λ-110°. NP2:ϕ_s201°, δ36°, λ-59°. Principal axes: T Plg13°, Azm89°; N Plg0°, Azm0°; P Plg68°, Azm214°; Moment Tensor Solution. s17 Moment tensor: Scale 10^{18} Nm; M$_{rr}$-1.26; M$_{\theta\theta}$-0.16; M$_{\phi\phi}$1.42; M$_{r\theta}$0.49; M$_{\theta\phi}$-0.27; M$_{\phi r}$0.24; Best double couple: M$_0$1.5×10^{18} NP1:ϕ_s330°, δ46°, λ-122°. NP2:ϕ_s191°, δ52°, λ-62°. Principal axes: T 1.48, Plg3°, Azm262°; N .01, Plg22°, Azm353°; P -1.48, Plg68°, Azm163°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

BGS ***29*** *01:50:52.5, 9.08N×93.86E, h10^{km}, mb6.3*

SYO ***29*** *01:50:52.5, 9.11N×93.81E, h8^{km}, MB6.1, MS5.7*

HRVD ***29*** *01:50:52.6±0.1, 9.12N×93.97E, h12^{km}, MW6.0/67, Centroid moment Tensor Solution. LP body waves: s55,c111;Mantle waves: s67,c166; Half duration: 2^{s}5 Moment tensor: Scale 10^{18}Nm; M$_{rr}$-0.94±.01; M$_{\theta\theta}$-0.20±.01; M$_{\phi\phi}$1.14±.01; M$_{r\theta}$0.48±.05; M$_{\theta\phi}$0.34±.01; M$_{\phi r}$-0.50±.04; Best double couple: M$_0$1.3×10^{18} NP1: ϕ_s220°, δ42°, λ-46°. NP2:ϕ_s347°, δ61°, λ-122°. Principal axes: T 1.29, Plg11°, Azm99°; N .03, Plg28°, Azm4°; P -1.31, Plg60°, Azm208°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***29*** *01:50:53.0±1.9, 9.08N×93.85E, h10^{km}±11^{km}, mb5.7/27, mb1 5.7/27, mb1mx5.7/27, mbtmp5.7/27, MS5.6/21, Ms1 5.6/21, ms1mx5.4/29 Error ellipse: s-maj=16.9km s-min=9.5km az=46.0*

MOS ***29*** *01:50:55.6±1.0, 9.23N×93.68E, h33^{km}, mb6.3/90, MS5.7/62, Error ellipse: s-maj=7.9km s-min=3.5km az=126.9*

DHMR ***29*** *01:50:57.1±2.8, 9.07N×93.71E, h10^{km}, mb5.9*

ISC 29 01:50:53.4±0.1**, 9.04N**±0.03×**93.76E**±0.02**, h24**^{km}**, h24**^{km}±1.1^{km}**:pP-P, n1012,** σ1^{s}**05**/843**, mb6.0**/215**, MS5.7**/163**, 71C-167D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**7.04**	**105**	P	**Pn**	**01 52 34.0**	**-3.7**
	2μm,1.1s						
NST	**Nakhon Sawan**	**9.07**	**43**	P	**P**	**01 53 04.0**	**-1.9**
CM31	**Chiang Mai Arr**	**10.63**	**28**	*e*Pn	**P**	**01 53 28.0**	**+0.5**
	46nm,0.4s						
CMAR	**Chiang Mai Arr**	**10.63**	**28**	Pn	**P**	**01 53 28.6**	**+1.1**
	9.3nm,0.3s,baz=213,slow=15,SNR=85						
CMAR				LR	LR	01 57 50.7	
	comp=Z,40μm,19.1s,baz=215,slow=40						
NANT	**Nan**	**11.81**	**34**	⇓P	**P**	**01 53 46.0**	**+2.4**
	288nm,1.0s						
VIS	**Vishakhapatnam**	**13.31**	**311**	⇑*e*P	**P**	**01 54 01.5**	**-2.1**
VIS				*e*		01 54 03.7	
	comp=Z,810nm,0.8s						
VIS				*e*S	**S**	**01 56 15.5**	**-16**
MDRS	**Chennai**	**13.85**	**288**	⇓*e*P	**P**	**01 54 10.8**	**0.0**
MDRS				*e*		01 54 12.5	
	comp=Z,2μm,1.0s						
VJD	**Vijayawada**	**14.78**	**301**	*i* P	**P**	**01 54 22.0**	**-1.0**
VJD				*i*	**S**	**01 56 55.0**	**-12**
KOD	**Kodaikanal**	**16.10**	**276**	⇑*e*P	**P**	**01 54 42.6**	**+2.4**
BOK	**Bokaro**	**16.49**	**334**	⇓*e*P	**P**	**01 54 45.2**	**+0.2**
BOK				*e*		01 54 49.2	
	comp=Z,206nm,1.1s						
SHL	**Shillong**	**16.53**	**354**	⇓*e*P	**P**	**01 54 47.0**	**+1.4**
TRD	**Trivandrum**	**16.61**	**269**	⇑*e*P	**P**	**01 54 48.1**	**+1.5**
TRD				*e*		01 54 57.9	
	comp=Z,724nm,1.5s						
HYB	**Hyderabad**	**16.97**	**301**	*e*P	**P**	**01 54 52.0**	**+0.9**
HYB				*e*S	**S**	**01 57 51.0**	**-6.7**
HYB				pmax	pmax		
	comp=Z,660nm,1.0s						
HYB	**Hyderabad**	**16.97**	**301**	*e*P	**P**	**01 54 52.0**	**+0.9**
	comp=Z,660nm,1.0s						
HYB				*e*S	**S**	**01 57 51.0**	**-6.7**
HYB	**Hyderabad**	**16.97**	**301**	*i* P	**P**	**01 54 52.0**	**+0.9**
	comp=Z,660nm,1.0s						
HYB				*e*S	**S**	**01 57 51.0**	**-6.7**
HYB				LR	LR	02 00 16.0	
	comp=Z,37nm,24.0s						
BLSP	**Bilaspur**	**17.15**	**321**	⇑*e*P	**P**	**01 54 54.2**	**+0.8**
BLSP				*e*		01 55 00.2	
	comp=Z,2μm,1.2s						
BLSP				*i*	**S**	**01 57 50.0**	**-12**
KMI	**Kunming**	**18.14**	**27**	⇓P	**P**	**01 55 09.0**	**+3.3**
KMI				AP		01 55 17.0	
KMI				PP	PP	01 55 24.0	+3.4
KMI				PPP	PPP	01 55 32.8	+3.2
KMI				S	**S**	**01 58 31.0**	**+6.7**
KMI				XS		01 58 48.5	
KMI				SS	SS	01 58 52.0	+4.2
KMI				AMB	AMB		
	comp=Z,421nm,2.0s						
KMI				AMB	AMB		
	comp=Z,12μm,5.6s						
KMI				LR	LR		
	comp=N,16μm,16.4s						
KMI				LR	LR		
	comp=E,32μm,11.1s						
KMI				LR	LR		
	comp=Z,20μm,23.3s						
SLGI	**Shiliguri**	**18.28**	**345**	*e*	**P**	**01 55 09.9**	**+2.5**
	comp=Z,15nm,0.8s						
QIZ	**Qiongzhong**	**18.48**	**56**	P	**P**	**01 55 11.0**	**+1.1**
QIZ				S	**S**	**01 58 31.3**	**-0.8**
QIZ				LR	LR		
	comp=N,119μm,12.4s						
QIZ				LR	LR		
	comp=E,72μm,13.3s						
QIZ	**Qiongzhong**	**18.48**	**56**	*e*P	**P**	**01 55 10.8**	**+0.9**
	comp=E,920nm,1.6s						
NGP	**Nagpur**	**18.59**	**312**	*e*	**S**	**01 58 51.4**	**+17**
MNGI	**Mangalore**	**18.98**	**283**	⇑*e*P	**P**	**01 55 19.1**	**+3.1**
MNGI				*e*	**S**	**01 58 39.9**	**-3.4**
	comp=E,2μm,1.8s						
LATR	**Latur**	**19.11**	**301**	*e*	**P**	**01 55 11.0**	**-6.5**
AKL	**Akola**	**19.88**	**308**	*e*P	**P**	**01 55 29.6**	**+3.4**
AKL				*i*	**S**	**01 59 03.5**	**+0.3**
PKI	**Pulchoki**	**20.05**	**338**	*e*P	**P**	**01 55 28.0**	**+0.2**
	comp=E,4μm,1.2s						
GUN	**Gumba**	**20.19**	**339**	*e*P	**P**	**01 55 29.4**	**+0.1**
	comp=E,3μm,1.1s						
DMN	**Daman**	**20.20**	**337**	*e*P	**P**	**01 55 29.8**	**+0.4**
	comp=E,2μm,1.1s						
KKN	**Kakani**	**20.29**	**338**	*e*P	**P**	**01 55 30.6**	**+0.2**
	comp=E,2μm,1.1s						
GOA	**Goa**	**20.50**	**290**	⇑*e*		01 55 41.1	
	comp=E,2μm,1.5s						
GOA				*e*S	**S**	**01 59 25.3**	**+10**
MNCY	**Minicoy**	**20.50**	**269**	⇑*i*P	**P**	**01 55 35.0**	**+2.3**
MNCY				*i*		01 58 17.0	
LSA	**Lhasa**	**20.70**	**354**	*e*P	**P**	**01 55 34.0**	**-0.6**
LSA				pmax	pmax		
	comp=Z,650nm,1.0s						
LSA	**Lhasa**	**20.70**	**354**	*e*P	**P**	**01 55 34.0**	**-0.6**
	comp=Z,650nm,1.0s						
GKN	**Gorkha**	**20.73**	**337**	*e*P	**P**	**01 55 35.4**	**+0.5**
	comp=Z,1μm,0.8s						
KAD	**Karad**	**20.74**	**295**	*e*P	**P**	**01 55 37.0**	**+1.9**
KAD				*e*		01 55 44.5	
	comp=Z,3μm,1.4s						
KOLN	**Koldanda**	**20.95**	**334**	*e*P	**P**	**01 55 38.2**	**+1.0**
	comp=Z,2μm,1.0s						
BHPL	**Bhopal**	**21.07**	**314**	*e*P	**P**	**01 55 40.3**	**+1.9**
BHPL				*e*		01 55 47.7	
	comp=Z,1μm,1.6s						
BHPL				*e*S	**S**	**01 59 31.2**	**+4.3**
GYA	**Guiyang**	**21.21**	**34**	⇓*i*P	**P**	**01 55 41.0**	**+1.2**
GYA				AP		01 55 50.3	
GYA				XP		01 55 55.5	
GYA				PP	PP	01 56 09.8	+6.4
GYA				S	**S**	**01 59 38.3**	**+8.8**
GYA				AMB	AMB		
	comp=Z,460nm,1.2s,mb5.7						
GYA				AMB	AMB		
	comp=Z,13μm,11.2s						
GYA				LR	LR		
	comp=N,37μm,16.8s,MS6.0						
GYA				LR	LR		
	comp=E,38μm,17.0s,MS6.0						
GYA				LR	LR		
	comp=Z,40μm,16.8s,MS5.9						
COCO	**West Island**	**21.31**	**172**	*e*P	**P**	**01 55 41.8**	**+0.9**
	comp=Z,3μm,1.4s,mb6.5						
POO	**Poona**	**21.49**	**298**	⇓*e*P	**P**	**01 55 44.0**	**+1.3**
POO				*e*		01 55 50.8	
	comp=Z,2μm,1.4s						
POO				*e*S	**S**	**01 59 40.7**	**+5.9**
JHNI	**Jhansi**	**21.82**	**320**	*e*	**S**	**01 59 45.0**	**+4.0**
JHNI				*e*		02 00 46.0	
BOM	**Bombay**	**22.54**	**298**	⇓*e*P	**P**	**01 55 56.1**	**+2.9**
BOM				*e*S	**S**	**02 00 02.7**	**+8.5**
CD2	**Chengdu**	**23.67**	**22**	⇓*i*P	**P**	**01 56 05.5**	**+1.3**
CD2				AP		01 56 09.3	
CD2				XP		01 56 12.8	
CD2				S	**S**	**02 00 23.8**	**+10**
CD2				XS		02 00 29.0	
CD2				AMB	AMB		
	comp=Z,740nm,1.2s,mb6.0						
CD2				AMB	AMB		
	comp=Z,14μm,5.7s						
CD2				LR	LR		
	comp=N,35μm,8.4s						
CD2				LR	LR		
	comp=Z,38μm,9.6s						
BATP	**Bataraza**	**23.75**	**89**	*e*P	**P**	**01 56 07.4**	**+2.2**
LGTI	**Lohaghat**	**23.93**	**330**	*e*P	**P**	**01 56 09.5**	**+2.8**
PTH	**Pithoragarh**	**24.03**	**330**	*e*P	**P**	**01 56 09.4**	**+1.7**
PTH				*e*S	**S**	**02 00 26.5**	**+6.2**
BHV	**Bhavnagar**	**24.32**	**304**	*e*P	**P**	**01 56 15.0**	**+4.3**
NDI	**New Delhi**	**24.97**	**324**	⇑*e*P	**P**	**01 56 17.9**	**+1.0**
NDI				*e*	**S**	**02 00 36.0**	**-0.3**
AJM	**Ajmer**	**25.08**	**316**	⇓*e*P	**P**	**01 56 20.4**	**+2.5**
AJM				*e*	pP	01 56 25.7	+1.0
	comp=Z,574nm,1.2s						
AJM				*e*	**S**	**02 00 32.3**	**-5.8**
ENPP	**El Nido**	**25.36**	**83**	*e*P	**P**	**01 56 14.9**	**-5.7**
ENH	**Enshi**	**25.74**	**33**	*e*P	**P**	**01 56 23.6**	**-0.4**
	comp=Z,64nm,1.3s,mb5.0						
DDI	**Dehra Dun**	**25.76**	**327**	*e*P	**P**	**01 56 24.5**	**+0.3**
DDI				*e*	**S**	**02 00 59.3**	**+10**
LUBP	**Lubang**	**26.37**	**77**	*e*P	**P**	**01 56 29.9**	**-0.1**
NBP	**Mount Natib**	**26.68**	**75**	*e*P	**P**	**01 56 34.1**	**+1.2**
DGAR	**Diego Garcia**	**26.79**	**233**	⇑*e*P	**P**	**01 56 35.3**	**+1.4**
DGAR				MLR	MLR		
	comp=Z,4μm,20.0s,MS5.0						
SMLA	**Simla**	**26.86**	**327**	⇓*i*	sP	01 56 49.0	+4.6
	comp=Z,1μm,2.3s						
SMLA				*i*	**S**	**02 01 22.0**	**+14**
	comp=Z,1μm,3.1s						
CUYO	**Cuyo Island**	**26.91**	**84**	*e*P	**P**	**01 56 36.1**	**+1.1**
BHJ	**Bhuj**	**27.06**	**304**	⇓*e*P	**P**	**01 56 38.9**	**+2.7**
TGY	**Tagaytay City**	**27.09**	**77**	P	**P**	**01 56 38.4**	**+1.9**
	comp=Z,247nm,0.4s,mb6.1,baz=222,slow=5.0,SNR=7.7						
SJMP	**San Jose**	**27.09**	**80**	*e*P	**P**	**01 56 35.7**	**-0.9**
ARP	**Angono**	**27.36**	**76**	*e*P	**P**	**01 56 39.6**	**+0.7**
ABRA	**Dolores**	**27.56**	**69**	*e*P	**P**	**01 56 40.6**	**-0.2**
BOAC	**Boac**	**27.89**	**78**	*e*P	**P**	**01 56 42.5**	**-1.3**
OTRP	**Odiongan**	**27.96**	**81**	*e*P	**P**	**01 56 42.3**	**-2.2**
APYP	**Conner**	**28.10**	**69**	*e*P	**P**	**01 56 46.2**	**+0.5**
POLP	**Polilio Island**	**28.14**	**76**	*e*P	**P**	**01 56 46.2**	**+0.1**
PONG	**Pong**	**28.16**	**327**	*e*P	**P**	**01 56 46.0**	**-0.1**
PONG				*e*S	**S**	**02 01 33.0**	**+4.5**
CAUP	**Cauayan**	**28.43**	**71**	*e*P	**P**	**01 56 55.6**	**+7.0**
LZH	**Lanzhou**	**28.45**	**17**	⇓P	**P**	**01 56 48.8**	**+0.1**
LZH				PP	PP	01 57 40.8	+0.3
LZH				S	**S**	**02 01 33.0**	**-0.1**
LZH				SS	SS	02 02 59.0	+0.5
LZH				AMB	AMB		
	comp=Z,323nm,1.3s,mb5.8						
LZH				AMB	AMB		
	comp=Z,2μm,4.5s						
LZH				LR	LR		
	comp=E,16μm,10.5s						
LZH				LR	LR		
	comp=Z,22μm,12.6s,MS6.0						
GUIM	**Jordan**	**28.45**	**84**	*e*P	**P**	**01 56 49.8**	**+0.9**
QZH	**Quanzhou**	**28.45**	**53**	⇓*i*P	**P**	**01 56 48.8**	**0.0**
QZH				S	**S**	**02 01 37.0**	**+3.7**
QZH				AMB	AMB		
	comp=Z,300nm,0.9s,mb5.9						
QZH				LR	LR		
	comp=N,54μm,12.9s,MS6.4						
QZH				LR	LR		
	comp=E,41μm,13.0s,MS6.4						
QZH				LR	LR		
	comp=Z,44μm,13.0s,MS6.2						
XAN	**Xi'an**	**28.52**	**27**	P	**P**	**01 56 47.5**	**-1.9**
XAN				AP	pP	01 57 01.0	+4.7
XAN				AMB	AMB		
	comp=Z,215nm,1.7s,mb5.6						
XAN				LR	LR		
	comp=N,10μm,17.4s,MS5.6						
XAN				LR	LR		
	comp=E,8μm,16.4s,MS5.6						
XAN				LR	LR		
	comp=Z,25μm,16.4s,MS5.9						
IPIL	**Ipil**	**28.53**	**90**	*e*P	**P**	**01 56 50.3**	**+0.7**
CVP	**Callao Caves**	**28.60**	**70**	⇓*e*P	**P**	**01 56 52.0**	**+1.8**
DLH	**Dalhousie**	**28.60**	**327**	*e*P	**P**	**01 56 50.0**	**-0.1**
DLH				*e*		01 57 40.0	
RCP	**Roxas**	**28.62**	**82**	⇑*e*P	**P**	**01 56 51.9**	**+1.5**
THN	**Thein Dam**	**28.65**	**327**	*e*	**P**	**01 56 49.4**	**-1.2**
	comp=Z,56nm,0.6s,mb5.5						
THN				*e*	**S**	**02 01 35.5**	**-1.0**
WHN	**Wuhan**	**28.76**	**39**	⇑P	**P**	**01 56 52.5**	**+1.0**
WHN				LR	LR		
	comp=N,35μm,11.0s						
SGCP	**Mt. Cagua**	**28.93**	**69**	*e*P	**P**	**01 56 53.2**	**0.0**
PAGZ	**Pagadian**	**29.32**	**90**	*e*P	**P**	**01 56 56.6**	**-0.2**
TBP	**Tagbilaran**	**29.71**	**86**	⇓*e*P	**P**	**01 57 00.5**	**+0.3**
OCLP	**Ormoc**	**30.44**	**84**	*e*P	**P**	**01 57 07.4**	**+0.7**
CNP	**Catarman**	**30.55**	**81**	*e*P	**P**	**01 57 06.9**	**-0.7**
MSLP	**Maasin**	**30.68**	**85**	*e*P	**P**	**01 57 08.3**	**-0.5**
GTA	**Gaotai**	**30.72**	**9**	⇓P	**P**	**01 57 08.8**	**-0.1**

GTA				AP	pP	01 57 15.8	-0.1
GTA				XP	sP	01 57 20.0	+1.0
GTA				PP	PP	01 58 09.5	-0.5
GTA				PPP	PPP	01 58 24.0	-0.8
GTA				PCP	PcP	02 00 07.0	+0.5
GTA				S	**S**	**02 02 08.8**	**-0.5**
GTA				SCP		02 03 45.8	
GTA				PCS		02 03 49.3	
GTA				SCS	ScS	02 07 40.8	-0.6
GTA				AMB	AMB		
	comp=Z,269nm,1.2s,mb6.0						
GTA				AMB	AMB		
	comp=Z,3µm,5.7s						
GTA				LR	LR		
	comp=N,8µm,21.7s,MS5.7						
GTA				LR	LR		
	comp=E,16µm,19.4s,MS5.7						
GTA				LR	LR		
	comp=Z,11µm,20.5s,MS5.5						
TATO	**Taipei**	**30.79**	**56**	PFAKE		01 57 20.0	+10
TATO				LR	LR		
	comp=Z,15µm,22.0s,MS5.6						
BUKP	**Musuan**	**30.98**	**90**	*e*P	**P**	**01 57 11.2**	**-0.3**
DAV	**Davao City (W)**	**31.56**	**91**	*e*P	**P**	**01 57 19.0**	**+2.4**
NJ2	**Nanjing**	**32.65**	**42**	*e*P	**P**	**01 57 25.5**	**-0.4**
NJ2				AP	pP	01 57 35.0	+2.1
NJ2				XP	sP	01 57 41.5	+5.5
NJ2				PP	PP	01 58 35.0	-0.1
NJ2				S	**S**	**02 02 42.0**	**+2.6**
NJ2				XS		02 03 01.0	
NJ2				AMB	AMB		
	comp=Z,680nm,1.0s,mb6.5						
NJ2				AMB	AMB		
	comp=Z,6µm,6.8s						
NJ2				LR	LR		
	comp=N,27µm,21.5s,MS6.2						
NJ2				LR	LR		
	comp=E,40µm,21.2s,MS6.2						
NJ2				LR	LR		
	comp=Z,33µm,20.6s,MS6.0						
TIY	**Taiyuan**	**33.16**	**28**	⇑P	**P**	**01 57 32.0**	**+1.7**
TIY				LR	LR		
	comp=N,16µm,12.0s						
SSE	**Sheshan**	**33.67**	**45**	P	**P**	**01 57 35.8**	**+1.0**
SSE				S	**S**	**02 02 57.0**	**+1.8**
SSE				XS		02 03 13.8	
SSE				AMB	AMB		
	comp=Z,204nm,1.4s,mb5.9						
SSE				AMB	AMB		
	comp=Z,5µm,12.0s						
SSE				LR	LR		
	comp=N,20µm,12.3s,MS6.2						
SSE				LR	LR		
	comp=E,22µm,12.3s,MS6.2						
SSE				LR	LR		
	comp=Z,15µm,11.6s,MS6.0						
KSH	**Kashi**	**34.26**	**335**	*i* PR		01 57 40.5	
KSH				AP	pP	01 57 46.3	-0.6
KSH				XP	sP	01 57 50.5	+0.6
KSH				PP	PP	01 58 54.0	-1.0
KSH				PPP	PPP	01 59 12.0	-1.0
KSH				PCP	PcP	02 00 18.5	+2.3
KSH				S	**S**	**02 03 04.3**	**0.0**
KSH				PCS		02 04 02.5	
KSH				SCS	ScS	02 07 59.8	+0.3
KSH				AMB	AMB		
	comp=Z,1µm,1.8s,mb6.6						
KSH				LR	LR		
	comp=N,5µm,11.6s						
KSH				LR	LR		
	comp=E,17µm,19.6s						
TIA	**Tai'an**	**34.40**	**35**	P	**P**	**01 57 39.8**	**-1.2**
TIA				LR	LR		
	comp=N,7µm,11.8s,MS5.8						
TIA				LR	LR		
	comp=E,9µm,11.2s,MS5.8						
BTO	**Baotou**	**34.60**	**22**	*e*P	**P**	**01 57 42.0**	**-0.7**
BTO				AMB	AMB		
	comp=Z,75nm,1.7s,mb5.3						
WMQ	**Urumqi**	**35.05**	**352**	⇓P	**P**	**01 57 47.0**	**+0.5**
WMQ				AP	pP	01 57 51.0	-2.6
WMQ				PP	PP	01 59 05.3	+0.1
WMQ				PPP	PPP	01 59 23.3	0.0
WMQ				S	**S**	**02 03 17.5**	**+1.0**
WMQ				AMB	AMB		
	comp=Z,154nm,1.1s,mb5.8						
WMQ				AMB	AMB		
	comp=Z,691nm,7.6s						
WMQ				LR	LR		
	comp=N,4µm,22.0s,MS5.6						
WMQ				LR	LR		
	comp=E,11µm,21.0s,MS5.6						
WMQ				LR	LR		
	comp=Z,5µm,19.0s,MS5.3						
HHC	**Hu-ho-hao-te**	**35.40**	**24**	⇓*i*P	**P**	**01 57 49.8**	**+0.2**
HHC				PP	PP	01 59 08.0	-1.4
HHC				PCP	PcP	02 00 20.0	+0.5
HHC				S	**S**	**02 03 23.3**	**+1.3**
HHC				SS	SS	02 05 40.5	+0.1
HHC				SCS	ScS	02 08 07.5	+2.0
HHC				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.8						
HHC				AMB	AMB		
	comp=Z,3µm,6.1s						
HHC				LR	LR		
	comp=N,12µm,15.5s,MS5.9						
HHC				LR	LR		
	comp=E,15µm,16.6s,MS5.9						
HHC				LR	LR		
	comp=Z,12µm,19.0s,MS5.7						
ULHL	**Ulahol**	**36.49**	**338**	P	**P**	**01 57 59.3**	**+0.6**
	SNR=18						
KZA	**Kyzart**	**36.72**	**337**	P	**P**	**01 58 02.0**	**+1.3**
	SNR=56						
BJT	**Baijiatuau**	**36.75**	**29**	*e*P	**P**	**01 58 02.2**	**+1.3**
BJT				pmax	pmax		
	comp=Z,92nm,0.8s						
BJT	**Baijiatuau**	**36.75**	**29**	*e*P	**P**	**01 58 02.2**	**+1.3**
	comp=Z,92nm,0.8s,mb5.7						
BJI	**Beijing**	**36.77**	**29**	P	**P**	**01 58 01.3**	**+0.2**
BJI				S	**S**	**02 03 42.8**	**-0.3**
BJI				AMB	AMB		
	comp=Z,152nm,1.9s,mb5.5						
BJI				AMB	AMB		
	comp=Z,5µm,4.8s						
BJI				LR	LR		
	comp=N,8µm,18.2s,MS5.8						
BJI				LR	LR		
	comp=E,13µm,19.8s,MS5.8						
BJI				LR	LR		
	comp=Z,9µm,21.5s,MS5.5						
JOW	**Kunigami**	**37.13**	**57**	P	**P**	**01 58 04.2**	**0.0**
	comp=Z,21nm,0.2s,mb5.5,baz=127,slow=26,SNR=4.9						
JOW				LR	LR	02 14 47.0	
	comp=Z,14µm,18.7s,MS5.8,baz=82,slow=39						
AAA	**Alma-Ata**	**37.13**	**340**	*e*P	**P**	**01 58 04.0**	**-0.1**
AAA				*e*S	**S**	**02 03 50.0**	**+1.5**
AAA				pmax	pmax		
	comp=Z,2µm,4.0s						
AAA				smax			
	comp=E,3µm,8.0s						
AAA				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.3						
UCH	**Uchtor**	**37.14**	**336**	P	**P**	**01 58 05.7**	**+1.5**
	SNR=7.7						
TKM2	**Tokmak 2**	**37.31**	**338**	P	**P**	**01 58 06.4**	**+0.8**
	SNR=74						
KBK	**Karagaybulak**	**37.33**	**337**	P	**P**	**01 58 06.5**	**+0.7**
	SNR=186						
AML	**Almayashu**	**37.39**	**335**	P	**P**	**01 58 07.7**	**+1.4**
	SNR=311						
AAK	**Ala-Archa**	**37.49**	**336**	P	**P**	**01 58 07.8**	**+0.7**
	SNR=96						
AAK	**Ala-Archa**	**37.49**	**336**	⇓*i*P	**P**	**01 58 06.6**	**-0.5**
AAK				pmax	pmax		
	comp=Z,404nm,1.1s,mb6.2						
AAK				MLR	MLR		
	comp=Z,5µm,21.0s,MS5.3						
AAK	**Ala-Archa**	**37.49**	**336**	⇓*i*P	**P**	**01 58 06.6**	**-0.5**
	comp=Z,404nm,1.1s,mb6.2						
AAK				LR	LR		
	comp=Z,5µm,21.0s,MS5.3						
FRU	**Bishkek**	**37.61**	**337**	⇓*i*P	**P**	**01 58 09.5**	**+1.4**
FRU				*i*		01 58 24.0	
FRU				*i* S	**S**	**02 03 56.0**	**+0.1**
FRU				pmax	pmax		
	comp=Z,510nm,1.8s,mb6.0						
FRU				MLR	MLR		
	comp=N,14µm,20.0s,MS5.9						
FRU				MLR	MLR		
	comp=E,14µm,20.0s,MS5.9						
FRU				MLR	MLR		
	comp=Z,18µm,20.0s,MS5.9						
CHMS	**Chumysh**	**37.70**	**337**	P	**P**	**01 58 09.7**	**+0.9**
	SNR=8.9						
EKS2	**Erkin-Say**	**37.80**	**336**	P	**P**	**01 58 11.0**	**+1.3**
	SNR=118						
USP	**Ospenovka**	**38.02**	**337**	P	**P**	**01 58 12.1**	**+0.5**
	SNR=24						
DL2	**Dalian**	**38.84**	**36**	⇑P	**P**	**01 58 20.3**	**+1.8**
DL2				S	**S**	**02 04 23.5**	**+9.0**
DL2				AMB	AMB		
	comp=Z,230nm,1.2s,mb5.8						
DL2				AMB	AMB		
	comp=Z,1µm,3.5s						
DL2				LR	LR		
	comp=N,5µm,10.2s,MS5.7						
DL2				LR	LR		
	comp=E,5µm,13.1s,MS5.7						
DL2				LR	LR		
	comp=Z,5µm,10.4s,MS5.6						
MK02	**Makanchi Array**	**38.85**	**347**	P	**P**	**01 58 17.8**	**-0.7**
MK02				pmax	pmax		
	comp=Z,56nm,0.8s,mb5.3						
MBWA	**Marble Bar**	**39.39**	**140**	⇓*i*P	**P**	**01 58 20.6**	**-2.7**
	comp=Z,325nm,1.6s,mb5.8						
MBWA				LR	LR		
	comp=Z,6µm,21.0s,MS5.4						
SONM	**Songino Array**	**40.12**	**13**	P	**P**	**01 58 29.2**	**+0.2**
	comp=Z,46nm,0.9s,mb5.2,baz=197,slow=7.3,SNR=99						
SONM				PcP	PcP	02 00 33.4	-0.4
	comp=Z,43nm,0.7s,baz=199,slow=3.8,SNR=14						
SONM				LR	LR	02 16 29.1	
	comp=Z,9µm,18.9s,MS5.6,baz=188,slow=38						
ULN	**Ulaanbaatar**	**40.30**	**14**	*e*P	**P**	**01 58 27.1**	**-3.4**
ULN	**Ulaanbaatar**	**40.30**	**14**	⇓*i*P	**P**	**01 58 29.5**	**-1.0**
	comp=Z,47nm,0.9s,mb5.2						
ULN				LR	LR		
	comp=Z,8µm,21.0s,MS5.6						
INCN	**Inchon**	**41.02**	**41**	*e*P	**P**	**01 58 36.5**	**0.0**
INCN				LR	LR		
	comp=Z,10µm,19.0s,MS5.7						
KS15	**Wonju Array Si**	**41.82**	**42**	*e*P	**P**	**01 58 43.2**	**+0.1**
SNY	**Shenyang**	**41.91**	**34**	⇓P	**P**	**01 58 43.8**	**0.0**
SNY				XP	sP	01 58 58.3	+4.4
SNY				S	**S**	**02 05 04.0**	**+3.6**
SNY				AMB	AMB		
	comp=Z,280nm,1.8s,mb5.6						
SNY				AMB	AMB		
	comp=Z,3µm,10.4s						
SNY				LR	LR		
	comp=N,6µm,16.4s,MS5.9						
SNY				LR	LR		
	comp=E,11µm,15.3s,MS5.9						
SNY				LR	LR		
	comp=Z,10µm,13.9s,MS5.9						
ZAK	**Zakamensk**	**41.96**	**9**	⇓*i*P	**P**	**01 58 44.3**	**+0.2**
MOY	**Mondy**	**42.91**	**7**	*e*P	**P**	**01 58 52.6**	**+0.7**
TLY	**Talaya**	**43.28**	**9**	P	**P**	**01 58 56.3**	**+1.5**
	comp=Z,249nm,1.5s,mb5.7,SNR=15						
TLY	**Talaya**	**43.28**	**9**	*e*P	**P**	**01 58 56.4**	**+1.6**
TLY				*e*		02 00 44.8	
TLY				*e*PPP	PPP	02 01 16.3	+3.1
TLY				pmax	pmax		
	comp=Z,144nm,1.7s,mb5.4						
TLY				MLR	MLR		
	comp=Z,6µm,21.0s,MS5.5						
TLY	**Talaya**	**43.28**	**9**	⇑*i*P	**P**	**01 58 50.5**	**-4.3**
TLY				*e*P	pP	01 58 56.0	-6.0
TLY				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
IRK	**Irkutsk**	**43.92**	**9**	*e*P	**P**	**01 58 58.2**	**-1.8**
IRK				*e*		02 00 43.1	
IRK				*e*		02 05 32.1	
MUKL	**Al Mukalla**	**44.06**	**281**	⇑*e*P	**P**	**01 59 04.9**	**+3.3**
CN2	**Changchun**	**44.26**	**33**	⇓P	**P**	**01 59 03.0**	**+0.1**
CN2				*e*AP	pP	01 59 11.3	+1.3
CN2				PCP	PcP	02 00 46.8	-0.9
CN2				*e*S	**S**	**02 05 36.0**	**+1.4**
CN2				AMB	AMB		
	comp=Z,210nm,1.2s,mb5.7						
CN2				AMB	AMB		
	comp=Z,5µm,5.0s						
CN2				LR	LR		
	comp=N,12µm,14.0s,MS6.1						
CN2				LR	LR		
	comp=E,13µm,14.0s,MS6.1						
CN2				LR	LR		
	comp=Z,10µm,15.0s,MS5.9						
HASS	**Wahat al Ahsa'**	**44.84**	**297**	P	**P**	**01 59 09.9**	**+2.0**
ZAL	**Zalesovo**	**45.35**	**353**	P	**P**	**01 59 11.3**	**-0.1**
	comp=Z,108nm,0.7s,mb5.8,baz=208,slow=8.0,SNR=184						
ZAL				LR	LR	02 21 27.8	
	comp=Z,6µm,21.4s,MS5.5,baz=201,slow=40						
NVS	**Novosibirsk**	**46.44**	**352**	*i* P	**P**	**01 59 18.3**	**-1.8**
NVS				*i* S	**S**	**02 06 02.5**	**-3.3**
NVS				*i*		02 09 12.9	
NVS				pmax	pmax		
	comp=Z,231nm,0.8s,mb6.2						
NVS				pmax	pmax		
	comp=E,137nm,1.4s						
NVS				pmax	pmax		
	comp=N,192nm,0.8s						
NVS				smax			
	comp=N,191nm,2.0s						
NVS				smax			
	comp=E,89nm,1.9s						
MDJ	**Mudanjiang**	**47.06**	**35**	P	**P**	**01 59 25.0**	**-0.2**
MDJ				AP	pP	01 59 33.0	+0.6
MDJ				XP	sP	01 59 39.0	+3.7
MDJ				PP	PP	02 01 14.5	-1.0
MDJ				S	**S**	**02 06 16.5**	**+1.7**
MDJ				SS	SS	02 09 41.5	+6.6
MDJ				AMB	AMB		
	comp=Z,139nm,2.2s,mb5.5						
MDJ				AMB	AMB		
	comp=Z,2µm,4.2s						
MDJ				LR	LR		
	comp=N,7µm,11.8s,MS6.1						
MDJ				LR	LR		
	comp=E,9µm,11.4s,MS6.1						
MDJ				LR	LR		
	comp=Z,10µm,11.4s,MS6.0						
MDJ	**Mudanjiang**	**47.06**	**35**	*e*P	**P**	**01 59 26.4**	**+1.2**
	comp=Z,348nm,1.6s,mb6.0						
QRN	**Al-Qurain**	**47.24**	**301**	*e*P	**P**	**01 59 27.4**	**+0.6**
QRN				AMb	AMB	01 59 31.5	
	comp=Z,1µm,0.9s,mb6.8						
NWAO	**Narrogin (SRO)**	**47.35**	**153**	P	**P**	**01 59 26.2**	**-1.5**
NWAO	**Narrogin (SRO)**	**47.35**	**153**	*e*P	**P**	**01 59 25.6**	**-2.0**
NWAO				pmax	pmax		
	comp=Z,777nm,1.3s						
NWAO				MLR	MLR		
	comp=Z,8µm,21.0s						
NWAO	**Narrogin (SRO)**	**47.35**	**153**	*e*P	**P**	**01 59 25.6**	**-2.0**
	comp=Z,777nm,1.3s,mb6.5						
NWAO				LR	LR		
	comp=Z,8µm,21.0s,MS5.7						
RYDS	**Riyadh**	**47.35**	**295**	P	**P**	**01 59 30.3**	**+2.6**
BDHA	**Al Bayda'**	**47.41**	**281**	⇑*e*P	**P**	**01 59 31.9**	**+3.6**
BDHA				AMb	AMB	01 59 33.0	
	comp=Z,518nm,1.0s,mb6.4						
VLA	**Vladivostok**	**47.53**	**38**	⇑*i*P	**P**	**01 59 29.0**	**+0.1**
VLA				*i*		01 59 47.0	
VLA				*i*		02 01 20.0	
VLA				*e*S	**S**	**02 06 25.0**	**+3.6**
VLA				*i* SS	SS	02 09 45.0	+1.7
VLA				pmax	pmax		
	comp=Z,4µm,7.0s						
VLA				pmax	pmax		
	comp=N,1µm,11.0s						
VLA				pmax	pmax		
	comp=E,2µm,5.0s						
VLA				pmax	pmax		
	comp=Z,3µm,7.0s						
VLA				pmax	pmax		
	comp=N,1µm,8.0s						
VLA				pmax	pmax		
	comp=E,2µm,5.0s						
VLA				smax			
	comp=N,2µm,9.0s						
VLA				smax			
	comp=E,2µm,11.0s						
VLA				MLR	MLR		
	comp=Z,10µm,12.0s,MS6.0						
VLA				MLR	MLR		
	comp=N,3µm,16.0s						
VLA				MLR	MLR		
	comp=E,4µm,10.0s						
RDF	**Al-Radifah**	**47.59**	**301**	*e*P	**P**	**01 59 30.4**	**+0.8**
RDF				AMb	AMB	01 59 35.8	
	comp=Z,1µm,1.0s,mb6.8						
UMR	**Umm Al-Rimmam**	**47.62**	**302**	*e*P	**P**	**01 59 30.8**	**+1.0**
UMR				AMb	AMB	01 59 31.6	
	comp=Z,381nm,0.6s,mb6.6						
LBOS		**47.72**	**281**	⇓*e*P	**P**	**01 59 34.1**	**+3.3**
BVA0	**Borovoye Array**	**47.77**	**341**	*i* P	**P**	**01 59 29.7**	**-0.9**
BVA0				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
BVAR	**Borovoye Array**	**47.77**	**341**	P	**P**	**01 59 29.6**	**-1.0**
	comp=Z,69nm,0.8s,mb5.7,baz=141,slow=9.5,SNR=134						
BVAR				PcP	PcP	02 00 59.8	0.0
	comp=Z,39nm,0.7s,baz=153,slow=3.3,SNR=7.4						
BRVK	**Borovoye**	**47.83**	**341**	*e*P	**P**	**01 59 30.1**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,93nm,0.8s,mb5.9						
BRVK				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.9						
BRVK	**Borovoye**	**47.83**	**341**	*e*P	**P**	**01 59 30.1**	**-1.0**
	comp=Z,93nm,0.8s,mb5.9						
BRVK				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
MIB	**Mutribah**	**48.01**	**302**	*e*P	**P**	**01 59 33.4**	**+0.6**
MIB				AMb	AMB	01 59 35.0	
	comp=Z,1µm,0.7s,mb7.0						
RST	**Umm Al-Ruwaisa**	**48.21**	**302**	*e*P	**P**	**01 59 35.0**	**+0.6**
RST				AMb	AMB	01 59 36.1	
	comp=Z,965nm,0.6s,mb7.0						
CHKZ	**Chkalovo**	**48.25**	**342**	*i* P	**P**	**01 59 33.5**	**-0.8**
CHKZ				pmax	pmax		
	comp=Z,177nm,0.7s,mb6.2						
MZLS	**Mizel**	**48.62**	**294**	P	**P**	**01 59 39.6**	**+2.1**
JHJ	**Hachijo jima 2**	**48.67**	**54**	LR	LR	02 20 40.8	
	comp=Z,6µm,20.3s,MS5.6,baz=49,slow=37						
MAJO	**Matsushiro**	**48.67**	**49**	*e*P	**P**	**01 59 37.6**	**-0.2**
MAJO				pmax	pmax		
	comp=Z,1µm,1.9s,mb6.5						
MAJO				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.6						
MAJO	**Matsushiro**	**48.67**	**49**	*e*P	**P**	**01 59 37.6**	**-0.2**
	comp=Z,1µm,1.9s,mb6.5						
MAJO				LR	LR		
	comp=Z,6µm,20.0s,MS5.6						
MAT	**Matsushiro**	**48.67**	**49**	P	**P**	**01 59 37.8**	**0.0**
MAT				*e*S	**S**	**02 06 36.0**	**-1.6**
MAT	**Matsushiro**	**48.67**	**49**	*e*P	**P**	**01 59 38.0**	**+0.2**
MAT				S	**S**	**02 06 37.0**	**-0.6**
MAT				pmax	pmax		
	comp=Z,1µm,2.0s,mb6.6						
MAT				MLR	MLR		
	comp=Z,7µm,18.0s,MS5.7						
MAT	**Matsushiro**	**48.67**	**49**	*e*P	**P**	**01 59 38.0**	**+0.2**
	comp=Z,1µm,2.0s,mb6.6						
MAT				S	**S**	**02 06 37.0**	**-0.6**
MAT				LR	LR		
	comp=Z,7µm,18.0s,MS5.7						
KAMS	**Al Khamasin**	**48.70**	**289**	P	**P**	**01 59 40.2**	**+1.9**
TRBA	**At Turbah**	**48.82**	**280**	⇓*e*P	**P**	**01 59 42.7**	**+3.4**
TRBA				AMb	AMB	01 59 43.3	
	comp=Z,53nm,0.6s,mb5.8						
CBIJ	**Chichi jima**	**49.08**	**62**	P	**P**	**01 59 39.7**	**-1.4**
	comp=Z,254nm,0.8s,mb6.3,baz=29,slow=8.4,SNR=6.4						
CBIJ				LR	LR	02 20 57.0	
	comp=Z,3µm,20.3s,MS5.3,baz=291,slow=37						
WRA	**Warramunga Arr**	**49.25**	**126**	P	**P**	**01 59 40.6**	**-1.9**
	comp=Z,42nm,0.8s,mb5.5,baz=305,slow=8.8,SNR=65						
WRA				PcP	PcP	02 01 04.8	-0.8
	comp=Z,38nm,0.8s,baz=314,slow=3.0,SNR=9.4						
WRA				ScP		02 04 59.0	
	comp=Z,8.4nm,1.1s,baz=302,slow=3.7,SNR=5.2						
WRAB	**Tennant Creek**	**49.25**	**126**	*e*P	**P**	**01 59 40.4**	**-2.1**
WRAB				pmax	pmax		
	comp=Z,71nm,0.8s,mb5.8						
WRAB				MLR	MLR		
	comp=Z,3µm,22.0s,MS5.2						
WRAB	**Tennant Creek**	**49.25**	**126**	*e*P	**P**	**01 59 40.4**	**-2.1**
	comp=Z,71nm,0.8s,mb5.8						
WRAB				LR	LR		
	comp=Z,3µm,22.0s,MS5.2						
TATS	**Tathlith**	**49.67**	**288**	P	**P**	**01 59 47.5**	**+1.8**
GUMO	**Guam**	**50.25**	**80**	PFAKE		02 00 00.0	+10
GUMO				LR	LR		
	comp=Z,5µm,20.0s,MS5.5						
AFFS	**'Afif**	**50.60**	**293**	P	**P**	**01 59 54.6**	**+1.8**
ARSS	**Ar Rass**	**50.69**	**296**	P	**P**	**01 59 54.7**	**+1.3**
FRSS	**Farasan al Kab**	**50.80**	**284**	P	**P**	**01 59 57.5**	**+3.1**
ASAR	**Alice Springs**	**50.95**	**130**	P	**P**	**01 59 53.1**	**-2.4**
	comp=Z,34nm,0.9s,mb5.3,baz=306,slow=7.1,SNR=58						
ASAR				PcP	PcP	02 01 11.0	-0.8
	comp=Z,48nm,0.7s,baz=311,slow=3.6,SNR=18						
ASAR				LR	LR	02 22 10.8	
	comp=Z,3µm,20.0s,MS5.3,baz=295,slow=37						
KLR	**Kul'dur**	**51.08**	**31**	α *i*P	**P**	**01 59 52.9**	**-3.2**
KLR				*e*		02 01 53.5	
KLR				*e*S	**S**	**02 07 12.0**	**+1.1**
KLR				*e*		02 12 11.5	
KLR				pmax	pmax		
	comp=N,660nm,3.2s						
KLR				pmax	pmax		
	comp=E,800nm,3.2s						
KLR				pmax	pmax		
	comp=Z,1µm,3.2s						
KLR				smax			
	comp=N,2µm,12.5s						
KLR				smax			
	comp=E,4µm,12.5s						
KLR				MLR	MLR		
	comp=Z,16µm,13.0s,MS6.2						
BOD	**Bodaibo**	**51.11**	**14**	*e*P	**P**	**01 59 55.5**	**-0.7**
HILS	**Ha'il**	**52.22**	**298**	P	**P**	**02 00 06.5**	**+1.5**
MAK	**Makhachkala**	**52.60**	**318**	*c* *i*P	**P**	**02 00 07.0**	**-0.6**
MAK				*i*		02 01 20.0	
MAK				*i*		02 02 10.0	
MAK				*i* S	**S**	**02 07 32.0**	**+0.3**
MAK				pmax	pmax		
	comp=Z,2µm,3.5s						
MAK				pmax	pmax		
	comp=Z,350nm,1.4s,mb6.1						
MAK				smax			
	comp=N,4µm,8.0s						
MAK				smax			
	comp=E,7µm,8.0s						
GNI	**Garni**	**53.36**	**314**	P	**P**	**02 00 14.0**	**+0.7**
	comp=E,58nm,0.8s,mb5.6,baz=320,slow=1.5,SNR=61						
GNI				LR	LR	02 28 06.4	
	comp=E,3µm,20.0s,MS5.4,baz=98,slow=42						
CLNS	**Chul'man**	**53.48**	**21**	*e*P	**P**	**02 00 13.6**	**-0.4**
CLNS				*e*		02 01 18.9	
CLNS				*e*		02 02 10.7	
CLNS				*e*PPP	PPP	02 03 16.4	-7.3
CLNS				*e*S	**S**	**02 07 44.5**	**+1.0**
CLNS				*e*SS	SS	02 11 27.5	+4.2
CLNS				pmax	pmax		
	comp=N,86nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.7						
CLNS				pmax	pmax		
	comp=E,87nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.0						
CLNS				pmax	pmax		
	comp=N,31nm,1.1s						
CLNS				pmax	pmax		
	comp=E,21nm,1.0s						
CLNS				smax			
	comp=N,36nm,1.3s						
CLNS				smax			
	comp=Z,18nm,2.0s						
CLNS				smax			
	comp=E,32nm,1.4s						
CLNS				MLR	MLR		
	comp=N,8µm,13.0s,MS6.0						
CLNS				MLR	MLR		
	comp=Z,12µm,13.0s,MS6.1						
CLNS				MLR	MLR		
	comp=E,2µm,12.0s,MS6.0						
TI2	**Plekhanov**	**53.95**	**316**	⇓*i*P	**P**	**02 00 16.8**	**-0.8**

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TI2                                i               02 00 27.4
TI2                                i S     S       02 07 52.4 +2.3
TI2                                  pmax  pmax
       comp=Z,3µm,2.5s,mb6.8
TI2                                  smax
       comp=N,3µm,5.0s
TI2                                  MLR   MLR
       comp=N,2µm,18.0s,MS5.3
TI2                                  MLR   MLR
       comp=E,2µm,18.0s,MS5.3
TI2                                  MLR   MLR
       comp=Z,2µm,18.0s,MS5.3
SVE    Sverdlovsk        54.18 338⇓iP      P       02 00 18.0 -1.1
SVE                                e               02 01 25.0
SVE                                e               02 02 27.0
SVE                                eS      S       02 07 50.0 -3.0
SVE                                  pmax  pmax
       comp=Z,570nm,1.7s,mb6.2
SVE                                  smax
       comp=N,2µm,7.0s
SVE                                  smax
       comp=E,2µm,7.0s
SVE                                  MLR   MLR
       comp=Z,15µm,21.0s,MS6.0
KBRS   Khaybar           54.22 295   P     P       02 00 21.7 +1.9
ARU    Arti              54.67 337⇑iP      P       02 00 19.5 -3.2
ARU                                i               02 01 23.1
ARU                                e               02 02 19.2
ARU                                i S     S       02 07 56.8 -2.8
ARU                                i               02 10 05.5
ARU                                eSS     SS      02 11 31.7  -11
ARU                                  pmax  pmax
       comp=Z,160nm,0.9s,mb6.0
ARU                                  MLR   MLR
       comp=Z,13µm,20.0s,MS6.0
ARU                                  MLR   MLR
       comp=N,6µm,22.0s,MS5.9
ARU                                  MLR   MLR
       comp=E,9µm,19.0s,MS5.9
ARU    Arti              54.67 337⇓iP      P       02 00 19.1 -3.6
KARS   Kars              54.70 314 eP      P       02 00 23.1  0.0
ASAJ   Asahikawa         54.79  42   LR    LR      02 24 14.0
       comp=E,5µm,19.7s,MS5.6,baz=352,slow=37
ZEI    Tsey              54.93 317 i P     P       02 00 25.4 +0.6
ZEI                                  pmax  pmax
       comp=Z,64nm,0.7s,mb5.8
BTMT   Batman            55.08 311 eP      P       02 00 25.7 -0.3
BEST   Besiri            55.16 310 i P     P       02 00 25.9 -0.6
YNBS   Yanbu‘ al Bahr    55.19 293   P     P       02 00 28.7 +1.8
VRT    Varto             55.34 312 eP      P       02 00 28.8 +1.0
ERZM   Erzurum           55.71 312 i P     P       02 00 30.8 +0.3
EZM    Erzurum           55.71 312 eP      P       02 00 31.0 +0.6
UMJS   Umm Lajj          55.90 294   P     P       02 00 34.4 +2.4
DIY    Diyarbakir        55.95 310 eP      P       02 00 31.5 -0.7
BCA    Borcka            56.03 314 eP      P       02 00 31.5 -1.3
BINT   Bingol            56.03 311 eP      P       02 00 32.7 -0.1
YSS    Yuzh-Sakhalins    56.11  39⇑iP      P       02 00 28.3 -4.9
YSS                                  pmax  pmax
       comp=Z,322nm,1.6s,mb6.1
YSS    Yuzh-Sakhalins    56.11  39 eP      P       02 00 33.2  0.0
       comp=Z,66nm,0.7s,mb5.8
YSS                                  LR    LR
       comp=Z,4µm,22.0s,MS5.5
KIV    Kislovodsk        56.20 317   P     P       02 00 33.7 -0.3
       comp=Z,2µm,0.9s
KIV    Kislovodsk        56.20 317 eP      P       02 00 30.4 -3.6
KIV                                e               02 01 26.7
KIV                                ePPP    PPP     02 03 49.7 -7.6
KIV                                i S     S       02 08 14.7 -5.5
KIV                                  pmax  pmax
       comp=Z,440nm,1.1s,mb6.4
KIV                                  pmax  pmax
       comp=N,152nm,0.9s
KIV                                  pmax  pmax
       comp=Z,850nm,1.9s,mb6.5
KIV                                  smax
       comp=N,2µm,6.6s
KIV                                  smax
       comp=E,1µm,6.6s
KIV                                  MLR   MLR
       comp=N,3µm,31.0s
KIV                                  MLR   MLR
       comp=Z,6µm,31.0s,MS5.5
KIV                                  MLR   MLR
       comp=E,3µm,21.0s
KIV    Kislovodsk        56.20 317 eP      P       02 00 30.5 -3.5
PMG    Port Moresby      56.24 108 eP      P       02 00 34.4 -0.2
PMG                                  pmax  pmax
       comp=Z,482nm,1.1s
PMG                                  MLR   MLR
       comp=Z,6µm,21.0s
PMG    Port Moresby      56.24 108   P     P       02 00 34.5 -0.1
       comp=Z,288nm,0.9s,mb6.3,baz=296,slow=4.9,SNR=78
PMG                                  LR    LR      02 30 24.1
       comp=Z,3µm,18.6s,MS5.4,baz=107,slow=42
PMG    Port Moresby      56.24 108 eP      P       02 00 34.4 -0.2
       comp=Z,482nm,1.1s,mb6.4
PMG                                  LR    LR
       comp=Z,6µm,21.0s,MS5.7
GOF    Gofitskoye        56.40 319⇓iP      P       02 00 34.0 -1.4
GOF                                i S     S       02 08 24.0 +1.1
GOF                                  pmax  pmax
       comp=Z,200nm,1.4s,mb6.0
GOF                                  pmax  pmax
       comp=Z,3µm,6.0s
GOF                                  smax
       comp=E,200nm,1.3s
GOF                                  MLR   MLR
       comp=Z,6µm,18.0s,MS5.7
EZC    Erzincan          56.79 312 eP      P       02 00 39.9 +1.6
PTK    Pertek            56.86 311 eP      P       02 00 34.8 -4.0
URFA   Urfa              56.89 309 eP      P       02 00 38.9 -0.2
YUK    Yuzh-Kuril’sk     56.93  43 eP      P       02 00 38.0 -1.2
YUK                                e               02 01 34.3
YUK                                e               02 02 45.5
YUK                                eS      S       02 08 36.5 +6.7
YUK                                ePS     PS      02 08 53.5 +8.2
YUK                                eSS     SS      02 12 18.0 -1.5
YUK                                  pmax  pmax
       comp=Z,4µm,2.5s,mb7.0
YUK                                  smax
       comp=N,2µm,7.0s
YUK                                  smax
       comp=E,3µm,7.0s
YUK                                  MLR   MLR
       comp=N,5µm,20.0s,MS5.7
YUK                                  MLR   MLR
       comp=E,3µm,20.0s,MS5.7
YUK                                  MLR   MLR
       comp=Z,6µm,20.0s,MS5.7
TBKS   Tabuk             56.94 298   P     P       02 00 41.0 +1.5
ELZG   Elazig            57.05 310 i P     P       02 00 40.0 -0.2
KMBO   Kilima Mbogo      57.18 263 eP      P       02 00 43.7 +2.3
KMBO                                 pmax  pmax
       comp=Z,98nm,0.9s
KMBO                                 MLR   MLR
       comp=Z,12µm,22.0s
KMBO   Kilima Mbogo      57.18 263   P     P       02 00 44.4 +3.0
       comp=Z,80nm,0.9s,mb5.7,baz=58,slow=9.8,SNR=156
KMBO                                 LR    LR      02 21 30.0
       comp=Z,12µm,21.9s,MS6.0,baz=72,slow=32
KMBO   Kilima Mbogo      57.18 263 eP      P       02 00 43.7 +2.3
       comp=Z,98nm,0.9s,mb5.8
KMBO                                 LR    LR
       comp=Z,12µm,22.0s,MS6.0
GUMT   Gumushane         57.25 313 eP      P       02 00 41.3 -0.3
ASF    Jabal al Asfar    57.27 302   P     P       02 00 42.6 +0.9
       comp=Z,66nm,0.9s,mb5.7,baz=336,slow=4.2,SNR=95
ASF                                  LR    LR      02 28 26.3
       comp=Z,5µm,21.9s,MS5.5,baz=136,slow=39
MALT   Malatya           57.42 310 eP      P       02 00 42.3 -0.5
       comp=Z,158nm,1.3s,mb5.9
MYA    Malataya          57.43 310 eP      P       02 00 41.7 -1.1
JMQS   Jabal Moqyreh     57.62 298   P     P       02 00 45.1 +0.9
GZT    Gaziantep         57.84 309 i P     P       02 00 45.6  0.0
AYUS   ‘Aynunah          58.06 298   P     P       02 00 48.2 +0.9
GAZ    Gaziantep         58.07 308 eP      P       02 00 47.4 +0.1
SOC    Sochi             58.08 316 i P     P       02 00 42.8 -4.4
SOC                                i S     S       02 08 41.5 -3.5
SOC                                  pmax  pmax
       comp=Z,186nm,1.2s,mb6.0
SOC                                  pmax  pmax
       comp=N,54nm,1.1s
SOC                                  pmax  pmax
       comp=E,21nm,1.0s
SOC                                  MLR   MLR
       comp=Z,6µm,21.0s,MS5.7
SOC                                  MLR   MLR
       comp=N,5µm,22.0s,MS5.7
SOC                                  MLR   MLR
       comp=E,3µm,21.0s,MS5.7
MKRJ   Makawir           58.22 301   P     P       02 00 48.9 +0.5
BDAS   Al Bad‘           58.23 298   P     P       02 00 49.2 +0.7
KSHT   Keshet            58.32 303   P     P       02 00 49.7 +0.6
JMOS   Jabal al Moall    58.32 299   P     P       02 00 49.7 +0.6
ALWS   Ilw as Safayha    58.38 299   P     P       02 00 50.3 +0.8
MZDA   Masada            58.41 301   P     P       02 00 50.3 +0.6
DRGI   Dragot            58.43 301   P     P       02 00 50.4 +0.5
HRI    Mount Hermon      58.43 303   P     P       02 00 50.2 +0.3
KAHT   Ahir Dag          58.44 309 i P     P       02 00 49.6 -0.3
AQBJ   Aqaba             58.45 299   P     P       02 00 50.8 +0.8
HAQS   Haql              58.46 298   P     P       02 00 51.0 +0.9
KSDI   Kefar Szold       58.48 303   P     P       02 00 50.3 +0.1
EIL    Elat              58.52 299   P     P       02 00 51.1 +0.6
EIL    Elat              58.52 299   LR    LR      02 26 41.0
       comp=E,9µm,21.9s,MS5.8,baz=98,slow=37
EIL                                  PKP2bc        02 30 39.8
       comp=E,1.1nm,0.4s,baz=340,slow=6.1,SNR=5.8
EIL    Elat              58.52 299 eP      P       02 00 50.8 +0.2
       comp=E,137nm,0.8s,mb6.0
MMLI   Mount Malkishu    58.55 302   P     P       02 00 51.3 +0.6
MBH    Mount Berech      58.57 299   P     P       02 00 51.6 +0.7
PRNI   Paran             58.57 300   P     P       02 00 51.6 +0.7
COBT   Iskenderun        58.67 307 i P     P       02 00 50.3 -1.1
HTY    Hatay             58.67 307 eP      P       02 00 50.1 -1.4
SLTI   Sal’it            58.83 302   P     P       02 00 53.2 +0.5
MASH   Mash‘abbe Sade    58.85 301   P     P       02 00 53.2 +0.4
HNTI   Hanita            58.86 303   P     P       02 00 53.4 +0.5
HAF    Haifa             58.94 303   P     P       02 00 53.7 +0.3
OFRI   ‘Ofer             58.94 303   P     P       02 00 53.8 +0.4
RTMM   Retamin           58.95 301   P     P       02 00 53.8 +0.3
YAK    Yakutsk           59.02  19 eP      P       02 00 51.9 -1.6
YAK                                  pmax  pmax
       comp=Z,133nm,0.8s,mb6.0
YAK                                  MLR   MLR
       comp=Z,7µm,19.0s,MS5.8
YAK    Yakutsk           59.02  19 eP      P       02 00 51.9 -1.7
       comp=Z,133nm,0.8s,mb6.0
YAK                                  LR    LR
       comp=Z,7µm,19.0s,MS5.8
KZIT   Kziot             59.17 301   P     P       02 00 55.4 +0.4
CEYT   Ceyhan            59.17 308 eP      P       02 00 55.5 +0.5
CTA    Charters Tower    59.21 120   P     P       02 00 54.7 -0.7
       comp=Z,235nm,1.0s,mb6.2,baz=294,slow=8.5,SNR=110
CTA                                  PcP   PcP     02 01 43.2 -0.2
       comp=Z,65nm,0.9s,baz=274,slow=8.2,SNR=6.5
CTA                                  PKP2bc        02 30 38.6
       comp=Z,12nm,1.1s,baz=160,slow=5.4,SNR=4.0
CTA                                  LR    LR      02 31 02.4
       comp=Z,5µm,19.3s,MS5.7,baz=286,slow=41
CTAO   Charters Tower    59.21 120   P     P       02 00 54.2 -1.3
CTAO   Charters Tower    59.21 120 eP      P       02 00 54.6 -0.8
CTAO                                 pmax  pmax
       comp=Z,521nm,1.3s,mb6.4
CTAO                                 MLR   MLR
       comp=Z,6µm,20.0s,MS5.7
CTAO   Charters Tower    59.21 120 eP      P       02 00 54.6 -0.9
       comp=Z,521nm,1.3s,mb6.4
CTAO                                 LR    LR
       comp=Z,6µm,20.0s,MS5.7
TOKT   Tokat             59.36 312 eP      P       02 00 55.6 -0.6
BNN    Bunyan            59.52 310 eP      P       02 00 56.6 -0.7
ANN    Anapa             60.03 317 eP      P       02 00 58.5 -2.2
ANN                                  S     S       02 09 04.8 -5.4
ANN                                  pmax  pmax
       comp=Z,103nm,1.3s,mb5.7
PHNC   Paralimni         60.13 305 ⇓P      P       02 01 00.7 -0.9
PHNC   Paralimni         60.13 305⇓iP      P       02 01 00.7 -0.9
AVNT   Avonos            60.25 310 i P     P       02 01 01.4 -1.0
NIG    Nigde             60.29 309 eP      P       02 01 02.2 -0.5
MEST   Erdemli           60.34 307 i P     P       02 01 02.1 -0.9
IKL    Isikli            60.64 306 eP      P       02 01 01.2 -3.8
CSS    Prodhromos        60.70 305   P     P       02 01 05.0 -0.4
       comp=Z,2.9nm,1.2s
CTKT   Corum             60.73 312 i P     P       02 01 04.4 -1.2
CORM   Corum             60.75 311 eP      P       02 01 05.2 -0.5
MAMC   Mammari           60.82 305 ⇓P      P       02 01 06.0 -0.3
MAMC   Mammari           60.82 305⇓iP      P       02 01 06.0 -0.3
BOYT   Boyabat           60.85 313 i P     P       02 01 04.9 -1.5
PECR   Pechory           60.94 331⇓iP      P       02 01 04.6 -2.1
PECR                               e               02 09 20.0
PECR                                 pmax  pmax
       comp=Z,2µm,5.6s
BYBT   Boyabat           60.96 313 eP      P       02 01 05.4 -1.7
SZAC   Souni-Zanaja      61.02 305 ⇓P      P       02 01 07.2 -0.5
SZAC   Souni-Zanaja      61.02 305⇓iP      P       02 01 07.2 -0.5
LEF    Lefka             61.08 305 eP      P       02 01 06.8 -1.2
STKA   Stephens Creek    61.18 134   P     P       02 01 06.8 -2.0
       comp=Z,79nm,1.0s,mb5.8,baz=306,slow=6.9,SNR=42
STKA                                 PcP   PcP     02 01 50.5 -0.7
       comp=Z,22nm,0.7s,baz=5.4,slow=7.4,SNR=5.4
STKA                                 LR    LR      02 28 56.3
       comp=Z,8µm,19.3s,MS5.9,baz=293,slow=37
STKA   Stephens Creek    61.18 134 eP      P       02 01 06.5 -2.3
VRSR   Storozhevoye      61.21 324 eP      P       02 01 06.7 -2.0
VRSR                               e               02 01 47.3
VRSR                               e               02 03 21.8
VRSR                               eS      S       02 09 21.5 -3.8
VRSR                               e*SS            02 09 47.5
VRSR                               eSSS    SSS     02 15 58.9 -6.7
VRSR                                 pmax  pmax
       comp=Z,200nm,1.2s,mb6.1
VRSR                                 pmax  pmax
       comp=N,110nm,1.3s
VRSR                                 pmax  pmax
       comp=E,220nm,1.1s
VRSR                                 smax
       comp=N,310nm,1.5s
VRSR                                 smax
       comp=Z,60nm,2.8s
VRSR                                 smax
       comp=E,680nm,2.9s
VRSR                                 MLR   MLR
       comp=Z,5µm,20.0s,MS5.7
VRSR                                 MLR   MLR
       comp=N,2µm,19.0s,MS5.6
VRSR                                 MLR   MLR
       comp=E,4µm,21.0s,MS5.6
KAMT   Kaman             61.25 310 eP      P       02 01 07.9 -1.2
ALFC   Alevga            61.32 305 ⇓P      P       02 01 08.7 -1.0
       comp=E,2.1nm,0.7s
ALFC   Alevga            61.32 305⇓iP      P       02 01 08.7 -1.0
BR131  Keskin Array S    61.38 310   PFAKE         02 01 20.0  +10
BR131                                LR    LR
       comp=Z,3µm,21.0s,MS5.4
BRTR   Keskin Array B    61.38 310   P     P       02 01 08.6 -1.5
       comp=Z,66nm,0.7s,mb5.9,baz=122,slow=7.2,SNR=254
BRTR                                 PcP   PcP     02 01 51.9  0.0
       comp=Z,17nm,0.9s,baz=121,slow=5.2,SNR=4.0
BRTR                                 PKP2bc        02 30 32.5
       comp=Z,1.2nm,0.9s,baz=315,slow=3.5,SNR=3.9
TOS    Tosya             61.40 312 eP      P       02 01 09.0 -1.2
VOR    Voronezh          61.41 325⇓iP      P       02 01 08.0 -2.1
VOR                                i S     S       02 09 25.0 -2.8
VOR                                  pmax  pmax
       comp=Z,700nm,1.8s,mb6.5
VOR                                  smax
       comp=E,300nm,2.0s
PPCY   Paphos            61.48 305 ⇓P      P       02 01 09.5 -1.3
PPCY   Paphos            61.48 305⇓eP      P       02 01 09.5 -1.3
AKMC   Akamas            61.52 305 ⇓P      P       02 01 10.0 -1.0
AKMC   Akamas            61.52 305⇓iP      P       02 01 10.0 -1.0
CANT   Cankiri           61.60 311 eP      P       02 01 11.0 -0.5
BZK    Bozkurt           61.63 313 eP      P       02 01 11.1 -0.6
ELDT   Eldivan           61.71 311 i P     P       02 01 11.0 -1.3
HDMB   Hadim             61.72 307 eP      P       02 01 08.7 -3.7
BALT   Daday             61.98 312 i P     P       02 01 11.9 -2.2
KONT   Konya--Tatoy      62.00 308 eP      P       02 01 12.8 -1.4
ANTO   Ankara            62.05 310 eP      P       02 01 12.8 -1.7
LOD    Lodumlu           62.08 310 eP      P       02 01 11.4 -3.3
SIM    Simferopol’       62.33 316⇓eP      P       02 01 15.3 -1.0
SIM                                eS      S       02 09 38.0 -1.5
SIM                                  pmax  pmax
       comp=Z,185nm,1.3s,mb6.0
SAFT   Safranbolu        62.43 312 eP      P       02 01 16.2 -0.8
KIZT   Kizilcal          62.55 309 eP      P       02 01 15.2 -2.7
SGKT   Sivrigoynuk       62.75 311 i P     P       02 01 17.8 -1.4
BCK    Bucak             63.30 307 eP      P       02 01 20.7 -2.1
MDU    Mudurnu           63.36 311 eP      P       02 01 21.2 -2.0
ISP    Isparta           63.42 308 eP      P       02 01 19.8 -3.8
ISP    Isparta           63.42 308   P     P       02 01 22.6 -1.0
ISP                                  pmax  pmax
       comp=Z,420nm,1.5s,mb6.3
ESKT   Eskisehir         63.45 310 eP      P       02 01 22.1 -1.7
ESKT   Eskisehir         63.45 310 i P     P       02 01 22.5 -1.3
MBAR   Mbarara           63.48 265⇓iP      P       02 01 21.4 -2.9
MBAR   Mbarara           63.48 265 eP      P       02 01 25.6 +1.2
       comp=Z,186nm,1.2s,mb6.1
MBAR                                 LR    LR
       comp=Z,3µm,21.0s,MS5.5
HENT   Hendek            63.66 311 i P     P       02 01 23.4 -1.8
ELL    Elmali            63.73 306 eP      P       02 01 25.5 -0.2
MOS    Moscow            63.89 328⇓iP      P       02 01 25.4 -1.0
MOS                                e*PP    pP      02 01 44.0  +10
MOS                                i S     S       02 09 56.2 -2.7
MOS                                  pmax  pmax
       comp=Z,1µm,1.9s,mb6.6
MOS                                  pmax  pmax
       comp=Z,592nm,1.4s,mb6.4
MOS                                  pmax  pmax
       comp=E,141nm,1.2s
MOS                                  smax
       comp=E,2µm,3.8s
MOS                                  smax
       comp=N,4µm,5.2s
MOS                                  MLR   MLR
       comp=Z,8µm,19.8s,MS5.9
MOS                                  MLR   MLR
       comp=E,6µm,19.5s
ALT    Altintas          63.94 309 eP      P       02 01 26.4 -0.6
OBN    Obninsk           64.19 328κ iP     P       02 01 27.0 -1.4
OBN                                i               02 01 40.4
OBN                                i               02 01 55.7
OBN                                e               02 03 47.8
OBN                                i PPP   PPP     02 05 19.7 -4.2
OBN                                i S     S       02 09 57.3 -5.4
OBN                                i PS    PS      02 10 12.3  -13
OBN                                i PPS   PPS     02 10 26.9 -7.7
OBN                                eSS     SS      02 14 08.5 -5.2
OBN                                  pmax  pmax
       comp=Z,1µm,1.8s,mb6.6
OBN                                  pmax  pmax
       comp=Z,560nm,1.2s,mb6.5
OBN    Obninsk           64.19 328⇑iP      P       02 01 25.4 -3.0
FETY   Fethiye           64.36 306 eP      P       02 01 27.2 -2.7
DNZL   Cakiroluk         64.55 307 i P     P       02 01 30.8 -0.3
DENT   Denizli           64.56 307 eP      P       02 01 29.1 -2.1
HRT    Hereke            64.58 311 eP      P       02 01 29.6 -1.7
YLV    Yalova            64.76 311 eP      P       02 01 30.0 -2.3
ULDT   Uludag            64.86 310 i P     P       02 01 31.5 -1.5
AYDN   Tasoluk           65.46 307 i P     P       02 01 36.6 -0.3
BTOK   Tokmak            65.64 310 i P     P       02 01 36.3 -1.7
SKR    Severo-Kuril’s    65.67  38 eP      P       02 01 31.4 -6.7
SKR                                e       pP      02 01 37.4 -8.1
SKR                                e               02 01 45.8
SKR                                e               02 10 26.0
SKR                                  pmax  pmax
       comp=Z,110nm,0.8s,mb5.9
SKR                                  pmax  pmax
       comp=N,3µm,4.0s
SKR                                  pmax  pmax
       comp=E,4µm,4.0s
SKR                                  MLR   MLR
       comp=N,5µm,16.0s,MS5.9
SKR                                  MLR   MLR
       comp=E,4µm,16.0s,MS5.9
SKR                                  MLR   MLR
       comp=Z,4µm,16.0s,MS5.8
AKS    Akhisar           65.68 309 eP      P       02 01 36.5 -1.8
BALB   Balikesir         65.74 309   Pn    P       02 01 30.0 -8.6
KARP   Karpathos         65.78 305 eP      P       02 01 39.0  0.0
BNT    Bandirma          65.81 310 eP      P       02 01 36.5 -2.6
MA2    Magadan           65.92  28   P     P       02 01 38.2 -1.2
MA2                                  pmax  pmax
       comp=Z,500nm,1.7s,mb6.3
MA2    Magadan           65.92  28 eP      P       02 01 38.9 -0.6
       comp=Z,501nm,1.8s,mb6.2
MA2                                  LR    LR
       comp=Z,3µm,20.0s,MS5.4
KDAG   Bornova           66.04 308 i P     P       02 01 40.2 -0.4
IZM    Izmir             66.04 308 eP      P       02 01 37.9 -2.7
TIRR   Tirgusor          66.17 315   P     P       02 01 40.5 -0.8
TIXI   Tiksi             66.17  11 eP      P       02 01 39.3 -1.6
TIXI                               eS      S       02 10 24.4 -2.3
TIXI                                 pmax  pmax
       comp=N,102nm,1.6s
TIXI                                 pmax  pmax
       comp=Z,538nm,1.6s,mb6.3
TIXI                                 pmax  pmax
       comp=E,112nm,1.8s
TIXI                                 pmax  pmax
       comp=Z,910nm,1.6s,mb6.5
TIXI   Tiksi             66.17  11 eP      P       02 01 35.5 -5.4
TIXI                                 LR    LR
       comp=Z,4µm,19.0s,MS5.6
PSN    Preselentsi       66.19 314 i P     P       02 01 40.0 -1.5
SART   Tekirdag          66.42 310 i P     P       02 01 41.3 -1.8
CFR    Carcaliu          66.50 315⇓iP      P       02 01 42.5 -1.0
CFR    Carcaliu          66.50 315⇓iP      P       02 01 42.5 -0.9
HARR   Harsova           66.55 315⇓iP      P       02 01 42.9 -0.9
PRD    Provadia          66.66 313 i P     P       02 01 43.0 -1.5
XRY    Khrisi            66.90 304 eP      P       02 01 46.0 -0.2
EDRB   Edirne            66.92 312   Pn    P       02 01 41.2 -5.0
NPS    Neapolis          67.00 304 eP      P       02 01 46.5 -0.4
AKASG  Malin Array Be    67.01 321   P     P       02 01 44.8 -1.8
       comp=Z,52nm,0.9s,mb5.6,baz=88,slow=4.7,SNR=158
AKASG                                PP    PP      02 04 13.8 -2.0
       comp=Z,18nm,0.9s,baz=98,slow=6.9,SNR=5.3
BRD    Bordesti          67.34 316⇑iP      P       02 01 49.8 +1.0
IDI    Anoyia            67.60 304   P     P       02 01 49.9 -0.7
       comp=Z,92nm,0.8s,mb5.9,baz=100,slow=6.2,SNR=32
ISR    Istrita           67.60 315⇓eP      P       02 01 50.8 +0.4
VRI    Vrincioaia        67.60 316⇓iP      P       02 01 50.5 +0.1
RDO    Rodhopi           67.72 311 eP      P       02 01 50.0 -1.3
PET    Petropavlovsk     67.82  36 eP      P       02 01 51.3 -0.3
PET                                e               02 04 27.8
PET                                eS      S       02 10 50.6 +3.8
PET                                  pmax  pmax
       comp=Z,71nm,1.4s,mb5.5
PET                                  pmax  pmax
       comp=Z,1µm,8.3s
PET                                  pmax  pmax
       comp=Z,900nm,10.6s
PET                                  pmax  pmax
       comp=Z,700nm,12.2s
PET                                  smax
       comp=N,900nm,13.8s
PET                                  MLR   MLR
       comp=Z,5µm,19.0s,MS5.7
PET    Petropavlovsk     67.82  36 eP      P       02 01 45.0 -6.7
PET                                  LR    LR
       comp=Z,4µm,20.0s,MS5.7
BUC1   Bucharest         67.83 314   P     P       02 01 52.0 +0.1
KDZ    Kurdzhali         67.88 311 i P     P       02 01 51.0 -1.2
MLR    Muntele Rosu      68.08 315   P     P       02 01 53.2 -0.2
       comp=Z,209nm,1.1s,mb6.1,baz=83,slow=1.9,SNR=161
MLR    Muntele Rosu      68.08 315⇑iP      P       02 01 53.8 +0.4
VAM    Vamos             68.17 304 eP      P       02 01 55.0 +0.8
RZN    Rozhen            68.40 311 i P     P       02 01 54.0 -1.5
PLD    Plovdiv           68.47 312 i P     P       02 01 54.0 -1.9
MTUR   Matau             68.65 315   P     P       02 01 56.5 -0.5
MTUR   Matau             68.65 315⇑eP      P       02 01 50.9 -6.1
MNK    Minsk             68.79 325⇓eP      P       02 01 53.0 -4.6
MNK                                  pmax  pmax
       comp=Z,1µm,1.0s,mb6.8
MNK                                  pmax  pmax
       comp=E,1µm,1.5s
PGB    Panagyurishte     68.92 312 i P     P       02 01 57.0 -1.7
NSAL   Nisos Salamina    68.96 307 eP      P       02 01 51.5 -7.5
PUL    Pulkovo           69.01 331d iP     P       02 01 58.5 -0.4
PUL                                i S     S       02 10 58.3 -2.6
PUL                                  pmax  pmax
       comp=Z,177nm,0.5s,mb6.2
PUL                                  smax
       comp=N,748nm,1.5s
PUL                                  smax
       comp=E,546nm,1.4s
PUL    Pulkovo           69.01 331⇓iP      P       02 01 55.7 -3.2
COZ    Cozia             69.17 315⇑iP      P       02 01 50.9 -9.2
KYTH   Kithira           69.17 305 eP      P       02 01 59.0 -1.4
LSZ    Lusaka            69.30 250⇓iP      P       02 02 02.5 +1.1
LSZ                                  pmax  pmax
       comp=Z,171nm,1.0s,mb5.9
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LSZ                                MLR     MLR
      comp=Z,8µm,22.0s,MS5.9
LSZ   Lusaka            69.30 250⇓iP      P        02 02 02.5 +1.1
      comp=Z,170nm,1.0s,mb5.9
LSZ                                LR      LR
      comp=Z,8µm,22.0s,MS5.9
IDID  Didziasalis       69.60 326 i P      P        02 02 02.0  -0.6
IDID                               AMPb    AMB      02 02 07.3
      comp=Z,103nm,1.4s,mb5.6
VTS   Vitosha           69.62 312 i P      P        02 02 02.0  -1.0
VTS   Vitosha           69.62 312   P      P        02 02 02.3  -0.7
KKB   Krupnik           69.64 311 i P      P        02 02 02.0  -1.1
IIGN  Ignalina          69.89 326 i P      P        02 02 03.9  -0.5
IIGN                               AMPb    AMB      02 02 10.0
      comp=Z,101nm,1.6s,mb5.5
VAY   Valandovo         69.96 311⇓iP      P        02 02 03.5  -1.6
IZAR  Zarasai           69.98 326 i P      P        02 02 04.1  -0.8
IZAR                               AMPb    AMB      02 02 09.6
      comp=Z,101nm,1.6s,mb5.5
ISAL  Salakas           70.00 326 i P      P        02 02 04.3  -0.8
ISAL                               AMPb    AMB      02 02 09.8
      comp=Z,76nm,1.6s,mb5.4
ITM   Ithomi            70.13 306 eP       P        02 02 05.0  -1.1
EVR   Evrytania         70.34 308 eP       P        02 02 04.5  -2.9
LVZ   Lovozero          70.34 340d iP      P        02 02 06.3  -0.6
LVZ                               i S      S        02 11 15.4  -1.0
LVZ                                pmax    pmax
      comp=Z,122nm,0.7s,mb5.9
LVZ                                pmax    pmax
      comp=E,38nm,0.8s
LVZ                                smax
      comp=Z,2µm,5.3s
LVZ                                smax
      comp=N,3µm,6.1s
LVZ                                smax
      comp=E,1µm,3.4s
LVZ                                MLR     MLR
      comp=N,6µm,20.0s,MS6.0
LVZ                                MLR     MLR
      comp=Z,12µm,20.0s,MS6.2
LVZ                                MLR     MLR
      comp=E,7µm,22.0s,MS6.0
LVZ   Lovozero          70.34 340⇓iP      P        02 02 03.8  -3.1
VSU   Vasula            70.40 329⇓iP      P        02 02 03.7  -3.7
APA   Apatity           70.63 339⇑iP      P        02 02 08.1  -0.6
APA                               i        pP       02 02 16.3 +0.2
APA                               i S      S        02 11 19.0  -0.8
APA                                pmax    pmax
      comp=Z,200nm,1.0s,mb6.0
APA                                MLR     MLR
      comp=Z,11µm,21.0s,MS6.1
BOLS  Boljevac          70.67 313⇓iP      P        02 02 08.4  -0.9
SKO   Skopje            70.87 311⇓iP      P        02 02 08.8  -1.8
SKO                                pmax    pmax
      comp=Z,93nm,1.1s,mb5.6
SKO   Skopje            70.87 311⇓iP      P        02 02 08.8  -1.8
      comp=Z,93nm,1.1s,mb5.6
BIA   Bitola            70.87 310⇓iP      P        02 02 09.5  -1.1
KWP   Kalwaria          70.90 319 eP       P        02 02 10.2  -0.4
      comp=Z,700nm,1.4s,mb6.4
KWP                               epP      pP       02 02 17.4  -0.7
KWP                               ePcP     PcP      02 02 29.8  -1.4
KWP                               eSKS     SKS      02 12 11.8  -2.6
KWP                                MLR     MLR      02 34 58.5
      comp=Z,4µm,27.5s,MS5.5
WAKE  Wake Island       71.00  73  PFAKE            02 02 20.0 +8.3
WAKE                               LR      LR
      comp=Z,58µm,21.0s,MS6.8
KOLS  Kolonicke sedl    71.08 319 i P      P        02 02 11.4  -0.3
JAN   Janina            71.13 309 eP       P        02 02 11.5  -0.7
SVIS  Svilajnac         71.25 314 eP       P        02 02 10.9  -1.9
OHR   Ohrid             71.28 310 i P      P        02 02 10.5  -2.6
SUW   Suwalki           71.34 324 eP       P        02 02 12.1  -1.1
SUW                               e*SP     sP       02 02 22.6  -0.7
SUW                               e                 02 02 31.2
SUW                               e                 02 04 52.6
SUW                               eS       S        02 11 25.0  -3.3
SUW                               e                 02 12 08.8
SUW   Suwalki           71.34 324 eP       P        02 02 12.1  -1.1
      comp=Z,800nm,1.3s,mb6.5
SUW                               epP      pP       02 02 19.2  -1.5
SUW                               esP      sP       02 02 22.6  -0.7
SUW                               ePcP     PcP      02 02 31.2  -1.8
SUW                               ePP      PP       02 04 52.6  -0.9
SUW                               eS       S        02 11 25.0  -3.3
SUW                               eSKS     SKS      02 12 08.8  -8.8
SUW                                MLR     MLR      02 32 35.5
      comp=Z,4µm,27.2s,MS5.6
FINES FINESS Array B    71.51 332  P       P        02 02 13.2  -0.9
      comp=Z,52nm,0.7s,mb5.6,baz=98,slow=6.4,SNR=166
FINES                              LR      LR       02 39 53.6
      comp=Z,6µm,18.7s,MS5.8,baz=271,slow=41
GRUS  Gruza             71.57 313⇑iP      P        02 02 14.0  -0.8
KAF   Kangasniemi       71.59 333 ep       P        02 02 12.9  -1.6
      comp=Z,108nm,1.0s,mb5.7
KAF   Kangasniemi       71.59 333 eP       P        02 02 12.9  -1.6
KAF                                pmax    pmax
      comp=Z,108nm,1.0s,mb5.7
CRVS  Cervenica-Dubn    71.61 319 eP       P        02 02 15.3 +0.4
CRVS                              e        pP       02 02 23.7 +1.4
KEK   Kerkira           71.95 309 eP       P        02 02 14.0  -3.1
QSH   Qafa e Shtames    71.98 311 i p      P        02 02 17.6 +0.4
PVY   Plav              72.00 312⇑iP      P        02 02 16.1  -1.3
IVA   Berane            72.08 312⇑iP      P        02 02 17.1  -0.7
DIVS  Divcibare         72.11 313⇑iP      P        02 02 17.0  -1.0
KECS  Kecovo            72.20 318 eP       P        02 02 17.7  -0.7
KECS                              e                 02 02 21.8
WAR   Warsaw            72.34 322 eP       P        02 02 18.8  -0.4
WAR                               e*SP     sP       02 02 28.6  -0.7
WAR                               e                 02 02 34.4
WAR                               e                 02 04 58.0
WAR                               e                 02 12 23.7
WAR                                pmax    pmax
      comp=Z,1.0nm,2.9s
WAR                                MLR     MLR
      comp=Z,5µm,26.7s
WAR   Warsaw            72.34 322 eP       P        02 02 18.8  -0.4
      comp=Z,1µm,2.9s,mb6.3
WAR                               epP      pP       02 02 24.4  -2.2
WAR                               esP      sP       02 02 28.6  -0.7
WAR                               ePcP     PcP      02 02 34.4  -2.9
WAR                               ePP      PP       02 04 58.0  -3.8
WAR                               eSKS     SKS      02 12 23.7  -1.3
WAR                                MLR     MLR      02 36 14.6
      comp=Z,5µm,26.7s,MS5.6
NIE   Niedzica          72.42 319 eP       P        02 02 20.0 +0.3
PKSN  Nyarlorinc        72.45 316⇑iP      P        02 02 20.3 +0.4
PLE   Pljevlja          72.48 313⇑iP      P        02 02 20.4 +0.2
ULC   Ulcinj            72.50 311⇑iP      P        02 02 19.6  -0.7
TTG   Podgorica         72.52 312⇑iP      P        02 02 19.3  -1.2
PSZ   Piszkesteto       72.53 317⇓iP      P        02 02 19.1  -1.3
PSZ                                pmax    pmax
      comp=Z,430nm,1.7s,mb6.1
PSZ   Piszkesteto       72.53 317⇓iP      P        02 02 20.2  -0.2
NKY   Niksic            72.73 312⇑iP      P        02 02 20.7  -1.0
BUM   Brajici-Budva     72.78 311⇑iP      P        02 02 20.5  -1.5
UPM   Unac-Piva         72.82 312⇑iP      P        02 02 21.2  -1.0
OJC   Ojcow             72.84 320 eP       P        02 02 22.0  -0.2
BRY   Bratogost         73.07 312⇑iP      P        02 02 22.4  -1.3
HCY   Herceg Novi       73.08 312⇑iP      P        02 02 22.6  -1.1
LIKS  Likavka           73.17 318 eP       P        02 02 24.3 +0.2
PKSM  Moragy            73.23 315⇓eP      P        02 02 23.9  -0.6
VYHS  Vyhne             73.29 318 i P      P        02 02 24.2  -0.7
VYHS                              ePP      PP       02 05 09.0  -1.2
SRO   Srobarova         73.58 317 i P      P        02 02 26.7 +0.2
SRO                               e        pP       02 02 35.2 +1.2
SRO                               e                 02 05 13.6
SRO   Srobarova         73.58 317 i P      P        02 02 26.7 +0.2
SRO                               e        pP       02 02 35.2 +1.2
SRO                               e                 02 03 47.7
SRO                               ePP      PP       02 05 13.6 +1.1
KOLL  Kolacno           73.59 318 i P      P        02 02 25.8  -0.8
KOLL                              e        pP       02 02 34.2 +0.2
KEV   Kevo              73.62 341 ep       P        02 02 25.5  -0.8
      comp=Z,150nm,0.8s,mb6.0
KEV   Kevo              73.62 341 eP       P        02 02 25.5  -0.8
KEV                                pmax    pmax
      comp=Z,150nm,0.8s,mb6.0
RHK1  Bakonya           73.62 315⇓eP      P        02 02 26.0  -0.8
RAC   Raciborz          73.86 319 eP       P        02 02 28.3 +0.2
OKC   Ostrava-Krasne    73.86 319 eP       P        02 02 28.0  -0.1
OKC   Ostrava-Krasne    73.86 319 eP       P        02 02 28.0  -0.1
ARCES ARCESS Array B    74.05 340  P       P        02 02 28.3  -0.5
      comp=Z,88nm,0.6s,mb5.8,baz=94,slow=5.8,SNR=232
ARCES                              LR      LR       02 37 55.8
      comp=Z,12µm,21.4s,MS6.2,baz=117,slow=38
ARE0  ARCESS Array S    74.05 340⇓iP      P        02 02 28.8   0.0
SMOL  Smolenice         74.23 318 i P      P        02 02 30.4 +0.1
SMOL                              e        pP       02 02 38.3 +0.6
MORC  Moravsky Berou    74.25 319 eP       P        02 02 30.1  -0.3
MORC                               pmax    pmax
      comp=Z,3µm,1.8s,mb7.0
MORC  Moravsky Berou    74.25 319 eP       P        02 02 30.1  -0.3
      comp=Z,3µm,1.8s,mb7.0
LTRZ  Laterza           74.27 310 eP       P        02 02 29.9  -0.7
TIP   Timpagrande       74.28 308 eP       P        02 02 30.2  -0.6
ZST   Bratislava        74.42 317 i P      P        02 02 31.6 +0.2
ZST                               e        pP       02 02 40.2 +1.3
ZST                               eS       S        02 12 00.4  -2.8
LBTB  Lobatse           74.47 241  P       P        02 02 33.5 +1.3
LBTB                               S       S        02 12 07.2 +2.9
LBTB                               SKKPdf           02 25 11.7
LBTB  Lobatse           74.47 241  P       P        02 02 31.9  -0.3
LBTB                               pmax    pmax
      comp=Z,330nm,1.0s,mb6.2
LBTB  Lobatse           74.47 241 eP       P        02 02 33.9 +1.8
      comp=Z,331nm,1.0s,mb6.2
LBTB                               LR      LR
      comp=Z,6µm,22.0s,MS5.8
ORI   Oriolo Calabro    74.53 309 eP       P        02 02 32.7 +0.5
GRI   Girifalco         74.54 308 eP       P        02 02 32.5 +0.2
KTK1  Kautokeino        74.67 339 eP       P        02 02 33.1 +0.7
KTK1                               AMb     AMB      02 02 38.2
      comp=Z,564nm,1.4s,mb6.3
KTK1  Kautokeino        74.67 339 eP       P        02 02 33.1 +0.7
      comp=Z,564nm,1.4s,mb6.3
GKP   Gorka Klasztor    74.75 323 eP       P        02 02 32.8  -0.4
GKP                               e*PP     pP       02 02 40.1  -0.5
GKP                               e                 02 02 46.7
GKP                               eS       S        02 12 02.4  -4.3
GKP                               e                 02 12 36.8
GKP                                pmax    pmax
      comp=Z,1.0nm,1.7s
GKP                                MLR     MLR
      comp=Z,5µm,25.2s
GKP   Gorka Klasztor    74.75 323 eP       P        02 02 32.8  -0.4
      comp=Z,500nm,1.7s,mb6.2
GKP                               epP      pP       02 02 40.1  -0.5
GKP                               ePcP     PcP      02 02 46.7  -0.9
GKP                               eS       S        02 12 02.4  -4.3
GKP                               eSKS     SKS      02 12 36.8  -5.8
GKP                                MLR     MLR      02 37 09.5
      comp=Z,5µm,25.2s,MS5.7
SOP   Sopron            74.75 317⇓eP      P        02 02 33.2  -0.1
SOP   Sopron            74.75 317⇓eP      P        02 02 33.1  -0.2
SISC  Sisak             74.77 315 i P      P        02 02 33.3  -0.2
SOI   Samo              74.82 307 eP       P        02 02 34.0 +0.1
VRAC  Vranov            74.83 319  P       P        02 02 33.8   0.0
DPC   Dobruska-Polom    75.08 320 eP       P        02 02 35.6 +0.5
DPC   Dobruska-Polom    75.08 320 eP       P        02 02 35.6 +0.5
DPC                                AMS     AMS      02 42 20.0
      comp=Z,2µm,18.4s
SCLL  Scilla            75.08 307 eP       P        02 02 35.7 +0.2
MTTG  Motta San Giov    75.10 307 eP       P        02 02 36.1 +0.6
KSP   Ksiaz             75.13 320⇓iP      P        02 02 35.8 +0.4
KSP                                MLR     MLR
      comp=Z,7µm,21.3s,MS5.9
KSP   Ksiaz             75.13 320⇓iP      P        02 02 35.8 +0.4
KSP                               e                 02 03 05.2
KSP                                LR      LR
      comp=Z,7µm,21.3s,MS5.9
KSP   Ksiaz             75.13 320 eP       P        02 02 35.7 +0.3
      comp=Z,1µm,1.7s,mb6.5
KSP                               epP      pP       02 02 42.9   0.0
KSP                               ePcP     PcP      02 02 48.4  -0.9
KSP                               ePP      PP       02 05 20.9  -4.9
KSP                               eS       S        02 12 07.5  -3.6
KSP                               eSKS     SKS      02 12 37.7  -7.8
KSP                                MLR     MLR      02 40 23.7
      comp=Z,6µm,21.4s,MS5.9
BILL  Bilibino          75.15  22 eP       P        02 02 30.6  -4.6
BILL                               pmax    pmax
      comp=Z,125nm,1.3s,mb5.7
BILL  Bilibino          75.15  22 eP       P        02 02 34.6  -0.6
      comp=Z,157nm,1.5s,mb5.7
BILL                               LR      LR
      comp=Z,10µm,19.0s,MS6.1
RGNG  Rignano Grg       75.22 311 eP       P        02 02 35.0  -1.1
UPC   Upice             75.28 320 eP       P        02 02 36.7 +0.4
UPC   Upice             75.28 320 eP       P        02 02 36.7 +0.4
MIR   Mirnyy            75.39 180deP      P        02 02 36.0  -0.6
MIR                               e                 02 05 29.0
MIR                               eS       S        02 12 22.0 +8.3
MIR                                pmax    pmax
      comp=Z,300nm,1.4s,mb6.0
MIR                                pmax    pmax
      comp=Z,2µm,6.0s
MIR                                MLR     MLR
      comp=N,1µm,16.0s,MS5.3
MIR                                MLR     MLR
      comp=E,800nm,16.0s,MS5.3
MIR                                MLR     MLR
      comp=Z,4µm,16.0s,MS5.8
SGO   Sicignano         75.42 310 eP       P        02 02 37.0  -0.3
AGST  Augusta-Monte     75.47 306 eP       P        02 02 37.4  -0.3
PZI   Palazzolo         75.70 306 eP       P        02 02 39.5 +0.5
PDKS  Podkum            75.75 315 i P      P        02 02 39.2 +0.1
BOSA  Boshof            75.88 238  P       P        02 02 41.5 +1.3
BOSA                               S       S        02 12 21.8 +2.0
BOSA                               SKKPdf           02 25 20.8
BOSA  Boshof            75.88 238⇓iP      P        02 02 41.7 +1.5
BOSA                               pmax    pmax
      comp=Z,393nm,1.0s,mb6.3
BOSA                               MLR     MLR
      comp=Z,4µm,20.0s,MS5.8
BOSA  Boshof            75.88 238⇓iP      P        02 02 41.7 +1.5
      comp=Z,392nm,1.0s,mb6.3
BOSA                               LR      LR
      comp=Z,4µm,20.0s,MS5.8
LJU   Ljubljana         76.08 315 eP       P        02 02 40.8  -0.1
      comp=Z,825nm,1.5s,mb6.4
LJU   Ljubljana         76.08 315 eP       P        02 02 40.8  -0.1
LJU                                pmax    pmax
      comp=Z,825nm,1.5s,mb6.4
CASY  Casey             76.12 173⇓iP      P        02 02 40.0  -0.8
      comp=Z,199nm,1.3s,mb5.9
CASY                               LR      LR
      comp=Z,4µm,20.0s,MS5.7
PRU   Pruhonice         76.20 319 eP       P        02 02 41.5   0.0
PRU   Pruhonice         76.20 319 eP       P        02 02 41.5   0.0
PRU                                AMS     AMS      02 42 20.0
      comp=Z,2µm,20.6s
PVCC  Panska Ves        76.20 320 eP       P        02 02 42.1 +0.6
PVCC  Panska Ves        76.20 320 eP       P        02 02 42.1 +0.6
PVCC                               AMS     AMS      02 40 20.0
      comp=Z,3µm,21.4s
BSD   Bornholm Skovb    76.25 325⇓iP      P        02 02 40.8  -0.9
BSD                                pmax    pmax
      comp=Z,78nm,0.8s,mb5.7
BSD   Bornholm Skovb    76.25 325⇓iP      P        02 02 40.8  -0.9
      comp=Z,78nm,0.8s,mb5.7
PRA   Prague            76.27 319  P       P        02 02 42.0 +0.1
PRA   Prague            76.27 319  P       P        02 02 42.0 +0.1
TRO   Tromso            76.31 340 eP       P        02 02 39.7  -2.0
TRO                                AMb     AMB      02 02 46.7
      comp=Z,572nm,1.6s,mb6.3
TRO                               eS       S        02 12 22.7  -0.9
TRO                                AMS     AMS      02 39 48.4
      comp=Z,10µm,20.2s,MS6.1
TRO   Tromso            76.31 340 eP       P        02 02 39.7  -2.1
TRO                                pmax    pmax
      comp=Z,572nm,1.6s,mb6.2
TRO                                MLR     MLR
      comp=Z,9717µm,20.2s
TRO   Tromso            76.31 340 eP       P        02 02 39.7  -2.0
      comp=Z,572nm,1.6s,mb6.2
TRO                                LR      LR
      comp=Z,9717µm,20.2s
FX1   Attu Island--F    76.45  38 eP       P        02 02 41.5  -1.4
VOY   Vojsko            76.52 315 eP       P        02 02 43.2  -0.2
SDI   San Donato        76.55 311 eP       P        02 02 42.3  -1.4
TRI   Trieste           76.61 315 eP       P        02 02 43.2  -0.7
BRG   Berggiesshubel    76.62 320⇓iP      P        02 02 44.2 +0.3
BRG                                S       S        02 12 27.0  -0.4
BRG                               e                 02 12 52.0
BRG                                pmax    pmax
      comp=Z,447nm,1.7s,mb6.1
BRG                                MLR     MLR
      comp=Z,3µm,25.1s,MS5.6
BRG   Berggiesshubel    76.62 320⇓iP      P        02 02 44.2 +0.3
      comp=Z,447nm,1.7s,mb6.1
BRG                               e                 02 03 14.3
BRG                                PP      PP       02 05 27.3   -10
BRG                                S       S        02 12 27.0  -0.4
BRG                               e                 02 12 52.0
BRG                                LR      LR
      comp=Z,3µm,25.1s,MS5.6
GEC2  GERESS Array S    76.71 318 eP       P        02 02 44.8 +0.4
GEC2                               pmax    pmax
      comp=Z,253nm,1.2s,mb6.0
GEC2  GERESS Array S    76.71 318 eP       P        02 02 44.8 +0.4
      comp=Z,253nm,1.2s,mb6.0
GERES GERESS Array B    76.71 318  P       P        02 02 44.4   0.0
      comp=Z,64nm,0.8s,mb5.6,baz=90,slow=4.0,SNR=320
KHC   Kasperske Hory    76.80 318 eP       P        02 02 44.8  -0.1
KHC                               eSKS     SKS      02 12 55.5  -2.2
KHC                                AMS     AMS      02 44 20.0
      comp=Z,2µm,20.3s
AQU   L'Aquila          76.85 311⇓iP      P        02 02 44.5  -0.8
AQU                                pmax    pmax
      comp=Z,140nm,1.3s,mb5.7
AQU   L'Aquila          76.85 311 eP       P        02 02 44.8  -0.5
PTQR  Pietraquaria      76.86 311 eP       P        02 02 44.6  -0.8
PTCC  Patocco-Chiusa    76.90 316 eP       P        02 02 44.0  -1.5
SMY   Shemya            77.02  38  PFAKE            02 03 00.0   +14
SMY                                LR      LR
      comp=Z,7µm,21.0s,MS6.0
NRCA  Norcia            77.06 312 eP       P        02 02 46.0  -0.5
RGN   Rugen             77.14 324 eP       P        02 02 46.0  -0.7
      comp=Z,272nm,1.1s,mb6.1
ARV   Arcevia           77.18 313 eP       P        02 02 46.9  -0.3
SNTG  Esanatoglia       77.19 312 eP       P        02 02 47.0  -0.2
CLL   Collm             77.22 321⇓iP      P        02 02 47.1  -0.1
CLL                               eS       S        02 12 30.0  -3.9
CLL                                pmax    pmax
      comp=Z,232nm,1.5s,mb5.9
CLL                                MLR     MLR
      comp=Z,3µm,20.0s,MS5.6
CLL   Collm             77.22 321⇓iP      P        02 02 47.1  -0.1
      comp=Z,232nm,1.5s,mb5.9
CLL                               eS       S        02 12 30.0  -3.9
CLL                                LR      LR
      comp=Z,3µm,20.0s,MS5.6
CLL   Collm             77.22 321 ⇓P       P        02 02 47.1  -0.1
      comp=Z,logA/T=2.2,mb5.9
CLL                               eS       S        02 12 30.0  -3.9
BJO   Bjornoya          77.23 345 eP       P        02 02 48.4 +1.6
BJO                                AMS     AMS      02 41 23.4
      comp=Z,2µm,16.5s,MS5.6
WET   Wettzell          77.26 318 eP       P        02 02 47.9 +0.5
BJO1  Bjornoya          77.28 345 eP       P        02 02 48.4 +1.3
BJO1                               LR      LR
      comp=Z,2427µm,16.5s
FVI   Forni Avoltri     77.30 316⇓iP      P        02 02 47.4  -0.3
FSSB  Fossombrone       77.30 313 eP       P        02 02 47.9   0.0
MNS   Montasola         77.39 311 eP       P        02 02 47.0  -1.3
MOR8  Moi Rana          77.46 336 eP       P        02 02 47.3  -0.9
MOR8                               AMb     AMB      02 02 52.3
      comp=Z,360nm,1.4s,mb6.1
MOR8  Moi Rana          77.46 336 eP       P        02 02 47.3  -0.9
      comp=Z,360nm,1.4s,mb6.1
NOUC  Port Laguerre     77.51 115 eP       P        02 02 50.0 +0.6
NOUC  Port Laguerre     77.51 115 eP       P        02 02 50.0 +0.6
RSM   Repubblica di     77.54 313⇓iP      P        02 02 49.6 +0.5
NKC   Novy Kostel       77.55 319 eP       P        02 02 49.5 +0.5
NKC   Novy Kostel       77.55 319 eP       P        02 02 49.5 +0.5
NKC                                AMS     AMS      02 43 10.0
      comp=Z,3µm,20.9s
DZM   Mont Dzumac       77.62 115⇓eP      P        02 02 51.1 +1.1
COP   Copenhagen        77.70 325 i P      P        02 02 50.3 +0.6
COP                                pmax    pmax
      comp=Z,75nm,0.8s,mb5.7
COP   Copenhagen        77.70 325 i P      P        02 02 50.3 +0.6
      comp=Z,75nm,0.8s,mb5.7
BRSN  Barisano          77.80 313 eP       P        02 02 51.9 +1.4
SFI   Santa Sofia       77.97 313⇓iP      P        02 02 52.5 +1.0
LOF   Lofoten           78.02 338 eP       P        02 02 52.6 +1.4
LOF                                AMb     AMB      02 02 59.3
      comp=Z,631nm,1.6s,mb6.3
LOF   Lofoten           78.02 338 eP       P        02 02 52.6 +1.4
      comp=Z,631nm,1.6s,mb6.3
PGD   Poggio Sodo       78.06 313⇓iP      P        02 02 53.1 +1.1
CTI   Castel Tesino     78.08 315⇓iP      P        02 02 52.3 +0.3
MOX   Moxa              78.09 320 eP       P        02 02 52.2 +0.2
MOX                                pmax    pmax
      comp=Z,308nm,1.8s,mb5.9
MOX                                MLR     MLR
      comp=Z,3µm,19.0s,MS5.6
MOX   Moxa              78.09 320⇓iP      P        02 02 52.2 +0.2
      comp=Z,logA/T=2.2,mb5.9
MOX                                L                02 43 28.0
MOX   Moxa              78.09 320 eP       P        02 02 52.2 +0.2
      comp=Z,308nm,1.8s,mb5.9
MOX                                LR      LR
      comp=Z,3µm,19.0s,MS5.6
FUR   Furstenfeldbru    78.32 317 eP       P        02 02 53.3   0.0
SEI   Scarperia         78.32 313⇓iP      P        02 02 54.1 +0.7
GRA1  Grafenberg Arr    78.34 319 eP       P        02 02 54.3 +0.9
      comp=Z,470nm,1.5s,mb6.2
GRF   Grafenberg Arr    78.34 319 eP       P        02 02 54.3 +0.9
GRF                                pmax    pmax
      comp=Z,470nm,1.5s,mb6.2
GRF   Grafenberg Arr    78.34 319 eP       P        02 02 54.3 +0.9
GRF                                pmax    pmax
      comp=Z,470nm,1.5s,mb6.2
GRF   Grafenberg Arr    78.34 319 eP       P        02 02 54.3 +0.9
      comp=Z,470nm,1.5s,mb6.2
NSS   Namsos            78.36 334 eP       P        02 02 51.9  -1.3
NSS                                AMb     AMB      02 02 56.7
      comp=Z,370nm,1.7s,mb6.0
NSS                               eS       S        02 12 46.5 +0.6
NSS                                AMS     AMS      02 44 20.0
      comp=Z,5µm,19.9s,MS5.8
NSS   Namsos            78.36 334 eP       P        02 02 51.9  -1.3
      comp=Z,370nm,1.7s,mb6.0
CSNT  Castellina Chi    78.39 313 eP       P        02 02 52.5  -1.2
FNVD  Fontana Vidola    78.49 313⇓iP      P        02 02 55.3 +1.0
NB2   NORSAR Subarra    78.53 331  P       P        02 02 53.5  -0.7
      comp=Z,215nm,1.1s,mb6.0,baz=95,slow=5.0
NB2   NORSAR Subarra    78.53 331  P       P        02 02 53.5  -0.7
      baz=95,slow=5.3
NB2   NORSAR Subarra    78.53 331  P       P        02 02 53.5  -0.7
NB2                                pmax    pmax
      comp=Z,215nm,1.1s,mb6.0
NOA   NORSAR Array B    78.53 331  P       P        02 02 53.8  -0.5
      comp=Z,68nm,0.8s,mb5.7,baz=92,slow=5.6,SNR=141
NOA                                PP      PP       02 05 52.4  -1.5
      comp=Z,6.7nm,0.9s,baz=90,slow=7.8,SNR=3.3
NOA                                LR      LR       02 42 42.6
      comp=Z,3µm,21.4s,MS5.6,baz=100,slow=40
ZCCA  Zocca             78.59 313⇓iP      P        02 02 56.4 +1.5
NAO01 NORSAR Array S    78.69 330⇓eP      P        02 02 54.4  -0.7
      comp=Z,118nm,0.9s,mb5.8
NAO01                              LR      LR
      comp=Z,7µm,20.0s,MS6.0
OSL   Oslo              78.74 329 eP       P        02 02 55.0  -0.3
CLZ   Clausthal         78.87 321 eP       P        02 02 56.7 +0.5
      comp=Z,390nm,1.5s,mb6.1
GSCL  Gusciola          78.87 313⇓iP      P        02 02 57.5 +1.1
BDI   Bagni Di Lucca    78.87 313 eP       P        02 02 55.9  -0.5
SAL   Salo              78.88 315 eP       P        02 02 57.5 +1.1
BSEG  Bad Segeberg      78.89 323 eP       P        02 02 57.0 +0.7
MAIM                    78.95 313  P       P        02 02 55.8  -1.0
BRMO  Bormio            78.96 316⇓iP      P        02 02 57.2 +0.4
ERBM  Eremo             78.99 314 eP       P        02 02 58.4 +1.3
HDH   Heidenheim        79.02 318⇓eP      P        02 02 57.0  -0.1
UBR   Uberruh           79.11 317⇓eP      P        02 02 57.5  -0.1
VALM                    79.11 313  P       P        02 02 58.3 +0.6
VINC  Vinca             79.19 313  P       P        02 02 57.3  -0.9
GRAM                    79.24 314  P       P        02 02 57.7  -0.7
BACM                    79.24 313  P       P        02 02 57.6  -0.9
KONO  Kongsberg         79.31 329  AMS     AMS      02 44 07.2
      comp=Z,5µm,20.2s,MS5.8
KONO  Kongsberg         79.31 329  PFAKE            02 03 10.0   +12
KONO                               LR      LR
      comp=Z,8µm,22.0s,MS6.0
CODM                    79.40 314  P       P        02 02 59.0  -0.3
SIND  Sindeldorf        79.40 319⇓eP      P        02 02 59.6 +0.4
MUD   Monsted U'grnd    79.54 326 i P      P        02 03 00.0 +0.2
DOMB  Dombas            79.59 332⇓iP      P        02 02 60.0   0.0
DOMB                               AMb     AMB      02 03 04.7
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	comp=Z,195nm,1.5s,mb5.8						
DOMB	Dombas	79.59	332	⇓iP	P	02 02 60.0	0.0
	comp=Z,195nm,1.5s,mb5.8						
MAW	Mawson	79.59	192	eP	P	02 03 00.5	+0.6
MAW				pmax	pmax		
	comp=Z,402nm,1.1s						
MAW				MLR	MLR		
	comp=Z,3µm,20.0s						
MAW	Mawson	79.59	192	P	P	02 03 00.5	+0.7
	comp=Z,212nm,0.9s,mb6.0,baz=18,slow=6.4,SNR=117						
MAW				LR	LR	02 33 44.9	
	comp=Z,2µm,20.2s,MS5.4,baz=30,slow=32						
MAW	Mawson	79.59	192	eP	P	02 03 00.5	+0.7
	comp=Z,402nm,1.1s,mb6.3						
MAW				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
BUCH	Bad Urach	79.59	318	⇓eP	P	02 03 00.4	+0.2
BOB	Bobbio (Coli)	79.67	314	eP	P	02 03 01.5	+0.8
STU	Stuttgart	79.69	318	eP	P	02 03 00.4	-0.3
STU				pmax	pmax		
	comp=Z,152nm,1.1s,mb5.8						
STU	Stuttgart	79.69	318	eP	P	02 03 00.4	-0.4
	comp=Z,152nm,1.1s,mb5.8						
GUT	Gutenstein	79.77	317	⇓eP	P	02 03 01.1	-0.1
TOD	Tromm	79.92	319	⇓eP	P	02 03 02.1	+0.2
TOD	Tromm	79.92	319	eP	P	02 03 02.5	+0.6
LBG	Lerchenberg	79.96	318	⇓eP	P	02 03 02.3	+0.1
SPAK	Spaichingen	79.98	317	⇓eP	P	02 03 02.6	+0.2
SPAK	Spaichingen	79.98	317	eP	P	02 03 02.9	+0.5
SWS	Schriesheim	79.99	319	⇓eP	P	02 03 02.5	+0.2
GENL	Genova Univers	80.03	314	P	P	02 03 01.8	-0.9
VAI	Varese	80.10	315	⇓iP	P	02 03 02.6	-0.4
PGF	Pioggiola	80.10	312	eP	P	02 03 03.0	-0.1
	comp=Z,858nm,1.6s,mb6.1						
PGF	Pioggiola	80.10	312	eP	P	02 03 03.0	-0.1
PGF				pmax	pmax		
	comp=Z,429nm,1.6s,mb6.1						
BFO	Black Forest	80.28	318	eP	P	02 03 03.9	0.0
BFO				pmax	pmax		
	comp=Z,172nm,1.4s,mb5.8						
BFO	Black Forest	80.28	318	eP	P	02 03 03.9	0.0
	comp=Z,172nm,1.4s,mb5.8						
MOL	Molde	80.29	332	eP	sP	02 03 11.6	-2.2
MOL				AMb	AMB	02 03 13.5	
	comp=Z,257nm,1.7s,mb5.9						
PCP	Pian Castagno	80.32	314	P	P	02 03 03.4	-0.8
KTD	Kalmit	80.40	319	eP	P	02 03 04.8	+0.3
FELD	Feldberg	80.52	317	⇓eP	P	02 03 05.4	+0.2
KIZ	Kirchzarten	80.57	317	⇓eP	P	02 03 05.5	0.0
FIN	Finale Ligure	80.58	313	⇓iP	P	02 03 05.6	0.0
LANF	Langenberg	80.60	318	eP	P	02 03 05.9	+0.3
MCGN	Macugnaga	80.64	315	eP	P	02 03 05.6	-0.3
STR	Strasbourg	80.64	318	eP	P	02 03 06.2	+0.4
ORX	Oropa	80.66	315	P	P	02 03 04.6	-1.4
ORO	Oropa	80.66	315	eP	P	02 03 04.9	-1.1
SUR	Sutherland	80.68	235	eP	P	02 03 09.0	+2.6
	comp=Z,398nm,0.9s,mb6.3						
SUR				LR	LR		
	comp=Z,787nm,20.0s,MS5.1						
ABH	Alteburg	80.72	319	⇓eP	P	02 03 06.8	+0.6
ABH	Alteburg	80.72	319	eP	P	02 03 06.9	+0.7
LIBD	Limburg	80.78	317	eP	P	02 03 07.1	+0.6
LIBD	Limburg	80.78	317	eP	P	02 03 06.7	+0.2
ROB	Roburent	80.82	313	P	P	02 03 06.9	0.0
IMI	Imperia	80.83	313	eP	P	02 03 07.5	+0.6
TRAV		80.83	315	P	P	02 03 05.7	-1.2
BBS	Basel-Blauen	80.88	317	⇓eP	P	02 03 07.1	0.0
BBS	Basel-Blauen	80.88	317	eP	P	02 03 07.4	+0.3
BLS5	Blasjo	80.91	329	⇓iP	P	02 03 08.5	+1.5
BLS5				AMb	AMB	02 03 13.3	
	comp=Z,155nm,1.5s,mb5.7						
BLS5	Blasjo	80.91	329	eP	P	02 03 08.6	+1.5
	comp=Z,155nm,1.5s,mb5.7						
MONE	Monesi	80.92	313	P	P	02 03 07.2	-0.1
WLS	Welschbruch	80.93	318	eP	P	02 03 07.6	+0.3
CDF	Champ du Feu	80.98	318	⇓iP	P	02 03 07.1	-0.5
	comp=Z,561nm,1.6s,mb5.9						
CDF	Champ du Feu	80.98	318	⇓iP	P	02 03 07.1	-0.5
CDF				pmax	pmax		
	comp=Z,281nm,1.6s,mb5.9						
RUP	Ruppelstein	81.04	319	⇓eP	P	02 03 08.5	+0.6
RUP	Ruppelstein	81.04	319	eP	P	02 03 08.1	+0.2
SAOF	Saorge	81.07	313	eP	P	02 03 08.2	0.0
ECH	Echery	81.07	317	eP	P	02 03 07.6	-0.5
WTSB	Winterswijk	81.08	321	eP	P	02 03 08.0	-0.1
	comp=Z,262nm,1.0s,mb6.1						
MOF	Molkenrain	81.11	317	eP	P	02 03 08.1	-0.2
WIT	Witteveen	81.11	322	eP	P	02 03 09.3	+1.1
ENR	Entracque	81.15	313	P	P	02 03 07.9	-0.7
AUTN	L'Aution	81.16	313	eP	P	02 03 11.1	+2.5
SBF	Sospel	81.16	313	⇓iP	P	02 03 08.5	-0.2
	comp=Z,481nm,1.0s,mb6.1						
SBF	Sospel	81.16	313	⇓iP	P	02 03 08.5	-0.2
SBF				pmax	pmax		
	comp=Z,241nm,1.0s,mb6.1						
RSP	Reno Superiore	81.20	314	P	P	02 03 07.5	-1.3
STV	Sta Anna Valdi	81.22	313	P	P	02 03 07.6	-1.3
BHB	Bricherasio	81.22	314	P	P	02 03 07.4	-1.5
REVF	Revere	81.22	313	eP	P	02 03 09.5	+0.5
LSD	Ceresole Reale	81.25	315	P	P	02 03 09.9	+0.8
DOI	San Damiano	81.25	314	eP	P	02 03 07.9	-1.2
TOUF	Mont Tournerai	81.29	313	eP	P	02 03 10.2	+0.9
FENE	Fenestrelle	81.34	314	P	P	02 03 09.7	+0.1
LOMF	Lomont	81.35	317	eP	P	02 03 09.2	-0.4
PZZ	Prazzo	81.36	314	P	P	02 03 08.7	-1.0
MVIF	Mont Vial	81.36	313	eP	P	02 03 10.6	+0.9
RUND	Rundenannen	81.41	330	eP	P	02 03 10.0	+0.4
RUND				AMb	AMB	02 03 15.0	
	comp=Z,378nm,1.8s,mb6.0						
LPG	La Plagne	81.53	315	⇓iP	P	02 03 11.0	+0.4
	comp=Z,353nm,0.9s,mb6.0						
LPG	La Plagne	81.53	315	⇓iP	P	02 03 11.0	+0.4
LPG				pmax	pmax		
	comp=Z,177nm,0.9s,mb6.0						
RRL	Cesana Torines	81.55	314	P	P	02 03 10.7	0.0
SURF	Saint Ours	81.56	314	eP	P	02 03 11.9	+1.2
MBDF	Montbardon	81.57	314	⇓iP	P	02 03 10.3	-0.5
	comp=Z,364nm,1.3s,mb5.9						
MBDF	Montbardon	81.57	314	⇓iP	P	02 03 10.3	-0.5
MBDF				pmax	pmax		
	comp=Z,182nm,1.3s,mb5.8						
BNI	Bardonecchia	81.61	314	eP	P	02 03 11.0	0.0
BNI				pmax	pmax		
	comp=Z,206nm,1.1s,mb6.0						
BNI	Bardonecchia	81.61	314	eP	P	02 03 11.0	0.0
	comp=Z,206nm,1.1s,mb6.0						
HAU	Haudompre	81.62	317	⇓iP	P	02 03 10.7	-0.3
	comp=Z,379nm,0.9s,mb6.0						
HAU	Haudompre	81.62	317	⇓iP	P	02 03 10.7	-0.3
HAU				pmax	pmax		
	comp=Z,190nm,0.9s,mb6.0						
WLF	Walferdange	81.63	319	eP	P	02 03 12.1	+1.1
WLF				pmax	pmax		
	comp=Z,513nm,1.7s,mb6.2						
WLF	Walferdange	81.63	319	eP	P	02 03 12.1	+1.1
	comp=Z,513nm,1.7s,mb6.2						
HGN	Heimansgroeve	81.70	320	eP	P	02 03 11.3	0.0
	comp=Z,132nm,1.9s,mb5.5						
HGN	Heimansgroeve	81.70	320	eS	S	02 13 29.3	+8.3
THEF	They Montfort	81.85	318	eP	P	02 03 12.1	0.0
GDM	Grand'Maison	82.00	314	eP	P	02 03 13.0	0.0
GRN	Grenoble	82.26	315	eP	P	02 03 14.9	+0.6
DRV	Dumont d'Urvil	82.59	163	SKS	SKS	02 13 26.0	-13
DRV				SP	SP	02 14 08.0	-13
BAIF	Baives	82.86	319	⇓iP	P	02 03 17.8	+0.5
	comp=Z,754nm,1.4s,mb6.2						
BAIF	Baives	82.86	319	⇓iP	P	02 03 17.8	+0.5
BAIF				pmax	pmax		
	comp=Z,377nm,1.4s,mb6.2						
SSF	Saint Saulge	83.63	317	⇓iP	P	02 03 21.3	-0.1
SSF				pmax	pmax		
	comp=Z,317nm,1.6s,mb6.2						
SSF	Saint Saulge	83.63	317	⇓iP	P	02 03 21.3	-0.1
	comp=Z,318nm,1.6s,mb6.2						
PLDF	La Plantade	83.67	315	eP	P	02 03 23.1	+1.5
AGO	Saint Agoulin	84.00	316	eP	P	02 03 24.5	+1.2
LBL	Lubilhac	84.02	315	eP	P	02 03 24.9	+1.5
PYM	Petit Puy Mans	84.12	315	eP	P	02 03 24.7	+0.8
BGF	Bois d'Agland	84.14	316	⇓iP	P	02 03 24.2	+0.2
	comp=Z,829nm,1.6s,mb6.3						
BGF	Bois d'Agland	84.14	316	⇓iP	P	02 03 24.2	+0.2
BGF				pmax	pmax		
	comp=Z,415nm,1.6s,mb6.3						
AEU	East Anglia Un	84.42	322	eP	P	02 03 26.1	+0.9
AWH	Whinburgh	84.59	322	eP	P	02 03 26.2	+0.1
EJON	La Jonquera	84.61	312	P	P	02 03 25.4	-1.0
	comp=Z,36nm,1.0s,mb5.5						
LRW	Lerwick	84.68	330	eP	P	02 03 27.2	+0.9
LRDF	Laroque-de-Fa	84.81	313	eP	P	02 03 28.1	+0.7
MIDW	Midway	84.81	62	PFAKE		02 03 40.0	+12
MIDW				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
FILF	Fillols	84.84	312	eP	P	02 03 28.1	+0.5
WAL1	Walls	84.88	330	eP	P	02 03 26.2	-1.1
RJF	Les Rejaudoux	85.22	315	⇓iP	P	02 03 29.9	+0.5
	comp=Z,647nm,1.6s,mb6.2						
RJF	Les Rejaudoux	85.22	315	⇓iP	P	02 03 29.9	+0.5
RJF				pmax	pmax		
	comp=Z,324nm,1.6s,mb6.2						
LMK	Market Rasen	85.23	323	eP	P	02 03 30.1	+0.8
VALF	Valcebollere	85.26	312	eP	P	02 03 30.3	+0.6
JMIC	Jan Mayen	85.49	341	AMS	AMS	02 44 16.0	
	comp=Z,3µm,22.3s,MS5.7						
JMIC	Jan Mayen	85.49	341	LR	LR	02 43 38.1	
	comp=Z,4µm,21.5s,MS5.8,baz=256,slow=37						
LCP	Cassop	85.70	325	⇑eP	P	02 03 32.2	+0.7
HPK	Haverah Park	85.92	324	⇑eP	P	02 03 33.2	+0.5
EDR	Drumtochty	85.92	327	⇑eP	P	02 03 32.3	-0.3
KBI1	Birley Grange	85.98	323	⇑eP	P	02 03 32.5	-0.4
FLN	La Foliniere	86.06	319	⇓iP	P	02 03 33.5	0.0
	comp=Z,321nm,1.0s,mb6.2						
FLN	La Foliniere	86.06	319	⇓iP	P	02 03 33.5	0.0
FLN				pmax	pmax		
	comp=Z,161nm,1.0s,mb6.2						
EPOB	Poblet	86.10	311	P	P	02 03 34.0	+0.1
	comp=Z,66nm,0.9s,mb5.9						
LHO	Holmfirth	86.12	323	⇑eP	P	02 03 34.1	+0.4
ESY	Stoneypath	86.14	326	eP	P	02 03 34.6	+0.8
ESY				AMb	AMB	02 03 36.5	
	comp=Z,223nm,1.5s,mb6.2						
KWE	Weaver Farm	86.21	323	⇑eP	P	02 03 34.1	0.0
EDU	Dundee	86.25	327	⇑eP	P	02 03 35.3	+1.1
DAG	Danmarks Havn	86.26	348	⇑iP	P	02 03 33.2	-0.7
DAG				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.8						
DAG	Danmarks Havn	86.26	348	⇑iP	P	02 03 33.2	-0.7
	comp=Z,60nm,1.0s,mb5.8						
SYO	Syowa Base	86.40	197	⇑P	P	02 03 36.2	+1.5
SYO	Syowa Base	86.40	197	⇓PcP	PcP	02 03 38.0	+0.4
SYO	Syowa Base	86.40	197	⇓sP	sP	02 03 40.0	-4.8
EBL	Broad Law	86.40	326	⇑eP	P	02 03 35.6	+0.6
RESF	Ens	86.42	313	eP	P	02 03 36.0	+0.5
EDI	Edinburgh	86.45	326	⇑eP	P	02 03 35.9	+0.6
EDI				AMb	AMB	02 03 40.9	
	comp=Z,485nm,1.8s,mb6.4						
ESK	Eskdalemuir	86.58	325	⇑eP	P	02 03 36.4	+0.5
ESK				⇑eP		02 03 36.7	
ESK				AMb	AMB	02 03 38.1	
	comp=E,126nm,1.7s						
ESK	Eskdalemuir	86.58	325	P	P	02 03 36.7	+0.8
ESK				AMb	AMB	02 03 38.1	
	comp=E,126nm,1.7s,mb5.9						
ESK	Eskdalemuir	86.58	325	eP	P	02 03 36.5	+0.6
ESK				pmax	pmax		
	comp=Z,410nm,1.4s,mb6.5						
ESK				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.3						
ESK	Eskdalemuir	86.58	325	eP	P	02 03 36.5	+0.7
	comp=Z,410nm,1.4s,mb6.5						
ESK				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
EBIE	Bielsa	86.58	313	P	P	02 03 36.7	+0.4
	comp=Z,22nm,0.9s,mb5.4						
EAU	Auchinoon	86.61	326	⇑eP	P	02 03 37.3	+1.3
EAU				AMb	AMB	02 03 39.3	
	comp=Z,516nm,1.7s,mb6.5						
EBR	Ebro Roquetas	86.62	311	eP	P	02 03 37.0	+0.6
ERTA	Horta de San J	86.72	311	P	P	02 03 37.2	+0.3
	comp=Z,45nm,1.0s,mb5.7						
HAE	Alders End	86.80	322	⇑eP	P	02 03 37.4	+0.3
HAE				AMb	AMB	02 03 40.0	
	comp=Z,520nm,1.5s,mb6.5						
HLM1	Long Mynd	86.92	323	eP	P	02 03 38.3	+0.7
HLM1				AMb	AMB	02 03 43.3	
	comp=Z,342nm,1.6s,mb6.3						
JQE	Queens East	87.00	319	eP	P	02 03 38.3	+0.2
JLP	Les Platons	87.03	319	eP	P	02 03 38.3	+0.1
JRS	Jersey	87.03	319	eP	P	02 03 38.8	+0.6
HGH	Gray Hill	87.03	322	⇑eP	P	02 03 38.5	+0.3
HGH				AMb	AMB	02 03 43.5	
	comp=Z,668nm,1.5s,mb6.6						
EAB	Aberfoyle	87.04	326	⇑eP	P	02 03 38.1	0.0
EAB				AMb	AMB	02 03 44.8	
	comp=Z,433nm,1.5s,mb6.5						
ETSF	Etsaut	87.06	313	⇓iP	P	02 03 39.3	+0.7
	comp=Z,71nm,0.7s,mb5.7						
ETSF	Etsaut	87.06	313	⇓iP	P	02 03 39.3	+0.7
ETSF				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.7						
SSP1	Stoney Pound	87.07	322	eP	P	02 03 38.6	+0.3
MCH1	Michaelchurch	87.08	322	⇑eP	P	02 03 38.2	-0.3
MCH1				eP		02 03 38.5	
MCH1	Michaelchurch	87.08	322	P	P	02 03 38.5	+0.1
RPZ	Rata Peaks	87.14	135	P	P	02 03 38.7	-0.1
	comp=Z,79nm,0.9s,mb6.0,baz=168,slow=1.1,SNR=8.6						
ESAC	San Caprasio	87.19	312	P	P	02 03 39.4	+0.2
	comp=Z,77nm,0.9s,mb5.9						
LARF	Larrau	87.35	313	eP	P	02 03 40.9	+1.0
EMOS	Mosqueruela	87.42	310	P	P	02 03 41.6	+1.3
	comp=Z,96nm,1.0s,mb6.0						
GAL1	Galloway	87.52	325	⇑eP	P	02 03 41.1	+0.7
YLL	Llanberis	87.56	323	eP	P	02 03 41.5	+0.8
WME	Myndd Eilian	87.59	324	⇑eP	P	02 03 41.5	+0.7
WME				AMb	AMB	02 03 44.1	
	comp=Z,286nm,1.6s,mb6.2						
WIM	Isle of Man	87.65	324	eP	P	02 03 42.1	+1.0
EALK	Alkurruntz	87.69	313	P	P	02 03 41.8	+0.2
	comp=Z,38nm,0.9s,mb5.6						
WCB1	Church Bay	87.73	324	eP	P	02 03 42.1	+0.6
YRE	Yr Eifl	87.75	323	⇑eP	P	02 03 41.7	+0.1
YRE				AMb	AMB	02 03 47.5	
	comp=Z,460nm,1.5s,mb6.5						
YRC	Rhoscolyn	87.78	323	⇑eP	P	02 03 42.4	+0.7
YRC				AMb	AMB	02 03 47.7	
	comp=Z,434nm,1.6s,mb6.4						
SBD	Saint Breward	88.41	321	⇑eP	P	02 03 39.0	-5.9
EMUR	La Murta	88.44	308	P	P	02 03 45.4	+0.1
	comp=Z,16nm,1.0s,mb5.2						
UNV	Unalaska Valle	88.47	36	eP	P	02 03 42.9	-2.1
UNV				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
DSB	Dublin	88.83	324	eP	P	02 03 47.4	+0.7
	comp=Z,31nm,0.8s,mb5.7						
DLF	Lyons Farm	88.91	324	eP	P	02 03 48.2	+1.0
DMUB	Kingscourt	88.99	324	eP	P	02 03 48.4	+0.9
EVIA	Vianos	89.27	309	P	P	02 03 50.2	+1.0
EVIA				pmax	pmax		
	comp=Z,134nm,1.2s,mb6.2						
EVIA	Vianos	89.27	309	P	P	02 03 50.1	+0.9
	comp=Z,134nm,1.2s,mb6.2						
DCN	Croghan	89.33	324	eP	P	02 03 50.0	+0.8
ENIJ	Nijar	89.35	307	P	P	02 03 50.5	+0.8
ENIJ				pmax	pmax		
	comp=Z,138nm,1.3s,mb6.1						
ENIJ	Nijar	89.35	307	P	P	02 03 50.5	+0.9
	comp=Z,138nm,1.3s,mb6.1						
SCO	Scoresbysund	89.83	342	i P	P	02 03 52.7	+1.6
	comp=Z,18nm,1.1s,mb5.3						
EQES	Quesada	89.87	308	P	P	02 03 52.4	+0.4
	comp=Z,55nm,0.9s,mb5.9						
EBER	Berja	89.90	307	P	P	02 03 53.0	+0.7
	comp=Z,95nm,1.1s,mb6.0						
GUD	Guadarrama	90.12	311	P	P	02 03 54.6	+1.4
GUD				pmax	pmax		
	comp=Z,131nm,1.2s,mb6.1						
GUD	Guadarrama	90.12	311	P	P	02 03 54.6	+1.4
	comp=Z,130nm,1.2s,mb6.1						
ESDC	Sonseca Array	90.18	310	P	P	02 03 54.3	+0.9
	comp=Z,45nm,0.9s,mb5.8,baz=59,slow=4.4,SNR=104						
ESDC				PP	PP	02 07 29.0	-0.6
	comp=Z,4.5nm,0.9s,baz=80,slow=8.6,SNR=4.2						
ESDC				PKKPbc		02 21 23.3	
	comp=Z,1.2nm,0.9s,baz=284,slow=2.5,SNR=5.7						
ESDC	Sonseca Array	90.18	310	P	P	02 03 54.3	+0.8
	comp=Z,71nm,0.9s,mb6.0						
ESLA	Sonseca Array	90.18	310	eP	P	02 03 54.6	+1.2
	comp=Z,48nm,1.4s,mb5.6						
ESLA				LR	LR		
	comp=Z,14µm,20.0s,MS6.4						
EARI	Arriondas	90.33	314	P	P	02 03 54.5	+0.4
	comp=Z,39nm,1.0s,mb5.7						
URZ	Urewera	90.36	129	P	P	02 03 53.3	-1.0
	comp=Z,58nm,0.9s,mb5.9,baz=353,slow=0.7,SNR=12						
ERON	Agron	90.60	307	P	P	02 03 55.4	0.0
	comp=Z,20nm,0.8s,mb5.5						
IMA	Indian Mountai	90.69	22	eP	P	02 03 56.0	+0.8
IMA				pmax	pmax		
	comp=Z,1µm,1.1s,mb7.1						
IMA	Indian Mountai	90.69	22	eP	P	02 03 56.5	+1.3
	comp=Z,734nm,0.9s,mb7.0						
ELOJ	Sierra Loja	90.84	308	P	P	02 03 56.5	-0.1
ELOJ				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.5						
ELOJ	Sierra Loja	90.84	308	P	P	02 03 56.5	-0.1
	comp=Z,22nm,0.8s,mb5.5						
ELUQ	Luque	90.85	308	P	P	02 03 56.7	+0.1
ELUQ				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.8						
ELUQ	Luque	90.85	308	P	P	02 03 56.7	+0.1
	comp=Z,54nm,1.0s,mb5.8						
EADA	Adamuz	90.96	309	P	P	02 03 57.5	+0.4
	comp=Z,83nm,1.0s,mb6.0						
EMIJ	Mijas	91.45	307	P	P	02 03 58.6	-0.7
	comp=Z,57nm,0.9s,mb5.9						
EPON	Pontenova	91.70	314	P	P	02 04 00.7	+0.4
	comp=Z,46nm,1.0s,mb5.8						
ECAL	Calabor	91.73	313	P	P	02 04 01.1	+0.5
	comp=Z,56nm,1.1s,mb5.8						
PBRG	Braganca	91.77	313	eP	P	02 04 01.7	+1.0
	comp=Z,120nm,1.4s,mb6.0						
BORG	Borgarnes	92.21	337	PFAKE		02 04 10.0	+7.8
BORG				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
ESPR	Espera	92.23	308	P	P	02 04 03.1	+0.1
	comp=Z,59nm,1.1s,mb5.8						
PVRL	Vila Real	92.61	312	eP	P	02 04 05.8	+1.2
	comp=Z,65nm,1.2s,mb5.9						
EMIN	Mina Concepcio	92.66	309	P	P	02 04 05.1	+0.2
	comp=Z,39nm,0.8s,mb5.9						
EBAD	Badajoz	92.69	310	P	P	02 04 05.2	+0.1
	comp=Z,33nm,1.0s,mb5.7						
MTE	Manteigas	92.69	311	eP	P	02 04 06.6	+1.6
	comp=Z,283nm,1.7s,mb6.4						
MTE	Manteigas	92.69	311	eP	P	02 04 06.7	+1.7
	comp=Z,222nm,1.4s,mb6.4						
ELOB	Lobios	92.71	313	P	P	02 04 05.7	+0.7
	comp=Z,36nm,0.8s,mb5.8						
PCBR	Castelo Branco	92.78	311	eP	P	02 04 06.4	+1.0
	comp=Z,107nm,1.0s,mb6.2						
STS	Santiago	92.80	314	P	P	02 04 06.1	+0.7
STS				pmax	pmax		
	comp=Z,67nm,1.0s,mb6.0						
STS	Santiago	92.80	314	P	P	02 04 06.1	+0.6
	comp=Z,67nm,1.0s,mb6.0						
PVIS	Viseu	92.88	312	eP	P	02 04 07.2	+1.4
	comp=Z,93nm,1.3s,mb6.1						
SUMG	Summit	92.93	347	eP	P	02 04 06.5	+1.2
	comp=Z,113nm,1.1s,mb6.2						
EMAZ	Mazaricos	93.09	314	P	P	02 04 06.8	0.0
	comp=Z,35nm,0.9s,mb5.8						
EGRO	El Granado	93.34	309	P	P	02 04 08.9	+0.8
	comp=Z,46nm,1.0s,mb5.9						
PALC	Alcoutim	93.36	309	eP	P	02 04 09.3	+1.2
	comp=Z,121nm,1.3s,mb6.2						
COLA	College	93.40	22	eP	P	02 04 05.8	-1.9
PBEJ	Beja	93.52	309	eP	P	02 04 09.9	+1.0
	comp=Z,90nm,1.6s,mb6.0						
MCK	McKinley	93.55	23	⇓eP	P	02 04 08.3	0.0
MCK				pmax	pmax		
	comp=Z,132nm,1.2s,mb6.2						
MCK				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.5						
MCK	McKinley	93.55	23	⇓eP	P	02 04 08.3	-0.1
	comp=Z,132nm,1.2s,mb6.2						
MCK				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
ILAR	Eielson Array	93.81	22	P	P	02 04 08.9	-0.6
	comp=Z,29nm,0.7s,mb5.8,baz=302,slow=4.5,SNR=131						
ILAR				PP	PP	02 07 54.9	-3.1
	comp=Z,1.8nm,0.7s,baz=294,slow=4.9,SNR=6.0						
ILAR				PKKPbc		02 21 13.8	
	comp=Z,4.6nm,0.8s,baz=150,slow=1.7,SNR=17						
ILAR				PKPPKP		02 29 24.7	
	comp=Z,1.7nm,0.9s,baz=153,slow=2.0,SNR=5.5						
VNDA	Vanda	94.14	168	⇓iP	P	02 04 09.5	-1.4
VNDA				pmax	pmax		
	comp=Z,43nm,1.2s						
VNDA				MLR	MLR		
	comp=Z,3µm,19.0s						
VNDA	Vanda	94.14	168	P	P	02 04 10.8	0.0
	comp=Z,17nm,0.9s,mb5.5,baz=289,slow=5.3,SNR=27						
VNDA				PP	PP	02 07 58.2	-2.1
	comp=Z,9.9nm,1.2s,baz=289,slow=7.8,SNR=5.6						
VNDA				PKKPbc		02 21 12.9	
	comp=Z,3.5nm,0.8s,baz=140,slow=0.2,SNR=12						
VNDA	Vanda	94.14	168	⇓iP	P	02 04 09.5	-1.3
	comp=Z,43nm,1.2s,mb5.8						
VNDA				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
FIB	Fire Island	94.24	26	PFAKE		02 04 20.0	+8.4
FIB				LR	LR		
	comp=Z,3µm,20.0s,MS5.7						
SLKM	Skilak Lake	94.52	26	eP	P	02 04 13.4	+0.5
KDAK	Kodiak Island	94.62	29	eP	P	02 04 14.4	+1.0
	comp=Z,267nm,1.4s,mb6.5						
KDAK				LR	LR		
	comp=Z,879nm,20.0s,MS5.2						
SML	Sawmill	94.71	25	eP	P	02 04 14.4	+0.6
THY	Trims Highway	94.94	23	eP	P	02 04 15.8	+1.1
SBA	Scott Base	95.24	168	eP	P	02 04 16.4	+0.5
SBA				pmax	pmax		
	comp=Z,49nm,1.0s,mb5.9						
SBA				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.6						
SBA	Scott Base	95.24	168	eP	P	02 04 16.4	+0.5
	comp=Z,49nm,1.0s,mb5.9						
SBA				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
NVL	N'lazarevskaya	95.81	199	⇑eP	P	02 04 19.0	+0.4
NVL				e		02 08 10.0	
NVL				eS	SKS	02 14 53.0	-6.4
NVL				pmax	pmax		
	comp=Z,802nm,5.3s						
INK	Inuvik	95.98	16	PKKPbc		02 21 07.5	
	comp=Z,6.0nm,0.8s,baz=130,slow=3.9,SNR=10						
DIV	Divide	96.12	25	PFAKE		02 04 30.0	+10
DIV				LR	LR		
	comp=Z,9µm,22.0s,MS6.2						
DBIC	Dimbokro	97.41	278	⇓iP	P	02 04 28.3	+1.2
DBIC				pmax	pmax		
	comp=Z,80nm,1.3s						
DBIC				MLR	MLR		
	comp=Z,4µm,20.0s						
DBIC	Dimbokro	97.41	278	P	P	02 04 28.6	+1.5
	comp=Z,21nm,0.8s,mb5.6,baz=65,slow=5.0,SNR=36						
DBIC				PKKPbc		02 21 06.0	
	comp=Z,6.2nm,0.8s,baz=271,slow=1.6,SNR=12						
DBIC				LR	LR	02 46 33.8	
	comp=Z,3µm,20.8s,MS5.8,baz=60,slow=34						
DBIC	Dimbokro	97.41	278	⇓iP	P	02 04 28.3	+1.2
	comp=Z,80nm,1.3s,mb6.0						
DBIC				LR	LR		
	comp=Z,4µm,20.0s,MS5.9						
SNAA	Sanae	100.60	199	e	PP	02 08 53.4	+3.2
SNAA	Sanae	100.60	199	⇓iP	P	02 04 41.0	+0.7
SNAA				e		02 08 53.4	
SNAA	Sanae	100.60	199	P	P	02 04 41.1	+0.8
	comp=Z,3.6nm,1.0s,baz=98,slow=4.6,SNR=7.6						
SNAA				PKKPbc		02 20 54.6	
	comp=Z,2.2nm,0.9s,baz=289,slow=3.7,SNR=7.7						
SNAA				PKKPab		02 21 18.4	
	comp=Z,2.9nm,0.9s,baz=240,slow=5.4,SNR=6.0						
VNA2	Neumayer--Watz	102.14	199	e	PP	02 09 03.0	+1.5
VNA2	Neumayer--Watz	102.14	199	⇑iPdif	Pdif	02 04 50.6	+3.4
VNA2				e		02 09 03.0	
VNA1	Neumayer--Stat	102.46	200	e	PP	02 08 57.8	-6.3
VNA1	Neumayer--Stat	102.46	200	⇓iPdif	Pdif	02 04 47.3	-1.3
VNA1				e		02 08 57.8	
VNA3	Neumayer Olymp	102.82	199	e	PP	02 09 05.3	-1.7
VNA3	Neumayer Olymp	102.82	199	⇑iPdif	Pdif	02 04 53.0	+2.8
VNA3				e		02 09 05.3	
SIT	Sitka	102.87	25	PFAKE		02 05 00.0	+9.3
SIT				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
DLBC	Dease Lake	104.02	22	PKKPbc		02 20 45.4	
	comp=Z,12nm,1.2s,baz=115,slow=8.4,SNR=5.8						

YKA	**Yellowknife Ar**	**105.39**	**13**	Pdiff	Pdif	02 05 02.1	+0.5
	comp=Z,6.5nm,1.0s,baz=328,slow=4.4,SNR=32						
YKA				PKiKP		02 09 14.9	
	comp=Z,1.0nm,0.7s,baz=318,slow=2.8,SNR=4.7						
YKA				PKKPbc		02 20 39.6	
	comp=Z,7.2nm,0.8s,baz=149,slow=2.5,SNR=17						
YKA				PKKPab		02 20 57.3	
	comp=Z,10.0nm,0.9s,baz=143,slow=4.5,SNR=22						
FRB	**Frobisher Bay**	**106.18**	**352**	PKKPbc		02 20 36.6	
	comp=Z,39nm,1.6s,baz=198,slow=7.9,SNR=3.7						
OCWA	**Octopus Mounta**	**114.24**	**27**	PFAKE		02 09 40.0	+4.4
OCWA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
SCHQ	**Schefferville**	**114.31**	**348**	PKP	PKPdf	02 09 32.8	-2.8
	comp=Z,6.3nm,0.7s,baz=27,slow=3.7,SNR=7.7						
SCHQ				PKKPbc		02 20 11.1	
	comp=Z,6.8nm,1.1s,baz=187,slow=4.1,SNR=3.6						
SCHQ	**Schefferville**	**114.31**	**348**	PFAKE		02 09 40.0	+4.4
SCHQ				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
FFC	**Flin Flon**	**115.11**	**10**	PFAKE		02 09 50.0	+13
FFC				LR	LR		
	comp=Z,827nm,22.0s,MS5.3						
NEW	**Newport**	**116.77**	**23**	PFAKE		02 09 50.0	+9.5
NEW				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
COR	**Corvallis**	**117.00**	**29**	PFAKE		02 09 50.0	+8.9
COR				LR	LR		
	comp=Z,391nm,20.0s,MS5.0						
PPT	**Papeete**	**118.02**	**105**	*e*PP	PP	02 10 47.5	-11
PPT				*e*PS	PS	02 20 31.6	-8.1
PPT				*e*SS	SS	02 26 41.8	-26
	comp=Z,4µm,37.8s						
PPT				*e*LR	LR	02 45 20.5	
	comp=Z,6µm,33.0s						
PPT	**Papeete**	**118.02**	**105**	PKP	PKPdf	02 09 40.9	-2.7
	comp=Z,22nm,0.6s,baz=333,slow=1.7,SNR=2.5						
TBI	**Tubuai**	**118.07**	**112**	*e*PP	PP	02 10 45.3	-14
TBI				*e*PS	PS	02 20 43.4	+3.2
TBI				*e*SS	SS	02 27 08.6	+0.3
TBI				*e*LR	LR	02 45 29.0	
	comp=Z,5µm,35.2s						
HUMO	**Hull Mountain**	**118.64**	**30**	*e*PKPdf	PKPdf	02 09 41.6	-2.7
HUMO				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
MSO	**Missoula**	**119.14**	**21**	*e*PKPdf	PKPdf	02 09 41.1	-4.0
MSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
CHMT	**Chamberlain Mo**	**119.32**	**21**	*e*PKPdf	PKPdf	02 09 42.2	-3.2
YBH	**Yreka Blue Hor**	**119.41**	**31**	PKP	PKPdf	02 09 43.1	-2.6
	comp=Z,5.6nm,0.9s,baz=72,slow=5.7,SNR=4.4						
YBH				PKKPbc		02 19 55.3	
	comp=Z,5.6nm,0.8s,baz=84,slow=6.6,SNR=3.5						
YBH	**Yreka Blue Hor**	**119.41**	**31**	PFAKE		02 09 50.0	+4.2
YBH				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
BMO	**Blue Mountains**	**119.48**	**25**	PKIKP	PKPdf	02 09 42.3	-3.5
BMO	**Blue Mountains**	**119.48**	**25**	*e*PKPdf	PKPdf	02 09 37.6	-8.2
BMO				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
HRY	**Holter Researc**	**119.98**	**20**	*e*PKPdf	PKPdf	02 09 43.3	-3.4
WDC	**Whiskeytown Da**	**120.34**	**31**	PFAKE		02 10 00.0	+12
WDC				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
ULM	**Lac du Bonnet**	**120.36**	**7**	PKP	PKPdf	02 09 45.4	-2.1
	comp=Z,25nm,0.8s,baz=359,slow=2.5,SNR=33						
ULM				PKKPbc		02 19 51.1	
	comp=Z,13nm,0.8s,baz=195,slow=2.8,SNR=17						
ULM	**Lac du Bonnet**	**120.36**	**7**	*e*PKPdf	PKPdf	02 09 45.0	-2.5
ULM				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
MOD	**Modoc**	**120.47**	**29**	*e*PKPdf	PKPdf	02 09 45.8	-2.1
MOD				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
DGMT	**Dagmar**	**120.59**	**14**	*e*PKPdf	PKPdf	02 09 44.6	-3.3
DGMT				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
HOPS	**Hopland**	**121.22**	**33**	*e*PKPdf	PKPdf	02 09 46.2	-3.3
HOPS				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
MCMT	**McKenzie Canyo**	**121.25**	**22**	*e*PKPdf	PKPdf	02 09 46.6	-2.7
HLID	**Hailey**	**121.72**	**24**	*e*PKPdf	PKPdf	02 09 47.6	-2.7
HLID				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
LAO	**LASA Array**	**121.72**	**16**	*e*PKPdf	PKPdf	02 09 48.0	-2.2
LAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
QLMT	**Earthquake Lak**	**121.76**	**21**	*e*PKPdf	PKPdf	02 09 48.5	-1.8
OHCM	**Honcut**	**121.81**	**32**	*e*PKPdf	PKPdf	02 09 47.2	-3.4
YMR	**Madison River**	**122.06**	**21**	*e*PKPdf	PKPdf	02 09 49.3	-1.6
YNR	**Norris Junctio**	**122.12**	**20**	*e*PKPdf	PKPdf	02 09 49.2	-1.7
PQI	**Presque Isle**	**122.20**	**345**	PFAKE		02 10 00.0	+8.9
PQI				LR	LR		
	comp=Z,16µm,20.0s,MS6.7						
PMSA	**Palmer Station**	**122.21**	**191**	PFAKE		02 10 00.0	+9.4
PMSA				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
YFT	**Old Faithful**	**122.30**	**21**	*e*PKPdf	PKPdf	02 09 50.6	-0.7
WCN	**Washoe City**	**122.72**	**31**	*e*PKIKP	PKPdf	02 09 50.2	-2.0
IMW	**Indian Meadow**	**122.74**	**21**	*e*PKPdf	PKPdf	02 09 49.9	-2.3
MOOW	**Moose Ponds**	**122.94**	**21**	*e*PKPdf	PKPdf	02 09 49.7	-2.8
BMN	**Battle Mountai**	**123.06**	**28**	*e*PKIKP	PKPdf	02 09 50.8	-2.1
BMN				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.6						
EYMN	**Ely**	**123.07**	**4**	*e*PKPdf	PKPdf	02 09 48.9	-3.8
EYMN				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
TPAW	**Teton Pass**	**123.09**	**21**	*e*PKPdf	PKPdf	02 09 50.1	-2.7
LOHW	**Long Hollow**	**123.11**	**21**	*e*PKPdf	PKPdf	02 09 50.1	-2.8
WUWY	**Wally Ulrich**	**123.12**	**21**	*e*PKPdf	PKPdf	02 09 50.5	-2.4
SNOW	**Snow King Moun**	**123.19**	**21**	*e*PKPdf	PKPdf	02 09 50.9	-2.2
REDW	**Red Top Meadow**	**123.24**	**21**	*e*PKPdf	PKPdf	02 09 50.6	-2.6
CMB	**Columbia Colle**	**123.35**	**32**	*e*PKIKP	PKPdf	02 09 49.8	-3.7
CMB				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.5						
ELK	**Elko**	**123.70**	**26**	*e*PKIKP	PKPdf	02 09 51.7	-2.5
ELK				MLR	MLR		
	comp=Z,2µm,22.0s						
SAO	**San Andreas Ge**	**123.72**	**34**	PFAKE		02 10 00.0	+5.7
SAO				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
HVU	**Hansel Valley**	**123.87**	**24**	*e*PKIKP	PKPdf	02 09 51.7	-2.8
NVAR	**Mina Array Bea**	**124.11**	**30**	PKP	PKPdf	02 09 53.0	-2.0
	comp=Z,21nm,0.8s,baz=241,slow=1.8,SNR=3.9						
NVAR				PKKPbc		02 19 38.2	
	comp=Z,3.3nm,0.8s,baz=149,slow=5.3,SNR=12						
NVAR				SKKPbc		02 23 29.6	
	comp=Z,2.0nm,1.0s,baz=154,slow=4.6,SNR=3.6						
MNV	**Mina**	**124.19**	**30**	*e*PKIKP	PKPdf	02 09 52.7	-2.5
MNV				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.7						
LRV	**Little Rabbit**	**124.20**	**34**	*e*PKPdf	PKPdf	02 09 52.5	-2.8
BW06	**Boulder Array**	**124.22**	**21**	*e*PKPdf	PKPdf	02 09 51.7	-3.4
BW06				LR	LR		
	comp=Z,3µm,22.0s,MS5.9						
PDAR	**Pinedale Array**	**124.22**	**21**	PKP	PKPdf	02 09 52.0	-3.2
	comp=Z,24nm,0.8s,baz=56,slow=0.9,SNR=102						
PDAR				PKKPbc		02 19 35.5	
	comp=Z,6.3nm,0.8s,baz=140,slow=5.6,SNR=32						
OMM	**Old Mammoth Mi**	**124.39**	**31**	*e*PKPdf	PKPdf	02 09 53.6	-2.0
SPUT	**South Promonto**	**124.40**	**24**	*e*PKPdf	PKPdf	02 09 52.8	-2.7
BGU	**Big Grassy Mou**	**124.49**	**24**	*e*PKPdf	PKPdf	02 09 53.5	-2.2
HWUT	**Hardware Ranch**	**124.49**	**23**	*e*PKPdf	PKPdf	02 09 52.5	-3.1
WVL	**Waterville**	**124.58**	**346**	PFAKE		02 10 00.0	+4.2
WVL				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
MTUM	**Tungsten Hills**	**124.81**	**31**	*e*PKPdf	PKPdf	02 09 54.6	-1.8
TPH	**Tonopah**	**124.92**	**30**	*e*PKIKP	PKPdf	02 09 54.6	-2.0
TPH				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.6						
TCUT	**Toone Canyon**	**124.97**	**23**	*e*PKPdf	PKPdf	02 09 53.7	-3.0
NOQ	**North Oquirrh**	**125.09**	**24**	*e*PKPdf	PKPdf	02 09 54.4	-2.5
JLU	**Jordanelle**	**125.40**	**23**	*e*PKPdf	PKPdf	02 09 54.9	-2.6
TRCR	**Troy Canyon**	**125.49**	**28**	*e*PKPdf	PKPdf	02 09 55.3	-2.4
NLU	**North Lily Min**	**125.70**	**24**	*e*PKPdf	PKPdf	02 09 55.8	-2.3
MIV	**Mineville/With**	**125.89**	**349**	*e*PKPdf	PKPdf	02 09 55.3	-3.1
MDV	**Middlebury**	**125.90**	**348**	*e*PKPdf	PKPdf	02 09 55.1	-3.2
RWWY	**Rawlins**	**125.97**	**19**	*e*PKPdf	PKPdf	02 09 55.6	-2.9
NCB	**Newcomb**	**126.12**	**349**	*e*PKPdf	PKPdf	02 09 55.5	-3.2
NCB				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
DAC	**Darwin (Calif)**	**126.13**	**31**	*e*PKPdf	PKPdf	02 09 57.2	-1.8
DAC				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
TMUT	**Trail Mountain**	**126.61**	**24**	*e*PKPdf	PKPdf	02 09 57.9	-1.9
MVU	**Marysvale**	**126.87**	**25**	*e*PKPdf	PKPdf	02 09 59.0	-1.2
MVU				LR	LR		
	comp=Z,2µm,20.0s,MS5.7						
MSU	**Marysvale**	**126.87**	**25**	*e*PKIKP	PKPdf	02 09 59.0	-1.3
PHWY	**Pilot Hill**	**126.88**	**18**	*e*PKPdf	PKPdf	02 09 57.3	-2.9
HRV	**Harvard--Oak R**	**126.97**	**346**	PFAKE		02 10 10.0	+10
HRV				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
WES	**Weston**	**127.03**	**346**	PFAKE		02 10 10.0	+9.5
WES				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
SRU	**San Rafael**	**127.04**	**24**	*e*PKIKP	PKPdf	02 09 57.1	-3.5
GENY	**Geneseo**	**127.87**	**352**	*e*PKPdf	PKPdf	02 09 58.7	-3.5
NEN	**Nelson**	**128.00**	**30**	*e*PKPdf	PKPdf	02 10 00.8	-1.9
BINY	**Binghamton**	**128.15**	**350**	PFAKE		02 10 10.0	+7.2
BINY				LR	LR		
	comp=Z,153nm,22.0s						
ISCO	**Idaho Springs**	**128.20**	**19**	PFAKE		02 10 10.0	+7.1
ISCO				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
PV10	**Paradox Valley**	**128.26**	**23**	*e*PKPdf	PKPdf	02 10 01.0	-2.1
LDFC	**Landfair**	**128.33**	**30**	*e*PKPdf	PKPdf	02 10 01.7	-1.6
PV01	**Paradox Valley**	**128.65**	**23**	*e*PKPdf	PKPdf	02 10 01.5	-2.4
ERPA	**Erie**	**128.77**	**354**	*e*PKPdf	PKPdf	02 09 59.8	-4.2
ERPA				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
PFO	**Pinyon Flat Ob**	**128.78**	**33**	PFAKE		02 10 10.0	+5.8
PFO				LR	LR		
	comp=Z,419nm,20.0s,MS5.1						
AAM	**Ann Arbor**	**128.85**	**358**	PFAKE		02 10 10.0	+5.9
AAM				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
RW3	**Ridgway**	**128.87**	**22**	*e*PKPdf	PKPdf	02 10 01.1	-3.1
PAL	**Palisades**	**128.92**	**348**	*e*PKIKP	PKPdf	02 10 01.1	-3.2
SSPA	**Standing Stone**	**129.97**	**352**	*e*PKPdf	PKPdf	02 10 03.1	-3.2
SSPA				LR	LR		
	comp=Z,652nm,22.0s,MS5.3						
RCBR	**Riachuelo**	**130.01**	**270**	*e*PKPdf	PKPdf	02 10 05.0	-2.1
RCBR				LR	LR		
	comp=Z,2µm,20.0s,MS5.9						
ACSO	**Alum Creek Sta**	**130.88**	**357**	*e*PKPdf	PKPdf	02 10 04.6	-3.4
KSU1	**Kansas State U**	**131.15**	**11**	*e*PKPdf	PKPdf	02 10 05.4	-3.2
MCWV	**Mont Chateau**	**131.19**	**353**	*e*PKPdf	PKPdf	02 10 05.9	-2.7
MCWV				LR	LR		
	comp=Z,4µm,20.0s,MS6.2						
RKT	**Rikitea**	**131.36**	**113**	*e*SS	SS	02 29 37.3	-19
RKT				*e*LR	LR	02 51 38.8	
	comp=Z,3µm,36.8s						
BLO	**Bloomington**	**132.03**	**0**	*e*PKIKP	PKPdf	02 10 07.1	-3.1
USHA	**Ushuaia**	**132.18**	**194**	PKP	PKPdf	02 10 07.6	-2.5
	comp=Z,14nm,0.9s,baz=79,slow=2.9,SNR=6.0						
USHA				SKPbc		02 13 33.0	
	comp=Z,27nm,0.9s,baz=104,slow=2.8,SNR=10.0						
ANMO	**Albuquerque**	**132.25**	**23**	*e*PKIKP	PKPdf	02 10 08.9	-1.9
ANMO	**Albuquerque**	**132.25**	**23**	PKP	PKPdf	02 10 08.7	-2.1
	comp=Z,18nm,0.8s,baz=321,slow=0.4,SNR=43						
ANMO				SKPbc		02 13 34.2	
	comp=Z,7.8nm,0.9s,baz=331,slow=3.1,SNR=5.9						
CBN	**Corbin**	**132.28**	**351**	*e*PKPdf	PKPdf	02 10 07.8	-2.9
CBN				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
LAZ	**Ladron**	**132.47**	**24**	*e*PKPdf	PKPdf	02 10 09.3	-1.9
TUC	**Tucson**	**132.67**	**29**	PKIKP	PKPdf	02 10 05.7	-5.9
TUC	**Tucson**	**132.67**	**29**	*e*PKPdf	PKPdf	02 10 09.5	-2.2
TUC				LR	LR		
	comp=Z,2µm,22.0s,MS5.7						
LENM	**Lemitar**	**132.74**	**24**	*e*PKPdf	PKPdf	02 10 09.8	-1.9
LPM	**Los Pinos Moun**	**132.75**	**23**	*e*PKPdf	PKPdf	02 10 09.8	-2.0
BNM	**Barren Site**	**132.89**	**23**	*e*PKPdf	PKPdf	02 10 09.9	-2.1
CCM	**Cathedral Cave**	**132.92**	**5**	PFAKE		02 10 20.0	+8.1
CCM				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
WCI	**Wyandotte Cave**	**132.98**	**0**	*e*PKIKP	PKPdf	02 10 08.7	-3.3
WCI				MLR	MLR		
	comp=Z,688nm,20.0s,MS5.4						
FWV	**Forest Hill**	**133.34**	**354**	*e*PKPdf	PKPdf	02 10 09.3	-3.4
PWV	**Princeton**	**133.61**	**354**	*e*PKPdf	PKPdf	02 10 10.1	-3.0
BLA	**Blacksburg**	**133.67**	**354**	*e*PKIKP	PKPdf	02 10 10.3	-3.0
ELN	**Prospectdale**	**133.69**	**354**	*e*PKPdf	PKPdf	02 10 09.9	-3.4
AMTX	**Amarillo**	**133.94**	**18**	PFAKE		02 10 20.0	+6.2
AMTX				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
BBSR	**BB Station**	**133.97**	**334**	PFAKE		02 10 20.0	+6.0
BBSR				LR	LR		
	comp=Z,2µm,22.0s,MS5.8						
GLAT	**Glass**	**134.84**	**3**	*e*PKPdf	PKPdf	02 10 11.9	-3.6
WMOK	**Wichita Mounta**	**134.87**	**15**	*e*PKHKP		02 09 56.9	
CPRX	**Cap Rock**	**134.92**	**21**	*e*PKPdf	PKPdf	02 10 12.8	-3.0
WVT	**Waverly**	**135.05**	**2**	*e*PKIKP	PKPdf	02 10 12.6	-3.3
PTCN	**Pitcairn Islan**	**135.38**	**117**	PFAKE		02 10 30.0	+13
PTCN				LR	LR		
	comp=Z,2µm,21.0s,MS5.8						
HBAR	**Harrisburg**	**135.45**	**5**	*e*PKPdf	PKPdf	02 10 10.1	-6.6
GDL2	**Guadalupe Moun**	**135.49**	**22**	*e*PKPpre		02 09 58.3	
GDL2				*e*PKPdf	PKPdf	02 10 14.2	-2.7
MNTX	**Cornudas Mount**	**135.54**	**24**	PFAKE		02 10 30.0	+13
MNTX				LR	LR		
	comp=Z,2µm,22.0s,MS5.9						
CLNB	**Carlsbad**	**135.61**	**22**	*e*PKPdf	PKPdf	02 10 12.7	-4.4
MIAR	**Mount Ida**	**136.10**	**9**	*e*PKHKP		02 10 03.0	
MIAR				*e*		02 10 15.0	
OXF	**Oxford**	**136.58**	**4**	*e*PKIKP	PKPdf	02 10 14.0	-4.7
OXF				MLR	MLR		
	comp=Z,2µm,22.0s,MS5.8						
JSC	**Jenkinsville**	**136.66**	**354**	*e*PKIKP	PKPdf	02 10 16.0	-2.8
COW	**Cow Castle Cre**	**137.49**	**353**	*e*PKPdf	PKPdf	02 10 17.7	-2.8
NHSC	**New Hope**	**137.69**	**352**	PFAKE		02 10 30.0	+9.2
NHSC				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
GOGA	**Godfrey**	**137.70**	**357**	*e*PKIKP	PKPdf	02 10 15.7	-5.2
GOGA				MLR	MLR		
	comp=Z,5µm,21.0s,MS6.2						
RGRS	**Roger Stewart**	**137.89**	**352**	*e*PKPdf	PKPdf	02 10 18.3	-3.0
LRAL	**Lakeview Retre**	**138.15**	**1**	*e*P	PKPdf	02 10 18.6	-3.1
LTX	**Lajitas**	**138.32**	**23**	PKHKP		02 10 12.4	
LTX	**Lajitas**	**138.32**	**23**	*e*PKPpre		02 10 11.4	
LTX				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
TXAR	**Lajitas Array**	**138.32**	**23**	PKhKP		02 10 07.5	
	comp=Z,13nm,1.3s,baz=237,slow=1.2,SNR=12						
TXAR				PKP	PKPdf	02 10 19.7	-2.4
	comp=Z,10nm,0.8s,baz=187,slow=0.9,SNR=24						
TXAR				PP	PP	02 13 08.0	-3.4
	comp=Z,4.7nm,1.0s,baz=4.1,slow=1.8,SNR=3.8						
TXAR				SKPbc		02 13 52.6	
	comp=Z,6.3nm,0.9s,baz=265,slow=2.2,SNR=4.1						
JCT	**Junction City**	**138.60**	**18**	*e*PKHKP		02 10 07.7	
NATX	**Nacogdoches**	**138.64**	**11**	*e*PKPpre		02 10 09.3	
HKT	**Hockley**	**140.15**	**13**	*e*PKHKP		02 10 13.7	
HKT				MLR	MLR		
	comp=Z,768nm,19.0s,MS5.5						
DWPF	**Disney**	**142.78**	**353**	PFAKE		02 10 40.0	+10
DWPF				LR	LR		
	comp=Z,833nm,20.0s,MS5.5						
LPA	**La Plata**	**143.48**	**221**	*de*P	PKPbc	02 10 23.0	-2.1
LPA				*e*SKP		02 14 02.0	
LPA				*e*SKP		02 14 05.0	
LPA				SKIKP		02 14 09.0	
	comp=Z,3µm,19.0s						
TRQA	**Tornquist**	**143.77**	**213**	*e*PKPdf	PKPdf	02 10 25.8	-5.7
TRQA				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
CRM	**Caravelle**	**145.51**	**313**⇓	*e*P	PKPbc	02 10 32.3	+1.1
MVM	**Montagne Vaucl**	**145.63**	**313**⇓	*e*P	PKPbc	02 10 32.4	+0.9
FDF	**Fort de France**	**145.69**	**313**⇓	*e*P	PKPbc	02 10 33.2	+1.6
BIM	**Bigot**	**145.78**	**313**⇓	*e*P	PKPbc	02 10 33.7	+1.8
CJM	**Chamela**	**146.13**	**33**	*e*P	PKPbc	02 10 33.0	+0.3
CJM				*e*P		02 10 33.1	
SJG	**San Juan**	**146.51**	**324**	*e*PKIKP	PKPdf	02 10 32.7	-4.1
SJG				*e*		02 10 34.4	
SJG				MLR	MLR		
	comp=Z,3µm,22.0s						
SJG	**San Juan**	**146.51**	**324**	PKPbc	PKPbc	02 10 35.0	+1.5
	comp=Z,86nm,0.6s,baz=59,slow=3.5,SNR=32						
COLM	**Colima**	**147.10**	**31**	*i* P	PKPdf	02 10 37.0	-0.8
CPUP	**Villa Florida**	**147.65**	**234**	PKPdf	PKPdf	02 10 36.0	-2.4
MOIG	**Morelia**	**147.89**	**27**	*i* P	PKPdf	02 10 36.2	-2.8
MOIG				*i* P		02 10 36.3	
IIC	**Rita Coyotepec**	**148.64**	**24**	*i* P	PKPdf	02 10 42.2	+2.0
PTVM	**Pico Tres Padr**	**148.85**	**24**	*i* P	PKPdf	02 10 42.9	+2.3
IIO	**Organos**	**149.01**	**23**	*i* P	PKPdf	02 10 43.1	+2.3
IIZ	**Mezontepec**	**149.16**	**24**	*i* P	PKPdf	02 10 40.1	-0.9
CHVM	**Chichinautzin**	**149.29**	**24**	*i* P	PKPdf	02 10 43.8	+2.5
PPM	**Popocatepetl**	**149.52**	**24**	*e*PKHKP		02 10 38.9	
PPM				*i*		02 10 39.9	
PPM				*i*		02 10 44.5	
YAIG	**Yautepec**	**149.53**	**24**	*i* P	PKPdf	02 10 36.5	-5.1
YAIG				*e*P		02 10 38.7	
CCHI	**Chillan**	**149.69**	**203**	*e*P	PKPdf	02 10 37.3	-4.1
CCHI	**Chillan**	**149.69**	**203**⇓	*e*P	PKPdf	02 10 38.1	-3.4
PLIG	**Platanillo**	**149.76**	**26**	*e*P	PKPdf	02 10 39.8	-2.3
PLIG				*e*P		02 10 40.0	
NICH	**Los Niches**	**150.73**	**206**⇓	*e*P	PKPdf	02 10 40.2	-2.9
TEIG	**Tepich**	**150.85**	**4**	*e*PKPdf	PKPdf	02 10 39.5	-4.2
TEIG				*e*PKPbc	PKPdf	02 10 46.6	+3.0
TEIG				*e*PKPab	PKPab	02 10 52.8	-1.5
TEIG				LR	LR		
	comp=Z,1µm,21.0s,MS5.7						
LMEL	**Las Melosas**	**151.23**	**209**	*e*P	PKPdf	02 10 34.8	-9.0
LMEL	**Las Melosas**	**151.23**	**209**⇑	*e*P	PKPdf	02 10 36.8	-7.0
PCRV	**Puerto La Cruz**	**151.24**	**311**	PKP	PKPdf	02 10 40.3	-4.1
	comp=Z,11nm,0.8s,baz=60,slow=5.5,SNR=3.7						
PCRV				PKPbc	PKPdf	02 10 45.9	+1.5
	comp=Z,98nm,0.8s,baz=18,slow=2.0,SNR=26						
PCRV				PKPab	PKPab	02 10 56.0	-0.2
	comp=Z,52nm,0.8s,baz=262,slow=2.7,SNR=5.6						
MDZ	**Mendoza**	**151.34**	**212**	*e*PKIKP	PKPdf	02 10 43.8	-0.2
MDZ				*e*		02 10 48.2	
GWJ	**Greenwich**	**151.47**	**341**⇓	*e*P	PKPdf	02 10 48.5	+3.9
STH	**Stony Hill**	**151.49**	**341**⇑	*e*P	PKPdf	02 10 48.2	+3.6
HOJ	**Hope**	**151.54**	**341**⇓	*e*P	PKPdf	02 10 48.8	+4.1
CVJ	**Coleyville**	**151.57**	**342**⇑	*e*P	PKPdf	02 10 48.5	+3.8
FCH	**Farellones**	**151.70**	**209**⇓	*i*P	PKPdf	02 10 42.8	-1.8
RPN	**Rapa Nui**	**151.71**	**132**	*e*PKPbc	PKPdf	02 10 48.9	+4.1
RPN				LR	LR		
	comp=Z,429nm,20.0s,MS5.2						
CLCH	**Cerro Calan**	**151.76**	**209**⇓	*e*P	PKPdf	02 10 42.5	-2.1
MCJ	**Malvern**	**151.91**	**342**⇓	*e*P	PKPdf	02 10 45.9	+0.7
PEL	**Peldehue**	**152.04**	**209**⇑	*e*P	PKPdf	02 10 42.6	-2.5
VHO	**Vista Hermosa**	**152.06**	**22**	*i* P	PKPdf	02 10 43.7	-1.8
PNIG	**Pinotepa**	**152.13**	**25**	*i* P	PKPdf	02 10 43.3	-2.3
PNIG				*i* P		02 10 43.8	
CMIG	**Matias Romero**	**152.67**	**18**	*i* P	PKPdf	02 10 41.8	-4.5
CMIG				*e*P		02 10 43.9	
CMCH	**Combarbala**	**153.80**	**211**⇑	*i*P	PKPdf	02 10 45.6	-2.0
CCIG	**Comitan**	**154.17**	**13**	*i* P	PKPdf	02 10 42.7	-5.8
CCIG				*i* P		02 10 44.1	
SDV	**Santo Domingo**	**156.36**	**318**	PKP	PKPdf	02 10 48.9	-2.5
	comp=Z,55nm,1.2s,baz=1.8,slow=1.1,SNR=24						
SDV				PKPab	PKPab	02 11 17.5	-0.3
	comp=Z,93nm,0.8s,baz=91,slow=2.1,SNR=12						
SDV				PP	PP	02 14 55.2	-1.6
	comp=Z,6.1nm,0.9s,baz=340,slow=5.5,SNR=4.5						
SDV	**Santo Domingo**	**156.36**	**318**	*e*PKPdf	PKPdf	02 10 48.8	-2.6
SDV				LR	LR		
	comp=Z,2µm,22.0s,MS6.0						
LVC	**Limon Verde**	**158.58**	**229**	PKP	PKPdf	02 10 53.4	-0.7
	comp=Z,22nm,0.9s,baz=286,slow=0.9,SNR=23						
LVC				PKPab	PKPab	02 11 28.4	+1.3
	comp=Z,174nm,0.8s,baz=116,slow=2.1,SNR=48						
LVC				PP	PP	02 15 08.5	-0.1
	comp=Z,22nm,1.1s,baz=116,slow=5.0,SNR=7.2						
LVC	**Limon Verde**	**158.58**	**229**	*e*PKPdf	PKPdf	02 10 52.7	-1.4
LVC				*e*PKPab	PKPab	02 11 27.7	+0.6
LVC				LR	LR		
	comp=Z,2µm,20.0s,MS5.8						
LPAZ	**La Paz**	**160.93**	**246**	PKPdf	PKPdf	02 10 55.4	-1.4
LPAZ				PKPab	PKPab	02 11 38.4	+1.1
LPAZ	**La Paz**	**160.93**	**246**	PKP	PKPdf	02 10 55.6	-1.2
	comp=Z,26nm,1.0s,baz=64,slow=2.3,SNR=41						
LPAZ				PKPab	PKPab	02 11 38.6	+1.3
	comp=Z,100nm,0.9s,baz=108,slow=4.6,SNR=39						
LPAZ	**La Paz**	**160.93**	**246**	*e*PKPdf	PKPdf	02 10 55.5	-1.3
LPAZ				*e*PKPab	PKPab	02 11 38.2	+0.9
LPAZ				LR	LR		
	comp=Z,2µm,21.0s						
ROSC	**El Rosal**	**161.79**	**319**	PKP	PKPdf	02 10 56.3	-1.5
	comp=Z,46nm,0.8s,baz=129,slow=3.3,SNR=24						
ROSC				PKPab	PKPab	02 11 42.0	+0.8
	comp=Z,30nm,0.6s,baz=101,slow=9.2,SNR=7.1						
OTAV	**Otavalo**	**167.95**	**319**	*e*PKPdf	PKPdf	02 11 01.2	-2.0
OTAV				*e*PKPab	PKPab	02 12 09.4	+1.3
OTAV				LR	LR		
	comp=Z,3µm,22.0s						
NNA	**Nana**	**170.30**	**252**	*e*PKPdf	PKPdf	02 11 01.1	-3.4
NNA				LR	LR		
	comp=Z,728nm,22.0s						
PAYG	**Puerto Ayora**	**170.76**	**26**	PFAKE		02 11 10.0	+5.2
PAYG				LR	LR		
	comp=Z,3µm,21.0s						

IDC ***29*** *01:58:58.0±7.4, 12.74N×92.54E, mb4.2/6, mb1 4.4/6, mb1mx4.0/17, mbtmp4.2/6, Error ellipse: s-maj=210.5km s-min=61.9km az=0.0*

ISC 29 01:58:59.1±5.0**, 12.1N**±0.8×**92.3E**±0.3**, h33^{km}, n8,** σ**0^{s}97**/8**,**
mb4.1/6**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.05**	**45**	Pn	**P**	**02 01 10.7**	**+0.3**
	0.8nm,0.3s,baz=212,slow=15,SNR=4.6						
BRTR	**Keskin Array B**	**58.31**	**309**	P	**P**	**02 08 54.1**	**+0.9**
	1.8nm,0.7s,mb4.2,baz=111,slow=5.4,SNR=5.0						
FINES	**FINESS Array B**	**68.15**	**332**	P	**P**	**02 09 56.5**	**-1.2**
	2.0nm,0.9s,mb4.2,baz=121,slow=8.1,SNR=3.0						
ARCES	**ARCESS Array B**	**70.70**	**340**	P	**P**	**02 10 12.1**	**-1.1**
	2.8nm,0.8s,mb4.3,baz=100,slow=7.2,SNR=10						
GERES	**GERESS Array B**	**73.48**	**318**	P	**P**	**02 10 29.9**	**-0.2**
	1.3nm,0.6s,mb4.0,baz=90,slow=5.3,SNR=6.4						
KHC	**Kasperske Hory**	**73.56**	**318**	*e*P	**P**	**02 10 25.0**	**-5.6**
NOA	**NORSAR Array B**	**75.18**	**330**	P	**P**	**02 10 41.4**	**+1.7**
	1.9nm,0.9s,mb4.0,baz=96,slow=5.6,SNR=3.1						
ILAR	**Eielson Array**	**91.56**	**22**	P	**P**	**02 12 03.1**	**-0.3**
	0.7nm,1.0s,mb4.0,baz=310,slow=4.9,SNR=3.4						

IDC ***29*** *02:00:15.4±7.6, 8.88N×93.81E, mb4.1/8, mb1 4.2/9, mb1mx4.0/19, mbtmp4.1/9, ML4.3/1, Error ellipse: s-maj=178.3km s-min=43.6km az=143.0*

ISC 29 02:00:22.9±4.5**, 9.5N**±0.6×**93.5E**±0.3**, h33^{km}, n10,**
σ**0^{s}62**/10**, mb4.2**/9**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.34**	**30**	Pn	**P**	**02 02 51.6**	**-0.6**
	0.7nm,0.3s,baz=205,slow=14,SNR=2.9						
POO	**Poona**	**21.06**	**297**⇓	*i*P	**P**	**02 05 06.0**	**-0.6**
	70nm,1.0s,mb5.0						
POO				*i*		02 10 48.5	
SONM	**Songino Array**	**39.73**	**14**	P	**P**	**02 07 54.3**	**+0.4**
	1.4nm,0.9s,mb3.7,baz=180,slow=8.6,SNR=2.6						
ZAL	**Zalesovo**	**44.86**	**353**	P	**P**	**02 08 35.8**	**+0.1**
	3.7nm,0.7s,mb4.3,baz=214,slow=8.5,SNR=6.7						
BVAR	**Borovoye Array**	**47.26**	**341**	P	**P**	**02 08 55.9**	**+1.2**
	15nm,1.2s,mb4.8,baz=143,slow=8.9,SNR=5.0						
BRTR	**Keskin Array B**	**60.90**	**310**	P	**P**	**02 10 34.8**	**-0.1**
	1.4nm,0.6s,mb4.3,baz=131,slow=6.1,SNR=4.1						
FINES	**FINESS Array B**	**70.99**	**332**	P	**P**	**02 11 38.6**	**-0.4**
	1.2nm,0.8s,mb3.9,baz=90,slow=4.2,SNR=3.4						
ARCES	**ARCESS Array B**	**73.53**	**340**	P	**P**	**02 11 53.9**	**0.0**
	8.0nm,1.1s,mb4.6,baz=100,slow=5.5,SNR=6.2						
GERES	**GERESS Array B**	**76.20**	**318**	P	**P**	**02 12 10.6**	**+0.9**
	1.1nm,0.8s,mb3.8,baz=108,slow=6.2,SNR=3.9						
NOA	**NORSAR Array B**	**78.02**	**330**	P	**P**	**02 12 18.8**	**-0.7**
	0.8nm,0.8s,mb3.7,baz=24,slow=6.1,SNR=2.9						

SYO ***29*** *02:13:25.2, 13.28N×92.63E, h10^{km}, MB5.4*
MOS ***29*** *02:13:27.0±1.1, 13.28N×92.62E, h33^{km}, mb5.6/53, Error ellipse: s-maj=9.0km s-min=4.7km az=122.4*
NEIC ***29*** *02:13:28.4±0.3, 13.30N×92.66E, h30^{km}, mb5.4/49, Error ellipse: s-maj=8.1km s-min=6.4km az=18.0*
CSEM ***29*** *02:13:29.9, 13.75N×92.53E, h33^{km}, mb5.7*
BJI ***29*** *02:13:30.3, 13.45N×92.63E, h26^{km}, mB6.3, mb4.9, Ms5.3, Msz5.0*
IDC ***29*** *02:13:30.6±1.6, 13.11N×92.62E, h49^{km}±13^{km}, mb4.8/29, mb1 4.9/29, mb1mx4.8/30, mbtmp5.1/29, MS4.9/3, Ms1 5.0/3, ms1mx4.1/28, Error ellipse: s-maj=17.5km s-min=8.2km az=45.0*

ISC 29 02:13:25.8±0.2**, 13.19N**±0.04×**92.60E**±0.03**, h26^{km},**
h26^{km}±1.4^{km}**:pP-P, n327,** σ**1^{s}05**/328**, mb5.3**/100**, MS5.1**/10**,**
12C-33D, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

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NST   Nakhon Sawan       7.70  70   P     Pn    02 15 20.0 +0.7
CM31  Chiang Mai Arr     8.04  49  eP     P     02 15 22.7 -1.3
      37nm,0.6s
CMAR  Chiang Mai Arr     8.04  49   P     P     02 15 22.4 -1.6
      2.6nm,0.3s,baz=238,slow=15,SNR=26
CMAR                                S     Sn    02 16 50.4 -4.7
      8.3nm,0.3s,baz=238,slow=28,SNR=12
CMAR                                LR    LR    02 18 55.0
      comp=Z,4µm,20.2s,baz=240,slow=40
SNG   Songkhla           9.90 126   P     P     02 15 51.0 +1.2
      142nm,1.0s
VIS   Vishakhapatnam    10.01 298  eP     P     02 15 42.7 -8.6
VIS                                eS     x     02 17 15.2
VIS                                e      Sn    02 17 35.3 -8.4
      comp=N,2µm,0.4s
VIS                                e            02 17 35.4
      comp=E,2µm,0.5s
BOK   Bokaro            12.31 330  eP     P     02 16 13.8 -8.9
SHL   Shillong          12.33 357  eP     P     02 16 19.1 -3.7
BLSP  Bilaspur          13.35 313  eP     P     02 16 30.5 -5.9
BLSP                               e            02 16 36.3
      comp=Z,99nm,0.6s
BLSP                               e            02 18 29.5
HYB   Hyderabad         14.18 289  eP     P     02 16 45.0 -2.5
HYB                                eS     S     02 19 10.0  -15
HYB   Hyderabad         14.18 289  i P    P     02 16 45.0 -2.5
HYB                                eS     S     02 19 10.0  -15
KOD   Kodaikanal        15.11 260  e      P     02 16 55.5 -4.1
NGP   Nagpur            15.16 303⇓e      P     02 16 59.6 -0.7
NGP                                eS     S     02 19 28.8  -19
KMI   Kunming           15.24  37   P     P     02 17 05.0 +3.8
PKI   Pulchoki          15.81 336  eP     P     02 17 06.1 -2.4
GUN   Gumba             15.93 338  eP     P     02 17 10.0 -0.1
      comp=Z,198nm,0.8s
DMN   Daman             15.96 335  eP     P     02 17 07.9 -2.6
      comp=Z,160nm,0.6s
TRD   Trivandrum        16.05 255  e      P     02 17 04.7 -7.0
TRD                                e            02 17 19.3
      comp=Z,322nm,1.3s
TRD                                e            02 19 42.5
KKN   Kakani            16.05 336  eP     P     02 17 10.2 -1.5
      comp=Z,83nm,0.5s
LATR  Latur             16.28 291⇓i      P     02 17 15.0 +0.4
LATR                               eS     S     02 20 00.0  -14
LSA   Lhasa             16.48 356  eP     P     02 17 15.3 -1.8
LSA                                 pmax  pmax
      comp=Z,42nm,0.7s
LSA   Lhasa             16.48 356  eP     P     02 17 15.3 -1.8
      comp=Z,42nm,0.7s
GKN   Gorkha            16.50 334  eP     P     02 17 15.9 -1.5
      comp=Z,124nm,0.5s
AKL   Akola             16.66 299⇑i      P     02 17 22.6 +3.1
      comp=Z,312nm,1.3s
AKL                                eS     S     02 20 06.1  -17
KOLN  Koldanda          16.76 331  eP     P     02 17 19.9 -0.8
      comp=Z,236nm,0.6s
MNGI  Mangalore         17.32 271  eP     P     02 17 26.4 -1.3
BHPL  Bhopal            17.52 307  eP     P     02 17 24.8 -5.5
BHPL                               e            02 17 36.3
      comp=Z,338nm,1.4s
BHPL                               e      S     02 20 35.0 -7.5
QIZ   Qiongzhong        17.55  68   P     P     02 17 33.0 +2.4
KAD   Karad             18.23 285  eP     P     02 17 35.1 -4.0
KAD                                e            02 17 44.2
      comp=Z,232nm,1.6s
KAD                                i S    S     02 20 45.7  -13
GOA   Goa               18.33 279  e      P     02 17 45.4 +5.1
GYA   Guiyang           18.66  43⇑iP     P     02 17 45.3 +1.0
GYA                                 AP          02 17 54.3
GYA                                 XP          02 17 56.5
GYA                                 AMB   AMB
      comp=Z,40nm,0.7s
GYA                                 LR    LR
      comp=N,970nm,15.6s
GYA                                 LR    LR
      comp=E,1µm,16.2s
GYA                                 LR    LR
      comp=Z,1µm,16.0s
POO   Poona             18.80 289  e      P     02 17 46.1 +0.2
POO                                e            02 17 50.2
      comp=Z,190nm,1.6s
POO                                eS     S     02 20 59.3  -12
PTH   Pithoragarh       19.92 327  e      P     02 17 59.2 +0.5
PTH                                e            02 21 23.3
CD2   Chengdu           20.41  28   P     P     02 18 04.5 +0.6
CD2                                 AMB   AMB
      comp=Z,60nm,0.5s
AJM   Ajmer             21.41 311  i      P     02 18 15.0 +0.9
DDI   Dehra Dun         21.71 324  e      P     02 18 18.3 +1.3
DDI                                e      S     02 22 13.5 +2.6
SMLA  Simla             22.82 324⇓i            02 18 43.7
      comp=Z,617nm,2.0s
SMLA                               i            02 22 57.0
ENH   Enshi             23.08  40  eP     P     02 18 30.6 -0.1
      comp=Z,278nm,1.2s,mb5.6
SDNR  Sundarnagar       23.21 324  e      P     02 18 34.6 +2.7
SDNR                               e      S     02 22 50.8  +13
DLH   Dalhousie         24.55 324  eP     P     02 18 45.0 +0.1
THN   Thein Dam         24.61 324  eP     P     02 18 44.9 -0.6
      comp=Z,32nm,0.6s,mb5.0
THN                                e      S     02 23 22.2  +20
LZH   Lanzhou           24.94  22  eP     P     02 18 50.3 +1.6
LZH                                 AMB   AMB
      comp=Z,60nm,1.3s,mb5.0
LZH                                 LR    LR
      comp=E,3µm,11.6s
LZH                                 LR    LR
      comp=Z,4µm,13.0s,MS5.1
XAN   Xi'an             25.51  33   P     P     02 18 54.0  0.0
XAN                                 AP    pP    02 19 02.0 +0.5
XAN                                 AMB   AMB
      comp=Z,40nm,0.6s,mb5.1
WHN   Wuhan             26.48  46  eP     P     02 19 03.8 +0.8
GTA   Gaotai            26.88  12 ⇓P     P     02 19 07.8 +1.2
GTA                                 AP    pP    02 19 14.8 +0.7
GTA                                 XP    sP    02 19 18.0 +0.5
GTA                                 PP    PP    02 19 54.5 +2.3
GTA                                 PPP   PPP   02 20 06.5 +2.3
GTA                                 PCP   PcP   02 22 29.5 +0.4
GTA                                 S     S     02 23 43.5 +3.6
GTA                                 XS          02 23 55.3
GTA                                 SCP         02 26 06.0
GTA                                 PCS         02 26 09.8
GTA                                 SCS   ScS   02 29 56.0 +0.3
GTA                                 AMB   AMB
      comp=Z,74nm,1.1s,mb5.1
GTA                                 AMB   AMB
      comp=Z,6µm,10.3s
GTA                                 LR    LR
      comp=N,5µm,21.3s,MS5.1
GTA                                 LR    LR
      comp=E,5µm,23.6s,MS5.1
GTA                                 LR    LR
      comp=Z,5µm,19.8s,MS5.0
KSH   Kashi             30.05 334   P     P     02 19 36.5 +1.3
KSH                                eAP    pP    02 19 43.5 +0.8
KSH                                 XP    sP    02 19 47.5 +1.4
KSH                                 AMB   AMB
      comp=Z,2µm,9.0s
NJ2   Nanjing           30.52  48  eP     P     02 19 40.0 +0.6
NJ2                                 AP    pP    02 19 49.0 +2.1
NJ2                                 XP    sP    02 19 54.0 +3.7
NJ2                                 PP    PP    02 20 40.0 +0.4
NJ2                                 S     S     02 24 38.0 -0.1
NJ2                                 AMB   AMB
      comp=Z,110nm,1.1s,mb5.6
NJ2                                 AMB   AMB
      comp=Z,6µm,9.1s
NJ2                                 LR    LR
      comp=N,8µm,11.5s,MS5.7
NJ2                                 LR    LR
      comp=E,5µm,13.5s,MS5.7
NJ2                                 LR    LR
      comp=Z,8µm,15.3s,MS5.5
WMQ   Urumqi            30.81 353 ⇓P     P     02 19 42.5 +0.6
WMQ                                 AMB   AMB
      comp=Z,32nm,1.1s,mb5.1
WMQ                                 LR    LR
      comp=N,2µm,22.6s,MS5.0
WMQ                                 LR    LR
      comp=E,3µm,21.0s,MS5.0
WMQ                                 LR    LR
      comp=Z,2µm,21.8s,MS4.7
HHC   Hu-ho-hao-te      32.17  28 ⇑P     P     02 19 54.3 +0.5
HHC                                 PP    PP    02 21 00.0 -1.0
HHC                                 S     S     02 25 06.3 +2.4
HHC                                 PCS         02 26 26.8
HHC                                 SS    SS    02 26 56.3 -1.9
HHC                                 AMB   AMB
      comp=Z,21nm,0.8s,mb5.0
HHC                                 AMB   AMB
      comp=Z,5µm,9.4s
HHC                                 LR    LR
      comp=N,2µm,14.3s,MS5.3
HHC                                 LR    LR
      comp=E,4µm,11.9s,MS5.3
HHC                                 LR    LR
      comp=Z,2µm,14.3s,MS5.0
KZA   Kyzart            32.49 336   P     P     02 19 57.0 +0.4
      SNR=8.9
UCH   Uchtor            32.91 335   P     P     02 20 01.6 +1.3
      SNR=11
TKM2  Tokmak 2          33.07 337   P     P     02 20 02.3 +0.7
      SNR=11
KBK   Karagaybulak      33.10 336   P     P     02 20 03.3 +1.4
      SNR=20
AML   Almayashu         33.18 334   P     P     02 20 04.0 +1.4
      SNR=23
AAK   Ala-Archa         33.26 335   P     P     02 20 04.7 +1.4
      SNR=19
AAK   Ala-Archa         33.26 335⇓iP     P     02 20 01.0 -2.3
CHMS  Chumysh           33.46 336   P     P     02 20 05.6 +0.5
      SNR=14
EKS2  Erkin-Say         33.58 335   P     P     02 20 07.4 +1.4
      SNR=22
USP   Ospenovka         33.79 336   P     P     02 20 08.5 +0.7
      SNR=34
BJT   Baijiatuau        33.82  33  eP     P     02 20 09.1 +0.9
BJT                                 pmax  pmax
      comp=Z,13nm,0.8s
BJT   Baijiatuau        33.82  33  eP     P     02 20 09.1 +1.0
      comp=Z,12nm,0.8s,mb4.9
BJI   Beijing           33.84  33   P     P     02 20 09.5 +1.2
BJI                                 AMB   AMB
      comp=Z,16nm,0.9s,mb5.0
JOW   Kunigami          36.02  62   P     P     02 20 28.5 +1.3
      comp=Z,17nm,0.3s,mb5.4,baz=260,slow=24,SNR=3.6
SONM  Songino Array     36.41  16   P     P     02 20 31.0 +0.9
      comp=Z,15nm,0.7s,mb5.0,baz=205,slow=7.3,SNR=55
SONM                                PcP   PcP   02 22 53.9 -0.5
      comp=Z,2.1nm,0.8s,baz=190,slow=2.7,SNR=4.4
ULN   Ulaanbaatar       36.61  16⇓iP     P     02 20 30.1 -1.8
ZAK   Zakamensk         38.10  11⇑iP     P     02 20 45.1 +0.7
ZAK                                e            02 22 20.5
ZAK                                e            02 23 00.2
MOY   Mondy             38.97   8  eP     P     02 20 52.8 +1.2
SNY   Shenyang          39.22  37 ⇓P     pP    02 21 00.8 -0.7
TLY   Talaya            39.41  11⇑iP     P     02 20 53.9 -1.4
KS15  Wonju Array Si    39.64  46  eP     P     02 20 56.9 -0.5
ZAL   Zalesovo          41.11 353   P     P     02 21 09.6 +0.3
      comp=Z,16nm,0.6s,mb4.9,baz=211,slow=8.8,SNR=58
ZAL                                 LR    LR    02 40 01.2
      comp=Z,2µm,18.9s,MS5.0,baz=330,slow=39
HASS  Wahat al Ahsa'    42.07 293   P     P     02 21 18.8 +1.3
NVS   Novosibirsk       42.20 352  eP     P     02 21 16.6 -1.5
NVS                                i            02 23 36.9
NVS                                eS     S     02 27 32.9 -3.5
NVS                                 pmax  pmax
      comp=Z,28nm,1.1s,mb4.8
NVS                                 smax
      comp=N,23nm,2.2s
NVS                                 smax
      comp=E,50nm,2.2s
HIA   Hailar            42.35  26  eP     P     02 21 20.0 +0.5
HIA                                 pmax  pmax
      comp=Z,18nm,1.1s
HIA   Hailar            42.35  26  eP     P     02 21 20.0 +0.6
      comp=Z,18nm,1.1s,mb4.6
MBWA  Marble Bar        43.31 142  eP     P     02 21 26.2 -1.5
      comp=Z,42nm,1.2s,mb5.0
BVAR  Borovoye Array    43.50 341   P     P     02 21 28.9 +0.2
      comp=Z,9.2nm,0.5s,mb4.7,baz=138,slow=8.8,SNR=27
BVAR                                ScP         02 27 05.5
      comp=Z,2.7nm,1.0s,baz=45,slow=2.1,SNR=3.6
BRVK  Borovoye          43.56 341⇓iP     P     02 21 26.8 -2.5
CHKZ  Chkalovo          43.98 341  eP     P     02 21 32.9 +0.2
CHKZ                                pmax  pmax
      comp=Z,53nm,0.6s,mb5.5
CHKZ  Chkalovo          43.98 341  eP     P     02 21 32.9 +0.3
      comp=Z,53nm,0.6s,mb5.5
QRN   Al-Qurain         44.23 298  eP     P     02 21 35.3 +0.2
QRN                                 AMb   AMB   02 21 37.3
      comp=Z,221nm,1.6s,mb5.6
RDF   Al-Radifah        44.58 298  eP     P     02 21 38.7 +0.9
RDF                                 AMb   AMB   02 21 42.5
      comp=Z,132nm,1.1s,mb5.7
RYDS  Riyadh            44.71 291   P     P     02 21 40.4 +1.4
MIB   Mutribah          44.93 299  eP     P     02 21 40.8 +0.1
MIB                                 AMb   AMB   02 21 42.8
      comp=Z,106nm,0.9s,mb5.7
RST   Umm Al-Ruwaisa    45.16 299  eP     P     02 21 43.0 +0.5
RST                                 AMb   AMB   02 21 44.9
      comp=Z,96nm,1.1s,mb5.6
MZLS  Mizel             46.00 291   P     P     02 21 50.2 +1.0
MAJO  Matsushiro        46.91  52  eP     P     02 21 56.8 +0.5
MAJO                                pmax  pmax
      comp=Z,13nm,0.6s,mb5.0
MAJO  Matsushiro        46.91  52  eP     P     02 21 56.8 +0.5
      comp=Z,13nm,0.6s,mb5.0
MAT   Matsushiro        46.91  52   P     P     02 21 56.8 +0.5
MAT   Matsushiro        46.91  52  eP     P     02 21 57.0 +0.7
MAT                                 pmax  pmax
      comp=Z,65nm,1.3s,mb5.4
MAT   Matsushiro        46.91  52  eP     P     02 21 57.0 +0.7
      comp=Z,65nm,1.3s,mb5.4
BOD   Bodaibo           47.40  15  eP     P     02 21 59.4 -0.5
TATS  Tathlith          47.43 284   P     P     02 22 01.6 +1.1
ARSS  Ar Rass           47.94 293   P     P     02 22 04.6  0.0
AFFS  'Afif             48.00 290   P     P     02 22 05.9 +0.9
KLR   Kul'dur           48.21  34  eP     P     02 22 04.7 -1.6
FRSS  Farasan al Kab    48.80 281   P     P     02 22 13.3 +2.0
HILS  Ha'il             49.38 295   P     P     02 22 16.5 +0.9
GNI   Garni             49.72 312   P     P     02 22 19.6 +1.6
      comp=Z,66nm,1.1s,mb5.6,baz=43,slow=1.7,SNR=69
SVE   Sverdlovsk        49.93 338⇓iP     P     02 22 20.0 +0.6
SVE                                e            02 23 40.0
SVE                                e            02 24 19.0
SVE                                eS     S     02 29 29.0 +2.1
SVE                                 pmax  pmax
      comp=Z,250nm,2.0s,mb5.9
CLNS  Chul'man          50.06  23  eP     P     02 22 20.7 +0.3
CLNS                                pmax  pmax
      comp=Z,18nm,0.7s,mb5.2
CLNS                                pmax  pmax
      comp=N,13nm,0.8s
CLNS                                pmax  pmax
      comp=E,9.0nm,0.8s
TI2   Plekhanov         50.24 314⇓iP     P     02 22 23.2 +1.2
TI2                                 pmax  pmax
      comp=Z,1µm,0.8s
ARU   Arti              50.44 336  eP     P     02 22 19.5 -3.8
ZEI   Tsey              51.19 315  i P    P     02 22 30.9 +1.7
ZEI                                 pmax  pmax
      comp=Z,42nm,1.1s,mb5.3
KBRS  Khaybar           51.51 292   P     P     02 22 32.9 +1.1
NWAO  Narrogin (SRO)    51.55 153  eP     P     02 22 30.6 -1.4
NWAO                                pmax  pmax
      comp=Z,27nm,0.6s
NWAO  Narrogin (SRO)    51.55 153   P     P     02 22 31.5 -0.5
      comp=Z,27nm,0.4s,mb5.5,baz=320,slow=7.2,SNR=54
NWAO  Narrogin (SRO)    51.55 153  eP     P     02 22 30.6 -1.5
      comp=Z,27nm,0.6s,mb5.3
BEST  Besiri            51.67 308  i P    P     02 22 33.3 +0.4
ERZM  Erzurum           52.12 311  i P    P     02 22 37.8 +1.6
KIV   Kislovodsk        52.42 316   P     P     02 22 39.8 +1.3
      comp=Z,514nm,0.9s,SNR=32
KIV   Kislovodsk        52.42 316  eP     P     02 22 35.5 -3.0
KIV                                 pmax  pmax
      comp=Z,81nm,1.0s,mb5.6
KIV   Kislovodsk        52.42 316⇓iP     P     02 22 35.4 -3.1
ASAJ  Asahikawa         52.54  44   P     P     02 22 40.7 +1.4
      comp=Z,18nm,0.9s,mb5.0,baz=210,slow=12,SNR=4.8
GOF   Gofitskoye        52.58 317⇓iP     P     02 22 40.0 +0.4
GOF                                 pmax  pmax
      comp=Z,40nm,1.3s,mb5.2
WRA   Warramunga Arr    52.64 128   P     P     02 22 39.0 -1.5
      comp=Z,65nm,0.6s,mb5.8,baz=303,slow=9.7,SNR=262
WRA                                 PcP   PcP   02 23 50.2  0.0
      comp=Z,6.0nm,0.4s,baz=318,slow=3.1,SNR=9.0
WRA                                 ScP         02 27 44.3
      comp=Z,6.2nm,0.9s,baz=315,slow=4.0,SNR=8.1
WRA                                 S     S     02 30 01.3 -3.3
      comp=Z,14nm,1.1s,baz=299,slow=15,SNR=17
WRAB  Tennant Creek     52.64 128  eP     P     02 22 39.1 -1.4
WRAB                                pmax  pmax
      comp=Z,164nm,0.6s,mb6.1
WRAB  Tennant Creek     52.64 128  eP     P     02 22 39.1 -1.3
      comp=Z,164nm,0.6s,mb6.1
SOKR  Solikamsk         53.33 338⇓iP     P     02 22 42.3 -2.7
SOKR                                pmax  pmax
      comp=Z,70nm,1.5s,mb5.4
SOKR                                MLR   MLR
      comp=Z,1µm,18.0s,MS5.0
ELZG  Elazig            53.56 308  i P    P     02 22 47.5 +0.6
YSS   Yuzh-Sakhalins    53.65  41  eP     P     02 22 44.8 -2.7
MALT  Malatya           53.95 308  eP     P     02 22 50.1 +0.3
MALT                                pmax  pmax
      comp=Z,86nm,1.4s,mb5.5
MALT  Malatya           53.95 308  eP     P     02 22 50.1 +0.3
      comp=Z,86nm,1.4s,mb5.5
SOC   Sochi             54.35 315  i P    P     02 22 52.3 -0.3
SOC                                 pmax  pmax
      comp=Z,77nm,1.1s,mb5.5
SOC                                 pmax  pmax
      comp=N,16nm,0.7s
SOC                                 pmax  pmax
      comp=E,39nm,1.6s
GZT   Gaziantep         54.42 307  i P    P     02 22 53.6 +0.3
ASAR  Alice Springs     54.53 132   P     P     02 22 53.1 -1.2
      comp=E,42nm,0.6s,mb5.6,baz=308,slow=6.7,SNR=392
ASAR                                ScP         02 27 53.1
      comp=E,8.5nm,0.9s,baz=312,slow=4.5,SNR=14
ASAR                                S     S     02 30 27.2 -2.9
      comp=E,6.7nm,0.9s,baz=300,slow=13,SNR=12
KAHT  Ahir Dag          55.02 307  i P    P     02 22 58.0 +0.3
MKRJ  Makawir           55.15 299   P     P     02 22 58.9 +0.2
KSHT  Keshet            55.16 301   P     P     02 22 59.2 +0.4
MZDA  Masada            55.36 299   P     P     02 23 00.6 +0.3
DRGI  Dragot            55.36 299   P     P     02 23 00.5 +0.2
MMLI  Mount Malkishu    55.43 300   P     P     02 23 01.4 +0.7
YAK   Yakutsk           55.51  20  eP     P     02 22 59.8 -1.1
YAK                                 pmax  pmax
      comp=Z,14nm,0.8s,mb5.0
YAK   Yakutsk           55.51  20  eP     P     02 22 57.1 -3.8
EIL   Elat              55.58 297   P     P     02 23 01.7 -0.1
      comp=Z,13nm,0.8s,mb5.0,baz=51,slow=7.0,SNR=18
EIL   Elat              55.58 297  eP     P     02 23 01.6 -0.3
      comp=Z,13nm,0.7s,mb5.1
PRNI  Paran             55.58 298   P     P     02 23 02.0 +0.1
HNTI  Hanita            55.71 301   P     P     02 23 03.3 +0.6
SLTI  Sal'it            55.73 300   P     P     02 23 03.3 +0.4
HAF   Haifa             55.80 301   P     P     02 23 03.6 +0.2
OFRI  'Ofer             55.81 301   P     P     02 23 03.9 +0.4
MASH  Mash'abbe Sade    55.83 299   P     P     02 23 03.6  0.0
KZIT  Kziot             56.15 298   P     P     02 23 05.9  0.0
KMBO  Kilima Mbogo      56.68 260   LR    LR    02 45 19.3
      comp=Z,1µm,18.8s,MS5.1,baz=228,slow=34
AVNT  Avonos            56.79 308  i P    P     02 23 10.1 -0.3
VRSR  Storozhevoye      57.22 323  eP     P     02 23 11.3 -2.0
VRSR                                pmax  pmax
      comp=Z,70nm,1.5s,mb5.5
VRSR                                pmax  pmax
      comp=N,20nm,1.2s
VRSR                                pmax  pmax
      comp=E,40nm,1.3s
BOYT  Boyabat           57.25 311  i P    P     02 23 12.7 -1.0
CSS   Prodhromos        57.44 303  eP     P     02 23 14.2 -1.0
      comp=E,116nm,1.6s,mb5.7
BRTR  Keskin Array B    57.88 309   P     P     02 23 17.1 -0.9
      comp=E,16nm,0.8s,mb5.1,baz=127,slow=6.2,SNR=63
ELDT  Eldivan           58.17 310  i P    P     02 23 19.4 -0.7
BALT  Daday             58.40 311  i P    P     02 23 20.7 -0.9
SIM   Simferopol'       58.59 315⇓eP     P     02 23 22.9  0.0
SIM                                 pmax  pmax
      comp=Z,72nm,1.4s,mb5.5
PMG   Port Moresby      58.64 110  eP     P     02 23 23.0 -0.7
PMG                                 pmax  pmax
      comp=Z,57nm,0.9s
PMG   Port Moresby      58.64 110   P     P     02 23 23.6 -0.2
      comp=Z,49nm,0.9s,mb5.5,baz=294,slow=4.0,SNR=16
PMG   Port Moresby      58.64 110  eP     P     02 23 22.9 -0.8
      comp=Z,57nm,0.9s,mb5.6
SGKT  Sivrigoynuk       59.22 309  i P    P     02 23 23.4 -4.0
MOS   Moscow            59.79 328  eP     P     02 23 30.2 -0.9
MOS                                e            02 25 43.4
MOS                                 pmax  pmax
      comp=Z,158nm,1.6s,mb5.8
ESKT  Eskisehir         59.98 308  i P    P     02 23 31.4 -1.3
ISP   Isparta           60.03 306  eP     P     02 23 32.1 -1.0
ISP                                 pmax  pmax
      comp=Z,60nm,1.1s,mb5.5
ISP   Isparta           60.03 306  eP     P     02 23 32.1 -1.0
      comp=Z,60nm,1.1s,mb5.5
OBN   Obninsk           60.11 327κ iP     P     02 23 32.4 -1.0
OBN                                i      pP    02 23 40.6 -0.7
OBN                                             02 24 18.0
OBN                                eS     S     02 31 41.0 -2.2
OBN                                             02 33 17.0
OBN                                 SS    SS    02 35 44.0 +2.6
OBN                                 pmax  pmax
      comp=Z,25nm,1.5s,mb5.0
OBN                                 MLR   MLR
      comp=Z,1µm,18.0s,MS5.1
OBN   Obninsk           60.11 327⇓iP     P     02 23 30.3 -3.1
HENT  Hendek            60.13 310  i P    P     02 23 31.1 -2.6
CTA   Charters Tower    62.28 121   P     P     02 23 48.1 -0.4
      comp=Z,43nm,1.0s,mb5.5,baz=300,slow=7.1,SNR=24
CTAO  Charters Tower    62.28 121  eP     P     02 23 47.3 -1.2
CTAO                                pmax  pmax
      comp=Z,79nm,1.2s,mb5.7
CTAO  Charters Tower    62.28 121  eP     P     02 23 47.3 -1.2
      comp=Z,79nm,1.2s,mb5.7
TIXI  Tiksi             62.37  12⇓iP     P     02 23 47.4 -1.0
TIXI                                pmax  pmax
      comp=Z,70nm,1.5s,mb5.6
TIXI  Tiksi             62.37  12  i P    P     02 23 44.6 -3.8
TIRR  Tirgusor          62.48 313   P     P     02 23 49.3 -0.2
CFR   Carcaliu          62.79 314⇓iP     P     02 23 51.3 -0.2
MBAR  Mbarara           62.81 262  eP     P     02 23 51.9 -0.2
MBAR                                pmax  pmax
      comp=Z,16nm,0.9s,mb5.2
MBAR  Mbarara           62.81 262  eP     P     02 23 51.9 -0.2
      comp=Z,16nm,0.9s,mb5.1
MA2   Magadan           62.83  29⇓iP     P     02 23 48.8 -2.8
HARR  Harsova           62.86 314⇓iP     P     02 23 51.8 -0.2
PRD   Provadia          63.04 312   P     P     02 23 52.0 -1.2
AKASG Malin Array Be    63.09 320   P     P     02 23 52.2 -1.2
      comp=Z,7.0nm,0.7s,mb4.9,baz=89,slow=4.6,SNR=66
VRI   Vrincioaia        63.87 315⇓iP     P     02 23 59.2 +0.6
ISR   Istrita           63.90 314⇓iP     P     02 24 00.0 +1.2
KDZ   Kurdzhali         64.33 310   P     P     02 24 01.0 -0.7
MLR   Muntele Rosu      64.36 314   P     P     02 24 02.6 +0.7
      comp=Z,107nm,1.2s,mb5.8,baz=40,slow=1.4,SNR=17
MLR   Muntele Rosu      64.36 314⇓iP     P     02 24 02.1 +0.2
IDI   Anoyia            64.36 303   P     P     02 24 01.0 -1.1
      comp=Z,21nm,1.2s,mb5.0,baz=111,slow=7.6,SNR=5.7
MNK   Minsk             64.76 324⇓eP     P     02 24 02.0 -2.3
MNK                                 pmax  pmax
      comp=Z,280nm,1.1s,mb6.2
RZN   Rozhen            64.86 310  i P    P     02 24 05.0 -0.1
STKA  Stephens Creek    64.88 135   P     P     02 24 04.9 -0.6
      comp=Z,28nm,1.0s,mb5.2,baz=314,slow=6.5,SNR=28
STKA  Stephens Creek    64.88 135  eP     P     02 24 04.6 -0.9
MTUR  Matau             64.95 314   P     P     02 24 06.2 +0.5
VTS   Vitosha           66.04 311  i P    P     02 24 12.0 -0.7
KKB   Krupnik           66.09 310  i P    P     02 24 11.0 -2.0
VSU   Vasula            66.28 328⇓iP     P     02 24 12.3 -1.7
APA   Apatity           66.37 339⇑iP     P     02 24 13.5 -0.9
APA                                 pmax  pmax
      comp=Z,39nm,1.1s,mb5.3
APA                                 MLR   MLR
      comp=Z,2µm,17.0s,MS5.5
BOLS  Boljevac          67.04 312⇑iP     P     02 24 18.4 -0.6
KWP   Kalwaria          67.05 318  eP     P     02 24 18.3 -0.7
KWP                                 pmax  pmax
      comp=Z,83nm,1.1s,mb5.7
KWP   Kalwaria          67.05 318  eP     P     02 24 18.2 -0.8
      comp=Z,82nm,1.1s,mb5.7
KOLS  Kolonicke sedl    67.25 318  eP     P     02 24 20.8 +0.5
SKO   Skopje            67.32 310  eP     P     02 24 19.3 -1.6
FINES FINESS Array B    67.34 331   P     P     02 24 20.1 -0.5
      comp=Z,12nm,0.6s,mb5.1,baz=100,slow=6.6,SNR=105
SUW   Suwalki           67.35 323  eP     P     02 24 19.9 -0.9
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SUW                                   pmax      pmax
      comp=Z,129nm,1.1s,mb5.9
SUW   Suwalki          67.35 323  eP        P          02 24 19.9 -1.0
      comp=Z,129nm,1.1s,mb5.9
KAF   Kangasniemi      67.40 332  ep        P          02 24 19.1 -1.9
      comp=Z,20nm,0.9s,mb5.1
KAF   Kangasniemi      67.40 332  eP        P          02 24 19.1 -1.9
KAF                                   pmax      pmax
      comp=Z,20nm,0.9s,mb5.2
CRVS  Cervenica-Dubn   67.78 318  eP        P          02 24 26.1 +2.5
CRVS                              e                    02 24 41.5
CRVS  Cervenica-Dubn   67.78 318  e         P          02 24 26.1 +2.5
CRVS                              e                    02 24 41.5
GRUS  Gruza            67.94 312⇑iP        P          02 24 22.2 -2.6
KECS  Kecovo           68.39 317  eP        P          02 24 27.2 -0.2
KECS                              e                    02 24 39.4
DIVS  Divcibare        68.47 312⇑iP        P          02 24 27.4 -0.7
NIE   Niedzica         68.58 318  eP        P          02 24 29.2 +0.6
PKSN  Nyarlorinc       68.70 315  eP        P          02 24 29.9 +0.5
PSZ   Piszkesteto      68.74 316⇓eP        P          02 24 29.6  0.0
OJC   Ojcow            68.97 319  eP        P          02 24 30.9 -0.1
KEV   Kevo             69.35 340  ep        P          02 24 31.2 -1.8
      comp=Z,11nm,0.6s,mb5.0
KEV   Kevo             69.35 340  eP        P          02 24 31.2 -1.8
KEV                                   pmax      pmax
      comp=Z,11nm,0.6s,mb5.0
VYHS  Vyhne            69.48 317  i P       P          02 24 33.9 -0.3
ARCES ARCESS Array B   69.78 340   P        P          02 24 35.8 +0.1
      comp=Z,8.6nm,0.6s,mb4.8,baz=91,slow=6.5,SNR=40
SRO   Srobarova        69.80 316  i P       P          02 24 36.4 +0.3
RHK1  Bakonya          69.90 314⇑iP        P          02 24 36.5 -0.2
OKC   Ostrava-Krasne   70.01 318  eP        P          02 24 37.7 +0.3
MORC  Moravsky Berou   70.40 318  eP        P          02 24 39.6 -0.1
MORC                                  pmax      pmax
      comp=Z,82nm,1.4s,mb5.5
MORC  Moravsky Berou   70.40 318  eP        P          02 24 39.6 -0.2
      comp=Z,82nm,1.4s,mb5.5
SMOL  Smolenice        70.42 317  eP        P          02 24 40.1 +0.2
ZST   Bratislava       70.63 317  eP        P          02 24 41.2 +0.1
DPC   Dobruska-Polom   71.21 319  eP        P          02 24 45.3 +0.7
KSP   Ksiaz            71.24 319⇓eP        P          02 24 45.2 +0.4
UPC   Upice            71.41 319  eP        P          02 24 45.9 +0.1
SOI   Samo             71.45 306  eP        P          02 24 46.5 +0.2
BILL  Bilibino         71.75  22⇓iP        P          02 24 45.9 -1.7
BILL                                  pmax      pmax
      comp=Z,21nm,1.7s,mb4.8
BILL  Bilibino         71.75  22⇓iP        P          02 24 45.0 -2.6
LEGS  Legarje          71.82 314  i P       P          02 24 48.1 -0.3
BOJS  Bojanci          71.86 314  eP        P          02 24 48.3 -0.4
BSD   Bornholm Skovb   72.24 324⇑iP        P          02 24 49.2 -1.5
BSD                                   pmax      pmax
      comp=Z,2.0nm,0.4s,mb4.4
BSD   Bornholm Skovb   72.24 324⇑iP        P          02 24 49.2 -1.5
      comp=Z,2.3nm,0.4s,mb4.5
PVCC  Panska Ves       72.33 319  eP        P          02 24 52.1 +0.8
PRU   Pruhonice        72.34 318  eP        P          02 24 51.8 +0.4
      comp=Z,61nm,1.5s,mb5.3
LJU   Ljubljana        72.37 314  i P       P          02 24 51.8 +0.2
BRG   Berggiesshubel   72.73 319  i P       P          02 24 54.1 +0.4
BRG                               e         pP         02 25 01.0 -0.7
BRG                                   pmax      pmax
      comp=Z,72nm,1.4s,mb5.4
BRG   Berggiesshubel   72.73 319  i P       P          02 24 54.1 +0.4
      comp=Z,72nm,1.4s,mb5.4
BRG                               e         pP         02 25 01.0 -0.7
VOY   Vojsko           72.81 314  eP        P          02 24 53.8 -0.4
RUE   Ruedersdorf      72.85 321  eP        P          02 24 54.8 +0.4
      comp=Z,161nm,1.5s,mb5.7
GEC2  GERESS Array S   72.89 317  eP        P          02 24 55.1 +0.4
GEC2                                  pmax      pmax
      comp=Z,38nm,1.1s,mb5.2
GEC2  GERESS Array S   72.89 317  eP        P          02 24 55.1 +0.4
      comp=Z,38nm,1.1s,mb5.2
GERES GERESS Array B   72.89 317   P        P          02 24 55.0 +0.3
      comp=Z,9.6nm,0.7s,mb4.8,baz=90,slow=5.3,SNR=59
KHC   Kasperske Hory   72.97 318  eP        P          02 24 54.9 -0.2
PTCC  Patocco-Chiusa   73.17 315  eP        P          02 24 56.0 -0.4
CLL   Collm            73.33 320  eP        P          02 24 57.0 -0.1
CLL                                   pmax      pmax
      comp=Z,69nm,1.5s,mb5.4
CLL   Collm            73.33 320  eP        P          02 24 57.0 -0.1
      comp=Z,69nm,1.5s,mb5.4
CLL   Collm            73.33 320   P        P          02 24 57.0 -0.1
      comp=Z,logA/T=1.7,mb5.4
WET   Wettzell         73.43 318  eP        P          02 24 58.3 +0.5
FVI   Forni Avoltri    73.56 315  eP        P          02 24 57.9 -0.7
SNTG  Esanatoglia      73.59 311  eP        P          02 24 58.4 -0.5
MOX   Moxa             74.21 319  eP        P          02 25 01.9 -0.4
MOX                                   pmax      pmax
      comp=Z,90nm,1.9s,mb5.4
MOX   Moxa             74.21 319  i P       P          02 25 01.9 -0.4
      comp=Z,logA/T=1.7,mb5.4
MOX   Moxa             74.21 319  eP        P          02 25 01.9 -0.4
      comp=Z,90nm,1.9s,mb5.4
CTI   Castel Tesino    74.37 314  eP        P          02 25 03.4 +0.1
NB2   NORSAR Subarra   74.39 330   P        P          02 25 02.5 -0.6
      comp=Z,59nm,1.4s,mb5.3,baz=91,slow=5.8
NB2   NORSAR Subarra   74.39 330   P        P          02 25 02.5 -0.6
      baz=91,slow=5.9
NB2   NORSAR Subarra   74.39 330   P        P          02 25 02.5 -0.6
NB2                                   pmax      pmax
      comp=Z,59nm,1.4s,mb5.3
NOA   NORSAR Array B   74.39 330   P        P          02 25 02.8 -0.3
      comp=Z,5.5nm,0.5s,mb4.7,baz=91,slow=5.7,SNR=4.1
PGD   Poggio Sodo      74.44 312  eP        P          02 25 04.7 +1.0
GRA1  Grafenberg Arr   74.50 318  eP        P          02 25 04.9 +0.9
      comp=Z,88nm,1.4s,mb5.5
GRF   Grafenberg Arr   74.50 318  eP        P          02 25 04.9 +0.9
GRF                                   pmax      pmax
      comp=Z,88nm,1.4s,mb5.5
GRF   Grafenberg Arr   74.50 318  eP        P          02 25 04.9 +0.9
GRF                                   pmax      pmax
      comp=Z,88nm,1.4s,mb5.5
GRF   Grafenberg Arr   74.50 318  eP        P          02 25 04.9 +0.9
      comp=Z,88nm,1.4s,mb5.5
FUR   Furstenfeldbru   74.53 317  eP        P          02 25 04.2  0.0
NAO01 NORSAR Array S   74.55 330  eP        P          02 25 03.8 -0.2
      comp=Z,4.0nm,0.6s,mb4.5
BSEG  Bad Segeberg     74.92 323  eP        P          02 25 07.1 +0.8
CLZ   Clausthal        74.95 320  eP        P          02 25 07.1 +0.5
      comp=Z,64nm,1.3s,mb5.4
GSCL  Gusciola         75.22 313  eP        P          02 25 09.2 +0.9
MUD   Monsted U'grnd   75.49 325  i P       P          02 25 10.5 +1.0
MUD                                   pmax      pmax
      comp=Z,39nm,1.0s,mb5.3
MUD   Monsted U'grnd   75.49 325  i P       P          02 25 10.5 +1.0
      comp=Z,39nm,1.0s,mb5.3
LBTB  Lobatse          75.53 240  eP        P          02 25 11.3 +0.9
LBTB                                  pmax      pmax
      comp=Z,12nm,0.7s,mb4.9
LBTB  Lobatse          75.53 240  eP        P          02 25 11.3 +0.9
      comp=Z,12nm,0.7s,mb4.9
DAVOX Davos            75.55 315   P        P          02 25 10.2 +0.1
      comp=Z,10.0nm,1.0s,mb4.7,baz=99,slow=7.2,SNR=11
BFO   Black Forest     76.48 317  eP        P          02 25 15.0 -0.3
BFO                                   pmax      pmax
      comp=Z,40nm,1.5s,mb5.1
BFO   Black Forest     76.48 317  eP        P          02 25 15.0 -0.3
      comp=Z,40nm,1.5s,mb5.1
PGF   Pioggiola        76.53 311  eP        P          02 25 15.2 -0.5
      comp=Z,249nm,1.6s,mb5.6
PGF   Pioggiola        76.53 311  eP        P          02 25 15.2 -0.5
PGF                                   pmax      pmax
      comp=Z,125nm,1.6s,mb5.6
CDF   Champ du Feu     77.17 317  eP        P          02 25 18.7 -0.4
      comp=Z,36nm,1.2s,mb4.9
CDF   Champ du Feu     77.17 317  eP        P          02 25 18.7 -0.4
CDF                                   pmax      pmax
      comp=Z,18nm,1.2s,mb4.9
BOSA  Boshof           77.18 236  eP        P          02 25 20.3 +0.7
BOSA                                  pmax      pmax
      comp=Z,14nm,0.7s,mb5.0
BOSA  Boshof           77.18 236  eP        P          02 25 20.3 +0.6
      comp=Z,14nm,0.7s,mb5.0
HAU   Haudompre        77.83 317  eP        P          02 25 22.4 -0.4
      comp=Z,173nm,1.7s,mb5.4
HAU   Haudompre        77.83 317  eP        P          02 25 22.4 -0.4
HAU                                   pmax      pmax
      comp=Z,87nm,1.7s,mb5.4
LPG   La Plagne        77.83 314  eP        P          02 25 23.1 +0.3
      comp=Z,166nm,1.5s,mb5.5
LPG   La Plagne        77.83 314  eP        P          02 25 23.1 +0.3
LPG                                   pmax      pmax
      comp=Z,83nm,1.5s,mb5.4
MBDF  Montbardon       77.90 313  eP        P          02 25 24.2 +1.0
      comp=Z,87nm,1.3s,mb5.2
MBDF  Montbardon       77.90 313  eP        P          02 25 24.2 +1.0
MBDF                                  pmax      pmax
      comp=Z,43nm,1.3s,mb5.2
BNI   Bardonecchia     77.93 314  eP        P          02 25 23.5 +0.1
BNI                                   pmax      pmax
      comp=Z,23nm,1.0s,mb5.1
BNI   Bardonecchia     77.93 314  eP        P          02 25 23.5 +0.1
      comp=Z,23nm,1.0s,mb5.1
BAIF  Baives           78.99 319  eP        P          02 25 29.3 +0.2
      comp=Z,74nm,1.4s,mb5.1
BAIF  Baives           78.99 319  eP        P          02 25 29.3 +0.2
BAIF                                  pmax      pmax
      comp=Z,37nm,1.4s,mb5.1
SSF   Saint Saulge     79.86 316  eP        P          02 25 33.8 -0.1
SSF                                   pmax      pmax
      comp=Z,56nm,1.5s,mb5.3
SSF   Saint Saulge     79.86 316  eP        P          02 25 33.8 -0.1
      comp=Z,56nm,1.5s,mb5.3
BGF   Bois d'Agland    80.39 316  eP        P          02 25 36.7  0.0
      comp=Z,180nm,1.8s,mb5.4
BGF   Bois d'Agland    80.39 316  eP        P          02 25 36.7  0.0
BGF                                   pmax      pmax
      comp=Z,90nm,1.8s,mb5.4
RJF   Les Rejaudoux    81.51 314  eP        P          02 25 42.1 -0.5
      comp=Z,66nm,1.4s,mb5.1
RJF   Les Rejaudoux    81.51 314  eP        P          02 25 42.1 -0.5
RJF                                   pmax      pmax
      comp=Z,33nm,1.4s,mb5.1
FLN   La Foliniere     82.22 318  eP        P          02 25 46.2  0.0
MAW   Mawson           83.42 191   P        P          02 25 53.7 +1.7
MAW   Mawson           83.42 191   P        P          02 25 53.6 +1.6
      comp=Z,5.3nm,0.6s,mb4.7,baz=341,slow=11,SNR=4.3
ESDC  Sonseca Array    86.66 310   P        P          02 26 09.5 +0.7
      comp=Z,2.1nm,0.6s,mb4.5,baz=59,slow=4.2,SNR=16
IMA   Indian Mountai   87.30  22  eP        P          02 26 12.9 +1.6
IMA                                   pmax      pmax
      comp=Z,46nm,0.9s,mb5.7
IMA   Indian Mountai   87.30  22  eP        P          02 26 12.8 +1.6
      comp=Z,46nm,0.9s,mb5.7
SYO   Syowa Base       90.02 197 ⇓P         P          02 26 24.1 -0.1
SYO   Syowa Base       90.02 197 ⇓PcP       PcP        02 26 25.9 +0.3
MCK   McKinley         90.20  23  eP        P          02 26 26.2 +1.1
MCK                                   pmax      pmax
      comp=Z,2.0nm,0.6s,mb4.6
MCK   McKinley         90.20  23  eP        P          02 26 26.2 +1.1
      comp=Z,2.4nm,0.6s,mb4.7
ILAR  Eielson Array    90.41  22   P        P          02 26 26.2 +0.2
      comp=Z,2.6nm,0.6s,mb4.7,baz=300,slow=4.1,SNR=42
ILAR                               PP       PP         02 30 03.0 +0.1
      comp=Z,1.0nm,0.8s,baz=304,slow=8.6,SNR=4.4
ILAR                               PKKPbc              02 44 00.9
      comp=Z,0.2nm,0.6s,baz=151,slow=2.2,SNR=5.3
INK   Inuvik           92.32  16   P        P          02 26 35.6 +0.8
      comp=Z,6.7nm,0.5s,mb5.2,baz=324,slow=3.8,SNR=35
URZ   Urewera          93.81 128   P        P          02 26 42.3 -0.1
      comp=Z,17nm,0.8s,mb5.5,baz=348,slow=2.6,SNR=5.1
DBIC  Dimbokro         95.70 278   P        P          02 26 52.2 +0.7
      comp=Z,33nm,1.5s,mb5.5,baz=55,slow=8.0,SNR=4.9
VNDA  Vanda            98.41 168  eP        P          02 27 04.6 +2.2
VNDA                                  pmax      pmax
      comp=Z,1.0nm,0.9s
VNDA  Vanda            98.41 168   P        P          02 27 02.9 +0.5
      comp=Z,0.7nm,0.9s,mb4.2,baz=86,slow=2.1,SNR=2.1
VNDA  Vanda            98.41 168  eP        P          02 27 04.6 +2.2
      comp=Z,1.0nm,0.9s,mb4.3
YKA   Yellowknife Ar  101.62  13   P        P          02 27 17.7 +0.5
      comp=Z,0.4nm,0.5s,baz=335,slow=5.1,SNR=8.0
YKA                                PP       PP         02 31 26.1 -3.9
      comp=Z,1.0nm,0.8s,baz=334,slow=7.8,SNR=6.0
YKA                                PKKPbc              02 43 25.5
      comp=Z,0.1nm,0.8s,baz=159,slow=2.8,SNR=3.7
PDAR  Pinedale Array  120.72  19   PKP      PKPdf      02 32 17.6 -3.0
      comp=Z,0.9nm,0.6s,baz=115,slow=1.5,SNR=7.6
PDAR                               PKKPbc              02 42 28.0
      comp=Z,0.4nm,0.7s,baz=162,slow=4.7,SNR=3.8
NVAR  Mina Array Bea  121.06  28   PKP      PKPdf      02 32 20.2 -1.2
      comp=Z,1.3nm,0.6s,baz=293,slow=3.2,SNR=6.0
MSU   Marysvale       123.58  23  ePKIKP    PKPdf      02 32 24.5 -1.8
ANMO  Albuquerque     128.82  20   PKP      PKPdf      02 32 35.0 -1.6
      comp=Z,2.8nm,1.1s,baz=321,slow=1.1,SNR=4.7
GDL2  Guadalupe Moun  132.03  19  ePKPdf    PKPdf      02 32 40.9 -1.8
TXAR  Lajitas Array   134.90  20   PKhKP               02 32 33.7
      comp=Z,0.2nm,0.6s,baz=180,slow=1.8,SNR=4.0
TXAR                               PKP      PKPdf      02 32 46.9 -1.2
      comp=Z,0.7nm,0.5s,baz=206,slow=1.2,SNR=5.5
TXAR                               PP       PP         02 35 19.9 -2.1
      comp=Z,0.7nm,0.9s,baz=315,slow=3.5,SNR=4.2
TXAR                               SKPbc               02 36 12.0
      comp=Z,1.7nm,0.8s,baz=225,slow=1.8,SNR=5.8
JCT   Junction City   134.97  15  ePKIKP    PKPdf      02 32 45.6 -2.6
TRQA  Tornquist       146.47 218  ePKPdf    PKPdf      02 33 06.7 -1.8
PCRV  Puerto La Cruz  147.60 315   PKPbc    PKPdf      02 33 09.4 -1.6
      comp=Z,35nm,1.1s,baz=189,slow=4.0,SNR=9.5
SDV   Santo Domingo   152.46 322   PKPbc    PKPdf      02 33 21.5 +3.0
      comp=Z,6.2nm,0.6s,baz=140,slow=5.5,SNR=12
SDV                                PKPab    PKPab      02 33 32.2 -1.1
      comp=Z,16nm,0.8s,baz=308,slow=4.3,SNR=7.8
SDV   Santo Domingo   152.46 322  ePKPdf    PKPdf      02 33 15.8 -2.6
SDV                               ePKPbc    PKPdf      02 33 21.2 +2.7
ROSC  El Rosal        157.86 323   PKPab    PKPab      02 33 56.7 +0.3
      comp=Z,8.3nm,0.8s,baz=40,slow=5.2,SNR=8.2
LVC   Limon Verde     160.09 239   PKPab    PKPab      02 34 06.2 +0.6
      comp=Z,2.3nm,0.7s,baz=114,slow=5.7,SNR=4.3
LPAZ  La Paz          161.11 258   PKP      PKPdf      02 33 28.1 -1.2
      comp=Z,1.5nm,0.9s,baz=156,slow=1.4,SNR=4.9
LPAZ                               PKPab    PKPab      02 34 10.3 +0.1
      comp=Z,6.0nm,1.1s,baz=89,slow=7.5,SNR=8.4
```

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*IDC **29** 02:16:03.7±1.4, 8.82N×93.70E, mb4.3/11, mb1 4.4/11, mb1mx4.3/20, mbtmp4.3/11, Error ellipse: s-maj=44.6km s-min=34.4km az=78.0*

ISC 29 02:16:07.2±1.1**, 8.9N**±0.2×**93.7E**±0.3**, h33**^{km}**, n16,** σ**0**^{s}**87**/14**, mb4.3**/13**, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
SONM  Songino Array    40.28  13   P        P          02 23 43.5 +0.7
      0.6nm,0.5s,mb3.5,baz=192,slow=13,SNR=2.0
SONM                               PcP      PcP        02 25 47.5 +0.8
      1.4nm,0.6s,baz=195,slow=4.3,SNR=6.1
ZAL   Zalesovo         45.50 353   P        P          02 24 24.9 -0.2
      3.3nm,0.7s,mb4.3,baz=212,slow=8.1,SNR=5.1
BVAR  Borovoye Array   47.90 341   P        P          02 24 43.6 -0.5
      1.7nm,0.6s,mb4.3,baz=135,slow=10,SNR=4.1
BRTR  Keskin Array B   61.45 310   P        P          02 26 22.5 -0.3
      1.2nm,0.7s,mb4.2,baz=117,slow=6.4,SNR=4.3
FINES FINESS Array B   71.62 332   P        P          02 27 27.1  0.0
      3.4nm,0.7s,mb4.4,baz=94,slow=7.5,SNR=5.9
KAF   Kangasniemi      71.70 333  ep        P          02 27 25.4 -2.1
      1.6nm,0.5s,mb4.2
KEV   Kevo             73.75 341  ep        P          02 27 38.9 -0.5
      6.1nm,0.7s,mb4.6
ARCES ARCESS Array B   74.17 340   P        P          02 27 42.6 +0.7
      2.1nm,0.5s,mb4.4,baz=89,slow=6.5,SNR=8.5
GERES GERESS Array B   76.79 318   P        P          02 27 58.6 +1.3
      1.0nm,0.6s,mb4.0,baz=105,slow=5.0,SNR=4.6
KHC   Kasperske Hory   76.88 318  eP        pP         02 28 08.0 -0.1
NB2   NORSAR Subarra   78.64 331   P        P          02 28 07.2 -0.1
      1.6nm,0.6s,mb4.1,baz=96,slow=5.0
NOA   NORSAR Array B   78.64 331   P        P          02 28 06.2 -1.1
      1.8nm,0.7s,mb4.1,baz=94,slow=5.3,SNR=4.2
DAVOX Davos            79.37 316   P        P          02 28 13.0 +1.5
      2.3nm,0.5s,mb4.3,baz=108,slow=3.2,SNR=6.5
VNDA  Vanda            94.00 168   P        P          02 29 22.3 -0.2
      2.3nm,1.1s,mb4.5,baz=317,slow=3.8,SNR=4.5
INK   Inuvik           96.15  16   P        P          02 29 32.4  0.0
      1.4nm,0.6s,mb4.6,baz=322,slow=10,SNR=4.5
TXAR  Lajitas Array   138.48  23   PKP      PKPdf      02 35 33.5 +3.2
      0.5nm,0.5s,baz=176,slow=0.7,SNR=6.7
```

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*IDC **29** 02:17:08.1±0.8, 9.93N×93.73E, mb4.3/10, mb1 4.5/11, mb1mx4.3/20, mbtmp4.3/11, ML4.4/1, Error ellipse: s-maj=39.3km s-min=17.0km az=54.0*

ISC 29 02:17:11.2±0.8**, 10.0N**±0.1×**93.8E**±0.2**, h33**^{km}**, n12,** σ**0**^{s}**62**/11**, mb4.3**/10**, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
CMAR  Chiang Mai Arr    9.78  30   Pn       P          02 19 32.7  0.0
      0.9nm,0.3s,baz=218,slow=15,SNR=3.3
SONM  Songino Array    39.20  13   P        P          02 24 37.5 -0.4
      1.8nm,0.7s,mb3.9,baz=211,slow=8.4,SNR=3.5
SONM                               PcP      PcP        02 26 47.7 +0.4
      2.3nm,0.9s,baz=187,slow=3.3,SNR=3.0
ZAL   Zalesovo         44.44 352   P        P          02 25 20.9 +0.2
      7.3nm,1.1s,mb4.3,baz=210,slow=11,SNR=3.4
BVAR  Borovoye Array   46.92 341   P        P          02 25 40.8 +0.4
      1.8nm,0.9s,mb4.0,baz=162,slow=9.1,SNR=2.5
WRA   Warramunga Arr   49.73 127   P        P          02 26 01.7 -1.1
      1.6nm,0.7s,mb4.2,baz=311,slow=7.7,SNR=3.1
ASAR  Alice Springs    51.50 131   P        P          02 26 16.4 +0.3
      7.2nm,0.8s,mb4.7,baz=309,slow=7.2,SNR=6.9
BRTR  Keskin Array B   60.85 310   P        P          02 27 21.7 -1.2
      2.1nm,0.7s,mb4.4,baz=122,slow=7.3,SNR=4.2
STKA  Stephens Creek   61.77 134   P        P          02 27 30.1 +0.9
      8.7nm,1.1s,mb4.8,baz=348,slow=9.2,SNR=3.5
MLR   Muntele Rosu     67.47 315   P        P          02 28 06.3 +0.4
      4.2nm,0.9s,mb4.5,baz=76,slow=10.0,SNR=3.0
ARCES ARCESS Array B   73.20 340   P        P          02 28 40.2 -0.1
      2.8nm,0.7s,mb4.3,baz=90,slow=6.1,SNR=4.2
GERES GERESS Array B   76.07 318   P        P          02 28 57.8 +0.6
      1.6nm,0.9s,mb4.0,baz=90,slow=5.9,SNR=3.1
PDAR  Pinedale Array  123.33  20   PKP      PKPdf      02 36 07.2 +1.9
      0.8nm,0.8s,slow=3.6,SNR=3.1
```

IDC 29 02:20:11.7±4.2**, 8.98N**×**93.81E, mb4.0**/7**, mb1 4.2**/7**, mb1mx3.9**/18**, mbtmp4.0**/7**, Error ellipse: s-maj=97.8km s-min=58.1km az=153.0, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
SONM  Songino Array    40.16  13   P        P          02 27 49.8 -1.3
      0.7nm,0.9s,baz=202,slow=7.8,SNR=2.2
ZAL   Zalesovo         45.41 353   P        P          02 28 31.9 -2.0
      2.0nm,0.7s,baz=194,slow=8.4,SNR=4.9
BVAR  Borovoye Array   47.84 341   P        P          02 28 50.5 -2.6
      1.0nm,0.7s,baz=135,slow=6.1,SNR=3.3
FINES FINESS Array B   71.58 332   P        P          02 31 34.3 -2.3
      6.4nm,1.2s,baz=90,slow=4.2,SNR=3.8
ARCES ARCESS Array B   74.12 340   P        P          02 31 50.3 -1.0
      1.4nm,0.5s,baz=102,slow=7.2,SNR=6.6
GERES GERESS Array B   76.79 318   P        P          02 32 05.6 -1.3
      0.6nm,0.7s,baz=135,slow=1.4,SNR=4.0
ILAR  Eielson Array    93.85  22   P        P          02 33 30.2 -1.6
      0.4nm,0.6s,baz=299,slow=5.1,SNR=4.4
```

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*IDC **29** 02:21:15.7±4.9, 8.76N×93.89E, mb4.0/6, mb1 4.2/6, mb1mx3.9/17, mbtmp4.0/6, Error ellipse: s-maj=123.1km s-min=87.9km az=170.0*

ISC 29 02:21:19.9±3.3**, 8.9N**±0.6×**94.1E**±0.2**, h33**^{km}**, n7,** σ**0**^{s}**53**/7**, mb3.9**/6**, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
POO   Poona            21.82 298  eP        S          02 30 06.0 +0.6
ZAL   Zalesovo         45.51 352   P        P          02 29 37.9 -0.1
      1.7nm,0.6s,mb4.2,baz=211,slow=3.8,SNR=5.0
FINES FINESS Array B   71.76 332   P        P          02 32 39.8 -0.7
      0.6nm,0.5s,mb3.8,baz=135,slow=7.9,SNR=3.7
ARCES ARCESS Array B   74.27 340   P        P          02 32 55.2 +0.1
      1.1nm,0.5s,mb4.0,baz=90,slow=6.1,SNR=5.0
GERES GERESS Array B   77.00 318   P        P          02 33 11.1 -0.1
      0.4nm,0.6s,mb3.5,baz=112,slow=5.3,SNR=2.5
NOA   NORSAR Array B   78.79 331   P        P          02 33 20.3 -0.4
      1.0nm,0.7s,mb3.9,baz=93,slow=5.6,SNR=3.8
ILAR  Eielson Array    93.82  22   P        P          02 34 35.5 +1.0
      0.6nm,1.0s,mb4.0,baz=301,slow=5.1,SNR=4.2
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*IDC **29** 02:28:29.4±1.0, 7.48N×94.00E, mb4.0/10, mb1 4.2/11, mb1mx4.0/18, mbtmp4.0/11, ML4.5/1, Error ellipse: s-maj=40.6km s-min=19.7km az=53.0*

ISC 29 02:28:32.7±0.8**, 7.6N**±0.1×**94.2E**±0.2**, h33**^{km}**, n15,** σ**0**^{s}**78**/13**, mb4.1**/11**, Nicobar Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
CMAR  Chiang Mai Arr   11.80  23   Pn       P          02 31 21.5 -0.3
      0.8nm,0.3s,baz=215,slow=14,SNR=7.1
SONM  Songino Array    41.47  12   P        P          02 36 18.6 +0.4
      2.0nm,0.8s,mb3.8,baz=192,slow=8.6,SNR=13
ZAL   Zalesovo         46.87 352   P        P          02 37 01.4 -0.1
      4.6nm,0.4s,mb4.7,baz=216,slow=7.2,SNR=19
WRA   Warramunga Arr   48.06 125   P        P          02 37 10.5 -0.8
      0.3nm,0.4s,mb3.6,baz=306,slow=8.4,SNR=3.4
BVAR  Borovoye Array   49.30 341   P        P          02 37 19.8 -0.7
      2.3nm,1.0s,mb4.2,baz=135,slow=6.3,SNR=6.9
BVAR                               PcP      PcP        02 38 43.3  0.0
      0.8nm,0.7s,baz=135,slow=4.2,SNR=3.9
ASAR  Alice Springs    49.69 130   P        P          02 37 24.5 +0.6
      0.8nm,0.7s,mb3.9,baz=303,slow=4.5,SNR=5.4
ASAR                               PcP      PcP        02 38 51.8 +6.8
      1.3nm,0.7s,baz=314,slow=3.9,SNR=7.0
BRTR  Keskin Array B   62.66 311   P        P          02 38 55.2 -1.4
      0.9nm,0.6s,mb4.1,baz=129,slow=7.9,SNR=5.0
FINES FINESS Array B   73.01 332   P        P          02 40 00.9 +0.1
      2.3nm,0.7s,mb4.2,baz=83,slow=6.2,SNR=7.4
KAF   Kangasniemi      73.09 333  ep        P          02 40 02.3 +1.0
      3.0nm,0.9s,mb4.2
ARCES ARCESS Array B   75.58 340   P        P          02 40 16.6 +1.0
      5.1nm,1.1s,mb4.4,baz=98,slow=6.4,SNR=2.9
GERES GERESS Array B   78.08 318   P        P          02 40 31.0 +1.0
      1.1nm,0.8s,mb3.8,baz=68,slow=7.2,SNR=3.8
NB2   NORSAR Subarra   80.02 331   P        P          02 40 39.9 -0.4
      0.7nm,0.6s,mb3.8,baz=91,slow=5.8
NOA   NORSAR Array B   80.02 331   P        P          02 40 39.1 -1.2
      1.2nm,0.9s,mb3.8,baz=98,slow=4.2,SNR=3.6
ESDC  Sonseca Array    91.44 310   P        pP         02 41 43.5 -4.3
      0.3nm,0.5s,baz=60,slow=5.1,SNR=4.2
PDAR  Pinedale Array  125.46  21   PKP      PKPdf      02 47 35.0 +4.1
      0.7nm,1.0s,baz=63,slow=3.3,SNR=4.3
```

IDC 29 02:32:38.3±7.0**, 47.72S**×**163.01E, mb4.1**/2**, mb1 4.4**/2**, mb1mx3.8**/8**, mbtmp4.1**/2**, Error ellipse: s-maj=624.3km s-min=66.2km az=28.0, Off west coast of South Island**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
WHZ   Wether Hill Ro    3.85  64   P        Pn         02 34 07.8 +28
WHZ                                S        Sn         02 35 09.9 +43
MLZ   Mavora Lakes      4.28  58   P        Pn         02 34 15.1 +29
MLZ                                S        Sn         02 35 20.5 +43
ASAR  Alice Springs    33.35 306   P        P          02 39 17.9 -2.2
      2.0nm,0.7s,baz=143,slow=8.0,SNR=21
WRA   Warramunga Arr   36.15 310   P        P          02 39 42.4 -1.8
      2.6nm,0.8s,baz=142,slow=7.8,SNR=12
ARCES ARCESS Array B  149.95 332   PKPbc    PKPdf      02 52 28.7 +2.8
      1.1nm,0.6s,baz=90,slow=2.4,SNR=5.4
```

IDC 29 02:44:19.1±1.3**, 13.08N**×**92.26E, mb3.8**/4**, mb1 4.0**/5**, mb1mx3.7**/18**, mbtmp3.7**/5**, ML3.6**/1**, Error ellipse: s-maj=37.0km s-min=23.1km az=54.0, Andaman Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
CMAR  Chiang Mai Arr    8.36  49   Pn       P          02 46 22.3 -2.2
      0.2nm,0.3s,baz=239,slow=17,SNR=4.3
CMAR                               Sn       Sn         02 47 58.2 -2.4
      0.4nm,0.3s,baz=235,slow=30,SNR=6.3
ZAL   Zalesovo         41.18 353   P        P          02 52 04.4 -2.5
      0.8nm,0.2s,baz=212,slow=7.0,SNR=4.2
WRA   Warramunga Arr   52.83 128   P        P          02 53 36.3 -2.7
      1.5nm,0.6s,baz=304,slow=8.8,SNR=12
ASAR  Alice Springs    54.70 132   P        P          02 53 50.6 -2.1
      1.3nm,0.8s,baz=308,slow=6.8,SNR=13
BRTR  Keskin Array B   57.70 309   P        P          02 54 12.6 -1.3
      0.4nm,0.6s,baz=135,slow=10,SNR=3.7
```

IDC 29 02:51:36.6±13.0**, 10.54N**×**92.38E, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.6**/16**, mbtmp3.7**/3**, Error ellipse: s-maj=461.0km s-min=31.3km az=74.0, Andaman Islands region**

```
Code  Station Name        Δ°   AZ°   Phase ID              Time      Res
                                   Op       ISC          h  m  s    ISC
SONM  Songino Array    39.01  15   P        P          02 59 04.9 -1.7
      1.1nm,0.8s,baz=195,slow=8.2,SNR=8.5
WRA   Warramunga Arr   51.22 126   P        P          03 00 41.8 -2.5
      0.5nm,0.5s,baz=304,slow=8.5,SNR=4.8
ASAR  Alice Springs    52.95 130   P        P          03 00 55.5 -1.9
      0.4nm,0.4s,baz=311,slow=7.1,SNR=6.7
```

IDC 29 02:52:18.8±1.4**, 11.29N**×**93.97E, mb3.6**/3**, mb1 3.8**/4**,**

mb1mx3.5/17**, mbtmp3.6**/4**, Error ellipse: s-maj=52.0km s-min=29.6km az=39.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.60	33	Pn	P	02 54 24.4	-3.0
	0.5nm,0.3s,baz=220,slow=12,SNR=6.2						
WRA	Warramunga Arr	50.42	128	P	P	03 01 18.4	-2.1
	0.7nm,0.6s,baz=307,slow=8.2,SNR=6.6						
BRTR	Keskin Array B	60.11	309	P	P	03 02 27.8	-2.7
	0.6nm,0.6s,baz=115,slow=7.3,SNR=5.2						
GERES	GERESS Array B	75.19	318	P	P	03 04 04.1	-0.9
	0.4nm,0.6s,baz=100,slow=6.0,SNR=4.7						

---

*IDC **29** 02:56:21.1±1.3, 9.12N×93.62E, mb3.9/7, mb1 4.0/8, mb1mx3.8/19, mbtmp3.9/8, ML4.0/1, Error ellipse: s-maj=52.7km s-min=26.7km az=46.0*

ISC 29 02:56:24.2±1.0**, 9.1N**±0.1×**93.8E**±0.2**, h33^{km}, n15, σ0^{s}.82**/15**, mb3.9**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.57	28	Pn	P	02 58 56.0	-0.5
	0.4nm,0.3s,baz=217,slow=15,SNR=5.6						
SHL	Shillong	16.48	354	eP	P	03 00 15.0	+0.5
PKI	Pulchoki	20.00	338	eP	P	03 00 57.4	+0.5
GUN	Gumba	20.14	339	eP	P	03 00 58.8	+0.4
	30nm,0.7s						
DMN	Daman	20.15	337	eP	P	03 00 58.9	+0.4
	18nm,0.7s						
KKN	Kakani	20.25	338	eP	P	03 00 59.5	0.0
	10nm,0.5s						
GKN	Gorkha	20.68	337	eP	P	03 01 04.5	+0.4
	34nm,0.7s						
KOLN	Koldanda	20.91	334	eP	P	03 01 07.0	+0.6
	16nm,0.6s						
BVAR	Borovoye Array	47.72	341	P	P	03 04 58.0	-1.7
	0.5nm,0.4s,mb3.9,baz=146,slow=11,SNR=5.1						
WRA	Warramunga Arr	49.27	126	P	P	03 05 12.8	+0.7
	0.8nm,1.0s,mb3.7,baz=303,slow=9.3,SNR=3.5						
BRTR	Keskin Array B	61.36	310	P	P	03 06 38.0	-1.4
	0.6nm,0.8s,mb3.8,baz=90,slow=4.3,SNR=4.4						
FINES	FINESS Array B	71.47	332	P	P	03 07 42.5	-0.7
	2.5nm,1.1s,mb4.1,baz=90,slow=5.6,SNR=2.8						
ARCES	ARCESS Array B	74.00	340	P	P	03 07 57.4	-0.5
	2.5nm,0.9s,mb4.2,baz=98,slow=6.4,SNR=5.0						
GERES	GERESS Array B	76.68	318	P	P	03 08 15.3	+1.6
	0.2nm,0.3s,mb3.5,baz=90,slow=7.8,SNR=4.7						
HFS	Hagfors	77.22	330	P	P	03 08 16.2	-0.3
	3.2nm,1.0s,mb4.2,baz=117,slow=3.3,SNR=5.9						

---

*NEIC **29** 03:03:07.0±0.7, 28.98S×68.30W, h92^{km}±7^{km}, mb4.7/13, Error ellipse: s-maj=14.8km s-min=6.1km az=83.0*

*GUC **29** 03:03:06.2±0.5, 29.02S×68.65W, h174^{km}±19^{km}, ML5.3*

*SYO **29** 03:03:07.1, 28.92S×68.16W, h94^{km}, MB4.5*

*IDC **29** 03:03:08.5±0.6, 28.92S×68.33W, h109^{km}±5^{km}, mb4.2/12, mb1 4.3/14, mb1mx4.3/17, mbtmp4.5/14, Error ellipse: s-maj=24.6km s-min=11.0km az=79.0*

ISC 29 03:03:05.7±0.7**, 29.02S**±0.03×**68.29W**±0.09**, h99^{km}**±6^{km}**, h108^{km}**±.8^{km}**:pP-P, n68, σ0^{s}.95**/66**, mb4.5**/23**, 6C-6D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VACH	Vallenar	2.21	281	⇑iP	P	03 03 49.2	+7.6
VACH				i S	S	03 04 16.7	+8.4
VACH				AMP		03 04 18.4	
	comp=E,13µm,0.1s						
CPCH	Copiapo	2.46	312	⇑iP	P	03 03 45.9	+0.9
CPCH				i S	S	03 04 16.6	+2.1
CPCH				AMP		03 04 17.8	
	comp=E,14µm,0.1s						
CMCH	Combarbala	3.18	227	⇓iP	P	03 03 55.1	+0.2
CMCH				i S	S	03 04 32.0	0.0
CMCH				AMP		03 05 08.7	
	comp=E,7µm,0.7s						
ILCH	Illapel	3.60	223	⇓iP	P	03 04 00.5	-0.2
ILCH				i S	S	03 04 41.4	-1.0
MDZ	Mendoza	3.88	187	eP	P	03 04 06.6	+2.2
MDZ				e		03 04 22.0	
PTCH	Petorca	3.95	215	⇑iP	P	03 04 05.1	-0.3
PTCH				i S	S	03 04 49.9	-1.1
JACH	Jahuel	4.15	208	i P	P	03 04 08.8	+0.6
JACH				i S	S	03 04 55.5	-0.4
ROCH	El Roble	4.58	210	⇑iP	P	03 04 13.3	-0.7
ROCH				i S	S	03 05 06.0	-0.4
CPN1	Cerro Paranal	4.77	336	⇓iP	P	03 04 17.4	+0.8
CPN1				i S	S	03 05 11.3	+0.2
ANCH	Antofagasta	5.65	340	i P	P	03 04 28.5	-0.1
ANCH				i S	S	03 05 30.8	-2.0
LVC	Limon Verde	6.41	355	P	P	03 04 39.4	+0.4
	comp=E,41nm,0.3s,baz=196,slow=8.4,SNR=255						
LVC				S	S	03 05 47.8	-3.5
	comp=E,22nm,0.3s,baz=201,slow=23,SNR=11						
LVC	Limon Verde	6.41	355	eP	P	03 04 39.2	+0.1
	comp=E,106nm,0.4s						
TRQA	Tornquist	10.43	151	eP	P	03 05 32.7	-0.9
	comp=E,16nm,1.1s						
LPAZ	La Paz	12.68	1	P	P	03 06 02.6	-0.8
	comp=E,1.4nm,0.3s,baz=162,slow=9.4,SNR=20						
LPAZ	La Paz	12.68	1	eP	P	03 06 02.8	-0.7
	comp=E,3.6nm,0.4s						
OTAV	Otavalo	30.68	340	P	P	03 09 15.8	+2.5
	comp=E,4.2nm,1.0s,mb4.1						
SDV	Santo Domingo	37.75	356	P	P	03 10 12.6	-1.1
	comp=E,19nm,1.0s,mb4.9,baz=210,slow=2.9,SNR=10						
SDV	Santo Domingo	37.75	356	eP	P	03 10 12.7	-1.0
	comp=E,23nm,1.1s,mb4.9						
PCRV	Puerto La Cruz	39.13	6	P	P	03 10 24.7	-0.4
	comp=E,14nm,0.7s,mb4.9,baz=75,slow=3.7,SNR=7.8						
VNA3	Neumayer Olymp	52.83	160	⇓i	P	03 12 15.5	+2.8
VNA2	Neumayer--Watz	53.42	159	⇓i	P	03 12 20.2	+3.1
SNAA	Sanae	55.04	159	⇑i	P	03 12 27.9	-1.0
SNAA	Sanae	55.04	159	P	P	03 12 28.7	-0.1
	comp=E,1.3nm,0.7s,mb4.1,baz=302,slow=11,SNR=10						
SNAA				pP	pP	03 12 54.7	+1.6
	comp=E,1.7nm,1.0s,baz=275,slow=5.5,SNR=3.4						
QSPA	South Pole Qui	61.20	180	⇓iP	P	03 13 12.2	+0.5
	comp=E,6.7nm,0.7s,mb4.8						
JSC	Jenkinsville	64.15	348	eP	P	03 13 30.5	-1.3
HKT	Hockley	64.27	334	P	P	03 13 32.3	-0.4
	comp=E,8.4nm,1.2s,mb4.5						
MYNC	Murphy	65.48	346	eP	P	03 13 39.0	-1.4
	comp=E,9.1nm,0.9s,mb4.6						
JCT	Junction City	66.36	330	eP	P	03 13 46.0	-0.1
	comp=E,16nm,0.9s,mb4.8						
ELN	Prospectdale	66.93	349	eP	P	03 13 49.1	-0.5
LTX	Lajitas	67.15	327	eP	P	03 13 51.2	+0.1
	comp=E,3.2nm,0.8s,mb4.2						
TXAR	Lajitas Array	67.15	327	P	P	03 13 50.9	-0.3
	comp=E,1.8nm,0.7s,mb4.0,baz=150,slow=8.0,SNR=26						
TXAR				pP	pP	03 14 17.7	+1.4
	comp=E,0.8nm,0.9s,baz=127,slow=6.3,SNR=2.8						
WVT	Waverly	67.37	343	eP	P	03 13 50.3	-2.0
	comp=E,13nm,0.7s,mb4.9						
SYO	Syowa Base	69.31	158	⇑P	P	03 14 03.6	-0.2
VNDA	Vanda	69.58	190	P	P	03 14 06.3	+1.0
	comp=E,1.2nm,0.8s,mb3.8,baz=133,slow=3.0,SNR=6.3						
VNDA	Vanda	69.58	190	eP	P	03 14 04.7	-0.6
	comp=E,2.1nm,1.0s,mb3.9						
FVM	French Village	69.80	342	eP	P	03 14 06.4	-1.0
	comp=E,26nm,0.6s,mb5.2						
GDL2	Guadalupe Moun	69.87	328	eP	P	03 14 08.1	+0.2
BLO	Bloomington	69.94	345	P	P	03 14 06.5	-1.6
CPRX	Cap Rock	70.33	329	eP	P	03 14 10.8	+0.1
DBIC	Dimbokro	70.52	70	P	P	03 14 12.2	+0.1
	comp=E,3.3nm,0.6s,mb4.4,baz=221,slow=7.3,SNR=18						
DBIC				pP	pP	03 14 39.9	+2.4
	comp=E,3.2nm,0.8s,baz=237,slow=7.2,SNR=3.2						
TUC	Tucson	73.14	323	P	P	03 14 28.0	+0.8
	comp=E,2.0nm,1.1s,mb3.9						
MAW	Mawson	77.00	163	P	P	03 14 48.9	+0.3
	comp=E,6.5nm,1.0s,mb4.3,baz=233,slow=8.3,SNR=3.2						
PV10	Paradox Valley	77.11	328	eP	P	03 14 50.3	+0.5
NEN	Nelson	77.85	323	eP	P	03 14 54.5	+0.5
ARUT	Antelope Range	78.77	325	eP	P	03 15 00.5	+1.5
PDAR	Pinedale Array	80.90	331	P	P	03 15 10.4	+0.1
	comp=E,4.2nm,0.6s,mb4.4,baz=126,slow=7.4,SNR=40						
LBTB	Lobatse	81.42	114	eP	P	03 15 14.0	+0.6
	comp=E,12nm,0.6s,mb4.9						
NVAR	Mina Array Bea	81.76	323	P	P	03 15 15.1	+0.2
	comp=E,1.6nm,0.8s,mb3.9,baz=150,slow=6.5,SNR=9.4						
ELK	Elko	81.93	326	eP	P	03 15 16.3	+0.6
	comp=E,4.9nm,1.0s,mb4.3						
LOHW	Long Hollow	82.03	330	eP	P	03 15 16.7	+0.5
WUWY	Wally Ulrich	82.03	330	eP	P	03 15 16.8	+0.7
ULM	Lac du Bonnet	82.63	343	P	P	03 15 18.3	-0.8
	comp=E,7.2nm,0.9s,mb4.5,baz=167,slow=2.5,SNR=13						
YMR	Madison River	83.03	331	eP	P	03 15 22.5	+1.3
SCHQ	Schefferville	83.52	1	P	P	03 15 23.1	-0.2
	comp=E,8.2nm,1.1s,mb4.5,baz=134,slow=6.4,SNR=5.1						
HRY	Holter Researc	85.03	332	eP	P	03 15 31.1	-0.1
YKA	Yellowknife Ar	98.43	340	P	P	03 16 32.9	-0.2
	comp=E,1.1nm,0.7s,mb4.5,baz=139,slow=4.5,SNR=30						
GERES	GERESS Array B	106.36	43	PKiKP		03 21 18.9	
	comp=E,0.4nm,0.7s,baz=315,slow=1.9,SNR=3.8						
AKASG	Malin Array Be	116.44	45	PKP	PKPdf	03 21 37.9	+0.4
	comp=E,1.1nm,0.6s,baz=257,slow=2.7,SNR=9.6						
AKASG				pPKP		03 22 07.2	
	comp=E,0.3nm,0.3s,baz=222,slow=7.7,SNR=2.1						
BRTR	Keskin Array B	116.54	58	PKP	PKPdf	03 21 39.7	+1.7
	comp=E,0.7nm,0.6s,baz=207,slow=3.3,SNR=4.4						
ASAR	Alice Springs	123.43	205	PKP	PKPdf	03 21 52.1	+0.5
	comp=E,3.4nm,0.9s,baz=139,slow=1.9,SNR=25						
ASAR				pPKP		03 22 22.3	
	comp=E,0.7nm,0.7s,baz=147,slow=1.7,SNR=3.6						
WRA	Warramunga Arr	126.65	207	PKP	PKPdf	03 21 58.9	+0.9
	comp=E,3.9nm,0.6s,baz=161,slow=1.5,SNR=17						
WRA				pPKP		03 22 29.0	
	comp=E,1.7nm,0.8s,baz=164,slow=1.6,SNR=3.6						
BVAR	Borovoye Array	141.44	40	PKP	PKPdf	03 22 26.5	+2.0
	comp=E,1.2nm,0.6s,baz=297,slow=3.3,SNR=9.1						
YAK	Yakutsk	144.93	345	ePKPdf	PKPdf	03 22 31.0	+0.7
AAK	Ala-Archa	147.18	55	ePKPdf	PKPdf	03 22 36.6	+1.8
HYB	Hyderabad	147.52	103	eP	PKPdf	03 22 40.0	+4.0
HYB	Hyderabad	147.52	103	i PKP	PKPdf	03 22 40.0	+4.0
ZAL	Zalesovo	148.32	31	PKPbc	PKPdf	03 22 41.9	+5.6
	comp=E,20nm,0.6s,baz=71,slow=2.8,SNR=72						
ZAL				pPKPbc		03 23 11.4	
	comp=E,3.3nm,0.6s,baz=164,slow=1.6,SNR=2.9						
SONM	Songino Array	160.77	11	PKP	PKPdf	03 22 56.0	+2.8
	comp=E,0.6nm,0.8s,baz=153,slow=2.8,SNR=4.2						
SONM				PKPab	PKPab	03 23 38.5	+0.3
	comp=E,1.8nm,0.7s,baz=325,slow=4.9,SNR=12						

IDC 29 03:18:50.2±0.8**, 12.12N**×**92.92E, h45^{km}**±6^{km}**, mb3.6**/7**, mb1 3.9**/8**, mb1mx3.6**/19**, mbtmp3.8**/8**, ML4.2**/1**, Error ellipse: s-maj=23.8km s-min=16.1km az=48.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.58	42	P	P	03 20 52.7	-1.9
	0.7nm,0.3s,baz=235,slow=15,SNR=8.7						
CMAR				S	S	03 22 27.9	-3.2
	0.5nm,0.3s,baz=226,slow=26,SNR=5.4						
SONM	Songino Array	37.35	15	P	P	03 25 58.4	-1.8
	0.4nm,0.6s,baz=202,slow=7.8,SNR=3.6						
WRA	Warramunga Arr	51.74	128	P	P	03 27 53.4	-2.3
	1.5nm,0.8s,baz=300,slow=9.2,SNR=5.6						
WRA				pP	pP	03 28 04.7	-3.5
	3.8nm,0.6s,baz=301,slow=9.3,SNR=11						
ASAR	Alice Springs	53.58	132	P	P	03 28 08.6	-0.8
	0.9nm,0.9s,baz=312,slow=8.0,SNR=5.9						
ASAR				pP	pP	03 28 19.7	-2.4
	2.5nm,0.6s,baz=308,slow=6.9,SNR=14						
BRTR	Keskin Array B	58.79	309	P	P	03 28 44.6	-1.8
	2.7nm,1.1s,baz=113,slow=6.6,SNR=7.2						
MLR	Muntele Rosu	65.33	315	P	P	03 29 28.1	-2.0
	1.1nm,0.4s,baz=159,slow=5.9,SNR=4.2						
FINES	FINESS Array B	68.42	332	P	P	03 29 46.5	-2.7
	1.7nm,0.9s,baz=108,slow=6.0,SNR=4.4						
GERES	GERESS Array B	73.89	318	P	P	03 30 19.8	-2.4
	0.8nm,0.8s,baz=90,slow=4.0,SNR=5.8						
GERES				sP	sP	03 30 40.5	+0.1
	0.5nm,0.7s,baz=100,slow=8.1,SNR=2.9						

IDC 29 03:19:53.8±7.4**, 4.60N**×**95.61E, mb4.0**/8**, mb1 4.1**/8**, mb1mx3.9**/18**, mbtmp4.0**/8**, Error ellipse: s-maj=179.8km s-min=52.5km az=142.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	44.06	10	P	P	03 28 02.6	-2.5
	1.4nm,0.7s,baz=191,slow=8.6,SNR=8.1						
ZAL	Zalesovo	49.97	352	P	P	03 28 49.8	-1.7
	1.4nm,0.5s,baz=230,slow=7.8,SNR=5.8						
BVAR	Borovoye Array	52.53	341	P	P	03 29 09.0	-1.9
	1.9nm,0.6s,baz=141,slow=9.5,SNR=9.6						
BRTR	Keskin Array B	65.67	312	P	P	03 30 40.0	-2.2
	1.0nm,0.5s,baz=122,slow=7.2,SNR=5.1						
AKASG	Malin Array Be	71.61	322	P	P	03 31 16.4	-2.6
	1.2nm,0.6s,baz=82,slow=5.6,SNR=3.0						
FINES	FINESS Array B	76.26	332	P	P	03 31 44.0	-1.8
	2.4nm,0.9s,baz=162,slow=6.0,SNR=4.1						
ARCES	ARCESS Array B	78.81	340	P	P	03 31 59.6	-0.2
	1.3nm,0.7s,baz=90,slow=6.1,SNR=5.2						
GERES	GERESS Array B	81.22	319	P	P	03 32 11.9	-1.1
	0.6nm,0.8s,baz=90,slow=4.9,SNR=3.2						

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*IDC **29** 03:27:08.4±1.2, 8.00N×90.87E, h31^{km}±5^{km}, mb3.8/8, mb1 4.0/9, mb1mx3.8/20, mbtmp4.0/9, ML4.3/1, Error ellipse: s-maj=27.5km s-min=23.4km az=131.0*

ISC 29 03:27:06.5±1.0**, 8.1N**±0.2×**90.9E**±0.1**, h30^{km}, h30^{km}**±.3^{km}**:pP-P, n11, σ0^{s}.92**/11**, mb4.0**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.95	36	Pn	P	03 30 10.2	-1.1
	0.5nm,0.3s,baz=233,slow=14,SNR=26						
SHL	Shillong	17.44	3	eP	P	03 31 14.7	+5.3
LUBP	Lubang	29.32	76	eP	P	03 33 14.3	+5.3
SONM	Songino Array	41.77	16	P	P	03 34 54.3	-0.5
	3.0nm,0.8s,mb4.0,baz=196,slow=8.3,SNR=22						
SONM				pP	pP	03 35 03.3	-0.6
	1.3nm,0.7s,baz=197,slow=9.0,SNR=5.6						
ZAL	Zalesovo	46.02	355	P	P	03 35 30.1	+1.0
	1.7nm,0.7s,mb4.1,baz=215,slow=8.4,SNR=8.5						
ZAL				pP	pP	03 35 39.3	+1.1
	2.6nm,0.8s,baz=184,slow=4.6,SNR=6.5						
BVAR	Borovoye Array	47.85	343	P	P	03 35 44.7	+1.2
	1.0nm,0.8s,mb3.9,baz=180,slow=8.9,SNR=5.3						
BVAR				pP	pP	03 35 53.8	+1.0
	1.9nm,0.7s,baz=153,slow=9.9,SNR=7.3						
WRA	Warramunga Arr	50.98	124	P	P	03 36 08.5	+0.6
	2.1nm,1.0s,mb4.0,baz=302,slow=9.7,SNR=4.8						
KMBO	Kilima Mbogo	54.28	263	P	P	03 36 31.2	-1.4
	0.8nm,0.5s,mb3.9,baz=93,slow=15,SNR=3.2						
KMBO				pP	pP	03 36 40.8	-1.1
	1.2nm,0.8s,baz=20,slow=16,SNR=2.6						
FINES	FINESS Array B	71.08	333	P	P	03 38 23.0	-0.7
	2.1nm,0.9s,mb4.1,baz=162,slow=4.4,SNR=3.7						
GERES	GERESS Array B	75.58	318	P	P	03 38 50.3	+0.1
	0.6nm,0.7s,mb3.7,baz=101,slow=6.8,SNR=4.1						
DAVOX	Davos	78.06	316	P	P	03 39 04.7	+0.6
	1.7nm,0.5s,mb4.3,baz=108,slow=5.5,SNR=9.1						

IDC 29 03:28:27.0±2.7**, 0.10S**×**101.05E, mb4.2**/4**, mb1 4.3**/4**, mb1mx3.8**/16**, mbtmp4.2**/4**, Error ellipse: s-maj=258.3km s-min=25.0km az=45.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	38.09	123	P	P	03 35 48.0	-1.5
	1.3nm,0.5s,baz=298,slow=9.8,SNR=8.8						
ASAR	Alice Springs	39.56	129	P	P	03 35 59.8	-1.9
	0.6nm,0.4s,baz=309,slow=7.1,SNR=9.5						
FINES	FINESS Array B	82.94	332	P	P	03 40 53.2	-1.7
	3.8nm,1.1s,baz=100,slow=8.5,SNR=3.2						
HFS	Hagfors	88.77	330	P	P	03 41 22.9	-0.8
	2.4nm,0.9s,baz=117,slow=3.2,SNR=4.0						

IDC 29 03:30:32.2±2.8**, 0.09S**×**99.28E, mb3.8**/3**, mb1 4.0**/3**, mb1mx3.6**/14**, mbtmp3.8**/3**, Error ellipse: s-maj=113.7km s-min=34.3km az=54.0, Southern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	39.59	122	P	P	03 38 05.4	-1.8
	0.6nm,0.4s,baz=304,slow=8.6,SNR=4.9						
SONM	Songino Array	48.13	6	P	P	03 39 14.8	-1.1
	0.3nm,0.7s,baz=180,slow=7.4,SNR=3.6						
FINES	FINESS Array B	82.10	332	P	P	03 42 53.9	-1.9
	1.9nm,0.9s,baz=101,slow=9.7,SNR=3.4						

IDC 29 03:34:19.1±0.9**, 13.14N**×**92.56E, mb3.9**/10**, mb1 4.1**/10**, mb1mx3.9**/20**, mbtmp3.9**/10**, Error ellipse: s-maj=45.6km s-min=16.8km az=54.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.10	48	Pn	P	03 36 24.8	+3.9
	0.4nm,0.3s,baz=238,slow=16,SNR=4.2						
CMAR				Sn	Sn	03 37 45.4	-8.9
	0.3nm,0.3s,baz=238,slow=28,SNR=5.8						
SONM	Songino Array	36.46	16	P	P	03 41 26.7	-1.0
	0.6nm,0.8s,baz=215,slow=6.3,SNR=3.8						
ZAL	Zalesovo	41.16	353	P	P	03 42 05.4	-1.3
	1.1nm,0.7s,baz=207,slow=11,SNR=5.5						
BVAR	Borovoye Array	43.53	341	P	P	03 42 22.8	-3.3
	0.5nm,0.7s,baz=45,slow=6.1,SNR=3.0						
NWAO	Narrogin (SRO)	51.52	153	P	P	03 43 27.1	-1.9
	3.5nm,0.5s,baz=82,slow=8.9,SNR=2.8						
WRA	Warramunga Arr	52.64	128	P	P	03 43 35.2	-2.4
	2.4nm,0.6s,baz=305,slow=8.3,SNR=14						
ASAR	Alice Springs	54.52	132	P	P	03 43 49.0	-2.3
	1.6nm,0.6s,baz=311,slow=6.7,SNR=13						
BRTR	Keskin Array B	57.88	309	P	P	03 44 13.2	-2.1
	1.7nm,1.1s,baz=135,slow=8.7,SNR=5.4						
MLR	Muntele Rosu	64.37	314	P	P	03 44 58.2	-1.0
	2.2nm,0.9s,baz=73,slow=19,SNR=4.4						
FINES	FINESS Array B	67.36	331	P	P	03 45 15.1	-3.0
	1.3nm,0.8s,baz=72,slow=6.0,SNR=3.8						
GERES	GERESS Array B	72.91	317	P	P	03 45 50.5	-1.6
	0.1nm,0.3s,baz=90,slow=5.3,SNR=4.4						

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*MOS **29** 03:43:59.8±1.9, 12.65N×92.37E, h33^{km}, mb4.6/8, Error ellipse: s-maj=30.7km s-min=16.6km az=96.9*

*IDC **29** 03:43:59.2±0.6, 12.85N×92.43E, h21^{km}±2^{km}, mb3.9/17, mb1 4.1/18, mb1mx4.0/23, mbtmp4.0/18, MS3.6/1, Ms1 3.8/1, ms1mx3.2/28, Error ellipse: s-maj=22.9km s-min=11.5km az=47.0*

*NEIC **29** 03:44:02.0±0.9, 12.77N×92.65E, h30^{km}, mb4.5/10, Error ellipse: s-maj=26.0km s-min=18.6km az=100.0*

*BJI **29** 03:44:02.2, 13.15N×92.24E, h17^{km}, mB4.9, mb4.7, Ms4.5, Msz4.2*

ISC 29 03:43:57.2±0.5**, 12.85N**±0.06×**92.44E**±0.06**, h22^{km}, h22^{km}**±.5^{km}**:pP-P, n60, σ1^{s}.16**/57**, mb4.3**/29**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.38	48	Pn	P	03 45 59.1	-1.4
	baz=237,slow=15,SNR=5.3						
CMAR				Sn	Sn	03 47 34.3	-1.2
	0.6nm,0.3s,baz=237,slow=27,SNR=4.6						
CMAR				LR	LR	03 50 07.0	
	comp=Z,335nm,18.0s,baz=230,slow=44						
BWNR	Bhubaneshwar	9.76	320	e	P	03 46 08.9	-11
BWNR				e		03 46 10.4	
	comp=Z,74nm,0.3s						
BWNR				e		03 47 49.1	
VIS	Vishakhapatnam	10.03	300	eP	P	03 46 21.2	-2.2
VIS				e		03 46 23.0	
	comp=Z,67nm,0.3s						
VIS				eS	S	03 48 03.5	-13
IMP	Imphal	11.95	7	e	P	03 46 45.3	-4.2
SHL	Shillong	12.66	358	e	P	03 46 52.0	-7.0
SHL				e		03 49 03.0	
HYB	Hyderabad	14.15	290	eP	P	03 47 35.0	+16
HYB				eS	S	03 49 39.0	-17
GUN	Gumba	16.19	339	eP	P	03 47 44.7	-0.5
	comp=Z,35nm,0.6s						
DMN	Daman	16.20	336	eP	P	03 47 43.7	-1.7
	comp=Z,15nm,0.3s						
KKN	Kakani	16.30	337	eP	P	03 47 45.6	-1.0
GKN	Gorkha	16.74	335	eP	P	03 47 51.9	-0.4
	comp=Z,34nm,0.3s						
LSA	Lhasa	16.81	356	eP	P	03 47 55.3	+2.2
LSA				pmax	pmax		
	comp=Z,22nm,0.6s						
LSA	Lhasa	16.81	356	eP	P	03 47 55.3	+2.2
	comp=Z,22nm,0.6s						
KOLN	Koldanda	16.99	332	eP	P	03 47 54.7	-0.6
	comp=Z,146nm,0.8s						
BHPL	Bhopal	17.61	308	eP	P	03 48 02.5	-0.6
BHPL				e		03 48 07.1	
	comp=Z,28nm,1.2s						
KAD	Karad	18.17	286	e	P	03 48 18.5	+8.3
KAD				i S	S	03 51 16.9	-12
GYA	Guiyang	19.02	43	⇑iP	P	03 48 26.5	+6.1
GYA				AMB	AMB		
	comp=Z,30nm,0.6s						
NDI	New Delhi	21.19	320	eP	P	03 48 44.0	+0.2
NDI				e		03 52 00.0	
DDI	Dehra Dun	21.89	325	eP	P	03 48 53.3	+2.5
ENH	Enshi	23.43	40	eP	P	03 49 08.6	+2.5
	comp=Z,50nm,0.8s,mb5.0						
LZH	Lanzhou	25.31	22	eP	pP	03 49 31.5	+1.1
LZH				AP	pP	03 49 34.5	+4.1
LZH				XP	sP	03 49 36.0	+2.7
LZH				AMB	AMB		
	comp=Z,51nm,1.0s,mb5.0						
XAN	Xi'an	25.88	33	P	P	03 49 29.0	-0.4
XAN				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.1						
BJT	Baijiatuau	34.19	33	eP	P	03 50 46.9	+3.6
BJT				pmax	pmax		
	comp=Z,5.0nm,0.5s						
BJT	Baijiatuau	34.19	33	eP	P	03 50 46.9	+3.6
	comp=Z,5.2nm,0.5s,mb4.7						
BJI	Beijing	34.20	33	P	P	03 50 50.0	+6.5
BJI				AMB	AMB		
	comp=Z,15nm,0.8s,mb5.0						
SONM	Songino Array	36.77	16	P	P	03 51 06.1	+0.9
	comp=Z,0.9nm,0.6s,mb3.8,baz=198,slow=7.0,SNR=7.6						
SONM				pP	pP	03 51 12.7	+1.1
	comp=Z,4.2nm,0.7s,baz=202,slow=7.5,SNR=19						
ULN	Ulaanbaatar	36.98	16	eP	P	03 51 09.1	+2.2
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.0						
ULN	Ulaanbaatar	36.98	16	eP	P	03 51 09.1	+2.2
	comp=Z,2.4nm,0.8s,mb4.1						
ZAL	Zalesovo	41.43	353	P	P	03 51 44.3	+0.5
	comp=Z,1.2nm,0.6s,mb3.7,baz=214,slow=9.3,SNR=6.6						
ZAL				pP	pP	03 51 50.6	+0.3
	comp=Z,11nm,1.1s,baz=210,slow=7.7,SNR=13						
BVAR	Borovoye Array	43.77	341	P	P	03 52 02.7	-0.2
	comp=Z,0.9nm,0.6s,mb3.6,baz=149,slow=8.6,SNR=5.2						
BVAR				pP	pP	03 52 10.0	+0.6
	comp=Z,1.7nm,0.6s,baz=141,slow=9.5,SNR=8.7						
BRVK	Borovoye	43.83	341	eP	pP	03 52 08.7	-1.2
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
BRVK	Borovoye	43.83	341	eP	pP	03 52 08.7	-1.2
	comp=Z,3.8nm,0.9s						
BOD	Bodaibo	47.77	15	eP	P	03 52 35.7	+1.0
GNI	Garni	49.83	312	P	P	03 52 49.9	-0.9
	comp=Z,1.9nm,0.5s,mb4.4,baz=37,slow=18,SNR=2.1						
ZEI	Tsey	51.32	315	eP	P	03 53 02.0	-0.1
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
WRA	Warramunga Arr	52.56	128	P	P	03 53 11.5	-0.3
	comp=Z,4.5nm,0.7s,mb4.5,baz=305,slow=8.3,SNR=20						
WRA				pP	pP	03 53 18.0	-0.4
	comp=Z,2.7nm,0.6s,baz=306,slow=8.5,SNR=8.0						
WRA				PcP	PcP	03 54 22.4	+0.5
	comp=Z,1.5nm,0.8s,baz=315,slow=3.8,SNR=3.6						
WRA				pPcP		03 54 29.4	
	comp=Z,1.5nm,0.6s,baz=318,slow=3.2,SNR=7.8						
KIV	Kislovodsk	52.56	316	eP	P	03 53 14.0	+2.5
KIV				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
KIV	Kislovodsk	52.56	316	eP	P	03 53 14.0	+2.5
	comp=Z,3.2nm,0.6s,mb4.4						
WRAB	Tennant Creek	52.56	128	eP	P	03 53 11.3	-0.5
WRAB				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
WRAB	Tennant Creek	52.56	128	eP	P	03 53 11.3	-0.5
	comp=Z,6.7nm,0.7s,mb4.7						
ASAR	Alice Springs	54.42	132	P	P	03 53 25.1	-0.3
	comp=Z,2.1nm,0.6s,mb4.2,baz=309,slow=6.7,SNR=35						
ASAR				PcP	PcP	03 54 29.7	+0.7

	comp=Z,0.7nm,1.0s,baz=315,slow=5.0,SNR=4.2						
ASAR				pPcP		03 54 36.4	
	comp=Z,1.8nm,0.7s,baz=315,slow=3.4,SNR=8.3						
BRTR	**Keskin Array B**	**57.97**	**309**	P	**P**	**03 53 50.6**	**-0.1**
	comp=Z,1.1nm,0.8s,mb3.9,baz=106,slow=9.0,SNR=5.3						
BRTR				pP	pP	03 53 57.4	0.0
	comp=Z,1.8nm,0.8s,baz=124,slow=8.0,SNR=8.3						
PMG	**Port Moresby**	**58.67**	**109**	P	**P**	**03 53 54.0**	**-1.9**
	comp=Z,8.2nm,0.6s,mb5.0,baz=261,slow=3.5,SNR=4.5						
AKASG	**Malin Array Be**	**63.25**	**321**	P	**P**	**03 54 25.4**	**-1.0**
	comp=Z,0.7nm,0.6s,mb4.0,baz=88,slow=4.3,SNR=5.4						
AKASG				pP	pP	03 54 32.7	-0.5
	comp=Z,0.6nm,0.5s,baz=79,slow=4.0,SNR=2.9						
MLR	**Muntele Rosu**	**64.49**	**314**	P	**P**	**03 54 35.3**	**+0.7**
	comp=Z,2.9nm,0.9s,mb4.3,baz=92,slow=14,SNR=3.8						
STKA	**Stephens Creek**	**64.75**	**135**	P	**P**	**03 54 36.5**	**-0.2**
	comp=Z,2.4nm,0.8s,mb4.3,baz=304,slow=20,SNR=3.0						
FINES	**FINESS Array B**	**67.56**	**332**	P	**P**	**03 54 53.9**	**-0.2**
	comp=Z,7.9nm,1.2s,mb4.6,baz=90,slow=3.8,SNR=7.1						
FINES				pP	pP	03 55 00.3	-0.5
	comp=Z,2.2nm,0.6s,baz=96,slow=6.9,SNR=4.6						
ARCES	**ARCESS Array B**	**70.04**	**340**	P	**P**	**03 55 09.6**	**+0.4**
	comp=Z,2.2nm,0.9s,mb4.1,baz=80,slow=7.4,SNR=3.6						
ARCES				pP	pP	03 55 15.0	-1.0
	comp=Z,4.1nm,0.7s,baz=89,slow=6.9,SNR=3.3						
GERES	**GERESS Array B**	**73.04**	**317**	P	**P**	**03 55 27.9**	**+0.4**
	comp=Z,2.3nm,1.2s,mb4.0,baz=127,slow=6.7,SNR=4.8						
GERES				pP	pP	03 55 34.9	+0.6
	comp=Z,1.0nm,0.8s,baz=90,slow=6.7,SNR=6.1						
HFS	**Hagfors**	**73.34**	**329**	P	**P**	**03 55 29.2**	**+0.1**
	comp=Z,1.7nm,0.7s,mb4.1,baz=67,slow=11,SNR=2.8						
HFS				pP	pP	03 55 36.1	+0.3
	comp=Z,1.9nm,0.6s,baz=141,slow=9.5,SNR=2.6						
MOX	**Moxa**	**74.37**	**319**	*e*P	pP	03 55 40.0	-2.0
NB2	**NORSAR Subarra**	**74.60**	**330**	P	**P**	**03 55 36.1**	**-0.3**
	comp=Z,4.0nm,0.8s,mb4.4,baz=91,slow=5.8						
NB2	**NORSAR Subarra**	**74.60**	**330**	P	**P**	**03 55 36.1**	**-0.3**
NB2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
NOA	**NORSAR Array B**	**74.60**	**330**	P	**P**	**03 55 36.2**	**-0.1**
	comp=Z,0.7nm,0.7s,mb3.7,baz=308,slow=23,SNR=2.8						
NOA				pP	pP	03 55 43.0	-0.1
	comp=Z,1.9nm,0.7s,baz=91,slow=5.7,SNR=5.1						
BOSA	**Boshof**	**76.87**	**236**	*e*P	**P**	**03 55 51.0**	**+1.1**
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.2						
BOSA	**Boshof**	**76.87**	**236**	*e*P	**P**	**03 55 51.0**	**+1.1**
	comp=Z,2.8nm,0.9s,mb4.2						
SUR	**Sutherland**	**81.82**	**234**	*e*P	**P**	**03 56 20.6**	**+4.1**
	comp=Z,18nm,1.0s,mb5.0						
IMA	**Indian Mountai**	**87.67**	**22**	*e*P	pP	03 56 53.6	+1.6
ILAR	**Eielson Array**	**90.78**	**22**	P	**P**	**03 56 60.0**	**+0.2**
	comp=Z,0.6nm,0.8s,mb4.0,baz=296,slow=5.1,SNR=5.2						
ILAR				pP	pP	03 57 07.0	+0.4
	comp=Z,1.2nm,0.7s,baz=296,slow=4.1,SNR=10						
NVAR	**Mina Array Bea**	**121.43**	**28**	PKP	PKPdf	04 02 52.5	-1.3
	comp=Z,0.4nm,0.8s,baz=270,slow=1.8,SNR=4.5						
NVAR				pPKP		04 02 59.6	
	comp=Z,0.6nm,0.6s,baz=359,slow=1.9,SNR=3.9						
TXAR	**Lajitas Array**	**135.27**	**20**	PKP	PKPdf	04 03 18.5	-2.0
	comp=Z,1.0nm,1.1s,baz=143,slow=1.8,SNR=3.7						
TXAR				pPKP		04 03 26.1	
	comp=Z,0.4nm,0.6s,baz=75,slow=0.2,SNR=5.0						

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*IDC **29** 03:46:29.8±0.8, 8.61N×93.37E, mb4.3/17, mb1 4.4/18, mb1mx4.3/24, mbtmp4.3/18, ML3.4/1, MS4.3/4, Ms1 4.3/4, ms1mx3.7/30, Error ellipse: s-maj=34.7km s-min=15.7km az=43.0*

ISC 29 03:46:33.4±0.6**, 8.7N**±0.1×**93.6E**±0.1**, h33^{km}, n37, σ1^{s}06**/33**, mb4.4**/19**, MS4.3**/4**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.05**	**28**	Pn	**P**	**03 49 12.8**	**+0.6**
	0.1nm,0.3s,baz=214,slow=14,SNR=4.3						
VIS	**Vishakhapatnam**	**13.40**	**313**	*e*P	**P**	**03 49 43.4**	**-0.5**
VIS				*e*		03 49 45.9	
	comp=Z,94nm,1.0s						
VIS				*e*S	**S**	**03 51 58.9**	**-14**
BWNR	**Bhubaneshwar**	**13.77**	**328**	*e*	**P**	**03 49 38.3**	**-10**
	comp=Z,16nm,0.2s						
BWNR				*e*		03 51 51.2	
SHL	**Shillong**	**16.88**	**355**	*e*P	**P**	**03 50 27.0**	**-1.7**
BHPL	**Bhopal**	**21.18**	**315**	*e*P	**P**	**03 51 21.6**	**+3.3**
	comp=Z,70nm,1.3s,mb4.8						
BHPL				*e*		03 51 23.6	
	comp=Z,70nm,1.3s						
POO	**Poona**	**21.48**	**299**	*e*	**P**	**03 51 11.0**	**-10**
PTH	**Pithoragarh**	**24.24**	**331**	*e*P	**P**	**03 51 50.3**	**+1.8**
PTH				*e*S	**S**	**03 56 11.1**	**+9.0**
DDI	**Dehra Dun**	**25.96**	**328**	*e*P	**P**	**03 52 06.5**	**+1.6**
DDI				*e*	**S**	**03 56 49.5**	**+19**
SONM	**Songino Array**	**40.52**	**13**	P	**P**	**03 54 12.1**	**+1.1**
	comp=Z,3.8nm,1.1s,mb3.9,baz=207,slow=8.3,SNR=4.3						
SONM				PcP	PcP	03 56 12.8	-0.9
	comp=Z,0.9nm,0.7s,baz=225,slow=4.1,SNR=3.6						
ZAL	**Zalesovo**	**45.68**	**353**	P	**P**	**03 54 52.6**	**-0.2**
	comp=Z,2.6nm,0.5s,mb4.4,baz=207,slow=12,SNR=11						
BVAR	**Borovoye Array**	**48.05**	**341**	P	**P**	**03 55 10.5**	**-1.0**
	comp=Z,0.9nm,0.3s,mb4.2,baz=143,slow=7.4,SNR=7.5						
BVAR				PcP	PcP	03 56 39.6	+0.2
	comp=Z,1.5nm,0.8s,baz=153,slow=3.2,SNR=2.9						
WRA	**Warramunga Arr**	**49.20**	**126**	P	**P**	**03 55 21.5**	**+0.7**
	comp=Z,1.3nm,0.7s,mb4.1,baz=306,slow=8.5,SNR=3.5						
ASAR	**Alice Springs**	**50.88**	**130**	P	**P**	**03 55 32.9**	**-0.7**
	comp=Z,1.8nm,0.8s,mb4.1,baz=311,slow=7.4,SNR=7.1						
GNI	**Garni**	**53.46**	**314**	LR	LR	04 21 43.9	
	comp=Z,152nm,19.1s,MS4.1,baz=47,slow=40						
PMG	**Port Moresby**	**56.33**	**107**	P	**P**	**03 56 13.9**	**0.0**
	comp=Z,9.8nm,0.8s,mb4.9,baz=240,slow=12,SNR=3.1						
KMBO	**Kilima Mbogo**	**56.93**	**263**	LR	LR	04 18 41.6	
	comp=Z,299nm,19.8s,MS4.4,baz=203,slow=34						
ASF	**Jabal al Asfar**	**57.29**	**303**	LR	LR	04 23 04.9	
	comp=Z,197nm,20.6s,MS4.2,baz=152,slow=38						
STKA	**Stephens Creek**	**61.08**	**134**	LR	LR	04 23 59.5	
	comp=Z,411nm,19.9s,MS4.6,baz=294,slow=37						
BRTR	**Keskin Array B**	**61.47**	**311**	P	**P**	**03 56 47.5**	**-1.8**
	comp=Z,2.2nm,0.7s,mb4.4,baz=127,slow=7.3,SNR=9.4						
AKASG	**Malin Array Be**	**67.17**	**322**	P	**P**	**03 57 24.2**	**-1.9**
	comp=Z,2.0nm,0.7s,mb4.2,baz=86,slow=5.0,SNR=7.1						
MLR	**Muntele Rosu**	**68.19**	**316**	P	**P**	**03 57 33.4**	**+0.8**
	comp=Z,7.1nm,1.0s,mb4.6,baz=5.0,slow=1.6,SNR=7.7						
FINES	**FINESS Array B**	**71.73**	**332**	P	**P**	**03 57 52.8**	**-1.1**
	comp=Z,2.5nm,0.8s,mb4.2,baz=130,slow=15,SNR=5.1						
OJC	**Ojcow**	**72.99**	**320**	*e*P	**P**	**03 58 01.7**	**+0.1**
ARCES	**ARCESS Array B**	**74.32**	**340**	P	**P**	**03 58 08.7**	**-0.3**
	comp=Z,2.6nm,0.6s,mb4.3,baz=97,slow=6.4,SNR=6.3						
PRU	**Pruhonice**	**76.34**	**319**	*e*P	**P**	**03 58 25.6**	**+4.7**
GERES	**GERESS Array B**	**76.84**	**318**	P	**P**	**03 58 24.0**	**+0.2**
	comp=Z,3.8nm,1.0s,mb4.3,baz=83,slow=5.5,SNR=13						
KHC	**Kasperske Hory**	**76.93**	**318**	*e*P	**P**	**03 58 25.5**	**+1.2**
HFS	**Hagfors**	**77.47**	**330**	P	**P**	**03 58 26.5**	**-0.6**
	comp=Z,1.6nm,0.4s,mb4.3,baz=108,slow=4.7,SNR=8.0						
NB2	**NORSAR Subarra**	**78.75**	**331**	P	**P**	**03 58 32.7**	**-1.4**
	comp=Z,4.0nm,0.8s,mb4.4,baz=92,slow=5.6						
NOA	**NORSAR Array B**	**78.75**	**331**	P	**P**	**03 58 33.3**	**-0.8**
	comp=Z,3.6nm,0.9s,mb4.3,baz=92,slow=5.6,SNR=8.7						
DAVOX	**Davos**	**79.41**	**316**	P	**P**	**03 58 38.3**	**+0.3**
	comp=Z,2.6nm,0.6s,mb4.3,baz=116,slow=6.1,SNR=6.2						
LPG	**La Plagne**	**81.64**	**315**	*e*P	**P**	**03 58 51.0**	**+1.2**
	comp=Z,30nm,1.0s,mb4.9						
EKA	**Eskdalemuir Ar**	**86.73**	**325**	P	**P**	**03 59 16.1**	**+0.9**
	comp=Z,3.7nm,0.8s,mb4.7,baz=96,slow=5.0,SNR=7.4						
ILAR	**Eielson Array**	**94.23**	**22**	P	**P**	**03 59 49.5**	**-0.5**
	comp=Z,2.4nm,1.1s,mb4.5,baz=300,slow=4.4,SNR=9.0						
NVAR	**Mina Array Bea**	**124.53**	**30**	PKP	PKPdf	04 05 33.6	+3.6
	comp=Z,0.7nm,0.7s,baz=60,slow=2.7,SNR=6.2						
PDAR	**Pinedale Array**	**124.63**	**21**	PKP	PKPdf	04 05 32.0	+2.0
	comp=Z,1.0nm,0.8s,baz=13,slow=1.9,SNR=8.3						
TXAR	**Lajitas Array**	**138.73**	**23**	PKP	PKPdf	04 05 60.0	+3.1
	comp=Z,0.2nm,0.4s,baz=252,slow=0.6,SNR=8.1						

BJI 29 03:50:34.2, 29.55N×105.88E, h25^{km}, ML3.2, Ms3.5, Msz3.5, 1C, Sichuan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GYA	**Guiyang**	**3.16**	**167**⇑	*i*P	Pn	03 51 24.8	+1.2
GYA				LR	LR		
	comp=N,1µm,15.3s						
GYA				LR	LR		
	comp=E,1µm,16.2s						
GYA				LR	LR		
	comp=Z,1µm,16.0s						
KMI	**Kunming**	**5.22**	**213**	P	Pn	03 51 52.3	-0.5
KMI				LR	LR		
	comp=N,582nm,11.6s						
KMI				LR	LR		
	comp=E,683nm,12.5s						
KMI				LR	LR		
	comp=Z,413nm,13.0s						
LZH	**Lanzhou**	**6.74**	**346**	*e*PG	Pn	03 52 31.0	+17
LZH				LR	LR		
	comp=E,559nm,13.6s						
LZH				LR	LR		
	comp=Z,1µm,15.0s						

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*IDC **29** 03:53:28.6±1.5, 49.65S×161.47E, mb4.4/2, mb1 4.6/3, mb1mx4.0/9, mbtmp4.3/3, ML4.1/1, Error ellipse: s-maj=50.0km s-min=31.3km az=172.0*

ISC 29 03:53:30.5±1.9**, 49.3S**±0.3×**161.5E**±0.2**, h10^{km}, n11, σ0^{s}91**/11**, mb4.4**/2**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	**Wether Hill Ro**	**5.54**	**55**	P	**Pn**	**03 54 56.1**	**+0.9**
WHZ				S	**Sn**	**03 55 59.4**	**-0.4**
MLZ	**Mavora Lakes**	**6.03**	**52**	P	**Pn**	**03 55 03.4**	**+1.4**
MLZ				S	**Sn**	**03 56 10.7**	**-1.1**
TUZ	**Tuapeka**	**6.45**	**62**	P	**Pn**	**03 55 07.6**	**-0.3**
EAZ	**Earnscleugh**	**6.70**	**56**	P	**Pn**	**03 55 11.6**	**+0.1**
ODZ	**Otahua Downs**	**7.56**	**59**	P	**Pn**	**03 55 21.6**	**-1.9**
RPZ	**Rata Peaks**	**8.64**	**54**	Pn	**P**	**03 55 39.1**	**+0.5**
	1.9nm,0.3s,baz=233,slow=4.1,SNR=4.7						
RPZ				Sn	**Sn**	**03 57 18.2**	**+1.0**
	0.8nm,0.3s,baz=356,slow=19,SNR=2.4						
ASAR	**Alice Springs**	**33.48**	**310**	P	**P**	**04 00 12.2**	**+0.2**
	3.4nm,0.7s,mb4.4,baz=144,slow=8.6,SNR=28						
WRA	**Warramunga Arr**	**36.42**	**314**	P	**P**	**04 00 36.6**	**-0.5**
	4.8nm,0.8s,mb4.5,baz=146,slow=8.1,SNR=22						
AKASG	**Malin Array Be**	**149.67**	**291**	PKPbc	PKPdf	04 13 18.6	+0.8
	0.3nm,0.3s,baz=82,slow=3.4,SNR=6.5						
AKASG				PKPab	PKPab	04 13 25.5	-1.3
	0.8nm,0.6s,baz=82,slow=2.7,SNR=4.8						
ARCES	**ARCESS Array B**	**150.81**	**330**	PKP	PKPdf	04 13 14.9	-4.0
	3.4nm,0.9s,baz=126,slow=1.5,SNR=3.0						
ARCES				PKPbc	PKPdf	04 13 22.2	+3.2
	4.4nm,0.9s,baz=45,slow=5.1,SNR=7.0						
ARCES				PKPab	PKPab	04 13 29.4	-1.6
	1.7nm,0.6s,baz=45,slow=3.4,SNR=6.4						
FINES	**FINESS Array B**	**152.46**	**313**	PKP	PKPdf	04 13 18.3	-3.3
	1.3nm,0.8s,baz=180,slow=2.2,SNR=2.2						
FINES				PKPbc	PKPdf	04 13 25.9	+4.3
	0.8nm,0.6s,baz=153,slow=4.3,SNR=5.5						

IDC 29 03:58:03.0±1.0**, 5.46N×93.80E, h34^{km}**±7^{km}**, mb3.7**/5**, mb1 4.0**/6**, mb1mx3.7**/18**, mbtmp3.9**/6**, Error ellipse: s-maj=47.4km s-min=17.5km az=45.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.86**	**21**	Pn	P	04 01 15.4	-4.1
	baz=231,slow=14,SNR=11						
SONM	**Songino Array**	**43.58**	**12**	P	P	04 06 04.6	-1.1
	0.2nm,0.4s,baz=198,slow=9.1,SNR=2.5						
WRA	**Warramunga Arr**	**47.18**	**124**	P	P	04 06 32.5	-2.2
	3.5nm,0.8s,baz=302,slow=9.0,SNR=16						
WRA				pP	pP	04 06 42.7	-2.0
	1.9nm,0.6s,baz=302,slow=9.0,SNR=6.6						
ASAR	**Alice Springs**	**48.66**	**128**	P	P	04 06 44.2	-2.0
	2.1nm,0.8s,baz=309,slow=7.3,SNR=15						
ASAR				pP	pP	04 06 54.4	-1.9
	0.9nm,0.6s,baz=300,slow=7.7,SNR=5.2						
BRTR	**Keskin Array B**	**63.76**	**312**	P	P	04 08 31.4	-2.7
	0.8nm,0.7s,baz=101,slow=6.3,SNR=3.5						
BRTR				pP	pP	04 08 42.4	-2.1
	0.3nm,0.4s,baz=114,slow=9.3,SNR=1.5						
GERES	**GERESS Array B**	**79.40**	**319**	P	P	04 10 06.3	-1.2
	0.9nm,0.7s,baz=76,slow=5.5,SNR=8.7						

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*IDC **29** 04:11:13.9±1.4, 49.94S×160.94E, mb4.2/2, mb1 4.6/4, mb1mx4.1/9, mbtmp4.4/4, ML4.0/2, Error ellipse: s-maj=49.7km s-min=30.9km az=1.0*

ISC 29 04:11:15.4±2.9**, 49.3S**±0.4×**161.4E**±0.2**, h10^{km}, n13, σ0^{s}44**/9**, mb4.3**/2**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	**Wether Hill Ro**	**5.61**	**55**	P	**Pn**	**04 12 41.5**	**+0.6**
WHZ				S	**Sn**	**04 13 45.9**	**-0.3**
MLZ	**Mavora Lakes**	**6.09**	**52**	P	**Pn**	**04 12 48.2**	**+0.5**
TUZ	**Tuapeka**	**6.51**	**62**	P	**Pn**	**04 12 52.9**	**-0.8**
EAZ	**Earnscleugh**	**6.77**	**56**	P	**Pn**	**04 12 57.4**	**+0.2**
RPZ	**Rata Peaks**	**8.71**	**54**	Pn	**P**	**04 13 29.3**	**+4.9**
	2.3nm,0.3s,baz=162,slow=7.0,SNR=4.0						
URZ	**Urewera**	**15.82**	**52**	Pn	**P**	**04 15 06.1**	**+6.5**
	0.3nm,0.3s,baz=252,slow=4.7,SNR=5.5						
ASAR	**Alice Springs**	**33.47**	**310**	P	**P**	**04 17 56.6**	**0.0**
	2.4nm,0.7s,mb4.2,baz=144,slow=7.7,SNR=28						
WRA	**Warramunga Arr**	**36.41**	**314**	P	**P**	**04 18 21.7**	**-0.2**
	3.8nm,0.8s,mb4.4,baz=145,slow=8.1,SNR=20						
TXAR	**Lajitas Array**	**114.70**	**73**	PKP	PKPdf	04 29 56.9	-1.9
	0.1nm,0.6s,baz=219,slow=5.8,SNR=3.4						
AKASG	**Malin Array Be**	**149.63**	**291**	PKPbc	PKPdf	04 31 03.8	+1.2
	1.0nm,0.5s,baz=81,slow=2.7,SNR=10						
ARCES	**ARCESS Array B**	**150.81**	**330**	PKPbc	PKPdf	04 31 07.2	+3.4
	3.6nm,0.7s,baz=63,slow=2.0,SNR=9.6						
FINES	**FINESS Array B**	**152.45**	**313**	PKPbc	PKPdf	04 31 10.8	+4.4
	1.8nm,0.6s,baz=90,slow=3.8,SNR=7.2						
GERES	**GERESS Array B**	**158.90**	**281**	PKPab	PKPab	04 31 48.6	-2.2
	0.7nm,0.9s,baz=63,slow=3.0,SNR=3.9						

IDC 29 04:14:10.5±1.4**, 6.61N×92.73E, mb3.8**/6**, mb1 4.0**/6**, mb1mx3.8**/19**, mbtmp3.8**/6**, Error ellipse: s-maj=106.9km s-min=22.0km az=46.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.70**	**124**	P	P	04 22 56.8	-2.2
	0.8nm,1.0s,baz=309,slow=8.1,SNR=3.6						
BVAR	**Borovoye Array**	**49.74**	**342**	P	P	04 23 03.7	-2.9
	0.7nm,0.5s,baz=146,slow=5.2,SNR=4.4						
ASAR	**Alice Springs**	**50.21**	**128**	P	P	04 23 08.3	-2.2
	1.2nm,0.8s,baz=309,slow=7.0,SNR=9.2						
BRTR	**Keskin Array B**	**62.20**	**312**	P	P	04 24 34.3	-2.1
	0.5nm,0.6s,baz=143,slow=7.2,SNR=4.7						
ARCES	**ARCESS Array B**	**75.97**	**340**	P	P	04 25 59.7	-1.1
	1.8nm,0.8s,baz=124,slow=6.5,SNR=2.9						
GERES	**GERESS Array B**	**77.83**	**318**	P	P	04 26 09.8	-1.7
	0.7nm,0.7s,baz=90,slow=5.3,SNR=4.9						
PDAR	**Pinedale Array**	**126.84**	**20**	PKP	PKPdf	04 33 17.8	-0.6
	0.3nm,0.9s,baz=297,slow=4.0,SNR=3.4						
TXAR	**Lajitas Array**	**140.93**	**23**	PKP	PKPdf	04 33 46.3	+1.0
	0.2nm,0.5s,baz=274,slow=0.5,SNR=9.1						

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*IDC **29** 04:15:03.9±1.0, 13.55N×92.63E, h23^{km}±5^{km}, mb3.8/9, mb1 4.0/10, mb1mx3.8/18, mbtmp3.9/10, ML4.1/1, Error ellipse: s-maj=34.1km s-min=16.1km az=58.0*

ISC 29 04:15:01.4±0.8**, 13.4N**±0.1×**92.5E**±0.1**, h23^{km}, (h23^{km}**±1.1^{km}**:pP-P), n11, σ0^{s}82**/11**, mb3.8**/9**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.95**	**50**	Pn	Pn	04 16 57.0	-1.4
	0.7nm,0.3s,baz=236,slow=13,SNR=4.2						
CMAR				Sn	Sn	04 18 31.4	+2.9
	0.6nm,0.3s,baz=238,slow=29,SNR=4.5						
SONM	**Songino Array**	**36.22**	**16**	P	P	04 22 04.5	0.0
	1.0nm,1.0s,mb3.7,baz=210,slow=10.0,SNR=3.7						
SONM				pP	pP	04 22 10.4	-0.9
	0.5nm,0.5s,baz=200,slow=9.6,SNR=4.2						
ZAL	**Zalesovo**	**40.90**	**353**	P	P	04 22 42.9	-0.5
	1.5nm,0.4s,mb4.0,baz=314,slow=3.0,SNR=3.6						
ZAL				pP	pP	04 22 49.6	-0.6
	1.9nm,0.3s,baz=252,slow=4.6,SNR=2.4						
WRA	**Warramunga Arr**	**52.82**	**128**	P	P	04 24 17.8	+0.1
	0.4nm,0.5s,mb3.6,baz=295,slow=9.6,SNR=4.9						
WRA				pP	pP	04 24 25.3	+0.6
	1.5nm,0.5s,baz=306,slow=8.0,SNR=5.7						
ASAR	**Alice Springs**	**54.71**	**132**	P	P	04 24 31.7	+0.1
	0.9nm,0.4s,mb4.1,baz=305,slow=6.9,SNR=11						
ASAR				pP	pP	04 24 39.5	+0.9
	0.9nm,0.6s,baz=308,slow=6.8,SNR=5.2						
BRTR	**Keskin Array B**	**57.70**	**309**	P	P	04 24 53.6	+0.8
	0.3nm,0.6s,mb3.5,baz=120,slow=10.0,SNR=5.0						
FINES	**FINESS Array B**	**67.12**	**331**	P	P	04 25 54.5	-0.7
	2.2nm,1.1s,mb4.1,baz=108,slow=6.0,SNR=5.2						
GERES	**GERESS Array B**	**72.70**	**317**	P	P	04 26 30.1	+0.6
	0.8nm,0.7s,mb3.8,baz=90,slow=6.7,SNR=5.7						
NOA	**NORSAR Array B**	**74.18**	**330**	P	P	04 26 38.1	+0.3
	1.1nm,0.8s,mb3.8,baz=276,slow=18,SNR=2.8						
ILAR	**Eielson Array**	**90.23**	**22**	P	P	04 28 00.8	-0.4
	0.4nm,0.8s,mb3.8,baz=296,slow=5.0,SNR=6.4						
TXAR	**Lajitas Array**	**134.72**	**20**	PKP	PKPdf	04 34 21.7	-1.8
	0.2nm,0.6s,baz=37,slow=1.3,SNR=4.5						

IDC 29 04:17:19.3±14.0**, 18.82S×175.61W, h191^{km}**±122^{km}**, mb4.1**/5**, mb1 4.2**/5**, mb1mx3.7**/16**, mbtmp4.6**/5**, Error ellipse: s-maj=74.0km s-min=36.3km az=25.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	**Urewera**	**20.38**	**197**	P	P	04 21 41.3	-1.3
	31nm,0.9s,baz=36,slow=4.7,SNR=14						
CTA	**Charters Tower**	**35.94**	**262**	P	P	04 24 02.1	-1.2
	3.2nm,0.4s,baz=77,slow=11,SNR=11						
STKA	**Stephens Creek**	**40.55**	**243**	P	P	04 24 40.0	-1.5
	1.6nm,0.4s,baz=86,slow=8.7,SNR=8.7						
WRA	**Warramunga Arr**	**47.09**	**260**	P	P	04 25 31.7	-2.3
	6.1nm,0.4s,baz=96,slow=7.4,SNR=4.7						
WRA				PcP	PcP	04 27 01.4	-1.7
	0.6nm,0.4s,baz=92,slow=3.4,SNR=4.1						
ASAR	**Alice Springs**	**47.12**	**255**	P	P	04 25 32.2	-1.8
	6.8nm,0.6s,baz=94,slow=8.1,SNR=69						
ASAR				PcP	PcP	04 27 00.7	-2.4
	1.6nm,0.9s,baz=105,slow=3.4,SNR=5.5						
BRTR	**Keskin Array B**	**147.30**	**316**	PKPbc	PKPdf	04 36 40.4	+2.8
	0.9nm,0.5s,baz=90,slow=1.4,SNR=5.1						
GERES	**GERESS Array B**	**149.12**	**348**	PKPbc	PKPdf	04 36 44.0	+3.8
	0.2nm,0.5s,baz=45,slow=1.9,SNR=4.2						

IDC 29 04:22:05.0±4.8**, 34.38N×24.06E, h45^{km}**±36^{km}**, mb3.4**/1**, mb1 3.3**/4**, mb1mx3.1**/21**, mbtmp3.3**/4**, ML3.4**/3**, Error ellipse: s-maj=52.3km s-min=36.3km az=149.0, Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDI	**Anoyia**	**1.13**	**37**	P	P	04 22 24.1	-0.6
	21nm,0.3s,baz=231,slow=18,SNR=111						
IDI				S	S	04 22 39.2	-0.2
	40nm,0.3s,baz=337,slow=22,SNR=12						
BRTR	**Keskin Array B**	**9.33**	**52**	P	P	04 24 16.9	-2.9
	0.1nm,0.3s,baz=235,slow=15,SNR=3.7						
GERES	**GERESS Array B**	**16.38**	**335**	P	P	04 25 52.7	-0.4
	0.1nm,0.3s,baz=144,slow=12,SNR=5.2						
AKASG	**Malin Array Be**	**16.74**	**11**	P	P	04 25 55.6	-2.0
	0.6nm,0.3s,baz=207,slow=10.0,SNR=4.5						
SONM	**Songino Array**	**60.68**	**50**	P	P	04 32 11.6	-2.2
	0.4nm,0.6s,baz=293,slow=6.7,SNR=3.4						

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*IDC **29** 04:25:42.7±5.3, 8.83S×119.66E, h107^{km}±48^{km}, mb3.8/8, mb1 3.9/9, mb1mx3.8/17, mbtmp4.2/9, Error ellipse: s-maj=43.7km s-min=12.1km az=55.0*

ISC 29 04:25:39.3±0.5**, 8.8S**±0.2×**119.6E**±0.2**, h100^{km}, n17, σ0^{s}79**/17**, mb4.5**/10**, Flores region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**18.09**	**129**	P	**P**	**04 29 44.9**	**-0.6**
	0.8nm,0.3s,baz=304,slow=13,SNR=11						
WRA				S	**S**	**04 32 54.2**	**-6.5**
	1.3nm,0.3s,baz=307,slow=24,SNR=8.5						
ASAR	**Alice Springs**	**20.19**	**139**	P	**P**	**04 30 08.1**	**-0.1**
	4.5nm,0.4s,baz=317,slow=9.0,SNR=26						
ASAR				S	**S**	**04 33 47.6**	**+3.5**
	1.6nm,0.5s,baz=314,slow=24,SNR=4.3						
CTA	**Charters Tower**	**28.13**	**116**	P	**P**	**04 31 24.5**	**+0.3**
	2.2nm,0.7s,mb3.8,baz=304,slow=3.6,SNR=3.0						
STKA	**Stephens Creek**	**30.77**	**141**	P	**P**	**04 31 46.9**	**-0.7**
	1.2nm,0.6s,mb3.8,baz=326,slow=10.0,SNR=2.8						
CMAR	**Chiang Mai Arr**	**33.86**	**323**	P	**P**	**04 32 16.0**	**+1.5**
	5.0nm,0.5s,mb4.6,baz=158,slow=6.8,SNR=5.6						
GUN	**Gumba**	**48.91**	**319**	*e*P	**P**	**04 34 17.5**	**+0.2**
	53nm,0.9s,mb5.5						
PKI	**Pulchoki**	**48.98**	**319**	*e*P	**P**	**04 34 17.3**	**-0.5**
DMN	**Daman**	**49.21**	**318**	*e*P	**P**	**04 34 17.9**	**-1.7**
KKN	**Kakani**	**49.21**	**319**	*e*P	**P**	**04 34 19.3**	**-0.3**
GKN	**Gorkha**	**49.78**	**318**	*e*P	**P**	**04 34 23.7**	**-0.3**
	22nm,0.3s,mb5.5						
KOLN	**Koldanda**	**50.31**	**317**	*e*P	**P**	**04 34 27.7**	**-0.3**
	16nm,0.5s,mb5.2						
SONM	**Songino Array**	**57.55**	**350**	P	**P**	**04 35 21.8**	**+1.0**
	2.0nm,0.5s,mb4.4,baz=167,slow=7.8,SNR=11						
VNDA	**Vanda**	**72.12**	**171**	P	**P**	**04 36 54.6**	**+0.3**
	1.0nm,0.6s,mb3.9,baz=324,slow=6.8,SNR=8.4						
BVAR	**Borovoye Array**	**74.36**	**332**	P	**P**	**04 37 07.7**	**-0.1**
	0.9nm,0.6s,mb3.7,baz=194,slow=5.9,SNR=3.0						
SNAA	**Sanae**	**91.37**	**195**	P	**P**	**04 38 35.7**	**+1.0**
	0.7nm,0.5s,mb4.0,baz=184,slow=5.7,SNR=11						
DBIC	**Dimbokro**	**124.94**	**272**	PKP	PKPdf	04 44 30.4	+1.6
	1.7nm,0.4s,baz=104,slow=2.3,SNR=12						
LPAZ	**La Paz**	**153.96**	**163**	PKPbc	PKPdf	04 45 33.4	+14
	0.3nm,0.3s,baz=239,slow=5.9,SNR=2.9						
LPAZ				PKPab	PKPab	04 45 45.4	+1.5
	1.9nm,0.9s,baz=130,slow=4.5,SNR=5.0						

IDC 29 04:27:57.2±0.9**, 12.80N×92.49E, mb3.9**/8**, mb1 4.1**/9**, mb1mx4.0**/18**, mbtmp3.9**/9**, ML4.2**/1**, MS3.1**/1**, Ms1 3.3**/1**, ms1mx2.5**/29**, Error ellipse: s-maj=36.6km s-min=18.5km az=53.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.38**	**47**	Pn	P	04 29 59.6	-3.2
	0.8nm,0.3s,baz=233,slow=15,SNR=8.0						
CMAR				Sn	Sn	04 31 28.8	-11
	1.0nm,0.3s,baz=240,slow=28,SNR=5.4						
CMAR				LR	LR	04 33 47.5	
	comp=Z,126nm,20.6s,baz=82,slow=42						
SONM	**Songino Array**	**36.81**	**16**	P	P	04 35 07.0	-1.6
	1.3nm,0.9s,baz=198,slow=7.8,SNR=7.1						
BVAR	**Borovoye Array**	**43.84**	**341**	P	P	04 36 06.1	-0.5
	0.5nm,0.4s,baz=117,slow=9.9,SNR=3.4						
BVAR				PcP	PcP	04 37 52.4	-1.3
	0.6nm,0.5s,baz=104,slow=5.9,SNR=2.8						
WRA	**Warramunga Arr**	**52.48**	**128**	P	P	04 37 11.7	-2.7
	3.8nm,0.7s,baz=306,slow=8.5,SNR=10						
WRA				PcP	PcP	04 38 23.1	-2.0
	2.0nm,0.5s,baz=315,slow=3.3,SNR=11						
ASAR	**Alice Springs**	**54.34**	**132**	P	P	04 37 25.6	-2.4
	2.8nm,0.5s,baz=312,slow=6.6,SNR=13						
ASAR				PcP	PcP	04 38 30.7	-1.4
	1.9nm,0.5s,baz=313,slow=3.7,SNR=6.7						
BRTR	**Keskin Array B**	**58.05**	**309**	P	P	04 37 52.3	-2.1
	0.8nm,0.7s,baz=117,slow=8.3,SNR=4.8						
FINES	**FINESS Array B**	**67.63**	**332**	P	P	04 38 54.8	-3.0
	1.2nm,0.8s,baz=168,slow=27,SNR=2.6						
GERES	**GERESS Array B**	**73.11**	**317**	P	P	04 39 28.3	-2.9
	0.5nm,0.6s,baz=63,slow=6.0,SNR=3.9						
ILAR	**Eielson Array**	**90.81**	**22**	P	P	04 41 01.4	-1.9
	0.3nm,0.6s,baz=311,slow=4.5,SNR=7.2						
TXAR	**Lajitas Array**	**135.31**	**20**	PKP	PKPdf	04 47 20.6	-1.0
	0.3nm,0.7s,baz=76,slow=0.9,SNR=6.7						

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*IDC **29** 04:37:45.4±0.9, 9.44N×93.27E, mb4.0/11, mb1 4.2/12, mb1mx4.0/19, mbtmp4.0/12, ML4.3/1, MS3.7/1, Ms1 3.9/1, ms1mx3.3/25, Error ellipse: s-maj=33.3km s-min=19.7km az=55.0*

ISC 29 04:37:48.4±0.8**, 9.3N**±0.1×**93.5E**±0.1**, h33^{km}, n23, σ1^{s}18**/21**, mb4.0**/12**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.49**	**30**	Pn	**P**	**04 40 19.1**	**-0.6**
	0.7nm,0.3s,baz=218,slow=14,SNR=12						
CMAR				LR	LR	04 44 40.3	
	comp=Z,358nm,18.2s,baz=215,slow=39						
HYB	**Hyderabad**	**16.59**	**300**	*e*PP		04 41 49.0	
PKI	**Pulchoki**	**19.67**	**338**	*e*P	**P**	**04 42 18.8**	**+1.2**
	61nm,1.0s						
GUN	**Gumba**	**19.82**	**340**	*e*P	**P**	**04 42 20.4**	**+1.3**
DMN	**Daman**	**19.82**	**338**	*e*P	**P**	**04 42 20.5**	**+1.3**
	34nm,0.8s						
KKN	**Kakani**	**19.92**	**338**	*e*P	**P**	**04 42 20.9**	**+0.7**

	13nm,0.4s						
GKN	**Gorkha**	**20.35**	**337**	*e*P	**P**	**04 42 26.1**	**+1.3**
	24nm,0.4s						
KOLN	**Koldanda**	**20.57**	**334**	*e*P	**P**	**04 42 28.6**	**+1.5**
	53nm,0.9s						
SONM	**Songino Array**	**39.88**	**14**	P	**P**	**04 45 19.9**	**-0.8**
	0.9nm,0.9s,mb3.5,baz=180,slow=8.6,SNR=5.2						
ZAL	**Zalesovo**	**45.02**	**353**	P	**P**	**04 46 01.9**	**-0.6**
	2.0nm,0.5s,mb4.2,baz=203,slow=9.5,SNR=10						
BVAR	**Borovoye Array**	**47.40**	**341**	P	**P**	**04 46 20.5**	**-0.9**
	3.1nm,0.8s,mb4.3,baz=219,slow=38,SNR=6.6						
WRA	**Warramunga Arr**	**49.63**	**126**	P	**P**	**04 46 40.4**	**+1.2**
	1.5nm,0.8s,mb4.1,baz=302,slow=9.2,SNR=5.7						
ASAR	**Alice Springs**	**51.35**	**130**	P	**P**	**04 46 53.9**	**+1.7**
	1.3nm,0.8s,mb3.9,baz=305,slow=5.6,SNR=6.1						
BRTR	**Keskin Array B**	**60.99**	**310**	P	**P**	**04 47 59.8**	**-1.3**
	0.7nm,0.6s,mb4.0,baz=118,slow=6.5,SNR=6.6						
FINES	**FINESS Array B**	**71.12**	**332**	P	**P**	**04 49 04.4**	**-0.9**
	3.6nm,1.0s,mb4.3,baz=135,slow=8.1,SNR=7.5						
ARCES	**ARCESS Array B**	**73.67**	**340**	P	**P**	**04 49 19.8**	**-0.5**
	10nm,1.2s,mb4.6,baz=97,slow=6.7,SNR=13						
GERES	**GERESS Array B**	**76.31**	**318**	P	**P**	**04 49 34.1**	**-1.7**
	0.7nm,0.7s,mb3.7,baz=80,slow=6.0,SNR=4.1						
KHC	**Kasperske Hory**	**76.40**	**318**	*e*P	**P**	**04 49 37.0**	**+0.7**
HFS	**Hagfors**	**76.87**	**330**	P	**P**	**04 49 37.4**	**-1.4**
	1.0nm,0.4s,mb4.1,baz=108,slow=4.6,SNR=11						
NB2	**NORSAR Subarra**	**78.14**	**330**	P	**P**	**04 49 45.1**	**-0.7**
	0.9nm,0.8s,mb3.8,baz=92,slow=5.6						
NOA	**NORSAR Array B**	**78.14**	**330**	P	**P**	**04 49 45.5**	**-0.2**
	1.6nm,0.8s,mb4.0,baz=94,slow=5.3,SNR=4.0						
ILAR	**Eielson Array**	**93.63**	**22**	P	**P**	**04 51 00.2**	**-2.1**
	0.4nm,0.9s,mb3.9,baz=307,slow=4.5,SNR=4.7						
LPAZ	**La Paz**	**160.81**	**247**	PKPab	PKPab	04 58 31.2	+0.9
	1.6nm,0.8s,baz=88,slow=4.8,SNR=5.7						

JMA 29 04:43:58.2±0.3**, 45.36N**×**139.63E, h4**^{km}±3^{km}**, M3.8, Eastern Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JRR	**Rishiri**	**1.21**	**100**	P	Pb	04 44 21.5	+0.2
JRR				*e*S	Sb	04 44 38.0	+0.9
JYG	**Yagishiri**	**1.58**	**126**	P	Pn	04 44 27.2	0.0
JYG				*e*S	Sb	04 44 47.1	-0.8
JWK2	**Keihoku**	**1.60**	**91**	P	Pn	04 44 27.0	-0.4
JWK2				*e*S	Sb	04 44 48.3	-0.2
JSS	**Shosan**	**1.85**	**120**	P	Pn	04 44 31.1	+0.1
JSS				*e*S	Sn	04 44 55.4	+0.3
JSK	**Shakotan**	**2.10**	**163**	*e*S	Sn	04 44 59.6	-1.8
JSE	**Soyaes**	**2.13**	**100**	P	Pn	04 44 36.3	+1.3
JHR	**Hokuryu**	**2.20**	**136**	P	Pn	04 44 35.5	-0.6

IDC ***29*** *04:46:08.5±0.6, 7.52N×92.84E, mb4.5/18, mb1 4.7/18, mb1mx4.6/21, mbtmp4.5/18, MS4.2/6, Ms1 4.3/6, ms1mx3.8/28, Error ellipse: s-maj=26.8km s-min=14.1km az=46.0*

CSEM ***29*** *04:46:11.5, 7.81N×93.53E, h33*^{km}*, mb5.6*

MOS ***29*** *04:46:11.8±0.8, 7.62N×92.90E, h33*^{km}*, mb5.0/18, Error ellipse: s-maj=19.6km s-min=8.5km az=120.1*

BJI ***29*** *04:46:13.3, 7.13N×92.90E, h62*^{km}*, mB5.2, mb4.8, Ms4.5, Msz4.1*

NEIC ***29*** *04:46:14.0±1.9, 7.40N×92.70E, h39*^{km}*±16*^{km}*, mb4.7/19, Error ellipse: s-maj=15.5km s-min=9.3km az=219.0*

ISC 29 04:46:11.6±1.5**, 7.39N**±0.06×**92.80E**±0.05**, h35**^{km}±12^{km}**, h29**^{km}±5.8^{km}**:pP-P, n125,** σ**1**^{s}**14**/124**, mb4.8**/57**, MS4.3**/13**, 8C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**12.52**	**28**	*e*P	**P**	**04 49 11.3**	**+1.1**
	10nm,0.4s						
CMAR	**Chiang Mai Arr**	**12.52**	**28**	Pn	**P**	**04 49 13.9**	**+3.7**
	1.7nm,0.3s,baz=230,slow=14,SNR=48						
CMAR				LR	LR	04 54 32.8	
	comp=Z,708nm,18.2s,baz=210,slow=41						
MDRS	**Chennai**	**13.58**	**296**	⇑*e*P	**P**	**04 49 23.0**	**-1.3**
MDRS				*e*S	**S**	**04 51 38.0**	**-17**
VJD	**Vijayawada**	**14.94**	**308**	*i*	**S**	**04 52 13.0**	**-14**
TRD	**Trivandrum**	**15.73**	**275**	*e*	**S**	**04 52 32.1**	**-13**
HYB	**Hyderabad**	**17.10**	**307**	*i* P	**P**	**04 50 08.0**	**-1.6**
HYB				*e*		04 50 10.0	
HYB				*e*		04 53 06.0	
HYB				*e*S	**S**	**04 53 17.0**	**-0.2**
IMP	**Imphal**	**17.33**	**3**	*e*	**P**	**04 50 10.6**	**-1.9**
SHL	**Shillong**	**18.10**	**357**	*e*P	**P**	**04 50 19.0**	**-3.1**
SHL				*e*	**S**	**04 53 32.0**	**-7.7**
KMI	**Kunming**	**20.03**	**27**	P	**P**	**04 50 47.0**	**+2.6**
KMI				AMB	AMB		
	comp=Z,17nm,0.6s						
KMI				AMB	AMB		
	comp=Z,64nm,4.2s						
KMI				LR	LR		
	comp=N,816nm,16.5s,MS4.3						
KMI				LR	LR		
	comp=E,609nm,14.3s,MS4.3						
KMI				LR	LR		
	comp=Z,891nm,17.4s,MS4.2						
KAD	**Karad**	**20.66**	**300**	⇑*i*P	**P**	**04 50 51.8**	**+0.8**
PKI	**Pulchoki**	**21.26**	**342**	*e*P	**P**	**04 50 57.6**	**+0.6**
	comp=Z,109nm,0.6s,mb5.4						
DMN	**Daman**	**21.39**	**341**	*e*P	**P**	**04 50 58.6**	**+0.2**
	comp=Z,153nm,0.7s,mb5.4						
KKN	**Kakani**	**21.51**	**342**	*e*P	**P**	**04 51 00.6**	**+1.1**
	comp=Z,52nm,0.5s,mb5.2						
POO	**Poona**	**21.51**	**303**	⇑*i*P	**P**	**04 50 58.0**	**-1.5**
	comp=Z,30nm,1.0s,mb4.7						
POO				*i*	**S**	**04 54 44.0**	**-6.9**
BHPL	**Bhopal**	**21.60**	**319**	*e*P	**P**	**04 51 02.3**	**+1.8**
BHPL				*e*	**S**	**04 54 51.6**	**-1.2**
GKN	**Gorkha**	**21.91**	**340**	*e*P	**P**	**04 51 04.3**	**+0.8**
	comp=Z,135nm,0.5s,mb5.7						
KOLN	**Koldanda**	**22.07**	**338**	*e*P	**P**	**04 51 06.5**	**+1.4**
	comp=Z,56nm,0.4s,mb5.3						
LSA	**Lhasa**	**22.25**	**356**	*e*P	**P**	**04 51 08.9**	**+2.0**
LSA				pmax	pmax		
	comp=Z,21nm,0.4s,mb4.9						
LSA	**Lhasa**	**22.25**	**356**	*e*P	**P**	**04 51 08.9**	**+2.0**
	comp=Z,22nm,0.4s,mb4.9						
GYA	**Guiyang**	**23.10**	**33**	⇑*i*P	**P**	**04 51 16.3**	**+0.9**
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
CD2	**Chengdu**	**25.55**	**22**	P	**P**	**04 51 38.5**	**-0.5**
CD2				AMB	AMB		
	comp=Z,20nm,0.5s,mb4.9						
DDI	**Dehra Dun**	**26.68**	**331**	*e*	**P**	**04 51 51.0**	**+1.6**
ENH	**Enshi**	**27.63**	**32**	*e*P	**P**	**04 51 57.0**	**-1.1**
	comp=Z,8.7nm,0.5s,mb4.6						
GTA	**Gaotai**	**32.50**	**10**	⇑P	**P**	**04 52 41.3**	**+0.1**
GTA				AMB	AMB		
	comp=Z,15nm,0.7s,mb5.0						
NJ2	**Nanjing**	**34.51**	**41**	*e*P	**P**	**04 52 56.0**	**-2.6**
NJ2				S	**S**	**04 58 23.0**	**-0.9**
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
NJ2				AMB	AMB		
	comp=Z,530nm,4.9s						
NJ2				LR	LR		
	comp=N,670nm,17.5s,MS4.7						
NJ2				LR	LR		
	comp=E,880nm,14.3s,MS4.7						
NJ2				LR	LR		
	comp=Z,740nm,12.8s,MS4.6						
SSE	**Sheshan**	**35.50**	**45**	P	**P**	**04 53 05.0**	**-2.1**
SSE				S	**S**	**04 58 40.8**	**+1.6**
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,156nm,3.8s						
SSE				LR	LR		
	comp=N,101nm,18.9s,MS4.0						
SSE				LR	LR		
	comp=E,208nm,18.9s,MS4.0						
SSE				LR	LR		
	comp=Z,224nm,19.4s,MS3.9						
HHC	**Hu-ho-hao-te**	**37.29**	**24**	*e*P	**P**	**04 53 22.0**	**-0.1**
HHC				AMB	AMB		
	comp=Z,14nm,0.4s,mb5.1						
HHC				AMB	AMB		
	comp=Z,168nm,4.1s						
HHC				LR	LR		
	comp=N,183nm,11.3s,MS4.5						
HHC				LR	LR		
	comp=E,426nm,13.1s,MS4.5						
HHC				LR	LR		
	comp=Z,196nm,15.5s,MS4.0						
KZA	**Kyzart**	**37.88**	**339**	P	**P**	**04 53 27.9**	**+0.8**
	SNR=5.4						
UCH	**Uchtor**	**38.28**	**338**	P	**P**	**04 53 32.2**	**+1.9**
	SNR=12						
KBK	**Karagaybulak**	**38.49**	**339**	P	**P**	**04 53 34.1**	**+2.0**
	SNR=5.4						
AML	**Almayashu**	**38.51**	**337**	P	**P**	**04 53 33.8**	**+1.5**
	SNR=36						
AAK	**Ala-Archa**	**38.64**	**338**	P	**P**	**04 53 35.2**	**+1.8**
	SNR=9.9						
AAK	**Ala-Archa**	**38.64**	**338**	*e*P	**P**	**04 53 34.0**	**+0.7**
AAK				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.7						
AAK	**Ala-Archa**	**38.64**	**338**	*e*P	**P**	**04 53 34.0**	**+0.7**
	comp=Z,21nm,1.2s,mb4.7						
FRU	**Bishkek**	**38.77**	**338**	*e*P	**P**	**04 53 37.0**	**+2.6**
MBWA	**Marble Bar**	**38.78**	**138**	*e*P	**P**	**04 53 36.0**	**+1.2**
	comp=Z,3.4nm,0.7s,mb4.2						
CHMS	**Chumysh**	**38.86**	**339**	P	**P**	**04 53 35.9**	**+0.7**
	SNR=5.2						
EKS2	**Erkin-Say**	**38.93**	**338**	P	**P**	**04 53 37.4**	**+1.7**
	SNR=9.6						
USP	**Ospenovka**	**39.19**	**339**	P	**P**	**04 53 38.6**	**+0.7**
	SNR=14						
MKAR	**Makanchi Array**	**40.29**	**349**	*i* P	**P**	**04 53 46.6**	**-0.4**
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.3s						
SONM	**Songino Array**	**41.94**	**14**	P	**P**	**04 54 00.6**	**0.0**
	comp=Z,3.8nm,0.9s,mb4.0,baz=196,slow=9.2,SNR=15						
SONM				PcP	PcP	04 55 56.8	+0.6
	comp=Z,2.3nm,0.8s,baz=201,slow=3.2,SNR=4.6						
SONM				LR	LR	05 13 44.5	
	comp=Z,654nm,18.2s,MS4.5,baz=173,slow=40						
ULN	**Ulaanbaatar**	**42.12**	**14**	*e*P	**P**	**04 54 01.6**	**-0.5**
ULN	**Ulaanbaatar**	**42.12**	**14**	*e*P	**P**	**04 54 01.5**	**-0.6**
	comp=Z,4.3nm,0.8s,mb4.1						
SNY	**Shenyang**	**43.80**	**34**	⇑P	**P**	**04 54 16.3**	**+0.4**
SNY				AMB	AMB		
	comp=Z,10.0nm,0.4s,mb4.9						
SNY				LR	LR		
	comp=E,390nm,13.0s						
SNY				LR	LR		
	comp=Z,380nm,17.8s,MS4.3						
CN2	**Changchun**	**46.15**	**33**	⇑P	**P**	**04 54 34.8**	**+0.2**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
ZAL	**Zalesovo**	**46.86**	**354**	P	**P**	**04 54 39.8**	**-0.3**
	comp=Z,18nm,0.3s,mb5.4,baz=222,slow=5.6,SNR=48						
HIA	**Hailar**	**47.49**	**24**	*e*P	**P**	**04 54 44.6**	**-0.5**
HIA				pmax	pmax		
	comp=Z,6.0nm,0.6s						
HIA	**Hailar**	**47.49**	**24**	*e*P	**P**	**04 54 44.6**	**-0.5**
	comp=Z,5.9nm,0.6s,mb4.7						
NVS	**Novosibirsk**	**47.94**	**353**	*i* P	**P**	**04 54 46.8**	**-1.7**
BVA0	**Borovoye Array**	**49.03**	**342**	P	**P**	**04 54 56.2**	**-0.7**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb4.0						
BVAR	**Borovoye Array**	**49.03**	**342**	P	**P**	**04 54 56.5**	**-0.5**
	comp=Z,3.3nm,0.8s,mb4.4,baz=143,slow=7.4,SNR=13						
BVAR				PcP	PcP	04 56 21.6	+0.8
	comp=Z,2.4nm,0.5s,baz=146,slow=5.2,SNR=6.2						
WRA	**Warramunga Arr**	**49.07**	**124**	P	**P**	**04 54 57.7**	**-0.1**
	comp=Z,5.3nm,0.4s,mb4.9,baz=303,slow=8.7,SNR=33						
WRAB	**Tennant Creek**	**49.08**	**124**	*e*P	**P**	**04 54 57.7**	**-0.1**
WRAB				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
WRAB	**Tennant Creek**	**49.08**	**124**	*e*P	**P**	**04 54 57.7**	**-0.1**
	comp=Z,12nm,0.8s,mb5.0						
BRVK	**Borovoye**	**49.09**	**342**	*e*P	**P**	**04 54 56.8**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
BRVK	**Borovoye**	**49.09**	**342**	*e*P	**P**	**04 54 56.8**	**-0.6**
	comp=Z,2.8nm,0.6s,mb4.5						
CHKZ	**Chkalovo**	**49.53**	**343**	*i* P	**P**	**04 55 00.4**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.8						
CHKZ	**Chkalovo**	**49.53**	**343**	*e*P	**P**	**04 55 00.3**	**-0.5**
	comp=Z,15nm,0.8s,mb5.1						
JHJ	**Hachijo jima 2**	**50.41**	**53**	LR	LR	05 17 18.9	
	comp=Z,307nm,19.6s,MS4.3,baz=277,slow=37						
ASAR	**Alice Springs**	**50.64**	**129**	P	**P**	**04 55 09.4**	**-0.3**
	comp=Z,7.5nm,0.5s,mb4.9,baz=300,slow=7.9,SNR=90						
ASAR				LR	LR	05 15 57.0	
	comp=Z,160nm,20.4s,MS4.0,baz=287,slow=35						
BOD	**Bodaibo**	**52.93**	**14**	*e*P	**P**	**04 55 24.1**	**-2.3**
GNI	**Garni**	**53.83**	**315**	P	**P**	**04 55 33.1**	**-0.3**
	comp=Z,7.0nm,0.8s,mb4.6,baz=181,slow=9.9,SNR=5.7						
ZEI	**Tsey**	**55.49**	**318**	*e*P	**P**	**04 55 42.2**	**-3.2**
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
ARU	**Arti**	**55.83**	**338**	*e*P	**P**	**04 55 47.0**	**-0.6**
ARU				*e**PP	pP	04 55 54.8	-3.4
ARU				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb5.0						
ARU	**Arti**	**55.83**	**338**	*e*P	**P**	**04 55 47.0**	**-0.6**
	comp=Z,6.0nm,0.4s,mb5.0						
ARU				*e*pP	pP	04 55 54.8	-3.5
KMBO	**Kilima Mbogo**	**56.05**	**264**	*i* P	**P**	**04 55 52.4**	**+2.6**
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KMBO	**Kilima Mbogo**	**56.05**	**264**	P	**P**	**04 55 51.6**	**+1.8**
	comp=Z,2.7nm,0.9s,mb4.3,baz=43,slow=11,SNR=4.7						
KMBO				LR	LR	05 18 12.8	
	comp=Z,181nm,19.1s,MS4.2,baz=274,slow=34						
KIV	**Kislovodsk**	**56.79**	**319**	*e*P	**P**	**04 55 53.3**	**-1.4**
KIV				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
KIV				pmax	pmax		
	comp=N,7.0nm,1.0s						
KIV				MLR	MLR		
	comp=N,103nm,16.0s						
KIV				MLR	MLR		
	comp=Z,134nm,16.0s,MS4.1						
GOF	**Gofitskoye**	**57.03**	**320**	*e*P	**P**	**04 55 56.0**	**-0.4**
MALT	**Malatya**	**57.77**	**311**	*e*P	**P**	**04 56 01.9**	**+0.2**
MALT				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
MALT	**Malatya**	**57.77**	**311**	*e*P	**P**	**04 56 01.9**	**+0.2**
	comp=Z,5.8nm,1.1s,mb4.5						
SOC	**Sochi**	**58.62**	**317**	*e*P	**P**	**04 55 59.6**	**-8.0**
SOC				*e*		04 56 52.1	
SOC				*e*PPP	PPP	04 59 43.6	+0.6
SOC				*e*S	**S**	**05 04 00.8**	**-6.8**
SOC				*e*SS	SS	05 07 58.1	-4.1
SOC				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
SOC				pmax	pmax		
	comp=N,5.0nm,0.5s						
SOC				pmax	pmax		
	comp=E,7.0nm,0.6s						
SOKR	**Solikamsk**	**58.78**	**340**	⇓*i*P	**P**	**04 56 14.0**	**+5.5**
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,300nm,19.0s,MS4.4						
CTA	**Charters Tower**	**59.24**	**119**	LR	LR	05 24 54.0	
	comp=Z,201nm,18.2s,MS4.3,baz=156,slow=39						
STKA	**Stephens Creek**	**60.74**	**133**	P	**P**	**04 56 22.5**	**+0.1**
	comp=Z,7.3nm,0.6s,mb5.0,baz=308,slow=6.4,SNR=14						
STKA	**Stephens Creek**	**60.74**	**133**	*e*P	**P**	**04 56 22.3**	**0.0**
BRTR	**Keskin Array B**	**61.74**	**311**	P	**P**	**04 56 27.7**	**-1.3**
	comp=Z,2.2nm,0.5s,mb4.5,baz=132,slow=7.2,SNR=13						
OBN	**Obninsk**	**65.08**	**328**	⇓*e*P	**P**	**04 56 49.5**	**-1.2**
OBN				*e*	pP	04 56 58.0	-3.6
OBN				*e*	pP	04 57 03.1	+1.5
OBN				*e*S	S	05 05 30.3	+1.2
OBN				pmax	pmax		
	comp=Z,28nm,1.7s,mb5.0						
AKASG	**Malin Array Be**	**67.71**	**322**	P	**P**	**04 57 05.5**	**-1.9**
	comp=Z,1.2nm,0.5s,mb4.2,baz=85,slow=4.6,SNR=9.5						
IDI	**Anoyia**	**67.75**	**305**	P	**P**	**04 57 08.5**	**+0.5**
	comp=Z,7.0nm,0.5s,mb5.0,baz=152,slow=11,SNR=7.7						
TIXI	**Tiksi**	**67.97**	**12**	⇓*i*P	**P**	**04 57 07.9**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.5						
TIXI				MLR	MLR		
	comp=Z,151nm,17.0s,MS4.3						
MLR	**Muntele Rosu**	**68.59**	**316**	P	**P**	**04 57 12.9**	**-0.1**
	comp=Z,13nm,1.1s,mb4.8,baz=52,slow=6.5,SNR=6.3						
KWP	**Kalwaria**	**71.54**	**320**	*e*P	**P**	**04 57 30.6**	**-0.3**
KOLS	**Kolonicke sedl**	**71.69**	**319**	*e*P	**P**	**04 57 32.3**	**+0.5**
SUW	**Suwalki**	**72.12**	**324**	*e*P	**P**	**04 57 33.1**	**-1.1**
FINES	**FINESS Array B**	**72.52**	**332**	P	**P**	**04 57 35.9**	**-0.5**
	comp=Z,3.2nm,0.6s,mb4.4,baz=106,slow=7.6,SNR=14						
KAF	**Kangasniemi**	**72.62**	**333**	*e*p	**P**	**04 57 36.0**	**-1.0**
	comp=Z,0.3nm,0.3s,mb3.7						
OJC	**Ojcow**	**73.49**	**320**	*e*P	**P**	**04 57 42.2**	**-0.2**
LIKS	**Likavka**	**73.78**	**319**	*e*P	**P**	**04 57 48.1**	**+4.0**
LIKS	**Likavka**	**73.78**	**319**	*e*	**P**	**04 57 48.1**	**+4.0**
VYHS	**Vyhne**	**73.88**	**318**	*e*P	**P**	**04 57 44.2**	**-0.5**
KEV	**Kevo**	**74.85**	**341**	*e*p	**P**	**04 57 49.2**	**-0.7**
	comp=Z,0.3nm,0.3s,mb3.7						
ZST	**Bratislava**	**75.00**	**318**	*e*P	**P**	**04 57 51.5**	**+0.3**
ARCES	**ARCESS Array B**	**75.27**	**340**	P	**P**	**04 57 52.6**	**+0.2**
	comp=Z,1.6nm,0.4s,mb4.3,baz=104,slow=5.5,SNR=16						
DPC	**Dobruska-Polom**	**75.72**	**320**	*e*P	**P**	**04 57 56.1**	**+0.8**
KSP	**Ksiaz**	**75.79**	**321**	*e*P	**P**	**04 57 56.0**	**+0.4**
KSP				*e*pP	pP	04 58 07.6	+1.1
KSP	**Ksiaz**	**75.79**	**321**	*e*P	**P**	**04 57 56.2**	**+0.6**
BILL	**Bilibino**	**77.03**	**22**	⇑*i*P	**P**	**04 58 00.1**	**-2.3**
GERES	**GERESS Array B**	**77.30**	**318**	P	**P**	**04 58 04.9**	**+0.6**
	comp=Z,2.7nm,0.7s,mb4.3,baz=87,slow=5.6,SNR=19						
KHC	**Kasperske Hory**	**77.40**	**319**	*e*P	**P**	**04 58 05.0**	**+0.2**
KHC				*e*pP	pP	04 58 13.0	-2.7
KHC				*e*sP	sP	04 58 24.0	+4.4
CLL	**Collm**	**77.89**	**321**	P	**P**	**04 58 08.0**	**+0.5**
MOX	**Moxa**	**78.74**	**320**	*e*P	**P**	**04 58 10.0**	**-2.1**
NB2	**NORSAR Subarra**	**79.50**	**331**	P	**P**	**04 58 12.4**	**-3.6**
	comp=Z,3.3nm,0.8s,mb4.3,baz=93,slow=5.0						
NB2	**NORSAR Subarra**	**79.50**	**331**	P	**P**	**04 58 12.4**	**-3.6**
NB2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
NOA	**NORSAR Array B**	**79.50**	**331**	P	**P**	**04 58 15.7**	**-0.3**
	comp=Z,2.8nm,0.8s,mb4.3,baz=94,slow=5.6,SNR=7.8						
PGF	**Pioggiola**	**80.49**	**312**	*e*P	**P**	**04 58 22.2**	**+0.5**
	comp=Z,273nm,1.7s,mb5.6						
PGF	**Pioggiola**	**80.49**	**312**	*e*P	**P**	**04 58 22.2**	**+0.5**
PGF				pmax	pmax		
	comp=Z,136nm,1.7s,mb5.6						
SBF	**Sospel**	**81.59**	**313**	*e*P	**P**	**04 58 28.2**	**+0.7**
	comp=Z,72nm,1.0s,mb5.2						
SBF	**Sospel**	**81.59**	**313**	*e*P	**P**	**04 58 28.2**	**+0.7**
SBF				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
LPG	**La Plagne**	**82.02**	**315**	*e*P	**P**	**04 58 29.9**	**+0.3**
	comp=Z,12nm,0.8s,mb4.6						
LPG	**La Plagne**	**82.02**	**315**	*e*P	**P**	**04 58 29.9**	**+0.3**
LPG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
HAU	**Haudompre**	**82.19**	**317**	*e*P	**P**	**04 58 30.6**	**+0.1**
	comp=Z,40nm,1.3s,mb4.9						
HAU	**Haudompre**	**82.19**	**317**	*e*P	**P**	**04 58 30.6**	**+0.1**
HAU				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.9						
BGF	**Bois d'Agland**	**84.66**	**316**	*e*P	**P**	**04 58 43.0**	**-0.1**
	comp=Z,11nm,0.8s,mb4.7						
BGF	**Bois d'Agland**	**84.66**	**316**	*e*P	**P**	**04 58 43.0**	**-0.1**
BGF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
ESDC	**Sonseca Array**	**90.51**	**310**	P	**P**	**04 59 12.7**	**+1.3**
	comp=Z,0.8nm,0.5s,mb4.3,baz=68,slow=3.9,SNR=6.2						
IMA	**Indian Mountai**	**92.57**	**22**	*e*P	**P**	**04 59 22.0**	**+1.7**
ILAR	**Eielson Array**	**95.69**	**22**	P	**P**	**04 59 34.4**	**-0.2**
	comp=Z,0.6nm,0.6s,mb4.2,baz=311,slow=4.5,SNR=16						
ULM	**Lac du Bonnet**	**122.11**	**7**	PKP	PKPdf	05 05 05.5	+2.8
	comp=Z,1.8nm,0.5s,baz=301,slow=1.0,SNR=6.9						
NVAR	**Mina Array Bea**	**126.01**	**30**	PKP	PKPdf	05 05 14.6	+3.9
	comp=Z,1.2nm,0.7s,baz=17,slow=0.4,SNR=5.2						
PDAR	**Pinedale Array**	**126.09**	**20**	PKP	PKPdf	05 05 13.2	+2.6
	comp=Z,1.5nm,0.7s,baz=86,slow=0.4,SNR=16						
MSU	**Marysvale**	**128.76**	**25**	*e*PKIKP	PKPdf	05 05 20.1	+4.1
TXAR	**Lajitas Array**	**140.20**	**23**	PKP	PKPdf	05 05 40.6	+3.2
	comp=Z,0.7nm,0.5s,baz=130,slow=0.4,SNR=10						
JCT	**Junction City**	**140.46**	**17**	*e*PKIKP	PKPdf	05 05 43.1	+5.2
LPAZ	**La Paz**	**159.36**	**243**	PKPab	PKPab	05 06 49.2	+2.1
	comp=Z,0.9nm,0.6s,baz=198,slow=7.1,SNR=4.0						

IDC ***29*** *04:50:36.0±14.0, 30.73N×50.60E, mb3.5/4, mb1 3.8/6, mb1mx3.6/21, mbtmp3.6/6, ML3.5/2, Error ellipse: s-maj=244.2km s-min=60.8km az=155.0*

THR ***29*** *04:50:50.6±0.3, 31.58N×49.13E, h30*^{km}*±3*^{km}*, ML3.5*

CSEM ***29*** *04:50:52.4±0.1, 31.71N×49.20E, h30*^{km}*, ML3.5, Error ellipse: s-maj=3.5km s-min=2.4km az=128.0*

KISR ***29*** *04:50:55.4±1.0, 30.90N×50.70E, h33*^{km}*, ML3.7*

SNSN ***29*** *04:50:56.1, 31.84N×48.60E*

ISC 29 04:50:54.9±1.2**, 31.94N**±0.05×**49.25E**±0.09**, h31**^{km}±8^{km}**, n21,** σ**1**^{s}**39**/26**, mb3.4**/4**, Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHGR	**Shooshtar-Gavs**	**0.42**	**294**	*e*PG	**Pb**	**04 51 02.5**	**-1.6**
SHGR				*e*SG	**Sb**	**04 51 11.2**	**+0.8**
SHGR				AMP		04 51 20.1	
	comp=E,2µm,0.6s						
SHGR				AMP		04 51 25.6	
	comp=N,2µm,0.7s						
SHGR	**Shooshtar-Gavs**	**0.42**	**294**	*e*Pg	**Pb**	**04 51 02.5**	**-1.6**
SHGR				*e*Sg	**Sb**	**04 51 11.2**	**+0.8**
	comp=N,2µm,0.7s						
ASAO	**Ashtian**	**2.68**	**14**	*e*PN	**Pn**	**04 51 39.2**	**+2.2**
ASAO				AMP		04 52 25.6	
	comp=N,182nm,0.6s						
ASAO				AMP		04 52 28.9	
	comp=E,164nm,0.6s						
ASAO	**Ashtian**	**2.68**	**14**	*e*Pn	**Pn**	**04 51 39.2**	**+2.2**
	comp=E,164nm,0.6s						
MIB	**Mutribah**	**2.69**	**218**	*e*P	**Pn**	**04 51 44.4**	**+7.3**
MIB				*e*S	**Sn**	**04 52 20.1**	**+11**
MIB				AML	AML	04 52 25.2	
	comp=Z,266nm,0.5s						
NASN	**Na'in**	**3.13**	**73**	*e*PN	**Pn**	**04 51 43.5**	**+0.2**
RDF	**Al-Radifah**	**3.34**	**207**	*e*P	**Pn**	**04 51 47.0**	**+0.8**
RDF				*e*S	**Sn**	**04 52 26.6**	**+1.2**
RDF				AML	AML	04 52 27.0	
	comp=Z,90nm,0.3s						
QRN	**Al-Qurain**	**3.38**	**200**	*e*P	**Pn**	**04 51 46.4**	**-0.5**
QRN				AML	AML	04 52 27.6	
	comp=Z,256nm,0.3s						
SNGE	**Sanandaj**	**3.53**	**334**	*e*PN	**Pn**	**04 51 49.7**	**+0.7**
HILS	**Ha'il**	**7.92**	**237**	P	**Pn**	**04 52 46.2**	**-4.6**
HILS				S	**Sn**	**04 54 11.7**	**-8.6**
ARSS	**Ar Rass**	**8.01**	**223**	P	**P**	**04 52 47.1**	**-5.0**
MZLS	**Mizel**	**8.65**	**205**	P	**P**	**04 52 59.7**	**-1.3**
AFFS	**'Afif**	**9.70**	**216**	P	**P**	**04 53 11.3**	**-4.3**
ASF	**Jabal al Asfar**	**10.49**	**275**	Pn	**P**	**04 53 25.9**	**-0.4**
	comp=Z,0.3nm,0.3s,baz=321,slow=12,SNR=3.9						
BRTR	**Keskin Array B**	**14.85**	**306**	Pn	**P**	**04 54 29.4**	**+5.1**
	comp=Z,0.2nm,0.3s,baz=117,slow=13,SNR=9.3						
IDI	**Anoyia**	**20.55**	**286**	P	**P**	**04 55 35.5**	**+2.0**
	comp=Z,6.4nm,0.8s,baz=97,slow=23,SNR=2.8						
MLR	**Muntele Rosu**	**22.57**	**314**	P	**P**	**04 55 55.1**	**+1.4**
	comp=Z,1.9nm,0.8s,mb3.6,baz=292,slow=7.6,SNR=4.2						
AKASG	**Malin Array Be**	**23.90**	**327**	P	**P**	**04 56 04.9**	**-1.7**
	comp=Z,0.1nm,0.3s,mb2.8,baz=137,slow=9.3,SNR=4.0						
KOLS	**Kolonicke sedl**	**26.44**	**318**	*e*	**P**	**04 56 30.6**	**0.0**
KOLS				*e*	pP	04 56 37.9	-1.8
GERES	**GERESS Array B**	**31.55**	**313**	P	**P**	**04 57 14.2**	**-2.3**
	comp=Z,0.2nm,0.5s,mb3.2,baz=101,slow=10.0,SNR=3.4						
FINES	**FINESS Array B**	**33.15**	**340**	P	**P**	**04 57 27.7**	**-2.6**
	comp=Z,0.8nm,0.5s,mb3.9,baz=143,slow=10,SNR=11						

IDC 29 04:56:15.4±6.5**, 6.59S**×**154.93E, h140**^{km}±57^{km}**, mb3.7**/5**, mb1 3.9**/7**, mb1mx3.7**/15**, mbtmp4.1**/7**, MS3.6**/1**, Ms1 3.5**/1**, ms1mx2.6**/21**, Error ellipse: s-maj=63.0km s-min=24.9km az=115.0, Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**8.19**	**250**	P	P	04 58 11.3	-1.1
	2.2nm,0.3s,baz=52,slow=9.1,SNR=10						
PMG				S	S	04 59 44.2	+0.6
	1.0nm,0.3s,baz=65,slow=20,SNR=7.0						
CTA	**Charters Tower**	**15.84**	**211**	P	P	04 59 49.8	-2.1
	0.1nm,0.3s,baz=27,slow=14,SNR=3.4						
WRA	**Warramunga Arr**	**23.99**	**234**	P	P	05 01 18.0	-0.4
	0.8nm,0.5s,baz=58,slow=9.3,SNR=6.4						
ASAR	**Alice Springs**	**26.39**	**228**	P	P	05 01 37.8	-2.9
	0.8nm,0.7s,baz=62,slow=9.4,SNR=6.9						
STKA	**Stephens Creek**	**28.07**	**205**	P	P	05 01 54.3	-1.7
	1.1nm,0.3s,baz=4.1,slow=13,SNR=4.6						
STKA				LR	LR	05 11 50.3	
	comp=Z,134nm,20.9s,baz=26,slow=33						
ILAR	**Eielson Array**	**83.03**	**22**	P	P	05 08 24.4	-1.7
	0.6nm,0.5s,baz=247,slow=5.5,SNR=15						
YKA	**Yellowknife Ar**	**96.01**	**28**	P	P	05 09 27.1	-0.3

0.5nm,0.6s,baz=270,slow=4.6,SNR=8.8

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*IDC **29** 04:57:18.1±0.7,4.30N×95.46E,mb4.2/13,mb1 4.4/13,mb1mx4.3/19,mbtmp4.2/13,MS3.4/1,Ms1 3.6/1,ms1mx3.1/24,Error ellipse: s-maj=33.1km s-min=16.3km az=47.0*
*BJI **29** 04:57:19.9,4.02N×95.60E,h34^{km},mb4.7*
*NEIC **29** 04:57:21.4±1.0,4.09N×95.66E,h30^{km},mb4.6/10,Error ellipse: s-maj=30.1km s-min=21.8km az=67.0*
ISC 29 04:57:21.2±0.6,**4.22N**±0.09×**95.5E**±0.1,**h33**^{km}**,n32,**σ**1**^{s}**01**/32,**mb4.4**/30,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.54	13	Pn	P	05 00 54.0	+7.3
	0.8nm,0.3s,baz=206,slow=12,SNR=37						
CMAR				LR	LR	05 06 23.2	
	comp=Z,150nm,18.0s,baz=195,slow=38						
PKI	Pulchoki	25.14	339	*e*P	P	05 02 46.0	+1.0
	7.6nm,0.4s,mb4.6						
GUN	Gumba	25.28	340	*e*P	P	05 02 46.9	+0.6
	22nm,0.4s,mb5.0						
DMN	Daman	25.29	338	*e*P	P	05 02 47.5	+1.1
	5.6nm,0.4s,mb4.5						
KKN	Kakani	25.38	338	*e*P	P	05 02 48.2	+0.9
	14nm,0.5s,mb4.8						
LSA	Lhasa	25.67	351	*e*P	P	05 02 50.5	+0.5
	10nm,0.5s,mb4.6						
GKN	Gorkha	25.82	337	*e*P	P	05 02 51.9	+0.5
	10nm,0.3s,mb4.8						
KOLN	Koldanda	26.02	335	*e*P	P	05 02 53.9	+0.6
XAN	Xi'an	32.19	21	P	P	05 03 47.0	-1.4
XAN				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.7						
BJT	Baijiatuau	40.23	25	*e*P	P	05 04 57.9	+1.4
	comp=Z,7.9nm,0.7s,mb4.5						
BJI	Beijing	40.25	25	P	P	05 04 57.8	+1.2
BJI				AMB	AMB		
	comp=Z,18nm,0.8s,mb4.8						
AAK	Ala-Archa	42.57	337	*e*P	P	05 05 17.0	+1.2
	comp=Z,1.6nm,0.5s,mb4.0						
SONM	Songino Array	44.45	10	P	P	05 05 30.0	-0.9
	comp=Z,1.2nm,0.5s,mb3.9,baz=192,slow=10.0,SNR=11						
SONM				PcP	PcP	05 07 14.5	-0.2
	comp=Z,0.5nm,0.4s,baz=201,slow=4.0,SNR=5.2						
WRA	Warramunga Arr	45.08	124	P	P	05 05 37.4	+1.1
	comp=Z,2.6nm,0.5s,mb4.3,baz=304,slow=9.0,SNR=11						
WRAB	Tennant Creek	45.09	124	*e*P	P	05 05 32.5	-3.8
	comp=Z,7.7nm,0.7s,mb4.6						
ASAR	Alice Springs	46.57	128	P	P	05 05 49.0	+0.9
	comp=Z,3.0nm,0.7s,mb4.3,baz=305,slow=7.8,SNR=22						
HIA	Hailar	49.38	21	*e*P	P	05 06 09.1	-0.5
	comp=Z,6.1nm,0.7s,mb4.7						
ZAL	Zalesovo	50.33	352	P	P	05 06 15.5	-1.3
	comp=Z,3.6nm,0.4s,mb4.7,baz=220,slow=4.3,SNR=5.6						
BVAR	Borovoye Array	52.86	341	P	P	05 06 35.0	-0.9
	comp=Z,1.7nm,0.7s,mb4.1,baz=180,slow=7.4,SNR=7.6						
BRVK	Borovoye	52.92	341	*e*P	P	05 06 34.7	-1.6
	comp=Z,6.1nm,1.1s,mb4.4						
CHKZ	Chkalovo	53.34	342	*e*P	P	05 06 38.3	-1.2
	comp=Z,2.9nm,0.3s,mb4.7						
STKA	Stephens Creek	56.63	133	P	P	05 07 02.5	-1.2
	comp=Z,0.8nm,0.4s,mb4.1,baz=318,slow=14,SNR=2.9						
KMBO	Kilima Mbogo	58.45	266	P	P	05 07 16.0	-0.7
	comp=Z,3.2nm,1.0s,mb4.3,baz=45,slow=8.6,SNR=6.8						
ARU	Arti	59.76	337	*e*P	P	05 07 24.4	-0.8
	comp=Z,3.7nm,0.7s,mb4.5						
BRTR	Keskin Array B	65.84	312	P	P	05 08 05.2	-0.6
	comp=Z,1.4nm,0.6s,mb4.2,baz=122,slow=7.5,SNR=7.6						
AKASG	Malin Array Be	71.85	322	P	P	05 08 42.3	-0.3
	comp=Z,2.2nm,0.7s,mb4.2,baz=84,slow=5.4,SNR=5.8						
MLR	Muntele Rosu	72.73	316	P	P	05 08 48.6	+0.6
	comp=Z,3.8nm,0.9s,mb4.3,baz=41,slow=8.8,SNR=5.6						
LBTB	Lobatse	73.74	243	*e*P	P	05 08 55.4	+1.1
	comp=Z,6.7nm,1.1s,mb4.5						
FINES	FINESS Array B	76.56	332	P	P	05 09 09.4	-0.3
	comp=Z,1.0nm,0.3s,mb4.2,baz=102,slow=5.9,SNR=27						
KAF	Kangasniemi	76.64	333	*e*p	P	05 09 08.4	-1.8
	comp=Z,0.4nm,0.3s,mb3.8						
ARCES	ARCESS Array B	79.14	340	P	P	05 09 24.0	+0.1
	comp=Z,4.1nm,0.9s,mb4.3,baz=99,slow=6.7,SNR=8.4						
GERES	GERESS Array B	81.44	319	P	P	05 09 37.5	+0.9
	comp=Z,1.4nm,0.8s,mb3.9,baz=79,slow=6.8,SNR=9.1						

IDC 29 05:03:32.4±15.0,**4.18N**×**93.28E,h73**^{km}±136^{km}**,mb3.7**/7,**mb1 3.9**/8,**mb1mx3.7**/19,**mbtmp4.0**/8,**ML4.2**/1,**Error ellipse: s-maj=89.5km s-min=26.2km az=50.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.24	21	P	P	05 07 04.0	-0.8
	0.3nm,0.3s,baz=228,slow=15,SNR=7.5						
SONM	Songino Array	44.93	13	PcP	PcP	05 13 21.8	-0.7
	0.7nm,0.7s,baz=184,slow=3.7,SNR=4.3						
WRA	Warramunga Arr	46.93	122	P	P	05 11 55.9	-2.0
	0.4nm,0.5s,baz=299,slow=9.2,SNR=4.8						
ZAL	Zalesovo	50.09	353	P	P	05 12 19.9	-2.0
	2.1nm,0.5s,baz=208,slow=5.4,SNR=9.7						
BVAR	Borovoye Array	52.21	343	P	P	05 12 35.1	-2.8
	1.9nm,0.7s,baz=104,slow=6.1,SNR=7.7						
BRTR	Keskin Array B	64.22	312	P	P	05 13 59.8	-2.3
	0.7nm,0.7s,baz=143,slow=8.9,SNR=4.5						
MLR	Muntele Rosu	71.23	317	P	P	05 14 43.9	-1.7
	1.8nm,0.7s,baz=145,slow=5.5,SNR=5.1						
FINES	FINESS Array B	75.57	333	P	P	05 15 09.0	-1.7
	3.0nm,0.9s,baz=45,slow=5.9,SNR=3.7						
GERES	GERESS Array B	80.00	319	P	P	05 15 34.8	-0.6
	0.2nm,0.6s,baz=104,slow=5.5,SNR=4.4						

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*IDC **29** 05:07:08.5±0.7,6.49N×93.98E,h51^{km}±5^{km},mb3.9/12,mb1 4.0/12,mb1mx3.9/18,mbtmp4.1/12,Error ellipse: s-maj=30.7km s-min=12.5km az=49.0*
ISC 29 05:07:06.3±0.7,**6.3N**±0.1×**93.9E**±0.1,**h51**^{km}**,h51**^{km}±2.2^{km}**:pP-P,n13,**σ**0**^{s}**84**/13,**mb4.2**/12,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.05	22	P	P	05 10 12.6	+1.5
	0.9nm,0.3s,baz=215,slow=15,SNR=10.0						
SONM	Songino Array	42.74	12	P	P	05 14 59.6	-0.6
	0.4nm,0.4s,mb3.5,baz=193,slow=9.7,SNR=5.7						
WRA	Warramunga Arr	47.57	124	P	P	05 15 39.0	-0.1
	10nm,0.6s,mb5.0,baz=304,slow=8.9,SNR=57						
WRA				pP	pP	05 15 53.8	+1.0
	5.4nm,0.7s,baz=304,slow=9.1,SNR=7.1						
ZAL	Zalesovo	48.06	353	P	P	05 15 42.7	+0.2
	1.1nm,0.3s,mb4.4,baz=165,slow=1.7,SNR=3.1						
ZAL				pP	pP	05 15 55.5	-0.7
	2.0nm,0.4s,baz=196,slow=2.7,SNR=4.7						
ASAR	Alice Springs	49.11	129	P	P	05 15 51.0	-0.1
	5.6nm,0.4s,mb5.0,baz=301,slow=8.0,SNR=132						
ASAR				pP	pP	05 16 06.7	+2.0
	1.2nm,0.5s,baz=301,slow=7.6,SNR=8.2						
BVAR	Borovoye Array	50.39	342	P	P	05 15 59.8	-0.7
	1.0nm,0.4s,mb4.2,baz=147,slow=10.0,SNR=6.2						
BVAR				pP	pP	05 16 13.1	-1.1
	1.7nm,0.7s,baz=136,slow=11,SNR=4.7						
KMBO	Kilima Mbogo	57.02	265	P	P	05 16 52.5	+2.7
	0.9nm,0.7s,mb3.9,baz=55,slow=23,SNR=4.2						
STKA	Stephens Creek	59.21	133	P	P	05 17 04.9	+0.1
	3.0nm,0.7s,mb4.4,baz=321,slow=3.0,SNR=4.7						
BRTR	Keskin Array B	63.27	311	P	P	05 17 31.2	-1.0
	0.7nm,0.7s,mb3.9,baz=112,slow=6.7,SNR=4.2						
BRTR				pP	pP	05 17 44.7	-1.7
	1.0nm,0.7s,baz=135,slow=7.0,SNR=4.5						
FINES	FINESS Array B	73.98	332	P	P	05 18 37.2	-0.7
	1.7nm,0.8s,mb4.0,baz=110,slow=6.0,SNR=14						
ARCES	ARCESS Array B	76.66	340	P	P	05 18 53.0	-0.1
	5.2nm,1.1s,mb4.4,baz=90,slow=2.4,SNR=12						
GERES	GERESS Array B	78.83	318	P	P	05 19 05.9	+0.4
	0.5nm,0.6s,mb3.6,baz=76,slow=5.5,SNR=8.6						
GERES				pP	pP	05 19 19.6	-0.5
	0.9nm,0.7s,baz=72,slow=4.2,SNR=4.3						
ILAR	Eielson Array	96.28	22	P	P	05 20 29.7	-0.3
	0.2nm,0.6s,mb3.8,baz=286,slow=4.4,SNR=4.1						

JMA 29 05:16:11.3±0.4,**32.33N**×**142.60E,h22**^{km}**,M3.9,Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JHO	Hitachi	4.59	339	P	Pn	05 17 21.5	+0.3
JHO				S	Sn	05 18 14.9	+0.3
JRY	Ryogami san	4.79	321	P	Pn	05 17 24.7	+0.6
JAG	Ashikaga	4.84	328	P	Pn	05 17 25.5	+0.6
JFK	Kawauchi	5.22	345	S	Sn	05 18 28.4	-2.1
JFT	Otama	5.50	341	P	Pn	05 17 34.6	+0.5
JFT				*e*S	Sn	05 18 38.1	+0.6
JMM	Marumori	5.72	345	P	Pn	05 17 37.7	+0.5

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*IDC **29** 05:28:18.8±0.7,2.61N×94.69E,mb4.3/14,mb1 4.4/15,mb1mx4.3/22,mbtmp4.3/15,ML3.9/1,Error ellipse: s-maj=28.8km s-min=16.1km az=48.0*
*MOS **29** 05:28:20.2±0.8,2.32N×94.45E,h33^{km},mb4.9/9,Error ellipse: s-maj=32.3km s-min=13.7km az=105.0*
ISC 29 05:28:20.0±3.0,**2.59N**±0.09×**94.7E**±0.1,**h21**^{km}±20^{km}**,n37,**σ**1**^{s}**05**/36,**mb4.5**/23,**2C-1D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.32	15	Pn	P	05 32 10.4	+0.7
	0.2nm,0.3s,baz=204,slow=11,SNR=14						
IMP	Imphal	22.08	358	*e*	P	05 33 21.3	+5.8
SHL	Shillong	23.00	354	*e*P	P	05 33 23.0	-1.7
WRA	Warramunga Arr	44.90	122	P	P	05 36 34.7	-0.7
	5.1nm,0.8s,mb4.4,baz=300,slow=8.8,SNR=15						
WRAB	Tennant Creek	44.91	122	*e*P	P	05 36 34.2	-1.2
MKAR	Makanchi Array	45.33	348	*i* P	P	05 36 39.0	+0.5
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.6s						
SONM	Songino Array	46.20	11	P	P	05 36 46.8	+1.5
	comp=Z,4.0nm,0.7s,mb4.5,baz=188,slow=8.2,SNR=19						
ASAR	Alice Springs	46.24	127	P	P	05 36 46.0	+0.1
	comp=Z,3.2nm,1.2s,mb4.1,baz=299,slow=6.8,SNR=6.5						
ULN	Ulaanbaatar	46.35	12	*e*P	P	05 36 46.4	-0.1
ZAK	Zakamensk	48.18	7	*e*P	P	05 37 01.4	+0.6
ZAL	Zalesovo	51.82	353	P	P	05 37 29.2	+0.5
	comp=Z,3.7nm,0.9s,mb4.3,baz=198,slow=6.6,SNR=16						
NVS	Novosibirsk	52.92	352	*i* P	P	05 37 36.7	-0.2
BVA0	Borovoye Array	54.14	342	*i* P	P	05 37 45.5	-0.3
BVA0				pmax	pmax		
	comp=Z,2.0nm,1.0s,mb4.0						
BVAR	Borovoye Array	54.14	342	P	P	05 37 44.8	-1.1
	comp=Z,13nm,1.2s,mb4.7,baz=143,slow=7.4,SNR=14						
STKA	Stephens Creek	56.15	132	P	P	05 38 01.6	+0.8
	comp=Z,2.0nm,0.8s,mb4.2,baz=310,slow=7.9,SNR=3.5						
KLR	Kul'dur	56.19	28	*e*P	P	05 38 06.2	+5.4
BOD	Bodaibo	57.15	12	*e*P	P	05 38 08.1	+0.5
KMBO	Kilima Mbogo	57.53	267	P	P	05 38 12.8	+2.0
	comp=Z,0.5nm,0.3s,mb4.1,baz=221,slow=5.4,SNR=3.8						
GNI	Garni	58.56	317	P	P	05 38 19.4	+1.8
	comp=Z,2.4nm,0.5s,mb4.5,baz=178,slow=9.0,SNR=4.4						
ZEI	Tsey	60.30	319	*e*P	P	05 38 28.3	-1.3
ZEI				*i* *PP	pP	05 38 38.4	+2.2
ZEI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
ARU	Arti	60.95	338	⇑*i*P	P	05 38 32.0	-1.8
ARU				*e*S	S	05 46 50.0	+0.9
ARU				*e*SS	SS	05 50 49.4	-0.6
ARU				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.9						
KIV	Kislovodsk	61.62	320	*e*P	P	05 38 38.5	-0.1
KIV				pmax	pmax		
	comp=E,10.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.9						
SOC	Sochi	63.41	318	*e*P	P	05 38 48.5	-2.0
SOC				*e*		05 39 31.5	
SOC				*e*		05 41 09.9	
SOC				*e*PPP	PPP	05 42 40.1	-3.0
SOC				*e*S	S	05 47 19.4	-1.0
SOC				*e*SS	SS	05 51 22.9	-6.3
SOC				*i* SSS	SSS	05 54 15.1	-0.4
SOC				pmax	pmax		
	comp=N,15nm,0.8s						
SOC				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.1						
SOC				pmax	pmax		
	comp=E,10.0nm,0.6s						
YAK	Yakutsk	64.83	17	*e*P	P	05 38 59.3	-0.2
YAK				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.0						
BRTR	Keskin Array B	66.32	313	P	P	05 39 08.6	-0.9
	comp=Z,2.2nm,0.8s,mb4.2,baz=129,slow=6.8,SNR=8.9						
OBN	Obninsk	70.13	329	⇑*e*P	P	05 39 32.5	-0.3
OBN						05 39 52.0	
OBN						05 42 14.0	
OBN				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
TIXI	Tiksi	72.28	11	⇓*i*P	P	05 39 46.1	+0.5
TIXI				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
AKASG	Malin Array Be	72.63	323	P	P	05 39 46.6	-1.4
	comp=Z,1.7nm,0.8s,mb4.0,baz=93,slow=4.2,SNR=8.4						
MLR	Muntele Rosu	73.34	317	P	P	05 39 52.4	+0.2
	comp=Z,6.2nm,0.9s,mb4.5,baz=187,slow=7.6						
FINES	FINESS Array B	77.62	333	*i* P	P	05 40 16.5	+0.3
FINES				pmax	pmax		
	comp=Z,2.0nm,0.7s						
FINES	FINESS Array B	77.62	333	P	P	05 40 15.9	-0.3
	comp=Z,1.7nm,0.7s,mb4.1,baz=112,slow=10,SNR=4.4						
GERES	GERESS Array B	82.12	319	P	P	05 40 40.9	+0.3
	comp=Z,2.4nm,0.9s,mb4.1,baz=108,slow=4.2,SNR=10						
BRG	Berggiesshubel	82.15	321	*e*P	P	05 40 42.7	+2.0
BRG				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
DAVOX	Davos	84.56	317	P	P	05 40 54.6	+1.5
	comp=Z,0.7nm,0.4s,mb4.2,baz=97,slow=8.1,SNR=5.3						
PDAR	Pinedale Array	129.83	23	PKP	PKPdf	05 47 30.2	-2.5
	comp=Z,0.3nm,0.7s,baz=90,slow=3.0,SNR=4.3						
TXAR	Lajitas Array	143.72	28	PKP	PKPdf	05 47 54.9	-3.6
	comp=Z,1.1nm,0.9s,baz=246,slow=0.7,SNR=7.0						
LPAZ	La Paz	158.29	230	PKPab	PKPab	05 48 54.4	+1.4
	comp=Z,0.9nm,0.7s,baz=243,slow=4.5,SNR=3.8						

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*CNRM **29** 05:33:49.9,35.27N×2.58W,h11^{km},MD4.2*
*CSEM **29** 05:33:51.0±0.1,35.07N×2.93W,h5^{km},ML4.4,Error ellipse: s-maj=3.4km s-min=2.0km az=144.0*
*MDD **29** 05:33:53.3±0.8,34.95N×3.01W,mb4.4/17,Error ellipse: s-maj=7.8km s-min=5.1km az=144.0,PRXIMO AftershockPLICA*
MDD EMS: III MELILLA.
*NEIC **29** 05:33:54.2,35.00N×3.08W,MG4.4(MDD),After MDD.*
NEIC Felt [III] at Melilla.
*ZUR_RM **29** 05:33:54,35.00N×3.08W,h12^{km},Mw3.9/4,Moment Tensor Solution. s4 Moment tensor: Scale 10^{14}Nm; M_{rr}1.06; $M_{\theta\theta}$-1.10; $M_{\phi\phi}$0.04; $M_{r\theta}$-3.41; $M_{\theta\phi}$-7.79; $M_{\phi r}$1.49; Best double couple: $M_0$8.7×10^{14} NP1:ϕ_s270°,δ80°,λ156°. NP2:ϕ_s4°,δ66°,λ11°. Principal axes: T 8.809, Plg24°, Azm225°; N -.221, Plg64°, Azm69°; P -8.588, Plg9°, Azm319°;*
*INMG **29** 05:33:54.0±1.1,34.98N×3.03W,h5^{km}±5^{km},ML3.2 Error ellipse: s-maj=7.5km s-min=3.9km az=121.0*
*SFS **29** 05:33:54.0,35.01N×3.08W,ML4.4*
*IGIL **29** 05:33:55.2,35.10N×2.90W,h2^{km},ML3.9*
*LDG **29** 05:33:55.1±0.2,34.92N×3.01W,h10^{km},Ml3.9/4,Error ellipse: s-maj=4.7km s-min=2.2km az=2.0*
ISC 29 05:33:54.1±0.7,**35.04N**±0.04×**3.02W**±0.04,**h24**^{km}±4^{km}**,n127,**σ**1**^{s}**32**/105,**2C-5D,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MELI	Melilla	0.27	14	⇓P	Pb	05 33 59.9	-0.6
MELI				S	Sb	05 34 04.7	-0.3
EMEL	Melilla	0.27	10	⇓P	Pb	05 33 60.0	-0.6
	289nm,0.2s,SNR=18						
EMEL				S	Sb	05 34 04.5	-0.5
	7μm,0.3s						
TOU	Touzarine	0.61	263	*i* S	Sb	05 34 21.0	+6.7
MPAL	Palemas	0.78	284	*i* P	Pb	05 34 11.0	+2.0
MPAL				*i* S	Sb	05 34 25.0	+5.8
OTSS	Djebel Tessala	1.84	82	P	Pn	05 34 15.0	-10
EBER	Berja	1.86	3	P	Pn	05 34 26.0	+0.9
EBER				S	Sn	05 34 47.3	-0.8
EBER	Berja	1.86	3	P	Pn	05 34 25.8	+0.7
	17nm,0.4s,SNR=30						
EBER				S	Sn	05 34 47.3	-0.8
	477nm,0.6s,SNR=21						
EBER	Berja	1.86	3	P	Pn	05 34 26.0	+0.9
EBER				S	Sn	05 34 47.3	-0.7
	477nm,0.6s,SNR=21						
DKH	Dar Kharkhour	1.97	284	*e*P	Pn	05 34 26.0	-0.7
DKH				*i* S	Sn	05 34 50.5	-0.4
ENIJ	Nijar	2.04	19	⇑P	Pn	05 34 27.2	-0.5
	13nm,0.2s,SNR=18						
ENIJ				S	Sn	05 34 55.4	+2.8
	55nm,0.3s,SNR=7.9						
EMAL	Malaga-Limoner	2.07	327	⇑P	Pn	05 34 28.1	0.0
	7.6nm,0.1s,SNR=18						
EMAL				S	Sn	05 34 53.3	0.0
	26nm,0.3s,SNR=7.9						
ERON	Agron	2.08	342	P	Pn	05 34 27.9	-0.3
	6.7nm,0.2s,SNR=12						
ERON				S	Sn	05 34 55.0	+1.3
	42nm,0.4s						
EMIJ	Mijas	2.09	317	P	Pn	05 34 28.0	-0.3
	18nm,0.1s,SNR=97						
EMIJ				S	Sn	05 34 53.4	-0.5
	301nm,0.4s,SNR=6.7						
MDAL	Dalia	2.19	294	*i* S	Sn	05 34 54.0	-2.4
MDAL	Dalia	2.19	294	*i* P	Pn	05 34 29.0	-0.8
ELOJ	Sierra Loja	2.30	337	P	Pn	05 34 32.6	+1.2
ELOJ				S	Sn	05 35 00.1	+0.8
ELOJ	Sierra Loja	2.30	337	P	Pn	05 34 32.8	+1.5
	5.8nm,0.2s,SNR=17						
ELOJ				S	Sn	05 34 59.6	+0.4
	19nm,0.3s						
ODJA	Bouhanifia	2.37	82	P	Pn	05 34 29.0	-3.3
MIF	Mishlifen	2.45	229	*i* P	Pn	05 34 34.0	+0.5
MOMI	Momias	2.55	301	P	Pn	05 34 38.8	+3.8
CZD	Col de Zad	2.61	221	*i* P	Pn	05 34 37.0	+1.2
LIJA	Lijar	2.69	315	⇓P	Pn	05 34 39.9	+3.0
LIJA				S	Sn	05 35 15.0	+5.9
LIJA	Lijar	2.69	315	*i* P	Pn	05 34 39.9	+3.0
ELUQ	Luque	2.71	338	P	Pn	05 34 38.5	+1.2
ELUQ				S	Sn	05 35 11.7	+2.0
ELUQ	Luque	2.71	338	P	Pn	05 34 39.1	+1.8
	9.3nm,0.3s,SNR=22						
ELUQ				S	Sn	05 35 11.7	+2.0
	25nm,0.3s						
ELUQ	Luque	2.71	338	P	Pn	05 34 38.5	+1.2
ELUQ				S	Sn	05 35 11.7	+2.0
	25nm,0.3s						
EQES	Quesada	2.76	359	P	Pn	05 34 40.0	+2.0
EQES				S	Sn	05 35 12.2	+1.3
EQES	Quesada	2.76	359	P	Pn	05 34 40.2	+2.2
	31nm,0.3s,SNR=77						
EQES				S	Sn	05 35 12.2	+1.3
	28nm,0.4s						
EQES	Quesada	2.76	359	P	Pn	05 34 40.0	+2.0
EQES				S	Sn	05 35 12.2	+1.3
	28nm,0.4s						
CNIL	Conil	2.81	299	⇓P	Pn	05 34 41.8	+3.1
ESPR	Espera	2.94	309	P	Pn	05 34 41.8	+1.3
ESPR				S	Sn	05 35 16.7	+1.2
ESPR	Espera	2.94	309	P	Pn	05 34 42.1	+1.6
	11nm,0.2s,SNR=30						
ESPR				S	Sn	05 35 16.7	+1.2
	9.7nm,0.3s,SNR=4.0						
ESPR	Espera	2.94	309	P	Pn	05 34 41.8	+1.3
ESPR				S	Sn	05 35 16.7	+1.2
	9.7nm,0.3s,SNR=4.0						
GIBL	Gibalbin	2.99	308	P	Pn	05 34 42.7	+1.5
GIBL	Gibalbin	2.99	308	*e*P	Pn	05 34 42.7	+1.5
CART	Cartagena	3.02	32	*e*P	Pn	05 34 39.5	-2.1
CART	Cartagena	3.02	32	*e*P	Pn	05 34 39.5	-2.1
OJGS	Djebel Guires	3.12	80	P	Pn	05 34 42.0	-1.0
ZFT	Errachidia	3.19	201	*i* P	Pn	05 34 40.0	-4.1
EANR	'Ain N'Sour	3.48	74	P	Pn	05 34 43.0	-5.2
EVIA	Vianos	3.62	6	P	Pn	05 34 51.7	+1.6
EVIA				S	Sn	05 35 28.9	-3.7
EVIA	Vianos	3.62	6	P	Pn	05 34 52.9	+2.8
	2.2nm,0.2s,SNR=8.3						
EVIA				S	Sn	05 35 33.6	+1.0
	43nm,0.5s,SNR=7.0						
EVIA	Vianos	3.62	6	P	Pn	05 34 51.7	+1.6
EVIA				S	Sn	05 35 33.6	+1.0
	43nm,0.5s,SNR=7.0						
ECHF	Ech Chlef	3.72	71	S	Sn	05 35 44.5	+9.3
EMIN	Mina Concepcio	4.02	314	P	Pn	05 34 55.5	-0.3
EMIN				S	Sn	05 35 40.4	-2.3
EMIN	Mina Concepcio	4.02	314	⇓P	Pn	05 34 55.5	-0.3
	13nm,0.2s,SNR=18						
EMIN				S	Sn	05 35 41.2	-1.5
	12nm,0.3s						
EMIN	Mina Concepcio	4.02	314	P	Pn	05 34 55.5	-0.3
	13nm,0.2s,SNR=18						
EMIN				S	Sn	05 35 40.4	-2.3
EBEN	Beniarda	4.29	31	P	Pn	05 34 60.0	+0.3
EBEN				S	Sn	05 35 44.3	-5.3
EBEN	Beniarda	4.29	31	P	Pn	05 34 59.7	0.0
	2.0nm,0.1s,SNR=9.4						
EBEN				S	Sn	05 35 46.7	-2.9
	7.8nm,0.5s,SNR=4.0						
EBEN	Beniarda	4.29	31	P	Pn	05 35 00.0	+0.3
PALC	Alcoutim	4.34	305	*e*Pn	Pn	05 35 00.0	-0.4
PALC				*e*Sn	Sn	05 35 49.8	-1.2
	55nm,0.7s						
PALC	Alcoutim	4.34	305	*e*P	Pn	05 35 00.0	-0.4
PALC				*e*S	Sn	05 35 49.8	-1.2
	55nm,0.7s						
EGRO	El Granado	4.39	306	P	Pn	05 35 00.5	-0.5
	34nm,0.3s,SNR=7.9						
EGRO				S	Sn	05 35 49.1	-2.9
	15nm,0.3s,SNR=7.9						
EGRO	El Granado	4.39	306	P	Pn	05 35 00.5	-0.5
	34nm,0.3s,SNR=7.9						
EGRO				S	Sn	05 35 49.1	-3.0
	15nm,0.3s,SNR=7.9						
ESDC	Sonseca Array	4.69	351	P	Pn	05 35 05.5	+0.1
	12nm,0.1s,baz=173,slow=12,SNR=44						
ESDC				S	Sn	05 35 58.3	-1.4
	7.5nm,0.4s,baz=174,slow=23,SNR=7.9						
ESDC	Sonseca Array	4.69	351	P	Pn	05 35 05.5	+0.1
	12nm,0.1s,SNR=44						
ESDC	Sonseca Array	4.69	351	S	Sn	05 35 58.3	-1.4
	7.5nm,0.4s,SNR=7.9						
ESLA	Sonseca Array	4.69	351	*e*P	Pn	05 35 06.2	+0.9
ESLA	Sonseca Array	4.69	351	*e*P	Pn	05 35 06.2	+0.8
EBAD	Badajoz	4.90	320	P	Pn	05 35 07.9	-0.4
	10nm,0.2s,SNR=131						
EBAD				S	Sn	05 36 02.0	-3.1
	62nm,0.3s						
EBAD	Badajoz	4.90	320	S	Sn	05 36 02.0	-3.1
	62nm,0.3s						
EBAD	Badajoz	4.90	320	P	Pn	05 35 07.9	-0.5
	10nm,0.2s,SNR=131						
PBEJ	Beja	4.92	309	*e*Pn	Pn	05 35 07.8	-0.7
PBEJ				*e*Sn	Sn	05 36 03.8	-1.6
	18nm,0.4s						
PBEJ	Beja	4.92	309	P	Pn	05 35 07.8	-0.7
PBEJ				S	Sn	05 36 03.8	-1.6
	8.8nm,0.4s						
EMHD	Djebel Mahouad	5.00	75	S	Sx	05 36 07.0	
PTEO	Sao Teotonio	5.25	300	*e*Pn	Px	05 35 12.3	
PTEO				*e*Sn	Sx	05 36 11.6	
	19nm,0.5s						
PTEO	Sao Teotonio	5.25	300	P	Px	05 35 12.3	
PTEO				S	Sx	05 36 11.6	
	9.6nm,0.5s						
EVO	Evora	5.32	312	*e*Pn	Px	05 35 14.1	
EVO				*e*Sn	Sx	05 36 13.2	
	52nm,0.4s						
MOE	Montemor	5.52	311	*e*Pn	Px	05 35 16.8	
MOE				*e*Sn	Sx	05 36 17.9	
OUK	Oukaimeden	5.58	228	*i* S	Sx	05 36 18.0	
GUD	Guadarrama	5.67	351	P	Px	05 35 19.3	
GUD				S	Sx	05 36 21.2	
GUD	Guadarrama	5.67	351	P	Px	05 35 19.6	
	1.7nm,0.2s,SNR=11						
GUD				S	Sx	05 36 21.2	
	10nm,0.5s						
CIA	Chichaoua	5.92	236	*i* P	Px	05 35 22.5	
CIA				*i* S	Sx	05 36 27.0	
PCBR	Castelo Branco	5.97	325	*e*Pn	Px	05 35 22.8	
PCBR				*e*Sn	Sx	05 36 27.3	
	20nm,0.4s						
PCBR	Castelo Branco	5.97	325	P	Px	05 35 22.8	
PCBR				S	Sx	05 36 27.3	
	9.9nm,0.4s						
ALMR	Almeirim	6.05	314	*e*P	Px	05 35 23.9	
ALMR				*e*S	Sx	05 36 28.3	
ALMR				*e*S	Sx	05 36 28.3	
ALMR				AML	AML	05 36 48.6	

	comp=N,155nm,0.3s						
LIS	**Lisbon**	**6.14**	**309**	eP	Px	05 35 25.1	
LIS				eS	Sx	05 36 30.0	
LIS				eS	Sx	05 36 30.1	
LIS				AML	AML	05 36 41.9	
	comp=E,97nm,0.5s						
PLOU	**Loures**	**6.24**	**310**	ePn	Px	05 35 27.1	
PLOU				eSn	Sx	05 36 35.8	
	comp=E,17nm,0.9s						
PLOU	**Loures**	**6.24**	**310**	P	Px	05 35 27.1	
PLOU				S	Sx	05 36 35.8	
	comp=E,8.4nm,0.9s						
EBR	**Ebro Roquetas**	**6.41**	**25**	ePN	Px	05 35 30.5	
MTE	**Manteigas**	**6.45**	**328**	ePn	Px	05 35 29.7	
MTE				eSn	Sx	05 36 39.6	
	comp=E,35nm,0.5s						
MTE	**Manteigas**	**6.45**	**328**	P	Px	05 35 29.7	
MTE				S	Sx	05 36 39.6	
	comp=E,18nm,0.5s						
ERTA	**Horta de San J**	**6.47**	**23**	P	Px	05 35 30.9	
ERTA				S	Sx	05 36 41.0	
ERTA	**Horta de San J**	**6.47**	**23**	P	Px	05 35 30.9	
	comp=E,12nm,0.5s,SNR=16						
ERTA				S	Sx	05 36 40.6	
	comp=E,1.7nm,0.3s						
ERTA	**Horta de San J**	**6.47**	**23**	P	Px	05 35 30.9	
	comp=E,12nm,0.5s,SNR=16						
PVIS	**Viseu**	**6.86**	**327**	ePn	Px	05 35 35.2	
PVIS				eSn	Sx	05 36 49.5	
	comp=E,16nm,0.5s						
PVIS	**Viseu**	**6.86**	**327**	P	Px	05 35 35.2	
PVIS				S	Sx	05 36 49.5	
	comp=E,7.9nm,0.5s						
PVRL	**Vila Real**	**7.25**	**331**	ePn	Px	05 35 40.6	
PVRL				eSn	Sx	05 36 57.3	
	comp=E,26nm,0.5s						
PVRL	**Vila Real**	**7.25**	**331**	P	Px	05 35 40.6	
PVRL				S	Sx	05 36 57.3	
	comp=E,13nm,0.5s						
PBRG	**Braganca**	**7.36**	**338**	ePn	Px	05 35 41.9	
PBRG				eSn	Sx	05 37 00.0	
	comp=E,11nm,0.6s						
PBRG	**Braganca**	**7.36**	**338**	P	Px	05 35 41.9	
PBRG				S	Sx	05 37 00.0	
	comp=E,5.3nm,0.6s						
ECAL	**Calabor**	**7.49**	**338**	P	Px	05 35 43.4	
ECAL				S	Sx	05 37 03.1	
ECAL	**Calabor**	**7.49**	**338**	P	Px	05 35 44.0	
	comp=E,4.0nm,0.3s,SNR=18						
ECAL				S	Sx	05 37 04.5	
	comp=E,5.2nm,0.3s,SNR=6.0						
ECAL	**Calabor**	**7.49**	**338**	S	Px	05 37 04.5	
	comp=E,5.2nm,0.3s,SNR=6.0						
ECAL	**Calabor**	**7.49**	**338**	P	Px	05 35 44.0	
	comp=E,4.0nm,0.3s,SNR=18						
ELOB	**Lobios**	**7.88**	**331**	P	Px	05 35 48.9	
ELOB				S	Sx	05 37 13.2	
ELOB	**Lobios**	**7.88**	**331**	P	Px	05 35 49.7	
	comp=E,7.9nm,0.3s,SNR=22						
ELOB				S	Sx	05 37 13.1	
	comp=E,10nm,0.4s						
ELOB	**Lobios**	**7.88**	**331**	P	Px	05 35 48.9	
ETSF	**Etsaut**	**8.08**	**13**	ePn	Px	05 35 53.4	
ETSF				eSn	Sx	05 37 18.7	
	comp=E,24nm,1.1s						
SJPF	**Ste Jean**	**8.19**	**9**	ePn	Px	05 35 53.8	
SJPF				eSn	Sx	05 37 21.3	
	comp=E,66nm,1.2s						
EALK	**Alkurruntz**	**8.26**	**8**	P	Px	05 35 59.1	
EALK				S	Sx	05 37 23.6	
EALK	**Alkurruntz**	**8.26**	**8**	P	Px	05 35 59.1	
	comp=E,5.8nm,0.6s,SNR=4.9						
EALK				S	Sx	05 37 23.6	
	comp=E,9.6nm,0.5s,SNR=4.0						
EZAM	**Zamans**	**8.38**	**330**	P	Px	05 35 55.7	
EZAM				S	Sx	05 37 24.8	
EZAM	**Zamans**	**8.38**	**330**	P	Px	05 35 56.3	
	comp=E,1.2nm,0.2s,SNR=7.9						
EPF	**Esparros**	**8.40**	**17**	ePn	Px	05 35 56.1	
EPF				eSn	Sx	05 37 26.1	
	comp=E,5.5nm,0.6s						
EARI	**Arriondas**	**8.43**	**349**	P	Px	05 35 56.6	
EARI				S	Sx	05 37 25.4	
EARI	**Arriondas**	**8.43**	**349**	P	Px	05 35 57.1	
	comp=E,1.6nm,0.4s,SNR=5.3						
EARI	**Arriondas**	**8.43**	**349**	P	Px	05 35 57.1	
	comp=E,1.6nm,0.4s,SNR=5.3						
EPON	**Pontenova**	**8.88**	**340**	P	Px	05 36 02.4	
EPON				S	Sx	05 37 36.8	
EPON	**Pontenova**	**8.88**	**340**	P	Px	05 36 03.8	
	comp=E,1.5nm,0.4s,SNR=5.1						
EPON				S	Sx	05 37 36.8	
	comp=E,7.3nm,0.7s,SNR=4.0						
EPON	**Pontenova**	**8.88**	**340**	P	Px	05 36 02.4	
STS	**Santiago**	**8.94**	**333**	P	**P**	**05 36 03.6**	**-1.3**
STS				S	**Sn**	**05 37 37.4**	**-8.6**
STS	**Santiago**	**8.94**	**333**	P	Px	05 36 03.6	
	comp=E,2.5nm,0.3s,SNR=4.0						
MTLF	**Montolieu**	**9.23**	**25**	ePn	Px	05 36 07.0	
LFF	**La Frestale**	**10.30**	**15**	ePn	Px	05 36 22.5	
LASF	**Ste Croix**	**10.47**	**28**	ePn	Px	05 36 24.6	
CAF	**Calviac**	**10.62**	**20**	ePn	Px	05 36 26.4	
RJF	**Les Rejaudoux**	**10.82**	**17**	ePn	Px	05 36 29.0	
LMR	**La Mourre**	**11.10**	**39**	ePn	Px	05 36 31.9	
FRF	**La Foret Royal**	**11.33**	**38**	ePn	Px	05 36 34.2	
MFF	**Saint Martin d**	**11.76**	**10**	ePn	Px	05 36 41.6	
PGF	**Pioggiola**	**12.00**	**48**	ePn	Px	05 36 44.4	
AVF	**Avril sur Loir**	**12.69**	**20**	ePn	Px	05 36 54.0	
SMF	**Signal de Mont**	**12.70**	**22**	ePn	Px	05 36 54.4	
QUIF	**Quistinic**	**12.87**	**360**	ePn	Px	05 36 57.0	
SGMF	**Saint Gilles**	**13.21**	**1**	ePn	Px	05 37 01.3	
ROSF	**Rostrenen**	**13.29**	**359**	ePn	Px	05 37 02.9	

GUC 29 05:39:54.9±0.7, 24.24S×68.20W, h110^{km}±22^{km}, MD3.6, ML3.5, 1C-1D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
LVC	**Limon Verde**	**1.75**	**338**	⇓iP	P	05 40 26.0	+0.8
LVC				i S	S	05 40 49.6	+1.6
LVC				AMP		05 40 52.6	
	comp=E,145nm,0.6s						
CPN1	**Cerro Paranal**	**2.04**	**259**	⇑iP	P	05 40 29.7	+0.7
CPN1				i S	S	05 40 56.5	+1.9
CPN1				AMP		05 40 57.7	
	comp=N,220nm,0.2s						
ANCH	**Antofagasta**	**2.10**	**285**	eP	P	05 40 30.4	+0.7
ANCH				i S	S	05 40 56.4	+0.6
ANCH				AMP		05 41 04.3	
	comp=N,3µm,0.8s						
CPCH	**Copiapo**	**3.66**	**212**	eP	P	05 40 48.2	-2.6
CPCH				i S	S	05 41 31.2	-2.1

IDC 29 05:43:46.8±4.2, 6.79S×147.48E, h67^{km}±34^{km}, mb3.6/2, mb1 3.9/4, mb1mx3.6/13, mbtmp4.0/4, ML3.7/2, MS2.9/1, Ms1 2.9/1, ms1mx2.4/21, Error ellipse: s-maj=62.6km s-min=26.7km az=113.0, Eastern New Guinea region

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**2.62**	**187**	P	P	05 44 25.4	-2.4
	42nm,0.3s,baz=7.5,slow=4.7,SNR=66						
PMG				S	S	05 44 58.7	+0.1
	96nm,0.3s,baz=277,slow=15,SNR=11						
PMG				LR	LR	05 45 41.1	
	comp=Z,218nm,18.8s,baz=2.5,slow=44						
WRA	**Warramunga Arr**	**18.27**	**223**	P	P	05 47 55.3	-2.0
	0.5nm,0.3s,baz=50,slow=11,SNR=9.7						
ASAR	**Alice Springs**	**21.26**	**216**	P	P	05 48 28.1	-1.4
	5.5nm,0.7s,baz=53,slow=9.2,SNR=71						
ASAR				S	S	05 52 21.1	+4.4
	0.9nm,0.9s,baz=32,slow=22,SNR=6.1						
STKA	**Stephens Creek**	**25.56**	**192**	P	P	05 49 09.5	-1.7
	0.7nm,0.4s,baz=19,slow=8.4,SNR=4.0						

IDC 29 05:46:17.3±1.7, 6.89N×94.32E, mb3.9/6, mb1 4.0/6, mb1mx3.7/18, mbtmp3.9/6, Error ellipse: s-maj=85.7km s-min=20.5km az=57.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.35**	**21**	Pn	P	05 49 23.2	+5.8
	baz=217,slow=14,SNR=3.0						
SONM	**Songino Array**	**42.08**	**12**	P	P	05 54 11.0	-1.6
	0.7nm,0.8s,baz=191,slow=7.7,SNR=5.3						
WRA	**Warramunga Arr**	**47.55**	**125**	P	P	05 54 54.8	-2.0
	0.8nm,0.7s,baz=305,slow=8.7,SNR=4.4						
ASAR	**Alice Springs**	**49.15**	**129**	P	P	05 55 07.4	-1.8
	1.3nm,0.7s,baz=300,slow=7.8,SNR=8.6						
BVAR	**Borovoye Array**	**49.98**	**341**	P	P	05 55 13.0	-2.1
	0.6nm,0.5s,baz=169,slow=7.3,SNR=2.7						
STKA	**Stephens Creek**	**59.30**	**133**	P	P	05 56 20.8	-2.7
	1.3nm,0.8s,baz=326,slow=3.6,SNR=3.0						
FINES	**FINESS Array B**	**73.67**	**332**	P	P	05 57 52.6	-1.8
	1.7nm,0.8s,baz=90,slow=5.7,SNR=6.7						
TXAR	**Lajitas Array**	**140.04**	**25**	PKP	PKPdf	06 05 49.1	-1.3
	0.1nm,0.4s,baz=315,slow=2.6,SNR=4.2						

IDC 29 05:49:00.1±1.2, 4.76N×94.86E, mb3.8/7, mb1 4.0/7, mb1mx3.9/17, mbtmp3.8/7, Error ellipse: s-maj=66.4km s-min=22.2km az=45.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.19**	**16**	Pn	P	05 52 30.3	+5.6
	0.4nm,0.3s,baz=208,slow=12,SNR=7.1						
SONM	**Songino Array**	**44.05**	**11**	P	P	05 57 10.2	-1.2
	0.3nm,0.4s,baz=196,slow=9.7,SNR=2.9						
WRA	**Warramunga Arr**	**45.91**	**124**	P	P	05 57 25.0	-1.7
	0.8nm,0.5s,baz=302,slow=9.3,SNR=7.4						
ASAR	**Alice Springs**	**47.40**	**128**	P	P	05 57 36.3	-2.2
	0.4nm,0.5s,baz=297,slow=7.8,SNR=4.0						
BRTR	**Keskin Array B**	**65.01**	**312**	P	P	05 59 42.8	-1.7
	0.4nm,0.6s,baz=145,slow=7.4,SNR=3.0						
FINES	**FINESS Array B**	**75.79**	**332**	P	P	06 00 46.2	-3.3
	2.1nm,1.0s,baz=108,slow=6.0,SNR=4.0						
ARCES	**ARCESS Array B**	**78.42**	**340**	P	P	06 01 02.5	-1.4
	5.3nm,0.9s,baz=90,slow=6.3,SNR=4.0						
GERES	**GERESS Array B**	**80.62**	**319**	P	P	06 01 15.7	-0.5
	0.3nm,0.6s,baz=72,slow=6.2,SNR=4.9						

IDC 29 05:50:32.3±1.6, 5.73N×94.24E, mb3.9/6, mb1 4.1/6, mb1mx3.8/17, mbtmp3.9/6, MS2.6/1, Ms1 2.6/1, ms1mx2.4/36, Error ellipse: s-maj=61.7km s-min=29.3km az=52.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SONM	**Songino Array**	**43.23**	**12**	P	P	05 58 35.4	-1.5
	1.7nm,0.8s,baz=198,slow=8.3,SNR=9.2						
JNU	**Nakatsue**	**43.62**	**47**	LR	LR	06 16 52.8	
	comp=Z,7.6nm,21.0s,baz=64,slow=36						
WRA	**Warramunga Arr**	**46.96**	**124**	P	P	05 59 05.3	-1.9
	0.4nm,0.3s,baz=295,slow=8.9,SNR=5.3						
ZAL	**Zalesovo**	**48.67**	**353**	P	P	05 59 18.1	-2.0
	1.0nm,0.3s,baz=213,slow=6.1,SNR=3.9						
FINES	**FINESS Array B**	**74.65**	**332**	P	P	06 02 12.8	-2.3
	1.4nm,0.6s,baz=135,slow=5.9,SNR=4.4						
ARCES	**ARCESS Array B**	**77.31**	**340**	P	P	06 02 28.3	-1.7
	3.4nm,1.1s,baz=90,slow=5.4,SNR=2.5						
GERES	**GERESS Array B**	**79.49**	**318**	P	P	06 02 41.6	-0.7
	0.2nm,0.5s,baz=74,slow=7.1,SNR=2.3						

MAN 29 05:51:39.8, 12.16N×123.88E, h11^{km}, mb4.8, ML3.7, MS3.7, 4C, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
MMPH	**Masbate**	**0.32**	**309**	⇑iP	Pg	05 51 47.0	+0.6
MMPH				i S	Sg	05 51 54.0	+3.2
CNP	**Catarman**	**0.85**	**65**	eP	Pb	05 51 55.7	-0.3
CNP				eS	Sb	05 52 07.6	+0.5
RCP	**Roxas**	**1.25**	**242**	⇑eP	Pb	05 52 02.9	-0.1
RCP				eS	Sb	05 52 20.7	+1.7
OCLP	**Ormoc**	**1.31**	**147**	eP	Pb	05 52 04.3	+0.3
PVCP	**Virac**	**1.46**	**11**	eP	Pn	05 52 05.2	-1.0
BESP	**Borongan**	**1.63**	**110**	eP	Pn	05 52 07.8	-0.8
AUQP	**San Andres**	**1.65**	**315**	eP	Pn	05 52 09.8	+1.0
OTRP	**Odiongan**	**1.82**	**277**	eP	Pn	05 52 10.7	-0.7
LLP	**Lapu-Lapu**	**1.83**	**177**	⇑eP	Pn	05 52 10.8	-0.7
LLP				eS	Sn	05 52 34.8	0.0
GUIM	**Jordan**	**1.98**	**220**	eP	Pn	05 52 13.0	-0.6
GUIM				eS	Sn	05 52 39.7	+1.2
MSLP	**Maasin**	**2.23**	**154**	eP	Pn	05 52 20.8	+3.5
BOAC	**Boac**	**2.37**	**303**	eP	Pn	05 52 18.4	-0.8
TBP	**Tagbilaran**	**2.45**	**180**	⇑eP	Pn	05 52 19.6	-0.8
TBP				eS	Sn	05 52 51.1	+0.5
SNPH	**Sibulan**	**2.87**	**193**	eP	Pn	05 52 25.0	-1.3
LQP	**Lukban**	**2.99**	**311**	eP	Pn	05 52 27.6	-0.6

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*BJI **29** 05:51:56.9, 9.13N×93.76E, h19^{km}, mB5.4, mb4.8*

*IDC **29** 05:51:57.2±0.7, 9.46N×94.09E, mb4.0/13, mb1 4.2/13, mb1mx4.1/19, mbtmp4.0/13, Error ellipse: s-maj=33.7km s-min=16.2km az=61.0*

*NEIC **29** 05:51:59.5±8.7, 9.12N×93.75E, h22^{km}±61^{km}, mb4.5/8, Error ellipse: s-maj=26.6km s-min=23.7km az=98.0*

ISC 29 05:52:00.0±2.0, 9.22N±0.07×93.82E±0.07, h36^{km}±17^{km}, h20^{km}±9.0^{km}:pP-P, n47, σ0^{s}99/43, mb4.3/25, 2C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**10.44**	**28**	eP	**P**	**05 54 30.2**	**-0.3**
CMAR	**Chiang Mai Arr**	**10.44**	**28**	Pn	**P**	**05 54 30.2**	**-0.3**
	1.3nm,0.3s,baz=216,slow=14,SNR=17						
PALK	**Pallekele**	**13.12**	**263**	P	**P**	**05 55 07.6**	**+0.9**
PKI	**Pulchoki**	**19.91**	**338**	eP	**P**	**05 56 32.1**	**+0.6**
GUN	**Gumba**	**20.04**	**339**	eP	**P**	**05 56 32.0**	**-0.9**
	35nm,0.6s						
DMN	**Daman**	**20.06**	**337**	eP	**P**	**05 56 33.5**	**+0.4**
	58nm,1.1s						
KKN	**Kakani**	**20.15**	**338**	eP	**P**	**05 56 33.2**	**-0.9**
	27nm,0.7s						
LSA	**Lhasa**	**20.53**	**353**	eP	**P**	**05 56 37.8**	**-0.2**
	14nm,0.8s						
GKN	**Gorkha**	**20.59**	**336**	eP	**P**	**05 56 38.1**	**-0.6**
	166nm,1.1s						
KOLN	**Koldanda**	**20.82**	**334**	eP	**P**	**05 56 40.7**	**-0.3**
	71nm,0.8s						
GYA	**Guiyang**	**21.03**	**34**	⇑iP	**P**	**05 56 43.0**	**-0.1**
GYA				AMB	AMB		
	comp=Z,50nm,1.1s,mb4.8						
CD2	**Chengdu**	**23.49**	**22**	P	**P**	**05 57 08.8**	**+1.3**
CD2				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.1						
ENH	**Enshi**	**25.55**	**33**	eP	**P**	**05 57 26.1**	**-1.3**
	comp=Z,25nm,1.0s,mb4.7						
LZH	**Lanzhou**	**28.26**	**17**	eP	**P**	**05 57 53.8**	**+1.6**
LZH				AP	pP	05 57 56.8	-5.4
LZH				XP	sP	05 57 58.5	-8.3
LZH				AMB	AMB		
	comp=Z,21nm,1.2s,mb4.6						
XAN	**Xi'an**	**28.34**	**27**	P	**P**	**05 57 51.5**	**-1.4**
XAN				AP	pP	05 58 00.5	-2.4
XAN				AMB	AMB		
	comp=Z,22nm,1.2s,mb4.7						
GTA	**Gaotai**	**30.54**	**9**	eP	**P**	**05 58 12.8**	**+0.4**
GTA				AP	pP	05 58 20.5	-2.1
GTA				XP	sP	05 58 24.5	-2.8
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
BJT	**Baijiatuau**	**36.57**	**29**	eP	**P**	**05 59 05.2**	**+0.8**
	comp=Z,42nm,1.5s,mb5.0						
BJI	**Beijing**	**36.59**	**29**	P	**P**	**05 59 04.8**	**+0.2**
BJI				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
SONM	**Songino Array**	**39.93**	**13**	P	**P**	**05 59 32.2**	**-0.2**
	comp=Z,1.7nm,0.9s,mb3.8,baz=198,slow=7.8,SNR=7.6						
SONM				PcP	PcP	06 01 37.8	-0.3
	comp=Z,0.6nm,0.5s,baz=225,slow=2.0,SNR=3.3						
ULN	**Ulaanbaatar**	**40.11**	**14**	eP	**P**	**05 59 35.7**	**+1.8**
	comp=Z,3.2nm,0.7s,mb4.2						
CN2	**Changchun**	**44.08**	**33**	⇑P	**P**	**06 00 07.3**	**+0.8**
ZAL	**Zalesovo**	**45.18**	**352**	P	**P**	**06 00 14.2**	**-1.0**
	comp=Z,2.4nm,0.9s,mb4.0,baz=205,slow=9.7,SNR=11						
HIA	**Hailar**	**45.42**	**24**	eP	**P**	**06 00 17.9**	**+0.7**
NWAO	**Narrogin (SRO)**	**47.48**	**153**	P	**P**	**06 00 34.0**	**+0.3**
	comp=Z,3.0nm,0.3s,mb4.8,baz=313,slow=10,SNR=39						
BVAR	**Borovoye Array**	**47.62**	**341**	P	**P**	**06 00 34.8**	**+0.3**
	comp=Z,0.8nm,0.6s,mb3.9,baz=112,slow=7.8,SNR=3.6						
CHKZ	**Chkalovo**	**48.10**	**342**	eP	**P**	**06 00 36.2**	**-2.0**
	comp=Z,3.6nm,0.7s,mb4.5						
WRA	**Warramunga Arr**	**49.30**	**126**	P	**P**	**06 00 48.6**	**+0.7**
	comp=Z,1.8nm,0.7s,mb4.2,baz=304,slow=8.7,SNR=7.0						
WRAB	**Tennant Creek**	**49.31**	**126**	eP	**P**	**06 00 47.6**	**-0.3**
	comp=Z,4.2nm,0.7s,mb4.6						
ASAR	**Alice Springs**	**51.02**	**131**	P	**P**	**06 01 00.1**	**-0.9**
	comp=Z,1.1nm,0.9s,mb3.8,baz=317,slow=7.4,SNR=4.4						
KIV	**Kislovodsk**	**56.12**	**317**	P	**P**	**06 01 38.9**	**+0.6**
CTAO	**Charters Tower**	**59.24**	**120**	eP	**P**	**06 02 06.5**	**+5.9**
BRTR	**Keskin Array B**	**61.32**	**310**	P	**P**	**06 02 14.8**	**+0.3**
	comp=Z,0.9nm,0.6s,mb4.1,baz=124,slow=7.2,SNR=5.1						
AKASG	**Malin Array Be**	**66.91**	**321**	P	**P**	**06 02 51.6**	**+0.8**
	comp=Z,0.6nm,0.6s,mb3.8,baz=86,slow=6.5,SNR=3.0						
FINES	**FINESS Array B**	**71.38**	**332**	P	**P**	**06 03 16.5**	**-1.6**
	comp=Z,2.0nm,0.8s,mb4.1,baz=104,slow=5.7,SNR=3.6						
ARCES	**ARCESS Array B**	**73.90**	**340**	P	**P**	**06 03 31.7**	**-1.1**
	comp=Z,0.8nm,0.4s,mb4.0,baz=100,slow=6.0,SNR=8.2						
LBTB	**Lobatse**	**74.61**	**241**	P	**P**	**06 03 38.1**	**+0.3**
BOSA	**Boshof**	**76.03**	**237**	eP	**P**	**06 03 43.4**	**-2.5**
GERES	**GERESS Array B**	**76.62**	**318**	P	**P**	**06 03 50.9**	**+2.0**
	comp=Z,1.4nm,0.7s,mb4.0,baz=72,slow=4.2,SNR=6.4						
NB2	**NORSAR Subarra**	**78.41**	**330**	P	**P**	**06 03 53.1**	**-5.4**
	comp=Z,2.8nm,0.8s,mb4.2,baz=92,slow=5.8						
NOA	**NORSAR Array B**	**78.41**	**330**	P	**P**	**06 03 58.6**	**+0.1**
	comp=Z,0.3nm,0.6s,mb3.4,baz=98,slow=3.9,SNR=3.7						
ILAR	**Eielson Array**	**93.63**	**22**	P	**P**	**06 05 13.1**	**-0.5**
	comp=Z,0.5nm,0.7s,mb4.0,baz=287,slow=4.5,SNR=6.8						
INK	**Inuvik**	**95.80**	**16**	P	**P**	**06 05 23.1**	**-0.3**
RES	**Resolute Bay**	**96.08**	**2**	eP	**P**	**06 05 27.8**	**+3.3**
	comp=Z,2.5nm,0.9s,mb4.6						
PDAR	**Pinedale Array**	**124.03**	**21**	PKhKP		06 10 54.3	
	comp=Z,0.4nm,0.7s,baz=270,slow=1.5,SNR=3.4						
TXAR	**Lajitas Array**	**138.13**	**23**	PKP	PKPdf	06 11 24.5	+2.4
	comp=Z,0.2nm,0.8s,baz=315,slow=2.6,SNR=3.1						
LVC	**Limon Verde**	**158.75**	**229**	PKPab	PKPab	06 12 37.0	+4.4
	comp=Z,1.9nm,0.6s,baz=187,slow=8.1,SNR=3.8						
LPAZ	**La Paz**	**161.05**	**246**	PKPab	PKPab	06 12 45.6	+2.9
	comp=Z,0.8nm,0.7s,baz=104,slow=4.2,SNR=3.3						

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*BJI **29** 05:56:45.4, 8.67N×92.99E, h21^{km}, mB6.1, mb5.7, Ms6.4, Msz6.2*

*NEIC **29** 05:56:47.5±0.1, 8.79N×93.20E, h12^{km}, mb5.8/91, ME6.1, MS6.2/126, MW6.2, Error ellipse: s-maj=5.6km s-min=3.8km az=206.0 Broadband fault plane solution: P waves. NP1:ϕ_s160°, δ75°, λ-120°. NP2:ϕ_s46°, δ33°, λ-28°. Principal axes: T Plg24°, Azm273°; N Plg0°, Azm0°; P Plg51°, Azm36°; Moment Tensor Solution. s35 Moment tensor: Scale 10^{18} Nm; M_{rr}-1.66; $M_{\theta\theta}$-0.55; $M_{\phi\phi}$2.20; $M_{r\theta}$-0.89; $M_{\theta\phi}$1.31; $M_{\phi r}$0.73; Best double couple: $M_0$2.6×10^{18} NP1:ϕ_s53°, δ52°, λ-40°. NP2:ϕ_s171°, δ60°, λ-134°. Principal axes: T 2.76, Plg5°, Azm290°; N -.25, Plg37°, Azm197°; P -2.51, Plg53°, Azm27°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*SYO **29** 05:56:47.6, 8.80N×93.23E, h12^{km}, MB5.8, MS6.2*

*MOS **29** 05:56:50.7±0.9, 9.09N×93.08E, h33^{km}, mb6.0/84, MS6.1/71, Error ellipse: s-maj=8.2km s-min=3.7km az=124.3*

*IDC **29** 05:56:50.1±1.5, 8.78N×93.30E, h29^{km}±9^{km}, mb5.6/34, mb1 5.6/34, mb1mx5.6/34, mbtmp5.8/34, MS6.1/25, Ms1 6.1/25, ms1mx5.9/31, Error ellipse: s-maj=15.1km s-min=7.8km az=46.0*

ISC 29 05:56:48.5±0.1, 8.76N±0.03×93.17E±0.02, h30^{km}, h30^{km}±1.1^{km}:pP-P, n964, σ1^{s}10/817, mb5.8/173, MS6.2/191, 66C-54D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SNG	**Songkhla**	**7.54**	**101**	P	**Pn**	**05 58 38.5**	**-0.7**
	1µm,1.0s						
NST	**Nakhon Sawan**	**9.67**	**44**	⇓P	**P**	**05 59 08.5**	**-0.4**
	375nm,0.5s						
CM31	**Chiang Mai Arr**	**11.15**	**30**	ePn	**P**	**05 59 30.9**	**+1.7**
	620nm,1.0s						
CMAR	**Chiang Mai Arr**	**11.15**	**30**	i P	**P**	**05 59 31.5**	**+2.3**
CMAR	**Chiang Mai Arr**	**11.15**	**30**	Pn	**P**	**05 59 31.4**	**+2.2**
	8.8nm,0.3s,baz=218,slow=14,SNR=276						
CMAR				LR	LR	06 04 00.9	
	comp=Z,61µm,18.6s,baz=210,slow=39						
KKTK	**Khon Kaen**	**12.06**	**50**	P	**P**	**05 59 43.0**	**+1.5**
	3µm,0.9s						
NANT	**Nan**	**12.37**	**35**	⇓P	**P**	**05 59 48.6**	**+3.0**
	600nm,1.0s						
PALK	**Pallekele**	**12.44**	**264**	ePn	**P**	**05 59 45.4**	**-1.1**
	267nm,1.0s						
VIS	**Vishakhapatnam**	**13.08**	**314**	i P	**P**	**05 59 51.8**	**-3.2**
VIS				i S	**S**	**06 02 09.3**	**-11**
UBT	**Ubonrachathani**	**13.26**	**60**	P	**P**	**05 59 59.5**	**+2.1**
MDRS	**Chennai**	**13.40**	**290**	⇓eP	**P**	**05 59 57.5**	**-1.7**
MDRS				eS	**S**	**06 02 14.0**	**-14**
CAL	**Calcutta**	**14.47**	**342**	eP	**P**	**06 00 15.4**	**+2.0**
CAL				e	**S**	**06 03 12.3**	**+19**
AGT	**Agartala**	**15.15**	**353**	⇓i	**P**	**06 00 30.0**	**+7.6**
AGT				i		06 01 26.0	
KOD	**Kodaikanal**	**15.56**	**277**	⇑eP	**P**	**06 00 26.0**	**-1.7**
KOD				eS	**S**	**06 03 22.4**	**+3.1**
IMP	**Imphal**	**15.96**	**3**	e	**P**	**06 00 29.9**	**-2.8**
TRD	**Trivandrum**	**16.03**	**270**	⇑eP	**P**	**06 00 30.8**	**-2.9**
TRD				i		06 06 53.6	
	comp=Z,82µm,20.1s						
BOK	**Bokaro**	**16.50**	**336**	⇓eP	**P**	**06 00 37.4**	**-2.2**
BOK				i		06 07 27.3	
	comp=Z,61µm,22.9s						
HYB	**Hyderabad**	**16.63**	**303**	⇑eP	**P**	**06 00 40.0**	**-1.3**
HYB				eS	**S**	**06 03 42.0**	**-2.1**
HYB				pmax	pmax		
	comp=Z,400nm,1.0s						
HYB	**Hyderabad**	**16.63**	**303**	⇑eP	**P**	**06 00 40.0**	**-1.3**
	comp=Z,400nm,1.0s						
HYB				eS	**S**	**06 03 42.0**	**-2.1**
HYB	**Hyderabad**	**16.63**	**303**	⇑iP	**P**	**06 00 40.0**	**-1.3**
	comp=Z,400nm,1.0s						
HYB				eS	**S**	**06 03 42.0**	**-2.1**
HYB				LR	LR	06 09 20.0	
	comp=Z,104nm,16.0s						
SHL	**Shillong**	**16.76**	**356**	⇓eP	**P**	**06 00 42.6**	**-0.4**
SHL				e	**S**	**06 03 52.0**	**+4.9**
BLSP	**Bilaspur**	**17.02**	**323**	⇓eP	**P**	**06 00 45.2**	**-0.9**
BLSP				e		06 00 51.9	
	comp=Z,739nm,1.2s						
BLSP				e	**S**	**06 03 46.8**	**-6.1**
NGP	**Nagpur**	**18.36**	**314**	⇑eP	**P**	**06 01 01.3**	**-1.6**
NGP				eS	**S**	**06 04 24.4**	**+0.9**
SLGI	**Shiliguri**	**18.41**	**346**	e	**P**	**06 01 09.8**	**+6.4**
SLGI				e		06 02 04.6	
MNGI	**Mangalore**	**18.49**	**285**	⇑eP	**P**	**06 01 04.8**	**+0.3**
MNGI				i		06 08 28.3	
	comp=Z,85µm,19.3s						
PENI	**Pendagan**	**18.59**	**140**	⇑eP	**P**	**06 00 59.4**	**-6.3**
	comp=Z,376nm,0.6s						
KMI	**Kunming**	**18.66**	**28**	⇓P	**P**	**06 01 08.3**	**+1.9**
KMI				AP		06 01 15.3	
KMI				S	**S**	**06 04 37.8**	**+7.7**
KMI				XS		06 04 43.5	
KMI				SS	SS	06 04 54.8	0.0
KMI				AMB	AMB		
	comp=Z,177nm,1.3s						
KMI				AMB	AMB		
	comp=Z,11µm,10.1s						
KMI				LR	LR		
	comp=N,54µm,18.8s						
KMI				LR	LR		
	comp=E,45µm,22.2s						
KMI				LR	LR		
	comp=Z,70µm,20.7s						
LKP	**Lekhapani**	**18.68**	**8**	eP	**P**	**06 01 04.0**	**-2.7**
LKP				e		06 01 08.5	
LATR	**Latur**	**18.77**	**302**	eP	**P**	**06 01 07.9**	**+0.1**
LATR				e	**S**	**06 04 25.5**	**-7.2**
QIZ	**Qiongzhong**	**19.12**	**56**	⇑iP	**P**	**06 01 13.8**	**+1.9**
QIZ				S	**S**	**06 04 40.5**	**-0.1**
QIZ				XS		06 04 53.3	
QIZ				LR	LR		
	comp=N,105µm,16.3s						
QIZ				LR	LR		
	comp=E,68µm,16.1s						
QIZ				LR	LR		
	comp=Z,111µm,17.1s						
QIZ	**Qiongzhong**	**19.12**	**56**	⇓eP	**P**	**06 01 12.3**	**+0.4**
	comp=Z,828nm,1.3s						
AKL	**Akola**	**19.60**	**309**	⇓eP	**P**	**06 01 16.2**	**-1.3**
AKL				eS	**S**	**06 04 56.7**	**+5.4**

AKL				*i*		06 11 32.3	
	comp=Z,63µm,16.2s						
PULI	**Pulasari**	**19.70**	**139**	⇑*e*P	**P**	**06 01 12.1**	**-6.4**
	comp=Z,567nm,0.6s						
ALBI	**Allahabad**	**19.70**	**328**	*e*P	**P**	**06 01 15.5**	**-3.0**
MNCY	**Minicoy**	**19.92**	**270**	⇑*i*	**P**	**06 01 25.0**	**+4.0**
MNCY				*i*		06 02 52.0	
GOA	**Goa**	**20.06**	**291**	⇑*e*	**P**	**06 01 28.2**	**+5.9**
GOA				*e*	**S**	**06 05 12.3**	**+12**
GOA				*i*		06 09 48.3	
	comp=Z,94µm,20.6s						
PKI	**Pulchoki**	**20.10**	**340**	*e*P	**P**	**06 01 22.9**	**+0.1**
	comp=Z,4µm,1.3s						
DMN	**Daman**	**20.24**	**339**	*e*P	**P**	**06 01 23.9**	**-0.3**
	comp=Z,2µm,0.9s						
GUN	**Gumba**	**20.26**	**341**	*e*P	**P**	**06 01 24.5**	**+0.1**
KAD	**Karad**	**20.34**	**297**	*e*P	**P**	**06 01 25.7**	**+0.4**
KAD				*i*	**S**	**06 05 00.6**	**-6.0**
KKN	**Kakani**	**20.35**	**340**	*e*P	**P**	**06 01 25.3**	**0.0**
	comp=Z,3µm,1.2s						
VLK	**Valmikinagar**	**20.45**	**336**	⇑*i*	**P**	**06 01 29.0**	**+2.6**
VLK				*i*		06 01 35.0	
GKN	**Gorkha**	**20.77**	**338**	*e*P	**P**	**06 01 29.4**	**-0.3**
BHPL	**Bhopal**	**20.86**	**315**	⇓*e*P	**P**	**06 01 31.8**	**+1.1**
BHPL				*e*		06 01 35.8	
	comp=Z,878nm,1.1s						
BHPL				*i*		06 11 10.9	
LSA	**Lhasa**	**20.92**	**355**	*e*P	**P**	**06 01 29.7**	**-1.5**
LSA				pmax	pmax		
	comp=Z,189nm,0.5s						
LSA				MLR	MLR		
	comp=Z,70µm,22.0s,MS6.0						
LSA	**Lhasa**	**20.92**	**355**	*e*P	**P**	**06 01 29.7**	**-1.6**
	comp=Z,189nm,0.5s						
LSA				LR	LR		
	comp=Z,70µm,22.0s,MS6.0						
KOLN	**Koldanda**	**20.96**	**336**	*e*P	**P**	**06 01 30.7**	**-1.0**
	comp=Z,2µm,1.1s						
POO	**Poona**	**21.12**	**299**	⇑*e*P	**P**	**06 01 33.1**	**-0.2**
POO				*e*		06 01 40.7	
	comp=Z,631nm,1.2s						
POO				*e*S	**S**	**06 05 25.5**	**+3.8**
POO				*i*		06 10 30.9	
	comp=Z,65µm,19.9s						
COCO	**West Island**	**21.12**	**170**	PFAKE		06 01 40.0	+6.6
COCO				LR	LR		
	comp=Z,5µm,20.0s						
GYA	**Guiyang**	**21.77**	**34**	⇑*i*P	**P**	**06 01 39.3**	**-0.5**
GYA				AP		06 01 48.5	
GYA				XP		06 01 52.5	
GYA				PP	PP	06 02 07.5	+2.5
GYA				S	**S**	**06 05 37.5**	**+3.7**
GYA				AMB	AMB		
	comp=Z,410nm,1.0s,mb5.8						
GYA				AMB	AMB		
	comp=Z,8µm,11.1s						
GYA				LR	LR		
	comp=N,56µm,16.2s,MS6.2						
GYA				LR	LR		
	comp=E,59µm,16.8s,MS6.2						
GYA				LR	LR		
	comp=Z,90µm,18.6s,MS6.2						
BOM	**Bombay**	**22.17**	**299**	⇓*e*P	**P**	**06 01 44.5**	**+0.7**
BOM				*e*S	**S**	**06 05 47.0**	**+5.8**
BOM				⇑*i*		06 11 05.1	
	comp=Z,72µm,18.2s						
LGTI	**Lohaghat**	**23.89**	**331**	*e*P	**P**	**06 02 03.0**	**+2.3**
LGTI				*e*S	**S**	**06 06 18.0**	**+6.2**
GZH	**Guangzhou**	**24.02**	**51**	P	**P**	**06 02 07.0**	**+5.0**
GZH				AMB	AMB		
	comp=Z,9µm,8.9s						
GZH				LR	LR		
	comp=N,54µm,15.8s,MS6.2						
GZH				LR	LR		
	comp=E,35µm,17.4s,MS6.2						
GZH				LR	LR		
	comp=Z,81µm,16.7s,MS6.3						
CD2	**Chengdu**	**24.15**	**23**	⇑*i*P	**P**	**06 02 02.5**	**-0.7**
CD2				AP		06 02 06.3	
CD2				XP		06 02 10.3	
CD2				S	**S**	**06 06 17.0**	**+0.8**
CD2				SS	SS	06 07 10.8	+1.7
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
CD2				AMB	AMB		
	comp=Z,9µm,9.5s						
CD2				LR	LR		
	comp=E,84µm,14.4s						
CD2				LR	LR		
	comp=Z,51µm,13.2s,MS6.2						
HKC	**Hong Kong**	**24.26**	**54**	⇓*i*P	**P**	**06 02 06.0**	**+1.7**
HKC				*i* S	**S**	**06 06 38.0**	**+20**
BATP	**Bataraza**	**24.34**	**88**	*e*P	**P**	**06 02 07.2**	**+2.0**
AYAN	**Aya Nagar**	**24.77**	**324**	*e*P	**P**	**06 02 10.1**	**+0.9**
NDI	**New Delhi**	**24.87**	**325**	⇓*e*P	**P**	**06 02 11.8**	**+1.7**
NDI				*e*S	**S**	**06 06 33.7**	**+5.3**
NDI				*i*		06 14 38.1	
	comp=Z,48µm,16.8s						
KUDL	**Kundal**	**24.89**	**323**	*e*P	**P**	**06 02 10.8**	**+0.5**
AJM	**Ajmer**	**24.89**	**317**	⇑*e*P	**P**	**06 02 12.2**	**+1.9**
AJM				*i*		06 13 35.0	
	comp=Z,59µm,20.3s						
PPR	**Puerto Princes**	**25.24**	**86**	⇑*i*P	**P**	**06 02 15.0**	**+1.2**
DDI	**Dehra Dun**	**25.70**	**329**	*e*P	**P**	**06 02 17.5**	**-0.4**
DDI				*e*S	**S**	**06 06 44.5**	**+2.4**
ENPP	**El Nido**	**25.96**	**82**	*e*P	**P**	**06 02 21.4**	**+0.8**
KKR	**Kurukshetra**	**26.07**	**326**	*e*P	**P**	**06 02 22.1**	**+0.8**
DGAR	**Diego Garcia**	**26.16**	**233**	*e*P	**P**	**06 02 19.5**	**-2.9**
DGAR				MLR	MLR		
	comp=Z,22µm,19.0s,MS5.7						
ENH	**Enshi**	**26.29**	**33**	*e*P	**P**	**06 02 21.3**	**-2.1**
	comp=Z,1.3nm,0.3s						
ENH				LR	LR		
	comp=Z,78µm,19.0s						
BHJ	**Bhuj**	**26.75**	**305**	*e*P	**P**	**06 02 27.8**	**+0.1**
BHJ				*e*		06 07 30.1	
	comp=Z,7µm,21.3s						
BHJ				*i*		06 14 28.6	
	comp=Z,38µm,18.9s						
SMLA	**Simla**	**26.80**	**328**	⇓*i*	pP	06 02 41.0	+4.2
	comp=Z,4µm,10.3s						
SMLA				*i*		06 07 15.0	
	comp=Z,5µm,15.6s						
LUBP	**Lubang**	**27.00**	**77**	*e*P	**P**	**06 02 29.5**	**-0.5**
LUBP	**Lubang**	**27.00**	**77**	*e*P	**P**	**06 02 21.1**	**-8.9**
SRDI	**Scrawed**	**27.01**	**129**	⇓*e*P	**P**	**06 02 27.3**	**-2.9**
SRDI				pmax	pmax		
	comp=Z,162nm,1.0s,mb5.5						
SRDI	**Scrawed**	**27.01**	**129**	⇓*e*P	**P**	**06 02 27.3**	**-2.9**
	comp=Z,162nm,1.0s,mb5.5						
SCZP	**Santa Cruz**	**27.02**	**72**	*e*P	**P**	**06 02 30.2**	**0.0**
KELI	**Kelakatan**	**27.12**	**128**	⇑*e*P	**P**	**06 02 30.2**	**-0.9**
	comp=Z,147nm,1.0s,mb5.5						
SDNR	**Sundarnagar**	**27.19**	**329**	*e*P	**P**	**06 02 33.1**	**+1.4**
BHK	**Bhakra**	**27.42**	**328**	*e*P	**P**	**06 02 35.1**	**+1.4**
BHK				*e*		06 08 11.3	
CUYO	**Cuyo Island**	**27.51**	**83**	*e*P	**P**	**06 02 34.8**	**0.0**
SJMP	**San Jose**	**27.71**	**80**	*e*P	**P**	**06 02 33.7**	**-2.8**
TGY	**Tagaytay City**	**27.71**	**76**	P	**P**	**06 02 37.7**	**+1.2**
	comp=Z,582nm,0.8s,mb6.3,baz=216,slow=7.3,SNR=14						
JASL	**Jaisalmer**	**27.77**	**313**	*e*P	**P**	**06 02 34.3**	**-2.7**
BCPH	**Baguio City Da**	**27.78**	**71**	⇑*i*P	**P**	**06 02 36.9**	**-0.3**
PONG	**Pong**	**28.08**	**328**	*e*P	**P**	**06 02 42.0**	**+2.3**
PONG				*e*S	**S**	**06 07 28.0**	**+6.9**
ABRA	**Dolores**	**28.20**	**69**	*e*P	**P**	**06 02 41.2**	**+0.4**
RATI	**Rata**	**28.24**	**127**	⇑*e*P	**P**	**06 02 39.0**	**-2.3**
BOAC	**Boac**	**28.51**	**78**	*e*P	**P**	**06 02 42.0**	**-1.7**
DLH	**Dalhousie**	**28.54**	**328**	*e*P	**P**	**06 02 46.0**	**+2.2**
KEDI	**Kedomdong**	**28.56**	**126**	⇑*e*P	**P**	**06 02 40.8**	**-3.4**
KEDI				pmax	pmax		
	comp=Z,121nm,0.9s,mb5.6						
KEDI	**Kedomdong**	**28.56**	**126**	⇑*e*P	**P**	**06 02 40.8**	**-3.4**
	comp=Z,121nm,0.9s,mb5.6						
OTRP	**Odiongan**	**28.58**	**80**	*e*P	**P**	**06 02 43.5**	**-0.8**
THN	**Thein Dam**	**28.58**	**328**	*e*P	**P**	**06 02 43.1**	**-1.1**
	comp=Z,286nm,1.2s,mb5.9						
THN				*e*S	**S**	**06 07 30.2**	**+1.1**
BALP	**Baler**	**28.59**	**73**	*e*P	**P**	**06 02 39.5**	**-4.9**
APYP	**Conner**	**28.74**	**69**	*e*P	**P**	**06 02 45.7**	**0.0**
POLP	**Polilio Island**	**28.76**	**75**	*e*P	**P**	**06 02 46.1**	**+0.1**
LZH	**Lanzhou**	**28.89**	**18**	⇓P	**P**	**06 02 46.5**	**-0.5**
LZH				AP	pP	06 02 55.3	-0.5
LZH				PP	PP	06 03 40.3	-0.3
LZH				S	**S**	**06 07 29.0**	**-5.0**
LZH				XS		06 07 45.5	
LZH				SS	SS	06 09 00.3	-2.4
LZH				PCS		06 09 41.0	
LZH				AMB	AMB		
	comp=Z,372nm,1.1s,mb6.0						
LZH				AMB	AMB		
	comp=Z,2µm,5.3s						
LZH				LR	LR		
	comp=E,52µm,16.3s						
LZH				LR	LR		
	comp=Z,66µm,19.2s,MS6.3						
XAN	**Xi’an**	**29.04**	**28**	P	**P**	**06 02 45.0**	**-3.3**
XAN				AP	pP	06 02 54.5	-2.6
XAN				S	**S**	**06 07 31.5**	**-4.9**
XAN				AMB	AMB		
	comp=Z,269nm,1.2s,mb5.8						
XAN				LR	LR		
	comp=N,20µm,15.5s,MS6.2						
XAN				LR	LR		
	comp=E,44µm,18.5s,MS6.2						
XAN				LR	LR		
	comp=Z,82µm,17.7s,MS6.4						
GUIM	**Jordan**	**29.05**	**84**	*e*P	**P**	**06 02 48.6**	**0.0**
CAUP	**Cauayan**	**29.06**	**71**	*e*P	**P**	**06 02 49.0**	**+0.3**
QZH	**Quanzhou**	**29.08**	**53**	⇓*i*P	**P**	**06 02 49.3**	**+0.5**
QZH				S	**S**	**06 07 38.0**	**+0.8**
QZH				AMB	AMB		
	comp=Z,550nm,1.1s,mb6.2						
QZH				AMB	AMB		
	comp=Z,6µm,11.7s						
QZH				LR	LR		
	comp=N,96µm,15.4s,MS6.7						
QZH				LR	LR		
	comp=E,90µm,15.8s,MS6.7						
QZH				LR	LR		
	comp=Z,163µm,17.5s,MS6.7						
RCP	**Roxas**	**29.23**	**82**	⇑*e*P	**P**	**06 02 51.7**	**+1.5**
CVP	**Callao Caves**	**29.24**	**69**	*e*P	**P**	**06 02 51.0**	**+0.8**
AUQP	**San Andres**	**29.30**	**78**	*e*P	**P**	**06 02 52.3**	**+1.5**
WHN	**Wuhan**	**29.34**	**39**	⇑P	**P**	**06 02 51.0**	**-0.1**
WHN				S	**S**	**06 07 47.5**	**+6.2**
WHN				LR	LR		
	comp=N,26µm,14.8s,MS6.3						
WHN				LR	LR		
	comp=E,48µm,16.0s,MS6.3						
WHN				LR	LR		
	comp=Z,108µm,17.8s,MS6.5						
SGCP	**Mt. Cagua**	**29.57**	**68**	*e*P	**P**	**06 02 52.1**	**-1.2**
SNPH	**Sibulan**	**29.69**	**86**	⇑*e*P	**P**	**06 02 56.0**	**+1.6**
PAGZ	**Pagadian**	**29.90**	**89**	*e*P	**P**	**06 02 58.1**	**+1.8**
BBP	**Basco**	**30.13**	**64**	*e*P	**P**	**06 02 56.2**	**-1.9**
TBP	**Tagbilaran**	**30.30**	**86**	⇓*e*P	**P**	**06 03 00.2**	**+0.4**
PVCP	**Virac**	**30.76**	**78**	*e*P	**P**	**06 02 57.8**	**-6.0**
OCLP	**Ormoc**	**31.04**	**83**	*e*P	**P**	**06 03 07.0**	**+0.7**
GTA	**Gaotai**	**31.10**	**10**	*e*P	**P**	**06 03 04.8**	**-1.7**
GTA				AP	pP	06 03 13.8	-1.6
GTA				XP	sP	06 03 18.0	-1.3
GTA				PP	PP	06 04 09.0	-0.3
GTA				PCP	PcP	06 06 00.5	-1.1
GTA				S	**S**	**06 08 08.0**	**-0.9**
GTA				SCP		06 09 42.8	
GTA				SS	SS	06 09 51.5	-3.0
GTA				SCS	ScS	06 13 36.3	-0.3
GTA				AMB	AMB		
	comp=Z,458nm,1.1s,mb6.2						
GTA				AMB	AMB		
	comp=Z,5µm,6.1s						
GTA				LR	LR		
	comp=N,37µm,22.4s,MS6.2						
GTA				LR	LR		
	comp=E,36µm,20.9s,MS6.2						
GTA				LR	LR		
	comp=Z,47µm,23.6s,MS6.1						
CNP	**Catarman**	**31.16**	**80**	*e*P	**P**	**06 03 04.5**	**-2.8**
MSLP	**Maasin**	**31.28**	**85**	*e*P	**P**	**06 03 09.1**	**+0.7**
TATO	**Taipei**	**31.43**	**56**	*e*P	**P**	**06 03 09.9**	**+0.4**
BUKP	**Musuan**	**31.56**	**89**	*e*P	**P**	**06 03 11.0**	**+0.2**
DAV	**Davao City (W)**	**32.14**	**91**	*e*P	**P**	**06 03 18.0**	**+2.1**
NJ2	**Nanjing**	**33.24**	**42**	*e*P	**P**	**06 03 25.5**	**+0.1**
NJ2				AP	pP	06 03 35.0	+0.8
NJ2				XP	sP	06 03 41.0	+2.9
NJ2				PP	PP	06 04 36.0	-1.0
NJ2				S	**S**	**06 08 44.0**	**+1.6**
NJ2				XS		06 08 58.0	
NJ2				AMB	AMB		
	comp=Z,300nm,1.0s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,5µm,11.2s						
NJ2				LR	LR		
	comp=N,76µm,15.1s,MS6.6						
NJ2				LR	LR		
	comp=E,49µm,14.1s,MS6.6						
NJ2				LR	LR		
	comp=Z,63µm,13.0s,MS6.5						
TIY	**Taiyuan**	**33.68**	**28**	⇑P	**P**	**06 03 29.0**	**-0.1**
TIY				S	**S**	**06 08 41.0**	**-8.0**
TIY				LR	LR		
	comp=N,79µm,14.0s						
SSE	**Sheshan**	**34.28**	**46**	P	**P**	**06 03 34.8**	**+0.5**
SSE				AP	pP	06 03 43.5	+0.3
SSE				S	**S**	**06 09 01.0**	**+2.6**
SSE				XS		06 09 15.0	
SSE				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.6						
SSE				AMB	AMB		
	comp=Z,2µm,10.0s						
SSE				LR	LR		
	comp=N,10µm,18.1s,MS5.9						
SSE				LR	LR		
	comp=E,18µm,18.1s,MS5.9						
SSE				LR	LR		
	comp=Z,14µm,16.6s,MS5.8						
KSH	**Kashi**	**34.28**	**336**	*i* P	**P**	**06 03 35.5**	**+1.2**
KSH				AP	pP	06 03 44.3	+1.1
KSH				XP	sP	06 03 48.0	+1.0
KSH				PP	PP	06 04 49.0	-0.7
KSH				PPP	PPP	06 05 07.5	-0.1
KSH				PCP	PcP	06 06 12.0	+1.7
KSH				S	**S**	**06 08 59.0**	**+0.6**
KSH				XS		06 09 13.5	
KSH				SCP		06 09 54.0	
KSH				PCS		06 09 57.0	
KSH				SS	SS	06 11 05.3	-3.3
KSH				SCS	ScS	06 13 54.5	+1.6
KSH				AMB	AMB		
	comp=Z,900nm,4.4s						
KSH				LR	LR		
	comp=N,20µm,14.6s,MS6.2						
KSH				LR	LR		
	comp=E,33µm,15.3s,MS6.2						
TIA	**Tai’an**	**34.96**	**35**	P	**P**	**06 03 39.8**	**-0.3**
TIA				PP	PP	06 05 00.0	+1.5
TIA				S	**S**	**06 09 04.3**	**-4.6**
TIA				AMB	AMB		
	comp=Z,106nm,1.2s,mb5.7						
TIA				AMB	AMB		
	comp=Z,2µm,9.0s						
TIA				LR	LR		
	comp=N,7µm,21.8s,MS5.7						
TIA				LR	LR		
	comp=E,11µm,20.8s,MS5.7						
TIA				LR	LR		
	comp=E,27µm,18.0s						
BTO	**Baotou**	**35.08**	**23**	*e*P	**P**	**06 03 39.3**	**-1.8**
BTO				S	**S**	**06 09 03.0**	**-7.8**
BTO				AMB	AMB		
	comp=Z,83nm,1.0s,mb5.6						
BTO				LR	LR		
	comp=N,5µm,15.1s,MS6.2						
BTO				LR	LR		
	comp=E,30µm,12.8s,MS6.2						
WMQ	**Urumqi**	**35.26**	**353**	⇓P	**P**	**06 03 43.0**	**+0.4**
WMQ				AP	pP	06 03 53.3	+1.8
WMQ				XP	sP	06 03 57.0	+1.7
WMQ				PP	PP	06 05 02.5	+0.5
WMQ				PPP	PPP	06 05 21.0	+0.5
WMQ				S	**S**	**06 09 13.5**	**0.0**
WMQ				AMB	AMB		
	comp=Z,92nm,0.8s,mb5.8						
WMQ				AMB	AMB		
	comp=Z,704nm,6.3s						
WMQ				LR	LR		
	comp=N,9µm,20.6s,MS6.2						
WMQ				LR	LR		
	comp=E,52µm,24.2s,MS6.2						
WMQ				LR	LR		
	comp=Z,22µm,24.2s,MS5.8						
HHC	**Hu-ho-hao-te**	**35.89**	**24**	*e*P	**P**	**06 03 47.0**	**-1.0**
HHC				AP	pP	06 03 51.5	-5.4
HHC				XP	sP	06 03 54.0	-6.7
HHC				PP	PP	06 05 08.0	-1.7
HHC				S	**S**	**06 09 23.0**	**-0.3**
HHC				SS	SS	06 11 44.0	-1.7
HHC				AMB	AMB		
	comp=Z,214nm,1.2s,mb6.0						
HHC				AMB	AMB		
	comp=Z,3µm,6.8s						
HHC				LR	LR		
	comp=N,18µm,19.0s						
HHC				LR	LR		
	comp=E,18µm,13.1s						
HHC				LR	LR		
	comp=Z,24µm,15.5s,MS6.1						
ULHL	**Ulahol**	**36.54**	**339**	P	**P**	**06 03 56.1**	**+2.7**
	SNR=19						
KZA	**Kyzart**	**36.76**	**337**	P	**P**	**06 03 56.8**	**+1.6**
	SNR=65						
UCH	**Uchtor**	**37.17**	**337**	P	**P**	**06 03 58.9**	**+0.2**
	SNR=123						
AAA	**Alma-Ata**	**37.20**	**340**	*e*P	**P**	**06 04 00.5**	**+1.6**
AAA				*e*S	**S**	**06 09 45.0**	**+1.7**
AAA				pmax	pmax		
	comp=Z,3µm,10.0s						
AAA				smax			
	comp=E,6µm,12.0s						
AAA				MLR	MLR		
	comp=Z,18µm,18.0s,MS5.9						
BJT	**Baijiatuau**	**37.28**	**30**	*e*P	**P**	**06 03 59.3**	**-0.4**
BJT				pmax	pmax		
	comp=Z,211nm,0.7s						
BJT				MLR	MLR		
	comp=Z,36µm,19.0s						
BJT	**Baijiatuau**	**37.28**	**30**	*e*P	**P**	**06 03 59.3**	**-0.3**
	comp=Z,211nm,0.7s,mb6.1						
BJT				LR	LR		
	comp=Z,36µm,19.0s,MS6.2						
BJI	**Beijing**	**37.30**	**30**	P	**P**	**06 04 00.5**	**+0.7**
BJI				PP	PP	06 05 26.5	-1.1
BJI				S	**S**	**06 09 45.3**	**+0.4**
BJI				AMB	AMB		
	comp=Z,274nm,1.2s,mb6.0						
BJI				LR	LR		
	comp=N,20µm,24.5s,MS6.1						
BJI				LR	LR		
	comp=E,33µm,24.5s,MS6.1						
BJI				LR	LR		
	comp=Z,29µm,23.0s,MS6.0						
TKM2	**Tokmak 2**	**37.36**	**339**	P	**P**	**06 04 00.9**	**+0.6**
	SNR=42						
KBK	**Karagaybulak**	**37.37**	**338**	P	**P**	**06 04 01.7**	**+1.4**
	SNR=42						
AML	**Almayashu**	**37.41**	**336**	P	**P**	**06 04 01.9**	**+1.1**
	SNR=20						
AAK	**Ala-Archa**	**37.52**	**337**	P	**P**	**06 04 03.6**	**+1.9**
	SNR=145						
AAK	**Ala-Archa**	**37.52**	**337**	*d* *i*P	**P**	**06 04 01.6**	**-0.1**
AAK				pmax	pmax		
	comp=Z,353nm,1.5s,mb5.9						
AAK	**Ala-Archa**	**37.52**	**337**	*i* Pr	**P**	**06 04 01.7**	**0.0**
AAK				LR	LR		
	comp=Z,12µm,22.0s,MS5.6						
FRU	**Bishkek**	**37.65**	**337**	⇑*e*P	**P**	**06 04 03.0**	**+0.3**
FRU				*i*		06 04 15.0	
FRU				*e*S	**S**	**06 09 51.0**	**+0.8**
FRU				pmax	pmax		
	comp=Z,300nm,1.8s,mb5.7						
FRU				smax			
	comp=E,3µm,6.0s						
CHMS	**Chumysh**	**37.74**	**338**	P	**P**	**06 04 03.9**	**+0.4**
	SNR=78						
JOW	**Kunigami**	**37.77**	**57**	P	**P**	**06 04 05.5**	**+1.6**
	comp=E,77nm,0.7s,mb5.5,baz=319,slow=11,SNR=8.2						
JOW				LR	LR	06 21 51.9	
	comp=E,37µm,19.2s,MS6.2,baz=94,slow=40						
EKS2	**Erkin-Say**	**37.83**	**336**	P	**P**	**06 04 04.4**	**+0.2**
	SNR=104						
USP	**Ospenovka**	**38.06**	**338**	P	**P**	**06 04 06.1**	**-0.1**
	SNR=120						
MKAR	**Makanchi Array**	**39.03**	**348**	*i* P	**P**	**06 04 13.2**	**-1.0**
MKAR				pmax	pmax		
	comp=Z,236nm,1.0s						
MKAR	**Makanchi Array**	**39.03**	**348**	*i* P	**P**	**06 04 13.3**	**-0.9**
DL2	**Dalian**	**39.41**	**36**	PR		06 04 18.5	
DL2				S	**S**	**06 10 18.3**	**+1.5**
DL2				AMB	AMB		
	comp=Z,330nm,1.1s,mb6.0						
DL2				LR	LR		
	comp=N,14µm,18.7s,MS6.0						
DL2				LR	LR		
	comp=E,12µm,16.9s,MS6.0						
DL2				LR	LR		
	comp=Z,15µm,17.5s,MS5.9						
MBWA	**Marble Bar**	**39.55**	**139**	*e*P	**P**	**06 04 17.4**	**-1.5**
	comp=Z,105nm,1.1s,mb5.5						
MBWA				LR	LR		
	comp=Z,27µm,22.0s,MS6.0						
SONM	**Songino Array**	**40.53**	**14**	P	**P**	**06 04 27.1**	**+0.5**
	comp=Z,259nm,1.1s,mb5.8,baz=196,slow=7.4,SNR=208						
SONM				PcP	PcP	06 06 29.7	+0.4
	comp=Z,28nm,0.7s,baz=210,slow=3.5,SNR=4.5						
SONM				ScP		06 10 17.8	
	comp=Z,20nm,0.9s,baz=198,slow=2.6,SNR=7.7						
SONM				LR	LR	06 23 20.7	
	comp=Z,44µm,18.8s,MS6.3,baz=193,slow=39						
ULN	**Ulaanbaatar**	**40.71**	**14**	*e*P	**P**	**06 04 28.0**	**-0.1**
ULN				pmax	pmax		
	comp=Z,146nm,1.0s,mb5.6						
ULN	**Ulaanbaatar**	**40.71**	**14**	*e*P	**P**	**06 04 28.0**	**-0.1**
	comp=Z,146nm,1.0s,mb5.6						
INCN	**Inchon**	**41.61**	**41**	*e*P	**P**	**06 04 35.6**	**-0.1**
	comp=Z,289nm,1.3s,mb5.8						
INCN				LR	LR		
	comp=Z,21µm,21.0s,MS6.0						
ZAK	**Zakamensk**	**42.34**	**10**	⇓*i*P	**P**	**06 04 41.6**	**+0.2**
ZAK				*e*		06 06 22.1	
KS15	**Wonju Array Si**	**42.41**	**42**	*e*P	**P**	**06 04 42.3**	**0.0**
SNY	**Shenyang**	**42.47**	**34**	⇓P	**P**	**06 04 42.5**	**-0.1**
SNY				XP	sP	06 04 57.8	+2.4
SNY				S	**S**	**06 11 01.3**	**-1.0**
SNY				AMB	AMB		
	comp=Z,330nm,1.1s,mb5.9						
SNY				AMB	AMB		
	comp=Z,3µm,10.0s						
SNY				LR	LR		
	comp=N,39µm,17.5s,MS6.4						
SNY				LR	LR		
	comp=E,23µm,18.2s,MS6.4						
SNY				LR	LR		
	comp=Z,24µm,17.9s,MS6.1						
MOY	**Mondy**	**43.26**	**7**	*e*P	**P**	**06 04 48.6**	**-0.4**
TLY	**Talaya**	**43.65**	**9**	P	**P**	**06 04 53.7**	**+1.6**
	comp=Z,546nm,0.8s,mb6.3,SNR=26						
TLY	**Talaya**	**43.65**	**9**	*e*P	**P**	**06 04 52.8**	**+0.7**
TLY				*e*		06 06 42.6	
TLY				*e*PPP	PPP	06 07 15.3	+3.0
TLY				*e*S	**S**	**06 11 15.1**	**-4.3**
TLY				*e*SS	SS	06 14 51.2	+24
TLY				*e*SSS	SSS	06 15 12.7	-7.4
TLY				pmax	pmax		
	comp=Z,199nm,1.3s,mb5.7						
TLY				MLR	MLR		
	comp=Z,19µm,19.0s,MS6.0						
TLY	**Talaya**	**43.65**	**9**	*e*P	**P**	**06 04 52.4**	**+0.3**
	comp=Z,100nm,1.0s,mb5.5						
TLY				LR	LR		
	comp=Z,6µm,21.0s,MS5.5						
IRK	**Irkutsk**	**44.30**	**10**	*e*P	**P**	**06 04 56.3**	**-1.1**
HASS	**Wahat al Ahsa’**	**44.45**	**297**	P	**P**	**06 05 00.8**	**+1.8**
CN2	**Changchun**	**44.81**	**33**	⇑P	**P**	**06 05 00.5**	**-1.1**
CN2				*e*AP	pP	06 05 10.3	-0.3
CN2				XP	sP	06 05 13.5	-0.9
CN2				PP	PP	06 06 46.8	-0.4
CN2				*e*S	**S**	**06 11 34.3**	**-2.0**
CN2				SS	SS	06 14 51.3	+2.5
CN2				AMB	AMB		
	comp=Z,460nm,1.0s,mb6.3						
CN2				AMB	AMB		
	comp=Z,4µm,9.0s						
CN2				LR	LR		
	comp=N,28µm,15.0s,MS6.4						

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CN2                               LR        LR
      comp=E,20µm,15.0s,MS6.4
CN2                               LR        LR
      comp=Z,19µm,16.0s,MS6.1
ZAL   Zalesovo         45.56 353  P         P      06 05 06.9 -0.5
      comp=Z,44nm,0.4s,mb5.8
ZAL                               ScP              06 10 37.1
      comp=Z,18nm,1.0s,baz=40,slow=8.4,SNR=8.4
HIA   Hailar           46.10  24  eP        P      06 05 10.6 -1.1
HIA                               pmax      pmax
      comp=Z,294nm,1.2s
HIA                               MLR       MLR
      comp=Z,28µm,19.0s
HIA   Hailar           46.10  24  eP        P      06 05 10.6 -1.1
      comp=Z,294nm,1.2s,mb6.1
HIA                               LR        LR
      comp=Z,28µm,19.0s,MS6.2
NVS   Novosibirsk      46.64 352  eP        P      06 05 14.5 -1.4
NVS                               i S       S      06 12 00.0 -2.3
NVS                               pmax      pmax
      comp=Z,149nm,1.2s,mb5.8
NVS                               pmax      pmax
      comp=N,107nm,1.0s
NVS                               pmax      pmax
      comp=E,90nm,1.0s
NVS                               smax
      comp=N,38nm,1.8s
NVS                               smax
      comp=E,268nm,3.0s
QRN   Al-Qurain        46.89 301  eP        P      06 05 18.5 +0.3
QRN                               AMb       AMB    06 05 22.3
      comp=Z,556nm,0.8s,mb6.6
RYDS  Riyadh           46.95 295  P         P      06 05 21.7 +2.9
RDF   Al-Radifah       47.25 301  eP        P      06 05 22.0 +0.9
RDF                               AMb       AMB    06 05 25.8
      comp=Z,849nm,1.1s,mb6.6
UMR   Umm Al-Rimmam    47.28 302  eP        P      06 05 22.4 +1.0
UMR                               AMb       AMB    06 05 25.8
      comp=Z,483nm,0.9s,mb6.4
NWAO  Narrogin (SRO)   47.37 152  P         P      06 05 21.1 -0.8
      comp=Z,480nm,0.7s,mb6.6,baz=322,slow=9.0,SNR=80
NWAO                              S         S      06 12 15.4 +2.5
      comp=Z,19nm,0.8s,baz=43,slow=23,SNR=3.3
NWAO                              LR        LR     06 27 37.3
      comp=Z,192nm,18.4s,baz=334,slow=39
NWAO  Narrogin (SRO)   47.37 152  eP        P      06 05 21.2 -0.8
      comp=Z,593nm,0.9s,mb6.5
NWAO                              LR        LR
      comp=Z,27µm,19.0s,MS6.2
MDJ   Mudanjiang       47.63  35  P         P      06 05 23.5 -0.4
MDJ                               AP        pP     06 05 32.5 -0.5
MDJ                               XP        sP     06 05 37.3 +0.7
MDJ                               PP        PP     06 07 14.5 -0.2
MDJ                               SCP              06 10 44.5
MDJ                               S         S      06 12 16.8 +0.4
MDJ                               XS               06 12 31.8
MDJ                               SS        SS     06 15 44.3 +5.7
MDJ                               AMB       AMB
      comp=Z,266nm,1.0s,mb6.2
MDJ                               AMB       AMB
      comp=Z,3µm,5.1s
MDJ                               LR        LR
      comp=N,17µm,16.5s,MS6.2
MDJ                               LR        LR
      comp=E,11µm,17.4s,MS6.2
MDJ                               LR        LR
      comp=Z,25µm,17.4s,MS6.2
MDJ   Mudanjiang       47.63  35  eP        P      06 05 23.5 -0.4
      comp=Z,321nm,1.1s,mb6.3
MDJ                               LR        LR
      comp=Z,25µm,19.0s,MS6.2
MIB   Mutribah         47.67 303  eP        P      06 05 24.9 +0.5
MIB                               AMb       AMB    06 05 28.4
      comp=Z,1µm,0.8s
BVAR  Borovoye Array   47.85 342  P         P      06 05 24.3 -1.2
      comp=Z,86nm,1.0s,mb5.7,baz=141,slow=9.5,SNR=39
BVAR                              PcP       PcP    06 06 55.0 +0.8
      comp=Z,102nm,0.9s,baz=162,slow=4.7,SNR=12
BVAR                              ScP              06 10 47.9
      comp=Z,8.7nm,0.9s,baz=162,slow=4.7,SNR=3.8
RST   Umm Al-Ruwaisa   47.87 302  eP        P      06 05 26.2 +0.2
RST                               AMb       AMB    06 05 30.2
      comp=Z,856nm,1.0s,mb6.8
BRVK  Borovoye         47.91 342  eP        P      06 05 24.7 -1.3
BRVK                              pmax      pmax
      comp=Z,94nm,0.9s,mb5.8
BRVK                              MLR       MLR
      comp=Z,5µm,21.0s,MS5.5
BRVK  Borovoye         47.91 342  eP        P      06 05 24.7 -1.3
      comp=Z,94nm,0.9s,mb5.8
BRVK                              LR        LR
      comp=Z,5µm,21.0s,MS5.5
VLA   Vladivostok      48.11  38⇑ iP        P      06 05 25.0 -2.7
VLA                               i                06 07 16.0
VLA                               i PPP     PPP    06 08 05.0 -5.4
VLA                               i S       S      06 12 38.0  +15
VLA                               pmax      pmax
      comp=Z,4µm,10.0s
VLA                               pmax      pmax
      comp=N,1µm,9.0s
VLA                               pmax      pmax
      comp=E,2µm,9.0s
VLA                               pmax      pmax
      comp=Z,3µm,10.0s
VLA                               pmax      pmax
      comp=N,600nm,6.0s
VLA                               pmax      pmax
      comp=E,2µm,7.0s
VLA                               smax
      comp=E,5µm,13.0s
VLA                               smax
      comp=N,3µm,12.0s
VLA                               MLR       MLR
      comp=Z,27µm,15.0s,MS6.3
VLA                               MLR       MLR
      comp=N,12µm,14.0s,MS6.2
VLA                               MLR       MLR
      comp=E,15µm,16.0s,MS6.2
MZLS  Mizel            48.21 294  P         P      06 05 30.3 +1.6
CHKZ  Chkalovo         48.34 342  eP        P      06 05 27.5 -1.8
CHKZ                              pmax      pmax
      comp=Z,237nm,0.9s,mb6.2
CHKZ  Chkalovo         48.34 342  eP        P      06 05 27.5 -1.8
      comp=Z,237nm,0.9s,mb6.2
TATS  Tathlith         49.21 288  D         P      06 05 37.5 +1.1
MAJO  Matsushiro       49.29  49  eP        P      06 05 37.0 +0.1
MAJO                              pmax      pmax
      comp=Z,162nm,1.3s,mb5.9
MAJO                              MLR       MLR
      comp=Z,26µm,20.0s,MS6.2
MAJO  Matsushiro       49.29  49  eP        P      06 05 37.0 +0.2
      comp=Z,162nm,1.3s,mb5.9
MAJO                              LR        LR
      comp=Z,26µm,20.0s,MS6.2
MAT   Matsushiro       49.29  49  P         P      06 05 36.5 -0.4
MAT                               S         S      06 12 45.0 +5.1
MAT   Matsushiro       49.29  49  eP        P      06 05 37.0 +0.1
MAT                               eS        S      06 12 46.0 +6.1
MAT                               pmax      pmax
      comp=Z,310nm,1.6s,mb6.1
MAT                               MLR       MLR
      comp=Z,3µm,21.0s,MS5.2
MAT   Matsushiro       49.29  49  eP        P      06 05 37.0 +0.1
      comp=Z,310nm,1.6s,mb6.1
MAT                               eS        S      06 12 46.0 +6.1
MAT                               LR        LR
      comp=Z,3µm,21.0s,MS5.2
JHJ   Hachijo jima 2   49.30  54  LR        LR     06 29 31.2
      comp=Z,12µm,18.2s,MS5.9,baz=82,slow=40
WRA   Warramunga Arr   49.55 126  P         P      06 05 37.3 -1.8
      comp=Z,81nm,0.6s,mb5.9,baz=305,slow=8.6,SNR=108
WRA                               PcP       PcP    06 07 00.5 -0.3
      comp=Z,27nm,0.7s,baz=318,slow=3.0,SNR=5.6
WRA                               ScP              06 10 53.7
      comp=Z,30nm,0.8s,baz=315,slow=3.8,SNR=16
WRA                               S         S      06 12 40.1 -3.6
      comp=Z,7.9nm,1.0s,baz=296,slow=15,SNR=5.2
WRAB  Tennant Creek    49.55 126  eP        P      06 05 36.4 -2.7
WRAB                              pmax      pmax
      comp=Z,31nm,2.4s,mb4.9
WRAB                              MLR       MLR
      comp=Z,9µm,19.0s,MS5.8
WRAB  Tennant Creek    49.55 126  eP        P      06 05 36.4 -2.7
      comp=Z,31nm,2.4s,mb4.9
WRAB                              LR        LR
      comp=Z,9µm,19.0s,MS5.8
CBIJ  Chichi jima      49.72  62  P         P      06 05 39.7 -0.6
      comp=Z,319nm,0.6s,mb6.5,baz=67,slow=8.2,SNR=13
AFFS  ‘Afif            50.18 294  P         P      06 05 45.8 +1.9
ARSS  Ar Rass          50.30 296  P         P      06 05 46.9 +2.2
FRSS  Farasan al Kab   50.31 284  P         P      06 05 47.2 +2.3
GUMO  Guam             50.87  80  PFAKE            06 06 00.0  +11
GUMO                              LR        LR
      comp=Z,18µm,20.0s,MS6.1
ASAR  Alice Springs    51.21 130  P         P      06 05 49.9 -1.8
      comp=Z,42nm,0.6s,mb5.6,baz=304,slow=7.2,SNR=124
ASAR                              PcP       PcP    06 07 07.1 +0.2
      comp=Z,40nm,0.7s,baz=309,slow=3.0,SNR=11
ASAR                              ScP              06 11 00.8
      comp=Z,34nm,0.9s,baz=306,slow=4.1,SNR=15
ASAR                              S         S      06 13 04.1 -2.6
      comp=Z,10.0nm,1.1s,baz=291,slow=12,SNR=3.4
ASAR                              LR        LR     06 30 57.2
      comp=Z,17µm,19.8s,MS6.1,baz=300,slow=40
ASAR                              PKPPKP           06 36 20.6
      comp=Z,2.7nm,0.9s,baz=111,slow=2.8,SNR=6.6
BOD   Bodaibo          51.52  14  eP        P      06 05 51.9 -1.7
KLR   Kul’dur          51.63  31α iP        P      06 05 50.7 -3.8
KLR                               e                06 07 45.5
KLR                               eS        S      06 13 07.5 -4.5
KLR                               pmax      pmax
      comp=N,70nm,1.8s
KLR                               pmax      pmax
      comp=E,100nm,1.8s
KLR                               pmax      pmax
      comp=Z,150nm,1.8s,mb5.6
KLR                               pmax      pmax
      comp=N,1µm,10.0s
KLR                               pmax      pmax
      comp=E,1µm,10.0s
KLR                               pmax      pmax
      comp=Z,3µm,10.0s
KLR                               smax
      comp=N,2µm,14.5s
KLR                               smax
      comp=E,4µm,14.5s
KLR                               MLR       MLR
      comp=Z,27µm,15.0s,MS6.4
HILS  Ha’il            51.84 298  P         P      06 05 57.9 +1.4
MAK   Makhachkala      52.43 319d iP        P      06 06 03.5 +2.9
MAK                               i S       S      06 13 23.5 +0.4
MAK                               i PS      PS     06 13 43.0 +6.1
MAK                               e                06 15 44.0
MAK                               pmax      pmax
      comp=Z,6µm,10.0s
MAK                               smax
      comp=N,6µm,8.0s
MAK                               smax
      comp=E,2µm,8.0s
HKR   Hakkari          52.94 311  eP        P      06 06 04.5  0.0
HKR   Hakkari          52.94 311  Pn        P      06 06 04.5  0.0
GNI   Garni            53.14 314  P         P      06 06 07.4 +1.4
      comp=E,191nm,1.0s,mb6.0,baz=306,slow=1.0,SNR=79
GNI                               LR        LR     06 33 30.6
      comp=E,16µm,20.2s,MS6.1,baz=296,slow=41
GNI   Garni            53.14 314  PFAKE            06 06 20.0  +14
GNI                               LR        LR
      comp=Z,17µm,20.0s,MS6.1
TI2   Plekhanov        53.75 316  i P       P      06 06 10.4  0.0
TI2                               i S       S      06 13 44.4 +3.3
KBRS  Khaybar          53.82 295  P         P      06 06 13.2 +2.2
CLNS  Chul’man         53.95  21  eP        P      06 06 11.3 -0.3
CLNS                              e                06 07 15.1
CLNS                              e                06 08 08.7
CLNS                              ePPP      PPP    06 09 16.2 -8.0
CLNS                              eS        S      06 13 47.2 +3.6
CLNS                              pmax      pmax
      comp=Z,243nm,1.1s,mb6.0
CLNS                              pmax      pmax
      comp=N,107nm,0.9s
CLNS                              pmax      pmax
      comp=E,137nm,1.2s
CLNS                              pmax      pmax
      comp=Z,23nm,0.9s,mb5.1
CLNS                              pmax      pmax
      comp=N,58nm,1.2s
CLNS                              pmax      pmax
      comp=E,46nm,1.1s
CLNS                              smax
      comp=E,30nm,1.2s
CLNS                              smax
      comp=Z,17nm,1.3s
CLNS                              smax
      comp=N,56nm,1.7s
CLNS                              MLR       MLR
      comp=Z,30µm,16.0s,MS6.5
CLNS                              MLR       MLR
      comp=N,23µm,15.0s,MS6.4
CLNS                              MLR       MLR
      comp=E,4µm,14.0s,MS6.4
SVE   Sverdlovsk       54.23 339⇓ eP        P      06 06 13.0 -0.7
SVE                               e                06 07 24.0
SVE                               e                06 09 30.0
SVE                               eS        S      06 13 43.0 -4.4
SVE                               e                06 16 00.0
SVE                               e                06 17 28.0
SVE                               pmax      pmax
      comp=Z,310nm,1.1s,mb6.2
SVE                               smax
      comp=N,4µm,12.0s
SVE                               smax
      comp=E,3µm,12.0s
SVE                               MLR       MLR
      comp=Z,23µm,16.0s,MS6.3
ARU   Arti             54.71 337⇓ iP        P      06 06 16.3 -0.9
ARU                               e                06 07 19.0
ARU                               e                06 08 15.4
ARU                               ePPP      PPP    06 09 31.2 -2.1
ARU                               eS        S      06 13 55.0 +1.3
ARU                               i                06 16 02.4
ARU                               eSSS      SSS    06 19 36.3  0.0
ARU                               pmax      pmax
      comp=Z,128nm,0.9s,mb6.0
ARU                               MLR       MLR
      comp=N,13µm,16.0s,MS6.1
ARU                               MLR       MLR
      comp=Z,16µm,16.0s,MS6.2
ARU                               MLR       MLR
      comp=E,5µm,18.0s,MS6.1
ARU   Arti             54.71 337  eP        P      06 06 16.1 -1.1
      comp=E,141nm,1.0s,mb6.0
ARU                               LR        LR
      comp=Z,5µm,22.0s,MS5.5
ZEI   Tsey             54.74 317  eP        P      06 06 18.5 +0.8
ZEI                               i *PP     pP     06 06 34.2 +7.3
ZEI                               i                06 08 21.9
ZEI                               pmax      pmax
      comp=Z,156nm,1.0s,mb6.0
YNBS  Yanbu‘ al Bahr   54.77 294  P         P      06 06 19.5 +1.4
BTMT  Batman           54.83 311  eP        P      06 06 17.8 -0.6
BEST  Besiri           54.90 310  i P       P      06 06 18.4 -0.5
VRT   Varto            55.10 312  eP        P      06 06 21.0 +0.7
VRT   Varto            55.10 312  Pn        P      06 06 21.0 +0.7
ASAJ  Asahikawa        55.39  42  P         P      06 06 22.2 -0.1
      comp=Z,158nm,0.8s,mb6.1,baz=248,slow=8.2,SNR=42
ASAJ                              LR        LR     06 33 17.0
      comp=Z,18µm,19.1s,MS6.2,baz=32,slow=40
ERZM  Erzurum          55.47 313  i P       P      06 06 23.5 +0.5
EZM   Erzurum          55.48 313  eP        P      06 06 23.8 +0.7
UMJS  Umm Lajj         55.49 295  P         P      06 06 25.5 +2.1
BINT  Bingol           55.79 311  eP        P      06 06 25.6 +0.3
BINT  Bingol           55.79 311  Pn        P      06 06 25.6 +0.3
BCA   Borcka           55.82 315  eP        P      06 06 24.7 -0.8
BCA   Borcka           55.82 315  Pn        P      06 06 24.7 -0.8
KIV   Kislovodsk       56.02 318  P         P      06 06 27.0 +0.1
      comp=Z,2µm,1.0s,SNR=98
KIV   Kislovodsk       56.02 318  eP        P      06 06 26.4 -0.5
KIV                               e                06 08 33.1
KIV                               i S       S      06 14 13.0 +1.5
KIV                               pmax      pmax
      comp=N,251nm,1.0s
KIV                               pmax      pmax
      comp=E,145nm,1.0s
KIV                               pmax      pmax
      comp=Z,421nm,1.0s,mb6.4
KIV                               pmax      pmax
      comp=Z,436nm,0.9s,mb6.5
KIV                               smax
      comp=N,2µm,6.4s
KIV                               smax
      comp=E,1µm,6.4s
KIV   Kislovodsk       56.02 318  i Pr      P      06 06 26.5 -0.4
KIV                               LR        LR
      comp=Z,2µm,21.0s,MS5.2
GOF   Gofitskoye       56.24 319  eP        P      06 06 29.0 +0.6
GOF                               eS        S      06 14 28.0  +14
GOF                               pmax      pmax
      comp=Z,180nm,1.2s,mb6.0
GOF                               pmax      pmax
      comp=Z,4µm,10.0s
GOF                               MLR       MLR
      comp=Z,3µm,17.0s,MS5.4
QURS  Qurayyt al Mil   56.43 302  P         P      06 06 31.1 +1.1
EZC   Erzincan         56.55 312  eP        P      06 06 34.8 +4.0
EZC   Erzincan         56.55 312  Pn        P      06 06 34.8 +4.0
TBKS  Tabuk            56.56 298  P         P      06 06 32.8 +1.8
KMBO  Kilima Mbogo     56.58 263  eP        P      06 06 33.0 +1.7
KMBO                              pmax      pmax
      comp=Z,57nm,1.3s
KMBO                              MLR       MLR
      comp=Z,31µm,19.0s
KMBO  Kilima Mbogo     56.58 263  P         P      06 06 33.0 +1.8
      comp=Z,24nm,1.0s,mb5.2,baz=55,slow=11,SNR=36
KMBO                              LR        LR     06 29 03.4
      comp=Z,31µm,18.4s,MS6.4,baz=80,slow=34
KMBO  Kilima Mbogo     56.58 263  eP        P      06 06 33.0 +1.7
      comp=Z,57nm,1.3s,mb5.4
KMBO                              LR        LR
      comp=Z,31µm,19.0s,MS6.4
PTK   Pertek           56.61 311  eP        P      06 06 32.5 +1.3
URFA  Urfa             56.63 309  eP        P      06 06 30.6 -0.7
YSS   Yuzh-Sakhalins   56.69  39d iP        P      06 06 31.8 +0.2
YSS                               pmax      pmax
      comp=Z,1µm,1.3s,mb6.8
YSS   Yuzh-Sakhalins   56.69  39  eP        P      06 06 30.4 -1.3
PMG   Port Moresby     56.70 107  P         P      06 06 31.5 -0.7
      comp=Z,166nm,0.8s,mb6.1,baz=282,slow=5.8,SNR=40
PMG                               ScP              06 11 25.9
      comp=Z,64nm,1.0s,baz=291,slow=4.7,SNR=9.5
PMG   Port Moresby     56.70 107  PFAKE            06 06 40.0 +7.8
PMG                               LR        LR
      comp=Z,7µm,21.0s,MS5.7
ELZG  Elazig           56.80 310  i P       P      06 06 32.2 -0.3
ASF   Jabal al Asfar   56.94 303  P         P      06 06 34.9 +1.2
      comp=Z,64nm,0.9s,mb5.7,baz=310,slow=4.1,SNR=49
ASF                               LR        LR     06 34 51.4
      comp=Z,11µm,18.1s,MS6.0,baz=210,slow=40
GUMT  Gumushane        57.02 313  eP        P      06 06 33.8 -0.3
GUMT  Gumushane        57.02 313  Pn        P      06 06 33.8 -0.3
MALT  Malatya          57.17 310  eP        P      06 06 34.8 -0.4
MALT                              pmax      pmax
      comp=Z,168nm,1.1s,mb6.0
MALT  Malatya          57.17 310  eP        P      06 06 34.8 -0.3
      comp=Z,168nm,1.1s,mb6.0
MYA   Malataya         57.17 310  eP        P      06 06 34.8 -0.5
MYA   Malataya         57.17 310  Pn        P      06 06 34.8 -0.5
JMQS  Jabal Moqyreh    57.24 299  P         P      06 06 37.3 +1.4
YUK   Yuzh-Kuril’sk    57.53  43  eP        P      06 06 35.0 -2.6
YUK                               eS        S      06 14 34.0 +2.7
YUK                               ePS       PS     06 14 52.5 +4.2
YUK                               pmax      pmax
      comp=Z,4µm,5.0s
YUK                               smax
      comp=E,2µm,14.0s
YUK                               smax
      comp=N,3µm,10.0s
YUK                               MLR       MLR
      comp=N,10µm,18.0s,MS6.3
YUK                               MLR       MLR
      comp=Z,16µm,18.0s,MS6.2
YUK                               MLR       MLR
      comp=E,17µm,17.0s,MS6.3
GZT   Gaziantep        57.57 309  i P       P      06 06 37.7 -0.3
SOKR  Solikamsk        57.64 339⇑ iP        P      06 06 36.0 -2.2
SOKR                              pmax      pmax
      comp=Z,100nm,0.9s,mb5.8
SOKR                              MLR       MLR
      comp=Z,26µm,22.0s,MS6.3
AYUS  ‘Aynunah         57.68 298  P         P      06 06 39.4 +0.5
DUSS  Damascus Unive   57.70 304  i P       P      06 06 38.5 -0.5
DUSS                              i P              06 06 38.5
DUSS                              i P              06 06 38.7
DUSS                              e                06 06 44.0
      baz=102,slow=6.5
DUSS                              eS        S      06 14 33.0 -0.8
DUSS                              AMS       AMS    06 32 35.2
      comp=N,305µm,18.2s
DUSS                              AMS       AMS    06 34 18.3
      comp=E,233µm,20.5s
DUSS                              AMS       AMS    06 36 06.0
      comp=Z,229µm,19.7s
GAZ   Gaziantep        57.80 309  eP        P      06 06 38.9 -0.7
GAZ   Gaziantep        57.80 309  Pn        P      06 06 38.9 -0.7
BDAS  Al Bad‘          57.86 298  P         P      06 06 40.8 +0.7
MKRJ  Makawir          57.87 302  P         P      06 06 40.6 +0.4
SOC   Sochi            57.89 316  i P       P      06 06 36.8 -3.3
SOC                               e                06 07 28.1
SOC                               e                06 08 46.3
SOC                               ePPP      PPP    06 10 06.0 -6.6
SOC                               i S       S      06 14 33.1 -3.0
SOC                               eSSS      SSS    06 20 39.3 -8.4
SOC                               pmax      pmax
      comp=Z,136nm,0.8s,mb6.0
SOC                               pmax      pmax
      comp=N,49nm,1.0s
SOC                               pmax      pmax
      comp=E,14nm,0.7s
SOC                               MLR       MLR
      comp=Z,6µm,16.0s,MS5.8
SOC                               MLR       MLR
      comp=N,12µm,19.0s,MS6.0
SOC                               MLR       MLR
      comp=E,3µm,19.0s,MS6.0
JMOS  Jabal al Moall   57.95 299  P         P      06 06 41.5 +0.8
KSHT  Keshet           57.99 303  P         P      06 06 40.5 -0.5
ALWS  Ilw as Safayha   58.01 299  P         P      06 06 43.0 +1.8
MZDA  Masada           58.07 301  P         P      06 06 42.2 +0.6
TAYS  Tayyib Ism       58.07 298  P         P      06 06 42.5 +0.9
AQBJ  Aqaba            58.08 300  P         P      06 06 41.2 -0.5
DRGI  Dragot           58.09 302  P         P      06 06 42.1 +0.4
HAQS  Haql             58.09 299  P         P      06 06 42.4 +0.7
EIL   Elat             58.16 299  P         P      06 06 41.6 -0.6
EIL   Elat             58.16 299  P         P      06 06 43.1 +0.9
      comp=E,137nm,1.0s,mb5.9,baz=97,slow=5.9,SNR=7.8
EIL   Elat             58.16 299  eP        P      06 06 42.4 +0.2
      comp=E,221nm,1.1s,mb6.1
KAHT  Ahir Dag         58.17 309  i P       P      06 06 41.5 -0.7
MBH   Mount Berech     58.21 300  P         P      06 06 43.2 +0.6
MMLI  Mount Malkishu   58.21 303  P         P      06 06 42.1 -0.5
PRNI  Paran            58.22 300  P         P      06 06 43.2 +0.6
COBT  Iskenderun       58.38 308  i P       P      06 06 40.1 -3.6
HTY   Hatay            58.38 307  eP        P      06 06 44.7 +1.0
HTY   Hatay            58.38 307  Pn        P      06 06 44.7 +1.0
KMTI  Karmit           58.42 300  P         P      06 06 44.6 +0.6
SLTI  Sal’it           58.50 302  P         P      06 06 44.0 -0.6
HNTI  Hanita           58.54 303  P         P      06 06 44.2 -0.6
RTMM  Retamin          58.60 301  P         P      06 06 45.5 +0.2
OFRI  ‘Ofer            58.61 303  P         P      06 06 45.5 +0.2
SVST  Sivas            58.67 311  i P       P      06 06 44.8 -0.9
KZIT  Kziot            58.82 301  P         P      06 06 47.1 +0.3
CEYT  Ceyhan           58.89 308  eP        P      06 06 47.1 -0.1
CEYT  Ceyhan           58.89 308  Pn        P      06 06 47.1 -0.1
TOKT  Tokat            59.12 312  eP        P      06 06 48.9 +0.1
TOKT  Tokat            59.12 312  Pn        P      06 06 48.9 +0.1
BNN   Bunyan           59.26 310  eP        P      06 06 49.4 -0.4
BNN   Bunyan           59.26 310  Pn        P      06 06 49.4 -0.4
YAK   Yakutsk          59.47  19  eP        P      06 06 49.1 -1.8
YAK                               e*PP      pP     06 06 57.5 -2.8
YAK                               e                06 07 38.2
YAK                               e                06 08 58.8
YAK                               eS        S      06 14 53.5 -3.0
YAK                               e                06 16 36.3
YAK                               eSS       SS     06 18 48.1 -5.1
YAK                               pmax      pmax
      comp=Z,178nm,1.0s,mb6.0
YAK                               pmax      pmax
      comp=N,58nm,0.9s
YAK                               pmax      pmax
      comp=E,72nm,1.3s
YAK                               pmax      pmax
      comp=N,14nm,1.0s
YAK                               pmax      pmax
      comp=E,12nm,1.0s
YAK                               pmax      pmax
      comp=Z,21nm,1.0s,mb5.1
YAK                               smax
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      comp=E,24nm,2.2s
YAK                              smax
      comp=N,27nm,1.3s
YAK                              MLR    MLR
      comp=Z,17µm,16.0s,MS6.3
YAK                              MLR    MLR
      comp=N,11µm,15.0s,MS6.2
YAK                              MLR    MLR
      comp=E,8µm,17.0s,MS6.2
YAK   Yakutsk          59.47  19 eP     P      06 06 48.3 -2.6
CTA   Charters Tower   59.57 119  P     P      06 06 51.5 -0.7
      comp=E,120nm,1.0s,mb5.9,baz=297,slow=8.2,SNR=49
CTA                              PcP    PcP    06 07 39.7 +0.7
      comp=E,41nm,0.6s,baz=285,slow=4.7,SNR=8.8
CTA                              ScP           06 11 37.9
      comp=E,27nm,1.0s,baz=320,slow=5.2,SNR=5.6
CTAO  Charters Tower   59.57 119 eP     P      06 06 50.6 -1.6
CTAO                             pmax   pmax
      comp=Z,187nm,1.1s,mb6.0
CTAO                             MLR    MLR
      comp=Z,24µm,22.0s,MS6.3
CTAO  Charters Tower   59.57 119 eP     P      06 06 50.6 -1.5
      comp=Z,187nm,1.1s,mb6.0
CTAO                             LR     LR
      comp=Z,24µm,22.0s,MS6.3
PHNC  Paralimni        59.83 305 ⇑P     P      06 06 55.0 +1.2
PHNC  Paralimni        59.83 305⇑eP     P      06 06 55.0 +1.2
ANN   Anapa            59.84 317 eP     P      06 06 53.3 -0.4
ANN                              eS     S      06 14 59.1 -2.4
ANN                              pmax   pmax
      comp=Z,101nm,1.3s,mb5.7
ANN   Anapa            59.84 317 i Pr   P      06 06 52.9 -0.8
AVNT  Avonos           59.99 310 i P    P      06 06 54.0 -0.9
NIG   Nigde            60.02 309 eP     P      06 06 53.1 -2.0
NIG   Nigde            60.02 309  Pn    P      06 06 53.1 -2.0
MEST  Erdemli          60.05 307 i P    P      06 06 53.9 -1.3
IKL   Isikli           60.35 307 eP     P      06 06 57.2 -0.1
IKL   Isikli           60.35 307  Pn    P      06 06 57.2 -0.1
CSS   Prodhromos       60.39 305  P     P      06 06 56.8 -0.8
CTKT  Corum            60.49 312 i P    P      06 06 57.2 -1.0
CORM  Corum            60.50 311 eP     P      06 06 57.6 -0.6
BOYT  Boyabat          60.62 313 i P    P      06 06 58.1 -1.0
SZAC  Souni-Zanaja     60.71 305  P     P      06 06 59.8  0.0
      comp=Z,2.6nm,0.7s
BYBT  Boyabat          60.73 313 eP     P      06 06 58.5 -1.2
BYBT  Boyabat          60.73 313  Pn    P      06 06 58.5 -1.2
LEF   Lefka            60.77 305 eP     P      06 06 59.9 -0.2
LEF   Lefka            60.77 305  Pn    P      06 06 59.9 -0.2
PECR  Pechory          60.91 331 eP     P      06 07 02.0 +1.2
PECR                             e             06 07 41.0
PECR                             eS     S      06 15 14.0 -0.9
PECR                             e             06 15 20.5
PECR                             e             06 16 42.0
PECR                             pmax   pmax
      comp=Z,2µm,11.0s
PECR                             smax
      comp=N,10µm,13.0s
PECR                             smax
      comp=E,2µm,11.0s
PECR                             MLR    MLR
      comp=Z,12µm,13.0s,MS6.2
PECR                             MLR    MLR
      comp=N,15µm,15.0s,MS6.2
PECR                             MLR    MLR
      comp=E,8µm,20.0s,MS6.2
KAMT  Kaman            60.99 310 eP     P      06 07 00.4 -1.2
KAMT  Kaman            60.99 310  Pn    P      06 07 00.4 -1.2
ALFC  Alevga           61.01 305  P     P      06 07 00.7 -1.1
      comp=E,2.5nm,0.8s
BR131 Keskin Array S   61.13 311  PFAKE        06 07 10.0 +7.5
BR131                             LR    LR
      comp=Z,5µm,19.0s,MS5.7
BRTR  Keskin Array B   61.13 311  P     P      06 07 01.1 -1.4
      comp=Z,89nm,0.8s,mb6.0,baz=128,slow=6.7,SNR=113
BRTR                              PKP2bc       06 36 30.2
      comp=Z,6.0nm,1.2s,baz=243,slow=2.8,SNR=4.1
TOS   Tosya            61.16 312 eP     P      06 07 01.3 -1.4
TOS   Tosya            61.16 312  Pn    P      06 07 01.3 -1.4
VOR   Voronezh         61.31 325 eP     P      06 07 02.5 -1.1
VOR                              pmax   pmax
      comp=Z,500nm,1.2s,mb6.5
CANT  Cankiri          61.35 312 eP     P      06 07 03.1 -0.9
CANT  Cankiri          61.35 312  Pn    P      06 07 03.1 -0.9
STKA  Stephens Creek   61.40 134  P     P      06 07 02.9 -1.6
      comp=Z,114nm,0.9s,mb6.0,baz=308,slow=6.9,SNR=97
STKA                              ScP          06 11 45.6
      comp=Z,34nm,0.9s,baz=300,slow=4.6,SNR=8.5
STKA                              LR    LR     06 37 21.9
      comp=Z,17µm,18.5s,MS6.2,baz=295,slow=40
STKA  Stephens Creek   61.40 134 eP     P      06 07 02.4 -2.1
BZK   Bozkurt          61.41 313 eP     P      06 06 59.5 -4.9
BZK   Bozkurt          61.41 313  Pn    P      06 06 59.5 -4.9
HDMB  Hadim            61.44 307 eP     P      06 07 03.1 -1.5
HDMB  Hadim            61.44 307  Pn    P      06 07 03.1 -1.5
ELDT  Eldivan          61.47 311 i P    P      06 07 03.9 -0.9
BALT  Daday            61.75 313 i P    P      06 07 06.1 -0.6
ANTO  Ankara           61.80 311 eP     P      06 07 05.4 -1.7
ANTO  Ankara           61.80 311  Pn    P      06 07 05.4 -1.7
SIM   Simferopol'      62.13 316⇑eP     P      06 07 09.2 -0.1
SIM                               S     S      06 15 28.0 -2.7
SIM                               pmax  pmax
      comp=Z,155nm,0.8s,mb6.2
SAFT  Safranbolu       62.19 312 eP     P      06 07 08.2 -1.5
SAFT  Safranbolu       62.19 312  Pn    P      06 07 08.2 -1.5
KIZT  Kizilcal         62.28 309 eP     P      06 07 08.9 -1.4
KIZT  Kizilcal         62.28 309  Pn    P      06 07 08.9 -1.4
SGKT  Sivrigoynuk      62.51 311 i P    P      06 07 10.8 -0.9
MBAR  Mbarara          62.88 265 eP     P      06 07 15.7 +1.1
MBAR                              pmax  pmax
      comp=Z,75nm,1.3s,mb5.7
MBAR                              MLR   MLR
      comp=Z,8µm,19.0s,MS5.9
MBAR  Mbarara          62.88 265 eP     P      06 07 15.7 +1.1
      comp=Z,75nm,1.3s,mb5.7
MBAR                              LR    LR
      comp=Z,8µm,19.0s,MS5.9
MDU   Mudurnu          63.11 311 eP     P      06 07 13.2 -2.5
MDU   Mudurnu          63.11 311  Pn    P      06 07 13.2 -2.5
ISP   Isparta          63.14 308 eP     P      06 07 14.6 -1.4
ISP   Isparta          63.14 308  P     P      06 07 16.6 +0.6
ISP                               pmax  pmax
      comp=Z,230nm,1.2s,mb6.2
ISP   Isparta          63.14 308 eP     P      06 07 16.4 +0.4
      comp=Z,229nm,1.2s,mb6.2
ESKT  Eskisehir        63.19 310 eP     P      06 07 15.0 -1.3
ESKT  Eskisehir        63.19 310  Pn    P      06 07 15.0 -1.3
ESKT  Eskisehir        63.19 310 i P    P      06 07 14.6 -1.7
HENT  Hendek           63.42 311 i P    P      06 07 16.0 -1.8
ELL   Elmali           63.43 307 eP     P      06 07 16.4 -1.5
ELL   Elmali           63.43 307  Pn    P      06 07 16.4 -1.5
ALT   Altintas         63.67 309 eP     P      06 07 17.8 -1.7
ALT   Altintas         63.67 309  Pn    P      06 07 17.8 -1.7
MOS   Moscow           63.83 329 eP     P      06 07 19.7 -0.6
MOS                              e             06 07 56.5
MOS                              i S    S      06 15 51.4 -0.4
MOS                               pmax  pmax
      comp=Z,269nm,1.1s,mb6.2
MOS                               MLR   MLR
      comp=Z,20µm,17.1s,MS6.3
MOS                               MLR   MLR
      comp=E,18µm,17.5s
OBN   Obninsk          64.13 328b iP    P      06 07 20.9 -1.3
OBN                              e      pP     06 07 30.0 -1.6
OBN                              i             06 07 39.8
OBN                              i             06 07 58.1
OBN                              i             06 09 48.0
OBN                              i S    S      06 15 53.7 -1.8
OBN                               pmax  pmax
      comp=Z,300nm,1.0s,mb6.3
OBN                               pmax  pmax
      comp=Z,249nm,1.0s,mb6.2
OBN   Obninsk          64.13 328 i Pr   P      06 07 20.0 -2.2
OBN                               LR    LR
      comp=Z,4µm,20.0s,MS5.6
HRT   Hereke           64.33 311 eP     P      06 07 22.4 -1.5
HRT   Hereke           64.33 311  Pn    P      06 07 22.4 -1.5
YLV   Yalova           64.50 311 eP     P      06 07 20.1 -4.9
YLV   Yalova           64.50 311  Pn    P      06 07 20.1 -4.9
ULDT  Uludag           64.61 310 i P    P      06 07 23.4 -2.2
BTOK  Tokmak           65.38 310 i P    P      06 07 30.9 +0.3
AKS   Akhisar          65.41 309 eP     P      06 07 26.5 -4.3
AKS   Akhisar          65.41 309  Pn    P      06 07 26.5 -4.3
KARP  Karpathos        65.47 305 eP     P      06 07 31.2  0.0
BNT   Bandirma         65.56 310 eP     P      06 07 29.2 -2.5
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BNT   Bandirma         65.56 310  Pn    P      06 07 29.2 -2.5
KDAG  Bornova          65.76 308 i P    P      06 07 31.6 -1.4
IZM   Izmir            65.76 308 eP     P      06 07 32.4 -0.6
IZM   Izmir            65.76 308  Pn    P      06 07 32.4 -0.6
TIRR  Tirgusor         65.96 315  P     P      06 07 33.3 -0.9
PSN   Preselentsi      65.97 314 eP     P      06 07 34.5 +0.2
SART  Tekirdag         66.17 311 i P    P      06 07 35.4 -0.2
KIS   Kishinev         66.23 318κ iP    P      06 07 36.0 +0.1
KIS                              i             06 08 09.0
KIS                              i S    S      06 16 19.0 -2.4
KIS                              i PS   PS     06 16 40.0 -7.3
KIS                               pmax  pmax
      comp=Z,400nm,1.0s,mb6.4
KIS                               pmax  pmax
      comp=Z,2µm,8.0s
KIS                               smax
      comp=N,3µm,13.0s
SKR   Severo-Kuril's   66.25  38 eP     P      06 07 31.5 -4.5
SKR                              e             06 07 44.0
SKR                              e             06 10 03.0
SKR                              ePPP   PPP    06 11 32.0 -7.5
SKR                              eS     S      06 16 29.0 +7.4
SKR                              ePS    PS     06 16 40.0 -7.5
SKR                               pmax  pmax
      comp=N,210nm,1.0s
SKR                               pmax  pmax
      comp=E,170nm,1.0s
SKR                               pmax  pmax
      comp=Z,270nm,1.0s,mb6.2
SKR                               pmax  pmax
      comp=Z,3µm,10.0s
SKR                               smax
      comp=N,6µm,20.0s
SKR                               smax
      comp=E,3µm,20.0s
SKR                               MLR   MLR
      comp=N,12µm,18.0s,MS6.2
SKR                               MLR   MLR
      comp=Z,13µm,18.0s,MS6.2
SKR                               MLR   MLR
      comp=E,6µm,16.0s,MS6.2
CFR   Carcaliu         66.30 316⇑iP     P      06 07 35.4 -1.0
AYVA  Ayvalik          66.33 309 i P    P      06 07 36.8 +0.1
HARR  Harsova          66.34 315⇑iP     P      06 07 35.8 -0.9
MA2   Magadan          66.44  28  P     P      06 07 36.2 -0.8
MA2                               pmax  pmax
      comp=Z,200nm,1.0s,mb6.1
MA2   Magadan          66.44  28 eP     P      06 07 36.1 -0.9
MA2                               LR    LR
      comp=Z,11µm,20.0s,MS6.1
PRD   Provadia         66.44 313 eP     P      06 07 36.0 -1.3
TIXI  Tiksi            66.56  12c iP    P      06 07 36.6 -1.0
TIXI                              pmax  pmax
      comp=Z,816nm,1.5s,mb6.5
TIXI  Tiksi            66.56  12⇑iP     P      06 07 36.7 -0.9
PRK   Paraskevi        66.64 309 eP     P      06 07 39.5 +0.8
EDRB  Edirne           66.68 312  Pn    P      06 07 37.0 -1.9
NPS   Neapolis         66.69 305 eP     P      06 07 40.0 +0.9
AKASG Malin Array Be   66.87 322  P     P      06 07 38.0 -2.0
      comp=Z,85nm,0.9s,mb5.8,baz=89,slow=4.7,SNR=62
AKASG                             PP    PP     06 10 07.8 -1.2
      comp=Z,35nm,1.0s,baz=95,slow=7.7,SNR=5.4
AKASG                             PKP2bc       06 36 16.9
      comp=Z,0.2nm,0.3s,baz=266,slow=3.8,SNR=5.1
JMB   Yambol           66.90 312 eP     P      06 07 40.0 -0.3
IDI   Anoyia           67.28 305  P     P      06 07 42.2 -0.6
      comp=Z,88nm,0.8s,mb5.8,baz=92,slow=7.5,SNR=26
IDI                               LR    LR     06 42 13.3
      comp=Z,6µm,21.4s,MS5.8,baz=292,slow=40
ISR   Istrita          67.39 315⇑iP     P      06 07 43.9 +0.6
VRI   Vrincioaia       67.41 316⇓iP     P      06 07 43.4  0.0
SZH   Strazhica        67.50 313 eP     P      06 07 45.0 +0.9
KDZ   Kurdzhali        67.63 311  P     P      06 07 44.0 -0.9
VAM   Vamos            67.86 305 eP     P      06 07 46.5 +0.1
MLR   Muntele Rosu     67.88 316  P     P      06 07 45.8 -0.6
      comp=Z,227nm,1.0s,mb6.2,baz=170,slow=1.7,SNR=57
MLR                               LR    LR     06 43 37.8
      comp=Z,13µm,18.0s,MS6.2,baz=87,slow=41
MLR   Muntele Rosu     67.88 316  P     P      06 07 46.5 +0.2
GVD   Gavdhos          67.90 304 eP     P      06 07 47.5 +0.8
      comp=Z,112nm,0.9s,mb5.9
PVL   Pavlikeni        67.93 313 eP     P      06 07 46.5 -0.2
RZN   Rozhen           68.16 311  P     P      06 07 46.0 -2.2
PET   Petropavlovsk    68.39  36c iP    P      06 07 48.6 -0.8
PET                               pmax  pmax
      comp=Z,154nm,1.3s,mb5.9
PET   Petropavlovsk    68.39  36⇑iP     P      06 07 48.7 -0.7
PET                               LR    LR
      comp=Z,11µm,22.0s,MS6.1
SEY   Seymchan         68.53  25 eP     P      06 07 49.4 -0.7
SEY                                            06 08 12.8
SEY                                            06 10 21.3
SEY                               PPP   PPP    06 11 55.6 -5.5
SEY                              eS     S      06 16 50.9 +2.1
SEY                                            06 17 48.3
SEY                               SS    SS     06 21 18.9 +4.3
SEY                               pmax  pmax
      comp=E,50nm,1.1s
SEY                               pmax  pmax
      comp=Z,190nm,1.1s,mb5.9
SEY                               smax
      comp=N,19µm,27.3s
SEY                               smax
      comp=E,5µm,21.9s
SEY                               MLR   MLR
      comp=Z,84µm,18.0s,MS7.0
SEY                               MLR   MLR
      comp=N,56µm,21.0s,MS7.0
SEY                               MLR   MLR
      comp=E,66µm,17.0s,MS7.0
LSZ   Lusaka           68.67 250 eP     P      06 07 52.7 +1.0
LSZ                               pmax  pmax
      comp=Z,68nm,1.1s,mb5.5
LSZ                               MLR   MLR
      comp=Z,21µm,21.0s,MS6.3
LSZ   Lusaka           68.67 250 eP     P      06 07 52.7 +1.0
      comp=Z,68nm,1.1s,mb5.5
LSZ                               LR    LR
      comp=Z,21µm,21.0s,MS6.3
PGB   Panagyurishte    68.68 312  P     P      06 07 50.0 -1.4
MNK   Minsk            68.69 325⇓eP     P      06 07 46.0 -5.3
MNK                              eS     S      06 16 46.0 -4.8
MNK                               pmax  pmax
      comp=Z,1µm,1.0s,mb6.7
MNK                               MLR   MLR
      comp=Z,8µm,16.0s,MS6.0
KYTH  Kithira          68.87 305 eP     P      06 07 51.3 -1.4
PUL   Pulkovo          68.98 331 eP     P      06 07 53.4 +0.4
PUL                              eS     S      06 16 48.8 -5.4
PUL                               pmax  pmax
      comp=N,52nm,0.5s
PUL                               pmax  pmax
      comp=Z,136nm,0.5s,mb6.1
PUL                               pmax  pmax
      comp=E,211nm,0.7s
PUL                               smax
      comp=N,252nm,0.7s
PUL                               smax
      comp=E,360nm,1.1s
PUL   Pulkovo          68.98 331 eP     P      06 07 52.2 -0.8
VTS   Vitosha          69.39 312  P     P      06 07 55.0 -0.7
VTS   Vitosha          69.39 312  P     P      06 07 54.9 -0.8
IDID  Didziasalis      69.51 326 eP     P      06 07 55.5 -0.8
IDID                              AMPb  AMB    06 08 00.2
      comp=Z,83nm,1.0s,mb5.6
VAY   Valandovo        69.71 311⇑iP     P      06 07 57.4 -0.3
ITM   Ithomi           69.83 306 eP     P      06 07 57.0 -1.5
IZAR  Zarasai          69.89 326 eP     P      06 07 57.7 -0.9
IZAR                              AMPb  AMB    06 08 01.9
      comp=Z,53nm,1.1s,mb5.4
ISAL  Salakas          69.92 326 eP     P      06 07 58.0 -0.7
ISAL                              AMPb  AMB    06 08 02.2
      comp=Z,50nm,1.2s,mb5.3
EVR   Evrytania        70.06 308 eP     P      06 07 58.0 -1.9
KZN   Kozani           70.21 310 eP     P      06 08 01.0 +0.2
VSU   Vasula           70.35 329⇑iP     P      06 08 00.0 -1.3
LVZ   Lovozero         70.41 340 eP     P      06 08 00.8 -0.7
BOLS  Boljevac         70.44 313⇓iP     P      06 08 01.3 -0.9
SKO   Skopje           70.62 311 i P    P      06 08 01.7 -1.6
SKO                               pmax  pmax
      comp=Z,62nm,1.0s,mb5.5
SKO   Skopje           70.62 311 i P    P      06 08 01.7 -1.6
      comp=Z,62nm,1.0s,mb5.5
SKO                              i             06 08 03.5
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APA   Apatity          70.69 339⇑iP     P      06 08 03.1 -0.2
APA                              i      pP     06 08 13.6 +0.9
APA                              i S    S      06 17 14.0 -0.1
APA                              i             06 18 06.0
APA                               pmax  pmax
      comp=Z,86nm,1.3s,mb5.5
APA                               MLR   MLR
      comp=Z,18µm,21.0s,MS6.3
KWP   Kalwaria         70.74 320 eP     P      06 08 02.9 -1.0
KWP                              epP    pP     06 08 11.7 -1.6
KWP                              esP    sP     06 08 15.7 -0.9
KWP                              ePcP   PcP    06 08 21.7 -2.9
KWP                              eS     S      06 17 17.2 +2.2
KWP                              eSKS   SKS    06 18 08.2 +0.4
KWP                               MLR   MLR    06 45 30.9
      comp=Z,10µm,19.8s,MS6.1
JAN   Janina           70.86 309 eP     P      06 08 04.0 -0.8
KOLS  Kolonicke sedl   70.91 319 eP     P      06 08 05.1 +0.2
KOLS                             e      pP     06 08 13.7 -0.6
VLS   Valsamata        70.96 307 eP     P      06 08 05.0 -0.4
SVIS  Svilajnac        71.03 314 eP     P      06 08 00.3 -5.4
SUW   Suwalki          71.23 324 eP     P      06 08 05.7 -1.1
SUW                              epP    pP     06 08 17.1 +0.9
SUW                              ePcP   PcP    06 08 24.3 -2.4
SUW                              eS     S      06 17 16.0 -4.6
SUW                              eSKS   SKS    06 18 11.2 -0.1
SUW                               MLR   MLR    06 44 31.6
      comp=Z,11µm,19.6s,MS6.1
GRUS  Gruza            71.34 313⇑iP     P      06 08 06.8 -0.8
CRVS  Cervenica-Dubn   71.44 319 eP     P      06 08 09.4 +1.3
CRVS                             e             06 08 21.4
FINES FINESS Array B   71.49 332 i P    P      06 08 07.0 -1.2
FINES                             pmax  pmax
      comp=Z,60nm,0.9s
FINES FINESS Array B   71.49 332  P     P      06 08 07.0 -1.2
      comp=Z,60nm,0.9s,mb5.5,baz=94,slow=5.5,SNR=47
FINES                             LR    LR     06 47 09.9
      comp=Z,10µm,18.9s,MS6.1,baz=288,slow=42
KAF   Kangasniemi      71.58 333 ep     P      06 08 06.8 -1.9
      comp=Z,91nm,1.0s,mb5.7
KAF   Kangasniemi      71.58 333 eP     P      06 08 06.8 -1.9
KAF                               pmax  pmax
      comp=Z,91nm,1.0s,mb5.7
KEK   Kerkira          71.67 309 eP     P      06 08 08.5 -1.2
QSH   Qafa e Shtames   71.73 311 ep     P      06 08 11.2 +1.3
PVY   Plav             71.76 312⇑iP     P      06 08 10.3 +0.1
IVA   Berane           71.84 312⇑iP     P      06 08 11.7 +1.0
DIVS  Divcibare        71.88 313⇓iP     P      06 08 10.0 -0.9
KECS  Kecovo           72.03 318 eP     P      06 08 11.4 -0.2
NVSS  Nova Varos 2     72.04 313⇑iP     P      06 08 11.9 +0.1
WAR   Warsaw           72.21 322 eP     P      06 08 14.7 +2.1
WAR                              ePcP   PcP    06 08 31.0 +0.2
WAR                              eS     S      06 17 34.4 +2.6
WAR                               MLR   MLR    06 43 53.9
      comp=Z,8µm,22.7s,MS5.9
PLE   Pljevlja         72.25 313⇑iP     P      06 08 12.9 -0.1
ULC   Ulcinj           72.25 311⇑iP     P      06 08 12.7 -0.4
PKSN  Nyarlorinc       72.25 316 eP     P      06 08 12.8 -0.2
NIE   Niedzica         72.26 319 eP     P      06 08 13.2 +0.3
TTG   Podgorica        72.28 312⇑iP     P      06 08 12.3 -0.9
PSZ   Piszkesteto      72.35 317⇑eP     P      06 08 13.2 -0.3
NKY   Niksic           72.50 312⇑iP     P      06 08 13.8 -0.7
BUM   Brajici-Budva    72.53 312⇑iP     P      06 08 14.4 -0.4
UPM   Unac-Piva        72.59 312⇑iP     P      06 08 13.8 -1.2
OJC   Ojcow            72.69 320 eP     P      06 08 15.0 -0.5
OJC                              ePcP   PcP    06 08 34.0 +1.1
OJC                              eS     S      06 17 34.6 -2.7
OJC                               MLR   MLR    06 46 17.5
      comp=Z,10µm,18.5s,MS6.1
BRY   Bratogost        72.84 312⇑iP     P      06 08 15.5 -1.0
HCY   Herceg Novi      72.84 312⇑iP     P      06 08 16.7 +0.1
LIKS  Likavka          73.00 319 eP     P      06 08 16.8 -0.5
LCI   Lecce            73.00 309 eP     P      06 08 17.6  0.0
PKSM  Moragy           73.03 316⇓eP     P      06 08 16.6 -1.0
VYHS  Vyhne            73.12 318 i P    P      06 08 17.6 -0.4
VYHS                             e             06 11 03.6
VYHS  Vyhne            73.12 318 i P    P      06 08 17.6 -0.4
VYHS                             e             06 08 45.3
VYHS                             ePP    PP     06 11 03.6 +0.6
PKSG                   73.31 317 eP     P      06 08 19.2  0.0
SRO   Srobarova        73.40 317 eP     P      06 08 20.4 +0.7
KOLL  Kolacno          73.41 318 eP     P      06 08 18.8 -0.9
RHK1  Bakonya          73.41 315 eP     P      06 08 19.7 -0.1
STON  Ston             73.45 312 i P    P      06 08 19.4 -0.7
KEV   Kevo             73.69 341 ep     P      06 08 20.0 -1.0
      comp=Z,54nm,0.9s,mb5.5
KEV   Kevo             73.69 341 eP     P      06 08 20.0 -1.0
KEV                               pmax  pmax
      comp=Z,54nm,0.9s,mb5.5
RAC   Raciborz         73.70 320 eP     P      06 08 21.8 +0.4
RAC                               MLR   MLR    06 45 59.3
      comp=Z,6µm,21.2s,MS5.9
OKC   Ostrava-Krasne   73.70 319 eP     P      06 08 21.3 -0.1
LBTB  Lobatse          73.83 241 eP     P      06 08 23.4 +0.8
LBTB                              pmax  pmax
      comp=Z,130nm,1.0s,mb5.8
LBTB                              MLR   MLR
      comp=Z,21µm,21.0s,MS6.4
LBTB  Lobatse          73.83 241 eP     P      06 08 23.4 +0.8
      comp=Z,130nm,1.0s,mb5.8
LBTB                              LR    LR
      comp=Z,21µm,21.0s,MS6.4
TIP   Timpagrande      74.00 308 eP     P      06 08 23.0 -0.3
LTRZ  Laterza          74.00 310 eP     P      06 08 23.0 -0.3
SMOL  Smolenice        74.05 318 i P    P      06 08 23.3 -0.1
MORC  Moravsky Berou   74.09 319 eP     P      06 08 23.2 -0.4
MORC                              pmax  pmax
      comp=Z,152nm,1.1s,mb5.8
MORC  Moravsky Berou   74.09 319 eP     P      06 08 23.2 -0.4
      comp=Z,152nm,1.1s,mb5.8
ARCES ARCESS Array B   74.12 340  P     P      06 08 23.1 -0.3
      comp=Z,53nm,0.9s,mb5.5,baz=102,slow=7.1,SNR=100
ARCES                             LR    LR     06 43 20.8
      comp=Z,18µm,21.4s,MS6.3,baz=115,slow=38
ARE0  ARCESS Array S   74.12 340 eP     P      06 08 23.3 -0.1
ZST   Bratislava       74.24 318 eP     P      06 08 24.6  0.0
ZST                              e             06 08 44.0
GRI   Girifalco        74.25 308 eP     P      06 08 25.1 +0.3
SOI   Samo             74.53 307 eP     P      06 08 26.7 +0.3
SOP   Sopron           74.57 317⇑eP     P      06 08 26.4 -0.1
GKP   Gorka Klasztor   74.62 323 eP     P      06 08 26.2 -0.5
GKP                              epP    pP     06 08 33.6 -2.5
GKP                              esP    sP     06 08 38.3 -1.1
GKP                              ePcP   PcP    06 08 42.1 +1.0
GKP                              eS     S      06 17 55.9 -3.1
GKP                              eSKS   SKS    06 18 35.2 -1.0
GKP                               MLR   MLR    06 48 13.0
      comp=Z,12µm,21.0s,MS6.2
VRAC  Vranov           74.66 319  P     P      06 08 26.9 -0.1
VRAC  Vranov           74.66 319  P     P      06 08 26.8 -0.1
      comp=Z,32nm,0.9s,mb5.2,baz=96,slow=7.2,SNR=19
VRAC                              LR    LR     06 44 21.1
      comp=Z,3µm,20.8s,MS5.5,baz=22,slow=38
FGMS  Monte Sant'Ang   74.69 311 eP     P      06 08 26.3 -1.0
KTK1  Kautokeino       74.74 339 eP     P      06 08 27.4 +0.4
KTK1                              AMb   AMB    06 08 52.9
      comp=Z,168nm,1.6s,mb5.7
KTK1  Kautokeino       74.74 339 eP     P      06 08 27.4 +0.4
      comp=Z,168nm,1.6s,mb5.7
MTTG  Motta San Giov   74.81 307 eP     P      06 08 28.6 +0.5
DPC   Dobruska-Polom   74.92 320 eP     P      06 08 29.0 +0.6
DPC                              ex     x      06 08 47.9
DPC                               AMS   AMS    06 48 00.0
      comp=Z,8µm,18.0s
RGNG  Rignano Grg      74.97 311 eP     P      06 08 28.9  0.0
KSP   Ksiaz            74.98 320 eP     P      06 08 28.9 +0.1
KSP                              e             06 08 41.5
KSP                              eS     S      06 18 01.0 -2.0
KSP                              eSS    SS     06 22 45.0 -8.9
KSP                               MLR   MLR
      comp=Z,18µm,18.2s,MS6.4
KSP   Ksiaz            74.98 320 eP     P      06 08 28.9 +0.1
KSP                              epP    pP     06 08 31.2 -7.0
KSP                              ePcP   PcP    06 08 41.5 -1.2
KSP                              ePP    PP     06 11 28.0 +9.2
KSP                              eS     S      06 18 01.0 -2.0
KSP                              eSS    SS     06 22 45.0 -8.9
KSP                               LR    LR
      comp=Z,18µm,18.2s,MS6.4
KSP   Ksiaz            74.98 320 eP     P      06 08 29.2 +0.4
KSP                              epP    pP     06 08 36.4 -1.8
KSP                              ePcP   PcP    06 08 42.1 -0.6
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KSP                             e       06 08 48.0
KSP                             eS      S        06 17 59.0 -4.0
KSP                             eSKS    SKS      06 18 30.7 -8.2
KSP                              MLR    MLR      06 47 25.8
      comp=Z,15µm,18.6s,MS6.3
MIR   Mirnyy          75.11 180j eP     P        06 08 33.8 +4.6
MIR                             e                06 11 24.0
MIR                             eS      S        06 18 07.0 +2.9
MIR                             eSS     SS       06 23 04.0 +8.3
MIR                              pmax   pmax
      comp=Z,2µm,4.2s
MIR                              pmax   pmax
      comp=Z,180nm,1.2s,mb5.9
MIR                              smax
      comp=E,2µm,13.0s
MIR                              smax
      comp=N,1µm,10.0s
MIR                              MLR    MLR
      comp=N,12µm,16.0s,MS6.3
MIR                              MLR    MLR
      comp=E,2µm,16.0s,MS6.3
MIR                              MLR    MLR
      comp=Z,41µm,16.0s,MS6.8
UPC   Upice           75.13 320 eP      P        06 08 30.5 +0.9
UPC                             ex      x        06 08 48.7
UPC                             ex      x        06 09 06.0
SGO   Sicignano       75.15 310 eP      P        06 08 30.4 +0.4
AGST  Augusta-Monte   75.17 306 eP      P        06 08 30.5 +0.3
BOSA  Boshof          75.24 237 eP      P        06 08 31.6 +0.8
BOSA                             pmax   pmax
      comp=Z,75nm,0.8s,mb5.7
BOSA                             MLR    MLR
      comp=Z,21µm,20.0s,MS6.4
BOSA  Boshof          75.24 237 eP      P        06 08 31.6 +0.8
      comp=Z,75nm,0.8s,mb5.7
BOSA                             LR     LR
      comp=Z,21µm,20.0s,MS6.4
PZI   Palazzolo       75.40 306 eP      P        06 08 32.3 +0.8
PDKS  Podkum          75.55 315 i P     P        06 08 32.4 +0.3
BILL  Bilibino        75.63  22 i P     P        06 08 31.8 -0.3
BILL                             pmax   pmax
      comp=Z,67nm,1.0s,mb5.5
BILL  Bilibino        75.63  22 eP      P        06 08 30.9 -1.2
      comp=Z,55nm,0.9s,mb5.5
BILL                             LR     LR
      comp=Z,13µm,19.0s,MS6.3
LJU   Ljubljana       75.87 315 eP      P        06 08 34.8 +0.8
CASY  Casey           75.91 173 eP      P        06 08 34.1 +0.3
      comp=Z,83nm,0.9s,mb5.7
CASY                             LR     LR
      comp=Z,13µm,20.0s,MS6.2
PRU   Pruhonice       76.04 319 eP      P        06 08 35.6 +0.8
      comp=Z,82nm,1.0s,mb5.6
PRU                             ex      x        06 08 53.9
PRU                             ex      x        06 09 10.6
PRU                              AMS    AMS      06 47 00.0
      comp=Z,6µm,19.6s
BSD   Bornholm Skovb  76.15 325 i P     P        06 08 35.1 -0.3
BSD                              pmax   pmax
      comp=Z,73nm,0.9s,mb5.6
BSD   Bornholm Skovb  76.15 325 i P     P        06 08 35.1 -0.3
      comp=Z,73nm,0.9s,mb5.6
BSD   Bornholm Skovb  76.15 325 i S     S        06 18 07.1 -8.7
BSD                             i                06 18 41.0
BSD                             i                06 23 14.4
      comp=Z,10µm,20.0s
VOY   Vojsko          76.31 315 eP      P        06 08 36.0 -0.5
TRO   Tromso          76.37 340 eP      P        06 08 34.5 -1.8
TRO                             eS      S        06 18 18.5 +0.6
TRO                              AMS    AMS      06 44 42.4
      comp=Z,12µm,17.9s,MS6.3
BRG   Berggiesshubel  76.47 320 i P     P        06 08 37.5 +0.3
BRG                             e                06 08 50.5
BRG                                              06 11 33.9
BRG                              S      S        06 18 20.0 +0.7
BRG                              SS     SS       06 23 19.0 +1.8
BRG                              pmax   pmax
      comp=Z,102nm,1.1s,mb5.7
BRG                              MLR    MLR
      comp=Z,10µm,21.1s,MS6.1
BRG   Berggiesshubel  76.47 320 i P     P        06 08 37.5 +0.3
      comp=Z,102nm,1.1s,mb5.7
BRG                             e                06 08 50.5
BRG                             i                06 08 56.9
BRG                              PP     PP       06 11 33.9 +3.2
BRG                              S      S        06 18 20.0 +0.7
BRG                              SS     SS       06 23 19.0 +1.8
BRG                              LR     LR
      comp=Z,10µm,21.1s,MS6.1
GEC2  GERESS Array S  76.53 318 eP      P        06 08 37.9 +0.3
GEC2                             pmax   pmax
      comp=Z,131µm,1.1s
GEC2  GERESS Array S  76.53 318 eP      P        06 08 37.9 +0.3
      comp=Z,131nm,1.1s,mb5.8
GERES GERESS Array B  76.53 318  P      P        06 08 37.8 +0.1
      comp=Z,71nm,0.9s,mb5.6,baz=93,slow=5.3,SNR=110
AQU   L'Aquila        76.61 311  P      P        06 08 39.0 +0.8
AQU                              pmax   pmax
      comp=Z,84nm,1.1s,mb5.6
AQU   L'Aquila        76.61 311 eP      P        06 08 38.9 +0.7
PTQR  Pietraquaria    76.61 311 eP      P        06 08 39.0 +0.9
KHC   Kasperske Hory  76.63 318 eP      P        06 08 38.5 +0.4
KHC                              x      x        06 08 54.5
KHC                              x      x        06 09 05.5
KHC                              AMS    AMS      06 47 20.0
      comp=Z,8µm,17.7s
RUE   Ruedersdorf     76.65 322 eP      P        06 08 38.2  0.0
      comp=Z,255nm,1.0s,mb6.1
PTCC  Patocco-Chiusa  76.70 316 eP      P        06 08 38.4 -0.2
GMNA  Gemona          76.78 315 eP      P        06 08 39.7 +0.6
NRCA  Norcia          76.82 312 eP      P        06 08 40.5 +1.1
ARV   Arcevia         76.95 313 eP      P        06 08 39.6 -0.5
SNTG  Esanatoglia     76.95 312 eP      P        06 08 39.8 -0.3
FX1   Attu Island--F  77.03  38  LR     LR       06 42 48.5
      comp=Z,147nm,19.6s,baz=84,slow=36
FX1   Attu Island--F  77.03  38 eP      P        06 08 40.0 -0.3
FSSB  Fossombrone     77.07 313 eP      P        06 08 40.7 -0.1
CLL   Collm           77.08 321 eP      P        06 08 41.0 +0.4
CLL                             eS      S        06 18 24.0 -1.9
CLL                              pmax   pmax
      comp=Z,75nm,1.2s,mb5.5
CLL                              MLR    MLR
      comp=Z,7µm,19.3s,MS6.0
CLL   Collm           77.08 321 eP      P        06 08 41.0 +0.4
      comp=Z,75nm,1.2s,mb5.5
CLL                             eS      S        06 18 24.0 -1.9
CLL                              LR     LR
      comp=Z,7µm,19.3s,MS6.0
CLL   Collm           77.08 321  P      P        06 08 41.0 +0.4
      comp=Z,logA/T=1.8,mb5.5
CLL                             e       pP       06 08 52.0 +1.9
CLL                             eS      S        06 18 24.0 -1.9
CLL                             eSS     SS       06 23 30.0 +3.6
WET   Wettzell        77.09 318 eP      P        06 08 41.0 +0.3
FVI   Forni Avoltri   77.10 316 eP      P        06 08 40.5 -0.3
MNS   Montasola       77.14 311 eP      P        06 08 42.3 +1.1
HFS   Hagfors         77.22 330  P      P        06 08 40.5 -0.7
      comp=Z,139nm,1.2s,mb5.8,baz=108,slow=4.7,SNR=48
HFS                              LR     LR       06 50 22.8
      comp=Z,14µm,19.5s,MS6.3,baz=86,slow=42
RSM   Repubblica di   77.31 313 eP      P        06 08 43.3 +1.3
BJO   Bjornoya        77.35 345 eP      P        06 08 42.1 +0.4
BJO                             eS      S        06 18 32.5 +4.0
BJO                              AMS    AMS      06 48 33.5
      comp=Z,8µm,18.1s,MS6.1
NKC   Novy Kostel     77.39 319 eP      P        06 08 42.6 +0.2
NKC                              AMS    AMS      06 56 20.0
      comp=Z,8µm,16.4s
BJO1  Bjornoya        77.40 345 eP      P        06 08 42.1 +0.1
BJO1                            eS      S        06 18 32.5 +3.5
BJO1                             LR     LR
      comp=Z,8054µm,18.1s
MOR8  Moi Rana        77.49 336 eP      P        06 08 41.7 -0.9
MOR8                             AMb    AMB      06 08 44.9
      comp=Z,110nm,1.1s,mb5.7
MOR8  Moi Rana        77.49 336 eP      P        06 08 41.7 -0.9
      comp=Z,110nm,1.1s,mb5.7
SMY   Shemya          77.59  38  PFAKE           06 08 50.0 +6.6
SMY                              LR     LR
      comp=Z,9µm,20.0s,MS6.1
COP   Copenhagen      77.60 325 i P     P        06 08 45.4 +2.0
COP                              pmax   pmax
      comp=Z,58nm,0.9s,mb5.5
COP   Copenhagen      77.60 325 i P     P        06 08 45.4 +2.0
      comp=Z,58nm,0.9s,mb5.5
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SFI   Santa Sofia     77.75 313 eP      P        06 08 45.4 +1.0
PGD   Poggio Sodo     77.84 313 eP      P        06 08 46.0 +1.1
CTI   Castel Tesino   77.88 315 eP      P        06 08 45.3 +0.2
NOUC  Port Laguerre   77.91 115 eP      P        06 08 47.1 +1.4
NOUC  Port Laguerre   77.91 115 eP      P        06 08 47.1 +1.4
MOX   Moxa            77.94 320 eP      P        06 08 45.5 +0.2
MOX                             eS      S        06 18 39.0 +3.8
MOX                              pmax   pmax
      comp=Z,73nm,1.3s,mb5.5
MOX                              MLR    MLR
      comp=Z,7µm,20.0s,MS6.0
MOX   Moxa            77.94 320 i P     P        06 08 45.5 +0.2
      comp=Z,logA/T=1.8,mb5.5
MOX                              S      S        06 18 39.0 +3.8
MOX                              L               06 49 14.0
MOX   Moxa            77.94 320 eP      P        06 08 45.5 +0.2
      comp=Z,73nm,1.3s,mb5.5
MOX                             eS      S        06 18 39.0 +3.8
MOX                              LR     LR
      comp=Z,7µm,20.0s,MS6.0
DZM   Mont Dzumac     78.03 115 eP      P        06 08 46.8 +0.4
DZM   Mont Dzumac     78.03 115 eP      P        06 08 46.8 +0.4
LOF   Lofoten         78.06 338 eP      P        06 08 47.5 +1.8
LOF                              AMb    AMB      06 08 51.5
      comp=Z,221nm,1.5s,mb5.9
LOF   Lofoten         78.06 338 eP      P        06 08 47.5 +1.8
      comp=Z,221nm,1.5s,mb5.9
SEI   Scarperia       78.10 313 eP      P        06 08 47.0 +0.7
FUR   Furstenfeldbru  78.14 317 eP      P        06 08 46.6 +0.1
CSNT  Castellina Chi  78.15 313 eP      P        06 08 45.8 -0.9
GRA1  Grafenberg Arr  78.18 319 eP      P        06 08 47.4 +0.7
      comp=Z,154nm,1.2s,mb5.8
GRA1                            e                06 09 06.6
GRA1                            e                06 09 23.8
GRF   Grafenberg Arr  78.18 319 eP      P        06 08 47.4 +0.7
GRF                              pmax   pmax
      comp=Z,154nm,1.2s,mb5.8
GRF   Grafenberg Arr  78.18 319 eP      P        06 08 47.4 +0.7
GRF                              pmax   pmax
      comp=Z,154nm,1.2s,mb5.8
GRF   Grafenberg Arr  78.18 319 eP      P        06 08 47.4 +0.7
      comp=Z,154nm,1.2s,mb5.8
GRF                             e                06 09 06.6
GRF                             e                06 09 23.8
FNVD  Fontana Vidola  78.27 313 eP      P        06 08 48.8 +1.5
NSS   Namsos          78.36 334 eP      P        06 08 47.2 -0.2
NSS                             eS      S        06 18 41.3 +1.8
NSS                              AMS    AMS      06 49 49.3
      comp=Z,13µm,18.8s,MS6.3
ZCCA  Zocca           78.37 313 eP      P        06 08 49.4 +1.6
NB2   NORSAR Subarra  78.50 331  P      P        06 08 46.9 -1.3
      comp=Z,64nm,0.8s,mb5.6,baz=93,slow=5.6
NB2   NORSAR Subarra  78.50 331  P      P        06 08 46.9 -1.3
      baz=93,slow=5.6
NB2   NORSAR Subarra  78.50 331  P      P        06 08 46.9 -1.3
NB2                              pmax   pmax
      comp=Z,64nm,0.8s,mb5.6
NOA   NORSAR Array B  78.50 331  P      P        06 08 47.3 -0.9
      comp=Z,49nm,0.8s,mb5.5,baz=93,slow=5.6,SNR=44
NOA                              PP     PP       06 11 50.7 +2.9
      comp=Z,29nm,1.0s,baz=90,slow=8.2,SNR=5.2
NOA                              LR     LR       06 51 22.4
      comp=Z,10µm,18.7s,MS6.2,baz=105,slow=42
BDI   Bagni Di Lucca  78.65 313 eP      P        06 08 49.4  0.0
GSCL  Gusciola        78.65 313 eP      P        06 08 50.5 +1.1
NAO01 NORSAR Array S  78.65 330 eP      P        06 08 48.0 -1.1
      comp=Z,64nm,0.9s,mb5.5
NAO01                            LR     LR
      comp=Z,7µm,19.0s,MS6.0
SAL   Salo            78.67 315 eP      P        06 08 50.8 +1.3
MABI  Malga Bissina   78.67 315 eP      P        06 08 50.7 +1.3
OSL   Oslo            78.69 329 eP      P        06 08 48.9 -0.4
PII   Pisa            78.70 313 eP      P        06 08 49.5 -0.2
MAIM                  78.72 313  P      P        06 08 49.4 -0.4
CLZ   Clausthal       78.73 321 eP      P        06 08 49.9 +0.2
      comp=Z,108nm,1.0s,mb5.7
BRMO  Bormio          78.76 316 eP      P        06 08 50.1 +0.1
ERBM  Eremo           78.77 314 eP      P        06 08 52.9 +2.9
BSEG  Bad Segeberg    78.78 323 eP      P        06 08 50.4 +0.5
HDH   Heidenheim      78.85 318 eP      P        06 08 51.2 +0.8
VALM                  78.89 313  P      P        06 08 51.6 +0.9
UBR   Uberruh         78.92 317 eP      P        06 08 51.0 +0.2
VINC  Vinca           78.96 313  P      P        06 08 50.3 -0.9
GRAM                  79.02 314  P      P        06 08 51.0 -0.4
BACM                  79.02 313  P      P        06 08 51.5 +0.1
DAVOX Davos           79.09 316  P      P        06 08 52.1 +0.3
      comp=Z,72nm,0.9s,mb5.6,baz=108,slow=5.9,SNR=38
DAVOX                            LR     LR       06 51 16.4
      comp=Z,7µm,20.5s,MS6.0,baz=76,slow=41
CODM                  79.17 314  P      P        06 08 51.3 -0.9
MAW   Mawson          79.20 191 eP      P        06 08 53.4 +1.5
MAW                              pmax   pmax
      comp=Z,22nm,0.6s
MAW                              MLR    MLR
      comp=Z,17µm,20.0s
MAW   Mawson          79.20 191  P      P        06 08 52.9 +1.0
      comp=Z,24nm,0.8s,mb5.2,baz=34,slow=7.7,SNR=11
MAW                              LR     LR       06 39 20.7
      comp=Z,11µm,19.8s,MS6.2,baz=33,slow=32
MAW   Mawson          79.20 191 eP      P        06 08 53.4 +1.5
      comp=Z,22nm,0.6s,mb5.3
MAW                              LR     LR
      comp=Z,17µm,20.0s,MS6.4
SIND  Sindeldorf      79.23 319⇓eP      P        06 08 53.9 +1.4
KONO  Kongsberg       79.25 329  PFAKE           06 09 00.0 +7.6
KONO                             LR     LR
      comp=Z,13µm,21.0s,MS6.3
BUCH  Bad Urach       79.42 318⇓eP      P        06 08 54.6 +1.1
MUD   Monsted U'grnd  79.45 326 i P     P        06 08 54.8 +1.3
MUD                              pmax   pmax
      comp=Z,133nm,1.0s,mb5.8
MUD   Monsted U'grnd  79.45 326 i P     P        06 08 54.8 +1.3
      comp=Z,133nm,1.0s,mb5.8
MUD   Monsted U'grnd  79.45 326 i S     S        06 18 46.8 -4.4
      comp=Z,7µm,17.0s
BOB   Bobbio (Coli)   79.45 314 eP      P        06 08 54.4 +0.7
STU   Stuttgart       79.51 318 eP      P        06 08 54.0  0.0
STU                              pmax   pmax
      comp=Z,74nm,1.1s,mb5.5
STU   Stuttgart       79.51 318 eP      P        06 08 54.0  0.0
      comp=Z,74nm,1.1s,mb5.5
DOMB  Dombas          79.56 332 eP      P        06 08 53.7 -0.3
DOMB                             AMb    AMB      06 08 57.0
      comp=Z,94nm,1.1s,mb5.6
DOMB  Dombas          79.56 332 eP      P        06 08 53.7 -0.3
      comp=Z,94nm,1.1s,mb5.6
GUT   Gutenstein      79.58 317 eP      P        06 08 55.4 +1.0
VSL   Villasalto      79.72 309 eP      P        06 08 55.3  0.0
      comp=Z,94nm,1.0s,mb5.7
TOD   Tromm           79.75 319⇓eP      P        06 08 56.5 +1.2
TOD   Tromm           79.75 319 eP      P        06 08 55.9 +0.7
LBG   Lerchenberg     79.78 318⇓eP      P        06 08 56.6 +1.2
SPAK  Spaichingen     79.80 317⇓eP      P        06 08 56.8 +1.2
SWS   Schriesheim     79.82 319 eP      P        06 08 56.8 +1.2
PGF   Pioggiola       79.86 312 eP      P        06 08 55.0 -1.0
      comp=Z,204nm,1.3s,mb5.6
PGF   Pioggiola       79.86 312 eP      P        06 08 55.0 -1.0
PGF                              pmax   pmax
      comp=Z,102nm,1.3s,mb5.6
VAI   Varese          79.89 315 eP      P        06 08 55.5 -0.6
SUR   Sutherland      80.05 235 eP      P        06 09 00.2 +3.0
      comp=Z,64nm,0.9s,mb5.5
SUR                              LR     LR
      comp=Z,4µm,19.0s,MS5.8
BFO   Black Forest    80.10 318 eP      P        06 08 57.3 +0.1
BFO                              pmax   pmax
      comp=Z,54nm,1.0s,mb5.4
BFO   Black Forest    80.10 318 eP      P        06 08 57.3 +0.1
      comp=Z,54nm,1.0s,mb5.4
PCP   Pian Castagno   80.10 314  P      P        06 08 56.4 -0.8
KTD   Kalmit          80.23 319 eP      P        06 08 59.2 +1.4
KTD   Kalmit          80.23 319 eP      P        06 08 58.5 +0.7
MOL   Molde           80.27 332 eP      P        06 09 00.0 +2.2
MOL                              AMb    AMB      06 09 19.2
      comp=Z,107nm,2.4s,mb5.3
MOL   Molde           80.27 332 eP      P        06 09 00.0 +2.2
      comp=Z,107nm,2.4s,mb5.3
FELD  Feldberg        80.34 317 eP      P        06 08 59.2 +0.8
FIN   Finale Ligure   80.36 313  P      P        06 08 58.6  0.0
KIZ   Kirchzarten     80.39 317⇓eP      P        06 08 59.8 +1.1
LANF  Langenberg      80.42 318 eP      P        06 08 59.1 +0.2
MCGN  Macugnaga       80.43 315 eP      P        06 08 59.8 +0.8
ORX   Oropa           80.45 315  P      P        06 08 58.6 -0.5
ABH   Alteburg        80.56 319⇓eP      P        06 09 01.0 +1.5
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ABH   Alteburg        80.56 319 eP      P        06 09 00.8 +1.3
LIBD  Limburg         80.59 317 eP      P        06 09 01.5 +1.7
LIBD  Limburg         80.59 317 eP      P        06 09 01.7 +1.9
ROB   Roburent        80.60 313  P      P        06 08 59.5 -0.4
IMI   Imperia         80.60 313  P      P        06 08 59.8 -0.1
TRAV                  80.62 315  P      P        06 08 59.0 -1.0
BBS   Basel-Blauen    80.69 317 eP      P        06 09 01.5 +1.2
MONE  Monesi          80.69 313  P      P        06 09 00.9 +0.5
WLS   Welschbruch     80.75 318 eP      P        06 09 00.3 -0.3
CDF   Champ du Feu    80.80 318 eP      P        06 08 59.6 -1.3
      comp=Z,126nm,1.2s,mb5.4
CDF   Champ du Feu    80.80 318 eP      P        06 08 59.6 -1.3
CDF                              pmax   pmax
      comp=Z,63nm,1.2s,mb5.4
BLS5  Blasjo          80.86 329 eP      P        06 09 02.7 +1.7
BLS5                             AMb    AMB      06 09 06.9
      comp=Z,52nm,0.9s,mb5.5
BLS5  Blasjo          80.86 329 eP      P        06 09 02.7 +1.7
      comp=Z,52nm,0.9s,mb5.5
RUP   Ruppelstein     80.88 319⇓eP      P        06 09 03.0 +1.8
RUP   Ruppelstein     80.88 319 eP      P        06 09 02.2 +1.0
ECH   Echery          80.89 317 eP      P        06 09 02.9 +1.6
MOF   Molkenrain      80.92 317 eP      P        06 09 03.4 +1.9
ENR   Entracque       80.92 313  P      P        06 09 01.1 -0.5
SBF   Sospel          80.94 313 eP      P        06 09 00.5 -1.2
      comp=Z,195nm,0.8s,mb5.8
SBF   Sospel          80.94 313 eP      P        06 09 00.5 -1.2
SBF                              pmax   pmax
      comp=Z,97nm,0.8s,mb5.8
WTSB  Winterswijk     80.94 321 eP      P        06 09 01.2 -0.3
      comp=Z,84nm,1.2s,mb5.5
WIT   Witteveen       80.98 322 eP      P        06 09 07.7 +6.0
RSP   Reno Superiore  80.99 314  P      P        06 09 01.5 -0.4
STV   Sta Anna Valdi  80.99 313  P      P        06 09 01.5 -0.5
BHB   Bricherasio     81.00 314  P      P        06 09 00.4 -1.6
LSD   Ceresole Reale  81.04 315  P      P        06 09 02.8 +0.6
FENE  Fenestrelle     81.13 314  P      P        06 09 02.0 -0.7
PZZ   Prazzo          81.14 314  P      P        06 09 01.9 -0.8
LOMF  Lomont          81.16 317 eP      P        06 09 02.6 -0.2
OG01  Vacheresse      81.32 316 eP      P        06 09 03.1 -0.5
LPG   La Plagne       81.32 315 eP      P        06 09 03.2 -0.5
      comp=Z,206nm,0.8s,mb5.8
LPG   La Plagne       81.32 315 eP      P        06 09 03.2 -0.5
LPG                              pmax   pmax
      comp=Z,103nm,0.8s,mb5.8
RRL   Cesana Torines  81.33 314  P      P        06 09 03.7  0.0
SURF  Saint Ours      81.34 314 eP      P        06 09 04.1 +0.3
MBDF  Montbardon      81.36 314 eP      P        06 09 02.4 -1.5
      comp=Z,221nm,1.2s,mb5.7
MBDF  Montbardon      81.36 314 eP      P        06 09 02.4 -1.5
MBDF                             pmax   pmax
      comp=Z,111nm,1.2s,mb5.7
BNI   Bardonecchia    81.40 314  P      P        06 09 05.0 +0.9
BNI                              pmax   pmax
      comp=Z,99nm,1.0s,mb5.7
BNI   Bardonecchia    81.40 314 eP      P        06 09 04.5 +0.5
      comp=Z,99nm,1.0s,mb5.7
HAU   Haudompre       81.44 317 eP      P        06 09 02.9 -1.3
      comp=Z,179nm,1.0s,mb5.6
HAU                             eR
      comp=Z,9µm,22.5s
HAU   Haudompre       81.44 317 eP      P        06 09 02.9 -1.3
HAU                              pmax   pmax
      comp=Z,90nm,1.0s,mb5.7
HAU                              MLR    MLR
      comp=Z,9µm,22.5s,MS6.1
WLF   Walferdange     81.47 319 eP      P        06 09 06.1 +1.8
WLF                              pmax   pmax
      comp=Z,55nm,1.1s,mb5.4
WLF   Walferdange     81.47 319 eP      P        06 09 06.1 +1.8
      comp=Z,55nm,1.1s,mb5.4
HGN   Heimansgroeve   81.55 320 eP      P        06 09 04.7  0.0
      comp=Z,62nm,2.1s,mb5.2
HGN   Heimansgroeve   81.55 320 eS      S        06 19 14.6 +1.5
THEF  They Montfort   81.67 318 eP      P        06 09 05.2 -0.2
GDM   Grand'Maison    81.79 314 eP      P        06 09 06.4 +0.3
OG25  Le Caire        81.88 314 eP      P        06 09 06.1 -0.5
OG05  Jujurieux       82.19 315 eP      P        06 09 08.1  0.0
DRV   Dumont d'Urvil  82.49 163  P      P        06 09 03.0 -6.3
DRV   Dumont d'Urvil  82.49 163  S      S        06 19 18.0 -4.5
DRV                              SS     SS       06 24 41.0 -6.3
DRV                              L               06 31 00.0
DRV                              R               06 36 00.0
BAIF  Baives          82.70 319 eP      P        06 09 09.9 -0.8
      comp=Z,129nm,1.1s,mb5.6
BAIF  Baives          82.70 319 eP      P        06 09 09.9 -0.8
BAIF                             pmax   pmax
      comp=Z,65nm,1.1s,mb5.6
KIWB  Kanaga Island   82.99  39  P      P        06 09 11.8 -0.4
SSF   Saint Saulge    83.44 317 eP      P        06 09 13.6 -1.0
SSF                              pmax   pmax
      comp=Z,57nm,1.4s,mb5.4
SSF   Saint Saulge    83.44 317 eP      P        06 09 13.6 -1.0
      comp=Z,57nm,1.4s,mb5.4
PLDF  La Plantade     83.47 315 eP      P        06 09 16.2 +1.5
AGO   Saint Agoulin   83.80 316 eP      P        06 09 18.4 +1.9
LBL   Lubilhac        83.81 315 eP      P        06 09 18.1 +1.6
PYM   Petit Puy Mans  83.92 315 eP      P        06 09 18.4 +1.3
BGF   Bois d'Agland   83.94 316 eP      P        06 09 16.4 -0.8
      comp=Z,126nm,1.1s,mb5.7
BGF   Bois d'Agland   83.94 316 eP      P        06 09 16.4 -0.8
BGF                              pmax   pmax
      comp=Z,63nm,1.1s,mb5.7
RJF   Les Rejaudoux   85.01 315 eP      P        06 09 22.1 -0.4
      comp=Z,101nm,1.1s,mb5.6
RJF                             eR
      comp=Z,9µm,22.0s
RJF   Les Rejaudoux   85.01 315 eP      P        06 09 22.1 -0.4
RJF                              pmax   pmax
      comp=Z,50nm,1.1s,mb5.6
RJF                              MLR    MLR
      comp=Z,9µm,22.0s,MS6.1
MIDW  Midway          85.45  62  PFAKE           06 09 40.0 +15
MIDW                             LR     LR
      comp=Z,5µm,21.0s,MS5.9
JMIC  Jan Mayen       85.57 341  AMS    AMS      06 53 57.7
      comp=Z,6µm,19.4s,MS6.0
JMIC  Jan Mayen       85.57 341  LR     LR       06 53 22.3
      comp=Z,7µm,19.4s,MS6.1,baz=82,slow=40
LCP   Cassop          85.60 325 eP      P        06 09 25.2 -0.1
KBI1  Birley Grange   85.86 323 eP      P        06 09 25.5 -1.0
FLN   La Foliniere    85.89 319 eP      P        06 09 27.7 +0.9
      comp=Z,130nm,1.0s,mb5.8
FLN                             eR
      comp=Z,8µm,19.5s
FLN   La Foliniere    85.89 319 eP      P        06 09 27.7 +0.9
FLN                              pmax   pmax
      comp=Z,65nm,1.0s,mb5.8
FLN                              MLR    MLR
      comp=Z,8µm,19.5s,MS6.1
SYO   Syowa Base      85.96 197 ⇑P      P        06 09 28.7 +2.0
SYO   Syowa Base      85.96 197 ⇑PcP    PcP      06 09 30.1 +0.2
SYO   Syowa Base      85.96 197 ⇓pP     pP       06 09 32.2 -4.2
LHO   Holmfirth       86.01 323 eP      P        06 09 27.7 +0.4
ESY   Stoneypath      86.05 326 eP      P        06 09 27.9 +0.4
ESY                              AMb    AMB      06 09 37.6
      comp=Z,71nm,1.6s,mb5.7
KWE   Weaver Farm     86.08 323 eP      P        06 09 26.8 -0.9
EBR   Ebro Roquetas   86.36 311 ePCP    PcP      06 09 31.5 -0.8
EDI   Edinburgh       86.37 326 eP      P        06 09 29.7 +0.6
EDI                              AMb    AMB      06 09 39.7
      comp=Z,104nm,1.8s,mb5.8
DAG   Danmarks Havn   86.42 348 eP      P        06 09 27.0 -1.9
DAG                              pmax   pmax
      comp=Z,84nm,0.9s,mb6.0
DAG                              MLR    MLR
      comp=Z,11µm,23.0s,MS6.2
DAG   Danmarks Havn   86.42 348 eP      P        06 09 27.0 -1.9
      comp=Z,84nm,0.9s,mb6.0
DAG                              LR     LR
      comp=Z,11µm,23.0s,MS6.2
DAG   Danmarks Havn   86.42 348 i P     P        06 09 27.0 -1.9
      comp=Z,84nm,0.9s,mb6.0
      comp=Z,11µm,23.0s
EKA   Eskdalemuir Ar  86.46 325  PKKPbc          06 27 28.2
      comp=Z,1.5nm,0.5s,baz=264,slow=2.8,SNR=9.5
ESK   Eskdalemuir     86.48 325 eP      P        06 09 30.2 +0.6
ESK   Eskdalemuir     86.48 325  P      P        06 09 30.6 +1.0
ESK                              pmax   pmax
      comp=Z,36nm,0.8s,mb5.7
ESK   Eskdalemuir     86.48 325 eP      P        06 09 29.3 -0.3
      comp=Z,36nm,0.8s,mb5.7
ESK                              LR     LR
      comp=Z,2µm,21.0s,MS5.5
EAU   Auchinoon       86.53 326 eP      P        06 09 31.1 +1.3
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EAU                                AMb       AMB      06 09 36.4
      comp=Z,163nm,1.1s,mb6.2
ETSF  Etsaut          86.83 313 eP         P        06 09 33.7 +2.1
      comp=Z,47nm,0.8s,mb5.5
ETSF  Etsaut          86.83 313 eP         P        06 09 33.7 +2.1
ETSF                               pmax      pmax
      comp=Z,24nm,0.8s,mb5.5
EAB   Aberfoyle       86.95 326 eP         P        06 09 33.3 +1.4
EAB                                AMb       AMB      06 09 41.8
      comp=Z,99nm,1.4s,mb5.8
RPZ   Rata Peaks      87.34 135  P         P        06 09 34.3 +0.2
      comp=Z,69nm,0.7s,mb6.0,baz=66,slow=3.7,SNR=15
RPZ                                LR        LR       06 45 55.3
      comp=Z,10µm,21.4s,MS6.2,baz=194,slow=34
DLF   Lyons Farm      88.80 324 eP         P        06 09 39.0 -1.8
UNV   Unalaska Valle  89.04  36 eP         P        06 09 40.7 -1.2
      comp=Z,206nm,0.6s,mb6.6
DCN   Croghan         89.22 324 eP         P        06 09 44.0 +1.2
ESDC  Sonseca Array   89.92 310  P         P        06 09 47.0 +0.6
      comp=Z,25nm,1.0s,mb5.5,baz=59,slow=4.5,SNR=39
ESLA  Sonseca Array   89.92 310 eP         P        06 09 45.6 -0.8
      comp=Z,8.4nm,1.0s,mb5.0
ESLA                               LR        LR
      comp=Z,30µm,19.0s,MS6.8
SCO   Scoresbysund    89.92 342 iP         P        06 09 47.7 +2.0
      comp=Z,29nm,1.1s,mb5.5
URZ   Urewera         90.63 128  P         P        06 09 49.1 -0.7
      comp=Z,45nm,0.7s,mb5.9,baz=125,slow=2.1,SNR=20
IMA   Indian Mountai  91.17  22 eP         P        06 09 51.7 +0.2
IMA                                pmax      pmax
      comp=Z,388nm,0.6s
IMA   Indian Mountai  91.17  22 eP         P        06 09 51.7 +0.2
      comp=Z,388nm,0.6s
MTE   Manteigas       92.45 311 eP         P        06 10 00.1 +2.0
      comp=Z,98nm,1.3s,mb6.0
MTE                               ePP        PP       06 13 40.3 -1.6
MTE                               eS         S        06 21 01.8 +4.8
MTE   Manteigas       92.45 311 eP         P        06 09 59.5 +1.5
      comp=Z,35nm,1.0s,mb5.7
PCBR  Castelo Branco  92.53 311 eP         P        06 10 00.3 +1.9
      comp=Z,63nm,1.3s,mb5.9
SUMG  Summit          93.08 347 eP         P        06 10 00.8 +0.6
      comp=Z,206nm,1.1s,mb6.5
RAO   Raoul Island    93.27 119  PFAKE              06 10 10.0 +7.9
RAO                                LR        LR
      comp=Z,12µm,22.0s,MS6.3
COLA  College         93.88  22 eP         P        06 10 04.4 +0.4
COLA  College         93.88  22 eP         P        06 10 04.5 +0.5
COLA                               LR        LR
      comp=Z,8µm,21.0s,MS6.1
RSO   Redoubt South   93.92  27 eP         P        06 10 05.2 +0.9
VNDA  Vanda           93.98 168  P         P        06 10 04.3  0.0
VNDA                               pmax      pmax
      comp=Z,21nm,0.9s
VNDA  Vanda           93.98 168  P         P        06 10 04.7 +0.4
      comp=Z,15nm,0.6s,mb5.6,baz=299,slow=6.1,SNR=35
VNDA                               PKKPbc             06 27 09.2
      comp=Z,4.6nm,0.9s,baz=108,slow=0.7,SNR=12
VNDA                               LR        LR       06 52 26.5
      comp=Z,10µm,18.1s,MS6.3,baz=302,slow=36
VNDA  Vanda           93.98 168 eP         P        06 10 04.5 +0.2
      comp=Z,21nm,0.8s,mb5.6
MCK   McKinley        94.03  23 eP         P        06 10 05.7 +0.9
MCK                                pmax      pmax
      comp=Z,40nm,0.9s,mb5.8
MCK                                MLR       MLR
      comp=Z,4µm,20.0s,MS5.9
MCK   McKinley        94.03  23 eP         P        06 10 05.7 +0.9
      comp=Z,40nm,0.9s,mb5.8
MCK                                LR        LR
      comp=Z,4µm,20.0s,MS5.9
ILAR  Eielson Array   94.29  22  P         P        06 10 05.3 -0.6
      comp=Z,37nm,0.6s,mb6.0,baz=291,slow=3.6,SNR=158
ILAR                               PP        PP       06 13 56.6 +0.9
      comp=Z,10nm,1.0s,baz=295,slow=7.5,SNR=6.1
ILAR                               PKKPbc             06 27 08.2
      comp=Z,1.6nm,0.6s,baz=139,slow=1.5,SNR=9.3
ILAR                               LR        LR       07 00 21.2
      comp=Z,8µm,18.9s,MS6.2,baz=137,slow=40
FIB   Fire Island     94.74  26 eP         P        06 10 09.5 +1.4
FIB                                MLR       MLR
      comp=Z,5µm,20.0s,MS6.0
SLKM  Skilak Lake     95.03  26 eP         P        06 10 09.6 +0.2
SBA   Scott Base      95.08 168 eP         P        06 10 11.2 +1.8
SBA                                pmax      pmax
      comp=Z,28nm,0.8s,mb5.7
SBA                                MLR       MLR
      comp=Z,5µm,20.0s,MS6.0
SBA   Scott Base      95.08 168 eP         P        06 10 11.2 +1.8
      comp=Z,28nm,0.8s,mb5.8
SBA                                LR        LR
      comp=Z,5µm,20.0s,MS6.0
KDAK  Kodiak Island   95.15  29 eP         P        06 10 10.4 +0.4
      comp=Z,150nm,1.0s,mb6.4
KDAK                               LR        LR
      comp=Z,3µm,21.0s,MS5.7
SML   Sawmill         95.21  25 eP         P        06 10 11.2 +1.0
NVL   N’lazarevskaya  95.36 199⇓eP         P        06 10 19.0 +8.3
NVL                               e                   06 10 37.0
NVL                               e                   06 21 21.0
NVL                               e                   06 22 56.0
NVL                                pmax      pmax
      comp=Z,783nm,5.1s
NVL                                MLR       MLR
      comp=Z,10µm,16.0s,MS6.4
THY   Trims Highway   95.42  23 eP         P        06 10 12.4 +1.2
INK   Inuvik          96.41  16 eP         P        06 10 15.0 -0.6
INK                                pmax      pmax
      comp=Z,67nm,0.8s
INK   Inuvik          96.41  16  P         P        06 10 15.6  0.0
      comp=Z,49nm,0.6s,mb6.1,baz=338,slow=4.4,SNR=70
INK                                PKKPbc             06 27 04.1
      comp=Z,1.8nm,0.3s,baz=149,slow=3.7,SNR=14
INK                                LR        LR       07 00 03.7
      comp=Z,7µm,19.7s,MS6.2,baz=302,slow=39
INK   Inuvik          96.41  16 eP         P        06 10 15.0 -0.6
      comp=Z,68nm,0.8s,mb6.1
RES   Resolute Bay    96.56   2 eP         P        06 10 16.8 +0.6
RES                                pmax      pmax
      comp=Z,42nm,1.1s,mb5.8
RES   Resolute Bay    96.56   2 eP         P        06 10 16.8 +0.6
      comp=Z,42nm,1.1s,mb5.8
DIV   Divide          96.62  25 eP         P        06 10 18.0 +1.3
      comp=Z,122nm,0.7s,mb6.4
DBIC  Dimbokro        96.88 278 eP         P        06 10 19.9 +1.0
DBIC                               pmax      pmax
      comp=Z,25nm,1.1s
DBIC                               MLR       MLR
      comp=Z,11µm,20.0s
DBIC  Dimbokro        96.88 278  P         P        06 10 19.7 +0.8
      comp=Z,15nm,0.8s,mb5.4,baz=65,slow=5.4,SNR=16
DBIC                               PKKPbc             06 27 01.8
      comp=Z,4.5nm,0.5s,baz=251,slow=1.3,SNR=13
DBIC                               LR        LR       06 52 33.0
      comp=Z,10µm,19.9s,MS6.3,baz=53,slow=34
DBIC  Dimbokro        96.88 278 eP         P        06 10 19.9 +0.9
      comp=Z,25nm,1.1s,mb5.6
DBIC                               LR        LR
      comp=Z,11µm,20.0s,MS6.3
AFI   Afiamalu        96.93 103  PFAKE              06 10 30.0  +11
AFI                                LR        LR
      comp=Z,4µm,20.0s,MS5.9
DAWY  Dawson          97.38  21 eP         P        06 10 20.1 +0.1
QSPA  South Pole Qui  98.65 180 eP         P        06 10 31.0 +5.6
      comp=Z,13nm,0.9s,mb5.5
SNAA  Sanae          100.15 199 eP         P        06 10 30.5 -1.9
VNA2  Neumayer--Watz 101.68 199⇓iP         P        06 10 40.6 +1.3
VNA2  Neumayer--Watz 101.68 199 e          PP       06 14 59.3 +7.0
VNA1  Neumayer--Stat 102.00 200⇓iP         P        06 10 40.5 -0.3
VNA1  Neumayer--Stat 102.00 200 e          PP       06 14 59.0 +4.4
VNA3  Neumayer Olymp 102.37 199⇓iP         Pdif     06 10 43.2 +0.9
VNA3  Neumayer Olymp 102.37 199 e          PP       06 15 01.6 +4.1
SIT   Sitka          103.37  25  PFAKE              06 11 00.0  +13
SIT                                LR        LR
      comp=Z,12µm,21.0s,MS6.4
KIP   Kipapa         104.01  65  PFAKE              06 11 00.0 +9.3
KIP                                LR        LR
      comp=Z,8µm,20.0s,MS6.2
DLBC  Dease Lake     104.50  22  PP        PP       06 15 13.6 -0.3
      comp=Z,12nm,0.9s,baz=316,slow=7.0,SNR=4.1
YKW3  Yellowknife Ar 105.73  13 ePdif      Pdif     06 10 57.7 +0.5
YKW3                              ePKiKP              06 15 12.6
YKA   Yellowknife Ar 105.79  13  Pdiff     Pdif     06 10 58.1 +0.6
      comp=Z,2.4nm,0.7s,baz=328,slow=4.3,SNR=26
YKA                                PKiKP              06 15 10.4
      comp=Z,2.8nm,0.8s,baz=342,slow=2.6,SNR=7.2
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YKA                                PP        PP       06 15 17.7 -5.5
      comp=Z,11nm,0.8s,baz=335,slow=7.6,SNR=12
YKA                                PKKPbc             06 26 34.5
      comp=Z,1.5nm,0.7s,baz=150,slow=3.3,SNR=10
YKA                                SKKPbc             06 30 14.5
      comp=Z,1.3nm,1.1s,baz=168,slow=2.7,SNR=4.6
TRIS  Tristan da Cun 107.57 234  PFAKE              06 15 30.0
TRIS                               LR        LR
      comp=Z,10µm,19.0s,MS6.4
RAR   Rarotonga      108.96 109  PFAKE              06 15 30.0
RAR                                LR        LR
      comp=Z,5µm,21.0s,MS6.0
SCHQ  Schefferville  114.46 347  PKP       PKPdf    06 15 27.9 -2.7
      comp=Z,11nm,0.8s,baz=209,slow=0.5,SNR=14
SCHQ                               PP        PP       06 16 26.6 -0.5
      comp=Z,49nm,1.4s,baz=14,slow=10,SNR=3.7
SCHQ                               PKKPbc             06 26 07.1
      comp=Z,3.7nm,0.6s,baz=221,slow=4.0,SNR=9.5
SCHQ  Schefferville  114.46 347  PFAKE              06 15 40.0 +9.4
SCHQ                               LR        LR
      comp=Z,16µm,21.0s,MS6.6
OCWA  Octopus Mounta 114.75  27  PFAKE              06 15 40.0 +8.7
OCWA                               LR        LR
      comp=Z,7µm,20.0s,MS6.3
FFC   Flin Flon      115.49  10 ePKIKP     PKPdf    06 15 28.6 -4.0
FFC                                MLR       MLR
      comp=Z,2µm,20.0s,MS5.7
NEW   Newport        117.25  22  PFAKE              06 15 40.0 +3.8
NEW                                LR        LR
      comp=Z,9µm,20.0s,MS6.4
COR   Corvallis      117.53  29  PFAKE              06 15 50.0  +13
COR                                LR        LR
      comp=Z,5µm,21.0s,MS6.1
PPT   Papeete        118.50 105 ePP        PP       06 16 47.1 -9.2
PPT                               eSP        SP       06 26 39.3 +4.7
PPT                               eLR        LR       06 52 04.1
      comp=Z,12µm,26.0s
TBI   Tubuai         118.50 112 ePP        PP       06 16 50.4 -5.8
TBI                               eSP        SP       06 26 39.3 +4.7
TBI                               eSS        SS       06 33 23.8  +16
TBI                               eLR        LR       06 52 06.7
      comp=Z,9µm,25.0s
HUMO  Hull Mountain  119.17  30 ePKPdf     PKPdf    06 15 37.7 -2.4
HUMO                               LR        LR
      comp=Z,3µm,20.0s,MS6.0
MSO   Missoula       119.62  21 ePKPdf     PKPdf    06 15 36.8 -4.0
MSO                                LR        LR
      comp=Z,8µm,19.0s,MS6.4
CHMT  Chamberlain Mo 119.79  21 ePKPdf     PKPdf    06 15 37.0 -4.1
YBH   Yreka Blue Hor 119.95  30  PKP       PKPdf    06 15 38.4 -3.1
      comp=Z,1.4nm,0.7s,baz=76,slow=4.7,SNR=3.6
BMO   Blue Mountains 119.98  25  PKIKP     PKPdf    06 15 39.0 -2.5
BMO   Blue Mountains 119.98  25 ePKPdf     PKPdf    06 15 38.5 -3.1
BMO                                LR        LR
      comp=Z,5µm,21.0s,MS6.1
HRY   Holter Researc 120.45  20 ePKPdf     PKPdf    06 15 39.4 -3.1
ULM   Lac du Bonnet  120.72   7  PKP       PKPdf    06 15 40.5 -2.4
      comp=Z,29nm,1.0s,baz=348,slow=3.1,SNR=30
ULM                                PP        PP       06 17 06.6 -3.4
      comp=Z,6.9nm,0.7s,baz=355,slow=6.1,SNR=3.4
ULM                                PKKPbc             06 25 45.0
      comp=Z,4.4nm,0.6s,baz=137,slow=2.5,SNR=4.4
ULM   Lac du Bonnet  120.72   7 ePKPdf     PKPdf    06 15 40.5 -2.4
ULM                                LR        LR
      comp=Z,7µm,20.0s,MS6.3
WDC   Whiskeytown Da 120.89  31 ePKIKP     PKPdf    06 15 40.1 -3.4
MOD   Modoc          120.99  29 ePKPdf     PKPdf    06 15 41.1 -2.6
MOD                                LR        LR
      comp=Z,7µm,22.0s,MS6.3
DGMT  Dagmar         121.00  13 ePKPdf     PKPdf    06 15 40.2 -3.3
DGMT                               LR        LR
      comp=Z,10µm,21.0s,MS6.4
BOZ   Bozeman (W)    121.44  20 ePKIKP     PKPdf    06 15 41.0 -3.4
BOZ                                MLR       MLR
      comp=Z,8µm,20.0s,MS6.3
HOPS  Hopland        121.77  33  PFAKE              06 15 50.0 +4.8
HOPS                               LR        LR
      comp=Z,4µm,19.0s,MS6.1
PMSA  Palmer Station 121.82 191  PFAKE              06 15 50.0 +5.3
PMSA                               LR        LR
      comp=Z,11µm,20.0s,MS6.5
LAO   LASA Array     122.15  16 ePKPdf     PKPdf    06 15 43.3 -2.4
LAO                                LR        LR
      comp=Z,6µm,20.0s,MS6.2
HLID  Hailey         122.21  23 ePKPdf     PKPdf    06 15 42.7 -3.2
HLID                               LR        LR
      comp=Z,7µm,21.0s,MS6.3
PQI   Presque Isle   122.32 345  PFAKE              06 15 50.0 +4.0
PQI                                LR        LR
      comp=Z,24µm,21.0s,MS6.8
OHCM  Honcut         122.35  31 ePKPdf     PKPdf    06 15 43.1 -3.2
YMR   Madison River  122.53  20 ePKPdf     PKPdf    06 15 44.7 -1.7
YMR                               e                   06 17 21.8
YFT   Old Faithful   122.76  20 ePKPdf     PKPdf    06 15 46.3 -0.7
LKWY  Lake           122.81  20 ePKIKP     PKPdf    06 15 46.0 -1.0
LKWY                               MLR       MLR
      comp=Z,10µm,20.0s,MS6.5
IMW   Indian Meadow  123.22  21 ePKPdf     PKPdf    06 15 45.5 -2.4
WCN   Washoe City    123.25  30 ePKIKP     PKPdf    06 15 46.1 -2.0
EYMN  Ely            123.40   4 ePKPdf     PKPdf    06 15 44.1 -4.0
EYMN                               LR        LR
      comp=Z,8µm,20.0s,MS6.4
MOOW  Moose Ponds    123.41  21 ePKPdf     PKPdf    06 15 45.5 -2.7
TPAW  Teton Pass     123.57  21 ePKPdf     PKPdf    06 15 46.3 -2.3
LOHW  Long Hollow    123.58  21 ePKPdf     PKPdf    06 15 46.1 -2.5
BMN   Battle Mountai 123.58  28 ePKIKP     PKPdf    06 15 45.1 -3.6
BMN                                MLR       MLR
      comp=Z,5µm,21.0s,MS6.1
WUWY  Wally Ulrich   123.60  21 ePKPdf     PKPdf    06 15 45.8 -2.8
SNOW  Snow King Moun 123.66  21 ePKPdf     PKPdf    06 15 46.2 -2.6
REDW  Red Top Meadow 123.71  21 ePKPdf     PKPdf    06 15 45.0 -3.9
CMB   Columbia Colle 123.89  32 ePKIKP     PKPdf    06 15 45.1 -4.3
CMB                                MLR       MLR
      comp=Z,3µm,20.0s,MS6.0
AHID  Auburn Hatcher 124.14  21  PFAKE              06 16 00.0  +10
AHID                               LR        LR
      comp=Z,9µm,20.0s,MS6.4
ELK   Elko           124.21  26  PKIKP     PKPdf    06 15 47.7 -2.2
ELK   Elko           124.21  26 ePKPdf     PKPdf    06 15 47.8 -2.1
ELK                                LR        LR
      comp=Z,4µm,21.0s,MS6.0
SAO   San Andreas Ge 124.27  34  PFAKE              06 16 00.0  +10
SAO                                LR        LR
      comp=Z,4µm,21.0s,MS6.0
HVU   Hansel Valley  124.36  23 ePKIKP     PKPdf    06 15 47.1 -3.1
NVAR  Mina Array Bea 124.65  30  PKP       PKPdf    06 15 48.9 -1.9
      comp=Z,11nm,0.8s,baz=41,slow=1.8,SNR=26
NVAR                               SKP                06 19 24.5
      comp=Z,18nm,1.2s,baz=323,slow=1.7,SNR=3.7
NVAR                               SKKPbc             06 29 19.1
      comp=Z,3.1nm,0.8s,baz=141,slow=4.6,SNR=5.6
BW06  Boulder Array  124.69  20  PFAKE              06 16 00.0 +9.2
BW06                               LR        LR
      comp=Z,8µm,21.0s,MS6.4
PDAR  Pinedale Array 124.69  20  PKP       PKPdf    06 15 47.5 -3.3
      comp=Z,11nm,0.8s,SNR=50
WVL   Waterville     124.71 345  PFAKE              06 16 00.0 +9.2
WVL                                LR        LR
      comp=Z,22µm,22.0s,MS6.8
MNV   Mina           124.72  30 ePKIKP     PKPdf    06 15 48.9 -2.1
MNV                                MLR       MLR
      comp=Z,5µm,19.0s,MS6.2
HWUT  Hardware Ranch 124.98  23 ePKPdf     PKPdf    06 15 48.6 -2.8
HWUT                               LR        LR
      comp=Z,9µm,20.0s,MS6.5
BGU   Big Grassy Mou 124.99  24 ePKPdf     PKPdf    06 15 48.8 -2.6
FRNY  Flat Rock      125.34 348 ePKPdf     PKPdf    06 15 48.2 -3.8
MTUM  Tungsten Hills 125.35  31 ePKPdf     PKPdf    06 15 49.7 -2.5
TPH   Tonopah        125.45  29  PFAKE              06 16 00.0 +7.6
TPH                                LR        LR
      comp=Z,5µm,20.0s,MS6.2
NOQ   North Oquirrh  125.58  24 ePKPdf     PKPdf    06 15 49.9 -2.7
PTN   Potsdam (NY)   125.86 350 ePKIKP     PKPdf    06 15 49.5 -3.5
TRCR  Troy Canyon    126.01  28 ePKPdf     PKPdf    06 15 51.5 -1.9
MDV   Middlebury     126.06 348 ePKPdf     PKPdf    06 15 49.9 -3.5
MIV   Mineville/With 126.06 348 ePKPdf     PKPdf    06 15 50.3 -3.1
HNH   Hanover        126.14 347 ePKPdf     PKPdf    06 15 50.4 -3.1
NLU   North Lily Min 126.19  24 ePKPdf     PKPdf    06 15 51.4 -2.4
NCB   Newcomb        126.29 349 ePKPdf     PKPdf    06 15 50.4 -3.4
NCB                                LR        LR
      comp=Z,5µm,20.0s,MS6.2
MPU   Maple Canyon   126.32  24 ePKPdf     PKPdf    06 15 50.5 -3.5
DAC   Darwin (Calif) 126.67  31  PFAKE              06 16 00.0 +5.3
DAC                                LR        LR
      comp=Z,4µm,21.0s,MS6.0
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ACCN  Adirondack Com 126.75 348 ePKPdf     PKPdf    06 15 50.6 -4.1
TMUT  Trail Mountain 127.10  24 ePKPdf     PKPdf    06 15 53.4 -2.1
HRV   Harvard--Oak R 127.11 346  PFAKE              06 16 00.0 +4.6
HRV                                LR        LR
      comp=Z,5µm,19.0s,MS6.2
WES   Weston         127.17 346  PFAKE              06 16 00.0 +4.5
WES                                LR        LR
      comp=Z,6µm,20.0s,MS6.3
PHWY  Pilot Hill     127.33  18 ePKPdf     PKPdf    06 15 52.2 -3.7
MVU   Marysvale      127.37  25 ePKPdf     PKPdf    06 15 54.1 -2.0
MVU                                LR        LR
      comp=Z,5µm,19.0s,MS6.2
MSU   Marysvale      127.38  25 ePKIKP     PKPdf    06 15 54.3 -1.8
SRU   San Rafael     127.53  23 ePKIKP     PKPdf    06 15 52.8 -3.6
GENY  Geneseo        128.07 352 ePKPdf     PKPdf    06 15 53.4 -4.0
BINY  Binghamton     128.33 350  PFAKE              06 16 10.0  +12
BINY                               LR        LR
      comp=Z,289nm,20.0s
JFWS  Jewell Farm    128.49   3 ePKIKP     PKPdf    06 15 54.0 -4.1
JFWS                               MLR       MLR
      comp=Z,11µm,20.0s,MS6.5
NEN   Nelson         128.54  29 ePKPdf     PKPdf    06 15 56.1 -2.3
ISCO  Idaho Springs  128.65  19  PFAKE              06 16 10.0  +11
ISCO                               LR        LR
      comp=Z,6µm,19.0s,MS6.3
PV10  Paradox Valley 128.74  22 ePKPdf     PKPdf    06 15 56.6 -2.1
ERPA  Erie           128.99 353 ePKPdf     PKPdf    06 15 55.9 -3.1
ERPA                               LR        LR
      comp=Z,6µm,22.0s,MS6.2
PAL   Palisades      129.08 347 ePKIKP     PKPdf    06 15 56.0 -3.3
AAM   Ann Arbor      129.11 357  PKIKP     PKPdf    06 15 54.8 -4.5
AAM                                MLR       MLR
      comp=Z,9µm,19.0s,MS6.5
PV01  Paradox Valley 129.13  22  PKPdf     PKPdf    06 15 57.2 -2.3
PFO   Pinyon Flat Ob 129.33  32 ePKIKP     PKPdf    06 15 59.0 -1.0
PFO                                MLR       MLR
      comp=Z,1µm,22.0s,MS5.6
RW3   Ridgway        129.35  21 ePKIKP     PKPdf    06 15 58.0 -1.9
RCBR  Riachuelo      129.43 270  PFAKE              06 16 10.0 +9.3
RCBR                               LR        LR
      comp=Z,8µm,19.0s,MS6.4
SSPA  Standing Stone 130.17 351 ePKPdf     PKPdf    06 15 58.0 -3.4
SDCO  Great Sand Dun 130.56  20  PFAKE              06 16 10.0 +7.8
SDCO                               LR        LR
      comp=Z,13µm,22.0s,MS6.6
ACSO  Alum Creek Sta 131.13 356 ePKPdf     PKPdf    06 15 59.2 -4.0
ACSO                               LR        LR
      comp=Z,5µm,20.0s,MS6.2
SDMD  Soldier’s Deli 131.19 350 ePKPdf     PKPdf    06 16 00.1 -3.3
MCWV  Mont Chateau   131.40 353  PFAKE              06 16 10.0 +6.3
MCWV                               LR        LR
      comp=Z,12µm,21.0s,MS6.6
KSU1  Kansas State U 131.53  10 ePKPdf     PKPdf    06 15 59.9 -4.1
USHA  Ushuaia        131.76 194  SKPbc              06 19 26.1
      comp=Z,35nm,0.8s,baz=96,slow=3.4,SNR=16
RKT   Rikitea        131.78 113 ePP        PP       06 18 20.4 -4.0
RKT                               eSP        SP       06 28 30.0 -0.4
RKT                               eSS        SS       06 36 05.5  +10
RKT                               eLR        LR       06 58 12.0
      comp=Z,10µm,24.5s
BLO   Bloomington    132.32 360 ePKIKP     PKPdf    06 16 02.8 -2.7
CBN   Corbin         132.46 350 ePKPdf     PKPdf    06 16 04.8 -1.0
CBN                                LR        LR
      comp=Z,10µm,19.0s,MS6.5
ANMO  Albuquerque    132.73  22 ePKIKP     PKPdf    06 16 03.4 -3.0
ANMO                               MLR       MLR
      comp=Z,8µm,22.0s
ANMO  Albuquerque    132.73  22  SKPbc              06 19 28.0
      comp=Z,34nm,1.1s,baz=315,slow=1.7,SNR=8.5
SLM   Saint Louis    132.75   4 ePKIKP     PKPdf    06 16 02.9 -3.4
TUC   Tucson         133.20  28  PKIKP     PKPdf    06 16 04.8 -2.5
TUC   Tucson         133.20  28 ePKPdf     PKPdf    06 16 05.2 -2.2
LENM  Lemitar        133.23  23 ePKPdf     PKPdf    06 16 05.2 -2.2
LPM   Los Pinos Moun 133.23  23 ePKPdf     PKPdf    06 16 06.9 -0.4
CCM   Cathedral Cave 133.25   5 ePKIKP     PKPdf    06 16 03.2 -4.1
CCM                                MLR       MLR
      comp=Z,6µm,22.0s,MS6.3
WCI   Wyandotte Cave 133.26 359 ePKIKP     PKPdf    06 16 03.2 -4.1
BNM   Barren Site    133.38  23 ePKPdf     PKPdf    06 16 05.4 -2.2
FVM   French Village 133.38   4 ePKIKP     PKPdf    06 16 03.1 -4.4
FWV   Forest Hill    133.56 353 ePKPdf     PKPdf    06 16 03.4 -4.4
PWV   Princeton      133.83 354 ePKPdf     PKPdf    06 16 04.5 -3.8
BLA   Blacksburg     133.88 353 ePKIKP     PKPdf    06 16 06.0 -2.4
BLA                                MLR       MLR
      comp=Z,6µm,20.0s,MS6.3
ELN   Prospectdale   133.91 353 ePKPdf     PKPdf    06 16 02.9 -5.6
BBSR  BB Station     133.97 334  PFAKE              06 16 20.0  +11
BBSR                               LR        LR
      comp=Z,4µm,20.0s,MS6.1
AMTX  Amarillo       134.38  17  PFAKE              06 16 20.0  +11
AMTX                               LR        LR
      comp=Z,7µm,20.0s,MS6.3
UTMT  University of  135.10   2 ePKPdf     PKPdf    06 16 08.7 -2.0
GLAT  Glass          135.16   3 ePKPdf     PKPdf    06 16 09.1 -1.8
WMOK  Wichita Mounta 135.29  14 ePKHKP              06 15 53.3
WVT   Waverly        135.35   1 ePKHKP              06 15 56.2
CPRX  Cap Rock       135.39  21 ePKPdf     PKPdf    06 16 09.2 -2.2
PTCN  Pitcairn Islan 135.76 117  PFAKE              06 16 20.0 +7.8
PTCN                               LR        LR
      comp=Z,7µm,22.0s,MS6.4
GDL2  Guadalupe Moun 135.97  22 ePKPpre             06 15 57.6
GDL2                              ePKPdf     PKPdf    06 16 10.5 -1.9
CPCT  Cooper Cave    135.98 357 ePKPpre             06 16 03.0
MNTX  Cornudas Mount 136.03  23 ePKPpre             06 15 59.7
MNTX                              ePKPdf     PKPdf    06 16 10.0 -2.6
MNTX                               LR        LR
      comp=Z,5µm,20.0s,MS6.3
MYNC  Murphy         136.34 357  PFAKE              06 16 20.0 +7.0
MYNC                               LR        LR
      comp=Z,11µm,20.0s,MS6.6
UALR  University of  136.39   7 ePKPdf     PKPdf    06 16 10.2 -3.0
MIAR  Mount Ida      136.47   8  PKIKP     PKPdf    06 16 05.1 -8.1
MIAR  Mount Ida      136.47   8 ePKPpre             06 16 05.0
MIAR                               LR        LR
      comp=Z,10µm,20.0s,MS6.5
JSC   Jenkinsville   136.88 353 ePKPpre             06 16 05.0
OXF   Oxford         136.90   3  PFAKE              06 16 20.0 +6.0
OXF                                LR        LR
      comp=Z,10µm,22.0s,MS6.5
COW   Cow Castle Cre 137.69 352 ePKPdf     PKPdf    06 16 13.8 -1.8
NHSC  New Hope       137.89 352  PFAKE              06 16 20.0 +4.0
NHSC                               LR        LR
      comp=Z,10µm,21.0s,MS6.5
GOGA  Godfrey        137.95 356 ePKIKP     PKPdf    06 16 10.8 -5.3
GOGA                               MLR       MLR
      comp=Z,6µm,21.0s,MS6.3
RGRS  Roger Stewart  138.09 352 ePKPdf     PKPdf    06 16 13.2 -3.1
LRAL  Lakeview Retre 138.44   0 ePKPpre             06 16 09.3
LRAL                              ePKPdf     PKPdf    06 16 15.1 -1.9
LRAL                               LR        LR
      comp=Z,7µm,22.0s,MS6.3
LTX   Lajitas        138.80  23 ePKIKP     PKPdf    06 16 15.1 -2.6
LTX                                MLR       MLR
      comp=Z,8µm,21.0s,MS6.4
TXAR  Lajitas Array  138.80  23  PKhKP              06 16 06.5
      comp=Z,1.9nm,0.6s,baz=197,slow=1.2,SNR=26
TXAR                               PKP       PKPdf    06 16 15.3 -2.4
      comp=Z,3.6nm,0.5s,baz=238,slow=2.1,SNR=20
TXAR                               PP        PP       06 19 07.2 -1.2
      comp=Z,15nm,1.1s,slow=1.3,SNR=5.1
TXAR                               SKPbc              06 19 46.5
      comp=Z,24nm,1.1s,baz=315,slow=1.8,SNR=9.2
NATX  Nacogdoches    139.02  10 ePKPdf     PKPdf    06 16 12.4 -5.6
NATX                               LR        LR
      comp=Z,9µm,19.0s,MS6.5
JCT   Junction City  139.05  17 ePKHKP              06 16 06.0
JCT                                MLR       MLR
      comp=Z,6µm,20.0s,MS6.3
HKT   Hockley        140.56  12 ePKHKP              06 16 12.1
HKT                                MLR       MLR
      comp=Z,9µm,21.0s,MS6.5
LPA   La Plata       142.88 221cePKP       PKPdf    06 16 20.0 -4.8
LPA                               ePP        PP       06 19 34.0 +1.1
LPA                               ePKS       PKS      06 19 57.0 +2.7
LPA                               ePKS       PKS      06 20 01.0 +6.7
LPA                               eSKKS               06 26 20.0
      comp=Z,10µm,18.0s
DWPF  Disney         142.98 352  PFAKE              06 16 30.0 +4.8
DWPF                               LR        LR
      comp=Z,7µm,20.0s,MS6.4
TRQA  Tornquist      143.22 214 ePKPdf     PKPdf    06 16 21.5 -3.8
SJG   San Juan       146.39 323  PKPbc     PKPbc    06 16 29.2 +1.8
      comp=Z,44nm,0.5s,baz=35,slow=7.4,SNR=10
SJG   San Juan       146.39 323 ePKPdf     PKPdf    06 16 28.6 -2.7
```

SJG				LR	LR		
	comp=Z,7µm,22.0s,MS6.4						
CJM	**Chamela**	**146.68**	**32**	*e*P	PKPbc	06 16 25.5	-2.5
COLM	**Colima**	**147.64**	**31**	*i* P	PKPdf	06 16 34.3	+0.9
MOIG	**Morelia**	**148.40**	**26**	*i* P	PKPdf	06 16 32.8	-1.7
PTVM	**Pico Tres Padr**	**149.34**	**23**	*e*P	PKPdf	06 16 36.4	+0.4
IIO	**Organos**	**149.49**	**23**	*i* P	PKPdf	06 16 35.7	-0.6
CHVM	**Chichinautzin**	**149.78**	**24**	*e*P	PKPdf	06 16 36.0	-0.7
PPM	**Popocatepetl**	**150.01**	**23**	*e*P	PKPdf	06 16 31.9	-5.2
YAIG	**Yautepec**	**150.02**	**24**	*e*P	PKPdf	06 16 38.7	+1.6
PLIG	**Platanillo**	**150.27**	**25**	*i* P	PKPdf	06 16 36.3	-1.2
LMEL	**Las Melosas**	**150.71**	**209**	*e*P	PKPdf	06 16 39.4	+1.6
MDZ	**Mendoza**	**150.79**	**212**	*e*P	PKPdf	06 16 25.8	-12
MDZ				*e*	PKPab	06 16 54.9	+7.0
PCRV	**Puerto La Cruz**	**150.99**	**310**	PKPbc	PKPdf	06 16 40.4	+1.7
	comp=Z,47nm,0.9s,baz=356,slow=0.4,SNR=14						
PCRV				PKPab	PKPab	06 16 51.6	+2.4
	comp=Z,51nm,0.8s,baz=88,slow=2.5,SNR=7.1						
CAIG	**El Cayaco**	**151.12**	**27**	*e*P	PKPdf	06 16 35.8	-3.0
TEIG	**Tepich**	**151.17**	**3**	*e*PKPdf	PKPdf	06 16 36.4	-2.4
TEIG				*e*PKPbc	PKPdf	06 16 42.0	+3.2
TEIG				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
FCH	**Farellones**	**151.17**	**210**	*e*P	PKPdf	06 16 39.6	+1.1
CLCH	**Cerro Calan**	**151.24**	**209**	*e*P	PKPdf	06 16 39.2	+0.7
DSCH	**Colegio Aleman**	**151.25**	**209**	*e*P	PKPdf	06 16 41.6	+3.0
ACX	**Acapulco**	**151.44**	**27**	*i* P	PKPdf	06 16 32.2	-7.1
GWJ	**Greenwich**	**151.54**	**340**	⇓*e*P	PKPdf	06 16 38.2	-1.2
STH	**Stony Hill**	**151.56**	**340**	⇓*e*P	PKPdf	06 16 39.2	-0.2
HOJ	**Hope**	**151.61**	**339**	⇓*e*P	PKPdf	06 16 42.7	+3.1
CVJ	**Coleyville**	**151.66**	**341**	⇓*e*P	PKPdf	06 16 42.8	+3.2
RPN	**Rapa Nui**	**151.94**	**134**	*e*PKPdf	PKPdf	06 16 36.4	-3.4
RPN				*e*PKPbc	PKPdf	06 16 44.1	+4.2
RPN				LR	LR		
	comp=Z,1µm,22.0s,MS5.7						
MCJ	**Malvern**	**152.00**	**341**	*e*P	PKPdf	06 16 40.4	+0.3
CMIG	**Matias Romero**	**153.11**	**17**	*i* P	PKPdf	06 16 37.6	-4.1
CMIG				*e*P		06 16 39.1	
CMCH	**Combarbala**	**153.26**	**211**	*e*P	PKPdf	06 16 42.0	+0.4
SDV	**Santo Domingo**	**156.18**	**317**	PKP	PKPdf	06 16 43.7	-2.2
	comp=Z,22nm,1.1s,baz=76,slow=0.9,SNR=14						
SDV				PKPab	PKPab	06 17 11.5	+0.4
	comp=Z,38nm,1.0s,baz=49,slow=2.6,SNR=5.0						
SDV	**Santo Domingo**	**156.18**	**317**	*e*PKPdf	PKPdf	06 16 43.2	-2.7
SDV				*e*PKPab	PKPab	06 17 11.3	+0.1
SDV				LR	LR		
	comp=Z,8µm,21.0s,MS6.5						
LVC	**Limon Verde**	**157.96**	**229**	PKP	PKPdf	06 16 46.7	-1.4
	comp=Z,30nm,1.3s,baz=168,slow=1.4,SNR=11						
LVC				PKPab	PKPab	06 17 18.3	-0.3
	comp=Z,35nm,1.1s,baz=137,slow=3.5,SNR=7.0						
LVC	**Limon Verde**	**157.96**	**229**	*e*PKPdf	PKPdf	06 16 46.3	-1.8
LVC				LR	LR		
	comp=Z,5µm,20.0s,MS6.4						
LPAZ	**La Paz**	**160.28**	**246**	PKP	PKPdf	06 16 49.1	-1.7
	comp=Z,10nm,0.8s,baz=40,slow=2.3,SNR=19						
LPAZ				PKPab	PKPab	06 17 29.2	+0.6
	comp=Z,14nm,0.9s,baz=80,slow=7.0,SNR=6.3						
LPAZ	**La Paz**	**160.28**	**246**	*e*PKPdf	PKPdf	06 16 48.6	-2.2
LPAZ				LR	LR		
	comp=Z,6µm,20.0s						
JTS	**JuntasAbangare**	**160.99**	**354**	PFAKE		06 17 00.0	+8.4
JTS				LR	LR		
	comp=Z,2µm,21.0s						
ROSC	**El Rosal**	**161.61**	**317**	PKP	PKPdf	06 16 51.1	-1.2
	comp=Z,28nm,1.0s,baz=104,slow=1.4,SNR=23						
OTAV	**Otavalo**	**167.78**	**317**	*e*PKPdf	PKPdf	06 16 54.9	-2.9
OTAV				LR	LR		
	comp=Z,8µm,20.0s						
NNA	**Nana**	**169.67**	**251**	*e*PKPdf	PKPdf	06 16 56.5	-2.4
NNA				LR	LR		
	comp=Z,2µm,20.0s						
PAYG	**Puerto Ayora**	**171.26**	**23**	PFAKE		06 17 10.0	+10
PAYG				LR	LR		
	comp=Z,5µm,22.0s						

CASC 29 06:02:14.8±1.7**, 13.34N**×**89.87W, h47**^{km}±15^{km}**, MD3.8, ML4.6, 2C-13D, El Salvador**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SBLS	**San Blas**	**0.55**	**26**	⇓*i*P	P	06 02 26.9	+0.4
SBLS				*e*S	S	06 02 36.5	+1.5
SNJE	**San Jose**	**0.58**	**26**	*e*P	P	06 02 27.1	+0.2
SNJE				⇓*i*P		06 02 27.3	
RTR	**El Retiro**	**0.59**	**22**	⇓*i*P	P	06 02 27.6	+0.5
BOQS	**Boqueron**	**0.70**	**56**	⇓*i*P	P	06 02 28.8	+0.4
BOQS				*e*S	S	06 02 39.1	+0.7
RBDL	**Robledal**	**0.79**	**13**	⇑*i*P	P	06 02 30.1	+0.5
RBDL				*e*S	S	06 02 42.0	+1.4
LFRS	**El Faro**	**0.84**	**70**	⇓*e*P	P	06 02 29.9	-0.4
LFRS				*e*S	S	06 02 42.6	+0.9
LFU	**La Fuente**	**0.84**	**61**	⇓*e*P	P	06 02 30.6	+0.2
LFU				*e*S	S	06 02 44.4	+2.5
LBRS	**Las Brisas**	**0.90**	**64**	⇓*e*P	P	06 02 31.4	+0.3
LBRS				*e*S	S	06 02 44.1	+0.8
LCBS	**La Ceiba**	**0.92**	**70**	⇓*e*P	P	06 02 31.4	-0.2
IXG	**Ixpaco**	**1.00**	**326**	⇓*e*P	P	06 02 32.1	-0.6
IXG				*e*S	S	06 02 45.7	-0.2
IXG				AML	AML	06 02 46.1	
	comp=E,22µm,0.3s						
SNVI	**San Vicente**	**1.04**	**75**	⇑*e*P	P	06 02 33.5	+0.3
SNVI				*e*S	S	06 02 47.2	+0.4
MTO2	**Montecristo 2**	**1.16**	**25**	⇓*i*P	P	06 02 35.0	+0.1
MTO2				*e*S	S	06 02 49.6	-0.3
NBG	**Las Nubes**	**1.32**	**340**	⇓*e*P	P	06 02 37.8	+0.5
NBG				*e*S	S	06 02 56.3	+2.3
NBG				AML	AML	06 02 57.7	
	comp=N,16µm,0.3s						
BLLM	**Bellamira**	**1.59**	**86**	⇓*e*P	P	06 02 41.0	-0.1
BLLM				*e*S	S	06 02 60.0	-0.7
CAHU	**Cacacuatique**	**1.67**	**75**	⇓*e*P	P	06 02 41.8	-0.4
JAT	**Jato**	**1.97**	**300**	*e*P	P	06 02 45.6	-0.7
JAT				*e*S	S	06 03 10.7	+0.7
CNCH	**Conchagua**	**1.98**	**92**	*e*P	P	06 02 46.2	-0.4
CNCH				*e*S	S	06 03 11.4	+1.1

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*IDC **29** 06:02:38.9±6.3, 9.22N×93.58E, h52^{km}±55^{km}, mb4.3/12, mb1 4.4/13, mb1mx4.2/21, mbtmp4.5/13, ML4.7/1, MS5.7/1, Ms1 5.7/1, ms1mx4.0/32, Error ellipse: s-maj=46.1km s-min=20.4km az=58.0*

ISC 29 06:02:35.1±0.7**, 9.2N**±0.1×**93.7E**±0.1**, h33**^{km}**, n21, σ0^{s}64**/18**, mb4.5**/13**, MS5.7**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.51**	**29**	P	**P**	**06 05 07.3**	**+0.6**
	1.8nm,0.3s,baz=212,slow=15,SNR=4.7						
ZAL	**Zalesovo**	**45.16**	**353**	P	**P**	**06 10 50.2**	**-0.2**
	6.3nm,0.8s,mb4.5,baz=348,slow=9.3,SNR=4.2						
RDF	**Al-Radifah**	**47.43**	**301**	*e*P	**P**	**06 11 09.7**	**+0.9**
RDF				AMb	AMB	06 11 10.9	
	comp=Z,128nm,0.8s						
BVAR	**Borovoye Array**	**47.57**	**341**	P	**P**	**06 11 08.5**	**-1.0**
	comp=Z,6.0nm,0.7s,mb4.7,baz=135,slow=12,SNR=3.5						
MIB	**Mutribah**	**47.84**	**302**	*e*P	**P**	**06 11 12.8**	**+0.8**
MIB				AMb	AMB	06 11 13.4	
	comp=Z,36nm,0.6s,mb5.6						
RST	**Umm Al-Ruwaisa**	**48.05**	**301**	*e*P	**P**	**06 11 14.6**	**+1.0**
RST				AMb	AMB	06 11 18.0	
	comp=Z,66nm,0.6s						
WRA	**Warramunga Arr**	**49.42**	**126**	P	**P**	**06 11 24.8**	**+0.5**
	comp=Z,3.0nm,0.7s,mb4.4,baz=303,slow=9.1,SNR=4.7						
PMG	**Port Moresby**	**56.38**	**108**	LR	LR	06 37 55.6	
	comp=Z,6µm,19.6s,MS5.7,baz=139,slow=38						
BRTR	**Keskin Array B**	**61.21**	**310**	P	**P**	**06 12 48.0**	**-1.2**
	comp=Z,2.1nm,0.6s,mb4.4,baz=123,slow=6.8,SNR=3.6						
FINES	**FINESS Array B**	**71.31**	**332**	P	**P**	**06 13 52.9**	**-0.2**
	comp=Z,1.7nm,0.5s,mb4.2,baz=106,slow=6.3,SNR=6.9						
ARCES	**ARCESS Array B**	**73.85**	**340**	P	**P**	**06 14 08.2**	**+0.2**
	comp=Z,4.6nm,0.7s,mb4.5,baz=85,slow=5.2,SNR=5.8						
GERES	**GERESS Array B**	**76.52**	**318**	P	**P**	**06 14 24.0**	**+0.3**
	comp=Z,1.5nm,0.5s,mb4.2,baz=92,slow=5.7,SNR=9.3						
KHC	**Kasperske Hory**	**76.61**	**318**	*e*P	**P**	**06 14 24.5**	**+0.3**
KHC				*e*x	x	06 14 36.0	
HFS	**Hagfors**	**77.07**	**330**	P	**P**	**06 14 26.1**	**-0.5**
	comp=Z,5.0nm,0.6s,mb4.6,baz=108,slow=4.7,SNR=6.6						
NB2	**NORSAR Subarra**	**78.34**	**330**	P	**P**	**06 14 33.0**	**-0.5**
	comp=Z,2.3nm,0.6s,mb4.3,baz=94,slow=5.0						
NOA	**NORSAR Array B**	**78.34**	**330**	P	**P**	**06 14 32.9**	**-0.6**
	comp=Z,3.5nm,0.7s,mb4.4,baz=95,slow=5.3,SNR=4.3						
DAVOX	**Davos**	**79.11**	**316**	P	**P**	**06 14 37.8**	**-0.2**
	comp=Z,3.3nm,0.5s,mb4.5,baz=124,slow=11,SNR=3.8						
MAW	**Mawson**	**79.75**	**192**	P	**P**	**06 14 40.5**	**-0.6**
	comp=Z,5.3nm,0.9s,mb4.5,baz=45,slow=8.6,SNR=4.8						
ILAR	**Eielson Array**	**93.68**	**22**	P	**P**	**06 15 49.1**	**-0.1**
	comp=Z,1.4nm,0.7s,mb4.5,baz=314,slow=4.8,SNR=3.9						
PDAR	**Pinedale Array**	**124.08**	**21**	PKP	PKPdf	06 21 31.2	+0.5
	comp=Z,1.3nm,0.9s,baz=27,slow=2.0,SNR=3.4						
TXAR	**Lajitas Array**	**138.19**	**23**	PKP	PKPdf	06 22 00.2	+2.5
	comp=Z,0.6nm,0.6s,baz=45,slow=1.3,SNR=5.0						

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*IDC **29** 06:04:32.2±1.1, 8.82N×93.11E, mb4.4/10, mb1 4.4/10, mb1mx4.2/21, mbtmp4.3/10, Error ellipse: s-maj=47.0km s-min=26.9km az=58.0*

ISC 29 06:04:35.5±0.9**, 8.8N**±0.2×**93.1E**±0.3**, h33**^{km}**, n11, σ1^{s}06**/10**, mb4.4**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**40.54**	**14**	P	**P**	**06 12 13.5**	**+0.2**
	3.8nm,0.8s,mb4.1,baz=200,slow=8.0,SNR=5.4						
NWAO	**Narrogin (SRO)**	**47.41**	**152**	P	**P**	**06 13 08.7**	**-0.2**
	30nm,0.8s,mb5.3,baz=317,slow=7.0,SNR=6.0						
BRTR	**Keskin Array B**	**61.07**	**311**	P	**P**	**06 14 47.5**	**-1.3**
	3.0nm,0.8s,mb4.5,baz=122,slow=7.5,SNR=5.1						
AKASG	**Malin Array Be**	**66.82**	**322**	P	**P**	**06 15 24.8**	**-1.2**
	2.0nm,0.6s,mb4.3,baz=86,slow=5.4,SNR=5.8						
ARCES	**ARCESS Array B**	**74.09**	**340**	P	**P**	**06 16 09.2**	**-0.6**
	1.6nm,0.5s,mb4.2,baz=84,slow=4.6,SNR=4.5						
GERES	**GERESS Array B**	**76.48**	**318**	P	**P**	**06 16 24.4**	**+0.6**
	2.1nm,0.7s,mb4.2,baz=76,slow=5.5,SNR=3.7						
HFS	**Hagfors**	**77.17**	**330**	P	**P**	**06 16 27.1**	**-0.5**
	1.3nm,0.5s,mb4.1,baz=101,slow=7.3,SNR=5.8						
DAVOX	**Davos**	**79.04**	**316**	P	**P**	**06 16 39.7**	**+1.6**
	2.9nm,0.5s,mb4.5,baz=59,slow=5.9,SNR=3.9						
EKA	**Eskdalemuir Ar**	**86.41**	**325**	P	**P**	**06 17 18.2**	**+2.5**
	1.4nm,0.6s,mb4.4,baz=99,slow=5.7,SNR=4.5						
ILAR	**Eielson Array**	**94.31**	**22**	P	**P**	**06 17 52.2**	**-0.3**
	0.8nm,0.8s,mb4.2,baz=288,slow=2.9,SNR=4.3						
TXAR	**Lajitas Array**	**138.83**	**22**	PKP	PKPdf	06 24 01.9	+2.6
	0.3nm,0.5s,baz=333,slow=0.5,SNR=5.1						

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*SYO **29** 06:05:12.0, 8.78N×93.13E, h1^{km}, MB5.6*
*BJI **29** 06:05:14.4, 8.77N×93.18E, h30^{km}, mB6.0, mb5.4, Ms6.2, Msz5.9*
*MOS **29** 06:05:15.3±1.0, 8.85N×93.21E, h33^{km}, mb5.8/73, Error ellipse: s-maj=8.7km s-min=4.0km az=126.3*
*IDC **29** 06:05:15.9±1.3, 8.84N×93.26E, h24^{km}±7^{km}, mb5.3/34, mb1 5.4/34, mb1mx5.4/34, mbtmp5.5/34, Error ellipse: s-maj=15.0km s-min=8.6km az=44.0*
*NEIC **29** 06:05:16.8±0.2, 8.82N×93.09E, h30^{km}, mb5.6/73, Error ellipse: s-maj=6.1km s-min=4.5km az=198.0*
*HRVD **29** 06:05:16.8±0.4, 8.74N×93.24E, h12^{km}, MW5.8/49, Centroid moment Tensor Solution. LP body waves: s25,c30;Mantle waves: s49,c66; Half duration: 2^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}0.09±.11; $M_{\theta\theta}$-0.73±.07; $M_{\phi\phi}$0.64±.08; $M_{r\theta}$-0.06±.24; $M_{\theta\phi}$-1.02±.06; $M_{\phi r}$6.70±.23; Best double couple: $M_0$6.78×10^{17} NP1: ϕ_s278°, δ9°, λ-173°. NP2: ϕ_s181°, δ89°, λ-81°. Principal axes: T 7.15, Plg43°, Azm262°; N -.73, Plg9°, Azm1°; P -6.42, Plg45°, Azm100°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*CSEM **29** 06:05:19.6, 9.61N×93.15E, h33^{km}, mb5.7*

ISC 29 06:05:13.9±0.2**, 8.79N**±0.04×**93.15E**±0.02**, h24**^{km}**, h24**^{km}±2.6^{km}**:pP-P, n598, σ1^{s}13**/540**, mb5.6**/135**, MS6.0**/11**, 37C-23D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**11.14**	**30**	*e*P	**P**	**06 07 57.5**	**+2.5**
	67nm,0.6s						
CMAR	**Chiang Mai Arr**	**11.14**	**30**	Pn	**P**	**06 07 58.3**	**+3.3**
	6.5nm,0.3s,baz=221,slow=14,SNR=17						
CMAR				ScP		06 17 22.1	
	0.3nm,0.3s,baz=241,slow=3.1,SNR=18						
PALK	**Pallekele**	**12.42**	**264**	*e*P	**P**	**06 08 00.8**	**-12**
VIS	**Vishakhapatnam**	**13.04**	**314**	*e*P	**P**	**06 08 16.8**	**-3.8**
	comp=Z,1µm,1.7s						
VIS				*e*S	x	06 10 31.1	
VIS				*e*	**S**	**06 10 37.0**	**-8.9**
	comp=E,552nm,0.5s						
VIS				*e*		06 10 37.1	
	comp=N,444nm,0.6s						
MDRS	**Chennai**	**13.37**	**290**	*e*P	**P**	**06 08 21.8**	**-3.0**
KOD	**Kodaikanal**	**15.54**	**277**	*e*P	**P**	**06 08 51.2**	**-2.2**
TRD	**Trivandrum**	**16.01**	**270**	*e*P	**P**	**06 08 56.9**	**-2.6**
	comp=Z,330nm,1.5s						
BOK	**Bokaro**	**16.46**	**336**	*e*P	**P**	**06 09 02.0**	**-3.2**
	comp=Z,448nm,1.0s						
HYB	**Hyderabad**	**16.59**	**303**	*e*P	**P**	**06 09 06.0**	**-0.9**
HYB				*e*S	**S**	**06 12 00.0**	**-10**
HYB				pmax	pmax		
	comp=Z,370nm,1.0s						
HYB	**Hyderabad**	**16.59**	**303**	*e*P	**P**	**06 09 06.0**	**-0.9**
	comp=Z,370nm,1.0s						
HYB				*e*S	**S**	**06 12 00.0**	**-10**
HYB	**Hyderabad**	**16.59**	**303**	*i* P	**P**	**06 09 06.0**	**-0.9**
	comp=Z,370nm,1.0s						
HYB				*e*S	**S**	**06 12 08.0**	**-1.6**
SHL	**Shillong**	**16.73**	**356**	*e*P	**P**	**06 09 05.4**	**-3.2**
SHL				*e*P		06 09 06.4	
SHL				*i*		06 09 11.3	
	comp=Z,116nm,0.7s						
MNGI	**Mangalore**	**18.46**	**285**	*e*	**P**	**06 09 35.1**	**+4.8**
MNGI				*e*		06 09 35.5	
	comp=Z,391nm,1.4s						
KMI	**Kunming**	**18.64**	**28**	P	**P**	**06 09 35.3**	**+3.0**
KMI				AP		06 09 45.5	
KMI				AMB	AMB		
	comp=Z,45nm,0.5s						
QIZ	**Qiongzhong**	**19.12**	**56**	⇑*i*P	**P**	**06 09 39.8**	**+1.8**
QIZ	**Qiongzhong**	**19.12**	**56**	*e*P	**P**	**06 09 39.7**	**+1.6**
	comp=Z,285nm,1.1s						
AKL	**Akola**	**19.57**	**309**	*e*P	**P**	**06 09 38.3**	**-4.9**
AKL				*e*		06 09 48.8	
	comp=Z,237nm,1.1s						
MNCY	**Minicoy**	**19.90**	**270**	⇑*i*P	**P**	**06 09 43.0**	**-3.9**
MNCY				*i*		06 10 42.0	
GOA	**Goa**	**20.03**	**291**	*e*	**P**	**06 09 53.4**	**+5.2**
PKI	**Pulchoki**	**20.07**	**340**	*e*P	**P**	**06 09 48.6**	**+0.1**
	comp=Z,3µm,1.5s						
DMN	**Daman**	**20.21**	**339**	*e*P	**P**	**06 09 50.0**	**0.0**
	comp=Z,1µm,1.2s						
GUN	**Gumba**	**20.22**	**341**	*e*P	**P**	**06 09 51.5**	**+1.3**
	comp=Z,3µm,1.2s						
KAD	**Karad**	**20.31**	**297**	*e*P	**P**	**06 09 46.1**	**-5.1**
	comp=Z,266nm,1.1s						
KKN	**Kakani**	**20.31**	**340**	*e*P	**P**	**06 09 51.5**	**+0.4**
	comp=Z,815nm,1.0s						
VLK	**Valmikinagar**	**20.42**	**336**	*e*	**P**	**06 09 55.0**	**+2.8**
VLK				*e*		06 10 14.0	
GKN	**Gorkha**	**20.73**	**338**	*e*P	**P**	**06 09 55.6**	**+0.1**
	comp=Z,480nm,0.4s						
BHPL	**Bhopal**	**20.83**	**315**	*e*P	**P**	**06 09 51.6**	**-4.8**
	comp=Z,445nm,1.3s						
LSA	**Lhasa**	**20.89**	**355**	*e*P	**P**	**06 09 56.5**	**-0.6**
LSA				pmax	pmax		
	comp=Z,182nm,0.4s						
LSA	**Lhasa**	**20.89**	**355**	*e*P	**P**	**06 09 56.5**	**-0.6**
	comp=Z,182nm,0.4s						
KOLN	**Koldanda**	**20.93**	**336**	*e*P	**P**	**06 09 57.8**	**+0.4**
	comp=Z,421nm,0.6s						
POO	**Poona**	**21.09**	**299**	⇓*i*P	**P**	**06 09 55.0**	**-4.1**
POO				*i*	**S**	**06 13 43.0**	**-4.7**
BOM	**Bombay**	**22.13**	**299**	*e*P	**P**	**06 10 06.4**	**-3.2**
BOM				*e*		06 10 13.6	
	comp=Z,295nm,1.2s						
LGTI	**Lohaghat**	**23.86**	**331**	*e*	**P**	**06 10 29.5**	**+3.0**
CD2	**Chengdu**	**24.13**	**23**	P	**P**	**06 10 29.3**	**+0.1**
CD2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.0						
BATP	**Bataraza**	**24.36**	**88**	*e*P	**P**	**06 10 32.2**	**+0.6**
NDI	**New Delhi**	**24.83**	**325**	*e*P	**P**	**06 10 32.7**	**-3.3**
AJM	**Ajmer**	**24.85**	**317**	*e*P	**P**	**06 10 32.3**	**-3.9**
AJM				*e*		06 10 40.0	
	comp=Z,148nm,1.1s						
PPR	**Puerto Princes**	**25.26**	**86**	⇑*i*P	**P**	**06 10 41.2**	**+1.0**
ENPP	**El Nido**	**25.98**	**82**	*e*P	**P**	**06 10 47.3**	**+0.4**
DGAR	**Diego Garcia**	**26.16**	**233**	*e*P	**P**	**06 10 45.7**	**-2.9**
ENH	**Enshi**	**26.27**	**33**	*e*P	**P**	**06 10 48.8**	**-0.7**
	comp=Z,171nm,0.9s,mb5.6						
SJMP	**San Jose**	**27.72**	**80**	*e*P	**P**	**06 11 01.5**	**-1.3**
TGY	**Tagaytay City**	**27.73**	**76**	P	**P**	**06 11 03.7**	**+0.9**
	comp=Z,201nm,0.3s,mb6.2,baz=155,slow=6.8,SNR=7.1						
ABRA	**Dolores**	**28.21**	**69**	*e*P	**P**	**06 11 05.7**	**-1.4**
DLH	**Dalhousie**	**28.50**	**328**	*e*	**P**	**06 11 13.0**	**+3.3**
BOAC	**Boac**	**28.52**	**78**	*e*P	**P**	**06 11 08.4**	**-1.6**
OTRP	**Odiongan**	**28.59**	**80**	*e*P	**P**	**06 11 04.7**	**-5.9**
BALP	**Baler**	**28.60**	**73**	*e*P	**P**	**06 11 10.2**	**-0.5**
APYP	**Conner**	**28.75**	**69**	*e*P	**P**	**06 11 11.3**	**-0.8**
LZH	**Lanzhou**	**28.87**	**18**	*e*P	**P**	**06 11 12.5**	**-0.5**
LZH				SCP		06 18 02.3	
LZH				PCS		06 18 05.0	
LZH				AMB	AMB		
	comp=Z,162nm,1.2s,mb5.6						
LZH				AMB	AMB		
	comp=Z,823nm,5.2s						
LZH				LR	LR		
	comp=E,17µm,17.0s						
LZH				LR	LR		
	comp=Z,21µm,18.0s,MS5.8						
GUIM	**Jordan**	**29.07**	**84**	*e*P	**P**	**06 11 14.6**	**-0.3**
QZH	**Quanzhou**	**29.08**	**53**	⇓*i*P	**P**	**06 11 15.5**	**+0.5**
QZH				AMB	AMB		
	comp=Z,800nm,1.7s,mb6.2						
RCP	**Roxas**	**29.25**	**82**	⇑*e*P	**P**	**06 11 17.9**	**+1.3**
WHN	**Wuhan**	**29.34**	**40**	⇓P	**P**	**06 11 16.8**	**-0.4**
SGCP	**Mt. Cagua**	**29.58**	**68**	*e*P	**P**	**06 11 18.4**	**-1.2**
PAGZ	**Pagadian**	**29.92**	**90**	*e*P	**P**	**06 11 23.2**	**+0.5**
TBP	**Tagbilaran**	**30.32**	**86**	⇓*e*P	**P**	**06 11 26.4**	**+0.3**
OCLP	**Ormoc**	**31.06**	**83**	*e*P	**P**	**06 11 32.1**	**-0.5**
GTA	**Gaotai**	**31.07**	**10**	*e*P	**P**	**06 11 32.3**	**-0.2**
GTA				PP	PP	06 12 34.5	-0.6
GTA				PCP	PcP	06 14 29.5	+1.6
GTA				S	**S**	**06 16 35.5**	**+0.3**
GTA				SCP		06 18 09.3	
GTA				PCS		06 18 11.0	
GTA				SS	SS	06 18 19.5	-0.9
GTA				SCS	ScS	06 22 05.0	+1.5
GTA				AMB	AMB		
	comp=Z,63nm,1.0s,mb5.4						
GTA				AMB	AMB		
	comp=Z,5µm,4.6s						
GTA				LR	LR		
	comp=N,25µm,14.4s,MS6.2						
GTA				LR	LR		
	comp=E,30µm,17.1s,MS6.2						
GTA				LR	LR		
	comp=Z,34µm,14.8s,MS6.1						
MSLP	**Maasin**	**31.30**	**85**	*e*P	**P**	**06 11 36.1**	**+1.4**
TATO	**Taipei**	**31.43**	**56**	PFAKE		06 11 50.0	+14
TATO				LR	LR		
	comp=Z,92µm,19.0s,MS6.5						
BUKP	**Musuan**	**31.58**	**89**	*e*P	**P**	**06 11 37.2**	**0.0**
NJ2	**Nanjing**	**33.23**	**42**	*e*P	**P**	**06 11 51.5**	**0.0**
NJ2				AP	pP	06 12 00.3	+1.6
NJ2				XP	sP	06 12 06.3	+4.4
NJ2				PP	PP	06 13 01.5	-1.5
NJ2				S	**S**	**06 16 58.0**	**-11**
NJ2				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,2µm,6.8s						
NJ2				LR	LR		
	comp=N,42µm,15.0s,MS6.5						
NJ2				LR	LR		
	comp=E,53µm,13.7s,MS6.5						
NJ2				LR	LR		
	comp=Z,46µm,19.1s						
KSH	**Kashi**	**34.24**	**336**	*e*P	**P**	**06 12 02.0**	**+1.8**
KSH				*e*AP	pP	06 12 11.0	+3.6
KSH				*e*XP	sP	06 12 16.3	+5.8
KSH				*e*PP	PP	06 13 16.0	+0.7
KSH				*e*PCP	PcP	06 14 39.5	+2.9
SSE	**Sheshan**	**34.27**	**46**	*e*P	**P**	**06 11 59.5**	**-1.0**
SSE				AMB	AMB		
	comp=Z,36nm,0.9s,mb5.3						
SSE				AMB	AMB		
	comp=Z,3µm,12.0s						
WMQ	**Urumqi**	**35.22**	**353**	P	**P**	**06 12 08.5**	**0.0**
WMQ				AP	pP	06 12 13.0	-2.8
WMQ				AMB	AMB		
	comp=Z,17nm,1.2s,mb4.8						
HHC	**Hu-ho-hao-te**	**35.87**	**24**	*e*P	**P**	**06 12 13.8**	**-0.2**
HHC				PP	PP	06 13 34.0	-1.6
HHC				S	**S**	**06 17 49.3**	**-0.5**
HHC				SS	SS	06 20 10.8	-0.9
HHC				SCS	ScS	06 22 28.5	0.0
HHC				AMB	AMB		
	comp=Z,63nm,0.8s,mb5.6						
HHC				LR	LR		
	comp=N,16µm,11.9s,MS6.1						
HHC				LR	LR		
	comp=E,14µm,14.3s,MS6.1						
HHC				LR	LR		
	comp=Z,16µm,14.3s,MS5.9						
ULHL	**Ulahol**	**36.50**	**339**	P	**P**	**06 12 23.4**	**+4.1**
	SNR=9.9						
KZA	**Kyzart**	**36.72**	**337**	P	**P**	**06 12 23.5**	**+2.3**
	SNR=6.5						
UCH	**Uchtor**	**37.13**	**337**	P	**P**	**06 12 26.4**	**+1.8**
	SNR=8.3						
BJT	**Baijiatuau**	**37.27**	**30**	*e*P	**P**	**06 12 26.3**	**+0.6**
BJT				pmax	pmax		
	comp=Z,45nm,0.6s						
BJT	**Baijiatuau**	**37.27**	**30**	*e*P	**P**	**06 12 26.3**	**+0.5**
	comp=Z,45nm,0.6s,mb5.5						
BJI	**Beijing**	**37.29**	**30**	P	**P**	**06 12 26.3**	**+0.4**
BJI				AMB	AMB		
	comp=Z,56nm,0.6s,mb5.6						
BJI				LR	LR		
	comp=N,19µm,24.4s,MS6.0						
BJI				LR	LR		
	comp=E,21µm,24.4s,MS6.0						
BJI				LR	LR		
	comp=Z,12µm,18.5s						
TKM2	**Tokmak 2**	**37.32**	**339**	P	**P**	**06 12 26.9**	**+0.7**
	SNR=5.7						
KBK	**Karagaybulak**	**37.33**	**338**	P	**P**	**06 12 28.1**	**+1.8**
	SNR=15						
AML	**Almayashu**	**37.38**	**336**	P	**P**	**06 12 29.4**	**+2.8**
	SNR=40						
AAK	**Ala-Archa**	**37.49**	**337**	P	**P**	**06 12 30.1**	**+2.5**
	SNR=22						
AAK	**Ala-Archa**	**37.49**	**337**	⇑*i*P	**P**	**06 12 26.4**	**-1.2**
FRU	**Bishkek**	**37.61**	**337**	*e*P	**P**	**06 12 30.0**	**+1.4**
FRU				pmax	pmax		
	comp=Z,350nm,2.0s,mb5.7						
CHMS	**Chumysh**	**37.70**	**338**	P	**P**	**06 12 30.2**	**+0.8**
	SNR=23						
JOW	**Kunigami**	**37.77**	**57**	P	**P**	**06 12 34.1**	**+4.0**
	comp=Z,57nm,0.6s,mb5.5						
EKS2	**Erkin-Say**	**37.79**	**336**	P	**P**	**06 12 31.8**	**+1.7**
	SNR=19						
USP	**Ospenovka**	**38.03**	**338**	P	**P**	**06 12 33.1**	**+1.0**
	SNR=28						
MKAR	**Makanchi Array**	**38.99**	**348**	*i* P	**P**	**06 12 39.4**	**-0.8**
MKAR				pmax	pmax		
	comp=Z,33nm,0.7s						
MKAR	**Makanchi Array**	**38.99**	**348**	*i* P	**P**	**06 12 39.5**	**-0.7**
DL2	**Dalian**	**39.39**	**36**	P	**P**	**06 12 44.3**	**+0.7**
DL2				AMB	AMB		
	comp=Z,70nm,1.3s,mb5.2						
SONM	**Songino Array**	**40.50**	**14**	P	**P**	**06 12 53.3**	**+0.7**
	comp=Z,137nm,1.1s,mb5.5,baz=203,slow=8.8,SNR=28						
SONM				PcP	PcP	06 14 55.8	+0.2
	comp=Z,8.2nm,0.6s,baz=207,slow=3.5,SNR=5.9						
SONM				ScP		06 18 43.0	
	comp=Z,5.0nm,0.9s,baz=225,slow=3.5,SNR=4.8						
ULN	**Ulaanbaatar**	**40.69**	**14**	⇑*i*P	**P**	**06 12 55.3**	**+1.1**
INCN	**Inchon**	**41.60**	**41**	*e*P	**P**	**06 13 02.1**	**+0.3**
	comp=Z,118nm,1.0s,mb5.5						
ZAK	**Zakamensk**	**42.31**	**10**	*e*P	**P**	**06 13 07.6**	**+0.2**
ZAK				*e*		06 14 53.8	
KS15	**Wonju Array Si**	**42.40**	**42**	*e*P	**P**	**06 13 08.7**	**+0.3**
SNY	**Shenyang**	**42.45**	**34**	⇓P	**P**	**06 13 08.5**	**-0.3**
SNY				XP	sP	06 13 22.8	+3.7
SNY				S	**S**	**06 19 32.5**	**+3.6**
SNY				AMB	AMB		
	comp=Z,140nm,1.5s,mb5.4						
SNY				LR	LR		
	comp=N,20µm,17.3s,MS6.1						
SNY				LR	LR		
	comp=E,6µm,13.7s,MS6.1						
SNY				LR	LR		
	comp=Z,13µm,16.9s,MS5.9						
TLY	**Talaya**	**43.63**	**9**	P	**P**	**06 13 19.3**	**+1.2**

	comp=Z,340nm,1.6s,mb5.8,SNR=9.4						
TLY	Talaya	43.63	9	eP	P	06 13 19.2	+1.1
TLY				e		06 13 29.3	
TLY				pmax	pmax		
	comp=Z,80nm,1.3s,mb5.3						
TLY	Talaya	43.63	9	eP	P	06 13 20.0	+1.9
IRK	Irkutsk	44.27	10	eP	P	06 13 17.7	-5.7
HASS	Wahat al Ahsa’	44.42	297	P	P	06 13 26.6	+1.7
CN2	Changchun	44.80	33	⇑P	P	06 13 27.5	-0.2
CN2				AMB	AMB		
	comp=Z,100nm,1.5s,mb5.4						
ZAL	Zalesovo	45.52	353	P	P	06 13 32.9	-0.4
	comp=Z,17nm,0.4s,mb5.4,baz=207,slow=4.5,SNR=21						
ZAL				ScP		06 19 02.3	
	comp=Z,8.6nm,0.8s,baz=301,slow=3.0,SNR=10						
HIA	Hailar	46.08	24	eP	P	06 13 36.5	-1.3
HIA				pmax	pmax		
	comp=Z,192nm,1.2s						
HIA	Hailar	46.08	24	eP	P	06 13 36.5	-1.4
	comp=Z,192nm,1.2s,mb5.9						
RYDS	Riyadh	46.92	295	P	P	06 13 47.5	+2.7
NWAO	Narrogin (SRO)	47.40	152	eP	P	06 13 47.9	-0.6
NWAO				pmax	pmax		
	comp=Z,468nm,1.0s						
NWAO	Narrogin (SRO)	47.40	152	P	P	06 13 48.1	-0.4
	comp=Z,320nm,0.8s,mb6.3,baz=321,slow=7.0,SNR=57						
NWAO	Narrogin (SRO)	47.40	152	eP	P	06 13 47.9	-0.6
	comp=Z,468nm,1.0s,mb6.4						
MDJ	Mudanjiang	47.62	35	P	P	06 13 49.5	-0.5
MDJ				AP	pP	06 13 54.5	-2.9
MDJ				XP	sP	06 13 58.3	-2.1
MDJ	Mudanjiang	47.62	35	eP	P	06 13 49.7	-0.3
	comp=Z,239nm,1.5s,mb6.0						
BVAR	Borovoye Array	47.82	342	P	P	06 13 50.5	-1.0
	comp=Z,58nm,1.1s,mb5.5,baz=143,slow=10,SNR=14						
BVAR				PcP	PcP	06 15 20.6	+0.2
	comp=Z,25nm,0.6s,baz=194,slow=1.5,SNR=7.6						
BVAR				ScP		06 19 12.8	
	comp=Z,5.9nm,0.9s,baz=112,slow=8.0,SNR=4.3						
BVAR				ScS	ScS	06 23 41.8	+1.3
	comp=Z,2.2nm,0.8s,baz=170,slow=9.0,SNR=5.4						
BRVK	Borovoye	47.88	342	i P	P	06 13 51.7	-0.3
MZLS	Mizel	48.18	294	P	P	06 13 56.2	+1.5
CHKZ	Chkalovo	48.31	342	eP	P	06 13 54.7	-0.6
CHKZ				pmax	pmax		
	comp=Z,158nm,1.1s,mb6.0						
CHKZ	Chkalovo	48.31	342	eP	P	06 13 54.6	-0.6
	comp=Z,158nm,1.1s,mb6.0						
TATS	Tathlith	49.18	288	P	P	06 14 03.9	+1.5
MAJO	Matsushiro	49.29	49	eP	P	06 14 02.4	-0.7
MAJO				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
MAJO	Matsushiro	49.29	49	eP	P	06 14 02.4	-0.7
	comp=Z,38nm,1.0s,mb5.4						
MAT	Matsushiro	49.29	49	P	P	06 14 02.9	-0.2
MAT	Matsushiro	49.29	49	P	P	06 14 03.0	-0.1
MAT				pmax	pmax		
	comp=Z,358nm,1.9s,mb6.1						
MAT	Matsushiro	49.29	49	P	P	06 14 03.0	-0.1
	comp=Z,358nm,1.9s,mb6.1						
WRA	Warramunga Arr	49.58	126	i P	P	06 14 03.5	-2.0
WRA				pmax	pmax		
	comp=Z,80nm,1.0s						
WRA	Warramunga Arr	49.58	126	P	P	06 14 03.5	-2.0
	comp=Z,80nm,1.0s,mb5.7,baz=303,slow=8.7,SNR=26						
WRA				PcP	PcP	06 15 26.8	-0.5
	comp=Z,21nm,0.8s,baz=314,slow=3.4,SNR=5.7						
WRA				ScP		06 19 19.0	
	comp=Z,10.0nm,1.0s,baz=315,slow=3.5,SNR=7.2						
WRAB	Tennant Creek	49.59	126	eP	P	06 14 02.8	-2.8
CBIJ	Chichi jima	49.73	62	P	P	06 14 06.2	-0.4
	comp=Z,150nm,0.6s,mb6.2,baz=266,slow=18,SNR=5.1						
AFFS	‘Afif	50.15	294	P	P	06 14 10.6	+0.7
ARSS	Ar Rass	50.27	296	P	P	06 14 11.9	+1.2
FRSS	Farasan al Kab	50.29	284	D		06 14 13.4	
ASAR	Alice Springs	51.25	130	P	P	06 14 16.0	-2.2
	comp=Z,19nm,0.6s,mb5.2,baz=302,slow=7.3,SNR=21						
ASAR				PcP	PcP	06 15 32.2	-1.1
	comp=Z,24nm,0.7s,baz=310,slow=3.4,SNR=9.8						
ASAR				ScP		06 19 26.6	
	comp=Z,9.2nm,0.9s,baz=300,slow=4.1,SNR=9.0						
BOD	Bodaibo	51.50	14	eP	P	06 14 18.8	-0.8
KLR	Kul’dur	51.61	31	eP	P	06 14 18.1	-2.5
KLR				eS	S	06 21 28.0	-11
KLR				pmax	pmax		
	comp=N,72nm,2.0s						
KLR				pmax	pmax		
	comp=E,100nm,2.0s						
KLR				pmax	pmax		
	comp=Z,110nm,2.0s,mb5.4						
HILS	Ha’il	51.81	298	P	P	06 14 24.7	+2.3
HKR	Hakkari	52.91	311	eP	P	06 14 29.4	-1.2
GNI	Garni	53.10	314	P	P	06 14 33.5	+1.6
	comp=Z,29nm,0.6s,mb5.4,baz=197,slow=0.3,SNR=16						
TI2	Plekhanov	53.72	316	i P	P	06 14 37.4	+1.0
TI2				eS	S	06 22 10.4	+3.1
TI2				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.8						
KBRS	Khaybar	53.78	295	P	P	06 14 39.4	+2.4
CLNS	Chul’man	53.93	21	eP	P	06 14 37.5	-0.2
CLNS				e*PP	pP	06 14 43.5	-1.7
CLNS				e		06 15 45.8	
CLNS				e		06 16 37.2	
CLNS				eS	S	06 22 08.8	-1.3
CLNS				pmax	pmax		
	comp=Z,151nm,1.1s,mb5.8						
CLNS				pmax	pmax		
	comp=N,66nm,0.9s						
CLNS				pmax	pmax		
	comp=E,76nm,1.1s						
CLNS				pmax	pmax		
	comp=N,18nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
CLNS				pmax	pmax		
	comp=E,16nm,1.0s						
CLNS				smax			
	comp=N,1µm,13.1s						
CLNS				smax			
	comp=Z,749nm,11.1s						
CLNS				smax			
	comp=E,341nm,10.5s						
CLNS				MLR	MLR		
	comp=N,8µm,13.0s,MS6.0						
CLNS				MLR	MLR		
	comp=Z,12µm,13.0s,MS6.1						
CLNS				MLR	MLR		
	comp=E,3µm,14.0s,MS6.0						
SVE	Sverdlovsk	54.20	339	eP	P	06 14 40.0	+0.3
SVE				eS	S	06 22 26.0	+12
SVE				pmax	pmax		
	comp=Z,140nm,1.4s,mb5.7						
SVE				MLR	MLR		
	comp=Z,12µm,17.0s,MS6.0						
ARU	Arti	54.67	337	⇓iP	P	06 14 42.9	-0.3
ARU				e		06 15 44.2	
ARU				e		06 16 46.7	
ARU				ePPP	PPP	06 17 56.2	-2.8
ARU				eS	S	06 22 24.5	+4.5
ARU				eSS	SS	06 26 07.0	+4.2
ARU				pmax	pmax		
	comp=Z,87nm,1.0s,mb5.7						
ARU	Arti	54.67	337	⇑iP	P	06 14 43.1	-0.1
ZEI	Tsey	54.71	317	eP	P	06 14 44.4	+0.8
ZEI				pmax	pmax		
	comp=Z,43nm,0.7s,mb5.6						
YNBS	Yanbu‘ al Bahr	54.74	294	P	P	06 14 45.9	+1.7
BTMT	Batman	54.79	311	eP	P	06 14 43.9	-0.5
VRT	Varto	55.06	312	eP	P	06 14 43.9	-2.5
ASAJ	Asahikawa	55.38	42	P	P	06 14 49.1	+0.6
	comp=Z,29nm,0.5s,mb5.5,baz=238,slow=8.6,SNR=15						
EZM	Erzurum	55.44	313	eP	P	06 14 47.1	-1.9
UMJS	Umm Lajj	55.46	295	P	P	06 14 51.3	+2.0
BINT	Bingol	55.75	311	eP	P	06 14 51.4	+0.1
BCA	Borcka	55.78	315	eP	P	06 14 51.4	-0.1
KIV	Kislovodsk	55.99	318	P	P	06 14 53.0	+0.1
	comp=Z,1µm,0.8s,SNR=18						
KIV	Kislovodsk	55.99	318	eP	P	06 14 52.4	-0.5
KIV				e		06 15 50.0	
KIV				e		06 16 55.4	
KIV				i S	S	06 22 39.6	+1.8
KIV				pmax	pmax		
	comp=N,107nm,1.1s						
KIV				pmax	pmax		
	comp=E,126nm,1.1s						
KIV				pmax	pmax		
	comp=Z,254nm,1.1s,mb6.2						
KIV				smax			
	comp=N,2µm,7.2s						
KIV				smax			
	comp=E,611nm,3.6s						
KIV	Kislovodsk	55.99	318	⇑iP	P	06 14 52.5	-0.4
GOF	Gofitskoye	56.20	319	eP	P	06 14 54.0	-0.4
GOF				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.8						
EZC	Erzincan	56.52	312	eP	P	06 14 57.4	+0.7
TBKS	Tabuk	56.53	298	P	P	06 14 59.0	+2.0
KMBO	Kilima Mbogo	56.56	263	eP	P	06 14 57.7	+0.3
KMBO				pmax	pmax		
	comp=Z,41nm,1.4s						
KMBO	Kilima Mbogo	56.56	263	P	P	06 14 59.8	+2.4
	comp=Z,14nm,1.1s,mb4.9,baz=58,slow=10.0,SNR=10						
KMBO	Kilima Mbogo	56.56	263	eP	P	06 14 57.6	+0.2
	comp=Z,41nm,1.4s,mb5.3						
PTK	Pertek	56.57	311	eP	P	06 14 53.2	-4.0
URFA	Urfa	56.59	309	eP	P	06 14 56.0	-1.3
YSS	Yuzh-Sakhalins	56.68	39	d iP	P	06 14 57.4	-0.4
YSS				pmax	pmax		
	comp=Z,222nm,1.0s,mb6.2						
YSS	Yuzh-Sakhalins	56.68	39	i Pr		06 14 57.5	
PMG	Port Moresby	56.73	107	P	P	06 14 58.2	-0.5
	comp=Z,145nm,1.0s,mb6.0,baz=291,slow=5.1,SNR=25						
PMG				ScP		06 19 51.5	
	comp=Z,13nm,0.8s,baz=334,slow=7.9,SNR=3.7						
GUMT	Gumushane	56.98	313	eP	P	06 14 58.4	-1.7
MALT	Malatya	57.13	310	eP	P	06 15 00.6	-0.6
MALT				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.5						
MALT	Malatya	57.13	310	eP	P	06 15 00.6	-0.6
	comp=Z,40nm,0.8s,mb5.5						
MYA	Malataya	57.14	310	eP	P	06 14 58.8	-2.4
JMQS	Jabal Moqyreh	57.21	299	P	P	06 15 03.4	+1.5
YUK	Yuzh-Kuril’sk	57.52	43	eP	P	06 14 56.5	-7.3
YUK				eS	S	06 22 55.0	-3.0
YUK				pmax	pmax		
	comp=Z,3µm,1.5s						
YUK				smax			
	comp=N,4µm,18.0s						
YUK				smax			
	comp=E,4µm,18.0s						
GZT	Gaziantep	57.53	309	i P	P	06 15 02.2	-1.8
SOKR	Solikamsk	57.60	339	⇓iP	P	06 15 03.9	-0.3
SOKR				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
AYUS	‘Aynunah	57.65	298	P	P	06 15 06.2	+1.3
GAZ	Gaziantep	57.76	309	eP	P	06 15 04.5	-1.1
BDAS	Al Bad‘	57.82	298	P	P	06 15 08.1	+2.0
MKRJ	Makawir	57.84	302	P	P	06 15 06.8	+0.6
SOC	Sochi	57.85	316	eP	P	06 15 05.1	-1.0
SOC				pmax	pmax		
	comp=Z,68nm,0.9s,mb5.7						
SOC				pmax	pmax		
	comp=N,35nm,1.0s						
SOC				pmax	pmax		
	comp=E,29nm,0.9s						
JMOS	Jabal al Moall	57.92	299	P	P	06 15 07.6	+0.8
TAYS	Tayyib Ism	58.04	298	P	P	06 15 08.7	+1.1
AQBJ	Aqaba	58.05	300	P	P	06 15 08.2	+0.5
DRGI	Dragot	58.06	302	P	P	06 15 08.2	+0.5
HAQS	Haql	58.06	299	P	P	06 15 09.0	+1.2
EIL	Elat	58.13	299	P	P	06 15 08.7	+0.4
EIL	Elat	58.13	299	P	P	06 15 09.0	+0.7
	comp=E,46nm,0.7s,mb5.6,baz=118,slow=5.1,SNR=26						
EIL	Elat	58.13	299	eP	P	06 15 08.6	+0.3
	comp=E,60nm,0.8s,mb5.7						
KAHT	Ahir Dag	58.13	309	i P	P	06 15 08.2	0.0
MBH	Mount Berech	58.18	300	P	P	06 15 09.3	+0.7
MMLI	Mount Malkishu	58.18	303	P	P	06 15 09.2	+0.6
PRNI	Paran	58.18	300	P	P	06 15 09.3	+0.7
COBT	Iskenderun	58.35	308	i P	P	06 15 09.9	+0.2
KMTI	Karmit	58.38	300	P	P	06 15 10.6	+0.5
OFRI	‘Ofer	58.58	303	P	P	06 15 11.7	+0.3
KZIT	Kziot	58.79	301	P	P	06 15 13.1	+0.3
CEYT	Ceyhan	58.86	308	eP	P	06 15 12.4	-0.8
TOKT	Tokat	59.09	312	eP	P	06 15 11.5	-3.3
BNN	Bunyan	59.22	310	eP	P	06 15 13.8	-2.0
YAK	Yakutsk	59.45	19	eP	P	06 15 16.7	-0.3
YAK				pmax	pmax		
	comp=Z,290nm,1.3s,mb6.2						
YAK	Yakutsk	59.45	19	eP	P	06 15 16.8	-0.2
CTA	Charters Tower	59.60	119	P	P	06 15 17.7	-0.9
	comp=Z,67nm,1.0s,mb5.6,baz=295,slow=8.3,SNR=19						
CTA				PcP	PcP	06 16 05.2	-0.2
	comp=Z,23nm,0.8s,baz=309,slow=3.4,SNR=7.7						
CTA				ScP		06 20 03.6	
	comp=Z,11nm,0.9s,baz=347,slow=2.2,SNR=3.9						
CTAO	Charters Tower	59.60	119	eP	P	06 15 16.5	-2.1
CTAO				pmax	pmax		
	comp=Z,179nm,1.4s,mb5.9						
CTAO	Charters Tower	59.60	119	eP	P	06 15 16.5	-2.1
	comp=Z,179nm,1.4s,mb5.9						
ANN	Anapa	59.81	317	⇑iP	P	06 15 14.0	-5.7
ANN				eS	S	06 23 26.8	-1.0
ANN				pmax	pmax		
	comp=Z,67nm,1.2s,mb5.5						
AVNT	Avonos	59.96	310	i P	P	06 15 19.6	-1.3
NIG	Nigde	59.99	309	eP	P	06 15 20.8	-0.2
MEST	Erdemli	60.02	307	i P	P	06 15 19.2	-2.1
CSS	Prodhromos	60.35	305	eP	P	06 15 22.5	-1.1
	comp=Z,44nm,0.9s,mb5.5						
BOYT	Boyabat	60.58	313	i P	P	06 15 24.4	-0.7
KAMT	Kaman	60.96	310	eP	P	06 15 23.6	-4.0
BRTR	Keskin Array B	61.10	311	P	P	06 15 27.1	-1.5
	comp=Z,53nm,0.7s,mb5.8,baz=126,slow=7.0,SNR=65						
TOS	Tosya	61.12	312	eP	P	06 15 27.4	-1.4
VOR	Voronezh	61.28	325	eP	P	06 15 27.0	-2.6
VOR				pmax	pmax		
	comp=Z,420nm,0.8s,mb6.6						
CANT	Cankiri	61.32	312	eP	P	06 15 23.6	-6.4
BZK	Bozkurt	61.37	313	eP	P	06 15 28.8	-1.6
ELDT	Eldivan	61.43	311	i P	P	06 15 28.4	-2.5
STKA	Stephens Creek	61.44	134	P	P	06 15 29.5	-1.5
	comp=Z,65nm,0.9s,mb5.8,baz=309,slow=7.0,SNR=30						
STKA	Stephens Creek	61.44	134	eP	P	06 15 29.0	-2.0
BALT	Daday	61.71	313	i P	P	06 15 30.5	-2.2
ANTO	Ankara	61.76	311	P	P	06 15 25.0	-8.1
SIM	Simferopol’	62.10	316	eP	P	06 15 34.8	-0.5
SIM				pmax	pmax		
	comp=Z,75nm,0.8s,mb5.9						
SAFT	Safranbolu	62.15	312	eP	P	06 15 32.5	-3.2
KIZT	Kizilcal	62.25	309	eP	P	06 15 33.5	-2.9
SGKT	Sivrigoynuk	62.47	311	i P	P	06 15 36.6	-1.2
MBAR	Mbarara	62.86	265	eP	P	06 15 40.7	0.0
MBAR	Mbarara	62.86	265	eP	P	06 15 40.5	-0.2
	comp=Z,40nm,1.2s,mb5.4						
MDU	Mudurnu	63.07	311	eP	P	06 15 40.0	-1.7
ISP	Isparta	63.11	308	⇑iP	P	06 15 40.1	-1.9
ISP	Isparta	63.11	308	eP	P	06 15 38.7	-3.3
	comp=Z,71nm,1.1s,mb5.7						
ESKT	Eskisehir	63.16	310	eP	P	06 15 40.0	-2.3
ESKT	Eskisehir	63.16	310	i P	P	06 15 41.0	-1.3
HENT	Hendek	63.38	311	i P	P	06 15 40.9	-2.8
MOS	Moscow	63.80	329	⇓iP	P	06 15 45.9	-0.4
MOS				e		06 16 00.9	
MOS				e		06 18 07.9	
MOS				eS	S	06 24 16.5	-1.7
MOS				e		06 24 38.0	
MOS				pmax	pmax		
	comp=Z,232nm,1.2s,mb6.1						
MOS				smax			
	comp=N,2µm,4.1s						
MOS				MLR	MLR		
	comp=Z,1µm,18.4s,MS5.1						
OBN	Obninsk	64.09	328	κ iP	P	06 15 47.6	-0.6
OBN				i		06 15 58.1	
OBN				i		06 16 01.6	
OBN				e		06 16 25.7	
OBN				i S	S	06 24 19.4	-2.4
OBN				i PS	PS	06 24 39.5	-5.1
OBN				e		06 25 36.2	
OBN				pmax	pmax		
	comp=Z,100nm,1.2s,mb5.7						
OBN				pmax	pmax		
	comp=Z,205nm,1.2s,mb6.0						
OBN				MLR	MLR		
	comp=Z,7µm,15.0s,MS6.0						
OBN	Obninsk	64.09	328	eP	P	06 15 46.1	-2.2
KARP	Karpathos	65.43	305	eP	P	06 15 58.1	+0.8
TIRR	Tirgusor	65.92	315	P	P	06 16 00.2	0.0
KIS	Kishinev	66.19	318	eP	P	06 16 00.0	-1.9
KIS				e		06 16 15.0	
SKR	Severo-Kuril’s	66.24	38	eP	P	06 15 59.4	-2.8
SKR				e		06 16 13.2	
SKR				pmax	pmax		
	comp=N,150nm,0.9s						
SKR				pmax	pmax		
	comp=Z,160nm,0.9s,mb6.0						
CFR	Carcaliu	66.26	316	⇓iP	P	06 16 01.4	-1.0
HARR	Harsova	66.31	315	P	P	06 16 03.1	+0.4
HARR	Harsova	66.31	315	⇓iP	P	06 16 01.8	-0.9
HARR	Harsova	66.31	315	⇓iP	P	06 16 01.8	-0.9
PRD	Provadia	66.40	313	eP	P	06 16 03.0	-0.3
MA2	Magadan	66.42	28	eP	P	06 16 04.0	+0.9
NPS	Neapolis	66.66	305	eP	P	06 16 05.0	-0.1
AKASG	Malin Array Be	66.84	322	P	P	06 16 03.9	-2.1
	comp=Z,46nm,0.8s,mb5.6,baz=83,slow=5.3,SNR=42						
JMB	Yambol	66.86	312	eP	P	06 16 06.0	-0.3
IDI	Anoyia	67.25	305	P	P	06 16 08.5	-0.4
	comp=Z,58nm,0.7s,mb5.7,baz=95,slow=7.9,SNR=19						
ISR	Istrita	67.36	315	⇓iP	P	06 16 09.4	0.0
ISR	Istrita	67.36	315	⇓iP	P	06 16 09.4	0.0
VRI	Vrincioaia	67.37	316	P	P	06 16 09.6	+0.2
VRI	Vrincioaia	67.37	316	⇓iP	P	06 16 09.4	0.0
VRI	Vrincioaia	67.37	316	⇓iP	P	06 16 09.4	0.0
KDZ	Kurdzhali	67.60	311	eP	P	06 16 11.0	+0.1
VAM	Vamos	67.82	305	eP	P	06 16 12.5	0.0
MLR	Muntele Rosu	67.84	316	P	P	06 16 12.5	+0.1
MLR	Muntele Rosu	67.84	316	P	P	06 16 12.6	+0.2
	comp=Z,92nm,0.8s,mb5.9,baz=334,slow=2.8,SNR=34						
PVL	Pavlikeni	67.89	313	P	P	06 16 14.0	+1.2
RZN	Rozhen	68.12	311	P	P	06 16 13.0	-1.2
PET	Petropavlovsk	68.38	36	eP	P	06 16 14.8	-0.8
PET				eS	S	06 25 14.9	+1.0
PET				pmax	pmax		
	comp=Z,600nm,12.5s						
PET				pmax	pmax		
	comp=Z,89nm,0.9s,mb5.8						
PET	Petropavlovsk	68.38	36	eP	P	06 16 14.4	-1.2
	comp=Z,16nm,0.6s,mb5.2						
PGB	Panagyurishte	68.64	312	P	P	06 16 17.0	-0.5
MNK	Minsk	68.65	325	eP	P	06 16 15.0	-2.3
MNK				pmax	pmax		
	comp=Z,670nm,0.8s,mb6.6						
LSZ	Lusaka	68.66	250	eP	P	06 16 18.2	+0.3
LSZ				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
LSZ	Lusaka	68.66	250	eP	P	06 16 18.2	+0.2
	comp=Z,24nm,1.0s,mb5.1						
KYTH	Kithira	68.83	305	eP	P	06 16 17.5	-1.2
VTS	Vitosha	69.35	312	P	P	06 16 21.0	-0.8
VTS	Vitosha	69.35	312	P	P	06 16 21.2	-0.6
KKB	Krupnik	69.36	311	P	P	06 16 20.0	-1.8
IDID	Didziasalis	69.48	326	eP	P	06 16 21.1	-1.3
IDID				AMPb	AMB	06 16 26.2	
	comp=Z,37nm,1.1s,mb5.2						
VAY	Valandovo	69.68	311	⇑iP	P	06 16 23.5	-0.3
IIGN	Ignalina	69.77	326	eP	P	06 16 23.0	-1.2
IIGN				AMPb	AMB	06 16 28.1	
	comp=Z,32nm,1.1s,mb5.2						
ITM	Ithomi	69.79	306	eP	P	06 16 23.0	-1.6
IZAR	Zarasai	69.86	326	eP	P	06 16 24.4	-0.2
ISAL	Salakas	69.88	326	eP	P	06 16 24.0	-0.8
ISAL				AMPb	AMB	06 16 28.6	
	comp=Z,26nm,1.0s,mb5.1						
EVR	Evrytania	70.03	308	eP	P	06 16 24.7	-1.3
VSU	Vasula	70.31	329	⇑iP	P	06 16 25.9	-1.4
LVZ	Lovozero	70.37	340	eP	P	06 16 27.3	-0.3
BOLS	Boljevac	70.41	313	⇓iP	P	06 16 28.2	0.0
SKO	Skopje	70.59	311	i P	P	06 16 28.5	-0.8
APA	Apatity	70.66	339	⇑iP	P	06 16 29.1	-0.2
APA				i	pP	06 16 36.1	-0.9
APA				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.3						
KWP	Kalwaria	70.71	320	eP	P	06 16 28.0	-1.9
KWP				pmax	pmax		
	comp=Z,120nm,0.8s,mb5.9						
KWP	Kalwaria	70.71	320	eP	P	06 16 28.0	-1.9
	comp=Z,120nm,0.8s,mb5.9						
JAN	Janina	70.83	309	eP	P	06 16 30.0	-0.8
KOLS	Kolonicke sedl	70.88	319	eP	P	06 16 31.8	+0.8
KOLS				ePP	PP	06 19 07.8	-2.4
SUW	Suwalki	71.20	324	eP	P	06 16 31.3	-1.5
SUW				pmax	pmax		
	comp=Z,387nm,1.1s,mb6.2						
SUW	Suwalki	71.20	324	eP	P	06 16 31.3	-1.5
	comp=Z,387nm,1.1s,mb6.2						
GRUS	Gruza	71.31	313	⇑iP	P	06 16 33.0	-0.7
CRVS	Cervenica-Dubn	71.40	319	eP	P	06 16 35.6	+1.5
FINES	FINESS Array B	71.45	332	i P	P	06 16 33.3	-0.9
FINES				pmax	pmax		
	comp=Z,29nm,0.9s						
FINES	FINESS Array B	71.45	332	P	P	06 16 33.3	-0.9
	comp=Z,29nm,0.9s,mb5.2,baz=92,slow=5.8,SNR=26						
KAF	Kangasniemi	71.54	333	ep	P	06 16 33.7	-1.0
	comp=Z,41nm,1.0s,mb5.3						
KAF	Kangasniemi	71.54	333	eP	P	06 16 33.7	-1.0
KAF				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
QSH	Qafa e Shtames	71.69	311	ep	P	06 16 39.6	+3.6
PVY	Plav	71.73	312	⇑iP	P	06 16 34.9	-1.3
IVA	Berane	71.81	312	⇑iP	P	06 16 35.9	-0.7
DIVS	Divcibare	71.85	313	eP	P	06 16 36.5	-0.4
KECS	Kecovo	71.99	318	eP	P	06 16 37.6	0.0
KECS				esP	sP	06 16 50.0	+2.0
PLE	Pljevlja	72.21	313	⇑iP	P	06 16 38.8	-0.3
ULC	Ulcinj	72.21	311	⇑iP	P	06 16 38.1	-1.0
PKSN	Nyarlorinc	72.22	316	⇑eP	P	06 16 39.7	+0.7
NIE	Niedzica	72.22	319	eP	P	06 16 40.1	+1.1
TTG	Podgorica	72.24	312	⇑iP	P	06 16 38.3	-1.0
PSZ	Piszkesteto	72.31	317	⇓eP	P	06 16 39.3	-0.3
PSZ	Piszkesteto	72.31	317	⇓eP	P	06 16 39.2	-0.4
NKY	Niksic	72.46	312	⇑iP	P	06 16 38.9	-1.6
BUM	Brajici-Budva	72.50	312	⇑iP	P	06 16 39.7	-1.1
UPM	Unac-Piva	72.56	312	⇑iP	P	06 16 38.8	-2.3
OJC	Ojcow	72.65	320	eP	P	06 16 41.2	-0.3
BRY	Bratogost	72.80	312	⇑iP	P	06 16 40.2	-2.4
HCY	Herceg Novi	72.80	312	⇑iP	P	06 16 40.9	-1.7
PKSM	Moragy	72.99	316	⇓eP	P	06 16 42.9	-0.7
VYHS	Vyhne	73.08	318	eP	P	06 16 43.8	-0.3
VYHS				epP	pP	06 16 53.9	+2.1
SRO	Srobarova	73.36	317	eP	P	06 16 46.6	+0.8
KOLL	Kolacno	73.38	318	eP	P	06 16 46.0	+0.2
RHK1	Bakonya	73.38	315	⇑iP	P	06 16 45.9	0.0
KEV	Kevo	73.66	341	ep	P	06 16 46.1	-0.9
	comp=Z,35nm,0.9s,mb5.3						
KEV	Kevo	73.66	341	eP	P	06 16 46.1	-0.9
KEV				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.3						
OKC	Ostrava-Krasne	73.67	319	eP	P	06 16 48.3	+0.8
LBTB	Lobatse	73.82	241	eP	P	06 16 48.7	-0.2
LBTB				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.3						
LBTB	Lobatse	73.82	241	eP	P	06 16 48.7	-0.2
	comp=Z,42nm,1.0s,mb5.3						
TIP	Timpagrande	73.97	308	eP	P	06 16 48.6	-0.8
LTRZ	Laterza	73.97	310	eP	P	06 16 49.6	+0.2
SMOL	Smolenice	74.01	318	eP	P	06 16 50.0	+0.5
SMOL				epP	pP	06 17 00.9	+3.7
MORC	Moravsky Berou	74.05	319	eP	P	06 16 49.0	-0.7
MORC				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.6						
MORC	Moravsky Berou	74.05	319	eP	P	06 16 49.0	-0.7
	comp=Z,80nm,1.0s,mb5.6						
ARCES	ARCESS Array B	74.08	340	P	P	06 16 49.1	-0.4
	comp=Z,10nm,0.4s,mb5.1,baz=98,slow=6.6,SNR=53						
ARE0	ARCESS Array S	74.08	340	eP	P	06 16 49.0	-0.5
ZST	Bratislava	74.20	318	eP	P	06 16 51.3	+0.7
ZST				e		06 17 03.2	
GRI	Girifalco	74.22	308	eP	P	06 16 50.9	0.0
SOI	Samo	74.49	307	eP	P	06 16 53.4	+0.9
SOP	Sopron	74.53	317	⇑eP	P	06 16 53.6	+1.1
VRAC	Vranov	74.63	319	P	P	06 16 53.9	+0.9
VRAC	Vranov	74.63	319	P	P	06 16 53.0	0.0
	comp=Z,16nm,0.7s,mb5.1,baz=99,slow=7.0,SNR=17						
FGMS	Monte Sant’Ang	74.66	311	eP	P	06 16 53.2	-0.2
KTK1	Kautokeino	74.70	339	eP	P	06 16 53.7	+0.6
KTK1				AMb	AMB	06 17 07.4	
	comp=Z,72nm,1.0s,mb5.5						
KTK1	Kautokeino	74.70	339	eP	P	06 16 53.7	+0.6
	comp=Z,72nm,1.0s,mb5.5						
DPC	Dobruska-Polom	74.88	320	eP	P	06 16 55.2	+0.7
KSP	Ksiaz	74.94	320	eP	P	06 16 55.0	+0.2

KSP				epP	pP	06 16 57.7	-4.8
UPC	Upice	75.09	320	eP	P	06 16 56.9	+1.2
BOSA	Boshof	75.24	237	eP	P	06 16 56.9	-0.1
BOSA				pmax	pmax		
	comp=Z,46nm,1.0s,mb5.4						
BOSA	Boshof	75.24	237	eP	P	06 16 56.9	-0.1
	comp=Z,46nm,1.0s,mb5.4						
BOJS	Bojanci	75.31	315	eP	P	06 16 57.1	+0.1
PZI	Palazzolo	75.36	306	eP	P	06 16 58.8	+1.2
PERS	Pernice	75.45	316	eP	P	06 16 57.5	-0.3
PDKS	Podkum	75.51	315	i P	P	06 16 58.3	+0.1
BILL	Bilibino	75.61	22	⇑iP	P	06 16 57.6	-0.7
BILL				pmax	pmax		
	comp=Z,44nm,1.3s,mb5.2						
BILL	Bilibino	75.61	22	⇑iP	P	06 16 57.7	-0.6
CASY	Casey	75.95	173	eP	P	06 16 59.7	-0.5
	comp=Z,29nm,0.9s,mb5.2						
PRU	Pruhonice	76.00	319	eP	P	06 17 02.0	+1.1
PVCC	Panska Ves	76.01	320	eP	P	06 17 02.1	+1.2
BSD	Bornholm Skovb	76.11	325	i P	P	06 17 00.8	-0.6
BSD				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.5						
BSD	Bornholm Skovb	76.11	325	i P	P	06 17 00.8	-0.6
	comp=Z,54nm,0.8s,mb5.5						
BSD	Bornholm Skovb	76.11	325	i P	P	06 17 00.8	-0.6
	comp=Z,54nm,0.8s,mb5.5						
TRO	Tromso	76.34	340	eP	P	06 17 00.8	-1.6
TRO				AMb	AMB	06 17 09.9	
	comp=Z,78nm,1.8s,mb5.3						
TRO	Tromso	76.34	340	eP	P	06 17 00.8	-1.6
	comp=Z,78nm,1.8s,mb5.3						
BRG	Berggiesshubel	76.43	320	i P	P	06 17 02.7	-0.6
BRG				i		06 17 18.6	
BRG				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
BRG	Berggiesshubel	76.43	320	i P	P	06 17 02.7	-0.6
	comp=Z,40nm,0.9s,mb5.3						
BRG				i		06 17 18.6	
BRG				PP	PP	06 20 14.5	+18
GEC2	GERESS Array S	76.50	318	eP	P	06 17 03.8	+0.1
GEC2				pmax	pmax		
	comp=Z,73nm,1.0s,mb5.6						
GEC2	GERESS Array S	76.50	318	eP	P	06 17 03.8	+0.1
	comp=Z,73nm,1.0s,mb5.6						
GERES	GERESS Array B	76.50	318	P	P	06 17 04.0	+0.3
	comp=Z,34nm,0.8s,mb5.3,baz=88,slow=5.1,SNR=47						
KHC	Kasperske Hory	76.59	318	eP	P	06 17 04.4	+0.2
KHC				epP	pP	06 17 12.5	+0.6
RUE	Ruedersdorf	76.61	322	eP	P	06 17 04.2	-0.1
	comp=Z,113nm,0.9s,mb5.8						
PTCC	Patocco-Chiusa	76.66	316	eP	P	06 17 04.4	-0.3
NRCA	Norcia	76.79	312	eP	P	06 17 06.4	+0.9
ARV	Arcevia	76.92	313	eP	P	06 17 06.3	+0.1
SNTG	Esanatoglia	76.92	312	eP	P	06 17 06.4	+0.3
FX1	Attu Island--F	77.02	38	eP	P	06 17 06.1	-0.4
FSSB	Fossombrone	77.04	313	eP	P	06 17 07.0	+0.2
CLL	Collm	77.04	321	eP	P	06 17 07.0	+0.3
CLL				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
CLL	Collm	77.04	321	eP	P	06 17 07.0	+0.3
	comp=Z,31nm,1.1s,mb5.2						
CLL	Collm	77.04	321	P	P	06 17 07.0	+0.3
	comp=Z,logA/T=1.4,mb5.1						
WET	Wettzell	77.05	318	eP	P	06 17 06.8	0.0
FVI	Forni Avoltri	77.06	316	eP	P	06 17 06.9	0.0
HFS	Hagfors	77.18	330	P	P	06 17 06.9	-0.3
	comp=Z,12nm,0.5s,mb5.1,baz=100,slow=4.9,SNR=25						
RSM	Repubblica di	77.27	313	eP	P	06 17 09.4	+1.3
NKC	Novy Kostel	77.36	319	eP	P	06 17 09.7	+1.2
MOR8	Moi Rana	77.45	336	eP	P	06 17 08.3	-0.3
MOR8				AMb	AMB	06 17 13.5	
	comp=Z,75nm,1.7s,mb5.3						
MOR8	Moi Rana	77.45	336	eP	P	06 17 08.3	-0.3
	comp=Z,75nm,1.7s,mb5.3						
COP	Copenhagen	77.56	325	eP	P	06 17 13.8	+4.3
COP				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.3						
COP	Copenhagen	77.56	325	eP	P	06 17 13.8	+4.3
	comp=Z,33nm,0.8s,mb5.3						
COP	Copenhagen	77.56	325	i P	P	06 17 13.8	+4.3
	comp=Z,33nm,0.8s,mb5.3						
SFI	Santa Sofia	77.71	313	eP	P	06 17 11.9	+1.4
PGD	Poggio Sodo	77.80	313	eP	P	06 17 12.9	+1.9
CTI	Castel Tesino	77.84	315	eP	P	06 17 11.6	+0.4
MOX	Moxa	77.90	320	eP	P	06 17 11.5	+0.1
MOX				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.2						
MOX	Moxa	77.90	320	i P	P	06 17 11.5	+0.1
	comp=Z,logA/T=1.6,mb5.3						
MOX	Moxa	77.90	320	eP	P	06 17 11.5	+0.1
	comp=Z,46nm,1.3s,mb5.2						
NOUC	Port Laguerre	77.94	115	eP	P	06 17 13.4	+1.2
NOUC	Port Laguerre	77.94	115	eP	P	06 17 13.4	+1.2
LOF	Lofoten	78.03	338	eP	P	06 17 12.8	+1.0
LOF				AMb	AMB	06 17 19.6	
	comp=Z,194nm,2.0s,mb5.7						
LOF	Lofoten	78.03	338	eP	P	06 17 12.8	+1.0
	comp=Z,194nm,2.0s,mb5.7						
DZM	Mont Dzumac	78.06	115	eP	P	06 17 14.0	+1.1
SEI	Scarperia	78.06	313	eP	P	06 17 13.8	+1.3
FUR	Furstenfeldbru	78.10	317	eP	P	06 17 12.6	0.0
GRA1	Grafenberg Arr	78.14	319	eP	P	06 17 14.0	+1.2
	comp=Z,77nm,1.0s,mb5.6						
GRF	Grafenberg Arr	78.14	319	eP	P	06 17 14.0	+1.2
GRF				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.6						
GRF	Grafenberg Arr	78.14	319	eP	P	06 17 14.0	+1.2
GRF				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.6						
GRF	Grafenberg Arr	78.14	319	eP	P	06 17 14.0	+1.2
	comp=Z,77nm,1.0s,mb5.6						
NSS	Namsos	78.33	334	eP	P	06 17 12.1	-1.4
ZCCA	Zocca	78.33	313	eP	P	06 17 15.9	+2.0
NB2	NORSAR Subarra	78.46	331	P	P	06 17 13.3	-1.0
	comp=Z,52nm,1.0s,mb5.4,baz=92,slow=5.3						
NB2	NORSAR Subarra	78.46	331	P	P	06 17 13.3	-1.0
	baz=92,slow=5.6						
NB2	NORSAR Subarra	78.46	331	P	P	06 17 13.3	-1.0
NB2				pmax	pmax		
	comp=Z,52nm,1.0s,mb5.4						
NOA	NORSAR Array B	78.46	331	P	P	06 17 13.4	-0.9
	comp=Z,26nm,0.9s,mb5.2,baz=93,slow=5.6,SNR=20						
NOA				PP	PP	06 20 15.7	+2.0
	comp=Z,1.7nm,0.7s,baz=25,slow=15,SNR=3.3						
BDI	Bagni Di Lucca	78.61	313	eP	P	06 17 15.5	0.0
GSCL	Gusciola	78.61	313	eP	P	06 17 16.9	+1.5
NAO01	NORSAR Array S	78.61	330	eP	P	06 17 14.1	-1.0
	comp=Z,42nm,0.9s,mb5.4						
OSL	Oslo	78.66	329	eP	P	06 17 15.8	+0.5
MAIM		78.69	313	P	P	06 17 15.4	-0.5
CLZ	Clausthal	78.69	321	eP	P	06 17 16.1	+0.4
	comp=Z,65nm,1.0s,mb5.5						
BRMO	Bormio	78.72	316	eP	P	06 17 16.6	+0.5
ERBM	Eremo	78.73	314	eP	P	06 17 18.2	+2.1
BSEG	Bad Segeberg	78.74	323	eP	P	06 17 16.2	+0.2
VALM		78.86	313	P	P	06 17 16.5	-0.3
VINC	Vinca	78.93	313	P	P	06 17 16.9	-0.3
GRAM		78.98	314	P	P	06 17 18.6	+1.1
BACM		78.98	313	P	P	06 17 17.8	+0.3
DAVOX	Davos	79.06	316	P	P	06 17 19.2	+1.4
	comp=Z,39nm,0.6s,mb5.5,baz=118,slow=7.5,SNR=31						
CODM		79.14	314	P	P	06 17 18.6	+0.3
MAW	Mawson	79.23	191	eP	P	06 17 19.1	+0.8
MAW				pmax	pmax		
	comp=Z,112nm,1.6s						
MAW	Mawson	79.23	191	P	P	06 17 20.0	+1.7
	comp=Z,12nm,0.7s,mb4.9,baz=20,slow=4.7,SNR=9.4						
MAW	Mawson	79.23	191	eP	P	06 17 19.1	+0.7
	comp=Z,112nm,1.6s,mb5.5						
MUD	Monsted U'grnd	79.41	326	eP	P	06 17 21.0	+1.4
MUD	Monsted U'grnd	79.41	326	i P	P	06 17 21.0	+1.4
BOB	Bobbio (Coli)	79.41	314	eP	P	06 17 20.8	+1.0
STU	Stuttgart	79.48	318	eP	P	06 17 20.8	+0.7
STU				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.2						
STU	Stuttgart	79.48	318	eP	P	06 17 20.8	+0.7
	comp=Z,26nm,0.8s,mb5.2						
DOMB	Dombas	79.52	332	eP	P	06 17 19.9	-0.2
DOMB				AMb	AMB	06 17 25.2	
	comp=Z,68nm,1.4s,mb5.4						
DOMB	Dombas	79.52	332	eP	P	06 17 19.9	-0.2
	comp=Z,68nm,1.4s,mb5.4						
TOD	Tromm	79.71	319	eP	P	06 17 21.4	+0.1
SPAK	Spaichingen	79.77	317	eP	P	06 17 22.8	+1.1
PGF	Pioggiola	79.83	312	eP	P	06 17 22.5	+0.4
	comp=Z,102nm,1.0s,mb5.4						
PGF	Pioggiola	79.83	312	eP	P	06 17 22.5	+0.4
PGF				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
VAI	Varese	79.86	315	eP	P	06 17 22.1	-0.1
SUR	Sutherland	80.05	235	eP	P	06 17 26.4	+2.9
	comp=Z,47nm,1.3s,mb5.3						
BFO	Black Forest	80.06	318	eP	P	06 17 24.0	+0.8
BFO				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
BFO	Black Forest	80.06	318	eP	P	06 17 24.0	+0.8
	comp=Z,34nm,1.1s,mb5.2						
PCP	Pian Castagno	80.07	314	P	P	06 17 23.2	-0.1
MOL	Molde	80.24	332	eP	P	06 17 25.9	+2.0
MOL				AMb	AMB	06 17 29.7	
	comp=Z,142nm,1.5s,mb5.7						
MOL	Molde	80.24	332	eP	P	06 17 25.9	+2.0
	comp=Z,142nm,1.5s,mb5.7						
FELD	Feldberg	80.30	317	eP	P	06 17 25.0	+0.5
FIN	Finale Ligure	80.32	313	eP	P	06 17 24.9	+0.2
LANF	Langenberg	80.39	318	eP	P	06 17 26.0	+1.1
MCGN	Macugnaga	80.39	315	eP	P	06 17 25.9	+0.8
ORX	Oropa	80.42	315	P	P	06 17 25.4	+0.2
ROB	Roburent	80.56	313	P	P	06 17 25.8	-0.2
IMI	Imperia	80.57	313	P	P	06 17 26.1	+0.1
TRAV		80.58	315	P	P	06 17 25.4	-0.7
BBS	Basel-Blauen	80.65	317	eP	P	06 17 23.3	-3.1
MONE	Monesi	80.66	313	P	P	06 17 26.8	+0.3
WLS	Welschbruch	80.71	318	eP	P	06 17 27.4	+0.7
CDF	Champ du Feu	80.76	318	eP	P	06 17 26.3	-0.6
	comp=Z,64nm,1.1s,mb5.1						
CDF	Champ du Feu	80.76	318	eP	P	06 17 26.3	-0.6
CDF				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
RUP	Ruppelstein	80.84	319	eP	P	06 17 28.5	+1.2
ECH	Echery	80.85	317	eP	P	06 17 28.1	+0.7
MOF	Molkenrain	80.89	317	eP	P	06 17 28.1	+0.5
ENR	Entracque	80.89	313	P	P	06 17 28.2	+0.5
SBF	Sospel	80.90	313	eP	P	06 17 28.2	+0.4
	comp=Z,131nm,0.8s,mb5.6						
SBF	Sospel	80.90	313	eP	P	06 17 28.2	+0.4
SBF				pmax	pmax		
	comp=Z,66nm,0.8s,mb5.6						
RSP	Reno Superiore	80.95	314	P	P	06 17 28.1	+0.1
STV	Sta Anna Valdi	80.96	313	P	P	06 17 27.6	-0.5
BHB	Bricherasio	80.96	314	P	P	06 17 27.2	-0.9
LSD	Ceresole Reale	81.00	315	P	P	06 17 28.9	+0.6
FENE	Fenestrelle	81.09	314	P	P	06 17 29.3	+0.6
PZZ	Prazzo	81.10	314	P	P	06 17 28.2	-0.6
LOMF	Lomont	81.12	317	eP	P	06 17 29.5	+0.7
OG01	Vacheresse	81.28	316	eP	P	06 17 29.2	-0.5
LPG	La Plagne	81.28	315	eP	P	06 17 30.7	+1.0
	comp=Z,141nm,0.8s,mb5.7						
LPG	La Plagne	81.28	315	eP	P	06 17 30.7	+1.0
LPG				pmax	pmax		
	comp=Z,71nm,0.8s,mb5.7						
RRL	Cesana Torines	81.30	314	P	P	06 17 30.2	+0.4
MBDF	Montbardon	81.32	314	eP	P	06 17 30.3	+0.3
	comp=Z,75nm,0.8s,mb5.3						
MBDF	Montbardon	81.32	314	eP	P	06 17 30.3	+0.3
MBDF				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.4						
BNI	Bardonecchia	81.36	314	eP	P	06 17 30.9	+0.7
BNI				pmax	pmax		
	comp=Z,67nm,0.9s,mb5.6						
BNI	Bardonecchia	81.36	314	eP	P	06 17 30.9	+0.7
	comp=Z,67nm,0.9s,mb5.6						
HAU	Haudompre	81.41	317	eP	P	06 17 29.7	-0.6
	comp=Z,109nm,0.9s,mb5.5						
HAU	Haudompre	81.41	317	eP	P	06 17 29.7	-0.6
HAU				pmax	pmax		
	comp=Z,55nm,0.9s,mb5.5						
THEF	They Montfort	81.63	318	eP	P	06 17 30.7	-0.8
OG25	Le Caire	81.84	314	eP	P	06 17 32.9	+0.2
OG05	Jujurieux	82.15	315	eP	P	06 17 35.3	+1.1
BAIF	Baives	82.66	319	eP	P	06 17 36.7	-0.1
	comp=Z,198nm,1.5s,mb5.6						
BAIF	Baives	82.66	319	eP	P	06 17 36.7	-0.1
BAIF				pmax	pmax		
	comp=Z,99nm,1.5s,mb5.6						
SSF	Saint Saulge	83.40	317	eP	P	06 17 41.8	+1.1
SSF				pmax	pmax		
	comp=Z,85nm,1.5s,mb5.5						
SSF	Saint Saulge	83.40	317	eP	P	06 17 41.8	+1.1
	comp=Z,85nm,1.5s,mb5.5						
PLDF	La Plantade	83.43	315	eP	P	06 17 42.8	+2.0
AGO	Saint Agoulin	83.76	316	eP	P	06 17 41.9	-0.7
LBL	Lubilhac	83.77	315	eP	P	06 17 43.8	+1.2
PYM	Petit Puy Mans	83.88	315	eP	P	06 17 42.1	-1.1
BGF	Bois d'Agland	83.90	316	eP	P	06 17 44.5	+1.2
	comp=Z,148nm,1.4s,mb5.6						
BGF	Bois d'Agland	83.90	316	eP	P	06 17 44.5	+1.2
BGF				pmax	pmax		
	comp=Z,74nm,1.4s,mb5.6						
RJF	Les Rejaudoux	84.97	315	eP	P	06 17 49.9	+1.3
	comp=Z,70nm,1.0s,mb5.4						
RJF	Les Rejaudoux	84.97	315	eP	P	06 17 49.9	+1.3
RJF				pmax	pmax		
	comp=Z,35nm,1.0s,mb5.4						
FLN	La Foliniere	85.85	319	eP	P	06 17 52.6	-0.3
	comp=Z,105nm,1.1s,mb5.7						
FLN	La Foliniere	85.85	319	eP	P	06 17 52.6	-0.3
FLN				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.7						
SYO	Syowa Base	85.98	197	⇑P	P	06 17 55.3	+2.2
SYO	Syowa Base	85.98	197	⇑PcP	PcP	06 17 58.3	+2.0
SYO	Syowa Base	85.98	197	⇓PP	PP	06 21 15.1	+0.3
EBR	Ebro Roquetas	86.33	311	ePCP	P	06 17 57.5	+2.0
DAG	Danmarks Havn	86.38	348	⇑iP	P	06 17 54.9	-0.1
	comp=Z,26nm,0.9s,mb5.5						
EKA	Eskdalemuir Ar	86.42	325	P	P	06 17 56.2	+0.6
	comp=Z,29nm,0.9s,mb5.5,baz=97,slow=5.5,SNR=21						
EKA				PP	PP	06 21 19.8	+0.8
	comp=Z,9.9nm,0.9s,baz=96,slow=7.6,SNR=4.2						
EKA				PKKPbc		06 35 54.5	
	comp=Z,0.9nm,0.7s,baz=252,slow=2.6,SNR=4.6						
ETSF	Etsaut	86.80	313	eP	P	06 17 58.7	+1.0
	comp=Z,347nm,1.9s,mb6.0						
ETSF	Etsaut	86.80	313	eP	P	06 17 58.7	+1.0
ETSF				pmax	pmax		
	comp=Z,174nm,1.9s,mb6.0						
RPZ	Rata Peaks	87.38	135	P	P	06 18 01.1	+0.5
	comp=Z,62nm,0.8s,mb5.9,baz=133,slow=2.0,SNR=9.2						
UNV	Unalaska Valle	89.02	36	P	P	06 18 08.6	+0.5
ESDC	Sonseca Array	89.89	310	P	P	06 18 13.9	+1.3
	comp=Z,9.2nm,0.8s,mb5.2,baz=58,slow=4.7,SNR=16						
ESLA	Sonseca Array	89.89	310	eP	P	06 18 08.7	-3.9
	comp=Z,7.4nm,1.2s,mb4.9						
SCO	Scoresbysund	89.89	342	i P	P	06 18 13.3	+1.5
URZ	Urewera	90.67	128	P	P	06 18 14.9	-1.3
	comp=Z,25nm,0.8s,mb5.6,baz=313,slow=3.5,SNR=7.2						
IMA	Indian Mountai	91.15	22	eP	P	06 18 17.7	-0.1
IMA				pmax	pmax		
	comp=Z,329nm,1.1s,mb6.6						
IMA	Indian Mountai	91.15	22	eP	P	06 18 17.7	0.0
	comp=Z,329nm,1.1s,mb6.6						
SUMG	Summit	93.04	347	eP	P	06 18 27.2	+0.9
	comp=Z,77nm,1.0s,mb6.1						
COLA	College	93.86	22	eP	P	06 18 30.6	+0.4
COLA				pmax	pmax		
	comp=Z,13nm,1.1s,mb5.3						
COLA	College	93.86	22	eP	P	06 18 30.6	+0.3
	comp=Z,13nm,1.1s,mb5.3						
RSO	Redoubt South	93.91	27	eP	P	06 18 31.3	+0.8
MCK	McKinley	94.01	23	eP	P	06 18 31.6	+0.6
MCK				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.5						
MCK	McKinley	94.01	23	eP	P	06 18 31.6	+0.6
	comp=Z,22nm,1.2s,mb5.5						
VNDA	Vanda	94.01	168	eP	P	06 18 31.5	+0.8
VNDA				pmax	pmax		
	comp=Z,8.0nm,0.8s						
VNDA	Vanda	94.01	168	P	P	06 18 31.8	+1.0
	comp=Z,9.1nm,0.9s,mb5.2,baz=300,slow=4.2,SNR=14						
VNDA				PKKPbc		06 35 34.0	
	comp=Z,1.6nm,0.8s,baz=224,slow=1.1,SNR=5.9						
VNDA	Vanda	94.01	168	eP	P	06 18 31.5	+0.7
	comp=Z,7.9nm,0.8s,mb5.2						
ILAR	Eielson Array	94.27	22	P	P	06 18 31.4	-0.7
	comp=Z,4.0nm,0.5s,mb5.1,baz=291,slow=4.3,SNR=38						
ILAR				PP	PP	06 22 20.4	-1.5
	comp=Z,2.5nm,0.8s,baz=296,slow=5.9,SNR=5.9						
SBA	Scott Base	95.12	168	eP	P	06 18 37.7	+1.9
SBA				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.7						
SBA	Scott Base	95.12	168	eP	P	06 18 37.7	+1.9
	comp=Z,37nm,1.3s,mb5.7						
INK	Inuvik	96.39	16	eP	P	06 18 41.3	-0.5
INK				pmax	pmax		
	comp=Z,31nm,1.0s						
INK	Inuvik	96.39	16	P	P	06 18 41.5	-0.3
	comp=Z,16nm,0.8s,mb5.5,baz=317,slow=2.7,SNR=17						
INK				PKKPbc		06 35 29.4	
	comp=Z,1.1nm,0.6s,baz=165,slow=2.3,SNR=3.2						
INK	Inuvik	96.39	16	eP	P	06 18 41.3	-0.4
	comp=Z,31nm,1.0s,mb5.7						
RES	Resolute Bay	96.53	2	eP	P	06 18 43.0	+0.7
RES				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.5						
RES	Resolute Bay	96.53	2	eP	P	06 18 43.0	+0.7
	comp=Z,22nm,1.0s,mb5.5						
DBIC	Dimbokro	96.85	278	eP	P	06 18 47.4	+2.3
DBIC				pmax	pmax		
	comp=Z,11nm,0.8s						
DBIC	Dimbokro	96.85	278	P	P	06 18 47.0	+1.9
	comp=Z,8.4nm,0.7s,mb5.3,baz=62,slow=5.1,SNR=11						
DBIC				PKKPbc		06 35 26.1	
	comp=Z,2.6nm,0.6s,baz=237,slow=5.4,SNR=7.7						
DBIC	Dimbokro	96.85	278	eP	P	06 18 47.4	+2.3
	comp=Z,11nm,0.8s,mb5.3						
DAWY	Dawson	97.36	21	eP	P	06 18 46.5	+0.4
SNAA	Sanae	100.17	199	PKKPbc		06 35 19.6	
	comp=Z,1.5nm,0.8s,baz=31,slow=1.9,SNR=4.3						
YKA	Yellowknife Ar	105.77	13	Pdiff	Pdif	06 19 25.2	+1.4
	comp=Z,1.6nm,1.1s,baz=323,slow=6.2,SNR=3.0						
YKA				PP	PP	06 23 43.6	-5.8
	comp=Z,4.9nm,0.8s,baz=334,slow=7.9,SNR=12						
YKA				PKKPbc		06 35 00.1	
	comp=Z,0.8nm,0.7s,baz=155,slow=2.8,SNR=10						
SCHQ	Schefferville	114.43	347	PKP	PKPdf	06 23 53.4	-3.0
	comp=Z,4.3nm,1.0s,baz=15,slow=10,SNR=7.0						
MSO	Missoula	119.60	21	ePKPdf	PKPdf	06 24 03.0	-3.5
CHMT	Chamberlain Mo	119.77	21	ePKPdf	PKPdf	06 24 04.0	-2.8
ULM	Lac du Bonnet	120.69	7	PKP	PKPdf	06 24 06.5	-2.2
	comp=Z,10nm,0.7s,baz=347,slow=3.5,SNR=11						
ULM				PKKPbc		06 34 10.6	
	comp=Z,2.0nm,0.6s,baz=159,slow=3.7,SNR=6.7						
ULM	Lac du Bonnet	120.69	7	ePKPdf	PKPdf	06 24 05.7	-3.0
DGMT	Dagmar	120.97	13	ePKPdf	PKPdf	06 24 06.8	-2.5
MOD	Modoc	120.97	29	ePKPdf	PKPdf	06 24 07.5	-1.9
LAO	LASA Array	122.13	16	ePKPdf	PKPdf	06 24 07.8	-3.7
HLID	Hailey	122.19	23	ePKPdf	PKPdf	06 24 08.9	-2.7
YMR	Madison River	122.51	20	ePKPdf	PKPdf	06 24 10.6	-1.6
YFT	Old Faithful	122.74	20	ePKPdf	PKPdf	06 24 12.5	-0.2
LKWY	Lake	122.79	20	ePKIKP	PKPdf	06 24 11.3	-1.5
IMW	Indian Meadow	123.19	21	ePKPdf	PKPdf	06 24 10.3	-3.3
EYMN	Ely	123.37	4	ePKPdf	PKPdf	06 24 10.8	-3.0
TPAW	Teton Pass	123.55	21	ePKPdf	PKPdf	06 24 12.5	-1.8
LOHW	Long Hollow	123.56	21	ePKPdf	PKPdf	06 24 11.7	-2.7
WUWY	Wally Ulrich	123.58	21	ePKPdf	PKPdf	06 24 11.9	-2.5
SNOW	Snow King Moun	123.64	21	ePKPdf	PKPdf	06 24 12.7	-1.9
REDW	Red Top Meadow	123.69	21	ePKPdf	PKPdf	06 24 12.7	-1.9
CMB	Columbia Colle	123.88	32	ePKIKP	PKPdf	06 24 12.2	-2.9
ELK	Elko	124.20	26	ePKIKP	PKPdf	06 24 12.8	-2.9
NVAR	Mina Array Bea	124.63	30	PKP	PKPdf	06 24 15.1	-1.6
	comp=Z,18nm,1.1s,baz=344,slow=0.8,SNR=10						
PDAR	Pinedale Array	124.67	20	PKP	PKPdf	06 24 13.6	-3.0
	comp=Z,15nm,1.0s,baz=85,slow=1.9,SNR=30						
PDAR				SKP		06 27 45.6	
	comp=Z,5.5nm,1.1s,SNR=5.2						
PDAR				PKKPbc		06 33 55.1	
	comp=Z,0.7nm,0.8s,baz=129,slow=7.4,SNR=4.7						
MNV	Mina	124.70	30	ePKIKP	PKPdf	06 24 15.1	-1.7
HWUT	Hardware Ranch	124.96	22	ePKPdf	PKPdf	06 24 14.7	-2.5
MTUM	Tungsten Hills	125.33	31	ePKPdf	PKPdf	06 24 16.0	-2.0
TRCR	Troy Canyon	125.99	28	ePKPdf	PKPdf	06 24 15.8	-3.4
MDV	Middlebury	126.02	348	ePKPdf	PKPdf	06 24 16.1	-3.0
MIV	Mineville/With	126.02	348	ePKPdf	PKPdf	06 24 16.1	-2.9
NLU	North Lily Min	126.18	24	ePKPdf	PKPdf	06 24 17.5	-2.0
RWWY	Rawlins	126.41	19	ePKPdf	PKPdf	06 24 17.3	-2.6
MVU	Marysvale	127.35	25	ePKPdf	PKPdf	06 24 20.5	-1.4
MSU	Marysvale	127.36	25	ePKIKP	PKPdf	06 24 20.6	-1.2
GENY	Geneseo	128.04	352	ePKPdf	PKPdf	06 24 19.8	-3.3
NEN	Nelson	128.52	29	ePKPdf	PKPdf	06 24 22.4	-1.7
PV10	Paradox Valley	128.72	22	ePKPdf	PKPdf	06 24 22.8	-1.6
SSPA	Standing Stone	130.14	351	ePKPdf	PKPdf	06 24 23.8	-3.3
USHA	Ushuaia	131.79	194	PKP	PKPdf	06 24 26.9	-2.9
	comp=Z,5.9nm,0.8s,baz=238,slow=5.2,SNR=3.7						
USHA				SKPbc		06 27 52.1	
	comp=Z,8.7nm,0.7s,baz=106,slow=1.6,SNR=6.4						
ANMO	Albuquerque	132.71	22	PKP	PKPdf	06 24 28.8	-3.4
	comp=Z,9.7nm,0.9s,baz=295,slow=1.1,SNR=12						
ANMO				SKPbc		06 27 55.5	
	comp=Z,17nm,0.9s,baz=340,slow=2.3,SNR=15						
TUC	Tucson	133.18	28	ePKIKP	PKPdf	06 24 31.3	-1.8
LENM	Lemitar	133.21	23	ePKPdf	PKPdf	06 24 32.4	-0.7
LPM	Los Pinos Moun	133.22	23	ePKPdf	PKPdf	06 24 30.9	-2.2
BNM	Barren Site	133.36	23	ePKPdf	PKPdf	06 24 31.6	-1.8
FWV	Forest Hill	133.53	353	ePKPdf	PKPdf	06 24 31.2	-2.3
PWV	Princeton	133.80	354	ePKPdf	PKPdf	06 24 31.2	-2.9
ELN	Prospectdale	133.87	353	ePKPdf	PKPdf	06 24 31.3	-2.9
WVT	Waverly	135.32	1	ePKIKP	PKPdf	06 24 34.0	-3.0
CPRX	Cap Rock	135.37	20	ePKPdf	PKPdf	06 24 33.9	-3.2
MNTX	Cornudas Mount	136.01	23	ePKPdf	PKPdf	06 24 34.8	-3.6
MIAR	Mount Ida	136.44	8	e	PKPdf	06 24 36.6	-2.4
JSC	Jenkinsville	136.84	353	ePKIKP	PKPdf	06 24 36.4	-3.3
COW	Cow Castle Cre	137.66	352	ePKPdf	PKPdf	06 24 38.3	-3.1
LTX	Lajitas	138.78	23	ePKIKP	PKPdf	06 24 37.0	-6.5
TXAR	Lajitas Array	138.78	23	PKhKP		06 24 32.5	
	comp=Z,0.8nm,0.5s,baz=353,slow=0.6,SNR=5.8						
TXAR				PKP	PKPdf	06 24 42.0	-1.5
	comp=Z,2.4nm,0.4s,baz=207,slow=0.8,SNR=29						
TXAR				PP	PP	06 27 33.8	-0.9
	comp=Z,3.3nm,1.0s,slow=5.0,SNR=4.5						
TXAR				SKPbc		06 28 14.8	
	comp=Z,43nm,1.2s,baz=315,slow=1.3,SNR=14						
SJG	San Juan	146.36	323	ePKP2	PKPab	06 24 55.2	-1.5
SJG	San Juan	146.36	323	PKPbc	PKPbc	06 24 55.8	+2.1
	comp=Z,54nm,0.6s,baz=203,slow=1.4,SNR=15						
PCRV	Puerto La Cruz	150.95	310	PKPbc	PKPdf	06 25 06.4	+1.9
	comp=Z,36nm,1.0s,baz=358,slow=3.6,SNR=7.7						
PCRV				PKPab	PKPab	06 25 16.1	+0.7
	comp=Z,25nm,0.8s,baz=346,slow=18,SNR=4.0						
TEIG	Tepich	151.14	3	ePKPdf	PKPdf	06 25 04.0	-0.6
FCH	Farellones	151.19	210	e	PKPdf	06 25 09.4	+5.1
GWJ	Greenwich	151.50	339	⇑eP	PKPdf	06 25 09.6	+4.4
STH	Stony Hill	151.53	340	eP	PKPdf	06 25 08.5	+3.2
HOJ	Hope	151.57	339	⇑eP	PKPdf	06 25 09.2	+3.9
CVJ	Coleyville	151.63	341	⇑eP	PKPdf	06 25 10.0	+4.6
MCJ	Malvern	151.96	341	⇑eP	PKPdf	06 25 10.3	+4.5
SDV	Santo Domingo	156.15	317	PKP	PKPdf	06 25 08.7	-2.9
	comp=Z,8.7nm,1.0s,baz=273,slow=1.1,SNR=4.0						
SDV				PKPab	PKPab	06 25 37.7	+0.3
	comp=Z,33nm,1.1s,baz=56,slow=4.4,SNR=7.3						
SDV	Santo Domingo	156.15	317	ePKPdf	PKPdf	06 25 09.7	-2.0
LVC	Limon Verde	157.97	229	PKP	PKPdf	06 25 11.7	-2.2
	comp=Z,3.5nm,0.8s,baz=18,slow=3.4,SNR=2.9						
LVC				PKPab	PKPab	06 25 46.1	+1.1
	comp=Z,12nm,1.1s,baz=78,slow=5.2,SNR=3.7						
LPAZ	La Paz	160.28	246	PKP	PKPdf	06 25 15.1	-1.5
	comp=Z,3.0nm,0.7s,baz=6.2,slow=9.3,SNR=6.1						
LPAZ				PKPab	PKPab	06 25 56.6	+1.6
	comp=Z,8.6nm,0.9s,baz=73,slow=5.9,SNR=4.6						
ROSC	El Rosal	161.58	317	PKP	PKPdf	06 25 17.7	-0.4
	comp=Z,14nm,0.9s,baz=98,slow=4.7,SNR=5.2						
ROSC				PKPab	PKPab	06 26 02.0	+1.2
	comp=Z,8.6nm,0.8s,baz=342,slow=2.8,SNR=3.1						
OTAV	Otavalo	167.74	317	ePKPdf	PKPdf	06 25 21.3	-2.3

IDC **29** *06:19:03.8±2.3, 9.54N×93.74E, h22^{km}±14^{km}, mb4.6/31, mb1 4.6/31, mb1mx4.6/31, mbtmp4.7/31, Error ellipse: s-maj=18.9km s-min=10.3km az=46.0*

MOS **29** *06:19:04.2±0.8, 9.59N×93.66E, h33^{km}, mb5.5/32, Error ellipse: s-maj=13.5km s-min=6.0km az=123.3*

BJI **29** *06:19:04.6, 9.31N×93.47E, h49^{km}, mB6.5, mb5.1, Ms5.8, Msz5.4*

NEIC **29** *06:19:05.8±0.5, 9.61N×93.60E, h30^{km}, mb5.2/31, Error ellipse: s-maj=14.4km s-min=9.1km az=135.0*

SYO **29** *06:19:05.9, 9.61N×93.62E, h30^{km}, MB5.2*

HRVD **29** *06:19:05.8±0.3, 9.55N×93.90E, h12^{km}, MW5.3/57, Centroid moment Tensor Solution. LP body waves: s13,c21;Mantle waves: s57,c115; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.95±.03; $M_{\theta\theta}$0.06±.02; $M_{\phi\phi}$0.88±.02; $M_{r\theta}$0.20±.11; $M_{\theta\phi}$0.24±.02; $M_{\phi r}$-0.72±.07; Best double couple: $M_0$1.2×10^{17} NP1:*

ϕ_s210°,δ30°,λ-61°. NP2:ϕ_s358°,δ64°,λ-105°. Principal axes: T 1.16, Plg18°, Azm99°; N .1, Plg14°, Azm4°; P -1.25, Plg67°, Azm239°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

*CSEM **29** 06:19:06.4,9.97N×93.68E,$h33^{km}$,mb5.7*

ISC 29 06:19:03.8±0.3,**9.46N**±0.04×**93.74E**±0.04,**$h33^{km}$, ($h30^{km}$**±1.9km**:pP-P),n225,**$\sigma 1^{s}$**06**/212,**mb5.0**/71,**MS5.9**/5, 18C-8D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	10.27	29	*e*P	P	**06 21 34.1**	**+2.1**
	20nm,0.6s						
CMAR	**Chiang Mai Arr**	10.27	29	Pn	P	**06 21 33.6**	**+1.7**
	0.5nm,0.3s,baz=216,slow=15,SNR=25						
VIS	**Vishakhapatnam**	13.03	310	*e*P	P	**06 22 08.1**	**-1.1**
VIS				*e*S	x	06 24 16.5	
VIS				*e*	S	**06 24 26.2**	**-7.7**
	comp=E,602nm,0.8s						
VIS				*e*		06 24 26.4	
	comp=N,892nm,0.9s						
BWNR	**Bhubaneshwar**	13.22	325	*e*P	P	**06 22 02.3**	**-9.4**
BWNR				*e*S	x	06 24 15.5	
BWNR				*e*	S	**06 24 25.2**	**-13**
	comp=N,508nm,0.4s						
BWNR				*e*		06 24 25.3	
	comp=E,1µm,0.9s						
BOK	**Bokaro**	16.11	333	*e*P	P	**06 22 51.5**	**+2.0**
TRD	**Trivandrum**	16.61	268	*e*S	S	**06 25 51.4**	**-6.9**
HYB	**Hyderabad**	16.75	300	*e*P	P	**06 23 00.0**	**+2.4**
HYB				*e*S	S	**06 25 52.0**	**-10**
HYB	**Hyderabad**	16.75	300	*i* P	P	**06 23 00.0**	**+2.4**
BLSP	**Bilaspur**	16.82	320	*e*P	P	**06 23 00.1**	**+1.6**
KMI	**Kunming**	17.77	28	P	P	**06 23 14.8**	**+4.4**
KMI				AMB	AMB		
	comp=Z,80nm,2.0s						
AKL	**Akola**	19.62	307	⇑*i*P	P	**06 23 32.6**	**+0.3**
	comp=Z,300nm,1.5s						
AKL				*i* S	S	**06 27 08.4**	**+1.9**
PKI	**Pulchoki**	19.66	338	*e*P	P	**06 23 32.2**	**-0.6**
	comp=Z,915nm,1.6s						
GUN	**Gumba**	19.79	339	*e*P	P	**06 23 33.6**	**-0.6**
	comp=Z,939nm,1.1s						
DMN	**Daman**	19.81	337	*e*P	P	**06 23 34.8**	**+0.4**
	comp=Z,238nm,0.8s						
KKN	**Kakani**	19.90	337	*e*P	P	**06 23 34.2**	**-1.2**
	comp=Z,13nm,0.0s						
LSA	**Lhasa**	20.28	353	*e*P	P	**06 23 39.0**	**-0.4**
LSA				pmax	pmax		
	comp=Z,24nm,0.6s						
LSA	**Lhasa**	20.28	353	*e*P	P	**06 23 39.0**	**-0.5**
	comp=Z,24nm,0.6s						
GKN	**Gorkha**	20.34	336	*e*P	P	**06 23 39.7**	**-0.4**
	comp=Z,445nm,0.9s						
KAD	**Karad**	20.55	294	*e*P	P	**06 23 41.2**	**-1.1**
KOLN	**Koldanda**	20.57	334	*e*P	P	**06 23 42.2**	**-0.2**
	comp=Z,1µm,1.6s						
BHPL	**Bhopal**	20.77	313	*e*P	P	**06 23 45.6**	**+1.0**
BHPL				*e*		06 23 50.8	
	comp=Z,548nm,1.3s						
GYA	**Guiyang**	20.87	34	⇑*i*P	P	**06 23 47.0**	**+1.4**
GYA				AMB	AMB		
	comp=Z,110nm,1.1s						
POO	**Poona**	21.29	297	*e*P	P	**06 23 48.8**	**-1.0**
POO				*e*		06 23 52.9	
	comp=Z,230nm,1.6s						
AYAN	**Aya Nagar**	24.54	323	*e*P	P	**06 24 25.9**	**+4.1**
KUDL	**Kundal**	24.68	321	*e*P	P	**06 24 27.1**	**+3.9**
KUDL				*e*		06 24 28.7	
	comp=Z,98nm,1.6s						
ENH	**Enshi**	25.39	33	*e*P	P	**06 24 30.1**	**+0.2**
	comp=Z,38nm,0.9s,mb4.9						
DDI	**Dehra Dun**	25.40	327	*e*P	P	**06 24 31.5**	**+1.5**
DDI				*e*		06 29 17.5	
KLP	**Kalpa**	26.26	329	*e*	P	**06 24 38.4**	**+0.4**
LZH	**Lanzhou**	28.05	18	⇑P	P	**06 24 54.8**	**+0.4**
LZH				AMB	AMB		
	comp=Z,61nm,1.4s,mb5.0						
LZH				LR	LR		
	comp=E,4µm,12.0s						
LZH				LR	LR		
	comp=Z,6µm,13.8s,MS5.3						
WHN	**Wuhan**	28.45	40	⇑P	P	**06 24 59.3**	**+1.4**
GTA	**Gaotai**	30.31	9	*e*P	P	**06 25 15.0**	**+0.6**
GTA				AMB	AMB		
	comp=Z,42nm,1.1s,mb5.1						
NJ2	**Nanjing**	32.35	42	*e*P	P	**06 25 33.8**	**+1.4**
NJ2				AP	pP	06 25 43.0	+0.9
NJ2				XP	sP	06 25 49.0	+2.6
NJ2				PP	PP	06 26 43.0	+2.5
NJ2				S	S	**06 30 42.0**	**-1.0**
NJ2				AMB	AMB		
	comp=Z,130nm,1.4s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,2µm,6.8s						
NJ2				LR	LR		
	comp=N,18µm,17.1s,MS5.9						
NJ2				LR	LR		
	comp=E,15µm,18.4s,MS5.9						
NJ2				LR	LR		
	comp=Z,15µm,13.0s						
SSE	**Sheshan**	33.38	46	*e*P	P	**06 25 38.8**	**-2.6**
SSE				AMB	AMB		
	comp=Z,29nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,17µm,12.0s						
KSH	**Kashi**	33.88	335	*e*P	P	**06 25 45.3**	**-0.3**
KSH				AP	pP	06 25 53.5	-1.8
KSH				*e*PP	PP	06 26 59.8	+0.3
KSH				*e*PCP	PcP	06 28 22.5	-1.5
WMQ	**Urumqi**	34.63	352	P	P	**06 25 52.0**	**0.0**
WMQ				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
HHC	**Hu-ho-hao-te**	35.02	24	*e*P	P	**06 25 55.8**	**+0.4**
HHC				AP	pP	06 26 05.5	+0.4
HHC				PP	PP	06 27 13.3	-0.9
HHC				S	S	**06 31 22.8**	**-1.7**
HHC				PCS		06 32 14.0	
HHC				AMB	AMB		
	comp=Z,22nm,1.1s,mb5.0						
HHC				AMB	AMB		
	comp=Z,7µm,9.3s						
HHC				LR	LR		
	comp=N,8µm,14.3s,MS5.7						
HHC				LR	LR		
	comp=E,6µm,16.6s,MS5.7						
HHC				LR	LR		
	comp=Z,4µm,14.3s,MS5.4						
BJT	**Baijiatuau**	36.40	30	*e*P	P	**06 26 08.7**	**+1.7**
BJI	**Beijing**	36.41	30	P	P	**06 26 09.0**	**+1.8**
UCH	**Uchtor**	36.75	336	P	P	**06 26 11.2**	**+1.2**
	SNR=19						
TKM2	**Tokmak 2**	36.92	338	P	P	**06 26 12.0**	**+0.6**
	SNR=14						
KBK	**Karagaybulak**	36.94	337	P	P	**06 26 13.1**	**+1.5**
	SNR=15						
AML	**Almayashu**	37.01	335	P	P	**06 26 12.8**	**+0.7**
	SNR=61						
AAK	**Ala-Archa**	37.10	336	P	P	**06 26 14.0**	**+1.0**
	SNR=22						
AAK	**Ala-Archa**	37.10	336	⇑*i*P	P	**06 26 12.9**	**-0.1**
FRU	**Bishkek**	37.22	337	*e*P	P	**06 26 13.5**	**-0.5**
FRU				pmax	pmax		
	comp=Z,240nm,2.2s,mb5.6						
CHMS	**Chumysh**	37.31	337	P	P	**06 26 15.2**	**+0.5**
	SNR=19						
EKS2	**Erkin-Say**	37.41	336	P	P	**06 26 16.7**	**+1.1**
	SNR=28						
USP	**Ospenovka**	37.63	337	P	P	**06 26 18.2**	**+0.8**
	SNR=5.7						
SONM	**Songino Array**	39.72	13	P	P	**06 26 35.2**	**+0.5**
	comp=Z,3.8nm,0.9s,mb4.1,baz=196,slow=9.0,SNR=19						
SONM				PcP	PcP	06 28 41.1	-0.4
	comp=Z,4.4nm,1.0s,baz=192,slow=3.5,SNR=4.2						
SONM				ScP		06 32 28.0	
	comp=Z,1.5nm,1.0s,baz=225,slow=1.7,SNR=4.1						
ULN	**Ulaanbaatar**	39.90	14	⇑*i*P	P	**06 26 36.5**	**+0.3**
ZAK	**Zakamensk**	41.55	9	⇓*i*P	P	**06 26 49.7**	**-0.2**
ZAK				*e*		06 28 24.3	
TLY	**Talaya**	42.87	9	⇑*e*P	P	**06 26 59.9**	**-0.8**
NVS	**Novosibirsk**	46.03	352	*i* P	P	**06 27 24.5**	**-1.5**
NVS				pmax	pmax		
	comp=Z,44nm,1.9s,mb5.1						
NVS				pmax	pmax		
	comp=N,38nm,1.4s						
NVS				pmax	pmax		
	comp=E,14nm,1.4s						
BVAR	**Borovoye Array**	47.37	341	P	P	**06 27 35.9**	**-0.7**
	comp=E,5.5nm,0.5s,mb4.7,baz=143,slow=7.4,SNR=21						
BRVK	**Borovoye**	47.43	341	⇑*i*P	P	**06 27 36.4**	**-0.6**
NWAO	**Narrogin (SRO)**	47.73	153	P	P	**06 27 38.1**	**-1.5**
	comp=E,5.1nm,0.5s,mb4.8,baz=349,slow=12,SNR=5.9						
CHKZ	**Chkalovo**	47.85	342	*e*P	P	**06 27 39.5**	**-0.8**
CHKZ				pmax	pmax		
	comp=Z,25nm,0.6s,mb5.4						
CHKZ	**Chkalovo**	47.85	342	*e*P	P	**06 27 39.5**	**-0.8**
	comp=Z,25nm,0.6s,mb5.4						
MAT	**Matsushiro**	48.41	49	P	P	**06 27 47.3**	**+2.4**
MAT	**Matsushiro**	48.41	49	P	P	**06 27 47.0**	**+2.1**
MZLS	**Mizel**	48.44	294	P	P	**06 27 47.1**	**+1.8**
WRA	**Warramunga Arr**	49.50	126	P	P	**06 27 52.7**	**-0.8**
	comp=Z,7.5nm,0.6s,mb4.9,baz=304,slow=8.7,SNR=6.9						
WRA				PcP	PcP	06 29 14.2	-1.3
	comp=Z,2.3nm,0.6s,baz=323,slow=3.2,SNR=5.4						
WRAB	**Tennant Creek**	49.51	126	⇑*i*P	P	**06 27 53.2**	**-0.4**
TATS	**Tathlith**	49.53	288	D		06 27 55.0	
AFFS	**‘Afif**	50.42	293	P	P	**06 28 02.1**	**+1.6**
ARSS	**Ar Rass**	50.50	296	P	P	**06 28 01.9**	**+0.9**
FRSS	**Farasan al Kab**	50.69	284	P	P	**06 28 05.4**	**+2.8**
BOD	**Bodaibo**	50.71	14	*e*P	P	**06 27 57.8**	**-4.4**
ASAR	**Alice Springs**	51.23	131	P	P	**06 28 05.3**	**-1.4**
	comp=Z,7.6nm,0.8s,mb4.7,baz=304,slow=6.5,SNR=34						
ASAR				PcP	PcP	06 29 21.2	-0.5
	comp=Z,4.3nm,0.7s,baz=310,slow=3.9,SNR=8.0						
HILS	**Ha’il**	52.02	297	P	P	**06 28 14.3**	**+1.8**
GNI	**Garni**	53.06	314	P	P	**06 28 19.9**	**-0.2**
	comp=Z,9.3nm,0.5s,mb4.9,baz=156,slow=4.9,SNR=12						
TI2	**Plekhanov**	53.64	315	*e*P	P	**06 28 24.4**	**0.0**
SVE	**Sverdlovsk**	53.79	338	⇓*e*P	P	**06 28 24.0**	**-1.3**
SVE				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.5						
SVE				MLR	MLR		
	comp=Z,5µm,15.0s,MS5.7						
KBRS	**Khaybar**	54.03	295	P	P	**06 28 29.0**	**+1.6**
ARU	**Arti**	54.29	337	⇑*i*P	P	**06 28 28.0**	**-0.9**
ZEI	**Tsey**	54.62	316	*e*P	P	**06 28 32.3**	**+0.7**
ZEI				*i*		06 30 35.9	
ZEI				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
YNBS	**Yanbu‘ al Bahr**	55.01	293	P	P	**06 28 35.7**	**+1.1**
UMJS	**Umm Lajj**	55.72	294	P	P	**06 28 41.3**	**+1.6**
KIV	**Kislovodsk**	55.89	317	P	P	**06 28 40.1**	**-0.6**
	comp=Z,253nm,0.7s,SNR=17						
KIV	**Kislovodsk**	55.89	317	*i* P	P	**06 28 39.8**	**-0.9**
KIV	**Kislovodsk**	55.89	317	*i* Pr		06 28 39.8	
GOF	**Gofitskoye**	56.08	319	⇓*i*P	P	**06 28 41.0**	**-1.1**
GOF				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.2						
PMG	**Port Moresby**	56.38	108	P	P	**06 28 45.2**	**+0.5**
	comp=Z,11nm,0.7s,mb5.0,baz=316,slow=7.0,SNR=4.4						
TBKS	**Tabuk**	56.74	297	P	P	**06 28 48.6**	**+1.6**
ASF	**Jabal al Asfar**	57.04	302	P	P	**06 28 49.3**	**+0.2**
	comp=Z,5.7nm,0.8s,mb4.7,baz=300,slow=1.8,SNR=11						
MALT	**Malatya**	57.15	310	*e*P	P	**06 28 48.4**	**-1.5**
MALT				pmax	pmax		
	comp=Z,70nm,1.9s,mb5.4						
MALT	**Malatya**	57.15	310	*e*P	P	**06 28 48.4**	**-1.5**
	comp=Z,70nm,1.9s,mb5.4						
KMBO	**Kilima Mbogo**	57.22	263	*e*P	P	**06 28 52.4**	**+1.7**
KMBO				pmax	pmax		
	comp=Z,132nm,1.8s						
KMBO	**Kilima Mbogo**	57.22	263	P	P	**06 28 51.8**	**+1.0**
	comp=Z,13nm,0.8s,mb5.0,baz=58,slow=10,SNR=33						
KMBO	**Kilima Mbogo**	57.22	263	*e*P	P	**06 28 52.4**	**+1.7**
	comp=Z,132nm,1.8s,mb5.7						
JMQS	**Jabal Moqyreh**	57.41	298	P	P	**06 28 52.2**	**+0.5**
SOC	**Sochi**	57.77	316	*e*P	P	**06 28 52.9**	**-1.2**
SOC				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
SOC				pmax	pmax		
	comp=N,6.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,12nm,0.7s						
AYUS	**‘Aynunah**	57.85	297	P	P	**06 28 55.8**	**+0.9**
BDAS	**Al Bad‘**	58.03	298	P	P	**06 28 55.9**	**-0.2**
JMOS	**Jabal al Moall**	58.11	298	P	P	**06 28 56.3**	**-0.4**
TAYS	**Tayyib Ism**	58.24	298	P	P	**06 28 57.7**	**+0.1**
HAQS	**Haql**	58.25	298	P	P	**06 28 58.2**	**+0.5**
EIL	**Elat**	58.31	299	P	P	**06 28 57.9**	**-0.2**
	comp=E,7.3nm,0.7s,mb4.8,baz=136,slow=4.5,SNR=12						
EIL	**Elat**	58.31	299	*e*P	P	**06 28 58.4**	**+0.4**
	comp=E,47nm,1.4s,mb5.3						
YAK	**Yakutsk**	58.63	19	*e*P	P	**06 28 58.9**	**-1.0**
CTA	**Charters Tower**	59.43	120	P	P	**06 29 06.3**	**+0.3**
	comp=E,7.1nm,1.1s,mb4.6,baz=304,slow=14,SNR=3.3						
BRTR	**Keskin Array B**	61.11	310	P	P	**06 29 14.8**	**-2.3**
	comp=E,8.1nm,0.7s,mb5.0,baz=126,slow=7.6,SNR=30						
STKA	**Stephens Creek**	61.48	134	P	P	**06 29 19.8**	**-0.1**
	comp=E,7.2nm,1.1s,mb4.7,baz=237,slow=3.3,SNR=7.5						
ISP	**Isparta**	63.16	308	*e*P	P	**06 29 28.8**	**-2.2**
MBAR	**Mbarara**	63.51	265	⇑*i*P	P	**06 29 34.8**	**+1.1**
MOS	**Moscow**	63.53	328	*e*P	P	**06 29 31.6**	**-1.5**
MOS				*e*		06 30 11.0	
MOS				*e*		06 31 49.7	
MOS				pmax	pmax		
	comp=Z,88nm,1.6s,mb5.5						
OBN	**Obninsk**	63.84	327	α*i*P	P	**06 29 34.0**	**-1.1**
OBN				*e*		06 30 07.9	
OBN				*e*		06 31 53.5	
OBN				*e*S	S	**06 38 10.6**	**+4.2**
OBN				pmax	pmax		
	comp=Z,52nm,1.2s,mb5.4						
KIS	**Kishinev**	66.09	317	*e*P	P	**06 29 44.0**	**-5.8**
KIS				*e*		06 30 14.0	
AKASG	**Malin Array Be**	66.68	321	P	P	**06 29 50.9**	**-2.5**
	comp=Z,3.0nm,0.7s,mb4.4,baz=90,slow=4.8,SNR=18						
AKASG				PP	PP	06 32 15.6	-6.6
	comp=Z,1.7nm,0.9s,baz=96,slow=6.3,SNR=5.1						
IDI	**Anoyia**	67.35	304	P	P	**06 29 56.1**	**-1.8**
	comp=Z,8.6nm,0.6s,mb4.9,baz=28,slow=10,SNR=5.2						
MLR	**Muntele Rosu**	67.77	315	P	P	**06 30 00.2**	**-0.1**
	comp=Z,12nm,0.8s,mb5.0,baz=193,slow=0.5,SNR=17						
LSZ	**Lusaka**	69.43	250	*e*P	P	**06 30 11.9**	**+0.7**
LSZ				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
LSZ	**Lusaka**	69.43	250	*e*P	P	**06 30 11.9**	**+0.7**
	comp=Z,13nm,0.8s,mb4.9						
APA	**Apatity**	70.23	339	⇓*i*P	P	**06 30 14.9**	**-0.3**
APA				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
BOLS	**Boljevac**	70.37	313	⇑*i*P	P	**06 30 14.3**	**-2.1**
KWP	**Kalwaria**	70.58	319	*e*P	P	**06 30 16.4**	**-1.2**
KOLS	**Kolonicke sedl**	70.76	319	*e*P	P	**06 30 18.5**	**-0.2**
KOLS				*e*		06 30 33.3	
WAKE	**Wake Island**	70.89	73	PFAKE		06 30 30.0	+10
WAKE				LR	LR		
	comp=Z,60µm,20.0s,MS6.8						
SUW	**Suwalki**	71.00	324	*e*P	P	**06 30 19.2**	**-0.9**
FINES	**FINESS Array B**	71.14	332	*i* P	P	**06 30 20.0**	**-0.7**
FINES				pmax	pmax		
	comp=Z,5.0nm,0.9s						
FINES	**FINESS Array B**	71.14	332	P	P	**06 30 19.4**	**-1.3**
	comp=Z,4.6nm,0.9s,mb4.4,baz=72,slow=6.0,SNR=6.5						
KAF	**Kangasniemi**	71.21	333	*e*p	P	**06 30 20.1**	**-1.1**
	comp=Z,7.6nm,0.9s,mb4.6						
KAF	**Kangasniemi**	71.21	333	*e*P	P	**06 30 20.1**	**-1.1**
KAF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
CRVS	**Cervenica-Dubn**	71.29	318	*e*P	P	**06 30 23.0**	**+1.1**
KECS	**Kecovo**	71.88	318	*e*P	P	**06 30 23.8**	**-1.6**
PSZ	**Piszkesteto**	72.22	317	⇓*e*P	P	**06 30 26.4**	**-1.0**
OJC	**Ojcow**	72.52	320	*e*P	P	**06 30 28.0**	**-1.1**
PKSM	**Moragy**	72.92	315	⇓*e*P	P	**06 30 30.3**	**-1.4**
VYHS	**Vyhne**	72.97	318	*e*P	P	**06 30 31.2**	**-0.7**
KEV	**Kevo**	73.22	340	*e*p	P	**06 30 32.3**	**-0.7**
	comp=Z,17nm,0.7s,mb5.1						
KEV	**Kevo**	73.22	340	*e*P	P	**06 30 32.3**	**-0.7**
KEV				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
OKC	**Ostrava-Krasne**	73.54	319	*e*P	P	**06 30 35.3**	**+0.1**
ARCES	**ARCESS Array B**	73.65	340	P	P	**06 30 35.2**	**-0.3**
	comp=Z,7.3nm,0.7s,mb4.7,baz=90,slow=6.1,SNR=13						
MORC	**Moravsky Berou**	73.93	319	*e*P	P	**06 30 36.7**	**-0.7**
MORC				pmax	pmax		
	comp=Z,76nm,1.6s,mb5.4						
MORC	**Moravsky Berou**	73.93	319	*e*P	P	**06 30 36.6**	**-0.8**
	comp=Z,76nm,1.6s,mb5.4						
ZST	**Bratislava**	74.11	317	*e*P	P	**06 30 38.3**	**-0.2**
ZST				*e*		06 31 02.9	
VRAC	**Vranov**	74.51	319	P	P	**06 30 39.9**	**-0.9**
	comp=Z,1.9nm,0.5s,mb4.3,baz=105,slow=8.3,SNR=4.4						
LBTB	**Lobatse**	74.66	241	*e*P	P	**06 30 43.3**	**+1.1**
LBTB				pmax	pmax		
	comp=Z,152nm,1.8s,mb5.6						
LBTB	**Lobatse**	74.66	241	*e*P	P	**06 30 43.3**	**+1.1**
	comp=Z,152nm,1.8s,mb5.6						
DPC	**Dobruska-Polom**	74.75	320	*e*P	P	**06 30 42.9**	**+0.7**
KSP	**Ksiaz**	74.80	320	⇑*e*P	P	**06 30 42.4**	**-0.1**
KSP	**Ksiaz**	74.80	320	*e*P	P	**06 30 42.4**	**-0.1**
UPC	**Upice**	74.96	320	*e*P	P	**06 30 43.5**	**+0.1**
PERS	**Pernice**	75.38	316	*i* P	P	**06 30 45.9**	**0.0**
PRU	**Pruhonice**	75.88	319	*e*P	P	**06 30 48.1**	**-0.5**
PVCC	**Panska Ves**	75.88	320	*e*P	P	**06 30 48.9**	**+0.2**
BOSA	**Boshof**	76.09	237	*e*P	P	**06 30 50.9**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
BOSA	**Boshof**	76.09	237	*e*P	P	**06 30 50.9**	**+0.5**
	comp=Z,28nm,1.0s,mb5.2						
FX1	**Attu Island--F**	76.14	38	P	P	**06 30 51.2**	**+1.2**
	comp=Z,27nm,1.0s,mb5.1,baz=74,slow=23,SNR=3.3						
BRG	**Berggiesshubel**	76.29	320	⇑*i*P	P	**06 30 51.2**	**+0.2**
BRG				pmax	pmax		
	comp=Z,111nm,2.4s,mb5.4						
BRG	**Berggiesshubel**	76.29	320	⇑*i*P	P	**06 30 51.2**	**+0.2**
	comp=Z,111nm,2.4s,mb5.4						
BRG				*e*		06 31 16.9	
GEC2	**GERESS Array S**	76.39	318	*e*P	P	**06 30 51.5**	**-0.1**
GEC2				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
GEC2	**GERESS Array S**	76.39	318	*e*P	P	**06 30 51.5**	**-0.1**
	comp=Z,24nm,1.2s,mb5.0						
GERES	**GERESS Array B**	76.39	318	P	P	**06 30 51.0**	**-0.6**
	comp=Z,5.1nm,0.7s,mb4.6,baz=88,slow=6.0,SNR=40						
KHC	**Kasperske Hory**	76.48	318	*e*P	P	**06 30 52.0**	**-0.1**
KHC				*e*x	x	06 31 01.5	
PTCC	**Patocco-Chiusa**	76.59	315	*e*P	P	**06 30 52.2**	**-0.6**
CLL	**Collm**	76.89	320	*i* P	P	**06 30 54.0**	**-0.4**
CLL				pmax	pmax		
	comp=Z,92nm,2.3s,mb5.3						
CLL	**Collm**	76.89	320	*i* P	P	**06 30 54.0**	**-0.4**
	comp=Z,92nm,2.3s,mb5.3						
CLL	**Collm**	76.89	320	P	P	**06 30 54.0**	**-0.4**
	comp=Z,logA/T=1.6,mb5.3						
HFS	**Hagfors**	76.90	330	P	P	**06 30 53.1**	**-1.2**
	comp=Z,4.0nm,0.7s,mb4.5,baz=90,slow=3.0,SNR=8.7						
WET	**Wettzell**	76.94	318	*e*P	P	**06 30 54.0**	**-0.7**
SFI	**Santa Sofia**	77.68	313	*e*P	P	**06 30 59.5**	**+0.6**
MOX	**Moxa**	77.76	320	*e*P	P	**06 30 59.2**	**-0.1**
MOX				pmax	pmax		
	comp=Z,76nm,2.3s,mb5.2						
MOX	**Moxa**	77.76	320	*i* P	P	**06 30 59.2**	**-0.1**
	comp=Z,logA/T=1.5,mb5.2						
MOX	**Moxa**	77.76	320	*e*P	P	**06 30 59.2**	**-0.1**
	comp=Z,76nm,2.3s,mb5.2						
CTI	**Castel Tesino**	77.78	315	*e*P	P	**06 30 59.6**	**+0.2**
FUR	**Furstenfeldbru**	78.00	317	*e*P	P	**06 31 00.3**	**-0.3**
GRA1	**Grafenberg Arr**	78.02	319	*e*P	P	**06 31 01.4**	**+0.7**
	comp=Z,139nm,2.0s,mb5.5						
GRF	**Grafenberg Arr**	78.02	319	*e*P	P	**06 31 01.4**	**+0.7**
GRF				pmax	pmax		
	comp=Z,139nm,2.0s,mb5.5						
GRF	**Grafenberg Arr**	78.02	319	*e*P	P	**06 31 01.4**	**+0.7**
GRF				pmax	pmax		
	comp=Z,139nm,2.0s,mb5.5						
GRF	**Grafenberg Arr**	78.02	319	*e*P	P	**06 31 01.4**	**+0.7**
	comp=Z,139nm,2.0s,mb5.5						
SEI	**Scarperia**	78.03	313	*e*P	P	**06 31 01.8**	**+0.9**
NB2	**NORSAR Subarra**	78.17	330	P	P	**06 30 59.8**	**-1.4**
	comp=Z,3.0nm,0.7s,mb4.3,baz=95,slow=5.0						
NB2	**NORSAR Subarra**	78.17	330	P	P	**06 30 59.8**	**-1.4**
NB2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
NOA	**NORSAR Array B**	78.17	330	P	P	**06 31 00.1**	**-1.1**
	comp=Z,5.4nm,0.8s,mb4.5,baz=93,slow=5.7,SNR=10						
CLZ	**Clausthal**	78.54	321	*e*P	P	**06 31 03.1**	**-0.4**
	comp=Z,23nm,1.1s,mb5.0						
BSEG	**Bad Segeberg**	78.55	323	*e*P	P	**06 31 03.6**	**+0.1**
DAVOX	**Davos**	78.98	316	P	P	**06 31 05.6**	**-0.4**
	comp=Z,7.1nm,0.5s,mb4.8,baz=119,slow=6.2,SNR=14						
BFO	**Black Forest**	79.97	318	*e*P	P	**06 31 11.1**	**-0.2**
BFO				pmax	pmax		
	comp=Z,33nm,1.8s,mb5.0						
BFO	**Black Forest**	79.97	318	*e*P	P	**06 31 11.1**	**-0.2**
	comp=Z,33nm,1.8s,mb5.0						
MAW	**Mawson**	80.00	192	P	P	**06 31 12.1**	**+1.0**
	comp=Z,9.6nm,0.8s,mb4.8,baz=329,slow=9.2,SNR=5.0						
CDF	**Champ du Feu**	80.66	318	*e*P	P	**06 31 14.2**	**-0.8**
	comp=Z,126nm,1.9s,mb5.2						
CDF	**Champ du Feu**	80.66	318	*e*P	P	**06 31 14.2**	**-0.8**
CDF				pmax	pmax		
	comp=Z,63nm,1.9s,mb5.2						
SBF	**Sospel**	80.87	313	*e*P	P	**06 31 15.0**	**-1.2**
	comp=Z,59nm,0.8s,mb5.3						
SBF	**Sospel**	80.87	313	*e*P	P	**06 31 15.0**	**-1.2**
SBF				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.3						
SUR	**Sutherland**	80.91	235	*e*P	P	**06 31 18.7**	**+2.1**
	comp=Z,14nm,0.8s,mb4.9						
LPG	**La Plagne**	81.23	315	*e*P	P	**06 31 17.4**	**-0.6**
	comp=Z,45nm,0.8s,mb5.1						
LPG	**La Plagne**	81.23	315	*e*P	P	**06 31 17.4**	**-0.6**
LPG				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.2						
MBDF	**Montbardon**	81.28	314	*e*P	P	**06 31 17.6**	**-0.7**
	comp=Z,58nm,1.3s,mb5.0						
MBDF	**Montbardon**	81.28	314	*e*P	P	**06 31 17.6**	**-0.7**
MBDF				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.0						
HAU	**Haudompre**	81.31	317	*e*P	P	**06 31 17.0**	**-1.4**
	comp=Z,27nm,0.8s,mb4.9						
HAU	**Haudompre**	81.31	317	*e*P	P	**06 31 17.0**	**-1.4**
HAU				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
BAIF	**Baives**	82.53	319	*e*P	P	**06 31 23.1**	**-1.6**
	comp=Z,23nm,1.0s,mb4.8						
BAIF	**Baives**	82.53	319	*e*P	P	**06 31 23.1**	**-1.6**
BAIF				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
SSF	**Saint Saulge**	83.32	317	*e*P	P	**06 31 27.9**	**-0.8**
SSF				pmax	pmax		
	comp=Z,53nm,1.7s,mb5.3						
SSF	**Saint Saulge**	83.32	317	*e*P	P	**06 31 27.9**	**-0.8**
	comp=Z,53nm,1.7s,mb5.3						
BGF	**Bois d’Agland**	83.83	316	*e*P	P	**06 31 30.7**	**-0.7**
	comp=Z,18nm,0.8s,mb4.9						
BGF	**Bois d’Agland**	83.83	316	*e*P	P	**06 31 30.7**	**-0.7**
BGF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.0						
EKA	**Eskdalemuir Ar**	86.20	325	P	P	**06 31 43.4**	**+0.4**
	comp=Z,7.3nm,0.8s,mb5.0,baz=94,slow=5.2,SNR=9.2						
ETSF	**Etsaut**	86.77	313	*e*P	P	**06 31 44.7**	**-1.3**
	comp=Z,24nm,0.9s,mb5.1						
ETSF	**Etsaut**	86.77	313	*e*P	P	**06 31 44.7**	**-1.3**
ETSF				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.1						
SYO	**Syowa Base**	86.80	197	⇓P	P	**06 31 47.4**	**+1.9**
SYO	**Syowa Base**	86.80	197	⇓PcP	PcP	06 31 51.0	+2.7
SYO	**Syowa Base**	86.80	197	⇑pP	pP	06 31 56.8	+0.7
ESDC	**Sonseca Array**	89.90	310	P	P	**06 32 00.6**	**-0.5**
	comp=Z,2.0nm,0.8s,mb4.5,baz=54,slow=4.0,SNR=7.3						
SUMG	**Summit**	92.52	347	*e*P	P	**06 32 14.1**	**+1.6**
ILAR	**Eielson Array**	93.43	22	P	P	**06 32 16.6**	**-0.2**
	comp=Z,1.4nm,0.7s,mb4.5,baz=310,slow=7.3,SNR=14						
VNDA	**Vanda**	94.55	168	P	P	**06 32 22.1**	**+0.5**
	comp=Z,0.5nm,0.6s,mb4.1,baz=5.1,slow=5.9,SNR=3.1						
INK	**Inuvik**	95.59	16	P	P	**06 32 26.7**	**+0.2**
	comp=Z,5.2nm,0.9s,mb4.9,baz=335,slow=4.9,SNR=6.7						
DBIC	**Dimbokro**	97.34	278	P	P	**06 32 37.0**	**+1.3**
	comp=Z,2.0nm,0.9s,mb4.6,baz=69,slow=9.5,SNR=3.4						
YKA	**Yellowknife Ar**	104.98	13	PP	PP	06 37 32.5	+0.1
	comp=Z,2.2nm,1.1s,baz=334,slow=7.4,SNR=10						
NVAR	**Mina Array Bea**	123.76	30	PKP	PKPdf	06 37 59.7	+0.9
	comp=Z,2.6nm,0.7s,slow=1.5,SNR=9.8						
PDAR	**Pinedale Array**	123.83	21	PKP	PKPdf	06 38 00.1	+1.3
	comp=Z,3.3nm,1.1s,baz=28,slow=0.9,SNR=9.6						
PDAR				PKKPbc		06 47 44.7	
	comp=Z,0.6nm,0.8s,baz=135,slow=6.3,SNR=4.2						
SRU	**San Rafael**	126.67	23	PKIKP	PKPdf	06 38 04.4	0.0
NEN	**Nelson**	127.65	29	*e*P	PKPdf	06 38 09.1	+2.7
ANMO	**Albuquerque**	131.87	22	PKP	PKPdf	06 38 16.7	+2.2
	comp=Z,1.2nm,0.7s,baz=301,slow=3.2,SNR=5.3						
ANMO				SKPbc		06 41 40.1	
	comp=Z,2.8nm,1.0s,baz=316,slow=4.6,SNR=6.9						
TXAR	**Lajitas Array**	137.94	23	PKhKP		06 38 16.9	
	comp=Z,0.2nm,0.6s,baz=188,slow=1.3,SNR=6.1						
TXAR				PKP	PKPdf	06 38 26.4	+0.5

	comp=Z,1.0nm,0.7s,baz=198,slow=0.1,SNR=15						
TXAR				SKPbc		06 41 59.2	
	comp=Z,1.4nm,0.9s,baz=333,slow=2.8,SNR=4.7						
JCT	**Junction City**	**138.21**	**18**	*e*PKIKP	PKPdf	06 38 28.2	+1.9
SJG	**San Juan**	**146.17**	**324**	PKPbc	PKPbc	06 38 41.6	-0.1
	comp=Z,18nm,0.9s,baz=39,slow=12,SNR=3.5						
PCRV	**Puerto La Cruz**	**150.96**	**312**	PKPbc	PKPdf	06 38 54.7	+6.3
	comp=Z,12nm,0.6s,baz=185,slow=4.1,SNR=8.5						
PCRV				PKPab	PKPab	06 39 02.8	-1.1
	comp=Z,19nm,0.7s,baz=304,slow=7.4,SNR=8.5						
SDV	**Santo Domingo**	**156.04**	**319**	PKPbc	PKPdf	06 39 07.3	+12
	comp=Z,3.9nm,0.9s,baz=340,slow=13,SNR=3.8						
SDV				PKPab	PKPab	06 39 24.1	-1.2
	comp=Z,8.6nm,0.8s,baz=44,slow=1.7,SNR=7.2						
SDV	**Santo Domingo**	**156.04**	**319**	*e*PKPab	PKPab	06 39 23.6	-1.7
LVC	**Limon Verde**	**158.84**	**230**	PKPab	PKPab	06 39 36.9	-0.2
	comp=Z,6.8nm,0.7s,baz=40,slow=1.7,SNR=11						
LPAZ	**La Paz**	**161.08**	**247**	PKPab	PKPab	06 39 47.4	+0.5
	comp=Z,5.5nm,0.7s,baz=174,slow=2.2,SNR=10						
ROSC	**El Rosal**	**161.47**	**320**	PKPab	PKPab	06 39 48.0	-0.7
	comp=Z,2.9nm,0.4s,baz=248,slow=23,SNR=3.9						

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*BJI **29** 06:28:36.3, 11.65N×92.59E, h29^{km}, mB5.6, mb4.9, Ms5.4, Msz5.4*

*IDC **29** 06:28:44.5±0.5, 12.87N×92.45E, mb4.6/22, mb1 4.7/23, mb1mx4.6/26, mbtmp4.5/23, ML3.9/1, Error ellipse: s-maj=26.9km s-min=11.1km az=51.0*

*NEIC **29** 06:28:49.2±3.1, 12.94N×92.62E, h29^{km}±22^{km}, mb4.6/8, Error ellipse: s-maj=10.4km s-min=9.3km az=78.0*

ISC 29 06:28:47.9±0.3**, 12.92N**±0.05×**92.62E**±0.05**, h33**^{km}**, (h17**^{km}±7.5^{km}**:pP-P), n79, σ1**^{s}**04**/74**, mb4.6**/31**, MS5.3**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**8.21**	**47**	*e*P	**P**	**06 30 46.9**	**-0.6**
CMAR	**Chiang Mai Arr**	**8.21**	**47**	Pn	**P**	**06 30 47.1**	**-0.4**
	0.4nm,0.3s,baz=239,slow=14,SNR=7.0						
CMAR				Sn	**Sn**	**06 32 16.4**	**-4.0**
	1.7nm,0.3s,baz=239,slow=29,SNR=11						
BWNR	**Bhubaneshwar**	**9.82**	**319**	*e*P	**P**	**06 30 58.2**	**-12**
BWNR				*e*S	S	06 32 36.0	-24
VIS	**Vishakhapatnam**	**10.15**	**299**	*e*	**S**	**06 32 58.8**	**-9.5**
	comp=N,672nm,0.4s						
VIS				*e*		06 32 58.9	
	comp=E,568nm,0.3s						
PALK	**Pallekele**	**13.00**	**246**	P	**P**	**06 31 52.4**	**-0.6**
HYB	**Hyderabad**	**14.29**	**290**	*i* P	**P**	**06 32 11.0**	**+1.0**
PKI	**Pulchoki**	**16.06**	**336**	*e*P	**P**	**06 32 32.5**	**-0.5**
	comp=E,60nm,0.6s						
GUN	**Gumba**	**16.19**	**338**	*e*P	**P**	**06 32 34.7**	**+0.1**
	comp=E,60nm,0.5s						
DMN	**Daman**	**16.22**	**335**	*e*P	**P**	**06 32 32.8**	**-2.1**
	comp=E,92nm,0.6s						
KKN	**Kakani**	**16.31**	**336**	*e*P	**P**	**06 32 35.4**	**-0.7**
	comp=E,38nm,0.5s						
LSA	**Lhasa**	**16.76**	**356**	*e*P	**P**	**06 32 43.0**	**+1.3**
	comp=E,28nm,0.6s						
GKN	**Gorkha**	**16.76**	**335**	*e*P	**P**	**06 32 40.1**	**-1.6**
	comp=E,180nm,0.9s						
KOLN	**Koldanda**	**17.01**	**332**	*e*P	**P**	**06 32 43.0**	**-1.9**
	comp=E,87nm,0.6s						
BHPL	**Bhopal**	**17.70**	**308**	*e*P	**P**	**06 32 54.6**	**+1.0**
POO	**Poona**	**18.90**	**290**	*e*P	**P**	**06 33 02.6**	**-5.8**
POO				*e*		06 33 11.5	
	comp=Z,29nm,0.7s						
AGRA	**Agra**	**19.79**	**318**	*e*P	**P**	**06 33 16.4**	**-1.8**
AYAN	**Aya Nagar**	**21.17**	**319**	*e*P	**P**	**06 33 32.5**	**-0.1**
KUDL	**Kundal**	**21.35**	**318**	*e*P	**P**	**06 33 30.8**	**-3.7**
DDI	**Dehra Dun**	**21.94**	**324**	*e*P	**P**	**06 33 41.5**	**+1.2**
ENH	**Enshi**	**23.28**	**39**	*e*P	**P**	**06 33 53.2**	**-0.4**
ENH				*e*P		06 33 53.9	
LZH	**Lanzhou**	**25.19**	**22**	*e*P	**P**	**06 34 13.5**	**+1.5**
LZH				AP	pP	06 34 16.5	-4.9
LZH				AMB	AMB		
	comp=Z,73nm,1.4s,mb5.0						
LZH				AMB	AMB		
	comp=Z,236nm,5.2s						
LZH				LR	LR		
	comp=E,5µm,13.6s						
LZH				LR	LR		
	comp=Z,8µm,15.0s,MS5.3						
XAN	**Xi'an**	**25.73**	**32**	P	**P**	**06 34 17.0**	**-0.2**
XAN				AP	pP	06 34 25.0	-1.5
XAN				AMB	AMB		
	comp=Z,22nm,0.8s,mb4.7						
GTA	**Gaotai**	**27.15**	**12**	*e*P	**P**	**06 34 31.5**	**+1.3**
GTA				AP	pP	06 34 36.5	-3.1
GTA				XP	sP	06 34 39.3	-4.4
GTA				AMB	AMB		
	comp=Z,25nm,0.9s,mb4.7						
HHC	**Hu-ho-hao-te**	**32.41**	**27**	*e*P	**P**	**06 35 18.3**	**+1.4**
HHC				AP	pP	06 35 27.3	+0.7
HHC				XP	sP	06 35 31.8	+0.9
HHC				AMB	AMB		
	comp=Z,12nm,0.6s,mb4.9						
HHC				AMB	AMB		
	comp=Z,3µm,10.8s						
UCH	**Uchtor**	**33.17**	**335**	P	**P**	**06 35 24.8**	**+1.2**
	SNR=7.5						
TKM2	**Tokmak 2**	**33.33**	**337**	P	**P**	**06 35 26.0**	**+1.1**
	SNR=7.4						
AML	**Almayashu**	**33.44**	**334**	P	**P**	**06 35 27.2**	**+1.4**
	SNR=7.4						
AAK	**Ala-Archa**	**33.52**	**335**	P	**P**	**06 35 27.9**	**+1.4**
	SNR=7.4						
CHMS	**Chumysh**	**33.72**	**336**	P	**P**	**06 35 28.5**	**+0.2**
	SNR=5.9						
EKS2	**Erkin-Say**	**33.84**	**335**	P	**P**	**06 35 30.4**	**+1.2**
	SNR=11						
USP	**Ospenovka**	**34.05**	**336**	P	**P**	**06 35 31.5**	**+0.5**
	SNR=17						
SONM	**Songino Array**	**36.67**	**16**	P	**P**	**06 35 54.5**	**+1.2**
	comp=Z,7.6nm,0.8s,mb4.6,baz=202,slow=7.4,SNR=26						
ULN	**Ulaanbaatar**	**36.87**	**16**	*e*P	**P**	**06 35 55.5**	**+0.5**
	comp=Z,5.0nm,0.9s,mb4.3						
ZAL	**Zalesovo**	**41.39**	**353**	P	**P**	**06 36 32.4**	**-0.1**
	comp=Z,5.4nm,0.6s,mb4.4,baz=209,slow=6.6,SNR=21						
MBWA	**Marble Bar**	**43.08**	**141**	*e*P	**P**	**06 36 45.6**	**-1.3**
	comp=Z,12nm,1.1s,mb4.5						
BVAR	**Borovoye Array**	**43.77**	**341**	P	**P**	**06 36 51.9**	**-0.1**
	comp=Z,3.2nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=10						
BRVK	**Borovoye**	**43.83**	**341**	*e*P	**P**	**06 36 52.2**	**-0.3**
CHKZ	**Chkalovo**	**44.25**	**341**	*e*P	**P**	**06 36 55.6**	**-0.2**
GNI	**Garni**	**49.91**	**312**	P	**P**	**06 37 42.0**	**+1.5**
	comp=Z,10nm,0.8s,mb4.9,baz=318,slow=4.3,SNR=6.8						
ARU	**Arti**	**50.70**	**336**	*e*P	**P**	**06 37 44.9**	**-1.3**
NWAO	**Narrogin (SRO)**	**51.29**	**153**	P	**P**	**06 37 51.0**	**-0.1**
	comp=Z,9.1nm,0.6s,mb4.9,baz=310,slow=1.9,SNR=7.9						
NWAO	**Narrogin (SRO)**	**51.29**	**153**	*e*P	**P**	**06 37 49.3**	**-1.8**
WRA	**Warramunga Arr**	**52.46**	**128**	P	**P**	**06 37 59.5**	**-0.4**
	comp=Z,17nm,0.7s,mb5.1,baz=305,slow=8.4,SNR=92						
WRA				PcP	PcP	06 39 10.0	-0.4
	comp=Z,2.4nm,0.6s,baz=324,slow=3.2,SNR=8.2						
WRAB	**Tennant Creek**	**52.46**	**128**	*e*P	**P**	**06 37 59.3**	**-0.7**
	comp=Z,25nm,0.6s,mb5.3						
KIV	**Kislovodsk**	**52.63**	**316**	*e*P	**P**	**06 38 01.2**	**+0.3**
ASAR	**Alice Springs**	**54.33**	**132**	P	**P**	**06 38 13.2**	**-0.5**
	comp=Z,9.0nm,0.4s,mb5.0,baz=310,slow=6.9,SNR=102						
ASAR				PcP	PcP	06 39 17.8	+0.4
	comp=Z,1.3nm,0.6s,baz=315,slow=5.1,SNR=2.7						
BRTR	**Keskin Array B**	**58.07**	**309**	P	**P**	**06 38 38.8**	**-1.5**
	comp=Z,7.3nm,0.9s,mb4.7,baz=123,slow=7.7,SNR=15						
PMG	**Port Moresby**	**58.53**	**110**	P	**P**	**06 38 44.2**	**+0.4**
	comp=Z,15nm,0.6s,mb5.2,baz=61,slow=3.4,SNR=7.1						
PMG	**Port Moresby**	**58.53**	**110**	*e*P	**P**	**06 38 44.0**	**+0.1**
	comp=Z,19nm,0.8s,mb5.2						
CTA	**Charters Tower**	**62.13**	**121**	P	**P**	**06 39 09.1**	**+0.7**
	comp=Z,7.7nm,0.8s,mb4.9,baz=306,slow=8.5,SNR=5.1						
CTAO	**Charters Tower**	**62.13**	**121**	*e*P	**P**	**06 39 08.6**	**+0.3**
AKASG	**Malin Array Be**	**63.31**	**320**	P	**P**	**06 39 14.2**	**-1.6**
	comp=Z,3.6nm,0.7s,mb4.6,baz=84,slow=5.2,SNR=12						
MLR	**Muntele Rosu**	**64.57**	**314**	P	**P**	**06 39 24.7**	**+0.7**
	comp=Z,11nm,0.8s,mb4.9,baz=139,slow=1.9,SNR=14						
STKA	**Stephens Creek**	**64.67**	**135**	P	**P**	**06 39 25.0**	**0.0**
	comp=Z,2.1nm,0.5s,mb4.4,baz=320,slow=6.6,SNR=8.3						
STKA	**Stephens Creek**	**64.67**	**135**	*e*P	**P**	**06 39 24.8**	**-0.3**
FINES	**FINESS Array B**	**67.59**	**332**	P	**P**	**06 39 42.3**	**-0.7**
	comp=Z,4.1nm,0.5s,mb4.7,baz=99,slow=6.5,SNR=30						
KAF	**Kangasniemi**	**67.65**	**332**	*e*p	**P**	**06 39 41.6**	**-1.8**
KEV	**Kevo**	**69.61**	**340**	*e*p	**P**	**06 39 54.4**	**-1.0**
	comp=Z,8.9nm,0.9s,mb4.7						
ARCES	**ARCESS Array B**	**70.05**	**340**	P	**P**	**06 39 58.1**	**0.0**
	comp=Z,2.4nm,0.5s,mb4.4,baz=94,slow=6.8,SNR=12						
MORC	**Moravsky Berou**	**70.62**	**318**	*e*P	**P**	**06 40 00.7**	**-1.1**
GERES	**GERESS Array B**	**73.11**	**317**	P	**P**	**06 40 17.1**	**+0.3**
	comp=Z,2.8nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=17						
HFS	**Hagfors**	**73.38**	**329**	P	**P**	**06 40 17.8**	**-0.3**
	comp=Z,3.0nm,0.5s,mb4.5,baz=117,slow=6.6,SNR=12						
NB2	**NORSAR Subarra**	**74.64**	**330**	P	**P**	**06 40 24.7**	**-0.7**
	comp=Z,2.0nm,0.6s,mb4.2,baz=90,slow=5.6						
NOA	**NORSAR Array B**	**74.64**	**330**	P	**P**	**06 40 24.8**	**-0.6**
	comp=Z,2.4nm,0.6s,mb4.3,baz=91,slow=5.7,SNR=7.4						
LBTB	**Lobatse**	**75.41**	**240**	*e*P	**P**	**06 40 31.3**	**+0.8**
BOSA	**Boshof**	**77.05**	**236**	*e*P	**P**	**06 40 40.3**	**+0.5**
SUR	**Sutherland**	**82.00**	**234**	P	**P**	**06 41 08.9**	**+2.5**
EKA	**Eskdalemuir Ar**	**82.75**	**325**	P	**P**	**06 41 08.4**	**-1.3**
	comp=Z,4.6nm,1.0s,mb4.5,baz=84,slow=4.7,SNR=4.6						
ESDC	**Sonseca Array**	**86.85**	**310**	P	**P**	**06 41 30.5**	**0.0**
	comp=Z,1.0nm,0.6s,mb4.2,baz=51,slow=4.0,SNR=4.7						
ILAR	**Eielson Array**	**90.66**	**22**	P	**P**	**06 41 48.3**	**+0.3**
	comp=Z,0.5nm,0.7s,mb4.0,baz=306,slow=3.8,SNR=8.2						
INK	**Inuvik**	**92.58**	**16**	P	**P**	**06 41 58.0**	**+1.1**
	comp=Z,0.6nm,0.5s,mb4.3,baz=205,slow=3.1,SNR=2.9						
VNDA	**Vanda**	**98.14**	**168**	P	**P**	**06 42 23.4**	**+1.5**
	comp=Z,0.3nm,0.4s,mb4.2,baz=310,slow=5.5,SNR=4.6						
VNDA	**Vanda**	**98.14**	**168**	*e*P	**P**	**06 42 23.5**	**+1.5**
YKA	**Yellowknife Ar**	**101.88**	**13**	PP	PP	06 46 48.6	-4.2
	comp=Z,0.2nm,0.8s,baz=336,slow=7.6,SNR=4.5						
PDAR	**Pinedale Array**	**120.97**	**19**	PKP	PKPdf	06 47 40.0	+2.6
	comp=Z,0.3nm,0.5s,baz=97,slow=1.6,SNR=3.8						
NVAR	**Mina Array Bea**	**121.30**	**28**	PKP	PKPdf	06 47 40.5	+2.5
	comp=Z,0.5nm,0.3s,baz=225,slow=2.6,SNR=4.7						
MNV	**Mina**	**121.37**	**28**	P	PKPdf	06 47 42.3	+4.1
TXAR	**Lajitas Array**	**135.15**	**20**	PKP	PKPdf	06 48 08.7	+3.9
	comp=Z,0.3nm,0.5s,baz=288,slow=1.2,SNR=5.9						
TEIG	**Tepich**	**147.06**	**2**	PKPdf	PKPdf	06 48 29.4	+3.2

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*IDC **29** 06:30:38.4±0.4, 13.16N×92.60E, mb5.0/31, mb1 5.1/31, mb1mx5.1/32, mbtmp5.0/31, Error ellipse: s-maj=17.8km s-min=10.0km az=46.0*

*SYO **29** 06:30:40.4, 13.25N×92.65E, h10^{km}, MB5.4, MS6.1*

*CSEM **29** 06:30:41.5, 13.26N×92.81E, h33^{km}, mb5.6*

*MOS **29** 06:30:41.7±1.0, 13.19N×92.66E, h33^{km}, mb5.5/50, Error ellipse: s-maj=10.4km s-min=5.1km az=119.8*

*BJI **29** 06:30:42.3, 13.01N×92.46E, h46^{km}, mB6.1, mb5.2, Ms5.5, Msz5.2*

*NEIC **29** 06:30:43.3±0.2, 13.24N×92.69E, h30^{km}, mb5.2/44, Error ellipse: s-maj=7.3km s-min=5.7km az=41.0*

*HRVD **29** 06:30:43.3±0.6, 13.28N×92.75E, h12^{km}±2^{km}, MW5.3/39, Centroid moment Tensor Solution. LP body waves: s3,c3; Mantle waves: s39,c57; Half duration: 0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.17±.05; $M_{\theta\theta}$0.03±.03; $M_{\phi\phi}$0.14±.03; $M_{r\theta}$0.42±.14; $M_{\theta\phi}$0.25±.02; $M_{\phi r}$-1.11±.23; Best double couple: $M_0$1.21×10^{17} NP1:ϕ_s243°,δ11°,λ-10°. NP2: ϕ_s342°,δ88°,λ-101°. Principal axes: T 1.11, Plg42°, Azm83°; N .19, Plg11°, Azm343°; P -1.31, Plg46°, Azm241°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 29 06:30:41.3±1.4**, 13.16N**±0.04×**92.61E**±0.03**, h30**^{km}±9^{km}**, h29**^{km}±.6^{km}**:pP-P, n324, σ1**^{s}**00**/306**, mb5.2**/96**, MS5.5**/8**, 32C-11D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	**Nakhon Sawan**	**7.70**	**70**	P	**Pn**	**06 32 33.0**	**-1.3**
CM31	**Chiang Mai Arr**	**8.05**	**48**	P	**P**	**06 32 42.6**	**+3.5**
	53nm,0.6s						
CMAR	**Chiang Mai Arr**	**8.05**	**48**	Pn	**P**	**06 32 41.4**	**+2.2**
	2.4nm,0.3s,baz=237,slow=15,SNR=9.3						
CMAR				Sn	**Sn**	**06 34 05.0**	**-5.2**
	5.5nm,0.3s,baz=238,slow=28,SNR=9.9						
BWNR	**Bhubaneshwar**	**9.64**	**318**	*e*	**P**	**06 32 51.4**	**-10**
BWNR				*e*		06 34 26.9	
BWNR				*e*		06 34 32.9	
	comp=E,2µm,0.8s						
BWNR				*e*		06 34 32.9	
	comp=N,2µm,0.5s						
VIS	**Vishakhapatnam**	**10.04**	**298**	*e*P	**P**	**06 33 03.5**	**-3.2**
VIS				*e*S	x	06 34 45.6	
VIS				*e*	**S**	**06 34 49.6**	**-10**
	comp=E,3µm,0.7s						
VIS				*e*		06 34 49.7	
	comp=N,2µm,0.7s						
VIS	**Vishakhapatnam**	**10.04**	**298**	*i*	**S**	**06 34 48.1**	**-11**
KKTK	**Khon Kaen**	**10.37**	**71**	P	**P**	**06 33 13.2**	**+2.0**
	comp=N,1µm,0.6s						
SHL	**Shillong**	**12.36**	**357**	*e*	**P**	**06 33 33.0**	**-5.3**
SHL				*e*	**S**	**06 35 40.5**	**-15**
BLSP	**Bilaspur**	**13.39**	**313**	*e*	**P**	**06 33 50.6**	**-1.2**
BLSP				*e*	**S**	**06 36 11.9**	**-8.6**
BLSP	**Bilaspur**	**13.39**	**313**	*e*P	**P**	**06 33 48.9**	**-2.9**
HYB	**Hyderabad**	**14.21**	**289**	*i* P	**P**	**06 34 04.5**	**+1.7**
KMI	**Kunming**	**15.26**	**37**	P	**P**	**06 34 20.3**	**+3.8**
KMI				AMB	AMB		
	comp=Z,20nm,0.9s						
ALBI	**Allahabad**	**15.80**	**321**	*e*	**S**	**06 37 25.5**	**+7.8**
PKI	**Pulchoki**	**15.84**	**336**	*e*P	**P**	**06 34 21.4**	**-2.6**
	comp=Z,95nm,0.5s						
GUN	**Gumba**	**15.97**	**338**	*e*P	**P**	**06 34 24.3**	**-1.3**
	comp=Z,104nm,0.5s						
DMN	**Daman**	**16.00**	**335**	*e*P	**P**	**06 34 22.0**	**-4.0**
	comp=Z,278nm,0.7s						
TRD	**Trivandrum**	**16.05**	**255**	*e*P	**P**	**06 34 27.6**	**+0.9**
TRD				*e*		06 34 33.8	
	comp=Z,223nm,1.6s						
KKN	**Kakani**	**16.09**	**336**	*e*P	**P**	**06 34 22.8**	**-4.3**
	comp=Z,107nm,0.8s						
LATR	**Latur**	**16.31**	**291**	*e*P	**P**	**06 34 27.4**	**-2.5**
LATR				*e*	**S**	**06 37 14.5**	**-15**
LSA	**Lhasa**	**16.52**	**356**	*e*P	**P**	**06 34 30.8**	**-1.7**
LSA				pmax	pmax		
	comp=Z,32nm,0.6s						
LSA	**Lhasa**	**16.52**	**356**	*e*P	**P**	**06 34 30.8**	**-1.8**
	comp=Z,32nm,0.6s						
GKN	**Gorkha**	**16.54**	**334**	*e*P	**P**	**06 34 30.9**	**-1.9**
	comp=Z,95nm,0.5s						
AKL	**Akola**	**16.69**	**299**	⇑*i*P	**P**	**06 34 35.8**	**+1.0**
	comp=Z,216nm,1.7s						
AKL				*i*	**S**	**06 37 28.1**	**-10**
KOLN	**Koldanda**	**16.80**	**331**	*e*P	**P**	**06 34 35.2**	**-0.9**
	comp=Z,177nm,0.7s						
MNGI	**Mangalore**	**17.34**	**271**	*e*P	**P**	**06 34 43.4**	**+0.5**
MNGI				*e*S	**S**	**06 37 38.5**	**-14**
QIZ	**Qiongzhong**	**17.55**	**68**	P	**P**	**06 34 49.5**	**+4.0**
BHPL	**Bhopal**	**17.56**	**307**	*e*	**P**	**06 34 53.6**	**+8.0**
KAD	**Karad**	**18.25**	**285**	*e*P	**P**	**06 34 54.9**	**+0.6**
GYA	**Guiyang**	**18.68**	**43**	⇑*i*P	**P**	**06 35 00.0**	**+0.6**
GYA				AMB	AMB		
	comp=Z,40nm,1.0s						
POO	**Poona**	**18.82**	**289**	*e*P	**P**	**06 35 00.8**	**-0.3**
POO				*e*		06 35 05.1	
	comp=Z,94nm,1.0s						
DDI	**Dehra Dun**	**21.74**	**324**	*e*P	**P**	**06 35 32.4**	**+0.1**
DDI				*e*S	**S**	**06 39 29.0**	**+3.0**
SMLA	**Simla**	**22.85**	**324**	⇑*i*		06 35 58.0	
	comp=Z,734nm,1.7s						
SMLA				*i*		06 40 07.3	
ENH	**Enshi**	**23.09**	**40**	*e*P	**P**	**06 35 44.9**	**-0.8**
	comp=Z,193nm,1.1s,mb5.4						
SDNR	**Sundarnagar**	**23.24**	**324**	*e*		06 35 59.5	
THN	**Thein Dam**	**24.65**	**324**	*e*P	**P**	**06 36 00.0**	**-0.7**
	comp=Z,48nm,0.8s,mb5.1						
LZH	**Lanzhou**	**24.97**	**22**	⇑P	**P**	**06 36 05.0**	**+1.3**
LZH				AMB	AMB		
	comp=Z,90nm,1.1s,mb5.2						
LZH				AMB	AMB		
	comp=Z,450nm,5.0s						
LZH				LR	LR		
	comp=E,5µm,12.6s						
LZH				LR	LR		
	comp=Z,9µm,13.9s,MS5.4						
XAN	**Xi'an**	**25.53**	**33**	P	**P**	**06 36 08.8**	**-0.2**
XAN				AP	pP	06 36 17.0	-0.9
XAN				AMB	AMB		
	comp=Z,82nm,0.7s,mb5.4						
WHN	**Wuhan**	**26.49**	**46**	*e*P	**P**	**06 36 21.5**	**+3.5**
GTA	**Gaotai**	**26.91**	**12**	*e*P	**P**	**06 36 22.5**	**+0.8**
GTA				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.5						
GTA				LR	LR		
	comp=N,6µm,13.7s,MS5.4						
GTA				LR	LR		
	comp=E,6µm,15.6s,MS5.4						
GTA				LR	LR		
	comp=Z,5µm,19.0s,MS5.1						
KSH	**Kashi**	**30.09**	**334**	*e*P	**P**	**06 36 52.3**	**+2.0**
KSH				*e*AP	pP	06 37 01.0	+1.7
KSH				*e*XP	sP	06 37 05.8	+2.6
NJ2	**Nanjing**	**30.53**	**48**	*e*P	**P**	**06 36 54.5**	**+0.2**
NJ2				AP	pP	06 37 03.5	+0.2
NJ2				XP	sP	06 37 10.3	+3.1
NJ2				PP	PP	06 37 55.0	+0.3
NJ2				S	**S**	**06 41 52.0**	**-0.7**
NJ2				LR	LR		
	comp=N,4µm,14.5s,MS5.4						
NJ2				LR	LR		
	comp=E,4µm,11.8s,MS5.4						
NJ2				LR	LR		
	comp=Z,3µm,14.2s,MS5.1						
WMQ	**Urumqi**	**30.85**	**353**	P	**P**	**06 36 58.0**	**+1.0**
WMQ				AMB	AMB		
	comp=Z,38nm,0.8s,mb5.3						
SSE	**Sheshan**	**31.78**	**51**	*e*P	**P**	**06 37 02.5**	**-2.8**
SSE				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.4						
SSE				AMB	AMB		
	comp=Z,4µm,12.0s						
HHC	**Hu-ho-hao-te**	**32.19**	**28**	*e*P	**P**	**06 37 09.5**	**+0.7**
HHC				PP	PP	06 38 16.5	+0.3
HHC				PCP	PcP	06 39 58.5	+1.3
HHC				S	**S**	**06 42 20.0**	**+1.4**
HHC				PCS		06 43 43.3	
HHC				SS	SS	06 44 11.8	-1.5
HHC				SCS	ScS	06 47 37.5	+2.7
HHC				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.2						
HHC				LR	LR		
	comp=N,3µm,17.8s,MS5.3						
HHC				LR	LR		
	comp=E,4µm,15.5s,MS5.3						
HHC				LR	LR		
	comp=Z,3µm,15.5s,MS5.1						
KZA	**Kyzart**	**32.53**	**336**	P	**P**	**06 37 13.4**	**+1.7**
	SNR=7.4						
UCH	**Uchtor**	**32.95**	**335**	P	**P**	**06 37 16.8**	**+1.4**
	SNR=5.4						
TKM2	**Tokmak 2**	**33.10**	**337**	P	**P**	**06 37 19.1**	**+2.3**
	SNR=6.1						
AML	**Almayashu**	**33.22**	**334**	P	**P**	**06 37 18.6**	**+0.9**
	SNR=12						
AAK	**Ala-Archa**	**33.30**	**335**	P	**P**	**06 37 19.3**	**+0.9**
	SNR=7.4						
AAK	**Ala-Archa**	**33.30**	**335**	*e*P	**P**	**06 37 18.2**	**-0.2**
AAK				pmax	pmax		
	comp=Z,41nm,1.4s,mb5.2						
AAK	**Ala-Archa**	**33.30**	**335**	*e*P	**P**	**06 37 18.3**	**-0.1**
CHMS	**Chumysh**	**33.50**	**336**	P	**P**	**06 37 20.2**	**0.0**
	SNR=8.6						
EKS2	**Erkin-Say**	**33.62**	**335**	P	**P**	**06 37 22.5**	**+1.3**
	SNR=14						
USP	**Ospenovka**	**33.82**	**336**	P	**P**	**06 37 23.1**	**+0.1**
	SNR=20						
BJT	**Baijiatuau**	**33.84**	**33**	*e*P	**P**	**06 37 20.7**	**-2.5**
BJT				pmax	pmax		
	comp=Z,41nm,0.8s						
BJT	**Baijiatuau**	**33.84**	**33**	*e*P	**P**	**06 37 20.6**	**-2.5**
	comp=Z,40nm,0.8s,mb5.4						
BJI	**Beijing**	**33.86**	**33**	P	**P**	**06 37 24.5**	**+1.2**
BJI				AMB	AMB		
	comp=Z,55nm,0.8s,mb5.5						
SONM	**Songino Array**	**36.43**	**16**	P	**P**	**06 37 45.9**	**+0.7**
	comp=Z,29nm,0.8s,mb5.3,baz=204,slow=6.2,SNR=40						
SONM				PcP	PcP	06 40 10.1	+0.8
	comp=Z,4.4nm,0.7s,baz=194,slow=2.9,SNR=4.9						
ULN	**Ulaanbaatar**	**36.64**	**16**	⇑*i*P	**P**	**06 37 47.6**	**+0.7**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.8s						
ULN	**Ulaanbaatar**	**36.64**	**16**	⇑*i*P	**P**	**06 37 47.6**	**+0.7**
	comp=Z,1.6nm,0.8s						
ZAK	**Zakamensk**	**38.13**	**11**	*e*P	**P**	**06 37 59.7**	**+0.3**
MOY	**Mondy**	**39.00**	**8**	*e*P	**P**	**06 38 08.0**	**+1.3**
SNY	**Shenyang**	**39.24**	**37**	⇑P	**P**	**06 38 09.5**	**+0.7**
SNY				AMB	AMB		
	comp=Z,40nm,1.6s,mb4.9						
TLY	**Talaya**	**39.44**	**11**	*e*P	**P**	**06 38 12.0**	**+1.6**
TLY				*e*		06 38 29.4	
TLY				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.8						
TLY	**Talaya**	**39.44**	**11**	⇑*i*P	**P**	**06 38 11.2**	**+0.8**
KS15	**Wonju Array Si**	**39.65**	**46**	*e*P	**P**	**06 38 12.8**	**+0.6**
ZAL	**Zalesovo**	**41.15**	**353**	P	**P**	**06 38 24.0**	**-0.3**
	comp=Z,25nm,0.6s,mb5.0,baz=207,slow=7.8,SNR=47						
CN2	**Changchun**	**41.53**	**36**	⇑P	**P**	**06 38 28.0**	**+0.4**
CN2				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.0						
HASS	**Wahat al Ahsa'**	**42.10**	**293**	D	**P**	**06 38 33.9**	**+1.4**
NVS	**Novosibirsk**	**42.23**	**352**	*e*P	**P**	**06 38 31.6**	**-1.6**
NVS				pmax	pmax		
	comp=Z,26nm,1.0s,mb4.8						
NVS				pmax	pmax		
	comp=N,21nm,0.7s						
NVS				pmax	pmax		
	comp=E,7.0nm,0.7s						
HIA	**Hailar**	**42.37**	**26**	*e*P	**P**	**06 38 33.0**	**-1.5**
HIA				pmax	pmax		
	comp=Z,7.0nm,0.6s						
HIA	**Hailar**	**42.37**	**26**	*e*P	**P**	**06 38 33.0**	**-1.5**
	comp=Z,6.6nm,0.6s,mb4.4						
MBWA	**Marble Bar**	**43.27**	**142**	*e*P	**P**	**06 38 41.5**	**-0.7**
	comp=Z,40nm,1.3s,mb5.0						
BVAR	**Borovoye Array**	**43.54**	**341**	P	**P**	**06 38 43.6**	**-0.3**
	comp=Z,22nm,1.0s,mb4.8,baz=143,slow=7.4,SNR=23						
BVAR				PcP	PcP	06 40 31.9	0.0
	comp=Z,3.4nm,0.7s,baz=180,slow=4.4,SNR=3.6						
BRVK	**Borovoye**	**43.60**	**341**	⇑*i*P	**P**	**06 38 44.4**	**0.0**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.9s						
BRVK	**Borovoye**	**43.60**	**341**	⇑*i*P	**P**	**06 38 44.4**	**0.0**
	comp=Z,2.8nm,0.9s						
CHKZ	**Chkalovo**	**44.02**	**341**	*e*P	**P**	**06 38 47.3**	**-0.5**
CHKZ				pmax	pmax		
	comp=Z,74nm,0.7s,mb5.5						
CHKZ	**Chkalovo**	**44.02**	**341**	*e*P	**P**	**06 38 47.3**	**-0.5**
	comp=Z,74nm,0.7s,mb5.5						
QRN	**Al-Qurain**	**44.25**	**298**	*e*P	**P**	**06 38 49.7**	**-0.4**
RDF	**Al-Radifah**	**44.60**	**298**	*e*P	**P**	**06 38 53.1**	**+0.2**
RDF				AMb	AMB	06 38 54.6	
	comp=Z,140nm,0.6s,mb6.0						
RST	**Umm Al-Ruwaisa**	**45.19**	**299**	*e*P	**P**	**06 38 57.1**	**-0.4**
RST				AMb	AMB	06 38 59.5	
	comp=Z,129nm,0.8s,mb5.8						
MZLS	**Mizel**	**46.02**	**291**	P	**P**	**06 39 05.1**	**+0.9**
KAMS	**Al Khamasin**	**46.42**	**286**	P	**P**	**06 39 07.6**	**+0.3**
MAT	**Matsushiro**	**46.92**	**52**	P	**P**	**06 39 11.4**	**+0.3**
MAT	**Matsushiro**	**46.92**	**52**	P	pP	06 39 18.0	-2.3
BOD	**Bodaibo**	**47.43**	**15**	*e*P	**P**	**06 39 14.5**	**-0.4**
TATS	**Tathlith**	**47.45**	**284**	P	**P**	**06 39 16.0**	**+0.5**
ARSS	**Ar Rass**	**47.97**	**293**	P	**P**	**06 39 19.6**	**0.0**
AFFS	**'Afif**	**48.03**	**290**	D	**P**	**06 39 20.6**	**+0.6**
KLR	**Kul'dur**	**48.23**	**34**	*e*P	**P**	**06 39 23.0**	**+1.8**
FRSS	**Farasan al Kab**	**48.82**	**281**	D	**P**	**06 39 28.8**	**+2.6**
HILS	**Ha'il**	**49.41**	**295**	D	**P**	**06 39 31.3**	**+0.7**
GNI	**Garni**	**49.75**	**312**	P	**P**	**06 39 34.6**	**+1.5**
	comp=Z,48nm,0.9s,mb5.5,baz=359,slow=2.8,SNR=28						
SVE	**Sverdlovsk**	**49.97**	**338**	⇓*e*P	**P**	**06 39 34.0**	**-0.5**
SVE				pmax	pmax		
	comp=Z,120nm,1.6s,mb5.7						
SVE				MLR	MLR		
	comp=Z,3µm,17.5s,MS5.4						
TI2	**Plekhanov**	**50.27**	**314**	*e*P	**P**	**06 39 37.4**	**+0.4**
TI2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
ARU	**Arti**	**50.47**	**336**	⇑*i*P	**P**	**06 39 37.9**	**-0.4**
ARU				pmax	pmax		
	comp=Z,1.0nm,0.7s						
ARU	**Arti**	**50.47**	**336**	⇑*i*P	**P**	**06 39 37.9**	**-0.4**
	comp=Z,1.5nm,0.7s,mb4.1						
ZEI	**Tsey**	**51.22**	**315**	*e*P	**P**	**06 39 45.5**	**+1.3**
ZEI				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.2						
NWAO	**Narrogin (SRO)**	**51.51**	**153**	*e*P	**P**	**06 39 45.8**	**-0.7**
NWAO				pmax	pmax		
	comp=Z,14nm,0.6s						
NWAO	**Narrogin (SRO)**	**51.51**	**153**	P	**P**	**06 39 45.9**	**-0.6**
	comp=Z,19nm,0.5s,mb5.3,baz=320,slow=6.9,SNR=17						
NWAO	**Narrogin (SRO)**	**51.51**	**153**	*e*P	**P**	**06 39 45.8**	**-0.7**
	comp=Z,14nm,0.6s,mb5.1						
ERZM	**Erzurum**	**52.15**	**311**	*i* P	**P**	**06 39 52.5**	**+1.2**
KIV	**Kislovodsk**	**52.46**	**316**	P	**P**	**06 39 53.2**	**-0.3**

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      comp=Z,441nm,0.9s,SNR=13
KIV   Kislovodsk        52.46 316⇑iP     P       06 39 53.5  0.0
KIV                              pmax    pmax
      comp=Z,4.0nm,0.7s,mb4.5
KIV   Kislovodsk        52.46 316⇑iP     P       06 39 53.5  0.0
      comp=Z,3.6nm,0.7s,mb4.4
ASAJ  Asahikawa         52.55  44  P     P       06 39 53.5 -0.7
      comp=Z,7.5nm,0.8s,mb4.7,baz=140,slow=29,SNR=4.2
WRA   Warramunga Arr    52.61 128 i P    P       06 39 53.6 -1.4
WRA                              pmax    pmax
      comp=Z,19nm,0.7s
WRA   Warramunga Arr    52.61 128  P     P       06 39 53.6 -1.3
      comp=Z,19nm,0.7s,mb5.1,baz=306,slow=8.3,SNR=32
WRA                              PcP     PcP     06 41 05.1 +0.4
      comp=Z,5.7nm,0.6s,baz=315,slow=3.8,SNR=6.7
WRA                              S       S       06 47 15.9 -2.7
      comp=Z,3.8nm,1.1s,baz=298,slow=14,SNR=5.9
GOF   Gofitskoye        52.61 317 eP     P       06 39 55.0 +0.3
GOF                              pmax    pmax
      comp=Z,50nm,1.1s,mb5.4
WRAB  Tennant Creek     52.61 128 eP     P       06 39 53.7 -1.3
WRAB  Tennant Creek     52.61 128 eP     P       06 39 53.5 -1.4
      comp=Z,30nm,0.7s,mb5.3
YNBS  Yanbu‘ al Bahr    52.62 291  P     P       06 39 56.2 +1.2
UMJS  Umm Lajj          53.27 292  P     P       06 40 01.2 +1.4
ELZG  Elazig            53.60 308 i P    P       06 40 01.7 -0.3
YSS   Yuzh-Sakhalins    53.67  41⇑iP     P       06 40 02.3 -0.1
YSS                              pmax    pmax
      comp=Z,35nm,1.2s,mb5.2
YSS   Yuzh-Sakhalins    53.67  41⇑iP     P       06 40 02.4  0.0
      comp=Z,1.3nm,0.6s
MALT  Malatya           53.98 308 eP     P       06 40 04.5 -0.3
MALT                             pmax    pmax
      comp=Z,43nm,1.3s,mb5.2
MALT  Malatya           53.98 308 eP     P       06 40 04.5 -0.3
      comp=Z,43nm,1.3s,mb5.2
TBKS  Tabuk             54.11 295  P     P       06 40 06.8 +1.0
SOC   Sochi             54.38 315 eP     P       06 40 07.0 -0.7
SOC                              pmax    pmax
      comp=Z,31nm,0.6s,mb5.4
SOC                              pmax    pmax
      comp=N,13nm,0.7s
SOC                              pmax    pmax
      comp=E,9.0nm,0.6s
GZT   Gaziantep         54.46 307 i P    P       06 40 08.2 -0.1
ASAR  Alice Springs     54.49 132  P     P       06 40 07.7 -1.1
      comp=E,11nm,0.4s,mb5.2,baz=312,slow=6.7,SNR=37
ASAR                             PcP     PcP     06 41 12.2 +0.3
      comp=E,5.5nm,0.8s,baz=313,slow=4.0,SNR=5.8
ASAR                             S       S       06 47 42.5 -1.5
      comp=E,0.9nm,0.8s,baz=291,slow=15,SNR=3.3
JMQS  Jabal Moqyreh     54.74 296  P     P       06 40 11.9 +1.3
KAHT  Ahir Dag          55.05 307 i P    P       06 40 12.2 -0.5
MKRJ  Makawir           55.18 299  P     P       06 40 14.2 +0.5
AYUS  ‘Aynunah          55.23 295  P     P       06 40 14.2  0.0
HMDT  Nahal Hemdat      55.35 300  P     P       06 40 14.6 -0.3
DRGI  Dragot            55.39 299  P     P       06 40 15.0 -0.3
BDAS  Al Bad‘           55.39 296  P     P       06 40 15.2 -0.1
JMOS  Jabal al Moall    55.43 296  P     P       06 40 15.0 -0.6
MMLI  Mount Malkishu    55.46 300  P     P       06 40 15.7  0.0
ALWS  Ilw as Safayha    55.48 297  P     P       06 40 16.4 +0.5
YAK   Yakutsk           55.53  20⇑iP     P       06 40 14.0 -1.9
HAQS  Haql              55.58 296  P     P       06 40 16.5 -0.1
TAYS  Tayyib Ism        55.60 296  P     P       06 40 16.4 -0.4
EIL   Elat              55.61 297  P     P       06 40 16.1 -0.7
EIL   Elat              55.61 297  P     P       06 40 16.4 -0.5
      comp=E,19nm,0.7s,mb5.2,baz=57,slow=4.3,SNR=16
PRNI  Paran             55.61 298  P     P       06 40 16.4 -0.5
SLTI  Sal’it            55.76 300  P     P       06 40 17.7 -0.2
KMTI  Karmit            55.84 297  P     P       06 40 17.9 -0.6
OFRI  ‘Ofer             55.84 301  P     P       06 40 18.3 -0.2
ANN   Anapa             56.30 315 eP     P       06 40 30.7 +9.1
ANN                              pmax    pmax
      comp=Z,33nm,1.4s,mb5.2
KMBO  Kilima Mbogo      56.69 260  P     P       06 40 25.4 +0.6
      comp=Z,7.0nm,1.0s,mb4.7,baz=52,slow=8.6,SNR=14
AVNT  Avonos            56.82 308 i P    P       06 40 25.3 -0.2
MEST  Erdemli           57.03 305 i P    P       06 40 25.2 -1.7
BOYT  Boyabat           57.29 311 i P    P       06 40 27.8 -0.9
BRTR  Keskin Array B    57.91 309  P     P       06 40 31.8 -1.3
      comp=Z,30nm,0.8s,mb5.4,baz=121,slow=7.3,SNR=52
ELDT  Eldivan           58.21 310 i P    P       06 40 34.3 -0.8
BALT  Daday             58.43 311 i P    P       06 40 36.1 -0.6
PMG   Port Moresby      58.61 110 eP     P       06 40 36.1 -2.2
PMG                              pmax    pmax
      comp=Z,21nm,0.9s
PMG   Port Moresby      58.61 110  P     P       06 40 38.2 -0.1
      comp=Z,13nm,0.7s,mb5.0,baz=279,slow=6.9,SNR=4.1
PMG   Port Moresby      58.61 110 eP     P       06 40 36.1 -2.2
      comp=Z,20nm,0.9s,mb5.2
SIM   Simferopol’       58.62 315 eP     P       06 40 38.2 +0.2
SIM                              pmax    pmax
      comp=Z,54nm,0.7s,mb5.7
SGKT  Sivrigoynuk       59.25 309 i P    P       06 40 41.5 -0.9
MOS   Moscow            59.83 328 eP     P       06 40 44.8 -1.3
MOS                             e                06 42 56.1
MOS                              pmax    pmax
      comp=Z,106nm,1.4s,mb5.7
ESKT  Eskisehir         60.01 308 i P    P       06 40 45.8 -1.9
ISP   Isparta           60.07 306⇑iP     P       06 40 47.2 -0.9
OBN   Obninsk           60.15 327b iP    P       06 40 47.5 -0.9
OBN                             e                06 40 54.1
OBN                             e                06 41 02.3
OBN                             e                06 41 34.7
OBN                              pmax    pmax
      comp=Z,58nm,1.1s,mb5.5
OBN                              MLR     MLR
      comp=Z,2µm,18.0s,MS5.3
OBN   Obninsk           60.15 327⇑iP     P       06 40 48.0 -0.4
      comp=Z,2.7nm,0.6s,mb4.5
CTA   Charters Tower    62.25 121  P     P       06 41 02.5 -0.6
      comp=Z,5.6nm,0.7s,mb4.8,baz=264,slow=7.1,SNR=3.7
CTAO  Charters Tower    62.25 121 eP     P       06 41 02.7 -0.4
CTAO                             pmax    pmax
      comp=Z,8.0nm,0.9s,mb4.8
CTAO  Charters Tower    62.25 121 eP     P       06 41 02.7 -0.4
      comp=Z,7.8nm,0.9s,mb4.8
TIXI  Tiksi             62.40  12 eP     P       06 41 01.6 -1.8
TIXI                             pmax    pmax
      comp=Z,75nm,1.5s,mb5.6
TIXI  Tiksi             62.40  12⇑iP     P       06 41 02.2 -1.2
KDAG  Bornova           62.67 307 i P    P       06 41 05.2 -0.4
MBAR  Mbarara           62.82 262⇑iP     P       06 41 05.6 -1.3
CFR   Carcaliu          62.82 314⇓iP     P       06 41 05.2 -1.3
MA2   Magadan           62.85  29⇑iP     P       06 41 04.2 -2.3
HARR  Harsova           62.89 314⇑iP     P       06 41 06.5 -0.5
AKASG Malin Array Be    63.13 320  P     P       06 41 06.9 -1.5
      comp=Z,18nm,0.8s,mb5.3,baz=80,slow=5.7,SNR=43
VRI   Vrincioaia        63.90 315⇑iP     P       06 41 14.1 +0.5
ISR   Istrita           63.93 314⇑iP     P       06 41 14.9 +1.1
IDI   Anoyia            64.39 303  P     P       06 41 16.0 -1.0
      comp=Z,9.2nm,0.6s,mb5.0,baz=119,slow=5.4,SNR=5.0
MLR   Muntele Rosu      64.40 314  P     P       06 41 17.1 +0.2
      comp=Z,75nm,0.9s,mb5.7,baz=167,slow=2.8,SNR=47
MNK   Minsk             64.80 324 eP     P       06 41 16.0 -3.3
STKA  Stephens Creek    64.85 135  P     P       06 41 19.3 -0.7
      comp=Z,6.9nm,0.7s,mb4.8,baz=314,slow=7.4,SNR=11
STKA  Stephens Creek    64.85 135 eP     P       06 41 19.4 -0.7
RZN   Rozhen            64.89 310  P     P       06 41 19.0 -1.1
PET   Petropavlovsk     65.22  37 eP     P       06 41 28.8 +6.8
PET                              pmax    pmax
      comp=Z,20nm,0.8s,mb5.2
VTS   Vitosha           66.08 311  P     P       06 41 27.0 -0.7
LVZ   Lovozero          66.11 339⇑iP     P       06 41 27.4 -0.1
KKB   Krupnik           66.12 310  P     P       06 41 26.5 -1.5
VSU   Vasula            66.32 328⇑iP     P       06 41 27.7 -1.3
APA   Apatity           66.41 339⇓iP     P       06 41 28.3 -1.1
APA                              pmax    pmax
      comp=Z,29nm,0.9s,mb5.3
APA                              MLR     MLR
      comp=Z,3µm,17.0s,MS5.6
BOLS  Boljevac          67.07 312⇑iP     P       06 41 34.0  0.0
KWP   Kalwaria          67.08 318 eP     P       06 41 33.9 -0.1
KOLS  Kolonicke sedl    67.28 318 eP     P       06 41 35.2 -0.1
FINES FINESS Array B    67.37 331  P     P       06 41 34.9 -0.8
      comp=Z,25nm,0.7s,mb5.3,baz=112,slow=10,SNR=42
SUW   Suwalki           67.38 323 eP     P       06 41 35.2 -0.6
KAF   Kangasniemi       67.44 332 ep     P       06 41 34.8 -1.2
      comp=Z,23nm,1.0s,mb5.2
KAF   Kangasniemi       67.44 332 eP     P       06 41 34.8 -1.2
KAF                              pmax    pmax
      comp=Z,23nm,1.0s,mb5.2
CRVS  Cervenica-Dubn    67.81 318 eP     P       06 41 39.2 +0.6
GRUS  Gruza             67.97 312⇓iP     P       06 41 38.7 -1.0
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KECS  Kecovo            68.42 317 eP     P       06 41 43.0 +0.6
DIVS  Divcibare         68.50 312⇓iP     P       06 41 42.2 -0.8
NIE   Niedzica          68.61 318 eP     P       06 41 43.6  0.0
PSZ   Piszkesteto       68.78 316⇓eP     P       06 41 44.0 -0.6
OJC   Ojcow             69.01 319 eP     P       06 41 45.4 -0.6
KEV   Kevo              69.39 340 ep     P       06 41 44.2 -3.8
      comp=Z,16nm,0.7s,mb5.1
KEV   Kevo              69.39 340 eP     P       06 41 44.2 -3.8
KEV                              pmax    pmax
      comp=Z,16nm,0.7s,mb5.1
VYHS  Vyhne             69.52 317 eP     P       06 41 48.7 -0.4
PKSM  Moragy            69.54 315⇑eP     P       06 41 48.8 -0.5
ARCES ARCESS Array B    69.82 340  P     P       06 41 50.1 -0.5
      comp=Z,18nm,0.7s,mb5.1,baz=90,slow=6.1,SNR=27
SRO   Srobarova         69.83 316 eP     P       06 41 51.0 -0.1
MORC  Moravsky Berou    70.43 318 eP     P       06 41 54.0 -0.7
MORC                             pmax    pmax
      comp=Z,45nm,1.0s,mb5.3
MORC  Moravsky Berou    70.43 318 eP     P       06 41 54.0 -0.7
      comp=Z,45nm,1.0s,mb5.3
ZST   Bratislava        70.66 317 eP     P       06 41 55.9 -0.2
GKP   Gorka Klasztor    70.82 322 eP     P       06 41 56.5 -0.5
GKP                              MLR     MLR
      comp=Z,12µm,21.0s,MS6.1
VRAC  Vranov            71.03 318  P     P       06 41 58.3 -0.1
      comp=Z,6.8nm,0.7s,mb4.7,baz=109,slow=8.9,SNR=9.0
DPC   Dobruska-Polom    71.24 319 eP     P       06 41 59.9 +0.3
KSP   Ksiaz             71.28 319⇓eP     P       06 41 59.7 -0.1
KSP   Ksiaz             71.28 319 eP     P       06 42 00.2 +0.4
UPC   Upice             71.45 319 eP     P       06 42 02.0 +1.2
CRES  Cresnjev          71.75 314 eP     P       06 42 03.2 +0.4
BILL  Bilibino          71.78  22⇑iP     P       06 42 01.8 -0.7
BOJS  Bojanci           71.90 314 eP     P       06 42 03.6  0.0
PVCC  Panska Ves        72.37 319 eP     P       06 42 07.6 +1.3
PRU   Pruhonice         72.38 318 eP     P       06 42 06.6 +0.2
      comp=Z,30nm,1.0s,mb5.2
LJU   Ljubljana         72.40 314 eP     P       06 42 06.8 +0.2
BRG   Berggiesshubel    72.77 319 i P    P       06 42 08.7  0.0
BRG                              pmax    pmax
      comp=Z,35nm,1.0s,mb5.2
BRG   Berggiesshubel    72.77 319 i P    P       06 42 08.7  0.0
      comp=Z,35nm,1.0s,mb5.2
GEC2  GERESS Array S    72.93 317 eP     P       06 42 09.6  0.0
GEC2                             pmax    pmax
      comp=Z,38nm,1.0s,mb5.3
GEC2  GERESS Array S    72.93 317 eP     P       06 42 09.6  0.0
      comp=Z,38nm,1.0s,mb5.3
GERES GERESS Array B    72.93 317  P     P       06 42 09.8 +0.2
      comp=Z,21nm,0.8s,mb5.1,baz=90,slow=5.3,SNR=59
KHC   Kasperske Hory    73.01 318 eP     P       06 42 10.1  0.0
HFS   Hagfors           73.17 329  P     P       06 42 10.3 -0.5
      comp=Z,32nm,0.8s,mb5.3,baz=90,slow=5.9,SNR=33
CLL   Collm             73.36 320 i P    P       06 42 12.7 +0.6
CLL                              pmax    pmax
      comp=Z,38nm,1.3s,mb5.2
CLL   Collm             73.36 320 i P    P       06 42 12.7 +0.6
      comp=Z,38nm,1.3s,mb5.2
CLL   Collm             73.36 320  P     P       06 42 12.7 +0.6
      comp=Z,logA/T=1.5,mb5.2
WET   Wettzell          73.47 318 eP     P       06 42 12.8  0.0
FX1   Attu Island--F    73.93  38  P     P       06 42 16.3 +1.0
      comp=Z,44nm,0.6s,mb5.5,baz=279,slow=20,SNR=8.8
MOX   Moxa              74.25 319 eP     P       06 42 17.4 +0.1
MOX                              pmax    pmax
      comp=Z,50nm,1.5s,mb5.2
MOX   Moxa              74.25 319 i P    P       06 42 17.4 +0.1
      comp=Z,logA/T=1.5,mb5.2
MOX   Moxa              74.25 319 eP     P       06 42 17.4 +0.1
      comp=Z,50nm,1.5s,mb5.2
NB2   NORSAR Subarra    74.42 330  P     P       06 42 17.1 -1.0
      comp=Z,28nm,0.9s,mb5.2,baz=90,slow=5.6
NB2   NORSAR Subarra    74.42 330  P     P       06 42 17.1 -1.0
      baz=90,slow=5.9
NB2   NORSAR Subarra    74.42 330  P     P       06 42 17.1 -1.0
NB2                              pmax    pmax
      comp=Z,28nm,0.9s,mb5.2
NOA   NORSAR Array B    74.42 330  P     P       06 42 17.2 -0.8
      comp=Z,12nm,0.7s,mb5.0,baz=91,slow=5.8,SNR=38
NOA                              PP      PP      06 45 04.4 -1.9
      comp=Z,1.7nm,0.9s,baz=94,slow=8.5,SNR=3.6
GRA1  Grafenberg Arr    74.53 318 eP     P       06 42 19.8 +0.9
      comp=Z,41nm,1.0s,mb5.3
GRF   Grafenberg Arr    74.53 318 eP     P       06 42 19.8 +0.9
GRF                              pmax    pmax
      comp=Z,41nm,1.0s,mb5.3
GRF   Grafenberg Arr    74.53 318 eP     P       06 42 19.8 +0.9
GRF                              pmax    pmax
      comp=Z,41nm,1.0s,mb5.3
GRF   Grafenberg Arr    74.53 318 eP     P       06 42 19.8 +0.9
      comp=Z,41nm,1.0s,mb5.3
BSEG  Bad Segeberg      74.95 323 eP     P       06 42 21.8 +0.5
CLZ   Clausthal         74.99 320 eP     P       06 42 21.6 +0.1
      comp=Z,44nm,1.0s,mb5.3
LBTB  Lobatse           75.52 240 eP     P       06 42 26.2 +1.1
LBTB                             pmax    pmax
      comp=Z,11nm,0.7s,mb4.9
LBTB  Lobatse           75.52 240 eP     P       06 42 26.2 +1.0
      comp=Z,11nm,0.7s,mb4.9
DAVOX Davos             75.58 315  P     P       06 42 25.2 +0.1
      comp=Z,10nm,0.8s,mb4.8,baz=120,slow=10,SNR=14
BFO   Black Forest      76.52 317 eP     P       06 42 30.6 +0.4
BFO                              pmax    pmax
      comp=Z,11nm,0.4s,mb5.1
BFO   Black Forest      76.52 317 eP     P       06 42 30.6 +0.4
      comp=Z,11nm,0.4s,mb5.1
BOSA  Boshof            77.18 236 eP     P       06 42 35.1 +0.8
BOSA                             pmax    pmax
      comp=Z,12nm,0.6s,mb5.0
BOSA  Boshof            77.18 236 eP     P       06 42 35.1 +0.8
      comp=Z,12nm,0.6s,mb5.0
CDF   Champ du Feu      77.21 317 eP     P       06 42 33.6 -0.5
      comp=Z,29nm,1.0s,mb4.8
CDF   Champ du Feu      77.21 317 eP     P       06 42 33.6 -0.5
CDF                              pmax    pmax
      comp=Z,15nm,1.0s,mb4.9
LPG   La Plagne         77.86 314 eP     P       06 42 38.0 +0.2
      comp=Z,87nm,0.8s,mb5.4
LPG   La Plagne         77.86 314 eP     P       06 42 38.0 +0.2
LPG                              pmax    pmax
      comp=Z,44nm,0.8s,mb5.4
HAU   Haudompre         77.87 317 eP     P       06 42 37.1 -0.6
      comp=Z,49nm,0.9s,mb5.1
HAU   Haudompre         77.87 317 eP     P       06 42 37.1 -0.6
HAU                              pmax    pmax
      comp=Z,25nm,0.9s,mb5.1
MBDF  Montbardon        77.94 313 eP     P       06 42 39.1 +0.9
      comp=Z,38nm,0.9s,mb5.0
MBDF  Montbardon        77.94 313 eP     P       06 42 39.1 +0.9
MBDF                             pmax    pmax
      comp=Z,19nm,0.9s,mb5.0
BNI   Bardonecchia      77.97 314 eP     P       06 42 37.5 -0.8
BNI                              pmax    pmax
      comp=Z,24nm,0.8s,mb5.2
BNI   Bardonecchia      77.97 314 eP     P       06 42 37.5 -0.8
      comp=Z,24nm,0.8s,mb5.2
BAIF  Baives            79.02 319 eP     P       06 42 44.1 +0.1
      comp=Z,40nm,1.0s,mb5.0
BAIF  Baives            79.02 319 eP     P       06 42 44.1 +0.1
BAIF                             pmax    pmax
      comp=Z,20nm,1.0s,mb5.0
SSF   Saint Saulge      79.90 316 eP     P       06 42 48.5 -0.3
SSF                              pmax    pmax
      comp=Z,24nm,1.1s,mb5.0
SSF   Saint Saulge      79.90 316 eP     P       06 42 48.5 -0.3
      comp=Z,24nm,1.1s,mb5.0
BGF   Bois d’Agland     80.42 316 eP     P       06 42 51.7 +0.1
      comp=Z,34nm,0.9s,mb5.0
BGF   Bois d’Agland     80.42 316 eP     P       06 42 51.7 +0.1
BGF                              pmax    pmax
      comp=Z,17nm,0.9s,mb5.0
RJF   Les Rejaudoux     81.54 314 eP     P       06 42 57.9 +0.4
      comp=Z,48nm,1.0s,mb5.1
RJF   Les Rejaudoux     81.54 314 eP     P       06 42 57.9 +0.4
RJF                              pmax    pmax
      comp=Z,24nm,1.0s,mb5.1
SUR   Sutherland        82.13 234 eP     P       06 43 03.4 +2.5
FLN   La Foliniere      82.25 318 eP     P       06 43 01.1  0.0
      comp=Z,213nm,1.4s,mb5.6
FLN   La Foliniere      82.25 318 eP     P       06 43 01.1  0.0
FLN                              pmax    pmax
      comp=Z,107nm,1.4s,mb5.6
EKA   Eskdalemuir Ar    82.55 325  P     P       06 43 02.5  0.0
      comp=Z,6.7nm,0.7s,mb4.8,baz=87,slow=5.2,SNR=12
EBR   Ebro Roquetas     83.11 310 ePCP   P       06 43 07.5 +1.8
MAW   Mawson            83.39 191 eP     P       06 43 07.5 +0.9
MAW                              pmax    pmax
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      comp=Z,13nm,0.9s
MAW   Mawson            83.39 191  P     P       06 43 07.7 +1.1
      comp=Z,7.4nm,0.8s,mb4.7,baz=353,slow=7.0,SNR=5.6
MAW   Mawson            83.39 191 eP     P       06 43 07.5 +0.9
      comp=Z,13nm,0.9s,mb5.0
ETSF  Etsaut            83.47 312 eP     P       06 43 08.2 +0.7
      comp=Z,31nm,1.0s,mb5.0
ETSF  Etsaut            83.47 312 eP     P       06 43 08.2 +0.7
ETSF                             pmax    pmax
      comp=Z,16nm,1.0s,mb5.0
ESDC  Sonseca Array     86.69 310  P     P       06 43 24.3 +0.6
      comp=Z,4.7nm,0.7s,mb4.8,baz=60,slow=4.7,SNR=19
IMA   Indian Mountai    87.32  22 eP     P       06 43 27.6 +1.5
IMA                              pmax    pmax
      comp=Z,71nm,0.9s,mb5.9
IMA   Indian Mountai    87.32  22 eP     P       06 43 27.6 +1.5
      comp=Z,71nm,0.9s,mb5.9
SUMG  Summit            88.69 347 eP     P       06 43 33.6 +1.0
      comp=Z,18nm,1.1s,mb5.3
SYO   Syowa Base        89.99 197 ⇓P     P       06 43 40.9 +2.1
SYO   Syowa Base        89.99 197 ⇓PcP   PcP     06 43 42.1 +1.9
SYO   Syowa Base        89.99 197 ⇓sP    sP      06 43 48.0 -3.7
COLA  College           90.03  22 eP     P       06 43 41.2 +2.2
MCK   McKinley          90.22  23 eP     P       06 43 40.1 +0.2
MCK                              pmax    pmax
      comp=Z,4.0nm,0.6s,mb4.9
MCK   McKinley          90.22  23 eP     P       06 43 40.0 +0.1
      comp=Z,3.7nm,0.6s,mb4.9
RSO   Redoubt South     90.27  27 eP     P       06 43 41.8 +1.5
ILAR  Eielson Array     90.43  22  P     P       06 43 41.0 +0.1
      comp=Z,4.9nm,0.7s,mb5.0,baz=301,slow=4.3,SNR=48
ILAR                             PP      PP      06 47 15.3 -2.5
      comp=Z,1.6nm,0.9s,baz=294,slow=6.3,SNR=4.2
ILAR                             PKKPbc          07 01 10.4
      comp=Z,0.4nm,0.9s,baz=157,slow=2.2,SNR=5.3
RES   Resolute Bay      92.21   2 eP     P       06 43 50.1 +1.2
RES                              pmax    pmax
      comp=Z,7.0nm,0.9s,mb5.0
RES   Resolute Bay      92.21   2 eP     P       06 43 50.1 +1.2
      comp=Z,6.5nm,0.9s,mb5.0
INK   Inuvik            92.35  16 eP     P       06 43 49.1 -0.5
INK                              pmax    pmax
      comp=Z,6.0nm,0.6s
INK   Inuvik            92.35  16  P     P       06 43 50.4 +0.8
      comp=Z,6.4nm,0.6s,mb5.1,baz=350,slow=3.6,SNR=24
INK   Inuvik            92.35  16 eP     P       06 43 49.1 -0.5
      comp=Z,5.7nm,0.6s,mb5.1
DAWY  Dawson            93.47  20 eP     P       06 43 56.0 +1.1
URZ   Urewera           93.78 128  P     P       06 43 56.9  0.0
      comp=Z,7.4nm,0.6s,mb5.3,baz=300,slow=5.5,SNR=5.8
DBIC  Dimbokro          95.72 278  P     P       06 44 07.1 +0.7
      comp=Z,4.0nm,0.8s,mb4.9,baz=64,slow=3.9,SNR=6.2
YKA   Yellowknife Ar   101.65  13 i P    P       06 44 32.9 +0.9
YKA                              pmax    pmax
      comp=Z,1.0nm,0.7s
YKA   Yellowknife Ar   101.65  13  P     P       06 44 32.0  0.0
      comp=Z,0.8nm,0.7s,baz=331,slow=4.2,SNR=14
YKA                              PP      PP      06 48 39.7 -5.2
      comp=Z,1.8nm,0.8s,baz=334,slow=7.8,SNR=14
ULM   Lac du Bonnet    116.43   6 PKKPbc         06 59 57.9
      comp=Z,1.5nm,0.6s,baz=158,slow=2.3,SNR=3.7
ELK   Elko             120.48  24 ePKIKP PKPdf   06 49 30.2 -5.2
PDAR  Pinedale Array   120.75  19 PKP    PKPdf   06 49 32.4 -3.5
      comp=Z,1.7nm,0.6s,baz=71,slow=0.7,SNR=14
PDAR                             PP      PP      06 51 01.2 -1.9
      comp=Z,0.7nm,0.8s,baz=333,slow=3.3,SNR=3.9
NVAR  Mina Array Bea   121.09  28 PKP    PKPdf   06 49 34.5 -2.2
      comp=Z,3.6nm,0.7s,baz=350,slow=1.1,SNR=17
MNV   Mina             121.15  28 ePKIKP PKPdf   06 49 33.5 -3.3
MVU   Marysvale        123.60  23 eP     PKPdf   06 49 39.9 -1.6
MSU   Marysvale        123.61  23 ePKIKP PKPdf   06 49 39.8 -1.7
ANMO  Albuquerque      128.85  20 PKP    PKPdf   06 49 49.3 -2.5
      comp=Z,3.6nm,0.8s,baz=310,slow=1.5,SNR=17
ANMO                             SKPbc           06 53 14.0
      comp=Z,0.8nm,0.7s,baz=341,slow=4.1,SNR=5.4
BNM   Barren Site      129.52  21 eP     PKPdf   06 49 51.7 -1.3
TUC   Tucson           129.55  26 ePKIKP PKPdf   06 49 51.8 -1.3
WMOK  Wichita Mounta   131.16  12 ePKIKP PKPdf   06 49 53.2 -2.9
GDL2  Guadalupe Moun   132.06  19 eP     PKPdf   06 49 55.3 -2.7
MNTX  Cornudas Mount   132.18  21 eP     PKPdf   06 49 55.8 -2.4
MIAR  Mount Ida        132.20   7 ePKIKP PKPdf   06 49 55.2 -2.9
TXAR  Lajitas Array    134.93  20 PKhKP          06 49 52.3
      comp=Z,0.3nm,0.5s,baz=264,slow=0.2,SNR=4.6
TXAR                             PKP     PKPdf   06 50 00.8 -2.5
      comp=Z,1.5nm,0.6s,baz=204,slow=0.6,SNR=14
TXAR                             PP      PP      06 52 35.4 -1.5
      comp=Z,0.6nm,0.7s,baz=346,slow=5.2,SNR=4.9
TXAR                             SKPbc           06 53 33.9
      comp=Z,1.0nm,0.8s,baz=272,slow=2.0,SNR=5.0
JCT   Junction City    135.00  15 ePKIKP PKPdf   06 50 00.5 -3.0
TRQA  Tornquist        146.45 218 eP     PKPbc   06 50 21.3 +1.6
TEIG  Tepich           146.81   2 ePKPdf PKPdf   06 50 23.1 -1.6
PCRV  Puerto La Cruz   147.63 315 PKPbc  PKPdf   06 50 23.6 -2.6
      comp=Z,24nm,0.7s,baz=103,slow=3.4,SNR=8.9
SDV   Santo Domingo    152.50 322 PKP    PKPdf   06 50 30.9 -2.7
      comp=Z,5.5nm,0.5s,baz=235,slow=2.2,SNR=4.3
SDV                              PKPbc   PKPdf   06 50 37.3 +3.6
      comp=Z,12nm,0.7s,baz=290,slow=12,SNR=18
SDV                              PKPab   PKPab   06 50 48.7 +0.5
      comp=Z,18nm,0.8s,baz=52,slow=8.5,SNR=9.4
SDV   Santo Domingo    152.50 322 PKPdf  PKPdf   06 50 29.9 -3.7
SDV                             ePKPbc   PKPdf   06 50 37.1 +3.4
ROSC  El Rosal         157.90 323 PKP    PKPdf   06 50 39.4 -1.6
      comp=Z,4.3nm,0.5s,baz=257,slow=21,SNR=4.0
ROSC                             PKPab   PKPab   06 51 12.2 +0.9
      comp=Z,13nm,0.7s,baz=101,slow=5.9,SNR=8.9
LPAZ  La Paz           161.12 258 PKP    PKPdf   06 50 42.3 -2.1
      comp=Z,2.0nm,0.7s,baz=182,slow=2.4,SNR=7.6
LPAZ                             PKPab   PKPab   06 51 25.5 +0.5
      comp=Z,3.9nm,0.8s,baz=130,slow=4.2,SNR=9.5
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NAO ***29*** *06:34:07.3±2.6, 59.80N×11.07E, ML2.6*

CSEM ***29*** *06:34:08.6±0.1, 59.84N×10.92E, h10km, ML2.8/1, Error ellipse: s-maj=2.6km s-min=1.6km az=4.0*

NEIC ***29*** *06:34:09.5, 59.86N×10.98E, h0km, ML2.6(NAO), ML1.8(BER), After BER.*

BER ***29*** *06:34:09.5±3.7, 59.86N×10.98E, h0km±11km, MD1.7, ML1.8, ML2.6(NAO)*

ISC 29 06:34:07.5±0.9**, 59.87N**±0.06×**10.98E**±0.08**, h0km, n20, σ0ˢ53**/25**, Southern Norway**

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Code  Station Name        Δ°   AZ°    Phase ID             Time     Res
                                   Op      ISC         h  m  s    ISC
NC6   NORSAR Subarra    0.91  15   Pg      Pg      06 34 25.9 +0.3
NC6                                Lg              06 34 36.7
NAO   NORSAR Subarra    0.96 356   Pg      Pg      06 34 26.7 +0.1
NAO                                Lg              06 34 39.5
NBO   NORSAR Subarra    1.17 355   Pg      Pg      06 34 30.3 -0.4
NBO                                Lg              06 34 45.0
NB2   NORSAR Subarra    1.18   6   Pg      Pg      06 34 30.7 -0.2
NB2                                Lg              06 34 47.0
NC4   NORSAR Subarra    1.26  16   Pg      Pg      06 34 32.4 -0.4
NC4                                Lg              06 34 48.5
NC4   NORSAR Subarra    1.26  16   Pg      Pg      06 34 32.3 -0.4
HFS   Hagfors           1.39  78   Pn      Pn      06 34 34.8 +0.7
      baz=257,slow=16
HFS                                Sn      Sn      06 34 52.7 -0.7
      baz=255,slow=37
HFS   Hagfors           1.39  78   Pn      Pn      06 34 34.8 +0.7
      baz=257,slow=15,SNR=0.1
HFS                                Sn      Sn      06 34 52.7 -0.7
      baz=255,slow=30,SNR=9.1
NC3   NORSAR Subarra    1.41   9   Pn      Pn      06 34 34.8 +0.4
NC3                                Lg              06 34 53.6
NC2   NORSAR Subarra    1.41 357   Pn      Pn      06 34 34.6 +0.1
NC2                                Lg              06 34 52.8
ODD1  Odda              2.19 273  eP       Pn      06 34 45.1 -0.6
ODD1                              eS       Sn      06 35 13.2 -0.7
ODD1                               AML     AML     06 35 15.6
      comp=Z,10nm,0.3s
ODD1  Odda              2.19 273  eP       Pn      06 34 45.1 -0.6
      SNR=50
ODD1                              eS       Sn      06 35 13.2 -0.7
      comp=Z,10nm,0.3s,SNR=50
BLS5  Blasjo            2.34 261  eP       Pn      06 34 48.9 +1.1
BLS5                              eSg      Sg      06 35 20.0 -5.5
BLS5                               AML     AML     06 35 20.9
      comp=Z,5.1nm,0.3s
BLS5  Blasjo            2.34 261  eP       Pn      06 34 48.9 +1.1
      SNR=50
BLS5                              eSg      Sg      06 35 20.0 -5.5
      comp=Z,5.1nm,0.3s,SNR=90
DOMB  Dombas            2.37 338  eS       Sn      06 35 18.8 +0.4
DOMB                               AML     AML     06 35 24.2
```

	comp=Z,9.6nm,0.4s						
DOMB	**Dombas**	**2.37**	**338**	*e*S	**Sn**	**06 35 18.8**	**+0.4**
	comp=Z,9.6nm,0.4s,SNR=50						
HYA	**Hoyanger**	**2.70**	**301**	*e*Sg	**Sg**	**06 35 32.3**	**-5.1**
MOL	**Molde**	**3.17**	**330**	*e*S	**Sn**	**06 35 38.8**	**0.0**
MOL				*e*Sg	**Sg**	**06 35 47.4**	**-5.8**
FIA0	**FINESS Array S**	**7.58**	**72**	Lg		06 38 02.5	
	baz=251,slow=28						
FIA0	**FINESS Array S**	**7.58**	**72**	Lg		06 38 02.5	
	baz=251,slow=28						

MOS ***29*** *06:35:41.1±0.8, 9.43N×93.13E, h33^{km}, mb5.4/20, Error ellipse: s-maj=13.1km s-min=6.8km az=109.6*

BJI ***29*** *06:35:42.6, 9.33N×93.18E, h52^{km}, mB5.8, mb5.4, Ms5.3, Msz5.2*

NEIC ***29*** *06:35:44.4±1.0, 9.36N×93.15E, h49^{km}±8^{km}, mb5.0/22, Error ellipse: s-maj=7.7km s-min=6.5km az=181.0*

HRVD ***29*** *06:35:44.4±2.3, 9.29N×92.99E, h46^{km}±4^{km}, MW5.0/27, Centroid moment Tensor Solution. LP body waves: s4,c4; Mantle waves: s27,c39; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.46±.78; $M_{\theta\theta}$-1.02±.43; $M_{\phi\phi}$-2.45±.45; $M_{r\theta}$1.30±.26; $M_{\theta\phi}$-1.62±.30; $M_{\phi r}$-1.02±.33; Best double couple: $M_0$3.82×10^{16} NP1:ϕ_s53°, δ48°, λ120°. NP2:ϕ_s192°, δ50°, λ61°. Principal axes: T 4.13, Plg68°, Azm36°; N -.63, Plg22°, Azm212°; P -3.51, Plg1°, Azm302°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***29*** *06:35:44.6, 9.36N×93.13E, h51^{km}, MB5.1*

IDC ***29*** *06:35:46.4±1.4, 9.41N×93.18E, h63^{km}±11^{km}, mb4.7/29, mb1 4.8/29, mb1mx4.7/32, mbtmp5.0/29, Error ellipse: s-maj=18.3km s-min=8.1km az=46.0*

ISC 29 06:35:41.5±0.3**, 9.34N**±0.04×**93.16E**±0.04**, h38^{km}, h38^{km}**±3.1^{km}**:pP-P, n188,** σ1^{s}**05**/180**, mb5.1**/68**, MS5.2**/6**,**
20C-1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**7.68**	**106**	P	**P**	**06 37 37.0**	**+3.4**
	250nm,1.0s						
NST	**Nakhon Sawan**	**9.27**	**47**	P	**P**	**06 37 59.0**	**+3.4**
CM31	**Chiang Mai Arr**	**10.66**	**31**	P	**P**	**06 38 15.3**	**+0.5**
	52nm,0.6s						
CMAR	**Chiang Mai Arr**	**10.66**	**31**	P	**P**	**06 38 18.6**	**+3.7**
	6.4nm,0.3s,baz=224,slow=15,SNR=33						
CMAR				ScP		06 47 43.9	
	baz=250,slow=3.3,SNR=9.1						
PALK	**Pallekele**	**12.50**	**261**	*e*P	**P**	**06 38 39.6**	**0.0**
KOD	**Kodaikanal**	**15.49**	**275**	*e*P	**P**	**06 39 14.7**	**-4.3**
KOD				*e*S	**S**	**06 42 12.9**	**+3.2**
SHL	**Shillong**	**16.18**	**356**	*e*P	**P**	**06 39 29.3**	**+1.5**
SHL				*e*P		06 39 29.7	
SHL				*e*		06 39 30.9	
	comp=Z,72nm,0.9s						
KMI	**Kunming**	**18.15**	**29**	P	**P**	**06 39 50.0**	**-2.5**
QIZ	**Qiongzhong**	**18.81**	**57**	P	**P**	**06 40 02.5**	**+2.0**
QIZ	**Qiongzhong**	**18.81**	**57**	*e*P	**P**	**06 40 01.7**	**+1.2**
AKL	**Akola**	**19.24**	**308**	*e*P	**P**	**06 40 01.1**	**-4.3**
AKL				*e*P		06 40 06.5	
PKI	**Pulchoki**	**19.56**	**339**	*e*P	**P**	**06 40 09.7**	**+0.8**
	comp=Z,183nm,1.0s						
DMN	**Daman**	**19.70**	**338**	*e*P	**P**	**06 40 12.0**	**+1.5**
GUN	**Gumba**	**19.71**	**341**	*e*P	**P**	**06 40 11.5**	**+0.9**
	comp=Z,298nm,0.9s						
KKN	**Kakani**	**19.80**	**339**	*e*P	**P**	**06 40 13.0**	**+1.4**
	comp=Z,146nm,0.8s						
GOA	**Goa**	**19.84**	**290**	*e*P	**P**	**06 40 07.7**	**-4.4**
GOA				*e*S	**S**	**06 43 55.0**	**+6.6**
GKN	**Gorkha**	**20.23**	**338**	*e*P	**P**	**06 40 16.3**	**+0.2**
	comp=Z,105nm,0.4s						
LSA	**Lhasa**	**20.34**	**355**	*e*P	**P**	**06 40 17.0**	**-0.3**
LSA				pmax	pmax		
	comp=Z,54nm,0.4s						
LSA	**Lhasa**	**20.34**	**355**	*e*P	**P**	**06 40 17.0**	**-0.4**
	comp=Z,54nm,0.4s						
KOLN	**Koldanda**	**20.43**	**335**	*e*P	**P**	**06 40 18.9**	**+0.6**
	comp=Z,115nm,0.7s						
GYA	**Guiyang**	**21.30**	**35**	⇑*i*P	**P**	**06 40 27.5**	**+0.4**
GYA				AP		06 40 36.5	
GYA				PP	PP	06 40 54.5	+3.2
GYA				S	**S**	**06 44 24.0**	**+7.5**
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb4.9						
GYA				AMB	AMB		
	comp=Z,970nm,6.2s						
GYA				LR	LR		
	comp=N,3µm,13.8s,MS4.9						
GYA				LR	LR		
	comp=E,2µm,15.8s,MS4.9						
GYA				LR	LR		
	comp=Z,5µm,15.3s,MS5.0						
BOM	**Bombay**	**21.88**	**298**	*e*P	**P**	**06 40 29.4**	**-3.5**
BOM				*e*P		06 40 31.8	
CD2	**Chengdu**	**23.62**	**23**	⇑*i*P	**P**	**06 40 50.5**	**+0.4**
CD2				AMB	AMB		
	comp=Z,140nm,0.8s,mb5.4						
NDI	**New Delhi**	**24.39**	**324**	*e*P	**P**	**06 40 54.6**	**-2.9**
NDI				*e*P		06 40 57.9	
NDI				*e*		06 41 03.2	
	comp=Z,76nm,1.2s						
NDI				*e*		06 45 27.6	
ENH	**Enshi**	**25.81**	**34**	*e*P	**P**	**06 41 09.5**	**-1.6**
	comp=Z,51nm,0.6s,mb5.2						
LZH	**Lanzhou**	**28.34**	**18**	⇑P	**P**	**06 41 34.0**	**-0.1**
LZH				AMB	AMB		
	comp=Z,145nm,1.4s,mb5.4						
LZH				AMB	AMB		
	comp=Z,503nm,5.2s						
LZH				LR	LR		
	comp=E,3µm,14.3s						
LZH				LR	LR		
	comp=Z,5µm,15.5s,MS5.2						
XAN	**Xi'an**	**28.53**	**28**	P	**P**	**06 41 33.5**	**-2.3**
XAN				AMB	AMB		
	comp=Z,44nm,1.1s,mb5.1						
GTA	**Gaotai**	**30.53**	**10**	⇑*i*P	**P**	**06 41 53.5**	**-0.1**
GTA				AP	pP	06 42 05.0	+0.9
GTA				XP	sP	06 42 10.0	+1.0
GTA				PCP	PcP	06 44 52.5	+0.5
GTA				S	**S**	**06 46 49.0**	**-2.3**
GTA				XS		06 47 09.5	
GTA				SCP		06 48 30.0	
GTA				SS	SS	06 48 31.3	-2.1
GTA				SCS	ScS	06 52 24.3	-0.7
GTA				AMB	AMB		
	comp=Z,128nm,0.8s,mb5.8						
GTA				AMB	AMB		
	comp=Z,3µm,8.4s						
GTA				LR	LR		
	comp=N,4µm,16.3s,MS5.2						
GTA				LR	LR		
	comp=E,3µm,19.8s,MS5.2						
GTA				LR	LR		
	comp=Z,4µm,16.7s,MS5.1						
NJ2	**Nanjing**	**32.82**	**43**	*e*P	**P**	**06 42 12.3**	**-1.5**
NJ2				XP	sP	06 42 27.0	-2.3
NJ2				PP	PP	06 43 22.0	-2.1
NJ2				S	**S**	**06 47 26.0**	**-1.3**
NJ2				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,12µm,11.4s						
NJ2				LR	LR		
	comp=N,4µm,12.0s,MS5.5						
NJ2				LR	LR		
	comp=E,5µm,14.4s,MS5.5						
NJ2				LR	LR		
	comp=Z,4µm,15.0s,MS5.3						
KSH	**Kashi**	**33.75**	**336**	P	**P**	**06 42 22.5**	**+0.8**
KSH				*e*AP	pP	06 42 30.0	-2.3
KSH				*e*PP	PP	06 43 35.8	+0.5
KSH				*e*PCP	PcP	06 45 00.5	-0.2
KSH				AMB	AMB		
	comp=Z,2µm,10.4s						
SSE	**Sheshan**	**33.88**	**46**	*e*P	**P**	**06 42 19.0**	**-3.9**
SSE				AMB	AMB		
	comp=Z,44nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,1µm,12.0s						
WMQ	**Urumqi**	**34.68**	**353**	P	**P**	**06 42 30.5**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,22nm,0.5s,mb5.3						
HHC	**Hu-ho-hao-te**	**35.37**	**24**	*e*P	**P**	**06 42 35.8**	**+0.3**
HHC				AP	pP	06 42 48.0	+1.8
HHC				XP	sP	06 42 53.5	+2.4
HHC				PP	PP	06 43 55.0	-0.7
HHC				S	**S**	**06 48 03.5**	**-3.1**
HHC				XS		06 48 24.3	
HHC				SS	SS	06 50 20.5	-5.1
HHC				SCS	ScS	06 52 50.0	+0.2
HHC				AMB	AMB		
	comp=Z,59nm,0.6s,mb5.7						
HHC				LR	LR		
	comp=N,2µm,13.1s,MS5.2						
HHC				LR	LR		
	comp=E,1µm,14.3s,MS5.2						
HHC				LR	LR		
	comp=Z,1µm,13.1s,MS4.9						
UCH	**Uchtor**	**36.63**	**337**	P	**P**	**06 42 47.6**	**+1.4**
	SNR=27						
BJT	**Baijiatuau**	**36.78**	**30**	*e*P	**P**	**06 42 48.6**	**+1.1**
BJT				pmax	pmax		
	comp=Z,46nm,0.7s						
BJT	**Baijiatuau**	**36.78**	**30**	*e*P	**P**	**06 42 48.6**	**+1.1**
	comp=Z,46nm,0.7s,mb5.4						
BJI	**Beijing**	**36.80**	**30**	P	**P**	**06 42 48.5**	**+0.8**
BJI				AMB	AMB		
	comp=Z,65nm,0.7s,mb5.6						
TKM2	**Tokmak 2**	**36.82**	**338**	P	**P**	**06 42 48.5**	**+0.8**
	SNR=31						
KBK	**Karagaybulak**	**36.83**	**337**	P	**P**	**06 42 49.6**	**+1.7**
	SNR=23						
AML	**Almayashu**	**36.88**	**336**	P	**P**	**06 42 49.8**	**+1.6**
	SNR=93						
AAK	**Ala-Archa**	**36.98**	**337**	P	**P**	**06 42 50.6**	**+1.5**
	SNR=37						
AAK	**Ala-Archa**	**36.98**	**337**	⇑*i*P	**P**	**06 42 49.6**	**+0.4**
CHMS	**Chumysh**	**37.20**	**337**	P	**P**	**06 42 51.6**	**+0.6**
	SNR=32						
EKS2	**Erkin-Say**	**37.29**	**336**	P	**P**	**06 42 53.2**	**+1.5**
	SNR=5.8						
USP	**Ospenovka**	**37.52**	**337**	P	**P**	**06 42 54.5**	**+0.8**
	SNR=78						
DL2	**Dalian**	**38.94**	**36**	P	**P**	**06 43 07.3**	**+1.8**
DL2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.3						
SONM	**Songino Array**	**39.97**	**14**	P	**P**	**06 43 14.1**	**+0.2**
	comp=Z,45nm,0.9s,mb5.2,baz=199,slow=7.3,SNR=96						
SONM				PcP	PcP	06 45 19.7	+0.3
	comp=Z,8.5nm,0.7s,baz=200,slow=3.7,SNR=10						
SONM				ScP		06 49 02.9	
	comp=Z,2.0nm,0.8s,baz=194,slow=2.4,SNR=5.5						
MBWA	**Marble Bar**	**40.00**	**139**	*e*P	**P**	**06 43 13.3**	**-1.1**
	comp=Z,23nm,1.2s,mb4.8						
ULN	**Ulaanbaatar**	**40.16**	**15**	⇑*i*P	**P**	**06 43 15.6**	**+0.1**
ZAK	**Zakamensk**	**41.77**	**10**	*e*P	**P**	**06 43 28.1**	**-0.7**
SNY	**Shenyang**	**41.99**	**34**	⇑P	**P**	**06 43 31.3**	**+0.5**
SNY				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.1						
MOY	**Mondy**	**42.69**	**7**	*e*P	**P**	**06 43 36.8**	**+0.5**
TLY	**Talaya**	**43.08**	**10**	⇑*i*P	**P**	**06 43 39.4**	**-0.1**
CN2	**Changchun**	**44.33**	**34**	⇑P	**P**	**06 43 50.5**	**+0.8**
CN2				AMB	AMB		
	comp=Z,100nm,0.7s,mb5.7						
ZAL	**Zalesovo**	**44.98**	**353**	P	**P**	**06 43 53.5**	**-1.3**
	comp=Z,9.5nm,0.4s,mb5.0,baz=206,slow=3.4,SNR=4.2						
HIA	**Hailar**	**45.58**	**24**	*e*P	**P**	**06 43 59.4**	**-0.2**
HIA				pmax	pmax		
	comp=Z,39nm,0.8s						
HIA	**Hailar**	**45.58**	**24**	*e*P	**P**	**06 43 59.4**	**-0.3**
	comp=Z,39nm,0.8s,mb5.4						
MDJ	**Mudanjiang**	**47.16**	**35**	P	**P**	**06 44 12.5**	**+0.3**
MDJ				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,699nm,6.2s						
MDJ	**Mudanjiang**	**47.16**	**35**	*e*P	**P**	**06 44 12.3**	**+0.1**
	comp=Z,9.2nm,0.6s,mb4.9						
BVAR	**Borovoye Array**	**47.30**	**341**	P	**P**	**06 44 12.4**	**-0.8**
	comp=Z,13nm,0.7s,mb5.0,baz=141,slow=9.5,SNR=30						
BVAR				PcP	PcP	06 45 44.2	+0.1
	comp=Z,4.3nm,0.8s,baz=225,slow=2.1,SNR=3.6						
BRVK	**Borovoye**	**47.36**	**341**	⇑*i*P	**P**	**06 44 12.8**	**-0.8**
CHKZ	**Chkalovo**	**47.79**	**342**	*e*P	**P**	**06 44 16.5**	**-0.5**
CHKZ				pmax	pmax		
	comp=Z,52nm,0.7s,mb5.7						
CHKZ	**Chkalovo**	**47.79**	**342**	*e*P	**P**	**06 44 16.5**	**-0.5**
	comp=Z,52nm,0.7s,mb5.7						
NWAO	**Narrogin (SRO)**	**47.88**	**152**	P	**P**	**06 44 18.9**	**+0.9**
	comp=Z,30nm,0.5s,mb5.6,baz=323,slow=6.5,SNR=31						
MAT	**Matsushiro**	**48.92**	**49**	P	**P**	**06 44 27.3**	**+1.3**
MAT	**Matsushiro**	**48.92**	**49**	P	**P**	**06 44 27.0**	**+1.0**
WRA	**Warramunga Arr**	**49.90**	**126**	P	**P**	**06 44 33.6**	**-0.1**
	comp=Z,30nm,0.5s,mb5.6,baz=305,slow=8.5,SNR=107						
WRA				PcP	PcP	06 45 54.7	+0.7
	comp=Z,7.3nm,0.5s,baz=311,slow=3.0,SNR=14						
WRA				ScP		06 49 43.8	
	comp=Z,1.9nm,0.6s,baz=316,slow=3.9,SNR=10						
WRA				S	**S**	**06 51 37.7**	**-2.1**
	comp=Z,2.3nm,0.9s,baz=299,slow=16,SNR=8.0						
WRAB	**Tennant Creek**	**49.90**	**126**	*e*P	**P**	**06 44 33.1**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,60nm,0.6s,mb5.8						
WRAB	**Tennant Creek**	**49.90**	**126**	*e*P	**P**	**06 44 33.1**	**-0.6**
	comp=Z,60nm,0.6s,mb5.8						
BOD	**Bodaibo**	**50.97**	**14**	*e*P	**P**	**06 44 40.6**	**-0.7**
KLR	**Kul'dur**	**51.14**	**32**	*e*P	**P**	**06 44 39.3**	**-3.4**
ASAR	**Alice Springs**	**51.59**	**130**	P	**P**	**06 44 46.0**	**-0.5**
	comp=Z,18nm,0.6s,mb5.2,baz=301,slow=7.6,SNR=72						
ASAR				PcP	PcP	06 46 00.9	+0.8
	comp=Z,12nm,0.6s,baz=310,slow=3.4,SNR=14						
ASAR				ScP		06 49 51.2	
	comp=Z,3.0nm,0.9s,baz=299,slow=3.8,SNR=8.8						
ASAR				S	**S**	**06 52 01.4**	**-1.8**
	comp=Z,0.7nm,0.7s,baz=293,slow=14,SNR=4.9						
GNI	**Garni**	**52.73**	**314**	P	**P**	**06 44 55.3**	**+0.5**
	comp=Z,6.1nm,0.5s,mb4.8,baz=202,slow=5.0,SNR=7.4						
CLNS	**Chul'man**	**53.41**	**21**	*e*P	**P**	**06 44 58.7**	**-1.0**
CLNS				pmax	pmax		
	comp=N,29nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.5						
CLNS				pmax	pmax		
	comp=E,29nm,0.9s						
ARU	**Arti**	**54.17**	**337**	*e*P	**P**	**06 45 03.6**	**-1.7**
ZEI	**Tsey**	**54.32**	**317**	*e*P	**P**	**06 45 06.9**	**+0.4**
ZEI				*i*		06 47 09.6	
ZEI				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
ASAJ	**Asahikawa**	**54.96**	**42**	P	**P**	**06 45 11.8**	**+0.6**
	comp=Z,29nm,0.6s,mb5.5,baz=237,slow=6.7,SNR=18						
KIV	**Kislovodsk**	**55.59**	**318**	P	**P**	**06 45 15.2**	**-0.5**
	comp=Z,344nm,0.8s,SNR=8.0						
KIV	**Kislovodsk**	**55.59**	**318**	⇑*i*P	**P**	**06 45 15.7**	**0.0**
GOF	**Gofitskoye**	**55.80**	**319**	*e*P	**P**	**06 45 17.0**	**-0.2**
YSS	**Yuzh-Sakhalins**	**56.24**	**39**	⇑*i*P	**P**	**06 45 19.7**	**-0.7**
ASF	**Jabal al Asfar**	**56.62**	**302**	P	**P**	**06 45 24.1**	**+0.8**
	comp=Z,2.6nm,0.8s,mb4.3,baz=1.0,slow=16,SNR=3.8						
KMBO	**Kilima Mbogo**	**56.64**	**262**	P	**P**	**06 45 25.2**	**+1.5**
	comp=Z,1.2nm,0.8s,mb4.0,baz=55,slow=11,SNR=3.5						
MALT	**Malatya**	**56.79**	**310**	*e*P	**P**	**06 45 23.3**	**-1.1**
PMG	**Port Moresby**	**56.89**	**108**	P	**P**	**06 45 26.3**	**+0.8**
	comp=Z,28nm,0.8s,mb5.4,baz=270,slow=5.5,SNR=11						
YAK	**Yakutsk**	**58.93**	**19**	⇑*i*P	**P**	**06 45 37.7**	**-1.4**
ANN	**Anapa**	**59.41**	**317**	*e*P	**P**	**06 45 40.9**	**-1.8**
CTA	**Charters Tower**	**59.87**	**120**	P	**P**	**06 45 46.5**	**+0.3**
	comp=Z,41nm,0.8s,mb5.5,baz=296,slow=8.2,SNR=28						
BRTR	**Keskin Array B**	**60.75**	**310**	P	**P**	**06 45 50.4**	**-1.6**
	comp=Z,11nm,0.8s,mb5.0,baz=124,slow=7.7,SNR=28						
STKA	**Stephens Creek**	**61.81**	**134**	P	**P**	**06 45 59.2**	**+0.1**
	comp=Z,14nm,0.8s,mb5.1,baz=306,slow=5.9,SNR=16						
STKA	**Stephens Creek**	**61.81**	**134**	*e*P	**P**	**06 45 58.9**	**-0.3**
MOS	**Moscow**	**63.33**	**329**	*e*P	**P**	**06 46 07.5**	**-1.5**
MOS				pmax	pmax		
	comp=Z,47nm,0.7s,mb5.7						
OBN	**Obninsk**	**63.63**	**328**	⇑*i*P	**P**	**06 46 09.7**	**-1.2**
OBN				*e*		06 46 16.5	
OBN				*e*	pP	06 46 22.9	+0.7
OBN				*e*		06 46 51.2	
OBN				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
OBN				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.4						
OBN	**Obninsk**	**63.63**	**328**	⇑*i*P	**P**	**06 46 09.8**	**-1.1**
MA2	**Magadan**	**65.93**	**28**	⇑*i*P	**P**	**06 46 24.9**	**-0.8**
TIXI	**Tiksi**	**66.00**	**12**	⇑*i*P	**P**	**06 46 24.8**	**-1.1**
AKASG	**Malin Array Be**	**66.41**	**321**	P	**P**	**06 46 27.0**	**-1.9**
	comp=Z,5.7nm,0.6s,mb4.8,baz=88,slow=5.1,SNR=24						
IDI	**Anoyia**	**66.95**	**304**	P	**P**	**06 46 31.1**	**-1.4**
	comp=Z,7.5nm,0.5s,mb4.9,baz=92,slow=5.7,SNR=6.6						
MLR	**Muntele Rosu**	**67.45**	**315**	P	**P**	**06 46 35.9**	**+0.4**
	comp=Z,13nm,0.8s,mb5.0,baz=157,slow=2.6,SNR=14						
PET	**Petropavlovsk**	**67.93**	**36**	*e*P	**P**	**06 46 38.2**	**-0.2**
PET				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
IDID	**Didziasalis**	**69.03**	**326**	*e*P	**P**	**06 46 44.4**	**-0.8**
IDID				AMPb	AMB	06 46 46.1	
	comp=Z,9.3nm,1.0s,mb4.7						
IDID				*e*pP	pP	06 46 50.2	-6.4
IIGN	**Ignalina**	**69.32**	**326**	*e*P	**P**	**06 46 45.9**	**-1.1**
IIGN				AMPb	AMB	06 46 47.4	
	comp=Z,7.7nm,0.5s,mb4.8						
IZAR	**Zarasai**	**69.41**	**326**	*e*P	**P**	**06 46 46.4**	**-1.0**
ISAL	**Salakas**	**69.43**	**326**	*e*P	**P**	**06 46 46.3**	**-1.3**
ISAL				AMPb	AMB	06 46 47.6	
	comp=Z,4.0nm,0.8s,mb4.4						
KWP	**Kalwaria**	**70.30**	**319**	*e*P	**P**	**06 46 52.6**	**-0.4**
KOLS	**Kolonicke sedl**	**70.47**	**319**	*e*P	**P**	**06 46 54.4**	**+0.3**
KOLS				*e*sP	sP	06 47 13.5	+3.8
SUW	**Suwalki**	**70.76**	**324**	*e*P	**P**	**06 46 54.8**	**-0.9**
FINES	**FINESS Array B**	**70.97**	**332**	*i* P	**P**	**06 46 56.1**	**-0.8**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES	**FINESS Array B**	**70.97**	**332**	P	**P**	**06 46 56.1**	**-0.8**
	comp=Z,4.4nm,0.6s,mb4.5,baz=94,slow=5.7,SNR=21						
CRVS	**Cervenica-Dubn**	**71.00**	**319**	*e*P	**P**	**06 46 57.2**	**-0.1**
CRVS				*e*sP	sP	06 47 15.6	+2.7
KAF	**Kangasniemi**	**71.06**	**333**	*e*p	**P**	**06 46 55.4**	**-2.0**
	comp=Z,8.2nm,0.9s,mb4.7						
KAF	**Kangasniemi**	**71.06**	**333**	*e*P	**P**	**06 46 55.4**	**-2.0**
KAF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
KECS	**Kecovo**	**71.59**	**318**	*e*P	**P**	**06 47 03.6**	**+2.8**
KECS	**Kecovo**	**71.59**	**318**	*e*	**P**	**06 47 03.6**	**+2.8**
NIE	**Niedzica**	**71.81**	**319**	*e*P	**P**	**06 47 02.2**	**+0.1**
OJC	**Ojcow**	**72.24**	**320**	*e*P	**P**	**06 47 04.3**	**-0.3**
VYHS	**Vyhne**	**72.68**	**318**	*i* P	**P**	**06 47 06.8**	**-0.5**
VYHS				*e*		06 47 26.8	
VYHS	**Vyhne**	**72.68**	**318**	*i* P	**P**	**06 47 06.8**	**-0.5**
VYHS				*e*sP	sP	06 47 26.8	+3.9
SRO	**Srobarova**	**72.97**	**317**	*e*sP	sP	06 47 29.6	+5.0
KEV	**Kevo**	**73.14**	**341**	*e*p	**P**	**06 47 07.0**	**-2.6**
	comp=Z,11nm,0.9s,mb4.8						
KEV	**Kevo**	**73.14**	**341**	*e*P	**P**	**06 47 07.0**	**-2.6**
KEV				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
OKC	**Ostrava-Krasne**	**73.26**	**319**	*e*P	**P**	**06 47 10.6**	**-0.1**
OKC				*e*x	x	06 47 30.9	
ARCES	**ARCESS Array B**	**73.57**	**340**	P	**P**	**06 47 11.9**	**-0.2**
	comp=Z,4.7nm,0.6s,mb4.6,baz=96,slow=6.0,SNR=19						
ZST	**Bratislava**	**73.81**	**317**	*e*P	**P**	**06 47 14.2**	**+0.3**
DPC	**Dobruska-Polom**	**74.47**	**320**	*e*P	**P**	**06 47 18.2**	**+0.5**
DPC				*e*x	x	06 47 36.5	
KSP	**Ksiaz**	**74.53**	**320**	⇑*e*P	**P**	**06 47 18.3**	**+0.3**
KSP				*e*	pP	06 47 29.5	0.0
KSP	**Ksiaz**	**74.53**	**320**	*e*P	**P**	**06 47 18.3**	**+0.3**
PRU	**Pruhonice**	**75.59**	**319**	*e*P	**P**	**06 47 24.3**	**+0.1**
PRU				*e*pP	pP	06 47 35.7	+0.1
PRU				*e*x	x	06 47 44.4	
BRG	**Berggiesshubel**	**76.01**	**320**	*i* P	**P**	**06 47 26.5**	**0.0**
BRG				*i*		06 47 42.5	
BRG				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BRG	**Berggiesshubel**	**76.01**	**320**	*i* P	**P**	**06 47 26.5**	**0.0**
	comp=Z,9.9nm,1.0s,mb4.7						
BRG				*i*		06 47 42.5	
GEC2	**GERESS Array S**	**76.10**	**318**	*e*P	**P**	**06 47 27.2**	**+0.2**
GEC2				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
GEC2	**GERESS Array S**	**76.10**	**318**	*e*P	**P**	**06 47 27.2**	**+0.2**
	comp=Z,14nm,0.9s,mb4.9						
GERES	**GERESS Array B**	**76.10**	**318**	P	**P**	**06 47 27.2**	**+0.1**
	comp=Z,13nm,0.9s,mb4.8,baz=90,slow=5.4,SNR=46						
KHC	**Kasperske Hory**	**76.19**	**318**	*e*P	**P**	**06 47 27.4**	**-0.2**
KHC				*e*pP	pP	06 47 38.6	-0.4
KHC				*e*x	x	06 47 48.0	
FX1	**Attu Island--F**	**76.58**	**38**	P	**P**	**06 47 29.8**	**+0.1**
	comp=Z,53nm,0.5s,mb5.7,baz=238,slow=1.8,SNR=16						
CLL	**Collm**	**76.62**	**321**	*e*P	**P**	**06 47 29.0**	**-1.0**
CLL	**Collm**	**76.62**	**321**	P	**P**	**06 47 29.0**	**-1.0**
WET	**Wettzell**	**76.65**	**318**	*e*P	**P**	**06 47 30.3**	**+0.1**
HFS	**Hagfors**	**76.71**	**330**	P	**P**	**06 47 29.9**	**-0.4**
	comp=Z,4.7nm,0.5s,mb4.7,baz=104,slow=6.1,SNR=25						
MOX	**Moxa**	**77.49**	**320**	*e*P	**P**	**06 47 34.9**	**+0.1**
MOX	**Moxa**	**77.49**	**320**	*i* P	**P**	**06 47 34.9**	**+0.1**
GRA1	**Grafenberg Arr**	**77.73**	**319**	*e*P	**P**	**06 47 36.9**	**+0.7**
	comp=Z,13nm,0.9s,mb4.9						
GRF	**Grafenberg Arr**	**77.73**	**319**	*e*P	**P**	**06 47 36.9**	**+0.7**
GRF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
GRF	**Grafenberg Arr**	**77.73**	**319**	*e*P	**P**	**06 47 36.9**	**+0.7**
GRF				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
GRF	**Grafenberg Arr**	**77.73**	**319**	*e*P	**P**	**06 47 36.9**	**+0.7**
	comp=Z,13nm,0.9s,mb4.9						
NB2	**NORSAR Subarra**	**77.99**	**330**	P	**P**	**06 47 36.4**	**-1.0**
	comp=Z,2.4nm,0.6s,mb4.3,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	**77.99**	**330**	P	**P**	**06 47 36.4**	**-1.0**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	**NORSAR Array B**	**77.99**	**330**	P	**P**	**06 47 36.7**	**-0.7**
	comp=Z,3.5nm,0.6s,mb4.4,baz=93,slow=5.7,SNR=10						
CLZ	**Clausthal**	**78.27**	**321**	*e*P	**P**	**06 47 39.4**	**+0.3**
	comp=Z,7.0nm,0.6s,mb4.8						
BSEG	**Bad Segeberg**	**78.31**	**323**	*e*P	**P**	**06 47 39.9**	**+0.6**
DAVOX	**Davos**	**78.67**	**316**	P	**P**	**06 47 41.8**	**+0.3**
	comp=Z,11nm,0.8s,mb4.8,baz=116,slow=8.1,SNR=13						
BFO	**Black Forest**	**79.67**	**318**	*e*P	**P**	**06 47 46.8**	**0.0**
BFO				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
BFO	**Black Forest**	**79.67**	**318**	*e*P	**P**	**06 47 46.8**	**0.0**
	comp=Z,8.0nm,1.0s,mb4.6						
LPG	**La Plagne**	**80.91**	**315**	*e*P	**P**	**06 47 54.0**	**+0.5**
	comp=Z,41nm,0.9s,mb5.1						
LPG	**La Plagne**	**80.91**	**315**	*e*P	**P**	**06 47 54.0**	**+0.5**
LPG				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
EKA	**Eskdalemuir Ar**	**85.97**	**325**	P	**P**	**06 48 19.6**	**+0.6**
	comp=Z,3.6nm,0.8s,mb4.6,baz=86,slow=5.9,SNR=6.5						
SYO	**Syowa Base**	**86.51**	**197**	⇑P	**P**	**06 48 21.7**	**+0.4**
SYO	**Syowa Base**	**86.51**	**197**	⇑PcP	PcP	06 48 24.5	+0.4
SYO	**Syowa Base**	**86.51**	**197**	⇓pP	pP	06 48 35.7	+2.7
RPZ	**Rata Peaks**	**87.76**	**135**	P	**P**	**06 48 29.4**	**+1.5**
	comp=Z,19nm,0.7s,mb5.4,baz=266,slow=21,SNR=4.9						
IMA	**Indian Mountai**	**90.64**	**22**	*e*P	**P**	**06 48 42.4**	**+1.4**
IMA				pmax	pmax		
	comp=Z,99nm,0.8s,mb6.2						
IMA	**Indian Mountai**	**90.64**	**22**	*e*P	**P**	**06 48 42.4**	**+1.4**
	comp=Z,99nm,0.8s,mb6.2						
URZ	**Urewera**	**91.00**	**128**	P	**P**	**06 48 43.4**	**0.0**
	comp=Z,4.2nm,0.4s,mb5.1,baz=136,slow=13,SNR=4.3						
RSO	**Redoubt South**	**93.41**	**27**	*e*P	**P**	**06 48 55.1**	**+1.2**
MCK	**McKinley**	**93.50**	**23**	*e*P	**P**	**06 48 54.5**	**+0.3**
MCK				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.4						
MCK	**McKinley**	**93.50**	**23**	*e*P	**P**	**06 48 54.5**	**+0.2**
	comp=Z,12nm,0.9s,mb5.3						
ILAR	**Eielson Array**	**93.76**	**22**	P	**P**	**06 48 55.1**	**-0.2**
	comp=Z,8.8nm,0.6s,mb5.4,baz=286,slow=4.4,SNR=62						
ILAR				PP	PP	06 52 40.2	-3.5
	comp=Z,2.5nm,1.2s,baz=315,slow=5.8,SNR=5.2						
VNDA	**Vanda**	**94.55**	**168**	*e*P	**P**	**06 49 00.2**	**+1.5**
VNDA				pmax	pmax		
	comp=Z,2.0nm,0.7s						
VNDA	**Vanda**	**94.55**	**168**	P	**P**	**06 49 00.9**	**+2.2**
	comp=Z,1.7nm,0.5s,mb4.8,baz=280,slow=4.9,SNR=5.7						
VNDA	**Vanda**	**94.55**	**168**	*e*P	**P**	**06 49 00.2**	**+1.5**
	comp=Z,1.8nm,0.7s,mb4.6						
INK	**Inuvik**	**95.86**	**16**	*e*P	**P**	**06 49 05.3**	**+0.5**
INK				pmax	pmax		
	comp=Z,16nm,0.6s						
INK	**Inuvik**	**95.86**	**16**	P	**P**	**06 49 05.5**	**+0.7**
	comp=Z,14nm,0.5s,mb5.6,baz=338,slow=4.5,SNR=49						
INK	**Inuvik**	**95.86**	**16**	*e*P	**P**	**06 49 05.3**	**+0.5**
	comp=Z,16nm,0.6s,mb5.6						
RES	**Resolute Bay**	**95.99**	**2**	*e*P	**P**	**06 49 06.4**	**+1.1**
RES				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.4						
RES	**Resolute Bay**	**95.99**	**2**	*e*P	**P**	**06 49 06.4**	**+1.2**
	comp=Z,14nm,0.9s,mb5.4						
YKA	**Yellowknife Ar**	**105.23**	**13**	Pdiff	Pdif	06 49 47.3	+0.4
	comp=Z,0.7nm,0.8s,baz=323,slow=4.5,SNR=5.2						
YKA				PP	PP	06 54 05.7	-5.6

	comp=Z,4.8nm,0.8s,baz=335,slow=7.7,SNR=35						
YKA				PKKPbc		07 05 27.8	
	comp=Z,0.4nm,0.7s,baz=152,slow=2.7,SNR=7.6						
ULM	**Lac du Bonnet**	**120.14**	**7**	PKP	PKPdf	06 54 31.2	+2.6
	comp=Z,2.3nm,0.5s,baz=1.0,slow=4.2,SNR=5.0						
ULM				PKKPbc		07 04 39.5	
	comp=Z,1.2nm,0.4s,baz=133,slow=3.7,SNR=3.0						
REDW	**Red Top Meadow**	**123.17**	**21**	eP	PKPdf	06 54 37.0	+2.4
PDAR	**Pinedale Array**	**124.15**	**20**	PKP	PKPdf	06 54 38.5	+2.0
	comp=Z,3.6nm,0.8s,baz=45,slow=1.3,SNR=26						
NVAR	**Mina Array Bea**	**124.15**	**30**	PKP	PKPdf	06 54 39.9	+3.3
	comp=Z,3.2nm,0.7s,baz=294,slow=1.3,SNR=20						
MSU	**Marysvale**	**126.86**	**25**	ePKIKP	PKPdf	06 54 45.5	+3.6
ANMO	**Albuquerque**	**132.20**	**22**	PKP	PKPdf	06 54 54.8	+2.6
	comp=Z,3.0nm,0.8s,baz=89,slow=0.7,SNR=11						
ANMO				SKPbc		06 58 15.4	
	comp=Z,2.1nm,0.8s,baz=354,slow=5.5,SNR=9.6						
GDL2	**Guadalupe Moun**	**135.43**	**21**	ePKPdf	PKPdf	06 55 00.1	+1.9
MNTX	**Cornudas Mount**	**135.50**	**23**	ePKPdf	PKPdf	06 55 00.5	+2.1
TXAR	**Lajitas Array**	**138.27**	**22**	PKhKP		06 54 54.5	
	comp=Z,0.5nm,0.6s,baz=280,slow=1.7,SNR=6.0						
TXAR				PKP	PKPdf	06 55 06.4	+2.9
	comp=Z,0.9nm,0.5s,baz=257,slow=0.6,SNR=9.6						
TXAR				PP	PP	06 57 53.9	-3.2
	comp=Z,1.1nm,0.8s,baz=45,slow=1.8,SNR=4.7						
TXAR				SKPbc		06 58 34.6	
	comp=Z,5.6nm,1.0s,baz=297,slow=2.8,SNR=12						
JCT	**Junction City**	**138.50**	**17**	ePKHKP		06 54 56.0	
JCT				e		06 55 06.0	
TEIG	**Tepich**	**150.59**	**3**	ePKPbc	PKPdf	06 55 31.5	+6.7
LPAZ	**La Paz**	**160.50**	**247**	PKPab	PKPab	06 56 23.3	+1.7
	comp=Z,1.3nm,0.7s,baz=101,slow=5.2,SNR=3.2						

IDC 29 06:49:38.7±12.0**,6.29N**×**93.22E,mb3.7**/3**,mb1 3.9**/3**, mb1mx3.6**/16**,mbtmp3.7**/3**,Error ellipse: s-maj=424.4km s-min=31.6km az=71.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.31**	**24**	Pn	P	06 52 58.4	+6.7
	0.8nm,0.3s,baz=222,slow=13,SNR=4.9						
SONM	**Songino Array**	**42.90**	**13**	P	P	06 57 39.0	-1.7
	0.6nm,0.7s,baz=198,slow=4.6,SNR=3.5						
WRA	**Warramunga Arr**	**48.12**	**124**	P	P	06 58 20.2	-2.5
	1.6nm,1.0s,baz=303,slow=8.7,SNR=5.3						
ASAR	**Alice Springs**	**49.63**	**128**	P	P	06 58 32.8	-1.6
	0.6nm,0.5s,baz=301,slow=8.1,SNR=7.9						

*IDC **29** 06:51:42.3±0.5,9.22N×93.92E,mb4.3/22,mb1 4.4/22, mb1mx4.4/22,mbtmp4.3/22,MS5.0/1,Ms1 5.0/1, ms1mx3.4/25,Error ellipse: s-maj=22.4km s-min=13.4km az=47.0*

ISC 29 06:51:45.7±0.4**,9.17N**±0.07×**93.95E**±0.08**,h33^{km},n64, σ1^{s}05**/53**,mb4.3**/23**,MS5.0**/1**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.43**	**27**	Pn	**P**	**06 54 16.1**	**0.0**
	1.1nm,0.3s,baz=216,slow=15,SNR=7.7						
VIS	**Vishakhapatnam**	**13.37**	**311**	eP	**P**	**06 54 53.4**	**-2.3**
VIS				eS	**S**	**06 57 12.4**	**-12**
BWNR	**Bhubaneshwar**	**13.57**	**325**	e	**P**	**06 54 48.7**	**-10**
SHL	**Shillong**	**16.43**	**353**	eP	**P**	**06 55 34.7**	**-0.7**
HYB	**Hyderabad**	**17.07**	**300**	eP	**P**	**06 55 47.0**	**+3.5**
PKI	**Pulchoki**	**20.00**	**337**	eP	**P**	**06 56 19.6**	**+1.2**
GUN	**Gumba**	**20.14**	**339**	eP	**P**	**06 56 19.4**	**-0.4**
	481nm,1.2s						
KKN	**Kakani**	**20.25**	**337**	eP	**P**	**06 56 20.8**	**-0.2**
GKN	**Gorkha**	**20.69**	**336**	eP	**P**	**06 56 25.3**	**-0.3**
KAD	**Karad**	**20.86**	**295**	eP	**P**	**06 56 28.0**	**+0.6**
KAD				e		06 56 33.2	
	comp=Z,130nm,1.2s						
KOLN	**Koldanda**	**20.92**	**334**	eP	**P**	**06 56 27.9**	**-0.1**
	comp=Z,97nm,0.7s						
BHPL	**Bhopal**	**21.12**	**313**	eP	**P**	**06 56 29.5**	**-0.5**
POO	**Poona**	**21.60**	**298**	eP	**P**	**06 56 37.1**	**+2.3**
POO				e		06 56 41.5	
	comp=Z,74nm,1.3s						
AGRA	**Agra**	**23.49**	**322**	eP	**P**	**06 56 56.6**	**+3.1**
AYAN	**Aya Nagar**	**24.89**	**323**	eP	**P**	**06 57 06.2**	**-0.9**
KUDL	**Kundal**	**25.04**	**321**	e	**P**	**06 57 05.7**	**-2.8**
KHET	**Khetri**	**25.41**	**320**	eP	**P**	**06 57 12.3**	**+0.3**
DDI	**Dehra Dun**	**25.76**	**327**	eP	**P**	**06 57 15.6**	**+0.3**
DDI				e		07 01 52.6	
KKR	**Kurukshetra**	**26.17**	**325**	eP	**P**	**06 57 20.6**	**+1.5**
KLP	**Kalpa**	**26.61**	**329**	eP	**P**	**06 57 24.1**	**+0.9**
SDNR	**Sundarnagar**	**27.26**	**327**	eP	**P**	**06 57 28.5**	**-0.6**
UCH	**Uchtor**	**37.10**	**336**	P	**P**	**06 58 54.1**	**-0.7**
	SNR=7.4						
TKM2	**Tokmak 2**	**37.27**	**338**	P	**P**	**06 58 57.3**	**+1.1**
	SNR=5.6						
AML	**Almayashu**	**37.36**	**335**	P	**P**	**06 58 58.0**	**+0.9**
	SNR=21						
CHMS	**Chumysh**	**37.66**	**337**	P	**P**	**06 58 59.1**	**-0.4**
	SNR=8.0						
EKS2	**Erkin-Say**	**37.76**	**335**	P	**P**	**06 59 01.2**	**+0.8**
	SNR=14						
USP	**Ospenovka**	**37.98**	**337**	P	**P**	**06 59 02.2**	**-0.1**
	SNR=15						
SONM	**Songino Array**	**39.95**	**13**	P	**P**	**06 59 19.0**	**+0.5**
	comp=Z,1.0nm,0.7s,mb3.7,baz=199,slow=9.8,SNR=4.5						
BVAR	**Borovoye Array**	**47.71**	**341**	P	**P**	**07 00 20.2**	**-1.0**
	comp=Z,3.4nm,0.7s,mb4.5,baz=143,slow=7.4,SNR=12						
WRA	**Warramunga Arr**	**49.17**	**126**	P	**P**	**07 00 32.5**	**-0.3**
	comp=Z,1.2nm,0.5s,mb4.2,baz=304,slow=8.8,SNR=9.1						
ASAR	**Alice Springs**	**50.89**	**131**	P	**P**	**07 00 45.1**	**-0.8**
	comp=Z,1.6nm,0.7s,mb4.0,baz=308,slow=7.1,SNR=8.6						
GNI	**Garni**	**53.41**	**314**	LR	LR	07 24 48.1	
	comp=Z,1µm,20.9s,MS5.0,baz=232,slow=37						
PMG	**Port Moresby**	**56.09**	**108**	P	**P**	**07 01 24.7**	**+0.2**
	comp=Z,13nm,1.0s,mb4.9,baz=298,slow=10,SNR=3.2						
KMBO	**Kilima Mbogo**	**57.39**	**263**	P	**P**	**07 01 34.6**	**+0.8**
	comp=Z,2.3nm,0.6s,mb4.4,baz=52,slow=11,SNR=12						
EIL	**Elat**	**58.63**	**299**	P	**P**	**07 01 40.0**	**-2.2**
	comp=Z,3.4nm,0.8s,mb4.5,baz=90,slow=11,SNR=3.9						
CTA	**Charters Tower**	**59.11**	**120**	P	**P**	**07 01 46.3**	**+0.6**
	comp=Z,5.5nm,0.9s,mb4.6,baz=299,slow=9.8,SNR=3.9						
STKA	**Stephens Creek**	**61.13**	**134**	P	**P**	**07 01 58.2**	**-1.2**
	comp=Z,5.5nm,1.2s,mb4.6,baz=279,slow=8.2,SNR=3.7						
BRTR	**Keskin Array B**	**61.45**	**310**	P	**P**	**07 01 59.5**	**-2.0**
	comp=Z,1.7nm,0.6s,mb4.3,baz=131,slow=6.7,SNR=8.2						
AKASG	**Malin Array Be**	**67.03**	**321**	P	**P**	**07 02 36.9**	**-0.6**
	comp=Z,0.2nm,0.3s,mb3.6,baz=94,slow=4.1,SNR=3.5						
MLR	**Muntele Rosu**	**68.12**	**315**	P	**P**	**07 02 44.0**	**-0.4**
	comp=Z,6.3nm,0.9s,mb4.7,baz=39,slow=6.9,SNR=5.0						
KOLS	**Kolonicke sedl**	**71.11**	**319**	e	**P**	**07 02 58.6**	**-4.1**
FINES	**FINESS Array B**	**71.49**	**332**	P	**P**	**07 03 03.7**	**-1.1**
	comp=Z,2.7nm,0.7s,mb4.3,baz=117,slow=8.5,SNR=6.3						
KAF	**Kangasniemi**	**71.56**	**333**	ep	**P**	**07 03 06.2**	**+1.0**
	comp=Z,0.4nm,0.4s,mb3.7						
CRVS	**Cervenica-Dubn**	**71.64**	**318**	e	pP	07 03 17.8	+1.6
VYHS	**Vyhne**	**73.33**	**318**	e	pP	07 03 25.1	-1.1
VYHS				e	PcP	07 03 37.6	+5.2
ARCES	**ARCESS Array B**	**73.99**	**340**	P	**P**	**07 03 19.4**	**0.0**
	comp=Z,2.6nm,0.7s,mb4.3,baz=103,slow=6.9,SNR=13						
ZST	**Bratislava**	**74.46**	**317**	e	pP	07 03 31.4	-1.3
GERES	**GERESS Array B**	**76.74**	**318**	P	**P**	**07 03 35.2**	**-0.4**
	comp=Z,1.1nm,0.6s,mb4.0,baz=104,slow=5.5,SNR=4.5						
KHC	**Kasperske Hory**	**76.83**	**318**	eP	pP	07 03 43.0	-3.3
NB2	**NORSAR Subarra**	**78.52**	**330**	P	**P**	**07 03 43.8**	**-1.3**
	comp=Z,1.7nm,0.7s,mb4.1,baz=95,slow=5.3						
NOA	**NORSAR Array B**	**78.52**	**330**	P	**P**	**07 03 44.2**	**-0.9**
	comp=Z,2.5nm,0.8s,mb4.2,baz=93,slow=5.7,SNR=7.0						
MAW	**Mawson**	**79.76**	**192**	P	**P**	**07 03 51.2**	**-0.5**
	comp=Z,8.7nm,0.9s,mb4.7,baz=41,slow=8.4,SNR=4.5						
ESDC	**Sonseca Array**	**90.25**	**310**	P	**P**	**07 04 45.4**	**+0.8**
	comp=Z,0.6nm,0.6s,mb4.1,baz=47,slow=4.0,SNR=3.8						
ILAR	**Eielson Array**	**93.62**	**22**	P	**P**	**07 05 00.7**	**+1.2**
	comp=Z,1.3nm,0.8s,mb4.4,baz=301,slow=3.1,SNR=14						
VNDA	**Vanda**	**94.23**	**168**	P	**P**	**07 05 02.6**	**+0.6**
	comp=Z,0.4nm,0.7s,mb4.0,baz=300,slow=3.9,SNR=3.0						
INK	**Inuvik**	**95.81**	**16**	P	**P**	**07 05 10.3**	**+0.9**
	comp=Z,4.5nm,1.1s,mb4.8,baz=306,slow=5.9,SNR=5.7						
DBIC	**Dimbokro**	**97.58**	**278**	P	**P**	**07 05 20.7**	**+2.0**
	comp=Z,3.4nm,1.1s,mb4.8,baz=95,slow=3.0,SNR=3.8						
YKA	**Yellowknife Ar**	**105.22**	**13**	PP	PP	07 10 20.8	+4.9
	comp=Z,0.2nm,0.6s,baz=331,slow=7.5,SNR=4.2						
NVAR	**Mina Array Bea**	**123.91**	**30**	PKP	PKPdf	07 10 43.7	+2.7
	comp=Z,0.4nm,0.6s,baz=288,slow=4.8,SNR=3.8						
PDAR	**Pinedale Array**	**124.03**	**21**	PKP	PKPdf	07 10 43.5	+2.4
	comp=Z,0.8nm,0.9s,baz=180,slow=1.5,SNR=5.0						
TXAR	**Lajitas Array**	**138.12**	**23**	PKP	PKPdf	07 11 10.8	+2.7
	comp=Z,0.5nm,0.8s,baz=46,slow=1.0,SNR=4.0						
TXAR				SKPbc		07 14 43.9	
	comp=Z,1.2nm,1.0s,baz=297,slow=2.8,SNR=5.1						
SDV	**Santo Domingo**	**156.39**	**319**	PKPab	PKPab	07 12 07.9	-0.8
	comp=Z,1.6nm,0.6s,baz=58,slow=8.0,SNR=4.2						
LVC	**Limon Verde**	**158.81**	**229**	PKPab	PKPab	07 12 19.3	+0.3
	comp=Z,7.9nm,1.0s,baz=80,slow=5.8,SNR=8.6						
LPAZ	**La Paz**	**161.15**	**246**	PKP	PKPdf	07 11 47.9	+4.6
	comp=Z,1.6nm,1.1s,baz=330,slow=6.7,SNR=3.9						
LPAZ				PKPab	PKPab	07 12 29.6	+0.5
	comp=Z,2.4nm,0.6s,baz=165,slow=0.9,SNR=8.6						

*IDC **29** 06:52:41.6±0.6,9.29N×94.13E,mb4.5/19,mb1 4.6/19, mb1mx4.6/23,mbtmp4.5/19,MS5.1/1,Ms1 5.0/1, ms1mx3.4/25,Error ellipse: s-maj=24.5km s-min=14.1km az=45.0*

ISC 29 06:52:44.9±0.5**,9.3N**±0.1×**94.2E**±0.1**,h33^{km},n31, σ0^{s}94**/25**,mb4.6**/19**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.24**	**26**	Pn	**P**	**06 55 22.1**	**+9.3**
	1.4nm,0.3s,baz=222,slow=16,SNR=4.9						
HYB	**Hyderabad**	**17.22**	**300**	eP	**P**	**06 56 46.0**	**+1.3**
SONM	**Songino Array**	**39.81**	**13**	P	**P**	**07 00 17.3**	**+0.7**
	3.1nm,1.0s,mb4.0,baz=203,slow=9.3,SNR=2.6						
BVAR	**Borovoye Array**	**47.70**	**341**	P	**P**	**07 01 19.3**	**-1.0**
	12nm,1.2s,mb4.8,baz=139,slow=9.6,SNR=4.1						
WRA	**Warramunga Arr**	**49.04**	**127**	P	**P**	**07 01 30.7**	**-0.4**
	1.3nm,0.5s,mb4.2,baz=304,slow=9.0,SNR=2.6						
ASAR	**Alice Springs**	**50.78**	**131**	P	**P**	**07 01 44.7**	**+0.4**
	5.1nm,0.9s,mb4.5,baz=308,slow=7.4,SNR=4.6						
PMG	**Port Moresby**	**55.91**	**108**	P	**P**	**07 02 23.1**	**+0.7**
	24nm,1.1s,mb5.1,baz=262,slow=8.7,SNR=3.2						
ASF	**Jabal al Asfar**	**57.51**	**302**	P	**P**	**07 02 33.2**	**-0.4**
	3.6nm,0.8s,mb4.5,baz=344,slow=4.5,SNR=3.5						
KMBO	**Kilima Mbogo**	**57.63**	**263**	P	**P**	**07 02 34.7**	**0.0**
	2.0nm,0.5s,mb4.4,baz=66,slow=12,SNR=3.8						
EIL	**Elat**	**58.78**	**299**	P	**P**	**07 02 43.0**	**+0.4**
	7.1nm,0.8s,mb4.8,baz=351,slow=12,SNR=4.2						
CTA	**Charters Tower**	**58.95**	**120**	P	**P**	**07 02 43.6**	**-0.3**
	11nm,1.1s,mb4.8,baz=315,slow=10,SNR=4.3						
STKA	**Stephens Creek**	**61.03**	**134**	P	**P**	**07 02 57.0**	**-1.0**
	9.0nm,1.2s,mb4.8,baz=315,slow=11,SNR=3.0						
BRTR	**Keskin Array B**	**61.56**	**310**	P	**P**	**07 02 59.1**	**-2.3**
	4.9nm,0.8s,mb4.7,baz=117,slow=9.7,SNR=6.6						
MLR	**Muntele Rosu**	**68.22**	**315**	P	**P**	**07 03 45.0**	**+0.7**
	15nm,1.0s,mb5.0,baz=148,slow=4.0,SNR=5.0						
FINES	**FINESS Array B**	**71.51**	**332**	P	**P**	**07 04 02.8**	**-1.3**
	4.1nm,0.9s,mb4.3,baz=99,slow=6.1,SNR=6.4						
CRVS	**Cervenica-Dubn**	**71.72**	**318**	e	**P**	**07 04 06.9**	**+1.3**
VYHS	**Vyhne**	**73.41**	**318**	e	**P**	**07 04 14.1**	**-1.5**
VYHS	**Vyhne**	**73.41**	**318**	e	**P**	**07 04 14.1**	**-1.5**
ARCES	**ARCESS Array B**	**73.98**	**340**	P	**P**	**07 04 18.4**	**-0.1**
	6.6nm,0.9s,mb4.6,baz=89,slow=5.7,SNR=5.8						
GERES	**GERESS Array B**	**76.83**	**318**	P	**P**	**07 04 36.0**	**+0.7**
	3.6nm,0.8s,mb4.3,baz=83,slow=6.3,SNR=5.5						
KHC	**Kasperske Hory**	**76.91**	**318**	ex	x	07 04 36.5	
NB2	**NORSAR Subarra**	**78.55**	**330**	P	**P**	**07 04 43.3**	**-1.2**
	5.0nm,0.8s,mb4.5,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**78.55**	**330**	P	**P**	**07 04 43.7**	**-0.8**
	4.8nm,1.0s,mb4.4,baz=97,slow=5.4,SNR=3.2						
MAW	**Mawson**	**79.89**	**192**	P	**P**	**07 04 52.4**	**+0.7**
	43nm,1.4s,mb5.2,baz=32,slow=9.6,SNR=3.6						
ILAR	**Eielson Array**	**93.45**	**22**	P	**P**	**07 05 58.5**	**+0.5**
	1.6nm,1.0s,mb4.4,baz=283,slow=3.9,SNR=5.0						
INK	**Inuvik**	**95.66**	**16**	P	**P**	**07 06 09.2**	**+1.2**
	15nm,1.3s,mb5.3,baz=325,slow=3.2,SNR=3.7						
YKA	**Yellowknife Ar**	**105.07**	**13**	PKKPbc		07 22 31.7	
	0.3nm,0.8s,baz=154,slow=3.3,SNR=4.2						
YKA				PKKPab		07 22 49.1	
	0.6nm,1.0s,baz=149,slow=5.3,SNR=4.5						
TXAR	**Lajitas Array**	**137.95**	**24**	PKP	PKPdf	07 12 09.2	+2.2
	0.3nm,0.5s,baz=221,slow=0.2,SNR=3.9						
SDV	**Santo Domingo**	**156.47**	**320**	PKPab	PKPab	07 13 07.1	-1.2
	5.4nm,0.9s,baz=39,slow=8.1,SNR=3.1						
LVC	**Limon Verde**	**159.04**	**229**	PKPab	PKPab	07 13 18.4	-0.7
	7.8nm,0.8s,baz=217,slow=1.6,SNR=7.9						
LPAZ	**La Paz**	**161.40**	**246**	PKPab	PKPab	07 13 29.5	0.0
	2.9nm,0.8s,baz=97,slow=8.9,SNR=5.7						

*CSEM **29** 06:54:02.9±0.1,37.03N×9.56W,h30^{km},ML3.0,Error ellipse: s-maj=3.4km s-min=2.1km az=88.0*
*CNRM **29** 06:54:02.2,37.18N×9.91W,h30^{km},MD3.9*
*IGIL **29** 06:54:05.6,37.20N×9.40W,h2^{km},ML3.4*
*LDG **29** 06:54:06.9±0.2,37.19N×9.50W,h10^{km},Ml3.5/5,Error ellipse: s-maj=4.8km s-min=2.7km az=48.0*
*NEIC **29** 06:54:06.2,37.26N×9.42W,MG4.1(MDD),After MDD.*
*INMG **29** 06:54:07.8±1.0,37.14N×9.50W,h22^{km}±3^{km},ML3.0,Error ellipse: s-maj=4.8km s-min=2.4km az=59.0*

MDD 29 06:54:06.7±1.2**,37.15N**×**9.58W,h24**^{km}±11^{km}**, mbLg3.1**/13**,8C-3D,Error ellipse: s-maj=12.9km s-min=6.2km az=48.0,PRXIMO,Portugal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	**Sao Teotonio**	**0.79**	**60**	eP	Pb	06 54 21.3	-0.3
PTEO				eS	Sb	06 54 31.9	+0.1
	216nm,0.1s						
PTEO	**Sao Teotonio**	**0.79**	**60**	⇑P	Pb	06 54 21.3	-0.3
PTEO				S	Sb	06 54 31.9	+0.1
	108nm,0.1s						
LIS	**Lisbon**	**1.60**	**12**	eP	Pn	06 54 31.9	-2.0
LIS				eS	Sn	06 54 51.1	-2.8
LIS				eS	Sn	06 54 51.1	-2.8
LIS				AML	AML	06 54 54.1	
	comp=E,801nm,0.4s						
PBEJ	**Beja**	**1.62**	**57**	eP	Pn	06 54 32.4	-1.7
PBEJ				eS	Sn	06 54 51.7	-2.7
	comp=E,52nm,0.2s						
PBEJ	**Beja**	**1.62**	**57**	P	Pn	06 54 32.4	-1.7
PBEJ				S	Sn	06 54 51.7	-2.7
	comp=E,26nm,0.2s						
MOE	**Montemor**	**1.68**	**35**	ePn	Pn	06 54 34.2	-0.8
MOE				eSn	Sn	06 54 54.7	-1.2
PALC	**Alcoutim**	**1.71**	**79**	eP	Pn	06 54 33.9	-1.5
PALC				eS	Sn	06 54 53.5	-3.1
	comp=E,99nm,0.3s						
PALC	**Alcoutim**	**1.71**	**79**	P	Pn	06 54 33.9	-1.5
PALC				S	Sn	06 54 53.5	-3.1
	comp=E,49nm,0.3s						
EGRO	**El Granado**	**1.71**	**77**	⇓Pn	Pn	06 54 33.9	-1.6
EGRO				Sn	Sn	06 54 53.6	-3.3
EGRO	**El Granado**	**1.71**	**77**	P	Pn	06 54 33.9	-1.6
	comp=E,2.1nm,0.1s,SNR=18						
EGRO				S	Sn	06 54 53.6	-3.3
	comp=E,75nm,0.1s,SNR=7.9						
EGRO	**El Granado**	**1.71**	**77**	P	Pn	06 54 33.9	-1.6
	comp=E,2.1nm,0.1s,SNR=18						
EGRO				S	Sn	06 54 53.6	-3.2
	comp=E,75nm,0.1s,SNR=7.9						
PLOU	**Loures**	**1.76**	**11**	ePn	Pn	06 54 35.9	-0.3
PLOU				eSn	Sn	06 54 56.4	-1.6
	comp=E,256nm,0.2s						
PLOU	**Loures**	**1.76**	**11**	⇑P	Pn	06 54 35.9	-0.3
PLOU				S	Sn	06 54 56.4	-1.6
	comp=E,128nm,0.2s						
PLOU	**Loures**	**1.76**	**11**	eS	Sn	06 54 56.4	-1.6
	comp=E,256nm,0.2s						
EVO	**Evora**	**1.85**	**42**	ePn	Pn	06 54 34.9	-2.6
EVO				eSn	Sn	06 54 55.3	-5.1
	comp=E,66nm,0.2s						
ALMR	**Almeirim**	**2.15**	**21**	eP	Pn	06 54 39.3	-2.4
ALMR				eS	Sn	06 55 03.9	-4.0
ALMR				eS	Sn	06 55 03.9	-4.0
ALMR				AML	AML	06 55 06.9	
	comp=E,151nm,0.5s						
EMIN	**Mina Concepcio**	**2.39**	**74**	⇓P	Pn	06 54 43.0	-2.2
	comp=E,1.3nm,0.1s,SNR=18						
EMIN				S	Sn	06 55 10.0	-4.2
	comp=E,47nm,0.2s,SNR=22						
EMIN	**Mina Concepcio**	**2.39**	**74**	P	Pn	06 54 43.0	-2.2
	comp=E,1.3nm,0.1s,SNR=18						
EMIN				S	Sn	06 55 10.0	-4.1
	comp=E,47nm,0.2s,SNR=22						
EBAD	**Badajoz**	**2.58**	**51**	⇑Pn	Pn	06 54 45.5	-2.5
EBAD				Sn	Sn	06 55 15.4	-3.5
EBAD	**Badajoz**	**2.58**	**51**	⇑P	Pn	06 54 45.5	-2.5
	comp=E,17nm,0.1s,SNR=18						
EBAD				S	Sn	06 55 15.3	-3.7
	comp=E,16nm,0.3s,SNR=7.1						
EBAD	**Badajoz**	**2.58**	**51**	P	Pn	06 54 45.5	-2.5
	comp=E,17nm,0.1s,SNR=18						
EBAD				S	Sn	06 55 15.3	-3.6
	comp=E,16nm,0.3s,SNR=7.1						
ESPR	**Espera**	**2.99**	**94**	⇑Pn	Pn	06 54 51.7	-2.1
ESPR				Sn	Sn	06 55 26.6	-2.8
ESPR	**Espera**	**2.99**	**94**	⇑P	Pn	06 54 51.7	-2.1
	comp=E,26nm,0.1s,SNR=18						
ESPR				S	Sn	06 55 24.9	-4.5
	comp=E,22nm,0.3s,SNR=4.7						
ESPR	**Espera**	**2.99**	**94**	P	Pn	06 54 51.7	-2.1
	comp=E,26nm,0.1s,SNR=18						
ESPR				S	Sn	06 55 24.9	-4.5
	comp=E,22nm,0.3s,SNR=4.7						
PCBR	**Castelo Branco**	**3.15**	**31**	ePn	Pn	06 54 54.5	-1.5
PCBR				eSn	Sn	06 55 28.7	-4.5
	comp=E,19nm,0.2s						
PCBR	**Castelo Branco**	**3.15**	**31**	eP	Pn	06 54 54.5	-1.5
PCBR				eS	Sn	06 55 28.7	-4.5
	comp=E,19nm,0.2s						
MTE	**Manteigas**	**3.61**	**26**	ePn	Pn	06 55 00.4	-2.1
MTE				eSn	Sn	06 55 40.0	-4.9
	comp=E,30nm,0.2s						
MTE	**Manteigas**	**3.61**	**26**	eP	Pn	06 55 00.4	-2.1
MTE				eS	Sn	06 55 40.0	-4.9
	comp=E,30nm,0.2s						
PVIS	**Viseu**	**3.79**	**20**	ePn	Pn	06 55 03.1	-2.0
PVIS				eSn	Sn	06 55 44.0	-5.5
	comp=E,25nm,0.1s						
PVIS	**Viseu**	**3.79**	**20**	P	Pn	06 55 03.1	-2.0
PVIS				S	Sn	06 55 44.0	-5.5
	comp=E,13nm,0.1s						
EMIJ	**Mijas**	**3.90**	**97**	⇑P	Pn	06 55 03.9	-2.8
	comp=E,0.9nm,0.1s,SNR=18						
EMIJ				S	Sn	06 55 47.0	-5.3
	comp=E,12nm,0.3s,SNR=6.0						
ELUQ	**Luque**	**4.25**	**83**	P	Pn	06 55 08.9	-2.8
	comp=E,2.2nm,0.2s,SNR=7.9						
ELUQ				S	Sn	06 55 55.3	-5.9
	comp=E,12nm,0.2s,SNR=9.0						
ELOJ	**Sierra Loja**	**4.34**	**88**	P	Pn	06 55 12.0	-0.9
	comp=E,2.8nm,0.2s,SNR=7.9						
ELOJ				S	Sn	06 55 58.1	-5.2
	comp=E,6.2nm,0.2s,SNR=6.2						
PVRL	**Vila Real**	**4.36**	**19**	ePn	Pn	06 55 10.8	-2.4
PVRL				eSn	Sn	06 55 56.5	-7.5
	comp=E,81nm,0.1s						
PVRL	**Vila Real**	**4.36**	**19**	P	Pn	06 55 10.8	-2.4
PVRL				S	Sn	06 55 56.5	-7.5
	comp=E,40nm,0.1s						
ERON	**Agron**	**4.62**	**90**	Pn	Pn	06 55 15.3	-1.5
ERON				Sn	Sn	06 56 04.9	-5.5
ERON	**Agron**	**4.62**	**90**	P	Pn	06 55 15.4	-1.5
	comp=E,0.6nm,0.1s,SNR=7.9						
ERON				S	Sn	06 56 04.9	-5.5
	SNR=7.9						
ELOB	**Lobios**	**4.85**	**14**	P	Pn	06 55 17.4	-2.8
	comp=E,0.4nm,0.0s,SNR=12						
ELOB				S	Sn	06 56 09.1	-7.2
	comp=E,20nm,0.3s,SNR=13						
ELOB	**Lobios**	**4.85**	**14**	P	Pn	06 55 17.4	-2.8
	comp=E,0.4nm,0.0s,SNR=12						
ELOB				S	Sn	06 56 09.1	-7.2
EZAM	**Zamans**	**5.04**	**8**	⇑P	Pn	06 55 19.8	-3.0
	comp=E,3.9nm,0.2s,SNR=18						
EZAM				S	Sn	06 56 14.2	-6.7
	SNR=7.9						
EZAM	**Zamans**	**5.04**	**8**	S	Sn	06 56 14.2	-6.7
	SNR=7.9						
ESDC	**Sonseca Array**	**5.08**	**59**	Pn	Pn	06 55 20.1	-3.2
ESDC	**Sonseca Array**	**5.08**	**59**	⇓P	Pn	06 55 20.1	-3.3
	comp=E,3.2nm,0.2s,baz=240,slow=13,SNR=18						
ESDC				S	Sn	06 56 15.1	-6.9
	comp=E,14nm,0.1s,baz=244,slow=23,SNR=7.9						
ESDC	**Sonseca Array**	**5.08**	**59**	P	Pn	06 55 20.1	-3.2
	comp=E,3.2nm,0.2s,SNR=18						
ESDC				S	Sn	06 56 15.1	-6.9
	comp=E,14nm,0.1s,SNR=7.9						
PBRG	**Braganca**	**5.14**	**24**	ePn	Pn	06 55 21.4	-2.8
PBRG				eSn	Sn	06 56 16.1	-7.4
	comp=E,23nm,0.3s						
PBRG	**Braganca**	**5.14**	**24**	P	Pn	06 55 21.4	-2.8
PBRG				S	Sn	06 56 16.1	-7.4
	comp=E,12nm,0.3s						
MIF	**Mishlifen**	**5.16**	**135**	i P	Pn	06 55 19.5	-5.0
MIF				i S	Sn	06 56 15.0	-9.1
EQES	**Quesada**	**5.22**	**81**	P	Pn	06 55 22.0	-3.3
	comp=E,3.4nm,0.4s,SNR=20						
EQES				S	Sn	06 56 19.1	-6.4
	SNR=7.9						
EQES	**Quesada**	**5.22**	**81**	P	Pn	06 55 22.0	-3.3
	comp=E,3.4nm,0.4s,SNR=20						
EQES				S	Sn	06 56 19.1	-6.4
	SNR=7.9						
ECAL	**Calabor**	**5.26**	**24**	Pn	Pn	06 55 23.3	-2.7
ECAL				Sn	Sn	06 56 20.5	-6.1
ECAL	**Calabor**	**5.26**	**24**	P	Pn	06 55 23.3	-2.7
	comp=E,4.9nm,0.2s,SNR=40						
ECAL				S	Sn	06 56 19.4	-7.2
	comp=E,13nm,0.3s,SNR=14						
ECAL	**Calabor**	**5.26**	**24**	P	Pn	06 55 23.3	-2.6
	comp=E,4.9nm,0.2s,SNR=40						
ECAL				S	Sn	06 56 20.5	-6.1
EBER	**Berja**	**5.36**	**91**	P	Pn	06 55 25.0	-2.4
	comp=E,13nm,0.7s,SNR=9.6						
EBER				S	Sn	06 56 23.9	-5.2
	SNR=7.9						
EBER	**Berja**	**5.36**	**91**	P	Pn	06 55 25.0	-2.3
	comp=E,13nm,0.7s,SNR=9.6						
EBER				S	Sn	06 56 23.9	-5.2
	SNR=7.9						
GUD	**Guadarrama**	**5.48**	**49**	Pn	Pn	06 55 25.6	-3.4
GUD				Sn	Sn	06 56 25.6	-6.5
GUD	**Guadarrama**	**5.48**	**49**	P	Pn	06 55 25.6	-3.4
	comp=E,1.6nm,0.1s,SNR=7.0						
GUD				S	Sn	06 56 25.0	-7.1
	comp=E,11nm,0.3s,SNR=11						
GUD	**Guadarrama**	**5.48**	**49**	S	Sn	06 56 25.6	-6.5
GUD	**Guadarrama**	**5.48**	**49**	P	Pn	06 55 25.6	-3.4
	comp=E,1.6nm,0.1s,SNR=7.0						
CZD	**Col de Zad**	**5.54**	**137**	i P	Pn	06 55 24.5	-5.4
CIA	**Chichaoua**	**5.62**	**173**	i P	Pn	06 55 24.5	-6.4
STS	**Santiago**	**5.78**	**8**	S	Sn	06 56 32.0	-7.6
	SNR=7.9						
EVIA	**Vianos**	**5.79**	**73**	Pn	Pn	06 55 29.7	-3.7
EVIA				Sn	Sn	06 56 31.1	-8.7
EVIA	**Vianos**	**5.79**	**73**	P	Pn	06 55 29.7	-3.7
	comp=E,4.6nm,0.3s,SNR=6.6						
EVIA				S	Sn	06 56 32.0	-7.8
	comp=E,7.6nm,0.3s,SNR=7.9						
EVIA	**Vianos**	**5.79**	**73**	S	Sn	06 56 31.1	-8.8
OUK	**Oukaimeden**	**6.10**	**166**	i P	Pn	06 55 32.0	-5.7
EPON	**Pontenova**	**6.44**	**16**	S	Sn	06 56 47.5	-8.5
	SNR=7.9						
ZFT	**Errachidia**	**6.68**	**138**	i P	Pn	06 55 40.5	-5.5
SJPF	**Ste Jean**	**8.74**	**44**	ePn	P	06 56 10.3	-4.3
SJPF				eSn	Sn	06 57 41.1	-12
	comp=E,2.3nm,0.3s						
ETSF	**Etsaut**	**8.98**	**48**	ePn	P	06 56 13.6	-4.5
ETSF				eSn	Sn	06 57 47.9	-12
	comp=E,2.5nm,0.3s						
EPF	**Esparros**	**9.60**	**49**	ePn	P	06 56 21.3	-5.2
EPF				eSn	Sn	06 58 02.1	-13
	comp=E,2.9nm,0.3s						
MTLF	**Montolieu**	**10.93**	**52**	ePn	P	06 56 39.4	-5.3
LFF	**La Frestale**	**11.00**	**42**	ePn	P	06 56 40.6	-5.1
LFF				eSn	S	06 58 35.4	-14
	comp=E,5.0nm,0.5s						
LFF	**La Frestale**	**11.00**	**42**	eS	S	06 58 35.4	-14
	comp=E,2.5nm,0.5s						
RJF	**Les Rejaudoux**	**11.66**	**42**	ePn	P	06 56 49.6	-5.0
CAF	**Calviac**	**11.72**	**45**	ePn	P	06 56 50.3	-5.2
QUIF	**Quistinic**	**11.74**	**22**	ePn	P	06 56 50.8	-5.0
MFF	**Saint Martin d**	**11.76**	**34**	ePn	P	06 56 50.3	-5.7
ROSF	**Rostrenen**	**12.09**	**20**	ePn	P	06 56 55.6	-4.9
LASF	**Ste Croix**	**12.32**	**52**	ePn	P	06 56 58.5	-5.1
SMRF	**Simiane la Rot**	**13.38**	**55**	ePn	P	06 57 12.7	-4.9
SSF	**Saint Saulge**	**13.85**	**40**	eP	P	06 57 19.0	-4.8
LPG	**La Plagne**	**14.81**	**51**	ePn	P	06 57 32.6	-3.8

*IDC **29** 06:59:02.0±1.0,5.00N×94.78E,mb4.1/9,mb1 4.3/9, mb1mx4.1/17,mbtmp4.1/9,Error ellipse: s-maj=56.7km s-min=19.2km az=47.0*

ISC 29 06:59:05.4±0.9**,5.0N**±0.2×**94.8E**±0.3**,h33^{km},n11, σ0^{s}63**/10**,mb4.1**/10**,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC

SONM	Songino Array	43.79	11	P	P	07 07 09.6	-0.1
	1.8nm,0.7s,mb3.9,baz=190,slow=8.2,SNR=6.0						
SONM				PcP	PcP	07 08 56.2	-0.4
	0.2nm,0.4s,baz=192,slow=3.7,SNR=3.7						
WRA	Warramunga Arr	46.10	124	P	P	07 07 28.5	-0.1
	2.9nm,0.7s,mb4.3,baz=304,slow=9.2,SNR=6.9						
ASAR	Alice Springs	47.61	128	P	P	07 07 40.4	0.0
	1.8nm,0.6s,mb4.3,baz=300,slow=7.9,SNR=15						
BVAR	Borovoye Array	51.88	341	P	P	07 08 12.9	+0.2
	2.6nm,0.6s,mb4.3,baz=141,slow=9.5,SNR=9.1						
BRTR	Keskin Array B	64.80	312	P	P	07 09 43.1	-0.1
	1.4nm,0.7s,mb4.1,baz=121,slow=7.0,SNR=4.9						
AKASG	Malin Array Be	70.79	322	P	P	07 10 19.1	-1.4
	0.6nm,0.3s,mb4.0,baz=90,slow=4.8,SNR=4.6						
FINES	FINESS Array B	75.53	332	P	P	07 10 48.4	+0.4
	1.0nm,0.6s,mb3.9,baz=104,slow=7.9,SNR=9.6						
KAF	Kangasniemi	75.61	333	ep	P	07 10 48.0	-0.5
	0.5nm,0.4s,mb3.8						
ARCES	ARCESS Array B	78.15	340	P	P	07 11 03.1	+0.5
	5.5nm,1.1s,mb4.4,baz=101,slow=6.2,SNR=9.9						
GERES	GERESS Array B	80.39	319	P	P	07 11 16.3	+1.2
	1.5nm,0.6s,mb4.1,baz=104,slow=5.5,SNR=10						
PDAR	Pinedale Array	127.54	23	PKP	PKPdf	07 18 07.9	+0.3
	1.2nm,1.1s,baz=90,slow=1.5,SNR=4.0						

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*IDC **29** 07:16:50.4±0.7, 7.05N×91.92E, h32^{km}±3^{km}, mb4.1/15, mb1 4.2/15, mb1mx4.1/19, mbtmp4.3/15, MS4.7/6, Ms1 4.7/6, ms1mx4.2/24, Error ellipse: s-maj=27.0km s-min=14.2km az=48.0*

ISC 29 07:16:48.6±0.6**, 6.82N**±0.08×**91.85E**±0.08**, h32^{km}, h32^{km}**±.8^{km}**:pP-P, n52, σ1^{s}31**/47**, mb4.6**/22**, MS4.9**/6**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDRS	Chennai	13.01	299	eP	P	07 19 51.0	-3.1
CMAR	Chiang Mai Arr	13.47	30	Pn	P	07 19 59.0	-1.2
	2.6nm,0.3s,baz=233,slow=14,SNR=79						
CMAR				LR	LR	07 24 53.5	
	comp=Z,1μm,20.4s,baz=210,slow=36						
VIS	Vishakhapatnam	13.66	323	eP	P	07 19 59.6	-3.1
VIS				eS	S	07 22 08.4	-26
BWNR	Bhubaneshwar	14.62	337	eP	P	07 20 04.2	-11
BWNR				eS	S	07 22 32.3	-25
TRD	Trivandrum	14.86	277	eP	P	07 20 17.0	-1.5
TRD				eS	S	07 22 50.2	-12
HYB	Hyderabad	16.72	310	eP	P	07 20 41.0	-1.3
IMP	Imphal	17.97	6	e	P	07 20 55.3	-2.6
SHL	Shillong	18.64	0	e	P	07 21 03.5	-2.7
KAD	Karad	20.16	303	⇑iP	P	07 21 24.4	+1.1
KAD				i		07 24 38.9	
BHPL	Bhopal	21.43	321	eP	P	07 21 36.8	+0.5
BHPL				e		07 21 40.6	
	comp=Z,50nm,0.5s						
PKI	Pulchoki	21.52	344	eP	P	07 21 37.6	+0.4
	comp=Z,78nm,0.4s,mb5.5						
DMN	Daman	21.64	344	eP	P	07 21 39.0	+0.6
	comp=Z,94nm,1.0s,mb5.2						
GUN	Gumba	21.73	346	eP	P	07 21 40.3	+1.1
	comp=Z,97nm,0.7s,mb5.3						
KKN	Kakani	21.77	344	eP	P	07 21 40.3	+0.7
GKN	Gorkha	22.15	343	eP	P	07 21 44.4	+0.9
	comp=Z,61nm,0.3s,mb5.5						
KOLN	Koldanda	22.26	340	eP	P	07 21 44.7	+0.2
	comp=Z,61nm,0.6s,mb5.2						
AGRA	Agra	24.22	329	eP	P	07 22 05.0	+1.2
PTH	Pithoragarh	25.13	336	eP	P	07 22 12.9	+0.4
PTH				e		07 24 48.8	
KUDL	Kundal	25.72	327	eP	P	07 22 18.7	+0.7
	comp=Z,30nm,1.0s,mb4.8						
KHET	Khetri	26.04	326	eP	P	07 22 21.3	+0.4
KHET				e		07 22 26.4	
	comp=Z,42nm,1.0s						
DDI	Dehra Dun	26.73	333	e	P	07 22 28.6	+1.3
KZA	Kyzart	38.07	340	P	P	07 24 08.3	+2.1
	SNR=9.1						
UCH	Uchtor	38.46	339	P	P	07 24 11.2	+1.7
	SNR=12						
AML	Almayashu	38.67	338	P	P	07 24 13.1	+1.9
	SNR=20						
TKM2	Tokmak 2	38.71	341	P	P	07 24 12.7	+1.2
	SNR=5.0						
AAK	Ala-Archa	38.83	339	P	P	07 24 14.0	+1.6
	SNR=7.1						
EKS2	Erkin-Say	39.10	339	P	P	07 24 16.6	+1.8
	SNR=6.7						
USP	Ospenovka	39.38	340	P	P	07 24 18.2	+1.1
	SNR=17						
JOW	Kunigami	39.92	56	LR	LR	07 39 45.5	
	comp=Z,994nm,21.2s,MS4.6,baz=93,slow=35						
SONM	Songino Array	42.71	14	P	P	07 24 43.6	-0.8
	comp=Z,4.9nm,0.7s,mb4.3,baz=198,slow=8.0,SNR=26						
ZAL	Zalesovo	47.33	354	P	P	07 25 19.6	-1.6
	comp=Z,5.0nm,0.5s,mb4.8,baz=231,slow=5.6,SNR=13						
BVAR	Borovoye Array	49.29	343	P	P	07 25 34.6	-1.9
	comp=Z,5.0nm,0.8s,mb4.6,baz=149,slow=8.6,SNR=15						
WRA	Warramunga Arr	49.54	123	P	P	07 25 39.0	+0.2
	comp=Z,4.9nm,0.9s,mb4.5,baz=304,slow=8.7,SNR=15						
ASAR	Alice Springs	51.02	128	P	P	07 25 50.3	+0.2
	comp=Z,11nm,1.3s,mb4.7,baz=304,slow=7.0,SNR=15						
ASAR				LR	LR	07 47 08.0	
	comp=Z,496nm,19.0s,MS4.5,baz=294,slow=36						
KMBO	Kilima Mbogo	55.05	264	P	P	07 26 20.8	+0.6
	comp=Z,2.0nm,0.8s,mb4.2,baz=160,slow=12,SNR=3.9						
KMBO				pP	pP	07 26 31.4	+1.3
	comp=Z,2.1nm,0.9s,baz=65,slow=15,SNR=3.1						
KMBO				LR	LR	07 46 42.4	
	comp=Z,842nm,18.4s,MS4.8,baz=277,slow=32						
STKA	Stephens Creek	61.05	132	P	P	07 27 02.0	+0.1
	comp=Z,1.9nm,0.4s,mb4.6,baz=264,slow=11,SNR=13						
STKA	Stephens Creek	61.05	132	LR	LR	07 29 56.8	
	comp=Z,1μm,18.6s,MS5.2,baz=309,slow=37						
BRTR	Keskin Array B	61.41	312	P	P	07 27 03.5	-0.8
	comp=Z,3.2nm,1.0s,mb4.4,baz=121,slow=7.2,SNR=9.0						
BRTR				pP	pP	07 27 12.7	-1.7
	comp=Z,3.1nm,0.8s,baz=129,slow=7.9,SNR=7.8						
AKASG	Malin Array Be	67.58	322	P	P	07 27 41.5	-2.8
	comp=Z,0.6nm,0.4s,mb4.0,baz=82,slow=5.4,SNR=5.6						
FINES	FINESS Array B	72.59	333	P	P	07 28 12.9	-1.6
	comp=Z,3.0nm,0.8s,mb4.2,baz=93,slow=5.4,SNR=5.5						
FINES				pP	pP	07 28 22.7	-2.0
	comp=Z,4.0nm,0.7s,baz=90,slow=5.7,SNR=5.9						
FINES				LR	LR	08 00 31.1	
	comp=Z,505nm,20.2s,MS4.8,baz=172,slow=36						
GERES	GERESS Array B	77.10	318	P	P	07 28 40.5	-0.1
	comp=Z,4.8nm,1.0s,mb4.4,baz=94,slow=5.1,SNR=17						
GERES				pP	pP	07 28 51.0	+0.1
	comp=Z,4.1nm,0.8s,baz=90,slow=5.3,SNR=12						
KHC	Kasperske Hory	77.20	319	eP	P	07 28 41.5	+0.3
KHC				ex	x	07 28 47.5	
HFS	Hagfors	78.22	330	P	P	07 28 45.1	-1.4
	comp=Z,1.2nm,0.5s,mb4.1,baz=100,slow=8.8,SNR=8.4						
HFS				pP	pP	07 28 56.3	-0.5
	comp=Z,5.4nm,0.9s,baz=90,slow=2.9,SNR=4.4						
NB2	NORSAR Subarra	79.53	331	P	P	07 28 51.5	-2.2
	comp=Z,3.8nm,1.0s,mb4.3,baz=98,slow=5.0						
NOA	NORSAR Array B	79.53	331	P	P	07 28 52.1	-1.6
	comp=Z,1.0nm,0.8s,mb3.8,baz=115,slow=6.5,SNR=2.7						
NOA				pP	pP	07 29 02.2	-1.7
	comp=Z,2.7nm,0.9s,baz=96,slow=5.4,SNR=4.9						
DAVOX	Davos	79.57	316	P	P	07 28 54.9	+0.7
	comp=Z,6.8nm,0.5s,mb4.8,baz=168,slow=9.3,SNR=15						
LPG	La Plagne	81.75	315	eP	P	07 29 05.7	0.0
	comp=Z,20nm,0.9s,mb4.7						
ESDC	Sonseca Array	90.15	310	P	P	07 29 47.2	-0.2
	comp=Z,0.2nm,0.3s,mb3.9,baz=69,slow=4.2,SNR=4.8						
ESDC				pP	pP	07 29 57.2	-0.6
	comp=Z,0.2nm,0.3s,baz=59,slow=8.6,SNR=1.8						
DBIC	Dimbokro	95.83	277	LR	LR	08 08 41.0	
	comp=Z,861nm,21.5s,MS5.2,baz=259,slow=32						
ILAR	Eielson Array	96.56	22	pP	pP	07 30 25.9	-0.6
	comp=Z,0.4nm,0.8s,baz=288,slow=4.2,SNR=4.0						
YKA	Yellowknife Ar	107.96	13	PP	PP	07 35 33.9	-5.3
	comp=Z,0.4nm,0.8s,baz=331,slow=6.5,SNR=4.6						
TXAR	Lajitas Array	141.07	22	PKP	PKPdf	07 36 19.6	-2.3
	comp=Z,0.2nm,0.5s,baz=27,slow=1.7,SNR=4.2						

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*IDC **29** 07:17:15.5±0.9, 8.67N×93.23E, mb4.5/9, mb1 4.6/9, mb1mx4.3/18, mbtmp4.4/9, Error ellipse: s-maj=47.2km s-min=17.5km az=57.0*

ISC 29 07:17:18.7±0.8**, 8.6N**±0.2×**93.2E**±0.2**, h33^{km}, n12, σ0^{s}79**/9**, mb4.5**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	40.66	14	P	P	07 24 58.0	+0.5
	6.7nm,0.8s,mb4.3,baz=196,slow=8.0,SNR=9.6						
NWAO	Narrogin (SRO)	47.20	152	P	P	07 25 52.1	+1.7
	24nm,0.7s,mb5.2,baz=320,slow=10,SNR=6.9						
WRA	Warramunga Arr	49.42	125	P	P	07 26 07.0	-0.7
	3.3nm,0.5s,mb4.6,baz=306,slow=8.9,SNR=9.4						
ASAR	Alice Springs	51.07	130	P	P	07 26 19.6	-0.8
	3.7nm,0.8s,mb4.4,baz=304,slow=7.7,SNR=6.9						
ASAR				PcP	PcP	07 27 36.5	+0.5
	2.0nm,0.7s,baz=308,slow=3.9,SNR=5.6						
STKA	Stephens Creek	61.26	134	P	P	07 27 33.0	-0.2
	3.2nm,0.7s,mb4.5,baz=296,slow=2.6,SNR=2.9						
BRTR	Keskin Array B	61.27	311	P	P	07 27 32.1	-1.1
	1.9nm,0.7s,mb4.4,baz=131,slow=7.6,SNR=5.1						
ARCES	ARCESS Array B	74.28	340	P	P	07 28 54.3	+0.3
	1.8nm,0.5s,mb4.3,baz=101,slow=7.1,SNR=10						
GERES	GERESS Array B	76.69	318	P	P	07 29 08.5	+0.4
	1.3nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=3.8						
ILAR	Eielson Array	94.42	22	P	P	07 30 36.1	0.0
	0.9nm,0.6s,mb4.4,baz=299,slow=4.6,SNR=15						
YKA	Yellowknife Ar	105.93	13	PP	PP	07 35 48.1	-5.9
	0.5nm,0.8s,baz=335,slow=7.7,SNR=6.2						
PDAR	Pinedale Array	124.81	20	PKP	PKPdf	07 36 17.4	+1.7
	0.8nm,0.9s,SNR=4.5						
TXAR	Lajitas Array	138.92	23	PKP	PKPdf	07 36 42.3	-0.2
	0.2nm,0.6s,baz=173,slow=2.2,SNR=3.8						

IDC 29 07:19:44.0±7.6**, 10.20N**×**92.70E, mb4.2**/8**, mb1 4.3**/9**, mb1mx4.1**/20**, mbtmp4.2**/9**, ML4.6**/1**, 1C, Error ellipse: s-maj=179.8km s-min=38.3km az=149.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.20	36	Pn	P	07 22 12.3	-2.5
	1.4nm,0.3s,baz=225,slow=15,SNR=6.4						
SONM	Songino Array	39.25	15	P	P	07 27 13.8	-2.2
	3.6nm,1.0s,baz=195,slow=8.1,SNR=4.4						
BVAR	Borovoye Array	46.34	342	P	P	07 28 12.4	-1.1
	3.0nm,0.8s,baz=135,slow=8.4,SNR=4.6						
BRTR	Keskin Array B	59.85	310	P	P	07 29 51.3	-2.5
	1.6nm,0.8s,baz=110,slow=6.4,SNR=4.0						
AKASG	Malin Array Be	65.46	321	P	P	07 30 28.1	-2.9
	2.0nm,0.6s,baz=85,slow=5.3,SNR=7.3						
FINES	FINESS Array B	70.00	332	P	P	07 30 57.3	-2.0
	1.3nm,0.6s,baz=108,slow=6.0,SNR=7.0						
OJC	Ojcow	71.29	320	ePX	P	07 31 06.2	-1.1
GERES	GERESS Array B	75.16	318	P	P	07 31 29.1	-0.8
	2.8nm,0.6s,baz=84,slow=5.6,SNR=9.9						
NOA	NORSAR Array B	77.02	330	P	P	07 31 38.3	-2.0
	0.7nm,0.7s,baz=114,slow=4.2,SNR=3.1						
DAVOX	Davos	77.74	316	P	P	07 31 43.7	-0.8
	2.9nm,0.7s,baz=128,slow=17,SNR=5.8						
LPG	La Plagne	79.98	315	⇑iP	P	07 31 56.2	-0.6
	16nm,0.9s						

IDC 29 07:19:45.7±0.9**, 8.67N**×**93.20E, mb4.4**/10**, mb1 4.5**/10**, mb1mx4.3**/19**, mbtmp4.4**/10**, Error ellipse: s-maj=45.6km s-min=18.1km az=59.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.22	29	Pn	P	07 22 35.7	+5.2
	0.8nm,0.3s,baz=220,slow=14,SNR=3.7						
SONM	Songino Array	40.61	14	P	P	07 27 28.1	-0.8
	3.8nm,0.8s,baz=200,slow=11,SNR=5.6						
NWAO	Narrogin (SRO)	47.27	152	P	P	07 28 22.4	-0.6
	15nm,0.7s,baz=312,slow=8.2,SNR=7.0						
WRA	Warramunga Arr	49.48	125	P	P	07 28 38.0	-2.2
	2.9nm,0.5s,baz=305,slow=8.6,SNR=6.8						
ASAR	Alice Springs	51.13	130	P	P	07 28 50.4	-2.4
	2.3nm,0.7s,baz=303,slow=7.3,SNR=8.1						
ASAR				PcP	PcP	07 30 04.5	-4.2
	1.5nm,0.6s,baz=308,slow=3.2,SNR=5.4						
PMG	Port Moresby	56.65	107	P	P	07 29 30.7	-2.9
	7.2nm,0.8s,baz=268,slow=6.6,SNR=3.1						
BRTR	Keskin Array B	61.21	311	P	P	07 30 01.9	-3.0
	3.3nm,1.0s,baz=129,slow=6.5,SNR=4.2						
STKA	Stephens Creek	61.32	134	P	P	07 30 04.0	-1.8
	4.3nm,1.0s,baz=320,slow=8.9,SNR=4.1						
ARCES	ARCESS Array B	74.21	340	P	P	07 31 25.0	-0.9
	4.7nm,1.0s,baz=102,slow=6.9,SNR=8.6						
VNDA	Vanda	93.89	168	P	P	07 33 04.7	-1.2
	0.9nm,0.8s,baz=287,slow=5.5,SNR=3.6						
ILAR	Eielson Array	94.36	22	P	P	07 33 06.3	-1.9
	0.7nm,0.5s,baz=304,slow=4.5,SNR=14						
ULM	Lac du Bonnet	120.80	7	PKP	PKPdf	07 38 40.2	-1.7
	1.7nm,0.6s,baz=286,slow=1.5,SNR=3.1						

IDC 29 07:22:47.8±12.0**, 9.89N**×**92.99E, mb3.9**/4**, mb1 4.1**/4**, mb1mx3.7**/17**, mbtmp3.9**/4**, Error ellipse: s-maj=307.5km s-min=64.8km az=145.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.29	33	Pn	P	07 25 19.9	0.0
	0.6nm,0.3s,baz=226,slow=14,SNR=5.5						
SONM	Songino Array	39.48	14	P	P	07 30 20.1	-1.6
	3.4nm,1.1s,baz=198,slow=7.8,SNR=5.0						
ZAL	Zalesovo	44.42	353	P	P	07 31 00.3	-1.8
	0.8nm,0.5s,baz=261,slow=9.8,SNR=3.4						
FINES	FINESS Array B	70.41	332	P	P	07 34 03.3	-2.3
	2.3nm,0.9s,baz=280,slow=8.5,SNR=3.9						
GERES	GERESS Array B	75.58	318	P	P	07 34 34.9	-1.3
	0.6nm,0.6s,baz=76,slow=5.5,SNR=4.5						

IDC 29 07:24:15.8±1.1**, 13.94N**×**93.12E, mb3.8**/6**, mb1 4.0**/7**, mb1mx3.8**/18**, mbtmp3.8**/7**, Error ellipse: s-maj=37.9km s-min=23.9km az=46.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.17	50	Pn	Pn	07 26 02.0	-2.4
	1.1nm,0.3s,baz=236,slow=15,SNR=6.0						
CMAR				Sn	Sn	07 27 30.9	+3.2
	0.4nm,0.3s,baz=239,slow=30,SNR=3.6						
SONM	Songino Array	35.55	15	P	P	07 31 13.8	-2.8
	1.0nm,0.7s,baz=194,slow=12,SNR=3.4						
ZAL	Zalesovo	40.44	352	P	P	07 31 56.7	-0.8
	1.0nm,0.4s,baz=211,slow=10.0,SNR=3.2						
WRA	Warramunga Arr	52.70	129	P	P	07 33 31.8	-2.9
	0.6nm,0.6s,baz=306,slow=8.8,SNR=3.4						
WRA				PcP	PcP	07 34 43.7	-0.9
	0.5nm,0.6s,baz=317,slow=3.2,SNR=5.5						
BRTR	Keskin Array B	57.82	308	P	P	07 34 08.6	-3.0
	0.6nm,0.6s,baz=115,slow=8.7,SNR=4.3						
AKASG	Malin Array Be	62.84	320	P	P	07 34 44.9	-0.8
	1.0nm,0.6s,baz=83,slow=4.9,SNR=4.0						
GERES	GERESS Array B	72.69	317	P	P	07 35 44.7	-2.8
	0.7nm,0.6s,baz=90,slow=6.7,SNR=4.2						

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*IDC **29** 07:29:09.1±0.9, 8.75N×93.25E, mb4.0/9, mb1 4.2/9, mb1mx4.0/18, mbtmp4.0/9, Error ellipse: s-maj=49.4km s-min=18.2km az=55.0*

ISC 29 07:29:12.5±0.7**, 8.6N**±0.1×**93.3E**±0.1**, h33^{km}, n16, σ1^{s}09**/16**, mb4.1**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.24	29	Pn	P	07 31 53.8	-0.2
	2.0nm,0.3s,baz=217,slow=15,SNR=11						
PKI	Pulchoki	20.27	340	eP	P	07 33 50.2	+2.2
	25nm,0.5s						
DMN	Daman	20.41	339	eP	P	07 33 52.5	+3.0
	18nm,0.5s						
GUN	Gumba	20.43	341	eP	P	07 33 49.8	+0.2
	16nm,0.4s						
KKN	Kakani	20.52	339	eP	P	07 33 51.1	+0.5
	14nm,0.5s						
GKN	Gorkha	20.94	338	eP	P	07 33 54.5	-0.4
	19nm,0.4s						
KOLN	Koldanda	21.13	336	eP	P	07 33 56.6	-0.3
	17nm,0.7s,mb4.5						
SONM	Songino Array	40.65	14	P	P	07 36 49.7	-1.4
	0.6nm,0.4s,mb3.6,baz=202,slow=6.7,SNR=5.2						
NWAO	Narrogin (SRO)	47.20	152	P	P	07 37 45.4	+1.3
	16nm,0.9s,mb5.0,baz=346,slow=5.9,SNR=9.5						
WRA	Warramunga Arr	49.39	125	P	P	07 38 00.8	-0.5
	2.0nm,0.7s,mb4.3,baz=306,slow=8.5,SNR=9.3						
ASAR	Alice Springs	51.05	130	P	P	07 38 13.9	-0.1
	1.3nm,0.8s,mb3.9,baz=302,slow=7.3,SNR=9.9						
BRTR	Keskin Array B	61.29	311	P	P	07 39 25.2	-1.9
	0.9nm,0.6s,mb4.1,baz=90,slow=5.8,SNR=4.3						
FINES	FINESS Array B	71.66	332	P	P	07 40 31.6	-0.9
	1.2nm,0.9s,mb3.8,baz=108,slow=4.4,SNR=3.0						
ARCES	ARCESS Array B	74.29	340	P	P	07 40 47.0	-0.8
	3.9nm,0.9s,mb4.3,baz=90,slow=6.1,SNR=6.1						
GERES	GERESS Array B	76.70	318	P	P	07 41 02.2	+0.2
	0.4nm,0.7s,mb3.5,baz=90,slow=4.0,SNR=3.7						
ILAR	Eielson Array	94.40	22	P	P	07 42 30.9	+1.1
	0.3nm,0.5s,mb4.0,baz=292,slow=4.6,SNR=8.8						

IDC 29 07:34:23.9±26.0**, 23.24S**×**172.27W, mb4.3**/4**, mb1 4.4**/4**, mb1mx4.0**/16**, mbtmp4.3**/4**, Error ellipse: s-maj=478.9km s-min=146.2km az=78.0, Tonga Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	38.58	267	P	P	07 41 48.9	-1.6
	4.2nm,0.4s,baz=92,slow=10,SNR=10						
STKA	Stephens Creek	41.54	248	P	P	07 42 12.9	-1.9
	1.3nm,0.4s,baz=85,slow=8.2,SNR=7.3						
ASAR	Alice Springs	49.12	258	P	P	07 43 13.4	-2.1
	0.6nm,0.4s,baz=91,slow=7.0,SNR=12						
WRA	Warramunga Arr	49.52	263	P	P	07 43 17.0	-1.6
	2.1nm,0.4s,baz=104,slow=8.0,SNR=20						

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*IDC **29** 07:40:23.0±8.8, 8.29N×92.41E, h45^{km}±76^{km}, mb3.7/9, mb1 3.9/10, mb1mx3.7/20, mbtmp4.0/10, ML3.9/1, Error ellipse: s-maj=76.4km s-min=18.2km az=51.0*

ISC 29 07:40:21.3±6.9**, 8.3N**±0.3×**92.5E**±0.3**, h46^{km}**±57^{km}**, n16, σ0^{s}32**/16**, mb4.0**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.88	31	P	P	07 43 10.6	-0.3
	0.2nm,0.3s,baz=232,slow=14,SNR=15						
PKI	Pulchoki	20.31	342	eP	P	07 44 56.3	+0.2
	44nm,1.0s						
DMN	Daman	20.44	341	eP	P	07 44 57.7	+0.2
	11nm,0.3s						
GUN	Gumba	20.48	343	eP	P	07 44 58.2	+0.3
KKN	Kakani	20.55	342	eP	P	07 44 58.5	-0.1
	19nm,0.8s						
GKN	Gorkha	20.96	340	eP	P	07 45 02.6	-0.2
KOLN	Koldanda	21.11	338	eP	P	07 45 04.7	+0.3
	36nm,0.7s,mb4.8						
SONM	Songino Array	41.13	14	P	P	07 48 02.9	+0.4
	0.3nm,0.7s,mb3.1,baz=203,slow=9.4,SNR=3.5						
BVAR	Borovoye Array	48.08	342	P	P	07 48 57.7	-0.5
	0.7nm,0.5s,mb4.0,baz=158,slow=7.8,SNR=4.2						
WRA	Warramunga Arr	49.83	125	P	P	07 49 12.2	0.0
	0.8nm,0.6s,mb4.0,baz=304,slow=8.7,SNR=4.8						
ASAR	Alice Springs	51.44	129	P	P	07 49 24.3	0.0
	0.5nm,0.4s,mb3.8,baz=297,slow=7.6,SNR=8.2						
PMG	Port Moresby	57.21	107	P	P	07 50 06.9	+0.2
	3.0nm,0.4s,mb4.7,baz=288,slow=9.6,SNR=2.7						
FINES	FINESS Array B	71.58	332	P	P	07 51 38.6	-0.8
	1.8nm,0.7s,mb4.1,baz=101,slow=7.1,SNR=5.1						
ARCES	ARCESS Array B	74.32	340	P	P	07 51 55.4	0.0
	1.9nm,0.8s,mb4.1,baz=97,slow=7.3,SNR=5.0						
GERES	GERESS Array B	76.43	318	P	P	07 52 08.2	+0.3
	1.2nm,0.8s,mb3.9,baz=104,slow=5.5,SNR=7.7						
NOA	NORSAR Array B	78.56	331	P	P	07 52 19.3	-0.1
	0.7nm,0.6s,mb3.8,baz=94,slow=5.4,SNR=3.2						

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*IDC **29** 07:46:39.9±0.5, 4.40N×93.73E, mb4.7/18, mb1 4.9/19, mb1mx4.9/21, mbtmp4.7/19, Error ellipse: s-maj=22.4km s-min=12.9km az=50.0*

*BJI **29** 07:46:42.9, 4.04N×93.81E, h49^{km}, mB5.5, mb5.1, Ms4.8, Msz4.7*

*MOS **29** 07:46:43.0±0.9, 4.39N×93.73E, h33^{km}, mb5.2/26, Error ellipse: s-maj=13.4km s-min=6.5km az=114.7*

*NEIC **29** 07:46:44.6±2.7, 4.38N×93.64E, h32^{km}±18^{km}, mb5.0/26, Error ellipse: s-maj=8.7km s-min=7.5km az=55.0*

ISC 29 07:46:42.0±0.3**, 4.30N**±0.04×**93.80E**±0.04**, h28^{km}, h28^{km}**±1.3^{km}**:pP-P, n181, σ0^{s}96**/170**, mb5.0**/66**, MS4.6**/4**, 5C-4D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	13.36	283	eP	P	07 49 47.0	-5.4
	20nm,0.7s						
CM31	Chiang Mai Arr	14.95	19	eP	P	07 50 13.4	0.0
	12nm,0.6s						
CMAR	Chiang Mai Arr	14.95	19	Pn	P	07 50 13.5	+0.1
	baz=215,slow=13,SNR=48						
CMAR				PcP	PcP	07 55 23.9	+1.4
	baz=231,slow=2.4,SNR=4.3						
COCO	West Island	16.65	170	P	P	07 50 39.6	+4.3
	191nm,1.1s						
COCO				e		07 50 48.4	
VIS	Vishakhapatnam	16.83	323	eP	P	07 50 38.0	+0.5
VIS				eS	S	07 53 42.8	+0.4
KOD	Kodaikanal	17.23	291	eP	P	07 50 44.1	+1.5
KOD				e		07 50 45.4	
BWNR	Bhubaneshwar	17.70	335	e	P	07 50 39.6	-8.8
	comp=Z,48nm,0.4s						
BWNR				e		07 53 43.5	
HYB	Hyderabad	19.83	312	eP	P	07 51 12.5	-1.2
HYB	Hyderabad	19.83	312	i P	P	07 51 12.5	-1.2
SHL	Shillong	21.23	355	eP	P	07 51 29.8	+1.6
SHL				e		07 51 31.3	
	comp=Z,48nm,0.8s						
SHL				eS	S	07 55 25.7	+8.0
QIZ	Qiongzhong	21.45	46	eP	P	07 51 31.4	+1.0
KMI	Kunming	22.42	22	P	P	07 51 42.0	+1.9
KMI				AMB	AMB		
	comp=Z,46nm,1.4s,mb4.7						
KMI				AMB	AMB		
	comp=Z,346nm,7.2s						
AKL	Akola	23.07	316	eP	P	07 51 48.4	+1.8
PKI	Pulchoki	24.49	342	eP	P	07 52 00.5	+0.2
	comp=Z,66nm,0.9s,mb5.1						
BHPL	Bhopal	24.60	321	e	P	07 52 03.5	+2.2
	comp=Z,39nm,0.9s,mb4.9						
BHPL				eP		07 52 03.6	
DMN	Daman	24.62	341	eP	P	07 52 01.8	+0.2
	comp=Z,52nm,0.7s,mb5.2						
GUN	Gumba	24.67	343	eP	P	07 52 02.4	+0.4
	comp=Z,90nm,0.8s,mb5.4						
KKN	Kakani	24.73	342	eP	P	07 52 02.4	-0.3
	comp=Z,67nm,0.9s,mb5.2						
GKN	Gorkha	25.14	341	eP	P	07 52 06.7	+0.2
	comp=Z,156nm,0.7s,mb5.6						
GYA	Guiyang	25.25	28	⇑iP	P	07 52 08.0	+0.5
GYA				AP	pP	07 52 16.3	+0.6
GYA				S	S	07 56 20.3	-8.4
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.0						
GYA				LR	LR		
	comp=N,2μm,16.4s,MS4.9						
GYA				LR	LR		
	comp=E,2μm,16.0s,MS4.9						
GYA				LR	LR		
	comp=Z,3μm,17.2s,MS4.9						
KOLN	Koldanda	25.29	338	eP	P	07 52 08.2	+0.3
	comp=Z,285nm,0.9s,mb5.8						
LSA	Lhasa	25.39	355	eP	P	07 52 10.2	+1.3
LSA				pmax	pmax		
	comp=Z,93nm,0.6s,mb5.5						
LSA	Lhasa	25.39	355	eP	P	07 52 10.2	+1.4
	comp=Z,93nm,0.6s,mb5.5						
CD2	Chengdu	28.09	18	P	P	07 52 33.3	-0.3
CD2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.1						
PTH	Pithoragarh	28.22	334	eP	P	07 52 37.3	+2.5
ENH	Enshi	29.79	28	eP	P	07 52 47.7	-1.1
	comp=Z,13nm,0.8s,mb4.7						
DDI	Dehra Dun	29.85	332	e	P	07 52 47.7	-1.8
XAN	Xi'an	32.77	24	P	P	07 53 13.0	-2.0
XAN				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.1						
GTA	Gaotai	35.38	8	⇓P	P	07 53 37.5	0.0
GTA				PP	PP	07 54 56.5	-0.8
GTA				PCP	PcP	07 56 08.5	+1.1
GTA				S	S	07 59 09.5	+0.1
GTA				AMB	AMB		
	comp=Z,51nm,0.9s,mb5.5						

GTA				AMB	AMB		
	comp=Z,341nm,3.8s						
GTA				LR	LR		
	comp=N,644nm,16.7s,MS4.6						
GTA				LR	LR		
	comp=E,583nm,16.3s,MS4.6						
GTA				LR	LR		
	comp=Z,1µm,16.3s,MS4.7						
MBWA	**Marble Bar**	**35.87**	**136**	*e*P	**P**	**07 53 42.4**	**+0.6**
	comp=Z,15nm,0.9s,mb4.9						
NJ2	**Nanjing**	**36.25**	**37**	*e*P	**P**	**07 53 46.3**	**+1.4**
NJ2				AP	pP	07 53 55.3	+2.0
NJ2				XP	sP	07 54 01.0	+4.1
NJ2				PP	PP	07 55 08.0	-0.2
NJ2				S	**S**	**07 59 30.0**	**+7.1**
NJ2				XS		07 59 47.0	
NJ2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,930nm,11.4s						
SSE	**Sheshan**	**37.08**	**41**	P	**P**	**07 53 50.5**	**-1.4**
SSE				S	**S**	**07 59 37.0**	**+1.4**
SSE				XS		07 59 52.5	
SSE				AMB	AMB		
	comp=Z,35nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,506nm,12.0s						
SSE				LR	LR		
	comp=N,254nm,21.3s,MS4.2						
SSE				LR	LR		
	comp=E,273nm,21.3s,MS4.2						
SSE				LR	LR		
	comp=Z,453nm,21.4s,MS4.2						
KSH	**Kashi**	**38.60**	**338**	*e*P	**P**	**07 54 04.0**	**-0.6**
KSH				AMB	AMB		
	comp=Z,140nm,5.9s						
WMQ	**Urumqi**	**39.73**	**353**	P	**P**	**07 54 15.5**	**+1.6**
WMQ				AMB	AMB		
	comp=Z,46nm,0.6s,mb5.4						
HHC	**Hu-ho-hao-te**	**39.75**	**21**	*e*P	**P**	**07 54 14.8**	**+0.7**
HHC				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
HHC				LR	LR		
	comp=N,408nm,15.0s,MS4.7						
HHC				LR	LR		
	comp=E,748nm,17.9s,MS4.7						
HHC				LR	LR		
	comp=Z,521nm,15.5s,MS4.5						
BJT	**Baijiatuau**	**40.90**	**27**	*e*P	**P**	**07 54 25.1**	**+1.5**
BJT				pmax	pmax		
	comp=Z,30nm,1.1s						
BJT	**Baijiatuau**	**40.90**	**27**	*e*P	**P**	**07 54 25.1**	**+1.5**
	comp=Z,30nm,1.1s,mb4.8						
ULHL	**Ulahol**	**40.90**	**340**	P	**P**	**07 54 24.3**	**+0.7**
	SNR=7.6						
BJI	**Beijing**	**40.92**	**27**	P	**P**	**07 54 24.8**	**+1.1**
BJI				AMB	AMB		
	comp=Z,28nm,1.0s,mb4.8						
UCH	**Uchtor**	**41.50**	**338**	P	**P**	**07 54 29.5**	**+1.0**
	SNR=58						
KBK	**Karagaybulak**	**41.72**	**339**	P	**P**	**07 54 31.3**	**+1.0**
	SNR=16						
TKM2	**Tokmak 2**	**41.72**	**340**	P	**P**	**07 54 30.8**	**+0.5**
	SNR=16						
AML	**Almayashu**	**41.73**	**337**	P	**P**	**07 54 31.4**	**+1.0**
	SNR=78						
AAK	**Ala-Archa**	**41.86**	**339**	P	**P**	**07 54 31.9**	**+0.4**
	SNR=21						
AAK	**Ala-Archa**	**41.86**	**339**	*i* Pr		07 54 31.2	
FRU	**Bishkek**	**41.99**	**339**	*e*P	**P**	**07 54 33.0**	**+0.5**
FRU				pmax	pmax		
	comp=Z,55nm,1.8s,mb4.9						
CHMS	**Chumysh**	**42.09**	**339**	P	**P**	**07 54 33.8**	**+0.5**
	SNR=6.5						
EKS2	**Erkin-Say**	**42.15**	**338**	P	**P**	**07 54 34.7**	**+0.9**
	SNR=32						
USP	**Ospenovka**	**42.41**	**339**	P	**P**	**07 54 36.4**	**+0.4**
	SNR=7.6						
NWAO	**Narrogin (SRO)**	**43.18**	**151**	*e*P	**P**	**07 54 50.5**	**+8.1**
MKAR	**Makanchi Array**	**43.49**	**349**	*i* P	**P**	**07 54 44.8**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,19nm,0.5s						
MKAR	**Makanchi Array**	**43.49**	**349**	*i* P	**P**	**07 54 44.9**	**+0.2**
SONM	**Songino Array**	**44.71**	**12**	P	**P**	**07 54 54.7**	**+0.1**
	comp=Z,20nm,0.7s,mb5.0,baz=192,slow=7.9,SNR=97						
SONM				PcP	PcP	07 56 37.4	+0.3
	comp=Z,4.8nm,0.6s,baz=196,slow=3.8,SNR=7.1						
ULN	**Ulaanbaatar**	**44.88**	**13**	⇓*i*P	**P**	**07 54 55.9**	**0.0**
WRA	**Warramunga Arr**	**46.55**	**123**	*i* P	**P**	**07 55 10.3**	**+0.8**
WRA				pmax	pmax		
	comp=Z,21nm,0.6s						
WRA	**Warramunga Arr**	**46.55**	**123**	P	**P**	**07 55 10.3**	**+0.8**
	comp=Z,21nm,0.6s,mb5.2,baz=300,slow=9.0,SNR=82						
WRAB	**Tennant Creek**	**46.56**	**123**	⇓*i*P	**P**	**07 55 10.5**	**+0.9**
WRAB	**Tennant Creek**	**46.56**	**123**	*e*P	**P**	**07 55 10.4**	**+0.8**
	comp=Z,32nm,0.6s,mb5.4						
ZAK	**Zakamensk**	**46.62**	**8**	*e*P	**P**	**07 55 09.7**	**+0.1**
ZAK				*e*		07 56 43.7	
TLY	**Talaya**	**47.94**	**8**	*e*P	**P**	**07 55 19.2**	**-0.8**
ASAR	**Alice Springs**	**47.96**	**127**	P	**P**	**07 55 21.0**	**+0.4**
	comp=Z,5.5nm,0.7s,mb4.7,baz=306,slow=7.7,SNR=50						
ASAR				PcP	PcP	07 56 49.4	+0.5
	comp=Z,4.9nm,0.6s,baz=302,slow=3.2,SNR=12						
HIA	**Hailar**	**49.94**	**22**	*e*P	**P**	**07 55 34.8**	**-0.7**
HIA				pmax	pmax		
	comp=Z,12nm,0.5s						
HIA	**Hailar**	**49.94**	**22**	*e*P	**P**	**07 55 34.8**	**-0.7**
	comp=Z,12nm,0.5s,mb5.2						
ZAL	**Zalesovo**	**50.03**	**353**	*i* P	**P**	**07 55 35.9**	**-0.2**
ZAL	**Zalesovo**	**50.03**	**353**	P	**P**	**07 55 35.9**	**-0.2**
	comp=Z,31nm,0.4s,mb5.7,baz=214,slow=5.2,SNR=91						
ZAL				PcP	PcP	07 56 54.7	-1.2
	comp=Z,2.9nm,0.7s,baz=191,slow=13,SNR=1.8						
RDF	**Al-Radifah**	**50.18**	**304**	*e*P	**P**	**07 55 38.2**	**+0.6**
RDF				AMb	AMB	07 55 39.9	
	comp=Z,211nm,0.9s						
UMR	**Umm Al-Rimmam**	**50.27**	**305**	*e*P	**P**	**07 55 38.7**	**+0.5**
RST	**Umm Al-Ruwaisa**	**50.83**	**305**	*e*P	**P**	**07 55 42.8**	**+0.2**
RST				AMb	AMB	07 55 44.5	
	comp=Z,130nm,1.1s,mb5.8						
NVS	**Novosibirsk**	**51.12**	**352**	*i* P	**P**	**07 55 43.0**	**-1.3**
NVS				*i*	pP	07 55 50.0	-2.9
NVS				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=N,22nm,0.9s						
NVS				pmax	pmax		
	comp=E,11nm,0.9s						
BVA0	**Borovoye Array**	**52.26**	**342**	*i* P	**P**	**07 55 51.8**	**-1.2**
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
BVAR	**Borovoye Array**	**52.26**	**342**	P	**P**	**07 55 52.1**	**-1.0**
	comp=Z,18nm,0.7s,mb5.1,baz=143,slow=7.4,SNR=66						
BRVK	**Borovoye**	**52.32**	**342**	*i* P	**P**	**07 55 52.6**	**-0.9**
BRVK	**Borovoye**	**52.32**	**342**	*i* Pr		07 55 52.6	
CHKZ	**Chkalovo**	**52.76**	**343**	*i* P	**P**	**07 55 55.9**	**-0.8**
CHKZ				pmax	pmax		
	comp=Z,78nm,1.1s,mb5.5						
CHKZ	**Chkalovo**	**52.76**	**343**	*e*P	**P**	**07 55 56.0**	**-0.7**
	comp=Z,47nm,0.8s,mb5.5						
PMG	**Port Moresby**	**54.89**	**105**	P	**P**	**07 56 12.7**	**-0.2**
	comp=Z,5.3nm,0.6s,mb4.8,baz=300,slow=18,SNR=3.7						
KLR	**Kul'dur**	**55.13**	**29**	*e*P	**P**	**07 56 10.9**	**-3.4**
KLR				pmax	pmax		
	comp=E,20nm,1.2s						
KLR				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
BOD	**Bodaibo**	**55.69**	**13**	*e*P	**P**	**07 56 16.9**	**-1.2**
GNI	**Garni**	**56.72**	**316**	*e*P	**P**	**07 56 25.5**	**-0.3**
GNI				pmax	pmax		
	comp=Z,8.0nm,0.8s						
GNI	**Garni**	**56.72**	**316**	*e*P	**P**	**07 56 25.5**	**-0.3**
	comp=Z,8.3nm,0.8s,mb4.8						
KMBO	**Kilima Mbogo**	**56.76**	**266**	P	**P**	**07 56 26.7**	**+0.3**
	comp=Z,8.1nm,1.2s,mb4.6,baz=55,slow=9.1,SNR=10						
CTAO	**Charters Tower**	**56.92**	**117**	*e*P	**P**	**07 56 28.0**	**+0.5**
YNBS	**Yanbu' al Bahr**	**57.20**	**296**	P	**P**	**07 56 30.0**	**+0.6**
CLNS	**Chul'man**	**57.90**	**20**	*e*P	**P**	**07 56 32.2**	**-1.6**
CLNS				pmax	pmax		
	comp=N,24nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.4						
CLNS				pmax	pmax		
	comp=E,16nm,1.1s						
STKA	**Stephens Creek**	**57.94**	**132**	P	**P**	**07 56 34.6**	**+0.2**
	comp=E,3.9nm,0.6s,mb4.6,baz=317,slow=8.3,SNR=13						
STKA	**Stephens Creek**	**57.94**	**132**	*e*P	**P**	**07 56 34.3**	**-0.2**
STKA				*e*	pP	07 56 42.6	-0.6
UMJS	**Umm Lajj**	**57.98**	**297**	P	**P**	**07 56 36.1**	**+1.2**
ZEI	**Tsey**	**58.44**	**319**	*e*P	**P**	**07 56 37.5**	**-0.4**
ZEI				*i* *PP	pP	07 56 47.1	+0.5
ZEI				*i*		07 58 49.5	
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
ARU	**Arti**	**59.04**	**338**	*e*P	**P**	**07 56 40.4**	**-1.5**
ARU				*e*		07 58 52.0	
ARU				*e*S	**S**	**08 04 46.8**	**+1.8**
ARU				*e*SS	SS	08 08 43.8	+3.0
ARU	**Arti**	**59.04**	**338**	*e*P	**P**	**07 56 40.5**	**-1.3**
	comp=Z,7.7nm,0.6s,mb4.9						
TBKS	**Tabuk**	**59.26**	**300**	P	**P**	**07 56 44.9**	**+1.1**
KIV	**Kislovodsk**	**59.76**	**319**	*e*P	**P**	**07 56 45.9**	**-1.1**
KIV				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
KIV	**Kislovodsk**	**59.76**	**319**	*e*P	**P**	**07 56 45.0**	**-2.0**
YSS	**Yuzh-Sakhalins**	**59.82**	**37**	⇑*i*P	**P**	**07 56 47.3**	**0.0**
JMQS	**Jabal Moqyreh**	**59.98**	**301**	P	**P**	**07 56 49.2**	**+0.4**
AYUS	**'Aynunah**	**60.36**	**300**	P	**P**	**07 56 51.6**	**+0.3**
MALT	**Malatya**	**60.54**	**312**	*e*P	**P**	**07 56 51.1**	**-1.3**
MALT				pmax	pmax		
	comp=Z,22nm,1.3s,mb5.1						
MALT	**Malatya**	**60.54**	**312**	*e*P	**P**	**07 56 51.1**	**-1.3**
	comp=Z,22nm,1.3s,mb5.1						
BDAS	**Al Bad'**	**60.55**	**300**	P	**P**	**07 56 52.7**	**+0.1**
JMOS	**Jabal al Moall**	**60.70**	**301**	P	**P**	**07 56 54.0**	**+0.4**
HAQS	**Haql**	**60.83**	**301**	P	**P**	**07 56 54.6**	**+0.1**
EIL	**Elat**	**60.94**	**302**	*e*P	**P**	**07 56 55.6**	**+0.3**
	comp=Z,20nm,1.0s,mb5.2						
SOC	**Sochi**	**61.56**	**318**	*e*P	**P**	**07 56 58.6**	**-0.6**
SOC				*e*		07 57 36.3	
SOC				*e*		07 59 21.2	
SOC				*e*S	**S**	**08 05 17.1**	**-0.3**
SOC				*e*SS	SS	08 09 10.5	-10
SOC				pmax	pmax		
	comp=N,35nm,0.8s						
SOC				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.3						
SOC				pmax	pmax		
	comp=E,23nm,1.1s						
YAK	**Yakutsk**	**63.48**	**18**	*e*P	**P**	**07 57 10.6**	**-1.1**
BRTR	**Keskin Array B**	**64.53**	**312**	P	**P**	**07 57 17.6**	**-1.4**
	comp=E,10nm,0.7s,mb5.0,baz=127,slow=7.4,SNR=41						
ISP	**Isparta**	**66.40**	**309**	*e*P	**P**	**07 57 29.9**	**-1.1**
OBN	**Obninsk**	**68.22**	**329**	⇑*e*P	**P**	**07 57 40.3**	**-1.9**
OBN				*e*	pP	07 57 49.3	-1.7
OBN						07 58 06.0	
OBN				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
OBN	**Obninsk**	**68.22**	**329**	⇑*i*P	**P**	**07 57 40.3**	**-1.9**
MA2	**Magadan**	**70.08**	**27**	⇑*i*P	**P**	**07 57 53.6**	**+0.1**
AKASG	**Malin Array Be**	**70.75**	**323**	P	**P**	**07 57 55.6**	**-2.1**
	comp=Z,1.9nm,0.6s,mb4.2,baz=87,slow=4.2,SNR=7.4						
AKASG				PP	PP	08 00 33.5	-3.0
	comp=Z,0.9nm,0.7s,baz=103,slow=7.5,SNR=4.9						
TIXI	**Tiksi**	**70.79**	**11**	⇓*i*P	**P**	**07 57 56.7**	**-0.9**
MLR	**Muntele Rosu**	**71.50**	**317**	P	**P**	**07 58 02.3**	**0.0**
	comp=Z,19nm,0.8s,mb5.0,baz=138,slow=2.7,SNR=30						
LBTB	**Lobatse**	**72.26**	**242**	*e*P	**P**	**07 58 07.4**	**+0.2**
BOSA	**Boshof**	**73.42**	**239**	*e*P	**P**	**07 58 14.2**	**+0.1**
BOSA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
BOSA	**Boshof**	**73.42**	**239**	*e*P	**P**	**07 58 14.2**	**+0.1**
	comp=Z,2.7nm,0.7s,mb4.3						
KWP	**Kalwaria**	**74.53**	**320**	*e*P	**P**	**07 58 19.9**	**-0.2**
KOLS	**Kolonicke sedl**	**74.67**	**320**	*e*P	**P**	**07 58 17.6**	**-3.3**
KOLS				*e*pP	pP	07 58 28.0	-1.8
SUW	**Suwalki**	**75.20**	**325**	*e*P	**P**	**07 58 21.2**	**-2.6**
FINES	**FINESS Array B**	**75.70**	**333**	*i* P	**P**	**07 58 25.6**	**-0.9**
FINES				pmax	pmax		
	comp=Z,19nm,1.0s						
FINES	**FINESS Array B**	**75.70**	**333**	P	**P**	**07 58 25.6**	**-1.0**
	comp=Z,19nm,1.0s,mb5.0,baz=99,slow=6.9,SNR=30						
KAF	**Kangasniemi**	**75.81**	**333**	*e*p	**P**	**07 58 24.5**	**-2.6**
	comp=Z,7.8nm,0.5s,mb4.9						
KAF	**Kangasniemi**	**75.81**	**333**	*e*P	**P**	**07 58 24.5**	**-2.6**
KAF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
NIE	**Niedzica**	**76.03**	**320**	*e*P	**P**	**07 58 28.5**	**-0.1**
PSZ	**Piszkesteto**	**76.05**	**318**	*e*P	**P**	**07 58 28.1**	**-0.7**
PSZ				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
PSZ	**Piszkesteto**	**76.05**	**318**	*e*P	**P**	**07 58 28.1**	**-0.7**
	comp=Z,8.8nm,1.0s,mb4.6						
OJC	**Ojcow**	**76.49**	**321**	*e*P	**P**	**07 58 30.9**	**-0.3**
VYHS	**Vyhne**	**76.84**	**319**	*e*P	**P**	**07 58 32.7**	**-0.5**
VYHS				*e*		07 58 38.7	
MORC	**Moravsky Berou**	**77.86**	**320**	*e*P	**P**	**07 58 38.4**	**-0.4**
MORC				pmax	pmax		
	comp=Z,25nm,1.7s,mb4.9						
MORC	**Moravsky Berou**	**77.86**	**320**	*e*P	**P**	**07 58 38.4**	**-0.4**
	comp=Z,25nm,1.7s,mb4.9						
ZST	**Bratislava**	**77.94**	**318**	*e*P	**P**	**07 58 39.2**	**-0.1**
ZST				*e*		07 58 44.9	
SUR	**Sutherland**	**78.04**	**236**	P	**P**	**07 58 39.2**	**-0.9**
KEV	**Kevo**	**78.08**	**341**	*e*p	**P**	**07 58 36.6**	**-3.0**
	comp=Z,12nm,0.8s,mb4.9						
KEV	**Kevo**	**78.08**	**341**	*e*P	**P**	**07 58 36.6**	**-3.0**
KEV				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
ARCES	**ARCESS Array B**	**78.50**	**341**	P	**P**	**07 58 42.0**	**+0.1**
	comp=Z,7.5nm,0.5s,mb4.9,baz=94,slow=5.9,SNR=59						
ARE0	**ARCESS Array S**	**78.50**	**341**	*e*P	**P**	**07 58 41.5**	**-0.4**
DPC	**Dobruska-Polom**	**78.72**	**320**	*e*P	**P**	**07 58 44.0**	**+0.5**
KSP	**Ksiaz**	**78.79**	**321**	*e*P	**P**	**07 58 44.3**	**+0.4**
UPC	**Upice**	**78.93**	**321**	*e*P	**P**	**07 58 44.8**	**+0.1**
PRU	**Pruhonice**	**79.81**	**320**	*e*P	**P**	**07 58 49.9**	**+0.5**
GEC2	**GERESS Array S**	**80.26**	**319**	*e*P	**P**	**07 58 52.0**	**+0.2**
GEC2				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
GEC2	**GERESS Array S**	**80.26**	**319**	*e*P	**P**	**07 58 52.0**	**+0.2**
	comp=Z,21nm,1.2s,mb4.9						
GERES	**GERESS Array B**	**80.26**	**319**	P	**P**	**07 58 52.3**	**+0.5**
	comp=Z,7.6nm,0.8s,mb4.7,baz=104,slow=5.5,SNR=44						
BRG	**Berggiesshubel**	**80.28**	**321**	*i* P	**P**	**07 58 52.0**	**+0.1**
BRG				*i*	pP	07 58 59.8	-1.1
BRG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BRG	**Berggiesshubel**	**80.28**	**321**	*i* P	**P**	**07 58 52.0**	**+0.1**
	comp=Z,7.2nm,0.9s,mb4.6						
BRG				*i*	pP	07 58 59.8	-1.1
KHC	**Kasperske Hory**	**80.36**	**319**	*e*P	**P**	**07 58 52.3**	**-0.1**
WET	**Wettzell**	**80.82**	**319**	*e*P	**P**	**07 58 54.8**	**0.0**
CLL	**Collm**	**80.91**	**321**	*e*P	**P**	**07 58 54.0**	**-1.2**
CLL	**Collm**	**80.91**	**321**	P	**P**	**07 58 54.0**	**-1.2**
GRA1	**Grafenberg Arr**	**81.94**	**319**	*e*P	**P**	**07 59 01.6**	**+1.0**
	comp=Z,20nm,1.2s,mb4.9						
GRF	**Grafenberg Arr**	**81.94**	**319**	*e*P	**P**	**07 59 01.6**	**+1.0**
GRF				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
GRF	**Grafenberg Arr**	**81.94**	**319**	*e*P	**P**	**07 59 01.6**	**+1.0**
GRF				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
GRF	**Grafenberg Arr**	**81.94**	**319**	*e*P	**P**	**07 59 01.6**	**+1.0**
	comp=Z,20nm,1.2s,mb4.9						
CLZ	**Clausthal**	**82.58**	**322**	*e*P	**P**	**07 59 04.1**	**+0.2**
	comp=Z,18nm,1.2s,mb5.0						
NB2	**NORSAR Subarra**	**82.67**	**331**	P	**P**	**07 59 03.2**	**-0.9**
	comp=Z,5.9nm,0.9s,mb4.6,baz=93,slow=5.6						
NB2	**NORSAR Subarra**	**82.67**	**331**	P	**P**	**07 59 03.2**	**-0.9**
NB2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
NOA	**NORSAR Array B**	**82.67**	**331**	P	**P**	**07 59 03.7**	**-0.4**
	comp=Z,3.0nm,0.7s,mb4.4,baz=94,slow=5.5,SNR=8.4						
BSEG	**Bad Segeberg**	**82.71**	**324**	*e*P	**P**	**07 59 04.7**	**+0.2**
BFO	**Black Forest**	**83.80**	**318**	*e*P	**P**	**07 59 09.6**	**-0.7**
BFO				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
BFO	**Black Forest**	**83.80**	**318**	*e*P	**P**	**07 59 09.6**	**-0.7**
	comp=Z,9.0nm,1.0s,mb4.8						
LPG	**La Plagne**	**84.89**	**315**	*e*P	**P**	**07 59 16.0**	**+0.2**
	comp=Z,17nm,0.8s,mb4.9						
LPG	**La Plagne**	**84.89**	**315**	*e*P	**P**	**07 59 16.0**	**+0.2**
LPG				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.9						
VNDA	**Vanda**	**89.52**	**168**	P	**P**	**07 59 39.0**	**+1.4**
	comp=Z,0.9nm,0.7s,mb4.2,baz=239,slow=4.2,SNR=4.5						
ESDC	**Sonseca Array**	**93.25**	**310**	P	**P**	**07 59 56.6**	**+1.1**
	comp=Z,1.6nm,0.6s,mb4.6,baz=59,slow=4.5,SNR=5.8						
ILAR	**Eielson Array**	**98.17**	**22**	P	**P**	**08 00 16.8**	**-0.6**
	comp=Z,0.3nm,0.7s,mb3.9,baz=303,slow=4.4,SNR=5.2						
ILAR				PP	PP	08 04 16.1	-3.6
	comp=Z,0.6nm,0.8s,baz=280,slow=5.8,SNR=5.5						
RES	**Resolute Bay**	**100.97**	**2**	*e*P	P	08 00 30.8	+0.9
RES				pmax	pmax		
	comp=Z,6.0nm,1.0s						
RES	**Resolute Bay**	**100.97**	**2**	*e*Pdif	P	08 00 30.8	+0.8
	comp=Z,6.3nm,1.0s						
YKA	**Yellowknife Ar**	**109.96**	**14**	PKiKP		08 05 12.1	
	comp=Z,0.2nm,0.6s,baz=345,slow=1.7,SNR=5.0						
YKA				PP	PP	08 05 40.3	-8.0
	comp=Z,0.8nm,0.9s,baz=330,slow=7.9,SNR=7.0						
YKA				PKKPbc		08 16 25.6	
	comp=Z,0.1nm,0.7s,baz=144,slow=4.4,SNR=4.0						
ULM	**Lac du Bonnet**	**125.03**	**8**	PKP	PKPdf	08 05 43.0	-1.9
	comp=Z,3.0nm,0.6s,baz=360,slow=2.2,SNR=8.2						
ELK	**Elko**	**127.89**	**28**	*e*PKIKP	PKPdf	08 05 47.9	-2.8
NVAR	**Mina Array Bea**	**128.13**	**32**	PKP	PKPdf	08 05 49.9	-1.3
	comp=Z,2.2nm,0.6s,baz=297,slow=2.3,SNR=16						
MNV	**Mina**	**128.21**	**32**	*e*PKIKP	PKPdf	08 05 49.0	-2.4
PDAR	**Pinedale Array**	**128.60**	**22**	PKP	PKPdf	08 05 49.5	-2.6
	comp=Z,3.4nm,1.0s,baz=81,slow=1.7,SNR=18						
GDL2	**Guadalupe Moun**	**139.81**	**24**	*e*PKPdf	PKPdf	08 06 10.5	-2.6
MNTX	**Cornudas Mount**	**139.81**	**26**	*e*PKPdf	PKPdf	08 06 10.7	-2.5
MIAR	**Mount Ida**	**140.75**	**10**	*e*PKHKP		08 06 03.5	
BDFB	**Brasilia**	**140.81**	**251**	PKP	PKPdf	08 06 13.0	-2.5
	comp=Z,2.2nm,0.7s,baz=55,slow=8.0,SNR=4.8						
TXAR	**Lajitas Array**	**142.60**	**26**	PKhKP		08 06 10.9	
	comp=Z,0.4nm,0.5s,baz=17,slow=2.8,SNR=15						
TXAR				PKP	PKPdf	08 06 16.7	-1.5
	comp=Z,1.4nm,0.6s,baz=192,slow=0.7,SNR=14						
TXAR				PP	PP	08 09 24.4	-0.8
	comp=Z,0.8nm,0.8s,baz=45,slow=1.8,SNR=6.1						
JCT	**Junction City**	**143.06**	**20**	*e*PKIKP	PKPdf	08 06 12.3	-6.6
JCT				*e*		08 06 19.5	
LVC	**Limon Verde**	**155.27**	**221**	PKPab	PKPab	08 07 02.7	+1.9
	comp=Z,1.4nm,0.4s,baz=209,slow=17,SNR=13						
LPAZ	**La Paz**	**158.62**	**235**	PKP	PKPdf	08 06 40.1	-2.6
	comp=Z,2.4nm,1.0s,baz=103,slow=4.6,SNR=5.9						
LPAZ				PKPab	PKPab	08 07 15.5	+0.1
	comp=Z,3.5nm,0.9s,baz=98,slow=5.7,SNR=8.8						
SDV	**Santo Domingo**	**159.69**	**310**	PKPab	PKPab	08 07 19.4	-0.7
	comp=Z,3.9nm,0.8s,baz=97,slow=4.5,SNR=5.7						

BJI ***29*** *07:52:49.8, 4.65N×94.73E, h56^{km}, mB5.4, mb5.1, Ms4.7, Msz4.6*

MOS ***29*** *07:52:50.6±0.9, 5.22N×94.92E, h33^{km}, mb5.1/28, Error ellipse: s-maj=12.7km s-min=7.0km az=114.6*

NEIC ***29*** *07:52:51.7±0.3, 5.14N×94.90E, h30^{km}, mb4.9/23, Error ellipse: s-maj=9.1km s-min=8.2km az=46.0*

HRVD ***29*** *07:52:51.7±0.6, 5.01N×94.82E, h18^{km}±2^{km}, MW5.3/41, Centroid moment Tensor Solution. LP body waves: s12,c13;Mantle waves: s41,c63; Half duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.95±.39; $M_{\theta\theta}$0.76±.25; $M_{\phi\phi}$-1.71±.29; $M_{r\theta}$6.42±1.55; $M_{\theta\phi}$-0.41±.19; $M_{\phi r}$-6.88±1.47; Best double couple: $M_0$9.51×10^{16} NP1:ϕ_s35°,δ8°,λ167°. NP2:ϕ_s138°,δ88°,λ82°. Principal axes: T 9.89, Plg46°, Azm40°; N -.76, Plg8°, Azm138°; P -9.13, Plg43°, Azm236°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

IDC ***29*** *07:52:54.4±0.8, 5.19N×94.85E, h52^{km}±6^{km}, mb4.4/16, mb1 4.5/16, mb1mx4.5/19, mbtmp4.6/16, MS4.4/3, Ms1 4.4/3, ms1mx3.7/30 Error ellipse: s-maj=25.1km s-min=11.9km az=51.0*

ISC 29 07:52:52.5±0.3**, 5.15N**±0.06×**94.88E**±0.05**, h51^{km}, h51^{km}**±2.3^{km}**:pP-P, n148,** σ1^{s}**00**/145**, mb4.9**/62**, MS4.7**/7**, 7C-4D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SNG	**Songkhla**	**6.05**	**70**	P	**P**	**07 54 23.0**	**+1.5**
	360nm,1.0s						
CM31	**Chiang Mai Arr**	**13.81**	**16**	*e*P	**P**	**07 56 11.3**	**+3.8**
	27nm,0.6s						
CMAR	**Chiang Mai Arr**	**13.81**	**16**	P	**P**	**07 56 11.4**	**+3.9**
	1.5nm,0.3s,baz=206,slow=12,SNR=17						
CMAR				LR	LR	08 01 20.8	
	comp=Z,582nm,19.5s,baz=200,slow=37						
CMAR				ScP		08 04 57.8	
	0.3nm,0.3s,baz=245,slow=3.2,SNR=5.9						
NANT	**Nan**	**14.71**	**22**	P	**P**	**07 56 23.5**	**+4.3**
HYB	**Hyderabad**	**20.10**	**309**	*e*P	**P**	**07 57 31.0**	**+6.2**
KMI	**Kunming**	**21.25**	**20**	P	**P**	**07 57 41.0**	**+4.5**
KMI				AMB	AMB		
	comp=Z,26nm,1.3s,mb4.4						
GYA	**Guiyang**	**24.00**	**27**	⇑*i*P	**P**	**07 58 06.0**	**+2.4**
GYA				AMB	AMB		
	comp=Z,110nm,0.8s,mb5.3						
PKI	**Pulchoki**	**24.05**	**339**	*e*P	**P**	**07 58 03.7**	**-0.4**
DMN	**Daman**	**24.20**	**338**	*e*P	**P**	**07 58 05.2**	**-0.3**
	comp=Z,39nm,0.7s,mb5.0						
GUN	**Gumba**	**24.20**	**340**	*e*P	**P**	**07 58 05.1**	**-0.5**
	comp=Z,68nm,0.7s,mb5.2						
KKN	**Kakani**	**24.30**	**339**	*e*P	**P**	**07 58 06.5**	**0.0**
	comp=Z,66nm,1.0s,mb5.0						
LSA	**Lhasa**	**24.68**	**352**	*e*P	**P**	**07 58 11.3**	**+1.1**
LSA				pmax	pmax		
	comp=Z,33nm,0.6s,mb5.0						
LSA	**Lhasa**	**24.68**	**352**	*e*P	**P**	**07 58 11.3**	**+1.1**
	comp=Z,33nm,0.6s,mb5.0						
GKN	**Gorkha**	**24.73**	**338**	*e*P	**P**	**07 58 10.6**	**-0.1**
KOLN	**Koldanda**	**24.93**	**336**	*e*P	**P**	**07 58 13.0**	**+0.4**
	comp=Z,153nm,0.8s,mb5.6						
ENH	**Enshi**	**28.54**	**27**	*e*P	**P**	**07 58 45.0**	**-0.7**
	comp=Z,14nm,0.6s,mb4.9						
XAN	**Xi'an**	**31.57**	**23**	P	**P**	**07 59 11.0**	**-1.5**
XAN				AMB	AMB		
	comp=Z,45nm,0.9s,mb5.3						
LZH	**Lanzhou**	**31.88**	**14**	*e*P	**P**	**07 59 14.0**	**-1.2**
LZH				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.9						
GTA	**Gaotai**	**34.40**	**7**	⇑P	**P**	**07 59 37.0**	**0.0**
GTA				PP	PP	08 00 57.0	+3.3
GTA				PCP	PcP	08 02 12.3	+0.3
GTA				S	**S**	**08 05 09.8**	**+9.4**
GTA				SCP		08 05 52.8	
GTA				AMB	AMB		
	comp=Z,40nm,0.6s,mb5.5						
GTA				AMB	AMB		
	comp=Z,227nm,3.8s						
GTA				LR	LR		
	comp=N,690nm,19.4s,MS4.6						
GTA				LR	LR		
	comp=E,673nm,17.1s,MS4.6						
GTA				LR	LR		
	comp=Z,1µm,20.5s,MS4.6						
NJ2	**Nanjing**	**34.93**	**37**	*e*P	**P**	**07 59 42.0**	**+0.4**
NJ2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,1µm,10.7s						
NJ2				LR	LR		
	comp=N,2µm,12.2s,MS5.2						
NJ2				LR	LR		
	comp=E,2µm,10.4s,MS5.2						
NJ2				LR	LR		
	comp=Z,2µm,12.7s,MS5.1						
SSE	**Sheshan**	**35.73**	**41**	*e*P	**P**	**07 59 46.5**	**-2.0**
SSE				AMB	AMB		
	comp=Z,27nm,0.9s,mb5.2						
SSE				AMB	AMB		
	comp=Z,71nm,12.0s						
HHC	**Hu-ho-hao-te**	**38.57**	**20**	*e*P	**P**	**08 00 13.3**	**+1.2**
HHC				AMB	AMB		
	comp=Z,19nm,0.6s,mb5.0						
HHC				AMB	AMB		
	comp=Z,328nm,9.9s						
HHC				LR	LR		
	comp=N,537nm,19.0s,MS4.5						
HHC				LR	LR		
	comp=E,463nm,20.2s,MS4.5						
HHC				LR	LR		
	comp=Z,665nm,14.3s						
WMQ	**Urumqi**	**39.03**	**352**	P	**P**	**08 00 17.0**	**+1.1**
BJT	**Baijiatuau**	**39.66**	**26**	*e*P	**P**	**08 00 22.1**	**+0.9**
BJT				pmax	pmax		
	comp=Z,29nm,0.6s						
BJT	**Baijiatuau**	**39.66**	**26**	*e*P	**P**	**08 00 22.1**	**+0.9**
	comp=Z,29nm,0.6s,mb5.2						
BJI	**Beijing**	**39.69**	**26**	P	**P**	**08 00 23.0**	**+1.6**
BJI				AMB	AMB		
	comp=Z,43nm,0.8s,mb5.2						
BJI				LR	LR		

	comp=N,237nm,16.3s,MS4.5						
BJI				LR	LR		
	comp=E,468nm,15.0s,MS4.5						
BJI				LR	LR		
	comp=Z,506nm,21.5s						
KZA	Kyzart	40.72	337	P	P	08 00 29.0	-0.9
	SNR=8.4						
UCH	Uchtor	41.13	337	P	P	08 00 34.5	+1.2
	SNR=28						
TKM2	Tokmak 2	41.32	338	P	P	08 00 35.9	+1.0
	SNR=9.4						
KBK	Karagaybulak	41.33	338	P	P	08 00 36.3	+1.4
	SNR=13						
AML	Almayashu	41.38	336	P	P	08 00 36.9	+1.6
	SNR=37						
DL2	Dalian	41.43	32	P	P	08 00 37.8	+1.9
DL2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.1						
AAK	Ala-Archa	41.48	337	P	P	08 00 38.0	+1.8
	SNR=12						
AAK	Ala-Archa	41.48	337	eP	P	08 00 36.4	+0.2
AAK				pmax	pmax		
	comp=Z,16nm,0.8s,mb4.7						
AAK	Ala-Archa	41.48	337	eP	P	08 00 36.4	+0.1
	comp=Z,16nm,0.8s,mb4.7						
FRU	Bishkek	41.61	337	eP	P	08 00 33.5	-3.8
FRU				pmax	pmax		
	comp=Z,70nm,2.0s,mb4.9						
CHMS	Chumysh	41.70	338	P	P	08 00 39.0	+1.0
	SNR=7.0						
EKS2	Erkin-Say	41.79	337	P	P	08 00 40.1	+1.3
	SNR=14						
USP	Ospenovka	42.02	338	P	P	08 00 41.5	+0.9
	SNR=25						
MKAR	Makanchi Array	42.89	347	i P	P	08 00 47.7	-0.1
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.6s						
SONM	Songino Array	43.66	11	P	P	08 00 53.9	-0.1
	comp=Z,9.9nm,0.7s,mb4.7,baz=189,slow=8.6,SNR=40						
SONM				PcP	PcP	08 02 40.8	-0.3
	comp=Z,5.8nm,0.7s,baz=197,slow=3.4,SNR=8.0						
SONM				pPcP		08 02 56.0	
	comp=Z,2.7nm,0.4s,baz=189,slow=3.8,SNR=9.9						
SONM				ScP		08 06 29.0	
	comp=Z,0.9nm,0.7s,baz=207,slow=3.2,SNR=3.6						
SONM				LR	LR	08 20 26.0	
	comp=Z,447nm,20.1s,MS4.4,baz=1.1,slow=38						
ULN	Ulaanbaatar	43.82	12	eP	P	08 00 54.7	-0.6
ULN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
ULN	Ulaanbaatar	43.82	12	eP	P	08 00 54.7	-0.6
	comp=Z,5.6nm,0.6s,mb4.5						
ZAK	Zakamensk	45.63	8	eP	P	08 01 09.2	-0.5
ZAK				e		08 02 47.6	
WRA	Warramunga Arr	46.11	124	i P	P	08 01 14.1	+0.1
WRA				pmax	pmax		
	comp=Z,41nm,0.7s						
WRA	Warramunga Arr	46.11	124	P	P	08 01 14.1	+0.2
	comp=Z,41nm,0.7s,mb5.5,baz=303,slow=9.2,SNR=42						
WRAB	Tennant Creek	46.12	124c	iP	P	08 01 14.2	+0.2
WRAB	Tennant Creek	46.12	124	eP	P	08 01 13.8	-0.2
	comp=Z,72nm,0.7s,mb5.7						
TLY	Talaya	46.95	7	eP	P	08 01 20.1	0.0
TLY				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
CN2	Changchun	46.97	30	eP	P	08 01 20.8	+0.5
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ASAR	Alice Springs	47.63	129	P	P	08 01 25.7	-0.2
	comp=Z,14nm,0.7s,mb5.1,baz=299,slow=7.5,SNR=97						
ASAR				pP	pP	08 01 39.9	+0.5
	comp=Z,15nm,0.5s,baz=299,slow=7.8,SNR=15						
ASAR				ScP		08 06 44.9	
	comp=Z,1.5nm,1.1s,baz=273,slow=1.9,SNR=4.0						
HIA	Hailar	48.75	21	eP	P	08 01 34.1	-0.1
HIA				pmax	pmax		
	comp=Z,9.0nm,0.6s						
HIA	Hailar	48.75	21	eP	P	08 01 34.1	-0.1
	comp=Z,8.9nm,0.6s,mb5.0						
ZAL	Zalesovo	49.33	352	P	P	08 01 38.1	-0.5
	comp=Z,16nm,0.6s,mb5.2,baz=211,slow=6.0,SNR=60						
MDJ	Mudanjiang	49.67	32	P	P	08 01 42.0	+0.6
MDJ				AMB	AMB		
	comp=Z,17nm,1.1s,mb5.0						
NVS	Novosibirsk	50.43	351	eP	P	08 01 45.3	-1.7
NVS				i	pP	08 02 00.4	-0.3
NVS				eS	S	08 08 52.6	-2.8
NVS				pmax	pmax		
	comp=N,10.0nm,0.8s						
NVS				pmax	pmax		
	comp=E,6.0nm,0.8s						
NVS				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
NVS				smax			
	comp=N,14nm,1.6s						
NVS				smax			
	comp=E,3.0nm,1.0s						
MAT	Matsushiro	50.48	46	P	P	08 01 49.1	+1.4
MAT	Matsushiro	50.48	46	P	P	08 01 49.0	+1.3
BVA0	Borovoye Array	51.79	341	i P	P	08 01 56.5	-0.8
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
BVAR	Borovoye Array	51.79	341	P	P	08 01 56.8	-0.5
	comp=Z,17nm,0.7s,mb5.1,baz=141,slow=9.5,SNR=17						
BVAR				pP	pP	08 02 10.8	-0.2
	comp=Z,14nm,0.9s,baz=127,slow=7.4,SNR=5.1						
BRVK	Borovoye	51.85	341	eP	P	08 01 57.1	-0.6
BRVK				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.0						
BRVK	Borovoye	51.85	341	eP	P	08 01 57.1	-0.6
	comp=Z,13nm,0.6s,mb5.0						
CHKZ	Chkalovo	52.28	342	eP	P	08 02 00.3	-0.6
CHKZ				pmax	pmax		
	comp=Z,42nm,0.6s,mb5.5						
CHKZ	Chkalovo	52.28	342	eP	P	08 02 00.3	-0.6
	comp=Z,42nm,0.6s,mb5.5						
KLR	Kul'dur	53.87	29	eP	P	08 02 10.8	-2.0
PMG	Port Moresby	54.07	105	eP	P	08 02 12.8	-1.9
PMG				pmax	pmax		
	comp=Z,13nm,0.6s						
PMG	Port Moresby	54.07	105	eP	P	08 02 12.8	-1.9
	comp=Z,13nm,0.6s,mb5.0						
BOD	Bodaibo	54.63	12	eP	P	08 02 16.8	-1.4
ASAJ	Asahikawa	57.01	39	LR	LR	08 30 12.7	
	comp=Z,791nm,18.7s,MS4.8,baz=46,slow=39						
STKA	Stephens Creek	57.71	133	P	P	08 02 40.1	-0.6
	comp=Z,3.3nm,0.5s,mb4.6,baz=302,slow=9.6,SNR=12						
STKA	Stephens Creek	57.71	133	eP	P	08 02 38.5	-2.2
KMBO	Kilima Mbogo	57.90	265	eP	P	08 02 42.5	+0.3
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.2s						
KMBO	Kilima Mbogo	57.90	265	P	P	08 02 42.3	+0.1
	comp=Z,4.3nm,0.8s,mb4.5,baz=59,slow=10,SNR=10						
KMBO	Kilima Mbogo	57.90	265	eP	P	08 02 42.5	+0.2
	comp=Z,9.5nm,1.2s,mb4.7						
ZEI	Tsey	58.53	318	eP	P	08 02 45.4	-0.8
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
ARU	Arti	58.67	337	⇑iP	P	08 02 45.6	-1.4
ARU				e		08 04 52.1	
ARU				eS	S	08 10 49.4	+3.4
ARU				eSS	SS	08 14 45.9	+4.7
ARU				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
KIV	Kislovodsk	59.83	319	eP	P	08 02 54.4	-0.8
KIV				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.8						
KIV				pmax	pmax		
	comp=E,6.0nm,0.8s						
SOC	Sochi	61.66	317	eP	P	08 03 04.3	-3.3
SOC				e		08 03 42.8	
SOC				e		08 05 27.7	
SOC				ePPP	PPP	08 06 50.5	-4.3
SOC				eS	S	08 11 20.5	-4.1
SOC				eSS	SS	08 15 30.2	+2.0
SOC				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.4						
SOC				pmax	pmax		
	comp=N,15nm,0.6s						
SOC				pmax	pmax		
	comp=E,26nm,1.0s						
YAK	Yakutsk	62.34	18	eP	P	08 03 10.5	-1.4
YAK				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.4						
ANN	Anapa	63.63	318	eP	P	08 03 20.5	-0.3
ANN				pmax	pmax		
	comp=Z,51nm,1.8s,mb5.2						
BRTR	Keskin Array B	64.77	312	P	P	08 03 27.1	-1.1
	comp=Z,3.5nm,0.7s,mb4.5,baz=126,slow=7.4,SNR=16						
OBN	Obninsk	68.06	328	eP	P	08 03 47.5	-1.3
OBN						08 04 15.0	
OBN				S	S	08 12 41.0	-2.1
OBN				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
OBN				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.8						
LSZ	Lusaka	69.08	252	eP	P	08 03 57.2	+1.4
TIXI	Tiksi	69.75	11	eP	P	08 03 57.5	-1.4
TIXI				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.0						
CFR	Carcaliu	70.05	316	⇓iP	P	08 04 00.5	-0.7
HARR	Harsova	70.08	316	⇓iP	P	08 04 01.0	-0.4
HARR	Harsova	70.08	316	⇓iP	P	08 04 00.9	-0.5
AKASG	Malin Array Be	70.74	322	P	P	08 04 03.5	-1.8
	comp=Z,4.5nm,0.8s,mb4.5,baz=88,slow=4.9,SNR=11						
VRI	Vrincioaia	71.17	317	⇑iP	P	08 04 08.2	+0.2
VRI	Vrincioaia	71.17	317	⇑iP	P	08 04 08.1	+0.1
MLR	Muntele Rosu	71.63	316	P	P	08 04 11.1	+0.4
	comp=Z,7.9nm,0.7s,mb4.7,baz=163,slow=3.7,SNR=18						
LBTB	Lobatse	73.61	242	eP	P	08 04 23.3	+0.5
VSU	Vasula	74.29	330	⇑iP	P	08 04 25.8	-0.3
KOLS	Kolonicke sedl	74.73	319	eP	P	08 04 30.0	+1.2
KOLS				e		08 04 59.6	
BOSA	Boshof	74.78	239	eP	P	08 04 29.8	+0.2
FINES	FINESS Array B	75.45	332	i P	P	08 04 32.2	-0.5
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	FINESS Array B	75.45	332	P	P	08 04 32.2	-0.5
	comp=Z,1.5nm,0.4s,mb4.2,baz=104,slow=7.2,SNR=14						
KAF	Kangasniemi	75.54	333	ep	P	08 04 30.9	-2.3
	comp=Z,7.1nm,1.0s,mb4.5						
KAF	Kangasniemi	75.54	333	eP	P	08 04 30.9	-2.3
KAF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
KECS	Kecovo	75.83	319	i P	P	08 04 35.6	+0.5
NIE	Niedzica	76.08	320	eP	P	08 04 37.5	+1.0
PSZ	Piszkesteto	76.14	318	⇓eP	P	08 04 37.1	+0.2
OJC	Ojcow	76.53	320	eP	P	08 04 39.3	+0.3
VYHS	Vyhne	76.92	318	eP	P	08 04 40.7	-0.6
KEV	Kevo	77.64	341	ep	P	08 04 43.8	-1.1
	comp=Z,10.0nm,0.8s,mb4.8						
KEV	Kevo	77.64	341	eP	P	08 04 43.8	-1.1
KEV				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ZST	Bratislava	78.03	318	eP	P	08 04 47.5	+0.1
ZST				e		08 05 09.8	
ARCES	ARCESS Array B	78.06	340	P	P	08 04 47.0	-0.2
	comp=Z,29nm,1.2s,mb5.1,baz=93,slow=6.3,SNR=19						
ARE0	ARCESS Array S	78.06	340	eP	P	08 04 46.5	-0.7
DPC	Dobruska-Polom	78.75	320	eP	P	08 04 52.0	+0.6
PERS	Pernice	79.25	316	eP	P	08 04 54.4	+0.2
PRU	Pruhonice	79.86	320	eP	P	08 04 58.0	+0.6
BRG	Berggiesshubel	80.31	321	i P	P	08 05 00.0	+0.2
BRG				i	pP	08 05 13.9	-0.5
BRG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
BRG	Berggiesshubel	80.31	321	i P	P	08 05 00.0	+0.2
	comp=Z,5.6nm,1.0s,mb4.5						
BRG				i	pP	08 05 13.9	-0.5
GEC2	GERESS Array S	80.34	319	eP	P	08 05 00.4	+0.4
GEC2				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
GEC2	GERESS Array S	80.34	319	eP	P	08 05 00.4	+0.4
	comp=Z,16nm,1.1s,mb4.9						
GERES	GERESS Array B	80.34	319	P	P	08 05 00.7	+0.7
	comp=Z,11nm,0.7s,mb4.9,baz=90,slow=5.3,SNR=70						
KHC	Kasperske Hory	80.44	319	eP	P	08 05 00.7	+0.2
KHC				ex	x	08 05 18.0	
KHC				ex	x	08 05 25.0	
WET	Wettzell	80.90	319	eP	P	08 05 03.3	+0.4
CLL	Collm	80.93	321	eP	P	08 05 03.0	0.0
CLL				e	pP	08 05 16.0	-1.6
CLL	Collm	80.93	321	P	P	08 05 03.0	0.0
CLL				e*SP	pP	08 05 16.0	-1.6
MOX	Moxa	81.77	320	eP	P	08 05 07.8	+0.4
MOX	Moxa	81.77	320	i P	P	08 05 07.8	+0.4
GRA1	Grafenberg Arr	82.00	319	eP	P	08 05 09.4	+0.8
	comp=Z,10.0nm,0.9s,mb4.8						
GRF	Grafenberg Arr	82.00	319	eP	P	08 05 09.4	+0.8
GRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
GRF	Grafenberg Arr	82.00	319	eP	P	08 05 09.4	+0.8
GRF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
GRF	Grafenberg Arr	82.00	319	eP	P	08 05 09.4	+0.8
	comp=Z,10.0nm,0.9s,mb4.8						
NB2	NORSAR Subarra	82.45	331	P	P	08 05 10.3	-0.4
	comp=Z,0.9nm,0.7s,mb3.8,baz=93,slow=5.0						
NB2	NORSAR Subarra	82.45	331	P	P	08 05 10.3	-0.4
NB2				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
NOA	NORSAR Array B	82.45	331	P	P	08 05 10.4	-0.3
	comp=Z,3.3nm,1.1s,mb4.2,baz=93,slow=4.9,SNR=3.7						
CLZ	Clausthal	82.59	321	eP	P	08 05 12.4	+0.8
	comp=Z,14nm,1.2s,mb4.9						
BSEG	Bad Segeberg	82.67	324	eP	P	08 05 13.1	+1.2
BFO	Black Forest	83.89	318	eP	P	08 05 18.6	+0.3
BFO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
BFO	Black Forest	83.89	318	eP	P	08 05 18.6	+0.3
	comp=Z,9.0nm,0.9s,mb4.9						
LPG	La Plagne	85.05	315	eP	P	08 05 24.2	0.0
	comp=Z,27nm,0.9s,mb5.1						
LPG	La Plagne	85.05	315	eP	P	08 05 24.2	0.0
LPG				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.1						
VNDA	Vanda	90.13	168	eP	P	08 05 49.0	+1.1
VNDA				pmax	pmax		
	comp=Z,4.0nm,1.3s						
VNDA	Vanda	90.13	168	P	P	08 05 48.7	+0.8
	comp=Z,1.2nm,0.9s,mb4.2,baz=193,slow=2.1,SNR=3.6						
VNDA				pP	pP	08 06 03.8	+0.9
	comp=Z,0.9nm,0.6s,baz=273,slow=4.1,SNR=4.2						
VNDA	Vanda	90.13	168	eP	P	08 05 49.0	+1.1
	comp=Z,3.9nm,1.3s,mb4.6						
IMA	Indian Mountai	93.85	22	eP	P	08 06 06.4	+1.2
IMA				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.7						
IMA	Indian Mountai	93.85	22	eP	P	08 06 06.4	+1.2
	comp=Z,21nm,0.6s,mb5.7						
ILAR	Eielson Array	96.97	22	P	P	08 06 19.1	-0.4
	comp=Z,0.7nm,0.8s,mb4.2,baz=284,slow=4.2,SNR=11						
ILAR				PP	PP	08 10 18.0	-0.1
	comp=Z,0.3nm,0.8s,baz=300,slow=6.0,SNR=4.0						
YKA	Yellowknife Ar	108.88	14	PP	PP	08 11 39.2	-9.3
	comp=Z,0.6nm,1.0s,baz=335,slow=7.8,SNR=3.9						
YKA				PKKPbc		08 22 27.8	
	comp=Z,0.1nm,0.5s,baz=150,slow=3.3,SNR=4.4						
ULM	Lac du Bonnet	124.05	8	PKP	PKPdf	08 11 47.7	+2.1
	comp=Z,3.1nm,0.8s,baz=14,slow=4.7,SNR=6.0						
NVAR	Mina Array Bea	126.84	32	PKP	PKPdf	08 11 54.1	+2.9
	comp=Z,1.7nm,0.6s,baz=293,slow=2.8,SNR=13						
PDAR	Pinedale Array	127.41	23	PKP	PKPdf	08 11 53.8	+1.5
	comp=Z,1.6nm,0.7s,baz=96,slow=0.9,SNR=14						
TXAR	Lajitas Array	141.36	26	PKhKP		08 12 14.2	
	comp=Z,0.6nm,0.6s,baz=74,slow=0.9,SNR=11						
TXAR				PKP	PKPdf	08 12 20.8	+2.2
	comp=Z,1.1nm,0.6s,baz=19,slow=1.7,SNR=12						
TXAR				SKPbc		08 15 52.5	
	comp=Z,0.4nm,0.5s,baz=23,slow=0.8,SNR=8.0						
LPAZ	La Paz	159.99	235	PKP	PKPdf	08 12 48.3	+1.5
	comp=Z,0.7nm,0.6s,baz=214,slow=3.6,SNR=3.9						

JMA 29 08:10:43.9±0.1**, 28.10N**×**128.09E, h11**^{km}±2^{km}**, M3.7,**
Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JTK	Tokunoshima	0.82	112	P	Pb	08 10 59.4	-0.3
JTK				S	Sb	08 11 10.5	-0.1
JIH	Iheya	1.07	186	P	Pb	08 11 03.8	-0.1
JIH				S	Sb	08 11 17.9	+0.2
JOW	Kunigami	1.27	173	P	Pb	08 11 07.1	-0.3
JOW				eS	Sb	08 11 23.9	+0.2
JAM	Amami Oshima	1.37	77	P	Pn	08 11 09.0	-0.1
JAM				S	Sb	08 11 26.5	0.0

*IDC **29** 08:13:15.9±0.8, 8.53N×93.61E, mb4.1/15, mb1 4.3/16, mb1mx4.1/23, mbtmp4.1/16, ML4.5/1, Error ellipse: s-maj=33.6km s-min=17.1km az=47.0*

ISC 29 08:13:19.1±0.7**, 8.6N**±0.1×**93.8E**±0.1**, h33**^{km}**, n24,**
σ**0**^{s}**73**/23**, mb4.2**/17**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.04	27	Pn	P	08 15 57.4	-0.4
	0.9nm,0.3s,baz=213,slow=15,SNR=9.3						
PKI	Pulchoki	20.47	338	eP	P	08 17 57.0	+0.3
	98nm,1.4s						
GUN	Gumba	20.61	340	eP	P	08 17 58.6	+0.4
	40nm,0.7s						
DMN	Daman	20.61	338	eP	P	08 17 57.7	-0.6
KKN	Kakani	20.71	338	eP	P	08 17 59.2	-0.1
	37nm,0.9s						
GKN	Gorkha	21.15	337	eP	P	08 18 04.1	+0.4
	33nm,0.7s,mb4.8						
KOLN	Koldanda	21.36	335	eP	P	08 18 06.7	+0.9
	19nm,0.7s,mb4.5						
SONM	Songino Array	40.56	13	P	P	08 20 57.2	+0.1
	0.2nm,0.3s,mb3.2,baz=219,slow=9.2,SNR=2.4						
SONM				PcP	PcP	08 23 00.8	+1.2
	0.7nm,0.6s,baz=180,slow=1.4,SNR=2.6						
ZAL	Zalesovo	45.80	353	P	P	08 21 39.0	-0.5
	2.2nm,0.9s,mb4.1						
BVAR	Borovoye Array	48.20	341	P	P	08 21 57.8	-0.6
	0.8nm,0.7s,mb3.9,baz=140,slow=11,SNR=4.7						
BVAR				PcP	PcP	08 23 26.3	+0.6
	1.0nm,0.7s,baz=117,slow=6.6,SNR=3.8						
WRA	Warramunga Arr	48.98	126	P	P	08 22 05.3	+0.4
	0.6nm,0.7s,mb3.8,baz=303,slow=9.0,SNR=4.6						
ASAR	Alice Springs	50.66	130	P	P	08 22 17.3	-0.4
	0.8nm,0.8s,mb3.7,baz=306,slow=7.0,SNR=7.9						
ASAR				PcP	PcP	08 23 34.9	-0.1
	0.8nm,0.8s,baz=314,slow=3.5,SNR=7.3						
BRTR	Keskin Array B	61.68	311	P	P	08 23 35.4	-1.0
	3.3nm,0.8s,mb4.5,baz=126,slow=8.2,SNR=11						
AKASG	Malin Array Be	67.36	322	P	P	08 24 12.0	-1.1
	0.6nm,0.4s,mb3.9,baz=90,slow=4.6,SNR=6.2						
IDI	Anoyia	67.85	305	P	P	08 24 15.2	-1.3
	12nm,1.0s,mb4.9,baz=186,slow=23,SNR=4.1						
MLR	Muntele Rosu	68.40	316	P	P	08 24 20.2	+0.5
	3.6nm,0.9s,mb4.4,baz=168,slow=3.3,SNR=5.2						
FINES	FINESS Array B	71.91	332	P	P	08 24 39.9	-0.8
	0.8nm,0.5s,mb3.9,baz=101,slow=9.7,SNR=5.0						
ARCES	ARCESS Array B	74.47	340	P	P	08 24 56.3	+0.7
	6.3nm,1.1s,mb4.5,baz=99,slow=6.3,SNR=5.0						
GERES	GERESS Array B	77.05	318	P	P	08 25 11.6	+0.9
	1.7nm,0.8s,mb4.0,baz=76,slow=5.5,SNR=9.3						
HFS	Hagfors	77.65	330	P	P	08 25 14.4	+0.6
	1.3nm,0.4s,mb4.2,baz=90,slow=5.9,SNR=9.7						
NB2	NORSAR Subarra	78.93	331	P	P	08 25 20.5	-0.3
	0.2nm,0.7s,mb3.2,baz=89,slow=6.5						
NOA	NORSAR Array B	78.93	331	P	P	08 25 20.9	+0.1
	2.1nm,0.8s,mb4.2,baz=96,slow=5.6,SNR=5.4						
EKA	Eskdalemuir Ar	86.92	325	P	P	08 26 03.5	+1.7
	3.8nm,0.8s,mb4.7,baz=90,slow=5.0,SNR=6.2						
PDAR	Pinedale Array	124.65	21	PKP	PKPdf	08 32 18.3	+2.5
	0.8nm,0.9s,baz=90,slow=1.5,SNR=5.5						

*ISK **29** 08:15:41.6, 37.51N×38.68E, h4^{km}, MD3.5*
*CSEM **29** 08:15:42.4±0.1, 37.55N×38.83E, h2^{km}, MD3.5, Error ellipse: s-maj=2.0km s-min=0.9km az=116.0*

ISC 29 08:15:42.5±0.4**, 37.58N**±0.03×**38.73E**±0.04**, h2**^{km}**, n21,**
σ**1**^{s}**39**/29**, 3D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URFA	Urfa	0.16	153	i PG	Pg	08 15 45.3	-0.4
URFA				i SG	Sg	08 15 47.5	-0.3
MYA	Malataya	0.78	342	i PG	Pg	08 15 57.9	-0.1
ELZG	Elazig	0.93	12	i P	Pb	08 16 01.2	+0.2
ELZG				i S	Sg	08 16 16.6	+3.0
GZT	Gaziantep	0.96	257	i P	Pb	08 15 59.7	-1.7
GZT				i S	Sg	08 16 12.7	-1.6
DIY	Diyarbakir	1.23	75	PN	Pn	08 16 06.5	-0.1
GAZ	Gaziantep	1.28	252	PN	Pn	08 16 05.5	-1.8
GAZ				SN	Sn	08 16 23.0	-2.3
PTK	Pertek	1.41	22	PN	Pn	08 16 10.2	+1.0
KAHT	Ahir Dag	1.48	272	i P	Pn	08 16 08.5	-1.7
KAHT				i S	Sb	08 16 30.0	+0.6
KBSD	Kabsdagh	1.56	111	⇑iP	Pn	08 16 09.7	-1.6
BINT	Bingol	1.89	47	PN	Pn	08 16 16.6	+0.5
DRWC	Darouich	1.91	240	⇓iP	Pn	08 16 17.3	+0.9
BEST	Besiri	2.04	81	i P	Pn	08 16 17.0	-1.2
BTMT	Batman	2.27	74	PN	Pn	08 16 19.8	-1.7
EZC	Erzincan	2.32	21	ePN	Pn	08 16 22.0	-0.3
BTCH	Batrach	2.39	230	⇑iP	Pn	08 16 25.8	+2.6
BTCH				⇑iS	Sn	08 16 54.7	+1.2
HTY	Hatay	2.54	236	ePN	Pn	08 16 23.6	-1.8
VRT	Varto	2.69	54	ePN	Pn	08 16 28.6	+1.1
WRDH	Warideh	2.79	223	⇑iS	Sn	08 17 04.8	+1.2
SLNF	Slenfeh	2.83	226	⇓iP	Pn	08 16 32.7	+3.2
SLNF				⇓iS	Sn	08 17 05.2	+0.5
KFRA	Kufra	2.83	214	⇑iP	Pn	08 16 32.4	+2.8
KFRA				⇑iS	Sn	08 17 06.5	+1.7
EZM	Erzurum	3.10	41	ePN	Pn	08 16 33.9	+0.5

*IDC **29** 08:18:35.4±0.5, 8.54N×92.04E, mb4.2/18, mb1 4.3/18, mb1mx4.3/21, mbtmp4.1/18, Error ellipse: s-maj=25.9km s-min=13.1km az=48.0*

ISC 29 08:18:38.7±0.5**, 8.54N**±0.09×**92.20E**±0.10**, h33**^{km}**, n41,**
σ**1**^{s}**07**/41**, mb4.2**/18**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VIS	Vishakhapatnam	12.56	317	eP	P	08 21 33.5	-4.5
VIS				i S	x	08 23 39.0	
VIS				e		08 23 44.5	
	comp=E,145nm,0.9s						
VIS				e	S	08 23 45.7	-12
	comp=N,110nm,0.6s						
MDRS	Chennai	12.57	292	eP	P	08 21 38.8	+0.6
BWNR	Bhubaneshwar	13.22	333	e	P	08 21 33.6	-13
BWNR				e		08 23 49.3	
BWNR				e		08 23 52.6	
	comp=E,208nm,0.6s						
BWNR				e	S	08 23 52.7	-21
	comp=N,126nm,0.4s						
TRD	Trivandrum	15.07	271	eP	P	08 22 16.5	+5.4
HYB	Hyderabad	15.95	305	eP	P	08 22 25.0	+2.6
HYB				eS	S	08 25 04.0	-14
KAD	Karad	19.59	298	⇑iP	P	08 23 10.0	+3.0
KAD				i	S	08 26 31.0	-10
PKI	Pulchoki	19.99	342	eP	P	08 23 11.4	+0.1
	comp=N,59nm,0.6s						
DMN	Daman	20.12	341	eP	P	08 23 13.2	+0.5
	comp=N,103nm,0.7s						
GUN	Gumba	20.17	344	eP	P	08 23 12.5	-0.8
	comp=N,73nm,0.7s						
KKN	Kakani	20.24	342	eP	P	08 23 14.5	+0.6
BHPL	Bhopal	20.36	318	eP	P	08 23 16.2	+1.0
POO	Poona	20.40	301	eP	P	08 23 17.0	+1.3
POO				i	S	08 26 48.0	-9.4
GKN	Gorkha	20.64	341	eP	P	08 23 17.2	-0.9
	comp=N,68nm,0.5s						
KOLN	Koldanda	20.79	338	eP	P	08 23 19.0	-0.6
	comp=N,83nm,0.8s						
PTH	Pithoragarh	23.74	333	eP	P	08 23 48.8	-0.2
NDI	New Delhi	24.51	327	e	P	08 24 04.0	+7.5
DDI	Dehra Dun	25.39	330	e	P	08 24 06.6	+1.7
SONM	Songino Array	40.98	15	P	P	08 26 19.9	-0.2
	comp=N,3.2nm,0.9s,mb4.0,baz=197,slow=7.3,SNR=7.8						
ZAL	Zalesovo	45.66	354	P	P	08 26 58.5	+0.4
	comp=N,1.4nm,0.9s,mb3.9,baz=196,slow=5.7,SNR=4.8						
BVAR	Borovoye Array	47.76	342	P	P	08 27 14.5	-0.1
	comp=N,1.8nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=7.6						
WRA	Warramunga Arr	50.21	125	P	P	08 27 33.7	-0.2
	comp=N,2.5nm,0.6s,mb4.4,baz=305,slow=8.5,SNR=12						
ASAR	Alice Springs	51.82	129	P	P	08 27 45.8	-0.2
	comp=N,2.4nm,0.6s,mb4.3,baz=303,slow=7.0,SNR=17						
ASAR				PcP	PcP	08 29 00.1	+1.3
	comp=N,1.6nm,0.7s,baz=310,slow=3.8,SNR=6.5						
KMBO	Kilima Mbogo	55.59	263	P	P	08 28 11.0	-3.0
	comp=N,0.5nm,0.4s,mb3.9,baz=246,slow=22,SNR=2.1						
PMG	Port Moresby	57.56	107	P	P	08 28 28.3	+0.2
	comp=N,3.3nm,0.5s,mb4.6,baz=260,slow=1.6,SNR=2.7						
CTA	Charters Tower	60.31	119	P	P	08 28 47.3	+0.3
	comp=N,3.2nm,0.8s,mb4.4,baz=310,slow=12,SNR=3.3						
BRTR	Keskin Array B	60.54	311	P	P	08 28 46.6	-1.8
	comp=N,3.7nm,1.1s,mb4.4,baz=135,slow=7.0,SNR=6.1						
STKA	Stephens Creek	61.96	133	P	P	08 28 58.1	+0.1
	comp=N,3.3nm,0.7s,mb4.6,baz=318,slow=10,SNR=7.9						

AKASG	**Malin Array Be**	**66.45**	**322**	P	**P**	**08 29 25.1**	**-1.8**
	comp=N,0.3nm,0.4s,mb3.7,baz=95,slow=4.5,SNR=4.5						
FINES	**FINESS Array B**	**71.23**	**332**	P	**P**	**08 29 55.6**	**-0.7**
	comp=N,4.3nm,1.2s,mb4.3,baz=27,slow=4.3,SNR=3.5						
ARCES	**ARCESS Array B**	**74.00**	**340**	P	**P**	**08 30 12.5**	**0.0**
	comp=N,1.6nm,0.6s,mb4.2,baz=90,slow=6.1,SNR=5.8						
GERES	**GERESS Array B**	**76.05**	**318**	P	**P**	**08 30 25.2**	**+0.5**
	comp=N,2.0nm,0.9s,mb4.0,baz=79,slow=6.8,SNR=6.6						
NB2	**NORSAR Subarra**	**78.21**	**331**	P	**P**	**08 30 35.6**	**-0.9**
	comp=N,5.7nm,1.1s,mb4.4,baz=93,slow=5.6						
NOA	**NORSAR Array B**	**78.21**	**331**	P	**P**	**08 30 35.9**	**-0.6**
	comp=N,2.4nm,0.9s,mb4.1,baz=96,slow=5.3,SNR=3.4						
VNDA	**Vanda**	**93.96**	**168**	P	**P**	**08 31 56.0**	**+2.1**
	comp=N,0.5nm,0.7s,mb4.1,baz=254,slow=12,SNR=4.3						
ILAR	**Eielson Array**	**94.85**	**22**	P	**P**	**08 31 58.8**	**+0.6**
	comp=N,0.3nm,0.8s,mb3.8,baz=289,slow=6.2,SNR=3.3						
INK	**Inuvik**	**96.88**	**16**	P	**P**	**08 32 07.6**	**+0.2**
	comp=N,1.8nm,0.9s,mb4.5,baz=334,slow=5.2,SNR=3.2						
PDAR	**Pinedale Array**	**125.22**	**20**	PKP	PKPdf	08 37 38.6	+2.1
	comp=N,0.9nm,0.9s,slow=1.5,SNR=6.2						
NVAR	**Mina Array Bea**	**125.31**	**29**	PKP	PKPdf	08 37 39.8	+3.0
	comp=N,1.6nm,0.9s,baz=266,slow=1.6,SNR=6.5						
TXAR	**Lajitas Array**	**139.37**	**22**	PKP	PKPdf	08 38 05.7	+2.3
	comp=N,0.4nm,0.9s,baz=244,slow=0.7,SNR=3.9						
BDFB	**Brasilia**	**140.51**	**256**	PKP	PKPdf	08 38 09.0	+3.1
	comp=N,2.3nm,0.8s,baz=142,slow=2.2,SNR=5.0						
LPAZ	**La Paz**	**159.31**	**246**	PKP	PKPdf	08 38 38.0	+3.5
	comp=N,1.0nm,0.9s,baz=117,slow=3.2,SNR=5.9						
LPAZ				PKPab	PKPab	08 39 15.8	+1.5
	comp=N,1.3nm,0.7s,baz=96,slow=4.7,SNR=4.8						

IDC 29 08:18:44.5±1.2**,8.76N×92.02E,mb4.4**/12**,mb1 4.5**/12**, mb1mx4.4**/19**,mbtmp4.4**/12**,Error ellipse: s-maj=44.1km s-min=21.0km az=42.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**40.80**	**15**	P	P	08 26 26.9	-2.4
	18nm,0.9s,baz=196,slow=8.9,SNR=31						
ZAL	**Zalesovo**	**45.42**	**354**	P	P	08 27 06.0	-0.7
	7.4nm,1.1s,baz=206,slow=11,SNR=8.5						
BVAR	**Borovoye Array**	**47.49**	**342**	P	P	08 27 21.8	-1.3
	3.1nm,0.7s,baz=127,slow=7.4,SNR=9.5						
WRA	**Warramunga Arr**	**50.49**	**125**	P	P	08 27 45.0	-1.7
	2.7nm,0.8s,baz=306,slow=8.4,SNR=5.6						
PMG	**Port Moresby**	**57.80**	**107**	P	P	08 28 38.4	-2.1
	10nm,0.8s,baz=226,slow=7.0,SNR=3.7						
BRTR	**Keskin Array B**	**60.26**	**311**	P	P	08 28 54.7	-2.5
	1.8nm,0.6s,baz=127,slow=6.2,SNR=6.9						
AKASG	**Malin Array Be**	**66.16**	**322**	P	P	08 29 33.0	-3.0
	0.7nm,0.5s,baz=90,slow=4.9,SNR=5.8						
FINES	**FINESS Array B**	**70.95**	**332**	P	P	08 30 03.8	-1.8
	3.5nm,0.7s,baz=90,slow=5.7,SNR=9.2						
ARCES	**ARCESS Array B**	**73.72**	**340**	P	P	08 30 21.5	-0.4
	7.1nm,0.8s,baz=104,slow=5.0,SNR=9.3						
GERES	**GERESS Array B**	**75.77**	**318**	P	P	08 30 32.9	-1.1
	3.3nm,0.8s,baz=90,slow=4.0,SNR=8.0						
NOA	**NORSAR Array B**	**77.93**	**331**	P	P	08 30 43.1	-2.6
	1.9nm,0.7s,baz=94,slow=5.6,SNR=5.4						
ILAR	**Eielson Array**	**94.71**	**22**	P	P	08 32 05.8	-2.9
	0.6nm,0.6s,baz=287,slow=4.3,SNR=7.6						

*IDC **29** 08:18:50.5±3.9, 19.91N×95.64E, h71^{km}±43^{km}, mb3.7/11, mb1 3.8/12, mb1mx3.7/22, mbtmp4.0/12, ML4.1/1, Error ellipse: s-maj=42.4km s-min=28.1km az=23.0*

ISC 29 08:18:48.9±1.8**,19.8N**±0.1×**95.5E**±0.1**,h74**^{km}±14^{km}**,n17, σ0^{s}97**/19**,mb3.9**/11**,1C,Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**3.51**	**112**	P	**P**	**08 19 41.3**	**-1.0**
	4.9nm,0.3s,baz=290,slow=18,SNR=27						
CMAR				S	**S**	**08 20 22.2**	**-0.7**
	7.4nm,0.3s,baz=289,slow=32,SNR=6.9						
CHRT	**Chiangrai**	**4.02**	**88**	PG	**P**	**08 19 51.0**	**+1.5**
CHRT				SG	**S**	**08 20 36.0**	**+0.3**
NANT	**Nan**	**5.00**	**101**	⇑P	**P**	**08 20 11.0**	**+7.9**
	238nm,0.0s						
IMP	**Imphal**	**5.17**	**344**	*e*	**P**	**08 20 04.9**	**-0.4**
NST	**Nakhon Sawan**	**6.02**	**132**	P	**P**	**08 20 22.0**	**+4.9**
SHL	**Shillong**	**6.64**	**330**	*e*	**S**	**08 21 41.0**	**+0.3**
SONM	**Songino Array**	**29.32**	**15**	P	**P**	**08 24 45.9**	**-0.7**
	0.6nm,0.4s,mb3.5,baz=190,slow=8.8,SNR=3.3						
ZAL	**Zalesovo**	**35.05**	**349**	P	**P**	**08 25 35.9**	**-0.5**
	2.0nm,1.0s,mb3.9,baz=201,slow=10,SNR=6.7						
BVAR	**Borovoye Array**	**38.43**	**336**	P	**P**	**08 26 04.3**	**-0.4**
	0.9nm,0.6s,mb3.8,baz=153,slow=6.4,SNR=4.3						
AKASG	**Malin Array Be**	**59.95**	**318**	P	**P**	**08 28 47.6**	**-2.0**
	1.9nm,0.8s,mb4.2,baz=74,slow=6.0,SNR=5.6						
FINES	**FINESS Array B**	**62.98**	**330**	P	**P**	**08 29 09.4**	**-0.5**
	1.7nm,0.8s,mb4.0,baz=101,slow=9.7,SNR=5.1						
GERES	**GERESS Array B**	**70.03**	**316**	P	**P**	**08 29 55.9**	**+1.2**
	1.5nm,0.6s,mb4.0,baz=90,slow=6.7,SNR=12						
NOA	**NORSAR Array B**	**70.14**	**329**	P	**P**	**08 29 54.9**	**-0.2**
	0.7nm,0.6s,mb3.7,baz=86,slow=5.8,SNR=3.4						
DAVOX	**Davos**	**72.91**	**314**	P	**P**	**08 30 12.9**	**+1.1**
	1.9nm,0.7s,mb4.1,baz=345,slow=21,SNR=3.1						
EKA	**Eskdalemuir Ar**	**78.74**	**325**	P	**P**	**08 30 46.0**	**+1.3**
	4.9nm,1.1s,mb4.2,baz=68,slow=4.5,SNR=3.6						
ILAR	**Eielson Array**	**83.26**	**22**	P	**P**	**08 31 07.8**	**-0.5**
	0.6nm,0.8s,mb3.5,baz=302,slow=4.9,SNR=11						
INK	**Inuvik**	**85.23**	**16**	P	**P**	**08 31 18.3**	**+0.3**
	1.5nm,1.0s,mb3.9,baz=345,slow=5.4,SNR=3.2						

IDC 29 08:23:10.2±5.2**,6.62N×92.27E,mb3.7**/3**,mb1 4.1**/4**, mb1mx3.7**/18**,mbtmp3.8**/4**,ML4.2**/1**,Error ellipse: s-maj=150.1km s-min=29.0km az=76.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.44**	**28**	Pn	P	08 26 24.0	-0.8
	0.4nm,0.3s,baz=229,slow=14,SNR=12						
SONM	**Songino Array**	**42.80**	**14**	P	P	08 31 09.4	-2.0
	0.6nm,0.6s,baz=202,slow=7.8,SNR=3.0						
WRA	**Warramunga Arr**	**49.08**	**123**	P	P	08 31 58.7	-2.9
	1.0nm,0.7s,baz=304,slow=9.1,SNR=5.4						
ASAR	**Alice Springs**	**50.57**	**128**	P	P	08 32 11.8	-1.1
	1.2nm,0.7s,baz=307,slow=7.7,SNR=6.7						

IDC 29 08:23:20.5±2.4**,6.55N×92.01E,mb3.9**/4**,mb1 4.1**/5**, mb1mx3.8**/19**,mbtmp3.9**/5**,ML4.5**/1**,Error ellipse: s-maj=77.6km s-min=25.4km az=65.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.63**	**29**	Pn	P	08 26 35.1	-2.7
	0.8nm,0.3s,baz=230,slow=15,SNR=12						
SONM	**Songino Array**	**42.93**	**14**	P	P	08 31 20.4	-2.4
	1.1nm,0.6s,baz=198,slow=7.8,SNR=5.3						
WRA	**Warramunga Arr**	**49.27**	**123**	P	P	08 32 11.1	-2.3
	2.1nm,0.9s,baz=308,slow=8.6,SNR=6.5						
BVAR	**Borovoye Array**	**49.59**	**343**	P	P	08 32 14.6	-0.8
	0.5nm,0.7s,baz=72,slow=4.7,SNR=3.9						
ASAR	**Alice Springs**	**50.74**	**128**	P	P	08 32 22.5	-2.1
	1.6nm,0.9s,baz=300,slow=7.9,SNR=5.8						

IDC 29 08:35:04.7±2.5**,4.06N×94.15E,mb3.7**/4**,mb1 4.0**/5**, mb1mx3.7**/19**,mbtmp3.7**/5**,ML4.2**/1**,Error ellipse: s-maj=105.2km s-min=24.1km az=59.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.06**	**18**	Pn	P	08 38 40.0	-0.6
	0.3nm,0.3s,baz=211,slow=11,SNR=8.5						
WRA	**Warramunga Arr**	**46.13**	**123**	P	P	08 43 30.7	-2.2
	0.4nm,0.5s,baz=302,slow=9.2,SNR=4.6						
ASAR	**Alice Springs**	**47.54**	**127**	P	P	08 43 42.5	-1.6
	0.5nm,0.6s,baz=300,slow=7.2,SNR=6.5						
ZAL	**Zalesovo**	**50.30**	**353**	P	P	08 44 01.8	-3.2
	1.1nm,0.8s,baz=246,slow=4.7,SNR=6.0						
BVAR	**Borovoye Array**	**52.59**	**342**	P	P	08 44 20.8	-1.5
	0.9nm,0.7s,baz=135,slow=8.2,SNR=5.4						

MAN 29 08:37:20.5,17.60N×121.81E,h9^{km}**,mb3.7,ML2.5,MS2.0, 1D,Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CVP	**Callao Caves**	**0.10**	**8**	⇓*i*P	Pg	08 37 24.0	+0.9
CVP				*i* S	Sg	08 37 31.0	+6.1
APYP	**Conner**	**0.60**	**296**	*e*P	Pg	08 37 32.0	-0.5
APYP				*e*S	Sg	08 37 45.8	+5.2
CAUP	**Cauayan**	**0.65**	**179**	*e*P	Pb	08 37 33.9	+0.3
ABRA	**Dolores**	**1.04**	**273**	*e*P	Pb	08 37 40.4	0.0

IDC 29 08:49:06.0±25.0**,29.92S×179.76E,h642**^{km}±251^{km}**, mb2.8**/4**,mb1 2.9**/4**,mb1mx2.8**/12**,mbtmp3.9**/4**,Error ellipse: s-maj=198.9km s-min=99.9km az=94.0, Kermadec Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**31.81**	**280**	P	P	08 54 41.0	-1.4
	2.1nm,0.5s,baz=98,slow=8.8,SNR=6.5						
STKA	**Stephens Creek**	**32.70**	**257**	P	P	08 54 48.4	-1.4
	0.5nm,0.3s,baz=83,slow=8.1,SNR=4.6						
ASAR	**Alice Springs**	**41.20**	**267**	P	P	08 55 57.5	-1.5
	0.7nm,0.4s,baz=106,slow=7.1,SNR=12						
WRA	**Warramunga Arr**	**42.14**	**273**	P	P	08 56 05.3	-1.2
	0.7nm,0.5s,baz=110,slow=8.2,SNR=9.3						
FINES	**FINESS Array B**	**144.02**	**339**	PKP	PKPdf	09 07 28.7	-0.5
	1.6nm,0.4s,baz=45,slow=3.9,SNR=16						

*MOS **29** 08:49:16.3±1.5, 5.99N×95.08E, h33^{km}, mb5.0/10, Error ellipse: s-maj=20.7km s-min=9.5km az=105.4*

*IDC **29** 08:49:21.2±5.1, 6.02N×95.10E, h64^{km}±44^{km}, mb4.2/17, mb1 4.3/18, mb1mx4.2/23, mbtmp4.5/18, ML5.1/1, MS4.4/15, Ms1 4.4/15, ms1mx4.2/31, Error ellipse: s-maj=31.9km s-min=11.6km az=48.0*

ISC 29 08:49:16.3±0.4**,6.00N**±0.07×**95.25E**±0.08**,h33**^{km}**,n78, σ1^{s}14**/70**,mb4.7**/30**,MS4.5**/14**,2C-2D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.90**	**16**	P	**P**	**08 52 23.4**	**+3.3**
	3.2nm,0.3s,baz=209,slow=15,SNR=35						
CMAR				Lg		08 56 09.3	
	0.3nm,0.3s,baz=201,slow=32,SNR=5.5						
CMAR				LR	LR	08 57 46.9	
	comp=Z,619nm,18.0s,baz=97,slow=39						
IMP	**Imphal**	**18.72**	**356**	*e*P	**P**	**08 53 35.5**	**+0.8**
SHL	**Shillong**	**19.72**	**351**	*e*P	**P**	**08 53 44.5**	**-1.5**
HYB	**Hyderabad**	**19.88**	**306**	*e*P	**P**	**08 53 48.5**	**+0.8**
PKI	**Pulchoki**	**23.40**	**338**	*e*P	**P**	**08 54 23.2**	**-0.1**
GUN	**Gumba**	**23.54**	**339**	*e*P	**P**	**08 54 24.8**	**+0.2**
DMN	**Daman**	**23.55**	**337**	*e*P	**P**	**08 54 24.8**	**0.0**
KKN	**Kakani**	**23.65**	**338**	*e*P	**P**	**08 54 25.4**	**-0.3**
	39nm,1.1s,mb4.8						
GKN	**Gorkha**	**24.09**	**336**	*e*P	**P**	**08 54 29.8**	**-0.2**
POO	**Poona**	**24.30**	**303**	*e*P	**P**	**08 54 35.0**	**+2.9**
KOLN	**Koldanda**	**24.31**	**334**	*e*P	**P**	**08 54 32.4**	**+0.2**
	74nm,0.8s,mb5.2						
DDI	**Dehra Dun**	**29.10**	**328**	*e*	**P**	**08 55 20.6**	**+4.3**
UCH	**Uchtor**	**40.50**	**336**	P	**P**	**08 56 54.9**	**+1.0**
	SNR=13						
TKM2	**Tokmak 2**	**40.67**	**338**	P	**P**	**08 56 56.1**	**+0.9**
	SNR=6.7						
KBK	**Karagaybulak**	**40.69**	**337**	P	**P**	**08 56 56.1**	**+0.7**
	SNR=10						
AML	**Almayashu**	**40.76**	**335**	P	**P**	**08 56 57.1**	**+1.1**
	SNR=23						
AAK	**Ala-Archa**	**40.85**	**336**	P	**P**	**08 56 58.1**	**+1.4**
	SNR=8.1						
AAK	**Ala-Archa**	**40.85**	**336**	*c i*P	**P**	**08 56 56.2**	**-0.5**
AAK				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.6						
FRU	**Bishkek**	**40.97**	**337**	*e*P	**P**	**08 56 59.5**	**+1.8**
EKS2	**Erkin-Say**	**41.16**	**336**	P	**P**	**08 57 00.4**	**+1.1**
	SNR=9.4						
USP	**Ospenovka**	**41.38**	**337**	P	**P**	**08 57 01.5**	**+0.4**
	SNR=12						
SONM	**Songino Array**	**42.76**	**11**	P	**P**	**08 57 12.6**	**+0.3**
	comp=Z,1.8nm,0.8s,mb3.9,baz=190,slow=7.5,SNR=7.3						
SONM				PcP	PcP	08 59 03.1	-0.9
	comp=Z,1.8nm,0.8s,baz=207,slow=9.9,SNR=2.3						
ULN	**Ulaanbaatar**	**42.92**	**12**	*i* P	**P**	**08 57 13.3**	**-0.4**
ZAK	**Zakamensk**	**44.74**	**7**	*e*P	**P**	**08 57 29.0**	**+0.7**
TLY	**Talaya**	**46.06**	**7**	*i* P	**P**	**08 57 38.9**	**0.0**
WRA	**Warramunga Arr**	**46.29**	**125**	P	**P**	**08 57 41.5**	**+0.4**
	comp=Z,25nm,1.2s,mb5.0,baz=304,slow=8.8,SNR=34						
WRAB	**Tennant Creek**	**46.30**	**125**	*i* P	**P**	**08 57 42.1**	**+1.0**
HIA	**Hailar**	**47.83**	**21**	*i* P	**P**	**08 57 53.8**	**+1.0**
ASAR	**Alice Springs**	**47.88**	**129**	P	**P**	**08 57 54.2**	**+0.7**
	comp=Z,6.9nm,0.7s,mb4.8,baz=303,slow=7.1,SNR=45						
ASAR				LR	LR	09 18 58.0	
	comp=Z,391nm,20.6s,MS4.4,baz=22,slow=37						
ZAL	**Zalesovo**	**48.54**	**352**	P	**P**	**08 57 57.6**	**-0.6**
	comp=Z,6.3nm,0.9s,mb4.6,baz=211,slow=7.5,SNR=12						
NVS	**Novosibirsk**	**49.65**	**351**	*e*P	**P**	**08 58 05.5**	**-1.3**
NVS				*i* S	**S**	**09 05 13.2**	**+1.4**
NVS				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
NVS				pmax	pmax		
	comp=N,5.0nm,0.7s						
NVS				pmax	pmax		
	comp=E,2.0nm,0.7s						
NVS				smax			
	comp=N,11nm,1.9s						
NVS				smax			
	comp=E,20nm,1.8s						
BVAR	**Borovoye Array**	**51.11**	**341**	P	**P**	**08 58 16.4**	**-1.4**
	comp=E,7.1nm,1.0s,mb4.6,baz=141,slow=9.5,SNR=12						
KLR	**Kul'dur**	**52.95**	**29**	*e*P	**P**	**08 58 31.0**	**-0.8**
BOD	**Bodaibo**	**53.72**	**12**	*e*P	**P**	**08 58 35.6**	**-1.7**
CTA	**Charters Tower**	**56.44**	**119**	P	**P**	**08 58 56.4**	**-1.2**
	comp=E,3.2nm,0.9s,mb4.3,baz=329,slow=8.0,SNR=2.0						
CTA				LR	LR	09 24 19.7	
	comp=E,370nm,18.9s,MS4.5,baz=262,slow=37						
GNI	**Garni**	**56.52**	**315**	*i* P	**P**	**08 58 57.1**	**-0.8**
GNI	**Garni**	**56.52**	**315**	P	**P**	**08 58 57.1**	**-0.9**
	comp=E,1.6nm,0.3s,mb4.5,baz=175,slow=12,SNR=2.1						
SVE	**Sverdlovsk**	**57.54**	**338**	⇓*e*P	**P**	**08 59 05.0**	**+0.1**
SVE				*e*		08 59 13.0	
SVE				pmax	pmax		
	comp=Z,50nm,1.6s,mb5.3						
STKA	**Stephens Creek**	**58.03**	**133**	P	**P**	**08 59 09.4**	**+0.8**
	comp=Z,8.9nm,0.7s,mb4.9,baz=314,slow=4.9,SNR=20						
ARU	**Arti**	**58.03**	**337**	⇓*i*P	**P**	**08 59 07.4**	**-0.9**
ARU				*e*		08 59 52.1	
ARU				*e*S	**S**	**09 07 07.8**	**+2.9**
ARU				*e*		09 08 54.9	
ARU				*e*SS	SS	09 10 59.6	+1.8
ARU				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
ZEI	**Tsey**	**58.15**	**317**	*e*P	**P**	**08 59 11.5**	**+2.1**
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
KMBO	**Kilima Mbogo**	**58.33**	**265**	P	**P**	**08 59 12.9**	**+1.9**
	comp=Z,3.4nm,0.8s,mb4.5,baz=58,slow=19,SNR=7.7						
KMBO				LR	LR	09 19 36.3	
	comp=Z,319nm,21.9s,MS4.4,baz=274,slow=31						
KIV	**Kislovodsk**	**59.44**	**318**	*e*P	**P**	**08 59 17.4**	**-0.9**
KIV				pmax	pmax		
	comp=N,11nm,1.0s						
KIV				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KIV				pmax	pmax		
	comp=E,6.0nm,0.8s						
ASF	**Jabal al Asfar**	**60.16**	**304**	P	**P**	**08 59 21.2**	**-2.2**
	comp=E,1.2nm,0.3s,mb4.3,baz=263,slow=4.0,SNR=2.3						
ASF				LR	LR	09 27 26.5	
	comp=E,178nm,18.5s,MS4.2,baz=74,slow=38						
EIL	**Elat**	**61.31**	**300**	LR	LR	09 27 31.0	
	comp=E,227nm,18.8s,MS4.3,baz=201,slow=37						
YAK	**Yakutsk**	**61.42**	**18**	*i* P	**P**	**08 59 31.5**	**-0.1**
BRTR	**Keskin Array B**	**64.48**	**311**	P	**P**	**08 59 50.5**	**-1.6**
	comp=E,4.9nm,0.8s,mb4.6,baz=118,slow=7.4,SNR=11						
MOS	**Moscow**	**67.24**	**329**	*e*P	**P**	**09 00 05.9**	**-3.5**
MOS				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.5						
OBN	**Obninsk**	**67.54**	**328**	*e*P	**P**	**09 00 07.9**	**-3.4**
OBN				*e*	pP	09 00 18.0	-3.7
OBN				S	S	09 09 02.0	-2.1
OBN				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb5.0						
MA2	**Magadan**	**67.92**	**27**	*i* P	**P**	**09 00 16.9**	**+3.3**
TIXI	**Tiksi**	**68.85**	**11**	*i* P	**P**	**09 00 18.6**	**-0.7**
AKASG	**Malin Array Be**	**70.30**	**322**	P	**P**	**09 00 26.6**	**-1.8**
	comp=Z,5.2nm,0.8s,mb4.5,baz=89,slow=4.7,SNR=14						
IDI	**Anoyia**	**70.53**	**305**	P	**P**	**09 00 28.3**	**-1.9**
	comp=Z,8.5nm,0.8s,mb4.8,baz=298,slow=22,SNR=2.7						
IDI				LR	LR	09 34 45.1	
	comp=Z,181nm,18.9s,MS4.3,baz=58,slow=39						
VRI	**Vrincioaia**	**70.81**	**316**	⇑*i*P	**P**	**09 00 31.9**	**+0.3**
FINES	**FINESS Array B**	**74.87**	**332**	*i* P	**P**	**09 00 54.7**	**-0.5**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.4s						
FINES	**FINESS Array B**	**74.87**	**332**	P	**P**	**09 00 54.7**	**-0.6**
	comp=Z,2.7nm,0.4s,mb4.5,baz=104,slow=6.6,SNR=34						
KAF	**Kangasniemi**	**74.95**	**333**	*e*p	**P**	**09 00 54.2**	**-1.5**
	comp=Z,8.6nm,1.0s,mb4.6						
KAF	**Kangasniemi**	**74.95**	**333**	*e*P	**P**	**09 00 54.2**	**-1.5**
KAF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
NIE	**Niedzica**	**75.67**	**319**	*e*P	**P**	**09 01 01.0**	**+0.9**
OJC	**Ojcow**	**76.11**	**320**	*e*P	**P**	**09 01 02.4**	**-0.1**
ARCES	**ARCESS Array B**	**77.39**	**340**	P	**P**	**09 01 08.0**	**-1.5**
	comp=Z,4.0nm,0.8s,mb4.4,baz=59,slow=7.1,SNR=5.9						
ARCES				LR	LR	09 40 03.3	
	comp=Z,290nm,20.2s,MS4.6,baz=3.7,slow=39						
DPC	**Dobruska-Polom**	**78.34**	**320**	*e*P	**P**	**09 01 15.9**	**+0.9**
BRG	**Berggiesshubel**	**79.89**	**320**	*e*P	**P**	**09 01 23.6**	**+0.2**
BRG				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
GERES	**GERESS Array B**	**79.95**	**318**	P	**P**	**09 01 24.1**	**+0.3**
	comp=Z,5.1nm,0.8s,mb4.5,baz=76,slow=5.5,SNR=19						
GERES				LR	LR	09 42 22.8	
	comp=Z,197nm,19.7s,MS4.5,baz=61,slow=40						
KHC	**Kasperske Hory**	**80.04**	**319**	*i* P	**P**	**09 01 23.8**	**-0.5**
KHC	**Kasperske Hory**	**80.04**	**319**	*e*P	**P**	**09 01 26.0**	**+1.7**
KHC				*e*x	x	09 01 46.5	
HFS	**Hagfors**	**80.62**	**330**	P	**P**	**09 01 26.4**	**-0.7**
	comp=Z,3.0nm,0.5s,mb4.5,baz=117,slow=6.4,SNR=20						
HFS				LR	LR	09 42 27.6	
	comp=Z,629nm,21.2s,MS4.9,baz=86,slow=40						
NB2	**NORSAR Subarra**	**81.89**	**331**	P	**P**	**09 01 32.8**	**-0.9**
	comp=Z,2.0nm,0.8s,mb4.1,baz=93,slow=5.6						
NOA	**NORSAR Array B**	**81.89**	**331**	P	**P**	**09 01 33.5**	**-0.2**
	comp=Z,5.5nm,1.0s,mb4.5,baz=92,slow=5.5,SNR=5.5						
NOA				LR	LR	09 39 39.1	
	comp=Z,211nm,21.4s,MS4.5,baz=65,slow=37						
RPZ	**Rata Peaks**	**83.95**	**135**	LR	LR	09 37 26.8	
	comp=Z,387nm,20.0s,MS4.8,baz=196,slow=34						
JMIC	**Jan Mayen**	**88.82**	**341**	LR	LR	09 46 47.4	
	comp=Z,269nm,19.3s,MS4.7,baz=91,slow=39						
VNDA	**Vanda**	**90.88**	**168**	LR	LR	09 38 53.6	
	comp=Z,165nm,18.4s,MS4.5,baz=280,slow=33						
DBIC	**Dimbokro**	**99.28**	**278**	LR	LR	09 43 24.7	
	comp=Z,179nm,19.0s,MS4.6,baz=13,slow=33						
NVAR	**Mina Array Bea**	**125.93**	**32**	PKP	PKPdf	09 08 18.1	+2.6
	comp=Z,0.3nm,0.5s,baz=270,slow=1.8,SNR=2.8						
PDAR	**Pinedale Array**	**126.48**	**23**	PKP	PKPdf	09 08 17.0	+0.4
	comp=Z,0.7nm,1.0s,baz=180,slow=0.9,SNR=3.4						
TXAR	**Lajitas Array**	**140.44**	**26**	PKP	PKPdf	09 08 45.0	+2.0
	comp=Z,0.6nm,0.6s,baz=198,slow=0.6,SNR=8.5						
BDFB	**Brasilia**	**142.72**	**252**	PKP	PKPdf	09 08 45.8	-1.5
	comp=Z,1.0nm,0.5s,baz=97,slow=7.4,SNR=4.0						
LPAZ	**La Paz**	**160.77**	**237**	PKPab	PKPab	09 09 58.7	+0.5
	comp=Z,0.8nm,0.6s,baz=182,slow=5.2,SNR=5.2						

*TAP **29** 08:50:06.1, 24.11N×122.31E, h25^{km}±1^{km}, ML3.1*

JMA 29 08:50:05.2±0.3**,24.93N×122.44E,h30**^{km}**,M2.3,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.70**	**132**	P	Pb	08 50 18.5	-0.3
YOJ				*e*S	Sb	08 50 27.9	-0.3
IRIF	**Iriomote-Funau**	**1.31**	**117**	P	Pn	08 50 27.7	-0.1
IRIF				*e*S	Sn	08 50 45.0	+0.5
JKRS	**Kuro-shima**	**1.59**	**115**	P	Pn	08 50 32.6	+0.9
JKRS				*e*S	Sn	08 50 52.2	+0.8
JIJ	**Ishigaki jima**	**1.65**	**110**	P	Pn	08 50 32.7	+0.1
JIJ				*e*S	Sn	08 50 53.7	+0.7

IDC 29 08:57:19.5±1.6**,7.23N×92.19E,mb3.9**/3**,mb1 4.2**/4**, mb1mx3.7**/18**,mbtmp3.9**/4**,ML3.9**/1**,Error ellipse: s-maj=63.5km s-min=29.5km az=49.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.95**	**30**	Pn	P	09 00 25.0	-2.7
	0.2nm,0.3s,baz=229,slow=17,SNR=5.3						
WRA	**Warramunga Arr**	**49.48**	**124**	P	P	09 06 11.3	-2.6
	3.0nm,1.0s,baz=299,slow=8.6,SNR=7.8						
ASAR	**Alice Springs**	**51.01**	**128**	P	P	09 06 24.1	-1.5
	1.1nm,0.7s,baz=302,slow=7.8,SNR=10.0						
GERES	**GERESS Array B**	**77.02**	**318**	P	P	09 09 14.5	-1.5
	0.9nm,0.9s,baz=104,slow=5.5,SNR=4.8						

*JMA **29** 09:00:48.2±0.2, 28.95N×130.61E, h64^{km}, M3.4*

*IDC **29** 09:01:06.0±2.0, 27.95N×128.69E, h151^{km}±18^{km}, mb3.3/4, mb1 3.4/4, mb1mx3.1/22, mbtmp3.7/4, Error ellipse: s-maj=51.7km s-min=27.4km az=70.0*

ISC 29 09:00:47.0±1.5**,28.86N**±0.08×**130.8E**±0.2**,h42**^{km}±14^{km}**, n12,σ0^{s}90**/14**,mb3.8**/3**,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JZK	**Kikaishima**	**0.90**	**233**	*e*S	**S**	**09 01 16.9**	**+1.6**
JAM	**Amami Oshima**	**1.13**	**247**	P	**P**	**09 01 06.9**	**+0.3**
JAM				*e*S	**S**	**09 01 21.1**	**-0.1**
JNN	**Nakanoshima**	**1.26**	**321**	P	**P**	**09 01 07.8**	**-0.7**
JTN	**Tanegashima 3**	**1.80**	**5**	P	**P**	**09 01 16.2**	**0.0**
JTN				*e*S	**S**	**09 01 37.5**	**-0.4**
JTK	**Tokunoshima**	**1.94**	**237**	P	**P**	**09 01 18.7**	**+0.5**
JNAR	**Kushima--Naru**	**2.69**	**9**	P	**P**	**09 01 29.4**	**+0.5**
JOW	**Kunigami**	**3.00**	**228**	P	**P**	**09 01 33.2**	**-0.1**
JOW				*e*S	**S**	**09 02 06.7**	**-1.8**
JOW	**Kunigami**	**3.00**	**228**	P	**P**	**09 01 32.5**	**-0.9**
	5.1nm,0.3s,baz=114,slow=17,SNR=4.1						
BVAR	**Borovoye Array**	**49.88**	**317**	P	**P**	**09 09 37.6**	**-0.5**
	1.2nm,0.7s,mb4.0,baz=101,slow=11,SNR=4.3						
ASAR	**Alice Springs**	**52.30**	**176**	P	**P**	**09 09 56.2**	**-0.6**
	0.5nm,0.9s,mb3.4,baz=351,slow=5.8,SNR=4.7						
YKA	**Yellowknife Ar**	**75.19**	**26**	P	pP	09 12 40.8	+2.0
	0.2nm,0.6s,baz=302,slow=5.9,SNR=4.2						
BRTR	**Keskin Array B**	**77.21**	**308**	P	**P**	**09 12 40.1**	**+1.8**
	1.6nm,0.9s,mb3.9,baz=76,slow=5.1,SNR=4.1						

IDC 29 09:05:09.7±2.9**,8.69N×90.98E,mb3.9**/3**,mb1 4.2**/4**, mb1mx3.8**/18**,mbtmp3.9**/4**,ML4.3**/1**,Error ellipse: s-maj=80.2km s-min=31.4km az=69.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.41**	**38**	Pn	P	09 08 09.8	-0.8
	0.6nm,0.3s,baz=231,slow=14,SNR=24						
SONM	**Songino Array**	**41.14**	**16**	P	P	09 12 54.2	-3.0
	2.8nm,1.1s,baz=203,slow=9.4,SNR=7.2						
ZAL	**Zalesovo**	**45.40**	**355**	P	P	09 13 30.7	-1.0
	1.6nm,0.4s,baz=79,slow=5.2,SNR=4.0						
WRA	**Warramunga Arr**	**51.29**	**124**	P	P	09 14 16.0	-1.9
	0.9nm,0.8s,baz=304,slow=8.8,SNR=5.7						

*IDC **29** 09:10:03.8±0.5, 2.94N×95.94E, mb4.6/20, mb1 4.7/21, mb1mx4.6/24, mbtmp4.6/21, ML4.7/1, Error ellipse: s-maj=28.5km s-min=12.2km az=44.0*

*MOS **29** 09:10:07.5±0.9, 3.08N×96.17E, h33^{km}, mb5.1/12, Error ellipse: s-maj=24.8km s-min=10.4km az=104.6*

ISC 29 09:10:07.1±0.4**,2.93N**±0.07×**96.08E**±0.08**,h33**^{km}**,n76, σ0^{s}93**/70**,mb4.8**/40**,2C-1D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KKTK	**Khon Kaen**	**14.88**	**26**	P	**P**	**09 13 44.0**	**+7.0**
	2μm,0.8s						
CMAR	**Chiang Mai Arr**	**15.68**	**10**	Pn	**P**	**09 13 47.7**	**+0.3**
	1.1nm,0.3s,baz=202,slow=11,SNR=23						
NANT	**Nan**	**16.41**	**16**	P	**P**	**09 13 57.5**	**+0.9**
SHL	**Shillong**	**22.87**	**350**	*e*P	**P**	**09 15 06.5**	**-2.4**
SHL				*e*S	**S**	**09 19 11.5**	**-0.3**
	57nm,0.8s						
PKI	**Pulchoki**	**26.54**	**338**	*e*P	**P**	**09 15 44.1**	**+0.1**
	24nm,0.6s,mb4.9						
GUN	**Gumba**	**26.68**	**340**	*e*P	**P**	**09 15 45.0**	**-0.3**
	110nm,0.8s,mb5.4						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DMN	Daman	26.69	338	*e*P	P	09 15 45.8	+0.4
	45nm,0.7s,mb5.1						
KKN	Kakani	26.79	338	*e*P	P	09 15 46.5	+0.2
	111nm,0.9s,mb5.4						
GKN	Gorkha	27.22	337	*e*P	P	09 15 50.2	-0.1
	134nm,0.7s,mb5.6						
KOLN	Koldanda	27.43	335	*e*P	P	09 15 52.3	+0.2
	150nm,0.8s,mb5.6						
UCH	Uchtor	43.63	337	P	P	09 18 11.6	+1.3
	SNR=29						
TKM2	Tokmak 2	43.81	338	P	P	09 18 12.7	+0.9
	SNR=12						
KBK	Karagaybulak	43.82	337	P	P	09 18 13.4	+1.5
	SNR=18						
AML	Almayashu	43.88	336	P	P	09 18 13.6	+1.2
	SNR=14						
WRA	Warramunga Arr	43.90	123	P	P	09 18 13.2	+0.4
	15nm,0.7s,mb4.8,baz=300,slow=9.3,SNR=54						
WRAB	Tennant Creek	43.90	123	*i* P	P	09 18 13.3	+0.5
AAK	Ala-Archa	43.98	337	P	P	09 18 15.5	+2.4
	SNR=9.1						
AAK	Ala-Archa	43.98	337	*i* P	P	09 18 13.5	+0.4
AAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
CHMS	Chumysh	44.19	337	P	P	09 18 15.6	+0.8
	SNR=6.5						
EKS2	Erkin-Say	44.29	336	P	P	09 18 16.7	+1.1
	SNR=9.8						
USP	Ospenovka	44.52	337	P	P	09 18 18.2	+0.8
	SNR=5.1						
MKAR	Makanchi Array	45.31	347	*i* P	P	09 18 23.6	-0.1
MKAR				pmax	pmax		
	comp=Z,32nm,0.6s						
ASAR	Alice Springs	45.33	128	P	P	09 18 24.6	+0.5
	comp=Z,6.4nm,0.6s,mb4.6,baz=300,slow=7.9,SNR=77						
ASAR				PcP	PcP	09 20 03.8	-0.1
	comp=Z,2.8nm,0.7s,baz=310,slow=3.8,SNR=7.8						
SONM	Songino Array	45.61	10	P	P	09 18 26.5	+0.3
	comp=Z,38nm,0.8s,mb5.4,baz=189,slow=8.2,SNR=142						
SONM				PcP	PcP	09 20 04.5	-0.1
	comp=Z,5.0nm,0.7s,baz=191,slow=3.3,SNR=7.3						
ULN	Ulaanbaatar	45.75	10	*i* P	P	09 18 27.3	0.0
ZAK	Zakamensk	47.67	6	⇑*i*P	P	09 18 42.6	+0.3
MOY	Mondy	48.74	4	*e*P	P	09 18 50.9	+0.3
TLY	Talaya	48.99	6	*i* P	P	09 18 53.4	+0.9
ZAL	Zalesovo	51.68	352	P	P	09 19 12.6	-0.4
	comp=Z,17nm,0.7s,mb5.1,baz=210,slow=7.0,SNR=57						
PMG	Port Moresby	52.34	104	P	P	09 19 19.1	+0.6
	comp=Z,15nm,0.8s,mb5.0,baz=338,slow=5.4,SNR=6.5						
NVS	Novosibirsk	52.80	351	*i* P	P	09 19 19.4	-1.9
NVS				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
NVS				pmax	pmax		
	comp=E,4.0nm,0.5s						
NVS				pmax	pmax		
	comp=N,14nm,0.9s						
BVAR	Borovoye Array	54.26	341	P	P	09 19 31.3	-0.8
	comp=N,14nm,0.8s,mb4.9,baz=143,slow=7.4,SNR=36						
CTA	Charters Tower	54.27	117	P	P	09 19 33.1	+0.4
	comp=N,8.2nm,0.7s,mb4.8,baz=298,slow=6.7,SNR=14						
BRVK	Borovoye	54.32	341	P	P	09 19 31.5	-1.1
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
CHKZ	Chkalovo	54.74	342	*i* P	P	09 19 34.8	-0.9
CHKZ				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.1						
KLR	Kul’dur	55.23	28	*e*P	P	09 19 36.8	-2.5
STKA	Stephens Creek	55.34	132	P	P	09 19 40.6	+0.3
	comp=Z,5.5nm,0.7s,mb4.7,baz=315,slow=8.1,SNR=16						
BOD	Bodaibo	56.53	11	*e*P	P	09 19 47.4	-1.1
KMBO	Kilima Mbogo	58.95	267	*i* P	P	09 20 13.1	+7.0
KMBO				pmax	pmax		
	comp=Z,2.0nm,1.0s						
KMBO	Kilima Mbogo	58.95	267	P	P	09 20 06.2	0.0
	comp=Z,0.9nm,0.6s,mb4.0,baz=49,slow=14,SNR=4.1						
GNI	Garni	59.28	316	P	P	09 20 12.0	+3.9
	comp=Z,2.2nm,0.4s,mb4.5,baz=144,slow=9.2,SNR=4.0						
ZEI	Tsey	60.97	318	*e*P	P	09 20 21.2	+1.6
ZEI				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.6						
ARU	Arti	61.17	337	⇓*i*P	P	09 20 19.6	-1.1
ARU				*e*		09 21 00.8	
ARU				*e*		09 22 32.3	
ARU				*e*PPP	PPP	09 23 59.2	-6.6
ARU				*e*S	S	09 28 38.6	+2.4
ARU				*e*SS	SS	09 32 40.5	+2.7
ARU				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb5.0						
KIV	Kislovodsk	62.28	319	*e*P	P	09 20 27.3	-1.0
KIV				pmax	pmax		
	comp=N,8.0nm,1.1s						
KIV				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.9						
EIL	Elat	63.60	302	P	P	09 20 36.5	-0.9
	comp=Z,8.2nm,1.1s,mb4.7,baz=54,slow=8.7,SNR=4.1						
YAK	Yakutsk	64.09	17	*c* *i*P	P	09 20 39.1	-0.9
YAK				pmax	pmax		
	comp=Z,52nm,0.8s,mb5.6						
BRTR	Keskin Array B	67.13	312	P	P	09 20 57.3	-2.5
	comp=Z,1.8nm,0.9s,mb4.1,baz=135,slow=5.2,SNR=6.4						
MA2	Magadan	70.27	26	*i* P	P	09 21 19.2	+0.3
MA2				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
OBN	Obninsk	70.57	328	*e*P	P	09 21 20.3	-0.5
OBN				*e*	pP	09 21 29.0	-2.1
OBN				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb5.0						
TIXI	Tiksi	71.69	10	*i* P	P	09 21 26.7	-0.6
TIXI				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
AKASG	Malin Array Be	73.22	322	P	P	09 21 35.6	-1.1
	comp=Z,4.2nm,0.7s,mb4.5,baz=90,slow=4.8,SNR=16						
MLR	Muntele Rosu	74.05	317	P	P	09 21 41.2	-0.4
	comp=Z,4.4nm,0.8s,mb4.4,baz=152,slow=4.6,SNR=8.1						
KWP	Kalwaria	77.03	320	*e*P	P	09 21 59.1	+0.5
KOLS	Kolonicke sedl	77.19	319	*e*P	P	09 22 00.6	+1.1
SUW	Suwalki	77.63	325	*e*P	P	09 22 01.6	-0.2
FINES	FINESS Array B	77.96	333	*i* P	P	09 22 03.3	-0.2
FINES				pmax	pmax		
	comp=Z,5.0nm,0.6s						
FINES	FINESS Array B	77.96	333	P	P	09 22 03.3	-0.2
	comp=Z,5.0nm,0.6s,mb4.6,baz=104,slow=7.9,SNR=19						
KAF	Kangasniemi	78.05	333	*e*p	P	09 22 03.2	-0.7
	comp=Z,11nm,0.9s,mb4.8						
KAF	Kangasniemi	78.05	333	*e*P	P	09 22 03.2	-0.7
KAF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
OJC	Ojcow	78.99	321	*e*P	P	09 22 09.8	+0.4
ARCES	ARCESS Array B	80.54	340	P	P	09 22 17.9	+0.5
	comp=Z,7.6nm,0.7s,mb4.8,baz=92,slow=5.4,SNR=32						
GERES	GERESS Array B	82.79	319	P	P	09 22 29.5	+0.1
	comp=Z,2.4nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=13						
HFS	Hagfors	83.68	330	P	P	09 22 34.1	+0.4
	comp=Z,3.4nm,0.7s,mb4.6,baz=117,slow=3.3,SNR=6.2						
URZ	Urewera	84.76	129	P	P	09 22 38.5	-1.2
	comp=Z,9.3nm,0.8s,mb5.0,baz=88,slow=12,SNR=2.4						
NB2	NORSAR Subarra	84.96	331	P	P	09 22 40.3	+0.2
	comp=Z,5.2nm,1.1s,mb4.6,baz=91,slow=5.6						
NOA	NORSAR Array B	84.96	331	P	P	09 22 38.6	-1.5
	comp=Z,2.2nm,0.8s,mb4.3,baz=95,slow=4.9,SNR=5.1						
DAVOX	Davos	85.28	317	P	P	09 22 42.8	+0.8
	comp=Z,3.9nm,0.7s,mb4.7,baz=106,slow=9.1,SNR=6.5						
ILAR	Eielson Array	98.55	23	P	P	09 23 42.5	-0.9
	comp=Z,0.1nm,0.5s,mb3.6,baz=301,slow=4.2,SNR=5.2						
DBIC	Dimbokro	100.51	277	P	P	09 23 55.6	+2.1
	comp=Z,2.3nm,1.1s,baz=124,slow=3.0,SNR=3.1						
YKA	Yellowknife Ar	110.72	15	PP	PP	09 29 17.3	-0.7
	comp=Z,0.2nm,0.7s,baz=333,slow=6.1,SNR=4.3						
ULM	Lac du Bonnet	126.04	9	PKP	PKPdf	09 29 08.6	+2.3
	comp=Z,1.9nm,0.7s,baz=349,slow=1.2,SNR=4.4						
NVAR	Mina Array Bea	128.02	34	PKP	PKPdf	09 29 13.0	+2.6
	comp=Z,0.9nm,0.7s,baz=264,slow=1.6,SNR=6.0						
PDAR	Pinedale Array	128.95	24	PKP	PKPdf	09 29 13.8	+1.8
	comp=Z,0.5nm,0.7s,baz=146,slow=2.1,SNR=4.3						
TXAR	Lajitas Array	142.75	29	PKhKP		09 29 35.9	
	comp=Z,0.9nm,0.7s,baz=299,slow=1.1,SNR=8.4						
TXAR				PKP	PKPdf	09 29 40.4	+2.5
	comp=Z,0.9nm,0.6s,baz=198,slow=1.1,SNR=4.6						
TXAR				PP	PP	09 32 54.0	+3.6
	comp=Z,0.5nm,0.8s,baz=315,slow=1.8,SNR=3.8						
LPAZ	La Paz	159.57	228	PKP	PKPdf	09 30 05.2	+2.0
	comp=Z,0.8nm,0.7s,baz=90,slow=2.0,SNR=4.2						
ROSC	El Rosal	167.69	309	PKP	PKPdf	09 30 14.7	+3.8
	comp=Z,8.1nm,0.4s,baz=262,slow=14,SNR=6.4						

IDC 29 09:12:53.7±3.1, 52.17N×35.93E, mb3.3/1, mb1 3.7/4, mb1mx3.5/18, mbtmp3.6/4, ML3.3/4, Error ellipse: s-maj=43.8km s-min=14.2km az=131.0, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AKASG	Malin Array Be	4.45	253	Pn	Pn	09 14 00.7	-3.3
	1.1nm,0.3s,baz=56,slow=13,SNR=7.1						
AKASG				Pg	Pg	09 14 12.7	-10
	2.5nm,0.3s,baz=57,slow=16,SNR=14						
AKASG				Sn	Sn	09 14 50.9	-6.4
	2.4nm,0.3s,baz=64,slow=23,SNR=4.5						
AKASG				Lg		09 15 10.8	
	3.2nm,0.3s,baz=68,slow=30,SNR=6.0						
FINES	FINESS Array B	10.73	334	Pn	P	09 15 23.6	-8.1
	0.2nm,0.3s,baz=151,slow=12,SNR=5.4						
HFS	Hagfors	14.67	312	Pn	P	09 16 13.9	-10
	0.0nm,0.3s,baz=178,slow=40,SNR=3.8						
ARCES	ARCESS Array B	18.09	348	P	P	09 17 05.2	-2.5
	0.3nm,0.3s,baz=159,slow=10,SNR=6.6						
YKA	Yellowknife Ar	63.33	345	P	P	09 23 23.9	-2.2
	0.2nm,0.6s,baz=12,slow=6.4,SNR=5.9						

IDC 29 09:17:43.0±1.2, 8.37N×92.08E, mb3.9/6, mb1 4.1/7, mb1mx3.9/18, mbtmp3.9/7, ML4.3/1, Error ellipse: s-maj=51.0km s-min=21.0km az=58.0

ISC 29 09:17:46.3±1.0, 8.5N±0.1×92.3E±0.2, h33^{km}, n18, σ0^{s}65/14, mb3.9/7, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.88	32	Pn	P	09 20 36.0	-0.4
	0.5nm,0.3s,baz=228,slow=14,SNR=6.6						
PKI	Pulchoki	20.09	342	*e*P	P	09 22 20.3	+0.3
	18nm,0.6s						
DMN	Daman	20.22	341	*e*P	P	09 22 21.3	0.0
	27nm,0.8s						
GUN	Gumba	20.27	344	*e*P	P	09 22 21.0	-0.9
	50nm,0.8s						
KKN	Kakani	20.34	342	*e*P	P	09 22 22.0	-0.5
	6.7nm,0.4s						
GKN	Gorkha	20.74	341	*e*P	P	09 22 26.7	0.0
	30nm,0.6s						
KOLN	Koldanda	20.89	338	*e*P	P	09 22 29.6	+1.4
SONM	Songino Array	41.04	15	P	P	09 25 29.4	+1.2
	2.2nm,0.8s,mb3.9,baz=188,slow=8.7,SNR=9.4						
BVAR	Borovoye Array	47.86	342	P	P	09 26 21.9	-1.0
	0.5nm,0.5s,mb3.8,baz=117,slow=6.4,SNR=2.9						
WRA	Warramunga Arr	50.11	125	P	P	09 26 40.5	-0.2
	1.4nm,0.9s,mb4.0,baz=306,slow=8.4,SNR=8.6						
ASAR	Alice Springs	51.72	129	P	P	09 26 52.9	+0.1
	0.7nm,0.7s,mb3.7,baz=305,slow=6.6,SNR=8.4						
FINES	FINESS Array B	71.34	332	P	P	09 29 04.4	-0.1
	0.7nm,0.6s,mb3.8,baz=90,slow=8.3,SNR=4.7						
ARCES	ARCESS Array B	74.10	340	P	P	09 29 20.6	0.0
	3.6nm,0.9s,mb4.3,baz=90,slow=6.3,SNR=2.8						
ILAR	Eielson Array	94.91	22	P	P	09 31 00.4	-5.6
	0.4nm,0.8s,mb3.9,baz=302,slow=3.9,SNR=6.6						
YKA	Yellowknife Ar	106.29	13	PP	PP	09 36 25.2	+0.8
	0.5nm,0.8s,baz=336,slow=7.1,SNR=5.5						
PDAR	Pinedale Array	125.28	20	PKP	PKPdf	09 36 46.9	+2.8
	0.3nm,0.8s,baz=135,slow=3.8,SNR=2.6						
NVAR	Mina Array Bea	125.36	29	PKP	PKPdf	09 36 48.0	+3.6
	0.2nm,0.4s,baz=243,slow=2.0,SNR=3.3						
TXAR	Lajitas Array	139.42	22	PKP	PKPdf	09 37 13.1	+2.0
	0.1nm,0.5s,baz=27,slow=2.0,SNR=2.9						

IDC 29 09:23:27.6±4.1, 30.52S×176.97E, mb3.6/2, mb1 3.9/3, mb1mx3.7/12, mbtmp3.7/3, ML3.6/1, Error ellipse: s-maj=88.1km s-min=40.7km az=64.0, North of New Zealand

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	7.72	179	Pn	Pn	09 25 21.2	-2.8
	0.8nm,0.3s,baz=181,slow=16,SNR=19						
URZ				Sn	Sn	09 26 41.5	-12
	1.7nm,0.3s,baz=271,slow=23,SNR=12						
ASAR	Alice Springs	38.77	269	P	P	09 30 53.5	-2.1
	0.2nm,0.4s,baz=108,slow=6.9,SNR=6.1						
WRA	Warramunga Arr	39.77	275	P	P	09 31 02.6	-1.5
	0.6nm,0.3s,baz=112,slow=7.9,SNR=9.4						
SONM	Songino Array	100.38	320	P	P	09 37 16.2	-1.3
	0.9nm,0.8s,baz=143,slow=6.2,SNR=3.6						

IDC 29 09:24:57.4±5.5, 11.79N×94.28E, h45^{km}±49^{km}, mb3.9/12, mb1 4.0/13, mb1mx3.9/21, mbtmp4.1/13, ML3.9/1, Error ellipse: s-maj=45.3km s-min=14.2km az=52.0

ISC 29 09:24:56.4±3.2, 11.8N±0.2×94.4E±0.2, h51^{km}±26^{km}, n21, σ0^{s}66/19, mb4.2/12, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.92	33	P	P	09 26 50.4	-1.0
	0.4nm,0.3s,baz=221,slow=14,SNR=7.2						
PKI	Pulchoki	17.81	333	*e*P	P	09 29 02.6	+0.3
	18nm,0.6s						
GUN	Gumba	17.90	335	*e*P	P	09 29 03.7	+0.2
	31nm,0.8s						
DMN	Daman	17.98	332	*e*P	P	09 29 05.0	+0.6
	14nm,0.5s						
KKN	Kakani	18.06	333	*e*P	P	09 29 06.3	+0.9
GKN	Gorkha	18.53	332	*e*P	P	09 29 11.3	+0.1
	37nm,0.7s						
KOLN	Koldanda	18.84	329	*e*P	P	09 29 14.3	-0.5
	47nm,0.7s						
SONM	Songino Array	37.28	13	P	P	09 32 05.1	0.0
	3.6nm,1.1s,mb4.1,baz=198,slow=7.8,SNR=6.8						
ZAL	Zalesovo	42.71	352	P	P	09 32 50.6	+0.6
	3.5nm,1.0s,mb4.0,baz=198,slow=8.4,SNR=11						
BVAR	Borovoye Array	45.39	340	P	P	09 33 11.0	-0.6
	7.0nm,1.1s,mb4.4,baz=144,slow=7.6,SNR=9.7						
WRA	Warramunga Arr	50.39	128	P	P	09 33 51.0	0.0
	8.0nm,0.7s,mb4.9,baz=306,slow=8.5,SNR=47						
ASAR	Alice Springs	52.29	133	P	P	09 34 05.3	+0.1
	5.5nm,0.8s,mb4.5,baz=310,slow=6.8,SNR=38						
PMG	Port Moresby	56.50	110	P	P	09 34 37.5	+1.4
	15nm,0.9s,mb5.0,baz=99,slow=6.1,SNR=3.5						
BRTR	Keskin Array B	60.13	309	P	P	09 34 59.9	-1.3
	0.8nm,0.8s,mb3.8,baz=211,slow=7.2,SNR=5.1						
STKA	Stephens Creek	62.65	135	P	P	09 35 17.6	-0.7
	4.8nm,1.0s,mb4.6,baz=284,slow=6.3,SNR=4.8						
GERES	GERESS Array B	75.11	318	P	P	09 36 34.9	+0.1
	0.7nm,0.9s,mb3.6,baz=11,slow=5.0,SNR=3.5						
HFS	Hagfors	75.22	329	P	P	09 36 34.4	-0.8
	1.7nm,0.8s,mb4.0,baz=108,slow=4.7,SNR=4.3						
NOA	NORSAR Array B	76.47	330	P	P	09 36 42.2	-0.1
	0.5nm,0.6s,mb3.6,baz=272,slow=10,SNR=2.8						
ILAR	Eielson Array	91.01	22	P	P	09 37 56.7	+0.6
	0.5nm,0.8s,mb3.9,baz=281,slow=4.3,SNR=4.5						
PDAR	Pinedale Array	121.41	21	PKP	PKPdf	09 43 44.6	+0.2
	0.6nm,1.0s,baz=90,slow=1.5,SNR=3.9						
TXAR	Lajitas Array	135.52	23	PKP	PKPdf	09 44 13.6	+1.9
	0.3nm,0.8s,baz=135,slow=3.5,SNR=2.7						

IDC 29 09:25:49.1±6.3, 12.04N×92.35E, h67^{km}±54^{km}, mb3.8/10, mb1 4.1/11, mb1mx3.9/21, mbtmp4.1/11, ML4.0/1, MS3.2/1, Ms1 3.4/1, ms1mx2.7/31, Error ellipse: s-maj=46.2km s-min=17.9km az=50.0

ISC 29 09:25:45.5±6.2, 12.0N±0.2×92.3E±0.2, h53^{km}±52^{km}, n13, σ0^{s}71/12, mb4.0/10, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.10	44	P	P	09 27 56.9	+0.1
	0.4nm,0.3s,baz=238,slow=15,SNR=11						
CMAR				LR	LR	09 30 58.2	
	comp=Z,161nm,19.9s,baz=210,slow=34						
SONM	Songino Array	37.66	16	P	P	09 32 56.3	-0.9
	1.2nm,0.7s,mb3.7,baz=201,slow=12,SNR=2.8						
BVAR	Borovoye Array	44.57	341	P	P	09 33 54.8	+0.9
	0.5nm,0.5s,mb3.6,baz=141,slow=9.2,SNR=2.7						
WRA	Warramunga Arr	52.12	127	P	P	09 34 52.9	0.0
	2.1nm,0.5s,mb4.3,baz=300,slow=10.0,SNR=11						
ASAR	Alice Springs	53.92	131	P	P	09 35 06.2	0.0
	0.6nm,0.4s,mb3.9,baz=309,slow=6.7,SNR=5.9						
BRTR	Keskin Array B	58.44	309	P	P	09 35 36.7	-1.6
	1.3nm,0.8s,mb4.0,baz=112,slow=6.7,SNR=3.6						
MLR	Muntele Rosu	65.02	315	P	P	09 36 22.5	0.0
	2.3nm,0.8s,mb4.3,baz=87,slow=2.3,SNR=4.2						
GERES	GERESS Array B	73.61	318	P	P	09 37 15.6	+0.6
	1.5nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=6.1						
NB2	NORSAR Subarra	75.31	330	P	P	09 37 24.4	-0.2
	1.3nm,0.7s,mb4.0,baz=92,slow=5.3						
NOA	NORSAR Array B	75.31	330	P	P	09 37 24.5	-0.1
	5.5nm,1.1s,mb4.4,baz=93,slow=5.6,SNR=4.5						
EKA	Eskdalemuir Ar	83.36	325	P	P	09 38 09.2	+1.0
	1.7nm,0.7s,mb4.2,baz=112,slow=4.5,SNR=4.2						
ILAR	Eielson Array	91.65	22	P	P	09 38 47.9	-0.1
	0.6nm,0.7s,mb4.1,baz=296,slow=4.4,SNR=8.3						
TXAR	Lajitas Array	136.15	20	PKP	PKPdf	09 45 05.0	+3.3
	0.1nm,0.5s,baz=107,slow=0.9,SNR=3.8						

NAO 29 09:30:50.6±1.9, 67.71N×34.07E, ML2.3

HEL 29 09:30:50.3±0.2, 67.68N×34.15E, ML2.6, ML2.3(NAO), Explosion

CSEM 29 09:30:51.3±0.3, 67.72N×33.89E, h8^{km}, ML2.3, Error ellipse: s-maj=6.8km s-min=4.2km az=97.0, Mining explosion.

ISC 29 09:30:48.5±1.3, 67.66N±0.04×34.2E±0.2, n23, σ1^{s}17/42, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	Apatity Array	0.46	264	Pg	Pg	09 30 58.4	+0.8
	baz=92,slow=16						
APA0				Lg		09 31 04.4	
	baz=78,slow=37						
APA0				Rg		09 31 07.7	
	baz=77,slow=37						
APA0	Apatity Array	0.46	264	*i* P	Pg	09 30 58.4	+0.8
APA0				*i* S	Sg	09 31 04.4	+0.7
APA0				*e*RG		09 31 07.7	
APA0	Apatity Array	0.46	264	Pg	Pg	09 30 58.3	+0.7
	SNR=222						
KU4	Oulanka	2.23	236	*e*P	Pn	09 31 28.7	+1.6
KU4				*e*S	Sn	09 31 56.7	+1.0
MSF	Maaselka	2.69	232	*e*P	Pn	09 31 35.5	+1.8
MSF				*e*SB	Sb	09 32 10.1	-0.8
MSF	Maaselka	2.69	232	P	Pn	09 31 35.4	+1.7
SGF	Sodankyl	2.94	269	*e*P	Pn	09 31 37.6	+0.2
SGF				*e*PG	Pg	09 31 42.4	-4.9
SGF				*e*S	Sn	09 32 14.5	+0.5
SGF				MSG		09 32 23.7	
	comp=Z,16nm,0.3s						
SGF	Sodankyl	2.94	269	Pg	Pg	09 31 42.4	-4.9
SGF	Sodankyl	2.94	269	P	Pn	09 31 37.5	+0.1
SGF				S	Sn	09 32 14.4	+0.4
	comp=Z,16nm,0.3s						
KEV	Kevo	3.36	312	*e*P	Pn	09 31 44.0	+0.8
KEV				*e*S	Sn	09 32 23.3	-1.1
KEV				*e*SB	Sb	09 32 30.2	-0.2
KEV				MSG		09 32 34.1	
	comp=Z,25nm,0.2s						
ARA0	ARCESS Array S	3.69	305	Pn	Pn	09 31 48.2	+0.2
	baz=121,slow=14						
ARA0				Sn	Sn	09 32 30.9	-2.0
	baz=117,slow=37						
ARA0				Lg		09 32 42.5	
	baz=113,slow=37						
ARA0	ARCESS Array S	3.69	305	*e*P	Pn	09 31 48.2	+0.2
ARA0				*e*S	Sn	09 32 30.9	-2.0
ARA0				*e*SG	Sg	09 32 42.5	-9.0
ARA0	ARCESS Array S	3.69	305	P	Pn	09 31 48.2	+0.2
ARA0				S	Sn	09 32 30.9	-2.0
ARA0				Sg	Sg	09 32 42.4	-9.1
OUL	Oulu	4.22	236	*e*SG	Sg	09 32 59.9	-8.9
OUL				MSG		09 33 03.3	
	comp=Z,12nm,0.3s						
OUL	Oulu	4.22	236	Sg	Sg	09 32 59.9	-8.9
	comp=Z,12nm,0.3s						
KTK1	Kautokeino	4.28	294	*e*P	Pn	09 31 56.8	+0.5
KTK1				*e*Sg	Sg	09 33 00.7	-10
KJN	Kajaani	4.46	219	*e*P	Pn	09 31 59.0	+0.1
KJN				*e*S	Sn	09 32 50.0	-2.4
KJN				MSG		09 33 09.7	
	comp=Z,6.6nm,0.3s						
KJN	Kajaani	4.46	219	P	Pn	09 31 59.0	+0.1
KJN				S	Sn	09 32 50.0	-2.4
	comp=Z,6.6nm,0.3s						
KAF	Kangasniemi	6.49	215	*e*S	Sn	09 33 39.1	-4.3
FIA0	FINESS Array S	7.14	213	Pn	Pn	09 32 34.9	-1.9
	baz=30,slow=14						
FIA0				Sn	Sn	09 33 54.1	-5.6
	baz=38,slow=28						
FIA0				Lg		09 34 31.8	
	baz=39,slow=28						
FIA0	FINESS Array S	7.14	213	*e*P	Pn	09 32 34.9	-1.9
FIA0				*e*S	Sn	09 33 54.1	-5.6
FIA0				*e*SG	Sg	09 34 31.8	-14
SPA0	Spitsbergen Ar	11.70	342	Pn	P	09 33 34.4	-5.1
	baz=146,slow=14						
SPA0	Spitsbergen Ar	11.70	342	*e*P	P	09 33 34.4	-5.1

IDC 29 09:33:03.0±11.0, 4.95N×94.83E, h131^{km}±101^{km}, mb3.3/5, mb1 3.5/6, mb1mx3.4/19, mbtmp3.8/6, ML4.6/1, Error ellipse: s-maj=60.8km s-min=18.0km az=53.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.01	16	P	P	09 36 15.8	-1.0
	0.9nm,0.3s,baz=205,slow=12,SNR=14						
SONM	Songino Array	43.86	11	P	P	09 40 55.8	-2.0
	0.6nm,0.5s,baz=196,slow=10,SNR=3.3						
WRA	Warramunga Arr	46.04	124	P	P	09 41 13.7	-1.8
	1.8nm,0.8s,baz=302,slow=9.2,SNR=6.8						
ASAR	Alice Springs	47.55	128	P	P	09 41 25.6	-1.7
	0.6nm,0.8s,baz=302,slow=8.2,SNR=7.0						
BVAR	Borovoye Array	51.96	341	P	P	09 41 58.9	-1.7
	0.4nm,0.4s,baz=149,slow=8.4,SNR=4.0						
BRTR	Keskin Array B	64.86	312	P	P	09 43 28.1	-2.3
	0.5nm,0.6s,baz=108,slow=9.1,SNR=2.8						

DJA 29 09:45:03.5±1.0, 6.99S×106.41E, h100^{km}, MD3.9/2, ML4.4/1, 4C-2D, Error ellipse: s-maj=38.8km s-min=8.5km az=13.0, Jawa

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PACI	Pancar Gunung	0.63	52	⇑*i*Pn	P	09 45 20.8	+0.3
	40nm,0.2s						
PACI	Pancar Gunung	0.63	52	*e*P	P	09 45 21.3	+0.8
PULI	Pulasari	0.77	326	⇓*e*Pn	P	09 45 20.7	-1.1
PULI				⇑*i*Sn	S	09 45 34.7	-0.7
PENI	Pendagan	1.87	319	⇑*i*Pn	P	09 45 34.6	-0.3
	231nm,0.2s						
PENI	Pendagan	1.87	319	⇑*i*P	P	09 45 35.2	+0.3
PENI				⇓*i*Sn	S	09 45 57.4	-0.7

KRSC 29 09:45:17.8±0.8, 55.45N×162.21E, h9^{km}±2^{km}, ML4.0

IDC 29 09:45:18.9±5.0, 55.77N×162.04E, mb3.4/3, mb1 3.7/3, mb1mx3.4/21, mbtmp3.4/3, MS2.2/1, Ms1 2.2/1, ms1mx2.2/26, Error ellipse: s-maj=130.9km s-min=41.6km az=17.0

ISC 29 09:45:17.8±1.1, 55.41N±0.02×162.27E±0.04, h7^{km}±7^{km}, n31, σ0^{s}91/57, mb3.5/3, MS2.1/1, Near east coast of Kamchatka Peninsula

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KBTR	Krutoberegovo	0.86	21	*i* P	Pb	09 45 34.3	-0.5
KBTR				*e*S	Sb	09 45 46.3	0.0
KBG	Krutoberegovo	0.89	16	*i* P	Pb	09 45 35.1	-0.1
KBG				*i* S	Sb	09 45 47.9	+0.9
KBG				Smax			
	840nm,0.9s						
ZLN	Zelenaya	1.03	307	*i* P	Pb	09 45 37.4	-0.2
ZLN				*i* S	Sb	09 45 52.2	+1.0
CIRR	Tsirk	1.12	310	*i* P	Pb	09 45 38.5	-0.6
CIRR				*e*S	Sb	09 45 53.0	-0.6
LGNR	Loginova	1.12	308	*i* P	Pb	09 45 39.0	-0.2
LGNR				*e*S	Sb	09 45 54.0	+0.2
KMNR	Kamenistaya	1.21	288	*i* P	Pb	09 45 40.7	+0.1
KMNR				*e*S	Sb	09 45 57.1	+0.9
TUMR	Tumrok	1.22	265	*i* P	Pb	09 45 41.0	+0.2
TUMR				*i* S	Sb	09 45 58.2	+1.6
KRSR	Krestovskiy	1.26	311	*i* P	Pb	09 45 40.4	-1.1
KRSR				*e*S	Sb	09 45 56.4	-1.4
KLY	Klyuchi	1.29	316	*i* P	Pb	09 45 39.8	-2.2
KLY				*i* S	Sb	09 45 55.1	-3.5

KPT	**Kopyto**	**1.29**	**297**	eP	**Pb**	**09 45 41.9**	**-0.1**
KPT				eS	**Sb**	**09 45 59.7**	**+1.1**
SVLR	**Shiveluch**	**1.31**	**334**	i P	**Pb**	**09 45 42.0**	**-0.5**
SVLR				eS	**Sb**	**09 45 59.8**	**+0.4**
KOZ	**Kozyrevsk**	**1.50**	**297**	i P	**Pn**	**09 45 45.8**	**+0.4**
KOZ				i S	**Sb**	**09 46 05.9**	**+1.0**
SRDR	**Sredinnyy**	**1.70**	**304**	i P	**Pn**	**09 45 48.5**	**+0.3**
SRDR				i S	**Sn**	**09 46 10.8**	**+0.3**
ESO	**Esso**	**2.09**	**286**	eP	**Pn**	**09 45 53.9**	**+0.2**
ESO				eS	**Sn**	**09 46 19.3**	**-1.0**
ESO				Smax			
	160nm,1.0s						
BKI	**Bering**	**2.13**	**94**	eP	**Pn**	**09 45 55.8**	**+1.5**
BKI				i S	**Sn**	**09 46 22.1**	**+0.8**
BKI				Smax			
	40nm,0.3s						
SPN	**Mys Shipunski**	**2.66**	**211**	eP	**Pn**	**09 46 00.9**	**-1.0**
SPN				i S	**Sn**	**09 46 32.8**	**-2.0**
NLC	**Nalytchevo**	**2.82**	**219**	eP	**Pn**	**09 46 03.9**	**-0.3**
NLC				eS	**Sn**	**09 46 37.2**	**-1.6**
SDLR	**Sedlovina**	**2.91**	**224**	i P	**Pn**	**09 46 05.9**	**+0.4**
SDLR				eS	**Sn**	**09 46 42.6**	**+1.5**
SMAR	**Somma**	**2.95**	**225**	i P	**Pn**	**09 46 06.4**	**+0.3**
SMAR				eS	**Sn**	**09 46 41.7**	**-0.6**
AVH	**Avacha**	**2.98**	**225**	i P	**Pn**	**09 46 07.1**	**+0.6**
AVH				eS	**Sn**	**09 46 44.0**	**+1.1**
UGLR	**Uglovaya**	**2.98**	**224**	i P	**Pn**	**09 46 06.9**	**+0.3**
UGLR				eS	**Sn**	**09 46 43.0**	**-0.1**
KOK	**Koryaka**	**3.00**	**227**	i P	**Pn**	**09 46 07.1**	**+0.3**
KOK				eS	**Sn**	**09 46 42.3**	**-1.1**
GNL	**Ganaly**	**3.05**	**238**	eP	**Pn**	**09 46 07.8**	**+0.4**
GNL				eS	**Sn**	**09 46 46.0**	**+1.4**
PET	**Petropavlovsk**	**3.19**	**223**	eP	**Pn**	**09 46 09.6**	**+0.1**
PET				eS	**Sn**	**09 46 47.9**	**-0.4**
KRMR	**Karymshinskiy**	**3.55**	**225**	eP	**Pn**	**09 46 15.0**	**+0.5**
KRMR				eS	**Sn**	**09 46 57.7**	**+0.4**
RUS	**Russkaya**	**3.71**	**218**	eP	**Pn**	**09 46 16.6**	**-0.3**
RUS				eS	**Sn**	**09 46 59.8**	**-1.7**
GRL	**Gorelyy**	**3.78**	**223**	eP	**Pn**	**09 46 18.7**	**+0.8**
GRL				eS	**Sn**	**09 47 03.6**	**+0.4**
ILAR	**Eielson Array**	**26.30**	**49**	P	**P**	**09 50 54.4**	**-0.9**
	2.6nm,1.4s,mb3.6,baz=265,slow=8.9,SNR=4.3						
JNU	**Nakatsue**	**31.21**	**238**	LR	LR	10 03 42.3	
	comp=Z,4.4nm,19.5s,MS2.1,baz=61,slow=35						
FINES	**FINESS Array B**	**58.50**	**337**	P	**P**	**09 55 13.3**	**-3.0**
	0.9nm,0.7s,mb3.9,baz=31,slow=8.1,SNR=9.7						
TXAR	**Lajitas Array**	**68.59**	**69**	P	**P**	**09 56 23.6**	**+0.3**
	0.1nm,0.5s,mb3.0,baz=305,slow=3.0,SNR=4.8						

IDC 29 09:50:04.9±10.0**, 10.42N**×**94.43E, mb3.3**/2**, mb1 3.7**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, ML4.1**/1**, Error ellipse: s-maj=236.7km s-min=41.7km az=92.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.10**	**28**	Pn	P	09 52 17.3	-3.3
	0.6nm,0.3s,baz=215,slow=12,SNR=10.0						
WRA	**Warramunga Arr**	**49.54**	**128**	P	P	09 58 57.0	-2.8
	0.3nm,0.4s,baz=305,slow=8.9,SNR=4.4						
ASAR	**Alice Springs**	**51.35**	**132**	P	P	09 59 12.6	-1.0
	0.4nm,1.0s,baz=302,slow=7.1,SNR=4.0						

IDC 29 09:52:01.8±6.5**, 3.80N**×**94.85E, mb3.7**/3**, mb1 4.0**/4**, mb1mx3.7**/18**, mbtmp3.7**/4**, ML3.9**/1**, Error ellipse: s-maj=201.5km s-min=29.7km az=72.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.11**	**15**	Pn	P	09 55 37.4	-1.1
	0.2nm,0.3s,baz=203,slow=12,SNR=5.6						
SONM	**Songino Array**	**44.99**	**11**	P	P	10 00 18.6	-2.0
	0.8nm,0.5s,baz=196,slow=9.0,SNR=4.5						
WRA	**Warramunga Arr**	**45.40**	**123**	P	P	10 00 23.1	-1.1
	0.9nm,0.5s,baz=301,slow=9.2,SNR=7.4						
ASAR	**Alice Springs**	**46.82**	**128**	P	P	10 00 33.0	-2.5
	0.7nm,0.7s,baz=302,slow=7.7,SNR=6.2						

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*NAO **29** 09:59:27.3±1.7, 64.77N×30.35E, ML2.4*

*BER **29** 09:59:29.5±4.0, 64.74N×30.38E, ML1.8, ML2.4(NAO), Suspected explosion*

HEL 29 09:59:26.8±0.2**, 64.71N**×**30.69E, ML1.9, ML1.8**(BER), **ML2.4**(NAO)**, Explosion, Finland-Karelia border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSF	**Maaselka**	**1.40**	**331**	eP	Pb	09 59 51.7	-1.7
MSF				eS	Sb	10 00 09.7	-2.0
KJN	**Kajaani**	**1.44**	**246**	eP	Pn	09 59 52.2	-1.9
KJN				eSN	Sn	10 00 13.7	-0.3
KU4	**Oulanka**	**1.73**	**345**	eP	Pn	09 59 57.6	-0.7
KU4				eS	Sb	10 00 19.8	-1.6
KU4				MSG		10 00 23.4	
	comp=Z,6.5nm,0.1s						
OUL	**Oulu**	**2.08**	**283**	eP	Pn	10 00 03.1	-0.2
OUL				eS	Sn	10 00 29.4	-0.9
OUL				MSG		10 00 35.8	
	comp=Z,9.9nm,0.1s						
SUF	**Sumiainen**	**2.84**	**227**	eP	Pn	10 00 14.0	-0.2
SUF				eSB	Sb	10 00 51.5	-2.1
SUF				MSG		10 00 56.4	
	comp=Z,2.7nm,0.1s						
APA0	**Apatity Array**	**3.06**	**17**	Pn	Pn	10 00 16.2	-1.1
	baz=198,slow=16						
APA0				Sn	Sn	10 00 54.6	-0.6
	baz=202,slow=28						
APA0	**Apatity Array**	**3.06**	**17**	eP	Pn	10 00 16.2	-1.1
APA0				eS	Sn	10 00 54.6	-0.6
SGF	**Sodankyl**	**3.23**	**330**	eP	Pn	10 00 18.7	-1.1
FIA0	**FINESS Array S**	**3.89**	**215**	Pn	Pn	10 00 27.8	-1.3
	baz=55,slow=11						
FIA0				Lg		10 01 28.4	
	baz=31,slow=37						
FIA0	**FINESS Array S**	**3.89**	**215**	eSG	Sg	10 01 26.5	-10
KTK1	**Kautokeino**	**5.22**	**329**	eP	Pn	10 00 45.4	-2.6
KTK1				AML	AML	10 02 13.7	
	comp=Z,3.2nm,0.8s						
ARA0	**ARCESS Array S**	**5.25**	**340**	Pn	Pn	10 00 45.3	-3.2
	baz=154,slow=14						
ARA0				Sn	Sn	10 01 45.0	-5.7
	baz=159,slow=28						
ARA0				Lg		10 02 06.9	
	baz=156,slow=37						
ARA0	**ARCESS Array S**	**5.25**	**340**	eP	Pn	10 00 45.3	-3.2
ARA0				eS	Sn	10 01 45.0	-5.7
ARA0				eSG	Sg	10 02 06.9	-15

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*BJI **29** 10:09:18.6, 7.18N×93.54E, $h33^{km}$, mB5.2, mb5.2, Ms4.9, Msz4.5*

*IDC **29** 10:09:19.6±0.4, 7.70N×93.87E, mb5.0/29, mb1 5.0/29, mb1mx5.0/30, mbtmp5.0/29, MS4.4/6, Ms1 4.4/6, ms1mx3.9/28, Error ellipse: s-maj=18.4km s-min=10.8km az=44.0*

*CSEM **29** 10:09:22.9, 7.73N×94.05E, $h33^{km}$, mb5.5*

*MOS **29** 10:09:22.9±0.9, 7.71N×93.81E, $h33^{km}$, mb5.5/46, Error ellipse: s-maj=10.6km s-min=5.6km az=117.2*

*NEIC **29** 10:09:25.3±1.9, 7.67N×93.76E, $h38^{km}\pm16^{km}$, mb5.2/42, Error ellipse: s-maj=7.5km s-min=6.4km az=199.0*

*HRVD **29** 10:09:25.3±0.4, 7.61N×93.81E, $h12^{km}$, MW5.0/60, Centroid moment Tensor Solution. LP body waves: s26,c35; Mantle waves: s60,c98; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-3.13±.11; $M_{\theta\theta}$2.51±.10; $M_{\phi\phi}$0.61±.12; $M_{r\theta}$0.89±.33; $M_{\theta\phi}$0.97±.09; $M_{\phi r}$-1.44±.40; Best double couple: $M_0$3.38×10^{16} NP1:ϕ_s47°,δ46°,λ-122°. NP2:ϕ_s269°,δ52°,λ-61°. Principal axes: T 2.93, Plg3°, Azm339°; N .89, Plg22°, Azm70°; P -3.83, Plg67°, Azm242°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 29 10:09:23.9±0.9**, 7.68N**±0.04×**93.82E**±0.03**, h40**$^{km}\pm7^{km}$**, h20**$^{km}\pm5.0^{km}$**:pP-P, n306,** $\sigma 1^{s}$**02**/293**, mb5.2**/100**, MS4.5**/14**, 12C-25D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	**Songkhla**	**6.76**	**94**	P	**P**	**10 11 04.0**	**+0.8**
	240nm,1.0s						
NST	**Nakhon Sawan**	**10.07**	**37**	P	**P**	**10 11 50.0**	**+0.9**
CM31	**Chiang Mai Arr**	**11.82**	**24**	eP	**P**	**10 12 16.0**	**+3.1**
	53nm,0.8s						
CMAR	**Chiang Mai Arr**	**11.82**	**24**	Pn	**P**	**10 12 15.6**	**+2.7**
	1.5nm,0.3s,baz=214,slow=14,SNR=183						
CMAR				LR	LR	10 16 44.3	
	comp=Z,746nm,19.5s,baz=200,slow=38						
NANT	**Nan**	**12.92**	**31**	P	**P**	**10 12 32.5**	**+4.9**
PALK	**Pallekele**	**13.01**	**269**	P	**P**	**10 12 24.2**	**-4.7**
VIS	**Vishakhapatnam**	**14.28**	**315**	eP	**P**	**10 12 44.4**	**-1.2**
VIS				i S	**S**	**10 15 20.0**	**-3.6**
MDRS	**Chennai**	**14.38**	**293**	i	**P**	**10 12 53.4**	**+6.5**
MDRS				e		10 14 59.4	
BWNR	**Bhubaneshwar**	**14.74**	**329**	eP	**P**	**10 12 50.8**	**-0.9**
BWNR				e		10 15 16.2	
AGT	**Agartala**	**16.30**	**352**	eP	**P**	**10 13 14.0**	**+2.4**
KOD	**Kodaikanal**	**16.35**	**280**	eP	**P**	**10 13 14.2**	**+2.0**
KOD				e		10 13 17.5	
TRD	**Trivandrum**	**16.71**	**274**	⇓eP	**P**	**10 13 17.0**	**+0.2**
TRD				e		10 16 28.6	
IMP	**Imphal**	**17.01**	**0**	eP	**P**	**10 13 18.8**	**-1.7**
BOK	**Bokaro**	**17.74**	**335**	⇑eP	**P**	**10 13 28.1**	**-1.5**
BOK				eS	**S**	**10 16 40.6**	**-2.8**
HYB	**Hyderabad**	**17.75**	**304**	eP	**P**	**10 13 29.0**	**-0.8**
HYB				pmax	pmax		
	comp=Z,120nm,1.0s						
HYB	**Hyderabad**	**17.75**	**304**	eP	**P**	**10 13 29.0**	**-0.8**
	comp=Z,120nm,1.0s						
HYB	**Hyderabad**	**17.75**	**304**	i P	**P**	**10 13 29.0**	**-0.8**
	comp=Z,120nm,1.0s						
HYB				eS	**S**	**10 16 47.0**	**+3.3**
SHL	**Shillong**	**17.88**	**354**	⇓eP	**P**	**10 13 29.9**	**-1.5**
	comp=Z,128nm,0.0s						
SHL				e		10 13 32.0	
	comp=Z,82nm,0.7s						
BLSP	**Bilaspur**	**18.25**	**323**	⇓eP	**P**	**10 13 35.4**	**-0.7**
BLSP				e		10 13 36.2	
	comp=Z,81nm,1.6s						
BLSP				e		10 17 00.4	
QIZ	**Qiongzhong**	**19.23**	**52**	⇑iP	**P**	**10 13 50.3**	**+2.7**
QIZ				eS	**S**	**10 17 19.8**	**+2.8**
QIZ				XS		10 17 34.3	
QIZ				AMB	AMB		
	comp=Z,71nm,1.5s						
QIZ				LR	LR		
	comp=N,1µm,13.8s						
QIZ				LR	LR		
	comp=Z,982nm,17.1s						
QIZ	**Qiongzhong**	**19.23**	**52**	eP	**P**	**10 13 50.0**	**+2.3**
	comp=Z,489nm,2.0s						
KMI	**Kunming**	**19.33**	**25**	P	**P**	**10 13 51.3**	**+2.6**
KMI				AMB	AMB		
	comp=Z,22nm,1.1s						
KMI				AMB	AMB		
	comp=Z,339nm,8.4s						
KMI				LR	LR		
	comp=N,871nm,20.7s						
KMI				LR	LR		
	comp=E,1µm,19.0s						
KMI				LR	LR		
	comp=Z,878nm,24.7s						
MNGI	**Mangalore**	**19.40**	**287**	⇑eP	**P**	**10 13 48.7**	**-0.8**
NGP	**Nagpur**	**19.57**	**315**	⇑eP	**P**	**10 13 51.7**	**+0.4**
	comp=Z,73nm,0.8s						
NGP				e		10 17 19.2	
COCO	**West Island**	**19.97**	**171**	P	**P**	**10 13 49.2**	**-6.5**
AKL	**Akola**	**20.77**	**310**	⇓eP	**P**	**10 14 01.6**	**-2.5**
AKL				e		10 14 11.7	
	comp=Z,192nm,1.7s						
AKL				i S	**S**	**10 17 50.1**	**+1.3**
GOA	**Goa**	**21.05**	**293**	⇓eP	**P**	**10 14 07.6**	**+0.6**
GOA				eS	**S**	**10 17 57.9**	**+3.8**
PKI	**Pulchoki**	**21.33**	**339**	eP	**P**	**10 14 09.5**	**-0.1**
	comp=Z,146nm,0.7s,mb5.4						
KAD	**Karad**	**21.40**	**298**	⇓eP	**P**	**10 14 09.5**	**-1.0**
KAD				e		10 14 11.5	
	comp=Z,61nm,1.0s						
KAD				eS	**S**	**10 18 04.0**	**+3.4**
DMN	**Daman**	**21.47**	**338**	eP	**P**	**10 14 11.0**	**-0.1**
	comp=Z,286nm,0.8s,mb5.6						
GUN	**Gumba**	**21.48**	**341**	eP	**P**	**10 14 10.9**	**-0.3**
	comp=Z,170nm,0.6s,mb5.5						
KKN	**Kakani**	**21.57**	**339**	eP	**P**	**10 14 12.2**	**+0.1**
	comp=Z,217nm,1.0s,mb5.5						
GKN	**Gorkha**	**22.00**	**338**	eP	**P**	**10 14 16.3**	**-0.1**
	comp=Z,170nm,0.6s,mb5.7						
LSA	**Lhasa**	**22.05**	**354**	eP	**P**	**10 14 16.2**	**-0.6**
LSA				pmax	pmax		
	comp=Z,90nm,0.8s,mb5.2						
LSA	**Lhasa**	**22.05**	**354**	eP	**P**	**10 14 16.1**	**-0.7**
	comp=Z,90nm,0.8s,mb5.2						
BHPL	**Bhopal**	**22.07**	**316**	⇓eP	**P**	**10 14 16.9**	**-0.2**
BHPL				e		10 14 20.7	
	comp=Z,100nm,1.0s						
BHPL				eS	**S**	**10 18 13.3**	**+0.2**
KOLN	**Koldanda**	**22.20**	**335**	eP	**P**	**10 14 18.8**	**+0.5**
	comp=Z,247nm,0.9s,mb5.6						
POO	**Poona**	**22.21**	**301**	eP	**P**	**10 14 19.4**	**+1.0**
POO				e		10 14 25.3	
	comp=Z,91nm,1.4s						
GYA	**Guiyang**	**22.32**	**32**	⇓iP	**P**	**10 14 21.3**	**+1.8**
GYA				AMB	AMB		
	comp=Z,60nm,1.1s,mb4.9						
BOM	**Bombay**	**23.25**	**301**	⇓eP	**P**	**10 14 28.8**	**0.0**
BOM				e		10 14 32.6	
	comp=Z,122nm,1.2s						
AGRA	**Agra**	**24.59**	**324**	eP	**P**	**10 14 42.7**	**+0.9**
CD2	**Chengdu**	**24.91**	**21**	P	**P**	**10 14 45.5**	**+0.6**
CD2				AMB	AMB		
	comp=Z,110nm,0.6s,mb5.6						
PTH	**Pithoragarh**	**25.23**	**331**	eP	**P**	**10 14 46.8**	**-1.1**
PTH				e		10 17 15.4	
ASOR	**Ausora**	**25.85**	**326**	eP	**P**	**10 14 54.9**	**+1.2**
SONA	**Sohna**	**25.86**	**324**	eP	**P**	**10 14 54.9**	**+1.2**
SONA				e		10 15 00.1	
	comp=Z,205nm,1.3s						
AYAN	**Aya Nagar**	**26.01**	**325**	eP	**P**	**10 14 56.0**	**+0.8**
AYAN				e		10 15 00.8	
	comp=Z,104nm,1.5s						
AJM	**Ajmer**	**26.11**	**318**	⇓eP	**P**	**10 14 55.7**	**-0.4**
AJM				e	pP	10 15 04.0	-2.8
	comp=Z,159nm,1.5s						
AJM				e		10 19 15.5	
NDI	**New Delhi**	**26.11**	**325**	⇓eP	**P**	**10 14 55.1**	**-1.0**
KUDL	**Kundal**	**26.12**	**323**	eP	**P**	**10 14 56.6**	**+0.4**
KUDL				e		10 15 02.4	
	comp=Z,107nm,1.5s						
BHGR	**Bahadurgarh**	**26.27**	**325**	eP	**P**	**10 14 57.2**	**-0.4**
KHET	**Khetri**	**26.48**	**322**	eP	**P**	**10 15 00.3**	**+0.8**
ENH	**Enshi**	**26.85**	**31**	eP	**P**	**10 15 02.7**	**-0.2**
	comp=Z,35nm,0.9s,mb4.9						
DDI	**Dehra Dun**	**26.94**	**329**	eP	**P**	**10 15 04.2**	**+0.5**
JASL	**Jaisalmer**	**28.97**	**314**	e	**P**	**10 15 20.1**	**-1.9**
	comp=Z,83nm,0.8s,mb5.5						
XAN	**Xi'an**	**29.71**	**26**	P	**P**	**10 15 27.0**	**-1.5**
XAN				AMB	AMB		
	comp=Z,56nm,0.8s,mb5.3						
LZH	**Lanzhou**	**29.72**	**17**	⇓P	**P**	**10 15 28.8**	**+0.1**
LZH				AMB	AMB		
	comp=Z,150nm,1.3s,mb5.6						
LZH				AMB	AMB		
	comp=Z,603nm,5.0s						
LZH				LR	LR		
	comp=E,2µm,12.0s						
LZH				LR	LR		
	comp=Z,3µm,13.2s,MS5.1						
WHN	**Wuhan**	**29.79**	**38**	⇓P	**P**	**10 15 30.0**	**+0.7**
GTA	**Gaotai**	**32.05**	**9**	P	**P**	**10 15 49.0**	**-0.2**
GTA				SCS	ScS	10 26 18.0	+3.5
GTA				AMB	AMB		
	comp=Z,41nm,1.0s,mb5.2						
GTA				AMB	AMB		
	comp=Z,299nm,10.6s						
GTA				LR	LR		
	comp=N,430nm,20.9s,MS4.2						
GTA				LR	LR		
	comp=E,266nm,19.0s,MS4.2						
GTA				LR	LR		
	comp=Z,364nm,18.6s,MS4.1						
NJ2	**Nanjing**	**33.63**	**40**	eP	**P**	**10 16 04.5**	**+1.6**
NJ2				AP	pP	10 16 14.0	0.0
NJ2				XP	sP	10 16 19.8	+0.7
NJ2				PP	PP	10 17 18.8	+2.6
NJ2				S	**S**	**10 21 22.0**	**+0.2**
NJ2				XS		10 21 47.0	
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.1						
NJ2				AMB	AMB		
	comp=Z,550nm,3.6s						
NJ2				LR	LR		
	comp=N,2µm,14.4s,MS5.0						
NJ2				LR	LR		
	comp=E,1µm,18.9s,MS5.0						
NJ2				LR	LR		
	comp=Z,1µm,11.8s						
SSE	**Sheshan**	**34.59**	**44**	P	**P**	**10 16 09.0**	**-2.2**
SSE				S	**S**	**10 21 38.0**	**+1.3**
SSE				XS		10 21 52.5	
SSE				AMB	AMB		
	comp=Z,58nm,0.8s,mb5.6						
SSE				AMB	AMB		
	comp=Z,172nm,3.8s						
SSE				LR	LR		
	comp=N,377nm,21.3s,MS4.3						
SSE				LR	LR		
	comp=E,417nm,21.3s,MS4.3						
SSE				LR	LR		
	comp=Z,374nm,14.1s						
KSH	**Kashi**	**35.52**	**336**	i P	**P**	**10 16 18.3**	**-0.8**
KSH				AP	pP	10 16 25.8	-4.4
KSH				XP	sP	10 16 30.0	-5.3
KSH				AMB	AMB		
	comp=Z,160nm,3.7s						
KSH				LR	LR		
	comp=N,500nm,8.8s						
KSH				LR	LR		
	comp=E,730nm,7.8s						
BTO	**Baotou**	**35.83**	**21**	eP	**P**	**10 16 21.5**	**-0.2**
BTO				AMB	AMB		
	comp=Z,31nm,0.9s,mb5.2						
WMQ	**Urumqi**	**36.40**	**353**	P	**P**	**10 16 27.0**	**+0.6**
WMQ				AP	pP	10 16 31.5	-6.1
WMQ				XP	sP	10 16 34.5	-8.1
WMQ				AMB	AMB		
	comp=Z,29nm,1.0s,mb5.2						
HHC	**Hu-ho-hao-te**	**36.62**	**23**	eP	**P**	**10 16 29.5**	**+1.1**
HHC				AP	pP	10 16 36.8	-2.7
HHC				XP	sP	10 16 41.0	-3.6
HHC				PP	PP	10 17 57.5	+3.9
HHC				S	**S**	**10 22 15.5**	**+7.5**
HHC				XS		10 22 26.0	
HHC				AMB	AMB		
	comp=Z,79nm,1.0s,mb5.5						
HHC				AMB	AMB		
	comp=Z,201nm,3.2s						
HHC				LR	LR		
	comp=N,425nm,11.9s,MS4.6						
HHC				LR	LR		
	comp=E,622nm,16.7s,MS4.6						
HHC				LR	LR		
	comp=Z,478nm,15.5s,MS4.4						
ULHL	**Ulahol**	**37.77**	**339**	P	**P**	**10 16 38.5**	**+0.5**
	SNR=12						
BJT	**Baijiatuau**	**37.91**	**28**	eP	**P**	**10 16 41.2**	**+2.0**
BJT				pmax	pmax		
	comp=Z,25nm,0.6s						
BJT	**Baijiatuau**	**37.91**	**28**	eP	**P**	**10 16 41.2**	**+2.1**
	comp=Z,25nm,0.6s,mb5.1						
BJI	**Beijing**	**37.93**	**28**	P	**P**	**10 16 41.3**	**+2.0**
BJI				AMB	AMB		
	comp=Z,52nm,0.8s,mb5.3						
BJI				LR	LR		
	comp=N,616nm,25.9s,MS4.3						
BJI				LR	LR		
	comp=E,273nm,25.9s,MS4.3						
BJI				LR	LR		
	comp=Z,740nm,20.1s						
KZA	**Kyzart**	**37.99**	**337**	P	**P**	**10 16 40.9**	**+1.1**
	SNR=10						
MBWA	**Marble Bar**	**38.33**	**139**	eP	**P**	**10 16 37.3**	**-5.6**
UCH	**Uchtor**	**38.40**	**337**	P	**P**	**10 16 43.5**	**+0.3**
	SNR=43						
TKM2	**Tokmak 2**	**38.59**	**338**	P	**P**	**10 16 45.1**	**+0.3**
	SNR=14						
KBK	**Karagaybulak**	**38.60**	**338**	P	**P**	**10 16 45.9**	**+1.0**
	SNR=32						
AML	**Almayashu**	**38.65**	**336**	P	**P**	**10 16 46.4**	**+1.1**
	SNR=95						
AAK	**Ala-Archa**	**38.75**	**337**	P	**P**	**10 16 47.4**	**+1.3**
	SNR=28						
AAK	**Ala-Archa**	**38.75**	**337**	⇓iP	**P**	**10 16 45.7**	**-0.5**
FRU	**Bishkek**	**38.88**	**337**	eP	**P**	**10 16 47.5**	**+0.3**
CHMS	**Chumysh**	**38.97**	**338**	P	**P**	**10 16 47.8**	**-0.1**
	SNR=14						
EKS2	**Erkin-Say**	**39.06**	**336**	P	**P**	**10 16 49.1**	**+0.5**
	SNR=31						
USP	**Ospenovka**	**39.29**	**338**	P	**P**	**10 16 50.9**	**+0.2**
	SNR=40						
SONM	**Songino Array**	**41.42**	**13**	P	**P**	**10 17 08.3**	**+0.1**
	comp=Z,26nm,0.8s,mb4.9,baz=196,slow=8.3,SNR=119						
SONM				PcP	PcP	10 19 06.8	+0.5
	comp=Z,15nm,0.8s,baz=199,slow=3.5,SNR=19						
ULN	**Ulaanbaatar**	**41.60**	**13**	d iP	**P**	**10 17 09.5**	**-0.2**
ULN	**Ulaanbaatar**	**41.60**	**13**	i Pr		10 17 09.6	
SNY	**Shenyang**	**43.01**	**33**	⇓P	**P**	**10 17 22.0**	**+0.7**
SNY				AMB	AMB		
	comp=Z,30nm,1.1s,mb4.9						
SNY				LR	LR		
	comp=N,470nm,15.7s						
SNY				LR	LR		
	comp=Z,530nm,14.9s,MS4.6						
ZAK	**Zakamensk**	**43.29**	**9**	⇓iP	**P**	**10 17 23.0**	**-0.5**
TLY	**Talaya**	**44.61**	**9**	i P	**P**	**10 17 34.5**	**+0.4**
TLY	**Talaya**	**44.61**	**9**	i Pr		10 17 34.5	
HASS	**Wahat al Ahsa'**	**45.51**	**298**	P	**P**	**10 17 43.1**	**+1.5**
NWAO	**Narrogin (SRO)**	**46.12**	**152**	eP	**P**	**10 17 45.2**	**-1.2**
NWAO				pmax	pmax		
	comp=Z,20nm,0.9s						
NWAO	**Narrogin (SRO)**	**46.12**	**152**	P	**P**	**10 17 46.2**	**-0.2**
	comp=Z,18nm,0.8s,mb5.1,baz=332,slow=8.3,SNR=5.8						
NWAO	**Narrogin (SRO)**	**46.12**	**152**	eP	**P**	**10 17 45.1**	**-1.3**
	comp=Z,20nm,0.9s,mb5.0						
ZAL	**Zalesovo**	**46.70**	**353**	P	**P**	**10 17 50.1**	**-0.5**
	comp=Z,46nm,0.4s,mb5.8,baz=217,slow=5.5,SNR=104						
HIA	**Hailar**	**46.83**	**23**	eP	**P**	**10 17 52.1**	**+0.4**
HIA				pmax	pmax		
	comp=Z,94nm,0.9s						
HIA	**Hailar**	**46.83**	**23**	eP	**P**	**10 17 52.1**	**+0.5**
	comp=Z,94nm,0.9s,mb5.7						
NVS	**Novosibirsk**	**47.79**	**352**	i P	**P**	**10 17 57.6**	**-1.6**
NVS				i S	**S**	**10 24 52.0**	**0.0**
NVS				pmax	pmax		
	comp=Z,51nm,1.1s,mb5.5						
NVS				pmax	pmax		
	comp=E,7.0nm,0.5s						
NVS				pmax	pmax		
	comp=N,53nm,1.5s						
NVS				smax			
	comp=E,26nm,1.9s						
NVS				smax			
	comp=N,25nm,2.4s						
RYDS	**Riyadh**	**47.98**	**296**	P	**P**	**10 18 03.4**	**+2.3**
QRN	**Al-Qurain**	**47.99**	**302**	eP	**P**	**10 18 01.1**	**0.0**
MDJ	**Mudanjiang**	**48.15**	**34**	P	**P**	**10 18 03.0**	**+0.9**
MDJ				AP	pP	10 18 07.3	-6.2
MDJ				PP	PP	10 19 55.5	+1.6
MDJ				AMB	AMB		
	comp=Z,32nm,1.0s,mb5.3						
MDJ				LR	LR		
	comp=N,251nm,17.7s,MS4.3						
MDJ				LR	LR		
	comp=E,118nm,17.7s,MS4.3						
MDJ				LR	LR		
	comp=Z,279nm,18.7s,MS4.3						
MDJ	**Mudanjiang**	**48.15**	**34**	eP	**P**	**10 18 01.6**	**-0.6**
	comp=Z,53nm,1.3s,mb5.4						
RDF	**Al-Radifah**	**48.35**	**302**	eP	**P**	**10 18 04.4**	**+0.5**
RDF				AMb	AMB	10 18 06.2	
	comp=Z,128nm,1.3s,mb5.8						
UMR	**Umm Al-Rimmam**	**48.40**	**303**	eP	**P**	**10 18 04.3**	**+0.1**
UMR				AMb	AMB	10 18 06.3	
	comp=Z,89nm,0.9s,mb5.8						
WRA	**Warramunga Arr**	**48.41**	**125**	i P	**P**	**10 18 02.5**	**-2.0**
WRA				pmax	pmax		
	comp=Z,13nm,0.5s						
WRA	**Warramunga Arr**	**48.41**	**125**	P	**P**	**10 18 02.5**	**-2.0**
	comp=Z,13nm,0.5s,mb5.2,baz=305,slow=8.5,SNR=156						
WRA				PcP	PcP	10 19 30.1	-0.7
	comp=Z,2.7nm,0.6s,baz=312,slow=2.8,SNR=5.0						
WRAB	**Tennant Creek**	**48.42**	**125**	d iP	**P**	**10 18 02.6**	**-1.9**
WRAB	**Tennant Creek**	**48.42**	**125**	eP	**P**	**10 18 02.0**	**-2.5**

	comp=Z,27nm,0.7s,mb5.4						
MIB	Mutribah	48.78	303	*e*P	P	10 18 06.7	-0.5
MIB				AMb	AMB	10 18 08.9	
	comp=Z,179nm,0.8s,mb6.2						
RST	Umm Al-Ruwaisa	48.98	303	*e*P	P	10 18 08.5	-0.2
RST				AMb	AMB	10 18 10.6	
	comp=Z,106nm,0.9s,mb5.9						
BVA0	Borovoye Array	49.07	341	P	P	10 18 07.8	-1.3
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb4.2						
BVAR	Borovoye Array	49.07	341	P	P	10 18 08.2	-0.9
	comp=Z,12nm,0.9s,mb4.9,baz=143,slow=7.4,SNR=27						
BVAR				PcP	PcP	10 19 32.6	-0.1
	comp=Z,10nm,0.9s,baz=215,slow=2.1,SNR=9.2						
BRVK	Borovoye	49.13	341	⇑*i*P	P	10 18 09.0	-0.6
KAMS	Al Khamasin	49.21	290	P	P	10 18 11.3	+0.7
MZLS	Mizel	49.23	295	P	P	10 18 12.0	+1.2
CHKZ	Chkalovo	49.56	342	*e*P	P	10 18 11.9	-1.0
CHKZ				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.4						
CHKZ	Chkalovo	49.56	342	*e*P	P	10 18 11.8	-1.0
	comp=Z,43nm,1.0s,mb5.4						
DJNS	Zahran al Janu	49.91	287	D		10 17 18.0	
ASAR	Alice Springs	50.04	130	P	P	10 18 14.8	-2.1
	comp=Z,8.1nm,0.6s,mb4.9,baz=301,slow=7.4,SNR=91						
ASAR				PcP	PcP	10 19 35.8	-0.8
	comp=Z,6.6nm,0.9s,baz=292,slow=3.8,SNR=8.3						
ASAR				LR	LR	10 41 07.4	
	comp=Z,230nm,18.0s,MS4.2,baz=298,slow=38						
AFFS	‘Afif	51.20	294	P	P	10 18 27.3	+1.5
FRSS	Farasan al Kab	51.20	285	D		10 18 28.0	
ARSS	Ar Rass	51.34	297	P	P	10 18 27.4	+0.6
KLR	Kul’dur	52.21	31	*e*P	P	10 18 30.0	-3.0
KLR				pmax	pmax		
	comp=Z,45nm,1.6s,mb5.2						
BOD	Bodaibo	52.41	13	*e*P	P	10 18 33.6	-0.8
GNI	Garni	54.34	315	*e*P	P	10 18 48.3	-0.7
GNI				pmax	pmax		
	comp=Z,108nm,1.4s						
GNI	Garni	54.34	315	P	P	10 18 48.7	-0.3
	comp=Z,12nm,0.8s,mb4.9,baz=132,slow=8.2,SNR=12						
GNI	Garni	54.34	315	*e*P	P	10 18 48.3	-0.7
	comp=Z,108nm,1.4s,mb5.6						
CLNS	Chul’man	54.73	20	*e*P	P	10 18 50.0	-1.5
CLNS				pmax	pmax		
	comp=N,15nm,0.9s						
CLNS				pmax	pmax		
	comp=E,15nm,0.9s						
CLNS				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.4						
CLNS				pmax	pmax		
	comp=E,13nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.0s						
KBRS	Khaybar	54.85	296	P	P	10 18 54.4	+1.5
TI2	Plekhanov	54.96	316	*i* P	P	10 18 43.0	-10
SVE	Sverdlovsk	55.46	339	⇓*e*P	P	10 18 56.0	-0.9
SVE				*e*		10 19 59.0	
SVE				*e*		10 26 29.0	
SVE				pmax	pmax		
	comp=Z,120nm,1.8s,mb5.6						
SVE				pmax	pmax		
	comp=Z,120nm,1.8s,mb5.6						
ASAJ	Asahikawa	55.77	41	P	P	10 18 59.1	-0.2
	comp=Z,28nm,1.2s,mb5.2,baz=297,slow=9.0,SNR=3.5						
PMG	Port Moresby	55.78	107	*e*P	P	10 18 59.1	-0.7
PMG	Port Moresby	55.78	107	P	P	10 18 59.8	0.0
	comp=Z,11nm,0.6s,mb5.0,baz=6.2,slow=12,SNR=5.3						
YNBS	Yanbu‘ al Bahr	55.79	294	P	P	10 19 01.0	+1.3
ARU	Arti	55.94	337	⇓*i*P	P	10 18 59.5	-0.8
ARU				*e*		10 21 01.2	
ARU				*e*S	S	10 26 48.3	+4.7
ARU				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.4						
ARU	Arti	55.94	337	⇓*i*P	P	10 18 59.1	-1.2
ZEI	Tsey	55.96	317	*e*P	P	10 18 59.6	-1.0
ZEI				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
UMJS	Umm Lajj	56.52	295	P	P	10 19 06.8	+1.9
KMBO	Kilima Mbogo	57.08	264	*e*P	P	10 19 09.1	0.0
KMBO				pmax	pmax		
	comp=Z,33nm,1.1s						
KMBO	Kilima Mbogo	57.08	264	P	P	10 19 10.9	+1.8
	comp=Z,20nm,0.9s,mb5.1,baz=56,slow=8.7,SNR=36						
KMBO	Kilima Mbogo	57.08	264	*e*P	P	10 19 09.1	0.0
	comp=Z,33nm,1.1s,mb5.3						
YSS	Yuzh-Sakhalins	57.13	38	⇑*i*P	P	10 19 07.8	-1.2
KIV	Kislovodsk	57.24	318	*i* P	P	10 19 08.4	-1.4
KIV	Kislovodsk	57.24	318	*i* Pr		10 19 08.4	
GOF	Gofitskoye	57.46	319	*e*P	P	10 19 09.0	-2.3
TBKS	Tabuk	57.63	298	P	P	10 19 14.6	+1.8
ASF	Jabal al Asfar	58.05	303	P	P	10 19 15.8	+0.2
	comp=Z,8.4nm,1.0s,mb4.7,baz=299,slow=3.4,SNR=12						
JMQS	Jabal Moqyreh	58.32	299	P	P	10 19 18.2	+0.7
MALT	Malatya	58.34	310	*e*P	P	10 19 16.9	-0.7
MALT				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.0						
MALT	Malatya	58.34	310	*e*P	P	10 19 16.9	-0.7
	comp=Z,23nm,1.4s,mb5.0						
AYUS	‘Aynunah	58.74	298	P	P	10 19 21.2	+0.7
SOKR	Solikamsk	58.86	339	⇑*i*P	P	10 19 19.8	-1.1
SOKR				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.7						
SOKR				MLR	MLR		
	comp=Z,500nm,20.0s,MS4.6						
BDAS	Al Bad‘	58.92	299	P	P	10 19 22.2	+0.5
MKRJ	Makawir	58.98	302	P	P	10 19 22.3	+0.2
JMOS	Jabal al Moall	59.03	299	P	P	10 19 23.1	+0.7
ALWS	Ilw as Safayha	59.09	300	P	P	10 19 23.7	+0.8
SOC	Sochi	59.10	317	*e*P	P	10 19 10.1	-13
SOC				*e*		10 20 11.2	
SOC				*e*		10 21 32.0	
SOC				*e*S	S	10 27 15.1	-10
SOC				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.3						
SOC				pmax	pmax		
	comp=N,26nm,1.2s						
SOC				pmax	pmax		
	comp=E,42nm,1.2s						
HAQS	Haql	59.16	299	P	P	10 19 24.2	+0.7
MZDA	Masada	59.17	302	P	P	10 19 23.7	+0.3
ZFRI	Zfri	59.19	301	P	P	10 19 23.8	+0.2
DRGI	Dragot	59.20	302	P	P	10 19 23.7	+0.1
EIL	Elat	59.24	300	P	P	10 19 24.1	+0.1
EIL	Elat	59.24	300	P	P	10 19 24.7	+0.8
	comp=E,28nm,0.6s,mb5.5,baz=92,slow=4.3,SNR=30						
EIL				LR	LR	10 46 30.6	
	comp=E,353nm,18.9s,MS4.5,baz=261,slow=38						
EIL	Elat	59.24	300	*e*P	P	10 19 24.7	+0.7
	comp=E,54nm,0.9s,mb5.6						
MBH	Mount Berech	59.29	300	P	P	10 19 24.6	+0.3
PRNI	Paran	59.31	301	P	P	10 19 24.7	+0.3
MMLI	Mount Malkishu	59.33	303	P	P	10 19 24.8	+0.3
KMTI	Karmit	59.51	300	P	P	10 19 26.0	+0.2
STKA	Stephens Creek	60.21	133	P	P	10 19 28.7	-1.8
	comp=E,10nm,0.9s,mb4.8,baz=300,slow=6.2,SNR=14						
STKA	Stephens Creek	60.21	133	*e*P	P	10 19 28.4	-2.1
YAK	Yakutsk	60.28	19	*e*P	P	10 19 29.4	-1.2
BRTR	Keskin Array B	62.31	311	P	P	10 19 42.9	-1.7
	comp=E,6.3nm,0.6s,mb4.9,baz=125,slow=7.3,SNR=28						
MBAR	Mbarara	63.42	265	*e*P	P	10 19 52.2	-0.2
MBAR				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.3						
MBAR	Mbarara	63.42	265	*e*P	P	10 19 52.2	-0.2
	comp=Z,27nm,1.1s,mb5.3						
ISP	Isparta	64.30	308	⇑*i*P	P	10 19 56.3	-1.5
ISP	Isparta	64.30	308	*e*P	P	10 19 55.9	-1.9
	comp=Z,45nm,1.3s,mb5.3						
MOS	Moscow	65.08	329	*e*P	P	10 20 01.7	-0.8
MOS				*e*		10 22 29.2	
MOS				pmax	pmax		
	comp=Z,197nm,1.2s,mb6.0						
OBN	Obninsk	65.37	328	*e*P	P	10 20 03.1	-1.3
OBN				*e*	pP	10 20 14.0	-2.3
OBN						10 20 36.0	
OBN				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.4						
OBN	Obninsk	65.37	328	*e*P	P	10 20 03.4	-1.0
MA2	Magadan	67.08	28	*e*P	P	10 20 15.4	+0.2
MA2				pmax	pmax		
	comp=Z,49nm,0.8s,mb5.6						
MA2	Magadan	67.08	28	*e*P	P	10 20 15.4	+0.2
	comp=Z,49nm,0.8s,mb5.6						
TIXI	Tiksi	67.48	11	⇓*i*P	P	10 20 16.3	-1.2
CFR	Carcaliu	67.51	316	⇑*i*P	P	10 20 16.1	-2.0
AKASG	Malin Array Be	68.11	322	P	P	10 20 19.6	-2.1
	comp=Z,3.4nm,0.8s,mb4.5,baz=89,slow=5.1,SNR=10						
AKASG				PP	PP	10 22 55.2	+0.9
	comp=Z,2.3nm,1.0s,baz=93,slow=6.3,SNR=9.6						
IDI	Anoyia	68.41	305	P	P	10 20 24.1	+0.2
	comp=Z,37nm,0.8s,mb5.4,baz=96,slow=7.2,SNR=19						
VRI	Vrincioaia	68.62	316	⇑*i*P	P	10 20 24.8	-0.2
PET	Petropavlovsk	68.88	36	*e*P	P	10 20 25.3	-1.2
PET				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.1						
LSZ	Lusaka	68.90	250	*e*P	P	10 20 28.1	+0.9
LSZ				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.2						
LSZ	Lusaka	68.90	250	*e*P	P	10 20 28.1	+0.8
	comp=Z,37nm,1.3s,mb5.2						
MLR	Muntele Rosu	69.08	316	P	P	10 20 27.6	-0.3
	comp=Z,47nm,1.3s,mb5.3,baz=123,slow=0.6,SNR=15						
SEY	Seymchan	69.24	25	*e*P	P	10 20 28.2	-0.3
SEY				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
APA	Apatity	71.92	339	⇓*i*P	P	10 20 44.1	-0.5
APA				*i*		10 20 51.1	
APA				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.5						
KWP	Kalwaria	71.97	320	*e*P	P	10 20 44.5	-0.7
KOLS	Kolonicke sedl	72.14	319	*e*P	P	10 20 46.0	-0.2
SUW	Suwalki	72.47	324	*e*P	P	10 20 45.7	-2.4
CRVS	Cervenica-Dubn	72.66	319	*e*P	P	10 20 52.1	+2.7
FINES	FINESS Array B	72.73	332	*i* P	P	10 20 49.2	-0.3
FINES				pmax	pmax		
	comp=Z,6.0nm,0.6s						
FINES	FINESS Array B	72.73	332	P	P	10 20 49.2	-0.3
	comp=Z,6.0nm,0.6s,mb4.7,baz=94,slow=6.7,SNR=52						
KAF	Kangasniemi	72.81	333	*e*p	P	10 20 49.1	-0.9
	comp=Z,7.8nm,0.5s,mb4.9						
KAF	Kangasniemi	72.81	333	*e*P	P	10 20 49.1	-0.9
KAF				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
NIE	Niedzica	73.48	319	*e*P	P	10 20 54.0	-0.2
PSZ	Piszkesteto	73.57	318	*e*P	P	10 20 54.3	-0.4
PSZ				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
PSZ	Piszkesteto	73.57	318	*e*P	P	10 20 54.3	-0.4
	comp=Z,35nm,1.4s,mb5.1						
LBTB	Lobatse	73.87	241	*e*P	P	10 20 57.3	+0.3
LBTB				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.3						
LBTB	Lobatse	73.87	241	*e*P	P	10 20 57.3	+0.4
	comp=Z,36nm,0.9s,mb5.3						
OJC	Ojcow	73.92	320	*e*P	P	10 20 56.0	-0.7
VYHS	Vyhne	74.33	318	*e*P	P	10 20 58.8	-0.4
VYHS				*e*		10 21 30.4	
VYHS				*e*PP	PP	10 23 36.6	-11
CASY	Casey	74.78	173	*e*P	P	10 21 01.6	+0.2
	comp=Z,39nm,1.8s,mb5.0						
KEV	Kevo	74.91	341	*e*p	P	10 21 01.8	-0.3
	comp=Z,24nm,0.7s,mb5.2						
KEV	Kevo	74.91	341	*e*P	P	10 21 01.8	-0.3
KEV				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.2						
OKC	Ostrava-Krasne	74.93	319	*e*P	P	10 21 02.4	-0.2
TIP	Timpagrande	75.16	308	P	P	10 20 57.8	-6.4
BOSA	Boshof	75.21	238	*e*P	P	10 21 05.2	+0.6
BOSA				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.3						
BOSA	Boshof	75.21	238	*e*P	P	10 21 05.2	+0.6
	comp=Z,53nm,1.2s,mb5.3						
MORC	Moravsky Berou	75.31	319	*e*P	P	10 21 04.9	+0.1
MORC				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
MORC	Moravsky Berou	75.31	319	*e*P	P	10 21 04.9	+0.1
	comp=Z,42nm,1.5s,mb5.2						
ARCES	ARCESS Array B	75.34	340	P	P	10 21 04.6	+0.1
	comp=Z,13nm,0.5s,mb5.1,baz=93,slow=5.5,SNR=59						
ARE0	ARCESS Array S	75.34	340	*e*P	P	10 21 05.1	+0.6
ZST	Bratislava	75.46	318	*e*P	P	10 21 05.3	-0.4
VRAC	Vranov	75.89	319	P	P	10 21 08.1	+0.1
	comp=Z,2.2nm,0.3s,mb4.5,baz=60,slow=8.1,SNR=2.9						
DPC	Dobruska-Polom	76.15	320	*e*P	P	10 21 09.6	+0.1
KSP	Ksiaz	76.20	320	⇑*e*P	P	10 21 10.2	+0.4
KSP				*e*pP	pP	10 21 13.5	-8.3
KSP	Ksiaz	76.20	320	*e*P	P	10 21 09.9	+0.1
KSP				*e*		10 21 13.6	
UPC	Upice	76.36	320	*e*P	P	10 21 09.9	-0.8
BILL	Bilibino	76.39	22	⇑*i*P	P	10 21 10.5	0.0
PRU	Pruhonice	77.26	319	*e*P	P	10 21 15.6	-0.2
BSD	Bornholm Skovb	77.39	325	*i* P	P	10 21 16.2	-0.2
BSD				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
BSD	Bornholm Skovb	77.39	325	*i* P	P	10 21 16.2	-0.2
	comp=Z,10nm,0.6s,mb4.9						
FX1	Attu Island--F	77.49	38	P	P	10 21 17.7	+0.7
	comp=Z,21nm,0.5s,mb5.3,baz=217,slow=19,SNR=5.5						
FX1	Attu Island--F	77.49	38	*e*P	P	10 21 17.8	+0.8
BRG	Berggiesshubel	77.69	320	*i* P	P	10 21 18.4	+0.2
BRG				pmax	pmax		
	comp=Z,70nm,2.0s,mb5.2						
BRG	Berggiesshubel	77.69	320	*i* P	P	10 21 18.4	+0.2
	comp=Z,70nm,2.0s,mb5.2						
GEC2	GERESS Array S	77.75	318	*e*P	P	10 21 17.3	-1.3
GEC2				pmax	pmax		
	comp=Z,37nm,1.6s,mb5.1						
GEC2	GERESS Array S	77.75	318	*e*P	P	10 21 17.3	-1.3
	comp=Z,37nm,1.6s,mb5.1						
GERES	GERESS Array B	77.75	318	P	P	10 21 18.1	-0.4
	comp=Z,4.3nm,0.7s,mb4.5,baz=90,slow=5.3,SNR=41						
KHC	Kasperske Hory	77.85	319	*e*P	P	10 21 18.5	-0.6
KHC				*e*x	x	10 21 25.0	
MAW	Mawson	78.28	192	P	P	10 21 22.3	+1.3
	comp=Z,4.3nm,0.7s,mb4.5,baz=337,slow=5.9,SNR=4.6						
CLL	Collm	78.31	321	*i* P	P	10 21 21.4	-0.1
CLL				pmax	pmax		
	comp=Z,49nm,2.2s,mb5.0						
CLL	Collm	78.31	321	*i* P	P	10 21 21.4	-0.1
	comp=Z,49nm,2.2s,mb5.0						
CLL	Collm	78.31	321	P	P	10 21 21.4	-0.1
	comp=Z,logA/T=1.3,mb5.0						
WET	Wettzell	78.31	319	*e*P	P	10 21 22.0	+0.4
HFS	Hagfors	78.46	330	P	P	10 21 22.0	-0.2
	comp=Z,13nm,0.7s,mb5.0,baz=124,slow=5.3,SNR=55						
MOX	Moxa	79.16	320	*e*P	P	10 21 26.3	0.0
MOX				pmax	pmax		
	comp=Z,31nm,1.7s,mb5.0						
MOX	Moxa	79.16	320	*i* P	P	10 21 21.7	-4.6
	comp=Z,logA/T=1.3,mb5.0						
MOX				*i*		10 21 26.0	
MOX	Moxa	79.16	320	*i* P	P	10 21 26.3	0.0
	comp=Z,logA/T=1.3,mb5.0						
MOX	Moxa	79.16	320	*e*P	P	10 21 26.3	0.0
	comp=Z,31nm,1.7s,mb5.0						
FUR	Furstenfeldbru	79.35	318	*e*P	P	10 21 27.4	+0.1
GRA1	Grafenberg Arr	79.40	319	*e*P	P	10 21 28.4	+0.8
	comp=Z,30nm,1.2s,mb5.1						
GRF	Grafenberg Arr	79.40	319	*e*P	P	10 21 28.4	+0.8
GRF				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
GRF	Grafenberg Arr	79.40	319	*e*P	P	10 21 28.4	+0.8
GRF				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.1						
GRF	Grafenberg Arr	79.40	319	*e*P	P	10 21 28.4	+0.8
	comp=Z,30nm,1.2s,mb5.1						
NB2	NORSAR Subarra	79.74	331	P	P	10 21 28.4	-0.8
	comp=Z,53nm,1.7s,mb5.2,baz=96,slow=5.0						
NB2	NORSAR Subarra	79.74	331	P	P	10 21 28.4	-0.8
	baz=96,slow=5.3						
NB2	NORSAR Subarra	79.74	331	P	P	10 21 28.4	-0.8
NB2				pmax	pmax		
	comp=Z,53nm,1.7s,mb5.2						
NOA	NORSAR Array B	79.74	331	P	P	10 21 28.7	-0.5
	comp=Z,4.0nm,0.7s,mb4.5,baz=95,slow=5.2,SNR=18						
NOA				LR	LR	11 00 33.7	
	comp=Z,293nm,21.6s,MS4.6,baz=100,slow=38						
SUR	Sutherland	79.96	235	*e*P	P	10 21 32.6	+1.6
CLZ	Clausthal	79.96	321	*e*P	P	10 21 30.3	-0.2
	comp=Z,35nm,1.7s,mb5.0						
BSEG	Bad Segeberg	80.01	323	*e*P	P	10 21 31.1	+0.3
DAVOX	Davos	80.31	316	P	P	10 21 32.8	+0.3
	comp=Z,12nm,0.7s,mb5.0,baz=115,slow=7.4,SNR=24						
BFO	Black Forest	81.32	318	*e*P	P	10 21 37.9	+0.1
BFO				pmax	pmax		
	comp=Z,51nm,2.1s,mb5.1						
BFO	Black Forest	81.32	318	*e*P	P	10 21 37.9	+0.1
	comp=Z,51nm,2.1s,mb5.1						
CDF	Champ du Feu	82.02	318	*e*P	P	10 21 41.1	-0.3
SBF	Sospel	82.13	313	*e*P	P	10 21 41.2	-0.9
	comp=Z,74nm,0.8s,mb5.3						
SBF	Sospel	82.13	313	*e*P	P	10 21 41.2	-0.9
SBF				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.4						
LPG	La Plagne	82.53	315	*e*P	P	10 21 44.5	+0.4
	comp=Z,23nm,0.7s,mb5.0						
LPG	La Plagne	82.53	315	*e*P	P	10 21 44.5	+0.4
LPG				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.0						
HAU	Haudompre	82.66	317	*e*P	P	10 21 44.5	-0.2
	comp=Z,18nm,0.7s,mb4.9						
HAU	Haudompre	82.66	317	*e*P	P	10 21 44.5	-0.2
HAU				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
BAIF	Baives	83.92	320	*e*P	P	10 21 51.5	+0.4
RPZ	Rata Peaks	86.14	135	LR	LR	11 05 22.8	
	comp=Z,286nm,19.0s,MS4.7,baz=206,slow=39						
RJF	Les Rejaudoux	86.22	315	*e*P	P	10 22 02.5	-0.1
FLN	La Foliniere	87.11	319	*e*P	P	10 22 05.5	-1.4
DAG	Danmarks Havn	87.60	348	⇓*i*P	P	10 22 08.8	+0.2
DAG				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.6						
DAG	Danmarks Havn	87.60	348	⇓*i*P	P	10 22 08.8	+0.2
	comp=Z,2.1nm,0.5s,mb4.6						
EKA	Eskdalemuir Ar	87.70	325	P	P	10 22 10.1	+0.6
	comp=Z,6.2nm,0.7s,mb5.0,baz=102,slow=5.3,SNR=17						
URZ	Urewera	89.47	129	LR	LR	11 04 31.4	
	comp=Z,208nm,20.4s,MS4.5,baz=288,slow=37						
ESDC	Sonseca Array	91.09	310	P	P	10 22 27.2	+1.3
	comp=Z,2.7nm,0.6s,mb4.8,baz=58,slow=4.4,SNR=12						
IMA	Indian Mountai	91.92	22	*e*P	P	10 22 30.7	+1.6
IMA				pmax	pmax		
	comp=Z,97nm,1.1s,mb6.0						
IMA	Indian Mountai	91.92	22	*e*P	P	10 22 30.7	+1.6
	comp=Z,97nm,1.1s,mb6.0						
SBA	Scott Base	93.91	168	P	P	10 22 38.0	0.0
SPU	Mount Spurr	94.60	26	*e*P	P	10 22 41.4	-0.1
MCK	McKinley	94.76	23	P	P	10 22 42.5	+0.4
ILAR	Eielson Array	95.04	22	P	P	10 22 43.2	-0.2
	comp=Z,1.8nm,0.8s,mb4.5,baz=289,slow=4.9,SNR=18						
INK	Inuvik	97.27	16	*e*P	P	10 22 54.0	+0.5
INK				pmax	pmax		
	comp=Z,20nm,1.4s						
INK	Inuvik	97.27	16	*e*P	P	10 22 54.0	+0.6
	comp=Z,20nm,1.4s,mb5.3						
RES	Resolute Bay	97.61	2	*e*P	P	10 22 55.9	+1.0
RES				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.2						
RES	Resolute Bay	97.61	2	*e*P	P	10 22 55.9	+1.0
	comp=Z,8.3nm,0.9s,mb5.3						
DBIC	Dimbokro	97.65	278	P	P	10 22 57.4	+0.9
	comp=Z,6.7nm,1.1s,mb5.1,baz=98,slow=9.9,SNR=4.2						
YKA	Yellowknife Ar	106.69	13	PP	PP	10 27 57.1	-7.3
	comp=Z,1.0nm,0.7s,baz=335,slow=7.6,SNR=8.2						
SCHQ	Schefferville	115.64	348	PKP	PKPdf	10 28 03.1	+1.2
	comp=Z,5.4nm,1.2s,baz=304,slow=3.6,SNR=6.3						
ULM	Lac du Bonnet	121.70	7	PKP	PKPdf	10 28 15.9	+2.2
	comp=Z,4.5nm,0.8s,baz=8.7,slow=4.2,SNR=9.1						
ULM				PP	PP	10 29 43.3	-7.8
	comp=Z,2.0nm,0.8s,baz=319,slow=9.3,SNR=2.3						
BOZ	Bozeman (W)	122.22	21	*e*PKIKP	PKPdf	10 28 15.1	+0.2
EYMN	Ely	124.42	4	*e*PKPdf	PKPdf	10 28 20.6	+1.5
SNOW	Snow King Moun	124.43	22	*e*PKPdf	PKPdf	10 28 21.5	+2.3
REDW	Red Top Meadow	124.48	22	*e*PKPdf	PKPdf	10 28 21.5	+2.2
ELK	Elko	124.89	27	*e*PKIKP	PKPdf	10 28 22.5	+2.3
NVAR	Mina Array Bea	125.25	31	PKP	PKPdf	10 28 23.7	+2.7
	comp=Z,2.8nm,0.6s,baz=293,slow=3.0,SNR=22						
NVAR				PP	PP	10 30 10.9	-4.4
	comp=Z,0.7nm,0.9s,baz=304,slow=3.3,SNR=2.6						
MNV	Mina	125.32	31	*e*PKIKP	PKPdf	10 28 23.5	+2.4
PDAR	Pinedale Array	125.46	21	PKP	PKPdf	10 28 22.9	+1.6
	comp=Z,3.6nm,0.7s,baz=36,slow=1.2,SNR=30						
PDAR				PP	PP	10 30 13.8	-2.9
	comp=Z,0.8nm,1.0s,baz=315,slow=1.3,SNR=3.5						
MSU	Marysvale	128.07	26	*e*PKIKP	PKPdf	10 28 29.4	+3.0
PV10	Paradox Valley	129.48	23	*e*PKPdf	PKPdf	10 28 32.6	+3.6
TUC	Tucson	133.83	29	*e*PKIKP	PKPdf	10 28 40.4	+2.9
MIAR	Mount Ida	137.43	9	*e*PKIKP	PKPdf	10 28 46.0	+1.9
TXAR	Lajitas Array	139.53	24	PKhKP		10 28 41.3	
	comp=Z,0.6nm,0.5s,baz=246,slow=1.2,SNR=11						
TXAR				PKP	PKPdf	10 28 50.6	+2.6
	comp=Z,1.5nm,0.5s,baz=77,slow=0.5,SNR=16						
BDFB	Brasilia	141.84	255	PKP	PKPdf	10 28 54.8	+2.4
	comp=Z,6.1nm,0.9s,baz=142,slow=4.0,SNR=7.0						
TEIG	Tepich	152.19	4	*e*PKPbc	PKPdf	10 29 17.8	+8.5
LPAZ	La Paz	160.39	242	*e*PKIKP	PKPdf	10 29 22.2	+2.3
LPAZ	La Paz	160.39	242	PKP	PKPdf	10 29 22.3	+2.4
	comp=Z,4.2nm,1.0s,baz=35,slow=3.1,SNR=16						
LPAZ				PKPab	PKPab	10 30 02.1	-1.1
	comp=Z,6.4nm,1.2s,baz=89,slow=4.6,SNR=7.9						

IDC ***29*** *10:12:19.0±0.5, 10.29N×92.12E, h24^{km}±3^{km}, mb4.5/20, mb1 4.6/21, mb1mx4.5/26, mbtmp4.7/21, ML4.4/1, MS4.4/5, Ms1 4.4/5, ms1mx4.0/27, Error ellipse: s-maj=24.6km s-min=10.7km az=52.0*

ISC 29 10:12:17.0±0.5**, 10.28N**±0.08×**92.18E**±0.08**, h24^{km}, h24^{km}**±.8^{km}**:pP-P, n38,** $\sigma 0^{s}.$**81**/32**, mb4.7**/22**, MS4.5**/5**,**
Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.43	38	Pn	P	10 14 48.6	+0.2
	0.9nm,0.3s,baz=232,slow=14,SNR=10						
VIS	Vishakhapatnam	11.33	312	*e*	P	10 14 59.8	-0.9
	comp=E,181nm,1.0s						
VIS				*e*		10 15 00.0	
	comp=N,193nm,1.1s						
NANT	Nan	11.81	43	P	P	10 15 05.0	-2.2
KKTK	Khon Kaen	11.97	59	P	P	10 15 11.0	+1.7
	comp=N,494nm,1.0s						
HYB	Hyderabad	15.01	300	*e*P	P	10 15 55.0	+5.4
HYB				*e*		10 18 20.0	
HYB				*e*S	S	10 18 30.0	-5.8
SONM	Songino Array	39.30	15	P	P	10 19 46.3	+0.5
	comp=N,24nm,0.9s,mb4.9,baz=198,slow=7.8,SNR=21						
SONM				pP	pP	10 19 54.3	+1.3
	comp=N,13nm,0.8s,baz=195,slow=8.2,SNR=7.5						
SONM				PcP	PcP	10 21 55.5	+0.7
	comp=N,2.3nm,0.8s,baz=222,slow=4.3,SNR=3.2						
ZAL	Zalesovo	43.94	354	P	P	10 20 23.5	-0.2
	comp=N,6.6nm,0.6s,mb4.6,baz=204,slow=7.2,SNR=5.4						
ZAL				LR	LR	10 41 57.8	
	comp=N,426nm,19.7s,MS4.4,baz=202,slow=40						
BVAR	Borovoye Array	46.11	342	P	P	10 20 40.7	-0.3
	comp=N,3.0nm,0.5s,mb4.5,baz=149,slow=9.5,SNR=5.8						
NWAO	Narrogin (SRO)	49.16	152	P	P	10 21 05.2	-0.1
	comp=N,17nm,0.8s,mb5.1,baz=335,slow=5.6,SNR=3.9						
NWAO				pP	pP	10 21 13.5	+0.9
	comp=N,16nm,0.7s,baz=330,slow=9.6,SNR=2.9						
WRA	Warramunga Arr	51.23	126	P	P	10 21 20.4	-0.8
	comp=N,9.4nm,0.4s,mb5.1,baz=300,slow=10,SNR=28						
GNI	Garni	51.38	314	P	P	10 21 22.0	0.0
	comp=N,3.1nm,0.5s,mb4.5,baz=14,slow=12,SNR=1.8						
ASAR	Alice Springs	52.93	130	P	P	10 21 33.2	-0.7
	comp=N,7.5nm,0.9s,mb4.6,baz=320,slow=5.0,SNR=14						
ASAJ	Asahikawa	54.92	43	P	P	10 21 48.5	+0.2
	comp=N,15nm,0.8s,mb5.1,baz=272,slow=16,SNR=4.7						
ASAJ				LR	LR	10 47 24.7	
	comp=N,242nm,19.0s,MS4.3,baz=49,slow=38						
PMG	Port Moresby	58.09	108	P	P	10 22 11.3	0.0
	comp=N,20nm,0.9s,mb5.1,baz=112,slow=23,SNR=3.7						
CTA	Charters Tower	61.17	120	P	P	10 22 32.4	0.0
	comp=N,8.5nm,0.8s,mb5.0,baz=300,slow=9.2,SNR=6.7						
STKA	Stephens Creek	63.16	134	P	P	10 22 46.0	+0.6
	comp=N,4.6nm,0.5s,mb4.9,baz=309,slow=8.4,SNR=11						
STKA				pP	pP	10 22 54.2	+1.2
	comp=N,7.5nm,0.7s,baz=308,slow=8.7,SNR=6.2						
AKASG	Malin Array Be	65.08	321	P	P	10 23 01.8	+4.0
	comp=N,4.1nm,0.8s,mb4.5,baz=86,slow=5.0,SNR=5.0						
MLR	Muntele Rosu	66.11	315	P	P	10 23 06.0	+1.6
	comp=N,6.3nm,0.9s,mb4.6,baz=109,slow=7.9,SNR=4.3						
MLR				pP	pP	10 23 13.3	+1.3
	comp=N,9.6nm,0.9s,baz=86,slow=4.5,SNR=5.7						
FINES	FINESS Array B	69.69	332	P	P	10 23 26.1	-0.5
	comp=N,4.8nm,0.9s,mb4.4,baz=117,slow=8.5,SNR=4.7						
FINES				pP	pP	10 23 33.4	-0.8
	comp=N,6.4nm,0.9s,baz=114,slow=6.9,SNR=5.0						
ARCES	ARCESS Array B	72.36	340	P	P	10 23 42.7	+0.1
	comp=N,5.0nm,0.7s,mb4.6,baz=99,slow=6.8,SNR=6.9						
PRU	Pruhonice	74.25	319	*e*P	P	10 24 02.8	+8.9
PRU				*e*x	x	10 24 17.0	
GERES	GERESS Array B	74.75	318	P	P	10 23 57.1	+0.2
	comp=N,0.5nm,0.5s,mb3.7,baz=90,slow=3.9,SNR=3.7						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GERES				pP	pP	10 24 03.6	-0.8
	comp=N,3.2nm,0.8s,baz=90,slow=4.0,SNR=8.6						
KHC	**Kasperske Hory**	**74.84**	**318**	*e*P	**P**	**10 24 03.5**	**+6.1**
CLL	**Collm**	**75.28**	**320**	P	**P**	**10 24 00.0**	**+0.1**
HFS	**Hagfors**	**75.41**	**330**	P	**P**	**10 24 00.3**	**-0.2**
	comp=N,1.6nm,0.4s,mb4.3,baz=158,slow=7.8,SNR=4.2						
HFS				pP	pP	10 24 07.2	-0.8
	comp=N,6.8nm,0.7s,baz=90,slow=5.9,SNR=5.8						
FX1	**Attu Island--F**	**76.43**	**38**	LR	LR	10 56 56.6	
	comp=N,10nm,19.6s,baz=71,slow=35						
NB2	**NORSAR Subarra**	**76.70**	**330**	P	**P**	**10 24 06.5**	**-1.1**
	comp=N,4.7nm,0.8s,mb4.5,baz=93,slow=5.8						
NOA	**NORSAR Array B**	**76.70**	**330**	P	**P**	**10 24 06.9**	**-0.7**
	comp=N,2.9nm,0.8s,mb4.3,baz=92,slow=6.1,SNR=4.8						
NOA				pP	pP	10 24 14.7	-0.5
	comp=N,3.8nm,0.8s,baz=94,slow=5.7,SNR=5.9						
DAVOX	**Davos**	**77.33**	**316**	P	**P**	**10 24 15.0**	**+3.6**
	comp=N,4.8nm,0.7s,mb4.5,baz=100,slow=6.1,SNR=6.1						
DAVOX				LR	LR	11 00 24.2	
	comp=N,245nm,21.7s,MS4.5,baz=260,slow=37						
JMIC	**Jan Mayen**	**83.82**	**341**	LR	LR	11 06 27.7	
	comp=N,255nm,21.3s,MS4.6,baz=93,slow=39						
EKA	**Eskdalemuir Ar**	**84.65**	**325**	P	**P**	**10 24 50.5**	**+0.7**
	comp=N,9.2nm,1.1s,mb4.8,baz=97,slow=6.7,SNR=4.9						
EKA				pP	pP	10 24 57.8	+0.2
	comp=N,5.1nm,0.8s,baz=98,slow=5.0,SNR=6.1						
ESDC	**Sonseca Array**	**88.20**	**310**	pP	pP	10 25 16.9	+1.5
	comp=N,1.6nm,0.8s,baz=47,slow=3.4,SNR=3.3						
ILAR	**Eielson Array**	**93.24**	**22**	P	**P**	**10 25 29.9**	**-0.6**
	comp=N,2.4nm,0.8s,mb4.7,baz=301,slow=4.4,SNR=17						
ILAR				PP	PP	10 29 08.3	-8.6
	comp=N,0.4nm,0.8s,baz=282,slow=8.3,SNR=3.5						
ILAR				LR	LR	11 16 03.1	
	comp=N,211nm,18.9s,MS4.6,baz=85,slow=41						
INK	**Inuvik**	**95.22**	**15**	P	**P**	**10 25 39.9**	**+0.4**
	comp=N,2.3nm,0.6s,mb4.8,baz=264,slow=1.3,SNR=3.8						
YKA	**Yellowknife Ar**	**104.53**	**12**	PP	PP	10 30 34.3	-9.0
	comp=N,1.0nm,0.8s,baz=333,slow=7.3,SNR=3.7						
PDAR	**Pinedale Array**	**123.59**	**19**	PKP	PKPdf	10 31 14.8	-2.7
	comp=N,0.8nm,0.8s,baz=106,slow=1.8,SNR=4.7						
PDAR				PP	PP	10 32 54.4	-5.3
	comp=N,0.8nm,1.0s,slow=0.9,SNR=2.8						
NVAR	**Mina Array Bea**	**123.80**	**29**	PKP	PKPdf	10 31 16.7	-1.3
	comp=N,2.5nm,0.9s,baz=284,slow=2.8,SNR=8.2						
TXAR	**Lajitas Array**	**137.75**	**21**	PKP	PKPdf	10 31 42.3	-2.3
	comp=N,3.8nm,1.2s,slow=2.5,SNR=8.4						

IDC 29 10:15:54.1±12.0**, 6.40N**×**94.69E, h63**^{km}±75^{km}**, mb3.7**/6**, mb1 3.8**/7**, mb1mx3.6**/19**, mbtmp3.9**/7**, ML4.2**/1**, Error ellipse: s-maj=130.8km s-min=56.7km az=153.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.68**	**19**	P	P	10 18 52.2	-1.4
	0.4nm,0.3s,baz=225,slow=14,SNR=4.6						
SONM	**Songino Array**	**42.48**	**12**	P	P	10 23 42.5	-2.2
	0.8nm,0.9s,baz=196,slow=10,SNR=1.8						
ZAL	**Zalesovo**	**48.07**	**352**	P	P	10 24 27.6	-1.6
	1.1nm,0.5s,baz=163,slow=2.8,SNR=4.0						
BVAR	**Borovoye Array**	**50.55**	**341**	P	P	10 24 46.1	-2.2
	1.9nm,0.8s,baz=124,slow=5.2,SNR=4.2						
BRTR	**Keskin Array B**	**63.80**	**311**	P	P	10 26 18.9	-3.3
	0.7nm,0.7s,baz=94,slow=6.1,SNR=3.6						
ARCES	**ARCESS Array B**	**76.83**	**340**	P	P	10 27 38.8	-1.8
	3.0nm,0.8s,baz=104,slow=7.4,SNR=3.6						
GERES	**GERESS Array B**	**79.28**	**318**	P	P	10 27 55.1	+0.6
	0.3nm,0.3s,baz=90,slow=5.3,SNR=4.4						
EKA	**Eskdalemuir Ar**	**89.24**	**326**	P	P	10 28 47.0	+2.7
	2.3nm,0.9s,baz=106,slow=5.2,SNR=3.5						
TXAR	**Lajitas Array**	**140.33**	**26**	PKP	PKPdf	10 35 15.4	-1.3
	2.9nm,1.0s,baz=315,slow=1.8,SNR=11						

IDC ***29*** *10:16:40.3±0.6, 6.05N×92.75E, h23*^{km}*±2*^{km}*, mb4.0/12, mb1 4.2/13, mb1mx4.2/19, mbtmp4.2/13, ML4.2/1, Error ellipse: s-maj=27.4km s-min=12.8km az=45.0*

ISC 29 10:16:38.5±0.7**, 6.1N**±0.1×**92.8E**±0.1**, h24**^{km}**, h24**^{km}±.4^{km}**:pP-P, n27,** σ**0**^{s}**88**/16**, mb4.3**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.70**	**25**	Pn	**P**	**10 19 53.8**	**-0.1**
	0.4nm,0.3s,baz=230,slow=14,SNR=16						
SONM	**Songino Array**	**43.22**	**13**	P	**P**	**10 24 39.5**	**+0.1**
	4.9nm,1.0s,mb4.2,baz=196,slow=9.0,SNR=9.0						
SONM				pPcP		10 26 37.1	
	2.7nm,0.8s,baz=202,slow=3.7,SNR=4.6						
ZAL	**Zalesovo**	**48.18**	**354**	P	**P**	**10 25 18.9**	**+0.1**
	11nm,1.2s,mb4.8,baz=204,slow=7.4,SNR=6.3						
ZAL				pP	pP	10 25 26.7	+0.5
	5.1nm,0.9s,baz=216,slow=7.2,SNR=7.3						
WRA	**Warramunga Arr**	**48.34**	**123**	P	**P**	**10 25 20.7**	**+0.2**
	22nm,0.8s,mb5.2,baz=302,slow=9.0,SNR=10						
WRA				pP	pP	10 25 27.5	-0.3
	22nm,0.8s,baz=301,slow=8.9,SNR=31						
ASAR	**Alice Springs**	**49.82**	**128**	P	**P**	**10 25 31.6**	**-0.3**
	2.3nm,0.9s,mb4.2,baz=302,slow=7.8,SNR=3.8						
ASAR				pP	pP	10 25 38.6	-0.6
	8.7nm,0.9s,baz=305,slow=7.4,SNR=16						
BVAR	**Borovoye Array**	**50.29**	**343**	P	**P**	**10 25 34.0**	**-1.1**
	1.4nm,0.8s,mb4.0,baz=158,slow=7.8,SNR=3.4						
BVAR				pP	pP	10 25 42.0	-0.5
	4.3nm,0.9s,baz=143,slow=7.2,SNR=6.6						
GNI	**Garni**	**54.77**	**316**	pP	pP	10 26 16.5	+0.4
	3.0nm,0.5s,baz=305,slow=1.4,SNR=2.4						
KMBO	**Kilima Mbogo**	**55.91**	**265**	P	**P**	**10 26 16.8**	**-0.6**
	2.1nm,0.9s,mb4.2,baz=91,slow=10,SNR=3.5						
CTA	**Charters Tower**	**58.61**	**118**	pP	pP	10 26 43.7	-0.1
	10nm,1.0s,baz=288,slow=4.0,SNR=4.3						
STKA	**Stephens Creek**	**59.85**	**132**	pP	pP	10 26 51.3	-1.0
	5.5nm,0.9s,baz=296,slow=4.9,SNR=6.5						
BRTR	**Keskin Array B**	**62.62**	**312**	P	**P**	**10 27 02.2**	**-1.1**
	1.1nm,0.7s,mb4.1,baz=90,slow=5.8,SNR=3.0						
BRTR				pP	pP	10 27 10.1	-0.8
	3.8nm,0.8s,baz=121,slow=7.2,SNR=8.1						
AKASG	**Malin Array Be**	**68.75**	**322**	pP	pP	10 27 48.3	-1.8
	4.1nm,0.7s,baz=91,slow=5.2,SNR=7.7						
MLR	**Muntele Rosu**	**69.54**	**316**	P	**P**	**10 27 48.7**	**+1.2**
	9.5nm,1.2s,mb4.6,baz=122,slow=9.5,SNR=3.1						
MLR				pP	pP	10 27 55.7	+0.7
	9.5nm,0.8s,baz=24,slow=1.9,SNR=7.2						
FINES	**FINESS Array B**	**73.69**	**333**	P	**P**	**10 28 10.6**	**-1.4**
	2.3nm,0.9s,mb4.1,baz=162,slow=4.4,SNR=2.8						
FINES				pP	pP	10 28 18.4	-1.1
	4.2nm,0.7s,baz=104,slow=7.9,SNR=6.6						
KAF	**Kangasniemi**	**73.80**	**333**	*e*p	**P**	**10 28 14.4**	**+1.9**
	4.8nm,1.0s,mb4.4						
ZST	**Bratislava**	**75.98**	**318**	*e*	pP	10 28 33.1	+0.1
GERES	**GERESS Array B**	**78.29**	**319**	P	**P**	**10 28 38.8**	**+0.6**
	1.2nm,0.7s,mb4.0,baz=90,slow=5.9,SNR=4.1						
GERES				pP	pP	10 28 46.3	+0.5
	5.3nm,0.7s,baz=86,slow=4.8,SNR=12						
KHC	**Kasperske Hory**	**78.39**	**319**	*e*P	**P**	**10 28 46.5**	**+7.8**
HFS	**Hagfors**	**79.35**	**330**	pP	pP	10 28 51.2	-0.2
	2.1nm,0.7s,baz=135,slow=6.1,SNR=2.4						
NB2	**NORSAR Subarra**	**80.65**	**331**	P	**P**	**10 28 57.8**	**+7.1**
	1.0nm,0.8s,mb3.8,baz=97,slow=5.0						
NOA	**NORSAR Array B**	**80.65**	**331**	P	**P**	**10 28 50.3**	**-0.4**
	0.6nm,0.7s,mb3.6,baz=174,slow=17,SNR=3.0						
NOA				pP	pP	10 28 57.9	-0.5
	1.5nm,0.8s,baz=95,slow=5.5,SNR=3.4						
DAVOX	**Davos**	**80.77**	**316**	P	**P**	**10 28 52.4**	**+0.8**
	3.3nm,0.8s,mb4.3,baz=117,slow=11,SNR=3.1						
DAVOX				pP	pP	10 29 00.2	+1.0
	8.7nm,0.7s,baz=127,slow=9.7,SNR=8.1						
EKA	**Eskdalemuir Ar**	**88.45**	**325**	pP	pP	10 29 38.7	+1.0
	3.6nm,0.8s,baz=90,slow=5.0,SNR=4.3						
ULM	**Lac du Bonnet**	**123.42**	**7**	pPKP		10 35 44.2	
	1.8nm,0.7s,baz=348,slow=2.8,SNR=2.6						
NVAR	**Mina Array Bea**	**127.15**	**31**	PKP	PKPdf	10 35 45.4	-0.6
	0.7nm,0.9s,baz=39,slow=5.8,SNR=3.4						
NVAR				pPKP		10 35 52.4	
	1.8nm,0.8s,baz=114,slow=0.7,SNR=7.2						
PDAR	**Pinedale Array**	**127.33**	**21**	PKP	PKPdf	10 35 44.0	-2.1
	1.8nm,0.9s,baz=135,slow=2.1,SNR=4.2						
PDAR				pPKP		10 35 51.5	
	1.8nm,0.9s,slow=1.8,SNR=9.1						
TXAR	**Lajitas Array**	**141.41**	**23**	PKP	PKPdf	10 36 13.3	+0.5
	1.6nm,1.1s,baz=16,slow=0.4,SNR=3.9						
TXAR				PP	PP	10 39 14.4	-0.7
	1.6nm,1.2s,baz=326,slow=4.5,SNR=3.9						

IDC ***29*** *10:21:51.7±0.7, 7.81N×92.12E, h26*^{km}*±3*^{km}*, mb3.6/8, mb1 3.9/9, mb1mx3.7/18, mbtmp3.8/9, Error ellipse: s-maj=31.0km s-min=14.1km az=47.0*

ISC 29 10:21:49.4±0.8**, 7.8N**±0.1×**92.2E**±0.1**, h27**^{km}**, h27**^{km}±.8^{km}**:pP-P, n15,** σ**0**^{s}**50**/9**, mb3.8**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.48**	**31**	Pn	**P**	**10 24 48.3**	**0.0**
	baz=218,slow=15,SNR=3.0						
SONM	**Songino Array**	**41.70**	**14**	P	**P**	**10 29 38.0**	**+0.4**
	1.0nm,0.8s,mb3.5,baz=206,slow=7.8,SNR=4.5						
SONM				pP	pP	10 29 46.1	+0.4
	3.0nm,0.8s,baz=197,slow=8.1,SNR=9.5						
ZAL	**Zalesovo**	**46.40**	**354**	pP	pP	10 30 23.4	-0.2
	3.8nm,1.1s,baz=202,slow=9.5,SNR=4.2						
BVAR	**Borovoye Array**	**48.47**	**343**	P	**P**	**10 30 30.8**	**-0.7**
	0.6nm,0.5s,mb3.9,baz=139,slow=13,SNR=2.6						
BVAR				pP	pP	10 30 39.8	-0.1
	2.3nm,0.9s,baz=90,slow=5.8,SNR=5.1						
WRA	**Warramunga Arr**	**49.81**	**124**	P	**P**	**10 30 42.1**	**-0.2**
	0.7nm,0.6s,mb3.9,baz=305,slow=8.4,SNR=6.5						
WRA				pP	pP	10 30 51.3	+0.6
	1.8nm,0.8s,baz=303,slow=8.8,SNR=6.2						
ASAR	**Alice Springs**	**51.36**	**129**	P	**P**	**10 30 54.2**	**+0.1**
	0.7nm,0.6s,mb3.8,baz=305,slow=6.6,SNR=6.9						
ASAR				pP	pP	10 31 03.0	+0.6
	2.1nm,0.8s,baz=305,slow=8.1,SNR=9.4						
BRTR	**Keskin Array B**	**61.02**	**311**	P	**P**	**10 32 03.0**	**0.0**
	0.3nm,0.5s,mb3.7,baz=45,slow=6.1,SNR=2.8						
BRTR				pP	pP	10 32 10.5	-1.1
	1.4nm,0.8s,baz=106,slow=9.0,SNR=5.5						
STKA	**Stephens Creek**	**61.46**	**133**	pP	pP	10 32 16.7	+2.0
	2.5nm,0.9s,baz=312,slow=8.5,SNR=3.1						
MLR	**Muntele Rosu**	**67.88**	**316**	P	**P**	**10 32 48.8**	**+1.1**
	2.2nm,0.9s,mb4.2,baz=126,slow=19,SNR=2.3						
MLR				pP	pP	10 32 56.7	+0.4
	4.9nm,1.0s,baz=121,slow=2.1,SNR=3.8						
FINES	**FINESS Array B**	**71.88**	**332**	P	**P**	**10 33 11.3**	**-0.5**
	0.9nm,0.7s,mb3.8,baz=30,slow=11,SNR=3.4						
GERES	**GERESS Array B**	**76.60**	**318**	P	**P**	**10 33 39.1**	**-0.2**
	0.3nm,0.4s,mb3.6,baz=45,slow=5.6,SNR=2.6						
GERES				pP	pP	10 33 47.7	-0.3
	1.7nm,0.9s,baz=90,slow=4.0,SNR=4.8						
ULM	**Lac du Bonnet**	**121.78**	**6**	PKP	PKPdf	10 40 43.9	-2.1
	1.1nm,0.5s,baz=18,slow=3.2,SNR=3.3						
PDAR	**Pinedale Array**	**125.93**	**20**	PKP	PKPdf	10 40 52.1	-2.1
	0.6nm,1.0s,baz=315,slow=2.6,SNR=3.5						
PDAR				pPKP		10 41 00.3	
	1.4nm,1.1s,baz=270,slow=1.5,SNR=4.0						
NVAR	**Mina Array Bea**	**125.97**	**29**	PKP	PKPdf	10 40 54.0	-0.5
	0.4nm,0.6s,baz=233,slow=4.5,SNR=3.4						
NVAR				pPKP		10 41 01.2	
	1.1nm,0.9s,baz=272,slow=1.6,SNR=3.5						
TXAR	**Lajitas Array**	**140.06**	**22**	PKP	PKPdf	10 41 20.1	-1.0
	0.1nm,0.5s,baz=27,slow=2.0,SNR=2.8						
TXAR				pPKP		10 41 27.8	
	1.0nm,1.0s,slow=1.3,SNR=4.6						

NIED ***29*** *10:22:00, 44.60N×146.70E, h195*^{km}*, Mw3.9 Best double couple: M*$_0$*8.56×10*^{14} *NP1:*ϕ_s*50°, δ72°, λ138°. NP2:*ϕ_s*156°, δ51°, λ23°.*

JMA ***29*** *10:22:24.6±0.2, 44.64N×146.70E, h177*^{km}*±2*^{km}*, M3.8*

IDC ***29*** *10:22:26.0±1.4, 44.86N×146.39E, h195*^{km}*±22*^{km}*, mb3.6/12, mb1 3.8/13, mb1mx3.6/25, mbtmp4.1/13, Error ellipse: s-maj=46.8km s-min=17.7km az=3.0*

ISC 29 10:22:23.4±0.6**, 44.58N**±0.10×**146.6E**±0.1**, h195**^{km}±8^{km}**, n28,** σ**1**^{s}**09**/40**, mb3.8**/12**, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JRA	**Rausu**	**1.25**	**239**	P	**P**	**10 22 54.8**	**-0.1**
JRA				*e*S	**S**	**10 23 17.9**	**-1.3**
NEM2	**Nemuro 2**	**1.37**	**208**	P	**P**	**10 22 55.5**	**-0.4**
NEM2				S	**S**	**10 23 19.0**	**-2.0**
JNK	**Nakash**	**1.69**	**235**	P	**P**	**10 22 59.4**	**+0.5**
JTKR	**Abashiri--Toko**	**2.04**	**253**	P	**P**	**10 23 02.7**	**+0.4**
JTKR				*e*S	**S**	**10 23 31.5**	**-0.8**
JAK	**Akkeshi**	**2.11**	**222**	P	**P**	**10 23 03.7**	**+0.6**
JAK				S	**S**	**10 23 32.8**	**-0.9**
JMP	**Maruseppu**	**2.41**	**257**	P	**P**	**10 23 06.9**	**+0.5**
JMP				*e*S	**S**	**10 23 37.5**	**-2.1**
JAR	**Ashorobuto**	**2.42**	**239**	P	**P**	**10 23 07.9**	**+1.3**
JAR				*e*S	**S**	**10 23 41.3**	**+1.3**
JOB	**Onbets**	**2.62**	**231**	P	**P**	**10 23 10.2**	**+1.3**
JOB				S	**S**	**10 23 43.7**	**-0.3**
JKK2	**Kamakawa 2**	**2.87**	**257**	P	**P**	**10 23 12.8**	**+1.0**
JKK2				*e*S	**S**	**10 23 49.5**	**+0.4**
JSE	**Soyaes**	**2.90**	**279**	P	**P**	**10 23 12.1**	**0.0**
ASAJ	**Asahikawa**	**2.92**	**262**	P	**P**	**10 23 13.5**	**+1.1**
	8.3nm,0.3s,baz=89,slow=14,SNR=25						
ASAJ				S	**S**	**10 23 50.2**	**0.0**
	1.5nm,0.3s,baz=261,slow=26,SNR=6.5						
JCH	**Churui**	**3.08**	**231**	P	**P**	**10 23 15.1**	**+0.9**
JCH				*e*S	**S**	**10 23 52.6**	**-0.9**
JFR	**Furan**	**3.24**	**245**	P	**P**	**10 23 18.0**	**+1.8**
JFR				*e*S	**S**	**10 23 57.7**	**+0.7**
JWK2	**Keihoku**	**3.43**	**284**	P	**P**	**10 23 19.7**	**+1.1**
JNBK	**Urakawa-nobuka**	**3.63**	**232**	P	**P**	**10 23 21.0**	**-0.1**
JNBK				*e*S	**S**	**10 24 02.5**	**-3.2**
ILAR	**Eielson Array**	**41.05**	**37**	P	**P**	**10 29 49.0**	**+0.2**
	1.3nm,0.5s,mb3.6,baz=262,slow=5.2,SNR=30						
INK	**Inuvik**	**45.88**	**31**	P	**P**	**10 30 26.6**	**-0.8**
	0.9nm,0.3s,mb3.6,baz=280,slow=6.0,SNR=3.7						
YKA	**Yellowknife Ar**	**55.33**	**34**	P	**P**	**10 31 37.8**	**-0.6**
	1.2nm,0.7s,mb3.5,baz=300,slow=7.1,SNR=10						
ARCES	**ARCESS Array B**	**58.33**	**339**	P	**P**	**10 31 57.5**	**-2.0**
	2.7nm,1.0s,mb3.8,baz=56,slow=6.5,SNR=4.2						
FINES	**FINESS Array B**	**63.96**	**333**	P	**P**	**10 32 35.5**	**-1.7**
	1.0nm,0.5s,mb3.8,baz=43,slow=8.0,SNR=12						
NVAR	**Mina Array Bea**	**67.46**	**58**	P	**P**	**10 32 59.3**	**-0.6**
	0.6nm,0.7s,mb3.4,baz=293,slow=6.9,SNR=3.3						
NB2	**NORSAR Subarra**	**68.69**	**338**	P	**P**	**10 33 05.6**	**-1.4**
	0.6nm,0.4s,mb3.6,baz=30,slow=6.5						
NOA	**NORSAR Array B**	**68.69**	**338**	P	**P**	**10 33 06.0**	**-1.1**
	1.5nm,0.5s,mb3.9,baz=31,slow=6.4,SNR=3.5						
HFS	**Hagfors**	**68.77**	**337**	P	**P**	**10 33 06.3**	**-1.3**
	1.3nm,0.4s,mb4.0,baz=45,slow=4.2,SNR=14						
PDAR	**Pinedale Array**	**69.67**	**50**	P	**P**	**10 33 14.8**	**+1.5**
	2.9nm,0.9s,mb3.9,baz=320,slow=1.0,SNR=17						
SCHQ	**Schefferville**	**76.96**	**19**	P	**P**	**10 33 55.8**	**+0.5**
	2.0nm,0.9s,mb3.7,baz=343,slow=11,SNR=4.5						
TXAR	**Lajitas Array**	**82.51**	**56**	P	**P**	**10 34 27.3**	**+1.9**
	0.4nm,0.5s,mb3.4,baz=295,slow=4.1,SNR=6.7						
IDI	**Anoyia**	**84.56**	**316**	P	**P**	**10 34 36.1**	**+0.6**
	11nm,1.0s,mb4.5,baz=0.1,slow=9.0,SNR=5.6						

MOS ***29*** *10:24:00.9±0.9, 8.80N×92.34E, h33*^{km}*, mb5.2/23, Error ellipse: s-maj=15.9km s-min=6.7km az=116.4*

BJI ***29*** *10:24:01.0, 8.54N×92.55E, h47*^{km}*, mB5.2, mb4.9, Ms5.0, Msz4.6*

NEIC ***29*** *10:24:02.3±0.6, 8.89N×92.40E, mb4.9/19, Error ellipse: s-maj=16.1km s-min=11.0km az=191.0*

IDC ***29*** *10:24:02.6±0.4, 8.99N×92.45E, h26*^{km}*±2*^{km}*, mb4.5/29, mb1 4.6/30, mb1mx4.6/30, mbtmp4.7/30, ML4.6/1, Error ellipse: s-maj=16.4km s-min=8.9km az=49.0*

ISC 29 10:24:00.6±0.3**, 8.86N**±0.05×**92.44E**±0.04**, h28**^{km}**, h28**^{km}±.4^{km}**:pP-P, n167,** σ**1**^{s}**02**/161**, mb4.8**/69**, MS4.6**/3**, 8C-4D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.44**	**33**	Pn	**P**	**10 26 44.8**	**-0.7**
	1.1nm,0.3s,baz=228,slow=14,SNR=12						
MDRS	**Chennai**	**12.68**	**290**	*e*P	**P**	**10 27 01.0**	**-1.1**
MDRS				*e*		10 29 07.0	
HYB	**Hyderabad**	**15.97**	**304**	*e*P	**P**	**10 27 43.0**	**-2.2**
HYB				*e*S	**S**	**10 30 37.0**	**-4.2**
HYB	**Hyderabad**	**15.97**	**304**	*e*P	**P**	**10 27 43.0**	**-2.2**
HYB				*e*		10 27 57.0	
HYB				*e*S	**S**	**10 30 37.0**	**-4.2**
HYB	**Hyderabad**	**15.97**	**304**	*i* P	**P**	**10 27 43.0**	**-2.2**
HYB				*e*		10 27 57.0	
HYB				*e*S	**S**	**10 30 37.0**	**-4.2**
KMI	**Kunming**	**18.92**	**30**	⇓P	**P**	**10 28 24.0**	**+2.1**
KMI				AMB	AMB		
	comp=Z,30nm,0.8s						
PKI	**Pulchoki**	**19.77**	**341**	*e*P	**P**	**10 28 32.1**	**+0.5**
	comp=Z,24nm,0.5s						
DMN	**Daman**	**19.90**	**341**	*e*P	**P**	**10 28 33.4**	**+0.4**
	comp=Z,59nm,0.7s						
GUN	**Gumba**	**19.94**	**343**	*e*P	**P**	**10 28 33.4**	**-0.1**
	comp=Z,85nm,0.5s						
KKN	**Kakani**	**20.01**	**341**	*e*P	**P**	**10 28 34.4**	**+0.2**
	comp=Z,50nm,0.6s						
GKN	**Gorkha**	**20.42**	**340**	*e*P	**P**	**10 28 38.4**	**0.0**
	comp=Z,105nm,0.5s						
KOLN	**Koldanda**	**20.58**	**337**	*e*P	**P**	**10 28 40.7**	**+0.6**
	comp=Z,58nm,0.6s						
LSA	**Lhasa**	**20.77**	**357**	*e*P	**P**	**10 28 41.4**	**-0.7**
LSA				pmax	pmax		
	comp=Z,46nm,0.7s						
LSA	**Lhasa**	**20.77**	**357**	*e*P	**P**	**10 28 41.4**	**-0.6**
	comp=Z,46nm,0.7s						
GYA	**Guiyang**	**22.10**	**36**	⇑*i*P	**P**	**10 28 56.3**	**+0.8**
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
PTH	**Pithoragarh**	**23.56**	**333**	*e*P	**P**	**10 29 10.9**	**+1.1**
PTH				*e*	**S**	**10 33 32.1**	**+13**
SONA	**Sohna**	**24.12**	**325**	*e*P	**P**	**10 29 16.0**	**+0.8**
SONA				AMb	AMB	10 29 17.8	
	comp=Z,86nm,1.6s,mb5.0						
AYAN	**Aya Nagar**	**24.27**	**326**	*e*P	**P**	**10 29 15.7**	**-1.0**
AYAN				AMb	AMB	10 29 19.4	
	comp=Z,65nm,3.1s						
CD2	**Chengdu**	**24.35**	**24**	P	**P**	**10 29 18.3**	**+0.8**
CD2				AMB	AMB		
	comp=Z,80nm,0.6s,mb5.3						
NDI	**New Delhi**	**24.38**	**326**	*e*P	**P**	**10 29 17.0**	**-0.8**
KUDL	**Kundal**	**24.38**	**324**	*e*P	**P**	**10 29 19.0**	**+1.2**
KUDL				AMb	AMB	10 29 22.3	
	comp=Z,15nm,1.1s,mb4.3						
DDI	**Dehra Dun**	**25.24**	**330**	*e*P	**P**	**10 29 23.3**	**-2.7**
KLP	**Kalpa**	**26.14**	**332**	*e*P	**P**	**10 29 35.1**	**+0.7**
KLP				AMb	AMB	10 29 40.7	
	comp=Z,24nm,1.0s,mb4.7						
ENH	**Enshi**	**26.61**	**34**	*e*P	**P**	**10 29 37.8**	**-1.0**
	comp=Z,20nm,0.8s,mb4.7						
LZH	**Lanzhou**	**29.03**	**19**	*e*P	**P**	**10 30 00.5**	**-0.1**
LZH				AMB	AMB		
	comp=Z,31nm,1.0s,mb5.0						
XAN	**Xi’an**	**29.30**	**29**	P	**P**	**10 30 00.0**	**-3.0**
XAN				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.8						
GTA	**Gaotai**	**31.13**	**11**	P	**P**	**10 30 19.8**	**+0.6**
GTA				AP	pP	10 30 27.3	-0.2
GTA				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.5						
NJ2	**Nanjing**	**33.66**	**43**	*e*P	**P**	**10 30 41.8**	**+0.4**
NJ2				AP	pP	10 30 50.5	+0.8
NJ2				XP	sP	10 30 57.0	+3.7
NJ2				S	**S**	**10 36 03.0**	**+1.6**
NJ2				XS		10 36 20.0	
NJ2				AMB	AMB		
	comp=Z,60nm,0.8s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,470nm,6.4s						
NJ2				LR	LR		
	comp=N,1µm,14.8s,MS4.9						
NJ2				LR	LR		
	comp=E,2µm,19.6s,MS4.9						
NJ2				LR	LR		
	comp=Z,2µm,12.4s						
SSE	**Sheshan**	**34.73**	**46**	P	**P**	**10 30 48.5**	**-2.1**
SSE				S	**S**	**10 36 19.0**	**+1.1**
SSE				XS		10 36 35.8	
SSE				AMB	AMB		
	comp=Z,16nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,141nm,4.9s						
SSE				LR	LR		
	comp=N,304nm,14.9s,MS4.2						
SSE				LR	LR		
	comp=E,137nm,14.9s,MS4.2						
SSE				LR	LR		
	comp=Z,374nm,14.1s,MS4.3						
WMQ	**Urumqi**	**35.08**	**354**	P	**P**	**10 30 54.3**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,22nm,0.6s,mb5.3						
HHC	**Hu-ho-hao-te**	**36.10**	**25**	*e*P	**P**	**10 31 02.3**	**+0.2**
HHC				AMB	AMB		
	comp=Z,19nm,0.8s,mb5.1						
HHC				AMB	AMB		
	comp=Z,386nm,9.2s						
HHC				LR	LR		
	comp=N,626nm,15.5s						
HHC				LR	LR		
	comp=E,2µm,5.9s						
HHC				LR	LR		
	comp=Z,675nm,11.9s,MS4.6						
UCH	**Uchtor**	**36.80**	**338**	P	**P**	**10 31 09.4**	**+1.5**
	SNR=8.4						
KBK	**Karagaybulak**	**37.01**	**338**	P	**P**	**10 31 11.4**	**+1.7**
	SNR=12						
TKM2	**Tokmak 2**	**37.01**	**339**	P	**P**	**10 31 10.6**	**+0.9**
	SNR=8.3						
AML	**Almayashu**	**37.03**	**337**	P	**P**	**10 31 11.7**	**+1.8**
	SNR=37						
AAK	**Ala-Archa**	**37.15**	**338**	P	**P**	**10 31 12.4**	**+1.5**
	SNR=12						
AAK	**Ala-Archa**	**37.15**	**338**	⇑*i*P	**P**	**10 31 11.3**	**+0.4**
AAK				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.0						
AAK	**Ala-Archa**	**37.15**	**338**	*e*P	**P**	**10 31 10.6**	**-0.4**
	comp=Z,19nm,1.0s,mb4.9						
FRU	**Bishkek**	**37.28**	**338**	*e*P	**P**	**10 31 13.5**	**+1.5**
CHMS	**Chumysh**	**37.38**	**338**	P	**P**	**10 31 13.9**	**+1.1**
	SNR=9.2						
EKS2	**Erkin-Say**	**37.45**	**337**	P	**P**	**10 31 14.9**	**+1.5**
	SNR=18						
BJI	**Beijing**	**37.58**	**30**	P	**P**	**10 31 15.0**	**+0.5**
BJI				AMB	AMB		
	comp=Z,18nm,1.2s,mb4.7						
USP	**Ospenovka**	**37.70**	**338**	P	**P**	**10 31 16.6**	**+1.1**
	SNR=11						
SONM	**Songino Array**	**40.61**	**14**	P	**P**	**10 31 40.0**	**+0.3**
	comp=Z,29nm,1.1s,mb4.8,baz=200,slow=7.8,SNR=51						
SONM				pP	pP	10 31 47.2	-0.9
	comp=Z,4.5nm,0.7s,baz=208,slow=9.1,SNR=6.0						
SONM				PcP	PcP	10 33 42.5	+0.5
	comp=Z,3.7nm,0.7s,baz=204,slow=4.2,SNR=8.8						
ULN	**Ulaanbaatar**	**40.80**	**15**	*e*P	**P**	**10 31 40.7**	**-0.5**
ULN				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.5						
ULN	**Ulaanbaatar**	**40.80**	**15**	*e*P	**P**	**10 31 40.7**	**-0.6**
	comp=Z,14nm,1.0s,mb4.6						
ZAK	**Zakamensk**	**42.37**	**10**	*e*P	**P**	**10 31 54.2**	**+0.1**
MOY	**Mondy**	**43.26**	**8**	*e*P	**P**	**10 32 02.2**	**+0.9**
TLY	**Talaya**	**43.68**	**10**	*c i*P	**P**	**10 32 05.8**	**+1.1**
TLY				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
ZAL	**Zalesovo**	**45.38**	**354**	P	**P**	**10 32 17.6**	**-0.7**
	comp=Z,5.7nm,0.7s,mb4.5,baz=204,slow=6.2,SNR=20						
QRN	**Al-Qurain**	**46.22**	**301**	*e*P	PP	10 34 17.0	+3.1
NVS	**Novosibirsk**	**46.45**	**353**	*i* P	**P**	**10 32 25.2**	**-1.6**
NVS				*e*		10 34 04.1	
NVS				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
NVS				pmax	pmax		
	comp=E,5.0nm,0.9s						
NVS				pmax	pmax		
	comp=N,6.0nm,0.6s						
RDF	**Al-Radifah**	**46.58**	**302**	*e*P	PP	10 34 16.1	-1.4
RDF				AMb	AMB	10 34 19.5	
	comp=Z,72nm,1.2s,mb5.5						
MIB	**Mutribah**	**47.01**	**303**	*e*P	PP	10 34 18.4	-3.3
MIB				AMb	AMB	10 34 20.1	
	comp=Z,60nm,0.8s,mb5.6						
BVAR	**Borovoye Array**	**47.53**	**342**	P	**P**	**10 32 34.8**	**-0.6**
	comp=Z,3.7nm,0.5s,mb4.6,baz=138,slow=9.5,SNR=19						
KAMS	**Al Khamasin**	**47.54**	**289**	P	**P**	**10 32 36.3**	**+0.4**
BRVK	**Borovoye**	**47.59**	**342**	*e*P	**P**	**10 32 34.9**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.6						
BRVK	**Borovoye**	**47.59**	**342**	*e*P	**P**	**10 32 34.9**	**-1.0**
	comp=Z,2.8nm,0.5s,mb4.5						
NWAO	**Narrogin (SRO)**	**47.80**	**152**	P	**P**	**10 32 39.1**	**+1.4**
	comp=Z,7.6nm,0.4s,mb5.1,baz=323,slow=10,SNR=15						
NWAO				pP	pP	10 32 47.7	+1.4
	comp=Z,7.8nm,0.5s,baz=294,slow=6.9,SNR=3.1						
CHKZ	**Chkalovo**	**48.03**	**343**	*e*P	**P**	**10 32 38.9**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.3						
CHKZ	**Chkalovo**	**48.03**	**343**	*e*P	**P**	**10 32 38.9**	**-0.4**
	comp=Z,21nm,0.6s,mb5.3						
TATS	**Tathlith**	**48.49**	**288**	P	**P**	**10 32 44.0**	**+0.7**
AFFS	**‘Afif**	**49.48**	**294**	D		10 32 52.6	
MAT	**Matsushiro**	**49.77**	**49**	P	**P**	**10 32 53.5**	**+0.6**

MAT	**Matsushiro**	**49.77**	**49**	P	**P**	**10 32 54.0**	**+1.1**
WRA	**Warramunga Arr**	**50.20**	**125**	P	**P**	**10 32 55.5**	**-0.9**
	comp=Z,1.8nm,1.0s,mb4.0,baz=301,slow=9.8,SNR=7.4						
WRA				pP	pP	10 33 04.0	-1.0
	comp=Z,3.3nm,0.7s,baz=308,slow=8.4,SNR=6.5						
WRA				PcP	PcP	10 34 16.2	+0.7
	comp=Z,1.7nm,0.5s,baz=311,slow=2.9,SNR=7.0						
WRAB	**Tennant Creek**	**50.20**	**125**	*c* *i*P	**P**	**10 32 55.6**	**-0.8**
WRAB	**Tennant Creek**	**50.20**	**125**	*e*P	**P**	**10 32 55.4**	**-1.0**
	comp=Z,11nm,0.8s,mb5.0						
HILS	**Ha'il**	**51.16**	**298**	P	**P**	**10 33 05.5**	**+1.9**
BOD	**Bodaibo**	**51.61**	**15**	*e*P	**P**	**10 33 06.1**	**-0.5**
ASAR	**Alice Springs**	**51.83**	**129**	P	**P**	**10 33 07.8**	**-0.9**
	comp=Z,3.5nm,0.7s,mb4.4,baz=306,slow=7.8,SNR=20						
ASAR				PcP	PcP	10 34 22.2	+0.6
	comp=Z,2.5nm,0.5s,baz=307,slow=3.4,SNR=12						
ASAR				pPcP		10 34 30.8	
	comp=Z,1.6nm,0.6s,baz=302,slow=3.4,SNR=4.8						
GNI	**Garni**	**52.55**	**314**	P	**P**	**10 33 13.3**	**-0.7**
	comp=Z,4.7nm,0.5s,mb4.7,baz=138,slow=12,SNR=3.7						
SVE	**Sverdlovsk**	**53.88**	**339**	⇑*e*P	**P**	**10 33 23.0**	**-0.5**
SVE				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.3						
ZEI	**Tsey**	**54.18**	**317**	*e*P	**P**	**10 33 25.4**	**-0.5**
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
ARU	**Arti**	**54.34**	**338**	⇑*i*P	**P**	**10 33 26.4**	**-0.5**
ARU				*e*		10 35 29.6	
ARU				*e*S	**S**	**10 41 04.9**	**+3.5**
ARU				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
UMJS	**Umm Lajj**	**54.79**	**295**	P	**P**	**10 33 32.7**	**+2.1**
KIV	**Kislovodsk**	**55.47**	**318**	*e*P	**P**	**10 33 34.7**	**-0.6**
KIV	**Kislovodsk**	**55.47**	**318**	*e*P	**P**	**10 33 34.7**	**-0.6**
KMBO	**Kilima Mbogo**	**55.87**	**263**	P	**P**	**10 33 39.5**	**+1.0**
	comp=Z,2.1nm,0.6s,mb4.4,baz=78,slow=8.0,SNR=6.6						
TBKS	**Tabuk**	**55.88**	**298**	P	**P**	**10 33 40.1**	**+1.7**
JMQS	**Jabal Moqyreh**	**56.56**	**299**	P	**P**	**10 33 44.3**	**+0.9**
AYUS	**'Aynunah**	**56.99**	**298**	P	**P**	**10 33 47.6**	**+1.1**
BDAS	**Al Bad'**	**57.17**	**298**	P	**P**	**10 33 48.3**	**+0.6**
JMOS	**Jabal al Moall**	**57.27**	**299**	P	**P**	**10 33 49.0**	**+0.6**
TAYS	**Tayyib Ism**	**57.39**	**298**	P	**P**	**10 33 49.9**	**+0.7**
HAQS	**Haql**	**57.41**	**299**	P	**P**	**10 33 50.0**	**+0.6**
PMG	**Port Moresby**	**57.43**	**107**	P	**P**	**10 33 50.1**	**+0.4**
	comp=Z,9.9nm,0.8s,mb4.9,baz=52,slow=12,SNR=3.9						
EIL	**Elat**	**57.48**	**299**	P	**P**	**10 33 50.4**	**+0.5**
	comp=Z,7.7nm,0.6s,mb4.9,baz=48,slow=4.0,SNR=9.1						
EIL				pP	pP	10 33 59.2	+0.6
	comp=Z,7.6nm,0.7s,baz=355,slow=3.7,SNR=5.8						
EIL	**Elat**	**57.48**	**299**	*e*P	**P**	**10 33 50.1**	**+0.2**
EIL				*e*pP	pP	10 33 59.2	+0.6
YAK	**Yakutsk**	**59.62**	**19**	⇑*i*P	**P**	**10 34 03.0**	**-1.3**
YAK				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.3						
CTA	**Charters Tower**	**60.25**	**119**	P	**P**	**10 34 09.8**	**+0.6**
	comp=Z,6.8nm,0.8s,mb4.7,baz=313,slow=9.4,SNR=6.2						
BRTR	**Keskin Array B**	**60.52**	**311**	P	**P**	**10 34 08.9**	**-1.8**
	comp=Z,4.3nm,0.7s,mb4.7,baz=123,slow=7.4,SNR=20						
BRTR				pP	pP	10 34 17.8	-1.8
	comp=Z,4.7nm,0.8s,baz=112,slow=6.7,SNR=11						
STKA	**Stephens Creek**	**62.00**	**133**	P	**P**	**10 34 20.4**	**-0.6**
	comp=Z,3.8nm,0.7s,mb4.7,baz=320,slow=8.4,SNR=11						
OBN	**Obninsk**	**63.66**	**328**	*e*P	**P**	**10 34 30.1**	**-1.4**
OBN				*e*	pP	10 34 39.6	-0.7
OBN				*e*	sP	10 34 46.6	+3.1
OBN					PcP	10 35 07.1	-0.4
OBN					PP	10 36 48.4	-4.8
OBN				*e*	**S**	**10 43 04.3**	**+2.1**
OBN				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.1						
CFR	**Carcaliu**	**65.72**	**316**	⇓*i*P	**P**	**10 34 44.0**	**-1.1**
AKASG	**Malin Array Be**	**66.34**	**322**	P	**P**	**10 34 46.8**	**-2.2**
	comp=Z,2.2nm,0.5s,mb4.5,baz=88,slow=5.6,SNR=13						
AKASG				pP	pP	10 34 55.5	-2.2
	comp=Z,3.4nm,0.6s,baz=90,slow=5.3,SNR=6.2						
TIXI	**Tiksi**	**66.61**	**12**	⇑*i*P	**P**	**10 34 49.6**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,51nm,0.7s,mb5.7						
ISR	**Istrita**	**66.81**	**315**	⇓*i*P	**P**	**10 34 58.9**	**+6.8**
VRI	**Vrincioaia**	**66.83**	**316**	⇓*i*P	**P**	**10 34 52.1**	**-0.1**
MLR	**Muntele Rosu**	**67.30**	**316**	P	**P**	**10 34 55.0**	**-0.1**
	comp=Z,15nm,0.8s,mb5.1,baz=166,slow=2.8,SNR=19						
MLR				pP	pP	10 35 03.8	-0.1
	comp=Z,16nm,0.8s,baz=116,slow=4.5,SNR=10						
KWP	**Kalwaria**	**70.20**	**320**	*e*P	**P**	**10 35 12.2**	**-0.7**
KWP				*e*	pP	10 35 20.5	-1.2
APA	**Apatity**	**70.34**	**340**	*e*P	**P**	**10 35 13.4**	**-0.2**
APA				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
KOLS	**Kolonicke sedl**	**70.36**	**319**	*e*P	**P**	**10 35 11.8**	**-2.2**
SUW	**Suwalki**	**70.73**	**324**	*e*P	**P**	**10 35 14.8**	**-1.3**
SUW				*e*	pP	10 35 23.7	-1.2
CRVS	**Cervenica-Dubn**	**70.89**	**319**	*e*pP	pP	10 35 23.4	-2.6
FINES	**FINESS Array B**	**71.06**	**332**	P	**P**	**10 35 16.7**	**-1.3**
	comp=Z,9.0nm,0.7s,mb4.8,baz=96,slow=6.5,SNR=34						
FINES				pP	pP	10 35 25.7	-1.1
	comp=Z,7.4nm,0.9s,baz=90,slow=7.6,SNR=7.0						
KAF	**Kangasniemi**	**71.16**	**333**	*e*p	**P**	**10 35 17.2**	**-1.4**
	comp=Z,6.6nm,0.6s,mb4.7						
KAF	**Kangasniemi**	**71.16**	**333**	*e*P	**P**	**10 35 17.2**	**-1.4**
KAF				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
NIE	**Niedzica**	**71.71**	**319**	*e*P	**P**	**10 35 21.5**	**-0.6**
OJC	**Ojcow**	**72.14**	**320**	*e*P	**P**	**10 35 24.1**	**-0.6**
VYHS	**Vyhne**	**72.56**	**318**	*e*P	**P**	**10 35 26.2**	**-1.0**
KEV	**Kevo**	**73.36**	**341**	*e*p	**P**	**10 35 29.2**	**-2.2**
	comp=Z,7.4nm,0.7s,mb4.7						
KEV	**Kevo**	**73.36**	**341**	*e*P	**P**	**10 35 29.2**	**-2.2**
KEV				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
MORC	**Moravsky Berou**	**73.54**	**319**	*e*P	**P**	**10 35 31.1**	**-1.8**
MORC				*e**PP	pP	10 35 41.3	-0.4
MORC				pmax	pmax		
	comp=Z,20nm,1.4s,mb4.8						
MORC	**Moravsky Berou**	**73.54**	**319**	*e*P	**P**	**10 35 31.1**	**-1.8**
	comp=Z,20nm,1.4s,mb4.8						
MORC				*e*pP	pP	10 35 41.3	-0.4
ZST	**Bratislava**	**73.68**	**318**	*e*P	**P**	**10 35 33.2**	**-0.5**
ZST				*e*pP	pP	10 35 42.9	+0.3
ARCES	**ARCESS Array B**	**73.78**	**340**	P	**P**	**10 35 33.9**	**0.0**
	comp=Z,7.8nm,0.8s,mb4.7,baz=101,slow=4.9,SNR=19						
VRAC	**Vranov**	**74.11**	**319**	P	**P**	**10 35 36.1**	**0.0**
	comp=Z,1.2nm,0.4s,mb4.2,baz=100,slow=8.5,SNR=4.5						
DPC	**Dobruska-Polom**	**74.38**	**320**	*e*P	**P**	**10 35 37.9**	**+0.2**
DPC				*e*pP	pP	10 35 47.0	+0.4
KSP	**Ksiaz**	**74.44**	**320**	*e*P	**P**	**10 35 37.9**	**-0.1**
KSP				*e**PP	pP	10 35 46.6	-0.3
KSP	**Ksiaz**	**74.44**	**320**	*e*P	**P**	**10 35 38.1**	**+0.1**
KSP				*e*	pP	10 35 46.9	0.0
UPC	**Upice**	**74.59**	**320**	*e*P	**P**	**10 35 39.3**	**+0.4**
UPC				*e*pP	pP	10 35 48.0	+0.2
PRU	**Pruhonice**	**75.49**	**319**	*e*P	**P**	**10 35 44.3**	**+0.2**
PRU				*e*pP	pP	10 35 53.0	0.0
BSD	**Bornholm Skovb**	**75.65**	**325**	*i* P	**P**	**10 35 43.1**	**-1.8**
BSD				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.1						
BSD	**Bornholm Skovb**	**75.65**	**325**	*i* P	**P**	**10 35 43.1**	**-1.8**
	comp=Z,29nm,1.1s,mb5.1						
BRG	**Berggiesshubel**	**75.92**	**320**	*i* P	**P**	**10 35 46.3**	**-0.3**
BRG				*i*	pP	10 35 55.5	0.0
BRG				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
BRG	**Berggiesshubel**	**75.92**	**320**	*i* P	**P**	**10 35 46.3**	**-0.3**
	comp=Z,8.7nm,0.9s,mb4.7						
BRG				*i*	pP	10 35 55.5	0.0
GEC2	**GERESS Array S**	**75.98**	**318**	*e*P	**P**	**10 35 46.9**	**0.0**
GEC2				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
GEC2	**GERESS Array S**	**75.98**	**318**	*e*P	**P**	**10 35 46.9**	**0.0**
	comp=Z,11nm,0.9s,mb4.8						
GERES	**GERESS Array B**	**75.98**	**318**	P	**P**	**10 35 46.8**	**-0.1**
	comp=Z,5.6nm,0.7s,mb4.6,baz=90,slow=5.3,SNR=24						
GERES				pP	pP	10 35 55.7	-0.1
	comp=Z,6.7nm,0.8s,baz=90,slow=5.3,SNR=13						
KHC	**Kasperske Hory**	**76.07**	**318**	*e*P	**P**	**10 35 46.6**	**-0.8**
KHC				*e*pP	pP	10 35 55.4	-0.9
WET	**Wettzell**	**76.53**	**318**	*e*P	**P**	**10 35 49.8**	**-0.2**
CLL	**Collm**	**76.54**	**321**	*e*P	**P**	**10 35 49.0**	**-1.0**
CLL				*e*	pP	10 35 58.0	-0.9
CLL	**Collm**	**76.54**	**321**	P	**P**	**10 35 49.0**	**-1.0**
	comp=Z,logA/T=0.9,mb4.6						
CLL				*e**SP	sP	10 35 58.0	-4.0
HFS	**Hagfors**	**76.77**	**330**	P	**P**	**10 35 50.4**	**-0.7**
	comp=Z,7.7nm,0.6s,mb4.8,baz=117,slow=6.6,SNR=24						
HFS				pP	pP	10 35 59.3	-0.7
	comp=Z,2.8nm,0.5s,baz=121,slow=8.6,SNR=2.8						
MOX	**Moxa**	**77.39**	**320**	*e*P	**P**	**10 35 54.9**	**+0.1**
MOX	**Moxa**	**77.39**	**320**	*i* P	**P**	**10 35 54.9**	**+0.1**
FX1	**Attu Island--F**	**77.40**	**38**	P	**P**	**10 35 55.0**	**+0.3**
	comp=Z,14nm,0.6s,mb5.1,baz=262,slow=3.0,SNR=4.2						
GRA1	**Grafenberg Arr**	**77.63**	**319**	*e*P	**P**	**10 35 56.6**	**+0.5**
	comp=Z,18nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	**77.63**	**319**	*e*P	**P**	**10 35 56.6**	**+0.5**
GRF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	**77.63**	**319**	*e*P	**P**	**10 35 56.6**	**+0.5**
GRF				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
GRF	**Grafenberg Arr**	**77.63**	**319**	*e*P	**P**	**10 35 56.6**	**+0.5**
	comp=Z,18nm,1.0s,mb5.0						
NB2	**NORSAR Subarra**	**78.06**	**331**	P	**P**	**10 35 57.1**	**-1.1**
	comp=Z,4.0nm,0.6s,mb4.5,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	**78.06**	**331**	P	**P**	**10 35 57.1**	**-1.1**
NB2				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
NOA	**NORSAR Array B**	**78.06**	**331**	P	**P**	**10 35 57.5**	**-0.7**
	comp=Z,6.0nm,0.7s,mb4.6,baz=94,slow=5.6,SNR=13						
NOA				pP	pP	10 36 06.2	-0.9
	comp=Z,3.9nm,0.9s,baz=95,slow=5.5,SNR=5.6						
CLZ	**Clausthal**	**78.20**	**321**	*e*P	**P**	**10 35 59.0**	**-0.1**
	comp=Z,9.0nm,0.7s,mb4.8						
BSEG	**Bad Segeberg**	**78.26**	**323**	*e*P	**P**	**10 35 59.8**	**+0.3**
DAVOX	**Davos**	**78.52**	**316**	P	**P**	**10 36 01.4**	**+0.4**
	comp=Z,4.9nm,0.5s,mb4.7,baz=124,slow=5.6,SNR=14						
DAVOX				pP	pP	10 36 10.2	+0.2
	comp=Z,6.6nm,0.7s,baz=129,slow=5.3,SNR=5.6						
MAW	**Mawson**	**79.16**	**191**	P	**P**	**10 36 05.8**	**+1.7**
	comp=Z,4.1nm,0.7s,mb4.4,baz=45,slow=7.1,SNR=2.5						
BFO	**Black Forest**	**79.54**	**318**	*e*P	**P**	**10 36 05.9**	**-0.6**
BFO				pmax	pmax		
	comp=Z,30nm,1.8s,mb4.9						
BFO	**Black Forest**	**79.54**	**318**	*e*P	**P**	**10 36 05.9**	**-0.6**
	comp=Z,30nm,1.8s,mb4.9						
LPG	**La Plagne**	**80.74**	**315**	*e*P	**P**	**10 36 13.4**	**+0.4**
	comp=Z,48nm,1.0s,mb5.1						
LPG	**La Plagne**	**80.74**	**315**	*e*P	**P**	**10 36 13.4**	**+0.4**
LPG				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
EKA	**Eskdalemuir Ar**	**85.96**	**325**	P	**P**	**10 36 40.0**	**+0.6**
	comp=Z,6.0nm,0.6s,mb5.0,baz=93,slow=5.3,SNR=17						
EKA				pP	pP	10 36 48.8	+0.3
	comp=Z,4.4nm,0.8s,baz=102,slow=5.4,SNR=4.5						
ESDC	**Sonseca Array**	**89.30**	**310**	P	**P**	**10 36 56.6**	**+0.6**
	comp=Z,0.2nm,0.3s,mb3.9,baz=61,slow=4.6,SNR=4.6						
ESDC				pP	pP	10 37 05.0	0.0
	comp=Z,0.3nm,0.3s,baz=45,slow=3.2,SNR=2.8						
VNDA	**Vanda**	**94.22**	**168**	P	**P**	**10 37 18.6**	**+0.8**
	comp=Z,0.8nm,0.9s,mb4.1,baz=301,slow=8.9,SNR=2.8						
ILAR	**Eielson Array**	**94.47**	**22**	P	**P**	**10 37 19.4**	**+0.2**
	comp=Z,1.5nm,0.7s,mb4.6,baz=296,slow=4.2,SNR=23						
ILAR				PP	PP	10 41 12.2	+2.9
	comp=Z,0.4nm,0.8s,baz=305,slow=5.8,SNR=4.2						
DBIC	**Dimbokro**	**96.14**	**278**	P	**P**	**10 37 29.4**	**+1.4**
	comp=Z,2.1nm,0.6s,mb4.7,baz=38,slow=4.4,SNR=5.2						
YKA	**Yellowknife Ar**	**105.86**	**13**	PP	PP	10 42 27.3	-8.8
	comp=Z,1.0nm,0.7s,baz=335,slow=7.8,SNR=13						
ULM	**Lac du Bonnet**	**120.70**	**6**	PKP	PKPdf	10 42 52.9	-2.3
	comp=Z,0.9nm,0.4s,baz=28,slow=6.0,SNR=2.9						
ULM				pPKP		10 43 00.3	
	comp=Z,1.3nm,0.5s,baz=161,slow=5.0,SNR=2.3						
PDAR	**Pinedale Array**	**124.84**	**20**	PKP	PKPdf	10 43 00.6	-2.8
	comp=Z,1.0nm,0.8s,baz=104,slow=1.2,SNR=6.8						
PDAR				pPKP		10 43 09.8	
	comp=Z,0.5nm,0.6s,baz=112,slow=2.4,SNR=3.6						
NVAR	**Mina Array Bea**	**124.92**	**29**	PKP	PKPdf	10 43 02.1	-1.5
	comp=Z,4.1nm,1.1s,baz=261,slow=1.4,SNR=9.2						
NVAR				pPKP		10 43 11.2	
	comp=Z,0.7nm,0.7s,baz=290,slow=2.8,SNR=3.4						
ANMO	**Albuquerque**	**132.91**	**21**	PKP	PKPdf	10 43 16.9	-2.1
	comp=Z,0.5nm,0.6s,baz=27,slow=6.8,SNR=2.9						
TXAR	**Lajitas Array**	**138.98**	**22**	PKhKP		10 43 21.6	
	comp=Z,0.2nm,0.5s,baz=223,slow=0.8,SNR=3.7						
TXAR				PKP	PKPdf	10 43 29.9	-0.4
	comp=Z,0.4nm,0.5s,baz=26,slow=0.2,SNR=8.6						
BDFB	**Brasilia**	**140.82**	**256**	PKP	PKPdf	10 43 31.7	-2.3
	comp=Z,2.7nm,0.6s,baz=234,slow=3.6,SNR=4.2						
LVC	**Limon Verde**	**157.47**	**230**	PKPab	PKPab	10 44 30.8	+2.0
	comp=Z,1.6nm,0.6s,baz=211,slow=2.0,SNR=6.0						
LPAZ	**La Paz**	**159.66**	**247**	PKP	PKPdf	10 44 00.4	-2.0
	comp=Z,2.0nm,0.9s,baz=80,slow=2.0,SNR=5.1						
LPAZ				PKPab	PKPab	10 44 38.3	-0.1
	comp=Z,1.1nm,0.8s,baz=98,slow=6.3,SNR=4.5						

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*IDC **29** 10:25:41.9±1.0, 9.22N×94.00E, h33^{km}±7^{km}, mb4.4/20, mb1 4.5/20, mb1mx4.4/22, mbtmp4.5/20, MS4.1/1, Ms1 4.1/1, ms1mx3.3/27, Error ellipse: s-maj=24.2km s-min=13.6km az=60.0*

ISC 29 10:25:39.8±0.5**, 9.2N**±0.1×**94.1E**±0.1**, h33**^{km}**, n43,** σ**0^{s}95**/33**, mb4.5**/24**, MS4.1**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
POO	**Poona**	**21.68**	**297**	*i*	**P**	**10 30 45.0**	**+15**
SONM	**Songino Array**	**39.87**	**13**	PcP	PcP	10 35 19.2	+1.2
	2.2nm,0.7s,baz=198,slow=3.4,SNR=5.8						
ZAL	**Zalesovo**	**45.20**	**352**	P	**P**	**10 33 56.2**	**+0.8**
	4.5nm,0.8s,mb4.3,baz=211,slow=9.9,SNR=7.6						
NWAO	**Narrogin (SRO)**	**47.38**	**153**	P	**P**	**10 34 12.2**	**-0.7**
	18nm,0.8s,mb5.1,baz=340,slow=9.2,SNR=5.9						
BVAR	**Borovoye Array**	**47.69**	**341**	P	**P**	**10 34 14.6**	**-0.5**
	1.9nm,0.7s,mb4.3,baz=135,slow=8.2,SNR=3.8						
BVAR				PcP	PcP	10 35 44.8	+0.3
	2.9nm,0.8s,SNR=4.7						
WRA	**Warramunga Arr**	**49.11**	**126**	P	**P**	**10 34 26.9**	**+0.4**
	1.6nm,0.8s,mb4.1,baz=306,slow=8.8,SNR=4.0						
WRA				PcP	PcP	10 35 49.7	-0.4
	2.3nm,0.7s,baz=312,slow=2.9,SNR=6.1						
ASAR	**Alice Springs**	**50.84**	**131**	PcP	PcP	10 35 57.0	+0.6
	1.9nm,0.7s,baz=308,slow=3.2,SNR=6.3						
UMJS	**Umm Lajj**	**56.10**	**294**	P	**P**	**10 35 20.0**	**+1.5**
KMBO	**Kilima Mbogo**	**57.51**	**263**	P	**P**	**10 35 29.9**	**+1.2**
	3.7nm,0.8s,mb4.5,baz=49,slow=12,SNR=9.2						
AYUS	**'Aynunah**	**58.24**	**297**	P	**P**	**10 35 33.7**	**0.0**
BDAS	**Al Bad'**	**58.42**	**298**	P	**P**	**10 35 35.1**	**+0.2**
TAYS	**Tayyib Ism**	**58.63**	**298**	P	**P**	**10 35 36.1**	**-0.3**
HAQS	**Haql**	**58.64**	**298**	P	**P**	**10 35 36.5**	**0.0**
EIL	**Elat**	**58.70**	**299**	P	**P**	**10 35 36.8**	**0.0**
	4.5nm,0.6s,mb4.7,baz=97,slow=0.8,SNR=5.0						
EIL				LR	LR	11 01 45.3	
	comp=Z,137nm,18.6s,MS4.1,baz=198,slow=37						
STKA	**Stephens Creek**	**61.09**	**134**	P	**P**	**10 35 51.6**	**-1.6**
	3.9nm,1.0s,mb4.5,baz=297,slow=6.8,SNR=2.8						
BRTR	**Keskin Array B**	**61.50**	**310**	P	**P**	**10 35 53.8**	**-2.1**
	3.0nm,0.8s,mb4.5,baz=121,slow=7.2,SNR=6.8						
AKASG	**Malin Array Be**	**67.06**	**321**	P	**P**	**10 36 30.2**	**-1.6**
	2.7nm,0.9s,mb4.3,baz=94,slow=4.7,SNR=6.5						
MLR	**Muntele Rosu**	**68.16**	**315**	P	**P**	**10 36 38.8**	**-0.1**
	10.0nm,1.0s,mb4.8,baz=79,slow=3.6,SNR=5.0						
KOLS	**Kolonicke sedl**	**71.14**	**319**	*e*	PcP	10 37 16.2	-1.0
FINES	**FINESS Array B**	**71.49**	**332**	P	**P**	**10 36 58.7**	**-0.2**
	3.9nm,0.8s,mb4.4,baz=101,slow=9.7,SNR=7.1						
KAF	**Kangasniemi**	**71.56**	**333**	*e*p	**P**	**10 36 57.2**	**-2.1**
	4.4nm,1.0s,mb4.3						
KEV	**Kevo**	**73.54**	**340**	*e*p	**P**	**10 37 10.2**	**-0.7**
	14nm,0.9s,mb4.9						
ARCES	**ARCESS Array B**	**73.97**	**340**	P	**P**	**10 37 14.2**	**+0.9**
	8.8nm,0.8s,mb4.7,baz=94,slow=5.6,SNR=11						
ZST	**Bratislava**	**74.49**	**317**	*e*	**P**	**10 37 16.2**	**-0.6**
GERES	**GERESS Array B**	**76.78**	**318**	P	**P**	**10 37 29.5**	**-0.3**
	4.3nm,0.9s,mb4.4,baz=90,slow=5.3,SNR=8.9						
HFS	**Hagfors**	**77.26**	**330**	P	**P**	**10 37 32.3**	**0.0**
	2.7nm,0.4s,mb4.5,baz=104,slow=6.1,SNR=8.9						
CLL	**Collm**	**77.27**	**321**	P	**P**	**10 37 33.0**	**+0.4**
NB2	**NORSAR Subarra**	**78.52**	**330**	P	**P**	**10 37 38.6**	**-0.6**
	2.2nm,0.6s,mb4.3,baz=95,slow=5.3						
NOA	**NORSAR Array B**	**78.52**	**330**	P	**P**	**10 37 39.2**	**0.0**
	3.3nm,0.7s,mb4.4,baz=92,slow=5.6,SNR=7.0						
DAVOX	**Davos**	**79.37**	**316**	P	**P**	**10 37 44.7**	**+0.5**
	7.3nm,1.0s,mb4.6,baz=84,slow=1.9,SNR=5.0						
MAW	**Mawson**	**79.84**	**192**	P	**P**	**10 37 46.7**	**+0.4**
	9.2nm,0.7s,mb4.8,baz=359,slow=7.1,SNR=9.1						
LPG	**La Plagne**	**81.62**	**315**	*e*P	**P**	**10 37 55.4**	**-0.7**
	38nm,1.1s,mb4.9						
EKA	**Eskdalemuir Ar**	**86.57**	**325**	P	**P**	**10 38 21.9**	**+1.2**
	5.4nm,0.7s,mb4.9,baz=108,slow=5.3,SNR=7.5						
ILAR	**Eielson Array**	**93.52**	**22**	P	**P**	**10 38 54.3**	**+1.1**
	1.4nm,0.7s,mb4.5,baz=303,slow=4.1,SNR=9.8						
VNDA	**Vanda**	**94.26**	**168**	P	**P**	**10 38 56.9**	**+0.6**
	1.2nm,0.9s,mb4.3,baz=257,slow=5.1,SNR=7.7						
INK	**Inuvik**	**95.72**	**16**	P	**P**	**10 39 05.4**	**+2.3**
	3.6nm,0.9s,mb4.8,baz=329,slow=7.2,SNR=6.6						
NVAR	**Mina Array Bea**	**123.80**	**30**	PKP	PKPdf	10 44 38.4	+3.5
	1.2nm,0.8s,baz=257,slow=0.4,SNR=4.7						
NVAR				pPKP		10 44 48.7	
	0.9nm,0.8s,baz=263,slow=2.3,SNR=3.2						
PDAR	**Pinedale Array**	**123.94**	**21**	PKP	PKPdf	10 44 37.5	+2.5
	1.3nm,0.8s,baz=0.7,slow=1.3,SNR=7.9						
PDAR				pPKP		10 44 47.0	
	1.1nm,0.9s,baz=27,slow=3.3,SNR=5.1						
ANMO	**Albuquerque**	**131.96**	**23**	PKP	PKPdf	10 44 54.7	+4.0
	1.2nm,0.8s,baz=353,slow=3.0,SNR=4.5						
TXAR	**Lajitas Array**	**138.02**	**23**	PKP	PKPdf	10 45 05.6	+3.6
	0.3nm,0.5s,baz=40,slow=0.6,SNR=4.7						
TXAR				pPKP		10 45 15.6	
	0.4nm,0.7s,SNR=3.2						
BDFB	**Brasilia**	**142.47**	**256**	PKP	PKPdf	10 45 13.2	+3.0
	1.3nm,0.4s,baz=145,slow=16,SNR=3.4						
LVC	**Limon Verde**	**158.94**	**229**	PKPab	PKPab	10 46 14.4	+0.8
	7.2nm,0.7s,baz=107,slow=2.6,SNR=12						
LPAZ	**La Paz**	**161.28**	**246**	PKPab	PKPab	10 46 23.2	-0.7
	3.5nm,0.8s,baz=113,slow=3.5,SNR=12						

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*BJI **29** 10:27:55.3, 5.09N×94.22E, h47^{km}, mB5.4, mb4.9, Ms4.7, Msz4.4*

*NEIC **29** 10:27:57.5±0.4, 5.37N×94.17E, h30^{km}, mb4.9/15, Error ellipse: s-maj=18.8km s-min=9.6km az=49.0*

*IDC **29** 10:27:58.3±4.2, 5.51N×94.24E, h33^{km}±31^{km}, mb4.5/21, mb1 4.6/21, mb1mx4.5/26, mbtmp4.7/21, MS4.1/1, Ms1 4.1/1, ms1mx3.2/25, Error ellipse: s-maj=28.1km s-min=12.7km az=42.0*

ISC 29 10:27:56.2±0.5**, 5.38N**±0.07×**94.23E**±0.07**, h33**^{km}**, n67,** σ**0^{s}78**/61**, mb4.8**/47**, MS4.3**/2**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.78**	**19**	Pn	**P**	**10 31 13.2**	**+1.6**
	2.7nm,0.3s,baz=206,slow=14,SNR=25						
QIZ	**Qiongzhong**	**20.39**	**47**	P	**P**	**10 32 34.0**	**+1.0**
KMI	**Kunming**	**21.26**	**22**	P	**P**	**10 32 42.3**	**+0.4**
KMI				AMB	AMB		
	comp=Z,13nm,1.3s,mb4.1						
PKI	**Pulchoki**	**23.61**	**340**	*e*P	**P**	**10 33 04.5**	**-0.7**
	comp=Z,32nm,0.6s,mb4.9						
DMN	**Daman**	**23.75**	**340**	*e*P	**P**	**10 33 07.0**	**+0.5**
	comp=Z,43nm,0.6s,mb5.0						
GUN	**Gumba**	**23.77**	**341**	*e*P	**P**	**10 33 06.5**	**-0.2**
	comp=Z,53nm,0.6s,mb5.2						
KKN	**Kakani**	**23.85**	**340**	*e*P	**P**	**10 33 08.1**	**+0.5**
	comp=Z,53nm,0.6s,mb5.1						
GYA	**Guiyang**	**24.09**	**28**	⇑*i*P	**P**	**10 33 11.0**	**+1.1**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
GKN	**Gorkha**	**24.27**	**339**	*e*P	**P**	**10 33 12.2**	**+0.6**
	comp=Z,122nm,0.6s,mb5.5						
LSA	**Lhasa**	**24.36**	**353**	*e*P	**P**	**10 33 13.7**	**+1.2**
	comp=Z,48nm,0.6s,mb5.1						
KOLN	**Koldanda**	**24.45**	**337**	*e*P	**P**	**10 33 14.1**	**+0.7**
	comp=Z,78nm,0.6s,mb5.3						
XAN	**Xi'an**	**31.60**	**24**	P	**P**	**10 34 16.0**	**-2.3**
XAN				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.2						
LZH	**Lanzhou**	**31.81**	**15**	*e*P	**P**	**10 34 18.5**	**-1.6**
LZH				AMB	AMB		
	comp=Z,50nm,1.5s,mb5.1						
GTA	**Gaotai**	**34.25**	**8**	P	**P**	**10 34 40.3**	**-0.9**
GTA				AMB	AMB		
	comp=Z,17nm,0.8s,mb5.0						
HHC	**Hu-ho-hao-te**	**38.58**	**21**	*e*P	**P**	**10 35 18.0**	**+0.2**
HHC				AMB	AMB		
	comp=Z,21nm,0.8s,mb4.9						
HHC				AMB	AMB		
	comp=Z,285nm,5.7s						
HHC				LR	LR		
	comp=N,450nm,15.5s,MS4.6						
HHC				LR	LR		
	comp=E,434nm,13.1s,MS4.6						
HHC				LR	LR		
	comp=Z,371nm,11.9s,MS4.4						
WMQ	**Urumqi**	**38.71**	**352**	P	**P**	**10 35 19.5**	**+0.7**
WMQ				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.8						
BJT	**Baijiatuau**	**39.74**	**27**	*e*P	**P**	**10 35 28.1**	**+0.7**
	comp=Z,26nm,1.4s,mb4.8						
AAK	**Ala-Archa**	**41.02**	**338**	*e*P	**P**	**10 35 37.9**	**0.0**
	comp=Z,4.0nm,0.7s,mb4.2						
SONM	**Songino Array**	**43.56**	**12**	P	**P**	**10 35 58.0**	**-0.7**
	comp=Z,11nm,0.8s,mb4.7,baz=195,slow=8.0,SNR=25						
SONM				PcP	PcP	10 37 46.2	-0.4
	comp=Z,2.0nm,0.6s,baz=195,slow=3.9,SNR=7.3						
SONM				ScP		10 41 33.8	
	comp=Z,0.6nm,0.9s,baz=180,slow=4.9,SNR=3.8						
WRA	**Warramunga Arr**	**46.78**	**124**	P	**P**	**10 36 25.1**	**+0.4**
	comp=Z,14nm,0.6s,mb5.0,baz=303,slow=9.3,SNR=32						
WRAB	**Tennant Creek**	**46.78**	**124**	*e*P	**P**	**10 36 25.1**	**+0.4**
	comp=Z,32nm,0.7s,mb5.4						
ASAR	**Alice Springs**	**48.28**	**128**	P	**P**	**10 36 36.8**	**+0.3**
	comp=Z,6.1nm,0.6s,mb4.8,baz=300,slow=7.7,SNR=19						
ASAR				LR	LR	10 58 04.7	
	comp=Z,218nm,19.9s,MS4.1,baz=296,slow=37						
ZAL	**Zalesovo**	**49.01**	**353**	P	**P**	**10 36 41.2**	**-0.5**
	comp=Z,15nm,0.4s,mb5.4,baz=209,slow=5.7,SNR=37						
MDJ	**Mudanjiang**	**49.82**	**33**	P	**P**	**10 36 47.3**	**-0.8**
MDJ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,24nm,3.7s						
BVAR	**Borovoye Array**	**51.36**	**342**	P	**P**	**10 36 58.8**	**-0.8**
	comp=Z,7.0nm,0.5s,mb4.9,baz=141,slow=9.5,SNR=26						
BRVK	**Borovoye**	**51.42**	**342**	*e*P	**P**	**10 36 59.2**	**-0.9**
	comp=Z,14nm,0.8s,mb4.9						
CHKZ	**Chkalovo**	**51.85**	**342**	*e*P	**P**	**10 37 02.8**	**-0.6**
	comp=Z,25nm,0.7s,mb5.2						
PMG	**Port Moresby**	**54.75**	**105**	P	**P**	**10 37 25.0**	**-0.4**
	comp=Z,12nm,0.8s,mb5.0,baz=354,slow=9.2,SNR=4.6						
ASAJ	**Asahikawa**	**57.24**	**40**	P	**P**	**10 37 42.1**	**-0.7**
	comp=Z,5.5nm,0.5s,mb4.8,baz=277,slow=8.1,SNR=3.5						
STKA	**Stephens Creek**	**58.35**	**133**	P	**P**	**10 37 50.8**	**+0.1**
	comp=Z,3.3nm,0.6s,mb4.5,baz=320,slow=6.7,SNR=8.6						
STKA	**Stephens Creek**	**58.35**	**133**	*e*P	**P**	**10 37 50.2**	**-0.6**
BRTR	**Keskin Array B**	**64.13**	**312**	P	**P**	**10 38 28.4**	**-1.2**
	comp=Z,2.8nm,0.6s,mb4.4,baz=128,slow=7.4,SNR=9.5						
IDI	**Anoyia**	**70.06**	**305**	P	**P**	**10 39 07.7**	**+0.5**
	comp=Z,12nm,1.0s,mb4.8,baz=45,slow=11,SNR=4.4						
AKASG	**Malin Array Be**	**70.16**	**322**	P	**P**	**10 39 05.9**	**-1.5**
	comp=Z,2.2nm,0.5s,mb4.3,baz=88,slow=5.5,SNR=8.5						
MLR	**Muntele Rosu**	**71.01**	**316**	P	**P**	**10 39 12.7**	**-0.1**
	comp=Z,2.4nm,0.4s,mb4.4,baz=188,slow=7.1,SNR=5.1						
FINES	**FINESS Array B**	**74.94**	**332**	P	**P**	**10 39 34.9**	**-0.6**
	comp=Z,5.8nm,0.4s,mb4.8,baz=103,slow=5.9,SNR=42						
KAF	**Kangasniemi**	**75.04**	**333**	*e*p	**P**	**10 39 34.9**	**-1.1**
	comp=Z,5.4nm,0.5s,mb4.7						
OJC	**Ojcow**	**75.93**	**320**	*e*P	**P**	**10 39 41.7**	**+0.3**
ARCES	**ARCESS Array B**	**77.62**	**340**	P	**P**	**10 39 50.3**	**-0.3**
	comp=Z,1.6nm,0.4s,mb4.3,baz=97,slow=5.1,SNR=9.7						
FX1	**Attu Island--F**	**79.05**	**37**	P	**P**	**10 39 57.9**	**-0.8**
	comp=Z,27nm,0.8s,mb5.2,baz=216,slow=17,SNR=4.9						
BRG	**Berggiesshubel**	**79.72**	**321**	*e*P	**P**	**10 40 02.8**	**+0.5**
	comp=Z,4.2nm,0.6s,mb4.5						
BRG				*e*		10 40 16.7	
GEC2	**GERESS Array S**	**79.73**	**319**	*e*P	**P**	**10 40 03.1**	**+0.6**
	comp=Z,17nm,1.0s,mb4.9						
GERES	**GERESS Array B**	**79.73**	**319**	P	**P**	**10 40 02.9**	**+0.4**
	comp=Z,22nm,1.1s,mb5.0,baz=90,slow=5.3,SNR=29						
KHC	**Kasperske Hory**	**79.83**	**319**	*e*P	**P**	**10 40 03.5**	**+0.5**
WET	**Wettzell**	**80.29**	**319**	*e*P	**P**	**10 40 05.8**	**+0.3**
CLL	**Collm**	**80.34**	**321**	*e*P	**P**	**10 40 05.0**	**-0.7**
CLL	**Collm**	**80.34**	**321**	P	**P**	**10 40 05.0**	**-0.7**
HFS	**Hagfors**	**80.64**	**330**	P	**P**	**10 40 06.6**	**-0.5**
	comp=Z,5.2nm,0.5s,mb4.7,baz=104,slow=6.1,SNR=30						
MOX	**Moxa**	**81.18**	**320**	*i* P	**P**	**10 40 10.5**	**+0.4**
MOX	**Moxa**	**81.18**	**320**	*e*P	**P**	**10 40 10.5**	**+0.4**
GRA1	**Grafenberg Arr**	**81.40**	**319**	*e*P	**P**	**10 40 10.7**	**-0.6**
	comp=Z,12nm,0.9s,mb4.8						
GRF	**Grafenberg Arr**	**81.40**	**319**	*e*P	**P**	**10 40 10.7**	**-0.6**
	comp=Z,12nm,0.9s,mb4.8						
NB2	**NORSAR Subarra**	**81.93**	**331**	P	**P**	**10 40 13.5**	**-0.3**
	comp=Z,1.1nm,0.5s,mb4.0,baz=99,slow=4.8						
NOA	**NORSAR Array B**	**81.93**	**331**	P	**P**	**10 40 13.8**	**-0.1**
	comp=Z,2.1nm,0.8s,mb4.1,baz=95,slow=5.6,SNR=4.8						
CLZ	**Clausthal**	**82.00**	**321**	*e*P	**P**	**10 40 15.0**	**+0.7**
	comp=Z,16nm,1.1s,mb4.9						
BSEG	**Bad Segeberg**	**82.09**	**324**	*e*P	**P**	**10 40 15.5**	**+0.7**
DAVOX	**Davos**	**82.24**	**316**	P	**P**	**10 40 16.7**	**+1.0**
	comp=Z,11nm,0.6s,mb5.0,baz=122,slow=5.4,SNR=22						
BFO	**Black Forest**	**83.29**	**318**	*e*P	**P**	**10 40 21.7**	**+0.7**

	comp=Z,10.0nm,1.3s,mb4.7						
LPG	**La Plagne**	**84.43**	**315**	*e*P	**P**	**10 40 27.7**	**+0.8**
	comp=Z,13nm,0.7s,mb4.9						
EKA	**Eskdalemuir Ar**	**89.81**	**325**	P	**P**	**10 40 53.7**	**+1.0**
	comp=Z,4.0nm,0.5s,mb5.0,baz=97,slow=5.3,SNR=18						
ILAR	**Eielson Array**	**97.00**	**22**	P	**P**	**10 41 25.6**	**+0.1**
	comp=Z,0.8nm,0.5s,mb4.4,baz=288,slow=4.4,SNR=21						
ILAR				PP	PP	10 45 14.4	-10
	comp=Z,0.3nm,0.8s,baz=296,slow=6.1,SNR=3.2						
YKA	**Yellowknife Ar**	**108.81**	**14**	PP	PP	10 46 40.1	-13
	comp=Z,0.3nm,0.6s,baz=330,slow=8.1,SNR=5.1						
ULM	**Lac du Bonnet**	**123.91**	**8**	PKP	PKPdf	10 46 53.9	+2.6
	comp=Z,1.4nm,0.8s,baz=348,slow=3.3,SNR=3.5						
NVAR	**Mina Array Bea**	**126.98**	**32**	PKP	PKPdf	10 47 00.8	+3.3
	comp=Z,1.3nm,0.7s,baz=312,slow=1.7,SNR=7.8						
PDAR	**Pinedale Array**	**127.43**	**22**	PKP	PKPdf	10 47 00.2	+2.0
	comp=Z,0.8nm,0.6s,baz=45,slow=2.1,SNR=5.7						
ANMO	**Albuquerque**	**135.40**	**24**	PKP	PKPdf	10 47 17.1	+3.6
	comp=Z,1.6nm,0.9s,baz=358,slow=5.6,SNR=4.4						
TXAR	**Lajitas Array**	**141.43**	**25**	PKP	PKPdf	10 47 24.5	-0.1
	comp=Z,0.7nm,0.5s,slow=1.8,SNR=10.0						
TXAR				PP	PP	10 50 29.8	-1.9
	comp=Z,0.4nm,0.8s,baz=13,slow=4.1,SNR=4.1						

IDC 29 10:41:42.0±3.2**, 18.01S×174.56W, mb3.6**/4**, mb1 3.9**/4**, mb1mx3.7**/15**, mbtmp3.6**/4**, Error ellipse: s-maj=169.7km s-min=29.0km az=148.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**48.21**	**259**	P	P	10 50 26.3	-0.3
	0.4nm,0.3s,baz=98,slow=8.4,SNR=19						
ASAR	**Alice Springs**	**48.29**	**254**	P	P	10 50 23.5	-3.7
	0.2nm,0.4s,baz=95,slow=6.0,SNR=7.0						
PDAR	**Pinedale Array**	**84.94**	**42**	P	P	10 54 20.7	+0.4
	0.4nm,0.7s,baz=146,slow=3.3,SNR=4.4						
ILAR	**Eielson Array**	**85.21**	**12**	P	P	10 54 18.6	-2.5
	0.4nm,0.6s,baz=234,slow=7.8,SNR=8.7						

IDC 29 10:43:34.3±2.4**, 2.58N×95.38E, mb3.6**/5**, mb1 3.9**/6**, mb1mx3.7**/19**, mbtmp3.7**/6**, ML4.3**/1**, Error ellipse: s-maj=90.4km s-min=22.4km az=60.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**16.16**	**12**	Pn	P	10 47 24.9	+0.3
	0.4nm,0.3s,baz=200,slow=11,SNR=17						
WRA	**Warramunga Arr**	**44.31**	**122**	P	P	10 51 46.2	-1.9
	0.5nm,0.8s,baz=298,slow=9.5,SNR=4.9						
ASAR	**Alice Springs**	**45.67**	**127**	P	P	10 51 57.4	-1.5
	0.2nm,0.5s,baz=298,slow=8.0,SNR=5.2						
SONM	**Songino Array**	**46.08**	**10**	P	P	10 51 59.2	-2.6
	0.8nm,0.8s,baz=187,slow=6.7,SNR=6.8						
ZAL	**Zalesovo**	**51.93**	**352**	P	P	10 52 44.5	-2.4
	1.4nm,0.8s,baz=216,slow=8.1,SNR=7.3						
BVAR	**Borovoye Array**	**54.37**	**342**	P	P	10 53 03.0	-2.0
	1.2nm,0.6s,baz=144,slow=12,SNR=3.6						

DJA 29 10:48:52.3±1.1**, 8.45S×113.40E, h33^{km}, MD5.0**/3**, ML4.0**/2**, 2C-5D, Error ellipse: s-maj=32.3km s-min=24.4km az=1.0, Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SRDI	**Scrawed**	**0.73**	**92**	⇓*e*Pn	Pn	10 49 03.7	-2.6
	152nm,0.2s						
SRDI	**Scrawed**	**0.73**	**92**	⇓*i*P	P	10 49 04.7	-1.4
KELI	**Kelakatan**	**1.10**	**78**	⇑*i*Pn	Pn	10 49 11.5	-0.1
	70nm,0.2s						
KELI	**Kelakatan**	**1.10**	**78**	⇓*i*P	P	10 49 11.9	+0.5
KELI				⇑*i*Sn	Sn	10 49 22.5	-3.3
RATI	**Rata**	**2.12**	**97**	⇓*i*Pn	Pn	10 49 26.5	+0.2
	231nm,1.2s						
RATI				⇓*i*Sn	Sn	10 49 49.1	-2.7

BJI ***29*** *10:52:49.9, 2.88N×95.50E, h20^{km}, mB5.6, mb5.6, Ms5.5, Msz5.4*

MOS ***29*** *10:52:52.0±1.1, 2.88N×95.54E, h33^{km}, mb5.6/37, MS5.2/11, Error ellipse: s-maj=10.1km s-min=6.1km az=110.3*

NEIC ***29*** *10:52:52.0±0.2, 2.80N×95.57E, mb5.3/29, Error ellipse: s-maj=7.4km s-min=6.2km az=69.0*

IDC ***29*** *10:52:52.6±0.3, 2.91N×95.56E, h23^{km}±1^{km}, mb4.6/28, mb1 4.7/29, mb1mx4.7/31, mbtmp4.8/29, ML4.9/1, MS4.8/15, Ms1 4.9/15, ms1mx4.7/21, Error ellipse: s-maj=15.3km s-min=7.7km az=45.0*

HRVD ***29*** *10:52:52.0±0.3, 2.60N×95.32E, h26^{km}, MW5.4/53, Centroid moment Tensor Solution. LP body waves: s52,c85;Mantle waves: s53,c92; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}0.56±.03; $M_{\theta\theta}$-0.35±.02; $M_{\phi\phi}$-0.20±.02; $M_{r\theta}$0.65±.04; $M_{\theta\phi}$0.36±.01; $M_{\phi r}$-0.99±.04; Best double couple: $M_0$1.33×10^{17} NP1: ϕ_s291°, δ15°, λ57°. NP2: ϕ_s145°, δ77°, λ98°. Principal axes: T 1.31, Plg57°, Azm66°; N .03, Plg8°, Azm323°; P -1.35, Plg32°, Azm228°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 29 10:52:50.6±0.2**, 2.83N**±0.04×**95.55E**±0.03**, h24^{km}, h24^{km}±.5^{km}:pP-P, n292, σ1^{s}09**/276**, mb5.3**/93**, MS5.2**/37**, 31C-7D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**6.64**	**49**	P	**Pn**	**10 54 25.0**	**-4.3**
	800nm,1.0s						
COCO	**West Island**	**14.98**	**175**	P	**P**	**10 56 19.0**	**-3.8**
KKTK	**Khon Kaen**	**15.21**	**28**	P	**P**	**10 56 26.8**	**+1.0**
	3μm,0.6s						
PALK	**Pallekele**	**15.43**	**287**	*e*P	**P**	**10 56 35.5**	**+6.8**
	101nm,1.2s						
UBT	**Ubonrachathani**	**15.47**	**37**	P	**P**	**10 56 30.0**	**+0.8**
CMAR	**Chiang Mai Arr**	**15.88**	**12**	*i* P	**P**	**10 56 34.3**	**-0.2**
CMAR	**Chiang Mai Arr**	**15.88**	**12**	Pn	**P**	**10 56 34.0**	**-0.5**
	1.6nm,0.3s,baz=201,slow=9.9,SNR=87						
CMAR				LR	LR	11 03 40.1	
	comp=Z,6μm,18.8s,baz=195,slow=41						
NANT	**Nan**	**16.65**	**17**	P	**P**	**10 56 45.0**	**+0.7**
CHRT	**Chiangrai**	**17.43**	**13**	⇓P	**P**	**10 56 53.5**	**-0.6**
	316nm,0.8s						
MDRS	**Chennai**	**18.23**	**305**	*e*P	**P**	**10 57 01.7**	**-2.4**
VIS	**Vishakhapatnam**	**19.04**	**322**	*e*P	**P**	**10 57 13.2**	**-0.7**
VIS				*e*		10 57 32.4	
	comp=Z,291nm,1.5s						
KOD	**Kodaikanal**	**19.40**	**293**	*e*P	**P**	**10 57 24.0**	**+6.0**
BWNR	**Bhubaneshwar**	**19.79**	**332**	*e*	**P**	**10 57 13.3**	**-9.1**
BWNR				*e*	**S**	**11 00 52.4**	**-6.0**
QIZ	**Qiongzhong**	**21.32**	**40**	P	**P**	**10 57 38.5**	**+0.3**
QIZ				S	**S**	**11 01 23.5**	**-5.4**
QIZ				LR	LR		
	comp=N,8μm,15.9s						
QIZ				LR	LR		
	comp=Z,7μm,17.1s,MS5.1						
QIZ	**Qiongzhong**	**21.32**	**40**	*e*P	**P**	**10 57 37.8**	**-0.4**
AGT	**Agartala**	**21.34**	**349**	*e*P	**P**	**10 57 39.0**	**+0.7**
IMP	**Imphal**	**21.88**	**356**	*e*	**P**	**10 57 38.7**	**-5.1**
HYB	**Hyderabad**	**22.10**	**312**	*e*P	**P**	**10 57 48.0**	**+2.0**
HYB				*e*S	**S**	**11 01 48.0**	**+4.7**
HYB	**Hyderabad**	**22.10**	**312**	*i* P	**P**	**10 57 48.0**	**+2.0**
HYB				*e*S	**S**	**11 01 48.0**	**+4.7**
MNGI	**Mangalore**	**22.83**	**297**	*i* P	**P**	**10 57 52.3**	**-1.0**
MNGI				*i* S	**S**	**11 02 05.6**	**+8.9**
SHL	**Shillong**	**22.88**	**351**	*e*	**P**	**10 57 50.0**	**-3.7**
SHL				*e*		11 01 56.0	
BATP	**Bataraza**	**22.91**	**74**	*e*P	**P**	**10 57 54.4**	**+0.3**
BLSP	**Bilaspur**	**23.19**	**327**	*e*P	**P**	**10 57 58.0**	**+1.2**
KMI	**Kunming**	**23.22**	**17**	⇑P	**P**	**10 57 58.5**	**+1.4**
KMI				AP		10 58 06.8	
KMI				XP		10 58 11.3	
KMI				AMB	AMB		
	comp=Z,85nm,1.2s,mb5.0						
KMI				AMB	AMB		
	comp=Z,1μm,5.1s						
KMI				LR	LR		
	comp=N,12μm,14.1s						
KMI				LR	LR		
	comp=E,5μm,24.7s						
KMI				LR	LR		
	comp=Z,13μm,14.3s,MS5.5						
PPR	**Puerto Princes**	**24.04**	**72**	⇑*i*P	**P**	**10 58 06.6**	**+1.5**
NGP	**Nagpur**	**24.28**	**320**	⇓*e*P	**P**	**10 58 10.1**	**+2.6**
	comp=Z,80nm,0.8s,mb5.2						
NGP				*e*	**S**	**11 02 30.9**	**+9.1**
ENPP	**El Nido**	**25.09**	**69**	*e*P	**P**	**10 58 15.6**	**+0.3**
GYA	**Guiyang**	**25.80**	**23**	⇑*i*P	**P**	**10 58 21.5**	**-0.3**
GYA				AMB	AMB		
	comp=Z,110nm,1.1s,mb5.3						
POO	**Poona**	**26.36**	**308**	*e*	**P**	**10 58 34.0**	**+7.0**
PKI	**Pulchoki**	**26.44**	**339**	*e*P	**P**	**10 58 27.8**	**+0.1**
	comp=Z,204nm,1.1s,mb5.6						
GZH	**Guangzhou**	**26.51**	**39**	P	**P**	**10 58 31.8**	**+3.4**
GZH				LR	LR		
	comp=N,5μm,14.2s,MS5.3						
GZH				LR	LR		
	comp=E,5μm,15.7s,MS5.3						
GZH				LR	LR		
	comp=Z,10μm,14.5s,MS5.5						
DMN	**Daman**	**26.58**	**339**	*e*P	**P**	**10 58 29.4**	**+0.4**
	comp=Z,228nm,1.0s,mb5.7						
GUN	**Gumba**	**26.59**	**341**	*e*P	**P**	**10 58 29.8**	**+0.7**
	comp=Z,272nm,0.8s,mb5.8						
KKN	**Kakani**	**26.69**	**339**	*e*P	**P**	**10 58 30.3**	**+0.3**
	comp=Z,352nm,1.0s,mb5.8						
BHPL	**Bhopal**	**26.83**	**321**	*e*	**P**	**10 58 25.8**	**-5.5**
BHPL				*e*		10 58 52.5	
	comp=Z,57nm,1.5s						
BHPL				*e*	**S**	**11 03 00.5**	**-3.8**
LSA	**Lhasa**	**27.05**	**352**	*e*P	**P**	**10 58 33.7**	**+0.5**
SJMP	**San Jose**	**27.06**	**68**	*e*P	**P**	**10 58 33.8**	**+0.3**
GKN	**Gorkha**	**27.11**	**338**	*e*P	**P**	**10 58 34.0**	**+0.2**
	comp=Z,367nm,1.0s,mb5.9						
KOLN	**Koldanda**	**27.30**	**336**	*e*P	**P**	**10 58 35.7**	**+0.1**
	comp=Z,228nm,0.8s,mb5.8						
IPIL	**Ipil**	**27.34**	**79**	*e*P	**P**	**10 58 35.7**	**-0.4**
CD2	**Chengdu**	**28.98**	**15**	P	**P**	**10 58 49.5**	**-1.2**
CD2				AMB	AMB		
	comp=Z,90nm,0.8s,mb5.5						
DAV	**Davao City (W)**	**30.21**	**81**	*e*P	**P**	**10 59 05.0**	**+3.2**
PTH	**Pithoragarh**	**30.30**	**333**	*e*P	**P**	**10 59 00.3**	**-2.2**
PTH				*e*	**S**	**11 03 56.1**	**-3.7**
ENH	**Enshi**	**30.32**	**24**	*e*P	**P**	**10 59 01.1**	**-1.5**
NDI	**New Delhi**	**31.08**	**328**	*e*P	**P**	**10 59 07.0**	**-2.4**
QZH	**Quanzhou**	**31.25**	**43**	⇑*i*P	**P**	**10 59 10.8**	**-0.1**
QZH				AMB	AMB		
	comp=Z,290nm,1.3s,mb6.0						
DDI	**Dehra Dun**	**31.97**	**331**	*e*P	**P**	**10 59 16.6**	**-0.6**
DDI				*e*	**S**	**11 04 35.6**	**+10**
WHN	**Wuhan**	**32.80**	**31**	⇑P	**P**	**10 59 24.8**	**+0.4**
WHN				LR	LR		
	comp=N,3μm,13.4s,MS5.6						
WHN				LR	LR		
	comp=E,7μm,12.5s,MS5.6						
WHN				LR	LR		
	comp=Z,16μm,13.7s,MS5.9						
XAN	**Xi'an**	**33.46**	**20**	P	**P**	**10 59 29.0**	**-1.1**
XAN				AP	pP	10 59 35.5	-1.8
XAN				AMB	AMB		
	comp=Z,146nm,1.2s,mb5.8						
SDNR	**Sundarnagar**	**33.46**	**330**	*e*P	**P**	**10 59 30.5**	**+0.3**
MBWA	**Marble Bar**	**33.61**	**136**	*e*P	**P**	**10 59 29.6**	**-1.9**
	comp=Z,36nm,0.8s,mb5.4						
LZH	**Lanzhou**	**33.97**	**12**	⇑P	**P**	**10 59 33.5**	**-1.0**
LZH				SCS	ScS	11 09 57.5	+2.4
LZH				AMB	AMB		
	comp=Z,214nm,1.6s,mb5.8						
LZH				AMB	AMB		
	comp=Z,508nm,4.0s						
LZH				LR	LR		
	comp=E,3μm,13.3s						
LZH				LR	LR		
	comp=Z,6μm,15.0s,MS5.4						
THN	**Thein Dam**	**34.84**	**330**	*e*P	**P**	**10 59 40.8**	**-1.3**
	comp=Z,29nm,0.8s,mb5.3						
NJ2	**Nanjing**	**36.40**	**34**	*e*P	**P**	**10 59 55.5**	**+0.2**
NJ2				AP	pP	11 00 05.0	+2.6
NJ2				XP	sP	11 00 11.0	+5.5
NJ2				PP	PP	11 01 22.0	+2.9
NJ2				S	**S**	**11 05 35.0**	**+0.3**
NJ2				XS		11 05 53.0	
NJ2				AMB	AMB		
	comp=Z,370nm,1.0s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,1μm,6.6s						
NJ2				LR	LR		
	comp=N,5μm,17.5s,MS5.6						
NJ2				LR	LR		
	comp=E,7μm,16.9s,MS5.6						
NJ2				LR	LR		
	comp=Z,6μm,14.3s,MS5.5						
GTA	**Gaotai**	**36.62**	**6**	⇑*i*P	**P**	**10 59 56.0**	**-1.0**
GTA				AP	pP	11 00 04.5	+0.4
GTA				XP	sP	11 00 06.8	-0.4
GTA				S	**S**	**11 05 31.3**	**-6.5**
GTA				SCP		11 06 06.0	
GTA				SCS	ScS	11 10 09.5	+0.1
GTA				AMB	AMB		
	comp=Z,49nm,1.6s,mb5.1						
GTA				AMB	AMB		
	comp=Z,564nm,7.6s						
GTA				LR	LR		
	comp=N,2μm,14.1s						
GTA				LR	LR		
	comp=E,916nm,20.5s						
GTA				LR	LR		
	comp=Z,3μm,14.4s,MS5.2						
SSE	**Sheshan**	**37.09**	**38**	P	**P**	**10 59 59.5**	**-1.6**
SSE				S	**S**	**11 05 45.3**	**+0.1**
SSE				XS		11 06 00.0	
SSE				AMB	AMB		
	comp=Z,43nm,0.7s,mb5.4						
SSE				AMB	AMB		
	comp=Z,197nm,3.9s						
SSE				LR	LR		
	comp=N,1μm,20.3s,MS4.8						
SSE				LR	LR		
	comp=E,1μm,20.3s,MS4.8						
SSE				LR	LR		
	comp=Z,3μm,17.1s,MS5.2						
TIA	**Tai'an**	**38.74**	**28**	*e*P	**P**	**11 00 14.3**	**-0.6**
TIA				AMB	AMB		
	comp=Z,102nm,1.4s,mb5.4						
JOW	**Kunigami**	**39.39**	**50**	P	**P**	**11 00 20.5**	**+0.1**
	comp=Z,60nm,0.8s,mb5.4,baz=245,slow=5.8,SNR=5.4						
BTO	**Baotou**	**39.81**	**17**	*e*P	**P**	**11 00 23.5**	**-0.2**
BTO				S	**S**	**11 06 26.0**	**-0.4**
BTO				AMB	AMB		
	comp=Z,101nm,1.5s,mb5.3						
BTO				LR	LR		
	comp=N,2μm,12.9s,MS5.4						
BTO				LR	LR		
	comp=E,3μm,17.6s,MS5.4						
HHC	**Hu-ho-hao-te**	**40.51**	**19**	⇑*i*P	**P**	**11 00 31.0**	**+1.5**
HHC				AP	pP	11 00 35.3	-1.4
HHC				XP	sP	11 00 38.3	-1.4
HHC				PP	PP	11 02 09.0	+2.8
HHC				PCP	PcP	11 02 32.8	+0.4
HHC				PCS		11 06 20.0	
HHC				S	**S**	**11 06 42.0**	**+5.2**
HHC				SCS	ScS	11 10 33.3	+1.6
HHC				AMB	AMB		
	comp=Z,178nm,1.2s,mb5.6						
HHC				AMB	AMB		
	comp=Z,729nm,6.4s						
HHC				LR	LR		
	comp=N,7μm,15.5s,MS5.7						
HHC				LR	LR		
	comp=E,2μm,10.7s,MS5.7						
HHC				LR	LR		
	comp=Z,6μm,14.3s,MS5.6						
NWAO	**Narrogin (SRO)**	**41.06**	**152**	*e*P	**P**	**11 00 35.5**	**+1.4**
NWAO	**Narrogin (SRO)**	**41.06**	**152**	P	**P**	**11 00 35.7**	**+1.6**
	comp=Z,18nm,0.9s,mb4.7,baz=303,slow=7.1,SNR=6.1						
WMQ	**Urumqi**	**41.41**	**351**	P	**P**	**11 00 37.8**	**+1.0**
WMQ				AP	pP	11 00 42.3	-1.7
WMQ				XP	sP	11 00 45.3	-1.7
WMQ				AMB	AMB		
	comp=Z,110nm,1.2s,mb5.4						
BJT	**Baijiatuau**	**41.47**	**24**	*e*P	**P**	**11 00 37.1**	**-0.2**
BJI	**Beijing**	**41.49**	**24**	P	**P**	**11 00 38.8**	**+1.3**
BJI				S	**S**	**11 06 56.5**	**+5.2**
BJI				AMB	AMB		
	comp=Z,299nm,1.0s,mb5.9						
BJI				AMB	AMB		
	comp=Z,1μm,4.3s						
BJI				LR	LR		
	comp=N,497nm,15.1s,MS5.3						
BJI				LR	LR		
	comp=E,3μm,15.1s,MS5.3						
BJI				LR	LR		
	comp=Z,2μm,16.1s,MS5.1						
DL2	**Dalian**	**43.06**	**30**	P	**P**	**11 00 51.5**	**+1.1**
DL2				S	**S**	**11 07 16.3**	**+1.8**
DL2				AMB	AMB		
	comp=Z,430nm,2.1s,mb5.8						
DL2				LR	LR		
	comp=N,1μm,16.2s,MS5.1						
DL2				LR	LR		
	comp=E,1μm,12.7s,MS5.1						
DL2				LR	LR		
	comp=Z,2μm,15.2s,MS5.0						
UCH	**Uchtor**	**43.51**	**337**	P	**P**	**11 00 55.2**	**+1.2**
	SNR=22						
TKM2	**Tokmak 2**	**43.70**	**339**	P	**P**	**11 00 56.6**	**+1.0**
	SNR=18						
KBK	**Karagaybulak**	**43.71**	**338**	P	**P**	**11 00 57.2**	**+1.6**
	SNR=23						
AML	**Almayashu**	**43.75**	**336**	P	**P**	**11 00 57.5**	**+1.5**
	SNR=25						
AAK	**Ala-Archa**	**43.86**	**338**	P	**P**	**11 00 58.2**	**+1.3**
	SNR=12						
AAK	**Ala-Archa**	**43.86**	**338**	⇑*i*P	**P**	**11 00 56.9**	**0.0**
FRU	**Bishkek**	**43.99**	**338**	*e*P	**P**	**11 00 58.5**	**+0.6**
FRU				pmax	pmax		
	comp=Z,542nm,3.0s						
CHMS	**Chumysh**	**44.08**	**338**	P	**P**	**11 00 59.3**	**+0.6**
	SNR=5.8						
EKS2	**Erkin-Say**	**44.16**	**337**	P	**P**	**11 01 00.7**	**+1.4**
	SNR=12						
WRA	**Warramunga Arr**	**44.30**	**122**	*i* P	**P**	**11 01 00.8**	**+0.1**
WRA				pmax	pmax		
	comp=Z,45nm,1.0s						
WRA	**Warramunga Arr**	**44.30**	**122**	P	**P**	**11 01 00.8**	**+0.1**
	comp=Z,45nm,0.9s,mb5.2,baz=301,slow=9.0,SNR=152						
WRA				pP	pP	11 01 07.4	-0.5
	comp=Z,18nm,0.7s,baz=300,slow=9.2,SNR=14						
WRA				S	**S**	**11 07 29.6**	**-3.0**
	comp=Z,4.8nm,1.3s,baz=294,slow=16,SNR=4.8						
WRAB	**Tennant Creek**	**44.30**	**122**	*e*P	**P**	**11 01 00.9**	**+0.2**
WRAB				*e*	pP	11 01 07.3	-0.7
WRAB				pmax	pmax		
	comp=Z,148nm,1.3s,mb5.6						
WRAB	**Tennant Creek**	**44.30**	**122**	*e*P	**P**	**11 01 00.9**	**+0.1**
	comp=Z,148nm,1.3s,mb5.6						
WRAB				*e*	pP	11 01 07.3	-0.6
USP	**Ospenovka**	**44.40**	**338**	P	**P**	**11 01 02.0**	**+0.8**
	SNR=25						
JNU	**Nakatsue**	**44.72**	**44**	LR	LR	11 21 01.7	
	comp=Z,5.1nm,18.0s,baz=211,slow=38						
INCN	**Inchon**	**44.75**	**36**	*e*P	**P**	**11 01 02.9**	**-1.2**
ASAR	**Alice Springs**	**45.69**	**127**	P	**P**	**11 01 11.6**	**-0.2**
	comp=Z,16nm,0.9s,mb4.9,baz=302,slow=7.4,SNR=75						
ASAR				pP	pP	11 01 19.1	0.0
	comp=Z,5.8nm,0.6s,baz=301,slow=8.0,SNR=11						
ASAR				PcP	PcP	11 02 50.7	+0.6
	comp=Z,6.3nm,0.8s,baz=310,slow=4.2,SNR=6.0						
ASAR				pPcP		11 02 59.0	
	comp=Z,2.9nm,0.7s,baz=297,slow=2.6,SNR=3.8						
ASAR				LR	LR	11 23 58.7	
	comp=Z,584nm,19.2s,MS4.5,baz=42,slow=41						
SONM	**Songino Array**	**45.80**	**10**	P	**P**	**11 01 12.4**	**+0.1**
	comp=Z,42nm,0.9s,mb5.4,baz=191,slow=7.5,SNR=218						
SONM				pP	pP	11 01 19.6	0.0
	comp=Z,22nm,0.9s,baz=191,slow=9.1,SNR=10						
SONM				PcP	PcP	11 02 50.2	+0.1
	comp=Z,8.5nm,0.9s,baz=194,slow=4.0,SNR=7.3						
SONM				LR	LR	11 22 09.5	
	comp=Z,3μm,21.5s,MS5.2,baz=187,slow=38						
ULN	**Ulaanbaatar**	**45.95**	**11**	*c i*P	**P**	**11 01 13.2**	**-0.3**
ULN	**Ulaanbaatar**	**45.95**	**11**	⇑*i*P	**P**	**11 01 13.3**	**-0.2**
SNY	**Shenyang**	**46.25**	**29**	⇑P	**P**	**11 01 15.8**	**-0.2**
SNY				AP	pP	11 01 23.3	+0.1
SNY				XP	sP	11 01 28.3	+2.2
SNY				PP	PP	11 03 07.0	+2.4
SNY				AMB	AMB		
	comp=Z,110nm,1.9s,mb5.5						
SNY				LR	LR		
	comp=N,3μm,16.9s,MS5.4						
SNY				LR	LR		
	comp=E,690nm,15.3s,MS5.4						
SNY				LR	LR		
	comp=Z,3μm,15.3s,MS5.4						
MOY	**Mondy**	**48.88**	**4**	*e*P	**P**	**11 01 36.6**	**+0.2**
TLY	**Talaya**	**49.15**	**7**	P	**P**	**11 01 39.8**	**+1.3**
	comp=Z,236nm,0.9s,mb6.2,SNR=12						
TLY	**Talaya**	**49.15**	**7**	*e*P	**P**	**11 01 38.6**	**+0.1**
TLY				*e*		11 03 30.1	
TLY				*e*S	**S**	**11 08 48.8**	**+7.6**
TLY				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.4						
TLY				MLR	MLR		
	comp=Z,2μm,18.0s,MS5.2						
TLY	**Talaya**	**49.15**	**7**	⇑*i*P	**P**	**11 01 38.7**	**+0.2**
IRK	**Irkutsk**	**49.78**	**7**	*e*P	**P**	**11 01 39.3**	**-4.0**
IRK				*e*		11 01 49.2	
IRK				*e*		11 11 36.3	
HIA	**Hailar**	**50.66**	**20**	*e*P	**P**	**11 01 49.8**	**-0.3**
HIA				pmax	pmax		
	comp=Z,88nm,1.3s						
HIA	**Hailar**	**50.66**	**20**	*e*P	**P**	**11 01 49.8**	**-0.3**
	comp=Z,88nm,1.3s,mb5.5						
CBIJ	**Chichi jima**	**50.68**	**57**	LR	LR	11 19 49.0	
	comp=Z,535nm,19.6s,MS4.6,baz=276,slow=32						
MDJ	**Mudanjiang**	**51.29**	**31**	P	**P**	**11 01 55.8**	**+0.9**
MDJ				AP	pP	11 02 03.0	+0.8
MDJ				XP	sP	11 02 06.8	+1.7
MDJ				S	**S**	**11 09 10.0**	**-0.9**
MDJ				XS		11 09 26.5	
MDJ				SS	SS	11 12 47.0	+2.5
MDJ				AMB	AMB		
	comp=Z,54nm,1.1s,mb5.4						
MDJ				AMB	AMB		
	comp=Z,526nm,4.0s						
MDJ				LR	LR		
	comp=N,1μm,14.8s,MS5.4						
MDJ				LR	LR		
	comp=E,2μm,14.8s,MS5.4						
MDJ				LR	LR		
	comp=Z,2μm,15.2s,MS5.2						
MDJ	**Mudanjiang**	**51.29**	**31**	*e*P	**P**	**11 01 53.9**	**-1.0**
	comp=Z,163nm,1.6s,mb5.7						
VLA	**Vladivostok**	**51.50**	**34**	⇓*i*P	**P**	**11 01 57.0**	**+0.5**
VLA				*e*		11 03 03.0	
VLA				pmax	pmax		
	comp=Z,1μm,5.6s						
VLA				MLR	MLR		
	comp=N,2μm,15.0s,MS5.5						
VLA				MLR	MLR		
	comp=E,2μm,15.0s,MS5.5						
VLA				MLR	MLR		
	comp=Z,3μm,15.0s,MS5.4						
MAJO	**Matsushiro**	**51.64**	**44**	P	**P**	**11 01 58.0**	**+0.3**
MAT	**Matsushiro**	**51.64**	**44**	P	**P**	**11 01 57.7**	**0.0**
MAT				*e*S	**S**	**11 09 35.0**	**+19**
ZAL	**Zalesovo**	**51.70**	**352**	P	**P**	**11 01 57.2**	**-0.6**
	comp=Z,30nm,0.6s,mb5.4,baz=212,slow=5.8,SNR=107						
ZAL				pP	pP	11 02 04.9	-0.3
	comp=Z,42nm,0.6s,baz=206,slow=6.1,SNR=17						
UMR	**Umm Al-Rimmam**	**52.53**	**306**	*e*P	**P**	**11 02 04.0**	**-0.6**
UMR				AMb	AMB	11 02 13.7	
	comp=Z,53nm,0.8s,mb5.5						
KAMS	**Al Khamasin**	**52.61**	**293**	P	**P**	**11 02 11.2**	**+6.1**
NVS	**Novosibirsk**	**52.81**	**351**	*e*P	**P**	**11 02 04.6**	**-1.6**
NVS				*i*	pP	11 02 11.7	-1.9
NVS				*e*S	**S**	**11 09 26.2**	**-5.4**
NVS				pmax	pmax		
	comp=Z,133nm,1.3s,mb5.7						
NVS				pmax	pmax		
	comp=N,128nm,1.6s						
NVS				pmax	pmax		
	comp=E,52nm,1.3s						
NVS				smax			
	comp=N,151nm,2.0s						
NVS				smax			
	comp=N,70nm,1.7s						
PMG	**Port Moresby**	**52.84**	**104**	*e*P	**P**	**11 02 05.3**	**-1.7**
PMG	**Port Moresby**	**52.84**	**104**	P	**P**	**11 02 06.7**	**-0.3**
	comp=N,37nm,0.8s,mb5.4,baz=284,slow=4.2,SNR=13						
PMG				pP	pP	11 02 14.4	0.0
	comp=N,43nm,0.9s,baz=240,slow=6.1,SNR=5.9						
MIB	**Mutribah**	**52.93**	**306**	*e*P	**P**	**11 02 06.7**	**-0.8**
MIB				AMb	AMB	11 02 17.9	

comp=Z,132nm,1.0s,mb5.8
MZLS Mizel 52.93 298 P **P 11 02 08.7 +1.1**
RST Umm Al-Ruwaisa 53.10 305 *e*P **P 11 02 09.0 +0.3**
RST AMb AMB 11 02 24.4
comp=Z,51nm,1.2s,mb5.3
TATS Tathlith 53.46 292 P pP 11 02 18.4 -0.5
BVAR Borovoye Array 54.18 342 P **P 11 02 15.6 -0.7**
comp=Z,18nm,0.9s,mb5.0,baz=143,slow=7.4,SNR=50
BVAR pP pP 11 02 22.8 -0.9
comp=Z,24nm,0.9s,baz=146,slow=5.3,SNR=16
BVAR S **S 11 09 51.7 +1.4**
comp=Z,0.5nm,0.6s,baz=126,slow=20,SNR=3.7
BRVK Borovoye 54.24 341⇑*i*P **P 11 02 15.9 -0.9**
CHKZ Chkalovo 54.67 342 *e*P **P 11 02 19.4 -0.5**
CHKZ pmax pmax
comp=Z,243nm,1.5s,mb6.0
CHKZ Chkalovo 54.67 342 *e*P **P 11 02 19.4 -0.5**
comp=Z,244nm,1.5s,mb6.0
CTA Charters Tower 54.71 117 P **P 11 02 20.8 +0.1**
comp=Z,35nm,1.0s,mb5.4,baz=289,slow=8.8,SNR=17
CTA pP pP 11 02 27.9 -0.1
comp=Z,35nm,1.0s,baz=286,slow=7.8,SNR=11
CTAO Charters Tower 54.71 117 *e*P **P 11 02 20.1 -0.5**
CTAO *e**PP pP 11 02 27.5 -0.5
CTAO pmax pmax
comp=Z,102nm,1.4s,mb5.7
CTAO Charters Tower 54.71 117 *e*P **P 11 02 20.1 -0.6**
comp=Z,102nm,1.4s,mb5.7
CTAO *e*pP pP 11 02 27.5 -0.4
AFFS ‘Afif 54.86 297 P **P 11 02 21.6 -0.1**
KLR Kul’dur 55.57 28κ *i*P **P 11 02 23.3 -3.2**
KLR *e* 11 04 27.5
KLR *e*S **S 11 10 11.0 +2.1**
KLR pmax pmax
comp=N,100nm,2.2s
KLR pmax pmax
comp=E,170nm,2.2s
KLR pmax pmax
comp=Z,240nm,2.2s,mb5.8
KLR MLR MLR
comp=N,3µm,14.0s
KLR MLR MLR
comp=Z,5µm,14.0s,MS5.8
STKA Stephens Creek 55.67 132 P **P 11 02 27.3 -0.2**
comp=Z,19nm,1.2s,mb5.0,baz=310,slow=7.3,SNR=12
STKA pP pP 11 02 34.2 -0.7
comp=Z,10nm,0.7s,baz=287,slow=5.5,SNR=9.2
STKA LR LR 11 29 22.7
comp=Z,698nm,20.8s,MS4.7,baz=305,slow=39
STKA Stephens Creek 55.67 132 *e*P **P 11 02 27.1 -0.3**
STKA *e*pP pP 11 02 33.5 -1.3
BOD Bodaibo 56.74 12 *e*P **P 11 02 33.9 -0.9**
ASAJ Asahikawa 58.38 38 P **P 11 02 45.7 -0.8**
comp=Z,16nm,0.9s,mb5.0,baz=247,slow=8.2,SNR=4.3
ASAJ pP pP 11 02 53.6 -0.4
comp=Z,40nm,1.0s,baz=197,slow=5.8,SNR=6.9
KMBO Kilima Mbogo 58.41 267 *e*P **P 11 02 47.8 +0.7**
KMBO *e**PP pP 11 02 54.1 -0.5
KMBO Kilima Mbogo 58.41 267 P **P 11 02 48.0 +0.9**
comp=Z,8.4nm,1.2s,mb4.7,baz=51,slow=9.8,SNR=6.9
KMBO pP pP 11 02 55.5 +1.0
comp=Z,5.0nm,0.8s,baz=46,slow=9.3,SNR=8.2
KMBO LR LR 11 25 17.5
comp=Z,2µm,19.1s,MS5.3,baz=94,slow=33
KBRS Khaybar 58.60 299 P pP 11 02 55.2 -0.5
CLNS Chul’man 58.70 18 *e*P **P 11 02 48.6 0.0**
CLNS *e**PP pP 11 02 55.1 -0.9
CLNS *e* 11 03 37.6
CLNS *e* 11 04 53.2
CLNS *e*S **S 11 10 51.2 +1.1**
CLNS *e* 11 12 28.1
CLNS pmax pmax
comp=Z,34nm,0.9s,mb5.4
CLNS pmax pmax
comp=N,23nm,1.1s
CLNS pmax pmax
comp=E,16nm,1.0s
CLNS pmax pmax
comp=Z,4.0nm,1.0s,mb4.4
CLNS pmax pmax
comp=N,10.0nm,0.9s
CLNS pmax pmax
comp=E,5.0nm,1.0s
CLNS smax
comp=N,89nm,10.3s
CLNS smax
comp=Z,104nm,11.6s
CLNS smax
comp=E,75nm,11.0s
CLNS MLR MLR
comp=Z,7µm,14.0s,MS5.9
CLNS MLR MLR
comp=N,5µm,17.0s,MS5.7
CLNS MLR MLR
comp=E,1µm,15.0s,MS5.7
GNI Garni 58.98 316 *e*P **P 11 02 50.1 -0.7**
GNI *e**PP pP 11 03 00.4 +2.1
GNI Garni 58.98 316 P **P 11 02 51.2 +0.4**
comp=E,2.2nm,0.4s,mb4.6,baz=63,slow=15,SNR=5.5
GNI LR LR 11 30 04.6
comp=E,469nm,21.6s,MS4.6,baz=208,slow=38
YNBS Yanbu‘ al Bahr 59.41 297 P pP 11 03 00.4 -1.1
TI2 Plekhanov 59.66 318 *e*P **P 11 02 55.2 -0.3**
YSS Yuzh-Sakhalins 59.96 35*c* *i*P **P 11 02 57.1 -0.3**
YSS pmax pmax
comp=Z,117nm,1.3s,mb5.8
YSS Yuzh-Sakhalins 59.96 35⇑*i*P **P 11 02 57.2 -0.2**
UMJS Umm Lajj 60.20 297 P pP 11 03 06.9 0.0
SVE Sverdlovsk 60.58 339 *e*P **P 11 03 00.0 -1.5**
SVE *i* 11 03 11.3
SVE *e* 11 03 43.0
SVE *e*S **S 11 11 08.6 -5.6**
SVE pmax pmax
comp=Z,250nm,2.0s,mb6.0
SVE MLR MLR
comp=Z,2µm,17.5s,MS5.3
ZEI Tsey 60.69 319 *e*P **P 11 03 11.5 +9.0**
ZEI pmax pmax
comp=Z,8.0nm,0.9s,mb4.8
ARU Arti 61.05 338⇓*i*P **P 11 03 03.3 -1.4**
ARU *e* 11 03 42.9
ARU *e*S **S 11 11 22.1 +1.8**
ARU *e* 11 12 52.5
ARU *e*SS SS 11 15 21.6 +0.1
ARU pmax pmax
comp=Z,56nm,1.3s,mb5.5
ARU Arti 61.05 338⇑*i*P **P 11 03 03.4 -1.3**
ARU *e*pP pP 11 03 10.8 -1.4
TBKS Tabuk 61.51 301 P **P 11 03 12.0 +3.8**
DBAS Duba 61.78 299 P **P 11 03 14.6 +4.5**
KIV Kislovodsk 62.00 319⇑*i*P **P 11 03 10.3 -1.0**
ASF Jabal al Asfar 62.18 305 P **P 11 03 11.5 -1.2**
comp=Z,2.3nm,0.5s,mb4.5,baz=350,slow=6.3,SNR=5.1
ASF LR LR 11 31 51.2
comp=Z,834nm,18.2s,MS4.9,baz=197,slow=38
JMQS Jabal Moqyreh 62.23 301 P **P 11 03 15.9 +2.8**
AYUS ‘Aynunah 62.60 300 P **P 11 03 15.3 -0.3**
BDAS Al Bad‘ 62.80 301 P **P 11 03 19.8 +3.0**
MALT Malatya 62.82 312 *e*P **P 11 03 16.5 -0.3**
MALT pmax pmax
comp=Z,19nm,1.4s,mb5.0
MALT Malatya 62.82 312 *e*P **P 11 03 16.5 -0.3**
comp=Z,19nm,1.4s,mb5.0
JMOS Jabal al Moall 62.95 301 P **P 11 03 15.9 -1.9**
ALWS Ilw as Safayha 63.02 301 P **P 11 03 17.2 -1.1**
TAYS Tayyib Ism 63.02 301 P **P 11 03 19.1 +0.9**
HAQS Haql 63.08 301 P **P 11 03 21.1 +2.4**
EIL Elat 63.20 302 P **P 11 03 19.8 +0.3**
comp=Z,4.3nm,0.7s,mb4.7,baz=80,slow=4.7,SNR=4.6
EIL Elat 63.20 302 *e*P **P 11 03 18.6 -0.8**
comp=Z,2.3nm,0.6s,mb4.5
SOC Sochi 63.81 318 *e*P **P 11 03 18.9 -4.4**
SOC *e* 11 03 54.4
SOC *e* 11 05 38.0
SOC *e*PPP PPP 11 07 15.3 -1.9
SOC *e*S **S 11 11 51.4 -3.9**
SOC *e*SS SS 11 16 10.4 +5.3
SOC *e*SSS SSS 11 18 56.0 +2.9
SOC pmax pmax
comp=N,54nm,1.3s
SOC pmax pmax
comp=Z,51nm,1.3s,mb5.4
SOC pmax pmax
comp=E,16nm,0.8s
SOKR Solikamsk 63.98 339⇑*i*P **P 11 03 21.3 -2.8**
SOKR pmax pmax
comp=Z,50nm,1.2s,mb5.4
SOKR MLR MLR
comp=Z,840nm,22.0s,MS4.9
YAK Yakutsk 64.34 17 *e*P **P 11 03 24.8 -1.7**
YAK *e**PP pP 11 03 31.6 -2.4
YAK *e* 11 04 02.9
YAK *e* 11 05 44.5
YAK *e*PPP PPP 11 07 16.2 -6.3
YAK *e*S **S 11 11 59.9 -1.6**
YAK *e* 11 13 19.1
YAK *e*SS SS 11 16 09.5 -3.5
YAK pmax pmax
comp=Z,69nm,0.9s,mb5.7
YAK pmax pmax
comp=N,31nm,1.1s
YAK pmax pmax
comp=E,22nm,1.1s
YAK pmax pmax
comp=Z,3.0nm,1.0s,mb4.3
YAK pmax pmax
comp=N,2.0nm,0.7s
YAK pmax pmax
comp=E,2.0nm,0.8s
YAK smax
comp=N,8.0nm,1.2s
YAK smax
comp=E,3.0nm,1.1s
YAK MLR MLR
comp=Z,2µm,17.0s,MS5.4
YAK MLR MLR
comp=N,1µm,15.0s,MS5.3
YAK MLR MLR
comp=E,1µm,17.0s,MS5.3
YAK Yakutsk 64.34 17⇑*i*P **P 11 03 25.2 -1.3**
MBAR Mbarara 64.88 268 *e*P **P 11 03 30.6 -0.2**
MBAR pmax pmax
comp=Z,40nm,1.5s,mb5.2
MBAR Mbarara 64.88 268 *e*P **P 11 03 30.6 -0.1**
comp=Z,40nm,1.5s,mb5.2
BRTR Keskin Array B 66.80 312 P **P 11 03 41.7 -0.9**
comp=Z,1.3nm,0.6s,baz=129,slow=7.9,SNR=9.3
BRTR pP pP 11 03 49.4 -0.7
comp=Z,3.2nm,0.7s,baz=132,slow=5.8,SNR=9.0
BRTR PcP PcP 11 04 12.9 +1.6
comp=Z,4.3nm,0.8s,baz=117,slow=8.0,SNR=5.7
VRSR Storozhevoye 67.28 325 *e*P **P 11 03 43.6 -1.9**
VRSR pmax pmax
comp=Z,30nm,1.5s,mb5.1
VRSR pmax pmax
comp=N,10.0nm,0.9s
VRSR pmax pmax
comp=E,10.0nm,1.0s
SIM Simferopol’ 68.06 318 P pP 11 04 01.5 +3.5
SIM pmax pmax
comp=Z,20nm,1.0s,mb5.1
ISP Isparta 68.67 310⇑*i*P **P 11 03 52.0 -2.4**
LSZ Lusaka 69.01 253 *e*P **P 11 03 56.9 +0.1**
LSZ *e**PP pP 11 04 04.4 +0.1
LSZ pmax pmax
comp=Z,36nm,1.4s,mb5.1
LSZ Lusaka 69.01 253 *e*P **P 11 03 56.9 0.0**
comp=Z,36nm,1.4s,mb5.1
LSZ *e*pP pP 11 04 04.4 0.0
SKR Severo-Kuril’s 69.51 36 *e*P **P 11 03 54.0 -5.3**
SKR pmax pmax
comp=Z,160nm,0.9s,mb6.0
MOS Moscow 70.09 329 *e*P **P 11 04 02.0 -0.8**
MOS *e* 11 04 13.4
MOS *e*S S 11 13 08.7 -2.2
MOS MLR MLR
comp=Z,1µm,21.0s,MS5.2
OBN Obninsk 70.37 328⇑*i*P **P 11 04 03.5 -1.0**
OBN *i* 11 04 15.3
OBN *e* 11 04 26.7
OBN pmax pmax
comp=Z,66nm,1.5s,mb5.3
OBN MLR MLR
comp=Z,900nm,9.0s
OBN Obninsk 70.37 328⇑*i*P **P 11 04 03.2 -1.3**
MA2 Magadan 70.60 26*c* *i*P **P 11 04 05.3 -0.5**
MA2 pmax pmax
comp=Z,72nm,1.2s,mb5.5
MA2 Magadan 70.60 26⇑*i*P **P 11 04 05.4 -0.4**
PET Petropavlovsk 71.82 35 *e*P **P 11 04 12.7 -0.6**
PET *e*S S 11 13 36.0 +5.1
PET pmax pmax
comp=Z,46nm,1.0s,mb5.4
PET pmax pmax
comp=Z,200nm,13.9s
PET smax
comp=N,300nm,21.3s
PET MLR MLR
comp=Z,1µm,20.0s,MS5.2
TIXI Tiksi 71.89 11 *e*P **P 11 04 12.3 -1.1**
TIXI pmax pmax
comp=Z,128nm,1.8s,mb5.5
TIXI MLR MLR
comp=Z,2µm,16.0s,MS5.4
TIXI Tiksi 71.89 11⇑*i*P **P 11 04 12.2 -1.2**
IDI Anoyia 72.61 306 P **P 11 04 18.1 -0.3**
comp=Z,17nm,0.9s,mb5.0,baz=68,slow=4.3,SNR=7.4
IDI pP pP 11 04 25.8 -0.1
comp=Z,13nm,0.6s,baz=93,slow=5.6,SNR=3.5
AKASG Malin Array Be 72.97 322 P **P 11 04 18.7 -1.4**
comp=Z,1.3nm,0.5s,baz=90,slow=5.1,SNR=17
AKASG pP pP 11 04 26.0 -1.6
comp=Z,4.6nm,0.6s,baz=89,slow=5.1,SNR=9.2
LBTB Lobatse 73.14 243 *e*P **P 11 04 21.2 -0.5**
LBTB *e**PP pP 11 04 28.7 -0.5
VRI Vrincioaia 73.31 317⇓*i*P **P 11 04 22.7 +0.5**
MLR Muntele Rosu 73.75 317 P **P 11 04 25.0 +0.2**
comp=Z,13nm,1.2s,mb4.7,baz=343,slow=3.0,SNR=8.3
MLR pP pP 11 04 33.5 +1.2
comp=Z,14nm,0.9s,baz=110,slow=4.2,SNR=8.5
MAW Mawson 73.93 192 pP pP 11 04 34.6 +1.7
comp=Z,7.8nm,0.8s,baz=52,slow=12,SNR=4.1
MAW LR LR 11 30 50.1
comp=Z,426nm,21.0s,MS4.7,baz=194,slow=31
BOSA Boshof 74.17 239 *e*P **P 11 04 25.6 -2.0**
BOSA pmax pmax
comp=Z,46nm,1.4s,mb5.2
BOSA Boshof 74.17 239 *e*P **P 11 04 25.6 -2.0**
comp=Z,46nm,1.4s,mb5.2
MNK Minsk 74.88 326 *e*P **P 11 04 24.0 -7.1**
VSU Vasula 76.62 330⇑*i*P **P 11 04 40.0 -0.9**
LVZ Lovozero 76.75 340 *e*P **P 11 04 41.2 -0.2**
KWP Kalwaria 76.77 320 *e*P **P 11 04 41.8 -0.1**
KWP Kalwaria 76.77 320 *e*P **P 11 04 41.5 -0.4**
KOLS Kolonicke sedl 76.91 320 *e*P **P 11 04 43.5 +0.8**
KOLS *e*pP pP 11 04 50.0 -0.3
APA Apatity 77.03 340 *e*P pP 11 04 49.1 -1.5
APA pmax pmax
comp=Z,14nm,0.8s,mb4.9
SUW Suwalki 77.40 325 *e*P **P 11 04 44.9 -0.4**
CRVS Cervenica-Dubn 77.43 319 *e*P pP 11 04 52.9 -0.3
CRVS *e* 11 04 59.9
CRVS Cervenica-Dubn 77.43 319 *e*pP pP 11 04 52.9 -0.3
CRVS *e* 11 04 59.9
FINES FINESS Array B 77.80 333 *i* P **P 11 04 47.0 -0.4**
FINES pmax pmax
comp=Z,2.0nm,0.5s
FINES FINESS Array B 77.80 333 P **P 11 04 47.0 -0.3**
comp=Z,2.1nm,0.5s,mb4.3,baz=98,slow=7.1,SNR=25
FINES pP pP 11 04 54.7 -0.3
comp=Z,7.5nm,0.6s,baz=101,slow=7.1,SNR=11
FINES LR LR 11 44 23.6
comp=Z,972nm,19.1s,MS5.1,baz=294,slow=40
KAF Kangasniemi 77.89 333 *e*p **P 11 04 46.6 -1.2**
comp=Z,16nm,0.8s,mb5.0
KAF Kangasniemi 77.89 333 *e*P **P 11 04 46.6 -1.2**
KAF pmax pmax
comp=Z,16nm,0.8s,mb5.0
KECS Kecovo 78.00 319 *e*P **P 11 04 50.0 +1.3**
KECS *e*pP pP 11 04 57.3 +1.0
NIE Niedzica 78.27 320 *e*P **P 11 04 50.5 +0.3**
PSZ Piszkesteto 78.30 318 *e*P **P 11 04 50.4 0.0**
PSZ pmax pmax
comp=Z,19nm,1.0s,mb5.0
PSZ Piszkesteto 78.30 318 *e*P **P 11 04 50.4 +0.1**
comp=Z,19nm,1.0s,mb5.0
SUR Sutherland 78.68 236 *e*P **P 11 04 54.9 +2.1**
OJC Ojcow 78.72 321 *e*P pP 11 05 01.0 +0.7
VYHS Vyhne 79.08 319 *e*P **P 11 04 54.8 +0.1**
VYHS *e*pP pP 11 05 02.0 -0.3
TIP Timpagrande 79.53 309 P **P 11 04 55.4 -1.8**
TIP *e*pP pP 11 05 05.0 +0.1
OKC Ostrava-Krasne 79.72 320 *e*P **P 11 04 54.7 -3.4**
OKC *e* 11 05 05.9
OKC Ostrava-Krasne 79.72 320 *e*P **P 11 04 54.7 -3.4**
OKC *e*pP 11 04 59.0
OKC *e* 11 05 05.9
OKC Ostrava-Krasne 79.72 320 *e*P **P 11 04 59.0 +0.9**
OKC *e*pP pP 11 05 05.9 +0.2
MORC Moravsky Berou 80.10 320 *e*P **P 11 05 00.4 +0.3**
MORC *e**PP pP 11 05 07.6 -0.2
MORC pmax pmax
comp=Z,34nm,1.4s,mb5.1
MORC Moravsky Berou 80.10 320 *e*P **P 11 05 00.4 +0.2**
comp=Z,34nm,1.4s,mb5.1
MORC *e*pP pP 11 05 07.6 -0.2
ZST Bratislava 80.19 318 *e*P **P 11 05 01.5 +0.8**
ZST *e*pP pP 11 05 08.4 +0.1
BILL Bilibino 80.24 21⇑*i*P **P 11 04 59.3 -1.2**
ARCES ARCESS Array B 80.45 340 P **P 11 05 02.3 +0.7**
comp=Z,7.3nm,0.9s,mb4.6,baz=95,slow=4.8,SNR=22
ARCES pP pP 11 05 09.6 +0.3
comp=Z,8.7nm,0.7s,baz=91,slow=4.8,SNR=5.5
ARCES LR LR 11 46 23.4
comp=Z,1µm,19.5s,MS5.3,baz=259,slow=40
VRAC Vranov 80.66 319 P **P 11 05 03.8 +0.7**
comp=Z,1.0nm,0.4s,baz=65,slow=9.1,SNR=4.4
DPC Dobruska-Polom 80.95 320 *e*P **P 11 05 05.4 +0.8**
DPC *e*pP pP 11 05 12.8 +0.5
KSP Ksiaz 81.03 321 *e*P **P 11 05 05.0 0.0**
KSP *e*pP pP 11 05 13.1 +0.5
KSP Ksiaz 81.03 321 *e*P **P 11 05 05.4 +0.4**
KSP *e* 11 05 16.0
SYO Syowa Base 81.04 198 ⇑P **P 11 05 06.3 +1.6**
SYO Syowa Base 81.04 198 ⇑P pP 11 05 15.2 +2.8
UPC Upice 81.17 321 *e*P **P 11 05 07.2 +1.5**
UPC *e* 11 05 19.1
UPC Upice 81.17 321 *e*P **P 11 05 07.2 +1.5**
UPC *e*pP pP 11 05 14.3 +0.9
UPC *e*x x 11 05 19.1
VISS Visnje 81.50 316 *e*P pP 11 05 15.2 -0.1
RPZ Rata Peaks 81.52 135 P **P 11 05 09.1 +1.3**
comp=Z,24nm,0.9s,mb5.1,baz=304,slow=5.4,SNR=3.5
PRU Pruhonice 82.05 320 *e*P **P 11 05 06.0 -4.3**
PRU *e**PP 11 05 11.5
PRU *e* 11 05 20.2
PRU Pruhonice 82.05 320 *e*P **P 11 05 11.5 +1.2**
PRU *e*pP pP 11 05 20.2 +2.2
BSD Bornholm Skovb 82.33 325 *i* P pP 11 05 18.6 -0.7
BSD pmax pmax
comp=Z,37nm,1.1s,mb5.2
BSD Bornholm Skovb 82.33 325 *i* P pP 11 05 18.6 -0.7
comp=Z,37nm,1.1s
GEC2 GERESS Array S 82.51 319 *e*P **P 11 05 13.3 +0.6**
GEC2 pmax pmax
comp=Z,51nm,1.6s,mb5.3
GEC2 GERESS Array S 82.51 319 *e*P **P 11 05 13.3 +0.6**
comp=Z,51nm,1.6s,mb5.3
GERES GERESS Array B 82.51 319 P **P 11 05 13.8 +1.1**
comp=Z,3.2nm,0.9s,mb4.3,baz=104,slow=5.5,SNR=21
GERES pP pP 11 05 21.7 +1.3
comp=Z,6.8nm,0.7s,baz=104,slow=5.5,SNR=20
GERES LR LR 11 48 02.0
comp=Z,389nm,18.1s,MS4.8,baz=275,slow=40
BRG Berggiesshubel 82.51 321 *e*P **P 11 05 13.1 +0.4**
BRG *e* 11 05 23.3
BRG pmax pmax
comp=Z,35nm,1.7s,mb5.1
BRG Berggiesshubel 82.51 321 *e*P **P 11 05 13.1 +0.4**
comp=Z,35nm,1.7s,mb5.1
BRG *e* pP 11 05 23.3 +2.9
KHC Kasperske Hory 82.61 319 *e*P **P 11 05 12.3 -1.0**
KHC *e* 11 05 23.6
KHC Kasperske Hory 82.61 319 *e*P **P 11 05 12.3 -1.0**
KHC *e*pP 11 05 13.9
KHC *e* 11 05 23.6
KHC Kasperske Hory 82.61 319 *e*P **P 11 05 13.9 +0.6**
KHC *e*pP pP 11 05 23.6 +2.7
KHC *e*x x 11 05 30.5
KHC *e*x x 11 05 42.5
WET Wettzell 83.07 319 *e*P **P 11 05 16.2 +0.6**
CLL Collm 83.14 321 *e*P **P 11 05 15.0 -0.9**
CLL pmax pmax
comp=Z,31nm,1.9s,mb5.0
CLL Collm 83.14 321 *e*P **P 11 05 15.0 -0.9**
comp=Z,31nm,1.9s,mb5.0
CLL Collm 83.14 321 P **P 11 05 15.0 -0.9**
comp=Z,logA/T=1.2,mb5.0
HFS Hagfors 83.49 330 P **P 11 05 17.8 +0.3**
comp=Z,4.6nm,0.7s,mb4.6,baz=117,slow=3.3,SNR=11
HFS pP pP 11 05 25.5 +0.2
comp=Z,5.1nm,0.5s,baz=108,slow=4.7,SNR=6.8
MOX Moxa 83.97 320 *e*P **P 11 05 21.7 +1.5**
MOX pmax pmax
comp=Z,52nm,2.0s,mb5.3
MOX Moxa 83.97 320 *i* P **P 11 05 21.7 +1.5**
comp=Z,logA/T=1.4,mb5.3
MOX Moxa 83.97 320 *e*P **P 11 05 21.7 +1.5**
comp=Z,52nm,2.0s,mb5.3
GRA1 Grafenberg Arr 84.18 319 *e*P **P 11 05 22.3 +1.0**
comp=Z,46nm,1.5s,mb5.4
GRF Grafenberg Arr 84.18 319 *e*P **P 11 05 22.3 +1.0**
GRF pmax pmax
comp=Z,46nm,1.5s,mb5.4
GRF Grafenberg Arr 84.18 319 *e*P **P 11 05 22.3 +1.0**
GRF pmax pmax
comp=Z,46nm,1.5s,mb5.4
GRF Grafenberg Arr 84.18 319 *e*P **P 11 05 22.3 +1.0**
comp=Z,46nm,1.5s,mb5.4
NB2 NORSAR Subarra 84.79 331 P **P 11 05 23.7 -0.3**
comp=Z,42nm,1.7s,mb5.3,baz=94,slow=6.2
NB2 NORSAR Subarra 84.79 331 P **P 11 05 23.7 -0.3**
baz=94,slow=6.2
NB2 NORSAR Subarra 84.79 331 P **P 11 05 23.7 -0.3**
NB2 pmax pmax
comp=Z,42nm,1.7s,mb5.3
NOA NORSAR Array B 84.79 331 P **P 11 05 24.1 0.0**
comp=Z,2.1nm,0.9s,mb4.2,baz=95,slow=4.8,SNR=2.7
NOA pP pP 11 05 31.4 -0.4
comp=Z,4.7nm,0.9s,baz=95,slow=4.9,SNR=7.6
NOA LR LR 11 47 11.3
comp=Z,385nm,21.9s,MS4.8,baz=30,slow=38
CLZ Clausthal 84.80 322 *e*P **P 11 05 25.8 +1.5**
comp=Z,20nm,1.4s,mb5.0
BSEG Bad Segeberg 84.91 324 *e*P **P 11 05 26.8 +2.0**
DAVOX Davos 84.98 317 P **P 11 05 26.3 +0.9**
comp=Z,4.1nm,0.7s,mb4.7,baz=134,slow=4.4,SNR=6.6
DAVOX pP pP 11 05 33.9 +0.9
comp=Z,18nm,0.6s,baz=120,slow=3.9,SNR=15
BFO Black Forest 86.05 318 *e*P **P 11 05 29.7 -1.0**
BFO pmax pmax
comp=Z,12nm,0.9s,mb5.1
BFO Black Forest 86.05 318 *e*P **P 11 05 29.7 -1.0**
comp=Z,12nm,0.9s,mb5.1
LPG La Plagne 87.16 315 *e*P **P 11 05 42.6 +6.5**
comp=Z,34nm,1.0s,mb5.2
VNDA Vanda 87.74 169 *e*P **P 11 05 40.5 +2.2**
VNDA *e**PP pP 11 05 46.7 +0.7
VNDA pmax pmax
comp=Z,21nm,1.5s
VNDA Vanda 87.74 169 P **P 11 05 40.6 +2.3**
comp=Z,0.7nm,0.8s,baz=310,slow=4.3,SNR=2.3
VNDA LR LR 11 39 39.5
comp=Z,476nm,19.3s,baz=302,slow=32
VNDA Vanda 87.74 169 *e*P **P 11 05 40.5 +2.3**
comp=Z,21nm,1.5s,mb5.1
VNDA *e*pP pP 11 05 46.7 +0.7
SBA Scott Base 88.84 168 *e*P **P 11 05 42.1 -1.4**
SBA pmax pmax
comp=Z,34nm,1.4s,mb5.5
SBA Scott Base 88.84 168 *e*P **P 11 05 42.1 -1.5**
comp=Z,34nm,1.4s,mb5.5
EKA Eskdalemuir Ar 92.64 326 pP pP 11 06 10.8 +1.5
comp=Z,2.0nm,0.7s,baz=106,slow=6.1,SNR=3.4
QSPA South Pole Qui 92.77 180⇑*i*P pP 11 06 11.6 +2.2
comp=Z,14nm,1.1s
IMA Indian Mountai 95.72 23 *e*P **P 11 06 17.0 +1.5**
IMA pmax pmax
comp=Z,164nm,1.6s,mb6.2
IMA Indian Mountai 95.72 23 *e*P **P 11 06 17.0 +1.5**
comp=Z,164nm,1.6s,mb6.2
ILAR Eielson Array 98.84 23 P **P 11 06 29.6 0.0**
comp=Z,0.5nm,0.9s,baz=254,slow=4.7,SNR=4.0
ILAR pP pP 11 06 38.4 +1.0
comp=Z,0.5nm,0.9s,baz=295,slow=4.5,SNR=3.3

ILAR				PP	PP	11 10 21.2	-12
	comp=Z,1.2nm,0.9s,baz=288,slow=7.1,SNR=6.1						
ILAR				PKKP	PKKP	11 23 09.1	+15
	comp=Z,0.7nm,1.0s,baz=180,slow=2.7,SNR=4.1						
DBIC	**Dimbokro**	**99.99**	**277**	LR	LR	11 49 02.8	
	comp=Z,493nm,21.0s,MS5.0,baz=60,slow=34						
INK	**Inuvik**	**101.41**	**17**	PP	PP	11 10 54.7	+1.2
	comp=Z,3.3nm,1.0s,baz=301,slow=6.2,SNR=5.1						
YKA	**Yellowknife Ar**	**110.95**	**14**	PP	PP	11 11 50.0	-14
	comp=Z,1.0nm,0.9s,baz=326,slow=6.5,SNR=5.1						
YKA				PKKPab		11 22 30.0	
	comp=Z,0.2nm,0.7s,baz=153,slow=2.8,SNR=3.7						
YKA				PKKP	PKKP	11 22 41.1	+9.2
	comp=Z,0.4nm,0.8s,baz=147,slow=4.1,SNR=5.7						
TBI	**Tubuai**	**114.03**	**114**	*e*SS	SS	11 28 16.8	+3.9
TBI				*e*LR	LR	11 46 01.6	
	comp=Z,504nm,27.5s						
PPT	**Papeete**	**114.55**	**108**	*e*PS	PS	11 22 14.0	+8.7
PPT				*e*LR	LR	11 46 16.3	
	comp=Z,451nm,26.5s						
CHMT	**Chamberlain Mo**	**124.35**	**24**	*e*PKPdf	PKPdf	11 11 49.2	-3.3
ULM	**Lac du Bonnet**	**126.22**	**9**	PKP	PKPdf	11 11 54.4	-1.6
	comp=Z,2.8nm,0.8s,baz=346,slow=5.4,SNR=4.0						
ULM				pPKP		11 12 03.0	
	comp=Z,3.1nm,0.7s,baz=313,slow=1.0,SNR=4.4						
LAO	**LASA Array**	**127.08**	**19**	*e*PKPdf	PKPdf	11 11 55.7	-2.0
RKT	**Rikitea**	**127.14**	**117**	*e*SS	SS	11 31 11.1	+10
RKT				*e*LR	LR	11 52 06.1	
	comp=Z,317nm,22.8s						
ELK	**Elko**	**128.32**	**30**	*e*PKIKP	PKPdf	11 11 57.2	-3.1
NVAR	**Mina Array Bea**	**128.40**	**34**	PKP	PKPdf	11 11 59.0	-1.5
	comp=Z,4.9nm,1.2s,baz=297,slow=3.2,SNR=12						
MNV	**Mina**	**128.48**	**34**	*e*PKIKP	PKPdf	11 11 58.5	-2.2
BGU	**Big Grassy Mou**	**129.24**	**28**	*e*PKPdf	PKPdf	11 12 00.1	-2.0
PDAR	**Pinedale Array**	**129.26**	**24**	PKP	PKPdf	11 12 00.1	-2.0
	comp=Z,0.8nm,0.6s,baz=315,slow=2.1,SNR=9.7						
PDAR				pPKP		11 12 07.5	
	comp=Z,1.0nm,0.8s,baz=142,slow=2.1,SNR=4.3						
NLU	**North Lily Min**	**130.46**	**28**	*e*PKPdf	PKPdf	11 12 02.3	-2.2
MSU	**Marysvale**	**131.54**	**29**	*e*PKIKP	PKPdf	11 12 05.0	-1.5
PV10	**Paradox Valley**	**133.12**	**27**	*e*PKPpre		11 11 52.6	
MIAR	**Mount Ida**	**141.84**	**12**	*e*PKHKP		11 12 17.0	
BDFB	**Brasilia**	**141.93**	**248**	pPKP		11 12 32.8	
	comp=Z,1.7nm,0.5s,baz=138,slow=4.5,SNR=1.9						
LTX	**Lajitas**	**143.09**	**29**	*e*PKIKP	PKPdf	11 12 22.2	-5.6
TXAR	**Lajitas Array**	**143.09**	**29**	PKhKP		11 12 22.1	
	comp=Z,1.7nm,0.8s,baz=248,slow=1.3,SNR=17						
TXAR				PP	PP	11 15 35.0	-2.3
	comp=Z,1.4nm,1.1s,baz=326,slow=4.5,SNR=3.8						
JCT	**Junction City**	**143.78**	**23**	*e*PKIKP	PKPdf	11 12 23.5	-5.4
NATX	**Nacogdoches**	**144.26**	**15**	*e*PKPpre		11 12 25.6	
HKT	**Hockley**	**145.63**	**18**	*e*PKP2	PKPab	11 12 29.9	-0.4
LPAZ	**La Paz**	**159.10**	**229**	*e*PKIKP	PKPdf	11 12 49.4	-2.7
LPAZ	**La Paz**	**159.10**	**229**	PKP	PKPdf	11 12 51.0	-1.1
	comp=Z,0.9nm,0.8s,baz=30,slow=6.4,SNR=3.5						
LPAZ				PKPab	PKPab	11 13 27.7	+1.0
	comp=Z,3.8nm,1.1s,baz=84,slow=4.0,SNR=3.8						

IDC 29 11:22:33.8±3.6,**5.36N**×**94.82E,mb3.7**/3,**mb1 3.9**/4,
mb1mx3.6/18,**mbtmp3.6**/4,**Error ellipse:**
s-maj=125.7km s-min=29.3km az=66.0,Northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.63**	**17**	Pn	P	11 25 47.9	-3.1
	baz=218,slow=14,SNR=4.5						
WRA	**Warramunga Arr**	**46.28**	**124**	P	P	11 31 01.8	-1.5
	1.4nm,0.7s,baz=302,slow=9.1,SNR=9.8						
ASAR	**Alice Springs**	**47.81**	**129**	P	P	11 31 13.0	-2.3
	0.6nm,0.8s,baz=295,slow=7.3,SNR=5.1						
ZAL	**Zalesovo**	**49.11**	**352**	P	P	11 31 22.9	-2.0
	0.7nm,0.5s,baz=260,slow=7.3,SNR=3.0						

IDC 29 11:27:25.3±1.8,**7.35N**×**93.53E,mb3.9**/5,**mb1 4.0**/6,
mb1mx3.8/18,**mbtmp3.8**/6,**ML3.8**/1,**Error ellipse:**
s-maj=69.6km s-min=22.5km az=63.0,Nicobar Islands
region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.24**	**25**	Pn	P	11 30 23.1	-0.9
	0.2nm,0.3s,baz=210,slow=12,SNR=4.6						
SONM	**Songino Array**	**41.81**	**13**	P	P	11 35 15.8	-2.5
	0.3nm,0.4s,baz=194,slow=9.0,SNR=4.7						
SONM				PcP	PcP	11 37 13.8	-1.3
	0.3nm,0.4s,baz=202,slow=2.7,SNR=3.5						
ZAL	**Zalesovo**	**46.99**	**353**	P	P	11 35 57.1	-2.8
	2.4nm,0.3s,baz=212,slow=5.9,SNR=8.0						
WRA	**Warramunga Arr**	**48.46**	**125**	P	P	11 36 10.0	-1.9
	0.5nm,0.4s,baz=305,slow=8.5,SNR=13						
ASAR	**Alice Springs**	**50.05**	**129**	P	P	11 36 21.8	-2.4
	0.3nm,0.6s,baz=306,slow=7.4,SNR=5.7						
ARCES	**ARCESS Array B**	**75.55**	**340**	P	P	11 39 12.0	-1.2
	3.2nm,0.9s,baz=79,slow=6.2,SNR=4.4						

IDC 29 11:39:55.0±1.5,**12.56N**×**95.09E,mb3.6**/5,**mb1 3.8**/6,
mb1mx3.7/18,**mbtmp3.5**/6,**ML3.2**/1,**Error ellipse:**
s-maj=52.0km s-min=22.9km az=65.0,Andaman Islands
region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**6.94**	**32**	Pn	Pn	11 41 37.5	-3.1
	0.1nm,0.3s,baz=217,slow=15,SNR=6.4						
SONM	**Songino Array**	**36.42**	**13**	P	P	11 47 02.0	-1.2
	0.3nm,0.6s,baz=190,slow=8.8,SNR=3.0						
ZAL	**Zalesovo**	**42.08**	**351**	P	P	11 47 48.3	-1.9
	0.6nm,0.4s,baz=40,slow=22,SNR=3.0						
WRA	**Warramunga Arr**	**50.35**	**129**	P	P	11 48 53.8	-2.3
	0.9nm,0.8s,baz=308,slow=8.2,SNR=5.8						
ASAR	**Alice Springs**	**52.31**	**133**	P	P	11 49 09.1	-2.0
	0.3nm,0.6s,baz=304,slow=6.3,SNR=6.5						
GERES	**GERESS Array B**	**75.00**	**317**	P	P	11 51 38.5	-1.7
	0.2nm,0.2s,baz=80,slow=6.0,SNR=3.0						

IDC 29 11:43:47.2±3.9,**7.77N**×**93.98E,mb3.5**/3,**mb1 3.6**/3,
mb1mx3.4/17,**mbtmp3.5**/3,**Error ellipse:**
s-maj=363.6km s-min=31.3km az=48.0,Nicobar Islands
region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**48.33**	**125**	P	P	11 52 31.0	-1.8
	0.1nm,0.3s,baz=306,slow=8.7,SNR=6.0						
ASAR	**Alice Springs**	**49.97**	**130**	P	P	11 52 43.2	-2.2
	0.2nm,0.5s,baz=298,slow=8.0,SNR=3.8						
FINES	**FINESS Array B**	**72.73**	**332**	P	P	11 55 17.0	-1.8
	1.8nm,1.0s,baz=104,slow=7.9,SNR=4.8						

IDC ***29*** *11:49:55.4±0.7,4.44N×92.27E,h25^{km}±4^{km},mb3.8/9,*
mb1 4.0/10,mb1mx3.8/19,mbtmp4.0/10,ML3.6/1,Error
ellipse: s-maj=27.1km s-min=13.7km az=46.0
ISC 29 11:49:53.6±0.7,**4.44N**±0.10×**92.4E**±0.1,**h25**^{km},
h25^{km}±.8^{km}**:pP-P,n16,**σ**0**^{s}**71**/16,**mb4.3**/13,**Off west**
coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.35**	**24**	Pn	**P**	**11 53 29.2**	**-1.4**
	0.1nm,0.3s,baz=217,slow=14,SNR=14						
PKI	**Pulchoki**	**23.94**	**345**	*e*P	**P**	**11 55 07.6**	**+0.7**
	83nm,1.3s,mb5.0						
DMN	**Daman**	**24.06**	**344**	*e*P	**P**	**11 55 09.5**	**+1.4**
GUN	**Gumba**	**24.14**	**346**	*e*P	**P**	**11 55 09.4**	**+0.5**
	90nm,1.0s,mb5.2						
KKN	**Kakani**	**24.18**	**345**	*e*P	**P**	**11 55 09.4**	**+0.1**
	43nm,1.0s,mb4.8						
GKN	**Gorkha**	**24.56**	**343**	*e*P	**P**	**11 55 13.2**	**+0.2**
	38nm,0.8s,mb5.0						
KOLN	**Koldanda**	**24.66**	**341**	*e*P	**P**	**11 55 14.1**	**+0.2**
SONM	**Songino Array**	**44.89**	**13**	P	**P**	**11 58 08.4**	**+0.4**
	2.2nm,0.6s,mb4.2,baz=196,slow=8.6,SNR=13						
SONM				pP	pP	11 58 16.6	+1.1
	3.2nm,0.9s,baz=198,slow=8.7,SNR=8.9						
WRA	**Warramunga Arr**	**47.84**	**122**	P	**P**	**11 58 31.8**	**+0.1**
	1.2nm,0.7s,mb4.0,baz=298,slow=8.9,SNR=6.8						
WRA				pP	pP	11 58 39.7	+0.5
	4.6nm,0.8s,baz=300,slow=8.9,SNR=17						
ASAR	**Alice Springs**	**49.20**	**127**	P	**P**	**11 58 43.0**	**+0.9**
	0.9nm,0.9s,mb3.8,baz=297,slow=7.8,SNR=6.4						
ASAR				pP	pP	11 58 49.8	0.0
	2.5nm,0.9s,baz=305,slow=7.2,SNR=14						
BVAR	**Borovoye Array**	**51.70**	**343**	P	**P**	**11 59 00.3**	**-0.5**
	1.5nm,0.9s,mb3.9,baz=169,slow=7.3,SNR=5.7						
KMBO	**Kilima Mbogo**	**55.33**	**266**	P	**P**	**11 59 27.7**	**-0.5**
	0.8nm,0.2s,mb4.3,baz=49,slow=19,SNR=2.3						
STKA	**Stephens Creek**	**59.11**	**131**	P	**P**	**11 59 54.4**	**-0.3**
	1.6nm,0.9s,mb4.1,baz=333,slow=9.0,SNR=2.7						
BRTR	**Keskin Array B**	**63.37**	**312**	P	**P**	**12 00 22.9**	**-0.4**
	0.9nm,0.7s,mb4.0,baz=112,slow=6.7,SNR=5.2						
BRTR				pP	pP	12 00 30.5	-0.6
	2.1nm,0.9s,baz=112,slow=6.7,SNR=4.9						
FINES	**FINESS Array B**	**74.92**	**333**	P	**P**	**12 01 32.6**	**-1.5**
	0.8nm,0.7s,mb3.8,baz=112,slow=10,SNR=3.8						
GERES	**GERESS Array B**	**79.20**	**319**	P	**P**	**12 01 58.2**	**0.0**
	1.5nm,0.8s,mb4.0,baz=76,slow=5.5,SNR=8.6						
GERES				pP	pP	12 02 06.0	-0.1
	1.6nm,0.9s,baz=101,slow=6.8,SNR=6.2						

IDC ***29*** *11:52:16.6±10.0,4.75N×95.20E,h59^{km}±97^{km},mb4.1/11,*
mb1 4.3/11,mb1mx4.1/19,mbtmp4.4/11,MS4.6/1,
Ms1 4.6/1,ms1mx3.8/21,Error ellipse: s-maj=48.5km
s-min=16.9km az=50.0
ISC 29 11:52:11.0±0.7,**4.1N**±0.1×**94.6E**±0.2,**h33**^{km}**,n22,**
σ**1**^{s}**04**/20,**mb4.4**/12,**Off west coast of northern**
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.84**	**16**	P	**P**	**11 55 41.0**	**+0.7**
	1.0nm,0.3s,baz=205,slow=11,SNR=16						
CAL	**Calcutta**	**19.29**	**342**	*e*	**S**	**12 00 06.4**	**+0.1**
ULHL	**Ulahol**	**41.34**	**339**	P	**P**	**11 59 55.2**	**-0.3**
	SNR=6.3						
UCH	**Uchtor**	**41.96**	**338**	P	**P**	**12 00 01.4**	**+0.8**
	SNR=9.6						
KBK	**Karagaybulak**	**42.17**	**338**	P	**P**	**12 00 02.8**	**+0.6**
	SNR=12						
AML	**Almayashu**	**42.20**	**337**	P	**P**	**12 00 03.5**	**+1.0**
	SNR=7.6						
EKS2	**Erkin-Say**	**42.62**	**337**	P	**P**	**12 00 06.0**	**+0.1**
	SNR=8.1						
USP	**Ospenovka**	**42.86**	**338**	P	**P**	**12 00 07.7**	**-0.3**
	SNR=18						
SONM	**Songino Array**	**44.69**	**11**	P	**P**	**12 00 17.8**	**-4.8**
	0.4nm,0.4s,mb3.6,baz=192,slow=9.5,SNR=3.0						
SONM				PcP	PcP	12 02 03.7	-1.5
	1.1nm,0.4s,baz=194,slow=3.4,SNR=6.6						
WRA	**Warramunga Arr**	**45.76**	**123**	P	**P**	**12 00 31.6**	**+0.1**
	12nm,0.7s,mb5.0,baz=303,slow=9.4,SNR=31						
ASAR	**Alice Springs**	**47.20**	**128**	P	**P**	**12 00 43.1**	**+0.3**
	2.6nm,0.6s,mb4.3,baz=297,slow=6.8,SNR=18						
ZAL	**Zalesovo**	**50.29**	**352**	P	**P**	**12 01 02.8**	**-3.5**
	4.1nm,0.6s,mb4.7,baz=207,slow=5.8,SNR=5.2						
BVAR	**Borovoye Array**	**52.66**	**342**	P	**P**	**12 01 22.0**	**-2.2**
	6.9nm,0.6s,mb4.8,baz=140,slow=9.7,SNR=19						
BRTR	**Keskin Array B**	**65.26**	**312**	P	**P**	**12 02 52.0**	**+0.1**
	3.7nm,0.9s,mb4.4,baz=133,slow=7.9,SNR=7.5						
AKASG	**Malin Array Be**	**71.39**	**322**	P	**P**	**12 03 28.6**	**-1.0**
	1.7nm,0.4s,mb4.4,baz=88,slow=5.6,SNR=18						
MLR	**Muntele Rosu**	**72.19**	**316**	P	**P**	**12 03 36.3**	**+1.8**
	2.4nm,0.6s,mb4.3,baz=102,slow=9.3,SNR=4.8						
FINES	**FINESS Array B**	**76.23**	**333**	P	**P**	**12 03 57.0**	**-0.7**
	5.2nm,0.8s,mb4.5,baz=106,slow=5.9,SNR=21						
KAF	**Kangasniemi**	**76.33**	**333**	*e*p	**P**	**12 03 56.8**	**-1.4**
	3.0nm,0.5s,mb4.5						
ARCES	**ARCESS Array B**	**78.93**	**340**	P	**P**	**12 04 12.0**	**-0.5**
	1.8nm,0.4s,mb4.3,baz=95,slow=6.4,SNR=16						
GERES	**GERESS Array B**	**80.93**	**319**	P	**P**	**12 04 25.1**	**+1.4**
	0.9nm,0.5s,mb4.0,baz=121,slow=5.7,SNR=5.7						
PDAR	**Pinedale Array**	**128.42**	**23**	PKP	PKPdf	12 11 14.6	-0.4
	0.6nm,0.8s,baz=270,slow=0.9,SNR=3.4						
TXAR	**Lajitas Array**	**142.36**	**27**	PKhKP		12 11 36.5	
	0.1nm,0.4s,baz=225,slow=2.6,SNR=4.5						
TXAR				PKP	PKPdf	12 11 39.7	-1.3
	0.1nm,0.4s,baz=216,slow=1.3,SNR=4.6						

IDC 29 11:55:45.0±2.6,**2.66N**×**95.37E,mb4.3**/4,**mb1 4.5**/5,
mb1mx4.0/19,**mbtmp4.3**/5,**ML4.1**/1,**MS4.8**/3,**Ms1 4.8**/3,
ms1mx4.0/16,**Error ellipse: s-maj=90.7km**
s-min=27.6km az=59.0,Off west coast of northern
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**16.09**	**12**	Pn	P	11 59 34.7	+0.3
	0.3nm,0.3s,baz=203,slow=11,SNR=18						
WRA	**Warramunga Arr**	**44.36**	**122**	P	P	12 03 57.4	-1.7
	2.3nm,0.7s,baz=300,slow=9.1,SNR=6.7						
SONM	**Songino Array**	**46.00**	**10**	P	P	12 04 09.6	-2.3
	2.9nm,0.7s,baz=189,slow=8.8,SNR=13						
SONM				LR	LR	12 23 32.0	
	comp=Z,857nm,19.8s,baz=15,slow=36						
ZAL	**Zalesovo**	**51.85**	**352**	P	P	12 04 54.6	-2.4
	4.1nm,0.5s,baz=221,slow=6.6,SNR=17						
ZAL				LR	LR	12 28 37.9	
	comp=Z,924nm,19.8s,baz=197,slow=38						
BVAR	**Borovoye Array**	**54.29**	**342**	P	P	12 05 13.2	-2.0
	2.7nm,0.7s,baz=143,slow=7.2,SNR=12						

IDC ***29*** *11:58:38.8±0.5,13.69N×93.02E,mb4.8/18,mb1 4.9/19,*
mb1mx4.9/20,mbtmp4.8/19,ML4.7/1,MS4.4/8,Ms1 4.5/8,
ms1mx4.2/18,Error ellipse: s-maj=23.3km s-min=12.5km
az=51.0
BJI ***29*** *11:58:40.5,13.32N×92.99E,h43^{km},mB5.2,mb4.9,Ms4.9,*
Msz4.6
CSEM ***29*** *11:58:42.9,13.90N×93.35E,h33^{km},mb5.5*
NEIC ***29*** *11:58:42.6±0.3,13.75N×93.13E,mb5.2/45,Error ellipse:*
s-maj=7.9km s-min=6.8km az=179.0
HRVD ***29*** *11:58:42.6±0.3,13.66N×93.11E,h14^{km}±1^{km},MW5.1/58,*
Centroid moment Tensor Solution. LP body waves:
s32,c39;Mantle waves: s58,c112; Half duration: 0
Moment tensor: Scale 10^{16}Nm; M_{rr}-0.03±.15;
$M_{\theta\theta}$4.19±.16; $M_{\phi\phi}$-4.16±.17; $M_{r\theta}$3.43±.55; $M_{\theta\phi}$3.60±.16;
$M_{\phi r}$0.51±.31; Best double couple: $M_0$6.38×10^{16} NP1:ϕ_s21°,
δ66°,λ168°. NP2:ϕ_s116°,δ79°,λ25°. Principal axes: T
7.14, Plg25°, Azm341°; N -1.53, Plg63°, Azm139°; P -5.61,
Plg9°, Azm247°; nsta1 refers to body waves, cutoff=40s.
nsta2 refers to surface waves, cutoff=50s.
MOS ***29*** *11:58:43.3±1.1,13.87N×93.13E,h33^{km},mb5.4/46 Error*
ellipse: s-maj=10.0km s-min=5.3km az=121.0
ISC 29 11:58:40.6±0.2,**13.69N**±0.04×**93.13E**±0.03,**h22**^{km},
h22^{km}±1.0^{km}**:pP-P,n289,**σ**1**^{s}**13**/283,**mb5.0**/82,**MS4.7**/19,
32C-16D,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NST	**Nakhon Sawan**	**7.06**	**73**	⇑P	**Pn**	**12 00 22.5**	**-2.9**
	383nm,0.5s						
CM31	**Chiang Mai Arr**	**7.33**	**49**	*e*P	**Pn**	**12 00 28.9**	**-0.3**
	43nm,0.6s						
CMAR	**Chiang Mai Arr**	**7.33**	**49**	Pn	**Pn**	**12 00 29.2**	**+0.1**
	3.3nm,0.3s,baz=237,slow=15,SNR=38						
CMAR				Sn	**Sn**	**12 01 51.6**	**-1.0**
	baz=233,slow=18,SNR=2.4						
CMAR				LR	LR	12 03 49.9	
	comp=Z,3µm,19.1s,baz=230,slow=42						
CHRT	**Chiangrai**	**8.86**	**45**	PG	**P**	**12 00 52.5**	**+2.1**
CHRT				SG	Sx	12 02 51.5	
KKTK	**Khon Kaen**	**9.73**	**73**	P	**P**	**12 01 07.0**	**+4.4**
	247nm,1.0s						
CAL	**Calcutta**	**9.91**	**333**	*e*	**Sn**	**12 03 01.7**	**+5.0**
VIS	**Vishakhapatnam**	**10.25**	**294**	*e*P	**P**	**12 01 06.4**	**-3.3**
AGT	**Agartala**	**10.29**	**350**	*e*P	**P**	**12 01 06.0**	**-4.3**
IMP	**Imphal**	**11.06**	**4**	*e*P	**P**	**12 01 15.3**	**-5.5**
SHL	**Shillong**	**11.87**	**355**	*e*P	**P**	**12 01 26.5**	**-5.3**
SHL				*e*	**S**	**12 03 35.0**	**-10**
MDRS	**Chennai**	**12.55**	**269**	*e*	**S**	**12 03 49.0**	**-12**
BLSP	**Bilaspur**	**13.41**	**310**	*e*P	**P**	**12 01 50.0**	**-2.3**
BLSP				*i*	**S**	**12 04 23.0**	**+1.4**
PALK	**Pallekele**	**13.78**	**244**	*e*P	**P**	**12 01 54.8**	**-2.5**
	101nm,1.2s						
HYB	**Hyderabad**	**14.52**	**287**	*i* P	**P**	**12 02 06.0**	**-1.0**
HYB				*e*		12 02 14.0	
HYB				*e*		12 04 26.0	
HYB				*e*S	**S**	**12 04 44.0**	**-4.2**
NGP	**Nagpur**	**15.34**	**301**	⇑*e*P	**P**	**12 02 16.8**	**-0.9**
	82nm,0.8s						
NGP				*e*	**S**	**12 05 02.3**	**-5.2**
PKI	**Pulchoki**	**15.58**	**334**	*e*P	**P**	**12 02 19.7**	**-1.0**
	304nm,0.9s						
GUN	**Gumba**	**15.68**	**336**	*e*P	**P**	**12 02 21.4**	**-0.7**
	129nm,0.7s						
DMN	**Daman**	**15.74**	**333**	*e*P	**P**	**12 02 20.6**	**-2.3**
	94nm,0.5s						
KKN	**Kakani**	**15.82**	**334**	*e*P	**P**	**12 02 21.2**	**-2.7**
	188nm,1.0s						
LSA	**Lhasa**	**16.04**	**354**	*e*P	**P**	**12 02 28.5**	**+1.9**
LSA				pmax	pmax		
	comp=Z,59nm,1.0s						
LSA	**Lhasa**	**16.04**	**354**	*e*P	**P**	**12 02 28.5**	**+1.8**
	comp=Z,59nm,1.0s						
GKN	**Gorkha**	**16.29**	**332**	*e*P	**P**	**12 02 28.3**	**-1.6**
	comp=Z,94nm,0.4s						
KOLN	**Koldanda**	**16.59**	**329**	*e*P	**P**	**12 02 32.5**	**-1.1**
	comp=Z,283nm,0.9s						
TRD	**Trivandrum**	**16.68**	**254**	*e*	**S**	**12 05 26.3**	**-12**
AKL	**Akola**	**16.89**	**297**	⇑*i*P	**P**	**12 02 40.5**	**+3.0**
	comp=Z,99nm,1.1s						
AKL				*i*	**S**	**12 05 34.5**	**-8.9**
BHPL	**Bhopal**	**17.65**	**305**	*e*P	**P**	**12 02 49.0**	**+2.0**
BHPL				*e*		12 02 50.6	
	comp=Z,73nm,1.2s						
MNGI	**Mangalore**	**17.83**	**270**	*i* P	**P**	**12 02 50.0**	**+0.7**
MNGI				*i*	**S**	**12 05 52.3**	**-13**
GYA	**Guiyang**	**17.95**	**43**	⇑*i*P	**P**	**12 02 53.3**	**+2.6**
GYA				AP		12 03 01.3	
GYA				XP		12 03 06.8	
GYA				AMB	AMB		
	comp=Z,60nm,0.9s						
GYA				LR	LR		
	comp=N,1µm,15.8s						
GYA				LR	LR		
	comp=E,1µm,16.0s						
GYA				LR	LR		
	comp=Z,2µm,16.4s						
POO	**Poona**	**19.13**	**287**	⇓*i*P	**P**	**12 03 03.0**	**-2.1**
	comp=Z,100nm,1.0s						
POO				*i*	**S**	**12 06 20.0**	**-14**
AGRA	**Agra**	**19.56**	**316**	*e*P	**P**	**12 03 07.9**	**-2.1**
AGRA				*e*	**S**	**12 06 32.0**	**-12**
LGTI	**Lohaghat**	**19.71**	**325**	*e*P	**P**	**12 03 13.3**	**+1.7**
CD2	**Chengdu**	**19.74**	**28**	P	**P**	**12 03 12.5**	**+0.5**
CD2				AMB	AMB		
	comp=Z,20nm,0.6s						
CD2				AMB	AMB		
	comp=Z,390nm,5.3s						
CD2				LR	LR		
	comp=N,2µm,15.0s						
CD2				LR	LR		
	comp=Z,2µm,14.4s						
PTH	**Pithoragarh**	**19.80**	**325**	*e*P	**P**	**12 03 12.1**	**-0.5**
PTH				*e*		12 07 13.1	
SONA	**Sohna**	**20.80**	**317**	*e*P	**P**	**12 03 22.8**	**-0.3**
AYAN	**Aya Nagar**	**20.93**	**317**	*e*P	**P**	**12 03 22.4**	**-2.0**
NDI	**New Delhi**	**21.00**	**318**	*e*P	**P**	**12 03 23.0**	**-2.1**
NDI				*e*	**S**	**12 07 26.6**	**+13**
KUDL	**Kundal**	**21.14**	**315**	*e*P	**P**	**12 03 25.4**	**-1.1**
AJM	**Ajmer**	**21.49**	**309**	⇑*i*P	**P**	**12 03 30.0**	**-0.1**
KHET	**Khetri**	**21.56**	**314**	*e*P	**P**	**12 03 31.2**	**+0.3**
KHET				*e*S	**S**	**12 07 27.1**	**+3.4**
DDI	**Dehra Dun**	**21.62**	**322**	*e*P	**P**	**12 03 31.1**	**-0.3**
DDI				*e*	**S**	**12 07 24.7**	**0.0**
KKR	**Kurukshetra**	**22.12**	**320**	*e*P	**P**	**12 03 36.0**	**-0.4**
ENH	**Enshi**	**22.37**	**40**	*e*P	**P**	**12 03 39.0**	**+0.1**
	comp=Z,82nm,1.0s,mb5.1						
SMLA	**Simla**	**22.73**	**322**	⇓*i*		12 03 57.0	
	comp=Z,119nm,0.5s						
SMLA				*i*	**S**	**12 08 04.4**	**+19**
SDNR	**Sundarnagar**	**23.11**	**323**	*e*P	**P**	**12 03 48.9**	**+2.7**
BHK	**Bhakra**	**23.38**	**322**	*e*P	**P**	**12 03 49.7**	**+0.9**
LZH	**Lanzhou**	**24.29**	**21**	⇑P	**P**	**12 03 59.0**	**+1.4**
LZH				PP	PP	12 04 33.8	+0.9
LZH				S	**S**	**12 08 16.0**	**+3.7**
LZH				AMB	AMB		
	comp=Z,194nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,512nm,4.0s						
LZH				LR	LR		
	comp=E,2µm,12.8s						
LZH				LR	LR		
	comp=Z,2µm,14.3s,MS4.8						
THN	**Thein Dam**	**24.52**	**322**	*e*P	**P**	**12 03 59.6**	**-0.3**
	comp=Z,22nm,1.1s,mb4.6						
JASL	**Jaisalmer**	**24.60**	**306**	*e*	**P**	**12 03 57.4**	**-3.3**
XAN	**Xi'an**	**24.82**	**33**	P	**P**	**12 04 02.0**	**-0.7**
XAN				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.0						
WHN	**Wuhan**	**25.77**	**46**	*e*P	**P**	**12 04 15.0**	**+3.3**
GTA	**Gaotai**	**26.29**	**12**	P	**P**	**12 04 17.0**	**+0.5**
GTA				AP	pP	12 04 25.0	+2.1
GTA				XP	sP	12 04 29.3	+3.4
GTA				S	**S**	**12 08 49.8**	**+4.0**
GTA				AMB	AMB		
	comp=Z,23nm,1.5s,mb4.5						
GTA				AMB	AMB		
	comp=Z,189nm,10.6s						
GTA				LR	LR		
	comp=N,864nm,16.0s,MS4.5						
GTA				LR	LR		
	comp=E,731nm,18.3s,MS4.5						
GTA				LR	LR		
	comp=Z,999nm,16.0s,MS4.5						
NJ2	**Nanjing**	**29.80**	**48**	*e*P	**P**	**12 04 46.8**	**-1.6**
NJ2				AP	pP	12 04 55.8	+0.9
NJ2				XP	sP	12 05 02.3	+4.5
NJ2				S	**S**	**12 09 40.0**	**-2.4**
NJ2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,460nm,6.3s						
NJ2				LR	LR		
	comp=N,3µm,19.0s,MS5.2						
NJ2				LR	LR		
	comp=E,5µm,19.3s,MS5.2						
NJ2				LR	LR		
	comp=Z,4µm,15.8s,MS5.1						
KSH	**Kashi**	**29.84**	**333**	P	**P**	**12 04 49.5**	**+0.9**
KSH				AP	pP	12 04 57.8	+2.7
KSH				XP	sP	12 05 02.5	+4.5
KSH				AMB	AMB		
	comp=Z,230nm,4.5s						
KSH				LR	LR		
	comp=N,1µm,14.8s,MS5.0						
KSH				LR	LR		
	comp=E,3µm,19.2s,MS5.0						
WMQ	**Urumqi**	**30.39**	**352**	P	**P**	**12 04 54.8**	**+1.4**
WMQ				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.3						
SSE	**Sheshan**	**31.06**	**51**	P	**P**	**12 04 55.5**	**-4.0**
SSE				S	**S**	**12 09 59.3**	**-2.9**
SSE				AMB	AMB		
	comp=Z,29nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,202nm,6.9s						
SSE				LR	LR		
	comp=N,1µm,24.3s,MS4.5						
SSE				LR	LR		
	comp=E,817nm,24.2s,MS4.5						
SSE				LR	LR		
	comp=Z,919nm,19.0s						
HHC	**Hu-ho-hao-te**	**31.49**	**27**	*e*P	**P**	**12 05 04.3**	**+1.1**
HHC				AP	pP	12 05 10.5	+0.8
HHC				XP	sP	12 05 16.0	+3.4
HHC				PP	PP	12 06 10.0	+2.5
HHC				PCP	PcP	12 07 53.5	-2.5
HHC				S	**S**	**12 10 16.0**	**+7.1**
HHC				SS	SS	12 12 06.8	+9.2
HHC				SCS	ScS	12 15 32.5	-0.4
HHC				AMB	AMB		
	comp=Z,24nm,1.0s,mb5.0						
HHC				AMB	AMB		
	comp=Z,185nm,4.6s						
HHC				LR	LR		
	comp=N,771nm,21.4s,MS4.6						
HHC				LR	LR		
	comp=E,1µm,19.0s,MS4.6						
HHC				LR	LR		
	comp=Z,967nm,20.2s,MS4.5						
ULHL	**Ulahol**	**32.00**	**336**	P	**P**	**12 05 07.8**	**+0.3**
	SNR=6.0						
KZA	**Kyzart**	**32.26**	**335**	P	**P**	**12 05 10.3**	**+0.4**
	SNR=14						
UCH	**Uchtor**	**32.69**	**334**	P	**P**	**12 05 14.6**	**+1.1**
	SNR=10						

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TKM2  Tokmak 2          32.82 336   P        P          12 05 16.2 +1.5
      SNR=8.1
KBK   Karagaybulak      32.86 335   P        P          12 05 16.5 +1.5
      SNR=7.5
AML   Almayashu         32.97 333   P        P          12 05 16.9 +0.9
      SNR=20
AAK   Ala-Archa         33.03 334   P        P          12 05 18.6 +2.0
      SNR=11
AAK   Ala-Archa         33.03 334⇑iP        P          12 05 16.4  -0.2
BJT   Baijiatuau        33.12  33  eP        P          12 05 17.9 +0.5
BJT                                 pmax     pmax
      comp=Z,16nm,0.8s
BJT   Baijiatuau        33.12  33  eP        P          12 05 17.9 +0.5
      comp=Z,16nm,0.8s,mb5.0
FRU   Bishkek           33.15 335  eP        P          12 05 18.5 +1.0
FRU                                 pmax     pmax
      comp=Z,52nm,2.0s,mb5.1
CHMS  Chumysh           33.23 335   P        P          12 05 18.4 +0.2
      SNR=11
EKS2  Erkin-Say         33.36 334   P        P          12 05 20.3 +0.9
      SNR=13
USP   Ospenovka         33.55 335   P        P          12 05 21.3 +0.2
      SNR=21
SONM  Songino Array     35.79  15   P        P          12 05 40.7 +0.4
      comp=Z,12nm,0.8s,mb4.8,baz=202,slow=9.4,SNR=30
ULN   Ulaanbaatar       35.99  16⇑iP        P          12 05 41.4  -0.5
ZAK   Zakamensk         37.52  11  eP        P          12 05 55.7 +1.0
ZAK                                e                    12 07 21.2
SNY   Shenyang          38.52  37  ⇑P        P          12 06 06.8 +3.6
SNY                                 S        S          12 12 07.0  +10
SNY                                 AMB      AMB
      comp=Z,10.0nm,1.4s,mb4.3
SNY                                 LR       LR
      comp=N,1µm,16.3s,MS5.0
SNY                                 LR       LR
      comp=E,1µm,18.4s,MS5.0
SNY                                 LR       LR
      comp=Z,1µm,16.7s,MS4.8
TLY   Talaya            38.83  10  eP        P          12 06 07.5 +1.8
TLY                                eS        S          12 12 02.3 +0.5
TLY                                 pmax     pmax
      comp=Z,8.0nm,1.1s,mb4.4
TLY                                 MLR      MLR
      comp=Z,810nm,22.0s,MS4.5
TLY   Talaya            38.83  10  eP        P          12 06 04.6  -1.1
KS15  Wonju Array Si    38.93  46   P        P          12 06 04.2  -2.4
ZAL   Zalesovo          40.69 352   P        P          12 06 20.2  -0.8
      comp=Z,7.9nm,0.8s,mb4.4,baz=215,slow=7.5,SNR=21
CN2   Changchun         40.81  36  eP        P          12 06 22.8 +0.7
CN2                                 AMB      AMB
      comp=Z,20nm,1.2s,mb4.6
HIA   Hailar            41.68  26  eP        P          12 06 30.4 +1.2
HIA                                 pmax     pmax
      comp=Z,26nm,1.3s
HIA   Hailar            41.68  26  eP        P          12 06 30.4 +1.2
      comp=Z,26nm,1.3s,mb4.7
NVS   Novosibirsk       41.78 351  eP        P          12 06 28.0  -2.0
NVS                                 pmax     pmax
      comp=Z,21nm,1.3s,mb4.6
NVS                                 pmax     pmax
      comp=N,20nm,1.6s
BVAR  Borovoye Array    43.21 340   P        P          12 06 42.0 +0.3
      comp=N,14nm,1.0s,mb4.6,baz=135,slow=6.1,SNR=21
BRVK  Borovoye          43.27 340  eP        P          12 06 42.1  -0.1
MBWA  Marble Bar        43.38 143  eP        P          12 06 44.5 +0.9
CHKZ  Chkalovo          43.68 341  eP        P          12 06 45.0  -0.5
CHKZ                                pmax     pmax
      comp=Z,34nm,0.8s,mb5.1
CHKZ  Chkalovo          43.68 341  eP        P          12 06 45.0  -0.5
      comp=Z,34nm,0.8s,mb5.1
MAJO  Matsushiro        46.20  52  eP        P          12 07 07.1 +1.2
MZLS  Mizel             46.30 290   P        P          12 07 08.0 +1.2
KAMS  Al Khamasin       46.76 285   P        P          12 07 10.4  -0.2
BOD   Bodaibo           46.79  15  eP        P          12 07 09.7  -0.6
KLR   Kul'dur           47.52  34  eP        P          12 07 14.3  -1.8
AFFS  'Afif             48.31 290   P        P          12 07 24.1 +1.4
CLNS  Chul'man          49.41  22  eP        P          12 07 31.3 +0.6
CLNS                               e                    12 08 53.6
CLNS                               e                    12 09 19.7
CLNS                               eS        S          12 14 34.1  -1.1
CLNS                               eSS       SS         12 18 05.6 +2.4
CLNS                                pmax     pmax
      comp=N,8.0nm,1.0s
CLNS                                pmax     pmax
      comp=E,11nm,1.0s
CLNS                                pmax     pmax
      comp=Z,17nm,1.0s,mb5.0
CLNS                                pmax     pmax
      comp=Z,6.0nm,1.0s,mb4.6
CLNS                                pmax     pmax
      comp=N,6.0nm,0.9s
CLNS                                pmax     pmax
      comp=E,3.0nm,0.9s
CLNS                                smax
      comp=N,4.0nm,0.9s
CLNS                                smax
      comp=E,4.0nm,1.0s
CLNS                                smax
      comp=Z,4.0nm,1.0s
CLNS                                MLR      MLR
      comp=Z,900nm,16.0s,MS4.9
CLNS                                MLR      MLR
      comp=N,600nm,15.0s,MS4.8
CLNS                                MLR      MLR
      comp=E,200nm,14.0s,MS4.8
HILS  Ha'il             49.64 294   P        P          12 07 34.3 +1.5
SVE   Sverdlovsk        49.67 337⇓eP        P          12 07 32.5  -0.2
SVE                                e                    12 07 41.5
SVE                                 pmax     pmax
      comp=Z,120nm,1.4s,mb5.7
GNI   Garni             49.77 311  eP        P          12 07 35.1 +1.4
GNI                                 pmax     pmax
      comp=Z,76nm,1.1s
GNI   Garni             49.77 311   P        P          12 07 35.4 +1.7
      comp=Z,17nm,0.7s,mb5.2,baz=161,slow=6.1,SNR=20
GNI   Garni             49.77 311  eP        P          12 07 35.1 +1.4
      comp=Z,76nm,1.1s,mb5.6
ARU   Arti              50.20 336⇑iP        P          12 07 36.0  -0.7
ARU                                e                    12 08 49.9
ARU                                e                    12 09 30.6
ARU                                ePPP      PPP        12 10 26.0  -3.4
ARU                                eS        S          12 14 49.0 +2.9
ARU                                 pmax     pmax
      comp=Z,27nm,0.9s,mb5.3
ARU   Arti              50.20 336  eP        P          12 07 36.0  -0.6
      comp=Z,30nm,1.0s,mb5.3
ZEI   Tsey              51.21 314  i P       P          12 07 45.3 +0.7
ZEI                                i *PP     pP         12 07 55.2 +3.8
ZEI                                i                    12 09 42.4
ZEI                                 pmax     pmax
      comp=Z,20nm,0.9s,mb5.0
NWAO  Narrogin (SRO)    51.76 154  eP        P          12 07 48.4  -0.5
NWAO                                pmax     pmax
      comp=Z,118nm,1.3s
NWAO  Narrogin (SRO)    51.76 154   P        P          12 07 48.5  -0.4
      comp=Z,22nm,0.9s,mb5.1,baz=327,slow=7.3,SNR=9.6
NWAO  Narrogin (SRO)    51.76 154  eP        P          12 07 48.4  -0.6
      comp=Z,118nm,1.3s,mb5.7
ERZM  Erzurum           52.19 310  i P       P          12 07 54.1 +2.0
KIV   Kislovodsk        52.43 315   P        P          12 07 54.9 +1.1
      comp=Z,385nm,0.8s,SNR=13
KIV   Kislovodsk        52.43 315⇑iP        P          12 07 54.1 +0.3
WRA   Warramunga Arr    52.55 129   P        P          12 07 54.5  -0.5
      comp=Z,5.1nm,0.7s,mb4.5,baz=304,slow=9.4,SNR=22
WRA                                 PcP      PcP        12 09 06.9 +1.7
      comp=Z,1.9nm,0.5s,baz=316,slow=3.4,SNR=5.4
WRA                                 S        S          12 15 17.5  -1.4
      comp=Z,2.5nm,1.2s,baz=302,slow=15,SNR=7.1
WRAB  Tennant Creek     52.55 129⇑iP        P          12 07 54.7  -0.3
WRAB  Tennant Creek     52.55 129  eP        P          12 07 54.5  -0.5
      comp=Z,15nm,0.8s,mb5.0
GOF   Gofitskoye        52.57 317  eP        P          12 07 55.0 +0.2
GOF                                 pmax     pmax
      comp=Z,50nm,1.4s,mb5.2
YSS   Yuzh-Sakhalins    52.95  41⇑iP        P          12 07 56.1  -1.5
SOKR  Solikamsk         53.06 338⇓iP        P          12 07 56.6  -1.7
SOKR                                pmax     pmax
      comp=Z,50nm,0.9s,mb5.4
SOKR                                MLR      MLR
      comp=Z,490nm,18.0s,MS4.6
ELZG  Elazig            53.66 308  i P       P          12 08 02.5  -0.5
MALT  Malatya           54.05 308  eP        P          12 08 06.0 +0.2
MALT                                pmax     pmax
      comp=Z,32nm,1.0s,mb5.2
MALT  Malatya           54.05 308  eP        P          12 08 06.0 +0.1
      comp=Z,32nm,1.0s,mb5.2
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ASF   Jabal al Asfar    54.35 300   LR       LR         12 37 07.7
      comp=Z,344nm,18.6s,MS4.5,baz=144,slow=43
SOC   Sochi             54.37 314  i P       P          12 08 05.7  -2.4
SOC                                e                    12 09 12.6
SOC                                e                    12 10 09.6
SOC                                ePPP      PPP        12 11 20.8  -1.7
SOC                                eS        S          12 15 39.1  -4.2
SOC                                eSS       SS         12 19 25.9 +0.6
SOC                                 pmax     pmax
      comp=Z,37nm,1.0s,mb5.3
SOC                                 pmax     pmax
      comp=N,27nm,0.9s
SOC                                 pmax     pmax
      comp=E,32nm,1.1s
ASAR  Alice Springs     54.48 133   P        P          12 08 08.4  -0.8
      comp=E,2.8nm,0.4s,mb4.5,baz=308,slow=6.8,SNR=64
ASAR                                S        S          12 15 43.7  -1.4
      comp=E,0.9nm,0.8s,baz=305,slow=8.6,SNR=6.6
ASAR                                LR       LR         12 34 30.8
      comp=E,250nm,18.5s,MS4.3,baz=302,slow=39
GZT   Gaziantep         54.55 306  i P       P          12 08 09.6 +0.1
YAK   Yakutsk           54.87  20  eP        P          12 08 10.4  -1.1
JMQS  Jabal Moqyreh     54.96 296   P        P          12 08 13.8 +1.1
AYUS  'Aynunah          55.46 295   P        P          12 08 16.9 +0.6
BDAS  Al Bad'           55.62 295   P        P          12 08 18.3 +0.9
JMOS  Jabal al Moall    55.65 296   P        P          12 08 18.0 +0.3
HAQS  Haql              55.80 296   P        P          12 08 19.5 +0.8
EIL   Elat              55.81 297   P        P          12 08 17.2  -1.6
      comp=E,7.0nm,0.8s,mb4.7,baz=153,slow=13,SNR=6.4
EIL   Elat              55.81 297  eP        P          12 08 17.9  -0.9
      comp=E,28nm,1.2s,mb5.2
ANN   Anapa             56.28 315  eP        pP         12 08 30.4 +1.6
ANN                                eS        S          12 16 28.1  +19
ANN                                 pmax     pmax
      comp=Z,52nm,1.3s,mb5.4
VRSR  Storozhevoye      57.13 323  eP        P          12 08 27.0  -1.0
VRSR                                pmax     pmax
      comp=N,10.0nm,1.6s
VRSR                                pmax     pmax
      comp=Z,30nm,1.6s,mb5.1
VRSR                                pmax     pmax
      comp=E,30nm,0.9s
KMBO  Kilima Mbogo      57.28 260  eP        pP         12 08 36.1  -0.3
KMBO                                pmax     pmax
      comp=Z,8.0nm,1.0s
KMBO  Kilima Mbogo      57.28 260   P        pP         12 08 36.0  -0.3
      comp=Z,6.8nm,1.0s,baz=47,slow=11,SNR=11
KMBO                                LR       LR         12 30 43.7
      comp=Z,427nm,20.7s,MS4.5,baz=274,slow=34
KMBO  Kilima Mbogo      57.28 260  eP        pP         12 08 36.1  -0.2
      comp=Z,7.6nm,1.0s
BOYT  Boyabat           57.32 311  i P       P          12 08 24.1  -5.3
BRTR  Keskin Array B    57.98 308   P        P          12 08 32.7  -1.3
      comp=Z,18nm,0.8s,mb5.2,baz=124,slow=7.1,SNR=63
ELDT  Eldivan           58.26 309  i P       P          12 08 34.5  -1.5
BALT  Daday             58.46 310  i P       P          12 08 37.5 +0.1
SIM   Simferopol'       58.60 315  eP        P          12 08 39.1 +0.8
SIM                                 pmax     pmax
      comp=Z,33nm,0.7s,mb5.5
SGKT  Sivrigoynuk       59.30 309  i P       P          12 08 42.6  -0.6
MOS   Moscow            59.65 327  eP        P          12 08 44.5  -0.9
MOS                                 pmax     pmax
      comp=Z,54nm,0.8s,mb5.6
OBN   Obninsk           59.99 326⇓eP        P          12 08 47.2  -0.6
OBN                                e         pP         12 08 54.0  -0.7
OBN                                e                    12 09 06.2
OBN                                e                    12 09 40.8
OBN                                                     12 10 59.0
OBN                                e                    12 23 26.1
OBN                                 pmax     pmax
      comp=Z,70nm,1.7s,mb5.4
OBN   Obninsk           59.99 326⇓iP        P          12 08 47.2  -0.6
ESKT  Eskisehir         60.08 308  i P       P          12 08 48.6   0.0
HENT  Hendek            60.21 309  i P       P          12 08 49.2  -0.3
TIXI  Tiksi             61.78  12⇑iP        P          12 08 58.0  -1.7
MA2   Magadan           62.15  29⇑iP        P          12 09 00.8  -1.6
CFR   Carcaliu          62.81 314⇓iP        P          12 09 06.2  -0.8
AKASG Malin Array Be    63.04 320   P        P          12 09 06.5  -1.9
      comp=Z,9.5nm,0.7s,mb5.0,baz=81,slow=6.3,SNR=26
MBAR  Mbarara           63.38 262⇑iP        P          12 09 12.7 +1.6
VRI   Vrincioaia        63.89 315⇓iP        P          12 09 14.4 +0.4
MLR   Muntele Rosu      64.39 314   P        P          12 09 17.3   0.0
      comp=Z,32nm,0.9s,mb5.3,baz=30,slow=3.1,SNR=31
KDZ   Kurdzhali         64.41 310   P        P          12 09 17.8 +0.3
MNK   Minsk             64.66 324  eP        P          12 09 15.0  -3.9
STKA  Stephens Creek    64.87 135   P        P          12 09 20.7   0.0
      comp=Z,2.7nm,0.6s,mb4.4,baz=335,slow=5.4,SNR=8.5
STKA                                LR       LR         12 41 32.7
      comp=Z,385nm,21.0s,MS4.6,baz=302,slow=40
STKA  Stephens Creek    64.87 135  eP        P          12 09 20.4  -0.3
RZN   Rozhen            64.93 310   P        P          12 09 21.0 +0.1
PGB   Panagyurishte     65.40 311   P        P          12 09 24.0 +0.1
LVZ   Lovozero          65.80 339  eP        P          12 09 25.9  -0.1
LVZ                                 pmax     pmax
      comp=Z,62nm,1.9s,mb5.3
LVZ   Lovozero          65.80 339⇑iP        P          12 09 25.6  -0.4
APA   Apatity           66.10 339⇑iP        P          12 09 27.8  -0.1
APA                                 pmax     pmax
      comp=Z,47nm,1.2s,mb5.4
VTS   Vitosha           66.11 311  eP        P          12 09 29.0 +0.6
VSU   Vasula            66.13 328⇑iP        P          12 09 28.3   0.0
KKB   Krupnik           66.16 310   P        P          12 09 28.0  -0.8
KWP   Kalwaria          67.02 318  eP        P          12 09 32.8  -1.3
KWP                                 pmax     pmax
      comp=Z,65nm,1.1s,mb5.6
KWP   Kalwaria          67.02 318  eP        P          12 09 32.8  -1.3
      comp=Z,65nm,1.1s,mb5.6
BOLS  Boljevac          67.09 312⇓iP        P          12 09 34.1  -0.6
FINES FINESS Array B    67.15 331   LR       LR         12 48 10.4
      comp=Z,552nm,19.2s,MS4.8,baz=293,slow=40
FINES FINESS Array B    67.15 331   P        P          12 09 33.5  -1.2
      comp=Z,15nm,0.8s,mb5.1,baz=104,slow=7.9,SNR=28
KAF   Kangasniemi       67.21 332  ep        P          12 09 33.2  -1.9
      comp=Z,19nm,1.0s,mb5.1
KAF   Kangasniemi       67.21 332  eP        P          12 09 33.2  -1.9
KAF                                 pmax     pmax
      comp=Z,19nm,1.0s,mb5.1
KOLS  Kolonicke sedl    67.23 317  eP        P          12 09 36.2 +0.7
SUW   Suwalki           67.26 323  eP        P          12 09 34.5  -1.1
SUW                                 pmax     pmax
      comp=Z,107nm,1.0s,mb5.8
SUW   Suwalki           67.26 323  eP        P          12 09 34.5  -1.1
      comp=Z,107nm,1.0s,mb5.8
CRVS  Cervenica-Dubn    67.76 317  eP        P          12 09 40.6 +1.8
CRVS                               epP       pP         12 09 46.9 +1.1
GRUS  Gruza             67.99 312⇑iP        P          12 09 39.7  -0.7
KECS  Kecovo            68.38 317  eP        P          12 09 43.7 +1.0
KECS                               epP       pP         12 09 50.1 +0.5
DIVS  Divcibare         68.52 312⇓iP        P          12 09 43.5  -0.1
NIE   Niedzica          68.55 318  eP        P          12 09 44.9 +1.2
PSZ   Piszkesteto       68.74 316⇑eP        P          12 09 45.5 +0.6
OJC   Ojcow             68.94 319  eP        P          12 09 45.4  -0.7
VYHS  Vyhne             69.47 317  eP        P          12 09 49.6 +0.2
VYHS                               epP       pP         12 09 55.6  -0.7
ARCES ARCESS Array B    69.50 340   P        P          12 09 48.7  -0.5
      comp=Z,11nm,0.8s,mb4.9,baz=100,slow=5.6,SNR=21
PKSM  Moragy            69.53 314⇑eP        P          12 09 50.0 +0.2
SRO2  Moca              69.74 316  eP        P          12 09 51.3 +0.2
SRO2                               epP       pP         12 09 58.4 +0.4
SRO   Srobarova         69.80 316  eP        P          12 09 52.7 +1.3
SRO                                epP       pP         12 09 58.8 +0.5
SRO1  Iza               69.85 316  eP        P          12 09 53.1 +1.4
OKC   Ostrava-Krasne    69.98 318  eP        P          12 09 53.3 +0.8
OKC                                epP       pP         12 09 59.9 +0.5
MORC  Moravsky Berou    70.37 318  eP        P          12 09 54.6  -0.2
MORC                                pmax     pmax
      comp=Z,28nm,0.9s,mb5.2
MORC  Moravsky Berou    70.37 318  eP        P          12 09 54.6  -0.2
      comp=Z,28nm,0.9s,mb5.2
LSZ   Lusaka            70.38 248  eP        P          12 09 59.9 +4.5
LSZ                                 pmax     pmax
      comp=Z,26nm,0.9s,mb5.2
LSZ   Lusaka            70.38 248  eP        P          12 09 59.9 +4.4
      comp=Z,26nm,0.9s,mb5.2
ZST   Bratislava        70.62 317  eP        P          12 09 56.7 +0.3
ZST                                epP       pP         12 10 03.4 +0.1
TIP   Timpagrande       70.97 307   P        P          12 09 56.0  -2.7
BILL  Bilibino          71.10  22⇑iP        P          12 09 59.1 +0.1
DPC   Dobruska-Polom    71.17 319  eP        P          12 10 00.0 +0.3
DPC                                epP       pP         12 10 07.3 +0.6
KSP   Ksiaz             71.20 319  eP        P          12 09 59.6  -0.3
KSP                                e         pP         12 10 07.2 +0.4
KSP   Ksiaz             71.20 319  eP        P          12 09 59.6  -0.3
KSP                                epP       pP         12 10 00.9  -5.9
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KSP                                e         pP         12 10 07.2 +0.4
UPC   Upice             71.38 319  eP        P          12 10 02.0 +1.1
UPC                                epP       pP         12 10 07.9   0.0
ARSA  Arzberg           71.68 316⇑iP        P          12 10 02.3  -0.5
      comp=Z,9.7nm,0.9s,mb4.7
BSD   Bornholm Skovb    72.15 324  i P       P          12 10 00.7  -4.8
BSD                                 pmax     pmax
      comp=Z,26nm,1.0s,mb5.1
BSD   Bornholm Skovb    72.15 324  i P       P          12 10 00.7  -4.8
      comp=Z,26nm,1.0s,mb5.1
PRU   Pruhonice         72.32 318  eP        P          12 10 06.8 +0.3
PRU                                e*PP      pP         12 10 13.9 +0.4
PRU   Pruhonice         72.32 318  i P       P          12 10 06.8 +0.3
      comp=Z,18nm,1.0s,mb5.0
PRU                                epP       pP         12 10 13.9 +0.4
OBKA  Obir              72.36 315⇓iP        P          12 10 07.1 +0.2
      comp=Z,30nm,1.0s,mb5.2
MOA   Molln             72.53 316⇑iP        P          12 10 07.1  -0.7
      comp=Z,13nm,0.9s,mb4.9
BRG   Berggiesshubel    72.69 319  i P       P          12 10 08.9 +0.2
BRG                                e         pP         12 10 16.2 +0.5
BRG                                 pmax     pmax
      comp=Z,22nm,0.9s,mb5.1
BRG   Berggiesshubel    72.69 319  i P       P          12 10 08.9 +0.2
      comp=Z,22nm,0.9s,mb5.1
BRG                                e         pP         12 10 16.2 +0.5
RUE   Ruedersdorf       72.79 321  eP        P          12 10 09.4 +0.1
      comp=Z,20nm,0.6s,mb5.2
GEC2  GERESS Array S    72.88 317  eP        P          12 10 09.8  -0.1
GEC2                                pmax     pmax
      comp=Z,35nm,1.1s,mb5.2
GEC2  GERESS Array S    72.88 317  eP        P          12 10 09.8  -0.1
      comp=Z,35nm,1.1s,mb5.2
GERES GERESS Array B    72.88 317   P        P          12 10 09.8  -0.1
      comp=Z,15nm,0.7s,mb5.0,baz=90,slow=5.3,SNR=68
KHC   Kasperske Hory    72.95 317  eP        P          12 10 11.0 +0.7
KHC                                epP       pP         12 10 16.9  -0.4
ROBS  Robic             73.09 314  i P       P          12 10 11.4 +0.2
PTCC  Patocco-Chiusa    73.19 315  eP        P          12 10 11.1  -0.6
CLL   Collm             73.28 320⇑iP        P          12 10 12.8 +0.6
CLL                                e         pP         12 10 18.0  -1.1
CLL                                 pmax     pmax
      comp=Z,17nm,1.1s,mb4.9
CLL   Collm             73.28 320⇑iP        P          12 10 12.8 +0.6
      comp=Z,17nm,1.1s,mb4.9
CLL                                e         pP         12 10 18.0  -1.1
CLL   Collm             73.28 320  ⇑P        P          12 10 12.8 +0.6
      comp=Z,logA/T=1.2,mb4.9
CLL                                e*PP      pP         12 10 18.0  -1.1
WET   Wettzell          73.41 318  eP        P          12 10 12.9  -0.1
MOX   Moxa              74.18 319  eP        P          12 10 18.3 +0.9
MOX                                 pmax     pmax
      comp=Z,26nm,1.3s,mb5.0
MOX   Moxa              74.18 319  i P       P          12 10 18.3 +0.9
      comp=Z,logA/T=1.3,mb5.0
MOX   Moxa              74.18 319  eP        P          12 10 18.3 +0.9
      comp=Z,26nm,1.3s,mb5.0
NB2   NORSAR Subarra    74.22 330   P        P          12 10 16.3  -1.1
      comp=Z,12nm,0.8s,mb4.9,baz=91,slow=5.8
NB2   NORSAR Subarra    74.22 330   P        P          12 10 16.3  -1.1
      baz=91,slow=5.9
NB2   NORSAR Subarra    74.22 330   P        P          12 10 16.3  -1.1
NB2                                 pmax     pmax
      comp=Z,12nm,0.8s,mb4.9
NOA   NORSAR Array B    74.22 330   P        P          12 10 16.4  -1.0
      comp=Z,9.6nm,0.7s,mb4.8,baz=90,slow=5.7,SNR=29
WTTA  Wattenberg        74.33 316⇑iP        P          12 10 17.5  -0.8
      comp=Z,33nm,1.1s,mb5.2
WTTA  Wattenberg        74.33 316⇑iP        P          12 10 17.5  -0.8
WTTA                                pmax     pmax
      comp=Z,33nm,1.1s,mb5.2
WATA  Walderalm         74.36 316⇓iP        P          12 10 18.4  -0.1
      comp=Z,7.9nm,0.9s,mb4.6
WATA  Walderalm         74.36 316⇓iP        P          12 10 18.4  -0.1
WATA                                pmax     pmax
      comp=Z,8.0nm,0.9s,mb4.7
CTI   Castel Tesino     74.39 314  eP        P          12 10 19.5 +0.8
GRA1  Grafenberg Arr    74.47 318  eP        P          12 10 20.5 +1.4
      comp=Z,40nm,1.2s,mb5.2
GRA1                               epP       pP         12 10 27.2 +1.1
GRF   Grafenberg Arr    74.47 318  eP        P          12 10 20.5 +1.4
GRF                                e*PP      pP         12 10 27.2 +1.1
GRF                                 pmax     pmax
      comp=Z,40nm,1.2s,mb5.2
GRF   Grafenberg Arr    74.47 318  eP        P          12 10 20.5 +1.4
GRF                                e*PP      pP         12 10 27.2 +1.1
GRF                                 pmax     pmax
      comp=Z,40nm,1.2s,mb5.2
GRF   Grafenberg Arr    74.47 318  eP        P          12 10 20.5 +1.4
      comp=Z,40nm,1.2s,mb5.2
GRF                                epP       pP         12 10 27.2 +1.1
SQTA  Sankt Quirin      74.62 316⇓iP        P          12 10 19.2  -0.8
      comp=Z,21nm,1.2s,mb4.9
SQTA  Sankt Quirin      74.62 316⇓iP        P          12 10 19.2  -0.8
SQTA                                pmax     pmax
      comp=Z,21nm,1.2s,mb4.9
MOTA  Moosalm           74.69 316⇑iP        P          12 10 19.5  -0.9
      comp=Z,16nm,1.1s,mb4.9
MOTA  Moosalm           74.69 316⇑iP        P          12 10 19.5  -0.9
MOTA                                pmax     pmax
      comp=Z,16nm,1.1s,mb4.9
BSEG  Bad Segeberg      74.84 323  eP        P          12 10 21.6 +0.5
CLZ   Clausthal         74.90 320  eP        P          12 10 22.3 +0.8
      comp=Z,24nm,0.8s,mb5.2
GSCL  Gusciola          75.26 313  eP        P          12 10 24.4 +0.6
DAVA  Damuels           75.52 316⇓iP        P          12 10 25.1  -0.1
      comp=Z,45nm,1.1s,mb5.3
LBTB  Lobatse           76.22 240  eP        P          12 10 32.8 +3.2
LBTB                                pmax     pmax
      comp=Z,13nm,0.9s,mb4.9
LBTB  Lobatse           76.22 240  eP        P          12 10 32.8 +3.2
      comp=Z,13nm,0.9s,mb4.9
VAI   Varese            76.41 314  eP        P          12 10 30.2   0.0
BFO   Black Forest      76.47 317  eP        P          12 10 31.4 +0.9
BFO                                 pmax     pmax
      comp=Z,14nm,1.2s,mb4.8
BFO   Black Forest      76.47 317  eP        P          12 10 31.4 +0.9
      comp=Z,14nm,1.2s,mb4.8
LPG   La Plagne         77.86 314  eP        P          12 10 39.5 +1.2
      comp=Z,78nm,0.8s,mb5.4
LPG   La Plagne         77.86 314  eP        P          12 10 39.5 +1.2
LPG                                 pmax     pmax
      comp=Z,39nm,0.8s,mb5.4
BOSA  Boshof            77.88 236  eP        P          12 10 41.8 +3.0
BOSA                                pmax     pmax
      comp=Z,7.0nm,0.7s,mb4.7
BOSA  Boshof            77.88 236  eP        P          12 10 41.8 +3.1
      comp=Z,7.3nm,0.7s,mb4.7
BNI   Bardonecchia      77.96 314  eP        P          12 10 40.2 +1.4
BNI                                 pmax     pmax
      comp=Z,34nm,1.1s,mb5.2
BNI   Bardonecchia      77.96 314  eP        P          12 10 40.2 +1.4
      comp=Z,34nm,1.1s,mb5.2
CASY  Casey             80.78 173  eP        P          12 10 55.0 +1.3
      comp=Z,34nm,1.3s,mb5.1
JMIC  Jan Mayen         80.92 341   LR       LR         12 49 47.5
      comp=Z,335nm,20.6s,MS4.7,baz=273,slow=38
SUR   Sutherland        82.85 234  eP        P          12 11 02.4  -2.7
MAW   Mawson            84.00 191  eP        pP         12 11 18.6 +1.3
MAW                                 pmax     pmax
      comp=Z,39nm,0.8s
MAW   Mawson            84.00 191   LR       LR         12 42 52.3
      comp=Z,295nm,21.9s,MS4.6,baz=164,slow=32
MAW   Mawson            84.00 191  eP        pP         12 11 18.6 +1.3
      comp=Z,39nm,0.8s
IMA   Indian Mountai    86.64  22  eP        P          12 11 23.7 +0.3
IMA                                 pmax     pmax
      comp=Z,32nm,0.8s,mb5.6
IMA   Indian Mountai    86.64  22  eP        P          12 11 23.7 +0.3
      comp=Z,32nm,0.8s,mb5.6
ESDC  Sonseca Array     86.74 310   P        P          12 11 24.7 +0.2
      comp=Z,1.0nm,0.5s,mb4.3,baz=52,slow=4.5,SNR=6.9
SUMG  Summit            88.29 347  eP        P          12 11 31.5 +0.3
      comp=Z,13nm,0.9s,mb5.2
MCK   McKinley          89.55  23  eP        P          12 11 38.6 +1.3
MCK                                 pmax     pmax
      comp=Z,11nm,1.2s,mb5.1
MCK   McKinley          89.55  23  eP        P          12 11 38.6 +1.3
      comp=Z,11nm,1.2s,mb5.0
ILAR  Eielson Array     89.76  22   P        P          12 11 38.2  -0.1
      comp=Z,2.2nm,0.7s,mb4.6,baz=296,slow=3.9,SNR=36
ILAR                                PKKPbc              12 29 17.9
      comp=Z,0.5nm,0.7s,baz=143,slow=1.8,SNR=9.6
INK   Inuvik            91.71  16   P        P          12 11 47.7 +0.4
      comp=Z,6.6nm,1.1s,mb4.9,baz=308,slow=3.4,SNR=9.4
DBIC  Dimbokro          96.14 278   P        pP         12 12 15.0  -1.0
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	comp=Z,4.3nm,1.0s,baz=50,slow=7.2,SNR=5.2						
DBIC				LR	LR	12 54 08.4	
	comp=Z,189nm,19.7s,MS4.6,baz=154,slow=35						
VNDA	Vanda	98.79	168	P	pP	12 12 26.4	-0.1
	comp=Z,0.4nm,0.7s,baz=346,slow=9.4,SNR=2.8						
VNDA				LR	LR	12 51 14.1	
	comp=Z,183nm,21.5s,MS4.5,baz=301,slow=32						
YKA	Yellowknife Ar	101.02	13	*i* P	P	12 12 30.7	+0.9
YKA	Yellowknife Ar	101.02	13	P	P	12 12 30.7	+1.0
	comp=Z,0.4nm,0.8s,baz=329,slow=4.4,SNR=5.2						
YKA				PP	PP	12 16 33.0	-8.1
	comp=Z,1.4nm,1.1s,baz=334,slow=6.7,SNR=5.1						
ULM	Lac du Bonnet	115.85	6	PKKPab		12 28 01.0	
	comp=Z,3.6nm,0.7s,baz=151,slow=5.1,SNR=6.4						
ELK	Elko	119.80	25	PKIKP	PKPdf	12 17 29.2	-4.6
PDAR	Pinedale Array	120.09	19	PKP	PKPdf	12 17 31.4	-2.9
	comp=Z,0.7nm,0.7s,baz=136,slow=1.0,SNR=6.6						
PDAR				PP	PP	12 18 53.1	-5.9
	comp=Z,1.0nm,1.1s,baz=315,slow=3.8,SNR=2.3						
PDAR				PKKPab		12 27 45.5	
	comp=Z,0.8nm,0.7s,baz=135,slow=3.8,SNR=7.7						
NVAR	Mina Array Bea	120.39	28	PKP	PKPdf	12 17 33.8	-1.3
	comp=Z,1.3nm,0.7s,baz=14,slow=1.7,SNR=10						
MNV	Mina	120.45	28	PKIKP	PKPdf	12 17 32.9	-2.3
MVU	Marysvale	122.92	24	*e*PKPdf	PKPdf	12 17 39.7	-0.2
MSU	Marysvale	122.92	24	*e*PKIKP	PKPdf	12 17 34.3	-5.6
BNM	Barren Site	128.85	21	*e*PKPdf	PKPdf	12 17 49.6	-2.0
GDL2	Guadalupe Moun	131.40	20	PKPdf	PKPdf	12 17 54.6	-1.8
MIAR	Mount Ida	131.61	7	*e*PKIKP	PKPdf	12 17 55.2	-1.6
TXAR	Lajitas Array	134.26	21	PKP	PKPdf	12 18 00.9	-1.0
	comp=Z,0.5nm,0.5s,baz=272,slow=0.2,SNR=9.6						
TXAR				PP	PP	12 20 16.4	-17
	comp=Z,0.4nm,0.9s,slow=2.5,SNR=3.4						
JCT	Junction City	134.36	16	*e*PKIKP	PKPdf	12 18 01.5	-0.6
BDFB	Brasilia	142.39	262	PKP	PKPdf	12 18 14.4	-2.6
	comp=Z,1.5nm,0.4s,baz=170,slow=7.0,SNR=4.3						
TEIG	Tepich	146.27	2	*e*PKPdf	PKPdf	12 18 22.1	-1.5
TRQA	Tornquist	147.18	218	*e*PKPbc	PKPdf	12 18 26.4	+1.8
SDV	Santo Domingo	152.38	323	*e*PKPbc	PKPdf	12 18 37.0	+3.7
LPAZ	La Paz	161.71	260	PKP	PKPdf	12 18 46.5	+1.7
	comp=Z,2.6nm,1.1s,baz=90,slow=2.0,SNR=3.0						
LPAZ				PKPab	PKPab	12 19 33.2	+5.0
	comp=Z,3.0nm,1.0s,baz=67,slow=9.5,SNR=4.7						

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*NEIC **29** 12:01:09.9,32.13S×70.16W,h114^{km},MD3.6(GUC),After GUC.*

GUC 29 12:01:09.9±0.6**,32.13S**×**70.16W,h114**^{km}±6^{km}**,MD3.6,ML3.2,2C-3D,Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JACH	Jahuel	0.66	213	*e*P	P	12 01 28.8	+0.3
JACH				*i* S	S	12 01 43.2	+0.7
PEL	Peldehue	1.10	203	*e*P	P	12 01 32.8	-0.1
PEL				*i* S	S	12 01 50.1	+0.1
PEL				AMP		12 01 50.9	
	comp=N,794nm,0.5s						
ROCH	El Roble	1.10	220	⇓*i*P	P	12 01 33.0	+0.2
ROCH				*i* S	S	12 01 50.7	+0.7
PACH	Papudo	1.15	249	⇑*i*P	P	12 01 33.5	+0.1
PACH				*i* S	S	12 01 51.4	+0.4
FCH	Farellones	1.20	185	*e*P	P	12 01 34.5	+0.6
FCH				*i* S	S	12 01 53.1	+1.2
FCH				AMP		12 01 54.5	
	comp=E,335nm,0.2s						
CLCH	Cerro Calan	1.30	194	*e*P	P	12 01 35.1	0.0
CLCH				*i* S	S	12 01 54.5	+0.4
CLCH				AMP		12 02 00.1	
	comp=E,310nm,0.5s						
MDZ	Mendoza	1.34	124	⇓*i*P	P	12 01 34.9	-0.6
MDZ				*i*		12 01 40.9	
MDZ				*i* S	S	12 01 54.6	-0.3
RCDM	Rinconada Maip	1.46	202	*e*P	P	12 01 36.7	-0.2
RCDM				*i* S	S	12 01 57.2	-0.1
RCDM				AMP		12 02 00.5	
	comp=E,765nm,0.1s						
PCH	Pirque	1.52	191	*i* P	P	12 01 37.8	+0.3
PCH				*i* S	S	12 01 59.1	+0.7
TACH	Talagante	1.65	203	*i* P	P	12 01 38.6	-0.7
TACH				*i* S	S	12 02 01.1	-0.2
LMEL	Las Melosas	1.71	181	⇓*i*P	P	12 01 40.4	+0.4
LMEL				*i* S	S	12 02 04.5	+1.9
LMEL				AMP		12 02 08.3	
	comp=N,223nm,0.1s						
LCCH	Las Cruces	1.79	221	*e*P	P	12 01 40.9	0.0
CHCH	Chadas Angostu	1.84	193	⇑*i*P	P	12 01 41.4	-0.2
LNV	Longovilo	2.10	210	*i* P	P	12 01 43.8	-1.0
LNV				*i* S	S	12 02 10.2	-0.9

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*NAO **29** 12:03:04.1±3.3,68.05N×32.60E,ML2.4*

HEL 29 12:03:03.1±0.3**,68.13N**×**32.97E,ML1.9,ML1.8**(UPP)**,ML2.4**(NAO)**,Explosion,Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	Apatity Array	0.52	179	Pg	Pg	12 03 12.2	-1.3
	baz=358,slow=16						
APA0				Lg		12 03 19.4	
	baz=5.7,slow=56						
APA0				Rg		12 03 21.9	
	baz=8.6,slow=37						
APA0	Apatity Array	0.52	179	*i* P	Pg	12 03 12.2	-1.3
APA0				*i* S	Sg	12 03 19.4	-1.1
APA0				*e*RG		12 03 21.9	
KU4	Oulanka	2.21	218	*e*P	Pn	12 03 41.7	+0.3
KU4				*e*S	Sn	12 04 08.9	-0.9
KU4				MSG		12 04 13.1	
	comp=Z,5.4nm,0.1s						
SGF	Sodankyl	2.54	257	*e*P	Pn	12 03 45.6	-0.7
SGF				*e*S	Sn	12 04 16.6	-1.8
SGF				*e*SG	Sg	12 04 20.7	-7.1
SGF				MSG		12 04 22.5	
	comp=Z,2.5nm,0.1s						
KEV	Kevo	2.71	310	*e*P	Pn	12 03 48.4	-0.2
KEV				*e*SG	Sg	12 04 25.9	-7.3
KEV				MSG		12 04 26.5	
	comp=Z,4.9nm,0.2s						
ARA0	ARCESS Array S	3.06	301	Pn	Pn	12 03 53.1	-0.5
	baz=114,slow=16						
ARA0				Sn	Sn	12 04 29.1	-2.3
	baz=119,slow=28						
ARA0				Lg		12 04 35.0	
	baz=110,slow=37						
ARA0	ARCESS Array S	3.06	301	*e*P	Pn	12 03 53.1	-0.5
ARA0				*e*S	Sn	12 04 29.1	-2.3
ARA0				*e*SB	Sb	12 04 35.0	-1.2
KTK1	Kautokeino	3.68	288	*e*P	Pn	12 04 01.2	-1.2
KTK1				*e*S	Sn	12 04 44.5	-2.7
PAJU	Pajala	3.94	258	*e*P	Pn	12 04 04.3	-1.8
OUL	Oulu	4.16	226	*e*S	Sn	12 04 55.5	-3.7
OUL				MSG		12 05 12.2	
	comp=Z,1.8nm,0.3s						
MASU	Masugnsbyn	4.22	266	*e*P	Pn	12 04 08.4	-1.7
ERTU	Ertsjaerv	4.46	254	*e*P	Pn	12 04 11.4	-2.2
KJN	Kajaani	4.59	210	*e*S	Sn	12 05 06.4	-3.8
KJN				MSG		12 05 28.0	
	comp=Z,2.5nm,0.4s						
KUA	Kurravaara	4.75	274	*e*P	Pn	12 04 15.2	-2.4
KUA				*e*S	Sn	12 05 07.5	-6.7
DUNU	Dundret	4.85	264	*e*P	Pn	12 04 17.2	-1.9

IDC 29 12:05:43.5±25.0**,3.10N**×**96.24E,mb4.0**/3**,mb1 4.2**/3**,mb1mx3.7**/16**,mbtmp4.0**/3**,Error ellipse: s-maj=501.6km s-min=229.2km az=145.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.86	123	P	P	12 13 52.0	-1.6
	0.7nm,0.3s,baz=301,slow=10.0,SNR=18						
ASAR	Alice Springs	45.31	128	P	P	12 14 04.8	-0.4
	2.3nm,0.8s,baz=307,slow=7.1,SNR=16						
STKA	Stephens Creek	55.34	133	P	P	12 15 17.5	-4.2
	1.1nm,0.4s,baz=319,slow=9.3,SNR=5.7						

IDC 29 12:07:09.0±2.1**,12.48N**×**93.02E,mb3.9**/3**,mb1 4.1**/4**,mb1mx3.7**/18**,mbtmp3.8**/4**,ML3.9**/1**,Error ellipse: s-maj=64.7km s-min=33.6km az=80.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.24	43	Pn	P	12 09 09.9	-2.7
	0.5nm,0.3s,baz=235,slow=15,SNR=20						
CMAR				Sn	Sn	12 10 52.9	+5.3
	0.5nm,0.3s,baz=185,slow=32,SNR=6.8						
WRA	Warramunga Arr	51.89	128	P	P	12 16 20.0	-1.8
	2.0nm,0.6s,baz=306,slow=8.5,SNR=23						
WRA				PcP	PcP	12 17 31.8	-2.9
	0.6nm,0.5s,baz=318,slow=3.1,SNR=8.6						
ASAR	Alice Springs	53.75	132	P	P	12 16 33.7	-1.9
	1.3nm,0.7s,baz=311,slow=6.9,SNR=14						
ASAR				PcP	PcP	12 17 39.0	-2.6
	0.8nm,0.9s,baz=307,slow=3.4,SNR=4.5						
ILAR	Eielson Array	90.91	22	P	P	12 20 14.2	-1.4
	0.3nm,1.0s,baz=295,slow=2.8,SNR=4.2						

IDC 29 12:14:05.6±2.7**,4.86N**×**95.39E,mb3.7**/5**,mb1 3.8**/5**,mb1mx3.6**/18**,mbtmp3.7**/5**,Error ellipse: s-maj=115.4km s-min=21.7km az=59.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.95	14	Pn	P	12 17 39.1	+12
	0.1nm,0.3s,baz=200,slow=11,SNR=19						
SONM	Songino Array	43.85	11	P	P	12 22 14.1	-1.2
	0.9nm,0.6s,baz=190,slow=8.6,SNR=7.8						
WRA	Warramunga Arr	45.53	124	P	P	12 22 26.7	-2.5
	0.5nm,0.4s,baz=306,slow=8.3,SNR=14						
ASAR	Alice Springs	47.05	129	P	P	12 22 40.0	-1.3
	0.2nm,0.6s,baz=305,slow=6.6,SNR=5.1						
ZAL	Zalesovo	49.68	352	P	P	12 22 59.5	-1.8
	1.2nm,0.8s,baz=199,slow=5.2,SNR=9.1						
BVAR	Borovoye Array	52.22	341	P	P	12 23 17.6	-2.9
	1.2nm,0.6s,baz=143,slow=7.2,SNR=8.1						

IDC 29 12:16:53.8±43.0**,14.74S**×**169.77W,mb4.1**/3**,mb1 4.3**/3**,mb1mx3.8**/15**,mbtmp4.1**/3**,Error ellipse: s-maj=868.4km s-min=185.2km az=79.0,Samoa Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
STKA	Stephens Creek	47.40	240	P	P	12 25 30.0	-2.0
	1.2nm,0.4s,baz=85,slow=11,SNR=6.2						
WRA	Warramunga Arr	53.41	256	P	P	12 26 15.6	-2.3
	0.4nm,0.5s,baz=93,slow=6.8,SNR=16						
ASAR	Alice Springs	53.65	251	P	P	12 26 17.6	-2.0
	5.4nm,0.5s,baz=89,slow=8.0,SNR=164						

IDC 29 12:26:54.1±2.7**,10.24N**×**92.31E,mb3.5**/3**,mb1 3.7**/4**,mb1mx3.5**/18**,mbtmp3.5**/4**,ML3.6**/1**,Error ellipse: s-maj=80.5km s-min=30.5km az=72.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.40	37	Pn	P	12 29 24.5	-3.1
	0.1nm,0.3s,baz=225,slow=10,SNR=2.9						
ZAL	Zalesovo	44.00	354	P	P	12 35 03.0	-1.9
	0.6nm,0.3s,baz=274,slow=7.8,SNR=3.0						
WRA	Warramunga Arr	51.10	126	P	P	12 35 58.7	-2.3
	0.3nm,0.5s,baz=305,slow=8.5,SNR=4.8						
ASAR	Alice Springs	52.81	130	P	P	12 36 11.8	-2.0
	0.1nm,0.3s,baz=302,slow=7.2,SNR=5.0						

IDC 29 12:27:58.8±10.0**,7.58N**×**93.96E,h66**^{km}±85^{km}**,mb3.5**/6**,mb1 3.7**/7**,mb1mx3.5**/18**,mbtmp3.8**/7**,ML3.6**/1**,Error ellipse: s-maj=104.9km s-min=19.0km az=61.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.85	24	P	P	12 30 45.7	-1.3
	0.1nm,0.3s,baz=215,slow=14,SNR=4.6						
SONM	Songino Array	41.48	13	P	P	12 35 39.2	-1.7
	0.3nm,0.6s,baz=198,slow=9.1,SNR=3.3						
ZAL	Zalesovo	46.81	353	P	P	12 36 21.6	-2.1
	0.8nm,0.4s,baz=143,slow=5.1,SNR=3.2						
WRA	Warramunga Arr	48.23	125	P	P	12 36 33.2	-2.1
	0.8nm,0.5s,baz=304,slow=8.6,SNR=7.3						
ASAR	Alice Springs	49.86	130	P	P	12 36 45.4	-2.4
	0.7nm,0.5s,baz=304,slow=7.1,SNR=11						
ASAR				PcP	PcP	12 38 06.6	-1.1
	0.4nm,0.8s,baz=323,slow=4.5,SNR=3.2						
STKA	Stephens Creek	60.03	133	P	P	12 37 58.6	-2.7
	1.3nm,0.7s,baz=274,slow=4.2,SNR=3.4						
FINES	FINESS Array B	72.89	332	P	P	12 39 20.4	-1.9
	1.2nm,0.9s,baz=117,slow=4.3,SNR=3.5						

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*IDC **29** 12:31:59.5±0.7,8.26N×93.42E,mb4.0/13,mb1 4.1/14,mb1mx4.1/20,mbtmp4.0/14,ML3.8/1,Error ellipse: s-maj=38.2km s-min=14.4km az=56.0*

*NEIC **29** 12:32:05.5±0.7,8.55N×93.78E,h30^{km},mb4.1/4,Error ellipse: s-maj=23.1km s-min=12.9km az=87.0*

ISC 29 12:32:02.9±0.6**,8.49N**±0.08×**93.8E**±0.1**,h30**^{km}**,n29,**σ**0^{s}94**/27**,mb4.1**/18**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.11	26	P	P	12 34 42.4	-0.6
CMAR	Chiang Mai Arr	11.11	26	Pn	P	12 34 46.5	+3.4
	0.2nm,0.3s,baz=212,slow=15,SNR=3.3						
PKI	Pulchoki	20.56	338	*e*P	P	12 36 42.5	+0.5
	15nm,0.7s						
GUN	Gumba	20.71	340	*e*P	P	12 36 43.4	-0.1
	20nm,0.7s						
DMN	Daman	20.71	338	*e*P	P	12 36 43.9	+0.4
	23nm,1.0s						
KKN	Kakani	20.81	338	*e*P	P	12 36 45.1	+0.6
	15nm,0.7s						
GKN	Gorkha	21.24	337	*e*P	P	12 36 49.1	+0.2
	42nm,1.0s,mb4.7						
LSA	Lhasa	21.25	354	*e*P	P	12 36 48.7	-0.2
	3.3nm,0.5s,mb3.9						
KOLN	Koldanda	21.45	335	*e*P	P	12 36 51.5	+0.4
	9.4nm,0.6s,mb4.3						
SONM	Songino Array	40.65	13	P	P	12 39 43.8	+1.8
	1.3nm,1.1s,mb3.5,baz=188,slow=8.7,SNR=3.5						
ZAL	Zalesovo	45.90	353	P	P	12 40 23.6	-0.8
	1.7nm,0.3s,mb4.5,baz=201,slow=9.2,SNR=4.0						
NWAO	Narrogin (SRO)	46.85	153	P	P	12 40 30.2	-2.2
	7.8nm,0.7s,mb4.7,baz=340,slow=12,SNR=2.2						
NWAO	Narrogin (SRO)	46.85	153	*e*P	P	12 40 33.7	+1.3
BVAR	Borovoye Array	48.30	341	P	P	12 40 42.4	-1.0
	0.6nm,0.7s,mb3.7,baz=146,slow=6.6,SNR=4.0						
CHKZ	Chkalovo	48.78	342	*e*P	P	12 40 46.5	-0.6
	3.1nm,0.9s,mb4.3						
WRA	Warramunga Arr	48.91	126	P	P	12 40 48.5	0.0
	0.7nm,0.5s,mb3.9,baz=305,slow=8.5,SNR=8.1						
ASAR	Alice Springs	50.58	130	P	P	12 41 01.2	-0.1
	1.2nm,0.8s,mb3.9,baz=314,slow=8.3,SNR=11						
ASAR				PcP	PcP	12 42 19.9	+0.9
	0.9nm,0.7s,baz=306,slow=3.8,SNR=5.4						
STKA	Stephens Creek	60.79	134	P	P	12 42 14.7	-0.1
	2.2nm,0.9s,mb4.3,baz=324,slow=8.7,SNR=3.3						
STKA	Stephens Creek	60.79	134	*e*P	P	12 42 14.6	-0.2
BRTR	Keskin Array B	61.76	311	P	P	12 42 19.4	-1.9
	1.2nm,0.7s,mb4.2,baz=126,slow=7.0,SNR=5.8						
AKASG	Malin Array Be	67.45	322	P	P	12 42 56.6	-1.4
	1.5nm,0.8s,mb4.1,baz=85,slow=5.1,SNR=4.4						
FINES	FINESS Array B	72.00	332	P	P	12 43 25.5	-0.2
	1.1nm,0.7s,mb3.9,baz=122,slow=13,SNR=3.1						
LBTB	Lobatse	74.22	241	*e*P	P	12 43 41.2	+1.8
	1.9nm,0.7s,mb4.1						
ARCES	ARCESS Array B	74.57	340	P	P	12 43 40.8	+0.3
	3.6nm,1.0s,mb4.3,baz=98,slow=6.4,SNR=3.2						
GERES	GERESS Array B	77.13	318	P	P	12 43 56.2	+0.8
	0.9nm,0.7s,mb3.8,baz=90,slow=2.7,SNR=5.7						
NB2	NORSAR Subarra	79.02	331	P	P	12 44 06.2	+0.7
	0.9nm,0.6s,mb3.9,baz=95,slow=5.0						
NOA	NORSAR Array B	79.02	331	P	P	12 44 05.2	-0.4
	1.4nm,0.8s,mb3.9,baz=94,slow=5.3,SNR=3.9						
PDAR	Pinedale Array	124.72	21	PKP	PKPdf	12 51 02.5	-2.8
	0.2nm,0.5s,baz=288,slow=5.7,SNR=3.2						
TXAR	Lajitas Array	138.81	23	PKP	PKPdf	12 51 32.2	+0.1
	0.1nm,0.4s,baz=334,slow=2.0,SNR=5.8						

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*IDC **29** 12:38:57.7±1.1,3.33N×94.89E,mb4.2/7,mb1 4.2/8,mb1mx4.0/18,mbtmp4.1/8,ML3.6/1,Error ellipse: s-maj=69.9km s-min=18.0km az=48.0*

ISC 29 12:39:01.2±0.9**,3.5N**±0.2×**95.1E**±0.2**,h33**^{km}**,n10,**σ**1^{s}06**/10**,mb4.1**/9**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.38	14	Pn	P	12 42 36.6	-1.0
	0.1nm,0.3s,baz=215,slow=12,SNR=8.3						
WRA	Warramunga Arr	45.02	123	P	P	12 47 16.5	+0.7
	5.8nm,0.7s,mb4.5,baz=300,slow=9.0,SNR=40						
SONM	Songino Array	45.28	11	P	P	12 47 22.3	+4.8
	0.6nm,0.6s,mb3.6,baz=198,slow=7.2,SNR=6.4						
ASAR	Alice Springs	46.43	128	P	P	12 47 27.4	+0.5
	2.6nm,0.7s,mb4.3,baz=295,slow=8.0,SNR=29						
ZAL	Zalesovo	51.03	352	P	P	12 48 04.2	+2.1
	1.4nm,0.5s,mb4.2,baz=218,slow=4.6,SNR=6.4						
BVAR	Borovoye Array	53.45	342	P	P	12 48 20.8	+0.5
	0.6nm,0.5s,mb3.8,baz=153,slow=9.7,SNR=4.4						
STKA	Stephens Creek	56.42	132	P	P	12 48 40.8	-1.4
	1.2nm,0.5s,mb4.2,baz=302,slow=9.5,SNR=4.1						
GNI	Garni	58.21	316	P	P	12 48 53.5	-1.2
	5.5nm,0.4s,mb5.0,baz=117,slow=0.8,SNR=7.2						
FINES	FINESS Array B	77.04	333	P	P	12 50 52.1	-0.3
	2.1nm,1.0s,mb4.0,baz=117,slow=4.3,SNR=4.2						
GERES	GERESS Array B	81.74	319	P	P	12 51 18.4	+0.3
	0.3nm,0.7s,mb3.4,baz=90,slow=2.7,SNR=3.6						

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*IDC **29** 12:44:05.9±1.8,3.39N×95.68E,mb3.9/7,mb1 4.0/7,mb1mx3.8/17,mbtmp3.9/7,Error ellipse: s-maj=84.2km s-min=21.1km az=55.0*

ISC 29 12:44:08.1±1.2**,3.1N**±0.2×**95.4E**±0.3**,h33**^{km}**,n14,**σ**1^{s}14**/14**,mb4.3**/12**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.61	13	Pn	P	12 47 49.9	+2.4
	0.2nm,0.3s,baz=199,slow=11,SNR=27						
PKI	Pulchoki	26.11	339	*e*P	P	12 49 40.3	-0.7
DMN	Daman	26.25	339	*e*P	P	12 49 41.3	-1.0
	8.1nm,0.6s,mb4.5						
GUN	Gumba	26.26	341	*e*P	P	12 49 43.0	+0.6
	23nm,0.6s,mb4.9						
KKN	Kakani	26.36	339	*e*P	P	12 49 42.8	-0.5
	11nm,0.7s,mb4.5						
GKN	Gorkha	26.78	338	*e*P	P	12 49 47.9	+0.7
	19nm,0.7s,mb4.8						
KOLN	Koldanda	26.97	336	*e*P	P	12 49 50.3	+1.4
	22nm,0.7s,mb4.8						
WRA	Warramunga Arr	44.56	123	P	P	12 52 17.4	-1.7
	0.3nm,0.4s,mb3.4,baz=299,slow=9.4,SNR=4.6						
SONM	Songino Array	45.52	10	P	P	12 52 24.9	-1.4
	0.7nm,0.5s,mb3.9,baz=187,slow=8.1,SNR=6.8						
ASAR	Alice Springs	45.97	127	P	P	12 52 32.2	+1.9
	0.2nm,0.7s,mb3.1,baz=303,slow=8.4,SNR=2.8						
ZAL	Zalesovo	51.38	352	P	P	12 53 10.9	-0.8
	2.9nm,0.6s,mb4.4,baz=207,slow=5.7,SNR=15						
BVAR	Borovoye Array	53.85	342	P	P	12 53 29.5	-0.6
	2.9nm,0.7s,mb4.3,baz=135,slow=8.2,SNR=21						
FINES	FINESS Array B	77.47	333	P	P	12 56 02.3	+0.5
	1.7nm,0.9s,mb4.0,baz=108,slow=8.8,SNR=3.1						
ARCES	ARCESS Array B	80.12	340	P	P	12 56 16.6	+0.5
	8.4nm,1.2s,mb4.5,baz=90,slow=4.9,SNR=4.5						

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*IDC **29** 12:45:42.4±1.1,5.40N×92.41E,mb3.9/8,mb1 4.2/9,mb1mx4.0/20,mbtmp3.9/9,ML3.8/1,MS4.1/5,Ms1 4.1/5,ms1mx3.7/26,Error ellipse: s-maj=41.8km s-min=20.3km az=50.0*

ISC 29 12:45:46.0±0.9**,5.4N**±0.1×**92.6E**±0.2**,h33**^{km}**,n17,**σ**0^{s}94**/15**,mb4.2**/11**,MS4.2**/4**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.35	25	Pn	P	12 49 07.7	-1.2
	0.1nm,0.3s,baz=217,slow=14,SNR=10						
CMAR				LR	LR	12 54 51.3	
	comp=Z,335nm,19.4s,baz=190,slow=38						
PKI	Pulchoki	23.05	344	*e*P	P	12 50 51.3	+1.7
	14nm,0.6s,mb4.5						
DMN	Daman	23.18	343	*e*P	P	12 50 51.4	+0.6
GUN	Gumba	23.25	345	*e*P	P	12 50 52.1	+0.6
	19nm,0.6s,mb4.7						
KKN	Kakani	23.30	343	*e*P	P	12 50 52.4	+0.5
	9.7nm,0.7s,mb4.4						
GKN	Gorkha	23.68	342	*e*P	P	12 50 55.7	0.0
KOLN	Koldanda	23.80	340	*e*P	P	12 50 57.3	+0.4
SONM	Songino Array	43.87	13	P	P	12 53 51.7	+0.7
	0.4nm,0.4s,mb3.5,baz=194,slow=11,SNR=3.3						
SONM				LR	LR	13 13 56.6	
	comp=Z,292nm,19.5s,MS4.2,baz=231,slow=39						
WRA	Warramunga Arr	48.17	123	P	P	12 54 26.1	+0.6
	3.4nm,1.0s,mb4.3,baz=301,slow=8.9,SNR=9.2						
ZAL	Zalesovo	48.77	354	P	P	12 54 28.8	-0.8
	2.8nm,0.5s,mb4.6,baz=230,slow=5.1,SNR=14						
ASAR	Alice Springs	49.60	127	P	P	12 54 36.4	0.0
	0.9nm,0.8s,mb3.9,baz=298,slow=7.7,SNR=5.5						
ASAR				LR	LR	13 18 46.1	
	comp=Z,179nm,18.2s,MS4.1,baz=300,slow=40						
BVAR	Borovoye Array	50.82	343	P	P	12 54 43.9	-1.4
	1.0nm,0.7s,mb3.9,baz=149,slow=8.4,SNR=3.9						
KMBO	Kilima Mbogo	55.66	265	LR	LR	13 17 36.0	
	comp=Z,215nm,18.6s,MS4.3,baz=85,slow=34						
EIL	Elat	59.34	301	LR	LR	13 19 28.2	
	comp=Z,178nm,19.4s,MS4.2,baz=269,slow=34						
BRTR	Keskin Array B	62.88	312	P	P	12 56 08.8	-2.6
	0.7nm,0.6s,mb3.9,baz=135,slow=8.7,SNR=4.0						
MLR	Muntele Rosu	69.86	317	P	P	12 56 55.5	0.0
	1.8nm,0.5s,mb4.3,baz=167,slow=14,SNR=4.0						
GERES	GERESS Array B	78.62	319	P	P	12 57 46.3	0.0
	0.3nm,0.3s,mb3.8,baz=90,slow=6.7,SNR=5.1						

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*IDC **29** 12:54:04.9±1.4,5.56N×92.73E,mb3.6/4,mb1 3.8/5,mb1mx3.6/18,mbtmp3.5/5,Error ellipse: s-maj=57.1km s-min=23.0km az=50.0*

ISC 29 12:54:19.3±1.2**,5.7N**±0.2×**94.7E**±0.2**,h33**^{km}**,n11,**σ**0^{s}71**/11**,mb4.3**/10**,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.37	18	Pn	P	12 57 29.4	+0.2
	baz=219,slow=12,SNR=3.1						
PKI	Pulchoki	23.48	339	*e*P	P	12 59 27.1	+0.1
	13nm,0.5s,mb4.6						
DMN	Daman	23.62	338	*e*P	P	12 59 28.3	-0.1
	23nm,0.7s,mb4.7						
GUN	Gumba	23.62	340	*e*P	P	12 59 27.0	-1.4
	10nm,0.5s,mb4.5						
KKN	Kakani	23.72	339	*e*P	P	12 59 28.9	-0.5
	15nm,0.7s,mb4.5						
GKN	Gorkha	24.15	338	*e*P	P	12 59 33.7	+0.2
	22nm,0.6s,mb4.8						
KOLN	Koldanda	24.35	336	*e*P	P	12 59 37.0	+1.5
	14nm,0.7s,mb4.5						
WRA	Warramunga Arr	46.60	124	P	P	13 02 46.2	-0.2
	0.9nm,0.6s,mb3.9,baz=301,slow=9.0,SNR=8.6						
ASAR	Alice Springs	48.14	129	P	P	13 02 58.8	+0.3
	0.3nm,0.8s,mb3.4,baz=293,slow=6.9,SNR=3.4						
ZAL	Zalesovo	48.77	352	P	P	13 02 49.6	-13
	0.5nm,0.3s,mb4.0,baz=338,slow=5.4,SNR=2.2						
BRTR	Keskin Array B	64.24	311	P	P	13 04 33.8	-20
	0.3nm,0.3s,mb3.8,baz=108,slow=4.6,SNR=2.3						

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*IDC **29** 12:58:59.5±1.7,28.90N×130.62E,mb3.8/5,mb1 3.8/6,mb1mx3.6/23,mbtmp3.8/6,ML3.5/1,MS3.0/1,Ms1 3.0/1,ms1mx2.9/29,Error ellipse: s-maj=47.1km s-min=23.4km az=89.0*

*JMA **29** 12:59:03.3±0.2,28.94N×130.56E,h69^{km},M3.4*

ISC 29 12:59:02.3±1.0**,28.84N**±0.05×**130.75E**±0.08**,h35**^{km}±11^{km}**,n15,**σ**0^{s}97**/20**,mb3.8**/5**,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JZK	Kikaishima	0.86	233	P	P	12 59 19.7	+1.8
JAM	Amami Oshima	1.09	248	P	P	12 59 21.4	+0.1
JAM				*e*S	S	12 59 36.0	+0.6
JNN	Nakanoshima	1.26	323	P	P	12 59 22.8	-0.8
JKC	Kuchinoerabu	1.69	344	P	P	12 59 30.1	+0.3
JTN	Tanegashima 3	1.82	6	P	P	12 59 31.4	-0.3
JTK	Tokunoshima	1.90	237	P	P	12 59 33.6	+0.8
JTK				*e*S	S	12 59 56.9	+1.1

JOW	**Kunigami**	**2.97**	**228**	P	**P**	**12 59 47.6**	**-0.5**
JOW				*e*S	**S**	**13 00 21.9**	**-0.9**
JOW	**Kunigami**	**2.97**	**228**	Pn	**P**	**12 59 47.6**	**-0.5**
	12nm,0.3s,baz=246,slow=19,SNR=13						
JOW				Sn	**S**	**13 00 22.0**	**-0.8**
	baz=150,slow=20						
JOW				LR	LR	13 00 35.2	
	comp=Z,254nm,21.0s,baz=113,slow=33						
JMZ	**Minamidaito 2**	**3.03**	**172**	*e*S	**S**	**13 00 24.1**	**-0.5**
JIH	**Iheya**	**3.05**	**235**	P	**P**	**12 59 48.8**	**-0.4**
JIH				*e*S	**S**	**13 00 22.9**	**-2.0**
SONM	**Songino Array**	**26.74**	**322**	P	**P**	**13 04 41.8**	**+1.4**
	0.3nm,0.6s,mb3.0,baz=112,slow=7.8,SNR=2.9						
BVAR	**Borovoye Array**	**49.88**	**317**	P	**P**	**13 07 52.7**	**-1.4**
	1.5nm,0.6s,mb4.2,baz=98,slow=10,SNR=8.9						
ASAR	**Alice Springs**	**52.28**	**176**	P	**P**	**13 08 13.7**	**+1.1**
	1.3nm,1.1s,mb3.8,slow=6.3,SNR=5.3						
FINES	**FINESS Array B**	**71.70**	**331**	P	**P**	**13 10 21.1**	**-1.0**
	1.1nm,0.6s,mb3.9,baz=63,slow=6.2,SNR=4.1						
BRTR	**Keskin Array B**	**77.19**	**308**	P	**P**	**13 10 55.0**	**+0.6**
	3.1nm,1.0s,mb4.2,baz=124,slow=4.5,SNR=6.9						

IDC 29 12:59:24.2±1.6,4.64N×92.06E,mb3.7/5,mb1 4.0/6, mb1mx3.7/18,mbtmp3.7/6,ML3.8/1,MS2.9/2,Ms1 3.0/2, ms1mx2.8/29,Error ellipse: s-maj=48.0km s-min=29.6km az=49.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.29**	**26**	Pn	P	13 03 00.3	-3.0
	0.1nm,0.3s,baz=218,slow=14,SNR=7.3						
CMAR				LR	LR	13 10 37.6	
	comp=Z,84nm,18.1s,baz=205,slow=44						
SONM	**Songino Array**	**44.77**	**14**	P	P	13 07 40.0	-1.4
	0.3nm,0.7s,baz=204,slow=14,SNR=2.9						
JNU	**Nakatsue**	**45.94**	**47**	LR	LR	13 26 48.4	
	comp=Z,6.6nm,20.1s,baz=227,slow=36						
WRA	**Warramunga Arr**	**48.20**	**122**	P	P	13 08 06.9	-2.0
	0.7nm,0.5s,baz=300,slow=8.9,SNR=6.1						
ZAL	**Zalesovo**	**49.50**	**354**	P	P	13 08 16.4	-2.1
	1.0nm,0.4s,baz=234,slow=7.6,SNR=5.0						
BRTR	**Keskin Array B**	**63.02**	**313**	P	P	13 09 54.0	-1.5
	0.4nm,0.4s,baz=111,slow=8.1,SNR=3.7						
GERES	**GERESS Array B**	**78.86**	**319**	P	P	13 11 28.9	-2.0
	0.4nm,0.8s,baz=104,slow=5.5,SNR=3.9						

IDC 29 13:02:30.4±1.3,6.86N×94.06E,mb3.8/6,mb1 3.9/7, mb1mx3.7/20,mbtmp3.8/7,ML3.5/1,Error ellipse: s-maj=58.6km s-min=20.3km az=53.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.47**	**22**	Pn	P	13 05 29.3	-2.8
	0.1nm,0.3s,baz=217,slow=14,SNR=3.1						
ZAL	**Zalesovo**	**47.54**	**353**	P	P	13 11 07.5	-1.8
	0.7nm,0.4s,baz=180,slow=1.0,SNR=2.6						
WRA	**Warramunga Arr**	**47.75**	**125**	P	P	13 11 09.2	-2.2
	0.5nm,0.8s,baz=308,slow=8.6,SNR=3.8						
ASAR	**Alice Springs**	**49.33**	**129**	P	P	13 11 21.9	-1.8
	0.4nm,0.8s,baz=304,slow=7.4,SNR=4.5						
BVAR	**Borovoye Array**	**49.92**	**342**	P	P	13 11 25.4	-2.3
	0.6nm,0.6s,baz=144,slow=12,SNR=3.7						
GNI	**Garni**	**55.09**	**315**	P	P	13 12 04.6	-2.0
	10nm,1.0s,baz=324,slow=23,SNR=3.1						
FINES	**FINESS Array B**	**73.57**	**332**	P	P	13 14 05.0	-1.9
	1.1nm,0.8s,baz=127,slow=6.9,SNR=3.2						

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*IDC **29** 13:08:33.6±0.8, 17.54N×145.93E, h202^{km}±7^{km}, mb3.9/13, mb1 4.1/13, mb1mx3.9/23, mbtmp4.4/13, Error ellipse: s-maj=22.4km s-min=9.4km az=109.0*

ISC 29 13:08:32.0±0.6,17.5N±0.1×145.9E±0.2,h202^{km}, h202^{km}±4.1^{km}:pP-P,n14,σ0^{s}87/13,mb4.0/13,Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**26.77**	**177**	P	**P**	**13 13 55.1**	**-0.2**
	9.4nm,0.8s,mb4.5,baz=350,slow=6.1,SNR=7.8						
CTA	**Charters Tower**	**37.36**	**179**	P	**P**	**13 15 27.4**	**+0.4**
	3.2nm,0.7s,mb3.9,baz=3.3,slow=12,SNR=6.7						
WRA	**Warramunga Arr**	**38.90**	**197**	P	**P**	**13 15 39.8**	**0.0**
	6.8nm,0.7s,mb4.3,baz=17,slow=8.2,SNR=83						
ASAR	**Alice Springs**	**42.56**	**196**	P	**P**	**13 16 09.6**	**-0.2**
	3.2nm,0.4s,mb4.1,baz=13,slow=6.1,SNR=91						
ASAR				PcP	PcP	13 17 60.0	+1.1
	1.2nm,0.8s,baz=27,slow=11,SNR=5.0						
CMAR	**Chiang Mai Arr**	**44.56**	**279**	P	**P**	**13 16 26.4**	**+0.6**
	4.6nm,1.0s,mb3.8,baz=71,slow=6.5,SNR=15						
STKA	**Stephens Creek**	**49.27**	**185**	P	**P**	**13 17 01.4**	**-0.8**
	7.8nm,1.1s,mb3.9,baz=19,slow=8.6,SNR=11						
ILAR	**Eielson Array**	**64.63**	**26**	P	**P**	**13 18 47.9**	**-1.8**
	1.8nm,0.4s,mb4.1,baz=251,slow=5.9,SNR=98						
ILAR				pP	pP	13 19 37.2	+0.3
	1.6nm,0.9s,baz=260,slow=5.1,SNR=3.9						
INK	**Inuvik**	**70.40**	**23**	P	**P**	**13 19 24.6**	**-1.0**
	3.4nm,0.5s,mb4.2,baz=275,slow=7.3,SNR=23						
DLBC	**Dease Lake**	**72.18**	**33**	P	**P**	**13 19 37.1**	**+0.8**
	2.0nm,0.5s,mb4.0,baz=195,slow=12,SNR=8.5						
YKA	**Yellowknife Ar**	**78.95**	**28**	P	**P**	**13 20 13.6**	**-0.7**
	2.9nm,0.7s,mb4.0,baz=287,slow=5.5,SNR=32						
YKA				pP	pP	13 21 01.7	-1.6
	0.4nm,0.5s,baz=287,slow=5.3,SNR=3.1						
NVAR	**Mina Array Bea**	**83.73**	**52**	P	**P**	**13 20 41.4**	**+1.6**
	3.3nm,0.5s,mb4.4,baz=269,slow=6.0,SNR=56						
NVAR				pP	pP	13 21 29.7	+0.5
	0.8nm,0.6s,baz=265,slow=5.7,SNR=2.9						
PDAR	**Pinedale Array**	**88.53**	**45**	P	**P**	**13 21 03.0**	**+0.1**
	0.4nm,0.4s,mb3.6,baz=137,slow=1.8,SNR=8.8						
TXAR	**Lajitas Array**	**98.36**	**56**	P	**P**	**13 21 49.4**	**+1.0**
	0.1nm,0.3s,mb3.6,baz=272,slow=3.6,SNR=3.9						
LPAZ	**La Paz**	**147.45**	**93**	PKPbc	PKPdf	13 27 55.9	+5.9
	2.4nm,0.6s,baz=37,slow=0.5,SNR=8.6						

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*JMA **29** 13:10:32.5±0.1, 33.16N×137.15E, h37^{km}±2^{km}, M3.6*

ISC 29 13:10:33.1±1.1,33.18N±0.07×137.15E±0.04,h37^{km},n14, σ0^{s}49/28,1C-2D,Near south coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TK01	**Tokai 1**	**0.69**	**32**	P	**P**	**13 10 46.1**	**-0.3**
TK01				S	**S**	**13 10 55.6**	**-0.4**
TK02	**Tokai 2**	**0.92**	**34**	P	**P**	**13 10 49.4**	**-0.2**
TK02				S	**S**	**13 11 01.5**	**-0.3**
TK03	**Tokai 3**	**1.19**	**35**	P	**P**	**13 10 53.3**	**-0.2**
TK03				S	**S**	**13 11 08.9**	**0.0**
JWZ	**Kozaga**	**1.25**	**287**	⇑P	**P**	**13 10 54.1**	**-0.2**
JWZ				S	**S**	**13 11 08.9**	**-1.3**
JIE	**Ise**	**1.26**	**343**	⇓P	**P**	**13 10 55.1**	**+0.6**
JIE				S	**S**	**13 11 10.8**	**+0.2**
TK04	**Tokai 4**	**1.34**	**27**	P	**P**	**13 10 55.8**	**0.0**
TK04				S	**S**	**13 11 12.6**	**-0.1**
JWM	**Minabe**	**1.64**	**294**	P	**P**	**13 10 59.8**	**-0.2**
JWM				S	**S**	**13 11 19.2**	**-0.8**
TSUJ	**Tsu 2**	**1.64**	**339**	P	**P**	**13 11 00.3**	**+0.3**
TSUJ				S	**S**	**13 11 20.0**	**0.0**
JWY	**Kouya**	**1.66**	**309**	P	**P**	**13 11 00.9**	**+0.7**
JWY				S	**S**	**13 11 20.6**	**+0.1**
JHE	**Heguri**	**1.91**	**321**	⇓P	**P**	**13 11 04.2**	**+0.4**
JHE				S	**S**	**13 11 27.0**	**+0.3**
SHZ3	**Shizuoka 3**	**2.08**	**25**	P	**P**	**13 11 06.1**	**-0.1**
SHZ3				S	**S**	**13 11 30.8**	**-0.2**
JIZS	**Izushimoda**	**2.10**	**43**	P	**P**	**13 11 07.5**	**+0.9**
JIZS				S	**S**	**13 11 30.8**	**-0.9**
JAJ2	**Tsuna**	**2.25**	**304**	P	**P**	**13 11 09.4**	**+0.7**
JAJ2				S	**S**	**13 11 35.6**	**+0.1**
MAT	**Matsushiro**	**3.46**	**14**	P	**P**	**13 11 26.4**	**+0.4**
MAT				S	**S**	**13 12 06.7**	**+0.4**

IDC 29 13:10:41.9±1.0,3.26N×93.52E,mb4.1/9,mb1 4.2/10, mb1mx4.1/19,mbtmp4.1/10,Error ellipse: s-maj=44.4km s-min=16.9km az=53.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**16.01**	**19**	Pn	P	13 14 27.2	-3.0
	baz=214,slow=14,SNR=7.2						
SONM	**Songino Array**	**45.77**	**12**	P	P	13 19 05.3	-1.7
	2.1nm,0.8s,baz=196,slow=8.6,SNR=9.9						
WRA	**Warramunga Arr**	**46.24**	**122**	P	P	13 19 09.4	-1.7
	3.9nm,0.7s,baz=300,slow=8.9,SNR=15						
ASAR	**Alice Springs**	**47.57**	**126**	P	P	13 19 19.4	-2.2
	1.3nm,0.8s,baz=303,slow=7.2,SNR=7.7						
ASAR				PcP	PcP	13 20 49.5	-2.4
	0.9nm,0.7s,baz=298,slow=2.2,SNR=5.5						
ZAL	**Zalesovo**	**51.02**	**353**	P	P	13 19 46.5	-1.2
	2.7nm,0.5s,baz=217,slow=3.7,SNR=10						
BVAR	**Borovoye Array**	**53.15**	**343**	P	P	13 20 00.7	-3.1
	2.8nm,0.7s,baz=112,slow=7.8,SNR=8.0						
STKA	**Stephens Creek**	**57.46**	**131**	P	P	13 20 33.0	-2.3
	1.8nm,0.7s,baz=338,slow=12,SNR=4.5						
BRTR	**Keskin Array B**	**65.02**	**313**	P	P	13 21 24.4	-2.0
	0.7nm,0.6s,baz=146,slow=9.6,SNR=3.3						
AKASG	**Malin Array Be**	**71.40**	**323**	P	P	13 22 03.6	-2.2
	0.2nm,0.3s,baz=93,slow=4.4,SNR=5.7						
GERES	**GERESS Array B**	**80.85**	**319**	P	P	13 22 58.2	-1.1
	1.5nm,0.6s,baz=104,slow=5.2,SNR=10.0						

IDC 29 13:13:28.1±2.1,4.60N×94.64E,mb3.9/5,mb1 4.1/5, mb1mx3.8/17,mbtmp3.9/5,Error ellipse: s-maj=89.0km s-min=23.0km az=58.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.40**	**17**	Pn	P	13 16 58.9	+3.3
	0.3nm,0.3s,baz=209,slow=11,SNR=9.1						
SONM	**Songino Array**	**44.24**	**11**	P	P	13 21 39.1	-1.9
	0.6nm,0.6s,baz=203,slow=9.5,SNR=3.4						
WRA	**Warramunga Arr**	**46.01**	**123**	P	P	13 21 53.6	-1.9
	1.3nm,0.6s,baz=302,slow=9.2,SNR=7.3						
ASAR	**Alice Springs**	**47.48**	**128**	P	P	13 22 05.2	-1.8
	0.5nm,0.6s,baz=300,slow=7.4,SNR=4.8						
ZAL	**Zalesovo**	**49.84**	**352**	P	P	13 22 23.0	-1.9
	1.9nm,0.4s,baz=230,slow=4.3,SNR=6.3						
FINES	**FINESS Array B**	**75.82**	**333**	P	P	13 25 15.8	-1.9
	1.9nm,0.9s,baz=112,slow=10,SNR=4.9						

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*NIED **29** 13:14:00, 28.90N×130.70E, h20^{km}, Mw4.5 Best double couple: $M_0$7.35×10^{15} NP1:ϕ_s10°, δ65°, λ79°. NP2:ϕ_s214°, δ27°, λ112°.*

*JMA **29** 13:14:05.2±0.2, 28.91N×130.71E, h24^{km}, M3.8*

*IDC **29** 13:14:12.6±1.1, 26.82N×125.85E, mb4.0/4, mb1 4.1/5, mb1mx3.7/23, mbtmp4.0/5, ML3.2/1, Error ellipse: s-maj=39.5km s-min=22.8km az=47.0*

ISC 29 13:14:05.7±0.7,28.86N±0.04×130.73E±0.08,h47^{km}±10^{km}, n15,σ0^{s}76/21,mb4.1/4,Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAM	**Amami Oshima**	**1.09**	**246**	P	**P**	**13 14 24.8**	**0.0**
JAM				*e*S	**S**	**13 14 39.4**	**+0.4**
JNN	**Nakanoshima**	**1.23**	**323**	P	**P**	**13 14 26.3**	**-0.5**
JNN				*e*S	**S**	**13 14 41.1**	**-1.4**
JKC	**Kuchinoerabu**	**1.66**	**344**	P	**P**	**13 14 33.5**	**+0.5**
JTN	**Tanegashima 3**	**1.80**	**7**	P	**P**	**13 14 34.8**	**-0.1**
JTN				*e*S	**S**	**13 14 56.3**	**-0.3**
JTK	**Tokunoshima**	**1.90**	**236**	P	**P**	**13 14 36.9**	**+0.6**
JTK				*e*S	**S**	**13 15 01.2**	**+2.0**
JTSR	**Tashiro 2**	**2.30**	**4**	P	**P**	**13 14 42.5**	**+0.5**
JTSR				S	**S**	**13 15 10.1**	**+0.8**
JSU	**Suzuyama**	**2.65**	**355**	P	**P**	**13 14 46.9**	**0.0**
JNAR	**Kushima--Naru**	**2.70**	**10**	P	**P**	**13 14 47.9**	**+0.2**
JOW	**Kunigami**	**2.97**	**228**	P	**P**	**13 14 50.7**	**-0.9**
JOW	**Kunigami**	**2.97**	**228**	Pn	**P**	**13 14 50.2**	**-1.4**
	10nm,0.3s,baz=98,slow=24,SNR=16						
JOW				Sn	**S**	**13 15 25.4**	**-0.9**
	16nm,0.3s,baz=328,slow=28,SNR=4.6						
JMZ	**Minamidaito 2**	**3.06**	**172**	*e*S	**S**	**13 15 28.2**	**-0.3**
WRA	**Warramunga Arr**	**48.64**	**175**	P	**P**	**13 22 47.3**	**+0.2**
	2.0nm,1.1s,mb4.1,baz=345,slow=7.9,SNR=4.9						
BVAR	**Borovoye Array**	**49.84**	**317**	P	**P**	**13 22 55.2**	**-0.7**
	1.7nm,0.6s,mb4.2,baz=121,slow=8.4,SNR=10						
ASAR	**Alice Springs**	**52.31**	**176**	P	**P**	**13 23 14.3**	**-0.6**
	1.6nm,1.0s,mb3.9,baz=346,slow=5.4,SNR=5.9						
BRTR	**Keskin Array B**	**77.17**	**308**	P	**P**	**13 25 57.1**	**+0.9**
	4.3nm,1.1s,mb4.3,baz=104,slow=5.1,SNR=11						

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*IDC **29** 13:16:33.6±1.1, 13.23N×92.38E, mb4.0/9, mb1 4.1/10, mb1mx4.0/18, mbtmp3.9/10, ML3.5/1, MS2.9/1, Ms1 3.1/1, ms1mx2.7/24, Error ellipse: s-maj=39.6km s-min=20.1km az=54.0*

ISC 29 13:16:36.0±4.3,13.3N±0.1×92.54E±0.08,h25^{km}±30^{km}, n17,σ0^{s}64/18,mb3.9/9,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.99**	**50**	Pn	**Pn**	**13 18 34.5**	**+1.1**
	0.2nm,0.3s,baz=241,slow=15,SNR=3.3						
CMAR				Sn	**Sn**	**13 20 03.2**	**-0.7**
	0.6nm,0.3s,baz=240,slow=28,SNR=9.1						
CMAR				LR	LR	13 22 28.8	
	comp=Z,74nm,19.1s,baz=230,slow=43						
PKI	**Pulchoki**	**15.65**	**336**	*e*P	**P**	**13 20 15.9**	**-0.8**
	8.6nm,0.3s						
GUN	**Gumba**	**15.77**	**338**	*e*P	**P**	**13 20 18.4**	**+0.1**
	8.7nm,0.5s						
DMN	**Daman**	**15.80**	**335**	*e*P	**P**	**13 20 18.6**	**-0.1**
	9.7nm,0.4s						
KKN	**Kakani**	**15.89**	**336**	*e*P	**P**	**13 20 19.8**	**0.0**
	6.1nm,0.3s						
GKN	**Gorkha**	**16.35**	**334**	*e*P	**P**	**13 20 25.5**	**-0.1**
	7.6nm,0.3s						
KOLN	**Koldanda**	**16.61**	**331**	*e*P	**P**	**13 20 28.7**	**-0.2**
	10.0nm,0.3s						
SONM	**Songino Array**	**36.28**	**16**	P	**P**	**13 23 39.9**	**+0.7**
	1.7nm,0.8s,mb4.0,baz=207,slow=8.3,SNR=6.2						
ZAL	**Zalesovo**	**40.96**	**353**	P	**P**	**13 24 18.0**	**-0.2**
	1.5nm,0.6s,mb3.8,baz=220,slow=8.3,SNR=5.1						
WRA	**Warramunga Arr**	**52.78**	**128**	P	**P**	**13 25 51.2**	**-0.5**
	0.9nm,0.8s,mb3.8,baz=308,slow=8.3,SNR=8.7						
ASAR	**Alice Springs**	**54.67**	**132**	P	**P**	**13 26 04.8**	**-0.7**
	0.6nm,0.6s,mb3.8,baz=310,slow=6.3,SNR=7.9						
FINES	**FINESS Array B**	**67.18**	**331**	P	**P**	**13 27 29.1**	**-0.7**
	3.4nm,1.2s,mb4.3,baz=124,slow=14,SNR=3.6						
ARCES	**ARCESS Array B**	**69.62**	**340**	P	**P**	**13 27 44.6**	**-0.2**
	3.4nm,0.8s,mb4.3,baz=80,slow=7.4,SNR=5.7						
GERES	**GERESS Array B**	**72.75**	**317**	P	**P**	**13 28 04.8**	**+0.8**
	0.4nm,0.7s,mb3.5,baz=90,slow=6.7,SNR=5.0						
NB2	**NORSAR Subarra**	**74.23**	**330**	P	**P**	**13 28 12.8**	**+0.4**
	1.0nm,0.7s,mb3.9,baz=91,slow=5.8						
NOA	**NORSAR Array B**	**74.23**	**330**	P	**P**	**13 28 12.0**	**-0.3**
	1.2nm,0.7s,mb4.0,baz=91,slow=5.7,SNR=4.4						
ILAR	**Eielson Array**	**90.29**	**22**	P	**P**	**13 29 37.1**	**+1.4**
	0.6nm,0.6s,mb4.1,baz=294,slow=4.9,SNR=9.2						

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*IDC **29** 13:19:36.7±0.8, 28.96N×130.43E, mb3.9/9, mb1 4.1/10, mb1mx3.9/22, mbtmp3.9/10, ML3.8/1, Error ellipse: s-maj=28.5km s-min=17.9km az=98.0*

*JMA **29** 13:19:37.7±0.4, 28.90N×130.73E, h13^{km}±5^{km}, M3.6*

ISC 29 13:19:37.1±0.7,28.87N±0.05×130.72E±0.09,h13^{km},n16, σ1^{s}23/18,mb3.8/9,Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAM	**Amami Oshima**	**1.08**	**245**	P	**Pb**	**13 19 58.2**	**+1.1**
JNN	**Nakanoshima**	**1.22**	**323**	P	**Pb**	**13 19 59.7**	**+0.3**
JKC	**Kuchinoerabu**	**1.65**	**344**	*e*S	**Sn**	**13 20 27.2**	**0.0**
JTN	**Tanegashima 3**	**1.79**	**7**	P	**Pn**	**13 20 08.3**	**+0.3**
JTK	**Tokunoshima**	**1.90**	**236**	P	**Pn**	**13 20 10.4**	**+0.9**
JTK				*e*S	**Sn**	**13 20 35.5**	**+2.1**
JTSR	**Tashiro 2**	**2.29**	**4**	P	**Pn**	**13 20 16.2**	**+1.0**
JOW	**Kunigami**	**2.97**	**227**	Pn	**Pn**	**13 20 24.2**	**-0.6**
	28nm,0.3s,baz=100,slow=21,SNR=28						
JOW				Sn	**Sn**	**13 20 58.3**	**-2.3**
ZAL	**Zalesovo**	**41.57**	**320**	P	**P**	**13 27 23.9**	**-2.0**
	0.7nm,0.4s,mb3.6,baz=252,slow=17,SNR=3.3						
WRA	**Warramunga Arr**	**48.65**	**175**	P	**P**	**13 28 22.1**	**-0.9**
	1.2nm,0.8s,mb4.0,baz=353,slow=8.3,SNR=8.0						
ASAR	**Alice Springs**	**52.32**	**176**	P	**P**	**13 28 51.8**	**+0.9**
	0.5nm,0.5s,mb3.7,baz=12,slow=12,SNR=8.8						
ILAR	**Eielson Array**	**61.07**	**29**	P	**P**	**13 29 53.6**	**+1.0**
	0.8nm,0.9s,mb3.8,baz=292,slow=6.8,SNR=5.3						
FINES	**FINESS Array B**	**71.66**	**331**	P	**P**	**13 30 57.7**	**-2.4**
	0.5nm,0.3s,mb3.9,baz=71,slow=6.4,SNR=13						
AKASG	**Malin Array Be**	**74.96**	**320**	P	**P**	**13 31 17.9**	**-1.6**
	0.2nm,0.3s,mb3.5,baz=52,slow=7.1,SNR=5.3						
YKA	**Yellowknife Ar**	**75.20**	**26**	P	**P**	**13 31 20.3**	**-0.3**
	1.0nm,0.9s,mb3.8,baz=304,slow=5.6,SNR=12						
BRTR	**Keskin Array B**	**77.15**	**308**	P	**P**	**13 31 32.1**	**0.0**
	2.5nm,0.9s,mb4.2,baz=108,slow=3.9,SNR=12						
PDAR	**Pinedale Array**	**89.73**	**40**	P	**P**	**13 32 37.8**	**+1.5**
	0.4nm,0.8s,mb3.8,baz=135,slow=2.1,SNR=3.5						

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*NIED **29** 13:20:00, 28.90N×130.80E, h20^{km}, Mw5.6 Best double couple: $M_0$3.14×10^{17} NP1:ϕ_s8°, δ62°, λ87°. NP2:ϕ_s195°, δ28°, λ96°.*

*IDC **29** 13:20:23.1±0.5, 28.98N×130.49E, mb4.8/21, mb1 4.9/24, mb1mx4.9/28, mbtmp4.8/24, ML4.3/2, MS5.5/20, Ms1 5.5/20, ms1mx5.2/35, Error ellipse: s-maj=15.9km s-min=12.3km az=84.0*

*JMA **29** 13:20:25.5±0.1, 28.90N×130.75E, h17^{km}, M5.6*

JMA Felt I J1.

*BJI **29** 13:20:27.8, 28.92N×130.64E, h61^{km}, mB5.7, mb5.0, Ms5.9, Msz5.8*

*NEIC **29** 13:20:29.3±0.9, 28.92N×130.44E, h38^{km}±7^{km}, mb5.5/62, MS5.4/133, MW5.7, MW5.6(NIED), Error ellipse: s-maj=6.6km s-min=5.1km az=190.0, Moment Tensor Solution. s15 Moment tensor: Scale 10^{17}Nm; M_{rr}2.20; $M_{\theta\theta}$0.06; $M_{\phi\phi}$-2.26; $M_{r\theta}$1.26; $M_{\theta\phi}$-0.90; $M_{\phi r}$2.54; Best double couple: $M_0$3.7×10^{17} NP1:ϕ_s191°, δ21°, λ77°. NP2: ϕ_s25°, δ70°, λ95°. Principal axes: T 3.54, Plg65°, Azm303°; N .34, Plg5°, Azm203°; P -3.87, Plg25°, Azm111°;*

NEIC Recorded [1 JMA] on Amami-oshima, Kikaiga-shima and Kuchino-shima.

*HRVD **29** 13:20:29.3±0.2, 28.78N×130.79E, h25^{km}, MW5.7/68, Centroid moment Tensor Solution. LP body waves: s58,c107;Mantle waves: s68,c145; Half duration: 1^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}2.17±.06; $M_{\theta\theta}$-0.98±.04; $M_{\phi\phi}$-1.19±.04; $M_{r\theta}$2.09±.11; $M_{\theta\phi}$-1.14±.03; $M_{\phi r}$1.98±.11; Best double couple: $M_0$3.62×10^{17} NP1: ϕ_s219°, δ19°, λ83°. NP2:ϕ_s46°, δ71°, λ92°. Principal axes: T 3.6, Plg64°, Azm319°; N .05, Plg2°, Azm225°; P -3.65, Plg26°, Azm134°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **29** 13:20:30.1±1.1, 29.53N×130.28E, h33^{km}, mb5.8/52, MS5.4/35 Error ellipse: s-maj=8.3km s-min=4.9km az=107.5*

ISC 29 13:20:26.4±0.8,28.94N±0.02×130.45E±0.03,h27^{km}±5^{km}, h25^{km}±3.7^{km}:pP-P,n486,σ1^{s}20/412,mb5.4/110,MS5.5/170, 32C-12D,Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAM	**Amami Oshima**	**0.91**	**235**	P	**Pb**	**13 20 45.9**	**+2.4**
JAM				S	**Sb**	**13 21 01.2**	**+6.0**
JNN	**Nakanoshima**	**1.03**	**331**	⇑P	**Pn**	**13 20 47.5**	**+2.3**
JNN				S	**Sb**	**13 21 03.2**	**+4.6**
JKC	**Kuchinoerabu**	**1.53**	**352**	⇑P	**Pn**	**13 20 53.5**	**+1.1**
JTK	**Tokunoshima**	**1.75**	**229**	P	**Pn**	**13 20 58.6**	**+3.1**
JTK				S	**Sn**	**13 21 21.5**	**+4.3**
JTN	**Tanegashima 3**	**1.77**	**15**	P	**Pn**	**13 20 56.2**	**+0.4**
JTN				S	**Sn**	**13 21 17.4**	**-0.2**
JTSR	**Tashiro 2**	**2.26**	**10**	P	**Pn**	**13 21 03.8**	**+1.0**
JTSR				S	**Sn**	**13 21 31.7**	**+1.7**
JOW	**Kunigami**	**2.85**	**223**	⇓P	**Pn**	**13 21 12.5**	**+1.3**
JOW				S	**Sn**	**13 21 47.6**	**+2.6**
JOW	**Kunigami**	**2.85**	**223**	Pn	**Pn**	**13 21 12.4**	**+1.2**
	baz=66,slow=15						
JOW				Sn	**Sn**	**13 21 46.7**	**+1.7**
	94nm,0.3s,baz=350,slow=21,SNR=6.6						
JOW				LR	LR	13 22 30.6	
	comp=Z,30μm,21.0s,baz=16,slow=44						
JIH	**Iheya**	**2.90**	**230**	P	**Pn**	**13 21 13.4**	**+1.4**
JMZ	**Minamidaito 2**	**3.18**	**167**	S	**Sn**	**13 21 47.1**	**-6.4**
JJT2	**Tamagusuku 2**	**3.68**	**221**	P	**Pn**	**13 21 23.4**	**+0.4**
JKE	**Kume jima 2**	**4.17**	**232**	P	**Pn**	**13 21 30.0**	**+0.1**
SSE	**Sheshan**	**8.31**	**287**	P	**P**	**13 22 26.3**	**-1.9**
SSE				S	**Sn**	**13 24 02.0**	**-0.2**
SSE				LR	LR		
	comp=N,23μm,22.3s						
SSE				LR	LR		
	comp=E,12μm,22.4s						
SSE				LR	LR		
	comp=Z,28μm,15.1s						
KS15	**Wonju Array Si**	**8.75**	**346**	*e*P	**P**	**13 22 35.5**	**+1.3**
INCN	**Inchon**	**9.10**	**340**	*e*P	**P**	**13 22 39.5**	**+0.4**
	comp=Z,99nm,1.3s						
MAJO	**Matsushiro**	**10.00**	**39**	*e*P	**P**	**13 22 49.2**	**-2.4**
MAJO				pmax	pmax		
	comp=Z,120nm,1.3s						
MAJO	**Matsushiro**	**10.00**	**39**	*e*P	**P**	**13 22 49.2**	**-2.4**
	comp=Z,120nm,1.3s						
MAT	**Matsushiro**	**10.00**	**39**	P	**P**	**13 22 48.3**	**-3.3**
MAT				*e*S	**Sn**	**13 24 43.0**	**-1.0**
MAT	**Matsushiro**	**10.00**	**39**	P	**P**	**13 22 52.0**	**+0.4**
MAT				*e*S	Sx	13 25 03.0	
JRY	**Ryogami san**	**10.03**	**43**	P	**P**	**13 22 50.3**	**-1.7**
NJ2	**Nanjing**	**10.47**	**290**	*e*P	**P**	**13 23 00.0**	**+2.0**
NJ2				PP	PP	13 23 08.0	+2.2
NJ2				S	**S**	**13 25 00.0**	**+4.5**
NJ2				XS		13 25 08.0	
NJ2				AMB	AMB		
	comp=Z,90nm,0.9s						
NJ2				AMB	AMB		
	comp=Z,4μm,11.8s						
NJ2				LR	LR		
	comp=Z,148μm,14.2s						
CBIJ	**Chichi jima**	**10.53**	**97**	Pn	**P**	**13 22 53.6**	**-5.2**
	comp=Z,32nm,0.3s,baz=301,slow=18,SNR=6.0						
CBIJ				LR	LR	13 26 24.5	
	comp=Z,18μm,19.1s,baz=276,slow=34						
DL2	**Dalian**	**12.34**	**326**	P	**P**	**13 23 25.5**	**+2.2**
DL2				AMB	AMB		
	comp=Z,100nm,1.6s						
DL2				AMB	AMB		
	comp=Z,2μm,8.8s						
DL2				LR	LR		
	comp=N,13μm,25.5s						
DL2				LR	LR		
	comp=E,15μm,20.1s						
DL2				LR	LR		
	comp=Z,34μm,13.8s						
TIA	**Tai'an**	**13.37**	**306**	P	**P**	**13 23 41.5**	**+4.6**
TIA				AMB	AMB		
	comp=Z,3μm,6.0s						
TIA				LR	LR		
	comp=N,45μm,13.0s						
TIA				LR	LR		
	comp=E,41μm,13.0s						
SNY	**Shenyang**	**14.02**	**338**	⇑P	**P**	**13 23 47.0**	**+1.5**
SNY				AMB	AMB		
	comp=Z,2μm,9.9s						
SNY				LR	LR		
	comp=N,50μm,14.5s						
SNY				LR	LR		
	comp=E,29μm,13.1s						
SNY				LR	LR		
	comp=Z,65μm,14.3s						
WHN	**Wuhan**	**14.08**	**280**	⇑P	**P**	**13 23 43.5**	**-2.9**
WHN				LR	LR		
	comp=N,7μm,10.6s						
WHN				LR	LR		
	comp=E,60μm,13.4s						
WHN				LR	LR		
	comp=Z,75μm,14.0s						
VLA	**Vladivostok**	**14.20**	**4**	⇓*i*P	**P**	**13 23 57.0**	**+9.1**
VLA				pmax	pmax		
	comp=Z,1μm,5.6s						
VLA				pmax	pmax		
	comp=N,2μm,4.0s						
CN2	**Changchun**	**15.36**	**346**	*e*P	**P**	**13 24 03.5**	**+0.4**
CN2				*e*S	**S**	**13 26 55.5**	**+2.6**
CN2				AMB	AMB		
	comp=Z,200nm,0.9s						
CN2				AMB	AMB		
	comp=Z,3μm,9.0s						
CN2				LR	LR		
	comp=N,50μm,15.0s						
CN2				LR	LR		
	comp=E,26μm,15.0s						
CN2				LR	LR		
	comp=Z,54μm,16.0s						
MDJ	**Mudanjiang**	**15.66**	**358**	P	**P**	**13 24 08.3**	**+1.4**
MDJ				PP	PP	13 24 20.5	+1.1
MDJ				S	**S**	**13 27 04.5**	**+4.7**
MDJ				AMB	AMB		
	comp=Z,26nm,1.1s						

MDJ				AMB	AMB		
	comp=Z,1µm,6.8s						
MDJ				LR	LR		
	comp=N,18µm,13.7s						
MDJ				LR	LR		
	comp=E,10µm,18.3s						
MDJ				LR	LR		
	comp=Z,20µm,15.6s						
MDJ	**Mudanjiang**	**15.66**	**358**	*e*P	**P**	**13 24 05.9**	**-1.1**
	comp=Z,36nm,1.3s						
HKC	**Hong Kong**	**16.09**	**249**	*e*P	**P**	**13 24 17.0**	**+4.4**
HKC				*e*S	**S**	**13 27 28.0**	**+18**
BJT	**Baijiatuau**	**16.13**	**317**	*e*P	**P**	**13 24 14.8**	**+1.9**
BJT				pmax	pmax		
	comp=Z,512nm,2.0s						
BJT	**Baijiatuau**	**16.13**	**317**	*e*P	**P**	**13 24 14.8**	**+1.9**
	comp=Z,512nm,2.0s						
GZH	**Guangzhou**	**16.44**	**253**	P	**P**	**13 24 15.0**	**-2.0**
GZH				S	**S**	**13 27 16.5**	**-1.4**
GZH				AMB	AMB		
	comp=Z,1µm,9.9s						
GZH				LR	LR		
	comp=N,35µm,14.3s						
GZH				LR	LR		
	comp=E,22µm,12.7s						
GZH				LR	LR		
	comp=Z,48µm,14.6s						
TIY	**Taiyuan**	**17.39**	**305**	⇑P	**P**	**13 24 31.0**	**+2.1**
TIY				LR	LR		
	comp=N,43µm,13.8s						
ASAJ	**Asahikawa**	**17.99**	**29**	P	**P**	**13 24 32.3**	**-3.9**
	comp=N,0.5nm,0.3s,baz=208,slow=11,SNR=6.1						
OTRP	**Odiongan**	**18.27**	**207**	*e*P	**P**	**13 24 40.8**	**+0.8**
ENH	**Enshi**	**18.28**	**279**	*e*P	**P**	**13 24 40.5**	**+0.5**
	comp=N,54nm,0.7s						
SJMP	**San Jose**	**18.56**	**210**	*e*P	**P**	**13 24 43.8**	**+0.3**
OCLP	**Ormoc**	**18.62**	**198**	*e*P	**P**	**13 24 45.4**	**+1.2**
SARN	**Sarigan**	**18.62**	**128**	*e*P	**P**	**13 24 44.2**	**-0.1**
XAN	**Xi’an**	**19.04**	**291**	P	**P**	**13 24 48.3**	**-0.8**
XAN				AMB	AMB		
	comp=Z,46nm,1.5s						
XAN				LR	LR		
	comp=N,13µm,14.8s						
XAN				LR	LR		
	comp=E,10µm,14.3s						
XAN				LR	LR		
	comp=Z,17µm,12.9s						
MSLP	**Maasin**	**19.43**	**197**	*e*P	**P**	**13 24 55.0**	**+1.3**
YUK	**Yuzh-Kuril’sk**	**19.46**	**35**	⇓*i*P	**P**	**13 24 53.0**	**-0.9**
YUK				pmax	pmax		
	comp=E,2µm,2.0s						
YUK				pmax	pmax		
	comp=Z,3µm,2.0s						
YUK				pmax	pmax		
	comp=N,5µm,2.7s						
YUK				MLR	MLR		
	comp=Z,18µm,19.0s						
YUK				MLR	MLR		
	comp=N,9µm,20.0s						
YUK				MLR	MLR		
	comp=E,12µm,18.0s						
HHC	**Hu-ho-hao-te**	**19.48**	**313**	*e*P	**P**	**13 24 55.0**	**+0.9**
HHC				PP	PP	13 25 12.5	+0.7
HHC				S	**S**	**13 28 28.0**	**+1.2**
HHC				PCP	PcP	13 29 15.5	+1.4
HHC				AMB	AMB		
	comp=Z,43nm,1.0s						
HHC				AMB	AMB		
	comp=Z,4µm,9.2s						
HHC				LR	LR		
	comp=N,19µm,11.9s						
HHC				LR	LR		
	comp=E,26µm,15.5s						
HHC				LR	LR		
	comp=Z,28µm,11.9s						
GUIM	**Jordan**	**19.65**	**204**	*e*P	**P**	**13 24 55.8**	**-0.4**
CUYO	**Cuyo Island**	**20.04**	**208**	*e*P	**P**	**13 25 00.2**	**-0.3**
TBP	**Tagbilaran**	**20.12**	**199**	⇓*e*P	**P**	**13 25 01.2**	**-0.1**
KLR	**Kul’dur**	**20.29**	**2**	*e*P	**P**	**13 24 58.0**	**-4.7**
KLR				pmax	pmax		
	comp=Z,1µm,15.0s						
KLR				MLR	MLR		
	comp=N,7µm,13.0s						
KLR				MLR	MLR		
	comp=Z,11µm,13.0s,MS5.4						
GUMO	**Guam**	**20.31**	**136**	*e*P	**P**	**13 25 00.6**	**-2.6**
GUMO				pmax	pmax		
	comp=Z,655nm,1.3s						
GUMO				MLR	MLR		
	comp=Z,10µm,19.0s,MS5.2						
GUMO	**Guam**	**20.31**	**136**	*e*P	**P**	**13 25 00.6**	**-2.6**
	comp=Z,655nm,1.3s						
GUMO				LR	LR		
	comp=Z,10µm,19.0s,MS5.2						
BTO	**Baotou**	**20.37**	**310**	*e*P	**P**	**13 25 01.0**	**-2.7**
BTO				AMB	AMB		
	comp=Z,43nm,1.8s						
BTO				LR	LR		
	comp=N,6µm,11.4s,MS5.6						
BTO				LR	LR		
	comp=E,16µm,13.9s,MS5.6						
BUTP	**Butuan**	**20.38**	**194**	*e*P	**P**	**13 25 03.2**	**-0.7**
YSS	**Yuzh-Sakhalins**	**20.39**	**25**	*i* P	**P**	**13 25 01.6**	**-2.2**
YSS				pmax	pmax		
	comp=Z,217nm,1.4s						
YSS				MLR	MLR		
	comp=Z,11µm,17.0s,MS5.3						
YSS	**Yuzh-Sakhalins**	**20.39**	**25**	*e*P	**P**	**13 25 01.4**	**-2.4**
	comp=Z,283nm,1.4s						
YSS				LR	LR		
	comp=Z,14µm,21.0s,MS5.3						
ENPP	**El Nido**	**20.43**	**213**	*e*P	**P**	**13 25 05.0**	**+0.5**
GYA	**Guiyang**	**21.20**	**269**	⇑*i*P	**P**	**13 25 12.8**	**+0.5**
GYA				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.3						
GYA				LR	LR		
	comp=N,29µm,18.9s,MS5.9						
GYA				LR	LR		
	comp=E,33µm,17.7s,MS5.9						
GYA				LR	LR		
	comp=Z,46µm,15.9s,MS6.0						
QIZ	**Qiongzhong**	**21.23**	**247**	P	**P**	**13 25 13.5**	**+0.9**
QIZ				*e*S	**S**	**13 29 03.3**	**+1.1**
QIZ				SS	SS	13 29 34.5	-1.8
QIZ				LR	LR		
	comp=N,28µm,21.1s						
QIZ				LR	LR		
	comp=Z,34µm,22.3s,MS5.7						
QIZ	**Qiongzhong**	**21.23**	**247**	*e*P	**P**	**13 25 13.1**	**+0.5**
	comp=Z,468nm,2.0s,mb5.5						
QIZ				LR	LR		
	comp=Z,37µm,21.0s,MS5.8						
BUKP	**Musuan**	**21.56**	**195**	*e*P	**P**	**13 25 15.7**	**-0.3**
HIA	**Hailar**	**21.89**	**341**	*e*P	**P**	**13 25 17.7**	**-1.4**
	comp=Z,7.2nm,0.8s						
HIA				LR	LR		
	comp=Z,17µm,20.0s						
PAGZ	**Pagadian**	**22.01**	**199**	*e*P	**P**	**13 25 18.8**	**-1.7**
MATI	**Mati**	**22.23**	**191**	*e*P	**P**	**13 25 22.1**	**-0.6**
DAV	**Davao City (W)**	**22.23**	**193**	*e*P	**P**	**13 25 26.0**	**+3.3**
IPIL	**Ipil**	**22.31**	**201**	*e*P	**P**	**13 25 28.9**	**+5.4**
CD2	**Chengdu**	**23.20**	**281**	P	**P**	**13 25 32.5**	**+0.4**
CD2				PP	PP	13 26 03.5	+0.4
CD2				S	**S**	**13 29 41.5**	**+3.4**
CD2				AMB	AMB		
	comp=Z,130nm,1.0s,mb5.3						
CD2				LR	LR		
	comp=N,41µm,13.2s						
CD2				LR	LR		
	comp=Z,37µm,13.8s,MS6.0						
BATP	**Bataraza**	**23.30**	**213**	*e*P	**P**	**13 25 35.2**	**+2.0**
LZH	**Lanzhou**	**23.50**	**295**	⇑P	**P**	**13 25 35.0**	**+0.1**
LZH				PP	PP	13 26 10.0	+2.9
LZH				S	**S**	**13 29 46.0**	**+2.8**
LZH				AMB	AMB		
	comp=Z,303nm,1.6s,mb5.5						
LZH				AMB	AMB		
	comp=Z,2µm,4.0s						
LZH				LR	LR		
	comp=E,19µm,12.5s						
LZH				LR	LR		
	comp=Z,24µm,14.2s,MS5.8						
KMI	**Kunming**	**24.95**	**268**	⇑P	**P**	**13 25 49.5**	**+0.4**
KMI				PP	PP	13 26 31.8	+5.1
KMI				PPP	PPP	13 26 41.8	+4.2
KMI				S	**S**	**13 30 13.0**	**+4.8**
KMI				AMB	AMB		
	comp=Z,91nm,1.1s,mb5.2						
KMI				AMB	AMB		
	comp=Z,717nm,4.0s						
KMI				LR	LR		
	comp=N,21µm,19.8s,MS5.8						
KMI				LR	LR		
	comp=E,19µm,15.0s,MS5.8						
KMI				LR	LR		
	comp=Z,24µm,16.6s,MS5.8						
ULN	**Ulaanbaatar**	**26.16**	**323**	*e*P	**P**	**13 25 58.4**	**-1.8**
ULN				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.5						
ULN				MLR	MLR		
	comp=Z,21µm,20.0s,MS5.7						
ULN	**Ulaanbaatar**	**26.16**	**323**	*e*P	**P**	**13 25 58.4**	**-1.8**
	comp=Z,16nm,1.0s,mb4.5						
ULN				LR	LR		
	comp=Z,21µm,20.0s,MS5.7						
SONM	**Songino Array**	**26.49**	**322**	P	**P**	**13 26 00.8**	**-2.4**
	comp=Z,3.8nm,0.6s,baz=142,slow=8.8,SNR=15						
SONM				ScP		13 33 07.2	
	comp=Z,1.3nm,0.9s,baz=180,slow=3.7,SNR=4.0						
SONM				LR	LR	13 37 58.5	
	comp=Z,17µm,20.8s,baz=119,slow=40						
GTA	**Gaotai**	**27.30**	**301**	P	**P**	**13 26 10.3**	**-0.4**
GTA				PP	PP	13 26 59.0	+1.0
GTA				S	**S**	**13 30 49.0**	**+2.3**
GTA				AMB	AMB		
	comp=Z,754nm,10.3s						
GTA				LR	LR		
	comp=N,21µm,14.1s,MS6.0						
GTA				LR	LR		
	comp=E,24µm,17.1s,MS6.0						
GTA				LR	LR		
	comp=Z,35µm,16.7s,MS6.0						
CLNS	**Chul’man**	**28.16**	**354**	*e*P	**P**	**13 26 13.8**	**-4.5**
CLNS				*e**PP	pP	13 26 19.8	-6.4
CLNS				*e*PPP	PPP	13 27 04.7	-16
CLNS				*e*		13 29 29.2	
CLNS				*e*S	**S**	**13 30 53.5**	**-7.0**
CLNS				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.5						
CLNS				pmax	pmax		
	comp=N,16nm,1.0s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.9s						
CLNS				smax			
	comp=N,2µm,16.3s						
CLNS				smax			
	comp=Z,1µm,16.8s						
CLNS				smax			
	comp=E,50nm,12.1s						
CLNS				MLR	MLR		
	comp=N,9µm,12.0s,MS5.6						
CLNS				MLR	MLR		
	comp=E,2µm,12.0s,MS5.6						
CLNS				MLR	MLR		
	comp=Z,12µm,12.0s,MS5.7						
SKR	**Severo-Kuril’s**	**29.07**	**35**	*e*P	**P**	**13 26 18.0**	**-8.6**
SKR				*e*		13 31 04.0	
SKR				MLR	MLR		
	comp=N,6µm,18.0s,MS5.5						
SKR				MLR	MLR		
	comp=E,8µm,18.0s,MS5.5						
SKR				MLR	MLR		
	comp=Z,8µm,18.0s,MS5.4						
ZAK	**Zakamensk**	**29.65**	**324**	*e*P	**P**	**13 26 29.8**	**-2.1**
ZAK				*e*		13 27 23.0	
TLY	**Talaya**	**30.26**	**326**	*e*P	**P**	**13 26 36.0**	**-1.2**
TLY				*e*		13 27 48.3	
TLY				pmax	pmax		
	comp=Z,30nm,1.7s,mb4.8						
TLY				MLR	MLR		
	comp=Z,16µm,16.0s,MS5.8						
TLY	**Talaya**	**30.26**	**326**	*e*P	**P**	**13 26 35.5**	**-1.7**
	comp=Z,125nm,1.9s,mb5.3						
TLY				LR	LR		
	comp=Z,4µm,20.0s,MS5.0						
IRK	**Irkutsk**	**30.31**	**327**	*e*P	**P**	**13 26 36.2**	**-1.4**
CM31	**Chiang Mai Arr**	**30.59**	**257**	*e*P	**P**	**13 26 35.0**	**-5.5**
	comp=Z,1.4nm,0.4s						
CM31				LR	LR		
	comp=Z,15µm,20.0s						
CMAR	**Chiang Mai Arr**	**30.59**	**257**	P	**P**	**13 26 38.8**	**-1.7**
	comp=Z,2.0nm,0.7s,baz=55,slow=8.0,SNR=11						
BOD	**Bodaibo**	**31.07**	**343**	*e*P	**P**	**13 26 41.9**	**-2.4**
MOY	**Mondy**	**31.57**	**324**	*e*P	**P**	**13 26 52.2**	**+3.4**
PET	**Petropavlovsk**	**31.76**	**33**	*e*P	**P**	**13 26 50.3**	**-0.1**
PET				*e*S	**S**	**13 31 57.8**	**+0.3**
PET				pmax	pmax		
	comp=Z,84nm,1.7s,mb5.3						
PET				pmax	pmax		
	comp=Z,700nm,21.9s						
PET				smax			
	comp=N,2µm,14.2s						
PET				MLR	MLR		
	comp=Z,12µm,24.0s,MS5.5						
PET				MLR	MLR		
	comp=Z,6µm,21.2s						
PET	**Petropavlovsk**	**31.76**	**33**	*i* P	**P**	**13 26 49.1**	**-1.3**
PET				LR	LR		
	comp=Z,6µm,19.0s,MS5.3						
YAK	**Yakutsk**	**33.10**	**359**	*e*P	**P**	**13 26 59.2**	**-2.8**
YAK				*e*S	**S**	**13 32 17.3**	**-1.0**
YAK				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
YAK				pmax	pmax		
	comp=N,11nm,1.2s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.1s						
YAK				smax			
	comp=N,1µm,18.7s						
YAK				smax			
	comp=E,236nm,11.2s						
YAK				MLR	MLR		
	comp=Z,4µm,14.0s,MS5.3						
YAK				MLR	MLR		
	comp=N,3µm,15.0s,MS5.2						
YAK				MLR	MLR		
	comp=E,1µm,12.0s,MS5.2						
YAK	**Yakutsk**	**33.10**	**359**	*e*P	**P**	**13 26 59.5**	**-2.4**
	comp=E,39nm,0.8s,mb5.4						
YAK				LR	LR		
	comp=Z,7µm,19.0s,MS5.4						
MA2	**Magadan**	**33.62**	**19**	*i* P	**P**	**13 27 05.3**	**-1.2**
MA2				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.0						
LSA	**Lhasa**	**34.16**	**281**	*e*P	**P**	**13 27 12.0**	**+0.5**
LSA				pmax	pmax		
	comp=Z,25nm,1.3s,mb5.0						
LSA				MLR	MLR		
	comp=Z,14µm,20.0s,MS5.7						
LSA	**Lhasa**	**34.16**	**281**	*e*P	**P**	**13 27 12.0**	**+0.5**
	comp=Z,25nm,1.3s,mb5.0						
LSA				LR	LR		
	comp=Z,14µm,20.0s,MS5.7						
WAKE	**Wake Island**	**34.30**	**98**	PFAKE		13 27 20.0	+7.2
WAKE				LR	LR		
	comp=Z,82µm,22.0s,MS6.4						
SHL	**Shillong**	**34.35**	**274**	⇑*i*P	**P**	**13 27 12.0**	**-1.2**
	comp=Z,115nm,1.0s,mb5.8						
SHL				*e*		13 31 54.0	
AGT	**Agartala**	**35.36**	**271**	*e*P	**P**	**13 27 21.0**	**-0.8**
SEY	**Seymchan**	**36.87**	**17**	*e*P	**P**	**13 27 32.6**	**-1.5**
SEY						13 29 01.2	
SEY						13 29 54.9	
SEY				*e*S	**S**	**13 33 12.3**	**-4.2**
SEY				*e*		13 37 37.9	
SEY				pmax	pmax		
	comp=N,60nm,1.3s						
SEY				pmax	pmax		
	comp=Z,190nm,1.3s,mb5.8						
SEY				pmax	pmax		
	comp=E,30nm,1.4s						
SEY				smax			
	comp=N,4µm,21.8s						
SEY				smax			
	comp=E,6µm,23.2s						
WMQ	**Urumqi**	**37.06**	**305**	⇓P	**P**	**13 27 35.8**	**-0.2**
WMQ				PP	PP	13 29 02.5	-0.3
WMQ				S	**S**	**13 33 20.5**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.6						
WMQ				AMB	AMB		
	comp=Z,341nm,9.6s						
WMQ				LR	LR		
	comp=N,9µm,20.2s,MS5.6						
WMQ				LR	LR		
	comp=E,5µm,19.0s,MS5.6						
WMQ				LR	LR		
	comp=Z,7µm,21.4s,MS5.4						
GUN	**Gumba**	**39.04**	**280**	*e*P	**P**	**13 27 52.0**	**-0.7**
	comp=Z,287nm,0.8s,mb6.0						
PKI	**Pulchoki**	**39.52**	**279**	*e*P	**P**	**13 27 56.4**	**-0.3**
	comp=Z,191nm,0.9s,mb5.8						
KKN	**Kakani**	**39.58**	**280**	*e*P	**P**	**13 27 57.1**	**-0.1**
	comp=Z,162nm,0.8s,mb5.8						
DMN	**Daman**	**39.77**	**279**	*e*P	**P**	**13 27 58.2**	**-0.6**
	comp=Z,550nm,1.5s,mb6.1						
SMY	**Shemya**	**39.84**	**41**	PFAKE		13 28 10.0	+11
SMY				LR	LR		
	comp=Z,4µm,21.0s,MS5.3						
GKN	**Gorkha**	**40.09**	**280**	*e*P	**P**	**13 28 01.2**	**-0.2**
	comp=Z,365nm,1.4s,mb5.9						
KOLN	**Koldanda**	**41.04**	**280**	*e*P	**P**	**13 28 08.8**	**-0.4**
	comp=Z,160nm,1.3s,mb5.5						
MK02	**Makanchi Array**	**41.26**	**309**	P	**P**	**13 28 09.6**	**-1.3**
MK02				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
ZAL	**Zalesovo**	**41.37**	**320**	P	**P**	**13 28 10.4**	**-1.2**
	comp=Z,2.8nm,0.8s,baz=280,slow=7.7,SNR=20						
PMG	**Port Moresby**	**41.39**	**155**	P	**P**	**13 28 11.4**	**-0.8**
PMG				pmax	pmax		
	comp=Z,48nm,1.4s						
PMG	**Port Moresby**	**41.39**	**155**	LR	LR	13 43 13.1	
	comp=Z,6µm,20.0s,MS5.5,baz=131,slow=33						
PMG	**Port Moresby**	**41.39**	**155**	*e*P	**P**	**13 28 11.3**	**-0.9**
	comp=Z,48nm,1.4s,mb4.9						
PMG				LR	LR		
	comp=Z,3µm,21.0s,MS5.2						
NVS	**Novosibirsk**	**42.52**	**321**	*i* P	**P**	**13 28 18.6**	**-2.4**
NVS				*e*		13 38 15.4	
NVS				pmax	pmax		
	comp=Z,115nm,2.6s,mb5.2						
NVS				pmax	pmax		
	comp=N,24nm,1.7s						
NVS				pmax	pmax		
	comp=E,88nm,2.4s						
TIXI	**Tiksi**	**42.77**	**359**	*e*P	**P**	**13 28 22.1**	**-0.7**
TIXI				*e*S	**S**	**13 34 43.2**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,65nm,1.7s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,8µm,14.0s,MS5.8						
TIXI	**Tiksi**	**42.77**	**359**	⇑*i*P	**P**	**13 28 21.1**	**-1.7**
TIXI				LR	LR		
	comp=Z,9µm,19.0s,MS5.7						
PTH	**Pithoragarh**	**43.55**	**284**	*e*P	**P**	**13 28 28.1**	**-1.7**
PTH				*e*S	**S**	**13 34 55.1**	**-1.6**
VIS	**Vishakhapatnam**	**44.43**	**266**	*e*P	**P**	**13 28 34.3**	**-2.8**
VIS				*e*		13 32 01.8	
BILL	**Bilibino**	**44.49**	**18**	*i* P	**P**	**13 28 36.6**	**-0.3**
BILL				MLR	MLR		
	comp=Z,7µm,22.0s,MS5.5						
DDI	**Dehra Dun**	**45.23**	**285**	*e*P	**P**	**13 28 41.9**	**-1.4**
MIDW	**Midway**	**45.52**	**78**	PFAKE		13 29 00.0	+14
MIDW				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
KSH	**Kashi**	**45.65**	**298**	*i* P	**P**	**13 28 47.8**	**+1.3**
KSH				PCP	PcP	13 30 21.3	-3.6
KSH				S	**S**	**13 35 15.8**	**-11**
KSH				AMB	AMB		
	comp=Z,360nm,7.4s						
KSH				LR	LR		
	comp=N,7µm,14.9s,MS6.0						
KSH				LR	LR		
	comp=E,11µm,17.6s,MS6.0						
TKM2	**Tokmak 2**	**45.79**	**303**	P	**P**	**13 28 47.8**	**+0.2**
	SNR=17						
KZA	**Kyzart**	**46.07**	**302**	P	**P**	**13 28 50.5**	**+0.7**
	SNR=14						
KBK	**Karagaybulak**	**46.27**	**303**	P	**P**	**13 28 50.3**	**-1.0**
	SNR=8.1						
NDI	**New Delhi**	**46.30**	**283**	⇑*i*P	**P**	**13 28 49.0**	**-2.8**
	comp=E,83nm,0.9s,mb5.7						
NDI				*e*		13 32 09.0	
CHMS	**Chumysh**	**46.41**	**303**	P	**P**	**13 28 51.9**	**-0.6**
	SNR=11						
FRU	**Bishkek**	**46.51**	**303**	*e*P	**P**	**13 28 53.5**	**+0.3**
FRU				pmax	pmax		
	comp=Z,70nm,2.0s,mb5.2						
USP	**Ospenovka**	**46.59**	**304**	P	**P**	**13 28 51.2**	**-2.7**
	SNR=9.5						
AAK	**Ala-Archa**	**46.61**	**303**	P	**P**	**13 28 54.9**	**+0.9**
	SNR=5.6						
AAK	**Ala-Archa**	**46.61**	**303**	*i* P	**P**	**13 28 52.5**	**-1.5**
AAK				LR	LR		
	comp=Z,2µm,19.0s,MS5.0						
UCH	**Uchtor**	**46.61**	**302**	P	**P**	**13 28 54.8**	**+0.7**
	SNR=21						
THN	**Thein Dam**	**46.77**	**289**	*e*P	**P**	**13 28 53.1**	**-2.3**
	comp=Z,13nm,0.8s,mb4.9						
EKS2	**Erkin-Say**	**47.14**	**303**	P	**P**	**13 28 57.6**	**-0.6**
	SNR=6.3						
AML	**Almayashu**	**47.22**	**302**	P	**P**	**13 28 59.1**	**+0.2**
	SNR=8.3						
HYB	**Hyderabad**	**48.73**	**268**	*i* P	**P**	**13 29 11.0**	**+0.1**
HYB				*e*S	**S**	**13 36 28.0**	**+17**
WRAB	**Tennant Creek**	**48.73**	**175**	P	**P**	**13 29 09.8**	**-1.1**
WRAB				pmax	pmax		
	comp=Z,230nm,1.5s,mb6.0						
WRAB	**Tennant Creek**	**48.73**	**175**	*e*P	**P**	**13 29 08.7**	**-2.2**
	comp=Z,232nm,1.5s,mb6.0						
WRAB				LR	LR		
	comp=Z,850nm,19.0s,MS4.8						
WRA	**Warramunga Arr**	**48.74**	**175**	P	**P**	**13 29 09.3**	**-1.6**
	comp=Z,26nm,1.0s,mb5.2,baz=353,slow=7.9,SNR=59						
CHKZ	**Chkalovo**	**49.54**	**317**	*i* P	**P**	**13 29 15.2**	**-1.5**
CHKZ				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.2						
CHKZ	**Chkalovo**	**49.54**	**317**	*e*P	**P**	**13 29 15.1**	**-1.6**
	comp=Z,45nm,1.4s,mb5.3						
BVA0	**Borovoye Array**	**49.62**	**317**	*i* P	**P**	**13 29 16.2**	**-1.1**
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
BVAR	**Borovoye Array**	**49.62**	**317**	P	**P**	**13 29 16.6**	**-0.7**
	comp=Z,40nm,0.9s,mb5.4,baz=94,slow=9.8,SNR=45						
BRVK	**Borovoye**	**49.68**	**317**	*e*P	**P**	**13 29 16.6**	**-1.2**
BRVK				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.7						
BRVK	**Borovoye**	**49.68**	**317**	*e*P	**P**	**13 29 16.3**	**-1.5**
	comp=Z,74nm,0.9s,mb5.7						
BRVK				LR	LR		
	comp=Z,3µm,22.0s,MS5.2						
MBWA	**Marble Bar**	**50.87**	**193**	P	**P**	**13 29 25.5**	**-1.8**
MBWA				LR	LR		
	comp=Z,2µm,21.0s,MS5.1						
CTA	**Charters Tower**	**51.07**	**161**	P	**P**	**13 29 27.5**	**-1.3**
	comp=Z,20nm,1.1s,mb4.9,baz=356,slow=8.4,SNR=7.0						
CTA				LR	LR	13 51 30.9	
	comp=Z,3µm,18.8s,MS5.4,baz=336,slow=37						
CTAO	**Charters Tower**	**51.07**	**161**	P	**P**	**13 29 27.8**	**-1.0**
CTAO				pmax	pmax		
	comp=Z,63nm,1.4s,mb5.3						
CTAO	**Charters Tower**	**51.07**	**161**	*e*P	**P**	**13 29 26.8**	**-2.0**
	comp=Z,12nm,0.8s,mb4.9						
CTAO				LR	LR		
	comp=Z,3µm,19.0s,MS5.4						
UNV	**Unalaska Valle**	**51.45**	**42**	PFAKE		13 29 40.0	+8.8
UNV				LR	LR		
	comp=Z,6µm,21.0s,MS5.6						
PALK	**Pallekele**	**51.51**	**255**	PFAKE		13 29 40.0	+7.8
PALK				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
ASAR	**Alice Springs**	**52.41**	**176**	P	**P**	**13 29 37.6**	**-1.2**
	comp=Z,23nm,1.1s,mb5.0,baz=352,slow=5.7,SNR=49						
ASAR				LR	LR	13 50 58.2	
	comp=Z,1µm,19.4s,MS4.9,baz=356,slow=35						
POO	**Poona**	**52.42**	**272**	*e*P	**P**	**13 29 38.0**	**-1.0**
SVE	**Sverdlovsk**	**55.36**	**321**	*e*P	**P**	**13 30 00.0**	**-0.1**
SVE				*e*		13 32 10.0	
SVE				*e*		13 33 12.0	
SVE				*e*S	**S**	**13 37 43.0**	**+2.1**
SVE				*e*		13 39 43.0	
SVE				pmax	pmax		
	comp=Z,220nm,2.3s,mb5.8						
SVE				MLR	MLR		
	comp=Z,42µm,15.0s,MS6.6						
ARU	**Arti**	**56.52**	**321**	⇑*i*P	**P**	**13 30 06.5**	**-2.0**
ARU				*i*		13 31 05.5	
ARU				*e*		13 32 13.8	

ARU				ePPP	PPP	13 33 30.3	-3.4
ARU				eS	S	13 37 57.5	+1.2
ARU				e		13 39 52.4	
ARU				eSSS	SSS	13 43 43.6	-12
ARU				pmax	pmax		
	comp=Z,55nm,1.0s,mb5.5						
ARU				MLR	MLR		
	comp=E,12µm,16.0s,MS6.1						
ARU				MLR	MLR		
	comp=Z,15µm,16.0s,MS6.2						
ARU				MLR	MLR		
	comp=N,2µm,14.0s,MS6.1						
ARU	Arti	56.52	321	eP	P	13 30 07.0	-1.4
	comp=N,71nm,1.1s,mb5.6						
ARU				LR	LR		
	comp=Z,2µm,21.0s,MS5.2						
SOKR	Solikamsk	57.32	325	⇓iP	P	13 30 12.4	-1.7
SOKR				iS	S	13 37 57.8	-9.1
SOKR				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.7						
SOKR				MLR	MLR		
	comp=Z,6µm,18.0s,MS5.8						
IMA	Indian Mountai	58.21	28	P	P	13 30 20.2	-0.1
IMA				pmax	pmax		
	comp=Z,470nm,1.8s,mb6.2						
IMA	Indian Mountai	58.21	28	eP	P	13 30 19.8	-0.5
	comp=Z,473nm,1.8s,mb6.2						
RSO	Redoubt South	58.85	34	eP	P	13 30 23.6	-1.1
SPU	Mount Spurr	59.13	33	eP	P	13 30 26.3	-0.5
KDAK	Kodiak Island	59.18	37	PFAKE		13 30 40.0	+13
KDAK				LR	LR		
	comp=Z,788nm,22.0s,MS4.8						
FIB	Fire Island	60.04	33	PFAKE		13 30 40.0	+7.0
FIB				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
MCK	McKinley	60.35	30	P	P	13 30 34.0	-1.1
MCK				pmax	pmax		
	comp=Z,70nm,1.3s,mb5.5						
MCK	McKinley	60.35	30	eP	P	13 30 33.5	-1.6
	comp=Z,70nm,1.3s,mb5.5						
MCK				LR	LR		
	comp=Z,2µm,22.0s,MS5.2						
COLA	College	60.70	29	iP	P	13 30 36.6	-0.9
COLA				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
SML	Sawmill	60.84	33	P	P	13 30 37.7	-0.7
SML	Sawmill	60.84	33	eP	P	13 30 35.9	-2.5
ILAR	Eielson Array	61.12	29	P	P	13 30 38.2	-2.1
	comp=Z,7.7nm,1.0s,mb4.8,baz=270,slow=4.4,SNR=31						
ILAR				LR	LR	14 01 00.2	
	comp=Z,1µm,18.9s,MS5.1,baz=300,slow=40						
STKA	Stephens Creek	61.40	169	P	P	13 30 40.5	-2.2
	comp=Z,10nm,1.0s,mb4.9,baz=342,slow=6.8,SNR=12						
STKA				LR	LR	13 57 31.4	
	comp=Z,2µm,19.0s,MS5.2,baz=344,slow=36						
STKA	Stephens Creek	61.40	169	eP	P	13 30 40.6	-2.1
DIV	Divide	62.16	33	eP	P	13 30 46.5	-0.9
DIV				LR	LR		
	comp=Z,7µm,19.0s,MS5.9						
NWAO	Narrogin (SRO)	62.79	192	PFAKE		13 31 00.0	+8.1
NWAO				LR	LR		
	comp=Z,899nm,20.0s,MS4.9						
PECR	Pechory	64.49	322	eP	P	13 31 00.0	-2.7
PECR				eS	S	13 39 27.3	-11
PECR				smax			
	comp=N,19µm,10.0s						
PECR				MLR	MLR		
	comp=Z,22µm,16.0s,MS6.4						
PECR				MLR	MLR		
	comp=N,6µm,15.0s,MS6.3						
PECR				MLR	MLR		
	comp=E,14µm,15.0s,MS6.3						
INK	Inuvik	65.63	24	P	P	13 31 08.7	-1.2
	comp=E,18nm,1.1s,mb5.0,baz=310,slow=14,SNR=19						
APA	Apatity	66.22	335	⇑iP	P	13 31 13.1	-0.5
APA				i	pP	13 31 22.1	+0.1
APA				eS	S	13 40 00.0	+0.7
APA				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
DGAR	Diego Garcia	66.48	247	PFAKE		13 31 30.0	+14
DGAR				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
POHA	Pohakuloa	67.10	79	PFAKE		13 31 30.0	+10
POHA				LR	LR		
	comp=Z,1.0nm,20.0s						
MOS	Moscow	68.12	323	eP	P	13 31 24.2	-1.7
MOS				i		13 31 35.4	
MOS				i		13 31 51.9	
MOS				pmax	pmax		
	comp=Z,83nm,1.1s,mb5.7						
MOS				MLR	MLR		
	comp=Z,18µm,16.9s,MS6.4						
MOS				MLR	MLR		
	comp=N,12µm,19.0s,MS6.3						
MOS				MLR	MLR		
	comp=E,14µm,16.8s,MS6.3						
ARCES	ARCESS Array B	68.21	339	P	P	13 31 24.6	-1.7
	comp=E,9.6nm,0.9s,mb4.8,baz=54,slow=10,SNR=7.2						
ARCES				LR	LR	14 08 20.5	
	comp=E,7µm,18.5s,MS6.0,baz=51,slow=42						
TI2	Plekhanov	68.38	307	iP	P	13 31 27.2	-0.5
TI2				MLR	MLR		
	comp=N,2µm,14.0s,MS5.8						
TI2				MLR	MLR		
	comp=E,3µm,14.0s,MS5.8						
TI2				MLR	MLR		
	comp=Z,14µm,14.0s,MS6.4						
SIT	Sitka	68.41	36	PFAKE		13 31 40.0	+12
SIT				LR	LR		
	comp=Z,3µm,20.0s,MS5.5						
GOF	Gofitskoye	68.43	310	⇓iP	P	13 31 28.0	0.0
GOF				pmax	pmax		
	comp=Z,120nm,1.3s,mb5.8						
VOR	Voronezh	68.59	318	eP	P	13 31 28.0	-0.8
VOR				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
VRSR	Storozhevoye	68.77	318	eP	P	13 31 29.4	-0.5
VRSR				e*PP	pP	13 31 36.9	-1.5
VRSR				e		13 31 54.8	
VRSR				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
VRSR				pmax	pmax		
	comp=N,6.0nm,0.4s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.5s						
VRSR				MLR	MLR		
	comp=N,4µm,16.0s,MS6.1						
VRSR				MLR	MLR		
	comp=Z,9µm,16.0s,MS6.1						
VRSR				MLR	MLR		
	comp=E,7µm,14.0s,MS6.1						
OBN	Obninsk	68.91	322	αiP	P	13 31 29.3	-1.4
OBN				e		13 31 43.4	
OBN				i		13 32 00.3	
OBN				eS	S	13 40 30.5	-1.2
OBN				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.3						
OBN				MLR	MLR		
	comp=Z,12µm,18.0s,MS6.2						
OBN	Obninsk	68.91	322	iP	P	13 31 29.4	-1.3
OBN				LR	LR		
	comp=Z,12µm,18.0s,MS6.2						
GNI	Garni	68.93	305	c iP	P	13 31 31.8	+0.6
GNI				pmax	pmax		
	comp=Z,85nm,1.5s						
GNI	Garni	68.93	305	P	P	13 31 31.8	+0.6
	comp=Z,12nm,0.8s,mb4.9,baz=45,slow=5.7,SNR=15						
GNI				LR	LR	14 07 06.3	
	comp=Z,3µm,18.4s,MS5.5,baz=189,slow=41						
GNI	Garni	68.93	305	⇑iP	P	13 31 31.9	+0.7
GNI				LR	LR		
	comp=Z,3µm,19.0s,MS5.5						
KIV	Kislovodsk	69.04	309	P	P	13 31 32.3	+0.5
	comp=Z,531nm,1.1s,mb6.4,SNR=21						
KIV	Kislovodsk	69.04	309	c iP	P	13 31 31.7	-0.1
KIV				e		13 31 55.3	
KIV				e		13 34 03.7	
KIV				eS	S	13 40 34.4	+0.8
KIV				pmax	pmax		
	comp=N,101nm,1.3s						
KIV				pmax	pmax		
	comp=Z,140nm,1.3s,mb5.7						
KIV				MLR	MLR		
	comp=N,4µm,18.0s						
KIV				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.5						
KIV	Kislovodsk	69.04	309	⇑iP	P	13 31 31.9	+0.1
KIV				LR	LR		
	comp=Z,873nm,22.0s,MS5.0						
AFI	Afiamalu	70.19	119	PFAKE		13 31 50.0	+11
AFI				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
QRN	Al-Qurain	70.71	293	eP	P	13 31 43.2	+1.0
RDF	Al-Radifah	70.94	293	eP	P	13 31 44.0	+0.5
RDF				AMb	AMB	13 31 47.5	
	comp=Z,55nm,0.9s,mb5.5						
KAF	Kangasniemi	71.09	331	ep	P	13 31 41.9	-2.0
	comp=Z,3.1nm,0.6s,mb4.4						
KAF	Kangasniemi	71.09	331	eP	P	13 31 41.9	-2.0
KAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
RST	Umm Al-Ruwaisa	71.16	294	eP	P	13 31 44.9	0.0
RST				AMb	AMB	13 31 45.8	
	comp=Z,46nm,0.9s,mb5.4						
SOC	Sochi	71.18	310	⇑iP	P	13 31 43.1	-1.7
SOC				e		13 32 05.3	
SOC				ePPP	PPP	13 36 03.8	-2.1
SOC				eS	S	13 40 57.8	-0.9
SOC				pmax	pmax		
	comp=Z,107nm,1.4s,mb5.6						
SOC				pmax	pmax		
	comp=N,17nm,0.8s						
SOC				pmax	pmax		
	comp=E,26nm,1.1s						
FINES	FINESS Array B	71.48	331	P	P	13 31 45.1	-1.2
	comp=E,2.9nm,0.3s,mb4.6,baz=67,slow=6.3,SNR=43						
FINES				LR	LR	14 08 18.6	
	comp=E,4µm,19.0s,MS5.7,baz=65,slow=40						
ANN	Anapa	72.23	312	c iP	P	13 31 49.0	-2.0
ANN				eS	S	13 41 12.1	+1.5
ANN				i		13 41 53.0	
ANN				eSS	SS	13 45 49.5	-1.0
ANN				pmax	pmax		
	comp=Z,198nm,1.6s,mb5.8						
BEST	Besiri	72.28	304	iP	P	13 31 51.9	+0.4
VSU	Vasula	72.53	328	iP	P	13 31 51.5	-1.0
DAG	Danmarks Havn	72.83	353	⇓eP	P	13 31 53.2	-0.8
DAG				pmax	pmax		
	comp=Z,64nm,1.5s,mb5.3						
DAG	Danmarks Havn	72.83	353	⇓eP	P	13 31 53.2	-0.8
	comp=Z,64nm,1.5s,mb5.3						
DAG	Danmarks Havn	72.83	353	⇓iP	P	13 31 53.2	-0.8
	comp=Z,64nm,1.5s,mb5.3						
ELZG	Elazig	73.69	305	iP	P	13 32 00.1	+0.4
MNK	Minsk	73.78	324	eP	P	13 31 57.0	-2.8
MNK				MLR	MLR		
	comp=Z,13µm,15.0s,MS6.3						
MALT	Malatya	74.17	305	eP	P	13 32 03.5	+1.1
MALT				pmax	pmax		
	comp=Z,79nm,1.4s,mb5.5						
MALT	Malatya	74.17	305	eP	P	13 32 03.5	+1.1
	comp=Z,79nm,1.4s,mb5.5						
SIM	Simferopol’	74.32	313	eP	P	13 32 03.2	0.0
SIM				pmax	pmax		
	comp=Z,24nm,1.5s,mb4.9						
SIM				MLR	MLR		
	comp=Z,3µm,14.5s,MS5.8						
AKASG	Malin Array Be	74.75	320	P	P	13 32 04.3	-1.2
	comp=Z,26nm,1.0s,mb5.1,baz=53,slow=6.2,SNR=41						
MZLS	Mizel	74.85	289	P	P	13 32 06.9	+0.2
GZT	Gaziantep	75.19	305	iP	P	13 32 09.1	+0.7
YKA	Yellowknife Ar	75.24	26	P	P	13 32 07.2	-1.0
	comp=Z,8.4nm,0.9s,mb4.7,baz=298,slow=5.6,SNR=52						
BOYT	Boyabat	75.31	309	iP	P	13 32 09.7	+0.7
KAHT	Ahir Dag	75.57	305	iP	P	13 32 11.8	+1.3
RAO	Raoul Island	76.03	135	PFAKE		13 32 20.0	+6.7
RAO				LR	LR		
	comp=Z,2µm,22.0s,MS5.4						
HILS	Ha’il	76.20	294	P	P	13 32 14.9	+0.5
BALT	Daday	76.29	310	iP	P	13 32 15.6	+1.1
SUW	Suwalki	76.41	325	eP	P	13 32 14.9	0.0
SUW				e	pP	13 32 24.1	+0.7
SUW				eS	S	13 41 58.8	+1.8
SUW				e		13 42 26.2	
SUW	Suwalki	76.41	325	eP	P	13 32 14.9	0.0
SUW				epP	pP	13 32 16.4	-7.0
SUW				ePcP	PcP	13 32 24.1	-2.8
SUW				eS	S	13 41 58.8	+1.8
SUW				eSKS	SKS	13 42 26.2	-1.0
SUW				MLR	MLR	14 09 20.5	
	comp=Z,13µm,17.5s,MS6.3						
KIS	Kishinev	76.70	316	eP	P	13 32 15.0	-1.7
KIS				e		13 32 27.0	
KIS				MLR	MLR		
	comp=N,4µm,17.0s,MS6.2						
KIS				MLR	MLR		
	comp=Z,11µm,17.0s,MS6.3						
KIS				MLR	MLR		
	comp=E,8µm,16.0s,MS6.2						
AFFS	‘Afif	76.71	290	P	P	13 32 17.7	+0.5
ELDT	Eldivan	76.72	309	iP	P	13 32 17.8	+0.9
BR131	Keskin Array S	76.92	308	PFAKE		13 32 30.0	+12
BR131				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BRTR	Keskin Array B	76.92	308	P	P	13 32 17.9	-0.1
	comp=Z,26nm,0.8s,mb5.2,baz=100,slow=3.9,SNR=62						
HFS	Hagfors	77.33	333	LR	LR	14 10 24.2	
	comp=Z,6µm,18.5s,MS5.9,baz=53,slow=39						
SGKT	Sivrigoynuk	77.62	310	iP	P	13 32 21.0	-0.9
NB2	NORSAR Subarra	77.75	334	P	P	13 32 20.9	-1.3
	comp=Z,26nm,1.2s,mb5.0,baz=51,slow=5.8						
NB2	NORSAR Subarra	77.75	334	P	P	13 32 20.9	-1.3
	baz=51,slow=5.9						
NB2	NORSAR Subarra	77.75	334	P	P	13 32 20.9	-1.3
NB2				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.0						
NOA	NORSAR Array B	77.75	334	P	P	13 32 20.3	-1.9
	comp=Z,4.3nm,0.7s,mb4.5,baz=49,slow=5.4,SNR=14						
ASF	Jabal al Asfar	77.94	300	LR	LR	14 13 47.1	
	comp=Z,3µm,19.0s,MS5.7,baz=71,slow=41						
MEST	Erdemli	77.98	305	iP	P	13 32 22.7	-1.3
TATS	Tathlith	78.25	286	P	P	13 32 26.4	+0.6
WAR	Warsaw	78.44	324	eP	P	13 32 26.3	+0.1
WAR				eS	S	13 42 22.1	+3.1
WAR				MLR	MLR		
	comp=Z,11µm,16.9s,MS6.3						
WAR	Warsaw	78.44	324	eP	P	13 32 26.3	+0.1
WAR				epP	pP	13 32 27.9	-6.9
WAR				eS	S	13 42 22.1	+3.1
WAR				MLR	MLR	14 10 32.8	
	comp=Z,11µm,16.9s,MS6.3						
SUMG	Summit	78.47	357	eP	P	13 32 26.7	+0.8
	comp=Z,33nm,0.9s,mb5.3						
VRI	Vrincioaia	78.52	316	⇓iP	P	13 32 27.7	+1.0
OCWA	Octopus Mounta	78.55	42	PFAKE		13 32 40.0	+13
OCWA				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
SCO	Scoresbysund	78.91	351	iP	P	13 32 28.9	+0.5
	comp=Z,8.6nm,0.8s,mb4.7						
ESKT	Eskisehir	78.93	309	iP	P	13 32 29.7	+0.5
KWP	Kalwaria	78.93	321	eP	P	13 32 29.4	+0.5
KWP				e	pP	13 32 36.3	-1.2
KWP				eS	S	13 42 25.3	+1.1
KWP				e		13 42 39.7	
KWP	Kalwaria	78.93	321	eP	P	13 32 29.4	+0.5
KWP				epP	pP	13 32 32.0	-5.5
KWP				ePcP	PcP	13 32 36.3	-1.6
KWP				eS	S	13 42 25.3	+1.1
KWP				eSKS	SKS	13 42 39.7	-5.7
KWP				MLR	MLR	14 10 31.2	
	comp=Z,16µm,17.3s,MS6.4						
KBRS	Khaybar	78.94	293	P	P	13 32 30.6	+1.2
KONO	Kongsberg	79.25	334	PFAKE		13 32 40.0	+10
KONO				LR	LR		
	comp=Z,5µm,20.0s,MS5.9						
CSS	Prodhromos	79.32	304	eP	P	13 32 32.1	+0.8
	comp=Z,91nm,1.5s,mb5.5						
KOLS	Kolonicke sedl	79.54	320	eP	P	13 32 33.2	+1.0
GKP	Gorka Klasztor	79.78	326	eP	P	13 32 32.2	-1.2
GKP				e	pP	13 32 40.2	-1.9
GKP				eS	S	13 42 37.4	+4.2
GKP	Gorka Klasztor	79.78	326	eP	P	13 32 32.2	-1.2
GKP				epP	pP	13 32 36.2	-5.9
GKP				ePcP	PcP	13 32 40.2	-1.3
GKP				eS	S	13 42 37.4	+4.2
GKP				eSKS	SKS	13 42 57.9	+6.4
GKP				MLR	MLR	14 11 44.3	
	comp=Z,20µm,17.0s,MS6.5						
ULDT	Uludag	79.79	310	iP	P	13 32 34.5	+0.7
BSD	Bornholm Skovb	79.81	328	iP	P	13 32 33.2	-0.4
BSD				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
BSD	Bornholm Skovb	79.81	328	iP	P	13 32 33.2	-0.4
	comp=Z,14nm,0.8s,mb5.0						
URZ	Urewera	79.82	144	LR	LR	14 03 45.9	
	comp=Z,2µm,20.9s,MS5.5,baz=9.6,slow=33						
ISP	Isparta	79.96	308	iP	P	13 32 34.9	+0.1
CRVS	Cervenica-Dubn	80.01	321	eP	P	13 32 36.2	+1.5
CRVS				e		13 32 47.4	
OJC	Ojcow	80.19	322	eP	P	13 32 36.2	+0.5
NIE	Niedzica	80.36	322	eP	P	13 32 37.1	+0.5
EIL	Elat	80.56	299	LR	LR	14 15 57.3	
	comp=Z,2µm,19.2s,MS5.5,baz=89,slow=41						
EIL	Elat	80.56	299	eP	P	13 32 38.6	+0.5
	comp=Z,137nm,1.9s,mb5.6						
COR	Corvallis	80.70	44	PFAKE		13 32 50.0	+11
COR				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
BTOK	Tokmak	80.71	310	iP	P	13 32 38.6	-0.1
KECS	Kecovo	80.78	321	eP	P	13 32 40.3	+1.5
EBG	Ellensburg	81.08	41	P	P	13 32 41.3	+0.8
OKC	Ostrava-Krasne	81.29	323	eP	P	13 32 41.8	+0.3
RPZ	Rata Peaks	81.31	151	LR	LR	14 05 40.0	
	comp=Z,1µm,18.5s,MS5.3,baz=245,slow=33						
EPH	Ephrata	81.40	40	P	P	13 32 42.3	+0.2
PSZ	Piszkesteto	81.42	320	P	P	13 32 43.2	+1.0
PSZ				pmax	pmax		
	comp=Z,89nm,1.7s,mb5.4						
PSZ	Piszkesteto	81.42	320	eP	P	13 32 43.1	+0.9
VFP	Flag Point	81.42	43	P	P	13 32 43.3	+1.0
MORC	Moravsky Berou	81.64	323	P	P	13 32 44.6	+1.3
MORC				pmax	pmax		
	comp=Z,65nm,1.7s,mb5.3						
MORC	Moravsky Berou	81.64	323	eP	P	13 32 44.0	+0.6
	comp=Z,19nm,1.2s,mb4.9						
KSP	Ksiaz	81.67	324	eP	P	13 32 44.2	+0.7
KSP				e*PP	pP	13 32 54.7	+2.6
KSP				eSS	SS	13 48 12.0	-1.7
KSP				MLR	MLR		
	comp=Z,28µm,16.0s						
KSP	Ksiaz	81.67	324	eP	P	13 32 44.2	+0.7
KSP				epP	pP	13 32 54.7	+2.6
KSP				ePP	PP	13 35 42.0	-10
KSP				eSKS	SKS	13 43 03.5	-1.4
KSP				eSS	SS	13 48 12.0	-1.7
KSP				LR	LR		
	comp=Z,28µm,16.0s						
KSP	Ksiaz	81.67	324	eP	P	13 32 43.9	+0.4
KSP				epP	pP	13 32 45.6	-6.5
KSP				eS	S	13 42 49.4	-3.4
KSP				eSKS	SKS	13 43 04.0	-0.9
KSP				MLR	MLR	14 12 54.1	
	comp=Z,24µm,16.0s,MS6.7						
VYHS	Vyhne	81.68	321	eP	P	13 32 44.2	+0.6
VYHS				e		13 32 59.5	
WAH2	Wahluke Slope	81.74	41	P	P	13 32 44.5	+0.5
OD2	Odessa Site #2	81.88	40	P	P	13 32 44.9	+0.3
RUE	Ruedersdorf	81.94	326	eP	P	13 32 45.7	+0.9
DPC	Dobruska-Polom	81.95	324	eP	P	13 32 45.9	+1.0
DPC				AMS	AMS	14 12 40.0	
	comp=Z,15µm,16.0s						
HUMO	Hull Mountain	81.96	46	eP	P	13 32 45.7	+0.5
HUMO				LR	LR		
	comp=Z,914nm,21.0s,MS5.1						
UPC	Upice	82.01	324	eP	P	13 32 45.8	+0.6
NEW	Newport	82.26	39	PFAKE		13 33 00.0	+13
NEW				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
YBH	Yreka Blue Hor	82.58	46	P	P	13 32 48.7	+0.3
YBH				pmax	pmax		
	comp=Z,74nm,1.8s						
YBH	Yreka Blue Hor	82.58	46	eP	P	13 32 47.3	-1.1
	comp=Z,74nm,1.8s,mb5.4						
YBH				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
BSEG	Bad Segeberg	82.64	329	eP	P	13 32 48.9	+0.5
PVCC	Panska Ves	82.74	325	eP	P	13 32 49.5	+0.5
PVCC				AMS	AMS	14 14 30.0	
	comp=Z,14µm,15.2s						
ZST	Bratislava	82.80	322	eP	P	13 32 51.0	+1.6
BRG	Berggiesshubel	82.84	325	⇑iP	P	13 32 50.1	+0.6
BRG				i		13 33 01.4	
BRG				pmax	pmax		
	comp=Z,180nm,2.2s,mb5.7						
BRG				MLR	MLR		
	comp=Z,15µm,16.7s,MS6.4						
BRG	Berggiesshubel	82.84	325	⇑iP	P	13 32 50.1	+0.6
	comp=Z,180nm,2.2s,mb5.7						
BRG				i		13 33 01.4	
BRG				LR	LR		
	comp=Z,15µm,16.7s,MS6.4						
LHEM	Herd Peak	82.94	46	P	P	13 32 50.9	+0.6
CLL	Collm	83.04	326	⇑iP	P	13 32 50.9	+0.3
CLL				pmax	pmax		
	comp=Z,103nm,1.6s,mb5.6						
CLL				MLR	MLR		
	comp=Z,11µm,19.5s,MS6.2						
CLL	Collm	83.04	326	⇑iP	P	13 32 50.9	+0.3
	comp=Z,103nm,1.6s,mb5.6						
CLL				eS	S	13 43 14.0	+7.2
CLL				LR	LR		
	comp=Z,11µm,19.5s,MS6.2						
CLL	Collm	83.04	326	⇑P	P	13 32 50.9	+0.3
	comp=Z,logA/T=1.8,mb5.6						
CLL				ePP	PP	13 36 13.0	+10
CLL				eS	S	13 43 14.0	+7.2
CLL				eSS	SS	13 48 48.0	+14
PRU	Pruhonice	83.08	324	eP	P	13 32 51.5	+0.7
PRU				AMS	AMS	14 13 30.0	
	comp=Z,13µm,16.1s						
PKSM	Moragy	83.09	320	eP	P	13 32 51.6	+0.7
WDC	Whiskeytown Da	83.30	47	eP	P	13 32 52.6	+0.5
WDC				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.2						
WDC	Whiskeytown Da	83.30	47	eP	P	13 32 52.4	+0.3
	comp=Z,38nm,1.5s,mb5.2						
WDC				LR	LR		
	comp=Z,939nm,22.0s,MS5.1						
VAY	Valandovo	83.46	314	⇑iP	P	13 32 53.2	+0.3
HOPS	Hopland	83.80	49	PFAKE		13 33 10.0	+15
HOPS				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
SKO	Skopje	83.81	315	⇑iP	P	13 32 55.6	+0.9
CLZ	Clausthal	83.97	327	eP	P	13 32 56.2	+1.0
	comp=Z,350nm,2.1s,mb6.1						
NKC	Novy Kostel	83.99	325	eP	P	13 32 55.9	+0.5
NKC				AMS	AMS	14 14 50.0	
	comp=Z,20µm,15.1s						
MOD	Modoc	84.00	45	eP	P	13 32 55.5	-0.1
	comp=Z,99nm,1.8s,mb5.6						
MOD				LR	LR		
	comp=Z,861nm,20.0s,MS5.1						
KHC	Kasperske Hory	84.10	324	iP	P	13 32 56.2	+0.2
KHC	Kasperske Hory	84.10	324	eP	P	13 32 56.1	+0.1
KHC				AMS	AMS	14 14 00.0	
	comp=Z,11µm,15.9s						
BMO	Blue Mountains	84.12	41	eP	P	13 32 56.3	+0.1
	comp=Z,66nm,1.5s,mb5.5						
BMO				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
MOX	Moxa	84.14	326	eP	P	13 32 56.7	+0.6
MOX				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.6						
MOX				MLR	MLR		
	comp=Z,11µm,19.0s,MS6.3						
MOX	Moxa	84.14	326	iP	P	13 32 56.7	+0.6
	comp=Z,logA/T=1.7,mb5.6						
MOX				L		14 14 42.0	
MOX	Moxa	84.14	326	eP	P	13 32 56.7	+0.6
	comp=Z,100nm,2.0s,mb5.6						
MOX				LR	LR		
	comp=Z,11µm,19.0s,MS6.3						
GEC2	GERESS Array S	84.22	324	eP	P	13 32 57.1	+0.6
GEC2				pmax	pmax		
	comp=Z,50nm,1.7s,mb5.4						
GEC2	GERESS Array S	84.22	324	eP	P	13 32 57.1	+0.6
	comp=Z,50nm,1.7s,mb5.4						
GERES	GERESS Array B	84.22	324	P	P	13 32 56.8	+0.2
	comp=Z,4.0nm,0.8s,mb4.6,baz=56,slow=4.8,SNR=17						
GERES				LR	LR	14 15 44.7	
	comp=Z,6µm,19.6s,MS6.0,baz=143,slow=40						
ARSA	Arzberg	84.22	322	⇑iP	P	13 32 57.6	+1.0
	comp=Z,494nm,2.8s,mb6.2						
WET	Wettzell	84.45	324	eP	P	13 32 58.7	+1.0
WET				pmax	pmax		

	comp=Z,140nm,2.2s,mb5.7						
WET	**Wettzell**	**84.45**	**324**	*e*P	**P**	**13 32 58.7**	**+1.0**
	comp=Z,140nm,2.2s,mb5.7						
MOA	**Molln**	**84.53**	**323**	⇑*i*P	**P**	**13 32 59.3**	**+1.1**
	comp=Z,639nm,3.9s						
OHCM	**Honcut**	**84.66**	**48**	*e*P	**P**	**13 32 58.5**	**-0.5**
PERS	**Pernice**	**84.81**	**321**	*e*P	**P**	**13 32 59.6**	**0.0**
MSO	**Missoula**	**84.84**	**38**	*e*P	**P**	**13 33 00.0**	**+0.3**
	comp=Z,36nm,1.6s,mb5.2						
MSO				LR	LR		
	comp=Z,868nm,20.0s,MS5.1						
GRA1	**Grafenberg Arr**	**84.94**	**325**	*e*P	**P**	**13 33 01.2**	**+1.0**
	comp=Z,210nm,1.9s,mb5.9						
GRA1				*e*S	S	13 43 33.0	+7.3
GRA1				LR	LR		
	comp=Z,8µm,18.8s,MS6.1						
GRF	**Grafenberg Arr**	**84.94**	**325**	*e*P	**P**	**13 33 01.2**	**+1.0**
GRF				pmax	pmax		
	comp=Z,210nm,1.9s,mb5.9						
GRF				MLR	MLR		
	comp=Z,8µm,18.8s,MS6.1						
GRF	**Grafenberg Arr**	**84.94**	**325**	*e*P	**P**	**13 33 01.2**	**+1.0**
GRF				pmax	pmax		
	comp=Z,210nm,1.9s,mb5.9						
GRF				MLR	MLR		
	comp=Z,8µm,18.8s,MS6.1						
GRF	**Grafenberg Arr**	**84.94**	**325**	*e*P	**P**	**13 33 01.2**	**+1.0**
	comp=Z,210nm,1.9s,mb5.9						
GRF				*e*S	S	13 43 33.0	+7.3
GRF				LR	LR		
	comp=Z,8µm,18.8s,MS6.1						
CHMT	**Chamberlain Mo**	**85.17**	**38**	*e*P	**P**	**13 33 00.8**	**-0.6**
FFC	**Flin Flon**	**85.29**	**27**	P	**P**	**13 33 02.2**	**+0.4**
FFC				pmax	pmax		
	comp=Z,87nm,1.6s,mb5.6						
FFC	**Flin Flon**	**85.29**	**27**	*e*P	**P**	**13 33 01.8**	**+0.1**
	comp=Z,86nm,1.6s,mb5.6						
FFC				LR	LR		
	comp=Z,377nm,22.0s,MS4.7						
WCN	**Washoe City**	**85.79**	**47**	P	**P**	**13 33 05.5**	**+0.8**
WCN				pmax	pmax		
	comp=Z,86nm,1.6s,mb5.7						
WCN	**Washoe City**	**85.79**	**47**	*e*P	**P**	**13 33 05.3**	**+0.6**
	comp=Z,86nm,1.6s,mb5.7						
FUR	**Furstenfeldbru**	**85.90**	**324**	*e*P	**P**	**13 33 05.9**	**+0.9**
FUR				pmax	pmax		
	comp=Z,106nm,1.5s,mb5.8						
FUR	**Furstenfeldbru**	**85.90**	**324**	*e*P	**P**	**13 33 05.9**	**+0.9**
	comp=Z,106nm,1.5s,mb5.8						
HRY	**Holter Researc**	**86.06**	**38**	*e*P	**P**	**13 33 06.1**	**+0.3**
SAO	**San Andreas Ge**	**86.09**	**50**	PFAKE		13 33 20.0	+14
SAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
CMB	**Columbia Colle**	**86.09**	**48**	P	**P**	**13 33 06.2**	**0.0**
CMB				pmax	pmax		
	comp=Z,62nm,1.5s,mb5.6						
CMB	**Columbia Colle**	**86.09**	**48**	*e*P	**P**	**13 33 05.7**	**-0.5**
	comp=Z,62nm,1.5s,mb5.6						
CMB				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
HLID	**Hailey**	**86.56**	**41**	*e*P	**P**	**13 33 09.1**	**+0.7**
	comp=Z,41nm,1.4s,mb5.5						
HLID				LR	LR		
	comp=Z,1µm,22.0s,MS5.2						
BMN	**Battle Mountai**	**86.74**	**45**	P	**P**	**13 33 10.8**	**+1.5**
BMN				*e*	pP	13 33 20.5	+2.5
BMN	**Battle Mountai**	**86.74**	**45**	*e*P	**P**	**13 33 09.0**	**-0.3**
BMN				LR	LR		
	comp=Z,884nm,20.0s,MS5.2						
BOZ	**Bozeman (W)**	**86.84**	**38**	P	**P**	**13 33 10.4**	**+0.8**
BOZ				pmax	pmax		
	comp=Z,57nm,1.5s,mb5.6						
BOZ	**Bozeman (W)**	**86.84**	**38**	*e*P	**P**	**13 33 09.9**	**+0.3**
	comp=Z,57nm,1.5s,mb5.6						
BOZ				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
ESK	**Eskdalemuir**	**87.19**	**336**	PFAKE		13 33 20.0	+8.9
ESK				LR	LR		
	comp=Z,854nm,19.0s,MS5.2						
NVAR	**Mina Array Bea**	**87.22**	**47**	P	**P**	**13 33 12.3**	**+0.6**
	comp=Z,3.9nm,0.8s,mb4.7,baz=299,slow=3.3,SNR=36						
OMM	**Old Mammoth Mi**	**87.24**	**48**	*e*P	**P**	**13 33 12.3**	**+0.6**
BFO	**Black Forest**	**87.28**	**326**	*e*P	**P**	**13 33 12.2**	**+0.5**
BFO				pmax	pmax		
	comp=Z,34nm,1.7s,mb5.3						
BFO	**Black Forest**	**87.28**	**326**	*e*P	**P**	**13 33 12.2**	**+0.5**
	comp=Z,34nm,1.7s,mb5.3						
MNV	**Mina**	**87.31**	**47**	P	**P**	**13 33 12.6**	**+0.5**
MNV				pmax	pmax		
	comp=Z,48nm,1.6s,mb5.5						
MNV	**Mina**	**87.31**	**47**	*e*P	**P**	**13 33 12.1**	**-0.1**
	comp=Z,48nm,1.7s,mb5.5						
MNV				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
DAVOX	**Davos**	**87.52**	**324**	LR	LR	14 17 51.5	
	comp=Z,8µm,18.9s,MS6.2,baz=46,slow=39						
CDF	**Champ du Feu**	**87.74**	**326**	*e*P	**P**	**13 33 11.7**	**-2.2**
ELK	**Elko**	**87.78**	**44**	P	**P**	**13 33 15.3**	**+1.0**
ELK				pmax	pmax		
	comp=Z,58nm,1.7s						
ELK	**Elko**	**87.78**	**44**	*e*P	**P**	**13 33 14.6**	**+0.3**
	comp=Z,58nm,1.8s,mb5.5						
ELK				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
YMR	**Madison River**	**87.82**	**39**	*e*P	**P**	**13 33 16.2**	**+1.8**
YNR	**Norris Junctio**	**87.95**	**39**	*e*P	**P**	**13 33 17.6**	**+2.6**
YFT	**Old Faithful**	**88.03**	**39**	*e*P	**P**	**13 33 18.8**	**+3.4**
TPH	**Tonopah**	**88.12**	**47**	P	**P**	**13 33 17.8**	**+1.8**
TPH				pmax	pmax		
	comp=Z,91nm,1.5s,mb5.8						
TPH	**Tonopah**	**88.12**	**47**	*e*P	**P**	**13 33 17.1**	**+1.1**
	comp=Z,93nm,1.6s,mb5.8						
TPH				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
LKWY	**Lake**	**88.20**	**39**	P	**P**	**13 33 19.6**	**+3.4**
LKWY				pmax	pmax		
	comp=Z,52nm,1.3s,mb5.6						
LKWY	**Lake**	**88.20**	**39**	*e*P	**P**	**13 33 19.2**	**+3.0**
	comp=Z,52nm,1.4s,mb5.6						
LKWY				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
IMW	**Indian Meadow**	**88.33**	**39**	*e*P	**P**	**13 33 18.5**	**+1.7**
HAU	**Haudompre**	**88.47**	**326**	*e*P	**P**	**13 33 16.0**	**-1.4**
	comp=Z,14nm,1.0s,mb4.8						
HAU				*e*R			
	comp=Z,13µm,20.0s						
HAU	**Haudompre**	**88.47**	**326**	*e*P	**P**	**13 33 16.0**	**-1.4**
HAU				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.8						
HAU				MLR	MLR		
	comp=Z,13µm,20.0s,MS6.3						
TPAW	**Teton Pass**	**88.58**	**40**	*e*P	**P**	**13 33 19.1**	**+1.0**
HVU	**Hansel Valley**	**88.61**	**42**	P	**P**	**13 33 20.0**	**+1.7**
HVU	**Hansel Valley**	**88.61**	**42**	*e*P	**P**	**13 33 18.8**	**+0.5**
DGMT	**Dagmar**	**88.75**	**33**	*e*P	**P**	**13 33 19.6**	**+0.9**
	comp=Z,149nm,1.7s,mb6.0						
DGMT				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
DAC	**Darwin (Calif)**	**88.92**	**49**	PFAKE		13 33 30.0	+10
DAC				LR	LR		
	comp=Z,912nm,20.0s,MS5.2						
AHID	**Auburn Hatcher**	**88.96**	**40**	PFAKE		13 33 30.0	+10
AHID				LR	LR		
	comp=Z,1µm,19.0s,MS5.3						
LAO	**LASA Array**	**88.99**	**35**	*e*P	**P**	**13 33 20.9**	**+1.0**
	comp=Z,79nm,1.4s,mb5.8						
LAO				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
BGU	**Big Grassy Mou**	**88.99**	**43**	*e*P	**P**	**13 33 21.3**	**+1.2**
TRCR	**Troy Canyon**	**89.00**	**46**	*e*P	**P**	**13 33 21.2**	**+1.1**
SPUT	**South Promonto**	**89.10**	**42**	*e*P	**P**	**13 33 21.8**	**+1.2**
HWUT	**Hardware Ranch**	**89.43**	**41**	*e*P	**P**	**13 33 23.6**	**+1.5**
	comp=Z,125nm,1.6s,mb6.0						
HWUT				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
NOQ	**North Oquirrh**	**89.70**	**42**	*e*P	**P**	**13 33 25.1**	**+1.6**
BW06	**Boulder Array**	**89.83**	**40**	PFAKE		13 33 40.0	+16
BW06				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
PDAR	**Pinedale Array**	**89.83**	**40**	P	**P**	**13 33 23.4**	**-0.6**
	comp=Z,3.9nm,0.8s,mb4.8,baz=270,slow=1.5,SNR=25						
TCUT	**Toone Canyon**	**89.83**	**42**	*e*P	**P**	**13 33 25.3**	**+1.2**
PPT	**Papeete**	**89.93**	**110**	*e*PP	PP	13 36 57.8	-2.5
PPT				*e*SS	SS	13 50 15.1	-0.3
PPT				*e*LR	LR	14 02 23.6	
	comp=Z,2µm,24.2s,baz=311						
LPG	**La Plagne**	**89.99**	**324**	*e*P	**P**	**13 33 25.6**	**+0.9**
	comp=Z,27nm,1.2s,mb5.2						
LPG	**La Plagne**	**89.99**	**324**	*e*P	**P**	**13 33 25.6**	**+0.9**
LPG				pmax	pmax		
	comp=Z,14nm,1.2s,mb5.2						
JLU	**Jordanelle**	**90.13**	**42**	*e*P	**P**	**13 33 26.3**	**+0.9**
NLU	**North Lily Min**	**90.17**	**43**	*e*P	**P**	**13 33 26.9**	**+1.2**
DAU	**Daniels Canyon**	**90.36**	**42**	P	**P**	**13 33 27.3**	**+0.8**
MPU	**Maple Canyon**	**90.39**	**43**	*e*P	**P**	**13 33 27.9**	**+1.2**
SSF	**Saint Saulge**	**90.51**	**327**	*e*P	**P**	**13 33 25.0**	**-2.0**
SSF				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.9						
SSF	**Saint Saulge**	**90.51**	**327**	*e*P	**P**	**13 33 25.0**	**-2.0**
	comp=Z,9.1nm,1.3s,mb5.0						
SMF	**Signal de Mont**	**90.64**	**326**	*e*P	**P**	**13 33 26.4**	**-1.2**
ARUT	**Antelope Range**	**90.68**	**45**	P	**P**	**13 33 29.5**	**+1.4**
ARUT	**Antelope Range**	**90.68**	**45**	*e*P	**P**	**13 33 28.8**	**+0.7**
AVF	**Avril sur Loir**	**90.77**	**327**	*e*P	**P**	**13 33 27.0**	**-1.2**
MVU	**Marysvale**	**91.00**	**44**	*e*P	**P**	**13 33 30.9**	**+1.5**
	comp=Z,56nm,1.7s,mb5.6						
MVU				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
MSU	**Marysvale**	**91.01**	**44**	P	**P**	**13 33 31.7**	**+2.2**
MSU	**Marysvale**	**91.01**	**44**	*e*P	**P**	**13 33 31.5**	**+1.9**
LDF	**La Druitiere**	**91.06**	**330**	*e*P	**P**	**13 33 27.8**	**-1.7**
FLN	**La Foliniere**	**91.09**	**330**	*e*P	**P**	**13 33 28.9**	**-0.8**
FLN				*e*R			
	comp=Z,7µm,19.0s						
NEN	**Nelson**	**91.09**	**48**	*e*P	**P**	**13 33 31.0**	**+1.0**
TMUT	**Trail Mountain**	**91.10**	**43**	*e*P	**P**	**13 33 30.6**	**+0.7**
ULM	**Lac du Bonnet**	**91.12**	**28**	P	**P**	**13 33 31.2**	**+1.5**
	comp=Z,7.1nm,1.0s,mb5.0,baz=321,slow=4.5,SNR=12						
ULM	**Lac du Bonnet**	**91.12**	**28**	*e*P	**P**	**13 33 30.6**	**+0.8**
	comp=Z,106nm,1.8s,mb5.9						
ULM				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
SRU	**San Rafael**	**91.63**	**43**	P	**P**	**13 33 33.8**	**+1.4**
SRU	**San Rafael**	**91.63**	**43**	*e*P	**P**	**13 33 33.5**	**+1.2**
SGMF	**Saint Gilles**	**92.38**	**331**	*e*P	**P**	**13 33 33.6**	**-2.0**
MFF	**Saint Martin d**	**92.56**	**328**	*e*P	**P**	**13 33 35.2**	**-1.2**
	comp=Z,90nm,1.5s,mb5.7						
MFF	**Saint Martin d**	**92.56**	**328**	*e*P	**P**	**13 33 35.2**	**-1.2**
MFF				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.7						
RJF	**Les Rejaudoux**	**92.73**	**327**	*e*P	**P**	**13 33 35.0**	**-2.3**
	comp=Z,96nm,1.7s,mb5.7						
RJF				*e*R			
	comp=Z,9µm,17.0s						
RJF	**Les Rejaudoux**	**92.73**	**327**	*e*P	**P**	**13 33 35.0**	**-2.3**
RJF				pmax	pmax		
	comp=Z,48nm,1.7s,mb5.7						
RJF				MLR	MLR		
	comp=Z,9µm,17.0s,MS6.3						
QUIF	**Quistinic**	**92.90**	**331**	*e*P	**P**	**13 33 37.4**	**-0.6**
	comp=Z,123nm,1.5s,mb5.8						
QUIF	**Quistinic**	**92.90**	**331**	*e*P	**P**	**13 33 37.4**	**-0.6**
QUIF				pmax	pmax		
	comp=Z,61nm,1.5s,mb5.8						
TBI	**Tubuai**	**92.93**	**115**	*e*PP	PP	13 37 04.1	-20
TBI				*e*SS	SS	13 51 03.2	+5.0
TBI				*e*LR	LR	14 03 09.7	
	comp=Z,2µm,22.2s,baz=308						
PV10	**Paradox Valley**	**92.99**	**43**	*e*P	**P**	**13 33 40.3**	**+1.6**
KMBO	**Kilima Mbogo**	**93.34**	**271**	P	**P**	**13 33 50.0**	**+9.2**
KMBO				MLR	MLR		
	comp=Z,2µm,22.0s						
KMBO	**Kilima Mbogo**	**93.34**	**271**	LR	LR	14 16 09.2	
	comp=Z,2µm,21.4s,MS5.5,baz=89,slow=36						
KMBO	**Kilima Mbogo**	**93.34**	**271**	PFAKE		13 33 50.0	+9.2
KMBO				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
PV01	**Paradox Valley**	**93.43**	**43**	*e*P	**P**	**13 33 42.2**	**+1.5**
RW3	**Ridgway**	**93.87**	**42**	P	**P**	**13 33 44.8**	**+2.1**
RW3	**Ridgway**	**93.87**	**42**	*e*P	**P**	**13 33 44.4**	**+1.7**
ISCO	**Idaho Springs**	**94.02**	**40**	PFAKE		13 34 00.0	+17
ISCO				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
EYMN	**Ely**	**94.70**	**27**	PFAKE		13 34 00.0	+14
EYMN				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
SCHQ	**Schefferville**	**95.25**	**10**	LR	LR	14 21 26.3	
	comp=Z,2µm,19.2s,MS5.7,baz=356,slow=38						
SCHQ	**Schefferville**	**95.25**	**10**	PFAKE		13 34 00.0	+11
SCHQ				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
SDCO	**Great Sand Dun**	**95.48**	**41**	PFAKE		13 34 00.0	+10
SDCO				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
TUC	**Tucson**	**95.80**	**48**	*e*P	**P**	**13 33 52.2**	**+0.5**
TUC				pmax	pmax		
	comp=Z,42nm,1.8s,mb5.6						
TUC				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.4						
TUC	**Tucson**	**95.80**	**48**	*e*P	**P**	**13 33 52.2**	**+0.5**
	comp=Z,42nm,1.8s,mb5.6						
TUC				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
CASY	**Casey**	**96.13**	**188**	PFAKE		13 34 00.0	+7.6
CASY				LR	LR		
	comp=Z,698nm,21.0s,MS5.1						
ANMO	**Albuquerque**	**96.81**	**44**	*i* P	**P**	**13 33 55.3**	**-0.9**
ANMO	**Albuquerque**	**96.81**	**44**	PFAKE		13 34 10.0	+14
ANMO				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
MBAR	**Mbarara**	**98.79**	**274**	PFAKE		13 34 20.0	+14
MBAR				LR	LR		
	comp=Z,345nm,19.0s,MS4.9						
JFWS	**Jewell Farm**	**99.30**	**29**	PFAKE		13 34 20.0	+13
JFWS				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
ESLA	**Sonseca Array**	**99.63**	**326**	PFAKE		13 34 20.0	+11
ESLA				LR	LR		
	comp=Z,22µm,20.0s						
MNTX	**Cornudas Mount**	**99.67**	**46**	PFAKE		13 34 20.0	+11
MNTX				LR	LR		
	comp=Z,1µm,22.0s,MS5.3						
AMTX	**Amarillo**	**99.69**	**41**	PFAKE		13 34 20.0	+11
AMTX				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
WMOK	**Wichita Mounta**	**101.44**	**40**	PFAKE		13 34 30.0	+13
WMOK				LR	LR		
	comp=Z,1µm,20.0s,MS5.5						
LTX	**Lajitas**	**102.36**	**46**	PFAKE		13 34 30.0	+8.7
LTX				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
TXAR	**Lajitas Array**	**102.36**	**46**	P	Pdif	13 34 21.6	+0.3
	comp=Z,0.8nm,1.0s,baz=284,slow=5.2,SNR=5.0						
AAM	**Ann Arbor**	**102.45**	**25**	PFAKE		13 34 30.0	+8.6
AAM				LR	LR		
	comp=Z,2µm,19.0s,MS5.6						
CCM	**Cathedral Cave**	**102.78**	**33**	PFAKE		13 34 30.0	+7.0
CCM				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
PQI	**Presque Isle**	**102.91**	**13**	PFAKE		13 34 30.0	+6.7
PQI				LR	LR		
	comp=Z,14µm,20.0s,MS6.5						
ERPA	**Erie**	**103.92**	**23**	PFAKE		13 34 40.0	+12
ERPA				LR	LR		
	comp=Z,2µm,20.0s,MS5.5						
JCT	**Junction City**	**103.94**	**43**	PFAKE		13 34 40.0	+12
JCT				LR	LR		
	comp=Z,815nm,20.0s,MS5.3						
NCB	**Newcomb**	**104.01**	**18**	PFAKE		13 34 40.0	+12
NCB				LR	LR		
	comp=Z,3µm,21.0s,MS5.7						
MIAR	**Mount Ida**	**104.39**	**36**	PFAKE		13 34 40.0	+10
MIAR				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
ACSO	**Alum Creek Sta**	**104.50**	**26**	PFAKE		13 34 40.0	+10
ACSO				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
WVL	**Waterville**	**104.58**	**15**	PFAKE		13 34 40.0	+9.3
WVL				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
RKT	**Rikitea**	**104.62**	**108**	*e*PP	PP	13 38 50.4	-3.3
RKT				*e*PS	PS	13 48 05.7	+1.8
RKT				*e*SS	SS	13 53 42.0	+1.1
RKT				*e*LR	LR	14 08 59.3	
	comp=Z,1µm,24.5s,baz=307						
WCI	**Wyandotte Cave**	**104.86**	**29**	PFAKE		13 34 40.0	+7.9
WCI				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
BINY	**Binghamton**	**105.13**	**20**	PFAKE		13 39 00.0	
BINY				LR	LR		
	comp=Z,1µm,19.0s,MS5.4						
WVT	**Waverly**	**105.93**	**31**	PFAKE		13 39 00.0	
WVT				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
NATX	**Nacogdoches**	**105.95**	**39**	PFAKE		13 39 00.0	
NATX				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
SSPA	**Standing Stone**	**105.95**	**22**	PFAKE		13 39 00.0	
SSPA				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
HRV	**Harvard--Oak R**	**106.07**	**17**	PFAKE		13 39 00.0	
HRV				LR	LR		
	comp=Z,2µm,22.0s,MS5.6						
MCWV	**Mont Chateau**	**106.16**	**24**	PFAKE		13 39 00.0	
MCWV				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
WES	**Weston**	**106.25**	**17**	PFAKE		13 39 00.0	
WES				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
OXF	**Oxford**	**106.51**	**34**	PFAKE		13 39 00.0	
OXF				LR	LR		
	comp=Z,988nm,19.0s,MS5.4						
HKT	**Hockley**	**106.66**	**41**	PFAKE		13 39 00.0	
HKT				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
LSZ	**Lusaka**	**107.80**	**262**	PFAKE		13 39 00.0	
LSZ				LR	LR		
	comp=Z,5µm,20.0s,MS6.0						
VNDA	**Vanda**	**107.89**	**173**	PFAKE		13 39 00.0	
VNDA				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
BLA	**Blacksburg**	**108.11**	**26**	PFAKE		13 39 00.0	
BLA				LR	LR		
	comp=Z,2µm,22.0s,MS5.5						
CBN	**Corbin**	**108.31**	**23**	PFAKE		13 39 10.0	
CBN				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
MAW	**Mawson**	**108.45**	**202**	PFAKE		13 39 00.0	
MAW				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
SBA	**Scott Base**	**108.71**	**172**	PFAKE		13 39 00.0	
SBA				LR	LR		
	comp=Z,807nm,21.0s,MS5.3						
LRAL	**Lakeview Retre**	**108.86**	**33**	PFAKE		13 39 10.0	
LRAL				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
GOGA	**Godfrey**	**110.16**	**30**	PFAKE		13 39 10.0	+9.5
GOGA				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
NHSC	**New Hope**	**111.80**	**27**	PFAKE		13 39 10.0	+6.3
NHSC				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
LBTB	**Lobatse**	**113.97**	**254**	PFAKE		13 39 20.0	+12
LBTB				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
BOSA	**Boshof**	**115.55**	**250**	PFAKE		13 39 20.0	+8.8
BOSA				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
DWPF	**Disney**	**115.58**	**31**	PFAKE		13 39 20.0	+8.7
DWPF				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BBSR	**BB Station**	**117.35**	**14**	PFAKE		13 39 20.0	+5.4
BBSR				LR	LR		
	comp=Z,2µm,21.0s,MS5.6						
TEIG	**Tepich**	**118.47**	**42**	PFAKE		13 39 30.0	+13
TEIG				LR	LR		
	comp=Z,372nm,20.0s,MS5.0						
QSPA	**South Pole Qui**	**118.71**	**180**	*e*PKPdf	PKPdf	13 39 12.5	-3.7
QSPA				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
SUR	**Sutherland**	**120.39**	**247**	PFAKE		13 39 30.0	+10
SUR				LR	LR		
	comp=Z,533nm,21.0s,MS5.2						
DBIC	**Dimbokro**	**124.29**	**302**	PKIKP	PKPdf	13 39 25.5	-3.0
DBIC	**Dimbokro**	**124.29**	**302**	PKP	PKPdf	13 39 23.8	-4.6
	comp=Z,3.6nm,0.7s,baz=19,slow=1.5,SNR=9.2						
DBIC	**Dimbokro**	**124.29**	**302**	*e*PKPdf	PKPdf	13 39 24.5	-4.0
DBIC				LR	LR		
	comp=Z,1µm,19.0s,MS5.7						
RPN	**Rapa Nui**	**127.69**	**103**	PFAKE		13 39 40.0	+5.2
RPN				LR	LR		
	comp=Z,548nm,20.0s,MS5.2						
JTS	**JuntasAbangare**	**128.15**	**46**	PFAKE		13 39 40.0	+4.0
JTS				LR	LR		
	comp=Z,150nm,22.0s,MS4.6						
SJG	**San Juan**	**130.55**	**21**	PFAKE		13 39 50.0	+10
SJG				LR	LR		
	comp=Z,2µm,21.0s,MS5.7						
VNA2	**Neumayer--Watz**	**131.93**	**197**	⇓*i*P	PKPdf	13 39 41.4	-0.3
PAYG	**Puerto Ayora**	**132.05**	**61**	PFAKE		13 39 50.0	+6.6
PAYG				LR	LR		
	comp=Z,813nm,19.0s,MS5.5						
VNA3	**Neumayer Olymp**	**132.31**	**196**	⇑*i*P	PKPdf	13 39 42.9	+0.5
VNA1	**Neumayer--Stat**	**132.33**	**197**	⇑*i*P	PKPdf	13 39 43.3	+0.9
SDV	**Santo Domingo**	**137.25**	**32**	PKP	PKPdf	13 39 48.8	-4.2
	comp=Z,3.9nm,0.8s,baz=346,slow=3.5,SNR=5.1						
SDV	**Santo Domingo**	**137.25**	**32**	*e*PKPdf	PKPdf	13 39 49.0	-4.0
SDV				LR	LR		
	comp=Z,1µm,21.0s,MS5.6						
OTAV	**Otavalo**	**139.94**	**49**	PFAKE		13 40 10.0	+12
OTAV				LR	LR		
	comp=Z,729nm,19.0s,MS5.5						
PMSA	**Palmer Station**	**143.00**	**170**	PFAKE		13 40 10.0	+8.3
PMSA				LR	LR		
	comp=Z,444nm,22.0s,MS5.2						
NNA	**Nana**	**149.49**	**62**	*e*PKPbc	PKPdf	13 40 14.0	-0.2
NNA				LR	LR		
	comp=Z,224nm,22.0s,MS4.9						
RCBR	**Riachuelo**	**153.63**	**328**	PFAKE		13 40 30.0	+10
RCBR				LR	LR		
	comp=Z,1µm,19.0s,MS5.8						
LPAZ	**La Paz**	**158.76**	**58**	PKP	PKPdf	13 40 24.9	-2.0
	comp=Z,0.7nm,0.3s,baz=338,slow=2.7,SNR=8.2						
LPAZ	**La Paz**	**158.76**	**58**	*e*PKPdf	PKPdf	13 40 25.9	-1.0
LPAZ				LR	LR		
	comp=Z,766nm,21.0s,MS5.5						
LVC	**Limon Verde**	**161.47**	**75**	PFAKE		13 40 40.0	+10
LVC				LR	LR		
	comp=Z,1µm,22.0s						
TRQA	**Tornquist**	**166.22**	**134**	PFAKE		13 40 40.0	+6.2
TRQA				LR	LR		
	comp=Z,2µm,20.0s						
BDFB	**Brasilia**	**166.69**	**354**	PKP	PKPdf	13 40 32.1	-2.6
	comp=Z,1.5nm,0.4s,baz=121,slow=3.7,SNR=3.6						
BDFB				PKPab	PKPab	13 41 32.6	-1.9
	comp=Z,4.3nm,1.0s,baz=4.3,slow=6.5,SNR=4.8						

JMA 29 13:23:41.5±0.2,28.89N×130.73E,h19^{km},M4.0,Ryukyu Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAM	**Amami Oshima**	**1.10**	**245**	P	Pb	13 24 01.4	-0.2
JAM				*e*S	Sb	13 24 15.8	+0.3
JNN	**Nakanoshima**	**1.21**	**322**	P	Pb	13 24 03.2	-0.3
JNN				*e*S	Sb	13 24 19.2	+0.5
JKC	**Kuchinoerabu**	**1.63**	**344**	P	Pn	13 24 09.7	+0.1
JTN	**Tanegashima 3**	**1.77**	**7**	P	Pn	13 24 12.1	+0.5
JTK	**Tokunoshima**	**1.92**	**235**	P	Pn	13 24 13.9	+0.2
JTK				*e*S	Sn	13 24 37.2	-0.2
JNAR	**Kushima--Naru**	**2.67**	**10**	P	Pn	13 24 24.9	+0.5
JOW	**Kunigami**	**2.99**	**227**	P	Pn	13 24 28.3	-0.7
JOW				*e*S	Sn	13 25 01.9	-2.8
KOLN	**Koldanda**	**41.29**	**280**	*e*P	P	13 31 25.6	-1.8
	88nm,1.3s						

*IDC **29** 13:26:38.8±0.9, 9.03N×93.68E, mb4.1/10, mb1 4.3/11, mb1mx4.2/18, mbtmp4.1/11, ML4.6/1, Error ellipse: s-maj=39.0km s-min=19.2km az=54.0*

ISC 29 13:26:42.4±0.8,9.1N±0.1×93.8E±0.1,h33^{km},n19, σ0^{s}58/16,mb4.1/10,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.58**	**27**	Pn	**P**	**13 29 14.4**	**-0.4**
	1.2nm,0.3s,baz=212,slow=15,SNR=20						
PKI	**Pulchoki**	**20.05**	**338**	*e*P	**P**	**13 31 16.3**	**+0.7**
	101nm,1.4s						
GUN	**Gumba**	**20.19**	**339**	*e*P	**P**	**13 31 17.7**	**+0.6**
	112nm,1.1s						
DMN	**Daman**	**20.20**	**337**	*e*P	**P**	**13 31 17.9**	**+0.7**
	19nm,0.6s						
KKN	**Kakani**	**20.30**	**338**	*e*P	**P**	**13 31 18.4**	**+0.2**
	83nm,1.1s						

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
GKN	Gorkha	20.74	337	eP	P	13 31 22.9	+0.1
	94nm,1.1s						
SONM	Songino Array	40.08	13	P	P	13 34 16.3	0.0
	2.1nm,1.0s,mb3.8,baz=196,slow=9.0,SNR=5.1						
SONM				PcP	PcP	13 36 21.4	+0.1
	1.0nm,0.7s,baz=178,slow=2.6,SNR=3.7						
ZAL	Zalesovo	45.34	353	P	P	13 34 58.9	-0.2
	3.6nm,0.7s,mb4.3,baz=205,slow=8.3,SNR=13						
WRA	Warramunga Arr	49.21	126	P	P	13 35 29.8	0.0
	0.7nm,0.9s,mb3.7,baz=304,slow=9.0,SNR=4.7						
ASAR	Alice Springs	50.92	130	P	P	13 35 43.7	+0.8
	0.7nm,0.9s,mb3.6,baz=316,slow=7.6,SNR=4.2						
ASAR				PcP	PcP	13 36 58.3	-0.9
	0.6nm,0.8s,baz=326,slow=2.7,SNR=5.1						
BRTR	Keskin Array B	61.42	310	P	P	13 36 56.9	-1.1
	1.9nm,0.8s,mb4.3,baz=131,slow=8.9,SNR=4.1						
FINES	FINESS Array B	71.52	332	P	P	13 38 00.5	-1.2
	2.1nm,0.7s,mb4.2,baz=90,slow=7.6,SNR=4.7						
ARCES	ARCESS Array B	74.05	340	P	P	13 38 16.6	+0.2
	3.9nm,0.8s,mb4.4,baz=99,slow=7.3,SNR=12						
GERES	GERESS Array B	76.74	318	P	P	13 38 32.5	+0.3
	1.2nm,0.8s,mb3.9,baz=108,slow=4.2,SNR=5.8						
NOA	NORSAR Array B	78.55	330	P	P	13 38 41.6	-0.3
	2.0nm,0.9s,mb4.0,baz=93,slow=5.6,SNR=3.4						
ILAR	Eielson Array	93.77	22	P	P	13 39 56.4	-0.5
	1.0nm,0.8s,mb4.3,baz=309,slow=3.8,SNR=13						
NVAR	Mina Array Bea	124.06	30	PKP	PKPdf	13 45 39.6	+1.6
	0.3nm,0.5s,baz=309,slow=3.2,SNR=3.5						
PDAR	Pinedale Array	124.18	21	PKP	PKPdf	13 45 40.0	+2.0
	0.5nm,0.8s,baz=270,slow=0.9,SNR=3.3						
TXAR	Lajitas Array	138.27	23	PKP	PKPdf	13 46 07.8	+2.7
	0.1nm,0.3s,baz=329,slow=5.3,SNR=3.4						

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*IDC **29** 13:50:29.3±0.5, 8.83N×93.82E, mb4.3/21, mb1 4.4/21, mb1mx4.4/22, mbtmp4.3/21, MS4.0/1, Ms1 4.2/1, ms1mx3.0/24, Error ellipse: s-maj=26.4km s-min=12.4km az=51.0*

*BJI **29** 13:50:35.4, 8.92N×93.33E, h41^{km}, mB5.2, mb4.6, Ms5.1, Msz5.1*

*NEIC **29** 13:50:36.7±2.4, 8.80N×93.82E, h42^{km}±20^{km}, mb4.8/21, Error ellipse: s-maj=16.0km s-min=13.5km az=206.0*

ISC 29 13:50:31.2±3.2, **8.77N**±0.07×**93.88E**±0.06, **h18**^{km}±22^{km}, **n101**, σ**1^{s}30**/89, **mb4.6**/43, **MS4.6**/1, **2C**, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.81	27	eP	P	13 53 10.9	+2.6
	61nm,0.5s						
CMAR	Chiang Mai Arr	10.81	27	Pn	P	13 53 10.4	+2.1
	12nm,0.3s,baz=213,slow=15,SNR=160						
CMAR				LR	LR	13 57 01.1	
	comp=Z,862nm,21.1s,baz=200,slow=36						
VIS	Vishakhapatnam	13.58	312	eP	P	13 53 42.9	-2.8
	comp=Z,60nm,0.6s						
KOD	Kodaikanal	16.26	276	eP	P	13 54 25.9	+5.4
BOK	Bokaro	16.79	334	eP	P	13 54 28.0	+0.9
BOK				e		13 54 28.9	
	comp=Z,39nm,0.9s						
SHL	Shillong	16.81	354	eP	P	13 54 25.3	-2.1
SHL				e		13 54 29.0	
	comp=Z,38nm,0.9s						
HYB	Hyderabad	17.22	301	eP	P	13 54 32.0	-0.5
HYB				eS	S	13 57 37.0	-5.0
HYB	Hyderabad	17.22	301	i P	P	13 54 32.0	-0.5
HYB				eS	S	13 57 45.0	+3.0
BLSP	Bilaspur	17.44	321	eP	P	13 54 35.5	+0.2
BLSP				e		13 54 36.6	
	comp=Z,55nm,1.3s						
KMI	Kunming	18.32	26	⇑P	P	13 54 51.5	+5.2
KMI				AMB	AMB		
	comp=Z,66nm,1.1s						
KMI				AMB	AMB		
	comp=Z,515nm,4.4s						
QIZ	Qiongzhong	18.53	55	P	P	13 54 53.5	+4.6
PKI	Pulchoki	20.34	338	eP	P	13 55 08.0	-1.4
	comp=Z,591nm,1.5s						
GUN	Gumba	20.48	339	eP	P	13 55 10.2	-0.6
	comp=Z,163nm,0.7s						
DMN	Daman	20.49	337	eP	P	13 55 10.1	-0.8
	comp=Z,540nm,1.5s						
KKN	Kakani	20.59	338	eP	P	13 55 10.8	-1.1
	comp=Z,73nm,0.6s						
LSA	Lhasa	20.98	353	eP	P	13 55 15.0	-1.0
	comp=Z,16nm,0.4s						
GKN	Gorkha	21.03	337	eP	P	13 55 15.6	-0.8
	comp=Z,184nm,0.7s,mb5.5						
KOLN	Koldanda	21.25	334	eP	P	13 55 18.4	-0.3
	comp=Z,108nm,0.5s,mb5.4						
BHPL	Bhopal	21.35	314	eP	P	13 55 20.1	+0.4
BHPL				e		13 55 23.8	
	comp=Z,40nm,0.9s						
GYA	Guiyang	21.37	33	⇑iP	P	13 55 22.3	+2.4
GYA				S	S	13 59 22.8	+11
GYA				AMB	AMB		
	comp=Z,40nm,0.9s,mb4.8						
GYA				LR	LR		
	comp=N,1μm,16.5s,MS4.5						
GYA				LR	LR		
	comp=E,970nm,15.0s,MS4.5						
GYA				LR	LR		
	comp=Z,3μm,16.0s,MS4.7						
POO	Poona	21.73	299	e	P	13 55 15.3	-8.3
CD2	Chengdu	23.88	21	P	P	13 55 47.5	+2.8
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.5						
NDI	New Delhi	25.27	324	eP	P	13 56 00.2	+2.1
AJM	Ajmer	25.36	316	eP	P	13 56 03.8	+4.9
AJM				e		13 56 04.9	
	comp=Z,22nm,0.8s						
ENH	Enshi	25.90	32	eP	P	13 56 04.0	0.0
	comp=Z,10.0nm,0.7s,mb4.5						
GTA	Gaotai	30.97	9	P	P	13 56 49.0	-0.6
GTA				AP	pP	13 57 00.0	+4.9
GTA				XP	sP	13 57 06.8	+9.3
GTA				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.5						
TKM2	Tokmak 2	37.61	338	P	P	13 57 45.3	-1.3
	SNR=6.8						
KBK	Karagaybulak	37.63	337	P	P	13 57 47.4	+0.6
	SNR=7.8						
AML	Almayashu	37.69	335	P	P	13 57 47.8	+0.5
	SNR=11						
CHMS	Chumysh	37.99	337	P	P	13 57 49.5	-0.4
	SNR=5.9						
EKS2	Erkin-Say	38.10	336	P	P	13 57 51.1	+0.3
	SNR=8.6						
USP	Ospenovka	38.32	337	P	P	13 57 52.2	-0.4
	SNR=14						
SONM	Songino Array	40.35	13	P	P	13 58 08.1	-1.4
	comp=Z,2.3nm,0.8s,mb3.9,baz=202,slow=7.8,SNR=5.0						
SONM				PcP	PcP	14 00 11.9	-1.4
	comp=Z,0.8nm,0.5s,baz=206,slow=1.7,SNR=3.8						
ZAL	Zalesovo	45.63	352	P	P	13 58 51.5	-0.7
	comp=Z,5.3nm,0.7s,mb4.6,baz=212,slow=7.5,SNR=18						
HIA	Hailar	45.80	23	eP	P	13 58 53.8	+0.1
	comp=Z,5.9nm,0.8s,mb4.6						
NWAO	Narrogin (SRO)	47.05	153	P	P	13 59 03.8	0.0
	comp=Z,20nm,0.9s,mb5.0,baz=315,slow=8.0,SNR=16						
NWAO	Narrogin (SRO)	47.05	153	eP	P	13 59 03.5	-0.3
	comp=Z,44nm,1.3s,mb5.2						
QRN	Al-Qurain	47.48	301	eP	P	13 59 07.8	+0.5
QRN				AMb	AMB	13 59 17.0	
	comp=Z,88nm,0.7s						
RDF	Al-Radifah	47.84	301	eP	P	13 59 10.3	+0.2
RDF				AMb	AMB	13 59 21.1	
	comp=Z,101nm,0.6s						
BVAR	Borovoye Array	48.06	341	P	P	13 59 09.1	-2.4
	comp=Z,5.5nm,1.0s,mb4.5,baz=141,slow=9.2,SNR=15						
RST	Umm Al-Ruwaisa	48.46	302	eP	P	13 59 14.1	-0.7
RST				AMb	AMB	13 59 25.4	
	comp=Z,93nm,0.6s						
CHKZ	Chkalovo	48.55	342	eP	P	13 59 13.6	-1.6
	comp=Z,9.4nm,0.6s,mb5.0						
MZLS	Mizel	48.84	294	P	P	13 59 20.0	+2.2
WRA	Warramunga Arr	48.99	126	P	P	13 59 18.5	-0.5
	comp=Z,3.4nm,1.0s,mb4.3,baz=305,slow=8.5,SNR=17						
WRAB	Tennant Creek	48.99	126	eP	P	13 59 18.5	-0.5
	comp=Z,4.8nm,0.6s,mb4.7						
ASAR	Alice Springs	50.68	130	P	P	13 59 30.7	-1.3
	comp=Z,2.5nm,0.9s,mb4.1,baz=300,slow=7.9,SNR=16						
AFFS	‘Afif	50.82	294	P	P	13 59 35.4	+2.4
ARSS	Ar Rass	50.92	296	P	pP	13 59 44.0	+4.7
HILS	Ha’il	52.46	298	P	P	13 59 47.5	+2.1
GNI	Garni	53.63	314	P	P	13 59 53.0	-0.8
	comp=Z,2.2nm,0.4s,mb4.4,baz=257,slow=18,SNR=2.2						
KBRS	Khaybar	54.44	295	P	pP	14 00 09.7	+4.1
ARU	Arti	54.97	337	eP	P	14 00 04.2	+0.8
	comp=Z,2.3nm,0.4s,mb4.6						
PMG	Port Moresby	56.04	108	P	P	14 00 12.0	+0.3
	comp=Z,8.4nm,0.7s,mb4.9,baz=286,slow=15,SNR=6.8						
PMG	Port Moresby	56.04	108	eP	P	14 00 13.0	+1.2
	comp=Z,28nm,0.9s,mb5.3						
UMJS	Umm Lajj	56.12	294	P	pP	14 00 22.4	+4.5
KMBO	Kilima Mbogo	57.27	263	P	P	14 00 19.8	-0.8
	comp=Z,1.6nm,0.9s,mb4.1,baz=52,slow=17,SNR=1.8						
MALT	Malatya	57.70	310	eP	P	14 00 23.8	+0.6
	comp=Z,2.9nm,0.8s,mb4.4						
BDAS	Al Bad‘	58.47	298	P	P	14 00 30.5	+1.8
TAYS	Tayyib Ism	58.69	298	P	P	14 00 31.8	+1.6
EIL	Elat	58.77	299	eP	P	14 00 32.0	+1.2
	comp=Z,13nm,1.1s,mb4.9						
STKA	Stephens Creek	60.91	134	P	P	14 00 43.6	-1.8
	comp=Z,1.8nm,0.6s,mb4.4,baz=270,slow=5.6,SNR=5.0						
BRTR	Keskin Array B	61.66	310	P	P	14 00 47.6	-2.8
	comp=Z,9.9nm,1.1s,mb4.9,baz=125,slow=7.5,SNR=18						
MA2	Magadan	66.09	28	eP	P	14 01 19.8	+0.6
	comp=Z,15nm,0.9s,mb5.0						
AKASG	Malin Array Be	67.30	321	P	P	14 01 25.1	-1.9
	comp=Z,1.7nm,0.6s,mb4.3,baz=87,slow=5.5,SNR=10						
LSZ	Lusaka	69.33	250	eP	P	14 01 41.1	+0.9
	comp=Z,3.1nm,0.8s,mb4.3						
SUW	Suwalki	71.64	324	eP	P	14 01 52.6	-1.0
	comp=Z,25nm,1.3s,mb5.0						
FINES	FINESS Array B	71.81	332	P	P	14 01 52.1	-2.3
	comp=Z,2.4nm,0.6s,mb4.3,baz=106,slow=6.2,SNR=13						
KAF	Kangasniemi	71.88	333	ep	P	14 01 52.7	-2.2
	comp=Z,4.7nm,0.6s,mb4.6						
OJC	Ojcow	73.13	320	eP	P	14 02 03.2	+0.7
VYHS	Vyhne	73.58	318	eP	P	14 02 06.0	+0.9
VYHS	Vyhne	73.58	318	e	P	14 02 06.0	+0.9
ARCES	ARCESS Array B	74.34	340	P	P	14 02 08.3	-0.8
	comp=Z,4.4nm,0.9s,mb4.4,baz=105,slow=7.4,SNR=11						
LBTB	Lobatse	74.45	241	eP	P	14 02 11.5	+0.8
	comp=Z,6.1nm,0.8s,mb4.6						
MORC	Moravsky Berou	74.53	319	eP	P	14 02 09.7	-0.9
	comp=Z,7.3nm,0.9s,mb4.6						
ZST	Bratislava	74.70	318	e	pP	14 02 17.2	-0.2
BOSA	Boshof	75.84	238	eP	P	14 02 19.2	+0.6
	comp=Z,8.7nm,1.0s,mb4.6						
BRG	Berggiesshubel	76.90	320	eP	P	14 02 26.9	+2.9
	comp=Z,4.0nm,0.9s,mb4.3						
BRG				e		14 02 42.6	
GERES	GERESS Array B	76.99	318	P	P	14 02 24.2	-0.4
	comp=Z,2.1nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=13						
CLL	Collm	77.51	321	P	P	14 02 28.0	+0.6
HFS	Hagfors	77.56	330	P	P	14 02 26.2	-1.3
	comp=Z,2.4nm,0.5s,mb4.4,baz=76,slow=12,SNR=5.5						
NB2	NORSAR Subarra	78.83	331	P	P	14 02 33.5	-0.9
	comp=Z,10nm,0.7s,mb4.9,baz=92,slow=5.8						
NOA	NORSAR Array B	78.83	331	P	P	14 02 33.3	-1.1
	comp=Z,1.9nm,0.7s,mb4.1,baz=93,slow=5.7,SNR=4.4						
NAO01	NORSAR Array S	78.98	330	eP	P	14 02 39.5	+4.2
LPG	La Plagne	81.81	315	eP	P	14 02 51.7	+1.1
	comp=Z,30nm,0.8s,mb5.0						
ESDC	Sonseca Array	90.45	310	P	P	14 03 34.4	+1.1
	comp=Z,0.2nm,0.3s,mb3.9,baz=356,slow=11,SNR=2.9						
IMA	Indian Mountai	90.89	22	eP	P	14 03 36.7	+2.0
	comp=Z,22nm,0.7s,mb5.6						
SPU	Mount Spurr	93.60	26	eP	P	14 03 50.0	+2.8
VNDA	Vanda	93.85	168	P	P	14 03 47.3	-0.8
	comp=Z,0.8nm,0.9s,mb4.2,baz=324,slow=6.9,SNR=3.0						
ILAR	Eielson Array	94.02	22	P	P	14 03 49.3	+0.2
	comp=Z,1.2nm,0.6s,mb4.5,baz=302,slow=5.3,SNR=22						
DBIC	Dimbokro	97.57	278	P	P	14 04 05.8	-0.7
	comp=Z,0.8nm,0.7s,mb4.3,baz=114,slow=10.0,SNR=2.0						
YKA	Yellowknife Ar	105.62	13	Pdiff	Pdif	14 04 41.9	+0.6
	comp=Z,0.0nm,0.3s,baz=90,slow=3.5,SNR=2.5						
REDW	Red Top Meadow	123.45	21	ePKPdf	PKPdf	14 09 26.4	-5.3
NVAR	Mina Array Bea	124.28	30	PKP	PKPdf	14 09 31.9	-1.6
	comp=Z,0.5nm,0.6s,baz=292,slow=2.2,SNR=5.5						
PDAR	Pinedale Array	124.43	21	PKP	PKPdf	14 09 30.9	-2.8
	comp=Z,1.2nm,0.9s,baz=289,slow=1.7,SNR=5.7						
HWUT	Hardware Ranch	124.69	23	ePKPdf	PKPdf	14 09 31.8	-2.4
MSU	Marysvale	127.06	26	ePKPdf	PKPdf	14 09 38.3	-0.5
TXAR	Lajitas Array	138.51	23	PKP	PKPdf	14 09 58.0	-2.6
	comp=Z,0.3nm,0.5s,slow=1.8,SNR=2.6						
JCT	Junction City	138.82	18	ePKPdf	PKPdf	14 09 57.9	-3.2
BDFB	Brasilia	142.18	256	PKP	PKPdf	14 10 05.4	-2.0
	comp=Z,1.2nm,0.4s,baz=98,slow=10,SNR=2.1						
LPAZ	La Paz	160.93	245	PKP	PKPdf	14 10 33.2	-1.6
	comp=Z,0.9nm,0.6s,baz=226,slow=9.2,SNR=5.6						
LPAZ				PKPab	PKPab	14 11 16.3	+0.3
	comp=Z,0.8nm,0.7s,baz=262,slow=2.2,SNR=2.3						
LPAZ	La Paz	160.93	245	ePKPdf	PKPdf	14 10 34.8	-0.1

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*IDC **29** 13:53:48.0±1.3, 50.13S×161.24E, mb4.0/5, mb1 4.3/7, mb1mx4.2/10, mbtmp4.2/7, ML4.0/2, Error ellipse: s-maj=32.8km s-min=25.4km az=63.0*

ISC 29 13:53:47.7±0.9, **50.0S**±0.1×**161.6E**±0.1, **h10**^{km}, **n14**, σ**1^{s}03**/16, **mb3.9**/5, **North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	5.94	49	P	Pn	13 55 19.1	+1.1
WHZ				S	Sn	13 56 26.1	-0.8
MLZ	Mavora Lakes	6.45	46	P	Pn	13 55 26.3	+1.1
MLZ				S	Sn	13 56 38.3	-1.3
TUZ	Tuapeka	6.76	56	P	Pn	13 55 30.8	+1.3
TUZ				S	Sn	13 56 46.6	-0.8
EAZ	Earnscleugh	7.08	51	eP	Pn	13 55 34.6	+0.5
ODZ	Otahua Downs	7.90	54	P	Pn	13 55 44.8	-0.6
RPZ	Rata Peaks	9.04	50	Pn	P	13 56 02.7	+1.4
	1.7nm,0.3s,baz=220,slow=7.9,SNR=3.9						
THZ	Tophouse	11.41	48	P	P	13 56 33.4	-0.4
URZ	Urewera	16.16	49	Pn	P	13 57 40.2	+3.8
	0.4nm,0.3s,baz=156,slow=1.5,SNR=3.2						
STKA	Stephens Creek	23.45	313	P	P	13 58 58.9	+1.0
	2.0nm,0.9s,mb3.5,baz=135,slow=14,SNR=2.6						
VNDA	Vanda	27.62	180	P	P	13 59 35.8	-0.9
	0.8nm,0.8s,mb3.4,baz=346,slow=5.6,SNR=4.4						
CTA	Charters Tower	32.25	332	P	P	14 00 18.8	+0.3
	3.0nm,0.7s,mb4.2,baz=180,slow=11,SNR=3.2						
ASAR	Alice Springs	34.01	310	P	P	14 00 33.1	-0.6
	2.4nm,1.0s,mb4.1,baz=149,slow=7.3,SNR=7.8						
WRA	Warramunga Arr	36.99	314	P	P	14 00 57.4	-1.7
	4.3nm,1.0s,mb4.2,baz=147,slow=8.0,SNR=6.6						
ARCES	ARCESS Array B	151.47	329	PKPbc	PKPdf	14 13 41.7	+4.6
	2.5nm,0.7s,baz=45,slow=1.7,SNR=4.0						

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*IDC **29** 13:56:52.4±1.1, 7.29N×93.74E, mb4.0/5, mb1 4.2/6, mb1mx4.0/17, mbtmp4.0/6, ML4.0/1, Error ellipse: s-maj=61.0km s-min=21.1km az=51.0*

ISC 29 13:56:56.0±1.1, **7.4N**±0.2×**94.0E**±0.2, **h33**^{km}, **n7**, σ**0^{s}66**/7, **mb4.0**/6, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.99	23	Pn	P	13 59 47.5	-0.1
	0.3nm,0.3s,baz=209,slow=14,SNR=9.6						
WRA	Warramunga Arr	48.13	125	P	P	14 05 35.1	0.0
	0.9nm,0.6s,mb4.0,baz=307,slow=9.0,SNR=18						
ASAR	Alice Springs	49.75	130	P	P	14 05 47.5	0.0
	1.7nm,0.8s,mb4.1,baz=303,slow=7.2,SNR=14						
ASAR				PcP	PcP	14 07 09.3	+0.8
	0.6nm,0.8s,baz=333,slow=4.0,SNR=3.9						
KAF	Kangasniemi	73.12	333	ep	P	14 08 29.1	+4.3
	0.6nm,0.3s,mb4.0						
ARCES	ARCESS Array B	75.64	340	P	P	14 08 40.4	+1.2
	2.0nm,0.8s,mb4.1,baz=117,slow=8.1,SNR=2.9						
GERES	GERESS Array B	78.06	318	P	P	14 08 52.9	-0.2
	0.6nm,0.7s,mb3.7,baz=90,slow=5.3,SNR=5.2						
NOA	NORSAR Array B	80.05	331	P	P	14 09 02.8	-0.9
	1.5nm,0.9s,mb3.9,baz=215,slow=23,SNR=2.7						

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*IDC **29** 13:58:43.2±0.5, 38.47N×142.11E, mb4.9/29, mb1 5.1/30, mb1mx5.0/32, mbtmp4.9/30, ML5.0/1, MS5.1/16, Ms1 5.1/16, ms1mx4.9/24, Error ellipse: s-maj=15.2km s-min=12.0km az=103.0*

*MOS **29** 13:58:48.8±0.8, 38.73N×141.99E, h33^{km}, mb5.4/75, MS5.4/18, Error ellipse: s-maj=8.0km s-min=4.6km az=103.5*

*BJI **29** 13:58:48.5, 38.42N×142.08E, h56^{km}, mB5.6, mb5.1, Ms5.5, Msz5.3*

*JMA **29** 13:58:48.7±0.1, 38.45N×142.18E, h39^{km}±1^{km}, M5.5 JMA Felt III J1.*

*NEIC **29** 13:58:50.3±0.2, 38.46N×142.02E, mb5.2/86, MW5.6(NIED), Error ellipse: s-maj=5.8km s-min=3.7km az=167.0*

NEIC Felt at Sendai. Recorded [2 JMA] in Akita, Aomori, Fukushima, Iwate and Miyagi; [1 JMA] in Ibaraki, Tochigi and Yamagata Prefectures.

*HRVD **29** 13:58:50.3±0.2, 38.52N×142.20E, h36^{km}, MW5.6/73, Centroid moment Tensor Solution. LP body waves: s54,c105;Mantle waves: s73,c155; Half duration: 1^{s}6 Moment tensor: Scale 10^{17}Nm; M_{rr}2.18±.06; $M_{\theta\theta}$-0.07±.04; $M_{\phi\phi}$-2.11±.04; $M_{r\theta}$1.09±.05; $M_{\theta\phi}$-0.68±.03; $M_{\phi r}$2.44±.04; Best double couple: $M_0$3.49×10^{17} NP1: ϕ_s191°, δ20°, λ79°. NP2: ϕ_s22°, δ70°, λ94°. Principal axes: T 3.44, Plg65°, Azm299°; N .11, Plg4°, Azm201°; P -3.55, Plg25°, Azm109°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **29** 13:58:52.1, 38.51N×141.91E, h55^{km}, MB5.0*

*CSEM **29** 13:58:53.1, 39.76N×142.29E, h33^{km}, mb5.6*

*NIED **29** 13:59:00, 38.40N×142.30E, h38^{km}, Mw5.6 Best double couple: $M_0$2.92×10^{17} NP1: ϕ_s21°, δ76°, λ93°. NP2: ϕ_s188°, δ14°, λ77°.*

ISC 29 13:58:49.5±0.3, **38.45N**±0.02×**142.04E**±0.03, **h51**^{km}±2^{km}, **h47**^{km}±1.9^{km}**:pP-P**, **n451**, σ**1^{s}01**/448, **mb5.2**/146, **MS5.4**/42, **45C-28D**, **Near east coast of eastern Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JIO	Ouri	0.54	271	⇓P	P	13 59 01.5	+0.1
JIO				S	S	13 59 10.2	+0.2
OFUJ	Ofunato	0.69	335	⇓P	P	13 59 02.9	-0.3
OFUJ				S	S	13 59 12.6	-0.8
JMK	Ichinoseki	0.81	308	⇓P	P	13 59 05.2	+0.3
JOU	Okura	1.08	266	⇓P	P	13 59 09.4	+0.7
MIYJ	Miyakonagasawa	1.14	351	P	P	13 59 08.6	-0.8
JMM	Marumori	1.14	240	P	P	13 59 09.3	-0.2
JOM	Ohasama	1.18	330	⇓P	P	13 59 10.2	+0.3
JOM				eS	S	13 59 25.9	+0.8
JYK	Kaneyama	1.40	290	⇓P	P	13 59 13.9	+0.7
JFK	Kawauchi	1.42	221	⇓P	P	13 59 12.7	-0.8
JTH	Tanohata	1.49	355	⇓P	P	13 59 13.3	-1.2
JYS	Shirataka	1.57	262	⇓P	P	13 59 16.2	+0.6
ONAJ	Iwakimizuishiy	1.67	217	⇓P	P	13 59 15.9	-1.0
JYW	Yuwa	1.79	308	⇓P	P	13 59 19.8	+1.1
JYA	Atsumi	1.83	275	⇓P	P	13 59 20.1	+0.9
JANG	Nango	1.96	348	⇓P	P	13 59 20.4	-0.6
JAH	Hinai	2.05	328	⇓P	P	13 59 22.9	+0.6
JFY	Yanaizu	2.12	241	⇓P	P	13 59 23.9	+0.6
JHO	Hitachi	2.18	213	⇓P	P	13 59 22.6	-1.5
JAW	Awa shima	2.19	271	⇓P	P	13 59 25.3	+1.0
JSB	Shiboa	2.24	229	P	P	13 59 25.1	+0.1
JTM	Tenmabayashi	2.45	342	⇑P	P	13 59 27.9	-0.1
JHK	Hiroka	2.68	244	P	P	13 59 31.6	+0.4
JOT	Ohata	3.02	346	P	P	13 59 36.4	+0.2
JGK	Kuni	3.30	236	P	P	13 59 40.8	+0.8
MAJO	Matsushiro	3.59	239	eP	P	13 59 44.8	+0.6
MAT	Matsushiro	3.59	239	P	P	13 59 45.0	+0.8
MAT				eS	S	14 00 28.1	+2.3
MAT	Matsushiro	3.59	239	P	P	13 59 45.1	+0.9
MAT	Matsushiro	3.59	239	eP	P	13 59 45.0	+0.8
MAT				S	S	14 00 28.0	+2.2
JOD2	Odawara 2	3.97	218	P	P	13 59 49.1	-0.3
JNT	Takato	4.04	232	P	P	13 59 52.3	+1.8
JAR	Ashorobuto	5.01	15	P	P	14 00 00.3	-3.9
JNK	Nakash	5.51	21	P	P	14 00 06.4	-4.7
JHJ	Hachijo jima 2	5.63	200	Pn	P	14 00 10.3	-2.4
	143nm,0.3s,baz=47,slow=18,SNR=12						
JHJ				Sn	S	14 01 11.3	-5.5
	257nm,0.3s,baz=92,slow=22,SNR=4.4						
YUK	Yuzh-Kuril’sk	6.28	26	eP	P	14 00 15.9	-5.9
YUK				i S	S	14 01 22.4	-11
YUK				pmax	pmax		
	comp=Z,2μm,1.2s						
YUK				pmax	pmax		
	comp=Z,960nm,0.3s						
YUK				pmax	pmax		
	comp=N,580nm,0.5s						
YUK				pmax	pmax		
	comp=E,430nm,0.3s						
YUK				smax			
	comp=N,15μm,1.8s						
YUK				smax			
	comp=E,10μm,2.7s						
YUK				smax			
	comp=N,9μm,0.8s						
YUK				smax			
	comp=E,7μm,0.8s						
YUK				MLR	MLR		
	comp=Z,7μm,16.0s						
YUK				MLR	MLR		
	comp=N,8μm,15.0s						
YUK				MLR	MLR		
	comp=E,8μm,18.0s						
KUR	Kuril’sk	8.05	31	eP	P	14 00 39.0	-7.4
KUR				eS	S	14 02 03.0	-14
KUR				pmax	pmax		
	comp=E,110nm,0.6s						
KUR				pmax	pmax		
	comp=Z,430nm,0.6s						
KUR				smax			
	comp=N,1μm,0.7s						
KUR				smax			
	comp=E,860nm,0.7s						
KUR				smax			
	comp=N,10μm,3.0s						
KUR				smax			
	comp=E,8μm,3.0s						
KUR				MLR	MLR		
	comp=E,6μm,15.0s						
KUR				MLR	MLR		
	comp=Z,8μm,15.0s						
YSS	Yuzh-Sakhalins	8.51	3	i P	P	14 00 48.1	-4.7
YSS				pmax	pmax		
	comp=Z,136nm,1.7s						
YSS	Yuzh-Sakhalins	8.51	3	eP	P	14 00 50.1	-2.8
	comp=Z,105nm,0.9s						
VLA	Vladivostok	9.00	304	⇑iP	P	14 01 01.0	+1.5
VLA				i		14 02 41.0	
VLA				pmax	pmax		
	comp=N,2μm,7.0s						
VLA				pmax	pmax		
	comp=E,2μm,7.0s						
VLA				pmax	pmax		
	comp=Z,3μm,7.0s						
VLA				MLR	MLR		
	comp=Z,19μm,15.0s						
VLA				MLR	MLR		
	comp=N,14μm,13.0s						
VLA				MLR	MLR		
	comp=E,9μm,16.0s						
JNU	Nakatsue	10.51	243	P	P	14 01 21.3	+1.1
UGL	Uglegorsk	10.62	0	eP		14 01 35.0	
UGL				e		14 03 10.0	
UGL				pmax	pmax		
	comp=Z,190nm,1.0s						
UGL				MLR	MLR		
	comp=Z,10μm,18.0s						
UGL				MLR	MLR		
	comp=N,10μm,17.0s						
UGL				MLR	MLR		
	comp=E,7μm,18.0s						
JFI	Itaya	10.69	246	P	P	14 01 23.2	+0.5
JTA	Tamana	10.84	243	P	P	14 01 25.9	+1.3
MDJ	Mudanjiang	11.17	307	P	P	14 01 29.3	+0.1
MDJ				PP	PP	14 01 39.5	+1.7
MDJ				XP		14 01 46.0	
MDJ				S	S	14 03 36.0	+2.4
MDJ				AMB	AMB		
	comp=Z,54nm,0.8s						
MDJ				AMB	AMB		
	comp=Z,1μm,5.1s						
MDJ				LR	LR		
	comp=N,7μm,16.4s						
MDJ				LR	LR		
	comp=E,11μm,16.4s						
MDJ				LR	LR		
	comp=Z,18μm,17.8s						
MDJ	Mudanjiang	11.17	307	eP	P	14 01 28.8	-0.4
	comp=Z,100nm,1.3s						
KS15	Wonju Array Si	11.23	269	P	P	14 01 30.0	+0.1
INCN	Inchon	12.20	270	P	P	14 01 42.6	-0.4
	comp=Z,87nm,1.1s						

KLR	**Kul’dur**	**13.07**	**329**	*e*P	**P**	**14 01 51.6**	**-2.9**
KLR				*e*		14 04 20.0	
KLR				MLR	MLR		
	comp=Z,13µm,14.0s						
CN2	**Changchun**	**13.60**	**298**	*e*P	**P**	**14 02 03.0**	**+1.6**
CN2				XP		14 02 21.8	
CN2				*e*S	**S**	**14 04 31.0**	**-0.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s						
CN2				AMB	AMB		
	comp=Z,2µm,9.0s						
CN2				LR	LR		
	comp=N,7µm,16.0s						
CN2				LR	LR		
	comp=E,11µm,16.0s						
CN2				LR	LR		
	comp=Z,11µm,17.0s						
SKR	**Severo-Kuril’s**	**15.78**	**35**	*e*P	**P**	**14 02 22.9**	**-6.8**
SKR				*e*S	**S**	**14 05 12.0**	**-11**
SKR				pmax	pmax		
	comp=E,60nm,0.5s						
SKR				pmax	pmax		
	comp=Z,80nm,0.5s						
SKR				smax			
	comp=E,120nm,0.8s						
SKR				smax			
	comp=N,3µm,8.0s						
SKR				smax			
	comp=E,6µm,8.0s						
SKR				MLR	MLR		
	comp=N,3µm,14.0s						
SKR				MLR	MLR		
	comp=E,3µm,14.0s						
SKR				MLR	MLR		
	comp=Z,6µm,14.0s						
DL2	**Dalian**	**15.95**	**278**	P	**P**	**14 02 33.0**	**+1.1**
DL2				S	**S**	**14 05 21.8**	**-5.1**
DL2				AMB	AMB		
	comp=Z,100nm,1.1s						
DL2				AMB	AMB		
	comp=Z,1µm,6.3s						
DL2				LR	LR		
	comp=N,2µm,14.8s						
DL2				LR	LR		
	comp=E,5µm,16.2s						
DL2				LR	LR		
	comp=Z,6µm,18.5s						
JOW	**Kunigami**	**16.37**	**229**	Pn	**P**	**14 02 38.4**	**+1.2**
	comp=Z,3.4nm,0.3s,baz=73,slow=12,SNR=4.0						
PET	**Petropavlovsk**	**18.55**	**33**	*e*P	**P**	**14 03 04.0**	**-0.2**
PET				*e*S	**S**	**14 06 27.0**	**+1.0**
PET				pmax	pmax		
	comp=Z,1µm,19.0s						
PET				pmax	pmax		
	comp=Z,116nm,1.3s						
PET				smax			
	comp=N,3µm,16.4s						
PET				smax			
	comp=E,4µm,10.5s						
PET				MLR	MLR		
	comp=Z,6µm,20.0s						
PET	**Petropavlovsk**	**18.55**	**33**	*e*P	**P**	**14 03 02.6**	**-1.6**
SSE	**Sheshan**	**18.61**	**253**	P	**P**	**14 03 01.5**	**-3.6**
SSE				S	**S**	**14 06 28.5**	**+1.0**
SSE				XS		14 06 46.0	
SSE				AMB	AMB		
	comp=Z,189nm,1.0s						
SSE				AMB	AMB		
	comp=Z,711nm,6.8s						
SSE				LR	LR		
	comp=N,2µm,15.4s						
SSE				LR	LR		
	comp=E,4µm,15.6s						
SSE				LR	LR		
	comp=Z,7µm,15.5s						
HIA	**Hailar**	**19.30**	**311**	*e*P	**P**	**14 03 11.1**	**-1.7**
TIA	**Tai’an**	**19.93**	**271**	*e*P	**P**	**14 03 17.0**	**-2.7**
TIA				AMB	AMB		
	comp=Z,63nm,1.1s						
NJ2	**Nanjing**	**19.96**	**258**	*e*P	**P**	**14 03 18.0**	**-2.0**
NJ2				AP		14 03 26.8	
NJ2				PP	PP	14 03 38.0	-2.1
NJ2				PPP	PPP	14 03 47.5	-2.2
NJ2				S	**S**	**14 06 57.0**	**+0.3**
NJ2				XS		14 07 12.0	
NJ2				AMB	AMB		
	comp=Z,170nm,0.8s						
NJ2				AMB	AMB		
	comp=Z,4µm,12.0s						
NJ2				LR	LR		
	comp=N,10µm,17.8s						
NJ2				LR	LR		
	comp=E,13µm,17.8s						
NJ2				LR	LR		
	comp=Z,16µm,18.8s						
BJT	**Baijiatuau**	**20.09**	**283**	*e*P	**P**	**14 03 18.2**	**-3.1**
BJT				pmax	pmax		
	comp=Z,34nm,0.8s						
BJT	**Baijiatuau**	**20.09**	**283**	*e*P	**P**	**14 03 18.2**	**-3.1**
	comp=Z,34nm,0.8s						
CLNS	**Chul’man**	**21.61**	**334**	*e*P	**P**	**14 03 35.4**	**-1.3**
CLNS				*e*PPP	PPP	14 04 01.1	-11
CLNS				*e*S	**S**	**14 07 30.6**	**+2.6**
CLNS				*e*		14 07 42.2	
CLNS				*e*SS	SS	14 07 55.6	-11
CLNS				pmax	pmax		
	comp=Z,39nm,0.7s,mb5.0						
CLNS				pmax	pmax		
	comp=N,33nm,1.1s						
CLNS				pmax	pmax		
	comp=E,19nm,1.0s						
CLNS				pmax	pmax		
	comp=N,82nm,1.1s						
CLNS				pmax	pmax		
	comp=Z,89nm,1.1s,mb5.1						
CLNS				pmax	pmax		
	comp=E,49nm,0.9s						
CLNS				smax			
	comp=Z,632nm,11.7s						
CLNS				smax			
	comp=N,1µm,10.3s						
CLNS				smax			
	comp=E,300nm,8.1s						
CLNS				MLR	MLR		
	comp=N,8µm,18.0s,MS5.2						
CLNS				MLR	MLR		
	comp=Z,11µm,18.0s,MS5.3						
CLNS				MLR	MLR		
	comp=E,800nm,17.0s,MS5.2						
MA2	**Magadan**	**21.87**	**12**	*e*P	**P**	**14 03 38.1**	**-1.2**
MA2				pmax	pmax		
	comp=Z,51nm,0.8s,mb5.0						
MA2	**Magadan**	**21.87**	**12**	*e*P	**P**	**14 03 38.1**	**-1.2**
	comp=Z,51nm,0.8s,mb5.0						
HHC	**Hu-ho-hao-te**	**23.53**	**286**	*e*P	**P**	**14 03 53.3**	**-2.4**
HHC				AP		14 04 08.0	
HHC				XP		14 04 14.0	
HHC				PP	PP	14 04 25.5	-3.6
HHC				PCP	PcP	14 07 42.3	+0.6
HHC				S	**S**	**14 07 55.0**	**-7.6**
HHC				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.3						
HHC				AMB	AMB		
	comp=Z,1µm,10.8s						
HHC				LR	LR		
	comp=N,2µm,14.9s,MS5.5						
HHC				LR	LR		
	comp=E,12µm,15.9s,MS5.5						
HHC				LR	LR		
	comp=Z,14µm,13.9s,MS5.6						
QZH	**Quanzhou**	**23.99**	**243**	P	**P**	**14 04 02.8**	**+2.6**
QZH				S	**S**	**14 08 14.0**	**+3.4**
QZH				LR	LR		
	comp=N,8µm,15.6s						
QZH				LR	LR		
	comp=E,8µm,21.0s						
QZH				LR	LR		
	comp=Z,10µm,21.3s						
WHN	**Wuhan**	**24.08**	**259**	⇑P	**P**	**14 04 00.8**	**-0.3**
WHN				S	**S**	**14 08 03.0**	**-9.2**
WHN				LR	LR		
	comp=N,2µm,21.0s						
WHN				LR	LR		
	comp=E,10µm,15.3s						
WHN				LR	LR		
	comp=Z,15µm,19.3s,MS5.5						
BTO	**Baotou**	**24.72**	**285**	*e*P	**P**	**14 04 04.8**	**-2.5**
BTO				S	**S**	**14 08 28.8**	**+5.9**
BTO				AMB	AMB		
	comp=Z,17nm,1.6s,mb4.3						
YAK	**Yakutsk**	**24.81**	**346**	*c i*P	**P**	**14 04 06.2**	**-1.6**
YAK				pmax	pmax		
	comp=Z,85nm,1.0s,mb5.2						
YAK				MLR	MLR		
	comp=Z,5µm,15.0s,MS5.1						
YAK	**Yakutsk**	**24.81**	**346**	*e*P	**P**	**14 04 06.1**	**-1.7**
	comp=Z,73nm,0.8s,mb5.3						
SEY	**Seymchan**	**25.31**	**11**	*e*P	**P**	**14 04 13.3**	**+0.7**
SEY						14 04 49.5	
SEY				*e*		14 07 46.7	
SEY				*e*S	**S**	**14 08 33.9**	**+1.5**
SEY				*e*SSS	SSS	14 09 47.2	-6.7
SEY				pmax	pmax		
	comp=Z,190nm,0.8s,mb5.7						
SEY				smax			
	comp=N,11µm,8.7s						
SEY				smax			
	comp=E,2µm,5.6s						
SEY				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.1						
SEY				MLR	MLR		
	comp=N,5µm,17.0s,MS5.1						
SEY				MLR	MLR		
	comp=E,2µm,16.0s,MS5.1						
FX1	**Attu Island--F**	**25.85**	**46**	*e*P	**P**	**14 04 18.2**	**+0.4**
BOD	**Bodaibo**	**26.62**	**326**	⇑*i*P	**P**	**14 04 24.0**	**-0.8**
XAN	**Xi’an**	**26.99**	**271**	P	**P**	**14 04 26.0**	**-2.4**
ULN	**Ulaanbaatar**	**27.00**	**302**	⇑*i*P	**P**	**14 04 27.6**	**-0.8**
CVP	**Callao Caves**	**27.19**	**226**	*e*P	**P**	**14 04 31.0**	**+0.6**
APYP	**Conner**	**27.39**	**227**	*e*P	**P**	**14 04 30.7**	**-1.6**
SONM	**Songino Array**	**27.44**	**302**	P	**P**	**14 04 31.8**	**-0.6**
	comp=E,7.5nm,0.5s,mb4.4,baz=104,slow=8.8,SNR=37						
CAUP	**Cauayan**	**27.80**	**225**	*e*P	pP	14 04 53.9	+4.9
ABRA	**Dolores**	**27.87**	**228**	*e*P	**P**	**14 04 36.5**	**-0.2**
ENH	**Enshi**	**27.97**	**263**	*e*P	**P**	**14 04 35.9**	**-1.6**
	comp=E,176nm,0.7s,mb5.8						
IRK	**Irkutsk**	**29.54**	**310**	*e*P	**P**	**14 04 49.8**	**-1.4**
IRK				*e*	pP	14 05 06.3	+2.0
TLY	**Talaya**	**29.80**	**309**	P	**P**	**14 04 53.3**	**-0.2**
	comp=E,205nm,0.8s,mb5.9,SNR=7.6						
TLY	**Talaya**	**29.80**	**309**	*e*P	**P**	**14 04 52.7**	**-0.8**
TLY				*e*		14 09 35.1	
TLY				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.0						
TLY				MLR	MLR		
	comp=Z,9µm,18.0s,MS5.5						
TLY	**Talaya**	**29.80**	**309**	⇑*i*P	**P**	**14 04 53.0**	**-0.5**
ZAK	**Zakamensk**	**29.81**	**306**	*e*P	**P**	**14 04 52.3**	**-1.3**
LZH	**Lanzhou**	**30.35**	**278**	⇑P	**P**	**14 04 57.5**	**-1.0**
LZH				AP	pP	14 05 10.0	-1.7
LZH				XP	sP	14 05 15.5	-2.5
LZH				AMB	AMB		
	comp=Z,100nm,1.2s,mb5.4						
LZH				AMB	AMB		
	comp=Z,536nm,6.2s						
LZH				LR	LR		
	comp=E,8µm,14.2s						
LZH				LR	LR		
	comp=Z,10µm,16.0s,MS5.5						
TGY	**Tagaytay City**	**30.61**	**223**	P	**P**	**14 05 01.3**	**+0.3**
	comp=Z,82nm,0.3s,mb6.0,baz=348,slow=8.9,SNR=2.5						
MOY	**Mondy**	**31.43**	**308**	*e*P	**P**	**14 05 07.7**	**-0.2**
GYA	**Guiyang**	**31.97**	**259**	⇑*i*P	**P**	**14 05 11.3**	**-1.6**
GYA				AP	pP	14 05 25.5	-0.6
GYA				XP	sP	14 05 33.3	+0.8
GYA				XS		14 10 42.8	
GYA				AMB	AMB		
	comp=Z,60nm,1.1s,mb5.3						
GYA				LR	LR		
	comp=N,3µm,20.3s,MS5.1						
GYA				LR	LR		
	comp=E,2µm,19.7s,MS5.1						
GYA				LR	LR		
	comp=Z,5µm,19.7s,MS5.2						
BILL	**Bilibino**	**32.53**	**17**	*i* P	**P**	**14 05 15.8**	**-1.6**
GTA	**Gaotai**	**32.65**	**285**	P	**P**	**14 05 19.0**	**+0.3**
GTA				AP	pP	14 05 31.0	-0.9
GTA				XP	sP	14 05 36.3	-2.0
GTA				PP	PP	14 06 25.5	-3.2
GTA				PCP	PcP	14 08 03.3	-0.5
GTA				S	**S**	**14 10 25.8**	**-4.1**
GTA				PCS		14 11 49.5	
GTA				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.2						
GTA				AMB	AMB		
	comp=Z,1µm,11.4s						
GTA				LR	LR		
	comp=N,3µm,20.1s,MS5.5						
GTA				LR	LR		
	comp=E,10µm,17.9s,MS5.5						
GTA				LR	LR		
	comp=Z,14µm,18.3s,MS5.7						
TIXI	**Tiksi**	**33.95**	**353**	*e*P	**P**	**14 05 27.8**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.3						
TIXI	**Tiksi**	**33.95**	**353**	*i* P	**P**	**14 05 27.7**	**-1.9**
QIZ	**Qiongzhong**	**33.98**	**244**	*e*P	**P**	**14 05 27.7**	**-2.7**
KMI	**Kunming**	**35.68**	**260**	⇑P	**P**	**14 05 44.5**	**-0.4**
KMI				AP	pP	14 06 00.0	+1.7
KMI				XP	sP	14 06 05.5	+0.9
KMI				PP	PP	14 07 05.5	-1.2
KMI				S	**S**	**14 11 17.8**	**+0.7**
KMI				XS		14 11 39.5	
KMI				PCS		14 12 00.5	
KMI				SS	SS	14 13 36.5	-2.9
KMI				AMB	AMB		
	comp=Z,41nm,1.1s,mb5.3						
KMI				AMB	AMB		
	comp=Z,685nm,11.5s						
KMI				LR	LR		
	comp=N,4µm,16.9s,MS5.4						
KMI				LR	LR		
	comp=E,4µm,18.6s,MS5.4						
KMI				LR	LR		
	comp=Z,7µm,14.8s,MS5.5						
WMQ	**Urumqi**	**40.66**	**295**	⇑P	**P**	**14 06 27.0**	**+0.8**
WMQ				PP	PP	14 08 04.8	+1.2
WMQ				PPP	PPP	14 08 32.5	0.0
WMQ				S	**S**	**14 12 31.3**	**-1.0**
WMQ				AMB	AMB		
	comp=Z,34nm,1.0s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,614nm,8.5s						
WMQ				LR	LR		
	comp=N,2µm,19.0s						
WMQ				LR	LR		
	comp=E,3µm,27.8s						
WMQ				LR	LR		
	comp=Z,3µm,27.8s						
KKTK	**Khon Kaen**	**40.78**	**248**	P	**P**	**14 06 27.0**	**-0.5**
	comp=Z,247nm,1.0s,mb5.8						
NANT	**Nan**	**40.82**	**253**	P	**P**	**14 06 27.5**	**-0.2**
	comp=Z,78nm,1.3s,mb5.2						
CHRT	**Chiangrai**	**40.87**	**255**	⇓P	**P**	**14 06 29.0**	**+0.8**
	comp=Z,460nm,1.2s,mb6.0						
ZAL	**Zalesovo**	**41.35**	**311**	*i* P	**P**	**14 06 31.6**	**-0.2**
ZAL	**Zalesovo**	**41.35**	**311**	P	**P**	**14 06 31.2**	**-0.6**
	comp=Z,17nm,0.6s,mb4.9,baz=295,slow=8.2,SNR=48						
ZAL				LR	LR	14 24 51.7	
	comp=Z,6µm,19.8s,MS5.5,baz=295,slow=38						
CM31	**Chiang Mai Arr**	**42.35**	**254**	*e*P	**P**	**14 06 38.5**	**-1.8**
	comp=Z,6.1nm,0.6s,mb4.4						
CMAR	**Chiang Mai Arr**	**42.35**	**254**	P	**P**	**14 06 40.4**	**0.0**
	comp=Z,8.2nm,0.8s,mb4.4,baz=48,slow=5.2,SNR=57						
CMAR				LR	LR	14 25 47.8	
	comp=Z,1µm,18.5s,MS4.8,baz=55,slow=38						
LSA	**Lhasa**	**42.59**	**274**	*e*P	**P**	**14 06 43.5**	**+1.3**
LSA				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.1						
LSA	**Lhasa**	**42.59**	**274**	*e*P	**P**	**14 06 43.5**	**+1.3**
	comp=Z,28nm,0.7s,mb5.1						
MK02	**Makanchi Array**	**43.80**	**301**	P	**P**	**14 06 51.6**	**-0.2**
MK02				pmax	pmax		
	comp=Z,44nm,0.8s,mb5.2						
IMA	**Indian Mountai**	**45.22**	**31**	*e*P	**P**	**14 07 02.6**	**-0.3**
IMA				pmax	pmax		
	comp=Z,51nm,0.9s,mb5.3						
IMA	**Indian Mountai**	**45.22**	**31**	*e*P	**P**	**14 07 02.6**	**-0.3**
	comp=Z,51nm,0.9s,mb5.3						
RSO	**Redoubt South**	**45.49**	**39**	*e*P	**P**	**14 07 05.8**	**+0.7**
SPU	**Mount Spurr**	**45.81**	**38**	*e*P	**P**	**14 07 07.6**	**0.0**
MCK	**McKinley**	**47.18**	**35**	*e*P	**P**	**14 07 17.8**	**-0.7**
MCK				pmax	pmax		
	comp=Z,20nm,1.6s,mb4.8						
MCK	**McKinley**	**47.18**	**35**	*e*P	**P**	**14 07 17.8**	**-0.7**
	comp=Z,20nm,1.6s,mb4.8						
GUN	**Gumba**	**47.52**	**275**	*e*P	**P**	**14 07 21.9**	**+0.3**
	comp=Z,203nm,0.8s,mb6.2						
COLA	**College**	**47.62**	**33**	*i* P	**P**	**14 07 21.8**	**-0.1**
PMG	**Port Moresby**	**47.85**	**173**	P	**P**	**14 07 22.7**	**-1.6**
PMG				*e**PP	pP	14 07 35.3	-2.7
PMG	**Port Moresby**	**47.85**	**173**	P	**P**	**14 07 26.8**	**+2.5**
	comp=Z,3.0nm,0.8s,mb4.4,baz=344,slow=15,SNR=2.3						
ILAR	**Eielson Array**	**48.04**	**33**	P	**P**	**14 07 24.1**	**-1.0**
	comp=Z,9.8nm,0.7s,mb5.0,baz=266,slow=5.9,SNR=68						
KKN	**Kakani**	**48.05**	**275**	*e*P	**P**	**14 07 25.8**	**+0.1**
	comp=Z,109nm,0.6s,mb6.0						
PKI	**Pulchoki**	**48.05**	**275**	*e*P	**P**	**14 07 25.4**	**-0.4**
	comp=Z,50nm,0.7s,mb5.7						
DMN	**Daman**	**48.27**	**275**	*e*P	**P**	**14 07 27.6**	**+0.2**
	comp=Z,57nm,0.8s,mb5.6						
GKN	**Gorkha**	**48.45**	**276**	*e*P	**P**	**14 07 28.5**	**-0.3**
	comp=Z,93nm,0.7s,mb5.9						
KOLN	**Koldanda**	**49.37**	**276**	*e*P	**P**	**14 07 36.0**	**+0.1**
	comp=Z,149nm,1.1s,mb5.9						
TKM2	**Tokmak 2**	**49.41**	**298**	P	**P**	**14 07 36.6**	**+0.6**
	SNR=30						
CHKZ	**Chkalovo**	**49.72**	**312**	*i* P	**P**	**14 07 37.4**	**-0.8**
CHKZ				pmax	pmax		
	comp=Z,40nm,1.4s,mb5.3						
CHKZ	**Chkalovo**	**49.72**	**312**	*e*P	**P**	**14 07 37.3**	**-1.0**
	comp=Z,12nm,0.6s,mb5.1						
KZA	**Kyzart**	**49.92**	**297**	P	**P**	**14 07 41.3**	**+1.3**
	SNR=11						
KBK	**Karagaybulak**	**49.94**	**297**	P	**P**	**14 07 40.4**	**+0.3**
	SNR=28						
BVA0	**Borovoye Array**	**50.00**	**312**	P	**P**	**14 07 39.6**	**-0.8**
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.6s						
BVAR	**Borovoye Array**	**50.00**	**312**	P	**P**	**14 07 39.5**	**-0.9**
	comp=Z,7.9nm,0.5s,mb5.0,baz=76,slow=8.1,SNR=41						
BRVK	**Borovoye**	**50.05**	**312**	⇑*i*P	**P**	**14 07 40.3**	**-0.5**
USP	**Ospenovka**	**50.06**	**298**	P	**P**	**14 07 40.8**	**-0.2**
	SNR=8.8						
FRU	**Bishkek**	**50.12**	**298**	*e*P	**P**	**14 07 44.0**	**+2.5**
FRU				pmax	pmax		
	comp=Z,455nm,3.4s						
AAK	**Ala-Archa**	**50.27**	**298**	P	**P**	**14 07 42.5**	**-0.1**
	SNR=6.8						
AAK	**Ala-Archa**	**50.27**	**298**	⇑*i*P	**P**	**14 07 41.4**	**-1.2**
KSH	**Kashi**	**50.29**	**293**	*i* P	**P**	**14 07 43.8**	**+0.9**
KSH				AP	pP	14 07 58.8	+2.2
KSH				XP	sP	14 08 04.5	+1.9
KSH				PCP	PcP	14 09 02.0	+0.7
KSH				PP	PP	14 09 39.0	-0.4
KSH				*e*PPP	PPP	14 10 36.8	-0.3
KSH				SCP		14 12 51.5	
KSH				PCS		14 12 58.3	
KSH				S	**S**	**14 14 50.0**	**-0.4**
KSH				XS		14 15 13.0	
KSH				SCS	ScS	14 17 26.5	+0.3
KSH				AMB	AMB		
	comp=Z,410nm,3.8s						
KSH				LR	LR		
	comp=N,4µm,15.6s,MS5.7						
KSH				LR	LR		
	comp=E,4µm,14.5s,MS5.7						
EKS2	**Erkin-Say**	**50.76**	**298**	P	**P**	**14 07 46.1**	**-0.2**
	SNR=9.7						
AML	**Almayashu**	**50.99**	**297**	P	**P**	**14 07 48.9**	**+0.8**
	SNR=19						
DDI	**Dehra Dun**	**52.49**	**282**	*e*	**P**	**14 08 01.8**	**+2.3**
SVE	**Sverdlovsk**	**54.42**	**318**	⇑*i*P	**P**	**14 08 13.2**	**-0.2**
SVE				*e*	pP	14 08 27.0	-0.4
SVE				*e*		14 09 10.0	
SVE				*e*S	**S**	**14 15 47.0**	**+0.6**
SVE				*e*		14 19 30.0	
SVE				pmax	pmax		
	comp=Z,200nm,2.2s,mb5.7						
SVE				MLR	MLR		
	comp=Z,22µm,17.5s,MS6.3						
SOKR	**Solikamsk**	**55.52**	**322**	⇓*i*P	**P**	**14 08 18.3**	**-3.0**
SOKR				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.0						
SOKR				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.2						
ARU	**Arti**	**55.63**	**318**	⇑*i*P	**P**	**14 08 21.3**	**-0.9**
ARU				*e*		14 10 20.6	
ARU				*e*S	**S**	**14 16 06.3**	**+3.6**
ARU				*e*		14 18 11.0	
ARU				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.4						
ARU				MLR	MLR		
	comp=Z,8µm,18.0s,MS5.9						
ARU				MLR	MLR		
	comp=N,1µm,16.0s,MS5.8						
ARU				MLR	MLR		
	comp=E,6µm,18.0s,MS5.8						
ARU	**Arti**	**55.63**	**318**	*e*P	**P**	**14 08 21.2**	**-1.0**
	comp=E,74nm,1.2s,mb5.6						
CTA	**Charters Tower**	**58.36**	**175**	LR	LR	14 31 52.9	
	comp=E,775nm,19.8s,MS4.8,baz=356,slow=34						
CTAO	**Charters Tower**	**58.36**	**175**	*e*P	**P**	**14 08 39.5**	**-2.6**
CTAO				*e*		14 13 09.0	
WRAB	**Tennant Creek**	**58.52**	**188**	*c i*P	**P**	**14 08 41.1**	**-2.0**
WRAB	**Tennant Creek**	**58.52**	**188**	⇑*i*P	**P**	**14 08 40.9**	**-2.2**
	comp=E,69nm,0.9s,mb5.7						
WRA	**Warramunga Arr**	**58.53**	**188**	*i* P	**P**	**14 08 41.2**	**-2.0**
WRA				pmax	pmax		
	comp=Z,35nm,0.7s						
WRA	**Warramunga Arr**	**58.53**	**188**	P	**P**	**14 08 40.8**	**-2.4**
	comp=Z,35nm,0.7s,mb5.5,baz=7.1,slow=7.3,SNR=141						
LVZ	**Lovozero**	**61.03**	**336**	*e*P	**P**	**14 08 57.0**	**-2.7**
LVZ				pmax	pmax		
	comp=Z,71nm,1.7s,mb5.5						
APA	**Apatity**	**61.60**	**336**	⇓*i*P	**P**	**14 09 02.4**	**-1.2**
APA				*i*		14 09 40.7	
APA				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.3						
APA				MLR	MLR		
	comp=Z,5µm,17.0s,MS5.8						
ASAR	**Alice Springs**	**62.26**	**188**	P	**P**	**14 09 07.0**	**-1.6**
	comp=Z,17nm,0.8s,mb5.2,baz=13,slow=6.1,SNR=123						
ASAR				LR	LR	14 34 58.8	
	comp=Z,1µm,20.2s,MS5.0,baz=357,slow=35						
KEV	**Kevo**	**62.30**	**339**	*e*p	**P**	**14 09 04.6**	**-3.6**
	comp=Z,21nm,0.9s,mb5.3						
KEV	**Kevo**	**62.30**	**339**	*e*P	**P**	**14 09 04.6**	**-3.6**
KEV				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.3						
YKA	**Yellowknife Ar**	**62.34**	**31**	*i* P	**P**	**14 09 07.2**	**-1.4**
YKA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
YKA	**Yellowknife Ar**	**62.34**	**31**	P	**P**	**14 09 06.8**	**-1.7**
	comp=Z,4.1nm,0.7s,mb4.7,baz=301,slow=6.5,SNR=44						
ARCES	**ARCESS Array B**	**62.85**	**339**	P	**P**	**14 09 09.4**	**-2.5**
	comp=Z,19nm,1.0s,mb5.2,baz=48,slow=8.0,SNR=20						
MBWA	**Marble Bar**	**62.88**	**203**	*e*P	**P**	**14 09 10.9**	**-1.8**
	comp=Z,34nm,1.3s,mb5.3						
KTK1	**Kautokeino**	**63.81**	**339**	*e*P	**P**	**14 09 18.2**	**+0.1**
KTK1				AMb	AMB	14 09 19.1	
	comp=Z,41nm,1.2s,mb5.3						
KTK1				*e*pP	pP	14 09 29.8	-2.5
KTK1	**Kautokeino**	**63.81**	**339**	*e*P	**P**	**14 09 18.2**	**+0.1**
	comp=Z,41nm,1.2s,mb5.3						
DAG	**Danmarks Havn**	**64.41**	**355**	⇓*e*P	**P**	**14 09 20.0**	**-1.9**
DAG				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
DAG	**Danmarks Havn**	**64.41**	**355**	⇓*e*P	**P**	**14 09 20.0**	**-1.9**
	comp=Z,17nm,1.0s,mb5.0						
DAG	**Danmarks Havn**	**64.41**	**355**	⇓*i*P	**P**	**14 09 20.0**	**-1.9**
	comp=Z,17nm,1.0s,mb5.0						
TRO	**Tromso**	**64.54**	**341**	*e*P	**P**	**14 09 20.7**	**-2.1**
TRO				AMb	AMB	14 09 38.6	
	comp=Z,93nm,2.4s,mb5.4						
TRO	**Tromso**	**64.54**	**341**	AMS	AMS	14 09 08.1	
	comp=Z,6µm,18.6s,MS5.8						
TRO	**Tromso**	**64.54**	**341**	*e*P	**P**	**14 09 20.7**	**-2.1**
	comp=Z,93nm,2.3s,mb5.4						
OSR	**Olympics--Salm**	**65.29**	**48**	P	**P**	**14 09 28.8**	**+0.8**
RPW	**Rockport**	**66.21**	**46**	P	**P**	**14 09 33.5**	**-0.4**
HTW	**Haystack Looko**	**66.40**	**47**	P	**P**	**14 09 35.4**	**+0.3**
MOS	**Moscow**	**66.41**	**323**	*e*P	**P**	**14 09 34.4**	**-0.6**
MOS				*e*		14 09 58.6	

MOS				pmax	pmax		
	comp=Z,79nm,1.2s,mb5.6						
MOS				MLR	MLR		
	comp=Z,4µm,13.6s,MS5.8						
MOS				MLR	MLR		
	comp=N,2µm,14.2s,MS5.7						
MOS				MLR	MLR		
	comp=E,3µm,14.6s,MS5.7						
OBN	Obninsk	67.26	323α	*i*P	P	14 09 39.7	-0.7
OBN				*e*	pP	14 09 53.5	-1.3
OBN						14 10 03.0	
OBN				pmax	pmax		
	comp=Z,129nm,2.5s,mb5.5						
OBN				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.6						
OBN	Obninsk	67.26	323	*i* P	P	14 09 39.2	-1.2
OBN				LR	LR		
	comp=Z,3µm,16.0s,MS5.6						
KAF	Kangasniemi	67.28	333	*e*p	P	14 09 38.3	-2.1
	comp=Z,16nm,0.7s,mb5.2						
KAF	Kangasniemi	67.28	333	*e*P	P	14 09 38.3	-2.1
KAF				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.2						
TBM	Table Mountain	67.41	47	P	P	14 09 41.4	-0.1
WTV	Waterville	67.50	46	P	P	14 09 41.8	-0.2
EBG	Ellensburg	67.57	47	P	P	14 09 43.0	+0.6
FINES	FINESS Array B	67.80	332	*e*P	P	14 09 42.7	-0.9
FINES	FINESS Array B	67.80	332	P	P	14 09 42.0	-1.5
	comp=Z,28nm,0.7s,mb5.4,baz=56,slow=6.9,SNR=63						
FINES				LR	LR	14 41 57.1	
	comp=Z,2µm,18.4s,MS5.4,baz=58,slow=38						
VRSR	Storozhevoye	68.19	319*c*	*i*P	P	14 09 45.6	-0.6
VRSR				pmax	pmax		
	comp=Z,40nm,0.6s,mb5.6						
VRSR				pmax	pmax		
	comp=N,20nm,0.8s						
VRSR				pmax	pmax		
	comp=E,20nm,0.8s						
VRSR				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.7						
VRSR				MLR	MLR		
	comp=N,2µm,17.0s,MS5.6						
VRSR				MLR	MLR		
	comp=E,2µm,16.0s,MS5.6						
MOR8	Moi Rana	68.21	340	*e*P	P	14 09 44.3	-1.8
MOR8				AMb	AMB	14 09 49.1	
	comp=Z,64nm,1.2s,mb5.5						
MOR8	Moi Rana	68.21	340	*e*P	P	14 09 44.3	-1.8
	comp=Z,64nm,1.2s,mb5.5						
NEW	Newport	68.77	45	*e*P	P	14 09 49.5	-0.4
NEW				pmax	pmax		
	comp=Z,33nm,1.4s						
NEW	Newport	68.77	45	*e*P	P	14 09 49.5	-0.4
	comp=Z,33nm,1.4s,mb5.1						
YBH	Yreka Blue Hor	69.09	53	*e*P	P	14 09 52.8	+0.8
YBH				pmax	pmax		
	comp=Z,7.0nm,1.0s						
YBH	Yreka Blue Hor	69.09	53	*e*P	P	14 09 52.8	+0.8
	comp=Z,7.0nm,1.0s,mb4.5						
SUMG	Summit	69.27	0	*e*P	P	14 09 52.4	-0.2
	comp=Z,31nm,0.8s,mb5.3						
LHEM	Herd Peak	69.45	53	P	P	14 09 55.1	+0.8
VSU	Vasula	69.49	330⇑	*i*P	P	14 09 53.6	-0.5
GOF	Gofitskoye	69.53	312⇓	*i*P	P	14 09 54.0	-0.6
GOF				pmax	pmax		
	comp=Z,100nm,1.3s,mb5.6						
GOF				MLR	MLR		
	comp=Z,4µm,17.0s,MS5.7						
WDC	Whiskeytown Da	69.83	54	*e*P	P	14 09 55.8	-0.7
WDC				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
WDC	Whiskeytown Da	69.83	54	*e*P	P	14 09 55.8	-0.8
	comp=Z,9.4nm,1.1s,mb4.6						
STKA	Stephens Creek	69.97	180	P	P	14 09 55.6	-1.9
	comp=Z,3.6nm,0.9s,mb4.3,baz=344,slow=6.3,SNR=7.0						
STKA				LR	LR	14 40 42.0	
	comp=Z,983nm,19.4s,MS5.1,baz=21,slow=36						
STKA	Stephens Creek	69.97	180	*e*P	P	14 09 55.9	-1.6
ZEI	Tsey	70.30	309	*i* P	P	14 09 58.6	-0.7
ZEI				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
KIV	Kislovodsk	70.36	311	P	P	14 10 00.5	+0.8
	comp=Z,643nm,0.8s,SNR=22						
KIV	Kislovodsk	70.36	311⇑	*i*P	P	14 10 00.0	+0.3
TI2	Plekhanov	70.36	308⇑	*i*P	P	14 10 00.0	+0.3
TI2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
MOD	Modoc	70.49	52	*e*P	P	14 10 00.8	+0.3
	comp=Z,8.8nm,0.8s,mb4.7						
BMO	Blue Mountains	70.61	48	*e*P	P	14 10 01.2	+0.1
	comp=Z,134nm,1.4s,mb5.7						
OHCM	Honcut	71.20	54	*e*P	P	14 10 05.2	+0.3
GNI	Garni	71.26	307	P	P	14 10 05.9	+0.7
	comp=Z,4.1nm,0.5s,mb4.6,baz=100,slow=17,SNR=6.9						
GNI				LR	LR	14 44 38.7	
	comp=Z,3µm,18.6s,MS5.6,baz=45,slow=39						
GNI	Garni	71.26	307	*i* P	P	14 10 06.2	+1.0
MSO	Missoula	71.36	45	*e*P	P	14 10 03.2	-2.5
	comp=Z,185nm,1.2s,mb5.9						
MNK	Minsk	71.63	326	*e*P	P	14 10 05.0	-2.1
CHMT	Chamberlain Mo	71.69	44	*e*P	P	14 10 07.1	-0.5
FFC	Flin Flon	72.25	33	*e*P	P	14 10 09.9	-0.9
FFC				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
FFC	Flin Flon	72.25	33	*e*P	P	14 10 09.9	-0.9
	comp=Z,12nm,0.8s,mb4.9						
WCN	Washoe City	72.32	54	*e*P	P	14 10 12.8	+1.3
WCN				pmax	pmax		
	comp=Z,195nm,2.4s,mb5.6						
WCN	Washoe City	72.32	54	*e*P	P	14 10 12.8	+1.3
	comp=Z,195nm,2.4s,mb5.6						
SOC	Sochi	72.32	312	*e*P	P	14 10 09.4	-2.0
SOC				*e*S	S	14 19 31.7	+2.1
SOC				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.3						
SOC				pmax	pmax		
	comp=N,44nm,0.9s						
SOC				pmax	pmax		
	comp=E,9.0nm,0.6s						
SOC				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.6						
SOC				MLR	MLR		
	comp=N,2µm,19.0s,MS5.5						
SOC				MLR	MLR		
	comp=E,2µm,19.0s,MS5.5						
CMB	Columbia Colle	72.65	55	*e*P	P	14 10 13.4	0.0
CMB				pmax	pmax		
	comp=Z,23nm,1.4s,mb4.9						
CMB	Columbia Colle	72.65	55	*e*P	P	14 10 13.4	-0.1
	comp=Z,23nm,1.4s,mb4.9						
HFS	Hagfors	73.00	336	P	P	14 10 14.5	-0.6
	comp=Z,31nm,0.8s,mb5.3,baz=56,slow=5.2,SNR=32						
NB2	NORSAR Subarra	73.07	337	P	P	14 10 14.9	-0.5
	comp=Z,28nm,0.8s,mb5.2,baz=39,slow=5.8						
NB2	NORSAR Subarra	73.07	337	P	P	14 10 14.9	-0.5
	baz=39,slow=6.2						
NB2	NORSAR Subarra	73.07	337	P	P	14 10 14.9	-0.5
NB2				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
NOA	NORSAR Array B	73.07	337	P	P	14 10 14.5	-0.9
	comp=Z,16nm,0.7s,mb5.1,baz=39,slow=5.9,SNR=58						
NOA				LR	LR	14 45 09.4	
	comp=Z,3µm,20.9s,MS5.5,baz=20,slow=38						
LCCM	Lewis and Clar	73.10	45	P	P	14 10 16.1	+0.2
BMN	Battle Mountai	73.24	52	*e*P	P	14 10 18.1	+1.2
BMN				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
BMN	Battle Mountai	73.24	52	*e*P	P	14 10 18.1	+1.2
	comp=Z,12nm,0.9s,mb4.8						
NAO01	NORSAR Array S	73.33	337	*e*P	P	14 10 16.4	-0.5
	comp=Z,16nm,0.8s,mb5.0						
BOZ	Bozeman (W)	73.35	45	*e*P	P	14 10 17.4	0.0
BOZ				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
BOZ	Bozeman (W)	73.35	45	*e*P	P	14 10 17.4	0.0
	comp=Z,12nm,1.0s,mb4.8						
AKASG	Malin Array Be	73.48	322	P	P	14 10 16.8	-1.3
	comp=Z,20nm,0.6s,mb5.2,baz=45,slow=6.0,SNR=108						
ERZM	Erzurum	73.51	308	*i* P	P	14 10 19.7	+1.2
NVAR	Mina Array Bea	73.75	54	P	P	14 10 19.9	0.0
	comp=Z,5.6nm,0.8s,mb4.5,baz=274,slow=6.4,SNR=16						
NVAR				LR	LR	14 35 33.0	
	comp=Z,824nm,21.1s,MS5.0,baz=320,slow=30						
MNV	Mina	73.84	54	*e*P	P	14 10 20.4	0.0
MNV				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.8						
MNV	Mina	73.84	54	*e*P	P	14 10 20.4	0.0
	comp=Z,17nm,1.4s,mb4.8						
SUW	Suwalki	73.96	327	*e*P	P	14 10 20.6	-0.2
ELK	Elko	74.26	50	*e*P	P	14 10 23.5	+0.7
ELK				pmax	pmax		
	comp=Z,11nm,1.3s						
ELK	Elko	74.26	50	*e*P	P	14 10 23.5	+0.7
	comp=Z,11nm,1.3s,mb4.6						
YMR	Madison River	74.33	45	*e*P	P	14 10 24.1	+1.0
YNR	Norris Junctio	74.46	45	*e*P	P	14 10 26.1	+2.2
TPH	Tonopah	74.64	54	*e*P	P	14 10 24.9	-0.2
TPH				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
TPH	Tonopah	74.64	54	*e*P	P	14 10 24.9	-0.2
	comp=Z,16nm,1.0s,mb4.9						
SIM	Simferopol’	74.67	316	*e*P	P	14 10 25.0	-0.1
SIM				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.3						
NWAO	Narrogin (SRO)	74.67	201	P	P	14 10 23.3	-2.1
	comp=Z,18nm,0.9s,mb5.0,baz=29,slow=11,SNR=4.1						
NWAO	Narrogin (SRO)	74.67	201	*e*P	P	14 10 24.4	-1.0
LKWY	Lake	74.71	45	*e*P	P	14 10 27.4	+2.1
LKWY				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
LKWY	Lake	74.71	45	*e*P	P	14 10 27.4	+2.1
	comp=Z,12nm,1.0s,mb4.8						
IMW	Indian Meadow	74.83	46	*e*P	P	14 10 27.3	+1.3
MOOW	Moose Ponds	75.03	46	*e*P	P	14 10 28.0	+0.8
TPAW	Teton Pass	75.08	46	*e*P	P	14 10 28.2	+0.8
HVU	Hansel Valley	75.09	48	*e*P	P	14 10 28.5	+0.9
WUWY	Wally Ulrich	75.16	46	*e*P	P	14 10 28.5	+0.6
LOHW	Long Hollow	75.19	46	*e*P	P	14 10 29.0	+0.9
REDW	Red Top Meadow	75.21	46	*e*P	P	14 10 28.8	+0.6
DGMT	Dagmar	75.42	39	*e*P	P	14 10 29.0	-0.3
	comp=Z,48nm,1.3s,mb5.3						
BGU	Big Grassy Mou	75.47	49	*e*P	P	14 10 30.0	+0.3
TRCR	Troy Canyon	75.50	52	*e*P	P	14 10 33.0	+3.0
LAO	LASA Array	75.58	41	*e*P	P	14 10 30.3	+0.1
	comp=Z,36nm,1.1s,mb5.2						
HWUT	Hardware Ranch	75.91	48	*e*P	P	14 10 32.8	+0.5
	comp=Z,21nm,1.2s,mb4.9						
KIS	Kishinev	76.14	320	*e*P	P	14 10 32.0	-1.4
KIS				*e*	pP	14 10 46.0	-2.0
NOQ	North Oquirrh	76.18	49	*e*P	P	14 10 34.7	+0.9
MALT	Malatya	76.29	308	*e*P	P	14 10 35.4	+0.9
MALT				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
MALT	Malatya	76.29	308	*e*P	P	14 10 35.4	+0.9
	comp=Z,24nm,1.1s,mb5.0						
BORG	Borgarnes	76.31	353	P	P	14 10 31.9	-2.1
	comp=Z,30nm,0.9s,mb5.2,baz=35,slow=11,SNR=2.4						
TCUT	Toone Canyon	76.31	48	*e*P	P	14 10 35.1	+0.5
PDAR	Pinedale Array	76.32	46	P	P	14 10 34.5	0.0
	comp=Z,5.8nm,0.7s,mb4.6,baz=285,slow=1.0,SNR=31						
BSD	Bornholm Skovb	76.43	332	*i* P	P	14 10 34.0	-0.9
	comp=Z,38nm,0.8s,mb5.4						
	comp=Z,11µm,17.0s						
BOYT	Boyabat	76.46	312	*i* P	P	14 10 35.5	+0.1
NLU	North Lily Min	76.65	49	*e*P	P	14 10 37.0	+0.5
MPU	Maple Canyon	76.87	49	*e*P	P	14 10 36.6	-1.1
COP	Copenhagen	76.89	333⇑	*i*P	P	14 10 37.8	+0.3
COP				pmax	pmax		
	comp=Z,27nm,0.5s,mb5.4						
COP	Copenhagen	76.89	333⇑	*i*P	P	14 10 37.8	+0.3
	comp=Z,27nm,0.5s,mb5.4						
GKP	Gorka Klasztor	76.94	330	*e*P	P	14 10 38.2	+0.4
GKP				MLR	MLR		
	comp=Z,20µm,17.0s,MS6.5						
ARUT	Antelope Range	77.18	52	*e*P	P	14 10 40.5	+1.0
BALT	Daday	77.26	313	*i* P	P	14 10 38.1	-1.8
KWP	Kalwaria	77.27	324	*e*P	P	14 10 40.4	+0.7
MUD	Monsted U’grnd	77.38	335	*i* P	sP	14 11 09.0	+8.6
	comp=Z,9µm,16.0s						
MVU	Marysvale	77.48	51	*e*P	P	14 10 41.9	+0.7
	comp=Z,30nm,1.4s,mb5.0						
MSU	Marysvale	77.50	51	*e*P	P	14 10 42.0	+0.8
TMUT	Trail Mountain	77.58	50	*e*P	P	14 10 43.1	+1.4
NEN	Nelson	77.63	54	*e*P	P	14 10 42.6	+0.6
CFR	Carcaliu	77.72	319⇑	*i*P	P	14 10 42.2	-0.1
ELDT	Eldivan	77.91	312	*i* P	P	14 10 44.2	+0.7
KOLS	Kolonicke sedl	77.97	324	*e*P	P	14 10 43.8	+0.2
KOLS				*e*sP	sP	14 11 01.6	-2.2
VRI	Vrincioaia	77.97	320⇑	*i*P	P	14 10 44.3	+0.6
ULM	Lac du Bonnet	78.05	34	P	P	14 10 44.1	+0.1
	comp=Z,5.9nm,0.8s,mb4.6,baz=298,slow=5.7,SNR=9.8						
ULM				LR	LR	14 47 54.2	
	comp=Z,944nm,18.8s,MS5.1,baz=252,slow=38						
SRU	San Rafael	78.11	49	*e*P	P	14 10 44.9	+0.3
OJC	Ojcow	78.14	326	*e*P	P	14 10 45.0	+0.5
BRTR	Keskin Array B	78.28	312	P	P	14 10 45.5	-0.1
	comp=Z,12nm,1.1s,mb4.7,baz=72,slow=4.2,SNR=24						
RWWY	Rawlins	78.35	46	*e*P	P	14 10 46.2	+0.4
CRVS	Cervenica-Dubn	78.36	325	*e*P	P	14 10 47.7	+2.0
CRVS				*e*		14 10 52.8	
NIE	Niedzica	78.50	325	*e*P	P	14 10 47.0	+0.5
MLR	Muntele Rosu	78.63	320	P	P	14 10 47.0	-0.3
	comp=Z,6.8nm,0.8s,mb4.7,baz=6.9,slow=5.5,SNR=8.9						
BSEG	Bad Segeberg	79.02	333	*e*P	P	14 10 49.6	+0.3
KSP	Ksiaz	79.16	328⇑	*e*P	P	14 10 50.4	+0.3
KSP				*e*pP	pP	14 11 02.8	-2.0
KSP	Ksiaz	79.16	328	*e*P	P	14 10 50.3	+0.2
MORC	Moravsky Berou	79.44	327	*e*P	P	14 10 51.0	-0.7
MORC				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
MORC	Moravsky Berou	79.44	327	*e*P	P	14 10 51.0	-0.7
	comp=Z,3.4nm,0.4s,mb4.6						
PV10	Paradox Valley	79.47	49	*e*P	P	14 10 53.2	+1.2
PHWY	Pilot Hill	79.59	45	*e*P	P	14 10 53.0	+0.4
PSZ	Piszkesteto	79.79	325⇑	*i*P	P	14 10 54.2	+0.6
VYHS	Vyhne	79.84	326	*i* P	P	14 10 54.4	+0.6
VYHS				*e*		14 11 22.3	
PV01	Paradox Valley	79.91	49	*e*P	P	14 10 52.9	-1.5
MEST	Erdemli	80.02	309	*i* P	P	14 10 55.0	-0.1
BRG	Berggiesshubel	80.09	330⇑	*i*P	P	14 10 55.2	+0.1
	comp=Z,22nm,1.0s,mb5.0						
CLL	Collm	80.12	330⇑	*i*P	P	14 10 55.2	0.0
CLL				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
CLL	Collm	80.12	330⇑	*i*P	P	14 10 55.2	0.0
	comp=Z,36nm,1.0s,mb5.3						
CLL	Collm	80.12	330	⇑P	P	14 10 55.2	0.0
	comp=Z,logA/T=1.6,mb5.3						
VRAC	Vranov	80.20	327	P	P	14 10 56.0	+0.2
	comp=Z,19nm,0.9s,mb5.0,baz=49,slow=7.5,SNR=14						
RW3	Ridgway	80.35	49	*e*P	P	14 10 58.0	+1.2
SMOL	Smolenice	80.45	326	*e*P	P	14 10 58.3	+1.3
SMOL				*e*pP	pP	14 11 10.4	-1.4
MZLS	Mizel	80.48	293	P	P	14 10 57.8	0.0
ISCO	Idaho Springs	80.51	46	*e*P	P	14 10 57.8	+0.2
ISCO				pmax	pmax		
	comp=Z,23nm,1.5s,mb4.9						
ISCO	Idaho Springs	80.51	46	*e*P	P	14 10 57.8	+0.2
	comp=Z,23nm,1.5s,mb4.9						
PRU	Pruhonice	80.53	329	*i* P	P	14 10 57.8	+0.3
	comp=Z,25nm,1.0s,mb5.1						
PRU				pP	pP	14 11 09.9	-2.3
SRO	Srobarova	80.58	325	*e*P	P	14 10 58.6	+0.8
RAR	Rarotonga	80.59	127	LR	LR	14 39 21.5	
	comp=Z,1µm,21.0s,MS5.2,baz=286,slow=30						
SRO1	Iza	80.66	325	*e*P	P	14 10 58.9	+0.7
CLZ	Clausthal	80.69	332	*e*P	P	14 10 58.9	+0.7
	comp=Z,38nm,1.0s,mb5.3						
ZST	Bratislava	80.83	326	*e*P	P	14 10 59.9	+0.8
HILS	Ha’il	80.85	298	P	P	14 10 60.0	+0.4
ASF	Jabal al Asfar	81.13	304	P	P	14 11 00.3	-0.7
	comp=Z,7.4nm,0.6s,mb4.8,baz=285,slow=4.0,SNR=12						
ASF				LR	LR	14 50 27.1	
	comp=Z,2µm,21.7s,MS5.3,baz=278,slow=38						
MOX	Moxa	81.18	331	*e*P	P	14 11 00.9	0.0
MOX				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
MOX	Moxa	81.18	331	*i* P	P	14 11 00.9	0.0
	comp=Z,logA/T=1.3,mb5.0						
MOX	Moxa	81.18	331	*e*P	P	14 11 00.9	0.0
	comp=Z,28nm,1.4s,mb5.0						
KHC	Kasperske Hory	81.60	329	*i* P	P	14 11 03.3	+0.2
KHC	Kasperske Hory	81.60	329	*e*P	P	14 11 03.5	+0.4
PGB	Panagyurishte	81.61	319	*e*P	P	14 11 04.0	+0.7
EYMN	Ely	81.68	33	*e*P	P	14 11 02.6	-1.0
	comp=Z,19nm,1.4s,mb4.8						
GEC2	GERESS Array S	81.77	328	*e*P	P	14 11 04.2	+0.2
GEC2				pmax	pmax		
	comp=Z,19nm,1.2s,mb4.9						
GEC2	GERESS Array S	81.77	328	*e*P	P	14 11 04.2	+0.2
	comp=Z,19nm,1.2s,mb4.9						
GERES	GERESS Array B	81.77	328	P	P	14 11 03.8	-0.2
	comp=Z,5.0nm,0.7s,mb4.6,baz=34,slow=4.8,SNR=19						
GERES				LR	LR	14 49 54.1	
	comp=Z,3µm,20.9s,MS5.7,baz=26,slow=38						
WET	Wettzell	81.87	329	*e*P	P	14 11 05.0	+0.5
WET				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
WET	Wettzell	81.87	329	*e*P	P	14 11 05.0	+0.5
	comp=Z,23nm,1.2s,mb5.0						
RZN	Rozhen	81.93	318	P	P	14 11 06.0	+1.0
RHK1	Bakonya	81.98	324⇑	*i*P	P	14 11 05.0	-0.1
VTS	Vitosha	82.07	319	P	P	14 11 06.0	+0.3
GRA1	Grafenberg Arr	82.09	330	*e*P	P	14 11 06.4	+0.8
	comp=Z,51nm,1.0s,mb5.4						
GRF	Grafenberg Arr	82.09	330	*e*P	P	14 11 06.4	+0.8
GRF				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
GRF	Grafenberg Arr	82.09	330	*e*P	P	14 11 06.4	+0.8
GRF				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
GRF	Grafenberg Arr	82.09	330	*e*P	P	14 11 06.4	+0.8
	comp=Z,51nm,1.0s,mb5.4						
AFFS	‘Afif	82.13	294	P	P	14 11 06.6	+0.2
TUC	Tucson	82.35	55	*e*P	P	14 11 08.9	+1.6
GRUS	Gruza	82.38	321⇓	*i*P	P	14 11 07.4	+0.2
DIVS	Divcibare	82.57	322⇓	*i*P	P	14 11 08.3	+0.1
KKB	Krupnik	82.66	319	*e*P	P	14 11 08.0	-0.7
GROS	Grobnik	82.86	326	*e*P	P	14 11 09.4	-0.2
NVSS	Nova Varos 2	83.15	322⇓	*i*P	P	14 11 13.2	+2.1
FUR	Furstenfeldbru	83.29	329	*e*P	P	14 11 12.6	+0.8
FUR				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.4						
FUR	Furstenfeldbru	83.29	329	*e*P	P	14 11 12.6	+0.8
	comp=Z,41nm,1.0s,mb5.4						
ANMO	Albuquerque	83.29	50	*i* P	P	14 11 13.2	+1.1
ANMO	Albuquerque	83.29	50	*e*P	P	14 11 12.3	+0.2
	comp=Z,6.8nm,1.0s,mb4.6						
SKO	Skopje	83.42	320⇑	*i*P	P	14 11 13.8	+1.2
SKO				pmax	pmax		
	comp=Z,25nm,0.9s,mb5.2						
SKO	Skopje	83.42	320⇑	*i*P	P	14 11 13.8	+1.2
	comp=Z,25nm,0.9s,mb5.2						
KBRS	Khaybar	83.61	298	P	P	14 11 14.7	+0.9
BNM	Barren Site	83.73	51	*e*P	P	14 11 16.5	+2.2
SCHQ	Schefferville	83.84	16	P	P	14 11 13.2	-1.1
	comp=Z,6.6nm,0.9s,mb4.8,baz=331,slow=4.0,SNR=5.8						
SCHQ				LR	LR	14 49 29.8	
	comp=Z,608nm,20.1s,MS5.0,baz=183,slow=36						
TBKS	Tabuk	83.90	301	P	P	14 11 16.0	+0.8
JMQS	Jabal Moqyreh	83.92	302	P	P	14 11 16.1	+0.7
EIL	Elat	84.02	303	P	P	14 11 15.3	-0.5
	comp=Z,11nm,0.8s,mb5.0,baz=8.3,slow=5.2,SNR=11						
EIL	Elat	84.02	303	*e*P	P	14 11 16.0	+0.2
	comp=Z,61nm,1.6s,mb5.5						
GIVF	Givet	84.11	334	*e*P	P	14 11 16.9	+1.1
ALWS	Ilw as Safayha	84.18	303	P	P	14 11 17.3	+0.7
JMOS	Jabal al Moall	84.24	303	P	P	14 11 17.6	+0.6
BFO	Black Forest	84.31	331	*e*P	P	14 11 17.4	+0.6
BFO				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.4						
BFO	Black Forest	84.31	331	*e*P	P	14 11 17.4	+0.6
	comp=Z,29nm,1.0s,mb5.4						
BAIF	Baives	84.35	334	*e*P	P	14 11 16.9	-0.1
HAQS	Haql	84.44	303	P	P	14 11 18.4	+0.5
TATS	Tathlith	84.51	290	P	P	14 11 19.3	+0.8
CDF	Champ du Feu	84.64	332	*e*P	P	14 11 18.7	+0.2
	comp=Z,47nm,1.1s,mb5.2						
CDF	Champ du Feu	84.64	332	*e*P	P	14 11 18.7	+0.2
CDF				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.2						
DLF	Lyons Farm	84.66	342	*e*P	P	14 11 17.8	-0.6
BDAS	Al Bad‘	84.73	302	P	P	14 11 19.7	+0.3
AYUS	‘Aynunah	84.78	302	P	P	14 11 20.0	+0.3
DCN	Croghan	84.80	342	*e*P	P	14 11 19.0	-0.1
TAYS	Tayyib Ism	84.81	302	P	P	14 11 20.1	+0.3
PPT	Papeete	84.83	117	LR	LR	14 41 10.5	
	comp=Z,963nm,21.2s,MS5.2,baz=304,slow=30						
DAVOX	Davos	84.97	329	P	P	14 11 19.9	-0.3
	comp=Z,11nm,0.9s,mb5.0,baz=46,slow=3.7,SNR=15						
HAU	Haudompre	85.32	332	*e*P	P	14 11 21.7	-0.2
	comp=Z,24nm,0.9s,mb5.0						
HAU				*e*R			
	comp=Z,2µm,20.5s						
HAU	Haudompre	85.32	332	*e*P	P	14 11 21.7	-0.2
HAU				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
HAU				MLR	MLR		
	comp=Z,2µm,20.5s,MS5.5						
MEZF	Maizieres J’vi	85.38	333	*e*P	P	14 11 22.5	+0.4
	comp=Z,65nm,1.2s,mb5.3						
RPZ	Rata Peaks	85.90	159	LR	LR	14 44 19.4	
	comp=Z,926nm,18.7s,MS5.2,baz=329,slow=32						
MNTX	Cornudas Mount	86.17	52	*e*P	P	14 11 27.3	+0.9
	comp=Z,5.0nm,1.1s,mb4.7						
AMTX	Amarillo	86.17	48	*e*P	P	14 11 26.3	-0.1
	comp=Z,10nm,0.9s,mb5.1						
GDL2	Guadalupe Moun	86.45	51	*e*P	P	14 11 28.0	+0.2
CABF	La Chapelle	86.59	331	*e*P	P	14 11 28.2	+0.1
	comp=Z,24nm,1.2s,mb5.0						
CABF	La Chapelle	86.59	331	*e*P	P	14 11 28.2	+0.1
CABF				pmax	pmax		
	comp=Z,12nm,1.2s,mb5.0						
CLNB	Carlsbad	86.70	51	P	P	14 11 28.9	-0.1
FLN	La Foliniere	87.02	336	*e*P	P	14 11 29.8	-0.4
	comp=Z,32nm,1.0s,mb5.2						
FLN				*e*R			
	comp=Z,5µm,23.0s						
FLN	La Foliniere	87.02	336	*e*P	P	14 11 29.8	-0.4
FLN				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.2						
FLN				MLR	MLR		
	comp=Z,5µm,23.0s,MS5.8						
LDF	La Druitiere	87.05	336	*e*P	P	14 11 29.9	-0.4
	comp=Z,106nm,1.5s,mb5.5						
LDF	La Druitiere	87.05	336	*e*P	P	14 11 29.9	-0.4
LDF				pmax	pmax		
	comp=Z,53nm,1.5s,mb5.5						
SSF	Saint Saulge	87.15	333	*e*P	P	14 11 31.0	+0.1
SSF				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.2						
SSF	Saint Saulge	87.15	333	*e*P	P	14 11 31.0	+0.1
	comp=Z,18nm,1.1s,mb5.2						
LPL	La Plagne	87.25	330	*e*P	P	14 11 31.8	+0.4
LPG	La Plagne	87.26	330	*e*P	P	14 11 32.2	+0.8
	comp=Z,13nm,0.7s,mb5.0						
LPG	La Plagne	87.26	330	*e*P	P	14 11 32.2	+0.8
LPG				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
HYF	Humbligny	87.28	334	*e*P	P	14 11 31.9	+0.4
SMF	Signal de Mont	87.39	333	*e*P	P	14 11 32.3	+0.3
	comp=Z,68nm,1.4s,mb5.4						
SMF	Signal de Mont	87.39	333	*e*P	P	14 11 32.3	+0.3
SMF				pmax	pmax		
	comp=Z,34nm,1.4s,mb5.4						
AVF	Avril sur Loir	87.44	333	*e*P	P	14 11 32.4	+0.2
	comp=Z,63nm,1.1s,mb5.5						
AVF	Avril sur Loir	87.44	333	*e*P	P	14 11 32.4	+0.2
AVF				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.5						
GRR	Gorron	87.47	336	*e*P	P	14 11 32.8	+0.5
	comp=Z,93nm,1.2s,mb5.6						
GRR	Gorron	87.47	336	*e*P	P	14 11 32.8	+0.5
GRR				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.6						
TIP	Timpagrande	87.87	321	*e*P	P	14 11 34.7	+0.2
MBDF	Montbardon	87.90	330	*e*P	P	14 11 35.1	+0.6
WMOK	Wichita Mounta	87.94	46	*e*P	P	14 11 34.8	-0.1
WMOK				*e**PP	pP	14 11 47.8	-2.1
WMOK				pmax	pmax		
	comp=Z,28nm,1.6s,mb5.2						
WMOK	Wichita Mounta	87.94	46	*e*P	P	14 11 34.8	-0.1
	comp=Z,28nm,1.6s,mb5.2						
WMOK				*e*pP	pP	14 11 47.8	-2.1
ORIF	Oris-en-Rattie	88.08	331	*e*P	P	14 11 33.3	-2.1
	comp=Z,36nm,1.2s,mb5.2						
ORIF				*e*R			
	comp=Z,2µm,20.3s						
SGMF	Saint Gilles	88.11	337	*e*P	P	14 11 35.7	+0.3
	comp=Z,52nm,1.2s,mb5.3						
SGMF	Saint Gilles	88.11	337	*e*P	P	14 11 35.7	+0.3
SGMF				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.3						
ROSF	Rostrenen	88.25	338	*e*P	P	14 11 36.6	+0.5
QUIF	Quistinic	88.60	337	*e*P	P	14 11 37.4	-0.4

	comp=Z,47nm,1.3s,mb5.4						
QUIF	Quistinic	88.60	337	eP	P	14 11 37.4	-0.4
QUIF				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.4						
VIVF	Saint-Julien-l	88.60	331	eP	P	14 11 38.3	+0.5
	comp=Z,11nm,0.8s,mb5.0						
VIVF	Saint-Julien-l	88.60	331	eP	P	14 11 38.3	+0.5
VIVF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
MFF	Saint Martin d	88.81	335	eP	P	14 11 39.3	+0.5
TBI	Tubuai	88.83	121	eLQ		14 35 13.3	
TBI				eLR	LR	14 38 43.4	
	comp=Z,2μm,34.5s,baz=315						
LTX	Lajitas	88.87	53	eP	P	14 11 37.3	-2.2
LTX				e*PP	pP	14 11 51.3	-3.2
LTX				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb5.0						
LTX	Lajitas	88.87	53	eP	P	14 11 37.3	-2.2
	comp=Z,5.8nm,0.7s,mb5.0						
LTX				epP	pP	14 11 51.3	-3.1
TXAR	Lajitas Array	88.87	53	P	P	14 11 39.5	0.0
	comp=Z,2.1nm,0.6s,mb4.6,baz=300,slow=3.4,SNR=12						
RJF	Les Rejaudoux	89.37	333	eP	P	14 11 42.0	+0.5
	comp=Z,7.7nm,0.6s,mb4.9						
RJF				eR			
	comp=Z,2μm,22.5s						
RJF	Les Rejaudoux	89.37	333	eP	P	14 11 42.0	+0.5
RJF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.9						
RJF				MLR	MLR		
	comp=Z,2μm,22.5s,MS5.5						
CCM	Cathedral Cave	89.45	39	eP	P	14 11 41.7	-0.3
CCM				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.3						
CCM	Cathedral Cave	89.45	39	eP	P	14 11 41.7	-0.4
	comp=Z,18nm,1.1s,mb5.3						
SLM	Saint Louis	89.50	38	eP	P	14 11 42.1	-0.1
CAF	Calviac	89.50	333	eP	P	14 11 43.0	+0.9
	comp=Z,28nm,1.2s,mb5.2						
CAF	Calviac	89.50	333	eP	P	14 11 43.0	+0.9
CAF				pmax	pmax		
	comp=Z,14nm,1.2s,mb5.2						
FVM	French Village	89.91	39	P	P	14 11 43.9	-0.3
FVM				pmax	pmax		
	comp=Z,71nm,1.6s,mb5.8						
FVM	French Village	89.91	39	P	P	14 11 43.9	-0.3
	comp=Z,71nm,1.6s,mb5.8						
LFF	La Frestale	89.96	334	eP	P	14 11 45.0	+0.8
JCT	Junction City	90.42	50	eP	P	14 11 47.1	+0.3
JCT				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb5.1						
JCT	Junction City	90.42	50	eP	P	14 11 47.1	+0.3
	comp=Z,4.0nm,0.4s,mb5.1						
MIAR	Mount Ida	90.94	43	eP	P	14 11 48.2	-0.9
MIAR				pmax	pmax		
	comp=Z,47nm,1.8s,mb5.5						
MIAR	Mount Ida	90.94	43	eP	P	14 11 48.2	-0.9
	comp=Z,47nm,1.8s,mb5.5						
ACSO	Alum Creek Sta	91.52	33	eP	P	14 11 51.8	+0.2
	comp=Z,28nm,1.2s,mb5.5						
OXF	Oxford	93.14	40	eP	P	14 12 01.7	+2.5
OXF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb5.1						
OXF	Oxford	93.14	40	eP	P	14 12 01.7	+2.5
	comp=Z,5.1nm,0.6s,mb5.1						
SDV	Santo Domingo	123.92	40	ePKPdf	PKPdf	14 17 42.5	-0.1
LBTB	Lobatse	125.28	264	ePKIKP	PKPdf	14 17 46.0	+1.0
DBIC	Dimbokro	125.58	318	PKP	PKPdf	14 17 47.1	+1.3
	comp=Z,1.6nm,0.7s,baz=68,slow=5.4,SNR=2.4						
QSPA	South Pole Qui	128.19	180	ePKPdf	PKPdf	14 17 49.1	-0.1
SYO	Syowa Base	129.69	207	⇑pPdiff		14 14 59.2	
SYO	Syowa Base	129.69	207	⇑PKiKP		14 17 56.9	
SNAA	Sanae	142.25	197	⇑iP	PKPdf	14 18 10.7	-4.4
VNA2	Neumayer--Watz	143.81	196	⇑iP	PKPbc	14 18 19.6	+2.8
VNA2	Neumayer--Watz	143.81	196		PKPbc	14 18 33.5	+17
VNA2	Neumayer--Watz	143.81	196	⇑i	PKPbc	14 18 40.6	+24
VNA2	Neumayer--Watz	143.81	196	⇑i	PKPbc	14 18 52.5	+36
VNA3	Neumayer Olymp	144.06	195	⇑iP	PKPbc	14 18 20.2	+2.7
VNA3	Neumayer Olymp	144.06	195	⇓i	PKPbc	14 18 37.3	+20
VNA1	Neumayer--Stat	144.21	196	⇑iP	PKPbc	14 18 21.4	+3.5
VNA1	Neumayer--Stat	144.21	196	⇑i	PKPbc	14 18 43.4	+25
LPAZ	La Paz	145.54	59	ePKP2	PKPab	14 18 24.1	-0.8
LPAZ	La Paz	145.54	59	PKPbc	PKPbc	14 18 24.0	+1.0
	comp=Z,16nm,1.1s,baz=332,slow=4.2,SNR=24						
RCBR	Riachuelo	147.47	356	ePKPdf	PKPdf	14 18 29.0	+3.3
LVC	Limon Verde	149.20	68	ePKPbc	PKPdf	14 18 34.5	+6.3
TLL	Tololo Astrono	151.75	83	eP	PKPdf	14 18 39.9	+7.9
BDFB	Brasilia	155.61	24	PKPab	PKPab	14 19 01.2	-5.1
	comp=Z,3.6nm,0.7s,baz=152,slow=6.8,SNR=3.5						

MOS **29** *14:03:21.9±1.0,3.18N×93.94E,h33^{km},mb5.6/40, MS5.2/4,Error ellipse: s-maj=10.8km s-min=6.1km az=120.6*

BJI **29** *14:03:21.4,2.59N×93.84E,h54^{km},mb5.1,mB5.8,Ms5.2, Msz5.1*

NEIC **29** *14:03:22.8±0.2,3.11N×93.88E,mb5.4/35,Error ellipse: s-maj=7.5km s-min=6.1km az=72.0*

IDC **29** *14:03:22.7±0.4,3.15N×93.90E,h26^{km}±2^{km},mb4.9/25, mb1 4.9/26,mb1mx4.9/27,mbtmp5.0/26,ML4.3/1,MS4.6/5, Ms1 4.6/5,ms1mx4.2/26,Error ellipse: s-maj=17.8km s-min=9.3km az=45.0*

HRVD **29** *14:03:22.8±0.5,3.19N×93.80E,h13^{km}±1^{km},MW5.1/40, Centroid moment Tensor Solution. LP body waves: s18,c21;Mantle waves: s40,c64; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.08±.38; $M_{\theta\theta}$-1.38±.20; $M_{\phi\phi}$-3.70±.28; $M_{r\theta}$-1.45±.63; $M_{\theta\phi}$1.55±.17; $M_{\phi r}$2.03±.63; Best double couple: $M_0$5.39×10^{16} NP1:ϕ_s156°,δ31°,λ96°. NP2:ϕ_s330°,δ59°,λ86°. Principal axes: T 5.7, Plg76°, Azm229°; N -.62, Plg3°, Azm331°; P -5.08, Plg14°, Azm62°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

CSEM **29** *14:03:23.4,3.29N×94.01E,h33^{km},mb5.6*

ISC 29 14:03:21.9±1.1**,3.11N**±0.04×**93.96E**±0.04**,h33**^{km}±9^{km}**, h26**^{km}±.6^{km}**:pP-P,n229,**σ$1\overset{s}{.}$**01**/215**,mb5.2**/74**,MS5.0**/15**, 25C-10D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	7.77	58	P	P	14 05 16.0	+0.7
	440nm,1.0s						
PALK	Pallekele	13.83	288	P	P	14 06 40.1	+2.1
COCO	West Island	15.47	169	eP	P	14 06 59.8	+0.4
	341nm,1.5s						
CM31	Chiang Mai Arr	16.01	17	P	P	14 07 06.4	0.0
CMAR	Chiang Mai Arr	16.01	17	Pn	P	14 07 04.6	-1.7
	0.5nm,0.3s,baz=32,slow=8.0,SNR=12						
CMAR				LR	LR	14 13 57.0	
	comp=Z,899nm,19.2s,baz=185,slow=40						
UBT	Ubonrachathani	16.25	41	P	P	14 07 15.0	+5.6
KOD	Kodaikanal	17.83	294	eP	P	14 07 28.2	-1.0
KOD				eS	S	14 10 46.0	+1.7
VIS	Vishakhapatnam	17.87	325	⇓eP	P	14 07 28.7	-1.0
VIS				e		14 07 30.0	
	comp=Z,76nm,1.4s						
VIS				eS	S	14 10 48.4	+3.2
HYB	Hyderabad	20.75	314	⇑eP	P	14 08 01.5	-0.9
HYB				pmax	pmax		
	comp=Z,250nm,1.4s						
HYB	Hyderabad	20.75	314	⇑eP	P	14 08 01.5	-0.9
	comp=Z,250nm,1.4s						
HYB				eS	S	14 12 00.0	+13
HYB	Hyderabad	20.75	314	⇑iP	P	14 08 01.5	-0.9
	comp=Z,250nm,1.4s						
MNGI	Mangalore	21.29	298	⇑eP	P	14 08 07.7	-0.3
QIZ	Qiongzhong	22.17	43	P	P	14 08 19.5	+2.8
QIZ	Qiongzhong	22.17	43	eP	P	14 08 18.9	+2.1
SHL	Shillong	22.41	355	⇑eP	P	14 08 17.8	-1.3
SHL				e		14 08 20.3	
	comp=Z,101nm,1.4s						
SHL				eS	S	14 12 25.1	+6.7
GOA	Goa	23.33	303	e	P	14 08 34.0	+5.8
KMI	Kunming	23.46	20	⇑P	P	14 08 32.0	+2.5
KMI				AP		14 08 41.0	
KMI				AMB	AMB		
	comp=Z,76nm,1.7s,mb4.8						
KMI				AMB	AMB		
	comp=Z,811nm,4.7s						
KMI				LR	LR		
	comp=N,4μm,17.2s,MS5.1						
KMI				LR	LR		
	comp=E,4μm,18.4s,MS5.1						
KMI				LR	LR		
	comp=Z,7μm,16.6s,MS5.2						
DGAR	Diego Garcia	23.87	244	i P	P	14 08 34.3	+0.8
KAD	Karad	23.99	307	⇑eP	P	14 08 35.1	+0.5
KAD				⇑iP		14 08 35.6	
	comp=Z,147nm,1.6s						
AKL	Akola	24.04	318	⇓eP	P	14 08 37.8	+2.7
AKL				e		14 08 41.7	
	comp=Z,87nm,1.9s						
POO	Poona	24.94	309	⇑eP	P	14 08 44.3	+0.4
POO				e		14 08 45.9	
	comp=Z,22nm,1.1s						
BHPL	Bhopal	25.62	323	eP	P	14 08 51.1	+0.8
BHPL				e		14 08 54.8	
	comp=Z,128nm,1.7s						
BOM	Bombay	25.96	309	eP	P	14 08 53.6	+0.2
BOM				e		14 08 57.9	
	comp=Z,216nm,1.5s						
LSA	Lhasa	26.58	355	eP	P	14 09 01.3	+2.3
LSA				pmax	pmax		
	comp=Z,171nm,0.9s,mb5.6						
LSA	Lhasa	26.58	355	eP	P	14 09 01.3	+2.3
	comp=Z,171nm,0.9s,mb5.6						
NDI	New Delhi	30.01	330	⇓eP	P	14 09 30.1	+0.1
ENH	Enshi	30.75	27	eP	P	14 09 33.5	-3.1
WHN	Wuhan	33.41	33	⇓P	P	14 10 01.0	+1.2
MBWA	Marble Bar	34.92	135	eP	P	14 10 12.8	-0.1
GTA	Gaotai	36.52	8	P	P	14 10 26.8	+0.6
GTA				S	S	14 16 01.3	-4.4
GTA				AMB	AMB		
	comp=Z,25nm,1.3s,mb4.9						
GTA				AMB	AMB		
	comp=Z,839nm,11.8s						
GTA				LR	LR		
	comp=N,926nm,17.1s,MS5.0						
GTA				LR	LR		
	comp=E,2μm,13.3s,MS5.0						
GTA				LR	LR		
	comp=Z,2μm,17.1s,MS5.0						
NJ2	Nanjing	37.10	36	eP	P	14 10 31.5	+0.4
NJ2				PP	PP	14 11 59.0	+0.7
NJ2				S	S	14 16 15.0	+0.4
NJ2				AMB	AMB		
	comp=Z,100nm,1.3s,mb5.5						
NJ2				AMB	AMB		
	comp=Z,9μm,11.0s						
NJ2				LR	LR		
	comp=N,7μm,10.9s,MS5.8						
NJ2				LR	LR		
	comp=E,6μm,11.3s,MS5.8						
NJ2				LR	LR		
	comp=Z,9μm,11.0s,MS5.8						
SSE	Sheshan	37.87	40	P	P	14 10 35.3	-2.4
SSE				S	S	14 16 26.5	+0.1
SSE				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,6μm,12.0s						
SSE				LR	LR		
	comp=N,439nm,22.1s,MS4.4						
SSE				LR	LR		
	comp=E,549nm,22.1s,MS4.4						
SSE				LR	LR		
	comp=Z,877nm,13.9s						
JOW	Kunigami	40.44	51	LR	LR	14 26 58.5	
	comp=Z,1μm,19.6s,MS4.8,baz=77,slow=35						
HHC	Hu-ho-hao-te	40.79	21	eP	P	14 11 03.5	+1.7
HHC				AMB	AMB		
	comp=Z,51nm,1.2s,mb5.0						
HHC				LR	LR		
	comp=N,788nm,17.8s,MS5.0						
HHC				LR	LR		
	comp=E,2μm,19.0s,MS5.0						
HHC				LR	LR		
	comp=Z,676nm,14.3s,MS4.7						
WMQ	Urumqi	40.91	353	⇑P	P	14 11 04.0	+1.2
WMQ				AP	pP	14 11 14.3	+1.7
WMQ				PP	PP	14 12 41.3	+1.2
WMQ				S	S	14 17 07.5	-4.5
WMQ				AMB	AMB		
	comp=Z,46nm,1.7s,mb4.8						
WMQ				LR	LR		
	comp=N,565nm,16.0s,MS4.8						
WMQ				LR	LR		
	comp=E,823nm,17.4s,MS4.8						
WMQ				LR	LR		
	comp=Z,799nm,16.8s,MS4.7						
BJT	Baijiatuau	41.88	26	eP	P	14 11 12.8	+2.0
BJT				pmax	pmax		
	comp=Z,107nm,1.3s						
BJT	Baijiatuau	41.88	26	eP	P	14 11 12.8	+2.0
	comp=Z,107nm,1.3s,mb5.3						
ULHL	Ulahol	42.06	340	P	P	14 11 13.0	+0.8
	SNR=6.0						
UCH	Uchtor	42.65	339	P	P	14 11 17.9	+0.8
	SNR=7.3						
KBK	Karagaybulak	42.87	339	P	P	14 11 19.9	+1.0
	SNR=12						
AML	Almayashu	42.87	338	P	P	14 11 20.1	+1.1
	SNR=11						
TKM2	Tokmak 2	42.88	340	P	P	14 11 19.2	+0.2
	SNR=7.1						
AAK	Ala-Archa	43.01	339	P	P	14 11 21.1	+1.1
	SNR=5.9						
AAK	Ala-Archa	43.01	339	i P	P	14 11 18.4	-1.6
CHMS	Chumysh	43.24	339	P	P	14 11 22.2	+0.3
	SNR=6.5						
EKS2	Erkin-Say	43.30	338	P	P	14 11 23.9	+1.5
	SNR=5.4						
USP	Ospenovka	43.56	339	P	P	14 11 25.0	+0.5
	SNR=11						
WRA	Warramunga Arr	45.79	122	P	P	14 11 42.3	-0.4
	comp=Z,94nm,0.9s,mb5.7,baz=298,slow=8.9,SNR=48						
WRA				pP	pP	14 11 51.2	-1.4
	comp=Z,78nm,0.9s,baz=298,slow=8.9,SNR=17						
WRAB	Tennant Creek	45.80	122	⇑iP	P	14 11 43.0	+0.3
SONM	Songino Array	45.83	12	P	P	14 11 42.2	-0.4
	comp=Z,9.8nm,0.8s,mb4.8,baz=187,slow=8.3,SNR=25						
SONM				pP	pP	14 11 51.5	-0.9
	comp=Z,16nm,0.8s,baz=192,slow=8.4,SNR=18						
SONM				LR	LR	14 31 28.4	
	comp=Z,606nm,19.0s,MS4.6,baz=271,slow=37						
ULN	Ulaanbaatar	45.99	12	i P	P	14 11 44.2	+0.3
SNY	Shenyang	46.80	30	⇑P	P	14 11 50.8	+0.5
SNY				AMB	AMB		
	comp=Z,30nm,1.7s,mb5.0						
ASAR	Alice Springs	47.13	127	P	P	14 11 53.2	+0.1
	comp=Z,50nm,0.9s,mb5.4,baz=304,slow=7.5,SNR=51						
ASAR				pP	pP	14 12 01.9	-1.2
	comp=Z,35nm,0.9s,baz=299,slow=8.4,SNR=13						
ASAR				PcP	PcP	14 13 24.1	-0.9
	comp=Z,7.0nm,0.8s,baz=302,slow=2.4,SNR=4.0						
ZAK	Zakamensk	47.76	8	eP	P	14 11 57.1	-0.6
TLY	Talaya	49.08	8	eP	P	14 12 09.0	+1.1
TLY				e	pP	14 12 17.2	-0.6
TLY				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.9						
TLY	Talaya	49.08	8	i P	P	14 12 08.1	+0.2
HIA	Hailar	50.97	22	eP	P	14 12 23.1	+0.7
HIA				pmax	pmax		
	comp=Z,42nm,0.9s						
HIA	Hailar	50.97	22	eP	P	14 12 23.1	+0.6
	comp=Z,42nm,0.9s,mb5.4						
ZAL	Zalesovo	51.22	353	P	P	14 12 23.6	-0.6
	comp=Z,16nm,0.4s,mb5.3,baz=217,slow=5.1,SNR=28						
ZAL				pP	pP	14 12 32.8	-1.4
	comp=Z,20nm,0.9s,baz=205,slow=6.7,SNR=12						
CBIJ	Chichi jima	51.87	58	LR	LR	14 33 03.5	
	comp=Z,635nm,20.9s,MS4.6,baz=88,slow=34						
MDJ	Mudanjiang	51.88	32	P	P	14 12 30.5	+1.2
MDJ				AP	pP	14 12 39.5	+0.3
MDJ				AMB	AMB		
	comp=Z,33nm,1.2s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,283nm,4.9s						
MDJ	Mudanjiang	51.88	32	eP	P	14 12 30.8	+1.5
MDJ				e	pP	14 12 39.6	+0.4
NVS	Novosibirsk	52.30	352	i P	P	14 12 30.9	-1.4
NVS				e	pP	14 12 39.7	-2.6
NVS				pmax	pmax		
	comp=Z,86nm,1.5s,mb5.5						
NVS				pmax	pmax		
	comp=N,83nm,1.6s						
NVS				pmax	pmax		
	comp=E,29nm,1.4s						
BVAR	Borovoye Array	53.43	342	P	P	14 12 39.4	-1.3
	comp=E,14nm,0.8s,mb4.9,baz=134,slow=10,SNR=20						
BRVK	Borovoye	53.49	342	i P	P	14 12 39.1	-2.1
CHKZ	Chkalovo	53.93	343	eP	P	14 12 43.9	-0.5
PMG	Port Moresby	54.45	104	P	P	14 12 48.6	-0.3
	comp=E,20nm,1.1s,mb5.0,baz=279,slow=7.1,SNR=6.8						
KLR	Kul'dur	56.08	29	⇓iP	P	14 12 57.9	-2.2
CTA	Charters Tower	56.25	117	P	P	14 13 01.6	-0.2
	comp=E,28nm,1.0s,mb5.2,baz=284,slow=10,SNR=11						
CTAO	Charters Tower	56.25	117	eP	P	14 13 01.5	-0.2
BOD	Bodaibo	56.80	13	eP	P	14 13 04.3	-0.9
KMBO	Kilima Mbogo	56.84	267	i P	P	14 13 06.3	+0.2
KMBO				pmax	pmax		
	comp=Z,19nm,1.1s						
KMBO	Kilima Mbogo	56.84	267	P	P	14 13 06.3	+0.2
	comp=Z,19nm,1.1s,mb5.0,baz=48,slow=7.4,SNR=21						
KMBO	Kilima Mbogo	56.84	267	eP	P	14 13 05.9	-0.1
	comp=Z,32nm,1.3s,mb5.2						
STKA	Stephens Creek	57.04	131	P	P	14 13 06.7	-0.6
	comp=Z,20nm,0.8s,mb5.2,baz=302,slow=7.0,SNR=14						
STKA	Stephens Creek	57.04	131	eP	P	14 13 06.7	-0.6
GNI	Garni	57.68	317	i P	P	14 13 10.2	-1.5
GNI	Garni	57.68	317	P	P	14 13 10.7	-0.9
	comp=Z,8.8nm,0.7s,mb4.9,baz=211,slow=8.7,SNR=5.0						
TI2	Plekhanov	58.39	318	i P	P	14 13 16.0	-0.6
TI2				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
ASAJ	Asahikawa	59.16	39	P	P	14 13 22.1	+0.2
	comp=Z,14nm,0.9s,mb5.0,baz=236,slow=6.1,SNR=4.5						
ASAJ				LR	LR	14 38 12.3	
	comp=Z,682nm,20.2s,MS4.8,baz=78,slow=35						
ZEI	Tsey	59.43	319	i P	P	14 13 23.5	-0.3
ZEI				i *PP	pP	14 13 31.1	-2.8
ZEI				i		14 15 37.3	
ZEI				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
SVE	Sverdlovsk	59.75	340	⇑eP	P	14 13 24.5	-1.3
SVE				eS	S	14 21 26.0	-6.8
SVE				pmax	pmax		
	comp=Z,170nm,1.5s,mb5.8						
SVE				MLR	MLR		
	comp=Z,2μm,17.0s,MS5.4						
ARU	Arti	60.19	338	⇓iP	P	14 13 27.0	-1.9
ARU				e		14 14 07.6	
ARU				e		14 15 36.0	
ARU				ePPP	PPP	14 17 03.2	-6.8
ARU				eS	S	14 21 39.5	+1.0
ARU				e		14 23 16.9	
ARU				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.2						
ARU	Arti	60.19	338	eP	P	14 13 27.2	-1.7
	comp=Z,30nm,1.0s,mb5.3						
ARU				epP	pP	14 13 35.0	-4.0
YSS	Yuzh-Sakhalins	60.67	36	i P	P	14 13 32.8	+0.6
ASF	Jabal al Asfar	60.72	305	P	P	14 13 33.1	+0.3
	comp=Z,29nm,1.2s,mb5.3,slow=2.0,SNR=8.5						
KIV	Kislovodsk	60.76	320	i P	P	14 13 30.6	-2.3
MALT	Malatya	61.45	312	eP	P	14 13 37.8	+0.2
MALT				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.5						
MALT	Malatya	61.45	312	eP	P	14 13 37.8	+0.1
	comp=Z,50nm,1.3s,mb5.5						
EIL	Elat	61.70	302	P	P	14 13 38.7	-0.7
	comp=Z,31nm,1.1s,mb5.3,baz=123,slow=3.8,SNR=10.0						
EIL	Elat	61.70	302	eP	P	14 13 39.3	-0.1
SOC	Sochi	62.54	318	eP	P	14 13 42.7	-2.2
SOC				pmax	pmax		
	comp=N,34nm,1.2s						
SOC				pmax	pmax		
	comp=Z,61nm,1.4s,mb5.5						
SOC				pmax	pmax		
	comp=E,19nm,1.0s						
MBAR	Mbarara	63.30	268	eP	P	14 13 49.2	-1.1
MBAR				pmax	pmax		
	comp=Z,52nm,1.5s,mb5.4						
MBAR	Mbarara	63.30	268	eP	P	14 13 49.2	-1.1
	comp=Z,52nm,1.5s,mb5.4						
ANN	Anapa	64.53	319	eP	P	14 13 50.8	-7.1
ANN				eS	S	14 22 28.3	-5.0
ANN				pmax	pmax		
	comp=Z,57nm,1.2s,mb5.5						
ANN				MLR	MLR		
	comp=N,3μm,24.0s,MS5.5						
ANN				MLR	MLR		
	comp=E,3μm,24.0s,MS5.5						
ANN				MLR	MLR		
	comp=Z,4μm,24.0s,MS5.5						
YAK	Yakutsk	64.55	18	⇑iP	P	14 13 57.4	-0.3
YAK				e*PP	pP	14 14 05.7	-2.3
BRTR	Keskin Array B	65.44	313	P	P	14 14 02.5	-1.3
	comp=Z,12nm,1.0s,mb4.9,baz=128,slow=6.7,SNR=9.5						
BRTR				pP	pP	14 14 11.0	-3.2
	comp=Z,7.8nm,0.8s,baz=131,slow=6.9,SNR=7.6						
SIM	Simferopol'	66.78	318	eP	P	14 14 11.5	-0.8
SIM				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
LSZ	Lusaka	67.58	252	eP	P	14 14 17.2	-0.5
LSZ				e*PP	pP	14 14 26.0	-2.1
LSZ				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
LSZ	Lusaka	67.58	252	eP	P	14 14 17.2	-0.5
	comp=Z,9.6nm,0.6s,mb5.0						
LSZ				epP	pP	14 14 26.0	-2.1
MOS	Moscow	69.05	330	eP	P	14 14 25.7	-0.5
MOS				e		14 14 33.3	
MOS				pmax	pmax		
	comp=Z,108nm,1.4s,mb5.6						
OBN	Obninsk	69.31	329	c iP	P	14 14 26.5	-1.3
OBN				i		14 14 34.4	
OBN				e		14 14 40.2	
OBN				e		14 14 46.0	
OBN						14 17 00.0	
OBN				PPP	PPP	14 18 46.0	+4.1
OBN				i S	S	14 23 21.4	-9.3
OBN				pmax	pmax		
	comp=Z,93nm,1.7s,mb5.4						
OBN				MLR	MLR		
	comp=Z,1μm,17.0s,MS5.2						
OBN	Obninsk	69.31	329	i P	P	14 14 26.1	-1.7
SKR	Severo-Kuril's	70.23	37	eP	P	14 14 31.8	-1.7
SKR				e		14 14 39.1	
SKR				pmax	pmax		
	comp=Z,180nm,1.0s,mb6.0						
CASY	Casey	70.25	173	eP	P	14 14 33.8	+0.4
	comp=Z,108nm,1.6s,mb5.5						
CFR	Carcaliu	70.89	317	⇓iP	P	14 14 37.3	-0.4
HARR	Harsova	70.90	316	⇓iP	P	14 14 37.5	-0.2
KIS	Kishinev	70.93	319	eP	P	14 14 35.0	-2.9
KIS				e	pP	14 14 45.0	-3.2
KIS				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.0						
MA2	Magadan	71.06	27	i P	P	14 14 38.2	-0.2
AKASG	Malin Array Be	71.78	323	P	P	14 14 41.4	-1.5
	comp=Z,3.0nm,0.5s,mb4.5,baz=92,slow=4.9,SNR=12						
AKASG				pP	pP	14 14 49.0	-4.1
	comp=Z,3.9nm,0.6s,baz=90,slow=4.8,SNR=6.6						
LBTB	Lobatse	71.85	243	eP	P	14 14 43.3	-0.4
LBTB				e*PP	pP	14 14 51.8	-2.2
LBTB				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
LBTB	Lobatse	71.85	243	eP	P	14 14 43.3	-0.5
	comp=Z,25nm,1.1s,mb5.1						
LBTB				epP	pP	14 14 51.8	-2.2
TIXI	Tiksi	71.91	11	⇑iP	P	14 14 43.2	-0.1
VRI	Vrincioaia	72.02	317	⇑iP	P	14 14 44.4	0.0
MLR	Muntele Rosu	72.46	317	P	P	14 14 46.8	-0.2
	comp=Z,59nm,1.2s,mb5.4,baz=22,slow=2.7,SNR=15						
PET	Petropavlovsk	72.50	35	eP	P	14 14 55.0	+7.9
PET				eS	S	14 24 07.6	-0.2
PET				pmax	pmax		
	comp=Z,46nm,1.3s,mb5.2						
PET				MLR	MLR		
	comp=Z,600nm,19.0s,MS4.9						
BOSA	Boshof	72.95	239	eP	P	14 14 49.3	-1.0
BOSA				e*PP	pP	14 14 58.2	-2.4
MAW	Mawson	73.87	192	eP	P	14 14 54.0	-0.9
MAW	Mawson	73.87	192	P	P	14 14 55.1	+0.3
	comp=Z,8.4nm,1.1s,mb4.6,baz=359,slow=7.8,SNR=5.4						
BOLS	Boljevac	74.89	315	⇓iP	P	14 15 00.2	-1.1
KWP	Kalwaria	75.54	321	eP	P	14 15 05.0	+0.1
VSU	Vasula	75.58	330	i P	P	14 15 02.9	-2.0
KOLS	Kolonicke sedl	75.67	320	eP	P	14 15 06.1	+0.5
KOLS				epP	pP	14 15 14.6	-1.3
GRUS	Gruza	75.79	314	⇑iP	P	14 15 05.0	-1.4
LVZ	Lovozero	75.95	340	i P	P	14 15 05.8	-1.0

CRVS	Cervenica-Dubn	76.19	320	eP	P	14 15 11.0	+2.4
SUW	Suwalki	76.25	325	eP	P	14 15 08.3	-0.5
SUW				e*PP	pP	14 15 16.5	-2.6
DIVS	Divcibare	76.34	315	⇑iP	P	14 15 09.0	-0.5
FINES	FINESS Array B	76.82	333	i P	P	14 15 11.2	-0.7
FINES				pmax	pmax		
	comp=Z,8.0nm,0.8s						
FINES	FINESS Array B	76.82	333	P	P	14 15 11.0	-0.9
	comp=Z,8.0nm,0.8s,mb4.7,baz=108,slow=6.3,SNR=12						
FINES				pP	pP	14 15 19.6	-2.7
	comp=Z,6.8nm,0.8s,baz=112,slow=10,SNR=7.0						
KAF	Kangasniemi	76.93	333	ep	P	14 15 11.2	-1.3
	comp=Z,18nm,1.1s,mb4.9						
KAF	Kangasniemi	76.93	333	eP	P	14 15 11.2	-1.3
KAF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
NIE	Niedzica	77.03	320	eP	P	14 15 13.6	+0.3
PSZ	Piszkesteto	77.03	318	eP	P	14 15 12.9	-0.5
PSZ				pmax	pmax		
	comp=Z,55nm,1.5s,mb5.3						
PSZ	Piszkesteto	77.03	318	eP	P	14 15 12.9	-0.5
	comp=Z,55nm,1.5s,mb5.3						
OJC	Ojcow	77.50	321	eP	P	14 15 16.1	+0.2
VYHS	Vyhne	77.83	319	i P	P	14 15 17.9	+0.1
VYHS				epP	pP	14 15 26.3	-1.8
SRO	Srobarova	78.07	318	eP	P	14 15 20.4	+1.3
KOLL	Kolacno	78.13	319	eP	P	14 15 20.3	+0.9
KOLL				epP	pP	14 15 28.0	-1.7
OKC	Ostrava-Krasne	78.48	320	eP	P	14 15 21.6	+0.3
OKC				epP	pP	14 15 30.0	-1.7
MORC	Moravsky Berou	78.86	320	eP	P	14 15 22.3	-1.1
MORC				pmax	pmax		
	comp=Z,78nm,1.6s,mb5.4						
MORC	Moravsky Berou	78.86	320	eP	P	14 15 22.3	-1.1
	comp=Z,78nm,1.6s,mb5.4						
ZST	Bratislava	78.93	318	eP	P	14 15 24.1	+0.3
ZST				epP	pP	14 15 32.7	-1.5
ARCES	ARCESS Array B	79.66	341	P	P	14 15 27.5	+0.2
	comp=Z,18nm,1.1s,mb4.9,baz=101,slow=6.2,SNR=10.0						
ARCES				pP	pP	14 15 35.6	-2.2
	comp=Z,12nm,0.9s,baz=90,slow=3.6,SNR=5.8						
DPC	Dobruska-Polom	79.72	321	eP	P	14 15 28.9	+0.8
DPC				epP	pP	14 15 37.6	-0.9
DPC				ex	x	14 15 43.9	
DOBS	Dobrina	79.79	316	eP	P	14 15 28.7	+0.2
KSP	Ksiaz	79.81	321	⇑eP	P	14 15 29.0	+0.5
KSP				epP	pP	14 15 36.7	-2.2
KSP	Ksiaz	79.81	321	eP	P	14 15 29.1	+0.6
UPC	Upice	79.94	321	eP	P	14 15 29.8	+0.6
UPC				epP	pP	14 15 38.4	-1.2
UPC				e		14 15 48.0	
PERS	Pernice	80.08	317	i P	P	14 15 30.4	+0.3
BILL	Bilibino	80.56	21	i P	P	14 15 31.6	-0.6
PRU	Pruhonice	80.82	320	eP	P	14 15 34.5	+0.6
PRU				epP	pP	14 15 42.5	-1.8
PRU				ex	x	14 15 50.2	
SYO	Syowa Base	80.83	197	⇓P	P	14 15 34.5	+0.9
AQU	L'Aquila	80.93	312	eP	P	14 15 34.8	+0.1
GEC2	GERESS Array S	81.25	319	eP	P	14 15 36.9	+0.7
GEC2				pmax	pmax		
	comp=Z,148nm,1.6s,mb5.7						
GEC2	GERESS Array S	81.25	319	eP	P	14 15 36.9	+0.7
	comp=Z,148nm,1.6s,mb5.7						
GERES	GERESS Array B	81.25	319	P	P	14 15 36.5	+0.3
	comp=Z,15nm,0.8s,mb5.0,baz=104,slow=5.5,SNR=35						
GERES				pP	pP	14 15 44.9	-1.7
	comp=Z,15nm,0.9s,baz=90,slow=5.3,SNR=14						
BRG	Berggiesshubel	81.29	321	⇑iP	P	14 15 36.7	+0.3
BRG				i	pP	14 15 45.4	-1.4
BRG				pmax	pmax		
	comp=Z,85nm,1.7s,mb5.4						
BRG				MLR	MLR		
	comp=Z,5µm,16.1s,MS5.9						
BRG	Berggiesshubel	81.29	321	⇑iP	P	14 15 36.7	+0.3
	comp=Z,85nm,1.7s,mb5.4						
BRG				i	pP	14 15 45.4	-1.4
BRG				LR	LR		
	comp=Z,5µm,16.1s,MS5.9						
KHC	Kasperske Hory	81.36	319	eP	P	14 15 36.5	-0.2
KHC				epP	pP	14 15 45.1	-2.1
WET	Wettzell	81.81	319	eP	P	14 15 39.6	+0.5
CLL	Collm	81.92	321	⇑iP	P	14 15 39.5	-0.1
CLL				e	pP	14 15 48.0	-2.1
CLL				pmax	pmax		
	comp=Z,46nm,1.6s,mb5.2						
CLL	Collm	81.92	321	⇑iP	P	14 15 39.5	-0.1
	comp=Z,46nm,1.6s,mb5.2						
CLL				e	pP	14 15 48.0	-2.1
CLL	Collm	81.92	321	⇑P	P	14 15 39.5	-0.1
	comp=Z,logA/T=1.5,mb5.2						
CLL				e*SP	sP	14 15 48.0	-5.6
HFS	Hagfors	82.46	330	P	P	14 15 42.5	+0.3
	comp=Z,14nm,1.0s,mb4.8,baz=135,slow=8.2,SNR=11						
MOX	Moxa	82.74	320	eP	P	14 15 44.5	+0.7
MOX				pmax	pmax		
	comp=Z,68nm,1.8s,mb5.4						
MOX	Moxa	82.74	320	i P	P	14 15 44.5	+0.7
	comp=Z,logA/T=1.6,mb5.4						
MOX	Moxa	82.74	320	eP	P	14 15 44.5	+0.7
	comp=Z,68nm,1.8s,mb5.4						
FUR	Furstenfeldbru	82.81	318	eP	P	14 15 44.3	+0.1
GRA1	Grafenberg Arr	82.93	320	eP	P	14 15 45.7	+0.9
	comp=Z,87nm,1.4s,mb5.6						
GRA1				epP	pP	14 15 54.1	-1.2
GRF	Grafenberg Arr	82.93	320	eP	P	14 15 45.7	+0.9
GRF				e*PP	pP	14 15 54.1	-1.2
GRF				pmax	pmax		
	comp=Z,87nm,1.4s,mb5.6						
GRF	Grafenberg Arr	82.93	320	eP	P	14 15 45.7	+0.9
GRF				e*PP	pP	14 15 54.1	-1.2
GRF				pmax	pmax		
	comp=Z,87nm,1.4s,mb5.6						
GRF	Grafenberg Arr	82.93	320	eP	P	14 15 45.7	+0.9
	comp=Z,87nm,1.4s,mb5.6						
GRF				epP	pP	14 15 54.1	-1.2
CLZ	Clausthal	83.60	322	eP	P	14 15 48.5	+0.3
	comp=Z,43nm,1.3s,mb5.4						
DAVOX	Davos	83.68	317	P	P	14 15 49.4	+0.6
	comp=Z,30nm,0.8s,mb5.5,baz=135,slow=11,SNR=23						
DAVOX				pP	pP	14 15 58.2	-1.0
	comp=Z,29nm,0.8s,baz=95,slow=11,SNR=11						
BSEG	Bad Segeberg	83.75	324	eP	P	14 15 49.4	+0.5
NB2	NORSAR Subarra	83.77	331	P	P	14 15 48.3	-0.5
	comp=Z,29nm,1.2s,mb5.3,baz=97,slow=5.0						
NB2	NORSAR Subarra	83.77	331	P	P	14 15 48.3	-0.5
	baz=97,slow=5.3						
NB2	NORSAR Subarra	83.77	331	P	P	14 15 48.3	-0.5
NB2				pmax	pmax		
	comp=Z,29nm,1.2s,mb5.3						
NOA	NORSAR Array B	83.77	331	P	P	14 15 48.5	-0.4
	comp=Z,12nm,1.1s,mb5.0,baz=93,slow=5.6,SNR=8.5						
BFO	Black Forest	84.78	318	eP	P	14 15 54.2	0.0
BFO				pmax	pmax		
	comp=Z,56nm,1.8s,mb5.4						
BFO	Black Forest	84.78	318	eP	P	14 15 54.2	0.0
	comp=Z,56nm,1.8s,mb5.4						
CDF	Champ du Feu	85.48	318	eP	P	14 15 57.4	-0.3
	comp=Z,32nm,1.3s,mb5.0						
CDF	Champ du Feu	85.48	318	eP	P	14 15 57.4	-0.3
CDF				pmax	pmax		
	comp=Z,16nm,1.3s,mb5.0						
LPG	La Plagne	85.84	315	eP	P	14 16 00.1	+0.6
	comp=Z,60nm,1.2s,mb5.4						
LPG	La Plagne	85.84	315	eP	P	14 16 00.1	+0.6
LPG				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.4						
HAU	Haudompre	86.10	318	eP	P	14 16 00.4	-0.3
	comp=Z,79nm,1.3s,mb5.5						
HAU	Haudompre	86.10	318	eP	P	14 16 00.4	-0.3
HAU				pmax	pmax		
	comp=Z,39nm,1.3s,mb5.5						
BAIF	Baives	87.47	320	eP	P	14 16 07.7	+0.3
	comp=Z,27nm,1.1s,mb5.1						
BAIF	Baives	87.47	320	eP	P	14 16 07.7	+0.3
BAIF				pmax	pmax		
	comp=Z,14nm,1.1s,mb5.1						
SSF	Saint Saulge	88.05	317	eP	P	14 16 10.5	+0.3
SSF				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.4						
SSF	Saint Saulge	88.05	317	eP	P	14 16 10.5	+0.3
	comp=Z,33nm,1.4s,mb5.4						
VNDA	Vanda	88.33	168	eP	P	14 16 11.6	+0.7
VNDA				pmax	pmax		
	comp=Z,36nm,1.5s						
VNDA	Vanda	88.33	168	P	P	14 16 12.1	+1.1
	comp=Z,9.2nm,1.1s,mb4.9,baz=298,slow=4.1,SNR=22						
VNDA	Vanda	88.33	168	ePKPdf	P	14 16 11.6	+0.7
	comp=Z,36nm,1.5s,mb5.4						
BGF	Bois d'Agland	88.53	316	eP	P	14 16 13.0	+0.5
	comp=Z,52nm,1.1s,mb5.5						
BGF	Bois d'Agland	88.53	316	eP	P	14 16 13.0	+0.5
BGF				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.5						
SBA	Scott Base	89.44	168	eP	P	14 16 18.3	+2.1
SBA				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.3						
SBA	Scott Base	89.44	168	ePKPdf	P	14 16 18.3	+2.1
	comp=Z,14nm,0.9s,mb5.3						
RJF	Les Rejaudoux	89.53	315	eP	P	14 16 18.1	+0.8
	comp=Z,39nm,1.2s,mb5.3						
RJF	Les Rejaudoux	89.53	315	eP	P	14 16 18.1	+0.8
RJF				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.3						
FLN	La Foliniere	90.61	319	eP	P	14 16 23.8	+1.5
	comp=Z,170nm,1.7s,mb5.8						
FLN	La Foliniere	90.61	319	eP	P	14 16 23.8	+1.5
FLN				pmax	pmax		
	comp=Z,85nm,1.7s,mb5.8						
QSPA	South Pole Qui	93.05	180	P	P	14 16 34.0	+1.1
	comp=Z,23nm,1.3s,mb5.5						
ESDC	Sonseca Array	94.12	310	P	P	14 16 38.2	-0.4
	comp=Z,2.4nm,0.8s,mb4.7,baz=43,slow=5.4,SNR=6.1						
ESDC				pP	pP	14 16 48.3	-0.9
	comp=Z,2.1nm,0.7s,baz=48,slow=5.3,SNR=3.4						
IMA	Indian Mountai	96.07	22	eP	P	14 16 50.3	+3.5
ILAR	Eielson Array	99.19	22	PP	PP	14 21 01.4	-4.8
	comp=Z,0.3nm,0.9s,baz=132,slow=1.8,SNR=3.4						
YKA	Yellowknife Ar	111.07	14	PP	PP	14 22 30.4	-4.8
	comp=Z,3.1nm,1.2s,baz=333,slow=7.2,SNR=4.7						
YKA				PKKPbc		14 32 49.9	
	comp=Z,0.3nm,0.8s,baz=137,slow=3.7,SNR=4.8						
YKA				PKKPab		14 32 59.7	
	comp=Z,1.0nm,0.9s,baz=143,slow=4.1,SNR=9.4						
CHMT	Chamberlain Mo	124.72	22	ePKPdf	PKPdf	14 22 19.7	+1.1
ULM	Lac du Bonnet	126.18	8	PKP	PKPdf	14 22 23.7	+2.4
	comp=Z,1.3nm,0.6s,baz=358,slow=3.9,SNR=4.9						
ELK	Elko	128.85	28	ePKIKP	PKPdf	14 22 28.8	+2.1
NVAR	Mina Array Bea	129.04	33	PKP	PKPdf	14 22 30.3	+3.2
	comp=Z,2.1nm,1.0s,baz=60,slow=2.1,SNR=10						
MNV	Mina	129.12	33	ePKIKP	PKPdf	14 22 27.6	+0.3
PDAR	Pinedale Array	129.63	22	PKP	PKPdf	14 22 30.1	+2.0
	comp=Z,2.6nm,1.0s,baz=90,slow=1.5,SNR=14						
PDAR				pPKP		14 22 38.9	
	comp=Z,2.5nm,1.0s,baz=270,slow=3.0,SNR=6.5						
PDAR				PP	PP	14 24 38.3	-4.7
	comp=Z,0.6nm,1.0s,baz=342,slow=5.7,SNR=2.6						
TRCR	Troy Canyon	130.52	31	ePKPdf	PKPdf	14 22 33.9	+3.9
MVU	Marysvale	132.05	28	ePKPdf	PKPdf	14 22 35.6	+2.7
MSU	Marysvale	132.06	28	ePKIKP	PKPdf	14 22 36.1	+3.2
TUC	Tucson	137.67	32	ePKIKP	PKPdf	14 22 41.1	-2.3
LPM	Los Pinos Moun	138.03	26	ePKPdf	PKPdf	14 22 42.8	-1.2
WMOK	Wichita Mounta	140.49	17	ePKHKP		14 22 42.4	
MIAR	Mount Ida	141.88	10	ePKIKP	PKPdf	14 22 47.4	-3.5
LTX	Lajitas	143.58	26	ePKIKP	PKPdf	14 22 53.6	-0.4
TXAR	Lajitas Array	143.58	26	PKP	PKPdf	14 22 54.2	+0.2
	comp=Z,3.0nm,1.0s,baz=270,slow=2.5,SNR=16						
JCT	Junction City	144.10	20	ePKIKP	PKPdf	14 22 54.5	-0.3
NATX	Nacogdoches	144.37	13	ePKPdf	PKPdf	14 22 56.2	+0.9
HKT	Hockley	145.82	15	ePKPdf	PKPdf	14 23 00.7	+2.8
HKT				epPKPdf		14 23 09.2	
LPAZ	La Paz	158.05	232	PKP	PKPdf	14 23 18.8	+2.6
	comp=Z,5.2nm,1.1s,baz=61,slow=4.6,SNR=5.8						
LPAZ				PKPab	PKPab	14 23 52.6	+0.6
	comp=Z,4.1nm,0.8s,baz=114,slow=6.3,SNR=5.6						
LPAZ	La Paz	158.05	232	ePKPdf	PKPdf	14 23 19.4	+3.3
ROSC	El Rosal	165.87	304	PKP	PKPdf	14 23 26.4	+2.1
	comp=Z,4.2nm,0.5s,baz=94,slow=22,SNR=6.0						

IDC 29 14:12:02.6±9.6**,3.10N**×**96.98E,mb3.6**/3**,mb1 3.7**/3**,mb1mx3.6**/16**,mbtmp3.6**/3**,Error ellipse: s-maj=329.8km s-min=32.0km az=68.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.25	124	P	P	14 20 06.4	-1.4
	0.3nm,0.4s,baz=301,slow=9.2,SNR=5.9						
ASAR	Alice Springs	44.73	128	P	P	14 20 17.7	-2.1
	0.3nm,0.7s,baz=303,slow=8.0,SNR=7.7						
SONM	Songino Array	45.30	9	P	P	14 20 22.1	-1.8
	1.0nm,0.6s,baz=188,slow=8.2,SNR=5.1						

IDC 29 14:13:10.3±4.7**,2.55N**×**95.87E,mb3.7**/4**,mb1 3.9**/4**,mb1mx3.7**/16**,mbtmp3.7**/4**,Error ellipse: s-maj=179.7km s-min=26.2km az=62.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	43.88	122	P	P	14 21 19.0	-1.6
	0.2nm,0.5s,baz=298,slow=9.4,SNR=4.8						
ASAR	Alice Springs	45.27	127	P	P	14 21 29.8	-1.9
	0.6nm,0.7s,baz=298,slow=7.8,SNR=7.3						
SONM	Songino Array	46.02	10	P	P	14 21 35.6	-1.8
	1.2nm,0.7s,baz=200,slow=9.1,SNR=5.3						
ZAL	Zalesovo	52.02	352	P	P	14 22 21.3	-2.4
	0.8nm,0.7s,baz=184,slow=3.7,SNR=3.9						

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*PRU **29** 14:17:44.6,50.12N×19.02E*

WAR 29 14:17:43.6,50.07N×19.13E,h1^{km},Location given by Central Institute of Mining, origin time based upon OJC,Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.46	71	ePg	Pg	14 17 52.8	+0.1
OJC				eSg	Sg	14 17 59.4	+0.6
OKC	Ostrava-Krasne	0.67	250	ePG	Pg	14 17 57.1	0.0
OKC				eSG	Sg	14 18 06.6	+0.5
NIE	Niedzica	1.01	130	ePg	Pg	14 18 03.0	-0.8
NIE				eSg	Sg	14 18 18.8	+1.5
VYHS	Vyhne	1.59	187	ePN	Pn	14 18 12.2	-0.9
VYHS				eSN	Sn	14 18 33.1	-1.5
DPC	Dobruska-Polom	1.82	280	ePG	Pg	14 18 16.8	-3.2
DPC				eSG	Sg	14 18 39.7	-4.6
CRVS	Cervenica-Dubn	1.92	127	ePN	Pn	14 18 20.1	+2.3
CRVS				eSN	Sn	14 18 47.1	+4.2
UPC	Upice	2.04	283	eSG	Sg	14 18 48.7	-2.9
UPC	Upice	2.04	283	eSg	Sg	14 18 48.7	-2.9
KHC	Kasperske Hory	3.73	257	eSG	Sg	14 19 44.0	-3.8

IDC 29 14:20:21.1±6.5**,17.33S**×**178.70W,h639**^{km}±74^{km}**,mb2.9**/5**,mb1 3.2**/5**,mb1mx3.0**/14**,mbtmp3.8**/5**,Error ellipse: s-maj=93.4km s-min=27.8km az=148.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	44.47	259	P	P	14 27 38.3	-1.7
	0.7nm,0.5s,baz=93,slow=7.4,SNR=26						
WRA				PcP	PcP	14 29 07.1	-2.1
	0.3nm,0.9s,baz=91,slow=3.7,SNR=4.9						
ASAR	Alice Springs	44.68	254	P	P	14 27 40.0	-1.6
	1.9nm,0.7s,baz=90,slow=8.0,SNR=42						
ASAR				PcP	PcP	14 29 07.2	-2.7
	0.2nm,0.4s,baz=108,slow=4.2,SNR=6.0						
ILAR	Eielson Array	85.39	13	P	P	14 31 51.9	-1.6
	0.3nm,0.4s,baz=219,slow=4.7,SNR=17						
TXAR	Lajitas Array	85.92	58	P	P	14 31 56.0	-0.8
	0.4nm,0.6s,baz=217,slow=5.6,SNR=5.7						
PDAR	Pinedale Array	87.12	44	P	P	14 32 01.1	-1.0
	0.5nm,0.8s,baz=180,slow=3.0,SNR=3.5						
GERES	GERESS Array B	146.98	345	PKPbc	PKPbc	14 38 53.9	+1.3
	0.5nm,0.5s,slow=1.3,SNR=4.7						

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*IDC **29** 14:20:38.4±1.0,6.98N×93.57E,mb3.9/10,mb1 4.1/10,mb1mx3.9/18,mbtmp3.9/10,Error ellipse: s-maj=48.8km s-min=19.2km az=50.0*

ISC 29 14:20:41.6±0.9**,7.0N**±0.2×**93.7E**±0.2**,h33**^{km}**,n18,**σ**0**^{s}**66**/17**,mb4.2**/13**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.50	24	Pn	P	14 23 33.6	-6.5
	0.5nm,0.3s,baz=215,slow=14,SNR=16						
PKI	Pulchoki	21.91	340	eP	P	14 25 34.4	+0.6
	95nm,1.5s,mb5.0						
DMN	Daman	22.05	339	eP	P	14 25 34.5	-0.7
	44nm,0.9s,mb4.9						
KKN	Kakani	22.15	340	eP	P	14 25 36.4	+0.2
GKN	Gorkha	22.57	339	eP	P	14 25 39.7	-0.8
KOLN	Koldanda	22.75	336	eP	P	14 25 45.5	+3.2
	21nm,0.9s,mb4.6						
SONM	Songino Array	42.12	13	P	P	14 28 32.4	0.0
	2.1nm,0.8s,mb3.8,baz=190,slow=7.5,SNR=12						
SONM				PcP	PcP	14 30 28.7	+1.5
	0.9nm,0.9s,baz=198,slow=4.6,SNR=1.9						
ZAL	Zalesovo	47.35	353	P	P	14 29 14.3	+0.1
	3.2nm,0.4s,mb4.6,baz=202,slow=6.1,SNR=16						
WRA	Warramunga Arr	48.15	125	P	P	14 29 20.9	-0.1
	0.5nm,0.5s,mb3.8,baz=305,slow=8.5,SNR=9.8						
BVAR	Borovoye Array	49.66	342	P	P	14 29 32.2	0.0
	2.0nm,0.8s,mb4.2,baz=135,slow=8.2,SNR=5.4						
ASAR	Alice Springs	49.73	129	P	P	14 29 33.3	+0.2
	0.4nm,0.5s,mb3.7,baz=302,slow=7.8,SNR=7.3						
BRTR	Keskin Array B	62.64	311	P	P	14 31 06.0	+0.8
	0.4nm,0.4s,mb3.9,baz=162,slow=9.1,SNR=2.5						
FINES	FINESS Array B	73.26	332	P	P	14 32 10.7	-0.4
	1.3nm,0.8s,mb3.9,baz=108,slow=6.0,SNR=7.5						
ARCES	ARCESS Array B	75.92	340	P	P	14 32 26.2	-0.2
	3.8nm,0.9s,mb4.3,baz=98,slow=8.6,SNR=3.2						
GERES	GERESS Array B	78.16	318	P	P	14 32 38.4	-0.9
	0.3nm,0.4s,mb3.5,baz=117,slow=3.0,SNR=4.3						
NB2	NORSAR Subarra	80.26	331	P	P	14 32 51.0	+0.6
	1.9nm,0.7s,mb4.1,baz=97,slow=5.0						
NOA	NORSAR Array B	80.26	331	P	P	14 32 50.1	-0.3
	1.2nm,0.9s,mb3.8,baz=200,slow=17,SNR=2.6						
TXAR	Lajitas Array	140.22	24	PKP	PKPdf	14 40 09.5	+1.7
	0.2nm,0.4s,baz=321,slow=24,SNR=2.7						

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*IDC **29** 14:29:39.7±2.1,6.63N×92.60E,mb3.9/6,mb1 4.1/7,mb1mx3.9/20,mbtmp3.9/7,ML4.2/1,MS3.9/1,Ms1 4.1/1,ms1mx3.0/31,Error ellipse: s-maj=71.0km s-min=20.5km az=61.0*

ISC 29 14:29:43.1±1.1**,6.6N**±0.1×**92.7E**±0.2**,h33**^{km}**,n13,**σ**0**^{s}**86**/13**,mb4.5**/11**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.22	27	Pn	P	14 32 51.0	-0.1
	0.4nm,0.3s,baz=229,slow=14,SNR=25						
CMAR				LR	LR	14 38 01.9	
	comp=Z,551nm,21.1s,baz=220,slow=38						
PKI	Pulchoki	21.94	342	eP	P	14 34 36.3	+0.7
	101nm,1.0s,mb5.2						
DMN	Daman	22.07	342	eP	P	14 34 37.3	+0.4
	61nm,0.8s,mb5.1						
GUN	Gumba	22.12	344	eP	P	14 34 38.9	+1.5
	62nm,0.8s,mb5.1						
KKN	Kakani	22.18	342	eP	P	14 34 38.7	+0.7
GKN	Gorkha	22.58	341	eP	P	14 34 41.7	-0.4
	77nm,1.0s,mb5.1						
KOLN	Koldanda	22.72	339	eP	P	14 34 41.7	-1.7
	34nm,0.8s,mb4.8						
SONM	Songino Array	42.67	14	P	P	14 37 38.6	+0.2
	1.2nm,0.8s,mb3.7,baz=180,slow=7.4,SNR=4.3						
ZAL	Zalesovo	47.59	354	P	P	14 38 15.7	-1.9
	0.9nm,0.3s,mb4.2,baz=197,slow=7.7,SNR=3.1						
WRA	Warramunga Arr	48.73	124	P	P	14 38 27.1	+0.3
	2.5nm,0.9s,mb4.2,baz=306,slow=8.3,SNR=18						
BVAR	Borovoye Array	49.71	342	P	P	14 38 34.0	0.0
	0.5nm,0.8s,mb3.6,baz=143,slow=7.2,SNR=3.2						
ASAR	Alice Springs	50.24	128	P	P	14 38 38.3	-0.1
	0.9nm,0.6s,mb4.0,baz=301,slow=7.8,SNR=11						
PMG	Port Moresby	56.54	106	P	P	14 39 25.2	+0.1
	3.7nm,0.9s,mb4.4,baz=143,slow=12,SNR=2.8						

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*IDC **29** 14:33:58.8±0.5,13.16N×92.72E,mb4.6/18,mb1 4.7/19,mb1mx4.6/22,mbtmp4.5/19,ML4.6/1,Error ellipse: s-maj=21.2km s-min=9.2km az=46.0*

*BJI **29** 14:34:00.0,13.16N×92.42E,h25^{km},mB5.1,mb4.9,Ms4.5,Msz4.3*

*MOS **29** 14:34:02.7±1.3,13.25N×92.64E,h33^{km},mb5.0/22,Error ellipse: s-maj=12.4km s-min=8.3km az=95.8*

*NEIC **29** 14:34:02.3±0.3,13.25N×92.58E,mb4.8/26,Error ellipse: s-maj=8.7km s-min=7.7km az=158.0*

ISC 29 14:34:01.1±0.3**,13.29N**±0.04×**92.65E**±0.04**,h23**^{km}**,h23**^{km}±3.0^{km}**:pP-P,n131,**σ**1**^{s}**16**/132**,mb4.8**/50**,MS4.5**/3**,3C-1D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.94	49	eP	Pn	14 35 56.9	-1.2
	15nm,0.6s						
CMAR	Chiang Mai Arr	7.94	49	Pn	Pn	14 35 57.9	-0.3
	2.3nm,0.3s,baz=241,slow=15,SNR=34						
CMAR				Sn	Sn	14 37 23.7	-4.6
	4.8nm,0.3s,baz=239,slow=32,SNR=14						
VIS	Vishakhapatnam	10.00	297	e	Sn	14 38 12.1	-7.3
	comp=Z,170nm,0.9s						
IMP	Imphal	11.50	6	eP	P	14 36 44.8	-2.4
SHL	Shillong	12.23	357	eP	P	14 36 52.0	-5.1
SHL				eS	S	14 39 02.0	-12
PALK	Pallekele	13.18	244	eP	P	14 37 06.7	-3.1
BLSP	Bilaspur	13.32	313	e	P	14 37 21.2	+10
BLSP				e		14 39 42.6	
KMI	Kunming	15.14	37	⇓P	P	14 37 39.3	+3.8
KMI				AP		14 37 44.0	
KMI				XP		14 37 45.5	
KMI				PP	PP	14 37 53.5	+6.0
KMI				AMB	AMB		
	comp=Z,26nm,1.6s						
KMI				AMB	AMB		
	comp=Z,330nm,3.6s						
KMI				LR	LR		
	comp=N,1µm,14.8s						
KMI				LR	LR		
	comp=E,2µm,17.1s						
KMI				LR	LR		
	comp=Z,1µm,16.6s						
PKI	Pulchoki	15.74	336	eP	P	14 37 41.3	-1.9
	comp=Z,133nm,0.9s						
GUN	Gumba	15.86	338	eP	P	14 37 42.9	-1.9
	comp=Z,69nm,0.6s						
DMN	Daman	15.89	335	eP	P	14 37 44.4	-0.9
	comp=Z,132nm,0.8s						
KKN	Kakani	15.98	336	eP	P	14 37 45.3	-1.1
	comp=Z,112nm,1.0s						
TRD	Trivandrum	16.12	254	eP	P	14 37 50.1	+2.0
TRD				e		14 37 53.6	
LSA	Lhasa	16.39	355	eP	P	14 37 50.3	-1.2
LSA				pmax	pmax		
	comp=Z,33nm,0.9s						
LSA	Lhasa	16.39	355	eP	P	14 37 50.3	-1.2
	comp=Z,33nm,0.9s						
GKN	Gorkha	16.44	334	eP	P	14 37 51.0	-1.1
	comp=Z,115nm,0.6s						
KOLN	Koldanda	16.70	331	eP	P	14 37 54.5	-1.0
	comp=Z,227nm,0.8s						
QIZ	Qiongzhong	17.47	69	P	P	14 38 09.5	+4.3
QIZ	Qiongzhong	17.47	69	eP	P	14 38 08.2	+3.1
	comp=Z,38nm,0.8s						
BHPL	Bhopal	17.50	307	⇑iP	P	14 38 08.1	+2.5
	comp=Z,28nm,0.9s						
KAD	Karad	18.25	285	eP	P	14 38 11.2	-3.7
POO	Poona	18.81	289	eP	P	14 38 21.4	-0.3
POO				e		14 38 23.5	
	comp=Z,34nm,0.9s						
PTH	Pithoragarh	19.86	326	eP	P	14 38 33.2	-0.6
PTH				e		14 41 47.8	
NDI	New Delhi	20.99	319	eP	P	14 38 48.0	+2.5
NDI				e		14 42 25.0	
DDI	Dehra Dun	21.66	324	eP	P	14 38 55.3	+3.1
DDI				e		14 42 56.7	
ENH	Enshi	22.97	40	eP	P	14 39 05.9	+0.6
	comp=Z,71nm,0.8s,mb5.2						
THN	Thein Dam	24.56	324	eP	P	14 39 20.8	+0.1
	comp=Z,14nm,0.7s,mb4.6						
XAN	Xi'an	25.40	33	P	P	14 39 28.0	-0.7
XAN				AMB	AMB		
	comp=Z,62nm,0.7s,mb5.2						
WHN	Wuhan	26.38	46	eP	P	14 39 38.0	+0.2
GTA	Gaotai	26.78	12	P	P	14 39 42.0	+0.6
GTA				AP	pP	14 39 51.8	+3.8
GTA				XP	sP	14 39 55.8	+4.7
GTA				PPP	x	14 41 23.3	
GTA				PCP	PcP	14 43 05.5	+0.9

GTA				S	S	14 44 17.5	+3.4
GTA				AMB	AMB		
	comp=Z,15nm,1.1s,mb4.4						
GTA				AMB	AMB		
	comp=Z,127nm,8.7s						
GTA				LR	LR		
	comp=N,534nm,13.7s						
GTA				LR	LR		
	comp=E,398nm,19.8s						
GTA				LR	LR		
	comp=Z,545nm,14.1s,MS4.3						
TGY	Tagaytay City	27.49	85	P	P	14 39 48.6	+0.5
	comp=Z,95nm,0.3s,mb5.8,baz=180,slow=6.1,SNR=3.9						
NJ2	Nanjing	30.42	48	eP	P	14 40 15.0	+0.8
NJ2				AP	pP	14 40 24.5	+3.6
NJ2				XP	sP	14 40 29.5	+5.6
NJ2				S	S	14 45 21.0	+8.5
NJ2				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,760nm,9.9s						
NJ2				LR	LR		
	comp=N,2µm,11.4s,MS5.0						
NJ2				LR	LR		
	comp=E,1µm,13.8s,MS5.0						
HHC	Hu-ho-hao-te	32.06	28	eP	P	14 40 29.5	+0.9
HHC				AP	pP	14 40 36.0	+0.7
HHC				XP	sP	14 40 40.5	+2.2
HHC				S	S	14 45 31.5	-6.6
HHC				XS		14 45 54.0	
HHC				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.9						
HHC				AMB	AMB		
	comp=Z,356nm,10.9s						
HHC				LR	LR		
	comp=N,808nm,16.7s						
HHC				LR	LR		
	comp=E,2µm,22.6s						
HHC				LR	LR		
	comp=Z,528nm,16.6s,MS4.3						
BJT	Baijiatuau	33.71	34	eP	P	14 40 44.2	+1.3
BJT				pmax	pmax		
	comp=Z,31nm,1.0s						
BJT	Baijiatuau	33.71	34	eP	P	14 40 44.2	+1.2
	comp=Z,31nm,1.0s,mb5.2						
SONM	Songino Array	36.30	16	P	P	14 41 05.7	+0.8
	comp=Z,7.0nm,0.9s,mb4.6,baz=207,slow=8.3,SNR=19						
ULN	Ulaanbaatar	36.51	16	eP	P	14 41 07.0	+0.4
ULN				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	36.51	16	eP	P	14 41 07.0	+0.3
	comp=Z,7.8nm,0.9s,mb4.5						
ZAK	Zakamensk	38.00	11	eP	P	14 41 13.0	-6.2
ZAK				e		14 43 13.9	
SNY	Shenyang	39.11	38	⇑P	P	14 41 29.5	+0.9
SNY				AMB	AMB		
	comp=Z,20nm,1.7s,mb4.6						
TLY	Talaya	39.31	11	eP	P	14 41 32.4	+2.3
KS15	Wonju Array Si	39.54	46	eP	P	14 41 32.9	+0.7
ZAL	Zalesovo	41.02	353	P	P	14 41 44.4	+0.1
	comp=Z,4.5nm,0.6s,mb4.3,baz=213,slow=7.2,SNR=16						
CN2	Changchun	41.40	36	eP	P	14 41 48.5	+1.1
CN2				AMB	AMB		
	comp=Z,30nm,1.3s,mb4.8						
NVS	Novosibirsk	42.11	352	eP	P	14 41 49.5	-3.6
NVS				e		14 48 06.5	
HIA	Hailar	42.24	26	eP	P	14 41 55.0	+0.7
HIA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
HIA	Hailar	42.24	26	eP	P	14 41 55.0	+0.7
	comp=Z,9.8nm,1.0s,mb4.4						
MBWA	Marble Bar	43.35	142	eP	P	14 42 02.8	-0.9
	comp=Z,7.2nm,0.8s,mb4.5						
BVAR	Borovoye Array	43.42	341	P	P	14 42 03.7	-0.1
	comp=Z,1.2nm,0.6s,mb3.8,baz=127,slow=7.4,SNR=7.1						
BRVK	Borovoye	43.49	341	eP	P	14 42 02.8	-1.6
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.4						
BRVK	Borovoye	43.49	341	eP	P	14 42 02.8	-1.6
	comp=Z,9.8nm,1.2s,mb4.4						
CHKZ	Chkalovo	43.90	341	eP	P	14 42 07.9	+0.2
CHKZ				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.5						
CHKZ	Chkalovo	43.90	341	eP	P	14 42 07.8	+0.1
	comp=Z,5.0nm,0.5s,mb4.5						
MAJO	Matsushiro	46.81	52	eP	P	14 42 32.7	+1.5
MAJO				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
MAJO	Matsushiro	46.81	52	eP	P	14 42 32.7	+1.5
	comp=Z,18nm,0.7s,mb5.1						
MAT	Matsushiro	46.81	52	P	P	14 42 31.9	+0.7
MAT	Matsushiro	46.81	52	eP	P	14 42 32.0	+0.8
BOD	Bodaibo	47.30	15	eP	P	14 42 35.3	+0.6
GNI	Garni	49.69	312	eP	P	14 42 55.6	+2.1
GNI				pmax	pmax		
	comp=Z,37nm,1.2s						
GNI	Garni	49.69	312	P	P	14 42 55.1	+1.6
	comp=Z,1.3nm,0.3s,mb4.4,baz=35,slow=12,SNR=3.7						
GNI	Garni	49.69	312	eP	P	14 42 55.6	+2.1
	comp=Z,37nm,1.2s,mb5.3						
CLNS	Chul'man	49.96	23	eP	P	14 42 54.1	-1.2
CLNS				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.7s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.8s						
ARU	Arti	50.37	336	eP	P	14 42 58.0	-0.4
ARU				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
ARU	Arti	50.37	336	eP	P	14 42 58.0	-0.4
	comp=Z,10nm,1.2s,mb4.7						
ZEI	Tsey	51.15	315	eP	P	14 43 08.4	+3.8
ZEI				i		14 45 05.5	
ZEI				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
NWAO	Narrogin (SRO)	51.61	153	eP	P	14 43 06.2	-2.0
NWAO				pmax	pmax		
	comp=Z,11nm,0.7s						
NWAO	Narrogin (SRO)	51.61	153	P	P	14 43 06.7	-1.5
	comp=Z,15nm,0.6s,mb5.1,baz=318,slow=10,SNR=17						
NWAO	Narrogin (SRO)	51.61	153	eP	P	14 43 06.2	-2.0
	comp=Z,12nm,0.7s,mb4.9						
KIV	Kislovodsk	52.39	316	eP	P	14 43 14.9	+1.0
KIV	Kislovodsk	52.39	316	eP	P	14 43 14.9	+1.0
WRA	Warramunga Arr	52.66	128	P	P	14 43 15.1	-1.2
	comp=Z,33nm,0.8s,mb5.3,baz=305,slow=8.4,SNR=207						
WRA				PcP	PcP	14 44 26.1	+0.1
	comp=Z,4.6nm,0.6s,baz=316,slow=3.0,SNR=8.9						
WRA				S	S	14 50 39.6	-1.2
	comp=Z,1.0nm,0.8s,baz=301,slow=15,SNR=7.6						
WRAB	Tennant Creek	52.67	128	eP	P	14 43 15.1	-1.2
WRAB				pmax	pmax		
	comp=Z,53nm,0.7s,mb5.6						
WRAB	Tennant Creek	52.67	128	eP	P	14 43 15.1	-1.2
	comp=Z,53nm,0.7s,mb5.6						
YSS	Yuzh-Sakhalins	53.55	41	eP	P	14 43 23.2	+0.7
MALT	Malatya	53.93	308	eP	P	14 43 25.6	+0.3
MALT				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
MALT	Malatya	53.93	308	eP	P	14 43 25.6	+0.2
	comp=Z,4.7nm,1.0s,mb4.4						
ASAR	Alice Springs	54.56	132	P	P	14 43 29.4	-0.8
	comp=Z,17nm,0.5s,mb5.3,baz=306,slow=6.7,SNR=228						
ASAR				PcP	PcP	14 44 32.8	-0.4
	comp=Z,3.0nm,0.7s,baz=316,slow=4.4,SNR=4.8						
ASAR				ScP		14 48 29.4	
	comp=Z,1.0nm,0.9s,baz=333,slow=3.0,SNR=4.0						
ASAR				S	S	14 51 04.3	-2.1
	comp=Z,0.7nm,0.7s,baz=302,slow=13,SNR=7.4						
YAK	Yakutsk	55.40	20	eP	P	14 43 34.9	-0.9
YAK				pmax	pmax		
	comp=Z,14nm,0.5s,mb5.2						
YAK	Yakutsk	55.40	20	eP	P	14 43 34.9	-0.9
	comp=Z,14nm,0.5s,mb5.2						
KMBO	Kilima Mbogo	56.75	260	P	P	14 43 46.9	+0.7
	comp=Z,1.1nm,0.5s,mb4.1,baz=50,slow=21,SNR=3.6						
BRTR	Keskin Array B	57.86	309	P	P	14 43 52.6	-1.0
	comp=Z,5.5nm,1.1s,mb4.5,baz=120,slow=7.3,SNR=11						
PMG	Port Moresby	58.63	110	eP	P	14 43 59.5	+0.2
PMG				pmax	pmax		
	comp=Z,44nm,1.2s						
PMG	Port Moresby	58.63	110	P	P	14 43 59.2	-0.1
	comp=Z,17nm,0.7s,mb5.2,baz=291,slow=8.8,SNR=13						
PMG	Port Moresby	58.63	110	eP	P	14 43 59.5	+0.2
	comp=Z,44nm,1.2s,mb5.4						
OBN	Obninsk	60.06	327	eP	P	14 44 08.4	-0.3
OBN				e		14 44 25.6	
OBN				pmax	pmax		
	comp=Z,36nm,1.5s,mb5.2						
CTA	Charters Tower	62.29	121	P	P	14 44 24.3	0.0
	comp=Z,15nm,0.9s,mb5.1,baz=296,slow=9.6,SNR=8.6						
CTAO	Charters Tower	62.29	121	eP	P	14 44 24.3	0.0
MA2	Magadan	62.72	29	eP	P	14 44 26.1	-0.5
MBAR	Mbarara	62.87	262	eP	P	14 44 28.6	+0.4
MBAR				e*PP	pP	14 44 34.1	-1.2
AKASG	Malin Array Be	63.05	320	P	P	14 44 27.1	-1.7
	comp=Z,1.9nm,0.7s,mb4.3,baz=85,slow=6.0,SNR=6.9						
VRI	Vrincioaia	63.84	315	⇑iP	P	14 44 35.0	+0.9
STKA	Stephens Creek	64.92	135	P	P	14 44 39.9	-1.5
	comp=Z,5.7nm,0.7s,mb4.7,baz=297,slow=6.2,SNR=11						
STKA	Stephens Creek	64.92	135	eP	P	14 44 40.5	-0.9
FINES	FINESS Array B	67.27	331	P	P	14 44 54.6	-1.3
	comp=Z,3.0nm,0.6s,mb4.5,baz=106,slow=7.2,SNR=14						
SUW	Suwalki	67.30	323	eP	P	14 44 55.3	-0.9
KAF	Kangasniemi	67.34	332	ep	P	14 44 53.9	-2.4
	comp=Z,4.5nm,1.0s,mb4.5						
KAF	Kangasniemi	67.34	332	eP	P	14 44 53.9	-2.4
KAF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
PSZ	Piszkesteto	68.70	316	P	P	14 45 07.9	+2.8
PSZ				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
PSZ	Piszkesteto	68.70	316	P	P	14 45 07.9	+2.8
	comp=Z,8.6nm,1.1s,mb4.6						
KEV	Kevo	69.27	340	ep	P	14 45 07.3	-1.0
	comp=Z,18nm,1.0s,mb5.0						
KEV	Kevo	69.27	340	eP	P	14 45 07.3	-1.0
KEV				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
ARCES	ARCESS Array B	69.71	340	P	P	14 45 10.8	0.0
	comp=Z,3.6nm,0.6s,mb4.5,baz=90,slow=7.1,SNR=12						
MORC	Moravsky Berou	70.36	318	eP	P	14 45 15.3	+0.1
MORC				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
MORC	Moravsky Berou	70.36	318	eP	P	14 45 15.3	+0.2
	comp=Z,8.4nm,1.0s,mb4.6						
BILL	Bilibino	71.65	22	eP	P	14 45 22.6	-0.1
BILL				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
BILL	Bilibino	71.65	22	eP	P	14 45 22.6	-0.1
	comp=Z,8.8nm,0.9s,mb4.7						
PRU	Pruhonice	72.30	318	eP	P	14 45 27.5	+0.6
BRG	Berggiesshubel	72.69	319	eP	P	14 45 29.6	+0.5
BRG				e	pP	14 45 35.4	-0.9
BRG				pmax	pmax		
	comp=Z,40nm,2.4s,mb4.9						
BRG	Berggiesshubel	72.69	319	eP	P	14 45 29.6	+0.5
	comp=Z,40nm,2.4s,mb4.9						
BRG				e	pP	14 45 35.4	-0.9
GERES	GERESS Array B	72.86	317	P	P	14 45 30.3	+0.1
	comp=Z,3.2nm,0.8s,mb4.3,baz=83,slow=5.9,SNR=15						
KHC	Kasperske Hory	72.93	318	eP	P	14 45 31.0	+0.4
CLL	Collm	73.28	320	P	P	14 45 32.0	-0.6
CLL				e		14 45 46.0	
NB2	NORSAR Subarra	74.33	330	P	P	14 45 37.8	-0.7
	comp=Z,2.5nm,0.6s,mb4.3,baz=90,slow=5.6						
NB2	NORSAR Subarra	74.33	330	P	P	14 45 37.8	-0.7
NB2				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
NOA	NORSAR Array B	74.33	330	P	P	14 45 38.0	-0.4
	comp=Z,3.2nm,0.7s,mb4.4,baz=90,slow=5.7,SNR=11						
LBTB	Lobatse	75.62	240	eP	P	14 45 47.7	+1.1
LBTB				e*PP	pP	14 45 53.4	-0.5
BOSA	Boshof	77.28	236	eP	P	14 45 56.3	+0.5
LPG	La Plagne	77.80	314	eP	P	14 45 58.9	+0.6
	comp=Z,21nm,0.8s,mb4.8						
LPG	La Plagne	77.80	314	eP	P	14 45 58.9	+0.6
LPG				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
ESDC	Sonseca Array	86.63	310	P	P	14 46 45.8	+1.4
	comp=Z,0.3nm,0.3s,mb4.0,baz=242,slow=28,SNR=3.3						
IMA	Indian Mountai	87.19	22	eP	P	14 46 48.5	+2.0
IMA				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.7						
IMA	Indian Mountai	87.19	22	eP	P	14 46 48.5	+2.1
	comp=Z,46nm,0.9s,mb5.7						
COLA	College	89.89	22	eP	P	14 46 59.6	+0.2
MCK	McKinley	90.09	23	eP	P	14 47 01.6	+1.3
ILAR	Eielson Array	90.30	22	P	P	14 47 01.6	+0.3
	comp=Z,2.7nm,0.7s,mb4.7,baz=301,slow=4.7,SNR=46						
YKA	Yellowknife Ar	101.51	13	P	P	14 47 52.6	+0.2
	comp=Z,0.5nm,0.9s,baz=330,slow=4.0,SNR=6.4						
YKA				PP	PP	14 51 58.2	-6.7
	comp=Z,0.6nm,0.9s,baz=334,slow=8.1,SNR=5.1						
PDAR	Pinedale Array	120.61	19	PKP	PKPdf	14 52 53.0	-3.0
	comp=Z,0.9nm,0.7s,baz=131,slow=1.0,SNR=7.8						
NVAR	Mina Array Bea	120.96	28	PKP	PKPdf	14 52 54.2	-2.5
	comp=Z,1.7nm,0.7s,baz=298,slow=1.7,SNR=14						
TXAR	Lajitas Array	134.79	20	PKP	PKPdf	14 53 21.9	-1.5
	comp=Z,1.0nm,0.8s,baz=225,slow=0.6,SNR=4.2						
TXAR				PP	PP	14 55 51.5	-5.6
	comp=Z,0.5nm,0.8s,baz=346,slow=5.2,SNR=3.5						
TEIG	Tepich	146.68	2	ePKPbc	PKPbc	14 53 44.0	+2.3
LPAZ	La Paz	161.18	259	PKP	PKPdf	14 54 02.0	-2.8
	comp=Z,0.3nm,0.3s,baz=207,slow=6.8,SNR=3.4						
LPAZ				PKPab	PKPab	14 54 48.1	+1.8
	comp=Z,1.6nm,0.8s,baz=82,slow=6.7,SNR=5.7						

IDC ***29*** *14:42:00.1±1.2, 12.18N×92.15E, mb4.0/8, mb1 4.2/9, mb1mx4.0/20, mbtmp4.0/9, ML3.9/1, MS4.5/2, Ms1 4.4/2, ms1mx3.6/27, Error ellipse: s-maj=43.4km s-min=17.9km az=59.0*

ISC 29 14:42:04.9±0.7**, 12.32N**±0.07×**92.64E**±0.08**, h33^{km}, n15, σ1^{s}23**/16**, mb4.0**/8**, MS4.5**/2**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.61	44	Pn	P	14 44 11.4	+1.4
	0.3nm,0.3s,baz=237,slow=15,SNR=20						
CMAR				Sn	Sn	14 45 46.2	-1.1
	baz=246,slow=18,SNR=2.5						
PKI	Pulchoki	16.62	337	eP	P	14 45 58.7	+1.8
	18nm,0.5s						
GUN	Gumba	16.75	339	eP	P	14 46 02.8	+4.2
	18nm,0.6s						
DMN	Daman	16.77	336	eP	P	14 45 59.5	+0.7
	25nm,0.8s						
KKN	Kakani	16.86	337	eP	P	14 46 01.3	+1.3
GKN	Gorkha	17.31	336	eP	P	14 46 04.0	-1.6
	23nm,0.4s						
KOLN	Koldanda	17.55	332	eP	P	14 46 08.7	+0.1
	8.9nm,0.3s						
SONM	Songino Array	37.23	15	P	P	14 49 15.4	+0.4
	1.3nm,1.0s,mb3.7,baz=207,slow=8.3,SNR=3.9						
ZAL	Zalesovo	41.98	353	P	P	14 49 53.9	-0.5
	1.7nm,0.5s,mb4.0,baz=214,slow=7.2,SNR=6.5						
BVAR	Borovoye Array	44.33	341	P	P	14 50 11.1	-2.4
	0.5nm,0.5s,mb3.5,baz=159,slow=12,SNR=3.9						
WRA	Warramunga Arr	52.08	128	P	P	14 51 14.1	0.0
	2.7nm,0.5s,mb4.4,baz=300,slow=10.0,SNR=54						
ASAR	Alice Springs	53.92	132	P	P	14 51 27.2	-0.6
	1.1nm,0.5s,mb4.1,baz=308,slow=6.6,SNR=33						
ASAR				LR	LR	15 16 22.2	
	comp=Z,326nm,19.3s,MS4.4,baz=1.1,slow=38						
PMG	Port Moresby	58.31	109	P	P	14 52 00.6	+1.2
	3.1nm,0.5s,mb4.6,baz=326,slow=18,SNR=5.5						
STKA	Stephens Creek	64.24	135	P	P	14 52 39.3	+0.1
	0.8nm,0.5s,mb4.0,baz=240,slow=2.4,SNR=5.1						
STKA				LR	LR	15 24 00.4	
	comp=Z,361nm,18.8s,MS4.6,baz=173,slow=39						
GERES	GERESS Array B	73.56	317	P	P	14 53 33.7	-2.7
	0.5nm,0.6s,mb3.6,baz=108,slow=4.2,SNR=4.5						

NEIC 29 14:46:41.4±2.4**, 44.22N**×**130.47W, h10^{km}, mb3.8**/1**, Error ellipse: s-maj=26.8km s-min=8.3km az=80.0, Off coast of Oregon**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
COR	Corvallis	5.15	83	P	Pn	14 47 58.2	-2.1
KMOR	Kings Mountain	5.15	72	P	Pn	14 47 57.2	-3.2
NLO	Nicolai Mounta	5.30	67	P	Pn	14 48 00.3	-2.2
BMW	Boistfort Moun	5.58	64	P	Pn	14 48 03.3	-3.1
OSR	Olympics--Salm	5.61	52	P	Pn	14 48 04.5	-2.4
OOW	Octopus West	5.61	49	P	Pn	14 48 04.9	-2.1
OCWA	Octopus Mounta	5.63	49	eP	Pn	14 48 04.8	-2.4
	12nm,0.3s						
OTR	Olympics--Tyee	5.75	46	P	Pn	14 48 07.1	-1.7
BROR	Big Rock Looko	5.76	87	P	Pn	14 48 07.2	-1.8
SSOR	Sweet Springs	5.76	81	P	Pn	14 48 07.1	-1.9
RVW	Rose Valley	5.79	68	P	Pn	14 48 07.0	-2.5
CPW	Capitol Peak	5.83	59	P	Pn	14 48 07.3	-2.8
IRO	Indian Ridge	5.92	89	P	Pn	14 48 09.7	-1.5
OSD	Olympics--Snow	5.93	50	P	Pn	14 48 09.2	-2.2
FRIS	Frissel Point	6.01	87	P	Pn	14 48 11.0	-1.6
ERK	Elk Rock	6.10	67	P	Pn	14 48 11.0	-2.8
HUOR	Husband	6.20	88	P	Pn	14 48 13.8	-1.4
YBH	Yreka Blue Hor	6.21	111	eP	Pn	14 48 12.5	-2.8
MEW	McNeil Island	6.24	59	P	Pn	14 48 14.0	-1.7
LMW	Ladd Mountain	6.25	64	P	Pn	14 48 13.8	-2.1
PCMD	Pierce County	6.33	62	P	Pn	14 48 14.2	-2.8
VFP	Flag Point	6.50	77	P	Pn	14 48 17.9	-1.5
ASR	Mount Adams--S	6.56	70	P	Pn	14 48 18.1	-2.3
LON	Longmire	6.59	64	P	Pn	14 48 18.3	-2.5
FMW	Mount Fremont	6.74	63	P	Pn	14 48 20.4	-2.4
GSM	Grass Mountain	6.76	61	P	Pn	14 48 21.0	-2.2
VIPM	Ingram Point	7.07	84	P	Pn	14 48 25.0	-2.4
JCW	Jim Creek	7.13	53	P	Pn	14 48 26.2	-2.1
RPW	Rockport	7.50	53	P	Pn	14 48 31.3	-2.3
TBM	Table Mountain	7.51	63	P	Pn	14 48 31.7	-1.9
ETW	Entiat	7.84	61	P	Pn	14 48 36.0	-2.2
SDCO	Great Sand Dun	19.88	100	P	P	14 51 11.8	-3.8
WMOK	Wichita Mounta	26.09	100	eP	P	14 52 16.0	-0.8
	1.6nm,0.7s						

IDC 29 14:50:05.3±5.8**, 12.56N**×**92.63E, mb3.7**/2**, mb1 3.8**/3**, mb1mx3.5**/18**, mbtmp3.6**/3**, ML3.8**/1**, Error ellipse: s-maj=124.0km s-min=45.0km az=101.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.45	45	Pn	P	14 52 08.8	-3.0
	0.3nm,0.3s,baz=236,slow=15,SNR=9.9						
CMAR				Sn	Sn	14 53 35.9	-13
	0.2nm,0.3s,baz=246,slow=18,SNR=3.4						
WRA	Warramunga Arr	52.23	128	P	P	14 59 18.8	-1.9
	1.0nm,0.6s,baz=305,slow=8.6,SNR=17						
ASAR	Alice Springs	54.09	132	P	P	14 59 31.9	-2.5
	0.3nm,0.4s,baz=308,slow=7.0,SNR=11						

IDC 29 14:52:42.6±1.2**, 6.39N**×**90.96E, mb4.1**/8**, mb1 4.2**/8**, mb1mx4.0**/18**, mbtmp4.1**/8**, Error ellipse: s-maj=60.2km s-min=17.6km az=55.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.30	32	Pn	P	14 56 01.2	-7.5
	0.3nm,0.3s,baz=233,slow=14,SNR=11						
CMAR				Sn	S	14 58 46.5	-2.6
	0.1nm,0.3s,baz=247,slow=32,SNR=4.0						
SONM	Songino Array	43.35	15	P	P	15 00 45.3	-3.0
	1.3nm,0.7s,baz=198,slow=8.6,SNR=6.1						
ZAL	Zalesovo	47.67	355	P	P	15 01 20.9	-1.7
	2.5nm,0.4s,baz=239,slow=5.4,SNR=10						
BVAR	Borovoye Array	49.44	344	P	P	15 01 35.9	-0.4
	0.8nm,0.7s,baz=129,slow=9.2,SNR=4.2						
WRA	Warramunga Arr	50.05	123	P	P	15 01 39.4	-2.1
	3.3nm,0.9s,baz=304,slow=8.5,SNR=12						
ASAR	Alice Springs	51.47	127	P	P	15 01 48.8	-3.4
	3.0nm,0.9s,baz=306,slow=7.1,SNR=14						
STKA	Stephens Creek	61.43	132	P	P	15 03 02.8	-0.6
	3.6nm,0.7s,baz=309,slow=6.7,SNR=8.1						
FINES	FINESS Array B	72.56	333	P	P	15 04 12.8	-0.5
	2.8nm,1.0s,baz=191,slow=7.1,SNR=4.2						
GERES	GERESS Array B	76.83	319	P	P	15 04 34.7	-3.4
	0.3nm,0.6s,baz=165,slow=30,SNR=2.6						

IDC ***29*** *15:00:18.8±0.6, 4.08S×135.19E, mb4.5/9, mb1 4.7/12, mb1mx4.6/14, mbtmp4.6/12, ML4.4/3, Error ellipse: s-maj=31.0km s-min=14.7km az=71.0*

ISC 29 15:00:22.9±4.0**, 4.21S**±0.06×**135.2E**±0.2**, h41^{km}**±38^{km}**, n26, σ0^{s}80**/24**, mb4.4**/9**, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	Port Moresby	12.92	114	Pn	P	15 03 26.1	-0.5
	3.0nm,0.3s,baz=325,slow=10,SNR=17						
PMG				Sn	S	15 05 44.3	-5.5
	1.0nm,0.3s,baz=280,slow=13,SNR=2.9						
WRA	Warramunga Arr	15.66	183	Pn	P	15 03 57.7	-4.7
	1.2nm,0.3s,baz=3.1,slow=13,SNR=40						
WRA				Sn	S	15 06 45.7	-9.2
	2.7nm,0.3s,baz=5.1,slow=21,SNR=11						
CTA	Charters Tower	19.09	147	P	P	15 04 45.7	+0.7
	1.6nm,0.3s,baz=327,slow=15,SNR=26						
ASAR	Alice Springs	19.39	184	P	P	15 04 48.1	-0.1
	2.3nm,0.3s,baz=5.7,slow=12,SNR=197						
ASAR				S	S	15 08 18.3	-1.2
	1.2nm,0.3s,baz=14,slow=27,SNR=5.3						
STKA	Stephens Creek	28.17	168	P	P	15 06 14.5	+0.8
	5.4nm,0.9s,mb4.2,baz=336,slow=12,SNR=9.6						
CMAR	Chiang Mai Arr	42.26	303	P	P	15 08 13.9	-0.4
	6.0nm,0.8s,mb4.3,baz=126,slow=6.8,SNR=20						
ASAJ	Asahikawa	48.56	7	P	P	15 09 04.2	0.0
	7.0nm,0.8s,mb4.8,baz=214,slow=18,SNR=2.4						
SHL	Shillong	51.41	308	e	P	15 09 25.5	-0.7
SONM	Songino Array	57.67	337	P	P	15 10 10.9	-0.8
	2.9nm,0.7s,mb4.4,baz=152,slow=7.8,SNR=11						
SONM				PcP	PcP	15 11 03.7	-0.5
	1.1nm,0.6s,baz=161,slow=3.6,SNR=3.6						
DDI	Dehra Dun	64.48	306	e	P	15 10 57.8	-0.2
KZA	Kyzart	71.17	317	P	P	15 11 40.6	+1.1
	SNR=7.7						
TKM2	Tokmak 2	71.28	318	P	P	15 11 40.3	+0.1
	SNR=5.1						
ZAL	Zalesovo	71.53	331	P	P	15 11 39.6	-1.8
	4.3nm,0.8s,mb4.4,baz=277,slow=5.9,SNR=20						
UCH	Uchtor	71.73	317	P	P	15 11 44.2	+1.3
	SNR=7.7						
USP	Ospenovka	72.16	318	P	P	15 11 45.4	0.0
	SNR=10						
AML	Almayashu	72.25	317	P	P	15 11 46.3	+0.4
	SNR=8.1						
EKS2	Erkin-Say	72.40	317	P	P	15 11 47.3	+0.5
	SNR=6.8						
VNDA	Vanda	74.63	174	P	P	15 11 59.8	+0.6
	1.2nm,0.8s,mb3.9,baz=300,slow=9.1,SNR=5.3						
BVAR	Borovoye Array	78.58	326	P	P	15 12 21.5	-0.3
	3.7nm,0.7s,mb4.5,baz=127,slow=7.2,SNR=21						
MAW	Mawson	79.45	202	P	P	15 12 27.7	+1.3
	7.9nm,0.7s,mb4.7,baz=80,slow=6.1,SNR=6.2						
ILAR	Eielson Array	88.63	25	P	P	15 13 11.9	-0.7
	3.9nm,0.7s,mb4.8,baz=270,slow=4.5,SNR=32						
ARCES	ARCESS Array B	100.75	340	P	P	15 14 07.4	-0.7
	3.8nm,0.7s,baz=69,slow=10,SNR=5.2						
TXAR	Lajitas Array	119.04	59	PKP	PKPdf	15 19 11.0	+3.0
	0.3nm,0.3s,baz=297,slow=2.0,SNR=4.1						
DBIC	Dimbokro	140.20	275	PKP	PKPdf	15 19 50.3	+1.8
	4.3nm,1.1s,baz=159,slow=6.1,SNR=3.5						
LPAZ	La Paz	149.20	132	PKPbc	PKPdf	15 20 08.5	+4.7
	2.0nm,0.7s,baz=231,slow=2.7,SNR=12						
ROSC	El Rosal	150.53	88	PKPbc	PKPdf	15 20 15.3	+9.4
	20nm,0.8s,baz=98,slow=8.6,SNR=9.2						

IDC ***29*** *15:01:30.7±1.4, 12.44N×92.44E, mb4.0/11, mb1 4.2/12, mb1mx4.1/22, mbtmp4.0/12, ML4.2/1, Error ellipse: s-maj=38.0km s-min=24.2km az=22.0*

ISC 29 15:01:33.5±1.0**, 12.4N**±0.1×**92.5E**±0.1**, h33^{km}, n25, σ0^{s}93**/28**, mb4.0**/11**, 1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.64	45	Pn	P	15 03 37.5	-1.6
	0.7nm,0.3s,baz=237,slow=15,SNR=35						
CMAR				Sn	Sn	15 05 08.9	-7.8
	0.4nm,0.3s,baz=237,slow=27,SNR=5.0						
BWNR	Bhubaneshwar	10.14	322	eP	P	15 03 50.0	-10
BWNR				eS	x	15 05 33.3	
BWNR				e	S	15 05 36.7	-17
	comp=Z,36nm,0.2s						
BWNR				e		15 05 36.7	
	comp=N,128nm,0.2s						
VIS	Vishakhapatnam	10.32	302	⇓iP	P	15 04 01.4	-0.9
VIS				eS	x	15 05 45.1	
VIS				e	S	15 05 48.4	-10
	comp=E,54nm,0.3s						
VIS				e		15 05 48.4	
	comp=N,57nm,0.3s						
SHL	Shillong	13.11	358	e	P	15 04 42.0	+2.0
PKI	Pulchoki	16.49	337	eP	P	15 05 23.9	0.0

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	comp=N,19nm,0.7s						
GUN	Gumba	16.63	339	*e*P	P	15 05 26.5	+0.9
	comp=N,18nm,0.7s						
DMN	Daman	16.64	336	*e*P	P	15 05 25.1	-0.7
	comp=N,15nm,0.5s						
KKN	Kakani	16.73	337	*e*P	P	15 05 27.0	0.0
	comp=N,11nm,0.6s						
GKN	Gorkha	17.18	336	*e*P	P	15 05 32.4	-0.1
	comp=N,22nm,0.5s						
KOLN	Koldanda	17.41	333	*e*P	P	15 05 35.5	0.0
	comp=N,14nm,0.5s						
POO	Poona	18.98	291	*e*S	S	15 09 30.0	+8.4
DDI	Dehra Dun	22.29	325	*e*	P	15 06 38.7	+9.2
LUBP	Lubang	27.05	84	*e*P	P	15 07 19.5	+4.4
SONM	Songino Array	37.19	16	P	P	15 08 43.2	-0.1
	comp=N,0.9nm,0.9s,mb3.6,baz=202,slow=7.8,SNR=3.5						
ZAL	Zalesovo	41.88	353	P	P	15 09 22.1	-0.1
	comp=N,0.9nm,0.6s,mb3.5,baz=215,slow=9.2,SNR=5.2						
BVAR	Borovoye Array	44.21	341	P	P	15 09 41.6	+0.5
	comp=N,1.4nm,0.8s,mb3.8,baz=129,slow=9.2,SNR=6.6						
BRTR	Keskin Array B	58.30	309	P	P	15 11 27.6	0.0
	comp=N,1.8nm,1.0s,mb4.1,baz=138,slow=5.5,SNR=4.9						
PMG	Port Moresby	58.47	109	P	P	15 11 29.5	+0.4
	comp=N,6.3nm,0.8s,mb4.7,baz=273,slow=7.5,SNR=3.8						
AKASG	Malin Array Be	63.64	321	P	P	15 12 02.4	-1.2
	comp=N,0.6nm,0.6s,mb3.8,baz=82,slow=6.1,SNR=5.0						
MLR	Muntele Rosu	64.84	315	P	P	15 12 09.8	-1.7
	comp=N,3.9nm,1.0s,mb4.4,baz=165,slow=12,SNR=2.0						
FINES	FINESS Array B	67.98	332	P	P	15 12 30.9	-0.2
	comp=N,1.7nm,0.7s,mb4.2,baz=104,slow=7.9,SNR=5.0						
GERES	GERESS Array B	73.41	317	P	P	15 13 05.9	+1.7
	comp=N,1.6nm,0.9s,mb3.9,baz=90,slow=5.3,SNR=11						
HFS	Hagfors	73.76	329	P	P	15 13 06.9	+1.0
	comp=N,2.9nm,0.7s,mb4.3,baz=100,slow=8.8,SNR=4.3						
NB2	NORSAR Subarra	75.02	330	P	P	15 13 13.6	+0.4
	comp=N,1.0nm,0.7s,mb3.9,baz=91,slow=5.6						
NOA	NORSAR Array B	75.02	330	P	P	15 13 13.7	+0.5
	comp=N,1.6nm,0.8s,mb4.0,baz=91,slow=5.8,SNR=4.8						

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*IDC **29** 15:05:44.9±1.0, 5.38N×94.19E, mb4.3/13, mb1 4.4/13, mb1mx4.2/21, mbtmp4.3/13, Error ellipse: s-maj=45.3km s-min=19.7km az=48.0*

ISC 29 15:05:48.0±0.8**, 5.2N**±0.1×**94.1E**±0.2**, h33^{km}, n15, σ1^{s}13**/15**, mb4.3**/13**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.97	19	Pn	P	15 09 07.7	+1.8
	2.1nm,0.3s,baz=208,slow=14,SNR=36						
SONM	Songino Array	43.73	12	P	P	15 13 51.0	-0.9
	3.4nm,0.8s,mb4.1,baz=190,slow=9.1,SNR=13						
SONM				PcP	PcP	15 15 38.5	-0.5
	1.0nm,0.5s,baz=202,slow=3.9,SNR=4.6						
WRA	Warramunga Arr	46.81	124	P	P	15 14 15.1	-1.6
	4.5nm,0.7s,mb4.5,baz=300,slow=10,SNR=5.3						
ASAR	Alice Springs	48.29	128	P	P	15 14 29.8	+1.4
	1.3nm,0.6s,mb4.1,baz=302,slow=7.6,SNR=5.3						
ZAL	Zalesovo	49.14	353	P	P	15 14 33.7	-0.8
	5.3nm,0.4s,mb4.9,baz=213,slow=5.1,SNR=20						
BVAR	Borovoye Array	51.46	342	P	P	15 14 50.7	-1.5
	3.1nm,0.8s,mb4.3,baz=135,slow=8.2,SNR=6.5						
BRTR	Keskin Array B	64.13	312	P	P	15 16 21.5	0.0
	1.4nm,0.7s,mb4.1,baz=117,slow=6.4,SNR=6.4						
AKASG	Malin Array Be	70.19	322	P	P	15 16 58.0	-1.4
	1.2nm,0.5s,mb4.1,baz=89,slow=5.3,SNR=4.6						
FINES	FINESS Array B	75.02	333	P	P	15 17 27.5	-0.2
	1.2nm,0.6s,mb4.0,baz=104,slow=7.9,SNR=5.2						
ARCES	ARCESS Array B	77.72	340	P	P	15 17 42.9	0.0
	2.0nm,0.7s,mb4.1,baz=84,slow=8.2,SNR=4.0						
GERES	GERESS Array B	79.76	319	P	P	15 17 56.0	+1.6
	2.4nm,0.8s,mb4.2,baz=90,slow=5.3,SNR=20						
KHC	Kasperske Hory	79.86	319	*e*P	P	15 17 56.0	+1.1
KHC				*e*x	x	15 18 10.0	
HFS	Hagfors	80.70	330	P	P	15 17 58.8	-0.4
	2.7nm,0.9s,mb4.2,baz=117,slow=3.3,SNR=5.7						
DAVOX	Davos	82.25	316	P	P	15 18 09.0	+1.4
	3.9nm,0.7s,mb4.5,baz=123,slow=7.8,SNR=5.4						
EKA	Eskdalemuir Ar	89.86	325	P	P	15 18 44.5	-0.1
	1.2nm,0.7s,mb4.3,baz=141,slow=5.3,SNR=3.6						

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*IDC **29** 15:11:49.5±1.0, 10.11N×92.16E, mb4.1/12, mb1 4.3/12, mb1mx4.2/19, mbtmp4.1/12, MS4.0/2, Ms1 4.0/2, ms1mx3.3/28, Error ellipse: s-maj=45.2km s-min=18.8km az=50.0*

ISC 29 15:11:52.7±0.8**, 10.1N**±0.2×**92.2E**±0.2**, h33^{km}, n23, σ0^{s}86**/14**, mb4.1**/13**, MS4.5**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.55	37	LR	LR	15 19 24.2	
	comp=Z,247nm,18.3s,baz=205,slow=43						
PKI	Pulchoki	18.52	341	*e*P		15 16 20.4	
	31nm,0.6s						
DMN	Daman	18.65	340	*e*P		15 16 22.2	
	37nm,0.8s						
GUN	Gumba	18.68	342	*e*P		15 16 22.1	
	50nm,0.6s						
KKN	Kakani	18.76	341	*e*P		15 16 22.5	
	43nm,0.7s						
GKN	Gorkha	19.18	339	*e*P		15 16 27.6	
	42nm,0.5s						
KOLN	Koldanda	19.35	336	*e*P		15 16 29.9	
	46nm,0.9s						
PTH	Pithoragarh	22.36	332	*e*P		15 17 00.3	
SONM	Songino Array	39.46	15	P	P	15 19 20.0	-1.5
	3.3nm,1.1s,mb4.0,baz=198,slow=7.4,SNR=11						
ZAL	Zalesovo	44.11	354	P	P	15 20 01.1	+1.6
	6.6nm,0.3s,mb4.8,baz=204,slow=6.6,SNR=27						
BVAR	Borovoye Array	46.28	342	P	P	15 20 18.4	+1.5
	1.1nm,0.8s,mb3.9,baz=90,slow=7.2,SNR=4.6						
WRA	Warramunga Arr	51.10	126	P	P	15 20 55.3	+0.7
	2.1nm,0.7s,mb4.2,baz=303,slow=8.9,SNR=6.7						
ASAR	Alice Springs	52.80	130	P	P	15 21 07.0	-0.3
	2.3nm,0.7s,mb4.2,baz=306,slow=7.5,SNR=9.5						
BRTR	Keskin Array B	59.54	310	P	P	15 21 56.0	+0.6
	0.8nm,0.8s,mb3.8,baz=129,slow=7.9,SNR=4.4						
AKASG	Malin Array Be	65.23	321	P	P	15 22 32.8	-0.3
	0.4nm,0.6s,mb3.7,baz=85,slow=5.7,SNR=4.2						
FINES	FINESS Array B	69.86	332	P	P	15 23 01.8	-0.1
	2.6nm,0.7s,mb4.3,baz=103,slow=7.4,SNR=13						
KAF	Kangasniemi	69.95	333	*e*p	P	15 23 02.6	+0.2
	5.2nm,1.0s,mb4.4						
ARCES	ARCESS Array B	72.53	340	P	P	15 23 17.6	-0.1
	2.0nm,0.8s,mb4.1,baz=108,slow=5.7,SNR=5.0						
GERES	GERESS Array B	74.90	318	P	P	15 23 31.2	-0.8
	0.8nm,0.7s,mb3.8,baz=104,slow=5.5,SNR=7.4						
HFS	Hagfors	75.58	330	P	P	15 23 35.3	-0.4
	1.5nm,0.4s,mb4.3,baz=104,slow=6.1,SNR=14						
NB2	NORSAR Subarra	76.86	330	P	P	15 23 41.8	-1.1
	4.1nm,0.8s,mb4.4,baz=92,slow=5.8						
NOA	NORSAR Array B	76.86	330	P	P	15 23 42.0	-0.9
	0.5nm,0.4s,mb3.8,baz=108,slow=5.6,SNR=5.8						
JMIC	Jan Mayen	83.99	341	LR	LR	16 08 37.9	
	comp=Z,191nm,18.9s,MS4.5,baz=87,slow=41						

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*JMA **29** 15:22:02.2±0.3, 24.36N×121.90E, h74^{km}, M2.6*

TAP 29 15:22:01.6, 24.25N×121.83E, h63^{km}±1^{km}, ML3.2, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	1.10	79	P	P	15 22 21.3	-0.1
YOJ				*e*S	S	15 22 35.6	-0.3
IRIF	Iriomote-Funau	1.74	87	P	P	15 22 29.6	-0.5
IRIF				S	S	15 22 50.3	-0.9
HATJ	Hateruma jima	1.81	96	P	P	15 22 31.5	+0.3
HATJ				*e*S	S	15 22 53.4	+0.3
JKRS	Kuro-shima	1.99	90	P	P	15 22 33.6	0.0
JKRS				*e*S	S	15 22 57.2	-0.1
JIJ	Ishigaki jima	2.11	86	P	P	15 22 34.8	-0.6
JIJ				S	S	15 22 59.0	-1.4
JTJ	Tarama	2.65	81	P	P	15 22 42.5	-0.4
JTJ				*e*S	S	15 23 12.5	-1.4

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*IDC **29** 15:25:38.1±1.0, 4.73N×93.63E, mb4.0/9, mb1 4.1/10, mb1mx4.0/19, mbtmp4.0/10, ML4.1/1, Error ellipse: s-maj=44.5km s-min=17.9km az=52.0*

*NEIC **29** 15:25:40.9±1.2, 4.38N×93.26E, h30^{km}, mb4.2/6, Error ellipse: s-maj=28.5km s-min=17.8km az=61.0*

ISC 29 15:25:41.1±0.8**, 4.7N**±0.1×**93.6E**±0.1**, h33^{km}, n23, σ0^{s}66**/23**, mb4.2**/17**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.66	20	*e*P	P	15 29 12.4	+4.3
	4.4nm,0.7s						
CMAR	Chiang Mai Arr	14.66	20	Pn	P	15 29 07.4	-0.7
	0.3nm,0.3s,baz=217,slow=12,SNR=6.0						
PKI	Pulchoki	24.09	342	*e*P	P	15 30 55.6	+0.8
DMN	Daman	24.22	341	*e*P	P	15 30 56.7	+0.6
GUN	Gumba	24.27	343	*e*P	P	15 30 57.2	+0.7
	6.5nm,0.4s,mb4.5						
KKN	Kakani	24.34	342	*e*P	P	15 30 57.0	-0.2
	10nm,0.9s,mb4.3						
GKN	Gorkha	24.74	341	*e*P	P	15 31 01.3	+0.2
KOLN	Koldanda	24.89	338	*e*P	P	15 31 02.9	+0.4
	14nm,0.8s,mb4.5						
LSA	Lhasa	25.01	355	*e*P	P	15 31 04.8	+1.1
	8.3nm,0.8s,mb4.3						
SONM	Songino Array	44.39	12	P	P	15 33 49.0	-1.2
	0.6nm,0.5s,mb3.6,baz=196,slow=7.7,SNR=5.3						
SONM				PcP	PcP	15 35 34.7	+0.4
	0.9nm,0.6s,baz=194,slow=3.7,SNR=5.3						
KS15	Wonju Array Si	45.20	39	*e*P	P	15 33 57.9	+0.9
WRA	Warramunga Arr	46.88	123	P	P	15 34 10.6	+0.1
	3.7nm,0.7s,mb4.4,baz=300,slow=9.0,SNR=20						
WRAB	Tennant Creek	46.89	123	*e*P	P	15 34 10.5	0.0
	6.3nm,0.8s,mb4.6						
ASAR	Alice Springs	48.31	127	P	P	15 34 21.8	+0.1
	1.2nm,0.9s,mb3.9,baz=310,slow=7.4,SNR=8.9						
ASAR				PcP	PcP	15 35 49.0	+0.5
	1.0nm,0.7s,baz=315,slow=3.7,SNR=7.5						
ZAL	Zalesovo	49.65	353	P	P	15 34 31.2	-0.3
	1.3nm,0.4s,mb4.3,baz=193,slow=6.6,SNR=10						
BVAR	Borovoye Array	51.86	342	P	P	15 34 47.5	-0.7
	1.5nm,0.7s,mb4.0,baz=135,slow=8.4,SNR=10						
BRVK	Borovoye	51.92	342	*e*P	P	15 34 47.9	-0.8
	1.4nm,0.6s,mb4.1						
CHKZ	Chkalovo	52.36	343	*e*P	P	15 34 51.4	-0.6
	1.9nm,0.6s,mb4.2						
ARU	Arti	58.65	338	P	P	15 35 36.3	-1.1
	1.0nm,0.4s,mb4.2						
BRTR	Keskin Array B	64.16	312	P	P	15 36 14.8	0.0
	1.3nm,0.6s,mb4.1,baz=127,slow=6.2,SNR=8.7						
FINES	FINESS Array B	75.31	333	P	P	15 37 22.4	-0.1
	1.7nm,0.8s,mb4.0,baz=135,slow=2.7,SNR=5.7						
ARCES	ARCESS Array B	78.10	341	P	P	15 37 38.5	+0.4
	3.0nm,0.9s,mb4.2,baz=95,slow=7.7,SNR=7.5						
GERES	GERESS Array B	79.88	319	P	P	15 37 48.3	+0.2
	1.5nm,0.9s,mb3.9,baz=117,slow=6.0,SNR=8.4						

IDC 29 15:30:19.8±26.0**, 18.21S**×**173.89W, mb3.9**/4**, mb1 4.0**/4**, mb1mx3.7**/16**, mbtmp3.9**/4**, Error ellipse: s-maj=485.5km s-min=148.2km az=73.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	Charters Tower	37.64	261	P	P	15 37 37.2	-1.2
	1.7nm,0.4s,baz=85,slow=11,SNR=5.1						
STKA	Stephens Creek	42.28	242	P	P	15 38 15.5	-1.3
	0.7nm,0.4s,baz=61,slow=13,SNR=3.1						
WRA	Warramunga Arr	48.80	259	P	P	15 39 06.7	-2.2
	0.3nm,0.3s,baz=97,slow=7.5,SNR=13						
ASAR	Alice Springs	48.85	254	P	P	15 39 06.8	-2.4
	1.5nm,1.0s,baz=94,slow=7.6,SNR=11						

IDC 29 15:31:32.7±1.6**, 3.26N**×**94.74E, mb3.8**/6**, mb1 4.1**/7**, mb1mx3.8**/19**, mbtmp3.8**/7**, ML3.8**/1**, Error ellipse: s-maj=61.9km s-min=22.3km az=57.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.65	15	Pn	P	15 35 16.9	+0.5
	0.1nm,0.3s,baz=205,slow=12,SNR=14						
IMP	Imphal	21.41	358	*e*	P	15 36 28.3	+3.8
WRA	Warramunga Arr	45.20	122	P	P	15 39 51.8	-1.9
	3.6nm,0.9s,baz=300,slow=8.6,SNR=5.0						
SONM	Songino Array	45.52	11	P	P	15 39 53.3	-2.6
	1.8nm,1.0s,baz=180,slow=4.9,SNR=7.1						
ASAR	Alice Springs	46.59	127	P	P	15 40 02.9	-1.7
	0.6nm,0.7s,baz=296,slow=7.6,SNR=6.7						
ZAL	Zalesovo	51.17	352	P	P	15 40 38.4	-1.2
	0.8nm,0.3s,baz=198,slow=8.8,SNR=3.6						
BVAR	Borovoye Array	53.52	342	P	P	15 40 53.9	-3.4
	0.6nm,0.6s,baz=129,slow=9.5,SNR=4.5						
GERES	GERESS Array B	81.65	319	P	P	15 43 53.5	-0.7
	1.0nm,0.8s,baz=100,slow=8.1,SNR=5.6						

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*BJI **29** 15:33:01.3, 2.38N×93.73E, h30^{km}, mB5.5, mb4.6, Ms4.9, Msz4.6*

*IDC **29** 15:33:04.0±0.9, 3.44N×94.51E, mb4.0/11, mb1 4.2/12, mb1mx4.1/20, mbtmp4.0/12, ML3.3/1, MS4.2/2, Ms1 4.2/2, ms1mx3.5/22, Error ellipse: s-maj=37.1km s-min=16.2km az=49.0*

*NEIC **29** 15:33:07.8±1.5, 3.20N×94.36E, h30^{km}, mb4.4/9, Error ellipse: s-maj=34.4km s-min=22.0km az=50.0*

ISC 29 15:33:06.1±0.7**, 3.24N**±0.10×**94.3E**±0.1**, h30^{km}, n33, σ1^{s}28**/31**, mb4.2**/23**, MS4.4**/3**, 2C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.78	16	*e*P	P	15 36 49.4	+1.3
	41nm,1.0s						
CMAR	Chiang Mai Arr	15.78	16	Pn	P	15 36 43.3	-4.8
	0.0nm,0.3s,baz=212,slow=12,SNR=2.5						
BWNR	Bhubaneshwar	18.88	335	*e*	P	15 37 33.0	+6.3
HYB	Hyderabad	20.93	313	*e*P	P	15 37 49.0	0.0
HYB	Hyderabad	20.93	313	*i* P	P	15 37 49.0	0.0
SHL	Shillong	22.32	354	*e*	P	15 38 02.5	-0.4
KMI	Kunming	23.22	20	⇑P	P	15 38 17.0	+5.3
KMI				AP		15 38 23.5	
KMI				PP	PP	15 38 47.3	+4.5
KMI				AMB	AMB		
	comp=Z,21nm,2.0s,mb4.2						
KMI				LR	LR		
	comp=N,2µm,16.5s,MS4.7						
KMI				LR	LR		
	comp=E,2µm,20.4s,MS4.7						
KMI				LR	LR		
	comp=Z,2µm,16.7s,MS4.6						
GYA	Guiyang	25.94	26	⇑*i*P	P	15 38 43.0	+5.2
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.5						
LSA	Lhasa	26.49	354	*e*P	P	15 38 44.8	+1.9
	comp=Z,42nm,1.0s,mb4.9						
XAN	Xi’an	33.53	22	P	P	15 39 47.0	+1.6
XAN				AMB	AMB		
	comp=Z,13nm,1.3s,mb4.7						
GTA	Gaotai	36.35	7	P	P	15 40 09.0	-0.4
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.4						
WMQ	Urumqi	40.84	353	P	P	15 40 51.5	+4.7
WRA	Warramunga Arr	45.54	122	P	P	15 41 25.0	-0.3
	comp=Z,5.0nm,0.8s,mb4.5,baz=300,slow=8.9,SNR=11						
WRAB	Tennant Creek	45.55	122	*e*P	P	15 41 25.7	+0.3
	comp=Z,9.6nm,0.8s,mb4.8						
SONM	Songino Array	45.63	11	P	P	15 41 25.2	-0.4
	comp=Z,1.9nm,0.9s,mb4.0,baz=188,slow=8.3,SNR=3.9						
ULN	Ulaanbaatar	45.79	12	*e*P	P	15 41 25.8	-1.1
	comp=Z,3.3nm,1.0s,mb4.2						
ASAR	Alice Springs	46.91	127	P	P	15 41 35.9	-0.2
	comp=Z,1.5nm,0.6s,mb4.1,baz=294,slow=7.7,SNR=12						
HIA	Hailar	50.72	21	*e*P	P	15 42 07.8	+2.7
	comp=Z,1.9nm,0.6s,mb4.2						
ZAL	Zalesovo	51.14	353	P	P	15 42 07.5	-0.7
	comp=Z,1.0nm,0.4s,mb4.1,baz=255,slow=4.5,SNR=2.7						
CBIJ	Chichi jima	51.49	58	LR	LR	16 02 14.0	
	comp=Z,169nm,18.9s,MS4.1,baz=112,slow=34						
JHJ	Hachijo jima 2	51.81	50	P	P	15 42 11.4	-2.3
	comp=Z,238nm,0.7s,baz=76,slow=17,SNR=3.6						
BVAR	Borovoye Array	53.42	342	P	P	15 42 24.4	-1.0
	comp=Z,1.3nm,0.7s,mb3.9,baz=141,slow=9.5,SNR=4.7						
BRVK	Borovoye	53.48	342	P	P	15 42 26.7	+0.8
	comp=Z,2.0nm,0.7s,mb4.2						
CHKZ	Chkalovo	53.91	343	*e*P	P	15 42 27.4	-1.5
	comp=Z,2.6nm,0.6s,mb4.3						
PMG	Port Moresby	54.12	104	LR	LR	16 08 22.3	
	comp=Z,340nm,19.6s,MS4.4,baz=17,slow=39						
STKA	Stephens Creek	56.85	132	P	P	15 42 51.6	+1.0
	comp=Z,2.3nm,1.0s,mb4.2,baz=297,slow=4.5,SNR=3.0						
ARU	Arti	60.21	338	P	P	15 43 10.9	-2.8
	comp=Z,2.4nm,0.9s,mb4.2						
YAK	Yakutsk	64.31	18	P	P	15 43 38.6	-2.3
	comp=Z,2.3nm,0.4s,mb4.6						
BRTR	Keskin Array B	65.62	312	P	P	15 43 49.5	-0.2
	comp=Z,0.3nm,0.6s,mb3.5,baz=139,slow=15,SNR=2.1						
MLR	Muntele Rosu	72.62	317	P	P	15 44 34.7	+1.8
	comp=Z,0.7nm,0.3s,mb4.0,baz=175,slow=17,SNR=2.4						
FINES	FINESS Array B	76.88	333	P	P	15 44 55.9	-1.0
	comp=Z,1.3nm,0.7s,mb4.0,baz=104,slow=7.9,SNR=4.4						
ARCES	ARCESS Array B	79.66	341	P	P	15 45 13.3	+1.3
	comp=Z,5.7nm,1.1s,mb4.4,baz=90,slow=3.6,SNR=6.2						
GERES	GERESS Array B	81.40	319	P	P	15 45 22.4	+0.8
	comp=Z,0.7nm,0.7s,mb3.7,baz=76,slow=5.5,SNR=3.5						

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*NEIC **29** 15:36:28.8±0.3, 11.33N×92.21E, mb4.8/24, Error ellipse: s-maj=10.3km s-min=8.5km az=64.0*

*IDC **29** 15:36:28.4±0.5, 11.20N×92.07E, h24^{km}±2^{km}, mb4.3/20, mb1 4.4/21, mb1mx4.4/23, mbtmp4.4/21, ML3.9/1, MS4.5/1, Ms1 4.5/1, ms1mx3.5/25, Error ellipse: s-maj=19.6km s-min=10.3km az=49.0*

*CSEM **29** 15:36:30.5, 11.04N×91.45E, h33^{km}, mb5.5*

*BJI **29** 15:36:30.4, 11.18N×93.15E, h21^{km}, mB5.1, mb4.8, Ms4.8, Msz4.6*

*MOS **29** 15:36:30.6±1.2, 11.20N×91.39E, h33^{km}, mb5.1/26, Error ellipse: s-maj=13.3km s-min=7.3km az=117.0*

ISC 29 15:36:26.8±0.3**, 11.29N**±0.05×**92.19E**±0.04**, h26^{km}, h26^{km}**±.5^{km}**:pP-P, n166, σ1^{s}01**/153**, mb4.8**/53**, MS4.6**/7**, 5C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	9.66	42	*e*P	P	15 38 45.7	-1.9
	9.1nm,0.8s						
CMAR	Chiang Mai Arr	9.66	42	Pn	P	15 38 48.9	+1.3
	0.3nm,0.3s,baz=236,slow=13,SNR=9.1						
VIS	Vishakhapatnam	10.70	308	*e*P	P	15 38 58.3	-3.5
VIS				*e*		15 39 05.6	
	comp=Z,150nm,1.2s						
VIS				*e*S	x	15 40 39.0	
VIS				*e*	S	15 40 50.4	-11
	comp=N,314nm,0.5s						
VIS				*e*		15 40 50.9	
	comp=E,342nm,0.4s						
CAL	Calcutta	11.78	342	*e*	S	15 41 38.5	+10
CAL				*e*		15 43 53.5	
CAL				*e*		15 44 50.3	
MDRS	Chennai	11.81	280	*e*P	P	15 39 09.0	-7.9
MDRS				*e*	S	15 41 09.0	-20
MDRS				*e*		15 43 14.0	
BLSP	Bilaspur	14.45	320	*e*	S	15 42 15.2	-17
HYB	Hyderabad	14.54	296	*i* P	P	15 39 56.0	+2.8
TRD	Trivandrum	15.26	261	*e*	P	15 40 04.7	+2.2
	comp=Z,40nm,1.8s						
TRD				*e*		15 40 04.7	
	comp=Z,40nm,1.8s						
TRD				*e*		15 42 17.0	
NGP	Nagpur	15.97	310	⇑*e*	P	15 40 16.2	+4.5
	comp=Z,77nm,0.8s						
NGP				*e*S	S	15 42 54.0	-14
LATR	Latur	16.68	297	*e*	S	15 43 05.8	-18
MNGI	Mangalore	17.06	277	*e*	P	15 40 26.4	+0.9
MNGI				*e*	S	15 43 15.4	-18
LSA	Lhasa	18.35	357	*e*P	P	15 40 44.1	+2.6
LSA				pmax	pmax		
	comp=Z,58nm,0.9s						
LSA	Lhasa	18.35	357	*e*P	P	15 40 44.1	+2.6
	comp=Z,58nm,0.9s						
BHPL	Bhopal	18.42	312	*e*	P	15 40 43.2	+0.8
BHPL				*e*		15 40 52.0	
	comp=Z,38nm,1.3s						
BHPL				*e*		15 40 52.0	
	comp=Z,38nm,1.3s						
KAD	Karad	18.44	291	*e*	P	15 40 42.9	+0.2
KAD				*i*	S	15 43 49.3	-15
POO	Poona	19.12	294	*e*P	P	15 40 40.4	-10
POO				*e*S	S	15 44 15.8	-3.9
GYA	Guiyang	20.35	40	⇑*i*P	P	15 41 04.0	-0.2
GYA				AP		15 41 13.3	
GYA				XP		15 41 17.5	
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
GYA				LR	LR		
	comp=N,2µm,17.1s,MS4.5						
GYA				LR	LR		
	comp=E,770nm,17.1s,MS4.5						
GYA				LR	LR		
	comp=Z,2µm,17.8s,MS4.5						
PTH	Pithoragarh	21.32	330	*e*	P	15 41 13.1	-1.1
PTH				*e*S	S	15 45 05.2	+0.4
NDI	New Delhi	22.26	323	*e*	P	15 41 24.0	+0.4
NDI				*e*S	S	15 45 19.0	-3.1
CD2	Chengdu	22.28	27	P	P	15 41 24.3	+0.6
CD2				AMB	AMB		
	comp=Z,20nm,0.4s,mb4.9						
CD2				LR	LR		
	comp=E,2µm,16.2s						
CD2				LR	LR		
	comp=Z,2µm,12.6s,MS4.7						
DDI	Dehra Dun	23.05	327	*e*	P	15 41 34.8	+3.4
DDI				*e*	S	15 45 45.8	+9.5
ENH	Enshi	24.80	38	*e*P	P	15 41 48.3	-0.1
	comp=Z,42nm,0.6s,mb5.2						
LZH	Lanzhou	26.85	21	*e*P	P	15 42 08.5	+1.1
LZH				AP	pP	15 42 12.8	-2.1
LZH				XP	sP	15 42 16.0	-2.3
LZH				AMB	AMB		
	comp=Z,60nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,239nm,5.0s						
LZH				LR	LR		
	comp=E,978nm,14.3s						
LZH				LR	LR		
	comp=Z,1µm,15.6s,MS4.6						
GTA	Gaotai	28.82	12	P	P	15 42 26.5	+1.3
GTA				AP	pP	15 42 34.3	+1.6
GTA				XP	sP	15 42 37.0	+1.0
GTA				AMB	AMB		
	comp=Z,5.0nm,0.9s,mb4.2						
GTA				AMB	AMB		
	comp=Z,246nm,6.1s						
GTA				LR	LR		
	comp=N,289nm,14.8s,MS4.2						
GTA				LR	LR		
	comp=E,375nm,16.7s,MS4.2						
GTA				LR	LR		
	comp=Z,555nm,14.8s,MS4.3						
KSH	Kashi	31.59	336	P	pP	15 42 58.3	+1.0
KSH				AP	pP	15 43 06.0	+8.7
KSH				*e*XP	sP	15 43 11.3	+11
KSH				AMB	AMB		
	comp=Z,120nm,6.9s						
NJ2	Nanjing	32.11	46	*e*P	P	15 42 55.3	+0.9
NJ2				AP	pP	15 43 03.3	+1.4
NJ2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,350nm,11.3s						
NJ2				LR	LR		
	comp=N,3µm,15.6s,MS5.2						
NJ2				LR	LR		
	comp=E,3µm,14.8s,MS5.2						
NJ2				LR	LR		
	comp=Z,2µm,15.8s,MS4.9						
AAK	Ala-Archa	34.83	337	*i* P	pP	15 43 25.9	+0.4
AAK				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
BJT	Baijiatuau	35.63	32	*e*P	pP	15 43 33.3	+1.0
BJT				pmax	pmax		
	comp=Z,10.0nm,0.8s						
BJT	Baijiatuau	35.63	32	*e*P	pP	15 43 33.3	+1.0
	comp=Z,9.6nm,0.8s						
SONM	Songino Array	38.34	15	P	P	15 43 48.8	+1.4
	comp=Z,1.0nm,0.7s,baz=198,slow=8.1,SNR=3.9						
SONM				pP	pP	15 43 56.3	+1.2
	comp=Z,18nm,1.1s,baz=198,slow=7.8,SNR=16						
SONM				PcP	PcP	15 46 01.2	-0.2
	comp=Z,1.0nm,0.7s,baz=198,slow=4.6,SNR=2.9						
ULN	Ulaanbaatar	38.54	16	*e*P	P	15 43 52.4	+3.3
ULN				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.5						
ULN	Ulaanbaatar	38.54	16	*e*P	P	15 43 52.4	+3.3
	comp=Z,9.9nm,1.1s,mb4.5						
TLY	Talaya	41.35	11	*i* P	P	15 44 08.1	-4.1
ZAL	Zalesovo	42.95	354	P	P	15 44 25.8	+0.5

	comp=Z,2.2nm,0.7s,mb4.0,baz=210,slow=6.8,SNR=5.8						
ZAL				pP	pP	15 44 33.4	+0.4
	comp=Z,8.6nm,0.8s,baz=206,slow=11,SNR=16						
CN2	**Changchun**	**43.28**	**35**	eP	**P**	**15 44 28.8**	**+0.6**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
NVS	**Novosibirsk**	**44.02**	**353**	eP	pP	15 44 40.7	-1.0
NVS				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.7						
NVS				pmax	pmax		
	comp=N,15nm,1.3s						
HIA	**Hailar**	**44.23**	**26**	eP	pP	15 44 43.1	-0.3
HIA				pmax	pmax		
	comp=Z,8.0nm,1.1s						
HIA	**Hailar**	**44.23**	**26**	eP	pP	15 44 43.1	-0.3
	comp=Z,7.6nm,1.1s						
RDF	**Al-Radifah**	**45.14**	**300**	eP	**P**	**15 44 43.9**	**+0.5**
RDF				AMb	AMB	15 44 44.6	
	comp=Z,52nm,0.7s,mb5.5						
UMR	**Umm Al-Rimmam**	**45.15**	**301**	eP	**P**	**15 44 43.4**	**0.0**
UMR				AMb	AMB	15 44 46.4	
	comp=Z,36nm,1.0s,mb5.1						
BVAR	**Borovoye Array**	**45.16**	**342**	P	**P**	**15 44 43.3**	**+0.1**
	comp=Z,4.9nm,1.0s,mb4.3,baz=149,slow=8.6,SNR=5.5						
BVAR				pP	pP	15 44 50.9	0.0
	comp=Z,5.9nm,0.8s,baz=135,slow=8.4,SNR=11						
BVAR				PcP	PcP	15 46 23.2	-0.5
	comp=Z,1.5nm,0.8s,baz=90,slow=1.4,SNR=2.7						
BRVK	**Borovoye**	**45.22**	**342**	eP	**P**	**15 44 42.9**	**-0.8**
MIB	**Mutribah**	**45.52**	**301**	eP	**P**	**15 44 46.1**	**-0.3**
MIB				AMb	AMB	15 44 49.2	
	comp=Z,44nm,1.0s,mb5.4						
CHKZ	**Chkalovo**	**45.65**	**342**	eP	**P**	**15 44 47.6**	**+0.5**
CHKZ				e*PP	pP	15 44 55.2	+0.4
CHKZ				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
CHKZ	**Chkalovo**	**45.65**	**342**	eP	**P**	**15 44 47.6**	**+0.5**
	comp=Z,12nm,1.0s,mb4.8						
CHKZ				epP	pP	15 44 55.1	+0.4
KAMS	**Al Khamasin**	**46.54**	**287**	P	**P**	**15 44 54.8**	**+0.3**
TATS	**Tathlith**	**47.54**	**286**	P	**P**	**15 45 02.9**	**+0.5**
BOD	**Bodaibo**	**49.34**	**15**	eP	**P**	**15 45 14.9**	**-0.9**
HILS	**Ha'il**	**49.84**	**296**	P	**P**	**15 45 21.2**	**+1.0**
NWAO	**Narrogin (SRO)**	**50.04**	**152**	eP	**P**	**15 45 20.7**	**-0.9**
GNI	**Garni**	**50.70**	**313**	i P	**P**	**15 45 27.2**	**+0.7**
GNI	**Garni**	**50.70**	**313**	P	**P**	**15 45 28.0**	**+1.4**
	comp=Z,18nm,0.9s,mb5.0,baz=153,slow=2.3,SNR=14						
TI2	**Plekhanov**	**51.28**	**315**	i P	**P**	**15 45 31.2**	**+0.3**
TI2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
WRA	**Warramunga Arr**	**51.81**	**127**	P	**P**	**15 45 34.6**	**-0.7**
	comp=Z,3.8nm,0.5s,mb4.6,baz=307,slow=8.2,SNR=49						
WRA				pP	pP	15 45 42.4	-0.7
	comp=Z,14nm,0.6s,baz=306,slow=8.5,SNR=26						
WRAB	**Tennant Creek**	**51.82**	**127**	i P	pP	15 45 40.5	-2.6
WRAB	**Tennant Creek**	**51.82**	**127**	eP	**P**	**15 45 34.4**	**-0.9**
	comp=Z,27nm,0.8s,mb5.2						
CLNS	**Chul'man**	**51.97**	**22**	eP	pP	15 45 42.6	-1.1
CLNS				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.2s						
CLNS				pmax	pmax		
	comp=E,11nm,1.1s						
CLNS				MLR	MLR		
	comp=N,400nm,13.0s,MS4.7						
CLNS				MLR	MLR		
	comp=Z,600nm,13.0s,MS4.8						
CLNS				MLR	MLR		
	comp=E,200nm,12.0s,MS4.7						
ARU	**Arti**	**52.02**	**337**	eP	**P**	**15 45 35.6**	**-0.7**
ARU				e*PP	pP	15 45 43.8	-0.3
ARU				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
ARU	**Arti**	**52.02**	**337**	eP	**P**	**15 45 35.6**	**-0.7**
	comp=Z,2.8nm,0.8s,mb4.2						
ARU				epP	pP	15 45 43.8	-0.3
ZEI	**Tsey**	**52.26**	**316**	eP	**P**	**15 45 38.4**	**+0.1**
ZEI				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
KIV	**Kislovodsk**	**53.52**	**317**	i P	**P**	**15 45 47.6**	**0.0**
KIV				e*PP	pP	15 45 56.6	+1.1
KIV	**Kislovodsk**	**53.52**	**317**	i P	**P**	**15 45 47.6**	**0.0**
KIV				epP	pP	15 45 56.6	+1.2
ASAR	**Alice Springs**	**53.58**	**131**	P	**P**	**15 45 47.8**	**-0.5**
	comp=Z,1.7nm,0.6s,mb4.2,baz=306,slow=6.5,SNR=21						
ASAR				pP	pP	15 45 55.4	-0.8
	comp=Z,12nm,0.8s,baz=306,slow=6.9,SNR=36						
ASAR				ScP		15 50 50.5	
	comp=Z,0.3nm,0.9s,baz=239,slow=5.3,SNR=4.0						
UMJS	**Umm Lajj**	**53.59**	**293**	P	**P**	**15 45 49.9**	**+1.5**
TBKS	**Tabuk**	**54.55**	**297**	P	**P**	**15 45 56.6**	**+1.2**
MALT	**Malatya**	**54.82**	**309**	eP	**P**	**15 45 57.2**	**0.0**
MALT				pmax	pmax		
	comp=Z,18nm,1.1s,mb5.0						
MALT	**Malatya**	**54.82**	**309**	eP	**P**	**15 45 57.2**	**0.0**
	comp=Z,18nm,1.1s,mb5.0						
DBAS	**Duba**	**54.95**	**295**	P	**P**	**15 45 58.6**	**+0.2**
JMQS	**Jabal Moqyreh**	**55.21**	**297**	P	**P**	**15 46 00.8**	**+0.5**
YSS	**Yuzh-Sakhalins**	**55.36**	**40**	i P	pP	15 46 08.1	-0.8
SOC	**Sochi**	**55.40**	**316**	eP	**P**	**15 45 56.5**	**-4.9**
SOC				e		15 46 59.6	
SOC				e		15 48 01.1	
SOC				ePPP	PPP	15 49 18.9	-1.8
SOC				eS	**S**	**15 53 41.9**	**-0.7**
SOC				eSS	SS	15 57 21.1	-6.1
SOC				eSSS	SSS	15 59 28.5	-2.7
SOC				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.1						
SOC				pmax	pmax		
	comp=N,14nm,0.7s						
SOC				pmax	pmax		
	comp=E,19nm,0.9s						
AYUS	**'Aynunah**	**55.67**	**296**	P	**P**	**15 46 03.7**	**+0.2**
BDAS	**Al Bad'**	**55.84**	**297**	P	**P**	**15 46 04.7**	**-0.1**
JMOS	**Jabal al Moall**	**55.91**	**298**	P	**P**	**15 46 05.4**	**+0.2**
ALWS	**Ilw as Safayha**	**55.96**	**298**	P	**P**	**15 46 05.8**	**+0.2**
KMBO	**Kilima Mbogo**	**55.97**	**261**	i P	**P**	**15 46 07.3**	**+1.4**
KMBO				pmax	pmax		
	comp=Z,4.0nm,1.0s						
KMBO	**Kilima Mbogo**	**55.97**	**261**	P	**P**	**15 46 05.2**	**-0.7**
	comp=Z,3.6nm,1.0s,mb4.4,baz=44,slow=12,SNR=6.2						
HAQS	**Haql**	**56.05**	**297**	P	**P**	**15 46 06.1**	**-0.2**
TAYS	**Tayyib Ism**	**56.05**	**297**	P	**P**	**15 46 06.1**	**-0.2**
EIL	**Elat**	**56.10**	**298**	eP	**P**	**15 46 06.5**	**-0.1**
	comp=Z,14nm,0.8s,mb5.0						
YAK	**Yakutsk**	**57.42**	**20**	i P	pP	15 46 22.5	-1.0
YAK	**Yakutsk**	**57.42**	**20**	eP	pP	15 46 22.7	-0.8
	comp=Z,6.8nm,0.5s						
BRTR	**Keskin Array B**	**58.77**	**310**	P	**P**	**15 46 23.8**	**-1.5**
	comp=Z,5.7nm,0.8s,mb4.7,baz=124,slow=8.0,SNR=22						
BRTR				pP	pP	15 46 32.0	-1.3
	comp=Z,5.1nm,0.8s,baz=127,slow=6.2,SNR=10.0						
MOS	**Moscow**	**61.18**	**328**	eP	**P**	**15 46 48.1**	**+6.5**
MOS				pmax	pmax		
	comp=Z,92nm,0.8s						
OBN	**Obninsk**	**61.48**	**327**	⇑iP	**P**	**15 46 43.3**	**-0.4**
OBN				e	pP	15 46 51.5	-0.2
OBN				e		15 46 58.0	
OBN				pmax	pmax		
	comp=Z,48nm,1.7s,mb5.3						
OBN	**Obninsk**	**61.48**	**327**	i P	**P**	**15 46 41.5**	**-2.2**
CTA	**Charters Tower**	**61.66**	**120**	P	**P**	**15 46 44.5**	**-0.8**
	comp=Z,3.6nm,1.0s,mb4.4,baz=340,slow=12,SNR=2.9						
MBAR	**Mbarara**	**62.18**	**263**	i P	**P**	**15 46 46.3**	**-2.6**
STKA	**Stephens Creek**	**63.84**	**134**	P	**P**	**15 46 59.7**	**0.0**
	comp=Z,1.0nm,0.4s,mb4.2,baz=251,slow=9.5,SNR=5.2						
STKA	**Stephens Creek**	**63.84**	**134**	eP	**P**	**15 47 00.1**	**+0.4**
TIXI	**Tiksi**	**64.30**	**12**	⇑iP	**P**	**15 47 01.4**	**-0.7**
TIXI				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.1						
AKASG	**Malin Array Be**	**64.30**	**321**	P	**P**	**15 47 00.8**	**-1.6**
	comp=Z,6.8nm,0.8s,mb4.7,baz=88,slow=5.6,SNR=25						
MA2	**Magadan**	**64.68**	**29**	i P	pP	15 47 10.5	-2.2
IDI	**Anoyia**	**65.07**	**304**	P	**P**	**15 47 06.3**	**-1.3**
	comp=Z,13nm,1.0s,mb4.9,baz=180,slow=7.1,SNR=3.9						
MLR	**Muntele Rosu**	**65.41**	**315**	P	**P**	**15 47 09.6**	**0.0**
	comp=Z,17nm,1.0s,mb5.0,baz=197,slow=11,SNR=16						
MLR				LR	LR	16 20 55.7	
	comp=Z,346nm,18.1s,MS4.6,baz=338,slow=41						
PET	**Petropavlovsk**	**66.95**	**37**	i P	**P**	**15 47 14.3**	**-5.0**
VSU	**Vasula**	**67.69**	**329**	i P	**P**	**15 47 23.1**	**-0.8**
APA	**Apatity**	**68.00**	**339**	⇑iP	pP	15 47 33.7	0.0
APA				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
KWP	**Kalwaria**	**68.20**	**319**	eP	**P**	**15 47 26.8**	**-0.5**
KOLS	**Kolonicke sedl**	**68.39**	**318**	eP	PcP	15 47 50.8	-3.0
KOLS	**Kolonicke sedl**	**68.39**	**318**	e	PcP	15 47 50.8	-3.0
SUW	**Suwalki**	**68.63**	**324**	eP	**P**	**15 47 29.0**	**-0.9**
FINES	**FINESS Array B**	**68.81**	**332**	P	**P**	**15 47 30.6**	**-0.2**
	comp=Z,6.8nm,0.7s,mb4.7,baz=100,slow=7.2,SNR=19						
FINES				pP	pP	15 47 38.3	-0.6
	comp=Z,8.4nm,0.8s,baz=104,slow=7.9,SNR=9.0						
KAF	**Kangasniemi**	**68.90**	**333**	ep	**P**	**15 47 28.8**	**-2.6**
	comp=Z,7.2nm,0.8s,mb4.7						
KAF	**Kangasniemi**	**68.90**	**333**	eP	**P**	**15 47 28.8**	**-2.6**
KAF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
NIE	**Niedzica**	**69.72**	**319**	eP	**P**	**15 47 37.0**	**+0.3**
PSZ	**Piszkesteto**	**69.85**	**317**	eP	**P**	**15 47 35.5**	**-1.9**
OJC	**Ojcow**	**70.14**	**319**	eP	**P**	**15 47 38.8**	**-0.4**
VYHS	**Vyhne**	**70.60**	**317**	eP	**P**	**15 47 41.6**	**-0.4**
ARCES	**ARCESS Array B**	**71.42**	**340**	P	**P**	**15 47 47.1**	**+0.5**
	comp=Z,6.3nm,0.8s,mb4.6,baz=90,slow=4.9,SNR=7.6						
ARCES				pP	pP	15 47 55.2	+0.6
	comp=Z,12nm,0.9s,baz=101,slow=6.2,SNR=7.2						
MORC	**Moravsky Berou**	**71.55**	**319**	eP	**P**	**15 47 47.1**	**-0.6**
MORC				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
MORC	**Moravsky Berou**	**71.55**	**319**	eP	**P**	**15 47 47.1**	**-0.7**
	comp=Z,6.9nm,0.9s,mb4.6						
ZST	**Bratislava**	**71.73**	**317**	eP	**P**	**15 47 48.0**	**-0.9**
ZST				epP	pP	15 47 56.5	-0.4
DPC	**Dobruska-Polom**	**72.38**	**319**	eP	**P**	**15 47 52.7**	**+0.1**
DPC				epP	pP	15 48 01.2	+0.5
KSP	**Ksiaz**	**72.43**	**320**	eP	**P**	**15 47 52.6**	**-0.3**
KSP				epP	pP	15 47 59.9	-1.0
KSP	**Ksiaz**	**72.43**	**320**	eP	**P**	**15 47 52.9**	**0.0**
BILL	**Bilibino**	**73.66**	**22**	i P	**P**	**15 48 05.6**	**+5.8**
BRG	**Berggiesshubel**	**73.92**	**320**	i P	**P**	**15 48 01.4**	**-0.2**
BRG				e	pP	15 48 09.3	-0.3
BRG				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
BRG	**Berggiesshubel**	**73.92**	**320**	i P	**P**	**15 48 01.4**	**-0.2**
	comp=Z,8.2nm,1.0s,mb4.6						
BRG				e	pP	15 48 09.3	-0.3
GEC2	**GERESS Array S**	**74.02**	**318**	eP	**P**	**15 48 02.3**	**+0.1**
GEC2				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
GEC2	**GERESS Array S**	**74.02**	**318**	eP	**P**	**15 48 02.3**	**+0.1**
	comp=Z,9.0nm,1.1s,mb4.6						
GERES	**GERESS Array B**	**74.02**	**318**	P	**P**	**15 48 02.3**	**0.0**
	comp=Z,3.3nm,0.7s,mb4.4,baz=90,slow=5.3,SNR=15						
GERES				pP	pP	15 48 09.9	-0.4
	comp=Z,2.3nm,0.8s,baz=90,slow=5.3,SNR=7.3						
KHC	**Kasperske Hory**	**74.11**	**318**	i P	**P**	**15 48 00.7**	**-2.0**
KHC				e		15 48 02.0	
KHC	**Kasperske Hory**	**74.11**	**318**	eP	**P**	**15 48 02.0**	**-0.7**
LBTB	**Lobatse**	**74.23**	**240**	eP	**P**	**15 48 04.6**	**+0.7**
LBTB				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
LBTB	**Lobatse**	**74.23**	**240**	eP	**P**	**15 48 04.6**	**+0.6**
	comp=Z,11nm,0.8s,mb4.8						
CLL	**Collm**	**74.52**	**320**	eP	**P**	**15 48 04.0**	**-1.1**
CLL				e	pP	15 48 13.0	-0.2
CLL	**Collm**	**74.52**	**320**	P	**P**	**15 48 04.0**	**-1.1**
CLL				e*SP	sP	15 48 13.0	-3.0
WET	**Wettzell**	**74.57**	**318**	eP	**P**	**15 48 05.6**	**+0.2**
MOX	**Moxa**	**75.39**	**320**	eP	**P**	**15 48 10.3**	**+0.2**
MOX	**Moxa**	**75.39**	**320**	i P	**P**	**15 48 10.3**	**+0.2**
GRA1	**Grafenberg Arr**	**75.65**	**319**	eP	**P**	**15 48 12.2**	**+0.6**
	comp=Z,44nm,1.6s,mb5.1						
GRA1				epP	pP	15 48 20.2	+0.5
GRF	**Grafenberg Arr**	**75.65**	**319**	eP	**P**	**15 48 12.2**	**+0.6**
GRF				e*PP	pP	15 48 20.2	+0.5
GRF				pmax	pmax		
	comp=Z,44nm,1.6s,mb5.1						
GRF	**Grafenberg Arr**	**75.65**	**319**	eP	**P**	**15 48 12.2**	**+0.6**
GRF				e*PP	pP	15 48 20.2	+0.5
GRF				pmax	pmax		
	comp=Z,44nm,1.6s,mb5.1						
GRF	**Grafenberg Arr**	**75.65**	**319**	eP	**P**	**15 48 12.2**	**+0.6**
	comp=Z,44nm,1.6s,mb5.1						
GRF				epP	pP	15 48 20.2	+0.5
BOSA	**Boshof**	**75.80**	**237**	eP	**P**	**15 48 14.0**	**+1.1**
NB2	**NORSAR Subarra**	**75.83**	**330**	P	**P**	**15 48 11.7**	**-0.7**
	comp=Z,2.4nm,0.7s,mb4.2,baz=95,slow=5.3						
NB2	**NORSAR Subarra**	**75.83**	**330**	P	**P**	**15 48 11.7**	**-0.7**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
NOA	**NORSAR Array B**	**75.83**	**330**	P	**P**	**15 48 11.8**	**-0.6**
	comp=Z,4.4nm,0.8s,mb4.4,baz=94,slow=5.7,SNR=7.9						
NOA				pP	pP	15 48 19.8	-0.7
	comp=Z,5.6nm,0.9s,baz=94,slow=5.5,SNR=6.6						
CLZ	**Clausthal**	**76.17**	**321**	eP	**P**	**15 48 14.7**	**+0.2**
	comp=Z,10.0nm,1.0s,mb4.7						
BSEG	**Bad Segeberg**	**76.18**	**323**	eP	**P**	**15 48 15.1**	**+0.6**
BFO	**Black Forest**	**77.59**	**317**	eP	**P**	**15 48 22.5**	**0.0**
BFO				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
BFO	**Black Forest**	**77.59**	**317**	eP	**P**	**15 48 22.5**	**0.0**
	comp=Z,12nm,1.3s,mb4.7						
CDF	**Champ du Feu**	**78.29**	**317**	eP	**P**	**15 48 25.6**	**-0.7**
LPG	**La Plagne**	**78.87**	**314**	eP	**P**	**15 48 29.5**	**0.0**
	comp=Z,16nm,0.7s,mb4.8						
LPG	**La Plagne**	**78.87**	**314**	eP	**P**	**15 48 29.5**	**0.0**
LPG				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
HAU	**Haudompre**	**78.94**	**317**	eP	**P**	**15 48 29.1**	**-0.8**
	comp=Z,16nm,0.8s,mb4.7						
HAU	**Haudompre**	**78.94**	**317**	eP	**P**	**15 48 29.1**	**-0.8**
HAU				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BAIF	**Baives**	**80.16**	**319**	eP	**P**	**15 48 38.4**	**+2.0**
SUR	**Sutherland**	**80.71**	**234**	eP	**P**	**15 48 42.2**	**+2.5**
MAW	**Mawson**	**81.48**	**191**	P	**P**	**15 48 43.5**	**+0.5**
MAW	**Mawson**	**81.48**	**191**	P	**P**	**15 48 43.8**	**+0.8**
	comp=Z,5.6nm,0.8s,mb4.5,baz=330,slow=8.1,SNR=4.5						
FLN	**La Foliniere**	**83.36**	**318**	eP	**P**	**15 48 52.8**	**-0.3**
	comp=Z,62nm,1.3s,mb5.2						
FLN	**La Foliniere**	**83.36**	**318**	eP	**P**	**15 48 52.8**	**-0.3**
FLN				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.2						
ESDC	**Sonseca Array**	**87.56**	**310**	P	**P**	**15 49 14.5**	**+0.3**
	comp=Z,0.2nm,0.3s,mb3.8,baz=51,slow=4.7,SNR=5.3						
SUMG	**Summit**	**90.41**	**347**	eP	**P**	**15 49 28.3**	**+1.4**
COLA	**College**	**91.91**	**22**	i P	**P**	**15 49 29.4**	**-4.6**
MCK	**McKinley**	**92.10**	**23**	eP	**P**	**15 49 35.1**	**+0.2**
MCK				e*PP	pP	15 49 44.1	+1.0
ILAR	**Eielson Array**	**92.31**	**22**	P	**P**	**15 49 36.2**	**+0.4**
	comp=Z,1.0nm,0.7s,mb4.2,baz=302,slow=4.5,SNR=13						
ILAR				pP	pP	15 49 44.0	0.0
	comp=Z,3.4nm,0.8s,baz=299,slow=4.0,SNR=19						
PDAR	**Pinedale Array**	**122.64**	**19**	PKP	PKPdf	15 55 22.6	-2.8
	comp=Z,0.5nm,0.6s,SNR=5.3						
PDAR				pPKP		15 55 30.8	
	comp=Z,1.5nm,0.9s,baz=342,slow=1.7,SNR=8.0						
NVAR	**Mina Array Bea**	**122.92**	**28**	PKP	PKPdf	15 55 24.3	-1.7
	comp=Z,1.4nm,0.7s,baz=329,slow=1.4,SNR=9.5						
NVAR				pPKP		15 55 32.8	
	comp=Z,2.5nm,0.8s,baz=291,slow=2.8,SNR=12						
MNV	**Mina**	**122.99**	**28**	ePKIKP	PKPdf	15 55 23.4	-2.7
WMOK	**Wichita Mounta**	**133.06**	**12**	ePKIKP	PKPdf	15 55 42.2	-3.4
TXAR	**Lajitas Array**	**136.82**	**20**	PKP	PKPdf	15 55 50.6	-2.0
	comp=Z,0.8nm,0.8s,baz=45,slow=1.8,SNR=4.0						
TXAR				pPKP		15 55 59.0	
	comp=Z,0.6nm,0.5s,baz=225,slow=1.8,SNR=4.5						
SDV	**Santo Domingo**	**153.67**	**319**	PKPab	PKPab	15 56 38.2	-1.2
	comp=Z,7.5nm,0.8s,baz=26,slow=3.6,SNR=8.3						
LPAZ	**La Paz**	**160.25**	**253**	PKP	PKPdf	15 56 26.2	-3.2
	comp=Z,0.7nm,0.8s,baz=123,slow=2.2,SNR=4.0						
LPAZ				PKPab	PKPab	15 57 07.1	-0.5
	comp=Z,1.1nm,0.7s,baz=92,slow=6.5,SNR=5.9						

DJA 29 15:42:19.0±0.9**,8.21S**×**117.71E,h105**^{km}±14^{km}**,MD4.6**/4**,**
ML4.6/4**,4C-6D,Error ellipse: s-maj=67.5km**
s-min=22.1km az=1.0,Sumbawa region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KEDI	**Kedomdong**	**1.61**	**260**	⇑iPn	P	15 42 47.3	0.0
	405nm,0.2s						
KEDI	**Kedomdong**	**1.61**	**260**	⇓iP	P	15 42 47.6	+0.3
KEDI				⇓iSn	S	15 43 08.1	-0.3
RATI	**Rata**	**2.22**	**257**	⇓iPn	P	15 42 54.8	-0.4
	440nm,0.2s						
RATI				⇑iSn	S	15 43 21.2	-1.0
KELI	**Kelakatan**	**3.19**	**270**	⇓ePn	P	15 43 08.3	-0.1
	82nm,0.2s						
KELI	**Kelakatan**	**3.19**	**270**	⇓iP	P	15 43 08.5	+0.1
KELI				⇓iSn	S	15 43 43.3	-2.5
SRDI	**Scrawed**	**3.54**	**265**	⇑iPn	P	15 43 12.7	-0.6
	356nm,0.2s						
SRDI				⇑iSn	S	15 43 54.0	-0.4

IDC ***29*** *15:48:11.7±1.3,5.65N×92.96E,mb4.1/7,mb1 4.2/8,*
mb1mx4.0/19,mbtmp4.0/8,Error ellipse: s-maj=51.2km
s-min=19.8km az=56.0

ISC 29 15:48:14.6±0.9**,5.6N**±0.1×**92.9E**±0.1**,h33**^{km}**,n17,**
σ1^{s}05/17**,mb4.3**/10**,Off west coast of northern**
Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.06**	**24**	Pn	**P**	**15 51 32.0**	**-1.7**
	baz=211,slow=14,SNR=4.0						
NANT	**Nan**	**15.15**	**29**	P	**P**	**15 51 49.0**	**+1.0**
SHL	**Shillong**	**19.88**	**357**	e	**P**	**15 52 39.3**	**-6.7**
LATR	**Latur**	**20.43**	**310**	e	**P**	**15 52 50.0**	**-1.9**
PKI	**Pulchoki**	**22.99**	**343**	eP	**P**	**15 53 19.6**	**+2.0**
	51nm,0.9s,mb5.0						
DMN	**Daman**	**23.11**	**342**	eP	**P**	**15 53 19.8**	**+1.0**
GUN	**Gumba**	**23.17**	**344**	eP	**P**	**15 53 20.3**	**+0.9**
	35nm,0.6s,mb4.9						
KKN	**Kakani**	**23.23**	**343**	eP	**P**	**15 53 20.5**	**+0.5**
	34nm,0.8s,mb4.8						
GKN	**Gorkha**	**23.63**	**341**	eP	**P**	**15 53 22.6**	**-1.2**
KOLN	**Koldanda**	**23.76**	**339**	eP	**P**	**15 53 24.7**	**-0.4**
SONM	**Songino Array**	**43.63**	**13**	P	**P**	**15 56 16.9**	**-0.9**
	1.9nm,0.9s,mb3.8,baz=194,slow=9.2,SNR=9.1						
WRA	**Warramunga Arr**	**47.98**	**123**	P	**P**	**15 56 52.7**	**0.0**
	3.9nm,0.7s,mb4.6,baz=302,slow=9.1,SNR=26						
ZAL	**Zalesovo**	**48.64**	**354**	P	**P**	**15 56 57.9**	**+0.6**
	1.6nm,0.5s,mb4.3						
ASAR	**Alice Springs**	**49.44**	**128**	P	**P**	**15 57 03.8**	**-0.1**
	1.9nm,0.9s,mb4.1,baz=302,slow=8.0,SNR=15						
BVAR	**Borovoye Array**	**50.76**	**343**	P	**P**	**15 57 12.4**	**-1.1**
	1.0nm,0.8s,mb3.8,baz=146,slow=5.3,SNR=5.1						
FINES	**FINESS Array B**	**74.15**	**333**	P	**P**	**15 59 50.0**	**+0.6**
	1.8nm,0.8s,mb4.0,baz=63,slow=3.1,SNR=3.9						
GERES	**GERESS Array B**	**78.71**	**319**	P	**P**	**16 00 16.0**	**+0.7**
	0.6nm,0.7s,mb3.7,baz=90,slow=4.0,SNR=6.4						

MOS ***29*** *15:50:02.4±0.9,5.57N×94.68E,h33^{km},mb5.5/74,Error*
ellipse: s-maj=9.3km s-min=4.5km az=124.0

BJI ***29*** *15:50:02.8,5.08N×94.60E,h69^{km},mB5.3,mb5.5,Ms4.9,*
Msz4.6

CSEM ***29*** *15:50:03.9,6.03N×94.89E,h33^{km},mb5.5*

NEIC ***29*** *15:50:04.4±0.1,5.46N×94.66E,mb5.2/86,Error ellipse:*
s-maj=5.3km s-min=3.9km az=218.0

NEIC Felt [III] at Banda Aceh.

HRVD ***29*** *15:50:04.4±0.4,5.36N×94.53E,h48^{km}±1^{km},MW5.1/45,*
Centroid moment Tensor Solution. LP body waves:
s32,c45;Mantle waves: s45,c77; Half duration: 0 Moment
tensor: Scale 10^{16}Nm; M$_{rr}$4.61±.28; M$_{\theta\theta}$-1.61±.18;
M$_{\phi\phi}$-3.00±.21; M$_{r\theta}$2.00±.13; M$_{\theta\phi}$2.02±.13; M$_{\phi r}$-1.88±.17;
Best double couple: M$_0$5.29×10^{16} NP1:φ$_s$330°,δ30°,λ99°.
NP2:φ$_s$139°,δ61°,λ85°. Principal axes: T 5.4, Plg74°,
Azm35°; N -.21, Plg5°, Azm142°; P -5.19, Plg15°,
Azm233°; nsta1 refers to body waves, cutoff=40s. nsta2
refers to surface waves, cutoff=50s.

IDC ***29*** *15:50:08.6±1.5,5.47N×94.74E,h75^{km}±12^{km},mb4.9/31,*
mb1 5.0/31,mb1mx4.9/33,mbtmp5.2/31,MS4.3/7,
Ms1 4.4/7,ms1mx3.9/26 Error ellipse: s-maj=14.0km
s-min=7.5km az=46.0

ISC 29 15:50:03.7±0.2**,5.46N**±0.03×**94.71E**±0.03**,h48**^{km}**,**
h48^{km}±2.4^{km}**:pP-P,n429,**σ**0**^{s}**89**/386**,mb5.3**/147**,MS4.5**/15**,**
47C-16D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TSI	**Tuntungan**	**4.31**	**117**	eP	**P**	**15 51 12.0**	**+3.5**
SNG	**Songkhla**	**6.12**	**73**	P	**P**	**15 51 29.5**	**-4.3**
	960nm,1.1s						
KKTK	**Khon Kaen**	**13.42**	**36**	P	**P**	**15 53 18.0**	**+4.3**
	2μm,0.6s						
CM31	**Chiang Mai Arr**	**13.56**	**17**	eP	**P**	**15 53 20.3**	**+4.7**
	34nm,0.4s						
CMAR	**Chiang Mai Arr**	**13.56**	**17**	P	**P**	**15 53 21.3**	**+5.7**
	8.5nm,0.3s,baz=213,slow=12,SNR=39						
CMAR				LR	LR	15 58 10.0	
	comp=Z,846nm,21.2s,baz=209,slow=36						
PALK	**Pallekele**	**14.04**	**278**	eP	**P**	**15 53 22.8**	**+1.0**
CHRT	**Chiangrai**	**15.15**	**19**	⇓P	**P**	**15 53 40.5**	**+4.2**
	579nm,1.0s						
PULI	**Pulasari**	**16.25**	**136**	⇑ipP	**P**	**15 53 41.0**	**-9.4**
COCO	**West Island**	**17.66**	**173**	eP	**P**	**15 54 08.1**	**0.0**
QIZ	**Qiongzhong**	**19.99**	**46**	P	**P**	**15 54 36.5**	**+1.4**
QIZ				S	**S**	**15 58 15.0**	**+2.7**
QIZ				LR	LR		
	comp=N,2μm,18.6s						
QIZ				LR	LR		
	comp=Z,1μm,20.3s						
QIZ	**Qiongzhong**	**19.99**	**46**	eP	**P**	**15 54 35.9**	**+0.8**
	comp=Z,98nm,1.0s						
BLSP	**Bilaspur**	**20.56**	**325**	eP	**P**	**15 54 40.8**	**-0.2**
KMI	**Kunming**	**21.01**	**21**	⇑P	**P**	**15 54 48.3**	**+2.6**
KMI				S	**S**	**15 58 36.5**	**+4.5**
KMI				AMB	AMB		
	comp=Z,108nm,1.0s,mb5.1						
KMI				LR	LR		
	comp=N,906nm,13.9s,MS4.4						
KMI				LR	LR		
	comp=E,780nm,18.4s,MS4.4						
KMI				LR	LR		
	comp=Z,1μm,20.8s,MS4.2						
PKI	**Pulchoki**	**23.70**	**339**	eP	**P**	**15 55 12.2**	**0.0**
	comp=Z,73nm,0.5s,mb5.4						
GYA	**Guiyang**	**23.80**	**27**	⇑iP	**P**	**15 55 15.0**	**+1.8**
GYA				PP	PP	15 55 49.3	+1.8
GYA				S	**S**	**15 59 29.5**	**+7.2**
GYA				AMB	AMB		
	comp=Z,260nm,0.8s,mb5.7						
GYA				AMB	AMB		
	comp=Z,970nm,3.8s						
GYA				LR	LR		
	comp=N,1μm,16.0s,MS4.8						
GYA				LR	LR		
	comp=E,2μm,15.8s,MS4.8						
GYA				LR	LR		
	comp=Z,1μm,16.2s,MS4.5						
SRDI	**Scrawed**	**23.82**	**125**	⇓eP	**P**	**15 55 14.9**	**+1.4**
SRDI				pmax	pmax		
	comp=Z,108nm,0.3s,mb5.8						
SRDI	**Scrawed**	**23.82**	**125**	⇓eP	**P**	**15 55 14.9**	**+1.4**
	comp=Z,108nm,0.3s,mb5.8						
DMN	**Daman**	**23.85**	**339**	eP	**P**	**15 55 12.9**	**-0.7**
	comp=Z,132nm,0.7s,mb5.5						
GUN	**Gumba**	**23.85**	**340**	eP	**P**	**15 55 13.5**	**-0.2**
	comp=Z,200nm,0.5s,mb5.8						
KKN	**Kakani**	**23.95**	**339**	eP	**P**	**15 55 14.4**	**-0.2**
	comp=Z,187nm,0.9s,mb5.5						
KELI	**Kelakatan**	**23.95**	**124**	⇓eP	**P**	**15 55 16.8**	**+2.0**
	comp=Z,124nm,0.4s,mb5.7						
LSA	**Lhasa**	**24.34**	**352**	eP	**P**	**15 55 18.6**	**+0.1**
LSA				pmax	pmax		
	comp=Z,90nm,0.5s,mb5.5						
LSA	**Lhasa**	**24.34**	**352**	eP	**P**	**15 55 18.6**	**+0.1**
	comp=Z,90nm,0.5s,mb5.5						
GKN	**Gorkha**	**24.38**	**338**	eP	**P**	**15 55 18.7**	**-0.1**
	comp=Z,158nm,0.6s,mb5.6						
KOLN	**Koldanda**	**24.57**	**336**	eP	**P**	**15 55 21.6**	**+0.9**
	comp=Z,336nm,0.7s,mb6.0						
RATI	**Rata**	**25.09**	**124**	⇑iP	**P**	**15 55 25.8**	**0.0**
	comp=Z,397nm,0.3s						
RATI				⇓ipP	pP	15 55 27.6	-10
KEDI	**Kedomdong**	**25.45**	**123**	⇑iP	**P**	**15 55 27.8**	**-1.3**
KEDI				pmax	pmax		
	comp=Z,75nm,0.5s,mb5.5						
KEDI	**Kedomdong**	**25.45**	**123**	⇑iP	**P**	**15 55 27.8**	**-1.3**
	comp=Z,75nm,0.5s,mb5.5						
TANI	**Tanete Lipujan**	**26.18**	**109**	⇓eP	**P**	**15 55 36.6**	**+0.6**
TANI				pmax	pmax		
	comp=Z,85nm,0.6s,mb5.5						
TANI	**Tanete Lipujan**	**26.18**	**109**	⇓eP	**P**	**15 55 36.6**	**+0.6**
	comp=Z,85nm,0.6s,mb5.5						
CD2	**Chengdu**	**26.71**	**18**	⇑iP	**P**	**15 55 40.5**	**-0.2**
CD2				AMB	AMB		
	comp=Z,130nm,0.4s,mb5.8						

TGY	Tagaytay City	27.21	70	P	P	15 55 46.9	+1.4
	comp=Z,70nm,0.3s,mb5.6,baz=56,slow=0.8,SNR=4.2						
LGTI	Lohaghat	27.50	332	eP	P	15 55 48.0	0.0
PTH	Pithoragarh	27.60	332	eP	P	15 55 47.3	-1.5
PTH				eS	S	16 00 29.3	+4.0
ENH	Enshi	28.34	28	eP	P	15 55 54.4	-1.1
	comp=Z,48nm,0.6s,mb5.3						
NDI	New Delhi	28.43	326	eP	P	15 55 53.5	-2.8
DDI	Dehra Dun	29.29	330	e	P	15 56 03.7	-0.2
DDI				e	S	16 01 11.8	+19
WHN	Wuhan	31.05	34	⇑P	P	15 56 20.5	+0.9
LZH	Lanzhou	31.61	14	⇑P	P	15 56 24.0	-0.5
LZH				AMB	AMB		
	comp=Z,81nm,1.1s,mb5.5						
LZH				AMB	AMB		
	comp=Z,269nm,4.0s						
LZH				LR	LR		
	comp=E,680nm,11.0s						
LZH				LR	LR		
	comp=Z,993nm,12.4s,MS4.7						
DLH	Dalhousie	32.13	329	eP	P	15 56 28.0	-1.0
THN	Thein Dam	32.17	329	eP	P	15 56 28.0	-1.4
	comp=Z,34nm,0.5s,mb5.4						
THN				e		15 59 17.2	
GTA	Gaotai	34.11	7	⇑iP	P	15 56 46.0	-0.1
GTA				PCP	PcP	15 59 23.5	+0.7
GTA				SCS	ScS	16 07 03.0	-0.2
GTA				AMB	AMB		
	comp=Z,101nm,0.7s,mb5.9						
GTA				AMB	AMB		
	comp=Z,386nm,9.5s						
GTA				LR	LR		
	comp=N,381nm,17.5s,MS4.3						
GTA				LR	LR		
	comp=E,397nm,17.5s,MS4.3						
GTA				LR	LR		
	comp=Z,549nm,18.3s,MS4.3						
NJ2	Nanjing	34.78	38	eP	P	15 56 52.5	+0.6
NJ2				PP	PP	15 58 13.0	+2.8
NJ2				S	S	16 02 20.0	+1.8
NJ2				AMB	AMB		
	comp=Z,220nm,0.7s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,640nm,11.9s						
NJ2				LR	LR		
	comp=N,2µm,17.6s						
NJ2				LR	LR		
	comp=E,2µm,27.8s						
NJ2				LR	LR		
	comp=Z,2µm,18.7s,MS4.8						
SSE	Sheshan	35.61	41	eP	P	15 56 56.5	-2.5
SSE				AMB	AMB		
	comp=Z,51nm,0.7s,mb5.6						
SSE				AMB	AMB		
	comp=Z,537nm,9.1s						
MBWA	Marble Bar	36.09	138	eP	P	15 57 02.2	-0.9
	comp=Z,36nm,1.3s,mb5.1						
TIA	Tai’an	36.88	31	P	P	15 57 10.3	+0.7
TIA				AMB	AMB		
	comp=Z,44nm,1.0s,mb5.2						
BTO	Baotou	37.59	19	eP	P	15 57 15.5	-0.1
KSH	Kashi	37.89	336	⇑iP	P	15 57 18.5	+0.4
KSH				AMB	AMB		
	comp=Z,170nm,2.4s,mb5.3						
KSH				LR	LR		
	comp=N,540nm,7.2s						
KSH				LR	LR		
	comp=E,690nm,9.8s						
HHC	Hu-ho-hao-te	38.34	21	⇑iP	P	15 57 23.0	+1.2
HHC				AP	pP	15 57 36.0	+1.5
HHC				AMB	AMB		
	comp=Z,59nm,0.9s,mb5.3						
HHC				AMB	AMB		
	comp=Z,184nm,5.4s						
HHC				LR	LR		
	comp=N,492nm,14.3s						
HHC				LR	LR		
	comp=E,889nm,21.4s						
HHC				LR	LR		
	comp=Z,651nm,15.5s,MS4.5						
JOW	Kunigami	38.40	53	P	P	15 57 23.3	+0.9
	comp=Z,24nm,0.3s,mb5.4,baz=235,slow=10,SNR=8.7						
WMQ	Urumqi	38.70	352	P	P	15 57 25.5	+0.8
BJT	Baijiatuau	39.46	26	eP	P	15 57 32.6	+1.5
BJT				pmax	pmax		
	comp=Z,212nm,1.1s						
BJT	Baijiatuau	39.46	26	eP	P	15 57 32.6	+1.5
	comp=Z,212nm,1.1s,mb5.8						
ULHL	Ulahol	40.14	339	P	P	15 57 38.0	+1.2
	SNR=10						
KZA	Kyzart	40.37	337	P	P	15 57 40.2	+1.7
	SNR=20						
UCH	Uchtor	40.78	337	P	P	15 57 43.6	+1.6
	SNR=110						
TKM2	Tokmak 2	40.96	338	P	P	15 57 44.7	+1.1
	SNR=80						
KBK	Karagaybulak	40.98	338	P	P	15 57 45.4	+1.7
	SNR=33						
AML	Almayashu	41.02	336	P	P	15 57 45.6	+1.6
	SNR=142						
AAK	Ala-Archa	41.13	337	P	P	15 57 46.2	+1.4
	SNR=80						
AAK	Ala-Archa	41.13	337c	iP	P	15 57 45.2	+0.3
AAK				pmax	pmax		
	comp=Z,79nm,0.8s,mb5.4						
AAK	Ala-Archa	41.13	337	eP	P	15 57 45.1	+0.2
	comp=Z,74nm,0.8s,mb5.4						
FRU	Bishkek	41.26	337	⇑iP	P	15 57 47.0	+1.1
FRU				pmax	pmax		
	comp=Z,176nm,2.0s,mb5.3						
DL2	Dalian	41.26	32	P	P	15 57 47.8	+1.8
DL2				AMB	AMB		
	comp=Z,100nm,0.8s,mb5.5						
DL2				LR	LR		
	comp=N,310nm,16.4s,MS4.5						
DL2				LR	LR		
	comp=E,350nm,11.5s,MS4.5						
DL2				LR	LR		
	comp=Z,430nm,19.0s						
CHMS	Chumysh	41.34	338	P	P	15 57 47.2	+0.6
	SNR=36						
EKS2	Erkin-Say	41.44	337	P	P	15 57 48.9	+1.5
	SNR=81						
USP	Ospenovka	41.67	338	P	P	15 57 50.2	+0.8
	SNR=225						
MKAR	Makanchi Array	42.55	347	iP	P	15 57 56.7	+0.2
INCN	Inchon	43.16	38	eP	P	15 58 01.4	-0.3
	comp=Z,56nm,0.9s,mb5.3						
SONM	Songino Array	43.39	11	P	P	15 58 03.3	0.0
	comp=Z,45nm,0.7s,mb5.3,baz=191,slow=8.2,SNR=168						
SONM				PcP	PcP	15 59 51.6	-0.1
	comp=Z,8.6nm,0.4s,baz=196,slow=3.8,SNR=26						
SONM				ScP		16 03 37.7	
	comp=Z,3.5nm,0.8s,baz=198,slow=3.9,SNR=8.0						
ULN	Ulaanbaatar	43.55	12	eP	P	15 58 04.2	-0.5
ULN				e		15 59 51.8	
ULN				pmax	pmax		
	comp=Z,38nm,0.6s,mb5.3						
ULN	Ulaanbaatar	43.55	12	eP	P	15 58 04.2	-0.5
	comp=Z,38nm,0.6s,mb5.3						
ULN				ePcP	PcP	15 59 51.8	-0.6
NWAO	Narrogin (SRO)	43.76	152	eP	P	15 58 06.7	+0.1
NWAO	Narrogin (SRO)	43.76	152	P	P	15 58 07.0	+0.4
	comp=Z,4.7nm,0.5s,mb4.5,baz=265,slow=12,SNR=5.3						
KS15	Wonju Array Si	43.91	39	eP	P	15 58 07.9	+0.1
SNY	Shenyang	44.41	31	⇑P	P	15 58 11.8	+0.1
SNY				AMB	AMB		
	comp=Z,80nm,0.5s,mb5.7						
SNY				LR	LR		
	comp=N,1µm,18.0s						
SNY				LR	LR		
	comp=Z,930nm,17.2s,MS4.8						
ZAK	Zakamensk	45.34	8	⇓iP	P	15 58 18.3	-0.7
ZAK				e		15 59 56.4	
MOY	Mondy	46.35	5	eP	P	15 58 27.7	+0.8
WRA	Warramunga Arr	46.43	124	P	P	15 58 28.0	0.0
	comp=Z,82nm,0.6s,mb5.8,baz=306,slow=8.5,SNR=266						
WRA				ScP		16 03 50.1	
	comp=Z,3.2nm,0.7s,baz=312,slow=3.9,SNR=7.5						
WRA				S	S	16 05 09.1	-2.5
	comp=Z,2.9nm,1.1s,baz=298,slow=15,SNR=3.5						
WRAB	Tennant Creek	46.43	124c	iP	P	15 58 28.0	0.0
WRAB	Tennant Creek	46.43	124	eP	P	15 58 27.6	-0.4
	comp=Z,158nm,0.6s,mb6.1						
TLY	Talaya	46.66	8	eP	P	15 58 29.5	+0.1
TLY				e	pP	15 58 44.3	+2.0
TLY				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.1						
TLY	Talaya	46.66	8	eP	P	15 58 29.6	+0.1
	comp=Z,16nm,0.7s,mb5.1						
CN2	Changchun	46.78	31	⇑P	P	15 58 30.3	-0.2
CN2				AMB	AMB		
	comp=Z,80nm,0.7s,mb5.8						
IRK	Irkutsk	47.30	8	eP	P	15 58 33.3	-1.1
ASAR	Alice Springs	47.96	129	P	P	15 58 39.9	-0.1
	comp=Z,36nm,0.6s,mb5.6,baz=303,slow=6.3,SNR=153						
ASAR				S	S	16 05 31.2	-2.0
	comp=Z,5.3nm,0.9s,baz=294,slow=14,SNR=11						
HIA	Hailar	48.52	22	eP	P	15 58 43.8	-0.2
HIA				pmax	pmax		
	comp=Z,41nm,0.6s						
HIA	Hailar	48.52	22	eP	P	15 58 43.8	-0.2
	comp=Z,41nm,0.6s,mb5.6						
ZAL	Zalesovo	49.00	352	P	P	15 58 47.2	-0.3
	comp=Z,50nm,0.6s,mb5.7,baz=212,slow=5.8,SNR=24						
ZAL				ScP		16 04 01.1	
	comp=Z,8.5nm,1.2s,baz=193,slow=5.2,SNR=4.1						
ZAL				S	S	16 05 47.0	-0.3
	comp=Z,0.9nm,0.6s,baz=358,slow=24,SNR=5.7						
ZAL				LR	LR	16 21 07.7	
	comp=Z,301nm,21.0s,MS4.3,baz=197,slow=38						
MDJ	Mudanjiang	49.50	32	P	P	15 58 52.5	+0.9
MDJ				AMB	AMB		
	comp=Z,46nm,0.7s,mb5.6						
MDJ				AMB	AMB		
	comp=Z,161nm,3.6s						
MDJ				LR	LR		
	comp=N,413nm,16.1s,MS4.9						
MDJ				LR	LR		
	comp=E,819nm,16.1s,MS4.9						
MDJ				LR	LR		
	comp=Z,879nm,16.8s,MS4.8						
MDJ	Mudanjiang	49.50	32	eP	P	15 58 52.0	+0.4
	comp=Z,52nm,0.9s,mb5.6						
NVS	Novosibirsk	50.10	351	iP	P	15 58 54.6	-1.4
NVS				e	pP	15 59 04.8	-4.3
NVS				iS	S	16 06 06.5	+3.9
NVS				pmax	pmax		
	comp=N,64nm,1.0s						
NVS				pmax	pmax		
	comp=E,45nm,1.0s						
NVS				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.8						
NVS				smax			
	comp=E,45nm,1.9s						
RDF	Al-Radifah	50.29	303	eP	P	15 58 58.7	+0.8
RDF				AMb	AMB	15 58 59.9	
	comp=Z,95nm,0.6s,mb6.0						
UMR	Umm Al-Rimmam	50.35	304	eP	P	15 58 58.5	+0.2
UMR				AMb	AMB	15 58 59.8	
	comp=Z,75nm,0.8s,mb5.8						
MAJO	Matsushiro	50.39	46	eP	P	15 58 57.9	-0.6
MAT	Matsushiro	50.39	46	P	P	15 58 58.3	-0.2
MAT	Matsushiro	50.39	46	P	P	15 58 58.0	-0.5
MAT				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
MAT	Matsushiro	50.39	46	P	P	15 58 58.0	-0.5
	comp=Z,19nm,0.8s,mb5.2						
MIB	Mutribah	50.75	304	eP	P	15 59 01.3	0.0
MIB				AMb	AMB	15 59 02.4	
	comp=Z,150nm,0.8s,mb6.0						
KAMS	Al Khamasin	50.83	292	P	P	15 59 02.2	+0.1
MZLS	Mizel	50.99	297	P	P	15 59 04.2	+1.0
BVAR	Borovoye Array	51.44	341	P	P	15 59 05.7	-0.5
	comp=Z,43nm,0.5s,mb5.6,baz=141,slow=9.5,SNR=187						
BVAR				S	S	16 06 20.7	-0.4
	comp=Z,3.4nm,0.8s,baz=139,slow=16,SNR=8.7						
BRVK	Borovoye	51.50	341	eP	P	15 59 06.3	-0.4
BRVK				pmax	pmax		
	comp=Z,73nm,0.6s,mb5.8						
BRVK	Borovoye	51.50	341	eP	P	15 59 06.3	-0.4
	comp=Z,73nm,0.6s,mb5.8						
TATS	Tathlith	51.73	291	P	P	15 59 09.3	+0.5
CHKZ	Chkalovo	51.93	342	⇑eP	P	15 59 09.9	0.0
CHKZ				pmax	pmax		
	comp=Z,172nm,0.6s,mb6.2						
CHKZ	Chkalovo	51.93	342	⇑eP	P	15 59 09.8	0.0
	comp=Z,172nm,0.6s,mb6.2						
AFFS	‘Afif	52.94	296	P	P	15 59 19.0	+1.1
ARSS	Ar Rass	53.16	298	P	P	15 59 19.7	+0.3
PMG	Port Moresby	54.31	106	eP	P	15 59 27.1	-1.0
PMG				pmax	pmax		
	comp=Z,43nm,0.6s						
PMG	Port Moresby	54.31	106	P	P	15 59 27.9	-0.3
	comp=Z,35nm,0.4s,mb5.6						
PMG	Port Moresby	54.31	106	eP	P	15 59 27.1	-1.0
	comp=Z,43nm,0.6s,mb5.5						
BOD	Bodaibo	54.36	13	eP	P	15 59 26.7	-1.1
HILS	Ha’il	54.76	300	P	P	15 59 32.4	+1.2
GNI	Garni	56.53	315	eP	P	15 59 42.5	-1.3
GNI				pmax	pmax		
	comp=Z,15nm,0.6s						
GNI	Garni	56.53	315	LR	LR	16 26 55.7	
	comp=Z,147nm,18.3s,MS4.1,baz=106,slow=39						
GNI	Garni	56.53	315	eP	P	15 59 42.5	-1.3
	comp=Z,15nm,0.6s,mb5.2						
KBRS	Khaybar	56.64	297	P	P	15 59 45.8	+1.1
CTA	Charters Tower	56.66	118	P	P	15 59 44.3	-0.7
	comp=Z,10nm,0.6s,mb5.0						
CTAO	Charters Tower	56.66	118	eP	P	15 59 43.9	-1.1
CTAO				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.1						
CTAO	Charters Tower	56.66	118	eP	P	15 59 43.9	-1.1
	comp=Z,13nm,0.7s,mb5.1						
ASAJ	Asahikawa	56.88	40	P	P	15 59 46.3	+0.1
	comp=Z,17nm,0.7s,mb5.2,baz=180						
TI2	Plekhanov	57.18	317	iP	P	15 59 47.2	-1.2
TI2				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.7						
YNBS	Yanbu‘ al Bahr	57.52	295	P	P	15 59 51.8	+0.8
KMBO	Kilima Mbogo	57.75	265	eP	P	15 59 53.8	+1.0
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.9s						
KMBO	Kilima Mbogo	57.75	265	P	P	15 59 54.1	+1.3
	comp=Z,3.4nm,0.9s,mb4.4,baz=40,slow=14,SNR=6.7						
KMBO				LR	LR	16 19 26.6	
	comp=Z,603nm,21.1s,MS4.7,baz=275,slow=30						
KMBO	Kilima Mbogo	57.75	265	eP	P	15 59 53.8	+1.0
	comp=Z,4.7nm,0.9s,mb4.5						
SVE	Sverdlovsk	57.84	339	⇑eP	P	15 59 51.5	-1.3
SVE				e		16 00 50.0	
SVE				pmax	pmax		
	comp=Z,160nm,2.0s,mb5.7						
STKA	Stephens Creek	58.05	133	P	P	15 59 54.0	-0.6
	comp=Z,13nm,0.5s,mb5.3,baz=316,slow=7.1,SNR=37						
STKA	Stephens Creek	58.05	133	eP	P	15 59 53.3	-1.3
ZEI	Tsey	58.19	318	eP	P	15 59 54.7	-0.7
ZEI				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.3						
UMJS	Umm Lajj	58.27	296	P	P	15 59 57.9	+1.7
ARU	Arti	58.32	337	⇑iP	P	15 59 53.9	-2.2
ARU				e		16 00 42.1	
ARU				e		16 01 58.9	
ARU				eS	S	16 07 55.3	+2.1
ARU				eSS	SS	16 11 50.3	+3.0
ARU				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.4						
ARU	Arti	58.32	337	eP	P	15 59 54.7	-1.5
	comp=Z,40nm,0.9s,mb5.4						
YSS	Yuzh-Sakhalins	58.35	37	iP	P	15 59 56.3	-0.2
YSS				pmax	pmax		
	comp=Z,109nm,1.3s,mb5.7						
YSS	Yuzh-Sakhalins	58.35	37	eP	P	15 59 56.2	-0.2
	comp=Z,24nm,0.8s,mb5.3						
TBKS	Tabuk	59.48	300	P	P	16 00 05.7	+1.2
KIV	Kislovodsk	59.48	319	P	P	16 00 03.0	-1.4
	comp=Z,293nm,0.7s,SNR=9.0						
KIV	Kislovodsk	59.48	319	eP	P	16 00 03.1	-1.3
KIV				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.5						
KIV	Kislovodsk	59.48	319	eP	P	16 00 03.0	-1.3
	comp=Z,60nm,1.1s,mb5.5						
GOF	Gofitskoye	59.72	320	eP	P	16 00 04.5	-1.5
GOF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
ASF	Jabal al Asfar	60.01	304	P	P	16 00 08.7	+0.5
	comp=Z,15nm,0.9s,mb5.0,baz=1.3,slow=3.7						
ASF				LR	LR	16 25 45.4	
	comp=Z,264nm,20.0s,MS4.4,baz=190,slow=36						
JMQS	Jabal Moqyreh	60.18	300	P	P	16 00 10.1	+0.7
MALT	Malatya	60.46	311	eP	P	16 00 10.0	-1.2
MALT				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.0						
MALT	Malatya	60.46	311	eP	P	16 00 10.0	-1.2
	comp=Z,17nm,1.1s,mb5.0						
AYUS	‘Aynunah	60.58	299	P	P	16 00 12.7	+0.5
BDAS	Al Bad‘	60.77	299	P	P	16 00 13.8	+0.4
GZT	Gaziantep	60.83	310	iP	P	16 00 12.9	-0.7
JMOS	Jabal al Moall	60.89	300	P	P	16 00 14.7	+0.4
MKRJ	Makawir	60.92	303	P	P	16 00 16.0	+1.6
ALWS	Ilw as Safayha	60.96	300	P	P	16 00 15.1	+0.4
TAYS	Tayyib Ism	60.99	300	P	P	16 00 15.2	+0.3
HAQS	Haql	61.03	300	P	P	16 00 15.4	+0.2
KSHT	Keshet	61.09	305	P	P	16 00 16.5	+1.0
EIL	Elat	61.12	301	P	P	16 00 16.1	+0.3
	comp=Z,9.8nm,0.7s,mb5.0,baz=126,slow=5.1						
EIL	Elat	61.12	301	eP	P	16 00 15.8	0.0
	comp=Z,8.1nm,0.8s,mb4.9						
DRGI	Dragot	61.13	303	P	P	16 00 16.5	+0.7
HMDT	Nahal Hemdat	61.16	304	P	P	16 00 16.6	+0.6
PRNI	Paran	61.21	302	P	P	16 00 16.9	+0.5
SOKR	Solikamsk	61.24	339	⇓iP	P	16 00 13.6	-2.6
SOKR				e	pP	16 00 30.1	+0.5
SOKR				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.5						
MMLI	Mount Malkishu	61.29	304	P	P	16 00 17.7	+0.8
SOC	Sochi	61.32	317	iP	P	16 00 14.6	-2.3
SOC				e		16 01 01.6	
SOC				e		16 02 31.3	
SOC				eS	S	16 08 32.0	0.0
SOC				eSS	SS	16 12 36.7	+2.3
SOC				pmax	pmax		
	comp=Z,47nm,1.4s,mb5.4						
SOC				pmax	pmax		
	comp=N,19nm,0.9s						
SOC				pmax	pmax		
	comp=E,12nm,0.7s						
SLTI	Sal’it	61.56	304	P	P	16 00 19.3	+0.6
HNTI	Hanita	61.63	305	P	P	16 00 20.0	+0.8
OFRI	‘Ofer	61.69	304	P	P	16 00 20.1	+0.6
YAK	Yakutsk	62.10	18c	iP	P	16 00 20.1	-1.8
YAK				pmax	pmax		
	comp=Z,71nm,0.6s,mb6.0						
YAK	Yakutsk	62.10	18	eP	P	16 00 19.8	-2.1
	comp=Z,89nm,0.6s,mb6.1						
ANN	Anapa	63.29	318	eP	P	16 00 30.3	+0.3
ANN				eS	S	16 09 00.8	+4.0
ANN				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.5						
CSS	Prodhromos	63.54	306	eP	P	16 00 31.1	-0.8
	comp=Z,17nm,0.6s,mb5.2						
BOYT	Boyabat	63.97	314	iP	P	16 00 33.2	-1.3
MBAR	Mbarara	64.16	267	eP	P	16 00 36.5	+0.2
MBAR				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.6						
MBAR	Mbarara	64.16	267	eP	P	16 00 36.5	+0.2
	comp=Z,9.2nm,1.4s,mb4.6						
BRTR	Keskin Array B	64.43	312	P	P	16 00 36.2	-1.4
	comp=Z,17nm,0.8s,mb5.1,baz=128,slow=7.4,SNR=70						
VRSR	Storozhevoye	64.66	325c	iP	P	16 00 36.5	-2.4
VRSR				e*SP	sP	16 00 47.2	-11
VRSR				eS	S	16 09 21.4	+7.7
VRSR				e		16 09 34.9	
VRSR				ePS	PS	16 09 42.2	+1.8
VRSR				pmax	pmax		
	comp=Z,50nm,0.6s,mb5.7						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,20nm,0.6s						
VRSR				smax			
	comp=N,20nm,0.8s						
VRSR				smax			
	comp=Z,7.0nm,1.5s						
VRSR				smax			
	comp=E,10.0nm,1.2s						
ELDT	Eldivan	64.79	312	iP	P	16 00 38.5	-1.4
BALT	Daday	65.10	313	iP	P	16 00 41.4	-0.5
SIM	Simferopol’	65.56	317	eP	P	16 00 44.0	-0.8
SIM				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.6						
ISP	Isparta	66.37	309	iP	P	16 00 49.1	-1.0
ISP	Isparta	66.37	309	eP	P	16 00 48.6	-1.4
	comp=Z,14nm,0.5s,mb5.2						
ESKT	Eskisehir	66.47	311	iP	P	16 00 50.1	-0.6
MOS	Moscow	67.42	329c	iP	P	16 00 55.5	-0.9
MOS				e	pP	16 01 09.7	-0.3
MOS				pmax	pmax		
	comp=Z,117nm,0.6s,mb6.1						
OBN	Obninsk	67.71	328α	iP	P	16 00 56.8	-1.4
OBN				e	pP	16 01 09.1	-2.7
OBN						16 01 26.0	
OBN				e		16 03 26.1	
OBN				pmax	pmax		
	comp=Z,126nm,1.7s,mb5.7						
OBN	Obninsk	67.71	328	eP	P	16 00 56.6	-1.5
	comp=Z,45nm,0.8s,mb5.5						
ULDT	Uludag	67.90	311	iP	P	16 00 58.8	-0.8
SKR	Severo-Kuril’s	67.91	37	eP	P	16 00 56.1	-3.4
SKR				e	pP	16 01 08.0	-5.2
SKR				pmax	pmax		
	comp=E,100nm,0.8s						
SKR				pmax	pmax		
	comp=Z,120nm,0.8s,mb6.0						
MA2	Magadan	68.64	27	iP	P	16 01 03.2	-0.7
KDAG	Bornova	68.99	309	iP	P	16 01 06.5	0.0
LSZ	Lusaka	69.02	251	eP	P	16 01 06.9	0.0
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LSZ	Lusaka	69.02	251	eP	P	16 01 06.9	-0.1
	comp=Z,4.1nm,0.8s,mb4.4						
PSN	Preselentsi	69.34	315	eP	P	16 01 08.0	-0.5
TIXI	Tiksi	69.48	11	⇑iP	P	16 01 07.4	-1.5
PET	Petropavlovsk	70.16	35	eP	P	16 01 12.1	-1.2
PET				eS	S	16 10 18.9	-0.8
PET				pmax	pmax		
	comp=Z,21nm,0.6s,mb5.2						
AKASG	Malin Array Be	70.39	322	P	P	16 01 13.0	-1.7
	comp=Z,27nm,0.7s,mb5.3,baz=89,slow=5.5,SNR=71						
IDI	Anoyia	70.41	305	P	P	16 01 15.2	+0.1
	comp=Z,50nm,0.6s,mb5.7,baz=84,slow=7.9,SNR=55						
DIM	Dimitrovgrad	70.93	313	eP	P	16 01 17.5	-0.7
KDZ	Kurdzhali	70.95	312	P	P	16 01 18.0	-0.3
MLR	Muntele Rosu	71.29	316	P	P	16 01 20.2	0.0
	comp=Z,29nm,0.7s,mb5.3,baz=138,slow=1.5,SNR=42						
RZN	Rozhen	71.47	312	P	P	16 01 21.0	-0.4
PGB	Panagyurishte	72.02	313	P	P	16 01 24.0	-0.6
MNK	Minsk	72.25	326	eP	P	16 01 23.0	-2.8
CASY	Casey	72.48	173	eP	P	16 01 26.6	-0.4
	comp=Z,4.3nm,0.7s,mb4.5						
KKB	Krupnik	72.71	312	P	P	16 01 27.0	-1.8
LBTB	Lobatse	73.60	242	eP	P	16 01 34.8	+0.4
LBTB				pmax	pmax		
	comp=Z,20nm,1.3s,mb4.9						
LBTB	Lobatse	73.60	242	eP	P	16 01 34.8	+0.4
	comp=Z,20nm,1.3s,mb4.9						
BOLS	Boljevac	73.81	314	⇓iPn	P	16 01 33.2	-2.0
VSU	Vasula	73.94	330	iP	P	16 01 34.5	-1.1
LVZ	Lovozero	74.01	340	eP	P	16 01 34.9	-0.9
LVZ				pmax	pmax		
	comp=Z,63nm,0.9s,mb5.5						
KWP	Kalwaria	74.23	320	eP	P	16 01 37.3	-0.2
KWP				e	pP	16 01 52.8	+1.5
APA	Apatity	74.29	340	⇑iP	P	16 01 37.3	-0.2
APA				i	pP	16 01 53.4	+2.1
APA				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
KOLS	Kolonicke sedl	74.39	319	iP	P	16 01 38.8	+0.4
KOLS				e	pP	16 01 53.5	+1.3
SUW	Suwalki	74.78	325	eP	P	16 01 39.2	-1.4
SUW	Suwalki	74.78	325	eP	P	16 01 39.6	-1.0
SUW				e	pP	16 01 51.8	-2.6
BOSA	Boshof	74.80	239	eP	P	16 01 41.5	+0.2
BOSA				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
BOSA	Boshof	74.80	239	eP	P	16 01 41.5	+0.3
	comp=Z,15nm,1.2s,mb4.8						
CRVS	Cervenica-Dubn	74.91	319	eP	P	16 01 41.9	+0.5
FINES	FINESS Array B	75.10	332	P	P	16 01 41.7	-0.5
	comp=Z,8.9nm,0.5s,mb5.0,baz=105,slow=6.5,SNR=69						
KAF	Kangasniemi	75.18	333	ep	P	16 01 41.4	-1.3
	comp=Z,11nm,0.5s,mb5.0						
KAF	Kangasniemi	75.18	333	eP	P	16 01 41.4	-1.3
KAF				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.0						
KECS	Kecovo	75.48	319	eP	P	16 01 44.5	-0.2

KECS				esP	sP	16 02 00.3	-3.5
NIE	Niedzica	75.73	320	eP	P	16 01 46.9	+0.8
PSZ	Piszkesteto	75.80	318⇓	eP	P	16 01 46.7	+0.2
OJC	Ojcow	76.18	320⇑	iP	P	16 01 48.5	-0.1
OJC	Ojcow	76.18	320	i P	P	16 01 48.5	-0.1
MAW	Mawson	76.30	192	LR	LR	16 28 38.1	
	comp=Z,212nm,18.9s,MS4.5,baz=169,slow=30						
PKSM	Moragy	76.44	316⇑	iP	P	16 01 49.9	-0.3
VYHS	Vyhne	76.57	318	i P	P	16 01 50.9	0.0
VYHS				esP	sP	16 02 06.3	-3.7
SRO2	Moca	76.78	318	eP	P	16 01 52.6	+0.5
SRO	Srobarova	76.84	318	eP	P	16 01 53.0	+0.5
SRO				esP	sP	16 02 08.9	-2.6
RAC	Raciborz	77.18	320	eP	P	16 01 55.0	+0.7
TIP	Timpagrande	77.23	309	eP	P	16 01 54.2	-0.7
KEV	Kevo	77.28	341	ep	P	16 01 53.5	-1.0
	comp=Z,32nm,0.6s,mb5.4						
KEV	Kevo	77.28	341	eP	P	16 01 53.5	-1.0
KEV				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.4						
SMOL	Smolenice	77.50	318	eP	P	16 01 55.8	-0.3
MORC	Moravsky Berou	77.56	320	eP	P	16 01 56.3	-0.1
MORC				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.2						
MORC	Moravsky Berou	77.56	320	eP	P	16 01 56.3	-0.1
	comp=Z,37nm,1.1s,mb5.2						
ZST	Bratislava	77.69	318	eP	P	16 01 57.3	+0.1
ZST				epP	pP	16 02 09.8	-1.2
ARCES	ARCESS Array B	77.71	340	P	P	16 01 56.9	0.0
	comp=Z,18nm,0.5s,mb5.3,baz=95,slow=5.8,SNR=96						
ARE0	ARCESS Array S	77.71	340	eP	P	16 01 56.0	-0.8
BILL	Bilibino	78.11	21	i P	P	16 01 58.8	-0.3
VRAC	Vranov	78.13	319	P	P	16 01 59.5	0.0
	comp=Z,6.2nm,0.6s,mb4.8,baz=100,slow=7.4,SNR=10						
KTK1	Kautokeino	78.34	340	eP	P	16 02 00.9	+0.7
KTK1				AMb	AMB	16 02 04.6	
	comp=Z,85nm,1.9s,mb5.4						
KTK1				esP	sP	16 02 15.7	-3.7
KTK1	Kautokeino	78.34	340	eP	P	16 02 00.9	+0.7
	comp=Z,85nm,1.9s,mb5.3						
DPC	Dobruska-Polom	78.41	320	eP	P	16 02 01.3	+0.3
KSP	Ksiaz	78.47	321	eP	P	16 02 01.6	+0.2
KSP				e*PP	pP	16 02 13.3	-1.9
KSP				e	pP	16 02 17.8	+2.6
KSP	Ksiaz	78.47	321	eP	P	16 02 02.0	+0.6
KSP				e	pP	16 02 18.1	+2.9
UPC	Upice	78.62	320	eP	P	16 02 02.0	-0.2
UPC				epP	pP	16 02 13.7	-2.4
ARSA	Arzberg	78.67	317⇑	iP	P	16 02 02.8	+0.2
	comp=Z,38nm,1.4s,mb5.1						
FX1	Attu Island--F	78.70	37	P	P	16 02 02.6	0.0
	comp=Z,66nm,0.5s,mb5.9,baz=229,slow=2.5,SNR=35						
FX1	Attu Island--F	78.70	37	eP	P	16 02 01.9	-0.7
PERS	Pernice	78.91	316	eP	P	16 02 04.2	+0.3
LJU	Ljubljana	79.28	316	eP	P	16 02 06.4	+0.4
SUR	Sutherland	79.44	236	eP	P	16 02 08.1	+1.0
PRU	Pruhonice	79.52	320	eP	P	16 02 07.2	+0.1
MOA	Molln	79.56	318⇑	iP	P	16 02 07.2	-0.2
	comp=Z,14nm,0.9s,mb4.9						
BSD	Bornholm Skovb	79.70	325⇑	iP	P	16 02 07.0	-1.0
BSD				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb5.0						
BSD	Bornholm Skovb	79.70	325⇑	iP	P	16 02 07.0	-1.0
	comp=Z,8.4nm,0.4s,mb5.0						
AQU	L’Aquila	79.92	312	eP	P	16 02 09.0	-0.5
BRG	Berggiesshubel	79.96	321⇑	iP	P	16 02 09.7	+0.2
BRG				e	pP	16 02 21.8	-1.6
BRG				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.0						
BRG	Berggiesshubel	79.96	321⇑	iP	P	16 02 09.7	+0.2
	comp=Z,20nm,0.9s,mb5.0						
BRG				e	pP	16 02 21.8	-1.6
TRO	Tromso	79.97	340	eP	P	16 02 07.4	-1.7
TRO				epP	pP	16 02 22.9	-0.2
GEC2	GERESS Array S	79.99	319	eP	P	16 02 10.0	+0.3
GEC2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
GEC2	GERESS Array S	79.99	319	eP	P	16 02 10.0	+0.3
	comp=Z,40nm,0.8s,mb5.4						
GERES	GERESS Array B	79.99	319	P	P	16 02 10.0	+0.3
	comp=Z,23nm,0.6s,mb5.3,baz=99,slow=5.4,SNR=129						
KHC	Kasperske Hory	80.09	319	eP	P	16 02 10.1	-0.1
PTCC	Patocco-Chiusa	80.11	316⇑	iP	P	16 02 10.3	-0.1
RUE	Ruedersdorf	80.17	322	eP	P	16 02 10.5	-0.1
FVI	Forni Avoltri	80.51	316⇑	iP	P	16 02 12.4	-0.1
WET	Wettzell	80.55	319	eP	P	16 02 12.9	+0.2
CLL	Collm	80.58	321	eP	P	16 02 12.0	-0.8
CLL				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
CLL	Collm	80.58	321	eP	P	16 02 12.0	-0.8
	comp=Z,21nm,1.2s,mb4.9						
CLL	Collm	80.58	321	P	P	16 02 12.0	-0.8
	comp=Z,logA/T=1.2,mb4.9						
MOR8	Moi Rana	81.10	336	eP	P	16 02 14.6	-0.6
MOR8				AMb	AMB	16 02 20.1	
	comp=Z,46nm,1.6s,mb5.2						
MOR8				esP	sP	16 02 29.3	-5.0
MOR8	Moi Rana	81.10	336	eP	P	16 02 14.6	-0.6
	comp=Z,46nm,1.6s,mb5.2						
SFI	Santa Sofia	81.10	313	eP	P	16 02 16.9	+1.2
WTTA	Wattenberg	81.32	317⇑	iP	P	16 02 16.5	-0.2
	comp=Z,30nm,0.6s,mb5.4						
WTTA	Wattenberg	81.32	317⇑	iP	P	16 02 16.5	-0.2
WTTA				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
WATA	Walderalm	81.36	317⇑	iP	P	16 02 16.4	-0.6
	comp=Z,11nm,0.5s,mb5.0						
WATA	Walderalm	81.36	317⇑	iP	P	16 02 16.4	-0.6
WATA				pmax	pmax		
	comp=Z,11nm,0.5s,mb5.0						
MOX	Moxa	81.42	320	eP	P	16 02 17.4	+0.2
MOX	Moxa	81.42	320	i P	P	16 02 17.4	+0.2
SQTA	Sankt Quirin	81.61	317⇑	iP	P	16 02 18.0	-0.2
	comp=Z,30nm,0.6s,mb5.4						
SQTA	Sankt Quirin	81.61	317⇑	iP	P	16 02 18.0	-0.2
SQTA				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.4						
GRA1	Grafenberg Arr	81.65	319	eP	P	16 02 19.0	+0.6
	comp=Z,29nm,1.0s,mb5.2						
GRF	Grafenberg Arr	81.65	319	eP	P	16 02 19.0	+0.6
GRF				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
GRF	Grafenberg Arr	81.65	319	eP	P	16 02 19.0	+0.6
GRF				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
GRF	Grafenberg Arr	81.65	319	eP	P	16 02 19.0	+0.6
	comp=Z,29nm,1.0s,mb5.2						
MOTA	Moosalm	81.68	317⇓	iP	P	16 02 18.3	-0.3
	comp=Z,14nm,0.6s,mb5.1						
MOTA	Moosalm	81.68	317⇓	iP	P	16 02 18.3	-0.3
MOTA				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
NB2	NORSAR Subarra	82.10	331	P	P	16 02 19.6	-0.9
	comp=Z,7.1nm,0.9s,mb4.6,baz=95,slow=5.8						
NB2	NORSAR Subarra	82.10	331	P	P	16 02 19.6	-0.9
	baz=95,slow=6.2						
NB2	NORSAR Subarra	82.10	331	P	P	16 02 19.6	-0.9
NB2				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
NOA	NORSAR Array B	82.10	331	P	P	16 02 19.9	-0.5
	comp=Z,3.9nm,0.8s,mb4.4,baz=95,slow=5.3,SNR=7.0						
BRMO	Bormio	82.17	316	eP	P	16 02 21.6	+0.4
CLZ	Clausthal	82.24	321	eP	P	16 02 21.6	+0.2
	comp=Z,14nm,0.8s,mb4.9						
BSEG	Bad Segeberg	82.31	324	eP	P	16 02 22.1	+0.4
DAVA	Damuels	82.51	317⇑	iP	P	16 02 23.4	+0.5
	comp=Z,17nm,0.9s,mb5.1						
DAVOX	Davos	82.51	316	P	P	16 02 23.7	+0.8
	comp=Z,39nm,0.6s,mb5.6,baz=122,slow=5.6,SNR=81						
VSL	Villasalto	82.96	309	eP	P	16 02 23.4	-1.9
BFO	Black Forest	83.55	318	eP	P	16 02 27.9	-0.3
BFO				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.1						
BFO	Black Forest	83.55	318	eP	P	16 02 27.9	-0.3
	comp=Z,14nm,0.8s,mb5.1						
FIN	Finale Ligure	83.72	314	eP	P	16 02 29.1	0.0
MCGN	Macugnaga	83.83	316	eP	P	16 02 30.5	+0.9
LANF	Langenberg	83.88	319	eP	P	16 02 30.3	+0.5
ABH	Alteburg	84.03	319	eP	P	16 02 31.0	+0.4
WLS	Welschbruch	84.20	318	eP	P	16 02 31.0	-0.4
CDF	Champ du Feu	84.25	318	eP	P	16 02 31.4	-0.3
	comp=Z,26nm,1.0s,mb5.0						
CDF	Champ du Feu	84.25	318	eP	P	16 02 31.4	-0.3
CDF				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
SBF	Sospel	84.29	313	eP	P	16 02 32.2	+0.2
	comp=Z,124nm,0.9s,mb5.7						
SBF	Sospel	84.29	313	eP	P	16 02 32.2	+0.2
SBF				pmax	pmax		
	comp=Z,62nm,0.9s,mb5.7						
ECH	Echery	84.33	318	eP	P	16 02 31.9	-0.2
KIWB	Kanaga Island	84.60	39	eP	P	16 02 33.4	+0.1
LPG	La Plagne	84.71	315	eP	P	16 02 34.6	+0.5
	comp=Z,35nm,0.7s,mb5.3						
LPG	La Plagne	84.71	315	eP	P	16 02 34.6	+0.5
LPG				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.3						
LPL	La Plagne	84.73	315	eP	P	16 02 34.6	+0.4
	comp=Z,52nm,0.7s,mb5.4						
LPL	La Plagne	84.73	315	eP	P	16 02 34.6	+0.4
LPL				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.5						
MBDF	Montbardon	84.73	314	eP	P	16 02 33.8	-0.4
	comp=Z,21nm,0.7s,mb5.1						
MBDF	Montbardon	84.73	314	eP	P	16 02 33.8	-0.4
MBDF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
BNI	Bardonecchia	84.78	315	eP	P	16 02 33.8	-0.7
BNI				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
BNI	Bardonecchia	84.78	315	eP	P	16 02 33.8	-0.7
	comp=Z,11nm,0.8s,mb5.0						
FRF	La Foret Royal	84.87	313	eP	P	16 02 35.2	+0.3
	comp=Z,34nm,0.7s,mb5.3						
FRF	La Foret Royal	84.87	313	eP	P	16 02 35.2	+0.3
FRF				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.3						
HAU	Haudompre	84.89	318	eP	P	16 02 34.6	-0.3
	comp=Z,34nm,0.7s,mb5.3						
HAU	Haudompre	84.89	318	eP	P	16 02 34.6	-0.3
HAU				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.3						
LMR	La Mourre	84.98	313	eP	P	16 02 35.6	+0.1
	comp=Z,26nm,0.7s,mb5.1						
LMR	La Mourre	84.98	313	eP	P	16 02 35.6	+0.1
LMR				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.2						
THEF	They Montfort	85.12	318	eP	P	16 02 36.1	+0.1
CABF	La Chapelle	85.12	316	eP	P	16 02 36.4	+0.3
	comp=Z,48nm,0.9s,mb5.3						
CABF	La Chapelle	85.12	316	eP	P	16 02 36.4	+0.3
CABF				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.3						
ORIF	Oris-en-Rattie	85.36	315	eP	P	16 02 37.8	+0.5
	comp=Z,24nm,0.7s,mb5.2						
ORIF	Oris-en-Rattie	85.36	315	eP	P	16 02 37.8	+0.5
ORIF				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.1						
SMRF	Simiane la Rot	85.63	314	eP	P	16 02 39.4	+0.8
	comp=Z,11nm,0.6s,mb5.0						
BAIF	Baives	86.18	320	eP	P	16 02 41.6	+0.4
	comp=Z,23nm,0.8s,mb5.1						
BAIF	Baives	86.18	320	eP	P	16 02 41.6	+0.4
BAIF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.1						
VIVF	Saint-Julien-l	86.22	315	eP	P	16 02 41.7	+0.2
	comp=Z,18nm,0.7s,mb5.1						
VIVF	Saint-Julien-l	86.22	315	eP	P	16 02 41.7	+0.2
VIVF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.1						
SMF	Signal de Mont	86.67	316	eP	P	16 02 43.6	-0.1
	comp=Z,45nm,0.9s,mb5.4						
SMF	Signal de Mont	86.67	316	eP	P	16 02 43.6	-0.1
SMF				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.4						
SSF	Saint Saulge	86.86	317	eP	P	16 02 45.1	+0.5
SSF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
SSF	Saint Saulge	86.86	317	eP	P	16 02 45.1	+0.5
	comp=Z,7.1nm,0.7s,mb5.0						
AVF	Avril sur Loir	86.99	317	eP	P	16 02 45.2	-0.1
	comp=Z,19nm,0.9s,mb5.0						
AVF	Avril sur Loir	86.99	317	eP	P	16 02 45.2	-0.1
AVF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
BGF	Bois d’Agland	87.36	316	eP	P	16 02 47.5	+0.5
	comp=Z,31nm,1.0s,mb5.2						
BGF	Bois d’Agland	87.36	316	eP	P	16 02 47.5	+0.5
BGF				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.2						
MTLF	Montolieu	88.11	313	eP	P	16 02 51.2	+0.5
	comp=Z,23nm,0.8s,mb5.1						
MTLF	Montolieu	88.11	313	eP	P	16 02 51.2	+0.5
MTLF				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.2						
RJF	Les Rejaudoux	88.41	315	eP	P	16 02 52.8	+0.7
	comp=Z,18nm,0.7s,mb5.1						
RJF	Les Rejaudoux	88.41	315	eP	P	16 02 52.8	+0.7
RJF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.1						
LDF	La Druitiere	89.14	319	eP	P	16 02 55.7	+0.2
	comp=Z,36nm,0.9s,mb5.4						
LDF	La Druitiere	89.14	319	eP	P	16 02 55.7	+0.2
LDF				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.4						
FLN	La Foliniere	89.35	319	eP	P	16 02 56.7	+0.2
	comp=Z,35nm,0.8s,mb5.5						
FLN	La Foliniere	89.35	319	eP	P	16 02 56.7	+0.2
FLN				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.5						
MFF	Saint Martin d	89.41	317	eP	P	16 02 57.1	+0.3
	comp=Z,33nm,1.2s,mb5.2						
MFF	Saint Martin d	89.41	317	eP	P	16 02 57.1	+0.3
MFF				pmax	pmax		
	comp=Z,16nm,1.2s,mb5.2						
GRR	Gorron	89.65	318	eP	P	16 02 58.4	+0.5
DAG	Danmarks Havn	89.94	348⇓	eP	P	16 02 58.1	-0.6
DAG				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb5.2						
DAG	Danmarks Havn	89.94	348⇓	eP	P	16 02 58.1	-0.6
	comp=Z,6.7nm,0.6s,mb5.2						
DAG	Danmarks Havn	89.94	348⇓	iP	P	16 02 58.1	-0.6
	comp=Z,6.7nm,0.6s,mb5.2						
EKA	Eskdalemuir Ar	90.02	326	P	P	16 03 00.2	+0.8
	comp=Z,4.3nm,0.7s,mb4.9,baz=94,slow=5.4,SNR=14						
ETSF	Etsaut	90.17	313	eP	P	16 03 01.6	+1.1
	comp=Z,23nm,0.8s,mb5.3						
ETSF	Etsaut	90.17	313	eP	P	16 03 01.6	+1.1
ETSF				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.3						
VNDA	Vanda	90.47	168	eP	P	16 03 01.4	+0.3
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.8s						
VNDA	Vanda	90.47	168	P	P	16 03 01.9	+0.8
	comp=Z,1.4nm,0.7s,mb4.4,baz=330,slow=6.0,SNR=7.6						
VNDA				LR	LR	16 40 34.4	
	comp=Z,287nm,18.8s,MS4.7,baz=300,slow=33						
VNDA	Vanda	90.47	168	eP	P	16 03 01.4	+0.3
	comp=Z,2.7nm,0.8s,mb4.6						
SJPF	Ste Jean	90.63	313	eP	P	16 03 03.7	+1.1
SBA	Scott Base	91.57	168	eP	P	16 03 07.6	+1.3
SBA				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.8						
SBA	Scott Base	91.57	168	eP	P	16 03 07.6	+1.4
	comp=Z,3.7nm,0.8s,mb4.8						
ESDC	Sonseca Array	93.20	310	P	P	16 03 15.7	+1.2
	comp=Z,4.4nm,0.6s,mb5.1,baz=58,slow=4.4,SNR=17						
IMA	Indian Mountai	93.63	22	eP	P	16 03 17.0	+1.2
IMA				pmax	pmax		
	comp=Z,124nm,0.7s						
IMA	Indian Mountai	93.63	22	eP	P	16 03 17.0	+1.1
	comp=Z,124nm,0.7s						
MCK	McKinley	96.43	24	eP	P	16 03 28.8	+0.2
MCK				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb5.0						
MCK	McKinley	96.43	24	eP	P	16 03 28.8	+0.2
	comp=Z,6.3nm,1.0s,mb5.0						
ILAR	Eielson Array	96.75	22	P	P	16 03 29.1	-0.9
	comp=Z,2.0nm,0.5s,mb4.8,baz=292,slow=3.8,SNR=47						
INK	Inuvik	99.14	16	P	P	16 03 40.8	-0.1
	comp=Z,4.3nm,0.6s,mb5.2,baz=321,slow=7.3,SNR=13						
YKA	Yellowknife Ar	108.62	14	Pdiff	Pdif	16 04 24.3	+1.3
	comp=Z,0.4nm,0.7s,baz=327,slow=4.9,SNR=8.0						
YKA				PKiKP		16 08 28.1	
	comp=Z,0.4nm,0.4s,baz=347,slow=1.9,SNR=13						
YKA				PKKP	PKKP	16 19 53.7	+10
	comp=Z,0.2nm,0.5s,baz=151,slow=2.8,SNR=4.5						
SCHQ	Schefferville	117.99	348	PKiKP		16 08 46.6	
	comp=Z,3.9nm,0.4s,baz=286,slow=5.9,SNR=26						
FFC	Flin Flon	118.44	11	ePKIKP	PKPdf	16 08 46.8	+0.7
MSO	Missoula	122.08	23	ePKPdf	PKPdf	16 08 54.5	+1.1
BMO	Blue Mountains	122.27	26	ePKIKP	PKPdf	16 08 54.0	+0.1
CHMT	Chamberlain Mo	122.28	22	ePKPdf	PKPdf	16 08 54.7	+0.8
MOD	Modoc	123.08	31	ePKPdf	PKPdf	16 08 57.1	+1.6
ULM	Lac du Bonnet	123.76	8	PKP	PKPdf	16 08 59.0	+2.4
	comp=Z,15nm,0.6s,baz=2.3,slow=2.2,SNR=48						
ULM	Lac du Bonnet	123.76	8	ePKPdf	PKPdf	16 08 58.7	+2.1
BOZ	Bozeman (W)	123.95	22	ePKIKP	PKPdf	16 08 58.7	+1.6
HLID	Hailey	124.56	25	ePKPdf	PKPdf	16 09 00.3	+2.0
LAO	LASA Array	124.86	17	ePKPdf	PKPdf	16 09 01.0	+2.1
YFT	Old Faithful	125.26	22	ePKPdf	PKPdf	16 09 03.3	+3.6
LKWY	Lake	125.33	22	ePKIKP	PKPdf	16 09 03.1	+3.3
LOHW	Long Hollow	126.06	23	ePKPdf	PKPdf	16 09 03.2	+2.0
SNOW	Snow King Moun	126.13	23	ePKPdf	PKPdf	16 09 03.8	+2.4
REDW	Red Top Meadow	126.18	23	ePKPdf	PKPdf	16 09 03.2	+1.8
ELK	Elko	126.44	28	ePKIKP	PKPdf	16 09 04.4	+2.4
EYMN	Ely	126.54	5	ePKPdf	PKPdf	16 09 02.9	+0.9
NVAR	Mina Array Bea	126.67	32	PKP	PKPdf	16 09 05.5	+2.9
	comp=Z,9.8nm,0.8s,baz=289,slow=2.8,SNR=47						
MNV	Mina	126.74	32	ePKIKP	PKPdf	16 09 05.0	+2.3
PDAR	Pinedale Array	127.18	22	PKP	PKPdf	16 09 05.2	+1.7
	comp=Z,6.8nm,0.5s,baz=110,slow=2.4,SNR=61						
HWUT	Hardware Ranch	127.37	25	ePKPdf	PKPdf	16 09 05.6	+1.8
TRCR	Troy Canyon	128.13	30	ePKPdf	PKPdf	16 09 08.0	+2.6
NLU	North Lily Min	128.51	26	ePKPdf	PKPdf	16 09 08.1	+2.1
MVU	Marysvale	129.63	27	ePKPdf	PKPdf	16 09 11.0	+2.7
MSU	Marysvale	129.64	27	ePKIKP	PKPdf	16 09 10.7	+2.4
SRU	San Rafael	129.88	26	ePKIKP	PKPdf	16 09 11.2	+2.5
KSU1	Kansas State U	134.44	12	ePKPdf	PKPdf	16 09 17.9	+0.6
ANMO	Albuquerque	135.13	25	ePKIKP	PKPdf	16 09 21.4	+2.7
TUC	Tucson	135.29	31	ePKIKP	PKPdf	16 09 20.0	+1.0
LENM	Lemitar	135.58	26	ePKPdf	PKPdf	16 09 21.6	+2.1
BNM	Barren Site	135.74	26	ePKPdf	PKPdf	16 09 21.8	+2.0
BLA	Blacksburg	137.31	354	PKIKP	PKPdf	16 09 27.3	+4.7
ELN	Prospectdale	137.32	355	ePKPdf	PKPdf	16 09 23.7	+1.1
WMOK	Wichita Mounta	138.04	17	ePKHKP		16 09 13.4	
GDL2	Guadalupe Moun	138.38	25	ePKPdf	PKPdf	16 09 26.4	+1.7
WVT	Waverly	138.56	3	ePKHKP		16 09 14.1	
WVT				e		16 09 26.0	
MIAR	Mount Ida	139.45	11	ePKHKP		16 09 19.2	
LTX	Lajitas	141.16	26	ePKIKP	PKPdf	16 09 28.6	-1.3
TXAR	Lajitas Array	141.16	26	PKhKP		16 09 25.9	
	comp=Z,3.0nm,0.6s,baz=243,slow=0.5,SNR=11						
TXAR				PKP	PKPdf	16 09 31.9	+2.0
	comp=Z,5.4nm,0.5s,baz=180,slow=0.9,SNR=20						
CSU	Charleston Sou	141.45	353	ePKP		16 09 26.0	
JCT	Junction City	141.66	20	ePKHKP		16 09 26.0	
LRAL	Lakeview Retre	141.68	2	ePKP	PKPdf	16 09 31.4	+0.8
DWPF	Disney	146.42	354	ePKPbc	PKPbc	16 09 41.7	+1.5
MVM	Montagne Vaucl	148.68	310⇑	eP	PKPdf	16 09 48.3	+5.4
FDF	Fort de France	148.77	310⇑	eP	PKPdf	16 09 48.9	+5.9
BIM	Bigot	148.84	310⇑	eP	PKPdf	16 09 49.0	+5.8
SJG	San Juan	149.91	322	PKP	PKPdf	16 09 46.6	+1.7
	comp=Z,20nm,0.5s,baz=325,slow=18,SNR=2.5						
SJG				PKPbc	PKPdf	16 09 50.7	+5.8
	comp=Z,15nm,0.3s,baz=303,slow=18,SNR=6.3						
PCRV	Puerto La Cruz	154.22	307	PKPbc	PKPdf	16 09 59.8	+8.6
	comp=Z,14nm,0.4s,baz=276,slow=3.5,SNR=12						
LVC	Limon Verde	156.74	221	PKPab	PKPab	16 10 27.1	+0.8
	comp=Z,2.4nm,0.6s,baz=272,slow=2.4,SNR=7.2						
SDV	Santo Domingo	159.59	314	PKP	PKPdf	16 09 59.8	+1.8
	comp=Z,2.8nm,0.6s,baz=340,slow=5.9,SNR=6.7						
SDV				PKPab	PKPab	16 10 38.4	-0.5
	comp=Z,6.0nm,0.7s,baz=57,slow=5.3,SNR=5.5						
LPAZ	La Paz	160.03	236	ePKIKP	PKPdf	16 10 00.3	+1.9
LPAZ	La Paz	160.03	236	PKP	PKPdf	16 10 00.8	+2.4
	comp=Z,2.3nm,0.6s,baz=270,slow=6.1,SNR=13						
LPAZ				PKPab	PKPab	16 10 40.3	-0.3
	comp=Z,1.8nm,0.7s,baz=99,slow=10.0,SNR=2.7						
ROSC	El Rosal	165.01	313	PKP	PKPdf	16 10 05.6	+2.1
	comp=Z,8.0nm,0.5s,baz=77,slow=19,SNR=4.3						
OTAV	Otavalo	171.13	309	ePKP	PKPdf	16 10 10.1	+2.5

IDC 29 15:55:46.7±1.3**,33.90N**×**92.18E,mb3.9**/5**,mb1 4.2**/6**,**
mb1mx3.8/18**,mbtmp3.9**/6**,ML4.8**/1**,Error ellipse:**
s-maj=82.5km s-min=23.0km az=61.0,Qinghai

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.52	157	Pn	P	15 59 39.2	-2.2
	1.4nm,0.3s,baz=315,slow=16,SNR=8.1						
ARCES	ARCESS Array B	50.55	335	P	P	16 04 46.6	-1.8
	7.6nm,0.9s,baz=70,slow=11,SNR=3.2						
NOA	NORSAR Array B	56.74	325	P	P	16 05 31.9	-2.4
	1.2nm,0.7s,baz=84,slow=9.6,SNR=3.8						
WRA	Warramunga Arr	66.93	137	P	P	16 06 42.2	-1.1
	2.2nm,0.8s,baz=301,slow=8.9,SNR=4.9						
ASAR	Alice Springs	69.65	139	P	P	16 06 57.5	-2.8
	0.5nm,0.4s,baz=333,slow=0.6,SNR=6.3						
ILAR	Eielson Array	71.44	23	P	P	16 07 08.3	-2.0
	0.4nm,0.7s,baz=288,slow=5.7,SNR=3.8						

IDC ***29*** *16:03:16.1±1.2,34.68N×25.02E,mb3.8/7,mb1 3.8/9,*
mb1mx3.6/21,mbtmp3.7/9,ML3.6/2,Error ellipse:
s-maj=27.0km s-min=17.0km az=86.0
CSEM ***29*** *16:03:22.3±0.3,34.79N×24.87E,h12*^{km}*,MD3.7,Error*
ellipse: s-maj=8.0km s-min=3.3km az=178.0
NEIC ***29*** *16:03:23.6,34.95N×24.90E,h28*^{km}*,MD3.7(ATH),After*
ATH.
ATH ***29*** *16:03:23.3,34.91N×24.90E,h28*^{km}*±2*^{km}*,MD3.7/7*
ISC 29 16:03:19.4±0.7**,34.54N**±0.06×**25.18E**±0.07**,h41**^{km}±9^{km}**,**
n29,σ1§**31**/33**,mb3.7**/7**,Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IDI	Anoyia	0.79	343	Pn	P	16 03 33.3	-0.8
	190nm,0.3s,baz=183,slow=15,SNR=500						
IDI				Sn	S	16 03 43.5	-1.3
	702nm,0.3s,baz=50,slow=19,SNR=39						
NPS	Neapolis	0.81	26	ePN	P	16 03 36.6	+2.2
GVD	Gavdhos	0.95	289	eP	P	16 03 35.9	-0.5
VAM	Vamos	1.18	317	ePN	P	16 03 38.4	-1.3
KARP	Karpathos	1.92	58	ePN	P	16 03 56.6	+6.4
APE	Apeiranthos	2.54	6	ePN	P	16 04 00.0	+0.8
VLI	Veliai	2.84	321	ePN	P	16 04 03.4	0.0
PTL	Penteli	3.66	344	ePN	P	16 04 15.0	-0.1
ITM	Ithomi	3.73	316	ePN	P	16 04 15.0	-1.0
RZN	Rozhen	7.15	357	eP	P	16 05 10.0	+5.9
KKB	Krupnik	7.50	348	eP	P	16 05 13.0	+4.0
VTS	Vitosha	8.19	350	eP	P	16 05 20.0	+1.5
BRTR	Keskin Array B	8.51	50	Pn	P	16 05 22.1	-0.8
	0.1nm,0.3s,baz=222,slow=18,SNR=2.6						
EIL	Elat	9.60	118	Pn	P	16 05 37.5	-0.7
	0.9nm,0.3s,baz=318,slow=16,SNR=8.5						
EIL				Sn	S	16 07 24.9	-1.0
	1.4nm,0.3s,baz=29,slow=31,SNR=4.5						
HAQS	Haql	9.94	121	P	P	16 05 43.5	+0.8
HAQS				S	S	16 07 31.1	-2.9
JMOS	Jabal al Moall	10.00	120	P	P	16 05 44.7	+1.2
JMOS				S	S	16 07 32.8	-2.7
TAYS	Tayyib Ism	10.20	123	P	P	16 05 46.6	+0.4
JMQS	Jabal Moqyreh	10.71	119	P	P	16 05 54.8	+1.5
DBAS	Duba	11.80	125	P	P	16 06 09.1	+1.1
AKASG	Malin Array Be	16.42	9	Pn	P	16 07 09.0	+0.8
	2.6nm,0.3s,baz=200,slow=11,SNR=20						
GERES	GERESS Array B	16.64	333	Pn	P	16 07 12.4	+1.4
	0.5nm,0.3s,baz=143,slow=12,SNR=14						
KHC	Kasperske Hory	16.92	333	eP	P	16 07 16.0	+1.5
HFS	Hagfors	26.68	347	P	P	16 08 54.5	-1.8
	0.6nm,0.3s,mb3.6,baz=146,slow=11,SNR=5.3						
FINES	FINESS Array B	26.93	1	P	P	16 08 56.2	-2.3
	0.5nm,0.3s,mb3.5,baz=159,slow=12,SNR=9.1						
ARCES	ARCESS Array B	35.05	0	P	P	16 10 07.5	-2.5
	0.7nm,0.5s,mb3.9,baz=191,slow=10,SNR=7.3						
DBIC	Dimbokro	39.19	232	P	P	16 10 46.0	+0.7
	1.0nm,0.3s,mb4.0,baz=15,slow=9.9,SNR=6.0						
SONM	Songino Array	59.87	50	P	P	16 13 24.8	+1.6
	0.2nm,0.3s,mb3.6,baz=297,slow=9.7,SNR=2.6						
SCHQ	Schefferville	63.67	320	P	P	16 13 48.1	-0.3
	1.6nm,0.9s,mb4.1,baz=58,slow=9.5,SNR=5.4						
YKA	Yellowknife Ar	78.05	342	P	P	16 15 15.4	+0.6
	0.2nm,0.4s,mb3.4,baz=30,slow=5.2,SNR=3.8						

IDC 29 16:11:39.0±1.1**,6.12N**×**92.73E,mb3.8**/6**,mb1 4.0**/7**,**
mb1mx3.8/18**,mbtmp3.8**/7**,ML4.0**/1**,Error ellipse:**
s-maj=42.7km s-min=20.6km az=52.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.68	26	Pn	P	16 14 56.4	-0.6

	0.2nm,0.3s,baz=232,slow=14,SNR=24						
SONM	Songino Array	43.18	13	P	P	16 19 41.8	-1.4
	0.3nm,0.5s,baz=202,slow=7.8,SNR=3.2						
ZAL	Zalesovo	48.11	354	P	P	16 20 18.9	-3.5
	0.8nm,0.4s,baz=209,slow=6.5,SNR=6.8						
WRA	Warramunga Arr	48.43	123	P	P	16 20 22.9	-2.5
	1.5nm,0.8s,baz=302,slow=9.4,SNR=9.8						
ASAR	Alice Springs	49.91	128	P	P	16 20 35.0	-1.8
	3.0nm,1.1s,baz=298,slow=6.9,SNR=13						
BRTR	Keskin Array B	62.52	312	P	P	16 22 04.9	-2.1
	1.0nm,0.8s,baz=129,slow=7.0,SNR=3.0						
GERES	GERESS Array B	78.20	319	P	P	16 23 41.2	-0.9
	0.7nm,0.6s,baz=90,slow=5.3,SNR=7.3						
PDAR	Pinedale Array	127.30	21	PKP	PKPdf	16 30 46.7	-1.2
	0.3nm,0.8s,baz=315,slow=2.6,SNR=3.0						

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*IDC **29** 16:16:06.7±1.0, 3.00N×93.80E, mb4.1/9, mb1 4.3/10, mb1mx4.1/20, mbtmp4.1/10, ML3.9/1, Error ellipse: s-maj=45.3km s-min=17.0km az=51.0*

ISC 29 16:16:10.0±0.8, 3.0N±0.1×93.9E±0.2, h33^{km}, n10, σ0^{s}57/10, mb4.1/9, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.12	18	Pn	P	16 19 56.2	+0.4
	0.2nm,0.3s,baz=213,slow=11,SNR=15						
WRA	Warramunga Arr	45.81	122	P	P	16 24 30.9	0.0
	4.5nm,0.7s,mb4.5,baz=300,slow=8.9,SNR=20						
SONM	Songino Array	45.93	12	P	P	16 24 31.5	-0.1
	0.6nm,0.7s,mb3.6,baz=190,slow=7.5,SNR=4.9						
ASAR	Alice Springs	47.14	126	P	P	16 24 41.6	+0.3
	2.1nm,0.6s,mb4.2,baz=304,slow=7.8,SNR=16						
ZAL	Zalesovo	51.30	353	P	P	16 25 12.6	-0.3
	1.8nm,0.4s,mb4.3,baz=223,slow=8.1,SNR=7.3						
BVAR	Borovoye Array	53.49	343	P	P	16 25 28.4	-0.9
	1.4nm,0.7s,mb4.0,baz=141,slow=9.5,SNR=8.5						
STKA	Stephens Creek	57.04	131	P	P	16 25 55.0	-0.4
	1.7nm,0.7s,mb4.2,baz=299,slow=8.9,SNR=6.2						
BRTR	Keskin Array B	65.44	313	P	P	16 26 51.4	-0.6
	0.8nm,0.7s,mb3.9,baz=121,slow=7.2,SNR=3.9						
GERES	GERESS Array B	81.26	319	P	P	16 28 25.3	+0.9
	1.4nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=13						
DAVOX	Davos	83.70	317	P	P	16 28 37.8	+0.9
	4.3nm,1.1s,mb4.5,baz=116,slow=19,SNR=5.1						

IDC 29 16:24:03.5±4.5, 7.12N×94.08E, mb3.7/3, mb1 3.9/3, mb1mx3.6/17, mbtmp3.7/3, Error ellipse: s-maj=328.1km s-min=33.1km az=51.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	47.87	125	P	P	16 32 43.4	-2.1
	0.3nm,0.5s,baz=303,slow=9.0,SNR=8.9						
ASAR	Alice Springs	49.48	129	P	P	16 32 56.1	-1.8
	0.4nm,0.8s,baz=304,slow=7.9,SNR=4.8						
ARCES	ARCESS Array B	75.96	340	P	P	16 35 52.0	-1.7
	1.7nm,0.8s,baz=100,slow=5.5,SNR=3.7						

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*IDC **29** 16:28:52.1±0.9, 7.85N×93.62E, mb4.2/12, mb1 4.3/12, mb1mx4.2/18, mbtmp4.1/12, Error ellipse: s-maj=44.6km s-min=17.6km az=50.0*

ISC 29 16:28:53.0±8.8, 7.8N±0.2×93.6E±0.2, h20^{km}±59^{km}, n26, σ0^{s}74/23, mb4.4/20, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.83	26	Pn	P	16 31 44.6	+0.7
	0.5nm,0.3s,baz=211,slow=15,SNR=44						
PKI	Pulchoki	21.15	340	*e*P	P	16 33 39.2	-0.1
	41nm,0.8s,mb4.8						
DMN	Daman	21.30	339	*e*P	P	16 33 40.3	-0.5
	31nm,0.7s,mb4.7						
GUN	Gumba	21.31	341	*e*P	P	16 33 40.8	-0.1
	54nm,0.7s,mb5.0						
KKN	Kakani	21.40	339	*e*P	P	16 33 41.4	-0.4
	68nm,1.2s,mb4.8						
GKN	Gorkha	21.82	338	*e*P	P	16 33 46.0	-0.1
	46nm,0.8s,mb5.0						
KOLN	Koldanda	22.02	336	*e*P	P	16 33 48.6	+0.6
	40nm,0.8s,mb4.9						
SONM	Songino Array	41.38	13	P	P	16 36 39.2	-0.3
	3.1nm,0.7s,mb4.0,baz=195,slow=8.0,SNR=21						
ZAL	Zalesovo	46.57	353	P	P	16 37 20.8	-0.5
	3.7nm,0.5s,mb4.6,baz=205,slow=6.6,SNR=19						
WRA	Warramunga Arr	48.66	125	P	P	16 37 37.9	-0.2
	1.0nm,0.6s,mb4.0,baz=300,slow=9.7,SNR=17						
BVAR	Borovoye Array	48.90	342	P	P	16 37 39.1	-0.4
	0.9nm,0.6s,mb4.0,baz=134,slow=11,SNR=5.9						
ASAR	Alice Springs	50.28	130	P	P	16 37 50.2	-0.3
	1.2nm,0.6s,mb4.1,baz=302,slow=7.0,SNR=17						
BRTR	Keskin Array B	62.07	311	P	P	16 39 13.7	-1.1
	1.2nm,0.7s,mb4.1,baz=127,slow=6.2,SNR=5.1						
AKASG	Malin Array Be	67.88	322	P	P	16 39 51.4	-0.9
	0.7nm,0.6s,mb3.9,baz=88,slow=5.7,SNR=4.7						
FINES	FINESS Array B	72.54	332	P	P	16 40 20.3	0.0
	4.4nm,0.8s,mb4.5,baz=90,slow=5.7,SNR=12						
KAF	Kangasniemi	72.62	333	*e*p	P	16 40 19.5	-1.3
	4.6nm,0.8s,mb4.5						
ARCES	ARCESS Array B	75.17	340	P	P	16 40 36.5	+1.1
	3.7nm,0.8s,mb4.3,baz=80,slow=7.4,SNR=6.0						
GERES	GERESS Array B	77.53	318	P	P	16 40 50.4	+1.3
	1.9nm,0.9s,mb4.0,baz=63,slow=3.0,SNR=10						
KHC	Kasperske Hory	77.62	319	*e*P	P	16 40 50.5	+0.9
NB2	NORSAR Subarra	79.54	331	P	P	16 41 00.1	+0.2
	3.2nm,0.7s,mb4.4,baz=96,slow=5.0						
NOA	NORSAR Array B	79.54	331	P	P	16 41 00.4	+0.5
	4.9nm,0.7s,mb4.5,baz=93,slow=5.6,SNR=14						
LPG	La Plagne	82.29	315	*e*P	P	16 41 16.3	+1.6
	17nm,0.8s,mb4.7						
ILAR	Eielson Array	95.05	22	P	P	16 42 15.1	-0.3
	0.5nm,1.0s,mb3.9,baz=273,slow=2.9,SNR=4.8						
ULM	Lac du Bonnet	121.63	7	PKP	PKPdf	16 47 49.4	-0.4
	1.3nm,0.6s,baz=350,slow=6.3,SNR=3.3						
NVAR	Mina Array Bea	125.29	31	PKP	PKPdf	16 47 57.2	0.0
	1.0nm,0.7s,baz=299,slow=2.1,SNR=8.1						
TXAR	Lajitas Array	139.54	24	PKP	PKPdf	16 48 23.1	-1.1
	0.3nm,0.5s,baz=270,slow=1.3,SNR=5.0						

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*IDC **29** 16:30:15.6±1.0, 8.22N×93.75E, h27^{km}±5^{km}, mb3.9/11, mb1 4.1/12, mb1mx4.0/19, mbtmp4.1/12, ML5.0/1, Error ellipse: s-maj=40.5km s-min=17.4km az=50.0*

ISC 29 16:30:13.4±0.8, 8.2N±0.1×93.8E±0.2, h29^{km}, h29^{km}±1.3^{km}:pP-P, n14, σ0^{s}75/14, mb4.1/12, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.39	26	Pn	P	16 32 57.8	+0.2
	3.3nm,0.3s,baz=212,slow=15,SNR=44						
ZAL	Zalesovo	46.20	353	P	P	16 38 37.2	-0.4
	7.4nm,0.6s,mb4.8,baz=205,slow=6.9,SNR=18						
BVAR	Borovoye Array	48.59	341	P	P	16 38 55.2	-1.1
	1.1nm,0.6s,mb4.1,baz=141,slow=9.5,SNR=5.8						
BVAR				pP	pP	16 39 04.9	-0.2
	4.8nm,1.0s,baz=153,slow=6.6,SNR=8.3						
WRA	Warramunga Arr	48.73	126	P	P	16 38 57.5	-0.4
	0.3nm,0.5s,mb3.5,baz=305,slow=8.5,SNR=2.2						
ASAR	Alice Springs	50.39	130	P	P	16 39 10.6	0.0
	2.1nm,1.0s,mb4.1,baz=309,slow=4.0,SNR=7.5						
ASAR				PcP	PcP	16 40 31.9	+3.0
	0.5nm,0.5s,baz=313,slow=3.3,SNR=5.3						
BRTR	Keskin Array B	61.95	311	P	P	16 40 32.8	-0.5
	3.1nm,1.0s,mb4.4,baz=121,slow=7.8,SNR=6.5						
BRTR				pP	pP	16 40 41.2	-1.1
	1.7nm,0.7s,baz=122,slow=7.1,SNR=5.4						
AKASG	Malin Array Be	67.69	322	P	P	16 41 10.2	0.0
	0.8nm,0.5s,mb4.0,baz=80,slow=4.8,SNR=5.8						
FINES	FINESS Array B	72.28	332	P	P	16 41 38.1	+0.2
	2.2nm,0.6s,mb4.3,baz=87,slow=5.4,SNR=13						
FINES				pP	pP	16 41 46.9	-0.1
	1.4nm,0.7s,baz=104,slow=7.9,SNR=4.4						
KAF	Kangasniemi	72.36	333	*e*p	P	16 41 37.0	-1.4
	1.8nm,0.5s,mb4.3						
ARCES	ARCESS Array B	74.86	340	P	P	16 41 53.7	+0.9
	1.6nm,0.6s,mb4.2,baz=103,slow=6.0,SNR=5.8						
GERES	GERESS Array B	77.36	318	P	P	16 42 08.8	+1.5
	0.6nm,0.6s,mb3.7,baz=90,slow=5.3,SNR=5.0						
NB2	NORSAR Subarra	79.29	331	P	P	16 42 18.1	+0.5
	1.5nm,0.6s,mb4.1,baz=97,slow=5.0						
NOA	NORSAR Array B	79.29	331	P	P	16 42 18.3	+0.7
	2.0nm,0.6s,mb4.2,baz=92,slow=5.6,SNR=5.2						
ILAR	Eielson Array	94.61	22	P	P	16 43 32.8	+0.3
	0.3nm,0.7s,mb3.8,baz=281,slow=4.0,SNR=4.5						

IDC 29 16:34:17.8±1.4, 5.47N×94.37E, mb3.8/7, mb1 4.0/7, mb1mx3.8/18, mbtmp3.8/7, Error ellipse: s-maj=66.9km s-min=20.5km az=54.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.66	19	Pn	P	16 37 39.4	+3.9
	0.4nm,0.3s,baz=208,slow=14,SNR=9.5						
SONM	Songino Array	43.45	12	P	P	16 42 22.6	-1.6
	0.4nm,0.4s,baz=198,slow=9.1,SNR=3.3						
WRA	Warramunga Arr	46.72	124	P	P	16 42 49.0	-1.7
	0.5nm,0.4s,baz=304,slow=10,SNR=13						
ASAR	Alice Springs	48.23	128	P	P	16 43 00.4	-2.2
	0.7nm,0.8s,baz=301,slow=7.7,SNR=7.3						
ZAL	Zalesovo	48.95	353	P	P	16 43 05.7	-1.9
	1.3nm,0.3s,baz=233,slow=9.3,SNR=4.0						
BVAR	Borovoye Array	51.33	342	P	P	16 43 23.8	-2.1
	0.9nm,0.5s,baz=139,slow=13,SNR=11						
FINES	FINESS Array B	74.93	332	P	P	16 45 59.6	-2.7
	0.8nm,0.8s,baz=124,slow=6.9,SNR=4.0						
GERES	GERESS Array B	79.76	319	P	P	16 46 28.6	-0.7
	0.5nm,0.7s,baz=76,slow=5.5,SNR=4.7						

IDC 29 16:37:19.6±4.4, 5.21N×94.00E, mb3.8/3, mb1 4.0/3, mb1mx3.5/17, mbtmp3.8/3, Error ellipse: s-maj=385.6km s-min=31.5km az=47.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.88	123	P	P	16 45 51.9	-1.9
	0.6nm,0.7s,baz=304,slow=9.2,SNR=3.8						
ASAR	Alice Springs	48.36	128	P	P	16 46 03.5	-1.9
	0.6nm,0.4s,baz=297,slow=7.9,SNR=5.7						
FINES	FINESS Array B	74.99	333	P	P	16 49 02.6	-1.8
	1.3nm,0.9s,baz=100,slow=8.5,SNR=4.3						

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*IDC **29** 16:39:40.8±1.3, 8.84N×93.76E, mb3.9/9, mb1 4.1/9, mb1mx3.9/18, mbtmp3.9/9, Error ellipse: s-maj=52.5km s-min=26.1km az=50.0*

ISC 29 16:39:44.0±1.1, 8.9N±0.2×93.8E±0.3, h33^{km}, n15, σ0^{s}48/15, mb4.0/10, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	Pulchoki	20.23	338	*e*P	P	16 44 19.2	+0.1
	16nm,0.7s						
GUN	Gumba	20.38	340	*e*P	P	16 44 20.6	0.0
	54nm,0.9s						
DMN	Daman	20.38	337	*e*P	P	16 44 20.4	-0.3
	43nm,1.3s						
KKN	Kakani	20.48	338	*e*P	P	16 44 21.9	+0.2
	17nm,0.6s						
GKN	Gorkha	20.92	337	*e*P	P	16 44 25.9	-0.3
	29nm,0.8s						
KOLN	Koldanda	21.14	334	*e*P	P	16 44 28.6	+0.2
	40nm,1.1s,mb4.7						
SONM	Songino Array	40.29	13	P	P	16 47 19.9	+0.2
	0.4nm,0.8s,mb3.2,baz=203,slow=9.4,SNR=4.2						
ZAL	Zalesovo	45.54	353	P	P	16 48 02.2	-0.1
	3.4nm,0.6s,mb4.5,baz=212,slow=7.8,SNR=22						
BVAR	Borovoye Array	47.96	341	P	P	16 48 20.7	-0.6
	0.9nm,0.5s,mb4.1,baz=127,slow=7.4,SNR=8.3						
WRA	Warramunga Arr	49.11	126	P	P	16 48 30.5	-0.2
	0.2nm,0.5s,mb3.4,baz=305,slow=8.5,SNR=3.2						
BRTR	Keskin Array B	61.53	310	P	P	16 49 59.6	-0.7
	0.8nm,0.7s,mb4.0,baz=63,slow=3.2,SNR=4.1						
FINES	FINESS Array B	71.69	332	P	P	16 51 04.4	+0.2
	1.0nm,0.6s,mb3.9,baz=91,slow=6.4,SNR=9.8						
ARCES	ARCESS Array B	74.23	340	P	P	16 51 19.7	+0.7
	1.8nm,0.7s,mb4.1,baz=90,slow=6.1,SNR=6.4						
GERES	GERESS Array B	76.87	318	P	P	16 51 35.8	+1.3
	1.1nm,0.8s,mb3.9,baz=104,slow=5.5,SNR=8.6						
NOA	NORSAR Array B	78.72	331	P	P	16 51 43.9	-0.5
	1.3nm,0.7s,mb3.9,baz=95,slow=5.1,SNR=3.7						

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*IDC **29** 16:42:11.6±1.0, 4.59N×94.95E, mb4.5/11, mb1 4.6/11, mb1mx4.4/19, mbtmp4.5/11, MS4.0/1, Ms1 4.0/1, ms1mx2.9/24, Error ellipse: s-maj=43.6km s-min=17.7km az=48.0*

*BJI **29** 16:42:13.0, 3.99N×95.02E, h52^{km}, mB4.5, mb4.9, Ms4.3, Msz3.9*

*NEIC **29** 16:42:15.8±0.9, 4.43N×94.89E, h30^{km}, mb4.7/9, Error ellipse: s-maj=26.9km s-min=16.6km az=60.0*

ISC 29 16:42:14.5±0.5, 4.49N±0.08×95.01E±0.09, h30^{km}, n53, σ1^{s}08/50, mb4.6/33, MS4.0/3, 1C, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.40	15	*e*P	P	16 45 41.6	+3.0
	28nm,0.9s						
CMAR	Chiang Mai Arr	14.40	15	Pn	P	16 45 42.0	+3.4
	0.9nm,0.3s,baz=208,slow=11,SNR=63						
KMI	Kunming	21.82	19	P	P	16 47 09.3	+2.9
KMI				AP		16 47 16.3	
KMI				AMB	AMB		
	comp=Z,21nm,1.4s,mb4.4						
KMI				AMB	AMB		
	comp=Z,72nm,4.9s						
KMI				LR	LR		
	comp=N,602nm,16.2s,MS4.1						
KMI				LR	LR		
	comp=E,378nm,18.6s,MS4.1						
KMI				LR	LR		
	comp=Z,646nm,18.6s,MS4.1						
GYA	Guiyang	24.53	26	⇑*i*P	P	16 47 32.5	-0.4
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
PKI	Pulchoki	24.71	339	*e*P	P	16 47 34.9	+0.2
	comp=Z,10nm,0.4s,mb4.7						
DMN	Daman	24.86	339	*e*P	P	16 47 36.4	+0.3
	comp=Z,9.5nm,0.5s,mb4.6						
GUN	Gumba	24.86	340	*e*P	P	16 47 36.6	+0.4
	comp=Z,19nm,0.6s,mb4.8						
KKN	Kakani	24.96	339	*e*P	P	16 47 36.6	-0.5
	comp=Z,25nm,0.9s,mb4.8						
GKN	Gorkha	25.38	338	*e*P	P	16 47 40.7	-0.4
	comp=Z,12nm,0.2s,mb5.0						
KOLN	Koldanda	25.58	336	*e*P	P	16 47 42.9	0.0
	comp=Z,27nm,0.5s,mb5.0						
GTA	Gaotai	35.03	6	P	P	16 49 05.5	-1.3
GTA				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.9						
MBWA	Marble Bar	35.17	137	*e*P	P	16 49 08.1	-0.1
	comp=Z,24nm,1.6s,mb4.9						
KSH	Kashi	38.90	336	*e*P	P	16 49 40.5	+1.2
KSH				AMB	AMB		
	comp=Z,130nm,5.4s						
WMQ	Urumqi	39.70	352	P	P	16 49 45.5	-0.4
WMQ				AMB	AMB		
	comp=Z,14nm,0.7s,mb4.8						
BJI	Beijing	40.22	25	P	P	16 49 50.8	+0.6
BJI				AMB	AMB		
	comp=Z,32nm,1.0s,mb5.0						
BJI				LR	LR		
	comp=Z,195nm,25.9s,MS3.8						
UCH	Uchtor	41.78	337	P	P	16 50 04.3	+1.2
	SNR=22						
TKM2	Tokmak 2	41.97	339	P	P	16 50 05.9	+1.3
	SNR=12						
KBK	Karagaybulak	41.98	338	P	P	16 50 06.1	+1.4
	SNR=27						
AML	Almayashu	42.03	336	P	P	16 50 06.2	+1.2
	SNR=23						
AAK	Ala-Archa	42.14	337	P	P	16 50 08.7	+2.7
	SNR=11						
AAK	Ala-Archa	42.14	337	*e*P	P	16 50 06.3	+0.3
	comp=Z,6.6nm,0.7s,mb4.4						
CHMS	Chumysh	42.35	338	P	P	16 50 08.4	+0.7
	SNR=7.9						
EKS2	Erkin-Say	42.44	337	P	P	16 50 09.5	+1.0
	SNR=14						
USP	Ospenovka	42.68	338	P	P	16 50 10.8	+0.4
	SNR=29						
SONM	Songino Array	44.28	11	P	P	16 50 22.2	-1.1
	comp=Z,2.5nm,0.7s,mb4.1,baz=190,slow=8.9,SNR=13						
ULN	Ulaanbaatar	44.44	12	*e*P	P	16 50 23.4	-1.2
	comp=Z,0.9nm,0.6s,mb3.7						
KS15	Wonju Array Si	44.48	38	*e*P	P	16 50 25.0	-0.1
WRA	Warramunga Arr	45.64	123	P	P	16 50 35.2	+0.7
	comp=Z,7.5nm,0.7s,mb4.7,baz=302,slow=9.1,SNR=29						
WRAB	Tennant Creek	45.65	123	*e*P	P	16 50 35.2	+0.6
	comp=Z,12nm,0.7s,mb4.9						
ASAR	Alice Springs	47.12	128	P	P	16 50 46.8	+0.5
	comp=Z,1.5nm,0.5s,mb4.2,baz=300,slow=7.8,SNR=25						
CN2	Changchun	47.47	30	*e*P	P	16 50 48.0	-0.7
CN2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb5.0						
ZAL	Zalesovo	50.00	352	P	P	16 51 07.0	-1.1
	comp=Z,6.7nm,0.4s,mb5.0,baz=212,slow=6.2,SNR=28						
MDJ	Mudanjiang	50.16	32	P	P	16 51 09.0	-0.5
MDJ				AMB	AMB		
	comp=Z,13nm,0.9s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,38nm,3.6s						
BVAR	Borovoye Array	52.45	341	P	P	16 51 25.5	-1.2
	comp=Z,8.6nm,0.7s,mb4.8,baz=135,slow=8.4,SNR=57						
BRVK	Borovoye	52.51	341	*e*P	P	16 51 25.7	-1.5
	comp=Z,4.8nm,0.4s,mb4.8						
CHKZ	Chkalovo	52.94	342	*e*P	P	16 51 29.1	-1.3
	comp=Z,17nm,0.7s,mb5.1						
KMBO	Kilima Mbogo	57.98	266	LR	LR	17 13 24.6	
	comp=Z,133nm,19.0s,MS4.1,baz=278,slow=32						
KIV	Kislovodsk	60.41	319	*e*P	P	16 52 22.4	-1.2
	comp=Z,3.7nm,0.7s,mb4.5						
YAK	Yakutsk	62.93	18	*e*P	P	16 52 37.4	-2.9
	comp=Z,3.4nm,0.3s,mb5.0						
BRTR	Keskin Array B	65.30	312	P	P	16 52 55.1	-1.0
	comp=Z,1.3nm,0.7s,mb4.1,baz=123,slow=6.1,SNR=5.5						
AKASG	Malin Array Be	71.34	322	P	P	16 53 31.6	-1.9
	comp=Z,1.0nm,0.3s,mb4.2,baz=88,slow=5.5,SNR=15						
FINES	FINESS Array B	76.09	332	P	P	16 54 00.1	-0.8
	comp=Z,2.1nm,0.5s,mb4.3,baz=105,slow=5.9,SNR=21						
KAF	Kangasniemi	76.18	333	*e*p	P	16 53 59.9	-1.5
	comp=Z,4.3nm,0.8s,mb4.4						
NIE	Niedzica	76.66	320	*e*P	pP	16 54 19.5	+5.6
PSZ	Piszkesteto	76.72	318	P	P	16 54 06.0	+1.2
OJC	Ojcow	77.11	320	*e*P	P	16 54 07.0	+0.1
ZST	Bratislava	78.61	318	*e*	P	16 54 20.2	+5.0
ZST				*e*	pP	16 54 31.0	+6.3
ARCES	ARCESS Array B	78.72	340	P	P	16 54 15.3	-0.1
	comp=Z,5.1nm,0.9s,mb4.5,baz=101,slow=6.6,SNR=25						
FX1	Attu Island--F	79.29	37	P	P	16 54 18.5	-0.2
	comp=Z,20nm,0.8s,mb5.1,baz=103,slow=18,SNR=5.3						
PRU	Pruhonice	80.45	320	*e*P	P	16 54 26.7	+1.7
GERES	GERESS Array B	80.92	319	P	P	16 54 28.3	+0.8
	comp=Z,1.2nm,0.6s,mb4.0,baz=90,slow=5.3,SNR=11						
KHC	Kasperske Hory	81.02	319	*e*P	P	16 54 28.0	0.0
PDAR	Pinedale Array	127.96	23	PKP	PKPdf	17 01 19.8	-3.4
	comp=Z,0.4nm,0.6s,SNR=4.3						

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*NEIC **29** 16:44:26.1, 33.15S×70.24W, h6^{km}, ML3.4(GUC), After GUC.*

GUC 29 16:44:26.1±0.7, 33.15S×70.24W, h6^{km}±2^{km}, MD3.7, ML3.4, 2C-2D, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FCH	Farellones	0.19	193	⇑*i*P	Pg	16 44 30.8	+0.8
FCH				*i* S	Sg	16 44 33.6	+1.1
FCH				AMP		16 44 33.9	
	comp=E,1μm,0.2s						
CLCH	Cerro Calan	0.35	225	⇑*i*P	Pg	16 44 34.0	+0.8
CLCH				*i* S	Sg	16 44 39.0	+1.1
DSCH	Colegio Aleman	0.37	227	*e*P	Pg	16 44 34.3	+0.7
DSCH				*i* S	Sg	16 44 39.9	+1.3
DSCH				AMP		16 44 41.1	
	comp=N,68μm,0.6s						
PEL	Peldehue	0.37	270	*e*P	Pg	16 44 33.7	+0.1
PEL				*i* S	Sg	16 44 39.4	+0.8
PCH	Pirque	0.53	206	*i* P	Pg	16 44 36.9	+0.3
PCH				*i* S	Sg	16 44 45.0	+1.3
JACH	Jahuel	0.55	327	⇓*i*P	Pg	16 44 37.1	0.0
TACH	Talagante	0.77	229	⇓*i*P	Pg	16 44 41.2	-0.3
CHCH	Chadas Angostu	0.86	203	*e*P	Pb	16 44 42.8	-0.3
CACH	El Canelo	1.01	197	*e*P	Pb	16 44 45.7	0.0
CICH	Cipreses	1.18	187	*e*P	Pb	16 44 47.9	-0.7
CICH				*i* S	Sb	16 45 04.4	+0.5
LNV	Longovilo	1.27	230	*e*P	Pb	16 44 49.1	-0.9
SFDO	San Fernando	1.60	203	*e*P	Pn	16 44 54.5	-0.6
SFDO				*i* S	Sb	16 45 15.5	-0.6

IDC 29 16:45:01.9±1.7, 9.30N×94.66E, mb4.0/4, mb1 4.1/5, mb1mx3.8/19, mbtmp3.9/5, ML3.6/1, Error ellipse: s-maj=70.4km s-min=24.5km az=59.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.01	24	Pn	P	16 47 26.1	-4.0
	0.2nm,0.3s,baz=207,slow=10,SNR=2.7						
BVAR	Borovoye Array	47.82	340	P	P	16 53 41.3	-1.8
	0.6nm,0.4s,baz=150,slow=9.1,SNR=4.2						
WRA	Warramunga Arr	48.69	127	P	P	16 53 48.5	-1.7
	0.3nm,0.4s,baz=300,slow=10,SNR=4.9						
ASAR	Alice Springs	50.45	131	P	P	16 54 01.6	-2.2
	0.5nm,0.4s,baz=304,slow=8.1,SNR=5.2						
ARCES	ARCESS Array B	74.11	340	P	P	16 56 39.7	-1.7
	17nm,1.2s,baz=90,slow=4.9,SNR=6.5						

IDC 29 16:46:54.2±3.1, 6.69N×91.45E, mb3.7/4, mb1 4.0/5, mb1mx3.7/18, mbtmp3.8/5, ML3.8/1, Error ellipse: s-maj=97.9km s-min=25.9km az=69.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.79	31	Pn	P	16 50 10.8	-2.6
	0.1nm,0.3s,baz=232,slow=16,SNR=4.4						
SONM	Songino Array	42.94	15	P	P	16 54 54.7	-1.8
	2.0nm,0.8s,baz=198,slow=7.5,SNR=8.0						
ZAL	Zalesovo	47.42	355	P	P	16 55 30.4	-1.7
	0.9nm,0.7s,baz=229,slow=8.1,SNR=3.7						
WRA	Warramunga Arr	49.80	123	P	P	16 55 47.5	-3.6
	0.4nm,0.7s,baz=297,slow=8.7,SNR=2.9						
ASAR	Alice Springs	51.26	127	P	P	16 56 01.9	-0.2
	0.6nm,0.9s,baz=301,slow=6.2,SNR=4.0						

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*IDC **29** 16:47:46.0±0.6, 3.44N×94.19E, mb4.4/12, mb1 4.6/13, mb1mx4.5/18, mbtmp4.4/13, ML5.2/1, Error ellipse: s-maj=29.9km s-min=14.9km az=52.0*

*BJI **29** 16:47:49.5, 3.38N×94.31E, h37^{km}, mB5.1, mb4.9, Ms4.8, Msz4.4*

*NEIC **29** 16:47:50.8±0.5, 3.49N×94.29E, h30^{km}, mb4.7/11, Error ellipse: s-maj=17.5km s-min=10.2km az=90.0*

ISC 29 16:47:46.3±3.0, 3.44N±0.06×94.29E±0.07, h11^{km}±18^{km}, n52, σ0^{s}93/52, mb4.7/39, MS4.2/2, 1C-1D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	7.31	59	P	Pn	16 49 36.0	+0.3
	336nm,1.0s						
CM31	Chiang Mai Arr	15.60	17	*e*P	P	16 51 27.4	-0.7
	27nm,0.6s						
CMAR	Chiang Mai Arr	15.60	17	Pn	P	16 51 28.6	+0.6
	3.2nm,0.3s,baz=213,slow=12,SNR=83						
UBT	Ubonrachathani	15.79	41	⇓P	P	16 51 36.5	+6.0
NANT	Nan	16.50	22	P	P	16 51 40.6	+1.0
SHL	Shillong	22.12	354	*e*P	P	16 52 42.0	-1.6
KMI	Kunming	23.04	20	P	P	16 52 55.0	+2.2
KMI				AMB	AMB		
	comp=Z,21nm,1.3s,mb4.4						
KMI				AMB	AMB		
	comp=Z,214nm,4.6s						
KMI				LR	LR		
	comp=N,1μm,13.8s,MS4.5						
KMI				LR	LR		
	comp=E,508nm,13.5s,MS4.5						
KMI				LR	LR		
	comp=Z,943nm,12.9s,MS4.4						
PKI	Pulchoki	25.45	341	*e*P	P	16 53 17.3	+1.3
	comp=Z,63nm,1.3s,mb5.0						
DMN	Daman	25.58	341	*e*P	P	16 53 17.0	-0.3
	comp=Z,40nm,1.1s,mb4.9						
GUN	Gumba	25.62	343	*e*P	P	16 53 18.3	+0.6
	comp=Z,83nm,1.0s,mb5.2						
KKN	Kakani	25.69	341	*e*P	P	16 53 18.6	+0.3
	comp=Z,39nm,1.0s,mb4.9						
GYA	Guiyang	25.78	26	⇑*i*P	P	16 53 19.3	+0.2
GYA				AMB	AMB		

	comp=Z,10.0nm,1.0s,mb4.3						
GKN	Gorkha	26.10	340	*e*P	P	16 53 22.1	0.0
	comp=Z,93nm,1.3s,mb5.2						
KOLN	Koldanda	26.26	338	*e*P	P	16 53 23.6	0.0
	comp=Z,33nm,1.1s,mb4.8						
XAN	Xi’an	33.36	22	P	P	16 54 25.0	-1.8
XAN				AMB	AMB		
	comp=Z,36nm,0.9s,mb5.3						
LZH	Lanzhou	33.66	14	*e*P	P	16 54 28.0	-1.4
LZH				AMB	AMB		
	comp=Z,20nm,1.1s,mb5.0						
GTA	Gaotai	36.15	7	P	P	16 54 50.3	-0.4
GTA				AP	pP	16 54 59.5	+5.6
GTA				XP	sP	16 55 04.0	+8.8
GTA				AMB	AMB		
	comp=Z,28nm,0.9s,mb5.2						
HHC	Hu-ho-hao-te	40.36	20	*e*P	P	16 55 26.0	+0.1
HHC				XP	sP	16 55 36.5	+6.1
HHC				S	S	17 01 34.5	+1.0
HHC				XS		17 01 51.5	
HHC				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.5						
HHC				AMB	AMB		
	comp=Z,167nm,5.1s						
WMQ	Urumqi	40.63	353	P	P	16 55 29.3	+1.3
WMQ				AMB	AMB		
	comp=Z,5.0nm,1.0s,mb4.1						
BJI	Beijing	41.47	26	P	P	16 55 36.0	+1.1
BJI				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.8						
BJI				LR	LR		
	comp=Z,181nm,19.4s,MS4.0						
SONM	Songino Array	45.44	11	P	P	16 56 07.4	+0.3
	comp=Z,8.9nm,0.8s,mb4.6,baz=194,slow=8.5,SNR=25						
ULN	Ulaanbaatar	45.60	12	*e*P	P	16 56 08.0	-0.3
	comp=Z,1.5nm,0.6s,mb4.1						
WRA	Warramunga Arr	45.68	122	P	P	16 56 09.6	+0.2
	comp=Z,9.6nm,0.7s,mb4.9,baz=301,slow=9.0,SNR=28						
WRAB	Tennant Creek	45.69	122	*e*P	P	16 56 09.3	-0.1
	comp=Z,23nm,0.9s,mb5.1						
ASAR	Alice Springs	47.06	127	P	P	16 56 19.9	-0.3
	comp=Z,5.6nm,0.6s,mb4.7,baz=295,slow=7.4,SNR=36						
ASAR				PcP	PcP	16 57 52.5	-0.3
	comp=Z,1.4nm,0.8s,baz=307,slow=3.9,SNR=4.1						
TLY	Talaya	48.71	8	*e*P	P	16 56 33.4	+0.7
	comp=Z,14nm,1.1s,mb4.9						
ZAL	Zalesovo	50.93	353	P	P	16 56 49.1	-0.6
	comp=Z,2.6nm,0.4s,mb4.5,baz=216,slow=4.9,SNR=7.0						
RDF	Al-Radifah	51.07	305	*e*P	P	16 56 52.2	+1.1
RDF				AMb	AMB	16 57 05.0	
	comp=Z,56nm,1.3s,mb5.3						
NAY	Al-Naaiem	51.44	305	*e*P	P	16 56 54.4	+0.5
NAY				AMb	AMB	16 57 05.4	
	comp=Z,29nm,1.1s,mb5.1						
MIB	Mutribah	51.56	306	*e*P	P	16 56 55.2	+0.4
MIB				AMb	AMB	16 57 06.2	
	comp=Z,78nm,0.8s,mb5.7						
BVAR	Borovoye Array	53.22	342	P	P	16 57 06.2	-0.8
	comp=Z,2.3nm,0.6s,mb4.3,baz=141,slow=9.5,SNR=13						
BRVK	Borovoye	53.28	342	*e*P	P	16 57 06.4	-0.9
	comp=Z,1.8nm,0.7s,mb4.1						
CHKZ	Chkalovo	53.71	343	*e*P	P	16 57 09.4	-1.1
	comp=Z,3.6nm,0.4s,mb4.7						
STKA	Stephens Creek	57.01	132	P	P	16 57 33.9	-0.8
	comp=Z,2.9nm,0.7s,mb4.4,baz=303,slow=8.6,SNR=7.7						
STKA	Stephens Creek	57.01	132	*e*P	P	16 57 34.0	-0.8
KMBO	Kilima Mbogo	57.19	266	P	P	16 57 36.0	-0.3
	comp=Z,2.3nm,0.6s,mb4.4,baz=45,slow=22,SNR=5.3						
UMJS	Umm Lajj	58.80	297	P	P	16 57 48.6	+1.2
TBKS	Tabuk	60.12	301	P	P	16 57 57.7	+1.2
AYUS	‘Aynunah	61.21	300	P	P	16 58 04.4	+0.5
HAQS	Haql	61.69	301	P	P	16 58 07.5	+0.4
YAK	Yakutsk	64.14	18	*e*P	P	16 58 21.7	-1.1
	comp=Z,18nm,0.7s,mb5.2						
BRTR	Keskin Array B	65.46	312	P	P	16 58 29.8	-2.1
	comp=Z,1.4nm,0.8s,mb4.0,baz=124,slow=8.9,SNR=6.7						
AKASG	Malin Array Be	71.72	323	P	P	16 59 08.3	-2.2
	comp=Z,0.5nm,0.4s,mb3.8,baz=88,slow=5.8,SNR=4.3						
LBTB	Lobatse	72.30	243	*e*P	P	16 59 14.2	-0.2
	comp=Z,11nm,0.9s,mb4.8						
BOSA	Boshof	73.40	239	*e*P	P	16 59 20.4	-0.5
	comp=Z,4.7nm,0.7s,mb4.5						
FINES	FINESS Array B	76.68	333	P	P	16 59 38.0	-0.9
	comp=Z,3.7nm,0.9s,mb4.3,baz=90,slow=7.6,SNR=6.1						
ARCES	ARCESS Array B	79.46	341	P	P	16 59 53.8	-0.3
	comp=Z,8.0nm,1.1s,mb4.5,baz=326,slow=4.4,SNR=3.6						
GERES	GERESS Array B	81.22	319	P	P	17 00 04.4	+0.6
	comp=Z,2.9nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=16						
VNDA	Vanda	88.59	168	P	P	17 00 41.1	+1.0
	comp=Z,1.2nm,0.7s,mb4.3,baz=291,slow=7.3,SNR=6.6						
VNDA	Vanda	88.59	168	*e*P	P	17 00 40.1	0.0
	comp=Z,1.6nm,0.9s,mb4.3						
SBA	Scott Base	89.69	168	*e*P	P	17 00 47.0	+1.6
	comp=Z,7.5nm,1.1s,mb4.9						
NVAR	Mina Array Bea	128.58	33	PKP	PKPdf	17 06 56.4	-1.0
	comp=Z,0.2nm,0.5s,baz=207,slow=0.9,SNR=3.7						

IDC 29 16:54:46.0±10.0**,2.95N**×**92.79E,mb3.7**/2**,mb1 3.9**/3**, mb1mx3.5**/18**,mbtmp3.7**/3**,ML4.1**/1**,Error ellipse: s-maj=248.7km s-min=48.2km az=83.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.55	21	Pn	P	16 58 39.7	-1.5
	0.2nm,0.3s,baz=213,slow=12,SNR=9.4						
WRA	Warramunga Arr	46.70	121	P	P	17 03 16.3	-2.5
	0.9nm,0.7s,baz=301,slow=8.9,SNR=5.7						
ASAR	Alice Springs	47.97	126	P	P	17 03 27.4	-1.4
	0.6nm,0.6s,baz=293,slow=7.9,SNR=8.9						

IDC 29 16:56:14.7±1.5**,6.61N**×**93.60E,mb3.7**/3**,mb1 4.0**/4**, mb1mx3.6**/18**,mbtmp3.6**/4**,ML3.8**/1**,Error ellipse: s-maj=63.7km s-min=27.7km az=49.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.88	23	Pn	P	16 59 18.9	-3.0
	0.2nm,0.3s,baz=230,slow=14,SNR=7.6						
WRA	Warramunga Arr	47.98	124	P	P	17 04 55.7	-1.9
	0.5nm,0.6s,baz=299,slow=9.8,SNR=7.9						
ASAR	Alice Springs	49.53	129	P	P	17 05 07.5	-1.9
	0.6nm,0.7s,baz=306,slow=7.8,SNR=6.5						
GERES	GERESS Array B	78.41	318	P	P	17 08 17.5	-1.4
	1.0nm,0.7s,baz=76,slow=5.5,SNR=8.4						

*NEIC **29** 17:04:14.8±0.6,7.77N×94.67E,mb4.8/20,Error ellipse: s-maj=15.7km s-min=11.0km az=115.0*

*IDC **29** 17:04:15.3±0.6,7.52N×94.08E,h18^{km}±2^{km},mb4.2/15, mb1 4.4/16,mb1mx4.3/22,mbtmp4.3/16,ML4.5/1,Error ellipse: s-maj=25.3km s-min=12.1km az=50.0*

*BJI **29** 17:04:18.3,7.69N×93.74E,h32^{km},mB5.0,mb4.7,Ms4.6, Msz4.3*

ISC 29 17:04:13.7±0.4**,7.64N**±0.07×**94.34E**±0.09**,h19**^{km}**, h19**^{km}±.4^{km}**:pP-P,n55,**σ**1**^{s}**14**/50**,mb4.7**/45**,MS4.3**/1**,1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.65	22	P	P	17 06 57.1	-5.1
	3.8nm,0.4s						
CMAR	Chiang Mai Arr	11.65	22	Pn	P	17 07 04.2	+2.0
	1.0nm,0.3s,baz=212,slow=14,SNR=13						
KMI	Kunming	19.15	24	P	P	17 08 44.0	+5.3
KMI				AMB	AMB		
	comp=Z,11nm,1.9s						
KMI				AMB	AMB		
	comp=Z,312nm,5.2s						
PKI	Pulchoki	21.56	338	*e*P	P	17 09 05.4	+1.2
	comp=Z,78nm,1.0s,mb5.1						
GUN	Gumba	21.70	339	*e*P	P	17 09 05.9	+0.3
	comp=Z,87nm,0.8s,mb5.2						
DMN	Daman	21.70	337	*e*P	P	17 09 06.2	+0.5
	comp=Z,71nm,0.8s,mb5.2						
KKN	Kakani	21.80	338	*e*P	P	17 09 06.9	+0.2
	comp=Z,59nm,0.8s,mb5.1						
GYA	Guiyang	22.09	31	⇑*i*P	P	17 09 14.8	+5.3
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.4						
LSA	Lhasa	22.15	353	*e*P	P	17 09 10.0	-0.1
	comp=Z,43nm,0.7s,mb5.0						
LSA				*e*pP		17 09 19.5	
GKN	Gorkha	22.24	337	*e*P	P	17 09 09.7	-1.3
	comp=Z,73nm,0.9s,mb5.1						
KOLN	Koldanda	22.46	334	*e*P	P	17 09 13.1	-0.1
	comp=Z,52nm,0.7s,mb5.1						
CD2	Chengdu	24.77	20	P	P	17 09 41.0	+5.2
GTA	Gaotai	32.02	8	P	P	17 10 43.0	+1.8
GTA				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.4						
HHC	Hu-ho-hao-te	36.46	22	*e*P	P	17 11 24.8	+5.4
HHC				PP	PP	17 12 47.8	+4.3
HHC				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,186nm,7.0s						
HHC				LR	LR		
	comp=N,301nm,16.7s						
HHC				LR	LR		
	comp=E,747nm,22.6s						
HHC				LR	LR		
	comp=Z,451nm,16.7s,MS4.3						
WMQ	Urumqi	36.51	352	*e*P	P	17 11 21.0	+1.2
WMQ				AMB	AMB		
	comp=Z,16nm,0.9s,mb4.8						
AAK	Ala-Archa	39.00	337	*e*P	P	17 11 40.7	0.0
	comp=Z,6.6nm,0.9s,mb4.4						
SONM	Songino Array	41.35	12	P	P	17 12 01.6	+1.6
	comp=Z,6.1nm,0.9s,mb4.2,baz=198,slow=7.8,SNR=13						
SONM				pP	pP	17 12 07.3	+1.5
	comp=Z,6.2nm,0.9s,baz=198,slow=8.7,SNR=20						
SONM				PcP	PcP	17 13 59.8	+0.9
	comp=Z,1.6nm,0.7s,baz=193,slow=4.2,SNR=5.8						
SONM				pPcP		17 14 06.1	
	comp=Z,2.1nm,0.7s,baz=201,slow=4.1,SNR=7.8						
ULN	Ulaanbaatar	41.52	13	*e*P	P	17 12 00.5	-0.9
	comp=Z,3.3nm,0.8s,mb4.0						
NWAO	Narrogin (SRO)	45.85	153	P	P	17 12 36.5	-0.1
	comp=Z,11nm,1.0s,mb4.7,baz=217,slow=5.1,SNR=3.1						
HIA	Hailar	46.66	23	P	P	17 12 38.4	-4.5
	comp=Z,4.6nm,0.8s,mb4.5						
ZAL	Zalesovo	46.81	352	P	P	17 12 43.5	-0.5
	comp=Z,3.3nm,0.9s,mb4.3,baz=215,slow=7.0,SNR=15						
ZAL				pP	pP	17 12 50.0	+0.2
	comp=Z,8.3nm,0.7s,baz=211,slow=6.2,SNR=11						
WRA	Warramunga Arr	47.96	125	P	P	17 12 53.5	0.0
	comp=Z,1.7nm,0.6s,mb4.2,baz=304,slow=8.5,SNR=12						
WRA				pP	pP	17 12 59.8	+0.4
	comp=Z,3.6nm,0.8s,baz=304,slow=9.2,SNR=9.0						
WRAB	Tennant Creek	47.97	125	*e*P	P	17 12 51.7	-1.9
	comp=Z,3.7nm,0.8s,mb4.5						
BVAR	Borovoye Array	49.28	341	P	P	17 13 02.6	-0.6
	comp=Z,4.4nm,0.7s,mb4.6,baz=149,slow=8.6,SNR=15						
BVAR				pP	pP	17 13 08.6	-0.5
	comp=Z,6.2nm,0.8s,baz=149,slow=8.4,SNR=18						
BVAR				PcP	PcP	17 14 26.8	+0.5
	comp=Z,2.4nm,0.8s,baz=135,slow=8.4,SNR=4.7						
BVAR				pPcP		17 14 32.5	
	comp=Z,3.5nm,0.7s,baz=135,slow=6.3,SNR=7.7						
BRVK	Borovoye	49.34	341	*e*P	P	17 13 02.5	-1.2
	comp=Z,12nm,1.1s,mb4.8						
ASAR	Alice Springs	49.61	130	P	P	17 13 05.7	-0.6
	comp=Z,2.0nm,0.7s,mb4.3,baz=302,slow=6.7,SNR=16						
ASAR				PcP	PcP	17 14 28.0	+0.1
	comp=Z,2.2nm,0.8s,baz=301,slow=4.1,SNR=8.5						
ASAR				pPcP		17 14 34.9	
	comp=Z,1.7nm,0.7s,baz=305,slow=3.7,SNR=5.3						
CHKZ	Chkalovo	49.76	342	*e*P	P	17 13 06.0	-0.9
	comp=Z,26nm,0.8s,mb5.3						
GNI	Garni	54.74	314	*e*P	P	17 13 45.6	+1.2
	comp=Z,9.9nm,0.9s,mb4.8						
PMG	Port Moresby	55.27	107	P	P	17 13 50.0	+1.3
	comp=Z,5.8nm,1.0s,mb4.6,baz=301,slow=12,SNR=3.7						
KMBO	Kilima Mbogo	57.59	264	*e*P	P	17 14 07.6	+2.3
	comp=Z,10nm,1.1s,mb4.8						
YAK	Yakutsk	60.16	18	P	P	17 14 20.8	-1.5
	comp=Z,14nm,0.8s,mb5.0						
BRTR	Keskin Array B	62.73	311	P	P	17 14 38.1	-1.9
	comp=Z,1.6nm,0.7s,mb4.3,baz=127,slow=7.3,SNR=9.8						
BRTR				pP	pP	17 14 44.1	-1.9
	comp=Z,3.1nm,0.6s,baz=128,slow=6.6,SNR=12						
OBN	Obninsk	65.68	328	*e*P	P	17 14 58.1	-1.0
	comp=Z,13nm,0.6s,mb5.2						
AKASG	Malin Array Be	68.46	322	P	P	17 15 12.5	-4.2
	comp=Z,1.8nm,0.6s,mb4.3,baz=88,slow=5.2,SNR=8.0						
IDI	Anoyia	68.86	305	P	P	17 15 17.6	-1.9
	comp=Z,11nm,0.9s,mb4.8,baz=27,slow=14,SNR=4.5						
MLR	Muntele Rosu	69.48	316	P	P	17 15 21.9	-1.2
	comp=Z,3.6nm,0.7s,mb4.4,baz=142,slow=19,SNR=4.4						
KWP	Kalwaria	72.34	320	*e*P	P	17 15 39.9	-0.3
	comp=Z,8.7nm,0.9s,mb4.7						
SUW	Suwalki	72.81	324	*e*P	P	17 15 41.4	-1.5
	comp=Z,24nm,0.8s,mb5.2						
FINES	FINESS Array B	73.01	332	P	P	17 15 43.0	-0.9
	comp=Z,4.0nm,0.7s,mb4.5,baz=104,slow=7.9,SNR=13						
FINES				pP	pP	17 15 49.6	-0.3
	comp=Z,6.5nm,0.7s,baz=88,slow=6.1,SNR=9.3						
KAF	Kangasniemi	73.09	333	*e*p	P	17 15 43.8	-0.6
	comp=Z,6.9nm,0.8s,mb4.6						
LBTB	Lobatse	74.30	241	*e*P	P	17 15 54.2	+2.0
	comp=Z,9.8nm,1.0s,mb4.7						
LBTB				*e*pP	pP	17 15 59.7	+1.4
ARCES	ARCESS Array B	75.55	340	P	P	17 15 58.8	+0.3
	comp=Z,5.5nm,0.9s,mb4.5,baz=108,slow=5.7,SNR=4.4						
ARCES				pP	pP	17 16 04.9	+0.4
	comp=Z,3.6nm,0.8s,baz=90,slow=4.9,SNR=2.2						
BOSA	Boshof	75.62	238	*e*P	P	17 16 01.1	+1.3
	comp=Z,6.0nm,0.7s,mb4.6						
BOSA				*e*pP	pP	17 16 06.8	+1.0
BRG	Berggiesshubel	78.06	320	P	P	17 16 13.8	+1.0
	comp=Z,5.3nm,1.4s,mb4.3						
GERES	GERESS Array B	78.13	318	P	P	17 16 13.6	+0.3
	comp=Z,1.8nm,0.7s,mb4.1,baz=90,slow=5.3,SNR=14						
GERES				pP	pP	17 16 19.5	+0.1
	comp=Z,3.5nm,0.7s,baz=90,slow=6.3,SNR=12						
NB2	NORSAR Subarra	80.03	331	P	P	17 16 22.5	-0.8
	comp=Z,6.3nm,0.7s,mb4.7,baz=96,slow=5.0						
NOA	NORSAR Array B	80.03	331	P	P	17 16 23.3	0.0
	comp=Z,3.2nm,0.8s,mb4.3,baz=95,slow=5.3,SNR=9.6						
NOA				pP	pP	17 16 29.4	0.0
	comp=Z,4.9nm,0.6s,baz=95,slow=4.9,SNR=9.5						
SUR	Sutherland	80.36	235	*e*P	P	17 16 20.5	-5.2
	comp=Z,25nm,1.3s,mb5.0						
LPG	La Plagne	82.92	315	*e*P	P	17 16 39.5	+0.7
	comp=Z,36nm,1.0s,mb5.1						
ESDC	Sonseca Array	91.52	310	P	P	17 17 22.1	+1.4
	comp=Z,0.9nm,0.6s,mb4.3,baz=59,slow=4.3,SNR=4.8						
ESDC				pP	pP	17 17 27.6	+0.8
	comp=Z,2.1nm,0.6s,baz=52,slow=4.3,SNR=5.8						
ULM	Lac du Bonnet	121.67	8	PKP	PKPdf	17 23 08.7	-1.9
	comp=Z,2.4nm,0.7s,baz=12,slow=2.1,SNR=3.1						
NVAR	Mina Array Bea	125.02	31	PKP	PKPdf	17 23 16.6	-0.8
	comp=Z,0.5nm,0.5s,baz=162,slow=0.5,SNR=5.4						
NVAR				pPKP		17 23 22.8	
	comp=Z,1.1nm,0.7s,baz=280,slow=2.3,SNR=6.7						
PDAR	Pinedale Array	125.31	21	PKP	PKPdf	17 23 15.9	-1.9
	comp=Z,0.8nm,0.9s,slow=1.5,SNR=5.6						
PDAR				pPKP		17 23 22.2	
	comp=Z,1.3nm,0.8s,baz=355,slow=2.2,SNR=8.8						
BDFB	Brasilia	142.33	254	PKP	PKPdf	17 23 48.7	-1.5
	comp=Z,2.5nm,0.6s,baz=187,slow=5.5,SNR=5.1						
LPAZ	La Paz	160.83	242	PKP	PKPdf	17 24 16.3	-0.9
	comp=Z,0.3nm,0.4s,baz=284,slow=8.3,SNR=2.7						

DJA 29 17:05:11.0±0.9**,8.74S**×**116.34E,h106**^{km}±5^{km}**,MD4.7**/4**, ML3.7**/2**,4C-5D,Error ellipse: s-maj=35.1km s-min=14.6km az=177.0,Sumbawa region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
KEDI	Kedomdong	0.34	319	⇑*e*Pn	P	17 05 26.2	-0.4
	26nm,0.2s						
KEDI				⇑*i*Sn	S	17 05 37.2	-1.0
RATI	Rata	0.80	271	⇓*i*Pn	P	17 05 30.0	-0.1
	57nm,0.2s						
RATI	Rata	0.80	271	⇓*i*P	P	17 05 30.6	+0.5
RATI				⇑*i*Sn	S	17 05 44.1	-0.2
KELI	Kelakatan	1.90	286	⇑*i*Pn	P	17 05 43.3	+0.3
	34nm,0.9s						
KELI				⇓*i*Sn	S	17 06 05.6	-1.2
SRDI	Scrawed	2.19	277	⇓*i*Pn	P	17 05 45.7	-1.1
	62nm,0.8s						
SRDI				⇓*i*Sn	S	17 06 11.7	-1.8

*THR **29** 17:08:08.7±0.4,28.51N×51.17E,h14^{km}±7^{km},ML3.6*

*CSEM **29** 17:08:08.7,28.51N×51.17E,h14^{km},ML3.6,After THR*

*IDC **29** 17:08:19.0±6.5,29.69N×51.38E,mb3.9/3,mb1 3.9/4, mb1mx3.5/20,mbtmp3.8/4,ML3.2/1,Error ellipse: s-maj=129.3km s-min=50.6km az=179.0*

ISC 29 17:08:10.2±1.4**,28.61N**±0.08×**51.34E**±0.05**,h10**^{km}±12^{km}**, n15,**σ**0**^{s}**97**/20**,mb3.7**/3**,Southern Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
GHIR	Ghir-Karzin	1.49	102	*e*PG	Pg	17 08 38.3	-1.6
GHIR				*e*SG	Sg	17 09 00.0	+0.2
GHIR				AMP		17 09 02.7	
	comp=E,819nm,0.6s						
GHIR				AMP		17 09 02.8	
	comp=N,1μm,0.6s						
GHIR	Ghir-Karzin	1.49	102	*e*Pg	Pg	17 08 38.3	-1.7
GHIR				*e*Sg	Sg	17 09 00.0	+0.2
	comp=N,1μm,0.6s						
HASS	Wahat al Ahsa’	3.71	204	P	Pg	17 09 25.8	+1.6
NASN	Na’in	4.37	16	*e*PN	Pn	17 09 18.7	+0.5
KRBR	Kerman	4.93	73	*e*PN	Pn	17 09 27.1	+0.9
KRBR				SN	Sn	17 10 24.5	+0.4
KRBR				AMP		17 10 28.1	
	comp=E,25nm,0.6s						
KRBR				AMP		17 10 34.4	
	comp=N,20nm,0.4s						
KRBR	Kerman	4.93	73	*e*Pn	Pn	17 09 27.1	+0.9
KRBR				Sn	Sn	17 10 24.5	+0.5
	comp=N,20nm,0.4s						
ASAO	Ashtian	6.03	350	*e*PN	Pn	17 09 41.1	-0.6
MZLS	Mizel	7.14	232	P	Pn	17 09 57.2	-0.2
ARSS	Ar Rass	7.70	251	P	Pn	17 10 04.0	-1.2
HILS	Ha’il	8.53	264	P	P	17 10 17.4	+0.7
HILS				S	Sn	17 12 01.5	+7.6
AFFS	‘Afif	8.81	240	P	P	17 10 19.8	-0.9
BRTR	Keskin Array B	18.34	312	P	P	17 12 27.9	+1.6
	comp=N,0.1nm,0.3s,baz=122,slow=14,SNR=4.5						
BVAR	Borovoye Array	28.16	25	P	P	17 14 04.2	-0.4
	comp=N,1.5nm,0.4s,mb4.0,baz=224,slow=8.9,SNR=10.0						
FINES	FINESS Array B	36.89	340	P	P	17 15 19.6	-1.0
	comp=N,1.3nm,0.7s,mb3.9,baz=135,slow=8.1,SNR=7.2						
YKA	Yellowknife Ar	88.52	354	P	P	17 21 08.1	+4.4
	comp=N,0.1nm,0.6s,mb3.4,baz=10,slow=4.6,SNR=4.3						

*BJI **29** 17:12:29.9,9.66N×93.54E,h29^{km},mB5.3,mb5.0,Ms4.9, Msz4.5*

*IDC **29** 17:12:32.1±0.4,10.32N×93.72E,mb4.6/21,mb1 4.7/21, mb1mx4.7/23,mbtmp4.6/21,MS4.5/16,Ms1 4.5/16, ms1mx4.3/21,Error ellipse: s-maj=22.3km s-min=11.5km az=45.0*

*CSEM **29** 17:12:35.9,10.49N×93.94E,h33^{km},mb5.5*

*MOS **29** 17:12:35.8±1.0,10.44N×93.79E,h33^{km},mb5.4/50, MS4.8/11,Error ellipse: s-maj=11.9km s-min=5.8km az=123.6*

*NEIC **29** 17:12:36.9±0.3,10.33N×93.69E,mb5.1/46,Error ellipse: s-maj=9.1km s-min=7.9km az=167.0*

*HRVD **29** 17:12:36.9±0.2,10.32N×93.91E,h12^{km},MW5.2/61, Centroid moment Tensor Solution. LP body waves: s46,c74;Mantle waves: s61,c121; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.81±.02; $M_{\theta\theta}$0.68±.01; $M_{\phi\phi}$0.14±.02; $M_{r\theta}$0.26±.05; $M_{\theta\phi}$0.27±.01; $M_{\phi r}$-0.17±.05; Best double couple: M_0.86×10^{17} NP1:ϕ_s53°, δ41°,λ-113°. NP2:ϕ_s263°,δ53°,λ-71°. Principal axes: T .81, Plg7°, Azm340°; N .09, Plg15°, Azm72°; P -.9, Plg74°, Azm226°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 29 17:12:33.9±0.3**,10.22N**±0.04×**93.80E**±0.03**,h25**^{km}**, h25**^{km}±1.1^{km}**:pP-P,n253,**σ**1**^{s}**09**/260**,mb5.0**/84**,MS4.6**/35**, 12C-13D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
NST	Nakhon Sawan	8.21	48	P	P	17 14 34.0	-0.6
CM31	Chiang Mai Arr	9.59	31	*e*P	P	17 14 54.5	+0.8
	19nm,0.8s						
CMAR	Chiang Mai Arr	9.59	31	Pn	P	17 14 53.6	0.0
	0.4nm,0.3s,baz=220,slow=15,SNR=23						
CMAR				LR	LR	17 18 55.3	
	comp=Z,2μm,18.7s,baz=210,slow=40						
KKTK	Khon Kaen	10.68	54	P	P	17 15 09.5	+0.8
NANT	Nan	10.83	37	P	P	17 15 18.5	+7.7
CHRT	Chiangrai	11.20	30	⇑P	P	17 15 19.0	+3.2
	221nm,1.0s						
VIS	Vishakhapatnam	12.60	307	*e*P	P	17 15 34.5	-0.2
VIS				*e*S	S	17 17 42.5	-13
BWNR	Bhubaneshwar	12.64	323	*e*P	P	17 15 26.4	-8.8
BWNR				*e*		17 15 29.3	
	comp=Z,466nm,1.0s						
BWNR				*e*S	x	17 17 36.9	
BWNR				*e*	S	17 17 40.6	-16
	comp=E,270nm,0.9s						
BWNR				*e*		17 17 40.8	
	comp=N,95nm,0.9s						
PALK	Pallekele	13.27	258	*e*P	P	17 15 41.9	-1.6
AGT	Agartala	13.81	350	*e*	P	17 15 57.0	+6.3
SHL	Shillong	15.38	353	*e*P	P	17 16 14.0	+2.8
SHL				⇑*e*P		17 16 14.4	
SHL				*e*S	S	17 19 03.0	+1.8
KOD	Kodaikanal	16.08	272	*e*P	P	17 16 23.5	+3.3
KOD				⇓*i*P		17 16 24.0	
KOD				*e*	Sx	17 19 34.6	
HYB	Hyderabad	16.44	297	*e*P	P	17 16 24.0	-0.8
HYB				pmax	pmax		
	comp=Z,80nm,1.0s						
HYB	Hyderabad	16.44	297	*e*P	P	17 16 24.0	-0.8
	comp=Z,80nm,1.0s						
HYB	Hyderabad	16.44	297	*i* P	P	17 16 24.0	-0.8
	comp=Z,80nm,1.0s						
HYB				*e*		17 19 08.0	
HYB				*e*S	S	17 19 27.0	+1.1
KMI	Kunming	17.09	29	⇑P	P	17 16 39.0	+6.1
KMI				AP		17 16 46.3	
KMI				XP		17 16 48.5	
KMI				PP	PP	17 16 54.0	+6.8
KMI				S	S	17 19 45.3	+4.6
KMI				AMB	AMB		
	comp=Z,38nm,1.9s						
KMI				AMB	AMB		
	comp=Z,782nm,5.8s						
KMI				LR	LR		
	comp=N,2μm,17.2s						
KMI				LR	LR		
	comp=E,2μm,17.2s						
KMI				LR	LR		
	comp=Z,2μm,19.9s						
NGP	Nagpur	17.87	309	⇑*e*P	P	17 16 44.7	+2.0
	comp=Z,73nm,0.8s						
NGP				*e*	S	17 19 48.5	-10
MNGI	Mangalore	18.79	280	*e*P	P	17 16 55.3	+1.2
PKI	Pulchoki	18.99	337	*e*P	P	17 16 56.5	+0.1
	comp=Z,321nm,1.2s						
GUN	Gumba	19.11	338	*e*P	P	17 16 58.3	+0.4
	comp=Z,1μm,1.9s						
DMN	Daman	19.14	336	*e*P	P	17 16 58.6	+0.4
	comp=Z,511nm,1.6s						
AKL	Akola	19.23	305	⇑*e*P	P	17 17 02.6	+3.4
AKL				*e*		17 17 07.7	
	comp=Z,156nm,1.5s						
AKL				*e*S	S	17 20 37.1	+7.8
KKN	Kakani	19.23	337	*e*P	P	17 16 58.8	-0.5
	comp=Z,56nm,0.7s						
LSA	Lhasa	19.54	353	*e*P	P	17 17 01.6	-1.2
LSA				pmax	pmax		
	comp=Z,75nm,1.1s						
LSA	Lhasa	19.54	353	*e*P	P	17 17 01.6	-1.2
	comp=Z,75nm,1.1s						
GKN	Gorkha	19.68	335	*e*P	P	17 17 04.0	-0.4
	comp=Z,367nm,1.3s						
KOLN	Koldanda	19.93	333	*e*P	P	17 17 06.9	-0.2
	comp=Z,94nm,0.8s						
GOA	Goa	20.16	287	⇓*e*P	P	17 17 13.2	+3.6
GOA				*e*S	S	17 20 55.6	+6.2
GYA	Guiyang	20.22	35	⇑*i*P	P	17 17 12.5	+2.4
GYA				AP		17 17 21.5	
GYA				XP		17 17 25.8	
GYA				S	S	17 21 04.0	+13
GYA				AMB	AMB		
	comp=Z,20nm,1.1s						
GYA				LR	LR		
	comp=N,1μm,18.9s,MS4.4						
GYA				LR	LR		
	comp=E,720nm,15.3s,MS4.4						
GYA				LR	LR		

	comp=Z,1µm,18.6s,MS4.2						
KAD	**Karad**	**20.30**	**292**	⇓*e*P	**P**	**17 17 13.3**	**+2.3**
KAD				*e*		17 17 16.7	
	comp=Z,142nm,1.6s						
BHPL	**Bhopal**	**20.31**	**312**	⇓*e*P	**P**	**17 17 14.6**	**+3.6**
BHPL				*e*		17 17 22.4	
	comp=Z,89nm,1.5s						
POO	**Poona**	**21.00**	**295**	⇓*e*P	**P**	**17 17 21.8**	**+3.6**
POO				*e*		17 17 24.4	
	comp=Z,117nm,1.0s						
BOM	**Bombay**	**22.05**	**295**	*e*P	**P**	**17 17 30.4**	**+1.6**
CD2	**Chengdu**	**22.58**	**23**	P	**P**	**17 17 35.0**	**+1.0**
CD2				PP	PP	17 18 04.0	+1.8
CD2				PPP	PPP	17 18 14.5	+2.3
CD2				S	**S**	**17 21 40.8**	**+5.6**
CD2				SS	SS	17 22 25.3	+7.8
CD2				AMB	AMB		
	comp=Z,50nm,0.5s,mb5.2						
CD2				AMB	AMB		
	comp=Z,400nm,4.7s						
CD2				LR	LR		
	comp=N,1µm,17.4s						
CD2				LR	LR		
	comp=Z,1µm,19.2s,MS4.3						
PTH	**Pithoragarh**	**23.05**	**328**	*e*	**P**	**17 17 39.1**	**+0.5**
PTH				*e*	**S**	**17 21 48.2**	**+4.6**
NDI	**New Delhi**	**24.07**	**322**	⇑*e*P	**P**	**17 17 49.1**	**+0.5**
NDI				*e*		17 17 51.5	
	comp=Z,23nm,0.5s						
NDI				*e*	**S**	**17 22 01.6**	**+0.3**
ENH	**Enshi**	**24.74**	**34**	*e*P	**P**	**17 17 55.2**	**+0.3**
	comp=Z,34nm,0.8s,mb4.9						
DDI	**Dehra Dun**	**24.81**	**326**	*e*	**P**	**17 17 50.9**	**-4.8**
DDI				*e*	**S**	**17 22 15.5**	**+1.6**
LZH	**Lanzhou**	**27.32**	**18**	⇑P	**P**	**17 18 20.0**	**+1.1**
LZH				PP	PP	17 19 11.0	+4.7
LZH				*e*S	**S**	**17 23 03.0**	**+7.7**
LZH				SS	SS	17 24 26.0	+14
LZH				AMB	AMB		
	comp=Z,72nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,302nm,4.5s						
LZH				LR	LR		
	comp=E,2µm,5.2s						
LZH				LR	LR		
	comp=Z,3µm,6.8s						
XAN	**Xi’an**	**27.47**	**28**	P	**P**	**17 18 19.0**	**-1.3**
XAN				AMB	AMB		
	comp=Z,22nm,0.8s,mb4.7						
WHN	**Wuhan**	**27.83**	**40**	*e*P	**P**	**17 18 27.5**	**+3.9**
GTA	**Gaotai**	**29.56**	**9**	P	**P**	**17 18 39.5**	**+0.4**
GTA				AP	pP	17 18 46.5	+0.1
GTA				XP	sP	17 18 50.8	+1.2
GTA				S	**S**	**17 23 41.3**	**+10**
GTA				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.6						
GTA				AMB	AMB		
	comp=Z,237nm,8.4s						
GTA				LR	LR		
	comp=N,603nm,19.4s,MS4.3						
GTA				LR	LR		
	comp=E,528nm,19.8s,MS4.3						
GTA				LR	LR		
	comp=Z,988nm,21.7s,MS4.4						
NJ2	**Nanjing**	**31.76**	**43**	*e*P	**P**	**17 18 58.3**	**-0.2**
NJ2				AP	pP	17 19 05.3	-0.5
NJ2				XP	sP	17 19 12.0	+3.0
NJ2				PP	PP	17 20 01.5	-2.5
NJ2				S	**S**	**17 24 07.0**	**+1.2**
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,940nm,3.9s						
NJ2				LR	LR		
	comp=N,3µm,14.1s,MS5.2						
NJ2				LR	LR		
	comp=E,980nm,13.6s,MS5.2						
NJ2				LR	LR		
	comp=Z,2µm,12.8s,MS5.0						
SSE	**Sheshan**	**32.82**	**47**	P	**P**	**17 19 04.8**	**-3.0**
SSE				S	**S**	**17 24 20.5**	**-2.0**
SSE				XS		17 24 36.5	
SSE				AMB	AMB		
	comp=Z,39nm,0.7s,mb5.5						
SSE				AMB	AMB		
	comp=Z,107nm,4.8s						
SSE				LR	LR		
	comp=N,427nm,17.7s,MS4.3						
SSE				LR	LR		
	comp=E,297nm,17.8s,MS4.3						
SSE				LR	LR		
	comp=Z,255nm,18.4s,MS4.0						
KSH	**Kashi**	**33.22**	**334**	P	**P**	**17 19 11.3**	**+0.1**
KSH				*e*AP	pP	17 19 16.3	-2.2
KSH				*e*XP	sP	17 19 20.0	-1.7
KSH				S	**S**	**17 24 21.0**	**-7.6**
KSH				AMB	AMB		
	comp=Z,270nm,1.9s,mb5.8						
KSH				LR	LR		
	comp=N,540nm,9.1s						
KSH				LR	LR		
	comp=E,500nm,8.4s						
WMQ	**Urumqi**	**33.90**	**352**	P	**P**	**17 19 17.8**	**+0.8**
WMQ				AP	pP	17 19 22.3	-2.0
WMQ				XP	sP	17 19 25.3	-2.2
WMQ				AMB	AMB		
	comp=Z,32nm,0.7s,mb5.4						
HHC	**Hu-ho-hao-te**	**34.32**	**24**	*e*P	**P**	**17 19 21.5**	**+0.8**
HHC				AP	pP	17 19 28.3	+0.3
HHC				XP	sP	17 19 32.0	+0.9
HHC				AMB	AMB		
	comp=Z,27nm,1.5s,mb5.0						
HHC				LR	LR		
	comp=N,377nm,16.7s,MS4.7						
HHC				LR	LR		
	comp=E,1µm,16.6s,MS4.7						
HHC				LR	LR		
	comp=Z,797nm,17.8s,MS4.5						
BJT	**Baijiatuau**	**35.71**	**30**	*e*P	**P**	**17 19 34.6**	**+2.0**
BJT				pmax	pmax		
	comp=Z,12nm,0.8s						
BJT	**Baijiatuau**	**35.71**	**30**	*e*P	**P**	**17 19 34.6**	**+2.0**
	comp=Z,12nm,0.8s,mb4.9						
BJI	**Beijing**	**35.73**	**30**	P	**P**	**17 19 34.0**	**+1.2**
BJI				S	**S**	**17 25 13.5**	**+6.0**
BJI				AMB	AMB		
	comp=Z,14nm,1.3s,mb4.7						
BJI				AMB	AMB		
	comp=Z,525nm,4.8s						
BJI				LR	LR		
	comp=N,637nm,14.6s,MS4.8						
BJI				LR	LR		
	comp=E,978nm,14.6s,MS4.8						
BJI				LR	LR		
	comp=Z,781nm,25.0s						
UCH	**Uchtor**	**36.09**	**335**	P	**P**	**17 19 37.0**	**+1.1**
	SNR=20						
TKM2	**Tokmak 2**	**36.25**	**337**	P	**P**	**17 19 37.4**	**+0.3**
	SNR=20						
KBK	**Karagaybulak**	**36.28**	**336**	P	**P**	**17 19 38.4**	**+1.0**
	SNR=46						
AML	**Almayashu**	**36.35**	**334**	P	**P**	**17 19 39.0**	**+1.0**
	SNR=61						
AAK	**Ala-Archa**	**36.44**	**336**	P	**P**	**17 19 39.7**	**+1.0**
	SNR=37						
AAK	**Ala-Archa**	**36.44**	**336**	*e*P	**P**	**17 19 38.1**	**-0.6**
AAK				pmax	pmax		
	comp=Z,92nm,1.4s,mb5.5						
AAK	**Ala-Archa**	**36.44**	**336**	*e*P	**P**	**17 19 38.1**	**-0.6**
	comp=Z,92nm,1.4s,mb5.5						
JOW	**Kunigami**	**36.47**	**58**	LR	LR	17 37 34.4	
	comp=Z,760nm,18.6s,MS4.5,baz=287,slow=41						
FRU	**Bishkek**	**36.56**	**336**	⇑*i*P	**P**	**17 19 40.5**	**+0.8**
FRU				*i*	pP	17 19 47.0	0.0
FRU				pmax	pmax		
	comp=Z,59nm,1.8s,mb5.1						
CHMS	**Chumysh**	**36.64**	**336**	P	**P**	**17 19 40.4**	**0.0**
	SNR=25						
EKS2	**Erkin-Say**	**36.76**	**335**	P	**P**	**17 19 42.2**	**+0.8**
	SNR=33						
USP	**Ospenovka**	**36.97**	**336**	P	**P**	**17 19 43.4**	**+0.3**
	SNR=61						
SONM	**Songino Array**	**38.97**	**14**	P	**P**	**17 19 59.8**	**-0.2**
	comp=Z,11nm,1.1s,mb4.5,baz=196,slow=9.0,SNR=21						
SONM				PcP	PcP	17 22 11.6	+1.0
	comp=Z,0.8nm,0.7s,baz=180,slow=3.7,SNR=3.7						
SONM				LR	LR	17 37 42.2	
	comp=Z,1µm,19.8s,MS4.7,baz=186,slow=39						
ULN	**Ulaanbaatar**	**39.15**	**14**	*e*P	**P**	**17 20 01.6**	**+0.2**
ULN				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.4						
ULN	**Ulaanbaatar**	**39.15**	**14**	*e*P	**P**	**17 20 01.6**	**+0.2**
	comp=Z,8.6nm,1.1s,mb4.4						
ZAK	**Zakamensk**	**40.80**	**9**	*e*P	**P**	**17 20 14.8**	**-0.2**
SNY	**Shenyang**	**40.92**	**35**	⇑P	**P**	**17 20 17.5**	**+1.4**
SNY				S	**S**	**17 26 31.0**	**+5.0**
SNY				AMB	AMB		
	comp=Z,40nm,1.7s,mb4.8						
SNY				LR	LR		
	comp=E,820nm,12.8s						
SNY				LR	LR		
	comp=Z,570nm,16.7s,MS4.5						
TLY	**Talaya**	**42.12**	**9**	*e*P	**P**	**17 20 26.5**	**+0.7**
TLY				*e*S	**S**	**17 26 41.7**	**-2.0**
TLY				pmax	pmax		
	comp=Z,17nm,1.5s,mb4.5						
TLY				MLR	MLR		
	comp=Z,516nm,21.0s,MS4.4						
CN2	**Changchun**	**43.26**	**34**	⇓P	**P**	**17 20 36.0**	**+0.8**
ZAL	**Zalesovo**	**44.20**	**352**	P	**P**	**17 20 41.8**	**-0.9**
	comp=Z,22nm,0.5s,mb5.1,baz=213,slow=7.9,SNR=47						
ZAL				LR	LR	17 43 28.9	
	comp=Z,620nm,21.3s,MS4.5,baz=199,slow=42						
HIA	**Hailar**	**44.52**	**24**	*e*P	**P**	**17 20 45.4**	**0.0**
HIA				pmax	pmax		
	comp=Z,72nm,1.8s						
HIA	**Hailar**	**44.52**	**24**	*e*P	**P**	**17 20 45.4**	**0.0**
	comp=Z,72nm,1.8s,mb5.2						
NVS	**Novosibirsk**	**45.29**	**351**	*e*P	**P**	**17 20 50.0**	**-1.4**
NVS				*e*		17 22 39.6	
NVS				*e*		17 27 22.9	
NVS				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.1						
NVS				pmax	pmax		
	comp=N,38nm,1.4s						
NVS				pmax	pmax		
	comp=E,17nm,1.3s						
BVAR	**Borovoye Array**	**46.68**	**341**	P	**P**	**17 21 01.6**	**-0.8**
	comp=E,10nm,0.7s,mb4.9,baz=141,slow=9.5,SNR=29						
BRVK	**Borovoye**	**46.74**	**341**	*e*P	**P**	**17 21 02.0**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
BRVK	**Borovoye**	**46.74**	**341**	*e*P	**P**	**17 21 02.0**	**-0.9**
	comp=Z,32nm,1.0s,mb5.2						
CHKZ	**Chkalovo**	**47.16**	**341**	*e*P	**P**	**17 21 05.6**	**-0.6**
CHKZ				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.5						
CHKZ	**Chkalovo**	**47.16**	**341**	*e*P	**P**	**17 21 05.6**	**-0.6**
	comp=Z,71nm,1.0s,mb5.5						
MZLS	**Mizel**	**48.19**	**293**	P	**P**	**17 21 15.9**	**+1.2**
KAMS	**Al Khamasin**	**48.38**	**288**	P	**P**	**17 21 17.2**	**+1.0**
TATS	**Tathlith**	**49.36**	**287**	P	**P**	**17 21 24.7**	**+1.0**
WRA	**Warramunga Arr**	**49.91**	**127**	P	**P**	**17 21 28.4**	**+0.4**
	comp=Z,12nm,0.7s,mb5.0,baz=305,slow=8.7,SNR=79						
WRAB	**Tennant Creek**	**49.91**	**127**	*e*P	**P**	**17 21 28.9**	**+0.9**
WRAB				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.3						
WRAB	**Tennant Creek**	**49.91**	**127**	*e*P	**P**	**17 21 28.9**	**+0.9**
	comp=Z,19nm,0.6s,mb5.3						
BOD	**Bodaibo**	**49.97**	**14**	*e*P	**P**	**17 21 25.4**	**-2.5**
KLR	**Kul’dur**	**50.06**	**32**	*e*P	**P**	**17 21 27.8**	**-1.0**
KLR				MLR	MLR		
	comp=Z,900nm,15.0s,MS4.9						
ARSS	**Ar Rass**	**50.23**	**295**	P	**P**	**17 21 30.5**	**+0.2**
ASAR	**Alice Springs**	**51.68**	**131**	P	**P**	**17 21 41.7**	**+0.3**
	comp=Z,17nm,0.8s,mb5.0,baz=304,slow=6.3,SNR=5.4						
ASAR				LR	LR	17 44 38.2	
	comp=Z,381nm,20.3s,MS4.4,baz=301,slow=37						
GNI	**Garni**	**52.58**	**313**	*e*P	**P**	**17 21 49.0**	**+1.0**
GNI				pmax	pmax		
	comp=Z,121nm,1.4s						
GNI	**Garni**	**52.58**	**313**	P	**P**	**17 21 47.5**	**-0.4**
	comp=Z,7.7nm,0.6s,mb4.8,baz=280,slow=1.9,SNR=16						
GNI	**Garni**	**52.58**	**313**	*e*P	**P**	**17 21 49.0**	**+1.1**
	comp=Z,121nm,1.4s,mb5.6						
SVE	**Sverdlovsk**	**53.12**	**338**	*e*P	**P**	**17 21 51.5**	**-0.2**
SVE				*e*S	**S**	**17 29 17.0**	**-1.9**
SVE				pmax	pmax		
	comp=Z,100nm,1.5s,mb5.5						
SVE				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.2						
TI2	**Plekhanov**	**53.15**	**315**	⇓*i*P	**P**	**17 21 52.2**	**0.0**
TI2				*i*	pP	17 22 01.2	+1.5
TI2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.3						
ARU	**Arti**	**53.62**	**337**	⇓*i*P	**P**	**17 21 53.8**	**-1.6**
ARU				*e*		17 22 57.6	
ARU				*e*		17 23 50.8	
ARU				*e*PPP	PPP	17 25 02.1	-3.8
ARU				*e*S	**S**	**17 29 26.8**	**+1.1**
ARU				*e*SS	SS	17 33 06.2	+0.4
ARU				*e*SSS	SSS	17 35 00.7	+3.1
ARU				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
ARU				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.0						
ARU				MLR	MLR		
	comp=N,800nm,20.0s,MS5.0						
ARU				MLR	MLR		
	comp=E,1µm,20.0s,MS5.0						
ASAJ	**Asahikawa**	**53.89**	**42**	LR	LR	17 46 07.7	
	comp=E,246nm,18.0s,MS4.3,baz=356,slow=37						
ZEI	**Tsey**	**54.12**	**316**	*e*P	**P**	**17 21 59.4**	**+0.2**
ZEI				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.1						
ERZM	**Erzurum**	**54.95**	**312**	*i* P	**P**	**17 22 06.3**	**+0.8**
YSS	**Yuzh-Sakhalins**	**55.17**	**39**	*i* P	**P**	**17 22 05.5**	**-1.4**
YSS				pmax	pmax		
	comp=Z,45nm,1.7s,mb5.2						
YSS	**Yuzh-Sakhalins**	**55.17**	**39**	*e*P	**P**	**17 22 07.9**	**+1.0**
	comp=Z,38nm,1.0s,mb5.4						
KIV	**Kislovodsk**	**55.38**	**317**	P	**P**	**17 22 08.5**	**0.0**
	comp=Z,291nm,1.0s,mb6.3,SNR=20						
KIV	**Kislovodsk**	**55.38**	**317**	*e*P	**P**	**17 22 08.2**	**-0.3**
KIV				*e*		17 23 10.5	
KIV				*e*		17 24 11.8	
KIV				*e*PPP	PPP	17 25 19.1	-8.5
KIV				*e*S	**S**	**17 29 51.5**	**+2.0**
KIV				pmax	pmax		
	comp=N,44nm,1.3s						
KIV				pmax	pmax		
	comp=Z,73nm,1.3s,mb5.5						
KIV				MLR	MLR		
	comp=E,291nm,19.0s						
KIV				MLR	MLR		
	comp=Z,422nm,19.0s,MS4.5						
KIV	**Kislovodsk**	**55.38**	**317**	*e*P	**P**	**17 22 07.7**	**-0.8**
	comp=Z,63nm,1.1s,mb5.6						
UMJS	**Umm Lajj**	**55.47**	**294**	P	**P**	**17 22 11.1**	**+1.8**
GOF	**Gofitskoye**	**55.56**	**318**	⇑*i*P	**P**	**17 22 09.0**	**-0.7**
GOF				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.4						
QURS	**Qurayyt al Mil**	**56.20**	**301**	P	**P**	**17 22 14.8**	**+0.2**
ELZG	**Elazig**	**56.34**	**310**	*i* P	**P**	**17 22 15.6**	**+0.2**
TBKS	**Tabuk**	**56.44**	**297**	P	**P**	**17 22 17.3**	**+1.0**
SOKR	**Solikamsk**	**56.51**	**338**	⇓*i*P	**P**	**17 22 13.6**	**-2.8**
SOKR				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.0						
PMG	**Port Moresby**	**56.56**	**108**	*e*P	**P**	**17 22 18.7**	**+1.4**
PMG				pmax	pmax		
	comp=Z,32nm,1.0s						
PMG	**Port Moresby**	**56.56**	**108**	P	**P**	**17 22 18.8**	**+1.4**
	comp=Z,46nm,1.1s,mb5.4,baz=297,slow=3.7,SNR=15						
PMG	**Port Moresby**	**56.56**	**108**	*e*P	**P**	**17 22 18.7**	**+1.4**
	comp=Z,32nm,1.0s,mb5.3						
ASF	**Jabal al Asfar**	**56.69**	**302**	P	**P**	**17 22 18.3**	**+0.3**
	comp=Z,2.1nm,0.4s,mb4.5,baz=6.1,slow=3.6,SNR=5.4						
ASF				LR	LR	17 49 32.0	
	comp=Z,421nm,20.2s,MS4.5,baz=326,slow=39						
MALT	**Malatya**	**56.72**	**309**	*e*P	**P**	**17 22 17.4**	**-0.8**
MALT				pmax	pmax		
	comp=Z,20nm,1.4s,mb5.0						
MALT	**Malatya**	**56.72**	**309**	*e*P	**P**	**17 22 17.4**	**-0.8**
	comp=Z,20nm,1.4s,mb5.0						
JMQS	**Jabal Moqyreh**	**57.10**	**298**	P	**P**	**17 22 21.7**	**+0.7**
GZT	**Gaziantep**	**57.15**	**308**	*i* P	**P**	**17 22 20.5**	**-0.8**
SOC	**Sochi**	**57.27**	**316**	*i* P	**P**	**17 22 16.5**	**-5.5**
SOC				*e*		17 23 16.2	
SOC				*e*		17 24 28.7	
SOC				*e*PPP	PPP	17 25 43.0	-8.3
SOC				*e*S	**S**	**17 30 06.8**	**-7.9**
SOC				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.3						
SOC				pmax	pmax		
	comp=N,33nm,1.1s						
SOC				pmax	pmax		
	comp=E,17nm,1.0s						
SOC				MLR	MLR		
	comp=N,441nm,23.0s,MS4.7						
SOC				MLR	MLR		
	comp=Z,720nm,23.0s,MS4.7						
SOC				MLR	MLR		
	comp=E,403nm,20.0s,MS4.7						
KMBO	**Kilima Mbogo**	**57.38**	**262**	*e*P	**P**	**17 22 25.6**	**+2.4**
KMBO				pmax	pmax		
	comp=Z,41nm,1.8s						
KMBO	**Kilima Mbogo**	**57.38**	**262**	P	**P**	**17 22 23.8**	**+0.6**
	comp=Z,3.3nm,1.0s,mb4.3,baz=56,slow=7.7,SNR=7.7						
KMBO				LR	LR	17 41 53.6	
	comp=Z,178nm,19.9s,MS4.2,baz=278,slow=31						
KMBO	**Kilima Mbogo**	**57.38**	**262**	*e*P	**P**	**17 22 25.6**	**+2.4**
	comp=Z,41nm,1.8s,mb5.2						
AYUS	**‘Aynunah**	**57.56**	**297**	P	**P**	**17 22 24.5**	**+0.3**
BDAS	**Al Bad‘**	**57.73**	**297**	P	**P**	**17 22 25.6**	**+0.1**
JMOS	**Jabal al Moall**	**57.80**	**298**	P	**P**	**17 22 26.0**	**0.0**
YAK	**Yakutsk**	**57.90**	**19**	*i* P	**P**	**17 22 24.7**	**-1.4**
YAK				pmax	pmax		
	comp=Z,22nm,1.7s,mb4.9						
YAK	**Yakutsk**	**57.90**	**19**	*e*P	**P**	**17 22 23.5**	**-2.6**
	comp=Z,19nm,0.9s,mb5.1						
HAQS	**Haql**	**57.95**	**298**	P	**P**	**17 22 27.0**	**0.0**
CTA	**Charters Tower**	**59.76**	**120**	P	**P**	**17 22 40.3**	**+0.7**
	comp=Z,20nm,1.0s,mb5.1,baz=288,slow=5.8,SNR=11						
CTAO	**Charters Tower**	**59.76**	**120**	*e*P	**P**	**17 22 40.7**	**+1.1**
CTAO				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.3						
CTAO	**Charters Tower**	**59.76**	**120**	*e*P	**P**	**17 22 40.7**	**+1.0**
	comp=Z,38nm,1.1s,mb5.3						
BOYT	**Boyabat**	**60.09**	**312**	*i* P	**P**	**17 22 41.1**	**-0.5**
VRSR	**Storozhevoye**	**60.30**	**324**	*e*P	**P**	**17 22 41.4**	**-1.5**
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,20nm,0.9s						
BRTR	**Keskin Array B**	**60.67**	**310**	P	**P**	**17 22 43.8**	**-1.8**
	comp=E,8.0nm,0.9s,mb4.8,baz=121,slow=7.2,SNR=34						
ELDT	**Eldivan**	**60.98**	**311**	*i* P	**P**	**17 22 46.7**	**-1.0**
BALT	**Daday**	**61.23**	**312**	*i* P	**P**	**17 22 48.7**	**-0.7**
SIM	**Simferopol’**	**61.52**	**316**	*e*P	**P**	**17 22 50.9**	**-0.4**
SIM				pmax	pmax		
	comp=Z,28nm,1.2s,mb5.3						
STKA	**Stephens Creek**	**61.97**	**134**	P	**P**	**17 22 54.6**	**+0.1**
	comp=Z,18nm,1.0s,mb5.2,baz=307,slow=6.9,SNR=12						
STKA	**Stephens Creek**	**61.97**	**134**	*e*P	**P**	**17 22 54.6**	**+0.1**
ESKT	**Eskisehir**	**62.75**	**309**	*i* P	**P**	**17 22 58.0**	**-1.5**
ISP	**Isparta**	**62.75**	**307**	*i* P	**P**	**17 22 57.5**	**-2.1**
MOS	**Moscow**	**62.92**	**328**	*e*P	**P**	**17 22 58.2**	**-2.3**
MOS				*e*S	**S**	**17 31 23.7**	**-3.4**
MOS				pmax	pmax		
	comp=Z,116nm,1.4s,mb5.8						
OBN	**Obninsk**	**63.24**	**327**	*d* *i*P	**P**	**17 23 01.2**	**-1.3**
OBN				*e*	pP	17 23 09.3	-0.9
OBN				*i*		17 23 38.8	
OBN						17 25 21.0	
OBN				*e*S	**S**	**17 31 24.4**	**-6.7**
OBN				SS	SS	17 35 40.0	+0.6
OBN				pmax	pmax		
	comp=Z,102nm,1.7s,mb5.7						
OBN	**Obninsk**	**63.24**	**327**	*e*P	**P**	**17 23 01.5**	**-1.0**
	comp=Z,125nm,1.4s,mb5.8						
MBAR	**Mbarara**	**63.64**	**264**	*e*P	**P**	**17 23 06.5**	**+0.6**
MBAR				pmax	pmax		
	comp=Z,33nm,1.6s,mb5.1						
MBAR	**Mbarara**	**63.64**	**264**	*e*P	**P**	**17 23 06.5**	**+0.6**
	comp=Z,34nm,1.6s,mb5.1						
TIXI	**Tiksi**	**65.02**	**12**	*e*P	**P**	**17 23 12.4**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,31nm,1.6s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,491nm,18.0s,MS4.8						
KIS	**Kishinev**	**65.58**	**317**	*e*P	**P**	**17 23 10.0**	**-8.0**
KIS				*e*		17 23 20.0	
KIS				*e*		17 23 25.0	
AKASG	**Malin Array Be**	**66.13**	**321**	P	**P**	**17 23 19.0**	**-2.4**
	comp=Z,4.1nm,0.8s,mb4.5,baz=89,slow=5.1,SNR=16						
VRI	**Vrincioaia**	**66.80**	**316**	⇑*i*P	**P**	**17 23 25.9**	**+0.2**
PET	**Petropavlovsk**	**66.85**	**36**	*e*P	**P**	**17 23 12.4**	**-14**
PET				*e*		17 32 05.6	
IDI	**Anoyia**	**66.98**	**304**	P	**P**	**17 23 26.1**	**-1.0**
	comp=Z,13nm,0.9s,mb4.9,baz=22,slow=5.8,SNR=8.0						
IDI				LR	LR	17 57 57.2	
	comp=Z,59nm,20.4s,MS3.8,baz=74,slow=41						
MLR	**Muntele Rosu**	**67.28**	**315**	P	**P**	**17 23 28.5**	**-0.3**
	comp=Z,43nm,1.2s,mb5.4,baz=51,slow=4.0,SNR=15						
APA	**Apatity**	**69.55**	**339**	*e*P	**P**	**17 23 36.7**	**-5.8**
APA				*i*	pP	17 23 45.1	-5.1
APA				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.3						
LSZ	**Lusaka**	**69.75**	**250**	*e*P	**P**	**17 23 45.8**	**+1.2**
LSZ				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
LSZ	**Lusaka**	**69.75**	**250**	*e*P	**P**	**17 23 45.8**	**+1.2**
	comp=Z,6.4nm,1.0s,mb4.5						
BOLS	**Boljevac**	**69.90**	**313**	⇓*i*P	**P**	**17 23 43.7**	**-1.3**
KWP	**Kalwaria**	**70.05**	**319**	*e*P	**P**	**17 23 45.4**	**-0.4**
KOLS	**Kolonicke sedl**	**70.24**	**318**	*e*P	**P**	**17 23 44.2**	**-2.8**
SUW	**Suwalki**	**70.43**	**324**	*e*P	**P**	**17 23 46.9**	**-1.2**
FINES	**FINESS Array B**	**70.50**	**332**	P	**P**	**17 23 47.5**	**-0.9**
	comp=Z,4.4nm,0.7s,mb4.5,baz=102,slow=6.0,SNR=13						
FINES				LR	LR	17 58 44.8	
	comp=Z,401nm,19.1s,MS4.7,baz=321,slow=39						
KAF	**Kangasniemi**	**70.57**	**333**	*e*p	**P**	**17 23 43.5**	**-5.3**
	comp=Z,8.0nm,1.0s,mb4.6						
KAF	**Kangasniemi**	**70.57**	**333**	*e*P	**P**	**17 23 43.5**	**-5.3**
KAF				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.6						
CRVS	**Cervenica-Dubn**	**70.77**	**318**	*e*P	**P**	**17 23 52.1**	**+1.9**
NIE	**Niedzica**	**71.57**	**319**	*e*P	**P**	**17 23 55.0**	**-0.1**
PSZ	**Piszkesteto**	**71.70**	**317**	*e*P	**P**	**17 23 55.1**	**-0.8**
PSZ				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
PSZ	**Piszkesteto**	**71.70**	**317**	*e*P	**P**	**17 23 55.1**	**-0.8**
	comp=Z,42nm,1.5s,mb5.2						
OJC	**Ojcow**	**71.98**	**320**	*e*P	**P**	**17 23 56.8**	**-0.7**
VYHS	**Vyhne**	**72.46**	**318**	*e*P	**P**	**17 23 59.4**	**-1.0**
KEV	**Kevo**	**72.53**	**340**	*e*p	**P**	**17 23 58.8**	**-1.6**
	comp=Z,12nm,0.6s,mb5.0						
KEV	**Kevo**	**72.53**	**340**	*e*P	**P**	**17 23 58.8**	**-1.6**
KEV				pmax	pmax		
	comp=Z,12nm,0.6s,mb5.0						
SRO	**Srobarova**	**72.76**	**317**	*e*P	**P**	**17 24 02.7**	**+0.5**
ARCES	**ARCESS Array B**	**72.96**	**340**	P	**P**	**17 24 02.8**	**-0.1**
	comp=Z,6.4nm,0.7s,mb4.7,baz=87,slow=7.0,SNR=25						
ARCES				LR	LR	17 59 13.0	
	comp=Z,1µm,18.7s,MS5.2,baz=289,slow=38						
MORC	**Moravsky Berou**	**73.40**	**319**	*e*P	**P**	**17 24 05.4**	**-0.4**
MORC				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.2						
MORC	**Moravsky Berou**	**73.40**	**319**	*e*P	**P**	**17 24 05.4**	**-0.5**
	comp=Z,44nm,1.4s,mb5.2						
ZST	**Bratislava**	**73.59**	**317**	*e*P	**P**	**17 24 06.3**	**-0.7**
ZST				*e*pP	pP	17 24 15.1	+0.3
TIP	**Timpagrande**	**73.59**	**308**	*e*P	**P**	**17 24 05.6**	**-1.6**
DPC	**Dobruska-Polom**	**74.22**	**319**	*e*P	**P**	**17 24 09.6**	**-1.0**
DPC				*e*pP	pP	17 24 18.7	+0.4
KSP	**Ksiaz**	**74.26**	**320**	*e*P	**P**	**17 24 10.4**	**-0.4**
KSP	**Ksiaz**	**74.26**	**320**	*e*P	**P**	**17 24 10.9**	**+0.1**
UPC	**Upice**	**74.42**	**320**	*e*P	**P**	**17 24 14.5**	**+2.7**
UPC				*e*pP	pP	17 24 19.8	+0.3
LBTB	**Lobatse**	**75.08**	**241**	*e*P	**P**	**17 24 17.2**	**+1.1**
LBTB				*e**PP	pP	17 24 25.8	+1.9
LBTB				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.9						
LBTB	**Lobatse**	**75.08**	**241**	*e*P	**P**	**17 24 17.2**	**+1.1**
	comp=Z,21nm,1.4s,mb4.9						
LBTB				*e*pP	pP	17 24 25.8	+2.0
PRU	**Pruhonice**	**75.34**	**319**	*e*P	**P**	**17 24 17.2**	**+0.1**
BRG	**Berggiesshubel**	**75.75**	**320**	⇓*i*P	**P**	**17 24 19.1**	**-0.3**
BRG				*e*	pP	17 24 27.4	+0.2
BRG				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
BRG	**Berggiesshubel**	**75.75**	**320**	⇓*i*P	**P**	**17 24 19.1**	**-0.3**

	comp=Z,21nm,1.3s,mb4.9						
BRG				*e*	pP	17 24 27.4	+0.2
BRG				*e*		17 24 39.4	
GEC2	**GERESS Array S**	**75.87**	**318**	*e*P	**P**	**17 24 20.2**	**+0.1**
GEC2				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
GEC2	**GERESS Array S**	**75.87**	**318**	*e*P	**P**	**17 24 20.2**	**+0.1**
	comp=Z,42nm,1.5s,mb5.2						
GERES	**GERESS Array B**	**75.87**	**318**	P	**P**	**17 24 19.5**	**-0.6**
	comp=Z,3.9nm,0.8s,mb4.4,baz=90,slow=5.3,SNR=31						
GERES				LR	LR	18 00 00.7	
	comp=Z,384nm,20.2s,MS4.7,baz=263,slow=38						
KHC	**Kasperske Hory**	**75.96**	**318**	*i* P	**P**	**17 24 19.9**	**-0.7**
KHC	**Kasperske Hory**	**75.96**	**318**	*e*pP	**P**	**17 24 20.3**	**-0.3**
KHC	**Kasperske Hory**	**75.96**	**318**	*e*P	**P**	**17 24 20.3**	**-0.3**
CLL	**Collm**	**76.35**	**320**	*e*P	**P**	**17 24 22.0**	**-0.8**
CLL				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.0						
CLL	**Collm**	**76.35**	**320**	*e*P	**P**	**17 24 22.0**	**-0.8**
	comp=Z,28nm,1.4s,mb5.0						
CLL	**Collm**	**76.35**	**320**	P	**P**	**17 24 22.0**	**-0.8**
	comp=Z,logA/T=1.3,mb5.0						
WET	**Wettzell**	**76.42**	**318**	*e*P	**P**	**17 24 23.3**	**+0.1**
BOSA	**Boshof**	**76.55**	**237**	*e*P	**P**	**17 24 24.9**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
BOSA	**Boshof**	**76.55**	**237**	*e*P	**P**	**17 24 24.9**	**+0.5**
	comp=Z,20nm,1.2s,mb4.9						
MOX	**Moxa**	**77.23**	**320**	*e*P	**P**	**17 24 28.3**	**+0.7**
MOX				pmax	pmax		
	comp=Z,27nm,1.9s,mb4.8						
MOX	**Moxa**	**77.23**	**320**	*i* P	**P**	**17 24 28.3**	**+0.7**
	comp=Z,logA/T=1.1,mb4.8						
MOX	**Moxa**	**77.23**	**320**	*e*P	**P**	**17 24 28.3**	**+0.7**
	comp=Z,27nm,1.9s,mb4.8						
GRA1	**Grafenberg Arr**	**77.49**	**319**	*e*P	**P**	**17 24 29.7**	**+0.6**
	comp=Z,6.0nm,0.9s,mb4.5						
GRA1				*e*pP	pP	17 24 38.2	+1.3
GRF	**Grafenberg Arr**	**77.49**	**319**	*e*P	**P**	**17 24 29.7**	**+0.6**
GRF				*e**PP	pP	17 24 38.2	+1.3
GRF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
GRF	**Grafenberg Arr**	**77.49**	**319**	*e*P	**P**	**17 24 29.7**	**+0.6**
GRF				*e**PP	pP	17 24 38.2	+1.3
GRF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
GRF	**Grafenberg Arr**	**77.49**	**319**	*e*P	**P**	**17 24 29.7**	**+0.6**
	comp=Z,6.0nm,0.9s,mb4.5						
GRF				*e*pP	pP	17 24 38.2	+1.3
NB2	**NORSAR Subarra**	**77.54**	**330**	P	**P**	**17 24 28.2**	**-1.0**
	comp=Z,27nm,1.4s,mb5.0,baz=90,slow=5.3						
NB2	**NORSAR Subarra**	**77.54**	**330**	P	**P**	**17 24 28.2**	**-1.0**
	baz=90,slow=5.6						
NB2	**NORSAR Subarra**	**77.54**	**330**	P	**P**	**17 24 28.2**	**-1.0**
NB2				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.0						
NOA	**NORSAR Array B**	**77.54**	**330**	P	**P**	**17 24 28.1**	**-1.1**
	comp=Z,6.0nm,1.1s,mb4.4,baz=93,slow=5.6,SNR=5.3						
NOA				LR	LR	18 04 33.0	
	comp=Z,376nm,20.5s,MS4.7,baz=105,slow=40						
BSEG	**Bad Segeberg**	**77.99**	**323**	*e*P	**P**	**17 24 32.2**	**+0.5**
CLZ	**Clausthal**	**77.99**	**321**	*e*P	**P**	**17 24 32.1**	**+0.3**
	comp=Z,6.0nm,0.9s,mb4.5						
BFO	**Black Forest**	**79.45**	**317**	*e*P	**P**	**17 24 39.6**	**-0.3**
BFO				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
BFO	**Black Forest**	**79.45**	**317**	*e*P	**P**	**17 24 39.6**	**-0.3**
	comp=Z,5.0nm,1.1s,mb4.4						
CDF	**Champ du Feu**	**80.14**	**318**	*e*P	**P**	**17 24 42.2**	**-1.4**
	comp=Z,24nm,1.3s,mb4.7						
CDF	**Champ du Feu**	**80.14**	**318**	*e*P	**P**	**17 24 42.2**	**-1.4**
CDF				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
LPG	**La Plagne**	**80.74**	**315**	*e*P	**P**	**17 24 46.2**	**-0.6**
	comp=Z,74nm,1.1s,mb5.2						
LPG	**La Plagne**	**80.74**	**315**	*e*P	**P**	**17 24 46.2**	**-0.6**
LPG				pmax	pmax		
	comp=Z,37nm,1.1s,mb5.2						
HAU	**Haudompre**	**80.80**	**317**	*e*P	**P**	**17 24 45.7**	**-1.4**
	comp=Z,104nm,1.5s,mb5.2						
HAU				*e*R			
	comp=Z,465nm,17.5s						
HAU	**Haudompre**	**80.80**	**317**	*e*P	**P**	**17 24 45.7**	**-1.4**
HAU				pmax	pmax		
	comp=Z,52nm,1.5s,mb5.2						
HAU				MLR	MLR		
	comp=Z,460nm,17.5s,MS4.9						
MBDF	**Montbardon**	**80.80**	**314**	*e*P	**P**	**17 24 46.5**	**-0.6**
	comp=Z,160nm,1.7s,mb5.4						
MBDF	**Montbardon**	**80.80**	**314**	*e*P	**P**	**17 24 46.5**	**-0.6**
MBDF				pmax	pmax		
	comp=Z,80nm,1.7s,mb5.4						
BNI	**Bardonecchia**	**80.83**	**314**	*e*P	**P**	**17 24 48.2**	**+0.9**
BNI				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
BNI	**Bardonecchia**	**80.83**	**314**	*e*P	**P**	**17 24 48.2**	**+0.8**
	comp=Z,12nm,0.8s,mb4.9						
SUR	**Sutherland**	**81.39**	**235**	*e*P	**P**	**17 24 53.4**	**+2.9**
BAIF	**Baives**	**82.00**	**319**	*e*P	**P**	**17 24 53.9**	**+0.6**
	comp=Z,89nm,1.5s,mb5.2						
BAIF	**Baives**	**82.00**	**319**	*e*P	**P**	**17 24 53.9**	**+0.6**
BAIF				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.2						
SSF	**Saint Saulge**	**82.81**	**316**	*e*P	**P**	**17 24 56.5**	**-1.1**
SSF				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.2						
SSF	**Saint Saulge**	**82.81**	**316**	*e*P	**P**	**17 24 56.5**	**-1.1**
	comp=Z,36nm,1.5s,mb5.2						
BGF	**Bois d’Agland**	**83.33**	**316**	*e*P	**P**	**17 24 59.5**	**-0.7**
	comp=Z,71nm,1.4s,mb5.2						
BGF	**Bois d’Agland**	**83.33**	**316**	*e*P	**P**	**17 24 59.5**	**-0.7**
BGF				pmax	pmax		
	comp=Z,36nm,1.4s,mb5.2						
RJF	**Les Rejaudoux**	**84.42**	**315**	*e*P	**P**	**17 25 05.3**	**-0.5**
	comp=Z,83nm,1.6s,mb5.3						
RJF				*e*R			
	comp=Z,386nm,17.8s						
RJF	**Les Rejaudoux**	**84.42**	**315**	*e*P	**P**	**17 25 05.3**	**-0.5**
RJF				pmax	pmax		
	comp=Z,42nm,1.6s,mb5.3						
RJF				MLR	MLR		
	comp=Z,390nm,17.8s,MS4.8						
FLN	**La Foliniere**	**85.21**	**319**	*e*P	**P**	**17 25 08.8**	**-0.9**
	comp=Z,55nm,1.3s,mb5.2						
FLN				*e*R			
	comp=Z,356nm,17.5s						
FLN	**La Foliniere**	**85.21**	**319**	*e*P	**P**	**17 25 08.8**	**-0.9**
FLN				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.2						
FLN				MLR	MLR		
	comp=Z,360nm,17.5s,MS4.8						
ESDC	**Sonseca Array**	**89.46**	**310**	P	**P**	**17 25 30.5**	**0.0**
	comp=Z,0.3nm,0.3s,mb4.0,baz=49,slow=4.7,SNR=5.6						
ILAR	**Eielson Array**	**92.71**	**22**	P	**P**	**17 25 44.5**	**-0.4**
	comp=Z,0.5nm,0.8s,mb4.0,baz=299,slow=4.4,SNR=6.2						
ILAR				LR	LR	18 08 30.5	
	comp=Z,181nm,20.1s,MS4.5,baz=165,slow=36						
INK	**Inuvik**	**94.85**	**16**	LR	LR	18 15 15.3	
	comp=Z,268nm,21.3s,MS4.7,baz=271,slow=40						
VNDA	**Vanda**	**95.28**	**168**	P	**P**	**17 25 56.9**	**+0.5**
	comp=Z,0.4nm,0.7s,mb3.9,baz=225,slow=5.2,SNR=2.6						
DBIC	**Dimbokro**	**97.29**	**278**	LR	LR	18 11 22.2	
	comp=Z,123nm,19.5s,MS4.4,baz=49,slow=36						
YKA	**Yellowknife Ar**	**104.24**	**13**	PP	PP	17 30 52.9	-5.0
	comp=Z,0.1nm,0.4s,baz=331,slow=7.3,SNR=7.0						
YKA				PKKPbc		17 42 25.1	
	comp=Z,0.4nm,0.8s,baz=165,slow=2.4,SNR=4.9						
ULM	**Lac du Bonnet**	**119.20**	**7**	PKP	PKPdf	17 31 23.4	-2.2
	comp=Z,1.5nm,0.8s,baz=349,slow=5.2,SNR=3.4						
ELK	**Elko**	**122.64**	**26**	*e*PKIKP	PKPdf	17 31 30.9	-1.6
NVAR	**Mina Array Bea**	**123.08**	**30**	PKP	PKPdf	17 31 31.6	-1.8
	comp=Z,5.1nm,1.1s,baz=316,slow=2.1,SNR=13						
PDAR	**Pinedale Array**	**123.11**	**20**	PKP	PKPdf	17 31 30.8	-2.6
	comp=Z,1.1nm,0.8s,slow=1.5,SNR=8.7						
PDAR				PKKPbc		17 41 20.6	
	comp=Z,0.6nm,0.9s,baz=117,slow=3.3,SNR=3.7						
MNV	**Mina**	**123.15**	**30**	*e*PKIKP	PKPdf	17 31 31.4	-2.2
MSU	**Marysvale**	**125.80**	**25**	*e*PKIKP	PKPdf	17 31 36.0	-2.8
BDFB	**Brasilia**	**142.43**	**258**	PKP	PKPdf	17 32 06.6	-3.6
	comp=Z,8.6nm,0.9s,baz=81,slow=6.4,SNR=3.4						
TRQA	**Tornquist**	**144.77**	**214**	*e*PKPdf	PKPdf	17 32 09.7	-4.0
SJG	**San Juan**	**145.59**	**325**	PKPbc	PKPbc	17 32 12.6	+0.8
	comp=Z,11nm,0.5s,baz=28,slow=4.9,SNR=2.4						
TRN	**Trinidad (W)**	**147.79**	**309**	*e*P	PKPdf	17 32 19.0	-0.5
PCRV	**Puerto La Cruz**	**150.50**	**313**	PKPbc	PKPdf	17 32 25.5	+1.8
	comp=Z,9.1nm,0.6s,baz=102,slow=1.5,SNR=5.2						
SDV	**Santo Domingo**	**155.50**	**320**	PKP	PKPdf	17 32 30.6	-0.2
	comp=Z,1.5nm,0.5s,baz=210,slow=14,SNR=3.2						
SDV				PKPab	PKPab	17 32 53.9	-0.6
	comp=Z,6.0nm,0.9s,baz=16,slow=1.0,SNR=5.8						
LVC	**Limon Verde**	**159.37**	**231**	PKPab	PKPab	17 33 11.7	+0.9
	baz=112,slow=4.5						
ROSC	**El Rosal**	**160.92**	**321**	PKPab	PKPab	17 33 17.9	+0.1
	comp=Z,3.0nm,0.4s,baz=107,slow=20,SNR=4.0						
LPAZ	**La Paz**	**161.41**	**249**	PKP	PKPdf	17 32 34.1	-3.6
	comp=Z,1.0nm,0.7s,baz=57,slow=5.0,SNR=6.0						
LPAZ				PKPab	PKPab	17 33 19.6	-0.3
	comp=Z,2.1nm,0.8s,baz=115,slow=3.7,SNR=6.1						

IDC 29 17:16:57.5±1.4**,4.51N**×**94.52E,mb3.9**/8**,mb1 4.1**/9**, mb1mx3.9**/19**,mbtmp3.9**/9**,ML4.1**/1**,Error ellipse: s-maj=48.5km s-min=26.7km az=51.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.52**	**17**	Pn	P	17 20 26.2	-0.1
	0.3nm,0.3s,baz=208,slow=12,SNR=14						
SONM	**Songino Array**	**44.35**	**11**	P	P	17 25 09.3	-1.9
	0.4nm,0.4s,baz=190,slow=9.1,SNR=3.0						
WRA	**Warramunga Arr**	**46.06**	**123**	P	P	17 25 23.5	-1.7
	0.9nm,0.5s,baz=300,slow=9.8,SNR=7.8						
ZAL	**Zalesovo**	**49.91**	**352**	P	P	17 25 51.9	-2.8
	1.4nm,0.4s,baz=242,slow=6.4,SNR=5.4						
BVAR	**Borovoye Array**	**52.28**	**342**	P	P	17 26 10.8	-1.9
	0.8nm,0.5s,baz=141,slow=9.5,SNR=4.8						
BRTR	**Keskin Array B**	**64.92**	**312**	P	P	17 27 40.2	-1.0
	1.1nm,0.9s,baz=136,slow=7.0,SNR=3.5						
FINES	**FINESS Array B**	**75.84**	**333**	P	P	17 28 45.2	-1.9
	1.0nm,0.8s,baz=117,slow=6.2,SNR=3.4						
ARCES	**ARCESS Array B**	**78.54**	**340**	P	P	17 29 00.4	-1.5
	3.4nm,0.8s,baz=98,slow=6.4,SNR=4.1						
GERES	**GERESS Array B**	**80.58**	**319**	P	P	17 29 11.5	-1.9
	0.3nm,0.7s,baz=104,slow=5.5,SNR=3.9						

JMA 29 17:18:00.8±0.3**,25.51N**×**122.05E,h219**^{km}**,M3.8,Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	**Yonaguni jima**	**1.36**	**140**	P	P	17 18 35.0	-0.4
YOJ				*e*S	S	17 19 03.0	+0.8
IRIF	**Iriomote-Funau**	**1.92**	**127**	P	P	17 18 40.0	-0.3
IRIF				S	S	17 19 10.5	-0.3
HATJ	**Hateruma jima**	**2.15**	**132**	P	P	17 18 42.7	0.0
HATJ				*e*S	S	17 19 14.5	-0.5
JKRS	**Kuro-shima**	**2.18**	**125**	P	P	17 18 43.0	0.0
JKRS				*e*S	S	17 19 14.8	-0.8
JIJ	**Ishigaki jima**	**2.22**	**121**	P	P	17 18 42.8	-0.5
JIJ				*e*S	S	17 19 14.4	-1.8
JTJ	**Tarama**	**2.56**	**109**	P	P	17 18 46.9	0.0
JTJ				S	S	17 19 22.3	-0.4
JMJ	**Miyako jima 2**	**3.02**	**103**	P	P	17 18 52.1	0.0
JMJ				*e*S	S	17 19 31.1	-0.8
JOGS	**Gusukube**	**3.13**	**103**	P	P	17 18 53.4	0.0
JOGS				*e*S	S	17 19 33.0	-1.2
JKE	**Kume jima 2**	**4.34**	**78**	P	P	17 19 06.6	-1.5
JJT2	**Tamagusuku 2**	**5.17**	**82**	P	P	17 19 16.4	-2.1
JOW	**Kunigami**	**5.75**	**75**	P	P	17 19 22.8	-3.0
JOW				*e*S	S	17 20 25.5	-6.5
JTK	**Tokunoshima**	**6.58**	**68**	*e*S	S	17 20 44.3	-6.8
JMZ	**Minamidaito 2**	**8.28**	**86**	P	P	17 19 54.8	-3.6

IDC 29 17:20:26.2±0.9**,9.48N**×**92.64E,h33**^{km}±6^{km}**,mb3.6**/9**, mb1 3.8**/10**,mb1mx3.7**/19**,mbtmp3.8**/10**,ML3.6**/1**,Error ellipse: s-maj=39.4km s-min=15.1km az=49.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.81**	**34**	Pn	P	17 22 57.8	-4.3
	0.1nm,0.3s,baz=231,slow=14,SNR=6.1						
SONM	**Songino Array**	**39.95**	**14**	P	P	17 27 58.3	-1.0
	0.5nm,0.7s,baz=201,slow=6.5,SNR=3.2						
BVAR	**Borovoye Array**	**47.00**	**342**	P	P	17 28 54.3	-1.9
	0.5nm,0.5s,baz=135,slow=8.2,SNR=3.9						
WRA	**Warramunga Arr**	**50.40**	**126**	P	P	17 29 20.5	-2.5
	0.4nm,0.3s,baz=301,slow=10,SNR=18						
WRA				pP	pP	17 29 29.9	-3.0
	1.5nm,0.5s,baz=306,slow=8.6,SNR=8.4						
WRA				PcP	PcP	17 30 39.6	-1.6
	1.1nm,1.3s,baz=316,slow=2.8,SNR=5.5						
ASAR	**Alice Springs**	**52.08**	**130**	P	P	17 29 32.6	-3.0
	0.5nm,0.9s,baz=307,slow=7.9,SNR=5.9						
ASAR				pP	pP	17 29 43.9	-1.8
	0.5nm,0.5s,baz=305,slow=6.4,SNR=4.2						
ASAR				PcP	PcP	17 30 46.2	-1.2
	0.7nm,0.6s,baz=304,slow=3.6,SNR=6.3						
ASAR				pPcP		17 30 57.4	
	0.5nm,0.6s,baz=305,slow=3.8,SNR=4.7						
BRTR	**Keskin Array B**	**60.26**	**310**	P	P	17 30 30.8	-3.3
	1.2nm,0.7s,baz=123,slow=7.3,SNR=7.4						
FINES	**FINESS Array B**	**70.61**	**332**	P	P	17 31 38.2	-2.0
	2.3nm,0.9s,baz=90,slow=1.9,SNR=7.8						
ARCES	**ARCESS Array B**	**73.26**	**340**	P	P	17 31 53.4	-2.4
	4.4nm,1.0s,baz=90,slow=4.9,SNR=4.0						
GERES	**GERESS Array B**	**75.65**	**318**	P	P	17 32 08.8	-1.2
	1.4nm,0.7s,baz=86,slow=6.6,SNR=11						
GERES				pP	pP	17 32 19.1	-1.2
	0.4nm,0.5s,baz=108,slow=4.2,SNR=3.6						
NOA	**NORSAR Array B**	**77.61**	**330**	P	P	17 32 19.0	-1.7
	1.0nm,0.9s,baz=92,slow=5.2,SNR=2.6						

IDC ***29*** *17:25:28.4±1.0,7.51N×94.01E,mb3.9/8,mb1 4.0/9, mb1mx3.9/19,mbtmp3.8/9,ML3.8/1,Error ellipse: s-maj=48.1km s-min=18.3km az=57.0*

ISC 29 17:25:32.0±0.9**,7.5N**±0.1×**94.3E**±0.2**,h33**^{km}**,n16, σ1§26**/15**,mb4.2**/13**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.84**	**22**	Pn	**P**	**17 28 21.5**	**0.0**
	0.2nm,0.3s,baz=225,slow=13,SNR=2.8						
PKI	**Pulchoki**	**21.68**	**338**	*e*P	**P**	**17 30 24.4**	**+2.5**
	18nm,0.9s,mb4.5						
GUN	**Gumba**	**21.82**	**340**	*e*P	**P**	**17 30 24.8**	**+1.5**
	25nm,0.8s,mb4.7						
DMN	**Daman**	**21.83**	**338**	*e*P	**P**	**17 30 24.8**	**+1.5**
	21nm,0.8s,mb4.6						
KKN	**Kakani**	**21.93**	**338**	*e*P	**P**	**17 30 25.3**	**+1.0**
	13nm,0.7s,mb4.5						
KOLN	**Koldanda**	**22.57**	**335**	*e*P	**P**	**17 30 30.9**	**0.0**
	19nm,0.9s,mb4.5						
SONM	**Songino Array**	**41.53**	**12**	P	**P**	**17 33 16.0**	**-1.9**
	0.7nm,0.8s,mb3.3,baz=191,slow=7.3,SNR=3.8						
ZAL	**Zalesovo**	**46.96**	**352**	P	**P**	**17 34 00.8**	**-0.7**
	2.0nm,0.8s,mb4.1,baz=253,slow=7.1,SNR=4.9						
WRA	**Warramunga Arr**	**47.93**	**125**	P	**P**	**17 34 10.2**	**+0.6**
	1.2nm,0.6s,mb4.1,baz=305,slow=8.4,SNR=20						
BVAR	**Borovoye Array**	**49.41**	**341**	P	**P**	**17 34 19.2**	**-1.4**
	0.5nm,0.6s,mb3.7,baz=143,slow=7.2,SNR=3.2						
BVAR				PcP	PcP	17 35 42.4	-0.5
	0.6nm,0.8s,baz=117,slow=3.2,SNR=3.8						
ASAR	**Alice Springs**	**49.57**	**130**	P	**P**	**17 34 23.1**	**+0.9**
	1.3nm,0.7s,mb4.1,baz=301,slow=7.8,SNR=18						
ASAR				PcP	PcP	17 35 44.9	+1.0
	1.2nm,0.8s,baz=309,slow=4.5,SNR=7.4						
FINES	**FINESS Array B**	**73.12**	**332**	P	**P**	**17 37 00.1**	**-0.6**
	1.7nm,0.7s,mb4.1,baz=104,slow=7.9,SNR=6.3						
GERES	**GERESS Array B**	**78.20**	**318**	P	**P**	**17 37 28.9**	**-1.0**
	0.4nm,0.7s,mb3.5,baz=63,slow=6.0,SNR=3.9						
NB2	**NORSAR Subarra**	**80.14**	**331**	P	**P**	**17 37 38.0**	**-2.2**
	26nm,2.0s,mb4.8,baz=94,slow=5.6						
NOA	**NORSAR Array B**	**80.14**	**331**	P	**P**	**17 37 38.1**	**-2.1**
	1.2nm,0.8s,mb3.9,baz=94,slow=5.4,SNR=4.0						
PDAR	**Pinedale Array**	**125.50**	**21**	PKP	PKPdf	17 44 32.5	+2.3
	0.3nm,0.9s,baz=45,slow=2.1,SNR=3.4						

IDC 29 17:28:40.5±3.3**,13.83N**×**93.88E,mb3.4**/2**,mb1 3.7**/3**, mb1mx3.4**/18**,mbtmp3.4**/3**,ML4.1**/1**,Error ellipse: s-maj=62.9km s-min=33.7km az=101.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**6.70**	**46**	Pn	Pn	17 30 21.6	-1.0
	1.1nm,0.3s,baz=236,slow=15,SNR=20						
CMAR				Sn	Sn	17 31 35.8	-4.8
	0.5nm,0.3s,baz=233,slow=22,SNR=6.6						
WRA	**Warramunga Arr**	**52.06**	**129**	P	P	17 37 52.3	-2.3
	0.3nm,0.6s,baz=315,slow=8.5,SNR=7.7						
ASAR	**Alice Springs**	**54.04**	**133**	P	P	17 38 07.0	-2.2
	0.6nm,1.1s,baz=309,slow=6.7,SNR=6.0						

IDC ***29*** *17:29:23.9±0.9,19.54N×106.10W,mb4.5/17,mb1 4.5/19, mb1mx4.4/24,mbtmp4.4/19,ML4.0/1,MS3.7/5,Ms1 3.7/5, ms1mx3.3/24,Error ellipse: s-maj=26.2km s-min=14.8km az=59.0*

MEX ***29*** *17:29:29.9±1.0,19.58N×105.94W,h13*^{km}*±58*^{km}*,MD4.7*

NEIC ***29*** *17:29:35.0±0.8,19.84N×105.63W,h60*^{km}*±5*^{km}*,mb4.8/32, MD4.6(MEX),Error ellipse: s-maj=10.9km s-min=4.1km az=221.0*

ISC 29 17:29:29.6±0.5**,19.71N**±0.05×**105.80W**±0.04**,h33**^{km}**, n116,σ1§20**/121**,mb4.7**/42**,MS3.6**/3**,1C,Near coast of Jalisco**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CJM	**Chamela**	**0.74**	**107**	*i* P	**P**	**17 29 42.9**	**-0.8**
CJM				*e*S	**S**	**17 29 54.0**	**+0.2**
COLM	**Colima**	**2.06**	**105**	*i* P	**P**	**17 30 02.8**	**+0.3**
COLM				*e*S	**S**	**17 30 28.4**	**+1.2**
CGX	**Ciudad Guzman**	**2.16**	**90**	*i* P	**P**	**17 30 06.8**	**+2.9**
CGX				*i* S	**S**	**17 30 31.5**	**+1.8**
SFJM	**Santa Fe**	**2.70**	**73**	*i* P	**P**	**17 30 12.7**	**+1.0**
MOIG	**Morelia**	**4.34**	**90**	⇑*i*P	**P**	**17 30 36.6**	**+1.6**
MOIG				*i* S	**S**	**17 31 29.1**	**+3.9**
MOIG	**Morelia**	**4.34**	**90**	*i* P	**P**	**17 30 36.7**	**+1.7**
MOIG				*i* S	**S**	**17 31 27.9**	**+2.8**
CAIG	**El Cayaco**	**5.88**	**116**	*i* P	**P**	**17 30 56.1**	**-0.6**
CAIG				*i* S	**S**	**17 32 00.8**	**-3.0**
CAIG	**El Cayaco**	**5.88**	**116**	*i* P	**P**	**17 30 56.1**	**-0.6**
CAIG				*i* S	**S**	**17 32 01.1**	**-2.8**
LPIG	**La Paz**	**6.05**	**317**	*i* P	**P**	**17 30 57.4**	**-1.7**
PLIG	**Platanillo**	**6.10**	**101**	*e*P	**P**	**17 31 01.2**	**+1.5**
PLIG				*i* S	**S**	**17 32 08.4**	**-0.8**
YAIG	**Yautepec**	**6.41**	**96**	*i* P	**P**	**17 31 05.9**	**+1.7**
PPM	**Popocatepetl**	**6.80**	**94**	*e*P	**P**	**17 31 11.6**	**+1.9**
PPM				*i* S	**S**	**17 32 25.2**	**-1.6**
PPM	**Popocatepetl**	**6.80**	**94**	*e*P	**P**	**17 31 11.6**	**+1.9**
PPM				*i* S	**S**	**17 32 26.1**	**-0.6**
VHO	**Vista Hermosa**	**9.00**	**106**	*i* P	**P**	**17 31 41.5**	**+1.3**
LTX	**Lajitas**	**9.77**	**11**	*e*P	**P**	**17 31 54.8**	**+3.8**
	9.5nm,1.1s						
TXAR	**Lajitas Array**	**9.77**	**11**	Pn	**P**	**17 31 52.0**	**+1.0**
	0.3nm,0.3s,baz=180,slow=15,SNR=12						
TXAR				Sn	**Sn**	**17 33 39.0**	**-1.8**
	0.2nm,0.3s,baz=205,slow=28,SNR=2.9						
TXAR				Lg		17 34 27.9	
	0.1nm,0.3s,baz=203,slow=36,SNR=3.7						
TXAR				LR	LR	17 35 51.0	
	comp=Z,726nm,18.9s,baz=165,slow=39						
CMIG	**Matias Romero**	**10.68**	**102**	*e*P	**P**	**17 32 03.2**	**-0.3**
MNTX	**Cornudas Mount**	**11.94**	**2**	*e*P	**P**	**17 32 20.5**	**-0.1**
	2.8nm,0.7s						
GDL2	**Guadalupe Moun**	**12.50**	**6**	*e*P	**P**	**17 32 30.5**	**+2.4**
TUC	**Tucson**	**13.32**	**341**	*e*P	**P**	**17 32 39.7**	**+0.8**
	56nm,1.3s						
CPRX	**Cap Rock**	**13.38**	**7**	P	**P**	**17 32 38.5**	**-1.1**
HKT	**Hockley**	**13.62**	**40**	*e*P	**P**	**17 32 43.0**	**+0.2**
	35nm,1.2s						
HKT				*e*pP		17 32 51.5	
BNM	**Barren Site**	**14.40**	**357**	*e*P	**P**	**17 32 55.5**	**+2.4**
LENM	**Lemitar**	**14.43**	**356**	*e*P	**P**	**17 32 55.8**	**+2.3**
LAZ	**Ladron**	**14.68**	**356**	*e*P	**P**	**17 32 59.2**	**+2.4**
ANMO	**Albuquerque**	**15.19**	**358**	Pn	**P**	**17 33 03.6**	**+0.2**
	baz=180,slow=11,SNR=7.1						
ANMO				LR	LR	17 38 53.8	
	comp=Z,151nm,21.7s,slow=37						
ANMO	**Albuquerque**	**15.19**	**358**	*e*P	**P**	**17 33 04.8**	**+1.4**
	13nm,1.2s						
AMTX	**Amarillo**	**15.54**	**13**	*e*P	**P**	**17 33 05.6**	**-2.4**
	79nm,1.1s						
AMTX				*e*		17 33 12.7	
NATX	**Nacogdoches**	**15.62**	**38**	*e*P	**P**	**17 33 08.7**	**-0.4**
	136nm,1.0s						
LDFC	**Landfair**	**17.38**	**334**	P	**P**	**17 33 34.7**	**+3.5**
NEN	**Nelson**	**17.77**	**335**	*e*P	**P**	**17 33 36.5**	**+0.5**
SDCO	**Great Sand Dun**	**17.97**	**1**	*e*P	**P**	**17 33 40.0**	**+1.4**
	12nm,1.1s						
UALR	**University of**	**19.16**	**36**	P	**P**	**17 33 51.0**	**-2.0**
	26nm,1.0s						
DAC	**Darwin (Calif)**	**19.48**	**330**	*e*P	**P**	**17 33 56.7**	**+0.1**
MSU	**Marysvale**	**19.53**	**345**	P	**P**	**17 33 58.2**	**+1.1**
SRU	**San Rafael**	**19.76**	**349**	*e*P	**P**	**17 33 58.8**	**-0.8**
ISCO	**Idaho Springs**	**20.02**	**0**	*e*P	**P**	**17 34 02.8**	**+0.4**
	18nm,1.2s						
TMUT	**Trail Mountain**	**20.07**	**348**	*e*P	**P**	**17 34 02.8**	**-0.1**
HBAR	**Harrisburg**	**20.67**	**37**	*e*P	**P**	**17 34 08.5**	**-0.7**
OXF	**Oxford**	**20.70**	**41**	*e*P	**P**	**17 34 07.9**	**-1.6**
	110nm,1.1s						
MTUM	**Tungsten Hills**	**20.81**	**330**	*e*P	**P**	**17 34 10.5**	**-0.2**
TPH	**Tonopah**	**20.82**	**334**	*e*P	**P**	**17 34 10.8**	**0.0**
	21nm,1.1s						
MPU	**Maple Canyon**	**20.85**	**347**	*e*P	**P**	**17 34 12.1**	**+1.0**
KSU1	**Kansas State U**	**20.89**	**20**	*e*P	**P**	**17 34 10.6**	**-0.8**
DAU	**Daniels Canyon**	**21.16**	**348**	*e*P	**P**	**17 34 15.0**	**+0.8**
OMM	**Old Mammoth Mi**	**21.23**	**330**	P	**P**	**17 34 15.3**	**+0.4**
JLU	**Jordanelle**	**21.38**	**348**	*e*P	**P**	**17 34 16.6**	**+0.3**
LRAL	**Lakeview Retre**	**21.39**	**48**	*e*P	**P**	**17 34 15.7**	**-0.9**
	72nm,1.0s,mb5.0						
MNV	**Mina**	**21.51**	**333**	*e*P	**P**	**17 34 18.5**	**+0.7**
	25nm,1.0s,mb4.6						
PHWY	**Pilot Hill**	**21.52**	**1**	*e*P	**P**	**17 34 19.1**	**+1.2**
NVAR	**Mina Array Bea**	**21.58**	**332**	P	**P**	**17 34 18.7**	**+0.3**
	8.0nm,0.7s,mb4.2,baz=155,slow=13,SNR=55						
NVAR				LR	LR	17 43 33.8	
	comp=Z,81nm,18.7s,MS3.1,baz=140,slow=39						
GLAT	**Glass**	**21.96**	**38**	*e*P	**P**	**17 34 21.9**	**-0.3**
JTS	**JuntasAbangare**	**22.18**	**112**	*e*P	**P**	**17 34 26.1**	**+1.5**
	42nm,1.1s,mb4.8						
CCM	**Cathedral Cave**	**22.23**	**32**	*e*P	**P**	**17 34 24.8**	**-0.1**
	62nm,1.0s,mb5.0						
UTMT	**University of**	**22.26**	**38**	*e*P	**P**	**17 34 25.2**	**0.0**
	254nm,0.9s,mb5.7						
HWUT	**Hardware Ranch**	**22.37**	**349**	*e*P	**P**	**17 34 27.5**	**+1.3**
	11nm,1.0s,mb4.2						
FVM	**French Village**	**22.59**	**33**	*e*P	**P**	**17 34 27.4**	**-1.0**
	22nm,0.9s,mb4.6						
WVT	**Waverly**	**22.73**	**40**	*e*P	**P**	**17 34 28.9**	**-1.0**
	18nm,0.7s,mb4.6						
HVU	**Hansel Valley**	**22.78**	**346**	*e*P	**P**	**17 34 31.6**	**+1.2**
BMN	**Battle Mountai**	**22.85**	**337**	*e*P	**P**	**17 34 32.1**	**+1.0**
	20nm,1.0s,mb4.5						
BMN				*e*		17 34 43.2	
SLM	**Saint Louis**	**23.18**	**32**	*e*P	**P**	**17 34 34.6**	**+0.3**
	150nm,1.1s,mb5.3						
PDAR	**Pinedale Array**	**23.20**	**353**	P	**P**	**17 34 34.5**	**0.0**
	3.5nm,0.7s,mb3.9,baz=167,slow=8.9,SNR=20						
SNOW	**Snow King Moun**	**24.04**	**351**	*e*P	**P**	**17 34 44.1**	**+1.5**
USIN	**University of**	**24.07**	**37**	*e*P	**P**	**17 34 43.7**	**+0.8**
	197nm,1.0s,mb5.5						
TPAW	**Teton Pass**	**24.10**	**351**	*e*P	**P**	**17 34 43.8**	**+0.6**
GOGA	**Godfrey**	**24.12**	**51**	*e*P	**P**	**17 34 43.2**	**-0.3**
	63nm,1.0s,mb5.0						
LOHW	**Long Hollow**	**24.17**	**351**	*e*P	**P**	**17 34 44.4**	**+0.6**
MOOW	**Moose Ponds**	**24.32**	**351**	*e*P	**P**	**17 34 45.0**	**-0.4**
CPCT	**Cooper Cave**	**24.44**	**46**	*e*P	**P**	**17 34 45.9**	**-0.7**
IMW	**Indian Meadow**	**24.50**	**351**	*e*P	**P**	**17 34 47.3**	**+0.3**
YFT	**Old Faithful**	**25.02**	**351**	P	**P**	**17 34 53.3**	**+1.2**
WCI	**Wyandotte Cave**	**25.04**	**38**	*e*P	**P**	**17 34 50.9**	**-1.4**
	31nm,0.8s,mb4.9						
QLMT	**Earthquake Lak**	**25.48**	**351**	P	**P**	**17 34 56.7**	**+0.2**
MCMT	**McKenzie Canyo**	**25.72**	**348**	*e*P	**P**	**17 34 59.7**	**+1.0**
JSC	**Jenkinsville**	**26.15**	**51**	*e*P	**P**	**17 35 01.5**	**-1.3**
YBH	**Yreka Blue Hor**	**26.23**	**330**	LR	LR	17 46 45.9	
	comp=Z,121nm,18.3s,MS3.5,baz=163,slow=40						
JFWS	**Jewell Farm**	**26.59**	**26**	*e*P	**P**	**17 35 03.8**	**-2.9**
BMO	**Blue Mountains**	**26.83**	**342**	P	**P**	**17 35 09.2**	**+0.2**
CHMT	**Chamberlain Mo**	**27.81**	**349**	*e*P	**P**	**17 35 17.3**	**-0.5**
MSO	**Missoula**	**27.86**	**348**	*e*P	**P**	**17 35 17.0**	**-1.3**
	3.1nm,0.7s,mb4.0						
FWV	**Forest Hill**	**28.11**	**45**	*e*P	**P**	**17 35 19.0**	**-1.6**
AAM	**Ann Arbor**	**29.28**	**35**	P	**P**	**17 35 28.8**	**-2.2**
EYMN	**Ely**	**30.46**	**19**	*e*P	**P**	**17 35 39.4**	**-2.1**
	55nm,0.9s,mb5.3						
ULM	**Lac du Bonnet**	**31.48**	**12**	P	**P**	**17 35 49.7**	**-0.8**
	4.8nm,0.7s,mb4.4,baz=196,slow=8.9,SNR=9.7						
SADO	**Sadowa**	**33.38**	**36**	LR	LR	17 50 31.2	

	comp=Z,366nm,18.9s,MS4.1,baz=87,slow=38						
FFC	Flin Flon	35.07	4	eP	P	17 36 19.2	-2.3
	9.9nm,1.2s,mb4.6						
SDV	Santo Domingo	35.66	103	P	P	17 36 27.6	+0.7
	20nm,0.8s,mb5.1,baz=320,slow=3.9,SNR=24						
SDV	Santo Domingo	35.66	103	eP	P	17 36 27.3	+0.4
	19nm,0.8s,mb5.1						
SJG	San Juan	37.48	86	P	P	17 36 41.5	-0.7
	8.5nm,0.3s,mb5.1,baz=309,slow=17,SNR=3.9						
PCRV	Puerto La Cruz	40.79	97	P	P	17 37 10.2	+0.5
	17nm,0.7s,mb4.8,baz=104,slow=12,SNR=6.3						
DLBC	Dease Lake	42.52	341	P	P	17 37 24.1	+0.6
	3.8nm,0.7s,mb4.3,baz=27,slow=27,SNR=6.1						
YKA	Yellowknife Ar	43.18	354	P	P	17 37 26.8	-2.0
	2.8nm,0.9s,mb4.0,baz=166,slow=7.9,SNR=30						
YKA				PcP	PcP	17 39 15.4	-3.1
	0.7nm,0.9s,baz=167,slow=2.8,SNR=4.7						
SCHQ	Schefferville	45.79	31	P	P	17 37 49.0	-0.9
	12nm,0.7s,mb5.0,baz=241,slow=6.7,SNR=20						
FRB	Frobisher Bay	50.67	20	P	P	17 38 26.1	-1.5
	1.8nm,0.5s,mb4.2,baz=215,slow=9.4,SNR=8.7						
LPAZ	La Paz	51.48	131	P	P	17 38 32.7	-1.7
	0.8nm,0.6s,mb3.9,baz=343,slow=9.3,SNR=3.7						
INK	Inuvik	51.59	347	P	P	17 38 33.4	-1.1
	8.1nm,0.7s,mb4.8,baz=136,slow=9.2,SNR=20						
ILAR	Eielson Array	52.61	339	P	P	17 38 40.6	-1.5
	1.7nm,0.7s,mb4.1,baz=146,slow=6.2,SNR=19						
BDFB	Brasilia	66.79	118	P	P	17 40 19.7	-0.8
	1.6nm,0.6s,mb4.2,baz=353,slow=19,SNR=2.9						
ROSF	Rostrenen	83.49	41	eP	P	17 41 55.5	+0.2
	32nm,1.0s,mb5.0						
EVO	Evora	83.81	51	eP	P	17 41 56.9	-0.3
	60nm,1.2s,mb5.3						
ARCES	ARCESS Array B	84.54	15	P	P	17 41 58.8	-1.4
	8.2nm,1.1s,mb4.8,baz=315,slow=5.1,SNR=5.1						
GRR	Gorron	84.95	40	eP	P	17 42 03.3	+0.6
	28nm,0.8s,mb5.1						
FLN	La Foliniere	85.02	40	eP	P	17 42 03.8	+0.8
	52nm,0.9s,mb5.3						
NB2	NORSAR Subarra	85.14	26	P	P	17 42 02.7	-0.6
	1.1nm,0.8s,mb4.0,baz=300,slow=5.0						
NOA	NORSAR Array B	85.14	26	P	P	17 42 02.6	-0.7
	1.8nm,0.8s,mb4.2,baz=304,slow=4.8,SNR=4.7						
LDF	La Druitiere	85.31	40	eP	P	17 42 05.0	+0.5
	27nm,1.1s,mb5.0						
ESDC	Sonseca Array	86.33	49	P	P	17 42 09.2	-0.5
	4.0nm,1.0s,mb4.6,baz=308,slow=4.8,SNR=9.5						
BGF	Bois d’Agland	88.00	41	eP	P	17 42 19.5	+1.9
	7.1nm,0.6s,mb4.8						
SSF	Saint Saulge	88.18	40	eP	P	17 42 17.2	-1.2
	20nm,1.2s,mb4.9						
CDF	Champ du Feu	89.77	38	eP	P	17 42 28.1	+2.1
FINES	FINESS Array B	90.47	21	P	P	17 42 27.7	-1.2
	1.0nm,0.7s,mb4.2,baz=326,slow=6.9,SNR=3.4						
DBIC	Dimbokro	97.99	80	P	P	17 43 02.8	-1.6
	3.0nm,0.9s,mb4.8,baz=237,slow=8.9,SNR=4.7						
WRA	Warramunga Arr	123.71	259	PKP	PKPdf	17 48 23.5	-1.4
	1.1nm,0.6s,baz=73,slow=2.5,SNR=18						
ASAR	Alice Springs	124.72	254	PKP	PKPdf	17 48 25.2	-1.6
	0.7nm,0.6s,baz=86,slow=2.5,SNR=12						
LSA	Lhasa	128.23	341	ePKPdf	PKPdf	17 48 39.1	+5.7
CMAR	Chiang Mai Arr	134.96	326	PKP	PKPdf	17 48 46.1	-0.3
	1.2nm,0.8s,baz=335,slow=2.6,SNR=4.7						

IDC 29 17:29:54.3±3.2**,12.36N**×**92.58E,mb3.7**/3**,mb1 3.9**/3**, mb1mx3.5**/17**,mbtmp3.7**/3**,Error ellipse: s-maj=349.9km s-min=31.2km az=50.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	Warramunga Arr	52.15	127	P	P	17 39 06.7	-2.4
	0.6nm,0.7s,baz=307,slow=8.4,SNR=6.7						
WRA				PcP	PcP	17 40 18.7	-2.2
	0.5nm,1.1s,baz=318,slow=3.1,SNR=4.5						
ASAR	Alice Springs	53.99	132	P	P	17 39 20.5	-2.1
	0.6nm,0.7s,baz=310,slow=6.8,SNR=5.5						
FINES	FINESS Array B	68.06	332	P	P	17 40 55.5	-2.1
	1.4nm,0.9s,baz=117,slow=8.5,SNR=3.9						

IDC 29 17:31:51.8±1.2**,13.27N**×**93.82E,mb3.6**/7**,mb1 3.8**/7**, mb1mx3.7**/18**,mbtmp3.6**/7**,Error ellipse: s-maj=53.2km s-min=20.8km az=55.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.13	43	Pn	Pn	17 33 42.3	+2.3
	1.2nm,0.3s,baz=244,slow=14,SNR=22						
CMAR				Sn	Sn	17 35 01.6	-1.1
	0.6nm,0.3s,baz=240,slow=29,SNR=6.6						
SONM	Songino Array	36.02	14	P	P	17 38 55.3	-1.3
	0.7nm,0.6s,baz=203,slow=9.4,SNR=4.1						
ZAL	Zalesovo	41.19	352	P	P	17 39 37.7	-2.0
	2.4nm,0.9s,baz=213,slow=6.1,SNR=14						
BVAR	Borovoye Array	43.83	340	P	P	17 39 58.7	-2.5
	0.5nm,0.6s,baz=121,slow=8.6,SNR=4.7						
WRA	Warramunga Arr	51.76	129	P	P	17 41 01.8	-1.9
	0.4nm,0.7s,baz=302,slow=9.8,SNR=4.6						
ASAR	Alice Springs	53.70	133	P	P	17 41 15.3	-2.7
	1.1nm,1.2s,baz=303,slow=7.6,SNR=4.3						
BRTR	Keskin Array B	58.76	309	P	P	17 41 52.2	-2.0
	0.5nm,0.7s,baz=108,slow=4.6,SNR=2.6						
GERES	GERESS Array B	73.64	317	P	P	17 43 27.8	-1.2
	0.4nm,0.5s,baz=79,slow=6.8,SNR=5.0						

MAN 29 17:38:55.7,18.52N×**120.86E,h1**^{km}**,mb4.5,ML3.4,MS3.2, 1C,Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APYP	Conner	0.75	151	eP	Pg	17 39 10.8	+0.2
APYP				eS	Sg	17 39 19.7	-0.9
ABRA	Dolores	0.88	189	eP	Pg	17 39 12.3	-0.9
SGCP	Mt. Cagua	1.16	104	eP	Pb	17 39 18.1	-0.1
SGCP				eS	Sb	17 39 32.8	-0.8
CVP	Callao Caves	1.22	132	⇑iP	Pb	17 39 18.0	-1.3
CVP				i S	Sb	17 39 32.0	-3.4
CAUP	Cauayan	1.82	150	eP	Pn	17 39 29.2	+0.9
PALP	Palanan	2.08	134	eP	Pn	17 39 33.4	+1.3
BALP	Baler	2.85	166	eP	Pn	17 39 44.8	+1.6
SCZP	Santa Cruz	2.88	199	eP	Pn	17 39 43.9	+0.3

IDC 29 17:42:08.4±1.1**,2.58N**×**96.58E,mb3.8**/8**,mb1 3.9**/9**, mb1mx3.8**/18**,mbtmp3.7**/9**,ML4.3**/1**,Error ellipse: s-maj=52.2km s-min=20.0km az=51.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.95	8	Pn	P	17 45 55.2	-0.9
	0.4nm,0.3s,baz=213,slow=12,SNR=8.4						
WRA	Warramunga Arr	43.29	123	P	P	17 50 11.6	-2.4
	0.4nm,0.4s,baz=300,slow=10,SNR=8.6						
ASAR	Alice Springs	44.72	128	P	P	17 50 24.1	-1.4
	0.6nm,1.0s,baz=306,slow=7.6,SNR=6.6						
SONM	Songino Array	45.87	9	P	P	17 50 33.2	-1.1
	0.6nm,0.7s,baz=225,slow=1.7,SNR=3.8						
ZAL	Zalesovo	52.10	351	P	P	17 51 19.9	-2.6
	1.1nm,0.5s,baz=163,slow=2.7,SNR=5.2						
BVAR	Borovoye Array	54.75	341	P	P	17 51 37.8	-4.2
	0.8nm,0.7s,baz=146,slow=11,SNR=5.8						
BRTR	Keskin Array B	67.73	312	P	P	17 53 07.5	-2.7
	1.9nm,1.1s,baz=128,slow=7.5,SNR=5.3						
FINES	FINESS Array B	78.50	332	P	P	17 54 12.9	0.0
	2.9nm,1.0s,baz=90,slow=1.9,SNR=4.1						
GERES	GERESS Array B	83.37	319	P	P	17 54 38.7	-0.2
	1.0nm,0.6s,baz=90,slow=5.3,SNR=11						

IDC 29 17:42:09.7±12.0**,9.22N**×**93.76E,mb4.2**/2**,mb1 4.3**/3**, mb1mx3.6**/18**,mbtmp4.0**/3**,ML3.7**/1**,Error ellipse: s-maj=291.1km s-min=43.3km az=92.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.47	28	Pn	P	17 44 40.1	-4.1
	0.2nm,0.3s,baz=210,slow=11,SNR=5.0						
WRA	Warramunga Arr	49.35	126	P	P	17 51 02.0	-1.2
	4.0nm,0.7s,baz=302,slow=9.1,SNR=21						
ASAR	Alice Springs	51.07	131	P	P	17 51 13.6	-2.6
	1.4nm,0.5s,baz=300,slow=7.5,SNR=22						

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*IDC **29** 17:44:03.9±1.0,10.17N×92.34E,mb3.9/9,mb1 4.1/10, mb1mx3.9/19,mbtmp3.9/10,ML4.8/1,Error ellipse: s-maj=38.6km s-min=20.1km az=55.0*

ISC 29 17:44:07.1±0.8**,10.2N**±0.1×**92.4E**±0.1**,h33**^{km}**,n22,** σ**0**^{s}**.64**/10**,mb3.9**/9**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.34	37	Pn	P	17 46 36.4	+0.2
	2.0nm,0.3s,baz=213,slow=15,SNR=20						
PKI	Pulchoki	18.50	340	eP		17 48 33.3	
	18nm,0.7s						
PKI	Pulchoki	18.50	340	eP		17 48 33.4	
	18nm,0.7s						
DMN	Daman	18.64	339	eP		17 48 34.5	
	21nm,0.8s						
DMN	Daman	18.64	339	eP		17 48 34.3	
	21nm,0.8s						
GUN	Gumba	18.66	342	eP		17 48 34.0	
	36nm,0.7s						
GUN	Gumba	18.66	342	eP		17 48 34.2	
	36nm,0.7s						
KKN	Kakani	18.75	340	eP		17 48 35.1	
	18nm,0.7s						
KKN	Kakani	18.75	340	eP		17 48 35.1	
	18nm,0.7s						
GKN	Gorkha	19.16	339	eP		17 48 39.9	
	22nm,0.6s						
GKN	Gorkha	19.16	339	eP		17 48 40.0	
	22nm,0.6s						
KOLN	Koldanda	19.35	336	eP		17 48 42.3	
	19nm,0.7s						
KOLN	Koldanda	19.35	336	eP		17 48 42.1	
	20nm,0.8s						
SONM	Songino Array	39.31	15	P	P	17 51 33.5	-1.1
	2.9nm,1.3s,mb3.9,baz=219,slow=7.9,SNR=4.1						
ZAL	Zalesovo	44.04	354	P	P	17 52 14.7	+1.3
	3.7nm,1.1s,mb4.0,baz=223,slow=5.3,SNR=8.7						
BVAR	Borovoye Array	46.26	342	P	P	17 52 31.4	+0.4
	0.3nm,0.4s,mb3.6,baz=144,slow=7.4,SNR=3.0						
ASAR	Alice Springs	52.69	130	P	P	17 53 20.8	-0.1
	2.4nm,0.9s,mb4.1,baz=308,slow=7.5,SNR=6.4						
BRTR	Keskin Array B	59.65	310	P	P	17 54 10.8	+0.2
	1.3nm,0.6s,mb4.1,baz=119,slow=6.8,SNR=6.1						
STKA	Stephens Creek	62.92	134	P	P	17 54 33.0	+0.3
	0.8nm,0.5s,mb4.2,baz=303,slow=11,SNR=5.3						
FINES	FINESS Array B	69.88	332	P	P	17 55 15.8	-0.6
	0.7nm,0.6s,mb3.8,baz=124,slow=6.9,SNR=4.2						
GERES	GERESS Array B	74.98	318	P	P	17 55 47.0	+0.2
	0.5nm,0.6s,mb3.6,baz=90,slow=5.3,SNR=4.0						
NOA	NORSAR Array B	76.89	330	P	P	17 55 56.7	-0.8
	0.8nm,0.7s,mb3.8,baz=93,slow=5.7,SNR=2.8						

IDC 29 17:50:39.0±5.1**,12.81N**×**92.14E,mb3.4**/2**,mb1 3.7**/3**, mb1mx3.4**/18**,mbtmp3.4**/3**,ML3.6**/1**,Error ellipse: s-maj=106.0km s-min=46.3km az=100.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.63	49	Pn	P	17 52 44.5	-3.6
	0.2nm,0.3s,baz=239,slow=15,SNR=7.3						
WRA	Warramunga Arr	52.76	127	P	P	17 59 56.1	-2.2
	0.3nm,0.4s,baz=301,slow=9.9,SNR=10						
ASAR	Alice Springs	54.61	131	P	P	18 00 09.8	-2.1
	0.2nm,0.5s,baz=308,slow=6.5,SNR=5.8						

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*IDC **29** 17:51:53.4±0.7,13.32N×92.93E,mb4.0/13,mb1 4.2/14, mb1mx4.1/20,mbtmp4.0/14,ML4.3/1,Error ellipse: s-maj=33.1km s-min=13.8km az=57.0*

*NEIC **29** 17:51:58.4±0.8,13.41N×92.98E,h30^{km},mb4.3/4,Error ellipse: s-maj=16.9km s-min=12.6km az=131.0*

ISC 29 17:51:57.4±1.8**,13.34N**±0.07×**93.04E**±0.07**,h40**^{km}±16^{km}**, n22,** σ**0**^{s}**.66**/23**,mb4.1**/16**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	7.62	47	P	P	17 53 49.0	+0.4
	9.1nm,0.6s						
CMAR	Chiang Mai Arr	7.62	47	Pn	P	17 53 49.2	+0.6
	1.3nm,0.3s,baz=237,slow=15,SNR=12						
CMAR				Sn	S	17 55 14.1	-0.5
	0.1nm,0.3s,baz=234,slow=29,SNR=2.8						
PALK	Pallekele	13.55	245	eP	P	17 55 09.4	-0.1
LSA	Lhasa	16.37	354	P	P	17 55 44.9	-1.0
	6.9nm,0.6s						
DDI	Dehra Dun	21.84	323	e	P	17 56 49.5	+1.3
DDI				e		17 59 55.2	
ENH	Enshi	22.69	39	eP	P	17 56 57.6	+0.9
	8.3nm,0.8s,mb4.2						
SONM	Songino Array	36.15	15	P	P	17 58 57.0	-0.7
	0.6nm,0.7s,mb3.6,baz=190,slow=8.8,SNR=2.7						
ZAL	Zalesovo	41.02	353	P	P	17 59 38.2	0.0
	2.2nm,0.5s,mb4.1,baz=215,slow=6.2,SNR=3.2						
BVAR	Borovoye Array	43.50	340	P	P	17 59 58.1	-0.5
	0.3nm,0.6s,mb3.2,baz=169,slow=7.3,SNR=2.5						
CHKZ	Chkalovo	43.98	341	eP	P	18 00 01.8	-0.6
	3.8nm,0.6s,mb4.3						
NWAO	Narrogin (SRO)	51.49	154	P	P	18 01 00.5	-0.8
	5.1nm,0.8s,mb4.5,baz=283,slow=7.5,SNR=5.0						
WRA	Warramunga Arr	52.40	128	P	P	18 01 08.2	-0.1
	3.4nm,0.7s,mb4.4,baz=306,slow=8.2,SNR=19						
WRA				PcP	PcP	18 02 19.2	+0.4
	1.8nm,0.5s,baz=319,slow=3.1,SNR=25						
WRAB	Tennant Creek	52.40	128	eP	P	18 01 08.4	+0.2
	9.8nm,0.9s,mb4.7						
ASAR	Alice Springs	54.31	132	P	P	18 01 22.4	0.0
	2.0nm,0.5s,mb4.3,baz=307,slow=6.7,SNR=28						
ASAR				PcP	PcP	18 02 26.7	+0.7
	1.4nm,0.6s,baz=315,slow=3.6,SNR=9.4						
BRTR	Keskin Array B	58.12	309	P	P	18 01 49.5	0.0
	2.3nm,0.9s,mb4.2,baz=121,slow=7.2,SNR=7.9						
STKA	Stephens Creek	64.68	135	P	P	18 02 33.7	-0.1
	0.7nm,0.3s,mb4.1,baz=316,slow=8.6,SNR=5.8						
STKA	Stephens Creek	64.68	135	P	P	18 02 33.7	-0.1
FINES	FINESS Array B	67.41	331	P	P	18 02 49.5	-1.1
	1.4nm,0.6s,mb4.2,baz=135,slow=5.9,SNR=2.7						
ARCES	ARCESS Array B	69.79	340	P	P	18 03 05.7	+0.5
	1.1nm,0.5s,mb4.0,baz=104,slow=5.0,SNR=5.7						
GERES	GERESS Array B	73.08	317	P	P	18 03 25.0	-0.2
	0.5nm,0.6s,mb3.7,baz=90,slow=5.3,SNR=5.6						
NOA	NORSAR Array B	74.47	330	P	P	18 03 34.3	+1.2
	1.0nm,0.8s,mb3.8,baz=91,slow=5.7,SNR=4.2						
ILAR	Eielson Array	90.11	22	P	P	18 04 55.0	+0.9
	0.5nm,0.7s,mb4.0,baz=294,slow=4.1,SNR=4.8						

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*IDC **29** 17:55:57.4±0.9,5.25N×94.32E,mb4.4/12,mb1 4.5/12, mb1mx4.3/19,mbtmp4.4/12,MS3.5/2,Ms1 3.6/2, ms1mx3.1/26,Error ellipse: s-maj=44.2km s-min=15.0km az=48.0*

*BJI **29** 17:56:00.6,4.96N×94.40E,h49^{km},mb4.9*

*NEIC **29** 17:56:02.1±0.8,5.33N×94.41E,h30^{km},mb4.6/9,Error ellipse: s-maj=25.1km s-min=14.7km az=53.0*

ISC 29 17:56:00.7±0.6**,5.23N**±0.08×**94.38E**±0.09**,h33**^{km}**,n49,** σ**0**^{s}**.96**/47**,mb4.6**/32**,MS3.9**/1**,1C,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	Songkhla	6.50	72	P	P	17 57 30.0	-6.4
	280nm,1.0s						
KKTK	Khon Kaen	13.80	36	P	P	17 59 26.0	+10
	247nm,0.7s						
CMAR	Chiang Mai Arr	13.88	18	Pn	P	17 59 19.1	+1.6
	3.8nm,0.3s,baz=208,slow=14,SNR=45						
CMAR				LR	LR	18 04 12.1	
	comp=Z,108nm,20.6s,baz=215,slow=36						
NANT	Nan	14.83	24	P	P	17 59 34.0	+4.1
PKI	Pulchoki	23.80	340	eP	P	18 01 10.9	-0.6
	18nm,0.5s,mb4.8						
DMN	Daman	23.94	339	eP	P	18 01 12.2	-0.7
	24nm,0.6s,mb4.8						
GUN	Gumba	23.96	341	eP	P	18 01 12.1	-1.0
	31nm,0.5s,mb5.0						
KKN	Kakani	24.05	340	eP	P	18 01 13.1	-0.8
	30nm,0.7s,mb4.8						
GYA	Guiyang	24.16	28	⇑iP	P	18 01 16.3	+1.3
GYA				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.0						
GKN	Gorkha	24.47	339	eP	P	18 01 18.3	+0.3
	comp=Z,24nm,0.3s,mb5.0						
LSA	Lhasa	24.53	353	eP	P	18 01 19.0	+0.4
	comp=Z,22nm,0.5s,mb4.9						
KOLN	Koldanda	24.65	337	eP	P	18 01 19.6	-0.2
	comp=Z,26nm,0.6s,mb5.0						
ENH	Enshi	28.70	28	eP	P	18 01 55.4	-1.6
	comp=Z,8.9nm,0.5s,mb4.8						
XAN	Xi’an	31.69	23	P	P	18 02 21.0	-2.5
XAN				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.1						
GTA	Gaotai	34.38	7	P	P	18 02 46.0	-0.8
GTA				AP	pP	18 02 58.8	+2.3
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.7						
WMQ	Urumqi	38.88	352	P	P	18 03 26.0	+1.3
WMQ				AMB	AMB		
	comp=Z,14nm,0.7s,mb4.8						
BJT	Baijiatuau	39.81	26	eP	P	18 03 33.2	+0.7
	comp=Z,5.6nm,0.7s,mb4.4						
BJI	Beijing	39.83	26	P	P	18 03 33.3	+0.7
BJI				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
UCH	Uchtor	40.86	337	P	P	18 03 42.3	+1.2
	SNR=7.6						
TKM2	Tokmak 2	41.06	339	P	P	18 03 43.5	+0.7
	SNR=6.5						
KBK	Karagaybulak	41.07	338	P	P	18 03 44.2	+1.4
	SNR=14						
AML	Almayashu	41.10	336	P	P	18 03 44.4	+1.2
	SNR=14						
AAK	Ala-Archa	41.22	338	eP	P	18 03 43.2	-0.9
	comp=Z,2.1nm,0.6s,mb3.9						
EKS2	Erkin-Say	41.52	337	P	P	18 03 47.2	+0.6
	SNR=7.8						
USP	Ospenovka	41.76	338	P	P	18 03 49.1	+0.5
	SNR=12						
SONM	Songino Array	43.68	12	P	P	18 04 03.6	-0.6
	comp=Z,3.6nm,0.7s,mb4.2,baz=191,slow=8.2,SNR=21						
SONM				PcP	PcP	18 05 51.1	-0.4
	comp=Z,1.7nm,0.4s,baz=196,slow=3.9,SNR=8.0						
ULN	Ulaanbaatar	43.85	12	eP	P	18 04 04.3	-1.2
	comp=Z,3.1nm,0.6s,mb4.2						
WRA	Warramunga Arr	46.57	124	P	P	18 04 27.9	+0.3
	comp=Z,7.2nm,0.7s,mb4.7,baz=303,slow=9.3,SNR=41						
WRAB	Tennant Creek	46.58	124	eP	P	18 04 28.1	+0.4
	comp=Z,19nm,1.0s,mb5.0						
WRAB				e		18 04 40.2	
ASAR	Alice Springs	48.07	128	P	P	18 04 39.5	+0.2
	comp=Z,1.7nm,0.4s,mb4.4,baz=300,slow=7.7,SNR=20						
ZAL	Zalesovo	49.18	353	P	P	18 04 47.0	-0.4
	comp=Z,9.3nm,0.4s,mb5.2,baz=210,slow=5.5,SNR=43						
BVAR	Borovoye Array	51.56	342	P	P	18 05 04.9	-0.7
	comp=Z,5.5nm,0.6s,mb4.6,baz=141,slow=9.5,SNR=47						
BRVK	Borovoye	51.62	342	eP	P	18 05 05.3	-0.8
	comp=Z,4.6nm,0.6s,mb4.6						
CHKZ	Chkalovo	52.05	342	eP	P	18 05 08.7	-0.5
	comp=Z,12nm,0.6s,mb5.0						
PMG	Port Moresby	54.57	105	P	P	18 05 28.1	-0.4
	comp=Z,2.3nm,0.5s,mb4.5,baz=347,slow=19,SNR=4.4						
KMBO	Kilima Mbogo	57.41	265	LR	LR	18 26 24.4	
	comp=Z,83nm,18.2s,MS3.9,baz=236,slow=32						
STKA	Stephens Creek	58.13	133	P	P	18 05 53.1	-0.6
	comp=Z,1.6nm,0.8s,mb4.1,baz=297,slow=14,SNR=2.8						
STKA	Stephens Creek	58.13	133	eP	P	18 05 53.1	-0.6
BRTR	Keskin Array B	64.34	312	P	P	18 06 34.9	-0.6
	comp=Z,2.2nm,0.8s,mb4.2,baz=129,slow=7.5,SNR=10						
AKASG	Malin Array Be	70.37	322	P	P	18 07 11.8	-1.4
	comp=Z,1.9nm,0.5s,mb4.3,baz=85,slow=5.0,SNR=20						
FINES	FINESS Array B	75.15	332	P	P	18 07 40.8	-0.4
	comp=Z,1.3nm,0.7s,mb4.0,baz=102,slow=7.0,SNR=12						
KAF	Kangasniemi	75.24	333	ep	P	18 07 38.9	-2.8
	comp=Z,2.5nm,0.6s,mb4.3						
OJC	Ojcow	76.14	320	eP	P	18 07 47.5	+0.4
ARCES	ARCESS Array B	77.82	340	P	P	18 07 56.9	+0.8
	comp=Z,2.1nm,0.6s,mb4.2,baz=98,slow=5.8,SNR=11						
DPC	Dobruska-Polom	78.37	320	eP	P	18 08 00.8	+1.3
UPC	Upice	78.59	320	eP	P	18 08 01.0	+0.3
GERES	GERESS Array B	79.95	319	P	P	18 08 09.2	+1.1
	comp=Z,4.2nm,0.7s,mb4.5,baz=102,slow=5.3,SNR=40						
KHC	Kasperske Hory	80.05	319	eP	P	18 08 09.3	+0.7
TXAR	Lajitas Array	141.51	26	PKhKP		18 15 24.8	
	comp=Z,0.4nm,0.4s,baz=264,slow=0.2,SNR=5.9						
TXAR				PKP	PKPdf	18 15 31.8	+2.5
	comp=Z,0.3nm,0.4s,baz=227,slow=1.8,SNR=4.5						

IDC 29 18:01:04.5±1.2**,5.94N**×**92.96E,mb3.9**/6**,mb1 4.1**/7**, mb1mx3.8**/19**,mbtmp3.8**/7**,ML3.4**/1**,Error ellipse: s-maj=54.5km s-min=20.6km az=50.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.74	25	Pn	P	18 04 22.5	-0.8
	0.1nm,0.3s,baz=228,slow=14,SNR=9.0						
WRA	Warramunga Arr	48.14	123	P	P	18 09 46.2	-2.5
	1.2nm,0.7s,baz=303,slow=9.3,SNR=8.1						
ZAL	Zalesovo	48.31	354	P	P	18 09 47.1	-2.4
	1.4nm,0.4s,baz=236,slow=5.0,SNR=5.3						
ASAR	Alice Springs	49.62	128	P	P	18 09 58.4	-1.7
	1.4nm,0.5s,baz=300,slow=7.9,SNR=20						
BVAR	Borovoye Array	50.45	343	P	P	18 10 02.9	-3.1
	0.4nm,0.7s,baz=135,slow=6.1,SNR=2.8						
BRTR	Keskin Array B	62.81	312	P	P	18 11 32.5	-1.9
	1.5nm,1.0s,baz=117,slow=8.3,SNR=4.9						
GERES	GERESS Array B	78.48	319	P	P	18 13 08.3	-0.8
	1.2nm,1.0s,baz=90,slow=5.3,SNR=5.0						

IDC 29 18:18:09.9±1.5**,9.35S**×**158.56E,mb4.1**/6**,mb1 4.3**/7**, mb1mx4.2**/14**,mbtmp4.1**/7**,ML3.7**/1**,MS3.6**/3**,Ms1 3.6**/3**, ms1mx3.2**/23**,Error ellipse: s-maj=50.6km s-min=23.1km az=119.0,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	11.25	269	LR	LR	18 24 57.6	
	comp=Z,490nm,18.7s,baz=90,slow=36						
CTA	Charters Tower	15.98	227	Pn	P	18 21 56.3	-1.5
	0.2nm,0.3s,baz=46,slow=12,SNR=5.5						
WRA	Warramunga Arr	25.66	243	P	P	18 23 41.7	-1.6
	3.1nm,0.8s,baz=69,slow=9.6,SNR=18						
WRA				PcP	PcP	18 27 12.2	-2.4
	0.3nm,0.6s,baz=62,slow=2.1,SNR=5.3						
STKA	Stephens Creek	27.39	213	P	P	18 23 57.7	-1.4
	2.4nm,0.8s,baz=45,slow=13,SNR=7.0						
ASAR	Alice Springs	27.53	236	P	P	18 23 57.5	-3.0
	1.0nm,0.8s,baz=64,slow=9.3,SNR=7.0						
ASAR				PcP	PcP	18 27 17.2	-1.8
	0.5nm,0.5s,baz=82,slow=2.5,SNR=7.0						
ASAR				LR	LR	18 34 57.9	
	comp=Z,75nm,19.6s,baz=281,slow=37						
URZ	Urewera	33.27	153	LR	LR	18 35 12.9	
	comp=Z,101nm,18.6s,baz=157,slow=31						
CMAR	Chiang Mai Arr	64.98	295	P	P	18 28 52.1	-2.2
	3.8nm,1.0s,baz=117,slow=6.0,SNR=8.6						
SONM	Songino Array	73.23	326	P	P	18 29 43.5	-1.2
	1.5nm,0.6s,baz=140,slow=5.6,SNR=9.1						
ILAR	Eielson Array	84.29	21	P	P	18 30 42.7	-1.9
	0.5nm,0.5s,baz=246,slow=5.0,SNR=8.8						

IDC 29 18:19:25.9±1.6**,9.69N**×**91.99E,mb3.3**/3**,mb1 3.6**/4**, mb1mx3.4**/18**,mbtmp3.3**/4**,ML3.6**/1**,Error ellipse: s-maj=56.9km s-min=29.3km az=49.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.02	37	Pn	P	18 22 04.8	-3.1
	0.1nm,0.3s,baz=228,slow=14,SNR=4.4						
WRA	Warramunga Arr	51.04	125	P	P	18 28 29.6	-2.6
	0.2nm,0.3s,baz=302,slow=9.8,SNR=9.3						
ASAR	Alice Springs	52.70	130	P	P	18 28 43.4	-1.4
	0.4nm,0.8s,baz=309,slow=7.7,SNR=4.4						
GERES	GERESS Array B	75.06	318	P	P	18 31 09.5	-1.8
	0.5nm,0.6s,baz=90,slow=4.0,SNR=4.2						

IDC 29 18:25:50.9±0.9**,12.04N**×**92.90E,mb3.7**/9**,mb1 3.9**/10**, mb1mx3.9**/19**,mbtmp3.7**/10**,ML3.9**/1**,MS3.4**/1**,Ms1 3.6**/1**, ms1mx2.8**/25**,Error ellipse: s-maj=32.4km s-min=17.1km az=60.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.64	42	Pn	P	18 27 58.2	-1.9
	0.3nm,0.3s,baz=234,slow=15,SNR=14						
CMAR				Sn	Sn	18 29 39.0	-0.5

	0.1nm,0.3s,baz=228,slow=26,SNR=2.5						
CMAR				LR	LR	18 31 50.4	
	comp=Z,212nm,18.6s,baz=225,slow=42						
SONM	**Songino Array**	**37.43**	**15**	P	P	18 33 04.7	-2.9
	1.1nm,0.8s,baz=207,slow=8.3,SNR=4.2						
ZAL	**Zalesovo**	**42.29**	**353**	P	P	18 33 45.5	-2.2
	0.7nm,0.6s,baz=196,slow=4.8,SNR=3.5						
BVAR	**Borovoye Array**	**44.68**	**341**	P	P	18 34 05.3	-1.9
	0.5nm,0.5s,baz=127,slow=7.4,SNR=3.5						
NWAO	**Narrogin (SRO)**	**50.39**	**153**	P	P	18 34 50.9	-1.3
	12nm,0.8s,baz=309,slow=9.0,SNR=3.9						
WRA	**Warramunga Arr**	**51.70**	**128**	P	P	18 34 59.5	-2.8
	1.2nm,0.6s,baz=300,slow=10.0,SNR=13						
ASAR	**Alice Springs**	**53.54**	**132**	P	P	18 35 13.6	-2.4
	1.5nm,0.8s,baz=308,slow=6.7,SNR=13						
AKASG	**Malin Array Be**	**64.17**	**321**	P	P	18 36 27.9	-1.6
	0.2nm,0.3s,baz=82,slow=6.7,SNR=4.1						
FINES	**FINESS Array B**	**68.49**	**332**	P	P	18 36 54.7	-2.2
	2.2nm,0.9s,baz=114,slow=9.7,SNR=3.1						
GERES	**GERESS Array B**	**73.94**	**318**	P	P	18 37 28.1	-1.8
	0.3nm,0.6s,baz=104,slow=5.5,SNR=4.0						
ILAR	**Eielson Array**	**91.36**	**22**	P	P	18 38 59.8	+0.3
	0.3nm,0.6s,baz=297,slow=6.1,SNR=4.3						

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*NIED **29** 18:31:00,28.90N×130.60E,h71^{km},Mw5.3 Best double couple: M$_0$1.18×10^{17} NP1:ϕ_s187°,δ89°,λ-79°. NP2: ϕ_s280°,δ11°,λ-177°.*

*IDC **29** 18:31:01.4±0.5,28.94N×130.50E,mb4.2/19,mb1 4.4/20, mb1mx4.4/26,mbtmp4.2/20,ML3.9/1,MS4.2/4,Ms1 4.2/4, ms1mx3.5/32,Error ellipse: s-maj=20.3km s-min=13.4km az=82.0*

*BJI **29** 18:31:03.7,28.58N×130.78E,h45^{km},mB4.7,mb4.6, Ms4.8,Msz4.6*

*JMA **29** 18:31:05.2±0.1,28.92N×130.62E,h51^{km}±4^{km},M4.5*

*NEIC **29** 18:31:08.2±3.5,28.97N×130.59E,h46^{km}±29^{km},mb4.6/13, MW5.4(NIED),Error ellipse: s-maj=19.3km s-min=17.3km az=97.0*

ISC 29 18:31:04.2±1.5**,28.89N**±0.03×**130.64E**±0.06**,h30**^{km}±10^{km}**, n72,σ1^{s}02**/77**,mb4.5**/40**,MS4.5**/5**,2C,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JZK	**Kikaishima**	**0.82**	**226**	P	**Pn**	**18 31 20.7**	**+0.9**
JAM	**Amami Oshima**	**1.03**	**243**	P	**Pn**	**18 31 23.3**	**+0.5**
JNN	**Nakanoshima**	**1.16**	**325**	P	**Pn**	**18 31 25.0**	**+0.3**
JKC	**Kuchinoerabu**	**1.62**	**346**	P	**Pn**	**18 31 31.4**	**+0.2**
JTN	**Tanegashima 3**	**1.79**	**9**	P	**Pn**	**18 31 33.7**	**+0.1**
JTK	**Tokunoshima**	**1.85**	**234**	P	**Pn**	**18 31 35.5**	**+1.0**
JTK				*e*S	**Sn**	**18 31 59.3**	**+2.1**
JTSR	**Tashiro 2**	**2.28**	**6**	P	**Pn**	**18 31 41.2**	**+0.5**
JTSR				*e*S	**Sn**	**18 32 08.2**	**+0.1**
JSU	**Suzuyama**	**2.62**	**356**	P	**Pn**	**18 31 45.2**	**-0.2**
JNAR	**Kushima--Naru**	**2.69**	**12**	P	**Pn**	**18 31 47.1**	**+0.7**
JNAR				*e*S	**Sn**	**18 32 17.1**	**-1.2**
JOW	**Kunigami**	**2.93**	**226**	P	**Pn**	**18 31 49.3**	**-0.6**
JOW				*e*S	**Sn**	**18 32 24.8**	**+0.3**
JOW	**Kunigami**	**2.93**	**226**	Pn	**Pn**	**18 31 49.5**	**-0.5**
	32nm,0.3s,baz=92,slow=18,SNR=30						
JOW				Sn	**Sn**	**18 32 24.6**	**+0.1**
	49nm,0.3s,baz=128,slow=27,SNR=11						
JOW				LR	LR	18 33 08.4	
	comp=Z,2μm,21.3s,baz=173,slow=44						
JIH	**Iheya**	**3.00**	**233**	P	**Pn**	**18 31 50.5**	**-0.4**
JMZ	**Minamidaito 2**	**3.10**	**170**	P	**Pn**	**18 31 51.2**	**-1.1**
JMZ				*e*S	**Sn**	**18 32 25.6**	**-3.2**
CBIJ	**Chichi jima**	**10.36**	**97**	LR	LR	18 37 11.8	
	comp=Z,1μm,18.1s,baz=200,slow=35						
CN2	**Changchun**	**15.46**	**346**	⇑P	**P**	**18 34 45.5**	**+3.7**
CN2				AMB	AMB		
	comp=Z,70nm,0.8s						
BJT	**Baijiatuau**	**16.28**	**317**	*e*P	**P**	**18 34 53.5**	**+1.2**
	comp=Z,7.2nm,0.7s						
BJI	**Beijing**	**16.29**	**317**	P	**P**	**18 34 52.8**	**+0.3**
BJI				AMB	AMB		
	comp=Z,8.0nm,0.8s						
ENH	**Enshi**	**18.45**	**279**	*e*P	**P**	**18 35 20.0**	**+0.4**
	comp=Z,19nm,0.8s						
BTO	**Baotou**	**20.53**	**310**	*e*P	**P**	**18 35 46.3**	**+3.5**
GYA	**Guiyang**	**21.37**	**269**	⇑*i*P	**P**	**18 35 51.5**	**+0.1**
GYA				AMB	AMB		
	comp=Z,40nm,0.8s,mb4.8						
GYA				LR	LR		
	comp=N,2μm,17.1s,MS4.7						
GYA				LR	LR		
	comp=E,2μm,15.6s,MS4.7						
GYA				LR	LR		
	comp=Z,2μm,14.9s,MS4.7						
HIA	**Hailar**	**22.00**	**341**	*e*P	**P**	**18 35 56.1**	**-1.4**
	comp=Z,1.9nm,0.5s,mb3.8						
CD2	**Chengdu**	**23.38**	**282**	P	**P**	**18 36 11.0**	**-0.3**
CD2				S	**S**	**18 40 25.3**	**+6.9**
CD2				AMB	AMB		
	comp=Z,30nm,0.6s,mb4.9						
CD2				AMB	AMB		
	comp=Z,210nm,5.4s						
CD2				LR	LR		
	comp=E,2μm,15.6s						
CD2				LR	LR		
	comp=Z,2μm,12.6s,MS4.8						
LZH	**Lanzhou**	**23.67**	**295**	*e*P	**P**	**18 36 14.0**	**-0.1**
LZH				AP		18 36 25.8	
LZH				XP		18 36 30.8	
LZH				AMB	AMB		
	comp=Z,32nm,1.3s,mb4.6						
KMI	**Kunming**	**25.12**	**268**	P	**P**	**18 36 28.5**	**+0.4**
KMI				AP	pP	18 36 35.0	-1.9
KMI				AMB	AMB		
	comp=Z,32nm,0.9s,mb4.8						
KMI				AMB	AMB		
	comp=Z,108nm,5.6s						
KMI				LR	LR		
	comp=N,1μm,18.1s,MS4.6						
KMI				LR	LR		
	comp=E,1μm,18.9s,MS4.6						
KMI				LR	LR		
	comp=Z,1μm,12.4s						
SONM	**Songino Array**	**26.64**	**322**	P	**P**	**18 36 40.1**	**-1.9**
	comp=Z,1.6nm,0.8s,mb3.6,baz=141,slow=9.5,SNR=7.2						
SONM				LR	LR	18 48 24.3	
	comp=Z,775nm,19.1s,MS4.3,baz=356,slow=39						
GTA	**Gaotai**	**27.47**	**301**	P	**P**	**18 36 48.3**	**-1.4**
GTA				XP	sP	18 37 02.0	-0.4
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.0						
LSA	**Lhasa**	**34.34**	**281**	*e*P	**P**	**18 37 50.7**	**+0.2**
	comp=Z,6.4nm,0.9s,mb4.5						
SHL	**Shillong**	**34.52**	**274**	*e*P	**P**	**18 37 50.5**	**-1.6**
GUN	**Gumba**	**39.21**	**280**	*e*P	**P**	**18 38 31.0**	**-0.6**
	comp=Z,45nm,0.7s,mb5.3						
PKI	**Pulchoki**	**39.69**	**279**	*e*P	**P**	**18 38 34.4**	**-1.2**
	comp=Z,36nm,0.8s,mb5.1						
KKN	**Kakani**	**39.76**	**280**	*e*P	**P**	**18 38 34.8**	**-1.3**
	comp=Z,46nm,0.9s,mb5.2						
DMN	**Daman**	**39.95**	**279**	*e*P	**P**	**18 38 36.6**	**-1.1**
	comp=Z,23nm,0.8s,mb4.9						
GKN	**Gorkha**	**40.27**	**280**	*e*P	**P**	**18 38 39.0**	**-1.3**
	comp=Z,26nm,0.7s,mb5.0						
KOLN	**Koldanda**	**41.21**	**280**	*e*P	**P**	**18 38 46.8**	**-1.2**
	comp=Z,29nm,1.0s,mb4.9						
ZAL	**Zalesovo**	**41.52**	**320**	P	**P**	**18 38 50.3**	**+0.1**
	comp=Z,0.9nm,0.5s,mb3.7,baz=259,slow=6.6,SNR=4.0						
WRAB	**Tennant Creek**	**48.67**	**175**	*e*P	**P**	**18 39 47.9**	**+0.1**
WRA	**Warramunga Arr**	**48.67**	**175**	P	**P**	**18 39 47.3**	**-0.5**
	comp=Z,2.7nm,0.9s,mb4.3,baz=353,slow=8.3,SNR=8.6						
CHKZ	**Chkalovo**	**49.69**	**317**	*e*P	**P**	**18 39 53.5**	**-1.7**
	comp=Z,4.0nm,0.7s,mb4.6						
BVAR	**Borovoye Array**	**49.77**	**317**	P	**P**	**18 39 55.0**	**-0.8**
	comp=Z,13nm,0.7s,mb5.0,baz=90,slow=8.9,SNR=60						
BVAR				PcP	PcP	18 41 15.2	-1.5
	comp=Z,2.5nm,0.8s,baz=124,slow=5.3,SNR=3.5						
BRVK	**Borovoye**	**49.84**	**317**	*e*P	**P**	**18 39 54.8**	**-1.6**
	comp=Z,17nm,0.7s,mb5.2						
CTA	**Charters Tower**	**50.97**	**161**	P	**P**	**18 40 05.6**	**+0.2**
	comp=Z,3.5nm,0.9s,mb4.3,baz=1.7,slow=12,SNR=3.6						
ASAR	**Alice Springs**	**52.34**	**176**	P	**P**	**18 40 15.1**	**-0.7**
	comp=Z,1.0nm,0.5s,mb4.0,baz=11,slow=12,SNR=17						
ARU	**Arti**	**56.67**	**321**	*e*P	**P**	**18 40 45.0**	**-2.0**
	comp=Z,18nm,1.0s,mb5.0						
MCK	**McKinley**	**60.31**	**30**	*e*P	**P**	**18 41 11.8**	**-0.3**
	comp=Z,6.1nm,0.9s,mb4.6						
ILAR	**Eielson Array**	**61.09**	**29**	P	**P**	**18 41 16.8**	**-0.6**
	comp=Z,1.1nm,0.7s,mb4.1,baz=278,slow=6.1,SNR=15						
STKA	**Stephens Creek**	**61.32**	**169**	P	**P**	**18 41 19.9**	**+0.4**
	comp=Z,2.9nm,1.1s,mb4.3,baz=67,slow=7.7,SNR=2.4						
INK	**Inuvik**	**65.61**	**24**	P	**P**	**18 41 47.7**	**+0.6**
	comp=Z,0.9nm,0.5s,mb4.1,baz=277,slow=4.2,SNR=3.5						
INK				LR	LR	19 11 59.1	
	comp=Z,202nm,18.5s,MS4.3,baz=141,slow=38						
ARCES	**ARCESS Array B**	**68.33**	**339**	P	**P**	**18 42 04.0**	**-0.3**
	comp=Z,4.2nm,0.8s,mb4.5,baz=45,slow=6.4,SNR=3.9						
GNI	**Garni**	**69.10**	**305**	P	**P**	**18 42 09.5**	**-0.1**
	comp=Z,2.3nm,0.5s,mb4.4,baz=18,slow=13,SNR=3.9						
KIV	**Kislovodsk**	**69.21**	**309**	*e*P	**P**	**18 42 10.5**	**+0.4**
	comp=Z,26nm,1.1s,mb5.1						
FINES	**FINESS Array B**	**71.61**	**331**	P	**P**	**18 42 23.7**	**-0.7**
	comp=Z,2.4nm,0.5s,mb4.4,baz=74,slow=6.2,SNR=43						
AKASG	**Malin Array Be**	**74.90**	**320**	P	**P**	**18 42 42.3**	**-1.5**
	comp=Z,2.4nm,0.5s,mb4.4,baz=53,slow=6.3,SNR=18						
YKA	**Yellowknife Ar**	**75.22**	**26**	P	**P**	**18 42 45.7**	**+0.3**
	comp=Z,1.7nm,0.7s,mb4.1,baz=303,slow=5.6,SNR=29						
HILS	**Ha'il**	**76.38**	**294**	P	**P**	**18 42 54.4**	**+1.7**
AFFS	**'Afif**	**76.89**	**290**	P	**P**	**18 42 56.1**	**+0.5**
BRTR	**Keskin Array B**	**77.09**	**308**	P	**P**	**18 42 56.1**	**-0.3**
	comp=Z,11nm,0.8s,mb4.8,baz=97,slow=5.3,SNR=42						
NB2	**NORSAR Subarra**	**77.87**	**334**	P	**P**	**18 43 00.4**	**+0.2**
	comp=Z,0.9nm,0.6s,mb3.9,baz=50,slow=5.3						
NOA	**NORSAR Array B**	**77.87**	**334**	P	**P**	**18 42 59.2**	**-1.0**
	comp=Z,1.3nm,0.7s,mb4.0,baz=49,slow=5.5,SNR=4.9						
TATS	**Tathlith**	**78.42**	**286**	P	**P**	**18 43 04.3**	**+0.2**
KWP	**Kalwaria**	**79.08**	**321**	*e*P	**P**	**18 43 07.8**	**+0.7**
	comp=Z,7.2nm,0.7s,mb4.7						
OJC	**Ojcow**	**80.34**	**322**	*e*P	**P**	**18 43 15.6**	**+1.8**
JMQS	**Jabal Moqyreh**	**80.38**	**298**	P	**P**	**18 43 15.6**	**+1.1**
UMJS	**Umm Lajj**	**80.93**	**294**	P	**P**	**18 43 19.5**	**+2.0**
CLL	**Collm**	**83.18**	**326**	P	**P**	**18 43 30.0**	**+1.4**
BMO	**Blue Mountains**	**84.05**	**42**	*e*P	**P**	**18 43 34.5**	**+1.3**
KHC	**Kasperske Hory**	**84.25**	**324**	*e*P	**P**	**18 43 35.0**	**+1.0**
GERES	**GERESS Array B**	**84.36**	**324**	P	**P**	**18 43 35.3**	**+0.7**
	comp=Z,1.2nm,0.7s,mb4.1,baz=45,slow=3.8,SNR=12						
FFC	**Flin Flon**	**85.26**	**28**	*e*P	**P**	**18 43 40.1**	**+1.2**
	comp=Z,3.4nm,0.9s,mb4.5						
NVAR	**Mina Array Bea**	**87.13**	**47**	P	**P**	**18 43 49.7**	**+1.1**
	comp=Z,0.9nm,0.6s,mb4.2,baz=306,slow=5.6,SNR=7.6						
AQU	**L'Aquila**	**88.57**	**319**	*e*P	**P**	**18 43 55.9**	**+0.6**
	comp=Z,12nm,0.6s,mb5.4						
PDAR	**Pinedale Array**	**89.76**	**40**	P	**P**	**18 44 02.8**	**+1.8**
	comp=Z,0.8nm,0.8s,mb4.1,slow=3.0,SNR=7.7						
DBIC	**Dimbokro**	**124.46**	**302**	PKP	PKPdf	18 50 02.8	-3.7
	comp=Z,2.4nm,1.0s,baz=160,slow=3.6,SNR=3.5						

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*IDC **29** 18:35:47.0±0.8,11.19N×92.01E,mb4.1/14,mb1 4.2/15, mb1mx4.1/20,mbtmp4.0/15,MS3.4/1,Ms1 3.6/1, ms1mx3.1/26,Error ellipse: s-maj=33.5km s-min=15.1km az=49.0*

*NEIC **29** 18:35:51.6±0.7,11.30N×92.20E,h30^{km},mb4.5/8,Error ellipse: s-maj=21.3km s-min=19.6km az=94.0*

*BJI **29** 18:35:53.1,11.19N×92.47E,h30^{km},mb4.0,Ms4.4*

ISC 29 18:35:50.3±0.5**,11.23N**±0.09×**92.15E**±0.09**,h33**^{km}**,n28, σ0^{s}86**/28**,mb4.2**/22**,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.73**	**42**	Pn	**P**	**18 38 11.6**	**+0.5**
	baz=235,slow=14,SNR=1.4						
CMAR				LR	LR	18 43 01.0	
	comp=Z,206nm,18.6s,baz=215,slow=44						
HYB	**Hyderabad**	**14.53**	**297**	*e*P	**P**	**18 39 25.0**	**+9.4**
HYB				*e*S	**S**	**18 41 42.0**	**-14**
LSA	**Lhasa**	**18.40**	**357**	*e*P	**P**	**18 40 08.9**	**+4.2**
	5.6nm,0.7s						
DDI	**Dehra Dun**	**23.07**	**328**	*e*	**P**	**18 40 57.2**	**+3.2**
ENH	**Enshi**	**24.87**	**38**	*e*P	**P**	**18 41 11.2**	**-0.3**
	16nm,0.8s,mb4.6						
LZH	**Lanzhou**	**26.91**	**21**	*e*P	**P**	**18 41 34.8**	**+4.3**
LZH				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.3						
GTA	**Gaotai**	**28.88**	**12**	P	**P**	**18 41 56.0**	**+7.8**
GTA				AMB	AMB		
	comp=Z,3.0nm,1.5s,mb3.8						
SONM	**Songino Array**	**38.40**	**15**	P	**P**	**18 43 10.8**	**+0.6**
	comp=Z,0.3nm,0.6s,mb3.2,baz=194,slow=12,SNR=2.5						
ZAL	**Zalesovo**	**42.99**	**354**	P	**P**	**18 43 47.5**	**-0.7**
	comp=Z,1.4nm,1.0s,mb3.6,baz=220,slow=8.2,SNR=5.1						
BVAR	**Borovoye Array**	**45.20**	**342**	P	**P**	**18 44 06.1**	**+0.2**
	comp=Z,1.8nm,1.0s,mb3.9,baz=169,slow=7.3,SNR=3.8						
CHKZ	**Chkalovo**	**45.69**	**342**	*e*P	**P**	**18 44 09.1**	**-0.8**
	comp=Z,4.5nm,1.0s,mb4.3						
GNI	**Garni**	**50.71**	**313**	P	**P**	**18 44 49.7**	**+0.7**
	comp=Z,11nm,1.0s,mb4.7,baz=97,slow=11,SNR=5.3						
WRA	**Warramunga Arr**	**51.81**	**126**	P	**P**	**18 44 57.3**	**-0.3**
	comp=Z,3.5nm,0.3s,mb4.7,baz=302,slow=10,SNR=73						
WRAB	**Tennant Creek**	**51.82**	**126**	*e*P	**P**	**18 44 57.3**	**-0.3**
	comp=Z,10nm,0.6s,mb4.9						
KIV	**Kislovodsk**	**53.53**	**317**	P	**P**	**18 45 10.6**	**+0.5**
	comp=Z,9.9nm,0.9s,mb4.7						
ASAR	**Alice Springs**	**53.57**	**131**	P	**P**	**18 45 10.3**	**-0.4**
	comp=Z,1.7nm,0.5s,mb4.2,baz=306,slow=6.6,SNR=26						
BRTR	**Keskin Array B**	**58.77**	**310**	P	**P**	**18 45 46.4**	**-1.3**
	comp=Z,3.3nm,1.0s,mb4.3,baz=127,slow=6.2,SNR=6.3						
STKA	**Stephens Creek**	**63.84**	**134**	P	**P**	**18 46 22.9**	**+0.8**
	comp=Z,1.5nm,0.6s,mb4.2,baz=298,slow=9.6,SNR=6.5						
AKASG	**Malin Array Be**	**64.32**	**321**	P	**P**	**18 46 23.1**	**-1.7**
	comp=Z,1.2nm,0.6s,mb4.1,baz=88,slow=5.2,SNR=7.5						
FINES	**FINESS Array B**	**68.84**	**332**	P	**P**	**18 46 53.1**	**-0.1**
	comp=Z,2.6nm,0.7s,mb4.2,baz=107,slow=8.7,SNR=8.5						
ARCES	**ARCESS Array B**	**71.46**	**340**	P	**P**	**18 47 09.6**	**+0.5**
	comp=Z,2.9nm,0.8s,mb4.3,baz=80,slow=7.4,SNR=3.7						
GERES	**GERESS Array B**	**74.03**	**318**	P	**P**	**18 47 24.9**	**+0.3**
	comp=Z,1.0nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=9.7						
LBTB	**Lobatse**	**74.17**	**240**	*e*P	**P**	**18 47 25.4**	**-0.4**
	comp=Z,4.4nm,0.8s,mb4.4						
BOSA	**Boshof**	**75.74**	**237**	*e*P	**P**	**18 47 36.4**	**+1.5**
	comp=Z,6.6nm,0.9s,mb4.6						
NB2	**NORSAR Subarra**	**75.86**	**330**	P	**P**	**18 47 34.1**	**-0.7**
	comp=Z,1.0nm,0.8s,mb3.8,baz=92,slow=5.6						
NOA	**NORSAR Array B**	**75.86**	**330**	P	**P**	**18 47 34.3**	**-0.5**
	comp=Z,1.2nm,0.8s,mb3.9,baz=314,slow=27,SNR=3.3						
ILAR	**Eielson Array**	**92.38**	**22**	P	**P**	**18 48 58.4**	**-0.1**
	comp=Z,0.7nm,0.9s,mb4.0,baz=296,slow=5.5,SNR=5.9						
NVAR	**Mina Array Bea**	**122.99**	**28**	PKP	PKPdf	18 54 47.1	+3.2
	comp=Z,0.4nm,0.6s,baz=306,slow=2.0,SNR=4.3						

IDC 29 18:44:25.6±1.7**,5.70N**×**92.67E,mb3.6**/3**,mb1 3.9**/4**, mb1mx3.6**/18**,mbtmp3.6**/4**,Error ellipse: s-maj=69.4km s-min=30.2km az=49.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.08**	**25**	Pn	P	18 47 46.9	-1.9
	baz=214,slow=13,SNR=4.1						
WRA	**Warramunga Arr**	**48.25**	**123**	P	P	18 53 08.7	-2.0
	1.0nm,0.9s,baz=303,slow=8.5,SNR=3.7						
ASAR	**Alice Springs**	**49.70**	**128**	P	P	18 53 19.8	-2.0
	0.5nm,0.8s,baz=297,slow=8.1,SNR=3.3						
GERES	**GERESS Array B**	**78.47**	**319**	P	P	18 56 28.7	-1.4
	0.1nm,0.3s,baz=90,slow=5.3,SNR=4.0						

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*IDC **29** 18:50:14.8±0.5,5.59N×94.27E,mb5.1/16,mb1 5.2/16, mb1mx5.1/18,mbtmp5.0/16,MS4.8/21,Ms1 4.8/21, ms1mx4.7/29,Error ellipse: s-maj=21.5km s-min=14.0km az=44.0*

*CSEM **29** 18:50:18.4,5.61N×94.39E,h33^{km},mb5.8*

*MOS **29** 18:50:18.4±0.9,5.64N×94.31E,h33^{km},mb5.7/67, MS4.8/11,Error ellipse: s-maj=8.6km s-min=4.4km az=122.3*

*BJI **29** 18:50:20.4,5.48N×94.21E,h52^{km},mB5.5,mb5.5,Ms5.3, Msz5.0*

*SYO **29** 18:50:20.7,5.54N×94.35E,h39^{km},MB5.6*

*NEIC **29** 18:50:21.4±0.9,5.53N×94.28E,h48^{km}±8^{km},mb5.5/76, MS4.9/10,MW5.7,Error ellipse: s-maj=5.3km s-min=4.7km az=207.0,Moment Tensor Solution. s6 Moment tensor: Scale 10^{17}Nm; M$_{rr}$3.09; M$_{\theta\theta}$-0.02; M$_{\phi\phi}$-3.06; M$_{r\theta}$1.45; M$_{\theta\phi}$1.04; M$_{\phi r}$1.99; Best double couple: M$_0$4×10^{17} NP1: ϕ_s141°,δ37°,λ49°. NP2:ϕ_s9°,δ63°,λ117°. Principal axes: T 4.33, Plg62°, Azm321°; N -.58, Plg23°, Azm176°; P -3.75, Plg14°, Azm80°;*

*HRVD **29** 18:50:21.4±0.2,5.33N×94.13E,h43^{km},MW5.4/59, Centroid moment Tensor Solution. LP body waves: s56,c104;Mantle waves: s59,c112; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.16±.03; M$_{\theta\theta}$-0.49±.03; M$_{\phi\phi}$-0.68±.03; M$_{r\theta}$0.64±.03; M$_{\theta\phi}$0.77±.02; M$_{\phi r}$-0.59±.03; Best double couple: M$_0$1.53×10^{17} NP1: ϕ_s323°,δ28°,λ98°. NP2:ϕ_s135°,δ62°,λ86°. Principal axes: T 1.43, Plg72°, Azm35°; N .19, Plg4°, Azm136°; P -1.63, Plg17°, Azm228°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 29 18:50:18.8±0.2**,5.51N**±0.03×**94.31E**±0.02**,h40**^{km}**, h40**^{km}±2.0^{km}**:pP-P,n467,σ0^{s}97**/463**,mb5.5**/133**,MS4.9**/53**, 82C-11D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**6.49**	**75**	P	**P**	**18 51 56.0**	**+1.7**
	780nm,1.0s						
NST	**Nakhon Sawan**	**11.61**	**29**	P	**P**	**18 53 07.0**	**+2.0**
	92nm,0.5s						
KKTK	**Khon Kaen**	**13.62**	**37**	P	**P**	**18 53 34.8**	**+2.9**
	2μm,0.6s						
PALK	**Pallekele**	**13.63**	**278**	*e*P	**P**	**18 53 30.9**	**-1.1**
	111nm,1.5s						
CM31	**Chiang Mai Arr**	**13.65**	**19**	*e*P	**P**	**18 53 34.0**	**+1.9**
CMAR	**Chiang Mai Arr**	**13.65**	**19**	Pn	**P**	**18 53 35.2**	**+3.0**
	10nm,0.3s,baz=205,slow=14,SNR=62						
CMAR				LR	LR	18 58 36.6	
	comp=Z,3μm,20.9s,baz=205,slow=37						
CMAR				ScP		19 02 26.1	
	0.1nm,0.3s,baz=227,slow=3.2,SNR=12						
UBT	**Ubonrachathani**	**14.30**	**47**	P	**P**	**18 53 47.0**	**+6.3**
NANT	**Nan**	**14.61**	**25**	⇑P	**P**	**18 53 48.0**	**+3.2**
	465nm,1.0s						
MDRS	**Chennai**	**15.77**	**299**	*e*P	**P**	**18 53 58.0**	**-1.8**
MDRS				*i*		18 59 54.4	
	comp=Z,3μm,20.4s						
VIS	**Vishakhapatnam**	**16.20**	**319**	⇓*e*P	**P**	**18 54 03.3**	**-2.0**
VIS				*e*S	**S**	**18 56 57.2**	**-6.2**
VIS				*i*		19 00 47.2	
	comp=Z,3μm,20.8s						
KOD	**Kodaikanal**	**17.32**	**287**	⇓*e*P	**P**	**18 54 19.5**	**+0.1**
TRD	**Trivandrum**	**17.47**	**281**	*e*P	**P**	**18 54 21.9**	**+0.6**
TRD				*e*		18 54 28.5	
	comp=Z,76nm,1.7s						
TRD				*e*S	**S**	**18 57 30.0**	**-2.4**
TRD				*i*		19 00 54.4	
	comp=Z,5μm,20.5s						
COCO	**West Island**	**17.76**	**172**	*e*P	**P**	**18 54 25.3**	**+0.4**
	comp=Z,553nm,1.6s						
HYB	**Hyderabad**	**19.43**	**309**	*e*P	**P**	**18 54 41.0**	**-3.8**
HYB				pmax	pmax		
	comp=Z,80nm,1.0s						
HYB	**Hyderabad**	**19.43**	**309**	*i* P	**P**	**18 54 41.0**	**-3.8**
	comp=Z,80nm,1.0s						
HYB				*e*		18 58 04.0	
HYB				*e*S	**S**	**18 58 18.0**	**+1.4**
BOK	**Bokaro**	**19.91**	**337**	⇑*e*P	**P**	**18 54 49.6**	**-0.4**
BOK				*e*		18 54 53.1	
	comp=Z,420nm,1.2s						
BOK				*e*S	**S**	**18 58 27.0**	**+0.3**
BOK				*i*		19 03 27.5	
	comp=Z,3μm,21.6s						
SHL	**Shillong**	**20.08**	**354**	⇑*e*	**P**	**18 54 47.2**	**-4.6**
SHL				*e*		18 54 49.7	
	comp=Z,62nm,0.7s						
SHL				*e*		18 58 21.0	
SHL				*e*S	**S**	**18 58 30.6**	**+0.4**
QIZ	**Qiongzhong**	**20.25**	**47**	P	**P**	**18 54 55.0**	**+1.4**
QIZ				PP	PP	18 55 15.0	+0.8
QIZ				S	**S**	**18 58 36.5**	**+2.9**
QIZ				SS	SS	18 59 04.0	+0.3
QIZ				AMB	AMB		
	comp=Z,139nm,1.2s						
QIZ				LR	LR		
	comp=N,5μm,16.0s,MS5.1						
QIZ				LR	LR		
	comp=E,4μm,16.2s,MS5.1						
QIZ				LR	LR		
	comp=Z,5μm,20.5s,MS4.9						
QIZ	**Qiongzhong**	**20.25**	**47**	*e*P	**P**	**18 54 55.0**	**+1.4**
	comp=Z,645nm,1.8s						
QIZ				LR	LR		
	comp=Z,5μm,20.0s,MS4.9						
BLSP	**Bilaspur**	**20.29**	**326**	⇑*e*P	**P**	**18 54 53.8**	**-0.2**
BLSP				*e*		18 54 58.2	
	comp=Z,602nm,1.8s						
BLSP				*e*S	**S**	**18 58 35.2**	**+0.8**
BLSP				*i*		19 03 11.1	
	comp=Z,3μm,22.0s						
MNGI	**Mangalore**	**20.59**	**292**	*e*S	**S**	**18 58 40.6**	**+0.5**
MNGI				*i*		19 02 58.3	
	comp=Z,4μm,20.6s						
KMI	**Kunming**	**21.12**	**22**	⇑P	**P**	**18 55 04.5**	**+2.0**
KMI				AP		18 55 17.0	
KMI				XP		18 55 19.5	
KMI				PP	PP	18 55 29.8	+3.6
KMI				S	**S**	**18 58 53.8**	**+3.6**
KMI				XS		18 59 09.5	
KMI				SS	SS	18 59 30.5	+5.9
KMI				AMB	AMB		
	comp=Z,180nm,1.5s,mb5.2						
KMI				LR	LR		
	comp=N,3μm,21.0s,MS4.8						
KMI				LR	LR		
	comp=E,3μm,18.7s,MS4.8						
KMI				LR	LR		
	comp=Z,3μm,24.6s						
NGP	**Nagpur**	**21.46**	**318**	⇑*e*P	**P**	**18 55 07.2**	**+1.2**
	comp=Z,80nm,0.8s,mb5.1						
NGP				*e*S	**S**	**18 58 55.2**	**-1.6**
LATR	**Latur**	**21.56**	**308**	*e*P	**P**	**18 55 08.0**	**+1.1**
LATR				*e*S	**S**	**18 58 58.5**	**0.0**
GOA	**Goa**	**22.43**	**298**	*e*	**P**	**18 55 22.3**	**+6.7**
GOA				*e*		18 59 25.9	
GOA				*i*		19 03 53.8	
	comp=Z,2μm,20.7s						
AKL	**Akola**	**22.58**	**314**	⇑*e*P	**P**	**18 55 17.8**	**+0.6**
AKL				*e*		18 55 25.3	
	comp=Z,323nm,1.7s						
AKL				*e*	**S**	**18 59 23.4**	**+6.0**
KAD	**Karad**	**22.92**	**302**	⇑*e*P	**P**	**18 55 21.8**	**+1.3**
KAD				*e*		18 55 24.3	
	comp=Z,50nm,1.3s						
KAD				*e*S	**S**	**18 59 25.5**	**+2.1**
KAD				*i*		19 04 20.5	
	comp=Z,2μm,22.4s						
PKI	**Pulchoki**	**23.52**	**340**	*e*P	**P**	**18 55 26.4**	**+0.1**
	comp=Z,506nm,1.3s,mb5.8						
DMN	**Daman**	**23.66**	**339**	*e*P	**P**	**18 55 27.9**	**+0.3**
	comp=Z,579nm,1.2s,mb5.9						
GUN	**Gumba**	**23.68**	**341**	*e*P	**P**	**18 55 27.6**	**-0.2**
	comp=Z,1μm,1.4s,mb6.2						
KKN	**Kakani**	**23.77**	**340**	*e*P	**P**	**18 55 28.5**	**-0.2**
	comp=Z,649nm,1.1s,mb6.0						
POO	**Poona**	**23.79**	**305**	⇑*e*P	**P**	**18 55 30.6**	**+1.6**
POO				*e*		18 55 34.1	
	comp=Z,85nm,1.6s						
POO				*e*S	**S**	**18 59 41.7**	**+3.0**
POO				*i*		19 04 49.0	
	comp=Z,2μm,22.6s						
GYA	**Guiyang**	**23.95**	**28**	⇑*i*P	**P**	**18 55 31.5**	**+1.1**
GYA				AP		18 55 41.5	
GYA				S	**S**	**18 59 47.5**	**+6.2**
GYA				AMB	AMB		
	comp=Z,530nm,0.8s,mb6.0						
GYA				AMB	AMB		
	comp=Z,4μm,10.2s						
GYA				LR	LR		
	comp=N,8μm,20.7s,MS5.2						
GYA				LR	LR		
	comp=E,3μm,17.9s,MS5.2						
GYA				LR	LR		
	comp=Z,6μm,19.8s,MS5.1						
BHPL	**Bhopal**	**24.00**	**319**	⇑*e*P	**P**	**18 55 32.0**	**+1.1**
BHPL				*e*		18 55 35.1	
	comp=Z,119nm,0.7s						
BHPL				*e*S	**S**	**18 59 44.7**	**+2.5**
BHPL				*e*		19 05 14.6	
	comp=Z,2μm,20.6s						
BHPL				*i*		19 05 32.8	
	comp=Z,3μm,19.9s						
GKN	**Gorkha**	**24.19**	**339**	*e*P	**P**	**18 55 33.3**	**+0.5**
	comp=Z,972nm,1.0s,mb6.2						
LSA	**Lhasa**	**24.25**	**353**	*e*P	**P**	**18 55 33.1**	**-0.3**
LSA				pmax	pmax		
	comp=Z,257nm,0.9s,mb5.7						
LSA				MLR	MLR		
	comp=Z,2μm,20.0s,MS4.5						
LSA	**Lhasa**	**24.25**	**353**	*e*P	**P**	**18 55 33.1**	**-0.2**
	comp=Z,257nm,0.9s,mb5.7						

LSA				LR	LR		
	comp=Z,2µm,20.0s,MS4.5						
KOLN	**Koldanda**	**24.37**	**336**	*e*P	**P**	**18 55 35.5**	**+0.9**
	comp=Z,2µm,1.5s,mb6.3						
BOM	**Bombay**	**24.82**	**304**	*e*P	**P**	**18 55 39.5**	**+0.5**
BOM				*e*		19 00 00.9	
BOM				*i*		19 04 16.9	
	comp=N,2µm,24.0s						
DGAR	**Diego Garcia**	**25.30**	**240**	*e*P	**P**	**18 55 44.7**	**+1.1**
DGAR				pmax	pmax		
	comp=Z,450nm,1.5s,mb5.8						
DGAR	**Diego Garcia**	**25.30**	**240**	*e*P	**P**	**18 55 44.7**	**+1.1**
	comp=Z,450nm,1.5s,mb5.8						
GZH	**Guangzhou**	**25.35**	**45**	P	**P**	**18 55 50.0**	**+6.0**
GZH				AMB	AMB		
	comp=Z,1µm,6.5s						
GZH				LR	LR		
	comp=N,4µm,14.0s,MS5.3						
GZH				LR	LR		
	comp=E,4µm,12.7s,MS5.3						
GZH				LR	LR		
	comp=Z,9µm,14.6s,MS5.4						
CD2	**Chengdu**	**26.79**	**18**	P	**P**	**18 55 56.8**	**-0.5**
CD2				S	**S**	**19 00 25.3**	**-3.3**
CD2				AMB	AMB		
	comp=Z,100nm,0.7s,mb5.5						
CD2				LR	LR		
	comp=N,2µm,17.4s						
CD2				LR	LR		
	comp=Z,2µm,16.2s,MS4.8						
PTH	**Pithoragarh**	**27.37**	**333**	*e*	**P**	**18 56 00.3**	**-2.3**
PTH				*e*		19 00 55.4	
TGY	**Tagaytay City**	**27.57**	**70**	P	**P**	**18 56 05.7**	**+1.1**
	comp=Z,169nm,0.5s,mb5.9,baz=191,slow=4.3,SNR=6.7						
AJM	**Ajmer**	**28.06**	**320**	*e*P	**P**	**18 56 09.3**	**+0.4**
AJM				*e*		18 56 11.0	
	comp=Z,56nm,1.5s						
LQP	**Lukban**	**28.14**	**70**⇑	*e*P	**P**	**18 56 10.3**	**+0.6**
NDI	**New Delhi**	**28.17**	**327**⇑	*e*P	**P**	**18 56 09.0**	**-0.9**
ENH	**Enshi**	**28.49**	**28**	*e*P	**P**	**18 56 11.7**	**-1.0**
	comp=Z,77nm,0.6s,mb5.5						
ENH				LR	LR		
	comp=Z,5µm,20.0s,MS5.2						
DDI	**Dehra Dun**	**29.05**	**330**	*e*	**P**	**18 56 18.0**	**+0.4**
DDI				*e*	**S**	**19 01 19.8**	**+15**
BHJ	**Bhuj**	**29.60**	**309**	*e*P	**P**	**18 56 24.6**	**+2.0**
BHJ				*e*	**S**	**19 01 29.0**	**+15**
BHJ				*i*		19 09 21.3	
	comp=Z,2µm,18.9s						
QZH	**Quanzhou**	**30.27**	**48**⇑	*i*P	**P**	**18 56 29.5**	**+0.9**
QZH				*e*S	**S**	**19 01 27.8**	**+3.5**
QZH				AMB	AMB		
	comp=Z,260nm,1.4s,mb5.8						
QZH				AMB	AMB		
	comp=Z,1µm,4.2s						
QZH				LR	LR		
	comp=N,6µm,14.9s,MS5.5						
QZH				LR	LR		
	comp=E,6µm,14.0s,MS5.5						
QZH				LR	LR		
	comp=Z,8µm,18.6s,MS5.4						
SDNR	**Sundarnagar**	**30.54**	**330**	*e*P	**P**	**18 56 31.0**	**+0.1**
WHN	**Wuhan**	**31.24**	**35**	⇑P	**P**	**18 56 37.5**	**+0.4**
WHN				LR	LR		
	comp=N,1µm,12.0s,MS5.3						
WHN				LR	LR		
	comp=E,4µm,14.2s,MS5.3						
WHN				LR	LR		
	comp=Z,8µm,16.5s,MS5.5						
LZH	**Lanzhou**	**31.67**	**15**	⇑P	**P**	**18 56 40.3**	**-0.5**
LZH				AP	pP	18 56 51.0	-0.8
LZH				PP	PP	18 57 45.0	-1.3
LZH				S	**S**	**19 01 46.0**	**-0.3**
LZH				AMB	AMB		
	comp=Z,220nm,1.5s,mb5.8						
LZH				AMB	AMB		
	comp=Z,633nm,4.0s						
LZH				LR	LR		
	comp=Z,6µm,4.8s						
THN	**Thein Dam**	**31.92**	**329**	*e*P	**P**	**18 56 41.6**	**-1.5**
	comp=Z,15nm,0.8s,mb4.9						
GTA	**Gaotai**	**34.12**	**8**⇑	*i*P	**P**	**18 57 01.8**	**-0.2**
GTA				PP	PP	18 58 13.0	-4.1
GTA				S	**S**	**19 02 18.0**	**-6.3**
GTA				SCS	ScS	19 07 20.5	+0.4
GTA				AMB	AMB		
	comp=Z,83nm,1.2s,mb5.5						
GTA				AMB	AMB		
	comp=Z,204nm,7.2s						
GTA				LR	LR		
	comp=N,2µm,20.9s,MS4.8						
GTA				LR	LR		
	comp=E,1µm,25.1s,MS4.8						
GTA				LR	LR		
	comp=Z,2µm,22.8s,MS4.7						
NJ2	**Nanjing**	**34.99**	**38**	*e*P	**P**	**18 57 10.5**	**+0.9**
NJ2				AP	pP	18 57 19.5	-1.2
NJ2				XP	sP	18 57 25.0	-0.7
NJ2				PP	PP	18 58 30.0	+1.5
NJ2				S	**S**	**19 02 35.0**	**-2.9**
NJ2				AMB	AMB		
	comp=Z,230nm,0.8s,mb6.2						
NJ2				AMB	AMB		
	comp=Z,950nm,8.1s						
NJ2				LR	LR		
	comp=N,6µm,15.2s,MS5.6						
NJ2				LR	LR		
	comp=E,6µm,14.8s,MS5.6						
NJ2				LR	LR		
	comp=Z,10µm,13.4s,MS5.7						
SSE	**Sheshan**	**35.84**	**41**	P	**P**	**18 57 14.8**	**-2.0**
SSE				S	**S**	**19 02 50.5**	**-0.5**
SSE				AMB	AMB		
	comp=Z,51nm,0.8s,mb5.5						
SSE				AMB	AMB		
	comp=Z,334nm,5.1s						
SSE				LR	LR		
	comp=N,2µm,14.9s,MS5.2						
SSE				LR	LR		
	comp=E,3µm,14.8s,MS5.2						
SSE				LR	LR		
	comp=Z,5µm,14.2s,MS5.4						
TIY	**Taiyuan**	**36.07**	**25**	*e*P	**P**	**18 57 19.0**	**+0.3**
TIY				S	**S**	**19 02 47.0**	**-7.4**
TIY				LR	LR		
	comp=N,4µm,16.0s						
MBWA	**Marble Bar**	**36.39**	**138**	*e*P	**P**	**18 57 19.8**	**-1.8**
MBWA				LR	LR		
	comp=Z,1µm,20.0s,MS4.6						
TIA	**Tai'an**	**37.05**	**31**	P	**P**	**18 57 27.3**	**+0.4**
TIA				AMB	AMB		
	comp=Z,88nm,1.2s,mb5.5						
BTO	**Baotou**	**37.69**	**20**	*e*P	**P**	**18 57 31.8**	**-0.4**
BTO				S	**S**	**19 03 19.8**	**+0.6**
BTO				AMB	AMB		
	comp=Z,36nm,0.7s,mb5.2						
BTO				LR	LR		
	comp=N,337nm,6.7s						
BTO				LR	LR		
	comp=E,1µm,13.7s						
KSH	**Kashi**	**37.69**	**337**⇑	*i*P	**P**	**18 57 32.5**	**+0.2**
KSH				AP	pP	18 57 41.5	-1.9
KSH				PP	PP	18 58 59.3	-2.3
KSH				S	**S**	**19 03 18.0**	**-1.2**
KSH				PCS		19 03 39.0	
KSH				SCS	ScS	19 07 39.5	-0.1
KSH				AMB	AMB		
	comp=Z,330nm,6.6s						
KSH				LR	LR		
	comp=N,2µm,22.2s						
KSH				LR	LR		
	comp=E,520nm,8.8s						
HHC	**Hu-ho-hao-te**	**38.44**	**21**⇑	*i*P	**P**	**18 57 39.5**	**+1.0**
HHC				AP	pP	18 57 50.0	+0.3
HHC				XP	sP	18 57 56.0	+1.4
HHC				PP	PP	18 59 09.8	-0.6
HHC				PCP	PcP	18 59 52.5	+0.7
HHC				S	**S**	**19 03 30.5**	**-0.1**
HHC				XS		19 03 50.8	
HHC				SS	SS	19 06 11.5	-0.4
HHC				SCS	ScS	19 07 45.0	+1.1
HHC				AMB	AMB		
	comp=Z,80nm,1.3s,mb5.3						
HHC				AMB	AMB		
	comp=Z,602nm,4.5s						
HHC				LR	LR		
	comp=N,3µm,17.8s,MS5.2						
HHC				LR	LR		
	comp=E,1µm,17.8s,MS5.2						
HHC				LR	LR		
	comp=Z,3µm,16.7s,MS5.1						
WMQ	**Urumqi**	**38.60**	**352**	⇑P	**P**	**18 57 40.8**	**+1.0**
WMQ				AP	pP	18 57 50.8	-0.2
WMQ				XP	sP	18 57 55.3	-0.6
WMQ				PP	PP	18 59 13.5	+1.3
WMQ				PPP	PPP	18 59 36.0	+0.7
WMQ				S	**S**	**19 03 34.8**	**+1.8**
WMQ				AMB	AMB		
	comp=Z,89nm,1.0s,mb5.5						
WMQ				AMB	AMB		
	comp=Z,168nm,8.6s						
WMQ				LR	LR		
	comp=N,1µm,27.4s,MS4.8						
WMQ				LR	LR		
	comp=E,1µm,25.0s,MS4.8						
WMQ				LR	LR		
	comp=Z,2µm,28.0s,MS4.7						
BJT	**Baijiatuau**	**39.60**	**27**	*e*P	**P**	**18 57 49.6**	**+1.5**
BJT				pmax	pmax		
	comp=Z,204nm,1.3s						
BJT	**Baijiatuau**	**39.60**	**27**	*e*P	**P**	**18 57 49.6**	**+1.4**
	comp=Z,204nm,1.3s,mb5.7						
BJI	**Beijing**	**39.62**	**27**	P	**P**	**18 57 49.8**	**+1.5**
BJI				AMB	AMB		
	comp=Z,144nm,1.3s,mb5.5						
BJI				AMB	AMB		
	comp=Z,743nm,4.4s						
BJI				LR	LR		
	comp=N,2µm,19.3s,MS4.9						
BJI				LR	LR		
	comp=E,463nm,21.5s,MS4.9						
BJI				LR	LR		
	comp=Z,2µm,23.6s,MS4.9						
KZA	**Kyzart**	**40.17**	**338**	P	**P**	**18 57 52.6**	**-0.2**
	SNR=12						
UCH	**Uchtor**	**40.58**	**337**	P	**P**	**18 57 57.4**	**+1.2**
	SNR=46						
TKM2	**Tokmak 2**	**40.78**	**339**	P	**P**	**18 57 58.6**	**+0.7**
	SNR=30						
KBK	**Karagaybulak**	**40.78**	**338**	P	**P**	**18 57 59.2**	**+1.3**
	SNR=66						
AML	**Almayashu**	**40.82**	**336**	P	**P**	**18 57 59.5**	**+1.3**
	SNR=62						
AAK	**Ala-Archa**	**40.94**	**338**	P	**P**	**18 57 60.0**	**+0.8**
	SNR=19						
AAK	**Ala-Archa**	**40.94**	**338***c*	*i*P	**P**	**18 57 59.3**	**+0.1**
AAK				pmax	pmax		
	comp=Z,73nm,1.9s,mb5.0						
AAK				MLR	MLR		
	comp=Z,2µm,22.0s,MS4.9						
AAK	**Ala-Archa**	**40.94**	**338**	*e*P	**P**	**18 57 58.8**	**-0.4**
	comp=Z,107nm,1.5s,mb5.2						
CHMS	**Chumysh**	**41.15**	**338**	P	**P**	**18 58 01.2**	**+0.3**
	SNR=20						
EKS2	**Erkin-Say**	**41.23**	**337**	P	**P**	**18 58 02.6**	**+1.0**
	SNR=25						
DL2	**Dalian**	**41.44**	**33**	P	**P**	**18 58 03.8**	**+0.4**
DL2				AMB	AMB		
	comp=Z,80nm,1.3s,mb5.2						
DL2				LR	LR		
	comp=N,1µm,17.0s						
DL2				LR	LR		
	comp=E,800nm,11.0s						
DL2				LR	LR		
	comp=Z,1µm,17.1s,MS4.8						
USP	**Ospenovka**	**41.48**	**338**	P	**P**	**18 58 04.1**	**+0.5**
	SNR=46						
MKAR	**Makanchi Array**	**42.42**	**348**	*i* P	**P**	**18 58 11.4**	**0.0**
MKAR				pmax	pmax		
	comp=Z,87nm,0.7s						
INCN	**Inchon**	**43.37**	**38**	*e*P	**P**	**18 58 18.8**	**-0.5**
	comp=Z,251nm,1.8s,mb5.6						
SONM	**Songino Array**	**43.43**	**12**	P	**P**	**18 58 19.5**	**-0.1**
	comp=Z,63nm,1.0s,mb5.3,baz=198,slow=7.4,SNR=194						
SONM				PcP	PcP	19 00 07.9	0.0
	comp=Z,7.1nm,0.7s,baz=200,slow=3.9,SNR=6.1						
SONM				LR	LR	19 18 33.4	
	comp=Z,2µm,20.9s,MS4.9,baz=193,slow=39						
ULN	**Ulaanbaatar**	**43.59**	**12**⇑	*i*P	**P**	**18 58 20.5**	**-0.4**
ULN	**Ulaanbaatar**	**43.59**	**12**	*e*P	**P**	**18 58 20.3**	**-0.6**
	comp=Z,81nm,1.2s,mb5.3						
ULN				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
NWAO	**Narrogin (SRO)**	**43.99**	**152**	P	**P**	**18 58 23.0**	**-1.3**
KS15	**Wonju Array Si**	**44.13**	**39**	*e*P	**P**	**18 58 24.6**	**-0.8**
SNY	**Shenyang**	**44.58**	**31**	⇑P	**P**	**18 58 29.0**	**+0.1**
SNY				PP	PP	19 00 10.5	-3.7
SNY				AMB	AMB		
	comp=Z,80nm,1.8s,mb5.2						
SNY				LR	LR		
	comp=N,840nm,17.6s,MS5.0						
SNY				LR	LR		
	comp=E,1µm,19.4s,MS5.0						
SNY				LR	LR		
	comp=Z,2µm,19.8s,MS5.0						
ZAK	**Zakamensk**	**45.35**	**8**⇓	*i*P	**P**	**18 58 34.1**	**-0.9**
ZAK				*e*		19 00 13.5	
MOY	**Mondy**	**46.34**	**6**	*e*P	**P**	**18 58 43.0**	**+0.2**
TLY	**Talaya**	**46.67**	**8**	P	**P**	**18 58 46.1**	**+0.7**
	comp=Z,196nm,1.9s,mb5.7,SNR=8.1						
TLY	**Talaya**	**46.67**	**8**	*e*P	**P**	**18 58 45.0**	**-0.4**
TLY				*e*		19 01 24.5	
TLY				*e*S	**S**	**19 05 24.1**	**-7.1**
TLY				*e*SS	SS	19 08 29.2	-21
TLY				pmax	pmax		
	comp=Z,50nm,1.8s,mb5.1						
TLY				MLR	MLR		
	comp=Z,2µm,23.0s,MS5.0						
TLY	**Talaya**	**46.67**	**8**	*e*P	**P**	**18 58 45.4**	**+0.1**
	comp=Z,151nm,1.8s,mb5.6						
WRA	**Warramunga Arr**	**46.79**	**124**	*i* P	**P**	**18 58 46.6**	**-0.1**
WRA				pmax	pmax		
	comp=Z,26nm,0.6s						
WRA	**Warramunga Arr**	**46.79**	**124**	P	**P**	**18 58 46.6**	**-0.1**
	comp=Z,26nm,0.6s,mb5.4,baz=306,slow=8.6,SNR=381						
WRAB	**Tennant Creek**	**46.79**	**124**	*e*P	**P**	**18 58 46.5**	**-0.2**
WRAB				pmax	pmax		
	comp=Z,62nm,0.7s,mb5.7						
WRAB				MLR	MLR		
	comp=Z,276nm,20.0s,MS4.2						
WRAB	**Tennant Creek**	**46.79**	**124**	*e*P	**P**	**18 58 46.5**	**-0.2**
	comp=Z,62nm,0.7s,mb5.7						
WRAB				LR	LR		
	comp=Z,276nm,20.0s,MS4.2						
HASS	**Wahat al Ahsa'**	**46.97**	**299**	P	**P**	**18 58 49.4**	**+1.3**
IRK	**Irkutsk**	**47.31**	**8**	*e*P	**P**	**18 58 49.9**	**-0.5**
IRK				*e*	pP	18 59 03.1	+1.4
IRK				*e*		19 05 49.7	
ASAR	**Alice Springs**	**48.30**	**128**	P	**P**	**18 58 58.2**	**-0.3**
	comp=Z,15nm,0.5s,mb5.2,baz=300,slow=7.4,SNR=246						
ASAR				LR	LR	19 18 08.9	
	comp=Z,505nm,22.0s,MS4.5,baz=299,slow=35						
HIA	**Hailar**	**48.63**	**22**	*e*P	**P**	**18 59 00.1**	**-0.6**
HIA				pmax	pmax		
	comp=Z,86nm,1.3s						
HIA	**Hailar**	**48.63**	**22**	*e*P	**P**	**18 59 00.1**	**-0.6**
	comp=Z,86nm,1.3s,mb5.6						
ZAL	**Zalesovo**	**48.90**	**353**	*i* P	**P**	**18 59 02.6**	**-0.1**
ZAL	**Zalesovo**	**48.90**	**353**	P	**P**	**18 59 02.6**	**-0.2**
	comp=Z,60nm,0.6s,mb5.8,baz=208,slow=6.5,SNR=256						
ZAL				LR	LR	19 24 06.3	
	comp=Z,1µm,21.5s,MS4.8,baz=205,slow=42						
MDJ	**Mudanjiang**	**49.68**	**33**	P	**P**	**18 59 09.3**	**+0.4**
MDJ				AP	pP	18 59 18.5	-1.7
MDJ				AMB	AMB		
	comp=Z,92nm,1.2s,mb5.7						
MDJ				LR	LR		
	comp=E,1µm,17.8s						
MDJ				LR	LR		
	comp=Z,1µm,17.8s,MS5.0						
MDJ	**Mudanjiang**	**49.68**	**33**	*e*P	**P**	**18 59 08.7**	**-0.2**
	comp=Z,190nm,1.5s,mb5.9						
MDJ				*e*pP	pP	18 59 21.4	+1.2
NVS	**Novosibirsk**	**50.00**	**352**	*i* P	**P**	**18 59 09.9**	**-1.2**
NVS				*e*	pP	18 59 18.6	-3.9
NVS				*i* S	**S**	**19 06 17.5**	**-0.2**
NVS				*i* PS	PS	19 06 33.0	+1.3
NVS				pmax	pmax		
	comp=Z,174nm,1.2s,mb6.0						
NVS				pmax	pmax		
	comp=N,165nm,1.4s						
NVS				smax			
	comp=N,118nm,2.3s						
NVS				smax			
	comp=E,124nm,2.2s						
KAMS	**Al Khamasin**	**50.44**	**292**	P	**P**	**18 59 15.2**	**+0.2**
MZLS	**Mizel**	**50.61**	**297**	P	**P**	**18 59 17.3**	**+1.0**
MAJO	**Matsushiro**	**50.65**	**46**	*e*P	**P**	**18 59 15.6**	**-0.8**
MAJO				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
MAJO	**Matsushiro**	**50.65**	**46**	*e*P	**P**	**18 59 15.6**	**-0.8**
	comp=Z,15nm,1.0s,mb4.9						
MAT	**Matsushiro**	**50.65**	**46**	P	**P**	**18 59 16.4**	**0.0**
MAT				*e*S	**S**	**19 06 22.0**	**-5.0**
MAT	**Matsushiro**	**50.65**	**46**	*e*P	**P**	**18 59 16.0**	**-0.4**
MAT				pmax	pmax		
	comp=Z,206nm,2.0s,mb5.7						
BRVK	**Borovoye**	**51.33**	**342**	P	**P**	**18 59 20.7**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.4						
BRVK	**Borovoye**	**51.33**	**342**	*e*P	**P**	**18 59 20.3**	**-1.0**
	comp=Z,73nm,1.0s,mb5.6						
TATS	**Tathlith**	**51.34**	**291**	P	**P**	**18 59 22.3**	**+0.5**
CHKZ	**Chkalovo**	**51.76**	**342**⇑	*e*P	**P**	**18 59 24.4**	**-0.1**
CHKZ				*e*	pP	18 59 32.8	-3.1
CHKZ				pmax	pmax		
	comp=Z,149nm,0.9s,mb5.9						
CHKZ	**Chkalovo**	**51.76**	**342**⇑	*e*P	**P**	**18 59 24.4**	**-0.1**
	comp=Z,149nm,0.9s,mb5.9						
CHKZ				*e*	pP	18 59 32.8	-3.1
FRSS	**Farasan al Kab**	**52.27**	**287**	P	**P**	**18 59 31.7**	**+2.9**
AFFS	**'Afif**	**52.56**	**296**	P	**P**	**18 59 32.2**	**+1.3**
ARSS	**Ar Rass**	**52.78**	**298**	P	**P**	**18 59 33.0**	**+0.4**
KLR	**Kul'dur**	**53.84**	**30**κ	*i*P	**P**	**18 59 36.8**	**-3.3**
KLR				pmax	pmax		
	comp=N,85nm,2.0s						
KLR				pmax	pmax		
	comp=E,110nm,2.0s						
KLR				pmax	pmax		
	comp=Z,180nm,2.0s,mb5.7						
KLR				MLR	MLR		
	comp=E,3µm,20.0s						
HILS	**Ha'il**	**54.39**	**300**	P	**P**	**18 59 45.7**	**+1.3**
BOD	**Bodaibo**	**54.40**	**13**⇓	*i*P	**P**	**18 59 43.0**	**-1.1**
BOD				*e*		19 07 19.0	
PMG	**Port Moresby**	**54.71**	**106**	*e*P	**P**	**18 59 46.1**	**-0.8**
PMG				pmax	pmax		
	comp=Z,32nm,0.8s						
PMG	**Port Moresby**	**54.71**	**106**	*e*P	**P**	**18 59 46.1**	**-0.9**
	comp=Z,32nm,0.8s,mb5.4						
GNI	**Garni**	**56.21**	**315***c*	*i*P	**P**	**18 59 57.0**	**-0.4**
GNI				pmax	pmax		
	comp=Z,110nm,1.9s						
GNI	**Garni**	**56.21**	**315**	*e*P	**P**	**18 59 56.7**	**-0.7**
	comp=Z,117nm,1.5s,mb5.7						
KBRS	**Khaybar**	**56.26**	**297**	P	**P**	**18 59 59.2**	**+1.3**
CLNS	**Chul'man**	**56.59**	**20**	*e*P	**P**	**18 59 57.8**	**-2.1**
CLNS				*e**PP	pP	19 00 03.3	-8.2
CLNS				*e*		19 00 53.7	
CLNS				*e*S	**S**	**19 07 43.3**	**-3.9**
CLNS				*e*SSS	SSS	19 13 40.6	-7.0
CLNS				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.4						
CLNS				pmax	pmax		
	comp=N,27nm,1.1s						
CLNS				pmax	pmax		
	comp=E,22nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
CLNS				pmax	pmax		
	comp=N,9.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.9s						
CLNS				smax			
	comp=N,6.0nm,0.9s						
CLNS				smax			
	comp=E,5.0nm,0.9s						
CLNS				smax			
	comp=Z,5.0nm,0.9s						
CLNS				MLR	MLR		
	comp=N,500nm,14.0s,MS4.8						
CLNS				MLR	MLR		
	comp=Z,700nm,14.0s,MS4.9						
CLNS				MLR	MLR		
	comp=E,200nm,13.0s,MS4.8						
TI2	**Plekhanov**	**56.87**	**317**⇑	*i*P	**P**	**19 00 01.0**	**-1.1**
TI2				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
CTA	**Charters Tower**	**57.03**	**118**	LR	LR	19 26 47.0	
	comp=Z,1µm,21.5s,MS4.9,baz=22,slow=38						
CTAO	**Charters Tower**	**57.03**	**118**	*e*P	**P**	**19 00 02.3**	**-1.3**
CTAO				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.4						
CTAO	**Charters Tower**	**57.03**	**118**	*e*P	**P**	**19 00 02.3**	**-1.3**
	comp=Z,60nm,1.4s,mb5.4						
ASAJ	**Asahikawa**	**57.10**	**40**	LR	LR	19 24 57.3	
	comp=Z,1µm,19.7s,MS5.0,baz=308,slow=36						
YNBS	**Yanbu' al Bahr**	**57.13**	**295**	P	**P**	**19 00 05.1**	**+0.9**
KMBO	**Kilima Mbogo**	**57.36**	**265**	*e*P	**P**	**19 00 06.6**	**+0.7**
KMBO				*e*	pP	19 00 19.4	+1.9
KMBO				pmax	pmax		
	comp=Z,18nm,1.3s						
KMBO	**Kilima Mbogo**	**57.36**	**265**	P	**P**	**19 00 06.7**	**+0.7**
	comp=Z,6.4nm,0.9s,mb4.6,baz=51,slow=7.8,SNR=10.0						
KMBO				LR	LR	19 20 28.2	
	comp=Z,2µm,21.9s,MS5.1,baz=90,slow=32						
KMBO	**Kilima Mbogo**	**57.36**	**265**	*e*P	**P**	**19 00 06.6**	**+0.7**
	comp=Z,18nm,1.3s,mb5.0						
KMBO				*e*	pP	19 00 19.4	+1.8
SVE	**Sverdlovsk**	**57.65**	**339**⇑	*i*P	**P**	**19 00 06.9**	**-0.5**
SVE				*e*		19 00 53.0	
SVE				*e*		19 08 00.0	
SVE				pmax	pmax		
	comp=Z,310nm,1.6s,mb6.1						
ZEI	**Tsey**	**57.88**	**318**	*e*P	**P**	**19 00 08.3**	**-0.9**
ZEI				*e*		19 00 24.7	
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
UMJS	**Umm Lajj**	**57.89**	**296**	P	**P**	**19 00 11.0**	**+1.5**
ARU	**Arti**	**58.12**	**338**⇓	*i*P	**P**	**19 00 08.4**	**-2.3**
ARU				*e*		19 00 55.1	
ARU				*e*		19 02 14.0	
ARU				*e*S	**S**	**19 08 07.9**	**+0.6**
ARU				*e*		19 09 55.5	
ARU				*e*SS	SS	19 12 03.2	+2.6
ARU				pmax	pmax		
	comp=Z,90nm,1.4s,mb5.6						
ARU				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.9						
ARU				MLR	MLR		
	comp=N,500nm,22.0s,MS4.8						
ARU				MLR	MLR		
	comp=E,500nm,21.0s,MS4.8						
ARU	**Arti**	**58.12**	**338**	*e*P	**P**	**19 00 09.1**	**-1.6**
	comp=E,63nm,1.5s,mb5.4						
ARU				LR	LR		
	comp=Z,350nm,19.0s,MS4.5						
STKA	**Stephens Creek**	**58.38**	**133**	P	**P**	**19 00 12.3**	**-0.5**
	comp=Z,13nm,0.7s,mb5.0,baz=305,slow=5.1,SNR=34						
STKA				LR	LR	19 26 07.2	
	comp=Z,548nm,21.7s,MS4.6,baz=44,slow=37						
STKA	**Stephens Creek**	**58.38**	**133**	*e*P	**P**	**19 00 11.6**	**-1.2**
YSS	**Yuzh-Sakhalins**	**58.55**	**37**	*e*P	**P**	**19 00 13.4**	**-0.4**
YSS				*e**PP	pP	19 00 24.8	-0.6
YSS				pmax	pmax		
	comp=Z,132nm,1.4s,mb5.8						
YSS	**Yuzh-Sakhalins**	**58.55**	**37**	*e*P	**P**	**19 00 13.4**	**-0.5**
	comp=Z,132nm,1.4s,mb5.8						
YSS				*e*pP	pP	19 00 24.8	-0.6
TBKS	**Tabuk**	**59.10**	**300**	P	**P**	**19 00 19.2**	**+1.2**
KIV	**Kislovodsk**	**59.18**	**319**	P	**P**	**19 00 17.0**	**-1.3**
	comp=Z,290nm,1.5s,mb6.1,SNR=11						
KIV	**Kislovodsk**	**59.18**	**319***c*	*i*P	**P**	**19 00 17.0**	**-1.3**
KIV				*e*		19 01 04.2	
KIV				*e*PPP	PPP	19 03 50.8	-5.0
KIV				*i* S	**S**	**19 08 21.1**	**-0.2**
KIV				pmax	pmax		
	comp=Z,42nm,1.0s,mb5.4						
KIV				pmax	pmax		
	comp=N,29nm,1.2s						
KIV				smax			
	comp=N,304nm,4.0s						
KIV				smax			
	comp=E,244nm,4.0s						
KIV				MLR	MLR		
	comp=E,203nm,17.0s						

KIV				MLR	MLR		
	comp=Z,339nm,17.0s,MS4.5						
KIV	**Kislovodsk**	59.18	319	⇑*i*P	P	19 00 17.1	-1.2
GOF	**Gofitskoye**	59.43	320	⇑*i*P	P	19 00 18.0	-1.9
GOF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.4						
ASF	**Jabal al Asfar**	59.65	304	LR	LR	19 26 58.8	
	comp=Z,956nm,21.0s,MS4.9,baz=146,slow=37						
ELZG	**Elazig**	59.77	312	*i* P	P	19 00 21.6	-0.7
JMQS	**Jabal Moqyreh**	59.81	300	P	P	19 00 23.4	+0.6
MALT	**Malatya**	60.12	311	*e*P	P	19 00 24.3	-0.5
MALT				*e*		19 00 32.4	
MALT				pmax	pmax		
	comp=Z,39nm,1.4s,mb5.2						
MALT	**Malatya**	60.12	311	*e*P	P	19 00 24.3	-0.5
	comp=Z,39nm,1.4s,mb5.2						
MALT				*e*		19 00 32.4	
AYUS	**‘Aynunah**	60.21	299	P	P	19 00 26.1	+0.5
BDAS	**Al Bad‘**	60.40	300	P	P	19 00 27.3	+0.5
GZT	**Gaziantep**	60.49	310	*i* P	P	19 00 24.3	-3.0
JMOS	**Jabal al Moall**	60.52	300	P	P	19 00 28.1	+0.4
MKRJ	**Makawir**	60.55	303	P	P	19 00 28.4	+0.5
TAYS	**Tayyib Ism**	60.62	300	P	P	19 00 28.8	+0.5
HAQS	**Haql**	60.66	300	P	P	19 00 29.1	+0.5
ZFRI	**Zfri**	60.73	302	P	P	19 00 29.6	+0.5
EIL	**Elat**	60.76	301	P	P	19 00 29.5	+0.2
EIL	**Elat**	60.76	301	*e*P	P	19 00 29.4	+0.2
	comp=Z,40nm,1.4s,mb5.3						
DRGI	**Dragot**	60.77	303	P	P	19 00 29.9	+0.6
PRNI	**Paran**	60.84	302	P	P	19 00 30.4	+0.6
MMLI	**Mount Malkishu**	60.93	304	P	P	19 00 31.3	+0.9
SOC	**Sochi**	61.01	317	*e*P	P	19 00 28.7	-2.1
SOC				*e*		19 01 15.1	
SOC				*e*S	S	19 08 42.8	-2.0
SOC				*e*SS	SS	19 12 43.4	-2.6
SOC				*e*SSS	SSS	19 15 23.2	-1.0
SOC				pmax	pmax		
	comp=Z,49nm,1.1s,mb5.5						
SOC				pmax	pmax		
	comp=N,23nm,1.2s						
SOC				pmax	pmax		
	comp=E,7.0nm,1.1s						
KMTI	**Karmit**	61.03	301	P	P	19 00 31.5	+0.4
SOKR	**Solikamsk**	61.05	339	⇑*i*P	P	19 00 28.9	-1.9
SOKR				*e*		19 00 47.1	
SOKR				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.0						
SLTI	**Sal’it**	61.20	304	P	P	19 00 32.9	+0.7
OFRI	**‘Ofer**	61.33	304	P	P	19 00 33.8	+0.7
KZIT	**Kziot**	61.46	302	P	P	19 00 34.4	+0.4
YAK	**Yakutsk**	62.18	18*c*	*i*P	P	19 00 36.8	-1.5
YAK				*e*		19 01 14.8	
YAK				*e*		19 02 52.7	
YAK				*e*PPP	PPP	19 04 24.1	-2.8
YAK				*e*S	S	19 08 57.7	-1.6
YAK				*e*		19 10 19.4	
YAK				*e*SS	SS	19 13 04.2	-0.2
YAK				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.5						
YAK				pmax	pmax		
	comp=N,28nm,1.2s						
YAK				pmax	pmax		
	comp=E,23nm,1.2s						
YAK				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
YAK				pmax	pmax		
	comp=N,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,5.0nm,1.1s						
YAK				smax			
	comp=N,39nm,1.8s						
YAK				smax			
	comp=E,30nm,1.6s						
YAK	**Yakutsk**	62.18	18	⇑*i*P	P	19 00 36.7	-1.6
CSS	**Prodhromos**	63.19	306	*e*P	P	19 00 45.0	-0.4
	comp=E,194nm,1.6s,mb6.0						
CSS				*e*	pP	19 00 56.5	-0.7
BOYT	**Boyabat**	63.65	314	*i* P	P	19 00 45.8	-2.6
MBAR	**Mbarara**	63.76	267	P	P	19 00 51.3	+1.7
MBAR				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.8						
MBAR	**Mbarara**	63.76	267	*e*P	P	19 00 51.1	+1.5
	comp=Z,12nm,1.3s,mb4.8						
BRTR	**Keskin Array B**	64.10	312	P	P	19 00 50.1	-1.3
	comp=Z,7.8nm,0.7s,mb4.9,baz=129,slow=7.0,SNR=44						
VRSR	**Storozhevoye**	64.39	325	*e*P	P	19 00 50.8	-2.3
VRSR				*e*		19 01 25.9	
VRSR				*e*S	S	19 09 26.1	-1.0
VRSR				*e*		19 10 43.4	
VRSR				*e*SS	SS	19 13 39.0	0.0
VRSR				pmax	pmax		
	comp=N,9.0nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
VRSR				pmax	pmax		
	comp=E,3.0nm,0.4s						
VRSR				smax			
	comp=N,7.0nm,0.6s						
VRSR				smax			
	comp=Z,3.0nm,0.5s						
VRSR				smax			
	comp=E,10.0nm,1.0s						
VRSR				MLR	MLR		
	comp=Z,410nm,20.0s,MS4.6						
VRSR				MLR	MLR		
	comp=N,530nm,22.0s,MS4.7						
VRSR				MLR	MLR		
	comp=E,320nm,23.0s,MS4.7						
ELDT	**Eldivan**	64.46	312	*i* P	P	19 00 51.7	-2.0
BALT	**Daday**	64.77	314	*i* P	P	19 00 53.8	-2.0
SIM	**Simferopol’**	65.26	317	⇑*e*P	P	19 00 57.8	-1.0
SIM				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
SGKT	**Sivrigoynuk**	65.49	312	*i* P	P	19 00 56.1	-4.3
ISP	**Isparta**	66.03	309	P	P	19 01 04.2	+0.3
ISP	**Isparta**	66.03	309	*e*P	P	19 01 03.9	0.0
	comp=Z,42nm,0.8s,mb5.5						
MOS	**Moscow**	67.18	329*c*	*i*P	P	19 01 09.8	-1.0
MOS				*i*		19 01 26.3	
MOS				*e*		19 01 34.7	
MOS				*e*		19 03 37.5	
MOS				pmax	pmax		
	comp=Z,287nm,1.6s,mb6.0						
OBN	**Obninsk**	67.46	328α	*i*P	P	19 01 11.3	-1.2
OBN				*e*	pP	19 01 23.2	-1.2
OBN				*i*		19 01 29.5	
OBN				*i*		19 01 39.7	
OBN				*e*		19 03 41.2	
OBN				*e*		19 05 16.2	
OBN				*i* S	S	19 10 00.0	-4.3
OBN				pmax	pmax		
	comp=Z,213nm,1.7s,mb5.9						
OBN				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.8						
OBN	**Obninsk**	67.46	328	⇑*i*P	P	19 01 11.4	-1.1
ULDT	**Uludag**	67.56	311	*i* P	P	19 01 10.6	-2.9
KDAG	**Bornova**	68.65	309	*i* P	P	19 01 15.9	-4.4
LSZ	**Lusaka**	68.65	251	P	P	19 01 21.3	+0.7
LSZ				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
LSZ	**Lusaka**	68.65	251	*e*P	P	19 01 21.2	+0.6
	comp=Z,13nm,1.1s,mb4.8						
MA2	**Magadan**	68.78	27	*i* P	P	19 01 20.2	-0.5
KIS	**Kishinev**	69.38	318	*e*P	P	19 01 23.0	-1.6
KIS				*e*	pP	19 01 36.0	-0.5
KIS				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.0						
CFR	**Carcaliu**	69.40	316	⇑*i*P	P	19 01 23.8	-1.0
TIXI	**Tiksi**	69.51	11	⇑*i*P	P	19 01 23.7	-1.3
JMB	**Yambol**	69.92	313	*e*P	P	19 01 28.0	0.0
IDI	**Anoyia**	70.05	305	LR	LR	19 35 57.0	
	comp=Z,325nm,20.5s,MS4.6,baz=79,slow=39						
AKASG	**Malin Array Be**	70.11	322	P	P	19 01 27.1	-1.9
	comp=Z,7.8nm,0.6s,mb4.8,baz=88,slow=4.6,SNR=76						
AKASG				PP	PP	19 04 03.3	-2.9
	comp=Z,1.1nm,0.7s,baz=99,slow=7.4,SNR=4.4						
PET	**Petropavlovsk**	70.35	35	*e*P	P	19 01 29.1	-1.3
PET				*e*S	S	19 10 37.4	-1.2
PET				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.2						
PET				pmax	pmax		
	comp=Z,400nm,16.8s						
PET				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
VRI	**Vrincioaia**	70.52	317	⇑*i*P	P	19 01 31.6	0.0
DIM	**Dimitrovgrad**	70.61	313	*e*P	P	19 01 31.5	-0.7
KDZ	**Kurdzhali**	70.62	312	P	P	19 01 32.0	-0.3
PVL	**Pavlikeni**	70.96	314	P	P	19 01 34.0	-0.3
SEY	**Seymchan**	71.00	24	*e*P	P	19 01 33.3	-0.9
SEY				*e*		19 11 25.5	
SEY				pmax	pmax		
	comp=E,40nm,1.1s						
SEY				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.6						
RZN	**Rozhen**	71.14	312	P	P	19 01 34.5	-0.9
PGB	**Panagyurishte**	71.69	313	P	P	19 01 38.0	-0.7
MNK	**Minsk**	71.99	326	*e*P	P	19 01 36.0	-4.2
MNK				pmax	pmax		
	comp=Z,470nm,1.0s,mb6.4						
KKB	**Krupnik**	72.38	312	P	P	19 01 41.5	-1.2
VTS	**Vitosha**	72.40	313	*e*P	P	19 01 42.0	-0.8
CASY	**Casey**	72.57	173	*e*P	P	19 01 44.1	+0.6
	comp=Z,8.3nm,1.1s,mb4.6						
LVV	**L’vov**	73.13	320	*i* P	P	19 01 47.0	-0.1
LVV				*e*S	S	19 11 16.0	+5.4
LBTB	**Lobatse**	73.27	242	P	P	19 01 49.8	+1.4
LBTB				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
LBTB	**Lobatse**	73.27	242	*e*P	P	19 01 48.9	+0.5
	comp=Z,20nm,1.2s,mb4.9						
LBTB				LR	LR		
	comp=Z,1µm,20.0s,MS5.3						
BOLS	**Boljevac**	73.49	314	⇑*i*P	P	19 01 48.4	-0.9
VSU	**Vasula**	73.70	330	⇑*i*P	P	19 01 49.7	-0.5
LVZ	**Lovozero**	73.83	340	*e*P	P	19 01 50.0	-0.8
LVZ				pmax	pmax		
	comp=Z,116nm,2.7s,mb5.3						
KWP	**Kalwaria**	73.93	320	P	P	19 01 51.8	0.0
KWP				pmax	pmax		
	comp=Z,220nm,1.5s,mb5.9						
KWP	**Kalwaria**	73.93	320	*e*P	P	19 01 51.7	-0.1
KWP	**Kalwaria**	73.93	320	*e*P	P	19 01 51.4	-0.4
KOLS	**Kolonicke sedl**	74.09	319	*e*P	P	19 01 53.0	+0.3
KOLS				*e*		19 02 09.1	
APA	**Apatity**	74.11	340	⇓*i*P	P	19 01 50.5	-1.9
APA				*i*	pP	19 02 05.1	+0.8
APA				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.2						
GRUS	**Gruza**	74.39	314	⇑*i*P	P	19 01 53.5	-1.0
BOSA	**Boshof**	74.48	238	P	P	19 01 56.5	+1.1
BOSA				pmax	pmax		
	comp=Z,77nm,1.8s,mb5.3						
BOSA	**Boshof**	74.48	238	*e*P	P	19 01 56.0	+0.7
	comp=Z,77nm,1.8s,mb5.3						
SUW	**Suwalki**	74.51	325	*e*P	P	19 01 54.0	-1.0
SUW	**Suwalki**	74.51	325	*e*P	P	19 01 54.2	-0.8
CRVS	**Cervenica-Dubn**	74.61	319	*e*P	P	19 01 59.2	+3.5
FINES	**FINESS Array B**	74.87	332	P	P	19 01 56.3	-0.6
	comp=Z,13nm,0.5s,mb5.1,baz=102,slow=6.1,SNR=153						
FINES				LR	LR	19 39 31.4	
	comp=Z,543nm,19.3s,MS4.9,baz=277,slow=40						
DIVS	**Divcibare**	74.93	314	⇓*i*P	P	19 01 56.8	-0.8
KAF	**Kangasniemi**	74.96	333	*e*p	P	19 01 55.8	-1.6
	comp=Z,31nm,1.0s,mb5.2						
KAF	**Kangasniemi**	74.96	333	*e*P	P	19 01 55.8	-1.6
KAF				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.2						
KECS	**Kecovo**	75.18	319	*e*P	P	19 01 59.0	0.0
KECS				*e*	pP	19 02 11.5	+0.6
NIE	**Niedzica**	75.44	320	*e*P	P	19 02 00.9	+0.5
PSZ	**Piszkesteto**	75.50	318	⇑*i*P	P	19 02 00.8	0.0
OJC	**Ojcow**	75.89	320	*e*P	P	19 02 03.0	0.0
PKSM	**Moragy**	76.13	316	⇑*i*P	P	19 02 04.0	-0.4
MAW	**Mawson**	76.26	192	LR	LR	19 30 19.7	
	comp=Z,917nm,20.6s,MS5.1,baz=43,slow=32						
VYHS	**Vyhne**	76.27	318	*i* P	P	19 02 05.3	+0.1
VYHS				*e*pP	pP	19 02 20.4	+3.3
SRO2	**Moca**	76.48	318	*e*P	P	19 02 06.6	+0.2
SRO	**Srobarova**	76.54	318	*e*P	P	19 02 07.1	+0.4
SRO				*e*	pP	19 02 18.6	0.0
SRO1	**Iza**	76.58	318	*e*P	P	19 02 07.7	+0.7
OKC	**Ostrava-Krasne**	76.89	320	*e*P	P	19 02 09.0	+0.3
RAC	**Raciborz**	76.89	320	*e*P	P	19 02 09.5	+0.8
TIP	**Timpagrande**	76.89	309	*e*P	P	19 02 08.7	-0.2
KEV	**Kevo**	77.11	341	*e*p	P	19 02 07.9	-1.6
	comp=Z,6.4nm,0.6s,mb4.7						
KEV	**Kevo**	77.11	341	*e*P	P	19 02 07.9	-1.6
KEV				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
MORC	**Moravsky Berou**	77.27	320	P	P	19 02 11.3	+0.5
MORC				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.7						
MORC	**Moravsky Berou**	77.27	320	*e*P	P	19 02 11.1	+0.3
	comp=Z,154nm,1.4s,mb5.7						
ZST	**Bratislava**	77.39	318	*i* P	P	19 02 11.7	+0.2
ZST				*e*pP	pP	19 02 24.4	+1.0
ARCES	**ARCESS Array B**	77.54	340	P	P	19 02 11.8	-0.1
	comp=Z,4.2nm,0.5s,mb4.6,baz=92,slow=5.2,SNR=40						
ARCES				LR	LR	19 39 06.8	
	comp=Z,932nm,19.1s,MS5.1,baz=274,slow=38						
ARE0	**ARCESS Array S**	77.54	340	*e*P	P	19 02 11.7	-0.2
SOP	**Sopron**	77.70	317	⇑*e*P	P	19 02 13.4	+0.2
GKP	**Gorka Klasztor**	77.88	323	*e*P	P	19 02 13.9	-0.2
DPC	**Dobruska-Polom**	78.11	320	*e*P	P	19 02 16.2	+0.8
KSP	**Ksiaz**	78.18	321	*e*P	P	19 02 16.1	+0.3
KSP				*e*pP	pP	19 02 24.2	-3.5
KSP	**Ksiaz**	78.18	321	*e*P	P	19 02 16.6	+0.8
BILL	**Bilibino**	78.22	21	*i* P	P	19 02 15.4	-0.2
UPC	**Upice**	78.33	320	*e*P	P	19 02 17.1	+0.5
ARSA	**Arzberg**	78.36	317	⇑*i*P	P	19 02 17.4	+0.5
	comp=Z,88nm,1.3s,mb5.5						
LEGS	**Legarje**	78.41	316	*e*P	P	19 02 17.1	0.0
PERS	**Pernice**	78.59	316	*e*P	P	19 02 18.5	+0.4
FX1	**Attu Island--F**	78.91	37	P	P	19 02 19.6	-0.1
	comp=Z,38nm,0.5s,mb5.6,baz=66,slow=21,SNR=18						
OBKA	**Obir**	78.98	316	⇑*i*P	P	19 02 20.8	+0.5
	comp=Z,80nm,1.4s,mb5.5						
SUR	**Sutherland**	79.13	236	P	P	19 02 22.5	+1.0
PRU	**Pruhonice**	79.22	320	*e*P	P	19 02 21.6	+0.1
	comp=Z,83nm,1.5s,mb5.4						
MOA	**Molln**	79.26	318	⇑*i*P	P	19 02 21.7	0.0
	comp=Z,50nm,1.4s,mb5.3						
BSD	**Bornholm Skovb**	79.44	325	⇑*i*P	P	19 02 21.8	-0.8
BSD				pmax	pmax		
	comp=Z,31nm,0.6s,mb5.4						
BSD	**Bornholm Skovb**	79.44	325	⇑*i*P	P	19 02 21.8	-0.8
	comp=Z,31nm,0.6s,mb5.4						
BRG	**Berggiesshubel**	79.67	321	⇑*i*P	P	19 02 24.4	+0.5
BRG				*e*		19 02 39.4	
BRG				pmax	pmax		
	comp=Z,96nm,1.3s,mb5.6						
BRG	**Berggiesshubel**	79.67	321	⇑*i*P	P	19 02 24.4	+0.5
	comp=Z,96nm,1.3s,mb5.6						
BRG				*e*		19 02 39.4	
GEC2	**GERESS Array S**	79.69	319	*e*P	P	19 02 24.7	+0.6
GEC2				pmax	pmax		
	comp=Z,238nm,1.6s,mb5.9						
GEC2	**GERESS Array S**	79.69	319	*e*P	P	19 02 24.7	+0.6
	comp=Z,238nm,1.6s,mb5.9						
GERES	**GERESS Array B**	79.69	319	P	P	19 02 24.6	+0.5
	comp=Z,27nm,0.8s,mb5.2,baz=98,slow=4.6,SNR=190						
KHC	**Kasperske Hory**	79.79	319	*e*P	P	19 02 24.8	+0.2
PTCC	**Patocco-Chiusa**	79.80	316	⇑*i*P	P	19 02 24.8	+0.1
KBA	**Koelnbreinsper**	79.84	317	⇑*i*P	P	19 02 24.7	-0.2
	comp=Z,60nm,1.5s,mb5.3						
KBA	**Koelnbreinsper**	79.84	317	⇑*i*P	P	19 02 24.7	-0.2
KBA				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.3						
GMNA	**Gemona**	79.87	316	*e*P	P	19 02 25.5	+0.4
RUE	**Ruedersdorf**	79.89	322	*e*P	P	19 02 23.5	-1.5
	comp=Z,80nm,0.7s,mb5.8						
FVI	**Forni Avoltri**	80.20	316	*e*P	P	19 02 26.8	-0.1
WET	**Wettzell**	80.25	319	*e*P	P	19 02 27.7	+0.6
WET				pmax	pmax		
	comp=Z,116nm,1.5s,mb5.6						
WET	**Wettzell**	80.25	319	*e*P	P	19 02 27.7	+0.6
	comp=Z,116nm,1.5s,mb5.6						
CLL	**Collm**	80.29	321	⇑*i*P	P	19 02 27.1	-0.1
CLL				*e*	pP	19 02 42.0	+2.8
CLL				pmax	pmax		
	comp=Z,64nm,1.4s,mb5.4						
CLL	**Collm**	80.29	321	⇑*i*P	P	19 02 27.1	-0.1
	comp=Z,64nm,1.4s,mb5.4						
CLL				*e*	pP	19 02 42.0	+2.8
CLL	**Collm**	80.29	321	⇑P	P	19 02 27.1	-0.1
	comp=Z,logA/T=1.7,mb5.4						
CLL				*e**PP	pP	19 02 42.0	+2.8
HFS	**Hagfors**	80.57	330	LR	LR	19 43 20.5	
	comp=Z,629nm,21.8s,MS4.9,baz=208,slow=40						
SFI	**Santa Sofia**	80.78	313	*e*P	P	19 02 31.3	+1.3
COP	**Copenhagen**	80.89	325	*e*P	P	19 02 32.2	+1.9
COP	**Copenhagen**	80.89	325	*i* P	P	19 02 32.2	+1.9
CTI	**Castel Tesino**	80.97	316	*e*P	P	19 02 31.5	+0.6
WTTA	**Wattenberg**	81.01	317	⇑*i*P	P	19 02 31.0	-0.1
	comp=Z,73nm,1.1s,mb5.5						
WTTA	**Wattenberg**	81.01	317	⇑*i*P	P	19 02 31.0	-0.1
WTTA				pmax	pmax		
	comp=Z,73nm,1.1s,mb5.5						
WATA	**Walderalm**	81.05	317	⇑*i*P	P	19 02 31.0	-0.3
	comp=Z,17nm,0.6s,mb5.2						
WATA	**Walderalm**	81.05	317	⇑*i*P	P	19 02 31.0	-0.3
WATA				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
MOX	**Moxa**	81.13	320	*e*P	P	19 02 32.1	+0.4
MOX				pmax	pmax		
	comp=Z,32nm,1.9s,mb4.9						
MOX	**Moxa**	81.13	320	*i* P	P	19 02 32.1	+0.4
	comp=Z,logA/T=1.2,mb4.9						
MOX	**Moxa**	81.13	320	*e*P	P	19 02 32.1	+0.4
	comp=Z,32nm,1.9s,mb4.9						
SEI	**Scarperia**	81.13	314	*e*P	P	19 02 33.5	+1.7
FUR	**Furstenfeldbru**	81.28	318	*e*P	P	19 02 32.6	+0.1
FUR				pmax	pmax		
	comp=Z,144nm,1.5s,mb5.7						
FUR	**Furstenfeldbru**	81.28	318	*e*P	P	19 02 32.6	+0.1
	comp=Z,144nm,1.5s,mb5.7						
SQTA	**Sankt Quirin**	81.30	317	⇑*i*P	P	19 02 32.5	-0.1
	comp=Z,21nm,0.5s,mb5.3						
SQTA	**Sankt Quirin**	81.30	317	⇑*i*P	P	19 02 32.5	-0.1
SQTA				pmax	pmax		
	comp=Z,21nm,0.5s,mb5.3						
GRA1	**Grafenberg Arr**	81.35	319	*e*P	P	19 02 33.8	+0.9
	comp=Z,154nm,1.5s,mb5.7						
GRA1				*e*pP	pP	19 02 46.3	+1.4
GRF	**Grafenberg Arr**	81.35	319	*e*P	P	19 02 33.8	+0.9
GRF				*e**PP	pP	19 02 46.3	+1.4
GRF				pmax	pmax		
	comp=Z,154nm,1.5s,mb5.7						
GRF	**Grafenberg Arr**	81.35	319	*e*P	P	19 02 33.8	+0.9
GRF				*e**PP	pP	19 02 46.3	+1.4
GRF				pmax	pmax		
	comp=Z,154nm,1.5s,mb5.7						
GRF	**Grafenberg Arr**	81.35	319	*e*P	P	19 02 33.8	+0.9
	comp=Z,154nm,1.5s,mb5.7						
GRF				*e*pP	pP	19 02 46.3	+1.4
MOTA	**Moosalm**	81.37	317	⇑*i*P	P	19 02 32.8	-0.2
	comp=Z,22nm,0.7s,mb5.2						
MOTA	**Moosalm**	81.37	317	⇑*i*P	P	19 02 32.8	-0.2
MOTA				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.2						
GSCL	**Gusciola**	81.69	314	*e*P	P	19 02 35.6	+0.9
MAIM		81.76	313	P	P	19 02 34.8	-0.3
ERBM	**Eremo**	81.81	314	*e*P	P	19 02 35.6	+0.2
BRMO	**Bormio**	81.86	316	*e*P	P	19 02 36.1	+0.6
NB2	**NORSAR Subarra**	81.86	331	P	P	19 02 34.5	-0.8
	comp=Z,10.0nm,0.7s,mb4.8,baz=98,slow=5.0						
NB2	**NORSAR Subarra**	81.86	331	P	P	19 02 34.5	-0.8
	baz=98,slow=5.1						
NB2	**NORSAR Subarra**	81.86	331	P	P	19 02 34.5	-0.8
NB2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
NOA	**NORSAR Array B**	81.86	331	P	P	19 02 34.8	-0.5
	comp=Z,3.9nm,0.6s,mb4.5,baz=95,slow=5.6,SNR=8.0						
NOA				LR	LR	19 41 59.3	
	comp=Z,648nm,18.8s,MS5.0,baz=60,slow=38						
VALM		81.93	314	P	P	19 02 35.8	-0.2
CLZ	**Clausthal**	81.95	321	*e*P	P	19 02 36.4	+0.5
	comp=Z,117nm,1.5s,mb5.6						
HDH	**Heidenheim**	82.00	318	⇑*e*P	P	19 02 36.0	-0.2
VINC	**Vinca**	82.00	314	P	P	19 02 36.3	0.0
NAO01	**NORSAR Array S**	82.01	331	P	P	19 02 35.2	-0.8
BSEG	**Bad Segeberg**	82.04	324	*e*P	P	19 02 36.9	+0.6
UBR	**Uberruh**	82.05	317	⇑*e*P	P	19 02 36.5	0.0
BACM		82.06	314	P	P	19 02 36.1	-0.5
GRAM		82.06	314	P	P	19 02 36.2	-0.5
DAVA	**Damuels**	82.20	317	⇑*i*P	P	19 02 37.8	+0.5
	comp=Z,89nm,1.2s,mb5.6						
CODM		82.22	314	P	P	19 02 37.4	0.0
SIND	**Sindeldorf**	82.40	319	⇑*e*P	P	19 02 38.7	+0.4
BUCH	**Bad Urach**	82.56	318	⇑*e*P	P	19 02 39.4	+0.3
STU	**Stuttgart**	82.67	318	P	P	19 02 39.7	0.0
STU				pmax	pmax		
	comp=Z,47nm,1.2s,mb5.4						
STU	**Stuttgart**	82.67	318	*e*P	P	19 02 39.6	-0.1
	comp=Z,46nm,1.2s,mb5.4						
GUT	**Gutenstein**	82.72	318	⇑*e*P	P	19 02 40.0	+0.1
MUD	**Monsted U’grnd**	82.75	326	*i* P	P	19 02 40.4	+0.5
MUD				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.3						
MUD	**Monsted U’grnd**	82.75	326	*i* P	P	19 02 40.4	+0.5
	comp=Z,39nm,1.2s,mb5.3						
TOD	**Tromm**	82.92	319	⇑*e*P	P	19 02 41.3	+0.4
LBG	**Lerchenberg**	82.93	318	⇑*e*P	P	19 02 41.2	+0.2
SPAK	**Spaichingen**	82.94	318	*e*P	P	19 02 41.5	+0.4
SWS	**Schriesheim**	82.99	319	⇑*e*P	P	19 02 41.6	+0.3
PCP	**Pian Castagno**	83.15	314	P	P	19 02 42.1	-0.1
SYO	**Syowa Base**	83.21	197	⇑P	P	19 02 43.8	+1.8
SYO	**Syowa Base**	83.21	197	⇑P	P	19 02 48.6	+6.6
SYO	**Syowa Base**	83.21	197	⇓pP	pP	19 02 54.2	+0.1
BFO	**Black Forest**	83.25	318	*e*P	P	19 02 42.7	+0.1
BFO				pmax	pmax		
	comp=Z,109nm,1.7s,mb5.6						
BFO	**Black Forest**	83.25	318	*e*P	P	19 02 42.7	+0.1
	comp=Z,109nm,1.7s,mb5.6						
KTD	**Kalmit**	83.40	319	*e*P	P	19 02 43.6	+0.3
FIN	**Finale Ligure**	83.40	314	*e*P	P	19 02 43.8	+0.3
FELD	**Feldberg**	83.47	317	*e*P	P	19 02 44.0	+0.2
MCGN	**Macugnaga**	83.52	316	*e*P	P	19 02 45.1	+1.0
KIZ	**Kirchzarten**	83.53	318	⇑*e*P	P	19 02 44.1	0.0
ORX	**Oropa**	83.53	315	P	P	19 02 41.8	-2.3
LANF	**Langenberg**	83.58	319	*e*P	P	19 02 44.8	+0.5
IMI	**Imperia**	83.64	313	P	P	19 02 44.2	-0.5
ROB	**Roburent**	83.64	314	P	P	19 02 44.2	-0.5
TRAV		83.70	315	P	P	19 02 43.2	-1.7
MONE	**Monesi**	83.73	314	P	P	19 02 44.1	-1.1
LIBD	**Limburg**	83.73	318	*e*P	P	19 02 45.7	+0.6
LIBD	**Limburg**	83.73	318	*e*P	P	19 02 45.6	+0.5
ABH	**Alteburg**	83.74	319	⇑*e*P	P	19 02 45.7	+0.6
ABH	**Alteburg**	83.74	319	*e*P	P	19 02 45.6	+0.5
NEGI	**Negi**	83.77	313	P	P	19 02 44.5	-0.9
BBS	**Basel-Blauen**	83.81	317	*e*P	P	19 02 45.7	+0.2
WLS	**Welschbruch**	83.90	318	*e*P	P	19 02 45.0	-0.9
CDF	**Champ du Feu**	83.95	318	*e*P	P	19 02 45.6	-0.6
	comp=Z,25nm,0.7s,mb5.1						
CDF	**Champ du Feu**	83.95	318	*e*P	P	19 02 45.6	-0.6
CDF				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.2						
ENR	**Entracque**	83.97	314	P	P	19 02 45.9	-0.5
SBF	**Sospel**	83.97	313	*e*P	P	19 02 46.2	-0.2
	comp=Z,149nm,1.1s,mb5.8						
SBF	**Sospel**	83.97	313	*e*P	P	19 02 46.2	-0.2
SBF				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.8						
ECH	**Echery**	84.03	318	*e*P	P	19 02 46.5	-0.1
STV	**Sta Anna Valdi**	84.03	314	P	P	19 02 46.0	-0.7
RSP	**Reno Superiore**	84.05	315	P	P	19 02 45.9	-0.9
RUP	**Ruppelstein**	84.06	319	⇑*e*P	P	19 02 47.5	+0.8
RUP	**Ruppelstein**	84.06	319	*e*P	P	19 02 47.4	+0.7
BHB	**Bricherasio**	84.06	314	P	P	19 02 44.4	-2.5
MOF	**Molkenrain**	84.06	317	*e*P	P	19 02 46.7	-0.1
LSD	**Ceresole Reale**	84.11	315	P	P	19 02 46.9	-0.2
WTSB	**Winterswijk**	84.17	322	*e*P	P	19 02 47.2	+0.1
	comp=Z,97nm,1.7s,mb5.7						
PZZ	**Prazzo**	84.19	314	P	P	19 02 45.8	-1.7
FENE	**Fenestrelle**	84.19	315	P	P	19 02 46.4	-1.1
RPZ	**Rata Peaks**	84.27	135	LR	LR	19 36 50.4	
	comp=Z,808nm,21.7s,MS5.1,baz=180,slow=33						
LOMF	**Lomont**	84.28	317	*e*P	P	19 02 48.1	+0.2
RRL	**Cesana Torines**	84.39	315	P	P	19 02 47.9	-0.6
LPG	**La Plagne**	84.40	315	*e*P	P	19 02 48.7	+0.2
	comp=Z,59nm,0.8s,mb5.4						
LPG	**La Plagne**	84.40	315	*e*P	P	19 02 48.7	+0.2
LPG				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.5						
MBDF	**Montbardon**	84.41	314	*e*P	P	19 02 47.7	-0.9
	comp=Z,24nm,0.7s,mb5.2						
MBDF	**Montbardon**	84.41	314	*e*P	P	19 02 47.7	-0.9
MBDF				pmax	pmax		
	comp=Z,12nm,0.7s,mb5.1						
BNI	**Bardonecchia**	84.47	315	P	P	19 02 49.3	+0.4

BNI				pmax	pmax		
	comp=Z,76nm,1.4s,mb5.6						
BNI	Bardonecchia	84.47	315	eP	P	19 02 49.1	+0.2
	comp=Z,76nm,1.4s,mb5.6						
HAU	Haudompre	84.58	318	eP	P	19 02 48.8	-0.6
	comp=Z,77nm,0.8s,mb5.6						
HAU	Haudompre	84.58	318	eP	P	19 02 48.8	-0.6
HAU				pmax	pmax		
	comp=Z,39nm,0.8s,mb5.6						
WLF	Walferdange	84.65	319	eP	P	19 02 51.0	+1.3
HGN	Heimansgroeve	84.75	320	eP	P	19 02 49.0	-1.2
	comp=Z,50nm,1.8s,mb5.3						
THEF	They Montfort	84.81	318	eP	P	19 02 50.8	+0.3
BAIF	Baives	85.88	320	eP	P	19 02 55.9	+0.2
	comp=Z,62nm,0.8s,mb5.6						
BAIF	Baives	85.88	320	eP	P	19 02 55.9	+0.2
BAIF				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.6						
SSF	Saint Saulge	86.56	317	eP	P	19 02 59.2	+0.1
SSF				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.5						
SSF	Saint Saulge	86.56	317	eP	P	19 02 59.2	+0.1
	comp=Z,28nm,1.0s,mb5.5						
BGF	Bois d'Agland	87.05	316	eP	P	19 03 01.7	+0.2
	comp=Z,148nm,1.3s,mb5.8						
BGF	Bois d'Agland	87.05	316	eP	P	19 03 01.7	+0.2
BGF				pmax	pmax		
	comp=Z,74nm,1.3s,mb5.8						
URZ	Urewera	87.74	129	LR	LR	19 43 27.7	
	comp=Z,520nm,19.0s,MS5.0,baz=314,slow=36						
RJF	Les Rejaudoux	88.09	315	eP	P	19 03 07.3	+0.7
	comp=Z,97nm,1.1s,mb5.6						
RJF	Les Rejaudoux	88.09	315	eP	P	19 03 07.3	+0.7
RJF				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.6						
LCP	Cassop	88.88	325	eP	P	19 03 10.3	+0.2
FLN	La Foliniere	89.06	319	eP	P	19 03 11.0	-0.1
	comp=Z,79nm,1.0s,mb5.7						
FLN	La Foliniere	89.06	319	eP	P	19 03 11.0	-0.1
FLN				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.7						
HPK	Haverah Park	89.08	324	eP	P	19 03 11.9	+0.9
KBI1	Birley Grange	89.12	323	eP	P	19 03 10.4	-0.8
KWE	Weaver Farm	89.34	323⇓	eP	P	19 03 11.6	-0.7
ANM	Nome	89.49	25	eP	P	19 03 14.1	+1.3
ESK	Eskdalemuir	89.78	325	eP	P	19 03 14.8	+0.5
ETSF	Etsaut	89.85	313	eP	P	19 03 14.7	-0.3
	comp=Z,17nm,0.7s,mb5.2						
ETSF	Etsaut	89.85	313	eP	P	19 03 14.7	-0.3
ETSF				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb5.2						
VNDA	Vanda	90.59	168	P	P	19 03 19.2	+1.5
VNDA				pmax	pmax		
	comp=Z,11nm,1.4s						
VNDA	Vanda	90.59	168	P	P	19 03 19.1	+1.3
	comp=Z,2.1nm,0.9s,mb4.5,baz=312,slow=5.7,SNR=11						
VNDA				LR	LR	19 40 34.3	
	comp=Z,730nm,18.1s,MS5.2,baz=293,slow=33						
VNDA	Vanda	90.59	168	eP	P	19 03 18.6	+0.9
	comp=Z,11nm,1.4s,mb5.0						
SBA	Scott Base	91.69	168	eP	P	19 03 24.8	+2.0
ESDC	Sonseca Array	92.86	310	P	P	19 03 29.8	+0.8
	comp=Z,3.5nm,0.7s,mb4.9,baz=60,slow=4.8,SNR=15						
IMA	Indian Mountai	93.74	22	eP	P	19 03 34.1	+1.7
IMA				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.6						
IMA	Indian Mountai	93.74	22	eP	P	19 03 34.1	+1.7
	comp=Z,15nm,0.6s,mb5.6						
SPU	Mount Spurr	96.32	27	eP	P	19 03 44.2	0.0
MCK	McKinley	96.55	24	eP	P	19 03 45.8	+0.6
MCK				pmax	pmax		
	comp=Z,40nm,1.8s,mb5.5						
MCK	McKinley	96.55	24	eP	P	19 03 45.3	+0.1
	comp=Z,40nm,1.8s,mb5.5						
ILAR	Eielson Array	96.86	22	P	P	19 03 45.7	-0.9
	comp=Z,3.2nm,0.5s,mb5.0,baz=297,slow=3.7,SNR=79						
PWA	Palmer West	97.08	26	eP	P	19 03 49.1	+1.4
PWA				pmax	pmax		
	comp=Z,15nm,0.5s,mb5.7						
PWA	Palmer West	97.08	26	eP	P	19 03 49.1	+1.4
	comp=Z,15nm,0.5s,mb5.7						
SNAA	Sanae	97.44	198	LR	LR	19 43 06.6	
	comp=Z,208nm,19.1s,MS4.6,baz=18,slow=32						
SML	Sawmill	97.67	25	P	P	19 03 51.3	+1.0
SML	Sawmill	97.67	25	eP	P	19 03 50.4	+0.1
DBIC	Dimbokro	98.42	278	LR	LR	19 45 05.0	
	comp=Z,484nm,21.1s,MS5.0,baz=64,slow=33						
MENT	Mentasta	99.00	23	eP	P	19 03 57.9	+1.6
INK	Inuvik	99.21	16	LR	LR	19 56 00.2	
	comp=Z,828nm,20.1s,MS5.2,baz=292,slow=40						
YKA	Yellowknife Ar	108.67	14	Pdiff	Pdif	19 04 40.2	+0.9
	comp=Z,0.3nm,0.6s,baz=327,slow=4.3,SNR=4.1						
YKA				PKiKP		19 08 44.5	
	comp=Z,0.3nm,0.6s,baz=341,slow=2.2,SNR=5.0						
SCHQ	Schefferville	117.86	348	PKP	PKPdf	19 09 02.6	+1.6
	comp=Z,2.0nm,0.5s,baz=316,slow=2.7,SNR=5.8						
MSO	Missoula	122.20	23	ePKPdf	PKPdf	19 09 10.8	+1.1
MSO				epP		19 09 25.0	
MOD	Modoc	123.25	30	ePKPdf	PKPdf	19 09 14.0	+2.1
ULM	Lac du Bonnet	123.78	8	PKP	PKPdf	19 09 15.1	+2.4
	comp=Z,4.8nm,0.6s,baz=59,slow=5.5,SNR=3.3						
NVAR	Mina Array Bea	126.84	32	PKP	PKPdf	19 09 22.1	+3.1
	comp=Z,2.6nm,0.6s,baz=323,slow=2.2,SNR=16						
MNV	Mina	126.92	32	ePKIKP	PKPdf	19 09 21.4	+2.3
MNV				MLR	MLR		
	comp=Z,524nm,20.0s,MS5.2						
TRCR	Troy Canyon	128.29	30	ePKPdf	PKPdf	19 09 23.6	+1.9
TRCR				epP		19 09 37.1	
SADO	Sadowa	129.61	354	PKP	PKPdf	19 09 25.4	+1.3
	comp=Z,3.6nm,0.6s,baz=252,slow=2.9,SNR=5.4						
NEN	Nelson	130.75	32	ePKPdf	PKPdf	19 09 28.8	+2.2
NEN				epP		19 09 42.0	
ANMO	Albuquerque	135.25	24	PKP	PKPdf	19 09 37.7	+2.7
	comp=Z,3.1nm,0.7s,baz=331,slow=2.9,SNR=7.0						
TUC	Tucson	135.46	31	ePKIKP	PKPdf	19 09 37.8	+2.4
TUC				MLR	MLR		
	comp=Z,459nm,20.0s,MS5.2						
GDL2	Guadalupe Moun	138.50	24	ePKPdf	PKPdf	19 09 43.5	+2.5
MNTX	Cornudas Mount	138.51	26	ePKPdf	PKPdf	19 09 42.9	+1.9
MIAR	Mount Ida	139.48	10	PKIKP	PKPdf	19 09 45.0	+2.3
MIAR				e		19 09 58.9	
MIAR	Mount Ida	139.48	10	ePKPdf	PKPdf	19 09 42.5	-0.2
JSC	Jenkinsville	140.21	354	ePKIKP	PKPdf	19 09 45.8	+1.8
LTX	Lajitas	141.29	26	ePKIKP	PKPdf	19 09 47.8	+1.6
TXAR	Lajitas Array	141.29	26	PKhKP		19 09 41.9	
	comp=Z,0.8nm,0.6s,baz=306,slow=3.4,SNR=5.7						
TXAR				PKP	PKPdf	19 09 48.2	+2.1
	comp=Z,2.2nm,0.5s,baz=171,slow=0.6,SNR=12						
BDFB	Brasilia	141.68	252	PKP	PKPdf	19 09 49.4	+2.3
	comp=Z,1.3nm,0.4s,baz=40,slow=2.8,SNR=2.9						
JCT	Junction City	141.75	20	ePKHKP		19 09 42.5	
SJG	San Juan	149.63	321	PKP	PKPdf	19 10 02.8	+2.3
	comp=Z,27nm,0.8s,baz=308,slow=21,SNR=2.7						
SJG				PKPbc	PKPdf	19 10 06.8	+6.4
	comp=Z,16nm,0.6s,baz=2.8,slow=24,SNR=4.3						
SJG				PKPab	PKPab	19 10 11.4	-1.0
	comp=Z,12nm,0.5s,baz=356,slow=23,SNR=4.0						
TRN	Trinidad (W)	150.97	304	eP	PKPdf	19 10 10.0	+7.4
SDV	Santo Domingo	159.27	314	ePKPdf	PKPdf	19 10 15.9	+2.2
LPAZ	La Paz	159.72	237	PKIKP	PKPdf	19 10 17.1	+2.9
LPAZ	La Paz	159.72	237	PKP	PKPdf	19 10 16.8	+2.6
	comp=Z,2.1nm,0.8s,baz=12,slow=7.5,SNR=9.3						
LPAZ				PKPab	PKPab	19 10 56.9	+1.5
	comp=Z,2.3nm,0.9s,baz=254,slow=2.9,SNR=2.4						
LPAZ	La Paz	159.72	237	ePKPdf	PKPdf	19 10 16.4	+2.2
ROSC	El Rosal	164.68	312	PKP	PKPdf	19 10 22.5	+3.2
	comp=Z,7.5nm,0.4s,baz=95,slow=22,SNR=8.1						
OTAV	Otavalo	170.79	308	ePKPdf	PKPdf	19 10 26.3	+2.9

IDC 29 18:59:36.9±1.4**,6.42N×92.13E,mb3.8**/5**,mb1 4.0**/6**, mb1mx3.8**/19**,mbtmp3.8**/6**,ML3.5**/1**,Error ellipse: s-maj=64.4km s-min=23.3km az=51.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.69	28	Pn	P	19 02 52.4	-2.6
	0.1nm,0.3s,baz=230,slow=15,SNR=10						
WRA	Warramunga Arr	49.09	123	P	P	19 08 26.1	-2.2
	1.2nm,0.8s,baz=300,slow=9.3,SNR=5.7						
BVAR	Borovoye Array	49.75	343	P	P	19 08 30.5	-2.5
	1.3nm,0.9s,baz=149,slow=8.4,SNR=3.7						
ASAR	Alice Springs	50.56	128	P	P	19 08 37.9	-1.7
	1.2nm,0.8s,baz=289,slow=6.8,SNR=6.5						
FINES	FINESS Array B	73.07	333	P	P	19 11 08.6	-2.0
	0.8nm,0.7s,baz=119,slow=20,SNR=2.4						
GERES	GERESS Array B	77.58	318	P	P	19 11 35.8	-0.8
	0.5nm,0.7s,baz=108,slow=4.2,SNR=3.8						

IDC 29 19:02:03.1±1.8**,10.11N×91.15E,mb3.9**/5**,mb1 3.9**/6**, mb1mx3.7**/19**,mbtmp3.7**/6**,ML3.7**/1**,MS4.1**/1**,Ms1 4.1**/1**, ms1mx3.3**/27**,Error ellipse: s-maj=61.6km s-min=22.0km az=68.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.22	41	Pn	P	19 04 45.7	-2.3
	0.1nm,0.3s,baz=236,slow=17,SNR=4.9						
JOW	Kunigami	38.76	59	LR	LR	19 26 11.3	
	comp=Z,254nm,18.3s,baz=137,slow=37						
SONM	Songino Array	39.74	16	P	P	19 09 37.4	-1.8
	0.5nm,0.4s,baz=197,slow=8.8,SNR=4.8						
BVAR	Borovoye Array	45.96	343	P	P	19 10 27.8	-1.8
	1.2nm,0.9s,baz=135,slow=6.1,SNR=4.0						
WRA	Warramunga Arr	51.96	125	P	P	19 11 14.4	-2.1
	1.9nm,0.7s,baz=307,slow=8.2,SNR=21						
ASAR	Alice Springs	53.61	129	P	P	19 11 26.7	-2.0
	0.5nm,0.5s,baz=308,slow=7.3,SNR=11						
STKA	Stephens Creek	63.78	133	P	P	19 12 36.9	-2.7
	1.8nm,0.7s,baz=293,slow=7.7,SNR=4.9						

IDC ***29*** *19:05:13.1±0.9,5.59N×93.12E,mb4.0/10,mb1 4.2/11, mb1mx4.0/20,mbtmp4.0/11,Error ellipse: s-maj=39.5km s-min=16.4km az=48.0*

NEIC ***29*** *19:05:16.9±1.4,5.27N×92.76E,h30*^{km}*,mb4.3/7,Error ellipse: s-maj=31.1km s-min=18.9km az=63.0*

ISC 29 19:05:15.6±0.8**,5.3N**±0.1×**92.9E**±0.1**,h33**^{km}**,n20,** σ**1**^{s}**10**/20**,mb4.2**/16**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	14.36	24	eP	P	19 08 40.3	+1.6
	10nm,0.8s						
CMAR	Chiang Mai Arr	14.36	24	Pn	P	19 08 33.1	-5.6
	baz=220,slow=14,SNR=7.0						
QIZ	Qiongzhong	21.46	49	P	P	19 10 02.7	-0.7
LSA	Lhasa	24.31	356	eP	P	19 10 31.1	-0.3
	6.7nm,0.8s,mb4.1						
ENH	Enshi	29.37	30	eP	P	19 11 18.9	+1.0
	3.4nm,0.7s,mb4.2						
SONM	Songino Array	43.93	13	P	P	19 13 18.9	-2.2
	3.1nm,0.8s,mb4.1,baz=185,slow=7.6,SNR=16						
ULN	Ulaanbaatar	44.11	14	P	P	19 13 23.7	+1.1
	2.9nm,0.8s,mb4.1						
WRA	Warramunga Arr	47.89	123	P	P	19 13 53.0	+0.1
	4.7nm,0.8s,mb4.6,baz=302,slow=9.0,SNR=21						
WRAB	Tennant Creek	47.90	123	eP	P	19 13 53.5	+0.5
	12nm,1.0s,mb4.9						
ZAL	Zalesovo	48.92	354	P	P	19 13 59.7	-0.7
	3.6nm,0.6s,mb4.6,baz=197,slow=5.1,SNR=17						
ASAR	Alice Springs	49.33	127	P	P	19 14 03.9	-0.1
	1.4nm,0.8s,mb4.0,baz=303,slow=8.0,SNR=9.0						
ASAR				PcP	PcP	19 15 26.9	+0.3
	1.5nm,1.1s,baz=301,slow=3.6,SNR=4.1						
BVAR	Borovoye Array	51.01	343	P	P	19 14 14.6	-1.8
	0.9nm,0.8s,mb3.8,baz=135,slow=8.4,SNR=5.1						
BRVK	Borovoye	51.07	343	P	P	19 14 18.3	+1.4
	2.1nm,0.8s,mb4.1						
CHKZ	Chkalovo	51.52	343	eP	P	19 14 18.6	-1.6
	4.2nm,0.7s,mb4.5						
PMG	Port Moresby	56.07	105	P	P	19 14 53.1	-1.2
	5.8nm,0.9s,mb4.6,baz=278,slow=15,SNR=3.3						
PMG	Port Moresby	56.07	105	eP	P	19 14 54.1	-0.1
	6.2nm,0.9s,mb4.6						
BRTR	Keskin Array B	63.15	312	P	P	19 15 43.4	+0.7
	0.6nm,0.8s,mb3.8,baz=135,slow=6.1,SNR=3.4						
AKASG	Malin Array Be	69.37	323	P	P	19 16 22.5	+0.5
	1.8nm,0.6s,mb4.2,baz=87,slow=5.6,SNR=4.8						
ARCES	ARCESS Array B	77.23	341	P	P	19 17 07.2	-0.6
	4.8nm,0.9s,mb4.5,baz=60,slow=14,SNR=3.1						
GERES	GERESS Array B	78.88	319	P	P	19 17 18.7	+1.4
	0.7nm,0.7s,mb3.7,baz=90,slow=5.9,SNR=7.5						

IDC 29 19:05:50.0±1.8**,43.62N×105.48W,mb4.0**/4**,mb1 3.9**/9**, mb1mx3.7**/23**,mbtmp3.8**/9**,ML3.6**/5**,Error ellipse: s-maj=50.4km s-min=7.3km az=150.0,Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PDAR	Pinedale Array	3.10	256	Pn	Pn	19 06 43.6	+2.4
	6.2nm,0.3s,baz=72,slow=16,SNR=148						
PDAR				Pg	Pg	19 06 49.3	-2.7
	10nm,0.3s,baz=68,slow=21,SNR=43						
PDAR				Lg		19 07 26.6	
	15nm,0.3s,baz=75,slow=35,SNR=6.1						
ULM	Lac du Bonnet	9.33	41	Pn	P	19 08 04.2	-4.6
	1.1nm,0.3s,baz=228,slow=13,SNR=9.1						
ULM				Lg		19 10 41.3	
	0.6nm,0.3s,baz=135,slow=20,SNR=2.8						
NVAR	Mina Array Bea	10.99	246	Pn	P	19 08 32.5	+0.9
	0.2nm,0.3s,baz=55,slow=12,SNR=5.4						
YBH	Yreka Blue Hor	12.83	267	Pn	P	19 08 59.0	+2.7
	0.2nm,0.3s,baz=51,slow=8.1,SNR=4.6						
YKA	Yellowknife Ar	19.65	347	P	P	19 10 19.7	-3.2
	0.1nm,0.3s,baz=157,slow=13,SNR=3.4						
ARCES	ARCESS Array B	61.58	18	P	P	19 16 06.6	-4.3
	2.7nm,0.8s,baz=339,slow=5.4,SNR=9.7						
FINES	FINESS Array B	68.20	23	P	P	19 16 51.3	-2.5
	1.7nm,0.9s,baz=335,slow=5.8,SNR=6.1						
BVAR	Borovoye Array	83.67	3	P	P	19 18 19.3	-1.9
	0.4nm,0.5s,slow=2.9,SNR=3.1						
SONM	Songino Array	84.70	339	P	P	19 18 26.5	0.0
	0.5nm,0.5s,baz=354,slow=3.4,SNR=5.4						

IDC 29 19:10:34.7±2.0**,14.12N×92.07E,mb3.5**/3**,mb1 3.6**/4**, mb1mx3.4**/18**,mbtmp3.4**/4**,ML3.6**/1**,Error ellipse: s-maj=46.3km s-min=28.3km az=76.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.88	56	Pn	Pn	19 12 31.6	-1.8
	0.2nm,0.3s,baz=240,slow=16,SNR=5.9						
CMAR				Sn	Sn	19 14 00.5	-3.8
	0.2nm,0.3s,baz=238,slow=28,SNR=3.4						
ZAL	Zalesovo	40.14	353	P	P	19 18 11.7	-2.1
	0.8nm,0.4s,baz=267,slow=0.9,SNR=3.5						
WRA	Warramunga Arr	53.62	128	P	P	19 19 58.0	-2.3
	0.5nm,0.8s,baz=310,slow=7.7,SNR=7.3						
ASAR	Alice Springs	55.53	132	P	P	19 20 12.2	-2.1
	0.2nm,0.4s,baz=309,slow=6.3,SNR=8.0						

IDC 29 19:12:06.7±62.0**,17.28S×171.51E,mb4.1**/3**,mb1 4.2**/3**, mb1mx3.9**/13**,mbtmp4.1**/3**,Error ellipse: s-maj=1067.0km s-min=124.6km az=72.0,Vanuatu Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	30.71	236	P	P	19 18 23.4	-2.2
	3.1nm,0.7s,baz=85,slow=12,SNR=7.8						
WRA	Warramunga Arr	35.28	260	P	P	19 19 03.1	-2.4
	0.7nm,0.8s,baz=90,slow=9.2,SNR=5.6						
ASAR	Alice Springs	35.72	253	P	P	19 19 07.6	-1.6
	3.0nm,0.7s,baz=83,slow=9.0,SNR=40						

IDC 29 19:13:15.4±1.3**,7.56N×94.39E,mb3.8**/8**,mb1 4.0**/8**, mb1mx3.8**/19**,mbtmp3.8**/8**,Error ellipse: s-maj=67.3km s-min=21.5km az=53.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	41.41	12	P	P	19 21 03.3	-1.8
	0.3nm,0.8s,baz=214,slow=5.2,SNR=2.6						
ZAL	Zalesovo	46.89	352	P	P	19 21 47.2	-2.0
	0.9nm,0.7s,baz=225,slow=10.0,SNR=4.0						
WRA	Warramunga Arr	47.88	125	P	P	19 21 55.8	-1.6
	0.7nm,0.8s,baz=305,slow=8.7,SNR=8.0						
BVAR	Borovoye Array	49.36	341	P	P	19 22 08.4	-0.1
	0.4nm,0.4s,baz=135,slow=6.3,SNR=4.2						
BVAR				PcP	PcP	19 23 27.5	-3.9
	0.4nm,0.6s,baz=131,slow=4.6,SNR=2.5						
ASAR	Alice Springs	49.52	130	P	P	19 22 08.2	-2.0
	0.5nm,0.8s,baz=300,slow=7.8,SNR=4.0						
FINES	FINESS Array B	73.10	332	P	P	19 24 45.8	-3.4
	1.6nm,0.6s,baz=135,slow=2.7,SNR=4.8						
GERES	GERESS Array B	78.22	318	P	P	19 25 18.3	-0.3
	0.5nm,0.7s,baz=90,slow=6.7,SNR=4.4						
HFS	Hagfors	78.85	330	P	P	19 25 20.4	-1.3
	4.8nm,1.1s,baz=72,slow=4.6,SNR=3.6						

IDC 29 19:13:35.7±1.3**,13.34N×92.75E,mb3.6**/5**,mb1 3.8**/6**, mb1mx3.6**/19**,mbtmp3.6**/6**,ML3.7**/1**,Error ellipse: s-maj=47.7km s-min=21.6km az=53.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	7.83	49	Pn	Pn	19 15 33.1	-0.5
	0.3nm,0.3s,baz=236,slow=14,SNR=12						
CMAR				Sn	Sn	19 16 51.0	-13
	0.2nm,0.3s,baz=238,slow=28,SNR=5.4						
ZAL	Zalesovo	40.98	353	P	P	19 21 18.1	-3.7
	0.6nm,0.4s,baz=215,slow=6.5,SNR=3.2						
BVAR	Borovoye Array	43.41	340	P	P	19 21 39.1	-2.5
	0.2nm,0.5s,baz=153,slow=13,SNR=2.3						
WRA	Warramunga Arr	52.62	128	P	P	19 22 51.6	-2.4
	0.6nm,0.7s,baz=309,slow=7.8,SNR=5.9						
ASAR	Alice Springs	54.52	132	P	P	19 23 06.0	-1.9
	0.5nm,0.8s,baz=307,slow=6.7,SNR=8.1						
GERES	GERESS Array B	72.88	317	P	P	19 25 07.7	-0.7
	0.6nm,0.8s,baz=84,slow=9.4,SNR=3.0						

IDC ***29*** *19:17:15.0±0.7,8.14N×93.67E,mb4.1/15,mb1 4.2/16, mb1mx4.2/22,mbtmp4.1/16,ML4.2/1,Error ellipse: s-maj=37.0km s-min=13.8km az=50.0*

ISC 29 19:17:18.1±0.6**,8.1N**±0.1×**93.8E**±0.1**,h33**^{km}**,n26,** σ**0**^{s}**81**/24**,mb4.3**/21**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.42	25	Pn	P	19 20 01.6	-0.3
	0.5nm,0.3s,baz=212,slow=14,SNR=29						
PKI	Pulchoki	20.91	339	eP	P	19 22 00.7	+0.5
	26nm,0.8s						
DMN	Daman	21.05	338	eP	P	19 22 02.7	+1.0
	26nm,0.7s,mb4.7						
GUN	Gumba	21.06	340	eP	P	19 22 01.7	0.0
	40nm,0.8s,mb4.8						
KKN	Kakani	21.16	339	eP	P	19 22 03.0	+0.3
	21nm,0.7s,mb4.6						
GKN	Gorkha	21.59	337	eP	P	19 22 07.9	+0.9
	36nm,0.7s,mb4.9						
KOLN	Koldanda	21.79	335	eP	P	19 22 10.0	+0.9
	25nm,0.8s,mb4.7						
SONM	Songino Array	40.99	13	P	P	19 24 59.2	-0.4
	0.6nm,0.6s,mb3.4,baz=199,slow=9.6,SNR=5.2						
SONM				PcP	PcP	19 27 00.9	+1.0
	0.7nm,0.8s,baz=198,slow=3.4,SNR=5.3						
ZAL	Zalesovo	46.26	353	P	P	19 25 41.2	-0.8
	4.3nm,0.6s,mb4.6,baz=214,slow=5.8,SNR=26						
BVAR	Borovoye Array	48.65	341	P	P	19 25 59.9	-0.8
	0.9nm,0.7s,mb3.9,baz=135,slow=6.3,SNR=4.3						
WRA	Warramunga Arr	48.68	126	P	P	19 26 01.9	+0.5
	3.1nm,1.0s,mb4.3,baz=304,slow=9.0,SNR=13						
WRA				PcP	PcP	19 27 27.4	+0.7
	0.6nm,0.6s,baz=313,slow=2.9,SNR=6.1						
ASAR	Alice Springs	50.33	130	P	P	19 26 14.2	+0.2
	2.1nm,0.8s,mb4.2,baz=310,slow=8.1,SNR=15						
ASAR				PcP	PcP	19 27 33.9	+1.2
	1.4nm,0.6s,baz=312,slow=3.6,SNR=14						
PMG	Port Moresby	55.92	107	P	P	19 26 55.4	-0.2
	7.7nm,0.8s,mb4.8,baz=310,slow=9.1,SNR=5.0						
STKA	Stephens Creek	60.52	134	P	P	19 27 27.8	+0.2
	3.0nm,0.9s,mb4.4,baz=340,slow=6.0,SNR=4.7						
BRTR	Keskin Array B	62.01	311	P	P	19 27 36.8	-0.8
	0.8nm,0.6s,mb4.0,baz=135,slow=7.0,SNR=4.1						
AKASG	Malin Array Be	67.75	322	P	P	19 28 12.5	-1.9
	0.3nm,0.4s,mb3.7,baz=108,slow=9.0,SNR=3.1						
FINES	FINESS Array B	72.33	332	P	P	19 28 41.8	-0.3
	1.8nm,0.8s,mb4.1,baz=72,slow=6.0,SNR=8.7						
KAF	Kangasniemi	72.42	333	ep	P	19 28 40.4	-2.2
	4.3nm,0.9s,mb4.4						
ARCES	ARCESS Array B	74.92	340	P	P	19 28 58.0	+0.9
	4.0nm,0.9s,mb4.4,baz=67,slow=6.9,SNR=3.1						
GERES	GERESS Array B	77.42	318	P	P	19 29 11.9	+0.3
	1.0nm,1.0s,mb3.7,baz=143,slow=6.7,SNR=4.2						
HFS	Hagfors	78.07	330	P	P	19 29 15.3	+0.3
	1.8nm,0.5s,mb4.3,baz=104,slow=6.1,SNR=6.0						
NB2	NORSAR Subarra	79.35	331	P	P	19 29 22.4	+0.4
	8.9nm,1.4s,mb4.5,baz=97,slow=4.8						
NOA	NORSAR Array B	79.35	331	P	P	19 29 21.9	-0.1
	1.0nm,0.6s,mb3.9,baz=92,slow=5.7,SNR=3.5						
EKA	Eskdalemuir Ar	87.33	325	P	P	19 30 03.7	+1.0
	2.3nm,0.8s,mb4.5,baz=95,slow=5.5,SNR=4.2						
NVAR	Mina Array Bea	124.87	31	PKP	PKPdf	19 36 18.7	+3.4
	0.7nm,0.7s,baz=13,slow=1.1,SNR=4.8						
PDAR	Pinedale Array	125.05	21	PKP	PKPdf	19 36 17.9	+2.4
	0.6nm,0.8s,slow=3.0,SNR=4.4						

BJI ***29*** *19:32:04.7,16.10N×47.20W,h10*^{km}*,mB5.8,Ms5.2, Msz4.9*

IDC ***29*** *19:32:05.8±0.4,16.14N×47.23W,mb4.6/35,mb1 4.7/37, mb1mx4.6/39,mbtmp4.6/37,MS4.5/21,Ms1 4.5/21, ms1mx4.2/32,Error ellipse: s-maj=13.5km s-min=10.2km az=149.0*

MOS ***29*** *19:32:06.3±0.7,16.23N×47.17W,h10*^{km}*,mb5.2/50,Error ellipse: s-maj=9.6km s-min=5.8km az=48.5*

NEIC ***29*** *19:32:07.7±0.2,16.13N×47.18W,h10*^{km}*,mb5.0/60,Error ellipse: s-maj=5.7km s-min=3.0km az=171.0*

CSEM ***29*** *19:32:13.1,16.95N×47.31W,h33*^{km}*,mb5.6*

ISC 29 19:32:06.2±0.3**,16.22N**±0.06×**47.20W**±0.03**,h10**^{km}**,n222,** σ**0**^{s}**76**/204**,mb4.8**/94**,MS4.6**/26**,6C-5D,Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PCRV	Puerto La Cruz	18.01	253	P	P	19 36 18.2	-0.3
	0.3nm,0.3s,slow=7.1,SNR=2.3						
SJG	San Juan	18.21	279	P	P	19 36 21.6	+0.6
	0.9nm,0.3s,baz=322,slow=21,SNR=4.8						
SDV	Santo Domingo	23.99	255	P	P	19 37 23.3	+1.2
	9.3nm,0.7s,mb4.4,baz=77,slow=12,SNR=13						
SDV	Santo Domingo	23.99	255	eP	P	19 37 23.1	+1.0
	20nm,1.0s,mb4.5						
ROSC	El Rosal	28.92	250	P	P	19 38 07.4	-0.5
	6.2nm,0.4s,mb4.7,baz=250,slow=16,SNR=3.0						
BDFB	Brasilia	31.67	182	P	P	19 38 31.4	-0.9
	4.6nm,0.9s,mb4.3,baz=24,slow=8.5,SNR=4.8						
BDFB				LR	LR	19 51 30.6	
	comp=Z,717nm,18.2s,MS4.4,baz=26,slow=37						
OTAV	Otavalo	34.67	246	eP	P	19 38 58.8	+0.3
	25nm,1.4s,mb5.0						
JSC	Jenkinsville	35.45	307	eP	P	19 39 05.5	+0.7
SSPA	Standing Stone	36.02	319	eP	P	19 39 09.2	-0.4
GOGA	Godfrey	36.87	304	eP	P	19 39 18.0	+1.2
GOGA				pmax	pmax		
	comp=Z,19nm,1.0s,mb4.9						
GOGA	Godfrey	36.87	304	eP	P	19 39 18.0	+1.2
	comp=Z,19nm,1.0s,mb4.9						
LPAZ	La Paz	38.34	214	eP	P	19 39 28.5	-0.8
LPAZ				pmax	pmax		
	comp=Z,9.0nm,0.9s						
LPAZ	La Paz	38.34	214	P	P	19 39 28.2	-1.1
	comp=Z,5.6nm,0.8s,mb4.4,baz=19,slow=8.4,SNR=18						
LPAZ				LR	LR	19 54 43.5	
	comp=Z,394nm,21.8s,MS4.2,baz=216,slow=36						
LPAZ	La Paz	38.34	214	eP	P	19 39 28.5	-0.8
	comp=Z,9.1nm,0.9s,mb4.5						
CPCT	Cooper Cave	38.37	307	eP	P	19 39 30.6	+1.2
SADO	Sadowa	39.15	323	LR	LR	19 52 25.3	
	comp=Z,682nm,19.1s,MS4.5,baz=120,slow=31						
TEIG	Tepich	39.16	282	eP	P	19 39 36.5	+0.4
	comp=Z,15nm,0.7s,mb4.8						
WVT	Waverly	41.13	307	eP	P	19 39 53.5	+1.2
WVT				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.6						
WVT	Waverly	41.13	307	eP	P	19 39 53.5	+1.2
	comp=Z,13nm,0.8s,mb4.6						
SCHQ	Schefferville	41.42	343	P	P	19 39 54.6	+0.3
	comp=Z,14nm,1.1s,mb4.5,baz=164,slow=9.3,SNR=4.9						
SCHQ				PcP	PcP	19 41 51.6	-1.4
	comp=Z,7.0nm,1.0s,baz=63,slow=2.3,SNR=3.6						
SCHQ				LR	LR	19 54 37.6	
	comp=Z,735nm,19.6s,MS4.6,baz=96,slow=33						
DBIC	Dimbokro	42.49	98	P	P	19 40 02.1	-1.6
	comp=Z,14nm,1.1s,mb4.5,baz=273,slow=11,SNR=7.9						
DBIC	Dimbokro	42.49	98	eP	P	19 40 03.1	-0.6

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FVM   French Village   43.68 308 eP       P      19 40 13.2 +0.1
FVM                               pmax     pmax
      comp=Z,8.0nm,0.6s,mb4.6
FVM   French Village   43.68 308 eP       P      19 40 13.2 +0.1
      comp=Z,8.3nm,0.6s,mb4.6
LVC   Limon Verde      44.06 209 P        P      19 40 14.6 -1.8
      comp=Z,12nm,1.2s,mb4.5,baz=41,slow=7.8,SNR=7.1
LVC                               PcP      PcP    19 42 01.0 -1.3
      comp=Z,1.4nm,0.9s,baz=327,slow=3.4,SNR=3.9
LVC   Limon Verde      44.06 209 eP       P      19 40 15.9 -0.5
      comp=Z,11nm,1.1s,mb4.5
ESDC  Sonseca Array    44.21  49 P        P      19 40 17.1 -0.3
      comp=Z,3.0nm,1.1s,mb3.9,baz=239,slow=8.6,SNR=5.6
ESDC                              PcP      PcP    19 42 01.5 -1.1
      comp=Z,0.4nm,0.5s,baz=269,slow=5.0,SNR=4.5
CCM   Cathedral Cave   44.32 308 eP       P      19 40 18.5 +0.2
CCM                               pmax     pmax
      comp=Z,15nm,1.1s,mb4.6
CCM   Cathedral Cave   44.32 308 eP       P      19 40 18.5 +0.2
      comp=Z,15nm,1.1s,mb4.6
MIAR  Mount Ida        45.27 303 eP       P      19 40 26.8 +0.9
MIAR                              pmax     pmax
      comp=Z,9.0nm,0.8s,mb4.7
MIAR  Mount Ida        45.27 303 eP       P      19 40 26.8 +0.8
      comp=Z,8.6nm,0.8s,mb4.6
SJPF  Ste Jean         47.31  46 eP       P      19 40 42.5 +0.5
      comp=Z,58nm,1.2s,mb5.1
SJPF  Ste Jean         47.31  46 eP       P      19 40 42.5 +0.5
SJPF                              pmax     pmax
      comp=Z,29nm,1.2s,mb5.1
ETSF  Etsaut           47.70  46 eP       P      19 40 45.7 +0.7
      comp=Z,56nm,1.3s,mb5.1
ETSF  Etsaut           47.70  46 eP       P      19 40 45.7 +0.7
ETSF                              pmax     pmax
      comp=Z,28nm,1.3s,mb5.1
EPF   Esparros         48.37  46 eP       P      19 40 50.6 +0.4
      comp=Z,114nm,1.7s,mb5.3
EPF   Esparros         48.37  46 eP       P      19 40 50.6 +0.4
EPF                               pmax     pmax
      comp=Z,57nm,1.7s,mb5.3
SGMF  Saint Gilles     48.44  39 eP       P      19 40 50.8 +0.1
      comp=Z,173nm,1.6s,mb5.5
SGMF  Saint Gilles     48.44  39 eP       P      19 40 50.8 +0.1
SGMF                              pmax     pmax
      comp=Z,86nm,1.6s,mb5.5
KSU1  Kansas State U   48.65 308 eP       P      19 40 51.8 -0.6
MFF   Saint Martin d   49.28  42 eP       P      19 40 57.2  0.0
      comp=Z,72nm,1.2s,mb5.3
MFF   Saint Martin d   49.28  42 eP       P      19 40 57.2  0.0
MFF                               pmax     pmax
      comp=Z,36nm,1.2s,mb5.3
GRR   Gorron           49.53  39 eP       P      19 40 59.8 +0.7
      comp=Z,39nm,1.3s,mb5.0
GRR   Gorron           49.53  39 eP       P      19 40 59.8 +0.7
GRR                               pmax     pmax
      comp=Z,19nm,1.3s,mb5.0
WMOK  Wichita Mounta   49.53 302 eP       P      19 40 58.3 -1.0
WMOK                              pmax     pmax
      comp=Z,8.0nm,0.9s,mb4.8
WMOK  Wichita Mounta   49.53 302 eP       P      19 40 58.3 -1.0
      comp=Z,8.1nm,0.9s,mb4.8
FRB   Frobisher Bay    49.72 348 P        P      19 41 00.1 -0.2
      comp=Z,9.7nm,0.7s,mb5.0,baz=148,slow=8.3,SNR=21
FRB                               LR       LR     19 59 27.9
      comp=Z,992nm,21.2s,MS4.8,baz=95,slow=33
FLN   La Foliniere     49.91  39 eP       P      19 41 01.7 -0.3
      comp=Z,60nm,1.3s,mb5.2
FLN                              eR
      comp=Z,1μm,22.9s
FLN   La Foliniere     49.91  39 eP       P      19 41 01.7 -0.3
FLN                               pmax     pmax
      comp=Z,30nm,1.3s,mb5.2
FLN                               MLR      MLR
      comp=Z,1μm,22.9s,MS4.8
JCT   Junction City    49.93 296 eP       P      19 41 01.6 -0.8
JCT                               pmax     pmax
      comp=Z,7.0nm,0.6s,mb4.9
JCT   Junction City    49.93 296 eP       P      19 41 01.6 -0.8
      comp=Z,7.0nm,0.6s,mb4.9
CAF   Calviac          50.15  45 eP       P      19 41 03.6 -0.3
      comp=Z,87nm,1.6s,mb5.2
CAF   Calviac          50.15  45 eP       P      19 41 03.6 -0.3
CAF                               pmax     pmax
      comp=Z,43nm,1.6s,mb5.2
LASF  Ste Croix        51.12  46 eP       P      19 41 10.4 -0.9
      comp=Z,121nm,1.5s,mb5.3
BGF   Bois d’Agland    51.19  43 eP       P      19 41 11.6 -0.2
      comp=Z,75nm,1.4s,mb5.1
BGF   Bois d’Agland    51.19  43 eP       P      19 41 11.6 -0.2
BGF                               pmax     pmax
      comp=Z,37nm,1.4s,mb5.1
HYF   Humbligny        51.30  42 eP       P      19 41 12.5 -0.1
EKA   Eskdalemuir Ar   51.50  30 P        P      19 41 13.2 -0.8
      comp=Z,7.8nm,1.0s,mb4.6,baz=238,slow=7.9,SNR=6.4
AVF   Avril sur Loir   51.60  43 eP       P      19 41 14.5 -0.4
      comp=Z,21nm,1.1s,mb4.7
AVF   Avril sur Loir   51.60  43 eP       P      19 41 14.5 -0.4
AVF                               pmax     pmax
      comp=Z,10.0nm,1.1s,mb4.7
ULM   Lac du Bonnet    51.68 322 P        P      19 41 15.1 -0.3
      comp=Z,6.6nm,0.7s,mb4.7,baz=104,slow=6.6,SNR=13
ULM                               LR       LR     20 00 22.6
      comp=Z,714nm,21.2s,MS4.7,baz=23,slow=33
ULM   Lac du Bonnet    51.68 322 eP       P      19 41 15.8 +0.3
      comp=Z,11nm,0.9s,mb4.8
SSF   Saint Saulge     51.79  42 eP       P      19 41 15.6 -0.7
SSF                               pmax     pmax
      comp=Z,10.0nm,1.1s,mb4.7
SSF   Saint Saulge     51.79  42 eP       P      19 41 15.6 -0.7
      comp=Z,10nm,1.1s,mb4.7
SMF   Signal de Mont   51.87  43 eP       P      19 41 16.6 -0.4
      comp=Z,32nm,1.3s,mb4.8
SMF   Signal de Mont   51.87  43 eP       P      19 41 16.6 -0.4
SMF                               pmax     pmax
      comp=Z,16nm,1.3s,mb4.8
VIVF  Saint-Julien-l   51.90  45 eP       P      19 41 17.6 +0.4
      comp=Z,84nm,1.5s,mb5.2
VIVF  Saint-Julien-l   51.90  45 eP       P      19 41 17.6 +0.4
VIVF                              pmax     pmax
      comp=Z,42nm,1.5s,mb5.2
AMTX  Amarillo         51.91 302 eP       P      19 41 15.8 -1.6
      comp=Z,20nm,0.8s,mb5.1
ORIF  Oris-en-Rattie   52.74  46 eP       P      19 41 22.7 -0.8
      comp=Z,52nm,1.4s,mb5.0
ORIF                             eR
      comp=Z,671nm,18.1s
LMR   La Mourre        52.79  48 eP       P      19 41 24.7 +0.8
      comp=Z,272nm,1.6s,mb5.6
LMR   La Mourre        52.79  48 eP       P      19 41 24.7 +0.8
LMR                               pmax     pmax
      comp=Z,136nm,1.6s,mb5.6
TXAR  Lajitas Array    53.23 295 P        P      19 41 26.3 -1.1
      comp=Z,2.8nm,0.7s,mb4.3,baz=112,slow=7.1,SNR=23
TXAR                              PcP      PcP    19 42 33.0 -2.3
      comp=Z,2.0nm,1.0s,baz=121,slow=7.3,SNR=3.8
BAIF  Baives           53.23  39 eP       P      19 41 26.3 -0.8
      comp=Z,38nm,1.1s,mb5.0
BAIF  Baives           53.23  39 eP       P      19 41 26.3 -0.8
BAIF                              pmax     pmax
      comp=Z,19nm,1.1s,mb4.9
MEZF  Maizieres J’vi   53.24  41 eP       P      19 41 26.6 -0.5
      comp=Z,132nm,1.4s,mb5.4
MBDF  Montbardon       53.31  46 eP       P      19 41 28.1 +0.4
CABF  La Chapelle      53.34  44 eP       P      19 41 27.7 -0.2
      comp=Z,115nm,1.5s,mb5.3
CABF  La Chapelle      53.34  44 eP       P      19 41 27.7 -0.2
CABF                              pmax     pmax
      comp=Z,57nm,1.5s,mb5.3
CPRX  Cap Rock         53.56 299 eP       P      19 41 29.3 -0.4
GIVF  Givet            53.62  39 eP       P      19 41 29.2 -0.7
      comp=Z,59nm,1.3s,mb5.1
GIVF  Givet            53.62  39 eP       P      19 41 29.2 -0.7
GIVF                              pmax     pmax
      comp=Z,30nm,1.3s,mb5.1
HAU   Haudompre        53.91  42 eP       P      19 41 31.0 -1.0
      comp=Z,16nm,1.0s,mb4.6
HAU                              eR
      comp=Z,591nm,21.4s
HAU   Haudompre        53.91  42 eP       P      19 41 31.0 -1.0
HAU                               pmax     pmax
      comp=Z,8.0nm,1.0s,mb4.6
HAU                               MLR      MLR
      comp=Z,590nm,21.4s,MS4.6
GDL2  Guadalupe Moun   53.93 298 eP       P      19 41 32.4  0.0
HINF  Hinteralfeld     54.18  42 eP       P      19 41 33.2 -0.8
      comp=Z,37nm,1.5s,mb4.8
HINF  Hinteralfeld     54.18  42 eP       P      19 41 33.2 -0.8
HINF                              pmax     pmax
      comp=Z,18nm,1.5s,mb4.8
CDF   Champ du Feu     54.62  42 eP       P      19 41 36.4 -0.9
      comp=Z,26nm,1.3s,mb4.8
CDF   Champ du Feu     54.62  42 eP       P      19 41 36.4 -0.9
CDF                               pmax     pmax
      comp=Z,13nm,1.3s,mb4.8
BFO   Black Forest     55.27  42 eP       P      19 41 42.3 +0.2
BFO                               pmax     pmax
      comp=Z,26nm,1.5s,mb5.0
BFO   Black Forest     55.27  42 eP       P      19 41 42.3 +0.2
      comp=Z,26nm,1.5s,mb5.0
PHWY  Pilot Hill       55.72 309 eP       P      19 41 45.9 +0.6
ANMO  Albuquerque      55.83 301 i P      P      19 41 46.4 +0.1
ANMO  Albuquerque      55.83 301 P        P      19 41 46.4 +0.1
      comp=Z,1.5nm,0.6s,mb4.2,baz=82,slow=4.5,SNR=3.7
ANMO                              LR       LR     20 03 21.1
      comp=Z,462nm,20.6s,MS4.5,slow=34
DAVOX Davos            55.91  44 P        P      19 41 46.8 +0.1
      comp=Z,5.7nm,1.0s,mb4.6,baz=316,slow=7.2,SNR=6.1
DAVOX                             LR       LR     20 02 22.5
      comp=Z,738nm,18.5s,MS4.8,baz=313,slow=32
SUMG  Summit           56.58   3 eP       P      19 41 51.3 +0.2
      comp=Z,11nm,0.8s,mb4.9
RW3   Ridgway          57.06 305 eP       P      19 41 55.0 -0.1
FUR   Furstenfeldbru   57.14  43 eP       P      19 41 55.6 +0.1
FUR                               pmax     pmax
      comp=Z,38nm,1.2s,mb5.3
FUR   Furstenfeldbru   57.14  43 eP       P      19 41 55.6 +0.1
      comp=Z,38nm,1.2s,mb5.3
GRA1  Grafenberg Arr   57.46  41 eP       P      19 41 57.6 -0.1
      comp=Z,34nm,1.7s,mb5.1
GRF   Grafenberg Arr   57.46  41 eP       P      19 41 57.6 -0.1
GRF                               pmax     pmax
      comp=Z,34nm,1.7s,mb5.1
GRF   Grafenberg Arr   57.46  41 eP       P      19 41 57.6 -0.1
GRF                               pmax     pmax
      comp=Z,34nm,1.7s,mb5.1
GRF   Grafenberg Arr   57.46  41 eP       P      19 41 57.6 -0.1
      comp=Z,34nm,1.7s,mb5.1
CLZ   Clausthal        57.49  38 eP       P      19 41 58.2 +0.3
      comp=Z,19nm,1.2s,mb5.0
MOX   Moxa             57.94  40 eP       P      19 42 00.8 -0.2
MOX   Moxa             57.94  40 i P      P      19 42 00.8 -0.2
BSEG  Bad Segeberg     58.06  36 eP       P      19 42 02.1 +0.3
NKC   Novy Kostel      58.36  41 eP       P      19 42 04.2 +0.2
WET   Wettzell         58.39  42 eP       P      19 42 03.7 -0.5
WET                               pmax     pmax
      comp=Z,16nm,1.5s,mb4.8
WET   Wettzell         58.39  42 eP       P      19 42 03.7 -0.5
      comp=Z,16nm,1.5s,mb4.8
KHC   Kasperske Hory   58.84  42⇑iP       P      19 42 07.3  0.0
KHC   Kasperske Hory   58.84  42 eP       P      19 42 06.6 -0.7
GEC2  GERESS Array S   58.86  42 eP       P      19 42 06.6 -0.9
GEC2                              pmax     pmax
      comp=Z,19nm,1.5s,mb4.9
GEC2  GERESS Array S   58.86  42 eP       P      19 42 06.6 -0.9
      comp=Z,19nm,1.5s,mb4.9
GERES GERESS Array B   58.86  42 P        P      19 42 06.8 -0.8
      comp=Z,1.5nm,0.8s,mb4.1,baz=233,slow=6.7,SNR=13
GERES                             LR       LR     20 05 54.8
      comp=Z,328nm,18.3s,MS4.5,baz=168,slow=34
PDAR  Pinedale Array   58.94 310 P        P      19 42 06.8 -1.3
      comp=Z,8.2nm,1.2s,mb4.6,baz=101,slow=7.6,SNR=18
PDAR                              LR       LR     20 05 25.7
      comp=Z,543nm,20.1s,MS4.7,baz=214,slow=34
CLL   Collm            58.95  39⇓iP       P      19 42 08.0 -0.1
CLL                               pmax     pmax
      comp=Z,21nm,1.0s,mb5.1
CLL   Collm            58.95  39⇓iP       P      19 42 08.0 -0.1
      comp=Z,21nm,1.0s,mb5.1
CLL   Collm            58.95  39 ⇓P       P      19 42 08.0 -0.1
      comp=Z,logA/T=1.3,mb5.1
TUC   Tucson           59.37 298 eP       P      19 42 11.8 +0.5
TUC                               pmax     pmax
      comp=Z,11nm,1.3s,mb4.7
TUC   Tucson           59.37 298 eP       P      19 42 11.8 +0.5
      comp=Z,11nm,1.3s,mb4.7
BRG   Berggiesshubel   59.43  40 eP       P      19 42 11.2 -0.2
BRG                               pmax     pmax
      comp=Z,16nm,1.3s,mb4.9
BRG   Berggiesshubel   59.43  40 eP       P      19 42 11.2 -0.2
      comp=Z,16nm,1.3s,mb4.9
LKWY  Lake             59.76 312 eP       P      19 42 13.8 +0.1
LKWY                              pmax     pmax
      comp=Z,23nm,1.3s,mb5.0
LKWY  Lake             59.76 312 eP       P      19 42 13.8  0.0
      comp=Z,23nm,1.3s,mb5.0
TPAW  Teton Pass       60.03 311 eP       P      19 42 15.8 +0.1
IMW   Indian Meadow    60.06 312 eP       P      19 42 15.9 +0.1
HWUT  Hardware Ranch   60.31 309 eP       P      19 42 17.5 -0.1
      comp=Z,14nm,1.0s,mb5.0
UPC   Upice            60.65  41 eP       P      19 42 19.9 +0.1
VRAC  Vranov           60.82  42 P        P      19 42 19.9 -1.0
      comp=Z,15nm,1.4s,mb5.0,baz=255,slow=7.0,SNR=5.2
NB2   NORSAR Subarra   60.83  28 P        P      19 42 20.8  0.0
      comp=Z,2.1nm,0.8s,mb4.3,baz=249,slow=7.0
NB2   NORSAR Subarra   60.83  28 P        P      19 42 20.8  0.0
NB2                               pmax     pmax
      comp=Z,2.0nm,0.8s,mb4.3
NOA   NORSAR Array B   60.83  28 P        P      19 42 20.2 -0.6
      comp=Z,4.2nm,0.8s,mb4.6,baz=249,slow=6.9,SNR=7.1
NOA                               LR       LR     20 03 46.1
      comp=Z,433nm,19.6s,MS4.6,baz=345,slow=31
KSP   Ksiaz            60.88  40 eP       P      19 42 21.4  0.0
SPUT  South Promonto   60.95 308 eP       P      19 42 21.9  0.0
ZST   Bratislava       60.98  44 eP       P      19 42 21.0 -1.1
HRY   Holter Researc   61.01 315 eP       P      19 42 22.1 -0.2
BGU   Big Grassy Mou   61.37 308 eP       P      19 42 25.1 +0.3
HFS   Hagfors          61.69  30 P        P      19 42 26.2 -0.5
      comp=Z,13nm,0.8s,mb5.1,baz=225,slow=2.1,SNR=14
VYHS  Vyhne            62.17  43 eP       P      19 42 29.2 -0.9
OJC   Ojcow            63.00  42 eP       P      19 42 36.2 +0.6
NIE   Niedzica         63.24  43 eP       P      19 42 38.0 +0.9
KOLS  Kolonicke sedl   64.48  43 eP       P      19 42 46.1 +0.8
KOLS                             e                19 42 55.2
NEW   Newport          64.73 316 eP       P      19 42 46.5 -0.4
NEW                               pmax     pmax
      comp=Z,19nm,1.1s
NEW   Newport          64.73 316 eP       P      19 42 46.5 -0.5
      comp=Z,19nm,1.1s,mb5.0
KWP   Kalwaria         64.81  42 eP       P      19 42 48.2 +0.8
KWP   Kalwaria         64.81  42 eP       P      19 42 50.3 +2.9
YKA   Yellowknife Ar   65.34 332 P        P      19 42 48.9 -1.7
      comp=Z,4.9nm,0.8s,mb4.6,baz=102,slow=7.5,SNR=52
YKA                               LR       LR     20 07 09.3
      comp=Z,558nm,21.9s,MS4.7,baz=90,slow=32
NVAR  Mina Array Bea   65.41 305 P        P      19 42 51.0 -0.5
      comp=Z,0.7nm,0.8s,mb3.7,baz=104,slow=2.7,SNR=4.9
SUW   Suwalki          65.51  38 eP       P      19 42 50.5 -1.3
IDI   Anoyia           66.33  58 P        P      19 42 58.3 +0.9
      comp=Z,24nm,1.1s,mb5.1,baz=330,slow=7.0,SNR=6.5
IDI                               LR       LR     20 11 22.9
      comp=Z,156nm,18.7s,MS4.2,baz=80,slow=36
MLR   Muntele Rosu     66.84  47 P        P      19 43 00.8 +0.3
      comp=Z,12nm,1.2s,mb4.8,baz=257,slow=5.4,SNR=6.0
MLR                               LR       LR     20 06 59.8
      comp=Z,345nm,20.3s,MS4.6,baz=269,slow=31
FINES FINESS Array B   67.89  30 P        P      19 43 06.4 -0.5
      comp=Z,5.3nm,0.7s,mb4.7,baz=245,slow=2.5,SNR=24
FINES                             LR       LR     20 07 41.2
      comp=Z,429nm,20.1s,MS4.7,baz=88,slow=31
VSU   Vasula           67.92  33 i P      P      19 43 06.7 -0.4
KAF   Kangasniemi      68.08  29 ep       P      19 43 06.6 -1.4
      comp=Z,10nm,0.9s,mb4.9
KAF   Kangasniemi      68.08  29 eP       P      19 43 06.6 -1.4
KAF                               pmax     pmax
      comp=Z,11nm,0.9s,mb4.9
ARCES ARCESS Array B   68.88  21 P        P      19 43 13.1 +0.2
      comp=Z,21nm,1.1s,mb5.0,baz=252,slow=6.6,SNR=17
ARCES                             LR       LR     20 07 44.8
      comp=Z,575nm,19.6s,MS4.8,baz=5.5,slow=31
AKASG Malin Array Be   69.04  41 P        P      19 43 13.4 -0.8
      comp=Z,1.8nm,0.7s,mb4.1,baz=270,slow=5.9,SNR=13
DLBC  Dease Lake       72.59 327 P        P      19 43 35.5 +0.1
      comp=Z,5.6nm,0.9s,mb4.5,baz=342,slow=27,SNR=4.7
BRTR  Keskin Array B   72.86  53 P        P      19 43 37.2 -0.2
      comp=Z,9.0nm,1.1s,mb4.6,baz=270,slow=4.9,SNR=20
OBN   Obninsk          73.31  37κ iP      P      19 43 40.2 +0.5
OBN                                               19 43 57.0
OBN                               pmax     pmax
      comp=Z,29nm,1.3s,mb5.0
OBN   Obninsk          73.31  37 eP       P      19 43 39.6 -0.1
INK   Inuvik           73.70 337 P        P      19 43 40.9 -0.9
      comp=Z,12nm,1.1s,mb4.7,baz=118,slow=3.5,SNR=8.9
VRSR  Storozhevoye     75.29  40 eP       P      19 43 51.5 +0.2
VRSR                              pmax     pmax
      comp=N,10.0nm,1.3s
VRSR                              pmax     pmax
      comp=Z,30nm,1.3s,mb5.1
VRSR                              pmax     pmax
      comp=E,10.0nm,1.0s
EIL   Elat             75.47  63 P        P      19 43 53.0 +0.3
      comp=E,12nm,1.2s,mb4.7,baz=320,slow=11,SNR=7.7
HAQS  Haql             75.56  64 P        P      19 43 50.1 -3.2
TAYS  Tayyib Ism       75.60  64 P        P      19 43 54.5 +1.0
ALWS  Ilw as Safayha   75.63  63 P        P      19 43 50.6 -3.1
BDAS  Al Bad‘          75.82  64 P        P      19 43 55.7 +0.9
AYUS  ‘Aynunah         76.02  64 P        P      19 43 56.9 +1.0
JMQS  Jabal Moqyreh    76.41  64 P        P      19 43 59.1 +1.1
ASF   Jabal al Asfar   76.65  60 P        P      19 44 00.7 +1.4
      comp=E,8.7nm,1.1s,mb4.6,baz=220,slow=2.0,SNR=7.5
ASF                               LR       LR     20 19 19.2
      comp=E,105nm,18.2s,MS4.2,baz=153,slow=37
MALT  Malatya          76.76  54 eP       P      19 44 00.8 +1.0
MALT                              pmax     pmax
      comp=Z,8.0nm,1.0s,mb4.6
MALT  Malatya          76.76  54 eP       P      19 44 00.8 +0.9
      comp=Z,7.9nm,1.0s,mb4.6
SOC   Sochi            76.80  48 eP       P      19 43 59.5 -0.5
SOC                               pmax     pmax
      comp=Z,32nm,1.3s,mb5.1
SOC                               pmax     pmax
      comp=N,8.0nm,0.8s
SOC                               pmax     pmax
      comp=E,5.0nm,0.9s
TBKS  Tabuk            77.11  64 P        P      19 44 03.6 +1.6
KIV   Kislovodsk       78.85  47 eP       P      19 44 12.7 +1.5
KIV                              e                19 44 20.8
KIV                              e                19 47 11.3
KIV                              ePPP     PPP     19 48 56.5 -5.0
KIV                              eS       S       19 54 01.9 -6.0
KIV                               pmax     pmax
      comp=Z,17nm,1.2s,mb4.8
KIV   Kislovodsk       78.85  47 eP       P      19 44 12.8 +1.7
      comp=Z,10nm,1.0s,mb4.7
ILAR  Eielson Array    79.54 335 P        P      19 44 14.3 -0.2
      comp=Z,18nm,1.0s,mb4.9,baz=75,slow=4.1,SNR=74
ILAR                              LR       LR     20 19 06.2
      comp=Z,267nm,19.8s,MS4.6,baz=260,slow=35
COLA  College          79.91 335 eP       P      19 44 17.2 +0.7
COLA                              pmax     pmax
      comp=Z,29nm,1.2s,mb5.1
COLA  College          79.91 335 eP       P      19 44 17.2 +0.7
      comp=Z,29nm,1.2s,mb5.1
MCK   McKinley         80.70 334 eP       P      19 44 21.1 +0.4
MCK                               pmax     pmax
      comp=Z,5.0nm,1.1s,mb4.4
MCK   McKinley         80.70 334 eP       P      19 44 21.1 +0.4
      comp=Z,5.1nm,1.1s,mb4.4
LSZ   Lusaka           80.72 109 eP       P      19 44 22.6 +0.8
LSZ                               pmax     pmax
      comp=Z,93nm,2.0s,mb5.4
LSZ   Lusaka           80.72 109 eP       P      19 44 22.6 +0.8
      comp=Z,93nm,2.0s,mb5.4
GNI   Garni            81.18  51 eP       P      19 44 24.5 +0.8
GNI                               pmax     pmax
      comp=Z,51nm,1.7s
GNI   Garni            81.18  51 P        P      19 44 24.4 +0.7
      comp=Z,5.2nm,0.8s,mb4.5,baz=354,slow=7.6,SNR=8.4
GNI                               LR       LR     20 15 27.0
      comp=Z,102nm,19.2s,MS4.2,baz=328,slow=32
GNI   Garni            81.18  51 eP       P      19 44 24.5 +0.7
      comp=Z,51nm,1.7s,mb5.2
IMA   Indian Mountai   81.82 337 eP       P      19 44 27.9 +1.3
IMA                               pmax     pmax
      comp=Z,153nm,1.5s,mb5.7
IMA   Indian Mountai   81.82 337 eP       P      19 44 27.9 +1.4
      comp=Z,154nm,1.5s,mb5.7
LBTB  Lobatse          81.89 119 eP       P      19 44 27.3 -0.4
BOSA  Boshof           82.97 122 eP       P      19 44 33.3  0.0
KMBO  Kilima Mbogo     84.98  93 eP       P      19 44 44.8 +0.9
KMBO  Kilima Mbogo     84.98  93 P        P      19 44 45.6 +1.8
      comp=Z,5.9nm,1.1s,mb4.6,baz=316,slow=2.1,SNR=6.5
ARU   Arti             85.07  32⇑iP       P      19 44 44.4 +1.1
ARU                              e                19 48 02.2
ARU                              ePPP     PPP     19 49 56.8 -1.4
ARU                               pmax     pmax
      comp=Z,15nm,1.2s,mb5.0
ARU   Arti             85.07  32 eP       P      19 44 44.6 +1.3
      comp=Z,20nm,1.3s,mb5.1
VNA3  Neumayer Olymp   90.93 169⇑iP       P      19 45 15.2 +4.1
VNA2  Neumayer--Watz   91.12 168⇑iP       P      19 45 16.1 +4.1
TIXI  Tiksi            92.31   1 i P      P      19 45 17.8 +0.4
TIXI                              pmax     pmax
      comp=Z,10.0nm,1.1s,mb5.1
CHKZ  Chkalovo         92.50  32 eP       P      19 45 18.8 +0.1
BILL  Bilibino         92.54 348 i P      P      19 45 19.6 +1.1
BILL                              pmax     pmax
      comp=Z,26nm,2.2s,mb5.3
SNAA  Sanae            92.64 167 P        P      19 45 18.6 -0.4
      comp=Z,0.7nm,0.7s,mb4.2,baz=275,slow=4.8,SNR=4.0
SNAA                              LR       LR     20 20 21.6
      comp=Z,146nm,19.5s,MS4.4,baz=9.7,slow=31
SNAA  Sanae            92.64 167 eP       P      19 45 19.1 +0.2
BRVK  Borovoye         92.65  32 eP       P      19 45 20.1 +0.7
BVAR  Borovoye Array   92.72  32 P        P      19 45 20.2 +0.5
      comp=Z,1.1nm,0.8s,mb4.3,baz=270,slow=4.4,SNR=7.8
ZAL   Zalesovo         98.98  26 LR       LR     20 27 04.8
      comp=Z,236nm,20.2s,MS4.7,baz=60,slow=33
WMQ   Urumqi          107.41  33 ⇑PDIF    Pdif    19 46 29.0 +3.0
WMQ                               PP       PP     19 51 01.3 +4.5
WMQ                               PP       PP
      comp=Z,64nm,10.6s
WMQ                               LR       LR
      comp=N,348nm,23.2s,MS5.0
WMQ                               LR       LR
      comp=E,316nm,25.0s,MS5.0
WMQ                               LR       LR
      comp=Z,489nm,23.2s,MS5.0
SONM  Songino Array   112.00  19 PKiKP            19 50 42.3
      comp=Z,0.6nm,0.6s,baz=302,slow=2.2,SNR=5.6
LSA   Lhasa           119.19  41 ePKIKP   PKPdf   19 50 58.1 -1.1
MDJ   Mudanjiang      119.39   3 PKP      PKPdf   19 50 57.0 -2.2
MDJ                               SS       SS     20 08 40.3 -0.7
MDJ                               PP       PP
      comp=Z,104nm,4.7s
MDJ                               LR       LR
      comp=N,127nm,26.3s
MDJ                               LR       LR
      comp=Z,161nm,21.0s
CN2   Changchun       119.89   6 ePKP     PKPdf   19 50 55.0 -5.1
LZH   Lanzhou         121.20  27 ePKP     PKPdf   19 51 01.5 -1.5
LZH                               XPKP            19 51 07.0
BJT   Baijiatuau      121.94  15 ePKIKP   PKPdf   19 51 02.4 -1.9
MAJO  Matsushiro      127.28 355 ePKIKP   PKPdf   19 51 12.5 -2.2
ENH   Enshi           128.61  26 ePKPdf   PKPdf   19 51 15.4 -2.1
KMI   Kunming         129.53  36 PKP      PKPdf   19 51 17.5 -1.9
KMI                               LR       LR
      comp=N,289nm,23.7s,MS4.9
KMI                               LR       LR
      comp=E,156nm,28.5s,MS4.9
KMI                               LR       LR
      comp=Z,268nm,27.7s,MS4.8
NJ2   Nanjing         130.18  16 ePKP     PKPdf   19 51 12.0 -8.4
NJ2                               PKS      PKS    19 54 48.0 -4.6
NJ2                               PP       PP
      comp=Z,610nm,7.9s
NJ2                               LR       LR
      comp=N,540nm,28.9s,MS5.4
NJ2                               LR       LR
      comp=E,850nm,26.8s,MS5.4
NJ2                               LR       LR
      comp=Z,780nm,29.0s,MS5.2
GYA   Guiyang         130.55  31⇑iPKP     PKPdf   19 51 20.0 -1.3
GYA                               PP       PP
      comp=Z,280nm,6.8s
CM31  Chiang Mai Arr  132.06  45 ePKPdf   PKPdf   19 51 22.3 -2.0
CMAR  Chiang Mai Arr  132.06  45 PKP      PKPdf   19 51 22.4 -1.9
      comp=Z,3.5nm,0.9s,baz=298,slow=3.4,SNR=16
ASAR  Alice Springs   172.52 188 PKP      PKPdf   19 52 16.4 -2.7
      comp=Z,2.4nm,0.9s,baz=163,slow=1.0,SNR=15
ASAR                              PKPab    PKPab  19 53 40.3 -2.7
      comp=Z,0.7nm,1.0s,baz=162,slow=5.7,SNR=3.3
WRA   Warramunga Arr  176.02 201 PKPab    PKPab   19 53 56.8 -1.8
      comp=Z,2.1nm,1.1s,baz=180,slow=3.7,SNR=5.0
```

IDC 29 19:37:58.6±8.8**, 13.75N**×**92.31E, mb3.2**/2**, mb1 3.4**/3**, mb1mx3.2**/18**, mbtmp3.1**/3**, Error ellipse: s-maj=181.4km s-min=49.7km az=110.0, Andaman**

Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.91	53	Pn	Pn	19 39 54.4	-3.3
	0.1nm,0.3s,baz=240,slow=15,SNR=4.7						
CMAR				Sn	Sn	19 41 18.8	-10
	0.4nm,0.3s,baz=239,slow=33,SNR=9.0						
WRA	Warramunga Arr	53.20	128	P	P	19 47 18.2	-3.1
	1.8nm,1.3s,baz=304,slow=9.3,SNR=4.8						
ASAR	Alice Springs	55.11	132	P	P	19 47 33.6	-1.5
	0.3nm,0.7s,baz=303,slow=7.1,SNR=3.1						

IDC 29 19:43:59.2±0.9, 2.96N×95.54E, h26^{km}±5^{km}, mb3.9/8, mb1 4.1/9, mb1mx3.8/20, mbtmp4.1/9, ML4.0/1, Error ellipse: s-maj=32.7km s-min=16.3km az=60.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.76	12	Pn	P	19 47 41.5	+0.1
	0.2nm,0.3s,baz=201,slow=11,SNR=32						
NWAO	Narrogin (SRO)	41.17	152	P	P	19 51 41.4	-1.9
	7.0nm,1.0s,baz=315,slow=11,SNR=2.7						
WRA	Warramunga Arr	44.37	123	P	P	19 52 07.7	-2.0
	1.1nm,0.6s,baz=300,slow=9.2,SNR=6.6						
WRA				pP	pP	19 52 15.8	-1.7
	5.4nm,1.0s,baz=319,slow=1.2,SNR=23						
SONM	Songino Array	45.68	10	P	P	19 52 17.8	-1.9
	2.2nm,0.7s,baz=187,slow=8.9,SNR=17						
SONM				pP	pP	19 52 25.8	-1.8
	2.9nm,0.6s,baz=190,slow=8.7,SNR=14						
ZAL	Zalesovo	51.58	352	P	P	19 53 02.7	-2.6
	2.8nm,0.5s,baz=212,slow=4.6,SNR=15						
ZAL				pP	pP	19 53 11.2	-2.2
	4.1nm,0.5s,baz=211,slow=4.7,SNR=11						
BVAR	Borovoye Array	54.06	342	P	P	19 53 21.5	-2.3
	1.0nm,0.7s,baz=135,slow=10,SNR=5.9						
BVAR				pP	pP	19 53 29.4	-2.4
	2.3nm,0.9s,baz=135,slow=8.4,SNR=7.6						
KMBO	Kilima Mbogo	58.41	267	P	P	19 53 54.0	-1.6
	2.1nm,0.9s,baz=10,slow=3.6,SNR=4.1						
FINES	FINESS Array B	77.69	333	P	P	19 55 53.3	-1.8
	1.1nm,0.8s,baz=95,slow=17,SNR=2.7						
GERES	GERESS Array B	82.41	319	P	P	19 56 18.9	-1.7
	1.0nm,0.8s,baz=104,slow=5.5,SNR=7.3						

IDC 29 19:48:51.7±5.8, 3.99N×93.48E, mb3.7/3, mb1 3.9/3, mb1mx3.5/17, mbtmp3.7/3, MS4.0/1, Ms1 4.0/1, ms1mx2.7/30, Error ellipse: s-maj=206.5km s-min=35.0km az=62.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	45.07	12	P	P	19 57 09.9	-1.5
	0.6nm,0.6s,baz=198,slow=7.8,SNR=4.2						
WRA	Warramunga Arr	46.65	122	P	P	19 57 22.3	-1.9
	0.3nm,0.7s,baz=301,slow=9.5,SNR=3.5						
ZAL	Zalesovo	50.30	353	P	P	19 57 49.5	-2.5
	0.8nm,0.4s,baz=208,slow=7.8,SNR=4.3						
KMBO	Kilima Mbogo	56.42	266	LR	LR	20 19 40.2	
	comp=Z,136nm,20.5s,baz=36,slow=33						

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*IDC **29** 19:51:11.8±0.8, 10.27N×94.39E, mb4.1/16, mb1 4.2/17, mb1mx4.2/24, mbtmp4.1/17, ML4.2/1, MS3.1/1, Ms1 3.3/1, ms1mx2.5/29, Error ellipse: s-maj=34.2km s-min=17.7km az=41.0*

*BJI **29** 19:51:12.0, 8.62N×93.13E, h54^{km}, mb4.4*

*NEIC **29** 19:51:16.5±2.3, 9.18N×93.63E, h30^{km}, mb4.6/5, Error ellipse: s-maj=47.1km s-min=29.3km az=177.0*

ISC 29 19:51:14.2±0.7, 9.9N±0.2×94.2E±0.1, h30^{km}, n36, σ1^{s}29/33, mb4.3/21, 1D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.88	113	P	Sn	19 53 56.0	-18
CMAR	Chiang Mai Arr	9.62	28	Pn	P	19 53 26.0	-7.9
	0.6nm,0.3s,baz=210,slow=14,SNR=4.3						
CMAR				LR	LR	19 57 15.8	
	comp=Z,110nm,20.9s,baz=236,slow=39						
HYB	Hyderabad	16.94	298	*e*P	P	19 55 10.0	-0.9
HYB	Hyderabad	16.94	298	*i* P	P	19 55 10.0	-0.9
LSA	Lhasa	19.87	352	*e*P	P	19 55 53.8	+7.7
	8.9nm,0.7s						
GYA	Guiyang	20.21	34	⇓*i*P		19 56 01.5	
GYA				AMB	AMB		
	comp=Z,20nm,1.1s						
DDI	Dehra Dun	25.28	326	*e*	P	19 56 45.0	+5.3
AAK	Ala-Archa	36.87	335	*e*P	P	19 58 24.3	+2.5
	comp=Z,7.2nm,1.1s,mb4.4						
SONM	Songino Array	39.14	13	P	P	19 58 36.3	-4.6
	comp=Z,1.1nm,0.9s,mb3.6,baz=198,slow=7.8,SNR=4.3						
SONM				PcP	PcP	20 00 51.4	+0.9
	comp=Z,0.5nm,0.6s,baz=206,slow=3.2,SNR=3.7						
BVAR	Borovoye Array	47.08	341	P	P	19 59 43.2	-1.9
	comp=Z,0.5nm,0.4s,mb3.8,baz=143,slow=11,SNR=4.3						
BVAR				PcP	PcP	20 01 17.9	+0.8
	comp=Z,0.8nm,0.7s,baz=135,slow=4.1,SNR=2.9						
WRA	Warramunga Arr	49.40	127	P	P	20 00 03.0	-0.6
	comp=Z,1.9nm,0.6s,mb4.3,baz=306,slow=8.8,SNR=9.5						
ASAR	Alice Springs	51.18	131	P	P	20 00 16.8	-0.3
	comp=Z,1.2nm,0.7s,mb4.0,baz=312,slow=7.7,SNR=6.4						
GNI	Garni	53.08	313	P	P	20 00 29.8	-1.4
	comp=Z,0.9nm,0.4s,mb4.1,baz=90,slow=14,SNR=2.4						
GNI	Garni	53.08	313	*e*P	P	20 00 32.6	+1.4
	comp=Z,5.0nm,0.8s,mb4.5						
KIV	Kislovodsk	55.87	317	*e*P	P	20 00 52.7	+1.2
	comp=Z,7.8nm,0.8s,mb4.8						
UMJS	Umm Lajj	55.97	294	P	P	20 00 53.6	+1.2
TBKS	Tabuk	56.95	297	P	P	20 01 00.3	+0.8
AYUS	‘Aynunah	58.07	297	P	P	20 01 07.5	+0.2
TAYS	Tayyib Ism	58.45	297	P	P	20 01 09.9	-0.1
EIL	Elat	58.51	299	P	P	20 01 09.5	-0.8
	comp=Z,3.9nm,0.6s,mb4.6,baz=207,slow=3.1,SNR=6.7						
BRTR	Keskin Array B	61.17	310	P	P	20 01 26.4	-2.1
	comp=Z,4.0nm,0.7s,mb4.7,baz=123,slow=7.4,SNR=21						
AKASG	Malin Array Be	66.61	321	P	P	20 02 02.9	-1.0
	comp=Z,1.2nm,0.6s,mb4.1,baz=84,slow=5.7,SNR=5.7						
MLR	Muntele Rosu	67.78	315	P	P	20 02 11.0	-0.4
	comp=Z,2.9nm,0.5s,mb4.5,baz=202,slow=7.4,SNR=5.0						
FINES	FINESS Array B	70.94	332	P	P	20 02 28.0	-2.6
	comp=Z,1.8nm,0.9s,mb4.0,baz=112,slow=7.5,SNR=2.7						
ARCES	ARCESS Array B	73.37	340	P	P	20 02 42.9	-1.9
	comp=Z,2.3nm,0.9s,mb4.1,baz=117,slow=8.1,SNR=2.4						
GERES	GERESS Array B	76.36	318	P	P	20 03 03.4	+1.1
	comp=Z,2.6nm,0.7s,mb4.3,baz=88,slow=6.1,SNR=21						
KHC	Kasperske Hory	76.45	318	*e*P	P	20 03 04.0	+1.2
KHC				*e*pP	pP	20 03 11.5	-0.8
HFS	Hagfors	76.73	330	P	P	20 03 03.5	-0.7
	comp=Z,1.4nm,0.5s,mb4.2,baz=100,slow=8.8,SNR=7.7						
NOA	NORSAR Array B	77.99	330	P	P	20 03 10.7	-0.4
	comp=Z,1.6nm,0.8s,mb4.0,baz=92,slow=5.5,SNR=3.4						
DAVOX	Davos	78.98	316	P	P	20 03 18.1	+1.3
	comp=Z,1.8nm,0.6s,mb4.2,baz=136,slow=11,SNR=5.8						
LPG	La Plagne	81.24	315	*e*P	P	20 03 30.1	+1.2
	comp=Z,23nm,0.9s,mb4.8						
IMA	Indian Mountai	89.69	22	*e*P	P	20 04 16.4	+6.0
	comp=Z,7.4nm,0.6s,mb5.2						
ILAR	Eielson Array	92.81	22	P	P	20 04 25.9	+1.1
	comp=Z,0.3nm,1.0s,mb3.7,baz=295,slow=4.1,SNR=2.8						
INK	Inuvik	95.00	16	P	P	20 04 37.8	+3.0
	comp=Z,0.9nm,0.5s,mb4.5,baz=25,slow=2.7,SNR=3.9						
NVAR	Mina Array Bea	123.11	30	PKP	PKPdf	20 10 12.2	-1.2
	comp=Z,0.7nm,0.7s,baz=266,slow=4.0,SNR=4.7						
PDAR	Pinedale Array	123.22	21	PKP	PKPdf	20 10 11.8	-1.7
	comp=Z,0.5nm,0.7s,slow=1.5,SNR=5.3						

IDC 29 19:58:10.5±2.5, 2.82N×93.96E, mb3.6/5, mb1 3.9/6, mb1mx3.7/19, mbtmp3.7/6, ML4.1/1, Error ellipse: s-maj=89.6km s-min=23.8km az=62.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.30	17	Pn	P	20 02 01.8	-0.8
	0.3nm,0.3s,baz=212,slow=12,SNR=20						
WRA	Warramunga Arr	45.64	122	P	P	20 06 32.9	-1.9
	0.4nm,0.6s,baz=300,slow=8.8,SNR=3.8						
SONM	Songino Array	46.12	12	P	P	20 06 36.2	-2.1
	1.1nm,0.7s,baz=197,slow=7.9,SNR=9.9						
ASAR	Alice Springs	46.95	126	P	P	20 06 43.5	-1.8
	0.3nm,0.5s,baz=295,slow=7.7,SNR=4.7						
ZAL	Zalesovo	51.51	353	P	P	20 07 17.8	-2.2
	0.8nm,0.3s,baz=232,slow=6.1,SNR=3.6						
BVAR	Borovoye Array	53.71	343	P	P	20 07 34.3	-2.1
	0.4nm,0.5s,baz=153,slow=6.4,SNR=4.2						

IDC 29 20:06:57.9±2.4, 5.34N×93.23E, mb3.7/5, mb1 3.8/6, mb1mx3.6/19, mbtmp3.6/6, Error ellipse: s-maj=84.9km s-min=23.9km az=66.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.18	23	Pn	P	20 10 21.2	-1.2
	baz=216,slow=15,SNR=5.9						
SONM	Songino Array	43.82	13	P	P	20 15 05.0	-2.3
	0.2nm,0.6s,baz=180,slow=4.3,SNR=2.9						
WRA	Warramunga Arr	47.59	123	P	P	20 15 35.8	-2.0
	2.4nm,0.7s,baz=300,slow=9.3,SNR=18						
ASAR	Alice Springs	49.05	128	P	P	20 15 47.1	-1.8
	0.5nm,0.5s,baz=295,slow=7.6,SNR=6.2						
BVAR	Borovoye Array	51.10	342	P	P	20 16 02.3	-2.0
	0.3nm,0.6s,baz=135,slow=6.1,SNR=2.7						
STKA	Stephens Creek	59.06	132	P	P	20 17 00.2	-2.2
	1.6nm,0.9s,baz=315,slow=4.3,SNR=3.9						

IDC 29 20:11:49.9±28.0, 5.28N×94.05E, mb3.7/3, mb1 3.8/3, mb1mx3.5/17, mbtmp3.7/3, Error ellipse: s-maj=573.6km s-min=277.7km az=146.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	46.87	124	P	P	20 20 22.0	-2.0
	0.3nm,0.6s,baz=303,slow=8.7,SNR=4.6						
ASAR	Alice Springs	48.36	128	P	P	20 20 34.0	-1.7
	0.4nm,0.5s,baz=298,slow=7.8,SNR=7.2						
STKA	Stephens Creek	58.41	133	P	P	20 21 47.2	-2.6
	2.5nm,1.0s,baz=326,slow=7.3,SNR=2.9						

IDC 29 20:12:02.2±1.5, 10.62N×90.85E, mb4.0/4, mb1 4.1/5, mb1mx3.7/18, mbtmp3.9/5, ML3.4/1, Error ellipse: s-maj=59.2km s-min=26.0km az=53.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.04	44	Pn	P	20 14 41.5	-3.1
	0.1nm,0.3s,baz=230,slow=14,SNR=6.4						
WRA	Warramunga Arr	52.49	125	P	P	20 21 17.1	-2.5
	0.5nm,0.5s,baz=304,slow=8.5,SNR=5.5						
ASAR	Alice Springs	54.16	129	P	P	20 21 29.9	-1.9
	1.1nm,0.9s,baz=302,slow=7.1,SNR=7.9						
FINES	FINESS Array B	68.78	332	P	P	20 23 08.5	-1.6
	2.6nm,1.0s,baz=80,slow=8.5,SNR=3.9						
ARCES	ARCESS Array B	71.60	340	P	P	20 23 24.5	-2.5
	6.5nm,1.0s,baz=80,slow=5.5,SNR=3.2						

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*MOS **29** 20:14:42.4±0.9, 5.60N×94.54E, h33^{km}, mb4.9/16, Error ellipse: s-maj=20.4km s-min=8.1km az=123.5*

*BJI **29** 20:14:42.8, 5.60N×94.60E, h30^{km}, mB4.9, mb4.8, Ms4.6, Msz4.0*

*NEIC **29** 20:14:43.8±0.4, 5.65N×94.56E, h30^{km}, mb4.8/14, Error ellipse: s-maj=15.9km s-min=8.2km az=218.0*

*IDC **29** 20:14:47.2±2.1, 5.64N×94.44E, h58^{km}±17^{km}, mb4.3/27, mb1 4.3/27, mb1mx4.3/30, mbtmp4.6/27, MS4.0/9, Ms1 4.1/9, ms1mx3.8/23, Error ellipse: s-maj=17.4km s-min=10.3km az=44.0*

ISC 29 20:14:42.7±0.3, 5.62N±0.05×94.50E±0.05, h33^{km}, (h23^{km}±4.1^{km}:pP-P), n128, σ0^{s}96/128, mb4.7/61, MS4.1/13, 2C, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.27	75	P	P	20 16 19.0	+3.8
	820nm,1.0s						
KKTK	Khon Kaen	13.42	37	P	P	20 18 05.5	+12
	432nm,0.8s						
CM31	Chiang Mai Arr	13.48	18	*e*P	P	20 17 58.5	+4.4
	12nm,0.4s						
CMAR	Chiang Mai Arr	13.48	18	P	P	20 17 59.0	+4.9
	2.2nm,0.3s,baz=207,slow=14,SNR=44						
CMAR				LR	LR	20 23 00.7	
	comp=Z,163nm,20.4s,baz=205,slow=37						
CMAR				ScP		20 26 49.2	
	0.1nm,0.3s,baz=235,slow=3.7,SNR=6.3						
NANT	Nan	14.43	24	P	P	20 18 16.0	+9.3
HYB	Hyderabad	19.52	308	*e*P	P	20 19 10.0	-0.2
HYB	Hyderabad	19.52	308	*i* P	P	20 19 10.0	-0.2
SHL	Shillong	20.00	353	*e*P	P	20 19 14.0	-1.3
QIZ	Qiongzhong	20.03	47	P	P	20 19 18.5	+2.7
KMI	Kunming	20.94	21	P	P	20 19 30.0	+4.8
KMI				AP		20 19 34.0	
KMI				PP	PP	20 19 49.5	+1.4
KMI				AMB	AMB		
	comp=Z,12nm,1.3s						
KMI				LR	LR		
	comp=N,354nm,18.4s,MS4.0						
KMI				LR	LR		
	comp=E,430nm,18.0s,MS4.0						
KMI				LR	LR		
	comp=Z,330nm,20.2s,MS3.7						
PKI	Pulchoki	23.48	339	*e*P	P	20 19 50.5	0.0
	comp=Z,80nm,1.2s,mb5.0						
DMN	Daman	23.63	339	*e*P	P	20 19 51.9	0.0
	comp=Z,77nm,0.8s,mb5.2						
GUN	Gumba	23.64	341	*e*P	P	20 19 51.6	-0.4
	comp=Z,49nm,0.7s,mb5.0						
KKN	Kakani	23.73	339	*e*P	P	20 19 52.5	-0.4
	comp=Z,65nm,1.0s,mb5.0						
GYA	Guiyang	23.75	28	⇑*i*P	P	20 19 55.3	+2.2
GYA				AMB	AMB		
	comp=Z,30nm,0.6s,mb4.9						
BHPL	Bhopal	24.04	318	*e*	P	20 19 58.3	+2.3
BHPL				*e*P		20 19 58.5	
GKN	Gorkha	24.16	338	*e*P	P	20 19 57.4	+0.4
	comp=Z,98nm,0.7s,mb5.3						
LSA	Lhasa	24.16	353	*e*P	P	20 19 59.0	+1.9
LSA				pmax	pmax		
	comp=Z,13nm,0.5s,mb4.6						
LSA	Lhasa	24.16	353	*e*P	P	20 19 59.0	+1.9
	comp=Z,13nm,0.5s,mb4.6						
KOLN	Koldanda	24.35	336	*e*P	P	20 20 00.0	+1.1
	comp=Z,62nm,0.8s,mb5.1						
ENH	Enshi	28.30	28	*e*P	P	20 20 34.1	-1.4
	comp=Z,8.5nm,0.6s,mb4.5						
XAN	Xi’an	31.28	23	P	P	20 21 01.0	-1.0
XAN				AMB	AMB		
	comp=Z,14nm,0.7s,mb4.9						
LZH	Lanzhou	31.52	15	*e*P	P	20 21 08.5	+4.5
LZH				AP	pP	20 21 18.0	+4.3
LZH				AMB	AMB		
	comp=Z,18nm,1.5s,mb4.7						
GTA	Gaotai	33.98	7	P	P	20 21 25.5	+0.1
GTA				AP	pP	20 21 32.5	-2.6
GTA				XP	sP	20 21 36.5	-2.9
GTA				AMB	AMB		
	comp=Z,6.0nm,0.9s,mb4.5						
NJ2	Nanjing	34.78	38	*e*P	P	20 21 31.5	-0.9
NJ2				AP	pP	20 21 41.0	-1.1
NJ2				XP	sP	20 21 46.3	-0.1
NJ2				S	S	20 27 00.0	+0.2
NJ2				XS		20 27 18.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.8s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,440nm,3.6s						
NJ2				LR	LR		
	comp=N,540nm,18.9s,MS4.6						
NJ2				LR	LR		
	comp=E,810nm,15.1s,MS4.6						
NJ2				LR	LR		
	comp=Z,780nm,19.0s,MS4.5						
SSE	Sheshan	35.63	41	P	P	20 21 35.8	-3.8
SSE				S	S	20 27 11.8	-1.0
SSE				AMB	AMB		
	comp=Z,21nm,0.8s,mb5.1						
SSE				AMB	AMB		
	comp=Z,114nm,4.0s						
SSE				LR	LR		
	comp=N,110nm,24.8s,MS3.8						
SSE				LR	LR		
	comp=E,179nm,24.8s,MS3.8						
SSE				LR	LR		
	comp=Z,193nm,21.6s,MS3.8						
HHC	Hu-ho-hao-te	38.27	21	*e*P	P	20 22 02.8	+1.1
HHC				AP	pP	20 22 09.5	-1.9
HHC				XP	sP	20 22 15.5	-0.2
HHC				PP	PP	20 23 34.3	+1.4
HHC				AMB	AMB		
	comp=Z,11nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,113nm,5.1s						
HHC				LR	LR		
	comp=N,215nm,19.0s,MS4.5						
HHC				LR	LR		
	comp=E,676nm,19.0s,MS4.5						
HHC				LR	LR		
	comp=Z,268nm,21.4s,MS4.0						
JOW	Kunigami	38.47	53	P	P	20 22 04.8	+1.3
	comp=Z,20nm,0.7s,mb4.9,baz=211,slow=28,SNR=4.4						
JOW				LR	LR	20 38 22.3	
	comp=Z,284nm,18.9s,MS4.1,baz=204,slow=37						
WMQ	Urumqi	38.52	352	*e*P	P	20 22 04.8	+1.1
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.5						
BJI	Beijing	39.43	27	P	P	20 22 14.0	+2.7
BJI				AMB	AMB		
	comp=Z,7.0nm,0.5s,mb4.7						
BJI				LR	LR		
	comp=Z,268nm,23.6s,MS4.0						
AAK	Ala-Archa	40.91	337	*e*P	P	20 22 23.4	-0.2
AAK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.0						
AAK	Ala-Archa	40.91	337	*e*P	P	20 22 23.4	-0.2
	comp=Z,3.5nm,0.8s,mb4.0						
MKAR	Makanchi Array	42.35	348	*i* P	P	20 22 35.9	+0.5
MKAR				pmax	pmax		
	comp=Z,10.0nm,0.7s						
SONM	Songino Array	43.28	12	P	P	20 22 43.2	+0.2
	comp=Z,3.2nm,0.7s,mb4.2,baz=191,slow=8.6,SNR=22						
SONM				PcP	PcP	20 24 31.5	-0.6
	comp=Z,0.9nm,0.4s,baz=202,slow=3.8,SNR=6.0						
ULN	Ulaanbaatar	43.44	12	*e*P	P	20 22 43.3	-1.0
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
ULN	Ulaanbaatar	43.44	12	*e*P	P	20 22 43.3	-1.0
	comp=Z,2.2nm,0.6s,mb4.1						
NWAO	Narrogin (SRO)	43.99	152	P	P	20 22 48.6	-0.3
	comp=Z,17nm,1.2s,mb4.7,baz=34,slow=12,SNR=3.3						
WRA	Warramunga Arr	46.68	124	P	P	20 23 10.5	0.0
	comp=Z,12nm,0.8s,mb4.9,baz=300,slow=10,SNR=78						
WRA				ScP		20 28 31.5	
	comp=Z,1.6nm,0.9s,baz=320,slow=3.6,SNR=5.7						
WRA				S	S	20 29 53.1	-3.8
	comp=Z,0.8nm,0.8s,baz=305,slow=15,SNR=3.6						
WRAB	Tennant Creek	46.69	124	*e*P	P	20 23 10.4	-0.1
WRAB				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.3						
WRAB	Tennant Creek	46.69	124	*e*P	P	20 23 10.4	-0.1
	comp=Z,26nm,0.6s,mb5.3						
CN2	Changchun	46.75	31	*e*P	P	20 23 11.0	+0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ASAR	Alice Springs	48.21	129	P	P	20 23 22.2	-0.3
	comp=Z,4.7nm,0.6s,mb4.7,baz=300,slow=7.7,SNR=45						
ASAR				S	S	20 30 16.6	-1.9
	comp=Z,4.9nm,1.1s,baz=292,slow=13,SNR=10						
ASAR				LR	LR	20 44 45.6	
	comp=Z,114nm,20.3s,MS3.8,baz=277,slow=37						
ZAL	Zalesovo	48.82	352	P	P	20 23 26.6	-0.1
	comp=Z,7.2nm,0.7s,mb4.8,baz=208,slow=5.9,SNR=44						
ZAL				S	S	20 30 24.1	-2.5
	comp=Z,0.5nm,0.4s,baz=58,slow=17,SNR=2.2						
NVS	Novosibirsk	49.91	352	*e*P	P	20 23 43.0	+7.9
NVS				*e*		20 23 48.3	
NVS				*i* S	S	20 30 40.2	-1.6
NVS				*i*		20 31 01.6	
NVS				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.0						
NVS				pmax	pmax		
	comp=N,8.0nm,0.8s						
NVS				smax			
	comp=N,25nm,2.0s						
KAMS	Al Khamasin	50.58	292	P	P	20 23 40.3	-0.4
BVAR	Borovoye Array	51.23	342	P	P	20 23 44.7	-0.5
	comp=N,12nm,0.7s,mb5.0,baz=143,slow=9.4,SNR=89						
BRVK	Borovoye	51.29	341	P	P	20 23 45.1	-0.5
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
BRVK	Borovoye	51.29	341	*e*P	P	20 23 45.0	-0.7
	comp=Z,13nm,0.6s,mb5.0						
TATS	Tathlith	51.49	290	P	P	20 23 47.8	+0.3
CHKZ	Chkalovo	51.72	342	P	P	20 23 48.6	-0.2
CHKZ				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
CHKZ	Chkalovo	51.72	342	*e*P	P	20 23 48.3	-0.5
	comp=Z,21nm,0.6s,mb5.2						
FRSS	Farasan al Kab	52.42	287	P	P	20 23 56.1	+1.5
BOD	Bodaibo	54.25	13	*e*P	P	20 24 05.9	-1.7
PMG	Port Moresby	54.55	106	*e*P	P	20 24 09.5	-0.9
PMG				pmax	pmax		
	comp=Z,7.0nm,0.6s						
PMG	Port Moresby	54.55	106	P	P	20 24 09.9	-0.5
	comp=Z,8.3nm,0.6s,mb5.0,baz=38,slow=5.1,SNR=6.5						
PMG	Port Moresby	54.55	106	*e*P	P	20 24 09.5	-0.9
	comp=Z,6.9nm,0.6s,mb4.9						
GNI	Garni	56.27	315	*i* P	P	20 24 22.6	+0.1
GNI				pmax	pmax		
	comp=Z,20nm,2.1s						
GNI	Garni	56.27	315	P	P	20 24 21.7	-0.8
	comp=Z,2.2nm,0.5s,mb4.5,baz=265,slow=4.2,SNR=5.1						
GNI				LR	LR	20 50 28.7	
	comp=Z,77nm,19.2s,MS3.8,baz=275,slow=38						
GNI	Garni	56.27	315	*e*P	P	20 24 21.6	-0.8
	comp=Z,9.9nm,1.1s,mb4.8						
ASAJ	Asahikawa	56.89	40	P	P	20 24 26.9	+0.1
	comp=Z,4.6nm,0.5s,mb4.8,baz=275,slow=11						
CTA	Charters Tower	56.91	118	P	P	20 24 28.7	+1.3
	comp=Z,9.8nm,1.0s,mb4.8,baz=257,slow=4.1,SNR=3.0						
YNBS	Yanbu‘ al Bahr	57.27	295	P	P	20 24 30.3	+0.6
KMBO	Kilima Mbogo	57.56	265	*i* P	P	20 24 32.3	+0.3
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.7s						
KMBO	Kilima Mbogo	57.56	265	P	P	20 24 32.3	+0.3
	comp=Z,2.7nm,0.7s,mb4.4,baz=58,slow=12,SNR=11						
KMBO				LR	LR	20 44 33.9	
	comp=Z,269nm,21.7s,MS4.3,baz=99,slow=31						
ZEI	Tsey	57.93	318	*i* P	P	20 24 33.4	-0.8
ZEI				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.7						
UMJS	Umm Lajj	58.02	296	P	P	20 24 36.3	+1.2
ARU	Arti	58.10	337	⇑*i*P	P	20 24 32.0	-3.1
ARU				*e*		20 25 21.2	
ARU				*e*		20 26 41.1	
ARU				*e*S	S	20 32 31.8	-0.3
ARU				*e*SS	SS	20 36 21.4	-3.8
ARU				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.9						
ARU	Arti	58.10	337	*e*P	P	20 24 33.9	-1.3
	comp=Z,6.1nm,0.8s,mb4.7						
STKA	Stephens Creek	58.30	133	P	P	20 24 36.4	-0.6
	comp=Z,2.3nm,0.5s,mb4.5,baz=300,slow=8.3,SNR=13						
STKA	Stephens Creek	58.30	133	*e*P	P	20 24 36.0	-1.0
KIV	Kislovodsk	59.23	319	*i* P	P	20 24 42.5	-0.8
KIV				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
KIV	Kislovodsk	59.23	319	*e*P	P	20 24 42.3	-1.0
	comp=Z,4.6nm,0.6s,mb4.7						
ASF	Jabal al Asfar	59.76	304	P	P	20 24 46.6	-0.5
	comp=Z,2.9nm,0.5s,mb4.5,baz=332,slow=8.2,SNR=5.8						
ASF				LR	LR	20 51 14.0	
	comp=Z,158nm,21.5s,MS4.1,baz=286,slow=37						
AYUS	‘Aynunah	60.33	299	P	P	20 24 51.3	+0.3
BDAS	Al Bad‘	60.51	299	P	P	20 24 52.8	+0.5
TAYS	Tayyib Ism	60.73	300	P	P	20 24 54.0	+0.2
YAK	Yakutsk	62.01	18	*i* P	P	20 25 00.4	-1.5
YAK				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.8						
BRTR	Keskin Array B	64.18	312	P	P	20 25 14.8	-1.7
	comp=Z,4.0nm,0.7s,mb4.6,baz=122,slow=7.4,SNR=21						
OBN	Obninsk	67.47	328	*e*P	P	20 25 35.3	-2.0
OBN				*e*		20 25 52.3	
OBN				*e*		20 26 04.9	
OBN				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.8						
AKASG	Malin Array Be	70.14	322	P	P	20 25 52.1	-1.8
	comp=Z,8.8nm,0.9s,mb4.7,baz=88,slow=5.5,SNR=23						

IDI	**Anoyia**	**70.15**	**305**	P	**P**	**20 25 53.5**	**-0.7**
	comp=Z,18nm,0.5s,mb5.2,baz=82,slow=8.4,SNR=19						
KOLS	**Kolonicke sedl**	**74.13**	**319**	*e*P	**P**	**20 26 19.0**	**+1.4**
SUW	**Suwalki**	**74.54**	**325**	*e*P	**P**	**20 26 18.9**	**-0.9**
CRVS	**Cervenica-Dubn**	**74.66**	**319**	*e*P	**P**	**20 26 22.0**	**+1.4**
FINES	**FINESS Array B**	**74.86**	**332**	*i* P	**P**	**20 26 20.8**	**-0.8**
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	**FINESS Array B**	**74.86**	**332**	P	**P**	**20 26 20.8**	**-0.8**
	comp=Z,1.6nm,0.4s,mb4.3,baz=97,slow=5.6,SNR=17						
KAF	**Kangasniemi**	**74.95**	**333**	*e*p	**P**	**20 26 21.3**	**-0.8**
	comp=Z,9.4nm,1.0s,mb4.7						
KAF	**Kangasniemi**	**74.95**	**333**	*e*P	**P**	**20 26 21.3**	**-0.8**
KAF				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
KECS	**Kecovo**	**75.23**	**319**	*e*P	**P**	**20 26 23.4**	**-0.6**
NIE	**Niedzica**	**75.48**	**320**	*e*P	**P**	**20 26 25.9**	**+0.5**
OJC	**Ojcow**	**75.93**	**320**	*e*P	**P**	**20 26 28.0**	**+0.1**
VYHS	**Vyhne**	**76.32**	**318**	*e*P	**P**	**20 26 30.0**	**-0.2**
OKC	**Ostrava-Krasne**	**76.93**	**320**	*e*P	**P**	**20 26 33.8**	**+0.2**
MORC	**Moravsky Berou**	**77.31**	**320**	*e*P	**P**	**20 26 34.9**	**-0.9**
ZST	**Bratislava**	**77.44**	**318**	*e*P	**P**	**20 26 36.2**	**-0.3**
ARCES	**ARCESS Array B**	**77.50**	**340**	P	**P**	**20 26 36.6**	**+0.2**
	comp=Z,2.2nm,0.6s,mb4.3,baz=45,slow=5.1,SNR=14						
ARCES				LR	LR	21 01 32.1	
	comp=Z,228nm,21.0s,MS4.5,baz=197,slow=36						
VRAC	**Vranov**	**77.88**	**319**	P	**P**	**20 26 38.9**	**0.0**
	comp=Z,2.2nm,0.8s,mb4.2,baz=99,slow=6.5,SNR=4.4						
DPC	**Dobruska-Polom**	**78.16**	**320**	*e*P	**P**	**20 26 40.8**	**+0.5**
BRG	**Berggiesshubel**	**79.71**	**321**	*e*P	**P**	**20 26 48.9**	**+0.1**
BRG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
GEC2	**GERESS Array S**	**79.74**	**318**	*e*P	**P**	**20 26 49.6**	**+0.6**
GEC2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
GERES	**GERESS Array B**	**79.74**	**318**	P	**P**	**20 26 49.3**	**+0.2**
	comp=Z,10nm,0.7s,mb4.9,baz=94,slow=5.1,SNR=83						
KHC	**Kasperske Hory**	**79.84**	**319**	*i* P	**P**	**20 26 49.5**	**-0.1**
KHC	**Kasperske Hory**	**79.84**	**319**	*e*P	**P**	**20 26 49.4**	**-0.2**
KHC				*e*pP	pP	20 26 55.5	-4.4
KHC				*e*x	x	20 27 06.0	
WET	**Wettzell**	**80.30**	**319**	*e*P	**P**	**20 26 52.5**	**+0.5**
CLL	**Collm**	**80.33**	**321**	*e*P	**P**	**20 26 52.0**	**-0.1**
CLL	**Collm**	**80.33**	**321**	P	**P**	**20 26 52.0**	**-0.1**
HFS	**Hagfors**	**80.58**	**330**	P	**P**	**20 26 53.0**	**-0.2**
	comp=Z,2.1nm,0.6s,mb4.3,baz=117,slow=6.6,SNR=9.3						
MOX	**Moxa**	**81.17**	**320**	*e*P	**P**	**20 26 52.7**	**-3.9**
MOX	**Moxa**	**81.17**	**320**	*i* P	**P**	**20 26 52.7**	**-3.9**
GRF	**Grafenberg Arr**	**81.40**	**319**	*e*P	**P**	**20 26 58.6**	**+0.8**
GRF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
NOA	**NORSAR Array B**	**81.86**	**331**	LR	LR	21 06 59.8	
	comp=Z,109nm,19.6s,MS4.2,baz=80,slow=38						
BSEG	**Bad Segeberg**	**82.07**	**324**	*e*P	**P**	**20 27 01.6**	**+0.4**
DAVOX	**Davos**	**82.26**	**316**	P	**P**	**20 27 02.8**	**+0.5**
	comp=Z,18nm,0.6s,mb5.2,baz=119,slow=6.1,SNR=45						
BFO	**Black Forest**	**83.30**	**318**	*e*P	**P**	**20 27 07.6**	**+0.1**
BFO				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
BFO	**Black Forest**	**83.30**	**318**	*e*P	**P**	**20 27 07.6**	**+0.1**
	comp=Z,4.0nm,0.7s,mb4.6						
LPG	**La Plagne**	**84.46**	**315**	*e*P	**P**	**20 27 13.6**	**+0.1**
	comp=Z,17nm,0.6s,mb5.0						
LPG	**La Plagne**	**84.46**	**315**	*e*P	**P**	**20 27 13.6**	**+0.1**
LPG				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb5.0						
NIKO	**Nikolski**	**89.55**	**37**	*e*P	**P**	**20 27 38.5**	**+0.4**
EKA	**Eskdalemuir Ar**	**89.77**	**326**	P	**P**	**20 27 39.6**	**+0.6**
	comp=Z,1.8nm,0.8s,mb4.5,baz=135,slow=5.9,SNR=3.9						
ESDC	**Sonseca Array**	**92.94**	**310**	P	**P**	**20 27 54.8**	**+0.7**
	comp=Z,1.0nm,0.7s,mb4.4,baz=72,slow=4.5,SNR=6.6						
ILAR	**Eielson Array**	**96.68**	**22**	P	**P**	**20 28 10.6**	**+0.1**
	comp=Z,0.3nm,0.5s,mb4.0,baz=310,slow=4.4,SNR=9.0						
DBIC	**Dimbokro**	**98.60**	**278**	P	**P**	**20 28 20.9**	**+0.5**
	comp=Z,1.7nm,0.8s,mb4.7,baz=254,slow=3.8,SNR=3.5						
DBIC				LR	LR	21 09 30.2	
	comp=Z,104nm,19.2s,MS4.3,baz=165,slow=33						
YKA	**Yellowknife Ar**	**108.52**	**14**	PP	PP	20 33 32.4	-5.2
	comp=Z,0.3nm,0.7s,baz=340,slow=7.4,SNR=3.7						
ULM	**Lac du Bonnet**	**123.64**	**8**	PKP	PKPdf	20 33 39.5	+2.3
	comp=Z,1.5nm,0.6s,baz=344,slow=2.2,SNR=3.9						
NVAR	**Mina Array Bea**	**126.64**	**32**	PKP	PKPdf	20 33 46.1	+2.7
	comp=Z,0.4nm,0.4s,baz=1.3,slow=1.7,SNR=4.0						
PDAR	**Pinedale Array**	**127.12**	**22**	PKP	PKPdf	20 33 45.9	+1.7
	comp=Z,0.8nm,0.8s,slow=3.6,SNR=3.7						
TXAR	**Lajitas Array**	**141.11**	**26**	PKP	PKPdf	20 34 11.4	+0.9
	comp=Z,0.5nm,0.4s,baz=228,slow=1.4,SNR=5.5						
TXAR				SKPbc		20 37 44.4	
	comp=Z,0.6nm,0.9s,slow=3.8,SNR=3.9						
LPAZ	**La Paz**	**159.94**	**237**	PKPab	PKPab	20 35 20.6	-0.4
	comp=Z,2.6nm,0.7s,baz=123,slow=4.9,SNR=12						

IDC 29 20:19:15.3±8.7, 8.86N×91.18E, mb4.1/6, mb1 4.2/6, mb1mx3.8/19, mbtmp4.1/6, Error ellipse: s-maj=197.5km s-min=46.3km az=147.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.16**	**37**	Pn	P	20 22 19.0	+6.1
	0.6nm,0.3s,baz=231,slow=15,SNR=9.2						
SONM	**Songino Array**	**40.93**	**16**	P	P	20 27 00.2	-0.9
	1.1nm,0.6s,baz=202,slow=8.4,SNR=5.7						
ZAL	**Zalesovo**	**45.25**	**355**	P	P	20 27 33.6	-2.5
	1.1nm,0.4s,baz=216,slow=6.9,SNR=4.3						
BVAR	**Borovoye Array**	**47.16**	**343**	P	P	20 27 48.9	-2.4
	1.9nm,0.9s,baz=150,slow=12,SNR=5.2						
BRTR	**Keskin Array B**	**59.58**	**311**	P	P	20 29 22.8	-0.6
	1.4nm,0.8s,baz=124,slow=8.4,SNR=4.3						
IDI	**Anoyia**	**65.61**	**305**	P	P	20 30 01.3	-2.3
	19nm,1.0s,baz=52,slow=17,SNR=2.5						
GERES	**GERESS Array B**	**75.15**	**318**	P	P	20 30 58.7	-2.6
	1.0nm,0.8s,baz=108,slow=4.2,SNR=4.4						

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*IDC **29** 20:25:57.6±1.3, 8.21N×92.63E, mb3.6/4, mb1 3.8/4, mb1mx3.6/16, mbtmp3.6/4, Error ellipse: s-maj=57.3km s-min=26.6km az=47.0*

ISC 29 20:26:01.3±1.3, 9.2N±0.3×93.5E±0.4, h33^{km}, n11, σ0^{s}60/10, mb3.6/4, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PKI	**Pulchoki**	**19.80**	**338**	*e*P	**P**	**20 30 31.9**	**+0.1**
	11nm,0.5s						
DMN	**Daman**	**19.95**	**338**	*e*P	**P**	**20 30 32.9**	**-0.5**
	10nm,0.7s						
GUN	**Gumba**	**19.95**	**340**	*e*P	**P**	**20 30 33.3**	**-0.1**
	13nm,0.5s						
KKN	**Kakani**	**20.05**	**338**	*e*P	**P**	**20 30 34.3**	**-0.1**
	18nm,0.9s						
GKN	**Gorkha**	**20.48**	**337**	*e*P	**P**	**20 30 39.1**	**+0.1**
	32nm,0.8s						
KOLN	**Koldanda**	**20.69**	**335**	*e*P	**P**	**20 30 41.5**	**+0.3**
	24nm,0.8s						
SONM	**Songino Array**	**40.04**	**14**	P	**P**	**20 33 44.1**	**+9.2**
	0.6nm,0.8s,mb3.4,baz=201,slow=7.9,SNR=6.1						
WRA	**Warramunga Arr**	**49.58**	**126**	P	**P**	**20 34 51.5**	**-0.1**
	0.2nm,0.4s,mb3.5,baz=306,slow=8.5,SNR=9.4						
WRA				PcP	PcP	20 36 12.8	-0.4
	0.4nm,0.6s,baz=320,slow=2.8,SNR=6.4						
ASAR	**Alice Springs**	**51.28**	**130**	PcP	PcP	20 36 20.1	+0.7
	0.3nm,0.5s,baz=316,slow=3.5,SNR=4.0						
BRTR	**Keskin Array B**	**61.06**	**310**	P	**P**	**20 36 13.3**	**-1.1**
	0.9nm,0.8s,mb4.0,baz=135,slow=8.2,SNR=4.0						
GERES	**GERESS Array B**	**76.40**	**318**	P	**P**	**20 37 50.5**	**+1.3**
	0.6nm,0.6s,mb3.7,baz=90,slow=5.9,SNR=6.1						

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*IDC **29** 20:27:45.0±1.0, 7.46N×93.98E, mb4.0/8, mb1 4.2/8, mb1mx4.0/18, mbtmp4.0/8, Error ellipse: s-maj=54.1km s-min=18.7km az=54.0*

ISC 29 20:27:47.9±0.9, 7.3N±0.1×93.9E±0.2, h33^{km}, n10, σ0^{s}67/9, mb4.0/8, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.12**	**23**	Pn	**P**	**20 30 42.2**	**+0.9**
	0.2nm,0.3s,baz=218,slow=14,SNR=4.7						
SONM	**Songino Array**	**41.76**	**13**	P	**P**	**20 35 34.8**	**-0.9**
	0.7nm,0.7s,mb3.4,baz=202,slow=8.5,SNR=8.4						
SONM				PcP	PcP	20 37 32.0	-0.3
	0.4nm,0.7s,baz=207,slow=3.2,SNR=2.8						
ZAL	**Zalesovo**	**47.07**	**353**	P	**P**	**20 36 17.2**	**-1.0**
	1.8nm,0.4s,mb4.3,baz=219,slow=4.8,SNR=7.1						
WRA	**Warramunga Arr**	**48.14**	**125**	P	**P**	**20 36 26.9**	**-0.2**
	1.1nm,0.5s,mb4.2,baz=305,slow=8.5,SNR=11						
WRA				PcP	PcP	20 37 54.8	+0.1
	0.3nm,0.6s,baz=316,slow=2.8,SNR=4.9						
BVAR	**Borovoye Array**	**49.44**	**342**	PcP	PcP	20 37 59.3	+0.4
	0.5nm,0.6s,baz=135,slow=6.1,SNR=3.4						
ASAR	**Alice Springs**	**49.74**	**129**	P	**P**	**20 36 39.6**	**+0.1**
	1.5nm,0.6s,mb4.2,baz=301,slow=7.4,SNR=18						
ASAR				PcP	PcP	20 38 01.2	+0.8
	0.5nm,0.6s,baz=318,slow=3.6,SNR=4.1						
FINES	**FINESS Array B**	**73.09**	**332**	P	**P**	**20 39 16.0**	**-0.5**
	0.8nm,0.7s,mb3.8,baz=112,slow=7.5,SNR=3.5						
ARCES	**ARCESS Array B**	**75.71**	**340**	P	**P**	**20 39 31.7**	**+0.2**
	2.6nm,1.0s,mb4.1,baz=63,slow=6.0,SNR=3.8						
GERES	**GERESS Array B**	**78.08**	**318**	P	**P**	**20 39 45.9**	**+0.7**
	0.9nm,0.7s,mb3.8,baz=104,slow=5.5,SNR=7.7						
DAVOX	**Davos**	**80.62**	**316**	P	**P**	**20 39 59.6**	**+0.6**
	2.6nm,0.8s,mb4.2,baz=184,slow=8.4,SNR=4.1						

IDC 29 20:30:40.3±2.8, 32.88S×178.08W, mb4.0/3, mb1 4.2/4, mb1mx3.8/14, mbtmp4.0/4, ML3.7/1, Error ellipse: s-maj=63.8km s-min=44.5km az=130.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**6.64**	**215**	Pn	Pn	20 32 18.9	-2.8
	1.5nm,0.3s,baz=224,slow=14,SNR=6.0						
URZ				Sn	Sn	20 33 32.9	-6.2
	4.7nm,0.3s,baz=213,slow=17,SNR=8.5						
CTA	**Charters Tower**	**34.20**	**283**	P	P	20 37 29.1	-0.7
	2.1nm,0.6s,baz=118,slow=14,SNR=4.2						
ASAR	**Alice Springs**	**42.96**	**270**	P	P	20 38 40.8	-2.1
	0.9nm,0.7s,baz=114,slow=7.2,SNR=7.4						
WRA	**Warramunga Arr**	**44.18**	**275**	P	P	20 38 50.4	-2.4
	1.5nm,0.5s,baz=114,slow=7.8,SNR=28						
FINES	**FINESS Array B**	**147.43**	**339**	PKPbc	PKPdf	20 50 24.7	+0.1
	0.5nm,0.4s,baz=27,slow=3.1,SNR=10						

IDC 29 20:35:40.3±2.3, 13.66N×93.06E, mb3.5/3, mb1 3.8/4, mb1mx3.6/18, mbtmp3.6/4, ML3.8/1, MS2.8/1, Ms1 3.0/1, ms1mx2.6/19, Error ellipse: s-maj=57.9km s-min=28.2km az=93.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.40**	**49**	Pn	Pn	20 37 28.6	-3.5
	0.4nm,0.3s,baz=240,slow=15,SNR=14						
CMAR				Sn	Sn	20 38 56.5	-1.4
	0.3nm,0.3s,baz=233,slow=24,SNR=4.2						
CMAR				LR	LR	20 41 03.3	
	comp=Z,64nm,19.5s,baz=225,slow=44						
SONM	**Songino Array**	**35.84**	**15**	P	P	20 42 42.4	-1.2
	0.5nm,0.9s,baz=202,slow=7.8,SNR=3.1						
WRA	**Warramunga Arr**	**52.58**	**129**	P	P	20 44 55.3	-2.9
	0.6nm,0.9s,baz=314,slow=8.6,SNR=4.0						
WRA				PcP	PcP	20 46 06.0	-2.5
	0.2nm,0.7s,baz=321,slow=3.0,SNR=5.1						
ASAR	**Alice Springs**	**54.51**	**133**	P	P	20 45 10.6	-1.8
	0.5nm,0.5s,baz=309,slow=6.9,SNR=10						

IDC 29 20:43:39.0±3.9, 10.30N×92.32E, mb3.3/3, mb1 3.4/4, mb1mx3.3/17, mbtmp3.2/4, ML3.3/1, Error ellipse: s-maj=104.1km s-min=31.4km az=80.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.34**	**38**	Pn	P	20 46 07.9	-3.9
	0.1nm,0.3s,baz=233,slow=15,SNR=4.1						
SONM	**Songino Array**	**39.25**	**15**	P	P	20 51 09.7	-1.2
	0.2nm,0.6s,baz=204,slow=7.0,SNR=2.7						
WRA	**Warramunga Arr**	**51.13**	**126**	P	P	20 52 43.5	-2.6
	0.3nm,0.7s,baz=306,slow=8.6,SNR=5.1						
ASAR	**Alice Springs**	**52.84**	**130**	P	P	20 52 57.1	-1.9
	0.3nm,0.8s,baz=300,slow=6.4,SNR=4.5						

IDC 29 20:50:41.6±2.8, 32.73S×178.24W, mb4.1/3, mb1 4.2/4, mb1mx3.8/14, mbtmp4.1/4, ML3.7/1, Error ellipse: s-maj=62.0km s-min=44.0km az=128.0, South of Kermadec Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	**6.70**	**213**	Pn	Pn	20 52 20.6	-3.0
	1.4nm,0.3s,baz=251,slow=15,SNR=6.6						
URZ				Sn	Sn	20 53 33.2	-8.4
	4.1nm,0.3s,baz=24,slow=5.9,SNR=8.4						
CTA	**Charters Tower**	**34.04**	**283**	P	P	20 57 29.0	-0.6
	2.7nm,0.6s,baz=105,slow=13,SNR=4.8						
ASAR	**Alice Springs**	**42.83**	**270**	P	P	20 58 41.0	-2.1
	1.6nm,1.0s,baz=104,slow=7.5,SNR=9.8						
WRA	**Warramunga Arr**	**44.03**	**275**	P	P	20 58 50.5	-2.4
	1.3nm,0.4s,baz=114,slow=7.8,SNR=41						
FINES	**FINESS Array B**	**147.24**	**339**	PKPbc	PKPdf	21 10 25.4	-0.2
	2.1nm,0.9s,baz=27,slow=3.1,SNR=12						

IDC 29 20:54:34.5±4.0, 13.49N×93.03E, mb3.7/2, mb1 3.8/3, mb1mx3.4/17, mbtmp3.5/3, ML3.1/1, Error ellipse: s-maj=87.0km s-min=36.5km az=113.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.53**	**48**	Pn	Pn	20 56 27.0	-1.3
	0.1nm,0.3s,baz=239,slow=16,SNR=3.6						
CMAR				Sn	Sn	20 57 50.4	-5.0
	0.1nm,0.3s,baz=236,slow=27,SNR=4.8						
WRA	**Warramunga Arr**	**52.49**	**128**	P	P	21 03 49.5	-2.3
	0.6nm,0.5s,baz=309,slow=8.0,SNR=18						
WRA				PcP	PcP	21 04 59.9	-2.5
	0.1nm,0.4s,baz=320,slow=2.9,SNR=5.3						
ASAR	**Alice Springs**	**54.41**	**132**	P	P	21 04 03.7	-2.2
	0.4nm,0.4s,baz=307,slow=6.8,SNR=11						

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*JMA **29** 21:00:25.8±0.2, 24.32N×121.89E, h80^{km}, M2.6*

TAP 29 21:00:26.4, 24.12N×121.79E, h48^{km}, ML3.5, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**1.17**	**73**	P	P	21 00 45.3	-1.2
YOJ				*e*S	S	21 01 00.1	-1.4
IRIF	**Iriomote-Funau**	**1.78**	**83**	P	P	21 00 53.6	-1.7
IRIF				*e*S	S	21 01 15.1	-1.8
HATJ	**Hateruma jima**	**1.84**	**92**	P	P	21 00 55.0	-1.2
HATJ				*e*S	S	21 01 17.1	-1.2
JKRS	**Kuro-shima**	**2.03**	**86**	P	P	21 00 57.5	-1.3
JKRS				*e*S	S	21 01 21.2	-1.8
JIJ	**Ishigaki jima**	**2.16**	**83**	P	P	21 00 58.8	-1.9
JIJ				*e*S	S	21 01 22.8	-3.5
JTJ	**Tarama**	**2.71**	**78**	P	P	21 01 06.7	-1.8

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*IDC **29** 21:02:38.1±0.8, 9.52N×93.83E, mb3.8/9, mb1 3.9/9, mb1mx3.8/18, mbtmp3.8/9, MS2.9/1, Ms1 3.1/1, ms1mx2.5/29, Error ellipse: s-maj=35.9km s-min=17.9km az=51.0*

ISC 29 21:02:40.9±0.7, 9.27N±0.10×93.6E±0.1, h33^{km}, n16, σ0^{s}95/16, mb3.8/9, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.49**	**29**	Pn	**P**	**21 05 12.7**	**+0.6**
	0.1nm,0.3s,baz=215,slow=15,SNR=14						
CMAR				LR	LR	21 09 31.8	
	comp=Z,64nm,20.7s,baz=225,slow=41						
PKI	**Pulchoki**	**19.79**	**338**	*e*P	**P**	**21 07 11.9**	**+0.6**
	22nm,0.9s						
GUN	**Gumba**	**19.93**	**340**	*e*P	**P**	**21 07 13.8**	**+1.0**
	24nm,0.7s						
DMN	**Daman**	**19.94**	**337**	*e*P	**P**	**21 07 12.6**	**-0.3**
	23nm,0.8s						
KKN	**Kakani**	**20.03**	**338**	*e*P	**P**	**21 07 13.6**	**-0.3**
	9.2nm,0.6s						
GKN	**Gorkha**	**20.47**	**337**	*e*P	**P**	**21 07 18.4**	**-0.1**
	31nm,0.7s						
KOLN	**Koldanda**	**20.69**	**334**	*e*P	**P**	**21 07 21.3**	**+0.5**
	23nm,0.7s						
SONM	**Songino Array**	**39.92**	**13**	P	**P**	**21 10 12.7**	**-0.8**
	0.4nm,0.9s,mb3.1,baz=230,slow=11,SNR=3.3						
BVAR	**Borovoye Array**	**47.51**	**341**	P	**P**	**21 11 12.7**	**-2.0**
	0.9nm,0.9s,mb3.8,baz=146,slow=5.3,SNR=4.9						
NWAO	**Narrogin (SRO)**	**47.61**	**153**	P	**P**	**21 11 16.1**	**+0.3**
	2.9nm,0.7s,mb4.4,baz=319,slow=11,SNR=4.2						
WRA	**Warramunga Arr**	**49.48**	**126**	P	**P**	**21 11 30.4**	**0.0**
	0.9nm,0.5s,mb4.0,baz=305,slow=8.6,SNR=20						
WRA				PcP	PcP	21 12 53.3	+0.8
	0.6nm,0.6s,baz=318,slow=2.9,SNR=8.0						
ASAR	**Alice Springs**	**51.20**	**130**	P	**P**	**21 11 43.1**	**-0.4**
	1.5nm,0.9s,mb3.9,baz=303,slow=7.0,SNR=8.3						
ASAR				PcP	PcP	21 12 59.5	+0.8
	0.8nm,0.7s,baz=308,slow=3.7,SNR=6.5						
KMBO	**Kilima Mbogo**	**57.08**	**263**	P	**P**	**21 12 30.4**	**+3.6**
	1.9nm,1.1s,mb4.1,baz=59,slow=12,SNR=3.9						
BRTR	**Keskin Array B**	**61.14**	**310**	P	**P**	**21 12 52.9**	**-1.6**
	0.9nm,0.9s,mb3.9,baz=124,slow=4.5,SNR=3.9						
GERES	**GERESS Array B**	**76.45**	**318**	P	**P**	**21 14 29.2**	**+0.1**
	0.3nm,0.4s,mb3.5,baz=80,slow=8.1,SNR=4.1						
ILAR	**Eielson Array**	**93.65**	**22**	P	**P**	**21 15 55.6**	**+0.8**
	0.3nm,0.8s,mb3.8,baz=290,slow=3.6,SNR=4.4						

MOS 29 21:05:17.6±2.9, 60.77N×148.93E, h10^{km}, mb4.0/1, Error ellipse: s-maj=39.9km s-min=17.8km az=91.2, Eastern Siberia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OCHR	**Omchak**	**1.04**	**331**	*i* P	Pb	21 05 37.7	+0.5
OCHR				*e*S	Sb	21 05 51.4	+0.8
OCHR				pmax	pmax		
	comp=Z,40nm,0.3s						
OCHR				smax			
	comp=N,280nm,0.4s						
OCHR				smax			
	comp=E,480nm,0.4s						
MA2	**Magadan**	**1.51**	**142**	*i* P	Pn	21 05 44.6	-0.3
MA2				pmax	pmax		
	comp=Z,50nm,0.2s						
TLAR	**Talaya**	**1.73**	**76**	*e*P	Pn	21 05 47.1	-0.9
TLAR				*e*S	Sn	21 06 07.6	-2.7
TLAR				pmax	pmax		
	comp=Z,40nm,0.3s						
TLAR				smax			
	comp=N,440nm,0.3s						
TLAR				smax			
	comp=E,400nm,0.3s						
SUUS	**Susuman**	**2.05**	**350**	*e*P	Pn	21 05 53.6	+1.0
SUUS				*e*S	Sn	21 06 19.9	+1.5
SUUS				pmax	pmax		
	comp=Z,50nm,0.3s						
SUUS				smax			
	comp=E,190nm,0.4s						
SEY	**Seymchan**	**2.72**	**35**	*e*P	Pn	21 05 59.4	-2.7
SEY				*e*S	Sn	21 06 36.9	+1.5
SEY				pmax	pmax		
	comp=Z,10.0nm,0.3s						
SEY				pmax	pmax		
	comp=Z,70nm,0.4s						
SEY				smax			
	comp=N,170nm,0.2s						
SEY				smax			
	comp=E,170nm,0.2s						
OMS	**Omsukchan**	**3.70**	**59**	*e*P	Pn	21 06 21.0	+4.9
OMS				*e*S	Sn	21 07 06.5	+6.2
OMS				smax			
	comp=N,50nm,1.0s						

IDC 29 21:09:48.3±4.6, 13.71N×92.81E, mb3.8/2, mb1 3.9/3, mb1mx3.5/18, mbtmp3.6/3, ML3.7/1, Error ellipse: s-maj=106.1km s-min=46.7km az=109.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.55**	**51**	Pn	Pn	21 11 39.9	-2.5
	0.3nm,0.3s,baz=241,slow=15,SNR=12						
CMAR				Sn	Sn	21 12 59.5	-10
	0.3nm,0.3s,baz=239,slow=29,SNR=5.7						
WRA	**Warramunga Arr**	**52.80**	**128**	P	P	21 19 05.4	-2.5
	0.4nm,0.4s,baz=313,slow=7.8,SNR=13						
WRA				PcP	PcP	21 20 15.5	-1.8
	0.3nm,0.4s,baz=320,slow=3.0,SNR=9.9						
ASAR	**Alice Springs**	**54.72**	**132**	P	P	21 19 19.6	-2.4
	0.9nm,0.4s,baz=309,slow=6.9,SNR=32						

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*CSEM **29** 21:12:57.4, 5.65N×94.54E, h10^{km}, mb5.9*

*BJI **29** 21:12:57.3, 5.06N×94.53E, h38^{km}, mB5.4, mb5.6, Ms5.4, Msz5.2*

*DHMR **29** 21:12:58.3±3.0, 5.26N×94.64E, h10^{km}, mb6.0*

*MOS **29** 21:12:59.0±1.0, 5.38N×94.62E, h33^{km}, mb5.9/83, MS5.1/48, Error ellipse: s-maj=8.2km s-min=3.8km az=126.4*

*HRVD **29** 21:12:59.5±0.2, 5.13N×94.61E, h41^{km}, MW5.5/60, Centroid moment Tensor Solution. LP body waves: s51,c87;Mantle waves: s60,c123; Half duration: 1^{s}4 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.74±.04; $M_{\theta\theta}$1.30±.03; $M_{\phi\phi}$-0.56±.04; $M_{r\theta}$0.85±.04; $M_{\theta\phi}$-1.09±.03; $M_{\phi r}$-1.83±.05; Best double couple: $M_0$2.55×10^{17} NP1: ϕ_s76°,δ34°,λ-162°. NP2:ϕ_s331°,δ80°,λ-58°. Principal axes: T 2.62, Plg28°, Azm35°; N -.13, Plg32°, Azm144°; P -2.49, Plg45°, Azm273°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **29** 21:12:59.0, 5.20N×94.71E, h26^{km}, MB5.7*

*NEIC **29** 21:12:59.5±0.1, 5.23N×94.63E, mb5.7/98, MS5.3/101, MW5.6, Error ellipse: s-maj=5.6km s-min=3.8km az=215.0, Moment Tensor Solution. s13 Moment tensor: Scale 10^{17} Nm; M_{rr}-1.38; $M_{\theta\theta}$3.07; $M_{\phi\phi}$-1.69; $M_{r\theta}$1.24; $M_{\theta\phi}$0.30; $M_{\phi r}$-1.50; Best double couple: $M_0$3.3×10^{17} NP1:ϕ_s49°, δ48°,λ-156°. NP2:ϕ_s303°,δ72°,λ-45°. Principal axes: T 3.4, Plg15°, Azm1°; N -.17, Plg43°, Azm105°; P -3.22, Plg44°, Azm257°;*

NEIC Felt [III] at Lhokseumawe and Medan.

*IDC **29** 21:13:02.5±0.4, 5.25N×94.76E, h57^{km}±3^{km}, mb5.1/30, mb1 5.1/31, mb1mx5.1/31, mbtmp5.4/31, MS4.9/22, Ms1 4.9/22, ms1mx4.7/29 Error ellipse: s-maj=12.9km s-min=6.7km az=47.0*

*DJA **29** 21:13:43.4±0.9, 4.50N×99.42E, h33^{km}, mb5.2/7, Error ellipse: s-maj=26.9km s-min=8.8km az=166.0*

ISC 29 21:12:59.9±0.5, 5.19N±0.03×94.70E±0.02, h49^{km}±4^{km}, h55^{km}±1.6^{km}:pP-P, n758, σ1^{s}04/684, mb5.6/170, MS5.2/141, 55C-68D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
TSI	**Tuntungan**	**4.20**	**113**	*e*P	**P**	**21 14 05.0**	**+1.9**
PSI	**Prapat**	**4.89**	**120**	*e*P	**P**	**21 14 14.4**	**+1.6**
SNG	**Songkhla**	**6.20**	**71**	P	**P**	**21 14 30.0**	**-1.1**
	2μm,1.0s						
NST	**Nakhon Sawan**	**11.70**	**27**	P	**P**	**21 15 49.5**	**+2.6**
	183nm,0.5s						
KKTK	**Khon Kaen**	**13.64**	**35**	P	**P**	**21 16 17.0**	**+4.2**
	2μm,1.0s						
CM31	**Chiang Mai Arr**	**13.82**	**17**	*e*P	**P**	**21 16 16.8**	**+1.7**
	392nm,0.9s						
CMAR	**Chiang Mai Arr**	**13.82**	**17**	P	**P**	**21 16 16.6**	**+1.5**
	17nm,0.3s,baz=206,slow=14,SNR=122						
CMAR				LR	LR	21 21 30.8	
	comp=Z,3μm,21.5s,baz=200,slow=37						
CMAR				ScP		21 25 05.0	
	0.2nm,0.3s,baz=231,slow=3.3,SNR=13						
PALK	**Pallekele**	**14.07**	**279**	*e*P	**P**	**21 16 16.6**	**-1.8**
	400nm,1.3s						
NANT	**Nan**	**14.74**	**23**	P	**P**	**21 16 31.0**	**+3.9**
	312nm,1.0s						
PENI	**Pendagan**	**14.95**	**135**	⇓*i*P	**P**	**21 16 24.7**	**-5.2**
PENI				pmax	pmax		
	comp=Z,140nm,0.5s						
PENI	**Pendagan**	**14.95**	**135**	⇓*i*P	**P**	**21 16 24.7**	**-5.2**
	comp=Z,140nm,0.5s						
PENI				*i* pP		21 16 25.4	
PENI	**Pendagan**	**14.95**	**135**	⇑*i*P	**P**	**21 16 27.9**	**-2.0**
	comp=Z,280nm,0.5s						
CHRT	**Chiangrai**	**15.40**	**18**	⇓P	**P**	**21 16 38.5**	**+2.8**
	comp=Z,1μm,1.2s						
PULI	**Pulasari**	**16.06**	**135**	⇓*e*P	**P**	**21 16 43.9**	**-0.2**
	comp=Z,259nm,0.6s						
MDRS	**Chennai**	**16.27**	**300**	⇓*e*P	**P**	**21 16 46.8**	**+0.1**
MDRS				*e*		21 19 30.0	
MDRS				*i*		21 23 07.8	
	comp=Z,5μm,20.2s						

VIS	Vishakhapatnam	16.70	319	⇓*e*P	P	21 16 51.1	-1.0
VIS				*e*S	S	21 19 53.5	-1.5
VIS				*i*		21 23 28.8	
	comp=Z,2µm,20.5s						
PACI	Pancar Gunung	16.90	134	⇓*i*P	P	21 16 51.7	-2.9
	comp=Z,30nm,0.6s						
COCO	West Island	17.40	173	*e*P	P	21 16 59.8	-1.1
KOD	Kodaikanal	17.80	287	⇓*e*P	P	21 17 06.6	+0.8
TRD	Trivandrum	17.92	282	⇓*e*P	P	21 17 07.6	+0.1
TRD				*e*		21 17 10.4	
	comp=Z,421nm,1.3s						
TRD				*e*S	S	21 20 33.0	+10
TRD				*i*		21 23 55.7	
	comp=Z,7µm,19.9s						
CAL	Calcutta	18.31	341	*e*P	P	21 17 08.8	-3.4
CAL				*e*	S	21 20 39.0	+7.4
AGT	Agartala	18.88	350	⇓*i*P	P	21 17 17.0	-2.0
AGT				*i*		21 18 10.0	
IMP	Imphal	19.49	358	*e*P	P	21 17 22.3	-3.5
HYB	Hyderabad	19.93	309	⇓*e*P	P	21 17 30.0	-0.6
HYB				*e*S	S	21 21 08.0	+0.8
HYB				pmax	pmax		
	comp=Z,310nm,1.0s						
HYB	Hyderabad	19.93	309	⇓*e*P	P	21 17 30.0	-0.6
	comp=Z,310nm,1.0s						
HYB				*e*S	S	21 21 08.0	+0.8
HYB	Hyderabad	19.93	309	⇓*i*P	P	21 17 30.0	-0.6
	comp=Z,310nm,1.0s						
HYB				*e*S	S	21 21 12.0	+4.8
HYB				LR	LR	21 25 56.0	
	comp=Z,4.2nm,20.0s						
QIZ	Qiongzhong	20.18	46	P	P	21 17 34.0	+0.8
QIZ				S	S	21 21 15.0	+3.0
QIZ				LR	LR		
	comp=N,8µm,16.8s						
QIZ				LR	LR		
	comp=Z,8µm,18.0s,MS5.1						
QIZ	Qiongzhong	20.18	46	*e*P	P	21 17 34.3	+1.1
	comp=Z,80nm,0.9s						
QIZ				LR	LR		
	comp=Z,8µm,19.0s,MS5.1						
BOK	Bokaro	20.35	336	⇑*e*P	P	21 17 33.2	-1.7
BOK				*e*		21 17 39.9	
	comp=Z,687nm,1.4s						
BOK				*e*S	S	21 21 16.7	+1.4
BOK				*i*		21 26 14.0	
	comp=Z,3µm,21.7s						
SHL	Shillong	20.44	353	*e*P	P	21 17 33.6	-2.2
SHL				*i*		21 28 03.8	
	comp=Z,3µm,22.5s						
BLSP	Bilaspur	20.77	325	⇓*e*P	P	21 17 38.6	-0.7
BLSP				*e*		21 17 45.8	
	comp=Z,640nm,1.5s						
BLSP				*e*S	S	21 21 26.3	+2.9
BLSP				*i*		21 26 06.9	
	comp=Z,3µm,21.1s						
SHBG	Sahibganj	21.02	342	*e*	P	21 17 45.0	+3.2
MNGI	Mangalore	21.07	293	⇓*e*P	P	21 17 43.4	+1.0
MNGI				*e*		21 17 47.0	
	comp=Z,516nm,1.9s						
MNGI				*i*		21 25 48.1	
	comp=Z,6µm,22.7s						
KMI	Kunming	21.27	20	⇑P	P	21 17 46.3	+2.0
KMI				AP		21 17 54.8	
KMI				XP		21 17 58.3	
KMI				PP	PP	21 18 11.3	+2.5
KMI				PPP	PPP	21 18 22.8	+4.3
KMI				S	S	21 21 41.5	+8.8
KMI				XS		21 21 48.5	
KMI				SS	SS	21 22 14.3	+5.4
KMI				AMB	AMB		
	comp=Z,83nm,1.4s,mb4.9						
KMI				AMB	AMB		
	comp=Z,725nm,5.2s						
KMI				LR	LR		
	comp=N,4µm,20.1s,MS5.0						
KMI				LR	LR		
	comp=E,4µm,15.8s,MS5.0						
KMI				LR	LR		
	comp=Z,6µm,25.1s						
MNCY	Minicoy	21.73	279	⇓*i*	P	21 17 41.0	-8.0
MNCY				*i*		21 19 09.0	
NGP	Nagpur	21.96	318	*e*P	P	21 17 53.5	+2.3
	comp=Z,86nm,0.8s,mb5.2						
NGP				*e*	S	21 21 55.7	+10
LATR	Latur	22.06	308	*e*P	P	21 17 54.0	+1.8
LATR				*e*	S	21 21 48.0	+0.6
GOA	Goa	22.92	298	⇓*e*	P	21 18 08.1	+7.3
GOA				*e*		21 18 11.9	
	comp=Z,303nm,1.2s						
AKL	Akola	23.08	313	⇓*e*P	P	21 18 03.3	+1.0
AKL				*e*S	S	21 22 10.8	+5.0
BATP	Bataraza	23.20	80	*e*P	P	21 18 04.7	+1.2
KAD	Karad	23.42	303	⇓*e*P	P	21 18 06.8	+1.2
KAD				*e*		21 27 21.8	
	comp=Z,4µm,18.2s						
ALBI	Allahabad	23.52	330	*e*P	P	21 18 05.5	-1.0
SRDI	Scrawed	23.67	125	⇑*i*P	P	21 18 11.8	+3.7
SRDI				pmax	pmax		
	comp=Z,54nm,0.4s,mb5.3						
SRDI	Scrawed	23.67	125	⇑*i*P	P	21 18 11.8	+3.7
	comp=Z,107nm,0.4s,mb5.4						
KELI	Kelakatan	23.81	124	⇑*i*pP		21 18 20.1	
KELI	Kelakatan	23.81	124	⇓*i*P	P	21 18 12.1	+2.7
	comp=Z,219nm,0.9s,mb5.3						
PKI	Pulchoki	23.95	339	*e*P	P	21 18 10.8	+0.1
	comp=Z,424nm,1.0s,mb5.8						
GYA	Guiyang	24.04	27	⇑*i*P	P	21 18 12.5	+1.0
GYA				AP		21 18 19.8	
GYA				PP	PP	21 18 47.5	+0.5
GYA				S	S	21 22 28.0	+5.6
GYA				AMB	AMB		
	comp=Z,380nm,0.9s,mb5.8						
GYA				AMB	AMB		
	comp=Z,730nm,5.7s						
GYA				LR	LR		
	comp=N,4µm,20.9s,MS5.1						
GYA				LR	LR		
	comp=E,5µm,18.2s,MS5.1						
GYA				LR	LR		
	comp=Z,7µm,20.4s,MS5.1						
DMN	Daman	24.09	339	*e*P	P	21 18 12.1	0.0
	comp=Z,390nm,1.0s,mb5.8						
GUN	Gumba	24.10	341	*e*P	P	21 18 11.6	-0.6
	comp=Z,558nm,0.8s,mb6.0						
KKN	Kakani	24.20	339	*e*P	P	21 18 12.8	-0.3
	comp=Z,575nm,1.1s,mb5.9						
POO	Poona	24.29	305	⇓*e*P	P	21 18 15.9	+1.8
POO				*e*		21 18 19.6	
	comp=Z,504nm,1.2s						
POO				*i*		21 28 00.6	
	comp=Z,4µm,23.1s						
BHPL	Bhopal	24.49	319	⇓*e*P	P	21 18 16.6	+0.6
BHPL				*e*S	S	21 22 33.1	+3.0
BHPL				*i*		21 28 07.0	
	comp=Z,2µm,22.8s						
LSA	Lhasa	24.61	353	*e*P	P	21 18 17.1	0.0
LSA				pmax	pmax		
	comp=Z,123nm,0.6s,mb5.6						
LSA				MLR	MLR		
	comp=Z,3µm,20.0s,MS4.8						
LSA	Lhasa	24.61	353	*e*P	P	21 18 17.1	0.0
	comp=Z,123nm,0.6s,mb5.6						
LSA				LR	LR		
	comp=Z,3µm,20.0s,MS4.8						
GKN	Gorkha	24.62	338	*e*P	P	21 18 16.9	-0.3
	comp=Z,768nm,1.1s,mb6.2						
KOLN	Koldanda	24.81	336	*e*P	P	21 18 19.6	+0.5
	comp=Z,435nm,1.0s,mb6.0						
RATI	Rata	24.95	124	⇓*i*P	P	21 18 23.3	+2.8
	comp=Z,408nm,0.3s,mb6.1						
ENPP	El Nido	25.18	75	*e*P	P	21 18 25.5	+2.8
GZH	Guangzhou	25.30	44	P	P	21 18 25.3	+1.5
GZH				AMB	AMB		
	comp=Z,651nm,6.8s						
GZH				LR	LR		
	comp=N,5µm,15.2s,MS5.3						
GZH				LR	LR		
	comp=E,6µm,16.2s,MS5.3						
GZH				LR	LR		
	comp=Z,12µm,15.5s,MS5.5						
KEDI	Kedomdong	25.31	122	⇑*i*P	P	21 18 23.4	-0.5
KEDI				pmax	pmax		
	comp=Z,219nm,0.7s,mb5.8						
KEDI	Kedomdong	25.31	122	⇑*i*P	P	21 18 23.4	-0.5
	comp=Z,219nm,0.7s,mb5.8						
KEDI	Kedomdong	25.31	122	⇓*i*P	P	21 18 26.4	+2.5
	comp=Z,438nm,0.7s,mb5.8						
BOM	Bombay	25.32	304	*e*P	P	21 18 24.9	+0.9
BOM				*e*S	S	21 22 47.3	+3.2
HKC	Hong Kong	25.38	46	P	P	21 18 30.0	+5.5
JHNI	Jhansi	25.42	324	⇑*i*P	P	21 18 22.0	-2.9
JHNI				*e*		21 19 20.0	
DGAR	Diego Garcia	25.49	241	*e*P	P	21 18 25.4	-0.2
DGAR				pmax	pmax		
	comp=Z,368nm,1.3s,mb5.8						
DGAR				MLR	MLR		
	comp=Z,1µm,22.0s,MS4.5						
DGAR	Diego Garcia	25.49	241	*e*P	P	21 18 25.4	-0.2
	comp=Z,368nm,1.3s,mb5.8						
DGAR				LR	LR		
	comp=Z,1µm,22.0s,MS4.5						
LUBP	Lubang	26.56	70	*e*P	P	21 18 35.5	-0.1
CUYO	Cuyo Island	26.64	76	*e*P	P	21 18 35.5	-0.8
CD2	Chengdu	26.96	17	P	P	21 18 38.3	-0.8
CD2				PP	PP	21 19 26.0	+0.1
CD2				PPP	PPP	21 19 35.0	-3.1
CD2				S	S	21 23 12.8	+1.8
CD2				AMB	AMB		
	comp=Z,240nm,1.1s,mb5.6						
CD2				AMB	AMB		
	comp=Z,510nm,7.2s						
CD2				LR	LR		
	comp=E,6µm,18.0s						
CD2				LR	LR		
	comp=Z,3µm,19.2s,MS4.8						
SJMP	San Jose	27.07	73	*e*P	P	21 18 39.8	-0.4
TGY	Tagaytay City	27.31	69	P	P	21 18 42.9	+0.5
	comp=Z,365nm,0.8s,mb5.9,baz=297,slow=1.1,SNR=12						
TGY				LR	LR	21 28 43.9	
	comp=Z,2µm,21.3s,MS4.7,baz=116,slow=35						
LGTI	Lohaghat	27.73	332	*e*P	P	21 18 47.0	+0.9
PTH	Pithoragarh	27.83	332	*e*P	P	21 18 46.1	-0.9
PTH				*e*S	S	21 23 25.2	+0.2
PCPH	Palayan	27.89	66	⇑*i*P	P	21 18 46.7	-1.0
OTRP	Odiongan	27.90	73	*e*P	P	21 18 47.3	-0.5
BOAC	Boac	27.99	71	*e*P	P	21 18 47.0	-1.6
ABRA	Dolores	28.29	62	*e*P	P	21 18 50.7	-0.5
BALP	Baler	28.39	66	*e*P	P	21 18 52.6	+0.5
POLP	Polilio Island	28.42	69	*e*P	P	21 18 51.9	-0.4
RCP	Roxas	28.44	75	⇓*e*P	P	21 18 58.3	+5.7
AJM	Ajmer	28.55	320	⇓*e*P	P	21 18 52.9	-0.6
AJM				*e*S	S	21 23 37.5	+0.9
AJM				*i*		21 31 14.2	
	comp=Z,1µm,18.9s						
ENH	Enshi	28.58	27	*e*P	P	21 18 52.6	-1.1
	comp=Z,61nm,0.7s,mb5.4						
ENH				LR	LR		
	comp=Z,8µm,20.0s,MS5.3						
PAGZ	Pagadian	28.61	83	*e*P	P	21 18 53.6	-0.5
NDI	New Delhi	28.65	327	*e*P	P	21 18 53.5	-0.8
NDI				*e*S	S	21 23 38.2	+0.1
APYP	Conner	28.84	62	*e*P	P	21 18 56.5	+0.5
CAUP	Cauayan	29.02	64	*e*P	P	21 18 58.2	+0.5
DDI	Dehra Dun	29.51	330	*e*P	P	21 19 01.8	-0.2
DDI				*e*		21 24 22.8	
BHJ	Bhuj	30.10	309	*e*P	P	21 19 09.5	+2.2
BHJ				*i*		21 32 26.2	
	comp=Z,2µm,18.4s						
OCLP	Ormoc	30.16	77	*e*P	P	21 19 07.4	-0.5
QZH	Quanzhou	30.19	47	⇑*i*P	P	21 19 08.5	+0.4
QZH				S	S	21 24 06.3	+3.7
QZH				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.7						
QZH				AMB	AMB		
	comp=Z,930nm,5.2s						
QZH				LR	LR		
	comp=N,4µm,11.1s,MS5.5						
QZH				LR	LR		
	comp=E,6µm,15.6s,MS5.5						
QZH				LR	LR		
	comp=Z,7µm,18.3s,MS5.4						
PVCP	Virac	30.20	72	*e*P	P	21 19 08.0	-0.3
BUKP	Musuan	30.27	83	*e*P	P	21 19 08.7	-0.2
BBP	Basco	30.52	58	*e*P	P	21 19 10.2	-0.8
SMLA	Simla	30.61	330	⇓*i*	pP	21 19 24.6	+0.1
	comp=Z,252nm,1.5s						
SMLA				*i*	S	21 24 21.5	+12
	comp=Z,238nm,1.8s						
SDNR	Sundarnagar	31.01	330	*e*P	P	21 19 15.5	+0.2
XAN	Xi’an	31.59	23	P	P	21 19 19.0	-1.4
XAN				AP	pP	21 19 30.0	-3.2
XAN				AMB	AMB		
	comp=Z,241nm,0.9s,mb6.0						
LZH	Lanzhou	31.88	14	⇑P	P	21 19 21.5	-1.3
LZH				PP	PP	21 20 26.5	-3.0
LZH				S	S	21 24 27.0	-1.9
LZH				SCP		21 25 50.8	
LZH				PCS		21 25 54.5	
LZH				SS	SS	21 26 26.5	+3.9
LZH				SCS	ScS	21 29 49.0	+1.4
LZH				AMB	AMB		
	comp=Z,190nm,1.5s,mb5.7						
LZH				AMB	AMB		
	comp=Z,459nm,4.0s						
LZH				LR	LR		
	comp=E,4µm,12.8s						
LZH				LR	LR		
	comp=Z,6µm,14.2s,MS5.4						
DLH	Dalhousie	32.35	330	*e*P	P	21 19 27.0	0.0
TATO	Taipei	32.36	50	PFAKE		21 19 40.0	+13
TATO				LR	LR		
	comp=Z,3µm,20.0s,MS4.9						
THN	Thein Dam	32.39	329	*e*P	P	21 19 26.8	-0.6
	comp=Z,32nm,0.4s,mb5.5						
THN				*e*	S	21 24 40.2	+3.1
GTA	Gaotai	34.38	7	P	P	21 19 44.0	-0.4
GTA				AP	pP	21 19 57.5	+0.2
GTA				XP	sP	21 20 05.0	+1.5
GTA				S	S	21 25 03.3	-4.5
GTA				SCP		21 26 00.5	
GTA				SCS	ScS	21 30 00.8	+0.3
GTA				AMB	AMB		
	comp=Z,138nm,0.9s,mb5.9						
GTA				AMB	AMB		
	comp=Z,273nm,10.3s						
GTA				LR	LR		
	comp=N,2µm,22.8s,MS4.8						
GTA				LR	LR		
	comp=E,2µm,22.1s,MS4.8						
GTA				LR	LR		
	comp=Z,2µm,25.1s,MS4.7						
NJ2	Nanjing	35.00	37	*e*P	P	21 19 50.3	+0.5
NJ2				AP	pP	21 19 59.0	-3.7
NJ2				XP	sP	21 20 04.3	-4.6
NJ2				S	S	21 25 22.0	+4.6
NJ2				AMB	AMB		
	comp=Z,490nm,1.1s,mb6.3						
NJ2				AMB	AMB		
	comp=Z,570nm,3.7s						
NJ2				LR	LR		
	comp=N,12µm,14.1s,MS5.9						
NJ2				LR	LR		
	comp=E,10µm,15.2s,MS5.9						
NJ2				LR	LR		
	comp=Z,18µm,13.9s,MS6.0						
SSE	Sheshan	35.81	41	P	P	21 19 57.5	+0.7
SSE				S	S	21 25 35.3	+5.2
SSE				XS		21 25 50.8	
SSE				AMB	AMB		
	comp=Z,55nm,0.8s,mb5.5						
SSE				AMB	AMB		
	comp=Z,206nm,7.1s						
SSE				LR	LR		
	comp=N,2µm,19.2s,MS5.0						
SSE				LR	LR		
	comp=E,2µm,19.4s,MS5.0						
SSE				LR	LR		
	comp=Z,3µm,20.0s,MS5.0						
MBWA	Marble Bar	35.90	138	*e*P	P	21 19 57.4	-0.2
	comp=Z,56nm,1.3s,mb5.3						
MBWA				LR	LR		
	comp=Z,1µm,20.0s,MS4.7						
TIY	Taiyuan	36.19	24	⇓P	P	21 20 01.0	+1.2
TIY				S	S	21 25 38.0	+2.3
TIY				LR	LR		
	comp=N,8µm,16.0s						
TIA	Tai’an	37.11	31	P	P	21 20 08.0	+0.4
TIA				S	S	21 25 51.0	+1.1
TIA				AMB	AMB		
	comp=Z,84nm,1.1s,mb5.5						
TIA				LR	LR		
	comp=N,4µm,15.0s,MS5.4						
TIA				LR	LR		
	comp=E,3µm,15.0s,MS5.4						
BTO	Baotou	37.85	19	*e*P	P	21 20 13.5	-0.2
BTO				S	S	21 26 02.0	+1.0
BTO				AMB	AMB		
	comp=Z,42nm,0.7s,mb5.3						
BTO				LR	LR		
	comp=N,714nm,6.1s						
BTO				LR	LR		
	comp=E,3µm,14.9s						
JOW	Kunigami	38.57	52	P	P	21 20 20.6	+0.7
	comp=E,120nm,1.1s,mb5.5,baz=227,slow=7.6						
JOW				LR	LR	21 36 10.8	
	comp=E,3µm,21.8s,MS5.0,baz=236,slow=36						
HHC	Hu-ho-hao-te	38.59	21	⇑P	P	21 20 20.8	+0.9
HHC				AP	pP	21 20 28.3	-4.6
HHC				XP	sP	21 20 30.8	-8.1
HHC				PP	PP	21 21 52.0	-0.4
HHC				PCP	PcP	21 22 33.0	+0.8
HHC				S	S	21 26 13.0	+0.7
HHC				PCS		21 26 22.5	
HHC				SS	SS	21 28 53.5	-1.7
HHC				SCS	ScS	21 30 27.8	+3.9
HHC				AMB	AMB		
	comp=Z,126nm,1.0s,mb5.6						
HHC				AMB	AMB		
	comp=Z,299nm,4.3s						
HHC				LR	LR		
	comp=N,3µm,19.0s,MS5.3						
HHC				LR	LR		
	comp=E,3µm,16.7s,MS5.3						
HHC				LR	LR		
	comp=Z,4µm,20.2s,MS5.2						
WMQ	Urumqi	38.96	352	⇑P	P	21 20 23.5	+0.5
WMQ				AP	pP	21 20 31.0	-5.0
WMQ				XP	sP	21 20 34.5	-7.5
WMQ				PP	PP	21 21 57.5	+0.8
WMQ				PPP	PPP	21 22 20.5	-0.1
WMQ				S	S	21 26 21.0	+3.1
WMQ				AMB	AMB		
	comp=Z,77nm,0.8s,mb5.5						
WMQ				LR	LR		
	comp=N,2µm,28.5s,MS4.9						
WMQ				LR	LR		
	comp=E,823nm,25.3s,MS4.9						
WMQ				LR	LR		
	comp=Z,1µm,21.6s,MS4.6						
BJT	Baijiatuau	39.70	26	*e*P	P	21 20 30.7	+1.6
BJT				pmax	pmax		
	comp=Z,348nm,1.1s						
BJT				MLR	MLR		
	comp=Z,4µm,20.0s						
BJT	Baijiatuau	39.70	26	*e*P	P	21 20 30.7	+1.5
	comp=Z,348nm,1.1s,mb6.0						
BJT				LR	LR		
	comp=Z,4µm,20.0s,MS5.2						
BJI	Beijing	39.72	26	P	P	21 20 31.0	+1.7
BJI				S	S	21 26 30.5	+1.1
BJI				AMB	AMB		
	comp=Z,275nm,1.1s,mb5.9						
BJI				AMB	AMB		
	comp=Z,609nm,4.2s						
BJI				LR	LR		
	comp=N,3µm,17.9s,MS5.2						
BJI				LR	LR		
	comp=E,2µm,17.9s,MS5.2						
BJI				LR	LR		
	comp=Z,3µm,26.8s						
ULHL	Ulahol	40.39	339	P	P	21 20 36.9	+2.1
	SNR=8.2						
KZA	Kyzart	40.61	338	P	P	21 20 39.4	+2.8
	SNR=12						
UCH	Uchtor	41.02	337	P	P	21 20 42.4	+2.4
	SNR=146						
TKM2	Tokmak 2	41.21	339	P	P	21 20 43.6	+2.0
	SNR=13						
KBK	Karagaybulak	41.22	338	P	P	21 20 43.5	+1.9
	SNR=231						
AML	Almayashu	41.26	336	P	P	21 20 44.3	+2.3
	SNR=16						
AAK	Ala-Archa	41.37	337	P	P	21 20 45.1	+2.2
	SNR=90						
AAK	Ala-Archa	41.37	337	*e*P	P	21 20 43.6	+0.7
AAK				pmax	pmax		
	comp=Z,142nm,1.0s,mb5.5						
AAK				MLR	MLR		
	comp=Z,453nm,19.0s,MS4.4						
AAK	Ala-Archa	41.37	337	*e*P	P	21 20 43.6	+0.7
	comp=Z,142nm,1.0s,mb5.5						
AAK				LR	LR		
	comp=Z,453nm,19.0s,MS4.4						
DL2	Dalian	41.49	32	P	P	21 20 45.3	+1.4
DL2				S	S	21 26 58.0	+2.3
DL2				AMB	AMB		
	comp=Z,100nm,0.9s,mb5.5						
DL2				LR	LR		
	comp=N,1µm,17.7s,MS5.0						
DL2				LR	LR		
	comp=E,1µm,17.6s,MS5.0						
DL2				LR	LR		
	comp=Z,2µm,19.0s,MS4.9						
FRU	Bishkek	41.50	338	⇑*i*P	P	21 20 46.0	+2.1
FRU				*i*	pP	21 20 59.5	+2.4
FRU				pmax	pmax		
	comp=Z,184nm,2.0s,mb5.4						
CHMS	Chumysh	41.59	338	P	P	21 20 45.7	+1.0
	SNR=62						
EKS2	Erkin-Say	41.68	337	P	P	21 20 47.6	+2.2
	SNR=7.5						
USP	Ospenovka	41.91	338	P	P	21 20 49.0	+1.6
	SNR=166						
MKAR	Makanchi Array	42.81	347	*i* P	P	21 20 54.4	-0.3
MKAR				pmax	pmax		
	comp=Z,242nm,1.1s						
INCN	Inchon	43.37	38	*e*P	P	21 20 58.7	-0.8
	comp=Z,168nm,1.2s,mb5.7						
INCN				LR	LR		
	comp=Z,5µm,19.0s,MS5.4						
NWAO	Narrogin (SRO)	43.53	152	*e*P	P	21 20 59.4	-1.3
NWAO				pmax	pmax		
	comp=Z,74nm,1.6s						
NWAO				MLR	MLR		
	comp=Z,1µm,21.0s						
NWAO	Narrogin (SRO)	43.53	152	P	P	21 21 01.4	+0.6
	comp=Z,17nm,0.8s,mb4.8,baz=297,slow=8.9,SNR=9.7						
NWAO	Narrogin (SRO)	43.53	152	*e*P	P	21 20 59.4	-1.4
	comp=Z,74nm,1.6s,mb5.2						
NWAO				LR	LR		
	comp=Z,1µm,21.0s,MS4.7						
SONM	Songino Array	43.65	11	P	P	21 21 01.2	-0.3
	comp=Z,62nm,0.8s,mb5.4,baz=191,slow=8.3,SNR=389						
SONM				PcP	PcP	21 22 48.7	0.0
	comp=Z,14nm,0.6s,baz=192,slow=4.2,SNR=5.3						
SONM				ScP		21 26 35.3	
	comp=Z,9.2nm,0.9s,baz=214,slow=4.5,SNR=9.4						
SONM				LR	LR	21 41 35.2	
	comp=Z,2µm,18.7s,MS5.1,baz=196,slow=39						
ULN	Ulaanbaatar	43.81	12	*e*P	P	21 21 01.9	-0.9
ULN				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.3						
ULN				MLR	MLR		
	comp=Z,2µm,20.0s,MS4.9						
ULN	Ulaanbaatar	43.81	12	*e*P	P	21 21 01.9	-0.9
	comp=Z,40nm,0.7s,mb5.2						
ULN				LR	LR		
	comp=Z,2µm,20.0s,MS4.9						
KS15	Wonju Array Si	44.12	39	*e*P	P	21 21 05.3	-0.1
SNY	Shenyang	44.64	31	⇓P	P	21 21 09.5	0.0
SNY				S	S	21 27 40.3	-1.3
SNY				SS	SS	21 30 58.5	+4.6
SNY				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.2						
SNY				AMB	AMB		
	comp=Z,210nm,5.5s						
SNY				LR	LR		
	comp=N,3µm,17.1s						
SNY				LR	LR		
	comp=Z,4µm,18.0s,MS5.4						
ZAK	Zakamensk	45.61	8	⇓*i*P	P	21 21 16.0	-1.2
MUKL	Al Mukalla	45.85	285	⇓*e*P	P	21 21 20.1	+0.6
MUKL				AMb	AMB	21 21 21.1	
	comp=Z,431nm,1.7s,mb6.1						

WRA	**Warramunga Arr**	**46.28**	**124**	P	**P**	**21 21 22.9**	**0.0**
	comp=Z,128nm,0.7s,mb6.0,baz=302,slow=9.2,SNR=350						
WRA				pP	pP	21 21 37.1	+1.0
	comp=Z,142nm,0.7s,baz=302,slow=9.1,SNR=11						
WRA				S	**S**	**21 28 02.8**	**-2.6**
	comp=Z,8.4nm,1.1s,baz=293,slow=17,SNR=7.3						
WRAB	**Tennant Creek**	**46.29**	**124**	*c i*P	**P**	**21 21 23.2**	**+0.3**
WRAB	**Tennant Creek**	**46.29**	**124**	*e*P	**P**	**21 21 22.7**	**-0.3**
	comp=Z,218nm,0.6s,mb6.3						
WRAB				LR	LR		
	comp=Z,268nm,21.0s,MS4.2						
MOY	**Mondy**	**46.62**	**5**	*e*P	**P**	**21 21 24.7**	**-0.4**
TLY	**Talaya**	**46.93**	**8**	P	**P**	**21 21 28.1**	**+0.6**
	comp=Z,268nm,0.9s,mb6.2,SNR=14						
TLY	**Talaya**	**46.93**	**8**	*e*P	**P**	**21 21 27.7**	**+0.2**
TLY				*e*S	**S**	**21 28 13.8**	**-0.4**
TLY				*e*SS	ScS	21 31 13.7	-1.2
TLY				pmax	pmax		
	comp=Z,38nm,0.9s,mb5.3						
TLY				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
TLY	**Talaya**	**46.93**	**8**	*e*P	**P**	**21 21 27.2**	**-0.3**
	comp=Z,37nm,0.9s,mb5.3						
TLY				LR	LR		
	comp=Z,617nm,19.0s,MS4.6						
CN2	**Changchun**	**47.02**	**30**	⇑P	**P**	**21 21 28.3**	**0.0**
CN2				XP	sP	21 21 42.3	-5.0
CN2				*e*S	**S**	**21 28 17.3**	**+1.8**
CN2				AMB	AMB		
	comp=Z,50nm,0.7s,mb5.5						
CN2				AMB	AMB		
	comp=Z,340nm,4.0s						
CN2				LR	LR		
	comp=N,2µm,15.0s,MS5.3						
CN2				LR	LR		
	comp=E,2µm,15.0s,MS5.3						
CN2				LR	LR		
	comp=Z,2µm,16.0s,MS5.2						
HASS	**Wahat al Ahsa’**	**47.47**	**300**	P	**P**	**21 21 33.2**	**+1.0**
IRK	**Irkutsk**	**47.56**	**8**	*e*P	**P**	**21 21 32.1**	**-0.4**
ASAR	**Alice Springs**	**47.80**	**129**	P	**P**	**21 21 34.5**	**-0.2**
	comp=Z,32nm,0.7s,mb5.5,baz=300,slow=7.2,SNR=141						
ASAR				pP	pP	21 21 48.8	+0.8
	comp=Z,141nm,0.7s,baz=303,slow=7.6,SNR=28						
ASAR				PcP	PcP	21 23 04.0	+0.5
	comp=Z,13nm,0.5s,baz=304,slow=3.1,SNR=4.0						
ASAR				S	**S**	**21 28 25.6**	**-1.3**
	comp=Z,6.6nm,0.9s,baz=296,slow=13,SNR=5.4						
ASAR				LR	LR	21 42 48.2	
	comp=Z,692nm,22.0s,MS4.6,baz=303,slow=37						
ASAR				PKPPKP		21 52 45.0	
	comp=Z,4.2nm,1.3s,baz=139,slow=2.2,SNR=4.0						
HIA	**Hailar**	**48.77**	**22**	*e*P	**P**	**21 21 41.6**	**-0.4**
HIA				pmax	pmax		
	comp=Z,43nm,0.6s						
HIA				MLR	MLR		
	comp=Z,7µm,20.0s						
HIA	**Hailar**	**48.77**	**22**	*e*P	**P**	**21 21 41.6**	**-0.4**
	comp=Z,43nm,0.6s,mb5.7						
HIA				LR	LR		
	comp=Z,7µm,20.0s,MS5.7						
ZAL	**Zalesovo**	**49.26**	**352**	P	**P**	**21 21 45.1**	**-0.5**
	comp=Z,51nm,0.5s,mb5.8,baz=210,slow=5.5,SNR=218						
ZAL				pP	pP	21 21 59.8	+0.9
	comp=Z,31nm,0.6s,baz=181,slow=8.2,SNR=6.0						
ZAL				ScP		21 26 56.6	
	comp=Z,3.8nm,0.8s,baz=249,slow=4.5,SNR=3.4						
ZAL				S	**S**	**21 28 45.1**	**-1.8**
	comp=Z,19nm,1.2s,baz=71,slow=22,SNR=9.3						
ZAL				LR	LR	21 46 36.9	
	comp=Z,993nm,20.4s,MS4.8,baz=26,slow=41						
LBOS		**49.44**	**284**	⇓*i*P	**P**	**21 21 48.4**	**+0.9**
LBOS				AMb	AMB	21 21 49.3	
	comp=Z,359nm,1.5s,mb6.2						
MDJ	**Mudanjiang**	**49.73**	**32**	P	**P**	**21 21 50.0**	**+0.6**
MDJ				XP	sP	21 22 04.5	-3.9
MDJ				PP	PP	21 23 43.8	-1.1
MDJ				S	**S**	**21 28 50.5**	**-3.1**
MDJ				SS	SS	21 32 22.0	-0.7
MDJ				AMB	AMB		
	comp=Z,76nm,1.0s,mb5.7						
MDJ				AMB	AMB		
	comp=Z,175nm,3.7s						
MDJ				LR	LR		
	comp=E,2µm,16.4s						
MDJ				LR	LR		
	comp=Z,2µm,16.9s,MS5.2						
MDJ	**Mudanjiang**	**49.73**	**32**	*e*P	**P**	**21 21 49.7**	**+0.3**
	comp=Z,130nm,1.3s,mb5.8						
MDJ				*e*	pP	21 22 05.2	+2.4
MDJ				LR	LR		
	comp=Z,2µm,22.0s,MS5.1						
RYDS	**Riyadh**	**49.87**	**297**	P	**P**	**21 21 52.3**	**+1.5**
GUMO	**Guam**	**50.11**	**77**	PFAKE		21 22 00.0	+7.3
GUMO				LR	LR		
	comp=Z,1µm,22.0s,MS4.8						
CBIJ	**Chichi jima**	**50.15**	**59**	P	**P**	**21 21 51.9**	**-1.0**
	comp=Z,225nm,0.7s,mb6.3,baz=277,slow=21,SNR=4.7						
DHBB	**Dhamar BB**	**50.34**	**285**	⇑*i*P	**P**	**21 21 55.2**	**+0.8**
NVS	**Novosibirsk**	**50.36**	**351**	*i* P	**P**	**21 21 52.5**	**-1.6**
NVS				*e*S	**S**	**21 29 01.1**	**-1.1**
NVS				pmax	pmax		
	comp=Z,94nm,1.1s,mb5.7						
NVS				pmax	pmax		
	comp=N,68nm,1.2s						
NVS				smax			
	comp=N,98nm,1.7s						
NVS				smax			
	comp=E,74nm,1.7s						
MAJO	**Matsushiro**	**50.58**	**46**	*e*P	**P**	**21 21 54.8**	**-1.2**
MAJO				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
MAJO				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.3						
MAJO	**Matsushiro**	**50.58**	**46**	*e*P	**P**	**21 21 54.8**	**-1.2**
	comp=Z,27nm,0.8s,mb5.2						
MAJO				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
MAT	**Matsushiro**	**50.58**	**46**	P	**P**	**21 21 55.2**	**-0.8**
MAT				*e*S	**S**	**21 29 02.6**	**-2.8**
MAT	**Matsushiro**	**50.58**	**46**	*e*P	**P**	**21 21 55.0**	**-1.0**
MAT				S	**S**	**21 29 03.0**	**-2.4**
MAT				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
MAT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
MAT	**Matsushiro**	**50.58**	**46**	*e*P	**P**	**21 21 55.0**	**-1.0**
	comp=Z,38nm,1.0s,mb5.3						
MAT				S	**S**	**21 29 03.0**	**-2.4**
MAT				LR	LR		
	comp=Z,2µm,20.0s,MS5.2						
KAMS	**Al Khamasin**	**50.92**	**292**	P	**P**	**21 21 58.6**	**-0.2**
MZLS	**Mizel**	**51.11**	**297**	P	**P**	**21 22 00.8**	**+0.7**
BVAR	**Borovoye Array**	**51.69**	**342**	P	**P**	**21 22 03.6**	**-0.6**
	comp=Z,21nm,0.6s,mb5.3,baz=143,slow=7.4,SNR=97						
BVAR				pP	pP	21 22 19.3	+1.7
	comp=Z,52nm,0.7s,baz=135,slow=8.2,SNR=14						
BVAR				S	**S**	**21 29 19.1**	**-1.4**
	comp=Z,20nm,1.1s,baz=127,slow=15,SNR=12						
BRVK	**Borovoye**	**51.75**	**341**	*e*P	**P**	**21 22 04.0**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,181nm,1.4s,mb5.8						
BRVK				MLR	MLR		
	comp=Z,306nm,19.0s,MS4.3						
BRVK	**Borovoye**	**51.75**	**341**	*e*P	**P**	**21 22 04.0**	**-0.7**
	comp=Z,182nm,1.4s,mb5.8						
BRVK				LR	LR		
	comp=Z,306nm,19.0s,MS4.3						
TATS	**Tathlith**	**51.82**	**291**	P	**P**	**21 22 05.6**	**+0.1**
CHKZ	**Chkalovo**	**52.18**	**342**	*e*P	**P**	**21 22 07.4**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,377nm,1.3s,mb6.2						
CHKZ	**Chkalovo**	**52.18**	**342**	*e*P	**P**	**21 22 07.4**	**-0.4**
	comp=Z,377nm,1.3s,mb6.2						
AFFS	**‘Afif**	**53.05**	**296**	P	**P**	**21 22 15.6**	**+0.8**
ARSS	**Ar Rass**	**53.28**	**298**	P	**P**	**21 22 16.4**	**0.0**
KLR	**Kul’dur**	**53.91**	**29**	⇓*i*P	**P**	**21 22 17.8**	**-3.0**
KLR				*e*S	**S**	**21 29 48.5**	**-2.3**
KLR				pmax	pmax		
	comp=N,38nm,1.4s						
KLR				pmax	pmax		
	comp=E,60nm,1.4s						
KLR				pmax	pmax		
	comp=Z,86nm,1.4s,mb5.5						
KLR				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
PMG	**Port Moresby**	**54.25**	**105**	*e*P	**P**	**21 22 21.9**	**-1.8**
PMG				pmax	pmax		
	comp=Z,32nm,0.6s						
PMG				MLR	MLR		
	comp=Z,435nm,21.0s						
PMG	**Port Moresby**	**54.25**	**105**	P	**P**	**21 22 23.2**	**-0.5**
	comp=Z,31nm,0.5s,mb5.5,baz=297,slow=3.7,SNR=34						
PMG	**Port Moresby**	**54.25**	**105**	*e*P	**P**	**21 22 21.9**	**-1.8**
	comp=Z,32nm,0.6s,mb5.4						
PMG				LR	LR		
	comp=Z,435nm,21.0s,MS4.5						
BOD	**Bodaibo**	**54.62**	**13**	⇑*i*P	**P**	**21 22 24.8**	**-1.0**
BOD				*e*		21 29 54.7	
HILS	**Ha’il**	**54.89**	**300**	P	**P**	**21 22 28.8**	**+0.7**
CTA	**Charters Tower**	**56.54**	**118**	P	**P**	**21 22 39.7**	**-0.4**
	comp=Z,18nm,0.7s,mb5.2,baz=288,slow=8.8,SNR=21						
CTAO	**Charters Tower**	**56.54**	**118**	*e*P	**P**	**21 22 39.0**	**-1.1**
CTAO				pmax	pmax		
	comp=Z,63nm,1.3s,mb5.5						
CTAO				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
CTAO	**Charters Tower**	**56.54**	**118**	*e*P	**P**	**21 22 39.0**	**-1.1**
	comp=Z,64nm,1.3s,mb5.5						
CTAO				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
GNI	**Garni**	**56.71**	**315**	*e*P	**P**	**21 22 38.7**	**-2.4**
GNI	**Garni**	**56.71**	**315**	P	**P**	**21 22 40.7**	**-0.4**
	comp=Z,45nm,1.0s,mb5.5,baz=346,slow=4.5,SNR=44						
GNI				LR	LR	21 51 10.0	
	comp=Z,290nm,20.2s,MS4.4,baz=104,slow=40						
GNI	**Garni**	**56.71**	**315**	P	**P**	**21 22 38.7**	**-2.4**
GNI				LR	LR		
	comp=Z,512nm,21.0s,MS4.6						
CLNS	**Chul’man**	**56.75**	**19**	*e*P	**P**	**21 22 39.7**	**-1.5**
CLNS				*e**PP	pP	21 22 45.5	-9.3
CLNS				*e*		21 23 33.1	
CLNS				*e*		21 24 46.0	
CLNS				*e*S	**S**	**21 30 30.7**	**+2.1**
CLNS				pmax	pmax		
	comp=N,15nm,1.0s						
CLNS				pmax	pmax		
	comp=E,13nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
CLNS				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
CLNS				pmax	pmax		
	comp=N,12nm,1.1s						
CLNS				pmax	pmax		
	comp=E,11nm,1.0s						
CLNS				smax			
	comp=N,59nm,8.3s						
CLNS				smax			
	comp=Z,163nm,10.8s						
CLNS				smax			
	comp=E,33nm,9.8s						
CLNS				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.4						
CLNS				MLR	MLR		
	comp=N,1µm,12.0s,MS5.1						
CLNS				MLR	MLR		
	comp=E,400nm,15.0s,MS5.1						
KBRS	**Khaybar**	**56.75**	**297**	P	**P**	**21 22 42.4**	**+0.8**
ASAJ	**Asahikawa**	**57.09**	**40**	LR	LR	21 49 30.6	
	comp=E,2µm,18.1s,MS5.1,baz=81,slow=38						
TI2	**Plekhanov**	**57.37**	**317**	⇓*i*P	**P**	**21 22 45.0**	**-0.8**
TI2				*e*S	**S**	**21 30 37.0**	**+0.1**
TI2				*e*		21 32 30.0	
TI2				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
YNBS	**Yanbu‘ al Bahr**	**57.62**	**295**	P	**P**	**21 22 48.3**	**+0.5**
KMBO	**Kilima Mbogo**	**57.73**	**265**	*e*P	**P**	**21 22 49.4**	**+0.8**
KMBO				pmax	pmax		
	comp=Z,120nm,1.1s						
KMBO				MLR	MLR		
	comp=Z,3µm,22.0s						
KMBO	**Kilima Mbogo**	**57.73**	**265**	P	**P**	**21 22 49.5**	**+0.9**
	comp=Z,81nm,1.0s,mb5.7,baz=63,slow=9.7,SNR=98						
KMBO				pP	pP	21 23 04.6	+2.3
	comp=Z,36nm,1.1s,baz=63,slow=8.7,SNR=4.7						
KMBO				LR	LR	21 43 15.7	
	comp=Z,2µm,21.9s,MS5.3,baz=88,slow=31						
KMBO	**Kilima Mbogo**	**57.73**	**265**	*e*P	**P**	**21 22 49.4**	**+0.7**
	comp=Z,120nm,1.1s,mb5.8						
KMBO				LR	LR		
	comp=Z,3µm,22.0s,MS5.3						
STKA	**Stephens Creek**	**57.87**	**133**	P	**P**	**21 22 49.2**	**-0.3**
	comp=Z,16nm,0.7s,mb5.1,baz=303,slow=8.0,SNR=30						
STKA				pP	pP	21 23 02.9	-0.2
	comp=Z,37nm,0.9s,baz=302,slow=9.0,SNR=14						
STKA				LR	LR	21 49 29.2	
	comp=Z,656nm,20.0s,MS4.7,baz=295,slow=38						
STKA	**Stephens Creek**	**57.87**	**133**	*e*P	**P**	**21 22 48.3**	**-1.1**
SVE	**Sverdlovsk**	**58.09**	**339**	⇓*e*P	**P**	**21 22 51.0**	**+0.5**
SVE				*e*		21 23 40.0	
SVE				*e*		21 30 46.0	
SVE				pmax	pmax		
	comp=Z,190nm,1.6s,mb5.9						
SVE				pmax	pmax		
	comp=Z,230nm,1.6s,mb6.0						
BTMT	**Batman**	**58.31**	**312**	*e*P	**P**	**21 22 51.5**	**-0.9**
ZEI	**Tsey**	**58.38**	**318**	*e*P	**P**	**21 22 52.5**	**-0.3**
ZEI				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.5						
UMJS	**Umm Lajj**	**58.38**	**296**	P	**P**	**21 22 54.2**	**+1.2**
ARU	**Arti**	**58.56**	**337**	⇑*i*P	**P**	**21 22 52.7**	**-1.2**
ARU				*e*		21 23 38.2	
ARU				*i*		21 25 00.9	
ARU				*e*S	**S**	**21 30 52.3**	**0.0**
ARU				*i*		21 32 36.2	
ARU				*e*SS	SS	21 34 48.8	+1.7
ARU				pmax	pmax		
	comp=Z,79nm,1.4s,mb5.5						
ARU	**Arti**	**58.56**	**337**	*e*P	**P**	**21 22 52.1**	**-1.8**
	comp=Z,99nm,1.4s,mb5.7						
ARU				LR	LR		
	comp=Z,381nm,19.0s,MS4.5						
YSS	**Yuzh-Sakhalins**	**58.56**	**37**	*i* P	**P**	**21 22 54.4**	**+0.4**
YSS				pmax	pmax		
	comp=Z,114nm,1.2s,mb5.8						
YSS	**Yuzh-Sakhalins**	**58.56**	**37**	*e*P	**P**	**21 22 53.3**	**-0.7**
	comp=Z,65nm,0.9s,mb5.7						
YSS				LR	LR		
	comp=Z,2µm,19.0s,MS5.2						
VRT	**Varto**	**58.61**	**313**	*e*P	**P**	**21 22 53.8**	**-0.7**
EZM	**Erzurum**	**59.01**	**314**	*e*P	**P**	**21 22 56.0**	**-1.2**
BINT	**Bingol**	**59.28**	**313**	*e*P	**P**	**21 22 59.0**	**-0.1**
BCA	**Borcka**	**59.40**	**316**	*e*P	**P**	**21 22 57.9**	**-2.0**
TBKS	**Tabuk**	**59.60**	**300**	P	**P**	**21 23 02.5**	**+1.1**
KIV	**Kislovodsk**	**59.68**	**319**	P	**P**	**21 23 00.7**	**-1.1**
	comp=Z,526nm,0.9s,mb6.6,SNR=34						
KIV	**Kislovodsk**	**59.68**	**319**	*d i*P	**P**	**21 23 00.6**	**-1.2**
KIV				*e*		21 23 47.6	
KIV				*e*		21 25 13.1	
KIV				*i* S	**S**	**21 31 05.0**	**-2.0**
KIV				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.8						
KIV				pmax	pmax		
	comp=N,46nm,0.9s						
KIV				smax			
	comp=N,316nm,3.1s						
KIV				MLR	MLR		
	comp=N,258nm,24.0s						
KIV				MLR	MLR		
	comp=Z,451nm,24.0s,MS4.5						
KIV				MLR	MLR		
	comp=E,313nm,16.0s						
KIV	**Kislovodsk**	**59.68**	**319**	*e*P	**P**	**21 23 00.2**	**-1.6**
	comp=E,79nm,0.8s,mb5.8						
KIV				LR	LR		
	comp=Z,155nm,21.0s,MS4.1						
GOF	**Gofitskoye**	**59.92**	**320**	*e*P	**P**	**21 23 02.5**	**-0.9**
GOF				*e*S	**S**	**21 31 10.0**	**-0.1**
URFA	**Urfa**	**60.06**	**310**	*e*P	**P**	**21 22 57.9**	**-6.6**
EZC	**Erzincan**	**60.07**	**313**	*e*P	**P**	**21 23 06.1**	**+1.6**
PTK	**Pertek**	**60.10**	**312**	*e*P	**P**	**21 23 03.5**	**-1.2**
ASF	**Jabal al Asfar**	**60.16**	**304**	P	**P**	**21 23 04.9**	**-0.3**
	comp=Z,37nm,1.1s,mb5.3,baz=354,slow=3.9,SNR=26						
ELZG	**Elazig**	**60.27**	**312**	*i* P	**P**	**21 23 05.5**	**-0.4**
JMQS	**Jabal Moqyreh**	**60.31**	**300**	P	**P**	**21 23 06.9**	**+0.5**
MALT	**Malatya**	**60.63**	**311**	*e*P	**P**	**21 23 08.4**	**+0.1**
MALT	**Malatya**	**60.63**	**311**	*e*P	**P**	**21 23 07.7**	**-0.7**
MALT				pmax	pmax		
	comp=Z,2µm,1.0s						
MYA	**Malataya**	**60.63**	**311**	*e*P	**P**	**21 23 06.5**	**-1.9**
AYUS	**‘Aynunah**	**60.70**	**299**	P	**P**	**21 23 09.4**	**+0.4**
BDAS	**Al Bad‘**	**60.89**	**300**	P	**P**	**21 23 10.5**	**+0.2**
GZT	**Gaziantep**	**60.99**	**310**	*i* P	**P**	**21 23 10.7**	**-0.1**
JMOS	**Jabal al Moall**	**61.02**	**300**	P	**P**	**21 23 11.3**	**+0.2**
MKRJ	**Makawir**	**61.06**	**303**	P	**P**	**21 23 11.7**	**+0.3**
ALWS	**Ilw as Safayha**	**61.09**	**301**	P	**P**	**21 23 11.9**	**+0.3**
TAYS	**Tayyib Ism**	**61.11**	**300**	P	**P**	**21 23 12.0**	**+0.2**
HAQS	**Haql**	**61.16**	**300**	P	**P**	**21 23 11.9**	**-0.2**
AQBJ	**Aqaba**	**61.18**	**301**	P	**P**	**21 23 12.2**	**0.0**
GAZ	**Gaziantep**	**61.21**	**310**	*e*P	**P**	**21 23 11.8**	**-0.5**
KSHT	**Keshet**	**61.24**	**305**	P	**P**	**21 23 13.4**	**+0.9**
ZFRI	**Zfri**	**61.24**	**302**	P	**P**	**21 23 12.8**	**+0.2**
EIL	**Elat**	**61.25**	**301**	P	**P**	**21 23 12.8**	**+0.1**
EIL	**Elat**	**61.25**	**301**	*e*P	**P**	**21 23 12.8**	**+0.1**
	comp=Z,42nm,0.9s,mb5.6						
DRGI	**Dragot**	**61.27**	**303**	P	**P**	**21 23 13.2**	**+0.4**
MBH	**Mount Berech**	**61.31**	**301**	P	**P**	**21 23 13.4**	**+0.3**
PRNI	**Paran**	**61.34**	**302**	P	**P**	**21 23 13.7**	**+0.4**
MMLI	**Mount Malkishu**	**61.43**	**304**	P	**P**	**21 23 14.7**	**+0.8**
SOKR	**Solikamsk**	**61.49**	**339**	⇓*i*P	**P**	**21 23 12.1**	**-1.7**
SOKR				MLR	MLR		
	comp=Z,810nm,22.0s,MS4.8						
SOC	**Sochi**	**61.51**	**317**	*i* P	**P**	**21 23 12.2**	**-2.0**
SOC				*e*		21 24 00.4	
SOC				*e*		21 25 28.5	
SOC				*e*S	**S**	**21 31 32.8**	**+2.4**
SOC				*e*SS	SS	21 35 24.9	-8.6
SOC				pmax	pmax		
	comp=Z,94nm,1.0s,mb5.9						
SOC				pmax	pmax		
	comp=N,31nm,1.2s						
SOC				pmax	pmax		
	comp=E,22nm,1.1s						
KAHT	**Ahir Dag**	**61.60**	**310**	*i* P	**P**	**21 23 15.1**	**+0.1**
MASH	**Mash‘abbe Sade**	**61.66**	**302**	P	**P**	**21 23 15.5**	**+0.1**
SLTI	**Sal’it**	**61.70**	**304**	P	**P**	**21 23 16.2**	**+0.5**
HTY	**Hatay**	**61.75**	**308**	*e*P	**P**	**21 23 15.9**	**-0.1**
COBT	**Iskenderun**	**61.76**	**309**	*i* P	**P**	**21 23 15.7**	**-0.4**
HNTI	**Hanita**	**61.78**	**305**	P	**P**	**21 23 16.9**	**+0.7**
OFRI	**‘Ofer**	**61.83**	**304**	P	**P**	**21 23 17.0**	**+0.5**
HAF	**Haifa**	**61.84**	**304**	P	**P**	**21 23 17.1**	**+0.5**
KZIT	**Kziot**	**61.97**	**302**	P	**P**	**21 23 17.6**	**+0.1**
YAK	**Yakutsk**	**62.35**	**18**	*e*P	**P**	**21 23 17.1**	**-2.5**
YAK				*e**PP	pP	21 23 27.2	-6.2
YAK				*e*		21 23 58.5	
YAK				*e*		21 25 32.1	
YAK				*e*S	**S**	**21 31 36.2**	**-4.6**
YAK				*e*		21 33 00.4	
YAK				*e*SSS	SSS	21 38 25.8	-4.2
YAK				pmax	pmax		
	comp=Z,53nm,1.0s,mb5.6						
YAK				pmax	pmax		
	comp=N,25nm,1.2s						
YAK				pmax	pmax		
	comp=E,19nm,1.2s						
YAK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
YAK				pmax	pmax		
	comp=N,2.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,3.0nm,0.9s						
YAK				smax			
	comp=E,21nm,1.2s						
YAK				smax			
	comp=N,25nm,1.1s						
YAK				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
YAK				MLR	MLR		
	comp=N,621nm,15.0s,MS5.1						
YAK				MLR	MLR		
	comp=E,679nm,15.0s,MS5.1						
YAK	**Yakutsk**	**62.35**	**18**	*i* P	**P**	**21 23 17.5**	**-2.1**
YAK				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
BNN	**Bunyan**	**62.72**	**311**	*e*P	**P**	**21 23 21.9**	**-0.5**
MEST	**Erdemli**	**63.42**	**308**	*i* P	**P**	**21 23 26.6**	**-0.4**
ANN	**Anapa**	**63.48**	**318**	*e*P	**P**	**21 23 25.2**	**-2.1**
ANN				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.3						
CSS	**Prodhromos**	**63.69**	**306**	P	**P**	**21 23 28.7**	**-0.2**
	comp=Z,2.3nm,1.1s						
IKL	**Isikli**	**63.70**	**308**	*e*P	**P**	**21 23 23.4**	**-5.6**
MAMC	**Mammari**	**63.83**	**307**	⇓P	**P**	**21 23 30.0**	**+0.2**
MAMC	**Mammari**	**63.83**	**307**	⇓*i*P	**P**	**21 23 30.0**	**+0.2**
CTKT	**Corum**	**64.00**	**313**	*i* P	**P**	**21 23 30.4**	**-0.4**
SZAC	**Souni-Zanaja**	**64.01**	**306**	⇓P	**P**	**21 23 30.8**	**-0.2**
SZAC	**Souni-Zanaja**	**64.01**	**306**	⇓*e*P	**P**	**21 23 30.8**	**-0.2**
LEF	**Lefka**	**64.08**	**307**	*e*P	**P**	**21 23 28.7**	**-2.7**
MBAR	**Mbarara**	**64.14**	**267**	*e*P	**P**	**21 23 32.1**	**-0.1**
MBAR				*e*	pP	21 23 47.6	+1.6
MBAR				pmax	pmax		
	comp=Z,122nm,1.4s,mb5.7						
MBAR				MLR	MLR		
	comp=Z,642nm,20.0s,MS4.8						
MBAR	**Mbarara**	**64.14**	**267**	*e*P	**P**	**21 23 32.1**	**-0.1**
	comp=Z,122nm,1.4s,mb5.7						
MBAR				*e*	pP	21 23 47.6	+1.6
MBAR				LR	LR		
	comp=Z,642nm,20.0s,MS4.8						
BOYT	**Boyabat**	**64.15**	**314**	*i* P	**P**	**21 23 31.0**	**-0.8**
BYBT	**Boyabat**	**64.26**	**314**	*e*P	**P**	**21 23 30.5**	**-1.9**
ALFC	**Alevga**	**64.32**	**307**	⇓P	**P**	**21 23 32.4**	**-0.6**
	comp=Z,1.9nm,0.8s						
ALFC	**Alevga**	**64.32**	**307**	⇓*e*P	**P**	**21 23 32.4**	**-0.6**
BR131	**Keskin Array S**	**64.61**	**312**	PFAKE		21 23 50.0	+15
BR131				LR	LR		
	comp=Z,504nm,21.0s,MS4.7						
BRTR	**Keskin Array B**	**64.61**	**312**	P	**P**	**21 23 33.5**	**-1.2**
	comp=Z,46nm,0.8s,mb5.6,baz=127,slow=6.1,SNR=99						
BRTR				pP	pP	21 23 48.6	0.0
	comp=Z,27nm,0.8s,baz=130,slow=7.7,SNR=7.2						
CANT	**Cankiri**	**64.85**	**313**	*e*P	**P**	**21 23 35.0**	**-1.3**
VRSR	**Storozhevoye**	**64.88**	**325**	*e*P	**P**	**21 23 34.0**	**-2.3**
VRSR				*e**PP	pP	21 23 41.2	-9.0
VRSR				*e*		21 24 07.9	
VRSR				*e*S	**S**	**21 32 11.2**	**-1.1**
VRSR				pmax	pmax		
	comp=Z,100nm,0.8s,mb5.9						
VRSR				pmax	pmax		
	comp=N,40nm,1.0s						
VRSR				pmax	pmax		
	comp=E,100nm,1.0s						
VRSR				smax			
	comp=N,50nm,1.0s						
VRSR				smax			
	comp=Z,4.0nm,0.6s						
VRSR				smax			
	comp=E,20nm,1.1s						
BZK	**Bozkurt**	**64.95**	**314**	*e*P	**P**	**21 23 35.8**	**-1.2**
ELDT	**Eldivan**	**64.96**	**312**	*i* P	**P**	**21 23 36.3**	**-0.8**
VOR	**Voronezh**	**65.09**	**326**	*e*P	**P**	**21 23 35.0**	**-2.7**
VOR				pmax	pmax		
	comp=Z,300nm,1.2s,mb6.2						
KONT	**Konya--Tatoy**	**65.13**	**309**	*e*P	**P**	**21 23 36.9**	**-1.3**
ANTO	**Ankara**	**65.27**	**312**	*e*P	**P**	**21 23 35.8**	**-3.3**
BALT	**Daday**	**65.28**	**314**	*i* P	**P**	**21 23 38.3**	**-0.7**
LOD	**Lodumlu**	**65.30**	**312**	*e*P	**P**	**21 23 38.0**	**-1.2**
SAFT	**Safranbolu**	**65.70**	**313**	*e*P	**P**	**21 23 40.7**	**-1.1**
KIZT	**Kizilcal**	**65.72**	**310**	*e*P	**P**	**21 23 39.2**	**-2.8**
SIM	**Simferopol’**	**65.76**	**317**	⇓*e*P	**P**	**21 23 41.1**	**-1.0**
SIM				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.7						
SGKT	**Sivrigoynuk**	**65.99**	**312**	*i* P	**P**	**21 23 42.6**	**-1.1**
ISP	**Isparta**	**66.54**	**309**	*e*P	**P**	**21 23 46.6**	**-0.5**
ISP				pmax	pmax		
	comp=Z,195nm,1.1s,mb6.0						
ISP	**Isparta**	**66.54**	**309**	*e*P	**P**	**21 23 46.6**	**-0.5**
	comp=Z,196nm,1.1s,mb6.0						
MDU	**Mudurnu**	**66.59**	**312**	*e*P	**P**	**21 23 46.7**	**-0.8**
ESKT	**Eskisehir**	**66.64**	**311**	*e*P	**P**	**21 23 47.6**	**-0.2**
ESKT	**Eskisehir**	**66.64**	**311**	*i* P	**P**	**21 23 47.0**	**-0.8**
ELL	**Elmali**	**66.78**	**308**	*e*P	**P**	**21 23 46.3**	**-2.4**
ALT	**Altintas**	**67.10**	**310**	*e*P	**P**	**21 23 50.1**	**-0.6**
MOS	**Moscow**	**67.65**	**329**	*e*P	**P**	**21 23 50.8**	**-3.0**
MOS				*e*	pP	21 24 07.9	+0.1
MOS				*e*		21 24 18.1	
MOS				*e*S	S	21 32 40.2	-5.6
MOS				pmax	pmax		
	comp=Z,281nm,1.5s,mb6.1						
HRT	**Hereke**	**67.82**	**312**	*e*P	**P**	**21 23 50.8**	**-4.3**
OBN	**Obninsk**	**67.93**	**328**	⇓*i*P	**P**	**21 23 54.5**	**-1.1**
OBN				*i*	pP	21 24 04.6	-5.0
OBN				*i*	pP	21 24 10.5	+0.9

OBN				*i*		21 24 18.9	
OBN				*e*		21 26 27.0	
OBN				*e*		21 28 10.8	
OBN				*i* S	S	21 32 45.2	-4.1
OBN				pmax	pmax		
	comp=Z,300nm,2.0s,mb6.0						
OBN				MLR	MLR		
	comp=Z,700nm,21.0s,MS4.9						
OBN	**Obninsk**	**67.93**	**328**	*i* Pr	**P**	**21 23 54.3**	**-1.3**
YLV	**Yalova**	**67.98**	**312**	*e*P	**P**	**21 23 52.7**	**-3.5**
ULDT	**Uludag**	**68.07**	**311**	*i* P	**P**	**21 23 56.2**	**-0.5**
SKR	**Severo-Kuril’s**	**68.13**	**37**	*e*P	**P**	**21 23 52.7**	**-4.2**
SKR				pmax	pmax		
	comp=N,100nm,0.9s						
SKR				pmax	pmax		
	comp=E,100nm,0.9s						
SKR				pmax	pmax		
	comp=Z,120nm,0.9s,mb5.9						
SKR				MLR	MLR		
	comp=E,3µm,16.0s						
SKR				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.6						
BADT	**Buyukada**	**68.23**	**312**	*e*P	**P**	**21 23 53.1**	**-4.6**
KARP	**Karpathos**	**68.76**	**306**	*e*P	**P**	**21 24 01.3**	**+0.2**
AKS	**Akhisar**	**68.82**	**310**	*e*P	**P**	**21 24 00.6**	**-0.8**
BTOK	**Tokmak**	**68.82**	**311**	*i* P	**P**	**21 24 01.2**	**-0.2**
MA2	**Magadan**	**68.88**	**27**	P	**P**	**21 24 00.5**	**-0.9**
MA2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
MA2	**Magadan**	**68.88**	**27**	*i* P	**P**	**21 24 00.1**	**-1.3**
MA2				LR	LR		
	comp=Z,753nm,19.0s,MS5.0						
BALB	**Balikesir**	**68.91**	**310**	P	**P**	**21 23 53.1**	**-8.9**
LSZ	**Lusaka**	**68.93**	**252**	P	**P**	**21 24 02.6**	**+0.2**
LSZ				pmax	pmax		
	comp=Z,130nm,1.5s,mb5.6						
LSZ	**Lusaka**	**68.93**	**252**	*e*P	**P**	**21 24 02.5**	**+0.1**
	comp=Z,132nm,1.5s,mb5.6						
LSZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.4						
BNT	**Bandirma**	**69.02**	**311**	*e*P	**P**	**21 24 02.1**	**-0.5**
KDAG	**Bornova**	**69.15**	**309**	*i* P	**P**	**21 24 03.3**	**-0.1**
IZM	**Izmir**	**69.16**	**309**	*e*P	**P**	**21 24 01.7**	**-1.8**
MRMT	**Marmara Adasi**	**69.31**	**311**	*e*P	**P**	**21 24 02.8**	**-1.6**
TIXI	**Tiksi**	**69.74**	**11**	*i* P	**P**	**21 24 04.9**	**-1.6**
TIXI				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.4						
AYVA	**Ayvalik**	**69.76**	**310**	*i* P	**P**	**21 24 06.6**	**-0.5**
KIS	**Kishinev**	**69.88**	**318**	*e*P	**P**	**21 24 06.0**	**-1.7**
KIS				*e*	pP	21 24 20.0	-1.7
KIS				*e*		21 24 30.0	
KIS				pmax	pmax		
	comp=Z,210nm,1.5s,mb5.8						
CFR	**Carcaliu**	**69.90**	**316**	⇑*i*P	**P**	**21 24 07.5**	**-0.4**
NPS	**Neapolis**	**69.97**	**306**	*e*P	**P**	**21 24 08.6**	**+0.1**
PRD	**Provadia**	**69.98**	**314**	P	**P**	**21 24 08.0**	**-0.4**
PET	**Petropavlovsk**	**70.38**	**35**	*e*P	**P**	**21 24 09.7**	**-0.9**
PET				*e*		21 24 31.0	
PET				*e*S	S	21 33 18.9	+0.8
PET				*e*SS	SS	21 37 53.0	+1.8
PET				pmax	pmax		
	comp=Z,65nm,1.4s,mb5.4						
PET				pmax	pmax		
	comp=Z,100nm,11.1s						
PET				pmax	pmax		
	comp=Z,200nm,15.1s						
PET				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.4						
PET				smax			
	comp=N,200nm,15.3s						
PET				smax			
	comp=E,200nm,17.6s						
PET	**Petropavlovsk**	**70.38**	**35**	PFAKE		21 24 20.0	+9.4
PET				LR	LR		
	comp=Z,2µm,21.0s,MS5.3						
JMB	**Yambol**	**70.42**	**313**	P	**P**	**21 24 11.0**	**-0.1**
IDI	**Anoyia**	**70.56**	**305**	P	**P**	**21 24 12.1**	**0.0**
	comp=Z,54nm,0.7s,mb5.6,baz=98,slow=7.5,SNR=32						
IDI				pP	pP	21 24 28.3	+2.2
	comp=Z,41nm,0.6s,baz=323,slow=11,SNR=4.4						
IDI				LR	LR	21 59 22.4	
	comp=Z,471nm,21.1s,MS4.7,baz=97,slow=39						
AKASG	**Malin Array Be**	**70.59**	**322**	P	**P**	**21 24 10.1**	**-2.0**
	comp=Z,26nm,0.8s,mb5.2,baz=90,slow=5.0,SNR=70						
AKASG				pP	pP	21 24 26.9	+0.9
	comp=Z,22nm,0.7s,baz=87,slow=5.0,SNR=9.3						
VRI	**Vrincioaia**	**71.02**	**317**	⇓*i*P	**P**	**21 24 15.0**	**+0.3**
SZH	**Strazhica**	**71.04**	**314**	*e*P	**P**	**21 24 14.0**	**-0.9**
DIM	**Dimitrovgrad**	**71.11**	**313**	P	**P**	**21 24 15.0**	**-0.3**
SEY	**Seymchan**	**71.12**	**24**	*e*P	**P**	**21 24 13.8**	**-1.2**
SEY				*e*		21 24 33.9	
SEY						21 26 53.9	
SEY				PPP	PPP	21 28 31.2	-5.2
SEY				*e*S	S	21 33 28.5	+1.9
SEY				PS	PS	21 33 59.6	-2.1
SEY						21 34 12.9	
SEY				SS	SS	21 38 06.2	+3.4
SEY				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
SEY				MLR	MLR		
	comp=Z,3µm,15.0s,MS5.7						
SEY				MLR	MLR		
	comp=N,3µm,18.0s,MS5.6						
SEY				MLR	MLR		
	comp=E,680nm,14.0s,MS5.6						
KDZ	**Kurdzhali**	**71.12**	**312**	P	**P**	**21 24 15.0**	**-0.4**
VAM	**Vamos**	**71.13**	**306**	*e*P	**P**	**21 24 15.8**	**+0.3**
GVD	**Gavdhos**	**71.15**	**305**	*e*P	**P**	**21 24 14.9**	**-0.8**
	comp=E,111nm,0.9s,mb5.8						
WAKE	**Wake Island**	**71.28**	**71**	PFAKE		21 24 30.0	+13
WAKE				LR	LR		
	comp=Z,60µm,22.0s						
MLR	**Muntele Rosu**	**71.47**	**316**	P	**P**	**21 24 17.2**	**-0.2**
	comp=Z,135nm,1.1s,mb5.8,baz=56,slow=4.1,SNR=51						
MLR				LR	LR	21 58 11.4	
	comp=Z,517nm,21.6s,MS4.8,baz=324,slow=38						
MLR	**Muntele Rosu**	**71.47**	**316**	⇑*i*P	**P**	**21 24 18.1**	**+0.7**
MLR	**Muntele Rosu**	**71.47**	**316**	⇑*i*P	**P**	**21 24 18.1**	**+0.7**
RZN	**Rozhen**	**71.65**	**312**	P	**P**	**21 24 18.0**	**-0.5**
PLD	**Plovdiv**	**71.73**	**313**	*e*P	**P**	**21 24 18.0**	**-1.0**
KYTH	**Kithira**	**72.18**	**306**	*e*P	**P**	**21 24 20.5**	**-1.2**
PGB	**Panagyurishte**	**72.19**	**313**	P	**P**	**21 24 21.0**	**-0.7**
CASY	**Casey**	**72.22**	**173**	*e*P	**P**	**21 24 21.3**	**-0.1**
	comp=Z,47nm,1.1s,mb5.3						
CASY				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
VLI	**Veliai**	**72.31**	**307**	*e*P	**P**	**21 24 21.7**	**-0.8**
MMB	**Musomiste**	**72.36**	**312**	P	**P**	**21 24 21.5**	**-1.2**
MNK	**Minsk**	**72.47**	**326**	*e*P	**P**	**21 24 20.0**	**-3.1**
MNK				pmax	pmax		
	comp=Z,430nm,1.0s,mb6.3						
KKB	**Krupnik**	**72.88**	**312**	P	**P**	**21 24 25.0**	**-0.8**
VTS	**Vitosha**	**72.90**	**313**	P	**P**	**21 24 25.0**	**-0.9**
ITM	**Ithomi**	**73.16**	**307**	*e*P	**P**	**21 24 26.1**	**-1.5**
EVR	**Evrytania**	**73.45**	**309**	*e*P	**P**	**21 24 28.0**	**-1.3**
LBTB	**Lobatse**	**73.47**	**242**	*e*P	**P**	**21 24 30.2**	**+0.5**
LBTB				*e*	pP	21 24 45.6	+1.9
LBTB				pmax	pmax		
	comp=Z,99nm,1.1s,mb5.7						
LBTB				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.4						
LBTB	**Lobatse**	**73.47**	**242**	*e*P	**P**	**21 24 30.2**	**+0.6**
	comp=Z,99nm,1.1s,mb5.7						
LBTB				*e*	pP	21 24 45.5	+1.8
LBTB				LR	LR		
	comp=Z,2µm,21.0s,MS5.4						
BOLS	**Boljevac**	**73.99**	**314**	⇓*i*P	**P**	**21 24 31.4**	**-0.9**
SKO	**Skopje**	**74.11**	**312**	*i* P	**P**	**21 24 31.7**	**-1.3**
SKO				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.3						
SKO	**Skopje**	**74.11**	**312**	*i* P	**P**	**21 24 31.7**	**-1.3**
	comp=Z,33nm,0.8s,mb5.3						
VSU	**Vasula**	**74.17**	**330**	*i* P	**P**	**21 24 32.4**	**-0.6**
LVZ	**Lovozero**	**74.25**	**340**	*e*P	**P**	**21 24 33.0**	**-0.3**
LVZ				pmax	pmax		
	comp=Z,79nm,1.6s,mb5.4						
JAN	**Janina**	**74.28**	**310**	*e*P	**P**	**21 24 33.3**	**-0.7**
VLS	**Valsamata**	**74.32**	**308**	*e*P	**P**	**21 24 33.1**	**-1.2**
KWP	**Kalwaria**	**74.43**	**320**	*e*P	**P**	**21 24 34.6**	**-0.1**
KWP				*e*pP	pP	21 24 39.6	-9.2
KWP				*e*PcP	PcP	21 24 49.0	-0.4
KWP				*e*S	S	21 34 09.5	+5.2
KWP				*e*SKS	SKS	21 34 31.2	-2.4
APA	**Apatity**	**74.54**	**340**	⇓*i*P	**P**	**21 24 35.1**	**+0.1**
APA				*i*	pP	21 24 51.3	+2.3
APA				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.3						
KOLS	**Kolonicke sedl**	**74.58**	**319**	*e*P	**P**	**21 24 36.1**	**+0.5**
BOSA	**Boshof**	**74.66**	**239**	*e*P	**P**	**21 24 36.7**	**+0.2**
BOSA				*e*	pP	21 24 52.0	+1.5
BOSA				pmax	pmax		
	comp=Z,66nm,0.8s,mb5.6						
BOSA				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.1						
BOSA	**Boshof**	**74.66**	**239**	*e*P	**P**	**21 24 36.7**	**+0.2**
	comp=Z,66nm,0.8s,mb5.6						
BOSA				*e*	pP	21 24 52.0	+1.4
BOSA				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
GRUS	**Gruza**	**74.89**	**314**	⇑*i*P	**P**	**21 24 37.0**	**-0.4**
SUW	**Suwalki**	**75.00**	**325**	*e*P	**P**	**21 24 37.0**	**-0.9**
SUW				*e*pP	pP	21 24 44.7	-7.2
SUW				*e*PcP	PcP	21 24 52.0	+0.2
CRVS	**Cervenica-Dubn**	**75.11**	**319**	*e*P	**P**	**21 24 40.0**	**+1.4**
CRVS				*e*		21 25 00.0	
PVY	**Plav**	**75.27**	**313**	⇑*i*P	**P**	**21 24 38.2**	**-1.4**
FINES	**FINESS Array B**	**75.33**	**332**	P	**P**	**21 24 39.0**	**-0.7**
	comp=Z,6.5nm,0.6s,mb4.7,baz=104,slow=6.7,SNR=54						
FINES				LR	LR	22 02 01.9	
	comp=Z,633nm,21.2s,MS4.9,baz=110,slow=39						
IVA	**Berane**	**75.35**	**313**	⇑*i*P	**P**	**21 24 39.1**	**-1.0**
KAF	**Kangasniemi**	**75.42**	**333**	*e*p	**P**	**21 24 39.0**	**-1.1**
	comp=Z,18nm,0.6s,mb5.2						
KAF	**Kangasniemi**	**75.42**	**333**	*e*P	**P**	**21 24 39.0**	**-1.1**
KAF				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
DIVS	**Divcibare**	**75.43**	**314**	⇑*i*P	**P**	**21 24 38.6**	**-2.0**
KECS	**Kecovo**	**75.68**	**319**	*i* P	**P**	**21 24 42.0**	**+0.1**
KECS				*e*	pP	21 24 57.7	+1.7
ULC	**Ulcinj**	**75.73**	**312**	⇑*i*P	**P**	**21 24 41.1**	**-1.2**
PLE	**Pljevlja**	**75.77**	**313**	⇑*i*P	**P**	**21 24 42.5**	**0.0**
TTG	**Podgorica**	**75.77**	**312**	⇑*i*P	**P**	**21 24 41.3**	**-1.2**
PKSN	**Nyarlorinc**	**75.87**	**317**	⇑*e*P	**P**	**21 24 43.9**	**+0.9**
NIE	**Niedzica**	**75.93**	**320**	*e*P	**P**	**21 24 44.0**	**+0.7**
WAR	**Warsaw**	**75.94**	**323**	*e*P	**P**	**21 24 42.5**	**-0.8**
WAR				*e*PcP	PcP	21 24 54.6	-1.3
PSZ	**Piszkesteto**	**75.99**	**318**	P	**P**	**21 24 42.7**	**-1.0**
PSZ				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.7						
PSZ	**Piszkesteto**	**75.99**	**318**	⇓*e*P	**P**	**21 24 43.9**	**+0.2**
NKY	**Niksic**	**76.00**	**313**	⇑*i*P	**P**	**21 24 42.1**	**-1.8**
BUM	**Brajici-Budva**	**76.03**	**312**	⇑*i*P	**P**	**21 24 42.4**	**-1.6**
MAW	**Mawson**	**76.04**	**192**	P	**P**	**21 24 45.3**	**+1.7**
MAW				pmax	pmax		
	comp=Z,76nm,1.5s						
MAW	**Mawson**	**76.04**	**192**	P	**P**	**21 24 43.5**	**0.0**
	comp=Z,9.7nm,0.7s,mb4.8,baz=22,slow=7.8,SNR=6.8						
MAW				LR	LR	21 55 14.1	
	comp=Z,579nm,18.1s,MS4.9,baz=36,slow=33						
MAW	**Mawson**	**76.04**	**192**	*e*P	**P**	**21 24 43.4**	**-0.1**
	comp=Z,76nm,1.5s,mb5.4						
UPM	**Unac-Piva**	**76.11**	**313**	⇑*i*P	**P**	**21 24 42.2**	**-2.3**
HCY	**Herceg Novi**	**76.34**	**312**	⇑*i*P	**P**	**21 24 43.9**	**-1.9**
BRY	**Bratogost**	**76.35**	**313**	⇑*i*P	**P**	**21 24 42.8**	**-3.0**
OJC	**Ojcow**	**76.38**	**320**	⇓*e*P	**P**	**21 24 46.1**	**+0.3**
OJC	**Ojcow**	**76.38**	**320**	*e*P	**P**	**21 24 46.1**	**+0.3**
PKSM	**Moragy**	**76.63**	**316**	⇓*e*P	**P**	**21 24 47.0**	**-0.3**
LIKS	**Likavka**	**76.66**	**319**	*e*P	**P**	**21 24 48.6**	**+1.1**
VYHS	**Vyhne**	**76.77**	**318**	*e*P	**P**	**21 24 48.1**	**0.0**
SRO2	**Moca**	**76.97**	**318**	*i* P	**P**	**21 24 49.4**	**+0.2**
RHK1	**Bakonya**	**77.01**	**316**	⇑*i*P	**P**	**21 24 49.4**	**-0.1**
SRO	**Srobarova**	**77.03**	**318**	*e*P	**P**	**21 24 50.2**	**+0.6**
SRO				*e*	pP	21 25 07.8	+4.1
KOLL	**Kolacno**	**77.06**	**319**	*i* P	**P**	**21 24 49.8**	**+0.1**
KOLL				*e*	pP	21 25 08.1	+4.2
OKC	**Ostrava-Krasne**	**77.38**	**320**	*e*P	**P**	**21 24 52.1**	**+0.6**
OKC				*e*pP	pP	21 25 01.2	-4.4
OKC				*e*x	x	21 25 10.2	
RAC	**Raciborz**	**77.38**	**320**	*e*P	**P**	**21 24 52.5**	**+1.0**
KEV	**Kevo**	**77.53**	**341**	*e*p	**P**	**21 24 51.2**	**-0.7**
	comp=Z,33nm,0.9s,mb5.3						
KEV	**Kevo**	**77.53**	**341**	*e*P	**P**	**21 24 51.2**	**-0.7**
KEV				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
GRI	**Girifalco**	**77.64**	**308**	*e*P	**P**	**21 24 53.6**	**+0.5**
ORI	**Oriolo Calabro**	**77.69**	**310**	*e*P	**P**	**21 24 53.9**	**+0.5**
SMOL	**Smolenice**	**77.70**	**318**	*e*P	**P**	**21 24 54.4**	**+1.2**
MORC	**Moravsky Berou**	**77.76**	**320**	P	**P**	**21 24 54.1**	**+0.5**
MORC				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.7						
MORC	**Moravsky Berou**	**77.76**	**320**	*e*P	**P**	**21 24 54.0**	**+0.4**
	comp=Z,105nm,1.1s,mb5.7						
SOI	**Samo**	**77.88**	**308**	*e*P	**P**	**21 24 55.1**	**+0.6**
ZST	**Bratislava**	**77.88**	**318**	*i* P	**P**	**21 24 54.7**	**+0.5**
ZST				*e*	pP	21 25 11.5	+3.1
ARCES	**ARCESS Array B**	**77.96**	**340**	P	**P**	**21 24 54.8**	**+0.5**
	comp=Z,16nm,0.7s,mb5.1,baz=93,slow=6.2,SNR=70						
ARCES				LR	LR	22 02 12.8	
	comp=Z,1µm,20.8s,MS5.1,baz=293,slow=38						
ARE0	**ARCESS Array S**	**77.96**	**340**	*e*P	**P**	**21 24 53.7**	**-0.5**
MTTG	**Motta San Giov**	**78.16**	**308**	*e*P	**P**	**21 24 56.8**	**+0.8**
SOP	**Sopron**	**78.20**	**318**	⇑*e*P	**P**	**21 24 56.5**	**+0.5**
BILL	**Bilibino**	**78.36**	**21**	*c* *i*P	**P**	**21 24 56.0**	**-0.5**
BILL				pmax	pmax		
	comp=Z,58nm,1.7s,mb5.2						
BILL	**Bilibino**	**78.36**	**21**	*e*P	**P**	**21 24 54.8**	**-1.6**
	comp=Z,20nm,0.8s,mb5.1						
BILL				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
GKP	**Gorka Klasztor**	**78.36**	**323**	*e*P	**P**	**21 24 56.7**	**-0.1**
GKP				*e*S	S	21 34 48.1	+0.9
GKP				*e*SKS	SKS	21 35 01.5	-0.6
MGR	**Morigerati**	**78.38**	**310**	*e*P	**P**	**21 24 56.6**	**-0.5**
AGST	**Augusta-Monte**	**78.50**	**307**	*e*P	**P**	**21 24 57.6**	**-0.3**
KTK1	**Kautokeino**	**78.58**	**340**	*e*P	**P**	**21 24 58.0**	**+0.3**
DPC	**Dobruska-Polom**	**78.61**	**320**	*e*P	**P**	**21 24 57.7**	**-0.5**
DPC				*e*pP	pP	21 25 08.4	-3.9
DPC				*e*x	x	21 25 15.8	
DRV	**Dumont d’Urvil**	**78.66**	**163**	SP	SP	21 35 24.0	-9.0
KSP	**Ksiaz**	**78.67**	**321**	⇓*e*P	**P**	**21 24 59.1**	**+0.6**
KSP				*e*pP	pP	21 25 12.0	-0.7
KSP				*e*S	S	21 34 49.0	-1.5
KSP				LR	LR		
	comp=Z,1µm,18.8s,MS5.2						
KSP	**Ksiaz**	**78.67**	**321**	*e*P	**P**	**21 24 58.9**	**+0.4**
KSP				*e*pP	pP	21 25 03.7	-9.0
KSP				*e*PcP	PcP	21 25 07.5	-0.2
CSSN	**Cassano Irpino**	**78.82**	**310**	*e*P	**P**	**21 24 59.3**	**-0.2**
UPC	**Upice**	**78.82**	**320**	*e*P	**P**	**21 25 00.1**	**+0.8**
UPC				*e*x	x	21 25 17.1	
ARSA	**Arzberg**	**78.86**	**317**	⇑*i*P	**P**	**21 25 00.1**	**+0.5**
	comp=Z,168nm,1.4s,mb5.8						
FX1	**Attu Island--F**	**78.92**	**37**	*e*P	**P**	**21 24 59.3**	**-0.6**
PERS	**Pernice**	**79.09**	**316**	*e*P	**P**	**21 25 01.3**	**+0.3**
VISS	**Visnje**	**79.23**	**315**	*i* P	**P**	**21 25 02.0**	**+0.3**
SUR	**Sutherland**	**79.29**	**236**	*e*P	**P**	**21 25 04.0**	**+1.7**
	comp=Z,97nm,0.8s,mb5.8						
SUR				LR	LR		
	comp=Z,328nm,20.0s,MS4.7						
LJU	**Ljubljana**	**79.46**	**316**	*e*P	**P**	**21 25 03.6**	**+0.7**
SMY	**Shemya**	**79.47**	**37**	*e*P	**P**	**21 25 02.2**	**-0.6**
OBKA	**Obir**	**79.48**	**316**	⇑*i*P	**P**	**21 25 03.7**	**+0.7**
	comp=Z,120nm,1.2s,mb5.7						
PRU	**Pruhonice**	**79.72**	**320**	*e*P	**P**	**21 25 04.8**	**+0.6**
	comp=Z,72nm,1.2s,mb5.5						
PRU				pP	pP	21 25 21.0	+2.6
MOA	**Molln**	**79.75**	**318**	⇑*i*P	**P**	**21 25 04.5**	**0.0**
	comp=Z,74nm,1.3s,mb5.5						
VOY	**Vojsko**	**79.90**	**316**	*e*P	**P**	**21 25 05.3**	**0.0**
BSD	**Bornholm Skovb**	**79.92**	**325**	*i* P	**P**	**21 25 04.3**	**-0.9**
BSD				pmax	pmax		
	comp=Z,16nm,0.4s,mb5.3						
BSD	**Bornholm Skovb**	**79.92**	**325**	*i* P	**P**	**21 25 04.3**	**-0.9**
	comp=Z,16nm,0.4s,mb5.3						
PTQR	**Pietraquaria**	**80.09**	**312**	*e*P	**P**	**21 25 06.4**	**+0.1**
AQU	**L’Aquila**	**80.10**	**312**	*e*P	**P**	**21 25 06.7**	**+0.3**
BRG	**Berggiesshubel**	**80.16**	**321**	*i* P	**P**	**21 25 07.1**	**+0.5**
BRG				*e*	pP	21 25 24.2	+3.4
BRG				pmax	pmax		
	comp=Z,125nm,1.5s,mb5.6						
BRG	**Berggiesshubel**	**80.16**	**321**	*i* P	**P**	**21 25 07.1**	**+0.5**
	comp=Z,125nm,1.5s,mb5.6						
BRG				*e*	pP	21 25 24.2	+3.4
GEC2	**GERESS Array S**	**80.19**	**319**	*e*P	**P**	**21 25 07.1**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,200nm,1.1s,mb6.0						
GEC2	**GERESS Array S**	**80.19**	**319**	*e*P	**P**	**21 25 07.1**	**+0.3**
	comp=Z,200nm,1.1s,mb6.0						
GERES	**GERESS Array B**	**80.19**	**319**	P	**P**	**21 25 07.4**	**+0.6**
	comp=Z,68nm,0.8s,mb5.7,baz=90,slow=5.3,SNR=257						
GERES				pP	pP	21 25 24.3	+3.3
	comp=Z,25nm,0.7s,baz=90,slow=5.3,SNR=4.8						
TRO	**Tromso**	**80.22**	**340**	*e*P	**P**	**21 25 06.7**	**+0.2**
KHC	**Kasperske Hory**	**80.29**	**319**	*e*P	**P**	**21 25 07.8**	**+0.5**
KHC				*e*pP	pP	21 25 17.2	-4.3
KHC				*e*x	x	21 25 25.9	
PTCC	**Patocco-Chiusa**	**80.30**	**316**	⇓*i*P	**P**	**21 25 07.5**	**+0.1**
NRCA	**Norcia**	**80.33**	**312**	*e*P	**P**	**21 25 07.9**	**+0.2**
KBA	**Koelnbreinsper**	**80.33**	**317**	⇓*i*P	**P**	**21 25 07.5**	**-0.1**
	comp=Z,99nm,1.1s,mb5.7						
KBA	**Koelnbreinsper**	**80.33**	**317**	⇓*i*P	**P**	**21 25 07.5**	**-0.1**
KBA				pmax	pmax		
	comp=Z,99nm,1.1s,mb5.7						
GMNA	**Gemona**	**80.37**	**316**	*e*P	**P**	**21 25 08.2**	**+0.4**
RUE	**Ruedersdorf**	**80.37**	**322**	*e*P	**P**	**21 25 07.7**	**0.0**
	comp=Z,150nm,1.1s,mb5.8						
SNTG	**Esanatoglia**	**80.47**	**313**	*e*P	**P**	**21 25 08.6**	**+0.2**
ARV	**Arcevia**	**80.47**	**313**	⇓*i*P	**P**	**21 25 09.0**	**+0.6**
FSSB	**Fossombrone**	**80.60**	**313**	*e*P	**P**	**21 25 10.1**	**+1.0**
ERC	**Erice**	**80.62**	**308**	*e*P	**P**	**21 25 09.7**	**+0.4**
MNS	**Montasola**	**80.63**	**312**	*e*P	**P**	**21 25 08.7**	**-0.6**
FVI	**Forni Avoltri**	**80.70**	**316**	*e*P	**P**	**21 25 09.9**	**+0.4**
WET	**Wettzell**	**80.75**	**319**	*e*P	**P**	**21 25 10.0**	**+0.3**
WET				pmax	pmax		
	comp=Z,86nm,1.1s,mb5.6						
WET	**Wettzell**	**80.75**	**319**	*e*P	**P**	**21 25 10.0**	**+0.3**
	comp=Z,86nm,1.1s,mb5.6						
CLL	**Collm**	**80.78**	**321**	*i* P	**P**	**21 25 10.3**	**+0.4**
CLL				pmax	pmax		
	comp=Z,73nm,1.2s,mb5.5						
CLL	**Collm**	**80.78**	**321**	*i* P	**P**	**21 25 10.3**	**+0.4**
	comp=Z,73nm,1.2s,mb5.5						
CLL	**Collm**	**80.78**	**321**	P	**P**	**21 25 10.3**	**+0.4**
	comp=Z,logA/T=1.8,mb5.5						
CLL				*e*S	S	21 35 12.0	-0.6
NKC	**Novy Kostel**	**81.08**	**320**	*e*P	**P**	**21 25 12.6**	**+1.2**
SFI	**Santa Sofia**	**81.28**	**313**	*e*P	**P**	**21 25 14.1**	**+1.5**
MOR8	**Moi Rana**	**81.34**	**336**	*e*P	**P**	**21 25 12.7**	**+0.2**
PGD	**Poggio Sodo**	**81.37**	**313**	*e*P	**P**	**21 25 15.0**	**+1.9**
CTI	**Castel Tesino**	**81.47**	**316**	⇓*i*P	**P**	**21 25 14.3**	**+0.7**
WTTA	**Wattenberg**	**81.51**	**317**	⇑*i*P	**P**	**21 25 13.8**	**0.0**
	comp=Z,115nm,0.9s,mb5.8						
WTTA	**Wattenberg**	**81.51**	**317**	⇑*i*P	**P**	**21 25 13.8**	**0.0**
WTTA				pmax	pmax		
	comp=Z,115nm,0.9s,mb5.8						
WATA	**Walderalm**	**81.55**	**317**	⇑*i*P	**P**	**21 25 13.7**	**-0.3**
	comp=Z,36nm,0.7s,mb5.4						
WATA	**Walderalm**	**81.55**	**317**	⇑*i*P	**P**	**21 25 13.7**	**-0.3**
WATA				pmax	pmax		
	comp=Z,36nm,0.7s,mb5.4						
MOX	**Moxa**	**81.63**	**320**	*e*P	**P**	**21 25 15.0**	**+0.7**
MOX				pmax	pmax		
	comp=Z,147nm,1.9s,mb5.6						
MOX	**Moxa**	**81.63**	**320**	*i* P	**P**	**21 25 15.0**	**+0.7**
	comp=Z,logA/T=1.9,mb5.6						
MOX	**Moxa**	**81.63**	**320**	*e*P	**P**	**21 25 15.0**	**+0.7**
	comp=Z,147nm,1.9s,mb5.6						
SEI	**Scarperia**	**81.63**	**314**	*e*P	**P**	**21 25 15.2**	**+0.7**
CSNT	**Castellina Chi**	**81.67**	**313**	*e*P	**P**	**21 25 15.0**	**+0.3**
FUR	**Furstenfeldbru**	**81.77**	**318**	*e*P	**P**	**21 25 14.9**	**-0.2**
FUR				pmax	pmax		
	comp=Z,106nm,1.0s,mb5.7						
FUR	**Furstenfeldbru**	**81.77**	**318**	*e*P	**P**	**21 25 14.9**	**-0.2**
	comp=Z,106nm,1.0s,mb5.7						
SQTA	**Sankt Quirin**	**81.80**	**317**	⇑*i*P	**P**	**21 25 15.3**	**0.0**
	comp=Z,56nm,0.6s,mb5.7						
SQTA	**Sankt Quirin**	**81.80**	**317**	⇑*i*P	**P**	**21 25 15.3**	**0.0**
SQTA				pmax	pmax		
	comp=Z,56nm,0.6s,mb5.7						
FNVD	**Fontana Vidola**	**81.80**	**314**	*e*P	**P**	**21 25 16.8**	**+1.5**
GRA1	**Grafenberg Arr**	**81.85**	**319**	*e*P	**P**	**21 25 16.1**	**+0.6**
	comp=Z,151nm,1.1s,mb5.8						
GRA1				*e*pP	pP	21 25 32.5	+2.8
GRF	**Grafenberg Arr**	**81.85**	**319**	*e*P	**P**	**21 25 16.1**	**+0.6**
GRF				*e**PP	pP	21 25 32.5	+2.8
GRF				pmax	pmax		
	comp=Z,151nm,1.1s,mb5.8						
GRF	**Grafenberg Arr**	**81.85**	**319**	*e*P	**P**	**21 25 16.1**	**+0.6**
GRF				*e**PP	pP	21 25 32.5	+2.8
GRF				pmax	pmax		
	comp=Z,151nm,1.1s,mb5.8						
GRF	**Grafenberg Arr**	**81.85**	**319**	*e*P	**P**	**21 25 16.1**	**+0.6**
	comp=Z,151nm,1.1s,mb5.8						
GRF				*e*pP	pP	21 25 32.5	+2.8
MOTA	**Moosalm**	**81.87**	**317**	⇑*i*P	**P**	**21 25 15.5**	**-0.1**
	comp=Z,93nm,1.1s,mb5.6						
MOTA	**Moosalm**	**81.87**	**317**	⇑*i*P	**P**	**21 25 15.5**	**-0.1**
MOTA				pmax	pmax		
	comp=Z,93nm,1.1s,mb5.6						
GRFL	**Gerfalco**	**81.90**	**313**	*e*P	**P**	**21 25 15.5**	**-0.3**
ZCCA	**Zocca**	**81.91**	**314**	*e*P	**P**	**21 25 17.9**	**+2.0**
BDI	**Bagni Di Lucca**	**82.18**	**314**	*e*P	**P**	**21 25 17.1**	**-0.2**
GSCL	**Gusciola**	**82.19**	**314**	*e*P	**P**	**21 25 18.8**	**+1.4**
NSS	**Namsos**	**82.21**	**334**	*e*P	**P**	**21 25 17.2**	**+0.1**
NSS				AMb	AMB	21 25 19.0	
	comp=Z,135nm,2.0s,mb5.5						
NSS	**Namsos**	**82.21**	**334**	*e*P	**P**	**21 25 17.2**	**+0.1**
	comp=Z,135nm,2.0s,mb5.5						
MABI	**Malga Bissina**	**82.26**	**316**	*e*P	**P**	**21 25 18.5**	**+0.8**
MAIM		**82.26**	**313**	P	**P**	**21 25 17.4**	**-0.3**
ERBM	**Eremo**	**82.32**	**314**	*e*P	**P**	**21 25 19.2**	**+1.2**
NB2	**NORSAR Subarra**	**82.33**	**331**	P	**P**	**21 25 17.2**	**-0.5**
	comp=Z,40nm,1.2s,mb5.2,baz=96,slow=5.3						
NB2	**NORSAR Subarra**	**82.33**	**331**	P	**P**	**21 25 17.2**	**-0.5**
	baz=96,slow=5.3						
NB2	**NORSAR Subarra**	**82.33**	**331**	P	**P**	**21 25 17.2**	**-0.5**
NB2				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.2						
NOA	**NORSAR Array B**	**82.33**	**331**	P	**P**	**21 25 18.3**	**+0.6**
	comp=Z,8.4nm,0.9s,mb4.7,baz=94,slow=5.4,SNR=9.8						
NOA				LR	LR	22 04 42.7	
	comp=Z,595nm,21.9s,MS4.9,baz=345,slow=38						
BRMO	**Bormio**	**82.36**	**316**	*e*P	**P**	**21 25 19.0**	**+0.8**
VALM		**82.44**	**314**	P	**P**	**21 25 18.5**	**-0.1**
CLZ	**Clausthal**	**82.44**	**321**	*e*P	**P**	**21 25 18.8**	**+0.3**
	comp=Z,72nm,1.1s,mb5.5						
HDH	**Heidenheim**	**82.49**	**318**	⇓*e*P	**P**	**21 25 18.7**	**-0.1**
VINC	**Vinca**	**82.50**	**314**	P	**P**	**21 25 19.1**	**+0.1**
BSEG	**Bad Segeberg**	**82.52**	**324**	*e*P	**P**	**21 25 19.3**	**+0.5**
UBR	**Uberruh**	**82.55**	**317**	*e*P	**P**	**21 25 19.3**	**+0.2**
BACM		**82.56**	**314**	P	**P**	**21 25 19.0**	**-0.3**
GRAM		**82.56**	**314**	P	**P**	**21 25 19.7**	**+0.4**
DAVOX	**Davos**	**82.70**	**316**	LR	LR	22 05 24.8	
	comp=Z,585nm,20.1s,MS5.0,baz=84,slow=38						
DAVA	**Damuels**	**82.70**	**317**	⇑*i*P	**P**	**21 25 20.5**	**+0.6**
	comp=Z,128nm,1.1s,mb5.9						
CODM		**82.72**	**314**	P	**P**	**21 25 20.6**	**+0.5**
SIND	**Sindeldorf**	**82.90**	**319**	*e*P	**P**	**21 25 21.4**	**+0.6**
BOB	**Bobbio (Coli)**	**83.00**	**314**	*e*P	**P**	**21 25 22.6**	**+1.1**
SYO	**Syowa Base**	**83.03**	**197**	⇓P	**P**	**21 25 22.1**	**+1.0**
SYO	**Syowa Base**	**83.03**	**197**	⇓PcP	PcP	21 25 24.0	-2.1
SYO	**Syowa Base**	**83.03**	**197**	⇓pP	pP	21 25 32.2	-3.2
SYO	**Syowa Base**	**83.03**	**197**	⇓P	sP	21 25 39.3	-1.4
BUCH	**Bad Urach**	**83.06**	**318**	*e*P	**P**	**21 25 22.2**	**+0.5**
STU	**Stuttgart**	**83.16**	**318**	*e*P	**P**	**21 25 21.3**	**-0.9**
STU				pmax	pmax		
	comp=Z,119nm,1.4s,mb5.7						
STU	**Stuttgart**	**83.16**	**318**	*e*P	**P**	**21 25 21.3**	**-0.9**
	comp=Z,119nm,1.4s,mb5.7						
GUT	**Gutenstein**	**83.22**	**318**	⇓*e*P	**P**	**21 25 22.7**	**+0.2**
MUD	**Monsted U’grnd**	**83.23**	**326**	*e*P	**P**	**21 25 24.4**	**+2.0**
MUD				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.2						
MUD	**Monsted U’grnd**	**83.23**	**326**	*e*P	**P**	**21 25 24.4**	**+2.0**
	comp=Z,31nm,1.2s,mb5.2						
MUD	**Monsted U’grnd**	**83.23**	**326**	*i* P	**P**	**21 25 24.4**	**+2.0**
	comp=Z,31nm,1.2s,mb5.2						
PGF	**Pioggiola**	**83.36**	**312**	*e*P	**P**	**21 25 24.2**	**+0.9**
	comp=Z,226nm,1.4s,mb5.7						
PGF	**Pioggiola**	**83.36**	**312**	*e*P	**P**	**21 25 24.2**	**+0.9**
PGF				pmax	pmax		
	comp=Z,113nm,1.4s,mb5.7						
TOD	**Tromm**	**83.42**	**319**	⇓*e*P	**P**	**21 25 24.0**	**+0.5**
TOD	**Tromm**	**83.42**	**319**	*e*P	**P**	**21 25 24.5**	**+1.0**
LBG	**Lerchenberg**	**83.43**	**318**	*e*P	**P**	**21 25 24.1**	**+0.5**
SPAK	**Spaichingen**	**83.44**	**318**	*e*P	**P**	**21 25 24.2**	**+0.6**
VAI	**Varese**	**83.47**	**315**	*e*P	**P**	**21 25 23.3**	**-0.5**
SWS	**Schriesheim**	**83.49**	**319**	⇓*e*P	**P**	**21 25 24.3**	**+0.5**
PCP	**Pian Castagno**	**83.65**	**314**	P	**P**	**21 25 24.3**	**-0.5**
BFO	**Black Forest**	**83.74**	**318**	*e*P	**P**	**21 25 25.0**	**-0.2**
BFO				pmax	pmax		

	comp=Z,86nm,1.4s,mb5.7						
BFO	Black Forest	83.74	318	*e*P	P	21 25 25.0	-0.2
	comp=Z,86nm,1.4s,mb5.7						
RPZ	Rata Peaks	83.77	135	LR	LR	22 03 25.5	
	comp=Z,898nm,18.2s,MS5.2,baz=278,slow=36						
FIN	Finale Ligure	83.90	314	*e*P	P	21 25 26.4	+0.3
FELD	Feldberg	83.97	317	*e*P	P	21 25 26.5	+0.2
MCGN	Macugnaga	84.02	316	*e*P	P	21 25 27.9	+1.2
KIZ	Kirchzarten	84.02	318⇓	*e*P	P	21 25 26.8	+0.2
ORO	Oropa	84.03	315	*e*P	P	21 25 26.1	-0.6
ORX	Oropa	84.03	315	P	P	21 25 25.2	-1.5
LANF	Langenberg	84.08	319	*e*P	P	21 25 27.6	+0.7
MOL	Molde	84.11	332	*e*P	P	21 25 31.2	+4.5
MOL				AMb	AMB	21 25 33.9	
	comp=Z,176nm,1.7s,mb5.9						
MOL	Molde	84.11	332	*e*P	P	21 25 31.2	+4.5
	comp=Z,176nm,1.7s,mb5.9						
IMI	Imperia	84.14	313	*e*P	P	21 25 28.4	+1.1
ROB	Roburent	84.14	314	P	P	21 25 26.6	-0.7
TRAV		84.20	315	P	P	21 25 22.5	-5.0
ABH	Alteburg	84.23	320⇓	*e*P	P	21 25 28.4	+0.8
ABH	Alteburg	84.23	320	*e*P	P	21 25 28.9	+1.3
MONE	Monesi	84.23	314	P	P	21 25 27.9	+0.2
LIBD	Limburg	84.23	318	*e*P	P	21 25 28.3	+0.7
LIBD	Limburg	84.23	318	*e*P	P	21 25 29.3	+1.7
NEGI	Negi	84.27	313	P	P	21 25 27.7	-0.3
BBS	Basel-Blauen	84.31	317	*e*P	P	21 25 28.2	+0.1
SAOF	Saorge	84.38	314	*e*P	P	21 25 30.1	+1.6
WLS	Welschbruch	84.39	318	*e*P	P	21 25 27.4	-1.0
CDF	Champ du Feu	84.44	318	*e*P	P	21 25 27.6	-1.1
	comp=Z,112nm,1.2s,mb5.6						
CDF	Champ du Feu	84.44	318	*e*P	P	21 25 27.6	-1.1
CDF				pmax	pmax		
	comp=Z,56nm,1.2s,mb5.6						
ENR	Entracque	84.47	314	P	P	21 25 29.0	+0.1
SBF	Sospel	84.47	313	*e*P	P	21 25 28.2	-0.7
	comp=Z,501nm,1.2s,mb6.2						
SBF	Sospel	84.47	313	*e*P	P	21 25 28.2	-0.7
SBF				pmax	pmax		
	comp=Z,251nm,1.2s,mb6.2						
AUTN	L'Aution	84.47	314	*e*P	P	21 25 31.5	+2.6
ECH	Echery	84.53	318	*e*P	P	21 25 30.0	+0.9
STV	Sta Anna Valdi	84.53	314	P	P	21 25 28.9	-0.4
RUP	Ruppelstein	84.55	319⇓	*e*P	P	21 25 29.9	+0.7
RUP	Ruppelstein	84.55	319	*e*P	P	21 25 30.3	+1.1
RSP	Reno Superiore	84.55	315	P	P	21 25 29.2	-0.1
BHB	Bricherasio	84.56	314	P	P	21 25 28.6	-0.7
TOUF	Mont Tournerai	84.60	314	*e*P	P	21 25 30.9	+1.3
LSD	Ceresole Reale	84.61	315	P	P	21 25 30.0	+0.4
WTSB	Winterswijk	84.65	322	*e*P	P	21 25 30.4	+0.7
	comp=Z,92nm,1.6s,mb5.7						
MVIF	Mont Vial	84.67	313	*e*P	P	21 25 30.9	+1.0
PZZ	Prazzo	84.69	314	P	P	21 25 29.8	-0.2
FENE	Fenestrelle	84.69	315	P	P	21 25 29.9	-0.1
LOMF	Lomont	84.78	317	*e*P	P	21 25 30.4	0.0
SURF	Saint Ours	84.89	314	*e*P	P	21 25 32.6	+1.6
RRL	Cesana Torines	84.90	315	P	P	21 25 30.3	-0.7
LPG	La Plagne	84.90	315	*e*P	P	21 25 30.7	-0.3
	comp=Z,283nm,1.2s,mb6.0						
LPG	La Plagne	84.90	315	*e*P	P	21 25 30.7	-0.3
LPG				pmax	pmax		
	comp=Z,142nm,1.2s,mb6.0						
MBDF	Montbardon	84.91	314	*e*P	P	21 25 29.9	-1.2
	comp=Z,121nm,1.2s,mb5.6						
MBDF	Montbardon	84.91	314	*e*P	P	21 25 29.9	-1.2
MBDF				pmax	pmax		
	comp=Z,61nm,1.2s,mb5.6						
OG01	Vacheresse	84.91	316	*e*P	P	21 25 28.1	-3.0
HAU	Haudompre	85.08	318	*e*P	P	21 25 30.7	-1.2
	comp=Z,369nm,1.3s,mb6.0						
HAU				*e*R			
	comp=Z,521nm,22.0s						
HAU	Haudompre	85.08	318	*e*P	P	21 25 30.7	-1.2
HAU				pmax	pmax		
	comp=Z,184nm,1.3s,mb6.0						
HAU				MLR	MLR		
	comp=Z,520nm,22.0s,MS4.9						
WLF	Walferdange	85.14	319	P	P	21 25 33.7	+1.6
WLF				pmax	pmax		
	comp=Z,110nm,1.5s,mb5.8						
WLF	Walferdange	85.14	319	*e*P	P	21 25 33.5	+1.3
	comp=Z,110nm,1.5s,mb5.8						
HGN	Heimansgroeve	85.24	320	*e*P	P	21 25 33.5	+0.9
	comp=Z,37nm,1.6s,mb5.3						
THEF	They Montfort	85.31	318	*e*P	P	21 25 33.7	+0.7
MIDW	Midway	85.75	62	PFAKE		21 25 50.0	+14
MIDW				LR	LR		
	comp=Z,2µm,22.0s,MS5.3						
OG05	Jujurieux	85.78	316	*e*P	P	21 25 35.9	+0.6
BAIF	Baives	86.38	320	*e*P	P	21 25 37.8	-0.4
	comp=Z,131nm,1.1s,mb5.8						
BAIF	Baives	86.38	320	*e*P	P	21 25 37.8	-0.4
BAIF				pmax	pmax		
	comp=Z,65nm,1.1s,mb5.8						
SSF	Saint Saulge	87.06	317	*e*P	P	21 25 41.1	-0.5
SSF				pmax	pmax		
	comp=Z,77nm,1.3s,mb5.8						
SSF	Saint Saulge	87.06	317	*e*P	P	21 25 41.1	-0.5
	comp=Z,77nm,1.3s,mb5.8						
URZ	Urewera	87.24	129	P	P	21 25 42.6	-0.1
	comp=Z,19nm,0.8s,mb5.4,baz=37,slow=10,SNR=7.7						
BGF	Bois d'Agland	87.55	316	*e*P	P	21 25 43.7	-0.3
	comp=Z,260nm,1.3s,mb6.0						
BGF	Bois d'Agland	87.55	316	*e*P	P	21 25 43.7	-0.3
BGF				pmax	pmax		
	comp=Z,130nm,1.3s,mb6.0						
MENF	Mencas	87.65	320	*e*P	P	21 25 46.2	+1.8
RJF	Les Rejaudoux	88.59	315	*e*P	P	21 25 48.9	-0.1
	comp=Z,224nm,1.4s,mb6.0						
RJF				*e*R			
	comp=Z,540nm,20.5s						
RJF	Les Rejaudoux	88.59	315	*e*P	P	21 25 48.9	-0.1
RJF				pmax	pmax		
	comp=Z,112nm,1.4s,mb6.0						
RJF				MLR	MLR		
	comp=Z,540nm,20.5s,MS5.0						
EMIR	Miracle	88.93	312	P	P	21 25 51.8	+1.1
	comp=Z,3.6nm,0.4s,mb5.0						
JMIC	Jan Mayen	89.41	341	PKKPbc		21 43 32.6	
	comp=Z,182nm,0.5s,baz=248,slow=6.8,SNR=4.2						
FLN	La Foliniere	89.55	319	*e*P	P	21 25 52.9	-0.5
	comp=Z,221nm,1.2s,mb6.0						
FLN				*e*R			
	comp=Z,402nm,17.5s						
FLN	La Foliniere	89.55	319	*e*P	P	21 25 52.9	-0.5
FLN				pmax	pmax		
	comp=Z,111nm,1.2s,mb6.1						
FLN				MLR	MLR		
	comp=Z,400nm,17.5s,MS4.9						
ANM	Nome	89.60	25	*e*P	P	21 25 54.6	+1.3
EBR	Ebro Roquetas	89.83	311	*e*P	P	21 25 56.0	+1.1
ERTA	Horta de San J	89.93	311	P	P	21 25 56.3	+0.9
	comp=Z,3.1nm,0.6s,mb4.8						
DAG	Danmarks Havn	90.20	348⇑	*e*P	P	21 25 55.9	0.0
DAG				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
DAG	Danmarks Havn	90.20	348⇑	*e*P	P	21 25 55.9	0.0
	comp=Z,8.4nm,0.9s,mb5.1						
DAG	Danmarks Havn	90.20	348⇑	*i*P	P	21 25 55.9	0.0
	comp=Z,8.4nm,0.9s,mb5.1						
VNDA	Vanda	90.21	168	*e*P	P	21 25 56.7	+0.8
VNDA				pmax	pmax		
	comp=Z,31nm,1.4s						
VNDA				MLR	MLR		
	comp=Z,607nm,20.0s						
VNDA	Vanda	90.21	168	P	P	21 25 56.8	+0.9
	comp=Z,11nm,1.0s,mb5.1,baz=296,slow=4.2,SNR=19						
VNDA				LR	LR	22 02 22.1	
	comp=Z,611nm,18.9s,MS5.1,baz=294,slow=33						
VNDA	Vanda	90.21	168	*e*P	P	21 25 56.6	+0.7
	comp=Z,31nm,1.4s,mb5.5						
VNDA				LR	LR		
	comp=Z,607nm,20.0s,MS5.0						
ETSF	Etsaut	90.35	313	*e*P	P	21 25 57.4	+0.1
	comp=Z,61nm,1.0s,mb5.6						
ETSF	Etsaut	90.35	313	*e*P	P	21 25 57.4	+0.1
ETSF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.6						
EBEN	Beniarda	90.63	309	P	P	21 25 59.1	+0.3
	comp=Z,2.0nm,0.6s,mb4.6						
SBA	Scott Base	91.31	168	*e*P	P	21 26 02.8	+1.7
SBA				pmax	pmax		
	comp=Z,68nm,1.4s,mb5.8						
SBA				MLR	MLR		
	comp=Z,364nm,21.0s,MS4.8						
SBA	Scott Base	91.31	168	*e*P	P	21 26 02.8	+1.7
	comp=Z,68nm,1.4s,mb5.8						
SBA				LR	LR		
	comp=Z,364nm,21.0s,MS4.8						
EVIA	Vianos	92.40	309	P	P	21 26 08.8	+1.8
EVIA				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.5						
EVIA	Vianos	92.40	309	P	P	21 26 08.8	+1.9
	comp=Z,0.6nm,0.4s						
EBER	Berja	92.97	307	P	P	21 26 10.8	+1.2
	comp=Z,2.7nm,0.6s,mb4.8						
EQES	Quesada	92.97	308	P	P	21 26 09.7	+0.1
	comp=Z,1.3nm,0.5s,mb4.6						
GUD	Guadarrama	93.35	311	P	P	21 26 13.1	+1.9
GUD				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.9						
GUD	Guadarrama	93.35	311	P	P	21 26 13.1	+1.9
	comp=Z,2.7nm,0.6s,mb4.8						
ESDC	Sonseca Array	93.36	310	P	P	21 26 11.1	-0.2
	comp=Z,6.6nm,0.7s,mb5.2,baz=60,slow=4.3,SNR=28						
ESDC				PKKPbc		21 43 18.1	
	comp=Z,0.6nm,0.6s,baz=317,slow=0.7,SNR=4.6						
ESDC	Sonseca Array	93.36	310	P	P	21 26 12.1	+0.8
	comp=Z,0.8nm,0.3s,mb4.6						
IMA	Indian Mountai	93.88	22	*e*P	P	21 26 13.8	+0.8
IMA				pmax	pmax		
	comp=Z,130nm,1.0s,mb6.3						
IMA	Indian Mountai	93.88	22	*e*P	P	21 26 14.4	+1.4
	comp=Z,34nm,1.2s,mb5.7						
ELUQ	Luque	93.95	308	P	P	21 26 13.6	-0.4
EMIJ	Mijas	94.51	307	P	P	21 26 18.4	+1.8
	comp=Z,1.7nm,0.5s,mb4.7						
QSPA	South Pole Qui	95.11	180	*e*P	P	21 26 20.9	+2.5
	comp=Z,5.3nm,0.6s,mb5.2						
QSPA				LR	LR		
	comp=Z,1µm,20.0s,MS5.4						
SPU	Mount Spurr	96.42	27	*e*P	P	21 26 24.2	-0.4
COLA	College	96.59	22	PFAKE		21 26 40.0	+15
COLA				LR	LR		
	comp=Z,729nm,22.0s,MS5.1						
MCK	McKinley	96.68	24	*e*P	P	21 26 25.4	-0.4
MCK				MLR	MLR		
	comp=Z,659nm,22.0s,MS5.1						
SUMG	Summit	96.86	347	*e*P	P	21 26 29.1	+2.6
	comp=Z,18nm,1.1s,mb5.4						
ILAR	Eielson Array	97.00	22	P	P	21 26 26.9	-0.3
	comp=Z,1.1nm,0.6s,mb4.5,baz=290,slow=3.2,SNR=20						
ILAR				PP	PP	21 30 23.9	-2.0
	comp=Z,0.9nm,0.7s,baz=289,slow=5.9,SNR=4.2						
ILAR				PKKPbc		21 43 08.0	
	comp=Z,0.7nm,0.9s,baz=150,slow=4.1,SNR=5.2						
ILAR				PKKPab		21 43 39.4	
	comp=Z,1.3nm,1.0s,baz=160,slow=3.5,SNR=5.5						
ILAR				LR	LR	22 17 03.4	
	comp=Z,542nm,19.0s,MS5.0,baz=225,slow=40						
FIB	Fire Island	97.26	26	PFAKE		21 26 40.0	+11
FIB				LR	LR		
	comp=Z,1µm,22.0s,MS5.4						
SNAA	Sanae	97.28	198	*e*P	P	21 26 28.6	+0.2
KDAK	Kodiak Island	97.47	30	PFAKE		21 26 40.0	+10
KDAK				LR	LR		
	comp=Z,365nm,22.0s,MS4.8						
DBIC	Dimbokro	98.85	278	*e*P	P	21 26 37.1	+0.3
DBIC				pmax	pmax		
	comp=Z,12nm,0.9s						
DBIC				MLR	MLR		
	comp=Z,883nm,22.0s						
DBIC	Dimbokro	98.85	278	P	P	21 26 37.6	+0.7
	comp=Z,11nm,0.9s,mb5.4,baz=80,slow=5.9,SNR=15						
DBIC				LR	LR	22 08 26.1	
	comp=Z,538nm,21.8s,MS5.0,baz=67,slow=34						
DBIC	Dimbokro	98.85	278	*e*P	P	21 26 37.1	+0.2
	comp=Z,12nm,0.9s,mb5.4						
DBIC				LR	LR		
	comp=Z,883nm,22.0s,MS5.2						
DIV	Divide	99.18	25	PFAKE		21 26 50.0	+13
DIV				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
INK	Inuvik	99.39	16	P	P	21 26 38.6	+0.6
	comp=Z,14nm,1.1s,mb5.4,baz=343,slow=6.3,SNR=7.2						
INK				LR	LR	22 21 20.0	
	comp=Z,988nm,18.6s,MS5.3,baz=296,slow=41						
SIT	Sitka	105.92	26	PFAKE		21 31 30.0	
SIT				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
YKA	Yellowknife Ar	108.88	14	Pdiff	Pdif	21 27 22.1	+2.0
	comp=Z,0.2nm,0.5s,baz=337,slow=5.8,SNR=5.2						
YKA				PKKPbc		21 42 32.0	
	comp=Z,1.3nm,1.0s,baz=155,slow=2.6,SNR=11						
YKA				PKKPab		21 42 44.9	
	comp=Z,6.3nm,1.2s,baz=145,slow=4.0,SNR=12						
TBI	Tubuai	115.74	113	*e*PS	PS	21 42 20.1	-2.8
TBI				*e*LR	LR	22 06 33.2	
	comp=Z,641nm,33.8s						
PPT	Papeete	116.06	107	*e*PS	PS	21 42 23.1	-2.7
PPT				*e*LR	LR	22 06 47.5	
	comp=Z,337nm,24.8s						
SCHQ	Schefferville	118.25	348	PKP	PKPdf	21 31 43.1	+1.3
	comp=Z,2.3nm,0.5s,baz=78,slow=12,SNR=8.9						
SCHQ				PKKPbc		21 42 01.7	
	comp=Z,3.8nm,1.1s,baz=60,slow=8.9,SNR=4.3						
SCHQ	Schefferville	118.25	348	PFAKE		21 32 00.0	+18
SCHQ				LR	LR		
	comp=Z,1µm,22.0s,MS5.5						
FFC	Flin Flon	118.70	11	*e*PKIKP	PKPdf	21 31 43.4	+0.7
FFC				MLR	MLR		
	comp=Z,205nm,21.0s,MS4.7						
COR	Corvallis	119.86	30	PFAKE		21 32 00.0	+15
COR				LR	LR		
	comp=Z,629nm,19.0s,MS5.3						
HUMO	Hull Mountain	121.43	32	PFAKE		21 32 00.0	+12
HUMO				LR	LR		
	comp=Z,612nm,22.0s,MS5.2						
YBH	Yreka Blue Hor	122.17	32	PFAKE		21 32 00.0	+10
YBH				LR	LR		
	comp=Z,539nm,20.0s,MS5.2						
MSO	Missoula	122.33	23	*e*PKPdf	PKPdf	21 31 50.6	+0.6
MSO				LR	LR		
	comp=Z,624nm,21.0s,MS5.2						
CHMT	Chamberlain Mo	122.52	22	*e*PKPdf	PKPdf	21 31 51.7	+1.4
WDC	Whiskeytown Da	123.07	33	PFAKE		21 32 10.0	+18
WDC				LR	LR		
	comp=Z,433nm,19.0s,MS5.1						
MOD	Modoc	123.31	31	PFAKE		21 32 10.0	+18
MOD				LR	LR		
	comp=Z,525nm,20.0s,MS5.2						
ULM	Lac du Bonnet	124.03	8	PKP	PKPdf	21 31 55.4	+2.3
	comp=Z,7.6nm,0.8s,baz=354,slow=2.8,SNR=13						
ULM				PKKPbc		21 41 39.1	
	comp=Z,0.8nm,0.4s,baz=121,slow=3.6,SNR=3.4						
ULM	Lac du Bonnet	124.03	8	*e*PKPdf	PKPdf	21 31 53.2	0.0
ULM				LR	LR		
	comp=Z,1µm,20.0s,MS5.6						
BOZ	Bozeman (W)	124.20	22	PKIKP	PKPdf	21 31 55.6	+2.0
BOZ	Bozeman (W)	124.20	22	*e*PKPdf	PKPdf	21 31 55.5	+1.9
BOZ				LR	LR		
	comp=Z,948nm,19.0s,MS5.5						
MCMT	McKenzie Canyo	124.42	24	*e*PKPdf	PKPdf	21 31 55.9	+1.9
HLID	Hailey	124.80	26	PFAKE		21 32 10.0	+15
HLID				LR	LR		
	comp=Z,1µm,21.0s,MS5.5						
QLMT	Earthquake Lak	124.97	22	*e*PKPdf	PKPdf	21 31 55.6	+0.5
YMR	Madison River	125.28	22	*e*PKPdf	PKPdf	21 31 58.4	+2.7
YNR	Norris Junctio	125.35	22	*e*PKPdf	PKPdf	21 31 59.8	+3.9
YFT	Old Faithful	125.51	22	*e*PKPdf	PKPdf	21 32 00.1	+3.9
LKWY	Lake	125.58	22	*e*PKIKP	PKPdf	21 32 00.5	+4.2
LKWY				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.7						
BMN	Battle Mountai	125.96	30	PFAKE		21 32 10.0	+13
BMN				LR	LR		
	comp=Z,256nm,22.0s,MS4.8						
CMB	Columbia Colle	126.04	34	PFAKE		21 32 10.0	+13
CMB				LR	LR		
	comp=Z,476nm,20.0s,MS5.2						
PQI	Presque Isle	126.14	345	PFAKE		21 32 10.0	+13
PQI				LR	LR		
	comp=Z,9µm,21.0s						
MOOW	Moose Ponds	126.14	23	*e*PKPdf	PKPdf	21 31 59.4	+2.0
TPAW	Teton Pass	126.28	23	*e*PKPdf	PKPdf	21 32 00.7	+3.0
LOHW	Long Hollow	126.31	23	*e*PKPdf	PKPdf	21 32 00.0	+2.3
SAO	San Andreas Ge	126.32	36	PFAKE		21 32 10.0	+12
SAO				LR	LR		
	comp=Z,747nm,21.0s,MS5.3						
SNOW	Snow King Moun	126.38	23	*e*PKPdf	PKPdf	21 32 00.9	+3.1
REDW	Red Top Meadow	126.43	23	*e*PKPdf	PKPdf	21 32 00.6	+2.6
EYMN	Ely	126.81	5	*e*PKPdf	PKPdf	21 32 00.3	+1.8
AHID	Auburn Hatcher	126.83	24	PFAKE		21 32 10.0	+11
AHID				LR	LR		
	comp=Z,594nm,20.0s,MS5.3						
NVAR	Mina Array Bea	126.89	32	PKP	PKPdf	21 32 02.0	+3.0
	comp=Z,5.5nm,0.8s,baz=277,slow=3.1,SNR=13						
MNV	Mina	126.97	32	*e*PKIKP	PKPdf	21 32 01.5	+2.3
MNV				MLR	MLR		
	comp=Z,618nm,20.0s,MS5.3						
PDAR	Pinedale Array	127.43	22	PKP	PKPdf	21 32 01.4	+1.4
	comp=Z,6.3nm,0.8s,baz=186,slow=1.6,SNR=22						
MTUM	Tungsten Hills	127.54	33	*e*PKPdf	PKPdf	21 32 03.2	+2.9
HWUT	Hardware Ranch	127.61	25	*e*PKPdf	PKPdf	21 32 02.3	+2.0
HWUT				LR	LR		
	comp=Z,885nm,22.0s,MS5.4						
TPH	Tonopah	127.73	32	PFAKE		21 32 10.0	+9.3
TPH				LR	LR		
	comp=Z,392nm,19.0s,MS5.1						
RSSD	Black Hills	128.09	17	PFAKE		21 32 10.0	+8.8
RSSD				LR	LR		
	comp=Z,3.0nm,20.0s						
TRCR	Troy Canyon	128.36	30	*e*PKPdf	PKPdf	21 32 05.1	+3.3
WVL	Waterville	128.51	346	PFAKE		21 32 20.0	+18
WVL				LR	LR		
	comp=Z,9µm,21.0s						
NLU	North Lily Min	128.75	26	*e*PKPdf	PKPdf	21 32 05.3	+2.7
DAC	Darwin (Calif)	128.85	34	PFAKE		21 32 20.0	+17
DAC				LR	LR		
	comp=Z,469nm,19.0s,MS5.2						
RWWY	Rawlins	129.24	21	*e*PKPdf	PKPdf	21 32 05.6	+2.2
TMUT	Trail Mountain	129.68	26	*e*PKPdf	PKPdf	21 32 06.4	+2.1
MVU	Marysvale	129.87	28	PFAKE		21 32 20.0	+15
MVU				LR	LR		
	comp=Z,413nm,21.0s,MS5.1						
MSU	Marysvale	129.88	28	PKIKP	PKPdf	21 32 09.2	+4.5
SADO	Sadowa	129.96	354	SKPbc		21 35 24.1	
	comp=Z,35nm,1.1s,baz=15,slow=5.9,SNR=9.1						
NCB	Newcomb	130.06	350	PFAKE		21 32 20.0	+15
NCB				LR	LR		
	comp=Z,934nm,21.0s,MS5.5						
SRU	San Rafael	130.13	26	PKIKP	PKPdf	21 32 08.5	+3.3
SRU	San Rafael	130.13	26	*e*PKPdf	PKPdf	21 32 08.9	+3.8
RCBR	Riachuelo	130.84	267	*e*PKPdf	PKPdf	21 32 09.3	+2.1
RCBR				LR	LR		
	comp=Z,673nm,20.0s,MS5.3						
HRV	Harvard--Oak R	130.91	347	PFAKE		21 32 20.0	+13
HRV				LR	LR		
	comp=Z,366nm,19.0s,MS5.1						
WES	Weston	130.97	346	PFAKE		21 32 20.0	+13
WES				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
JFWS	Jewell Farm	131.91	5	PFAKE		21 32 20.0	+12
JFWS				LR	LR		
	comp=Z,822nm,21.0s,MS5.4						
ERPA	Erie	132.67	355	PFAKE		21 32 20.0	+10
ERPA				LR	LR		
	comp=Z,833nm,22.0s,MS5.4						
SDCO	Great Sand Dun	133.32	22	PFAKE		21 32 30.0	+19
SDCO				LR	LR		
	comp=Z,863nm,20.0s,MS5.5						
SSPA	Standing Stone	133.89	352	PFAKE		21 32 30.0	+18
SSPA				LR	LR		
	comp=Z,583nm,20.0s,MS5.3						
NED	Newark	134.46	350	P		21 32 01.5	
ANMO	Albuquerque	135.37	25	*e*PKIKP	PKPdf	21 32 17.6	+2.5
ANMO				MLR	MLR		
	comp=Z,647nm,21.0s						
ANMO	Albuquerque	135.37	25	SKPbc		21 35 44.1	
	comp=Z,10nm,1.1s,baz=323,slow=3.7,SNR=6.4						
TUC	Tucson	135.52	31	*e*PKIKP	PKPdf	21 32 17.5	+2.0
TUC				MLR	MLR		
	comp=Z,455nm,21.0s,MS5.2						
LAZ	Ladron	135.55	26	*e*PKPdf	PKPdf	21 32 18.6	+3.1
BNM	Barren Site	135.98	26	*e*PKPdf	PKPdf	21 32 19.1	+2.8
CCM	Cathedral Cave	136.62	7	PFAKE		21 32 30.0	+13
CCM				LR	LR		
	comp=Z,846nm,19.0s,MS5.5						
WCI	Wyandotte Cave	136.79	1	PFAKE		21 32 30.0	+12
WCI				LR	LR		
	comp=Z,761nm,19.0s,MS5.5						
AMTX	Amarillo	137.25	20	PFAKE		21 32 30.0	+11
AMTX				LR	LR		
	comp=Z,980nm,21.0s,MS5.5						
BLA	Blacksburg	137.57	354	PFAKE		21 32 30.0	+11
BLA				LR	LR		
	comp=Z,885nm,19.0s,MS5.5						
BBSR	BB Station	137.82	334	PFAKE		21 32 30.0	+10
BBSR				LR	LR		
	comp=Z,560nm,20.0s,MS5.3						
WMOK	Wichita Mounta	138.30	17	*e*PKIKP	PKPdf	21 32 17.6	-2.9
WMOK	Wichita Mounta	138.30	17	*e*PKPpre		21 32 11.7	
WMOK				LR	LR		
	comp=Z,1µm,19.0s,MS5.6						
GDL2	Guadalupe Moun	138.62	25	*e*PKPdf	PKPdf	21 32 24.5	+3.3
WVT	Waverly	138.83	3	PKHKP		21 32 16.8	
WVT	Waverly	138.83	3	*e*PKPpre		21 32 13.6	
WVT				LR	LR		
	comp=Z,833nm,20.0s,MS5.5						
CPCT	Cooper Cave	139.57	359	*e*PKPdf	PKPdf	21 32 25.6	+2.9
MIAR	Mount Ida	139.71	11	*e*PKHKP		21 32 16.4	
MIAR	Mount Ida	139.71	11	*e*PKPpre		21 32 16.2	
MIAR				LR	LR		
	comp=Z,903nm,21.0s,MS5.5						
MYNC	Murphy	139.94	359	PFAKE		21 32 40.0	+17
MYNC				LR	LR		
	comp=Z,360nm,19.0s,MS5.1						
JSC	Jenkinsville	140.56	355	PKIKP	PKPdf	21 32 26.0	+1.3
JSC	Jenkinsville	140.56	355	*e*PKPdf	PKPdf	21 32 24.3	-0.4
TRQA	Tornquist	141.00	210	PFAKE		21 32 40.0	+15
TRQA				LR	LR		
	comp=Z,737nm,22.0s,MS5.4						
TXAR	Lajitas Array	141.40	26	PKhKP		21 32 22.4	
	comp=Z,1.1nm,0.5s,baz=321,slow=1.5,SNR=7.6						
TXAR				PKP	PKPdf	21 32 28.7	+2.4
	comp=Z,3.6nm,0.6s,baz=123,slow=0.8,SNR=16						
TXAR				PP	PP	21 35 32.4	-0.7
	comp=Z,2.6nm,0.9s,baz=323,slow=6.3,SNR=4.7						
TXAR				SKPbc		21 36 00.6	
	comp=Z,4.1nm,0.8s,SNR=6.7						
GOGA	Godfrey	141.57	358	PFAKE		21 32 40.0	+14
GOGA				LR	LR		
	comp=Z,890nm,20.0s,MS5.5						
JCT	Junction City	141.91	21	*e*PKHKP		21 32 22.8	
JCT				MLR	MLR		
	comp=Z,617nm,20.0s,MS5.4						
BAO	Brasilia Array	141.94	251	P	PKPdf	21 32 24.8	-2.7
BDFB	Brasilia	141.96	251	PKhKP		21 32 25.2	
	comp=Z,3.3nm,0.5s,baz=103,slow=4.1,SNR=6.6						
NATX	Nacogdoches	142.19	13	PFAKE		21 32 40.0	+12
NATX				LR	LR		
	comp=Z,991nm,21.0s,MS5.5						
HKT	Hockley	143.63	16	PFAKE		21 32 40.0	+11
HKT				LR	LR		
	comp=Z,579nm,20.0s,MS5.3						
DWPF	Disney	146.68	354	PFAKE		21 32 50.0	+15
DWPF				LR	LR		
	comp=Z,883nm,19.0s,MS5.6						
SJG	San Juan	150.12	321	PKPbc	PKPdf	21 32 48.6	+7.4
	comp=Z,24nm,0.5s,baz=345,slow=18,SNR=7.4						
SJG	San Juan	150.12	321	PFAKE		21 32 50.0	+8.8
SJG				LR	LR		
	comp=Z,945nm,20.0s,MS5.6						
TRN	Trinidad (W)	151.48	304	*e*P	PKPdf	21 32 47.0	+3.7
TLL	Tololo Astrono	151.65	207	*e*P	PKPdf	21 32 46.5	+3.3
PCRV	Puerto La Cruz	154.38	307	PKPbc	PKPdf	21 32 56.7	+9.3
	comp=Z,25nm,1.0s,baz=315,slow=1.4,SNR=5.6						
PCRV				PKPab	PKPab	21 33 12.1	-0.4
	comp=Z,24nm,0.9s,baz=57,slow=1.9,SNR=5.1						
TEIG	Tepich	154.57	7	PKPdf	PKPdf	21 32 51.5	+4.0
TEIG				LR	LR		
	comp=Z,373nm,22.0s,MS5.2						
LVC	Limon Verde	156.53	221	*e*PKPdf	PKPdf	21 32 52.6	+2.6
LVC				LR	LR		
	comp=Z,635nm,20.0s,MS5.4						
SDV	Santo Domingo	159.77	314	PKP	PKPdf	21 32 56.0	+1.8
	comp=Z,9.5nm,0.9s,baz=336,slow=1.7,SNR=9.0						
SDV				PKPab	PKPab	21 33 35.4	-0.2
	comp=Z,29nm,1.1s,baz=88,slow=1.3,SNR=8.8						
SDV	Santo Domingo	159.77	314	*e*PKPdf	PKPdf	21 32 56.0	+1.8
SDV				LR	LR		
	comp=Z,601nm,21.0s,MS5.4						
LPAZ	La Paz	159.87	235	*e*PKIKP	PKPdf	21 32 56.5	+2.3
LPAZ				MLR	MLR		
	comp=Z,493nm,20.0s						
LPAZ	La Paz	159.87	235	PKP	PKPdf	21 32 56.4	+2.1
	comp=Z,9.1nm,1.0s,baz=62,slow=6.9,SNR=25						

LPAZ				PKPbc	PKPdf	21 33 11.1	+17
	comp=Z,7.3nm,0.8s,baz=287,slow=2.5,SNR=6.5						
LPAZ				PKPab	PKPab	21 33 35.9	-0.1
	comp=Z,28nm,0.9s,baz=85,slow=7.6,SNR=16						
JTS	**JuntasAbangare**	164.62	359	PFAKE		21 33 10.0	+11
JTS				LR	LR		
	comp=Z,145nm,19.0s						
ROSC	**El Rosal**	165.18	312	PKP	PKPdf	21 33 02.7	+3.0
	comp=Z,19nm,0.8s,baz=104,slow=8.3,SNR=13						
NNA	**Nana**	169.26	231	PFAKE		21 33 20.0	+18
NNA				LR	LR		
	comp=Z,157nm,21.0s						
OTAV	**Otavalo**	171.29	308	*e*PKPdf	PKPdf	21 33 05.3	+1.6
OTAV				LR	LR		
	comp=Z,846nm,21.0s						
PAYG	**Puerto Ayora**	173.29	48	PFAKE		21 33 20.0	+15
PAYG				LR	LR		
	comp=Z,1µm,19.0s						

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*IDC **29** 21:18:58.5±8.3, 9.10N×93.54E, mb4.2/8, mb1 4.4/8, mb1mx4.2/19, mbtmp4.2/8, Error ellipse: s-maj=195.0km s-min=92.3km az=139.0*

ISC 29 21:19:03.9±6.9, **9.3N**±0.9×**93.3E**±0.9, **h33^{km}, n9, σ0^{s}74**/9, **mb4.3**/8, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
BVAR	**Borovoye Array**	47.34	341	P	P	21 27 36.8	+0.3
	3.8nm,0.8s,mb4.4,baz=149,slow=8.3,SNR=3.8						
BRTR	**Keskin Array B**	60.82	310	P	P	21 29 15.3	-0.1
	2.4nm,0.7s,mb4.4,baz=121,slow=8.2,SNR=5.6						
AKASG	**Malin Array Be**	66.48	321	P	P	21 29 51.0	-1.3
	0.4nm,0.3s,mb3.9,baz=91,slow=5.3,SNR=4.1						
MLR	**Muntele Rosu**	67.53	315	P	P	21 29 59.5	+0.5
	4.3nm,1.0s,mb4.5,baz=180,slow=4.0,SNR=2.8						
FINES	**FINESS Array B**	71.03	332	P	P	21 30 19.6	-0.6
	2.2nm,0.9s,mb4.1,baz=97,slow=11,SNR=3.0						
ARCES	**ARCESS Array B**	73.61	340	P	P	21 30 35.7	+0.3
	3.0nm,0.8s,mb4.3,baz=90,slow=8.5,SNR=3.6						
GERES	**GERESS Array B**	76.17	318	P	P	21 30 52.0	+1.5
	5.6nm,1.1s,mb4.4,baz=90,slow=5.3,SNR=5.4						
KHC	**Kasperske Hory**	76.25	318	*e*P	P	21 30 50.5	-0.5
NOA	**NORSAR Array B**	78.04	330	P	P	21 31 00.4	-0.3
	3.3nm,1.0s,mb4.2,baz=91,slow=5.7,SNR=2.8						

GUC 29 21:23:08.8±0.8, **36.79S**×**73.06W, h10^{km}**±12^{km}, **MD3.9, ML4.0, 1D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CCHI	**Chillan**	0.81	77	⇓*i*P	Pb	21 23 23.6	-0.9
CCHI				*i* S	Sb	21 23 35.4	+0.1
CTCH	**Constitucion**	1.55	20	*i* P	Pn	21 23 35.8	-0.8
CTCH				*i* S	Sb	21 23 55.4	-1.1
CTCH				AMP		21 24 00.4	
	comp=N,4µm,0.5s						
TALC	**Talca**	1.81	40	*e*P	Pn	21 23 40.1	-0.2
TALC				*i* S	Sn	21 24 03.2	-0.1
TALC				AMP		21 24 07.5	
	comp=N,2µm,0.5s						
NICH	**Los Niches**	2.32	40	*i* S	Sn	21 24 18.2	+1.7
SFDO	**San Fernando**	2.73	38	*e*P	Pn	21 23 53.6	+0.1
SFDO				*i* S	Sn	21 24 27.9	+1.0

IDC 29 21:27:07.5±1.9, **5.91N**×**94.83E, mb3.8**/6, **mb1 3.9**/6, **mb1mx3.7**/17, **mbtmp3.8**/6, **MS4.3**/1, **Ms1 4.3**/1, **ms1mx3.0**/32, **Error ellipse: s-maj=90.0km s-min=21.7km az=58.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JOW	**Kunigami**	38.04	53	LR	LR	21 49 01.7	
	comp=Z,422nm,20.9s,baz=338,slow=34						
SONM	**Songino Array**	42.93	11	P	P	21 35 08.2	-1.5
	1.0nm,0.9s,baz=198,slow=7.8,SNR=3.9						
WRA	**Warramunga Arr**	46.58	125	P	P	21 35 37.3	-2.1
	0.6nm,0.8s,baz=304,slow=9.1,SNR=5.0						
ASAR	**Alice Springs**	48.15	129	P	P	21 35 50.7	-1.0
	0.8nm,0.7s,baz=298,slow=7.7,SNR=9.0						
ZAL	**Zalesovo**	48.57	352	P	P	21 35 52.1	-2.5
	0.9nm,0.7s,baz=209,slow=8.7,SNR=2.7						
STKA	**Stephens Creek**	58.27	133	P	P	21 37 03.1	-3.4
	1.8nm,0.8s,baz=281,slow=10,SNR=3.1						
FINES	**FINESS Array B**	74.76	332	P	P	21 38 49.5	-1.5
	1.7nm,0.9s,baz=101,slow=7.1,SNR=3.9						

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*HEL **29** 21:33:38.6±0.2, 59.98N×25.27E, ML2.1(NAO), Explosion*
*BER **29** 21:33:38.6±3.8, 59.90N×25.61E, h0^{km}±65^{km}, ML2.1(NAO)*
*NAO **29** 21:33:39.0±6.7, 59.98N×25.40E, ML2.1*

ISC 29 21:33:36.4±1.4, **59.96N**±0.08×**25.2E**±0.1, **n10, σ0^{s}77**/13, **Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PVF	**Pernaja**	0.66	28	*e*P	Pg	21 33 50.7	+1.2
PVF				*e*S	Sg	21 33 58.9	+0.5
VJF	**Virojoki**	1.29	62	*e*P	Pb	21 34 01.3	0.0
VJF				*e*S	Sb	21 34 17.7	-0.6
FIA0	**FINESS Array S**	1.54	15	Pn	Pn	21 34 06.6	+1.4
	baz=197,slow=16						
FIA0				Lg		21 34 26.2	
	baz=184,slow=28						
FIA0	**FINESS Array S**	1.54	15	*e*P	Pn	21 34 05.6	+0.4
FIA0				*e*S	Sb	21 34 25.2	-0.4
KAF	**Kangasniemi**	2.22	13	*e*S	Sn	21 34 43.8	+0.3
SUF	**Sumiainen**	2.80	9	*e*S	Sn	21 34 57.8	-0.5
HFS	**Hagfors**	5.79	277	Pn	Pn	21 35 05.8	+0.2
	baz=106,slow=12						
HFS				Lg		21 36 43.6	
	baz=86,slow=22						
HFS	**Hagfors**	5.79	277	*e*P	Pn	21 35 05.8	+0.2
ARA0	**ARCESS Array S**	9.62	1	Pn	P	21 35 57.2	-1.7
	baz=177,slow=14						
ARA0	**ARCESS Array S**	9.62	1	*e*P	P	21 35 57.2	-1.7

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*IDC **29** 21:41:49.0±1.6, 9.43N×93.09E, mb3.9/5, mb1 3.9/6, mb1mx3.6/20, mbtmp3.8/6, ML3.5/1, Error ellipse: s-maj=58.2km s-min=29.2km az=55.0*

ISC 29 21:41:52.9±1.3, **9.5N**±0.2×**93.5E**±0.2, **h33^{km}, n12, σ1^{s}04**/12, **mb3.8**/5, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	10.38	30	Pn	P	21 44 22.2	-0.4
	0.1nm,0.3s,baz=213,slow=14,SNR=7.5						
PKI	**Pulchoki**	19.56	338	*e*P	P	21 46 21.5	+0.7
	6.3nm,0.4s						
GUN	**Gumba**	19.70	340	*e*P	P	21 46 22.9	+0.5
	16nm,0.6s						
DMN	**Daman**	19.71	337	*e*P	P	21 46 23.4	+1.0
	9.2nm,0.8s						
KKN	**Kakani**	19.80	338	*e*P	P	21 46 24.3	+0.8
	13nm,0.8s						
GKN	**Gorkha**	20.24	337	*e*P	P	21 46 29.0	+0.9
	18nm,0.7s						
KOLN	**Koldanda**	20.46	334	*e*P	P	21 46 30.9	+0.5
	12nm,0.8s						
ZAL	**Zalesovo**	44.89	353	P	P	21 50 04.9	-1.1
	1.0nm,0.8s,mb3.7,baz=200,slow=9.6,SNR=6.0						
BVAR	**Borovoye Array**	47.28	341	P	P	21 50 23.8	-1.2
	0.8nm,0.7s,mb3.7,baz=135,slow=6.3,SNR=4.3						
WRA	**Warramunga Arr**	49.70	126	P	P	21 50 45.5	+1.3
	0.7nm,0.6s,mb3.9,baz=305,slow=8.5,SNR=4.8						
FINES	**FINESS Array B**	71.02	332	P	P	21 53 07.7	-1.5
	1.6nm,0.9s,mb4.0,baz=127,slow=6.9,SNR=3.9						
HFS	**Hagfors**	76.77	330	P	P	21 53 40.9	-1.8
	0.8nm,0.5s,mb3.9,baz=104,slow=5.9,SNR=4.4						

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*NEIC **29** 22:11:09.7, 32.22S×71.83W, h37^{km}, MD4.2(GUC), After GUC.*

GUC 29 22:11:09.7±0.8, **32.22S**×**71.83W, h37^{km}**±2^{km}, **MD4.2, ML3.9, 5C-4D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PACH	**Papudo**	0.45	134	⇓*i*P	P	22 11 19.7	0.0
PTCH	**Petorca**	0.76	93	⇑*i*P	P	22 11 24.6	+0.6
PTCH				*i* S	S	22 11 35.1	+0.7
PTCH				AMP		22 11 35.7	
	comp=E,35µm,0.2s						
ILCH	**Illapel**	0.81	44	*e*P	P	22 11 25.4	+0.7
ILCH				*i* S	S	22 11 36.8	+1.1
ILCH				AMP		22 11 38.5	
	comp=N,4µm,0.2s						
IHA	**Instituto Hidr**	0.81	169	*e*P	P	22 11 24.3	-0.4
IHA				*i* S	S	22 11 36.1	+0.3
ROCH	**El Roble**	1.01	138	⇑*i*P	P	22 11 28.4	+0.7
JACH	**Jahuel**	1.14	114	⇑*i*P	P	22 11 30.1	+0.8
CMCH	**Combarbala**	1.26	34	*e*P	P	22 11 32.3	+1.2
CMCH				*i* S	S	22 11 48.5	+1.4
CMCH				AMP		22 11 50.4	
	comp=E,5µm,0.5s						
LCCH	**Las Cruces**	1.27	170	⇓*i*P	P	22 11 31.6	+0.4
PEL	**Peldehue**	1.33	134	⇓*i*P	P	22 11 33.1	+1.0
PEL				*i* S	S	22 11 50.7	+1.8
PEL				AMP		22 11 51.7	
	comp=N,8µm,0.3s						
PUEX	**Pudahuel**	1.51	144	*e*P	P	22 11 35.7	+1.0
PUEX				*i* S	S	22 11 55.6	+2.2
PUEX				AMP		22 11 57.1	
	comp=N,5µm,0.6s						
RCDM	**Rinconada Maip**	1.53	146	*e*P	P	22 11 35.6	+0.7
RCDM				*i* S	S	22 11 55.9	+2.1
RCDM				AMP		22 11 56.8	
	comp=E,5µm,0.2s						
STL	**Santa Lucia**	1.57	141	*e*P	P	22 11 36.2	+0.7
STL				*i* S	S	22 11 56.7	+1.9
DSCH	**Colegio Aleman**	1.58	138	⇓*i*P	P	22 11 36.6	+0.9
DSCH				*i* S	S	22 11 56.8	+1.6
DSCH				AMP		22 11 59.0	
	comp=N,3µm,0.4s						
CLCH	**Cerro Calan**	1.59	137	⇑*i*P	P	22 11 36.9	+0.9
CLCH				*i* S	S	22 11 57.4	+1.9
CLCH				AMP		22 12 03.7	
	comp=E,2µm,0.5s						
TACH	**Talagante**	1.61	153	*e*P	P	22 11 37.1	+1.0
FSR	**Penalolen**	1.66	139	*e*P	P	22 11 37.7	+0.8
FSR				*i* S	S	22 11 59.8	+2.6
FSR				AMP		22 12 01.9	
	comp=N,2µm,0.2s						
ANTU	**Antumapu**	1.68	144	*e*P	P	22 11 37.9	+0.9
ANTU				*i* S	S	22 11 59.5	+2.0
ANTU				AMP		22 12 02.8	
	comp=N,2µm,0.3s						
FCH	**Farellones**	1.70	131	⇑*i*P	P	22 11 38.5	+1.1
FCH				*i* S	S	22 12 00.7	+2.6
FCH				AMP		22 12 02.5	
	comp=E,2µm,0.2s						
LNV	**Longovilo**	1.76	169	*e*P	P	22 11 37.9	-0.4
PCH	**Pirque**	1.78	142	*e*P	P	22 11 39.7	+1.2
SJCH	**San Jose de Ma**	1.88	139	*e*P	P	22 11 40.6	+0.6
SJCH				*i* S	S	22 12 04.8	+2.1
SJCH				AMP		22 12 08.2	
	comp=N,804nm,0.3s						
CHCH	**Chadas Angostu**	1.97	150	*e*P	P	22 11 42.1	+0.9
CHCH				*i* S	S	22 12 06.2	+1.3
LMEL	**Las Melosas**	2.12	140	*e*P	P	22 11 44.6	+1.2
LMEL				*i* S	S	22 12 10.7	+2.1
LMEL				AMP		22 12 17.9	
	comp=N,2µm,0.2s						
CACH	**El Canelo**	2.15	152	*e*P	P	22 11 45.4	+1.6
TLL	**Tololo Astrono**	2.23	23	*e*P	P	22 11 46.0	+1.0
TLL				AMP		22 12 25.2	
	comp=N,474nm,0.7s						
CICH	**Cipreses**	2.40	151	*e*P	P	22 11 48.6	+1.2
SFDO	**San Fernando**	2.48	164	*e*P	P	22 11 48.7	+0.2

IDC 29 22:19:32.6±2.1, **12.39N**×**92.44E, mb3.7**/3, **mb1 3.9**/4, **mb1mx3.6**/18, **mbtmp3.6**/4, **ML3.7**/1, **Error ellipse: s-maj=57.7km s-min=27.4km az=92.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	8.70	45	Pn	P	22 21 40.5	-2.2
	0.2nm,0.3s,baz=236,slow=16,SNR=5.7						
CMAR				Sn	Sn	22 23 22.0	-0.7
	0.1nm,0.3s,baz=238,slow=29,SNR=3.4						
SONM	**Songino Array**	37.22	16	P	P	22 26 45.0	-2.5
	0.3nm,0.7s,baz=201,slow=9.7,SNR=3.3						
WRA	**Warramunga Arr**	52.28	127	P	P	22 28 45.3	-3.1
	0.7nm,0.5s,baz=306,slow=8.3,SNR=9.7						
WRA				PcP	PcP	22 29 58.1	-1.7
	1.0nm,0.4s,baz=315,slow=3.1,SNR=18						
ASAR	**Alice Springs**	54.11	131	P	P	22 28 59.6	-2.2
	0.6nm,0.4s,baz=311,slow=7.0,SNR=10						
ASAR				PcP	PcP	22 30 05.2	-1.5
	0.8nm,0.6s,baz=317,slow=4.1,SNR=7.8						

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*NEIC **29** 22:22:19.8, 40.37N×32.94E, h5^{km}, mb4.2/18, ML4.6(ISK), After ISK.*
*ISK **29** 22:22:19.8, 40.38N×32.93E, h5^{km}, MD4.4, ML4.4*
*BJI **29** 22:22:19.7, 40.40N×32.90E, h10^{km}, mB5.1, mb4.7*
*MED_RC **29** 22:22:19.8±0.2, 40.37N×32.94E, h16^{km}±1^{km}, MW4.5/17, Moment Tensor Solution. Body waves: s17,c21; Duration: 1^{s}0 Moment tensor: Scale 10^{15}Nm; M_{rr}0.48±.32; $M_{\theta\theta}$-3.12±.38; $M_{\phi\phi}$2.63±.42; $M_{r\theta}$-1.31±.44; $M_{\theta\phi}$-4.78±.25; $M_{\phi r}$1.60±.44; Best double couple: $M_0$5.96×10^{15} NP1:ϕ_s17°, δ74°, λ12°. NP2:ϕ_s284°, δ78°, λ163°. Principal axes: T 6.08, Plg20°, Azm240°; N -.24, Plg70°, Azm70°; P -5.84, Plg3°, Azm331°; nsta1 refers to waves, cutoff=35s.*
*ZUR_RM **29** 22:22:19, 40.37N×32.94E, h15^{km}, Mw4.6/20, Moment Tensor Solution. s20 Moment tensor: Scale 10^{15}Nm; M_{rr}-0.22; $M_{\theta\theta}$-3.89; $M_{\phi\phi}$4.12; $M_{r\theta}$-0.05; $M_{\theta\phi}$-7.08; $M_{\phi r}$-1.64; Best double couple: $M_0$8.29×10^{15} NP1:ϕ_s195°, δ88°, λ11°. NP2:ϕ_s105°, δ79°, λ178°. Principal axes: T 8.469, Plg9°, Azm60°; N -.351, Plg79°, Azm205°; P -8.118, Plg6°, Azm329°;*
*CSEM **29** 22:22:20.4±0.0, 40.37N×32.93E, h5^{km}, mb4.2/15 Error ellipse: s-maj=1.1km s-min=0.8km az=177.0*
*MOS **29** 22:22:21.1±1.2, 40.34N×33.05E, h10^{km}, mb4.3/14, Error ellipse: s-maj=5.5km s-min=4.7km az=100.5*
*IDC **29** 22:22:21.4±0.6, 40.39N×33.05E, mb4.0/13, mb1 4.1/19, mb1mx4.0/28, mbtmp4.0/19, ML3.9/6, MS3.8/9, Ms1 3.8/9, ms1mx3.5/39, Error ellipse: s-maj=16.6km s-min=6.6km az=58.0*

ISC 29 22:22:20.9±0.5, **40.38N**±0.02×**32.98E**±0.02, **h4^{km}**±4^{km}, **n206, σ1^{s}06**/224, **mb4.1**/23, **MS3.9**/5, **5C-2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ELDT	**Eldivan**	0.36	72	*i* P	Pg	22 22 28.4	+0.3
ELDT				*i* S	Sg	22 22 46.2	+13
LOD	**Lodumlu**	0.51	199	*i* PG	Pg	22 22 30.7	-0.4
LOD	**Lodumlu**	0.51	199	Pg	Pg	22 22 30.7	-0.4
ANTO	**Ankara**	0.53	195	*i* PG	Pg	22 22 30.6	-0.8
ANTO				*i* SG	Sg	22 22 40.0	+1.6
ANTO	**Ankara**	0.53	195	*i* P	Pg	22 22 31.1	-0.3
ANTO				*i* S	Sg	22 22 38.9	+0.5
ANTO	**Ankara**	0.53	195	Pg	Pg	22 22 30.7	-0.7
ANTO				Sg	Sg	22 22 38.7	+0.3
CANT	**Cankiri**	0.54	65	PG	Pg	22 22 32.1	+0.4
CANT	**Cankiri**	0.54	65	Pg	Pg	22 22 32.0	+0.3
SGKT	**Sivrigoynuk**	0.73	286	*i* P	Pg	22 22 35.6	+0.2
SGKT				*i* S	Sg	22 22 54.3	+9.2
BRTR	**Keskin Array B**	0.83	142	Pg	Pg	22 22 36.5	-0.9
	663nm,0.3s,baz=322,slow=16,SNR=3554						
BRTR				Lg		22 22 48.5	
	755nm,0.3s,baz=324,slow=23,SNR=34						
SAFT	**Safranbolu**	0.89	346	PG	Pg	22 22 38.0	-0.6
TOS	**Tosya**	1.03	50	PG	Pg	22 22 40.9	-0.6
TOS	**Tosya**	1.03	50	Pg	Pg	22 22 40.7	-0.8
KAMT	**Kaman**	1.16	150	PN	Pn	22 22 42.5	-1.2
KAMT	**Kaman**	1.16	150	Pn	Pn	22 22 42.6	-1.1
KAMT	**Kaman**	1.16	150	Pn	Pn	22 22 42.6	-1.1
BALT	**Daday**	1.20	15	*i* P	Pb	22 22 44.8	+1.1
BALT				*i* S	Sb	22 22 57.2	-2.2
CORM	**Corum**	1.28	98	PN	Pn	22 22 45.7	+0.2
CORM				SN	Sn	22 23 05.5	+2.2
MDU	**Mudurnu**	1.35	274	PN	Pn	22 22 46.0	-0.5
CTKT	**Corum**	1.40	79	*i* P	Pn	22 22 47.0	-0.2
CTKT				*i* S	Sb	22 23 06.7	+1.3
HENT	**Hendek**	1.64	286	*i* P	Pn	22 22 52.2	+1.5
HENT				*i* S	Sb	22 23 14.7	+2.3
KIZT	**Kizilcal**	1.72	210	PN	Pn	22 22 51.6	-0.2
KIZT	**Kizilcal**	1.72	210	Pn	Pn	22 22 51.6	-0.1
BYBT	**Boyabat**	1.74	51	PN	Pn	22 22 52.5	+0.4
BYBT	**Boyabat**	1.74	51	Pn	Pn	22 22 52.6	+0.5
BZK	**Bozkurt**	1.76	26	PN	Pn	22 22 53.2	+0.8
BZK	**Bozkurt**	1.76	26	Pn	Pn	22 22 53.2	+0.8
BOYT	**Boyabat**	1.79	54	*i* P	Pn	22 22 53.5	+0.6
BOYT				*i* S	Sn	22 23 17.1	+0.8
ESKT	**Eskisehir**	1.84	243	PN	Pn	22 22 53.2	-0.4
ESKT	**Eskisehir**	1.84	243	Pn	Pn	22 22 53.3	-0.3
ESKT	**Eskisehir**	1.84	243	Pn	Pn	22 22 53.3	-0.3
YOZ	**Yozgat**	1.94	111	PN	Pn	22 22 55.3	+0.3
YOZ	**Yozgat**	1.94	111	Pn	Pn	22 22 55.4	+0.4
YOZ	**Yozgat**	1.94	111	Pn	Pn	22 22 55.4	+0.4
GPA	**Golpazari**	2.04	268	PN	Pn	22 22 56.2	-0.2
GPA	**Golpazari**	2.04	268	Pn	Pn	22 22 56.2	-0.1
KVT	**Kavak**	2.44	72	PN	Pn	22 23 02.7	+0.7
KVT	**Kavak**	2.44	72	Pn	Pn	22 23 02.7	+0.7
KONT	**Konya--Tatoy**	2.48	191	PN	Pn	22 23 02.2	-0.4
KONT	**Konya--Tatoy**	2.48	191	Pn	Pn	22 23 02.2	-0.4
HRT	**Hereke**	2.56	281	PN	Pn	22 23 03.7	-0.1
HRT	**Hereke**	2.56	281	PN	Pn	22 23 04.3	+0.5
HRT	**Hereke**	2.56	281	Pn	Pn	22 23 04.3	+0.6
ALT	**Altintas**	2.58	240	PN	Pn	22 23 03.3	-0.7
ALT	**Altintas**	2.58	240	Pn	Pn	22 23 03.4	-0.7
NIG	**Nigde**	2.59	150	PN	Pn	22 23 04.8	+0.5
NIG	**Nigde**	2.59	150	Pn	Pn	22 23 04.8	+0.5
BNN	**Bunyan**	2.69	124	PN	Pn	22 23 06.4	+0.8
YLV	**Yalova**	2.75	275	PN	Pn	22 23 06.1	-0.5
YLV	**Yalova**	2.75	275	Pn	Pn	22 23 06.2	-0.4
YLV	**Yalova**	2.75	275	Pn	Pn	22 23 06.2	-0.4
BADT	**Buyukada**	2.98	280	PN	Pn	22 23 08.6	-1.1
BADT	**Buyukada**	2.98	280	Pn	Pn	22 23 08.6	-1.1
ISK	**Istanbul-Kandi**	3.06	284	PN	Pn	22 23 11.2	+0.3
ISK	**Istanbul-Kandi**	3.06	284	Pn	Pn	22 23 11.3	+0.4
ORLT	**Orhaneli**	3.14	265	PN	Pn	22 23 11.8	-0.3
ORLT	**Orhaneli**	3.14	265	Pn	Pn	22 23 11.9	-0.2
ISP	**Isparta**	3.18	218	PN	Pn	22 23 12.5	-0.1
ISP	**Isparta**	3.18	218	Pn	Pn	22 23 12.6	0.0
KHL	**Karahalli**	3.37	234	PN	Pn	22 23 15.2	-0.2
DST	**Dursunbey**	3.43	258	PN	Pn	22 23 16.5	+0.3
DST	**Dursunbey**	3.43	258	Pn	Pn	22 23 16.5	+0.4
BCK	**Bucak**	3.46	213	PN	Pn	22 23 16.5	-0.1
BCK	**Bucak**	3.46	213	Pn	Pn	22 23 16.6	0.0
KCT	**Karacabey**	3.53	270	*e*PN	Pn	22 23 17.2	-0.5
BNT	**Bandirma**	3.86	271	*e*PN	Pn	22 23 21.9	-0.4
BALB	**Balikesir**	3.98	261	*e*PN	Pn	22 23 23.1	-0.9
BALB	**Balikesir**	3.98	261	Pn	Pn	22 23 23.1	-0.9
CEYT	**Ceyhan**	4.00	146	*e*PN	Pn	22 23 24.7	+0.4
CEYT	**Ceyhan**	4.00	146	Pn	Pn	22 23 24.8	+0.5
DENT	**Denizli**	4.04	231	*e*PN	Pn	22 23 24.5	-0.3
DENT	**Denizli**	4.04	231	Pn	Pn	22 23 24.5	-0.3
MRMT	**Marmara Adasi**	4.11	275	*e*PN	Pn	22 23 25.4	-0.4
MRMT	**Marmara Adasi**	4.11	275	Pn	Pn	22 23 25.4	-0.4
IKL	**Isikli**	4.17	172	*e*PN	Pn	22 23 27.3	+0.6
IKL	**Isikli**	4.17	172	Pn	Pn	22 23 27.4	+0.7
SEV	**Sevastopol’**	4.20	7	⇑*e*P	Pn	22 23 27.2	+0.1
SEV				*e*S	Sn	22 24 17.8	+0.6
SEV				pmax	pmax		
	comp=Z,60nm,0.6s						
SEV				smax			
	comp=N,60nm,0.9s						
SEV				smax			
	comp=E,80nm,0.9s						
YAL	**Yalta**	4.20	12	*e*P	Pn	22 23 26.6	-0.5
YAL				*e*S	Sn	22 24 16.8	-0.5
YAL				pmax	pmax		
	comp=Z,80nm,0.8s						
YAL				smax			
	comp=N,250nm,1.0s						
YAL				smax			
	comp=E,190nm,0.9s						
AKS	**Akhisar**	4.26	251	*e*PN	Pn	22 23 27.7	-0.3
AKS	**Akhisar**	4.26	251	Pn	Pn	22 23 27.7	-0.2
ELL	**Elmali**	4.35	215	*e*PN	Pn	22 23 28.6	-0.6
ELL	**Elmali**	4.35	215	Pn	Pn	22 23 28.6	-0.6
MFT	**Murefte**	4.36	277	*e*PN	Pn	22 23 28.4	-0.9
MFT	**Murefte**	4.36	277	Pn	Pn	22 23 28.4	-0.9
ALU	**Alushta**	4.43	13	*e*P	Pn	22 23 29.7	-0.7
ALU				*i* S	Sn	22 24 23.0	-0.1
ALU				pmax	pmax		
	comp=Z,90nm,0.8s						
ALU				smax			
	comp=N,140nm,0.8s						
ALU				smax			
	comp=E,90nm,0.7s						
GAZ	**Gaziantep**	4.60	133	*e*PN	Pn	22 23 34.4	+1.5
GAZ	**Gaziantep**	4.60	133	Pn	Pn	22 23 32.4	-0.5
GAZ	**Gaziantep**	4.60	133	Pn	Pn	22 23 32.4	-0.5
SIM	**Simferopol’**	4.65	10	*e*P	Pn	22 23 33.3	-0.2
SIM				*e*S	Sn	22 24 28.7	+0.1
SIM				pmax	pmax		
	comp=Z,100nm,0.6s						
SIM				smax			
	comp=N,560nm,1.0s						
MYA	**Malataya**	4.69	114	*e*PN	Pn	22 23 34.8	+0.7
MYA	**Malataya**	4.69	114	Pn	Pn	22 23 34.8	+0.7
MALT	**Malatya**	4.70	114	*e*PN	Pn	22 23 34.7	+0.5
MALT	**Malatya**	4.70	114	Pn	Pn	22 23 34.8	+0.5
SUDU	**Sudak**	4.75	18	*e*P	Pn	22 23 34.7	-0.2
SUDU				*e*S	Sn	22 24 30.0	-1.2
SUDU				pmax	pmax		
	comp=Z,60nm,0.6s						
SUDU				smax			
	comp=N,180nm,0.7s						
SUDU				smax			
	comp=E,200nm,0.7s						
IZM	**Izmir**	4.85	248	*e*PN	Pn	22 23 35.9	-0.4
IZM	**Izmir**	4.85	248	P	Pn	22 23 36.0	-0.3
HTY	**Hatay**	4.92	149	*e*PN	Pn	22 23 38.2	+0.8
FEO	**Feodosiya**	4.97	20	*e*P	Pn	22 23 40.8	+2.8
FEO				*e*S	Sn	22 24 39.8	+3.1
FEO				pmax	pmax		
	comp=Z,130nm,0.7s						
FEO				smax			
	comp=N,140nm,0.8s						
BLCB	**Balcova**	5.01	249	*e*PN	Pn	22 23 38.9	+0.3
BLCB	**Balcova**	5.01	249	Pn	Pn	22 23 39.0	+0.4
PTK	**Pertek**	5.17	105	*e*PN	Pn	22 23 42.1	+1.2
EZC	**Erzincan**	5.29	95	*e*PN	Pn	22 23 37.6	-4.9
EZC	**Erzincan**	5.29	95	Pn	Pn	22 23 37.6	-4.9
URFA	**Urfa**	5.42	121	*e*PN	Pn	22 23 45.5	+1.1
ANN	**Anapa**	5.51	35	⇑*i*P	Pn	22 23 43.8	-1.8
ANN				*i*		22 24 42.8	
ANN				pmax	pmax		
	comp=Z,60nm,1.3s						
ANN				MLR	MLR		
	comp=Z,400nm,11.0s						
KERU	**Kerch**	5.55	26	*e*P	Pg	22 24 00.3	-11
HARR	**Harsova**	5.70	321	⇓*i*P	Pn	22 23 50.5	+2.2
SOC	**Sochi**	5.96	55	*e*P	Pn	22 23 58.0	+6.0
SOC				*e*		22 25 09.6	
SOC				pmax	pmax		
	comp=Z,18nm,0.7s						
SOC				pmax	pmax		
	comp=N,13nm,0.4s						
SOC				pmax	pmax		
	comp=E,13nm,0.4s						
SOC				MLR	MLR		
	comp=Z,770nm,15.0s						
SOC				MLR	MLR		
	comp=N,469nm,16.0s						
SOC				MLR	MLR		
	comp=E,636nm,14.0s						
CFR	**Carcaliu**	5.97	325	⇑*e*P	Pn	22 23 51.0	-1.2
BINT	**Bingol**	5.99	102	*e*PN	Pn	22 23 53.4	+1.0
BINT	**Bingol**	5.99	102	Pn	Pn	22 23 53.5	+1.0
EZM	**Erzurum**	6.44	91	*e*PN	Pn	22 24 00.0	+1.2
VRT	**Varto**	6.71	98	*e*PN	Pn	22 24 03.6	+1.1
VRT	**Varto**	6.71	98	Pn	Pn	22 24 03.7	+1.1
VRT	**Varto**	6.71	98	Pn	Pn	22 24 03.7	+1.2
BTMT	**Batman**	6.95	106	*e*PN	Pn	22 24 05.3	-0.7
VRI	**Vrincioaia**	7.14	322	⇑*i*P	Pn	22 24 10.9	+2.3
MLR	**Muntele Rosu**	7.26	317	Pn	Pn	22 24 10.1	-0.2
	comp=E,0.8nm,0.3s,baz=166,slow=7.7,SNR=12						
MLR				LR	LR	22 27 31.1	
	comp=E,696nm,18.6s,baz=111,slow=42						
KIS	**Kishinev**	7.27	337	*e*P	Pn	22 24 10.0	-0.5
KIV	**Kislovodsk**	8.05	60	*e*P	P	22 24 19.2	-2.1
KIV				pmax	pmax		
	comp=Z,4µm,0.5s						
KIV	**Kislovodsk**	8.05	60	*e*P	P	22 24 19.2	-2.1
	comp=Z,4.4nm,0.5s						
KIV	**Kislovodsk**	8.05	60	*e*P	P	22 24 19.2	-2.1

	comp=Z,4.4nm,0.5s						
IDI	Anoyia	8.17	234	Pn	P	22 24 22.3	-0.7
	comp=Z,1.5nm,0.3s,baz=72,slow=13,SNR=14						
IDI				LR	LR	22 28 03.1	
	comp=Z,474nm,18.0s,baz=205,slow=42						
ZEI	Tsey	8.53	70	eP	P	22 24 26.7	-1.3
ZEI				i		22 26 02.4	
GOF	Gofitskoye	8.76	54	eP	P	22 24 23.5	-7.7
GOF				pmax	pmax		
	comp=Z,20nm,1.2s						
ASF	Jabal al Asfar	8.78	158	Pn	P	22 24 30.5	-1.0
	comp=Z,0.3nm,0.3s,baz=321,slow=7.4,SNR=4.6						
ASF				LR	LR	22 28 34.4	
	comp=Z,532nm,19.1s,baz=228,slow=42						
TI2	Plekhanov	9.00	78	eP	P	22 24 36.2	+1.7
TI2				MLR	MLR		
	comp=N,1µm,9.0s						
TI2				MLR	MLR		
	comp=E,1µm,9.0s						
TI2				MLR	MLR		
	comp=Z,1µm,9.0s						
GNI	Garni	9.00	88	i P	P	22 24 40.7	+6.1
GNI				pmax	pmax		
	comp=Z,17nm,1.3s						
GNI	Garni	9.00	88	Pn	P	22 24 39.7	+5.1
	comp=Z,0.1nm,0.3s,baz=1.3,slow=2.4,SNR=10						
GNI				LR	LR	22 27 35.8	
	comp=Z,135nm,21.9s,baz=95,slow=35						
AKASG	Malin Array Be	10.65	347	Pn	P	22 24 52.8	-4.5
	comp=Z,2.5nm,0.3s,baz=156,slow=13,SNR=14						
AKASG				Sn	S	22 26 49.9	-8.3
	comp=Z,1.4nm,0.3s,baz=174,slow=23,SNR=5.2						
EIL	Elat	10.80	171	Pn	P	22 24 58.0	-1.3
	comp=Z,0.4nm,0.3s,baz=12,slow=12,SNR=3.6						
VRSR	Storozhevoye	11.67	20	eP	P	22 25 15.3	+4.2
VRSR				eS	S	22 27 29.2	+6.3
VRSR				pmax	pmax		
	comp=Z,20nm,1.6s						
VRSR				pmax	pmax		
	comp=N,20nm,1.0s						
VRSR				pmax	pmax		
	comp=E,9.0nm,0.6s						
VRSR				smax			
	comp=N,110nm,1.0s						
VRSR				smax			
	comp=Z,60nm,2.7s						
VRSR				smax			
	comp=E,90nm,1.2s						
VRAC	Vranov	14.63	313	Sn	S	22 28 23.9	-10
	comp=E,0.8nm,0.3s,baz=138,slow=23,SNR=6.3						
OBN	Obninsk	14.94	8	P	P	22 25 53.0	-1.3
OBN				eSS	SS	22 28 45.4	-13
OBN				pmax	pmax		
	comp=Z,25nm,1.3s						
OBN				MLR	MLR		
	comp=Z,300nm,19.0s						
MOS	Moscow	15.68	10	eP	P	22 26 10.4	+6.4
MOS				pmax	pmax		
	comp=Z,68nm,1.1s						
GEC2	GERESS Array S	16.09	308	eP	P	22 26 12.7	+3.3
GEC2				pmax	pmax		
	comp=Z,4.0nm,1.0s						
GEC2	GERESS Array S	16.09	308	eP	P	22 26 12.7	+3.3
	comp=Z,4.0nm,1.0s						
GERES	GERESS Array B	16.09	308	Pn	P	22 26 09.4	0.0
	comp=Z,0.2nm,0.3s,baz=113,slow=10,SNR=19						
PRU	Pruhonice	16.12	313	eP	P	22 26 14.0	+4.2
PRU				ex	x	22 26 18.8	
KHC	Kasperske Hory	16.29	309	i P	P	22 26 13.1	+1.3
KHC	Kasperske Hory	16.29	309	eP	P	22 26 15.0	+3.2
WET	Wettzell	16.71	308	eP	P	22 26 19.1	+1.9
WET				pmax	pmax		
	comp=Z,5.0nm,0.9s						
WET	Wettzell	16.71	308	eP	P	22 26 19.1	+1.9
	comp=Z,5.0nm,0.9s						
CLL	Collm	17.64	315	e	P	22 26 36.0	+7.2
DAVOX	Davos	17.88	299	P	P	22 26 36.3	+4.3
	comp=Z,0.1nm,0.3s,baz=18,slow=11,SNR=4.4						
GRF	Grafenberg Arr	17.92	309	eP	P	22 26 41.7	+9.3
MOX	Moxa	18.09	312	eP	P	22 26 36.1	+1.6
MOX				pmax	pmax		
	comp=Z,20nm,1.7s						
MOX	Moxa	18.09	312	i P	P	22 26 36.1	+1.6
	comp=Z,logA/T=1.1						
MOX	Moxa	18.09	312	eP	P	22 26 36.1	+1.6
	comp=Z,20nm,1.7s						
VSU	Vasula	18.54	350	i P	P	22 26 39.7	-0.3
CLZ	Clausthal	19.33	314	eP	P	22 26 48.4	-1.1
	comp=Z,5.0nm,0.8s						
MBDF	Montbardon	19.75	291	eP	P	22 26 53.8	-0.6
	comp=Z,61nm,1.3s						
MBDF	Montbardon	19.75	291	eP	P	22 26 53.8	-0.6
MBDF				pmax	pmax		
	comp=Z,30nm,1.3s						
LPG	La Plagne	19.83	294	eP	P	22 26 56.4	+1.1
	comp=Z,21nm,0.9s						
LPG	La Plagne	19.83	294	eP	P	22 26 56.4	+1.1
LPG				pmax	pmax		
	comp=Z,11nm,0.9s						
LPL	La Plagne	19.84	294	eP	P	22 26 56.5	+1.1
	comp=Z,75nm,1.5s						
LPL	La Plagne	19.84	294	eP	P	22 26 56.5	+1.1
LPL				pmax	pmax		
	comp=Z,38nm,1.5s						
CDF	Champ du Feu	19.98	302	eP	P	22 26 57.2	+0.3
	comp=Z,6.8nm,0.8s						
CDF	Champ du Feu	19.98	302	eP	P	22 26 57.2	+0.3
CDF				pmax	pmax		
	comp=Z,3.0nm,0.8s						
HINF	Hinteralfeld	20.12	300	eP	P	22 27 00.6	+2.2
	comp=Z,18nm,1.0s						
HINF	Hinteralfeld	20.12	300	eP	P	22 27 00.6	+2.2
HINF				pmax	pmax		
	comp=Z,9.0nm,1.0s						
ORIF	Oris-en-Rattie	20.40	292	eP	P	22 27 02.8	+1.5
	comp=Z,44nm,1.2s						
ORIF	Oris-en-Rattie	20.40	292	eP	P	22 27 02.8	+1.5
ORIF				pmax	pmax		
	comp=Z,22nm,1.2s						
BSEG	Bad Segeberg	20.41	319	eP	P	22 27 00.1	-1.2
HAU	Haudompre	20.49	301	eP	P	22 27 01.6	-0.6
	comp=Z,11nm,0.7s						
HAU	Haudompre	20.49	301	eP	P	22 27 01.6	-0.6
HAU				pmax	pmax		
	comp=Z,5.0nm,0.7s						
MEZF	Maizieres J'vi	21.44	302	eP	P	22 27 11.3	-0.7
	comp=Z,105nm,1.7s,mb4.6						
FINES	FINESS Array B	21.51	351	i P	P	22 27 10.9	-1.7
FINES				pmax	pmax		
	comp=Z,2.0nm,0.6s						
FINES	FINESS Array B	21.51	351	P	P	22 27 10.9	-1.7
	comp=Z,2.1nm,0.6s,mb3.7,baz=149,slow=11,SNR=9.3						
FINES				LR	LR	22 36 47.6	
	comp=Z,245nm,18.8s,MS3.6,baz=345,slow=40						
SMF	Signal de Mont	21.96	296	eP	P	22 27 18.1	+0.9
SSF	Saint Saulge	22.24	297	eP	P	22 27 20.4	+0.4
SSF				pmax	pmax		
	comp=Z,24nm,1.4s,mb4.4						
SSF	Saint Saulge	22.24	297	eP	P	22 27 20.4	+0.4
	comp=Z,24nm,1.4s,mb4.4						
AVF	Avril sur Loir	22.31	297	eP	P	22 27 23.2	+2.5
	comp=Z,38nm,1.3s,mb4.3						
AVF	Avril sur Loir	22.31	297	eP	P	22 27 23.2	+2.5
AVF				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.4						
BAIF	Baives	22.34	305	eP	P	22 27 22.3	+1.4
BGF	Bois d'Agland	22.64	296	eP	P	22 27 26.3	+2.4
HFS	Hagfors	23.14	335	P	P	22 27 28.7	0.0
	comp=Z,4.5nm,0.6s,mb4.1,baz=129,slow=9.5,SNR=5.9						
ARU	Arti	23.17	38	⇓iP	P	22 27 28.2	-0.8
ARU				e		22 27 58.9	
ARU				eS	S	22 31 35.1	-1.8
ARU				eSS	SS	22 32 19.3	-2.6
ARU				pmax	pmax		
	comp=Z,20nm,1.0s,mb4.5						
ARU	Arti	23.17	38	eP	P	22 27 27.7	-1.3
	comp=Z,36nm,1.3s,mb4.6						
NB2	NORSAR Subarra	24.63	334	P	P	22 27 44.4	+1.2
	comp=Z,2.4nm,0.7s,mb3.8,baz=131,slow=9.3						
NB2	NORSAR Subarra	24.63	334	P	P	22 27 44.4	+1.2
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb3.8						
NOA	NORSAR Array B	24.63	334	P	P	22 27 43.0	-0.1
	comp=Z,1.3nm,0.7s,mb3.6,baz=140,slow=9.8,SNR=3.5						
NOA				LR	LR	22 38 24.7	
	comp=Z,151nm,20.5s,MS3.5,baz=15,slow=39						
GRR	Gorron	25.31	300	eP	P	22 27 49.3	-0.5
	comp=Z,16nm,0.8s,mb4.3						
GRR	Gorron	25.31	300	eP	P	22 27 49.3	-0.5
GRR				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.3						
EKA	Eskdalemuir Ar	28.10	314	P	P	22 28 15.4	0.0
	comp=Z,3.7nm,0.7s,mb4.1,baz=109,slow=9.4,SNR=10						
ESDC	Sonseca Array	28.17	281	P	P	22 28 16.0	-0.1
	comp=Z,0.5nm,0.5s,mb3.4,baz=73,slow=9.0,SNR=4.2						
BVAR	Borovoye Array	28.26	51	P	P	22 28 16.6	-0.3
	comp=Z,0.2nm,0.4s,mb3.1,baz=243,slow=9.7,SNR=3.1						
CHKZ	Chkalovo	28.53	50	eP	P	22 28 18.5	-0.7
CHKZ				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.3						
CHKZ	Chkalovo	28.53	50	eP	P	22 28 18.5	-0.7
	comp=Z,9.4nm,1.4s,mb4.3						
CHKZ	Chkalovo	28.53	50	eP	P	22 28 18.5	-0.7
	comp=Z,9.4nm,1.4s,mb4.3						
ARCES	ARCESS Array B	29.49	355	P	P	22 28 27.5	-0.2
	comp=Z,4.4nm,0.8s,mb4.2,baz=153,slow=8.1,SNR=7.0						
ARCES				LR	LR	22 41 31.0	
	comp=Z,301nm,18.0s,MS4.0,baz=5.9,slow=39						
AAK	Ala-Archa	30.95	72	i P	P	22 28 40.0	-1.0
AAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.3						
ZAL	Zalesovo	36.91	51	i P	P	22 29 31.5	-0.7
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.8s						
ZAL	Zalesovo	36.91	51	P	P	22 29 31.0	-1.2
	comp=Z,1.2nm,0.8s,mb3.8,baz=126,slow=6.8,SNR=8.3						
ZAL				LR	LR	22 47 15.9	
	comp=Z,225nm,18.9s,MS4.0,baz=94,slow=41						
WMQ	Urumqi	40.13	66	eP	P	22 29 58.8	-0.4
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.8s,mb4.3						
HYB	Hyderabad	45.37	107	i P	P	22 30 40.0	-2.2
HYB	Hyderabad	45.37	107	eP	P	22 30 40.0	-2.2
DBIC	Dimbokro	47.64	236	P	P	22 30 59.2	-1.0
	comp=Z,3.0nm,0.9s,mb4.3,baz=356,slow=3.4,SNR=4.7						
BOD	Bodaibo	52.49	42	⇑iP	P	22 31 35.4	-1.3
TIXI	Tiksi	54.04	23	i P	P	22 31 45.4	-2.5
TIXI				pmax	pmax		
	comp=Z,6.0nm,2.0s,mb4.2						
FRB	Frobisher Bay	59.33	330	P	P	22 32 24.7	-1.1
	comp=Z,2.1nm,0.8s,mb4.2,baz=14,slow=2.0,SNR=3.1						
CMAR	Chiang Mai Arr	60.11	91	P	P	22 32 29.7	-2.0
	comp=Z,1.6nm,0.8s,mb4.1,baz=302,slow=7.7,SNR=12						
NJ2	Nanjing	67.21	67	eP	P	22 33 14.5	-3.8
NJ2				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.2						
YKA	Yellowknife Ar	74.21	345	P	P	22 33 59.1	-0.8
	comp=Z,0.8nm,0.6s,mb3.8,baz=27,slow=5.6,SNR=15						
ULM	Lac du Bonnet	79.22	329	P	P	22 34 29.4	+1.2
	comp=Z,0.6nm,0.4s,mb3.9,baz=352,slow=3.7,SNR=3.1						
DLBC	Dease Lake	80.53	351	LR	LR	23 13 35.6	
	comp=Z,138nm,21.6s,MS4.3,baz=82,slow=38						

IDC 29 22:22:43.9±1.4, 2.84N×96.04E, mb3.8/6, mb1 4.0/7, mb1mx3.8/18, mbtmp3.8/7, ML4.0/1, Error ellipse: s-maj=57.7km s-min=21.5km az=56.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.78	10	Pn	P	22 26 29.3	0.0
	0.2nm,0.3s,baz=194,slow=11,SNR=12						
WRA	Warramunga Arr	43.88	123	P	P	22 30 51.9	-2.3
	0.3nm,0.3s,baz=299,slow=9.3,SNR=5.9						
ASAR	Alice Springs	45.30	128	P	P	22 31 04.8	-0.7
	0.9nm,1.0s,baz=300,slow=8.1,SNR=4.6						
SONM	Songino Array	45.70	10	P	P	22 31 07.3	-1.1
	1.2nm,0.6s,baz=192,slow=9.1,SNR=13						
SONM				PcP	PcP	22 32 42.7	-4.3
	0.6nm,0.8s,baz=234,slow=2.6,SNR=2.5						
ZAL	Zalesovo	51.76	352	P	P	22 31 52.9	-2.4
	2.9nm,0.8s,baz=237,slow=5.0,SNR=10.0						
BVAR	Borovoye Array	54.33	341	P	P	22 32 11.3	-3.0
	1.1nm,0.6s,baz=135,slow=6.3,SNR=5.3						
BRTR	Keskin Array B	67.16	312	P	P	22 33 41.1	-0.8
	1.0nm,0.8s,baz=135,slow=7.0,SNR=4.0						

IDC 29 22:23:13.9±1.3, 6.33N×93.18E, mb4.1/5, mb1 4.3/5, mb1mx3.9/17, mbtmp4.1/5, Error ellipse: s-maj=66.0km s-min=22.6km az=55.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	42.87	13	P	P	22 31 13.9	-1.7
	1.3nm,0.6s,baz=198,slow=9.1,SNR=6.8						
SONM				PcP	PcP	22 33 05.6	-1.6
	0.7nm,0.8s,baz=194,slow=4.2,SNR=3.0						
WRA	Warramunga Arr	48.17	124	P	P	22 31 55.9	-2.4
	3.7nm,0.8s,baz=302,slow=9.1,SNR=12						
ASAR	Alice Springs	49.69	128	P	P	22 32 07.8	-2.1
	3.6nm,0.8s,baz=299,slow=7.4,SNR=19						
ASAR				PcP	PcP	22 33 30.1	-1.4
	1.3nm,0.6s,baz=308,slow=3.7,SNR=6.0						
STKA	Stephens Creek	59.76	133	P	P	22 33 20.8	-2.5
	0.8nm,0.4s,baz=326,slow=7.3,SNR=2.9						
GERES	GERESS Array B	78.34	318	P	P	22 35 16.0	-1.7
	0.9nm,0.8s,baz=90,slow=5.3,SNR=6.8						
PDAR	Pinedale Array	126.94	21	PKP	PKPdf	22 42 20.1	-1.9
	0.7nm,0.8s,baz=45,slow=2.1,SNR=5.1						

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*NEIC **29** 22:35:42.9, 17.33N×94.68W, h155^{km}, MD3.8(MEX), After MEX.*

MEX 29 22:35:42.1±1.1, 17.47N×94.65W, h156^{km}±11^{km}, MD3.8, 1D, Chiapas

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMIG	Matias Romero	0.44	210	i P	P	22 36 03.0	-1.4
CMIG				i S	S	22 36 17.9	-3.5
OXX	Oaxaca	2.02	259	i P	P	22 36 16.8	-1.3
OXX				i S	S	22 36 44.0	-1.9
VHO	Vista Hermosa	2.03	259	⇓eP	P	22 36 16.8	-1.5
VHO				eS	S	22 36 43.5	-2.6
HUIG	Huatulco	2.19	220	eP	P	22 36 17.7	-2.6
HUIG				i S	S	22 36 45.8	-3.9
HUIG	Huatulco	2.19	220	eP	P	22 36 17.7	-2.6
HUIG				i S	S	22 36 47.7	-2.0

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*IDC **29** 22:38:46.8±1.0, 3.73N×93.25E, mb3.9/8, mb1 4.1/9, mb1mx3.9/19, mbtmp3.9/9, ML3.8/1, MS3.8/3, Ms1 3.8/3, ms1mx3.3/28, Error ellipse: s-maj=44.0km s-min=18.5km az=49.0*

ISC 29 22:38:49.9±0.8, 3.6N±0.1×93.2E±0.1, h33^{km}, n21, σ1^{s}05/19, mb4.3/12, MS3.9/2, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.77	20	Pn	P	22 42 28.1	-3.2
	0.1nm,0.3s,baz=217,slow=13,SNR=20						
CMAR				LR	LR	22 49 06.3	
	comp=Z,188nm,19.1s,baz=210,slow=40						
KKTK	Khon Kaen	15.78	36	P	P	22 42 35.3	+3.9
	370nm,0.9s						
NANT	Nan	16.77	25	P	P	22 42 44.5	+0.6
IMP	Imphal	21.04	2	eP	P	22 43 35.3	+1.9
SHL	Shillong	21.85	357	eP	P	22 43 40.0	-1.5
PKI	Pulchoki	24.94	343	eP	P	22 44 12.9	+1.1
DMN	Daman	25.07	343	eP	P	22 44 13.0	0.0
	43nm,0.6s,mb5.1						
GUN	Gumba	25.14	345	eP	P	22 44 13.9	+0.2
	25nm,0.8s,mb4.8						
KKN	Kakani	25.19	343	eP	P	22 44 14.2	+0.1
	25nm,0.7s,mb4.8						
GKN	Gorkha	25.57	342	eP	P	22 44 17.4	-0.4
KOLN	Koldanda	25.69	340	eP	P	22 44 18.0	-0.9
	12nm,0.5s,mb4.7						
JOW	Kunigami	40.71	52	LR	LR	23 02 50.7	
	comp=Z,170nm,19.9s,MS3.9,baz=151,slow=36						
SONM	Songino Array	45.48	12	P	P	22 47 07.3	-0.6
	1.5nm,0.6s,mb4.0,baz=195,slow=8.7,SNR=15						
WRA	Warramunga Arr	46.71	122	P	P	22 47 18.2	+0.4
	1.9nm,0.6s,mb4.2,baz=298,slow=8.9,SNR=11						
ASAR	Alice Springs	48.04	126	P	P	22 47 28.8	+0.4
	0.9nm,0.8s,mb3.9,baz=296,slow=7.8,SNR=7.0						
BVAR	Borovoye Array	52.71	343	P	P	22 48 02.1	-1.4
	0.8nm,0.6s,mb3.9,baz=141,slow=9.5,SNR=5.7						
KMBO	Kilima Mbogo	56.11	266	LR	LR	23 07 31.1	
	comp=Z,90nm,20.1s,MS3.9,baz=167,slow=31						
STKA	Stephens Creek	57.95	131	P	P	22 48 40.4	-1.3
	1.4nm,0.7s,mb4.1,baz=305,slow=12,SNR=3.5						
BRTR	Keskin Array B	64.53	313	P	P	22 49 25.5	-0.5
	0.5nm,0.8s,mb3.6,baz=117,slow=6.4,SNR=3.0						
GERES	GERESS Array B	80.36	319	P	P	22 51 00.6	+1.1
	1.8nm,1.1s,mb3.9,baz=104,slow=5.5,SNR=5.4						
DAVOX	Davos	82.79	317	P	P	22 51 13.5	+1.3
	1.1nm,0.5s,mb4.2,baz=344,slow=7.4,SNR=6.0						

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*TEH **29** 22:39:51.4, 32.20N×48.15E, h22^{km}, Mn3.4*
*THR **29** 22:39:53.2±0.6, 32.46N×48.29E, h31^{km}±5^{km}, ML3.2*

ISC 29 22:39:53.7±1.1, 32.50N±0.08×48.31E±0.07, h22^{km}, n17, σ0^{s}62/18, Western Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHGR	Shooshtar-Gavs	0.57	133	ePG	Pb	22 40 04.5	-0.4
SHGR				AMP		22 40 31.1	
	comp=E,2µm,0.8s						
SHGR				AMP		22 40 33.8	
	comp=N,711nm,0.6s						
IKOM	Komasi	1.80	339	Pn	Pn	22 40 24.5	+0.6
IVIS	Veys	2.36	329	Pn	Pn	22 40 31.4	-0.5
ASAO	Ashtian	2.50	35	ePN	Pn	22 40 34.8	+0.9
ASAO				eSG	Sn	22 41 11.1	+7.0
ASAO				AMP		22 41 19.1	
	comp=N,113nm,0.9s						
ASAO				AMP		22 41 20.0	
	comp=E,133nm,0.6s						
IBRJ	Borojen	2.61	106	Pn	Pn	22 40 36.8	+1.2
SNGE	Sanandaj	2.71	343	ePN	Pn	22 40 37.3	+0.4
IDHR	Dehrash	2.72	324	Pn	Pn	22 40 36.5	-0.5
IRAZ	Razeghan	3.19	25	Pn	Pn	22 40 44.8	+1.0
IQOM	Qom	3.28	44	Pn	Pn	22 40 45.5	+0.4
ISFB	Sefidab	3.77	60	Pn	Pn	22 40 51.6	-0.4
ISFB	Sefidab	3.77	60	Sn	Sn	22 41 36.2	0.0
IVRN	Varamin	3.78	48	Pn	Pn	22 40 52.1	-0.1
NASN	Na'in	3.81	84	ePN	Pn	22 40 52.5	-0.1
IDMV	Damavand	4.36	44	Pn	Pn	22 40 59.8	-0.6
DAMV	Damavand	4.36	43	ePN	Pn	22 40 59.9	-0.5
IAFJ	Afjeh	4.38	39	Pn	Pn	22 41 00.4	-0.3
IFIR	Firoozkooh	4.84	48	Pn	Pn	22 41 06.1	-1.1

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*CSEM **29** 22:40:34.8±0.1, 45.81N×10.88E, h12^{km}, ML3.0/5, Error ellipse: s-maj=1.8km s-min=1.1km az=149.0*
*ROM **29** 22:40:35.7±0.1, 45.79N×10.82E, h5^{km}, MD3.4/4, ML3.0/5, Error ellipse: s-maj=1.1km s-min=1.1km az=90.0*
*NEIC **29** 22:40:35.8±0.2, 45.72N×10.88E, h10^{km}, ML3.8(VIE), ML3.5(LDG), ML3.5(SZGRF), ML3.3(ZUR), Error ellipse: s-maj=3.3km s-min=2.5km az=126.0*
*ZUR **29** 22:40:37.0, 45.82N×10.70E, h10^{km}, ML3.3/8*
*LDG **29** 22:40:38.5±0.1, 45.71N×10.85E, h10^{km}, Ml3.5/37, Error ellipse: s-maj=2.3km s-min=2.1km az=36.0*
*STR **29** 22:40:41.0±0.3, 45.68N×10.50E, h10^{km}±1^{km}, Ml3.4, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ISC 29 22:40:34.0±0.2, 45.80N±0.01×10.84E±0.01, h4^{km}±2^{km}, n226, σ1^{s}34/349, 27C-12D, Northern Italy

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SAL	Salo	0.29	229	⇑iPG	Pg	22 40 41.1	+1.2
SAL				SG	Sg	22 40 46.3	+2.6
SAL	Salo	0.29	229	⇑iPg	Pg	22 40 41.1	+1.2
SAL				eSg	Sg	22 40 46.3	+2.5
MABI	Malga Bissina	0.34	319	ePG	Pg	22 40 43.0	+2.1
MABI				SG	Sg	22 40 49.5	+4.0
MABI	Malga Bissina	0.34	319	ePg	Pg	22 40 43.0	+2.1
MABI				eSg	Sg	22 40 49.5	+4.0
CTI	Castel Tesino	0.62	66	⇑iPG	Pg	22 40 48.9	+2.4
	555nm,0.2s						
CTI	Castel Tesino	0.62	66	⇑iPg	Pg	22 40 48.9	+2.5
CTI	Castel Tesino	0.62	66	⇑iPg	Pg	22 40 48.9	+2.4
	555nm,0.2s						
TEOL	Teolo	0.73	126	⇓iPg	Pg	22 40 47.9	-0.7
TEOL				i Sg	Sg	22 40 57.0	-1.4
BRMO	Bormio	0.75	335	ePG	Pg	22 40 50.7	+1.6
BRMO				SG	Sg	22 41 02.5	+3.4
	263nm,0.2s						
BRMO	Bormio	0.75	335	ePg	Pg	22 40 50.7	+1.6
BRMO				eSg	Sg	22 41 02.5	+3.3
BRMO	Bormio	0.75	335	ePg	Pg	22 40 50.7	+1.6
	263nm,0.2s						
BRMO				Sg	Sg	22 41 02.5	+3.4
MDI	Monti di Nese	0.79	269	ePG	Pg	22 40 50.9	+1.1
BERNI	Berninapass	0.84	318	⇓iPg	Pg	22 40 52.1	+1.3
BERNI	Berninapass	0.84	318	⇓iPg	Pg	22 40 52.2	+1.4
	36nm,0.4s						
FAU	Forcella Aurin	0.91	61	⇑ePg	Pg	22 40 52.0	-0.1
FUORN	Ofenpass	0.91	334	⇓iPg	Pg	22 40 53.5	+1.2
	32nm,0.3s						
CAE	Caneva	1.14	79	⇓ePg	Pg	22 40 55.9	-0.8
CAE				eSg	Sg	22 41 11.9	0.0
CSO	Casso	1.14	65	⇑ePg	Pg	22 40 55.7	-1.2
CSO				eSg	Sg	22 41 13.0	+1.0
VDL	Val di Lei	1.17	306	ePg	Pg	22 40 58.8	+1.3
VDL	Val di Lei	1.17	306	ePg	Pg	22 40 58.0	+0.5
	37nm,0.5s						
DAVOX	Davos	1.19	326	ePg	Pg	22 40 58.5	+0.8
	32nm,0.4s						
IESO	Jesolo	1.23	102	ePg	Pg	22 40 58.3	-0.3
IESO				eSg	Sg	22 41 15.1	0.0
MUGIO	Muggio	1.26	276	⇓iPg	Pg	22 40 59.2	0.0
	30nm,0.3s						
MLNI	Malnisio	1.29	73	⇓ePg	Pg	22 40 58.8	-1.0
MLNI				eSg	Sg	22 41 18.4	+1.5
SCE	Schlegeis	1.38	26	⇓iPg	Pg	22 41 02.0	+0.4
SCE				eSg	Sg	22 41 20.5	+0.5
ERBM	Eremo	1.41	192	ePN	Pn	22 41 01.9	+1.4
ERBM	Eremo	1.41	192	ePg	Pg	22 41 01.9	-0.3
GRAM		1.42	203	P	Pn	22 41 01.5	+0.9
GRAM				S	Sb	22 41 19.5	+0.6
GRAM		1.42	203	P	Pn	22 41 01.5	+0.9
GRAM				S	Sb	22 41 19.5	+0.6
BOB	Bobbio (Coli)	1.42	224	ePN	Pn	22 41 02.3	+1.6
BOB				SN	Sn	22 41 22.4	+2.3
	76nm,0.5s						
BOB	Bobbio (Coli)	1.42	224	ePg	Pg	22 41 02.3	-0.2
BOB				eSg	Sg	22 41 22.4	+1.0
BOB	Bobbio (Coli)	1.42	224	ePn	Pn	22 41 02.3	+1.6
	76nm,0.5s						
BOB				Sn	Sn	22 41 22.4	+2.3
SQTA	Sankt Quirin	1.45	10	⇓iPG	Pg	22 41 03.7	+0.8
SQTA				i SG	Sg	22 41 21.5	-0.7
	270nm,0.2s						
VAI	Varese	1.45	274	ePN	Pn	22 41 02.7	+1.6
VAI	Varese	1.45	274	ePg	Pg	22 41 02.7	-0.3
CSMI	Casera Mimoias	1.45	60	⇓iPg	Pg	22 41 02.6	-0.4
CSMI				i Sg	Sg	22 41 24.0	+1.6
ZCCA	Zocca	1.45	176	ePN	Pn	22 41 03.0	+1.9
ZCCA	Zocca	1.45	176	ePg	Pg	22 41 03.0	0.0
GSCL	Gusciola	1.46	187	ePN	Pn	22 41 02.6	+1.4
GSCL				SN	Sn	22 41 22.6	+1.6
GSCL	Gusciola	1.46	187	ePg	Pg	22 41 02.6	-0.6
GSCL				eSg	Sg	22 41 22.6	+0.1
VALM		1.51	196	P	Pn	22 41 03.5	+1.6
VALM				S	Sb	22 41 21.6	0.0
VALM		1.51	196	P	Pn	22 41 03.5	+1.6
VALM		1.51	196	S	Sb	22 41 21.6	0.0
MOTA	Moosalm	1.56	7	⇑iPG	Pg	22 41 05.4	+0.2
MOTA				i SG	Sg	22 41 24.9	-1.1
	69nm,0.3s						
MOTA	Moosalm	1.56	7	i Sg	Sg	22 41 24.9	-1.1
MPRI	Monte Prat	1.56	73	ePg	Pg	22 41 04.5	-0.8
MPRI				eSg	Sg	22 41 26.3	+0.1
MPRI	Monte Prat	1.56	73	eSg	Sg	22 41 26.3	+0.2
WTTA	Wattenberg	1.57	20	⇑iPG	Pg	22 41 05.5	+0.2
WTTA				i SG	Sg	22 41 25.5	-0.7
	170nm,0.2s						
WTTA	Wattenberg	1.57	20	eSg	Sg	22 41 27.0	+0.8
FVI	Forni Avoltri	1.57	59	ePN	Pn	22 41 04.8	+2.0
FVI				SN	Sn	22 41 25.3	+1.5
FVI	Forni Avoltri	1.57	59	ePg	Pg	22 41 04.8	-0.6
FVI				eSg	Sg	22 41 25.3	-1.0
CODM		1.57	207	P	Pn	22 41 03.7	+0.9
CODM				S	Sb	22 41 23.6	+0.2
CODM		1.57	207	P	Pn	22 41 03.7	+0.9
CODM				S	Sb	22 41 23.6	+0.2
TLI	Talmassons	1.59	85	⇓ePg	Pg	22 41 03.8	-2.0

TLI				eSg	Sg	22 41 26.1	-0.8
TLI	Talmassons	1.59	85	eSg	Sg	22 41 26.1	-0.8
BACM		1.61	200	P	Pn	22 41 04.1	+0.7
BACM				S	Sb	22 41 24.7	+0.1
BACM		1.61	200	P	Pn	22 41 04.1	+0.7
BACM		1.61	200	S	Sb	22 41 24.7	+0.1
WATA	Walderalm	1.62	18	⇑iPG	Pg	22 41 06.5	+0.1
WATA				i SG	Sg	22 41 27.0	-1.0
	112nm,0.2s						
DAVA	Damuels	1.63	336	⇑iPG	Pg	22 41 08.1	+1.5
DAVA				i SG	Sg	22 41 28.4	+0.1
	200nm,0.4s						
DAVA	Damuels	1.63	336	ePn	Pn	22 41 07.1	+3.4
DAVA	Damuels	1.63	336	⇑iPg	Pg	22 41 08.1	+1.5
DAVA				eSg	Sg	22 41 33.8	+5.5
LLS	Linth-Limmern	1.65	310	⇑eP*	Pb	22 41 06.8	+2.2
BUA	Buia	1.65	74	⇑ePg	Pg	22 41 05.1	-1.9
BOO	Bordano	1.66	71	⇑ePg	Pg	22 41 05.0	-2.2
BOO				eSg	Sg	22 41 28.5	-0.8
BOO	Bordano	1.66	71	eSg	Sg	22 41 28.5	-0.8
ZOU	Zoufplan	1.67	62	⇓ePg	Pg	22 41 06.6	-0.8
ZOU				eSg	Sg	22 41 29.6	0.0
ZOU	Zoufplan	1.67	62	eSg	Sg	22 41 29.6	0.0
VINC	Vinca	1.73	197	P	Pn	22 41 05.9	+0.8
VINC				S	Sn	22 41 27.1	-0.7
VINC	Vinca	1.73	197	P	Pn	22 41 05.9	+0.8
VINC	Vinca	1.73	197	S	Sn	22 41 27.1	-0.7
VINC	Vinca	1.73	197	P	Pn	22 41 05.9	+0.8
VINC				S	Sn	22 41 27.1	-0.7
BAD	Bernadia	1.73	74	⇑ePg	Pg	22 41 05.9	-2.8
BAD				eSg	Sg	22 41 30.2	-1.6
GMNA	Gemona	1.74	73	ePN	Pn	22 41 05.6	+0.4
GMNA				SN	Sn	22 41 26.3	-1.8
	318nm,0.4s						
GMNA	Gemona	1.74	73	ePg	Pg	22 41 05.6	-3.1
GMNA				eSg	Sg	22 41 26.3	-5.6
GMNA	Gemona	1.74	73	ePn	Pn	22 41 05.6	+0.4
	318nm,0.4s						
GMNA				Sn	Sn	22 41 26.3	-1.8
BDI	Bagni Di Lucca	1.74	186	ePN	Pn	22 41 05.9	+0.6
BDI				SN	Sn	22 41 28.7	+0.5
BDI	Bagni Di Lucca	1.74	186	ePg	Pg	22 41 06.0	-2.9
BDI				eSg	Sg	22 41 28.7	-3.4
PLRO	Paularo	1.77	64	⇑ePg	Pg	22 41 08.0	-1.5
PLRO				eSg	Sg	22 41 32.7	-0.4
PLRO	Paularo	1.77	64	⇑ePg	Pg	22 41 07.9	-1.6
PLRO	Paularo	1.77	64	eSg	Sg	22 41 32.7	-0.4
SEI	Scarperia	1.78	168	ePN	Pn	22 41 08.0	+2.1
SEI	Scarperia	1.78	168	ePg	Pg	22 41 08.0	-1.6
COLI	Coloredo	1.80	78	⇑ePg	Pg	22 41 06.9	-3.2
COLI				eSg	Sg	22 41 31.6	-2.5
COLI	Coloredo	1.80	78	⇑ePg	Pg	22 41 06.9	-3.2
COLI				eSg	Sg	22 41 31.6	-2.5
PTCC	Patocco-Chiusa	1.85	70	ePN	Pn	22 41 08.7	+1.8
PTCC	Patocco-Chiusa	1.85	70	ePn	Pn	22 41 08.7	+1.8
MAIM		1.90	188	P	Pn	22 41 08.0	+0.5
MAIM		1.90	188	P	Pn	22 41 08.0	+0.5
ROBS	Robic	1.92	76	ePn	Pn	22 41 09.1	+1.4
ROBS				i Sn	Sn	22 41 35.5	+3.0
	comp=Z,52nm,0.1s						
GENL	Genova Univers	1.92	224	P	Pn	22 41 07.4	-0.4
GENL	Genova Univers	1.92	224	P	Pn	22 41 07.4	-0.4
MUO	Muotathal	1.92	308	ePn	Pn	22 41 12.6	+4.8
	comp=Z,122nm,0.8s						
LSR	Lussari	1.99	69	ePg	Pg	22 41 11.1	-2.7
LSR				eSg	Sg	22 41 37.0	-3.3
DRE	Drenchia	1.99	78	⇑ePg	Pg	22 41 09.3	-4.5
MCGN	Macugnaga	2.00	276	ePN	Pn	22 41 11.1	+2.2
MCGN	Macugnaga	2.00	276	ePn	Pn	22 41 11.1	+2.2
ORX	Oropa	2.01	266	P	Pn	22 41 09.0	0.0
ORX	Oropa	2.01	266	P	Pn	22 41 09.0	-0.1
SFI	Santa Sofia	2.02	159	ePN	Pn	22 41 09.3	0.0
	comp=Z,71nm,0.4s						
SFI	Santa Sofia	2.02	159	ePn	Pn	22 41 09.3	-0.1
PCP	Pian Castagno	2.05	233	P	Pn	22 41 11.1	+1.4
PCP	Pian Castagno	2.05	233	P	Pn	22 41 11.1	+1.4
TRI	Trieste	2.05	91	ePN	Pn	22 41 09.6	-0.1
TRI	Trieste	2.05	91	ePn	Pn	22 41 09.6	-0.2
CADS	Cadrg	2.07	77	i Pn	Pn	22 41 10.0	+0.1
VOJS	Vojsko	2.14	83	i Pn	Pn	22 41 11.5	+0.5
KBA	Koelnbreinsper	2.16	53	⇑iPN	Pn	22 41 14.5	+3.3
KBA				i SN	Sn	22 41 39.7	+1.0
KBA	Koelnbreinsper	2.16	53	i Sn	Sn	22 41 39.7	+1.0
KBA	Koelnbreinsper	2.16	53	⇑iPn	Pn	22 41 14.5	+3.3
KBA				eSg	Sg	22 41 47.3	+1.5
TRAV		2.19	264	P	Pn	22 41 10.7	-0.9
TRAV		2.19	264	P	Pn	22 41 10.7	-0.9
JAVS	Javornik	2.26	86	i Pn	Pn	22 41 12.7	+0.1
LKBD	Leukerbad	2.31	286	ePn	Pn	22 41 15.6	+2.2
	comp=Z,32nm,0.7s						
CSNT	Castellina Chi	2.35	172	ePN	Pn	22 41 14.4	+0.4
	comp=Z,77nm,0.4s						
CSNT	Castellina Chi	2.35	172	ePn	Pn	22 41 14.3	+0.4
CSNT	Castellina Chi	2.35	172	ePn	Pn	22 41 14.4	+0.4
	comp=Z,77nm,0.4s						
BGLD	Berchtesgaden	2.38	38	⇑iPn	Pn	22 41 17.9	+3.4
RNON	Nonn-Bad Reich	2.39	35	⇑iPn	Pn	22 41 17.8	+3.2
FIN	Finale Ligure	2.45	231	ePN	Pn	22 41 16.2	+0.8
	comp=Z,88nm,0.4s						
FIN	Finale Ligure	2.45	231	ePn	Pn	22 41 16.2	+0.8
FIN	Finale Ligure	2.45	231	P	Pn	22 41 15.9	+0.5
FIN	Finale Ligure	2.45	231	ePn	Pn	22 41 16.2	+0.8
	comp=Z,88nm,0.4s						
ROB	Roburent	2.58	236	P	Pn	22 41 17.6	+0.3
ROB	Roburent	2.58	236	P	Pn	22 41 17.6	+0.3
RSP	Reno Superiore	2.60	257	P	Pn	22 41 16.0	-1.5
RSP	Reno Superiore	2.60	257	P	Pn	22 41 16.0	-1.6
LSD	Ceresole Reale	2.60	264	P	Pn	22 41 19.2	+1.6
LSD	Ceresole Reale	2.60	264	P	Pn	22 41 19.2	+1.6
OBKA	Obir	2.68	73	⇑iPN	Pn	22 41 20.7	+2.0
OBKA				i PG	Pg	22 41 28.3	+0.8
OBKA				i SG	Sg	22 42 05.0	+1.8
	comp=Z,49nm,0.2s						
OBKA	Obir	2.68	73	ePn	Pn	22 41 20.5	+1.8
OBKA	Obir	2.68	73	i Pg	Pg	22 41 28.3	+0.8
BHB	Bricherasio	2.70	251	P	Pn	22 41 17.9	-1.1
BHB	Bricherasio	2.70	251	P	Pn	22 41 17.9	-1.0
FENE	Fenestrelle	2.77	255	P	Pn	22 41 19.2	-0.7
FENE	Fenestrelle	2.77	255	P	Pn	22 41 19.2	-0.7
MONE	Monesi	2.78	233	P	Pn	22 41 20.0	-0.1
MONE	Monesi	2.78	233	P	Pn	22 41 20.0	-0.2
IMI	Imperia	2.82	229	P	Pn	22 41 20.4	-0.3
IMI	Imperia	2.82	229	P	Pn	22 41 20.4	-0.3
FELD	Feldberg	2.85	318	Pn	Pn	22 41 24.0	+2.9
LPG	La Plagne	2.88	265	ePn	Pn	22 41 22.2	+0.6
LPG				eSg	Sg	22 42 07.3	-2.7
	comp=Z,67nm,0.5s						
ENR	Entracque	2.89	238	P	Pn	22 41 21.3	-0.4
ENR	Entracque	2.89	238	P	Pn	22 41 21.3	-0.4
LPL	La Plagne	2.89	266	ePn	Pn	22 41 22.5	+0.8
LPL				eSg	Sg	22 42 09.8	-0.5
	comp=Z,39nm,0.4s						
STV	Sta Anna Valdi	2.94	239	P	Pn	22 41 21.4	-0.9
STV	Sta Anna Valdi	2.94	239	P	Pn	22 41 21.5	-0.8
OG01	Vacheresse	2.94	282	Pn	Pn	22 41 22.9	+0.5
PZZ	Prazzo	2.94	245	P	Pn	22 41 20.3	-2.2
PZZ	Prazzo	2.94	245	P	Pn	22 41 20.3	-2.1
SAOF	Saorge	2.95	233	Pn	Pn	22 41 23.0	+0.4
RRL	Cesana Torines	2.99	254	P	Pn	22 41 23.3	+0.2
RRL	Cesana Torines	2.99	254	P	Pn	22 41 23.3	+0.2
AUTN	L'Aution	3.02	235	Pn	Pn	22 41 24.0	+0.5
MBDF	Montbardon	3.06	251	ePn	Pn	22 41 23.2	-1.0
MBDF				eSn	Sn	22 41 59.2	-2.5
	comp=Z,35nm,0.4s						
SBF	Sospel	3.10	233	ePn	Pn	22 41 24.6	-0.1
SBF				eSg	Sg	22 42 10.7	-6.5
	comp=Z,58nm,0.4s						
NVLJ	Novalja	3.11	112	i Pn	Pn	22 41 23.2	-1.6
NVLJ				i Sn	Sn	22 41 59.2	-3.6
TOUF	Mont Tournerai	3.11	236	Pn	Pn	22 41 25.3	+0.4
MOA	Molln	3.12	48	⇑iPN	Pn	22 41 27.4	+2.4
MOA				i SN	Sn	22 42 03.5	+0.2
SURF	Saint Ours	3.14	247	Pn	Pn	22 41 24.6	-0.6
LOMF	Lomont	3.17	301	Pn	Pn	22 41 27.8	+2.1
LOMF				Sg	Sg	22 42 20.4	+0.7
STU	Stuttgart	3.18	340	eP	Pn	22 41 28.3	+2.5
STU	Stuttgart	3.18	340	eP	Pn	22 41 28.3	+2.5
MOF	Molkenrain	3.27	310	Pn	Pn	22 41 29.5	+2.4
CABF	La Chapelle	3.40	286	ePn	Pn	22 41 29.7	+0.8
CABF				ePg	Pg	22 41 42.1	+0.2
CABF				eSn	Sn	22 42 08.9	-1.3
CABF				eSg	Sg	22 42 24.8	-2.3
	comp=Z,92nm,0.7s						
CABF	La Chapelle	3.40	286	ePg	Pg	22 41 42.1	+0.2
CABF				eSn	Sn	22 42 08.9	-1.3
CABF				eSg	Sg	22 42 24.8	-2.3
	comp=Z,46nm,0.7s						
HINF	Hinteralfeld	3.40	308	ePn	Pn	22 41 30.6	+1.6
HINF				eSn	Sn	22 42 09.5	-0.8
	comp=Z,42nm,0.3s						
HINF				eSg	Sg	22 42 26.6	-0.7
	comp=Z,54nm,0.4s						
ECH	Echery	3.49	315	Pn	Pn	22 41 32.4	+2.2
PGF	Pioggiola	3.51	203	ePn	Pn	22 41 29.1	-1.4
PGF				eSn	Sn	22 42 08.2	-4.8
	comp=Z,29nm,0.3s						
ARSA	Arzberg	3.55	64	ePn	Pn	22 41 31.6	+0.6
CDF	Champ du Feu	3.57	318	ePn	Pn	22 41 33.5	+2.1
CDF				eSn	Sn	22 42 14.0	-0.6
CDF				eSg	Sg	22 42 32.0	-1.0
	comp=Z,123nm,0.7s						
ORIF	Oris-en-Rattie	3.60	258	ePn	Pn	22 41 33.6	+1.8
ORIF				eSn	Sn	22 42 12.3	-3.1
	comp=Z,44nm,0.5s						
GEC2	GERESS Array S	3.62	32	ePn	Pn	22 41 32.8	+0.7
GEC2				eSn	Sn	22 42 17.5	+1.7
FRF	La Foret Royal	3.73	235	ePn	Pn	22 41 32.4	-1.3
FRF				eSn	Sn	22 42 14.8	-3.9
	comp=Z,23nm,0.4s						
HAU	Haudompre	3.79	307	ePn	Pn	22 41 36.0	+1.5
HAU				eSn	Sn	22 42 18.9	-1.2
	comp=Z,58nm,0.3s						
KHC	Kasperske Hory	3.82	28	ePG	Pg	22 41 50.4	+0.1
KHC				eSN	Sn	22 42 20.3	-0.5
KHC				eSG	Sg	22 42 37.2	-4.0
GRA1	Grafenberg Arr	3.91	4	ePn	Pn	22 41 36.1	0.0
GRA1				eSg	Sg	22 42 44.2	+0.1
GRA1	Grafenberg Arr	3.91	4	eSg	Sg	22 42 44.2	+0.1
GRF	Grafenberg Arr	3.91	4	ePn	Pn	22 41 36.1	0.0
GRF				eSg	Sg	22 42 44.2	+0.1
GRF	Grafenberg Arr	3.91	4	eSg	Sg	22 42 44.2	+0.1
LMR	La Mourre	3.95	233	ePn	Pn	22 41 35.1	-1.7
LMR				eSn	Sn	22 42 20.2	-4.0
	comp=Z,17nm,0.4s						
THEF	They Montfort	4.11	308	Pn	Pn	22 41 40.9	+1.8
SMRF	Simiane la Rot	4.16	246	ePn	Pn	22 41 39.7	0.0
SMRF				eSn	Sn	22 42 25.0	-4.5
	comp=Z,14nm,0.5s						
VIVF	Saint-Julien-l	4.45	260	ePn	Pn	22 41 43.2	-0.6
VIVF				eSn	Sn	22 42 33.2	-3.6
	comp=Z,7.3nm,0.3s						
NKC	Novy Kostel	4.57	13	ePG	Pg	22 42 06.4	+1.1
NKC				eSN	Sn	22 42 38.0	-1.8
NKC				eSG	Sg	22 43 02.7	-3.4
RFYF	Reffroy	4.62	310	ePn	Pn	22 41 48.2	+1.9
RFYF				eSn	Sn	22 42 38.6	-2.6
	comp=Z,19nm,0.3s						
SFTF	Sexfontaines	4.64	303	ePn	Pn	22 41 47.9	+1.3
SFTF				eSn	Sn	22 42 38.1	-3.6
	comp=Z,15nm,0.3s						
GUNZ	Gunzen	4.68	12	ePn	Pn	22 41 46.6	-0.5
GUNZ				eSg	Sg	22 43 05.6	-4.2
TANN	Tannenbergstha	4.75	13	ePn	Pn	22 41 48.7	+0.6
WERD	Werda	4.76	11	ePn	Pn	22 41 48.9	+0.7
MEZF	Maizieres J'vi	4.78	307	ePn	Pn	22 41 50.2	+1.6
MEZF				eSn	Sn	22 42 42.5	-2.8
	comp=Z,28nm,0.6s						
PRU	Pruhonice	4.88	29	PG	Pg	22 42 10.0	-1.4
PRU				SN	Sn	22 42 47.0	-0.6
PRU				eSG	Sg	22 43 10.0	-6.4
	comp=Z,16nm,0.4s						
PRU	Pruhonice	4.88	29	Pg	Pg	22 42 10.0	-1.4
PRU				Sg	Sg	22 43 10.0	-6.4
	comp=Z,16nm,0.4s						
MOX	Moxa	4.88	6	i P	Pn	22 41 47.3	-2.7
MOX				Pg	Pg	22 42 11.0	-0.4
MOX				S	Sn	22 42 46.0	-1.7
MOX				Sg	Sg	22 43 19.0	+2.5
MOX	Moxa	4.88	6	ePn	Pn	22 41 47.3	-2.7
MOX				ePg	Pg	22 42 11.0	-0.4
MOX				eSn	Sn	22 42 46.6	-1.1
MOX				eSg	Sg	22 43 18.8	+2.3
MOX	Moxa	4.88	6	ePg	Pg	22 42 11.0	-0.4
ZST	Bratislava	4.91	59	eSG	Sg	22 43 16.6	-1.0
SMF	Signal de Mont	4.93	282	ePn	Pn	22 41 50.4	-0.3
SMF				eSn	Sn	22 42 45.2	-3.7
	comp=Z,21nm,0.3s						
SSF	Saint Saulge	5.22	287	ePn	Pn	22 41 54.8	0.0
SSF				eSn	Sn	22 42 52.1	-4.2
SSF				eSg	Sg	22 43 23.0	-5.0
	comp=Z,5.1nm,0.4s						
LASF	Ste Croix	5.25	253	ePn	Pn	22 41 53.0	-2.1
LASF				eSn	Sn	22 42 51.6	-5.3
	comp=Z,20nm,0.5s						
VRAC	Vranov	5.25	46	ePn	Pn	22 41 55.5	+0.4
VRAC				eSg	Sg	22 43 22.0	-6.7
AVF	Avril sur Loir	5.28	284	ePn	Pn	22 41 55.2	-0.4
AVF				eSn	Sn	22 42 53.4	-4.4
	comp=Z,10nm,0.5s						
BRG	Berggiesshubel	5.49	21	i Pn	Pn	22 41 58.1	-0.4
BRG				e		22 42 19.5	
BRG				i		22 43 00.3	
BRG				eSg	Sg	22 43 29.7	-7.0
BRG	Berggiesshubel	5.49	21	ePn	Pn	22 41 58.1	-0.4
BGF	Bois d'Agland	5.60	281	ePn	Pn	22 41 59.5	-0.6
BGF				eSn	Sn	22 43 01.2	-4.6
	comp=Z,22nm,0.4s						
CLL	Collm	5.70	14	i PN	Pn	22 42 01.9	+0.4
CLL				ePG	Pg	22 42 23.0	-4.8
CLL				ePG	Pg	22 42 28.0	+0.2
CLL				eSG	Sg	22 43 38.0	-5.8
CLL				eSG	Sg	22 43 44.0	+0.2
CLL	Collm	5.70	14	Pn	Pn	22 42 01.4	-0.1
CLL				eSg	Sg	22 43 39.0	-4.8
HYF	Humbligny	5.84	288	ePn	Pn	22 42 03.3	-0.3
HYF				eSn	Sn	22 43 07.6	-4.3
UPC	Upice	5.85	34	eSG	Sg	22 43 40.8	-7.9
GIVF	Givet	5.90	319	ePn	Pn	22 42 07.7	+3.3
GIVF				eSn	Sn	22 43 09.2	-4.2
	comp=Z,13nm,0.5s						
GIVF	Givet	5.90	319	eSn	Sn	22 43 09.2	-4.2
	comp=Z,6.7nm,0.5s						
VYHS	Vyhne	6.09	61	ePN	Pn	22 42 05.9	-1.1
BAIF	Baives	6.17	316	ePn	Pn	22 42 09.3	+1.2
BAIF				eSn	Sn	22 43 15.4	-4.5
BAIF				eSg	Sg	22 43 52.8	-6.5
	comp=Z,30nm,0.9s						
CAF	Calviac	6.24	265	ePn	Pn	22 42 08.3	-0.9
OKC	Ostrava-Krasne	6.37	48	eSG	Sg	22 44 00.8	-5.3
RJF	Les Rejaudoux	6.56	269	ePn	Pn	22 42 12.9	-0.8
RJF				eSn	Sn	22 43 23.9	-6.0
	comp=Z,2.5nm,0.3s						
MTLF	Montolieu	6.63	251	ePn	Pn	22 42 12.2	-2.4
MTLF				eSn	Sn	22 43 24.7	-6.8
	comp=Z,9.9nm,0.7s						
LFF	La Frestale	7.16	267	ePn	Pn	22 42 21.2	-1.0
MFF	Saint Martin d	7.66	280	ePn	Pn	22 42 28.3	-0.9
MFF				eSn	Sn	22 43 50.6	-6.8
	comp=Z,2.1nm,0.2s						
LDF	La Druitiere	7.97	294	ePn	Pn	22 42 31.8	-1.7
LDF				eSn	Sn	22 43 58.4	-6.7
	comp=Z,3.2nm,0.4s						
FLN	La Foliniere	8.25	295	ePn	P	22 42 37.1	-0.2
FLN				eSn	Sn	22 44 05.0	-7.0
	comp=Z,4.7nm,0.4s						
GRR	Gorron	8.39	292	ePn	P	22 42 37.6	-1.7
GRR				eSn	Sn	22 44 08.5	-7.1
	comp=Z,6.9nm,0.5s						
ETSF	Etsaut	8.66	255	ePn	P	22 42 41.0	-2.1
SGMF	Saint Gilles	9.47	290	ePn	P	22 42 51.3	-3.0
SGMF				eSn	Sn	22 44 31.9	-11
	comp=Z,3.8nm,0.5s						
QUIF	Quistinic	9.83	287	ePn	P	22 42 57.9	-1.2
QUIF				eSn	Sn	22 44 42.5	-8.5
	comp=Z,2.6nm,0.3s						
ROSF	Rostrenen	9.96	290	ePn	P	22 42 58.6	-2.3
ROSF				eSn	Sn	22 44 45.9	-8.4
	comp=Z,3.4nm,0.5s						

IDC 29 22:45:47.0±1.2**, 3.42N**×**94.32E, mb3.9**/6**, mb1 4.2**/7**, mb1mx3.9**/18**, mbtmp4.0**/7**, ML4.3**/1**, Error ellipse: s-maj=53.6km s-min=21.0km az=52.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.61	17	Pn	P	22 49 29.3	-1.0
	0.4nm,0.3s,baz=208,slow=12,SNR=27						
SONM	Songino Array	45.45	11	P	P	22 54 07.5	-2.1
	0.7nm,0.6s,baz=196,slow=9.0,SNR=5.5						
WRA	Warramunga Arr	45.65	122	P	P	22 54 09.9	-1.6
	1.8nm,0.9s,baz=301,slow=8.9,SNR=8.5						
ASAR	Alice Springs	47.03	127	P	P	22 54 20.8	-1.5
	1.1nm,0.5s,baz=296,slow=8.3,SNR=10						
STKA	Stephens Creek	56.98	132	P	P	22 55 34.0	-2.9
	2.0nm,0.8s,baz=297,slow=6.8,SNR=3.8						
GNI	Garni	57.70	316	P	P	22 55 40.8	-1.2
	0.7nm,0.5s,baz=104,slow=4.2,SNR=3.1						
GERES	GERESS Array B	81.25	319	P	P	22 58 04.6	-1.9
	0.6nm,0.7s,baz=108,slow=4.2,SNR=6.0						

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*NIED **29** 22:53:00, 42.90N×145.10E, h41^{km}, Mw4.0 Best double couple: M$_0$1.04×10^{15} NP1:ϕ_s22°, δ69°, λ80°. NP2:ϕ_s229°, δ23°, λ114°.*
*JMA **29** 22:53:19.7±0.1, 42.88N×145.11E, h47^{km}±1^{km}, M4.1*
JMA Felt I J1.
*IDC **29** 22:53:23.2±3.3, 42.97N×144.97E, h73^{km}±27^{km}, mb3.6/13, mb1 3.8/14, mb1mx3.7/25, mbtmp4.0/14, Error ellipse: s-maj=26.1km s-min=18.6km az=150.0*
ISC 29 22:53:18.8±0.8**, 42.86N**±0.06×**145.13E**±0.07**, h52**^{km}±5^{km}**, n25,** σ0^{s}**67**/34**, mb4.0**/14**, 1C-7D, Hokkaido region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAK	Akkeshi	0.35	294	⇓P	P	22 53 28.8	+0.1
JAK				S	S	22 53 35.3	-0.5
NEM2	Nemuro 2	0.68	41	⇑P	P	22 53 32.6	+0.2
NEM2				S	S	22 53 41.7	-0.7
JNK	Nakash	0.79	338	⇓P	P	22 53 34.1	+0.2
JNK				eS	S	22 53 44.3	-0.7
JOB	Onbets	0.95	273	⇓P	P	22 53 36.4	+0.3
JOB				eS	S	22 53 49.2	+0.2
JRA	Rausu	1.08	360	⇓P	P	22 53 38.3	+0.4
JRA				S	S	22 53 51.8	-0.3
JAR	Ashorobuto	1.09	294	⇓P	P	22 53 38.4	+0.3
JAR				eS	S	22 53 51.8	-0.5
JCH	Churui	1.33	260	⇓P	P	22 53 41.1	-0.4
JCH				eS	S	22 53 57.8	-0.5
JTKR	Abashiri--Toko	1.43	322	⇓P	P	22 53 43.6	+0.7
JTKR				eS	S	22 54 01.9	+1.2
ASAJ	Asahikawa	2.23	305	P	P	22 53 55.6	+1.4
	67nm,0.3s,baz=135,slow=10.0,SNR=177						
ASAJ				S	S	22 54 25.5	+4.9
	22nm,0.3s,baz=293,slow=31,SNR=4.0						
SONM	Songino Array	27.47	294	P	P	22 59 01.7	-0.1
	2.7nm,0.8s,mb3.8,baz=82,slow=8.1,SNR=13						
ILAR	Eielson Array	43.08	36	P	P	23 01 15.1	+0.4
	0.5nm,0.5s,mb3.5,baz=266,slow=6.4,SNR=13						
ILAR				pP	pP	23 01 28.0	-0.6
	0.7nm,0.6s,baz=286,slow=10,SNR=5.6						
CMAR	Chiang Mai Arr	45.86	253	P	P	23 01 37.5	-0.2
	1.2nm,0.6s,mb4.0,baz=43,slow=7.3,SNR=4.2						
INK	Inuvik	47.91	30	P	P	23 01 53.1	-0.1
	1.5nm,0.4s,mb4.4,baz=266,slow=7.8,SNR=8.3						
BVAR	Borovoye Array	48.93	309	P	P	23 02 00.6	-0.6
	1.1nm,0.3s,mb4.4,baz=77,slow=9.3,SNR=8.8						
YKA	Yellowknife Ar	57.36	33	P	P	23 03 03.7	+0.2
	0.2nm,0.5s,mb3.4,baz=299,slow=6.8,SNR=3.7						
KAF	Kangasniemi	64.44	333	ep	P	23 03 46.9	-4.4
	5.9nm,1.1s,mb4.5						
FINES	FINESS Array B	64.99	332	P	P	23 03 53.6	-1.3
	1.1nm,0.5s,mb4.2,baz=55,slow=8.2,SNR=20						
ASAR	Alice Springs	67.00	191	P	P	23 04 08.6	+0.3
	0.5nm,0.7s,mb3.6,baz=2.1,slow=5.0,SNR=4.6						
NB2	NORSAR Subarra	69.89	338	P	P	23 04 24.7	-0.9
	1.0nm,0.5s,mb4.0,baz=33,slow=6.2						
NOA	NORSAR Array B	69.89	338	P	P	23 04 24.9	-0.7
	1.2nm,0.5s,mb4.1,baz=34,slow=6.3,SNR=4.4						
HFS	Hagfors	69.93	336	P	P	23 04 25.0	-0.8
	1.5nm,0.4s,mb4.3,baz=53,slow=7.4,SNR=15						
AKASG	Malin Array Be	71.42	323	P	P	23 04 34.1	-0.9
	1.0nm,0.4s,mb4.1,baz=41,slow=5.8,SNR=10						
KHC	Kasperske Hory	79.01	330	eP	P	23 05 19.0	+0.7
GERES	GERESS Array B	79.20	330	P	P	23 05 19.6	+0.2
	0.4nm,0.6s,mb3.5,baz=37,slow=6.7,SNR=4.9						
TXAR	Lajitas Array	84.37	55	P	P	23 05 48.2	+1.6
	0.2nm,0.5s,mb3.5,baz=243,slow=2.0,SNR=3.3						
TXAR				pP	pP	23 06 00.9	-0.8
	0.6nm,0.6s,baz=294,slow=2.9,SNR=5.5						

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*BJI **29** 22:55:35.8, 6.94N×93.64E, h43^{km}, mB5.3, mb4.9, Ms4.9, Msz4.7*
*IDC **29** 22:55:39.7±2.6, 7.73N×93.89E, h18^{km}±15^{km}, mb4.6/27, mb1 4.7/27, mb1mx4.7/27, mbtmp4.7/27, MS3.9/3, Ms1 4.0/3, ms1mx3.3/32, Error ellipse: s-maj=18.9km s-min=10.7km az=51.0*
*MOS **29** 22:55:40.5±0.9, 7.71N×93.87E, h33^{km}, mb5.2/29, Error ellipse: s-maj=12.9km s-min=7.3km az=114.8*
*NEIC **29** 22:55:43.6±1.4, 7.67N×93.79E, h44^{km}±11^{km}, mb4.9/30, Error ellipse: s-maj=13.1km s-min=7.8km az=150.0*
*HRVD **29** 22:55:43.6±0.9, 7.67N×93.78E, h20^{km}±1^{km}, MW4.8/39, Centroid moment Tensor Solution. LP body waves: s11,c14;Mantle waves: s39,c56; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.05±.22; M$_{\theta\theta}$1.78±.14; M$_{\phi\phi}$0.27±.13; M$_{r\theta}$0.04±.24; M$_{\theta\phi}$0.33±.09; M$_{\phi r}$0.04±.34; Best double couple: M$_0$1.95×10^{16} NP1:ϕ_s79°, δ44°, λ-89°. NP2:ϕ_s257°, δ46°, λ-91°. Principal axes: T 1.85, Plg1°, Azm348°; N .2, Plg1°, Azm258°; P -2.05, Plg89°, Azm117°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
ISC 29 22:55:40.0±1.9**, 7.63N**±0.05×**93.88E**±0.04**, h31**^{km}±12^{km}**, n186,** σ1^{s}**00**/187**, mb4.9**/86**, MS4.3**/4**, 5C-5D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	11.83	24	eP	P	22 58 31.2	+1.3
	19nm,0.7s						
CMAR	Chiang Mai Arr	11.83	24	Pn	P	22 58 32.2	+2.3
	0.7nm,0.3s,baz=212,slow=15,SNR=33						
CMAR				LR	LR	23 03 00.0	
	comp=Z,252nm,18.6s,baz=200,slow=38						
CMAR				ScP		23 07 48.1	
	0.1nm,0.3s,baz=251,slow=3.6,SNR=4.2						
PALK	Pallekele	13.08	269	eP	P	22 58 44.4	-2.1
	28nm,0.8s						
VIS	Vishakhapatnam	14.37	315	eP	P	22 59 01.4	-2.1
	comp=Z,103nm,0.8s						
VIS				e		22 59 08.2	
	comp=Z,103nm,0.9s						
VIS				eS	S	23 01 31.7	-11
MDRS	Chennai	14.46	293	eP	P	22 59 04.3	-0.4
BWNR	Bhubaneshwar	14.82	329	eP	P	22 58 58.7	-11
BWNR				e		22 59 02.3	
	comp=Z,60nm,0.5s						
BWNR				eS	S	23 01 33.7	-20
BOK	Bokaro	17.81	335	⇑eP	P	22 59 45.5	-1.9
BOK				eS	S	23 02 54.5	-7.7
BOK				i		23 07 32.8	
HYB	Hyderabad	17.83	304	eP	P	22 59 48.0	+0.2
HYB				eS	S	23 02 52.0	-11
HYB				pmax	pmax		
	comp=Z,50nm,1.0s						
HYB	Hyderabad	17.83	304	eP	P	22 59 48.0	+0.2
	comp=Z,50nm,1.0s						
HYB				eS	S	23 02 52.0	-11
HYB	Hyderabad	17.83	304	i P	P	22 59 48.0	+0.2
	comp=Z,50nm,1.0s						
HYB				e		23 02 52.0	
HYB				eS	S	23 03 04.0	+1.1
BLSP	Bilaspur	18.33	323	eP	P	22 59 52.5	-1.5
	comp=Z,62nm,1.3s						
BLSP				eS	S	23 03 06.3	-7.8
KMI	Kunming	19.34	25	P	P	23 00 08.8	+2.9
KMI				AMB	AMB		
	comp=Z,8.0nm,1.1s						
PKI	Pulchoki	21.40	339	eP	P	23 00 27.1	-0.4
	comp=Z,71nm,0.7s,mb5.1						
KAD	Karad	21.48	298	⇑eP	P	23 00 28.4	0.0
	comp=Z,21nm,0.9s,mb4.5						
KAD				eS	S	23 04 20.6	+0.7
DMN	Daman	21.54	338	eP	P	23 00 28.8	-0.1
	comp=Z,145nm,0.8s,mb5.5						

GUN	Gumba	21.55	340	eP	P	23 00 28.7	-0.3
	comp=Z,130nm,0.7s,mb5.5						
KKN	Kakani	21.64	339	eP	P	23 00 29.1	-0.8
	comp=Z,218nm,1.1s,mb5.5						
GKN	Gorkha	22.07	338	eP	P	23 00 34.2	0.0
	comp=Z,111nm,0.8s,mb5.3						
LSA	Lhasa	22.10	354	eP	P	23 00 34.1	-0.4
LSA				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.0						
LSA	Lhasa	22.10	354	eP	P	23 00 34.1	-0.4
	comp=Z,54nm,0.8s,mb5.0						
BHPL	Bhopal	22.16	316	⇓eP	P	23 00 35.7	+0.6
	comp=Z,87nm,1.4s,mb5.0						
KOLN	Koldanda	22.27	335	eP	P	23 00 36.4	+0.2
	comp=Z,147nm,1.0s,mb5.3						
POO	Poona	22.29	301	eP	P	23 00 37.3	+0.8
GYA	Guiyang	22.32	31	⇑iP	P	23 00 39.3	+2.6
GYA				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.5						
CD2	Chengdu	24.93	20	P	P	23 01 03.3	+1.1
CD2				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.9						
AJM	Ajmer	26.19	318	eP	P	23 01 14.8	+0.8
ENH	Enshi	26.86	31	eP	P	23 01 20.5	+0.5
	comp=Z,15nm,0.8s,mb4.6						
LZH	Lanzhou	29.75	16	eP	P	23 01 46.3	+0.2
LZH				AMB	AMB		
	comp=Z,31nm,1.1s,mb5.0						
GTA	Gaotai	32.09	9	P	P	23 02 07.0	+0.4
GTA				PCP	PcP	23 04 56.5	+0.9
GTA				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.7						
NJ2	Nanjing	33.62	40	eP	P	23 02 18.5	-1.5
NJ2				S	S	23 07 38.0	-1.5
NJ2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
NJ2				AMB	AMB		
	comp=Z,650nm,5.6s						
NJ2				LR	LR		
	comp=N,650nm,15.5s						
NJ2				LR	LR		
	comp=E,580nm,10.0s						
NJ2				LR	LR		
	comp=Z,910nm,14.5s,MS4.6						
SSE	Sheshan	34.57	44	eP	P	23 02 25.5	-2.8
SSE				AMB	AMB		
	comp=Z,29nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,256nm,4.4s						
KSH	Kashi	35.59	336	P	P	23 02 36.8	0.0
KSH				ePP	PP	23 04 02.0	+4.5
WMQ	Urumqi	36.45	352	P	P	23 02 44.3	+0.2
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.6s,mb4.9						
HHC	Hu-ho-hao-te	36.64	23	eP	P	23 02 47.0	+1.3
HHC				XS		23 08 50.5	
HHC				AMB	AMB		
	comp=Z,26nm,0.8s,mb5.1						
HHC				AMB	AMB		
	comp=Z,133nm,6.2s						
BJT	Baijiatuau	37.92	28	eP	P	23 02 58.9	+2.5
BJT				pmax	pmax		
	comp=Z,13nm,0.7s						
BJT	Baijiatuau	37.92	28	eP	P	23 02 58.9	+2.5
	comp=Z,13nm,0.7s,mb4.8						
BJI	Beijing	37.94	28	P	P	23 02 58.5	+1.9
BJI				AMB	AMB		
	comp=Z,18nm,0.7s,mb4.9						
UCH	Uchtor	38.47	337	P	P	23 03 02.0	+1.0
	SNR=14						
TKM2	Tokmak 2	38.66	338	P	P	23 03 02.7	+0.1
	SNR=8.1						
KBK	Karagaybulak	38.67	337	P	P	23 03 03.5	+0.8
	SNR=19						
AML	Almayashu	38.72	336	P	P	23 03 03.9	+0.8
	SNR=30						
AAK	Ala-Archa	38.83	337	P	P	23 03 05.0	+0.9
	SNR=13						
AAK	Ala-Archa	38.83	337	i P	P	23 03 03.2	-0.8
AAK				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.7						
FRU	Bishkek	38.95	337	eP	P	23 03 05.5	+0.5
CHMS	Chumysh	39.04	338	P	P	23 03 05.6	-0.2
	SNR=8.9						
EKS2	Erkin-Say	39.13	336	P	P	23 03 07.2	+0.6
	SNR=16						
USP	Ospenovka	39.36	338	P	P	23 03 08.5	0.0
	SNR=19						
SONM	Songino Array	41.45	13	P	P	23 03 25.9	+0.3
	comp=Z,7.3nm,0.7s,mb4.4,baz=195,slow=8.4,SNR=53						
SONM				PcP	PcP	23 05 22.7	-1.0
	comp=Z,6.0nm,0.6s,baz=199,slow=3.5,SNR=18						
SONM				ScP		23 09 11.8	
	comp=Z,2.0nm,1.2s,baz=201,slow=5.3,SNR=4.0						
SONM				LR	LR	23 20 30.4	
	comp=Z,149nm,18.3s,MS3.9,baz=151,slow=36						
ULN	Ulaanbaatar	41.63	13	eP	P	23 03 26.4	-0.7
ULN				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.4						
ULN	Ulaanbaatar	41.63	13	eP	P	23 03 26.4	-0.6
	comp=Z,7.5nm,0.8s,mb4.4						
SNY	Shenyang	43.01	33	⇑P	P	23 03 40.0	+1.5
SNY				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.5						
ZAK	Zakamensk	43.33	9	eP	P	23 03 40.3	-0.6
CN2	Changchun	45.37	32	eP	P	23 03 58.5	+1.1
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
HASS	Wahat al Ahsa’	45.59	298	P	P	23 04 00.5	+1.0
NWAO	Narrogin (SRO)	46.05	152	P	P	23 04 03.0	0.0
	comp=Z,23nm,1.1s,mb5.0,baz=331,slow=8.7,SNR=6.2						
ZAL	Zalesovo	46.75	353	P	P	23 04 07.8	-0.5
	comp=Z,16nm,0.4s,mb5.3,baz=219,slow=5.0,SNR=57						
ZAL				LR	LR	23 28 37.7	
	comp=Z,240nm,18.4s,MS4.2,baz=45,slow=42						
HIA	Hailar	46.84	23	eP	P	23 04 09.8	+0.8
HIA				pmax	pmax		
	comp=Z,41nm,1.0s						
HIA	Hailar	46.84	23	eP	P	23 04 09.8	+0.8
	comp=Z,41nm,1.0s,mb5.3						
NVS	Novosibirsk	47.85	352	eP	P	23 04 15.3	-1.5
NVS				pmax	pmax		
	comp=Z,21nm,1.3s,mb5.0						
NVS				pmax	pmax		
	comp=E,13nm,1.2s						
RYDS	Riyadh	48.06	296	P	P	23 04 20.9	+1.9
MDJ	Mudanjiang	48.15	34	P	P	23 04 19.8	+0.5
MDJ				AMB	AMB		
	comp=Z,14nm,0.9s,mb5.0						
MDJ				AMB	AMB		
	comp=Z,167nm,4.6s						
WRA	Warramunga Arr	48.33	125	P	P	23 04 20.1	-0.9
	comp=Z,12nm,0.6s,mb5.1,baz=306,slow=8.5,SNR=66						
WRA				PcP	PcP	23 05 47.2	-0.6
	comp=Z,1.8nm,0.9s,baz=318,slow=2.8,SNR=4.9						
WRAB	Tennant Creek	48.33	125	eP	P	23 04 20.4	-0.7
WRAB				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.4						
WRAB	Tennant Creek	48.33	125	eP	P	23 04 20.4	-0.7
	comp=Z,30nm,0.8s,mb5.4						
RDF	Al-Radifah	48.44	302	eP	P	23 04 22.1	+0.3
RDF				AMb	AMB	23 04 23.5	
	comp=Z,87nm,0.6s,mb6.0						
UMR	Umm Al-Rimmam	48.48	303	eP	P	23 04 22.5	+0.5
UMR				AMb	AMB	23 04 23.6	
	comp=Z,53nm,0.9s,mb5.6						
MIB	Mutribah	48.87	303	eP	P	23 04 25.7	+0.7
MIB				AMb	AMB	23 04 27.2	
	comp=Z,108nm,0.8s,mb6.0						
RST	Umm Al-Ruwaisa	49.06	303	eP	P	23 04 26.2	-0.4
RST				AMb	AMB	23 04 27.9	
	comp=Z,75nm,0.7s,mb5.8						
BVAR	Borovoye Array	49.14	341	P	P	23 04 26.0	-0.8
	comp=Z,2.9nm,0.7s,mb4.5,baz=141,slow=9.5,SNR=11						
BVAR				PcP	PcP	23 05 49.6	-0.7
	comp=Z,3.3nm,0.6s,baz=168,slow=5.0,SNR=5.2						
KAMS	Al Khamasin	49.30	290	P	P	23 04 28.5	0.0
MZLS	Mizel	49.32	295	P	P	23 04 29.6	+1.0
ASAR	Alice Springs	49.95	130	P	P	23 04 32.4	-1.1
	comp=Z,5.8nm,0.6s,mb4.8,baz=302,slow=6.9,SNR=56						
ASAR				PcP	PcP	23 05 53.2	-0.3
	comp=Z,2.7nm,0.7s,baz=306,slow=3.4,SNR=7.3						
ASAR				ScP		23 09 46.5	
	comp=Z,0.9nm,0.9s,baz=316,slow=3.3,SNR=4.1						
TATS	Tathlith	50.23	289	P	P	23 04 36.1	+0.4
FRSS	Farasan al Kab	51.28	285	P	P	23 04 45.1	+1.5
AFFS	‘Afif	51.28	295	P	P	23 04 44.8	+1.2
ARSS	Ar Rass	51.43	297	P	P	23 04 45.5	+0.9
KLR	Kul’dur	52.22	31	eP	P	23 04 49.0	-1.4
BOD	Bodaibo	52.44	13	⇓iP	P	23 04 51.5	-0.4
HILS	Ha’il	52.99	299	P	P	23 04 57.5	+1.1
GNI	Garni	54.42	315	i P	P	23 05 06.6	-0.1
GNI				pmax	pmax		
	comp=Z,14nm,1.2s						
GNI	Garni	54.42	315	P	P	23 05 05.8	-0.9
	comp=Z,4.0nm,0.6s,mb4.5,baz=57,slow=3.8,SNR=8.0						
GNI	Garni	54.42	315	eP	P	23 05 07.0	+0.2
	comp=Z,31nm,1.3s,mb5.1						
KBRS	Khaybar	54.94	296	P	P	23 05 11.7	+1.0
TI2	Plekhanov	55.05	316	eP	P	23 05 11.2	-0.1
SVE	Sverdlovsk	55.53	339	⇓eP	P	23 05 14.0	-0.6
SVE				pmax	pmax		
	comp=Z,60nm,1.5s,mb5.4						
PMG	Port Moresby	55.70	107	P	P	23 05 16.3	-0.1
	comp=Z,9.0nm,0.7s,mb4.9,baz=298,slow=9.0,SNR=5.9						
ARU	Arti	56.01	337	⇓iP	P	23 05 16.9	-1.1
ARU				e		23 06 12.0	
ARU				e		23 07 21.9	
ARU				ePPP	PPP	23 08 36.1	-4.3
ARU				eS	S	23 13 05.2	+2.7
ARU				eSS	SS	23 16 51.6	+2.9
ARU				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
ARU	Arti	56.01	337	eP	P	23 05 16.6	-1.4
	comp=Z,25nm,1.1s,mb5.2						
ZEI	Tsey	56.04	317	eP	P	23 05 15.6	-2.9
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
UMJS	Umm Lajj	56.60	295	P	P	23 05 24.1	+1.4
KMBO	Kilima Mbogo	57.14	264	eP	P	23 05 27.7	+1.0
KMBO				pmax	pmax		
	comp=Z,22nm,1.1s						
KMBO	Kilima Mbogo	57.14	264	P	P	23 05 27.9	+1.2
	comp=Z,13nm,0.9s,mb4.9,baz=49,slow=9.8,SNR=23						
KMBO	Kilima Mbogo	57.14	264	eP	P	23 05 27.7	+0.9
	comp=Z,22nm,1.1s,mb5.1						
KIV	Kislovodsk	57.33	318	i P	P	23 05 27.3	-0.3
KIV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
KIV	Kislovodsk	57.33	318	eP	P	23 05 26.4	-1.2
	comp=Z,16nm,0.9s,mb5.1						
TBKS	Tabuk	57.71	299	P	P	23 05 31.6	+1.1
JMQS	Jabal Moqyreh	58.40	299	P	P	23 05 36.2	+0.9
MALT	Malatya	58.43	310	eP	P	23 05 33.8	-1.6
MALT				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
MALT	Malatya	58.43	310	eP	P	23 05 33.8	-1.5
	comp=Z,5.5nm,1.0s,mb4.5						
AYUS	‘Aynunah	58.82	298	P	P	23 05 38.7	+0.4
SOKR	Solikamsk	58.93	339	⇑iP	P	23 05 36.8	-1.8
SOKR				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,260nm,20.0s,MS4.3						
BDAS	Al Bad‘	59.01	299	P	P	23 05 39.8	+0.3
JMOS	Jabal al Moall	59.11	299	P	P	23 05 40.7	+0.4
ALWS	Ilw as Safayha	59.17	300	P	P	23 05 41.5	+0.8
TAYS	Tayyib Ism	59.22	299	P	P	23 05 41.3	+0.3
HAQS	Haql	59.25	299	P	P	23 05 41.4	+0.2
EIL	Elat	59.33	300	eP	P	23 05 41.7	-0.1
	comp=Z,26nm,0.8s,mb5.3						
STKA	Stephens Creek	60.12	133	P	P	23 05 46.4	-0.8
	comp=Z,4.9nm,0.8s,mb4.6,baz=312,slow=8.0,SNR=9.7						
YAK	Yakutsk	60.30	19	i P	P	23 05 47.1	-0.9
YAK				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.3						
BRTR	Keskin Array B	62.40	311	P	P	23 06 00.2	-2.2
	comp=Z,4.8nm,0.7s,mb4.7,baz=128,slow=7.6,SNR=23						
MBAR	Mbarara	63.49	266	eP	P	23 06 10.3	+0.3
MBAR				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.2						
MBAR	Mbarara	63.49	266	eP	P	23 06 10.3	+0.3
	comp=Z,29nm,1.4s,mb5.2						
MOS	Moscow	65.15	329	eP	P	23 06 17.8	-2.5
OBN	Obninsk	65.45	328	eP	P	23 06 21.3	-0.8
OBN				e		23 06 27.9	
OBN				e		23 06 54.1	
OBN				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
MA2	Magadan	67.10	28	eP	P	23 06 32.6	0.0
MA2				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.2						
MA2	Magadan	67.10	28	eP	P	23 06 32.6	0.0
	comp=Z,17nm,0.7s,mb5.2						
TIXI	Tiksi	67.52	11	i P	P	23 06 34.1	-1.0
TIXI				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.4						
AKASG	Malin Array Be	68.19	322	P	P	23 06 36.6	-3.0
	comp=Z,1.2nm,0.6s,mb4.1,baz=87,slow=5.6,SNR=8.4						
IDI	Anoyia	68.50	305	P	P	23 06 40.5	-1.3
	comp=Z,30nm,0.9s,mb5.3,baz=82,slow=8.1,SNR=19						
LSZ	Lusaka	68.95	250	eP	P	23 06 44.9	0.0
LSZ				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
LSZ	Lusaka	68.95	250	eP	P	23 06 44.9	0.0
	comp=Z,12nm,0.9s,mb4.8						
MLR	Muntele Rosu	69.17	316	P	P	23 06 44.9	-0.8
	comp=Z,7.7nm,0.8s,mb4.7,baz=203,slow=1.8,SNR=7.5						
LVZ	Lovozero	71.70	340	eP	P	23 06 59.8	-0.9
LVZ				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.2						
APA	Apatity	71.98	339	⇓iP	P	23 07 01.9	-0.5
APA				i		23 07 07.9	
APA				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.2						
KOLS	Kolonicke sedl	72.22	319	eP	P	23 07 04.3	+0.2
FINES	FINESS Array B	72.81	332	P	P	23 07 06.1	-1.2
	comp=Z,4.2nm,0.6s,mb4.5,baz=101,slow=4.7,SNR=18						
KAF	Kangasniemi	72.89	333	ep	P	23 07 06.5	-1.3
	comp=Z,9.4nm,0.9s,mb4.7						
KAF	Kangasniemi	72.89	333	eP	P	23 07 06.5	-1.3
KAF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
LBTB	Lobatse	73.90	241	eP	P	23 07 15.1	+0.6
LBTB				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
LBTB	Lobatse	73.90	241	eP	P	23 07 15.1	+0.7
	comp=Z,34nm,1.0s,mb5.2						
OJC	Ojcow	74.00	320	eP	P	23 07 13.3	-1.2
VYHS	Vyhne	74.42	318	eP	P	23 07 16.0	-1.0
KEV	Kevo	74.98	341	ep	P	23 07 18.6	-1.2
	comp=Z,10nm,0.7s,mb4.9						
KEV	Kevo	74.98	341	eP	P	23 07 18.6	-1.2
KEV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
BOSA	Boshof	75.24	238	eP	P	23 07 22.7	+0.6
BOSA				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
BOSA	Boshof	75.24	238	eP	P	23 07 22.7	+0.5
	comp=Z,21nm,0.8s,mb5.1						
ARCES	ARCESS Array B	75.41	340	P	P	23 07 21.8	-0.5
	comp=Z,16nm,0.9s,mb4.9,baz=98,slow=4.8,SNR=26						
ZST	Bratislava	75.54	318	eP	P	23 07 23.6	+0.2
BILL	Bilibino	76.41	22	i P	P	23 07 28.0	+0.1
BILL				pmax	pmax		
	comp=Z,21nm,2.0s,mb4.7						
BILL	Bilibino	76.41	22	eP	P	23 07 28.1	+0.2
	comp=Z,8.2nm,0.9s,mb4.7						
PRU	Pruhonice	77.34	319	eP	P	23 07 34.1	+0.6
FX1	Attu Island--F	77.49	38	P	P	23 07 34.1	-0.1
	comp=Z,21nm,0.6s,mb5.2,baz=30,slow=18,SNR=8.8						
FX1	Attu Island--F	77.49	38	eP	P	23 07 34.3	+0.1
BRG	Berggiesshubel	77.78	320	eP	P	23 07 35.5	-0.3
BRG				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.8						
BRG	Berggiesshubel	77.78	320	eP	P	23 07 35.5	-0.3
	comp=Z,17nm,1.4s,mb4.8						
GERES	GERESS Array B	77.84	318	P	P	23 07 35.9	-0.3
	comp=Z,3.3nm,0.7s,mb4.4,baz=90,slow=5.3,SNR=28						
KHC	Kasperske Hory	77.93	319	i P	P	23 07 36.7	0.0
KHC	Kasperske Hory	77.93	319	eP	P	23 07 36.5	-0.2
MAW	Mawson	78.25	192	P	P	23 07 39.4	+1.3
	comp=Z,8.0nm,0.9s,mb4.6,baz=8.0,slow=11,SNR=4.7						
CLL	Collm	78.39	321	eP	P	23 07 41.0	+1.8
CLL	Collm	78.39	321	P	P	23 07 41.0	+1.8
WET	Wettzell	78.39	319	eP	P	23 07 39.0	-0.2
WET				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
WET	Wettzell	78.39	319	eP	P	23 07 39.0	-0.2
	comp=Z,2.0nm,0.8s,mb4.1						
HFS	Hagfors	78.54	330	P	P	23 07 39.4	-0.4
	comp=Z,6.5nm,0.6s,mb4.7,baz=112,slow=8.0,SNR=26						
MOX	Moxa	79.24	320	eP	P	23 07 43.7	-0.2
MOX	Moxa	79.24	320	i P	P	23 07 43.7	-0.2
GRA1	Grafenberg Arr	79.48	319	eP	P	23 07 45.4	+0.2
	comp=Z,7.0nm,0.9s,mb4.6						
GRF	Grafenberg Arr	79.48	319	eP	P	23 07 45.4	+0.2
GRF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GRF	Grafenberg Arr	79.48	319	eP	P	23 07 45.4	+0.2
GRF				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
GRF	Grafenberg Arr	79.48	319	eP	P	23 07 45.4	+0.2
	comp=Z,7.0nm,0.9s,mb4.6						
NB2	NORSAR Subarra	79.82	331	P	P	23 07 45.9	-0.9
	comp=Z,2.3nm,0.7s,mb4.2,baz=97,slow=5.0						
NB2	NORSAR Subarra	79.82	331	P	P	23 07 45.9	-0.9
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
NOA	NORSAR Array B	79.82	331	P	P	23 07 45.7	-1.0
	comp=Z,3.3nm,0.7s,mb4.4,baz=95,slow=5.2,SNR=8.5						
CLZ	Clausthal	80.04	321	eP	P	23 07 47.9	-0.2
	comp=Z,5.0nm,0.7s,mb4.5						
BSEG	Bad Segeberg	80.09	323	eP	P	23 07 48.3	-0.1
DAVOX	Davos	80.39	316	P	P	23 07 50.1	0.0
	comp=Z,11nm,0.8s,mb4.8,baz=104,slow=8.0,SNR=16						
BFO	Black Forest	81.40	318	eP	P	23 07 54.7	-0.7
BFO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BFO	Black Forest	81.40	318	eP	P	23 07 54.7	-0.7
	comp=Z,2.0nm,0.8s,mb4.1						
LPG	La Plagne	82.61	315	eP	P	23 08 01.7	0.0
	comp=Z,22nm,0.9s,mb4.9						
LPG	La Plagne	82.61	315	eP	P	23 08 01.7	0.0
LPG				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
EKA	Eskdalemuir Ar	87.78	325	P	P	23 08 27.4	+0.2
	comp=Z,2.8nm,0.7s,mb4.6,baz=93,slow=5.9,SNR=9.1						
ESDC	Sonseca Array	91.18	310	P	P	23 08 43.4	-0.3
	comp=Z,2.2nm,0.7s,mb4.6,baz=55,slow=4.8,SNR=12						
IMA	Indian Mountai	91.94	22	eP	P	23 08 48.1	+1.6
IMA				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.6						
IMA	Indian Mountai	91.94	22	eP	P	23 08 48.1	+1.6
	comp=Z,28nm,0.9s,mb5.6						
VNDA	Vanda	92.74	168	P	P	23 08 50.5	+0.6
	comp=Z,2.0nm,1.2s,mb4.4,baz=22,slow=2.8,SNR=6.7						
ILAR	Eielson Array	95.06	22	P	P	23 09 00.3	-0.5
	comp=Z,0.7nm,0.7s,mb4.2,baz=294,slow=4.9,SNR=9.8						
ILAR				PP	PP	23 12 49.9	-2.7
	comp=Z,0.8nm,0.8s,baz=286,slow=6.3,SNR=5.9						
DBIC	Dimbokro	97.72	278	P	P	23 09 15.1	+1.0
	comp=Z,3.1nm,0.9s,mb4.8,baz=11,slow=3.7,SNR=4.2						
YKA	Yellowknife Ar	106.72	13	PP	PP	23 14 16.4	-5.4
	comp=Z,0.4nm,0.7s,baz=333,slow=7.6,SNR=4.5						
ULM	Lac du Bonnet	121.74	7	PKP	PKPdf	23 14 33.6	-2.7
	comp=Z,2.2nm,0.6s,baz=6.8,slow=3.1,SNR=6.0						
NVAR	Mina Array Bea	125.26	31	PKP	PKPdf	23 14 41.4	-2.1
	comp=Z,1.9nm,0.6s,baz=318,slow=2.6,SNR=10						
PDAR	Pinedale Array	125.48	21	PKP	PKPdf	23 14 40.5	-3.4
	comp=Z,2.0nm,0.7s,baz=40,slow=1.3,SNR=18						
TXAR	Lajitas Array	139.55	24	PKhKP		23 14 59.4	
	comp=Z,0.3nm,0.5s,baz=180,slow=2.5,SNR=4.1						
TXAR				PKP	PKPdf	23 15 06.3	-4.2
	comp=Z,1.4nm,0.8s,baz=68,slow=1.3,SNR=7.9						
TXAR				SKPbc		23 18 41.9	
	comp=Z,0.6nm,0.7s,baz=297,slow=2.8,SNR=4.2						
JCT	Junction City	139.90	18	ePKIKP	PKPdf	23 15 07.8	-3.3
BDFB	Brasilia	141.89	254	PKP	PKPdf	23 15 10.8	-4.3
	comp=Z,2.0nm,0.6s,baz=217,slow=0.5,SNR=6.7						
LVC	Limon Verde	157.73	226	PKPab	PKPab	23 16 09.9	+1.0
	comp=Z,4.6nm,0.7s,baz=274,slow=3.0,SNR=8.5						
LPAZ	La Paz	160.43	242	PKP	PKPdf	23 15 39.3	-3.2
	comp=Z,2.1nm,0.8s,baz=153,slow=1.3,SNR=9.2						
LPAZ				PKPab	PKPab	23 16 20.6	-0.1
	comp=Z,3.8nm,1.1s,baz=94,slow=3.5,SNR=6.8						

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*IDC **29** 23:01:40.8±0.9, 7.88N×92.90E, mb4.1/10, mb1 4.2/10, mb1mx4.0/18, mbtmp4.1/10, Error ellipse: s-maj=50.5km s-min=16.9km az=50.0*

ISC 29 23:01:44.2±0.8**, 7.9N**±0.2×**93.0E**±0.2**, h33^{km}, n10, σ0^{s}74**/10**, mb4.1**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.40	14	P	P	23 09 29.3	+0.3
	1.3nm,0.8s,mb3.6,baz=207,slow=7.5,SNR=5.4						
ZAL	Zalesovo	46.37	353	P	P	23 10 08.0	-1.1
	1.1nm,0.9s,mb3.8,baz=201,slow=6.4,SNR=3.6						
WRA	Warramunga Arr	49.23	125	P	P	23 10 31.7	-0.1
	2.4nm,0.7s,mb4.3,baz=304,slow=8.9,SNR=13						
ASAR	Alice Springs	50.83	129	P	P	23 10 44.0	-0.1
	1.4nm,0.5s,mb4.1,baz=303,slow=7.0,SNR=14						
ASAR				PcP	PcP	23 11 59.3	-1.4
	1.4nm,0.8s,baz=318,slow=3.7,SNR=6.6						
STKA	Stephens Creek	60.97	133	P	P	23 11 56.8	0.0
	2.2nm,0.7s,mb4.4,baz=256,slow=4.5,SNR=3.8						
BRTR	Keskin Array B	61.53	311	P	P	23 11 58.9	-1.5
	1.4nm,1.0s,mb4.0,baz=126,slow=12,SNR=4.0						
FINES	FINESS Array B	72.14	332	P	P	23 13 07.1	0.0
	3.4nm,1.0s,mb4.2,baz=112,slow=10,SNR=5.1						
ARCES	ARCESS Array B	74.84	340	P	P	23 13 23.7	+1.0
	2.9nm,0.8s,mb4.2,baz=104,slow=5.0,SNR=4.8						
GERES	GERESS Array B	77.03	318	P	P	23 13 36.4	+0.8
	0.9nm,0.8s,mb3.8,baz=90,slow=5.3,SNR=5.1						
DAVOX	Davos	79.56	316	P	P	23 13 50.2	+0.6
	2.6nm,0.9s,mb4.2,baz=151,slow=10						

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*BJI **29** 23:08:34.2, 7.67N×93.38E, h30^{km}, mb4.6*

*IDC **29** 23:08:34.3±0.7, 8.35N×93.56E, mb4.0/15, mb1 4.2/16, mb1mx4.1/22, mbtmp4.1/16, Error ellipse: s-maj=31.3km s-min=15.1km az=57.0*

*NEIC **29** 23:08:40.0±0.8, 8.37N×93.68E, h30^{km}, mb4.5/9, Error ellipse: s-maj=26.3km s-min=15.3km az=83.0*

ISC 29 23:08:37.8±0.5**, 8.34N**±0.08×**93.6E**±0.1**, h33^{km}, n36, σ1^{s}06**/34**, mb4.3**/26**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.31	27	eP	P	23 11 20.6	+0.5
	13nm,0.7s						
CMAR	Chiang Mai Arr	11.31	27	Pn	P	23 11 19.2	-0.9
	0.8nm,0.3s,baz=212,slow=15,SNR=49						
PKI	Pulchoki	20.65	339	eP	P	23 13 18.0	+0.7
	58nm,1.2s						
DMN	Daman	20.80	338	eP	P	23 13 19.6	+0.8
	34nm,0.7s						
GUN	Gumba	20.80	340	eP	P	23 13 17.9	-0.9
	57nm,0.8s						
KKN	Kakani	20.90	339	eP	P	23 13 19.9	+0.1
	40nm,0.9s						
GKN	Gorkha	21.32	338	eP	P	23 13 22.7	-1.4
	52nm,0.9s,mb4.8						
LSA	Lhasa	21.38	354	eP	P	23 13 24.0	-0.6
	9.4nm,0.8s,mb4.2						
KOLN	Koldanda	21.53	335	eP	P	23 13 27.1	+0.9
	76nm,1.3s,mb5.0						
GYA	Guiyang	21.86	33	⇑iP	P	23 13 36.8	+7.3
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.6						
GTA	Gaotai	31.43	9	eP	P	23 15 00.0	+1.6
GTA				AP	pP	23 15 06.3	-1.7
GTA				XP	sP	23 15 11.3	-1.1
GTA				AMB	AMB		
	comp=Z,4.0nm,1.2s,mb4.1						
AAK	Ala-Archa	38.08	337	eP	P	23 15 55.9	+0.7
	comp=Z,6.9nm,1.0s,mb4.3						
SONM	Songino Array	40.83	13	P	P	23 16 17.6	-0.4
	comp=Z,3.0nm,1.2s,mb3.8,baz=196,slow=7.4,SNR=7.9						
SONM				PcP	PcP	23 18 19.3	+0.2
	comp=Z,0.6nm,0.7s,baz=191,slow=2.8,SNR=3.7						
ZAL	Zalesovo	46.02	353	P	P	23 16 59.6	-0.4
	comp=Z,2.7nm,0.6s,mb4.4,baz=228,slow=5.3,SNR=16						
NWAO	Narrogin (SRO)	46.79	152	P	P	23 17 07.0	+0.8
	comp=Z,17nm,0.8s,mb5.0,baz=295,slow=8.6,SNR=6.7						
NWAO	Narrogin (SRO)	46.79	152	eP	P	23 17 06.9	+0.7
	comp=Z,25nm,1.1s,mb5.1						
BVAR	Borovoye Array	48.39	341	P	P	23 17 18.6	+0.1
	comp=Z,0.5nm,0.6s,mb3.7,baz=141,slow=9.2,SNR=3.9						
CHKZ	Chkalovo	48.88	342	eP	P	23 17 21.6	-0.6
	comp=Z,2.7nm,0.9s,mb4.3						
WRA	Warramunga Arr	48.94	126	P	P	23 17 22.4	-0.8
	comp=Z,1.1nm,0.5s,mb4.1,baz=305,slow=8.5,SNR=9.2						
WRAB	Tennant Creek	48.94	126	eP	P	23 17 22.6	-0.7
	comp=Z,3.2nm,0.7s,mb4.5						

ASAR	**Alice Springs**	**50.60**	**130**	P	**P**	**23 17 35.0**	**-0.9**
	comp=Z,1.6nm,0.7s,mb4.1,baz=300,slow=7.4,SNR=13						
ASAR				PcP	PcP	23 18 54.0	+0.6
	comp=Z,1.6nm,0.8s,baz=313,slow=3.5,SNR=8.1						
BRTR	**Keskin Array B**	**61.75**	**311**	P	**P**	**23 18 54.3**	**-1.2**
	comp=Z,1.7nm,0.8s,mb4.2,baz=125,slow=6.9,SNR=9.8						
AKASG	**Malin Array Be**	**67.48**	**322**	P	**P**	**23 19 30.7**	**-1.8**
	comp=Z,0.2nm,0.3s,mb3.6,baz=121,slow=5.5,SNR=4.7						
FINES	**FINESS Array B**	**72.07**	**332**	P	**P**	**23 20 00.2**	**-0.1**
	comp=Z,1.0nm,0.6s,mb3.9,baz=90,slow=5.7,SNR=4.9						
LBTB	**Lobatse**	**74.02**	**241**	*e*P	**P**	**23 20 15.5**	**+2.9**
	comp=Z,5.9nm,1.0s,mb4.5						
ARCES	**ARCESS Array B**	**74.66**	**340**	P	**P**	**23 20 15.0**	**-0.4**
	comp=Z,3.6nm,0.9s,mb4.3,baz=90,slow=7.2,SNR=3.0						
GERES	**GERESS Array B**	**77.15**	**318**	P	**P**	**23 20 28.6**	**-1.3**
	comp=Z,0.8nm,0.8s,mb3.7,baz=101,slow=6.8,SNR=7.4						
HFS	**Hagfors**	**77.80**	**330**	P	**P**	**23 20 33.3**	**0.0**
	comp=Z,3.6nm,0.9s,mb4.3,baz=104,slow=6.1,SNR=4.4						
NB2	**NORSAR Subarra**	**79.08**	**331**	P	**P**	**23 20 38.3**	**-2.0**
	comp=Z,4.8nm,1.0s,mb4.4,baz=91,slow=5.0						
NOA	**NORSAR Array B**	**79.08**	**331**	P	**P**	**23 20 40.3**	**0.0**
	comp=Z,1.3nm,0.7s,mb4.0,baz=91,slow=5.7,SNR=3.1						
EKA	**Eskdalemuir Ar**	**87.06**	**325**	P	**P**	**23 21 23.1**	**+2.0**
	comp=Z,2.1nm,0.8s,mb4.4,baz=111,slow=6.9,SNR=4.9						
IMA	**Indian Mountai**	**91.39**	**22**	*e*P	**P**	**23 21 43.3**	**+1.9**
	comp=Z,8.8nm,0.8s,mb5.1						
ILAR	**Eielson Array**	**94.51**	**22**	P	**P**	**23 21 56.4**	**+0.7**
	comp=Z,0.3nm,0.8s,mb3.8,baz=316,slow=5.3,SNR=4.3						
RES	**Resolute Bay**	**96.96**	**2**	*e*P	**P**	**23 22 08.4**	**+1.7**
	comp=Z,3.2nm,1.1s,mb4.7						
PDAR	**Pinedale Array**	**124.92**	**21**	PKP	PKPdf	23 27 34.5	-0.5
	comp=Z,0.5nm,0.8s,baz=90,slow=1.5,SNR=4.3						
LPAZ	**La Paz**	**160.52**	**244**	PKPab	PKPab	23 29 19.9	+1.3
	comp=Z,0.9nm,0.7s,baz=134,slow=2.9,SNR=3.6						

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*IDC **29** 23:14:01.4±0.5,7.90N×92.25E,mb4.5/26,mb1 4.6/27, mb1mx4.6/28,mbtmp4.4/27,ML4.2/1,MS4.7/24,Ms1 4.7/24, ms1mx4.6/30,Error ellipse: s-maj=21.8km s-min=13.5km az=45.0*

*NEIC **29** 23:14:06.0±0.3,7.86N×92.07E,mb5.0/30,Error ellipse: s-maj=9.5km s-min=7.8km az=185.0*

*MOS **29** 23:14:06.0±1.0,8.05N×92.03E,h33^{km},mb5.1/35, MS4.7/6,Error ellipse: s-maj=13.0km s-min=6.1km az=120.2*

*HRVD **29** 23:14:06.0±0.2,7.84N×92.14E,h12^{km},MW5.2/63, Centroid moment Tensor Solution. LP body waves: s36,c53;Mantle waves: s63,c124; Half duration: $1^{s}0$ Moment tensor: Scale 10^{16}Nm; M_{rr}-0.02±.17; $M_{\theta\theta}$-4.12±.17; $M_{\phi\phi}$4.14±.17; $M_{r\theta}$-1.62±.46; $M_{\theta\phi}$-5.53±.14; $M_{\phi r}$-4.20±.43; Best double couple: $M_0$8.24×10^{16} NP1: ϕ_s109°,δ57°,λ-179°. NP2:ϕ_s18°,δ89°,λ-33°. Principal axes: T 8.15, Plg22°, Azm69°; N .18, Plg57°, Azm197°; P -8.33, Plg23°, Azm328°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **29** 23:14:10.0,8.36N×92.05E,h26^{km},mB5.3,mb4.8,Ms5.1, Msz4.8*

ISC 29 23:14:03.8±0.3,**7.78N**±0.04×**92.16E**±0.03,**h27**^{km}, **h27**^{km}±1.3^{km}**:pP-P,n278,**σ**$1^{s}07$**/255,**mb4.9**/79,**MS4.8**/41, **13C-14D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**8.40**	**94**	P	**P**	**23 16 08.0**	**+1.1**
	90nm,1.0s						
NST	**Nakhon Sawan**	**11.06**	**44**	P	**P**	**23 16 35.0**	**-8.6**
PALK	**Pallekele**	**11.37**	**268**	*e*P	**P**	**23 16 45.4**	**-2.4**
	44nm,0.5s						
CM31	**Chiang Mai Arr**	**12.50**	**31**	*e*P	**P**	**23 17 03.9**	**+1.0**
CMAR	**Chiang Mai Arr**	**12.50**	**31**	Pn	**P**	**23 17 00.2**	**-2.7**
	0.4nm,0.3s,baz=230,slow=15,SNR=16						
CMAR				LR	LR	23 22 14.7	
	comp=Z,1µm,18.7s,baz=225,slow=40						
MDRS	**Chennai**	**12.84**	**295**	*e*S	**S**	**23 19 15.5**	**-15**
MDRS				*e*		23 22 00.5	
	comp=Z,2µm,18.7s						
VIS	**Vishakhapatnam**	**13.11**	**320**	⇓*e*P	**P**	**23 17 08.4**	**-2.5**
VIS				*e*		23 22 21.8	
	comp=Z,4µm,22.1s						
KKTK	**Khon Kaen**	**13.45**	**50**	P	**P**	**23 17 25.0**	**+9.5**
	comp=Z,617nm,0.8s						
NANT	**Nan**	**13.74**	**36**	P	**P**	**23 17 20.5**	**+1.0**
CHRT	**Chiangrai**	**14.11**	**31**	PG	**P**	**23 17 25.0**	**+0.7**
KOD	**Kodaikanal**	**14.72**	**281**	*e*P	**P**	**23 17 32.1**	**-0.2**
TRD	**Trivandrum**	**15.07**	**274**	*e*P	**P**	**23 17 37.0**	**0.0**
TRD				*e*S	**S**	**23 20 23.4**	**-0.2**
TRD				*e*S	**S**	**23 20 24.0**	**+0.4**
TRD				*e*		23 23 19.7	
	comp=Z,1µm,20.4s						
AGT	**Agartala**	**16.04**	**357**	⇑*i*P	**P**	**23 17 47.0**	**-2.4**
AGT				*i*		23 19 03.0	
HYB	**Hyderabad**	**16.37**	**307**	*e*P	**P**	**23 17 52.0**	**-1.5**
HYB	**Hyderabad**	**16.37**	**307**	*i* P	**P**	**23 17 52.0**	**-1.5**
IMP	**Imphal**	**17.00**	**6**	*e*P	**P**	**23 18 01.7**	**+0.2**
BOK	**Bokaro**	**17.03**	**340**	⇓*e*P	**P**	**23 18 02.5**	**+0.7**
BOK				*e*S	**S**	**23 21 09.7**	**+0.8**
BOK				*e*		23 24 44.0	
	comp=Z,3µm,22.1s						
BLSP	**Bilaspur**	**17.23**	**327**	⇓*e*P	**P**	**23 18 05.6**	**+1.1**
BLSP				*e*S	**S**	**23 21 15.5**	**+1.9**
BLSP				*e*		23 24 36.4	
	comp=Z,4µm,18.7s						
SHL	**Shillong**	**17.70**	**359**	⇑*e*	**P**	**23 18 06.0**	**-4.2**
SHL				*i*		23 27 19.5	
	comp=Z,3µm,20.7s						
MNGI	**Mangalore**	**17.81**	**288**	*e*	**S**	**23 21 20.0**	**-6.7**
NGP	**Nagpur**	**18.36**	**318**	⇑*e*P	**P**	**23 18 18.4**	**-0.1**
	comp=Z,86nm,0.8s						
AKL	**Akola**	**19.49**	**313**	⇓*i*P	**P**	**23 18 31.3**	**-0.5**
	comp=Z,207nm,1.8s						
AKL				*e*		23 18 37.3	
	comp=Z,185nm,1.7s						
AKL				*e*S	**S**	**23 22 12.0**	**+7.4**
GOA	**Goa**	**19.52**	**295**	*e*P	**P**	**23 18 31.5**	**-0.7**
	comp=Z,81nm,1.2s						
GOA				⇓*e*P		23 18 37.0	
GOA				*e*S	**S**	**23 22 15.5**	**+10**
KAD	**Karad**	**19.93**	**300**	⇓*e*P	**P**	**23 18 36.5**	**-0.2**
KAD				⇓*e*S	**S**	**23 22 19.1**	**+5.1**
KAD				*e*		23 26 02.4	
	comp=Z,2µm,22.1s						
KMI	**Kunming**	**19.99**	**29**	P	**P**	**23 18 38.0**	**+0.6**
KMI				PP	PP	23 18 55.5	-1.1
KMI				S	**S**	**23 22 17.8**	**+2.5**
KMI				AMB	AMB		
	comp=Z,30nm,1.7s						
KMI				LR	LR		
	comp=N,2µm,17.6s						
KMI				LR	LR		
	comp=E,2µm,20.2s						
KMI				LR	LR		
	comp=Z,2µm,16.2s						
QIZ	**Qiongzhong**	**20.49**	**55**	P	**P**	**23 18 42.3**	**-0.2**
QIZ				*e*S	**S**	**23 22 19.0**	**-6.5**
QIZ				XS		23 22 41.8	
QIZ				LR	LR		
	comp=N,3µm,19.7s						
QIZ				LR	LR		
	comp=Z,2µm,23.1s,MS4.4						
QIZ	**Qiongzhong**	**20.49**	**55**	*e*P	**P**	**23 18 40.5**	**-2.1**
	comp=Z,139nm,1.5s						
PKI	**Pulchoki**	**20.70**	**343**	*e*P	**P**	**23 18 44.1**	**-0.6**
	comp=Z,446nm,1.0s						
POO	**Poona**	**20.77**	**303**	⇓*e*P	**P**	**23 18 45.5**	**+0.2**
POO				*e*		23 26 56.9	
	comp=Z,3µm,20.4s						
DMN	**Daman**	**20.83**	**342**	*e*P	**P**	**23 18 45.3**	**-0.7**
	comp=Z,422nm,0.8s						
GUN	**Gumba**	**20.89**	**344**	*e*P	**P**	**23 18 46.5**	**-0.1**
	comp=Z,286nm,0.8s						
BHPL	**Bhopal**	**20.90**	**319**	⇓*e*P	**P**	**23 18 47.0**	**+0.3**
BHPL				*e*S	**S**	**23 22 38.5**	**+5.0**
BHPL				*e*		23 26 47.5	
	comp=Z,3µm,18.7s						
KKN	**Kakani**	**20.95**	**343**	*e*P	**P**	**23 18 46.6**	**-0.6**
	comp=Z,186nm,0.8s						
GKN	**Gorkha**	**21.34**	**341**	*e*P	**P**	**23 18 50.7**	**-0.5**
	comp=Z,512nm,0.9s,mb5.8						
KOLN	**Koldanda**	**21.48**	**339**	*e*P	**P**	**23 18 52.3**	**-0.2**
	comp=Z,433nm,0.8s,mb5.8						
BOM	**Bombay**	**21.80**	**302**	*e*S	**S**	**23 22 54.6**	**+4.1**
LSA	**Lhasa**	**21.83**	**358**	*e*P	**P**	**23 18 56.0**	**-0.1**
LSA				pmax	pmax		
	comp=Z,63nm,0.9s,mb5.0						
LSA	**Lhasa**	**21.83**	**358**	*e*P	**P**	**23 18 56.0**	**0.0**
	comp=Z,63nm,0.9s,mb5.0						
GYA	**Guiyang**	**23.14**	**35**	⇑*i*P	**P**	**23 19 08.8**	**-0.3**
GYA				AP		23 19 16.0	
GYA				XP		23 19 19.0	
GYA				S	**S**	**23 23 18.0**	**+3.4**
GYA				AMB	AMB		
	comp=Z,70nm,0.9s,mb5.1						
GYA				AMB	AMB		
	comp=Z,1µm,5.2s						
GYA				LR	LR		
	comp=N,1µm,16.8s,MS4.7						
GYA				LR	LR		
	comp=E,2µm,17.0s,MS4.7						
GYA				LR	LR		
	comp=Z,3µm,16.0s,MS4.9						
PTH	**Pithoragarh**	**24.40**	**334**	*e*P	**P**	**23 19 22.9**	**+1.6**
AJM	**Ajmer**	**24.96**	**320**	*e*P	**P**	**23 19 27.5**	**+0.8**
AJM				*e*S	**S**	**23 23 49.4**	**+3.5**
AJM				*e*		23 29 13.9	
	comp=Z,3µm,25.5s						
NDI	**New Delhi**	**25.12**	**328**	*e*	**S**	**23 23 41.8**	**-6.8**
CD2	**Chengdu**	**25.44**	**24**	P	**P**	**23 19 32.0**	**+0.8**
CD2				PP	PP	23 20 10.3	-0.2
CD2				PPP	PPP	23 20 20.3	-1.7
CD2				S	**S**	**23 23 52.8**	**-1.1**
CD2				XS		23 24 01.3	
CD2				SS	SS	23 24 51.5	-5.2
CD2				AMB	AMB		
	comp=Z,50nm,0.8s,mb5.1						
CD2				AMB	AMB		
	comp=Z,370nm,7.3s						
CD2				LR	LR		
	comp=N,2µm,15.0s						
CD2				LR	LR		
	comp=Z,2µm,15.3s,MS4.8						
DDI	**Dehra Dun**	**26.04**	**331**	*e*P	**P**	**23 19 35.9**	**-0.9**
BHJ	**Bhuj**	**26.53**	**308**	*e*P	**P**	**23 19 41.9**	**+0.5**
BHJ				*e*		23 31 44.7	
	comp=Z,1µm,20.4s						
ENH	**Enshi**	**27.65**	**34**	*e*P	**P**	**23 19 50.0**	**-1.5**
	comp=Z,61nm,1.1s,mb5.1						
TGY	**Tagaytay City**	**28.92**	**75**	LR	LR	23 30 53.9	
	comp=Z,2µm,21.9s,MS4.7,baz=257,slow=35						
LZH	**Lanzhou**	**30.14**	**19**	⇑P	**P**	**23 20 18.8**	**+5.0**
LZH				AP	pP	23 20 21.8	0.0
LZH				XP	sP	23 20 24.5	-0.8
LZH				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
LZH				AMB	AMB		
	comp=Z,133nm,4.0s						
LZH				LR	LR		
	comp=E,1µm,14.0s						
LZH				LR	LR		
	comp=Z,3µm,15.6s,MS5.0						
WHN	**Wuhan**	**30.73**	**40**	⇓P	**P**	**23 20 19.0**	**-0.1**
GTA	**Gaotai**	**32.24**	**11**	P	**P**	**23 20 32.0**	**-0.2**
GTA				AP	pP	23 20 38.3	-2.0
GTA				XP	sP	23 20 41.5	-2.3
GTA				S	**S**	**23 25 40.0**	**-2.6**
GTA				AMB	AMB		
	comp=Z,16nm,1.6s,mb4.6						
GTA				AMB	AMB		
	comp=Z,286nm,11.8s						
GTA				LR	LR		
	comp=N,707nm,15.6s,MS4.6						
GTA				LR	LR		
	comp=E,870nm,17.1s,MS4.6						
GTA				LR	LR		
	comp=Z,888nm,22.4s						
NJ2	**Nanjing**	**34.64**	**42**	*e*P	**P**	**23 20 53.5**	**+0.4**
NJ2				AP	pP	23 21 03.0	+1.8
NJ2				XP	sP	23 21 08.8	+4.2
NJ2				S	**S**	**23 26 21.0**	**+1.1**
NJ2				XS		23 26 34.0	
NJ2				AMB	AMB		
	comp=Z,60nm,1.2s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,530nm,5.4s						
NJ2				LR	LR		
	comp=N,3µm,14.7s,MS5.2						
NJ2				LR	LR		
	comp=E,2µm,14.1s,MS5.2						
NJ2				LR	LR		
	comp=Z,2µm,17.6s,MS5.0						
KSH	**Kashi**	**34.78**	**338**	P	**P**	**23 20 54.5**	**+0.2**
KSH				AP	pP	23 21 04.0	+1.6
KSH				XP	sP	23 21 09.5	+3.7
KSH				*e*PP	PP	23 22 13.3	+1.4
KSH				AMB	AMB		
	comp=Z,150nm,4.1s						
KSH				LR	LR		
	comp=N,700nm,10.3s,MS5.0						
KSH				LR	LR		
	comp=E,1µm,12.4s,MS5.0						
SSE	**Sheshan**	**35.67**	**46**	P	**P**	**23 21 03.5**	**+1.6**
SSE				S	**S**	**23 26 42.8**	**+6.8**
SSE				AMB	AMB		
	comp=Z,35nm,0.7s,mb5.4						
SSE				AMB	AMB		
	comp=Z,281nm,4.7s						
SSE				LR	LR		
	comp=N,490nm,18.1s,MS4.4						
SSE				LR	LR		
	comp=E,349nm,18.3s,MS4.4						
SSE				LR	LR		
	comp=Z,614nm,17.5s,MS4.4						
WMQ	**Urumqi**	**36.12**	**355**	P	**P**	**23 21 05.8**	**+0.3**
WMQ				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.4						
TIA	**Tai'an**	**36.33**	**35**	*e*P	**P**	**23 21 12.8**	**+5.4**
HHC	**Hu-ho-hao-te**	**37.19**	**25**	*e*P	**P**	**23 21 20.3**	**+5.7**
HHC				AP	pP	23 21 24.0	+1.3
HHC				XP	sP	23 21 28.3	+2.1
HHC				SCS	ScS	23 31 28.5	+3.6
HHC				AMB	AMB		
	comp=Z,13nm,1.1s,mb4.7						
HHC				AMB	AMB		
	comp=Z,124nm,4.5s						
HHC				LR	LR		
	comp=N,1µm,14.3s,MS5.0						
HHC				LR	LR		
	comp=E,1µm,14.3s,MS5.0						
HHC				LR	LR		
	comp=Z,989nm,15.5s,MS4.7						
KZA	**Kyzart**	**37.29**	**339**	P	**P**	**23 21 17.0**	**+1.5**
	SNR=18						
UCH	**Uchtor**	**37.69**	**338**	P	**P**	**23 21 20.0**	**+1.2**
	SNR=41						
KBK	**Karagaybulak**	**37.91**	**339**	P	**P**	**23 21 22.0**	**+1.4**
	SNR=58						
AML	**Almayashu**	**37.91**	**337**	P	**P**	**23 21 21.7**	**+1.0**
	SNR=103						
TKM2	**Tokmak 2**	**37.92**	**340**	P	**P**	**23 21 21.8**	**+1.1**
	SNR=14						
AAK	**Ala-Archa**	**38.05**	**339**	P	**P**	**23 21 23.1**	**+1.3**
	SNR=31						
AAK	**Ala-Archa**	**38.05**	**339**	*i* Pr	**P**	**23 21 21.3**	**-0.5**
FRU	**Bishkek**	**38.18**	**339**	*e*P	**P**	**23 21 23.5**	**+0.6**
FRU				pmax	pmax		
	comp=Z,66nm,1.8s,mb5.1						
CHMS	**Chumysh**	**38.28**	**339**	P	**P**	**23 21 24.2**	**+0.5**
	SNR=15						
EKS2	**Erkin-Say**	**38.34**	**338**	P	**P**	**23 21 25.4**	**+1.2**
	SNR=37						
USP	**Ospenovka**	**38.60**	**339**	P	**P**	**23 21 27.4**	**+1.0**
	SNR=40						
BJT	**Baijiatuau**	**38.62**	**30**	P	**P**	**23 21 26.1**	**-0.6**
BJT				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BJT	**Baijiatuau**	**38.62**	**30**	P	**P**	**23 21 26.1**	**-0.6**
	comp=Z,7.3nm,0.6s,mb4.6						
BJI	**Beijing**	**38.64**	**30**	P	**P**	**23 21 32.0**	**+5.2**
BJI				S	**S**	**23 27 25.8**	**+4.6**
BJI				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.4						
BJI				LR	LR		
	comp=N,926nm,14.5s,MS4.9						
BJI				LR	LR		
	comp=E,1µm,16.5s,MS4.9						
BJI				LR	LR		
	comp=Z,994nm,18.6s,MS4.7						
JOW	**Kunigami**	**39.13**	**57**	LR	LR	23 41 58.3	
	comp=Z,941nm,18.5s,MS4.7,baz=34,slow=43						
MBWA	**Marble Bar**	**39.49**	**137**	*e*P	**P**	**23 21 34.0**	**-0.1**
SONM	**Songino Array**	**41.72**	**14**	P	**P**	**23 21 51.9**	**-0.2**
	comp=Z,5.9nm,0.8s,mb4.3,baz=193,slow=8.7,SNR=24						
SONM				LR	LR	23 41 43.2	
	comp=Z,1µm,20.8s,MS4.8,baz=8.8,slow=40						
ULN	**Ulaanbaatar**	**41.91**	**15**	*i* P	**P**	**23 21 54.9**	**+1.2**
ZAK	**Zakamensk**	**43.47**	**10**	*e*P	**P**	**23 22 05.3**	**-1.1**
ZAK				*e*		23 23 57.6	
SNY	**Shenyang**	**43.84**	**34**	⇑P	**P**	**23 22 14.8**	**+5.3**
SNY				S	**S**	**23 28 37.8**	**-0.4**
SNY				LR	LR		
	comp=E,870nm,14.3s						
SNY				LR	LR		
	comp=Z,1µm,15.7s,MS4.8						
MOY	**Mondy**	**44.36**	**8**	*e*P	**P**	**23 22 18.6**	**+5.0**
TLY	**Talaya**	**44.78**	**10**	*e*P	**P**	**23 22 19.5**	**+2.5**
TLY				*e*S	**S**	**23 28 45.6**	**-6.2**
TLY				*e*SS	SS	23 32 12.3	+8.1
TLY				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.7						
TLY				MLR	MLR		
	comp=Z,388nm,16.0s,MS4.4						
TLY	**Talaya**	**44.78**	**10**	*i* P	**P**	**23 22 18.9**	**+1.9**
CN2	**Changchun**	**46.17**	**33**	⇑P	**P**	**23 22 34.8**	**+6.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
ZAL	**Zalesovo**	**46.41**	**354**	P	**P**	**23 22 29.1**	**-0.8**
	comp=Z,5.5nm,0.8s,mb4.5,baz=202,slow=5.1,SNR=24						
ZAL				LR	LR	23 45 34.9	
	comp=Z,1µm,21.9s,MS4.8,baz=204,slow=41						
KBD	**Kabd**	**46.87**	**303**	*e*P	pP	23 22 43.0	+1.0
RDF	**Al-Radifah**	**46.92**	**303**	*e*P	**P**	**23 22 35.0**	**+0.7**
RDF				AMb	AMB	23 22 47.8	
	comp=Z,69nm,0.7s,mb5.7						
NWAO	**Narrogin (SRO)**	**46.99**	**151**	*e*P	pP	23 22 44.6	+1.7
NWAO	**Narrogin (SRO)**	**46.99**	**151**	LR	LR	23 42 10.9	
	comp=Z,6.8nm,21.1s,baz=146,slow=36						
MIB	**Mutribah**	**47.36**	**304**	*e*P	**P**	**23 22 38.9**	**+1.2**
MIB				AMb	AMB	23 22 49.5	
	comp=Z,107nm,0.8s,mb5.8						
HIA	**Hailar**	**47.40**	**24**	*e*P	**P**	**23 22 37.9**	**+0.2**
HIA				pmax	pmax		
	comp=Z,6.0nm,0.3s						
HIA	**Hailar**	**47.40**	**24**	*e*P	**P**	**23 22 37.9**	**+0.2**
	comp=Z,5.9nm,0.3s,mb5.0						
NVS	**Novosibirsk**	**47.48**	**353**	*e*P	**P**	**23 22 36.9**	**-1.4**
NVS				*i*	pP	23 22 46.5	0.0
NVS				*e*S	**S**	**23 29 27.3**	**-2.8**
NVS				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.8						
NVS				pmax	pmax		
	comp=N,19nm,1.6s						
NVS				smax			
	comp=E,33nm,1.7s						
RST	**Umm Al-Ruwaisa**	**47.55**	**303**	*e*P	**P**	**23 22 39.5**	**+0.3**
RST				AMb	AMB	23 22 50.2	
	comp=Z,67nm,0.9s,mb5.7						
KAMS	**Al Khamasin**	**47.64**	**290**	P	**P**	**23 22 40.2**	**+0.2**
MZLS	**Mizel**	**47.71**	**295**	P	**P**	**23 22 41.6**	**+1.1**
BVAR	**Borovoye Array**	**48.47**	**343**	P	**P**	**23 22 44.7**	**-1.3**
	comp=Z,14nm,1.1s,mb4.9,baz=143,slow=7.4,SNR=30						
BRVK	**Borovoye**	**48.53**	**343**	*i* P	**P**	**23 22 45.9**	**-0.6**
BRVK	**Borovoye**	**48.53**	**343**	*i* Pr		23 22 45.9	
TATS	**Tathlith**	**48.57**	**289**	P	**P**	**23 22 48.0**	**+0.8**
CHKZ	**Chkalovo**	**48.98**	**343**	*e*P	**P**	**23 22 49.4**	**-0.5**
CHKZ				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.1						
CHKZ	**Chkalovo**	**48.98**	**343**	*e*P	**P**	**23 22 49.4**	**-0.5**
	comp=Z,14nm,0.7s,mb5.1						
AFFS	**'Afif**	**49.67**	**295**	P	**P**	**23 22 57.4**	**+1.7**
WRA	**Warramunga Arr**	**49.81**	**124**	*i* P	**P**	**23 22 56.5**	**-0.3**
WRA				pmax	pmax		
	comp=Z,10.0nm,0.9s						
WRA	**Warramunga Arr**	**49.81**	**124**	P	**P**	**23 22 56.1**	**-0.7**
	comp=Z,10nm,0.9s,mb4.9,baz=303,slow=8.7,SNR=27						
WRAB	**Tennant Creek**	**49.82**	**124**	*i* P	**P**	**23 22 56.8**	**0.0**
WRAB	**Tennant Creek**	**49.82**	**124**	*e*P	**P**	**23 22 55.9**	**-0.9**
	comp=Z,17nm,0.8s,mb5.1						
ARSS	**Ar Rass**	**49.84**	**297**	P	**P**	**23 22 57.9**	**+0.9**
JHJ	**Hachijo jima 2**	**50.68**	**53**	LR	LR	23 44 34.9	
	comp=Z,404nm,19.4s,MS4.5,baz=155,slow=36						
CBIJ	**Chichi jima**	**51.06**	**61**	LR	LR	23 43 22.7	
	comp=Z,567nm,18.4s,MS4.6,baz=90,slow=35						
ASAR	**Alice Springs**	**51.37**	**129**	P	**P**	**23 23 08.0**	**-0.6**
	comp=Z,4.7nm,0.8s,mb4.5,baz=306,slow=7.1,SNR=32						
ASAR				LR	LR	23 46 43.0	
	comp=Z,520nm,18.8s,MS4.6,baz=300,slow=38						
HILS	**Ha'il**	**51.43**	**299**	P	**P**	**23 23 11.0**	**+2.0**
BOD	**Bodaibo**	**52.72**	**14**	*e*P	**P**	**23 23 17.7**	**-0.6**
KLR	**Kul'dur**	**52.98**	**32**	*e*P	pP	23 23 28.0	-0.7
GNI	**Garni**	**53.11**	**315**	*i* P	**P**	**23 23 19.6**	**-1.9**
GNI	**Garni**	**53.11**	**315**	P	**P**	**23 23 20.1**	**-1.3**
	comp=Z,10nm,0.9s,mb4.8,baz=3.1,slow=1.5,SNR=9.2						
TI2	**Plekhanov**	**53.77**	**317**	⇑*i*P	**P**	**23 23 26.2**	**0.0**
TI2				*i*	pP	23 23 36.2	+1.6
ZEI	**Tsey**	**54.78**	**318**	*e*P	**P**	**23 23 29.0**	**-4.7**
ZEI				*i* *PP	pP	23 23 41.7	-0.3
ZEI				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
SVE	**Sverdlovsk**	**54.79**	**339**	⇓*e*P	**P**	**23 23 32.5**	**-1.0**
SVE				*e*S	**S**	**23 31 12.0**	**+1.3**
SVE				*e*		23 31 26.0	
SVE				pmax	pmax		
	comp=Z,120nm,1.5s,mb5.7						
SVE				MLR	MLR		
	comp=Z,1µm,15.0s,MS5.0						
UMJS	**Umm Lajj**	**54.99**	**295**	P	**P**	**23 23 37.4**	**+1.9**
CLNS	**Chul'man**	**55.22**	**21**	*e*P	**P**	**23 23 36.4**	**-0.3**
CLNS				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.1						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,8.0nm,1.0s						
ARU	**Arti**	**55.23**	**338**	*i* P	**P**	**23 23 35.6**	**-1.2**
KMBO	**Kilima Mbogo**	**55.47**	**263**	*e*P	**P**	**23 23 40.2**	**+1.2**
KMBO				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KMBO	**Kilima Mbogo**	**55.47**	**263**	P	**P**	**23 23 40.0**	**+1.0**
	comp=Z,5.7nm,0.9s,mb4.6,baz=57,slow=11,SNR=7.9						
KMBO				LR	LR	23 45 54.0	
	comp=Z,696nm,18.2s,MS4.8,baz=77,slow=34						
KMBO	**Kilima Mbogo**	**55.47**	**263**	*e*P	**P**	**23 23 40.2**	**+1.1**
	comp=Z,9.7nm,0.9s,mb4.8						
KIV	**Kislovodsk**	**56.08**	**319**	*i* P	**P**	**23 23 40.5**	**-2.6**
TBKS	**Tabuk**	**56.15**	**299**	P	**P**	**23 23 45.4**	**+1.7**
GOF	**Gofitskoye**	**56.33**	**320**	*e*P	**P**	**23 23 44.0**	**-0.8**
GOF				*e*S	**S**	**23 31 50.0**	**+18**
GOF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
ASF	**Jabal al Asfar**	**56.63**	**303**	P	**P**	**23 23 48.3**	**+1.1**
	comp=Z,4.8nm,0.8s,mb4.6,baz=2.4,slow=6.3,SNR=6.8						
JMQS	**Jabal Moqyreh**	**56.84**	**299**	P	**P**	**23 23 50.2**	**+1.4**
MALT	**Malatya**	**57.04**	**311**	*e*P	**P**	**23 23 49.6**	**-0.4**
MALT				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
MALT	**Malatya**	**57.04**	**311**	*e*P	**P**	**23 23 49.6**	**-0.4**
	comp=Z,12nm,0.9s,mb4.9						
AYUS	**'Aynunah**	**57.25**	**298**	P	**P**	**23 23 52.6**	**+0.9**
PMG	**Port Moresby**	**57.38**	**106**	*e*P	**P**	**23 23 54.1**	**+1.4**
PMG				pmax	pmax		
	comp=Z,17nm,0.7s						
PMG	**Port Moresby**	**57.38**	**106**	*e*P	**P**	**23 23 54.1**	**+1.3**
	comp=Z,17nm,0.7s,mb5.2						
BDAS	**Al Bad'**	**57.44**	**299**	P	**P**	**23 23 53.4**	**+0.5**
JMOS	**Jabal al Moall**	**57.55**	**300**	P	**P**	**23 23 54.8**	**+1.0**
HAQS	**Haql**	**57.69**	**299**	P	**P**	**23 23 55.8**	**+1.1**
EIL	**Elat**	**57.78**	**300**	P	**P**	**23 23 55.9**	**+0.6**
	comp=Z,7.8nm,0.9s,mb4.7,baz=150,slow=3.2,SNR=8.8						
EIL	**Elat**	**57.78**	**300**	*e*P	**P**	**23 23 56.0**	**+0.7**
	comp=Z,25nm,0.9s,mb5.2						
SOC	**Sochi**	**57.91**	**317**	*e*P	**P**	**23 23 47.6**	**-8.4**
SOC				*e*		23 24 40.3	
SOC				*e*		23 26 07.4	
SOC				*e*S	**S**	**23 31 43.7**	**-8.7**
SOC				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
SOC				pmax	pmax		
	comp=N,15nm,0.9s						
SOC				pmax	pmax		
	comp=E,33nm,0.7s						
YSS	**Yuzh-Sakhalins**	**58.07**	**39**	*e*P	**P**	**23 23 56.8**	**-0.3**
SOKR	**Solikamsk**	**58.20**	**340**	⇑*i*P	**P**	**23 23 56.1**	**-1.7**
SOKR				*e*	pP	23 24 05.3	-0.9
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						

SOKR				MLR	MLR		
	comp=Z,1µm,21.0s,MS5.0						
CTA	**Charters Tower**	**59.98**	**118**	LR	LR	23 49 12.0	
	comp=Z,278nm,20.7s,MS4.4,baz=105,slow=35						
YAK	**Yakutsk**	**60.72**	**19**	*e*P	**P**	**23 24 12.3**	**-2.9**
YAK				*e*S	**S**	**23 32 33.3**	**+4.8**
YAK				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,8.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,6.0nm,1.1s						
YAK				smax			
	comp=Z,46nm,13.0s						
YAK				smax			
	comp=N,123nm,15.7s						
YAK				smax			
	comp=E,93nm,15.6s						
YAK				MLR	MLR		
	comp=Z,467nm,17.0s,MS4.7						
YAK				MLR	MLR		
	comp=N,308nm,18.0s,MS4.7						
YAK				MLR	MLR		
	comp=E,371nm,16.0s,MS4.7						
YAK	**Yakutsk**	**60.72**	**19**	*i* P	**P**	**23 24 15.6**	**+0.4**
BRTR	**Keskin Array B**	**61.01**	**311**	P	**P**	**23 24 16.1**	**-1.3**
	comp=E,4.4nm,0.8s,mb4.6,baz=119,slow=7.4,SNR=27						
VRSR	**Storozhevoye**	**61.33**	**325**	*e*P	**P**	**23 24 17.3**	**-2.1**
VRSR				*e**SP	sP	23 24 26.5	-4.5
VRSR				*e*		23 26 29.5	
VRSR				*e*		23 34 00.7	
VRSR				*e*SS	SS	23 36 36.5	-2.0
VRSR				pmax	pmax		
	comp=N,4.0nm,0.6s						
VRSR				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.7						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.8s						
VRSR				MLR	MLR		
	comp=Z,570nm,19.0s,MS4.7						
VRSR				MLR	MLR		
	comp=N,340nm,18.0s,MS4.7						
VRSR				MLR	MLR		
	comp=E,420nm,18.0s,MS4.7						
STKA	**Stephens Creek**	**61.47**	**133**	P	**P**	**23 24 20.2**	**-0.5**
	comp=E,4.2nm,0.9s,mb4.6,baz=307,slow=5.8,SNR=5.7						
STKA				LR	LR	23 53 43.9	
	comp=E,501nm,18.6s,MS4.7,baz=303,slow=39						
STKA	**Stephens Creek**	**61.47**	**133**	*e*P	**P**	**23 24 20.5**	**-0.2**
SIM	**Simferopol’**	**62.16**	**317**	P	**P**	**23 24 22.7**	**-2.4**
SIM				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.5						
ISP	**Isparta**	**62.96**	**309**	*i* P	**P**	**23 24 29.1**	**-1.4**
MOS	**Moscow**	**64.15**	**329**	*e*P	pP	23 24 44.8	-1.8
MOS				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.6						
OBN	**Obninsk**	**64.42**	**328**	α *i*P	**P**	**23 24 38.5**	**-1.4**
OBN				*i*	pP	23 24 47.6	-0.8
OBN						23 25 11.0	
OBN						23 27 04.0	
OBN				*e*		23 28 33.0	
OBN				*e*S	**S**	**23 33 20.3**	**+5.2**
OBN				*e*		23 33 46.5	
OBN				pmax	pmax		
	comp=Z,42nm,1.6s,mb5.2						
OBN				MLR	MLR		
	comp=Z,800nm,19.0s,MS4.9						
OBN	**Obninsk**	**64.42**	**328**	⇓*i*P	**P**	**23 24 38.3**	**-1.6**
IDI	**Anoyia**	**67.02**	**305**	P	**P**	**23 24 57.3**	**+0.4**
	comp=Z,10nm,0.6s,mb5.0,baz=112,slow=6.0,SNR=9.7						
IDI				LR	LR	23 57 43.5	
	comp=Z,248nm,21.6s,MS4.4,baz=81,slow=39						
AKASG	**Malin Array Be**	**67.02**	**322**	P	**P**	**23 24 54.3**	**-2.3**
	comp=Z,0.3nm,0.4s,baz=94,slow=4.7,SNR=10.0						
ISR	**Istrita**	**67.39**	**316**	⇓*i*P	pP	23 25 07.6	+0.1
VRI	**Vrincioaia**	**67.42**	**317**	⇑*i*P	**P**	**23 24 59.2**	**0.0**
TIXI	**Tiksi**	**67.72**	**12**	*e*P	**P**	**23 24 59.5**	**-1.2**
TIXI				*e*S	S	23 33 55.7	+0.7
TIXI				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.6						
TIXI				MLR	MLR		
	comp=Z,484nm,15.0s,MS4.8						
TIXI	**Tiksi**	**67.72**	**12**	*i* P	**P**	**23 25 01.2**	**+0.5**
MA2	**Magadan**	**67.77**	**28**	*i* P	**P**	**23 25 02.4**	**+1.2**
MLR	**Muntele Rosu**	**67.88**	**316**	P	**P**	**23 25 01.9**	**-0.2**
	comp=Z,12nm,0.9s,mb4.9,baz=104,slow=3.0,SNR=15						
MLR				LR	LR	00 01 10.8	
	comp=Z,529nm,18.6s,MS4.8,baz=298,slow=42						
BOLS	**Boljevac**	**70.39**	**314**	⇑*i*P	**P**	**23 25 13.6**	**-4.0**
VSU	**Vasula**	**70.67**	**330**	*i* P	**P**	**23 25 17.2**	**-1.8**
KWP	**Kalwaria**	**70.84**	**320**	*e*P	**P**	**23 25 19.4**	**-0.8**
KWP				*e*	pP	23 25 28.7	0.0
KOLS	**Kolonicke sedl**	**70.99**	**319**	*e*P	**P**	**23 25 20.3**	**-0.8**
KOLS				*e*pP	pP	23 25 30.1	+0.5
GRUS	**Gruza**	**71.29**	**314**	⇓*i*P	pP	23 25 30.4	-1.1
SUW	**Suwalki**	**71.44**	**324**	*e*P	**P**	**23 25 22.1**	**-1.7**
SUW				*e*		23 25 27.3	
CRVS	**Cervenica-Dubn**	**71.51**	**319**	*e*P	pP	23 25 31.9	-0.9
CRVS	**Cervenica-Dubn**	**71.51**	**319**	*e*pP	pP	23 25 31.9	-0.9
FINES	**FINESS Array B**	**71.89**	**332**	P	**P**	**23 25 24.9**	**-1.4**
	comp=Z,2.5nm,0.6s,mb4.3,baz=117,slow=6.9,SNR=14						
FINES				LR	LR	00 01 49.6	
	comp=Z,738nm,20.0s,MS5.0,baz=116,slow=40						
KAF	**Kangasniemi**	**71.99**	**333**	*e*p	**P**	**23 25 25.5**	**-1.4**
	comp=Z,14nm,0.9s,mb4.9						
KAF	**Kangasniemi**	**71.99**	**333**	*e*P	**P**	**23 25 25.5**	**-1.4**
KAF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
KECS	**Kecovo**	**72.08**	**318**	*e*P	**P**	**23 25 33.1**	**+5.4**
KECS				*e*		23 25 36.1	
KECS	**Kecovo**	**72.08**	**318**	*e*	**P**	**23 25 33.1**	**+5.4**
KECS				*e*pP	pP	23 25 36.1	-0.1
NIE	**Niedzica**	**72.34**	**319**	*e*P	**P**	**23 25 29.0**	**-0.2**
PSZ	**Piszkesteto**	**72.39**	**318**	*e*P	**P**	**23 25 28.7**	**-0.8**
PSZ				*e**PP	pP	23 25 38.3	+0.2
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
PSZ	**Piszkesteto**	**72.39**	**318**	*e*pP	pP	23 25 38.0	-0.1
PSZ	**Piszkesteto**	**72.39**	**318**	*e*P	**P**	**23 25 28.7**	**-0.9**
	comp=Z,3.6nm,0.6s,mb4.5						
PSZ				*e*pP	pP	23 25 38.3	+0.2
LBTB	**Lobatse**	**72.48**	**241**	*e*P	**P**	**23 25 30.0**	**-0.4**
LBTB				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
LBTB	**Lobatse**	**72.48**	**241**	*e*P	**P**	**23 25 30.0**	**-0.5**
	comp=Z,12nm,1.1s,mb4.8						
OJC	**Ojcow**	**72.79**	**320**	*e*P	**P**	**23 25 31.5**	**-0.3**
VYHS	**Vyhne**	**73.17**	**318**	*e*P	**P**	**23 25 32.0**	**-2.1**
VYHS				*e*sP	sP	23 25 42.7	-2.9
SRO2	**Moca**	**73.38**	**317**	*e*pP	pP	23 25 42.8	-1.1
SRO	**Srobarova**	**73.44**	**318**	*e*P	**P**	**23 25 34.9**	**-0.8**
SRO				*e*sP	sP	23 25 45.2	-2.0
BOSA	**Boshof**	**73.88**	**237**	*e*P	**P**	**23 25 44.3**	**+5.7**
GRI	**Girifalco**	**74.06**	**308**	*e*P	**P**	**23 25 40.2**	**+0.7**
MORC	**Moravsky Berou**	**74.17**	**319**	*e*P	**P**	**23 25 39.8**	**-0.1**
MORC				*e**PP	pP	23 25 48.9	+0.5
MORC				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.0						
MORC	**Moravsky Berou**	**74.17**	**319**	*e*P	**P**	**23 25 39.8**	**-0.1**
	comp=Z,20nm,1.1s,mb5.0						
MORC				*e*pP	pP	23 25 48.9	+0.4
ZST	**Bratislava**	**74.29**	**318**	*e*P	**P**	**23 25 40.1**	**-0.5**
ZST				*e*		23 25 46.3	
ZST				*e*	pP	23 25 49.7	+0.6
ARCES	**ARCESS Array B**	**74.70**	**340**	P	**P**	**23 25 42.0**	**-0.5**
	comp=Z,6.4nm,1.1s,mb4.5,baz=123,slow=3.4,SNR=9.6						
ARCES				LR	LR	00 01 08.2	
	comp=Z,905nm,19.1s,MS5.1,baz=12,slow=38						
VRAC	**Vranov**	**74.74**	**319**	P	**P**	**23 25 42.7**	**-0.4**
	comp=Z,2.0nm,0.8s,mb4.1,baz=129,slow=13,SNR=3.0						
DPC	**Dobruska-Polom**	**75.02**	**320**	*e*P	**P**	**23 25 45.4**	**+0.6**
DPC				*e*pP	pP	23 25 51.3	-2.0
DPC				*e*sP	sP	23 25 54.2	-2.1
KSP	**Ksiaz**	**75.09**	**320**	*e*P	**P**	**23 25 45.2**	**0.0**
KSP				*e*		23 25 51.1	
KSP				*e*pP	pP	23 25 54.1	+0.4
KSP	**Ksiaz**	**75.09**	**320**	*e*P	**P**	**23 25 45.4**	**+0.2**
KSP				*e*	pP	23 25 54.4	+0.7
UPC	**Upice**	**75.23**	**320**	*e*P	**P**	**23 25 46.6**	**+0.6**
UPC				*e*pP	pP	23 25 55.6	+1.0
UPC				*e*sP	sP	23 26 00.4	+2.9
BOJS	**Bojanci**	**75.32**	**315**	*e*P	pP	23 25 55.5	+0.4
PRU	**Pruhonice**	**76.13**	**320**	*e*P	**P**	**23 25 50.9**	**-0.2**
PRU				*e*pP	pP	23 25 57.2	-2.5
PRU				*e*sP	sP	23 26 00.3	-2.3
BRG	**Berggiesshubel**	**76.58**	**320**	*i* P	**P**	**23 25 53.5**	**-0.1**
BRG				*i*		23 25 59.8	
BRG				*i*	pP	23 26 03.0	+0.8
BRG				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.9						
BRG	**Berggiesshubel**	**76.58**	**320**	*i* P	**P**	**23 25 53.5**	**-0.1**
	comp=Z,21nm,1.4s,mb4.9						
BRG				*i*		23 25 59.8	
BRG				*i*	pP	23 26 03.0	+0.8
GERES	**GERESS Array B**	**76.59**	**318**	P	**P**	**23 25 53.9**	**+0.2**
	comp=Z,3.9nm,0.8s,mb4.4,baz=90,slow=5.3,SNR=42						
GERES				LR	LR	00 03 17.2	
	comp=Z,302nm,18.3s,MS4.7,baz=226,slow=39						
KHC	**Kasperske Hory**	**76.69**	**319**	*e*P	**P**	**23 25 52.8**	**-1.5**
KHC				*e*pP	pP	23 26 00.2	-2.7
KHC				*e*sP	sP	23 26 03.6	-2.2
PTCC	**Patocco-Chiusa**	**76.70**	**316**	*e*P	**P**	**23 25 54.1**	**-0.2**
RUE	**Ruedersdorf**	**76.80**	**322**	*e*P	**P**	**23 25 53.0**	**-1.7**
RUE				*e*pP	pP	23 26 04.0	+0.6
BILL	**Bilibino**	**76.90**	**22**	*i* P	**P**	**23 25 59.5**	**+4.4**
BILL				pmax	pmax		
	comp=Z,12nm,1.5s,mb4.6						
FVI	**Forni Avoltri**	**77.10**	**316**	*e*P	**P**	**23 25 56.3**	**-0.3**
WET	**Wettzell**	**77.15**	**319**	*e*P	**P**	**23 25 57.1**	**+0.3**
WET				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
WET	**Wettzell**	**77.15**	**319**	*e*P	**P**	**23 25 57.1**	**+0.3**
	comp=Z,4.0nm,0.9s,mb4.3						
CLL	**Collm**	**77.20**	**321**	*e*P	**P**	**23 25 56.0**	**-1.0**
CLL				*e*	pP	23 26 05.0	-0.6
CLL				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.8						
CLL	**Collm**	**77.20**	**321**	*e*P	**P**	**23 25 56.0**	**-1.0**
	comp=Z,16nm,1.4s,mb4.8						
CLL				*e*	pP	23 26 05.0	-0.6
CLL	**Collm**	**77.20**	**321**	P	**P**	**23 25 56.8**	**-0.2**
	comp=Z,logA/T=1.1,mb4.8						
CLL				*i* *PP	pP	23 26 02.2	-3.4
CLL				*i* *SP	sP	23 26 05.7	-2.8
NKC	**Novy Kostel**	**77.49**	**320**	*e*P	pP	23 26 08.5	+1.3
NKC	**Novy Kostel**	**77.49**	**320**	*e*x	pP	23 26 08.5	+1.3
HFS	**Hagfors**	**77.56**	**330**	P	**P**	**23 25 58.1**	**-0.7**
	comp=Z,4.9nm,0.8s,mb4.5,baz=135,slow=2.1,SNR=7.6						
HFS				LR	LR	00 04 26.4	
	comp=Z,636nm,18.0s,MS5.0,baz=84,slow=39						
CTI	**Castel Tesino**	**77.87**	**315**	*e*P	**P**	**23 26 01.3**	**+0.5**
SEI	**Scarperia**	**78.04**	**313**	*e*P	**P**	**23 26 04.0**	**+2.2**
MOX	**Moxa**	**78.04**	**320**	*e*P	**P**	**23 26 01.2**	**-0.4**
MOX				pmax	pmax		
	comp=Z,33nm,1.5s,mb5.0						
MOX	**Moxa**	**78.04**	**320**	*i* P	**P**	**23 26 01.2**	**-0.4**
	comp=Z,logA/T=1.3,mb5.0						
MOX	**Moxa**	**78.04**	**320**	*e*P	**P**	**23 26 01.2**	**-0.4**
	comp=Z,33nm,1.5s,mb5.0						
MAW	**Mawson**	**78.05**	**191**	*e*P	**P**	**23 26 07.4**	**+6.0**
MAW				pmax	pmax		
	comp=Z,23nm,0.8s						
MAW	**Mawson**	**78.05**	**191**	LR	LR	23 56 33.0	
	comp=Z,155nm,19.6s,MS4.3,baz=221,slow=33						
MAW	**Mawson**	**78.05**	**191**	*e*P	**P**	**23 26 07.4**	**+6.0**
	comp=Z,23nm,0.8s,mb5.2						
FUR	**Furstenfeldbru**	**78.17**	**318**	*e*P	**P**	**23 26 02.3**	**-0.1**
GRA1	**Grafenberg Arr**	**78.26**	**319**	*e*P	**P**	**23 26 03.7**	**+0.8**
	comp=Z,8.0nm,0.9s,mb4.7						
GRA1				*e*pP	pP	23 26 09.5	-2.0
GRA1				*e*sP	sP	23 26 12.7	-1.7
GRF	**Grafenberg Arr**	**78.26**	**319**	*e*P	**P**	**23 26 03.7**	**+0.8**
GRF				*e**PP	pP	23 26 09.5	-2.0
GRF				*e**SP	sP	23 26 12.7	-1.7
GRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	**Grafenberg Arr**	**78.26**	**319**	*e*P	**P**	**23 26 03.7**	**+0.8**
GRF				*e**PP	pP	23 26 09.5	-2.0
GRF				*e**SP	sP	23 26 12.7	-1.7
GRF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GRF	**Grafenberg Arr**	**78.26**	**319**	*e*P	**P**	**23 26 03.7**	**+0.8**
	comp=Z,8.0nm,0.9s,mb4.7						
GRF				*e*pP	pP	23 26 09.5	-2.0
GRF				*e*sP	sP	23 26 12.7	-1.7
GSCL	**Gusciola**	**78.59**	**314**	*e*P	**P**	**23 26 05.9**	**+1.0**
SUR	**Sutherland**	**78.67**	**235**	*e*P	**P**	**23 26 07.5**	**+2.0**
SUR				*e*pP	pP	23 26 17.4	+3.3
BRMO	**Bormio**	**78.76**	**316**	*e*P	**P**	**23 26 06.1**	**+0.4**
NB2	**NORSAR Subarra**	**78.86**	**331**	P	**P**	**23 26 04.8**	**-1.1**
	comp=Z,10nm,0.8s,mb4.8,baz=97,slow=5.0						
NB2	**NORSAR Subarra**	**78.86**	**331**	P	**P**	**23 26 04.8**	**-1.1**
NB2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
NOA	**NORSAR Array B**	**78.86**	**331**	P	**P**	**23 26 05.7**	**-0.2**
	comp=Z,2.2nm,0.8s,mb4.2,baz=94,slow=5.6,SNR=4.7						
NOA				LR	LR	00 04 29.6	
	comp=Z,631nm,21.8s,MS4.9,baz=75,slow=38						
CLZ	**Clausthal**	**78.86**	**321**	*e*P	**P**	**23 26 06.4**	**+0.3**
	comp=Z,5.0nm,1.0s,mb4.4						
BSEG	**Bad Segeberg**	**78.96**	**323**	*e*P	**P**	**23 26 07.0**	**+0.4**
DAVOX	**Davos**	**79.10**	**316**	P	**P**	**23 26 07.8**	**+0.2**
	comp=Z,14nm,1.2s,mb4.8,baz=112,slow=9.0,SNR=10						
VAI	**Varese**	**79.88**	**315**	*e*P	**P**	**23 26 11.4**	**-0.4**
BFO	**Black Forest**	**80.15**	**318**	*e*P	**P**	**23 26 13.1**	**0.0**
BFO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BFO	**Black Forest**	**80.15**	**318**	*e*P	**P**	**23 26 13.1**	**0.0**
	comp=Z,2.0nm,0.8s,mb4.1						
FELD	**Feldberg**	**80.37**	**317**	*e*P	pP	23 26 23.6	+0.6
LANF	**Langenberg**	**80.48**	**318**	*e*P	pP	23 26 24.3	+0.7
WLS	**Welschbruch**	**80.80**	**318**	*e*P	pP	23 26 25.7	+0.5
LOMF	**Lomont**	**81.18**	**317**	*e*P	pP	23 26 27.6	+0.3
LPG	**La Plagne**	**81.30**	**315**	*e*P	**P**	**23 26 19.6**	**+0.3**
	comp=Z,76nm,0.8s,mb5.4						
LPG	**La Plagne**	**81.30**	**315**	*e*P	**P**	**23 26 19.6**	**+0.3**
LPG				pmax	pmax		
	comp=Z,38nm,0.8s,mb5.4						
THEF	**They Montfort**	**81.71**	**318**	*e*P	pP	23 26 30.4	+0.3
EKA	**Eskdalemuir Ar**	**86.69**	**325**	P	**P**	**23 26 46.6**	**+0.3**
	comp=Z,1.2nm,0.8s,mb4.2,baz=288,slow=19,SNR=5.1						
DAG	**Danmarks Havn**	**87.15**	**348**	*e*P	**P**	**23 26 47.0**	**-1.2**
DAG	**Danmarks Havn**	**87.15**	**348**	*i* P	**P**	**23 26 47.0**	**-1.2**
ESDC	**Sonseca Array**	**89.78**	**310**	P	**P**	**23 27 02.8**	**+1.2**
	comp=Z,0.8nm,0.6s,mb4.2,baz=64,slow=4.8,SNR=5.8						
IMA	**Indian Mountai**	**92.45**	**22**	*e*P	pP	23 27 20.7	-1.2
IMA				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.7						
IMA	**Indian Mountai**	**92.45**	**22**	*e*P	pP	23 27 20.7	-1.2
	comp=Z,45nm,1.1s						
BORG	**Borgarnes**	**92.75**	**337**	LR	LR	00 11 25.4	
	comp=Z,576nm,19.5s,MS5.0,baz=47,slow=37						
VNDA	**Vanda**	**93.23**	**168**	*e*P	pP	23 27 27.4	+2.1
VNDA				pmax	pmax		
	comp=Z,3.0nm,0.9s						
VNDA	**Vanda**	**93.23**	**168**	P	**P**	**23 27 17.1**	**+0.5**
	comp=Z,1.2nm,1.1s,mb4.3,baz=359,slow=5.4,SNR=3.2						
VNDA				LR	LR	00 03 27.6	
	comp=Z,321nm,19.9s,MS4.8,baz=301,slow=32						
VNDA	**Vanda**	**93.23**	**168**	*e*P	pP	23 27 27.4	+2.1
	comp=Z,2.6nm,0.9s						
SBA	**Scott Base**	**94.33**	**168**	*e*P	**P**	**23 27 25.4**	**+3.7**
ILAR	**Eielson Array**	**95.57**	**22**	P	**P**	**23 27 26.4**	**-1.1**
	comp=Z,0.7nm,0.8s,mb4.1,baz=303,slow=5.3,SNR=6.4						
ILAR				PP	PP	23 31 13.4	-7.6
	comp=Z,0.5nm,0.7s,baz=293,slow=6.8,SNR=4.8						
ILAR				LR	LR	00 15 40.5	
	comp=Z,260nm,19.9s,MS4.7,baz=321,slow=39						
DBIC	**Dimbokro**	**96.01**	**278**	*e*P	**P**	**23 27 32.8**	**+2.0**
DBIC				*e**PP	pP	23 27 41.8	+2.2
DBIC				pmax	pmax		
	comp=Z,12nm,0.9s						
DBIC	**Dimbokro**	**96.01**	**278**	P	**P**	**23 27 32.1**	**+1.3**
	comp=Z,4.1nm,1.1s,mb4.8,baz=320,slow=2.9,SNR=3.9						
DBIC				LR	LR	00 09 58.9	
	comp=Z,501nm,19.3s,MS5.0,baz=63,slow=35						
DBIC	**Dimbokro**	**96.01**	**278**	*e*P	**P**	**23 27 32.8**	**+1.9**
	comp=Z,12nm,0.9s,mb5.3						
DBIC				*e*pP	pP	23 27 41.8	+2.3
RES	**Resolute Bay**	**97.57**	**2**	*e*P	**P**	**23 27 37.5**	**+1.1**
RES				*e**PP	pP	23 27 47.1	+1.9
RES				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb5.0						
RES	**Resolute Bay**	**97.57**	**2**	*e*P	**P**	**23 27 37.5**	**+1.1**
	comp=Z,4.2nm,0.9s,mb5.0						
RES				*e*pP	pP	23 27 47.1	+1.9
INK	**Inuvik**	**97.62**	**16**	*e*P	**P**	**23 27 42.0**	**+5.2**
INK	**Inuvik**	**97.62**	**16**	LR	LR	00 20 11.9	
	comp=Z,248nm,18.1s,MS4.7,baz=180,slow=41						
YKA	**Yellowknife Ar**	**106.96**	**13**	PP	PP	23 32 42.7	-5.4
	comp=Z,1.3nm,1.1s,baz=335,slow=7.3,SNR=5.5						
TBI	**Tubuai**	**119.06**	**112**	*e*LR	LR	00 09 15.2	
	comp=Z,335nm,23.0s						
PPT	**Papeete**	**119.20**	**106**	*e*LR	LR	00 09 28.3	
	comp=Z,231nm,23.0s						
LOHW	**Long Hollow**	**124.84**	**20**	P	PKPdf	23 33 04.5	-2.0
SNOW	**Snow King Moun**	**124.92**	**20**	PKP	PKPdf	23 33 04.5	-2.2
REDW	**Red Top Meadow**	**124.98**	**20**	P	PKPdf	23 33 04.5	-2.4
PDAR	**Pinedale Array**	**125.94**	**20**	PKP	PKPdf	23 33 06.1	-2.6
	comp=Z,1.3nm,0.8s,slow=3.0,SNR=7.9						
NVAR	**Mina Array Bea**	**125.99**	**29**	PKP	PKPdf	23 33 07.8	-1.2
	comp=Z,1.0nm,0.7s,baz=158,slow=1.3,SNR=5.8						
MNV	**Mina**	**126.06**	**29**	*e*P	PKPdf	23 33 07.4	-1.6
MNV				*e*pP		23 33 17.0	
MVU	**Marysvale**	**128.67**	**25**	*e*PKPdf	PKPdf	23 33 13.3	-0.8
MVU				*e*		23 33 22.8	
MSU	**Marysvale**	**128.68**	**24**	*e*PKIKP	PKPdf	23 33 14.2	+0.1
PV01	**Paradox Valley**	**130.41**	**22**	*e*PKPdf	PKPdf	23 33 09.7	-7.7
WMOK	**Wichita Mounta**	**136.47**	**13**	*e*PKIKP	PKPdf	23 33 26.5	-2.2
MIAR	**Mount Ida**	**137.56**	**7**	*e*PKIKP	PKPdf	23 33 25.1	-5.7
TXAR	**Lajitas Array**	**140.08**	**22**	PKP	PKPdf	23 33 32.8	-2.7
	comp=Z,1.0nm,0.9s,baz=342,slow=2.9,SNR=4.7						
LPAZ	**La Paz**	**158.97**	**244**	PKP	PKPdf	23 34 01.8	-3.2
	comp=Z,0.5nm,0.6s,slow=3.0,SNR=2.5						
LPAZ				PKPab	PKPab	23 34 39.2	+0.4
	comp=Z,1.8nm,0.8s,baz=78,slow=5.6,SNR=2.9						

TAP 29 23:24:38.3, 24.37N×121.03E, h6km, ML3.6, Taiwan

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*IDC **29** 23:26:45.2±0.9, 8.86N×93.69E, mb4.1/15, mb1 4.3/16, mb1mx4.2/21, mbtmp4.1/16, ML4.2/1, Error ellipse: s-maj=31.0km s-min=23.5km az=53.0*
*NEIC **29** 23:26:50.0±2.2, 9.05N×94.10E, h30km, mb4.4/5, Error ellipse: s-maj=46.5km s-min=29.9km az=181.0*
ISC 29 23:26:50.3±2.9**, 9.0N**±0.1×**93.99E**±0.09**, h45km**±22km**, n52, σ0s96**/49**, mb4.3**/21**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.57**	**27**	Pn	**P**	**23 29 22.1**	**0.0**
	0.5nm,0.3s,baz=211,slow=15,SNR=4.3						
SHL	**Shillong**	**16.60**	**353**	*e*P	**P**	**23 30 43.0**	**+1.6**
HYB	**Hyderabad**	**17.19**	**301**	*e*P	**P**	**23 30 50.0**	**+1.1**
HYB				*e*		23 32 28.0	
HYB	**Hyderabad**	**17.19**	**301**	*i* P	**P**	**23 30 50.0**	**+1.1**
PKI	**Pulchoki**	**20.18**	**337**	*e*P	**P**	**23 31 23.7**	**-0.1**
	52nm,0.9s						
GUN	**Gumba**	**20.31**	**339**	*e*P	**P**	**23 31 24.0**	**-1.2**
	72nm,0.8s						
DMN	**Daman**	**20.33**	**337**	*e*P	**P**	**23 31 25.4**	**0.0**
	50nm,0.9s						
KKN	**Kakani**	**20.42**	**337**	*e*P	**P**	**23 31 25.9**	**-0.5**
	75nm,1.1s						
LSA	**Lhasa**	**20.77**	**353**	*e*P	**P**	**23 31 28.8**	**-1.2**
	6.4nm,0.5s						
GKN	**Gorkha**	**20.86**	**336**	*e*P	**P**	**23 31 29.7**	**-1.2**
	54nm,0.5s						
KAD	**Karad**	**20.97**	**295**	*e*P	**P**	**23 31 31.9**	**-0.1**
KAD				*e*		23 31 33.6	
	comp=Z,20nm,1.3s						
KAD				*e*		23 33 45.4	
KOLN	**Koldanda**	**21.09**	**334**	*e*P	**P**	**23 31 32.4**	**-0.8**
	comp=Z,47nm,0.7s,mb4.9						
BHPL	**Bhopal**	**21.27**	**314**	*e*P	**P**	**23 31 36.2**	**+1.2**
BHPL				*e*		23 31 40.6	
	comp=Z,24nm,0.7s						
BHPL				*e*		23 34 12.0	
POO	**Poona**	**21.71**	**298**	*e*P	**P**	**23 31 36.5**	**-3.0**
AYAN	**Aya Nagar**	**25.05**	**323**	*e*P	**P**	**23 32 12.3**	**+0.2**
KUDL	**Kundal**	**25.20**	**321**	*e*P	**P**	**23 32 15.0**	**+1.6**
KHET	**Khetri**	**25.57**	**320**	*e*P	**P**	**23 32 18.0**	**+1.0**
KLP	**Kalpa**	**26.78**	**329**	*e*P	**P**	**23 32 31.9**	**+3.8**
AAK	**Ala-Archa**	**37.62**	**336**	*e*P	**P**	**23 34 02.3**	**-0.3**
	comp=Z,2.0nm,0.8s,mb3.9						
SONM	**Songino Array**	**40.11**	**13**	P	**P**	**23 34 23.5**	**+0.3**
	comp=Z,0.5nm,0.6s,mb3.4,baz=197,slow=6.4,SNR=5.5						
SONM				PcP	PcP	23 36 29.3	+1.5
	comp=Z,1.2nm,0.6s,baz=193,slow=4.4,SNR=4.2						
ZAL	**Zalesovo**	**45.42**	**352**	P	**P**	**23 35 06.5**	**+0.1**
	comp=Z,2.4nm,0.8s,mb4.1,baz=214,slow=8.1,SNR=8.3						
BVAR	**Borovoye Array**	**47.89**	**341**	P	**P**	**23 35 24.6**	**-1.2**
	comp=Z,0.9nm,0.7s,mb3.9,baz=135,slow=6.3,SNR=4.4						
CHKZ	**Chkalovo**	**48.37**	**342**	*e*P	**P**	**23 35 28.4**	**-1.2**
	comp=Z,2.9nm,0.7s,mb4.4						
CHKZ				*e*pP	pP	23 35 34.2	-7.8
MZLS	**Mizel**	**48.85**	**294**	P	**P**	**23 35 33.8**	**+0.2**
KAMS	**Al Khamasin**	**48.94**	**289**	D		23 35 33.8	
ASAR	**Alice Springs**	**50.75**	**131**	P	**P**	**23 35 47.3**	**-0.9**
	comp=Z,1.0nm,0.8s,mb3.8,baz=310,slow=6.4,SNR=7.3						
AFFS	**‘Afif**	**50.83**	**293**	P	**P**	**23 35 49.2**	**+0.4**
HILS	**Ha’il**	**52.45**	**298**	P	**P**	**23 36 00.9**	**0.0**
TBKS	**Tabuk**	**57.17**	**298**	P	**P**	**23 36 35.5**	**+0.2**
KMBO	**Kilima Mbogo**	**57.40**	**263**	P	**P**	**23 36 37.3**	**+0.1**
	comp=Z,1.8nm,0.9s,mb4.1,baz=39,slow=10,SNR=5.0						
AYUS	**‘Aynunah**	**58.28**	**298**	P	**P**	**23 36 42.4**	**-0.7**
BDAS	**Al Bad‘**	**58.46**	**298**	P	**P**	**23 36 44.1**	**-0.2**
TAYS	**Tayyib Ism**	**58.67**	**298**	P	**P**	**23 36 45.1**	**-0.7**
BRTR	**Keskin Array B**	**61.59**	**310**	P	**P**	**23 37 02.2**	**-3.4**
	comp=Z,2.2nm,0.7s,mb4.4,baz=128,slow=6.5,SNR=13						
AKASG	**Malin Array Be**	**67.19**	**321**	P	**P**	**23 37 39.0**	**-2.7**
	comp=Z,0.3nm,0.3s,mb3.8,baz=84,slow=5.9,SNR=3.6						
MLR	**Muntele Rosu**	**68.27**	**315**	P	**P**	**23 37 48.8**	**+0.2**
	comp=Z,5.6nm,0.7s,mb4.7,baz=158,slow=4.1,SNR=4.0						
FINES	**FINESS Array B**	**71.66**	**332**	P	**P**	**23 38 09.1**	**+0.2**
	comp=Z,1.9nm,0.6s,mb4.2,baz=315,slow=2.7,SNR=5.0						
KAF	**Kangasniemi**	**71.73**	**333**	*e*p	**P**	**23 38 13.1**	**+3.7**
ARCES	**ARCESS Array B**	**74.17**	**340**	P	**P**	**23 38 23.2**	**-0.4**
	comp=Z,11nm,1.2s,mb4.7,baz=104,slow=7.3,SNR=5.0						
PRU	**Pruhonice**	**76.39**	**319**	*e*P	**P**	**23 38 37.5**	**+0.9**
PRU				*e*x	x	23 38 42.1	
GERES	**GERESS Array B**	**76.90**	**318**	P	**P**	**23 38 39.4**	**-0.2**
	comp=Z,1.7nm,0.8s,mb4.0,baz=87,slow=5.4,SNR=14						
KHC	**Kasperske Hory**	**76.99**	**318**	*e*P	**P**	**23 38 40.5**	**+0.4**
KHC				*e*x	x	23 38 45.0	
HFS	**Hagfors**	**77.42**	**330**	P	**P**	**23 38 41.7**	**-0.5**
	comp=Z,4.4nm,0.6s,mb4.6,baz=90,slow=5.9,SNR=13						
NB2	**NORSAR Subarra**	**78.69**	**331**	P	**P**	**23 38 48.2**	**-1.0**
	comp=Z,6.0nm,0.9s,mb4.5,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**78.69**	**331**	P	**P**	**23 38 49.6**	**+0.4**
	comp=Z,3.2nm,0.7s,mb4.4,baz=94,slow=5.7,SNR=3.3						
LPG	**La Plagne**	**81.73**	**315**	*e*P	**P**	**23 39 05.8**	**+0.1**
	comp=Z,16nm,0.8s,mb4.7						
EKA	**Eskdalemuir Ar**	**86.72**	**325**	P	**P**	**23 39 31.6**	**+1.1**
	comp=Z,3.4nm,0.7s,mb4.7,baz=90,slow=5.0,SNR=3.9						
ESDC	**Sonseca Array**	**90.39**	**310**	P	**P**	**23 39 48.8**	**+0.5**
	comp=Z,0.3nm,0.5s,mb3.9,baz=70,slow=3.1,SNR=4.1						
IMA	**Indian Mountai**	**90.65**	**22**	*e*P	**P**	**23 39 50.7**	**+1.8**
	comp=Z,9.9nm,0.7s,mb5.2						
ILAR	**Eielson Array**	**93.77**	**22**	P	**P**	**23 40 05.0**	**+1.7**
	comp=Z,0.4nm,0.6s,mb4.0,baz=303,slow=4.2,SNR=6.6						
PDAR	**Pinedale Array**	**124.18**	**21**	PKP	PKPdf	23 45 47.3	+2.9
	comp=Z,0.2nm,0.6s,baz=90,slow=1.8,SNR=2.6						
LPAZ	**La Paz**	**161.12**	**246**	PKPab	PKPab	23 47 31.4	-0.7
	comp=Z,0.8nm,0.5s,baz=164,slow=7.4,SNR=5.5						

WEL 29 23:40:15.3±0.4**, 45.10S×167.03E, h5km, ML3.5**/8**, 1D, Error ellipse: s-maj=4.3km s-min=1.5km az=90.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DCZ	**Deep Cove**	**0.39**	**167**	⇓PG	Pg	23 40 23.1	0.0
DCZ				SG	Sg	23 40 28.3	-0.1
DCZ				SG	Sg	23 40 28.5	+0.2
MSZ	**Milford Sound**	**0.77**	**57**	P*	Pb	23 40 30.2	-0.7
MSZ				S*	Sb	23 40 40.4	-1.0
MLZ	**Mavora Lakes**	**0.85**	**107**	P*	Pb	23 40 31.1	-1.0
MLZ				S*	Sb	23 40 43.1	-0.5
WHZ	**Wether Hill Ro**	**1.02**	**141**	P*	Pb	23 40 34.1	-1.1
WHZ				S*	Sb	23 40 47.8	-1.0
WKZ	**Wanaka**	**1.44**	**80**	PN	Pn	23 40 42.4	+0.2
WKZ				SN	Sn	23 41 00.2	-1.5
JCZ	**Jackson Bay**	**1.61**	**51**	PN	Pn	23 40 44.8	+0.2
JCZ				SN	Sn	23 41 06.6	+0.7
EAZ	**Earnscleugh**	**1.62**	**95**	PN	Pn	23 40 44.6	-0.1
EAZ				SN	Sn	23 41 03.8	-2.4
TUZ	**Tuapeka**	**2.02**	**116**	PN	Pn	23 40 50.2	-0.3
LBZ	**Lake Benmore**	**2.36**	**74**	PN	Pn	23 40 54.6	-0.8
ODZ	**Otahua Downs**	**2.56**	**90**	PN	Pn	23 40 56.5	-1.7
RPZ	**Rata Peaks**	**3.20**	**66**	PN	Pn	23 41 04.5	-2.8

THZ	Tophouse	5.43	54	PN	Pn	23 41 35.2	-3.7

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*TEH **29** 23:49:46.5,32.47N×47.89E,h20^{km},Mn3.2*
*CSEM **29** 23:49:46.5,32.47N×47.89E,h20^{km},ML3.2,After TEH*
*THR **29** 23:49:48.7±0.9,32.77N×48.00E,h38^{km}±6^{km},ML2.9*
ISC 29 23:49:49.5±0.8,**32.80N**±0.06×**48.01E**±0.06,**h33^{km},n18, σ0^{s}87**/20,**Western Iran**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHGR	Shooshtar-Gavs	0.96	136	*e*PG	P	23 50 06.4	-0.1
SHGR				*e*SG	S	23 50 19.9	+0.7
SHGR				AMP		23 50 27.7	
	comp=E,292nm,0.3s						
SHGR				AMP		23 50 36.3	
	comp=N,324nm,0.6s						
IKOM	Komasi	1.44	343	Pn	Pn	23 50 11.8	-1.8
IGHG	Ghaleghazi	1.95	322	Pn	Pn	23 50 21.4	+0.5
IVIS	Veys	1.98	331	Pn	Pn	23 50 21.0	-0.3
IDHR	Dehrash	2.33	325	Pn	Pn	23 50 27.3	+0.9
SNGE	Sanandaj	2.36	347	*e*PN	Pn	23 50 27.3	+0.6
SNGE				*e*SG	S	23 51 02.1	+7.5
SNGE				AMP		23 51 06.3	
	comp=N,123nm,0.5s						
ASAO	Ashtian	2.42	43	*e*PN	Pn	23 50 28.7	+1.0
ASAO				AMP		23 51 11.2	
	comp=E,80nm,0.6s						
ASAO				AMP		23 51 13.2	
	comp=N,40nm,0.5s						
IRAZ	Razeghan	3.05	31	Pn	Pn	23 50 37.9	+1.3
IQOM	Qom	3.26	50	Pn	Pn	23 50 37.3	-2.3
IVRN	Varamin	3.79	54	Pn	Pn	23 50 47.0	-0.1
ISFB	Sefidab	3.85	65	Pn	Pn	23 50 47.5	-0.5
ISFB	Sefidab	3.85	65	Sn	Sn	23 51 32.9	+0.2
NASN	Na'in	4.04	89	*e*PN	Pn	23 50 50.2	-0.5
IAFJ	Afjeh	4.32	44	Pn	Pn	23 50 55.0	+0.3
IAFJ	Afjeh	4.32	44	Sn	Sn	23 51 45.6	+1.0
DAMV	Damavand	4.33	48	*e*PN	Pn	23 50 54.0	-0.8
IDMV	Damavand	4.33	49	Pn	Pn	23 50 54.3	-0.6
IFIR	Firoozkooh	4.84	53	Pn	Pn	23 51 01.8	-0.3

IDC 30 00:06:39.4±9.7,**2.72N×94.47E,mb3.4**/3,**mb1 3.7**/4,**mb1mx3.5**/18,**mbtmp3.5**/4,**ML4.4**/1,**MS3.1**/1,**Ms1 3.3**/1,**ms1mx3.1**/8,**Error ellipse: s-maj=258.3km s-min=59.3km az=136.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.24	15	Pn	P	00 10 30.8	+0.1
	0.5nm,0.3s,baz=207,slow=12,SNR=2.7						
CMAR				LR	LR	00 16 28.2	
	comp=Z,67nm,18.3s,baz=60,slow=36						
SONM	Songino Array	46.11	11	P	P	00 15 05.1	-2.0
	0.4nm,0.9s,baz=194,slow=5.9,SNR=3.8						
ZAL	Zalesovo	51.67	353	P	P	00 15 47.4	-2.7
	0.5nm,0.5s,baz=200,slow=12,SNR=2.9						
GERES	GERESS Array B	81.88	319	P	P	00 19 01.3	-0.8
	0.1nm,0.6s,baz=149,slow=5.7,SNR=2.2						

IDC 30 00:11:49.4±2.6,**6.16S×148.01E,h44^{km}**±22^{km},**mb3.5**/5,**mb1 3.8**/7,**mb1mx3.7**/13,**mbtmp3.8**/7,**ML3.6**/2,**MS3.5**/2,**Ms1 3.5**/2,**ms1mx2.9**/16,**Error ellipse: s-maj=30.6km s-min=14.4km az=123.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.33	195	P	P	00 12 39.7	-0.7
	10nm,0.3s,baz=30,slow=6.1,SNR=26						
PMG				S	S	00 13 17.4	-1.8
	14nm,0.3s,baz=323,slow=9.7,SNR=3.8						
CTA	Charters Tower	13.95	187	LR	LR	00 19 57.6	
	comp=Z,186nm,20.7s,baz=231,slow=35						
WRA	Warramunga Arr	19.08	223	P	P	00 16 07.2	-4.0
	0.5nm,0.3s,baz=42,slow=12,SNR=12						
WRA				S	S	00 19 43.8	+5.0
	baz=41,slow=24,SNR=2.5						
ASAR	Alice Springs	22.07	216	P	P	00 16 40.1	-2.1
	6.2nm,0.9s,baz=52,slow=8.7,SNR=58						
ASAR				S	S	00 20 42.4	+4.6
	2.7nm,0.9s,baz=35,slow=20,SNR=7.3						
ASAR				LR	LR	00 25 49.2	
	comp=Z,109nm,18.7s,baz=35,slow=38						
STKA	Stephens Creek	26.28	192	P	P	00 17 21.6	-1.1
	14nm,1.3s,baz=11,slow=14,SNR=5.2						
SONM	Songino Array	65.03	330	P	P	00 22 25.1	-2.3
	0.3nm,0.6s,baz=158,slow=4.1,SNR=3.6						
VNDA	Vanda	71.70	177	P	P	00 23 06.5	-1.7
	0.4nm,0.7s,baz=299,slow=10,SNR=2.9						
ILAR	Eielson Array	85.23	23	P	P	00 24 21.1	-1.2
	0.3nm,0.6s,baz=248,slow=4.9,SNR=4.2						
BDFB	Brasilia	153.15	144	PKPbc	PKPdf	00 31 43.3	+7.5
	2.8nm,0.7s,baz=202,slow=3.1,SNR=6.4						

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*IDC **30** 00:28:46.6±1.5,5.31N×94.24E,mb4.0/6,mb1 4.1/6,mb1mx3.8/18,mbtmp4.0/6,MS3.9/1,Ms1 3.9/1,ms1mx2.8/27,Error ellipse: s-maj=60.7km s-min=27.9km az=51.0*
ISC 30 00:28:49.2±1.2,**5.0N**±0.2×**94.0E**±0.2,**h33^{km},n14, σ1^{s}12**/13,**mb4.1**/10,**MS3.8**/1,**Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.22	19	Pn	P	00 32 11.7	+1.3
	0.3nm,0.3s,baz=214,slow=13,SNR=10						
PKI	Pulchoki	23.89	341	*e*P	P	00 34 02.3	+1.4
DMN	Daman	24.03	340	*e*P	P	00 34 03.6	+1.3
GUN	Gumba	24.06	342	*e*P	P	00 34 01.8	-0.8
	14nm,0.9s,mb4.4						
KKN	Kakani	24.14	341	*e*P	P	00 34 03.4	+0.1
	5.3nm,0.5s,mb4.2						
GKN	Gorkha	24.55	340	*e*P	P	00 34 06.7	-0.6
	14nm,0.6s,mb4.7						
KOLN	Koldanda	24.72	337	*e*P	P	00 34 08.7	-0.2
	9.0nm,0.7s,mb4.4						
TGY	Tagaytay City	28.02	69	LR	LR	00 45 10.2	
	comp=Z,226nm,19.4s,MS3.8,baz=152,slow=36						
SONM	Songino Array	43.98	12	P	P	00 36 52.9	-2.2
	1.0nm,0.8s,mb3.6,baz=190,slow=7.0,SNR=7.8						
WRA	Warramunga Arr	46.75	123	P	P	00 37 17.9	+0.4
	0.6nm,1.0s,mb3.5,baz=302,slow=9.5,SNR=3.4						
ZAL	Zalesovo	49.36	353	P	P	00 37 35.9	-1.5
	1.5nm,0.5s,mb4.3,baz=157,slow=4.2,SNR=7.2						
FINES	FINESS Array B	75.18	333	P	P	00 40 29.5	-0.4
	1.0nm,0.5s,mb4.0,baz=90,slow=6.9,SNR=7.5						
GERES	GERESS Array B	79.88	319	P	P	00 40 58.0	+1.7
	0.9nm,0.8s,mb3.8,baz=90,slow=4.0,SNR=7.1						
HFS	Hagfors	80.86	330	P	P	00 41 00.6	-0.7
	2.1nm,0.8s,mb4.1,baz=121,slow=8.6,SNR=5.8						

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*IDC **30** 00:32:34.5±0.6,52.70N×34.90W,mb3.9/15,mb1 4.0/17,mb1mx3.9/25,mbtmp3.9/17,ML3.2/2,MS3.5/2,Ms1 3.5/2,ms1mx2.6/37,Error ellipse: s-maj=18.7km s-min=14.5km az=178.0*
*NEIC **30** 00:32:35.1±0.8,52.52N×34.90W,h10^{km},mb4.4/11,Error ellipse: s-maj=20.1km s-min=12.1km az=189.0*
ISC 30 00:32:34.3±0.5,**52.70N**±0.09×**34.92W**±0.09,**h10^{km},n34, σ0^{s}98**/31,**mb4.1**/23,**MS3.4**/2,**Reykjanes Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESK	Eskdalemuir	18.73	69	P	P	00 36 57.3	+2.4
	30nm,1.3s						
EKA	Eskdalemuir Ar	18.76	69	P	P	00 36 54.0	-1.3
	0.1nm,0.3s,baz=97,slow=14,SNR=3.0						
SCHQ	Schefferville	18.90	289	P	P	00 36 55.9	-1.0
	0.3nm,0.3s,baz=78,slow=11,SNR=5.8						
SCHQ	Schefferville	18.90	289	*e*P	P	00 36 55.8	-1.1
SUMG	Summit	20.01	357	*e*P	P	00 37 12.0	+2.5
FRB	Frobisher Bay	20.60	316	P	P	00 37 15.6	-0.2
	3.1nm,0.7s,baz=94,slow=13,SNR=4.6						
ESDC	Sonseca Array	24.86	109	P	P	00 37 58.8	+0.9
	0.3nm,0.6s,mb3.0,baz=304,slow=11,SNR=4.5						
NOA	NORSAR Array B	26.05	53	LR	LR	00 48 23.0	
	comp=Z,107nm,18.8s,MS3.4,baz=285,slow=36						
GERES	GERESS Array B	30.52	77	P	P	00 38 49.7	+0.2
	0.6nm,0.9s,mb3.4,baz=307,slow=4.9,SNR=3.6						
GERES				LR	LR	00 51 44.8	
	comp=Z,72nm,19.7s,MS3.3,baz=258,slow=38						
ARCES	ARCESS Array B	31.95	35	P	P	00 39 00.9	-1.0
	2.8nm,0.9s,mb4.1,baz=252,slow=7.7,SNR=3.5						
RES	Resolute Bay	32.23	334	*e*P	P	00 39 03.9	-0.4
FCC	Fort Churchill	32.88	304	*e*P	P	00 39 09.6	-0.5
	2.1nm,0.7s,mb4.2						
FINES	FINESS Array B	33.10	50	P	P	00 39 12.2	+0.3
	7.1nm,1.2s,mb4.5,baz=270,slow=11,SNR=4.0						
SUW	Suwalki	33.86	64	P	P	00 39 17.3	-1.3
	10.0nm,0.8s,mb4.8						
AKASG	Malin Array Be	38.63	66	P	P	00 39 59.5	+0.4
	0.2nm,0.3s,mb3.3,baz=296,slow=8.6,SNR=4.1						
YKA	Yellowknife Ar	41.12	316	P	P	00 40 19.7	+0.3
	0.6nm,0.6s,mb3.4,baz=63,slow=8.8,SNR=4.7						
YKA				PcP	PcP	00 42 17.8	-1.8
	0.2nm,0.6s,baz=57,slow=3.3,SNR=4.7						
INK	Inuvik	45.35	329	P	P	00 40 52.8	-0.8
	4.3nm,1.2s,mb4.2						
BRTR	Keskin Array B	47.41	77	P	P	00 41 11.2	+0.8
	0.9nm,0.6s,mb3.9,baz=292,slow=6.7,SNR=4.5						
WALA	Waterton Lakes	47.62	299	*e*P	P	00 41 11.5	-0.3
	7.2nm,1.3s,mb4.5						
PDAR	Pinedale Array	49.04	290	P	P	00 41 23.7	+0.8
	0.9nm,0.8s,mb3.8,baz=48,slow=8.8,SNR=5.6						
ARU	Arti	50.26	46	*e*P	P	00 41 31.1	-1.0
	5.2nm,1.0s,mb4.5						
HWUT	Hardware Ranch	50.93	290	P	P	00 41 38.4	+1.0
	4.0nm,0.7s,mb4.5						
ILAR	Eielson Array	51.73	330	P	P	00 41 43.1	-0.1
	0.8nm,0.8s,mb3.7,baz=43,slow=5.5,SNR=11						
ILAR				PcP	PcP	00 42 55.2	-1.5
	0.9nm,0.7s,baz=23,slow=2.9,SNR=12						
DBIC	Dimbokro	52.07	141	P	P	00 41 45.5	-0.9
	2.6nm,0.9s,mb4.1,baz=18,slow=2.2,SNR=3.2						
DBIC	Dimbokro	52.07	141	P	P	00 41 44.6	-1.8
	5.5nm,1.1s,mb4.4						
CHKZ	Chkalovo	57.26	43	*e*P	P	00 42 23.1	-0.7
	3.8nm,0.9s,mb4.4						
BRVK	Borovoye	57.56	44	*e*P	P	00 42 25.5	-0.4
	4.7nm,0.9s,mb4.5						
ROSC	El Rosal	57.64	228	P	P	00 42 28.9	+1.9
	7.0nm,0.6s,mb4.8,baz=82,slow=12,SNR=6.9						
BDFB	Brasilia	69.00	194	P	P	00 43 41.1	-0.8
	2.2nm,0.7s,mb4.2,baz=85,slow=2.0,SNR=3.9						
LPAZ	La Paz	74.47	213	P	P	00 44 14.3	-0.2
	1.4nm,0.8s,mb3.9,baz=23,slow=14,SNR=4.6						
SONM	Songino Array	74.55	26	P	P	00 44 14.9	+0.6
	2.3nm,0.7s,mb4.2,baz=332,slow=6.8,SNR=20						
ULN	Ulaanbaatar	74.70	25	*e*P	P	00 44 16.0	+0.8
	4.4nm,1.0s,mb4.3						
WRA	Warramunga Arr	146.25	18	PKPbc	PKPbc	00 52 15.8	+0.9
	2.9nm,0.7s,baz=343,slow=3.0,SNR=14						
ASAR	Alice Springs	149.78	21	PKPbc	PKPdf	00 52 25.0	+2.6
	2.1nm,0.8s,baz=359,slow=2.1,SNR=18						

IDC 30 00:39:33.1±5.4,**12.55N×92.42E,mb3.6**/3,**mb1 3.8**/3,**mb1mx3.5**/17,**mbtmp3.6**/3,**MS3.0**/1,**Ms1 3.2**/1,**ms1mx2.7**/24,**Error ellipse: s-maj=196.3km s-min=31.3km az=76.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.60	46	LR	LR	00 45 39.1	
	comp=Z,96nm,18.9s,baz=46,slow=43						
SONM	Songino Array	37.06	16	P	P	00 46 44.9	-1.8
	0.4nm,0.5s,baz=204,slow=6.8,SNR=6.7						
WRA	Warramunga Arr	52.38	127	P	P	00 48 47.4	-2.3
	0.4nm,0.6s,baz=305,slow=8.6,SNR=6.9						
WRA				PcP	PcP	00 49 58.6	-2.1
	0.7nm,0.6s,baz=324,slow=2.8,SNR=6.1						
ASAR	Alice Springs	54.23	132	P	P	00 49 01.0	-2.2
	0.3nm,0.5s,baz=308,slow=6.7,SNR=6.3						

IDC 30 00:46:12.4±2.5,**50.18S×161.17E,mb4.0**/4,**mb1 4.3**/4,**mb1mx3.9**/8,**mbtmp4.0**/4,**MS3.4**/1,**Ms1 3.4**/1,**ms1mx2.3**/18,**Error ellipse: s-maj=185.3km s-min=45.4km az=51.0,North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	9.35	50	LR	LR	00 51 45.1	
	comp=Z,206nm,18.9s,baz=332,slow=36						
STKA	Stephens Creek	23.38	314	P	P	00 51 23.8	+0.5
	2.7nm,1.0s,baz=149,slow=8.6,SNR=4.2						
ASAR	Alice Springs	33.93	311	P	P	00 52 56.8	-2.4
	3.4nm,1.0s,baz=142,slow=8.4,SNR=13						
ASAR				PcP	PcP	00 55 35.2	-2.6
	0.3nm,0.8s,baz=166,slow=3.7,SNR=4.2						
WRA	Warramunga Arr	36.93	315	P	P	00 53 21.6	-3.1
	1.7nm,0.8s,baz=147,slow=8.4,SNR=5.2						
WRA				PcP	PcP	00 55 44.2	-2.4
	1.5nm,0.9s,baz=154,slow=2.4,SNR=5.6						
CMAR	Chiang Mai Arr	87.52	303	P	P	00 59 03.2	0.0
	3.3nm,1.1s,baz=153,slow=3.8,SNR=8.9						
AKASG	Malin Array Be	149.81	290	PKPbc	PKPdf	01 06 02.4	+2.2
	0.4nm,0.4s,baz=85,slow=2.0,SNR=7.7						
GERES	GERESS Array B	158.92	279	PKPab	PKPab	01 06 46.9	-2.6
	0.2nm,0.4s,baz=90,slow=3.9,SNR=3.9						

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*IDC **30** 00:48:53.6±1.1,25.71N×99.99E,mb3.8/7,mb1 4.0/8,mb1mx3.8/19,mbtmp3.8/8,ML4.3/1,Error ellipse: s-maj=41.3km s-min=16.7km az=82.0*
*BJI **30** 00:48:55.8,25.71N×99.99E,h17^{km},mb3.7,ML3.9,Ms4.0*
ISC 30 00:48:53.1±0.6,**25.65N**±0.07×**100.01E**±0.06,**h10^{km},n13, σ1^{s}00**/18,**mb3.9**/7,**Yunnan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	Kunming	2.53	101	PG	Pg	00 49 42.0	-1.5
KMI				SG	Sg	00 50 16.8	-0.4
KMI				Smax			
	comp=N,519nm,0.9s						
KMI				Smax			
	comp=E,401nm,1.1s						
CHRT	Chiangrai	5.76	182	PN	Pn	00 50 41.0	+20
CHRT				PG	Pg	00 50 59.0	+11
CHRT				SG	Sg	00 51 57.0	-7.7
GYA	Guiyang	6.04	81	P	Pn	00 50 26.5	+1.8
GYA				PG	Pg	00 50 39.8	-14
GYA				S	Sn	00 51 29.8	-4.9
GYA				Smax			
	comp=N,40nm,0.8s						
GYA				Smax			
	comp=E,30nm,0.6s						
CD2	Chengdu	6.20	31	P	Pn	00 50 28.3	+1.4
NANT	Nan	6.85	174	P	Pn	00 50 36.0	-0.1
CMAR	Chiang Mai Arr	7.23	188	Pn	Pn	00 50 42.8	+1.4
	comp=E,1.4nm,0.3s,baz=2.7,slow=13,SNR=24						
CMAR				Pg	Pg	00 51 07.8	-10
	comp=E,0.3nm,0.3s,baz=5.1,slow=17,SNR=6.4						
CMAR				Lg		00 52 42.6	
	comp=E,0.7nm,0.3s,baz=6.5,slow=32,SNR=3.7						
SONM	Songino Array	22.71	11	P	P	00 53 56.5	+0.4
	comp=E,1.6nm,0.8s,mb3.5,baz=196,slow=11,SNR=12						
ZAL	Zalesovo	30.44	342	P	P	00 55 07.4	-0.4
	comp=E,6.4nm,1.2s,mb4.2,baz=227,slow=11,SNR=8.9						
BVAR	Borovoye Array	35.21	329	P	P	00 55 49.6	+0.3
	comp=E,1.0nm,0.5s,mb4.0,baz=127,slow=9.6,SNR=7.8						
WRA	Warramunga Arr	56.27	140	P	P	00 58 36.2	-0.1
	comp=E,1.2nm,0.8s,mb4.0,baz=331,slow=7.6,SNR=4.6						
AKASG	Malin Array Be	58.59	315	P	P	00 58 50.8	-1.5
	comp=E,0.9nm,0.7s,mb3.9,baz=76,slow=6.1,SNR=4.4						
FINES	FINESS Array B	60.16	328	P	P	00 59 02.0	-1.0
	comp=E,2.6nm,1.1s,mb4.2,baz=80,slow=12,SNR=5.0						
GERES	GERESS Array B	68.80	315	P	P	00 59 59.4	-0.1
	comp=E,0.4nm,0.6s,mb3.5,baz=63,slow=6.0,SNR=4.0						

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*NEIC **30** 00:49:31.5,47.98S×165.54E,h12^{km},ML3.8(WEL),After WEL.*
WEL 30 00:49:32.6±0.9,**48.08S×165.58E,h33^{km},ML3.7**/4,**Error ellipse: s-maj=14.4km s-min=8.6km az=90.0,Off west coast of South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WHZ	Wether Hill Ro	2.72	37	P	P	00 50 11.7	-3.1
WHZ	Wether Hill Ro	2.72	37	PN	Pn	00 50 11.7	-3.3
WHZ				SN	Sn	00 50 41.2	-5.8
MLZ	Mavora Lakes	3.26	34	*e*P	P	00 50 19.3	-3.2
MLZ	Mavora Lakes	3.26	34	PN	Pn	00 50 19.3	-3.3
MLZ				SN	Sn	00 50 56.9	-3.9
TUZ	Tuapeka	3.49	54	P	P	00 50 24.6	-1.2
TUZ	Tuapeka	3.49	54	PN	Pn	00 50 24.6	-1.4
TUZ				SN	Sn	00 51 01.4	-5.2
EAZ	Earnscleugh	3.83	43	*e*P	P	00 50 28.2	-2.4
EAZ				S	S	00 51 11.4	-3.7
EAZ	Earnscleugh	3.83	43	PN	Pn	00 50 28.0	-2.7
EAZ				SN	Sn	00 51 10.7	-4.5
WKZ	Wanaka	4.02	37	*e*P	P	00 50 32.5	-0.9
WKZ				S	S	00 51 16.7	-3.3
WKZ	Wanaka	4.02	37	PN	Pn	00 50 31.9	-1.6
WKZ				SN	Sn	00 51 16.3	-3.8
JCZ	Jackson Bay	4.57	30	*e*P	P	00 50 39.0	-2.2
JCZ	Jackson Bay	4.57	30	PN	Pn	00 50 37.6	-3.7
ODZ	Otahua Downs	4.62	51	*e*P	P	00 50 38.4	-3.5
ODZ	Otahua Downs	4.62	51	PN	Pn	00 50 38.3	-3.8
ODZ				SN	Sn	00 51 31.1	-4.1

IDC 30 00:50:58.1±2.2,**4.88N×78.55W,mb3.3**/2,**mb1 3.6**/3,**mb1mx3.3**/19,**mbtmp3.4**/3,**ML2.2**/1,**Error ellipse: s-maj=70.8km s-min=30.9km az=17.0,South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROSC	El Rosal	4.20	90	Pn	Pn	00 52 04.5	-0.4
	2.7nm,0.3s,baz=79,slow=19,SNR=3.7						
ROSC				Sn	Sn	00 52 54.0	-1.4
	1.2nm,0.3s,baz=91,slow=23,SNR=3.6						
YKA	Yellowknife Ar	63.34	342	P	P	01 01 28.3	-2.8
	0.2nm,0.5s,baz=141,slow=6.3,SNR=3.6						
ILAR	Eielson Array	76.47	336	P	P	01 02 50.2	-1.1
	0.3nm,0.8s,baz=110,slow=4.4,SNR=8.5						
ASAR	Alice Springs	143.58	236	PKP	PKPdf	01 10 34.0	-3.6
	1.0nm,0.5s,baz=120,slow=3.9,SNR=13						
WRA	Warramunga Arr	144.67	242	PKP	PKPdf	01 10 37.8	-1.8
	0.9nm,0.8s,baz=100,slow=2.8,SNR=5.6						

IDC 30 00:56:01.4±16.0,**10.58N×92.62E,mb3.6**/3,**mb1 3.8**/3,**mb1mx3.6**/17,**mbtmp3.6**/3,**MS2.6**/1,**Ms1 2.8**/1,**ms1mx2.5**/25,**Error ellipse: s-maj=552.7km s-min=31.5km az=74.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.93	37	LR	LR	01 02 20.2	
	comp=Z,33nm,20.2s,baz=317,slow=38						
SONM	Songino Array	38.90	15	P	P	01 03 28.7	-1.7
	0.2nm,0.4s,baz=200,slow=9.2,SNR=3.7						
WRA	Warramunga Arr	51.05	126	P	P	01 05 05.9	-2.0
	0.8nm,0.5s,baz=306,slow=8.6,SNR=6.4						
ASAR	Alice Springs	52.80	131	P	P	01 05 18.6	-2.3
	0.6nm,0.8s,baz=306,slow=7.4,SNR=4.8						

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*BJI **30** 01:04:49.7,3.98N×94.27E,h26^{km},mB5.4,mb5.1,Ms5.4,Msz5.2*
*NEIC **30** 01:04:51.8±2.4,4.23N×94.22E,h17^{km}±14^{km},mb5.5/69,MS4.9/15,MW5.2,Error ellipse: s-maj=5.3km s-min=4.6km az=225.0,Moment Tensor Solution. s5 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-6.14; M$_{\theta\theta}$2.25; M$_{\phi\phi}$3.89; M$_{r\theta}$2.47; M$_{\theta\phi}$-3.11; M$_{\phi r}$-1.52; Best double couple: M$_{0}$6.9×10^{16} NP1:φ$_{s}$151°,δ34°,λ-75°. NP2:φ$_{s}$314°,δ57°,λ-100°. Principal axes: T 6.86, Plg12°, Azm51°; N 0, Plg8°, Azm319°; P -6.86, Plg76°, Azm196°;*
*SYO **30** 01:04:51.6,4.24N×94.22E,h16^{km},MB5.5,MS4.9*
*HRVD **30** 01:04:51.8±0.3,4.11N×94.22E,h19^{km},MW5.2/53,Centroid moment Tensor Solution. LP body waves: s43,c73;Mantle waves: s53,c97; Half duration: 1^{s}0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-6.23±.21; M$_{\theta\theta}$3.70±.16; M$_{\phi\phi}$2.53±.17; M$_{r\theta}$4.33±.37; M$_{\theta\phi}$-3.13±.12; M$_{\phi r}$-0.75±.35; Best double couple: M$_{0}$7.64×10^{16} NP1: φ$_{s}$144°,δ31°,λ-64°. NP2:φ$_{s}$294°,δ63°,λ-105°. Principal axes: T 7.42, Plg16°, Azm35°; N .45, Plg13°, Azm301°; P -7.87, Plg69°, Azm174°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*MOS **30** 01:04:52.7±1.0,4.25N×94.19E,h33^{km},mb5.7/67,MS4.9/15 Error ellipse: s-maj=8.9km s-min=4.8km az=118.0*
*IDC **30** 01:04:54.0±0.4,4.29N×94.28E,h28^{km}±2^{km},mb5.0/26,mb1 5.0/27,mb1mx5.0/27,mbtmp5.1/27,MS4.6/11,Ms1 4.6/11,ms1mx4.3/26,Error ellipse: s-maj=19.0km s-min=10.0km az=50.0*
ISC 30 01:04:51.8±0.2,**4.20N**±0.03×**94.30E**±0.03,**h29^{km},h29^{km}**±.5^{km}**:pP-P,n428, σ0^{s}98**/379,**mb5.4**/134,**MS4.9**/49,**29C-30D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	Pallekele	13.87	283	*e*P	P	01 08 06.2	-2.8
	104nm,0.8s						
PALK				*e*		01 08 17.8	
CM31	Chiang Mai Arr	14.88	17	P	P	01 08 21.8	-0.3
	295nm,1.3s						
CMAR	Chiang Mai Arr	14.88	17	Pn	P	01 08 22.9	+0.8
	baz=213,slow=11,SNR=10						
MDRS	Chennai	16.44	303	*e*P	P	01 08 44.0	+1.7
MDRS				*i*		01 14 52.0	
	comp=Z,3μm,19.2s						
COCO	West Island	16.48	171	P	P	01 08 44.2	+1.3
	comp=Z,535nm,1.1s						
VIS	Vishakhapatnam	17.20	322	*e*P	P	01 08 53.1	+1.2
VIS				*e*		01 08 53.6	
	comp=Z,103nm,0.5s						
VIS				*i*		01 15 32.0	
	comp=Z,3μm,19.8s						
KOD	Kodaikanal	17.74	291	⇑*e*P	P	01 08 57.9	-0.6
KOD				*e*P		01 09 00.0	
TRD	Trivandrum	17.75	285	*e*P	P	01 08 59.3	+0.5
TRD				*e*		01 09 03.8	
	comp=Z,168nm,1.7s						
TRD				*i*		01 15 39.3	
	comp=Z,4μm,20.5s						
CAL	Calcutta	19.12	343	*e*P	P	01 09 16.5	+1.1
CAL				*e*S	S	01 12 52.1	+7.9
AGT	Agartala	19.78	352	*e*P	P	01 09 20.0	-2.9
HYB	Hyderabad	20.26	312	*e*P	P	01 09 27.0	-0.9
HYB				*e*S	S	01 12 58.0	-11
HYB				pmax	pmax		
	comp=Z,186nm,1.2s						
HYB	Hyderabad	20.26	312	*e*P	P	01 09 27.0	-0.9
	comp=Z,186nm,1.2s						
HYB				*e*S	S	01 12 58.0	-11
HYB	Hyderabad	20.26	312	*i* P	P	01 09 27.0	-0.9
	comp=Z,186nm,1.2s						
HYB				*e*		01 12 58.0	
HYB				*e*S	S	01 13 12.0	+3.5
IMP	Imphal	20.46	359	*e*P	P	01 09 27.2	-2.8
BOK	Bokaro	21.10	338	⇑*e*P	P	01 09 37.0	+0.4
BOK				*e*		01 09 38.2	
	comp=Z,92nm,1.1s						
BOK				⇓*e*S	S	01 13 30.3	+5.4
MNGI	Mangalore	21.11	295	*i* P	P	01 09 36.8	+0.2
MNGI				⇓*e*P		01 09 36.9	
MNGI				*e*		01 09 38.4	
	comp=Z,188nm,1.1s						
MNGI				*e*	S	01 13 22.4	-2.7
	comp=Z,236nm,1.7s						
MNGI				*i*		01 17 50.8	
	comp=Z,4μm,17.5s						
QIZ	Qiongzhong	21.15	45	P	P	01 09 38.5	+1.4
QIZ				S	S	01 13 29.0	+3.1
QIZ				LR	LR		
	comp=N,4μm,17.6s,MS5.0						
QIZ				LR	LR		
	comp=E,5μm,17.3s,MS5.0						
QIZ				LR	LR		
	comp=Z,6μm,17.4s,MS5.0						
QIZ	Qiongzhong	21.15	45	*e*P	P	01 09 37.9	+0.8
	comp=Z,117nm,1.1s,mb5.1						
SHL	Shillong	21.37	354	⇓*e*P	P	01 09 38.3	-1.0
SHL				*e*S	S	01 13 37.6	+7.7
BLSP	Bilaspur	21.37	328	*e*P	P	01 09 39.0	-0.3
BLSP				*e*		01 09 43.6	
	comp=Z,196nm,1.2s						
BLSP				*e*S	S	01 13 36.8	+6.8
KMI	Kunming	22.32	21	P	P	01 09 50.8	+2.0
KMI				AP		01 09 57.0	
KMI				XP		01 10 00.5	
KMI				S	S	01 13 50.8	+3.2
KMI				AMB	AMB		
	comp=Z,108nm,1.1s,mb5.2						
KMI				AMB	AMB		

	comp=Z,552nm,4.0s						
KMI				LR	LR		
	comp=N,3μm,15.0s,MS5.2						
KMI				LR	LR		
	comp=E,5μm,12.3s,MS5.2						
KMI				LR	LR		
	comp=Z,3μm,13.5s,MS4.9						
LATR	**Latur**	**22.37**	**311**	eP	**P**	**01 09 50.5**	**+1.2**
LATR				e	**S**	**01 13 50.2**	**+1.7**
NGP	**Nagpur**	**22.43**	**320**	⇑eP	**P**	**01 09 51.3**	**+1.4**
	comp=Z,80nm,0.8s,mb5.2						
NGP				eS	**S**	**01 13 56.0**	**+6.3**
GOA	**Goa**	**23.05**	**301**	e	**P**	**01 10 05.5**	**+9.4**
	comp=Z,235nm,1.2s,mb5.5						
GOA				e	**S**	**01 14 13.7**	**+13**
GOA				i		01 19 37.7	
	comp=Z,2μm,17.7s						
AKL	**Akola**	**23.49**	**316**	⇓eP	**P**	**01 10 03.7**	**+3.4**
AKL				e		01 10 06.6	
	comp=Z,172nm,1.3s						
AKL				⇓eS	**S**	**01 14 16.5**	**+8.1**
AKL				i		01 19 19.9	
	comp=Z,2μm,21.8s						
KAD	**Karad**	**23.63**	**305**	eP	**P**	**01 10 03.1**	**+1.4**
KAD				e		01 10 06.6	
	comp=Z,106nm,1.7s						
KAD				eS	**S**	**01 14 15.9**	**+5.0**
POO	**Poona**	**24.55**	**307**	eP	**P**	**01 10 11.8**	**+1.2**
POO				e		01 10 14.4	
	comp=Z,107nm,1.2s						
POO				eS	**S**	**01 14 30.1**	**+3.5**
DGAR	**Diego Garcia**	**24.67**	**242**	eP	**P**	**01 10 09.1**	**-2.7**
DGAR				pmax	pmax		
	comp=Z,335nm,1.4s,mb5.7						
DGAR	**Diego Garcia**	**24.67**	**242**	eP	**P**	**01 10 09.1**	**-2.7**
	comp=Z,335nm,1.4s,mb5.7						
PKI	**Pulchoki**	**24.74**	**341**	eP	**P**	**01 10 12.9**	**+0.5**
	comp=Z,417nm,1.6s,mb5.7						
DMN	**Daman**	**24.87**	**340**	eP	**P**	**01 10 14.1**	**+0.4**
	comp=Z,114nm,0.9s,mb5.4						
GUN	**Gumba**	**24.90**	**342**	eP	**P**	**01 10 14.7**	**+0.8**
	comp=Z,126nm,0.6s,mb5.6						
KKN	**Kakani**	**24.98**	**341**	eP	**P**	**01 10 15.1**	**+0.4**
	comp=Z,97nm,0.8s,mb5.4						
BHPL	**Bhopal**	**24.98**	**321**	eP	**P**	**01 10 16.5**	**+1.7**
BHPL				e		01 10 17.7	
	comp=Z,82nm,1.0s						
BHPL				eS	**S**	**01 14 39.9**	**+6.1**
GYA	**Guiyang**	**25.09**	**27**	⇑iP	**P**	**01 10 15.5**	**-0.3**
GYA				AP	pP	01 10 19.5	-4.6
GYA				PP	PP	01 10 49.8	-4.0
GYA				S	**S**	**01 14 38.0**	**+2.3**
GYA				AMB	AMB		
	comp=Z,150nm,1.0s,mb5.5						
GYA				AMB	AMB		
	comp=Z,6μm,9.8s						
GYA				LR	LR		
	comp=N,5μm,16.4s,MS5.3						
GYA				LR	LR		
	comp=E,7μm,17.0s,MS5.3						
GYA				LR	LR		
	comp=Z,9μm,16.4s,MS5.4						
GKN	**Gorkha**	**25.39**	**340**	eP	**P**	**01 10 19.0**	**+0.4**
	comp=Z,246nm,0.8s,mb5.8						
LSA	**Lhasa**	**25.53**	**354**	eP	**P**	**01 10 21.1**	**+1.2**
LSA				eS	**S**	**01 14 48.1**	**+5.1**
LSA				pmax	pmax		
	comp=Z,79nm,0.6s,mb5.4						
LSA	**Lhasa**	**25.53**	**354**	eP	**P**	**01 10 21.1**	**+1.3**
	comp=Z,79nm,0.6s,mb5.4						
LSA				eS	**S**	**01 14 48.1**	**+5.1**
KOLN	**Koldanda**	**25.56**	**338**	eP	**P**	**01 10 20.6**	**+0.5**
	comp=Z,171nm,0.8s,mb5.6						
BOM	**Bombay**	**25.57**	**307**	⇓eP	**P**	**01 10 21.4**	**+1.1**
AGRA	**Agra**	**27.72**	**327**	eP	**P**	**01 10 39.4**	**-0.6**
CD2	**Chengdu**	**28.02**	**17**	P	**P**	**01 10 42.0**	**-0.6**
CD2				PP	PP	01 11 31.0	-1.8
CD2				PPP	PPP	01 11 43.3	-1.5
CD2				S	**S**	**01 15 23.0**	**-0.6**
CD2				SS	SS	01 16 48.3	+2.0
CD2				AMB	AMB		
	comp=Z,100nm,0.8s,mb5.5						
CD2				LR	LR		
	comp=E,6μm,13.2s						
CD2				LR	LR		
	comp=Z,6μm,8.1s						
TGY	**Tagaytay City**	**28.04**	**68**	LR	LR	01 22 05.8	
	comp=Z,1μm,20.0s,MS4.5,baz=156,slow=37						
LGTI	**Lohaghat**	**28.42**	**334**	eP	**P**	**01 10 46.0**	**-0.3**
PTH	**Pithoragarh**	**28.52**	**334**	eP	**P**	**01 10 45.9**	**-1.3**
PTH				e		01 13 34.2	
AJM	**Ajmer**	**29.06**	**322**	eP	**P**	**01 10 51.9**	**-0.1**
AJM				eS	**S**	**01 15 42.8**	**+2.4**
AYAN	**Aya Nagar**	**29.15**	**328**	eP	**P**	**01 10 52.4**	**-0.5**
KUDL	**Kundal**	**29.23**	**326**	eP	**P**	**01 10 51.7**	**-1.8**
NDI	**New Delhi**	**29.26**	**328**	eP	**P**	**01 10 51.5**	**-2.3**
NDI				⇓eP		01 10 52.9	
NDI				i		01 23 24.7	
	comp=Z,2μm,17.4s						
KHET	**Khetri**	**29.55**	**325**	eP	**P**	**01 10 55.8**	**-0.7**
ENH	**Enshi**	**29.63**	**27**	eP	**P**	**01 10 55.7**	**-1.4**
	comp=Z,71nm,0.8s,mb5.5						
ENH				e		01 11 01.9	
ENH				eS	**S**	**01 15 48.0**	**-1.5**
ENH				eScP		01 17 34.4	
DDI	**Dehra Dun**	**30.17**	**331**	eP	**P**	**01 11 01.9**	**0.0**
DDI				e		01 17 01.9	
KKR	**Kurukshetra**	**30.49**	**329**	eP	**P**	**01 11 03.6**	**-1.1**
SDNR	**Sundarnagar**	**31.67**	**331**	eP	**P**	**01 11 15.5**	**+0.4**
JASL	**Jaisalmer**	**31.78**	**318**	e	**P**	**01 11 11.8**	**-4.4**
WHN	**Wuhan**	**32.31**	**34**	P	**P**	**01 11 21.0**	**+0.2**
XAN	**Xi'an**	**32.65**	**23**	P	**P**	**01 11 22.5**	**-1.2**
XAN				AP	pP	01 11 30.0	-2.1
XAN				S	**S**	**01 16 38.8**	**+2.0**
XAN				LR	LR		
	comp=N,1μm,14.4s,MS5.0						
XAN				LR	LR		
	comp=E,2μm,15.1s,MS5.0						
XAN				LR	LR		
	comp=Z,4μm,16.1s,MS5.2						
LZH	**Lanzhou**	**32.92**	**14**	⇑P	**P**	**01 11 25.5**	**-0.5**
LZH				PCP	PcP	01 14 11.5	+1.4
LZH				S	**S**	**01 16 40.0**	**-1.0**
LZH				SCP		01 17 54.0	
LZH				PCS		01 17 55.8	
LZH				AMB	AMB		
	comp=Z,45nm,1.2s,mb5.3						
LZH				AMB	AMB		
	comp=Z,224nm,5.9s						
LZH				LR	LR		
	comp=E,3μm,11.3s						
LZH				LR	LR		
	comp=Z,5μm,13.0s,MS5.4						
THN	**Thein Dam**	**33.04**	**330**	eP	**P**	**01 11 25.8**	**-1.2**
	comp=Z,28nm,0.9s,mb5.2						
GTA	**Gaotai**	**35.40**	**7**	⇑iP	**P**	**01 11 47.5**	**+0.2**
GTA				AP	pP	01 11 55.0	-0.8
GTA				XP	sP	01 11 58.5	-1.0
GTA				PP	PP	01 13 05.3	-2.0
GTA				PCP	PcP	01 14 18.0	+0.9
GTA				S	**S**	**01 17 18.0**	**-1.3**
GTA				SCP		01 18 01.3	
GTA				SCS	ScS	01 22 04.0	+1.4
GTA				AMB	AMB		
	comp=Z,38nm,1.0s,mb5.3						
GTA				AMB	AMB		
	comp=Z,191nm,8.4s						
GTA				LR	LR		
	comp=N,544nm,14.5s,MS4.7						
GTA				LR	LR		
	comp=E,914nm,14.5s,MS4.7						
GTA				LR	LR		
	comp=Z,943nm,17.9s,MS4.6						
MBWA	**Marble Bar**	**35.45**	**136**	eP	**P**	**01 11 47.0**	**-0.9**
	comp=Z,66nm,1.1s,mb5.5						
MBWA				e	pP	01 11 55.0	-1.4
MBWA				ePcP	PcP	01 14 17.4	-0.1
MBWA				LR	LR		
	comp=Z,907nm,21.0s,MS4.5						
NJ2	**Nanjing**	**36.02**	**37**	eP	**P**	**01 11 52.5**	**-0.1**
NJ2				AP	pP	01 12 01.5	+0.3
NJ2				XP	sP	01 12 05.5	+0.7
NJ2				S	**S**	**01 17 28.0**	**-1.0**
NJ2				XS		01 17 44.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.4						
NJ2				AMB	AMB		
	comp=Z,1μm,3.7s						
SSE	**Sheshan**	**36.82**	**40**	P	**P**	**01 12 00.5**	**+1.1**
SSE				S	**S**	**01 17 47.8**	**+6.6**
SSE				AMB	AMB		
	comp=Z,58nm,0.8s,mb5.5						
SSE				AMB	AMB		
	comp=Z,71nm,3.8s						
SSE				LR	LR		
	comp=N,403nm,15.4s,MS4.9						
SSE				LR	LR		
	comp=E,2μm,15.6s,MS4.9						
SSE				LR	LR		
	comp=Z,2μm,15.0s,MS5.0						
KSH	**Kashi**	**38.88**	**337**	P	**P**	**01 12 17.3**	**+0.8**
KSH				AP	pP	01 12 21.8	-3.3
KSH				XP	sP	01 12 24.8	-3.9
KSH				PP	PP	01 13 47.3	-2.3
KSH				PCP	PcP	01 14 31.3	+3.7
KSH				S	**S**	**01 18 12.8**	**+0.4**
KSH				SCS	ScS	01 22 25.8	+3.7
KSH				LR	LR		
	comp=N,850nm,12.2s,MS4.8						
KSH				LR	LR		
	comp=E,550nm,12.5s,MS4.8						
BTO	**Baotou**	**38.91**	**19**	eP	**P**	**01 12 16.5**	**-0.3**
HHC	**Hu-ho-hao-te**	**39.65**	**21**	eP	**P**	**01 12 23.5**	**+0.5**
HHC				AP	pP	01 12 27.5	-4.0
HHC				XP	sP	01 12 30.8	-4.3
HHC				PP	PP	01 13 59.3	+1.4
HHC				PCP	PcP	01 14 30.5	+0.4
HHC				S	**S**	**01 18 23.8**	**-0.3**
HHC				SS	SS	01 21 12.5	-0.5
HHC				AMB	AMB		
	comp=Z,31nm,1.0s,mb5.0						
HHC				AMB	AMB		
	comp=Z,310nm,4.6s						
HHC				LR	LR		
	comp=N,1μm,13.1s,MS5.3						
HHC				LR	LR		
	comp=E,3μm,14.3s,MS5.3						
HHC				LR	LR		
	comp=Z,1μm,14.3s,MS5.0						
WMQ	**Urumqi**	**39.88**	**353**	⇑P	**P**	**01 12 26.3**	**+1.5**
WMQ				AP	pP	01 12 30.3	-3.1
WMQ				XP	sP	01 12 33.5	-3.5
WMQ				PP	PP	01 14 02.5	+2.2
WMQ				PPP	PPP	01 14 28.8	+2.9
WMQ				S	**S**	**01 18 30.3**	**+2.8**
WMQ				AMB	AMB		
	comp=Z,34nm,1.3s,mb4.9						
WMQ				LR	LR		
	comp=N,599nm,18.4s,MS4.5						
WMQ				LR	LR		
	comp=E,373nm,20.8s,MS4.5						
WMQ				LR	LR		
	comp=Z,482nm,20.1s,MS4.3						
BJT	**Baijiatuau**	**40.76**	**26**	eP	**P**	**01 12 33.5**	**+1.4**
BJT				e	pP	01 12 40.9	+0.2
BJT				pmax	pmax		
	comp=Z,123nm,0.9s						
BJT	**Baijiatuau**	**40.76**	**26**	eP	**P**	**01 12 33.5**	**+1.4**
	comp=Z,123nm,0.9s,mb5.5						
BJT				e	pP	01 12 40.9	+0.2
BJI	**Beijing**	**40.78**	**26**	eP	**P**	**01 12 33.8**	**+1.6**
BJI				PCP	PcP	01 14 32.5	-1.2
BJI				S	**S**	**01 18 49.5**	**+8.6**
BJI				AMB	AMB		
	comp=Z,186nm,1.3s,mb5.6						
BJI				LR	LR		
	comp=N,1μm,12.7s,MS5.2						
BJI				LR	LR		
	comp=E,2μm,14.9s,MS5.2						
BJI				LR	LR		
	comp=Z,761nm,22.2s						
ULHL	**Ulahol**	**41.16**	**340**	P	**P**	**01 12 36.6**	**+1.2**
	SNR=7.5						
KZA	**Kyzart**	**41.37**	**338**	P	**P**	**01 12 38.4**	**+1.3**
	SNR=36						
UCH	**Uchtor**	**41.77**	**338**	P	**P**	**01 12 41.7**	**+1.3**
	SNR=90						
TKM2	**Tokmak 2**	**41.98**	**339**	P	**P**	**01 12 42.5**	**+0.4**
	SNR=28						
KBK	**Karagaybulak**	**41.98**	**339**	P	**P**	**01 12 43.4**	**+1.3**
	SNR=85						
AML	**Almayashu**	**42.01**	**337**	P	**P**	**01 12 43.7**	**+1.4**
	SNR=107						
AAK	**Ala-Archa**	**42.13**	**338**	P	**P**	**01 12 44.5**	**+1.2**
	SNR=36						
AAK	**Ala-Archa**	**42.13**	**338**	eP	**P**	**01 12 43.4**	**+0.1**
AAK				pmax	pmax		
	comp=Z,181nm,1.3s,mb5.5						
AAK	**Ala-Archa**	**42.13**	**338**	eP	**P**	**01 12 43.4**	**0.0**
	comp=Z,181nm,1.3s,mb5.5						
FRU	**Bishkek**	**42.26**	**338**	⇑iP	**P**	**01 12 45.5**	**+1.1**
FRU				i	pP	01 12 53.5	+0.5
FRU				pmax	pmax		
	comp=Z,132nm,2.0s,mb5.2						
CHMS	**Chumysh**	**42.35**	**339**	P	**P**	**01 12 45.6**	**+0.4**
	SNR=17						
EKS2	**Erkin-Say**	**42.42**	**337**	P	**P**	**01 12 46.9**	**+1.1**
	SNR=49						
DL2	**Dalian**	**42.53**	**32**	P	**P**	**01 12 47.8**	**+1.1**
DL2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
DL2				LR	LR		
	comp=N,2μm,14.3s,MS5.1						
DL2				LR	LR		
	comp=E,1μm,13.9s,MS5.1						
DL2				LR	LR		
	comp=Z,2μm,14.5s,MS5.1						
USP	**Ospenovka**	**42.68**	**339**	P	**P**	**01 12 48.4**	**+0.6**
	SNR=116						
NWAO	**Narrogin (SRO)**	**42.85**	**151**	eP	**P**	**01 12 49.3**	**-0.1**
NWAO				pmax	pmax		
	comp=Z,51nm,1.3s						
NWAO				MLR	MLR		
	comp=Z,769nm,19.0s						
NWAO	**Narrogin (SRO)**	**42.85**	**151**	P	**P**	**01 12 49.7**	**+0.3**
	comp=Z,14nm,0.8s,mb4.7,baz=311,slow=10,SNR=6.5						
NWAO	**Narrogin (SRO)**	**42.85**	**151**	eP	**P**	**01 12 49.2**	**-0.1**
	comp=Z,51nm,1.3s,mb5.1						
NWAO				LR	LR		
	comp=Z,769nm,19.0s,MS4.6						
MKAR	**Makanchi Array**	**43.68**	**348**	i P	**P**	**01 12 56.1**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,70nm,0.8s						
SONM	**Songino Array**	**44.69**	**12**	P	**P**	**01 13 04.4**	**+0.2**
	comp=Z,27nm,0.8s,mb5.1,baz=191,slow=8.2,SNR=194						
SONM				PcP	PcP	01 14 46.9	+0.2
	comp=Z,8.0nm,0.8s,baz=195,slow=3.3,SNR=4.4						
SONM				pPcP		01 14 57.2	
	comp=Z,8.4nm,0.8s,baz=196,slow=4.5,SNR=3.9						
SONM				ScP		01 18 37.8	
	comp=Z,0.4nm,0.8s,baz=225,slow=3.5,SNR=3.7						
ULN	**Ulaanbaatar**	**44.86**	**12**	eP	**P**	**01 13 05.0**	**-0.4**
ULN				e		01 13 11.5	
ULN				e		01 14 46.8	
ULN				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.0						
ULN				MLR	MLR		
	comp=Z,729nm,20.0s,MS4.6						
ULN	**Ulaanbaatar**	**44.86**	**12**	eP	**P**	**01 13 05.0**	**-0.4**
	comp=Z,24nm,1.0s,mb5.0						
ULN				e		01 13 11.5	
ULN				ePcP	PcP	01 14 46.8	-0.5
ULN				LR	LR		
	comp=Z,729nm,20.0s,MS4.6						
KS15	**Wonju Array Si**	**45.14**	**38**	eP	**P**	**01 13 06.1**	**-1.7**
KS15				e	pP	01 13 16.2	-0.2
SNY	**Shenyang**	**45.69**	**31**	⇓P	**P**	**01 13 11.5**	**-0.6**
SNY				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
SNY				LR	LR		
	comp=N,3μm,17.2s,MS5.4						
SNY				LR	LR		
	comp=E,2μm,13.7s,MS5.4						
SNY				LR	LR		
	comp=Z,2μm,17.1s,MS5.2						
WRA	**Warramunga Arr**	**46.08**	**123**	i P	**P**	**01 13 15.9**	**+0.5**
WRA				pmax	pmax		
	comp=Z,97nm,1.0s						
WRA	**Warramunga Arr**	**46.08**	**123**	P	**P**	**01 13 15.9**	**+0.5**
	comp=Z,97nm,1.0s,mb5.7,baz=301,slow=9.0,SNR=192						
WRAB	**Tennant Creek**	**46.08**	**123**	eP	**P**	**01 13 15.7**	**+0.2**
WRAB				e	pP	01 13 22.7	-1.4
WRAB				pmax	pmax		
	comp=Z,274nm,1.2s,mb6.1						
WRAB				MLR	MLR		
	comp=Z,207nm,20.0s,MS4.1						
WRAB	**Tennant Creek**	**46.08**	**123**	eP	**P**	**01 13 15.7**	**+0.2**
	comp=Z,274nm,1.2s,mb6.1						
WRAB				e	pP	01 13 22.7	-1.4
WRAB				LR	LR		
	comp=Z,207nm,20.0s,MS4.1						
ZAK	**Zakamensk**	**46.64**	**8**	eP	**P**	**01 13 18.9**	**-0.5**
ZAK				e		01 14 53.1	
ZAK				e		01 15 50.5	
ASAR	**Alice Springs**	**47.51**	**128**	P	**P**	**01 13 26.8**	**+0.1**
	comp=Z,21nm,0.8s,mb5.2,baz=305,slow=7.6,SNR=122						
ASAR				PcP	PcP	01 14 57.2	+0.3
	comp=Z,13nm,1.0s,baz=299,slow=3.2,SNR=6.6						
ASAR				LR	LR	01 34 22.6	
	comp=Z,151nm,21.8s,MS3.9,baz=305,slow=37						
MOY	**Mondy**	**47.63**	**6**	eP	**P**	**01 13 28.0**	**+0.7**
TLY	**Talaya**	**47.95**	**8**	eP	**P**	**01 13 30.2**	**+0.4**
TLY				eS	**S**	**01 20 20.5**	**-4.0**
TLY				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
TLY				MLR	MLR		
	comp=Z,810nm,17.0s,MS4.8						
TLY	**Talaya**	**47.95**	**8**	eP	**P**	**01 13 30.3**	**+0.4**
	comp=Z,33nm,1.0s,mb5.3						
TLY				e	pP	01 13 38.0	-0.6
TLY				LR	LR		
	comp=Z,188nm,19.0s,MS4.1						
CN2	**Changchun**	**48.07**	**30**	eP	**P**	**01 13 30.5**	**-0.3**
CN2				XP	sP	01 13 38.0	-4.9
CN2				PCP	PcP	01 14 58.0	-0.7
CN2				eS	**S**	**01 20 28.3**	**+2.1**
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.2						
CN2				AMB	AMB		
	comp=Z,300nm,5.0s						
CN2				LR	LR		
	comp=N,2μm,15.0s,MS5.4						
CN2				LR	LR		
	comp=E,2μm,15.0s,MS5.4						
CN2				LR	LR		
	comp=Z,2μm,16.0s,MS5.3						
IRK	**Irkutsk**	**48.59**	**8**	eP	**P**	**01 13 35.5**	**+0.8**
HIA	**Hailar**	**49.84**	**22**	eP	**P**	**01 13 44.2**	**-0.1**
HIA				e	pP	01 13 52.1	-1.0
HIA				pmax	pmax		
	comp=Z,47nm,0.8s						
HIA	**Hailar**	**49.84**	**22**	eP	**P**	**01 13 44.1**	**-0.2**
	comp=Z,47nm,0.8s,mb5.6						
HIA				e	pP	01 13 52.1	-1.0
ZAL	**Zalesovo**	**50.18**	**353**	i P	**P**	**01 13 46.9**	**0.0**
ZAL	**Zalesovo**	**50.18**	**353**	P	**P**	**01 13 46.9**	**-0.1**
	comp=Z,22nm,1.1s,mb5.1,baz=205,slow=6.8,SNR=74						
ZAL				LR	LR	01 39 09.0	
	comp=Z,862nm,18.5s,MS4.8,baz=205,slow=41						
QRN	**Al-Qurain**	**50.28**	**304**	eP	**P**	**01 13 48.1**	**+0.1**
QRN				AMb	AMB	01 13 48.9	
	comp=Z,265nm,0.6s,mb6.4						
RDF	**Al-Radifah**	**50.65**	**304**	eP	**P**	**01 13 51.5**	**+0.7**
RDF				AMb	AMB	01 13 53.3	
	comp=Z,407nm,1.0s,mb6.3						
UMR	**Umm Al-Rimmam**	**50.73**	**305**	eP	**P**	**01 13 52.0**	**+0.6**
UMR				AMb	AMB	01 13 53.4	
	comp=Z,180nm,0.6s,mb6.2						
GUMO	**Guam**	**50.73**	**76**	PFAKE		01 14 00.0	+8.4
GUMO				LR	LR		
	comp=Z,978nm,20.0s,MS4.8						
MDJ	**Mudanjiang**	**50.77**	**32**	P	**P**	**01 13 51.8**	**+0.2**
MDJ				PCP	PcP	01 15 07.5	-1.0
MDJ				PP	PP	01 15 48.0	-0.5
MDJ				SCP		01 19 04.5	
MDJ				PCS		01 19 05.8	
MDJ				S	**S**	**01 21 07.3**	**+3.4**
MDJ				AMB	AMB		
	comp=Z,23nm,1.4s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,138nm,5.5s						
MDJ				LR	LR		
	comp=N,2μm,17.6s,MS5.2						
MDJ				LR	LR		
	comp=E,1μm,16.1s,MS5.2						
MDJ				LR	LR		
	comp=Z,2μm,16.5s,MS5.3						
MDJ	**Mudanjiang**	**50.77**	**32**	eP	**P**	**01 13 51.9**	**+0.3**
	comp=Z,83nm,1.4s,mb5.5						
MDJ				e	pP	01 14 00.1	-0.3
MIB	**Mutribah**	**51.12**	**305**	eP	**P**	**01 13 55.5**	**+1.1**
MIB				AMb	AMB	01 13 57.2	
	comp=Z,542nm,0.9s						
JHJ	**Hachijo jima 2**	**51.21**	**50**	LR	LR	01 39 57.6	
	comp=Z,670nm,18.7s,MS4.7,baz=127,slow=41						
NVS	**Novosibirsk**	**51.27**	**352**	i P	**P**	**01 13 53.5**	**-1.7**
NVS				e	pP	01 14 00.6	-3.4
NVS				i		01 21 10.3	
NVS				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.3						
NVS				pmax	pmax		
	comp=N,34nm,1.2s						
NVS				pmax	pmax		
	comp=E,15nm,1.2s						
RST	**Umm Al-Ruwaisa**	**51.30**	**305**	eP	**P**	**01 13 55.9**	**+0.2**
RST				AMb	AMB	01 13 57.9	
	comp=Z,290nm,1.2s,mb6.1						
MAJO	**Matsushiro**	**51.55**	**45**	eP	**P**	**01 13 57.2**	**-0.3**
MAJO				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
MAJO	**Matsushiro**	**51.55**	**45**	eP	**P**	**01 13 57.2**	**-0.4**
	comp=Z,26nm,1.3s,mb5.0						
MAT	**Matsushiro**	**51.55**	**45**	P	**P**	**01 13 56.9**	**-0.6**
MAT	**Matsushiro**	**51.55**	**45**	eP	**P**	**01 13 57.0**	**-0.5**
MAT				LR	LR		
	comp=Z,2μm,19.0s,MS5.1						
BVAR	**Borovoye Array**	**52.50**	**342**	P	**P**	**01 14 03.8**	**-0.7**
	comp=Z,67nm,0.7s,mb5.7,baz=143,slow=7.4,SNR=168						
BVAR				pP	pP	01 14 11.5	-1.8
	comp=Z,64nm,0.7s,baz=146,slow=11,SNR=20						
BRVK	**Borovoye**	**52.56**	**342**	eP	**P**	**01 14 03.9**	**-1.0**
BRVK				e	pP	01 14 12.1	-1.6
BRVK				pmax	pmax		
	comp=Z,92nm,0.8s,mb5.8						
BRVK	**Borovoye**	**52.56**	**342**	eP	**P**	**01 14 03.9**	**-1.1**
	comp=Z,92nm,0.8s,mb5.8						
BRVK				e	pP	01 14 12.1	-1.6
CHKZ	**Chkalovo**	**52.99**	**343**	eP	**P**	**01 14 07.8**	**-0.4**
CHKZ				e	pP	01 14 15.5	-1.4
CHKZ				pmax	pmax		
	comp=Z,202nm,0.9s,mb6.0						
CHKZ	**Chkalovo**	**52.99**	**343**	eP	**P**	**01 14 07.8**	**-0.4**
	comp=Z,202nm,0.9s,mb6.0						
CHKZ				e	pP	01 14 15.5	-1.5
PMG	**Port Moresby**	**54.38**	**105**	eP	**P**	**01 14 18.6**	**-0.2**
PMG				e	pP	01 14 26.2	-1.4
PMG				pmax	pmax		
	comp=Z,30nm,0.8s						
PMG	**Port Moresby**	**54.38**	**105**	eP	**P**	**01 14 18.6**	**-0.3**
	comp=Z,30nm,0.8s,mb5.3						
PMG				e	pP	01 14 26.2	-1.4
KLR	**Kul'dur**	**54.97**	**29**	eP	**P**	**01 14 20.0**	**-2.7**
KLR				eS	**S**	**01 21 53.5**	**-7.4**
KLR				MLR	MLR		
	comp=Z,2μm,13.0s,MS5.5						
BOD	**Bodaibo**	**55.67**	**13**	⇓iP	**P**	**01 14 27.1**	**-0.5**
CTA	**Charters Tower**	**56.44**	**117**	P	**P**	**01 14 33.6**	**0.0**
	comp=Z,45nm,0.9s,mb5.5,baz=298,slow=7.7,SNR=24						
CTAO	**Charters Tower**	**56.44**	**117**	eP	**P**	**01 14 33.6**	**-0.1**
CTAO				e	pP	01 14 42.0	-0.5
CTAO				pmax	pmax		
	comp=Z,90nm,1.1s,mb5.7						
CTAO	**Charters Tower**	**56.44**	**117**	eP	**P**	**01 14 33.6**	**-0.1**
	comp=Z,90nm,1.1s,mb5.7						
CTAO				e	pP	01 14 42.0	-0.5
GNI	**Garni**	**57.13**	**316**	i P	**P**	**01 14 38.1**	**-0.3**
GNI				pmax	pmax		
	comp=Z,77nm,1.9s						
GNI	**Garni**	**57.13**	**316**	P	**P**	**01 14 38.1**	**-0.3**
	comp=Z,14nm,0.9s,mb5.0,baz=23,slow=3.0,SNR=17						
GNI				LR	LR	01 41 27.1	
	comp=Z,283nm,20.4s,MS4.4,baz=82,slow=38						
GNI	**Garni**	**57.13**	**316**	eP	**P**	**01 14 37.9**	**-0.6**
	comp=Z,49nm,1.2s,mb5.4						
KMBO	**Kilima Mbogo**	**57.25**	**266**	eP	**P**	**01 14 40.0**	**+0.4**

KMBO				e	pP	01 14 48.2	-0.2
KMBO				pmax	pmax		
	comp=Z,37nm,1.0s						
KMBO	**Kilima Mbogo**	**57.25**	**266**	P	**P**	**01 14 40.2**	**+0.6**
	comp=Z,24nm,0.9s,mb5.2,baz=60,slow=10.0,SNR=46						
KMBO	**Kilima Mbogo**	**57.25**	**266**	eP	**P**	**01 14 40.0**	**+0.4**
	comp=Z,37nm,1.0s,mb5.4						
KMBO				e	pP	01 14 48.2	-0.2
STKA	**Stephens Creek**	**57.51**	**132**	P	**P**	**01 14 40.9**	**-0.3**
	comp=Z,14nm,0.9s,mb5.0,baz=309,slow=6.0,SNR=18						
STKA	**Stephens Creek**	**57.51**	**132**	eP	**P**	**01 14 40.5**	**-0.7**
CLNS	**Chul'man**	**57.81**	**19**	eP	**P**	**01 14 41.8**	**-1.1**
CLNS				e*PP	pP	01 14 49.7	-2.1
CLNS				e		01 15 31.5	
CLNS				e		01 16 51.9	
CLNS				eS	**S**	**01 22 42.2**	**+3.7**
CLNS				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
CLNS				pmax	pmax		
	comp=N,12nm,0.9s						
CLNS				pmax	pmax		
	comp=E,8.0nm,0.7s						
CLNS				pmax	pmax		
	comp=N,8.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,5.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
CLNS				smax			
	comp=N,100nm,14.6s						
CLNS				smax			
	comp=Z,100nm,13.0s						
CLNS				smax			
	comp=E,100nm,13.5s						
CLNS				MLR	MLR		
	comp=Z,3µm,15.0s,MS5.5						
CLNS				MLR	MLR		
	comp=N,2µm,16.0s,MS5.4						
CLNS				MLR	MLR		
	comp=E,400nm,14.0s,MS5.4						
TI2	**Plekhanov**	**57.82**	**318**	⇓iP	**P**	**01 14 43.0**	**-0.2**
TI2				i	pP	01 14 50.0	-2.0
TI2				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.7						
ASAJ	**Asahikawa**	**58.10**	**39**	LR	LR	01 42 06.9	
	comp=Z,1µm,18.9s,MS5.0,baz=324,slow=38						
ZEI	**Tsey**	**58.84**	**318**	i P	**P**	**01 14 49.7**	**-0.6**
ZEI				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
SVE	**Sverdlovsk**	**58.86**	**339**	⇓iP	**P**	**01 14 49.5**	**-0.7**
SVE				pmax	pmax		
	comp=Z,190nm,1.4s,mb5.9						
SVE				MLR	MLR		
	comp=Z,1µm,15.0s,MS5.2						
ARU	**Arti**	**59.32**	**338**	⇓iP	**P**	**01 14 52.0**	**-1.4**
ARU				e		01 17 00.1	
ARU				eS	**S**	**01 22 59.4**	**+1.2**
ARU				eSS	SS	01 26 57.1	+2.6
ARU				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.7						
ARU	**Arti**	**59.32**	**338**	eP	**P**	**01 14 51.9**	**-1.5**
	comp=Z,103nm,1.0s,mb5.8						
ARU				e	pP	01 14 59.6	-2.7
YSS	**Yuzh-Sakhalins**	**59.59**	**36**	eP	**P**	**01 14 55.4**	**0.0**
YSS				pmax	pmax		
	comp=Z,53nm,0.9s,mb5.6						
YSS	**Yuzh-Sakhalins**	**59.59**	**36**	eP	**P**	**01 14 55.4**	**-0.1**
	comp=Z,53nm,0.9s,mb5.6						
KIV	**Kislovodsk**	**60.16**	**319**	P	**P**	**01 14 58.3**	**-1.0**
	comp=Z,310nm,1.0s,mb6.3,SNR=18						
KIV	**Kislovodsk**	**60.16**	**319**	eP	**P**	**01 14 57.4**	**-1.9**
KIV				e	pP	01 15 05.5	-2.8
KIV				pmax	pmax		
	comp=Z,67nm,1.0s,mb5.6						
KIV	**Kislovodsk**	**60.16**	**319**	eP	**P**	**01 14 57.4**	**-1.9**
	comp=Z,67nm,1.0s,mb5.6						
KIV				e	pP	01 15 05.5	-2.8
ASF	**Jabal al Asfar**	**60.38**	**305**	P	**P**	**01 15 01.0**	**0.0**
	comp=Z,22nm,0.9s,mb5.2,baz=283,slow=4.3,SNR=26						
GOF	**Gofitskoye**	**60.42**	**321**	eP	**P**	**01 14 59.0**	**-2.1**
GOF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
MALT	**Malatya**	**60.98**	**312**	eP	**P**	**01 15 04.5**	**-0.5**
MALT				pmax	pmax		
	comp=Z,42nm,1.2s,mb5.4						
MALT	**Malatya**	**60.98**	**312**	eP	**P**	**01 15 04.5**	**-0.5**
	comp=Z,42nm,1.2s,mb5.4						
MKRJ	**Makawir**	**61.26**	**304**	P	**P**	**01 15 07.4**	**+0.4**
AQBJ	**Aqaba**	**61.35**	**302**	P	**P**	**01 15 07.7**	**0.0**
EIL	**Elat**	**61.42**	**302**	P	**P**	**01 15 08.2**	**+0.1**
EIL	**Elat**	**61.42**	**302**	P	**P**	**01 15 08.0**	**-0.1**
	comp=Z,45nm,0.8s,mb5.7,baz=91,slow=5.8						
EIL	**Elat**	**61.42**	**302**	eP	**P**	**01 15 08.0**	**-0.2**
	comp=Z,62nm,0.8s,mb5.8						
EIL				e	pP	01 15 16.0	-1.1
ZFRI	**Zfri**	**61.42**	**303**	P	**P**	**01 15 08.3**	**+0.2**
MZDA	**Masada**	**61.44**	**303**	P	**P**	**01 15 08.5**	**+0.3**
KSHT	**Keshet**	**61.47**	**305**	P	**P**	**01 15 09.3**	**+0.9**
MBH	**Mount Berech**	**61.48**	**302**	P	**P**	**01 15 08.8**	**+0.3**
DRGI	**Dragot**	**61.48**	**304**	P	**P**	**01 15 08.9**	**+0.4**
PRNI	**Paran**	**61.52**	**302**	P	**P**	**01 15 09.2**	**+0.4**
MMLI	**Mount Malkishu**	**61.66**	**305**	P	**P**	**01 15 10.4**	**+0.7**
KMTI	**Karmit**	**61.70**	**302**	P	**P**	**01 15 10.2**	**+0.1**
MASH	**Mash'abbe Sade**	**61.85**	**303**	P	**P**	**01 15 11.1**	**+0.1**
SLTI	**Sal'it**	**61.92**	**304**	P	**P**	**01 15 11.9**	**+0.4**
SOC	**Sochi**	**61.96**	**318**	i P	**P**	**01 15 07.0**	**-4.6**
SOC				e		01 15 46.6	
SOC				ePPP	PPP	01 18 53.3	-5.9
SOC				eS	**S**	**01 23 27.4**	**-4.8**
SOC				pmax	pmax		
	comp=Z,41nm,0.7s,mb5.7						
SOC				pmax	pmax		
	comp=N,23nm,0.9s						
SOC				pmax	pmax		
	comp=E,17nm,1.0s						
SOC				MLR	MLR		
	comp=Z,471nm,20.0s,MS4.7						
SOC				MLR	MLR		
	comp=N,268nm,16.0s,MS4.8						
SOC				MLR	MLR		
	comp=E,414nm,17.0s,MS4.8						
HNTI	**Hanita**	**62.02**	**305**	P	**P**	**01 15 12.8**	**+0.7**
OFRI	**'Ofer**	**62.06**	**305**	P	**P**	**01 15 12.8**	**+0.4**
HAF	**Haifa**	**62.06**	**305**	P	**P**	**01 15 12.8**	**+0.3**
KZIT	**Kziot**	**62.15**	**303**	P	**P**	**01 15 13.1**	**0.0**
SOKR	**Solikamsk**	**62.26**	**340**	⇓iP	**P**	**01 15 10.9**	**-2.5**
SOKR				e	pP	01 15 20.1	-2.2
SOKR				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.8						
SOKR				MLR	MLR		
	comp=Z,580nm,20.0s,MS4.7						
YAK	**Yakutsk**	**63.41**	**18**	eP	**P**	**01 15 18.2**	**-2.7**
YAK				e	pP	01 15 26.6	-3.3
YAK				pmax	pmax		
	comp=Z,109nm,1.0s,mb5.9						
YAK	**Yakutsk**	**63.41**	**18**	eP	**P**	**01 15 18.2**	**-2.7**
	comp=Z,109nm,1.0s,mb5.9						
YAK				e	pP	01 15 26.6	-3.2
MBAR	**Mbarara**	**63.69**	**267**	d iP	**P**	**01 15 22.6**	**-1.0**
MBAR	**Mbarara**	**63.69**	**267**	eP	**P**	**01 15 21.9**	**-1.7**
	comp=Z,43nm,1.4s,mb5.3						
ANN	**Anapa**	**63.95**	**318**	eP	**P**	**01 15 33.9**	**+9.2**
ANN				i		01 15 59.3	
ANN				eS	S	01 24 18.3	+21
ANN				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.3						
CSS	**Prodhromos**	**63.96**	**307**	eP	**P**	**01 15 23.5**	**-1.5**
	comp=Z,132nm,1.4s,mb5.8						
BRTR	**Keskin Array B**	**64.96**	**312**	P	**P**	**01 15 29.9**	**-1.5**
	comp=Z,23nm,0.8s,mb5.3,baz=121,slow=7.2,SNR=85						
BRTR				pP	pP	01 15 39.9	-0.5
	comp=Z,22nm,0.8s,baz=124,slow=4.5,SNR=16						
VRSR	**Storozhevoye**	**65.45**	**325**	eP	**P**	**01 15 31.6**	**-2.8**
VRSR				e*SP	sP	01 15 41.8	-4.7
VRSR				e		01 16 03.4	
VRSR				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.6						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,40nm,0.8s						
VRSR				MLR	MLR		
	comp=Z,450nm,18.0s,MS4.7						
VRSR				MLR	MLR		
	comp=N,490nm,20.0s,MS4.8						
VRSR				MLR	MLR		
	comp=E,350nm,20.0s,MS4.8						
SIM	**Simferopol'**	**66.21**	**318**	eP	**P**	**01 15 38.0**	**-1.3**
SIM				pmax	pmax		
	comp=Z,49nm,0.8s,mb5.6						
ISP	**Isparta**	**66.85**	**309**	i P	**P**	**01 15 43.2**	**-0.3**
LSZ	**Lusaka**	**68.24**	**252**	eP	**P**	**01 15 52.0**	**-0.6**
LSZ				pmax	pmax		
	comp=Z,54nm,1.4s,mb5.4						
LSZ	**Lusaka**	**68.24**	**252**	eP	**P**	**01 15 52.0**	**-0.7**
	comp=Z,54nm,1.4s,mb5.4						
MOS	**Moscow**	**68.29**	**329**	eP	**P**	**01 15 49.9**	**-2.3**
MOS				e	pP	01 16 00.3	-0.9
MOS				e		01 16 13.0	
MOS				pmax	pmax		
	comp=Z,191nm,1.2s,mb6.0						
OBN	**Obninsk**	**68.56**	**329**	d iP	**P**	**01 15 52.5**	**-1.4**
OBN				i *PP	pP	01 16 02.7	-0.2
OBN				e		01 16 19.0	
OBN				i		01 18 25.1	
OBN				eS	S	01 24 53.7	+0.9
OBN				i SS	SS	01 29 20.3	+1.5
OBN				pmax	pmax		
	comp=Z,153nm,1.6s,mb5.7						
OBN				MLR	MLR		
	comp=Z,600nm,18.0s,MS4.9						
OBN	**Obninsk**	**68.56**	**329**	eP	**P**	**01 15 52.2**	**-1.7**
	comp=Z,106nm,1.0s,mb5.7						
OBN				e	pP	01 16 00.8	-2.1
MA2	**Magadan**	**69.94**	**27**	eP	**P**	**01 16 01.3**	**-1.0**
MA2				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
MA2	**Magadan**	**69.94**	**27**	eP	**P**	**01 16 01.3**	**-1.0**
	comp=Z,23nm,0.9s,mb5.1						
CFR	**Carcaliu**	**70.33**	**317**	⇑eP	**P**	**01 15 58.7**	**-6.3**
KIS	**Kishinev**	**70.34**	**319**	⇓iP	**P**	**01 16 04.0**	**-1.0**
KIS				e		01 16 10.0	
KIS				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.0						
PRD	**Provadia**	**70.38**	**314**	P	**P**	**01 16 05.0**	**-0.3**
SANT	**Santorini**	**70.52**	**307**	eP	**P**	**01 16 04.9**	**-1.4**
	comp=Z,172nm,1.2s,mb5.9						
SANT				e	pP	01 16 15.2	0.0
TIXI	**Tiksi**	**70.78**	**11**	⇓iP	**P**	**01 16 06.0**	**-1.2**
TIXI				e	pP	01 16 14.1	-2.1
TIXI				pmax	pmax		
	comp=Z,100nm,0.9s,mb5.8						
TIXI				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.2						
TIXI	**Tiksi**	**70.78**	**11**	i Pr	**P**	**01 16 06.4**	**-0.8**
JMB	**Yambol**	**70.80**	**314**	eP	**P**	**01 16 08.0**	**+0.1**
AKASG	**Malin Array Be**	**71.13**	**322**	P	**P**	**01 16 07.7**	**-2.0**
	comp=Z,13nm,0.8s,mb5.0,baz=90,slow=5.2,SNR=63						
AKASG				pP	pP	01 16 16.8	-1.8
	comp=Z,20nm,0.9s,baz=91,slow=5.1,SNR=16						
CASY	**Casey**	**71.29**	**173**	eP	**P**	**01 16 10.6**	**+0.2**
	comp=Z,54nm,1.3s,mb5.3						
GVD	**Gavdhos**	**71.39**	**305**	eP	**P**	**01 16 10.9**	**-0.7**
	comp=Z,85nm,0.9s,mb5.7						
PET	**Petropavlovsk**	**71.41**	**35**	eP	pP	01 16 18.6	-1.7
PET				eS	S	01 25 33.3	+7.0
PET				MLR	MLR		
	comp=Z,800nm,21.0s,MS5.0						
VRI	**Vrincioaia**	**71.46**	**317**	⇓iP	**P**	**01 16 11.5**	**-0.3**
DIM	**Dimitrovgrad**	**71.48**	**313**	eP	**P**	**01 16 11.0**	**-1.0**
KDZ	**Kurdzhali**	**71.49**	**313**	eP	**P**	**01 16 10.0**	**-2.0**
MLR	**Muntele Rosu**	**71.91**	**317**	P	**P**	**01 16 14.6**	**+0.1**
	comp=Z,53nm,1.0s,mb5.4,baz=46,slow=3.5,SNR=35						
MLR				LR	LR	01 52 44.4	
	comp=Z,443nm,19.1s,MS4.8,baz=264,slow=40						
SEY	**Seymchan**	**72.18**	**24**	eP	**P**	**01 16 15.6**	**-0.2**
SEY				e		01 26 09.3	
SEY				pmax	pmax		
	comp=Z,90nm,1.4s,mb5.5						
LBTB	**Lobatse**	**72.66**	**242**	eP	**P**	**01 16 18.9**	**-0.5**
LBTB				e	pP	01 16 27.2	-1.2
LBTB				pmax	pmax		
	comp=Z,58nm,1.1s,mb5.4						
LBTB	**Lobatse**	**72.66**	**242**	eP	**P**	**01 16 18.9**	**-0.5**
	comp=Z,58nm,1.1s,mb5.4						
LBTB				e	pP	01 16 27.2	-1.2
MNK	**Minsk**	**73.06**	**326**	eP	**P**	**01 16 17.0**	**-4.1**
MNK				pmax	pmax		
	comp=Z,440nm,1.0s,mb6.3						
KKB	**Krupnik**	**73.25**	**312**	eP	**P**	**01 16 20.0**	**-2.4**
VTS	**Vitosha**	**73.28**	**313**	P	**P**	**01 16 21.5**	**-1.1**
BOSA	**Boshof**	**73.81**	**239**	eP	**P**	**01 16 25.9**	**-0.1**
BOSA				e	pP	01 16 34.9	-0.1
BOSA				pmax	pmax		
	comp=Z,72nm,1.3s,mb5.4						
BOSA	**Boshof**	**73.81**	**239**	eP	**P**	**01 16 25.9**	**-0.1**
	comp=Z,72nm,1.3s,mb5.4						
BOSA				e	pP	01 16 34.9	0.0
IDID	**Didziasalis**	**73.90**	**327**	eP	pP	01 16 33.3	-1.6
IDID				AMPb	AMB	01 16 37.5	
	comp=Z,32nm,1.1s,mb5.2						
IIGN	**Ignalina**	**74.19**	**327**	eP	pP	01 16 35.0	-1.7
IIGN				AMPb	AMB	01 16 38.8	
	comp=Z,29nm,1.0s,mb5.2						
IZAR	**Zarasai**	**74.29**	**327**	eP	pP	01 16 35.4	-1.8
IZAR				AMPb	AMB	01 16 39.8	
	comp=Z,25nm,1.1s,mb5.1						
ISAL	**Salakas**	**74.30**	**327**	eP	pP	01 16 35.4	-1.9
ISAL				AMPb	AMB	01 16 39.9	
	comp=Z,25nm,1.1s,mb5.1						
BOLS	**Boljevac**	**74.38**	**314**	⇓iP	**P**	**01 16 26.7**	**-2.3**
VSU	**Vasula**	**74.81**	**330**	i P	**P**	**01 16 30.4**	**-0.7**
KWP	**Kalwaria**	**74.92**	**320**	eP	**P**	**01 16 31.8**	**-0.2**
MAW	**Mawson**	**75.00**	**192**	eP	**P**	**01 16 32.6**	**+0.5**
MAW				pmax	pmax		
	comp=Z,41nm,1.1s						
MAW	**Mawson**	**75.00**	**192**	P	**P**	**01 16 33.7**	**+1.7**
	comp=Z,14nm,0.8s,mb4.9,baz=26,slow=6.1,SNR=7.9						
MAW				LR	LR	01 46 12.0	
	comp=Z,395nm,18.3s,MS4.8,baz=163,slow=33						
MAW	**Mawson**	**75.00**	**192**	eP	**P**	**01 16 32.6**	**+0.5**
	comp=Z,41nm,1.1s,mb5.3						
LVZ	**Lovozero**	**75.04**	**340**	i P	**P**	**01 16 31.3**	**-1.0**
KOLS	**Kolonicke sedl**	**75.07**	**320**	eP	**P**	**01 16 32.5**	**-0.3**
KOLS				e	pP	01 16 43.2	+1.3
APA	**Apatity**	**75.32**	**340**	⇓iP	**P**	**01 16 33.4**	**-0.5**
APA				i	pP	01 16 43.4	+0.5
APA				pmax	pmax		
	comp=Z,45nm,1.0s,mb5.3						
SUW	**Suwalki**	**75.57**	**325**	eP	**P**	**01 16 34.0**	**-1.6**
SUW				e	pP	01 16 42.0	-2.6
SUW				pmax	pmax		
	comp=Z,300nm,0.9s,mb6.2						
SUW	**Suwalki**	**75.57**	**325**	eP	**P**	**01 16 34.4**	**-1.2**
CRVS	**Cervenica-Dubn**	**75.59**	**319**	eP	**P**	**01 16 38.9**	**+3.1**
CRVS				e	pP	01 16 49.2	+4.4
DIVS	**Divcibare**	**75.83**	**314**	⇓iP	**P**	**01 16 36.6**	**-0.6**
FINES	**FINESS Array B**	**76.02**	**333**	i P	**P**	**01 16 37.2**	**-0.8**
FINES				pmax	pmax		
	comp=Z,23nm,0.8s						
FINES	**FINESS Array B**	**76.02**	**333**	P	**P**	**01 16 37.2**	**-0.8**
	comp=Z,23nm,0.8s,mb5.2,baz=100,slow=6.9,SNR=56						
FINES				pP	pP	01 16 47.1	+0.1
	comp=Z,31nm,0.8s,baz=117,slow=8.5,SNR=17						
FINES				LR	LR	01 54 01.5	
	comp=Z,451nm,19.0s,MS4.8,baz=336,slow=39						
KAF	**Kangasniemi**	**76.11**	**333**	ep	**P**	**01 16 37.1**	**-1.4**
	comp=Z,15nm,0.6s,mb5.1						
KAF	**Kangasniemi**	**76.11**	**333**	ep	pP	01 16 47.6	0.0
	comp=Z,24nm,0.7s						
KAF	**Kangasniemi**	**76.11**	**333**	eP	**P**	**01 16 37.1**	**-1.4**
KAF				pmax	pmax		
	comp=Z,15nm,0.6s,mb5.1						
KECS	**Kecovo**	**76.15**	**319**	eP	**P**	**01 16 39.1**	**+0.1**
KECS				e	pP	01 16 48.2	+0.1
NIE	**Niedzica**	**76.42**	**320**	eP	**P**	**01 16 40.5**	**0.0**
PSZ	**Piszkesteto**	**76.45**	**318**	eP	**P**	**01 16 39.8**	**-0.9**
PSZ				e	pP	01 16 49.6	-0.2
PSZ				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
PSZ	**Piszkesteto**	**76.45**	**318**	⇓eP	**P**	**01 16 40.4**	**-0.3**
OJC	**Ojcow**	**76.88**	**321**	⇓eP	**P**	**01 16 43.0**	**0.0**
OJC	**Ojcow**	**76.88**	**321**	eP	**P**	**01 16 43.0**	**0.0**
PKSM	**Moragy**	**77.06**	**316**	⇑iP	**P**	**01 16 43.6**	**-0.5**
VYHS	**Vyhne**	**77.24**	**319**	i P	**P**	**01 16 44.8**	**-0.3**
VYHS				e	pP	01 16 55.0	+0.9
SRO2	**Moca**	**77.43**	**318**	eP	**P**	**01 16 46.2**	**+0.1**
SRO2				e	pP	01 16 55.6	+0.4
RHK1	**Bakonya**	**77.44**	**316**	⇑iP	**P**	**01 16 45.7**	**-0.5**
SRO	**Srobarova**	**77.49**	**318**	eP	**P**	**01 16 47.0**	**+0.5**
OKC	**Ostrava-Krasne**	**77.88**	**320**	eP	**P**	**01 16 48.7**	**+0.2**
OKC				epP	pP	01 16 58.8	+1.2
RAC	**Raciborz**	**77.88**	**320**	eP	**P**	**01 16 49.3**	**+0.8**
SMOL	**Smolenice**	**78.17**	**319**	eP	**P**	**01 16 50.4**	**+0.2**
SMOL				e	pP	01 16 59.8	+0.5
MORC	**Moravsky Berou**	**78.25**	**320**	eP	**P**	**01 16 50.5**	**-0.1**
MORC				e	pP	01 16 58.4	-1.3
MORC				pmax	pmax		
	comp=Z,46nm,1.2s,mb5.3						
MORC	**Moravsky Berou**	**78.25**	**320**	eP	**P**	**01 16 50.5**	**-0.1**
	comp=Z,46nm,1.2s,mb5.3						
MORC				e	pP	01 16 58.4	-1.3
KEV	**Kevo**	**78.33**	**341**	ep	**P**	**01 16 48.2**	**-2.4**
	comp=Z,9.0nm,0.8s,mb4.8						
KEV	**Kevo**	**78.33**	**341**	ep	pP	01 16 59.9	+0.2
	comp=Z,10nm,0.8s						
KEV	**Kevo**	**78.33**	**341**	eP	**P**	**01 16 48.2**	**-2.4**
KEV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
ZST	**Bratislava**	**78.35**	**318**	i P	**P**	**01 16 51.4**	**+0.3**
ZST				e	pP	01 17 01.7	+1.5
SUR	**Sutherland**	**78.40**	**236**	eP	**P**	**01 16 53.1**	**+1.3**
	comp=Z,130nm,1.4s,mb5.7						
SOP	**Sopron**	**78.65**	**318**	⇑eP	**P**	**01 16 53.0**	**+0.2**
ARCES	**ARCESS Array B**	**78.75**	**340**	P	**P**	**01 16 53.0**	**+0.1**
	comp=Z,16nm,0.8s,mb5.0,baz=104,slow=5.0,SNR=18						
ARCES				pP	pP	01 17 02.9	+0.8
	comp=Z,23nm,0.9s,baz=76,slow=5.0,SNR=9.1						
ARE0	**ARCESS Array S**	**78.75**	**340**	eP	**P**	**01 16 53.2**	**+0.3**
ARE0				e	pP	01 17 02.8	+0.8
DPC	**Dobruska-Polom**	**79.11**	**320**	eP	**P**	**01 16 56.0**	**+0.7**
DPC				epP	pP	01 17 06.4	+2.0
KSP	**Ksiaz**	**79.18**	**321**	⇓eP	**P**	**01 16 56.1**	**+0.4**
KSP				e	pP	01 17 04.0	-0.8
KSP				e*PP	pP	01 17 05.8	+1.0
ARSA	**Arzberg**	**79.31**	**317**	⇑iP	**P**	**01 16 56.6**	**+0.2**
	comp=Z,57nm,1.4s,mb5.3						
UPC	**Upice**	**79.32**	**320**	eP	**P**	**01 16 57.0**	**+0.6**
UPC				epP	pP	01 17 06.7	+1.2
BOJS	**Bojanci**	**79.34**	**315**	i P	**P**	**01 16 56.6**	**0.0**
BOJS				e	pP	01 17 06.9	+1.1
BILL	**Bilibino**	**79.42**	**21**	eP	**P**	**01 16 56.0**	**-0.6**
BILL				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
BILL	**Bilibino**	**79.42**	**21**	eP	**P**	**01 16 56.0**	**-0.7**
	comp=Z,23nm,1.1s,mb5.0						
LJU	**Ljubljana**	**79.89**	**316**	eP	**P**	**01 16 59.9**	**+0.4**
LJU				e	pP	01 17 10.3	+1.6
OBKA	**Obir**	**79.91**	**316**	⇑iP	**P**	**01 16 59.3**	**-0.4**
	comp=Z,32nm,1.1s,mb5.2						
FX1	**Attu Island--F**	**79.94**	**37**	LR	LR	01 56 25.0	
	comp=Z,15nm,19.9s,baz=88,slow=39						
FX1	**Attu Island--F**	**79.94**	**37**	eP	**P**	**01 16 59.7**	**0.0**
MOA	**Molln**	**80.21**	**318**	⇓iP	**P**	**01 17 01.1**	**-0.1**
	comp=Z,25nm,1.5s,mb4.9						
PRU	**Pruhonice**	**80.21**	**320**	eP	**P**	**01 17 01.5**	**+0.3**
	comp=Z,27nm,1.0s,mb5.1						
PRU				epP	pP	01 17 11.6	+1.3
PVCC	**Panska Ves**	**80.24**	**320**	eP	**P**	**01 17 02.0**	**+0.7**
PVCC				epP	pP	01 17 12.1	+1.6
BSD	**Bornholm Skovb**	**80.49**	**325**	i P	**P**	**01 17 01.7**	**-0.9**
BSD				i	pP	01 17 11.0	-0.7
BSD				pmax	pmax		
	comp=Z,47nm,0.7s,mb5.5						
BSD	**Bornholm Skovb**	**80.49**	**325**	i P	**P**	**01 17 01.7**	**-0.9**
	comp=Z,47nm,0.7s,mb5.5						
BSD				i	pP	01 17 11.0	-0.7
ROBS	**Robic**	**80.61**	**316**	eP	**P**	**01 17 03.1**	**-0.3**
ROBS				i	pP	01 17 13.5	+1.0
GEC2	**GERESS Array S**	**80.66**	**319**	eP	**P**	**01 17 03.7**	**+0.1**
GEC2				pmax	pmax		
	comp=Z,100nm,1.4s,mb5.5						
GEC2	**GERESS Array S**	**80.66**	**319**	eP	**P**	**01 17 03.7**	**+0.1**
	comp=Z,100nm,1.4s,mb5.5						
GERES	**GERESS Array B**	**80.66**	**319**	P	**P**	**01 17 04.0**	**+0.3**
	comp=Z,22nm,0.9s,mb5.1,baz=99,slow=5.1,SNR=138						
GERES				pP	pP	01 17 13.6	+0.9
	comp=Z,39nm,1.0s,baz=101,slow=5.9,SNR=20						
BRG	**Berggiesshubel**	**80.67**	**321**	i P	**P**	**01 17 03.9**	**+0.3**
BRG				e	pP	01 17 13.4	+0.7
BRG				pmax	pmax		
	comp=Z,79nm,1.7s,mb5.4						
BRG	**Berggiesshubel**	**80.67**	**321**	i P	**P**	**01 17 03.9**	**+0.3**
	comp=Z,79nm,1.7s,mb5.4						
BRG				e	pP	01 17 13.4	+0.7
PTCC	**Patocco-Chiusa**	**80.73**	**316**	eP	**P**	**01 17 03.8**	**-0.2**
KHC	**Kasperske Hory**	**80.76**	**319**	eP	**P**	**01 17 04.4**	**+0.3**
KHC				epP	pP	01 17 14.5	+1.2
RUE	**Ruedersdorf**	**80.91**	**322**	eP	**P**	**01 17 04.0**	**-0.8**
	comp=Z,78nm,0.9s,mb5.6						
RUE				e	pP	01 17 13.3	-0.7
FVI	**Forni Avoltri**	**81.13**	**316**	eP	**P**	**01 17 06.2**	**+0.1**
WET	**Wettzell**	**81.22**	**319**	eP	**P**	**01 17 06.7**	**+0.1**
CLL	**Collm**	**81.29**	**321**	⇑iP	**P**	**01 17 07.1**	**+0.2**
CLL				i	pP	01 17 17.0	+1.0
CLL				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
CLL	**Collm**	**81.29**	**321**	⇑iP	**P**	**01 17 07.1**	**+0.2**
	comp=Z,34nm,1.2s,mb5.2						
CLL				i	pP	01 17 17.0	+1.0
CLL	**Collm**	**81.29**	**321**	⇑P	**P**	**01 17 07.1**	**+0.2**
	comp=Z,logA/T=1.5,mb5.2						
CLL				e*PP	pP	01 17 15.0	-1.0
CLL				i *SP	sP	01 17 17.0	-2.0
NKC	**Novy Kostel**	**81.57**	**320**	eP	**P**	**01 17 08.9**	**+0.6**
NKC				epP	pP	01 17 19.1	+1.6
SFI	**Santa Sofia**	**81.66**	**314**	eP	**P**	**01 17 10.4**	**+1.4**
HFS	**Hagfors**	**81.69**	**330**	P	**P**	**01 17 08.8**	**0.0**
	comp=Z,14nm,0.8s,mb4.9,baz=117,slow=6.6,SNR=11						
CTI	**Castel Tesino**	**81.89**	**316**	eP	**P**	**01 17 10.3**	**+0.2**
WTTA	**Wattenberg**	**81.95**	**317**	⇑iP	**P**	**01 17 10.0**	**-0.4**
	comp=Z,53nm,1.2s,mb5.3						
WTTA	**Wattenberg**	**81.95**	**317**	⇑iP	**P**	**01 17 10.0**	**-0.4**
WTTA				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.3						
SYO	**Syowa Base**	**81.97**	**197**	⇑P	**P**	**01 17 11.6**	**+1.6**
SYO	**Syowa Base**	**81.97**	**197**	⇑PcP	PcP	01 17 17.1	+1.0
SYO	**Syowa Base**	**81.97**	**197**	⇓PP	pP	01 17 21.4	+2.2
WATA	**Walderalm**	**81.99**	**317**	⇓iP	**P**	**01 17 10.0**	**-0.6**
	comp=Z,24nm,1.0s,mb5.1						
WATA	**Walderalm**	**81.99**	**317**	⇓iP	**P**	**01 17 10.0**	**-0.6**
WATA				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
SEI	**Scarperia**	**82.02**	**314**	eP	**P**	**01 17 11.8**	**+0.9**
MOX	**Moxa**	**82.13**	**320**	eP	**P**	**01 17 11.1**	**-0.1**
MOX				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.0						
MOX	**Moxa**	**82.13**	**320**	i P	**P**	**01 17 11.1**	**-0.1**
	comp=Z,logA/T=1.3,mb5.0						
MOX	**Moxa**	**82.13**	**320**	eP	**P**	**01 17 11.1**	**-0.1**
	comp=Z,29nm,1.4s,mb5.0						
FUR	**Furstenfeldbru**	**82.23**	**318**	eP	**P**	**01 17 11.4**	**-0.4**
SQTA	**Sankt Quirin**	**82.24**	**317**	⇑iP	**P**	**01 17 11.6**	**-0.3**
	comp=Z,24nm,0.8s,mb5.2						
SQTA	**Sankt Quirin**	**82.24**	**317**	⇑iP	**P**	**01 17 11.6**	**-0.3**
SQTA				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.2						
MOTA	**Moosalm**	**82.31**	**317**	⇑iP	**P**	**01 17 11.7**	**-0.6**
	comp=Z,31nm,1.1s,mb5.2						
MOTA	**Moosalm**	**82.31**	**317**	⇑iP	**P**	**01 17 11.7**	**-0.6**
MOTA				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
GRA1	**Grafenberg Arr**	**82.33**	**319**	eP	**P**	**01 17 12.7**	**+0.4**
	comp=Z,51nm,1.0s,mb5.4						
GRA1				epP	pP	01 17 23.0	+1.5
GRF	**Grafenberg Arr**	**82.33**	**319**	eP	**P**	**01 17 12.7**	**+0.4**
GRF				e*PP	pP	01 17 23.0	+1.5
GRF				pmax	pmax		
	comp=Z,51nm,1.0s,mb5.4						
BRMO	**Bormio**	**82.79**	**316**	eP	**P**	**01 17 15.2**	**+0.5**
CLZ	**Clausthal**	**82.96**	**322**	eP	**P**	**01 17 15.5**	**0.0**
	comp=Z,35nm,1.1s,mb5.3						
CLZ				epP	pP	01 17 26.0	+1.3
NB2	**NORSAR Subarra**	**82.99**	**331**	P	**P**	**01 17 14.7**	**-0.8**
	comp=Z,1.1nm,0.7s,baz=96,slow=5.8						
NB2	**NORSAR Subarra**	**82.99**	**331**	P	**P**	**01 17 14.7**	**-0.8**
NB2				pmax	pmax		
	comp=Z,1.0nm,0.7s						
NOA	**NORSAR Array B**	**82.99**	**331**	P	**P**	**01 17 15.2**	**-0.3**
	comp=Z,8.8nm,0.9s,mb4.8,baz=94,slow=5.4,SNR=14						
NOA				pP	pP	01 17 25.2	+0.6
	comp=Z,8.8nm,0.8s,baz=94,slow=5.5,SNR=9.1						
BSEG	**Bad Segeberg**	**83.08**	**324**	eP	**P**	**01 17 16.6**	**+0.5**

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DAVA  Damuels             83.14 317⇑iP     P        01 17 17.1 +0.5
      comp=Z,52nm,1.1s,mb5.5
STU   Stuttgart           83.63 318 eP     P        01 17 19.0 -0.1
STU                                 e      pP       01 17 27.6 -0.6
STU                                  pmax  pmax
      comp=Z,15nm,0.8s,mb5.2
STU   Stuttgart           83.63 318 eP     P        01 17 19.0  0.0
      comp=Z,15nm,0.8s,mb5.2
STU                                 e      pP       01 17 27.6 -0.6
MUD   Monsted U'grnd      83.82 326 i P    pP       01 17 30.3 +1.3
      comp=Z,37nm,1.0s
BFO   Black Forest        84.20 318 eP     P        01 17 21.8 -0.1
BFO                                  pmax  pmax
      comp=Z,14nm,1.0s,mb5.0
BFO   Black Forest        84.20 318 eP     P        01 17 21.8 -0.1
      comp=Z,14nm,1.0s,mb5.0
LANF  Langenberg          84.55 319 eP     P        01 17 24.2 +0.5
ECH   Echery              84.99 318 eP     P        01 17 25.9 +0.1
LOMF  Lomont              85.22 317 eP     P        01 17 27.2 +0.1
LPG   La Plagne           85.31 315⇓iP     P        01 17 27.9 +0.4
      comp=Z,57nm,0.9s,mb5.4
LPG   La Plagne           85.31 315⇓iP     P        01 17 27.9 +0.4
LPG                                  pmax  pmax
      comp=Z,28nm,0.9s,mb5.4
THEF  They Montfort       85.77 318 eP     P        01 17 29.8  0.0
URZ   Urewera             86.94 129  LR    LR       01 54 16.0
      comp=Z,468nm,20.0s,MS4.9,baz=220,slow=34
PLDF  La Plantade         87.48 316 eP     P        01 17 39.8 +1.6
LBL   Lubilhac            87.79 315 eP     P        01 17 40.7 +1.0
AGO   Saint Agoulin       87.82 316 eP     P        01 17 41.6 +1.8
VNDA  Vanda               89.33 168 eP     P        01 17 47.3 +1.0
VNDA                                 pmax  pmax
      comp=Z,27nm,1.4s
VNDA                                 MLR   MLR
      comp=Z,671nm,20.0s
VNDA  Vanda               89.33 168  P     P        01 17 47.4 +1.1
      comp=Z,8.7nm,1.1s,mb5.0,baz=296,slow=4.7,SNR=16
VNDA  Vanda               89.33 168 eP     P        01 17 47.3 +0.9
      comp=Z,27nm,1.4s,mb5.4
VNDA                                 LR    LR
      comp=Z,671nm,20.0s,MS5.1
EBR   Ebro Roquetas       90.16 311 eTs             01 17 53.5
SBA   Scott Base          90.43 168 eP     P        01 17 53.6 +2.1
SBA                                  pmax  pmax
      comp=Z,35nm,1.1s,mb5.6
SBA                                  MLR   MLR
      comp=Z,638nm,19.0s,MS5.1
SBA   Scott Base          90.43 168 eP     P        01 17 53.6 +2.2
      comp=Z,35nm,1.1s,mb5.6
SBA                                  LR    LR
      comp=Z,638nm,19.0s,MS5.1
ANM   Nome                90.66  25 eP     P        01 17 54.6 +1.9
EKA   Eskdalemuir Ar      90.81 325  P     P        01 17 54.4 +0.7
      comp=Z,11nm,0.9s,mb5.2,baz=98,slow=5.2,SNR=13
EKA                                  pP    pP       01 18 04.0 +1.2
      comp=Z,10nm,0.8s,baz=100,slow=5.1,SNR=9.6
ESK   Eskdalemuir         90.84 325 eP     P        01 17 54.0 +0.2
ESK                                  pmax  pmax
      comp=Z,23nm,1.0s,mb5.5
ESK   Eskdalemuir         90.84 325 eP     P        01 17 54.0 +0.2
      comp=Z,23nm,1.0s,mb5.5
DAG   Danmarks Havn       91.07 348⇑eP     P        01 17 54.1 -0.3
DAG                                  pmax  pmax
      comp=Z,4.0nm,0.8s,mb4.8
DAG   Danmarks Havn       91.07 348⇑eP     P        01 17 54.1 -0.3
      comp=Z,3.7nm,0.8s,mb4.8
DAG   Danmarks Havn       91.07 348⇑iP     P        01 17 54.1 -0.3
      comp=Z,3.7nm,0.8s,mb4.8
ESDC  Sonseca Array       93.69 310  P     P        01 18 08.1 +0.8
      comp=Z,3.5nm,0.8s,mb4.8,baz=61,slow=4.6,SNR=12
ESDC                                 pP    pP       01 18 18.3 +1.8
      comp=Z,3.5nm,0.8s,baz=59,slow=4.5,SNR=9.1
IMA   Indian Mountai      94.94  22 eP     P        01 18 14.0 +1.6
IMA                                  pmax  pmax
      comp=Z,45nm,1.1s,mb5.8
IMA   Indian Mountai      94.94  22 eP     P        01 18 14.5 +2.1
      comp=Z,2.3nm,0.3s,mb5.1
COLA  College             97.65  22  PFAKE          01 18 40.0  +15
COLA                                 LR    LR
      comp=Z,429nm,19.0s,MS5.0
ILAR  Eielson Array       98.06  22  P     P        01 18 26.2 -0.3
      comp=Z,0.5nm,0.8s,baz=309,slow=7.1,SNR=4.5
ILAR                                 PP    PP       01 22 20.9 -7.7
      comp=Z,1.2nm,0.9s,baz=303,slow=6.8,SNR=5.0
ILAR                                 PKKPbc         01 34 59.9
      comp=Z,0.5nm,0.7s,baz=153,slow=1.9,SNR=5.3
DBIC  Dimbokro            98.58 277  P     P        01 18 31.8 +1.6
      comp=Z,4.2nm,0.9s,mb5.0,baz=146,slow=3.4,SNR=4.8
DBIC                                 LR    LR       02 02 34.4
      comp=Z,460nm,18.6s,MS5.0,baz=66,slow=35
RES   Resolute Bay       101.04   2 eP     P        01 18 41.0 +1.1
RES                                  pmax  pmax
      comp=Z,5.0nm,0.8s
RES   Resolute Bay       101.04   2 eP     P        01 18 41.0 +1.1
      comp=Z,4.8nm,0.8s
RES                                 e               01 18 48.3
YKW3  Yellowknife Ar     109.87  14  P              01 23 21.4
YKA   Yellowknife Ar     109.93  14  PKiKP          01 23 21.5
      comp=Z,0.6nm,0.8s,baz=319,slow=2.9,SNR=5.9
YKA                                  PP    PP       01 23 49.5 -8.2
      comp=Z,1.3nm,0.8s,baz=333,slow=7.8,SNR=8.1
YKA                                  PKKPbc         01 34 23.7
      comp=Z,0.4nm,0.8s,baz=151,slow=3.4,SNR=7.1
TBI   Tubuai             115.72 114 eLR    LR       01 58 34.2
      comp=Z,215nm,23.2s
PPT   Papeete            116.15 107 eLR    LR       01 58 47.3
      comp=Z,194nm,24.0s
FCC   Fort Churchill     116.88   5 ePKIKP PKPdf    01 23 34.7 -3.9
EDM   Edmonton           118.23  18 ePKIKP PKPdf    01 23 37.2 -4.1
FFC   Flin Flon          119.74  11 ePKIKP PKPdf    01 23 40.8 -3.4
FFC                                 e               01 23 51.1
NEW   Newport            120.97  24  PFAKE          01 24 00.0  +13
NEW                                  LR    LR
      comp=Z,796nm,20.0s,MS5.4
HUMO  Hull Mountain      122.47  32 eP     PKPdf    01 23 46.4 -3.4
HUMO                                e               01 23 56.2
MSO   Missoula           123.39  23 eP     PKPdf    01 23 48.1 -3.4
MSO                                 e               01 23 56.7
BMO   Blue Mountains     123.57  27 ePKIKP PKPdf    01 23 47.5 -4.4
CHMT  Chamberlain Mo     123.58  22 eP     PKPdf    01 23 48.4 -3.5
CHMT                                e               01 23 57.1
HRY   Holter Researc     124.28  22 ePKPdf PKPdf    01 23 48.7 -4.6
MOD   Modoc              124.36  31 ePKPdf PKPdf    01 23 51.4 -2.2
MOD                                 e               01 24 01.5
WVOR  Wild Horse Val     124.80  29 ePKIKP PKPdf    01 23 52.3 -2.1
ULM   Lac du Bonnet      125.06   8  PKP   PKPdf    01 23 52.6 -2.1
      comp=Z,8.6nm,0.8s,baz=334,slow=3.6,SNR=17
ULM                                  pPKP           01 24 02.1
      comp=Z,5.8nm,0.8s,baz=347,slow=5.4,SNR=6.4
ULM                                  PP    PP       01 25 37.7 -5.3
      comp=Z,1.2nm,0.4s,baz=342,slow=5.2,SNR=3.5
ULM   Lac du Bonnet      125.06   8 ePKPdf PKPdf    01 23 52.1 -2.6
ULM                                 e               01 24 00.5
BOZ   Bozeman (W)        125.26  22 ePKIKP PKPdf    01 23 51.9 -3.3
BOZ                                 e               01 24 01.4
LAO   LASA Array         126.17  17 ePKPdf PKPdf    01 23 54.7 -2.2
LAO                                 e               01 24 03.4
YFT   Old Faithful       126.57  22 ePKPdf PKPdf    01 23 57.2 -0.5
LKWY  Lake               126.64  22 ePKIKP PKPdf    01 23 57.2 -0.6
CMB   Columbia Colle     127.08  34 ePKIKP PKPdf    01 23 55.8 -3.1
CMB                                 e               01 24 03.8
MOOW  Moose Ponds        127.20  23 ePKPdf PKPdf    01 23 56.4 -2.5
MOOW                                e               01 24 06.0
TPAW  Teton Pass         127.34  23 ePKPdf PKPdf    01 23 57.1 -2.2
LOHW  Long Hollow        127.37  23 ePKPdf PKPdf    01 23 57.0 -2.3
LOHW                                e               01 24 05.2
SNOW  Snow King Moun     127.44  23 ePKPdf PKPdf    01 23 57.2 -2.2
SNOW                                e               01 24 06.9
REDW  Red Top Meadow     127.49  23 ePKPdf PKPdf    01 23 57.1 -2.4
REDW                                e               01 24 04.7
NVAR  Mina Array Bea     127.94  32  PKP   PKPdf    01 23 59.1 -1.5
      comp=Z,7.6nm,0.8s,baz=268,slow=2.6,SNR=39
NVAR                                 pPKP           01 24 08.3
      comp=Z,7.0nm,0.8s,baz=283,slow=1.4,SNR=14
MNV   Mina               128.02  32 ePKIKP PKPdf    01 23 58.2 -2.5
PDAR  Pinedale Array     128.49  22  PKP   PKPdf    01 23 58.6 -2.9
      comp=Z,9.9nm,1.0s,baz=49,slow=0.9,SNR=44
PDAR                                 pPKP           01 24 08.2
      comp=Z,7.2nm,0.9s,baz=90,slow=1.5,SNR=13
MTUM  Tungsten Hills     128.58  34 ePKPdf PKPdf    01 23 59.9 -1.9
MTUM                                e               01 24 10.5
HWUT  Hardware Ranch     128.67  25 ePKPdf PKPdf    01 23 59.0 -2.9
HWUT                                e               01 24 07.5
RSSD  Black Hills        129.15  17  PFAKE          01 24 10.0 +7.3
RSSD                                 LR    LR
      comp=Z,2.0nm,19.0s
TRCR  Troy Canyon        129.41  30 ePKPdf PKPdf    01 24 01.7 -1.7
TRCR                                e               01 24 10.5
NLU   North Lily Min     129.81  26 ePKPdf PKPdf    01 24 01.8 -2.3
NLU                                 e               01 24 12.3
MSU   Marysvale          130.94  28 ePKIKP PKPdf    01 24 04.9 -1.4
MSU                                 e               01 24 15.4
PHWY  Pilot Hill         131.25  20 ePKPdf PKPdf    01 24 04.2 -2.6
PHWY                                e               01 24 12.1
NEN   Nelson             131.85  32 ePKPdf PKPdf    01 24 06.9 -1.2
NEN                                 e               01 24 15.1
KSU1  Kansas State U     135.75  12 ePKPpre         01 24 08.5
KSU1                                e               01 24 21.3
ANMO  Albuquerque        136.43  25 ePKIKP PKPdf    01 24 13.1 -3.5
ANMO                                e               01 24 23.7
ANMO                                 MLR   MLR
      comp=Z,442nm,21.0s
ANMO  Albuquerque        136.43  25  PKP   PKPdf    01 24 13.8 -2.8
      comp=Z,11nm,1.0s,baz=252,slow=1.0,SNR=16
BNM   Barren Site        137.04  26 ePKPdf PKPdf    01 24 15.8 -1.9
BNM                                 e               01 24 25.6
WMOK  Wichita Mounta     139.35  17 ePKHKP          01 24 08.1
WMOK                                e               01 24 18.0
WMOK                                 MLR   MLR
      comp=Z,299nm,20.0s,MS5.0
MNTX  Cornudas Mount     139.68  26 ePKPdf PKPdf    01 24 19.9 -2.8
GDL2  Guadalupe Moun     139.68  25 ePKPdf PKPdf    01 24 20.0 -2.7
GDL2                                e               01 24 30.4
CLNB  Carlsbad           139.83  24 ePKPdf PKPdf    01 24 20.8 -2.1
CLNB                                e               01 24 32.7
WVT   Waverly            139.83   3 ePKHKP          01 24 11.5
WVT                                 e               01 24 19.4
TRQA  Tornquist          139.95 210  PFAKE          01 24 30.0 +7.1
TRQA                                 LR    LR
      comp=Z,492nm,21.0s,MS5.2
MIAR  Mount Ida          140.75  10 ePKHKP          01 24 13.6
MIAR                                e               01 24 21.8
MYNC  Murphy             140.90 358 ePKIKP PKPdf    01 24 20.9 -3.9
BAO   Brasilia Array     141.24 250 i      PKPdf    01 24 22.9 -3.0
BAO                                 e               01 24 31.8
BDFB  Brasilia           141.25 250  PKhKP          01 24 17.2
      comp=Z,2.1nm,0.7s,baz=126,slow=9.7,SNR=5.2
BDFB                                 PKP   PKPdf    01 24 23.5 -2.4
      comp=Z,8.4nm,1.0s,baz=87,slow=2.5,SNR=10
LTX   Lajitas            142.46  26 ePKIKP PKPdf    01 24 23.6 -4.0
TXAR  Lajitas Array      142.46  26  PKP   PKPdf    01 24 22.2 -5.5
      comp=Z,1.7nm,0.8s,baz=221,slow=1.4,SNR=14
TXAR                                 PP    PP       01 27 31.9 -2.1
      comp=Z,2.6nm,1.0s,slow=5.0,SNR=5.0
LRAL  Lakeview Retre     142.94   2 ePKPdf PKPdf    01 24 26.4 -1.9
JCT   Junction City      142.97  20 ePKIKP PKPdf    01 24 22.0 -6.5
JCT                                 e               01 24 35.4
JCT   Junction City      142.97  20 ePKPpre         01 24 22.0
JCT                                 ePKPdf PKPdf    01 24 26.1 -2.3
JCT                                 e               01 24 35.4
HKT   Hockley            144.68  15 ePKIKP PKPdf    01 24 26.3 -5.2
RPN   Rapa Nui           147.92 138 ePKPdf PKPdf    01 24 35.9 -1.1
SJG   San Juan           150.62 320  PKPbc PKPdf    01 24 43.6 +2.1
      comp=Z,14nm,0.7s,baz=104,slow=9.0,SNR=3.9
SJG                                  PKPab PKPab    01 24 51.6 +0.5
      comp=Z,24nm,0.8s,baz=335,slow=5.2,SNR=4.5
TRN   Trinidad (W)       151.67 302 eP     PKPdf    01 24 47.0 +3.9
LVC   Limon Verde        155.53 220 ePKPdf PKPdf    01 24 45.1 -3.1
LVC                                 e               01 24 54.3
LPAZ  La Paz             158.98 234  PKPdf PKPdf    01 24 51.0 -1.8
LPAZ                                 PKPab PKPab    01 25 27.3 +0.7
LPAZ  La Paz             158.98 234  PKP   PKPdf    01 24 50.2 -2.6
      comp=Z,7.0nm,1.1s,baz=53,slow=2.8,SNR=11
LPAZ                                 PKPab PKPab    01 25 26.6  0.0
      comp=Z,20nm,1.0s,baz=98,slow=4.7,SNR=21
LPAZ  La Paz             158.98 234 ePKPdf PKPdf    01 24 48.8 -4.0
LPAZ                                ePKPab PKPab    01 25 26.0 -0.6
LPAZ                                 LR    LR
      comp=Z,380nm,19.0s,MS5.3
SDV   Santo Domingo      160.13 311 ePKPdf PKPdf    01 24 48.5 -5.7
SDV                                 ePKPab PKPab    01 25 29.6 -2.1
SDV                                  LR    LR
      comp=Z,254nm,20.0s
ROSC  El Rosal           165.51 308  PKP   PKPdf    01 24 57.8 -1.8
      comp=Z,10nm,0.9s,baz=85,slow=9.7,SNR=8.2
OTAV  Otavalo            171.52 301 ePKPdf PKPdf    01 25 00.7 -2.8
OTAV                                e               01 25 09.5
OTAV                                ePKPab PKPab    01 26 22.1 +0.6
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*IDC **30** 01:09:34.5±0.6, 19.93N×95.87E, mb4.2/15, mb1 4.4/16, mb1mx4.3/21, mbtmp4.2/16, ML4.0/1, Error ellipse: s-maj=27.0km s-min=12.1km az=39.0*

*BJI **30** 01:09:35.5, 19.80N×95.90E, h16^{km}, mB4.9, mb5.0, Ms4.7, Msz4.4*

*NEIC **30** 01:09:36.6±4.2, 19.82N×95.87E, h16^{km}±26^{km}, mb4.6/20, Error ellipse: s-maj=11.2km s-min=8.7km az=57.0*

ISC 30 01:09:34.0±0.3**, 19.83N**±0.06×**95.82E**±0.05**, h10^{km}, n45, σ1$\overset{s}{.}$04**/50**, mb4.5**/31**, Myanmar**

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Code  Station Name          Δ°   AZ°    Phase ID              Time     Res
                                    Op     ISC         h  m  s    ISC
CM31  Chiang Mai Arr       3.25 114 ePn    Pn       01 10 26.2 +0.1
CM31                                ePg    Pg       01 10 37.2 -1.6
CM31                                eSn    Sn       01 11 05.8 +0.6
CM31                                eSb    Sb       01 11 16.5 +5.3
CM31                                eSg    Sg       01 11 22.0 -0.1
CMAR  Chiang Mai Arr       3.25 114  Pn    Pn       01 10 27.8 +1.7
      3.9nm,0.3s,baz=286,slow=13,SNR=12
CMAR                                 Pg    Pg       01 10 35.1 -3.8
      50nm,0.3s,baz=290,slow=17,SNR=72
CMAR                                 Lg             01 11 15.8
      154nm,0.3s,baz=288,slow=32,SNR=15
NST   Nakhon Sawan         5.82 134  PN    Pn       01 11 02.0 -0.5
      492nm,0.6s
NST                                  PG    Pg       01 11 25.5 -4.7
NST                                  SG    Sg       01 12 37.0  -11
LSA   Lhasa               10.71 338 eP     P        01 12 10.1 -0.4
ENH   Enshi               16.15  47 eP     P        01 13 26.2 +3.4
      18nm,0.8s
PALK  Pallekele           19.26 232  P     P        01 14 00.9 -0.6
      42nm,1.2s
WHN   Wuhan               19.84  54 eP     P        01 14 07.3 -0.7
BJT   Baijiatuau          26.64  37 eP     P        01 15 16.0 +1.3
      9.5nm,0.8s,mb4.4
SONM  Songino Array       29.23  15  P     P        01 15 39.2 +1.1
      1.4nm,0.7s,mb3.8,baz=193,slow=9.2,SNR=2.6
DGAR  Diego Garcia        35.52 223 eP     P        01 16 29.8 -3.5
      110nm,0.8s
BRVK  Borovoye            38.60 335  P     P        01 16 58.3 -0.5
      12nm,1.1s,mb4.5
CHKZ  Chkalovo            38.94 336 eP     P        01 17 01.7  0.0
      9.8nm,0.8s,mb4.6
ARU   Arti                45.84 332 eP     P        01 17 57.8 -0.1
KIV   Kislovodsk          50.13 311 eP     P        01 18 31.8 +0.3
      12nm,0.9s,mb4.9
MALT  Malatya             52.61 303 eP     P        01 18 46.7 -3.7
      2.5nm,0.9s,mb4.1
WRA   Warramunga Arr      54.64 134  P     P        01 19 05.0 -0.5
      1.7nm,0.8s,mb4.1,baz=326,slow=7.4,SNR=6.2
WRAB  Tennant Creek       54.64 134 eP     P        01 19 05.0 -0.5
      58nm,1.6s,mb5.4
MA2   Magadan             55.57  30 eP     P        01 19 11.5 -0.2
      12nm,0.8s,mb5.0
EIL   Elat                55.61 293 eP     P        01 19 14.7 +2.3
      7.3nm,1.2s,mb4.6
ASAR  Alice Springs       56.98 138  P     P        01 19 22.6 +0.2
      2.7nm,0.7s,mb4.4,baz=317,slow=6.6,SNR=7.8
AKASG Malin Array Be      60.13 318  P     P        01 19 42.6 -1.4
      2.0nm,0.7s,mb4.3,baz=79,slow=6.1,SNR=4.5
KMBO  Kilima Mbogo        61.04 257  P     P        01 19 52.3 +1.7
      1.7nm,0.7s,mb4.3,baz=41,slow=15,SNR=4.7
KMBO  Kilima Mbogo        61.04 257 eP     P        01 19 53.2 +2.6
      3.3nm,0.9s,mb4.5
KAF   Kangasniemi         63.10 330 ep     P        01 20 02.4 -1.3
      0.3nm,0.4s,mb3.8
FINES FINESS Array B      63.11 330  P     P        01 20 03.0 -0.8
      2.6nm,0.8s,mb4.4,baz=101,slow=9.7,SNR=5.1
KWP   Kalwaria            64.28 316  P     P        01 20 10.8 -0.8
      21nm,1.0s,mb5.1
BILL  Bilibino            64.47  23 eP     P        01 20 11.4 -1.3
      4.2nm,0.8s,mb4.5
STKA  Stephens Creek      67.57 139  P     P        01 20 33.5 +0.4
      2.5nm,0.9s,mb4.2,baz=318,slow=11,SNR=3.3
STKA  Stephens Creek      67.57 139 eP     P        01 20 30.1 -2.9
VRAC  Vranov              68.28 316  P     P        01 20 37.0 -0.2
      2.8nm,0.7s,mb4.4,baz=110,slow=4.4,SNR=4.1
HFS   Hagfors             69.12 328  P     P        01 20 41.8 -0.4
      2.9nm,0.5s,mb4.5,baz=90,slow=4.4,SNR=15
BRG   Berggiesshubel      69.81 318  P     P        01 20 46.6  0.0
      13nm,1.5s,mb4.6
BRG                                 e      pP       01 20 51.5 +1.8
GERES GERESS Array B      70.22 316  P     P        01 20 49.4 +0.3
      3.6nm,0.7s,mb4.4,baz=70,slow=5.7,SNR=9.6
NB2   NORSAR Subarra      70.27 329  P     P        01 20 48.0 -1.2
      4.5nm,0.8s,mb4.5,baz=89,slow=5.3
NOA   NORSAR Array B      70.27 329  P     P        01 20 48.1 -1.1
      2.1nm,0.7s,mb4.2,baz=87,slow=6.2,SNR=3.4
LSZ   Lusaka              75.08 247 eP     P        01 21 19.1 +0.7
      3.7nm,0.6s,mb4.5
EKA   Eskdalemuir Ar      78.89 325  P     P        01 21 39.2 +0.4
      3.5nm,0.8s,mb4.3,baz=56,slow=7.7,SNR=4.9
LBTB  Lobatse             81.54 240 eP     P        01 21 54.5 +1.0
      6.7nm,0.7s,mb4.7
COLA  College             82.73  23  P     P        01 21 59.5 +0.5
      19nm,1.5s,mb4.9
ILAR  Eielson Array       83.13  23  P     P        01 22 00.9 -0.1
      1.4nm,0.8s,mb4.0,baz=301,slow=4.9,SNR=18
BOSA  Boshof              83.41 237 eP     P        01 22 04.8 +1.6
      3.2nm,0.7s,mb4.5
INK   Inuvik              85.13  16  P     P        01 22 11.7 +0.7
      1.5nm,0.6s,mb4.3,baz=355,slow=4.8,SNR=4.1
YKA   Yellowknife Ar      94.49  14  P     P        01 22 56.2 +0.9
      0.4nm,0.8s,mb3.9,baz=328,slow=3.5,SNR=5.5
BAO   Brasilia Array     145.32 271  PKP   PKPdf    01 29 15.4 -0.5
BAO                                 i               01 29 18.1
BDFB  Brasilia           145.35 271  PKPbc PKPbc    01 29 15.2 +1.8
      8.0nm,0.9s,baz=60,slow=3.4,SNR=8.1
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*CSEM **30** 01:13:41.1, 18.73N×95.67E, h33^{km}, mb5.5*

*IDC **30** 01:13:41.8±0.5, 19.88N×95.86E, mb4.6/22, mb1 4.7/23, mb1mx4.7/26, mbtmp4.6/23, ML3.9/1, MS4.6/2, Ms1 4.6/2, ms1mx3.6/32, Error ellipse: s-maj=21.9km s-min=10.2km az=45.0*

*BJI **30** 01:13:47.8, 19.88N×95.86E, h57^{km}, mB5.3, mb4.7, Ms5.0, Msz4.5*

*MOS **30** 01:13:48.1±0.9, 19.97N×95.87E, h58^{km}, mb5.3/47, Error ellipse: s-maj=13.3km s-min=5.2km az=127.7*

*NEIC **30** 01:13:48.6±0.9, 19.92N×95.96E, h52^{km}±8^{km}, mb5.0/47, Error ellipse: s-maj=11.0km s-min=7.3km az=221.0*

NEIC Felt at Chiang Mai, Thailand.

ISC 30 01:13:45.9±0.8**, 19.86N**±0.05×**95.85E**±0.04**, h42^{km}**±7^{km}**, h37^{km}**±2.2^{km}**:pP-P, n205, σ0$\overset{s}{.}$89**/210**, mb4.9**/85**, MS4.8**/9**, 12C-4D, Myanmar**

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Code  Station Name          Δ°   AZ°    Phase ID              Time     Res
                                    Op     ISC         h  m  s    ISC
CM31  Chiang Mai Arr       3.24 115 eP     P        01 14 35.5 -0.1
CMAR  Chiang Mai Arr       3.24 115  Pn    P        01 14 34.1 -1.5
      3.1nm,0.3s,baz=287,slow=13,SNR=5.5
CMAR                                 Pg    P        01 14 44.3 +8.7
      57nm,0.3s,baz=293,slow=17,SNR=22
CMAR                                 Lg             01 15 24.1
      262nm,0.3s,baz=119,slow=22,SNR=18
NANT  Nan                  4.70 102  PN    P        01 15 09.0  +13
NANT                                 PG    P        01 15 28.0  +32
NANT                                 SG    S        01 16 05.0  +15
SHL   Shillong             6.76 328 eP     P        01 15 24.0 -1.1
KMI   Kunming              8.25  49  P     P        01 15 47.0 +1.1
KMI                                  S     S        01 17 20.5 +1.7
KMI                                  AMB   AMB
      comp=Z,30nm,1.6s
KMI                                  LR    LR
      comp=N,3µm,14.7s
KMI                                  LR    LR
      comp=E,5µm,12.8s
KMI                                  LR    LR
      comp=Z,3µm,15.6s
BOK   Bokaro              10.05 295 eP     P        01 16 09.0 -1.7
      comp=Z,48nm,1.4s
BOK                                 eS     S        01 17 54.6 -8.6
BOK                                 e               01 18 14.7
      comp=E,38nm,1.2s
BOK                                 e               01 18 14.7
      comp=N,50nm,1.1s
LSA   Lhasa               10.69 337 eP     P        01 16 19.3 -0.1
VIS   Vishakhapatnam      12.04 262 eP     P        01 16 40.9 +3.1
BLSP  Bilaspur            13.01 282 eP     P        01 16 54.2 +3.6
BLSP                                eS     S        01 19 10.7 -4.2
BLSP                                e               01 20 00.5
      comp=N,41nm,1.2s
BLSP                                e               01 20 02.0
      comp=E,21nm,0.7s
HYB   Hyderabad           16.57 264 eP     P        01 17 40.0 +3.2
HYB                                 eS     S        01 20 49.0  +10
HYB                                  pmax  pmax
      comp=Z,50µm,1.0s
HYB   Hyderabad           16.57 264 eP     P        01 17 40.0 +3.2
      comp=Z,50nm,1.0s
HYB                                 eS     S        01 20 49.0  +10
HYB   Hyderabad           16.57 264 i P    P        01 17 40.0 +3.2
      comp=Z,50nm,1.0s
GTA   Gaotai              19.79   9  P     P        01 18 16.0 +0.6
GTA                                  AMB   AMB
      comp=Z,13nm,2.0s
GTA                                  AMB   AMB
      comp=Z,349nm,4.9s
GTA                                  LR    LR
      comp=N,930nm,18.2s
GTA                                  LR    LR
      comp=E,819nm,14.8s
GTA                                  LR    LR
      comp=Z,746nm,17.5s
WHN   Wuhan               19.81  54  P     P        01 18 16.5 +0.7
KAD   Karad               20.69 267 eP     P        01 18 26.6 +1.6
KAD                                 e               01 18 30.5
      comp=Z,86nm,1.4s
POO   Poona               20.82 270 eP     P        01 18 28.0 +1.7
POO                                 e               01 18 32.0
      comp=Z,99nm,1.4s
THN   Thein Dam           21.94 309 eP     P        01 18 34.8 -2.7
      comp=Z,11nm,0.8s,mb4.3
NJ2   Nanjing             23.93  55 eP     P        01 18 57.3 +0.2
NJ2                                  PP    PP       01 19 31.8 +0.1
NJ2                                  S     S        01 23 08.0 +0.3
NJ2                                  AMB   AMB
      comp=Z,30nm,0.5s,mb5.0
NJ2                                  AMB   AMB
      comp=Z,2µm,5.3s
NJ2                                  LR    LR
      comp=N,5µm,13.8s,MS5.2
NJ2                                  LR    LR
      comp=E,4µm,12.4s,MS5.2
NJ2                                  LR    LR
      comp=Z,2µm,17.7s
TIA   Tai'an              24.78  44 eP     P        01 19 06.8 +1.5
TIA                                  S     S        01 23 24.0 +2.0
TIA                                  LR    LR
      comp=N,1µm,12.0s,MS5.0
TIA                                  LR    LR
      comp=E,3µm,13.0s,MS5.0
WMQ   Urumqi              24.85 346 ⇑P     P        01 19 06.8 +0.9
WMQ                                  AP             01 19 18.3
WMQ                                  PP    PP       01 19 44.8 +1.2
WMQ                                  S     S        01 23 23.5 +0.3
WMQ                                  AMB   AMB
      comp=Z,25nm,1.1s,mb4.7
WMQ                                  LR    LR
      comp=N,423nm,20.0s,MS4.0
WMQ                                  LR    LR
      comp=E,345nm,25.0s,MS4.0
WMQ                                  LR    LR
      comp=Z,447nm,23.2s,MS3.9
HHC   Hu-ho-hao-te        24.86  29 eP     P        01 19 06.0  0.0
HHC                                  PP    PP       01 19 44.0 +0.2
HHC                                  PCP   PcP      01 22 44.5 +2.3
HHC                                  S     S        01 23 21.5 -1.8
HHC                                  AMB   AMB
      comp=Z,20nm,1.3s,mb4.5
HHC                                  AMB   AMB
      comp=Z,323nm,5.2s
HHC                                  LR    LR
      comp=N,1µm,11.9s,MS5.0
HHC                                  LR    LR
      comp=E,3µm,15.5s,MS5.0
HHC                                  LR    LR
      comp=Z,1µm,17.8s,MS4.5
SSE   Sheshan             25.41  59 eP     P        01 19 09.5 -1.8
SSE                                  AMB   AMB
      comp=Z,26nm,0.7s,mb4.9
SSE                                  AMB   AMB
      comp=Z,301nm,4.0s
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KSH	Kashi	26.01	323	P	P	01 19 16.5	-0.3
KSH				AMB	AMB		
	comp=Z,420nm,5.3s						
BJI	Beijing	26.62	37	eP	P	01 19 22.5	0.0
BJI				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.6						
AAK	Ala-Archa	28.98	326	i P	P	01 19 43.5	-0.2
AAK				pmax	pmax		
	comp=Z,20nm,1.8s,mb4.5						
AAK	Ala-Archa	28.98	326	eP	P	01 19 42.9	-0.8
	comp=Z,6.8nm,1.4s,mb4.2						
SONM	Songino Array	29.19	15	P	P	01 19 46.7	+1.1
	comp=Z,4.8nm,0.8s,mb4.3,baz=201,slow=11,SNR=12						
ULN	Ulaanbaatar	29.38	15	eP	P	01 19 48.1	+0.8
ULN				pmax	pmax		
	comp=Z,23nm,1.3s,mb4.8						
ULN	Ulaanbaatar	29.38	15	eP	P	01 19 48.1	+0.8
	comp=Z,23nm,1.3s,mb4.8						
ZAK	Zakamensk	31.03	9	eP	P	01 20 01.4	-0.5
CN2	Changchun	34.36	39	eP	P	01 20 31.5	+0.6
CN2				eS	S	01 25 55.5	+0.8
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.8						
CN2				LR	LR		
	comp=N,2μm,13.0s,MS5.2						
CN2				LR	LR		
	comp=E,2μm,13.0s,MS5.2						
CN2				LR	LR		
	comp=Z,2μm,13.0s,MS5.1						
ZAL	Zalesovo	35.06	349	i P	P	01 20 36.9	+0.1
ZAL				pmax	pmax		
	comp=Z,7.0nm,1.0s						
ZAL	Zalesovo	35.06	349	P	P	01 20 36.9	+0.1
	comp=Z,6.8nm,1.0s,mb4.5,baz=212,slow=9.0,SNR=13						
MDJ	Mudanjiang	37.31	41	P	P	01 20 54.0	-1.9
MDJ				PCP	PcP	01 23 12.5	-2.5
MDJ				S	S	01 26 38.0	-2.1
MDJ				SCP		01 26 57.0	
MDJ				PCS		01 27 01.8	
MDJ				SCS	ScS	01 31 04.5	+0.5
MDJ				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.3						
MDJ				AMB	AMB		
	comp=Z,107nm,4.8s						
MDJ				LR	LR		
	comp=N,2μm,17.3s,MS5.0						
MDJ				LR	LR		
	comp=E,1μm,14.2s,MS5.0						
MDJ				LR	LR		
	comp=Z,2μm,16.7s,MS5.0						
BVAR	Borovoye Array	38.51	335	P	P	01 21 05.5	-0.3
	comp=Z,6.3nm,1.0s,mb4.3,baz=135,slow=10,SNR=8.9						
BRVK	Borovoye	38.58	335	eP	P	01 21 05.7	-0.7
CHKZ	Chkalovo	38.92	336	eP	P	01 21 08.8	-0.4
BOD	Bodaibo	40.19	15	eP	P	01 21 20.0	+0.3
UMR	Umm Al-Rimmam	44.51	292	eP	P	01 21 56.0	+0.6
UMR				AMb	AMB	01 21 57.0	
	comp=Z,24nm,0.9s,mb5.0						
RDF	Al-Radifah	44.65	291	eP	P	01 21 57.4	+0.9
RDF				AMb	AMB	01 22 01.9	
	comp=Z,56nm,1.8s,mb5.1						
MIB	Mutribah	44.85	293	eP	P	01 21 59.0	+1.0
MIB				AMb	AMB	01 22 03.8	
	comp=Z,34nm,1.1s,mb5.1						
RST	Umm Al-Ruwaisa	45.14	292	eP	P	01 22 00.8	+0.4
RST				AMb	AMB	01 22 01.9	
	comp=Z,29nm,1.0s,mb5.1						
SVE	Sverdlovsk	45.18	333	eP	P	01 22 00.0	-0.3
ARU	Arti	45.83	332	⇑iP	P	01 22 04.7	-0.8
ARU				e		01 23 40.9	
ARU				e		01 23 49.9	
ARU				ePPP	PPP	01 24 31.1	-5.9
ARU				eS	S	01 28 46.7	+1.0
ARU				eSSS	SSS	01 33 02.5	-4.6
ARU				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
GNI	Garni	47.94	307	i P	P	01 22 23.5	+1.2
GNI				pmax	pmax		
	comp=Z,24nm,1.6s						
GNI	Garni	47.94	307	P	P	01 22 23.9	+1.5
	comp=Z,2.7nm,0.7s,mb4.4,baz=194,slow=21,SNR=4.7						
TI2	Plekhanov	48.21	309	eP	P	01 22 25.2	+0.8
YAK	Yakutsk	48.21	21	i P	P	01 22 24.1	0.0
YAK				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.2						
ZEI	Tsey	49.03	310	i P	P	01 22 30.8	+0.1
ZEI				i		01 24 20.9	
ZEI				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.2						
KIV	Kislovodsk	50.12	311	P	P	01 22 40.3	+1.2
	comp=Z,138nm,1.0s,mb5.9,SNR=7.5						
KIV	Kislovodsk	50.12	311	i P	P	01 22 39.5	+0.4
KIV				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
KIV	Kislovodsk	50.12	311	eP	P	01 22 39.2	+0.1
	comp=Z,40nm,1.2s,mb5.3						
SOC	Sochi	52.18	310	eP	P	01 22 52.8	-1.8
SOC				e		01 24 53.4	
SOC				eS	S	01 30 17.6	+3.0
SOC				pmax	pmax		
	comp=Z,24nm,0.7s,mb5.2						
SOC				pmax	pmax		
	comp=N,23nm,1.1s						
SOC				pmax	pmax		
	comp=E,16nm,0.9s						
SOC				MLR	MLR		
	comp=Z,259nm,18.0s,MS4.3						
SOC				MLR	MLR		
	comp=N,522nm,20.0s,MS4.6						
SOC				MLR	MLR		
	comp=E,218nm,18.0s,MS4.6						
MALT	Malatya	52.61	303	eP	P	01 22 58.4	+0.5
MALT				pmax	pmax		
	comp=Z,11nm,1.4s,mb4.6						
MALT	Malatya	52.61	303	eP	P	01 22 58.4	+0.4
	comp=Z,11nm,1.4s,mb4.6						
ANN	Anapa	53.98	311	eP	P	01 23 06.4	-1.5
WRA	Warramunga Arr	54.65	134	P	P	01 23 12.6	-0.5
	comp=Z,8.1nm,0.7s,mb4.8,baz=325,slow=7.8,SNR=24						
WRA				PcP	PcP	01 24 15.5	0.0
	comp=Z,3.0nm,0.9s,baz=327,slow=3.5,SNR=5.2						
WRAB	Tennant Creek	54.65	134	i P	P	01 23 12.7	-0.5
WRAB	Tennant Creek	54.65	134	eP	P	01 23 12.3	-0.9
	comp=Z,47nm,1.3s,mb5.4						
TIXI	Tiksi	55.23	12	i P	P	01 23 16.2	-0.6
TIXI				pmax	pmax		
	comp=Z,65nm,1.2s,mb5.5						
MA2	Magadan	55.53	30	i P	P	01 23 19.1	+0.1
MA2				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.1						
NWAO	Narrogin (SRO)	56.33	158	P	P	01 23 24.8	-0.3
	comp=Z,7.9nm,0.7s,mb4.9,baz=2.6,slow=9.7,SNR=6.7						
BRTR	Keskin Array B	56.40	305	P	P	01 23 25.1	-0.4
	comp=Z,2.1nm,0.8s,mb4.2,baz=117,slow=8.3,SNR=8.0						
BRTR				PcP	PcP	01 24 22.1	0.0
	comp=Z,1.6nm,0.8s,baz=117,slow=5.5,SNR=3.6						
OBN	Obninsk	56.45	324	i P	P	01 23 24.1	-1.6
OBN				e		01 24 22.2	
OBN				i		01 25 31.0	
OBN				pmax	pmax		
	comp=Z,17μm,1.2s						
OBN				MLR	MLR		
	comp=Z,400nm,15.0s						
ASAR	Alice Springs	56.99	138	P	P	01 23 29.6	-0.4
	comp=Z,5.6nm,0.7s,mb4.7,baz=320,slow=7.1,SNR=30						
ASAR				PcP	PcP	01 24 24.4	-0.2
	comp=Z,2.4nm,0.9s,baz=314,slow=3.4,SNR=4.2						
AKASG	Malin Array Be	60.13	318	P	P	01 23 49.6	-1.8
	comp=Z,5.8nm,0.8s,mb4.7,baz=76,slow=6.3,SNR=21						
KMBO	Kilima Mbogo	61.06	257	P	P	01 23 58.6	+0.3
	comp=Z,4.7nm,1.0s,mb4.6,baz=39,slow=7.8,SNR=6.0						
VSU	Vasula	62.38	326	i P	P	01 24 05.9	-0.6
KAF	Kangasniemi	63.08	330	ep	P	01 24 07.8	-3.4
	comp=Z,0.2nm,0.3s						
FINES	FINESS Array B	63.09	330	P	P	01 24 10.1	-1.2
	comp=Z,5.5nm,0.8s,mb4.7,baz=110,slow=5.8,SNR=11						
IDI	Anoyia	63.55	300	P	P	01 24 14.5	-0.1
	comp=Z,6.5nm,0.7s,mb4.8,baz=17,slow=18,SNR=5.1						
KWP	Kalwaria	64.28	316	eP	P	01 24 17.7	-1.4
KWP				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.5						
KWP	Kalwaria	64.28	316	eP	P	01 24 17.7	-1.4
	comp=Z,43nm,0.9s,mb5.5						
BILL	Bilibino	64.44	23	eP	P	01 24 18.3	-1.6
BILL	Bilibino	64.44	23	eP	P	01 24 18.3	-1.5
KOLS	Kolonicke sedl	64.57	316	eP	P	01 24 18.8	-2.2
KOLS				epP	pP	01 24 31.1	-2.3
CRVS	Cervenica-Dubn	65.11	316	eP	P	01 24 26.0	+1.5
NIE	Niedzica	65.84	316	eP	P	01 24 29.8	+0.6
OJC	Ojcow	66.14	317	eP	P	01 24 30.6	-0.5
VYHS	Vyhne	66.87	315	eP	P	01 24 33.3	-2.4
MBAR	Mbarara	66.88	260	i P	P	01 24 36.3	-0.1
PKSM	Moragy	67.19	313	⇑eP	P	01 24 37.3	-0.5
SRO2	Moca	67.22	314	eP	P	01 24 38.1	+0.2
OKC	Ostrava-Krasne	67.22	317	eP	P	01 24 37.9	0.0
SRO	Srobarova	67.27	314	eP	P	01 24 36.1	-2.1
STKA	Stephens Creek	67.58	139	P	P	01 24 40.6	+0.2
	comp=Z,7.1nm,0.9s,mb4.7,baz=325,slow=4.7,SNR=11						
SMOL	Smolenice	67.80	315	eP	P	01 24 41.5	-0.1
SMOL				e	pP	01 24 51.9	-2.0
ZST	Bratislava	68.05	315	eP	P	01 24 42.7	-0.4
ZST				e		01 25 00.3	
ZST				e		01 26 51.7	
VRAC	Vranov	68.27	316	P	P	01 24 45.2	+0.7
	comp=Z,14nm,0.9s,mb5.0,baz=85,slow=7.2,SNR=18						
KSP	Ksiaz	68.33	318	eP	P	01 24 44.8	0.0
DPC	Dobruska-Polom	68.35	317	eP	P	01 24 45.4	+0.4
UPC	Upice	68.53	318	eP	P	01 24 46.5	+0.4
HFS	Hagfors	69.11	328	P	P	01 24 48.8	-0.6
	comp=Z,8.8nm,0.7s,mb4.8,baz=108,slow=4.7,SNR=17						
HFS				LR	LR	01 58 05.4	
	comp=Z,644nm,21.5s,MS4.8,baz=283,slow=39						
PVCC	Panska Ves	69.45	318	eP	P	01 24 52.3	+0.6
PRU	Pruhonice	69.53	317	eP	P	01 24 52.4	+0.2
BRG	Berggiesshubel	69.80	318	i P	P	01 24 54.1	+0.2
BRG				pmax	pmax		
	comp=Z,36nm,1.5s,mb5.1						
BRG	Berggiesshubel	69.80	318	i P	P	01 24 54.1	+0.2
	comp=Z,36nm,1.5s,mb5.1						
MOA	Molln	69.98	315	⇑iP	P	01 24 54.9	-0.1
	comp=Z,20nm,1.1s,mb5.0						
GEC2	GERESS Array S	70.22	316	eP	P	01 24 56.7	+0.3
GEC2				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
GEC2	GERESS Array S	70.22	316	eP	P	01 24 56.7	+0.3
	comp=Z,13nm,0.9s,mb4.9						
GERES	GERESS Array B	70.22	316	P	P	01 24 56.7	+0.3
	comp=Z,12nm,0.8s,mb4.8,baz=76,slow=5.5,SNR=58						
NB2	NORSAR Subarra	70.26	329	P	P	01 24 55.3	-1.2
	comp=Z,7.4nm,0.8s,mb4.7,baz=85,slow=6.2						
NB2	NORSAR Subarra	70.26	329	P	P	01 24 55.3	-1.2
NB2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
NOA	NORSAR Array B	70.26	329	P	P	01 24 55.5	-0.9
	comp=Z,5.1nm,0.8s,mb4.5,baz=85,slow=6.0,SNR=8.2						
KHC	Kasperske Hory	70.26	316	i P	P	01 24 57.3	+0.6
KHC	Kasperske Hory	70.26	316	eP	P	01 24 57.0	+0.3
CLL	Collm	70.34	319	⇑iP	P	01 24 57.0	-0.1
CLL				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
CLL	Collm	70.34	319	⇑iP	P	01 24 57.0	-0.1
	comp=Z,15nm,1.1s,mb4.8						
CLL				e	pP	01 25 08.0	-1.5
CLL	Collm	70.34	319	⇑P	P	01 24 57.0	-0.1
	comp=Z,logA/T=1.1,mb4.8						
CLL				e*PP	pP	01 25 08.0	-1.5
WET	Wettzell	70.71	316	eP	P	01 24 59.8	+0.4
WET				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
WET	Wettzell	70.71	316	eP	P	01 24 59.8	+0.4
	comp=Z,9.0nm,0.9s,mb4.7						
NKC	Novy Kostel	70.83	318	eP	P	01 25 00.7	+0.5
MOX	Moxa	71.30	318	eP	P	01 25 03.0	0.0
MOX				pmax	pmax		
	comp=Z,33nm,1.7s,mb5.0						
MOX	Moxa	71.30	318	i P	P	01 25 03.0	0.0
	comp=Z,logA/T=1.3,mb5.0						
MOX	Moxa	71.30	318	eP	P	01 25 03.0	0.0
	comp=Z,33nm,1.7s,mb5.0						
BSEG	Bad Segeberg	71.60	322	eP	P	01 25 05.2	+0.5
GRA1	Grafenberg Arr	71.70	317	eP	P	01 25 06.2	+0.9
	comp=Z,18nm,1.1s,mb4.9						
GRF	Grafenberg Arr	71.70	317	eP	P	01 25 06.2	+0.9
GRF				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
WTTA	Wattenberg	71.83	315	⇑iP	P	01 25 05.7	-0.4
	comp=Z,21nm,1.1s,mb5.0						
WTTA	Wattenberg	71.83	315	⇑iP	P	01 25 05.7	-0.4
WTTA				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
WATA	Walderalm	71.85	315	⇑iP	P	01 25 05.5	-0.8
	comp=Z,8.6nm,0.9s,mb4.7						
WATA	Walderalm	71.85	315	⇑iP	P	01 25 05.5	-0.8
WATA				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
CLZ	Clausthal	71.89	319	eP	P	01 25 06.9	+0.5
	comp=Z,12nm,0.9s,mb4.8						
FUR	Furstenfeldbru	71.91	315	eP	P	01 25 07.1	+0.5
FUR				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
FUR	Furstenfeldbru	71.91	315	eP	P	01 25 07.1	+0.5
	comp=Z,7.0nm,0.9s,mb4.6						
SQTA	Sankt Quirin	72.12	315	⇓iP	P	01 25 07.4	-0.5
	comp=Z,7.8nm,0.8s,mb4.7						
SQTA	Sankt Quirin	72.12	315	⇓iP	P	01 25 07.4	-0.5
SQTA				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
MOTA	Moosalm	72.17	315	⇓iP	P	01 25 07.6	-0.6
	comp=Z,14nm,1.0s,mb4.8						
MOTA	Moosalm	72.17	315	⇓iP	P	01 25 07.6	-0.6
MOTA				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
DAVA	Damuels	73.00	315	⇑iP	P	01 25 13.3	+0.2
	comp=Z,28nm,1.2s,mb5.1						
BFO	Black Forest	73.82	316	eP	P	01 25 18.1	+0.2
BFO				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
BFO	Black Forest	73.82	316	eP	P	01 25 18.1	+0.2
	comp=Z,5.0nm,1.0s,mb4.4						
CDF	Champ du Feu	74.49	316	eP	P	01 25 21.7	0.0
	comp=Z,48nm,1.5s,mb4.9						
CDF	Champ du Feu	74.49	316	eP	P	01 25 21.7	0.0
CDF				pmax	pmax		
	comp=Z,24nm,1.5s,mb4.9						
PGF	Pioggiola	74.59	310	eP	P	01 25 22.5	+0.1
	comp=Z,137nm,1.3s,mb5.4						
PGF	Pioggiola	74.59	310	eP	P	01 25 22.5	+0.1
PGF				pmax	pmax		
	comp=Z,68nm,1.3s,mb5.4						
HINF	Hinteralfeld	74.89	316	eP	P	01 25 23.8	-0.3
	comp=Z,57nm,1.6s,mb5.0						
HINF	Hinteralfeld	74.89	316	eP	P	01 25 23.8	-0.3
HINF				pmax	pmax		
	comp=Z,28nm,1.6s,mb4.9						
WLF	Walferdange	74.93	318	eP	P	01 25 25.1	+0.8
LSZ	Lusaka	75.11	247	eP	P	01 25 26.3	+0.3
LSZ				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
LSZ	Lusaka	75.11	247	eP	P	01 25 26.3	+0.4
	comp=Z,21nm,1.2s,mb4.9						
HAU	Haudompre	75.18	316	eP	P	01 25 25.7	0.0
	comp=Z,43nm,1.3s,mb4.9						
HAU	Haudompre	75.18	316	eP	P	01 25 25.7	0.0
HAU				pmax	pmax		
	comp=Z,21nm,1.3s,mb4.9						
LPG	La Plagne	75.49	313	eP	P	01 25 28.1	+0.5
	comp=Z,44nm,1.1s,mb5.0						
LPG	La Plagne	75.49	313	eP	P	01 25 28.1	+0.5
LPG				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
LPL	La Plagne	75.50	313	eP	P	01 25 28.1	+0.5
	comp=Z,65nm,1.3s,mb5.1						
LPL	La Plagne	75.50	313	eP	P	01 25 28.1	+0.5
LPL				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.1						
MBDF	Montbardon	75.66	313	eP	P	01 25 28.8	+0.2
GIVF	Givet	75.67	318	eP	P	01 25 28.7	+0.2
CABF	La Chapelle	75.68	315	eP	P	01 25 28.9	+0.3
	comp=Z,70nm,1.3s,mb5.1						
CABF	La Chapelle	75.68	315	eP	P	01 25 28.9	+0.3
CABF				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.1						
MEZF	Maizieres J'vi	75.91	317	eP	P	01 25 30.1	+0.2
	comp=Z,62nm,1.3s,mb5.1						
FRF	La Foret Royal	76.03	311	eP	P	01 25 30.6	-0.1
BAIF	Baives	76.06	318	eP	P	01 25 31.1	+0.4
	comp=Z,49nm,1.2s,mb5.0						
BAIF	Baives	76.06	318	eP	P	01 25 31.1	+0.4
BAIF				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
ORIF	Oris-en-Rattie	76.23	313	eP	P	01 25 31.0	-0.8
VIVF	Saint-Julien-l	77.08	313	eP	P	01 25 35.9	-0.7
	comp=Z,43nm,1.2s,mb4.9						
VIVF	Saint-Julien-l	77.08	313	eP	P	01 25 35.9	-0.7
VIVF				pmax	pmax		
	comp=Z,21nm,1.2s,mb4.9						
SMF	Signal de Mont	77.17	315	eP	P	01 25 36.9	-0.2
	comp=Z,100nm,1.6s,mb5.2						
SMF	Signal de Mont	77.17	315	eP	P	01 25 36.9	-0.2
SMF				pmax	pmax		
	comp=Z,50nm,1.5s,mb5.2						
SSF	Saint Saulge	77.28	316	eP	P	01 25 37.7	0.0
SSF				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
SSF	Saint Saulge	77.28	316	eP	P	01 25 37.7	0.0
	comp=Z,25nm,1.1s,mb5.0						
AVF	Avril sur Loir	77.46	315	eP	P	01 25 38.6	0.0
	comp=Z,46nm,1.1s,mb5.0						
AVF	Avril sur Loir	77.46	315	eP	P	01 25 38.6	0.0
AVF				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
HYF	Humbligny	77.80	316	eP	P	01 25 41.3	+0.8
BGF	Bois d'Agland	77.86	315	eP	P	01 25 40.1	-0.7
CAF	Calviac	78.84	314	eP	P	01 25 47.0	+0.7
	comp=Z,25nm,1.2s,mb4.7						
CAF	Calviac	78.84	314	eP	P	01 25 47.0	+0.7
CAF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.7						
EKA	Eskdalemuir Ar	78.88	325	P	P	01 25 46.8	+0.6
	comp=Z,9.8nm,0.8s,mb4.8,baz=84,slow=5.1,SNR=12						
RJF	Les Rejaudoux	79.10	314	eP	P	01 25 48.6	+0.9
	comp=Z,52nm,1.2s,mb5.0						
RJF	Les Rejaudoux	79.10	314	eP	P	01 25 48.6	+0.9
RJF				pmax	pmax		
	comp=Z,26nm,1.2s,mb5.0						
LDF	La Druitiere	79.19	318	eP	P	01 25 48.1	0.0
	comp=Z,33nm,1.1s,mb4.9						
LDF	La Druitiere	79.19	318	eP	P	01 25 48.1	0.0
LDF				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.9						
MTLF	Montolieu	79.20	312	eP	P	01 25 48.5	+0.2
	comp=Z,137nm,1.7s,mb5.3						
MTLF	Montolieu	79.20	312	eP	P	01 25 48.5	+0.2
MTLF				pmax	pmax		
	comp=Z,68nm,1.7s,mb5.3						
FLN	La Foliniere	79.37	318	eP	P	01 25 50.2	+1.1
	comp=Z,80nm,1.5s,mb5.1						
FLN	La Foliniere	79.37	318	eP	P	01 25 50.2	+1.1
FLN				pmax	pmax		
	comp=Z,40nm,1.5s,mb5.1						
GRR	Gorron	79.72	318	eP	P	01 25 51.3	+0.3
LFF	La Frestale	79.73	314	eP	P	01 25 51.8	+0.7
	comp=Z,58nm,1.3s,mb5.0						
LFF	La Frestale	79.73	314	eP	P	01 25 51.8	+0.7
LFF				pmax	pmax		
	comp=Z,29nm,1.3s,mb5.0						
MFF	Saint Martin d	79.82	316	eP	P	01 25 51.7	+0.2
	comp=Z,146nm,1.8s,mb5.3						
MFF	Saint Martin d	79.82	316	eP	P	01 25 51.7	+0.2
MFF				pmax	pmax		
	comp=Z,73nm,1.8s,mb5.3						
SGMF	Saint Gilles	80.84	318	eP	P	01 25 55.7	-1.2
ROSF	Rostrenen	81.26	318	eP	P	01 25 58.3	-0.8
	comp=Z,32nm,1.0s,mb4.9						
ROSF	Rostrenen	81.26	318	eP	P	01 25 58.3	-0.8
ROSF				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
ETSF	Etsaut	81.27	312	eP	P	01 26 00.0	+0.7
	comp=Z,104nm,1.6s,mb5.2						
ETSF	Etsaut	81.27	312	eP	P	01 26 00.0	+0.7
ETSF				pmax	pmax		
	comp=Z,52nm,1.6s,mb5.2						
LBTB	Lobatse	81.57	240	eP	P	01 26 01.4	+0.2
LBTB				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
LBTB	Lobatse	81.57	240	eP	P	01 26 01.4	+0.1
	comp=Z,24nm,1.1s,mb5.0						
ILAR	Eielson Array	83.09	23	P	P	01 26 08.2	0.0
	comp=Z,3.6nm,0.8s,mb4.5,baz=299,slow=4.4,SNR=27						
ILAR				PP	PP	01 29 18.7	-2.7
	comp=Z,0.9nm,1.1s,baz=304,slow=7.2,SNR=3.6						
ESDC	Sonseca Array	84.78	310	P	P	01 26 17.8	+0.5
	comp=Z,4.0nm,0.9s,mb4.6,baz=54,slow=4.5,SNR=13						
INK	Inuvik	85.09	16	P	P	01 26 18.9	+0.7
	comp=Z,6.4nm,0.9s,mb4.8,baz=325,slow=7.3,SNR=8.1						
EVO	Evora	88.13	310	eP	P	01 26 32.2	-1.4
	comp=Z,41nm,1.2s,mb5.2						
DLBC	Dease Lake	93.30	22	LR	LR	02 11 23.5	
	comp=Z,205nm,19.4s,MS4.6,baz=263,slow=37						
YKA	Yellowknife Ar	94.46	14	i P	P	01 27 03.5	+1.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	94.46	14	P	P	01 27 03.2	+0.9
	comp=Z,1.1nm,0.8s,mb4.3,baz=324,slow=4.0,SNR=9.8						
YKA				PP	PP	01 30 46.7	-6.1
	comp=Z,1.2nm,0.9s,baz=334,slow=8.2,SNR=8.1						
PDAR	Pinedale Array	113.44	20	PKiKP		01 32 20.7	
	comp=Z,0.6nm,0.9s,baz=333,slow=3.3,SNR=3.9						
ANMO	Albuquerque	121.52	21	ePKIKP	PKPdf	01 32 37.8	+2.4
ANMO	Albuquerque	121.52	21	PKP	PKPdf	01 32 38.2	+2.8
	comp=Z,2.1nm,0.9s,baz=314,slow=1.5,SNR=4.9						
MNTX	Cornudas Mount	124.84	22	ePKP	PKPdf	01 32 43.6	+1.7
TXAR	Lajitas Array	127.60	22	PKP	PKPdf	01 32 49.6	+2.3
	comp=Z,1.2nm,0.8s,baz=270,slow=1.3,SNR=7.3						
BAO	Brasilia Array	145.34	271	P	PKPdf	01 33 22.4	+2.3
BDFB	Brasilia	145.37	271	PKPbc	PKPbc	01 33 22.5	+1.9
	comp=Z,19nm,0.8s,baz=62,slow=3.2,SNR=23						
SDV	Santo Domingo	148.49	334	ePKP	PKPdf	01 33 27.6	+2.2
ROSC	El Rosal	153.61	338	PKPbc	PKPdf	01 33 44.5	+11
	comp=Z,14nm,1.1s,baz=91,slow=11,SNR=5.2						

IDC ***30*** *01:28:09.8±0.6, 4.17N×94.15E, mb4.4/15, mb1 4.5/16, mb1mx4.4/23, mbtmp4.4/16, Error ellipse: s-maj=30.8km s-min=14.6km az=47.0*

NEIC ***30*** *01:28:13.8±0.5, 4.16N×94.20E, h30km, mb4.8/20, Error ellipse: s-maj=14.2km s-min=9.2km az=63.0*

BJI ***30*** *01:28:18.6, 4.92N×94.28E, h30km, mb4.8*

ISC 30 01:28:12.2±0.4**, 4.12N**±0.06×**94.24E**±0.07**, h30km, (h28km**±2.4km**:pP-P), n65, σ0.99**/59**, mb4.7**/46**, 1C, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.97	18	eP	P	01 31 43.7	-0.1
	16nm,0.9s						
CMAR	Chiang Mai Arr	14.97	18	Pn	P	01 31 44.4	+0.7
	0.5nm,0.3s,baz=215,slow=11,SNR=17						
KMI	Kunming	22.43	21	P	P	01 33 13.0	+2.9
KMI				AMB	AMB		
	comp=Z,25nm,1.0s,mb4.6						
PKI	Pulchoki	24.80	341	eP	P	01 33 34.0	+0.8
DMN	Daman	24.93	340	eP	P	01 33 35.8	+1.3
	comp=Z,12nm,0.8s,mb4.5						
GUN	Gumba	24.96	342	eP	P	01 33 34.0	-0.8
	comp=Z,22nm,0.7s,mb4.8						
KKN	Kakani	25.04	341	eP	P	01 33 35.6	+0.1
	comp=Z,22nm,0.8s,mb4.8						
GYA	Guiyang	25.20	27	⇑iP	P	01 33 36.5	-0.5
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.9						
GKN	Gorkha	25.45	340	eP	P	01 33 39.3	-0.1
	comp=Z,38nm,0.8s,mb5.0						
LSA	Lhasa	25.61	354	eP	P	01 33 42.4	+1.6
	comp=Z,22nm,0.7s,mb4.8						
KOLN	Koldanda	25.61	338	eP	P	01 33 41.1	+0.2
	comp=Z,21nm,0.7s,mb4.8						
ENH	Enshi	29.74	27	eP	P	01 34 16.6	-1.8
	comp=Z,15nm,1.1s,mb4.6						
GTA	Gaotai	35.49	7	P	P	01 35 08.0	-0.4
GTA				AP	pP	01 35 15.0	-2.3
GTA				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.6						
BJT	Baijiatuau	40.86	26	eP	P	01 35 53.9	+0.8
	comp=Z,30nm,0.9s,mb4.9						
BJI	Beijing	40.88	26	eP	P	01 35 54.0	+0.6
BJI				AMB	AMB		
	comp=Z,23nm,0.8s,mb4.9						
KZA	Kyzart	41.43	339	P	P	01 35 58.1	+0.4
	SNR=5.2						
UCH	Uchtor	41.83	338	P	P	01 36 02.6	+1.5
	SNR=11						
KBK	Karagaybulak	42.04	339	P	P	01 36 04.0	+1.2
	SNR=11						
AML	Almayashu	42.06	337	P	P	01 36 04.2	+1.1
	SNR=12						
AAK	Ala-Archa	42.19	338	P	P	01 36 05.9	+1.9

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        SNR=5.8
AAK   Ala-Archa        42.19 338  eP     P      01 36 02.2 -1.9
        comp=Z,7.1nm,1.0s,mb4.2
AAK                               e             01 36 08.4
EKS2  Erkin-Say        42.48 338  P      P      01 36 07.5 +1.0
        SNR=7.2
USP   Ospenovka        42.73 339  P      P      01 36 09.0 +0.5
        SNR=10
NWAO  Narrogin (SRO)   42.81 151  P      P      01 36 09.6 +0.3
        comp=Z,43nm,1.5s,mb5.0
SONM  Songino Array    44.79  12  P      P      01 36 24.9 -0.3
        comp=Z,5.1nm,0.8s,mb4.4,baz=190,slow=8.6,SNR=13
SONM                              PcP    PcP    01 38 07.4 +0.1
        comp=Z,1.1nm,0.6s,baz=194,slow=3.6,SNR=5.8
ULN   Ulaanbaatar      44.95  12  eP     P      01 36 25.3 -1.2
        comp=Z,3.8nm,0.8s,mb4.3
WRA   Warramunga Arr   46.09 123  P      P      01 36 36.5 +0.8
        comp=Z,7.4nm,0.7s,mb4.7,baz=300,slow=9.0,SNR=27
WRAB  Tennant Creek    46.09 123  eP     P      01 36 36.8 +1.0
        comp=Z,17nm,0.8s,mb5.0
ASAR  Alice Springs    47.51 127  P      P      01 36 47.6 +0.7
        comp=Z,2.5nm,0.8s,mb4.3,baz=299,slow=8.1,SNR=20
ASAR                              PcP    PcP    01 38 17.8 +0.6
        comp=Z,0.8nm,0.7s,baz=294,slow=3.5,SNR=5.5
HIA   Hailar           49.94  22  eP     P      01 37 04.7 -0.6
        comp=Z,15nm,1.0s,mb5.0
ZAL   Zalesovo         50.26 353  P      P      01 37 07.4 -0.4
        comp=Z,2.0nm,0.9s,mb4.2,baz=192,slow=9.3,SNR=14
RDF   Al-Radifah       50.64 304  eP     P      01 37 12.3 +1.2
RDF                               AMb    AMB    01 37 13.7
        comp=Z,53nm,1.0s,mb5.4
MIB   Mutribah         51.12 305  eP     P      01 37 16.0 +1.3
MIB                               AMb    AMB    01 37 17.5
        comp=Z,52nm,0.9s,mb5.5
RST   Umm Al-Ruwaisa   51.30 305  eP     P      01 37 16.5 +0.5
RST                               AMb    AMB    01 37 17.2
        comp=Z,32nm,0.7s,mb5.4
BVAR  Borovoye Array   52.56 342  P      P      01 37 24.4 -0.8
        comp=Z,10nm,0.7s,mb4.9,baz=141,slow=9.5,SNR=60
BRVK  Borovoye         52.62 342  eP     P      01 37 24.8 -0.8
        comp=Z,12nm,0.7s,mb4.9
CHKZ  Chkalovo         53.05 343  eP     P      01 37 28.3 -0.6
        comp=Z,32nm,0.9s,mb5.2
CHKZ                              e      pP     01 37 36.3 -1.8
PMG   Port Moresby     54.42 105  eP     P      01 37 38.8 -0.6
        comp=Z,6.6nm,0.9s,mb4.6
CTAO  Charters Tower   56.45 117  eP     P      01 37 54.3 +0.3
        comp=Z,7.2nm,0.9s,mb4.7
GNI   Garni            57.15 316  P      P      01 37 57.9 -0.9
        comp=Z,5.9nm,0.8s,mb4.7,baz=209,slow=20,SNR=3.1
KMBO  Kilima Mbogo     57.18 266  eP     P      01 37 59.7 +0.4
        comp=Z,4.2nm,1.1s,mb4.4
STKA  Stephens Creek   57.49 132  P      P      01 38 01.3  0.0
        comp=Z,6.4nm,1.3s,mb4.5,baz=311,slow=11,SNR=3.5
STKA  Stephens Creek   57.49 132  eP     P      01 38 00.1 -1.2
ARU   Arti             59.37 338  eP     P      01 38 12.2 -1.8
        comp=Z,16nm,1.2s,mb4.9
MALT  Malatya          60.99 312  P      P      01 38 24.4 -1.0
EIL   Elat             61.41 302  P      P      01 38 29.1 +0.8
        comp=Z,7.0nm,1.0s,mb4.8,baz=325,slow=13,SNR=7.0
EIL   Elat             61.41 302  eP     P      01 38 28.3  0.0
        comp=Z,7.4nm,0.9s,mb4.8
EIL                               e      pP     01 38 38.6 +0.9
BRTR  Keskin Array B   64.97 312  P      P      01 38 51.1 -0.6
        comp=Z,2.8nm,0.8s,mb4.3,baz=118,slow=7.3,SNR=10
OBN   Obninsk          68.60 329  eP     P      01 39 13.1 -1.3
        comp=Z,11nm,0.9s,mb4.8
IDI   Anoyia           70.80 306  P      P      01 39 28.1 -0.2
        comp=Z,12nm,1.0s,mb4.8,baz=29,slow=13,SNR=5.6
AKASG Malin Array Be   71.16 322  P      P      01 39 28.2 -1.9
        comp=Z,1.3nm,0.6s,mb4.0,baz=90,slow=5.4,SNR=8.7
SUW   Suwalki          75.60 325  eP     P      01 39 55.1 -0.8
        comp=Z,43nm,1.2s,mb5.3
FINES FINESS Array B   76.06 333  P      P      01 39 57.9 -0.6
        comp=Z,4.1nm,0.8s,mb4.4,baz=90,slow=7.4,SNR=16
KAF   Kangasniemi      76.16 333  ep     P      01 39 55.5 -3.5
        comp=Z,0.5nm,0.4s,mb3.8
DRV   Dumont d'Urvil   77.78 163  R             01 41 00.0
KEV   Kevo             78.39 341  ep     P      01 40 08.6 -2.6
        comp=Z,5.7nm,0.9s,mb4.5
ARCES ARCESS Array B   78.81 340  P      P      01 40 13.5  0.0
        comp=Z,4.1nm,0.8s,mb4.4,baz=72,slow=7.7,SNR=6.8
VRAC  Vranov           78.83 319  P      P      01 40 14.4 +0.3
        comp=Z,3.5nm,0.4s,mb4.6,baz=193,slow=13,SNR=3.7
GERES GERESS Array B   80.68 319  P      P      01 40 24.8 +0.8
        comp=Z,2.0nm,0.7s,mb4.2,baz=109,slow=5.0,SNR=20
VNDA  Vanda            89.25 168  P      P      01 41 05.8 -0.5
        comp=Z,5.4nm,1.5s,mb4.7
ULM   Lac du Bonnet   125.15   8  PKP    PKPdf  01 47 12.9 -2.3
        comp=Z,1.1nm,0.5s,baz=329,slow=3.1,SNR=3.9
NVAR  Mina Array Bea  128.04  32  PKP    PKPdf  01 47 20.1 -1.0
        comp=Z,1.1nm,0.7s,baz=302,slow=1.4,SNR=6.9
PDAR  Pinedale Array  128.60  22  PKP    PKPdf  01 47 19.6 -2.5
        comp=Z,1.1nm,0.9s,baz=27,slow=3.3,SNR=6.7
TXAR  Lajitas Array   142.56  26  PKP    PKPdf  01 47 44.7 -3.5
        comp=Z,0.5nm,0.6s,baz=90,slow=1.3,SNR=5.4
LPAZ  La Paz          158.88 234  PKPab  PKPab  01 48 46.5 +0.2
        comp=Z,1.1nm,0.6s,slow=1.0,SNR=4.3
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*IDC **30** 01:36:22.7±1.0, 4.13N×94.07E, mb4.0/9, mb1 4.1/10, mb1mx4.0/19, mbtmp4.0/10, ML4.2/1, Error ellipse: s-maj=44.6km s-min=19.0km az=51.0*

ISC 30 01:36:26.3±0.8**, 4.2N**±0.1×**94.3E**±0.1**, h33**^{km}**, n13, σ0^{s}73**/12**, mb4.1**/9**, Off west coast of northern Sumatera**

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Code  Station Name      Δ°   AZ°  Phase ID       Time       Res
                                  Op     ISC    h  m  s     ISC
CMAR  Chiang Mai Arr   14.87  18  Pn     P      01 39 56.2 +0.2
        0.3nm,0.3s,baz=215,slow=11,SNR=7.0
SONM  Songino Array    44.69  12  P      P      01 44 38.0 +0.1
        2.6nm,0.9s,mb4.1,baz=191,slow=8.4,SNR=18
SONM                              PcP    PcP    01 46 20.4 -0.1
        0.5nm,0.6s,baz=191,slow=4.2,SNR=3.5
WRA   Warramunga Arr   46.13 123  P      P      01 44 50.0 +0.2
        3.3nm,0.8s,mb4.3,baz=301,slow=9.0,SNR=11
ASAR  Alice Springs    47.56 128  P      P      01 45 00.8 -0.1
        1.0nm,0.7s,mb4.0,baz=296,slow=7.9,SNR=9.0
ZAL   Zalesovo         50.16 353  P      P      01 45 20.8 +0.2
        2.8nm,1.1s,mb4.2,baz=188,slow=4.0,SNR=8.6
MIB   Mutribah         51.07 305  eP     P      01 45 29.2 +1.3
RST   Umm Al-Ruwaisa   51.24 305  eP     P      01 45 29.7 +0.5
BVAR  Borovoye Array   52.47 342  P      P      01 45 37.7 -0.2
        4.4nm,0.6s,mb4.6,baz=141,slow=9.5,SNR=31
BRTR  Keskin Array B   64.91 312  P      P      01 47 03.9 -1.0
        1.5nm,0.8s,mb4.1,baz=121,slow=8.4,SNR=3.8
AKASG Malin Array Be   71.08 322  P      P      01 47 41.5 -1.6
        0.3nm,0.4s,mb3.5,baz=88,slow=2.9,SNR=4.1
FINES FINESS Array B   75.97 333  P      P      01 48 11.0 -0.5
        2.9nm,0.9s,mb4.2,baz=135,slow=2.7,SNR=7.0
GERES GERESS Array B   80.61 319  P      P      01 48 38.0 +0.7
        0.8nm,0.7s,mb3.8,baz=108,slow=4.2,SNR=5.7
PDAR  Pinedale Array  128.50  22  PKP    PKPdf  01 55 32.8 +2.4
        0.8nm,1.0s,SNR=4.4
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*MOS **30** 01:43:03.9±0.9, 4.29N×94.33E, h33^{km}, mb5.2/36, Error ellipse: s-maj=12.6km s-min=6.6km az=119.1*

*BJI **30** 01:43:03.7, 3.90N×94.32E, h46^{km}, mB5.3, mb5.0, Ms4.8, Msz4.4*

*NEIC **30** 01:43:05.4±0.2, 4.22N×94.26E, h30^{km}, mb5.0/42, Error ellipse: s-maj=6.7km s-min=5.6km az=57.0*

*HRVD **30** 01:43:05.4±0.8, 4.24N×94.27E, h25^{km}±1^{km}, MW4.8/40, Centroid moment Tensor Solution. LP body waves: s18,c22;Mantle waves: s40,c51; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.41±.21; M$_{\theta\theta}$0.80±.14; M$_{\phi\phi}$1.62±.18; M$_{r\theta}$0.85±.30; M$_{\theta\phi}$-0.07±.11; M$_{\phi r}$-0.08±.35; Best double couple: M$_0$2.13×10^{16} NP1:ϕ_s187°,δ44°,λ-70°. NP2:ϕ_s340°,δ49°,λ-108°. Principal axes: T 1.63, Plg3°, Azm83°; N 1, Plg14°, Azm352°; P -2.62, Plg76°, Azm184°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **30** 01:43:06.3±0.5, 4.28N×94.26E, h33^{km}±3^{km}, mb4.6/26, mb1 4.7/27, mb1mx4.6/30, mbtmp4.8/27, MS4.2/1, Ms1 4.2/1, ms1mx3.0/22 Error ellipse: s-maj=18.2km s-min=10.2km az=47.0*

ISC 30 01:43:04.0±1.3**, 4.20N**±0.04×**94.31E**±0.04**, h32**^{km}±9^{km}**, h32**^{km}±.6^{km}**:pP-P, n230, σ0^{s}93**/223**, mb5.0**/91**, MS4.2**/12**, 5C-4D, Off west coast of northern Sumatera**

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Code  Station Name      Δ°   AZ°  Phase ID       Time       Res
                                  Op     ISC    h  m  s     ISC
CM31  Chiang Mai Arr   14.88  17  eP     P      01 46 34.9 +0.8
        41nm,1.0s
CMAR  Chiang Mai Arr   14.88  17  Pn     P      01 46 35.0 +0.9
        baz=211,slow=13,SNR=31
HYB   Hyderabad        20.27 312  eP     P      01 47 38.0 -1.8
HYB   Hyderabad        20.27 312  i P    P      01 47 38.0 -1.8
QIZ   Qiongzhong       21.16  45  eP     P      01 47 49.9 +1.0
        57nm,1.3s,mb4.7
SHL   Shillong         21.38 354  eP     P      01 47 51.6 +0.6
KMI   Kunming          22.33  20  P      P      01 48 04.0 +3.4
KMI                               AP            01 48 12.0
KMI                               S      S      01 52 02.8 +3.6
KMI                               SS     SS     01 52 44.5 +4.2
KMI                               AMB    AMB
        comp=Z,39nm,1.2s,mb4.7
KMI                               AMB    AMB
        comp=Z,164nm,5.5s
KMI                               LR     LR
        comp=N,218nm,15.0s
KMI                               LR     LR
        comp=E,320nm,20.1s
KMI                               LR     LR
        comp=Z,292nm,18.4s,MS3.7
AKL   Akola            23.50 316⇓eP     P      01 48 15.4 +3.3
AKL                               e             01 48 18.8
        comp=Z,49nm,1.2s
POO   Poona            24.55 307  eP     P      01 48 21.9 -0.5
POO                               e             01 48 22.6
        comp=E,5.5nm,0.5s
POO                              ⇑eP            01 48 24.0
POO                               e             01 48 24.7
        comp=Z,20nm,0.7s
DGAR  Diego Garcia     24.67 242  P      P      01 48 19.3 -4.2
PKI   Pulchoki         24.75 341  eP     P      01 48 24.7 +0.5
        comp=Z,46nm,1.0s,mb5.0
DMN   Daman            24.88 340  eP     P      01 48 25.8 +0.3
        comp=Z,30nm,0.7s,mb4.9
GUN   Gumba            24.91 342  eP     P      01 48 26.5 +0.7
        comp=Z,90nm,0.9s,mb5.3
KKN   Kakani           24.99 341  eP     P      01 48 26.8 +0.3
        comp=Z,54nm,0.8s,mb5.1
BHPL  Bhopal           24.99 321⇓eP     P      01 48 28.0 +1.5
BHPL                              e             01 48 29.4
        comp=Z,30nm,0.9s
GYA   Guiyang          25.10  27⇑iP     P      01 48 28.3 +0.7
GYA                               AP     pP     01 48 38.5 +1.5
GYA                               XP     sP     01 48 42.8 +1.5
GYA                               S      S      01 52 51.5 +4.3
GYA                               AMB    AMB
        comp=Z,70nm,0.9s,mb5.2
GYA                               AMB    AMB
        comp=Z,280nm,3.4s
GYA                               LR     LR
        comp=N,970nm,16.2s,MS4.5
GYA                               LR     LR
        comp=E,670nm,15.8s,MS4.5
GYA                               LR     LR
        comp=Z,840nm,15.4s,MS4.4
GKN   Gorkha           25.40 340  eP     P      01 48 30.7 +0.3
        comp=Z,123nm,0.8s,mb5.5
LSA   Lhasa            25.54 354  eP     P      01 48 33.6 +1.9
LSA                               pmax   pmax
        comp=Z,75nm,0.8s,mb5.3
LSA   Lhasa            25.54 354  eP     P      01 48 33.6 +1.9
        comp=Z,75nm,0.8s,mb5.3
KOLN  Koldanda         25.57 338  eP     P      01 48 32.3 +0.4
        comp=Z,72nm,0.8s,mb5.3
AGRA  Agra             27.73 327  eP     P      01 48 50.5 -1.2
PTH   Pithoragarh      28.53 334  eP     P      01 48 57.1 -1.9
AYAN  Aya Nagar        29.16 328  eP     P      01 49 03.7 -0.9
KUDL  Kundal           29.24 326  eP     P      01 49 04.5 -0.9
NDI   New Delhi        29.27 328⇑eP     P      01 49 05.2 -0.5
NDI                               e             01 49 05.6
        comp=Z,18nm,0.5s
KHET  Khetri           29.57 325  eP     P      01 49 07.0 -1.3
ENH   Enshi            29.64  27  eP     P      01 49 07.5 -1.4
        comp=Z,33nm,0.9s,mb5.1
DDI   Dehra Dun        30.18 331  e      P      01 49 14.2 +0.5
DDI                               e             01 54 29.9
KLP   Kalpa            31.10 333  eP     P      01 49 21.1 -0.7
JASL  Jaisalmer        31.79 318  e      P      01 49 23.2 -4.8
WHN   Wuhan            32.32  34  P      P      01 49 32.8 +0.3
XAN   Xi'an            32.66  23  P      P      01 49 33.5 -1.9
XAN                               AMB    AMB
        comp=Z,46nm,0.8s,mb5.5
LZH   Lanzhou          32.93  14  eP     P      01 49 37.0 -0.8
LZH                               AMB    AMB
        comp=Z,18nm,1.0s,mb5.0
LZH                               AMB    AMB
        comp=Z,86nm,4.0s
GTA   Gaotai           35.41   7  P      P      01 49 58.8 -0.3
GTA                               AP     pP     01 50 10.8 +2.1
GTA                               XP     sP     01 50 15.5 +2.7
GTA                               PCP    PcP    01 52 29.8 +1.1
GTA                               S      S      01 55 29.5 -1.3
GTA                               AMB    AMB
        comp=Z,22nm,0.9s,mb5.1
GTA                               AMB    AMB
        comp=Z,414nm,6.1s
GTA                               LR     LR
        comp=N,232nm,16.0s
GTA                               LR     LR
        comp=E,255nm,10.6s
GTA                               LR     LR
        comp=Z,280nm,16.3s,MS4.1
MBWA  Marble Bar       35.44 136  eP     P      01 49 59.4 -0.2
        comp=Z,16nm,1.0s,mb4.9
NJ2   Nanjing          36.03  37  eP     P      01 50 05.3 +0.9
NJ2                               AP     pP     01 50 15.3 +1.3
NJ2                               PP     PP     01 51 23.8 -2.8
NJ2                               S      S      01 55 42.0 +1.6
NJ2                               AMB    AMB
        comp=Z,20nm,0.5s,mb5.3
NJ2                               AMB    AMB
        comp=Z,1μm,4.8s
NJ2                               LR     LR
        comp=N,490nm,14.8s,MS4.6
NJ2                               LR     LR
        comp=E,790nm,17.9s,MS4.6
NJ2                               LR     LR
        comp=Z,500nm,16.2s,MS4.4
SSE   Sheshan          36.83  40  P      P      01 50 08.8 -2.3
SSE                               S      S      01 55 51.5 -1.2
SSE                               AMB    AMB
        comp=Z,19nm,0.8s,mb5.0
SSE                               AMB    AMB
        comp=Z,169nm,6.2s
SSE                               LR     LR
        comp=N,65nm,15.9s,MS4.1
SSE                               LR     LR
        comp=E,218nm,15.9s,MS4.1
SSE                               LR     LR
        comp=Z,84nm,15.8s,MS3.6
KSH   Kashi            38.89 337  P      P      01 50 29.0 +0.7
KSH                               AP     pP     01 50 38.5 +0.5
KSH                               ePP    PP     01 52 01.0 -0.4
KSH                               PPP    PPP    01 52 22.0 -2.7
KSH                               S      S      01 56 25.5 +1.6
KSH                               PCS           01 56 29.0
KSH                               SCS    ScS    02 00 32.3 -1.0
KSH                               AMB    AMB
        comp=Z,340nm,4.6s
KSH                               LR     LR
        comp=N,310nm,7.6s
KSH                               LR     LR
        comp=E,490nm,7.3s
HHC   Hu-ho-hao-te     39.66  21  eP     P      01 50 35.5 +0.8
HHC                               AP     pP     01 50 45.5 +1.1
HHC                               PP     PP     01 52 09.8 +0.2
HHC                               PCP    PcP    01 52 43.0 +1.3
HHC                               PCS           01 56 31.3
HHC                               S      S      01 56 37.5 +2.0
HHC                               SS     SS     01 59 25.0 +0.3
HHC                               SCS    ScS    02 00 38.5 +0.7
HHC                               AMB    AMB
        comp=Z,14nm,0.6s,mb4.9
HHC                               AMB    AMB
        comp=Z,214nm,6.3s
HHC                               LR     LR
        comp=N,360nm,19.0s,MS4.5
HHC                               LR     LR
        comp=E,378nm,14.3s,MS4.5
HHC                               LR     LR
        comp=Z,224nm,15.5s,MS4.1
WMQ   Urumqi           39.89 353  P      P      01 50 37.3 +0.7
BJT   Baijiatuau       40.77  26  eP     P      01 50 45.4 +1.6
BJT                               e      pP     01 50 53.6 +0.1
BJT                               pmax   pmax
        comp=Z,68nm,0.9s
BJT   Baijiatuau       40.77  26  eP     P      01 50 45.4 +1.6
        comp=Z,68nm,0.9s,mb5.3
BJT                               e      pP     01 50 53.6 +0.1
BJI   Beijing          40.79  26  eP     P      01 50 45.5 +1.5
BJI                               AMB    AMB
        comp=Z,67nm,0.8s,mb5.3
BJI                               LR     LR
        comp=N,527nm,12.1s,MS4.6
BJI                               LR     LR
        comp=E,226nm,16.1s,MS4.6
BJI                               LR     LR
        comp=Z,160nm,17.5s,MS3.9
KZA   Kyzart           41.38 338  P      P      01 50 50.0 +1.1
        SNR=13
UCH   Uchtor           41.78 338  P      P      01 50 53.2 +1.1
        SNR=38
TKM2  Tokmak 2         41.99 339  P      P      01 50 54.7 +0.8
        SNR=14
KBK   Karagaybulak     41.99 339  P      P      01 50 55.4 +1.5
        SNR=32
AML   Almayashu        42.02 337  P      P      01 50 55.4 +1.3
        SNR=46
AAK   Ala-Archa        42.14 338  P      P      01 50 56.4 +1.3
        SNR=18
AAK   Ala-Archa        42.14 338c iP     P      01 50 55.5 +0.4
AAK                               pmax   pmax
        comp=Z,24nm,1.0s,mb4.8
AAK   Ala-Archa        42.14 338  eP     P      01 50 55.2 +0.1
        comp=Z,32nm,1.1s,mb4.9
FRU   Bishkek          42.27 338  eP     P      01 50 58.0 +1.8
CHMS  Chumysh          42.36 339  P      P      01 50 57.7 +0.8
        SNR=6.1
EKS2  Erkin-Say        42.44 337  P      P      01 50 58.7 +1.2
        SNR=23
USP   Ospenovka        42.69 339  P      P      01 51 00.1 +0.5
        SNR=48
NWAO  Narrogin (SRO)   42.84 151  eP     P      01 51 00.8 -0.2
NWAO                              pmax   pmax
        comp=Z,8.0nm,0.7s
NWAO  Narrogin (SRO)   42.84 151  P      P      01 51 01.6 +0.6
        comp=Z,7.0nm,0.6s,mb4.6,baz=306,slow=10,SNR=10
NWAO  Narrogin (SRO)   42.84 151  eP     P      01 51 00.8 -0.2
        comp=Z,7.6nm,0.7s,mb4.5
SONM  Songino Array    44.70  12  P      P      01 51 15.8 -0.1
        comp=Z,18nm,0.9s,mb4.9,baz=191,slow=8.3,SNR=116
SONM                              PcP    PcP    01 52 58.6 +0.3
        comp=Z,4.2nm,0.6s,baz=192,slow=3.4,SNR=8.3
ULN   Ulaanbaatar      44.87  12  eP     P      01 51 16.7 -0.5
ULN                               e             01 52 59.1
ULN                               pmax   pmax
        comp=Z,14nm,0.9s,mb4.8
ULN   Ulaanbaatar      44.87  12  eP     P      01 51 16.7 -0.5
        comp=Z,14nm,0.9s,mb4.8
ULN                               ePcP   PcP    01 52 59.1 +0.2
ULN                               eScP          01 56 35.1
KS15  Wonju Array Si   45.14  38  eP     P      01 51 19.6  0.0
SNY   Shenyang         45.69  31 ⇓P      P      01 51 23.8  0.0
SNY                               S      S      01 58 03.8 -0.1
SNY                               AMB    AMB
        comp=Z,20nm,0.8s,mb5.1
SNY                               LR     LR
        comp=N,520nm,17.1s,MS4.7
SNY                               LR     LR
        comp=E,410nm,16.2s,MS4.7
SNY                               LR     LR
        comp=Z,520nm,17.1s,MS4.5
WRA   Warramunga Arr   46.07 123  P      P      01 51 27.7 +0.6
        comp=Z,34nm,0.7s,mb5.4,baz=300,slow=9.1,SNR=133
WRAB  Tennant Creek    46.08 123  eP     P      01 51 27.7 +0.6
WRAB                              e      pP     01 51 36.1 -0.8
WRAB                              pmax   pmax
        comp=Z,69nm,0.7s,mb5.7
WRAB  Tennant Creek    46.08 123  eP     P      01 51 27.7 +0.6
        comp=Z,69nm,0.7s,mb5.7
WRAB                              e      pP     01 51 36.1 -0.8
ZAK   Zakamensk        46.65   8  eP     P      01 51 30.8 -0.4
ZAK                               e             01 53 04.7
ASAR  Alice Springs    47.50 128  P      P      01 51 38.6 +0.3
        comp=Z,12nm,0.7s,mb4.9,baz=298,slow=8.1,SNR=113
ASAR                              PcP    PcP    01 53 08.8 +0.4
        comp=Z,3.7nm,0.6s,baz=302,slow=3.7,SNR=8.0
TLY   Talaya           47.96   8  eP     P      01 51 41.9 +0.3
TLY                               e             01 52 00.1
TLY                               pmax   pmax
        comp=Z,15nm,0.9s,mb5.0
TLY   Talaya           47.96   8  eP     P      01 51 41.8 +0.2
        comp=Z,18nm,1.0s,mb5.1
CN2   Changchun        48.07  30  eP     P      01 51 42.0 -0.5
CN2                               eS     S      01 58 38.0 +0.3
CN2                               AMB    AMB
        comp=Z,10.0nm,1.1s,mb4.8
CN2                               LR     LR
        comp=N,530nm,17.0s,MS4.7
CN2                               LR     LR
        comp=E,490nm,17.0s,MS4.7
CN2                               LR     LR
        comp=Z,330nm,17.0s,MS4.4
HIA   Hailar           49.84  22  eP     P      01 51 56.0 -0.1
HIA                               pmax   pmax
        comp=Z,28nm,0.8s
HIA   Hailar           49.84  22  eP     P      01 51 56.0 -0.1
        comp=Z,28nm,0.8s,mb5.3
ZAL   Zalesovo         50.19 353  P      P      01 51 58.6 -0.1
        comp=Z,9.4nm,1.0s,mb4.8,baz=207,slow=6.8,SNR=41
QRN   Al-Qurain        50.29 304  eP     P      01 51 59.9 +0.1
QRN                               AMb    AMB    01 52 00.6
        comp=Z,82nm,0.5s,mb6.0
RDF   Al-Radifah       50.66 304  eP     P      01 52 03.3 +0.8
RDF                               AMb    AMB    01 52 05.0
        comp=Z,120nm,1.1s,mb5.7
UMR   Umm Al-Rimmam    50.74 305  eP     P      01 52 03.7 +0.5
UMR                               AMb    AMB    01 52 04.4
        comp=Z,64nm,0.5s,mb5.8
MDJ   Mudanjiang       50.78  32  P      P      01 52 03.5 +0.2
MDJ                               AP     pP     01 52 12.5 -0.7
MDJ                               PCP    PcP    01 53 19.5 -0.6
MDJ                               PP     PP     01 54 00.0 -0.2
MDJ                               SCP           01 57 13.5
MDJ                               PCS           01 57 17.0
MDJ                               S      S      01 59 15.3 -0.1
MDJ                               AMB    AMB
        comp=Z,10.0nm,1.5s,mb4.5
MDJ                               AMB    AMB
        comp=Z,262nm,6.5s
MDJ                               LR     LR
        comp=N,142nm,20.4s,MS4.1
MDJ                               LR     LR
        comp=E,113nm,18.0s,MS4.1
MDJ                               LR     LR
        comp=Z,160nm,16.6s,MS4.1
KAMS  Al Khamasin      50.93 293  P      P      01 52 04.0 -0.7
MIB   Mutribah         51.13 305  eP     P      01 52 07.3 +1.1
MIB                               AMb    AMB    01 52 08.8
        comp=Z,159nm,0.9s,mb6.0
NVS   Novosibirsk      51.28 352  eP     P      01 52 04.7 -2.2
NVS                               e      pP     01 52 13.6 -3.3
NVS                               eS     S      01 59 21.1 -1.1
NVS                               pmax   pmax
        comp=Z,20nm,1.0s,mb5.0
NVS                               pmax   pmax
        comp=N,16nm,1.2s
NVS                               smax
        comp=E,12nm,1.5s
RST   Umm Al-Ruwaisa   51.31 305  eP     P      01 52 07.8 +0.3
RST                               AMb    AMB    01 52 08.5
        comp=Z,68nm,0.6s,mb5.8
TATS  Tathlith         51.81 292  P      P      01 52 11.4  0.0
BVAR  Borovoye Array   52.51 342  P      P      01 52 15.9 -0.4
        comp=Z,33nm,0.6s,mb5.4,baz=141,slow=9.5,SNR=240
BRVK  Borovoye         52.57 342  eP     P      01 52 15.8 -0.9
BRVK                              e      pP     01 52 23.8 -2.8
BRVK                              pmax   pmax
        comp=Z,37nm,0.7s,mb5.4
BRVK  Borovoye         52.57 342  eP     P      01 52 15.8 -0.9
        comp=Z,37nm,0.7s,mb5.4
BRVK                              e      pP     01 52 23.8 -2.8
CHKZ  Chkalovo         53.00 343  eP     P      01 52 19.4 -0.5
CHKZ                              e      pP     01 52 27.5 -2.3
CHKZ                              pmax   pmax
        comp=Z,97nm,0.8s,mb5.8
CHKZ  Chkalovo         53.00 343  eP     P      01 52 19.4 -0.5
        comp=Z,96nm,0.8s,mb5.8
CHKZ                              e      pP     01 52 27.5 -2.3
AFFS  'Afif            53.14 297  P      P      01 52 22.0 +0.7
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ARSS	Ar Rass	53.41	299	P	P	01 52 23.2	0.0
PMG	Port Moresby	54.38	105	eP	P	01 52 29.9	-0.6
PMG				pmax	pmax		
	comp=Z,24nm,0.9s						
PMG	Port Moresby	54.38	105	eP	P	01 52 29.9	-0.6
	comp=Z,24nm,0.9s,mb5.1						
KLR	Kul'dur	54.97	29	eP	P	01 52 31.5	-3.0
HILS	Ha'il	55.04	301	P	P	01 52 36.0	+0.8
BOD	Bodaibo	55.67	13	eP	P	01 52 38.2	-1.2
CTA	Charters Tower	56.43	117	P	P	01 52 45.9	+0.6
	comp=Z,16nm,0.8s,mb5.1,baz=291,slow=8.7,SNR=11						
CTAO	Charters Tower	56.43	117	eP	P	01 52 45.1	-0.2
CTAO				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
CTAO	Charters Tower	56.43	117	eP	P	01 52 45.1	-0.2
	comp=Z,30nm,1.0s,mb5.3						
GNI	Garni	57.14	316	i P	P	01 52 49.9	-0.3
GNI				pmax	pmax		
	comp=Z,15nm,1.5s						
GNI	Garni	57.14	316	P	P	01 52 49.8	-0.4
	comp=Z,2.2nm,0.5s,mb4.4,baz=323,slow=15,SNR=4.4						
GNI	Garni	57.14	316	eP	P	01 52 49.5	-0.7
	comp=Z,20nm,1.2s,mb5.0						
KMBO	Kilima Mbogo	57.25	266	eP	P	01 52 51.4	+0.1
KMBO				e		01 52 59.4	
KMBO				pmax	pmax		
	comp=Z,7.0nm,0.9s						
KMBO	Kilima Mbogo	57.25	266	P	P	01 52 51.9	+0.6
	comp=Z,4.5nm,0.8s,mb4.6,baz=68,slow=8.4,SNR=12						
KMBO				pP	pP	01 53 02.3	+1.0
	comp=Z,3.4nm,0.9s,baz=28,slow=12,SNR=4.9						
KMBO				LR	LR	02 13 26.9	
	comp=Z,202nm,18.3s,MS4.3,baz=277,slow=32						
KMBO	Kilima Mbogo	57.25	266	eP	P	01 52 51.4	+0.1
	comp=Z,6.8nm,0.9s,mb4.7						
KMBO				e		01 52 59.4	
STKA	Stephens Creek	57.50	132	P	P	01 52 52.7	0.0
	comp=Z,4.0nm,0.5s,mb4.7,baz=310,slow=5.1,SNR=21						
STKA	Stephens Creek	57.50	132	eP	P	01 52 52.1	-0.6
STKA				e	pP	01 53 00.7	-2.0
YNBS	Yanbu' al Bahr	57.70	296	P	P	01 52 54.7	+0.5
UMJS	Umm Lajj	58.48	297	P	P	01 53 01.0	+1.4
ZEI	Tsey	58.85	318	eP	P	01 53 01.1	-1.0
ZEI				i *PP	pP	01 53 11.2	-0.9
ZEI				i		01 55 08.2	
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
SVE	Sverdlovsk	58.87	339	eP	P	01 53 01.0	-0.9
SVE				pmax	pmax		
	comp=Z,100nm,1.5s,mb5.6						
ARU	Arti	59.33	338	⇑iP	P	01 53 03.5	-1.6
ARU				e		01 53 47.1	
ARU				e		01 55 14.2	
ARU				eS	S	02 01 11.7	+2.1
ARU				eSS	SS	02 05 06.2	+0.2
ARU				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.2						
ARU	Arti	59.33	338	eP	P	01 53 01.9	-3.3
	comp=Z,34nm,1.0s,mb5.3						
ARU				e	pP	01 53 11.3	-3.9
KIV	Kislovodsk	60.17	319	d iP	P	01 53 09.7	-1.4
KIV				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.1						
KIV	Kislovodsk	60.17	319	eP	P	01 53 09.5	-1.6
	comp=Z,24nm,1.1s,mb5.1						
JMQS	Jabal Moqyreh	60.47	301	P	P	01 53 13.9	+0.5
AYUS	'Aynunah	60.85	300	P	P	01 53 16.4	+0.5
MALT	Malatya	60.99	312	eP	P	01 53 16.1	-0.6
MALT				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.9						
MALT	Malatya	60.99	312	eP	P	01 53 16.1	-0.6
	comp=Z,11nm,1.1s,mb4.9						
BDAS	Al Bad'	61.04	300	P	P	01 53 17.8	+0.6
JMOS	Jabal al Moall	61.19	301	P	P	01 53 18.5	+0.3
TAYS	Tayyib Ism	61.27	300	P	P	01 53 19.3	+0.5
EIL	Elat	61.43	302	P	P	01 53 20.1	+0.2
	comp=Z,14nm,0.7s,mb5.2,baz=101,slow=3.5,SNR=21						
EIL				pP	pP	01 53 30.5	+0.5
	comp=Z,8.7nm,0.7s,baz=81,slow=3.1,SNR=6.9						
EIL	Elat	61.43	302	eP	P	01 53 19.8	-0.1
	comp=Z,22nm,0.9s,mb5.3						
EIL				e	pP	01 53 28.5	-1.4
SOC	Sochi	61.97	318	eP	P	01 53 29.4	+6.0
SOC				e		01 54 08.2	
SOC				e		01 55 38.5	
SOC				ePPP	PPP	01 57 05.7	-5.2
SOC				eS	S	02 01 53.7	+10
SOC				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.3						
SOC				pmax	pmax		
	comp=N,23nm,1.0s						
SOC				pmax	pmax		
	comp=E,9.0nm,0.8s						
YAK	Yakutsk	63.42	18	i P	P	01 53 31.2	-1.4
YAK				pmax	pmax		
	comp=Z,84nm,1.4s,mb5.7						
YAK	Yakutsk	63.42	18	eP	P	01 53 31.0	-1.6
	comp=Z,53nm,0.8s,mb5.7						
BRTR	Keskin Array B	64.97	312	P	P	01 53 41.8	-1.3
	comp=Z,7.5nm,0.7s,mb4.8,baz=128,slow=7.3,SNR=43						
BRTR				pP	pP	01 53 52.6	-0.6
	comp=Z,7.1nm,0.9s,baz=121,slow=7.2,SNR=9.0						
VRSR	Storozhevoye	65.46	325	eP	P	01 53 44.0	-2.1
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.4s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
SIM	Simferopol'	66.22	318	eP	P	01 53 50.0	-1.0
SIM				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
ISP	Isparta	66.86	309	i P	P	01 53 55.3	+0.1
LSZ	Lusaka	68.24	252	eP	P	01 54 03.9	-0.4
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
LSZ	Lusaka	68.24	252	eP	P	01 54 03.9	-0.4
	comp=Z,5.0nm,0.9s,mb4.5						
MOS	Moscow	68.30	329	eP	P	01 53 58.9	-5.1
MOS				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.6						
OBN	Obninsk	68.57	329	i P	P	01 54 04.5	-1.2
OBN				e		01 54 11.3	
OBN				e		01 54 30.3	
OBN				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.3						
OBN				MLR	MLR		
	comp=Z,100nm,17.0s,MS4.1						
OBN	Obninsk	68.57	329	eP	P	01 54 04.2	-1.5
	comp=Z,31nm,0.9s,mb5.2						
OBN				e		01 54 11.6	
MA2	Magadan	69.94	27	eP	P	01 54 12.4	-1.6
MA2				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
MA2	Magadan	69.94	27	eP	P	01 54 12.3	-1.6
	comp=Z,8.0nm,0.7s,mb4.8						
TIXI	Tiksi	70.79	11	i P	P	01 54 17.8	-1.2
IDI	Anoyia	70.81	306	P	P	01 54 19.4	-0.4
	comp=Z,11nm,0.5s,mb5.1,baz=117,slow=6.9,SNR=21						
AKASG	Malin Array Be	71.14	322	P	P	01 54 19.6	-1.9
	comp=Z,4.6nm,0.6s,mb4.6,baz=91,slow=5.3,SNR=27						
AKASG				pP	pP	01 54 29.9	-1.7
	comp=Z,4.4nm,0.7s,baz=89,slow=5.2,SNR=6.7						
AKASG				PP	PP	01 56 58.3	-2.9
	comp=Z,0.2nm,0.3s,baz=88,slow=7.1,SNR=4.0						
CASY	Casey	71.28	173	eP	P	01 54 22.7	+0.7
	comp=Z,9.1nm,1.1s,mb4.6						
MLR	Muntele Rosu	71.92	317	P	P	01 54 26.4	+0.2
	comp=Z,14nm,0.8s,mb4.9,baz=130,slow=4.9,SNR=12						
LBTB	Lobatse	72.66	242	eP	P	01 54 30.9	-0.1
LBTB				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
LBTB	Lobatse	72.66	242	eP	P	01 54 30.9	-0.1
	comp=Z,8.7nm,0.8s,mb4.7						
BOSA	Boshof	73.80	239	eP	P	01 54 37.3	-0.3
BOSA				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
BOSA	Boshof	73.80	239	eP	P	01 54 37.3	-0.3
	comp=Z,11nm,1.1s,mb4.7						
KWP	Kalwaria	74.93	320	eP	P	01 54 42.9	-0.8
KWP				pmax	pmax		
	comp=Z,57nm,1.3s,mb5.3						
KWP	Kalwaria	74.93	320	eP	P	01 54 42.9	-0.8
	comp=Z,57nm,1.3s,mb5.3						
MAW	Mawson	74.99	192	eP	P	01 54 45.1	+1.4
MAW				pmax	pmax		
	comp=Z,16nm,1.2s						
MAW	Mawson	74.99	192	eP	P	01 54 45.1	+1.4
	comp=Z,16nm,1.2s,mb4.8						
LVZ	Lovozero	75.05	340	eP	P	01 54 42.0	-2.0
LVZ				pmax	pmax		
	comp=Z,34nm,1.5s,mb5.1						
KOLS	Kolonicke sedl	75.08	320	eP	P	01 54 45.0	+0.5
KOLS				e		01 54 52.7	
SUW	Suwalki	75.58	325	eP	P	01 54 46.0	-1.3
SUW				e		01 54 54.1	
SUW				pmax	pmax		
	comp=Z,102nm,1.1s,mb5.7						
SUW	Suwalki	75.58	325	eP	P	01 54 46.0	-1.3
	comp=Z,102nm,1.1s,mb5.7						
SUW				e		01 54 54.1	
CRVS	Cervenica-Dubn	75.60	319	eP	P	01 54 47.0	-0.5
FINES	FINESS Array B	76.03	333	P	P	01 54 49.0	-0.7
	comp=Z,6.9nm,0.5s,mb4.8,baz=104,slow=6.8,SNR=52						
FINES				pP	pP	01 54 59.6	-0.3
	comp=Z,8.9nm,0.7s,baz=117,slow=8.5,SNR=8.5						
KAF	Kangasniemi	76.12	333	ep	P	01 54 48.6	-1.6
	comp=Z,7.1nm,0.6s,mb4.8						
KAF	Kangasniemi	76.12	333	ep	P	01 54 57.4	+7.2
	comp=Z,5.9nm,0.7s,mb4.6						
KAF	Kangasniemi	76.12	333	eP	P	01 54 48.6	-1.6
KAF				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.8						
KECS	Kecovo	76.16	319	eP	P	01 54 46.5	-4.2
KECS				e		01 54 50.4	
NIE	Niedzica	76.43	320	eP	P	01 54 52.5	+0.3
PSZ	Piszkesteto	76.46	318	eP	P	01 54 51.8	-0.6
PSZ				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
PSZ	Piszkesteto	76.46	318	eP	P	01 54 51.8	-0.7
	comp=Z,7.6nm,0.9s,mb4.6						
OJC	Ojcow	76.89	321	eP	P	01 54 54.7	0.0
VYHS	Vyhne	77.25	319	eP	P	01 54 56.3	-0.5
VYHS				e		01 55 02.5	
SRO1	Iza	77.55	318	eP	P	01 55 05.9	+7.5
SRO1	Iza	77.55	318	e	P	01 55 05.9	+7.5
MORC	Moravsky Berou	78.27	320	eP	P	01 55 01.9	-0.4
MORC				e	pP	01 55 10.7	-1.9
MORC				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.7						
MORC	Moravsky Berou	78.27	320	eP	P	01 55 01.9	-0.4
	comp=Z,11nm,1.1s,mb4.7						
MORC				e	pP	01 55 10.7	-1.9
KEV	Kevo	78.34	341	ep	P	01 55 00.4	-1.9
	comp=Z,0.3nm,0.4s						
KEV	Kevo	78.34	341	ep	pP	01 55 14.3	+1.7
	comp=Z,0.4nm,0.4s						
ZST	Bratislava	78.36	318	i P	P	01 55 03.0	+0.1
ZST				e		01 55 10.9	
ARCES	ARCESS Array B	78.76	340	P	P	01 55 05.0	+0.3
	comp=Z,5.4nm,0.6s,mb4.7,baz=89,slow=5.9,SNR=23						
VRAC	Vranov	78.82	319	P	P	01 55 05.7	+0.4
	comp=Z,2.3nm,0.6s,mb4.3,baz=95,slow=6.3,SNR=4.0						
DPC	Dobruska-Polom	79.12	320	eP	P	01 55 07.4	+0.4
DPC				epP	pP	01 55 18.1	+0.8
KSP	Ksiaz	79.19	321	eP	P	01 55 07.6	+0.2
KSP				e*PP	pP	01 55 16.5	-1.2
UPC	Upice	79.33	320	eP	P	01 55 08.7	+0.6
UPC				epP	pP	01 55 19.3	+0.9
BILL	Bilibino	79.43	21	i P	P	01 55 08.5	+0.2
FX1	Attu Island--F	79.95	37	P	P	01 55 11.7	+0.3
	comp=Z,26nm,0.6s,mb5.3,baz=325,slow=2.3,SNR=12						
FX1	Attu Island--F	79.95	37	eP	P	01 55 10.5	-0.9
PRU	Pruhonice	80.22	320	eP	P	01 55 13.6	+0.7
PRU				epP	pP	01 55 22.8	-0.4
GEC2	GERESS Array S	80.67	319	eP	P	01 55 15.8	+0.5
GEC2				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.6						
GEC2	GERESS Array S	80.67	319	eP	P	01 55 15.8	+0.5
	comp=Z,7.0nm,0.8s,mb4.6						
GERES	GERESS Array B	80.67	319	P	P	01 55 15.8	+0.4
	comp=Z,7.5nm,0.8s,mb4.7,baz=110,slow=5.0,SNR=54						
GERES				pP	pP	01 55 26.7	+1.0
	comp=Z,8.7nm,1.0s,baz=123,slow=5.0,SNR=13						
BRG	Berggiesshubel	80.68	321	i P	P	01 55 15.6	+0.3
BRG				e	pP	01 55 26.1	+0.5
BRG				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.8						
BRG	Berggiesshubel	80.68	321	i P	P	01 55 15.6	+0.3
	comp=Z,18nm,1.4s,mb4.8						
BRG				e	pP	01 55 26.1	+0.5
BRG				e		01 55 49.8	
KHC	Kasperske Hory	80.77	319	eP	P	01 55 15.9	+0.1
KHC				epP	pP	01 55 25.8	-0.4
WET	Wettzell	81.23	319	eP	P	01 55 18.4	+0.1
CLL	Collm	81.30	321	eP	P	01 55 19.0	+0.4
CLL				e	pP	01 55 29.0	+0.1
CLL	Collm	81.30	321	P	P	01 55 19.0	+0.4
CLL				e*SP	sP	01 55 29.0	-3.3
HFS	Hagfors	81.70	330	P	P	01 55 20.0	-0.5
	comp=Z,4.2nm,0.7s,mb4.5,baz=108,slow=4.7,SNR=15						
MOX	Moxa	82.14	320	eP	P	01 55 22.9	0.0
MOX	Moxa	82.14	320	i P	P	01 55 22.9	0.0
FUR	Furstenfeldbru	82.24	318	eP	P	01 55 23.5	0.0
GRA1	Grafenberg Arr	82.34	319	eP	P	01 55 24.8	+0.8
	comp=Z,10.0nm,0.8s,mb4.8						
GRA1				epP	pP	01 55 35.1	+0.7
GRF	Grafenberg Arr	82.34	319	eP	P	01 55 24.8	+0.8
GRF				e*PP	pP	01 55 35.1	+0.7
GRF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
CLZ	Clausthal	82.97	322	eP	P	01 55 27.7	+0.5
	comp=Z,8.0nm,0.8s,mb4.8						
NB2	NORSAR Subarra	83.00	331	P	P	01 55 26.7	-0.5
	comp=Z,2.4nm,0.7s,mb4.3,baz=96,slow=5.6						
NB2	NORSAR Subarra	83.00	331	P	P	01 55 26.7	-0.5
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.3						
NOA	NORSAR Array B	83.00	331	P	P	01 55 26.9	-0.2
	comp=Z,3.0nm,0.7s,mb4.4,baz=94,slow=5.5,SNR=6.0						
NOA				pP	pP	01 55 37.6	+0.1
	comp=Z,2.8nm,0.9s,baz=93,slow=6.2,SNR=3.5						
BSEG	Bad Segeberg	83.09	324	eP	P	01 55 28.3	+0.5
DAVOX	Davos	83.14	316	P	P	01 55 28.9	+0.7
	comp=Z,14nm,0.6s,mb5.1,baz=127,slow=5.8,SNR=43						
BFO	Black Forest	84.21	318	eP	P	01 55 33.6	0.0
BFO				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
BFO	Black Forest	84.21	318	eP	P	01 55 33.6	0.0
	comp=Z,3.0nm,0.8s,mb4.5						
LPL	La Plagne	85.33	315	eP	P	01 55 39.7	+0.4
	comp=Z,35nm,1.1s,mb5.1						
LPL	La Plagne	85.33	315	eP	P	01 55 39.7	+0.4
LPL				pmax	pmax		
	comp=Z,17nm,1.1s,mb5.1						
VNDA	Vanda	89.32	168	eP	P	01 55 58.4	+0.5
VNDA				pmax	pmax		
	comp=Z,14nm,1.6s						
VNDA	Vanda	89.32	168	P	P	01 55 59.1	+1.2
	comp=Z,1.1nm,0.6s,mb4.3,baz=297,slow=3.6,SNR=8.9						
VNDA	Vanda	89.32	168	eP	P	01 55 58.4	+0.4
	comp=Z,14nm,1.6s,mb5.0						
EKA	Eskdalemuir Ar	90.83	325	P	P	01 56 05.8	+0.5
	comp=Z,4.7nm,0.9s,mb4.8,baz=112,slow=4.5,SNR=5.8						
EKA				pP	pP	01 56 16.3	+0.5
	comp=Z,7.1nm,1.0s,baz=82,slow=5.9,SNR=5.4						
ESDC	Sonseca Array	93.70	310	P	P	01 56 19.2	+0.2
	comp=Z,1.3nm,0.7s,mb4.5,baz=49,slow=4.3,SNR=7.9						
ESDC				pP	pP	01 56 29.5	+0.2
	comp=Z,0.9nm,0.7s,baz=72,slow=4.7,SNR=3.2						
ILAR	Eielson Array	98.07	22	PP	PP	02 00 31.3	-9.0
	comp=Z,0.3nm,0.7s,baz=299,slow=6.6,SNR=4.4						
YKA	Yellowknife Ar	109.94	14	PP	PP	02 01 59.4	-10
	comp=Z,0.6nm,0.7s,baz=334,slow=7.8,SNR=8.1						
MSO	Missoula	123.40	23	ePKPdf	PKPdf	02 01 59.3	-4.2
MSO				e		02 02 08.3	
ULM	Lac du Bonnet	125.06	8	PKP	PKPdf	02 02 04.3	-2.3
	comp=Z,3.3nm,0.6s,baz=0.8,slow=4.1,SNR=10						
ULM				pPKP		02 02 14.4	
	comp=Z,1.8nm,0.7s,baz=245,slow=2.6,SNR=2.8						
ULM				PP	PP	02 03 48.8	-5.9
	comp=Z,0.7nm,0.4s,baz=121,slow=4.0,SNR=2.9						
REDW	Red Top Meadow	127.50	23	ePKPdf	PKPdf	02 02 08.8	-2.7
REDW				e		02 02 17.5	
NVAR	Mina Array Bea	127.94	32	PKP	PKPdf	02 02 10.9	-1.7
	comp=Z,2.9nm,0.6s,baz=293,slow=2.9,SNR=22						
NVAR				pPKP		02 02 21.4	
	comp=Z,2.2nm,0.7s,baz=25,slow=2.2,SNR=8.0						
PDAR	Pinedale Array	128.50	22	PKP	PKPdf	02 02 10.6	-2.9
	comp=Z,4.0nm,1.0s,baz=71,slow=1.9,SNR=20						
PDAR				pPKP		02 02 19.7	
	comp=Z,2.6nm,0.9s,baz=90,slow=1.5,SNR=8.8						
PDAR				PP	PP	02 04 14.5	-3.4
	comp=Z,0.2nm,0.6s,baz=90,slow=1.5,SNR=3.8						
MSU	Marysvale	130.94	28	ePKIKP	PKPdf	02 02 16.9	-1.4
MSU				e		02 02 25.9	
SDCO	Great Sand Dun	134.39	22	eP	Pdif	01 59 15.8	-3.4
ANMO	Albuquerque	136.44	25	PKP	PKPdf	02 02 26.8	-1.7
	comp=Z,4.3nm,0.9s,baz=271,slow=1.5,SNR=11						
MNTX	Cornudas Mount	139.68	26	ePKPdf	PKPdf	02 02 28.0	-6.6
GDL2	Guadalupe Moun	139.69	25	ePKPdf	PKPdf	02 02 29.6	-5.0
GDL2				e		02 02 43.5	
BDFB	Brasilia	141.25	250	PKhKP		02 02 29.7	
	comp=Z,1.0nm,0.6s,baz=103,slow=5.3,SNR=3.4						
BDFB				PKP	PKPdf	02 02 34.7	-3.2
	comp=Z,3.0nm,0.8s,baz=46,slow=0.5,SNR=5.5						
JSC	Jenkinsville	141.50	354	ePKHKP		02 02 23.7	
TXAR	Lajitas Array	142.46	26	PKP	PKPdf	02 02 35.5	-4.2
	comp=Z,1.5nm,0.5s,baz=254,slow=0.9,SNR=11						
TXAR				PP	PP	02 05 42.9	-2.8
	comp=Z,0.9nm,0.8s,baz=7.1,slow=7.3,SNR=5.9						
JCT	Junction City	142.98	20	ePKIKP	PKPdf	02 02 33.4	-7.0
LVC	Limon Verde	155.52	220	PKPab	PKPab	02 03 23.7	+0.6
	comp=Z,4.2nm,0.7s,baz=187,slow=0.7,SNR=7.7						
LPAZ	La Paz	158.97	234	PKP	PKPdf	02 03 02.1	-2.7
	comp=Z,1.6nm,0.8s,baz=143,slow=1.7,SNR=4.7						
LPAZ				PKPab	PKPab	02 03 38.1	-0.1
	comp=Z,3.1nm,0.6s,baz=90,slow=4.4,SNR=11						
SDV	Santo Domingo	160.14	311	PKPab	PKPab	02 03 42.8	-0.5
	comp=Z,2.6nm,0.5s,baz=9.1,slow=6.2,SNR=4.0						

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*ISK **30** 01:43:11.5, 37.06N×28.26E, h5^{km}, MD3.6*
*CSEM **30** 01:43:11.9±0.1, 37.07N×28.27E, h2^{km}, mb4.1/4, Error*
ellipse: s-maj=1.6km s-min=1.5km az=52.0
*NEIC **30** 01:43:12.5, 37.07N×28.26E, h5^{km}, mb4.1/4, MD3.7(ATH),*
ML3.7(NIC), ML3.6(ISK), After ISK.
*ATH **30** 01:43:12.7, 37.02N×28.25E, h20^{km}±3^{km}, MD3.7/8*
*NIC **30** 01:43:18.3±0.3, 36.80N×28.34E, h25^{km}, mb4.3, ML3.7,*
MW3.8
*IDC **30** 01:43:18.3±1.2, 36.86N×28.37E, h60^{km}±30^{km}, mb3.2/1,*
mb1 3.9/7, mb1mx3.6/23, mbtmp3.7/7, ML3.7/6, Error
ellipse: s-maj=16.9km s-min=9.4km az=160.0
ISC 30 01:43:13.6±0.5**, 36.98N**±0.02×**28.32E**±0.03**, h21**^{km}±5^{km}**,**
n82, $\sigma 1^{s}25$/96**, mb3.3**/1**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.33	129	PG	Pb	01 43 20.7	-0.2
DALT				SG	Sb	01 43 27.5	+1.7
DALT	Dalyan (Mudla)	0.33	129	Pg	Pb	01 43 21.2	+0.3
DALT				Sg	Sb	01 43 26.2	+0.4
DALT	Dalyan (Mudla)	0.33	129	Pg	Pb	01 43 21.2	+0.3
DALT				eSg	Sb	01 43 27.5	+1.7
FETY	Fethiye	0.71	119	PG	Pb	01 43 26.9	-0.2
FETY				SG	Sb	01 43 39.1	+2.8
AYDN	Tasoluk	0.76	333	i P	Pb	01 43 27.3	-0.7
AYDN				i S	Sb	01 43 37.2	-0.8
ARG	Arkhangelos	0.78	191	ePn	Pn	01 43 27.6	-1.7
ARG				Sn	Sn	01 43 41.2	+0.9
DNZL	Cakiroluk	0.92	39	i P	Pb	01 43 29.5	-1.2
DENT	Denizli	0.96	36	PG	Pb	01 43 30.5	-0.9
DENT	Denizli	0.96	36	Pg	Pb	01 43 30.5	-0.9
NISR	Nisiros	1.02	249	ePN	Pn	01 43 32.0	-0.8
ELL	Elmali	1.30	100	PN	Pn	01 43 39.0	+2.3
KSL	Kastellorizon	1.32	129	ePN	Pn	01 43 39.0	+2.0
SMG	Samos	1.38	302	ePN	Pn	01 43 38.2	+0.3
IZM	Izmir	1.64	330	PN	Pn	01 43 41.7	+0.1
KHL	Karahalli	1.65	35	PN	Pn	01 43 41.6	-0.1
KHL	Karahalli	1.65	35	Pn	Pn	01 43 41.6	-0.1
KARP	Karpathos	1.71	213	ePN	Pn	01 43 43.9	+1.3
BLCB	Balcova	1.73	325	PN	Pn	01 43 42.1	-0.8
BLCB	Balcova	1.73	325	Pn	Pn	01 43 42.2	-0.7
BLCB	Balcova	1.73	325	Pn	Pn	01 43 42.2	-0.7
BCK	Bucak	1.88	75	ePN	Pn	01 43 46.2	+1.2
BCK	Bucak	1.88	75	Pn	Pn	01 43 46.3	+1.3
AKS	Akhisar	1.94	348	ePN	Pn	01 43 45.4	-0.4
AKS	Akhisar	1.94	348	Pn	Pn	01 43 45.5	-0.4
AKS	Akhisar	1.94	348	Pn	Pn	01 43 45.5	-0.3
ISP	Isparta	1.95	63	ePN	Pn	01 43 47.4	+1.4
ISP	Isparta	1.95	63	Pn	Pn	01 43 47.4	+1.4
ISP				ePn	Pn	01 43 47.7	+1.7
APE	Apeiranthos	2.23	273	ePN	Pn	01 43 50.5	+0.4
APE	Apeiranthos	2.23	273	ePb	Pb	01 43 50.2	-2.8
APE	Apeiranthos	2.23	273	ePn	Pn	01 43 50.5	+0.4
SANT	Santorini	2.38	256	ePn	Pn	01 43 56.0	+3.9
ALT	Altintas	2.51	34	ePN	Pn	01 43 54.0	0.0
DST	Dursunbey	2.63	5	ePN	Pn	01 43 55.3	-0.5
DST	Dursunbey	2.63	5	Pn	Pn	01 43 55.3	-0.5
BALB	Balikesir	2.68	353	ePN	Pn	01 43 55.8	-0.6
BALB	Balikesir	2.68	353	Pn	Pn	01 43 55.9	-0.6
PRK	Paraskevi	2.78	325	ePN	Pn	01 43 57.5	-0.4
NPS	Neapolis	2.78	233	ePN	Pn	01 43 58.5	+0.6
ORLT	Orhaneli	3.09	8	ePN	Pn	01 44 02.6	+0.2
ORLT	Orhaneli	3.09	8	Pn	Pn	01 44 02.7	+0.3
ESKT	Eskisehir	3.23	37	ePN	Pn	01 44 05.3	+1.1
ESKT	Eskisehir	3.23	37	Pn	Pn	01 44 05.3	+1.1
IDI	Anoyia	3.25	240	P	Pn	01 44 05.3	+0.8
	5.9nm,0.3s,baz=60,slow=16,SNR=50						
IDI				S	Sn	01 44 44.7	+1.7
	14nm,0.3s,baz=103,slow=23,SNR=12						
BNT	Bandirma	3.38	355	ePN	Pn	01 44 05.3	-1.2
BNT	Bandirma	3.38	355	Pn	Pn	01 44 05.3	-1.1
KIZT	Kizilcal	3.40	55	ePN	Pn	01 44 07.9	+1.2
KIZT	Kizilcal	3.40	55	Pn	Pn	01 44 08.0	+1.3
YLV	Yalova	3.67	13	ePN	Pn	01 44 10.0	-0.6
AKMC	Akamas	3.79	120	P	Pn	01 44 13.1	+0.8
	3.1nm,0.3s						
AKMC				S	Sn	01 44 54.9	-1.9
PPCY	Paphos	3.88	121	P	Pn	01 44 13.5	0.0
ALFC	Alevga	3.92	116	P	Pn	01 44 14.2	+0.1
	3.7nm,0.3s						
ALFC				S	Sn	01 44 58.6	-1.4
GVD	Gavdhos	4.04	239	ePn	Pn	01 44 18.7	+2.9
MDU	Mudurnu	4.15	32	ePN	Pn	01 44 17.9	+0.5
MDU	Mudurnu	4.15	32	Pn	Pn	01 44 18.0	+0.6
SZAC	Souni-Zanaja	4.32	120	P	Pn	01 44 20.1	+0.3
SZAC				S	Sn	01 45 09.0	-1.2
SZAC	Souni-Zanaja	4.32	120	S	Sn	01 45 09.0	-1.2
MAMC	Mammari	4.36	113	P	Pn	01 44 22.6	+2.2
CSS	Prodhromos	4.54	115	P	Pn	01 44 23.5	+0.6
BRTR	Keskin Array B	5.00	55	P	Pn	01 44 30.3	+0.9
	1.6nm,0.3s,baz=236,slow=16,SNR=42						
BRTR				S	Sn	01 45 29.4	+2.0
	0.3nm,0.3s,baz=234,slow=26,SNR=5.4						
KDZ	Kurdzhali	5.18	335	eP	Pn	01 44 31.0	-0.9
RZN	Rozhen	5.46	330	eP	Pn	01 44 36.0	0.0
MMB	Musomiste	5.82	324	eP	Pn	01 44 40.0	-0.9
KKB	Krupnik	6.34	322	eP	Pn	01 44 41.0	-7.3
ASF	Jabal al Asfar	8.55	122	P	P	01 45 19.1	-0.1
	0.7nm,0.3s,baz=225,slow=3.1,SNR=6.9						
ASF				S	Sn	01 46 54.4	-1.6
	0.5nm,0.3s,baz=75,slow=23,SNR=3.4						
MLR	Muntele Rosu	8.69	349	P	P	01 45 22.1	+1.0
	0.2nm,0.3s,baz=184,slow=8.9,SNR=4.6						
EIL	Elat	9.16	141	P	P	01 45 25.7	-2.0
	3.1nm,0.3s,baz=336,slow=14,SNR=31						
EIL				S	Sn	01 47 05.2	-6.0
	1.2nm,0.3s,baz=49,slow=27,SNR=4.4						
EIL	Elat	9.16	141	ePn	P	01 45 24.4	-3.3
	7.4nm,0.5s						
EIL	Elat	9.16	141	ePn	P	01 45 24.4	-3.3
	7.4nm,0.5s						
ALWS	Ilw as Safayha	9.51	142	P	P	01 45 30.7	-1.8
JMOS	Jabal al Moall	9.65	142	P	P	01 45 33.7	-0.7
HAQS	Haql	9.66	143	P	P	01 45 31.8	-2.7
TAYS	Tayyib Ism	10.05	145	P	P	01 45 37.3	-2.7
BDAS	Al Bad'	10.26	144	P	P	01 45 39.1	-3.7
JMQS	Jabal Moqyreh	10.27	140	P	P	01 45 40.2	-2.7
AYUS	'Aynunah	10.54	144	P	P	01 45 43.1	-3.6
GERES	GERESS Array B	15.94	323	P	P	01 47 02.2	+4.0
	0.0nm,0.3s,baz=131,slow=12,SNR=7.1						
MBDF	Montbardon	18.01	302	eP	P	01 47 24.7	+0.5
	70nm,1.6s						
LPG	La Plagne	18.27	304	eP	P	01 47 30.4	+2.9
CABF	La Chapelle	19.11	307	eP	P	01 47 38.6	+1.0
	25nm,1.2s						
SMF	Signal de Mont	20.57	306	eP	P	01 47 52.5	-1.0
	27nm,1.1s						
AVF	Avril sur Loir	20.93	306	eP	P	01 47 57.0	-0.2
	19nm,1.2s						
ESDC	Sonseca Array	25.39	286	P	P	01 48 40.6	-0.4

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
	0.8nm,0.8s,mb3.3,baz=84,slow=9.7,SNR=4.1						

IDC 30 01:46:57.4±1.1, 7.90N×94.23E, mb4.0/8, mb1 4.2/8, mb1mx3.9/18, mbtmp4.0/8, MS4.1/2, Ms1 4.2/2, ms1mx3.2/28, Error ellipse: s-maj=38.1km s-min=27.6km az=50.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.45	23	Pn	P	01 49 48.4	+3.0
	0.2nm,0.3s,baz=211,slow=14,SNR=9.3						
SONM	Songino Array	41.12	12	P	P	01 54 44.4	-0.3
	0.6nm,0.8s,baz=195,slow=9.5,SNR=3.1						
ZAL	Zalesovo	46.53	352	P	P	01 55 27.0	-1.4
	2.7nm,0.7s,baz=201,slow=9.3,SNR=6.8						
WRA	Warramunga Arr	48.21	126	P	P	01 55 39.9	-2.1
	0.4nm,0.6s,baz=306,slow=8.4,SNR=4.0						
ASAR	Alice Springs	49.87	130	LR	LR	02 19 07.1	
	comp=Z,132nm,18.3s,baz=298,slow=39						
KMBO	Kilima Mbogo	57.51	264	P	P	01 56 50.5	-0.9
	1.3nm,0.6s,baz=57,slow=9.0,SNR=4.6						
FINES	FINESS Array B	72.73	332	P	P	01 58 27.3	-1.7
	2.1nm,0.7s,baz=88,slow=3.8,SNR=5.5						
ARCES	ARCESS Array B	75.27	340	LR	LR	02 39 15.7	
	comp=Z,183nm,20.2s,baz=204,slow=42						
GERES	GERESS Array B	77.86	318	P	P	01 58 56.9	-1.7
	0.9nm,0.8s,baz=72,slow=4.2,SNR=5.1						
HFS	Hagfors	78.48	330	P	P	01 58 59.3	-2.4
	2.6nm,0.6s,baz=124,slow=5.3,SNR=5.5						
NOA	NORSAR Array B	79.75	331	P	P	01 59 06.0	-2.6
	1.5nm,0.7s,baz=95,slow=5.6,SNR=3.3						

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*IDC **30** 01:48:49.1±0.6, 8.13N×93.79E, mb4.3/16, mb1 4.4/16, mb1mx4.4/20, mbtmp4.3/16, Error ellipse: s-maj=31.9km s-min=13.7km az=53.0*

*BJI **30** 01:48:51.3, 8.46N×93.64E, h6^{km}, mB5.4, mb4.7*

*NEIC **30** 01:48:53.7±0.3, 8.15N×93.86E, h30^{km}, mb4.7/21, Error ellipse: s-maj=10.0km s-min=7.4km az=64.0*

ISC 30 01:48:51.7±0.3, 8.12N±0.06×93.86E±0.07, h30^{km}, n57, σ0.^{s}83/54, mb4.6/41, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.40	25	*e*P	P	01 51 40.6	+4.7
	20nm,1.0s						
CMAR	Chiang Mai Arr	11.40	25	Pn	P	01 51 40.0	+4.2
	0.4nm,0.3s,baz=215,slow=14,SNR=10						
PALK	Pallekele	13.07	267	*e*P	P	01 51 58.0	-0.1
	17nm,1.0s						
HYB	Hyderabad	17.55	303	*e*P	P	01 53 00.0	+4.0
HYB	Hyderabad	17.55	303	*i* P	P	01 53 00.0	+4.0
COCO	West Island	20.39	172	P	P	01 53 29.3	+0.3
	80nm,1.0s						
PKI	Pulchoki	20.94	339	*e*P	P	01 53 34.4	-0.2
	32nm,0.6s						
DMN	Daman	21.09	338	*e*P	P	01 53 35.9	-0.2
	73nm,0.9s,mb5.0						
GUN	Gumba	21.09	340	*e*P	P	01 53 35.8	-0.3
	64nm,0.6s,mb5.1						
KKN	Kakani	21.19	339	*e*P	P	01 53 36.8	-0.3
	43nm,0.7s,mb4.9						
GKN	Gorkha	21.62	337	*e*P	P	01 53 41.3	-0.2
	87nm,0.8s,mb5.2						
LSA	Lhasa	21.62	354	*e*P	P	01 53 41.7	+0.1
	29nm,0.7s,mb4.8						
KOLN	Koldanda	21.83	335	*e*P	P	01 53 44.4	+0.8
	55nm,0.6s,mb5.1						
DGAR	Diego Garcia	26.34	235	P	P	01 54 27.1	0.0
	82nm,0.8s,mb5.3						
GTA	Gaotai	31.61	9	P	P	01 55 15.0	+0.7
GTA				AP	pP	01 55 17.5	-5.6
GTA				XP	sP	01 55 21.0	-6.0
GTA				AMB	AMB		
	comp=Z,5.0nm,0.6s,mb4.5						
MBWA	Marble Bar	38.62	139	*e*P	P	01 56 14.7	+0.4
	comp=Z,4.2nm,0.7s,mb4.3						
SONM	Songino Array	40.99	13	P	P	01 56 34.3	+0.7
	comp=Z,2.5nm,0.8s,mb3.9,baz=198,slow=7.8,SNR=10.0						
SONM				PcP	PcP	01 58 34.6	+0.6
	comp=Z,1.0nm,0.7s,baz=200,slow=3.4,SNR=5.7						
ULN	Ulaanbaatar	41.17	13	*e*P	P	01 56 35.0	0.0
	comp=Z,2.3nm,0.7s,mb3.9						
ZAL	Zalesovo	46.27	353	P	P	01 57 16.4	+0.1
	comp=Z,3.7nm,0.4s,mb4.7,baz=189,slow=5.5,SNR=9.2						
HIA	Hailar	46.41	23	P	P	01 57 18.7	+1.3
	comp=Z,9.8nm,0.9s,mb4.7						
NWAO	Narrogin (SRO)	46.49	153	P	P	01 57 19.4	+1.2
	comp=Z,12nm,0.7s,mb5.0,baz=344,slow=8.5,SNR=9.6						
NWAO	Narrogin (SRO)	46.49	153	*e*P	P	01 57 17.8	-0.5
	comp=Z,12nm,0.8s,mb4.9						
RDF	Al-Radifah	48.16	302	*e*P	P	01 57 32.3	+0.8
MIB	Mutribah	48.59	303	*e*P	P	01 57 36.0	+1.2
MIB				AMb	AMB	01 57 41.7	
	comp=Z,24nm,0.7s,mb5.3						
WRA	Warramunga Arr	48.62	126	P	P	01 57 34.9	-0.3
	comp=Z,3.2nm,0.5s,mb4.6,baz=304,slow=8.6,SNR=20						
WRAB	Tennant Creek	48.63	126	*e*P	P	01 57 34.6	-0.5
	comp=Z,18nm,1.0s,mb5.1						
BVAR	Borovoye Array	48.67	341	P	P	01 57 34.4	-0.7
	comp=Z,1.2nm,0.6s,mb4.1,baz=143,slow=7.4,SNR=4.8						
BRVK	Borovoye	48.73	341	*e*P	P	01 57 34.8	-0.7
	comp=Z,2.1nm,0.6s,mb4.3						
RST	Umm Al-Ruwaisa	48.79	302	*e*P	P	01 57 36.7	+0.4
RST				AMb	AMB	01 57 40.8	
	comp=Z,24nm,1.0s,mb5.2						
CHKZ	Chkalovo	49.16	342	*e*P	P	01 57 38.2	-0.6
	comp=Z,4.7nm,0.7s,mb4.6						
ASAR	Alice Springs	50.28	130	P	P	01 57 47.0	-0.8
	comp=Z,3.1nm,0.8s,mb4.4,baz=303,slow=7.2,SNR=16						
ASAR				PcP	PcP	01 59 07.1	+0.5
	comp=Z,1.2nm,0.7s,baz=304,slow=3.3,SNR=5.6						
GNI	Garni	54.07	314	P	P	01 58 15.0	-0.9
	comp=Z,6.9nm,1.1s,mb4.5						
ARU	Arti	55.56	337	*e*P	P	01 58 26.7	+0.1
	comp=Z,5.0nm,1.1s,mb4.5						
PMG	Port Moresby	55.86	107	*e*P	P	01 58 29.6	+0.3
	comp=Z,15nm,0.8s,mb5.1						
PMG				*e*	pP	01 58 37.3	-1.3
KIV	Kislovodsk	56.95	318	*e*P	P	01 58 36.8	-0.1
	comp=Z,6.8nm,0.8s,mb4.7						
KMBO	Kilima Mbogo	57.18	263	P	P	01 58 39.0	+0.1
	comp=Z,2.9nm,1.0s,mb4.3,baz=41,slow=12,SNR=3.7						
KMBO	Kilima Mbogo	57.18	263	*e*P	P	01 58 40.7	+1.9
	comp=Z,4.1nm,1.1s,mb4.4						
MALT	Malatya	58.10	310	*e*P	P	01 58 47.9	+3.0
	comp=Z,3.0nm,1.0s,mb4.3						
EIL	Elat	59.07	300	*e*P	P	01 58 49.4	-2.4
	comp=Z,6.8nm,1.1s,mb4.6						
YAK	Yakutsk	59.85	19	P	P	01 58 56.4	-0.4
STKA	Stephens Creek	60.47	134	P	P	01 59 00.9	-0.5
	comp=Z,4.7nm,1.1s,mb4.5,baz=297,slow=6.8,SNR=4.3						
STKA	Stephens Creek	60.47	134	*e*P	P	01 59 00.8	-0.6
BRTR	Keskin Array B	62.06	311	P	P	01 59 10.4	-1.7
	comp=Z,1.9nm,0.8s,mb4.3,baz=114,slow=6.2,SNR=8.6						
MA2	Magadan	66.68	28	*e*P	P	01 59 41.6	-0.1
	comp=Z,14nm,0.8s,mb5.0						
AKASG	Malin Array Be	67.80	322	P	P	01 59 47.1	-1.9
	comp=Z,1.2nm,0.7s,mb4.1,baz=90,slow=5.5,SNR=5.3						
FINES	FINESS Array B	72.37	332	P	P	02 00 16.2	-0.5
	comp=Z,3.6nm,0.8s,mb4.4,baz=106,slow=4.6,SNR=11						
KAF	Kangasniemi	72.45	333	*e*p	P	02 00 16.5	-0.6
	comp=Z,0.8nm,0.3s,mb4.1						
ARCES	ARCESS Array B	74.95	340	P	P	02 00 32.0	+0.5
	comp=Z,3.3nm,0.9s,mb4.2,baz=100,slow=6.1,SNR=5.5						
CASY	Casey	75.20	173	P	P	02 00 33.1	+0.1
	comp=Z,14nm,0.7s,mb5.0						
CASY				*e*		02 00 40.0	
GERES	GERESS Array B	77.47	318	P	P	02 00 47.0	+1.0
	comp=Z,0.8nm,0.6s,mb3.8,baz=104,slow=5.5,SNR=7.1						
HFS	Hagfors	78.11	330	P	P	02 00 49.6	+0.3
	comp=Z,3.0nm,0.5s,mb4.5,baz=104,slow=6.1,SNR=8.2						
NB2	NORSAR Subarra	79.39	331	P	P	02 00 55.8	-0.5
	comp=Z,2.2nm,0.7s,mb4.2,baz=94,slow=5.3						
NOA	NORSAR Array B	79.39	331	P	P	02 00 56.4	+0.2
	comp=Z,2.1nm,0.6s,mb4.2,baz=94,slow=5.5,SNR=6.6						
ESDC	Sonseca Array	90.85	310	P	P	02 01 55.1	+1.2
	comp=Z,1.5nm,0.6s,mb4.5,baz=66,slow=4.0,SNR=12						
NVAR	Mina Array Bea	124.85	31	PKP	PKPdf	02 07 52.8	-1.7
	comp=Z,1.1nm,0.8s,baz=294,slow=0.6,SNR=5.7						
PDAR	Pinedale Array	125.04	21	PKP	PKPdf	02 07 52.0	-2.7
	comp=Z,1.6nm,1.0s,baz=95,slow=0.7,SNR=7.1						
TXAR	Lajitas Array	139.12	24	PKP	PKPdf	02 08 17.8	-3.7
	comp=Z,0.2nm,0.5s,baz=35,slow=0.5,SNR=3.8						

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*NIED **30** 01:53:00, 37.80N×140.90E, h110^{km}, Mw4.2 Best double couple: $M_0$2.17×10^{15} NP1:ϕ_s165°, δ68°, λ-81°. NP2: ϕ_s322°, δ24°, λ-111°.*

*MOS **30** 01:53:33.1±0.7, 38.03N×140.81E, h102^{km}, mb4.4/16, Error ellipse: s-maj=16.2km s-min=10.5km az=69.0*

*IDC **30** 01:53:33.7±0.7, 37.72N×140.78E, h108^{km}±6^{km}, mb3.9/19, mb1 4.1/21, mb1mx4.0/28, mbtmp4.3/21, MS3.5/2, Ms1 3.5/2, ms1mx3.0/25, Error ellipse: s-maj=15.2km s-min=9.2km az=96.0*

*NEIC **30** 01:53:34.9±0.8, 37.90N×140.80E, h111^{km}±8^{km}, mb4.3/23, Error ellipse: s-maj=13.1km s-min=7.7km az=152.0*

NEIC Recorded [2 JMA] in Fukushima and Miyagi; [1 JMA] in Ibaraki, Iwate and Tochigi Prefectures.

*JMA **30** 01:53:34.4±0.1, 37.76N×140.91E, h109^{km}±1^{km}, M4.1 Broadband fault plane solution: P waves. NP1:ϕ_s343°, δ26°, λ-77°. NP2:ϕ_s148°, δ64°, λ-96°. Principal axes: T Plg19°, Azm243°; N Plg6°, Azm151°; P Plg70°, Azm45°;*

JMA Felt II J1.

ISC 30 01:53:33.3±0.3, 37.77N±0.04×140.88E±0.05, h116^{km}±2^{km}, h111^{km}±1.9^{km}:pP-P, n94, σ0.^{s}98/107, mb4.3/42, 2C-8D, Eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JMM	Marumori	0.12	323	P	P	01 53 49.7	+0.2
JMM				*e*S	S	01 54 00.7	-0.8
JFK	Kawauchi	0.41	181	⇓P	P	01 53 50.7	+0.3
JFK				*e*S	S	01 54 02.9	-0.5
JFT	Otama	0.50	240	⇓P	P	01 53 51.3	+0.3
JFT				*e*S	S	01 54 04.4	0.0
JOU	Okura	0.62	344	⇓P	P	01 53 52.5	+0.7
JOU				S	S	01 54 06.2	+0.4
JIO	Ouri	0.77	28	⇑P	P	01 53 53.4	+0.3
JIO				S	S	01 54 07.1	-0.9
JYS	Shirataka	0.79	305	⇓P	P	01 53 53.9	+0.7
JYS				*e*S	S	01 54 08.8	+0.6
JFY	Yanaizu	1.00	249	⇓P	P	01 53 55.9	+0.5
JFY				*e*S	S	01 54 11.8	-0.1
JMK	Ichinoseki	1.21	13	⇑P	P	01 53 57.9	+0.3
JMK				*e*S	S	01 54 15.6	-0.2
JYK	Kaneyama	1.21	340	⇓P	P	01 53 58.2	+0.5
JYK				*e*S	S	01 54 16.0	+0.1
JYA	Atsumi	1.23	312	⇓P	P	01 53 58.5	+0.6
JYA				*e*S	S	01 54 16.7	+0.4
JNS	Sasagawa	1.24	273	⇓P	P	01 53 58.4	+0.4
JNS				*e*S	S	01 54 16.5	+0.1
JAW	Awa shima	1.46	298	P	P	01 54 01.1	+0.6
MAJO	Matsushiro	2.46	241	*e*P	P	01 54 13.5	+0.3
MAT	Matsushiro	2.46	241	P	P	01 54 13.7	+0.5
MAT				S	S	01 54 41.5	-1.9
MAT	Matsushiro	2.46	241	*e*P	P	01 54 14.0	+0.8
MAT				*e*S	S	01 54 42.0	-1.4
JHJ	Hachijo jima 2	4.73	191	P	P	01 54 41.7	-2.1
	78nm,0.3s,baz=70,slow=22,SNR=8.0						
JHJ				S	S	01 55 33.5	-4.5
	219nm,0.3s,baz=233,slow=23,SNR=17						
ASAJ	Asahikawa	6.47	11	P	P	01 55 05.6	-1.8
	6.8nm,0.3s,baz=224,slow=9.1,SNR=21						
ASAJ				S	S	01 56 17.3	-3.0
	4.9nm,0.3s,baz=311,slow=29,SNR=6.9						
ASAJ				LR	LR	01 58 18.4	
	comp=Z,100nm,18.5s,baz=215,slow=44						
YUK	Yuzh-Kuril'sk	7.30	30	*e*P	P	01 55 15.1	-3.7
YUK				*i* S	S	01 56 31.2	-9.4
YUK				pmax	pmax		
	comp=Z,240nm,0.5s						
YUK				smax			
	comp=N,2μm,0.5s						
YUK				smax			
	comp=E,280nm,0.4s						
YUK				smax			
	comp=N,2μm,1.0s						
YUK				smax			
	comp=E,3μm,1.0s						
YSS	Yuzh-Sakhalins	9.28	8	*e*P	P	01 55 43.4	-1.9
KS15	Wonju Array Si	10.32	272	*e*P	P	01 56 00.8	+1.6
HIA	Hailar	19.09	314	P	P	01 57 47.3	-1.8
HIA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
HIA	Hailar	19.09	314	P	P	01 57 47.3	-1.8
	comp=Z,9.3nm,1.1s						
BJT	Baijiatuau	19.35	284	*e*P	P	01 57 48.3	-3.7
BJT				pmax	pmax		
	comp=Z,9.0nm,0.6s						
BJT	Baijiatuau	19.35	284	*e*P	P	01 57 48.2	-3.7
	comp=Z,9.1nm,0.6s						
ULN	Ulaanbaatar	26.59	303	*e*P	P	01 59 01.1	-1.1
ULN				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.8						
ULN	Ulaanbaatar	26.59	303	*e*P	P	01 59 01.1	-1.1
	comp=Z,1.9nm,0.6s,mb3.8						
ENH	Enshi	26.99	263	*e*P	P	01 59 04.3	-1.8
	comp=Z,43nm,1.0s,mb4.9						
SONM	Songino Array	27.02	303	P	P	01 59 05.5	-0.7
	comp=Z,1.9nm,0.5s,mb3.9,baz=102,slow=8.8,SNR=15						
SONM				PcP	PcP	02 02 24.4	-0.6
	comp=Z,0.6nm,0.5s,baz=132,slow=3.0,SNR=6.2						
QIZ	Qiongzhong	32.86	244	P	P	01 59 59.0	+0.9
	comp=Z,18nm,1.0s,mb4.8						
ZAL	Zalesovo	41.12	312	P	P	02 01 08.2	+1.2
	comp=Z,0.9nm,0.3s,mb4.0,baz=266,slow=9.4,SNR=3.9						
ZAL				PcP	PcP	02 03 03.6	-1.3
	comp=Z,0.8nm,0.5s,baz=280,slow=4.8,SNR=3.2						
ZAL				LR	LR	02 18 52.9	
	comp=Z,206nm,18.6s,baz=198,slow=37						
LSA	Lhasa	41.73	274	*e*P	P	02 01 13.4	+1.1
LSA				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.4						
LSA	Lhasa	41.73	274	*e*P	P	02 01 13.4	+1.2
	comp=Z,3.7nm,0.5s,mb4.4						
GUN	Gumba	46.67	275	*e*P	P	02 01 52.2	+0.3
	comp=Z,14nm,0.3s,mb5.2						
KKN	Kakani	47.20	275	*e*P	P	02 01 56.6	+0.5
DMN	Daman	47.41	275	*e*P	P	02 01 58.5	+0.7
	comp=Z,7.7nm,0.5s,mb4.7						
GKN	Gorkha	47.61	275	*e*P	P	02 01 58.0	-1.3
	comp=Z,5.2nm,0.3s,mb4.9						
KOLN	Koldanda	48.53	276	*e*P	P	02 02 06.9	+0.5
	comp=Z,3.5nm,0.3s,mb4.8						
COLA	College	48.68	33	*e*P	P	02 02 07.6	+0.5
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
COLA	College	48.68	33	*e*P	P	02 02 07.6	+0.5
	comp=Z,3.0nm,0.6s,mb4.4						
ILAR	Eielson Array	49.10	33	P	P	02 02 10.4	+0.2
	comp=Z,3.2nm,0.7s,mb4.4,baz=268,slow=6.2,SNR=43						
CHKZ	Chkalovo	49.50	313	*e*P	P	02 02 14.0	+0.5
CHKZ				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.0						
CHKZ	Chkalovo	49.50	313	*e*P	P	02 02 14.0	+0.5
	comp=Z,1.1nm,0.5s,mb4.0						
BVAR	Borovoye Array	49.76	312	P	P	02 02 14.9	-0.6
	comp=Z,0.8nm,0.5s,mb3.9,baz=78,slow=8.0,SNR=8.2						
BVAR				pP	pP	02 02 42.1	-0.8
	comp=Z,2.4nm,1.0s,baz=68,slow=8.0,SNR=3.7						
BVAR				PcP	PcP	02 03 34.3	-0.6
	comp=Z,1.7nm,0.6s,baz=67,slow=3.1,SNR=7.7						
AAK	Ala-Archa	49.77	298	*e*P	P	02 02 16.2	+0.5
AAK				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
AAK	Ala-Archa	49.77	298	*e*P	P	02 02 16.2	+0.5
	comp=Z,1.9nm,0.7s,mb4.1						
BRVK	Borovoye	49.82	312	P	P	02 02 19.5	+3.5
DAWY	Dawson	52.41	33	*e*P	P	02 02 35.5	+0.1
INK	Inuvik	53.92	27	*e*P	P	02 02 46.1	-0.4
INK				pmax	pmax		
	comp=Z,3.0nm,0.6s						
INK	Inuvik	53.92	27	P	P	02 02 46.9	+0.5
	comp=Z,2.0nm,0.5s,mb4.4,baz=256,slow=4.2,SNR=16						
INK	Inuvik	53.92	27	*e*P	P	02 02 46.1	-0.4
	comp=Z,2.8nm,0.6s,mb4.5						
WRA	Warramunga Arr	57.73	187	P	P	02 03 12.8	-1.6
	comp=Z,1.9nm,0.6s,mb4.3,baz=6.3,slow=7.3,SNR=8.7						
WRA				pP	pP	02 03 39.1	-3.4
	comp=Z,2.2nm,0.6s,baz=5.4,slow=7.4,SNR=4.9						
ASAR	Alice Springs	61.46	187	P	P	02 03 38.6	-1.3
	comp=Z,0.6nm,0.4s,mb4.0,baz=4.1,slow=4.4,SNR=7.4						
RES	Resolute Bay	61.99	14	*e*P	P	02 03 41.8	-1.0
RES				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
RES	Resolute Bay	61.99	14	*e*P	P	02 03 41.8	-1.0
	comp=Z,5.5nm,0.9s,mb4.6						
KEV	Kevo	62.60	339	*e*p	P	02 03 44.8	-2.1
	comp=Z,0.3nm,0.3s,mb3.7						
ARCES	ARCESS Array B	63.16	339	P	P	02 03 48.3	-2.3
	comp=Z,6.3nm,1.1s,mb4.5,baz=45,slow=6.9,SNR=6.8						
YKW3	Yellowknife Ar	63.34	30	*e*P	P	02 03 51.0	-0.9
YKA	Yellowknife Ar	63.38	30	P	P	02 03 51.5	-0.6
	comp=Z,1.3nm,0.7s,mb4.0,baz=303,slow=6.7,SNR=18						
KAF	Kangasniemi	67.46	332	*e*p	P	02 04 07.1	-11
	comp=Z,2.2nm,0.4s,mb4.3						
FINES	FINESS Array B	67.97	332	P	P	02 04 20.4	-0.8
	comp=Z,1.7nm,0.4s,mb4.2,baz=44,slow=7.8,SNR=15						
STKA	Stephens Creek	69.29	179	P	P	02 04 25.8	-4.1
NEW	Newport	69.90	44	P	P	02 04 33.6	+0.3
NEW				pmax	pmax		
	comp=Z,5.0nm,0.9s						
NEW	Newport	69.90	44	P	P	02 04 33.6	+0.3
	comp=Z,4.6nm,0.9s,mb4.3						
SUMG	Summit	69.95	360	*e*P	P	02 04 33.8	+0.6
	comp=Z,4.0nm,0.6s,mb4.4						
KIV	Kislovodsk	70.11	311	P	P	02 04 34.3	-0.4
KIV				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.7						
KIV	Kislovodsk	70.11	311	P	P	02 04 34.3	-0.4
	comp=Z,18nm,1.3s,mb4.7						
WALA	Waterton Lakes	71.17	42	*e*P	P	02 04 41.5	+0.5
	comp=Z,4.5nm,0.8s,mb4.3						
HFS	Hagfors	73.24	335	P	P	02 04 53.1	+0.3
	comp=Z,2.4nm,0.8s,mb4.1,baz=63,slow=6.6,SNR=9.0						
NB2	NORSAR Subarra	73.34	337	P	P	02 04 53.0	-0.4
	comp=Z,1.8nm,0.7s,mb4.0,baz=41,slow=5.8						
NB2	NORSAR Subarra	73.34	337	P	P	02 04 53.0	-0.4
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
NOA	NORSAR Array B	73.34	337	P	P	02 04 53.4	-0.1
	comp=Z,1.8nm,0.6s,mb4.1,baz=38,slow=5.9,SNR=5.8						
AKASG	Malin Array Be	73.46	322	P	P	02 04 53.8	-0.5
	comp=Z,1.9nm,0.5s,mb4.2,baz=46,slow=6.0,SNR=18						
FCC	Fort Churchill	73.53	26	*e*P	P	02 04 54.6	0.0
FCC				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.4						
FCC	Fort Churchill	73.53	26	*e*P	P	02 04 54.6	0.0
	comp=Z,8.0nm,1.0s,mb4.4						
HRY	Holter Researc	73.71	43	*e*P	P	02 04 56.2	+0.4
CMB	Columbia Colle	73.78	54	*e*P	P	02 04 57.2	+0.7
CMB				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
CMB	Columbia Colle	73.78	54	*e*P	P	02 04 57.2	+0.7
	comp=Z,2.6nm,0.8s,mb4.0						
NVAR	Mina Array Bea	74.88	53	P	P	02 05 04.4	+1.6
	comp=Z,1.6nm,0.6s,mb4.0,baz=293,slow=5.4,SNR=9.3						
TPH	Tonopah	75.78	53	*e*P	P	02 05 09.2	+1.3
TPH				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.5						
TPH	Tonopah	75.78	53	*e*P	P	02 05 09.2	+1.3
	comp=Z,8.8nm,1.0s,mb4.4						
FRB	Frobisher Bay	76.15	13	P	P	02 05 09.6	+0.2
	comp=Z,6.5nm,0.8s,mb4.4,baz=327,slow=5.0,SNR=11						
PDAR	Pinedale Array	77.45	45	P	P	02 05 17.9	+0.8
	comp=Z,1.5nm,0.6s,mb3.9,baz=279,slow=1.8,SNR=13						
PV10	Paradox Valley	80.60	48	*e*P	P	02 05 34.5	+0.2
GERES	GERESS Array B	81.86	328	P	P	02 05 40.9	+0.2
	comp=Z,2.4nm,0.9s,mb4.0,baz=36,slow=5.7,SNR=13						
GERES				pP	pP	02 06 09.2	-1.3
	comp=Z,0.5nm,0.9s,baz=14,slow=5.5,SNR=2.4						
ANMO	Albuquerque	84.43	50	*e*P	P	02 05 55.8	+1.9
ANMO				pmax	pmax		
	comp=Z,5.0nm,1.3s						
ANMO	Albuquerque	84.43	50	P	P	02 05 55.9	+2.0
	comp=Z,1.5nm,0.9s,mb3.8,baz=305,slow=3.8,SNR=3.8						
ANMO	Albuquerque	84.43	50	*e*P	P	02 05 55.8	+1.9
	comp=Z,4.7nm,1.3s,mb4.2						
SCHQ	Schefferville	84.74	16	P	P	02 05 56.0	+1.0
	comp=Z,7.2nm,1.0s,mb4.6						
LTX	Lajitas	90.00	52	*e*P	P	02 06 21.7	+0.8
LTX				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.4						
LTX	Lajitas	90.00	52	*e*P	P	02 06 21.7	+0.8
	comp=Z,2.1nm,0.7s,mb4.4						
TXAR	Lajitas Array	90.00	52	P	P	02 06 22.1	+1.3
	comp=Z,1.2nm,0.6s,mb4.2,baz=300,slow=3.1,SNR=9.1						
LPAZ	La Paz	146.67	58	*e*PKIKP	PKPdf	02 13 01.8	+1.9
LPAZ	La Paz	146.67	58	PKPbc	PKPbc	02 13 03.1	+1.7
	comp=Z,3.4nm,0.8s,baz=6.5,slow=7.4,SNR=10						
LVC	Limon Verde	150.30	68	PKPbc	PKPdf	02 13 13.7	+8.2
	comp=Z,2.5nm,0.9s,baz=287,slow=7.7,SNR=3.6						

IDC 30 02:00:43.2±1.2, 3.42N×97.76E, mb3.8/9, mb1 4.0/9, mb1mx3.8/17, mbtmp3.8/9, Error ellipse: s-maj=60.8km s-min=19.7km az=51.0, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	42.77	124	P	P	02 08 42.6	-2.0
	0.8nm,0.7s,baz=303,slow=9.2,SNR=4.1						
ASAR	Alice Springs	44.32	129	P	P	02 08 55.6	-1.4
	0.2nm,0.5s,baz=301,slow=7.7,SNR=3.9						
SONM	Songino Array	44.87	8	P	P	02 09 00.3	-0.9
	0.3nm,0.4s,baz=185,slow=8.7,SNR=5.8						
SONM				PcP	PcP	02 10 40.2	-3.2
	0.4nm,0.4s,baz=210,slow=4.3,SNR=4.6						
ZAL	Zalesovo	51.47	350	P	P	02 09 50.2	-2.2
	3.0nm,0.4s,baz=218,slow=3.7,SNR=15						
BVAR	Borovoye Array	54.36	340	P	P	02 10 11.4	-2.5
	0.4nm,0.5s,baz=144,slow=12,SNR=3.8						
BRTR	Keskin Array B	68.06	312	P	P	02 11 45.4	-1.6
	0.4nm,0.6s,baz=73,slow=4.8,SNR=2.9						
FINES	FINESS Array B	78.31	332	P	P	02 12 44.5	-2.1
	2.0nm,0.9s,baz=92,slow=5.2,SNR=9.4						
ARCES	ARCESS Array B	80.65	340	P	P	02 12 57.1	-2.0
	3.0nm,0.9s,baz=90,slow=3.6,SNR=4.9						
GERES	GERESS Array B	83.53	319	P	P	02 13 14.7	+0.2
	0.2nm,0.4s,baz=98,slow=6.9,SNR=4.1						

BJI 30 02:11:59.9, 26.11N×99.87E, h9^{km}, ML3.6, Yunnan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMI	Kunming	2.77	110	PG	Pg	02 12 48.8	-6.4
KMI				SG	Sg	02 13 25.0	-7.2
KMI				Smax			
	comp=N,233nm,0.9s						
KMI				Smax			
	comp=E,278nm,0.9s						

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*LDG **30** 02:12:26.9±0.3, 12.48S×167.46E, h10^{km}, Mb4.5/1, Error ellipse: s-maj=69.9km s-min=17.3km az=92.0*

*IDC **30** 02:12:47.1±2.3, 13.57S×167.23E, h187^{km}±18^{km}, mb4.0/13, mb1 4.2/13, mb1mx4.1/16, mbtmp4.5/13, Error ellipse: s-maj=30.1km s-min=13.9km az=134.0*

*NEIC **30** 02:12:53.4±3.1, 13.55S×167.13E, h245^{km}±28^{km}, mb4.6/18, Error ellipse: s-maj=15.1km s-min=13.6km az=60.0*

*BJI **30** 02:12:53.4, 13.60S×167.10E, h244^{km}, mB5.4, mb4.6*

ISC 30 02:12:50.3±2.4, 13.6S±0.1×167.15E±0.09, h229^{km}±23^{km}, n72, σ1.^{s}06/39, mb4.4/29, Vanuatu Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DZM	Mont Dzumac	8.50	184	*e*P	P	02 14 48.9	-1.7
DZM				*e*S	S	02 16 26.8	+1.9
DZM	Mont Dzumac	8.50	184	*e*P	P	02 14 48.9	-1.7
DZM				*e*S	S	02 16 26.8	+1.9
PMG	Port Moresby	20.02	280	*e*P	P	02 17 08.7	+1.5
	45nm,1.1s						
CTA	Charters Tower	21.02	249	P	P	02 17 17.6	+0.6
	14nm,0.7s,mb4.6,baz=72,slow=12,SNR=15						
CTAO	Charters Tower	21.02	249	*e*P	P	02 17 18.2	+1.2
	14nm,0.7s,mb4.6						
STKA	Stephens Creek	29.68	228	P	P	02 18 36.5	-0.6
	19nm,0.3s,mb5.1,baz=49,slow=9.1,SNR=115						
STKA				PcP	PcP	02 21 35.1	-0.2
	1.1nm,0.3s,baz=359,slow=6.0,SNR=4.3						
STKA				ScP		02 24 58.8	
	2.4nm,0.5s,baz=55,slow=3.2,SNR=9.2						
STKA	Stephens Creek	29.68	228	*e*P	P	02 18 36.9	-0.2
WRAB	Tennant Creek	32.00	254	*e*P	P	02 18 56.0	-1.4
	8.0nm,0.7s,mb4.4						
WRA	Warramunga Arr	32.01	254	P	P	02 18 56.2	-1.3
	5.5nm,0.6s,mb4.3,baz=86,slow=9.4,SNR=36						
WRA				PcP	PcP	02 21 41.6	0.0
	1.3nm,0.6s,baz=87,slow=4.9,SNR=5.8						
WRA				ScP		02 25 06.7	
	2.8nm,1.0s,baz=82,slow=3.3,SNR=9.3						

RAR	Rarotonga	32.42	108	P	P	02 19 01.2	+0.2
	49nm,1.2s,mb4.9						
ASAR	Alice Springs	33.00	247	P	P	02 19 04.7	-1.2
	11nm,0.4s,mb4.8,baz=76,slow=9.3,SNR=243						
ASAR				PcP	PcP	02 21 44.1	-0.1
	1.9nm,0.8s,baz=76,slow=2.3,SNR=8.5						
ASAR				ScP		02 25 10.8	
	5.8nm,0.9s,baz=87,slow=3.4,SNR=22						
GUMO	Guam	34.85	320	P	P	02 19 16.8	-5.0
	164nm,1.1s,mb5.5						
MBWA	Marble Bar	45.75	254	*e*P	P	02 20 50.9	0.0
	9.5nm,0.8s,mb4.2						
NWAO	Narrogin (SRO)	49.26	238	P	P	02 21 16.3	-1.4
	4.1nm,0.3s,mb4.2,baz=116,slow=9.2,SNR=9.2						
NWAO	Narrogin (SRO)	49.26	238	*e*P	P	02 21 16.9	-0.8
	19nm,1.2s,mb4.3						
VNDA	Vanda	64.03	181	P	P	02 23 01.5	+0.4
	4.7nm,1.4s,mb3.9						
CASY	Casey	64.56	202	P	P	02 23 04.0	-0.7
	3.6nm,0.8s,mb4.0						
COCO	West Island	68.33	262	*e*P	P	02 23 34.5	+5.3
	98nm,0.9s,mb5.4						
ENH	Enshi	70.53	309	*e*P	P	02 23 41.9	-0.5
	12nm,0.9s,mb4.5						
BJT	Baijiatuau	71.27	321	P	P	02 23 46.4	-0.2
	8.8nm,0.8s,mb4.4						
MA2	Magadan	74.08	351	P	P	02 23 58.5	-4.2
CMAR	Chiang Mai Arr	74.37	294	P	P	02 24 06.4	+1.2
	3.4nm,1.0s,mb3.9,baz=128,slow=4.3,SNR=5.8						
HHC	Hu-ho-hao-te	74.62	320	*e*P	P	02 24 08.3	+2.1
HHC				PCP	PcP	02 24 21.0	+1.4
HHC				AP	pP	02 25 08.3	+7.8
HHC				XP	sP	02 25 34.3	+10
HHC				PP	PP	02 27 01.0	+3.4
HHC				S	S	02 33 24.0	+2.5
HHC				SKS	SKS	02 33 47.5	0.0
HHC				SCS	ScS	02 33 52.5	+0.2
HHC				XS		02 35 07.5	
HHC				SS	SS	02 38 20.0	+3.6
HHC				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.7						
HHC				AMB	AMB		
	comp=Z,168nm,6.1s						
HIA	Hailar	75.22	330	*e*P	P	02 24 08.6	-0.8
	comp=Z,9.1nm,0.9s,mb4.4						
LZH	Lanzhou	77.45	312	*e*P	P	02 24 24.8	+2.7
LZH				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.5						
YAK	Yakutsk	80.88	343	*e*P	P	02 24 39.0	-0.9
	comp=Z,45nm,1.1s,mb5.0						
ULN	Ulaanbaatar	81.12	324	*e*P	P	02 24 42.6	+1.2
	comp=Z,5.9nm,0.8s,mb4.3						
BILL	Bilibino	81.38	360	*e*P	P	02 24 42.6	+0.3
	comp=Z,20nm,1.2s,mb4.6						
SONM	Songino Array	81.49	324	P	P	02 24 44.2	+0.8
	comp=Z,1.2nm,0.4s,mb3.9,baz=141,slow=5.5,SNR=15						
MAW	Mawson	82.92	202	P	P	02 24 50.9	+0.6
	comp=Z,3.0nm,0.7s,mb4.1,baz=108,slow=9.4,SNR=3.5						
MAW	Mawson	82.92	202	*e*P	P	02 24 51.4	+1.1
	comp=Z,15nm,1.1s,mb4.6						
CMB	Columbia Colle	84.92	49	P	P	02 25 00.1	-1.0
	comp=Z,3.9nm,1.0s,mb4.1						
ILAR	Eielson Array	85.45	18	P	P	02 25 02.8	-0.2
	comp=Z,1.6nm,0.5s,mb4.0,baz=241,slow=5.0,SNR=25						
NVAR	Mina Array Bea	86.60	49	P	P	02 25 09.6	+0.4
	comp=Z,0.2nm,0.3s,mb3.3,baz=243,slow=12,SNR=3.1						
TXAR	Lajitas Array	95.82	61	P	P	02 25 52.2	+0.1
	comp=Z,0.1nm,0.3s,mb3.5,baz=243,slow=6.0,SNR=2.8						
TXAR				PP	PP	02 29 46.3	-2.5
	comp=Z,0.2nm,0.5s,baz=243,slow=8.4,SNR=3.8						
ZAL	Zalesovo	96.39	324	P	P	02 25 53.1	-0.9
	comp=Z,1.1nm,0.8s,mb4.1,baz=240,slow=10,SNR=4.8						
YKA	Yellowknife Ar	96.56	27	P	P	02 25 54.1	-0.6
	comp=Z,1.0nm,1.1s,mb4.0,baz=256,slow=4.4,SNR=5.3						
ARCES	ARCESS Array B	119.09	346	PKP	PKPdf	02 31 12.7	+1.3
	comp=Z,4.1nm,0.7s,baz=81,slow=2.2,SNR=25						
KAF	Kangasniemi	124.06	339	*e*p	PKPdf	02 31 12.2	-9.0
	comp=Z,0.2nm,0.4s						
FINES	FINESS Array B	124.59	338	PKP	PKPdf	02 31 23.6	+1.4
	comp=Z,0.7nm,0.4s,baz=110,slow=4.2,SNR=10.0						
BRTR	Keskin Array B	131.65	312	SKPbc		02 34 46.5	
	comp=Z,1.6nm,0.7s,baz=95,slow=3.3,SNR=7.8						
GERES	GERESS Array B	138.55	334	PKP	PKPdf	02 31 51.2	+2.4
	comp=Z,0.7nm,0.7s,baz=63,slow=3.0,SNR=7.1						
CDF	Champ du Feu	141.45	338	*e*PKP1	PKPdf	02 31 51.3	-2.6
FLN	La Foliniere	143.44	346	*e*PKP1	PKPbc	02 31 56.4	+0.4
	comp=Z,10nm,0.5s						
LDF	La Druitiere	143.51	346	*e*PKP1	PKPbc	02 31 57.4	+1.2
	comp=Z,4.4nm,0.5s						
GRR	Gorron	143.87	346	*e*PKP1	PKPbc	02 31 58.3	+1.0
	comp=Z,9.8nm,0.4s						
SSF	Saint Saulge	143.89	341	*e*PKP1	PKPbc	02 31 58.7	+1.3
	comp=Z,4.5nm,0.5s						
LPL	La Plagne	144.08	336	*e*PKP1	PKPbc	02 32 00.0	+2.0
	comp=Z,15nm,0.9s						
LPG	La Plagne	144.09	336	*e*PKP1	PKPbc	02 32 00.1	+2.0
	comp=Z,15nm,0.8s						
SMF	Signal de Mont	144.15	340	*e*PKP1	PKPbc	02 31 59.4	+1.2
AVF	Avril sur Loir	144.18	341	*e*PKP1	PKPbc	02 31 59.5	+1.2
	comp=Z,11nm,0.4s						
SGMF	Saint Gilles	144.36	348	*e*PKP1	PKPbc	02 32 00.1	+1.4
	comp=Z,60nm,0.8s						
ROSF	Rostrenen	144.42	349	*e*PKP1	PKPbc	02 32 00.2	+1.3
	comp=Z,30nm,0.8s						
BGF	Bois d'Agland	144.55	341	*e*PKP1	PKPbc	02 32 00.9	+1.6
	comp=Z,29nm,0.7s						
MBDF	Montbardon	144.72	336	*e*PKP1	PKPbc	02 32 01.8	+1.9
	comp=Z,21nm,0.9s						
QUIF	Quistinic	144.81	349	*e*PKP1	PKPbc	02 32 01.3	+1.3
	comp=Z,25nm,0.5s						
ORIF	Oris-en-Rattie	144.91	337	*e*PKP1	PKPbc	02 32 02.6	+2.2
	comp=Z,48nm,0.9s						
SBF	Sospel	145.15	334	*e*PKP1	PKPbc	02 32 02.7	+1.7
	comp=Z,145nm,1.2s						
MFF	Saint Martin d	145.37	345	*e*PKP1	PKPbc	02 32 03.4	+1.9
	comp=Z,12nm,0.4s						
VIVF	Saint-Julien-l	145.42	338	*e*PKP1	PKPbc	02 32 03.8	+2.1
PGF	Pioggiola	145.48	331	*e*PKP1	PKPbc	02 32 04.0	+2.1
	comp=Z,18nm,0.5s						
FRF	La Foret Royal	145.73	334	*e*PKP1	PKPbc	02 32 04.5	+2.0
	comp=Z,39nm,0.7s						
SMRF	Simiane la Rot	145.82	336	*e*PKP1	PKPbc	02 32 05.3	+2.6
	comp=Z,18nm,0.8s						
LMR	La Mourre	145.97	334	*e*PKP1	PKPbc	02 32 05.3	+2.2
	comp=Z,16nm,0.4s						
RJF	Les Rejaudoux	146.09	342	*e*PKP1	PKPbc	02 32 05.8	+2.5
CAF	Calviac	146.25	341	*e*PKP1	PKPbc	02 32 06.5	+2.8
LASF	Ste Croix	146.39	338	*e*PKP1	PKPbc	02 32 06.9	+2.8
LFF	La Frestale	146.65	342	*e*PKP1	PKPbc	02 32 07.5	+2.9
	comp=Z,15nm,0.6s						
MTLF	Montolieu	147.61	339	*e*PKP1	PKPdf	02 32 10.2	+5.6
	comp=Z,30nm,0.9s						
SJPF	Ste Jean	148.89	343	*e*PKP1	PKPdf	02 32 13.7	+7.1
ETSF	Etsaut	148.89	342	*e*PKP1	PKPdf	02 32 14.7	+8.1
ESDC	Sonseca Array	152.83	345	PKPbc	PKPdf	02 32 21.9	+9.2
	comp=Z,0.2nm,0.3s,baz=357,slow=3.5,SNR=5.3						
ESDC				PKPab	PKPab	02 32 34.1	-0.3
	comp=Z,1.9nm,0.9s,baz=1.3,slow=4.1,SNR=6.9						

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*IDC **30** 02:14:58.3±1.1, 5.38N×94.08E, mb4.1/9, mb1 4.3/9, mb1mx4.1/18, mbtmp4.1/9, MS4.9/1, Ms1 4.9/1, ms1mx3.0/30, Error ellipse: s-maj=50.7km s-min=19.3km az=51.0*

ISC 30 02:15:01.6±0.9**, 5.3N**±0.2×**94.2E**±0.2**, h33**^{km}**, n18, σ1§07**/17**, mb4.2**/16**, MS4.9**/1**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	Pulchoki	23.66	340	*e*P	P	02 20 12.4	+1.2
	6.5nm,0.4s,mb4.4						
DMN	Daman	23.80	340	*e*P	P	02 20 13.8	+1.3
	14nm,0.9s,mb4.4						
GUN	Gumba	23.82	341	*e*P	P	02 20 12.6	-0.1
	13nm,0.6s,mb4.5						
KKN	Kakani	23.91	340	*e*P	P	02 20 14.9	+1.4
GKN	Gorkha	24.32	339	*e*P	P	02 20 18.6	+1.0
	22nm,0.6s,mb4.7						
KOLN	Koldanda	24.50	337	*e*P	P	02 20 20.4	+1.1
	12nm,0.6s,mb4.6						
SONM	Songino Array	43.63	12	P	P	02 23 04.4	-0.3
	1.8nm,0.8s,mb3.8,baz=190,slow=8.1,SNR=11						
WRA	Warramunga Arr	46.76	124	P	P	02 23 31.0	+1.0
	3.0nm,0.6s,mb4.4,baz=303,slow=9.2,SNR=12						
CN2	Changchun	47.15	31	*e*P	P	02 23 31.3	-1.5
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
ASAR	Alice Springs	48.26	128	P	P	02 23 42.4	+0.7
	comp=Z,1.5nm,0.7s,mb4.1,baz=302,slow=7.4,SNR=10						
ZAL	Zalesovo	49.07	353	P	P	02 23 47.1	-0.5
	comp=Z,3.4nm,0.3s,mb4.8,baz=210,slow=5.4,SNR=14						
CBIJ	Chichi jima	50.50	59	LR	LR	02 44 46.1	
	comp=Z,1µm,18.3s,MS4.9,baz=245,slow=35						
BVAR	Borovoye Array	51.42	342	P	P	02 24 03.6	-1.9
	comp=Z,1.8nm,0.7s,mb4.1,baz=228,slow=38,SNR=5.7						
BRTR	Keskin Array B	64.16	312	P	P	02 25 34.2	-1.2
	comp=Z,0.5nm,0.6s,mb3.7,baz=122,slow=10,SNR=2.9						
FINES	FINESS Array B	74.99	333	P	P	02 26 41.0	-0.3
	comp=Z,1.0nm,0.4s,mb4.1,baz=94,slow=5.2,SNR=13						
KAF	Kangasniemi	75.08	333	*e*p	P	02 26 39.8	-2.0
	comp=Z,0.5nm,0.4s,mb3.8						
GERES	GERESS Array B	79.77	319	P	P	02 27 08.0	-0.2
	comp=Z,1.5nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=13						
ILAR	Eielson Array	97.07	22	P	P	02 28 31.1	-0.1
	comp=Z,0.2nm,0.5s,mb3.8,baz=316,slow=4.7,SNR=5.0						

WEL 30 02:20:52.6±0.7**, 37.61S**×**176.24E, h180**^{km}±6^{km}**, ML3.5**/5**, Error ellipse: s-maj=10.3km s-min=7.3km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	0.95	134	PN	P	02 21 19.9	-0.2
URZ				SN	S	02 21 40.8	-0.6
MWZ	Matawai	1.25	126	PN	P	02 21 22.4	-0.3
MWZ				SN	S	02 21 44.6	-1.2
BKZ	Black Stump Fm	1.57	173	PN	P	02 21 26.0	+0.4
BKZ				SN	S	02 21 51.1	0.0
KNZ	Kokohu	1.81	142	PN	P	02 21 27.6	-0.4
TSZ	Takapari Road	2.46	185	PN	P	02 21 35.2	-0.1
KIW	Kapiti Island	3.41	197	PN	P	02 21 45.5	-1.4
KIW				SN	S	02 22 26.2	-2.6

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*IDC **30** 02:25:22.0±0.9, 9.20N×93.02E, mb3.9/11, mb1 4.1/12, mb1mx4.0/19, mbtmp3.9/12, ML4.0/1, Error ellipse: s-maj=39.9km s-min=17.9km az=55.0*

ISC 30 02:25:25.5±0.8**, 9.2N**±0.1×**93.3E**±0.1**, h33**^{km}**, n19, σ1§14**/19**, mb3.9**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.70	30	Pn	P	02 27 58.4	-1.3
	0.3nm,0.3s,baz=214,slow=15,SNR=11						
PKI	Pulchoki	19.70	339	*e*P	P	02 29 55.5	+0.5
	23nm,0.9s						
DMN	Daman	19.84	338	*e*P	P	02 29 58.1	+1.6
	36nm,1.0s						
GUN	Gumba	19.85	340	*e*P	P	02 29 56.8	+0.2
	27nm,0.7s						
KKN	Kakani	19.94	339	*e*P	P	02 29 58.7	+1.1
GKN	Gorkha	20.37	338	*e*P	P	02 30 02.4	+0.3
	29nm,0.8s						
KOLN	Koldanda	20.58	335	*e*P	P	02 30 05.2	+0.9
	24nm,0.8s						
NDI	New Delhi	24.54	324	*e*	P	02 30 37.0	-6.6
SONM	Songino Array	40.05	14	P	P	02 33 01.2	+2.0
	1.2nm,0.9s,mb3.6,baz=200,slow=9.1,SNR=6.0						
SONM				PcP	PcP	02 35 05.3	+1.0
	0.4nm,0.5s,baz=200,slow=3.2,SNR=3.0						
ZAL	Zalesovo	45.10	353	P	P	02 33 38.7	-1.7
	1.1nm,0.4s,mb4.0,baz=206,slow=6.5,SNR=4.5						
BVAR	Borovoye Array	47.44	341	P	P	02 33 58.3	-0.6
	0.4nm,0.4s,mb3.7,baz=148,slow=14,SNR=3.9						
WRA	Warramunga Arr	49.74	126	P	P	02 34 18.6	+1.5
	1.3nm,0.8s,mb4.0,baz=305,slow=8.6,SNR=6.8						
ASAR	Alice Springs	51.44	130	P	P	02 34 30.5	+0.6
	0.6nm,0.6s,mb3.7,baz=304,slow=6.9,SNR=9.6						
BRTR	Keskin Array B	60.90	310	P	P	02 35 36.4	-1.1
	0.5nm,0.7s,mb3.8,baz=150,slow=6.0,SNR=2.9						
STKA	Stephens Creek	61.66	134	P	P	02 35 42.1	-0.6
	0.9nm,0.7s,mb4.0,baz=227,slow=9.6,SNR=2.9						
FINES	FINESS Array B	71.12	332	P	P	02 36 40.2	-2.2
	2.4nm,1.0s,mb4.1,baz=119,slow=14,SNR=2.7						
ARCES	ARCESS Array B	73.71	340	P	P	02 36 56.2	-1.3
	5.3nm,0.9s,mb4.5,baz=79,slow=6.2,SNR=3.9						
GERES	GERESS Array B	76.25	318	P	P	02 37 12.8	+0.3
	0.9nm,0.6s,mb3.9,baz=79,slow=6.8,SNR=8.1						
ILAR	Eielson Array	93.82	22	P	P	02 38 39.9	-0.4
	0.2nm,0.6s,mb3.8,baz=304,slow=6.0,SNR=4.4						

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*IDC **30** 02:35:49.3±0.6, 14.47N×146.88E, mb4.6/14, mb1 4.7/14, mb1mx4.6/22, mbtmp4.6/14, MS4.3/10, Ms1 4.3/10, ms1mx3.9/33, Error ellipse: s-maj=26.7km s-min=14.6km az=101.0*

*MOS **30** 02:35:53.3±1.2, 14.48N×146.75E, h33^{km}, mb5.2/20, Error ellipse: s-maj=15.7km s-min=9.9km az=111.5*

*BJI **30** 02:35:53.7, 14.74N×146.99E, h35^{km}, mB5.1, mb4.9, Ms4.7, Msz4.3*

*NEIC **30** 02:35:56.0±2.0, 14.36N×146.79E, h45^{km}±18^{km}, mb5.1/13, Error ellipse: s-maj=15.4km s-min=10.2km az=82.0*

*HRVD **30** 02:35:56.0±0.5, 14.39N×147.04E, h12^{km}, MW4.9/51, Centroid moment Tensor Solution. LP body waves: s16,c19;Mantle waves: s51,c83; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.18±.11; M$_{\theta\theta}$0.15±.10; M$_{\phi\phi}$-2.34±.09; M$_{r\theta}$-0.43±.51; M$_{\theta\phi}$-0.72±.09; M$_{\phi r}$0.81±.31; Best double couple: M$_0$2.54×10^{16} NP1:φ$_s$211°,δ39°,λ116°. NP2:φ$_s$359°,δ55°,λ71°. Principal axes: T 2.45, Plg72°, Azm220°; N .17, Plg16°, Azm11°; P -2.63, Plg8°, Azm103°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 30 02:35:54.3±1.7**, 14.42N**±0.06×**146.79E**±0.07**, h44**^{km}±15^{km}**, h42**^{km}±3.2^{km}**:pP-P, n103, σ0§99**/82**, mb5.0**/50**, MS4.4**/16**, 1C-4D, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GUMO	Guam	2.04	246	*e*P	P	02 36 27.7	+0.8
JOW	Kunigami	21.25	308	LR	LR	02 48 21.6	
	comp=Z,784nm,19.2s,MS4.1,baz=192,slow=35						
PMG	Port Moresby	23.67	179	*e*P	P	02 41 01.8	-1.1
PMG				pmax	pmax		
	comp=Z,53nm,0.8s						
PMG	Port Moresby	23.67	179	*e*P	P	02 41 01.8	-1.1
	comp=Z,53nm,0.8s,mb5.0						
TGY	Tagaytay City	25.06	273	LR	LR	02 50 31.0	
	comp=Z,602nm,18.6s,MS4.1,baz=100,slow=35						
SSE	Sheshan	28.75	310	*e*P	P	02 41 46.8	-3.3
SSE				AMB	AMB		
	comp=Z,25nm,0.7s,mb5.0						
SSE				AMB	AMB		
	comp=Z,51nm,3.8s						
NJ2	Nanjing	30.96	309	*e*P	P	02 42 09.0	-0.7
NJ2				AP	pP	02 42 18.5	-2.9
NJ2				XP	sP	02 42 22.3	-4.7
NJ2				PP	PP	02 43 11.3	-1.1
NJ2				S	S	02 47 10.0	+0.2
NJ2				XS		02 47 25.0	
NJ2				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.4						
NJ2				LR	LR		
	comp=N,550nm,16.8s,MS4.6						
NJ2				LR	LR		
	comp=E,950nm,16.8s,MS4.6						
NJ2				LR	LR		
	comp=Z,1µm,16.6s,MS4.6						
WRAB	Tennant Creek	36.26	200	*e*P	P	02 42 55.4	-0.1
WRAB				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.3						
WRAB	Tennant Creek	36.26	200	*e*P	P	02 42 55.4	-0.1
	comp=Z,26nm,0.7s,mb5.3						
WRA	Warramunga Arr	36.27	200	P	P	02 42 55.5	-0.1
	comp=Z,11nm,0.8s,mb4.9,baz=20,slow=9.1,SNR=31						
KLR	Kul'dur	36.85	344	*e*P	P	02 42 56.0	-4.1
BJT	Baijiatuau	36.99	319	*e*P	P	02 43 00.8	-0.6
BJT				pmax	pmax		
	comp=Z,38nm,1.0s						
BJT	Baijiatuau	36.99	319	*e*P	P	02 43 00.8	-0.6
	comp=Z,38nm,1.0s,mb5.2						
BJI	Beijing	37.00	319	*e*P	P	02 43 01.0	-0.5
BJI				AMB	AMB		
	comp=Z,24nm,1.3s,mb4.9						
BJI				LR	LR		
	comp=N,466nm,18.6s,MS4.5						
BJI				LR	LR		
	comp=E,561nm,17.8s,MS4.5						
BJI				LR	LR		
	comp=Z,443nm,17.6s,MS4.3						
GYA	Guiyang	39.31	294	⇑*i*P	P	02 43 23.0	+2.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.6						
ASAR	Alice Springs	39.89	199	P	P	02 43 26.1	+0.3
	comp=Z,3.8nm,0.7s,mb4.2,baz=23,slow=9.0,SNR=37						
ASAR				PP	PP	02 44 56.8	-4.8
	comp=Z,1.8nm,0.8s,baz=14,slow=9.9,SNR=2.3						
HHC	Hu-ho-hao-te	40.39	318	*e*P	P	02 43 30.3	+0.6
HHC				AP	pP	02 43 42.8	+1.0
HHC				PP	PP	02 45 07.5	+1.0
HHC				PCP	PcP	02 45 33.3	+0.4
HHC				S	S	02 49 35.3	+0.7
HHC				XS		02 49 55.5	
HHC				SS	SS	02 52 29.5	0.0
HHC				SCS	ScS	02 53 30.0	+0.2
HHC				AMB	AMB		
	comp=Z,26nm,1.1s,mb4.9						
HHC				AMB	AMB		
	comp=Z,162nm,5.2s						
HHC				LR	LR		
	comp=N,183nm,14.3s,MS4.4						
HHC				LR	LR		
	comp=E,334nm,13.1s,MS4.4						
HHC				LR	LR		
	comp=Z,252nm,11.9s,MS4.3						
BTO	Baotou	41.30	316	*e*P	P	02 43 37.5	+0.3
KMI	Kunming	42.63	291	P	P	02 43 51.3	+2.9
KMI				AMB	AMB		
	comp=Z,39nm,1.2s,mb5.0						
KMI				AMB	AMB		
	comp=Z,135nm,4.5s						
KMI				LR	LR		
	comp=N,218nm,15.0s						
KMI				LR	LR		
	comp=E,320nm,20.1s						
KMI				LR	LR		
	comp=Z,292nm,18.4s,MS4.2						
FX1	Attu Island--F	43.71	23	LR	LR	03 02 28.9	
	comp=Z,16nm,18.3s,baz=180,slow=37						
LZH	Lanzhou	43.98	307	*e*P	P	02 44 00.3	+1.1
LZH				AP	pP	02 44 05.5	-5.9
LZH				AMB	AMB		
	comp=Z,90nm,1.4s,mb5.3						
LZH				AMB	AMB		
	comp=Z,269nm,4.0s						
LZH				LR	LR		
	comp=E,713nm,13.0s						
LZH				LR	LR		
	comp=Z,1µm,14.6s,MS4.9						
MA2	Magadan	45.18	3	*i* P	P	02 44 08.7	+0.2
MA2				pmax	pmax		
	comp=Z,31nm,1.4s,mb5.0						
STKA	Stephens Creek	46.30	186	P	P	02 44 16.1	-1.6
	comp=Z,4.5nm,0.8s,mb4.5,baz=18,slow=11,SNR=9.0						
STKA	Stephens Creek	46.30	186	*e*P	P	02 44 16.9	-0.8
ULN	Ulaanbaatar	46.80	324	*e*P	P	02 44 21.5	+0.1
ULN				*e*	pP	02 44 34.6	+1.0
ULN				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
ULN	Ulaanbaatar	46.80	324	*e*P	P	02 44 21.5	+0.1
	comp=Z,11nm,0.7s,mb4.9						
ULN				*e*	pP	02 44 34.6	+1.1
SONM	Songino Array	47.16	323	P	P	02 44 24.3	+0.1
	comp=Z,5.7nm,0.5s,mb4.7,baz=138,slow=6.8,SNR=44						
GTA	Gaotai	48.04	310	P	P	02 44 32.0	+0.7
GTA				AP	pP	02 44 43.5	0.0
GTA				XP	sP	02 44 46.5	-2.3
GTA				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.8						
GTA				AMB	AMB		
	comp=Z,171nm,9.1s						
GTA				LR	LR		
	comp=N,244nm,15.2s,MS4.5						
GTA				LR	LR		
	comp=E,289nm,17.1s,MS4.5						
GTA				LR	LR		
	comp=Z,238nm,20.5s,MS4.2						
YAK	Yakutsk	49.10	349	*i* P	P	02 44 38.0	-1.1
YAK				pmax	pmax		
	comp=Z,18nm,0.5s,mb5.4						
BOD	Bodaibo	49.84	338	*e*P	P	02 44 42.9	-2.0
ZAK	Zakamensk	50.21	325	*e*P	P	02 44 47.0	-0.9
TLY	Talaya	50.67	327	*i* P	P	02 44 51.0	-0.4
TLY				pmax	pmax		
	comp=Z,18nm,1.7s,mb4.7						
MOY	Mondy	52.10	326	*e*P	P	02 45 03.4	+1.3
LSA	Lhasa	53.29	296	*e*P	P	02 45 12.7	+1.4
LSA				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.1						
LSA	Lhasa	53.29	296	*e*P	P	02 45 12.7	+1.4
	comp=Z,14nm,0.6s,mb5.1						
NWAO	Narrogin (SRO)	54.90	210	P	P	02 45 22.8	-0.3
	comp=Z,6.1nm,0.7s,mb4.8,baz=53,slow=6.4,SNR=5.6						
BILL	Bilibino	55.05	9	*e*P	P	02 45 23.7	0.0
BILL				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
BILL	Bilibino	55.05	9	*e*P	P	02 45 23.7	0.0
	comp=Z,14nm,1.0s,mb5.0						
GUN	Gumba	57.86	294	*e*P	P	02 45 44.6	+0.4
	comp=Z,75nm,0.8s,mb5.8						
WMQ	Urumqi	57.94	313	P	P	02 45 45.3	+0.7
WMQ				AMB	AMB		
	comp=Z,19nm,1.2s,mb5.0						
PKI	Pulchoki	58.27	294	*e*P	P	02 45 47.4	+0.2
	comp=Z,18nm,0.6s,mb5.3						
KKN	Kakani	58.39	294	*e*P	P	02 45 48.4	+0.5
	comp=Z,20nm,0.5s,mb5.4						
DMN	Daman	58.54	294	*e*P	P	02 45 49.0	0.0
	comp=Z,25nm,0.5s,mb5.5						
GKN	Gorkha	58.96	294	*e*P	P	02 45 51.8	-0.1
	comp=Z,50nm,0.6s,mb5.8						
URZ	Urewera	59.61	153	LR	LR	03 06 60.0	
	comp=Z,157nm,18.1s,MS4.2,baz=290,slow=31						
KOLN	Koldanda	59.88	294	*e*P	P	02 45 58.2	-0.1
	comp=Z,53nm,0.9s,mb5.5						
RPZ	Rata Peaks	61.96	160	LR	LR	03 11 12.3	
	comp=Z,185nm,18.2s,MS4.3,baz=256,slow=34						
ZAL	Zalesovo	62.06	324	P	P	02 46 11.2	-1.5
	comp=Z,3.6nm,0.6s,mb4.7,baz=274,slow=5.9,SNR=14						
MKAR	Makanchi Array	62.20	315	*i* P	P	02 46 13.6	-0.1
MKAR				pmax	pmax		
	comp=Z,5.0nm,0.4s						
NVS	Novosibirsk	63.17	325	*e*P	P	02 46 18.1	-1.9
NVS				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.3						
RAR	Rarotonga	63.28	123	LR	LR	03 11 09.6	
	comp=Z,245nm,18.6s,MS4.4,baz=294,slow=34						
IMA	Indian Mountai	64.77	23	*e*P	P	02 46 30.8	+0.6
IMA				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.4						
IMA	Indian Mountai	64.77	23	*e*P	P	02 46 30.8	+0.6
	comp=Z,48nm,1.3s,mb5.4						
ILAR	Eielson Array	67.03	25	P	P	02 46 43.1	-1.5
	comp=Z,8.2nm,1.1s,mb4.7,baz=262,slow=5.9,SNR=44						
ILAR				LR	LR	03 13 35.0	
	comp=Z,113nm,19.3s,MS4.1,baz=352,slow=34						
AAK	Ala-Archa	67.40	310	*i* P	P	02 46 46.5	-0.8
AAK				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb4.5						
DAWY	Dawson	70.06	27	*e*P	P	02 47 03.6	+0.2
DAWY				*e*	pP	02 47 16.4	+0.1
CHKZ	Chkalovo	70.33	322	*i* P	P	02 47 04.0	-1.2
CHKZ				pmax	pmax		
	comp=Z,18nm,1.5s,mb4.8						
CHKZ	Chkalovo	70.33	322	*e*P	P	02 47 04.4	-0.8
	comp=Z,33nm,1.3s,mb5.1						
PPT	Papeete	70.35	115	LR	LR	03 14 49.0	
	comp=Z,277nm,18.6s,MS4.5,baz=352,slow=33						
BVAR	Borovoye Array	70.44	321	P	P	02 47 05.4	-0.6
	comp=Z,13nm,0.6s,mb5.1,baz=101,slow=7.6,SNR=66						
BRVK	Borovoye	70.51	321	P	P	02 47 05.8	-0.5
BRVK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
BRVK	Borovoye	70.51	321	*e*P	P	02 47 06.1	-0.2
	comp=Z,28nm,0.9s,mb5.2						
INK	Inuvik	72.89	23	P	P	02 47 19.4	-0.8
	comp=Z,5.1nm,0.9s,mb4.4,baz=261,slow=5.9,SNR=7.2						
BBB	Bella Bella	75.76	39	LR	LR	03 18 23.1	
	comp=Z,162nm,19.1s,MS4.3,baz=271,slow=34						
ARU	Arti	77.15	325	⇓*i*P	P	02 47 44.2	-0.7
ARU				*e*		02 47 52.6	
ARU				*e*		02 50 39.0	
ARU				*e*PPP	PPP	02 52 24.3	-4.4
ARU				*e*S	S	02 57 32.9	+3.4
ARU				*e*SS	SS	03 02 30.9	+0.4
ARU				pmax	pmax		

	comp=Z,14nm,1.0s,mb4.8						
ARU	**Arti**	**77.15**	**325**	*e*P	**P**	**02 47 44.4**	**-0.5**
	comp=Z,23nm,1.1s,mb5.0						
YKW3	**Yellowknife Ar**	**81.25**	**28**	*e*P	**P**	**02 48 05.7**	**-1.3**
YKA	**Yellowknife Ar**	**81.27**	**28**	P	**P**	**02 48 06.5**	**-0.5**
	comp=Z,2.3nm,0.8s,mb4.2,baz=282,slow=5.5,SNR=26						
YKA				LR	LR	03 23 58.6	
	comp=Z,123nm,18.3s,MS4.3,baz=270,slow=36						
BMO	**Blue Mountains**	**84.08**	**45**	*e*P	**P**	**02 48 22.2**	**+0.3**
BMO				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.9						
BMO	**Blue Mountains**	**84.08**	**45**	*e*P	**P**	**02 48 22.2**	**+0.3**
	comp=Z,14nm,1.4s,mb4.9						
EDM	**Edmonton**	**84.38**	**37**	*e*P	**P**	**02 48 23.6**	**+0.5**
NVAR	**Mina Array Bea**	**84.94**	**52**	P	**P**	**02 48 26.9**	**+0.5**
	comp=Z,2.3nm,0.7s,mb4.4,baz=268,slow=3.6,SNR=13						
RKT	**Rikitea**	**85.11**	**115**	*e*LR	LR	03 14 25.7	
	comp=Z,290nm,32.2s						
CHMT	**Chamberlain Mo**	**86.26**	**43**	*e*P	**P**	**02 48 32.5**	**0.0**
KEV	**Kevo**	**86.31**	**342**	*e*p	**P**	**02 48 33.2**	**+0.9**
	comp=Z,0.7nm,0.3s,mb4.4						
KEV	**Kevo**	**86.31**	**342**	*e*P	**P**	**02 48 33.2**	**+0.9**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.5						
ARCES	**ARCESS Array B**	**86.87**	**342**	P	**P**	**02 48 36.5**	**+1.5**
	comp=Z,3.7nm,0.7s,mb4.8,baz=72,slow=5.5,SNR=11						
HRY	**Holter Researc**	**87.25**	**42**	*e*P	**P**	**02 48 38.3**	**+0.9**
YMR	**Madison River**	**88.47**	**44**	*e*P	**P**	**02 48 45.2**	**+1.9**
OBN	**Obninsk**	**89.42**	**327**	*e*P	**P**	**02 48 47.0**	**-0.6**
OBN				pmax	pmax		
	comp=Z,14nm,1.4s,mb5.1						
ZEI	**Tsey**	**89.53**	**314**	*e*P	**P**	**02 48 48.5**	**+0.1**
ZEI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.7						
PDAR	**Pinedale Array**	**90.06**	**46**	P	**P**	**02 48 51.8**	**+0.9**
	comp=Z,0.5nm,0.6s,mb4.0,baz=333,slow=3.3,SNR=4.4						
SRU	**San Rafael**	**90.58**	**49**	*e*P	**P**	**02 48 54.9**	**+1.5**
KAF	**Kangasniemi**	**90.73**	**336**	*e*p	**P**	**02 48 48.0**	**-5.5**
	comp=Z,2.5nm,0.6s,mb4.7						
KAF	**Kangasniemi**	**90.73**	**336**	*e*P	**P**	**02 48 48.0**	**-5.5**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.8						
FINES	**FINESS Array B**	**91.19**	**336**	*i* P	**P**	**02 48 55.7**	**0.0**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES	**FINESS Array B**	**91.19**	**336**	P	**P**	**02 48 54.6**	**-1.1**
	comp=Z,4.2nm,0.6s,mb5.0,baz=71,slow=5.6,SNR=28						
PV10	**Paradox Valley**	**91.92**	**50**	*e*P	**P**	**02 49 01.5**	**+1.9**
SOC	**Sochi**	**92.11**	**316**	*e*P	**P**	**02 48 57.8**	**-2.6**
SOC				*e*	PP	02 52 41.6	-1.6
SOC				*e*PPP	tx	02 54 37.0	
SOC				*e*S	SKS	02 59 28.6	+0.6
SOC				*e*SS	SS	03 06 06.3	-3.8
SOC				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.5						
SOC				pmax	pmax		
	comp=N,17nm,0.9s						
SOC				pmax	pmax		
	comp=E,10.0nm,0.9s						
TXAR	**Lajitas Array**	**99.34**	**57**	LR	LR	03 31 41.7	
	comp=E,181nm,18.8s,MS4.6,baz=285,slow=34						
CLL	**Collm**	**103.20**	**332**	P		02 54 22.0	
VNA2	**Neumayer--Watz**	**121.36**	**190**	*e*	Pdif	02 51 16.3	+6.5
VNA2	**Neumayer--Watz**	**121.36**	**190**	*e*		02 51 34.5	
VNA2	**Neumayer--Watz**	**121.36**	**190**	⇓*i*Pdif	Pdif	02 51 06.0	-3.8
VNA2				*e*		02 51 16.3	
VNA2				*e*		02 51 34.5	
VNA3	**Neumayer Olymp**	**121.43**	**189**	*e*		02 51 41.2	
VNA3	**Neumayer Olymp**	**121.43**	**189**	⇓*i*Pdif	Pdif	02 51 13.9	+3.8
VNA3				*e*		02 51 41.2	
VNA1	**Neumayer--Stat**	**121.74**	**190**	*e*		02 51 37.0	
VNA1	**Neumayer--Stat**	**121.74**	**190**	⇓*i*Pdif	Pdif	02 51 08.5	-3.0
VNA1				*e*		02 51 37.0	
DBIC	**Dimbokro**	**144.93**	**305**	*e*PKIKP	PKPdf	02 55 29.0	+1.3
DBIC	**Dimbokro**	**144.93**	**305**	PKP	PKPdf	02 55 29.2	+1.5
	comp=E,17nm,0.6s,baz=42,slow=3.0,SNR=57						
LVC	**Limon Verde**	**145.25**	**109**	*e*PKPdf	PKPdf	02 55 30.4	+2.4
LPAZ	**La Paz**	**146.29**	**98**	PKPbc	PKPbc	02 55 32.5	+1.3
	comp=E,3.5nm,0.5s,baz=282,slow=4.7,SNR=16						
LPAZ	**La Paz**	**146.29**	**98**	*e*PKPdf	PKPdf	02 55 33.1	+3.1

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*IDC **30** 02:40:45.4±1.2, 17.96N×95.74E, mb4.0/8, mb1 4.1/9, mb1mx3.9/18, mbtmp3.9/9, ML3.4/1, Error ellipse: s-maj=30.2km s-min=15.3km az=13.0*

ISC 30 02:40:43.7±2.0**, 17.98N**±0.09×**95.84E**±0.07**, h0**^{km}±13^{km}**, n20,** σ**1**^{s}**.04**/23**, mb4.1**/8**, 1D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**2.98**	**80**	Pn	**Pn**	**02 41 33.8**	**+0.6**
	1.2nm,0.3s,baz=254,slow=14,SNR=14						
CMAR				Pg	**Pg**	**02 41 42.9**	**-0.4**
	12nm,0.3s,baz=251,slow=19,SNR=142						
CMAR				Lg		02 42 21.1	
	7.3nm,0.3s,baz=254,slow=32,SNR=5.4						
CHRT	**Chiangrai**	**4.18**	**63**	PG	**Pg**	**02 42 05.0**	**-2.1**
CHRT				SG	**Sg**	**02 43 03.5**	**+0.8**
NST	**Nakhon Sawan**	**4.70**	**119**	P	**Pn**	**02 41 53.0**	**-4.5**
IMP	**Imphal**	**7.00**	**346**	*e*P	**Pn**	**02 42 35.6**	**+5.7**
SHL	**Shillong**	**8.40**	**335**	⇓*i*P	**P**	**02 42 50.0**	**+0.5**
SHL				*e*S	**Sn**	**02 44 25.0**	**-1.2**
GUN	**Gumba**	**13.48**	**319**	*e*P	**P**	**02 43 58.8**	**0.0**
	16nm,0.4s						
PKI	**Pulchoki**	**13.55**	**317**	*e*P	**P**	**02 44 01.9**	**+2.2**
	14nm,0.4s						
DMN	**Daman**	**13.77**	**316**	*e*P	**P**	**02 44 03.1**	**+0.4**
	14nm,0.5s						
KKN	**Kakani**	**13.78**	**317**	*e*P	**P**	**02 44 03.3**	**+0.5**
	6.1nm,0.3s						
GKN	**Gorkha**	**14.34**	**316**	*e*P	**P**	**02 44 09.8**	**-0.4**
	28nm,0.3s						
KOLN	**Koldanda**	**14.90**	**313**	*e*P	**P**	**02 44 17.9**	**+0.4**
	13nm,0.3s						
SONM	**Songino Array**	**31.00**	**14**	P	**P**	**02 47 06.8**	**+1.8**
	0.3nm,0.6s,mb3.4,baz=213,slow=7.3,SNR=2.2						
ZAL	**Zalesovo**	**36.89**	**349**	P	**P**	**02 47 56.4**	**+0.7**
	4.5nm,0.6s,mb4.4,baz=218,slow=6.1,SNR=7.1						
ASAR	**Alice Springs**	**55.62**	**137**	P	**P**	**02 50 24.4**	**+0.5**
	0.5nm,0.6s,mb3.7,baz=319,slow=7.4,SNR=7.8						
AKASG	**Malin Array Be**	**61.51**	**318**	P	**P**	**02 51 02.6**	**-2.0**
	1.3nm,0.5s,mb4.4,baz=85,slow=6.5,SNR=8.5						
FINES	**FINESS Array B**	**64.71**	**330**	P	**P**	**02 51 24.5**	**-1.0**
	1.0nm,0.6s,mb4.2,baz=101,slow=9.7,SNR=3.7						
ARCES	**ARCESS Array B**	**66.43**	**339**	P	**P**	**02 51 36.1**	**-0.4**
	1.9nm,0.5s,mb4.5,baz=90,slow=6.1,SNR=8.1						
GERES	**GERESS Array B**	**71.56**	**316**	P	**P**	**02 52 08.5**	**0.0**
	1.0nm,0.7s,mb4.1,baz=79,slow=6.8,SNR=11						
NB2	**NORSAR Subarra**	**71.86**	**329**	P	**P**	**02 52 09.3**	**-0.8**
	1.3nm,0.7s,mb4.2,baz=86,slow=6.2						
NOA	**NORSAR Array B**	**71.86**	**329**	P	**P**	**02 52 08.5**	**-1.6**
	1.8nm,0.8s,mb4.3,baz=86,slow=6.2,SNR=4.4						

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*IDC **30** 02:45:29.1±0.7, 9.10N×92.62E, mb4.2/13, mb1 4.3/13, mb1mx4.1/21, mbtmp4.2/13, MS3.2/1, Ms1 3.4/1, ms1mx2.9/27, Error ellipse: s-maj=40.0km s-min=13.9km az=54.0*

*BJI **30** 02:45:39.9, 9.42N×92.25E, h65^{km}, mB5.2, mb4.3*

*NEIC **30** 02:45:41.4±1.7, 9.00N×92.67E, h97^{km}±17^{km}, mb4.6/11, Error ellipse: s-maj=17.1km s-min=9.1km az=65.0*

ISC 30 02:45:32.3±0.5**, 9.04N**±0.07×**92.6E**±0.1**, h33**^{km}**, n34,** σ**0**^{s}**.68**/32**, mb4.4**/23**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**11.21**	**33**	P	**P**	**02 48 18.5**	**+5.1**
	10nm,0.7s						
CMAR	**Chiang Mai Arr**	**11.21**	**33**	Pn	**P**	**02 48 13.5**	**+0.1**
	0.4nm,0.3s,baz=42,slow=26,SNR=4.9						
CMAR				LR	LR	02 52 29.9	
	comp=Z,115nm,19.6s,baz=212,slow=38						
HYB	**Hyderabad**	**15.99**	**303**	*e*P	**P**	**02 49 22.0**	**+5.5**
HYB	**Hyderabad**	**15.99**	**303**	*i* P	**P**	**02 49 22.0**	**+5.5**
LSA	**Lhasa**	**20.60**	**356**	*e*P	**P**	**02 50 15.4**	**+4.1**
	10nm,0.9s						
COCO	**West Island**	**21.51**	**169**	*e*P	**P**	**02 50 21.1**	**+0.6**
	22nm,0.4s,mb5.0						
NDI	**New Delhi**	**24.31**	**326**	*e*	**P**	**02 50 57.0**	**+9.0**
ENH	**Enshi**	**26.38**	**34**	*e*P	**P**	**02 51 16.8**	**+9.2**
	17nm,0.9s,mb4.6						
GTA	**Gaotai**	**30.93**	**11**	P	**P**	**02 51 49.8**	**+1.4**
GTA				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.4						
MBWA	**Marble Bar**	**40.14**	**139**	*e*P	**P**	**02 53 07.3**	**+0.3**
	comp=Z,29nm,1.5s,mb4.8						
SONM	**Songino Array**	**40.40**	**14**	P	**P**	**02 53 09.0**	**+0.2**
	comp=Z,1.6nm,0.8s,mb3.8,baz=200,slow=8.4,SNR=15						
SONM				PcP	PcP	02 55 11.7	-0.5
	comp=Z,2.3nm,0.9s,baz=204,slow=3.3,SNR=5.8						
ULN	**Ulaanbaatar**	**40.59**	**15**	*e*P	**P**	**02 53 10.7**	**+0.3**
	comp=Z,2.9nm,0.9s,mb3.9						
ZAL	**Zalesovo**	**45.21**	**354**	P	**P**	**02 53 47.4**	**-0.6**
	comp=Z,1.3nm,0.3s,mb4.2,baz=23,slow=1.7,SNR=4.3						
ZAL				PcP	PcP	02 55 29.8	+1.6
	comp=Z,1.5nm,0.3s,baz=174,slow=3.7,SNR=3.0						
BVAR	**Borovoye Array**	**47.41**	**342**	P	**P**	**02 54 03.9**	**-1.4**
	comp=Z,4.2nm,1.1s,mb4.3,baz=143,slow=7.4,SNR=4.8						
BRVK	**Borovoye**	**47.47**	**342**	*e*P	**P**	**02 54 06.8**	**+1.0**
	comp=Z,5.1nm,1.0s,mb4.4						
NWAO	**Narrogin (SRO)**	**47.88**	**152**	P	**P**	**02 54 09.8**	**+0.4**
	comp=Z,6.8nm,0.6s,mb4.8,baz=344,slow=9.6,SNR=6.7						
NWAO	**Narrogin (SRO)**	**47.88**	**152**	*e*P	**P**	**02 54 10.0**	**+0.7**
	comp=Z,25nm,1.2s,mb5.1						
CHKZ	**Chkalovo**	**47.90**	**343**	*e*P	**P**	**02 54 09.5**	**+0.3**
	comp=Z,13nm,1.1s,mb4.9						
CHKZ				*e*	pP	02 54 18.0	-1.1
WRA	**Warramunga Arr**	**50.18**	**125**	P	**P**	**02 54 26.8**	**-0.4**
	comp=Z,4.1nm,0.6s,mb4.7,baz=305,slow=8.5,SNR=26						
WRAB	**Tennant Creek**	**50.19**	**125**	*e*P	**P**	**02 54 26.9**	**-0.3**
	comp=Z,16nm,0.9s,mb5.0						
ASAR	**Alice Springs**	**51.84**	**130**	P	**P**	**02 54 39.2**	**-0.4**
	comp=Z,4.6nm,0.7s,mb4.5,baz=303,slow=7.0,SNR=39						
ASAR				PcP	PcP	02 55 52.9	+0.4
	comp=Z,1.1nm,0.7s,baz=302,slow=3.7,SNR=5.9						
GNI	**Garni**	**52.53**	**314**	P	**P**	**02 54 45.5**	**+0.8**
	comp=Z,1.3nm,0.6s,mb4.1,baz=112,slow=11,SNR=2.0						
ARU	**Arti**	**54.23**	**337**	*e*P	**P**	**02 54 57.0**	**0.0**
	comp=Z,8.1nm,1.0s,mb4.6						
ARU				*e*	pP	02 55 06.0	-1.1
MALT	**Malatya**	**56.54**	**310**	*e*P	**P**	**02 55 23.3**	**+9.3**
	comp=Z,4.5nm,1.1s,mb4.4						
CTA	**Charters Tower**	**60.21**	**119**	P	**P**	**02 55 39.0**	**-0.9**
	comp=Z,5.4nm,0.8s,mb4.7,baz=256,slow=8.3,SNR=3.1						
BRTR	**Keskin Array B**	**60.51**	**311**	P	**P**	**02 55 40.8**	**-0.9**
	comp=Z,4.0nm,1.2s,mb4.4,baz=135,slow=7.0,SNR=5.9						
STKA	**Stephens Creek**	**62.02**	**133**	P	**P**	**02 55 51.8**	**-0.1**
	comp=Z,2.1nm,0.8s,mb4.3,baz=324,slow=14,SNR=5.1						
STKA	**Stephens Creek**	**62.02**	**133**	*e*P	**P**	**02 55 51.6**	**-0.3**
FINES	**FINESS Array B**	**70.97**	**332**	P	**P**	**02 56 47.8**	**-0.5**
	comp=Z,2.6nm,0.8s,mb4.2,baz=330,slow=15,SNR=3.7						
GERES	**GERESS Array B**	**75.94**	**318**	P	**P**	**02 57 16.9**	**-0.6**
	comp=Z,0.5nm,0.8s,mb3.5,baz=90,slow=6.7,SNR=3.9						
CASY	**Casey**	**76.26**	**173**	P	**P**	**02 57 19.7**	**+0.7**
ILAR	**Eielson Array**	**94.25**	**22**	P	**P**	**02 58 48.6**	**-0.3**
	comp=Z,0.5nm,0.7s,mb4.0,baz=288,slow=3.3,SNR=6.7						
PDAR	**Pinedale Array**	**124.62**	**20**	PKP	PKPdf	03 04 29.8	+0.9
	comp=Z,0.6nm,0.7s,slow=3.0,SNR=5.7						
NVAR	**Mina Array Bea**	**124.69**	**29**	PKP	PKPdf	03 04 31.5	+2.4
	comp=Z,0.8nm,0.7s,baz=284,slow=2.3,SNR=4.4						

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*IDC **30** 02:51:47.4±0.9, 2.67S×140.68E, mb4.0/7, mb1 4.3/8, mb1mx4.2/12, mbtmp4.1/8, ML4.3/1, MS3.7/2, Ms1 3.7/2, ms1mx3.1/21, Error ellipse: s-maj=48.3km s-min=18.9km az=85.0*

ISC 30 02:51:48.6±4.9**, 2.73S**±0.08×**140.5E**±0.3**, h18**^{km}±34^{km}**, n11,** σ**0**^{s}**.97**/10**, mb3.9**/7**, MS3.6**/1**, Near north coast of Irian Jaya**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**18.13**	**199**	P	**P**	**02 56 01.9**	**+0.5**
	1.0nm,0.3s,baz=24,slow=12,SNR=40						
WRA				S	**S**	**02 59 18.8**	**-1.5**
	0.2nm,0.3s,baz=19,slow=22,SNR=5.0						
CTA	**Charters Tower**	**18.15**	**162**	LR	LR	03 02 48.8	
	comp=Z,229nm,18.8s,baz=42,slow=36						
ASAR	**Alice Springs**	**21.77**	**196**	P	**P**	**02 56 41.6**	**+0.2**
	8.0nm,0.9s,mb4.2,baz=31,slow=9.9,SNR=23						
ASAR				S	**S**	**03 00 38.8**	**+2.5**
	1.5nm,0.8s,baz=22,slow=23,SNR=4.2						
STKA	**Stephens Creek**	**29.01**	**178**	P	**P**	**02 57 50.2**	**+0.4**
	1.5nm,0.9s,mb3.7,baz=347,slow=14,SNR=2.9						
STKA				LR	LR	03 10 57.4	
	comp=Z,168nm,21.5s,MS3.6,baz=295,slow=40						
SONM	**Songino Array**	**58.50**	**334**	P	**P**	**03 01 46.5**	**+0.3**
	0.6nm,0.7s,mb3.8,baz=151,slow=8.3,SNR=4.2						
ZAL	**Zalesovo**	**72.85**	**329**	P	**P**	**03 03 17.0**	**-1.2**
	0.9nm,0.4s,mb4.0,baz=43,slow=5.3,SNR=4.1						
VNDA	**Vanda**	**75.61**	**175**	P	**P**	**03 03 33.6**	**-0.2**
	0.6nm,0.6s,mb3.7,baz=306,slow=8.0,SNR=8.5						
BVAR	**Borovoye Array**	**80.34**	**325**	P	**P**	**03 04 01.4**	**+1.2**
	2.4nm,0.8s,mb4.2,baz=112,slow=8.0,SNR=12						
ILAR	**Eielson Array**	**85.12**	**24**	P	**P**	**03 04 23.8**	**-0.8**
	1.1nm,1.0s,mb4.0,baz=264,slow=4.1,SNR=7.2						
DBIC	**Dimbokro**	**145.24**	**278**	PKPbc	PKPbc	03 11 28.2	+1.4
	4.3nm,0.8s,baz=48,slow=3.4,SNR=10.0						
LPAZ	**La Paz**	**145.99**	**125**	PKPbc	PKPbc	03 11 30.6	+2.0
	2.2nm,0.6s,baz=262,slow=3.0,SNR=10						

IDC 30 02:57:22.8±29.0**, 24.87S**×**172.76W, mb3.9**/4**, mb1 4.0**/4**, mb1mx3.8**/16**, mbtmp3.9**/4**, Error ellipse: s-maj=539.4km s-min=165.7km az=79.0, South of Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**38.07**	**269**	P	P	03 04 43.5	-1.5
	3.1nm,0.5s,baz=104,slow=9.0,SNR=5.3						
STKA	**Stephens Creek**	**40.53**	**249**	P	P	03 05 03.1	-2.2
	1.0nm,0.8s,baz=79,slow=10,SNR=3.2						
ASAR	**Alice Springs**	**48.38**	**260**	P	P	03 06 06.9	-1.6
	0.5nm,0.4s,baz=94,slow=7.7,SNR=9.4						
WRA	**Warramunga Arr**	**48.91**	**265**	P	P	03 06 10.8	-1.9
	0.6nm,0.6s,baz=106,slow=7.4,SNR=4.7						

IDC 30 02:58:41.6±1.4**, 4.77N**×**93.72E, mb3.9**/8**, mb1 4.1**/8**, mb1mx3.8**/19**, mbtmp3.9**/8**, MS4.1**/1**, Ms1 4.2**/1**, ms1mx3.2**/24**, Error ellipse: s-maj=53.4km s-min=27.3km az=46.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.53**	**20**	Pn	P	03 02 13.4	+2.8
	0.3nm,0.3s,baz=220,slow=12,SNR=4.8						
SONM	**Songino Array**	**44.27**	**12**	P	P	03 06 52.7	-1.9
	0.4nm,0.6s,baz=192,slow=7.7,SNR=5.4						
WRA	**Warramunga Arr**	**46.87**	**123**	P	P	03 07 13.9	-1.9
	1.5nm,0.7s,baz=302,slow=8.8,SNR=6.9						
ZAL	**Zalesovo**	**49.55**	**353**	P	P	03 07 34.3	-1.9
	1.5nm,0.7s,baz=215,slow=6.0,SNR=5.7						
BVAR	**Borovoye Array**	**51.78**	**342**	P	P	03 07 50.8	-2.3
	1.5nm,1.0s,baz=150,slow=12,SNR=4.1						
BRTR	**Keskin Array B**	**64.15**	**312**	P	P	03 09 18.1	-2.2
	0.5nm,0.5s,baz=131,slow=6.7,SNR=3.8						
FINES	**FINESS Array B**	**75.25**	**333**	P	P	03 10 26.2	-1.7
	1.8nm,0.9s,baz=112,slow=10,SNR=4.0						
GERES	**GERESS Array B**	**79.85**	**319**	P	P	03 10 52.9	-0.7
	0.6nm,0.8s,baz=72,slow=4.2,SNR=3.7						
DAVOX	**Davos**	**82.33**	**316**	P	P	03 11 05.2	-1.4
	1.6nm,0.6s,baz=135,slow=1.4						

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*IDC **30** 03:00:52.5±0.7, 6.69N×91.85E, mb4.4/15, mb1 4.5/15, mb1mx4.4/21, mbtmp4.4/15, MS4.1/4, Ms1 4.1/4, ms1mx3.5/24, Error ellipse: s-maj=29.2km s-min=14.7km az=45.0*

*BJI **30** 03:00:55.7, 6.05N×92.48E, h49^{km}, mB5.0, mb4.4, Ms4.7, Msz4.1*

*NEIC **30** 03:00:56.7±0.6, 6.55N×91.84E, h30^{km}, mb4.8/17, Error ellipse: s-maj=20.1km s-min=12.6km az=212.0*

ISC 30 03:00:55.1±0.4**, 6.55N**±0.07×**91.81E**±0.07**, h30**^{km}**, n64,** σ**1**^{s}**.16**/63**, mb4.6**/41**, MS4.1**/4**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PALK	**Pallekele**	**11.05**	**274**	*e*P	**P**	**03 03 32.3**	**-2.1**
PALK				*e*S	**S**	**03 05 26.4**	**-12**
CM31	**Chiang Mai Arr**	**13.73**	**30**	P	**P**	**03 04 00.2**	**-10**
	17nm,0.8s						
CAL	**Calcutta**	**16.25**	**348**	*e*	**P**	**03 05 01.7**	**+19**
CAL				*e*		03 07 17.4	
CAL				*e*		03 09 59.6	
SHL	**Shillong**	**18.91**	**0**	*i* P	**P**	**03 05 15.0**	**-1.1**
KAD	**Karad**	**20.27**	**303**	*e*P	**P**	**03 05 33.0**	**+1.8**
KAD				*e*S	**S**	**03 09 17.0**	**+5.3**
POO	**Poona**	**21.17**	**306**	*e*P	**P**	**03 05 41.0**	**+0.7**
POO				*e*		03 09 18.0	
BHPL	**Bhopal**	**21.61**	**322**	*e*P	**P**	**03 05 42.5**	**-2.4**
BHPL				AMb	AMB	03 05 50.7	
	comp=Z,22nm,1.7s,mb4.3						
PKI	**Pulchoki**	**21.77**	**345**	*e*P	**P**	**03 05 46.5**	**+0.1**
	comp=Z,25nm,0.5s,mb4.9						
DMN	**Daman**	**21.89**	**344**	*e*P	**P**	**03 05 47.7**	**+0.1**
	comp=Z,40nm,0.6s,mb5.0						
GUN	**Gumba**	**21.98**	**346**	*e*P	**P**	**03 05 48.2**	**-0.3**
	comp=Z,77nm,0.9s,mb5.1						
KKN	**Kakani**	**22.02**	**344**	*e*P	**P**	**03 05 48.8**	**0.0**
	comp=Z,70nm,1.0s,mb5.0						
GKN	**Gorkha**	**22.40**	**343**	*e*P	**P**	**03 05 52.7**	**+0.1**
	comp=Z,94nm,0.8s,mb5.3						
KOLN	**Koldanda**	**22.50**	**341**	*e*P	**P**	**03 05 54.3**	**+0.7**
	comp=Z,33nm,0.7s,mb4.8						
LSA	**Lhasa**	**23.04**	**359**	*e*P	**P**	**03 05 55.8**	**-3.2**
	comp=Z,24nm,0.7s,mb4.7						
DGAR	**Diego Garcia**	**23.77**	**235**	P	**P**	**03 06 04.5**	**-1.7**
	comp=Z,117nm,0.9s,mb5.3						
GYA	**Guiyang**	**24.34**	**34**	⇑*i*P	**P**	**03 06 11.5**	**-0.2**
GYA				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.4						
GTA	**Gaotai**	**33.51**	**11**	*e*P	**P**	**03 07 32.8**	**-1.3**
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.4						
UCH	**Uchtor**	**38.70**	**339**	P	**P**	**03 08 20.5**	**+2.4**
	SNR=6.6						
AML	**Almayashu**	**38.91**	**338**	P	**P**	**03 08 21.6**	**+1.7**
	SNR=12						
KBK	**Karagaybulak**	**38.93**	**340**	P	**P**	**03 08 21.9**	**+1.9**
	SNR=8.0						
TKM2	**Tokmak 2**	**38.95**	**341**	P	**P**	**03 08 22.0**	**+1.7**
	SNR=5.8						
AAK	**Ala-Archa**	**39.07**	**340**	*e*P	**P**	**03 08 21.4**	**+0.2**
	comp=Z,3.3nm,0.8s,mb4.1						
USP	**Ospenovka**	**39.62**	**340**	P	**P**	**03 08 26.7**	**+0.9**
	SNR=6.7						
JOW	**Kunigami**	**40.11**	**56**	LR	LR	03 28 42.9	
	comp=Z,228nm,18.3s,MS4.1,baz=360,slow=42						
SONM	**Songino Array**	**42.98**	**14**	P	**P**	**03 08 53.5**	**+0.1**
	comp=Z,2.6nm,0.7s,mb4.1,baz=196,slow=8.8,SNR=16						
ULN	**Ulaanbaatar**	**43.18**	**15**	*e*P	**P**	**03 08 55.2**	**+0.3**
	comp=Z,1.9nm,0.8s,mb3.9						
ZAL	**Zalesovo**	**47.59**	**354**	P	**P**	**03 09 29.4**	**-0.7**
	comp=Z,3.7nm,0.5s,mb4.7,baz=221,slow=6.2,SNR=13						
WRA	**Warramunga Arr**	**49.43**	**123**	P	**P**	**03 09 45.1**	**+0.4**
	comp=Z,5.6nm,0.9s,mb4.6,baz=302,slow=8.8,SNR=14						
WRAB	**Tennant Creek**	**49.43**	**123**	*e*P	**P**	**03 09 44.8**	**+0.1**
	comp=Z,11nm,0.9s,mb4.9						
BVAR	**Borovoye Array**	**49.54**	**343**	P	**P**	**03 09 44.4**	**-0.7**
	comp=Z,1.1nm,0.5s,mb4.1,baz=150,slow=10,SNR=7.0						
BRVK	**Borovoye**	**49.60**	**343**	*e*P	**P**	**03 09 45.6**	**+0.1**
	comp=Z,3.9nm,0.8s,mb4.5						
CHKZ	**Chkalovo**	**50.05**	**344**	*e*P	**P**	**03 09 48.6**	**-0.4**
	comp=Z,7.9nm,0.8s,mb4.8						
CHKZ				*e*	pP	03 09 56.7	-1.4
ASAR	**Alice Springs**	**50.89**	**128**	P	**P**	**03 09 55.8**	**0.0**
	comp=Z,3.6nm,0.9s,mb4.3,baz=308,slow=7.2,SNR=16						
ASAR				LR	LR	03 36 04.0	
	comp=Z,98nm,18.4s,MS3.9,baz=38,slow=41						
MAJO	**Matsushiro**	**51.76**	**48**	P	**P**	**03 09 54.9**	**-7.3**
	comp=Z,53nm,1.7s,mb5.2						
GNI	**Garni**	**53.74**	**316**	P	**P**	**03 10 16.8**	**-0.1**
	comp=Z,1.4nm,0.4s,mb4.3,baz=256,slow=19,SNR=2.0						
GNI	**Garni**	**53.74**	**316**	P	**P**	**03 10 16.5**	**-0.4**
	comp=Z,7.4nm,1.0s,mb4.6						
KMBO	**Kilima Mbogo**	**54.98**	**264**	P	**P**	**03 10 28.6**	**+2.1**
	comp=Z,9.4nm,0.8s,mb4.9,baz=52,slow=11,SNR=20						
KMBO	**Kilima Mbogo**	**54.98**	**264**	*e*P	**P**	**03 10 28.9**	**+2.5**
	comp=Z,11nm,0.9s,mb4.9						
ARU	**Arti**	**56.23**	**339**	*e*P	**P**	**03 10 34.0**	**-0.8**
	comp=Z,11nm,1.2s,mb4.8						
KIV	**Kislovodsk**	**56.77**	**319**	*e*P	**P**	**03 10 39.0**	**+0.1**
	comp=Z,6.3nm,0.9s,mb4.7						
MALT	**Malatya**	**57.58**	**312**	*e*P	**P**	**03 10 42.1**	**-2.5**
	comp=Z,8.7nm,1.4s,mb4.6						
EIL	**Elat**	**58.09**	**301**	P	**P**	**03 10 48.5**	**+0.1**
CTA	**Charters Tower**	**59.71**	**118**	LR	LR	03 41 07.5	
	comp=Z,185nm,18.5s,MS4.2,baz=44,slow=40						
CTAO	**Charters Tower**	**59.71**	**118**	*e*P	**P**	**03 10 56.3**	**-3.4**
	comp=Z,26nm,1.4s,mb5.1						
STKA	**Stephens Creek**	**60.91**	**132**	P	**P**	**03 11 07.6**	**-0.1**
	comp=Z,3.7nm,0.6s,mb4.7,baz=310,slow=7.5,SNR=13						
STKA	**Stephens Creek**	**60.91**	**132**	*e*P	**P**	**03 11 08.1**	**+0.4**
MBAR	**Mbarara**	**61.35**	**266**	*e*P	**P**	**03 11 12.4**	**+1.4**
	comp=Z,11nm,1.3s,mb4.8						
BRTR	**Keskin Array B**	**61.56**	**312**	P	**P**	**03 11 10.1**	**-2.0**
	comp=Z,1.9nm,0.8s,mb4.2,baz=130,slow=6.2,SNR=9.8						
AKASG	**Malin Array Be**	**67.77**	**322**	P	**P**	**03 11 50.3**	**-1.9**
	comp=Z,0.2nm,0.3s,mb3.6,baz=84,slow=5.0,SNR=4.1						
MLR	**Muntele Rosu**	**68.51**	**316**	P	**P**	**03 11 55.8**	**-1.1**
	comp=Z,6.7nm,1.0s,mb4.5,baz=61,slow=6.8,SNR=4.4						
KECS	**Kecovo**	**72.77**	**319**	*e*P	**P**	**03 12 26.3**	**+3.7**
KECS	**Kecovo**	**72.77**	**319**	*e*	**P**	**03 12 26.3**	**+3.7**
FINES	**FINESS Array B**	**72.81**	**333**	P	**P**	**03 12 22.3**	**-0.2**
	comp=Z,2.5nm,0.8s,mb4.2,baz=90,slow=1.9,SNR=8.6						
KAF	**Kangasniemi**	**72.92**	**333**	*e*p	**P**	**03 12 22.8**	**-0.4**
	comp=Z,0.3nm,0.4s,mb3.6						
ZST	**Bratislava**	**74.96**	**318**	*e*P	**P**	**03 12 34.2**	**-1.1**
GERES	**GERESS Array B**	**77.28**	**318**	P	**P**	**03 12 48.5**	**+0.1**
	comp=Z,3.2nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=18						
KHC	**Kasperske Hory**	**77.38**	**319**	*e*P	**P**	**03 12 44.5**	**-4.4**
KHC				*e*pP	pP	03 12 49.5	-8.9
KHC				*e*x	x	03 13 22.0	
CLL	**Collm**	**77.92**	**321**	P	**P**	**03 12 52.0**	**+0.2**
DAVOX	**Davos**	**79.74**	**316**	P	**P**	**03 13 02.8**	**+0.9**
	comp=Z,8.2nm,0.8s,mb4.7,baz=124,slow=7.4,SNR=19						
LPG	**La Plagne**	**81.91**	**315**	*e*P	**P**	**03 13 14.4**	**+1.1**
	comp=Z,17nm,0.9s,mb4.7						
EKA	**Eskdalemuir Ar**	**87.49**	**325**	P	**P**	**03 13 41.1**	**+0.1**
	comp=Z,0.9nm,0.6s,mb4.2,baz=76,slow=3.4,SNR=4.0						
ESDC	**Sonseca Array**	**90.29**	**310**	P	**P**	**03 13 55.3**	**+0.5**
	comp=Z,0.9nm,0.7s,mb4.2,baz=61,slow=4.5,SNR=6.3						
ESLA	**Sonseca Array**	**90.29**	**310**	P	**P**	**03 13 56.5**	**+1.8**
	comp=Z,5.7nm,1.4s,mb4.7						
VNDA	**Vanda**	**92.11**	**168**	LR	LR	03 49 57.2	
	comp=Z,93nm,19.0s,MS4.2,baz=323,slow=32						

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*BJI **30** 03:12:44.1, 8.85N×92.61E, h27^{km}, mB5.1, mb4.9, Ms4.5, Msz4.1*

*IDC **30** 03:12:45.2±3.5, 9.03N×92.41E, h14^{km}±21^{km}, mb4.6/17, mb1 4.6/18, mb1mx4.5/23, mbtmp4.6/18, ML4.0/1, MS3.8/2, Ms1 3.9/2, ms1mx3.3/29, Error ellipse: s-maj=24.9km s-min=11.1km az=53.0*

*SYO **30** 03:12:45.2, 9.04N×92.57E, h10^{km}, MB5.1*

*NEIC **30** 03:12:46.5±4.0, 9.03N×92.53E, h19^{km}±24^{km}, mb5.1/33, Error ellipse: s-maj=9.6km s-min=6.6km az=57.0*

*HRVD **30** 03:12:46.5±0.9, 9.15N×92.31E, h35^{km}±1^{km}, MW4.9/25, Centroid moment Tensor Solution. LP body waves: s13,c13;Mantle waves: s25,c35; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.47±.32; M$_{\theta\theta}$0.31±.19; M$_{\phi\phi}$2.16±.19; M$_{r\theta}$1.06±.26; M$_{\theta\phi}$-0.74±.13; M$_{\phi r}$1.09±.18; Best double couple: M$_0$2.83×10^{16} NP1:φ$_s$321°,δ41°, λ-125°. NP2:φ$_s$184°,δ58°,λ-64°. Principal axes: T 2.53, Plg9°, Azm256°; N .61, Plg22°, Azm349°; P -3.13, Plg66°, Azm145°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **30** 03:12:47.0±1.0, 9.10N×92.57E, h33^{km}, mb5.3/30 Error ellipse: s-maj=13.5km s-min=7.8km az=110.2*

ISC 30 03:12:46.4±0.3**, 9.04N**±0.04×**92.64E**±0.04**, h31**^{km}**, h31**^{km}±.7^{km}**:pP-P, n182,** σ**1**^{s}**.07**/158**, mb4.9**/64**, MS4.3**/8**, 2C-4D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**11.18**	**32**	*e*P	**P**	**03 15 27.8**	**+0.3**
CMAR	**Chiang Mai Arr**	**11.18**	**32**	Pn	**P**	**03 15 27.8**	**+0.3**
	0.3nm,0.3s,baz=226,slow=14,SNR=12						
CMAR				LR	LR	03 20 13.4	
	comp=Z,339nm,19.5s,baz=215,slow=40						
CMAR				PcP	PcP	03 21 22.4	+0.6
	baz=232,slow=4.8,SNR=4.2						
VIS	**Vishakhapatnam**	**12.51**	**315**	⇑*e*P	**P**	**03 15 41.3**	**-4.1**
KOD	**Kodaikanal**	**15.01**	**276**	⇓*e*P	**P**	**03 16 17.9**	**-0.5**
KOD				*e*		03 18 44.6	
HYB	**Hyderabad**	**16.04**	**303**	*e*P	**P**	**03 16 29.0**	**-2.6**
HYB	**Hyderabad**	**16.04**	**303**	*i* P	**P**	**03 16 29.0**	**-2.6**
HYB				*e*		03 19 04.0	
HYB				*e*S	**S**	**03 19 22.0**	**-6.2**
SHL	**Shillong**	**16.45**	**358**	*e*P	**P**	**03 16 38.5**	**+1.6**

SHL				eP		03 16 39.0	
MNGI	Mangalore	17.92	284	e	P	03 16 55.9	+0.7
PKI	Pulchoki	19.66	341	eP	P	03 17 16.9	+1.0
	148nm,1.3s						
KAD	Karad	19.75	296	eP	P	03 17 17.0	0.0
KAD				i S	S	03 20 50.0	-2.3
DMN	Daman	19.80	340	eP	P	03 17 17.7	+0.3
	58nm,0.7s						
GUN	Gumba	19.83	342	eP	P	03 17 17.6	-0.2
	89nm,0.9s						
KKN	Kakani	19.91	341	eP	P	03 17 17.7	-0.9
	48nm,0.8s						
BHPL	Bhopal	20.30	316	eP	P	03 17 18.7	-3.9
BHPL				e		03 17 34.3	
	comp=Z,39nm,1.1s						
GKN	Gorkha	20.32	339	eP	P	03 17 22.5	-0.4
	comp=Z,67nm,0.6s						
KOLN	Koldanda	20.50	337	eP	P	03 17 24.1	-0.6
	comp=Z,49nm,0.7s						
POO	Poona	20.53	299	i P	P	03 17 24.0	-1.1
	comp=Z,140nm,1.0s						
POO				i S	S	03 21 04.0	-4.1
LSA	Lhasa	20.60	356	eP	P	03 17 25.8	0.0
LSA				pmax	pmax		
	comp=Z,120nm,1.8s						
LSA	Lhasa	20.60	356	eP	P	03 17 25.8	0.0
	comp=Z,120nm,1.8s						
COCO	West Island	21.50	169	P	P	03 17 34.0	-1.0
	comp=Z,187nm,1.1s,mb5.3						
GYA	Guiyang	21.84	36	⇑iP	P	03 17 38.8	+0.5
GYA				AP		03 17 47.8	
GYA				XP		03 17 53.0	
GYA				S	S	03 21 37.5	+4.6
GYA				AMB	AMB		
	comp=Z,140nm,2.0s,mb5.0						
GYA				LR	LR		
	comp=N,970nm,16.2s,MS4.4						
GYA				LR	LR		
	comp=E,780nm,17.4s,MS4.4						
GYA				LR	LR		
	comp=Z,540nm,16.0s,MS4.0						
AGRA	Agra	22.82	324	eP	P	03 17 47.3	-0.8
AYAN	Aya Nagar	24.24	325	eP	P	03 18 02.5	+0.6
NDI	New Delhi	24.34	325	eP	P	03 18 02.0	-0.9
NDI				e		03 18 11.0	
NDI				e	S	03 22 30.0	+13
KUDL	Kundal	24.35	323	e	P	03 17 58.2	-4.8
KHET	Khetri	24.71	322	eP	P	03 18 07.0	+0.6
DDI	Dehra Dun	25.18	329	e	P	03 18 12.0	+1.0
KKR	Kurukshetra	25.55	327	e	pP	03 18 23.2	0.0
KLP	Kalpa	26.08	331	eP	P	03 18 19.9	+0.6
ENH	Enshi	26.34	34	eP	P	03 18 21.1	-0.7
	comp=Z,82nm,1.0s,mb5.2						
JASL	Jaisalmer	27.20	314	eP	P	03 18 31.9	+2.3
LZH	Lanzhou	28.79	19	eP	P	03 18 44.0	+0.1
LZH				AP	pP	03 18 53.5	+0.6
LZH				AMB	AMB		
	comp=Z,72nm,1.6s,mb5.2						
LZH				AMB	AMB		
	comp=Z,210nm,4.0s						
LZH				LR	LR		
	comp=N,523nm,13.0s						
LZH				LR	LR		
	comp=Z,869nm,14.3s,MS4.5						
GTA	Gaotai	30.92	11	P	P	03 19 03.0	+0.2
GTA				AP	pP	03 19 12.5	+0.7
GTA				XP	sP	03 19 15.8	0.0
GTA				PCP	PcP	03 21 59.5	+0.6
GTA				AMB	AMB		
	comp=Z,18nm,1.2s,mb4.8						
GTA				AMB	AMB		
	comp=Z,153nm,7.2s						
GTA				LR	LR		
	comp=N,258nm,20.2s,MS4.1						
GTA				LR	LR		
	comp=E,257nm,16.7s,MS4.1						
GTA				LR	LR		
	comp=Z,305nm,16.4s,MS4.0						
NJ2	Nanjing	33.39	43	eP	P	03 19 24.5	0.0
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
KSH	Kashi	33.81	336	eP	P	03 19 28.5	+0.4
KSH				eAP	pP	03 19 37.3	+0.1
KSH				eXP	sP	03 19 41.0	-0.1
KSH				AMB	AMB		
	comp=Z,140nm,4.2s						
HHC	Hu-ho-hao-te	35.85	25	eP	P	03 19 45.3	-0.2
HHC				AP	pP	03 19 49.5	-5.1
HHC				PP	PP	03 21 06.5	-0.6
HHC				S	S	03 25 21.3	+0.8
HHC				PCS		03 25 59.5	
HHC				SS	SS	03 27 42.5	-0.1
HHC				AMB	AMB		
	comp=Z,17nm,0.6s,mb5.2						
HHC				AMB	AMB		
	comp=Z,168nm,4.9s						
HHC				LR	LR		
	comp=N,356nm,14.3s,MS4.4						
HHC				LR	LR		
	comp=E,383nm,16.6s,MS4.4						
HHC				LR	LR		
	comp=Z,243nm,13.1s,MS4.2						
KZA	Kyzart	36.30	338	P	P	03 19 50.3	+1.0
	SNR=6.8						
UCH	Uchtor	36.71	337	P	P	03 19 53.9	+1.3
	SNR=6.2						
TKM2	Tokmak 2	36.91	339	P	P	03 19 55.3	+1.0
	SNR=7.3						
KBK	Karagaybulak	36.91	338	P	P	03 19 55.4	+1.0
	SNR=6.2						
AML	Almayashu	36.94	336	P	P	03 19 56.2	+1.6
	SNR=14						
AAK	Ala-Archa	37.06	338	P	P	03 19 57.3	+1.7
	SNR=11						
AAK	Ala-Archa	37.06	338	eP	P	03 19 55.4	-0.2
AAK				e	pP	03 20 05.2	+0.4
AAK				pmax	pmax		
	comp=Z,52nm,1.5s,mb5.1						
AAK	Ala-Archa	37.06	338	eP	P	03 19 55.4	-0.3
	comp=Z,52nm,1.5s,mb5.1						
AAK				e	pP	03 20 05.2	+0.4
FRU	Bishkek	37.19	338	eP	P	03 19 57.0	+0.3
FRU				e	pP	03 20 06.0	+0.2
CHMS	Chumysh	37.28	338	P	P	03 19 58.4	+0.9
	SNR=7.0						
BJT	Baijiatuau	37.30	30	eP	P	03 19 58.0	+0.3
BJT				pmax	pmax		
	comp=Z,16nm,0.7s						
BJT	Baijiatuau	37.30	30	eP	P	03 19 58.0	+0.3
	comp=Z,16nm,0.7s,mb5.0						
BJI	Beijing	37.32	30	eP	P	03 19 58.5	+0.7
BJI				AMB	AMB		
	comp=Z,12nm,1.1s,mb4.6						
BJI				LR	LR		
	comp=N,425nm,11.7s,MS4.5						
BJI				LR	LR		
	comp=E,252nm,14.2s,MS4.5						
BJI				LR	LR		
	comp=Z,263nm,21.2s						
EKS2	Erkin-Say	37.36	337	P	P	03 19 59.6	+1.5
	SNR=9.4						
USP	Ospenovka	37.61	338	P	P	03 20 00.9	+0.7
	SNR=18						
MBWA	Marble Bar	40.11	139	eP	P	03 20 21.0	-0.3
	comp=Z,28nm,1.0s,mb4.9						
SONM	Songino Array	40.38	14	P	P	03 20 23.5	+0.2
	comp=Z,6.5nm,0.8s,mb4.4,baz=194,slow=9.4,SNR=45						
SONM				PcP	PcP	03 22 26.7	0.0
	comp=Z,5.6nm,0.8s,baz=206,slow=3.6,SNR=8.6						
ULN	Ulaanbaatar	40.57	15	eP	P	03 20 24.4	-0.4
ULN				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.5						
ULN	Ulaanbaatar	40.57	15	eP	P	03 20 24.4	-0.4
	comp=Z,10nm,0.8s,mb4.5						
ZAK	Zakamensk	42.15	10	eP	P	03 20 37.8	+0.1
MOY	Mondy	43.05	8	eP	P	03 20 46.0	+0.9
CN2	Changchun	44.86	34	eP	P	03 20 59.8	-0.1
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
ZAL	Zalesovo	45.22	353	i P	P	03 21 02.2	-0.3
ZAL				pmax	pmax		
	comp=Z,1.0nm,0.6s						
ZAL	Zalesovo	45.22	353	P	P	03 21 01.5	-1.0
	comp=Z,1.4nm,0.6s,mb4.0,baz=205,slow=9.6,SNR=10						
HIA	Hailar	46.06	24	eP	P	03 21 09.0	-0.2
HIA				e	pP	03 21 19.1	+0.6
HIA				pmax	pmax		
	comp=Z,41nm,1.4s						
HIA	Hailar	46.06	24	eP	P	03 21 09.0	-0.3
	comp=Z,41nm,1.4s,mb5.2						
HIA				e	pP	03 21 19.1	+0.6
NVS	Novosibirsk	46.29	352	eP	P	03 21 09.4	-1.6
RDF	Al-Radifah	46.66	301	eP	P	03 21 15.0	+0.7
RDF				AMb	AMB	03 21 25.8	
	comp=Z,80nm,0.7s,mb5.8						
MIB	Mutribah	47.08	302	eP	P	03 21 18.5	+0.9
MIB				AMb	AMB	03 21 29.5	
	comp=Z,79nm,0.9s,mb5.6						
RST	Umm Al-Ruwaisa	47.28	302	eP	P	03 21 19.3	+0.1
RST				AMb	AMB	03 21 30.3	
	comp=Z,82nm,0.8s,mb5.7						
BVAR	Borovoye Array	47.42	342	P	P	03 21 19.1	-0.9
	comp=Z,11nm,1.1s,mb4.7,baz=142,slow=8.9,SNR=24						
BVAR				PcP	PcP	03 22 50.1	-0.4
	comp=Z,1.3nm,0.7s,baz=194,slow=5.9,SNR=2.7						
BRVK	Borovoye	47.48	342	eP	P	03 21 19.4	-1.1
BRVK				e	pP	03 21 28.9	-0.9
BRVK				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
BRVK	Borovoye	47.48	342	eP	P	03 21 19.4	-1.1
	comp=Z,17nm,1.2s,mb4.9						
BRVK				e	pP	03 21 28.9	-0.9
NWAO	Narrogin (SRO)	47.86	152	eP	P	03 21 24.1	+0.4
NWAO				pmax	pmax		
	comp=Z,25nm,0.7s						
NWAO	Narrogin (SRO)	47.86	152	P	P	03 21 24.1	+0.3
	comp=Z,25nm,0.6s,mb5.4,baz=319,slow=9.0,SNR=33						
NWAO	Narrogin (SRO)	47.86	152	eP	P	03 21 24.1	+0.4
	comp=Z,25nm,0.7s,mb5.3						
CHKZ	Chkalovo	47.92	343	eP	P	03 21 23.4	-0.5
CHKZ				e	pP	03 21 32.5	-0.7
CHKZ				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
CHKZ	Chkalovo	47.92	343	eP	P	03 21 23.4	-0.5
	comp=Z,17nm,0.6s,mb5.3						
CHKZ				e	pP	03 21 32.5	-0.7
MAJO	Matsushiro	49.50	49	P	pP	03 21 47.3	+1.6
AFFS	‘Afif	49.59	294	P	P	03 21 39.2	+2.0
ARSS	Ar Rass	49.70	296	P	P	03 21 39.3	+1.2
WRA	Warramunga Arr	50.14	125	P	P	03 21 40.6	-0.8
	comp=Z,18nm,0.7s,mb5.2,baz=305,slow=8.5,SNR=139						
WRA				PcP	PcP	03 22 59.1	-1.7
	comp=Z,7.6nm,1.2s,baz=301,slow=4.3,SNR=4.6						
WRAB	Tennant Creek	50.14	125	eP	P	03 21 40.4	-1.0
WRAB				pmax	pmax		
	comp=Z,37nm,0.7s,mb5.5						
WRAB	Tennant Creek	50.14	125	eP	P	03 21 40.4	-1.0
	comp=Z,37nm,0.7s,mb5.5						
HILS	Ha’il	51.25	298	P	P	03 21 51.1	+1.3
GUMO	Guam	51.33	80	P	P	03 21 47.1	-3.4
GUMO				pmax	pmax		
	comp=Z,491nm,1.5s						
GUMO	Guam	51.33	80	P	P	03 21 47.1	-3.4
	comp=Z,491nm,1.5s						
BOD	Bodaibo	51.38	14	eP	P	03 21 49.3	-1.0
ASAR	Alice Springs	51.79	130	P	P	03 21 53.0	-0.9
	comp=Z,16nm,0.7s,mb5.1,baz=302,slow=6.8,SNR=150						
ASAR				PcP	PcP	03 23 06.4	-0.4
	comp=Z,5.4nm,0.9s,baz=306,slow=3.6,SNR=10						
GNI	Garni	52.57	314	eP	P	03 21 58.8	-0.7
GNI				e	pP	03 22 09.0	+0.1
GNI				pmax	pmax		
	comp=Z,33nm,1.3s						
GNI	Garni	52.57	314	P	P	03 21 57.6	-2.0
	comp=Z,1.3nm,0.4s,mb4.2,baz=209,slow=3.5,SNR=4.1						
GNI	Garni	52.57	314	eP	P	03 21 58.8	-0.7
	comp=Z,33nm,1.3s,mb5.1						
GNI				e	pP	03 22 08.9	0.0
TI2	Plekhanov	53.19	316	eP	P	03 22 04.0	-0.1
KBRS	Khaybar	53.22	295	P	P	03 22 06.7	+2.1
SVE	Sverdlovsk	53.78	339	eP	P	03 22 07.5	-0.7
SVE				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.2						
ZEI	Tsey	54.18	317	eP	pP	03 22 19.0	-1.7
ZEI				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
ARU	Arti	54.25	337	⇓iP	P	03 22 10.6	-1.1
ARU				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
ARU	Arti	54.25	337	eP	P	03 22 10.8	-0.9
	comp=Z,47nm,1.3s,mb5.3						
ARU				e	pP	03 22 18.7	-2.3
KIV	Kislovodsk	55.47	318	eP	P	03 22 19.7	-1.1
KIV				e	pP	03 22 29.2	-0.9
KIV				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.2						
KIV	Kislovodsk	55.47	318	eP	P	03 22 19.7	-1.0
	comp=Z,26nm,1.1s,mb5.2						
KIV				e	pP	03 22 29.2	-1.0
TBKS	Tabuk	55.97	298	P	P	03 22 26.1	+1.6
KMBO	Kilima Mbogo	56.09	263	eP	P	03 22 27.2	+1.5
KMBO				e	pP	03 22 36.5	+1.4
KMBO				pmax	pmax		
	comp=Z,6.0nm,1.0s						
KMBO	Kilima Mbogo	56.09	263	eP	P	03 22 27.1	+1.5
	comp=Z,5.7nm,1.0s,mb4.6						
KMBO				e	pP	03 22 36.5	+1.4
MALT	Malatya	56.59	310	eP	P	03 22 27.9	-1.0
MALT				e	pP	03 22 37.1	-1.2
MALT				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
MALT	Malatya	56.59	310	eP	P	03 22 27.9	-1.0
	comp=Z,15nm,1.2s,mb4.9						
MALT				e	pP	03 22 37.1	-1.2
JMQS	Jabal Moqyreh	56.65	299	P	P	03 22 30.2	+0.8
YSS	Yuzh-Sakhalins	56.80	39	eP	P	03 22 30.3	0.0
YSS				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.5						
YSS	Yuzh-Sakhalins	56.80	39	eP	P	03 22 30.3	0.0
	comp=Z,37nm,0.8s,mb5.5						
AYUS	‘Aynunah	57.08	298	P	P	03 22 33.1	+0.5
BDAS	Al Bad‘	57.26	298	P	P	03 22 34.4	+0.5
PMG	Port Moresby	57.29	107	eP	P	03 22 34.4	+0.2
PMG				pmax	pmax		
	comp=Z,17nm,0.8s						
PMG	Port Moresby	57.29	107	eP	P	03 22 34.4	+0.2
	comp=Z,17nm,0.8s,mb5.1						
SOC	Sochi	57.32	316	i P	P	03 22 37.3	+3.3
SOC				e		03 24 42.5	
SOC				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb5.0						
SOC				pmax	pmax		
	comp=N,11nm,0.7s						
SOC				pmax	pmax		
	comp=E,8.0nm,0.6s						
JMOS	Jabal al Moall	57.36	299	P	P	03 22 34.6	+0.1
ALWS	Ilw as Safayha	57.42	299	P	P	03 22 34.4	-0.5
TAYS	Tayyib Ism	57.48	298	P	P	03 22 35.6	+0.3
HAQS	Haql	57.50	299	P	P	03 22 35.9	+0.5
EIL	Elat	57.57	299	eP	P	03 22 36.1	+0.2
	comp=E,24nm,1.1s,mb5.1						
EIL				e	pP	03 22 45.2	-0.2
YAK	Yakutsk	59.38	19	i P	pP	03 22 55.9	-1.7
YAK				pmax	pmax		
	comp=Z,41nm,1.5s,mb5.2						
CTA	Charters Tower	60.16	119	P	P	03 22 54.8	+0.7
	comp=Z,20nm,0.8s,mb5.2,baz=292,slow=8.7,SNR=12						
CTAO	Charters Tower	60.16	119	eP	P	03 22 54.5	+0.4
CTAO				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
CTAO	Charters Tower	60.16	119	eP	P	03 22 54.5	+0.4
	comp=Z,38nm,1.0s,mb5.4						
BRTR	Keskin Array B	60.55	311	P	P	03 22 53.9	-2.6
	comp=Z,3.4nm,0.8s,mb4.5,baz=126,slow=7.8,SNR=21						
VRSR	Storozhevoye	60.58	325	eP	pP	03 23 04.3	-1.7
VRSR				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb5.1						
VRSR				pmax	pmax		
	comp=N,5.0nm,0.4s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.1s						
STKA	Stephens Creek	61.98	133	P	P	03 23 05.8	-0.4
	comp=E,7.0nm,0.7s,mb4.9,baz=306,slow=5.8,SNR=21						
STKA				PcP	PcP	03 23 47.2	+0.9
	comp=E,2.6nm,0.6s,baz=305,slow=12,SNR=4.5						
STKA				LR	LR	03 49 46.3	
	comp=E,132nm,21.7s,MS4.1,baz=24,slow=36						
STKA	Stephens Creek	61.98	133	eP	P	03 23 05.5	-0.8
STKA				e	pP	03 23 16.8	+1.0
OBN	Obninsk	63.61	328	i P	pP	03 23 24.6	-1.6
OBN				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.1						
OBN				MLR	MLR		
	comp=Z,200nm,19.0s,MS4.3						
AKASG	Malin Array Be	66.33	322	P	P	03 23 31.5	-2.8
	comp=Z,0.5nm,0.5s,baz=90,slow=5.2,SNR=5.8						
TIXI	Tiksi	66.39	12	⇓iP	P	03 23 33.2	-1.2
TIXI				e	pP	03 23 42.1	-1.9
TIXI				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,131nm,17.0s,MS4.2						
MLR	Muntele Rosu	67.31	316	P	P	03 23 38.2	-2.5
	comp=Z,5.6nm,0.9s,mb4.6,baz=155,slow=6.8,SNR=5.1						
KOLS	Kolonicke sedl	70.36	319	eP	pP	03 24 07.5	-1.4
KOLS	Kolonicke sedl	70.36	319	esP	pP	03 24 07.5	-1.4
SUW	Suwalki	70.70	324	eP	P	03 23 57.6	-3.8
SUW				pmax	pmax		
	comp=Z,67nm,1.3s,mb5.4						
SUW	Suwalki	70.70	324	eP	P	03 23 57.5	-3.8
	comp=Z,67nm,1.3s,mb5.4						
FINES	FINESS Array B	71.00	332	P	P	03 24 02.0	-1.1
	comp=Z,7.3nm,1.1s,mb4.5,baz=104,slow=7.9,SNR=6.7						
KAF	Kangasniemi	71.09	333	ep	pP	03 24 10.8	-2.4
	comp=Z,0.8nm,0.4s						
KAF	Kangasniemi	71.09	333	eP	pP	03 24 10.8	-2.4
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
OJC	Ojcow	72.14	320	eP	PcP	03 24 26.2	-2.2
KEV	Kevo	73.25	341	ep	pP	03 24 22.8	-3.1
	comp=Z,0.6nm,0.4s						
KEV	Kevo	73.25	341	eP	pP	03 24 22.8	-3.1
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
LBTB	Lobatse	73.51	241	eP	P	03 24 19.1	+0.5
LBTB				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
LBTB	Lobatse	73.51	241	eP	P	03 24 19.1	+0.4
	comp=Z,12nm,1.1s,mb4.7						
MORC	Moravsky Berou	73.53	319	eP	P	03 24 17.0	-1.3
MORC				e	pP	03 24 26.9	-1.0
MORC				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
MORC	Moravsky Berou	73.53	319	eP	P	03 24 17.0	-1.3
	comp=Z,9.3nm,1.2s,mb4.6						
MORC				e	pP	03 24 26.9	-1.0
ARCES	ARCESS Array B	73.68	340	P	P	03 24 18.1	-0.6
	comp=Z,2.6nm,0.6s,mb4.3,baz=69,slow=10,SNR=7.7						
ZST	Bratislava	73.68	318	eP	P	03 24 17.9	-1.3
ZST				e	pP	03 24 27.8	-1.0
KSP	Ksiaz	74.43	320	eP	P	03 24 23.0	-0.4
KSP				e*PP	pP	03 24 32.3	-0.8
GERES	GERESS Array B	75.98	318	P	P	03 24 30.7	-1.6
	comp=Z,2.2nm,0.8s,mb4.1,baz=90,slow=5.3,SNR=17						
KHC	Kasperske Hory	76.07	318	eP	pP	03 24 41.5	-1.0
KHC				ex	x	03 25 05.5	
CASY	Casey	76.26	173	eP	P	03 24 33.9	+0.3
	comp=Z,10nm,0.8s,mb4.8						
CASY				e		03 24 46.8	
CLL	Collm	76.53	321	P	P	03 24 35.0	-0.4
CLL				e*SP	sP	03 24 45.0	-3.4
NB2	NORSAR Subarra	78.00	331	P	P	03 24 42.0	-1.3
	comp=Z,15nm,1.2s,mb4.8,baz=93,slow=5.8						
NB2	NORSAR Subarra	78.00	331	P	P	03 24 42.0	-1.3
NB2				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.8						
NOA	NORSAR Array B	78.00	331	P	P	03 24 39.6	-3.6
	comp=Z,6.3nm,1.1s,mb4.5,baz=95,slow=5.4,SNR=3.5						
DAVOX	Davos	78.53	316	P	P	03 24 44.2	-2.3
	comp=Z,1.4nm,0.5s,mb4.1,baz=138,slow=7.3,SNR=6.5						
LPG	La Plagne	80.75	315	eP	P	03 24 58.0	-0.5
	comp=Z,42nm,1.1s,mb5.0						
LPG	La Plagne	80.75	315	eP	P	03 24 58.0	-0.5
LPG				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
SYO	Syowa Base	86.08	197	⇓P	P	03 25 27.4	+2.2
RPZ	Rata Peaks	87.91	135	P	P	03 25 35.5	+0.8
	comp=Z,21nm,0.7s,mb5.5,baz=134,slow=16,SNR=6.5						
IMA	Indian Mountai	91.11	22	eP	P	03 25 50.9	+1.8
IMA				e	pP	03 26 01.1	+2.2
IMA				pmax	pmax		
	comp=Z,64nm,1.3s,mb5.8						
IMA	Indian Mountai	91.11	22	eP	P	03 25 50.9	+1.8
	comp=Z,64nm,1.3s,mb5.8						
IMA				e	pP	03 26 01.1	+2.1
ILAR	Eielson Array	94.22	22	P	P	03 26 02.5	-0.9
	comp=Z,1.3nm,0.7s,mb4.5,baz=305,slow=4.0,SNR=19						
ILAR				PP	PP	03 29 58.8	+5.7
	comp=Z,0.5nm,0.7s,baz=300,slow=7.5,SNR=5.6						
VNDA	Vanda	94.36	168	P	P	03 26 00.6	-3.3
VNDA				pmax	pmax		
	comp=Z,3.0nm,1.1s						
VNDA	Vanda	94.36	168	P	P	03 26 00.6	-3.3
	comp=Z,3.4nm,1.1s,mb4.7						
SBA	Scott Base	95.47	168	P	P	03 26 11.0	+2.0
SBA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.1						
SBA	Scott Base	95.47	168	P	P	03 26 11.0	+2.1
	comp=Z,6.4nm,0.8s,mb5.1						
RES	Resolute Bay	96.30	2	eP	P	03 26 13.7	+0.9
RES				e	pP	03 26 22.8	+0.1
RES				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.3						
RES	Resolute Bay	96.30	2	eP	P	03 26 13.7	+0.9
	comp=Z,11nm,0.9s,mb5.3						
RES				e	pP	03 26 22.8	+0.2
DBIC	Dimbokro	96.32	278	eP	P	03 26 14.9	+0.6
DBIC				pmax	pmax		
	comp=Z,5.0nm,1.1s						
DBIC	Dimbokro	96.32	278	eP	P	03 26 14.9	+0.7
	comp=Z,5.3nm,1.1s,mb4.9						
YKA	Yellowknife Ar	105.64	13	PP	PP	03 31 24.3	+4.3
	comp=Z,0.9nm,0.7s,baz=334,slow=7.7,SNR=7.9						
YKA				PKKPbc		03 42 31.5	
	comp=Z,0.3nm,0.8s,baz=158,slow=2.7,SNR=4.2						
ULM	Lac du Bonnet	120.50	6	PKP	PKPdf	03 31 37.8	-2.5
	comp=Z,2.9nm,0.6s,baz=34,slow=3.3,SNR=7.8						
MCMT	McKenzie Canyo	121.66	21	eP	Pdif	03 28 06.4	+0.8
PDAR	Pinedale Array	124.60	20	PKP	PKPdf	03 31 44.8	-3.7
	comp=Z,2.1nm,0.7s,baz=15,slow=1.1,SNR=21						
NVAR	Mina Array Bea	124.66	29	PKP	PKPdf	03 31 45.4	-3.4
	comp=Z,2.6nm,0.7s,baz=294,slow=2.1,SNR=10						
MSU	Marysvale	127.34	24	ePKIKP	PKPdf	03 31 52.5	-1.4
RW3	Ridgway	129.27	21	ePKPdf	PKPdf	03 31 48.5	-9.1
ANMO	Albuquerque	132.66	21	PKP	PKPdf	03 32 02.1	-2.1
	comp=Z,1.6nm,0.6s,baz=360,slow=1.6,SNR=7.9						
ANMO				SKPbc		03 35 26.5	
	comp=Z,0.8nm,0.8s,baz=314,slow=4.0,SNR=4.1						
GDL2	Guadalupe Moun	135.89	21	ePKPdf	PKPdf	03 32 07.2	-3.0
TXAR	Lajitas Array	138.74	22	PKP	PKPdf	03 32 12.1	-3.4
	comp=Z,0.9nm,0.6s,baz=122,slow=0.9,SNR=11						
JCT	Junction City	138.93	16	ePKIKP	PKPdf	03 32 12.5	-3.3
BDFB	Brasilia	141.06	256	PKP	PKPdf	03 32 17.2	-2.8
	comp=Z,1.4nm,0.4s,baz=116,slow=7.6,SNR=2.9						
VHO	Vista Hermosa	152.45	20	i P	PKPdf	03 32 34.0	-4.7
SDV	Santo Domingo	155.62	316	eP	PKPab	03 33 15.4	+8.9
	comp=Z,6.1nm,0.9s						
LVC	Limon Verde	157.74	231	PKPab	PKPab	03 33 15.0	-0.4
	comp=Z,1.2nm,0.5s,baz=78,slow=0.5,SNR=4.2						
LPAZ	La Paz	159.92	247	PKPab	PKPab	03 33 24.1	-0.8
	comp=Z,1.8nm,0.8s,baz=164,slow=5.9,SNR=6.1						

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*NEIC **30** 03:25:07.0, 35.04S×70.49W, mb4.0/2, ML3.8(GUC), After GUC.*

GUC 30 03:25:07.0±0.9**, 35.04S×70.49W, MD3.6, ML3.8, 8C-8D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NICH	Los Niches	0.61	274	⇑iP	Pg	03 25 19.6	+0.4
NICH				i S	Sg	03 25 28.8	+1.6
SFDO	San Fernando	0.61	315	⇓iP	Pg	03 25 19.0	-0.1
SFDO				i S	Sg	03 25 28.9	+1.7
CACH	El Canelo	0.93	354	⇑iP	Pg	03 25 24.3	-1.3
CACH				i S	Sg	03 25 38.0	+0.1
TALC	Talca	1.00	249	⇓iP	Pb	03 25 26.1	-0.8
TALC				AMP		03 25 40.4	
	comp=N,10µm,0.4s						
CHCH	Chadas Angostu	1.12	353	⇓iP	Pb	03 25 27.8	-1.1
CHCH				i S	Sb	03 25 44.0	+0.2
LNV	Longovilo	1.32	325	⇑iP	Pb	03 25 31.1	-1.3
LNV				i S	Sb	03 25 49.6	-0.2
SJCH	San Jose de Ma	1.41	5	⇑iP	Pb	03 25 32.8	-1.1
SJCH				i S	Sb	03 25 52.5	+0.3

SJCH				AMP		03 25 53.6	
	comp=N,658nm,0.3s						
PCH	**Pirque**	**1.42**	**359**	*i*P	Pb	03 25 33.2	-0.8
PCH				*i*S	Sb	03 25 53.2	+0.5
TACH	**Talagante**	**1.44**	**345**	⇓*i*P	Pn	03 25 33.1	-1.2
TACH				*i*S	Sb	03 25 53.2	+0.1
ANTU	**Antumapu**	**1.48**	**355**	⇓*i*P	Pn	03 25 34.2	-0.7
ANTU				AMP		03 25 55.6	
	comp=E,3µm,0.5s						
FSR	**Penalolen**	**1.56**	**359**	*i*P	Pn	03 25 35.6	-0.5
FSR				*i*S	Sb	03 25 57.0	+0.3
FSR				AMP		03 25 58.2	
	comp=E,1µm,0.3s						
RCDM	**Rinconada Maip**	**1.57**	**350**	*i*P	Pn	03 25 35.6	-0.7
RCDM				*i*S	Sb	03 25 57.0	-0.1
RCDM				AMP		03 25 58.7	
	comp=E,2µm,0.4s						
CTCH	**Constitucion**	**1.60**	**259**	*i*P	Pn	03 25 37.1	+0.5
CTCH				*i*S	Sb	03 25 59.0	+1.2
CTCH				AMP		03 26 05.6	
	comp=E,10µm,0.4s						
STL	**Santa Lucia**	**1.61**	**356**	*i*P	Pn	03 25 36.1	-0.7
STL				*i*S	Sb	03 25 58.3	+0.2
STL				AMP		03 25 59.3	
	comp=E,914nm,0.3s						
DSCH	**Colegio Aleman**	**1.64**	**358**	⇓*i*P	Pn	03 25 36.9	-0.4
DSCH				*i*S	Sb	03 25 59.2	+0.2
DSCH				AMP		03 26 02.5	
	comp=N,3µm,0.8s						
CLCH	**Cerro Calan**	**1.64**	**359**	⇑*i*P	Pn	03 25 36.8	-0.5
CLCH				*i*S	Sb	03 25 59.9	+0.8
CLCH				AMP		03 26 03.7	
	comp=E,2µm,0.6s						
CLCH				AMP		03 26 09.7	
	comp=E,2µm,0.5s						
FCH	**Farellones**	**1.72**	**6**	⇑*i*P	Pn	03 25 38.7	+0.3
FCH				*i*S	Sb	03 26 02.8	+1.4
FCH				AMP		03 26 03.8	
	comp=N,1µm,0.3s						
LCCH	**Las Cruces**	**1.80**	**330**	⇓*i*P	Pn	03 25 39.1	-0.4
LCCH				*i*S	Sn	03 26 03.8	+0.3
PEL	**Peldehue**	**1.90**	**355**	AMP		03 26 14.5	
	comp=N,2µm,0.8s						
CCHI	**Chillan**	**2.02**	**219**	⇓*i*P	Pn	03 25 42.2	-0.5
CCHI				*i*S	Sn	03 26 09.9	+0.9
CCHI				AMP		03 26 15.0	
	comp=E,693nm,0.5s						
CCHI				AMP		03 26 16.8	
	comp=E,1µm,0.5s						
ROCH	**El Roble**	**2.11**	**348**	*i*P	Pn	03 25 44.6	+0.6
ROCH				*i*S	Sn	03 26 13.1	+1.7
IHA	**Instituto Hidr**	**2.23**	**334**	*i*P	Pn	03 25 45.4	-0.3
IHA				*i*S	Sn	03 26 15.3	+1.0
JACH	**Jahuel**	**2.36**	**358**	*i*P	Pn	03 25 48.5	+1.0
JACH				*i*S	Sn	03 26 19.6	+2.1
MDZ	**Mendoza**	**2.55**	**33**	*e*P	Pn	03 25 54.5	+4.2
MDZ				*e*		03 26 32.7	
PACH	**Papudo**	**2.62**	**342**	*i*P	Pn	03 25 52.7	+1.4
PACH				*i*S	Sn	03 26 27.0	+2.7
PTCH	**Petorca**	**2.80**	**352**	⇑*i*P	Pn	03 25 56.4	+2.6
PTCH				*i*S	Sn	03 26 32.6	+3.9
PTCH				AMP		03 26 36.3	
	comp=N,1µm,0.3s						
CMCH	**Combarbala**	**3.88**	**354**	⇑*i*P	Pn	03 26 09.9	+0.6
CMCH				*i*S	Sn	03 26 57.3	+1.0
TRQA	**Tornquist**	**7.48**	**116**	*e*Pn	Pn	03 26 57.6	-2.4
	comp=N,6.1nm,0.6s						
TRQA				*e*Sn	Sn	03 28 39.1	+12
LPAZ	**La Paz**	**18.80**	**7**	*e*P	P	03 29 27.2	-3.0
	comp=N,4.0nm,1.2s						
LPAZ				*e*Sn	S	03 32 45.6	-12

NEIC ***30*** *03:28:57.7,34.98N×2.97W,h11^{km},MG3.7(MDD),After MDD.*
INMG ***30*** *03:28:57.2±0.6,34.95N×2.91W,h9^{km}±3^{km},ML2.7,Error ellipse: s-maj=4.1km s-min=3.9km az=29.0*
CNRM ***30*** *03:28:57.8,35.06N×2.83W,h4^{km},MD3.1*
MDD ***30*** *03:28:58.2±1.4,35.02N×2.89W,h13^{km}±5^{km},mb3.7/7, Error ellipse: s-maj=12.9km s-min=11.0km az=125.0, PRXIMO AftershockPLICA*
SFS ***30*** *03:28:58.0,35.02N×2.97W,ML3.5*
CSEM ***30*** *03:28:58.3±0.1,35.13N×3.00W,h25^{km},MD3.1,Error ellipse: s-maj=3.2km s-min=1.7km az=107.0*

ISC 30 03:28:58.8±0.6**,35.12N**±0.03×**2.97W**±0.05**,h29**^{km}±3^{km}**, n51,σ0^{s}96**/80**,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
EMEL	**Melilla**	**0.18**	**4**	P	**Pb**	**03 29 03.8**	**-1.0**
	200nm,0.1s,SNR=20						
EMEL				S	**Sb**	**03 29 08.5**	**-0.2**
	194nm,0.3s,SNR=9.1						
EMLI	**Melilla**	**0.18**	**6**	P	**Pb**	**03 29 03.8**	**-1.0**
	200nm,0.1s,SNR=20						
EMLI				S	**Sb**	**03 29 08.5**	**-0.3**
	194nm,0.3s,SNR=9.1						
TOU	**Touzarine**	**0.66**	**257**	*i*P	**Pb**	**03 29 12.0**	**+0.2**
TOU				*i*S	**Sb**	**03 29 22.0**	**+1.3**
MPAL	**Palemas**	**0.80**	**278**	*i*P	**Pb**	**03 29 14.5**	**+0.4**
MPAL				*i*S	**Sb**	**03 29 27.0**	**+2.3**
TZK	**Tazeka**	**1.43**	**225**	*i*P	**Pn**	**03 29 23.0**	**-0.2**
TZK				*i*S	**Sn**	**03 29 42.0**	**+0.8**
EBER	**Berja**	**1.78**	**2**	P	**Pn**	**03 29 29.2**	**+1.0**
EBER				S	**Sn**	**03 29 51.6**	**+1.6**
EBER	**Berja**	**1.78**	**2**	P	**Pn**	**03 29 29.2**	**+1.0**
	2.2nm,0.3s,SNR=6.7						
EBER				S	**Sn**	**03 29 51.4**	**+1.4**
	18nm,0.5s,SNR=10						
EBER	**Berja**	**1.78**	**2**	P	**Pn**	**03 29 29.2**	**+1.0**
	2.2nm,0.3s,SNR=6.7						
EBER				S	**Sn**	**03 29 51.4**	**+1.4**
	18nm,0.5s,SNR=10						
ENIJ	**Nijar**	**1.95**	**18**	P	**Pn**	**03 29 30.9**	**+0.3**
	2.1nm,0.2s,SNR=7.9						
ENIJ				S	**Sn**	**03 29 54.3**	**-0.1**
	2.9nm,0.2s,SNR=7.9						
ERON	**Agron**	**2.01**	**341**	S	**Sn**	**03 29 57.6**	**+1.6**
	3.7nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	**2.06**	**315**	P	**Pn**	**03 29 32.0**	**-0.2**
	3.3nm,0.3s,SNR=41						
EMIJ				S	**Sn**	**03 29 57.2**	**+0.1**
	2.9nm,0.3s,SNR=5.2						
EMIJ	**Mijas**	**2.06**	**315**	S	**Sn**	**03 29 57.2**	**+0.1**
	2.9nm,0.3s,SNR=5.2						
ELOJ	**Sierra Loja**	**2.24**	**335**	P	**Pn**	**03 29 34.5**	**-0.3**
ELOJ				S	**Sn**	**03 30 01.6**	**-0.1**
ELOJ	**Sierra Loja**	**2.24**	**335**	P	**Pn**	**03 29 34.5**	**-0.3**
ELOJ				S	**Sn**	**03 30 01.6**	**-0.2**
MIF	**Mishlifen**	**2.53**	**228**	*i*P	**Pn**	**03 29 39.0**	**+0.1**
ELUQ	**Luque**	**2.65**	**337**	P	**Pn**	**03 29 41.1**	**+0.4**
ELUQ				S	**Sn**	**03 30 12.2**	**-0.1**
ELUQ	**Luque**	**2.65**	**337**	P	**Pn**	**03 29 43.8**	**+3.1**
	2.2nm,0.2s,SNR=7.9						
ELUQ				S	**Sn**	**03 30 17.2**	**+5.0**
	3.0nm,0.4s,SNR=7.9						
ELUQ	**Luque**	**2.65**	**337**	P	**Pn**	**03 29 41.1**	**+0.4**
ELUQ	**Luque**	**2.65**	**337**	S	**Sn**	**03 30 12.2**	**0.0**
LIJA	**Lijar**	**2.66**	**313**	*i*P	**Pn**	**03 29 43.0**	**+2.2**
EQES	**Quesada**	**2.68**	**358**	P	**Pn**	**03 29 43.5**	**+2.3**
EQES				S	**Sn**	**03 30 12.9**	**0.0**
EQES	**Quesada**	**2.68**	**358**	P	**Pn**	**03 29 44.2**	**+3.1**
	2.8nm,0.2s,SNR=30						
EQES				S	**Sn**	**03 30 16.7**	**+3.8**
	13nm,0.4s,SNR=8.9						
EQES	**Quesada**	**2.68**	**358**	P	**Pn**	**03 29 43.5**	**+2.4**
EQES				S	**Sn**	**03 30 12.9**	**-0.1**
CZD	**Col de Zad**	**2.70**	**220**	*e*P	**Pn**	**03 29 40.0**	**-1.3**
CZD				*e*S	**Sn**	**03 30 13.0**	**-0.4**
ESPR	**Espera**	**2.92**	**308**	P	**Pn**	**03 29 44.3**	**-0.2**
ESPR				S	**Sn**	**03 30 17.9**	**-1.1**
ESPR	**Espera**	**2.92**	**308**	P	**Pn**	**03 29 44.3**	**-0.2**
	1.0nm,0.0s,SNR=4.0						
ESPR	**Espera**	**2.92**	**308**	S	**Sn**	**03 30 17.9**	**-1.1**
ZFT	**Errachidia**	**3.28**	**201**	*e*P	**Pn**	**03 29 50.0**	**+0.4**
EVIA	**Vianos**	**3.54**	**6**	S	**Sn**	**03 30 38.3**	**+3.8**
	1.9nm,0.2s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.99**	**313**	P	**Pn**	**03 29 59.2**	**-0.4**
EMIN				S	**Sn**	**03 30 43.2**	**-2.7**
EMIN	**Mina Concepcio**	**3.99**	**313**	P	**Pn**	**03 29 59.2**	**-0.4**
	2.0nm,0.3s,SNR=37						
EMIN				S	**Sn**	**03 30 45.3**	**-0.7**
	0.6nm,0.4s,SNR=7.9						
EMIN	**Mina Concepcio**	**3.99**	**313**	P	**Pn**	**03 29 59.2**	**-0.4**
	2.0nm,0.3s,SNR=37						
EMIN				S	**Sn**	**03 30 45.3**	**-0.7**
	0.6nm,0.4s,SNR=7.9						
EBEN	**Beniarda**	**4.20**	**31**	P	**Pn**	**03 30 02.1**	**-0.6**
EBEN	**Beniarda**	**4.20**	**31**	P	**Pn**	**03 30 02.1**	**-0.6**
PALC	**Alcoutim**	**4.33**	**304**	*e*Pn	**Pn**	**03 30 04.0**	**-0.5**
PALC				*e*Sn	**Sn**	**03 30 53.9**	**-0.7**
EGRO	**El Granado**	**4.37**	**305**	P	**Pn**	**03 30 03.9**	**-1.1**
EGRO				S	**Sn**	**03 30 51.8**	**-3.9**
EGRO	**El Granado**	**4.37**	**305**	P	**Pn**	**03 30 04.5**	**-0.6**
	2.2nm,0.1s,SNR=7.9						
EGRO	**El Granado**	**4.37**	**305**	P	**Pn**	**03 30 03.9**	**-1.2**
EGRO				S	**Sn**	**03 30 51.8**	**-3.9**
ESDC	**Sonseca Array**	**4.62**	**350**	P	**Pn**	**03 30 10.2**	**+1.6**
	2.7nm,0.1s,baz=172,slow=12,SNR=7.9						
ESDC	**Sonseca Array**	**4.62**	**350**	P	**Pn**	**03 30 10.1**	**+1.5**
EBAD	**Badajoz**	**4.87**	**319**	P	**Pn**	**03 30 11.3**	**-0.8**
EBAD				S	**Sn**	**03 31 04.1**	**-4.1**
EBAD	**Badajoz**	**4.87**	**319**	P	**Pn**	**03 30 11.9**	**-0.2**
	1.3nm,0.1s,SNR=13						
EBAD				S	**Sn**	**03 31 05.4**	**-2.7**
	4.7nm,0.3s,SNR=7.9						
EBAD	**Badajoz**	**4.87**	**319**	S	**Sn**	**03 31 04.1**	**-4.1**
EBAD	**Badajoz**	**4.87**	**319**	P	**Pn**	**03 30 11.3**	**-0.8**
PBEJ	**Beja**	**4.89**	**308**	*e*Pn	**Pn**	**03 30 12.3**	**-0.2**
PCBR	**Castelo Branco**	**5.92**	**324**	*e*Pn	**Pn**	**03 30 26.6**	**-0.4**
PCBR				*e*Sn	**Sn**	**03 31 33.9**	**-0.7**
	3.8nm,0.4s						
PCBR	**Castelo Branco**	**5.92**	**324**	P	**Pn**	**03 30 26.6**	**-0.4**
PCBR				S	**Sn**	**03 31 33.9**	**-0.7**
	1.9nm,0.4s						
PVRL	**Vila Real**	**7.19**	**330**	*e*Pn	**Pn**	**03 30 44.5**	**-0.4**
PBRG	**Braganca**	**7.30**	**337**	*e*Pn	**Pn**	**03 30 46.0**	**-0.4**
ECAL	**Calabor**	**7.42**	**338**	P	**Pn**	**03 30 47.5**	**-0.6**
ECAL	**Calabor**	**7.42**	**338**	P	**Pn**	**03 30 47.5**	**-0.6**

WEL 30 03:30:25.0±0.1**,39.96S×176.67E,h54**^{km}±1^{km}**,ML3.5**/9**, 1C,Error ellipse: s-maj=1.3km s-min=0.9km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PWZ	**Pawanui**	**0.16**	**117**	⇑PN	P	03 30 33.3	-0.1
PWZ				SN	S	03 30 39.5	-0.2
TSZ	**Takapari Road**	**0.56**	**259**	PN	P	03 30 37.0	-0.1
TSZ				SN	S	03 30 45.4	-0.6
BFZ	**Birch Farm**	**0.80**	**204**	PN	P	03 30 40.5	+0.3
BFZ				SN	S	03 30 51.7	+0.3
BKZ	**Black Stump Fm**	**0.80**	**350**	PN	P	03 30 40.1	-0.1
BKZ				SN	S	03 30 50.6	-0.9
MOVZ	**Moawhango**	**0.90**	**307**	PN	P	03 30 42.0	+0.4
MOVZ				SN	S	03 30 53.2	-0.7
WNVZ	**Wahianoa**	**1.04**	**307**	PN	P	03 30 44.3	+0.8
TUVZ	**Tukino**	**1.04**	**311**	PN	P	03 30 44.7	+1.0
TUVZ				SN	S	03 30 56.9	-0.5
MRZ	**Mangatainoka R**	**1.09**	**229**	PN	P	03 30 44.2	-0.2
MRZ				SN	S	03 30 58.4	-0.3
OTVZ	**Oturere**	**1.11**	**315**	PN	P	03 30 45.8	+1.3
OTVZ				SN	S	03 31 00.1	+1.0
FWVZ	**Far West T-bar**	**1.11**	**309**	PN	P	03 30 45.5	+0.9
FWVZ				SN	S	03 30 59.0	-0.1
NGZ	**Ngauruhoe**	**1.14**	**313**	PN	P	03 30 46.2	+1.3
WPVZ	**Whakapapa**	**1.15**	**310**	PN	P	03 30 46.5	+1.4
CNZ	**Chateau**	**1.15**	**311**	PN	P	03 30 46.3	+1.3
WTVZ	**West Tongariro**	**1.18**	**315**	PN	P	03 30 46.9	+1.4
KNZ	**Kokohu**	**1.21**	**40**	PN	P	03 30 45.5	-0.4
KNZ				SN	S	03 31 00.6	-1.0
MGZ	**Maungaku**	**1.29**	**317**	PN	P	03 30 47.6	+0.4
WAZ	**Wanganui**	**1.31**	**278**	PN	P	03 30 48.6	+1.1
MTW	**Mount Morrison**	**1.50**	**216**	PN	P	03 30 49.0	-1.0
MTW				SN	S	03 31 07.9	-0.7
KIW	**Kapiti Island**	**1.62**	**235**	PN	P	03 30 51.3	-0.5
KIW				SN	S	03 31 11.0	-0.6
CAW	**Cannon Point**	**1.68**	**226**	PN	P	03 30 51.5	-1.1
VRZ	**Vera Road**	**1.70**	**299**	PN	P	03 30 53.4	+0.6
PAWZ	**Paruwai Farm**	**1.71**	**213**	PN	P	03 30 51.7	-1.3
URZ	**Urewera**	**1.73**	**12**	PN	P	03 30 52.0	-1.2
MWZ	**Matawai**	**1.75**	**23**	PN	P	03 30 52.4	-1.1
MWZ				SN	S	03 31 14.1	-0.6
MSWZ	**Moikau Station**	**1.82**	**216**	PN	P	03 30 52.8	-1.6
MSWZ				SN	S	03 31 15.0	-1.3
MRW	**Makara Radio**	**1.97**	**229**	PN	P	03 30 55.1	-1.5
MRW				SN	S	03 31 18.8	-1.2
BHW	**Baring Head**	**2.00**	**223**	PN	P	03 30 55.5	-1.5
BHW				SN	S	03 31 19.4	-1.3
HIZ	**Hauiti**	**2.02**	**315**	PN	P	03 30 57.0	-0.3
PKE	**Pukeiti**	**2.21**	**289**	PN	P	03 31 01.5	+1.5
TUWZ	**Tuamarina**	**2.55**	**234**	PN	P	03 31 02.4	-2.4
TUWZ				SN	S	03 31 32.2	-2.5
BSWZ	**Blackbirch Sta**	**2.75**	**229**	PN	P	03 31 05.9	-1.9
BSWZ				SN	S	03 31 38.3	-1.7
NNZ	**Nelson**	**2.81**	**242**	PN	P	03 31 06.9	-1.6
QRZ	**Quartz Range**	**3.28**	**253**	PN	P	03 31 13.5	-1.8
THZ	**Tophouse**	**3.38**	**236**	PN	P	03 31 13.8	-2.8

MOS 30 03:30:51.0±2.0**,62.07N×154.43E,h10**^{km}**,mb4.0**/1**,Error ellipse: s-maj=33.2km s-min=17.5km az=71.6,Eastern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
OMS	**Omsukchan**	**0.77**	**54**	*i*P	Pb	03 31 06.7	+0.7
OMS				*e*S	Sb	03 31 18.0	+1.7
OMS				pmax	pmax		
	comp=Z,110nm,0.5s						
OMS				smax			
	comp=E,600nm,0.5s						
SEY	**Seymchan**	**1.28**	**313**	*i*P	Pb	03 31 13.0	-1.8
SEY				*e*S	Sb	03 31 27.1	-4.1
SEY				pmax	pmax		
	comp=Z,180nm,0.3s						
SEY				smax			
	comp=N,1µm,0.2s						
SEY				smax			
	comp=E,2µm,0.2s						
TLAR	**Talaya**	**1.36**	**227**	*e*P	Pb	03 31 14.3	-1.8
TLAR				*e*S	Sb	03 31 29.7	-3.6
TLAR				pmax	pmax		
	comp=Z,80nm,0.3s						
TLAR				smax			
	comp=N,240nm,0.2s						
TLAR				smax			
	comp=E,1µm,0.2s						
MGD	**Magadan 1**	**2.71**	**223**	*e*P	Pn	03 31 38.5	+3.0
MGD				*e*S	Sn	03 32 02.4	-6.3
MGD				pmax	pmax		
	comp=Z,90nm,0.3s						
MGD				smax			
	comp=N,640nm,0.3s						
MGD				smax			
	comp=E,440nm,0.3s						
SUUS	**Susuman**	**3.00**	**286**	*e*P	Pn	03 31 40.9	+1.3
SUUS				*e*S	Sn	03 32 17.9	+2.0
SUUS				pmax	pmax		
	comp=Z,20nm,0.2s						
SUUS				smax			
	comp=N,180nm,0.2s						
SUUS				smax			
	comp=E,50nm,0.2s						
MA2	**Magadan**	**3.08**	**217**	*e*P	Pn	03 31 39.3	-1.4
MA2				*e*S	Sn	03 32 22.9	+4.9
MA2				pmax	pmax		
	comp=Z,40nm,0.6s						
MA2				smax			
	comp=N,190nm,0.6s						
MA2				smax			
	comp=E,200nm,0.6s						
OCHR	**Omchak**	**3.14**	**265**	*e*P	Pn	03 31 44.1	+2.6
OCHR				*e*S	Sn	03 32 22.5	+3.1
OCHR				pmax	pmax		
	comp=Z,50nm,0.5s						
OCHR				smax			
	comp=N,280nm,0.6s						

IDC ***30*** *03:32:18.0±5.8,6.32S×155.00E,h81^{km}±49^{km},mb3.7/9, mb1 4.0/10,mb1mx4.0/15,mbtmp4.1/10,ML4.1/1,MS2.6/1, Ms1 2.6/1,ms1mx2.4/25,Error ellipse: s-maj=39.0km s-min=25.1km az=109.0*

ISC 30 03:32:18.6±4.7**,6.3S**±0.2×**154.9E**±0.2**,h100**^{km}±40^{km}**,n10, σ0^{s}84**/11**,mb3.8**/9**,Bougainville - Solomon Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PMG	**Port Moresby**	**8.21**	**248**	P	**P**	**03 34 16.8**	**+0.2**
	11nm,0.3s,baz=48,slow=8.5,SNR=35						
PMG				S	**S**	**03 35 47.8**	**-0.6**
	1.0nm,0.3s,baz=108,slow=19,SNR=2.3						
PMG				LR	LR	03 37 33.3	
	comp=Z,42nm,19.5s,baz=22,slow=38						
WRA	**Warramunga Arr**	**24.09**	**234**	P	**P**	**03 37 27.8**	**+1.8**
	4.5nm,0.7s,mb3.9,baz=57,slow=9.3,SNR=18						
ASAR	**Alice Springs**	**26.52**	**227**	P	**P**	**03 37 49.4**	**+0.5**
	1.7nm,0.5s,mb3.9,baz=58,slow=8.9,SNR=28						
STKA	**Stephens Creek**	**28.28**	**204**	P	**P**	**03 38 03.5**	**-1.3**
	1.4nm,0.7s,mb3.6,baz=36,slow=18,SNR=3.1						
CMAR	**Chiang Mai Arr**	**60.37**	**295**	P	**P**	**03 42 20.9**	**+0.9**
	3.0nm,0.4s,mb4.6,baz=123,slow=5.5,SNR=19						
SONM	**Songino Array**	**68.70**	**327**	P	**P**	**03 43 13.4**	**-0.1**
	0.2nm,0.4s,mb3.3,baz=144,slow=4.7,SNR=4.6						
ILAR	**Eielson Array**	**82.81**	**22**	P	**P**	**03 44 33.0**	**+0.1**
	0.3nm,0.6s,mb3.3,baz=243,slow=5.3,SNR=11						
ZAL	**Zalesovo**	**83.56**	**326**	P	**P**	**03 44 36.4**	**-0.4**
	1.0nm,0.4s,mb4.0,baz=269,slow=3.3,SNR=3.7						
BVAR	**Borovoye Array**	**91.68**	**323**	P	**P**	**03 45 14.7**	**-1.2**
	0.7nm,0.6s,mb4.1,baz=76,slow=5.9,SNR=3.7						
YKA	**Yellowknife Ar**	**95.81**	**28**	P	**P**	**03 45 34.7**	**+0.2**
	0.1nm,0.7s,mb3.4,baz=271,slow=4.6,SNR=5.1						

IDC 30 03:34:52.9±3.1**,49.28N×155.85E,mb3.6**/7**,mb1 3.9**/8**, mb1mx3.7**/24**,mbtmp3.7**/8**,ML3.7**/1**,Error ellipse: s-maj=83.6km s-min=24.4km az=159.0,Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
ASAJ	**Asahikawa**	**10.46**	**245**	Pn	P	03 37 24.8	-2.5
	0.8nm,0.3s,baz=87,slow=17,SNR=3.2						
SONM	**Songino Array**	**32.30**	**287**	P	P	03 41 22.9	-2.4
	0.2nm,0.5s,baz=61,slow=8.3,SNR=3.3						
ILAR	**Eielson Array**	**33.42**	**41**	P	P	03 41 32.9	-2.1
	0.3nm,1.0s,baz=263,slow=7.9,SNR=4.5						
YKA	**Yellowknife Ar**	**47.80**	**39**	P	P	03 43 31.1	-2.3
	0.2nm,0.6s,baz=297,slow=7.0,SNR=3.6						
BVAR	**Borovoye Array**	**50.69**	**309**	P	P	03 43 53.4	-2.3
	0.5nm,0.3s,baz=53,slow=7.4,SNR=5.1						
FINES	**FINESS Array B**	**62.52**	**335**	P	P	03 45 17.7	-2.4
	2.4nm,1.0s,baz=39,slow=8.9,SNR=5.3						
EKA	**Eskdalemuir Ar**	**74.28**	**348**	P	P	03 46 32.2	-0.8
	2.5nm,0.9s,baz=19,slow=4.2,SNR=4.2						
GERES	**GERESS Array B**	**76.95**	**335**	P	P	03 46 47.2	-1.2
	0.4nm,0.6s,baz=37,slow=6.7,SNR=4.4						

BJI ***30*** *03:42:15.0,5.56N×94.31E,h32^{km},mB4.9,mb4.9,Ms4.6, Msz4.2*
MOS ***30*** *03:42:16.1±1.1,5.72N×94.31E,h33^{km},mb5.2/27,Error ellipse: s-maj=14.4km s-min=7.3km az=116.0*
NEIC ***30*** *03:42:16.6±4.1,5.77N×94.40E,h20^{km}±26^{km},mb5.0/25, Error ellipse: s-maj=10.0km s-min=6.7km az=224.0*
HRVD ***30*** *03:42:16.6±0.7,5.86N×94.35E,h16^{km}±1^{km},MW5.0/31, Centroid moment Tensor Solution. LP body waves: s12,c17;Mantle waves: s31,c44; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.37±.13; $M_{\theta\theta}$-0.61±.10; $M_{\phi\phi}$0.23±.10; $M_{r\theta}$2.39±.50; $M_{\theta\phi}$0.22±.08; $M_{\phi r}$-3.95±.69; Best double couple: $M_0$4.65×10^{16} NP1:ϕ_s255°,δ6°,λ17°. NP2:ϕ_s148°,δ88°,λ96°. Principal axes: T 4.74, Plg46°, Azm64°; N -.18, Plg6°, Azm328°; P -4.56, Plg43°, Azm233°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
SYO ***30*** *03:42:16.4,5.77N×94.41E,h19^{km},MB5.0*
IDC ***30*** *03:42:20.3±0.6,5.96N×94.40E,h50^{km}±4^{km},mb4.2/20, mb1 4.3/20,mb1mx4.2/25,mbtmp4.4/20,MS4.1/13, Ms1 4.1/13,ms1mx3.8/32,Error ellipse: s-maj=23.8km s-min=10.7km az=44.0*
DJA ***30*** *03:43:12.6±1.1,4.21N×99.45E,h80^{km},mb4.7/6,Error ellipse: s-maj=42.1km s-min=10.4km az=178.0*

ISC 30 03:42:17.5±0.3**,5.71N**±0.05×**94.30E**±0.05**,h42**^{km}**, h42**^{km}±1.8^{km}**:pP-P,n144,σ1^{s}16**/139**,mb4.8**/65**,MS4.2**/20**, 7C-10D,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSI	**Tuntungan**	**4.78**	**117**	*e*P	**P**	**03 43 34.0**	**+5.1**
PSI	**Prapat**	**5.50**	**123**	*e*P	**P**	**03 43 41.9**	**+3.0**
CM31	**Chiang Mai Arr**	**13.46**	**19**	*e*P	**P**	**03 45 31.3**	**+3.2**
	34nm,1.0s						
CMAR	**Chiang Mai Arr**	**13.46**	**19**	P	**P**	**03 45 28.7**	**+0.6**
	1.1nm,0.3s,baz=211,slow=14,SNR=48						
CMAR				LR	LR	03 50 16.0	
	comp=Z,296nm,19.6s,baz=200,slow=36						
CMAR				ScP		03 54 24.6	
	0.8nm,0.3s,baz=297,slow=3.2,SNR=5.2						
PALK	**Pallekele**	**13.60**	**277**	*e*P	**P**	**03 45 30.4**	**+0.2**
PALK				*e*S	**S**	**03 47 47.6**	**-13**
PENI	**Pendagan**	**15.59**	**136**	⇑*i*P	**P**	**03 45 53.9**	**-2.2**
PENI	**Pendagan**	**15.59**	**136**	⇓*i*P	**P**	**03 45 52.3**	**-3.8**
	90nm,0.5s						
VIS	**Vishakhapatnam**	**16.05**	**319**	*i*P	**P**	**03 46 01.0**	**-0.9**
VIS				*e*S	**S**	**03 49 03.8**	**+5.5**
PULI	**Pulasari**	**16.71**	**136**	⇑*i*P	**P**	**03 46 01.7**	**-8.5**
PULI	**Pulasari**	**16.71**	**136**	⇓*i*P	**P**	**03 46 01.2**	**-9.0**
	85nm,0.8s						
PACI	**Pancar Gunung**	**17.54**	**134**	⇑*i*P	**P**	**03 46 08.4**	**-12**
	21nm,0.3s						
HYB	**Hyderabad**	**19.30**	**308**	*e*P	**P**	**03 46 42.0**	**+0.2**
HYB	**Hyderabad**	**19.30**	**308**	*i*P	**P**	**03 46 42.0**	**+0.2**
QIZ	**Qiongzhong**	**20.12**	**47**	P	**P**	**03 46 51.5**	**+0.9**
QIZ	**Qiongzhong**	**20.12**	**47**	*e*P	**P**	**03 46 49.7**	**-0.9**
	43nm,0.9s						
KMI	**Kunming**	**20.93**	**22**	P	**P**	**03 47 01.0**	**+2.0**
KMI				AMB	AMB		
	comp=Z,39nm,1.2s						
KMI				AMB	AMB		
	comp=Z,135nm,4.5s						
KMI				LR	LR		
	comp=N,253nm,16.1s,MS4.0						
KMI				LR	LR		
	comp=E,423nm,14.0s,MS4.0						
KMI				LR	LR		
	comp=Z,336nm,21.5s						
PKI	**Pulchoki**	**23.33**	**340**	*e*P	**P**	**03 47 24.2**	**+1.3**
	comp=Z,42nm,0.8s,mb4.9						
DMN	**Daman**	**23.47**	**339**	*e*P	**P**	**03 47 25.9**	**+1.7**
	comp=Z,105nm,1.0s,mb5.2						
GUN	**Gumba**	**23.49**	**341**	*e*P	**P**	**03 47 24.0**	**-0.4**
	comp=Z,174nm,1.3s,mb5.3						
KKN	**Kakani**	**23.58**	**340**	*e*P	**P**	**03 47 25.2**	**0.0**
	comp=Z,70nm,0.9s,mb5.1						
GYA	**Guiyang**	**23.77**	**28**	⇓*i*P	**P**	**03 47 28.8**	**+1.7**
GYA				AP		03 47 36.8	
GYA				S	**S**	**03 51 41.5**	**+5.0**
GYA				AMB	AMB		
	comp=Z,60nm,0.9s,mb5.0						
GYA				AMB	AMB		
	comp=Z,870nm,3.2s						
GYA				LR	LR		
	comp=N,840nm,16.0s,MS4.4						
GYA				LR	LR		
	comp=E,640nm,17.2s,MS4.4						
GYA				LR	LR		
	comp=Z,970nm,16.7s,MS4.3						
GKN	**Gorkha**	**24.00**	**339**	*e*P	**P**	**03 47 29.9**	**+0.6**
	comp=Z,59nm,0.7s,mb5.1						
LSA	**Lhasa**	**24.05**	**353**	*e*P	**P**	**03 47 30.8**	**+1.0**
LSA				pmax	pmax		
	comp=Z,36nm,0.9s,mb4.8						
LSA	**Lhasa**	**24.05**	**353**	*e*P	**P**	**03 47 30.8**	**+1.0**
	comp=Z,36nm,0.9s,mb4.8						
KOLN	**Koldanda**	**24.18**	**336**	*e*P	**P**	**03 47 31.9**	**+0.7**
	comp=Z,83nm,1.0s,mb5.1						
SRDI	**Scrawed**	**24.29**	**125**	⇑*i*P	**P**	**03 47 31.5**	**-0.8**
SRDI				pmax	pmax		
	comp=Z,28nm,0.3s,mb5.2						
SRDI	**Scrawed**	**24.29**	**125**	⇑*i*P	**P**	**03 47 31.5**	**-0.8**
	comp=Z,28nm,0.3s,mb5.2						
SRDI	**Scrawed**	**24.29**	**125**	⇑*i*P	**P**	**03 47 35.0**	**+2.7**
	comp=Z,56nm,0.2s,mb5.2						
RATI	**Rata**	**25.56**	**124**	⇓*i*P	**P**	**03 47 50.2**	**+5.7**
	comp=Z,157nm,0.2s,mb5.9						
KEDI	**Kedomdong**	**25.92**	**123**	⇓*i*P	**P**	**03 47 54.7**	**+6.9**
KEDI				pmax	pmax		

	comp=Z,21nm,0.3s,mb5.2						
KEDI	Kedomdong	25.92	123	⇓*i*P	P	03 47 54.7	+6.9
	comp=Z,21nm,0.3s,mb5.1						
KEDI	Kedomdong	25.92	123	⇓*i*P	P	03 47 48.9	+1.1
	comp=Z,42nm,0.3s,mb5.2						
TGY	Tagaytay City	27.50	70	LR	LR	03 58 00.6	
	comp=Z,300nm,18.6s,MS3.9,baz=129,slow=34						
ENH	Enshi	28.31	29	*e*P	P	03 48 07.5	-2.0
	comp=Z,13nm,0.6s,mb4.7						
XAN	Xi'an	31.28	24	P	P	03 48 34.0	-1.8
XAN				AMB	AMB		
	comp=Z,23nm,1.0s,mb5.0						
LZH	Lanzhou	31.48	15	*e*P	P	03 48 36.8	-0.7
LZH				AP	pP	03 48 48.5	-0.5
LZH				AMB	AMB		
	comp=Z,31nm,1.4s,mb5.0						
GTA	Gaotai	33.92	8	P	P	03 48 58.5	-0.2
GTA				AP	pP	03 49 05.8	-4.5
GTA				XP	sP	03 49 08.8	-6.9
GTA				AMB	AMB		
	comp=Z,5.0nm,1.2s,mb4.3						
NJ2	Nanjing	34.84	38	*e*P	P	03 49 06.5	-0.1
NJ2				AP	pP	03 49 17.5	-0.7
NJ2				XP	sP	03 49 20.3	-3.3
NJ2				PP	PP	03 50 23.0	-2.0
NJ2				S	S	03 54 29.0	-4.7
NJ2				XS		03 54 48.0	
NJ2				AMB	AMB		
	comp=Z,20nm,1.2s,mb4.9						
NJ2				AMB	AMB		
	comp=Z,40nm,5.0s						
NJ2				LR	LR		
	comp=N,650nm,19.0s,MS4.5						
NJ2				LR	LR		
	comp=E,530nm,18.3s,MS4.5						
NJ2				LR	LR		
	comp=Z,700nm,14.8s,MS4.5						
MBWA	Marble Bar	36.55	138	P	P	03 49 25.2	+4.0
	comp=Z,11nm,1.1s,mb4.6						
KSH	Kashi	37.50	336	*e*P	P	03 49 31.0	+1.9
KSH				*e*AP	pP	03 49 40.8	0.0
HHC	Hu-ho-hao-te	38.26	21	*e*P	P	03 49 35.8	+0.5
HHC				AP	pP	03 49 40.0	-7.0
HHC				PP	PP	03 51 06.0	-0.7
HHC				PCP	PcP	03 51 51.5	+2.0
HHC				S	S	03 55 27.3	+1.3
HHC				SS	SS	03 58 04.0	-2.2
HHC				SCS	ScS	03 59 45.3	+4.4
HHC				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.8						
HHC				AMB	AMB		
	comp=Z,108nm,5.5s						
HHC				LR	LR		
	comp=N,273nm,16.7s,MS4.5						
HHC				LR	LR		
	comp=E,536nm,13.1s,MS4.5						
HHC				LR	LR		
	comp=Z,395nm,21.4s						
WMQ	Urumqi	38.40	352	P	P	03 49 37.5	+1.0
BJT	Baijiatuau	39.42	27	*e*P	P	03 49 46.3	+1.3
BJT				pmax	pmax		
	comp=Z,70nm,1.3s						
BJT	Baijiatuau	39.42	27	*e*P	P	03 49 46.2	+1.2
	comp=Z,70nm,1.3s,mb5.2						
BJI	Beijing	39.44	27	*e*P	P	03 49 46.3	+1.1
BJI				AMB	AMB		
	comp=Z,17nm,0.9s,mb4.8						
BJI				LR	LR		
	comp=Z,208nm,28.5s,MS3.8						
UCH	Uchtor	40.39	337	P	P	03 49 54.5	+1.4
	SNR=7.6						
TKM2	Tokmak 2	40.59	339	P	P	03 49 55.6	+0.9
	SNR=6.0						
KBK	Karagaybulak	40.60	338	P	P	03 49 56.2	+1.5
	SNR=7.3						
AML	Almayashu	40.63	336	P	P	03 49 56.2	+1.1
	SNR=11						
AAK	Ala-Archa	40.75	337	*e*P	P	03 49 56.0	0.0
AAK				pmax	pmax		
	comp=Z,16nm,1.1s,mb4.6						
AAK	Ala-Archa	40.75	337	*e*P	P	03 49 56.0	0.0
	comp=Z,16nm,1.1s,mb4.6						
USP	Ospenovka	41.29	338	P	P	03 50 01.5	+1.1
	SNR=8.5						
MKAR	Makanchi Array	42.22	348	*i* P	P	03 50 07.9	-0.2
MKAR				pmax	pmax		
	comp=Z,13nm,0.8s						
SONM	Songino Array	43.23	12	P	P	03 50 15.3	-1.0
	comp=Z,4.0nm,0.7s,mb4.3,baz=192,slow=9.1,SNR=41						
SONM				pP	pP	03 50 27.5	-0.6
	comp=Z,8.2nm,1.0s,baz=196,slow=9.0,SNR=8.9						
SONM				ScP		03 55 50.3	
	comp=Z,0.8nm,0.9s,baz=193,slow=2.6,SNR=3.8						
ULN	Ulaanbaatar	43.40	12	*e*P	P	03 50 16.9	-0.8
ULN				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.5						
ULN	Ulaanbaatar	43.40	12	*e*P	P	03 50 16.9	-0.8
	comp=Z,8.5nm,0.9s,mb4.5						
SNY	Shenyang	44.41	31	⇓P	P	03 50 26.0	+0.1
SNY				S	S	03 56 58.0	+0.9
SNY				AMB	AMB		
	comp=Z,20nm,1.3s,mb4.7						
SNY				LR	LR		
	comp=N,300nm,15.7s						
SNY				LR	LR		
	comp=Z,300nm,16.9s,MS4.3						
ZAK	Zakamensk	45.16	8	*e*P	P	03 50 31.0	-0.8
ZAK				*e*		03 52 12.6	
TLY	Talaya	46.48	8	P	P	03 50 41.7	-0.5
CN2	Changchun	46.78	31	*e*P	P	03 50 44.5	-0.2
CN2				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.8						
WRA	Warramunga Arr	46.90	124	*i* P	P	03 50 46.6	+0.6
WRA				pmax	pmax		
	comp=Z,6.0nm,0.4s						
WRA	Warramunga Arr	46.90	124	P	P	03 50 46.6	+0.6
	comp=Z,5.9nm,0.4s,mb4.9,baz=305,slow=8.9,SNR=42						
WRAB	Tennant Creek	46.91	124	*e*P	P	03 50 46.3	+0.3
WRAB				*e*		03 51 01.3	
WRAB				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.2						
WRAB	Tennant Creek	46.91	124	*e*P	P	03 50 46.3	+0.3
	comp=Z,25nm,0.7s,mb5.2						
WRAB				*e*		03 51 01.3	
WRAB				*e*		03 51 17.7	
ASAR	Alice Springs	48.43	129	P	P	03 50 58.2	+0.4
	comp=Z,4.7nm,0.5s,mb4.8,baz=299,slow=7.3,SNR=49						
ASAR				pP	pP	03 51 12.1	+2.3
	comp=Z,12nm,0.8s,baz=307,slow=7.6,SNR=13						
ASAR				ScP		03 56 12.7	
	comp=Z,0.8nm,0.9s,baz=308,slow=2.8,SNR=3.9						
ASAR				LR	LR	04 12 47.0	
	comp=Z,75nm,18.1s,MS3.7,baz=302,slow=38						
HIA	Hailar	48.45	22	*e*P	P	03 50 56.7	-1.0
HIA				*e*	pP	03 51 07.4	-2.1
HIA				pmax	pmax		
	comp=Z,18nm,1.0s						
HIA	Hailar	48.45	22	*e*P	P	03 50 56.6	-1.0
	comp=Z,18nm,1.0s,mb5.0						
HIA				*e*	pP	03 51 07.4	-2.1
ZAL	Zalesovo	48.70	353	*i* P	P	03 50 59.4	-0.2
ZAL				pmax	pmax		
	comp=Z,6.0nm,0.6s						
ZAL	Zalesovo	48.70	353	P	P	03 50 58.6	-0.9
	comp=Z,6.4nm,0.6s,mb4.8,baz=207,slow=6.2,SNR=31						
ZAL				pP	pP	03 51 10.2	-1.3
	comp=Z,4.4nm,0.4s,baz=199,slow=4.3,SNR=4.8						
ZAL				LR	LR	04 14 42.7	
	comp=Z,88nm,20.0s,MS3.7,baz=36,slow=40						
MDJ	Mudanjiang	49.52	33	P	P	03 51 04.7	-1.3
	comp=Z,26nm,1.2s,mb5.1						
NVS	Novosibirsk	49.80	352	*e*P	P	03 51 06.2	-1.8
NVS				*e*	pP	03 51 17.1	-2.8
NVS				*i* S	S	03 58 07.5	-5.6
NVS				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
NVS				pmax	pmax		
	comp=N,18nm,1.4s						
NVS				smax			
	comp=N,37nm,1.7s						
NVS				smax			
	comp=N,16nm,1.4s						
JHJ	Hachijo jima 2	50.26	51	LR	LR	04 11 27.0	
	comp=N,302nm,21.7s,MS4.3,baz=119,slow=35						
BVA0	Borovoye Array	51.08	342	P	P	03 51 17.3	-0.5
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
BVAR	Borovoye Array	51.08	342	P	P	03 51 16.0	-1.8
	comp=Z,9.0nm,0.8s,mb4.8,baz=141,slow=9.5,SNR=26						
BRVK	Borovoye	51.14	342	*e*P	P	03 51 17.3	-1.0
BRVK				*e*	pP	03 51 28.7	-1.5
BRVK				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
BRVK	Borovoye	51.14	342	*e*P	P	03 51 17.3	-0.9
	comp=Z,17nm,1.0s,mb4.9						
BRVK				*e*	pP	03 51 28.7	-1.5
CHKZ	Chkalovo	51.57	342	*e*P	P	03 51 20.9	-0.6
CHKZ				*e*	pP	03 51 32.6	-0.8
CHKZ				pmax	pmax		
	comp=Z,37nm,1.0s,mb5.3						
CHKZ	Chkalovo	51.57	342	*e*P	P	03 51 20.9	-0.6
	comp=Z,37nm,1.0s,mb5.3						
CHKZ				*e*	pP	03 51 32.6	-0.8
BOD	Bodaibo	54.21	13	*e*P	P	03 51 39.9	-1.1
PMG	Port Moresby	54.77	106	*e*P	P	03 51 45.3	-0.4
PMG				pmax	pmax		
	comp=Z,14nm,0.9s						
PMG	Port Moresby	54.77	106	P	P	03 51 44.8	-1.0
	comp=Z,11nm,0.8s,mb5.0,baz=289,slow=1.3,SNR=4.8						
PMG	Port Moresby	54.77	106	*e*P	P	03 51 45.3	-0.4
	comp=Z,14nm,0.9s,mb5.0						
GNI	Garni	56.07	315	*i* P	P	03 51 54.0	-0.7
GNI				pmax	pmax		
	comp=Z,13nm,1.4s						
GNI	Garni	56.07	315	P	P	03 51 54.7	-0.1
	comp=Z,3.8nm,0.9s,mb4.4,baz=48,slow=11,SNR=3.2						
GNI	Garni	56.07	315	P	P	03 51 54.6	-0.1
	comp=Z,9.3nm,0.8s,mb4.9						
CTA	Charters Tower	57.13	118	P	P	03 52 02.2	-0.5
	comp=Z,6.4nm,0.8s,mb4.7,baz=279,slow=7.4,SNR=4.3						
CTAO	Charters Tower	57.13	118	*e*P	P	03 52 01.3	-1.3
CTAO				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.1						
CTAO	Charters Tower	57.13	118	*e*P	P	03 52 01.3	-1.4
	comp=Z,27nm,1.3s,mb5.1						
KMBO	Kilima Mbogo	57.37	265	*e*P	P	03 52 04.6	+0.2
KMBO				pmax	pmax		
	comp=Z,8.0nm,1.1s						
KMBO	Kilima Mbogo	57.37	265	P	P	03 52 06.1	+1.7
	comp=Z,4.1nm,1.0s,mb4.4,baz=52,slow=9.4,SNR=6.5						
KMBO				LR	LR	04 12 19.1	
	comp=Z,243nm,21.6s,MS4.3,baz=95,slow=31						
KMBO	Kilima Mbogo	57.37	265	*e*P	P	03 52 04.6	+0.2
	comp=Z,7.6nm,1.1s,mb4.6						
ZEI	Tsey	57.73	318	*e*P	P	03 52 07.4	+0.8
ZEI				*i*		03 54 19.9	
ZEI				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
ARU	Arti	57.94	337	⇓*i*P	P	03 52 07.3	-0.5
ARU				*e*		03 52 57.0	
ARU				*e*S	S	04 00 06.3	+3.3
ARU				*e*SS	SS	04 03 56.4	+0.6
ARU				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
ARU	Arti	57.94	337	*e*P	P	03 52 06.7	-1.0
	comp=Z,30nm,1.3s,mb5.2						
STKA	Stephens Creek	58.51	133	P	P	03 52 11.4	-0.7
	comp=Z,9.0nm,1.2s,mb4.7,baz=311,slow=9.5,SNR=7.2						
STKA				LR	LR	04 17 19.6	
	comp=Z,118nm,21.3s,MS4.0,baz=348,slow=36						
STKA	Stephens Creek	58.51	133	*e*P	P	03 52 11.5	-0.7
KIV	Kislovodsk	59.03	319	*i* P	P	03 52 14.7	-0.9
KIV				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
KIV	Kislovodsk	59.03	319	P	P	03 52 16.3	+0.7
	comp=Z,6.4nm,0.7s,mb4.8						
ASF	Jabal al Asfar	59.54	304	P	P	03 52 19.2	0.0
	comp=Z,1.5nm,0.5s,mb4.2,baz=346,slow=4.2,SNR=2.0						
ASF				LR	LR	04 18 09.9	
	comp=Z,140nm,20.4s,MS4.1,baz=50,slow=36						
EIL	Elat	60.65	301	LR	LR	04 20 23.7	
	comp=Z,114nm,18.3s,MS4.0,baz=330,slow=38						
SOC	Sochi	60.86	317	*i* P	P	03 52 25.4	-2.7
SOC				*e*		03 53 12.7	
SOC				*e*		03 54 39.4	
SOC				*e*S	S	04 00 41.9	+0.9
SOC				*e*SS	SS	04 04 40.9	-0.9
SOC				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.3						
SOC				pmax	pmax		
	comp=N,10.0nm,0.8s						
SOC				pmax	pmax		
	comp=E,14nm,1.0s						
YAK	Yakutsk	61.99	18	*i* P	P	03 52 33.3	-2.1
YAK				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.5						
ANN	Anapa	62.83	318	*e*P	P	03 52 40.6	-0.7
ANN				*e*		03 53 14.1	
ANN				*e*S	S	04 01 10.0	+4.1
ANN				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.3						
BRTR	Keskin Array B	63.97	312	P	P	03 52 47.1	-1.8
	comp=Z,0.9nm,0.5s,mb4.1,baz=130,slow=7.8,SNR=4.8						
MOS	Moscow	67.00	329	*e*P	P	03 53 11.9	+3.9
MOS				*e*	pP	03 53 24.8	+4.3
MOS				*e*		03 55 39.5	
MOS				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.6						
OBN	Obninsk	67.29	328	*i* P	P	03 53 09.2	-0.6
OBN				*i*		03 53 30.7	
OBN				*i* S	S	04 02 01.6	+1.2
OBN				*i* SS	SS	04 06 24.8	+2.6
OBN				pmax	pmax		
	comp=Z,36nm,1.7s,mb5.1						
OBN				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.4						
TIXI	Tiksi	69.31	11	⇓*i*P	P	03 53 20.6	-1.6
TIXI				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
IDI	Anoyia	69.94	305	P	P	03 53 27.0	+0.4
	comp=Z,5.4nm,0.8s,mb4.5,baz=112,slow=15,SNR=10						
IDI				pP	pP	03 53 40.1	+1.1
	comp=Z,7.2nm,0.6s,baz=81,slow=11,SNR=3.2						
AKASG	Malin Array Be	69.95	322	P	P	03 53 24.2	-2.1
	comp=Z,0.5nm,0.4s,mb3.8,baz=85,slow=5.2,SNR=5.6						
MLR	Muntele Rosu	70.83	316	P	P	03 53 30.7	-1.2
	comp=Z,3.2nm,0.8s,mb4.3,baz=112,slow=16,SNR=3.0						
CASY	Casey	72.77	173	P	P	03 53 45.7	+2.8
	comp=Z,11nm,1.0s,mb4.7						
FINES	FINESS Array B	74.69	332	*i* P	P	03 53 54.3	0.0
FINES				pmax	pmax		
	comp=Z,2.0nm,0.4s						
FINES	FINESS Array B	74.69	332	P	P	03 53 53.2	-1.0
	comp=Z,1.7nm,0.4s,mb4.3,baz=102,slow=6.1,SNR=30						
FINES				pP	pP	03 54 06.2	-0.6
	comp=Z,5.2nm,0.6s,baz=102,slow=5.7,SNR=4.1						
FINES				LR	LR	04 29 36.8	
	comp=Z,228nm,19.5s,MS4.5,baz=328,slow=38						
KAF	Kangasniemi	74.78	333	*e*p	P	03 53 53.8	-1.0
	comp=Z,0.6nm,0.4s,mb3.9						
KAF	Kangasniemi	74.78	333	*e*p	pP	03 54 06.4	-0.9
	comp=Z,3.8nm,0.6s						
KAF	Kangasniemi	74.78	333	*e*P	P	03 53 53.8	-1.0
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
OJC	Ojcow	75.73	320	*e*P	P	03 54 00.3	-0.1
MAW	Mawson	76.46	192	LR	LR	04 23 27.2	
	comp=Z,123nm,18.1s,MS4.3,baz=258,slow=32						
KEV	Kevo	76.92	341	*e*p	P	03 54 00.6	-6.2
	comp=Z,0.2nm,0.3s						
KEV	Kevo	76.92	341	*e*p	P	03 54 19.9	+13
	comp=Z,5.2nm,0.8s,mb4.5						
MORC	Moravsky Berou	77.12	320	P	P	03 54 08.5	+0.2
MORC				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.8						
MORC	Moravsky Berou	77.12	320	P	P	03 54 08.5	+0.2
	comp=Z,16nm,1.2s,mb4.8						
ARCES	ARCESS Array B	77.35	340	P	P	03 54 08.8	-0.4
	comp=Z,3.1nm,0.7s,mb4.3,baz=104,slow=6.5,SNR=13						
ARCES				LR	LR	04 31 27.9	
	comp=Z,302nm,18.4s,MS4.7,baz=191,slow=38						
PRU	Pruhonice	79.07	320	*e*pP	pP	03 54 40.9	+9.3
GERES	GERESS Array B	79.54	318	P	P	03 54 20.7	-0.9
	comp=Z,2.5nm,0.8s,mb4.2,baz=94,slow=5.0,SNR=18						
GERES				pP	pP	03 54 36.4	+2.2
	comp=Z,6.6nm,1.0s,baz=90,slow=5.3,SNR=9.5						
KHC	Kasperske Hory	79.64	319	*e*P	P	03 54 23.0	+0.9
KHC				*e*x	x	03 54 40.0	
CLL	Collm	80.13	321	P	P	03 54 27.0	+2.3
CLL				*e**SP	sP	03 54 39.0	-3.0
HFS	Hagfors	80.40	330	P	P	03 54 25.0	-0.9
	comp=Z,3.7nm,0.9s,mb4.3,baz=108,slow=4.7,SNR=7.9						
NOA	NORSAR Array B	81.69	331	P	P	03 54 32.6	-0.1
	comp=Z,2.3nm,1.0s,mb4.1,baz=34,slow=15,SNR=2.5						
NOA				pP	pP	03 54 46.0	+0.7
	comp=Z,1.7nm,0.8s,baz=94,slow=5.8,SNR=2.9						
SYO	Syowa Base	83.40	197	⇑P	P	03 54 45.5	+4.2
LPG	La Plagne	84.25	315	*e*P	P	03 54 47.2	+1.1
	comp=Z,14nm,0.9s,mb4.8						
LPG	La Plagne	84.25	315	*e*P	P	03 54 47.2	+1.1
LPG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.8						
VNDA	Vanda	90.79	168	P	P	03 55 18.7	+1.7
IMA	Indian Mountai	93.55	22	*e*P	P	03 55 31.6	+1.7
IMA				pmax	pmax		
	comp=Z,69nm,1.5s						
IMA	Indian Mountai	93.55	22	*e*P	P	03 55 31.6	+1.7
	comp=Z,69nm,1.5s						
ILAR	Eielson Array	96.68	22	LR	LR	04 01 35.4	
	comp=Z,83nm,19.9s,MS4.2,baz=170,slow=39						
DBIC	Dimbokro	98.39	278	LR	LR	04 38 29.9	
	comp=Z,97nm,18.4s,MS4.3,baz=57,slow=34						
YKA	Yellowknife Ar	108.48	14	PP	PP	04 01 06.0	-5.1
	comp=Z,0.1nm,0.3s,baz=325,slow=7.6,SNR=4.1						
ULM	Lac du Bonnet	123.58	8	PKP	PKPdf	04 01 13.0	+2.4
	comp=Z,1.1nm,0.5s,baz=117,slow=2.9,SNR=2.8						
ULM				pPKP		04 01 27.4	
	comp=Z,2.8nm,0.7s,baz=324,slow=0.7,SNR=4.3						
NVAR	Mina Array Bea	126.67	32	PKP	PKPdf	04 01 19.4	+2.4
	comp=Z,0.6nm,0.7s,baz=282,slow=2.7,SNR=4.1						
NVAR				pPKP		04 01 34.7	
	comp=Z,2.1nm,0.8s,baz=257,slow=2.8,SNR=8.3						
PDAR	Pinedale Array	127.11	22	PKP	PKPdf	04 01 19.8	+2.0
	comp=Z,2.2nm,1.1s,SNR=8.1						
PDAR				pPKP		04 01 35.8	
	comp=Z,1.8nm,0.8s,baz=12,slow=1.4,SNR=7.8						
TXAR	Lajitas Array	141.11	25	PKP	PKPdf	04 01 46.9	+2.7
	comp=Z,0.3nm,0.4s,baz=270,slow=0.9,SNR=3.5						
JCT	Junction City	141.56	20	*e*PKIKP	PKPdf	04 01 47.8	+2.9
LPAZ	La Paz	159.82	237	PKP	PKPdf	04 02 17.2	+4.6
	comp=Z,0.8nm,0.8s,slow=1.0,SNR=3.0						

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*IDC **30** 03:55:59.0±1.0, 6.66N×92.96E, mb3.9/6, mb1 4.0/7, mb1mx3.8/19, mbtmp3.9/7, Error ellipse: s-maj=44.9km s-min=20.5km az=49.0*

ISC 30 03:56:03.1±1.0**, 6.7N**±0.1×**93.3E**±0.2**, h33^{km}, n14, σ0$\overset{s}{.}$85**/13**, mb4.4**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.88	25	Pn	P	03 59 05.5	-1.2
	baz=214,slow=13,SNR=2.2						
PKI	Pulchoki	22.05	341	*e*P	P	04 00 57.3	+0.6
	32nm,1.0s,mb4.7						
DMN	Daman	22.18	340	*e*P	P	04 00 58.8	+0.7
GUN	Gumba	22.22	342	*e*P	P	04 00 58.7	+0.3
	55nm,1.1s,mb4.9						
KKN	Kakani	22.30	341	*e*P	P	04 00 59.4	+0.2
GKN	Gorkha	22.71	340	*e*P	P	04 01 03.8	+0.5
	130nm,1.4s,mb5.2						
KOLN	Koldanda	22.87	337	*e*P	P	04 01 05.5	+0.5
	87nm,1.5s,mb5.0						
SONM	Songino Array	42.46	13	P	P	04 03 57.4	+0.7
	0.9nm,0.8s,mb3.5,baz=194,slow=7.5,SNR=6.6						
WRA	Warramunga Arr	48.28	124	P	P	04 04 43.3	-0.1
	1.7nm,0.6s,mb4.2,baz=302,slow=9.2,SNR=8.4						
ASAR	Alice Springs	49.82	129	P	P	04 04 56.0	+0.7
	0.7nm,0.7s,mb3.8,baz=300,slow=7.3,SNR=8.6						
ASAR				PcP	PcP	04 06 17.1	+1.2
	3.1nm,1.1s,baz=321,slow=3.6,SNR=6.1						
GNI	Garni	54.66	315	P	P	04 05 30.2	-1.1
	1.7nm,0.4s,mb4.4,baz=36,slow=14,SNR=3.4						
BRTR	Keskin Array B	62.56	311	P	P	04 06 22.3	-4.0
	0.9nm,0.9s,mb3.9,baz=112,slow=7.9,SNR=6.2						
FINES	FINESS Array B	73.34	332	P	P	04 07 31.5	-1.7
	2.4nm,0.9s,mb4.1,baz=146,slow=14,SNR=4.0						
PDAR	Pinedale Array	126.52	21	PKP	PKPdf	04 15 05.0	+1.6
	0.6nm,1.1s,baz=180,slow=1.5,SNR=4.0						

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*IDC **30** 04:04:48.4±3.7, 36.77N×14.85E, mb3.9/2, mb1 3.7/6, mb1mx3.4/24, mbtmp3.5/6, ML3.8/4, Error ellipse: s-maj=59.9km s-min=32.0km az=32.0*

*ROM **30** 04:04:50.2±0.2, 36.88N×14.68E, h15^{km}±1^{km}, MD3.5/5, ML3.9, Error ellipse: s-maj=1.4km s-min=1.1km az=0.0*

*NEIC **30** 04:04:50.3, 36.88N×14.68E, h15^{km}, MD3.5(ROM), ML3.9(LDG), After ROM.*

*CSEM **30** 04:04:50.1±0.1, 36.87N×14.72E, h15^{km}, ML3.7/2, Error ellipse: s-maj=2.2km s-min=1.7km az=145.0*

*LDG **30** 04:04:51.0±0.1, 36.89N×14.69E, h10^{km}, Ml3.9/5, Error ellipse: s-maj=3.7km s-min=2.5km az=2.0*

ISC 30 04:04:48.8±0.4**, 36.89N**±0.03×**14.54E**±0.03**, h15^{km}, n61, σ1$\overset{s}{.}$19**/84**, mb3.6**/2**, 8C-1D, Sicily**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PZI	Palazzolo	0.36	63	⇑*i*PG	Pg	04 04 57.1	+0.5
PZI				SG	Sg	04 05 01.5	-0.3
	438nm,0.5s						
PZI	Palazzolo	0.36	63	⇑*i*Pg	Pg	04 04 57.1	+0.5
PZI				*e*Sg	Sg	04 05 01.5	-0.3
SSY	Sortino	0.50	58	⇑*i*PG	Pg	04 04 59.4	+0.2
SSY				SG	Sg	04 05 06.3	+0.3
SSY	Sortino	0.50	58	⇑*i*Pg	Pg	04 04 59.4	+0.2
SSY				*e*Sg	Sg	04 05 06.3	+0.3
AGST	Augusta-Monte	0.66	56	⇑*i*PG	Pg	04 05 01.5	-0.8
AGST				SG	Sg	04 05 10.0	-1.2
AGST	Augusta-Monte	0.66	56	⇑*i*Pg	Pg	04 05 01.5	-0.8
AGST				*e*Sg	Sg	04 05 10.0	-1.2
FAVR	Favara	0.79	298	⇑*i*PG	Pg	04 05 08.3	+3.4
FAVR				SG	Sg	04 05 20.0	+4.4
FAVR	Favara	0.79	298	⇑*i*Pg	Pg	04 05 08.3	+3.4
FAVR				*e*Sg	Sg	04 05 20.0	+4.4
WDD	Wield Dalam	1.02	181	*e*PN	Pn	04 05 09.6	+1.0
WDD				SN	Sg	04 05 24.2	+1.0
WDD	Wield Dalam	1.02	181	*e*Pg	Pg	04 05 09.7	+0.2
WDD				*e*Sg	Sg	04 05 24.2	+1.0
MNO	Monte Soro	1.05	7	⇓*i*PN	Pn	04 05 10.3	+1.4
CSLB	Castelbuono	1.11	340	*e*PN	Pn	04 05 11.7	+1.9
CSLB				SN	Sn	04 05 26.8	+1.9
CSLB	Castelbuono	1.11	340	*e*Pg	Pg	04 05 11.7	+0.5
CSLB				*e*Sg	Sg	04 05 26.8	+0.6
PLLN	Pollina	1.14	344	*e*PN	Pn	04 05 12.0	+1.7
PLLN				SN	Sn	04 05 29.0	+3.4
GIB	Gibilmanna	1.17	340	*e*PN	Pn	04 05 12.8	+2.1
GIB	Gibilmanna	1.17	340	*e*Pg	Pg	04 05 12.8	+0.4
MMME	Mongiuffi-Meli	1.19	28	*e*PN	Pn	04 05 11.0	+0.1
MMME				SN	Sn	04 05 27.1	+0.4
MTTG	Motta San Giov	1.44	39	*e*PN	Pn	04 05 14.3	-0.2
MTTG				SN	Sn	04 05 33.5	+0.3
	1μm,0.5s						
MTTG	Motta San Giov	1.44	39	*e*Pn	Pn	04 05 14.2	-0.3
MTTG				*e*Sn	Sn	04 05 33.5	+0.3
MTTG	Motta San Giov	1.44	39	*e*Pn	Pn	04 05 14.3	-0.2
	1μm,0.5s						
MTTG				Sn	Sn	04 05 33.5	+0.3
MSI	Messina ING	1.54	31	*e*PN	Pn	04 05 16.2	+0.3
MSI	Messina ING	1.54	31	*e*Pn	Pn	04 05 16.2	+0.2
MSRU	Castanea	1.57	29	*e*PN	Pn	04 05 16.4	0.0
GMB	Gambarie	1.63	38	*e*PN	Pn	04 05 18.2	+0.9
GMB	Gambarie	1.63	38	*e*Pn	Pn	04 05 18.2	+0.9
SCLL	Scilla	1.65	34	*e*PN	Pn	04 05 17.4	-0.1
	509nm,0.5s						
SCLL	Scilla	1.65	34	*e*Pn	Pn	04 05 17.4	-0.2
SCLL	Scilla	1.65	34	*e*Pn	Pn	04 05 17.4	-0.1
	509nm,0.5s						
SLNA	Salina	1.68	8	*e*PN	Pn	04 05 19.3	+1.3
SLNA	Salina	1.68	8	*e*Pn	Pn	04 05 19.3	+1.3
SOI	Samo	1.69	45	*e*PN	Pn	04 05 17.4	-0.6
SOI	Samo	1.69	45	*e*Pn	Pn	04 05 17.4	-0.7
CEL	Celeste	1.74	38	*e*PN	Pn	04 05 18.7	-0.1
CEL	Celeste	1.74	38	*e*Pn	Pn	04 05 18.7	-0.1
USI	Ustica	2.11	330	*e*PN	Pn	04 05 25.3	+1.2
USI	Ustica	2.11	330	*e*Pn	Pn	04 05 25.3	+1.2
GRI	Girifalco	2.43	37	*e*PN	Pn	04 05 28.5	-0.3
GRI	Girifalco	2.43	37	*e*Pn	Pn	04 05 28.5	-0.2
TIP	Timpagrande	2.88	37	*e*Pn	Pn	04 05 34.4	-0.7
TIP	Timpagrande	2.88	37	*e*Pn	Pn	04 05 34.3	-0.8
CUC	Castrocucco	3.25	18	*e*PN	Pn	04 05 40.2	-0.2
CUC	Castrocucco	3.25	18	*e*Pn	Pn	04 05 40.2	-0.2
MGR	Morigerati	3.34	13	*e*PN	Pn	04 05 42.8	+1.2
MGR	Morigerati	3.34	13	*e*Pn	Pn	04 05 42.8	+1.2
PGF	Pioggiola	7.08	325	*e*Pn	Pn	04 06 32.6	-1.9
PGF				*e*Sn	Sn	04 07 49.6	-5.9

	17nm,0.5s						
IDI	**Anoyia**	**8.53**	**98**	Pn	**P**	**04 06 50.4**	**-4.4**
	2.2nm,0.3s,baz=297,slow=14,SNR=15						
IDI				Sn	**Sn**	**04 08 19.2**	**-12**
	7.1nm,0.3s,baz=288,slow=20,SNR=13						
SBF	**Sospel**	**8.82**	**324**	*e*Pn	**P**	**04 06 57.1**	**-1.7**
SBF				*e*Sn	**Sn**	**04 08 32.0**	**-6.9**
	42nm,0.8s						
LMR	**La Mourre**	**8.90**	**319**	*e*Pn	**P**	**04 06 58.4**	**-1.5**
LMR				*e*Sn	**Sn**	**04 08 33.1**	**-7.7**
	6.5nm,0.4s						
FRF	**La Foret Royal**	**8.98**	**320**	*e*Pn	**P**	**04 06 58.2**	**-2.9**
FRF				*e*Sn	**Sn**	**04 08 35.7**	**-7.3**
	17nm,0.7s						
MBDF	**Montbardon**	**9.79**	**325**	*e*Pn	**P**	**04 07 11.0**	**-1.1**
SMRF	**Simiane la Rot**	**9.83**	**319**	*e*Pn	**P**	**04 07 11.0**	**-1.7**
SMRF				*e*Sn	**Sn**	**04 08 56.2**	**-7.6**
	5.4nm,0.6s						
ORIF	**Oris-en-Rattie**	**10.35**	**323**	*e*Pn	**P**	**04 07 18.2**	**-1.6**
LPG	**La Plagne**	**10.40**	**328**	*e*Pn	**P**	**04 07 19.1**	**-1.5**
LPL	**La Plagne**	**10.43**	**328**	*e*Pn	**P**	**04 07 19.4**	**-1.5**
LASF	**Ste Croix**	**10.84**	**315**	*e*Pn	**P**	**04 07 24.8**	**-1.8**
GERES	**GERESS Array B**	**11.96**	**357**	Pn	**P**	**04 07 42.3**	**+0.6**
	0.1nm,0.3s,baz=175,slow=12,SNR=2.3						
RJF	**Les Rejaudoux**	**12.91**	**315**	*e*Pn	**P**	**04 07 52.8**	**-1.7**
ESDC	**Sonseca Array**	**14.80**	**286**	Pn	**P**	**04 08 22.4**	**+3.1**
	0.3nm,0.3s,baz=92,slow=14,SNR=4.6						
AKASG	**Malin Array Be**	**17.36**	**33**	P	**P**	**04 08 51.0**	**-0.9**
	0.2nm,0.3s,baz=225,slow=9.8,SNR=5.8						
FINES	**FINESS Array B**	**25.62**	**13**	P	**P**	**04 10 19.8**	**+0.7**
	3.5nm,0.9s,mb3.9,baz=207,slow=8.5,SNR=4.0						
BVAR	**Borovoye Array**	**41.56**	**49**	P	**P**	**04 12 36.1**	**-1.0**
	0.8nm,0.9s,mb3.4,baz=270,slow=5.8,SNR=2.2						

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*BJI **30** 04:27:35.1, 5.34N×94.22E, h39^{km}, mB5.3, mb5.5, Ms4.9, Msz4.7*

*MOS **30** 04:27:36.0±0.9, 5.65N×94.35E, h33^{km}, mb5.6/65, MS4.8/12, Error ellipse: s-maj=9.3km s-min=4.4km az=124.8*

*NEIC **30** 04:27:36.7±0.2, 5.54N×94.30E, h30^{km}, mb5.5/75, MS4.9/16, MW5.2, Error ellipse: s-maj=6.7km s-min=4.2km az=211.0, Moment Tensor Solution. s7 Moment tensor: Scale 10^{16}Nm; M$_{rr}$6.43; M$_{\theta\theta}$-1.20; M$_{\phi\phi}$-5.23; M$_{r\theta}$-0.64; M$_{\theta\phi}$3.74; M$_{\phi r}$-3.70; Best double couple: M$_0$8×10^{16} NP1: φ$_s$310°, δ37°, λ58°. NP2:φ$_s$168°, δ59°, λ112°. Principal axes: T 7.85, Plg68°, Azm122°; N .21, Plg18°, Azm336°; P -8.06, Plg12°, Azm242°;*

*HRVD **30** 04:27:36.7±0.4, 5.34N×94.29E, h36^{km}±1^{km}, MW5.2/49, Centroid moment Tensor Solution. LP body waves: s42,c62;Mantle waves: s49,c76; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$5.00±.25; M$_{\theta\theta}$-1.84±.20; M$_{\phi\phi}$-3.16±.25; M$_{r\theta}$3.24±.23; M$_{\theta\phi}$2.69±.18; M$_{\phi r}$-2.78±.26; Best double couple: M$_0$6.68×10^{16} NP1:φ$_s$330°, δ26°, λ104°. NP2:φ$_s$135°, δ65°, λ83°. Principal axes: T 6.59, Plg69°, Azm31°; N .18, Plg6°, Azm137°; P -6.77, Plg20°, Azm229°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **30** 04:27:36.7, 5.53N×94.32E, h30^{km}, MB5.4, MS4.9*

*IDC **30** 04:27:37.9±0.4, 5.45N×94.34E, h39^{km}±2^{km}, mb5.0/31, mb1 5.1/32, mb1mx5.0/34, mbtmp5.2/32, MS4.4/11, Ms1 4.5/11, ms1mx4.1/31, Error ellipse: s-maj=14.1km s-min=7.7km az=45.0*

*CSEM **30** 04:27:39.0, 6.07N×94.09E, h33^{km}, mb5.5*

ISC 30 04:27:36.1±0.2**, 5.47N**±0.03×**94.34E**±0.03**, h39**^{km}**, h39**^{km}±1.3^{km}**:pP-P, n449, σ0^{s}96**/415**, mb5.4**/139**, MS4.6**/45**, 63C-11D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TSI	**Tuntungan**	**4.65**	**115**	*e*P	**P**	**04 28 48.7**	**+2.9**
PSI	**Prapat**	**5.34**	**121**	*e*P	**P**	**04 28 57.6**	**+2.1**
NST	**Nakhon Sawan**	**11.63**	**29**	P	**P**	**04 30 24.8**	**+2.2**
PALK	**Pallekele**	**13.67**	**278**	*e*P	**P**	**04 30 46.2**	**-3.6**
	22nm,0.6s						
PALK				*e*S	**S**	**04 33 04.5**	**-17**
CM31	**Chiang Mai Arr**	**13.67**	**19**	*e*P	**P**	**04 30 52.2**	**+2.4**
	140nm,0.6s						
CMAR	**Chiang Mai Arr**	**13.67**	**19**	Pn	**P**	**04 30 50.6**	**+0.7**
	9.4nm,0.3s,baz=206,slow=12,SNR=102						
CMAR				LR	LR	04 35 54.2	
	comp=Z,1µm,21.6s,baz=205,slow=36						
CMAR				ScP		04 39 43.7	
	0.1nm,0.3s,baz=232,slow=3.4,SNR=15						
UBT	**Ubonrachathani**	**14.31**	**46**	P	**P**	**04 31 03.0**	**+4.8**
NANT	**Nan**	**14.64**	**25**	⇑P	**P**	**04 31 04.0**	**+1.5**
	288nm,0.8s						
PENI	**Pendagan**	**15.40**	**135**	⇓*i*P	**P**	**04 31 08.4**	**-4.1**
PENI				pmax	pmax		
	comp=Z,108nm,0.6s						
PENI	**Pendagan**	**15.40**	**135**	⇓*i*P	**P**	**04 31 08.4**	**-4.1**
	comp=Z,108nm,0.6s						
PENI	**Pendagan**	**15.40**	**135**	⇑*i*P	**P**	**04 31 09.6**	**-2.9**
	comp=Z,249nm,0.5s						
VIS	**Vishakhapatnam**	**16.25**	**319**	*e*P	**P**	**04 31 22.8**	**-0.5**
VIS				*e*		04 31 24.6	
	comp=Z,44nm,0.6s						
PULI	**Pulasari**	**16.51**	**135**	⇑*i*P	**P**	**04 31 24.9**	**-1.7**
	comp=Z,140nm,0.5s						
PULI	**Pulasari**	**16.51**	**135**	⇑*i*P	**P**	**04 31 24.2**	**-2.4**
BWNR	**Bhubaneshwar**	**16.91**	**331**	*e*	**P**	**04 31 22.2**	**-9.3**
BWNR				*e*		04 34 18.4	
KOD	**Kodaikanal**	**17.36**	**287**	*e*P	**P**	**04 31 38.1**	**+0.8**
KOD				*e*		04 31 46.4	
	comp=Z,40nm,1.3s						
KOD				*e*		04 34 29.2	
TRD	**Trivandrum**	**17.51**	**281**	*e*	**P**	**04 31 49.1**	**+10**
TRD				*e*		04 34 35.9	
IMP	**Imphal**	**19.21**	**359**	*e*	**P**	**04 31 55.8**	**-3.9**
HYB	**Hyderabad**	**19.48**	**309**	*e*P	**P**	**04 32 03.0**	**+0.3**
HYB				pmax	pmax		
	comp=Z,60nm,1.0s						
HYB	**Hyderabad**	**19.48**	**309**	*e*P	**P**	**04 32 03.0**	**+0.3**
	comp=Z,60nm,1.0s						
HYB				*e*S	**S**	**04 35 22.0**	**-13**
HYB	**Hyderabad**	**19.48**	**309**	*i* P	**P**	**04 32 03.0**	**+0.3**
	comp=Z,60nm,1.0s						
HYB				*e*		04 35 22.0	
HYB				*e*S	**S**	**04 35 35.0**	**0.0**
SHL	**Shillong**	**20.12**	**354**	⇑*i*P	**P**	**04 32 05.5**	**-4.1**
	comp=Z,67nm,0.8s						
SHL				*e*		04 32 07.3	
	comp=Z,40nm,0.7s						
SHL				*e*S	**S**	**04 35 51.2**	**+2.6**
QIZ	**Qiongzhong**	**20.26**	**47**	⇑*i*P	**P**	**04 32 12.5**	**+1.5**
QIZ				PP	PP	04 32 32.5	+0.8
QIZ				S	**S**	**04 35 52.3**	**+1.2**
QIZ				SS	SS	04 36 22.0	+0.8
QIZ				AMB	AMB		
	comp=Z,135nm,1.0s						
QIZ				LR	LR		
	comp=N,2µm,16.1s,MS4.7						
QIZ				LR	LR		
	comp=E,2µm,16.1s,MS4.7						
QIZ				LR	LR		
	comp=Z,2µm,19.1s,MS4.5						
QIZ	**Qiongzhong**	**20.26**	**47**	*e*P	**P**	**04 32 11.5**	**+0.5**
	comp=Z,126nm,0.8s						
BLSP	**Bilaspur**	**20.34**	**326**	*e*P	**P**	**04 32 10.0**	**-1.9**
MNGI	**Mangalore**	**20.63**	**292**	*e*		04 32 29.5	
MNGI				*e*		04 35 53.0	
	comp=Z,90nm,1.3s						
KMI	**Kunming**	**21.14**	**22**	P	**P**	**04 32 22.0**	**+1.9**
KMI				AP		04 32 34.3	
KMI				XP		04 32 41.5	
KMI				S	**S**	**04 36 16.5**	**+8.4**
KMI				AMB	AMB		
	comp=Z,124nm,1.3s,mb5.1						
KMI				AMB	AMB		
	comp=Z,335nm,3.1s						
KMI				LR	LR		
	comp=N,1µm,19.8s						
KMI				LR	LR		
	comp=E,1µm,29.2s						
KMI				LR	LR		
	comp=Z,1µm,20.6s,MS4.3						
NGP	**Nagpur**	**21.51**	**318**	⇑*e*P	**P**	**04 32 24.9**	**+1.0**
	comp=Z,79nm,0.8s,mb5.2						
NGP				*e*S	**S**	**04 36 16.9**	**+1.8**
LATR	**Latur**	**21.60**	**308**	*e*P	**P**	**04 32 25.6**	**+0.8**
LATR				*e*		04 36 13.8	
GOA	**Goa**	**22.47**	**298**	*e*	PcP	04 36 33.1	+5.1
AKL	**Akola**	**22.63**	**314**	*e*P	**P**	**04 32 34.7**	**-0.4**
AKL				*e*		04 32 42.9	
	comp=Z,118nm,1.7s						
AKL				*e*S	**S**	**04 36 40.7**	**+5.1**
KAD	**Karad**	**22.96**	**302**	*e*P	**P**	**04 32 39.6**	**+1.3**
KAD				*i* S	**S**	**04 36 47.1**	**+5.5**
	comp=Z,14nm,0.4s						
PKI	**Pulchoki**	**23.57**	**340**	*e*P	**P**	**04 32 43.9**	**-0.2**
	comp=Z,141nm,0.7s,mb5.5						
DMN	**Daman**	**23.71**	**339**	*e*P	**P**	**04 32 45.6**	**+0.1**
	comp=Z,215nm,0.8s,mb5.6						
GUN	**Gumba**	**23.73**	**341**	*e*P	**P**	**04 32 45.4**	**-0.3**
	comp=Z,236nm,0.5s,mb5.9						
KKN	**Kakani**	**23.81**	**340**	*e*P	**P**	**04 32 46.4**	**-0.1**
	comp=Z,251nm,0.7s,mb5.8						
POO	**Poona**	**23.84**	**305**	*e*P	**P**	**04 32 47.0**	**+0.2**
POO				*i* S	**S**	**04 37 06.0**	**+9.1**
GYA	**Guiyang**	**23.97**	**28**	⇑*i*P	**P**	**04 32 49.3**	**+1.3**
GYA				AP		04 32 58.5	
GYA				XP		04 33 04.5	
GYA				S	**S**	**04 36 57.0**	**-2.1**
GYA				AMB	AMB		
	comp=Z,630nm,0.7s,mb6.2						
GYA				AMB	AMB		
	comp=Z,1µm,4.2s						
GYA				LR	LR		
	comp=N,4µm,16.2s,MS5.3						
GYA				LR	LR		
	comp=E,8µm,16.4s,MS5.3						
GYA				LR	LR		
	comp=Z,5µm,17.0s,MS5.1						
BHPL	**Bhopal**	**24.05**	**319**	*e*P	**P**	**04 32 50.9**	**+2.1**
BHPL				*e*		04 32 51.8	
	comp=Z,77nm,0.7s						
SRDI	**Scrawed**	**24.12**	**125**	⇑*i*P	**P**	**04 32 49.8**	**+0.1**
SRDI				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.0						
SRDI	**Scrawed**	**24.12**	**125**	⇑*i*P	**P**	**04 32 49.8**	**+0.1**
	comp=Z,183nm,1.0s,mb5.2						
GKN	**Gorkha**	**24.23**	**339**	*e*P	**P**	**04 32 51.0**	**+0.4**
	comp=Z,350nm,0.6s,mb6.0						
KELI	**Kelakatan**	**24.27**	**124**	⇑*i*P	**P**	**04 32 53.5**	**+2.4**
	comp=Z,121nm,0.9s,mb5.3						
KELI	**Kelakatan**	**24.27**	**124**	⇑*i*P	**P**	**04 32 52.3**	**+1.2**
	comp=Z,159nm,1.0s,mb5.1						
LSA	**Lhasa**	**24.29**	**353**	*e*P	**P**	**04 32 50.6**	**-0.6**
LSA				*e*		04 33 01.2	
LSA				pmax	pmax		
	comp=Z,165nm,0.6s,mb5.6						
LSA	**Lhasa**	**24.29**	**353**	*e*P	**P**	**04 32 50.6**	**-0.6**
	comp=Z,165nm,0.6s,mb5.6						
LSA				*e*		04 33 01.2	
KOLN	**Koldanda**	**24.42**	**336**	*e*P	**P**	**04 32 53.2**	**+0.8**
	comp=Z,938nm,1.4s,mb6.0						
BOM	**Bombay**	**24.87**	**304**	*e*P	**P**	**04 33 00.3**	**+3.4**
BOM				*e*		04 33 06.2	
	comp=Z,50nm,1.5s						
BOM				*e*S	**S**	**04 37 20.8**	**+6.3**
RATI	**Rata**	**25.40**	**124**	⇓*i*P	**P**	**04 33 00.4**	**-1.6**
	comp=Z,260nm,0.3s,mb6.2						
KEDI	**Kedomdong**	**25.76**	**122**	⇑*i*P	**P**	**04 33 04.2**	**-1.1**
KEDI				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.3						
KEDI	**Kedomdong**	**25.76**	**122**	⇑*i*P	**P**	**04 33 04.2**	**-1.1**
	comp=Z,208nm,1.0s,mb5.3						
CD2	**Chengdu**	**26.82**	**18**	⇑*i*P	**P**	**04 33 14.3**	**-0.6**
CD2				S	**S**	**04 37 44.8**	**-1.7**
CD2				AMB	AMB		
	comp=Z,110nm,0.6s,mb5.6						
CD2				LR	LR		
	comp=E,970nm,14.4s						
CD2				LR	LR		
	comp=Z,830nm,17.4s,MS4.3						
LGTI	**Lohaghat**	**27.32**	**332**	*e*P	**P**	**04 33 19.3**	**-0.3**
PTH	**Pithoragarh**	**27.42**	**333**	*e*P	**P**	**04 33 19.9**	**-0.6**
PTH				*e*		04 38 46.2	
TGY	**Tagaytay City**	**27.56**	**70**	P	**P**	**04 33 22.2**	**+0.4**
	comp=Z,744nm,1.1s,mb6.2,baz=242,slow=3.5,SNR=8.1						
LQP	**Lukban**	**28.12**	**70**	⇑*e*P	**P**	**04 33 28.0**	**+1.0**
NDI	**New Delhi**	**28.22**	**327**	⇑*e*P	**P**	**04 33 26.6**	**-1.1**
NDI				*e*		04 33 27.2	
	comp=Z,24nm,0.6s						
ENH	**Enshi**	**28.51**	**28**	*e*P	**P**	**04 33 28.9**	**-1.4**
	comp=Z,79nm,0.5s,mb5.7						
KHET	**Khetri**	**28.55**	**324**	*e*P	**P**	**04 33 30.7**	**0.0**
RCP	**Roxas**	**28.73**	**76**	⇑*e*P	**P**	**04 33 33.5**	**+1.1**
DDI	**Dehra Dun**	**29.09**	**330**	*e*P	**P**	**04 33 35.4**	**-0.1**
KLP	**Kalpa**	**30.00**	**332**	*e*P	**P**	**04 33 43.0**	**-0.5**
SDNR	**Sundarnagar**	**30.59**	**330**	*e*P	**P**	**04 33 49.7**	**+0.9**
WHN	**Wuhan**	**31.26**	**35**	⇑P	**P**	**04 33 55.3**	**+0.6**
WHN				LR	LR		
	comp=Z,3µm,16.2s,MS5.1						
XAN	**Xi'an**	**31.49**	**24**	P	**P**	**04 33 55.5**	**-1.2**
XAN				AMB	AMB		
	comp=Z,154nm,0.9s,mb5.8						
XAN				LR	LR		
	comp=N,556nm,25.6s,MS4.3						
XAN				LR	LR		
	comp=E,641nm,25.6s,MS4.3						
XAN				LR	LR		
	comp=Z,1µm,18.6s						
LZH	**Lanzhou**	**31.70**	**15**	⇑P	**P**	**04 33 57.5**	**-1.0**
LZH				AP	pP	04 34 06.3	-3.1
LZH				XP	sP	04 34 10.0	-4.4
LZH				S	**S**	**04 39 04.0**	**-0.2**
LZH				SCP		04 40 30.8	
LZH				SS	SS	04 40 54.0	-1.7
LZH				AMB	AMB		
	comp=Z,139nm,1.5s,mb5.6						
LZH				AMB	AMB		
	comp=Z,355nm,4.0s						
LZH				LR	LR		
	comp=N,1µm,12.1s						
LZH				LR	LR		
	comp=Z,2µm,13.7s,MS5.0						
GTA	**Gaotai**	**34.15**	**8**	⇑*i*P	**P**	**04 34 19.3**	**-0.4**
GTA				AP	pP	04 34 27.8	-2.8
GTA				XP	sP	04 34 32.3	-3.3
GTA				PCP	PcP	04 36 57.3	+0.9
GTA				S	**S**	**04 39 38.8**	**-3.5**
GTA				SCP		04 40 37.5	
GTA				SCS	ScS	04 44 39.0	+1.2
GTA				AMB	AMB		
	comp=Z,76nm,0.9s,mb5.6						
GTA				AMB	AMB		
	comp=Z,102nm,9.1s						
GTA				LR	LR		
	comp=N,672nm,21.7s						
GTA				LR	LR		
	comp=E,344nm,27.0s						
GTA				LR	LR		
	comp=Z,735nm,25.1s,MS4.3						
NJ2	**Nanjing**	**35.01**	**38**	*e*P	**P**	**04 34 28.0**	**+0.9**
NJ2				AP	pP	04 34 37.3	-0.7
NJ2				XP	sP	04 34 41.3	-1.7
NJ2				PP	PP	04 35 47.3	+1.2
NJ2				S	**S**	**04 39 59.0**	**+3.4**
NJ2				XS		04 40 16.0	
NJ2				AMB	AMB		
	comp=Z,240nm,0.5s,mb6.4						
NJ2				AMB	AMB		
	comp=Z,190nm,5.6s						
NJ2				LR	LR		
	comp=N,3µm,15.3s,MS5.3						
NJ2				LR	LR		
	comp=E,3µm,15.5s,MS5.3						
NJ2				LR	LR		
	comp=Z,3µm,16.9s,MS5.2						
SSE	**Sheshan**	**35.85**	**41**	P	**P**	**04 34 35.5**	**+1.2**
SSE				S	**S**	**04 40 09.8**	**+1.2**
SSE				XS		04 40 25.0	
SSE				PCS		04 40 51.3	
SSE				AMB	AMB		
	comp=Z,65nm,0.7s,mb5.7						
SSE				AMB	AMB		
	comp=Z,115nm,5.0s						
SSE				LR	LR		
	comp=N,455nm,23.6s,MS4.3						
SSE				LR	LR		
	comp=E,443nm,23.6s,MS4.3						
SSE				LR	LR		
	comp=Z,874nm,23.7s,MS4.5						
TIA	**Tai'an**	**37.07**	**31**	⇑P	**P**	**04 34 44.5**	**0.0**
TIA				AMB	AMB		
	comp=Z,65nm,1.0s,mb5.4						
BTO	**Baotou**	**37.72**	**20**	*e*P	**P**	**04 34 47.5**	**-2.4**
BTO				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.2						
BTO				LR	LR		
	comp=N,271nm,5.7s						
BTO				LR	LR		
	comp=E,687nm,15.3s						
KSH	**Kashi**	**37.74**	**337**	P	**P**	**04 34 50.3**	**+0.2**
KSH				AP	pP	04 34 58.5	-2.6
KSH				XP	sP	04 35 03.8	-2.2
KSH				PP	PP	04 36 15.5	-4.1
KSH				PPP	PPP	04 36 34.0	-7.3
KSH				S	**S**	**04 40 33.3**	**-4.1**
KSH				*e*PCS		04 40 58.8	
KSH				SCS	ScS	04 45 00.0	+2.6
KSH				AMB	AMB		
	comp=Z,240nm,5.3s						
KSH				LR	LR		
	comp=N,390nm,6.0s						
KSH				LR	LR		
	comp=E,700nm,6.0s						
HHC	**Hu-ho-hao-te**	**38.47**	**21**	⇑*i*P	**P**	**04 34 57.0**	**+0.9**
HHC				AP	pP	04 35 06.8	-0.3
HHC				XP	sP	04 35 10.5	-1.5
HHC				PP	PP	04 36 28.5	+0.4
HHC				PCP	PcP	04 37 10.3	+1.0
HHC				S	**S**	**04 40 48.8**	**+0.3**
HHC				PCS		04 40 58.3	
HHC				XS		04 41 05.3	
HHC				SS	SS	04 43 29.3	-0.6
HHC				SCS	ScS	04 45 03.3	+1.7
HHC				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.5						
HHC				AMB	AMB		
	comp=Z,248nm,5.1s						
HHC				LR	LR		
	comp=N,1µm,17.8s,MS4.8						
HHC				LR	LR		
	comp=E,504nm,16.6s,MS4.8						
HHC				LR	LR		
	comp=Z,1µm,17.8s,MS4.7						
WMQ	**Urumqi**	**38.65**	**352**	⇑P	**P**	**04 34 58.5**	**+0.9**
WMQ				AP	pP	04 35 08.5	-0.1
WMQ				XP	sP	04 35 12.5	-1.0
WMQ				PP	PP	04 36 34.8	+4.7
WMQ				PPP	PPP	04 36 59.3	+6.0
WMQ				S	**S**	**04 41 00.3**	**+9.2**
WMQ				AMB	AMB		
	comp=Z,75nm,0.9s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,29nm,4.6s						
WMQ				LR	LR		
	comp=N,409nm,28.8s,MS4.2						
WMQ				LR	LR		
	comp=E,418nm,27.3s,MS4.2						
WMQ				LR	LR		
	comp=Z,566nm,28.6s,MS4.2						
JOW	**Kunigami**	**38.70**	**53**	P	**P**	**04 34 59.1**	**+1.0**
	comp=Z,95nm,0.6s,mb5.7,baz=242,slow=6.7,SNR=22						
JOW				LR	LR	04 50 55.7	
	comp=Z,913nm,20.4s,MS4.6,baz=285,slow=36						
BJT	**Baijiatuau**	**39.62**	**27**	*e*P	**P**	**04 35 06.6**	**+0.9**
BJT				pmax	pmax		
	comp=Z,235nm,1.3s						
BJT	**Baijiatuau**	**39.62**	**27**	*e*P	**P**	**04 35 06.6**	**+0.9**
	comp=Z,235nm,1.3s,mb5.8						
BJI	**Beijing**	**39.64**	**27**	*e*P	**P**	**04 35 07.0**	**+1.1**
BJI				AMB	AMB		
	comp=Z,109nm,1.1s,mb5.5						
BJI				LR	LR		
	comp=N,568nm,22.4s,MS4.5						
BJI				LR	LR		
	comp=E,462nm,21.2s,MS4.5						
BJI				LR	LR		
	comp=Z,744nm,24.1s,MS4.4						
KZA	**Kyzart**	**40.22**	**338**	P	**P**	**04 35 11.6**	**+0.9**
	SNR=14						
UCH	**Uchtor**	**40.63**	**337**	P	**P**	**04 35 15.1**	**+1.0**
	SNR=42						
TKM2	**Tokmak 2**	**40.82**	**339**	P	**P**	**04 35 16.2**	**+0.5**
	SNR=30						
KBK	**Karagaybulak**	**40.83**	**338**	P	**P**	**04 35 16.7**	**+1.0**
	SNR=7.7						
AML	**Almayashu**	**40.87**	**336**	P	**P**	**04 35 17.1**	**+1.1**
	SNR=43						
AAK	**Ala-Archa**	**40.98**	**338**	P	**P**	**04 35 20.6**	**+3.6**
	SNR=17						
AAK	**Ala-Archa**	**40.98**	**338**	*e*P	**P**	**04 35 16.2**	**-0.8**
AAK				pmax	pmax		
	comp=Z,88nm,1.1s,mb5.3						
AAK				MLR	MLR		
	comp=Z,195nm,22.0s,MS3.9						
AAK	**Ala-Archa**	**40.98**	**338**	*e*P	**P**	**04 35 16.2**	**-0.7**
	comp=Z,88nm,1.1s,mb5.3						
AAK				LR	LR		
	comp=Z,195nm,22.0s,MS3.9						
FRU	**Bishkek**	**41.11**	**338**	*e*P	**P**	**04 35 19.0**	**+1.0**
FRU				*e*	pP	04 35 30.0	+0.9
FRU				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.0						
CHMS	**Chumysh**	**41.20**	**338**	P	**P**	**04 35 19.2**	**+0.4**
	SNR=17						
EKS2	**Erkin-Say**	**41.28**	**337**	P	**P**	**04 35 20.0**	**+0.6**
	SNR=23						
DL2	**Dalian**	**41.46**	**33**	P	**P**	**04 35 22.3**	**+1.4**
DL2				AMB	AMB		
	comp=Z,110nm,0.9s,mb5.5						
USP	**Ospenovka**	**41.52**	**338**	P	**P**	**04 35 21.7**	**+0.2**
	SNR=65						
MKAR	**Makanchi Array**	**42.47**	**348**	*i* P	**P**	**04 35 29.3**	**+0.2**
SONM	**Songino Array**	**43.46**	**12**	P	**P**	**04 35 37.0**	**-0.2**
	comp=Z,59nm,0.9s,mb5.3,baz=198,slow=7.8,SNR=191						
SONM				pP	pP	04 35 48.6	+0.3
	comp=Z,19nm,0.8s,baz=198,slow=7.8,SNR=4.7						
SONM				PcP	PcP	04 37 24.7	-0.7
	comp=Z,12nm,0.6s,baz=198,slow=3.3,SNR=7.7						
SONM				pPcP		04 37 39.5	
	comp=Z,14nm,0.7s,baz=202,slow=3.6,SNR=5.6						
SONM				ScP		04 41 12.1	
	comp=Z,2.2nm,0.8s,baz=190,slow=3.6,SNR=6.2						
SONM				PKP2bc		05 07 49.7	
	comp=Z,3.2nm,1.0s,baz=339,slow=3.2,SNR=14						
ULN	**Ulaanbaatar**	**43.63**	**12**	*e*P	**P**	**04 35 38.0**	**-0.6**
ULN				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.3						
ULN	**Ulaanbaatar**	**43.63**	**12**	*e*P	**P**	**04 35 38.0**	**-0.6**
	comp=Z,57nm,1.0s,mb5.3						
NWAO	**Narrogin (SRO)**	**43.94**	**152**	P	**P**	**04 35 41.4**	**+0.1**
	comp=Z,13nm,0.8s,mb4.7,baz=27,slow=9.9,SNR=5.4						
KS15	**Wonju Array Si**	**44.14**	**39**	*e*P	**P**	**04 35 42.4**	**-0.4**
SNY	**Shenyang**	**44.60**	**31**	⇑P	**P**	**04 35 46.5**	**0.0**
SNY				XP	sP	04 35 58.0	-4.3
SNY				PP	PP	04 37 29.5	-2.3
SNY				AMB	AMB		
	comp=Z,60nm,1.3s,mb5.3						
SNY				LR	LR		
	comp=N,650nm,19.4s						
SNY				LR	LR		
	comp=E,620nm,24.9s						
SNY				LR	LR		
	comp=Z,630nm,25.3s						
ZAK	**Zakamensk**	**45.39**	**8**	⇓*i*P	**P**	**04 35 52.0**	**-0.7**
MOY	**Mondy**	**46.38**	**6**	*e*P	**P**	**04 36 00.5**	**0.0**
TLY	**Talaya**	**46.71**	**8**	P	**P**	**04 36 03.7**	**+0.6**
	comp=Z,174nm,0.8s,mb6.0,SNR=7.2						
TLY	**Talaya**	**46.71**	**8**	*e*P	**P**	**04 36 03.4**	**+0.3**
TLY				*e*		04 45 48.4	
TLY				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
TLY				MLR	MLR		
	comp=Z,636nm,23.0s,MS4.5						
TLY	**Talaya**	**46.71**	**8**	*e*P	**P**	**04 36 03.0**	**-0.1**
	comp=Z,37nm,1.0s,mb5.3						
WRA	**Warramunga Arr**	**46.74**	**124**	*i* P	**P**	**04 36 04.0**	**+0.3**
WRA				pmax	pmax		
	comp=Z,77nm,0.7s						
WRA	**Warramunga Arr**	**46.74**	**124**	P	**P**	**04 36 04.0**	**+0.3**
	comp=Z,76nm,0.7s,mb5.8,baz=303,slow=9.2,SNR=66						
WRAB	**Tennant Creek**	**46.74**	**124**	*c* *i*P	**P**	**04 36 04.2**	**+0.4**
WRAB	**Tennant Creek**	**46.74**	**124**	*e*P	**P**	**04 36 04.1**	**+0.4**
	comp=Z,153nm,0.8s,mb6.0						
WRAB				LR	LR		
	comp=Z,199nm,22.0s,MS4.0						
CN2	**Changchun**	**46.97**	**31**	⇑P	**P**	**04 36 05.0**	**-0.2**
CN2				*e*AP	pP	04 36 16.3	-0.1

CN2				PCP	PcP	04 37 36.5	-1.1
CN2				PP	PP	04 37 56.0	+0.5
CN2				eS	S	04 42 54.3	+1.4
CN2				AMB	AMB		
	comp=Z,60nm,0.6s,mb5.7						
CN2				AMB	AMB		
	comp=Z,200nm,4.0s						
CN2				LR	LR		
	comp=N,720nm,17.0s,MS4.8						
CN2				LR	LR		
	comp=E,620nm,17.0s,MS4.8						
CN2				LR	LR		
	comp=Z,620nm,19.0s,MS4.6						
IRK	Irkutsk	47.35	8	eP	P	04 36 07.5	-0.6
IRK				e	pP	04 36 19.5	+0.3
ASAR	Alice Springs	48.25	128	P	P	04 36 15.7	+0.1
	comp=Z,41nm,0.6s,mb5.6,baz=299,slow=7.6,SNR=48						
ASAR				pP	pP	04 36 25.9	-0.8
	comp=Z,47nm,0.9s,baz=301,slow=7.4,SNR=8.8						
ASAR				sP	sP	04 36 31.0	-0.4
	comp=Z,42nm,0.8s,baz=308,slow=7.3,SNR=9.1						
ASAR				S	S	04 43 10.4	-0.9
	comp=Z,2.6nm,0.8s,baz=291,slow=14,SNR=7.8						
ASAR				LR	LR	04 56 02.4	
	comp=Z,279nm,19.5s,MS4.2,baz=184,slow=35						
HIA	Hailar	48.66	22	eP	P	04 36 17.8	-0.5
HIA				e	pP	04 36 29.9	+0.4
HIA				pmax	pmax		
	comp=Z,45nm,0.9s						
HIA	Hailar	48.66	22	eP	P	04 36 17.8	-0.5
	comp=Z,45nm,0.9s,mb5.5						
HIA				e	pP	04 36 29.9	+0.5
ZAL	Zalesovo	48.95	353	P	P	04 36 20.2	-0.3
	comp=Z,81nm,0.7s,mb5.9,baz=211,slow=5.4,SNR=256						
ZAL				S	S	04 43 21.4	+0.8
	comp=Z,2.2nm,0.9s,baz=152,slow=24,SNR=8.2						
ZAL				LR	LR	05 01 35.0	
	comp=Z,495nm,21.8s,MS4.5,baz=211,slow=42						
MDJ	Mudanjiang	49.70	33	P	P	04 36 27.0	+0.6
MDJ				AP	pP	04 36 36.3	-1.3
MDJ				XP	sP	04 36 39.5	-2.8
MDJ				PCP	PcP	04 37 46.8	-0.7
MDJ				PP	PP	04 38 21.8	+0.1
MDJ				SCP		04 41 40.0	
MDJ				PCS		04 41 43.5	
MDJ				S	S	04 43 37.8	+6.5
MDJ				XS		04 43 51.5	
MDJ				SCS	ScS	04 46 15.5	+3.9
MDJ				AMB	AMB		
	comp=Z,61nm,1.4s,mb5.4						
MDJ				AMB	AMB		
	comp=Z,167nm,4.7s						
MDJ				LR	LR		
	comp=N,207nm,23.0s,MS4.3						
MDJ				LR	LR		
	comp=E,360nm,24.9s,MS4.3						
MDJ				LR	LR		
	comp=Z,405nm,22.5s,MS4.4						
MDJ	Mudanjiang	49.70	33	eP	P	04 36 26.3	-0.1
	comp=Z,76nm,1.0s,mb5.7						
MDJ				e	pP	04 36 39.8	+2.2
RDF	Al-Radifah	49.98	303	eP	P	04 36 29.5	+0.8
NVS	Novosibirsk	50.04	352	iP	P	04 36 27.6	-1.3
NVS				e	pP	04 36 35.9	-4.2
NVS				eS	S	04 43 35.7	-0.1
NVS				pmax	pmax		
	comp=Z,114nm,0.9s,mb5.9						
NVS				pmax	pmax		
	comp=N,92nm,0.9s						
NVS				pmax	pmax		
	comp=E,49nm,0.5s						
NVS				smax			
	comp=E,89nm,1.7s						
NVS				smax			
	comp=N,73nm,1.8s						
CBIJ	Chichi jima	50.33	59	P	P	04 36 30.2	-1.2
	comp=N,117nm,0.5s,mb6.2,baz=270,slow=22,SNR=6.3						
CBIJ				LR	LR	04 55 04.4	
	comp=N,432nm,19.6s,MS4.5,baz=222,slow=33						
GUMO	Guam	50.40	77	PFAKE		04 36 40.0	+7.8
GUMO				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
MIB	Mutribah	50.44	304	eP	P	04 36 32.2	-0.1
MIB				AMb	AMB	04 36 47.5	
	comp=Z,87nm,0.8s,mb5.8						
KAMS	Al Khamasin	50.48	292	P	P	04 36 33.8	+1.1
RST	Umm Al-Ruwaisa	50.62	304	eP	P	04 36 33.7	0.0
RST				AMb	AMB	04 36 49.3	
	comp=Z,60nm,1.0s,mb5.5						
MAT	Matsushiro	50.65	46	P	P	04 36 33.4	-0.4
MAT	Matsushiro	50.65	46	eP	P	04 36 33.0	-0.8
MAT				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
MZLS	Mizel	50.66	297	P	P	04 36 35.1	+1.1
BVA0	Borovoye Array	51.32	342	P	P	04 36 37.8	-0.8
BVA0				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.5						
BVAR	Borovoye Array	51.32	342	P	P	04 36 37.8	-0.8
	comp=Z,38nm,0.6s,mb5.5,baz=141,slow=9.5,SNR=228						
BVAR				pP	pP	04 36 48.8	-1.0
	comp=Z,30nm,0.7s,baz=124,slow=5.2,SNR=8.4						
BVAR				S	S	04 43 59.7	+6.2
	comp=Z,3.5nm,1.1s,baz=139,slow=14,SNR=5.2						
BRVK	Borovoye	51.38	342	eP	P	04 36 37.8	-1.3
BRVK				pmax	pmax		
	comp=Z,44nm,0.6s,mb5.6						
BRVK				MLR	MLR		
	comp=Z,70nm,19.0s,MS3.7						
BRVK	Borovoye	51.38	342	eP	P	04 36 37.8	-1.3
	comp=Z,44nm,0.6s,mb5.6						
BRVK				LR	LR		
	comp=Z,70nm,19.0s,MS3.7						
TATS	Tathlith	51.38	291	P	P	04 36 40.0	+0.5
CHKZ	Chkalovo	51.81	342	eP	P	04 36 41.8	-0.5
CHKZ				pmax	pmax		
	comp=Z,109nm,0.6s,mb6.0						
CHKZ	Chkalovo	51.81	342	eP	P	04 36 41.8	-0.5
	comp=Z,109nm,0.6s,mb6.0						
AFFS	‘Afif	52.60	296	P	P	04 36 49.9	+1.2
KLR	Kul’dur	53.86	30	eP	P	04 36 54.8	-2.8
KLR				pmax	pmax		
	comp=N,65nm,2.2s						
KLR				pmax	pmax		
	comp=E,82nm,2.2s						
KLR				pmax	pmax		
	comp=Z,100nm,2.2s,mb5.4						
KLR				MLR	MLR		
	comp=E,1µm,20.0s						
HILS	Ha’il	54.43	300	P	P	04 37 03.4	+1.3
BOD	Bodaibo	54.44	13⇑	iP	P	04 37 01.1	-0.6
PMG	Port Moresby	54.67	106	iP	P	04 37 03.7	-0.4
PMG	Port Moresby	54.67	106	P	P	04 37 03.9	-0.2
	comp=E,48nm,0.7s,mb5.7,baz=307,slow=3.8,SNR=19						
PMG	Port Moresby	54.67	106	eP	P	04 37 03.3	-0.8
	comp=E,55nm,0.8s,mb5.6						
GNI	Garni	56.26	315	eP	P	04 37 14.4	-0.8
GNI				pmax	pmax		
	comp=Z,47nm,1.1s						
GNI	Garni	56.26	315	P	P	04 37 14.7	-0.5
	comp=Z,25nm,1.0s,mb5.2,baz=356,slow=8.3,SNR=9.2						
GNI	Garni	56.26	315	eP	P	04 37 14.4	-0.8
	comp=Z,47nm,1.1s,mb5.4						
TI2	Plekhanov	56.92	317⇑	iP	P	04 37 18.8	-1.1
CTA	Charters Tower	56.99	118	P	P	04 37 20.0	-0.6
	comp=Z,19nm,0.9s,mb5.1,baz=284,slow=8.8,SNR=7.8						
CTAO	Charters Tower	56.99	118	eP	P	04 37 19.7	-1.0
CTAO				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.4						
CTAO				MLR	MLR		
	comp=Z,585nm,21.0s,MS4.7						
CTAO	Charters Tower	56.99	118	eP	P	04 37 19.7	-1.0
	comp=Z,43nm,1.1s,mb5.4						
CTAO				LR	LR		
	comp=Z,585nm,21.0s,MS4.7						
ASAJ	Asahikawa	57.11	40	P	P	04 37 21.4	+0.1
	comp=Z,13nm,0.5s,mb5.2,baz=224,slow=11,SNR=6.1						
KMBO	Kilima Mbogo	57.38	265	eP	P	04 37 24.9	+1.4
KMBO				pmax	pmax		
	comp=Z,17nm,1.1s						
KMBO	Kilima Mbogo	57.38	265	P	P	04 37 24.7	+1.1
	comp=Z,6.4nm,0.9s,mb4.7,baz=65,slow=8.7,SNR=10						
KMBO				LR	LR	04 57 45.8	
	comp=Z,637nm,21.6s,MS4.7,baz=99,slow=32						
KMBO	Kilima Mbogo	57.38	265	eP	P	04 37 24.9	+1.4
	comp=Z,17nm,1.1s,mb5.0						
SVE	Sverdlovsk	57.70	339⇓	eP	P	04 37 23.7	-1.5
SVE				e		04 45 20.0	
SVE				pmax	pmax		
	comp=Z,160nm,1.4s,mb5.9						
ZEI	Tsey	57.93	318	iP	P	04 37 26.3	-0.7
ZEI				i *PP	pP	04 37 43.3	+4.9
ZEI				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.2						
UMJS	Umm Lajj	57.94	296	P	P	04 37 28.7	+1.5
ARU	Arti	58.17	338⇓	iP	P	04 37 27.0	-1.4
ARU				e		04 38 14.6	
ARU				e		04 39 34.0	
ARU				eS	S	04 45 28.0	+2.6
ARU				eSS	SS	04 49 22.5	+3.7
ARU				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.3						
ARU	Arti	58.17	338	eP	P	04 37 26.9	-1.5
	comp=Z,128nm,1.3s,mb5.8						
ARU				e	pP	04 37 38.4	-1.5
ARU				LR	LR		
	comp=Z,219nm,22.0s,MS4.2						
STKA	Stephens Creek	58.33	133	P	P	04 37 29.8	-0.1
	comp=Z,20nm,0.7s,mb5.3,baz=319,slow=6.5,SNR=18						
STKA	Stephens Creek	58.33	133	eP	P	04 37 29.2	-0.7
ERZM	Erzurum	58.56	314	iP	P	04 37 31.4	0.0
ERZM	Erzurum	58.56	314	iP	P	04 37 31.4	0.0
YSS	Yuzh-Sakhalins	58.57	37⇓	eP	P	04 37 31.0	-0.3
YSS				e	pP	04 37 43.0	+0.2
YSS				pmax	pmax		
	comp=Z,100nm,1.2s,mb5.7						
YSS	Yuzh-Sakhalins	58.57	37	eP	P	04 37 30.8	-0.5
	comp=Z,71nm,1.0s,mb5.7						
YSS				e	pP	04 37 43.2	+0.4
KIV	Kislovodsk	59.23	319	eP	P	04 37 34.6	-1.4
KIV				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
KIV	Kislovodsk	59.23	319	eP	P	04 37 34.6	-1.5
	comp=Z,32nm,0.8s,mb5.4						
GOF	Gofitskoye	59.48	320	eP	P	04 37 35.5	-2.2
GOF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
ASF	Jabal al Asfar	59.70	304	P	P	04 37 40.0	+0.5
	comp=Z,7.0nm,1.0s,mb4.7,baz=322,slow=6.3,SNR=7.5						
ASF				LR	LR	05 04 05.8	
	comp=Z,379nm,21.4s,MS4.5,baz=151,slow=37						
ELZG	Elazig	59.82	312	iP	P	04 37 40.0	-0.1
JMQS	Jabal Moqyreh	59.86	300	P	P	04 37 41.3	+0.8
MALT	Malatya	60.17	311	eP	P	04 37 41.2	-1.4
MALT				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
MALT	Malatya	60.17	311	eP	P	04 37 41.2	-1.4
	comp=Z,12nm,1.1s,mb4.8						
AYUS	‘Aynunah	60.25	299	P	P	04 37 43.9	+0.6
BDAS	Al Bad‘	60.44	300	P	P	04 37 44.9	+0.4
GZT	Gaziantep	60.54	310	iP	P	04 37 43.1	-2.0
JMOS	Jabal al Moall	60.57	300	P	P	04 37 45.7	+0.3
HAQS	Haql	60.70	300	P	P	04 37 46.7	+0.4
EIL	Elat	60.80	301	P	P	04 37 47.3	+0.3
	comp=Z,5.7nm,0.5s,mb4.9,baz=122,slow=4.4,SNR=13						
EIL	Elat	60.80	301	eP	P	04 37 47.1	+0.1
	comp=Z,18nm,0.8s,mb5.3						
SOC	Sochi	61.06	317	eP	P	04 37 45.0	-3.5
SOC				e		04 38 35.7	
SOC				eS	S	04 46 00.3	-2.6
SOC				eSS	SS	04 50 08.5	+4.3
SOC				eSSS	SSS	04 52 44.2	+1.5
SOC				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.3						
SOC				pmax	pmax		
	comp=N,23nm,0.7s						
SOC				pmax	pmax		
	comp=E,22nm,0.8s						
SOKR	Solikamsk	61.10	339⇑	iP	P	04 37 46.4	-2.2
SOKR				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,460nm,21.0s,MS4.6						
KAHT	Ahir Dag	61.14	310	iP	P	04 37 48.9	-0.3
COBT	Iskenderun	61.31	309	iP	P	04 37 50.3	0.0
YAK	Yakutsk	62.21	18c	iP	P	04 37 54.3	-1.6
YAK				pmax	pmax		
	comp=Z,80nm,0.6s,mb6.0						
YAK	Yakutsk	62.21	18	eP	P	04 37 54.0	-2.0
	comp=Z,138nm,0.6s,mb6.3						
MEST	Erdemli	62.97	308	iP	P	04 38 04.3	+2.9
AVNT	Avonos	62.99	311	iP	P	04 38 00.6	-0.9
ANN	Anapa	63.03	318	eP	P	04 37 59.6	-2.1
ANN				e	pP	04 38 13.9	+0.6
ANN				eS	S	04 46 28.4	+0.7
ANN				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.4						
BOYT	Boyabat	63.70	314	iP	P	04 38 10.3	+4.1
MBAR	Mbarara	63.79	267	iP	P	04 38 08.0	+0.8
MBAR	Mbarara	63.79	267	eP	P	04 38 05.8	-1.4
	comp=Z,23nm,1.3s,mb5.0						
BRTR	Keskin Array B	64.15	312	P	P	04 38 07.7	-1.4
	comp=Z,14nm,0.7s,mb5.1,baz=130,slow=7.3,SNR=82						
VRSR	Storozhevoye	64.44	325	eP	P	04 38 08.6	-2.2
VRSR				e		04 38 44.0	
VRSR				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.3						
VRSR				pmax	pmax		
	comp=N,20nm,1.3s						
VRSR				pmax	pmax		
	comp=E,20nm,0.9s						
ELDT	Eldivan	64.51	312	iP	P	04 38 12.6	+1.2
BALT	Daday	64.82	314	iP	P	04 38 17.3	+3.8
SIM	Simferopol’	65.31	317	eP	P	04 38 05.5	-11
SIM				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.3						
SGKT	Sivrigoynuk	65.54	312	iP	P	04 38 20.7	+2.6
ISP	Isparta	66.08	309	iP	P	04 38 20.0	-1.6
ISP	Isparta	66.08	309	iP	P	04 38 20.1	-1.5
ESKT	Eskisehir	66.19	311	iP	P	04 38 30.6	+8.4
MOS	Moscow	67.23	329	eP	P	04 38 25.8	-2.7
MOS				e		04 38 55.0	
MOS				pmax	pmax		
	comp=Z,150nm,1.4s,mb5.8						
OBN	Obninsk	67.51	328	iP	P	04 38 28.8	-1.5
OBN				i		04 38 47.5	
OBN				e		04 38 56.2	
OBN				e		04 40 56.8	
OBN				eS	S	04 47 22.4	0.0
OBN				eSS	SS	04 51 45.2	+0.5
OBN				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.6						
OBN				MLR	MLR		
	comp=Z,300nm,18.0s,MS4.6						
OBN	Obninsk	67.51	328	eP	P	04 38 28.4	-1.9
	comp=Z,45nm,0.8s,mb5.5						
ULDT	Uludag	67.61	311	iP	P	04 38 34.9	+3.7
BTOK	Tokmak	68.37	311	iP	P	04 38 35.5	-0.4
LSZ	Lusaka	68.67	251	eP	P	04 38 38.6	+0.5
LSZ				e	pP	04 38 49.5	-0.3
LSZ				pmax	pmax		
	comp=Z,18nm,1.1s,mb4.9						
LSZ	Lusaka	68.67	251	eP	P	04 38 38.6	+0.4
	comp=Z,18nm,1.1s,mb4.9						
LSZ				e	pP	04 38 49.5	-0.3
KDAG	Bornova	68.70	309	iP	P	04 38 38.2	+0.2
MA2	Magadan	68.80	27c	iP	P	04 38 37.5	-0.7
MA2				pmax	pmax		
	comp=Z,54nm,0.9s,mb5.5						
MA2	Magadan	68.80	27	eP	P	04 38 37.3	-1.0
	comp=Z,62nm,0.8s,mb5.6						
TIXI	Tiksi	69.54	11⇑	iP	P	04 38 41.2	-1.4
IDI	Anoyia	70.10	305	P	P	04 38 46.0	-0.6
	comp=Z,26nm,0.6s,mb5.4,baz=83,slow=7.5,SNR=57						
AKASG	Malin Array Be	70.16	322	P	P	04 38 44.9	-1.8
	comp=Z,20nm,0.7s,mb5.2,baz=89,slow=5.3,SNR=70						
AKASG				pP	pP	04 38 58.1	-0.3
	comp=Z,6.8nm,0.7s,baz=90,slow=5.4,SNR=5.7						
VRI	Vrincioaia	70.57	317⇑	iP	P	04 38 49.4	+0.1
MLR	Muntele Rosu	71.03	316	P	P	04 38 52.0	0.0
	comp=Z,19nm,0.6s,mb5.2,baz=131,slow=1.1,SNR=24						
SEY	Seymchan	71.03	24	eP	P	04 38 49.9	-1.9
SEY						04 39 08.4	
SEY						04 41 32.6	
SEY				ePPP	PPP	04 43 11.2	-1.4
SEY				eS	S	04 48 05.3	+1.6
SEY				e		04 48 44.1	
SEY				eSS	SS	04 52 30.9	-8.4
SEY				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.3						
SEY				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.5						
SEY				MLR	MLR		
	comp=N,710nm,18.0s,MS5.3						
SEY				MLR	MLR		
	comp=E,1µm,20.0s,MS5.3						
MNK	Minsk	72.04	326	eP	P	04 38 54.0	-3.9
CASY	Casey	72.53	173	eP	P	04 39 01.1	+0.5
	comp=E,15nm,0.7s,mb5.0						
LBTB	Lobatse	73.28	242	eP	P	04 39 07.0	+1.1
LBTB				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
LBTB	Lobatse	73.28	242	eP	P	04 39 07.0	+1.1
	comp=Z,18nm,1.0s,mb5.0						
BOLS	Boljevac	73.53	314⇑	iP	P	04 39 06.2	-0.8
VSU	Vasula	73.75	330	iP	P	04 39 07.0	-0.9
VSU	Vasula	73.75	330	iP	P	04 39 07.1	-0.8
LVZ	Lovozero	73.87	340	eP	P	04 39 07.6	-0.9
LVZ				pmax	pmax		
	comp=Z,80nm,1.9s,mb5.3						
KWP	Kalwaria	73.98	320	eP	P	04 39 09.4	-0.1
KOLS	Kolonicke sedl	74.14	319	iP	P	04 39 10.5	+0.1
APA	Apatity	74.16	340⇑	iP	P	04 39 09.5	-0.6
APA				i	pP	04 39 22.2	+0.4
APA				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.2						
BOSA	Boshof	74.49	238	eP	P	04 39 13.6	+0.8
BOSA				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.0						
BOSA				MLR	MLR		
	comp=Z,678nm,21.0s,MS4.9						
BOSA	Boshof	74.49	238	eP	P	04 39 13.6	+0.8
	comp=Z,20nm,1.0s,mb5.0						
BOSA				LR	LR		
	comp=Z,678nm,21.0s,MS4.9						
SUW	Suwalki	74.56	325⇑	eP	P	04 39 11.6	-1.1
SUW	Suwalki	74.56	325	eP	P	04 39 11.6	-1.1
CRVS	Cervenica-Dubn	74.66	319	eP	P	04 39 13.9	+0.5
FINES	FINESS Array B	74.92	332	P	P	04 39 13.9	-0.7
	comp=Z,25nm,0.7s,mb5.3,baz=102,slow=5.9,SNR=124						
FINES				pP	pP	04 39 26.6	+0.2
	comp=Z,20nm,1.0s,baz=106,slow=5.7,SNR=5.5						
KAF	Kangasniemi	75.01	333	ep	P	04 39 14.0	-1.1
	comp=Z,3.7nm,0.4s,mb4.7						
KAF	Kangasniemi	75.01	333	eP	P	04 39 14.0	-1.1
KAF				pmax	pmax		
	comp=Z,4.0nm,0.4s,mb4.7						
KECS	Kecovo	75.23	319	eP	P	04 39 16.6	-0.1
KECS				e		04 39 32.2	
NIE	Niedzica	75.49	320	eP	P	04 39 18.8	+0.7
PSZ	Piszkesteto	75.54	318	eP	P	04 39 18.3	-0.2
PSZ				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
PSZ	Piszkesteto	75.54	318	eP	P	04 39 18.3	-0.2
	comp=Z,23nm,0.9s,mb5.1						
OJC	Ojcow	75.94	320⇑	eP	P	04 39 20.7	0.0
OJC	Ojcow	75.94	320	eP	P	04 39 20.7	0.0
PKSM	Moragy	76.18	316⇑	iP	P	04 39 21.6	-0.5
MAW	Mawson	76.23	192	P	P	04 39 22.5	+0.5
	comp=Z,3.5nm,0.7s,mb4.4,baz=26,slow=7.7,SNR=3.6						
MAW	Mawson	76.23	192	PFAKE		04 39 30.0	+8.0
MAW				LR	LR		
	comp=Z,706nm,20.0s,MS5.0						
VYHS	Vyhne	76.32	318	iP	P	04 39 22.9	0.0
VYHS				esP	sP	04 39 35.3	-3.7
SRO	Srobarova	76.59	318	eP	P	04 39 25.0	+0.6
SRO				e	pP	04 39 36.6	+0.4
OKC	Ostrava-Krasne	76.94	320	eP	P	04 39 26.6	+0.2
KEV	Kevo	77.16	341	ep	P	04 39 26.2	-1.0
	comp=Z,1.2nm,0.4s						
KEV	Kevo	77.16	341	eP	P	04 39 26.2	-1.0
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s						
MORC	Moravsky Berou	77.32	320	eP	P	04 39 28.3	-0.2
MORC				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.3						
MORC	Moravsky Berou	77.32	320	eP	P	04 39 28.3	-0.2
	comp=Z,36nm,0.9s,mb5.3						
ZST	Bratislava	77.44	318	eP	P	04 39 29.2	0.0
ZST				esP	sP	04 39 42.4	-2.9
ARCES	ARCESS Array B	77.58	340	P	P	04 39 28.8	-0.7
	comp=Z,5.4nm,0.6s,mb4.7,baz=92,slow=6.0,SNR=41						
ARCES				pP	pP	04 39 41.8	+0.5
	comp=Z,14nm,0.8s,baz=107,slow=6.4,SNR=4.1						
VRAC	Vranov	77.89	319	P	P	04 39 31.8	+0.2
	comp=Z,8.0nm,0.6s,mb4.8,baz=95,slow=6.0,SNR=17						
VRAC				pP	pP	04 39 43.8	+0.4
	comp=Z,4.7nm,0.7s,baz=89,slow=7.9,SNR=4.0						
GKP	Gorka Klasztor	77.93	323	eP	P	04 39 31.3	-0.5
DPC	Dobruska-Polom	78.16	320	eP	P	04 39 33.8	+0.7
KSP	Ksiaz	78.23	321⇑	eP	P	04 39 33.9	+0.4
KSP				e*PP	pP	04 39 45.5	+0.2
KSP	Ksiaz	78.23	321	eP	P	04 39 34.1	+0.6
BILL	Bilibino	78.24	21	iP	P	04 39 32.5	-0.7
BILL				pmax	pmax		
	comp=Z,54nm,1.6s,mb5.2						
BILL	Bilibino	78.24	21	eP	P	04 39 32.2	-1.0
	comp=Z,68nm,1.2s,mb5.5						
UPC	Upice	78.38	320	eP	P	04 39 34.9	+0.6
ARSA	Arzberg	78.41	317⇑	iP	P	04 39 34.9	+0.3
	comp=Z,61nm,1.4s,mb5.3						
BOJS	Bojanci	78.47	315	iP	P	04 39 35.0	+0.1
LJU	Ljubljana	79.01	316	eP	P	04 39 38.4	+0.5
OBKA	Obir	79.03	316⇑	iP	P	04 39 38.4	+0.5
	comp=Z,49nm,1.6s,mb5.2						
PRU	Pruhonice	79.27	320	eP	P	04 39 39.3	+0.1
PRU	Pruhonice	79.27	320	iP	P	04 39 39.3	+0.1
	comp=Z,55nm,1.3s,mb5.3						
PVCC	Panska Ves	79.30	320	eP	P	04 39 39.9	+0.6
MOA	Molln	79.31	318⇑	iP	P	04 39 39.2	-0.2
	comp=Z,24nm,1.2s,mb5.0						
BSD	Bornholm Skovb	79.49	325⇑	iP	P	04 39 39.4	-0.9
BSD				pmax	pmax		
	comp=Z,51nm,0.6s,mb5.6						
BSD	Bornholm Skovb	79.49	325⇑	iP	P	04 39 39.4	-0.9
	comp=Z,50nm,0.6s,mb5.6						
BRG	Berggiesshubel	79.72	321⇑	iP	P	04 39 41.9	+0.3
BRG				pmax	pmax		
	comp=Z,134nm,1.8s,mb5.6						
BRG	Berggiesshubel	79.72	321⇑	iP	P	04 39 41.9	+0.3
	comp=Z,134nm,1.8s,mb5.6						
ROBS	Robic	79.73	316	eP	P	04 39 41.5	-0.3
GEC2	GERESS Array S	79.74	319	eP	P	04 39 42.2	+0.4
GEC2				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.6						
GEC2	GERESS Array S	79.74	319	eP	P	04 39 42.2	+0.4
	comp=Z,60nm,0.8s,mb5.6						
GERES	GERESS Array B	79.74	319	P	P	04 39 42.2	+0.5
	comp=Z,39nm,0.7s,mb5.4,baz=94,slow=5.1,SNR=306						
KHC	Kasperske Hory	79.84	319	iP	P	04 39 42.4	+0.1
KHC	Kasperske Hory	79.84	319	eP	P	04 39 42.7	+0.4
PTCC	Patocco-Chiusa	79.85	316	eP	P	04 39 42.2	-0.1
RUE	Ruedersdorf	79.94	322	eP	P	04 39 42.6	-0.1
	comp=Z,108nm,0.6s,mb6.0						
FVI	Forni Avoltri	80.25	316	eP	P	04 39 44.3	-0.2
WET	Wettzell	80.30	319	eP	P	04 39 45.1	+0.4
CLL	Collm	80.34	321⇑	iP	P	04 39 44.8	-0.1
CLL				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
CLL	Collm	80.34	321⇑	iP	P	04 39 44.8	-0.1
	comp=Z,28nm,1.0s,mb5.2						
CLL	Collm	80.34	321	⇑P	P	04 39 44.8	-0.1
	comp=Z,logA/T=1.4,mb5.1						
CLL				e*SP	sP	04 39 58.0	-3.0
HFS	Hagfors	80.62	330	P	P	04 39 45.8	-0.4
	comp=Z,13nm,0.5s,mb5.2,baz=104,slow=6.1,SNR=55						
HFS				pP	pP	04 39 58.1	0.0
	comp=Z,10nm,0.7s,baz=112,slow=5.6,SNR=4.2						
HFS				LR	LR	05 15 36.2	
	comp=Z,209nm,21.5s,MS4.5,baz=259,slow=36						
NKC	Novy Kostel	80.63	320	eP	P	04 39 46.8	+0.3
SFI	Santa Sofia	80.83	313	eP	P	04 39 48.8	+1.2
CTI	Castel Tesino	81.02	316	eP	P	04 39 49.1	+0.5
WTTA	Wattenberg	81.06	317⇑	iP	P	04 39 48.5	-0.3
	comp=Z,41nm,0.6s,mb5.5						
WTTA	Wattenberg	81.06	317⇑	iP	P	04 39 48.5	-0.3
WTTA				pmax	pmax		
	comp=Z,41nm,0.6s,mb5.5						
WATA	Walderalm	81.10	317⇑	iP	P	04 39 48.5	-0.5
	comp=Z,17nm,0.6s,mb5.2						
WATA	Walderalm	81.10	317⇑	iP	P	04 39 48.5	-0.5
WATA				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.2						
MOX	Moxa	81.18	320	eP	P	04 39 49.6	+0.2
MOX	Moxa	81.18	320	iP	P	04 39 49.6	+0.2
FUR	Furstenfeldbru	81.33	318	eP	P	04 39 50.1	-0.1

SQTA	Sankt Quirin	81.35	317	⇑*i*P	P	04 39 50.1	-0.2
	comp=Z,44nm,0.6s,mb5.6						
SQTA	Sankt Quirin	81.35	317	⇑*i*P	P	04 39 50.1	-0.2
SQTA				pmax	pmax		
	comp=Z,44nm,0.6s,mb5.6						
GRA1	Grafenberg Arr	81.40	319	⇑*i*P	P	04 39 51.3	+0.8
	comp=Z,52nm,0.8s,mb5.5						
GRF	Grafenberg Arr	81.40	319	⇑*i*P	P	04 39 51.3	+0.8
GRF				pmax	pmax		
	comp=Z,52nm,0.8s,mb5.5						
MOTA	Moosalm	81.42	317	⇑*i*P	P	04 39 50.3	-0.4
	comp=Z,23nm,0.7s,mb5.2						
MOTA	Moosalm	81.42	317	⇑*i*P	P	04 39 50.3	-0.4
MOTA				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
ZCCA	Zocca	81.46	314	*e*P	P	04 39 52.5	+1.6
GSCL	Gusciola	81.74	314	*e*P	P	04 39 53.6	+1.2
MAIM		81.81	313	P	P	04 39 51.3	-1.4
BRMO	Bormio	81.91	316	*e*P	P	04 39 53.8	+0.5
NB2	NORSAR Subarra	81.91	331	P	P	04 39 51.9	-1.0
	comp=Z,4.9nm,0.6s,mb4.6,baz=98,slow=5.0						
NB2	NORSAR Subarra	81.91	331	P	P	04 39 51.9	-1.0
NB2				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
NOA	NORSAR Array B	81.91	331	P	P	04 39 52.2	-0.8
	comp=Z,7.6nm,0.8s,mb4.7,baz=94,slow=5.6,SNR=15						
NOA				pP	pP	04 40 05.1	+0.3
	comp=Z,9.8nm,1.1s,baz=94,slow=5.5,SNR=5.6						
NOA				LR	LR	05 19 28.7	
	comp=Z,228nm,19.9s,MS4.5,baz=55,slow=38						
VALM		81.98	314	P	P	04 39 53.7	0.0
CLZ	Clausthal	82.00	321	*e*P	P	04 39 53.9	+0.3
	comp=Z,46nm,0.8s,mb5.5						
VINC	Vinca	82.05	314	P	P	04 39 53.3	-0.7
NAO01	NORSAR Array S	82.06	331	*e*P	P	04 39 52.9	-0.8
	comp=Z,4.9nm,0.6s,mb4.6						
BSEG	Bad Segeberg	82.09	324	*e*P	P	04 39 54.4	+0.4
BACM		82.11	314	P	P	04 39 53.4	-0.9
GRAM		82.11	314	P	P	04 39 54.4	+0.1
DAVOX	Davos	82.25	316	P	P	04 39 55.9	+0.9
	comp=Z,67nm,0.6s,mb5.8,baz=211,slow=5.9						
DAVA	Damuels	82.25	317	⇑*i*P	P	04 39 55.4	+0.4
	comp=Z,49nm,1.1s,mb5.3						
CODM		82.27	314	P	P	04 39 54.4	-0.7
STU	Stuttgart	82.72	318	*e*P	P	04 39 57.4	+0.1
STU				pmax	pmax		
	comp=Z,28nm,0.6s,mb5.5						
STU	Stuttgart	82.72	318	*e*P	P	04 39 57.4	+0.1
	comp=Z,28nm,0.6s,mb5.5						
PGF	Pioggiola	82.90	312	*e*P	P	04 39 58.5	+0.1
	comp=Z,34nm,0.8s,mb5.1						
PGF	Pioggiola	82.90	312	*e*P	P	04 39 58.5	+0.1
PGF				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
TOD	Tromm	82.97	319	*e*P	P	04 39 58.7	+0.1
VAI	Varese	83.02	315	*e*P	P	04 39 58.4	-0.5
SYO	Syowa Base	83.18	197	⇑PcP	PcP	04 40 02.3	-1.9
SYO	Syowa Base	83.18	197	⇑pP	pP	04 40 08.3	-2.9
SYO	Syowa Base	83.18	197	⇓sP	sP	04 40 14.6	-0.8
PCP	Pian Castagno	83.20	314	P	P	04 39 59.3	-0.6
BFO	Black Forest	83.30	318	*e*P	P	04 40 00.2	-0.1
BFO				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.4						
BFO	Black Forest	83.30	318	*e*P	P	04 40 00.2	-0.1
	comp=Z,26nm,0.7s,mb5.4						
FIN	Finale Ligure	83.45	314	*e*P	P	04 40 01.4	+0.3
FELD	Feldberg	83.52	317	*e*P	P	04 40 01.5	+0.1
ORX	Oropa	83.58	315	P	P	04 40 00.5	-1.3
LANF	Langenberg	83.63	319	*e*P	P	04 40 02.6	+0.6
IMI	Imperia	83.69	313	P	P	04 40 02.4	0.0
ROB	Roburent	83.69	314	P	P	04 40 01.8	-0.6
TRAV		83.75	315	P	P	04 40 00.8	-1.8
MONE	Monesi	83.78	314	P	P	04 40 02.4	-0.5
ABH	Alteburg	83.79	319	*e*P	P	04 40 03.2	+0.5
WLS	Welschbruch	83.94	318	*e*P	P	04 40 03.5	-0.1
CDF	Champ du Feu	84.00	318	*e*P	P	04 40 03.6	-0.2
	comp=Z,44nm,0.9s,mb5.3						
CDF	Champ du Feu	84.00	318	*e*P	P	04 40 03.6	-0.2
CDF				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.3						
ENR	Entracque	84.01	314	P	P	04 40 04.3	+0.3
SBF	Sospel	84.01	313	*e*P	P	04 40 04.2	+0.1
	comp=Z,96nm,0.7s,mb5.8						
SBF	Sospel	84.01	313	*e*P	P	04 40 04.2	+0.1
SBF				pmax	pmax		
	comp=Z,48nm,0.7s,mb5.7						
ECH	Echery	84.08	318	*e*P	P	04 40 04.2	-0.1
STV	Sta Anna Valdi	84.08	314	P	P	04 40 03.5	-0.9
RSP	Reno Superiore	84.10	315	P	P	04 40 03.9	-0.6
RUP	Ruppelstein	84.11	319	*e*P	P	04 40 04.8	+0.4
BHB	Bricherasio	84.11	314	P	P	04 40 02.9	-1.6
MOF	Molkenrain	84.11	317	*e*P	P	04 40 04.9	+0.5
LSD	Ceresole Reale	84.16	315	P	P	04 40 04.7	-0.1
PZZ	Prazzo	84.23	314	P	P	04 40 03.8	-1.3
FENE	Fenestrelle	84.24	315	P	P	04 40 04.6	-0.6
LOMF	Lomont	84.33	317	*e*P	P	04 40 05.6	+0.1
RRL	Cesana Torines	84.44	315	P	P	04 40 05.4	-0.8
LPG	La Plagne	84.45	315	*e*P	P	04 40 06.8	+0.6
	comp=Z,80nm,0.9s,mb5.5						
LPG	La Plagne	84.45	315	*e*P	P	04 40 06.8	+0.6
LPG				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.5						
MBDF	Montbardon	84.46	314	*e*P	P	04 40 06.1	-0.2
	comp=Z,23nm,0.6s,mb5.2						
MBDF	Montbardon	84.46	314	*e*P	P	04 40 06.1	-0.2
MBDF				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.2						
BNI	Bardonecchia	84.51	315	*e*P	P	04 40 06.3	-0.2
BNI				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.4						
BNI	Bardonecchia	84.51	315	*e*P	P	04 40 06.3	-0.2
	comp=Z,26nm,0.9s,mb5.4						
HAU	Haudompre	84.63	318	*e*P	P	04 40 06.9	-0.1
	comp=Z,93nm,0.7s,mb5.7						
HAU	Haudompre	84.63	318	*e*P	P	04 40 06.9	-0.1
HAU				pmax	pmax		
	comp=Z,46nm,0.7s,mb5.7						
THEF	They Montfort	84.86	318	*e*P	P	04 40 08.4	+0.2
OG05	Jujurieux	85.33	316	*e*P	P	04 40 11.2	+0.7
BAIF	Baives	85.93	320	*e*P	P	04 40 14.0	+0.6
	comp=Z,65nm,0.9s,mb5.6						
BAIF	Baives	85.93	320	*e*P	P	04 40 14.0	+0.6
BAIF				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.6						
SSF	Saint Saulge	86.61	317	*e*P	P	04 40 16.9	+0.1
SSF				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.3						
SSF	Saint Saulge	86.61	317	*e*P	P	04 40 16.9	+0.1
	comp=Z,16nm,0.8s,mb5.3						
PLDF	La Plantade	86.61	316	*e*P	P	04 40 18.6	+1.8
LBL	Lubilhac	86.93	315	*e*P	P	04 40 20.6	+2.2
AGO	Saint Agoulin	86.94	316	*e*P	P	04 40 20.3	+1.9
PYM	Petit Puy Mans	87.05	315	*e*P	P	04 40 20.9	+1.9
BGF	Bois d'Agland	87.10	316	*e*P	P	04 40 19.8	+0.6
	comp=Z,58nm,1.0s,mb5.5						
BGF	Bois d'Agland	87.10	316	*e*P	P	04 40 19.8	+0.6
BGF				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.5						
RJF	Les Rejaudoux	88.14	315	*e*P	P	04 40 24.7	+0.5
	comp=Z,48nm,0.9s,mb5.4						
RJF	Les Rejaudoux	88.14	315	*e*P	P	04 40 24.7	+0.5
RJF				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.4						
FLN	La Foliniere	89.11	319	*e*P	P	04 40 29.1	+0.4
	comp=Z,73nm,0.9s,mb5.7						
FLN	La Foliniere	89.11	319	*e*P	P	04 40 29.1	+0.4
FLN				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.7						
EKA	Eskdalemuir Ar	89.80	325	P	P	04 40 32.6	+0.7
	comp=Z,20nm,0.7s,mb5.5,baz=97,slow=5.4,SNR=60						
EKA				pP	pP	04 40 45.5	+1.6
	comp=Z,7.2nm,0.6s,baz=99,slow=5.5,SNR=6.6						
DAG	Danmarks Havn	89.86	348	⇓*e*P	P	04 40 31.0	-0.7
DAG				pmax	pmax		
	comp=Z,1.0nm,0.8s						
DAG	Danmarks Havn	89.86	348	⇓*e*P	P	04 40 31.0	-0.7
	comp=Z,1.5nm,0.8s,mb4.4						
DAG	Danmarks Havn	89.86	348	⇓*i*P	P	04 40 31.0	-0.7
	comp=Z,1.5nm,0.8s,mb4.4						
DAG	Danmarks Havn	89.86	348	*i* P	PP	04 44 02.0	-4.9
	comp=Z,1.7nm,0.4s						
ETSF	Etsaut	89.90	313	*e*P	P	04 40 33.0	+0.4
	comp=Z,21nm,0.7s,mb5.3						
ETSF	Etsaut	89.90	313	*e*P	P	04 40 33.0	+0.4
ETSF				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.3						
VNDA	Vanda	90.55	168	PFAKE		04 40 50.0	+15
VNDA				LR	LR		
	comp=Z,363nm,20.0s,MS4.8						
SBA	Scott Base	91.65	168	PFAKE		04 40 50.0	+10
SBA				LR	LR		
	comp=Z,345nm,19.0s,MS4.8						
ESDC	Sonseca Array	92.91	310	P	P	04 40 47.6	+1.0
	comp=Z,2.7nm,0.6s,mb4.9,baz=61,slow=4.3,SNR=27						
ESDC				pP	pP	04 40 59.7	+1.0
	comp=Z,3.3nm,0.6s,baz=57,slow=4.5,SNR=9.1						
IMA	Indian Mountai	93.77	22	*e*P	P	04 40 51.3	+1.4
IMA				pmax	pmax		
	comp=Z,101nm,0.6s,mb6.4						
IMA	Indian Mountai	93.77	22	*e*P	P	04 40 51.3	+1.4
	comp=Z,101nm,0.6s,mb6.4						
QSPA	South Pole Qui	95.38	180	PFAKE		04 41 10.0	+13
QSPA				LR	LR		
	comp=Z,853nm,20.0s,MS5.2						
ILAR	Eielson Array	96.89	22	P	P	04 41 03.7	-0.4
	comp=Z,4.4nm,0.5s,mb5.1,baz=311,slow=3.7,SNR=36						
ILAR				PP	PP	04 45 01.1	-1.3
	comp=Z,3.0nm,1.1s,baz=305,slow=5.9,SNR=5.9						
ILAR				LR	LR	05 29 45.0	
	comp=Z,274nm,20.7s,MS4.7,baz=96,slow=38						
DBIC	Dimbokro	98.45	278	LR	LR	05 23 49.2	
	comp=Z,169nm,18.8s,MS4.6,baz=65,slow=34						
INK	Inuvik	99.24	16	*e*P	P	04 41 11.3	-3.4
INK				pmax	pmax		
	comp=Z,16nm,1.2s						
INK	Inuvik	99.24	16	*e*P	P	04 41 11.3	-3.4
	comp=Z,16nm,1.2s,mb5.4						
RES	Resolute Bay	99.78	2	*e*P	P	04 41 17.8	+0.7
RES				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.3						
RES	Resolute Bay	99.78	2	*e*P	P	04 41 17.8	+0.7
	comp=Z,12nm,0.9s,mb5.3						
YKA	Yellowknife Ar	108.71	14	PKiKP		04 46 02.2	
	comp=Z,0.4nm,0.7s,baz=338,slow=2.0,SNR=4.1						
YKA				PP	PP	04 46 31.3	-0.6
	comp=Z,1.8nm,0.8s,baz=333,slow=7.3,SNR=4.4						
YKA				PKKPbc		04 57 18.9	
	comp=Z,0.6nm,1.0s,baz=144,slow=2.8,SNR=4.3						
TBI	Tubuai	116.19	113	*e*LR	LR	05 21 33.5	
	comp=Z,208nm,23.5s						
PPT	Papeete	116.49	107	*e*LR	LR	05 21 43.0	
	comp=Z,208nm,25.8s						
SCHQ	Schefferville	117.90	348	PKP	PKPdf	04 46 20.3	+1.8
	comp=Z,4.3nm,0.6s,baz=36,slow=9.6,SNR=13						
MSO	Missoula	122.22	23	*e*PKPdf	PKPdf	04 46 28.2	+1.0
CHMT	Chamberlain Mo	122.41	22	*e*PKPdf	PKPdf	04 46 28.9	+1.3
BMO	Blue Mountains	122.44	26	*e*PKIKP	PKPdf	04 46 28.8	+1.1
HRY	Holter Researc	123.11	21	*e*PKPdf	PKPdf	04 46 30.2	+1.2
MOD	Modoc	123.26	30	*e*PKPdf	PKPdf	04 46 28.7	-0.6
WVOR	Wild Horse Val	123.69	29	*e*PKIKP	PKPdf	04 46 32.4	+2.2
ULM	Lac du Bonnet	123.81	8	PKP	PKPdf	04 46 32.9	+2.7
	comp=Z,7.4nm,0.7s,baz=11,slow=2.8,SNR=16						
ULM				pPKP		04 46 45.3	
	comp=Z,8.6nm,1.0s,baz=356,slow=2.7,SNR=6.5						
ULM	Lac du Bonnet	123.81	8	*e*PKPdf	PKPdf	04 46 32.3	+2.1
ULM				*e*		04 46 45.3	
MOOW	Moose Ponds	126.03	22	*e*PKPdf	PKPdf	04 46 36.6	+1.9
SNOW	Snow King Moun	126.27	23	*e*PKPdf	PKPdf	04 46 37.5	+2.4
EYMN	Ely	126.57	5	*e*PKPdf	PKPdf	04 46 36.6	+1.0
NVAR	Mina Array Bea	126.86	32	PKP	PKPdf	04 46 39.6	+3.2
	comp=Z,8.3nm,0.8s,baz=305,slow=2.3,SNR=23						
MNV	Mina	126.94	32	*e*PKIKP	PKPdf	04 46 39.4	+2.8
PDAR	Pinedale Array	127.32	22	PKP	PKPdf	04 46 39.0	+1.7
	comp=Z,5.1nm,0.7s,baz=134,slow=0.7,SNR=35						
PDAR				pPKP		04 46 51.9	
	comp=Z,7.6nm,1.0s,baz=336,slow=1.0,SNR=9.0						
HWUT	Hardware Ranch	127.52	24	*e*PKPdf	PKPdf	04 46 39.9	+2.2
TRCR	Troy Canyon	128.31	30	*e*PKPdf	PKPdf	04 46 42.2	+2.9
NLU	North Lily Min	128.67	26	*e*PKPdf	PKPdf	04 46 42.0	+2.2
SADO	Sadowa	129.65	354	PKP	PKPdf	04 46 43.1	+1.5
	comp=Z,5.3nm,0.8s,baz=317,slow=3.2,SNR=8.7						
MVU	Marysvale	129.80	27	*e*PKPdf	PKPdf	04 46 44.0	+2.0
MSU	Marysvale	129.81	27	*e*PKIKP	PKPdf	04 46 45.0	+2.9
SRU	San Rafael	130.04	25	*e*PKIKP	PKPdf	04 46 44.5	+2.0
NEN	Nelson	130.77	32	*e*PKPdf	PKPdf	04 46 47.1	+3.1
PV10	Paradox Valley	131.28	25	*e*PKPdf	PKPdf	04 46 48.0	+3.1
KSU1	Kansas State U	134.52	12	*e*PKPdf	PKPdf	04 46 52.5	+1.6
ANMO	Albuquerque	135.28	24	*e*PKIKP	PKPdf	04 46 54.8	+2.4
BLO	Bloomington	135.58	1	*e*PKIKP	PKPdf	04 46 54.0	+1.1
BNM	Barren Site	135.90	25	*e*PKPdf	PKPdf	04 46 55.6	+2.0
WCI	Wyandotte Cave	136.53	1	*e*PKIKP	PKPdf	04 46 56.2	+1.6
PWV	Princeton	137.20	355	*e*PKPdf	PKPdf	04 46 58.6	+2.7
WMOK	Wichita Mounta	138.14	16	*e*PKHKP		04 46 47.4	
WMOK				MLR	MLR		
	comp=Z,404nm,21.0s,MS5.1						
GDL2	Guadalupe Moun	138.53	24	*e*PKPdf	PKPdf	04 46 59.7	+1.2
MNTX	Cornudas Mount	138.53	26	*e*PKPdf	PKPdf	04 46 50.6	-7.9
WVT	Waverly	138.57	3	*e*PKPpre		04 46 50.1	
WVT				*e*PKPdf	PKPdf	04 47 01.5	+3.1
MIAR	Mount Ida	139.51	10	*e*PKHKP		04 46 52.6	
MIAR				*e*		04 47 01.4	
MYNC	Murphy	139.65	358	*e*PKIKP	PKPdf	04 47 01.7	+1.3
JSC	Jenkinsville	140.25	354	*e*PKIKP	PKPdf	04 47 00.7	-0.8
TRQA	Tornquist	141.06	210	PFAKE		04 47 20.0	+17
TRQA				LR	LR		
	comp=Z,387nm,19.0s,MS5.2						
LTX	Lajitas	141.32	26	*e*PKIKP	PKPdf	04 47 03.1	-0.5
LTX				MLR	MLR		
	comp=Z,256nm,19.0s,MS5.0						
TXAR	Lajitas Array	141.32	26	PKhKP		04 46 59.3	
	comp=Z,1.3nm,0.4s,baz=278,slow=0.1,SNR=9.3						
TXAR				PKP	PKPdf	04 47 04.2	+0.6
	comp=Z,4.1nm,0.6s,baz=225,slow=1.3,SNR=10						
TXAR				PP	PP	04 50 07.1	-3.0
	comp=Z,3.0nm,1.0s,slow=5.0,SNR=7.0						
BAO	Brasilia Array	141.68	252	PKP	PKPdf	04 47 06.2	+1.6
BAO				*e*		04 47 22.0	
BDFB	Brasilia	141.69	252	PKP	PKPdf	04 47 05.9	+1.3
	comp=Z,3.3nm,0.8s,baz=329,slow=4.3,SNR=3.2						
JCT	Junction City	141.78	20	*e*PKHKP		04 46 59.8	
JCT				*e*		04 47 06.2	
SDV	Santo Domingo	159.32	313	*e*PKPdf	PKPdf	04 47 30.6	-0.7
SDV				*e*PKPbc	PKPdf	04 47 47.0	+16
SDV				LR	LR		
	comp=Z,211nm,19.0s,MS5.0						
LPAZ	La Paz	159.72	237	*e*PKIKP	PKPdf	04 47 33.8	+2.2
LPAZ				MLR	MLR		
	comp=Z,310nm,20.0s						
LPAZ	La Paz	159.72	237	PKP	PKPdf	04 47 34.2	+2.6
	comp=Z,2.4nm,0.8s,baz=87,slow=2.0,SNR=9.1						
ROSC	El Rosal	164.73	312	PKP	PKPdf	04 47 39.0	+2.2
	comp=Z,10nm,0.7s,baz=125,slow=3.4,SNR=12						
OTAV	Otavalo	170.84	308	*e*PKPdf	PKPdf	04 47 42.3	+1.4

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*IDC **30** 04:28:16.0±3.4, 3.64S×144.33E, h50^{km}±31^{km}, mb4.6/11, mb1 4.7/13, mb1mx4.7/15, mbtmp4.8/13, ML4.3/2, MS4.3/10, Ms1 4.3/10, ms1mx4.1/17, Error ellipse: s-maj=25.2km s-min=18.3km az=79.0*

ISC 30 04:28:14.8±3.2**, 3.7S**±0.1×**144.2E**±0.1**, h54**^{km}±29^{km}**, n34,** σ**0**^{s}**84**/16**, mb4.8**/12**, MS4.3**/10**, Near north coast of New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	Port Moresby	6.37	153	P	P	04 29 48.3	0.0
	11nm,0.3s,baz=349,slow=5.6,SNR=42						
PMG				S	S	04 31 00.9	+0.3
	19nm,0.3s,baz=141,slow=21,SNR=8.9						
CTA	Charters Tower	16.41	173	P	P	04 32 06.6	+3.5
	0.4nm,0.3s,baz=329,slow=12,SNR=3.9						
WRA	Warramunga Arr	18.82	210	P	P	04 32 31.5	-1.3
	2.1nm,0.3s,baz=32,slow=12,SNR=37						
ASAR	Alice Springs	22.22	206	P	P	04 33 07.6	-0.6
	31nm,1.1s,mb4.7,baz=33,slow=7.7,SNR=66						
ASAR				LR	LR	04 41 32.2	
	comp=Z,1µm,21.6s,MS4.3,baz=30,slow=36						
STKA	Stephens Creek	28.14	185	P	P	04 34 03.5	-0.7
	13nm,1.0s,mb4.5,baz=355,slow=8.7,SNR=26						
STKA				LR	LR	04 46 35.3	
	comp=Z,885nm,19.0s,MS4.4,baz=130,slow=39						
CBIJ	Chichi jima	30.67	356	LR	LR	04 44 25.9	
	comp=Z,392nm,18.9s,MS4.1,baz=204,slow=32						
RPZ	Rata Peaks	46.38	153	P	P	04 36 38.0	+0.3
	36nm,0.8s,mb5.3,baz=202,slow=1.4,SNR=9.4						
ASAJ	Asahikawa	47.62	358	P	P	04 36 52.8	+5.3
	16nm,0.8s,mb5.1,baz=164,slow=7.0,SNR=3.6						
CMAR	Chiang Mai Arr	49.74	298	P	P	04 37 05.5	+1.3
	4.3nm,0.6s,mb4.7,baz=118,slow=6.4,SNR=6.4						
CMAR				LR	LR	04 59 36.4	
	comp=Z,119nm,18.4s,MS3.9,baz=265,slow=38						
FX1	Attu Island--F	61.42	20	LR	LR	05 01 02.4	
	comp=Z,30nm,19.3s,MS3.5,baz=246,slow=32						
VNDA	Vanda	74.37	176	P	P	04 39 48.5	+0.3
	13nm,0.7s,mb4.9,baz=330,slow=6.2,SNR=77						
VNDA				LR	LR	05 12 15.7	
	comp=Z,316nm,18.8s,MS4.6,baz=336,slow=36						
ZAL	Zalesovo	75.62	328	P	P	04 39 55.6	-0.1
	3.1nm,0.8s,mb4.3,baz=323,slow=9.8,SNR=3.1						
BVAR	Borovoye Array	83.30	324	P	P	04 40 37.8	+0.8
	11nm,0.7s,mb5.0,baz=104,slow=6.1,SNR=11						
MAW	Mawson	83.31	202	P	P	04 40 37.9	+1.1
	23nm,1.1s,mb5.1,baz=80,slow=8.0,SNR=8.3						
ILAR	Eielson Array	84.47	24	P	P	04 40 41.3	-1.4
	5.3nm,0.7s,mb4.8,baz=257,slow=4.8,SNR=82						
ILAR				PKKPbc		04 58 55.8	
	0.6nm,0.9s,baz=25,slow=0.7,SNR=5.8						
INK	Inuvik	90.53	22	P	P	04 41 11.4	-0.4
	4.8nm,0.7s,mb4.9,baz=293,slow=5.7,SNR=10						
BBB	Bella Bella	91.45	38	LR	LR	05 14 42.5	
	comp=Z,214nm,21.2s,MS4.6,baz=272,slow=30						
YBH	Yreka Blue Hor	94.72	49	LR	LR	05 14 52.2	
	comp=Z,210nm,21.1s,MS4.6,baz=268,slow=30						
NVAR	Mina Array Bea	98.13	52	PKKPbc		04 58 22.4	
	0.3nm,0.5s,baz=47,slow=3.5,SNR=3.7						
NVAR				LR	LR	05 16 17.3	
	comp=Z,178nm,21.4s,MS4.5,slow=29						
YKA	Yellowknife Ar	98.42	27	P	P	04 41 47.9	-0.1
	1.6nm,1.0s,mb4.5,baz=282,slow=4.8,SNR=13						
YKA				PKKPbc		04 58 18.1	
	0.8nm,0.8s,baz=101,slow=2.9,SNR=8.6						
YKA				LR	LR	05 23 51.5	
	comp=Z,203nm,18.6s,MS4.7,baz=315,slow=34						
AKASG	Malin Array Be	108.53	323	PKKPbc		04 57 49.5	
	1.0nm,0.6s,baz=262,slow=4.1,SNR=6.7						
TXAR	Lajitas Array	111.04	60	PKKPab		04 57 52.1	
	0.7nm,0.8s,baz=98,slow=6.4,SNR=5.1						
KHC	Kasperske Hory	118.38	326	*e*P	PKPdf	04 47 00.5	+4.1
GERES	GERESS Array B	118.46	325	PKP	PKPdf	04 46 58.3	+1.7
	1.2nm,0.6s,baz=54,slow=1.9,SNR=9.2						
GERES				PKKPbc		04 57 15.8	
	0.5nm,0.8s,baz=180,slow=3.9,SNR=4.7						
DAVOX	Davos	121.73	325	PKP	PKPdf	04 47 05.0	+2.0
	2.5nm,0.6s,baz=228,slow=2.3,SNR=7.6						
HINF	Hinteralfeld	122.84	327	*e*PKP1	PKPdf	04 47 06.3	+1.2
HAU	Haudompre	123.00	328	*e*PKP1	PKPdf	04 47 07.1	+1.7
	11nm,0.8s						
SCHQ	Schefferville	123.14	21	PKP	PKPdf	04 47 06.3	+0.7
	3.7nm,0.8s,baz=358,slow=2.9,SNR=5.0						
MEZF	Maizieres J'vi	123.38	329	*e*PKP1	PKPdf	04 47 08.0	+1.8
	16nm,0.9s						
MBDF	Montbardon	124.69	324	*e*PKP1	PKPdf	04 47 11.9	+3.1
SSF	Saint Saulge	125.09	328	*e*PKP1	PKPdf	04 47 11.2	+1.7
	7.8nm,0.8s						
BGF	Bois d'Agland	125.76	328	*e*PKP1	PKPdf	04 47 13.4	+2.6
DBIC	Dimbokro	149.08	277	PKPbc	PKPdf	04 48 00.5	+6.6
	5.5nm,0.5s,baz=74,slow=2.9,SNR=20						
BDFB	Brasilia	157.28	148	PKPab	PKPab	04 48 38.7	-0.4
	3.6nm,0.6s,baz=194,slow=2.4,SNR=3.5						

JMA 30 04:33:10.2±0.1**, 31.08N**×**132.34E, h57**^{km}±4^{km}**, M3.7, Southeast of Shikoku**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JNAR	Kushima--Naru	1.02	296	P	P	04 33 28.6	0.0
JNAR				*e*S	S	04 33 42.0	-0.2
JTSR	Tashiro 2	1.22	274	P	P	04 33 31.1	-0.3
JTSR				*e*S	S	04 33 46.8	-0.3
JTN	Tanegashima 3	1.24	250	P	P	04 33 31.9	+0.2
JTN				*e*S	S	04 33 47.5	-0.2
JTZ	Takazaki	1.35	308	P	P	04 33 33.0	-0.3
JTZ				*e*S	S	04 33 49.9	-0.5
JTSN	Tsuno	1.36	329	P	P	04 33 33.2	-0.3
JTSN				S	S	04 33 50.3	-0.5
JTO	Tosashimizu	1.82	12	P	P	04 33 38.6	-1.1
JTO				S	S	04 33 57.9	-3.7
JIU2	Izumi 2	1.96	319	P	P	04 33 42.2	+0.5
JIU2				*e*S	S	04 34 04.2	-0.8
UWA2	Uwa jima 2	2.14	6	P	P	04 33 44.0	-0.3
UWA2				S	S	04 34 07.0	-2.7
JKU	Kubokawa	2.31	15	P	P	04 33 46.5	-0.1
JKU				S	S	04 34 10.9	-2.9
JSJ	Shimokoshiki	2.32	286	P	P	04 33 46.2	-0.7
JSJ				*e*S	S	04 34 12.8	-1.5
JNN	Nakanoshima	2.46	241	P	P	04 33 48.8	-0.1
JNN				*e*S	S	04 34 17.1	-0.7
JNA	Nagahama	2.47	3	P	P	04 33 49.1	+0.1
JNA				*e*S	S	04 34 15.7	-2.4

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*IDC **30** 04:40:40.3±1.3, 7.25N×93.78E, mb4.0/8, mb1 4.2/8, mb1mx3.9/18, mbtmp4.0/8, Error ellipse: s-maj=60.4km s-min=22.3km az=53.0*

ISC 30 04:40:43.4±0.9**, 7.2N**±0.1×**93.8E**±0.2**, h33**^{km}**, n9,** σ**0**^{s}**38**/9**, mb3.9**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.28	24	Pn	P	04 43 39.4	+0.5
	baz=213,slow=14,SNR=9.4						
SONM	Songino Array	41.91	13	P	P	04 48 32.0	-0.4
	0.4nm,0.4s,mb3.4,baz=198,slow=8.8,SNR=8.0						
SONM				PcP	PcP	04 50 29.0	+0.7
	0.5nm,0.7s,baz=180,slow=3.7,SNR=3.6						
ZAL	Zalesovo	47.18	353	P	P	04 49 13.9	-0.7
	2.7nm,0.4s,mb4.5,baz=225,slow=5.7,SNR=7.9						
WRA	Warramunga Arr	48.16	125	P	P	04 49 22.7	-0.2
	1.0nm,0.6s,mb4.0,baz=304,slow=8.5,SNR=5.0						
ASAR	Alice Springs	49.76	129	P	P	04 49 35.2	+0.1
	0.3nm,0.4s,mb3.7,baz=305,slow=8.0,SNR=4.3						
FINES	FINESS Array B	73.15	332	P	P	04 52 12.2	-0.1
	1.4nm,0.7s,mb4.0,baz=135,slow=8.1,SNR=4.2						
ARCES	ARCESS Array B	75.79	340	P	P	04 52 27.4	0.0
	2.5nm,0.8s,mb4.2,baz=97,slow=7.3,SNR=4.0						
GERES	GERESS Array B	78.09	318	P	P	04 52 41.1	+0.4
	0.1nm,0.3s,mb3.2,baz=90,slow=6.9,SNR=4.9						
HFS	Hagfors	78.86	330	P	P	04 52 45.1	+0.4
	2.8nm,0.8s,mb4.2,baz=117,slow=3.2,SNR=4.1						

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*IDC **30** 04:47:27.7±1.0, 8.97N×92.46E, h32^{km}±7^{km}, mb3.9/8, mb1 4.0/8, mb1mx3.7/19, mbtmp4.1/8, Error ellipse: s-maj=39.4km s-min=17.0km az=57.0*

ISC 30 04:47:25.7±0.9**, 9.0N**±0.2×**92.5E**±0.3**, h33**^{km}**, (h34**^{km}±2.0^{km}**:pP-P), n15,** σ**0**^{s}**92**/8**, mb4.1**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PKI	Pulchoki	19.67	341	*e*P		04 52 04.9	
	14nm,0.8s						
DMN	Daman	19.81	340	*e*P		04 52 05.6	
	8.7nm,0.4s						
GUN	Gumba	19.84	343	*e*P		04 52 06.2	
	18nm,0.8s						
KKN	Kakani	19.92	341	*e*P		04 52 07.6	
GKN	Gorkha	20.33	340	*e*P		04 52 09.6	
KOLN	Koldanda	20.50	337	*e*P		04 52 10.8	
	7.5nm,0.5s						
NDI	New Delhi	24.31	326	*e*		04 52 51.0	
SONM	Songino Array	40.48	14	P	P	04 55 02.9	0.0
	0.7nm,0.7s,mb3.5,baz=201,slow=7.6,SNR=5.7						
SONM				pP	pP	04 55 13.5	+0.8
	3.1nm,0.9s,baz=197,slow=7.5,SNR=15						
SONM				PcP	PcP	04 57 06.8	+0.9
	0.5nm,0.5s,baz=222,slow=4.0,SNR=4.4						
BVAR	Borovoye Array	47.44	342	P	P	04 55 59.7	+0.7
	0.4nm,0.4s,mb3.7,baz=152,slow=7.3,SNR=3.3						
BVAR				pP	pP	04 56 08.8	0.0
	0.7nm,0.6s,baz=135,slow=8.4,SNR=3.1						
NWAO	Narrogin (SRO)	47.87	152	P	P	04 56 04.3	+1.6
	11nm,1.1s,mb4.8,baz=341,slow=7.3,SNR=6.2						
WRA	Warramunga Arr	50.22	125	P	P	04 56 20.3	-0.6
	2.3nm,0.4s,mb4.5,baz=303,slow=8.8,SNR=32						
ASAR	Alice Springs	51.87	130	P	P	04 56 32.6	-0.7
	2.5nm,0.6s,mb4.3,baz=303,slow=7.1,SNR=32						
ASAR				PcP	PcP	04 57 47.1	+1.1
	0.6nm,0.6s,baz=316,slow=3.3,SNR=4.0						
BRTR	Keskin Array B	60.48	311	P	P	04 57 33.3	-1.5
	0.4nm,0.6s,mb3.6,baz=116,slow=6.6,SNR=3.3						
BRTR				pP	pP	04 57 44.1	-0.9
	1.3nm,0.9s,baz=120,slow=7.0,SNR=4.6						
STKA	Stephens Creek	62.04	133	P	P	04 57 45.2	-0.3
	3.0nm,1.1s,mb4.4,baz=334,slow=10,SNR=5.2						

Code	Station Name	Δ°	AZ°	Op	ISC	h m s	Res ISC
FINES	FINESS Array B	70.99	332	P	P	04 58 42.5	+0.8
	2.6nm,0.9s,mb4.2,baz=174,slow=4.6,SNR=2.4						

IDC 30 04:56:27.0±12.0,13.28N×92.16E,mb3.8/2,mb1 3.9/3, mb1mx3.5/18,mbtmp3.6/3,ML3.6/1,Error ellipse: s-maj=268.2km s-min=48.3km az=110.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.31	51	Pn	P	04 58 28.1	-3.6
	0.2nm,0.3s,baz=239,slow=16,SNR=3.7						
WRA	Warramunga Arr	53.03	128	P	P	05 05 45.7	-2.7
	0.4nm,0.6s,baz=299,slow=10,SNR=7.9						
ASAR	Alice Springs	54.91	132	P	P	05 06 00.4	-1.7
	0.7nm,0.4s,baz=308,slow=6.6,SNR=9.7						

IDC 30 05:12:03.5±1.0,6.67N×92.84E,mb4.0/10,mb1 4.2/11, mb1mx4.0/20,mbtmp4.0/11,ML3.8/1,Error ellipse: s-maj=40.3km s-min=20.6km az=49.0
ISC 30 05:12:06.9±0.8,6.7N±0.1×93.0E±0.1,h33^{km},n18, $\sigma 0^{s}64$/18,mb4.4/15,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.10	26	Pn	P	05 15 13.7	+0.4
	0.2nm,0.3s,baz=223,slow=16,SNR=1.3						
HYB	Hyderabad	17.68	309	eP	P	05 16 13.0	+0.7
PKI	Pulchoki	22.01	342	eP	P	05 17 00.6	+0.6
	16nm,0.6s,mb4.7						
DMN	Daman	22.14	341	eP	P	05 17 02.1	+0.8
	36nm,0.8s,mb4.8						
GUN	Gumba	22.19	343	eP	P	05 17 02.2	+0.4
	19nm,0.6s,mb4.7						
KKN	Kakani	22.25	342	eP	P	05 17 02.9	+0.4
	6.2nm,0.4s,mb4.4						
GKN	Gorkha	22.66	341	eP	P	05 17 06.2	-0.4
	51nm,1.1s,mb4.9						
KOLN	Koldanda	22.80	338	eP	P	05 17 08.4	+0.4
	37nm,1.2s,mb4.7						
SONM	Songino Array	42.61	13	P	P	05 20 00.4	-1.3
	0.2nm,0.4s,baz=200,slow=9.7,SNR=4.9						
ZAL	Zalesovo	47.61	353	P	P	05 20 41.1	-0.3
	2.4nm,0.4s,mb4.6,baz=211,slow=6.2,SNR=5.5						
WRA	Warramunga Arr	48.53	124	P	P	05 20 49.2	+0.1
	1.1nm,0.5s,mb4.2,baz=305,slow=8.6,SNR=5.2						
BVAR	Borovoye Array	49.78	342	P	P	05 20 57.5	-0.7
	0.8nm,0.5s,mb4.0,baz=135,slow=4.2,SNR=5.5						
ASAR	Alice Springs	50.05	128	P	P	05 21 01.4	+0.7
	0.8nm,0.8s,mb3.8,baz=300,slow=7.6,SNR=5.6						
BRTR	Keskin Array B	62.35	312	P	P	05 22 27.3	-1.3
	1.1nm,0.6s,mb4.2,baz=126,slow=6.8,SNR=7.2						
FINES	FINESS Array B	73.25	333	P	P	05 23 35.5	-0.8
	2.8nm,1.0s,mb4.2,baz=117,slow=4.3,SNR=6.1						
ARCES	ARCESS Array B	76.02	340	P	P	05 23 51.9	-0.3
	4.3nm,0.9s,mb4.4,baz=100,slow=7.4,SNR=5.9						
GERES	GERESS Array B	77.96	318	P	P	05 24 03.6	+0.2
	1.1nm,0.6s,mb4.0,baz=90,slow=5.3,SNR=14						
DAVOX	Davos	80.46	316	P	P	05 24 17.4	+0.4
	1.7nm,0.5s,mb4.3,baz=152,slow=5.2,SNR=8.3						

CSEM 30 05:12:34.5±0.5,38.70N×27.72W,h30^{km},ML1.6,Error ellipse: s-maj=24.3km s-min=9.0km az=179.0
PDA 30 05:12:39.0±0.8,38.80N×27.78W,h5^{km}±6^{km},MD2.5, ML1.6,Error ellipse: s-maj=2.3km s-min=2.2km az=128.0
SVSA 30 05:12:39.0±0.8,38.80N×27.78W,h5^{km}±6^{km},MD2.5, ML1.6,Error ellipse: s-maj=2.3km s-min=2.2km az=128.0,Azores Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMAN	Manadas	0.29	235	iP	Pg	05 12 44.1	-0.9
PMAN				eS	Sg	05 12 48.6	-0.3
	169nm,0.2s						
PMAN	Manadas	0.29	235	eS	Sg	05 12 48.6	-0.3
	169nm,0.2s						
STGR	Santa Cruz	0.33	328	eP	Pg	05 12 45.0	-0.6
STGR				iS	Sg	05 12 49.4	-0.6
	46nm,0.1s						
ASBA	Santa Barbara	0.37	103	iS	Sg	05 12 50.6	-0.7
	14nm,0.2s						
ASBA	Santa Barbara	0.37	103	iS	Sg	05 12 50.6	-0.7
	14nm,0.2s						
ROSA	Rosais	0.37	257	eP	Pg	05 12 45.5	-0.9
PPAD	Pico dos Padre	0.40	105	iS	Sg	05 12 51.4	-1.0
	12nm,0.1s						
PPAD	Pico dos Padre	0.40	105	iS	Sg	05 12 51.4	-1.0
	12nm,0.1s						
PBIS	Biscoitos	0.41	96	eS	Sg	05 12 51.7	-1.2
	16nm,0.1s						
PBIS	Biscoitos	0.41	96	eS	Sg	05 12 51.7	-1.2
	16nm,0.1s						
PVNV	Vila Nova	0.49	95	eS	Sg	05 12 53.8	-1.6
	9.6nm,0.1s						
RIB2	Ribeirinha	0.49	105	eS	Sg	05 12 53.9	-1.6
	18nm,0.2s						
PFAV	Pico das Favas	0.55	99	iS	Sg	05 12 55.5	-2.0
	8.1nm,0.1s						
PICO	Pico	0.59	239	eP	Pg	05 12 48.8	-2.0
PICO				eS	Sg	05 12 56.7	-1.9
PCED	Cedros	0.74	257	erx		05 13 02.5	
CALA	Caldeira	0.75	253	erx		05 13 00.4	

IDC 30 05:13:30.1±1.2,4.18N×94.10E,mb4.0/7,mb1 4.1/8, mb1mx3.9/19,mbtmp3.9/8,Error ellipse: s-maj=49.4km s-min=21.7km az=50.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.96	18	Pn	P	05 17 02.8	-2.1
	baz=214,slow=12,SNR=2.5						
SONM	Songino Array	44.76	12	P	P	05 21 45.7	-1.6
	1.4nm,0.8s,baz=191,slow=8.5,SNR=9.6						
WRA	Warramunga Arr	46.23	123	P	P	05 21 57.3	-2.0
	2.9nm,0.6s,baz=300,slow=9.1,SNR=7.2						
ASAR	Alice Springs	47.65	127	P	P	05 22 08.6	-1.8
	1.4nm,0.9s,baz=297,slow=7.6,SNR=3.9						
BVAR	Borovoye Array	52.46	342	P	P	05 22 44.4	-2.5
	3.8nm,0.8s,baz=153,slow=6.6,SNR=8.7						
BRTR	Keskin Array B	64.83	312	P	P	05 24 11.0	-2.3
	0.8nm,0.6s,baz=108,slow=3.9,SNR=4.0						
FINES	FINESS Array B	75.95	333	P	P	05 25 18.6	-1.8
	1.9nm,0.8s,baz=76,slow=7.9,SNR=6.0						
GERES	GERESS Array B	80.55	319	P	P	05 25 45.3	-0.6
	0.2nm,0.3s,baz=117,slow=4.4,SNR=4.1						

IDC 30 05:15:26.5±0.8,10.52N×92.82E,mb4.1/11,mb1 4.2/12, mb1mx4.1/20,mbtmp4.1/12,Error ellipse: s-maj=30.3km s-min=16.0km az=52.0
ISC 30 05:15:29.8±0.8,10.6N±0.1×92.9E±0.1,h33^{km},n12, $\sigma 0^{s}79$/12,mb4.1/11,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	9.79	36	Pn	P	05 17 50.9	-0.5
	baz=228,slow=11,SNR=2.0						
JOW	Kunigami	37.03	59	P	P	05 22 37.9	-0.7
	25nm,1.0s,mb5.0,baz=170,slow=12,SNR=3.1						
SONM	Songino Array	38.86	14	P	P	05 22 54.9	+1.3
	0.7nm,0.5s,mb3.6,baz=201,slow=8.6,SNR=5.2						
ZAL	Zalesovo	43.76	353	P	P	05 23 33.4	-0.4
	0.8nm,0.4s,mb3.8,baz=163,slow=6.2,SNR=3.4						
BVAR	Borovoye Array	46.09	341	P	P	05 23 53.0	+0.6
	1.0nm,0.6s,mb3.9,baz=243,slow=6.6,SNR=4.3						
WRA	Warramunga Arr	50.80	127	P	P	05 24 29.3	-0.1
	2.3nm,0.6s,mb4.3,baz=304,slow=8.7,SNR=12						
ASAR	Alice Springs	52.55	131	P	P	05 24 42.5	-0.1
	2.2nm,0.8s,mb4.2,baz=310,slow=7.6,SNR=12						
ASAR				PcP	PcP	05 25 52.5	-0.1
	0.9nm,0.7s,baz=314,slow=3.7,SNR=5.4						
BRTR	Keskin Array B	59.79	310	P	P	05 25 32.1	-2.2
	0.4nm,0.7s,mb3.6,baz=135,slow=8.2,SNR=2.4						
STKA	Stephens Creek	62.82	134	P	P	05 25 55.2	+0.4
	2.8nm,0.6s,mb4.6,baz=293,slow=7.7,SNR=10.0						
FINES	FINESS Array B	69.80	332	P	P	05 26 39.1	+0.5
	2.4nm,0.9s,mb4.1,baz=108,slow=13,SNR=2.4						
GERES	GERESS Array B	75.05	318	P	P	05 27 10.4	+0.4
	1.0nm,0.6s,mb3.9,baz=90,slow=5.3,SNR=11						
ILAR	Eielson Array	92.73	22	P	P	05 28 40.0	+0.4
	0.8nm,0.7s,mb4.3,baz=299,slow=4.2,SNR=14						

IDC 30 05:17:30.7±0.7,5.36N×94.14E,mb4.4/17,mb1 4.5/18, mb1mx4.4/23,mbtmp4.3/18,ML4.0/1,Error ellipse: s-maj=31.6km s-min=15.5km az=46.0
NEIC 30 05:17:37.0±0.8,5.66N×94.12E,h30^{km},mb4.7/16,Error ellipse: s-maj=22.5km s-min=14.5km az=83.0
BJI 30 05:17:37.0,5.70N×94.10E,h30^{km},mb5.0
SYO 30 05:17:37.0,5.66N×94.12E,h30^{km},MB4.7
ISC 30 05:17:35.2±3.3,5.54N±0.09×94.36E±0.09,h33^{km}±28^{km}, n56,$\sigma 1^{s}23$/53,mb4.6/42,2C-1D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.60	19	eP	P	05 20 47.5	-0.8
	20nm,0.6s						
CM31				e		05 20 55.5	
CMAR	Chiang Mai Arr	13.60	19	Pn	P	05 20 48.7	+0.4
	0.2nm,0.3s,baz=230,slow=14,SNR=7.1						
QIZ	Qiongzhong	20.19	47	eP	P	05 22 11.8	+1.9
	36nm,1.1s						
PKI	Pulchoki	23.51	340	eP	P	05 22 43.0	-0.2
	21nm,0.6s,mb4.8						
DMN	Daman	23.65	339	eP	P	05 22 44.5	-0.1
GUN	Gumba	23.67	341	eP	P	05 22 45.4	+0.7
	30nm,0.5s,mb5.0						
KKN	Kakani	23.76	340	eP	P	05 22 45.6	0.0
	24nm,0.6s,mb4.8						
GYA	Guiyang	23.89	28	⇑iP	P	05 22 49.8	+2.8
GYA				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.1						
GKN	Gorkha	24.18	339	eP	P	05 22 51.4	+1.7
	comp=Z,59nm,0.4s,mb5.3						
LSA	Lhasa	24.23	353	eP	P	05 22 48.1	-2.1
	comp=Z,14nm,0.5s,mb4.6						
LSA				e		05 23 04.3	
KOLN	Koldanda	24.36	336	eP	P	05 22 52.9	+1.4
	comp=Z,56nm,0.6s,mb5.1						
ENH	Enshi	28.43	28	eP	P	05 23 28.8	-0.4
	comp=Z,20nm,0.8s,mb4.8						
XAN	Xi’an	31.41	24	P	P	05 23 55.5	-0.2
XAN				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.1						
GTA	Gaotai	34.08	8	P	P	05 24 19.5	+0.7
GTA				AP	pP	05 24 25.5	-3.0
GTA				XP	sP	05 24 28.0	-4.9
GTA				AMB	AMB		
	comp=Z,13nm,0.7s,mb5.0						
NJ2	Nanjing	34.93	38	eP	P	05 24 24.5	-1.7
NJ2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
MBWA	Marble Bar	36.38	138	eP	P	05 24 43.2	+4.7
	comp=Z,46nm,1.6s,mb5.2						
WMQ	Urumqi	38.58	352	P	P	05 24 58.5	+1.8
WMQ				AP	pP	05 25 03.0	-3.6
WMQ				XP	sP	05 25 06.0	-4.8
WMQ				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.5						
BJT	Baijiatuau	39.55	27	P	P	05 25 06.5	+1.7
	comp=Z,10nm,0.8s,mb4.6						
SONM	Songino Array	43.39	12	P	P	05 25 36.8	+0.5
	comp=Z,6.0nm,0.7s,mb4.4,baz=194,slow=7.8,SNR=35						
SONM				PcP	PcP	05 27 24.2	-0.8
	comp=Z,1.0nm,0.5s,baz=200,slow=3.5,SNR=7.3						
ULN	Ulaanbaatar	43.55	12	eP	P	05 25 37.3	-0.4
	comp=Z,5.2nm,0.9s,mb4.3						
KS15	Wonju Array Si	44.07	39	P	P	05 25 38.9	-3.0
WRA	Warramunga Arr	46.76	124	P	P	05 26 02.4	-1.1
	comp=Z,3.7nm,0.5s,mb4.5,baz=302,slow=9.7,SNR=15						
WRAB	Tennant Creek	46.76	124	eP	P	05 26 02.5	-1.1
	comp=Z,10nm,0.6s,mb4.9						
ASAR	Alice Springs	48.27	129	P	P	05 26 14.6	-0.9
	comp=Z,1.8nm,0.4s,mb4.4,baz=303,slow=7.9,SNR=8.2						
HIA	Hailar	48.59	22	P	P	05 26 17.7	+0.3
	comp=Z,7.2nm,0.9s,mb4.7						
ZAL	Zalesovo	48.88	353	P	P	05 26 20.1	+0.5
	comp=Z,8.4nm,0.7s,mb4.9,baz=208,slow=6.0,SNR=29						
BVAR	Borovoye Array	51.26	342	P	P	05 26 37.6	-0.2
	comp=Z,3.6nm,0.5s,mb4.6,baz=142,slow=11,SNR=15						
BRVK	Borovoye	51.32	342	eP	P	05 26 38.0	-0.3
	comp=Z,6.1nm,0.5s,mb4.8						
CHKZ	Chkalovo	51.75	342	eP	P	05 26 41.6	+0.1
	comp=Z,16nm,0.6s,mb5.1						
PMG	Port Moresby	54.67	106	P	P	05 27 07.2	+3.5
	comp=Z,5.5nm,0.7s,mb4.7						
ARU	Arti	58.12	337	P	P	05 27 25.9	-1.8
	comp=Z,12nm,1.0s,mb4.9						
STKA	Stephens Creek	58.35	133	P	P	05 27 28.9	-0.9
	comp=Z,0.7nm,0.5s,mb4.0,baz=297,slow=11,SNR=2.6						
STKA	Stephens Creek	58.35	133	eP	P	05 27 28.9	-0.8
MALT	Malatya	60.15	311	P	P	05 27 44.0	+1.9
	comp=Z,0.9nm,0.5s,mb4.1						
BRTR	Keskin Array B	64.12	312	P	P	05 28 06.5	-2.1
	comp=Z,1.6nm,0.6s,mb4.2,baz=127,slow=7.3,SNR=7.8						
MA2	Magadan	68.73	27	P	P	05 28 36.8	-0.8
IDI	Anoyia	70.08	305	P	P	05 28 44.2	-2.1
	comp=Z,3.5nm,0.7s,mb4.4,baz=82,slow=7.1,SNR=4.0						
AKASG	Malin Array Be	70.12	322	P	P	05 28 44.3	-1.9
	comp=Z,1.0nm,0.4s,mb4.1,baz=86,slow=6.0,SNR=8.3						
FINES	FINESS Array B	74.87	332	P	P	05 29 13.1	-1.0
	comp=Z,2.6nm,0.5s,mb4.4,baz=98,slow=6.0,SNR=24						
OJC	Ojcow	75.90	320	eP	P	05 29 20.1	-0.1
ARCES	ARCESS Array B	77.53	340	P	P	05 29 29.1	+0.1
	comp=Z,3.4nm,0.8s,mb4.3,baz=100,slow=7.4,SNR=4.0						
BILL	Bilibino	78.17	21	eP	P	05 29 32.0	-0.5
	comp=Z,4.0nm,0.6s,mb4.5						
FX1	Attu Island--F	78.85	37	P	P	05 29 36.6	0.0
	comp=Z,4.7nm,0.4s,mb4.8,baz=287,slow=19,SNR=4.5						
GERES	GERESS Array B	79.71	319	P	P	05 29 41.3	0.0
	comp=Z,2.7nm,0.7s,mb4.3,baz=98,slow=5.1,SNR=21						
KHC	Kasperske Hory	79.81	319	eP	P	05 29 42.0	+0.1
CLL	Collm	80.30	321	P	P	05 29 44.0	-0.5
NOA	NORSAR Array B	81.86	331	P	P	05 29 50.7	-1.7
	comp=Z,0.9nm,0.7s,mb3.8,baz=94,slow=5.7,SNR=2.5						
DAVOX	Davos	82.22	316	P	P	05 29 55.3	+0.7
	comp=Z,5.7nm,0.7s,mb4.6,baz=140,slow=6.4,SNR=16						
SYO	Syowa Base	83.25	197	⇑P	P	05 30 01.5	+2.1
SYO	Syowa Base	83.25	197	⇓PcP	PcP	05 30 04.6	+0.3
EKA	Eskdalemuir Ar	89.76	325	P	P	05 30 32.3	+0.9
	comp=Z,1.3nm,0.5s,mb4.5,baz=94,slow=4.9,SNR=7.4						
VNDA	Vanda	90.61	168	P	P	05 30 37.5	+2.5
	comp=Z,2.1nm,1.1s,mb4.4						
SBA	Scott Base	91.71	168	P	P	05 30 42.4	+2.2
	comp=Z,7.7nm,1.1s,mb5.0						
ILAR	Eielson Array	96.81	22	P	P	05 31 04.2	+0.7
	comp=Z,0.4nm,0.5s,mb4.1,baz=291,slow=4.8,SNR=12						
ULM	Lac du Bonnet	123.74	8	PKP	PKPdf	05 36 31.8	+1.9
	comp=Z,0.5nm,0.4s,baz=79,slow=2.3,SNR=3.8						
TXAR	Lajitas Array	141.24	26	PKP	PKPdf	05 37 06.2	+2.9
	comp=Z,0.3nm,0.4s,baz=328,slow=0.3,SNR=4.6						

IDC 30 05:26:13.9±2.2,24.01S×67.00W,h172^{km}±15^{km},mb3.5/3, mb1 3.8/6,mb1mx3.6/15,mbtmp4.1/6,Error ellipse: s-maj=29.3km s-min=22.4km az=175.0,Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LVC	Limon Verde	2.24	308	P	P	05 26 54.4	+0.9
	40nm,0.3s,baz=133,slow=5.7,SNR=709						
LVC				S	S	05 27 24.2	+0.1
	35nm,0.3s,baz=12,slow=22,SNR=19						
LPAZ	La Paz	7.76	352	P	P	05 28 05.2	+0.4
	0.6nm,0.3s,baz=157,slow=9.6,SNR=13						
LPAZ				S	S	05 29 31.0	-0.4
	0.1nm,0.3s,baz=61,slow=19,SNR=4.7						
BDFB	Brasilia	19.69	68	P	P	05 30 30.0	-1.8
	2.5nm,0.3s,baz=249,slow=10,SNR=73						
TXAR	Lajitas Array	63.69	324	P	P	05 36 27.2	-2.1
	0.3nm,0.6s,baz=145,slow=11,SNR=4.3						
ULM	Lac du Bonnet	78.24	342	P	P	05 37 55.2	-0.6
	0.5nm,0.4s,baz=175,slow=9.8,SNR=3.2						
YKA	Yellowknife Ar	94.13	340	P	P	05 39 12.0	-1.4
	0.4nm,0.6s,baz=132,slow=4.5,SNR=7.7						
ASAR	Alice Springs	128.45	205	PKP	PKPdf	05 45 00.0	-0.8
	0.4nm,0.6s,baz=153,slow=1.5,SNR=4.4						
WRA	Warramunga Arr	131.62	207	PKP	PKPdf	05 45 06.0	-0.9
	0.3nm,0.5s,baz=156,slow=1.7,SNR=6.9						

IDC 30 05:31:34.0±0.9,3.79N×90.25E,mb3.8/10,mb1 3.9/11, mb1mx3.9/19,mbtmp3.8/11,MS4.0/7,Ms1 4.0/7, ms1mx3.6/23,Error ellipse: s-maj=40.3km s-min=17.0km az=50.0
ISC 30 05:31:37.7±0.8,3.7N±0.1×90.4E±0.2,h33^{km},n22, $\sigma 1^{s}28$/17,mb4.2/14,MS4.1/6,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	16.84	29	Pn	P	05 35 31.1	-1.5
	baz=250,slow=18,SNR=2.4						
CMAR				LR	LR	05 42 08.5	
	comp=Z,207nm,19.6s,baz=205,slow=38						
PKI	Pulchoki	24.19	349	eP	P	05 36 54.5	+2.2
	69nm,1.2s,mb5.0						
DMN	Daman	24.29	348	eP	P	05 36 55.6	+2.3
	42nm,0.8s,mb4.9						
KKN	Kakani	24.43	349	eP	P	05 36 56.6	+1.9
GUN	Gumba	24.44	350	eP	P	05 36 55.5	+0.7
	57nm,1.0s,mb5.0						
GKN	Gorkha	24.77	348	eP	P	05 36 58.0	+0.1
KOLN	Koldanda	24.78	345	eP	P	05 36 57.6	-0.5
	35nm,1.2s,mb4.8						
SONM	Songino Array	46.04	15	P	P	05 39 59.6	-0.5
	4.0nm,0.6s,mb4.5,baz=193,slow=8.9,SNR=29						
SONM				LR	LR	06 01 18.6	
	comp=Z,118nm,21.1s,MS3.8,baz=178,slow=39						
WRA	Warramunga Arr	49.11	120	P	P	05 40 25.2	+0.8
	0.4nm,0.5s,mb3.7,baz=297,slow=9.0,SNR=3.4						
ZAL	Zalesovo	50.26	356	P	P	05 40 31.8	-1.0
	1.1nm,0.5s,mb4.2,baz=208,slow=9.0,SNR=3.7						
ASAR	Alice Springs	50.33	125	P	P	05 40 33.5	-0.2
	0.5nm,0.9s,mb3.5,baz=295,slow=7.9,SNR=2.5						
BVAR	Borovoye Array	51.85	345	P	P	05 40 41.8	-2.9
	0.6nm,0.7s,mb3.7,baz=126,slow=8.5,SNR=2.7						
KMBO	Kilima Mbogo	53.38	266	LR	LR	05 59 35.4	
	comp=Z,149nm,21.5s,MS4.0,baz=96,slow=32						
EIL	Elat	58.41	303	LR	LR	06 07 16.5	
	comp=Z,165nm,18.4s,MS4.2,baz=296,slow=37						
STKA	Stephens Creek	60.09	130	P	P	05 41 45.0	+0.6
	0.6nm,0.3s,mb4.0,baz=267,slow=17,SNR=2.2						
BRTR	Keskin Array B	62.45	313	P	P	05 41 57.0	-3.1
	0.5nm,0.7s,mb3.8,baz=158,slow=9.2,SNR=3.4						
AKASG	Malin Array Be	69.18	323	P	P	05 42 41.9	-1.0
	1.5nm,0.8s,mb4.0,baz=93,slow=5.2,SNR=4.1						
MAW	Mawson	73.78	191	LR	LR	06 07 59.6	
	comp=Z,116nm,19.9s,MS4.2,baz=246,slow=30						
FINES	FINESS Array B	74.69	333	P	P	05 43 14.8	-0.7
	1.2nm,0.8s,mb3.9,baz=72,slow=4.4,SNR=3.2						
GERES	GERESS Array B	78.48	319	P	P	05 43 37.4	+0.2
	0.9nm,0.8s,mb3.7,baz=153,slow=6.0,SNR=6.4						
NOA	NORSAR Array B	81.53	331	LR	LR	06 21 30.7	
	comp=Z,134nm,18.3s,MS4.3,baz=25,slow=37						
VNDA	Vanda	89.65	168	LR	LR	06 17 03.6	
	comp=Z,94nm,18.2s,MS4.3,baz=320,slow=30						

IDC 30 05:40:56.1±0.8,8.34N×92.52E,h34^{km}±4^{km},mb3.6/7, mb1 3.8/8,mb1mx3.6/19,mbtmp3.7/8,ML3.8/1,MS3.5/1, Ms1 3.5/1,ms1mx2.9/24,Error ellipse: s-maj=32.9km s-min=14.4km az=52.0
NEIC 30 05:40:58.3±0.8,7.58N×92.38E,h30^{km},mb4.5/9,Error ellipse: s-maj=22.2km s-min=12.6km az=48.0
BJI 30 05:40:58.2,7.60N×92.40E,h30^{km},mb4.6
ISC 30 05:40:54.4±0.6,8.26N±0.09×92.59E±0.10,h35^{km}, h35^{km}±2.2^{km}:pP-P,n31,$\sigma 1^{s}02$/23,mb4.2/13,MS3.5/1,1C, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.87	31	Pn	P	05 43 44.0	-0.2
	0.2nm,0.3s,baz=240,slow=14,SNR=5.2						
VIS	Vishakhapatnam	13.03	317	eP	P	05 44 05.4	+5.7
VIS				AMb	AMB	05 44 08.0	
	comp=Z,34nm,0.6s						
VIS				e	S	05 46 10.1	-14
MDRS	Chennai	13.04	293	eP	P	05 43 59.5	-0.4
MDRS				e		05 44 52.0	
BWNR	Bhubaneshwar	13.65	332	e	P	05 44 05.2	-2.7
BWNR				AMb	AMB	05 44 07.2	
	comp=Z,27nm,0.1s						
BWNR				e		05 46 01.4	
HYB	Hyderabad	16.43	305	iP	P	05 44 49.5	+5.6
KAD	Karad	20.06	298	eP	P	05 45 27.6	+0.1
KAD				AMb	AMB	05 45 33.5	
	comp=Z,7.7nm,0.1s						
PKI	Pulchoki	20.38	341	eP	P	05 45 32.0	+1.2
DMN	Daman	20.51	341	eP	P	05 45 33.0	+0.8
GUN	Gumba	20.55	343	eP	P	05 45 32.8	+0.2
	comp=Z,50nm,0.9s						
KKN	Kakani	20.62	341	eP	P	05 45 33.5	+0.2
BHPL	Bhopal	20.82	317	eP	P	05 45 38.7	+3.2
BHPL				AMb	AMB	05 45 54.7	
	comp=Z,11nm,1.3s						
GKN	Gorkha	21.03	340	eP	P	05 45 37.7	+0.2
	comp=Z,30nm,0.6s,mb4.8						
KOLN	Koldanda	21.19	337	eP	P	05 45 39.2	+0.1
	comp=Z,39nm,0.8s,mb4.8						
LSA	Lhasa	21.37	357	P		05 45 46.4	
	comp=Z,16nm,1.0s						
GYA	Guiyang	22.50	35	⇑iP		05 46 03.3	
GYA				AMB	AMB		
	comp=Z,10.0nm,0.4s,mb4.6						
ENH	Enshi	27.02	34	P	pP	05 46 42.9	-2.4
	comp=Z,11nm,0.9s						
GTA	Gaotai	31.69	11	P	pP	05 47 26.3	-0.7
GTA				AMB	AMB		
	comp=Z,4.0nm,1.3s,mb4.1						
AAK	Ala-Archa	37.76	338	eP	pP	05 48 16.4	-2.6
	comp=Z,12nm,1.2s						
BJT	Baijiatuau	37.99	30	P	pP	05 48 19.5	-1.6
	comp=Z,11nm,1.2s						
MBWA	Marble Bar	39.56	138	eP	P	05 48 24.8	+0.8
	comp=Z,7.8nm,1.0s,mb4.4						
SONM	Songino Array	41.14	14	P	P	05 48 36.5	-0.4
	comp=Z,0.4nm,0.5s,mb3.3,baz=198,slow=8.6,SNR=3.3						
SONM				pP	pP	05 48 47.1	-0.1
	comp=Z,1.4nm,0.7s,baz=198,slow=9.1,SNR=7.4						
SONM				PcP	PcP	05 50 36.2	-0.2
	comp=Z,0.5nm,0.9s,baz=195,slow=4.0,SNR=2.6						
SONM				pPcP		05 50 51.3	
	comp=Z,1.3nm,0.7s,baz=198,slow=3.4,SNR=6.1						
ULN	Ulaanbaatar	41.34	15	eP	pP	05 48 48.2	-0.6
	comp=Z,4.4nm,1.3s						
HIA	Hailar	46.78	24	eP	pP	05 49 31.2	-1.5
	comp=Z,17nm,1.9s						
BVAR	Borovoye Array	48.14	342	P	P	05 49 30.3	-2.6
	comp=Z,0.5nm,0.5s,mb3.8,baz=149,slow=7.8,SNR=3.3						
BVAR				pP	pP	05 49 41.4	-1.9
	comp=Z,0.9nm,0.6s,baz=135,slow=10,SNR=4.8						
CHKZ	Chkalovo	48.64	343	eP	pP	05 49 43.6	-3.5
	comp=Z,6.0nm,0.8s						
WRA	Warramunga Arr	49.73	125	P	P	05 49 44.4	-1.3
	comp=Z,2.3nm,0.8s,mb4.3,baz=307,slow=8.8,SNR=8.6						
WRA				pP	pP	05 49 56.2	+0.2
	comp=Z,2.3nm,0.7s,baz=303,slow=8.8,SNR=7.1						
WRAB	Tennant Creek	49.74	125	eP	P	05 49 45.8	+0.1
	comp=Z,9.3nm,0.9s,mb4.8						
ASAR	Alice Springs	51.34	129	P	P	05 49 57.8	0.0
	comp=Z,1.8nm,0.7s,mb4.1,baz=300,slow=7.3,SNR=15						
ASAR				pP	pP	05 50 10.0	+1.8
	comp=Z,1.3nm,0.5s,baz=306,slow=7.9,SNR=6.4						
ASAR				PcP	PcP	05 51 13.8	+1.4
	comp=Z,1.0nm,0.5s,baz=307,slow=3.3,SNR=6.2						
ASAR				pPcP		05 51 24.6	
	comp=Z,1.3nm,0.6s,baz=309,slow=4.1,SNR=6.2						
ASAR				LR	LR	06 13 22.8	
	comp=Z,42nm,19.6s,MS3.5,baz=97,slow=38						
BRTR	Keskin Array B	61.02	311	P	P	05 51 05.9	-1.0
	comp=Z,0.5nm,0.6s,mb3.8,baz=119,slow=7.3,SNR=2.9						
BRTR				pP	pP	05 51 15.5	-2.1
	comp=Z,1.2nm,0.8s,baz=121,slow=7.2,SNR=4.0						
GERES	GERESS Array B	76.52	318	P	P	05 52 43.6	+0.9
	comp=Z,0.3nm,0.7s,mb3.3,baz=106,slow=7.1,SNR=3.2						
GERES				pP	pP	05 52 53.3	-0.2
	comp=Z,1.0nm,0.8s,baz=90,slow=5.3,SNR=4.6						
ILAR	Eielson Array	94.96	22	P	P	05 54 15.2	+1.1
	comp=Z,0.4nm,1.0s,mb3.8,baz=310,slow=5.3,SNR=3.9						
ILAR				pP	pP	05 54 24.8	-0.4
	comp=Z,0.4nm,0.7s,baz=321,slow=5.0,SNR=4.5						

IDC 30 05:45:24.2±0.8,15.75N×61.56W,mb3.9/6,mb1 4.1/9, mb1mx3.8/23,mbtmp3.9/9,ML3.6/2,Error ellipse: s-maj=13.0km s-min=9.2km az=116.0
TRN 30 05:45:24.9,15.76N×61.36W,h20^{km},MD3.9
ISC 30 05:45:26.0±0.5,15.73N±0.02×61.57W±0.05,h23^{km}±5^{km}, n26,$\sigma 1^{s}16$/35,mb3.9/6,6C-2D,Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBL	**Barber's Block**	**0.22**	**156**	⇑*i*P	**Pb**	**05 45 31.6**	**-0.2**
BBL	**Barber's Block**	**0.22**	**156**	⇑*i*P	**Pb**	**05 45 32.6**	**+0.9**
BBL				*e*S	**Sb**	**05 45 36.2**	**+0.7**
DWS	**Wesley**	**0.29**	**123**	⇑*i*P	**Pb**	**05 45 32.0**	**-0.7**
DWS				*e*S	**Sb**	**05 45 36.0**	**-1.3**
MGG	**Marie-Galante**	**0.30**	**52**	⇑*i*P	**Pb**	**05 45 31.9**	**-1.0**
DBCT	**Belle View Cho**	**0.50**	**155**	*e*P	**Pb**	**05 45 37.0**	**+0.9**
DSTT	**Stowe**	**0.54**	**152**	*e*P	**Pb**	**05 45 38.2**	**+1.4**
DSHT	**Scott's Head**	**0.55**	**160**	*e*P	**Pb**	**05 45 38.3**	**+1.5**
SEG	**Port Louis**	**0.67**	**5**	⇑*e*P	**Pb**	**05 45 38.9**	**-0.1**
DEG	**La Desirade**	**0.76**	**40**	⇑*i*P	**Pb**	**05 45 39.0**	**-1.4**
DEG				*e*S	**Sb**	**05 45 48.6**	**-1.7**
FDF	**Fort de France**	**1.07**	**158**	*e*P	**Pb**	**05 45 45.9**	**+0.2**
FDF				*e*S	**Sb**	**05 46 00.5**	**+1.2**
CRM	**Caravelle**	**1.16**	**147**	*e*P	**Pn**	**05 45 46.5**	**-0.5**
BIM	**Bigot**	**1.30**	**158**	⇓*e*P	**Pn**	**05 45 49.9**	**+0.9**
MVM	**Montagne Vaucl**	**1.34**	**151**	⇓*e*P	**Pn**	**05 45 49.4**	**-0.1**
MVM				*e*S	**Sn**	**05 46 06.7**	**-0.1**
BPA	**Boggy Peak**	**1.34**	**348**	*e*P	**Pn**	**05 45 51.0**	**+1.4**
BPA				*e*S	**Sn**	**05 46 08.6**	**+1.8**
CPB	**Codrington**	**1.92**	**353**	*e*P	**Pn**	**05 45 59.0**	**+1.1**
CPB				*e*S	**Sn**	**05 46 23.9**	**+2.4**
GRW	**Mount Saint Ca**	**3.55**	**182**	*e*P	**Pn**	**05 46 22.6**	**+1.5**
SJG	**San Juan**	**4.99**	**299**	Pn	**Pn**	**05 46 41.4**	**-0.1**
	4.4nm,0.3s,baz=198,slow=9.6,SNR=7.4						
SJG				Sn	**Sn**	**05 47 38.0**	**-1.2**
	6.1nm,0.3s,baz=251,slow=23,SNR=5.9						
TRN	**Trinidad (W)**	**5.05**	**178**	*e*P	**Pn**	**05 46 40.3**	**-2.2**
PCRV	**Puerto La Cruz**	**6.28**	**209**	Pn	**Pn**	**05 46 58.9**	**-0.9**
	1.7nm,0.3s,baz=32,slow=13,SNR=7.6						
PCRV				Sn	**Sn**	**05 48 10.1**	**-1.5**
	1.6nm,0.3s,baz=31,slow=18,SNR=3.4						
SDV	**Santo Domingo**	**11.17**	**234**	Pn	**P**	**05 48 04.7**	**-2.9**
	0.3nm,0.3s,baz=65,slow=12,SNR=2.5						
ULM	**Lac du Bonnet**	**44.17**	**329**	P	**P**	**05 53 35.4**	**+0.6**
	1.2nm,0.6s,mb3.8,baz=129,slow=9.7,SNR=2.8						
PDAR	**Pinedale Array**	**48.94**	**313**	P	**P**	**05 54 12.7**	**+0.2**
	0.7nm,0.8s,mb3.7,baz=112,slow=8.0,SNR=5.1						
YKA	**Yellowknife Ar**	**59.51**	**334**	P	**P**	**05 55 28.0**	**-1.7**
	0.8nm,0.7s,mb3.9,baz=106,slow=7.3,SNR=12						
NOA	**NORSAR Array B**	**68.03**	**30**	P	**P**	**05 56 25.9**	**+0.3**
	1.2nm,0.8s,mb4.0,baz=262,slow=6.3,SNR=3.9						
ILAR	**Eielson Array**	**73.91**	**334**	P	**P**	**05 57 00.4**	**-0.5**
	0.9nm,1.1s,mb3.6,baz=102,slow=5.6,SNR=5.5						
FINES	**FINESS Array B**	**75.21**	**30**	P	**P**	**05 57 08.5**	**+0.1**
	3.0nm,0.8s,mb4.2,baz=225,slow=2.7,SNR=6.1						

IDC 30 05:50:38.8±3.5**, 18.52S**×**178.13W, h572**^{km}±37^{km}**, mb3.0**/6**, mb1 3.2**/6**, mb1mx3.1**/15**, mbtmp3.9**/6**, Error ellipse: s-maj=111.0km s-min=16.9km az=152.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**33.62**	**261**	P	P	05 56 34.0	-0.1
	5.6nm,1.0s,baz=96,slow=9.2,SNR=2.9						
WRA	**Warramunga Arr**	**44.79**	**260**	P	P	05 58 02.4	-1.8
	0.5nm,0.5s,baz=97,slow=8.7,SNR=6.5						
ASAR	**Alice Springs**	**44.89**	**255**	P	P	05 58 02.5	-2.3
	0.7nm,0.5s,baz=94,slow=7.3,SNR=10						
ASAR				S	S	06 04 01.0	-0.9
	0.4nm,0.8s,baz=94,slow=14,SNR=3.5						
ILAR	**Eielson Array**	**86.42**	**13**	P	P	06 02 21.5	-0.2
	0.2nm,0.7s,baz=227,slow=5.6,SNR=6.6						
PDAR	**Pinedale Array**	**87.61**	**43**	P	P	06 02 26.4	-1.5
	0.6nm,0.9s,baz=225,slow=3.8,SNR=4.0						
SONM	**Songino Array**	**94.19**	**319**	P	P	06 02 55.3	-2.7
	0.7nm,0.8s,baz=135,slow=3.5,SNR=5.4						
ARCES	**ARCESS Array B**	**126.96**	**350**	PKP	PKPdf	06 08 38.0	+0.4
	4.1nm,1.0s,SNR=3.6						
GERES	**GERESS Array B**	**148.27**	**345**	PKPbc	PKPdf	06 09 21.3	+4.9
	0.6nm,0.6s,slow=1.3,SNR=5.7						

IDC 30 05:51:05.2±5.2**, 7.20N**×**93.24E, mb3.3**/2**, mb1 3.7**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, ML3.9**/1**, Error ellipse: s-maj=142.2km s-min=34.3km az=76.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.49**	**26**	Pn	P	05 54 05.4	-1.7
	0.2nm,0.3s,baz=209,slow=15,SNR=8.5						
SONM	**Songino Array**	**42.01**	**13**	P	P	05 58 57.8	-2.1
	0.2nm,0.5s,baz=211,slow=7.2,SNR=3.9						
WRA	**Warramunga Arr**	**48.61**	**124**	P	P	05 59 51.1	-1.8
	0.7nm,1.1s,baz=304,slow=8.9,SNR=3.5						

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*IDC **30** 05:56:49.1±4.8, 8.12N×91.56E, mb3.5/2, mb1 3.7/3, mb1mx3.5/18, mbtmp3.5/3, Error ellipse: s-maj=126.5km s-min=37.1km az=78.0*

ISC 30 05:56:53.5±1.6**, 8.3N**±0.2×**91.8E**±0.1**, h33**^{km}**, n4,** σ**1**^{s}**68**/5**, mb3.5**/2**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.27**	**34**	Pn	**P**	**05 59 48.4**	**-0.5**
	baz=228,slow=14,SNR=7.2						
VJD	**Vijayawada**	**13.63**	**308**	*i* P	**P**	**06 00 09.0**	**+2.0**
VJD				*i* S	**S**	**06 02 37.0**	**-1.3**
SONM	**Songino Array**	**41.33**	**15**	P	**P**	**06 04 38.6**	**+0.9**
	0.4nm,0.6s,mb3.3,baz=206,slow=8.3,SNR=3.7						
WRA	**Warramunga Arr**	**50.37**	**124**	P	**P**	**06 05 49.1**	**-0.8**
	1.0nm,0.9s,mb3.8,baz=305,slow=8.4,SNR=5.1						

IDC 30 06:01:56.2±2.7**, 10.20N**×**92.36E, mb3.5**/4**, mb1 3.7**/5**, mb1mx3.6**/18**, mbtmp3.5**/5**, ML3.8**/1**, Error ellipse: s-maj=80.8km s-min=27.1km az=72.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.40**	**37**	Pn	P	06 04 25.1	-4.7
	0.2nm,0.3s,baz=218,slow=14,SNR=6.1						
SONM	**Songino Array**	**39.34**	**15**	P	P	06 09 28.8	-0.1
	0.4nm,0.7s,baz=196,slow=10,SNR=3.6						
ZAL	**Zalesovo**	**44.04**	**354**	P	P	06 10 04.5	-2.9
	0.6nm,0.5s,baz=255,slow=4.4,SNR=3.4						
WRA	**Warramunga Arr**	**51.03**	**126**	P	P	06 11 01.1	-1.4
	0.7nm,0.6s,baz=306,slow=8.7,SNR=4.0						
ASAR	**Alice Springs**	**52.74**	**130**	P	P	06 11 12.4	-3.0
	0.2nm,0.4s,baz=302,slow=7.0,SNR=3.2						

IDC 30 06:04:11.6±3.5**, 8.50N**×**93.43E, mb3.7**/3**, mb1 3.9**/4**, mb1mx3.7**/18**, mbtmp3.7**/4**, ML4.1**/1**, Error ellipse: s-maj=110.4km s-min=29.1km az=80.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**11.25**	**28**	Pn	P	06 06 52.4	-4.4
	0.4nm,0.3s,baz=228,slow=13,SNR=4.4						
SONM	**Songino Array**	**40.71**	**13**	P	P	06 11 54.7	-0.9
	0.4nm,0.6s,baz=207,slow=3.2,SNR=4.0						
WRA	**Warramunga Arr**	**49.20**	**126**	P	P	06 13 02.0	-1.8
	0.8nm,0.4s,baz=304,slow=8.6,SNR=7.1						
ASAR	**Alice Springs**	**50.86**	**130**	P	P	06 13 14.8	-1.7
	0.8nm,0.8s,baz=311,slow=7.8,SNR=7.2						
ASAR				PcP	PcP	06 14 30.1	-3.4
	0.5nm,0.5s,baz=309,slow=3.4,SNR=5.4						

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*IDC **30** 06:15:51.5±0.8, 9.39N×93.06E, mb4.1/10, mb1 4.3/10, mb1mx4.1/18, mbtmp4.1/10, Error ellipse: s-maj=45.2km s-min=16.1km az=55.0*

*BJI **30** 06:15:53.9, 9.21N×92.72E, h41^{km}, mb4.4*

*NEIC **30** 06:15:55.9±0.6, 9.29N×93.02E, h30^{km}, mb4.5/5, Error ellipse: s-maj=20.6km s-min=13.9km az=79.0*

*SYO **30** 06:15:55.8, 9.29N×93.02E, h30^{km}, MB4.5*

ISC 30 06:15:54.3±0.5**, 9.20N**±0.07×**92.95E**±0.10**, h33**^{km}**, n28,** σ**0**^{s}**85**/27**, mb4.3**/16**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**10.89**	**32**	*e*P	**P**	**06 18 33.5**	**+2.5**
	5.0nm,0.4s						
CMAR	**Chiang Mai Arr**	**10.89**	**32**	Pn	**P**	**06 18 32.3**	**+1.3**
	0.9nm,0.3s,baz=224,slow=15,SNR=11						
PKI	**Pulchoki**	**19.61**	**340**	*e*P	**P**	**06 20 23.8**	**+1.0**
	8.7nm,0.4s						
DMN	**Daman**	**19.75**	**339**	*e*P	**P**	**06 20 24.9**	**+0.6**
GUN	**Gumba**	**19.77**	**341**	*e*P	**P**	**06 20 24.5**	**0.0**
	8.8nm,0.4s						
KKN	**Kakani**	**19.86**	**340**	*e*P	**P**	**06 20 25.6**	**+0.2**
	11nm,0.6s						
GKN	**Gorkha**	**20.28**	**338**	*e*P	**P**	**06 20 29.6**	**-0.3**
	11nm,0.4s						
KOLN	**Koldanda**	**20.47**	**336**	*e*P	**P**	**06 20 32.5**	**+0.6**
	3.0nm,0.3s						
DGAR	**Diego Garcia**	**26.25**	**232**	P	**P**	**06 21 29.4**	**+0.7**
GTA	**Gaotai**	**30.70**	**10**	P	**P**	**06 22 07.5**	**-0.9**
GTA				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.5						
AAK	**Ala-Archa**	**37.03**	**337**	*e*P	**P**	**06 23 03.7**	**+0.8**
	comp=Z,4.0nm,0.8s,mb4.3						
SONM	**Songino Array**	**40.15**	**14**	P	**P**	**06 23 28.2**	**-0.6**
	comp=Z,1.1nm,0.4s,mb4.0,baz=202,slow=7.5,SNR=20						
SONM				PcP	PcP	06 25 33.0	-0.4
	comp=Z,0.7nm,0.5s,baz=205,slow=4.1,SNR=5.6						
ULN	**Ulaanbaatar**	**40.34**	**15**	*e*P	**P**	**06 23 29.5**	**-0.9**
	comp=Z,2.6nm,0.7s,mb4.1						
TLY	**Talaya**	**43.25**	**10**	*e*P	**P**	**06 23 53.4**	**-0.9**
	comp=Z,6.8nm,1.1s,mb4.3						
ZAL	**Zalesovo**	**45.09**	**353**	P	**P**	**06 24 07.6**	**-1.4**
	comp=Z,2.4nm,0.3s,mb4.6,baz=14,slow=4.4,SNR=3.6						
BVAR	**Borovoye Array**	**47.36**	**342**	P	**P**	**06 24 25.6**	**-1.4**
	comp=Z,1.0nm,0.4s,mb4.1,baz=146,slow=10,SNR=5.2						
CHKZ	**Chkalovo**	**47.85**	**342**	*e*P	**P**	**06 24 30.3**	**-0.6**
	comp=Z,6.0nm,0.6s,mb4.8						
WRA	**Warramunga Arr**	**49.99**	**126**	P	**P**	**06 24 47.9**	**+0.1**
	comp=Z,2.1nm,0.5s,mb4.4,baz=303,slow=8.8,SNR=18						
WRA				PcP	PcP	06 26 08.5	+0.8
	comp=Z,0.6nm,0.5s,baz=317,slow=2.8,SNR=8.1						
WRAB	**Tennant Creek**	**49.99**	**126**	*e*P	**P**	**06 24 47.9**	**+0.1**
	comp=Z,5.0nm,0.5s,mb4.8						
ASAR	**Alice Springs**	**51.67**	**130**	P	**P**	**06 24 59.7**	**-0.7**
	comp=Z,1.2nm,0.5s,mb4.1,baz=305,slow=7.0,SNR=22						
ASAR				PcP	PcP	06 26 15.2	+1.4
	comp=Z,1.1nm,0.6s,baz=307,slow=3.3,SNR=9.8						
BRTR	**Keskin Array B**	**60.67**	**310**	P	**P**	**06 26 04.7**	**-0.1**
	comp=Z,1.0nm,0.7s,mb4.0,baz=129,slow=8.3,SNR=5.9						
STKA	**Stephens Creek**	**61.87**	**134**	P	**P**	**06 26 13.5**	**+0.5**
	comp=Z,0.5nm,0.3s,mb4.0,baz=288,slow=17,SNR=4.2						
STKA	**Stephens Creek**	**61.87**	**134**	P	**P**	**06 26 12.9**	**0.0**
FINES	**FINESS Array B**	**70.99**	**332**	P	**P**	**06 27 09.5**	**-0.9**
	comp=Z,3.6nm,1.0s,mb4.3,baz=117,slow=4.3,SNR=5.3						
GERES	**GERESS Array B**	**76.06**	**318**	P	**P**	**06 27 41.2**	**+0.9**
	comp=Z,1.2nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=7.9						
SYO	**Syowa Base**	**86.32**	**197**	⇓P	**P**	**06 28 34.4**	**+0.7**
ILAR	**Eielson Array**	**93.96**	**22**	P	**P**	**06 29 09.5**	**-0.2**
	comp=Z,0.7nm,0.6s,mb4.3,baz=294,slow=4.1,SNR=13						
PDAR	**Pinedale Array**	**124.35**	**20**	PKP	PKPdf	06 34 52.5	+2.2
	comp=Z,0.6nm,0.8s,baz=45,slow=4.2,SNR=4.5						

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*HRVD **30** 06:38:15.8±1.3, 9.18N×92.60E, h41^{km}±5^{km}, MW4.7/21, Centroid moment Tensor Solution. LP body waves: s6,c7; Mantle waves: s21,c25; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.56±.26; $M_{\theta\theta}$-0.21±.20; $M_{\phi\phi}$0.77±.19; $M_{r\theta}$-0.18±.17; $M_{\theta\phi}$-0.84±.12; $M_{\phi r}$-1.06±.20; Best double couple: $M_0$1.52×10^{16} NP1:ϕ_s112°, δ38°, λ-158°. NP2:ϕ_s4°, δ76°, λ-54°. Principal axes: T 1.6, Plg23°, Azm67°; N -.16, Plg35°, Azm175°; P -1.44, Plg46°, Azm311°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **30** 06:38:15.1, 8.86N×92.25E, h11^{km}, mB4.7, mb4.7, Ms4.5, Msz4.0*

*CSEM **30** 06:38:18.2, 7.89N×91.48E, h33^{km}, mb5.6*

*MOS **30** 06:38:18.7±0.8, 8.99N×92.35E, h33^{km}, mb5.0/43, Error ellipse: s-maj=13.6km s-min=6.2km az=123.0*

*NEIC **30** 06:38:20.0±0.2, 9.01N×92.33E, h30^{km}, mb4.8/42, Error ellipse: s-maj=7.7km s-min=5.9km az=36.0*

*IDC **30** 06:38:19.7±0.4, 8.94N×92.33E, h28^{km}±2^{km}, mb4.3/26, mb1 4.4/27, mb1mx4.3/30, mbtmp4.4/27, ML4.0/1, MS4.1/6, Ms1 4.2/6, ms1mx3.6/29, Error ellipse: s-maj=19.7km s-min=9.1km az=44.0*

ISC 30 06:38:18.2±0.3**, 8.91N**±0.04×**92.30E**±0.03**, h29**^{km}**, h29**^{km}±.4^{km}**:pP-P, n207,** σ**1**^{s}**02**/203**, mb4.7**/82**, MS4.2**/11**, 4C-4D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.47**	**34**	P	**P**	**06 41 03.5**	**+0.2**
CMAR	**Chiang Mai Arr**	**11.47**	**34**	Pn	**P**	**06 41 02.6**	**-0.7**
	0.3nm,0.3s,baz=228,slow=14,SNR=11						
CMAR				LR	LR	06 46 19.1	
	comp=Z,297nm,19.5s,baz=205,slow=42						
PALK	**Pallekele**	**11.60**	**263**	*e*P	**P**	**06 41 02.6**	**-2.4**
PALK				*e*S	**S**	**06 42 56.9**	**-18**
VIS	**Vishakhapatnam**	**12.36**	**316**	*e*P	**P**	**06 41 11.9**	**-3.3**
VIS				*e*S	**S**	**06 43 18.8**	**-14**
VIS				*e*		06 43 21.2	
	comp=N,73nm,0.8s						
VIS				*e*		06 43 22.9	
	comp=E,115nm,1.2s						
HYB	**Hyderabad**	**15.82**	**304**	*e*P	**P**	**06 41 59.0**	**-1.8**
HYB				pmax	pmax		
	comp=Z,90nm,1.0s						
HYB	**Hyderabad**	**15.82**	**304**	*i* P	**P**	**06 41 59.0**	**-1.8**
	comp=Z,90nm,1.0s						
HYB				*e*		06 44 43.0	
HYB				*e*S	**S**	**06 44 55.0**	**-0.2**
SHL	**Shillong**	**16.57**	**359**	*e*P	**P**	**06 42 13.0**	**+2.8**
SHL				*e*		06 45 01.0	
MNGI	**Mangalore**	**17.62**	**285**	*e*P	**P**	**06 42 21.1**	**-2.3**
MNGI				*e*		06 42 27.6	
	comp=Z,105nm,0.7s						
MNGI				*e*S	**S**	**06 45 35.6**	**-0.8**
KMI	**Kunming**	**18.94**	**30**	P	**P**	**06 42 41.0**	**+1.4**
KMI				S	**S**	**06 46 12.3**	**+6.0**
KMI				AMB	AMB		
	comp=Z,21nm,1.3s						
KMI				AMB	AMB		
	comp=Z,130nm,5.0s						
KMI				LR	LR		
	comp=N,546nm,18.1s						
KMI				LR	LR		
	comp=E,542nm,14.0s						
KMI				LR	LR		
	comp=Z,447nm,16.0s						
KAD	**Karad**	**19.50**	**297**	*e*P	**P**	**06 42 46.1**	**0.0**
KAD				*i*		06 46 13.2	
	comp=Z,60nm,1.1s						
PKI	**Pulchoki**	**19.67**	**342**	*e*P	**P**	**06 42 47.2**	**-0.7**
	comp=Z,42nm,0.6s						
DMN	**Daman**	**19.80**	**341**	*e*P	**P**	**06 42 48.5**	**-0.9**
	comp=Z,37nm,0.5s						
GUN	**Gumba**	**19.84**	**343**	*e*P	**P**	**06 42 49.6**	**-0.3**
	comp=Z,90nm,0.8s						
KKN	**Kakani**	**19.91**	**341**	*e*P	**P**	**06 42 49.3**	**-1.3**
	comp=Z,33nm,0.6s						
BHPL	**Bhopal**	**20.15**	**317**	*e*P	**P**	**06 42 52.8**	**-0.3**
BHPL				*e*		06 42 56.4	
	comp=Z,28nm,0.9s						
POO	**Poona**	**20.29**	**300**	*e*P	**P**	**06 42 53.2**	**-1.4**
POO				*e*		06 42 57.6	
	comp=Z,54nm,1.1s						
GKN	**Gorkha**	**20.32**	**340**	*e*P	**P**	**06 42 54.2**	**-0.6**
	comp=Z,62nm,0.5s						
KOLN	**Koldanda**	**20.48**	**337**	*e*P	**P**	**06 42 55.8**	**-0.6**
	comp=Z,50nm,0.7s						
LSA	**Lhasa**	**20.71**	**357**	*e*P	**P**	**06 42 57.0**	**-1.8**
LSA				pmax	pmax		
	comp=Z,29nm,0.7s						
LSA	**Lhasa**	**20.71**	**357**	*e*P	**P**	**06 42 57.0**	**-1.9**
	comp=Z,29nm,0.7s						
GYA	**Guiyang**	**22.14**	**36**	⇑*i*P	**P**	**06 43 13.3**	**0.0**
GYA				AP		06 43 22.5	
GYA				XP		06 43 26.8	
GYA				S	**S**	**06 47 12.8**	**+2.3**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
GYA				LR	LR		
	comp=N,970nm,15.7s,MS4.4						
GYA				LR	LR		
	comp=E,570nm,16.2s,MS4.4						
GYA				LR	LR		
	comp=Z,480nm,16.7s,MS4.0						
PTH	**Pithoragarh**	**23.45**	**333**	*e*P	**P**	**06 43 28.2**	**+2.0**
NDI	**New Delhi**	**24.25**	**326**	*i* P	**P**	**06 43 34.0**	**0.0**
DDI	**Dehra Dun**	**25.12**	**330**	*e*	**P**	**06 43 42.9**	**+0.6**
ENH	**Enshi**	**26.64**	**35**	*e*P	**P**	**06 43 54.0**	**-2.4**
	comp=Z,38nm,0.9s,mb4.9						
LZH	**Lanzhou**	**29.02**	**20**	*e*P	**P**	**06 44 18.3**	**+0.4**
LZH				AP	pP	06 44 27.5	+1.0
LZH				XP	sP	06 44 31.3	+0.9
LZH				AMB	AMB		
	comp=Z,24nm,1.2s,mb4.8						
XAN	**Xi'an**	**29.31**	**29**	P	**P**	**06 44 18.8**	**-1.8**
XAN				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.4						
GTA	**Gaotai**	**31.11**	**11**	P	**P**	**06 44 37.8**	**+1.4**
GTA				AP	pP	06 44 44.5	-0.5
GTA				XP	sP	06 44 47.3	-1.5
GTA				S	**S**	**06 49 40.0**	**+1.2**
GTA				SCS	ScS	06 55 10.0	+3.4
GTA				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.9						
GTA				AMB	AMB		
	comp=Z,131nm,8.7s						
GTA				LR	LR		
	comp=N,238nm,19.8s,MS4.0						
GTA				LR	LR		
	comp=E,208nm,16.0s,MS4.0						
GTA				LR	LR		
	comp=Z,238nm,15.6s,MS4.0						
NJ2	**Nanjing**	**33.72**	**43**	*e*P	**P**	**06 44 59.0**	**-0.2**
NJ2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.7						
WMQ	**Urumqi**	**35.01**	**354**	P	**P**	**06 45 10.8**	**+0.6**
WMQ				AP	pP	06 45 21.0	+2.1
WMQ				PP	PP	06 46 29.3	+0.5
WMQ				PPP	PPP	06 46 47.3	+0.5
WMQ				S	**S**	**06 50 39.8**	**+0.4**
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.5s,mb4.8						
WMQ				AMB	AMB		
	comp=Z,25nm,7.8s						
WMQ				LR	LR		
	comp=N,237nm,21.8s,MS4.1						
WMQ				LR	LR		
	comp=E,262nm,20.8s,MS4.1						
WMQ				LR	LR		
	comp=Z,151nm,21.8s,MS3.7						
UCH	**Uchtor**	**36.69**	**338**	P	**P**	**06 45 26.0**	**+1.5**
	SNR=9.3						
TKM2	**Tokmak 2**	**36.91**	**339**	P	**P**	**06 45 27.8**	**+1.5**
	SNR=7.4						
AML	**Almayashu**	**36.92**	**337**	P	**P**	**06 45 28.2**	**+1.8**
	SNR=26						
AAK	**Ala-Archa**	**37.05**	**338**	P	**P**	**06 45 29.1**	**+1.6**
	SNR=7.6						
AAK	**Ala-Archa**	**37.05**	**338**	*e*P	**P**	**06 45 27.5**	**0.0**
AAK				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.7						
AAK	**Ala-Archa**	**37.05**	**338**	*e*P	**P**	**06 45 27.5**	**0.0**
	comp=Z,12nm,0.9s,mb4.7						
CHMS	**Chumysh**	**37.27**	**339**	P	**P**	**06 45 30.6**	**+1.3**
	SNR=6.9						
EKS2	**Erkin-Say**	**37.34**	**337**	P	**P**	**06 45 31.8**	**+1.9**
	SNR=8.6						
BJT	**Baijiatuau**	**37.58**	**31**	*e*P	**P**	**06 45 30.6**	**-1.4**
BJT				pmax	pmax		
	comp=Z,15nm,0.7s						
BJT	**Baijiatuau**	**37.58**	**31**	*e*P	**P**	**06 45 30.6**	**-1.3**
	comp=Z,15nm,0.7s,mb4.8						
USP	**Ospenovka**	**37.60**	**339**	P	**P**	**06 45 33.2**	**+1.1**
	SNR=20						
BJI	**Beijing**	**37.60**	**31**	*e*P	**P**	**06 45 33.0**	**+0.9**
BJI				S	**S**	**06 51 27.5**	**+8.1**
BJI				AMB	AMB		
	comp=Z,7.0nm,0.8s,mb4.4						
BJI				LR	LR		
	comp=N,369nm,17.2s,MS4.5						
BJI				LR	LR		
	comp=E,393nm,13.0s,MS4.5						
BJI				LR	LR		
	comp=Z,219nm,22.7s						
JOW	**Kunigami**	**38.41**	**58**	LR	LR	07 04 27.8	
	comp=Z,323nm,18.1s,MS4.2,baz=215,slow=41						
MKAR	**Makanchi Array**	**38.70**	**349**	*i* P	**P**	**06 45 41.4**	**+0.1**
MKAR				pmax	pmax		
	comp=Z,2.0nm,0.5s						
MBWA	**Marble Bar**	**40.24**	**138**	*e*P	**P**	**06 45 54.7**	**+0.4**
	comp=Z,7.9nm,0.9s,mb4.4						
SONM	**Songino Array**	**40.59**	**15**	P	**P**	**06 45 57.6**	**+0.7**
	comp=Z,2.4nm,0.6s,mb4.0,baz=196,slow=9.0,SNR=6.1						
SONM				pP	pP	06 46 05.8	+0.1
	comp=Z,8.4nm,0.8s,baz=196,slow=9.0,SNR=8.1						
ULN	**Ulaanbaatar**	**40.78**	**15**	*e*P	**P**	**06 45 58.9**	**+0.4**
ULN				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.5						
ULN	**Ulaanbaatar**	**40.78**	**15**	*e*P	**P**	**06 45 58.9**	**+0.4**
	comp=Z,9.7nm,0.9s,mb4.4						
ZAK	**Zakamensk**	**42.33**	**10**	*e*P	**P**	**06 46 12.0**	**+0.8**
MOY	**Mondy**	**43.22**	**8**	*e*P	**P**	**06 46 19.8**	**+1.4**
TLY	**Talaya**	**43.65**	**10**	*e*P	sP	06 46 31.7	-2.6
TLY				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.6						
TLY				MLR	MLR		
	comp=Z,133nm,13.0s,MS4.0						
CN2	**Changchun**	**45.16**	**34**	*e*P	**P**	**06 46 34.0**	**-0.2**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.7						
ZAL	**Zalesovo**	**45.30**	**354**	*i* P	pP	06 46 43.9	-0.1
ZAL				pmax	pmax		
	comp=Z,4.0nm,0.9s						
ZAL	**Zalesovo**	**45.30**	**354**	P	**P**	**06 46 35.0**	**-0.2**
	comp=Z,1.4nm,0.4s,mb4.2,baz=206,slow=7.1,SNR=3.2						
ZAL				pP	pP	06 46 42.6	-1.4
	comp=Z,3.9nm,0.9s,baz=209,slow=10,SNR=5.0						
ZAL				LR	LR	07 09 42.4	
	comp=Z,397nm,18.6s,MS4.4,baz=202,slow=42						
VOSK	**Vostochnaya**	**47.00**	**342**	P	**P**	**06 46 48.0**	**-0.6**
VOSK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
KAMS	**Al Khamasin**	**47.39**	**289**	P	**P**	**06 46 53.0**	**+0.9**
BVA0	**Borovoye Array**	**47.44**	**342**	*i* P	**P**	**06 46 51.6**	**-0.5**
BVA0				pmax	pmax		
	comp=Z,1.0nm,1.0s,mb3.7						
BVAR	**Borovoye Array**	**47.44**	**342**	P	**P**	**06 46 51.6**	**-0.4**
	comp=Z,2.3nm,0.6s,mb4.3,baz=143,slow=7.4,SNR=13						
BVAR				pP	pP	06 47 01.0	+0.1
	comp=Z,8.1nm,1.1s,baz=143,slow=7.4,SNR=8.5						
BRVK	**Borovoye**	**47.50**	**342**	*e*P	**P**	**06 46 51.8**	**-0.7**
BRVK				*e*	pP	06 46 59.7	-1.7
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
BRVK	**Borovoye**	**47.50**	**342**	*e*P	**P**	**06 46 51.8**	**-0.7**
	comp=Z,5.0nm,0.8s,mb4.5						
BRVK				*e*	pP	06 46 59.7	-1.7
NWAO	**Narrogin (SRO)**	**47.91**	**151**	*e*P	**P**	**06 46 57.1**	**+1.0**
NWAO				pmax	pmax		
	comp=Z,29nm,1.3s						
NWAO	**Narrogin (SRO)**	**47.91**	**151**	P	**P**	**06 46 58.3**	**+2.3**
	comp=Z,8.9nm,0.7s,mb4.9,baz=256,slow=17,SNR=5.1						
NWAO	**Narrogin (SRO)**	**47.91**	**151**	*e*P	**P**	**06 46 57.1**	**+1.0**
	comp=Z,29nm,1.3s,mb5.2						
CHKZ	**Chkalovo**	**47.94**	**343**	*e*P	**P**	**06 46 55.7**	**-0.3**
CHKZ				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
MDJ	**Mudanjiang**	**48.00**	**36**	P	**P**	**06 46 55.5**	**-1.1**
MDJ				AP	pP	06 47 04.5	-1.0
MDJ				XP	sP	06 47 08.3	-0.7
MDJ				PP	PP	06 48 47.8	-0.1
MDJ				PCS		06 52 19.3	
MDJ				S	**S**	**06 53 52.3**	**+0.7**
MDJ				XS		06 54 08.8	
MDJ				SCS	ScS	06 56 46.3	+1.6
MDJ				SS	SS	06 57 21.3	+6.1
MDJ				AMB	AMB		
	comp=Z,6.0nm,1.9s,mb4.3						
MDJ				LR	LR		
	comp=N,57nm,19.3s,MS4.0						
MDJ				LR	LR		
	comp=E,166nm,19.3s,MS4.0						
MDJ				LR	LR		
	comp=Z,139nm,17.6s,MS4.0						
TATS	**Tathlith**	**48.34**	**288**	P	**P**	**06 47 00.6**	**+1.1**
AFFS	**'Afif**	**49.33**	**294**	P	**P**	**06 47 09.0**	**+1.9**
ARSS	**Ar Rass**	**49.45**	**296**	P	**P**	**06 47 09.3**	**+1.3**
MAJO	**Matsushiro**	**49.84**	**49**	*e*P	**P**	**06 47 10.3**	**-0.6**
MAJO				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.1						
MAJO	**Matsushiro**	**49.84**	**49**	*e*P	**P**	**06 47 10.3**	**-0.6**
	comp=Z,26nm,1.3s,mb5.1						
MAT	**Matsushiro**	**49.84**	**49**	P	**P**	**06 47 06.6**	**-4.3**
MAT	**Matsushiro**	**49.84**	**49**	P	**P**	**06 47 07.0**	**-3.9**

WRA	**Warramunga Arr**	**50.34**	**125**	P	**P**	**06 47 13.8**	**-1.1**
	comp=Z,4.6nm,0.9s,mb4.5,baz=305,slow=8.9,SNR=20						
WRA				pP	pP	06 47 22.5	-1.4
	comp=Z,7.2nm,0.6s,baz=307,slow=8.6,SNR=19						
WRAB	**Tennant Creek**	**50.35**	**125**	*e*P	**P**	**06 47 13.6**	**-1.3**
WRAB				*e*	pP	06 47 22.2	-1.7
WRAB				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
WRAB	**Tennant Creek**	**50.35**	**125**	*e*P	**P**	**06 47 13.6**	**-1.3**
	comp=Z,16nm,0.8s,mb5.1						
WRAB				*e*	pP	06 47 22.2	-1.7
BOD	**Bodaibo**	**51.59**	**15**	*e*P	pP	06 47 32.0	-0.8
ASAR	**Alice Springs**	**51.98**	**129**	P	**P**	**06 47 26.6**	**-0.7**
	comp=Z,1.9nm,0.6s,mb4.2,baz=302,slow=6.9,SNR=25						
ASAR				pP	pP	06 47 34.1	-2.1
	comp=Z,3.9nm,0.8s,baz=305,slow=7.6,SNR=14						
GNI	**Garni**	**52.41**	**314**	P	**P**	**06 47 29.8**	**-0.5**
	comp=Z,7.3nm,0.8s,mb4.7,baz=194,slow=20,SNR=5.2						
SVE	**Sverdlovsk**	**53.78**	**339**	*e*P	**P**	**06 47 41.0**	**+0.9**
ZEI	**Tsey**	**54.04**	**317**	*e*P	**P**	**06 47 41.0**	**-1.3**
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
ARU	**Arti**	**54.24**	**338**	⇑*i*P	**P**	**06 47 42.9**	**-0.6**
ARU				*e*		06 48 45.1	
ARU				*e*		06 49 42.4	
ARU				*e*S	**S**	**06 55 22.5**	**+5.2**
ARU				*e*SS	SS	06 59 04.6	+5.8
ARU				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
ARU	**Arti**	**54.24**	**338**	⇑*i*P	**P**	**06 47 42.9**	**-0.6**
	comp=Z,15nm,0.9s,mb4.9						
ARU				*e*		06 48 45.1	
ARU				*e*		06 49 42.4	
ARU				*e*S	**S**	**06 55 22.5**	**+5.2**
ARU				*e*SS	SS	06 59 04.6	+5.8
KIV	**Kislovodsk**	**55.33**	**318**	*e*P	**P**	**06 47 51.7**	**0.0**
KIV				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.1						
KIV	**Kislovodsk**	**55.33**	**318**	*e*P	**P**	**06 47 51.7**	**0.0**
	comp=Z,13nm,0.7s,mb5.1						
TBKS	**Tabuk**	**55.73**	**298**	P	**P**	**06 47 57.1**	**+2.2**
KMBO	**Kilima Mbogo**	**55.74**	**263**	P	**P**	**06 47 54.2**	**-0.9**
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.9s						
KMBO	**Kilima Mbogo**	**55.74**	**263**	P	**P**	**06 47 56.5**	**+1.4**
	comp=Z,0.7nm,0.6s,mb3.9,baz=66,slow=14,SNR=3.9						
KMBO				LR	LR	07 09 14.0	
	comp=Z,234nm,18.4s,MS4.3,baz=93,slow=33						
KMBO	**Kilima Mbogo**	**55.74**	**263**	P	**P**	**06 47 54.1**	**-0.9**
	comp=Z,3.3nm,0.9s,mb4.4						
ASF	**Jabal al Asfar**	**56.13**	**303**	LR	LR	07 14 15.1	
	comp=Z,93nm,21.4s,MS3.8,baz=309,slow=38						
MALT	**Malatya**	**56.41**	**310**	*e*P	**P**	**06 47 59.1**	**-0.4**
MALT				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.6						
MALT	**Malatya**	**56.41**	**310**	*e*P	**P**	**06 47 59.0**	**-0.5**
	comp=Z,5.7nm,0.9s,mb4.6						
JMQS	**Jabal Moqyreh**	**56.41**	**299**	P	**P**	**06 48 01.9**	**+2.2**
AYUS	**‘Aynunah**	**56.84**	**298**	P	**P**	**06 48 04.5**	**+1.7**
BDAS	**Al Bad‘**	**57.02**	**298**	P	**P**	**06 48 05.3**	**+1.2**
JMOS	**Jabal al Moall**	**57.12**	**299**	P	**P**	**06 48 06.0**	**+1.2**
ALWS	**Ilw as Safayha**	**57.18**	**299**	P	**P**	**06 48 06.4**	**+1.2**
SOC	**Sochi**	**57.18**	**317**	*e*P	**P**	**06 47 53.5**	**-11**
SOC				*e*		06 48 53.1	
SOC				*e*PPP	PPP	06 51 30.1	-3.8
SOC				*e*S	**S**	**06 55 53.5**	**-3.1**
SOC				*e*SS	SS	06 59 45.1	-2.0
SOC				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
SOC				pmax	pmax		
	comp=N,13nm,0.7s						
SOC				pmax	pmax		
	comp=E,9.0nm,0.6s						
SOKR	**Solikamsk**	**57.19**	**339**	⇓*i*P	**P**	**06 48 03.3**	**-1.5**
SOKR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
TAYS	**Tayyib Ism**	**57.24**	**298**	P	**P**	**06 48 06.8**	**+1.2**
HAQS	**Haql**	**57.26**	**299**	P	**P**	**06 48 06.2**	**+0.5**
EIL	**Elat**	**57.33**	**299**	P	**P**	**06 48 06.9**	**+0.6**
	comp=Z,5.2nm,0.6s,mb4.7,baz=57,slow=6.4,SNR=5.8						
PMG	**Port Moresby**	**57.58**	**107**	*e*P	**P**	**06 48 07.5**	**-0.6**
PMG				pmax	pmax		
	comp=Z,9.0nm,0.7s						
PMG	**Port Moresby**	**57.58**	**107**	P	**P**	**06 48 07.9**	**-0.3**
	comp=Z,9.0nm,0.7s,mb4.9,baz=282,slow=7.7,SNR=4.5						
PMG	**Port Moresby**	**57.58**	**107**	*e*P	**P**	**06 48 07.5**	**-0.7**
	comp=Z,8.7nm,0.7s,mb4.9						
YAK	**Yakutsk**	**59.61**	**19**	⇓*e*P	pP	06 48 29.5	-1.3
YAK				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.2						
BRTR	**Keskin Array B**	**60.38**	**311**	P	**P**	**06 48 25.6**	**-1.6**
	comp=Z,11nm,1.2s,mb4.8,baz=122,slow=7.5,SNR=20						
BRTR				pP	pP	06 48 35.5	-0.9
	comp=Z,2.8nm,0.8s,baz=127,slow=6.7,SNR=7.7						
CTA	**Charters Tower**	**60.40**	**119**	P	**P**	**06 48 26.4**	**-1.3**
	comp=Z,5.5nm,0.9s,mb4.6,baz=299,slow=5.6,SNR=3.3						
CTA				pP	pP	06 48 36.0	-0.7
	comp=Z,9.5nm,0.9s,baz=280,slow=5.6,SNR=4.6						
CTAO	**Charters Tower**	**60.40**	**119**	*e*P	**P**	**06 48 26.7**	**-0.9**
CTAO				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.1						
CTAO	**Charters Tower**	**60.40**	**119**	*e*P	**P**	**06 48 26.6**	**-1.0**
	comp=Z,23nm,1.1s,mb5.1						
STKA	**Stephens Creek**	**62.14**	**133**	P	**P**	**06 48 39.1**	**-0.2**
	comp=Z,2.9nm,0.8s,mb4.5,baz=303,slow=9.7,SNR=7.1						
STKA				pP	pP	06 48 47.8	-0.6
	comp=Z,3.2nm,0.7s,baz=300,slow=7.2,SNR=5.6						
STKA	**Stephens Creek**	**62.14**	**133**	*e*P	**P**	**06 48 38.8**	**-0.5**
MOS	**Moscow**	**63.25**	**329**	*e*P	pP	06 48 59.0	+3.6
OBN	**Obninsk**	**63.54**	**328**	⇓*e*P	**P**	**06 48 47.1**	**-1.0**
OBN				*e*		06 51 02.1	
OBN				*e*S	**S**	**06 57 23.0**	**+5.0**
OBN				pmax	pmax		
	comp=Z,32nm,1.5s,mb5.1						
AKASG	**Malin Array Be**	**66.22**	**322**	P	**P**	**06 49 03.5**	**-2.1**
	comp=Z,3.9nm,0.8s,mb4.5,baz=91,slow=4.5,SNR=7.9						
AKASG				pP	pP	06 49 13.2	-1.5
	comp=Z,2.6nm,0.6s,baz=88,slow=4.8,SNR=4.0						
IDI	**Anoyia**	**66.48**	**305**	P	**P**	**06 49 06.4**	**-1.1**
	comp=Z,6.5nm,0.9s,mb4.7,baz=108,slow=9.6,SNR=3.4						
TIXI	**Tiksi**	**66.59**	**12**	*e*P	pP	06 49 14.6	-2.1
TIXI				pmax	pmax		
	comp=Z,33nm,0.7s,mb5.5						
MLR	**Muntele Rosu**	**67.16**	**316**	P	**P**	**06 49 11.5**	**-0.2**
	comp=Z,15nm,0.9s,mb5.0,baz=121,slow=2.1,SNR=11						
MLR				pP	pP	06 49 20.5	-0.2
	comp=Z,9.1nm,0.7s,baz=147,slow=2.5,SNR=5.5						
LSZ	**Lusaka**	**67.91**	**250**	*e*P	**P**	**06 49 17.5**	**+0.7**
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
LSZ	**Lusaka**	**67.91**	**250**	*e*P	**P**	**06 49 17.5**	**+0.6**
	comp=Z,4.0nm,0.6s,mb4.6						
SUW	**Suwalki**	**70.60**	**324**	*e*P	**P**	**06 49 31.6**	**-1.1**
SUW				*e*	pP	06 49 40.0	-1.9
SUW				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.3						
SUW	**Suwalki**	**70.60**	**324**	*e*P	**P**	**06 49 31.6**	**-1.2**
	comp=Z,37nm,0.9s,mb5.3						
SUW				*e*	pP	06 49 40.0	-1.9
FINES	**FINESS Array B**	**70.95**	**332**	*i* P	**P**	**06 49 34.2**	**-0.5**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.6s						
FINES	**FINESS Array B**	**70.95**	**332**	P	**P**	**06 49 33.8**	**-1.0**
	comp=Z,4.1nm,0.6s,mb4.5,baz=101,slow=8.0,SNR=19						
FINES				pP	pP	06 49 42.6	-1.3
	comp=Z,6.1nm,0.7s,baz=104,slow=5.7,SNR=5.5						
KAF	**Kangasniemi**	**71.04**	**333**	*e*p	**P**	**06 49 34.4**	**-0.9**
	comp=Z,0.7nm,0.4s,mb3.9						
KAF	**Kangasniemi**	**71.04**	**333**	*e*p	pP	06 49 42.3	-2.1
	comp=Z,0.6nm,0.4s						
KAF	**Kangasniemi**	**71.04**	**333**	*e*P	**P**	**06 49 34.4**	**-0.9**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KECS	**Kecovo**	**71.33**	**318**	*e*P	pP	06 49 46.8	+0.4
KECS	**Kecovo**	**71.33**	**318**	*e*pP	pP	06 49 46.8	+0.4
NIE	**Niedzica**	**71.57**	**319**	*e*P	**P**	**06 49 38.9**	**+0.2**
PSZ	**Piszkesteto**	**71.65**	**318**	*e*P	**P**	**06 49 38.1**	**-1.1**
PSZ				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
PSZ	**Piszkesteto**	**71.65**	**318**	*e*P	**P**	**06 49 38.1**	**-1.1**
	comp=Z,6.7nm,0.9s,mb4.6						
OJC	**Ojcow**	**72.01**	**320**	*e*P	**P**	**06 49 41.3**	**0.0**
VYHS	**Vyhne**	**72.42**	**318**	*e*P	**P**	**06 49 43.5**	**-0.2**
VYHS				*e*pP	pP	06 49 52.5	-0.4
LBTB	**Lobatse**	**73.15**	**241**	*e*P	**P**	**06 49 50.3**	**+1.8**
LBTB				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
LBTB	**Lobatse**	**73.15**	**241**	*e*P	**P**	**06 49 50.3**	**+1.8**
	comp=Z,12nm,1.1s,mb4.7						
KEV	**Kevo**	**73.26**	**341**	*e*p	**P**	**06 49 46.9**	**-1.4**
	comp=Z,0.3nm,0.4s,mb3.6						
KEV	**Kevo**	**73.26**	**341**	*e*p	pP	06 49 54.8	-2.6
	comp=Z,0.6nm,0.4s						
MORC	**Moravsky Berou**	**73.41**	**319**	*e*P	**P**	**06 49 49.5**	**0.0**
MORC				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
MORC	**Moravsky Berou**	**73.41**	**319**	*e*P	**P**	**06 49 49.5**	**0.0**
	comp=Z,12nm,1.3s,mb4.7						
ZST	**Bratislava**	**73.54**	**318**	*e*P	**P**	**06 49 50.8**	**+0.5**
ZST				*e*pP	pP	06 50 00.4	+0.9
ARCES	**ARCESS Array B**	**73.68**	**340**	P	**P**	**06 49 50.6**	**-0.1**
	comp=Z,3.7nm,0.8s,mb4.4,baz=90,slow=6.1,SNR=12						
ARCES				pP	pP	06 49 59.8	-0.1
	comp=Z,2.6nm,0.6s,baz=45,slow=3.4,SNR=2.5						
ARCES				LR	LR	07 25 37.8	
	comp=Z,241nm,19.2s,MS4.5,baz=7.7,slow=38						
VRAC	**Vranov**	**73.98**	**319**	P	**P**	**06 49 52.7**	**0.0**
	comp=Z,1.5nm,0.5s,mb4.2,baz=88,slow=16,SNR=3.2						
VRAC				pP	pP	06 50 01.8	-0.2
	comp=Z,3.0nm,0.7s,baz=105,slow=10,SNR=3.1						
DPC	**Dobruska-Polom**	**74.24**	**320**	*e*P	**P**	**06 49 54.9**	**+0.6**
DPC				*e*pP	pP	06 50 04.6	+1.1
KSP	**Ksiaz**	**74.31**	**320**	*e*P	**P**	**06 49 54.7**	**0.0**
KSP				e*PP	pP	06 50 04.5	+0.6
UPC	**Upice**	**74.45**	**320**	*e*P	**P**	**06 49 55.7**	**+0.2**
UPC				*e*pP	pP	06 50 05.7	+1.0
BOSA	**Boshof**	**74.60**	**237**	*e*P	**P**	**06 49 58.5**	**+1.6**
BOSA				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.7						
BOSA	**Boshof**	**74.60**	**237**	*e*P	**P**	**06 49 58.5**	**+1.6**
	comp=Z,11nm,1.2s,mb4.7						
PRU	**Pruhonice**	**75.36**	**319**	*e*P	**P**	**06 50 01.2**	**+0.4**
PRU				*e*pP	pP	06 50 10.7	+0.7
BRG	**Berggiesshubel**	**75.79**	**320**	*i* P	**P**	**06 50 03.8**	**+0.6**
BRG				*i*	pP	06 50 13.4	+1.0
BRG				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
BRG	**Berggiesshubel**	**75.79**	**320**	*i* P	**P**	**06 50 03.8**	**+0.6**
	comp=Z,8.7nm,0.8s,mb4.7						
BRG				*i*	pP	06 50 13.4	+1.0
BILL	**Bilibino**	**75.81**	**22**	⇑*e*P	pP	06 50 12.4	+0.2
BILL				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.3						
GEC2	**GERESS Array S**	**75.84**	**318**	*e*P	**P**	**06 50 03.8**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
GEC2	**GERESS Array S**	**75.84**	**318**	*e*P	**P**	**06 50 03.8**	**+0.3**
	comp=Z,13nm,1.1s,mb4.8						
GERES	**GERESS Array B**	**75.84**	**318**	P	**P**	**06 50 03.6**	**+0.1**
	comp=Z,3.8nm,0.6s,mb4.5,baz=89,slow=5.4,SNR=34						
GERES				pP	pP	06 50 13.0	+0.2
	comp=Z,5.0nm,0.7s,baz=90,slow=4.0,SNR=17						
KHC	**Kasperske Hory**	**75.94**	**318**	*e*P	**P**	**06 50 04.2**	**+0.1**
KHC				*e*pP	pP	06 50 13.6	+0.3
WET	**Wettzell**	**76.40**	**318**	*e*P	**P**	**06 50 06.9**	**+0.3**
CLL	**Collm**	**76.41**	**321**	*e*P	**P**	**06 50 06.0**	**-0.7**
CLL				*i*	pP	06 50 16.5	+0.6
CLL	**Collm**	**76.41**	**321**	P	**P**	**06 50 06.0**	**-0.7**
CLL				i *SP	sP	06 50 16.5	-2.6
HFS	**Hagfors**	**76.65**	**330**	P	**P**	**06 50 07.2**	**-0.6**
	comp=Z,2.4nm,0.5s,mb4.4,baz=90,slow=4.4,SNR=9.9						
HFS				pP	pP	06 50 16.8	-0.3
	comp=Z,4.9nm,0.6s,baz=104,slow=6.1,SNR=3.4						
MOX	**Moxa**	**77.26**	**320**	*e*P	**P**	**06 50 11.7**	**+0.3**
MOX	**Moxa**	**77.26**	**320**	*i* P	**P**	**06 50 11.7**	**+0.3**
GRA1	**Grafenberg Arr**	**77.49**	**319**	*e*P	**P**	**06 50 13.2**	**+0.5**
	comp=Z,14nm,0.9s,mb4.9						
GRA1				*e*pP	pP	06 50 23.2	+1.2
GRF	**Grafenberg Arr**	**77.49**	**319**	*e*P	**P**	**06 50 13.2**	**+0.5**
GRF				e*PP	pP	06 50 23.2	+1.2
GRF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
NB2	**NORSAR Subarra**	**77.94**	**331**	P	**P**	**06 50 14.3**	**-0.6**
	comp=Z,1.7nm,0.6s,mb4.2,baz=96,slow=5.3						
NB2	**NORSAR Subarra**	**77.94**	**331**	P	**P**	**06 50 14.3**	**-0.6**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	**NORSAR Array B**	**77.94**	**331**	P	**P**	**06 50 14.6**	**-0.3**
	comp=Z,2.4nm,0.8s,mb4.2,baz=94,slow=5.5,SNR=3.8						
NOA				pP	pP	06 50 23.4	-0.7
	comp=Z,3.5nm,0.7s,baz=94,slow=5.7,SNR=4.7						
CLZ	**Clausthal**	**78.06**	**321**	*e*P	**P**	**06 50 15.8**	**0.0**
	comp=Z,7.0nm,0.8s,mb4.6						
BSEG	**Bad Segeberg**	**78.14**	**323**	*e*P	**P**	**06 50 16.6**	**+0.5**
DAVOX	**Davos**	**78.38**	**316**	P	**P**	**06 50 18.1**	**+0.4**
	comp=Z,4.2nm,0.5s,mb4.7,baz=116,slow=8.3,SNR=16						
DAVOX				pP	pP	06 50 27.6	+0.7
	comp=Z,5.2nm,0.5s,baz=120,slow=6.1,SNR=8.1						
PGF	**Pioggiola**	**79.11**	**312**	*e*P	**P**	**06 50 21.8**	**0.0**
	comp=Z,373nm,1.9s,mb5.7						
PGF	**Pioggiola**	**79.11**	**312**	*e*P	**P**	**06 50 21.8**	**0.0**
PGF				pmax	pmax		
	comp=Z,186nm,1.9s,mb5.7						
BFO	**Black Forest**	**79.40**	**318**	*e*P	**P**	**06 50 23.4**	**+0.2**
BFO				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
BFO	**Black Forest**	**79.40**	**318**	*e*P	**P**	**06 50 23.4**	**+0.2**
	comp=Z,9.0nm,1.1s,mb4.6						
CDF	**Champ du Feu**	**80.10**	**318**	*e*P	**P**	**06 50 26.5**	**-0.5**
	comp=Z,4.9nm,0.6s,mb4.3						
CDF	**Champ du Feu**	**80.10**	**318**	*e*P	**P**	**06 50 26.5**	**-0.5**
CDF				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
SBF	**Sospel**	**80.20**	**313**	*e*P	**P**	**06 50 27.1**	**-0.5**
	comp=Z,50nm,1.0s,mb5.1						
SBF	**Sospel**	**80.20**	**313**	*e*P	**P**	**06 50 27.1**	**-0.5**
SBF				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
LPG	**La Plagne**	**80.60**	**315**	*e*P	**P**	**06 50 30.0**	**+0.3**
	comp=Z,23nm,0.8s,mb4.9						
LPG	**La Plagne**	**80.60**	**315**	*e*P	**P**	**06 50 30.0**	**+0.3**
LPG				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
MBDF	**Montbardon**	**80.63**	**314**	*e*P	**P**	**06 50 29.4**	**-0.4**
	comp=Z,16nm,0.9s,mb4.6						
MBDF	**Montbardon**	**80.63**	**314**	*e*P	**P**	**06 50 29.4**	**-0.4**
MBDF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
HAU	**Haudompre**	**80.74**	**317**	*e*P	**P**	**06 50 30.1**	**-0.3**
	comp=Z,15nm,0.7s,mb4.7						
HAU	**Haudompre**	**80.74**	**317**	*e*P	**P**	**06 50 30.1**	**-0.3**
HAU				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.7						
BAIF	**Baives**	**82.02**	**319**	*e*P	**P**	**06 50 36.4**	**-0.5**
	comp=Z,7.9nm,0.8s,mb4.4						
BAIF	**Baives**	**82.02**	**319**	*e*P	**P**	**06 50 36.4**	**-0.5**
BAIF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
SSF	**Saint Saulge**	**82.73**	**316**	*e*P	**P**	**06 50 40.2**	**-0.5**
BGF	**Bois d’Agland**	**83.23**	**316**	*e*P	**P**	**06 50 42.8**	**-0.5**
	comp=Z,5.5nm,0.7s,mb4.4						
BGF	**Bois d’Agland**	**83.23**	**316**	*e*P	**P**	**06 50 42.8**	**-0.5**
BGF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
RJF	**Les Rejaudoux**	**84.29**	**315**	*e*P	**P**	**06 50 48.1**	**-0.6**
FLN	**La Foliniere**	**85.20**	**318**	*e*P	**P**	**06 50 52.3**	**-0.9**
	comp=Z,98nm,1.6s,mb5.4						
FLN	**La Foliniere**	**85.20**	**318**	*e*P	**P**	**06 50 52.3**	**-0.9**
FLN				pmax	pmax		
	comp=Z,49nm,1.6s,mb5.4						
EKA	**Eskdalemuir Ar**	**85.84**	**325**	P	**P**	**06 50 56.8**	**+0.6**
	comp=Z,2.2nm,0.7s,mb4.5,baz=91,slow=5.9,SNR=6.8						
EKA				pP	pP	06 51 05.8	+0.2
	comp=Z,3.9nm,0.7s,baz=112,slow=5.8,SNR=5.1						
SYO	**Syowa Base**	**85.86**	**197**	⇓P	**P**	**06 50 56.2**	**+0.2**
ESK	**Eskdalemuir**	**85.86**	**325**	P	**P**	**06 50 56.7**	**+0.3**
ESK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
ESK	**Eskdalemuir**	**85.86**	**325**	P	**P**	**06 50 56.7**	**+0.3**
	comp=Z,6.8nm,0.7s,mb5.0						
ETSF	**Etsaut**	**86.09**	**313**	*e*P	**P**	**06 50 57.2**	**-0.6**
	comp=Z,116nm,1.8s,mb5.5						
ETSF	**Etsaut**	**86.09**	**313**	*e*P	**P**	**06 50 57.2**	**-0.6**
ETSF				pmax	pmax		
	comp=Z,58nm,1.8s,mb5.5						
ILAR	**Eielson Array**	**94.47**	**22**	P	**P**	**06 51 36.5**	**-0.1**
	comp=Z,0.6nm,1.1s,mb3.9,baz=299,slow=4.8,SNR=4.2						
ILAR				pP	pP	06 51 45.0	-0.9
	comp=Z,1.8nm,0.8s,baz=300,slow=4.3,SNR=14						
ILAR				PP	PP	06 55 33.6	+6.9
	comp=Z,0.7nm,0.9s,baz=310,slow=7.0,SNR=4.0						
DBIC	**Dimbokro**	**96.00**	**278**	P	**P**	**06 51 46.4**	**+1.6**
	comp=Z,1.9nm,0.7s,mb4.6,baz=86,slow=4.0,SNR=3.7						
RES	**Resolute Bay**	**96.44**	**2**	P	**P**	**06 51 44.1**	**-1.3**
RES				pmax	pmax		
	comp=Z,15nm,1.9s,mb5.1						
RES	**Resolute Bay**	**96.44**	**2**	P	**P**	**06 51 44.1**	**-1.3**
	comp=Z,15nm,1.9s,mb5.1						
INK	**Inuvik**	**96.50**	**16**	P	**P**	**06 51 47.0**	**+1.2**
	comp=Z,0.5nm,0.4s,mb4.3,baz=306,slow=5.6,SNR=3.0						
INK				pP	pP	06 51 55.4	+0.2
	comp=Z,5.0nm,1.0s,baz=357,slow=3.1,SNR=6.1						
YKA	**Yellowknife Ar**	**105.83**	**13**	PP	PP	06 56 49.6	-3.7
	comp=Z,0.4nm,0.8s,baz=334,slow=7.9,SNR=4.8						
PDAR	**Pinedale Array**	**124.83**	**20**	PKP	PKPdf	06 57 17.9	-3.0
	comp=Z,0.2nm,0.6s,baz=342,slow=1.1,SNR=2.2						
PDAR				pPKP		06 57 26.9	
	comp=Z,0.7nm,0.6s,baz=294,slow=0.9,SNR=6.3						
NVAR	**Mina Array Bea**	**124.94**	**29**	PKP	PKPdf	06 57 15.8	-5.3
	comp=Z,0.2nm,0.3s,baz=233,slow=0.9,SNR=2.3						
NVAR				pPKP		06 57 28.0	
	comp=Z,0.8nm,0.4s,baz=328,slow=3.7,SNR=3.0						
BDFB	**Brasilia**	**140.70**	**256**	PKP	PKPdf	06 57 47.9	-3.4
	comp=Z,1.2nm,0.6s,baz=136,slow=7.0,SNR=3.6						
LPAZ	**La Paz**	**159.55**	**247**	PKPab	PKPab	06 58 55.9	+0.6
	comp=Z,0.9nm,0.5s,baz=180,slow=1.0,SNR=4.1						

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*IDC **30** 07:05:52.1±1.6,50.79S×161.57E,mb4.2/4,mb1 4.4/5, mb1mx4.1/9,mbtmp4.2/5,ML4.1/1,MS3.8/6,Ms1 3.8/6, ms1mx3.4/13,Error ellipse: s-maj=42.7km s-min=25.1km az=68.0*

ISC 30 07:06:02.0±1.5**,50.2S**±0.2×**161.8E**±0.2**,h33**^{km}**,n23, σ1**^{s}**14**/25**,mb4.0**/4**,MS3.8**/5**,North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	**Wether Hill Ro**	**5.98**	**46**	P	**P**	**07 07 31.3**	**+0.8**
WHZ				S	**S**	**07 08 39.0**	**+0.2**
MLZ	**Mavora Lakes**	**6.50**	**44**	P	**P**	**07 07 38.5**	**+0.7**
MLZ				S	**S**	**07 08 52.5**	**+0.7**
TUZ	**Tuapeka**	**6.77**	**54**	P	**P**	**07 07 42.6**	**+1.0**
TUZ				S	**S**	**07 08 57.2**	**-1.3**
MSZ	**Milford Sound**	**6.94**	**39**	P	**P**	**07 07 45.4**	**+1.4**
EAZ	**Earnscleugh**	**7.12**	**48**	P	**P**	**07 07 46.8**	**+0.3**
WKZ	**Wanaka**	**7.29**	**45**	P	**P**	**07 07 50.2**	**+1.4**
JCZ	**Jackson Bay**	**7.77**	**40**	P	**P**	**07 07 57.4**	**+1.9**
ODZ	**Otahua Downs**	**7.91**	**53**	P	**P**	**07 07 56.6**	**-0.9**
ODZ				*e*E		07 08 05.1	
LBZ	**Lake Benmore**	**8.16**	**48**	P	**P**	**07 07 59.7**	**-1.3**
LBZ				S	**S**	**07 09 32.5**	**-0.6**
FOZ	**Fox Glacier**	**8.58**	**42**	P	**P**	**07 08 08.4**	**+1.6**
FOZ				S	**S**	**07 09 43.9**	**+0.5**
RPZ	**Rata Peaks**	**9.08**	**48**	Pn	**P**	**07 08 11.2**	**-2.5**
	1.6nm,0.3s,baz=216,slow=3.1,SNR=4.7						
RPZ				Sn	**Sn**	**07 09 54.2**	**-1.8**
	1.7nm,0.3s,baz=352,slow=19,SNR=4.0						
WVZ	**Waitaha Valley**	**9.43**	**44**	P	**P**	**07 08 18.6**	**+0.1**
DSZ	**Denniston Nort**	**10.96**	**43**	P	**P**	**07 08 39.7**	**+0.1**
THZ	**Tophouse**	**11.45**	**47**	P	**P**	**07 08 45.2**	**-1.0**
QRZ	**Quartz Range**	**12.03**	**43**	P	**P**	**07 08 53.6**	**-0.4**
URZ	**Urewera**	**16.20**	**48**	LR	LR	07 16 22.3	
	comp=Z,342nm,19.8s,baz=223,slow=38						
STKA	**Stephens Creek**	**23.68**	**313**	P	**P**	**07 11 09.8**	**-1.5**
	5.5nm,0.9s,mb4.0,baz=147,slow=11,SNR=9.0						
STKA				LR	LR	07 20 30.1	
	comp=Z,212nm,18.4s,MS3.6,baz=23,slow=37						
VNDA	**Vanda**	**27.41**	**180**	P	**P**	**07 11 33.8**	**-12**
	0.9nm,0.9s,mb3.3,baz=36,slow=9.0,SNR=4.1						
VNDA				LR	LR	07 19 58.2	
	comp=Z,149nm,20.0s,MS3.6,baz=0.7,slow=32						
ASAR	**Alice Springs**	**34.24**	**310**	P	**P**	**07 12 41.7**	**-5.1**
	4.5nm,0.8s,mb4.5,baz=148,slow=8.5,SNR=29						
ASAR				LR	LR	07 26 27.1	
	comp=Z,104nm,18.3s,MS3.6,baz=129,slow=36						
WRA	**Warramunga Arr**	**37.22**	**314**	P	**P**	**07 13 06.8**	**-5.3**
	5.0nm,0.9s,mb4.3,baz=150,slow=7.7,SNR=5.3						
MAW	**Mawson**	**47.95**	**211**	LR	LR	07 33 20.5	
	comp=Z,153nm,18.8s,MS4.0,baz=238,slow=35						
PPT	**Papeete**	**50.60**	**68**	*e*LR	LR	07 29 13.7	
	96nm,23.8s						
PPT	**Papeete**	**50.60**	**68**	LR	LR	07 34 34.9	
	comp=Z,142nm,18.2s,MS4.0,baz=345,slow=34						

IDC 30 07:08:50.2±23.0**,22.93S**×**176.80W,h171**^{km}±189^{km}**, mb3.7**/6**,mb1 3.8**/6**,mb1mx3.6**/15**,mbtmp4.2**/6**,Error ellipse: s-maj=109.7km s-min=45.9km az=118.0,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**34.43**	**268**	P	P	07 15 22.4	-0.9
	3.8nm,0.5s,baz=72,slow=13,SNR=9.0						
PMG	**Port Moresby**	**37.01**	**285**	P	P	07 15 43.6	-1.5
	6.0nm,0.6s,baz=186,slow=11,SNR=3.2						
STKA	**Stephens Creek**	**37.80**	**247**	P	P	07 15 50.3	-1.3
	1.4nm,0.8s,baz=90,slow=6.1,SNR=3.0						
ASAR	**Alice Springs**	**45.09**	**259**	P	P	07 16 49.1	-2.0
	2.0nm,0.5s,baz=96,slow=6.5,SNR=20						
ASAR				PcP	PcP	07 18 27.8	-1.5
	0.4nm,0.6s,baz=115,slow=3.5,SNR=4.4						
WRA	**Warramunga Arr**	**45.41**	**264**	P	P	07 16 51.3	-2.4
	0.6nm,0.3s,baz=95,slow=8.1,SNR=24						
ILAR	**Eielson Array**	**90.43**	**12**	P	P	07 21 31.6	-1.3
	0.3nm,0.6s,baz=225,slow=5.8,SNR=5.1						
AKASG	**Malin Array Be**	**145.67**	**330**	PKPbc	PKPbc	07 28 07.8	-0.9
	1.6nm,0.4s,baz=42,slow=4.2,SNR=14						
GERES	**GERESS Array B**	**152.83**	**345**	PKPbc	PKPdf	07 28 26.7	+7.7
	0.2nm,0.5s,SNR=3.8						

IDC 30 07:10:51.5±2.1**,4.07N**×**97.22E,mb3.7**/4**,mb1 3.9**/5**, mb1mx3.7**/17**,mbtmp3.7**/5**,ML3.6**/1**,Error ellipse: s-maj=84.1km s-min=24.2km az=62.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.40**	**7**	Pn	P	07 14 14.8	-4.1
	0.1nm,0.3s,baz=201,slow=13,SNR=2.7						
WRA	**Warramunga Arr**	**43.59**	**125**	P	P	07 18 56.2	-3.3
	1.1nm,0.7s,baz=311,slow=7.8,SNR=7.0						
SONM	**Songino Array**	**44.31**	**9**	P	P	07 19 04.4	-0.5
	0.5nm,0.8s,baz=198,slow=6.4,SNR=2.2						
ASAR	**Alice Springs**	**45.15**	**129**	P	P	07 19 11.4	-0.6
	0.4nm,0.4s,baz=310,slow=7.2,SNR=8.1						
FINES	**FINESS Array B**	**77.48**	**332**	P	P	07 22 48.0	-2.3
	4.4nm,1.1s,baz=90,slow=7.6,SNR=3.7						

IDC 30 07:11:13.0±3.2**,5.30N**×**95.98E,mb4.2**/4**,mb1 4.3**/5**, mb1mx3.9**/17**,mbtmp4.1**/5**,ML3.9**/1**,Error ellipse: s-maj=126.8km s-min=26.4km az=66.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.39**	**12**	Pn	P	07 14 25.3	-1.6
	0.2nm,0.3s,baz=206,slow=14,SNR=6.5						
WRA	**Warramunga Arr**	**45.29**	**125**	P	P	07 19 32.0	-2.7
	1.7nm,0.5s,baz=304,slow=9.0,SNR=12						
ASAR	**Alice Springs**	**46.88**	**129**	P	P	07 19 45.2	-2.0
	3.5nm,0.8s,baz=302,slow=7.2,SNR=17						
ZAL	**Zalesovo**	**49.34**	**351**	P	P	07 20 03.7	-2.1
	0.8nm,0.4s,baz=234,slow=5.0,SNR=3.1						
STKA	**Stephens Creek**	**57.02**	**134**	P	P	07 21 02.0	-1.3
	2.0nm,0.6s,baz=293,slow=6.4,SNR=6.2						
TXAR	**Lajitas Array**	**140.73**	**28**	PKP	PKPdf	07 30 42.8	-4.6
	0.1nm,0.3s,baz=214,slow=3.3,SNR=6.9						

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*JMA **30** 07:22:39.1±0.2,24.38N×122.99E,h49^{km}±2^{km},M3.1*

TAP 30 07:22:39.4,24.40N×**122.80E,h16**^{km}±1^{km}**,ML3.6, Taiwan region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
YOJ	**Yonaguni jima**	**0.20**	**72**	P	Pb	07 22 46.7	+2.4
YOJ				S	Sb	07 22 52.0	+4.5
IRIF	**Iriomote-Funau**	**0.85**	**94**	P	Pb	07 22 52.4	-2.9
IRIF				*e*S	Sb	07 23 02.3	-3.9
HATJ	**Hateruma jima**	**0.98**	**110**	P	Pb	07 22 54.0	-3.5
HATJ				*e*S	Sb	07 23 07.2	-2.7
JKRS	**Kuro-shima**	**1.11**	**98**	P	Pb	07 22 56.5	-3.3
JKRS				*e*S	Sb	07 23 09.1	-4.8
JIJ	**Ishigaki jima**	**1.23**	**91**	P	Pb	07 22 57.4	-4.3

Code	Station Name	Δ°	AZ°	Op	ISC	Time h m s	Res ISC
JIJ				S	Sb	07 23 10.7	-6.4
JTJ	Tarama	1.75	82	P	Pn	07 23 05.5	-4.0
JTJ				eS	Sn	07 23 24.7	-6.8
JMJ	Miyako jima 2	2.31	79	eS	Sn	07 23 39.1	-6.6
JOGS	Gusukube	2.40	81	eS	Sn	07 23 41.8	-6.3

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*NEIC **30** 07:23:05.8±0.5, 3.49N×95.59E, h30^{km}, mb4.9/33, Error ellipse: s-maj=18.0km s-min=11.4km az=61.0*
*BJI **30** 07:23:05.7, 3.50N×95.60E, h30^{km}, mB5.1, mb5.1, Ms4.6, Msz4.4*
*SYO **30** 07:23:05.8, 3.49N×95.59E, h30^{km}, MB4.9*
*MOS **30** 07:23:06.3±2.5, 3.67N×95.68E, h33^{km}, mb5.2/28, Error ellipse: s-maj=16.3km s-min=8.4km az=109.5*
*IDC **30** 07:23:06.2±0.5, 3.62N×95.81E, h23^{km}±3^{km}, mb4.4/21, mb1 4.5/22, mb1mx4.5/25, mbtmp4.5/22, ML4.9/1, MS3.0/1, Ms1 3.0/1, ms1mx2.6/21, Error ellipse: s-maj=21.4km s-min=10.5km az=49.0*
ISC 30 07:23:04.4±0.3, **3.49N**±0.05×**95.62E**±0.07, **h25**^{km}, **h25**^{km}±.9^{km}**:pP-P, n130,** σ**1**^{s}**76**/125, **mb4.8**/70, **MS4.2**/8, **6C-5D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	15.23	12	eP	P	07 26 38.1	-1.7
	96nm,1.0s						
CM31				e		07 26 43.2	
CMAR	Chiang Mai Arr	15.23	12	Pn	P	07 26 37.5	-2.3
	1.8nm,0.3s,baz=210,slow=15,SNR=27						
PALK	Pallekele	15.32	285	P	P	07 26 33.2	-7.8
	33nm,1.3s						
QIZ	Qiongzhong	20.78	41	P	P	07 27 50.0	+3.5
	107nm,1.5s						
HYB	Hyderabad	21.72	311	eP		07 28 09.0	
SHL	Shillong	22.25	351	eP	P	07 27 52.0	-9.1
KMI	Kunming	22.58	17	P	P	07 28 06.0	+1.5
KMI				AP		07 28 13.3	
KMI				XP		07 28 16.0	
KMI				AMB	AMB		
	comp=Z,23nm,1.3s,mb4.5						
KMI				LR	LR		
	comp=N,988nm,13.3s						
KMI				LR	LR		
	comp=E,400nm,19.4s						
KMI				LR	LR		
	comp=Z,1µm,13.3s,MS4.5						
GYA	Guiyang	25.18	24	⇑iP	P	07 28 33.8	+4.1
GYA				AMB	AMB		
	comp=Z,90nm,0.7s,mb5.4						
PKI	Pulchoki	25.86	339	eP	P	07 28 28.8	-7.3
	comp=Z,29nm,0.6s,mb5.0						
DMN	Daman	26.00	338	eP	P	07 28 31.1	-6.3
	comp=Z,67nm,0.8s,mb5.2						
GUN	Gumba	26.00	340	eP	P	07 28 30.2	-7.2
	comp=Z,79nm,0.7s,mb5.4						
KKN	Kakani	26.10	339	eP	P	07 28 31.4	-6.9
	comp=Z,56nm,0.7s,mb5.2						
LSA	Lhasa	26.41	351	eP	P	07 28 37.3	-3.9
LSA				e		07 28 49.6	
LSA				pmax	pmax		
	comp=Z,29nm,0.6s,mb5.0						
LSA	Lhasa	26.41	351	eP	P	07 28 37.3	-3.9
	comp=Z,29nm,0.6s,mb5.0						
LSA				e		07 28 49.6	
GKN	Gorkha	26.53	338	eP	P	07 28 35.7	-6.6
	comp=Z,66nm,0.6s,mb5.3						
KOLN	Koldanda	26.73	336	eP	P	07 28 37.8	-6.3
	comp=Z,64nm,0.8s,mb5.2						
ENH	Enshi	29.70	25	eP	P	07 29 12.7	+1.8
	comp=Z,25nm,0.7s,mb5.1						
XAN	Xi'an	32.83	21	P	P	07 29 39.5	+1.2
XAN				AMB	AMB		
	comp=Z,37nm,0.8s,mb5.4						
LZH	Lanzhou	33.32	12	eP	P	07 29 42.3	-0.3
LZH				AP	pP	07 29 48.5	-1.4
LZH				XP	sP	07 29 52.5	-0.6
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
MBWA	Marble Bar	34.03	137	eP	P	07 29 46.5	-2.4
	comp=Z,16nm,1.0s,mb4.9						
MBWA				e	pP	07 29 54.1	-2.2
GTA	Gaotai	35.96	6	P	P	07 30 03.3	-1.9
GTA				AP	pP	07 30 12.3	-0.3
GTA				XP	sP	07 30 16.3	+0.6
GTA				S	S	07 35 39.5	-2.0
GTA				AMB	AMB		
	comp=Z,15nm,0.8s,mb5.0						
GTA				AMB	AMB		
	comp=Z,125nm,6.8s						
GTA				LR	LR		
	comp=N,261nm,12.9s						
GTA				LR	LR		
	comp=E,208nm,17.9s						
GTA				LR	LR		
	comp=Z,335nm,14.1s,MS4.3						
SSE	Sheshan	36.54	38	P	P	07 30 10.5	+0.4
SSE				S	S	07 35 56.8	+6.4
SSE				AMB	AMB		
	comp=Z,21nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,154nm,5.2s						
SSE				LR	LR		
	comp=N,39nm,17.3s,MS3.9						
SSE				LR	LR		
	comp=E,168nm,17.2s,MS3.9						
SSE				LR	LR		
	comp=Z,239nm,16.6s,MS4.0						
HHC	Hu-ho-hao-te	39.87	19	⇓P	P	07 30 40.5	+2.5
HHC				AP	pP	07 30 45.8	+0.4
HHC				XP	sP	07 30 50.5	+2.0
HHC				PP	PP	07 32 16.5	+3.0
HHC				PCP	PcP	07 32 47.5	+3.4
HHC				S	S	07 36 43.0	+2.1
HHC				SS	SS	07 39 30.0	-1.3
HHC				SCS	ScS	07 40 45.5	+3.9
HHC				AMB	AMB		
	comp=Z,173nm,5.8s						
HHC				LR	LR		
	comp=N,547nm,15.5s,MS4.6						
HHC				LR	LR		
	comp=E,356nm,13.1s,MS4.6						
HHC				LR	LR		
	comp=Z,458nm,16.7s,MS4.4						
WMQ	Urumqi	40.77	351	P	P	07 30 43.5	-1.8
BJT	Baijiatuau	40.84	24	eP	P	07 30 51.1	+5.2
BJT				e		07 31 01.1	
BJT				pmax	pmax		
	comp=Z,57nm,0.9s						
BJT	Baijiatuau	40.84	24	eP	P	07 30 51.1	+5.1
	comp=Z,57nm,0.9s,mb5.2						
BJT				e		07 31 01.1	
BJI	Beijing	40.87	24	eP	P	07 30 51.5	+5.4
BJI				AMB	AMB		
	comp=Z,48nm,0.8s,mb5.2						
BJI				LR	LR		
	comp=N,301nm,16.8s,MS4.4						
BJI				LR	LR		
	comp=E,385nm,16.5s,MS4.4						
BJI				LR	LR		
	comp=Z,131nm,21.2s,MS3.8						
AAK	Ala-Archa	43.29	337	eP	P	07 31 01.6	-4.4
AAK				e		07 31 13.6	
AAK				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.5						
AAK	Ala-Archa	43.29	337	eP	P	07 31 01.6	-4.4
	comp=Z,7.4nm,0.7s,mb4.5						
AAK				e		07 31 13.6	
WRA	Warramunga Arr	44.59	123	P	P	07 31 16.0	-0.8
	comp=Z,7.1nm,0.6s,mb4.7,baz=301,slow=9.1,SNR=27						
WRA				pP	pP	07 31 23.1	-1.2
	comp=Z,6.1nm,0.7s,baz=301,slow=8.9,SNR=12						
WRAB	Tennant Creek	44.59	123	eP	P	07 31 15.7	-1.1
WRAB				pmax	pmax		
	comp=Z,19nm,0.9s,mb4.9						
WRAB	Tennant Creek	44.59	123	eP	P	07 31 15.7	-1.2
	comp=Z,19nm,0.9s,mb4.9						
MKAR	Makanchi Array	44.66	347	i P	P	07 31 13.9	-3.1
MKAR				pmax	pmax		
	comp=Z,13nm,0.6s						
KS15	Wonju Array Si	44.90	37	P	P	07 31 23.4	+4.4
SONM	Songino Array	45.15	10	P	P	07 31 21.2	+0.3
	comp=Z,12nm,0.9s,mb4.7,baz=192,slow=7.2,SNR=61						
SONM				pP	pP	07 31 27.8	-0.5
	comp=Z,14nm,0.7s,baz=191,slow=8.6,SNR=32						
SONM				pPcP		07 33 05.2	
	comp=Z,5.5nm,0.8s,baz=190,slow=3.3,SNR=9.4						
SONM				pScP		07 36 58.2	
	comp=Z,0.4nm,0.7s,baz=212,slow=3.5,SNR=3.9						
ULN	Ulaanbaatar	45.30	11	eP	P	07 31 22.3	+0.3
ULN				e	pP	07 31 28.2	-1.3
ULN				e		07 33 05.8	
ULN				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.7						
ULN	Ulaanbaatar	45.30	11	eP	P	07 31 22.3	+0.3
	comp=Z,8.8nm,0.8s,mb4.6						
ULN				e	pP	07 31 28.2	-1.2
ULN				ePcP	PcP	07 33 05.8	+3.7
SNY	Shenyang	45.65	29	⇑P	P	07 31 30.5	+5.6
SNY				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.2						
SNY				LR	LR		
	comp=N,430nm,16.1s						
SNY				LR	LR		
	comp=Z,360nm,13.2s,MS4.5						
ASAR	Alice Springs	46.03	128	P	P	07 31 26.9	-1.2
	comp=Z,3.9nm,0.7s,mb4.4,baz=299,slow=8.0,SNR=32						
ASAR				pP	pP	07 31 34.5	-1.2
	comp=Z,3.2nm,0.8s,baz=300,slow=8.0,SNR=11						
ASAR				PcP	PcP	07 33 05.5	+0.6
	comp=Z,2.2nm,0.7s,baz=314,slow=4.6,SNR=4.2						
ZAK	Zakamensk	47.17	7	⇑iP	P	07 31 36.3	-0.6
CN2	Changchun	48.04	29	eP	P	07 31 48.5	+4.8
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.8						
TLY	Talaya	48.50	7	eP	P	07 31 47.7	+0.5
TLY				e	pP	07 31 54.1	-0.6
TLY				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
TLY	Talaya	48.50	7	eP	P	07 31 47.7	+0.5
	comp=Z,12nm,0.8s,mb5.0						
TLY				e	pP	07 31 54.1	-0.5
HIA	Hailar	50.03	20	eP	P	07 32 01.7	+2.7
HIA				pmax	pmax		
	comp=Z,14nm,1.0s						
HIA	Hailar	50.03	20	eP	P	07 32 01.7	+2.8
	comp=Z,14nm,1.0s,mb5.0						
MDJ	Mudanjiang	50.69	31	P	P	07 32 03.1	-1.0
	comp=Z,14nm,0.9s,mb4.9						
ZAL	Zalesovo	51.07	352	P	P	07 32 04.7	-2.1
	comp=Z,12nm,0.5s,mb5.1,baz=210,slow=5.4,SNR=52						
ZAL				pP	pP	07 32 12.6	-1.8
	comp=Z,27nm,0.6s,baz=218,slow=6.9,SNR=30						
NVS	Novosibirsk	52.18	351	eP	P	07 32 11.9	-3.3
NVS				e	pP	07 32 19.6	-3.2
NVS				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
NVS				pmax	pmax		
	comp=N,11nm,0.8s						
PMG	Port Moresby	52.93	104	eP	P	07 32 21.6	+0.2
PMG				pmax	pmax		
	comp=Z,15nm,0.8s						
PMG	Port Moresby	52.93	104	eP	P	07 32 21.6	+0.2
	comp=Z,15nm,0.8s,mb5.0						
VOSK	Vostochnaya	53.14	342	P	P	07 32 19.1	-3.4
VOSK				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
BVA0	Borovoye Array	53.59	341	i P	P	07 32 22.5	-3.2
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s,mb3.9						
BVAR	Borovoye Array	53.59	341	P	P	07 32 22.9	-2.8
	comp=Z,9.7nm,0.8s,mb4.8,baz=141,slow=9.5,SNR=45						
BVAR				pP	pP	07 32 30.7	-2.5
	comp=Z,14nm,0.7s,baz=141,slow=9.5,SNR=21						
BRVK	Borovoye	53.65	341	eP	P	07 32 22.8	-3.3
BRVK				e	pP	07 32 31.0	-2.7
BRVK				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
BRVK	Borovoye	53.65	341	eP	P	07 32 22.8	-3.4
	comp=Z,14nm,0.7s,mb5.0						
BRVK				e	pP	07 32 31.0	-2.7
CHKZ	Chkalovo	54.07	342	eP	P	07 32 26.5	-2.7
CHKZ				e	pP	07 32 34.4	-2.4
CHKZ				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.3						
CHKZ	Chkalovo	54.07	342	eP	P	07 32 26.5	-2.7
	comp=Z,33nm,0.8s,mb5.3						
CHKZ				e	pP	07 32 34.4	-2.3
CTA	Charters Tower	54.94	117	P	P	07 32 34.0	-2.1
	comp=Z,7.7nm,0.9s,mb4.8,baz=32,slow=7.1,SNR=4.0						
CTA				pP	pP	07 32 43.0	-0.7
	comp=Z,6.4nm,0.8s,baz=287,slow=9.0,SNR=3.9						
CTAO	Charters Tower	54.94	117	eP	P	07 32 34.1	-2.0
CTAO				e	pP	07 32 43.1	-0.6
CTAO				pmax	pmax		
	comp=Z,45nm,1.5s,mb5.3						
CTAO	Charters Tower	54.94	117	eP	P	07 32 34.1	-2.0
	comp=Z,45nm,1.5s,mb5.3						
CTAO				e	pP	07 32 43.1	-0.6
STKA	Stephens Creek	56.05	132	P	P	07 32 42.2	-1.8
	comp=Z,3.5nm,0.9s,mb4.4,baz=339,slow=13,SNR=6.0						
STKA	Stephens Creek	56.05	132	eP	P	07 32 41.0	-3.0
BOD	Bodaibo	56.09	12	⇑iP	P	07 32 45.3	+1.5
KMBO	Kilima Mbogo	58.52	267	P	P	07 33 05.1	+3.5
KMBO				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KMBO	Kilima Mbogo	58.52	267	P	P	07 33 03.3	+1.6
	comp=Z,0.3nm,0.3s,mb3.8,baz=58,slow=19,SNR=2.6						
KMBO				pP	pP	07 33 10.3	+1.0
	comp=Z,2.1nm,0.8s,baz=38,slow=13,SNR=3.5						
KMBO	Kilima Mbogo	58.52	267	P	P	07 33 05.1	+3.5
	comp=Z,5.2nm,1.0s,mb4.5						
ARU	Arti	60.48	337	⇓iP	P	07 33 11.0	-3.5
ARU				e		07 33 54.6	
ARU				e		07 35 24.0	
ARU				eS	S	07 41 25.1	-1.5
ARU				eSS	SS	07 45 26.9	+0.9
ARU				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
ARU	Arti	60.48	337	eP	P	07 33 09.4	-5.1
	comp=Z,26nm,1.4s,mb5.1						
KIV	Kislovodsk	61.56	319	i P	P	07 33 20.4	-1.6
KIV	Kislovodsk	61.56	319	eP	P	07 33 18.7	-3.3
	comp=Z,24nm,1.4s,mb5.1						
MALT	Malatya	62.44	312	P	P	07 33 26.2	-1.8
MALT				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.8						
MALT	Malatya	62.44	312	P	P	07 33 26.1	-1.9
	comp=Z,9.1nm,1.2s,mb4.8						
EIL	Elat	62.91	302	P	P	07 33 30.5	-0.8
	comp=Z,5.2nm,0.8s,mb4.7						
SOC	Sochi	63.38	318	eP	P	07 33 27.1	-7.0
SOC				e		07 34 07.7	
SOC				ePPP	PPP	07 37 32.1	+5.5
SOC				eSSS	SSS	07 49 00.1	+1.7
SOC				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.4						
SOC				pmax	pmax		
	comp=N,26nm,0.8s						
SOC				pmax	pmax		
	comp=E,23nm,0.9s						
YAK	Yakutsk	63.70	17	eP	P	07 33 37.0	+1.0
YAK				pmax	pmax		
	comp=Z,52nm,0.7s,mb5.7						
YAK	Yakutsk	63.70	17	eP	P	07 33 37.0	+1.0
	comp=Z,52nm,0.7s,mb5.7						
BRTR	Keskin Array B	66.42	312	P	P	07 33 52.4	-1.5
	comp=Z,2.4nm,0.7s,mb4.3,baz=121,slow=7.2,SNR=10						
OBN	Obninsk	69.86	328	⇓eP	P	07 34 13.7	-1.4
OBN				i		07 34 27.3	
OBN				e		07 34 33.7	
OBN				eS	S	07 43 25.2	+3.5
OBN				pmax	pmax		
	comp=Z,37nm,1.4s,mb5.1						
OBN	Obninsk	69.86	328	P	P	07 34 11.1	-4.0
MA2	Magadan	69.98	26	eP	P	07 34 21.3	+5.5
MA2				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
MA2	Magadan	69.98	26	eP	P	07 34 21.3	+5.6
	comp=Z,10nm,0.7s,mb4.9						
TIXI	Tiksi	71.23	11	eP	P	07 34 25.2	+2.0
TIXI				pmax	pmax		
	comp=Z,18nm,0.7s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,160nm,18.0s,MS4.3						
IDI	Anoyia	72.29	306	P	P	07 34 29.1	-1.0
	comp=Z,5.6nm,0.7s,mb4.6,baz=119,slow=6.3,SNR=5.3						
AKASG	Malin Array Be	72.49	322	P	P	07 34 29.3	-1.7
	comp=Z,3.9nm,0.7s,mb4.5,baz=89,slow=5.2,SNR=18						
MLR	Muntele Rosu	73.33	316	P	P	07 34 36.7	+0.6
	comp=Z,3.9nm,0.6s,mb4.5,baz=160,slow=5.2,SNR=5.3						
LBTB	Lobatse	73.50	243	eP	P	07 34 36.8	-0.7
LBTB				e	pP	07 34 43.1	-2.1
LBTB				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
LBTB	Lobatse	73.50	243	eP	P	07 34 36.8	-0.6
	comp=Z,13nm,0.9s,mb4.8						
LBTB				e	pP	07 34 43.1	-2.1
FINES	FINESS Array B	77.25	333	P	P	07 34 58.5	+0.4
	comp=Z,3.0nm,0.5s,mb4.5,baz=102,slow=6.5,SNR=16						
KAF	Kangasniemi	77.34	333	ep	P	07 35 00.5	+1.9
	comp=Z,4.2nm,0.7s,mb4.5						
KAF	Kangasniemi	77.34	333	eP	P	07 35 00.5	+1.9
KAF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
OJC	Ojcow	78.27	320	eP	P	07 35 05.9	+2.0
KEV	Kevo	79.44	341	ep	P	07 35 02.3	-7.6
	comp=Z,0.4nm,0.3s,mb3.8						
BILL	Bilibino	79.61	21	⇓eP	P	07 35 12.1	+1.3
BILL	Bilibino	79.61	21	P	P	07 35 13.0	+2.1
	comp=Z,5.9nm,0.8s,mb4.6						
FX1	Attu Island--F	79.72	37	LR	LR	08 08 39.9	
	comp=Z,10.0nm,21.0s,MS3.1,baz=64,slow=34						
ARCES	ARCESS Array B	79.86	340	P	P	07 35 13.2	+1.1
	comp=Z,3.4nm,0.8s,mb4.3,baz=101,slow=6.2,SNR=10						
SYO	Syowa Base	81.68	198	⇑P	P	07 35 22.4	+0.6
SYO	Syowa Base	81.68	198	⇓pP	pP	07 35 29.8	+0.1
SYO	Syowa Base	81.68	198	⇑sP	sP	07 35 33.6	+1.3
RPZ	Rata Peaks	81.93	135	P	P	07 35 23.5	-0.1
	comp=Z,4.7nm,0.5s,mb4.7,baz=240,slow=8.1,SNR=3.2						
BRG	Berggiesshubel	82.05	321	eP	P	07 35 26.5	+2.5
BRG				e		07 35 36.5	
BRG				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
BRG	Berggiesshubel	82.05	321	eP	P	07 35 26.5	+2.5
	comp=Z,5.8nm,0.8s,mb4.6						
BRG				e		07 35 36.5	
GEC2	GERESS Array S	82.06	319	eP	P	07 35 26.8	+2.7
GERES	GERESS Array B	82.06	319	P	P	07 35 26.6	+2.5
	comp=Z,6.8nm,0.7s,mb4.7,baz=94,slow=5.2,SNR=52						
KHC	Kasperske Hory	82.16	319	eP	P	07 35 26.7	+2.0
KHC				e		07 40 27.8	
KHC	Kasperske Hory	82.16	319	eP	P	07 35 26.7	+2.0
KHC				ex	x	07 35 47.0	
KHC				ex	x	07 40 27.8	
WET	Wettzell	82.62	319	eP	P	07 35 29.6	+2.6
CLL	Collm	82.67	321	P	P	07 35 29.0	+1.7
HFS	Hagfors	82.97	330	P	P	07 35 30.2	+1.6
	comp=Z,6.4nm,0.9s,mb4.6,baz=117,slow=6.4,SNR=5.5						
MOX	Moxa	83.51	320	eP	P	07 35 34.3	+2.7
MOX	Moxa	83.51	320	i P	P	07 35 34.3	+2.7
GRA1	Grafenberg Arr	83.73	319	eP	P	07 35 35.7	+3.0
	comp=Z,5.0nm,0.7s,mb4.8						
GRF	Grafenberg Arr	83.73	319	eP	P	07 35 35.7	+3.0
GRF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
NB2	NORSAR Subarra	84.25	331	P	P	07 35 34.1	-1.0
	comp=Z,9.4nm,1.1s,mb4.8,baz=96,slow=5.0						
NB2	NORSAR Subarra	84.25	331	P	P	07 35 34.1	-1.0
NB2				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.8						
NOA	NORSAR Array B	84.25	331	P	P	07 35 37.0	+1.9
	comp=Z,3.3nm,1.0s,mb4.4,baz=95,slow=5.8,SNR=4.3						
BSEG	Bad Segeberg	84.43	324	eP	P	07 35 39.1	+2.9
DAVOX	Davos	84.56	316	P	P	07 35 39.7	+2.7
	comp=Z,12nm,0.6s,mb5.2,baz=129,slow=6.6,SNR=25						
LPG	La Plagne	86.74	315	eP	P	07 35 50.2	+2.4
	comp=Z,18nm,1.0s,mb4.9						
LPG	La Plagne	86.74	315	eP	P	07 35 50.2	+2.4
LPG				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.0						
EKA	Eskdalemuir Ar	92.15	326	P	P	07 36 15.1	+2.1
	comp=Z,2.4nm,0.6s,mb4.7,baz=104,slow=4.8,SNR=7.0						
ESLA	Sonseca Array	95.15	310	eP	P	07 36 28.4	+1.1
	comp=Z,8.3nm,1.4s,mb5.0						
ESLA				e	pP	07 36 37.3	+2.1
SNAA	Sanae	95.96	198	P	P	07 36 30.7	+0.5
SNAA				pmax	pmax		
	comp=Z,3.0nm,1.1s						
SNAA	Sanae	95.96	198	P	P	07 36 30.7	+0.5
	comp=Z,3.5nm,1.1s,mb4.7						
ILAR	Eielson Array	98.22	23	P	P	07 36 40.9	+0.5
	comp=Z,0.3nm,0.9s,mb3.8,baz=292,slow=4.2,SNR=3.1						
ILAR				pP	pP	07 36 49.0	+0.5
	comp=Z,0.6nm,0.5s,baz=311,slow=4.6,SNR=7.5						
ILAR				PP	PP	07 40 34.1	-8.8
	comp=Z,0.4nm,0.8s,baz=298,slow=9.1,SNR=4.5						
YKA	Yellowknife Ar	110.30	14	PP	PP	07 42 07.0	-6.6
	comp=Z,0.4nm,0.6s,baz=334,slow=7.6,SNR=5.9						
PDAR	Pinedale Array	128.63	24	PKP	PKPdf	07 42 13.1	-1.6
	comp=Z,0.5nm,0.7s,baz=210,slow=3.0,SNR=3.9						
PDAR				pPKP		07 42 20.7	
	comp=Z,1.2nm,0.8s,baz=180,slow=1.5,SNR=6.2						
TXAR	Lajitas Array	142.49	28	PKP	PKPdf	07 42 37.8	-2.8
	comp=Z,0.6nm,0.6s,baz=297,slow=2.8,SNR=4.9						
JCT	Junction City	143.15	23	ePKIKP	PKPdf	07 42 38.5	-3.1
LPAZ	La Paz	159.58	230	PKPab	PKPab	07 43 46.1	+3.7
	comp=Z,1.4nm,0.6s,baz=168,slow=7.3,SNR=5.8						

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*IDC **30** 07:23:32.3±1.4, 4.38N×95.18E, h45^{km}±9^{km}, mb4.2/5, mb1 4.5/6, mb1mx4.1/18, mbtmp4.5/6, ML4.7/1, MS3.7/1, Ms1 3.7/1, ms1mx2.8/24, Error ellipse: s-maj=61.6km s-min=21.8km az=50.0*
ISC 30 07:23:30.4±1.2, **4.4N**±0.1×**95.2E**±0.2, **h47**^{km}, **h47**^{km}±2.1^{km}**:pP-P, n8,** σ**0**^{s}**67**/7, **mb4.5**/5, **MS3.7**/1, **Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.45	14	P	P	07 26 53.4	-0.5
	1.0nm,0.3s,baz=202,slow=11,SNR=26						
PTH	Pithoragarh	28.76	332	eP	P	07 29 19.8	-6.1
WRA	Warramunga Arr	45.44	124	P	P	07 31 47.0	+0.1
	17nm,0.8s,mb4.9,baz=305,slow=8.3,SNR=18						
WRA				pP	pP	07 31 58.7	-0.9
	12nm,0.7s,baz=302,slow=9.1,SNR=6.1						
ASAR	Alice Springs	46.92	128	P	P	07 31 58.8	+0.3
	5.6nm,0.6s,mb4.7,baz=299,slow=7.3,SNR=16						
ASAR				pP	pP	07 32 12.2	+0.8
	5.2nm,0.4s,baz=303,slow=7.6,SNR=6.6						
ASAR				LR	LR	07 55 31.3	
	comp=Z,76nm,19.0s,MS3.7,baz=305,slow=41						
STKA	Stephens Creek	56.98	133	P	P	07 33 13.0	-0.8
	3.4nm,0.6s,mb4.5,baz=298,slow=8.7,SNR=6.4						
STKA				pP	pP	07 33 26.6	-0.4
	3.1nm,0.8s,baz=311,slow=11,SNR=2.3						
BRTR	Keskin Array B	65.49	312	P	P	07 34 10.8	-0.3
	1.9nm,0.7s,mb4.2,baz=122,slow=7.4,SNR=5.3						
ILAR	Eielson Array	97.55	22	P	P	07 37 01.7	+1.3
	0.4nm,0.8s,mb4.0,baz=288,slow=4.6,SNR=5.9						
PDAR	Pinedale Array	127.98	23	PKP	PKPdf	07 42 34.6	+3.0
	0.8nm,0.8s,baz=180,slow=1.5,SNR=4.4						

MAN 30 07:26:48.0, 10.14N×126.09E, h21^{km}**, mb4.1, ML2.9, MS2.7, 2D, Philippine Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCPH	Surigao	0.70	239	⇓eP	Pb	07 27 01.8	+0.5
SCPH				eS	Sb	07 27 11.8	+1.4
MSLP	Maasin	1.22	270	eP	Pn	07 27 11.4	+1.4
MSLP				eS	Sb	07 27 27.9	+2.4
BUTP	Butuan	1.26	202	eP	Pn	07 27 09.3	-1.3
BIPH	Bislig	1.96	172	⇓eP	Pn	07 27 18.1	-2.6
BIPH				eS	Sn	07 27 44.2	-0.8
CGP	Cagayan de Oro	2.17	220	eP	Pn	07 27 23.5	-0.2
CGP				eS	Sn	07 27 50.5	+0.2
TBP	Tagbilaran	2.24	259	eP	Pn	07 27 25.1	+0.4
TBP				eS	Sn	07 27 51.7	-0.4
BUKP	Musuan	2.47	204	eP	Pn	07 27 28.4	+0.4
BUKP				eS	Sn	07 27 59.2	+1.4

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*NEIC **30** 07:27:36.3, 32.77S×71.19W, h54^{km}, MD3.7(GUC), After GUC.*
GUC 30 07:27:36.3±0.6, **32.77S×71.19W, h54**^{km}±2^{km}**, MD3.7, ML2.8, 5C-6D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ROCH	El Roble	0.25	144	⇓iP	P	07 27 46.3	+0.8
ROCH				i S	S	07 27 53.6	+1.5
PACH	Papudo	0.31	317	⇑iP	P	07 27 46.1	+0.1
PACH				i S	S	07 27 53.5	+0.6

JACH	**Jahuel**	**0.51**	**81**	⇓*i*P	P	07 27 48.5	+0.5
JACH				*i* S	S	07 27 57.7	+1.3
PTCH	**Petorca**	**0.55**	**24**	⇑*i*P	P	07 27 48.8	+0.4
PTCH				*i* S	S	07 27 58.2	+1.1
PTCH				AMP		07 27 59.4	
	comp=E,2µm,0.3s						
PEL	**Peldehue**	**0.57**	**132**	*e*P	P	07 27 48.9	+0.3
PEL				*i* S	S	07 27 58.9	+1.2
PEL				AMP		07 27 59.6	
	comp=N,572nm,0.3s						
LCCH	**Las Cruces**	**0.78**	**204**	⇑*i*P	P	07 27 51.8	+0.5
RCDM	**Rinconada Maip**	**0.79**	**156**	*e*P	P	07 27 51.7	+0.2
RCDM				*i* S	S	07 28 03.6	+0.9
RCDM				AMP		07 28 04.3	
	comp=E,848nm,0.1s						
DSCH	**Colegio Aleman**	**0.82**	**141**	⇓*i*P	P	07 27 52.3	+0.5
DSCH				*i* S	S	07 28 04.5	+1.2
DSCH				AMP		07 28 05.0	
	comp=N,362nm,0.2s						
CLCH	**Cerro Calan**	**0.83**	**139**	⇑*i*P	P	07 27 52.6	+0.5
CLCH				*i* S	S	07 28 04.4	+0.7
CLCH				AMP		07 28 05.5	
	comp=E,258nm,0.6s						
FSR	**Penalolen**	**0.90**	**142**	*e*P	P	07 27 53.4	+0.5
FSR				*i* S	S	07 28 06.3	+1.0
FSR				AMP		07 28 07.3	
	comp=N,206nm,0.4s						
TACH	**Talagante**	**0.91**	**167**	*i* P	P	07 27 53.5	+0.4
TACH				*i* S	S	07 28 06.7	+1.1
ANTU	**Antumapu**	**0.93**	**150**	*e*P	P	07 27 53.5	+0.2
ANTU				*i* S	S	07 28 06.8	+0.8
ANTU				AMP		07 28 08.0	
	comp=E,242nm,0.1s						
FCH	**Farellones**	**0.94**	**127**	⇑*i*P	P	07 27 54.0	+0.5
FCH				*i* S	S	07 28 07.3	+1.1
FCH				AMP		07 28 07.8	
	comp=E,7µm,0.1s						
PCH	**Pirque**	**1.02**	**147**	⇓*i*P	P	07 27 54.8	+0.1
PCH				*i* S	S	07 28 09.2	+0.9
ILCH	**Illapel**	**1.13**	**1**	⇓*i*P	P	07 27 56.5	+0.4
ILCH				*i* S	S	07 28 11.8	+1.1
ILCH				AMP		07 28 12.2	
	comp=E,424nm,0.2s						
LNV	**Longovilo**	**1.20**	**189**	*e*P	P	07 27 57.0	-0.1
CHCH	**Chadas Angostu**	**1.25**	**159**	*e*P	P	07 27 57.9	+0.1
LMEL	**Las Melosas**	**1.36**	**143**	⇓*i*P	P	07 27 60.0	+0.5
LMEL				*i* S	S	07 28 17.5	+0.9
LMEL				AMP		07 28 20.4	
	comp=N,145nm,0.1s						
CMCH	**Combarbala**	**1.59**	**6**	*e*P	P	07 28 03.0	+0.2
CMCH				*i* S	S	07 28 23.0	+0.8
CMCH				AMP		07 28 28.2	
	comp=N,239nm,0.7s						
SFDO	**San Fernando**	**1.85**	**176**	*e*P	P	07 28 06.7	+0.4

IDC 30 07:30:07.6±3.0**, 6.83N**×**91.81E, mb3.6**/3**, mb1 3.9**/4**, mb1mx3.7**/18**, mbtmp3.7**/4**, ML3.9**/1**, Error ellipse: s-maj=97.0km s-min=30.5km az=73.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.49**	**30**	Pn	P	07 33 21.9	-1.0
	0.2nm,0.3s,baz=231,slow=14,SNR=9.5						
SONM	**Songino Array**	**42.71**	**14**	P	P	07 38 05.7	-2.4
	1.2nm,1.1s,baz=202,slow=7.1,SNR=3.7						
SONM				PcP	PcP	07 39 58.5	-1.9
	0.4nm,0.6s,baz=218,slow=4.5,SNR=3.1						
WRA	**Warramunga Arr**	**49.58**	**123**	P	P	07 39 00.1	-2.7
	1.2nm,1.0s,baz=308,slow=9.0,SNR=4.8						
ASAR	**Alice Springs**	**51.06**	**128**	P	P	07 39 12.6	-1.5
	0.9nm,0.9s,baz=305,slow=6.3,SNR=4.9						

IDC 30 07:30:17.1±4.5**, 6.75N**×**92.00E, mb4.0**/4**, mb1 4.3**/5**, mb1mx3.9**/18**, mbtmp4.1**/5**, ML4.1**/1**, Error ellipse: s-maj=135.9km s-min=27.1km az=78.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.46**	**30**	Pn	P	07 33 31.1	-1.0
	0.3nm,0.3s,baz=230,slow=14,SNR=16						
SONM	**Songino Array**	**42.75**	**14**	P	P	07 38 15.9	-1.9
	1.5nm,0.9s,baz=195,slow=7.7,SNR=7.8						
WRA	**Warramunga Arr**	**49.38**	**123**	P	P	07 39 08.0	-2.7
	2.1nm,0.8s,baz=304,slow=8.9,SNR=9.9						
ASAR	**Alice Springs**	**50.86**	**128**	P	P	07 39 20.3	-1.8
	2.5nm,0.9s,baz=303,slow=6.8,SNR=11						
STKA	**Stephens Creek**	**60.90**	**132**	P	P	07 40 32.4	-1.8
	1.7nm,0.7s,baz=330,slow=9.4,SNR=4.3						

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*IDC **30** 07:35:32.9±1.6, 39.11N×22.28E, h67^{km}±20^{km}, mb3.7/8, mb1 3.8/13, mb1mx3.5/26, mbtmp3.9/13, Error ellipse: s-maj=29.4km s-min=10.9km az=58.0*

*NEIC **30** 07:35:35.5, 39.12N×22.29E, h98^{km}, MD4.4(PDG), After ATH.*

*ATH **30** 07:35:35.5, 39.13N×22.29E, h98^{km}±3^{km}, ML4.3*

*CSEM **30** 07:35:35.0±0.1, 39.11N×22.26E, h100^{km}, mb3.8/1, Error ellipse: s-maj=1.9km s-min=1.1km az=45.0*

*PDG **30** 07:35:36.3±0.5, 39.23N×22.14E, h31^{km}±2^{km}*

ISC 30 07:35:34.6±0.2**, 39.13N**±0.02×**22.16E**±0.03**, h113**^{km}±3^{km}**, n132, σ1^{s}32**/187**, mb3.9**/9**, 22C-21D, Greece**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
EVR	**Evrytania**	**0.35**	**232**	⇓*i*P	**P**	**07 35 51.2**	**+0.2**
LKR	**Lokris**	**0.81**	**126**	⇓*i*P	**P**	**07 35 53.8**	**-0.6**
NEO	**Neokhori**	**0.84**	**78**	⇓*i*P	**P**	**07 35 54.0**	**-0.7**
NEO				*e*S	**S**	**07 36 06.3**	**-3.5**
JAN	**Janina**	**1.14**	**298**	⇑*i*P	**P**	**07 36 00.1**	**+2.2**
JAN				*e*S	**S**	**07 36 16.5**	**+1.2**
RLS	**Riolos of Patr**	**1.20**	**207**	⇓*i*P	**P**	**07 35 59.7**	**+1.2**
KZN	**Kozani**	**1.21**	**346**	⇑*i*P	**P**	**07 35 59.7**	**+1.0**
MGER	**Gerania Oros**	**1.43**	**143**	⇑*i*P	**P**	**07 36 00.8**	**-0.4**
MGER				*e*S	**S**	**07 36 19.5**	**-1.7**
VLS	**Valsamata**	**1.56**	**233**	⇓*i*P	**P**	**07 36 03.3**	**+0.6**
MPAR	**Parnis Oros**	**1.57**	**128**	⇓*i*P	**P**	**07 36 02.0**	**-0.9**
MPAR				*e*S	**S**	**07 36 21.8**	**-2.4**
LSK	**Leskovik**	**1.58**	**311**	*e*Pn	**P**	**07 36 04.6**	**+1.7**
LSK				*i* Sn	**S**	**07 36 26.8**	**+2.5**
PLG	**Polygyros**	**1.59**	**38**	⇓*i*P	**P**	**07 36 02.7**	**-0.4**
PLG				*e*S	**S**	**07 36 22.0**	**-2.5**
NSAL	**Nisos Salamina**	**1.59**	**140**	*e*P	**P**	**07 36 03.0**	**-0.1**
NSAL				*e*S	**S**	**07 36 23.0**	**-1.6**
ATH	**Athens Observa**	**1.68**	**133**	⇑*i*P	**P**	**07 36 04.6**	**+0.4**
ATH				*e*S	**S**	**07 36 24.4**	**-2.0**
PTL	**Penteli**	**1.72**	**128**	*e*P	**P**	**07 36 04.5**	**-0.1**
NAIG	**Nisos Aigina**	**1.72**	**142**	*e*P	**P**	**07 36 04.8**	**+0.1**
KBN	**Korca**	**1.83**	**325**	*e*Pn	**P**	**07 36 07.9**	**+1.9**
KBN				*i* Sn	**S**	**07 36 32.2**	**+2.6**
KEK	**Kerkira**	**1.92**	**288**	⇑*i*P	**P**	**07 36 08.4**	**+1.3**
ITM	**Ithomi**	**1.96**	**185**	*e*P	**P**	**07 36 08.9**	**+1.3**
BIA	**Bitola**	**1.99**	**341**	⇑*i*Pg	**P**	**07 36 10.9**	**+2.8**
BIA				*i*		07 36 15.4	
BIA				*i* Sg	**S**	**07 36 35.0**	**+1.8**
BIA	**Bitola**	**1.99**	**341**	⇑*i*Pg	**P**	**07 36 10.9**	**+2.8**
BIA				⇑*i*Sg	**S**	**07 36 35.0**	**+1.8**
VAY	**Valandovo**	**2.21**	**8**	⇓*i*Pn	**P**	**07 36 11.6**	**+0.6**
VAY				*i*		07 36 13.6	
VAY				*i* Sg	**S**	**07 36 37.5**	**-0.8**
VAY	**Valandovo**	**2.21**	**8**	⇓*i*Pn	**P**	**07 36 11.6**	**+0.6**
VAY				*i* Sg	**S**	**07 36 37.5**	**-0.8**
OHR	**Ohrid**	**2.24**	**333**	⇑*i*Pn	**P**	**07 36 12.7**	**+1.4**
OHR				*i*		07 36 13.6	
OHR				*i* Sg	**S**	**07 36 39.3**	**+0.3**
OHR	**Ohrid**	**2.24**	**333**	⇑*i*Pn	**P**	**07 36 12.7**	**+1.4**
OHR				*i* Sg	**S**	**07 36 39.3**	**+0.3**
LIA	**Limnos Island**	**2.46**	**71**	⇓*i*P	**P**	**07 36 14.2**	**-0.1**
VLI	**Veliai**	**2.48**	**165**	⇓*i*P	**P**	**07 36 14.3**	**-0.3**
NVR	**Nevrokopi**	**2.57**	**30**	⇓*i*P	**P**	**07 36 15.9**	**+0.1**
TIR	**Tirane**	**2.83**	**322**	*e*Pn	**P**	**07 36 21.0**	**+1.7**
TIR				*i* Sn	**S**	**07 36 54.5**	**+1.5**
SKO	**Skopje**	**2.89**	**349**	*i* Pn	**P**	**07 36 20.8**	**+0.7**
SKO				*i*		07 36 30.3	
SKO				*i* Sn	**S**	**07 36 44.6**	**-10**
SKO				*i*		07 36 52.7	
SKO				Lg		07 37 05.5	
KYTH	**Kithira**	**2.93**	**166**	*e*P	**P**	**07 36 21.5**	**+0.9**
BOZC	**Bozcaada**	**3.10**	**75**	*i* P	**P**	**07 36 23.3**	**+0.4**
LACI	**Lac**	**3.13**	**324**	*i* Pn	Px	07 36 46.9	
LACI				*i* Sn	**S**	**07 37 00.4**	**+0.2**
LACI	**Lac**	**3.13**	**324**	*i* Sn	**S**	**07 37 00.4**	**+0.2**
PRK	**Paraskevi**	**3.20**	**87**	*e*P	**P**	**07 36 24.8**	**+0.5**
RDO	**Rodhopi**	**3.28**	**51**	⇓*i*P	**P**	**07 36 25.0**	**-0.4**
LCI	**Lecce**	**3.35**	**292**	*e*Pn	**P**	**07 36 26.5**	**+0.2**
LCI				*e*Sn	**S**	**07 37 02.0**	**-3.5**
LCI	**Lecce**	**3.35**	**292**	*e*Pn	**P**	**07 36 26.5**	**+0.2**
LCI				*e*Sn	**S**	**07 37 02.0**	**-3.5**
APE	**Apeiranthos**	**3.36**	**127**	⇑*i*P	**P**	**07 36 27.0**	**+0.5**
AYVA	**Ayvalik**	**3.52**	**86**	*i* P	**P**	**07 36 29.8**	**+1.1**
AYVA	**Ayvalik**	**3.52**	**86**	*i* P	**P**	**07 36 29.8**	**+1.1**
ULC	**Ulcinj**	**3.60**	**323**	⇓*i*Pn	**P**	**07 36 29.5**	**-0.1**
ULC				*e*Sn	**S**	**07 37 10.4**	**-1.1**
PVY	**Plav**	**3.84**	**335**	⇓*i*Pn	**P**	**07 36 33.2**	**+0.3**
PVY				*e*Sn	**S**	**07 37 16.5**	**-0.9**
TTG	**Podgorica**	**3.96**	**327**	⇑*i*Pn	**P**	**07 36 34.7**	**+0.1**
TTG				*e*Sn	**S**	**07 37 19.6**	**-0.9**
BUM	**Brajici-Budva**	**4.02**	**323**	⇑*i*Pn	**P**	**07 36 35.1**	**-0.3**
BUM				*e*Sn	**S**	**07 37 20.5**	**-1.4**
KDAG	**Bornova**	**4.06**	**99**	*i* P	**P**	**07 36 37.3**	**+1.5**
IVA	**Berane**	**4.11**	**336**	⇓*i*Pn	**P**	**07 36 37.2**	**+0.6**
IVA				*e*Sn	**S**	**07 37 22.9**	**-1.2**
TIP	**Timpagrande**	**4.20**	**272**	*e*Pn	**P**	**07 36 38.1**	**+0.3**
TIP				*e*Sn	**S**	**07 37 16.3**	**-10**
TIP	**Timpagrande**	**4.20**	**272**	*e*Pn	**P**	**07 36 38.1**	**+0.3**
HCY	**Herceg Novi**	**4.33**	**321**	⇓*i*Pn	**P**	**07 36 39.5**	**-0.1**
HCY				*e*Sn	**S**	**07 37 27.3**	**-2.0**
LTRZ	**Laterza**	**4.37**	**291**	*e*Pn	**P**	**07 36 40.0**	**-0.1**
LTRZ				*e*Sn	**S**	**07 37 25.2**	**-5.0**
LTRZ	**Laterza**	**4.37**	**291**	*e*Sn	**S**	**07 37 25.2**	**-5.1**
LTRZ	**Laterza**	**4.37**	**291**	*e*Pn	**P**	**07 36 40.0**	**-0.1**
NKY	**Niksic**	**4.39**	**328**	⇓*i*Pn	**P**	**07 36 40.6**	**+0.2**
NKY				*e*Sn	**S**	**07 37 29.4**	**-1.5**
IDI	**Anoyia**	**4.41**	**150**	P	**P**	**07 36 38.4**	**-2.3**
	2.3nm,0.3s,baz=296,slow=12,SNR=18						
IDI				S	**S**	**07 37 25.6**	**-5.7**
	20nm,0.3s,baz=287,slow=18,SNR=14						
GRI	**Girifalco**	**4.48**	**268**	*e*Pn	**P**	**07 36 42.4**	**+0.7**
GRI				*e*Sn	**S**	**07 37 25.5**	**-7.6**
GRI	**Girifalco**	**4.48**	**268**	*e*Pn	**P**	**07 36 42.4**	**+0.7**
GVD	**Gavdhos**	**4.55**	**160**	*e*P	**P**	**07 36 43.0**	**+0.4**
BTOK	**Tokmak**	**4.59**	**80**	*i* P	**P**	**07 36 44.2**	**+1.1**
BDRM	**Kayabasi**	**4.65**	**115**	*i* P	**P**	**07 36 45.2**	**+1.3**
BRY	**Bratogost**	**4.66**	**325**	⇑*i*Pn	**P**	**07 36 43.9**	**-0.1**
BRY				*e*Sn	**S**	**07 37 36.1**	**-1.2**
PLE	**Pljevlja**	**4.69**	**334**	⇑*i*Pn	**P**	**07 36 45.2**	**+0.8**
PLE				*e*Sn	**S**	**07 37 36.7**	**-1.3**
AYDN	**Tasoluk**	**4.73**	**106**	*i* P	**P**	**07 36 46.4**	**+1.5**
NVSS	**Nova Varos 2**	**4.75**	**338**	⇑*i*Pn	**S**	**07 37 34.1**	**-5.5**
UPM	**Unac-Piva**	**4.75**	**330**	⇓*i*Pn	**P**	**07 36 46.2**	**+0.9**
UPM				*e*Sn	**S**	**07 37 38.4**	**-1.2**
SOI	**Samo**	**4.90**	**259**	*e*Pn	**P**	**07 36 47.5**	**+0.2**
SOI				*e*Sn	**S**	**07 37 32.4**	**-11**
SOI	**Samo**	**4.90**	**259**	*e*Pn	**P**	**07 36 47.5**	**+0.2**
STON	**Ston**	**5.04**	**319**	*i* Pn	**P**	**07 36 46.7**	**-2.4**
STON				*i* Sn	**S**	**07 37 40.8**	**-5.8**
MTTG	**Motta San Giov**	**5.19**	**260**	*e*Pn	**P**	**07 36 47.8**	**-3.4**
MGR	**Morigerati**	**5.20**	**283**	*e*Pn	**P**	**07 36 52.8**	**+1.5**
MGR				*e*Sn	**S**	**07 37 40.6**	**-10**
MGR	**Morigerati**	**5.20**	**283**	*e*Pn	**P**	**07 36 52.8**	**+1.5**
DIVS	**Divcibare**	**5.22**	**343**	⇑*i*Pn	**P**	**07 36 50.8**	**-0.9**
DIVS				Sn	**S**	**07 37 46.9**	**-4.3**
KARP	**Karpathos**	**5.35**	**130**	*e*P	**P**	**07 36 53.9**	**+0.5**
SGO	**Sicignano**	**5.46**	**287**	*e*Pn	**P**	**07 36 55.8**	**+0.9**
SGO				*e*Sn	**S**	**07 37 48.3**	**-8.8**
SGO	**Sicignano**	**5.46**	**287**	*e*Pn	**P**	**07 36 55.8**	**+0.9**
ULDT	**Uludag**	**5.48**	**77**	*i* P	**P**	**07 36 55.3**	**+0.2**
DNZL	**Cakiroluk**	**5.60**	**103**	*i* P	**P**	**07 36 59.0**	**+2.3**
RGNG	**Rignano Grg**	**5.62**	**299**	*e*Pn	**P**	**07 36 56.4**	**-0.7**
RGNG				*e*Sn	**S**	**07 37 56.0**	**-5.0**
RGNG	**Rignano Grg**	**5.62**	**299**	*e*Pn	**P**	**07 36 56.4**	**-0.7**
FG5	**Orsara di Pugl**	**5.70**	**294**	*e*Pn	**P**	**07 36 58.7**	**+0.6**
FG5	**Orsara di Pugl**	**5.70**	**294**	*e*Pn	**P**	**07 36 58.7**	**+0.6**
CSSN	**Cassano Irpino**	**5.75**	**290**	*e*Pn	**P**	**07 37 00.2**	**+1.5**
CSSN				*e*Sn	**S**	**07 37 55.2**	**-8.7**
CSSN	**Cassano Irpino**	**5.75**	**290**	*e*Pn	**P**	**07 37 00.2**	**+1.5**
CII	**Carovilli**	**6.53**	**296**	*e*Pn	**P**	**07 37 10.2**	**+0.7**
	37nm,0.3s						
CII				*e*Sn	**S**	**07 38 11.9**	**-11**
CII	**Carovilli**	**6.53**	**296**	*e*Pn	**P**	**07 37 10.2**	**+0.7**
	37nm,0.3s						
ESKT	**Eskisehir**	**6.75**	**84**	*i* P	**P**	**07 37 15.3**	**+2.8**
SDI	**San Donato**	**6.87**	**295**	*e*Pn	**P**	**07 37 15.7**	**+1.4**
SDI	**San Donato**	**6.87**	**295**	*e*Pn	**P**	**07 37 15.6**	**+1.4**
MLR	**Muntele Rosu**	**6.95**	**23**	P	**P**	**07 37 16.3**	**+1.1**
	4.7nm,0.3s,baz=347,slow=15,SNR=18						
RHK1	**Bakonya**	**7.58**	**338**	⇑*i*P	**P**	**07 37 22.1**	**-1.8**
	2.9nm,0.2s						
RHK1				*e*S	**S**	**07 38 41.1**	**-7.7**
NVLJ	**Novalja**	**7.69**	**317**	*i* Pn	**P**	**07 37 23.5**	**-1.7**
NVLJ				*i* Sn	**S**	**07 38 44.8**	**-6.4**
SGKT	**Sivrigoynuk**	**7.75**	**76**	*i* P	**P**	**07 37 28.3**	**+2.2**
NRCA	**Norcia**	**7.78**	**301**	*e*Pn	**P**	**07 37 26.6**	**+0.1**
NRCA	**Norcia**	**7.78**	**301**	*e*Pn	**P**	**07 37 26.6**	**+0.1**
SNTG	**Esanatoglia**	**8.08**	**304**	*e*Pn	**P**	**07 37 29.6**	**-1.0**
SNTG	**Esanatoglia**	**8.08**	**304**	*e*Pn	**P**	**07 37 29.6**	**-1.0**
BOJS	**Bojanci**	**8.17**	**323**	*i* Pn	**P**	**07 37 30.3**	**-1.4**
BOJS				*e*Sn	**S**	**07 38 56.5**	**-6.4**
VISS	**Visnje**	**8.59**	**323**	*i* Pn	**P**	**07 37 36.0**	**-1.3**
VISS				*e*Sn	**S**	**07 39 06.6**	**-6.5**
CEY	**Cerknica**	**8.73**	**322**	*e*Pn	**P**	**07 37 37.9**	**-1.4**
BRTR	**Keskin Array B**	**8.90**	**83**	P	**P**	**07 37 44.4**	**+2.8**
	0.9nm,0.3s,baz=264,slow=13,SNR=12						
BRTR				S	**S**	**07 39 17.8**	**-3.0**
	0.1nm,0.3s,baz=270,slow=23,SNR=2.9						
LJU	**Ljubljana**	**8.91**	**323**	*e*Pn	**P**	**07 37 40.1**	**-1.6**
PSZ	**Piszkesteto**	**8.94**	**350**	*e*P	**P**	**07 37 44.9**	**+2.8**
PSZ				*e*S	**S**	**07 39 23.6**	**+2.0**
PSZ	**Piszkesteto**	**8.94**	**350**	*e*P	**P**	**07 37 44.8**	**+2.7**
PSZ				*e*S	**S**	**07 39 23.6**	**+2.0**
JAVS	**Javornik**	**9.02**	**321**	*e*Pn	**P**	**07 37 41.7**	**-1.5**
PERS	**Pernice**	**9.11**	**328**	*e*Pn	**P**	**07 37 43.9**	**-0.5**
OBKA	**Obir**	**9.25**	**325**	⇑*i*PN	**P**	**07 37 45.0**	**-1.3**
OBKA				*i* SN	**S**	**07 39 22.9**	**-6.2**
ARSA	**Arzberg**	**9.45**	**331**	⇓*i*PN	**P**	**07 37 48.0**	**-0.9**
ARSA				*i* SN	**S**	**07 39 27.7**	**-6.2**
ROBS	**Robic**	**9.54**	**321**	*e*Pn	**P**	**07 37 49.0**	**-1.1**
MOA	**Molln**	**10.43**	**329**	⇑*i*PN	**P**	**07 38 01.7**	**-0.2**
MOA				*i* SN	**S**	**07 39 52.9**	**-4.3**
WTTA	**Wattenberg**	**11.18**	**320**	⇑*i*PN	**P**	**07 38 11.4**	**-0.5**
WTTA				*i* SN	**S**	**07 40 09.0**	**-6.1**
WATA	**Walderalm**	**11.26**	**320**	⇓*i*PN	**P**	**07 38 12.0**	**-0.9**
WATA				*i* SN	**S**	**07 40 11.7**	**-5.3**
SQTA	**Sankt Quirin**	**11.36**	**319**	⇑*i*PN	**P**	**07 38 13.2**	**-1.2**
SQTA	**Sankt Quirin**	**11.36**	**319**	*i* SN	**S**	**07 40 14.5**	**-5.0**
GERES	**GERESS Array B**	**11.46**	**331**	P	**P**	**07 38 15.7**	**+0.1**
	0.2nm,0.3s,baz=144,slow=13,SNR=4.4						
GERES				S	**S**	**07 40 19.3**	**-2.4**
	0.6nm,0.3s,baz=145,slow=24,SNR=6.9						
DAVOX	**Davos**	**11.80**	**314**	P	**P**	**07 38 21.4**	**+1.2**
	0.4nm,0.3s,baz=142,slow=18,SNR=3.8						
DAVOX				S	**S**	**07 40 29.2**	**-0.6**
	1.0nm,0.3s,baz=321,slow=21,SNR=6.3						
AKASG	**Malin Array Be**	**12.60**	**21**	P	**P**	**07 38 29.9**	**-0.7**
	1.3nm,0.3s,baz=208,slow=12,SNR=4.3						
EIL	**Elat**	**14.15**	**128**	P	**P**	**07 38 48.3**	**-2.4**
	0.6nm,0.3s,baz=319,slow=9.3,SNR=6.4						
ALWS	**Ilw as Safayha**	**14.47**	**129**	P	**P**	**07 38 52.6**	**-2.3**
HAQS	**Haql**	**14.58**	**130**	P	**P**	**07 38 54.3**	**-2.0**
JMOS	**Jabal al Moall**	**14.60**	**129**	P	**P**	**07 38 54.6**	**-2.0**
TAYS	**Tayyib Ism**	**14.91**	**131**	P	**P**	**07 38 58.1**	**-2.5**
TAYS				S	**S**	**07 41 36.5**	**-6.5**
BDAS	**Al Bad‘**	**15.14**	**131**	P	**P**	**07 39 01.6**	**-1.8**
JMQS	**Jabal Moqyreh**	**15.27**	**128**	P	**P**	**07 39 04.3**	**-0.8**
HFS	**Hagfors**	**21.69**	**349**	P	**P**	**07 40 17.6**	**+0.5**
	4.6nm,0.9s,mb3.8,baz=173,slow=12,SNR=14						
FINES	**FINESS Array B**	**22.47**	**5**	P	**P**	**07 40 25.3**	**+0.6**
	1.3nm,0.4s,mb3.6,baz=186,slow=10,SNR=16						
NOA	**NORSAR Array B**	**22.97**	**346**	P	**P**	**07 40 31.6**	**+2.2**
	2.1nm,0.5s,mb3.7,baz=159,slow=10.0,SNR=4.1						
KAF	**Kangasniemi**	**23.15**	**5**	*e*p	**P**	**07 40 32.1**	**+0.9**
	1.3nm,0.3s,mb3.7						
EKA	**Eskdalemuir Ar**	**23.43**	**322**	P	**P**	**07 40 36.9**	**+3.0**
	2.9nm,0.8s,mb3.6,baz=123,slow=9.3,SNR=7.5						
ARCES	**ARCESS Array B**	**30.52**	**2**	P	**P**	**07 41 39.0**	**+0.2**
	5.1nm,1.0s,mb4.2,baz=193,slow=7.5,SNR=5.9						
ZAL	**Zalesovo**	**44.09**	**49**	P	**P**	**07 43 34.4**	**+1.7**
	3.1nm,0.4s,mb4.4,baz=105,slow=8.2,SNR=8.3						
SCHQ	**Schefferville**	**58.63**	**317**	P	**P**	**07 45 24.1**	**+2.3**
	1.1nm,0.6s,mb4.1,baz=45,slow=11,SNR=3.5						
SONM	**Songino Array**	**58.86**	**52**	P	**P**	**07 45 24.8**	**+1.3**
	0.2nm,0.5s,mb3.4,baz=285,slow=7.7,SNR=3.1						
ASAR	**Alice Springs**	**121.00**	**96**	PKP	PKPdf	07 54 17.0	+3.0
	0.2nm,0.3s,baz=320,slow=1.6,SNR=5.2						

IDC 30 07:39:03.4±4.8**, 5.87N**×**93.17E, mb3.7**/4**, mb1 3.9**/4**, mb1mx3.7**/17**, mbtmp3.7**/4**, Error ellipse: s-maj=183.7km s-min=26.5km az=64.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	**Nakhon Sawan**	**11.90**	**34**	P	P	07 42 20.5	+23
SONM	**Songino Array**	**43.32**	**13**	P	P	07 47 06.9	-1.8
	1.3nm,1.3s,baz=196,slow=9.0,SNR=3.6						
WRA	**Warramunga Arr**	**47.92**	**123**	P	P	07 47 43.4	-2.5
	1.8nm,0.8s,baz=300,slow=9.0,SNR=7.2						
ZAL	**Zalesovo**	**48.41**	**353**	P	P	07 47 47.1	-2.0
	1.2nm,0.4s,baz=226,slow=8.1,SNR=6.0						
ASAR	**Alice Springs**	**49.41**	**128**	P	P	07 47 55.9	-1.4
	0.2nm,0.4s,baz=296,slow=7.9,SNR=4.7						

IDC 30 07:45:15.0±13.0**, 8.45N**×**92.70E, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, Error ellipse: s-maj=448.1km s-min=31.9km az=72.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**40.93**	**14**	P	P	07 52 59.2	-1.6
	0.2nm,0.7s,baz=194,slow=6.1,SNR=2.5						
WRA	**Warramunga Arr**	**49.76**	**125**	P	P	07 54 09.6	-2.0
	0.5nm,0.6s,baz=304,slow=8.8,SNR=5.4						
ASAR	**Alice Springs**	**51.38**	**129**	P	P	07 54 21.9	-2.0
	0.3nm,0.5s,baz=302,slow=7.4,SNR=4.8						

IDC 30 07:47:04.6±4.5**, 7.62N**×**91.10E, mb3.6**/3**, mb1 3.8**/4**, mb1mx3.6**/18**, mbtmp3.6**/4**, ML4.3**/1**, Error ellipse: s-maj=128.4km s-min=33.3km az=81.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.20**	**35**	Pn	P	07 50 13.7	-2.3
	0.4nm,0.3s,baz=232,slow=15,SNR=4.8						
SONM	**Songino Array**	**42.13**	**15**	P	P	07 54 58.7	-1.5
	0.2nm,0.6s,baz=202,slow=7.8,SNR=2.6						
WRA	**Warramunga Arr**	**50.60**	**123**	P	P	07 56 05.2	-2.4
	0.8nm,1.0s,baz=304,slow=8.3,SNR=5.1						
STKA	**Stephens Creek**	**62.14**	**132**	P	P	07 57 28.1	-2.1
	0.7nm,0.6s,baz=330,slow=14,SNR=3.2						

IDC 30 07:52:10.4±1.2**, 6.02N**×**93.21E, mb3.8**/6**, mb1 4.1**/7**, mb1mx3.9**/18**, mbtmp3.8**/7**, ML3.6**/1**, Error ellipse: s-maj=47.8km s-min=21.4km az=53.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.57**	**24**	Pn	P	07 55 24.4	-2.5
	0.1nm,0.3s,baz=214,slow=18,SNR=4.2						
SONM	**Songino Array**	**43.16**	**13**	P	P	08 00 12.9	-1.7
	0.4nm,0.8s,baz=194,slow=6.0,SNR=3.5						
WRA	**Warramunga Arr**	**47.97**	**124**	P	P	08 00 51.3	-2.0
	1.9nm,0.7s,baz=303,slow=9.2,SNR=11						
ZAL	**Zalesovo**	**48.26**	**353**	P	P	08 00 53.0	-2.0
	1.1nm,0.6s,baz=204,slow=11,SNR=5.8						
ASAR	**Alice Springs**	**49.47**	**128**	P	P	08 01 02.8	-2.0
	1.1nm,0.8s,baz=296,slow=7.7,SNR=10						
BRTR	**Keskin Array B**	**62.95**	**312**	P	P	08 02 39.2	-2.0
	0.5nm,0.4s,baz=72,slow=3.9,SNR=3.6						
GERES	**GERESS Array B**	**78.59**	**318**	P	P	08 04 14.3	-1.4
	0.9nm,0.8s,baz=108,slow=4.2,SNR=4.8						

IDC 30 07:55:52.3±37.0**, 17.19S**×**174.15E, mb4.3**/4**, mb1 4.4**/4**, mb1mx3.9**/14**, mbtmp4.3**/4**, Error ellipse: s-maj=630.1km s-min=127.4km az=70.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**26.57**	**259**	P	P	08 01 31.9	-2.1
	4.8nm,0.7s,baz=85,slow=9.3,SNR=7.5						
STKA	**Stephens Creek**	**32.88**	**237**	P	P	08 02 28.8	-1.4
	1.1nm,0.7s,baz=68,slow=9.5,SNR=4.9						
WRA	**Warramunga Arr**	**37.78**	**259**	P	P	08 03 10.3	-1.8
	0.7nm,0.4s,baz=97,slow=8.4,SNR=8.7						
ASAR	**Alice Springs**	**38.16**	**253**	P	P	08 03 13.6	-1.7
	9.3nm,0.4s,baz=83,slow=8.7,SNR=265						

TAP 30 07:58:40.1, 24.33N×**122.01E, h19**^{km}**, ML3.9, Taiwan region**

IDC 30 08:02:18.7±13.0**, 8.79N**×**92.60E, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, Error ellipse: s-maj=430.0km s-min=35.1km az=73.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**40.64**	**14**	P	P	08 10 00.5	-1.6
	0.3nm,0.8s,baz=194,slow=7.7,SNR=3.6						
WRA	**Warramunga Arr**	**50.03**	**125**	P	P	08 11 16.2	-1.2
	0.7nm,0.5s,baz=305,slow=8.9,SNR=7.8						
ASAR	**Alice Springs**	**51.67**	**130**	P	P	08 11 26.6	-3.2
	0.3nm,0.7s,baz=300,slow=7.3,SNR=2.7						

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*IDC **30** 08:02:36.5±1.0, 8.79N×94.01E, mb4.0/10, mb1 4.1/10, mb1mx4.0/18, mbtmp4.0/10, Error ellipse: s-maj=47.3km s-min=18.7km az=49.0*

ISC 30 08:02:39.6±0.9**, 8.8N**±0.2×**94.0E**±0.2**, h33**^{km}**, n11, σ0^{s}83**/11**, mb4.0**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**40.30**	**13**	P	**P**	**08 10 15.2**	**-0.2**
	1.5nm,0.9s,mb3.7,baz=190,slow=7.8,SNR=8.9						
ZAL	**Zalesovo**	**45.63**	**352**	P	**P**	**08 10 59.1**	**+0.5**
	0.6nm,0.5s,mb3.8,baz=222,slow=14,SNR=2.7						
BVAR	**Borovoye Array**	**48.09**	**341**	P	**P**	**08 11 17.5**	**-0.5**
	1.0nm,0.7s,mb4.0,baz=121,slow=8.6,SNR=5.0						
WRA	**Warramunga Arr**	**48.88**	**126**	P	**P**	**08 11 25.2**	**+0.7**
	2.3nm,0.5s,mb4.5,baz=305,slow=8.8,SNR=21						
ASAR	**Alice Springs**	**50.59**	**130**	P	**P**	**08 11 36.8**	**-0.8**
	0.9nm,0.6s,mb3.9,baz=307,slow=6.8,SNR=10						
BRTR	**Keskin Array B**	**61.75**	**310**	P	**P**	**08 12 56.7**	**-0.6**
	0.7nm,0.7s,mb3.9,baz=121,slow=8.4,SNR=3.0						
AKASG	**Malin Array Be**	**67.37**	**321**	P	**P**	**08 13 30.5**	**-3.1**
	0.2nm,0.3s,mb3.7,baz=92,slow=4.9,SNR=4.1						
FINES	**FINESS Array B**	**71.86**	**332**	P	**P**	**08 14 00.8**	**0.0**
	3.2nm,0.9s,mb4.2,baz=135,slow=2.7,SNR=5.0						
GERES	**GERESS Array B**	**77.08**	**318**	P	**P**	**08 14 32.2**	**+0.9**
	1.7nm,0.7s,mb4.1,baz=76,slow=5.5,SNR=14						
NOA	**NORSAR Array B**	**78.89**	**331**	P	**P**	**08 14 41.5**	**+0.4**
	3.4nm,1.1s,mb4.2,baz=83,slow=8.4,SNR=3.4						
DAVOX	**Davos**	**79.66**	**316**	P	**P**	**08 14 46.4**	**+0.9**
	3.1nm,0.8s,mb4.3,baz=117,slow=4.5,SNR=4.4						

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*MOS **30** 08:03:20.6±1.2, 9.35N×93.13E, h33^{km}, mb5.2/10, Error ellipse: s-maj=19.6km s-min=8.8km az=110.8*

*IDC **30** 08:03:27.0±0.6, 9.45N×93.10E, h67^{km}±4^{km}, mb4.5/27, mb1 4.6/28, mb1mx4.5/31, mbtmp4.7/28, Error ellipse: s-maj=18.8km s-min=9.6km az=50.0*

ISC 30 08:03:21.0±0.4**, 9.33N**±0.06×**93.15E**±0.07**, h33**^{km}**, (h67**^{km}±2.5^{km}**:pP-P), n98, σ1^{s}03**/92**, mb4.8**/43**, 10C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.67**	**31**	P	**P**	**08 05 56.2**	**+1.5**
	4.9nm,0.3s,baz=219,slow=14,SNR=33						
VIS	**Vishakhapatnam**	**12.67**	**312**	*e*P	**P**	**08 06 20.9**	**-0.9**
VIS				*e*		08 06 21.5	
	comp=Z,40nm,0.9s						
BWNR	**Bhubaneshwar**	**13.00**	**328**	*e*	**P**	**08 06 17.6**	**-8.6**
BWNR				*e*S	S	08 08 26.8	-24
IMP	**Imphal**	**15.38**	**3**	*e*	**P**	**08 07 00.8**	**+3.4**

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SHL   Shillong           16.19 356  eP     P       08 07 09.5 +1.8
SHL                                 eS     S       08 10 01.5 -4.3
LATR  Latur              18.45 301  e      S       08 10 45.5  -12
PKI   Pulchoki           19.56 339  eP     P       08 07 49.4 +0.5
      comp=Z,31nm,0.5s
DMN   Daman              19.70 338  eP     P       08 07 50.1 -0.4
      comp=Z,57nm,0.6s
GUN   Gumba              19.71 341  eP     P       08 07 50.6  0.0
      comp=Z,79nm,0.5s
KKN   Kakani             19.80 339  eP     P       08 07 52.1 +0.5
      comp=Z,50nm,0.5s
KAD   Karad              20.07 295  eP     P       08 07 57.0 +2.5
KAD                                 i S    S       08 11 24.0 -9.3
GKN   Gorkha             20.23 338  eP     P       08 07 56.3 +0.2
      comp=Z,48nm,0.4s
KOLN  Koldanda           20.43 335  eP     P       08 07 58.4 +0.2
      comp=Z,38nm,0.6s
BHPL  Bhopal             20.44 314  eS     S       08 11 34.6 -5.9
PTH   Pithoragarh        23.48 331  eP     P       08 08 30.9 +2.2
PTH                                 e              08 12 50.5
NDI   New Delhi          24.39 324  e      S       08 13 01.0 +8.8
DDI   Dehra Dun          25.20 328  eP     P       08 08 46.1 +0.8
DDI   Dehra Dun          25.20 328  e      S       08 13 18.2  +12
KZA   Kyzart             36.22 337   P     P       08 10 23.9 +1.1
      SNR=12
UCH   Uchtor             36.63 337   P     P       08 10 27.5 +1.3
      SNR=22
TKM2  Tokmak 2           36.82 338   P     P       08 10 28.5 +0.7
      SNR=21
KBK   Karagaybulak       36.83 337   P     P       08 10 29.4 +1.5
      SNR=22
AML   Almayashu          36.88 336   P     P       08 10 29.9 +1.6
      SNR=14
AAK   Ala-Archa          36.99 337   P     P       08 10 30.6 +1.4
      SNR=25
AAK   Ala-Archa          36.99 337c iP     P       08 10 29.3 +0.1
AAK                                  pmax  pmax
      comp=Z,25nm,0.7s,mb5.2
CHMS  Chumysh            37.20 337   P     P       08 10 31.6 +0.6
      SNR=21
EKS2  Erkin-Say          37.29 336   P     P       08 10 33.1 +1.3
      SNR=27
USP   Ospenovka          37.52 337   P     P       08 10 34.4 +0.6
      SNR=47
MK02  Makanchi Array     38.44 348   P     P       08 10 40.8 -0.5
MK02                                 pmax  pmax
      comp=Z,1.0nm,0.3s,mb4.0
SONM  Songino Array      39.98  14   P     P       08 10 53.9 -0.1
      comp=Z,22nm,1.0s,mb4.8,baz=200,slow=7.6,SNR=66
SONM                                 PcP   PcP     08 12 59.4 -0.2
      comp=Z,5.7nm,0.7s,baz=206,slow=4.1,SNR=12
SONM                                 pPcP          08 13 18.2
      comp=Z,3.3nm,0.9s,baz=203,slow=4.4,SNR=3.6
ULN   Ulaanbaatar        40.16  15c iP     P       08 10 55.1 -0.5
MOY   Mondy              42.70   7  eP     P       08 11 16.9 +0.5
TLY   Talaya             43.09  10c iP     P       08 11 20.2 +0.5
TLY                                  pmax  pmax
      comp=Z,10.0nm,1.0s,mb4.5
ZAL   Zalesovo           44.99 353   P     P       08 11 33.8 -1.1
      comp=Z,5.7nm,0.3s,mb4.8,baz=216,slow=4.7,SNR=17
NVS   Novosibirsk        46.07 352  eP     P       08 11 41.5 -2.0
NVS                                  pmax  pmax
      comp=Z,8.0nm,1.1s,mb4.6
BVA0  Borovoye Array     47.30 341   P     P       08 11 52.3 -0.9
BVA0                                 pmax  pmax
      comp=Z,1.0nm,0.6s,mb3.9
BVAR  Borovoye Array     47.30 341   P     P       08 11 52.3 -0.9
      comp=Z,5.0nm,0.5s,mb4.7,baz=140,slow=9.4,SNR=32
BVAR                                 PcP   PcP     08 13 23.9 -0.4
      comp=Z,4.5nm,0.9s,baz=219,slow=37,SNR=4.4
NWAO  Narrogin (SRO)     47.88 152   P     P       08 11 58.9 +0.8
      comp=Z,15nm,0.6s,mb5.2,baz=329,slow=9.1,SNR=14
WRA   Warramunga Arr     49.90 126   P     P       08 12 13.8  0.0
      comp=Z,13nm,0.5s,mb5.2,baz=303,slow=8.8,SNR=72
WRA                                  PcP   PcP     08 13 34.7 +0.6
      comp=Z,5.1nm,0.8s,baz=314,slow=2.9,SNR=16
WRAB  Tennant Creek      49.90 126c iP     P       08 12 13.8  0.0
BOD   Bodaibo            50.97  14  eP     P       08 12 20.2 -1.2
ASAR  Alice Springs      51.59 130   P     P       08 12 26.2 -0.3
      comp=Z,8.1nm,0.5s,mb4.9,baz=303,slow=7.3,SNR=81
ASAR                                 PcP   PcP     08 13 41.1 +0.8
      comp=Z,6.5nm,0.6s,baz=310,slow=3.4,SNR=18
GNI   Garni              52.73 314c iP     P       08 12 35.8 +0.9
GNI                                  pmax  pmax
      comp=Z,11nm,0.8s
GNI   Garni              52.73 314   P     P       08 12 36.0 +1.1
      comp=Z,4.8nm,0.4s,mb4.8,baz=338,slow=13,SNR=4.4
TI2   Plekhanov          53.33 316  eP     P       08 12 40.4 +1.1
ARU   Arti               54.17 337  eP     P       08 12 43.8 -1.5
ZEI   Tsey               54.31 317  eP     P       08 12 47.1 +0.5
ZEI                                  pmax  pmax
      comp=Z,10.0nm,0.7s,mb4.8
ASAJ  Asahikawa          54.97  42   P     P       08 12 51.5 +0.1
      comp=Z,12nm,0.5s,mb5.2,baz=82,slow=16,SNR=9.4
KIV   Kislovodsk         55.59 318c iP     P       08 12 55.7 -0.1
KIV                                  pmax  pmax
      comp=Z,17nm,0.6s,mb5.2
YSS   Yuzh-Sakhalins     56.25  39  eP     P       08 13 01.0 +0.5
SOC   Sochi              57.46 316  eP     P       08 13 06.4 -2.8
SOC                                 e              08 15 14.7
SOC                                 ePPP   PPP     08 16 35.3 -4.3
SOC                                 eS     S       08 21 06.1 +3.8
SOC                                 eSS    SS      08 24 47.1 -6.4
SOC                                  pmax  pmax
      comp=Z,22nm,1.0s,mb5.1
SOC                                  pmax  pmax
      comp=N,45nm,1.1s
SOC                                  pmax  pmax
      comp=E,13nm,0.8s
YAK   Yakutsk            58.94  19⇑eP     P       08 13 17.3 -2.0
YAK                                  pmax  pmax
      comp=Z,31nm,0.6s,mb5.5
CTA   Charters Tower     59.87 120   P     P       08 13 27.4 +1.1
      comp=Z,17nm,0.8s,mb5.1,baz=294,slow=7.5,SNR=9.8
VRSR  Storozhevoye       60.63 324  eP     P       08 13 29.6 -1.4
VRSR                                 pmax  pmax
      comp=Z,10.0nm,0.6s,mb5.1
VRSR                                 pmax  pmax
      comp=N,5.0nm,0.7s
VRSR                                 pmax  pmax
      comp=E,4.0nm,0.5s
BRTR  Keskin Array B     60.74 310   P     P       08 13 30.3 -1.7
      comp=E,6.1nm,0.7s,mb4.8,baz=119,slow=7.2,SNR=28
STKA  Stephens Creek     61.81 134   P     P       08 13 39.4 +0.1
      comp=E,6.4nm,0.7s,mb4.8,baz=321,slow=7.3,SNR=18
OBN   Obninsk            63.63 328⇑eP     P       08 13 47.9 -3.1
OBN                                  pmax  pmax
      comp=Z,12nm,0.6s,mb5.1
TIXI  Tiksi              66.01  12⇑eP     P       08 14 04.7 -1.4
TIXI                                 pmax  pmax
      comp=Z,70nm,0.7s,mb5.8
AKASG Malin Array Be     66.41 321   P     P       08 14 06.9 -2.0
      comp=Z,6.4nm,0.7s,mb4.8,baz=87,slow=5.2,SNR=18
AKASG                                pP    pP      08 14 26.4 +7.1
      comp=Z,2.4nm,0.6s,baz=86,slow=5.2,SNR=4.6
IDI   Anoyia             66.94 304   P     P       08 14 12.7 +0.1
      comp=Z,2.8nm,0.5s,mb4.6,baz=19,slow=20,SNR=3.7
MLR   Muntele Rosu       67.45 315   P     P       08 14 15.9 +0.3
      comp=Z,8.2nm,0.8s,mb4.8,baz=275,slow=0.8,SNR=6.1
KOLS  Kolonicke sedl     70.47 319  eP     P       08 14 34.0 -0.2
KOLS                                e              08 14 52.2
FINES FINESS Array B     70.97 332   P     P       08 14 36.0 -1.0
      comp=Z,7.6nm,0.9s,mb4.6,baz=103,slow=6.5,SNR=19
FINES                                pP    pP      08 14 55.0 +7.7
      comp=Z,1.2nm,0.5s,baz=90,slow=5.7,SNR=2.0
KAF   Kangasniemi        71.06 333  ep     P       08 14 36.0 -1.5
      comp=Z,0.8nm,0.4s,mb4.0
KAF   Kangasniemi        71.06 333  eP     P       08 14 36.0 -1.5
KAF                                  pmax  pmax
      comp=Z,1.0nm,0.4s,mb4.1
NIE   Niedzica           71.81 319  eP     P       08 14 42.0 -0.2
OJC   Ojcow              72.24 320  eP     P       08 14 44.4 -0.3
VYHS  Vyhne              72.68 318  eP     P       08 14 46.5 -0.9
VYHS                                e              08 15 05.9
KEV   Kevo               73.14 341  ep     P       08 14 48.6 -1.2
      comp=Z,0.6nm,0.4s,mb3.9
KEV   Kevo               73.14 341  eP     P       08 14 48.6 -1.2
KEV                                  pmax  pmax
      comp=Z,1.0nm,0.4s,mb4.1
ARCES ARCESS Array B     73.57 340   P     P       08 14 52.0 -0.2
      comp=Z,3.1nm,0.6s,mb4.4,baz=99,slow=5.8,SNR=14
ZST   Bratislava         73.80 317  eP     P       08 14 54.1 +0.1
ZST                                 e              08 15 12.1
VRAC  Vranov             74.22 319   P     P       08 14 56.3 -0.1
      comp=Z,2.7nm,0.7s,mb4.3,baz=34,slow=7.3,SNR=3.9
DPC   Dobruska-Polom     74.47 320  eP     P       08 14 58.2 +0.4
BILL  Bilibino           75.10  22⇓eP     P       08 15 00.3 -0.8
BILL                                 pmax  pmax
      comp=Z,14nm,1.7s,mb4.6
GERES GERESS Array B     76.09 318   P     P       08 15 07.0 -0.1
      comp=Z,5.0nm,0.7s,mb4.6,baz=92,slow=5.4,SNR=26
GERES                                pP    pP      08 15 26.6 +9.1
      comp=Z,3.4nm,0.7s,baz=90,slow=5.3,SNR=6.3
KHC   Kasperske Hory     76.19 318⇑eP     P       08 15 07.2 -0.5
KHC   Kasperske Hory     76.19 318  eP     P       08 15 07.2 -0.5
KHC                                 ex     x       08 15 27.5
FX1   Attu Island--F     76.59  38   P     P       08 15 09.8  0.0
      comp=Z,28nm,0.6s,mb5.4,baz=89,slow=22,SNR=15
HFS   Hagfors            76.71 330   P     P       08 15 09.9 -0.6
      comp=Z,3.0nm,0.3s,mb4.6,baz=97,slow=5.4,SNR=31
NB2   NORSAR Subarra     77.99 330   P     P       08 15 16.4 -1.1
      comp=Z,1.5nm,0.5s,mb4.2,baz=98,slow=4.8
NOA   NORSAR Array B     77.99 330   P     P       08 15 16.4 -1.1
      comp=Z,2.3nm,0.6s,mb4.3,baz=93,slow=5.8,SNR=5.9
NOA                                  pP    pP      08 15 34.2 +6.4
      comp=Z,1.9nm,0.7s,baz=95,slow=5.0,SNR=3.2
DAVOX Davos              78.67 316   P     P       08 15 21.8 +0.2
      comp=Z,6.8nm,0.9s,mb4.6,baz=124,slow=15,SNR=8.9
LPG   La Plagne          80.90 315  eP     P       08 15 34.0 +0.4
      comp=Z,22nm,0.9s,mb4.8
EKA   Eskdalemuir Ar     85.97 325   P     P       08 15 59.5 +0.5
      comp=Z,4.3nm,1.0s,mb4.6,baz=88,slow=5.7,SNR=4.2
EKA                                  pP    pP      08 16 16.3 +6.7
      comp=Z,2.1nm,0.7s,baz=84,slow=7.6,SNR=2.7
ESDC  Sonseca Array      89.54 310   P     P       08 16 17.4 +0.8
      comp=Z,0.7nm,0.6s,mb4.2,baz=90,slow=6.4,SNR=4.6
ILAR  Eielson Array      93.77  22   P     P       08 16 35.0 -0.6
      comp=Z,5.0nm,0.6s,mb5.1,baz=302,slow=4.4,SNR=59
ILAR                                 PP    PP      08 20 11.2  -13
      comp=Z,0.3nm,0.8s,baz=290,slow=7.8,SNR=4.4
VNDA  Vanda              94.55 168   P     P       08 16 41.0 +2.2
      comp=Z,2.3nm,1.0s,mb4.6,baz=304,slow=5.3,SNR=8.7
INK   Inuvik             95.87  16   P     P       08 16 45.4 +0.4
      comp=Z,10nm,0.6s,mb5.4,baz=334,slow=4.3,SNR=38
YKA   Yellowknife Ar    105.24  13   Pdiff Pdif    08 17 27.5 +0.4
      comp=Z,0.2nm,0.5s,baz=333,slow=4.7,SNR=4.2
YKA                                  PP    PP      08 21 45.1 -6.3
      comp=Z,2.0nm,0.8s,baz=334,slow=7.7,SNR=4.0
PDAR  Pinedale Array    124.16  20   PKP   PKPdf   08 22 18.5 +1.8
      comp=Z,2.2nm,0.8s,baz=48,slow=1.2,SNR=18
PDAR                                 pPKP          08 22 37.8
      comp=Z,1.4nm,0.8s,slow=1.5,SNR=6.0
NVAR  Mina Array Bea    124.16  30   PKP   PKPdf   08 22 19.9 +3.1
      comp=Z,1.6nm,0.6s,baz=302,slow=2.5,SNR=6.8
NVAR                                 pPKP          08 22 38.7
      comp=Z,1.8nm,0.9s,baz=314,slow=1.4,SNR=3.5
SADO  Sadowa            125.70 353   PKP   PKPdf   08 22 20.9 +1.3
      comp=Z,2.3nm,0.5s,baz=335,slow=2.0,SNR=4.9
ANMO  Albuquerque       132.21  22   PKP   PKPdf   08 22 35.6 +3.3
      comp=Z,4.0nm,1.2s,baz=318,slow=2.3,SNR=5.7
ANMO                                 pPKP          08 22 54.4
      comp=Z,1.1nm,0.7s,baz=306,slow=8.7,SNR=3.3
ANMO                                 SKPbc         08 25 56.0
      comp=Z,0.7nm,0.6s,baz=347,slow=7.2,SNR=4.3
TXAR  Lajitas Array     138.28  22   SKPbc         08 26 14.8
      comp=Z,1.1nm,0.8s,SNR=5.7
PCRV  Puerto La Cruz    150.60 311   PKPbc PKPdf   08 23 10.9 +5.8
      comp=Z,12nm,0.4s,baz=274,slow=1.2,SNR=15
LPAZ  La Paz            160.49 247   PKPab PKPab   08 24 01.9 +0.3
      comp=Z,1.6nm,0.9s,baz=98,slow=12,SNR=4.0
ROSC  El Rosal          161.18 318   PKP   PKPdf   08 23 21.6 +2.8
      comp=Z,2.1nm,0.4s,baz=93,slow=19,SNR=4.4
```

IDC ***30*** *08:08:33.0±0.5, 8.73N×93.75E, mb4.3/18, mb1 4.4/18, mb1mx4.3/24, mbtmp4.3/18, Error ellipse: s-maj=32.7km s-min=13.6km az=51.0*

ISC 30 08:08:35.9±0.5**, 8.56N**±0.09×**93.7E**±0.1**, h33**km**, n35, σ0ˢ86**/30**, mb4.5**/23**, Nicobar Islands region**

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Code  Station Name        Δ°    AZ°    Phase ID         Time       Res
                                       Op    ISC       h  m  s     ISC
CMAR  Chiang Mai Arr     11.08  27   Pn    P       08 11 15.9 +0.7
      1.0nm,0.3s,baz=210,slow=15,SNR=14
MDRS  Chennai            13.96 290  e      S       08 14 17.9  -11
PKI   Pulchoki           20.48 339  eP     P       08 13 13.8 +0.2
      108nm,1.2s
DMN   Daman              20.62 338  eP     P       08 13 15.5 +0.4
GUN   Gumba              20.62 340  eP     P       08 13 15.0 -0.1
      78nm,0.8s
KKN   Kakani             20.72 338  eP     P       08 13 16.3 +0.1
      40nm,0.8s
GKN   Gorkha             21.16 337  eP     P       08 13 20.4 -0.2
      78nm,0.9s,mb5.0
KOLN  Koldanda           21.36 335  eP     P       08 13 23.9 +1.2
      44nm,0.8s,mb4.8
SONM  Songino Array      40.60  13   P     P       08 16 13.7 -0.5
      3.8nm,1.4s,mb3.9,baz=198,slow=7.8,SNR=3.8
NWAO  Narrogin (SRO)     46.95 153   P     P       08 17 07.1 +1.5
      21nm,0.8s,mb5.1,baz=316,slow=9.3,SNR=8.1
RDF   Al-Radifah         47.81 301  eP     P       08 17 13.6 +1.1
RDF                                  AMb   AMB     08 17 14.9
      comp=Z,39nm,1.1s,mb5.3
NAY   Al-Naaiem          48.15 302  eP     P       08 17 15.8 +0.6
NAY                                  AMb   AMB     08 17 20.0
      comp=Z,16nm,1.2s,mb4.9
BVAR  Borovoye Array     48.21 341   P     P       08 17 13.6 -1.7
      comp=Z,1.0nm,0.5s,mb4.2,baz=149,slow=8.6,SNR=6.1
BVAR                                 PcP   PcP     08 18 42.6 +0.1
      comp=Z,1.2nm,0.8s,baz=166,slow=5.9,SNR=3.4
RST   Umm Al-Ruwaisa     48.43 302  eP     P       08 17 17.9 +0.7
RST                                  AMb   AMB     08 17 23.1
      comp=Z,29nm,0.8s,mb5.3
WRA   Warramunga Arr     49.00 126   P     P       08 17 21.5 -0.3
      comp=Z,1.6nm,0.7s,mb4.2,baz=304,slow=8.4,SNR=7.3
ASAR  Alice Springs      50.68 130   P     P       08 17 34.2 -0.4
      comp=Z,1.8nm,0.7s,mb4.1,baz=307,slow=6.8,SNR=9.6
ASAR                                 PcP   PcP     08 18 52.8 +0.9
      comp=Z,1.6nm,0.6s,baz=307,slow=3.4,SNR=8.6
STKA  Stephens Creek     60.88 134   P     P       08 18 47.3 -0.7
      comp=Z,1.8nm,0.8s,mb4.3,baz=308,slow=8.1,SNR=5.4
BRTR  Keskin Array B     61.66 311   P     P       08 18 51.5 -1.6
      comp=Z,2.7nm,0.7s,mb4.5,baz=128,slow=8.0,SNR=8.9
AKASG Malin Array Be     67.36 322   P     P       08 19 28.3 -1.5
      comp=Z,3.6nm,0.9s,mb4.4,baz=88,slow=4.7,SNR=8.9
IDI   Anoyia             67.83 305   P     P       08 19 32.7 -0.4
      comp=Z,7.5nm,0.9s,mb4.7,baz=90,slow=10,SNR=3.7
MLR   Muntele Rosu       68.39 316   P     P       08 19 35.4 -1.0
      comp=Z,3.3nm,0.7s,mb4.5,baz=119,slow=12,SNR=3.1
FINES FINESS Array B     71.91 332   P     P       08 19 57.3 -0.2
      comp=Z,3.6nm,0.8s,mb4.3,baz=45,slow=11,SNR=5.3
ARCES ARCESS Array B     74.48 340   P     P       08 20 12.1 -0.3
      comp=Z,3.6nm,0.9s,mb4.3,baz=100,slow=5.5,SNR=3.3
GERES GERESS Array B     77.04 318   P     P       08 20 27.9 +0.5
      comp=Z,1.2nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=7.3
HFS   Hagfors            77.66 330   P     P       08 20 30.2 -0.4
      comp=Z,4.1nm,0.8s,mb4.4,baz=104,slow=6.1,SNR=5.8
NB2   NORSAR Subarra     78.93 331   P     P       08 20 36.9 -0.7
      comp=Z,1.2nm,0.6s,mb4.0,baz=92,slow=5.3
NOA   NORSAR Array B     78.93 331   P     P       08 20 37.0 -0.6
      comp=Z,2.7nm,0.9s,mb4.2,baz=95,slow=5.4,SNR=3.9
DAVOX Davos              79.61 316   P     P       08 20 42.0 +0.4
      comp=Z,1.9nm,0.5s,mb4.3,baz=164,slow=15,SNR=3.7
EKA   Eskdalemuir Ar     86.92 325   P     P       08 21 20.5 +1.9
      comp=Z,2.7nm,0.7s,mb4.6,baz=102,slow=6.5,SNR=6.3
ILAR  Eielson Array      94.28  22   P     P       08 21 53.5 +0.7
      comp=Z,0.8nm,0.8s,mb4.2,baz=296,slow=4.7,SNR=6.8
PDAR  Pinedale Array    124.69  21   PKP   PKPdf   08 27 35.2 +2.5
      comp=Z,0.9nm,0.8s,baz=63,slow=3.3,SNR=6.5
ANMO  Albuquerque       132.71  23   PKP   PKPdf   08 27 52.2 +4.0
      comp=Z,0.7nm,0.8s,baz=349,slow=5.2,SNR=4.8
TXAR  Lajitas Array     138.78  23   PKP   PKPdf   08 28 02.8 +3.3
      comp=Z,0.3nm,0.8s,baz=216,slow=2.3,SNR=3.7
LVC   Limon Verde       158.23 228   PKPab PKPab   08 29 09.0 +2.3
      comp=Z,1.4nm,0.6s,baz=192,slow=3.6,SNR=3.6
LPAZ  La Paz            160.68 245   PKPab PKPab   08 29 19.0 +1.7
      comp=Z,1.2nm,0.7s,baz=63,slow=4.5,SNR=2.8
```

IDC ***30*** *08:12:23.0±0.5, 9.44N×93.73E, mb4.3/22, mb1 4.4/22, mb1mx4.4/25, mbtmp4.3/22, MS3.3/1, Ms1 3.5/1, ms1mx2.8/25, Error ellipse: s-maj=24.3km s-min=12.5km az=48.0*

NEIC ***30*** *08:12:26.8±0.6, 9.54N×94.21E, h30km, mb4.9/18, Error ellipse: s-maj=21.7km s-min=12.3km az=52.0*

SYO ***30*** *08:12:26.8, 9.54N×94.21E, h30km, MB4.9*

MOS ***30*** *08:12:27.2±2.5, 9.70N×94.43E, h33km, mb5.0/18, Error ellipse: s-maj=21.6km s-min=10.1km az=126.1*

BJI ***30*** *08:12:27.7, 9.50N×94.20E, h30km, mB5.2, mb4.6, Ms4.4*

ISC 30 08:12:24.9±0.3**, 9.43N**±0.06×**93.93E**±0.05**, h23**km**, h23**km±2.8km**: pP-P, n113, σ1ˢ16**/104**, mb4.6**/45**, MS4.5**/1**,**

1C-3D, Nicobar Islands region

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Code  Station Name        Δ°    AZ°    Phase ID         Time       Res
                                       Op    ISC       h  m  s     ISC
CMAR  Chiang Mai Arr     10.21  28   Pn    P       08 14 56.6 +3.3
      0.2nm,0.3s,baz=217,slow=14,SNR=6.4
CMAR                                 LR    LR      08 18 44.6
      comp=Z,162nm,18.2s,baz=112,slow=37
VIS   Vishakhapatnam     13.19 310  eP     P       08 15 31.7 -1.9
VIS                                  AMb   AMB     08 15 38.6
      comp=Z,63nm,0.8s
VIS                                 e              08 17 46.5
BWNR  Bhubaneshwar       13.35 325  eS     S       08 17 44.9  -19
SHL   Shillong           16.17 353  eP     P       08 16 15.0 +2.5
HYB   Hyderabad          16.92 300  eP     P       08 16 24.0 +1.9
HYB                                 e              08 17 12.0
HYB                                 eS             08 20 00.0
HYB   Hyderabad          16.92 300  i P    P       08 16 24.0 +1.9
PKI   Pulchoki           19.75 337  eP     P       08 16 55.0 -1.4
      comp=Z,80nm,1.1s
GUN   Gumba              19.89 339  eP     P       08 16 57.5 -0.3
      comp=Z,281nm,1.0s
DMN   Daman              19.91 336  eP     P       08 16 58.0  0.0
      comp=Z,69nm,1.0s
KKN   Kakani             20.00 337  eP     P       08 16 58.5 -0.5
      comp=Z,66nm,0.9s
LSA   Lhasa              20.33 353  eP     P       08 17 00.5 -1.9
LSA                                  pmax  pmax
      comp=Z,30nm,0.8s
LSA   Lhasa              20.33 353  eP     P       08 17 00.5 -1.9
      comp=Z,30nm,0.8s
GKN   Gorkha             20.44 336  eP     P       08 17 03.5 -0.1
      comp=Z,140nm,0.7s
KOLN  Koldanda           20.68 333  eP     P       08 17 05.7 -0.3
      comp=Z,120nm,0.8s
KAD   Karad              20.73 294  eP     P       08 17 09.5 +2.9
GYA   Guiyang            20.79  34⇑iP     P       08 17 11.0 +3.8
GYA                                  AMB   AMB
      comp=Z,50nm,1.1s
BHPL  Bhopal             20.93 313  eP     P       08 17 09.1 +0.4
BHPL                                 AMb   AMB     08 17 16.2
      comp=Z,76nm,0.9s
POO   Poona              21.46 297  eP     P       08 17 14.1  0.0
POO                                  AMb   AMB     08 17 23.7
      comp=Z,53nm,1.2s,mb4.7
NDI   New Delhi          24.77 323  eP     P       08 17 46.5  0.0
ENH   Enshi              25.32  33  eP     P       08 17 54.8 +3.1
      comp=Z,24nm,0.8s,mb4.8
DDI   Dehra Dun          25.53 327  eP     P       08 17 55.0 +1.3
DDI                                 e      S       08 22 31.2  +14
LZH   Lanzhou            28.03  17  eP     P       08 18 18.0 +1.5
LZH                                  AMB   AMB
      comp=Z,21nm,1.5s,mb4.5
GTA   Gaotai             30.31   9   P     P       08 18 38.3 +1.3
GTA                                  AP    pP      08 18 42.3 -1.4
GTA                                  AMB   AMB
      comp=Z,4.0nm,0.8s,mb4.2
NJ2   Nanjing            32.24  42  eP     P       08 18 53.0 -1.0
NJ2                                  AP    pP      08 19 02.5 +1.8
NJ2                                  XP    sP      08 19 06.5 +2.8
NJ2                                  PP    PP      08 20 00.3 -1.2
NJ2                                  S     S       08 24 03.0 -1.8
NJ2                                  XS            08 24 18.0
NJ2                                  AMB   AMB
      comp=Z,20nm,1.1s,mb4.9
NJ2                                  LR    LR
      comp=N,60nm,10.0s
NJ2                                  LR    LR
      comp=E,310nm,17.0s
SSE   Sheshan            33.27  46  eP     P       08 19 01.5 -1.5
SSE                                  AMB   AMB
      comp=Z,29nm,0.7s,mb5.3
SSE                                  AMB   AMB
      comp=Z,103nm,3.8s
KSH   Kashi              33.98 335  eP     P       08 19 11.0 +2.0
KSH                                 eAP    pP      08 19 19.5 +3.7
KSH                                 eXP    sP      08 19 23.5 +4.8
KSH                                  PP    PP      08 20 26.3 +3.2
KSH                                  AMB   AMB
      comp=Z,330nm,5.4s
UCH   Uchtor             36.86 336   P     P       08 19 34.5 +1.0
      SNR=6.0
AML   Almayashu          37.12 335   P     P       08 19 36.6 +1.0
      SNR=13
AAK   Ala-Archa          37.20 336   P     P       08 19 37.0 +0.6
      SNR=8.6
AAK   Ala-Archa          37.20 336  eP     P       08 19 35.8 -0.5
AAK                                 e      pP      08 19 43.3 +0.1
AAK                                  pmax  pmax
      comp=Z,17nm,0.9s,mb4.9
AAK   Ala-Archa          37.20 336  eP     P       08 19 35.8 -0.5
      comp=Z,17nm,0.9s,mb4.9
AAK                                 e      pP      08 19 43.3 +0.2
EKS2  Erkin-Say          37.52 335   P     P       08 19 39.5 +0.6
      SNR=7.2
USP   Ospenovka          37.73 337   P     P       08 19 40.9 +0.1
      SNR=12
SONM  Songino Array      39.70  13   P     P       08 19 58.2 +1.0
      comp=Z,2.4nm,1.0s,mb3.9,baz=198,slow=7.8,SNR=9.8
SONM                                 PcP   PcP     08 22 04.7 +0.5
      comp=Z,1.6nm,0.8s,baz=191,slow=4.2,SNR=4.1
CN2   Changchun          43.84  33  eP     P       08 20 33.0 +1.9
ZAL   Zalesovo           44.99 352  i P    P       08 20 42.4 +2.1
ZAL                                  pmax  pmax
      comp=Z,1.0nm,0.5s
ZAL   Zalesovo           44.99 352   P     P       08 20 39.8 -0.4
      comp=Z,1.3nm,0.5s,mb4.1,baz=212,slow=7.8,SNR=3.0
HIA   Hailar             45.19  24   P     P       08 20 40.3 -1.6
HIA                                  pmax  pmax
      comp=Z,3.0nm,0.5s
HIA   Hailar             45.19  24   P     P       08 20 40.3 -1.6
      comp=Z,3.4nm,0.5s,mb4.4
BVAR  Borovoye Array     47.46 341   P     P       08 20 58.9 -0.9
      comp=Z,1.6nm,0.7s,mb4.1,baz=162,slow=4.7,SNR=5.4
NWAO  Narrogin (SRO)     47.62 153   P     P       08 21 00.8 -0.6
NWAO                                 pmax  pmax
      comp=Z,24nm,1.2s
NWAO  Narrogin (SRO)     47.62 153   P     P       08 21 00.8 -0.6
      comp=Z,6.1nm,0.7s,mb4.7,baz=356,slow=9.4,SNR=2.9
NWAO  Narrogin (SRO)     47.62 153   P     P       08 21 00.8 -0.6
      comp=Z,24nm,1.2s,mb5.1
CHKZ  Chkalovo           47.94 342  eP     P       08 21 01.9 -1.7
CHKZ                                 pmax  pmax
      comp=Z,14nm,0.8s,mb5.0
CHKZ  Chkalovo           47.94 342  eP     P       08 21 01.9 -1.7
      comp=Z,14nm,0.8s,mb5.0
CHKZ                                e              08 21 49.0
MZLS  Mizel              48.62 294   P     P       08 21 10.0 +0.8
KAMS  Al Khamasin        48.74 289   P     P       08 21 10.3 +0.1
WRA   Warramunga Arr     49.34 126   P     P       08 21 15.5 +0.7
      comp=Z,3.1nm,0.7s,mb4.5,baz=306,slow=8.6,SNR=16
WRA                                  PcP   PcP     08 22 38.1 +0.5
      comp=Z,2.2nm,0.8s,baz=318,slow=2.9,SNR=7.2
WRAB  Tennant Creek      49.34 126  i P    P       08 21 14.0 -0.8
WRAB  Tennant Creek      49.34 126   P     P       08 21 15.2 +0.4
      comp=Z,7.7nm,0.8s,mb4.8
TATS  Tathlith           49.71 288   P     P       08 21 18.2 +0.5
AFFS  ‘Afif              50.60 293   P     P       08 21 25.3 +0.9
ASAR  Alice Springs      51.08 131   P     P       08 21 27.9 -0.2
      comp=Z,4.7nm,0.8s,mb4.5,baz=304,slow=6.8,SNR=21
ASAR                                 PcP   PcP     08 22 44.3 +0.4
      comp=Z,2.0nm,0.7s,baz=306,slow=3.8,SNR=6.7
GNI   Garni              53.21 314  i P    P       08 21 47.6 +3.7
GNI                                  pmax  pmax
      comp=Z,24nm,1.9s
GNI   Garni              53.21 314   P     P       08 21 45.1 +1.3
      comp=Z,3.5nm,0.5s,mb4.5,baz=349,slow=13,SNR=3.4
GNI   Garni              53.21 314   P     P       08 21 44.7 +0.8
      comp=Z,10nm,0.9s,mb4.8
ARU   Arti               54.39 337  eP     P       08 21 50.2 -2.0
ARU                                  pmax  pmax
      comp=Z,11nm,1.0s,mb4.7
ARU   Arti               54.39 337  eP     P       08 21 50.1 -2.1
      comp=Z,11nm,1.0s,mb4.7
ZEI   Tsey               54.77 316  eP     pP      08 22 01.5 -0.8
ZEI                                  pmax  pmax
      comp=Z,6.0nm,0.7s,mb4.7
KIV   Kislovodsk         56.04 317  eP     pP      08 22 09.6 -1.8
KIV                                  pmax  pmax
      comp=Z,27nm,0.9s,mb5.3
KIV   Kislovodsk         56.04 317  eP     pP      08 22 09.6 -1.8
      comp=Z,27nm,0.9s
PMG   Port Moresby       56.20 108  eP     P       08 22 08.1 +2.2
PMG                                 e      pP      08 22 14.0 +1.1
PMG                                  pmax  pmax
      comp=Z,18nm,0.9s
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PMG	Port Moresby	56.20	108	P	P	08 22 08.1	+2.2
	comp=Z,19nm,0.9s,mb5.1,baz=315,slow=5.6,SNR=6.2						
PMG	Port Moresby	56.20	108	*e*P	P	08 22 08.1	+2.2
	comp=Z,18nm,0.9s,mb5.1						
PMG				*e*	pP	08 22 14.0	+1.1
TBKS	Tabuk	56.91	297	P	P	08 22 11.6	+0.7
ASF	Jabal al Asfar	57.21	302	P	P	08 22 12.7	-0.3
	comp=Z,2.6nm,0.7s,mb4.4,baz=153,slow=4.5,SNR=3.7						
MALT	Malatya	57.31	310	P	P	08 22 17.5	+3.9
MALT				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
MALT	Malatya	57.31	310	P	P	08 22 17.5	+3.9
	comp=Z,4.4nm,1.0s,mb4.4						
KMBO	Kilima Mbogo	57.40	263	*i* P	pP	08 22 22.3	+0.7
KMBO				pmax	pmax		
	comp=Z,5.0nm,0.8s						
KMBO	Kilima Mbogo	57.40	263	P	P	08 22 14.1	-0.5
	comp=Z,2.6nm,0.8s,mb4.3,baz=45,slow=12,SNR=6.3						
KMBO	Kilima Mbogo	57.40	263	*e*P	P	08 22 15.0	+0.4
	comp=Z,9.7nm,1.0s,mb4.8						
JMQS	Jabal Moqyreh	57.58	298	P	P	08 22 15.5	-0.1
SOC	Sochi	57.92	316	*e*P	P	08 22 18.1	+0.3
SOC				*e*		08 23 12.9	
SOC				*i*		08 24 22.1	
SOC				*e*PPP	PPP	08 25 47.0	-3.3
SOC				*e*S	S	08 30 15.4	+0.8
SOC				*e*SS	SS	08 34 11.1	+3.9
SOC				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
SOC				pmax	pmax		
	comp=N,20nm,1.1s						
SOC				pmax	pmax		
	comp=E,21nm,1.2s						
AYUS	‘Aynunah	58.03	297	P	P	08 22 18.3	-0.4
BDAS	Al Bad‘	58.20	298	P	P	08 22 19.6	-0.3
TAYS	Tayyib Ism	58.42	298	P	P	08 22 21.0	-0.5
HAQS	Haql	58.43	298	P	P	08 22 20.6	-0.9
EIL	Elat	58.48	299	P	P	08 22 26.1	+4.2
	comp=E,5.1nm,0.8s,mb4.6						
CTA	Charters Tower	59.26	120	P	P	08 22 24.6	-2.8
	comp=E,12nm,1.0s,mb4.9,baz=284,slow=8.3,SNR=2.9						
CTAO	Charters Tower	59.26	120	*e*P	P	08 22 22.2	-5.2
CTAO				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.1						
CTAO	Charters Tower	59.26	120	*e*P	P	08 22 22.1	-5.2
	comp=Z,21nm,1.1s,mb5.1						
BRTR	Keskin Array B	61.27	310	P	P	08 22 38.4	-2.5
	comp=Z,1.9nm,0.8s,mb4.2,baz=122,slow=7.2,SNR=6.8						
STKA	Stephens Creek	61.33	134	P	P	08 22 41.3	-0.1
	comp=Z,2.5nm,0.9s,mb4.3,baz=308,slow=9.2,SNR=3.8						
STKA	Stephens Creek	61.33	134	P	P	08 22 40.6	-0.8
OBN	Obninsk	63.96	327	*e*P	P	08 22 57.6	-1.0
OBN				*e*		08 25 21.4	
OBN				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
OBN				MLR	MLR		
	comp=Z,300nm,20.0s,MS4.5						
TIXI	Tiksi	65.76	11	⇓*e*P	P	08 23 09.0	-0.9
TIXI				pmax	pmax		
	comp=Z,14nm,1.7s,mb4.7						
AKASG	Malin Array Be	66.81	321	P	P	08 23 15.1	-1.9
	comp=Z,0.2nm,0.3s,mb3.6,baz=85,slow=5.5,SNR=4.2						
AKASG				PP	PP	08 25 50.2	+4.2
	comp=Z,0.3nm,0.3s,baz=111,slow=8.1,SNR=4.9						
SANT	Santorini	67.15	305	P	P	08 23 22.3	+2.9
	comp=Z,31nm,1.0s,mb5.3						
MLR	Muntele Rosu	67.92	315	P	P	08 23 23.6	-0.5
	comp=Z,3.9nm,0.8s,mb4.5,baz=27,slow=4.5,SNR=3.3						
FINES	FINESS Array B	71.25	332	P	P	08 23 42.7	-1.5
	comp=Z,2.9nm,1.1s,mb4.1,baz=72,slow=6.0,SNR=5.0						
ARCES	ARCESS Array B	73.74	340	P	P	08 23 58.6	-0.1
	comp=Z,2.1nm,0.5s,mb4.3,baz=95,slow=7.0,SNR=17						
GERES	GERESS Array B	76.54	318	P	P	08 24 14.6	-0.5
	comp=Z,1.4nm,0.6s,mb4.1,baz=90,slow=5.3,SNR=11						
KHC	Kasperske Hory	76.62	318	*e*P	P	08 24 15.5	-0.1
KHC				*e*pP	pP	08 24 21.5	-1.3
HFS	Hagfors	77.02	330	P	P	08 24 16.5	-1.0
	comp=Z,3.2nm,0.8s,mb4.3,baz=90,slow=3.0,SNR=10						
NB2	NORSAR Subarra	78.28	330	P	P	08 24 23.5	-1.0
	comp=Z,7.5nm,1.1s,mb4.5,baz=91,slow=5.6						
NB2	NORSAR Subarra	78.28	330	P	P	08 24 23.5	-1.0
NB2				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
NOA	NORSAR Array B	78.28	330	P	P	08 24 23.8	-0.7
	comp=Z,3.1nm,1.0s,mb4.2,baz=98,slow=6.7,SNR=4.0						
DAVOX	Davos	79.13	316	P	P	08 24 28.7	-0.7
	comp=Z,1.4nm,0.4s,mb4.3,baz=9.5,slow=12,SNR=4.2						
LPG	La Plagne	81.38	315	*e*P	P	08 24 41.6	+0.2
	comp=Z,20nm,0.8s,mb4.8						
LPG	La Plagne	81.38	315	*e*P	P	08 24 41.6	+0.2
LPG				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
EKA	Eskdalemuir Ar	86.33	325	P	P	08 25 06.5	+0.2
	comp=Z,3.1nm,0.8s,mb4.6,baz=112,slow=3.8,SNR=4.1						
SYO	Syowa Base	86.82	197	⇓P	P	08 25 09.4	+1.0
SYO	Syowa Base	86.82	197	⇓pP	pP	08 25 17.7	+2.0
ESDC	Sonseca Array	90.06	310	P	P	08 25 23.9	-0.6
	comp=Z,0.2nm,0.3s,mb3.9,baz=117,slow=8.6,SNR=3.5						
ILAR	Eielson Array	93.39	22	P	P	08 25 39.4	+0.2
	comp=Z,0.8nm,0.8s,mb4.2,baz=281,slow=4.2,SNR=8.3						
INK	Inuvik	95.56	16	P	P	08 25 50.0	+0.8
	comp=Z,2.5nm,0.9s,mb4.6,baz=245,slow=1.2,SNR=3.8						
YKA	Yellowknife Ar	104.97	13	PKKPbc		08 42 13.4	
	comp=Z,0.3nm,0.8s,baz=146,slow=3.1,SNR=3.7						
NVAR	Mina Array Bea	123.69	30	PKP	PKPdf	08 31 22.8	-3.0
	comp=Z,0.8nm,0.7s,baz=315,slow=2.6,SNR=3.1						
PDAR	Pinedale Array	123.80	21	PKP	PKPdf	08 31 22.9	-2.9
	comp=Z,0.6nm,0.7s,slow=1.5,SNR=5.4						
TXAR	Lajitas Array	137.89	23	PKhKP		08 31 33.9	
	comp=Z,0.5nm,0.9s,baz=270,slow=2.7,SNR=4.6						
TXAR				PKP	PKPdf	08 31 52.2	-0.7
	comp=Z,0.5nm,0.8s,baz=162,slow=0.2,SNR=6.1						
SDV	Santo Domingo	156.18	319	PKPab	PKPab	08 32 46.4	-2.2
	comp=Z,2.0nm,0.8s,baz=80,slow=6.1,SNR=2.3						
LVC	Limon Verde	158.97	229	PKPab	PKPab	08 33 00.6	+0.2
	comp=Z,3.7nm,0.9s,baz=168,slow=5.0,SNR=5.0						
LPAZ	La Paz	161.24	247	PKPab	PKPab	08 33 08.8	-1.5
	comp=Z,1.3nm,0.6s,baz=248,slow=5.9,SNR=4.7						

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*IDC **30** 08:13:09.1±0.8, 9.48N×93.70E, mb4.3/11, mb1 4.4/11, mb1mx4.2/20, mbtmp4.3/11, MS3.9/1, Ms1 3.9/1, ms1mx3.0/25, Error ellipse: s-maj=38.7km s-min=19.1km az=52.0*

ISC 30 08:13:12.0±0.9**, 9.3N**±0.2×**93.6E**±0.2**, h33^{km}, n15, σ0^{s}61**/11**, mb4.2**/11**, MS3.9**/1**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	39.88	13	P	P	08 20 43.7	-0.6
	1.7nm,0.9s,mb3.8,baz=188,slow=10.0,SNR=2.9						
WRA	Warramunga Arr	49.53	126	P	P	08 22 02.3	+0.3
	2.4nm,0.6s,mb4.4,baz=304,slow=8.7,SNR=5.4						
WRA				PcP	PcP	08 23 23.6	-0.2
	1.3nm,0.6s,baz=314,slow=2.7,SNR=5.0						
ASAR	Alice Springs	51.25	130	P	P	08 22 14.3	-0.7
	1.4nm,0.9s,mb3.9,baz=308,slow=7.3,SNR=4.5						
ASAR				PcP	PcP	08 23 30.3	+0.2
	1.9nm,0.7s,baz=306,slow=3.5,SNR=5.1						
BRTR	Keskin Array B	61.09	310	P	P	08 23 24.4	-0.9
	1.7nm,0.7s,mb4.3,baz=121,slow=6.8,SNR=3.7						
IDI	Anoyia	67.31	304	LR	LR	08 56 24.8	
	comp=Z,89nm,22.0s,MS3.9,baz=245,slow=39						
FINES	FINESS Array B	71.19	332	P	P	08 24 28.7	-0.6
	2.5nm,0.9s,mb4.1,baz=90,slow=4.2,SNR=2.7						
ARCES	ARCESS Array B	73.73	340	P	P	08 24 44.4	+0.2
	5.3nm,0.9s,mb4.5,baz=93,slow=6.5,SNR=6.2						
GERES	GERESS Array B	76.40	318	P	P	08 25 00.4	+0.5
	2.6nm,0.9s,mb4.2,baz=76,slow=5.5,SNR=4.2						
HFS	Hagfors	76.95	330	P	P	08 25 02.4	-0.3
	4.7nm,0.9s,mb4.4,baz=90,slow=4.4,SNR=5.6						
DAVOX	Davos	78.99	316	P	P	08 25 15.2	+1.0
	2.5nm,0.5s,mb4.4,baz=134,slow=3.9,SNR=3.7						
ILAR	Eielson Array	93.61	22	P	P	08 26 26.3	+0.5
	0.8nm,0.9s,mb4.2,baz=303,slow=4.8,SNR=3.8						
INK	Inuvik	95.76	16	P	P	08 26 36.1	+0.6
	2.1nm,1.0s,mb4.5,baz=324,slow=5.4,SNR=2.5						
PDAR	Pinedale Array	124.02	20	PKP	PKPdf	08 32 09.2	+1.8
	0.9nm,0.9s,SNR=3.9						
TXAR	Lajitas Array	138.12	23	PKP	PKPdf	08 32 38.8	+4.3
	0.3nm,0.5s,baz=243,SNR=5.4						
LVC	Limon Verde	158.65	230	PKPab	PKPab	08 33 46.8	+2.2
	2.8nm,0.7s,baz=183,slow=2.4,SNR=4.3						

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*IDC **30** 08:18:57.1±0.8, 9.30N×93.56E, mb4.1/12, mb1 4.2/12, mb1mx4.1/17, mbtmp4.1/12, Error ellipse: s-maj=47.1km s-min=15.4km az=53.0*

*BJI **30** 08:19:01.3, 9.18N×93.29E, h47^{km}, mb4.1*

*NEIC **30** 08:19:02.3±0.7, 9.32N×93.77E, h30^{km}, mb4.5/10, Error ellipse: s-maj=21.4km s-min=16.6km az=65.0*

*SYO **30** 08:19:02.4, 9.32N×93.79E, h30^{km}, MB4.5*

ISC 30 08:19:00.1±0.5**, 9.21N**±0.07×**93.57E**±0.09**, h33^{km}, n41, σ1^{s}01**/38**, mb4.3**/24**, 2C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.57	29	P	P	08 21 34.9	+2.5
CMAR	Chiang Mai Arr	10.57	29	Pn	P	08 21 33.3	+0.9
	0.5nm,0.3s,baz=218,slow=15,SNR=4.6						
PALK	Pallekele	12.88	262	P	P	08 22 14.1	+10
KMI	Kunming	18.07	28	P	P	08 23 14.3	+3.8
KMI				AMB	AMB		
	comp=Z,16nm,1.3s						
PKI	Pulchoki	19.83	338	*e*P	P	08 23 31.3	+0.4
	comp=Z,53nm,1.1s						
GUN	Gumba	19.97	340	*e*P	P	08 23 32.6	+0.1
	comp=Z,87nm,0.9s						
DMN	Daman	19.97	338	*e*P	P	08 23 32.3	-0.2
	comp=Z,18nm,0.6s						
KKN	Kakani	20.07	338	*e*P	P	08 23 33.6	+0.1
	comp=Z,19nm,0.5s						
GKN	Gorkha	20.51	337	*e*P	P	08 23 38.6	+0.5
	comp=Z,52nm,0.6s						
LSA	Lhasa	20.51	354	*e*P	P	08 23 40.5	+2.4
	comp=Z,12nm,0.7s						
KOLN	Koldanda	20.72	334	*e*P	P	08 23 40.4	+0.1
	comp=Z,71nm,0.9s						
GYA	Guiyang	21.17	34	⇑*i*P	P	08 23 45.8	+0.9
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.5						
ENH	Enshi	25.70	33	P	P	08 24 28.6	-0.5
	comp=Z,12nm,0.9s,mb4.4						
DGAR	Diego Garcia	26.75	233	P	P	08 24 42.1	+3.1
	comp=Z,231nm,1.2s,mb5.6						
GTA	Gaotai	30.59	10	P	P	08 25 13.0	-0.2
GTA				AMB	AMB		
	comp=Z,3.0nm,1.0s,mb4.1						
AAK	Ala-Archa	37.27	337	*e*P	P	08 26 10.0	-0.7
	comp=Z,7.5nm,0.9s,mb4.5						
SONM	Songino Array	40.00	13	P	P	08 26 33.0	-0.3
	comp=Z,1.0nm,0.9s,mb3.5,baz=202,slow=6.7,SNR=5.0						
SONM				PcP	PcP	08 28 39.0	+0.2
	comp=Z,0.8nm,0.6s,baz=215,slow=4.0,SNR=5.6						
ZAL	Zalesovo	45.16	353	P	P	08 27 14.6	-0.8
	comp=Z,1.5nm,0.7s,mb4.0,baz=208,slow=4.0,SNR=6.3						
BVAR	Borovoye Array	47.55	341	P	P	08 27 33.6	-0.7
	comp=Z,0.8nm,0.6s,mb3.9,baz=175,slow=16,SNR=4.2						
BRVK	Borovoye	47.62	341	P	P	08 27 33.8	-1.0
	comp=Z,2.4nm,0.7s,mb4.3						
CHKZ	Chkalovo	48.04	342	*e*P	P	08 27 37.2	-0.8
	comp=Z,9.9nm,0.8s,mb4.9						
CHKZ				*e*		08 27 44.6	
WRA	Warramunga Arr	49.49	126	P	P	08 27 50.0	+0.2
	comp=Z,1.8nm,0.5s,mb4.4,baz=305,slow=8.7,SNR=26						
WRA				PcP	PcP	08 29 12.6	+0.8
	comp=Z,1.2nm,0.7s,baz=313,slow=3.0,SNR=9.9						
WRAB	Tennant Creek	49.49	126	*e*P	P	08 27 49.4	-0.4
	comp=Z,18nm,1.4s,mb4.9						
GUMO	Guam	50.40	80	P	P	08 27 50.7	-6.1
ASAR	Alice Springs	51.20	130	P	P	08 28 02.5	-0.3
	comp=Z,2.0nm,1.0s,mb4.0,baz=303,slow=7.0,SNR=12						
ASAR				PcP	PcP	08 29 19.0	+1.1
	comp=Z,2.0nm,0.9s,baz=311,slow=3.5,SNR=8.5						
PMG	Port Moresby	56.46	108	*e*P	P	08 28 41.1	-0.4
	comp=Z,7.4nm,0.6s,mb4.9						
KMBO	Kilima Mbogo	57.02	263	P	P	08 28 49.9	+4.3
	comp=Z,3.7nm,1.0s,mb4.4,baz=51,slow=11,SNR=5.7						
KMBO	Kilima Mbogo	57.02	263	*e*P	P	08 28 49.1	+3.5
	comp=Z,4.4nm,0.9s,mb4.5						
BRTR	Keskin Array B	61.14	310	P	P	08 29 12.6	-1.2
	comp=Z,1.2nm,0.6s,mb4.2,baz=133,slow=7.2,SNR=6.9						
STKA	Stephens Creek	61.43	134	P	P	08 29 15.6	-0.2
	comp=Z,3.0nm,1.1s,mb4.3,baz=300,slow=8.4,SNR=2.8						
STKA	Stephens Creek	61.43	134	P	P	08 29 15.4	-0.4
FINES	FINESS Array B	71.28	332	P	P	08 30 16.8	-1.1
	comp=Z,1.0nm,0.5s,mb4.0,baz=117,slow=8.5,SNR=6.2						
KAF	Kangasniemi	71.36	333	*e*p	P	08 30 16.0	-2.4
	comp=Z,2.0nm,0.8s,mb4.1						
ARCES	ARCESS Array B	73.83	340	P	P	08 30 33.2	+0.4
	comp=Z,2.0nm,0.7s,mb4.2,baz=97,slow=6.9,SNR=13						
GERES	GERESS Array B	76.47	318	P	P	08 30 49.4	+1.0
	comp=Z,1.2nm,0.6s,mb4.0,baz=90,slow=5.3,SNR=9.4						
NOA	NORSAR Array B	78.30	330	P	P	08 30 58.0	-0.3
	comp=Z,1.1nm,0.8s,mb3.9,baz=96,slow=4.9,SNR=2.6						
LPG	La Plagne	81.29	315	*e*P	P	08 31 14.9	+0.2
	comp=Z,7.8nm,0.6s,mb4.5						
SYO	Syowa Base	86.51	197	⇑pP	pP	08 31 50.5	-0.5
ILAR	Eielson Array	93.73	22	P	P	08 32 14.4	0.0
	comp=Z,0.9nm,0.9s,mb4.2,baz=296,slow=4.1,SNR=7.7						
PDAR	Pinedale Array	124.13	20	PKP	PKPdf	08 37 57.9	+2.1
	comp=Z,0.4nm,0.6s,baz=21,slow=1.6,SNR=4.1						
TXAR	Lajitas Array	138.23	23	PKhKP		08 38 15.1	
	comp=Z,0.1nm,0.5s,baz=348,slow=0.6,SNR=4.1						
TXAR				PKP	PKPdf	08 38 25.9	+3.1
	comp=Z,0.3nm,0.5s,baz=278,slow=0.7,SNR=12						

IDC 30 08:22:36.2±11.0**, 5.66N**×**95.24E, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, Error ellipse: s-maj=387.2km s-min=34.7km az=70.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
POO	Poona	24.48	303	*e*P	P	08 28 17.0	+19
SONM	Songino Array	43.09	11	P	P	08 30 37.9	-1.9
	0.6nm,0.8s,baz=188,slow=7.9,SNR=3.8						
WRA	Warramunga Arr	46.10	125	P	P	08 31 02.8	-1.5
	0.3nm,0.5s,baz=301,slow=9.9,SNR=5.1						
ASAR	Alice Springs	47.67	129	P	P	08 31 14.5	-2.2
	0.4nm,0.6s,baz=306,slow=7.8,SNR=2.2						

IDC 30 08:33:52.0±1.4**, 6.22N**×**93.70E, h27^{km}**±6^{km}**, mb3.8**/6**, mb1 4.0**/6**, mb1mx3.7**/17**, mbtmp3.9**/6**, Error ellipse: s-maj=65.1km s-min=18.3km az=56.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SONM	Songino Array	42.86	13	P	P	08 41 47.2	-2.5
	0.5nm,0.6s,baz=194,slow=7.5,SNR=3.1						
SONM				PcP	PcP	08 43 39.0	-2.0
	0.4nm,0.7s,baz=225,slow=4.1,SNR=3.4						
WRA	Warramunga Arr	47.68	124	P	P	08 42 25.8	-2.8
	0.6nm,0.6s,baz=305,slow=8.6,SNR=5.0						
WRA				pP	pP	08 42 34.0	-2.8
	1.4nm,0.7s,baz=305,slow=9.1,SNR=6.8						
ZAL	Zalesovo	48.12	353	P	P	08 42 29.3	-2.3
	2.6nm,0.6s,baz=206,slow=8.9,SNR=13						
ZAL				pP	pP	08 42 39.0	-0.8
	1.6nm,0.3s,baz=235,slow=17,SNR=2.5						
ASAR	Alice Springs	49.21	129	P	P	08 42 39.5	-0.8
	0.7nm,0.5s,baz=305,slow=6.7,SNR=7.7						
ASAR				pP	pP	08 42 46.4	-2.3
	0.6nm,0.5s,baz=309,slow=7.4,SNR=5.4						
ASAR				pPcP		08 44 06.8	
	1.0nm,0.7s,baz=310,slow=3.8,SNR=5.8						
FINES	FINESS Array B	73.96	332	P	P	08 45 24.0	-2.7
	4.0nm,0.9s,baz=135,slow=2.0,SNR=4.3						
GERES	GERESS Array B	78.76	318	P	P	08 45 52.4	-1.5
	1.1nm,0.8s,baz=90,slow=5.3,SNR=6.4						

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*IDC **30** 08:36:30.4±9.4, 6.10N×93.29E, h51^{km}±82^{km}, mb3.7/7, mb1 3.9/8, mb1mx3.7/19, mbtmp3.9/8, ML4.1/1, Error ellipse: s-maj=67.5km s-min=19.0km az=52.0*

ISC 30 08:36:26.2±1.0**, 6.0N**±0.1×**93.2E**±0.2**, h33^{km}, n9, σ0^{s}81**/8**, mb4.0**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.57	24	P	P	08 39 39.3	+0.4
	0.3nm,0.3s,baz=214,slow=13,SNR=5.1						
SONM	Songino Array	43.16	13	P	P	08 44 25.3	-0.2
	0.4nm,0.7s,mb3.3,baz=194,slow=9.9,SNR=3.0						
WRA	Warramunga Arr	47.98	124	P	P	08 45 04.3	0.0
	2.3nm,0.7s,mb4.3,baz=303,slow=8.8,SNR=11						
ZAL	Zalesovo	48.26	353	P	P	08 45 06.2	+0.3
	2.6nm,0.8s,mb4.3,baz=209,slow=11,SNR=3.3						
ASAR	Alice Springs	49.48	128	P	P	08 45 15.6	-0.2
	1.4nm,0.7s,mb4.1,baz=307,slow=7.5,SNR=8.8						
BVAR	Borovoye Array	50.45	342	P	P	08 45 20.9	-1.8
	1.0nm,0.7s,mb4.0,baz=153,slow=9.9,SNR=4.2						
BRTR	Keskin Array B	62.94	312	P	P	08 46 51.8	-0.1
	1.1nm,0.6s,mb4.2,baz=117,slow=5.5,SNR=4.8						
GERES	GERESS Array B	78.58	318	P	P	08 48 27.7	+1.5
	1.7nm,0.9s,mb4.0,baz=90,slow=5.3,SNR=6.5						
TXAR	Lajitas Array	141.28	24	PKP	PKPdf	08 55 55.6	+1.2
	0.3nm,0.9s,baz=270,slow=0.9,SNR=3.5						

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*IDC **30** 08:39:50.3±1.3, 5.14N×94.63E, h47^{km}±8^{km}, mb3.7/6, mb1 3.9/6, mb1mx3.6/18, mbtmp3.9/6, Error ellipse: s-maj=49.5km s-min=19.2km az=56.0*

ISC 30 08:39:47.5±1.1**, 4.8N**±0.2×**94.3E**±0.2**, h48^{km}, h48^{km}**±1.2^{km}**:pP-P, n14, σ0^{s}90**/13**, mb4.2**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.28	18	P	P	08 43 10.8	+2.2
	baz=212,slow=11,SNR=16						
PKI	Pulchoki	24.14	340	*e*P	P	08 45 00.7	+0.5
DMN	Daman	24.28	340	*e*P	P	08 45 01.8	+0.3
GUN	Gumba	24.30	342	*e*P	P	08 45 02.5	+0.7
	15nm,0.9s,mb4.5						
KKN	Kakani	24.39	340	*e*P	P	08 45 02.5	-0.1
GKN	Gorkha	24.80	339	*e*P	P	08 45 06.5	-0.1
	15nm,0.7s,mb4.6						
KOLN	Koldanda	24.98	337	*e*P	P	08 45 07.8	-0.5
	33nm,1.3s,mb4.7						
SONM	Songino Array	44.08	12	P	P	08 47 50.9	-1.7
	1.5nm,0.8s,mb3.8,baz=191,slow=8.3,SNR=12						
SONM				pP	pP	08 48 03.2	-2.3
	0.8nm,0.7s,baz=195,slow=9.0,SNR=4.5						
SONM				PcP	PcP	08 49 37.6	-0.2
	0.5nm,0.5s,baz=182,slow=5.6,SNR=4.3						
WRA	Warramunga Arr	46.43	123	P	P	08 48 11.8	+0.2
	3.6nm,0.6s,mb4.5,baz=300,slow=9.6,SNR=21						
ASAR	Alice Springs	47.90	128	P	P	08 48 23.3	+0.1
	0.5nm,0.4s,mb3.9,baz=300,slow=7.9,SNR=8.9						
ZAL	Zalesovo	49.56	353	P	P	08 48 34.3	-1.3
	1.4nm,0.4s,mb4.4,baz=213,slow=7.5,SNR=6.1						
BVAR	Borovoye Array	51.90	342	P	P	08 48 52.7	-0.6
	0.5nm,0.5s,mb3.8,baz=135,slow=4.1,SNR=3.2						
BVAR				pP	pP	08 49 06.2	-0.3
	1.7nm,0.7s,baz=143,slow=7.4,SNR=6.5						
GERES	GERESS Array B	80.18	319	P	P	08 51 55.6	+1.2
	1.3nm,0.8s,mb3.9,baz=104,slow=5.5,SNR=7.1						
GERES				pP	pP	08 52 09.9	+1.5
	0.8nm,0.7s,baz=72,slow=4.2,SNR=3.8						
TXAR	Lajitas Array	141.89	26	PKP	PKPdf	08 59 15.5	+0.7
	0.1nm,0.4s,slow=0.9,SNR=2.7						

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*ATH **30** 08:45:18.3, 37.17N×28.81E, h7^{km}±7^{km}, MD3.1/4*

*ISK **30** 08:45:21.9, 36.82N×28.23E, h31^{km}, MD3.1*

*CSEM **30** 08:45:22.1±0.2, 37.14N×28.54E, h2^{km}, MD3.1, Error ellipse: s-maj=5.1km s-min=2.4km az=55.0*

*NEIC **30** 08:45:23.0, 37.08N×28.56E, h36^{km}, MD3.1(ATH), After ATH.*

ISC 30 08:45:23.6±0.7**, 37.02N**±0.03×**28.39E**±0.04**, h8^{km}**±7^{km}**, n17, σ1^{s}17**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.33	141	PG	Pg	08 45 30.6	+0.4
DALT				SG	Sg	08 45 36.8	+2.1
MLSB	Milas	0.56	299	*e*PG	Pg	08 45 34.4	-0.4
FETY	Fethiye	0.68	124	*e*PG	Pg	08 45 35.7	-1.6
FETY				*e*SG	Sg	08 45 47.0	+0.6
AYDN	Tasoluk	0.75	328	*i* P	Pb	08 45 38.4	0.0
AYDN				*i* S	Sb	08 45 48.7	+0.1
BDRM	Kayabasi	0.75	273	*i* P	Pb	08 45 38.2	-0.3
BDRM				*i* S	Sb	08 45 50.0	+1.4
ARG	Arkhangelos	0.83	195	*e*PN	Pn	08 45 39.0	-2.3
ARG				*e*SB	Sb	08 45 54.5	+3.6
DNZL	Cakiroluk	0.85	38	*i* P	Pb	08 45 40.6	+0.5
DNZL				*i* S	Sb	08 45 57.1	+5.8
DENT	Denizli	0.89	35	*e*PN	Pn	08 45 41.6	-0.6
NISR	Nisiros	1.09	248	*e*PG	Pg	08 45 45.0	-0.4
ELL	Elmali	1.25	102	*e*PN	Pn	08 45 44.6	-2.7
SMG	Samos	1.41	299	*e*PB	Pb	08 45 49.5	-0.2
MANT	Manisa	1.47	5	*i* P	Pn	08 45 51.2	+0.7
MANT				*i* S	Sb	08 46 10.9	+1.5
IZM	Izmir	1.64	327	*e*PN	Pn	08 45 50.6	-2.2
KDAG	Bornova	1.64	328	*i* P	Pn	08 45 53.3	+0.5
KDAG				*i* S	Sb	08 46 17.7	+3.5
KARP	Karpathos	1.77	214	*e*Pb	Pb	08 45 56.0	+0.1
KARP				*e*Sn	Sn	08 46 18.0	+0.3
AKS	Akhisar	1.91	346	*e*PN	Pn	08 45 55.9	-0.8
BTOK	Tokmak	2.75	354	*i* P	Pn	08 46 15.7	+7.0

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*IDC **30** 08:49:06.2±0.8, 19.80N×95.80E, mb3.9/9, mb1 4.1/10, mb1mx3.9/19, mbtmp3.8/10, ML3.5/1, Error ellipse: s-maj=33.3km s-min=12.6km az=43.0*

ISC 30 08:49:05.9±0.6**, 19.9N**±0.1×**96.00E**±0.06**, h10^{km}, n20, σ1^{s}28**/23**, mb3.9**/9**, 1D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	3.11	116	Pn	Pn	08 49 58.3	+2.3
	1.4nm,0.3s,baz=285,slow=14,SNR=9.5						
CMAR				Pg	Pg	08 50 07.5	-0.4
	12nm,0.3s,baz=290,slow=18,SNR=40						
CMAR				Lg		08 50 47.4	
	24nm,0.3s,baz=301,slow=16,SNR=8.2						
CHRT	Chiangrai	3.56	89	⇓PN	Pn	08 50 05.0	+2.6
CHRT				PG	Pg	08 50 17.5	+0.6
CHRT				SG	Sg	08 51 04.0	-0.4
NANT	Nan	4.56	102	PN	Pg	08 50 35.0	-1.9
NANT				PG	Sn	08 51 09.0	-1.3
NANT				SG	Sg	08 51 33.0	-4.6
GUN	Gumba	12.25	313	*e*P	P	08 52 05.0	+1.6
	10.0nm,0.4s						
PKI	Pulchoki	12.37	310	*e*P	P	08 52 05.6	+0.6
	9.1nm,0.4s						
KKN	Kakani	12.59	311	*e*P	P	08 52 07.9	-0.1
	5.9nm,0.3s						
DMN	Daman	12.61	310	*e*P	P	08 52 07.4	-0.9
GKN	Gorkha	13.18	310	*e*P	P	08 52 13.2	-2.6
	11nm,0.3s						
KOLN	Koldanda	13.81	307	*e*P	P	08 52 17.0	-7.2
	17nm,0.6s						
SONM	Songino Array	29.16	14	P	P	08 55 11.8	+2.4
	0.7nm,0.8s,mb3.4,baz=211,slow=8.4,SNR=4.0						
ZAL	Zalesovo	35.09	348	P	P	08 56 01.3	+0.1
	0.9nm,0.6s,mb3.9,baz=231,slow=8.2,SNR=4.4						
BVAR	Borovoye Array	38.58	335	P	P	08 56 30.6	0.0
	0.7nm,0.7s,mb3.5,baz=180,slow=1.4,SNR=3.6						
WRA	Warramunga Arr	54.54	134	P	P	08 58 37.1	+0.4
	0.8nm,0.6s,mb4.0,baz=321,slow=7.7,SNR=16						
WRA				PcP	PcP	08 59 39.7	-0.2
	0.5nm,0.9s,baz=324,slow=3.8,SNR=4.5						
ASAR	Alice Springs	56.89	138	P	P	08 58 54.1	+0.5
	1.0nm,0.7s,mb3.9,baz=322,slow=7.2,SNR=13						
FINES	FINESS Array B	63.17	330	P	P	08 59 33.8	-2.3
	6.8nm,1.1s,mb4.7,baz=108,slow=4.4,SNR=4.8						
GERES	GERESS Array B	70.32	316	P	P	09 00 21.7	0.0
	1.3nm,0.6s,mb4.0,baz=81,slow=5.7,SNR=8.0						
NOA	NORSAR Array B	70.34	329	P	P	09 00 20.5	-1.0
	0.8nm,0.7s,mb3.8,baz=42,slow=7.2,SNR=2.6						
ILAR	Eielson Array	83.04	23	P	P	09 01 33.0	+0.5
	0.5nm,0.6s,mb3.7,baz=306,slow=4.2,SNR=11						
TXAR	Lajitas Array	127.55	22	PKP	PKPdf	09 08 14.1	-0.9
	0.1nm,0.5s,baz=25,slow=1.4,SNR=4.4						
BDFB	Brasilia	145.52	271	PKPbc	PKPbc	09 08 47.1	+1.3
	2.3nm,0.7s,baz=144,slow=5.6,SNR=3.7						

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*IDC **30** 08:53:54.5±0.7, 8.40N×92.27E, mb4.3/13, mb1 4.4/14, mb1mx4.3/21, mbtmp4.3/14, ML3.8/1, MS3.4/1, Ms1 3.6/1, ms1mx3.1/27, Error ellipse: s-maj=31.5km s-min=15.5km az=49.0*

*MOS **30** 08:53:57.7±1.2, 8.39N×92.30E, h33^{km}, mb4.8/12, Error ellipse: s-maj=20.7km s-min=11.9km az=109.2*

*NEIC **30** 08:53:59.3±0.6, 8.43N×92.36E, h30^{km}, mb4.7/15, Error ellipse: s-maj=15.8km s-min=13.0km az=54.0*

*SYO **30** 08:53:59.2, 8.43N×92.36E, h30^{km}, MB4.7*

*BJI **30** 08:54:00.3, 8.40N×92.40E, h30^{km}, mb4.8*

ISC 30 08:53:57.1±4.4**, 8.45N**±0.08×**92.42E**±0.07**, h25^{km}**±30^{km}**, n87, σ0^{s}92**/84**, mb4.5**/33**, 1C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.79	32	Pn	P	08 56 47.2	+0.3
	0.2nm,0.3s,baz=230,slow=14,SNR=8.0						
CMAR				LR	LR	09 02 07.8	
	comp=Z,154nm,18.4s,baz=210,slow=41						
VIS	Vishakhapatnam	12.77	317	*e*P	P	08 56 55.9	-4.2
VIS				AMb	AMB	08 56 58.0	
	comp=Z,66nm,1.1s						
VIS				*e*S	S	08 59 05.8	-17
BWNR	Bhubaneshwar	13.40	332	*e*	P	08 56 55.8	-13
BWNR				AMb	AMB	08 57 02.7	
	comp=Z,14nm,1.7s						
BWNR				*e*		08 59 05.4	
BWNR				*e*		08 59 16.4	
HYB	Hyderabad	16.18	305	*i* P	P	08 57 44.0	-0.7
HYB				*e*S	S	09 00 39.0	-4.1
PKI	Pulchoki	20.14	342	*e*P	P	08 58 31.8	-0.6
	comp=Z,73nm,1.0s						
DMN	Daman	20.27	341	*e*P	P	08 58 33.4	-0.3
	comp=Z,64nm,1.0s						
GUN	Gumba	20.32	343	*e*P	P	08 58 34.0	-0.2
	comp=Z,61nm,0.9s						
KKN	Kakani	20.38	342	*e*P	P	08 58 34.0	-0.9
	comp=Z,49nm,0.9s						
BHPL	Bhopal	20.57	317	*e*P	P	08 58 36.4	-0.5
BHPL				*e*		08 58 40.4	
	comp=Z,30nm,1.5s						
GKN	Gorkha	20.79	340	*e*P	P	08 58 38.5	-0.6
	comp=Z,41nm,0.5s						
KOLN	Koldanda	20.95	338	*e*P	P	08 58 40.5	-0.2
	comp=Z,80nm,0.9s						
LSA	Lhasa	21.17	357	*e*P	P	08 58 43.9	+0.9
LSA				pmax	pmax		
	comp=Z,22nm,0.8s,mb4.5						
LSA	Lhasa	21.17	357	*e*P	P	08 58 43.9	+0.9
	comp=Z,22nm,0.8s,mb4.5						
NDI	New Delhi	24.70	327	*e*P	P	08 59 17.0	-0.8
DDI	Dehra Dun	25.58	330	*e*	P	08 59 26.2	+0.1
ENH	Enshi	26.95	34	*e*P	P	08 59 42.9	+4.2
	comp=Z,22nm,1.1s,mb4.6						
LZH	Lanzhou	29.41	19	*e*P	P	09 00 08.5	+7.5
LZH				AMB	AMB		
	comp=Z,31nm,1.5s,mb4.8						
GTA	Gaotai	31.53	11	P	P	09 00 20.0	+0.4
GTA				AP	pP	09 00 27.0	+0.1
GTA				AMB	AMB		
	comp=Z,9.0nm,0.8s,mb4.7						
KZA	Kyzart	36.76	338	P	P	09 01 05.6	+1.1
	SNR=7.0						
UCH	Uchtor	37.16	338	P	P	09 01 09.4	+1.5
	SNR=10						
KBK	Karagaybulak	37.37	339	P	P	09 01 11.2	+1.5
	SNR=10						
TKM2	Tokmak 2	37.37	339	P	P	09 01 10.4	+0.7
	SNR=7.2						
AML	Almayashu	37.39	337	P	P	09 01 11.3	+1.4
	SNR=23						
AAK	Ala-Archa	37.52	338	P	P	09 01 12.2	+1.3
	SNR=11						
AAK	Ala-Archa	37.52	338	*e*P	P	09 01 10.4	-0.5
AAK				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
AAK	Ala-Archa	37.52	338	*e*P	P	09 01 10.4	-0.5
	comp=Z,14nm,1.0s,mb4.6						
CHMS	Chumysh	37.74	339	P	P	09 01 13.7	+0.9
	SNR=5.8						
EKS2	Erkin-Say	37.81	337	P	P	09 01 14.8	+1.4
	SNR=8.7						
USP	Ospenovka	38.06	339	P	P	09 01 16.1	+0.6
	SNR=26						
MKAR	Makanchi Array	39.17	349	*i* P	P	09 01 24.3	-0.5
MKAR				pmax	pmax		
	comp=Z,3.0nm,0.6s						
SONM	Songino Array	41.00	14	P	P	09 01 40.2	+0.5
	comp=Z,1.8nm,0.8s,mb3.8,baz=200,slow=7.3,SNR=19						
ULN	Ulaanbaatar	41.19	15	*e*P	P	09 01 41.3	0.0
ULN				pmax	pmax		
	comp=Z,2.0nm,0.9s,mb3.8						
ULN	Ulaanbaatar	41.19	15	*e*P	P	09 01 41.3	0.0
	comp=Z,2.4nm,0.9s,mb3.8						
TLY	Talaya	44.07	10	P	P	09 02 05.5	+0.7
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.2						
TLY	Talaya	44.07	10	P	P	09 02 05.5	+0.6
	comp=Z,4.0nm,0.8s,mb4.2						
HIA	Hailar	46.68	24	P	P	09 02 25.9	+0.3
HIA				pmax	pmax		
	comp=Z,13nm,1.5s						
HIA	Hailar	46.68	24	P	P	09 02 25.9	+0.3
	comp=Z,13nm,1.5s,mb4.7						
RDF	Al-Radifah	46.78	302	*e*P	P	09 02 27.0	+0.3
RDF				AMb	AMB	09 02 28.8	
	comp=Z,30nm,1.1s,mb5.1						
NAY	Al-Naaiem	47.13	302	*e*P	P	09 02 29.5	+0.1
NAY				AMb	AMB	09 02 31.1	
	comp=Z,22nm,1.0s,mb5.0						
RST	Umm Al-Ruwaisa	47.40	302	*e*P	P	09 02 31.4	-0.3
RST				AMb	AMB	09 02 32.4	
	comp=Z,33nm,0.7s,mb5.4						
BVAR	Borovoye Array	47.91	342	P	P	09 02 34.7	-0.6
	comp=Z,4.2nm,0.8s,mb4.5,baz=141,slow=9.5,SNR=20						
BRVK	Borovoye	47.97	342	*e*P	P	09 02 32.9	-2.8
BRVK				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
BRVK	Borovoye	47.97	342	*e*P	P	09 02 32.9	-2.8
	comp=Z,4.8nm,0.8s,mb4.6						
CHKZ	Chkalovo	48.41	343	*e*P	P	09 02 38.6	-0.5
CHKZ				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.1						
CHKZ	Chkalovo	48.41	343	*e*P	P	09 02 38.6	-0.5
	comp=Z,19nm,0.9s,mb5.1						
AFFS	‘Afif	49.63	294	P	P	09 02 50.2	+1.3
ARSS	Ar Rass	49.77	297	P	P	09 02 50.3	+0.4
WRA	Warramunga Arr	49.98	125	P	P	09 02 51.2	-0.5
	comp=Z,1.1nm,0.4s,mb4.2,baz=300,slow=10.0,SNR=31						
WRAB	Tennant Creek	49.99	125	*e*P	P	09 02 51.4	-0.3
WRAB				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.8						
WRAB	Tennant Creek	49.99	125	*e*P	P	09 02 51.4	-0.3
	comp=Z,8.3nm,0.8s,mb4.8						
HILS	Ha’il	51.33	298	P	P	09 03 03.2	+1.4
ASAR	Alice Springs	51.59	129	P	P	09 03 03.4	-0.5
	comp=Z,2.1nm,0.6s,mb4.2,baz=303,slow=7.3,SNR=18						
GNI	Garni	52.82	315	⇓*e*P	P	09 03 11.1	-1.8
ARU	Arti	54.70	338	*e*P	P	09 03 25.2	-1.3
ARU	Arti	54.70	338	*e*P	P	09 03 25.4	-1.1
	comp=Z,12nm,0.7s,mb5.0						
KMBO	Kilima Mbogo	55.80	263	*e*P	P	09 03 35.5	+0.5
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.6s						
KMBO	Kilima Mbogo	55.80	263	*e*P	P	09 03 35.5	+0.5
	comp=Z,2.5nm,0.6s,mb4.4						
JMQS	Jabal Moqyreh	56.74	299	P	P	09 03 42.5	+1.0
MALT	Malatya	56.79	310	*e*P	P	09 03 36.9	-5.0
MALT				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
MALT	Malatya	56.79	310	*e*P	P	09 03 36.9	-5.0
	comp=Z,6.1nm,1.1s,mb4.5						
AYUS	‘Aynunah	57.16	298	P	P	09 03 45.2	+0.6
BDAS	Al Bad‘	57.34	298	P	P	09 03 46.5	+0.6
JMOS	Jabal al Moall	57.45	299	P	P	09 03 47.2	+0.6
TAYS	Tayyib Ism	57.56	298	P	P	09 03 47.6	+0.2
HAQS	Haql	57.59	299	P	P	09 03 48.0	+0.4
EIL	Elat	57.66	300	*e*P	P	09 03 48.1	0.0
	comp=Z,11nm,0.9s,mb4.9						
BRTR	Keskin Array B	60.77	311	P	P	09 04 07.6	-1.8
	comp=Z,4.6nm,1.1s,mb4.5,baz=135,slow=7.0,SNR=8.7						
STKA	Stephens Creek	61.74	133	P	P	09 04 16.4	+0.3
	comp=Z,2.3nm,0.8s,mb4.3,baz=312,slow=8.4,SNR=4.7						
STKA	Stephens Creek	61.74	133	*e*P	P	09 04 15.4	-0.7
TIXI	Tiksi	67.01	12	⇓*e*P	P	09 04 48.6	-1.2
MLR	Muntele Rosu	67.57	316	P	P	09 04 52.9	-0.9
	comp=Z,4.0nm,0.8s,mb4.5,baz=112,slow=5.4,SNR=3.9						
LSZ	Lusaka	67.86	250	P	P	09 04 53.7	-2.4
LSZ				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
LSZ	Lusaka	67.86	250	P	P	09 04 53.7	-2.4
	comp=Z,9.0nm,1.3s,mb4.6						
FINES	FINESS Array B	71.41	332	P	P	09 05 15.7	-1.3
	comp=Z,5.2nm,1.1s,mb4.4,baz=117,slow=8.5,SNR=4.8						
ARCES	ARCESS Array B	74.15	340	P	P	09 05 32.7	-0.2
	comp=Z,7.6nm,0.9s,mb4.6,baz=90,slow=7.2,SNR=7.4						
BRG	Berggiesshubel	76.22	320	*e*P	P	09 05 45.1	-0.1
BRG				pmax	pmax		
	comp=Z,19nm,1.6s,mb4.8						
BRG	Berggiesshubel	76.22	320	*e*P	P	09 05 45.1	-0.1
	comp=Z,19nm,1.6s,mb4.8						
GERES	GERESS Array B	76.26	318	P	P	09 05 45.4	-0.1
	comp=Z,3.3nm,0.9s,mb4.2,baz=90,slow=5.3,SNR=14						
HFS	Hagfors	77.10	330	P	P	09 05 49.5	-0.4
	comp=Z,2.8nm,0.6s,mb4.3,baz=146,slow=5.2,SNR=4.4						
NOA	NORSAR Array B	78.39	331	P	P	09 05 56.2	-0.8
	comp=Z,1.1nm,0.8s,mb3.8,baz=97,slow=5.4,SNR=3.3						
DAVOX	Davos	78.79	316	P	P	09 05 59.7	+0.2
	comp=Z,4.2nm,0.8s,mb4.4,baz=80,slow=7.5,SNR=7.2						
SYO	Syowa Base	85.46	197	⇓P	P	09 06 35.9	+2.3
SYO	Syowa Base	85.46	197	⇑sP	sP	09 06 49.7	+5.5
YKA	Yellowknife Ar	106.25	13	PP	PP	09 12 29.8	-6.3
	comp=Z,0.2nm,0.6s,baz=337,slow=8.4,SNR=3.5						
PDAR	Pinedale Array	125.22	20	PKP	PKPdf	09 12 58.0	-2.7
	comp=Z,0.2nm,0.5s,baz=18,slow=4.7,SNR=4.2						
TXAR	Lajitas Array	139.36	22	PKP	PKPdf	09 13 25.9	-1.8
	comp=Z,0.2nm,0.6s,slow=0.9,SNR=4.2						
TXAR				SKP		09 16 58.9	
	comp=Z,0.4nm,0.9s,baz=214,slow=3.3,SNR=3.7						
LPAZ	La Paz	159.48	246	PKPab	PKPab	09 14 34.5	-0.2
	comp=Z,3.3nm,1.1s,baz=77,slow=4.8,SNR=6.9						

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*BJI **30** 08:55:17.9, 24.42N×142.92E, h80^{km}, mB5.2, mb4.6, Ms4.0, Msz4.1*

*IDC **30** 08:55:18.4±2.0, 24.48N×142.72E, h50^{km}±17^{km}, mb4.1/20, mb1 4.3/21, mb1mx4.2/24, mbtmp4.3/21, ML3.9/1, MS4.0/5, Ms1 4.0/5, ms1mx3.5/40, Error ellipse: s-maj=19.7km s-min=11.7km az=91.0*

*NEIC **30** 08:55:19.6±4.8, 24.57N×142.77E, h66^{km}±43^{km}, mb4.6/23, Error ellipse: s-maj=16.1km s-min=10.2km az=87.0*

ISC 30 08:55:17.9±1.6, **24.48N**±0.05×**142.74E**±0.08, **h64**^{km}±13^{km}, **n72**, σ**1^{s}13**/66, **mb4.6**/49, **1C, Volcano Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CBIJ	Chichi jima	2.65	349	P	P	08 56 00.3	+1.1
	24nm,0.3s,baz=158,slow=5.4,SNR=4.5						
CBIJ				S	S	08 56 30.1	-0.2
	88nm,0.3s,baz=294,slow=23,SNR=5.1						
JHJ	Hachijo jima 2	8.98	344	LR	LR	09 00 59.0	
	comp=Z,907nm,19.2s,baz=61,slow=38						
JOW	Kunigami	13.26	283	LR	LR	09 03 17.9	
	comp=Z,563nm,18.4s,baz=197,slow=36						
ASAJ	Asahikawa	19.59	360	LR	LR	09 08 04.5	
	comp=Z,242nm,18.1s,baz=343,slow=39						
MDJ	Mudanjiang	22.76	335	P	P	09 00 16.4	+0.9
	7.1nm,0.8s,mb4.2						
SNY	Shenyang	23.50	322	⇑P	P	09 00 22.5	-0.2
SNY				AMB	AMB		
	comp=Z,10.0nm,0.9s,mb4.2						
ENH	Enshi	30.02	289	P	P	09 01 20.8	-2.2
HIA	Hailar	30.59	330	*e*P	P	09 01 26.4	-1.5
	comp=Z,8.1nm,0.8s,mb4.6						
PMG	Port Moresby	33.96	172	P	P	09 01 56.1	-1.4
	comp=Z,5.0nm,0.5s,mb4.7,baz=22,slow=4.8,SNR=6.4						
PMG	Port Moresby	33.96	172	*e*P	P	09 01 56.0	-1.5
	comp=Z,12nm,0.7s,mb4.9						
ULN	Ulaanbaatar	36.58	319	*e*P	P	09 02 18.6	-0.9
	comp=Z,3.0nm,0.8s,mb4.2						
SONM	Songino Array	36.97	318	P	P	09 02 22.2	-0.5
	comp=Z,2.0nm,0.8s,mb4.0,baz=153,slow=8.3,SNR=5.3						
CM31	Chiang Mai Arr	41.07	270	P	P	09 02 58.5	+1.5
	comp=Z,9.3nm,0.7s,mb4.5						
CMAR	Chiang Mai Arr	41.07	270	P	P	09 02 59.0	+2.0
	comp=Z,11nm,1.0s,mb4.4,baz=65,slow=7.6,SNR=24						
CMAR				LR	LR	09 20 22.6	
	comp=Z,167nm,18.4s,baz=85,slow=37						
CTAO	Charters Tower	44.44	175	*e*P	P	09 03 24.4	-0.1
	comp=Z,9.1nm,0.9s,mb4.5						
WRAB	Tennant Creek	44.90	191	*e*P	P	09 03 27.8	-0.4
	comp=Z,29nm,0.6s,mb5.3						
WRA	Warramunga Arr	44.91	191	P	P	09 03 28.0	-0.4
	comp=Z,15nm,0.7s,mb5.0,baz=12,slow=8.6,SNR=79						
BILL	Bilibino	45.89	12	*e*P	P	09 03 33.8	-1.6
	comp=Z,5.1nm,0.8s,mb4.5						
WMQ	Urumqi	48.53	308	P	P	09 03 56.3	-0.2
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.8						
ASAR	Alice Springs	48.62	191	P	P	09 03 57.0	-0.5
	comp=Z,1.8nm,0.7s,mb4.2,baz=14,slow=9.9,SNR=13						
MBWA	Marble Bar	50.59	208	*e*P	P	09 04 14.7	+2.1
	comp=Z,50nm,0.9s,mb5.5						
GUN	Gumba	50.75	287	*e*P	P	09 04 15.0	+1.3
	comp=Z,40nm,0.8s,mb5.4						
PKI	Pulchoki	51.22	287	*e*P	P	09 04 17.3	0.0
	comp=Z,18nm,1.0s,mb5.0						
KKN	Kakani	51.30	287	*e*P	P	09 04 18.0	+0.2
	comp=Z,25nm,0.8s,mb5.2						
DMN	Daman	51.48	287	*e*P	P	09 04 19.1	-0.1
	comp=Z,16nm,0.6s,mb5.1						
GKN	Gorkha	51.82	287	*e*P	P	09 04 21.3	-0.5
	comp=Z,26nm,0.8s,mb5.2						
KOLN	Koldanda	52.76	287	*e*P	P	09 04 26.1	-2.8
	comp=Z,25nm,1.0s,mb5.1						
STKA	Stephens Creek	56.05	181	P	P	09 04 52.0	-0.9
	comp=Z,1.0nm,0.4s,mb4.2,baz=12,slow=7.0,SNR=7.5						
TKM2	Tokmak 2	57.34	306	P	P	09 05 02.1	+0.2
	SNR=8.2						
KZA	Kyzart	57.67	306	P	P	09 05 05.8	+1.7
	SNR=5.2						
KBK	Karagaybulak	57.84	306	P	P	09 05 06.0	+0.7
	SNR=6.9						
USP	Ospenovka	58.12	307	P	P	09 05 07.3	+0.1
	SNR=5.2						
AAK	Ala-Archa	58.18	306	*e*P	P	09 05 06.1	-1.5
UCH	Uchtor	58.20	306	P	P	09 05 09.0	+1.2
	SNR=13						
EKS2	Erkin-Say	58.70	306	P	P	09 05 11.2	-0.1
	SNR=5.1						
AML	Almayashu	58.81	306	P	P	09 05 13.1	+1.0
	SNR=8.8						
ILAR	Eielson Array	59.77	28	P	P	09 05 17.0	-1.3
	comp=Z,1.1nm,0.7s,mb4.0,baz=256,slow=5.7,SNR=18						
CHKZ	Chkalovo	60.16	319	*e*P	P	09 05 19.8	-1.4
	comp=Z,11nm,1.0s,mb4.8						
BVAR	Borovoye Array	60.31	318	P	P	09 05 21.4	-0.8
	comp=Z,13nm,0.7s,mb5.1,baz=90,slow=8.9,SNR=37						
BRVK	Borovoye	60.37	319	*e*P	P	09 05 21.8	-0.9
	comp=Z,14nm,0.8s,mb5.0						
NWAO	Narrogin (SRO)	62.05	204	P	P	09 05 33.4	-0.8
	comp=Z,20nm,1.1s,mb5.2						
INK	Inuvik	65.19	24	P	P	09 05 54.1	-0.2
	comp=Z,1.3nm,0.8s,mb4.0,baz=340,slow=2.7,SNR=4.1						
INK	Inuvik	65.19	24	*e*P	P	09 05 53.5	-0.8
	comp=Z,5.8nm,1.2s,mb4.5						
ARU	Arti	66.80	323	*e*P	P	09 06 03.8	-0.9
	comp=Z,15nm,0.8s,mb5.1						
YKW3	Yellowknife Ar	74.17	28	P	P	09 06 47.7	-1.3
YKA	Yellowknife Ar	74.20	28	P	P	09 06 49.6	+0.4
	comp=Z,0.7nm,0.5s,mb3.8,baz=292,slow=6.0,SNR=11						
RES	Resolute Bay	74.47	13	*e*P	P	09 06 51.0	+0.4
	comp=Z,5.2nm,1.0s,mb4.4						
DGAR	Diego Garcia	75.41	255	P	P	09 06 58.5	+1.4
	comp=Z,94nm,0.8s,mb5.8						
KEV	Kevo	75.60	341	*e*p	P	09 06 56.8	-0.3
	comp=Z,0.7nm,0.5s,mb3.9						
ARCES	ARCESS Array B	76.16	341	P	P	09 07 01.6	+1.2
	comp=Z,4.5nm,0.6s,mb4.6,baz=73,slow=8.9,SNR=14						
NEW	Newport	78.50	42	P	P	09 07 14.7	+1.0
	comp=Z,4.2nm,1.0s,mb4.3						
KAF	Kangasniemi	80.04	335	*e*p	P	09 07 20.4	-1.4
	comp=Z,1.0nm,0.4s,mb4.1						
CMB	Columbia Colle	80.40	53	*e*P	P	09 07 24.3	+0.1
	comp=Z,13nm,1.3s,mb4.7						
FINES	FINESS Array B	80.50	334	P	P	09 07 24.8	+0.5
	comp=Z,1.6nm,0.4s,mb4.3,baz=64,slow=6.1,SNR=18						
NVAR	Mina Array Bea	81.74	52	P	P	09 07 33.2	+1.9
	comp=Z,1.8nm,0.8s,mb4.0,baz=278,slow=4.8,SNR=5.2						
AKASG	Malin Array Be	85.02	324	P	P	09 07 48.2	+0.7
	comp=Z,2.2nm,0.5s,mb4.5,baz=50,slow=5.2,SNR=18						
PDAR	Pinedale Array	85.71	45	P	P	09 07 52.8	+1.7
	comp=Z,0.6nm,0.7s,mb3.9,baz=243,slow=3.3,SNR=4.8						
HFS	Hagfors	86.01	337	P	P	09 07 52.6	+0.4
	comp=Z,3.8nm,0.7s,mb4.7,baz=56,slow=5.3,SNR=5.1						
NB2	NORSAR Subarra	86.21	339	P	P	09 07 53.2	+0.1
	comp=Z,2.2nm,0.7s,mb4.5,baz=45,slow=4.8						
NOA	NORSAR Array B	86.21	339	P	P	09 07 53.6	+0.5
	comp=Z,3.3nm,0.7s,mb4.7,baz=48,slow=4.6,SNR=6.7						
BRTR	Keskin Array B	88.14	313	P	P	09 08 03.7	+0.7
	comp=Z,2.9nm,0.7s,mb4.6,baz=83,slow=4.1,SNR=11						
PV10	Paradox Valley	88.23	48	*e*P	P	09 08 05.5	+2.1
RW3	Ridgway	89.21	48	*e*P	P	09 08 02.6	-5.5
PSZ	Piszkesteto	91.58	326	*e*P	P	09 08 17.1	-1.8
	comp=Z,3.5nm,0.6s,mb4.9						
ANMO	Albuquerque	91.76	50	LR	LR	09 48 09.6	
	comp=Z,92nm,19.7s,slow=35						
ANMO	Albuquerque	91.76	50	P	P	09 08 18.8	-1.3
	comp=Z,1.7nm,1.0s,mb4.3						
GERES	GERESS Array B	94.00	329	P	P	09 08 31.0	+1.1
	comp=Z,3.9nm,1.2s,mb4.7,baz=27,slow=3.0,SNR=4.8						
TXAR	Lajitas Array	96.75	54	P	P	09 08 45.7	+2.7
	comp=Z,0.2nm,0.8s,mb3.6,baz=279,slow=12,SNR=3.0						
SCHQ	Schefferville	97.03	17	P	P	09 08 42.1	-1.5
	comp=Z,19nm,1.2s,mb5.4						
LPAZ	La Paz	149.99	80	PKPbc	PKPdf	09 15 05.3	+8.4
	comp=Z,2.9nm,0.7s,baz=287,slow=1.9,SNR=10						
LPAZ	La Paz	149.99	80	*e*PKPdf	PKPdf	09 14 59.3	+2.5
LPAZ				*e*PKPbc	PKPdf	09 15 04.8	+7.9
LVC	Limon Verde	150.95	93	PKPbc	PKPdf	09 15 07.9	+10
	comp=Z,3.3nm,0.8s,baz=187,slow=5.0,SNR=3.8						

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*IDC **30** 09:04:43.3±1.4, 6.97N×92.81E, mb4.0/5, mb1 4.3/6, mb1mx4.0/18, mbtmp4.0/6, Error ellipse: s-maj=51.6km s-min=21.2km az=62.0*

ISC 30 09:04:49.1±1.1, **7.2N**±0.1×**93.5E**±0.2, **h33**^{km}, **n12**, σ**0^{s}68**/12, **mb4.3**/10, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.42	25	Pn	P	09 07 46.5	0.0
	0.2nm,0.3s,baz=213,slow=14,SNR=10						
PKI	Pulchoki	21.67	340	*e*P	P	09 09 39.5	+0.6
	16nm,0.7s,mb4.5						
DMN	Daman	21.81	340	*e*P	P	09 09 40.7	+0.4
GUN	Gumba	21.84	342	*e*P	P	09 09 39.4	-1.1
	23nm,0.7s,mb4.7						
KKN	Kakani	21.92	340	*e*P	P	09 09 41.3	0.0
	4.4nm,0.2s,mb4.5						
GKN	Gorkha	22.34	339	*e*P	P	09 09 45.7	+0.2
	45nm,1.1s,mb4.8						
KOLN	Koldanda	22.51	337	*e*P	P	09 09 48.2	+0.9
	4.9nm,0.2s,mb4.6						
SONM	Songino Array	41.99	13	P	P	09 12 39.1	+0.3
	2.2nm,1.1s,mb3.7,baz=191,slow=7.4,SNR=9.7						
ZAL	Zalesovo	47.15	353	P	P	09 13 18.8	-1.3
	2.1nm,0.4s,mb4.4,baz=222,slow=6.9,SNR=7.1						
WRA	Warramunga Arr	48.42	125	P	P	09 13 30.6	+0.1
	2.0nm,0.7s,mb4.2,baz=302,slow=8.9,SNR=11						
ASAR	Alice Springs	50.00	129	P	P	09 13 42.6	0.0
	2.2nm,0.7s,mb4.3,baz=301,slow=6.8,SNR=20						
ASAR				PcP	PcP	09 15 01.1	-1.4
	0.9nm,0.7s,baz=304,slow=3.5,SNR=5.4						
GERES	GERESS Array B	77.89	318	P	P	09 16 41.3	-4.0
	0.5nm,0.5s,mb3.7,baz=117,slow=6.6,SNR=5.4						

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*JMA **30** 09:14:41.5±0.5, 23.05N×121.81E, h75^{km}, M2.6*

TAP 30 09:14:40.0, 23.21N×121.67E, h29^{km}, ML3.4, Taiwan

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
YOJ	Yonaguni jima	1.75	44	P	Pn	09 15 11.1	+2.1
YOJ				*e*S	Sn	09 15 32.1	+1.6
HATJ	Hateruma jima	2.13	66	P	Pn	09 15 14.9	+0.4
HATJ				S	Sn	09 15 41.0	+0.8
IRIF	Iriomote-Funau	2.19	59	P	Pn	09 15 16.4	+1.0
IRIF				*e*S	Sn	09 15 43.0	+1.2
JIJ	Ishigaki jima	2.54	63	P	Pn	09 15 20.5	+0.2
JTJ	Tarama	3.12	62	P	Pn	09 15 29.0	+0.5
JTJ				S	Sn	09 16 05.2	0.0

IDC 30 09:23:15.8±1.3, **7.95N**×**91.29E**, **mb3.8**/6, **mb1 4.0**/7, **mb1mx3.9**/17, **mbtmp3.8**/7, **Error ellipse: s-maj=43.8km s-min=28.4km az=49.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.82	35	Pn	P	09 26 20.2	-2.1
	0.2nm,0.3s,baz=223,slow=14,SNR=4.9						
SONM	Songino Array	41.77	15	P	P	09 31 06.1	-2.4
	0.8nm,0.9s,baz=189,slow=7.0,SNR=4.2						
BRTR	Keskin Array B	60.25	311	P	P	09 33 25.8	-2.6
	1.1nm,0.9s,baz=135,slow=3.5,SNR=3.7						
STKA	Stephens Creek	62.23	132	P	P	09 33 39.5	-2.4
	1.5nm,0.7s,baz=307,slow=9.6,SNR=5.7						
AKASG	Malin Array Be	66.35	322	P	P	09 34 05.2	-3.3
	0.2nm,0.2s,baz=81,slow=6.1,SNR=3.0						
KEV	Kevo	73.83	341	*e*p	pP	09 35 04.5	+11
	0.3nm,0.4s						
ARCES	ARCESS Array B	74.24	341	P	P	09 34 55.9	-0.2
	3.9nm,1.1s,baz=100,slow=5.5,SNR=3.6						
GERES	GERESS Array B	75.89	318	P	P	09 35 05.1	-0.9
	0.7nm,0.7s,baz=90,slow=5.3,SNR=5.5						

IDC 30 09:23:26.1±0.9, **4.74N**×**94.60E**, **mb4.2**/12, **mb1 4.3**/12, **mb1mx4.2**/20, **mbtmp4.2**/12, **MS3.4**/2, **Ms1 3.5**/2, **ms1mx3.0**/31, **Error ellipse: s-maj=52.4km s-min=16.6km az=45.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.28	17	Pn	P	09 26 57.8	+5.8
	0.7nm,0.3s,baz=211,slow=11,SNR=29						
CMAR				LR	LR	09 32 13.3	
	comp=Z,73nm,19.9s,baz=210,slow=37						
TRD	Trivandrum	17.92	283	*e*	Sx	09 31 26.1	
SONM	Songino Array	44.12	11	P	P	09 31 36.0	-2.0
	2.1nm,0.8s,baz=191,slow=8.2,SNR=8.6						
SONM				PcP	PcP	09 33 21.5	-2.3
	1.2nm,0.6s,baz=195,slow=3.9,SNR=6.5						
SONM				LR	LR	09 51 47.5	
	comp=Z,96nm,20.4s,baz=181,slow=39						
WRA	Warramunga Arr	46.12	123	P	P	09 31 52.0	-2.3
	4.3nm,0.5s,baz=302,slow=9.1,SNR=36						
ASAR	Alice Springs	47.60	128	P	P	09 32 03.5	-2.4
	1.2nm,0.6s,baz=300,slow=8.0,SNR=14						
BVAR	Borovoye Array	52.09	342	P	P	09 32 38.3	-1.7
	2.9nm,0.8s,baz=135,slow=8.4,SNR=4.9						
CTA	Charters Tower	56.42	118	P	P	09 33 11.2	-0.9
	6.6nm,0.9s,baz=251,slow=9.1,SNR=3.1						
BRTR	Keskin Array B	64.83	312	P	P	09 34 06.7	-2.6
	1.7nm,0.6s,baz=133,slow=7.0,SNR=5.6						
AKASG	Malin Array Be	70.89	322	P	P	09 34 44.1	-2.9
	1.6nm,0.5s,baz=86,slow=5.1,SNR=7.3						
FINES	FINESS Array B	75.68	333	P	P	09 35 12.7	-2.2
	1.9nm,0.8s,baz=112,slow=7.5,SNR=10						
KAF	Kangasniemi	75.78	333	*e*p	P	09 35 13.0	-2.4
	0.4nm,0.4s						
ARCES	ARCESS Array B	78.35	340	P	P	09 35 28.4	-1.2
	4.0nm,0.9s,baz=97,slow=7.2,SNR=12						
GERES	GERESS Array B	80.46	319	P	P	09 35 41.3	-0.1
	1.3nm,0.7s,baz=104,slow=5.5,SNR=6.5						
HFS	Hagfors	81.38	330	P	P	09 35 44.3	-1.7
	1.8nm,0.7s,baz=108,slow=9.1,SNR=4.3						
DAVOX	Davos	82.96	316	P	P	09 35 54.4	-0.1
	2.9nm,0.5s,baz=191,slow=10,SNR=7.0						
TXAR	Lajitas Array	141.85	26	PKhKP		09 42 57.7	
	0.3nm,0.7s,baz=315,slow=1.3,SNR=4.1						

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*IDC **30** 09:29:33.9±1.3, 5.83N×91.56E, mb3.9/7, mb1 4.0/8, mb1mx3.9/19, mbtmp3.8/8, ML3.5/1, MS3.8/2, Ms1 3.9/2, ms1mx3.0/31, Error ellipse: s-maj=44.1km s-min=23.7km az=53.0*

ISC 30 09:29:40.8±1.0, **6.0N**±0.1×**92.2E**±0.1, **h33**^{km}, **n19**, σ**1^{s}47**/18, **mb4.2**/11, **MS3.9**/2, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MDRS	Chennai	13.74	302	*e*P	P	09 32 55.9	+0.1
CMAR	Chiang Mai Arr	14.03	27	Pn	P	09 32 59.3	-0.2
	0.1nm,0.3s,baz=218,slow=14,SNR=6.8						
VIS	Vishakhapatnam	14.54	324	*e*P	P	09 33 06.2	-0.1
VIS				*e*S	S	09 35 44.9	-2.3
VIS				AML	AML	09 36 07.6	
	comp=E,25nm,0.4s						
VIS				AML	AML	09 36 10.2	
	comp=N,22nm,0.6s						
BWNR	Bhubaneshwar	15.53	337	*e*P	P	09 33 12.4	-6.6
BWNR				*e*		09 36 01.1	
PKI	Pulchoki	22.42	344	*e*P	P	09 34 40.0	+1.9
DMN	Daman	22.55	343	*e*P	P	09 34 41.2	+1.8
GUN	Gumba	22.62	345	*e*P	P	09 34 41.4	+1.2
	comp=N,41nm,0.8s,mb4.9						
KKN	Kakani	22.67	344	*e*P	P	09 34 42.6	+2.0
	comp=N,20nm,0.7s,mb4.6						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GKN	Gorkha	23.05	343	*e*P	P	09 34 45.1	+0.7
	comp=N,26nm,0.8s,mb4.7						
KOLN	Koldanda	23.16	340	*e*P	P	09 34 46.2	+0.8
	comp=N,22nm,0.8s,mb4.6						
SONM	Songino Array	43.43	14	P	P	09 37 40.4	-1.9
	comp=N,1.7nm,0.6s,mb3.9,baz=195,slow=7.8,SNR=18						
ZAL	Zalesovo	48.19	354	P	P	09 38 17.1	-2.8
	comp=N,2.1nm,0.5s,mb4.4,baz=239,slow=6.6,SNR=10.0						
WRA	Warramunga Arr	48.78	123	P	P	09 38 24.5	-0.4
	comp=N,0.3nm,0.6s,mb3.5,baz=302,slow=9.0,SNR=1.8						
BVAR	Borovoye Array	50.19	343	P	P	09 38 32.0	-3.3
	comp=N,1.7nm,0.7s,mb4.2,baz=153,slow=9.7,SNR=5.6						
ASAR	Alice Springs	50.23	128	P	P	09 38 35.6	-0.4
	comp=N,0.7nm,1.0s,mb3.6,baz=291,slow=7.7,SNR=2.7						
EIL	Elat	58.73	301	LR	LR	10 03 03.0	
	comp=N,38nm,21.8s,MS3.5,baz=152,slow=34						
BRTR	Keskin Array B	62.24	312	P	P	09 39 55.4	-6.4
	comp=N,0.9nm,0.5s,mb4.2,baz=109,slow=6.5,SNR=4.4						
GERES	GERESS Array B	77.96	319	P	P	09 41 31.5	-5.9
	comp=N,0.2nm,0.3s,mb3.5,baz=82,slow=6.9,SNR=4.7						
NOA	NORSAR Array B	80.44	331	LR	LR	10 17 49.3	
	comp=N,118nm,18.4s,MS4.3,baz=265,slow=36						

IDC 30 09:35:17.6±4.7**, 7.82N**×**92.38E, mb3.4**/3**, mb1 3.6**/4**, mb1mx3.5**/18**, mbtmp3.4**/4**, ML3.6**/1**, Error ellipse: s-maj=133.7km s-min=28.0km az=78.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.36	30	Pn	P	09 38 15.6	-2.2
	0.1nm,0.3s,baz=228,slow=11,SNR=2.8						
SONM	Songino Array	41.62	14	P	P	09 43 07.2	-1.9
	0.2nm,0.6s,baz=203,slow=9.2,SNR=2.4						
WRA	Warramunga Arr	49.66	124	P	P	09 44 10.8	-2.6
	0.6nm,0.4s,baz=301,slow=10.0,SNR=13						
ASAR	Alice Springs	51.23	129	P	P	09 44 24.1	-1.2
	0.2nm,0.5s,baz=305,slow=7.2,SNR=3.9						

IDC 30 09:39:32.8±3.4**, 21.44S**×**178.34W, mb4.0**/4**, mb1 4.1**/4**, mb1mx3.9**/14**, mbtmp4.0**/4**, Error ellipse: s-maj=66.9km s-min=50.3km az=68.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RPZ	Rata Peaks	23.90	199	P	P	09 44 48.3	-0.7
	8.2nm,0.5s,baz=281,slow=5.2,SNR=6.0						
STKA	Stephens Creek	37.10	245	P	P	09 46 44.0	-2.8
	1.4nm,0.6s,baz=79,slow=9.9,SNR=6.3						
ASAR	Alice Springs	44.00	258	P	P	09 47 42.0	-2.0
	1.1nm,0.9s,baz=89,slow=7.6,SNR=7.2						
WRA	Warramunga Arr	44.16	263	P	P	09 47 44.7	-0.6
	0.3nm,0.5s,baz=96,slow=8.2,SNR=8.8						
HFS	Hagfors	140.41	351	PKP	PKPdf	09 59 01.4	-4.1
	2.4nm,0.3s,baz=63,slow=3.2,SNR=22						
AKASG	Malin Array Be	143.67	330	PKP	PKPdf	09 59 09.9	-1.4
	0.9nm,0.4s,baz=43,slow=4.2,SNR=7.8						

NIED ***30*** *09:40:00, 38.30N×135.70E, h360^{km}, Mw4.6 Best double couple: $M_0$7.78×10^{15} NP1:ϕ_s29°, δ84°, λ-87°. NP2:ϕ_s182°, δ6°, λ-117°.*

MOS ***30*** *09:40:56.8±0.8, 38.41N×135.37E, h347^{km}, mb4.7/52, Error ellipse: s-maj=11.3km s-min=5.1km az=113.9*

BJI ***30*** *09:40:57.4, 38.41N×135.59E, h382^{km}, mB5.0, mb4.9*

IDC ***30*** *09:40:57.5±1.0, 38.39N×135.43E, h342^{km}±10^{km}, mb4.1/34, mb1 4.2/37, mb1mx4.1/42, mbtmp4.8/37, Error ellipse: s-maj=9.2km s-min=7.1km az=82.0*

NEIC ***30*** *09:40:58.9±0.4, 38.39N×135.46E, h359^{km}±3^{km}, mb4.7/70, MW4.6(NIED), Error ellipse: s-maj=6.0km s-min=4.6km az=195.0*

JMA ***30*** *09:40:58.1±0.2, 38.32N×135.73E, h375^{km}±2^{km}, M4.5*

ISC 30 09:40:57.9±0.2**, 38.39N**±0.03×**135.49E**±0.03**, h361**^{km}±2^{km}**, h358**^{km}±2.9^{km}**: pP-P, n309,** σ**0**^{s}**96**/323**, mb4.6**/112**, 7C-14D, Sea of Japan**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHG	Hegura jima	1.25	115	P	P	09 41 47.1	+0.9
JHG				S	S	09 42 25.1	+1.1
JSZ	Suzu	1.75	122	P	P	09 41 49.5	+0.5
JSZ				S	S	09 42 30.1	+1.1
JSD	Sado	2.21	98	P	P	09 41 52.1	0.0
JSD				S	S	09 42 34.6	+0.1
JKG	Kaga	2.21	162	P	P	09 41 52.6	+0.5
JKG				S	S	09 42 34.5	-0.1
SAI	Saigo	2.78	219	P	P	09 41 57.6	+1.1
MAJO	Matsushiro	2.84	130	⇓*i*P	P	09 41 56.8	-0.3
MAT	Matsushiro	2.84	130	P	P	09 41 56.9	-0.2
MAT				*e*S	S	09 42 45.4	+1.9
MAT	Matsushiro	2.84	130	*e*P	P	09 41 57.0	-0.1
MAT				S	S	09 42 45.0	+1.5
JGM	Miyama	2.86	160	P	P	09 41 57.4	+0.2
JAW	Awa shima	2.95	88	P	P	09 41 57.8	-0.2
JNS	Sasagawa	3.07	99	P	P	09 41 58.7	-0.4
JNS				S	S	09 42 47.6	+0.5
JWT	Wachi	3.10	181	P	P	09 42 00.1	+0.7
JWT				S	S	09 42 48.2	+0.6
JRY	Ryogami san	3.61	130	P	P	09 42 02.9	-1.2
JAG	Ashikaga	3.71	121	P	P	09 42 03.6	-1.6
JYN	Shimob	3.78	139	P	P	09 42 05.3	-0.5
JHS	Saijyo	3.88	210	P	P	09 42 08.3	+1.5
JHS				S	S	09 43 03.4	+2.5
JIE	Ise	4.11	166	P	P	09 42 09.6	+0.5
JOD2	Odawara 2	4.25	136	P	P	09 42 09.8	-0.8
JMK	Ichinoseki	4.52	81	P	P	09 42 12.2	-1.2
JWZ	Kozaga	4.85	178	P	P	09 42 17.0	0.0
BSO1	Boso 1	5.78	128	P	P	09 42 25.0	-2.2
BSO1				S	S	09 43 34.0	-3.3
JTO	Tosashimizu	5.94	202	P	P	09 42 30.2	+1.3
JTO				S	S	09 43 41.6	+1.2
KS15	Wonju Array Si	6.09	263	⇑*i*Pn	P	09 42 32.4	+1.7
JHJ	Hachijo jima 2	6.31	145	P	P	09 42 31.9	-1.4
	95nm,0.3s,baz=227,slow=16,SNR=8.2						
JHJ				S	S	09 43 47.0	-1.3
	81nm,0.3s,baz=79,slow=22,SNR=4.7						
JHJ2	Mitsune	6.33	145	P	P	09 42 31.6	-1.9
JHJ2				*e*S	S	09 43 45.9	-2.7
INCN	Inchon	7.06	265	⇑*i*Pn	P	09 42 43.1	+1.1
MDJ	Mudanjiang	7.63	326	P	P	09 42 49.5	+0.8
MDJ				XP		09 43 58.3	
MDJ				S	S	09 44 20.0	+4.0
MDJ				PCP	PcP	09 48 48.3	-1.6
MDJ				SCP		09 51 44.3	
MDJ				PCS		09 52 21.0	
MDJ				SCS	ScS	09 55 18.5	+0.1
MDJ				AMB	AMB		
	comp=Z,49nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,185nm,5.2s						
MDJ	Mudanjiang	7.63	326	*e*Pn	P	09 42 49.5	+0.7
MDJ				*e*		09 43 00.6	
ASAJ	Asahikawa	7.83	41	P	P	09 42 49.5	-1.6
	comp=Z,9.0nm,0.3s,baz=244,slow=11,SNR=43						
ASAJ				S	S	09 44 15.9	-4.3
	comp=Z,4.3nm,0.3s,baz=285,slow=30,SNR=10						
CN2	Changchun	9.31	309	*e*P	P	09 43 09.3	+0.8
CN2				*e*XP		09 44 28.8	
CN2				*e*S	S	09 44 56.5	+4.8
CN2				AMB	AMB		
	comp=Z,30nm,0.7s						
YUK	Yuzh-Kuril'sk	9.63	51	P	P	09 43 11.9	-0.5
YUK				*e*S	S	09 44 51.8	-6.9
YUK				pmax	pmax		
	comp=Z,170nm,0.4s						
YUK				smax			
	comp=E,250nm,0.6s						
YUK				smax			
	comp=N,1µm,0.7s						
YUK				smax			
	comp=N,2µm,0.7s						
YUK				smax			
	comp=E,2µm,0.9s						
SNY	Shenyang	9.75	294	⇑P	P	09 43 15.5	+1.7
SNY				AMB	AMB		
	comp=Z,20nm,0.7s						
YSS	Yuzh-Sakhalins	10.09	30	*e*P	P	09 43 15.0	-2.8
YSS				*e*		09 45 10.0	
YSS	Yuzh-Sakhalins	10.09	30	*e*Pn	P	09 43 13.8	-4.0
DL2	Dalian	10.86	277	P	P	09 43 28.8	+1.8
DL2				*e*XP		09 44 44.5	
DL2				S	S	09 45 31.3	+6.3
DL2				AMB	AMB		
	comp=Z,60nm,0.9s						
KLR	Kul'dur	11.17	347	*e*P	P	09 43 26.3	-4.4
KLR				*e*S	S	09 45 29.8	-1.9
KLR				smax			
	comp=N,110nm,1.8s						
KLR				smax			
	comp=E,110nm,1.8s						
CBIJ	Chichi jima	12.59	152	P	P	09 43 44.8	-2.8
	comp=E,90nm,0.3s,baz=277,slow=22,SNR=16						
CBIJ				S	S	09 45 54.6	-7.5
	comp=E,46nm,0.3s,baz=267,slow=24,SNR=9.0						
TIA	Tai'an	14.78	267	⇑P	P	09 44 11.8	-0.2
TIA				AMB	AMB		
	comp=Z,31nm,1.0s						
NJ2	Nanjing	14.99	250	*e*P	P	09 44 12.3	-1.9
NJ2				XP		09 45 42.0	
NJ2				S	S	09 46 49.0	-2.9
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s						
NJ2				AMB	AMB		
	comp=Z,640nm,4.8s						
NJ2				LR	LR		
	comp=N,180nm,14.0s						
NJ2				LR	LR		
	comp=E,150nm,16.0s						
NJ2				LR	LR		
	comp=Z,180nm,18.0s						
BJI	Beijing	15.07	282	*e*P	P	09 44 13.0	-2.0
BJI				AMB	AMB		
	comp=Z,22nm,0.8s						
BJI				LR	LR		
	comp=N,195nm,15.5s						
BJI				LR	LR		
	comp=E,262nm,16.2s						
BJI				LR	LR		
	comp=Z,171nm,20.8s						
BJT	Baijiatuau	15.07	282	*e*P	P	09 44 13.4	-1.7
BJT				pmax	pmax		
	comp=Z,41nm,0.6s						
BJT	Baijiatuau	15.07	282	*e*P	P	09 44 13.4	-1.6
	comp=Z,41nm,0.6s						
HIA	Hailar	15.69	319	*e*P	P	09 44 20.2	-1.3
HIA				pmax	pmax		
	comp=Z,40nm,0.4s						
HIA	Hailar	15.69	319	*e*P	P	09 44 20.2	-1.3
	comp=Z,40nm,0.4s						
HHC	Hu-ho-hao-te	18.59	285	*e*P	P	09 44 50.0	-1.1
HHC				S	S	09 47 57.0	-2.7
HHC				PCP	PcP	09 49 03.5	-0.1
HHC				PCS		09 52 40.5	
HHC				AMB	AMB		
	comp=Z,49nm,0.8s						
HHC				AMB	AMB		
	comp=Z,277nm,5.0s						
CLNS	Chul'man	19.75	343	*e*P	P	09 45 03.3	+0.9
CLNS				pmax	pmax		
	comp=N,23nm,0.7s						
CLNS				pmax	pmax		
	comp=Z,48nm,0.7s						
CLNS				pmax	pmax		
	comp=E,15nm,0.6s						
BTO	Baotou	19.76	284	*e*P	P	09 45 00.8	-1.9
XAN	Xi'an	21.84	267	P	P	09 45 21.5	-1.3
XAN				AMB	AMB		
	comp=Z,63nm,1.7s,mb4.6						
ULN	Ulaanbaatar	22.70	304	*d i*P	P	09 45 30.4	-0.3
ULN	Ulaanbaatar	22.70	304	*e*P	P	09 45 30.3	-0.3
	comp=Z,31nm,0.6s,mb4.7						
ENH	Enshi	22.90	257	*e*P	P	09 45 31.7	-1.0
	comp=Z,49nm,0.7s,mb4.8						
SONM	Songino Array	23.13	303	P	P	09 45 34.3	-0.3
	comp=Z,12nm,0.4s,mb4.4,baz=107,slow=9.1,SNR=130						
SONM				ScP		09 52 14.1	
	comp=Z,0.7nm,0.4s,baz=124,slow=3.1,SNR=10						
YAK	Yakutsk	23.94	353	*d i*P	P	09 45 40.7	-1.2
YAK				pmax	pmax		
	comp=Z,32nm,0.6s,mb4.7						
YAK	Yakutsk	23.94	353	*e*P	P	09 45 39.8	-2.1
	comp=Z,46nm,0.6s,mb4.9						
BOD	Bodaibo	23.97	331	*e*P	P	09 45 40.3	-1.9
LZH	Lanzhou	25.24	275	*e*P	P	09 45 53.0	-0.9
LZH				AMB	AMB		
	comp=Z,40nm,1.0s,mb4.6						
ZAK	Zakamensk	25.74	308	*e*P	P	09 45 57.2	-1.1
TLY	Talaya	25.90	311	*e*P	P	09 45 58.6	-1.1
TLY				pmax	pmax		
	comp=Z,31nm,0.8s,mb4.6						
TLY	Talaya	25.90	311	*e*P	P	09 45 57.2	-2.6
	comp=Z,38nm,0.8s,mb4.7						
GTA	Gaotai	27.68	283	P	P	09 46 14.8	-1.0
GTA				AP		09 47 23.5	
GTA				XP	sP	09 48 03.0	-0.9
GTA				AMB	AMB		
	comp=Z,38nm,0.6s,mb4.8						
FX1	Attu Island--F	29.67	48	P	P	09 46 33.3	+0.2
	comp=Z,15nm,0.4s,mb4.6,baz=290,slow=6.6,SNR=11						
KMI	Kunming	30.66	254	P	P	09 46 43.3	+1.4
KMI				AP	pP	09 47 50.3	+0.4
KMI				AMB	AMB		
	comp=Z,16nm,1.0s,mb4.2						
TIXI	Tiksi	33.51	356	⇓*e*P	P	09 47 04.6	-1.2
TIXI				pmax	pmax		
	comp=Z,61nm,1.1s,mb4.7						
BILL	Bilibino	34.21	20	⇓*e*P	P	09 47 11.6	-0.2
BILL				pmax	pmax		
	comp=Z,7.0nm,1.2s,mb3.8						
BILL	Bilibino	34.21	20	*e*P	P	09 47 08.1	-3.7
	comp=Z,5.4nm,0.5s,mb4.0						
WMQ	Urumqi	36.02	294	⇓P	P	09 47 27.3	+0.1
WMQ				AP	pP	09 48 35.3	-2.0
WMQ				PP	PP	09 48 59.5	+2.0
WMQ				S	S	09 52 33.5	-6.1
WMQ				AMB	AMB		
	comp=Z,63nm,0.6s,mb5.0						
WMQ				LR	LR		
	comp=N,63nm,16.6s						
WMQ				LR	LR		
	comp=E,95nm,15.0s						
WMQ				LR	LR		
	comp=Z,69nm,16.6s						
CM31	Chiang Mai Arr	37.45	248	*e*P	P	09 47 39.8	+0.4
	comp=Z,7.5nm,0.5s,mb4.2						
CMAR	Chiang Mai Arr	37.45	248	P	P	09 47 40.2	+0.8
	comp=Z,6.5nm,0.5s,mb4.1,baz=46,slow=7.7,SNR=43						
CMAR				ScP		09 53 01.8	
	comp=Z,1.2nm,0.6s,baz=13,slow=4.2,SNR=7.1						
LSA	Lhasa	37.45	270	*e*P	P	09 47 40.1	+0.8
LSA				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.3						
LSA	Lhasa	37.45	270	*e*P	P	09 47 40.1	+0.8
	comp=Z,15nm,0.7s,mb4.3						
ZAL	Zalesovo	37.52	311	P	P	09 47 38.8	-0.9
	comp=Z,5.1nm,0.4s,mb4.1,baz=268,slow=7.8,SNR=24						
ZAL				PcP	PcP	09 49 48.6	-1.3
	comp=Z,1.4nm,0.6s,baz=288,slow=6.5,SNR=3.1						
ZAL				ScP		09 53 00.3	
	comp=Z,2.7nm,0.7s,baz=303,slow=4.2,SNR=11						
MKAR	Makanchi Array	39.40	300	*i* P	P	09 47 54.3	-0.8
MKAR				pmax	pmax		
	comp=Z,8.0nm,0.7s						
GUN	Gumba	42.39	271	*e*P	P	09 48 19.7	+0.2
	comp=Z,182nm,0.3s						
KKN	Kakani	42.91	271	*e*P	P	09 48 23.7	0.0
	comp=Z,208nm,0.7s,mb5.4						
PKI	Pulchoki	42.91	271	*e*P	P	09 48 23.4	-0.3
	comp=Z,21nm,0.4s,mb4.7						
DMN	Daman	43.13	271	*e*P	P	09 48 25.5	0.0
	comp=Z,29nm,0.3s,mb4.9						
GKN	Gorkha	43.32	272	*e*P	P	09 48 26.3	-0.7
	comp=Z,118nm,0.7s,mb5.1						
KOLN	Koldanda	44.24	272	*e*P	P	09 48 34.1	-0.2
	comp=Z,26nm,0.2s,mb4.9						
TKM2	Tokmak 2	44.83	296	P	P	09 48 39.4	+0.6
	SNR=12						
KZA	Kyzart	45.31	295	P	P	09 48 43.8	+1.3
	SNR=11						
KBK	Karagaybulak	45.36	295	P	P	09 48 43.2	+0.2
	SNR=11						
CHMS	Chumysh	45.41	296	P	P	09 48 43.1	-0.2
	SNR=5.0						
USP	Ospenovka	45.52	296	P	P	09 48 43.5	-0.6
	SNR=13						
AAK	Ala-Archa	45.69	296	P	P	09 48 45.5	0.0
	SNR=7.6						
AAK	Ala-Archa	45.69	296	*d i*P	P	09 48 44.3	-1.2
AAK				*i* *PP	pP	09 49 57.7	-0.6
AAK				*i*		09 50 15.6	
AAK				*i*		09 50 37.3	
AAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb3.9						
AAK	Ala-Archa	45.69	296	*e*P	P	09 48 44.2	-1.4
	comp=Z,6.2nm,0.6s,mb3.9						
UCH	Uchtor	45.79	295	P	P	09 48 47.1	+0.8
	SNR=5.8						
VOSK	Vostochnaya	45.85	310	P	P	09 48 45.3	-1.3
VOSK				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.2						
CHKZ	Chkalovo	45.93	311	*e*P	P	09 48 45.7	-1.5
CHKZ				*e**PP	pP	09 49 58.8	-1.3
CHKZ				pmax	pmax		
	comp=Z,27nm,1.1s,mb4.3						
CHKZ	Chkalovo	45.93	311	*e*P	P	09 48 45.7	-1.4
	comp=Z,27nm,1.1s,mb4.3						
CHKZ				*e*pP	pP	09 49 58.8	-1.3
BVA0	Borovoye Array	46.16	311	*e*P	P	09 48 47.9	-1.1
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.7s						
BVAR	Borovoye Array	46.16	311	P	P	09 48 48.0	-1.0
	comp=Z,5.5nm,0.3s,mb4.1,baz=95,slow=9.1,SNR=47						
BVAR				PcP	PcP	09 50 17.7	-0.9
	comp=Z,2.0nm,0.5s,baz=90,slow=3.0,SNR=3.9						
BVAR				ScP		09 53 35.3	
	comp=Z,1.8nm,0.5s,baz=86,slow=3.3,SNR=8.3						
EKS2	Erkin-Say	46.19	296	P	P	09 48 49.2	-0.2
	SNR=5.0						
BRVK	Borovoye	46.21	311	*e*P	P	09 48 48.1	-1.3
BRVK				pmax	pmax		
	comp=Z,16nm,0.9s,mb4.2						
BRVK	Borovoye	46.21	311	*e*P	P	09 48 48.1	-1.3
	comp=Z,16nm,0.9s,mb4.2						
AML	Almayashu	46.40	295	P	P	09 48 51.9	+0.9
	SNR=24						
IMA	Indian Mountai	47.94	31	*e*P	P	09 49 03.1	+0.6
IMA				pmax	pmax		
	comp=Z,34nm,1.0s,mb4.5						
IMA	Indian Mountai	47.94	31	*e*P	P	09 49 03.1	+0.6
	comp=Z,34nm,1.0s,mb4.5						
RSO	Redoubt South	48.77	39	*e*P	P	09 49 08.8	-0.1
PMG	Port Moresby	48.78	165	*e*P	P	09 49 08.8	-0.8
PMG				pmax	pmax		
	comp=Z,6.0nm,0.6s						
PMG	Port Moresby	48.78	165	P	P	09 49 08.7	-0.8
	comp=Z,6.4nm,0.6s,mb4.1,baz=195,slow=12,SNR=3.6						
PMG	Port Moresby	48.78	165	*e*P	P	09 49 08.8	-0.8
	comp=Z,6.1nm,0.6s,mb4.0						
COLA	College	50.46	33	*e*P	P	09 49 21.6	+0.1
COLA				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb3.7						
COLA	College	50.46	33	*e*P	P	09 49 21.6	+0.1
	comp=Z,2.8nm,0.6s,mb3.7						
ILAR	Eielson Array	50.88	33	P	P	09 49 24.1	-0.5
	comp=Z,2.1nm,0.5s,mb3.6,baz=265,slow=6.7,SNR=68						
ARU	Arti	52.20	317	*e*P	P	09 49 33.1	-1.3
ARU				*e**PP	pP	09 50 46.7	-2.9
ARU				pmax	pmax		
	comp=Z,60nm,0.6s,mb5.1						
ARU	Arti	52.20	317	*e*P	P	09 49 33.1	-1.4
	comp=Z,60nm,0.6s,mb5.1						
ARU				*e*pP	pP	09 50 46.7	-2.8
HYB	Hyderabad	53.61	264	*e*P	P	09 49 44.5	-0.7
HYB				pmax	pmax		
	comp=Z,40nm,1.0s,mb4.7						
HYB	Hyderabad	53.61	264	*e*P	P	09 49 44.5	-0.7
	comp=Z,40nm,1.0s,mb4.7						
HYB	Hyderabad	53.61	264	⇓*i*P	P	09 49 44.5	-0.7
INK	Inuvik	55.32	27	P	P	09 49 57.0	+0.3
	comp=Z,2.5nm,0.5s,mb3.8,baz=291,slow=5.3,SNR=9.1						
WRAB	Tennant Creek	58.02	181	*e*P	P	09 50 15.0	-1.1
WRAB				pmax	pmax		
	comp=Z,18nm,0.6s,mb4.6						
WRAB	Tennant Creek	58.02	181	*e*P	P	09 50 15.0	-1.1
	comp=Z,18nm,0.6s,mb4.6						
WRAB				*e*pP	pP	09 51 39.8	+6.5
WRA	Warramunga Arr	58.03	181	P	P	09 50 15.2	-1.0
	comp=Z,14nm,0.5s,mb4.5,baz=357,slow=7.5,SNR=257						
WRA				PcP	PcP	09 51 03.3	-0.4
	comp=Z,1.1nm,0.5s,baz=358,slow=4.6,SNR=2.9						
CTA	Charters Tower	59.04	168	P	P	09 50 22.6	-0.4
	comp=Z,9.6nm,0.7s,mb4.3,baz=333,slow=8.2,SNR=11						
CTAO	Charters Tower	59.04	168	*e*P	P	09 50 22.1	-1.0
CTAO				pmax	pmax		
	comp=Z,17nm,0.9s,mb4.5						
CTAO	Charters Tower	59.04	168	*e*P	P	09 50 22.1	-0.9
	comp=Z,17nm,0.9s,mb4.5						
DLBC	Dease Lake	60.42	37	P	P	09 50 33.0	+1.2
	comp=Z,3.2nm,0.8s,mb3.8,baz=284,slow=4.2,SNR=4.8						
DLBC	Dease Lake	60.42	37	*e*P	P	09 50 32.1	+0.3
KEV	Kevo	60.46	338	*e*p	P	09 50 30.9	-1.0
	comp=Z,3.4nm,0.3s,mb4.2						
KEV	Kevo	60.46	338	*e*P	P	09 50 30.9	-1.0
KEV				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.2						
ARCES	ARCESS Array B	61.02	338	P	P	09 50 35.0	-0.6
	comp=Z,23nm,0.9s,mb4.6,baz=55,slow=7.8,SNR=75						
ARE0	ARCESS Array S	61.02	338	*e*P	P	09 50 34.9	-0.7
ASAR	Alice Springs	61.74	182	P	P	09 50 40.5	-0.5
	comp=Z,6.0nm,0.8s,mb4.2,baz=356,slow=5.9,SNR=67						
KTK1	Kautokeino	61.99	338	*e*P	P	09 50 42.5	+0.5
RES	Resolute Bay	62.42	13	*e*P	P	09 50 43.8	-0.9
RES				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.1						
RES	Resolute Bay	62.42	13	*e*P	P	09 50 43.8	-0.9
	comp=Z,4.0nm,0.6s,mb4.1						
TRO	Tromso	62.85	339	*e*P	P	09 50 45.6	-2.0
OBN	Obninsk	64.14	321	⇓*e*P	P	09 50 55.4	-0.6
OBN				*i*		09 51 25.7	
OBN				*e**PP	pP	09 52 15.2	-0.1
OBN				*e*SS	SS	10 03 19.6	-2.2
OBN				pmax	pmax		
	comp=Z,48nm,1.4s,mb4.9						
OBN	Obninsk	64.14	321	*e*P	P	09 50 55.5	-0.5
	comp=Z,30nm,0.6s,mb5.1						
KAF	Kangasniemi	64.89	331	*e*p	P	09 50 59.1	-1.5
	comp=Z,7.5nm,0.4s,mb4.7						
KAF	Kangasniemi	64.89	331	*e*P	P	09 50 59.1	-1.5
KAF				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.7						
YKA	Yellowknife Ar	64.94	29	*i* P	P	09 51 01.9	+0.9
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	Yellowknife Ar	64.94	29	P	P	09 51 00.8	-0.1
	comp=Z,0.8nm,0.8s,baz=306,slow=6.3,SNR=7.2						
YKA				ScP		09 54 58.7	
	comp=Z,0.4nm,0.7s,baz=302,slow=4.1,SNR=4.4						
FINES	FINESS Array B	65.36	330	*i* P	P	09 51 03.2	-0.5
FINES				pmax	pmax		
	comp=Z,32nm,0.8s						
FINES	FINESS Array B	65.36	330	P	P	09 51 03.1	-0.5
	comp=Z,32nm,0.8s,mb5.0,baz=74,slow=6.9,SNR=105						
FINES				PcP	PcP	09 51 31.8	-1.1
	comp=Z,3.7nm,0.6s,baz=60,slow=3.8,SNR=3.7						
TI2	Plekhanov	66.27	305	*e*P	P	09 51 10.2	+0.5
ZEI	Tsey	66.28	306	*e*P	P	09 51 07.9	-1.8
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.2						
MOR8	Moi Rana	66.40	338	*e*P	P	09 51 08.4	-1.7
MOR8				AMb	AMB	09 51 19.9	
	comp=Z,58nm,1.5s,mb5.1						
MOR8	Moi Rana	66.40	338	*e*P	P	09 51 08.4	-1.7
	comp=Z,58nm,1.5s,mb5.1						
KIV	Kislovodsk	66.42	308	⇓*e*P	P	09 51 11.7	+1.1
KIV				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.8						
KIV	Kislovodsk	66.42	308	*e*P	P	09 51 10.8	+0.2
	comp=Z,17nm,0.7s,mb4.9						
GNI	Garni	67.09	304	⇓*e*P	P	09 51 15.5	+0.6
GNI				pmax	pmax		
	comp=Z,12nm,1.1s						
GNI	Garni	67.09	304	P	P	09 51 14.8	0.0
	comp=Z,3.0nm,0.5s,mb4.3,baz=327,slow=21,SNR=3.6						
GNI	Garni	67.09	304	*e*P	P	09 51 15.0	+0.1
	comp=Z,27nm,1.2s,mb4.9						
NSS	Namsos	68.29	337	*e*P	P	09 51 19.8	-2.0
NSS				AMb	AMB	09 51 45.6	
	comp=Z,165nm,1.9s,mb5.4						
NSS	Namsos	68.29	337	*e*P	P	09 51 19.8	-2.0
	comp=Z,165nm,1.9s,mb5.4						
SOC	Sochi	68.45	309	*e*P	P	09 51 20.7	-2.4
SOC				*e*PPP	PPP	09 55 41.7	+0.1
SOC				*e*S	S	09 59 48.9	-5.9

SOC				*e*SS	SS	10 04 30.0	+1.6
SOC				*e*SSS	SSS	10 07 31.6	-4.6
SOC				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.7						
SOC				pmax	pmax		
	comp=N,19nm,0.8s						
SOC				pmax	pmax		
	comp=E,17nm,0.7s						
SUMG	**Summit**	**69.25**	**358**	*e*P	**P**	**09 51 28.6**	**+1.1**
	comp=E,19nm,0.7s,mb4.9						
STKA	**Stephens Creek**	**70.14**	**174**	P	**P**	**09 51 33.9**	**+0.3**
	comp=E,3.8nm,0.5s,mb4.3,baz=347,slow=6.6,SNR=20						
STKA	**Stephens Creek**	**70.14**	**174**	*e*P	**P**	**09 51 33.4**	**-0.1**
AKASG	**Malin Array Be**	**70.29**	**320**	P	**P**	**09 51 33.5**	**-0.7**
	comp=E,9.9nm,0.4s,mb4.9,baz=47,slow=6.5,SNR=90						
UMR	**Umm Al-Rimmam**	**70.73**	**293**	*e*P	**P**	**09 51 37.0**	**-0.1**
UMR				AMb	AMB	09 51 37.5	
	comp=Z,27nm,0.4s,mb5.3						
HFS	**Hagfors**	**70.84**	**333**	P	**P**	**09 51 36.7**	**-0.6**
	comp=Z,16nm,0.4s,mb5.1,baz=72,slow=4.7,SNR=94						
NB2	**NORSAR Subarra**	**71.05**	**335**	P	**P**	**09 51 37.8**	**-0.7**
	comp=Z,16nm,0.7s,mb4.9,baz=43,slow=6.2						
NB2	**NORSAR Subarra**	**71.05**	**335**	P	**P**	**09 51 37.8**	**-0.7**
	baz=43,slow=6.2						
NB2	**NORSAR Subarra**	**71.05**	**335**	P	**P**	**09 51 37.8**	**-0.7**
NB2				pmax	pmax		
	comp=Z,16nm,0.7s,mb4.9						
NOA	**NORSAR Array B**	**71.05**	**335**	P	**P**	**09 51 38.2**	**-0.3**
	comp=Z,14nm,0.8s,mb4.8,baz=42,slow=6.0,SNR=39						
SUW	**Suwalki**	**71.15**	**325**	*e*P	**P**	**09 51 38.8**	**-0.4**
SUW				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.2						
SUW	**Suwalki**	**71.15**	**325**	*e*P	**P**	**09 51 38.8**	**-0.4**
	comp=Z,58nm,1.2s,mb5.2						
RDF	**Al-Radifah**	**71.20**	**292**	*e*P	**P**	**09 51 40.1**	**+0.2**
RDF				AMb	AMB	09 51 40.7	
	comp=Z,50nm,0.5s,mb5.5						
RST	**Umm Al-Ruwaisa**	**71.28**	**293**	*e*P	**P**	**09 51 39.9**	**-0.5**
RST				AMb	AMB	09 51 40.5	
	comp=Z,24nm,0.6s,mb5.1						
MALT	**Malatya**	**72.19**	**305**	*e*P	**P**	**09 51 46.4**	**+0.7**
MALT				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.5						
MALT	**Malatya**	**72.19**	**305**	*e*P	**P**	**09 51 46.4**	**+0.7**
	comp=Z,12nm,1.2s,mb4.5						
NWAO	**Narrogin (SRO)**	**72.96**	**196**	P	**P**	**09 51 49.3**	**-0.9**
NWAO				pmax	pmax		
	comp=Z,2.0nm,0.5s						
NWAO	**Narrogin (SRO)**	**72.96**	**196**	P	**P**	**09 51 49.9**	**-0.3**
	comp=Z,2.4nm,0.5s,mb4.2,baz=204,slow=20,SNR=4.4						
NWAO	**Narrogin (SRO)**	**72.96**	**196**	P	**P**	**09 51 49.3**	**-0.9**
	comp=Z,1.7nm,0.5s,mb4.0						
YBH	**Yreka Blue Hor**	**73.15**	**50**	P	**P**	**09 51 53.0**	**+1.8**
	comp=Z,2.2nm,0.7s,mb4.0,baz=286,slow=5.4,SNR=4.0						
WALA	**Waterton Lakes**	**73.51**	**40**	*e*P	**P**	**09 51 53.7**	**+0.6**
	comp=Z,6.3nm,1.0s,mb4.3						
KWP	**Kalwaria**	**74.22**	**321**	*e*P	**P**	**09 51 57.4**	**+0.2**
KWP				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.0						
KWP	**Kalwaria**	**74.22**	**321**	*e*P	**P**	**09 51 57.4**	**+0.2**
	comp=Z,23nm,0.8s,mb5.0						
BMO	**Blue Mountains**	**74.38**	**45**	*e*P	**P**	**09 51 58.5**	**+0.3**
	comp=Z,7.5nm,0.7s,mb4.5						
BRTR	**Keskin Array B**	**74.38**	**308**	P	**P**	**09 51 58.5**	**+0.2**
	comp=Z,3.9nm,0.5s,mb4.4,baz=90,slow=4.9,SNR=23						
FCC	**Fort Churchill**	**74.80**	**24**	*e*P	**P**	**09 52 00.9**	**+0.7**
FCC				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.0						
FCC	**Fort Churchill**	**74.80**	**24**	*e*P	**P**	**09 52 00.9**	**+0.6**
	comp=Z,2.2nm,0.6s,mb4.1						
KOLS	**Kolonicke sedl**	**74.89**	**321**	*e*P	**P**	**09 52 01.0**	**0.0**
KOLS				*e*		09 52 06.8	
NSHM	**Saint Helena R**	**75.14**	**53**	*e*P	**P**	**09 52 01.6**	**-1.1**
OJC	**Ojcow**	**75.22**	**323**	*e*P	**P**	**09 52 03.4**	**+0.6**
MLR	**Muntele Rosu**	**75.25**	**317**	P	**P**	**09 52 03.6**	**+0.6**
	comp=Z,2.0nm,0.4s,mb4.2,baz=150,slow=20,SNR=2.7						
CRVS	**Cervenica-Dubn**	**75.31**	**321**	*e*P	**P**	**09 52 04.2**	**+0.8**
NIE	**Niedzica**	**75.52**	**322**	*e*P	**P**	**09 52 05.0**	**+0.5**
MZLS	**Mizel**	**75.71**	**289**	P	**P**	**09 52 06.2**	**+0.1**
HILS	**Ha’il**	**76.24**	**294**	P	**P**	**09 52 09.4**	**+0.4**
KSP	**Ksiaz**	**76.40**	**325**	*e*P	**P**	**09 52 09.7**	**+0.3**
FRB	**Frobisher Bay**	**76.43**	**11**	P	**P**	**09 52 09.3**	**0.0**
	comp=Z,7.6nm,0.7s,mb4.5,baz=340,slow=4.8,SNR=17						
MORC	**Moravsky Berou**	**76.58**	**324**	*e*P	**P**	**09 52 10.7**	**+0.3**
MORC				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.7						
MORC	**Moravsky Berou**	**76.58**	**324**	*e*P	**P**	**09 52 10.7**	**+0.3**
	comp=Z,11nm,0.7s,mb4.7						
PSZ	**Piszkesteto**	**76.75**	**321**	*e*P	**P**	**09 52 11.6**	**+0.2**
PSZ				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.6						
PSZ	**Piszkesteto**	**76.75**	**321**	*e*P	**P**	**09 52 11.6**	**+0.2**
	comp=Z,15nm,1.1s,mb4.6						
UPC	**Upice**	**76.76**	**325**	*e*P	**P**	**09 52 12.2**	**+0.8**
ASF	**Jabal al Asfar**	**76.81**	**301**	P	**P**	**09 52 12.4**	**+0.4**
	comp=Z,6.1nm,0.8s,mb4.4,baz=279,slow=5.4,SNR=6.1						
CMB	**Columbia Colle**	**76.82**	**52**	*e*P	**P**	**09 52 12.5**	**+0.5**
CMB				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.7						
CMB	**Columbia Colle**	**76.82**	**52**	*e*P	**P**	**09 52 12.5**	**+0.5**
	comp=Z,9.9nm,0.7s,mb4.7						
VYHS	**Vyhne**	**76.86**	**322**	*e*P	**P**	**09 52 12.6**	**+0.6**
VRAC	**Vranov**	**77.35**	**324**	P	**P**	**09 52 15.4**	**+0.8**
	comp=Z,11nm,1.0s,mb4.6,baz=58,slow=4.3,SNR=9.1						
PVCC	**Panska Ves**	**77.39**	**326**	*e*P	**P**	**09 52 15.2**	**+0.4**
AFFS	**‘Afif**	**77.40**	**290**	P	**P**	**09 52 16.0**	**+0.6**
BRG	**Berggiesshubel**	**77.41**	**326**	*i* P	**P**	**09 52 15.2**	**+0.3**
BRG				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.6						
BRG	**Berggiesshubel**	**77.41**	**326**	*i* P	**P**	**09 52 15.2**	**+0.3**
	comp=Z,11nm,0.8s,mb4.7						
CLL	**Collm**	**77.50**	**327**	⇓*i*P	**P**	**09 52 15.5**	**+0.1**
CLL				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.1						
CLL	**Collm**	**77.50**	**327**	⇓*i*P	**P**	**09 52 15.5**	**+0.1**
	comp=Z,34nm,0.9s,mb5.1						
CLL	**Collm**	**77.50**	**327**	⇓P	**P**	**09 52 15.5**	**+0.1**
	comp=Z,logA/T=1.6,mb5.1						
SMOL	**Smolenice**	**77.52**	**323**	*e*P	**P**	**09 52 16.9**	**+1.4**
PRU	**Pruhonice**	**77.79**	**326**	*e*P	**P**	**09 52 17.7**	**+0.7**
GCMT	**Greycliff**	**77.83**	**41**	*e*P	**P**	**09 52 18.3**	**+1.0**
NVAR	**Mina Array Bea**	**77.85**	**50**	P	**P**	**09 52 19.2**	**+1.7**
	comp=Z,3.2nm,0.6s,mb4.2,baz=296,slow=4.1,SNR=14						
ZST	**Bratislava**	**77.90**	**323**	*e*P	**P**	**09 52 18.6**	**+1.0**
CLZ	**Clausthal**	**78.20**	**329**	*e*P	**P**	**09 52 19.6**	**+0.5**
	comp=Z,7.0nm,0.7s,mb4.5						
KAMS	**Al Khamasin**	**78.37**	**287**	P	**P**	**09 52 20.3**	**-0.3**
NKC	**Novy Kostel**	**78.53**	**327**	*e*P	**P**	**09 52 21.7**	**+0.8**
MOX	**Moxa**	**78.58**	**327**	*e*P	**P**	**09 52 21.4**	**+0.3**
MOX	**Moxa**	**78.58**	**327**	*i* P	**P**	**09 52 21.4**	**+0.3**
TPH	**Tonopah**	**78.73**	**50**	*e*P	**P**	**09 52 23.4**	**+1.2**
TPH				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
TPH	**Tonopah**	**78.73**	**50**	*e*P	**P**	**09 52 23.4**	**+1.1**
	comp=Z,14nm,1.0s,mb4.6						
KHC	**Kasperske Hory**	**78.85**	**325**	*e*P	**P**	**09 52 23.3**	**+0.7**
GEC2	**GERESS Array S**	**79.00**	**325**	*e*P	**P**	**09 52 24.0**	**+0.6**
GEC2				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
GEC2	**GERESS Array S**	**79.00**	**325**	*e*P	**P**	**09 52 24.0**	**+0.6**
	comp=Z,6.0nm,0.9s,mb4.3						
GERES	**GERESS Array B**	**79.00**	**325**	P	**P**	**09 52 23.9**	**+0.5**
	comp=Z,3.4nm,0.6s,mb4.2,baz=34,slow=4.8,SNR=33						
KBRS	**Khaybar**	**79.00**	**294**	P	**P**	**09 52 24.8**	**+0.9**
WET	**Wettzell**	**79.15**	**326**	*e*P	**P**	**09 52 25.2**	**+1.0**
GRA1	**Grafenberg Arr**	**79.46**	**327**	*e*P	**P**	**09 52 27.1**	**+1.3**
	comp=Z,18nm,0.9s,mb4.8						
GRF	**Grafenberg Arr**	**79.46**	**327**	*e*P	**P**	**09 52 27.1**	**+1.3**
GRF				pmax	pmax		
	comp=Z,18nm,0.9s,mb4.8						
TATS	**Tathlith**	**79.65**	**287**	P	**P**	**09 52 28.3**	**+0.8**
HWUT	**Hardware Ranch**	**79.67**	**45**	*e*P	**P**	**09 52 26.6**	**-0.5**
	comp=Z,16nm,1.5s,mb4.5						
JMOS	**Jabal al Moall**	**79.86**	**299**	P	**P**	**09 52 28.7**	**+0.3**
PERS	**Pernice**	**79.96**	**323**	*e*P	**P**	**09 52 29.0**	**+0.5**
PDAR	**Pinedale Array**	**79.97**	**43**	P	**P**	**09 52 29.4**	**+0.8**
	comp=Z,2.6nm,0.6s,mb4.1,baz=320,slow=1.7,SNR=22						
EKA	**Eskdalemuir Ar**	**80.19**	**337**	P	**P**	**09 52 29.8**	**+0.3**
	comp=Z,6.3nm,0.6s,mb4.5,baz=36,slow=4.3,SNR=28						
BDAS	**Al Bad‘**	**80.32**	**299**	P	**P**	**09 52 31.3**	**+0.5**
AYUS	**‘Aynunah**	**80.36**	**298**	P	**P**	**09 52 31.6**	**+0.6**
NLU	**North Lily Min**	**80.50**	**46**	*e*P	**P**	**09 52 32.7**	**+1.2**
FUR	**Furstenfeldbru**	**80.59**	**326**	*e*P	**P**	**09 52 32.5**	**+0.7**
BOJS	**Bojanci**	**80.72**	**322**	*e*P	**P**	**09 52 32.5**	**0.0**
UMJS	**Umm Lajj**	**80.74**	**295**	P	**P**	**09 52 34.3**	**+1.2**
CEY	**Cerknica**	**80.94**	**323**	*e*P	**P**	**09 52 33.4**	**-0.3**
STU	**Stuttgart**	**81.03**	**327**	*e*P	**P**	**09 52 34.0**	**0.0**
STU				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.9						
STU	**Stuttgart**	**81.03**	**327**	*e*P	**P**	**09 52 34.0**	**0.0**
	comp=Z,27nm,1.0s,mb4.9						
BFO	**Black Forest**	**81.73**	**327**	*e*P	**P**	**09 52 37.8**	**+0.1**
BFO				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
BFO	**Black Forest**	**81.73**	**327**	*e*P	**P**	**09 52 37.8**	**+0.1**
	comp=Z,14nm,0.9s,mb4.8						
GIVF	**Givet**	**81.76**	**330**	*e*P	**P**	**09 52 37.8**	**0.0**
SRU	**San Rafael**	**81.95**	**46**	*e*P	**P**	**09 52 39.9**	**+0.8**
BAIF	**Baives**	**82.03**	**331**	*e*P	**P**	**09 52 39.1**	**-0.1**
	comp=Z,9.5nm,0.7s,mb4.4						
BAIF	**Baives**	**82.03**	**331**	*e*P	**P**	**09 52 39.1**	**-0.1**
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.5						
CDF	**Champ du Feu**	**82.11**	**328**	*e*P	**P**	**09 52 39.3**	**-0.4**
	comp=Z,28nm,0.9s,mb4.8						
CDF	**Champ du Feu**	**82.11**	**328**	*e*P	**P**	**09 52 39.3**	**-0.4**
CDF				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.8						
DAVOX	**Davos**	**82.25**	**326**	P	**P**	**09 52 41.3**	**+0.8**
	comp=Z,6.2nm,0.7s,mb4.6,baz=22,slow=3.9,SNR=12						
IDI	**Anoyia**	**82.56**	**309**	P	**P**	**09 52 42.4**	**+0.1**
	comp=Z,5.5nm,0.6s,mb4.5,baz=36,slow=14,SNR=6.0						
HINF	**Hinteralfeld**	**82.75**	**328**	*e*P	**P**	**09 52 43.0**	**+0.1**
	comp=Z,5.4nm,0.7s,mb4.2						
HINF	**Hinteralfeld**	**82.75**	**328**	*e*P	**P**	**09 52 43.0**	**+0.1**
HINF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
MEZF	**Maizieres J’vi**	**82.95**	**329**	*e*P	**P**	**09 52 43.8**	**-0.1**
	comp=Z,14nm,0.7s,mb4.6						
PV10	**Paradox Valley**	**83.30**	**46**	*e*P	**P**	**09 52 47.8**	**+1.9**
PV01	**Paradox Valley**	**83.73**	**46**	*e*P	**P**	**09 52 49.6**	**+1.5**
CABF	**La Chapelle**	**84.03**	**328**	*e*P	**P**	**09 52 49.5**	**+0.2**
LPL	**La Plagne**	**84.61**	**327**	*e*P	**P**	**09 52 53.2**	**+0.9**
	comp=Z,9.3nm,0.5s,mb4.6						
LPL	**La Plagne**	**84.61**	**327**	*e*P	**P**	**09 52 53.2**	**+0.9**
LPL				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.6						
LPG	**La Plagne**	**84.62**	**327**	*e*P	**P**	**09 52 53.3**	**+1.0**
	comp=Z,15nm,0.5s,mb4.7						
LPG	**La Plagne**	**84.62**	**327**	*e*P	**P**	**09 52 53.3**	**+1.0**
LPG				pmax	pmax		
	comp=Z,7.0nm,0.5s,mb4.8						
SSF	**Saint Saulge**	**84.73**	**329**	*e*P	**P**	**09 52 52.9**	**+0.1**
SSF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.7						
SSF	**Saint Saulge**	**84.73**	**329**	*e*P	**P**	**09 52 52.9**	**+0.1**
	comp=Z,11nm,0.9s,mb4.7						
FLN	**La Foliniere**	**84.85**	**332**	*e*P	**P**	**09 52 53.0**	**-0.3**
	comp=Z,16nm,0.4s,mb4.9						
FLN	**La Foliniere**	**84.85**	**332**	*e*P	**P**	**09 52 53.0**	**-0.3**
FLN				pmax	pmax		
	comp=Z,8.0nm,0.4s,mb4.9						
LDF	**La Druitiere**	**84.86**	**332**	*e*P	**P**	**09 52 53.2**	**-0.2**
	comp=Z,13nm,0.4s,mb4.8						
LDF	**La Druitiere**	**84.86**	**332**	*e*P	**P**	**09 52 53.2**	**-0.2**
LDF				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb4.8						
HYF	**Humbligny**	**84.90**	**330**	*e*P	**P**	**09 52 53.5**	**-0.1**
SMF	**Signal de Mont**	**84.93**	**329**	*e*P	**P**	**09 52 53.5**	**-0.2**
	comp=Z,17nm,0.9s,mb4.6						
SMF	**Signal de Mont**	**84.93**	**329**	*e*P	**P**	**09 52 53.5**	**-0.2**
SMF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
AVF	**Avril sur Loir**	**85.01**	**329**	*e*P	**P**	**09 52 54.4**	**+0.3**
	comp=Z,30nm,0.8s,mb4.8						
AVF	**Avril sur Loir**	**85.01**	**329**	*e*P	**P**	**09 52 54.4**	**+0.3**
AVF				pmax	pmax		
	comp=Z,15nm,0.8s,mb4.9						
MBDF	**Montbardon**	**85.22**	**326**	*e*P	**P**	**09 52 55.4**	**+0.2**
	comp=Z,20nm,0.8s,mb4.7						
MBDF	**Montbardon**	**85.22**	**326**	*e*P	**P**	**09 52 55.4**	**+0.2**
MBDF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.7						
GRR	**Gorron**	**85.30**	**333**	*e*P	**P**	**09 52 55.5**	**0.0**
	comp=Z,18nm,0.5s,mb4.8						
GRR	**Gorron**	**85.30**	**333**	*e*P	**P**	**09 52 55.5**	**0.0**
GRR				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.9						
BGF	**Bois d’Agland**	**85.40**	**329**	*e*P	**P**	**09 52 55.6**	**-0.4**
ORIF	**Oris-en-Rattie**	**85.46**	**327**	*e*P	**P**	**09 52 56.6**	**+0.3**
	comp=Z,12nm,0.8s,mb4.5						
ORIF	**Oris-en-Rattie**	**85.46**	**327**	*e*P	**P**	**09 52 56.6**	**+0.3**
ORIF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
SBF	**Sospel**	**85.61**	**325**	*e*P	**P**	**09 52 56.9**	**-0.2**
	comp=Z,20nm,0.7s,mb4.8						
SBF	**Sospel**	**85.61**	**325**	*e*P	**P**	**09 52 56.9**	**-0.2**
SBF				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
TCF	**Toulx Ste Croi**	**85.87**	**330**	*e*P	**P**	**09 52 58.3**	**0.0**
	comp=Z,12nm,0.9s,mb4.4						
TCF	**Toulx Ste Croi**	**85.87**	**330**	*e*P	**P**	**09 52 58.3**	**0.0**
TCF				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.4						
SGMF	**Saint Gilles**	**86.02**	**333**	*e*P	**P**	**09 52 59.0**	**+0.1**
	comp=Z,21nm,0.7s,mb4.8						
SGMF	**Saint Gilles**	**86.02**	**333**	*e*P	**P**	**09 52 59.0**	**+0.1**
SGMF				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.8						
VIVF	**Saint-Julien-l**	**86.02**	**327**	*e*P	**P**	**09 52 59.0**	**0.0**
ROSF	**Rostrenen**	**86.20**	**334**	*e*P	**P**	**09 52 59.7**	**-0.1**
	comp=Z,26nm,0.7s,mb4.8						
ROSF	**Rostrenen**	**86.20**	**334**	*e*P	**P**	**09 52 59.7**	**-0.1**
ROSF				pmax	pmax		
	comp=Z,13nm,0.7s,mb4.9						
QUIF	**Quistinic**	**86.52**	**334**	*e*P	**P**	**09 53 01.2**	**-0.2**
	comp=Z,11nm,0.6s,mb4.5						
QUIF	**Quistinic**	**86.52**	**334**	*e*P	**P**	**09 53 01.2**	**-0.2**
QUIF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.5						
MFF	**Saint Martin d**	**86.53**	**331**	*e*P	**P**	**09 53 01.5**	**+0.1**
RJF	**Les Rejaudoux**	**86.96**	**329**	*e*P	**P**	**09 53 04.5**	**+1.0**
CAF	**Calviac**	**87.05**	**329**	*e*P	**P**	**09 53 04.6**	**+0.6**
ANMO	**Albuquerque**	**87.19**	**47**	*e*P	**P**	**09 53 06.6**	**+1.7**
ANMO				pmax	pmax		
	comp=Z,3.0nm,1.1s						
ANMO	**Albuquerque**	**87.19**	**47**	P	**P**	**09 53 06.9**	**+2.0**
	comp=Z,1.4nm,0.9s,mb3.8,baz=301,slow=4.3,SNR=5.3						
ANMO	**Albuquerque**	**87.19**	**47**	*e*P	**P**	**09 53 06.6**	**+1.7**
	comp=Z,2.6nm,1.1s,mb4.0						
LFF	**La Frestale**	**87.57**	**330**	*e*P	**P**	**09 53 07.1**	**+0.6**
ETSF	**Etsaut**	**89.79**	**329**	*e*P	**P**	**09 53 18.0**	**+1.1**
SJPF	**Ste Jean**	**89.87**	**330**	*e*P	**P**	**09 53 17.6**	**+0.3**
WMOK	**Wichita Mounta**	**91.56**	**42**	*e*P	**P**	**09 53 25.4**	**+0.1**
WMOK				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
WMOK	**Wichita Mounta**	**91.56**	**42**	*e*P	**P**	**09 53 25.4**	**+0.1**
	comp=Z,3.1nm,0.7s,mb4.3						
LTX	**Lajitas**	**92.89**	**49**	*e*P	**P**	**09 53 32.8**	**+1.2**
LTX				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
LTX	**Lajitas**	**92.89**	**49**	*e*P	**P**	**09 53 32.8**	**+1.2**
	comp=Z,4.1nm,0.6s,mb4.6						
TXAR	**Lajitas Array**	**92.89**	**49**	P	**P**	**09 53 32.8**	**+1.2**
	comp=Z,2.8nm,0.6s,mb4.5,baz=274,slow=2.5,SNR=58						
DBIC	**Dimbokro**	**121.98**	**312**	PKP	PKPdf	09 59 10.6	+0.4
	comp=Z,1.3nm,0.6s,baz=165,slow=4.8,SNR=4.5						
SDV	**Santo Domingo**	**127.04**	**33**	PKP	PKPdf	09 59 21.3	+1.4
	comp=Z,4.1nm,0.9s,baz=56,slow=2.8,SNR=5.4						
VNA2	**Neumayer--Watz**	**142.19**	**199**	⇑*i*P	PKPdf	09 59 47.1	+0.8
VNA2	**Neumayer--Watz**	**142.19**	**199**	*e*	PP	10 02 53.9	-5.9
VNA3	**Neumayer Olymp**	**142.54**	**198**	⇑*i*P	PKPdf	09 59 46.2	-0.7
VNA3	**Neumayer Olymp**	**142.54**	**198**	*e*	PP	10 02 54.4	-7.5
VNA1	**Neumayer--Stat**	**142.59**	**199**	⇑*i*P	PKPdf	09 59 48.6	+1.6
LPAZ	**La Paz**	**149.75**	**50**	*e*PKHKP		10 00 02.8	
LPAZ	**La Paz**	**149.75**	**50**	PKPbc	PKPdf	10 00 07.0	+6.5
	comp=Z,0.8nm,0.4s,baz=337,slow=5.8,SNR=5.0						

IDC 30 09:42:53.0±2.0, 9.05S×109.72W, mb3.9/4, mb1 4.1/4, mb1mx3.7/14, mbtmp3.9/4, MS4.0/8, Ms1 4.0/8, ms1mx3.5/17, Error ellipse: s-maj=61.5km s-min=36.7km az=51.0, Central East Pacific Rise

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TXAR	**Lajitas Array**	**38.61**	**8**	P	P	09 50 17.5	-2.3
	0.7nm,1.0s,baz=188,slow=8.8,SNR=5.9						
TXAR				LR	LR	10 03 13.4	
	comp=Z,152nm,18.2s,baz=170,slow=32						
PPT	**Papeete**	**39.63**	**253**	LR	LR	10 01 57.1	
	comp=Z,205nm,19.9s,baz=58,slow=29						
LPAZ	**La Paz**	**41.14**	**104**	P	P	09 50 40.2	-0.7
	1.1nm,0.8s,baz=284,slow=8.3,SNR=4.4						
LPAZ				LR	LR	10 03 31.3	
	comp=Z,110nm,18.9s,baz=213,slow=30						
NVAR	**Mina Array Bea**	**47.91**	**351**	LR	LR	10 07 12.4	
	comp=Z,215nm,20.6s,baz=190,slow=30						
PDAR	**Pinedale Array**	**51.57**	**0**	LR	LR	10 10 51.4	
	comp=Z,154nm,19.5s,baz=223,slow=32						
YBH	**Yreka Blue Hor**	**51.93**	**348**	LR	LR	10 09 13.7	
	comp=Z,136nm,20.8s,baz=161,slow=30						
ULM	**Lac du Bonnet**	**60.28**	**10**	P	P	09 53 02.5	-3.1
	2.0nm,0.9s,baz=191,slow=5.2,SNR=3.3						
ILAR	**Eielson Array**	**78.69**	**345**	LR	LR	10 22 56.5	
	comp=Z,58nm,18.7s,baz=360,slow=30						
INK	**Inuvik**	**79.00**	**351**	P	P	09 55 00.2	+0.2
	5.3nm,1.3s,baz=159,slow=4.6,SNR=3.5						
INK				LR	LR	10 24 27.8	
	comp=Z,125nm,21.1s,baz=195,slow=32						
CMAR	**Chiang Mai Arr**	**150.68**	**292**	PKPbc	PKPdf	10 02 47.0	+2.8
	0.6nm,0.3s,baz=45,slow=1.3,SNR=4.1						

IDC 30 09:45:21.1±4.3, 5.72N×93.05E, mb3.7/3, mb1 3.9/3, mb1mx3.7/17, mbtmp3.7/3, Error ellipse: s-maj=163.2km s-min=30.7km az=66.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.90**	**24**	Pn	P	09 48 46.4	+4.5
	0.4nm,0.3s,baz=231,slow=14,SNR=6.9						
SONM	**Songino Array**	**43.49**	**13**	P	P	09 53 26.3	-1.5
	0.8nm,0.8s,baz=188,slow=7.2,SNR=5.6						
SONM				PcP	PcP	09 55 13.9	-2.6
	0.3nm,0.5s,baz=168,slow=2.7,SNR=3.3						
WRA	**Warramunga Arr**	**47.94**	**123**	P	P	09 54 01.8	-1.9
	1.9nm,0.7s,baz=303,slow=9.1,SNR=8.1						
ASAR	**Alice Springs**	**49.41**	**128**	P	P	09 54 13.0	-2.0
	0.5nm,0.6s,baz=294,slow=6.8,SNR=5.0						

IDC 30 09:53:28.6±2.3, 13.05N×92.79E, mb3.8/3, mb1 3.9/4, mb1mx3.6/18, mbtmp3.7/4, ML3.6/1, Error ellipse: s-maj=67.8km s-min=28.8km az=72.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**8.00**	**47**	Pn	P	09 55 24.1	-4.8
	0.2nm,0.3s,baz=238,slow=16,SNR=7.5						
BWNR	**Bhubaneshwar**	**9.84**	**318**	*e*	Sn	09 58 06.9	+20
BWNR	**Bhubaneshwar**	**9.84**	**318**	*e*	P	09 56 17.0	+22
VIS	**Vishakhapatnam**	**10.24**	**298**	*e*S	S	09 58 07.9	+11
MDRS	**Chennai**	**12.22**	**272**	*e*	P	09 56 21.7	-5.4
HYB	**Hyderabad**	**14.41**	**289**	*e*S	S	09 59 44.0	+6.2
LATR	**Latur**	**16.51**	**291**	*e*	S	10 00 35.0	+7.9
ZAL	**Zalesovo**	**41.28**	**353**	P	P	10 01 15.9	-1.3
	0.6nm,0.7s,baz=124,slow=5.7,SNR=3.2						
WRA	**Warramunga Arr**	**52.40**	**128**	P	P	10 02 43.0	-2.3
	0.5nm,0.5s,baz=298,slow=9.8,SNR=11						
ASAR	**Alice Springs**	**54.29**	**132**	P	P	10 02 57.2	-2.0
	0.6nm,0.4s,baz=309,slow=6.9,SNR=28						
KHC	**Kasperske Hory**	**73.21**	**318**	*e*P	P	10 05 10.0	+6.7

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*NEIC **30** 09:53:53.4±4.1, 11.35N×91.86E, h3^{km}±26^{km}, mb4.8/26, Error ellipse: s-maj=9.5km s-min=9.2km az=58.0*

*BJI **30** 09:53:53.3, 11.40N×91.90E, h3^{km}, mB5.4, mb4.6, Ms4.2, Msz4.1*

*IDC **30** 09:53:53.3±0.6, 11.36N×91.87E, mb4.5/14, mb1 4.5/15, mb1mx4.4/21, mbtmp4.4/15, ML4.1/1, MS3.2/1, Ms1 3.4/1, ms1mx2.8/28, Error ellipse: s-maj=30.8km s-min=12.4km az=52.0*

*SYO **30** 09:53:54.4, 11.35N×91.86E, h10^{km}, MB4.8*

*MOS **30** 09:53:56.1±1.0, 11.31N×91.90E, h33^{km}, mb5.0/20, Error ellipse: s-maj=13.6km s-min=8.7km az=104.8*

ISC 30 09:53:54.2±1.2, 11.38N±0.05×91.97E±0.04, h19^{km}±8^{km}, h20^{km}±3.0^{km}:pP-P, n108, $\sigma 0^{s}95$/110, mb4.7/46, MS4.2/3, 2C-2D, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PBA	**Port Blair**	**0.80**	**70**	*i*	**Pb**	**09 54 09.5**	**+0.2**
CM31	**Chiang Mai Arr**	**9.74**	**43**	*e*P	**P**	**09 56 16.1**	**-0.6**
	5.9nm,0.4s						
CMAR	**Chiang Mai Arr**	**9.74**	**43**	Pn	**P**	**09 56 16.4**	**-0.3**
	0.4nm,0.3s,baz=236,slow=15,SNR=7.1						
CMAR				LR	LR	10 00 53.0	
	comp=Z,144nm,19.4s,baz=223,slow=43						
VIS	**Vishakhapatnam**	**10.48**	**308**	*e*P	**P**	**09 56 24.1**	**-2.7**
VIS				*e*		09 58 17.4	
	comp=E,104nm,0.8s						
VIS				*e*		09 58 17.8	
	comp=N,117nm,0.8s						
BWNR	**Bhubaneshwar**	**10.67**	**327**	*e*	**S**	**09 58 10.1**	**-19**
	comp=E,246nm,0.4s						
BWNR				*e*	**S**	**09 58 10.9**	**-18**
	comp=N,125nm,0.5s						
PALK	**Pallekele**	**11.85**	**251**	*e*P	**P**	**09 56 40.6**	**-4.8**
PALK				*e*S	**S**	**09 58 48.7**	**-9.4**
SHL	**Shillong**	**14.12**	**360**	*e*	**P**	**09 57 16.0**	**+0.4**
SHL				*e*	**S**	**09 59 38.0**	**-15**
HYB	**Hyderabad**	**14.32**	**296**	*e*P	**P**	**09 57 16.0**	**-2.3**
HYB	**Hyderabad**	**14.32**	**296**	*i* P	**P**	**09 57 16.0**	**-2.3**
HYB				*e*S	**S**	**09 59 56.0**	**-1.5**
TRD	**Trivandrum**	**15.06**	**260**	*e*	**P**	**09 57 29.2**	**+1.1**
PKI	**Pulchoki**	**17.25**	**340**	*e*P	**P**	**09 57 56.8**	**+0.9**
	comp=N,120nm,0.9s						
DMN	**Daman**	**17.39**	**339**	*e*P	**P**	**09 57 58.0**	**+0.3**
	comp=N,137nm,0.8s						
GUN	**Gumba**	**17.41**	**342**	*e*P	**P**	**09 57 59.0**	**+1.0**
	comp=N,130nm,0.8s						
KKN	**Kakani**	**17.50**	**340**	*e*P	**P**	**09 57 59.4**	**+0.4**
GKN	**Gorkha**	**17.91**	**338**	*e*P	**P**	**09 58 04.3**	**+0.1**
	comp=N,90nm,0.6s						
KOLN	**Koldanda**	**18.10**	**335**	*e*P	**P**	**09 58 07.3**	**+0.7**
	comp=N,80nm,0.7s						
BHPL	**Bhopal**	**18.21**	**312**	*e*P	**P**	**09 58 07.7**	**-0.2**
BHPL				*e*		09 58 13.0	
	comp=Z,36nm,0.7s						
KAD	**Karad**	**18.21**	**291**	*e*P	**P**	**09 58 07.0**	**-1.0**
LSA	**Lhasa**	**18.25**	**358**	*e*P	**P**	**09 58 09.8**	**+1.4**
LSA				pmax	pmax		
	comp=Z,32nm,0.9s						
LSA	**Lhasa**	**18.25**	**358**	*e*P	**P**	**09 58 09.8**	**+1.4**
	comp=Z,32nm,0.9s						
POO	**Poona**	**18.89**	**294**	*e*P	**P**	**09 58 16.3**	**+0.1**
POO				*e*		09 58 21.6	
	comp=Z,32nm,2.0s						
GYA	**Guiyang**	**20.42**	**41**	⇑*i*P	**P**	**09 58 32.0**	**-1.2**
GYA				AMB	AMB		
	comp=Z,20nm,1.0s						
PTH	**Pithoragarh**	**21.14**	**331**	*e*P	**P**	**09 58 42.2**	**+1.6**
PTH				*e*		10 04 26.8	
ENH	**Enshi**	**24.86**	**38**	*e*P	**P**	**09 59 16.5**	**-0.7**
	comp=Z,42nm,0.7s,mb5.1						
ENH				*e*		09 59 24.2	
LZH	**Lanzhou**	**26.84**	**22**	*e*P	**P**	**09 59 36.0**	**+0.4**
LZH				AP	pP	09 59 40.0	-1.1
LZH				XP	sP	09 59 43.0	-0.6
LZH				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.4						
XAN	**Xi’an**	**27.36**	**32**	P	**P**	**09 59 39.0**	**-1.4**
XAN				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.4						
GTA	**Gaotai**	**28.78**	**13**	P	**P**	**09 59 54.3**	**+1.2**
GTA				AP	pP	10 00 01.5	+2.9
GTA				XP	sP	10 00 04.5	+3.4
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.5						
NJ2	**Nanjing**	**32.20**	**46**	*e*P	**P**	**10 00 22.5**	**-1.0**
NJ2				AP	pP	10 00 31.5	+2.5
NJ2				XP	sP	10 00 36.5	+5.1
NJ2				PP	PP	10 01 29.5	-1.2
NJ2				S	**S**	**10 05 31.0**	**-3.3**
NJ2				XS		10 05 46.0	
NJ2				AMB	AMB		
	comp=Z,370nm,6.0s						
NJ2				LR	LR		
	comp=N,1µm,12.9s,MS4.8						
NJ2				LR	LR		
	comp=E,690nm,17.7s,MS4.8						
NJ2				LR	LR		

	comp=Z,490nm,20.2s,MS4.2						
HHC	Hu-ho-hao-te	34.05	27	eP	P	10 00 39.0	-0.5
HHC				AP	pP	10 00 43.3	-1.8
HHC				XP	sP	10 00 46.0	-1.5
HHC				PP	PP	10 01 52.0	-1.8
HHC				S	S	10 06 01.0	-2.1
HHC				SCS	ScS	10 11 01.3	+0.7
HHC				AMB	AMB		
	comp=Z,12nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,253nm,4.8s						
HHC				LR	LR		
	comp=N,135nm,15.5s,MS4.0						
HHC				LR	LR		
	comp=E,208nm,16.6s,MS4.0						
HHC				LR	LR		
	comp=Z,168nm,15.5s,MS3.9						
AAK	Ala-Archa	34.66	337	eP	P	10 00 44.5	-0.3
AAK				e		10 00 53.0	
AAK				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.8						
AAK	Ala-Archa	34.66	337	eP	P	10 00 44.5	-0.3
	comp=Z,15nm,1.1s,mb4.8						
AAK				e		10 00 53.0	
BJT	Baijiatuau	35.66	33	eP	P	10 00 53.7	+0.4
BJT				pmax	pmax		
	comp=Z,16nm,0.7s						
BJT	Baijiatuau	35.66	33	eP	P	10 00 53.7	+0.4
	comp=Z,16nm,0.7s,mb5.1						
BJI	Beijing	35.68	33	eP	P	10 00 53.8	+0.3
BJI				AMB	AMB		
	comp=Z,18nm,0.7s,mb5.1						
MKAR	Makanchi Array	36.24	349	i P	P	10 00 58.5	+0.4
MKAR				pmax	pmax		
	comp=Z,16nm,0.7s						
SONM	Songino Array	38.31	16	P	P	10 01 16.0	+0.6
	comp=Z,3.1nm,0.7s,mb4.1,baz=196,slow=9.0,SNR=14						
SONM				PcP	PcP	10 03 30.2	+0.4
	comp=Z,1.1nm,0.9s,baz=198,slow=3.8,SNR=4.0						
ULN	Ulaanbaatar	38.51	16	eP	P	10 01 16.8	-0.4
ULN				e		10 01 28.5	
ULN				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.2						
ULN	Ulaanbaatar	38.51	16	eP	P	10 01 16.8	-0.4
	comp=Z,4.4nm,0.9s,mb4.2						
ULN				e		10 01 28.5	
ZAK	Zakamensk	39.99	11	eP	P	10 01 29.8	+0.4
TLY	Talaya	41.30	11	eP	P	10 01 41.4	+1.2
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
TLY	Talaya	41.30	11	eP	P	10 01 41.4	+1.3
	comp=Z,3.8nm,0.8s,mb4.1						
KS15	Wonju Array Si	41.34	45	eP	P	10 01 37.6	-3.0
MBWA	Marble Bar	42.30	140	eP	P	10 01 49.0	+0.2
	comp=Z,26nm,1.0s,mb4.8						
ZAL	Zalesovo	42.84	354	P	P	10 01 53.0	+0.2
	comp=Z,1.4nm,0.3s,mb4.1,baz=200,slow=4.9,SNR=7.8						
CN2	Changchun	43.33	36	eP	P	10 01 56.8	-0.1
CN2				AMB	AMB		
	comp=Z,30nm,0.6s,mb5.2						
HIA	Hailar	44.24	26	P	P	10 02 03.8	-0.4
HIA				pmax	pmax		
	comp=Z,3.0nm,0.7s						
HIA	Hailar	44.24	26	P	P	10 02 03.8	-0.4
	comp=Z,3.2nm,0.7s,mb4.2						
BVAR	Borovoye Array	45.01	342	P	P	10 02 10.8	+0.5
	comp=Z,1.2nm,0.7s,mb3.8,baz=135,slow=10,SNR=5.5						
BRVK	Borovoye	45.07	342	eP	P	10 02 11.6	+0.8
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.5						
BRVK	Borovoye	45.07	342	eP	P	10 02 11.6	+0.8
	comp=Z,6.5nm,0.8s,mb4.5						
MAJO	Matsushiro	48.51	51	P	P	10 02 38.6	+0.5
MAJO				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
MAJO	Matsushiro	48.51	51	P	P	10 02 38.6	+0.4
	comp=Z,4.9nm,0.6s,mb4.7						
BOD	Bodaibo	49.31	15	eP	P	10 02 43.8	-0.2
NWAO	Narrogin (SRO)	50.22	152	eP	P	10 02 51.6	+0.3
NWAO				pmax	pmax		
	comp=Z,5.0nm,0.5s						
NWAO	Narrogin (SRO)	50.22	152	P	P	10 02 50.9	-0.4
	comp=Z,5.4nm,0.4s,mb4.9,baz=341,slow=5.8,SNR=8.1						
NWAO	Narrogin (SRO)	50.22	152	eP	P	10 02 51.6	+0.3
	comp=Z,5.2nm,0.5s,mb4.8						
GNI	Garni	50.49	313	P	P	10 02 51.8	-1.4
GNI				pmax	pmax		
	comp=Z,10.0nm,0.8s						
GNI	Garni	50.49	313	P	P	10 02 51.8	-1.5
	comp=Z,10nm,0.8s,mb4.9						
ARU	Arti	51.85	337	eP	P	10 03 05.0	+1.6
ARU				e		10 04 12.4	
ARU				e		10 05 00.8	
ARU				eS	S	10 10 28.1	+4.7
ARU	Arti	51.85	337	P	sP	10 03 10.2	-1.2
	comp=Z,6.6nm,0.9s						
WRA	Warramunga Arr	52.03	126	i P	P	10 03 05.1	-0.1
WRA				pmax	pmax		
	comp=Z,25nm,0.6s						
WRA	Warramunga Arr	52.03	126	P	P	10 03 05.1	-0.2
	comp=Z,25nm,0.6s,mb5.4,baz=307,slow=8.2,SNR=213						
WRAB	Tennant Creek	52.04	126	eP	P	10 03 04.9	-0.4
WRAB				pmax	pmax		
	comp=Z,53nm,0.6s,mb5.7						
WRAB	Tennant Creek	52.04	126	eP	P	10 03 04.9	-0.3
	comp=Z,53nm,0.6s,mb5.7						
KIV	Kislovodsk	53.31	317	P	P	10 03 15.3	+0.9
KIV				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.1						
KIV	Kislovodsk	53.31	317	P	P	10 03 15.3	+0.8
	comp=Z,22nm,0.9s,mb5.1						
ASAR	Alice Springs	53.79	131	P	P	10 03 18.2	0.0
	comp=Z,10nm,0.5s,mb5.0,baz=306,slow=6.7,SNR=104						
ASAR				PcP	PcP	10 04 24.8	+0.8
	comp=Z,2.0nm,0.8s,baz=300,slow=3.9,SNR=5.7						
MALT	Malatya	54.60	309	eP	P	10 03 24.1	+0.1
MALT				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.7						
MALT	Malatya	54.60	309	eP	P	10 03 24.1	+0.1
	comp=Z,10nm,1.3s,mb4.7						
SOC	Sochi	55.19	316	eP	P	10 03 28.0	-0.3
SOC				e		10 04 33.9	
SOC				e		10 05 34.7	
SOC				ePPP	PPP	10 06 47.0	+0.6
SOC				eS	S	10 11 09.9	+1.2
SOC				eSS	SS	10 14 56.0	+3.1
SOC				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.0						
SOC				pmax	pmax		
	comp=N,23nm,0.9s						
SOC				pmax	pmax		
	comp=E,19nm,0.9s						
YSS	Yuzh-Sakhalins	55.42	40	P	P	10 03 29.5	-0.4
YSS				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
YSS	Yuzh-Sakhalins	55.42	40	P	P	10 03 29.5	-0.3
	comp=Z,16nm,0.8s,mb5.1						
ANN	Anapa	57.14	316	eP	P	10 03 54.7	+12
ANN				eS	S	10 12 01.7	+27
ANN				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
BRTR	Keskin Array B	58.55	310	P	P	10 03 51.9	-0.3
	comp=Z,1.7nm,0.6s,mb4.2,baz=116,slow=7.1,SNR=6.9						
PMG	Port Moresby	58.63	108⇑	eP	P	10 03 52.9	-0.1
PMG	Port Moresby	58.63	108	P	P	10 03 53.5	+0.4
	comp=Z,13nm,0.6s,mb5.1,baz=325,slow=4.9,SNR=8.5						
PMG	Port Moresby	58.63	108	eP	P	10 03 52.8	-0.2
	comp=Z,16nm,0.7s,mb5.2						
OBN	Obninsk	61.30	327	eP	P	10 04 12.6	+1.8
OBN				i	pP	10 04 18.6	+2.0
OBN				eS	S	10 12 29.8	+1.5
OBN				eSS	SS	10 16 31.0	+0.6
OBN				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.8						
OBN				MLR	MLR		
	comp=Z,200nm,18.0s,MS4.3						
CTA	Charters Tower	61.89	120	P	P	10 04 15.8	+0.6
	comp=Z,7.2nm,0.9s,mb4.8,baz=288,slow=10,SNR=4.1						
CTAO	Charters Tower	61.89	120	eP	P	10 04 15.2	-0.1
CTAO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
CTAO	Charters Tower	61.89	120	eP	P	10 04 15.2	0.0
	comp=Z,10nm,0.9s,mb5.0						
STKA	Stephens Creek	64.06	134	P	P	10 04 30.1	+0.6
	comp=Z,5.8nm,0.6s,mb4.8,baz=314,slow=5.3,SNR=16						
STKA	Stephens Creek	64.06	134	eP	P	10 04 29.9	+0.4
AKASG	Malin Array Be	64.10	321	P	P	10 04 29.2	-0.2
	comp=Z,0.7nm,0.6s,mb3.9,baz=89,slow=5.3,SNR=4.3						
AKASG				PcP	PcP	10 05 04.3	-0.1
	comp=Z,1.3nm,0.6s,baz=83,slow=3.9,SNR=4.5						
TIXI	Tiksi	64.26	12⇓	eP	P	10 04 29.1	-1.1
TIXI				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.7						
MA2	Magadan	64.71	29	P	P	10 04 32.3	-0.9
MA2				pmax	pmax		
	comp=Z,27nm,1.2s,mb5.2						
MA2	Magadan	64.71	29	P	P	10 04 32.2	-1.0
	comp=Z,27nm,1.2s,mb5.2						
FINES	FINESS Array B	68.64	332	P	P	10 04 56.3	-1.8
	comp=Z,2.5nm,0.6s,mb4.4,baz=92,slow=7.0,SNR=14						
BILL	Bilibino	73.66	22	eP	P	10 05 27.9	-0.2
BILL				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
BILL	Bilibino	73.66	22	eP	P	10 05 27.9	-0.2
	comp=Z,2.1nm,0.5s,mb4.3						
GERES	GERESS Array B	73.81	318	P	P	10 05 29.7	+0.2
	comp=Z,0.9nm,0.6s,mb3.9,baz=76,slow=5.5,SNR=5.9						
HFS	Hagfors	74.37	329	P	P	10 05 32.7	+0.2
	comp=Z,2.4nm,0.6s,mb4.3,baz=82,slow=10,SNR=6.1						
NB2	NORSAR Subarra	75.65	330	P	P	10 05 38.7	-1.1
	comp=Z,4.8nm,0.8s,mb4.5,baz=92,slow=5.8						
NB2	NORSAR Subarra	75.65	330	P	P	10 05 38.7	-1.1
NB2				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
NOA	NORSAR Array B	75.65	330	P	P	10 05 40.2	+0.4
	comp=Z,1.1nm,0.6s,mb3.9,baz=94,slow=5.7,SNR=3.3						
CASY	Casey	78.65	172	eP	P	10 05 57.8	+1.5
	comp=Z,2.6nm,0.8s,mb4.2						
ESLA	Sonseca Array	87.34	310	P	P	10 06 39.4	-2.2
	comp=Z,5.9nm,1.3s,mb4.7						
SYO	Syowa Base	88.12	197	⇓PcP	PcP	10 06 47.1	+0.3
IMA	Indian Mountai	89.20	22	P	P	10 06 51.5	+1.7
IMA				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.5						
IMA	Indian Mountai	89.20	22	P	P	10 06 51.5	+1.7
	comp=Z,18nm,0.8s,mb5.4						
ILAR	Eielson Array	92.31	22	P	P	10 07 04.5	+0.3
	comp=Z,1.1nm,0.6s,mb4.4,baz=297,slow=6.8,SNR=18						
VNDA	Vanda	96.77	168	eP	P	10 07 19.5	-5.0
VNDA				pmax	pmax		
	comp=Z,7.0nm,0.8s						
VNDA	Vanda	96.77	168	eP	P	10 07 19.5	-4.9
	comp=Z,6.8nm,0.8s,mb5.1						
PDAR	Pinedale Array	122.63	19	PKP	PKPdf	10 12 51.2	-1.8
	comp=Z,0.6nm,0.6s,baz=125,slow=0.7,SNR=6.1						
NVAR	Mina Array Bea	122.94	28	PKP	PKPdf	10 12 53.6	-0.2
	comp=Z,1.8nm,0.7s,baz=317,slow=4.0,SNR=5.7						
MVU	Marysvale	125.48	23	ePKPdf	PKPdf	10 12 58.4	-0.5
MSU	Marysvale	125.48	23	ePKIKP	PKPdf	10 12 55.8	-3.0
TXAR	Lajitas Array	136.81	20	PKP	PKPdf	10 13 20.3	0.0
	comp=Z,0.3nm,0.5s,baz=56,slow=0.8,SNR=10						

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*IDC **30** 10:03:20.5±1.1, 4.95N×94.61E, mb4.1/9, mb1 4.3/9, mb1mx4.1/18, mbtmp4.1/9, Error ellipse: s-maj=56.6km s-min=19.1km az=49.0*

ISC 30 10:03:23.7±0.9**, 4.8N**±0.2×**94.6E**±0.2**, h33^{km}, n17, σ0^{s}92**/16**, mb4.2**/14**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.19	17	Pn	P	10 06 47.8	+3.2
	0.3nm,0.3s,baz=211,slow=11,SNR=22						
PKI	Pulchoki	24.23	340	eP	P	10 08 38.7	-0.1
	6.0nm,0.5s,mb4.3						
DMN	Daman	24.37	339	eP	P	10 08 39.6	-0.6
	12nm,0.7s,mb4.4						
GUN	Gumba	24.39	341	eP	P	10 08 40.1	-0.2
	14nm,0.6s,mb4.5						
KKN	Kakani	24.48	340	eP	P	10 08 41.0	-0.2
GKN	Gorkha	24.90	339	eP	P	10 08 45.7	+0.5
	7.1nm,0.3s,mb4.7						
KOLN	Koldanda	25.08	337	eP	P	10 08 47.8	+0.8
	12nm,0.6s,mb4.6						
SONM	Songino Array	44.02	11	P	P	10 11 29.1	-0.9
	1.0nm,0.5s,mb3.8,baz=190,slow=8.6,SNR=13						
SONM				PcP	PcP	10 13 15.2	-0.5
	0.5nm,0.4s,baz=199,slow=4.1,SNR=7.0						
WRA	Warramunga Arr	46.20	124	P	P	10 11 47.6	-0.1
	0.5nm,0.3s,mb3.9,baz=301,slow=10,SNR=29						
ASAR	Alice Springs	47.68	128	P	P	10 11 59.4	0.0
	1.2nm,0.5s,mb4.2,baz=298,slow=7.8,SNR=21						
BVAR	Borovoye Array	51.98	342	P	P	10 12 30.6	-1.2
	1.0nm,0.7s,mb3.8,baz=146,slow=11,SNR=4.6						
AKASG	Malin Array Be	70.79	322	P	P	10 14 37.1	-1.8
	0.5nm,0.3s,mb3.9,baz=80,slow=5.1,SNR=5.6						
FINES	FINESS Array B	75.58	333	P	P	10 15 06.6	-0.1
	5.9nm,1.1s,mb4.4,baz=115,slow=6.4,SNR=3.8						
ARCES	ARCESS Array B	78.25	340	P	P	10 15 21.7	+0.2
	5.0nm,0.9s,mb4.4,baz=92,slow=7.1,SNR=5.1						
GERES	GERESS Array B	80.37	319	P	P	10 15 34.4	+1.0
	1.1nm,0.7s,mb3.9,baz=90,slow=4.0,SNR=6.6						
DAVOX	Davos	82.86	316	P	P	10 15 48.2	+1.8
	2.0nm,0.6s,mb4.3,baz=269,slow=10,SNR=3.5						
TXAR	Lajitas Array	141.77	26	PKhKP		10 22 43.9	
	0.1nm,0.7s,baz=223,slow=31,SNR=2.3						
TXAR				PKP	PKPdf	10 22 53.0	+0.2
	0.1nm,0.3s,baz=117,slow=1.1,SNR=4.2						

IDC 30 10:11:03.6±1.6**, 2.35S**×**69.15E, mb3.7**/5**, mb1 3.9**/5**, mb1mx3.7**/17**, mbtmp3.7**/5**, Error ellipse: s-maj=73.7km s-min=23.7km az=44.0, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BRTR	Keskin Array B	53.03	326	P	P	10 20 22.1	-2.6
	0.9nm,0.7s,baz=150,slow=10.0,SNR=3.9						
SONM	Songino Array	59.61	28	P	P	10 21 09.5	-2.2
	1.2nm,0.8s,baz=233,slow=7.5,SNR=6.3						
AKASG	Malin Array Be	62.88	333	P	P	10 21 31.4	-2.3
	0.4nm,0.3s,baz=141,slow=6.1,SNR=6.3						
WRA	Warramunga Arr	65.90	111	P	P	10 21 51.7	-2.2
	1.1nm,0.7s,baz=286,slow=6.0,SNR=6.3						
ASAR	Alice Springs	65.98	115	P	P	10 21 52.4	-2.0
	0.8nm,0.7s,baz=284,slow=6.2,SNR=12						
TXAR	Lajitas Array	152.30	346	PKPbc	PKPdf	10 31 03.0	+6.0
	0.2nm,0.6s,baz=11,slow=1.8,SNR=2.9						
TXAR				PKPab	PKPab	10 31 11.5	-2.8
	0.4nm,0.9s,baz=346,slow=3.7,SNR=4.1						

BJI 30 10:16:11.2, 39.52N×**76.97E, h10^{km}, ML3.5, 1C, Southern Xinjiang**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSH	Kashi	0.77	270⇑	iPG	Pg	10 16 25.3	-1.4
KSH				SG	Sg	10 16 37.5	+0.5
KSH				Smax			
	comp=N,1μm,0.4s						
KSH				Smax			
	comp=E,2μm,0.7s						
ULHL	Ulahol	2.78	349	P	Pn	10 17 00.1	+3.5
	SNR=20						
KZA	Kyzart	2.87	333	P	Pn	10 17 01.5	+3.6
	SNR=35						
UCH	Uchtor	3.28	326	P	Pn	10 17 09.7	+5.9
	SNR=26						
KBK	Karagaybulak	3.49	335	P	Pn	10 17 13.4	+6.8
	SNR=6.9						
AML	Almayashu	3.60	317	P	Pn	10 17 15.7	+7.4
	SNR=13						
AAK	Ala-Archa	3.63	330	P	Pn	10 17 16.6	+7.9
	SNR=12						

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*IDC **30** 10:17:25.9±1.1, 2.56S×68.69E, mb3.9/9, mb1 4.1/9, mb1mx4.0/17, mbtmp3.9/9, MS4.0/11, Ms1 4.0/11, ms1mx3.9/24, Error ellipse: s-maj=38.2km s-min=19.8km az=42.0*

*NEIC **30** 10:17:26.7±0.7, 2.35S×68.76E, h10^{km}, mb4.5/12, Error ellipse: s-maj=20.0km s-min=16.1km az=47.0*

*SYO **30** 10:17:26.7, 2.35S×68.76E, h10^{km}, MB4.5*

ISC 30 10:17:25.8±0.5**, 2.46S**±0.08×**68.80E**±0.09**, h10^{km}, n35, σ1^{s}05**/27**, mb4.2**/20**, MS4.0**/11**, 1C, Carlsberg Ridge**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DGAR	Diego Garcia	6.12	144	ePn	Pn	10 18 57.7	-0.9
DGAR				eSn	Sn	10 20 03.1	-6.4
PALK	Pallekele	15.32	51	eP	P	10 20 57.6	-6.4
	54nm,1.3s						
HYB	Hyderabad	21.97	26	eP	P	10 22 28.0	+6.2
KMBO	Kilima Mbogo	31.55	272	LR	LR	10 34 34.9	
	comp=Z,153nm,18.5s,MS3.7,baz=93,slow=33						
KMBO	Kilima Mbogo	31.55	272	P	P	10 23 47.2	-3.7
	6.0nm,1.2s,mb4.3						
CM31	Chiang Mai Arr	36.23	54	P	P	10 24 30.6	-0.5
	8.0nm,1.0s,mb4.6						
CMAR	Chiang Mai Arr	36.23	54	P	P	10 24 32.1	+0.9
	2.1nm,1.1s,mb4.0,baz=247,slow=10,SNR=8.1						
CMAR				LR	LR	10 37 35.6	
	comp=Z,79nm,20.8s,MS3.5,baz=270,slow=33						
LSZ	Lusaka	41.99	250	P	P	10 25 19.8	+0.6
	2.9nm,0.9s,mb3.9						
AAK	Ala-Archa	45.18	6	eP	P	10 25 40.7	-4.1
	4.9nm,1.0s,mb4.3						
EIL	Elat	45.48	317	LR	LR	10 42 05.1	
	comp=Z,103nm,18.1s,MS3.8,baz=342,slow=32						
ASF	Jabal al Asfar	45.83	321	LR	LR	10 41 48.8	
	comp=Z,115nm,21.1s,MS3.8,baz=191,slow=32						
LBTB	Lobatse	47.26	238	P	P	10 25 57.4	-4.0
	3.4nm,0.9s,mb4.3						
GNI	Garni	47.78	335	LR	LR	10 45 43.4	
	comp=Z,271nm,19.3s,MS4.2,baz=244,slow=36						
GNI	Garni	47.78	335	P	P	10 26 05.3	0.0
	6.3nm,0.8s,mb4.7						
BOSA	Boshof	48.92	233	P	P	10 26 14.9	+0.5
	5.0nm,1.0s,mb4.5						
MALT	Malatya	49.32	328	P	P	10 26 15.0	-2.3
	4.5nm,1.0s,mb4.5						
BRTR	Keskin Array B	52.93	326	P	P	10 26 42.7	-1.9
	1.3nm,0.9s,mb3.9,baz=143,slow=6.2,SNR=4.3						
ZAL	Zalesovo	57.76	11	P	P	10 27 19.1	-0.3
	1.0nm,0.7s,mb4.0,baz=166,slow=6.5,SNR=5.4						
ZAL				LR	LR	10 52 23.6	
	comp=Z,144nm,18.8s,MS4.1,baz=221,slow=36						
ARU	Arti	59.28	353	eP	P	10 27 28.6	-1.4
	53nm,1.4s,mb5.4						
SONM	Songino Array	59.88	28	P	P	10 27 35.0	+0.8
	1.4nm,0.7s,mb4.1,baz=220,slow=7.0,SNR=12						
SONM				LR	LR	10 52 25.0	
	comp=Z,154nm,20.9s,MS4.1,baz=149,slow=35						
ULN	Ulaanbaatar	60.22	29	P	P	10 27 36.9	+0.4
	2.4nm,0.9s,mb4.2						
AKASG	Malin Array Be	62.82	333	P	P	10 27 55.5	+1.5
	0.1nm,0.3s,mb3.5,baz=127,slow=5.4,SNR=4.8						
MAW	Mawson	65.15	182	LR	LR	10 49 15.2	
	comp=Z,246nm,19.3s,MS4.4,baz=65,slow=29						
WRA	Warramunga Arr	66.20	111	P	P	10 28 16.4	-0.1
	1.4nm,0.7s,mb4.1,baz=285,slow=6.0,SNR=7.7						
WRAB	Tennant Creek	66.21	111	eP	P	10 28 16.6	+0.1
	12nm,0.9s,mb4.9						
WRAB				e		10 28 24.2	
ASAR	Alice Springs	66.26	115	P	P	10 28 17.1	+0.2
	1.1nm,0.7s,mb4.0,baz=282,slow=6.2,SNR=19						
SYO	Syowa Base	69.27	191	⇑P	P	10 28 34.8	-0.1
CLL	Collm	71.37	327	P	P	10 28 50.0	+2.0
DBIC	Dimbokro	74.07	278	LR	LR	10 59 15.7	
	comp=Z,62nm,20.6s,MS3.9,baz=359,slow=34						
STKA	Stephens Creek	74.11	122	P	P	10 29 04.8	+0.3
	1.2nm,0.7s,mb3.9,baz=319,slow=11,SNR=4.0						
STKA	Stephens Creek	74.11	122	eP	P	10 29 04.3	-0.3
CTA	Charters Tower	77.38	110	LR	LR	10 56 56.3	
	comp=Z,95nm,19.6s,MS4.1,baz=45,slow=31						
ARCES	ARCESS Array B	77.53	346	LR	LR	11 03 31.8	
	comp=Z,253nm,20.6s,MS4.5,baz=190,slow=36						
ESDC	Sonseca Array	78.38	311	P	P	10 29 29.1	+0.7
	1.0nm,0.7s,mb3.9,baz=94,slow=4.4,SNR=5.4						
TXAR	Lajitas Array	152.33	346	PKPbc	PKPdf	10 37 24.7	+5.9
	0.6nm,1.0s,baz=90,slow=2.7,SNR=4.9						
TXAR				PKPab	PKPab	10 37 33.3	-1.7
	1.0nm,0.7s,baz=90,slow=1.3,SNR=7.3						

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*ISK **30** 10:31:57.6, 36.91N×28.18E, h27^{km}, MD3.3*

*CSEM **30** 10:31:57.6±0.1, 37.13N×28.39E, h2^{km}, MD3.3, Error ellipse: s-maj=3.1km s-min=2.2km az=43.0*

*NEIC **30** 10:32:00.3, 37.03N×28.13E, h26^{km}, MD3.7(ATH), After ATH.*

*ATH **30** 10:32:00.0, 37.04N×28.16E, h24^{km}±7^{km}, MD3.7/6*

ISC 30 10:31:58.4±0.8**, 37.06N**±0.04×**28.27E**±0.05**, h6^{km}**±7^{km}**, n19, σ1^{s}09**/26**, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.41	134	PG	Pg	10 32 06.8	+0.1
MLSB	Milas	0.46	301	ePG	Pg	10 32 08.5	+0.8
BDRM	Kayabasi	0.66	271	i P	Pg	10 32 12.3	+0.7
BDRM				i S	Sg	10 32 28.0	+7.5
AYDN	Tasoluk	0.68	333	i P	Pg	10 32 12.1	+0.1
AYDN				i S	Sg	10 32 26.2	+5.2
FETY	Fethiye	0.78	123	ePG	Pg	10 32 12.7	-1.3
ARG	Arkhangelos	0.85	188	ePB	Pb	10 32 15.5	+0.4
DNZL	Cakiroluk	0.89	44	i P	Pb	10 32 15.8	0.0
DNZL				i S	Sb	10 32 33.1	+5.5
DENT	Denizli	0.93	41	ePN	Pn	10 32 16.7	-1.1
DENT				eSN	Sn	10 32 32.1	+0.7
NISR	Nisiros	1.02	244	ePN	Pn	10 32 18.5	-0.6
SMG	Samos	1.31	300	ePN	Pn	10 32 23.8	+0.5
ELL	Elmali	1.35	103	ePN	Pn	10 32 22.3	-1.6
KSL	Kastellorizon	1.39	130	ePN	Pn	10 32 27.0	+2.5
MANT	Manisa	1.45	9	i P	Pn	10 32 25.5	+0.2
MANT				i S	Sb	10 32 45.7	+1.7
IZM	Izmir	1.56	330	ePN	Pn	10 32 26.0	-0.8
KDAG	Bornova	1.56	330	i P	Pn	10 32 27.0	+0.2
KDAG				i S	Sb	10 32 45.1	-2.2
KARP	Karpathos	1.75	211	ePN	Pn	10 32 30.5	+0.9
APE	Apeiranthos	2.19	271	ePB	Pb	10 32 35.0	-3.1
BTOK	Tokmak	2.71	356	i P	Pn	10 32 51.1	+7.9
ULDT	Uludag	3.15	12	i P	Pn	10 32 56.7	+7.0
ULDT				i S	Sg	10 33 56.9	+13

IDC 30 10:34:00.2±2.9**, 6.96N**×**93.69E, mb3.7**/4**, mb1 3.9**/5**, mb1mx3.7**/18**, mbtmp3.7**/5**, ML3.7**/1**, Error ellipse: s-maj=97.8km s-min=24.0km az=69.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.52	24	Pn	P	10 37 00.1	-2.4
	0.1nm,0.3s,baz=218,slow=14,SNR=4.3						
SONM	Songino Array	42.15	13	P	P	10 41 54.3	-1.7
	0.6nm,0.7s,baz=196,slow=9.0,SNR=4.8						
ZAL	Zalesovo	47.39	353	P	P	10 42 36.0	-2.0
	0.7nm,0.3s,baz=231,slow=11,SNR=4.9						
WRA	Warramunga Arr	48.10	125	P	P	10 42 41.7	-2.3
	0.7nm,0.6s,baz=305,slow=8.6,SNR=13						
ASAR	Alice Springs	49.68	129	P	P	10 42 54.5	-1.7
	0.6nm,0.6s,baz=303,slow=7.5,SNR=7.3						

IDC 30 10:39:06.8±2.0**, 5.32N**×**94.86E, mb4.2**/6**, mb1 4.4**/6**, mb1mx4.0**/18**, mbtmp4.2**/6**, MS2.6**/1**, Ms1 2.8**/1**, ms1mx2.5**/31**, Error ellipse: s-maj=93.8km s-min=20.1km az=58.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.65	17	LR	LR	10 48 23.1	
	comp=Z,25nm,18.5s,baz=265,slow=41						
SONM	Songino Array	43.50	11	P	P	10 47 11.7	-1.9
	1.4nm,0.6s,baz=192,slow=8.1,SNR=13						
SONM				PcP	PcP	10 48 59.4	-2.8
	0.7nm,0.7s,baz=206,slow=3.6,SNR=4.6						
WRA	Warramunga Arr	46.23	124	P	P	10 47 34.2	-1.7
	3.8nm,0.7s,baz=303,slow=9.2,SNR=25						
ASAR	Alice Springs	47.76	129	P	P	10 47 46.0	-2.0
	1.0nm,0.4s,baz=300,slow=7.9,SNR=20						
ZAL	Zalesovo	49.16	352	P	P	10 47 56.6	-1.7
	3.1nm,0.4s,baz=213,slow=6.0,SNR=14						
BVAR	Borovoye Array	51.62	341	P	P	10 48 15.3	-1.8
	0.8nm,0.4s,baz=162,slow=14,SNR=4.0						
ARCES	ARCESS Array B	77.89	340	P	P	10 51 05.8	-1.9
	4.1nm,0.9s,baz=100,slow=6.2,SNR=4.9						
TXAR	Lajitas Array	141.22	26	PKP	PKPdf	10 58 40.2	-1.9
	0.2nm,0.6s,baz=116,slow=0.1,SNR=4.0						

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*IDC **30** 10:45:10.7±0.8, 5.86N×93.09E, mb3.9/10, mb1 4.1/11, mb1mx4.0/20, mbtmp3.9/11, ML3.5/1, Error ellipse: s-maj=41.2km s-min=16.6km az=51.0*

ISC 30 10:45:14.0±0.8**, 6.0N**±0.1×**93.3E**±0.2**, h33^{km}, n13,**

σ0ˢ73/11, **mb4.0**/10, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.59**	**24**	Pn	**P**	**10 48 26.1**	**-0.9**
	0.1nm,0.3s,baz=225,slow=14,SNR=2.5						
SONM	**Songino Array**	**43.20**	**13**	P	**P**	**10 53 14.4**	**+0.7**
	0.6nm,0.7s,mb3.4,baz=204,slow=9.0,SNR=5.7						
SONM				PcP	PcP	10 55 03.9	+0.7
	0.7nm,0.6s,baz=212,slow=3.1,SNR=5.2						
WRA	**Warramunga Arr**	**47.89**	**124**	P	**P**	**10 53 51.7**	**+0.3**
	3.7nm,0.8s,mb4.5,baz=302,slow=8.8,SNR=18						
ZAL	**Zalesovo**	**48.32**	**353**	P	**P**	**10 53 55.2**	**+1.0**
	1.5nm,0.5s,mb4.3,baz=226,slow=4.0,SNR=5.7						
ASAR	**Alice Springs**	**49.39**	**128**	P	**P**	**10 54 02.8**	**-0.1**
	1.5nm,0.8s,mb4.1,baz=304,slow=7.5,SNR=9.9						
ASAR				PcP	PcP	10 55 26.1	+0.8
	1.5nm,1.0s,baz=293,slow=3.4,SNR=5.8						
BVAR	**Borovoye Array**	**50.52**	**342**	P	**P**	**10 54 11.5**	**+0.3**
	0.6nm,0.5s,mb3.8,baz=143,slow=7.2,SNR=2.8						
STKA	**Stephens Creek**	**59.44**	**132**	P	**P**	**10 55 15.8**	**-0.4**
	1.3nm,0.8s,mb4.0,baz=332,slow=14,SNR=3.5						
BRTR	**Keskin Array B**	**63.03**	**312**	P	**P**	**10 55 39.6**	**-0.7**
	2.6nm,1.1s,mb4.2,baz=121,slow=7.2,SNR=3.7						
AKASG	**Malin Array Be**	**69.12**	**322**	P	**P**	**10 56 17.4**	**-1.5**
	0.2nm,0.3s,mb3.6,baz=87,slow=3.7,SNR=4.6						
GERES	**GERESS Array B**	**78.67**	**319**	P	**P**	**10 57 15.0**	**+0.4**
	1.1nm,0.7s,mb3.9,baz=104,slow=5.5,SNR=9.3						
DAVOX	**Davos**	**81.16**	**316**	P	**P**	**10 57 28.6**	**+0.6**
	2.1nm,0.6s,mb4.3,baz=344,slow=22,SNR=4.6						
PDAR	**Pinedale Array**	**127.24**	**21**	PKP	PKPdf	11 04 16.9	+1.1
	0.8nm,0.8s,slow=1.5,SNR=6.1						
TXAR	**Lajitas Array**	**141.31**	**24**	PKP	PKPdf	11 04 44.5	+2.3
	0.4nm,0.6s,baz=188,slow=0.8,SNR=5.7						

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*IDC **30** 10:54:17.5±1.3, 11.92N×92.71E, mb3.7/5, mb1 3.9/6, mb1mx3.7/18, mbtmp3.7/6, ML3.8/1, Error ellipse: s-maj=36.4km s-min=23.9km az=67.0*

ISC 30 10:54:18.4±0.7, **12.20N**±0.06×**92.38E**±0.06, **h33**^{km}, **n10**, **σ1ˢ54**/14, **mb3.7**/5, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PBA	**Port Blair**	**0.65**	**147**	*i* P	**P**	**10 54 33.5**	**+2.5**
	303nm,0.8s						
PBA				*e*S	**S**	**10 54 41.0**	**+0.8**
CMAR	**Chiang Mai Arr**	**8.88**	**45**	Pn	**P**	**10 56 26.6**	**-0.6**
	0.3nm,0.3s,baz=233,slow=14,SNR=26						
CMAR				Sn	**Sn**	**10 58 08.2**	**+0.8**
	0.3nm,0.3s,baz=234,slow=28,SNR=4.9						
BWNR	**Bhubaneshwar**	**10.23**	**323**	*e*	**P**	**10 56 45.1**	**-0.9**
BWNR				*e*		10 56 46.0	
	comp=Z,13nm,0.2s						
BWNR				*e*S	**S**	**10 58 34.7**	**-5.9**
BWNR				*e*		10 58 36.9	
	comp=N,47nm,0.2s						
BWNR				*e*		10 58 37.0	
	comp=E,142nm,0.5s						
VIS	**Vishakhapatnam**	**10.32**	**303**	*e*P	**P**	**10 56 54.0**	**+6.6**
VIS				*e*S	**S**	**10 58 45.4**	**+2.4**
MDRS	**Chennai**	**11.87**	**275**	*e*	**P**	**10 57 05.8**	**-2.5**
SONM	**Songino Array**	**37.41**	**16**	P	**P**	**11 01 34.1**	**+4.0**
	comp=E,0.2nm,0.5s,mb3.2,baz=209,slow=6.6,SNR=2.5						
WRA	**Warramunga Arr**	**52.21**	**127**	P	**P**	**11 03 27.0**	**-1.6**
	comp=E,0.9nm,0.6s,mb3.9,baz=305,slow=8.5,SNR=15						
ASAR	**Alice Springs**	**54.03**	**131**	P	**P**	**11 03 40.6**	**-1.5**
	comp=E,0.6nm,0.7s,mb3.6,baz=310,slow=6.6,SNR=8.7						
BRTR	**Keskin Array B**	**58.34**	**309**	P	**P**	**11 04 17.5**	**+4.8**
	comp=E,0.7nm,0.5s,mb4.0,baz=131,slow=13,SNR=3.7						
STKA	**Stephens Creek**	**64.34**	**134**	P	**P**	**11 04 53.2**	**-0.1**
	comp=E,0.9nm,0.7s,mb3.9,baz=322,slow=12,SNR=2.8						

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*MOS **30** 10:59:34.7±1.0, 13.11N×92.02E, h33^{km}, mb4.8/18, Error ellipse: s-maj=19.7km s-min=9.3km az=107.3*

*NEIC **30** 10:59:36.2±0.6, 13.25N×92.03E, h30^{km}, mb4.7/18, Error ellipse: s-maj=13.5km s-min=10.2km az=58.0*

*BJI **30** 10:59:36.1, 13.20N×92.00E, h30^{km}, mB4.7, mb4.7, Ms4.5, Msz3.7*

*SYO **30** 10:59:36.1, 13.25N×92.03E, h30^{km}, MB4.7*

*IDC **30** 10:59:37.9±6.1, 13.32N×92.06E, h39^{km}±53^{km}, mb4.2/19, mb1 4.3/20, mb1mx4.2/25, mbtmp4.4/20, ML4.2/1, Error ellipse: s-maj=32.3km s-min=11.2km az=48.0*

ISC 30 10:59:34.4±0.4, **13.28N**±0.05×**92.00E**±0.04, **h30**^{km}, **n88**, **σ1ˢ26**/96, **mb4.5**/41, **MS4.1**/3, **4C-4D**, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**8.44**	**51**	*e*Pn	**P**	**11 01 36.6**	**-1.0**
CMAR	**Chiang Mai Arr**	**8.44**	**51**	Pn	**P**	**11 01 35.8**	**-1.8**
	0.8nm,0.3s,baz=242,slow=15,SNR=13						
CMAR				Sn	**Sn**	**11 03 06.5**	**-6.4**
	1.4nm,0.3s,baz=240,slow=26,SNR=11						
BWNR	**Bhubaneshwar**	**9.16**	**320**	*e*P	**P**	**11 01 36.8**	**-11**
BWNR				*e*	x	11 03 11.1	
BWNR				*e*		11 03 15.9	
	comp=N,613nm,0.5s						
BWNR				*e*	**Sn**	**11 03 15.9**	**-15**
	comp=E,966nm,0.6s						
VIS	**Vishakhapatnam**	**9.45**	**299**	*i* P	**P**	**11 01 47.9**	**-3.8**
VIS				*e*S	x	11 03 26.8	
VIS				*e*		11 03 30.1	
	comp=E,89nm,1.0s						
VIS				*e*	**Sn**	**11 03 30.1**	**-7.8**
	comp=N,152nm,0.8s						
SHL	**Shillong**	**12.23**	**360**	*e*	**P**	**11 02 25.0**	**-4.6**
SHL				*e*	**S**	**11 04 38.0**	**-7.9**
PKI	**Pulchoki**	**15.50**	**338**	*e*P	**P**	**11 03 10.7**	**-2.0**
	comp=N,50nm,0.6s						
GUN	**Gumba**	**15.64**	**340**	*e*P	**P**	**11 03 12.4**	**-2.1**
	comp=N,42nm,0.5s						
DMN	**Daman**	**15.65**	**337**	*e*P	**P**	**11 03 12.6**	**-2.0**
	comp=N,63nm,0.6s						
KKN	**Kakani**	**15.74**	**338**	*e*P	**P**	**11 03 13.9**	**-2.0**
GKN	**Gorkha**	**16.18**	**336**	*e*P	**P**	**11 03 20.0**	**-1.4**
	comp=N,81nm,0.3s						
LSA	**Lhasa**	**16.36**	**357**	*e*P	**P**	**11 03 24.2**	**+0.5**
LSA				pmax	pmax		
	comp=Z,49nm,1.1s						
LSA	**Lhasa**	**16.36**	**357**	*e*P	**P**	**11 03 24.1**	**+0.4**
	comp=Z,49nm,1.1s						
KOLN	**Koldanda**	**16.41**	**333**	*e*P	**P**	**11 03 23.2**	**-1.2**
	comp=Z,82nm,0.9s						
KAD	**Karad**	**17.64**	**285**	*e*P	**P**	**11 03 43.0**	**+3.1**
KAD				*e*	**S**	**11 06 52.0**	**-1.1**
QIZ	**Qiongzhong**	**18.07**	**69**	*e*P	**P**	**11 03 46.7**	**+1.5**
	comp=Z,55nm,1.2s						
GYA	**Guiyang**	**19.01**	**44**⇑	*i*P	**P**	**11 03 56.5**	**0.0**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s						
PTH	**Pithoragarh**	**19.53**	**328**	*e*	**P**	**11 04 02.8**	**+0.3**
PTH				*e*	**S**	**11 07 28.9**	**-6.7**
CD2	**Chengdu**	**20.63**	**30**	P	**P**	**11 04 14.0**	**-0.1**
CD2				AMB	AMB		
	comp=Z,20nm,0.5s						
DDI	**Dehra Dun**	**21.30**	**325**	*e*	**P**	**11 04 22.2**	**+1.2**
DDI				*e*	**S**	**11 08 07.3**	**-3.7**
ENH	**Enshi**	**23.39**	**41**	*e*P	**P**	**11 04 41.2**	**-0.6**
	comp=Z,26nm,0.9s,mb4.7						
LZH	**Lanzhou**	**25.09**	**23**	*e*P	**P**	**11 05 02.5**	**+4.4**
LZH				AP	pP	11 05 06.3	-0.5
LZH				XP	sP	11 05 09.5	-1.3
LZH				AMB	AMB		
	comp=Z,23nm,1.1s,mb4.6						
XAN	**Xi'an**	**25.76**	**34**	P	**P**	**11 05 03.5**	**-0.9**
XAN				AMB	AMB		
	comp=Z,12nm,0.7s,mb4.5						
GTA	**Gaotai**	**26.93**	**13**	P	**P**	**11 05 19.0**	**+3.9**
GTA				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.1						
NJ2	**Nanjing**	**30.90**	**48**	*e*P	**P**	**11 05 52.5**	**+1.8**
NJ2				AP	pP	11 06 02.0	+2.4
NJ2				XP	sP	11 06 06.0	+2.5
NJ2				PP	PP	11 06 55.3	+2.7
NJ2				S	**S**	**11 10 54.0**	**+2.3**
NJ2				XS		11 11 09.0	
NJ2				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.9						
NJ2				AMB	AMB		
	comp=Z,40nm,4.0s						
NJ2				LR	LR		
	comp=N,2μm,21.2s,MS5.1						
NJ2				LR	LR		
	comp=E,4μm,16.8s,MS5.1						
NJ2				LR	LR		
	comp=Z,360nm,15.8s,MS4.1						
SSE	**Sheshan**	**32.18**	**52**	P	**P**	**11 06 01.5**	**-0.5**
SSE				S	**S**	**11 11 15.3**	**+3.6**
SSE				XS		11 11 30.3	
SSE				AMB	AMB		
	comp=Z,36nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,234nm,4.6s						
SSE				LR	LR		
	comp=N,103nm,19.4s,MS3.6						
SSE				LR	LR		
	comp=E,47nm,19.5s,MS3.6						
SSE				LR	LR		
	comp=Z,41nm,18.6s,MS3.1						
AAK	**Ala-Archa**	**32.94**	**336**⇓	*e*P	**P**	**11 06 09.1**	**+0.6**
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
BJT	**Baijiatuau**	**34.08**	**34**	P	**P**	**11 06 18.7**	**+0.3**
BJT				pmax	pmax		
	comp=Z,8.0nm,0.7s						
BJT	**Baijiatuau**	**34.08**	**34**	P	**P**	**11 06 18.7**	**+0.3**
	comp=Z,7.9nm,0.7s,mb4.8						
MKAR	**Makanchi Array**	**34.40**	**348**	*i* P	**P**	**11 06 22.0**	**+0.9**
MKAR				pmax	pmax		
	comp=Z,4.0nm,0.6s						
SONM	**Songino Array**	**36.49**	**16**	P	**P**	**11 06 39.7**	**+0.9**
	comp=Z,2.5nm,0.6s,mb4.3,baz=205,slow=7.1,SNR=15						
ULN	**Ulaanbaatar**	**36.70**	**17**	*e*P	**P**	**11 06 40.9**	**+0.3**
ULN				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.1						
ULN	**Ulaanbaatar**	**36.70**	**17**	*e*P	**P**	**11 06 40.9**	**+0.3**
	comp=Z,1.6nm,0.7s,mb4.0						
KS15	**Wonju Array Si**	**40.01**	**47**	P	**P**	**11 07 06.0**	**-2.4**
ZAL	**Zalesovo**	**40.96**	**354**	P	**P**	**11 07 15.6**	**-0.4**
	comp=Z,2.0nm,0.3s,mb4.2,baz=109,slow=4.2,SNR=9.4						
NVS	**Novosibirsk**	**42.03**	**352**	*e*P	**P**	**11 07 27.6**	**+2.8**
HIA	**Hailar**	**42.54**	**27**	P	**P**	**11 07 29.4**	**+0.4**
HIA				pmax	pmax		
	comp=Z,9.0nm,1.5s						
HIA	**Hailar**	**42.54**	**27**	P	**P**	**11 07 29.4**	**+0.4**
	comp=Z,9.2nm,1.5s,mb4.3						
BVA0	**Borovoye Array**	**43.23**	**341**	*i* P	**P**	**11 07 37.4**	**+2.8**
BVAR	**Borovoye Array**	**43.23**	**341**	P	**P**	**11 07 35.5**	**+1.0**
	comp=Z,2.2nm,0.6s,mb4.0,baz=140,slow=12,SNR=7.1						
BRVK	**Borovoye**	**43.29**	**341**	*e*P	**P**	**11 07 35.4**	**+0.3**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.1						
BRVK	**Borovoye**	**43.29**	**341**	*e*P	**P**	**11 07 35.4**	**+0.3**
	comp=Z,3.4nm,0.8s,mb4.1						
CHKZ	**Chkalovo**	**43.72**	**342**	*i* P	**P**	**11 07 39.7**	**+1.2**
CHKZ				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
CHKZ	**Chkalovo**	**43.72**	**342**	*e*P	**P**	**11 07 39.1**	**+0.6**
	comp=Z,10nm,0.6s,mb4.7						
MBWA	**Marble Bar**	**43.74**	**141**	*e*P	**P**	**11 07 38.4**	**-0.7**
	comp=Z,13nm,1.1s,mb4.6						
BOD	**Bodaibo**	**47.48**	**16**	*e*P	**P**	**11 08 09.8**	**+1.4**
GNI	**Garni**	**49.23**	**312**⇑	*e*P	**P**	**11 08 24.1**	**+1.9**
GNI				pmax	pmax		
	comp=Z,25nm,1.6s						
GNI	**Garni**	**49.23**	**312**	P	**P**	**11 08 23.3**	**+1.2**
	comp=Z,3.0nm,0.5s,mb4.6,baz=180,slow=6.1,SNR=4.2						
GNI	**Garni**	**49.23**	**312**	*e*P	**P**	**11 08 20.9**	**-1.3**
	comp=Z,17nm,1.1s,mb5.0						
ARU	**Arti**	**50.13**	**336**⇑	*i*P	**P**	**11 08 29.6**	**+0.7**
ARU				*e*		11 09 50.1	
ARU				*e*		11 10 19.8	
ARU				*e*S	**S**	**11 15 39.3**	**+2.2**
ARU				*e*SS	SS	11 19 13.6	+6.4
ARU				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
ARU	**Arti**	**50.13**	**336**	P	**P**	**11 08 29.2**	**+0.3**
	comp=Z,8.0nm,0.9s,mb4.8						
ZEI	**Tsey**	**50.71**	**315**	*e*P	**P**	**11 08 35.0**	**+1.5**
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
NWAO	**Narrogin (SRO)**	**51.88**	**153**	P	**P**	**11 08 40.2**	**-2.4**
NWAO				pmax	pmax		
	comp=Z,24nm,1.2s						
NWAO	**Narrogin (SRO)**	**51.88**	**153**	P	**P**	**11 08 42.8**	**+0.2**
	comp=Z,16nm,1.1s,mb4.9,baz=303,slow=9.8,SNR=3.9						
NWAO	**Narrogin (SRO)**	**51.88**	**153**	P	**P**	**11 08 40.2**	**-2.3**
	comp=Z,24nm,1.2s,mb5.0						
KIV	**Kislovodsk**	**51.96**	**316***d*	*i*P	**P**	**11 08 44.1**	**+1.2**
KIV				pmax	pmax		
	comp=Z,6.0nm,0.5s,mb4.8						
KIV	**Kislovodsk**	**51.96**	**316**	*e*P	**P**	**11 08 38.5**	**-4.5**
	comp=Z,24nm,1.1s,mb5.0						
WRA	**Warramunga Arr**	**53.16**	**128**	P	**P**	**11 08 51.6**	**-0.6**
	comp=Z,6.0nm,0.7s,mb4.6,baz=304,slow=8.5,SNR=37						
WRA				PcP	PcP	11 10 00.5	+0.5
	comp=Z,0.7nm,0.5s,baz=314,slow=3.1,SNR=9.1						
WRAB	**Tennant Creek**	**53.16**	**128**	*e*P	**P**	**11 08 51.6**	**-0.6**
WRAB				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
WRAB	**Tennant Creek**	**53.16**	**128**	*e*P	**P**	**11 08 51.6**	**-0.7**
	comp=Z,12nm,0.8s,mb4.9						
MALT	**Malatya**	**53.44**	**308**	*e*P	**P**	**11 08 54.8**	**+0.8**
MALT				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.4						
MALT	**Malatya**	**53.44**	**308**	*e*P	**P**	**11 08 54.8**	**+0.7**
	comp=Z,4.7nm,1.1s,mb4.3						
SOC	**Sochi**	**53.87**	**315**	*e*P	**P**	**11 08 54.2**	**-2.9**
SOC				*e*		11 09 57.9	
SOC				*e*		11 10 52.9	
SOC				*e*PPP	PPP	11 12 07.3	-1.9
SOC				*e*S	**S**	**11 16 22.9**	**-5.7**
SOC				*e*SS	SS	11 20 10.2	+1.0
SOC				*e*SSS	SSS	11 22 08.3	+5.2
SOC				pmax	pmax		
	comp=N,23nm,1.0s						
SOC				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
SOC				pmax	pmax		
	comp=E,17nm,0.8s						
ASAR	**Alice Springs**	**55.02**	**132**	P	**P**	**11 09 05.5**	**-0.4**
	comp=E,7.3nm,0.8s,mb4.8,baz=307,slow=6.6,SNR=89						
BRTR	**Keskin Array B**	**57.37**	**309**	P	**P**	**11 09 22.3**	**-0.2**
	comp=E,5.0nm,0.8s,mb4.6,baz=123,slow=6.8,SNR=15						
PMG	**Port Moresby**	**59.22**	**109**	*e*P	**P**	**11 09 34.7**	**-1.0**
PMG				pmax	pmax		
	comp=Z,17nm,0.8s						
PMG	**Port Moresby**	**59.22**	**109**	P	**P**	**11 09 35.7**	**0.0**
	comp=Z,14nm,0.7s,mb5.1,baz=300,slow=3.1,SNR=7.4						
PMG	**Port Moresby**	**59.22**	**109**	*e*P	**P**	**11 09 34.7**	**-1.0**
	comp=Z,17nm,0.8s,mb5.1						
OBN	**Obninsk**	**59.72**	**327**	*e*P	**P**	**11 09 38.2**	**-0.4**
OBN				*e*		11 10 26.5	
OBN				*e*		11 11 48.1	
OBN				*e*S	**S**	**11 17 47.5**	**+1.8**
OBN				*e*SS	SS	11 21 47.0	+4.1
OBN				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
OBN				MLR	MLR		
	comp=Z,200nm,17.0s,MS4.3						
TIXI	**Tiksi**	**62.41**	**12**⇓	*e*P	**P**	**11 09 57.8**	**+1.2**
TIXI				pmax	pmax		
	comp=Z,9.0nm,1.6s,mb4.7						
AKASG	**Malin Array Be**	**62.65**	**320**	P	**P**	**11 09 57.2**	**-1.3**
	comp=Z,4.6nm,0.8s,mb4.6,baz=87,slow=4.9,SNR=9.1						
CTA	**Charters Tower**	**62.83**	**121**	P	**P**	**11 10 00.1**	**0.0**
	comp=Z,5.7nm,0.9s,mb4.7,baz=299,slow=12,SNR=3.0						
CTAO	**Charters Tower**	**62.83**	**121**	*e*P	**P**	**11 09 59.9**	**-0.1**
CTAO				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.0						
CTAO	**Charters Tower**	**62.83**	**121**	*e*P	**P**	**11 09 59.9**	**-0.2**
	comp=Z,11nm,0.9s,mb5.0						
MLR	**Muntele Rosu**	**63.88**	**314**	P	**P**	**11 10 08.4**	**+1.7**
	comp=Z,13nm,0.7s,mb5.0,baz=220,slow=0.7,SNR=11						
STKA	**Stephens Creek**	**65.36**	**135**	P	**P**	**11 10 16.4**	**0.0**
	comp=Z,2.1nm,0.5s,mb4.4,baz=305,slow=5.9,SNR=11						
STKA	**Stephens Creek**	**65.36**	**135**	*e*P	**P**	**11 10 16.4**	**-0.1**
FINES	**FINESS Array B**	**66.98**	**332**	*i* P	**P**	**11 10 25.8**	**-0.6**
FINES				pmax	pmax		
	comp=Z,4.0nm,0.8s						
FINES	**FINESS Array B**	**66.98**	**332**	P	**P**	**11 10 26.3**	**0.0**
	comp=Z,4.2nm,0.8s,mb4.5,SNR=5.5						
GERES	**GERESS Array B**	**72.44**	**317**	P	**P**	**11 11 00.7**	**+0.8**
	comp=Z,1.9nm,0.6s,mb4.2,baz=90,slow=6.7,SNR=13						
HFS	**Hagfors**	**72.76**	**329**	P	**P**	**11 11 01.6**	**0.0**
	comp=Z,4.1nm,0.8s,mb4.4,baz=106,slow=11,SNR=2.4						
NOA	**NORSAR Array B**	**74.02**	**330**	P	**P**	**11 11 07.9**	**-1.0**
	comp=Z,1.4nm,0.8s,mb3.9,baz=124,slow=3.2,SNR=2.7						
ESDC	**Sonseca Array**	**86.15**	**310**	P	**P**	**11 12 15.1**	**+0.8**
	comp=Z,0.9nm,0.6s,mb4.2,baz=50,slow=4.9,SNR=5.2						
ESLA	**Sonseca Array**	**86.15**	**310**	P	**P**	**11 12 16.8**	**+2.5**
	comp=Z,2.5nm,1.1s,mb4.4						
SYO	**Syowa Base**	**89.93**	**197**	⇓PcP	PcP	11 12 34.9	+1.8
SYO	**Syowa Base**	**89.93**	**197**	⇑pP	pP	11 12 40.7	-0.6
ILAR	**Eielson Array**	**90.54**	**22**	P	**P**	**11 12 34.7**	**+0.1**
	comp=Z,0.4nm,0.6s,mb3.9,baz=292,slow=4.9,SNR=6.3						
TXAR	**Lajitas Array**	**135.02**	**19**	PKP	PKPdf	11 18 52.6	-4.0
	comp=Z,0.4nm,1.0s,baz=307,slow=1.6,SNR=3.9						
LPAZ	**La Paz**	**160.55**	**259**	PKPab	PKPab	11 20 16.8	+1.1
	comp=Z,1.2nm,0.8s,baz=217,slow=5.1,SNR=4.0						

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*PRU **30** 11:09:08.0, 50.29N×19.01E*

WAR 30 11:09:07.7, 50.23N×19.04E, h1^{km}**, Location given by Central Institute of Mining, origin time based upon OJC, Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OJC	**Ojcow**	**0.49**	**91**	*e*Pg	Pg	11 09 17.5	+0.1
OJC				*e*Sg	Sg	11 09 24.8	+0.9
OKC	**Ostrava-Krasne**	**0.70**	**236**	*e*PG	Pg	11 09 21.8	+0.2
OKC				*e*SG	Sg	11 09 35.2	+4.3
NIE	**Niedzica**	**1.16**	**134**	*e*Pg	Pg	11 09 29.5	-1.3
NIE				*e*Sg	Sg	11 09 47.0	+0.7
DPC	**Dobruska-Polom**	**1.75**	**275**	*e*PG	Pg	11 09 39.7	-2.8
DPC				*e*SG	Sg	11 10 03.0	-2.8
VYHS	**Vyhne**	**1.75**	**184**	*e*PN	Pn	11 09 38.6	-0.7
VYHS				*e*SN	Sn	11 10 00.9	-1.6

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*IDC **30** 11:09:10.9±2.5, 22.60S×179.81W, h610^{km}±32^{km}, mb3.4/7, mb1 3.6/7, mb1mx3.4/14, mbtmp4.3/7, Error ellipse: s-maj=57.3km s-min=13.3km az=159.0*

ISC 30 11:09:09.9±3.1, **22.3S**±0.6×**179.9W**±0.3, **h609**^{km}±43^{km}, **n16**, **σ0ˢ54**/9, **mb4.0**/7, **South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CTA	**Charters Tower**	**31.57**	**268**	P	**P**	**11 14 46.9**	**+0.9**
	15nm,0.8s,mb4.7,baz=88,slow=9.3,SNR=17						
STKA	**Stephens Creek**	**35.42**	**246**	P	**P**	**11 15 17.6**	**-0.2**
	6.5nm,0.5s,mb4.5,baz=91,slow=10,SNR=32						
ASAR	**Alice Springs**	**42.39**	**259**	P	**P**	**11 16 13.9**	**-0.3**
	5.5nm,0.7s,mb4.2,baz=101,slow=7.3,SNR=53						
ASAR				S	**S**	**11 21 54.1**	**+0.5**
	0.7nm,0.7s,baz=96,slow=16,SNR=5.9						
WRA	**Warramunga Arr**	**42.61**	**264**	P	**P**	**11 16 15.4**	**-0.5**
	2.1nm,0.3s,mb4.2,baz=96,slow=8.2,SNR=194						
WRA				S	**S**	**11 21 56.5**	**-0.3**
	0.9nm,0.9s,baz=102,slow=14,SNR=3.1						
TXAR	**Lajitas Array**	**89.52**	**58**	P	**P**	**11 21 05.7**	**+0.8**
	0.8nm,0.8s,mb3.6,baz=208,slow=6.6,SNR=8.4						
ILAR	**Eielson Array**	**90.43**	**14**	P	**P**	**11 21 08.1**	**-0.2**
	0.5nm,0.8s,mb3.4,baz=212,slow=6.0,SNR=9.1						
PDAR	**Pinedale Array**	**91.47**	**44**	P	**P**	**11 21 12.9**	**-0.6**
	0.7nm,0.8s,mb3.6,baz=180,slow=4.4,SNR=5.6						
FINES	**FINESS Array B**	**136.92**	**342**	PKP	PKPdf	11 27 24.6	+0.7
	3.8nm,1.0s,baz=90,slow=1.4,SNR=3.4						
NOA	**NORSAR Array B**	**140.48**	**351**	PKhKP		11 27 27.1	
	0.6nm,0.6s,baz=0.2,slow=8.0,SNR=2.6						
HFS	**Hagfors**	**140.96**	**349**	PKhKP		11 27 27.3	
	16nm,1.1s,baz=73,slow=2.3,SNR=7.6						
AKASG	**Malin Array Be**	**143.63**	**329**	PKP	PKPdf	11 27 36.5	+0.6
	0.7nm,0.3s,baz=41,slow=4.2,SNR=12						
BRTR	**Keskin Array B**	**146.62**	**309**	PKPbc	PKPbc	11 27 46.0	+2.4
	1.3nm,0.6s,baz=90,slow=1.4,SNR=3.1						
EKA	**Eskdalemuir Ar**	**146.89**	**3**	PKPbc	PKPbc	11 27 46.0	+2.4
	4.6nm,1.0s,baz=357,slow=2.7,SNR=5.6						
CLL	**Collm**	**149.31**	**344**	P	PKPdf	11 27 53.1	+7.8
	logA/T=1.2						
GERES	**GERESS Array B**	**151.34**	**341**	PKPbc	PKPdf	11 27 57.9	+9.5
	0.4nm,0.6s,baz=346,slow=4.0,SNR=3.6						
GERES				PKPab	PKPab	11 28 09.8	+0.9
	2.4nm,1.0s,baz=315,slow=2.8,SNR=2.8						
DAVOX	**Davos**	**154.29**	**344**	PKPab	PKPab	11 28 22.8	+1.4
	5.5nm,1.2s,slow=10,SNR=5.1						

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*IDC **30** 11:14:36.5±1.1, 8.54N×93.44E, mb3.7/8, mb1 3.9/9, mb1mx3.8/19, mbtmp3.8/9, ML4.6/1, Error ellipse: s-maj=46.4km s-min=20.7km az=53.0*

ISC 30 11:14:39.8±0.9, **8.6N**±0.1×**93.6E**±0.2, **h33**^{km}, **n15**, **σ0ˢ63**/15, **mb4.0**/10, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.11**	**27**	Pn	**P**	**11 17 19.6**	**+0.1**
	1.4nm,0.3s,baz=212,slow=15,SNR=16						
PKI	**Pulchoki**	**20.39**	**339**	*e*P	**P**	**11 19 17.1**	**+0.5**
	31nm,1.1s						
DMN	**Daman**	**20.54**	**338**	*e*P	**P**	**11 19 18.4**	**+0.3**
	8.6nm,0.5s						
GUN	**Gumba**	**20.54**	**340**	*e*P	**P**	**11 19 17.9**	**-0.3**
	32nm,0.9s						
KKN	**Kakani**	**20.64**	**339**	*e*P	**P**	**11 19 18.5**	**-0.7**
GKN	**Gorkha**	**21.07**	**338**	*e*P	**P**	**11 19 23.7**	**+0.1**
	23nm,0.7s,mb4.6						
KOLN	**Koldanda**	**21.27**	**335**	*e*P	**P**	**11 19 26.3**	**+0.7**
	14nm,0.7s,mb4.4						
SONM	**Songino Array**	**40.59**	**13**	P	**P**	**11 22 17.4**	**-0.7**
	0.4nm,0.9s,mb3.0,baz=190,slow=8.8,SNR=3.0						
BVAR	**Borovoye Array**	**48.13**	**341**	P	**P**	**11 23 17.8**	**-0.8**
	0.6nm,0.7s,mb3.8,baz=124,slow=10,SNR=3.1						
WRA	**Warramunga Arr**	**49.14**	**126**	P	**P**	**11 23 26.7**	**0.0**
	0.2nm,0.5s,mb3.4,baz=305,slow=8.5,SNR=3.8						
ASAR	**Alice Springs**	**50.81**	**130**	P	**P**	**11 23 39.6**	**+0.1**
	0.1nm,0.4s,mb3.1,baz=304,slow=7.8,SNR=2.5						
BRTR	**Keskin Array B**	**61.53**	**311**	P	**P**	**11 24 55.2**	**-0.9**
	0.4nm,0.4s,mb4.0,baz=108,slow=4.6,SNR=2.7						
FINES	**FINESS Array B**	**71.81**	**332**	P	**P**	**11 26 01.6**	**+0.8**
	7.9nm,1.3s,mb4.5,baz=45,slow=2.0,SNR=4.0						
ARCES	**ARCESS Array B**	**74.40**	**340**	P	**P**	**11 26 17.3**	**+1.4**
	6.8nm,1.1s,mb4.5,baz=90,slow=2.4,SNR=3.6						
HFS	**Hagfors**	**77.55**	**330**	P	**P**	**11 26 33.4**	**-0.5**
	5.5nm,1.0s,mb4.5,baz=108,slow=4.7,SNR=5.3						

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*IDC **30** 11:16:17.1±0.9, 8.46N×93.53E, mb4.0/12, mb1 4.2/13, mb1mx4.1/20, mbtmp4.0/13, ML4.5/1, Error ellipse: s-maj=40.3km s-min=21.4km az=46.0*

ISC 30 11:16:20.3±0.8, **8.5N**±0.1×**93.7E**±0.1, **h33**^{km}, **n20**, **σ0ˢ86**/19, **mb4.2**/14, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.11**	**27**	Pn	**P**	**11 19 00.1**	**+0.1**
	0.9nm,0.3s,baz=212,slow=15,SNR=9.2						
PKI	**Pulchoki**	**20.51**	**339**	*e*P	**P**	**11 20 58.6**	**+0.2**
	73nm,1.2s						
DMN	**Daman**	**20.66**	**338**	*e*P	**P**	**11 21 00.1**	**+0.2**
	136nm,1.4s						
GUN	**Gumba**	**20.66**	**340**	*e*P	**P**	**11 20 58.9**	**-1.0**
	97nm,1.0s						
KKN	**Kakani**	**20.75**	**339**	*e*P	**P**	**11 21 01.2**	**+0.3**
	33nm,0.8s						
GKN	**Gorkha**	**21.19**	**337**	*e*P	**P**	**11 21 05.5**	**+0.2**
	44nm,0.7s,mb4.9						
KOLN	**Koldanda**	**21.40**	**335**	*e*P	**P**	**11 21 08.0**	**+0.6**
	69nm,0.9s,mb5.0						
SONM	**Songino Array**	**40.63**	**13**	P	**P**	**11 23 58.8**	**-0.1**
	0.8nm,1.1s,mb3.2,baz=204,slow=8.4,SNR=3.6						
SONM				PcP	PcP	11 26 02.7	+1.7
	0.3nm,0.5s,baz=202,slow=3.6,SNR=4.8						
BVAR	**Borovoye Array**	**48.24**	**341**	P	**P**	**11 24 58.8**	**-1.1**
	0.7nm,0.5s,mb4.0,baz=127,slow=7.4,SNR=3.9						
WRA	**Warramunga Arr**	**48.98**	**126**	P	**P**	**11 25 05.0**	**-1.1**
	0.7nm,0.8s,mb3.7,baz=307,slow=8.2,SNR=3.3						
ASAR	**Alice Springs**	**50.66**	**130**	P	**P**	**11 25 19.6**	**+0.8**
	0.9nm,1.0s,mb3.7,baz=306,slow=6.7,SNR=4.1						
BRTR	**Keskin Array B**	**61.68**	**311**	P	**P**	**11 26 35.8**	**-1.8**
	1.6nm,0.6s,mb4.3,baz=129,slow=7.9,SNR=6.9						
AKASG	**Malin Array Be**	**67.38**	**322**	P	**P**	**11 27 12.8**	**-1.6**
	1.0nm,0.5s,mb4.1,baz=87,slow=5.0,SNR=5.0						
FINES	**FINESS Array B**	**71.94**	**332**	P	**P**	**11 27 41.9**	**-0.2**
	5.0nm,1.0s,mb4.4,baz=108,slow=6.0,SNR=4.2						
GERES	**GERESS Array B**	**77.06**	**318**	P	**P**	**11 28 12.8**	**+0.9**
	5.6nm,1.2s,mb4.4,baz=72,slow=4.2,SNR=7.8						
HFS	**Hagfors**	**77.69**	**330**	P	**P**	**11 28 15.8**	**+0.6**
	7.1nm,1.0s,mb4.6,baz=101,slow=7.3,SNR=4.5						
NOA	**NORSAR Array B**	**78.96**	**331**	P	**P**	**11 28 22.6**	**+0.4**
	1.8nm,0.8s,mb4.1,baz=93,slow=5.7,SNR=4.0						
EKA	**Eskdalemuir Ar**	**86.95**	**325**	P	**P**	**11 29 04.7**	**+1.6**
	4.6nm,1.0s,mb4.7,baz=113,slow=5.4,SNR=3.1						

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ESDC	**Sonseca Array** 0.8nm,0.7s,mb4.2,baz=48,slow=3.8,SNR=4.7	90.47	310	P	P	11 29 21.0	+0.7
PDAR	**Pinedale Array** 0.7nm,1.0s,baz=63,slow=3.3,SNR=4.0	124.72	21	PKP	PKPdf	11 35 20.0	+2.9

IDC 30 11:21:05.9±1.8**, 5.93N**×**124.01E, h559**^{km}±20^{km}**, mb2.9**/8**, mb1 3.1**/8**, mb1mx3.0**/19**, mbtmp3.9**/8**, Error ellipse: s-maj=41.5km s-min=9.6km az=67.0, Mindanao**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr** 0.6nm,0.9s,baz=110,slow=7.1,SNR=4.2	27.43	299	P	P	11 26 07.8	-1.4
WRA	**Warramunga Arr** 1.4nm,0.6s,baz=340,slow=9.5,SNR=10	27.65	159	P	P	11 26 09.7	-1.4
WRA	0.4nm,0.7s,baz=337,slow=14,SNR=4.9			S	S	11 30 10.5	-4.4
WRA	0.3nm,0.5s,baz=333,slow=2.6,SNR=6.0			ScP		11 31 58.4	
ASAR	**Alice Springs** 1.0nm,0.4s,baz=343,slow=7.1,SNR=24	30.96	162	P	P	11 26 38.9	-0.6
ASAR	0.5nm,0.5s,baz=342,slow=2.6,SNR=9.1			PcP	PcP	11 29 17.1	-1.6
ASAR	3.9nm,1.1s,baz=335,slow=13,SNR=11			S	S	11 31 04.0	-2.3
ASAR	0.2nm,0.4s,baz=338,slow=2.9,SNR=4.2			ScP		11 32 08.7	
STKA	**Stephens Creek** 0.7nm,0.4s,baz=318,slow=14,SNR=3.9	41.17	157	P	P	11 28 03.1	-0.4
SONM	**Songino Array** 2.0nm,0.9s,baz=158,slow=8.6,SNR=11	44.39	343	P	P	11 28 27.4	-1.2
SONM	0.4nm,0.6s,baz=117,slow=5.5,SNR=3.8			PcP	PcP	11 29 58.0	-2.6
BVAR	**Borovoye Array** 1.2nm,0.6s,baz=127,slow=7.4,SNR=5.5	64.01	327	P	P	11 30 44.0	-2.5
ILAR	**Eielson Array** 0.3nm,0.6s,baz=258,slow=5.6,SNR=6.4	84.30	26	P	P	11 32 38.4	-1.4
BRTR	**Keskin Array B** 1.3nm,0.9s,baz=90,slow=6.2,SNR=4.4	86.54	309	P	P	11 32 49.5	-1.6

IDC 30 11:26:36.7±0.7, 5.13N×94.64E, mb4.5/18, mb1 4.6/18, mb1mx4.5/24, mbtmp4.5/18, MS3.2/1, Ms1 3.4/1, ms1mx2.9/24, Error ellipse: s-maj=37.1km s-min=13.1km az=46.0
BJI 30 11:26:40.2, 4.77N×94.60E, h49^{km}*, mB5.0, mb5.0, Ms4.3, Msz3.8*
NEIC 30 11:26:41.4±0.6, 5.09N×94.69E, h30^{km}*, mb4.8/19, Error ellipse: s-maj=15.4km s-min=10.2km az=48.0*
SYO 30 11:26:41.4, 5.09N×94.69E, h30^{km}*, MB4.8*
ISC 30 11:26:40.0±0.5**, 5.02N**±0.07×**94.70E**±0.07**, h33**^{km}**, n71, σ0**^{s}**99**/67**, mb4.7**/46**, MS3.9**/2**, 2C-2D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr** 17nm,0.8s	13.99	17	*e*P	P	11 30 01.5	+3.4
CMAR	**Chiang Mai Arr** 0.9nm,0.3s,baz=211,slow=11,SNR=36	13.99	17	Pn	P	11 30 00.5	+2.3
CMAR	comp=Z,112nm,21.0s,baz=200,slow=36			LR	LR	11 34 57.8	
PALK	**Pallekele** 58nm,1.5s	14.10	280	P	P	11 30 05.5	+5.9
CHRT	**Chiangrai**	15.57	18	⇓PN	P	11 30 24.5	+5.7
QIZ	**Qiongzhong**	20.30	45	P	P	11 31 15.9	+0.1
PKI	**Pulchoki** 18nm,0.6s,mb4.7	24.11	339	*e*P	P	11 31 53.3	-0.6
GYA	**Guiyang**	24.19	27	⇑*i*P	P	11 31 55.8	+1.1
GYA	comp=Z,40nm,0.6s,mb5.0			AMB	AMB		
DMN	**Daman** comp=Z,13nm,0.4s,mb4.7	24.25	339	*e*P	P	11 31 55.1	-0.1
GUN	**Gumba** comp=Z,33nm,0.5s,mb5.0	24.27	341	*e*P	P	11 31 54.9	-0.4
KKN	**Kakani** comp=Z,63nm,1.0s,mb5.0	24.36	339	*e*P	P	11 31 56.1	-0.2
LSA	**Lhasa** comp=Z,31nm,0.6s,mb5.0	24.78	353	*e*P	P	11 32 01.8	+1.5
GKN	**Gorkha** comp=Z,35nm,0.5s,mb5.1	24.78	338	*e*P	P	11 32 00.7	+0.3
KOLN	**Koldanda** comp=Z,53nm,0.6s,mb5.2	24.97	336	*e*P	P	11 32 02.7	+0.5
ENH	**Enshi** comp=Z,5.7nm,0.5s,mb4.6	28.73	27	*e*P	P	11 32 35.4	-1.2
XAN	**Xi'an**	31.75	23	P	P	11 33 01.8	-1.6
XAN	comp=Z,21nm,1.0s,mb4.9			AMB	AMB		
GTA	**Gaotai**	34.55	7	P	P	11 33 27.0	-0.6
GTA				AP	pP	11 33 39.5	+2.3
GTA				XP	sP	11 33 44.8	+3.2
GTA	comp=Z,14nm,0.7s,mb5.0			AMB	AMB		
HHC	**Hu-ho-hao-te**	38.75	21	*e*P	P	11 34 03.5	+0.5
HHC				AP	pP	11 34 13.5	+0.8
HHC				PP	PP	11 35 35.5	-0.3
HHC				PCP	PcP	11 36 15.0	+0.3
HHC				S	S	11 39 58.5	+0.7
HHC				PCS		11 40 04.5	
HHC				SCS	ScS	11 44 09.5	+1.1
HHC	comp=Z,8.0nm,0.8s,mb4.5			AMB	AMB		
HHC	comp=Z,226nm,5.9s			AMB	AMB		
HHC	comp=N,90nm,10.7s			LR	LR		
HHC	comp=E,198nm,16.6s			LR	LR		
HHC	comp=Z,197nm,15.5s,MS4.0			LR	LR		
BJT	**Baijiatuau** comp=Z,23nm,0.8s,mb5.0	39.86	26	*e*P	P	11 34 12.6	+0.4
BJI	**Beijing**	39.88	26	*e*P	P	11 34 13.3	+1.0
BJI	comp=Z,24nm,0.9s,mb4.9			AMB	AMB		
BJI	comp=Z,111nm,20.1s,MS3.7			LR	LR		
UCH	**Uchtor** SNR=15	41.18	337	P	P	11 34 24.4	+1.3
TKM2	**Tokmak 2** SNR=8.9	41.37	339	P	P	11 34 25.6	+0.9
KBK	**Karagaybulak** SNR=28	41.38	338	P	P	11 34 26.3	+1.5
AML	**Almayashu** SNR=20	41.42	336	P	P	11 34 26.4	+1.4
AAK	**Ala-Archa** SNR=6.9	41.53	337	P	P	11 34 27.6	+1.6
AAK	**Ala-Archa** comp=Z,7.0nm,0.7s,mb4.4	41.53	337	*e*P	P	11 34 26.6	+0.6
CHMS	**Chumysh** SNR=5.4	41.75	338	P	P	11 34 28.3	+0.5
EKS2	**Erkin-Say** SNR=9.0	41.84	337	P	P	11 34 29.4	+0.9
USP	**Ospenovka** SNR=21	42.08	338	P	P	11 34 31.1	+0.6
SONM	**Songino Array** comp=Z,6.6nm,0.7s,mb4.5,baz=191,slow=8.2,SNR=60	43.82	11	P	P	11 34 43.7	-0.9
SONM	comp=Z,2.5nm,0.5s,baz=194,slow=3.9,SNR=18			PcP	PcP	11 36 31.1	-0.1
SONM	comp=Z,2.6nm,0.5s,baz=190,slow=3.8,SNR=13			pPcP		11 36 45.5	
ULN	**Ulaanbaatar** comp=Z,5.8nm,0.7s,mb4.4	43.99	12	*e*P	P	11 34 44.6	-1.3
KS15	**Wonju Array Si**	44.26	39	P	P	11 34 47.3	-1.0
WRA	**Warramunga Arr** comp=Z,17nm,0.6s,mb5.1,baz=302,slow=9.2,SNR=92	46.19	124	P	P	11 35 04.6	+0.7
WRAB	**Tennant Creek** comp=Z,33nm,0.6s,mb5.4	46.19	124	*e*P	P	11 35 05.0	+1.1
CN2	**Changchun**	47.17	30	*e*P	P	11 35 11.0	-0.2
ASAR	**Alice Springs** comp=Z,2.8nm,0.5s,mb4.6,baz=298,slow=7.7,SNR=25	47.69	128	P	P	11 35 16.2	+0.6
HIA	**Hailar** comp=Z,7.4nm,0.6s,mb4.9	48.94	22	*e*P	P	11 35 24.2	-0.7
ZAL	**Zalesovo** comp=Z,11nm,0.6s,mb5.1,baz=211,slow=5.2,SNR=48	49.44	352	P	P	11 35 27.7	-1.0
MDJ	**Mudanjiang** comp=Z,5.6nm,0.8s,mb4.7	49.88	32	P	P	11 35 33.2	+1.0
BVAR	**Borovoye Array** comp=Z,3.9nm,0.6s,mb4.5,baz=141,slow=9.5,SNR=28	51.86	342	P	P	11 35 46.0	-1.1
BRVK	**Borovoye** comp=Z,20nm,1.3s,mb4.9	51.92	342	*e*P	P	11 35 46.6	-1.0
CHKZ	**Chkalovo** comp=Z,15nm,0.7s,mb5.0	52.34	342	*e*P	P	11 35 50.3	-0.5
CHKZ				*e*		11 36 03.6	
PMG	**Port Moresby** comp=Z,11nm,0.8s,mb4.8,baz=134,slow=20,SNR=6.6	54.20	105	P	P	11 36 05.2	+0.1
PMG	**Port Moresby** comp=Z,10nm,0.7s,mb4.9	54.20	105	*e*P	P	11 36 04.9	-0.2
CTA	**Charters Tower** comp=Z,3.7nm,0.9s,mb4.4,baz=304,slow=15,SNR=2.2	56.46	118	P	P	11 36 21.5	+0.2
CTAO	**Charters Tower** comp=Z,3.8nm,0.8s,mb4.5	56.46	118	P	P	11 36 20.9	-0.4
STKA	**Stephens Creek** comp=Z,0.7nm,0.4s,mb4.0,baz=324,slow=7.5,SNR=2.6	57.76	133	P	P	11 36 30.6	+0.2
STKA	**Stephens Creek**	57.76	133	P	P	11 36 30.5	+0.1
ARU	**Arti** comp=Z,16nm,1.5s,mb4.8	58.72	337	P	P	11 36 35.6	-1.1
EIL	**Elat** comp=Z,3.3nm,0.6s,mb4.6	61.34	301	P	P	11 36 54.9	-0.3
YAK	**Yakutsk** comp=Z,24nm,0.5s,mb5.6	62.52	18	*e*P	P	11 36 59.9	-2.6
BRTR	**Keskin Array B** comp=Z,3.0nm,0.6s,mb4.5,baz=125,slow=7.0,SNR=11	64.72	312	P	P	11 37 16.4	-0.9
MA2	**Magadan** comp=Z,6.7nm,0.7s,mb4.7	69.03	27	*e*P	P	11 37 42.5	-1.7
AKASG	**Malin Array Be** comp=Z,0.7nm,0.3s,mb4.0,baz=82,slow=6.1,SNR=4.4	70.73	322	P	P	11 37 52.6	-2.0
MLR	**Muntele Rosu** comp=Z,3.7nm,0.7s,mb4.5,baz=130,slow=3.0,SNR=4.0	71.60	316	P	P	11 37 59.9	-0.1
FINES	**FINESS Array B** comp=Z,2.5nm,0.8s,mb4.2,baz=114,slow=5.4,SNR=8.5	75.48	332	P	P	11 38 21.5	-0.9
ARCES	**ARCESS Array B** comp=Z,1.2nm,0.3s,mb4.3,baz=122,slow=14,SNR=36	78.13	340	P	P	11 38 37.2	+0.1
BILL	**Bilibino** comp=Z,1.5nm,0.4s,mb4.3	78.52	21	*e*P	P	11 38 38.5	-0.7
FX1	**Attu Island--F** comp=Z,23nm,0.7s,mb5.2,baz=95,slow=4.4,SNR=6.9	79.06	37	P	P	11 38 42.3	-0.2
BRG	**Berggiesshubel** comp=Z,6.0nm,0.9s,mb4.5	80.30	321	*e*P	P	11 38 48.7	-0.5
GERES	**GERESS Array B** comp=Z,4.8nm,0.6s,mb4.6,baz=101,slow=5.3,SNR=28	80.32	319	P	P	11 38 49.8	+0.4
KHC	**Kasperske Hory**	80.42	319	*e*P	P	11 38 50.5	+0.6
CLL	**Collm**	80.92	321	P	P	11 38 54.0	+1.5
HFS	**Hagfors** comp=Z,1.9nm,0.8s,mb4.1,baz=203,slow=11,SNR=4.1	81.19	330	P	P	11 38 52.2	-1.5
SYO	**Syowa Base**	82.86	197	⇑PcP	PcP	11 39 07.7	+0.3
SYO	**Syowa Base**	82.86	197	⇓pP	pP	11 39 12.0	-0.6
LPL	**La Plagne** comp=Z,10nm,0.8s,mb4.7	85.03	315	*e*P	P	11 39 14.7	+1.1
EKA	**Eskdalemuir Ar** comp=Z,2.7nm,0.7s,mb4.7,baz=92,slow=5.8,SNR=6.5	90.38	326	P	P	11 39 39.8	+0.6
ILAR	**Eielson Array** comp=Z,0.2nm,0.5s,mb3.8,baz=300,slow=4.4,SNR=7.8	97.16	22	P	P	11 40 09.3	-0.6
ULM	**Lac du Bonnet** comp=Z,1.3nm,0.5s,baz=28,slow=4.3,SNR=3.8	124.20	8	PKP	PKPdf	11 45 37.8	+2.2
PDAR	**Pinedale Array** comp=Z,0.4nm,0.5s,baz=169,slow=1.9,SNR=4.7	127.59	22	PKP	PKPdf	11 45 42.8	+0.4
TXAR	**Lajitas Array** comp=Z,0.3nm,0.5s,baz=284,slow=0.4,SNR=6.9	141.56	26	PKhKP		11 46 06.5	

IDC 30 11:30:37.0±0.7, 8.54N×93.53E, mb4.0/15, mb1 4.2/16, mb1mx4.1/20, mbtmp4.0/16, ML4.4/1, Error ellipse: s-maj=40.9km s-min=15.6km az=53.0
ISC 30 11:30:40.7±0.5**, 8.61N**±0.09×**93.8E**±0.1**, h33**^{km}**, n32, σ0**^{s}**93**/30**, mb4.2**/17**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr** 0.7nm,0.3s,baz=212,slow=15,SNR=6.7	11.01	27	Pn	P	11 33 18.9	-0.1
VIS	**Vishakhapatnam**	13.60	313	*e*P	P	11 33 53.2	-0.6
VIS				*e*S	S	11 36 04.2	-20
PKI	**Pulchoki** 47nm,1.0s	20.45	338	*e*P	P	11 35 18.0	-0.1
GUN	**Gumba** 81nm,0.8s	20.59	340	*e*P	P	11 35 19.4	-0.2
DMN	**Daman** 28nm,0.7s	20.59	338	*e*P	P	11 35 20.4	+0.8
KKN	**Kakani** 37nm,0.9s	20.69	338	*e*P	P	11 35 20.7	+0.1
KAD	**Karad**	20.93	296	*e*	P	11 35 25.0	+1.9
GKN	**Gorkha** 68nm,0.7s,mb5.1	21.12	337	*e*P	P	11 35 24.9	-0.1
KOLN	**Koldanda** 62nm,0.9s,mb4.9	21.34	335	*e*P	P	11 35 27.5	+0.3
BHPL	**Bhopal**	21.37	315	*e*P	P	11 35 28.5	+1.0
BHPL	comp=Z,40nm,1.3s			*e*		11 35 34.4	
POO	**Poona**	21.70	299	*e*	P	11 35 30.0	-0.8
PTH	**Pithoragarh**	24.40	330	*e*	P	11 35 59.8	+2.4
PTH				*e*		11 39 46.2	
SONM	**Songino Array** comp=Z,0.2nm,0.6s,baz=194,slow=5.9,SNR=2.6	40.54	13	P	P	11 38 22.5	+4.1
SONM	comp=Z,0.5nm,0.5s,baz=215,slow=3.5,SNR=6.2			PcP	PcP	11 40 21.7	+0.6
ZAL	**Zalesovo** comp=Z,1.7nm,0.5s,mb4.2,baz=223,slow=7.8,SNR=11	45.77	353	P	P	11 39 01.0	+0.1
NWAO	**Narrogin (SRO)** comp=Z,10.0nm,1.1s,mb4.7,baz=338,slow=11,SNR=2.1	46.97	153	P	P	11 39 10.9	+0.4
BVAR	**Borovoye Array** comp=Z,0.8nm,0.5s,mb4.0,baz=146,slow=9.5,SNR=4.1	48.18	341	P	P	11 39 18.4	-1.3
BVAR	comp=Z,0.6nm,0.7s,baz=146,slow=5.2,SNR=3.2			PcP	PcP	11 40 46.7	-0.4
WRA	**Warramunga Arr** comp=Z,0.7nm,0.8s,mb3.7,baz=302,slow=9.6,SNR=4.0	48.99	126	P	P	11 39 26.5	0.0
ASAR	**Alice Springs** comp=Z,0.5nm,0.7s,mb3.6,baz=310,slow=7.0,SNR=5.8	50.67	130	P	P	11 39 39.0	-0.4
ASAR	comp=Z,0.6nm,0.7s,baz=328,slow=3.8,SNR=3.1			PcP	PcP	11 40 56.0	-0.6
STKA	**Stephens Creek** comp=Z,0.5nm,0.6s,mb3.8,baz=310,slow=16,SNR=2.1	60.88	134	P	P	11 40 53.1	+0.4
BRTR	**Keskin Array B** comp=Z,2.3nm,0.8s,mb4.3,baz=127,slow=6.2,SNR=8.0	61.66	311	P	P	11 40 55.9	-2.0
AKASG	**Malin Array Be** comp=Z,0.6nm,0.3s,mb4.1,baz=88,slow=5.1,SNR=3.7	67.35	322	P	P	11 41 33.9	-0.6
FINES	**FINESS Array B** comp=Z,3.8nm,0.9s,mb4.3,baz=108,slow=4.4,SNR=2.5	71.89	332	P	P	11 42 00.4	-1.7
ARCES	**ARCESS Array B** comp=Z,1.1nm,0.6s,mb4.0,baz=90,slow=4.5,SNR=2.9	74.45	340	P	P	11 42 16.9	-0.1
GERES	**GERESS Array B** comp=Z,3.4nm,1.1s,mb4.2,baz=90,slow=5.3,SNR=7.1	77.03	318	P	P	11 42 31.4	-0.7
HFS	**Hagfors** comp=Z,32nm,1.4s,mb5.1,baz=108,slow=4.7,SNR=6.2	77.64	330	P	P	11 42 35.0	-0.3
NB2	**NORSAR Subarra** comp=Z,16nm,1.4s,mb4.8,baz=92,slow=5.8	78.91	331	P	P	11 42 35.6	-6.6
NOA	**NORSAR Array B** comp=Z,2.4nm,0.8s,mb4.2,baz=92,slow=5.7,SNR=4.2	78.91	331	P	P	11 42 41.5	-0.7
ESDC	**Sonseca Array** comp=Z,0.3nm,0.4s,mb4.0,baz=88,slow=4.3,SNR=4.2	90.46	310	P	P	11 43 41.8	+1.2
ILAR	**Eielson Array** comp=Z,0.2nm,0.8s,mb3.6,baz=307,slow=4.5,SNR=3.2	94.21	22	P	P	11 43 58.1	+1.0
NVAR	**Mina Array Bea** comp=Z,0.2nm,0.2s,baz=278,slow=6.4,SNR=2.8	124.48	30	PKP	PKPdf	11 49 38.8	+1.7
PDAR	**Pinedale Array** comp=Z,0.4nm,0.8s,baz=333,slow=6.0,SNR=3.1	124.62	21	PKP	PKPdf	11 49 39.6	+2.3
TXAR	**Lajitas Array** comp=Z,0.2nm,0.6s,slow=0.9,SNR=2.8	138.71	23	PKP	PKPdf	11 50 04.8	+0.6

IDC 30 11:34:10.3±0.8, 6.39N×92.77E, mb4.1/11, mb1 4.2/12, mb1mx4.1/19, mbtmp4.0/12, ML3.7/1, Error ellipse: s-maj=42.0km s-min=16.3km az=50.0
NEIC 30 11:34:14.9±0.6, 6.38N×92.86E, h30^{km}*, mb4.5/11, Error ellipse: s-maj=14.5km s-min=13.6km az=165.0*
SYO 30 11:34:14.8, 6.38N×92.86E, h30^{km}*, MB4.5*
ISC 30 11:34:12.8±4.4**, 6.30N**±0.08×**92.84E**±0.08**, h30**^{km}±32^{km}**, n40, σ1**^{s}**05**/35**, mb4.4**/28**, 1C-1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PALK	**Pallekele**	12.10	275	*e*P	P	11 37 05.6	-0.6
PALK				*e*S	S	11 39 05.9	-15
CM31	**Chiang Mai Arr** 5.0nm,0.6s	13.47	26	*e*P	P	11 37 18.7	-5.9
CMAR	**Chiang Mai Arr** 0.1nm,0.3s,baz=214,slow=12,SNR=4.3	13.47	26	Pn	P	11 37 20.6	-4.0
VIS	**Vishakhapatnam**	14.67	322	*e*P	P	11 37 40.3	-0.1
VIS	comp=Z,63nm,0.2s			AMb	AMB	11 37 41.6	
VIS				*e*		11 40 08.7	
VIS				*e*		11 40 09.3	
BWNR	**Bhubaneshwar** comp=Z,16nm,0.1s	15.50	335	AMb	AMB	11 37 43.7	
BWNR				*e*P		11 37 48.5	
QIZ	**Qiongzhong** comp=Z,7.5nm,0.6s	20.84	51	P	P	11 38 54.5	-0.3
PKI	**Pulchoki** comp=Z,20nm,0.6s,mb4.7	22.31	342	*e*P	P	11 39 10.7	+1.3
DMN	**Daman** comp=Z,30nm,0.7s,mb4.8	22.44	342	*e*P	P	11 39 11.9	+1.2
BHPL	**Bhopal**	22.46	320	*e*P	P	11 39 09.7	-1.2
BHPL	comp=Z,7.9nm,1.0s,mb4.1			AMb	AMB	11 39 16.3	
GUN	**Gumba** comp=Z,19nm,0.6s,mb4.7	22.49	344	*e*P	P	11 39 11.7	+0.5
KKN	**Kakani** comp=Z,24nm,0.8s,mb4.7	22.55	342	*e*P	P	11 39 13.4	+1.5
GKN	**Gorkha** comp=Z,8.6nm,0.3s,mb4.7	22.95	341	*e*P	P	11 39 16.9	+1.0
KOLN	**Koldanda** comp=Z,17nm,0.7s,mb4.6	23.09	339	*e*P	P	11 39 18.3	+1.1
LSA	**Lhasa** comp=Z,8.9nm,0.8s,mb4.2	23.34	356	P	P	11 39 20.4	+0.8
MBWA	**Marble Bar** comp=Z,13nm,1.1s,mb4.6	37.96	137	P	P	11 41 28.6	-1.2
BJT	**Baijiatuau** comp=Z,9.9nm,1.3s,mb4.4	39.58	29	P	P	11 41 41.5	-1.6
SONM	**Songino Array** comp=Z,1.2nm,0.8s,mb3.7,baz=196,slow=8.6,SNR=8.2	42.98	13	P	P	11 42 10.8	-0.2
SONM	comp=Z,1.0nm,0.6s,baz=210,slow=4.2,SNR=6.5			PcP	PcP	11 44 02.0	+0.3
ULN	**Ulaanbaatar** comp=Z,1.0nm,0.7s,mb3.6	43.16	14	P	P	11 42 11.9	-0.6
WRA	**Warramunga Arr** comp=Z,0.6nm,0.3s,mb4.0,baz=303,slow=9.1,SNR=9.3	48.43	124	P	P	11 42 55.1	+0.4
WRA	comp=Z,0.3nm,0.3s,baz=312,slow=2.6,SNR=5.7			PcP	PcP	11 44 21.8	+0.7
HIA	**Hailar** comp=Z,5.1nm,0.9s,mb4.5	48.47	23	*e*P	P	11 42 54.3	-0.3
HIA				*e*		11 43 06.3	
ASAR	**Alice Springs** comp=Z,1.5nm,0.8s,mb4.1,baz=300,slow=8.1,SNR=10	49.93	128	P	P	11 43 06.9	+0.7
BVAR	**Borovoye Array** comp=Z,0.9nm,0.5s,mb4.1,baz=141,slow=9.5,SNR=5.0	50.08	342	P	P	11 43 06.3	-0.6
CHKZ	**Chkalovo** comp=Z,3.7nm,0.5s,mb4.6	50.58	343	*e*P	P	11 43 10.2	-0.5
CHKZ				*e*		11 43 26.3	
KMBO	**Kilima Mbogo** comp=Z,4.2nm,1.0s,mb4.4	55.98	264	P	P	11 43 50.0	-1.3
EIL	**Elat** comp=Z,8.3nm,1.2s,mb4.6	59.10	301	P	P	11 44 14.0	+0.9
STKA	**Stephens Creek** comp=Z,1.2nm,0.7s,mb4.0,baz=280,slow=3.0,SNR=6.1	59.98	132	P	P	11 44 19.4	+0.3
STKA	**Stephens Creek**	59.98	132	*e*P	P	11 44 19.8	+0.7
YAK	**Yakutsk** comp=Z,17nm,0.8s,mb5.2	61.89	19	P	P	11 44 30.8	-0.9
BRTR	**Keskin Array B** comp=Z,1.6nm,0.6s,mb4.3,baz=143,slow=6.3,SNR=7.0	62.49	312	P	P	11 44 34.8	-1.2
AKASG	**Malin Array Be** comp=Z,0.1nm,0.2s,mb3.3,baz=94,slow=5.1,SNR=4.3	68.60	322	P	P	11 45 12.7	-2.4
FINES	**FINESS Array B** comp=Z,6.4nm,1.1s,mb4.5,baz=56,slow=6.9,SNR=4.3	73.50	333	P	P	11 45 43.5	-0.8
CASY	**Casey** comp=Z,13nm,1.4s,mb4.7	73.53	173	P	P	11 45 46.9	+2.5
ARCES	**ARCESS Array B** comp=Z,5.3nm,0.9s,mb4.5,baz=101,slow=5.7,SNR=7.7	76.31	340	P	P	11 46 00.7	+0.4
GERES	**GERESS Array B** comp=Z,1.5nm,0.8s,mb4.0,baz=104,slow=5.5,SNR=7.9	78.14	318	P	P	11 46 11.7	+0.9
SYO	**Syowa Base**	83.53	197	⇑PcP	PcP	11 46 45.2	+1.7
SYO	**Syowa Base**	83.53	197	⇓pP	pP	11 46 49.3	+0.8
EKA	**Eskdalemuir Ar** comp=Z,2.5nm,0.9s,mb4.4,baz=101,slow=4.3,SNR=4.2	88.28	325	P	P	11 47 03.5	+0.9
NVAR	**Mina Array Bea** comp=Z,0.5nm,0.3s,baz=342,slow=2.9,SNR=3.1	126.93	31	PKP	PKPdf	11 53 16.7	-2.8
PDAR	**Pinedale Array** comp=Z,0.6nm,0.7s,baz=34,slow=5.3,SNR=5.7	127.09	21	PKP	PKPdf	11 53 17.1	-2.5
TXAR	**Lajitas Array** comp=Z,0.3nm,0.5s,baz=178,slow=0.3,SNR=7.0	141.18	23	PKP	PKPdf	11 53 44.8	-1.6

NAO 30 11:37:40.8±4.6, 67.26N×32.98E, ML2.0
HEL 30 11:37:41.8±0.5**, 67.72N**×**33.85E, ML1.9, ML2.0**(NAO)**, Explosion, Baltic States - Belarus - Northwestern Russia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
APA0	**Apatity Array** baz=94,slow=16	0.35	251	Pg	Pg	11 37 47.2	-1.5
APA0	baz=82,slow=37			Lg		11 37 51.9	
APA0	**Apatity Array**	0.35	251	*i* P	Pg	11 37 47.2	-1.5
APA0				*i* S		11 37 51.9	
KU4	**Oulanka**	2.16	233	*e*P	Pn	11 38 19.0	-0.4
KU4				*e*S	Sn	11 38 46.3	-1.1
MSF	**Maaselka**	2.63	229	*e*P	Pn	11 38 25.9	-0.3
MSF				*e*S	Sn	11 38 58.0	-1.4
SGF	**Sodankyl**	2.82	268	*e*P	Pn	11 38 27.5	-1.4
SGF				*e*S	Sn	11 39 04.0	-0.2
KEV	**Kevo**	3.22	312	*e*P	Pn	11 38 33.6	-1.0
KEV				*e*S	Sn	11 39 12.3	-2.1
KEV				*e*SG	Sg	11 39 21.9	-7.3
ARA0	**ARCESS Array S** baz=125,slow=14	3.56	305	Pn	Pn	11 38 37.6	-1.8
ARA0	baz=121,slow=28			Sn	Sn	11 39 19.8	-3.0
ARA0	baz=127,slow=28			Lg		11 39 33.7	
ARA0	**ARCESS Array S**	3.56	305	*e*P	Pn	11 38 37.6	-1.8
ARA0				*e*S	Sn	11 39 19.8	-3.0
ARA0				*e*SG		11 39 33.7	
OUL	**Oulu**	4.15	234	*e*P	Pn	11 38 47.7	-0.2
OUL				*e*S	Sn	11 39 34.5	-3.3
OUL				*e*SG	Sg	11 39 50.5	-9.4
OUL	comp=Z,2.0nm,0.3s			MSG		11 39 53.1	
KJN	**Kajaani**	4.43	217	*e*P	Pn	11 38 49.6	-2.3
KJN				*e*S	Sn	11 39 40.5	-4.4
KJN				*e*SB	Sb	11 39 53.4	-1.5
KJN	comp=Z,1.6nm,0.3s			MSG		11 39 55.5	

GUC 30 11:48:37.4±0.7**, 34.43S**×**70.39W, h10**^{km}±2^{km}**, MD3.6, ML2.0, 6C, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CACH	**El Canelo**	0.35	330	⇑*i*P	Pg	11 48 44.6	-0.2
CACH				*i* S	Sg	11 48 49.8	+0.2
CHCH	**Chadas Angostu**	0.54	336	*e*P	Pg	11 48 48.1	-0.2
SFDO	**San Fernando**	0.55	250	⇑*i*P	Pg	11 48 48.6	0.0
SFDO				*i* S	Sg	11 48 56.5	+0.6
LMEL	**Las Melosas**	0.60	15	⇑*i*P	Pb	11 48 48.8	-0.7
LMEL				*i* S	Sg	11 48 57.0	-0.5
LMEL	comp=E,252nm,0.1s			AMP		11 48 57.4	
PCH	**Pirque**	0.81	353	⇑*i*P	Pb	11 48 52.9	-0.2
TACH	**Talagante**	0.90	329	*e*P	Pb	11 48 54.2	-0.4
LNV	**Longovilo**	0.97	299	*e*P	Pb	11 48 55.4	-0.4
LNV				*i* S	Sb	11 49 08.5	+0.1
RCDM	**Rinconada Maip**	1.00	340	⇑*i*P	Pb	11 48 55.9	-0.4
RCDM				*i* S	Sb	11 49 09.7	+0.4
RCDM	comp=E,115nm,0.3s			AMP		11 49 10.3	
FCH	**Farellones**	1.10	4	⇑*i*P	Pb	11 48 58.0	-0.1
FCH				*i* S	Sb	11 49 13.1	+0.9
FCH	comp=E,52nm,0.2s			AMP		11 49 13.7	
LCCH	**Las Cruces**	1.36	314	*e*P	Pn	11 49 02.7	+0.1
LCCH				*i* S	Sb	11 49 21.1	+1.1

IDC 30 11:58:56.3±3.0, 4.73S×144.25E, h86^{km}*±29*^{km}*, mb3.9/9, mb1 4.1/11, mb1mx4.1/13, mbtmp4.3/11, MS3.2/1, Ms1 3.2/1, ms1mx2.4/17, Error ellipse: s-maj=26.5km s-min=13.2km az=97.0*
ISC 30 11:58:49.2±0.7**, 4.66S**±0.06×**143.98E**±0.09**, h33**^{km}**, n13, σ1**^{s}**25**/16**, mb4.1**/9**, MS3.0**/1**, New Guinea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	**Port Moresby** 3.6nm,0.3s,baz=354,slow=7.8,SNR=18	5.68	146	P	P	12 00 15.4	+1.9
PMG	2.5nm,0.3s,baz=11,slow=11,SNR=3.6			S	S	12 01 18.4	0.0
CTA	**Charters Tower** 0.2nm,0.3s,baz=1.5,slow=16,SNR=2.4	15.50	172	P	P	12 02 33.3	+6.2
CTA	0.1nm,0.3s,baz=187,slow=22,SNR=3.1			S	S	12 05 10.3	-7.7
WRA	**Warramunga Arr** 1.0nm,0.3s,baz=32,slow=13,SNR=51	17.86	211	P	P	12 02 58.4	+1.5
WRA	0.2nm,0.3s,baz=39,slow=23,SNR=3.6			S	S	12 06 10.7	-1.6
ASAR	**Alice Springs** 2.5nm,0.6s,mb3.7,baz=34,slow=7.6,SNR=26	21.25	206	P	P	12 03 35.0	+0.2

ASAR				S	S	12 07 29.1	+4.9
	1.0nm,0.8s,baz=37,slow=19,SNR=3.6						
ASAR				LR	LR	12 12 28.7	
	comp=Z,68nm,19.3s,MS3.0,baz=31,slow=38						
STKA	Stephens Creek	27.17	184	P	P	12 04 32.2	+0.4
	2.7nm,0.5s,mb4.1,baz=358,slow=8.2,SNR=19						
CMAR	Chiang Mai Arr	49.97	299	P	P	12 07 44.4	+1.8
	1.2nm,0.7s,mb4.0,baz=122,slow=6.3,SNR=12						
SONM	Songino Array	61.80	332	P	P	12 09 07.5	+0.3
	0.2nm,0.4s,mb3.6,baz=158,slow=5.6,SNR=5.1						
VNDA	Vanda	73.44	176	P	P	12 10 18.1	-1.6
	1.5nm,0.8s,mb4.0,baz=16,slow=3.5,SNR=4.8						
MAW	Mawson	82.33	202	P	P	12 11 08.2	-0.6
	5.0nm,0.7s,mb4.5,baz=90,slow=6.4,SNR=5.3						
BVAR	Borovoye Array	83.92	324	P	P	12 11 18.1	+0.9
	5.0nm,0.6s,mb4.8,baz=104,slow=6.1,SNR=20						
ILAR	Eielson Array	85.45	24	P	P	12 11 23.3	-1.2
	3.2nm,0.6s,mb4.6,baz=270,slow=4.5,SNR=58						
YKA	Yellowknife Ar	99.38	27	P	P	12 12 27.3	-2.0
	0.1nm,0.5s,mb3.6,baz=277,slow=4.6,SNR=3.2						
DBIC	Dimbokro	148.92	275	PKPbc	PKPdf	12 18 37.3	+6.5
	2.5nm,0.7s,baz=72,slow=3.9,SNR=3.4						

IDC 30 11:58:50.7±7.0, 7.15N×94.18E, mb3.5/4, mb1 3.8/5, mb1mx3.6/18, mbtmp3.6/5, ML4.1/1, Error ellipse: s-maj=160.0km s-min=46.6km az=144.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.15	22	Pn	P	12 01 44.5	-3.7
	0.4nm,0.3s,baz=213,slow=14,SNR=14						
SONM	Songino Array	41.85	12	P	P	12 06 43.0	-1.1
	0.2nm,0.8s,baz=202,slow=7.8,SNR=2.7						
ZAL	Zalesovo	47.26	352	P	P	12 07 25.5	-2.0
	0.9nm,0.6s,baz=227,slow=14,SNR=5.0						
BRTR	Keskin Array B	62.93	311	P	P	12 09 19.9	-1.4
	0.5nm,0.4s,baz=122,slow=6.3,SNR=3.3						
GERES	GERESS Array B	78.39	318	P	P	12 10 52.6	-2.1
	0.5nm,0.8s,baz=108,slow=6.2,SNR=2.8						

IDC 30 12:11:17.0±1.8, 9.64N×92.61E, mb3.5/4, mb1 3.7/5, mb1mx3.6/18, mbtmp3.5/5, ML3.7/1, Error ellipse: s-maj=62.5km s-min=24.0km az=68.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.70	34	Pn	P	12 13 53.3	-1.4
	0.2nm,0.3s,baz=226,slow=15,SNR=7.0						
SONM	Songino Array	39.81	15	P	P	12 18 50.9	-2.6
	0.1nm,0.4s,baz=202,slow=7.8,SNR=3.3						
BVAR	Borovoye Array	46.85	342	P	P	12 19 48.5	-2.0
	0.3nm,0.3s,baz=149,slow=8.4,SNR=4.6						
WRA	Warramunga Arr	50.51	126	P	P	12 20 16.8	-2.5
	0.8nm,0.6s,baz=304,slow=8.6,SNR=6.3						
ASAR	Alice Springs	52.20	130	P	P	12 20 29.6	-2.5
	0.4nm,0.5s,baz=305,slow=7.4,SNR=9.9						
ASAR				PcP	PcP	12 21 43.0	-0.9
	0.5nm,0.8s,baz=289,slow=3.4,SNR=5.1						

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*KRSC **30** 12:13:45.6±1.3, 49.39N×150.57E, h519^{km}±13^{km}, ML4.2*
*MOS **30** 12:13:50.4±0.8, 49.27N×152.11E, h547^{km}, mb4.0/1, Error ellipse: s-maj=99.9km s-min=20.2km az=60.2*
*IDC **30** 12:13:50.8±2.2, 50.54N×150.12E, h468^{km}±27^{km}, mb3.2/11, mb1 3.4/13, mb1mx3.3/22, mbtmp4.1/13, Error ellipse: s-maj=17.5km s-min=13.4km az=159.0*
ISC 30 12:13:51.0±0.6, 50.48N±0.10×150.1E±0.1, h488^{km}±8^{km}, n49, σ1^{s}29/64, mb3.4/14, Northwest of Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APC	Apacha	5.02	58	*e*P	P	12 15 17.1	-1.1
RUS	Russkaya	5.60	66	P	P	12 15 22.4	-1.4
RUS				S	S	12 16 33.6	-3.6
RUS	Russkaya	5.60	66	*e*P	P	12 15 22.4	-1.4
RUS				*e*S	S	12 16 33.9	-3.3
GNL	Ganaly	5.80	53	*i* P	P	12 15 25.8	+0.1
PET	Petropavlovsk	5.88	61	P	P	12 15 26.0	-0.5
PET	Petropavlovsk	5.88	61	*e*P	P	12 15 26.1	-0.4
PET	Petropavlovsk	5.88	61	*e*P	P	12 15 26.1	-0.4
PET				pmax	pmax		
	comp=Z,19nm,0.8s						
KOK	Koryaka	5.98	59	*i* P	P	12 15 28.0	+0.5
KOK				*e*S	S	12 16 43.7	-0.1
AVH	Avacha	6.02	59	*e*P	P	12 15 28.3	+0.4
AVH				*e*S	S	12 16 42.9	-1.7
UGLR	Uglovaya	6.05	60	*i* P	P	12 15 28.8	+0.6
SMAR	Somma	6.06	59	*e*P	P	12 15 28.6	+0.3
SDLR	Sedlovina	6.11	59	*e*P	P	12 15 28.8	0.0
NLC	Nalytchevo	6.32	61	P	P	12 15 28.4	-2.5
NLC				S	S	12 16 43.6	-6.4
NLC	Nalytchevo	6.32	61	*e*P	P	12 15 28.6	-2.3
NLC				*e*S	S	12 16 44.2	-5.8
SPN	Mys Shipunski	6.68	63	P	P	12 15 32.4	-2.1
SPN				S	S	12 16 49.7	-6.9
SPN	Mys Shipunski	6.68	63	*i* P	P	12 15 32.5	-2.0
SPN				*e*S	S	12 16 49.7	-6.9
ESO	Esso	7.50	40	*i* P	P	12 15 45.0	+2.0
TUMR	Tumrok	7.74	48	*i* P	P	12 15 46.5	+1.0
KMNR	Kamenistaya	8.06	45	*e*P	P	12 15 50.8	+1.9
KOZ	Kozyrevsk	8.08	43	*e*P	P	12 15 51.2	+2.0
KOZR	Kozyr	8.10	43	P	P	12 15 51.2	+1.9
ASAJ	Asahikawa	8.16	222	P	P	12 15 48.8	-1.2
	comp=Z,1.1nm,0.3s,baz=42,slow=33,SNR=8.2						
KPT	Kopyto	8.18	44	*i* P	P	12 15 51.9	+1.7
SRDR	Sredinnyy	8.19	41	*i* P	P	12 15 52.3	+2.0
LGNR	Loginova	8.46	44	*e*P	P	12 15 54.7	+1.5
LGNR				*e*S	S	12 17 29.3	-0.8
ZLN	Zelenaya	8.47	45	*e*P	P	12 15 55.3	+2.0
ZLN				*e*S	S	12 17 31.1	+0.7
KRSR	Krestovskiy	8.48	43	*e*P	P	12 15 54.3	+0.9
KRSR				*e*S	S	12 17 28.2	-2.5
CIRR	Tsirk	8.50	44	*e*P	P	12 15 55.2	+1.6
CIRR				*e*S	S	12 17 29.6	-1.4
KLY	Klyuchi	8.58	43	P	P	12 15 57.7	+3.2
KLY	Klyuchi	8.58	43	*e*P	P	12 15 57.8	+3.3
KBG	Krutoberegovo	9.48	48	*i* P	P	12 16 05.1	+1.0
KBG				*e*S	S	12 17 46.7	-3.2
KBTR	Krutoberegovo	9.51	48	P	P	12 16 03.8	-0.4
KBTR				S	S	12 17 45.3	-5.1
KBTR	Krutoberegovo	9.51	48	*i* P	P	12 16 03.9	-0.3
KBTR				*e*S	S	12 17 45.5	-4.9
FX1	Attu Island--F	14.48	72	P	P	12 16 55.7	-0.5
	comp=Z,0.9nm,0.3s,baz=7.9,slow=2.4,SNR=7.7						
SONM	Songino Array	28.41	282	P	P	12 19 05.5	-0.8
	comp=Z,0.1nm,0.4s,mb2.6,baz=82,slow=8.7,SNR=4.0						
ILAR	Eielson Array	34.98	42	P	P	12 20 01.1	-0.8
	comp=Z,0.3nm,0.5s,mb3.0,baz=277,slow=10.0,SNR=13						
BVAR	Borovoye Array	47.01	306	P	P	12 21 38.2	-0.1
	comp=Z,2.1nm,0.5s,mb3.9,baz=61,slow=7.9,SNR=16						
BVAR				PcP	PcP	12 23 00.6	-0.7
	comp=Z,1.0nm,0.7s,baz=90,slow=4.4,SNR=4.8						
YKA	Yellowknife Ar	49.15	38	P	P	12 21 53.5	-0.8
	comp=Z,0.4nm,0.4s,mb3.1,baz=303,slow=7.3,SNR=9.0						
KEV	Kevo	53.15	339	*e*p	P	12 22 21.7	-1.8
	comp=Z,0.4nm,0.3s,mb3.2						
ARCES	ARCESS Array B	53.67	339	P	P	12 22 26.7	-0.5
	comp=Z,8.6nm,1.1s,mb4.0,baz=28,slow=7.1,SNR=9.5						
KAF	Kangasniemi	59.22	333	*e*p	P	12 23 04.3	-1.2
	comp=Z,0.3nm,0.3s,mb3.1						
FINES	FINESS Array B	59.81	333	P	P	12 23 09.2	-0.3
	comp=Z,2.6nm,0.3s,mb4.1,baz=39,slow=7.8,SNR=45						
NB2	NORSAR Subarra	64.04	339	P	P	12 23 36.8	-0.1
	comp=Z,1.7nm,0.6s,mb3.8,baz=27,slow=6.2						
NOA	NORSAR Array B	64.04	339	P	P	12 23 36.3	-0.6
	comp=Z,3.0nm,0.8s,mb3.9,baz=28,slow=6.4,SNR=6.1						
PDAR	Pinedale Array	64.14	54	P	P	12 23 38.6	+0.8
	comp=Z,0.6nm,0.6s,mb3.3,baz=312,slow=2.8,SNR=6.1						
GERES	GERESS Array B	74.23	332	P	P	12 24 37.4	-0.6
	comp=Z,0.4nm,0.6s,mb3.2,baz=27,slow=6.6,SNR=3.7						
BRTR	Keskin Array B	74.34	314	P	P	12 24 39.3	+0.5
	comp=Z,1.1nm,0.9s,mb3.4,baz=45,slow=5.2,SNR=3.9						
ASAR	Alice Springs	75.20	195	P	P	12 24 44.6	+0.8
	comp=Z,0.8nm,0.5s,mb3.5,baz=8.2,slow=5.1,SNR=10						
TXAR	Lajitas Array	77.34	59	P	P	12 24 56.4	+0.9
	comp=Z,0.3nm,0.6s,mb3.0,baz=300,slow=5.9,SNR=6.1						

IDC 30 12:19:43.9±5.3, 11.67N×92.87E, mb3.5/2, mb1 3.7/3, mb1mx3.4/18, mbtmp3.4/3, ML3.7/1, Error ellipse: s-maj=114.0km s-min=43.7km az=96.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.94	40	Pn	P	12 21 54.2	-3.0
	0.2nm,0.3s,baz=234,slow=15,SNR=13						
CMAR				Sn	Sn	12 23 45.4	+5.4
	0.5nm,0.3s,baz=240,slow=21,SNR=7.0						
WRA	Warramunga Arr	51.51	127	P	P	12 28 51.7	-2.2
	0.4nm,0.4s,baz=306,slow=8.4,SNR=9.9						
ASAR	Alice Springs	53.32	131	P	P	12 29 05.3	-2.1
	0.3nm,0.6s,baz=303,slow=5.9,SNR=6.4						

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*IDC **30** 12:25:43.7±0.8, 4.47N×93.05E, mb4.0/10, mb1 4.2/11, mb1mx4.0/18, mbtmp4.0/11, ML3.4/1, Error ellipse: s-maj=38.3km s-min=16.9km az=57.0*
ISC 30 12:25:46.6±0.7, 4.39N±0.08×93.0E±0.1, h33^{km}, n13, σ0^{s}81/12, mb4.1/10, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.14	22	Pn	P	12 29 16.4	-3.5
	0.1nm,0.3s,baz=220,slow=13,SNR=9.7						
CMAR				Sn	S	12 32 07.8	+0.7
	0.6nm,0.3s,baz=204,slow=24,SNR=7.4						
SONM	Songino Array	44.79	13	P	P	12 33 58.9	-0.2
	2.1nm,0.7s,mb4.1,baz=194,slow=8.1,SNR=20						
SONM				PcP	PcP	12 35 41.7	+0.5
	0.9nm,0.8s,baz=198,slow=3.4,SNR=4.4						
WRA	Warramunga Arr	47.27	122	P	P	12 34 18.8	-0.3
	2.0nm,0.8s,mb4.1,baz=299,slow=9.1,SNR=10						
ASAR	Alice Springs	48.65	127	P	P	12 34 29.6	-0.1
	1.5nm,1.2s,mb3.9,baz=297,slow=7.7,SNR=6.6						
ASAR				PcP	PcP	12 35 56.1	+0.9
	0.5nm,0.6s,baz=305,slow=3.9,SNR=5.9						
BVAR	Borovoye Array	51.93	343	P	P	12 34 52.8	-1.5
	1.3nm,0.6s,mb4.0,baz=141,slow=9.5,SNR=8.1						
STKA	Stephens Creek	58.59	132	P	P	12 35 43.1	+0.2
	0.8nm,0.4s,mb4.2,baz=291,slow=13,SNR=3.8						
BRTR	Keskin Array B	63.88	312	P	P	12 36 18.4	-0.1
	0.6nm,0.6s,mb3.8,baz=102,slow=11,SNR=2.8						
FINES	FINESS Array B	75.26	333	P	P	12 37 27.8	+0.1
	14nm,1.2s,mb4.8,baz=135,slow=5.4,SNR=3.6						
ARCES	ARCESS Array B	78.15	341	P	P	12 37 43.8	0.0
	2.9nm,0.9s,mb4.2,baz=97,slow=6.6,SNR=6.6						
GERES	GERESS Array B	79.67	319	P	P	12 37 54.1	+1.6
	1.2nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=9.3						
VNDA	Vanda	89.77	168	P	P	12 38 42.8	+0.3
	0.6nm,0.8s,mb4.0,baz=248,slow=5.4,SNR=4.1						
PDAR	Pinedale Array	128.81	21	PKP	PKPdf	12 44 53.9	+2.6
	0.4nm,0.8s,baz=27,slow=3.3,SNR=3.6						
TXAR	Lajitas Array	142.85	24	PKhKP		12 45 14.3	
	0.1nm,0.7s,baz=90,slow=2.7,SNR=3.1						
TXAR				PKP	PKPdf	12 45 18.8	+1.3
	0.2nm,0.4s,baz=270,slow=0.8,SNR=3.7						

DJA 30 12:26:34.1±1.8, 7.17S×107.33E, h2^{km}, MD3.7/1, 4C-1D, Error ellipse: s-maj=31.2km s-min=5.8km az=179.0, Jawa

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SINI	Singah	0.23	46	⇑*i*Pg	Pg	12 26 40.2	+1.5
	124nm,0.2s						
SINI				⇑*i*Sg	Sg	12 26 44.9	+3.2
LEM	Lembang	0.45	39	*e*Pg	Pg	12 26 43.9	+0.9
PACI	Pancar Gunung	0.71	324	⇓*i*Pg	Pg	12 26 52.8	+4.4
PENI	Pendagan	2.68	306	⇑*e*Pn	Pn	12 27 25.5	+6.5
PENI	Pendagan	2.68	306	⇑*i*Pg	Pg	12 27 28.9	+1.4

IDC 30 12:29:10.0±21.0, 9.98N×93.56E, mb3.7/2, mb1 3.8/3, mb1mx3.5/17, mbtmp3.5/3, ML3.8/1, Error ellipse: s-maj=488.1km s-min=43.4km az=95.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	9.91	31	Pn	P	12 31 33.6	-3.2
	0.2nm,0.3s,baz=236,slow=16,SNR=6.4						
WRA	Warramunga Arr	49.96	127	P	P	12 38 05.9	-2.2
	1.3nm,0.6s,baz=306,slow=8.7,SNR=16						
ASAR	Alice Springs	51.71	131	P	P	12 38 19.4	-1.9
	0.4nm,0.7s,baz=306,slow=7.1,SNR=12						

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*IDC **30** 12:36:15.1±1.0, 12.84N×92.33E, mb3.7/7, mb1 3.9/8, mb1mx3.7/18, mbtmp3.6/8, ML3.2/1, MS3.3/2, Ms1 3.4/2, ms1mx3.0/23, Error ellipse: s-maj=31.7km s-min=20.0km az=52.0*
ISC 30 12:36:18.4±0.8, 12.93N±0.10×92.37E±0.07, h33^{km}, n12, σ1^{s}26/14, mb3.7/7, MS4.1/1, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	8.38	48	Pn	P	12 38 20.3	-0.2
	0.1nm,0.3s,baz=232,slow=15,SNR=3.1						
CMAR				Sn	Sn	12 39 54.5	-0.6
	0.2nm,0.3s,baz=233,slow=31,SNR=11						
CMAR				LR	LR	12 41 09.3	
	comp=Z,42nm,18.5s,baz=195,slow=35						
VIS	Vishakhapatnam	9.94	300	*e*P	P	12 38 45.2	+3.1
VIS				*e*S	Sx	12 40 24.3	
VIS				*e*	S	12 40 30.4	-3.2
	comp=E,64nm,0.3s						
BHPL	Bhopal	17.51	308	*i* P	P	12 40 24.0	+2.3
BHPL				*e*		12 42 52.0	
BHPL				*i*		12 43 12.9	
BHPL				*i*	S	12 43 20.7	-13
KAD	Karad	18.09	286	*e*	S	12 43 40.0	-6.7
SONM	Songino Array	36.72	16	P	P	12 43 25.4	+1.1
	comp=E,0.9nm,0.9s,mb3.6,baz=201,slow=9.7,SNR=6.3						
BVAR	Borovoye Array	43.67	341	P	P	12 44 21.2	-0.6
	comp=E,0.3nm,0.5s,mb3.3,baz=237,slow=44,SNR=2.9						
WRA	Warramunga Arr	52.65	128	P	P	12 45 31.3	-0.7
	comp=E,0.6nm,0.5s,mb3.8,baz=306,slow=8.7,SNR=12						
ASAR	Alice Springs	54.52	132	P	P	12 45 44.9	-0.9
	comp=E,0.5nm,0.5s,mb3.8,baz=308,slow=6.8,SNR=17						
BRTR	Keskin Array B	57.88	309	P	P	12 46 09.4	-0.2
	comp=E,1.3nm,0.7s,mb4.0,baz=121,slow=7.2,SNR=5.7						
GERES	GERESS Array B	72.94	317	P	P	12 47 47.2	+0.9
	comp=E,0.6nm,0.6s,mb3.7,baz=124,slow=4.8,SNR=4.5						
MAW	Mawson	83.12	191	LR	LR	13 19 17.3	
	comp=E,70nm,18.0s,MS4.1,baz=18,slow=31						
ILAR	Eielson Array	90.73	22	P	P	12 49 19.9	+0.9
	comp=E,0.3nm,0.7s,mb3.7,baz=284,slow=5.9,SNR=4.4						

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*IDC **30** 12:48:27.4±1.4, 10.05N×92.40E, mb4.2/6, mb1 4.3/7, mb1mx4.1/17, mbtmp4.1/7, ML4.4/1, MS3.0/1, Ms1 3.2/1, ms1mx2.8/21, Error ellipse: s-maj=51.8km s-min=20.6km az=66.0*
ISC 30 12:48:29.4±0.9, 10.1N±0.1×92.2E±0.1, h33^{km}, n9, σ1^{s}19/8, mb4.2/6, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.58	38	Pn	P	12 51 00.7	-1.1
	0.8nm,0.3s,baz=226,slow=15,SNR=23						
CMAR				LR	LR	12 54 47.0	
	comp=Z,88nm,21.1s,baz=228,slow=36						
VIS	Vishakhapatnam	11.45	312	*e*	S	12 53 20.2	-1.1
SONM	Songino Array	39.47	15	P	P	12 55 59.3	+1.1
	0.9nm,0.6s,mb3.7,baz=198,slow=8.5,SNR=9.2						
WRA	Warramunga Arr	51.13	126	P	P	12 57 30.4	-1.1
	2.5nm,0.5s,mb4.4,baz=305,slow=8.5,SNR=16						
ASAR	Alice Springs	52.83	130	P	P	12 57 43.2	-0.9
	2.6nm,0.5s,mb4.4,baz=307,slow=7.0,SNR=58						
STKA	Stephens Creek	63.04	134	P	P	12 58 56.1	+0.3
	2.2nm,0.7s,mb4.4,baz=300,slow=6.1,SNR=7.4						
FINES	FINESS Array B	69.84	332	P	P	12 59 40.8	+2.4
	2.2nm,0.9s,mb4.1,baz=259,slow=19,SNR=2.9						
ILAR	Eielson Array	93.41	22	P	P	13 01 43.3	+1.1
	0.6nm,0.7s,mb4.2,baz=301,slow=4.6,SNR=12						
TXAR	Lajitas Array	137.92	21	PKP	PKPdf	13 07 56.5	+5.2
	0.1nm,0.5s,baz=70,slow=1.4,SNR=3.7						

NDI 30 12:49:00.5±2.4, 29.56N×80.66E, h6^{km}±8^{km}, ML3.5, 1C, Nepal-India border region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LGTI	Lohaghat	0.38	253	⇑*e*P	Pg	12 49 10.5	+2.4
LGTI				*e*S	Sg	12 49 18.0	+4.8
PTH	Pithoragarh	0.39	268	*e*P	Pg	12 49 06.9	-1.4
PTH				*e*S	Sg	12 49 13.7	+0.2
DDI	Dehra Dun	2.38	289	*e*P	Pn	12 49 41.2	+0.5
KLP	Kalpa	2.86	314	*e*P	Pn	12 49 47.3	-0.2
KLP				*e*		12 50 27.8	
KLP				*e*		12 50 32.3	
	comp=E,293nm,0.7s						
KLP				*e*		12 50 35.2	
	comp=N,263nm,1.1s						
NDI	New Delhi	3.14	255	*e*PG	Pg	12 50 01.0	-2.1
NDI				*e*SN	Sn	12 50 26.2	-3.4
AYAN	Aya Nagar	3.28	252	*e*	Pn	12 49 43.5	-10
AYAN				*e*S	Sn	12 50 31.0	-2.2
SDNR	Sundarnagar	3.72	302	*e*	Sn	12 50 58.3	+14

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*BJI **30** 12:50:06.4, 40.00N×74.38E, h32^{km}, ML3.6*
*IDC **30** 12:50:13.2±4.1, 40.58N×78.59E, mb3.8/3, mb1 4.0/4, mb1mx3.5/21, mbtmp3.7/4, ML3.2/1, Error ellipse: s-maj=241.3km s-min=23.4km az=62.0*
*NNC **30** 12:50:16.9±11.0, 40.00N×75.17E, mpv3.7, Error ellipse: s-maj=145.6km s-min=74.7km az=43.0*
ISC 30 12:50:11.1±0.7, 39.37N±0.05×74.64E±0.09, h33^{km}, n20, σ1^{s}26/21, mb3.7/3, 3C-1D, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	Kashi	1.05	81	P	P	12 50 28.3	-1.2
KSH				SG	S	12 50 43.8	+0.7
KSH				Smax			
	comp=N,880nm,0.8s						
KZA	Kyzart	2.75	10	P	P	12 50 54.1	+0.3
	SNR=56						
AML	Almayashu	2.85	346	P	P	12 50 55.4	+0.1
	SNR=26						
UCH	Uchtor	2.86	358	P	P	12 50 55.7	+0.3
	SNR=212						
ULHL	Ulahol	3.12	22	P	P	12 51 01.0	+1.8
	SNR=30						
AAK	Ala-Archa	3.26	358	⇑Pn	Pn	12 51 02.0	+0.6
	comp=N,38nm,0.5s						
AAK				⇓Lg		12 51 42.2	
	comp=N,114nm,0.8s						
AAK	Ala-Archa	3.26	358	P	P	12 51 02.1	+0.9
	SNR=83						
KBK	Karagaybulak	3.29	4	P	P	12 51 01.8	+0.2
	SNR=103						
EKS2	Erkin-Say	3.35	349	P	P	12 51 02.5	0.0
	SNR=14						
TKM2	Tokmak 2	3.62	11	P	P	12 51 07.2	+1.0
	SNR=95						
CHMS	Chumysh	3.63	1	P	P	12 51 06.2	-0.2
	SNR=21						
USP	Ospenovka	3.90	359	P	P	12 51 10.2	+0.1
	SNR=9.9						
DLH	Dalhousie	6.90	171	*e*	P	12 51 54.0	+1.5
DLH				*e*		12 52 12.0	
THN	Thein Dam	6.97	172	*e*	P	12 51 54.6	+1.0
THN				*e*		12 53 14.7	
MK31	Makanchi Array	9.29	35	⇑Pn	P	12 52 24.4	-1.4
	comp=N,1.0nm,0.7s,baz=212,slow=13,SNR=5.0						
BVA0	Borovoye Array	13.97	349	⇑Pn	P	12 53 24.7	-4.0
	comp=N,0.4nm,1.0s,baz=152,slow=12,SNR=5.6						
BVAR	Borovoye Array	13.97	349	Pn	P	12 53 25.7	-3.0
	comp=N,0.1nm,0.3s,baz=143,slow=14,SNR=3.2						
YKA	Yellowknife Ar	78.21	4	P	P	13 02 05.4	-2.9
	comp=N,0.5nm,0.5s,mb3.7,baz=346,slow=5.6,SNR=11						
WRA	Warramunga Arr	81.16	125	P	P	13 02 22.7	-2.4
	comp=N,0.7nm,0.6s,mb3.8,baz=328,slow=5.3,SNR=5.4						
ASAR	Alice Springs	83.62	128	P	P	13 02 34.4	-3.3
	comp=N,0.3nm,0.8s,mb3.5,baz=308,slow=4.8,SNR=5.5						

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*NAO **30** 12:53:49.8±3.3, 68.17N×33.02E, ML2.0*
HEL 30 12:53:49.9±0.1, 68.10N×33.18E, ML1.9, ML2.0(NAO), Explosion, Baltic States - Belarus - Northwestern Russia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
APA0	Apatity Array	0.50	188	Pg	Pg	12 53 58.9	-1.1
	baz=355,slow=14						
APA0				Lg		12 54 07.3	
	baz=1.7,slow=37						
APA0	Apatity Array	0.50	188	*i* P	Pg	12 53 58.9	-1.1
APA0				*i* S	Sg	12 54 07.3	+0.7
KU4	Oulanka	2.24	220	*e*P	Pn	12 54 28.1	-0.5
KU4				*e*S	Sn	12 54 56.1	-1.3
SGF	Sodankyl	2.61	258	*e*P	Pn	12 54 33.3	-0.8
SGF				*e*S	Sn	12 55 05.1	-1.9
MSF	Maaselka	2.73	218	*e*P	Pn	12 54 34.9	-0.9
MSF				*e*S	Sn	12 55 07.9	-2.2
KEV	Kevo	2.78	310	*e*P	Pn	12 54 35.6	-0.9
KEV				*e*S	Sn	12 55 09.1	-2.2
ARA0	ARCESS Array S	3.13	301	Pn	Pn	12 54 39.2	-2.3
	baz=114,slow=14						
ARA0				Lg		12 55 23.4	
	baz=116,slow=37						
ARA0	ARCESS Array S	3.13	301	*e*P	Pn	12 54 39.2	-2.3
ARA0				*e*SB	Sb	12 55 23.4	-2.0
OUL	Oulu	4.20	227	*e*P	Pn	12 54 55.1	-1.4
OUL				*e*S	Sn	12 55 42.9	-4.2
OUL				*e*SG	Sg	12 55 59.9	-10
OUL				MSG		12 56 02.1	
	comp=Z,2.1nm,0.3s						
KJN	Kajaani	4.60	211	*e*P	Pn	12 55 01.2	-1.2
KJN				*e*S	Sn	12 55 53.2	-4.2
KJN				*e*SG	Sg	12 56 10.9	-12
KJN				MSG		12 56 12.9	
	comp=Z,1.3nm,0.2s						
FIA0	FINESS Array S	7.33	208	Pn	Pn	12 55 38.6	-2.3
	baz=24,slow=14						
FIA0	FINESS Array S	7.33	208	*e*P	Pn	12 55 38.6	-2.3
HFS	Hagfors	11.62	236	Pn	P	12 56 34.4	-5.5
	baz=40,slow=14						
HFS	Hagfors	11.62	236	*e*P	P	12 56 34.4	-5.5

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*NIED **30** 13:29:00, 38.90N×141.70E, h74^{km}, Mw5.0 Best double couple: $M_0$3.4×10^{16} NP1:ϕ_s201°, δ86°, λ76°. NP2:ϕ_s96°, δ14°, λ164°.*
*MOS **30** 13:29:41.0±0.8, 39.11N×141.48E, h39^{km}, mb5.5/47, Error ellipse: s-maj=8.6km s-min=4.8km az=106.2*
*BJI **30** 13:29:43.1, 38.86N×141.55E, h77^{km}, mB5.4, mb5.2, Ms4.3, Msz4.1*
*NEIC **30** 13:29:45.2±0.2, 38.92N×141.49E, mb5.0/62, MW5.0(NIED), Error ellipse: s-maj=7.5km s-min=4.2km az=174.0*
NEIC Recorded [4 JMA] in Iwate and Miyagi; [2 JMA] in Akita, Aomori, Fukushima and Yamagata Prefectures.
*JMA **30** 13:29:45.7±0.1, 38.94N×141.63E, h73^{km}±1^{km}, M5.0 Broadband fault plane solution: P waves. NP1:ϕ_s136°, δ31°, λ-150°. NP2:ϕ_s19°, δ75°, λ-62°. Principal axes: T Plg25°, Azm88°; N Plg27°, Azm192°; P Plg52°, Azm322°;*
JMA Felt IV J1.
*HRVD **30** 13:29:45.2±0.3, 39.05N×141.59E, h71^{km}±5^{km}, MW5.0/60, Centroid moment Tensor Solution. LP body waves: s27,c37;Mantle waves: s60,c108; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.35±.21; $M_{\theta\theta}$-0.21±.17; $M_{\phi\phi}$0.56±.15; $M_{r\theta}$-1.33±.10; $M_{\theta\phi}$-0.83±.13; $M_{\phi r}$-3.40±.08; Best double couple: $M_0$3.76×10^{16} NP1: ϕ_s114°, δ14°, λ-174°. NP2:ϕ_s19°, δ89°, λ-76°. Principal axes: T 3.55, Plg42°, Azm96°; N .41, Plg14°, Azm198°; P -3.96, Plg45°, Azm302°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*
*IDC **30** 13:29:45.1±0.3, 38.95N×141.51E, h71^{km}±2^{km}, mb4.6/27, mb1 4.7/29, mb1mx4.7/30, mbtmp4.9/29, MS4.1/15, Ms1 4.1/15, ms1mx3.7/30 Error ellipse: s-maj=11.5km s-min=8.0km az=99.0*
ISC 30 13:29:45.2±0.2, 38.99N±0.02×141.55E±0.03, h82^{km}±1^{km}, h71^{km}±.5^{km}:pP-P, n407, σ1^{s}02/426, mb5.0/123, 41C-50D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OFUJ	Ofunato	0.13	46	⇓P	P	13 29 56.5	-0.5
OFUJ				S	S	13 30 04.3	-1.6
JMK	Ichinoseki	0.26	262	⇑P	P	13 29 57.2	-0.4

JMK				S	**S**	**13 30 05.7**	**-1.1**
JOM	**Ohasama**	**0.52**	**338**	⇑P	**P**	**13 29 59.7**	**+0.2**
JOM				S	**S**	**13 30 10.1**	**-0.1**
JIO	**Ouri**	**0.55**	**196**	⇓P	**P**	**13 29 59.0**	**-0.8**
JIO				S	**S**	**13 30 08.4**	**-2.2**
MIYJ	**Miyakonagasawa**	**0.63**	**20**	P	**P**	**13 30 00.1**	**-0.4**
JRG	**Rokugo**	**0.82**	**300**	⇑P	**P**	**13 30 03.2**	**+0.7**
JOU	**Okura**	**0.93**	**228**	⇑P	**P**	**13 30 03.9**	**+0.2**
JOU				S	**S**	**13 30 17.5**	**-0.2**
JYK	**Kaneyama**	**0.93**	**266**	⇑P	**P**	**13 30 04.5**	**+0.8**
JYK				*e*S	**S**	**13 30 18.8**	**+1.1**
JTH	**Tanohata**	**0.98**	**14**	P	**P**	**13 30 04.5**	**+0.1**
JTH				S	**S**	**13 30 18.3**	**-0.5**
JKZ	**Kuzumaki**	**1.01**	**351**	⇑P	**P**	**13 30 05.2**	**+0.5**
JYW	**Yuwa**	**1.18**	**298**	⇑P	**P**	**13 30 07.9**	**+1.1**
JMM	**Marumori**	**1.27**	**208**	P	**P**	**13 30 07.2**	**-0.8**
JMM				*e*S	**S**	**13 30 23.3**	**-1.8**
JYS	**Shirataka**	**1.39**	**237**	S	**S**	**13 30 29.2**	**+1.4**
JAH	**Hinai**	**1.39**	**330**	⇑P	**P**	**13 30 10.8**	**+1.1**
JYA	**Atsumi**	**1.48**	**255**	⇑P	**P**	**13 30 11.6**	**+0.7**
JFK	**Kawauchi**	**1.70**	**198**	⇑P	**P**	**13 30 13.1**	**-0.7**
JTM	**Tenmabayashi**	**1.83**	**349**	⇓P	**P**	**13 30 16.2**	**+0.7**
JAW	**Awa shima**	**1.87**	**254**	⇑P	**P**	**13 30 17.1**	**+1.1**
ONAJ	**Iwakimizuishiy**	**1.97**	**198**	⇓P	**P**	**13 30 16.6**	**-0.8**
JIW	**Iwasaki**	**1.99**	**324**	⇑P	**P**	**13 30 18.9**	**+1.3**
JNS	**Sasagawa**	**2.10**	**237**	⇑P	**P**	**13 30 19.9**	**+0.7**
JFY	**Yanaizu**	**2.14**	**223**	⇑P	**P**	**13 30 20.7**	**+1.0**
JSB	**Shiboa**	**2.39**	**213**	⇑P	**P**	**13 30 24.1**	**+0.9**
JOT	**Ohata**	**2.42**	**351**	⇓P	**P**	**13 30 23.6**	**0.0**
JHO	**Hitachi**	**2.50**	**198**	⇓P	**P**	**13 30 23.1**	**-1.6**
JHK	**Hiroka**	**2.64**	**230**	⇑P	**P**	**13 30 27.4**	**+0.7**
JIZZ	**Izumozaki**	**2.66**	**238**	⇑P	**P**	**13 30 28.5**	**+1.5**
JSR	**Shiriuchi**	**2.68**	**342**	⇓P	**P**	**13 30 28.0**	**+0.7**
JSD	**Sado**	**2.75**	**251**	⇑P	**P**	**13 30 28.6**	**+0.4**
JKT	**Katashina**	**2.87**	**220**	P	**P**	**13 30 31.2**	**+1.4**
JAG	**Ashikaga**	**3.05**	**214**	P	**P**	**13 30 32.8**	**+0.4**
JJN	**Nakama**	**3.27**	**236**	P	**P**	**13 30 36.7**	**+1.3**
JNB	**Noboribetsu**	**3.50**	**354**	P	**P**	**13 30 37.6**	**-1.0**
MAJO	**Matsushiro**	**3.60**	**228**	*e*P	**P**	**13 30 41.3**	**+1.3**
MAT	**Matsushiro**	**3.60**	**228**	P	**P**	**13 30 41.1**	**+1.1**
MAT				*e*S	**S**	**13 31 12.1**	**-9.4**
MAT	**Matsushiro**	**3.60**	**228**	*e*P	**P**	**13 30 41.0**	**+1.0**
MAT				S	**S**	**13 31 12.0**	**-10**
JSZ	**Suzu**	**3.63**	**246**	P	**P**	**13 30 40.9**	**+0.4**
JNG	**Nsakai**	**3.75**	**228**	P	**P**	**13 30 43.6**	**+1.4**
JHG	**Hegura jima**	**3.81**	**254**	P	**P**	**13 30 43.5**	**+0.6**
JCH	**Churui**	**3.88**	**20**	P	**P**	**13 30 41.8**	**-2.0**
JTT	**Ttatey**	**4.10**	**236**	P	**P**	**13 30 48.3**	**+1.4**
JNT	**Takato**	**4.12**	**222**	P	**P**	**13 30 48.0**	**+0.7**
JJH	**Hakui**	**4.29**	**243**	P	**P**	**13 30 50.3**	**+0.7**
JGN	**Niukaw**	**4.35**	**232**	P	**P**	**13 30 52.0**	**+1.6**
JAB	**Ashibetsu**	**4.54**	**6**	⇓P	**P**	**13 30 52.0**	**-1.0**
JKG	**Kaga**	**4.94**	**238**	P	**P**	**13 31 00.0**	**+1.4**
JKK2	**Kamakawa 2**	**4.96**	**10**	P	**P**	**13 30 57.0**	**-1.9**
JGM	**Miyama**	**5.06**	**231**	P	**P**	**13 31 01.5**	**+1.4**
ASAJ	**Asahikawa**	**5.18**	**8**	P	**P**	**13 30 60.0**	**-1.9**
	34nm,0.3s,baz=234,slow=7.9,SNR=218						
ASAJ				S	**S**	**13 32 00.5**	**-0.5**
	16nm,0.3s,baz=135,slow=20,SNR=5.7						
JFM	**Mihama**	**5.62**	**234**	P	**P**	**13 31 09.7**	**+1.9**
YUK	**Yuzh-Kuril’sk**	**5.99**	**31**	*e*P	**P**	**13 31 08.1**	**-4.9**
YUK				*i* S	**S**	**13 32 12.3**	**-8.6**
YUK				pmax	pmax		
	comp=N,380nm,0.3s						
YUK				pmax	pmax		
	comp=E,280nm,0.3s						
YUK				pmax	pmax		
	comp=Z,390nm,0.3s						
YUK				smax			
	comp=N,6µm,1.1s						
YUK				smax			
	comp=E,4µm,1.1s						
YUK				smax			
	comp=N,2µm,0.6s						
YUK				smax			
	comp=E,600nm,0.4s						
JHJ	**Hachijo jima 2**	**6.03**	**194**	P	**P**	**13 31 10.9**	**-2.5**
	comp=E,76nm,0.3s,baz=336,slow=19,SNR=20						
JHJ				S	**S**	**13 32 15.6**	**-6.2**
	comp=E,499nm,0.3s,baz=72,slow=22,SNR=7.9						
JKY	**Yasaka**	**6.13**	**239**	P	**P**	**13 31 16.5**	**+1.6**
KUR	**Kuril’sk**	**7.81**	**35**	⇓*i*P	**P**	**13 31 32.0**	**-6.1**
KUR				*i* S	**S**	**13 32 55.5**	**-10**
KUR				pmax	pmax		
	comp=Z,140nm,0.5s						
KUR				smax			
	comp=N,350nm,0.6s						
KUR				smax			
	comp=E,330nm,0.5s						
YSS	**Yuzh-Sakhalins**	**8.01**	**6**	⇓*i*P	**P**	**13 31 37.4**	**-3.5**
YSS	**Yuzh-Sakhalins**	**8.01**	**6**	*e*Pn	**P**	**13 31 38.0**	**-2.9**
VLA	**Vladivostok**	**8.38**	**303**	*c i*P	**P**	**13 31 46.0**	**+0.2**
VLA				pmax	pmax		
	comp=Z,2µm,2.4s						
VLA				pmax	pmax		
	comp=N,2µm,2.0s						
MDJ	**Mudanjiang**	**10.54**	**306**	P	**P**	**13 32 15.5**	**+0.4**
MDJ				PCP	PcP	13 38 06.5	-6.6
MDJ				SCP		13 41 37.5	
MDJ				PCS		13 41 46.8	
MDJ				SCS	ScS	13 45 13.0	+2.5
MDJ				AMB	AMB		
	comp=Z,90nm,1.0s						
MDJ				AMB	AMB		
	comp=Z,503nm,7.6s						
MDJ				LR	LR		
	comp=N,741nm,22.7s						
MDJ				LR	LR		
	comp=E,862nm,29.9s						
MDJ				LR	LR		
	comp=Z,1µm,29.5s						
MDJ	**Mudanjiang**	**10.54**	**306**	*e*P	**P**	**13 32 15.1**	**0.0**
KS15	**Wonju Array Si**	**10.86**	**266**	*e*P	**P**	**13 32 20.6**	**+1.2**
KS15				*e*S	**S**	**13 34 21.0**	**+1.2**
INCN	**Inchon**	**11.83**	**267**	*e*P	**P**	**13 32 36.6**	**+4.3**
	comp=Z,94nm,0.9s						
CBIJ	**Chichi jima**	**11.87**	**177**	P	**P**	**13 32 26.9**	**-6.1**
	comp=Z,20nm,0.3s,baz=281,slow=16,SNR=5.1						
CBIJ				S	**S**	**13 34 31.1**	**-13**
	comp=Z,92nm,0.3s,baz=245,slow=22,SNR=8.2						
KLR	**Kul’dur**	**12.41**	**329**	*e*P	**P**	**13 32 36.1**	**-4.0**
KLR				MLR	MLR		
	comp=E,1µm,19.0s						
CN2	**Changchun**	**13.00**	**297**	*e*P	**P**	**13 32 48.3**	**+0.4**
CN2				*e*AP		13 33 00.8	
CN2				*e*XP		13 33 11.8	
CN2				*e*S	**S**	**13 35 11.5**	**+0.5**
CN2				AMB	AMB		
	comp=Z,40nm,1.2s						
CN2				AMB	AMB		
	comp=Z,350nm,4.0s						
CN2				LR	LR		
	comp=N,820nm,16.0s						
CN2				LR	LR		
	comp=E,650nm,16.0s						
CN2				LR	LR		
	comp=Z,910nm,20.0s						
SNY	**Shenyang**	**13.98**	**287**	⇑P	**P**	**13 33 01.0**	**+0.4**
SNY				S	**S**	**13 35 24.8**	**-9.3**
SNY				AMB	AMB		
	comp=Z,20nm,1.6s						
SNY				LR	LR		
	comp=N,520nm,20.2s						
SNY				LR	LR		
	comp=E,570nm,31.2s						
SNY				LR	LR		
	comp=Z,1µm,32.4s						
DL2	**Dalian**	**15.50**	**276**	P	**P**	**13 33 19.8**	**-0.3**
DL2				AMB	AMB		
	comp=Z,60nm,1.1s						
SKR	**Severo-Kuril’s**	**15.57**	**37**	*e*P	**P**	**13 33 16.4**	**-4.6**
JOW	**Kunigami**	**16.44**	**226**	P	**P**	**13 33 27.8**	**-4.3**
	comp=Z,1.3nm,0.3s,baz=115,slow=16,SNR=4.0						
PET	**Petropavlovsk**	**18.32**	**34**	P	**P**	**13 33 58.2**	**+3.2**
PET				pmax	pmax		
	comp=Z,95nm,1.3s						
PET	**Petropavlovsk**	**18.32**	**34**	P	**P**	**13 33 58.2**	**+3.2**
	comp=Z,95nm,1.3s						
SSE	**Sheshan**	**18.41**	**251**	P	**P**	**13 33 52.0**	**-4.2**
SSE				S	**S**	**13 37 18.0**	**+2.6**
SSE				XS		13 37 41.3	
SSE				AMB	AMB		
	comp=Z,230nm,0.9s						
SSE				AMB	AMB		
	comp=Z,178nm,4.8s						
SSE				LR	LR		
	comp=N,232nm,20.0s						
SSE				LR	LR		
	comp=E,357nm,20.0s						
SSE				LR	LR		
	comp=Z,515nm,20.0s						
HIA	**Hailar**	**18.66**	**310**	*e*P	**P**	**13 33 54.4**	**-4.5**
HIA				pmax	pmax		
	comp=Z,45nm,1.1s						
HIA	**Hailar**	**18.66**	**310**	*e*P	**P**	**13 33 54.4**	**-4.5**
	comp=Z,45nm,1.1s						
TIA	**Tai’an**	**19.54**	**269**	⇑P	**P**	**13 34 04.3**	**-4.3**
TIA				AMB	AMB		
	comp=Z,56nm,1.0s						
BJI	**Beijing**	**19.59**	**281**	*e*P	**P**	**13 34 06.3**	**-2.8**
BJI				S	**S**	**13 37 39.0**	**-1.5**
BJI				AMB	AMB		
	comp=Z,32nm,1.1s						
BJI				LR	LR		
	comp=N,508nm,14.2s						
BJI				LR	LR		
	comp=E,292nm,22.6s						
BJI				LR	LR		
	comp=Z,802nm,34.5s						
BJT	**Baijiatuau**	**19.59**	**281**	*e*P	**P**	**13 34 05.8**	**-3.4**
BJT				pmax	pmax		
	comp=Z,51nm,0.8s						
BJT	**Baijiatuau**	**19.59**	**281**	*e*P	**P**	**13 34 05.8**	**-3.4**
	comp=Z,50nm,0.8s						
NJ2	**Nanjing**	**19.70**	**256**	*e*P	**P**	**13 34 08.0**	**-2.3**
NJ2				AP		13 34 22.5	
NJ2				PP	PP	13 34 28.5	-2.2
NJ2				XP		13 34 32.5	
NJ2				S	**S**	**13 37 41.0**	**-1.8**
NJ2				XS		13 38 01.0	
NJ2				AMB	AMB		
	comp=Z,130nm,1.0s						
NJ2				AMB	AMB		
	comp=Z,5µm,4.8s						
NJ2				LR	LR		
	comp=N,1µm,22.2s						
NJ2				LR	LR		
	comp=E,750nm,16.2s						
NJ2				LR	LR		
	comp=Z,1µm,17.6s						
CLNS	**Chul’man**	**20.96**	**334**	⇓*i*P	**P**	**13 34 21.7**	**-1.5**
CLNS				*e*		13 34 34.8	
CLNS				*e*		13 38 43.0	
CLNS				pmax	pmax		
	comp=N,89nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,134nm,0.8s						
CLNS				pmax	pmax		
	comp=E,39nm,1.2s						
CLNS				MLR	MLR		
	comp=N,300nm,19.0s						
CLNS				MLR	MLR		
	comp=Z,500nm,19.0s						
CLNS				MLR	MLR		
	comp=E,100nm,14.0s						
MA2	**Magadan**	**21.43**	**13**	*c i*P	**P**	**13 34 27.9**	**+0.1**
MA2				pmax	pmax		
	comp=Z,105nm,1.6s,mb4.9						
MA2	**Magadan**	**21.43**	**13**	*e*P	**P**	**13 34 27.2**	**-0.6**
	comp=Z,56nm,0.9s,mb4.9						
HHC	**Hu-ho-hao-te**	**23.02**	**284**	*e*P	**P**	**13 34 40.5**	**-3.0**
HHC				AP		13 34 57.0	
HHC				XP		13 35 07.0	
HHC				PP	PP	13 35 11.3	-4.8
HHC				S	**S**	**13 38 38.3**	**-5.8**
HHC				AMB	AMB		
	comp=Z,40nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,217nm,4.3s						
HHC				LR	LR		
	comp=N,440nm,15.8s						
HHC				LR	LR		
	comp=E,468nm,16.9s						
HHC				LR	LR		
	comp=Z,696nm,27.8s						
WHN	**Wuhan**	**23.81**	**258**	⇑P	**P**	**13 34 51.0**	**-0.2**
QZH	**Quanzhou**	**23.90**	**241**	⇑P	**P**	**13 34 50.0**	**-2.1**
QZH				AMB	AMB		
	comp=Z,100nm,0.8s,mb5.2						
YAK	**Yakutsk**	**24.19**	**346**	*e*P	**P**	**13 34 53.1**	**-1.5**
YAK				*e*S	**S**	**13 39 06.0**	**+1.9**
YAK				pmax	pmax		
	comp=Z,406nm,1.0s,mb5.7						
YAK	**Yakutsk**	**24.19**	**346**	*e*P	**P**	**13 34 53.1**	**-1.5**
	comp=Z,406nm,1.0s,mb5.7						
YAK				*e*S	**S**	**13 39 06.0**	**+2.0**
BTO	**Baotou**	**24.21**	**284**	*e*P	**P**	**13 34 52.5**	**-2.5**
SEY	**Seymchan**	**24.86**	**12**	*e*P	**P**	**13 35 00.7**	**-0.4**
SEY				*e*		13 35 17.4	
SEY				*e*PP	PP	13 35 30.6	-10
SEY				*e*		13 35 44.2	
SEY				*e*S	**S**	**13 39 13.5**	**-1.7**
SEY				pmax	pmax		
	comp=Z,100nm,0.9s,mb5.2						
FX1	**Attu Island--F**	**25.76**	**47**	P	**P**	**13 35 10.5**	**+0.9**
	comp=Z,79nm,0.9s,mb5.1,baz=231,slow=14,SNR=8.1						
FX1				LR	LR	13 44 24.4	
	comp=Z,13nm,20.7s,baz=77,slow=34						
FX1	**Attu Island--F**	**25.76**	**47**	*e*P	**P**	**13 35 09.8**	**+0.2**
BOD	**Bodaibo**	**25.96**	**326**	⇑*i*P	**P**	**13 35 10.0**	**-1.4**
ULN	**Ulaanbaatar**	**26.39**	**301**	*c i*P	**P**	**13 35 15.8**	**+0.3**
ULN	**Ulaanbaatar**	**26.39**	**301**	*e*P	**P**	**13 35 14.2**	**-1.3**
	comp=Z,47nm,1.3s,mb4.8						
XAN	**Xi’an**	**26.60**	**269**	P	**P**	**13 35 16.8**	**-0.7**
XAN				AMB	AMB		
	comp=Z,32nm,0.7s,mb5.0						
SONM	**Songino Array**	**26.83**	**301**	P	**P**	**13 35 18.9**	**-0.6**
	comp=Z,11nm,0.8s,mb4.4,baz=90,slow=8.2,SNR=34						
SONM				ScP		13 42 12.5	
	comp=Z,5.6nm,1.0s,baz=107,slow=2.0,SNR=14						
SONM				LR	LR	13 46 23.9	
	comp=Z,194nm,19.2s,baz=344,slow=37						
ENH	**Enshi**	**27.66**	**262**	*e*P	**P**	**13 35 25.3**	**-2.0**
	comp=Z,103nm,0.8s,mb5.4						
IRK	**Irkutsk**	**28.90**	**310**	*e*P	**P**	**13 35 36.8**	**-1.3**
IRK				*e*	pP	13 35 55.7	-1.4
TLY	**Talaya**	**29.17**	**308**	P	**P**	**13 35 40.1**	**-0.4**
	comp=Z,204nm,0.9s,mb5.8,SNR=17						
TLY	**Talaya**	**29.17**	**308**	*e*P	**P**	**13 35 40.2**	**-0.3**
TLY				*e*S	**S**	**13 40 18.8**	**-6.6**
TLY				pmax	pmax		
	comp=Z,43nm,1.0s,mb5.0						
TLY				MLR	MLR		
	comp=Z,398nm,23.0s						
TLY	**Talaya**	**29.17**	**308**	*e*P	**P**	**13 35 40.0**	**-0.6**
	comp=Z,72nm,1.2s,mb5.2						
ZAK	**Zakamensk**	**29.18**	**306**	⇓*i*P	**P**	**13 35 40.0**	**-0.7**
ZAK				*e*		13 42 18.4	
LZH	**Lanzhou**	**29.90**	**276**	*e*P	**P**	**13 35 46.3**	**-0.9**
LZH				AP	pP	13 36 03.5	-2.8
LZH				XP	sP	13 36 12.5	-3.4
LZH				PP	PP	13 36 46.0	-1.5
LZH				PCP	PcP	13 38 48.5	+0.2
LZH				S	**S**	**13 40 36.0**	**-1.1**
LZH				XS		13 41 04.5	
LZH				SS	SS	13 42 16.0	-2.8
LZH				AMB	AMB		
	comp=Z,34nm,1.1s,mb4.9						
LZH				AMB	AMB		
	comp=Z,132nm,4.0s						
LZH				LR	LR		
	comp=N,529nm,12.0s						
LZH				LR	LR		
	comp=E,728nm,13.6s						
MOY	**Mondy**	**30.79**	**308**	*e*P	**P**	**13 35 54.5**	**-0.4**
GYA	**Guiyang**	**31.70**	**257**	⇓*i*P	**P**	**13 36 01.5**	**-1.6**
GYA				AP	pP	13 36 19.0	-3.4
GYA				PP	PP	13 37 06.8	-3.6
GYA				S	**S**	**13 41 02.3**	**-3.3**
GYA				AMB	AMB		
	comp=Z,160nm,1.1s,mb5.7						
GYA				LR	LR		
	comp=N,570nm,14.6s						
GYA				LR	LR		
	comp=E,870nm,15.0s						
GYA				LR	LR		
	comp=Z,740nm,15.2s						
CD2	**Chengdu**	**31.83**	**267**	P	**P**	**13 36 02.5**	**-1.7**
CD2				AMB	AMB		
	comp=Z,80nm,0.6s,mb5.6						
GTA	**Gaotai**	**32.14**	**284**	P	**P**	**13 36 05.5**	**-1.3**
GTA				AP	pP	13 36 24.5	-1.6
GTA				XP	sP	13 36 32.5	-3.5
GTA				PP	PP	13 37 15.0	-0.8
GTA				PPP	PPP	13 37 31.0	-0.5
GTA				PCP	PcP	13 38 54.3	+0.1
GTA				S	**S**	**13 41 12.3**	**+0.1**
GTA				XS		13 41 43.8	
GTA				SCP		13 42 31.3	
GTA				PCS		13 42 38.5	
GTA				SCS	ScS	13 46 25.0	-1.6
GTA				AMB	AMB		
	comp=Z,36nm,0.9s,mb5.1						
GTA				AMB	AMB		
	comp=Z,151nm,7.2s						
GTA				LR	LR		
	comp=N,413nm,16.7s						
GTA				LR	LR		
	comp=E,391nm,21.7s						
GTA				LR	LR		
	comp=Z,650nm,30.0s						
TIXI	**Tiksi**	**33.37**	**353**	⇓*e*P	**P**	**13 36 15.6**	**-1.6**
KMI	**Kunming**	**35.40**	**259**	P	**P**	**13 36 34.3**	**-0.7**
KMI				AP	pP	13 36 53.8	-0.8
KMI				XP	sP	13 37 04.5	-0.1
KMI				PP	PP	13 37 55.5	-1.5
KMI				S	**S**	**13 42 07.5**	**+4.6**
KMI				AMB	AMB		
	comp=Z,10.0nm,1.2s,mb4.5						
KMI				AMB	AMB		
	comp=Z,282nm,3.1s						
KMI				LR	LR		
	comp=N,169nm,15.0s						
KMI				LR	LR		
	comp=E,333nm,21.0s						
KMI				LR	LR		
	comp=Z,328nm,34.5s						
WMQ	**Urumqi**	**40.08**	**295**	P	**P**	**13 37 14.5**	**+0.6**
WMQ				AMB	AMB		
	comp=Z,76nm,1.0s,mb5.5						
NVS	**Novosibirsk**	**41.59**	**312**	*i* P	**P**	**13 37 25.3**	**-0.7**
NVS				*i* S	**S**	**13 43 37.4**	**+1.6**
NVS				*i* SSS	SSS	13 47 19.5	-4.1
NVS				pmax	pmax		
	comp=Z,129nm,1.1s,mb5.6						
NVS				pmax	pmax		
	comp=N,19nm,1.2s						
NVS				pmax	pmax		
	comp=E,97nm,1.2s						
NVS				smax			
	comp=E,18nm,1.6s						
CM31	**Chiang Mai Arr**	**42.12**	**253**	*e*P	**P**	**13 37 30.2**	**-0.8**
	comp=E,14nm,0.8s,mb4.7						
CMAR	**Chiang Mai Arr**	**42.12**	**253**	P	**P**	**13 37 30.9**	**0.0**
	comp=E,8.3nm,0.7s,mb4.6,baz=47,slow=5.3,SNR=59						
CMAR				sP	sP	13 37 57.0	-3.4
	comp=E,10nm,0.8s,baz=50,slow=4.4,SNR=6.8						
CMAR				LR	LR	13 54 31.6	
	comp=E,72nm,19.8s,baz=60,slow=35						
LSA	**Lhasa**	**42.17**	**273**	*e*P	**P**	**13 37 31.9**	**+0.7**
LSA				pmax	pmax		
	comp=Z,23nm,0.8s,mb5.0						
LSA	**Lhasa**	**42.17**	**273**	*e*P	**P**	**13 37 31.9**	**+0.7**
	comp=Z,23nm,0.8s,mb5.0						
IMP	**Imphal**	**42.37**	**265**	*e*P	**P**	**13 37 32.6**	**-0.3**
MKAR	**Makanchi Array**	**43.20**	**300**	*i* P	**P**	**13 37 39.5**	**+0.2**
MKAR				pmax	pmax		
	comp=Z,153nm,0.8s						
IMA	**Indian Mountai**	**44.96**	**31**	*e*P	**P**	**13 37 54.9**	**+1.6**
IMA				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
IMA	**Indian Mountai**	**44.96**	**31**	*e*P	**P**	**13 37 54.9**	**+1.6**
	comp=Z,3.3nm,0.7s,mb4.2						
RSO	**Redoubt South**	**45.32**	**39**	*e*P	**P**	**13 37 56.3**	**+0.1**
SPU	**Mount Spurr**	**45.63**	**38**	*e*P	**P**	**13 37 59.3**	**+0.6**
SPU				*e*pP	pP	13 38 16.3	-2.3
PWA	**Palmer West**	**46.65**	**38**	*e*P	**P**	**13 38 07.3**	**+0.6**
PWA				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
PWA	**Palmer West**	**46.65**	**38**	*e*P	**P**	**13 38 07.3**	**+0.6**
	comp=Z,6.6nm,0.6s,mb4.5						
GUN	**Gumba**	**47.10**	**274**	*e*P	**P**	**13 38 10.8**	**+0.1**
	comp=Z,200nm,0.7s,mb6.0						
COLA	**College**	**47.38**	**33**	*e*P	**P**	**13 38 13.2**	**+0.8**
COLA				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.6						
COLA	**College**	**47.38**	**33**	*e*P	**P**	**13 38 13.2**	**+0.8**
	comp=Z,14nm,1.2s,mb4.6						
KKN	**Kakani**	**47.62**	**274**	*e*P	**P**	**13 38 14.8**	**0.0**
	comp=Z,119nm,0.7s,mb5.8						
PKI	**Pulchoki**	**47.62**	**274**	*e*P	**P**	**13 38 14.1**	**-0.7**
	comp=Z,179nm,1.5s,mb5.7						
ILAR	**Eielson Array**	**47.80**	**33**	P	**P**	**13 38 15.3**	**-0.4**
	comp=Z,8.9nm,0.7s,mb4.7,baz=268,slow=6.1,SNR=135						
ILAR				pP	pP	13 38 31.6	-4.3
	comp=Z,4.8nm,0.9s,baz=283,slow=7.4,SNR=5.6						
ILAR				LR	LR	13 58 17.9	
	comp=Z,76nm,18.1s,baz=169,slow=36						
DMN	**Daman**	**47.84**	**274**	*e*P	**P**	**13 38 16.2**	**-0.3**
	comp=Z,145nm,1.3s,mb5.7						
GKN	**Gorkha**	**48.02**	**275**	*e*P	**P**	**13 38 17.4**	**-0.5**
	comp=Z,395nm,1.4s,mb6.0						
PMG	**Port Moresby**	**48.43**	**173**	P	**P**	**13 38 19.5**	**-1.7**
	comp=Z,12nm,0.8s,mb4.8,baz=18,slow=7.4,SNR=4.5						
PMG				LR	LR	13 56 45.1	
	comp=Z,89nm,18.7s,baz=168,slow=34						
TKM2	**Tokmak 2**	**48.82**	**297**	P	**P**	**13 38 24.5**	**+0.7**
	SNR=81						
KOLN	**Koldanda**	**48.94**	**275**	*e*P	**P**	**13 38 24.8**	**-0.1**
	comp=Z,192nm,1.2s,mb5.9						
CHKZ	**Chkalovo**	**49.07**	**312**	P	**P**	**13 38 25.0**	**-0.6**
CHKZ				pmax	pmax		
	comp=Z,67nm,1.1s,mb5.5						
CHKZ	**Chkalovo**	**49.07**	**312**	*e*P	**P**	**13 38 24.7**	**-0.9**
	comp=Z,72nm,0.9s,mb5.6						
KZA	**Kyzart**	**49.34**	**296**	P	**P**	**13 38 29.1**	**+1.3**
	SNR=28						
BVA0	**Borovoye Array**	**49.35**	**311**	*i* P	**P**	**13 38 27.3**	**-0.5**
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
BVAR	**Borovoye Array**	**49.35**	**311**	P	**P**	**13 38 27.4**	**-0.4**
	comp=Z,30nm,0.8s,mb5.3,baz=80,slow=9.0,SNR=124						
BVAR				PcP	PcP	13 39 47.6	-1.9
	comp=Z,11nm,0.8s,baz=72,slow=4.7,SNR=3.8						
KBK	**Karagaybulak**	**49.35**	**297**	P	**P**	**13 38 28.4**	**+0.4**
	SNR=92						
CHMS	**Chumysh**	**49.38**	**297**	P	**P**	**13 38 28.0**	**-0.1**
	SNR=14						
MENT	**Mentasta**	**49.38**	**36**	*e*P	**P**	**13 38 28.9**	**+1.0**
BRVK	**Borovoye**	**49.41**	**311**	*e*P	**P**	**13 38 27.5**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,82nm,1.1s,mb5.6						
BRVK	**Borovoye**	**49.41**	**311**	*e*P	**P**	**13 38 27.5**	**-0.7**
	comp=Z,82nm,1.1s,mb5.6						
USP	**Ospenovka**	**49.46**	**298**	P	**P**	**13 38 28.6**	**-0.2**
	SNR=32						
FRU	**Bishkek**	**49.52**	**297**	*e*P	**P**	**13 38 30.0**	**+0.7**
FRU				*e*	pP	13 38 48.0	-1.6
FRU				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.5						
AAK	**Ala-Archa**	**49.68**	**297**	P	**P**	**13 38 30.5**	**0.0**
	SNR=25						
AAK	**Ala-Archa**	**49.68**	**297**	*d i*P	**P**	**13 38 29.2**	**-1.3**
AAK				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
AAK	**Ala-Archa**	**49.68**	**297**	*e*P	**P**	**13 38 29.0**	**-1.4**
	comp=Z,37nm,1.0s,mb5.3						
KSH	**Kashi**	**49.73**	**293**	*i* PR		13 38 32.0	
KSH				AP	pP	13 38 49.5	-1.7
KSH				XP	sP	13 38 59.0	-1.4
KSH				PCP	PcP	13 39 50.8	-0.3
KSH				PP	PP	13 40 29.3	+2.5
KSH				PPP	PPP	13 41 24.8	+1.1
KSH				SCP		13 43 38.0	
KSH				PCS		13 43 47.3	
KSH				S	**S**	**13 45 36.3**	**+4.0**
KSH				PS	PS	13 45 56.0	+1.7
KSH				XS		13 46 08.0	
KSH				SCS	ScS	13 48 14.8	+3.6
KSH				SS	SS	13 49 05.8	+3.8
KSH				AMB	AMB		
	comp=Z,130nm,4.2s						
UCH	**Uchtor**	**49.80**	**296**	P	**P**	**13 38 32.1**	**+0.6**
	SNR=13						

EKS2	**Erkin-Say**	**50.16**	**297**	P	**P**	**13 38 34.1**	**-0.1**
	SNR=33						
AML	**Almayashu**	**50.41**	**297**	P	**P**	**13 38 36.7**	**+0.7**
	SNR=40						
PTH	**Pithoragarh**	**50.71**	**279**	eP	**P**	**13 38 37.2**	**-1.3**
PTH				e		13 40 21.3	
DDI	**Dehra Dun**	**52.01**	**281**	eP	**P**	**13 38 47.2**	**-1.1**
SDNR	**Sundarnagar**	**52.30**	**283**	eP	**P**	**13 38 50.7**	**+0.3**
INK	**Inuvik**	**52.61**	**28**	eP	**P**	**13 38 51.9**	**-0.4**
INK				pmax	pmax		
	comp=Z,37nm,1.1s						
INK	**Inuvik**	**52.61**	**28**	eP	**P**	**13 38 51.9**	**-0.3**
	comp=Z,37nm,1.1s,mb5.3						
INK				epP	pP	13 39 16.5	+3.7
THN	**Thein Dam**	**52.82**	**284**	eP	**P**	**13 38 53.0**	**-1.4**
NDI	**New Delhi**	**53.43**	**280**	eP	**P**	**13 38 56.0**	**-2.9**
SVE	**Sverdlovsk**	**53.77**	**318**	eP	**P**	**13 39 00.0**	**-1.0**
SVE				e		13 46 24.0	
SVE				pmax	pmax		
	comp=Z,350nm,1.6s,mb6.1						
VIS	**Vishakhapatnam**	**54.49**	**264**	eP	**P**	**13 39 05.9**	**-0.8**
VIS				AMb	AMB	13 39 08.5	
	comp=Z,39nm,0.9s,mb5.4						
SOKR	**Solikamsk**	**54.86**	**322**	⇓iP	**P**	**13 39 06.5**	**-2.4**
SOKR				e	pP	13 39 24.7	-4.9
SOKR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
ARU	**Arti**	**54.98**	**318**	⇓iP	**P**	**13 39 08.7**	**-1.1**
ARU				e		13 40 09.7	
ARU				e		13 41 09.6	
ARU				eS	**S**	**13 46 45.1**	**+1.5**
ARU				eSS	SS	13 50 29.0	+1.0
ARU				eSSS	SSS	13 52 30.7	-2.6
ARU				pmax	pmax		
	comp=Z,122nm,0.9s,mb5.9						
ARU	**Arti**	**54.98**	**318**	eP	**P**	**13 39 08.5**	**-1.3**
	comp=Z,163nm,0.9s,mb6.1						
ARU				epP	pP	13 39 26.0	-4.5
BHPL	**Bhopal**	**56.03**	**274**	eP	**P**	**13 39 15.7**	**-2.2**
BHPL				AMb	AMB	13 39 17.9	
	comp=Z,24nm,0.9s,mb5.2						
HYB	**Hyderabad**	**58.38**	**267**	eP	**P**	**13 39 33.5**	**-0.9**
HYB				e	pP	13 39 52.0	-3.3
HYB				e		13 40 22.0	
HYB	**Hyderabad**	**58.38**	**267**	i P	**P**	**13 39 33.5**	**-0.9**
HYB				epP	pP	13 39 52.0	-3.3
HYB				ePcP	PcP	13 40 22.0	-2.2
CTA	**Charters Tower**	**58.93**	**175**	P	**P**	**13 39 36.2**	**-2.0**
	comp=Z,3.8nm,0.7s,mb4.5,baz=329,slow=6.8,SNR=5.4						
WRAB	**Tennant Creek**	**58.99**	**188**	eP	**P**	**13 39 36.2**	**-2.5**
WRAB				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.4						
WRAB	**Tennant Creek**	**58.99**	**188**	eP	**P**	**13 39 36.2**	**-2.4**
	comp=Z,26nm,0.6s,mb5.4						
WRAB				epP	pP	13 39 57.2	-2.4
WRA	**Warramunga Arr**	**59.01**	**188**	P	**P**	**13 39 36.6**	**-2.1**
	comp=Z,21nm,0.5s,mb5.5,baz=5.9,slow=7.1,SNR=101						
WRA				pP	pP	13 39 54.7	-5.0
	comp=Z,25nm,1.0s,baz=5.7,slow=7.3,SNR=7.0						
LVZ	**Lovozero**	**60.38**	**335**	eP	**P**	**13 39 46.6**	**-0.9**
LVZ				pmax	pmax		
	comp=Z,48nm,1.4s,mb5.3						
RES	**Resolute Bay**	**60.69**	**15**	eP	**P**	**13 39 47.8**	**-1.8**
RES				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.1						
RES	**Resolute Bay**	**60.69**	**15**	eP	**P**	**13 39 47.8**	**-1.8**
	comp=Z,27nm,1.3s,mb5.1						
POO	**Poona**	**61.41**	**271**	eP	**P**	**13 39 53.2**	**-1.9**
POO				AMb	AMB	13 39 54.8	
	comp=Z,30nm,0.6s,mb5.5						
KEV	**Kevo**	**61.66**	**339**	ep	**P**	**13 39 54.3**	**-1.9**
	comp=Z,1.0nm,0.3s,mb4.3						
KEV	**Kevo**	**61.66**	**339**	ep	pP	13 40 17.8	+0.5
	comp=Z,0.7nm,0.3s						
KEV	**Kevo**	**61.66**	**339**	eP	**P**	**13 39 54.3**	**-1.9**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.3						
KAD	**Karad**	**61.85**	**270**	eP	**P**	**13 39 57.3**	**-0.8**
KAD				AMb	AMB	13 39 58.3	
	comp=Z,41nm,0.7s,mb5.6						
YKW3	**Yellowknife Ar**	**62.03**	**31**	eP	**P**	**13 39 57.9**	**-0.8**
YKW3				epP	pP	13 40 16.4	-3.5
YKA	**Yellowknife Ar**	**62.07**	**31**	P	**P**	**13 39 57.9**	**-1.1**
	comp=Z,2.3nm,0.8s,mb4.2,baz=298,slow=6.6,SNR=15						
YKA				pP	pP	13 40 16.5	-3.6
	comp=Z,1.6nm,0.8s,baz=302,slow=6.8,SNR=6.0						
YKA				sP	sP	13 40 24.6	-4.8
	comp=Z,2.3nm,0.7s,baz=299,slow=6.3,SNR=5.8						
YKA				LR	LR	14 11 28.4	
	comp=Z,84nm,18.4s,baz=210,slow=40						
YKA	**Yellowknife Ar**	**62.07**	**31**	i P	**P**	**13 40 00.5**	**+1.5**
ARCES	**ARCESS Array B**	**62.21**	**339**	P	**P**	**13 39 58.9**	**-1.0**
	comp=Z,16nm,1.0s,mb5.0,baz=62,slow=7.9,SNR=28						
ARCES				pP	pP	13 40 16.5	-4.5
	comp=Z,4.9nm,0.7s,baz=53,slow=6.1,SNR=2.1						
ARCES				LR	LR	14 10 40.1	
	comp=Z,348nm,18.3s,baz=12,slow=39						
ASAR	**Alice Springs**	**62.73**	**188**	P	**P**	**13 40 02.3**	**-1.7**
	comp=Z,13nm,0.9s,mb4.9,baz=359,slow=5.5,SNR=19						
ASAR				pP	pP	13 40 20.4	-4.7
	comp=Z,9.5nm,0.8s,baz=7.4,slow=5.6,SNR=4.3						
ASAR				LR	LR	14 04 31.4	
	comp=Z,73nm,18.8s,baz=7.9,slow=33						
PALK	**Pallekele**	**62.90**	**257**	eP	**P**	**13 40 04.0**	**-1.3**
	comp=Z,16nm,1.0s,mb4.9						
DAG	**Danmarks Havn**	**63.84**	**355**	⇑eP	**P**	**13 40 09.5**	**-0.9**
DAG				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.7						
DAG	**Danmarks Havn**	**63.84**	**355**	⇑eP	**P**	**13 40 09.5**	**-0.9**
	comp=Z,10nm,0.9s,mb4.7						
DAG	**Danmarks Havn**	**63.84**	**355**	⇑iP	**P**	**13 40 09.5**	**-0.9**
	comp=Z,10.0nm,0.9s,mb4.7						
TRD	**Trivandrum**	**64.98**	**260**	eP	**P**	**13 40 15.9**	**-2.9**
MOS	**Moscow**	**65.75**	**323**	eP	**P**	**13 40 22.1**	**-1.0**
MOS				e		13 40 49.4	
MOS				pmax	pmax		
	comp=Z,94nm,1.1s,mb5.5						
OBN	**Obninsk**	**66.60**	**323**	⇓eP	**P**	**13 40 27.6**	**-0.8**
OBN				i *PP	pP	13 40 47.1	-2.7
OBN				e*SP	sP	13 40 54.5	-4.3
OBN				e		13 42 55.5	
OBN				eS	S	13 49 13.8	+2.2
OBN				eSS	SS	13 53 32.1	+0.2
OBN				pmax	pmax		
	comp=Z,85nm,1.1s,mb5.5						
OBN				MLR	MLR		
	comp=Z,300nm,17.0s						
OBN	**Obninsk**	**66.60**	**323**	eP	**P**	**13 40 26.8**	**-1.7**
	comp=Z,97nm,1.0s,mb5.6						
OBN				epP	pP	13 40 46.6	-3.2
KAF	**Kangasniemi**	**66.62**	**332**	ep	**P**	**13 40 27.2**	**-1.3**
	comp=Z,2.6nm,0.3s,mb4.5						
KAF	**Kangasniemi**	**66.62**	**332**	ep	pP	13 40 42.3	-7.5
	comp=Z,1.7nm,0.3s						
KAF	**Kangasniemi**	**66.62**	**332**	eP	**P**	**13 40 27.2**	**-1.3**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.3s,mb4.6						
FINES	**FINESS Array B**	**67.14**	**332**	P	**P**	**13 40 30.8**	**-0.9**
	comp=Z,97nm,1.1s,mb5.5,baz=63,slow=8.5,SNR=47						
FINES				pP	pP	13 40 49.6	-3.5
	comp=Z,20nm,0.8s,baz=56,slow=6.9,SNR=7.7						
FINES				sP	sP	13 40 58.1	-3.9
	comp=Z,16nm,0.9s,baz=53,slow=9.5,SNR=3.6						
VRSR	**Storozhevoye**	**67.53**	**318**	d iP	**P**	**13 40 33.5**	**-0.8**
VRSR				e	pP	13 40 59.9	+4.2
VRSR				eS	S	13 49 19.9	-2.9
VRSR				e		13 50 20.9	
VRSR				pmax	pmax		
	comp=E,40nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,60nm,0.8s,mb5.5						
VRSR				pmax	pmax		
	comp=N,60nm,0.9s						
VRSR				smax			
	comp=N,10.0nm,0.9s						
VRSR				smax			
	comp=Z,10.0nm,1.4s						
VRSR				smax			
	comp=E,5.0nm,1.2s						
EDM	**Edmonton**	**67.76**	**39**	eP	**P**	**13 40 35.3**	**-0.4**
EDM				e*PP	pP	13 40 54.4	-2.7
EDM				e*SP	sP	13 41 02.4	-3.6
NEW	**Newport**	**68.67**	**45**	eP	**P**	**13 40 41.1**	**-0.3**
NEW				e*PP	pP	13 40 58.8	-4.1
NEW				e*SP	sP	13 41 07.3	-4.4
NEW				pmax	pmax		
	comp=Z,22nm,1.1s						
NEW	**Newport**	**68.67**	**45**	eP	**P**	**13 40 41.1**	**-0.3**
	comp=Z,22nm,1.1s,mb4.9						
NEW				epP	pP	13 40 58.8	-4.2
NEW				esP	sP	13 41 07.3	-4.5
SUMG	**Summit**	**68.74**	**360**	eP	**P**	**13 40 41.5**	**+0.1**
	comp=Z,38nm,1.2s,mb5.1						
SUMG				epP	pP	13 41 00.4	-2.6
VSU	**Vasula**	**68.83**	**329**	i P	**P**	**13 40 41.8**	**-0.5**
VSU	**Vasula**	**68.83**	**329**	i Pr		13 40 41.8	
GOF	**Gofitskoye**	**68.88**	**311**	⇓iP	**P**	**13 40 43.0**	**+0.2**
GOF				pmax	pmax		
	comp=Z,120nm,1.1s,mb5.6						
ZEI	**Tsey**	**69.66**	**309**	eP	**P**	**13 40 46.5**	**-1.1**
ZEI				i *PP	pP	13 41 12.6	+3.4
ZEI				i		13 43 21.4	
ZEI				eS	S	13 49 46.1	-2.2
ZEI				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.1						
KIV	**Kislovodsk**	**69.71**	**310**	P	**P**	**13 40 48.1**	**+0.2**
	comp=Z,1µm,0.9s,SNR=31						
KIV	**Kislovodsk**	**69.71**	**310**	eP	**P**	**13 40 48.1**	**+0.2**
KIV				e*PP	pP	13 41 07.8	-1.7
KIV				pmax	pmax		
	comp=Z,239nm,1.0s,mb6.0						
KIV	**Kislovodsk**	**69.71**	**310**	eP	**P**	**13 40 48.1**	**+0.1**
	comp=Z,239nm,1.0s,mb6.0						
KIV				epP	pP	13 41 07.8	-1.7
TI2	**Plekhanov**	**69.73**	**308**	⇓iP	**P**	**13 40 48.8**	**+0.7**
SCO	**Scoresbysund**	**70.18**	**354**	i P	**P**	**13 40 50.3**	**-0.1**
MOD	**Modoc**	**70.46**	**52**	eP	**P**	**13 40 50.1**	**-2.4**
	comp=Z,11nm,0.7s,mb4.8						
STKA	**Stephens Creek**	**70.50**	**180**	P	**P**	**13 40 52.1**	**-0.8**
	comp=Z,4.7nm,0.8s,mb4.4,baz=343,slow=6.3,SNR=9.6						
STKA				pP	pP	13 41 10.9	-3.7
	comp=Z,6.7nm,1.0s,baz=353,slow=6.7,SNR=5.1						
STKA				LR	LR	14 07 15.8	
	comp=Z,98nm,21.7s,baz=26,slow=32						
STKA	**Stephens Creek**	**70.50**	**180**	eP	**P**	**13 40 50.6**	**-2.3**
STKA				epP	pP	13 41 11.5	-3.1
BMO	**Blue Mountains**	**70.53**	**48**	eP	**P**	**13 40 53.0**	**+0.1**
	comp=Z,6.3nm,0.9s,mb4.5						
BMO				epP	pP	13 41 11.2	-3.3
GNI	**Garni**	**70.63**	**306**	d iP	**P**	**13 40 54.0**	**+0.5**
GNI				pmax	pmax		
	comp=Z,66nm,1.8s						
GNI	**Garni**	**70.63**	**306**	P	**P**	**13 40 53.6**	**0.0**
	comp=Z,11nm,0.8s,mb4.7,baz=169,slow=4.0,SNR=7.8						
GNI				LR	LR	14 11 30.2	
	comp=Z,144nm,20.7s,baz=40,slow=36						
GNI	**Garni**	**70.63**	**306**	eP	**P**	**13 40 53.8**	**+0.3**
	comp=Z,23nm,0.9s,mb5.0						
MSO	**Missoula**	**71.25**	**45**	eP	**P**	**13 40 57.0**	**-0.1**
	comp=Z,4.4nm,0.8s,mb4.3						
MSO				epP	pP	13 41 17.2	-1.6
SOC	**Sochi**	**71.68**	**311**	i P	**P**	**13 40 59.0**	**-0.8**
SOC				e	pP	13 41 25.0	+3.5
SOC				e		13 43 36.1	
SOC				eS	S	13 50 17.9	+6.3
SOC				eSSS	SSS	13 58 05.9	+6.6
SOC				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.4						
SOC				pmax	pmax		
	comp=N,22nm,1.0s						
SOC				pmax	pmax		
	comp=E,8.0nm,0.8s						
FFC	**Flin Flon**	**72.01**	**33**	eP	**P**	**13 41 00.9**	**-0.7**
FFC				e*PP	pP	13 41 19.9	-3.4
FFC				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.0						
FFC	**Flin Flon**	**72.01**	**33**	eP	**P**	**13 41 00.9**	**-0.7**
	comp=Z,25nm,1.0s,mb5.0						
FFC				epP	pP	13 41 19.9	-3.4
FFC				esP	sP	13 41 27.6	-4.3
FCC	**Fort Churchill**	**72.21**	**27**	eP	**P**	**13 41 02.0**	**-0.7**
FCC				e*PP	pP	13 41 21.4	-3.0
FCC				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.6						
FCC	**Fort Churchill**	**72.21**	**27**	eP	**P**	**13 41 01.9**	**-0.7**
	comp=Z,10nm,1.0s,mb4.6						
FCC				epP	pP	13 41 21.4	-3.0
FCC				esP	sP	13 41 29.2	-3.9
WCN	**Washoe City**	**72.31**	**54**	eP	**P**	**13 41 04.2**	**+0.6**
WCN				pmax	pmax		
	comp=Z,21nm,1.0s,mb4.9						
WCN	**Washoe City**	**72.31**	**54**	eP	**P**	**13 41 04.2**	**+0.5**
	comp=Z,21nm,1.0s,mb4.9						
TVAN	**Van**	**72.41**	**305**	i P	**P**	**13 41 04.7**	**+0.5**
NB2	**NORSAR Subarra**	**72.43**	**337**	P	**P**	**13 41 03.2**	**-0.7**
	comp=Z,45nm,0.9s,mb5.3,baz=39,slow=5.8						
NB2	**NORSAR Subarra**	**72.43**	**337**	P	**P**	**13 41 03.2**	**-0.7**
	baz=39,slow=6.2						
NB2	**NORSAR Subarra**	**72.43**	**337**	P	**P**	**13 41 03.2**	**-0.7**
NB2				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.3						
NOA	**NORSAR Array B**	**72.43**	**337**	P	**P**	**13 41 03.5**	**-0.4**
	comp=Z,25nm,0.8s,mb5.1,baz=38,slow=5.9,SNR=44						
NOA				pP	pP	13 41 22.4	-3.3
	comp=Z,19nm,0.7s,baz=38,slow=5.9,SNR=12						
NOA				sP	sP	13 41 30.6	-3.8
	comp=Z,18nm,1.0s,baz=39,slow=6.0,SNR=4.2						
NOA				LR	LR	14 19 33.8	
	comp=Z,236nm,19.9s,baz=315,slow=41						
HRY	**Holter Researc**	**72.47**	**44**	eP	**P**	**13 41 04.5**	**+0.1**
HRY				epP	pP	13 41 24.2	-1.9
HRY				esP	sP	13 41 31.5	-3.3
AKASG	**Malin Array Be**	**72.82**	**322**	P	**P**	**13 41 05.5**	**-0.8**
	comp=Z,16nm,0.5s,mb5.1,baz=45,slow=6.1,SNR=20						
AKASG				pP	pP	13 41 24.2	-3.9
	comp=Z,5.9nm,0.4s,baz=45,slow=6.7,SNR=7.8						
AKASG				sP	sP	13 41 32.9	-3.9
	comp=Z,15nm,0.9s,baz=45,slow=6.3,SNR=3.3						
AKASG				PP	PP	13 43 49.0	-2.3
	comp=Z,7.4nm,1.1s,baz=46,slow=8.8,SNR=4.8						
ERZM	**Erzurum**	**72.88**	**308**	i P	**P**	**13 41 07.8**	**+1.0**
BMN	**Battle Mountai**	**73.21**	**51**	eP	**P**	**13 41 09.6**	**+0.8**
BMN				e*PP	pP	13 41 26.7	-3.8
BMN				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.0						
BMN	**Battle Mountai**	**73.21**	**51**	eP	**P**	**13 41 09.6**	**+0.8**
	comp=Z,16nm,0.7s,mb5.0						
BMN				epP	pP	13 41 26.7	-3.8
NVAR	**Mina Array Bea**	**73.74**	**54**	P	**P**	**13 41 12.9**	**+1.0**
	comp=Z,14nm,0.7s,mb4.8,baz=287,slow=5.9,SNR=49						
NVAR				sP	sP	13 41 40.0	-2.5
	comp=Z,8.6nm,0.8s,baz=283,slow=7.6,SNR=4.2						
MNV	**Mina**	**73.83**	**54**	eP	**P**	**13 41 12.8**	**+0.3**
MNV				e*PP	pP	13 41 31.7	-2.6
MNV				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.5						
MNV	**Mina**	**73.83**	**54**	eP	**P**	**13 41 12.8**	**+0.3**
	comp=Z,9.2nm,0.8s,mb4.6						
MNV				epP	pP	13 41 31.7	-2.6
SIM	**Simferopol’**	**74.01**	**315**	⇑eP	**P**	**13 41 13.6**	**+0.2**
SIM				pmax	pmax		
	comp=Z,51nm,0.8s,mb5.3						
TPH	**Tonopah**	**74.63**	**53**	eP	**P**	**13 41 17.8**	**+0.7**
TPH				e*PP	pP	13 41 37.1	-1.8
TPH				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.0						
TPH	**Tonopah**	**74.63**	**53**	eP	**P**	**13 41 17.8**	**+0.7**
	comp=Z,27nm,0.9s,mb5.0						
TPH				epP	pP	13 41 37.1	-1.8
TPH				esP	sP	13 41 44.8	-3.0
IMW	**Indian Meadow**	**74.73**	**46**	eP	**P**	**13 41 19.1**	**+1.5**
IMW				epP	pP	13 41 38.6	-0.8
MOOW	**Moose Ponds**	**74.93**	**46**	eP	**P**	**13 41 19.1**	**+0.4**
MOOW				epP	pP	13 41 38.8	-1.7
MOOW				esP	sP	13 41 46.0	-3.4
HVU	**Hansel Valley**	**75.03**	**48**	eP	**P**	**13 41 20.2**	**+0.9**
HVU				e*PP	pP	13 41 39.1	-2.0
NWAO	**Narrogin (SRO)**	**75.03**	**201**	P	**P**	**13 41 18.9**	**-0.5**
	comp=Z,7.1nm,0.8s,mb4.5,baz=45,slow=7.1,SNR=3.2						
NWAO				pP	pP	13 41 37.8	-3.5
	comp=Z,7.5nm,0.8s,baz=52,slow=7.8,SNR=2.6						
REDW	**Red Top Meadow**	**75.12**	**46**	eP	**P**	**13 41 20.7**	**+0.9**
QRN	**Al-Qurain**	**75.14**	**295**	eP	**P**	**13 41 19.6**	**-0.6**
QRN				AMb	AMB	13 41 20.3	
	comp=Z,142nm,0.5s,mb6.0						
ELZG	**Elazig**	**75.20**	**308**	i P	**P**	**13 41 21.3**	**+0.9**
RDF	**Al-Radifah**	**75.29**	**295**	eP	**P**	**13 41 20.9**	**-0.1**
RDF				AMb	AMB	13 41 22.6	
	comp=Z,165nm,0.8s,mb5.8						
NAY	**Al-Naaiem**	**75.32**	**296**	eP	**P**	**13 41 20.6**	**-0.6**
NAY				AMb	AMB	13 41 21.3	
	comp=Z,49nm,0.7s,mb5.3						
RST	**Umm Al-Ruwaisa**	**75.34**	**296**	eP	**P**	**13 41 20.6**	**-0.8**
RST				AMb	AMB	13 41 22.1	
	comp=Z,98nm,0.9s,mb5.5						
BGU	**Big Grassy Mou**	**75.42**	**49**	eP	**P**	**13 41 22.1**	**+0.6**
BGU				epP	pP	13 41 43.3	-0.1
LAO	**LASA Array**	**75.44**	**41**	eP	**P**	**13 41 21.2**	**-0.3**
	comp=Z,46nm,1.4s,mb5.0						
LAO				epP	pP	13 41 40.9	-2.5
LAO				esP	sP	13 41 48.9	-3.3
TRCR	**Troy Canyon**	**75.48**	**52**	eP	**P**	**13 41 21.7**	**-0.2**
TRCR				epP	pP	13 41 41.3	-2.5
TRCR				esP	sP	13 41 49.7	-3.0
SVST	**Sivas**	**75.65**	**310**	i P	**P**	**13 41 24.0**	**+1.1**
BOYT	**Boyabat**	**75.81**	**312**	i P	**P**	**13 41 24.5**	**+0.7**
HWUT	**Hardware Ranch**	**75.84**	**48**	eP	**P**	**13 41 24.8**	**+0.9**
	comp=Z,29nm,1.2s,mb4.9						
HWUT				epP	pP	13 41 41.9	-3.9
PDAR	**Pinedale Array**	**76.23**	**46**	P	**P**	**13 41 26.6**	**+0.5**
	comp=Z,8.1nm,0.6s,mb4.6,baz=272,slow=2.1,SNR=90						
PDAR				pP	pP	13 41 45.1	-2.9
	comp=Z,7.1nm,0.9s,baz=270,slow=3.0,SNR=8.1						
TCUT	**Toone Canyon**	**76.24**	**48**	eP	**P**	**13 41 27.0**	**+0.8**
TCUT				epP	pP	13 41 45.7	-2.4
CTKT	**Corum**	**76.39**	**311**	i P	**P**	**13 41 27.9**	**+0.8**
JLU	**Jordanelle**	**76.55**	**48**	eP	**P**	**13 41 28.7**	**+0.8**
JLU				epP	pP	13 41 48.2	-1.6
NLU	**North Lily Min**	**76.59**	**49**	eP	**P**	**13 41 28.8**	**+0.6**
KWP	**Kalwaria**	**76.61**	**324**	eP	**P**	**13 41 29.2**	**+1.1**
BALT	**Daday**	**76.61**	**313**	i P	**P**	**13 41 29.2**	**+1.0**
GZT	**Gaziantep**	**76.79**	**307**	i P	**P**	**13 41 30.3**	**+1.0**
MPU	**Maple Canyon**	**76.82**	**49**	eP	**P**	**13 41 30.1**	**+0.7**
MPU				epP	pP	13 41 49.2	-2.2
KAHT	**Ahir Dag**	**77.04**	**308**	i P	**P**	**13 41 31.7**	**+0.9**
CFR	**Carcaliu**	**77.06**	**318**	⇓iP	**P**	**13 41 29.9**	**-0.8**
ELDT	**Eldivan**	**77.27**	**312**	i P	**P**	**13 41 32.6**	**+0.6**
KOLS	**Kolonicke sedl**	**77.31**	**324**	eP	**P**	**13 41 32.4**	**+0.4**
KOLS				e		13 41 49.0	
KOLS				ePP	PP	13 44 26.0	-2.4
VRI	**Vrincioaia**	**77.31**	**319**	⇑iP	**P**	**13 41 28.1**	**-4.0**
MVU	**Marysvale**	**77.44**	**51**	eP	**P**	**13 41 34.2**	**+1.3**
	comp=Z,18nm,1.0s,mb4.8						
MSU	**Marysvale**	**77.46**	**50**	eP	**P**	**13 41 34.5**	**+1.5**
MSU				epP	pP	13 41 51.1	-3.9
MSU				esP	sP	13 42 01.5	-2.4
OJC	**Ojcow**	**77.48**	**326**	eP	**P**	**13 41 33.4**	**+0.5**
AVNT	**Avonos**	**77.53**	**310**	i P	**P**	**13 41 33.8**	**+0.4**
NEN	**Nelson**	**77.63**	**54**	eP	**P**	**13 41 34.8**	**+0.7**
BRTR	**Keskin Array B**	**77.64**	**311**	P	**P**	**13 41 34.2**	**+0.2**
	comp=Z,9.7nm,0.9s,mb4.5,baz=90,slow=3.7,SNR=40						
BRTR				pP	pP	13 41 53.6	-2.3
	comp=Z,70nm,1.5s,baz=135,slow=1.7,SNR=3.9						
BRTR				PP	PP	13 44 28.4	-3.2
	comp=Z,8.6nm,1.1s,baz=76,slow=5.1,SNR=9.2						
CRVS	**Cervenica-Dubn**	**77.70**	**324**	eP	**P**	**13 41 37.4**	**+3.3**
CRVS				epP	pP	13 41 55.9	-0.2
ULM	**Lac du Bonnet**	**77.82**	**34**	P	**P**	**13 41 35.2**	**+0.5**
	comp=Z,1.2nm,0.4s,mb4.0,baz=285,slow=6.0,SNR=3.7						
ULM				pP	pP	13 41 54.8	-1.9
	comp=Z,4.3nm,0.9s,baz=331,slow=5.7,SNR=4.8						
LDFC	**Landfair**	**77.82**	**55**	eP	**P**	**13 41 35.2**	**+0.1**
NIE	**Niedzica**	**77.84**	**325**	eP	**P**	**13 41 36.0**	**+1.1**
ISR	**Istrita**	**77.92**	**319**	⇓iP	**P**	**13 41 36.6**	**+1.2**
SGKT	**Sivrigoynuk**	**78.00**	**313**	i P	**P**	**13 41 36.8**	**+0.8**
SRU	**San Rafael**	**78.05**	**49**	eP	**P**	**13 41 37.0**	**+0.7**
SRU				epP	pP	13 41 55.9	-2.4
SRU				esP	sP	13 42 04.1	-3.1
COBT	**Iskenderun**	**78.13**	**307**	i P	**P**	**13 41 36.1**	**-0.7**
OKC	**Ostrava-Krasne**	**78.48**	**327**	eP	**P**	**13 41 39.0**	**+0.6**
HENT	**Hendek**	**78.49**	**314**	i P	**P**	**13 41 38.6**	**-0.1**
KSP	**Ksiaz**	**78.50**	**328**	⇓eP	**P**	**13 41 39.0**	**+0.5**
KSP				epP	pP	13 41 58.4	-2.1
KSP				e		13 42 06.3	
KSP	**Ksiaz**	**78.50**	**328**	eP	**P**	**13 41 39.0**	**+0.5**
MORC	**Moravsky Berou**	**78.78**	**327**	eP	**P**	**13 41 40.3**	**+0.2**
MORC				e*PP	pP	13 41 58.9	-3.1
MORC				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.1						
MORC	**Moravsky Berou**	**78.78**	**327**	eP	**P**	**13 41 40.3**	**+0.2**
	comp=Z,34nm,1.0s,mb5.1						
MORC				epP	pP	13 41 58.9	-3.2
DPC	**Dobruska-Polom**	**78.86**	**328**	eP	**P**	**13 41 41.4**	**+0.9**
DPC				epP	pP	13 42 00.7	-1.8
DPC				e		13 42 08.6	
UPC	**Upice**	**78.87**	**328**	⇓eP	**P**	**13 41 41.2**	**+0.7**
UPC				epP	pP	13 42 00.7	-1.8
UPC				ex	x	13 42 08.1	
PSZ	**Piszkesteto**	**79.13**	**324**	⇓eP	**P**	**13 41 42.6**	**+0.6**
VYHS	**Vyhne**	**79.18**	**325**	i P	**P**	**13 41 42.9**	**+0.6**
VYHS				epP	pP	13 42 02.4	-1.9
VYHS				ePP	PP	13 44 42.1	-1.8
MEST	**Erdemli**	**79.38**	**309**	i P	**P**	**13 41 43.7**	**+0.1**
ESKT	**Eskisehir**	**79.39**	**313**	i P	**P**	**13 41 43.5**	**-0.1**
PV10	**Paradox Valley**	**79.41**	**49**	eP	**P**	**13 41 45.1**	**+1.3**
PV10				epP	pP	13 42 04.4	-1.4
BRG	**Berggiesshubel**	**79.43**	**329**	i P	**P**	**13 41 44.0**	**+0.4**
BRG				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.0						
BRG	**Berggiesshubel**	**79.43**	**329**	i P	**P**	**13 41 44.0**	**+0.4**
	comp=Z,23nm,1.0s,mb5.0						
BRG				i	pP	13 42 10.6	+5.0
PVCC	**Panska Ves**	**79.45**	**329**	⇓eP	**P**	**13 41 44.2**	**+0.5**
PVCC				epP	pP	13 42 03.7	-2.0
CLL	**Collm**	**79.46**	**330**	⇓iP	**P**	**13 41 43.4**	**-0.3**
CLL				i *PP	pP	13 42 03.2	-2.5
CLL				pmax	pmax		
	comp=Z,46nm,0.9s,mb5.3						
CLL	**Collm**	**79.46**	**330**	⇓iP	**P**	**13 41 43.4**	**-0.3**
	comp=Z,46nm,0.9s,mb5.3						
CLL				i pP	pP	13 42 03.2	-2.5
CLL				esP	sP	13 42 10.0	-4.8
CLL	**Collm**	**79.46**	**330**	⇓P	**P**	**13 41 43.4**	**-0.3**
	comp=Z,logA/T=1.7,mb5.3						
CLL				i *PP	pP	13 42 03.2	-2.5
CLL				e*SP	sP	13 42 10.0	-4.8
SMOL	**Smolenice**	**79.79**	**326**	eP	**P**	**13 41 46.5**	**+1.0**
PV01	**Paradox Valley**	**79.85**	**49**	eP	**P**	**13 41 46.6**	**+0.5**
PV01				epP	pP	13 42 06.1	-2.0
PRU	**Pruhonice**	**79.88**	**328**	eP	**P**	**13 41 46.4**	**+0.4**
PRU				epP	pP	13 42 05.9	-2.1
PRU				e		13 42 13.8	
PRU	**Pruhonice**	**79.88**	**328**	⇓iP	**P**	**13 41 46.4**	**+0.4**
	comp=Z,28nm,1.0s,mb5.0						
PRU				epP	pP	13 42 05.9	-2.1
PRU				ex	x	13 42 13.8	
ULDT	**Uludag**	**79.94**	**314**	i P	**P**	**13 41 46.8**	**+0.2**
ZST	**Bratislava**	**80.17**	**326**	eP	**P**	**13 41 48.5**	**+0.9**
ZST				epP	pP	13 42 08.5	-1.1
ISCO	**Idaho Springs**	**80.42**	**46**	eP	**P**	**13 41 50.1**	**+1.0**
ISCO				e*PP	pP	13 42 09.5	-1.7
ISCO				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.4						
ISCO	**Idaho Springs**	**80.42**	**46**	eP	**P**	**13 41 50.1**	**+1.0**
	comp=Z,4.7nm,0.8s,mb4.4						
ISCO				epP	pP	13 42 09.5	-1.7
ASF	**Jabal al Asfar**	**80.51**	**304**	P	**P**	**13 41 50.0**	**+0.2**
	comp=Z,14nm,0.8s,mb4.8,baz=22,slow=8.6,SNR=15						
ASF				LR	LR	14 20 40.3	
	comp=Z,113nm,20.4s,baz=261,slow=38						
MOX	**Moxa**	**80.52**	**330**	eP	**P**	**13 41 49.2**	**-0.2**
MOX				e	pP	13 42 09.1	-2.3
MOX				pmax	pmax		
	comp=Z,28nm,1.3s,mb4.9						
MOX	**Moxa**	**80.52**	**330**	i P	**P**	**13 41 49.2**	**-0.2**
	comp=Z,logA/T=1.3,mb4.9						
MOX				pP	pP	13 42 09.0	-2.4
MOX	**Moxa**	**80.52**	**330**	eP	**P**	**13 41 49.2**	**-0.2**
	comp=Z,28nm,1.3s,mb4.9						
MOX				e	pP	13 42 09.1	-2.3
NKC	**Novy Kostel**	**80.52**	**330**	eP	**P**	**13 41 49.7**	**+0.3**
SOP	**Sopron**	**80.80**	**326**	⇑eP	**P**	**13 41 52.2**	**+1.3**
KHC	**Kasperske Hory**	**80.94**	**328**	eP	**P**	**13 41 52.3**	**+0.6**
KHC				epP	pP	13 42 11.5	-2.2
KHC				ex	x	13 42 19.5	
GERES	**GERESS Array B**	**81.11**	**328**	P	**P**	**13 41 52.7**	**+0.1**
	comp=Z,12nm,1.0s,mb4.7,baz=34,slow=4.8,SNR=35						
GERES				pP	pP	13 42 12.2	-2.4
	comp=Z,3.1nm,0.8s,baz=27,slow=6.0,SNR=5.1						
GERES				LR	LR	14 24 45.7	
	comp=Z,276nm,18.2s,baz=112,slow=41						
RZN	**Rozhen**	**81.28**	**317**	i P	**P**	**13 41 54.0**	**+0.4**

RHK1	**Bakonya**	**81.32**	**324**	⇑*i*P	**P**	**13 41 53.8**	**+0.1**
VTS	**Vitosha**	**81.41**	**319**	*i* P	**P**	**13 41 55.0**	**+0.7**
ARSA	**Arzberg**	**81.58**	**326**	⇓*i*P	**P**	**13 41 55.5**	**+0.5**
	comp=Z,16nm,1.3s,mb4.7						
MOA	**Molln**	**81.65**	**327**	⇓*i*P	**P**	**13 41 56.1**	**+0.7**
	comp=Z,21nm,1.6s,mb4.7						
GRUS	**Gruza**	**81.72**	**321**	⇑*i*P	**P**	**13 41 56.0**	**+0.2**
MMB	**Musomiste**	**81.86**	**318**	*i* P	**P**	**13 41 57.0**	**+0.3**
KKB	**Krupnik**	**82.00**	**318**	*i* P	**P**	**13 41 57.5**	**+0.2**
SIND	**Sindeldorf**	**82.33**	**331**	⇓*e*P	**P**	**13 41 59.0**	**+0.1**
TOD	**Tromm**	**82.43**	**331**	⇓*e*P	**P**	**13 41 59.7**	**+0.3**
HGN	**Heimansgroeve**	**82.51**	**333**	*e*P	**P**	**13 41 59.7**	**-0.1**
	comp=Z,20nm,1.1s,mb4.9						
HGN				*e*x	x	13 42 19.0	
SWS	**Schriesheim**	**82.57**	**331**	⇓*e*P	**P**	**13 42 00.2**	**+0.1**
KBA	**Koelnbreinsper**	**82.65**	**327**	⇓*i*P	**P**	**13 42 02.2**	**+1.7**
	comp=Z,37nm,1.5s,mb5.0						
KBA	**Koelnbreinsper**	**82.65**	**327**	⇓*i*P	**P**	**13 42 02.2**	**+1.7**
KBA				pmax	pmax		
	comp=Z,37nm,1.5s,mb5.0						
ABH	**Alteburg**	**82.67**	**332**	⇓*e*P	**P**	**13 42 00.9**	**+0.3**
ABH	**Alteburg**	**82.67**	**332**	*e*P	**P**	**13 42 01.1**	**+0.5**
HDH	**Heidenheim**	**82.72**	**330**	*e*P	**P**	**13 42 01.0**	**+0.1**
SKO	**Skopje**	**82.76**	**319**	*i* P	**P**	**13 42 02.3**	**+1.1**
RUP	**Ruppelstein**	**83.00**	**332**	⇓*e*P	**P**	**13 42 02.6**	**+0.4**
RUP	**Ruppelstein**	**83.00**	**332**	*e*P	**P**	**13 41 59.9**	**-2.3**
BUCH	**Bad Urach**	**83.16**	**330**	*e*P	**P**	**13 42 03.8**	**+0.7**
WATA	**Walderalm**	**83.18**	**328**	⇓*i*P	**P**	**13 42 03.5**	**+0.3**
	comp=Z,6.7nm,0.7s,mb4.6						
WATA	**Walderalm**	**83.18**	**328**	⇓*i*P	**P**	**13 42 03.5**	**+0.3**
WATA				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.6						
LBG	**Lerchenberg**	**83.20**	**331**	⇓*e*P	**P**	**13 42 03.7**	**+0.4**
WTTA	**Wattenberg**	**83.21**	**328**	⇓*i*P	**P**	**13 42 04.0**	**+0.6**
	comp=Z,23nm,1.1s,mb4.9						
WTTA	**Wattenberg**	**83.21**	**328**	⇓*i*P	**P**	**13 42 04.0**	**+0.6**
WTTA				pmax	pmax		
	comp=Z,23nm,1.1s,mb4.9						
ANMO	**Albuquerque**	**83.25**	**50**	*e*P	**P**	**13 42 04.9**	**+1.0**
ANMO				e*PP	pP	13 42 23.7	-2.3
ANMO				pmax	pmax		
	comp=Z,11nm,1.1s						
ANMO	**Albuquerque**	**83.25**	**50**	*e*P	**P**	**13 42 04.9**	**+1.0**
	comp=Z,11nm,1.1s,mb4.6						
ANMO				*e*pP	pP	13 42 23.7	-2.3
TBKS	**Tabuk**	**83.29**	**301**	P	**P**	**13 42 01.0**	**-3.2**
JMQS	**Jabal Moqyreh**	**83.31**	**302**	P	**P**	**13 42 02.3**	**-1.9**
MOTA	**Moosalm**	**83.36**	**329**	⇑*i*P	**P**	**13 42 04.7**	**+0.6**
	comp=Z,24nm,1.1s,mb4.9						
MOTA	**Moosalm**	**83.36**	**329**	⇑*i*P	**P**	**13 42 04.7**	**+0.6**
MOTA				pmax	pmax		
	comp=Z,24nm,1.1s,mb4.9						
EIL	**Elat**	**83.40**	**303**	*e*P	**P**	**13 42 04.5**	**-0.3**
	comp=Z,47nm,1.2s,mb5.2						
EIL				*e*pP	pP	13 42 23.2	-3.7
EIL				*e*sP	sP	13 42 32.0	-3.9
EIL				*e*PP	PP	13 45 17.5	-1.5
SQTA	**Sankt Quirin**	**83.42**	**328**	⇑*i*P	**P**	**13 42 05.0**	**+0.6**
	comp=Z,7.7nm,0.7s,mb4.6						
SQTA	**Sankt Quirin**	**83.42**	**328**	⇑*i*P	**P**	**13 42 05.0**	**+0.6**
SQTA				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.7						
SCHQ	**Schefferville**	**83.44**	**16**	P	**P**	**13 42 03.4**	**-0.9**
	comp=Z,2.9nm,0.7s,mb4.2,baz=7.1,slow=8.1,SNR=2.8						
ALWS	**Ilw as Safayha**	**83.56**	**303**	P	**P**	**13 42 05.3**	**-0.3**
GUT	**Gutenstein**	**83.56**	**330**	*e*P	**P**	**13 42 05.5**	**+0.4**
LPM	**Los Pinos Moun**	**83.58**	**51**	*e*P	**P**	**13 42 06.7**	**+1.1**
LPM				*e*pP	pP	13 42 25.6	-2.1
JMOS	**Jabal al Moall**	**83.63**	**302**	P	**P**	**13 42 05.6**	**-0.2**
SPAK	**Spaichingen**	**83.67**	**330**	*e*P	**P**	**13 42 06.1**	**+0.5**
BNM	**Barren Site**	**83.70**	**51**	*e*P	**P**	**13 42 07.4**	**+1.3**
BNM				*e*pP	pP	13 42 26.1	-2.2
HAQS	**Haql**	**83.82**	**302**	P	**P**	**13 42 06.7**	**-0.1**
DAVA	**Damuels**	**83.90**	**329**	⇓*i*P	**P**	**13 42 07.6**	**+0.8**
	comp=Z,64nm,1.1s,mb5.4						
WLS	**Welschbruch**	**83.95**	**331**	*e*P	**P**	**13 42 07.8**	**+0.8**
TATS	**Tathlith**	**83.96**	**290**	P	**P**	**13 42 02.4**	**-5.4**
BDAS	**Al Bad‘**	**84.12**	**302**	P	**P**	**13 42 08.6**	**+0.3**
KIZ	**Kirchzarten**	**84.12**	**331**	⇓*e*P	**P**	**13 42 07.9**	**0.0**
FELD	**Feldberg**	**84.15**	**331**	⇓*e*P	**P**	**13 42 08.4**	**+0.4**
AYUS	**‘Aynunah**	**84.17**	**302**	P	**P**	**13 42 08.5**	**-0.1**
ECH	**Echery**	**84.19**	**331**	*e*P	**P**	**13 42 08.8**	**+0.6**
TAYS	**Tayyib Ism**	**84.19**	**302**	P	**P**	**13 42 09.0**	**+0.3**
DAVOX	**Davos**	**84.31**	**329**	LR	LR	14 25 37.1	
	comp=Z,346nm,18.9s,baz=251,slow=40						
MOF	**Molkenrain**	**84.50**	**331**	*e*P	**P**	**13 42 10.5**	**+0.7**
THEF	**They Montfort**	**84.62**	**332**	*e*P	**P**	**13 42 11.0**	**+0.7**
BBS	**Basel-Blauen**	**84.68**	**331**	⇓*e*P	**P**	**13 42 11.2**	**+0.5**
BBS	**Basel-Blauen**	**84.68**	**331**	*e*P	**P**	**13 42 11.4**	**+0.7**
UMJS	**Umm Lajj**	**84.72**	**298**	P	**P**	**13 42 09.4**	**-2.0**
YNBS	**Yanbu‘ al Bahr**	**84.83**	**297**	P	**P**	**13 42 09.4**	**-2.6**
LOMF	**Lomont**	**85.03**	**331**	*e*P	**P**	**13 42 13.2**	**+0.8**
PPT	**Papeete**	**85.42**	**117**	*e*LR	LR	14 08 01.8	
	comp=Z,345nm,29.0s						
PPT	**Papeete**	**85.42**	**117**	LR	LR	14 20 11.3	
	comp=Z,163nm,18.9s,baz=287,slow=35						
IDI	**Anoyia**	**85.74**	**313**	P	**P**	**13 42 15.5**	**-0.7**
	comp=Z,11nm,0.5s,mb5.0,baz=5.3,slow=8.9,SNR=12						
IDI				LR	LR	14 23 00.3	
	comp=Z,98nm,20.7s,baz=115,slow=37						
GDL2	**Guadalupe Moun**	**86.41**	**51**	*e*P	**P**	**13 42 20.4**	**+0.8**
GDL2				*e*pP	pP	13 42 39.5	-2.4
GDL2				*e*sP	sP	13 42 47.5	-3.1
LPG	**La Plagne**	**86.61**	**330**	*e*P	**P**	**13 42 20.9**	**+0.7**
	comp=Z,37nm,0.8s,mb5.0						
LPG	**La Plagne**	**86.61**	**330**	*e*P	**P**	**13 42 20.9**	**+0.7**
LPG				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.0						
AGO	**Saint Agoulin**	**87.50**	**332**	*e*P	**P**	**13 42 26.7**	**+2.2**
PYM	**Petit Puy Mans**	**87.80**	**332**	*e*P	**P**	**13 42 28.2**	**+2.2**
WMOK	**Wichita Mounta**	**87.84**	**46**	*e*P	**P**	**13 42 25.6**	**-0.9**
WMOK				e*PP	pP	13 42 46.4	-2.5
WMOK				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
WMOK	**Wichita Mounta**	**87.84**	**46**	*e*P	**P**	**13 42 25.6**	**-0.8**
	comp=Z,5.5nm,1.1s,mb4.5						
WMOK				*e*pP	pP	13 42 46.4	-2.5
WMOK				*e*sP	sP	13 42 54.1	-3.5
LTX	**Lajitas**	**88.85**	**52**	*e*P	**P**	**13 42 32.0**	**+0.7**
LTX				e*PP	pP	13 42 50.3	-3.5
LTX				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
LTX	**Lajitas**	**88.85**	**52**	*e*P	**P**	**13 42 31.9**	**+0.6**
	comp=Z,6.9nm,0.8s,mb4.7						
LTX				*e*pP	pP	13 42 50.2	-3.6
TXAR	**Lajitas Array**	**88.85**	**52**	P	**P**	**13 42 32.1**	**+0.8**
	comp=Z,4.6nm,0.7s,mb4.6,baz=298,slow=3.4,SNR=70						
TXAR				pP	pP	13 42 51.2	-2.6
	comp=Z,3.1nm,0.8s,baz=288,slow=4.0,SNR=6.2						
TXAR				sP	sP	13 42 59.7	-2.7
	comp=Z,2.7nm,0.7s,baz=299,slow=3.5,SNR=5.1						
CCM	**Cathedral Cave**	**89.28**	**39**	*e*P	**P**	**13 42 32.2**	**-1.0**
CCM				e*PP	pP	13 42 52.9	-2.7
CCM				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
CCM	**Cathedral Cave**	**89.28**	**39**	*e*P	**P**	**13 42 32.2**	**-1.0**
	comp=Z,28nm,1.0s,mb5.2						
CCM				*e*pP	pP	13 42 52.9	-2.7
CCM				*e*sP	sP	13 43 00.8	-3.4
JCT	**Junction City**	**90.37**	**49**	*e*P	**P**	**13 42 38.5**	**+0.1**
JCT				e*PP	pP	13 42 58.0	-3.0
JCT				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb5.1						
JCT	**Junction City**	**90.37**	**49**	*e*P	**P**	**13 42 38.5**	**+0.1**
	comp=Z,9.4nm,0.6s,mb5.1						
JCT				*e*pP	pP	13 42 58.0	-3.0
MIAR	**Mount Ida**	**90.81**	**43**	*e*P	**P**	**13 42 40.8**	**+0.3**
MIAR				e*PP	pP	13 42 59.8	-3.2
MIAR				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.2						
MIAR	**Mount Ida**	**90.81**	**43**	*e*P	**P**	**13 42 40.8**	**+0.3**
	comp=Z,18nm,0.9s,mb5.2						
MIAR				*e*pP	pP	13 42 59.8	-3.2
MIAR				*e*sP	sP	13 43 08.1	-3.5
ESDC	**Sonseca Array**	**95.59**	**334**	P	**P**	**13 43 02.4**	**+0.3**
	comp=Z,1.6nm,0.8s,mb4.5,baz=20,slow=4.2,SNR=6.7						
ESDC				pP	pP	13 43 22.0	-2.8
	comp=Z,1.4nm,0.7s,baz=30,slow=4.4,SNR=2.7						
ESDC				sP	sP	13 43 29.8	-3.4
	comp=Z,1.2nm,0.8s,baz=44,slow=3.0,SNR=2.1						
VNA2	**Neumayer--Watz**	**144.22**	**197**	⇑*i*		13 49 34.4	
VNA3	**Neumayer Olymp**	**144.47**	**196**	⇑*i*		13 49 35.2	
VNA1	**Neumayer--Stat**	**144.62**	**197**	⇑*i*		13 49 35.6	
LPAZ	**La Paz**	**145.58**	**57**	PKPbc	PKPbc	13 49 15.7	+0.7
	comp=Z,10nm,0.7s,baz=357,slow=5.1,SNR=39						
LPAZ				pPKPbc		13 49 35.4	
	comp=Z,9.8nm,0.8s,baz=360,slow=3.7,SNR=5.0						
LPAZ	**La Paz**	**145.58**	**57**	*e*PKPdf	PKPdf	13 49 15.2	+1.0
LPAZ				*e*pPKPdf		13 49 35.5	
LPAZ				*e*sPKPdf		13 49 42.0	
LVC	**Limon Verde**	**149.35**	**67**	*e*PKPbc	PKPdf	13 49 27.0	+6.8
LVC				*e*PKPab	PKPab	13 49 32.4	+0.6
LVC				*e*pPKPdf		13 49 46.9	
BDFB	**Brasilia**	**155.27**	**22**	PKPab	PKPab	13 49 56.2	-0.6
	comp=Z,1.4nm,0.4s,baz=341,slow=3.7,SNR=2.8						
BDFB				pPKPab		13 50 16.6	
	comp=Z,2.8nm,0.7s,baz=279,slow=2.4,SNR=6.4						

IDC 30 13:33:52.8±2.4,1.75S×129.08E,mb4.0/4,mb1 4.3/5, mb1mx4.0/14,mbtmp4.0/5,ML4.2/1,MS3.4/1,Ms1 3.4/1, ms1mx2.5/22,Error ellipse: s-maj=150.2km s-min=31.1km az=87.0,Halmahera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**18.80**	**164**	P	P	13 38 14.5	-1.6
	0.8nm,0.3s,baz=350,slow=11,SNR=43						
ASAR	**Alice Springs**	**22.28**	**168**	P	P	13 38 53.0	-0.3
	1.7nm,0.4s,baz=356,slow=9.9,SNR=63						
CTA	**Charters Tower**	**24.77**	**139**	LR	LR	13 48 54.5	
	comp=Z,91nm,20.0s,baz=310,slow=36						
STKA	**Stephens Creek**	**32.21**	**160**	P	P	13 40 22.4	-2.6
	1.9nm,0.8s,baz=351,slow=8.8,SNR=4.4						
VNDA	**Vanda**	**77.73**	**173**	P	P	13 45 49.8	-3.0
	1.2nm,0.8s,baz=316,slow=6.9,SNR=5.1						
ILAR	**Eielson Array**	**89.02**	**25**	P	P	13 46 50.3	-0.4
	0.8nm,1.0s,baz=243,slow=4.0,SNR=4.5						

IDC 30 13:46:36.1±2.9,12.90N×94.77E,mb3.5/3,mb1 3.6/4, mb1mx3.5/17,mbtmp3.3/4,ML2.7/1,Error ellipse: s-maj=76.4km s-min=25.2km az=87.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**6.83**	**36**	Pn	Pn	13 48 16.5	-3.4
	0.0nm,0.3s,baz=232,slow=15,SNR=3.5						
CMAR				Sn	Sn	13 49 38.0	-1.3
	0.3nm,0.3s,baz=239,slow=27,SNR=8.8						
SONM	**Songino Array**	**36.15**	**13**	P	P	13 53 40.4	-1.6
	0.2nm,0.5s,baz=207,slow=9.7,SNR=3.0						
WRA	**Warramunga Arr**	**50.81**	**129**	P	P	13 55 38.5	-2.1
	0.7nm,0.7s,baz=307,slow=7.8,SNR=5.8						
ASAR	**Alice Springs**	**52.78**	**133**	P	P	13 55 53.2	-2.2
	0.4nm,0.5s,baz=308,slow=6.8,SNR=9.7						

IDC ***30*** *13:53:49.5±0.9,7.38N×93.80E,h20^{km}±4^{km},mb3.9/7, mb1 4.1/8,mb1mx3.9/17,mbtmp4.0/8,ML3.7/1,Error ellipse: s-maj=36.0km s-min=14.9km az=53.0*

ISC 30 13:53:47.5±0.8,7.4N±0.1×93.8E±0.2,h21^{km}, h21^{km}±.6^{km}:pP-P,n16,σ0^{s}52/15,mb4.2/11,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.10**	**24**	Pn	**P**	**13 56 42.2**	**+0.3**
	0.1nm,0.3s,baz=219,slow=14,SNR=5.9						
PKI	**Pulchoki**	**21.60**	**339**	*e*P	**P**	**13 58 38.0**	**-0.3**
	5.5nm,0.4s,mb4.4						
DMN	**Daman**	**21.74**	**339**	*e*P	**P**	**13 58 39.2**	**-0.5**
GUN	**Gumba**	**21.75**	**341**	*e*P	**P**	**13 58 39.7**	**-0.1**
KKN	**Kakani**	**21.84**	**339**	*e*P	**P**	**13 58 39.9**	**-0.8**
GKN	**Gorkha**	**22.27**	**338**	*e*P	**P**	**13 58 45.1**	**+0.1**
	19nm,0.7s,mb4.6						
KOLN	**Koldanda**	**22.46**	**336**	*e*P	**P**	**13 58 47.6**	**+0.7**
	11nm,0.7s,mb4.4						
SONM	**Songino Array**	**41.72**	**13**	P	**P**	**14 01 36.6**	**-0.1**
	0.6nm,0.6s,mb3.4,baz=199,slow=8.4,SNR=8.7						
SONM				pP	pP	14 01 43.4	+0.5
	0.7nm,0.7s,baz=214,slow=4.5,SNR=5.2						
SONM				PcP	PcP	14 03 33.3	-0.4
	0.3nm,0.5s,baz=180,slow=1.4,SNR=5.0						
SONM				pPcP		14 03 40.9	
	0.6nm,0.8s,baz=188,slow=3.1,SNR=4.3						
WRA	**Warramunga Arr**	**48.26**	**125**	P	**P**	**14 02 29.0**	**-0.4**
	0.9nm,0.6s,mb4.0,baz=305,slow=8.6,SNR=12						
WRA				pP	pP	14 02 35.1	-0.6
	0.9nm,0.5s,baz=305,slow=8.6,SNR=5.2						
WRA				PcP	PcP	14 03 57.1	+0.4
	0.3nm,0.6s,baz=313,slow=2.9,SNR=5.4						
BVAR	**Borovoye Array**	**49.35**	**342**	pP	pP	14 02 44.2	+0.5
	0.1nm,0.3s,baz=162,slow=4.6,SNR=2.1						
BVAR				PcP	PcP	14 04 00.9	+0.8
	0.5nm,0.6s,baz=135,slow=2.0,SNR=3.2						
BVAR				pPcP		14 04 07.6	
	0.8nm,0.6s,baz=124,slow=5.3,SNR=5.4						
ASAR	**Alice Springs**	**49.87**	**129**	P	**P**	**14 02 41.8**	**+0.1**
	1.0nm,0.6s,mb4.0,baz=302,slow=7.3,SNR=17						
ASAR				pP	pP	14 02 48.0	-0.1
	1.5nm,0.6s,baz=302,slow=7.0,SNR=11						
ASAR				PcP	PcP	14 04 03.0	+0.6
	0.4nm,0.5s,baz=314,slow=3.5,SNR=5.3						
ASAR				pPcP		14 04 09.5	
	0.4nm,0.5s,baz=306,slow=2.7,SNR=4.2						
BRTR	**Keskin Array B**	**62.49**	**311**	P	**P**	**14 04 11.5**	**-0.6**
	0.5nm,0.5s,mb4.0,baz=90,slow=5.8,SNR=3.4						
FINES	**FINESS Array B**	**72.99**	**332**	P	**P**	**14 05 17.2**	**-0.2**
	8.9nm,1.2s,mb4.6,baz=108,slow=6.0,SNR=7.7						
KAF	**Kangasniemi**	**73.07**	**333**	*e*p	**P**	**14 05 17.7**	**-0.2**
	0.5nm,0.3s,mb3.9						
ARCES	**ARCESS Array B**	**75.61**	**340**	P	**P**	**14 05 33.2**	**+0.8**
	4.4nm,0.9s,mb4.4,baz=90,slow=7.2,SNR=2.8						
GERES	**GERESS Array B**	**77.97**	**318**	P	**P**	**14 05 47.1**	**+1.2**
	1.3nm,0.7s,mb4.0,baz=92,slow=4.5,SNR=8.5						
GERES				pP	pP	14 05 53.6	+1.1
	0.5nm,0.6s,baz=108,slow=4.2,SNR=2.7						

IDC 30 13:56:12.1±0.8,2.64N×94.12E,h27^{km}±4^{km},mb3.9/7, mb1 4.0/8,mb1mx3.9/18,mbtmp4.0/8,ML4.0/1,Error ellipse: s-maj=36.6km s-min=14.0km az=51.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**16.41**	**16**	Pn	P	13 59 59.5	-3.0
	0.2nm,0.3s,baz=213,slow=11,SNR=28						
WRA	**Warramunga Arr**	**45.41**	**121**	P	P	14 04 28.8	-1.9
	2.2nm,0.8s,baz=299,slow=9.1,SNR=6.9						
WRA				pP	pP	14 04 37.3	-1.6
	2.0nm,1.0s,baz=301,slow=8.7,SNR=5.5						
SONM	**Songino Array**	**46.25**	**11**	P	P	14 04 35.3	-1.7
	1.7nm,0.8s,baz=195,slow=7.4,SNR=12						
SONM				pP	pP	14 04 43.5	-1.7
	2.9nm,0.9s,baz=191,slow=7.2,SNR=11						
SONM				PcP	PcP	14 06 11.3	-1.5
	0.6nm,0.7s,baz=208,slow=2.9,SNR=3.4						
SONM				pPcP		14 06 20.1	
	0.7nm,0.8s,baz=181,slow=3.0,SNR=4.1						
ASAR	**Alice Springs**	**46.72**	**126**	P	P	14 04 38.1	-2.9
	2.0nm,0.9s,baz=306,slow=8.4,SNR=9.4						
ASAR				pP	pP	14 04 48.6	-0.6
	1.7nm,0.9s,baz=307,slow=8.0,SNR=6.2						
ASAR				PcP	PcP	14 06 12.0	-2.7
	1.8nm,1.0s,baz=299,slow=3.6,SNR=6.1						
BVAR	**Borovoye Array**	**53.92**	**342**	P	P	14 05 33.0	-2.4
	1.9nm,0.7s,baz=135,slow=8.4,SNR=10.0						
BVAR				pP	pP	14 05 40.8	-2.9
	2.7nm,0.7s,baz=149,slow=8.6,SNR=9.5						
STKA	**Stephens Creek**	**56.61**	**131**	P	P	14 05 52.3	-3.1
	1.7nm,0.8s,baz=351,slow=4.8,SNR=3.4						
BRTR	**Keskin Array B**	**65.87**	**313**	P	P	14 06 56.2	-1.6
	1.3nm,0.9s,baz=127,slow=6.2,SNR=4.5						
BRTR				pP	pP	14 07 04.1	-2.1
	1.1nm,0.7s,baz=104,slow=5.1,SNR=4.9						
GERES	**GERESS Array B**	**81.70**	**319**	P	P	14 08 28.6	-1.1
	0.8nm,0.7s,baz=104,slow=5.5,SNR=5.4						
GERES				pP	pP	14 08 36.9	-1.3
	6.9nm,1.2s,baz=117,slow=6.0,SNR=6.0						
TXAR	**Lajitas Array**	**143.93**	**27**	PKP	PKPdf	14 15 44.4	-6.2
	0.6nm,0.9s,baz=225,slow=1.8,SNR=4.5						
TXAR				pPKP		14 15 54.0	
	0.8nm,0.8s,baz=282,slow=1.5,SNR=4.6						

IDC 30 13:57:36.3±4.8,23.80S×177.06W,h110^{km}±35^{km}, mb3.9/7,mb1 4.1/7,mb1mx3.9/16,mbtmp4.2/7,Error ellipse: s-maj=86.5km s-min=21.8km az=160.0,South of Fiji Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**34.16**	**269**	P	P	14 04 12.6	-0.3
	6.9nm,0.6s,baz=89,slow=11,SNR=11						
PMG	**Port Moresby**	**37.02**	**287**	P	P	14 04 36.0	-1.2
	13nm,0.7s,baz=138,slow=8.6,SNR=6.2						
ASAR	**Alice Springs**	**44.70**	**260**	P	P	14 05 37.5	-2.6
	1.0nm,0.5s,baz=92,slow=7.6,SNR=18						
WRA	**Warramunga Arr**	**45.09**	**265**	P	P	14 05 40.9	-2.4
	1.8nm,0.5s,baz=93,slow=8.3,SNR=38						
WRA				ScP		14 11 02.8	
	0.4nm,0.9s,baz=88,slow=3.8,SNR=4.6						
TXAR	**Lajitas Array**	**88.11**	**57**	P	P	14 10 15.8	-0.1
	0.3nm,0.7s,baz=219,slow=8.0,SNR=4.0						
PDAR	**Pinedale Array**	**90.77**	**43**	P	P	14 10 27.1	-1.1
	0.6nm,0.9s,baz=270,slow=3.0,SNR=4.2						
ILAR	**Eielson Array**	**91.33**	**12**	P	P	14 10 27.4	-2.8
	0.6nm,1.1s,baz=228,slow=5.1,SNR=4.5						
BVAR	**Borovoye Array**	**122.14**	**319**	PKP	PKPdf	14 16 18.7	+0.9
	0.6nm,0.7s,baz=135,slow=6.3,SNR=4.3						
AKASG	**Malin Array Be**	**146.30**	**329**	PKPbc	PKPbc	14 17 02.5	-1.1
	1.3nm,0.5s,baz=41,slow=4.1,SNR=8.7						

NAO ***30*** *13:57:38.0±3.2,61.01N×29.23E,ML2.1*

IDC ***30*** *13:57:39.4±2.5,60.92N×29.10E,mb1 3.7/2, mb1mx3.2/17,mbtmp3.5/2,ML2.9/2,Error ellipse: s-maj=21.0km s-min=11.6km az=166.0*

BER ***30*** *13:57:39.2±2.9,60.94N×29.10E,ML2.1(NAO), Suspected explosion*

HEL 30 13:57:39.9±0.3,60.97N×28.99E,ML2.1(NAO), Explosion,Finland-Karelia border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VJF	**Virojoki**	**0.83**	**239**	*e*P	Pg	13 57 54.5	-1.9
VJF				*e*S	Sg	13 58 05.9	-1.5
FIA0	**FINESS Array S**	**1.49**	**290**	Pn	Pn	13 58 06.5	-1.4
	baz=118,slow=16						
FIA0				Lg		13 58 28.3	
	baz=106,slow=28						
FIA0				Rg		13 58 35.5	
	baz=121,slow=37						
FIA0	**FINESS Array S**	**1.49**	**290**	*e*P	Pn	13 58 06.2	-1.8
FIA0				*e*S	Sb	13 58 25.8	-1.7
FINES	**FINESS Array B**	**1.49**	**290**	Pg	Pg	13 58 06.5	-3.1
	2.5nm,0.3s,baz=110,slow=16,SNR=65						
FINES				Lg		13 58 28.5	
	4.2nm,0.3s,baz=105,slow=27,SNR=36						
FINES				Rg		13 58 35.8	
	20nm,0.7s,baz=114,slow=34,SNR=18						
PVF	**Pernaja**	**1.59**	**256**	*e*P	Pn	13 58 08.0	-1.5
PVF				*e*S	Sb	13 58 28.9	-1.6
KAF	**Kangasniemi**	**1.72**	**313**	*e*P	Pn	13 58 10.0	-1.4
KAF				*e*S	Sb	13 58 32.4	-1.9
KJN	**Kajaani**	**3.18**	**350**	*e*P	Pn	13 58 31.8	-0.4
KJN				*e*S	Sn	13 59 07.8	-3.6
HFS	**Hagfors**	**7.59**	**270**	Pn	Pn	13 59 30.7	-3.7
	baz=86,slow=14						
HFS	**Hagfors**	**7.59**	**270**	*e*P	Pn	13 59 30.7	-3.7
NOA	**NORSAR Array B**	**8.63**	**278**	Pn	P	13 59 44.1	-4.9
	0.2nm,0.3s,baz=84,slow=13,SNR=2.5						
NOA				Lg		14 02 11.5	
	0.2nm,0.3s,baz=132,slow=23,SNR=2.9						
ARA0	**ARCESS Array S**	**8.72**	**352**	Pn	P	13 59 45.2	-5.1
	baz=168,slow=12						
ARA0				Lg		14 02 08.2	
	baz=173,slow=28						
ARA0	**ARCESS Array S**	**8.72**	**352**	*e*P	P	13 59 45.2	-5.1
ARA0				*e*SG		14 02 08.2	
ARCES	**ARCESS Array B**	**8.72**	**352**	Pn	P	13 59 45.4	-4.8
	0.1nm,0.3s,baz=169,slow=11,SNR=5.9						
ARCES				Sn	Sn	14 01 20.2	-10
	0.1nm,0.3s,baz=171,slow=24,SNR=2.1						
ARCES				Lg		14 02 08.4	
	0.3nm,0.3s,baz=169,slow=32,SNR=4.2						

IDC ***30*** *13:58:20.1±0.8,3.46N×94.19E,mb4.3/10,mb1 4.5/11, mb1mx4.3/19,mbtmp4.3/11,ML4.7/1,Error ellipse: s-maj=42.9km s-min=16.0km az=50.0*

ISC 30 13:58:23.1±0.7,3.4N±0.1×94.2E±0.2,h33^{km},n18, σ0^{s}38/17,mb4.4/16,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.63**	**17**	Pn	**P**	**14 02 03.0**	**+0.2**
	1.0nm,0.3s,baz=213,slow=12,SNR=26						
PKI	**Pulchoki**	**25.43**	**342**	*e*P	**P**	**14 03 49.8**	**+0.1**
	12nm,0.9s,mb4.4						
DMN	**Daman**	**25.57**	**341**	*e*P	**P**	**14 03 51.1**	**+0.1**
	24nm,1.2s,mb4.6						
GUN	**Gumba**	**25.61**	**343**	*e*P	**P**	**14 03 51.5**	**+0.2**
	30nm,0.8s,mb4.9						
KKN	**Kakani**	**25.68**	**341**	*e*P	**P**	**14 03 52.4**	**+0.4**
	19nm,0.9s,mb4.6						
GKN	**Gorkha**	**26.09**	**340**	*e*P	**P**	**14 03 55.5**	**-0.3**
	14nm,0.7s,mb4.6						
KOLN	**Koldanda**	**26.24**	**338**	*e*P	**P**	**14 03 57.3**	**+0.1**
	12nm,0.8s,mb4.5						
SONM	**Songino Array**	**45.46**	**11**	P	**P**	**14 06 40.7**	**-0.3**
	2.5nm,0.7s,mb4.2,baz=188,slow=8.6,SNR=10						
SONM				PcP	PcP	14 08 20.7	+0.7
	1.3nm,0.6s,baz=186,slow=4.0,SNR=8.6						
WRA	**Warramunga Arr**	**45.73**	**122**	P	**P**	**14 06 43.7**	**+0.2**
	5.4nm,0.7s,mb4.6,baz=301,slow=8.9,SNR=16						
ASAR	**Alice Springs**	**47.11**	**127**	P	**P**	**14 06 54.4**	**+0.2**
	2.6nm,0.5s,mb4.4,baz=295,slow=7.8,SNR=22						
ASAR				PcP	PcP	14 08 26.2	+0.1
	0.7nm,0.5s,baz=303,slow=3.2,SNR=5.1						
BVAR	**Borovoye Array**	**53.20**	**342**	P	**P**	**14 07 39.7**	**-0.6**
	3.6nm,0.6s,mb4.5,baz=141,slow=9.2,SNR=15						
STKA	**Stephens Creek**	**57.05**	**132**	P	**P**	**14 08 08.3**	**-0.4**
	2.0nm,0.6s,mb4.3,baz=302,slow=8.6,SNR=7.3						
ASF	**Jabal al Asfar**	**60.75**	**305**	P	**P**	**14 08 34.5**	**+0.2**
	2.6nm,0.6s,mb4.5,baz=105,slow=2.4,SNR=3.6						
BRTR	**Keskin Array B**	**65.42**	**312**	P	**P**	**14 09 04.7**	**-0.3**
	0.3nm,0.4s,mb3.7,baz=127,slow=7.2,SNR=3.6						
FINES	**FINESS Array B**	**76.66**	**333**	P	**P**	**14 10 11.7**	**-0.5**
	3.6nm,1.0s,mb4.3,baz=127,slow=9.5,SNR=6.0						
ARCES	**ARCESS Array B**	**79.45**	**341**	P	**P**	**14 10 27.1**	**-0.4**
	9.0nm,1.1s,mb4.6,baz=96,slow=5.9,SNR=6.3						
GERES	**GERESS Array B**	**81.18**	**319**	P	**P**	**14 10 38.1**	**+1.0**
	1.5nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=8.3						
TXAR	**Lajitas Array**	**143.18**	**27**	PKP	PKPdf	14 17 56.8	+2.2
	0.2nm,0.4s,baz=180,slow=1.8,SNR=3.6						

IDC 30 14:05:33.0±2.5,10.39N×91.89E,mb4.0/3,mb1 4.1/4, mb1mx3.8/17,mbtmp3.9/4,ML3.6/1,Error ellipse: s-maj=76.9km s-min=27.4km az=76.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.53**	**40**	Pn	P	14 08 05.5	-2.9
	0.1nm,0.3s,baz=231,slow=14,SNR=6.1						
SONM	**Songino Array**	**39.27**	**15**	P	P	14 13 03.6	-1.5
	0.6nm,0.7s,baz=198,slow=7.8,SNR=4.8						
SONM				PcP	PcP	14 15 11.6	-3.1
	0.7nm,0.8s,baz=198,slow=4.9,SNR=4.7						
WRA	**Warramunga Arr**	**51.52**	**126**	P	P	14 14 40.8	-2.2
	1.8nm,0.4s,baz=306,slow=8.3,SNR=33						
ASAR	**Alice Springs**	**53.22**	**130**	P	P	14 14 54.0	-1.8
	1.6nm,0.5s,baz=303,slow=7.2,SNR=34						

IDC 30 14:10:38.0±5.5,5.87N×93.04E,mb3.6/3,mb1 3.8/4, mb1mx3.6/17,mbtmp3.5/4,ML3.4/1,Error ellipse: s-maj=162.9km s-min=28.1km az=75.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.78**	**24**	Pn	P	14 13 55.3	-1.9
	0.1nm,0.3s,baz=230,slow=14,SNR=6.0						
SONM	**Songino Array**	**43.35**	**13**	P	P	14 18 41.8	-1.8
	0.2nm,0.4s,baz=186,slow=9.4,SNR=3.4						
WRA	**Warramunga Arr**	**48.03**	**123**	P	P	14 19 19.4	-1.9
	0.8nm,0.7s,baz=303,slow=9.1,SNR=6.5						
ASAR	**Alice Springs**	**49.51**	**128**	P	P	14 19 30.6	-2.0
	0.7nm,0.5s,baz=297,slow=7.9,SNR=18						

*IDC **30** 14:17:59.7±0.9,11.32N×91.90E,mb3.9/10,mb1 4.0/11, mb1mx4.0/18,mbtmp3.8/11,ML3.3/1,MS3.2/1,Ms1 3.4/1, ms1mx2.6/29,Error ellipse: s-maj=37.6km s-min=16.7km az=51.0*

ISC 30 14:18:02.5±0.7,**11.35N**±0.09×**91.8E**±0.1,**h33^{km},n23, σ0^{s}96**/24,**mb3.9**/10,**Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.85	43	Pn	P	14 20 23.9	-1.0
	0.1nm,0.3s,baz=235,slow=15,SNR=8.7						
CMAR				LR	LR	14 23 54.3	
	comp=Z,145nm,19.4s,baz=235,slow=36						
VIS	Vishakhapatnam	10.39	309	*e*P	P	14 20 30.4	-1.9
VIS				*i* S	S	14 22 15.7	-13
VIS				AML	AML	14 22 21.4	
	comp=N,55nm,0.5s						
VIS				AML	AML	14 22 22.4	
	comp=E,46nm,0.6s						
BWNR	Bhubaneshwar	10.62	328	*e*	P	14 20 25.4	-10
BWNR				*e*		14 22 16.3	
SHL	Shillong	14.14	0	*e*	P	14 21 25.0	+2.3
PKI	Pulchoki	17.23	340	*e*P	P	14 22 02.1	-0.2
	comp=E,72nm,1.0s						
DMN	Daman	17.37	340	*e*P	P	14 22 03.2	-0.8
GUN	Gumba	17.40	342	*e*P	P	14 22 04.2	-0.2
	comp=E,33nm,0.7s						
KKN	Kakani	17.48	340	*e*P	P	14 22 04.9	-0.4
GKN	Gorkha	17.89	339	*e*P	P	14 22 10.7	+0.2
	comp=E,42nm,0.8s						
KOLN	Koldanda	18.08	336	*e*P	P	14 22 12.2	-0.6
	comp=E,31nm,0.6s						
BHPL	Bhopal	18.13	313	*e*P	P	14 22 13.1	-0.4
BHPL				*e*		14 25 19.9	
POO	Poona	18.78	294	*i* P	P	14 22 25.8	+4.2
POO				*e*		14 25 34.1	
NDI	New Delhi	22.01	324	*e*	P	14 22 56.0	+0.4
SONM	Songino Array	38.37	16	P	P	14 25 23.1	+0.9
	comp=E,0.4nm,0.5s,mb3.4,baz=198,slow=7.8,SNR=5.0						
BVAR	Borovoye Array	45.00	342	P	P	14 26 16.0	-0.5
	comp=E,1.1nm,0.9s,mb3.7,baz=140,slow=12,SNR=4.4						
WRA	Warramunga Arr	52.12	126	P	P	14 27 11.2	-0.9
	comp=E,3.7nm,0.7s,mb4.4,baz=306,slow=8.6,SNR=29						
ASAR	Alice Springs	53.88	130	P	P	14 27 24.2	-0.8
	comp=E,1.6nm,0.7s,mb4.1,baz=308,slow=6.6,SNR=23						
BRTR	Keskin Array B	58.47	310	P	P	14 27 59.4	+1.6
	comp=E,0.6nm,0.4s,mb4.0,baz=162,slow=7.8,SNR=3.9						
AKASG	Malin Array Be	64.04	321	P	P	14 28 34.9	-0.3
	comp=E,0.1nm,0.3s,mb3.4,baz=95,slow=11,SNR=2.8						
STKA	Stephens Creek	64.13	134	P	P	14 28 36.6	+0.5
	comp=E,3.0nm,0.9s,mb4.3,baz=311,slow=4.3,SNR=7.1						
FINES	FINESS Array B	68.60	332	P	P	14 29 04.8	+0.8
	comp=E,1.6nm,0.8s,mb4.0,baz=135,slow=5.4,SNR=4.8						
GERES	GERESS Array B	73.75	318	P	P	14 29 36.9	+1.8
	comp=E,0.7nm,0.8s,mb3.6,slow=5.3,SNR=3.4						
ILAR	Eielson Array	92.38	22	P	P	14 31 10.8	+0.2
	comp=E,0.3nm,0.9s,mb3.6,baz=285,slow=4.5,SNR=5.1						

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*PRU **30** 14:19:11.2,50.31N×18.99E*

WAR 30 14:19:11.1,50.23N×19.04E,h1^{km},Location given by Central Institute of Mining, origin time based upon OJC,Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.49	91	*e*Pg	Pg	14 19 20.9	+0.1
OJC				*e*Sg	Sg	14 19 28.3	+1.0
OKC	Ostrava-Krasne	0.70	236	*e*PG	Pg	14 19 24.7	-0.3
OKC				*e*SG	Sg	14 19 35.1	+0.8
NIE	Niedzica	1.16	134	*e*Pg	Pg	14 19 33.8	-0.4
NIE				*e*Sg	Sg	14 19 50.5	+0.8
DPC	Dobruska-Polom	1.75	275	*e*PG	Pg	14 19 42.7	-3.2
DPC				*e*SG	Sg	14 20 06.4	-2.8

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*NEIC **30** 14:23:21.9,45.02S×167.38E,h106^{km},After WEL.*

*WEL **30** 14:23:22.0±0.3,45.06S×167.43E,h109^{km}±2^{km},ML4.8/12, Error ellipse: s-maj=3.0km s-min=1.5km az=90.0*

*IDC **30** 14:23:22.0±6.3,44.88S×167.71E,h129^{km}±46^{km},mb3.2/2, mb1 3.5/3,mb1mx3.3/9,mbtmp3.7/3,Error ellipse: s-maj=108.8km s-min=28.0km az=7.0*

ISC 30 14:23:19.9±0.6,**45.03S**±0.05×**167.58E**±0.07,**h123^{km}**±5^{km}**, n38,σ1^{s}09**/49,**mb3.6**/2,**4C-6D,South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
MSZ	Milford Sound	0.43	35	⇑PN	P	14 23 39.0	+1.1
MSZ				SN	S	14 23 51.5	-0.1
MLZ	Mavora Lakes	0.53	128	P	P	14 23 39.3	+0.8
MLZ				S	S	14 23 52.0	-0.6
MLZ	Mavora Lakes	0.53	128	⇑PN	P	14 23 39.3	+0.8
MLZ				SN	S	14 23 51.7	-0.9
DCZ	Deep Cove	0.54	214	⇑PN	P	14 23 37.9	-0.6
DCZ				SN	S	14 23 50.2	-2.6
WHZ	Wether Hill Ro	0.90	164	P	P	14 23 42.1	+0.6
WHZ				S	S	14 23 56.9	-0.9
WHZ	Wether Hill Ro	0.90	164	⇓PN	P	14 23 42.1	+0.6
WHZ				SN	S	14 23 56.8	-0.9
WKZ	Wanaka	1.04	79	P	P	14 23 44.9	+2.0
WKZ	Wanaka	1.04	79	PN	P	14 23 44.9	+2.0
WKZ				SN	S	14 24 01.4	+1.3
EAZ	Earnscleugh	1.24	100	P	P	14 23 46.8	+1.8
EAZ	Earnscleugh	1.24	100	⇓PN	P	14 23 46.8	+1.8
EAZ				SN	S	14 24 04.0	+0.1
JCZ	Jackson Bay	1.27	42	P	P	14 23 46.7	+1.4
JCZ	Jackson Bay	1.27	42	⇓PN	P	14 23 46.7	+1.3
JCZ				SN	S	14 24 04.5	0.0
TUZ	Tuapeka	1.71	123	P	P	14 23 52.0	+1.6
TUZ	Tuapeka	1.71	123	⇓PN	P	14 23 52.0	+1.6
TUZ				SN	S	14 24 13.0	-0.6
LBZ	Lake Benmore	1.96	72	P	P	14 23 54.3	+0.9
LBZ	Lake Benmore	1.96	72	⇓PN	P	14 23 54.3	+0.9
LBZ				SN	S	14 24 18.0	-0.8
FOZ	Fox Glacier	2.10	47	PN	P	14 23 56.6	+1.4
ODZ	Otahua Downs	2.17	92	*e*P	P	14 23 57.4	+1.3
ODZ	Otahua Downs	2.17	92	⇑PN	P	14 23 57.4	+1.2
ODZ				SN	S	14 24 22.9	-0.7
RPZ	Rata Peaks	2.81	63	P	P	14 24 04.5	-0.1
	1.9nm,0.3s,baz=226,slow=5.8,SNR=8.1						
RPZ				S	S	14 24 37.4	-1.2
	111nm,0.3s,baz=346,slow=22,SNR=36						
RPZ	Rata Peaks	2.81	63	P	P	14 24 04.6	-0.1
RPZ	Rata Peaks	2.81	63	⇓PN	P	14 24 04.6	-0.1
WVZ	Waitaha Valley	3.00	50	*e*P	P	14 24 06.7	-0.4
WVZ	Waitaha Valley	3.00	50	PN	P	14 24 06.6	-0.5
MQZ	McQueen's Vall	3.87	72	*e*P	P	14 24 18.9	+0.2
CRLZ	Canterbury Las	3.90	70	*e*P	P	14 24 19.2	+0.1
LTZ	Lake Taylor	4.06	58	*e*P	P	14 24 20.3	-1.1
DSZ	Denniston Nort	4.50	45	*e*P	P	14 24 26.4	-0.8
KHZ	Kahutara	5.04	61	*e*P	P	14 24 33.6	-1.0
THZ	Tophouse	5.07	52	*e*P	P	14 24 33.6	-1.3
QRZ	Quartz Range	5.55	43	*e*P	P	14 24 41.1	-0.2
NNZ	Nelson	5.70	50	*e*P	P	14 24 42.1	-1.3
MRZ	Mangatainoka R	7.32	56	*e*P	P	14 25 02.7	-2.7
WCZ	Waipu Caves	10.43	32	*e*P	P	14 25 48.9	+1.9
ASAR	Alice Springs	34.66	297	P	P	14 29 59.0	-0.3
	0.4nm,0.5s,mb3.5,baz=129,slow=6.5,SNR=5.7						
ASAR				PcP	PcP	14 32 30.2	-0.8
	0.4nm,0.6s,baz=138,slow=4.2,SNR=4.6						
WRA	Warramunga Arr	37.15	301	P	P	14 30 20.2	-0.1
	0.6nm,0.7s,mb3.7,baz=138,slow=7.8,SNR=7.8						
WRA				PcP	PcP	14 32 37.5	-0.9
	0.4nm,0.5s,baz=142,slow=3.2,SNR=8.2						
AKASG	Malin Array Be	151.78	297	PKPbc	PKPdf	14 42 60.0	+7.6
	0.8nm,0.6s,baz=81,slow=2.3,SNR=7.5						
FINES	FINESS Array B	152.25	320	PKPbc	PKPdf	14 43 01.2	+8.5
	3.8nm,1.0s,baz=90,slow=1.4,SNR=6.8						
FINES				PKPab	PKPab	14 43 11.3	-1.0
	3.8nm,1.0s,baz=117,slow=6.2,SNR=2.6						

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*IDC **30** 14:24:53.4±4.5,8.13N×92.43E,mb3.4/3,mb1 3.7/4, mb1mx3.5/17,mbtmp3.5/4,ML3.7/1,Error ellipse: s-maj=129.8km s-min=28.6km az=78.0*

ISC 30 14:24:57.1±1.2,**8.2N**±0.1×**92.6E**±0.2,**h33^{km},n10, σ0^{s}41**/10,**mb3.9**/5,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.87	30	Pn	P	14 27 46.8	-0.3
	0.1nm,0.3s,baz=231,slow=14,SNR=11						
PKI	Pulchoki	20.41	341	*e*P	P	14 29 34.4	+0.3
	16nm,0.5s						
DMN	Daman	20.55	341	*e*P	P	14 29 35.6	+0.1
	30nm,0.7s						
GUN	Gumba	20.59	343	*e*P	P	14 29 35.8	-0.1
	21nm,0.6s						
KKN	Kakani	20.66	341	*e*P	P	14 29 37.0	+0.4
GKN	Gorkha	21.07	340	*e*P	P	14 29 40.4	-0.4
	16nm,0.4s,mb4.7						
KOLN	Koldanda	21.23	337	*e*P	P	14 29 41.8	-0.6
	15nm,0.5s,mb4.6						
SONM	Songino Array	41.16	14	P	P	14 32 40.8	+0.8
	0.1nm,0.4s,mb2.8,baz=198,slow=9.1,SNR=2.6						
WRA	Warramunga Arr	49.69	125	P	P	14 33 48.0	-0.3
	0.4nm,0.5s,mb3.7,baz=304,slow=8.6,SNR=4.9						
ASAR	Alice Springs	51.30	129	P	P	14 34 00.6	+0.2
	0.5nm,0.7s,mb3.6,baz=302,slow=8.1,SNR=7.5						

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*IDC **30** 14:28:07.4±2.0,7.63N×93.87E,mb3.8/3,mb1 4.0/4, mb1mx3.7/17,mbtmp3.8/4,ML3.9/1,Error ellipse: s-maj=62.1km s-min=30.2km az=64.0*

ISC 30 14:28:12.4±1.4,**7.8N**±0.2×**94.3E**±0.2,**h33^{km},n5,σ1^{s}79**/5, **mb3.8**/3,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.56	22	Pn	P	14 30 59.0	+0.8
	0.2nm,0.3s,baz=211,slow=15,SNR=4.8						
POO	Poona	22.60	300	*e*	P	14 33 13.0	+1.4
SONM	Songino Array	41.25	12	P	P	14 35 55.5	-0.5
	0.3nm,0.4s,mb3.3,baz=191,slow=7.3,SNR=3.6						
WRA	Warramunga Arr	48.05	126	P	P	14 36 51.3	+0.4
	0.5nm,0.7s,mb3.6,baz=304,slow=8.6,SNR=3.9						
FINES	FINESS Array B	72.90	332	P	P	14 39 37.5	-2.4
	4.0nm,0.9s,mb4.3,baz=90,slow=5.6,SNR=4.1						

IDC 30 14:33:23.4±1.2,**11.13N**×**92.57E,mb3.9**/7,**mb1 4.1**/8, **mb1mx3.9**/18,**mbtmp3.9**/8,**ML4.0**/1,**Error ellipse: s-maj=39.3km s-min=20.7km az=62.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	9.54	39	Pn	P	14 35 41.9	-3.3
	0.4nm,0.3s,baz=234,slow=15,SNR=9.6						
CMAR				Sn	Sn	14 37 31.0	-3.4
	0.1nm,0.3s,baz=229,slow=25,SNR=4.7						
SONM	Songino Array	38.39	15	P	P	14 40 46.5	-1.6
	1.4nm,0.6s,baz=209,slow=7.3,SNR=8.8						
BVAR	Borovoye Array	45.43	341	P	P	14 41 42.5	-3.1
	1.2nm,0.9s,baz=162,slow=9.1,SNR=4.4						
WRA	Warramunga Arr	51.42	127	P	P	14 42 30.2	-2.4
	0.6nm,0.3s,baz=301,slow=9.9,SNR=16						
ASAR	Alice Springs	53.19	131	P	P	14 42 43.6	-2.3
	2.5nm,1.3s,baz=308,slow=6.8,SNR=7.1						
FINES	FINESS Array B	69.13	332	P	P	14 44 30.8	-2.5
	2.6nm,0.9s,baz=117,slow=4.3,SNR=3.7						
ARCES	ARCESS Array B	71.70	340	P	P	14 44 47.7	-1.1
	2.3nm,0.8s,baz=97,slow=7.3,SNR=3.4						
ILAR	Eielson Array	92.33	22	P	P	14 46 36.2	-0.3
	0.5nm,0.9s,baz=291,slow=5.1,SNR=6.7						

IDC 30 14:34:05.6±8.2,**6.43S**×**148.15E,h78^{km}**±52^{km},**mb3.8**/2, **mb1 3.8**/4,**mb1mx3.6**/12,**mbtmp4.0**/4,**ML3.5**/2,**Error ellipse: s-maj=75.7km s-min=57.4km az=89.0,New Britain region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PMG	Port Moresby	3.11	198	P	P	14 34 51.8	-1.9
	11nm,0.3s,baz=170,slow=14,SNR=38						
PMG				S	S	14 35 29.7	-0.1
	2.7nm,0.3s,baz=348,slow=20,SNR=2.6						
WRA	Warramunga Arr	18.98	224	P	P	14 38 19.4	-4.1
	0.4nm,0.3s,baz=53,slow=9.5,SNR=19						
ASAR	Alice Springs	21.93	217	P	P	14 38 52.4	-1.6
	3.7nm,0.5s,baz=52,slow=8.8,SNR=110						
STKA	Stephens Creek	26.05	193	P	P	14 39 32.8	-0.7
	2.4nm,0.7s,baz=25,slow=12,SNR=7.0						

IDC 30 14:40:04.0±8.8,**14.01N**×**92.26E,mb3.3**/2,**mb1 3.6**/3, **mb1mx3.3**/17,**mbtmp3.3**/3,**ML3.5**/1,**Error ellipse: s-maj=180.0km s-min=49.2km az=111.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.79	55	Pn	Pn	14 41 58.4	-2.9
	0.2nm,0.3s,baz=242,slow=15,SNR=8.1						
CMAR				Sn	Sn	14 43 18.6	-13
	0.3nm,0.3s,baz=241,slow=26,SNR=5.6						
WRA	Warramunga Arr	53.40	128	P	P	14 49 25.8	-2.3
	0.5nm,0.9s,baz=306,slow=9.6,SNR=2.7						
ASAR	Alice Springs	55.32	132	P	P	14 49 39.9	-2.2
	0.1nm,0.4s,baz=308,slow=6.6,SNR=6.6						

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*IDC **30** 14:44:37.1±2.1,9.14N×93.93E,mb3.5/4,mb1 3.7/5, mb1mx3.6/18,mbtmp3.5/5,ML4.0/1,MS3.5/1,Ms1 3.5/1, ms1mx2.6/19,Error ellipse: s-maj=68.2km s-min=24.1km az=67.0*

ISC 30 14:44:36.3±1.1,**9.3N**±0.1×**93.4E**±0.2,**h33^{km},n13, σ0^{s}55**/12,**mb3.4**/4,**MS3.5**/1,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.59	30	Pn	P	14 47 08.8	-0.1
	0.3nm,0.3s,baz=216,slow=14,SNR=14						
PKI	Pulchoki	19.70	338	*e*P	P	14 49 06.6	+0.8
	11nm,0.6s						
DMN	Daman	19.84	338	*e*P	P	14 49 08.0	+0.7
GUN	Gumba	19.84	340	*e*P	P	14 49 06.9	-0.4
	37nm,1.1s						
KKN	Kakani	19.95	338	*e*P	P	14 49 08.7	+0.3
GKN	Gorkha	20.38	337	*e*P	P	14 49 12.2	-0.8
	69nm,1.2s						
KOLN	Koldanda	20.59	335	*e*P	P	14 49 14.6	-0.6
	38nm,1.0s						
DDI	Dehra Dun	25.38	328	*e*	P	14 50 08.2	+5.9
SONM	Songino Array	39.97	14	P	P	14 52 14.1	+4.8
	0.4nm,0.9s,mb3.2,baz=211,slow=9.3,SNR=3.9						
BVAR	Borovoye Array	47.43	341	P	P	14 53 14.3	+4.8
	0.4nm,0.4s,mb3.7,baz=141,slow=9.5,SNR=4.3						
WRA	Warramunga Arr	49.66	126	P	P	14 53 27.7	+0.4
	0.3nm,0.7s,mb3.5,baz=306,slow=8.4,SNR=3.6						
ASAR	Alice Springs	51.37	130	P	P	14 53 39.9	-0.3
	0.4nm,1.0s,mb3.3,baz=316,slow=5.6,SNR=4.0						
ASAJ	Asahikawa	54.84	42	LR	LR	15 19 30.2	
	comp=Z,41nm,20.1s,MS3.5,baz=328,slow=38						

IDC 30 14:46:10.0±1.3,**2.43N**×**94.37E,mb3.9**/6,**mb1 4.1**/7, **mb1mx4.0**/18,**mbtmp3.9**/7,**ML4.3**/1,**MS3.8**/1,**Ms1 3.8**/1, **ms1mx2.8**/26,**Error ellipse: s-maj=52.6km s-min=22.2km az=52.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.55	15	Pn	P	14 50 05.3	0.0
	0.4nm,0.3s,baz=214,slow=12,SNR=9.0						
WRA	Warramunga Arr	45.08	121	P	P	14 54 28.1	-2.0
	1.0nm,0.8s,baz=301,slow=8.8,SNR=7.0						
ASAR	Alice Springs	46.39	126	P	P	14 54 38.8	-1.6
	0.6nm,0.8s,baz=300,slow=8.2,SNR=4.2						
SONM	Songino Array	46.41	11	P	P	14 54 38.0	-2.2
	2.1nm,0.5s,baz=193,slow=9.2,SNR=16						
SONM				LR	LR	15 15 19.6	
	comp=Z,91nm,18.7s,baz=193,slow=38						
BVAR	Borovoye Array	54.20	342	P	P	14 55 37.4	-2.2
	2.8nm,0.5s,baz=149,slow=8.4,SNR=18						
AKASG	Malin Array Be	72.57	323	P	P	14 57 38.0	-3.0
	0.9nm,0.6s,baz=89,slow=4.9,SNR=4.5						
GERES	GERESS Array B	82.03	319	P	P	14 58 33.5	-0.1
	0.3nm,0.4s,baz=90,slow=4.9,SNR=3.7						

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*JMA **30** 14:46:47.1±0.3,25.55N×122.48E,h218^{km},M2.9*

TAP 30 14:46:43.2,25.41N×122.89E,h266^{km},ML3.8,Taiwan region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
IRIF	Iriomote-Funau	1.31	144	P	P	14 47 23.7	+1.7
IRIF				*e*S	S	14 47 52.9	+0.6
JIJ	Ishigaki jima	1.54	132	P	P	14 47 25.9	+2.3
JIJ				S	S	14 47 55.5	+0.4
JKRS	Kuro-shima	1.55	139	P	P	14 47 26.3	+2.6
JKRS				S	S	14 47 56.6	+1.5
HATJ	Hateruma jima	1.58	148	P	P	14 47 26.5	+2.6
HATJ				*e*S	S	14 47 56.9	+1.3
JTJ	Tarama	1.81	115	P	P	14 47 29.4	+3.7
JTJ				*e*S	S	14 48 01.8	+3.1
JMJ	Miyako jima 2	2.26	105	P	P	14 47 34.1	+4.5
JMJ				*e*S	S	14 48 10.3	+4.6
JOGS	Gusukube	2.37	105	*e*S	S	14 48 12.6	+5.0

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*IDC **30** 14:46:40.2±0.9,7.47N×93.69E,mb4.3/10,mb1 4.4/11, mb1mx4.2/20,mbtmp4.3/11,ML3.9/1,MS3.3/1,Ms1 3.5/1, ms1mx2.7/26,Error ellipse: s-maj=36.9km s-min=18.6km az=47.0*

ISC 30 14:46:43.5±0.8,**7.5N**±0.1×**93.8E**±0.1,**h33^{km},n19, σ0^{s}70**/19,**mb4.5**/17,**Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.96	24	Pn	P	14 49 35.3	+0.6
	0.2nm,0.3s,baz=212,slow=14,SNR=18						
CMAR				LR	LR	14 54 02.3	
	comp=Z,129nm,18.2s,baz=215,slow=37						
SHL	Shillong	18.02	354	*e*P	P	14 50 52.0	-1.2
PKI	Pulchoki	21.45	339	*e*P	P	14 51 31.2	+0.1
	24nm,0.8s,mb4.6						
DMN	Daman	21.59	339	*e*P	P	14 51 32.8	+0.3
	28nm,0.8s,mb4.8						
GUN	Gumba	21.60	341	*e*P	P	14 51 32.1	-0.5
	29nm,0.7s,mb4.8						
KKN	Kakani	21.69	339	*e*P	P	14 51 33.4	-0.1
	22nm,0.7s,mb4.7						
GKN	Gorkha	22.12	338	*e*P	P	14 51 37.8	0.0
	45nm,0.8s,mb5.0						
KOLN	Koldanda	22.32	336	*e*P	P	14 51 41.0	+1.3
	93nm,1.4s,mb5.0						
SONM	Songino Array	41.57	13	P	P	14 54 29.5	-0.3
	2.5nm,0.8s,mb3.9,baz=196,slow=7.7,SNR=18						
WRA	Warramunga Arr	48.36	125	P	P	14 55 23.6	-0.8
	2.6nm,0.8s,mb4.3,baz=304,slow=8.8,SNR=13						
BVAR	Borovoye Array	49.19	342	P	P	14 55 30.6	+0.2
	2.8nm,0.5s,mb4.5,baz=143,slow=7.4,SNR=7.5						
ASAR	Alice Springs	49.97	129	P	P	14 55 37.4	+0.5
	1.2nm,0.7s,mb4.0,baz=306,slow=7.8,SNR=11						
BRTR	Keskin Array B	62.38	311	P	P	14 57 03.9	-1.6
	1.5nm,0.6s,mb4.3,baz=129,slow=7.9,SNR=7.2						
IDI	Anoyia	68.47	305	P	P	14 57 44.9	+0.2
	8.5nm,0.9s,mb4.8,baz=102,slow=7.3,SNR=6.8						
FINES	FINESS Array B	72.84	332	P	P	14 58 10.5	-0.1
	3.4nm,0.8s,mb4.3,baz=135,slow=8.1,SNR=6.5						
KAF	Kangasniemi	72.93	333	*e*p	P	14 58 10.5	-0.6
	0.6nm,0.3s,mb4.0						
ARCES	ARCESS Array B	75.46	340	P	P	14 58 25.9	+0.2
	16nm,1.2s,mb4.8,baz=80,slow=7.4,SNR=6.9						
GERES	GERESS Array B	77.84	318	P	P	14 58 40.2	+0.8
	1.4nm,0.7s,mb4.0,baz=72,slow=4.2,SNR=8.5						
HFS	Hagfors	78.57	330	P	P	14 58 44.2	+1.0
	24nm,1.3s,mb5.0,baz=124,slow=5.3,SNR=6.7						

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*IDC **30** 14:57:21.1±0.7,8.11N×93.77E,mb4.3/16,mb1 4.4/17, mb1mx4.4/21,mbtmp4.3/17,ML4.2/1,MS3.7/1,Ms1 3.7/1, ms1mx2.7/20,Error ellipse: s-maj=34.7km s-min=14.6km az=50.0*

*MOS **30** 14:57:23.9±1.2,8.09N×93.59E,h33^{km},mb4.9/21,Error ellipse: s-maj=20.6km s-min=10.0km az=97.1*

*BJI **30** 14:57:24.0,7.83N×93.50E,h50^{km},mB5.1,mb4.6,Ms4.7, Msz4.2*

*NEIC **30** 14:57:25.8±0.6,8.12N×93.69E,h30^{km},mb4.6/20,Error ellipse: s-maj=18.8km s-min=12.0km az=80.0*

*SYO **30** 14:57:25.7,8.12N×93.70E,h30^{km},MB4.7*

ISC 30 14:57:25.1±2.0,**8.17N**±0.06×**93.83E**±0.07,**h37^{km}**±16^{km}**, n84,σ1^{s}04**/82,**mb4.5**/48,**MS4.2**/3,**5C-1D,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.37	25	*e*P	P	15 00 09.2	+1.2
	13nm,0.7s						
CM31				*e*		15 00 17.3	
CMAR	Chiang Mai Arr	11.37	25	Pn	P	15 00 07.4	-0.7
	0.5nm,0.3s,baz=213,slow=15,SNR=87						
SHL	Shillong	17.40	354	*e*P	P	15 01 25.0	-1.7
KMI	Kunming	18.88	26	P	P	15 01 50.5	+5.5
KMI				AP		15 01 57.8	
KMI				AMB	AMB		
	comp=Z,8.0nm,1.4s						
KMI				LR	LR		
	comp=Z,255nm,12.9s						
PKI	Pulchoki	20.88	339	*e*P	P	15 02 06.5	0.0
	comp=Z,59nm,0.9s						
DMN	Daman	21.02	338	*e*P	P	15 02 08.0	0.0
	comp=Z,34nm,0.7s,mb4.8						
GUN	Gumba	21.02	340	*e*P	P	15 02 08.1	+0.1
	comp=Z,88nm,0.7s,mb5.2						
KKN	Kakani	21.12	339	*e*P	P	15 02 08.7	-0.3
	comp=Z,60nm,0.8s,mb5.0						
GKN	Gorkha	21.55	337	*e*P	P	15 02 13.5	+0.2
	comp=Z,80nm,0.6s,mb5.3						
LSA	Lhasa	21.56	354	*e*P	P	15 02 13.4	0.0
LSA				pmax	pmax		
	comp=Z,40nm,0.7s,mb5.0						
LSA	Lhasa	21.56	354	*e*P	P	15 02 13.4	0.0
	comp=Z,40nm,0.7s,mb5.0						
KOLN	Koldanda	21.76	335	*e*P	P	15 02 16.0	+0.6
	comp=Z,40nm,0.7s,mb5.0						
GYA	Guiyang	21.89	32	⇑*i*P	P	15 02 19.5	+2.8
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.4						
PTH	Pithoragarh	24.81	331	*e*	P	15 02 46.4	+1.1
NDI	New Delhi	25.72	325	*e*	P	15 02 54.0	+0.1
ENH	Enshi	26.43	32	P	P	15 02 60.0	-0.5
	comp=Z,16nm,1.2s,mb4.4						
DDI	Dehra Dun	26.53	328	*e*	P	15 03 02.4	+1.0
GTA	Gaotai	31.56	9	P	P	15 03 46.3	-0.1
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb4.2						
NJ2	Nanjing	33.24	41	*e*P	P	15 04 01.0	-0.1
NJ2				PP	PP	15 05 13.3	+0.3
NJ2				S	S	15 09 17.0	-0.5
NJ2				LR	LR		
	comp=N,1µm,23.1s,MS4.6						
NJ2				LR	LR		
	comp=E,820nm,23.5s,MS4.6						
NJ2				LR	LR		
	comp=Z,1µm,20.6s,MS4.6						
WMQ	Urumqi	35.91	352	P	P	15 04 24.5	+0.7
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
AAK	Ala-Archa	38.31	337	⇑*e*P	P	15 04 44.2	+0.3
AAK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
SONM	Songino Array	40.94	13	P	P	15 05 06.0	+0.3
	comp=Z,3.6nm,1.0s,mb4.0,baz=195,slow=7.5,SNR=24						
SONM				PcP	PcP	15 07 06.9	+0.7
	comp=Z,1.6nm,0.8s,baz=194,slow=3.6,SNR=8.5						
ULN	Ulaanbaatar	41.12	14	*e*P	P	15 05 07.4	+0.3
ULN				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.1						
ULN	Ulaanbaatar	41.12	14	*e*P	P	15 05 07.4	+0.3
	comp=Z,4.7nm,1.0s,mb4.1						
KS15	Wonju Array Si	42.41	41	*e*P	P	15 05 19.7	+1.8
ZAK	Zakamensk	42.80	9	*e*P	P	15 05 21.2	+0.2
ZAK				*e*		15 07 12.3	
TLY	Talaya	44.12	9	*e*P	P	15 05 31.7	+0.1
TLY				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.4						
TLY	Talaya	44.12	9	*e*P	P	15 05 31.7	+0.1
	comp=Z,11nm,1.3s,mb4.4						
HIA	Hailar	46.37	23	P	P	15 05 49.2	-0.3
HIA				pmax	pmax		
	comp=Z,13nm,1.4s						
HIA	Hailar	46.37	23	P	P	15 05 49.2	-0.4
	comp=Z,13nm,1.4s,mb4.7						
NWAO	Narrogin (SRO)	46.55	153	*e*P	P	15 05 52.4	+1.2
NWAO				pmax	pmax		
	comp=Z,12nm,1.0s						

NWAO	Narrogin (SRO)	46.55	153	eP	P	15 05 52.4	+1.2
	comp=Z,12nm,1.0s,mb4.8						
NVS	Novosibirsk	47.30	352	i P	P	15 05 55.5	-1.3
NVS				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
NVS				pmax	pmax		
	comp=E,4.0nm,0.6s						
NVS				pmax	pmax		
	comp=N,9.0nm,0.9s						
BVAR	Borovoye Array	48.61	341	P	P	15 06 06.0	-1.0
	comp=N,1.5nm,0.4s,mb4.4,baz=145,slow=8.9,SNR=20						
BVAR				PcP	PcP	15 07 33.1	+0.5
	comp=N,1.1nm,0.6s,baz=153,slow=3.3,SNR=5.5						
BRVK	Borovoye	48.67	341	P	P	15 06 02.2	-5.3
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
BRVK	Borovoye	48.67	341	P	P	15 06 02.2	-5.2
	comp=Z,2.7nm,0.6s,mb4.5						
WRA	Warramunga Arr	48.68	126	P	P	15 06 06.4	-1.6
	comp=Z,3.1nm,0.9s,mb4.3,baz=303,slow=8.8,SNR=24						
WRA				PcP	PcP	15 07 33.6	+0.3
	comp=Z,1.0nm,0.8s,baz=310,slow=2.9,SNR=6.3						
WRAB	Tennant Creek	48.69	126	eP	P	15 06 05.7	-2.4
WRAB				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
WRAB	Tennant Creek	48.69	126	eP	P	15 06 05.7	-2.3
	comp=Z,6.3nm,0.8s,mb4.7						
CHKZ	Chkalovo	49.09	342	eP	P	15 06 10.2	-0.5
CHKZ				pmax	pmax		
	comp=Z,7.0nm,0.4s,mb5.0						
CHKZ	Chkalovo	49.09	342	eP	P	15 06 10.2	-0.6
	comp=Z,7.5nm,0.4s,mb5.1						
MAJO	Matsushiro	49.19	48	eP	P	15 06 14.7	+3.0
MAJO				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
MAJO	Matsushiro	49.19	48	eP	P	15 06 14.7	+2.9
	comp=Z,6.9nm,0.9s,mb4.7						
ASAR	Alice Springs	50.34	130	P	P	15 06 19.6	-1.1
	comp=Z,1.7nm,0.8s,mb4.1,baz=300,slow=6.5,SNR=12						
ASAR				PcP	PcP	15 07 39.7	+0.5
	comp=Z,3.0nm,1.1s,baz=305,slow=3.5,SNR=11						
BOD	Bodaibo	51.93	14	eP	P	15 06 31.7	-0.5
ARU	Arti	55.50	337	eP	P	15 06 57.1	-1.5
ARU				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
ARU	Arti	55.50	337	eP	P	15 06 57.1	-1.4
	comp=Z,4.7nm,0.8s,mb4.6						
PMG	Port Moresby	55.91	107	eP	P	15 07 03.3	+1.2
PMG				pmax	pmax		
	comp=Z,7.0nm,0.7s						
PMG	Port Moresby	55.91	107	eP	P	15 07 03.3	+1.2
	comp=Z,7.4nm,0.7s,mb4.8						
KMBO	Kilima Mbogo	57.15	263	LR	LR	15 27 55.1	
	comp=Z,68nm,19.2s,MS3.8,baz=88,slow=32						
SOC	Sochi	58.75	316	eP	P	15 07 18.4	-3.4
SOC				e		15 08 08.8	
SOC				e		15 09 38.0	
SOC				ePPP	PPP	15 10 49.8	-8.0
SOC				eS	S	15 15 17.1	-5.3
SOC				eSS	SS	15 19 17.0	-0.5
SOC				eSSS	SSS	15 21 44.8	+2.9
SOC				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.9						
SOC				pmax	pmax		
	comp=N,8.0nm,1.2s						
SOC				pmax	pmax		
	comp=E,18nm,1.4s						
EIL	Elat	59.01	300	P	P	15 07 24.8	+1.0
	comp=E,5.5nm,1.0s,mb4.5						
YAK	Yakutsk	59.81	19	⇑eP	P	15 07 28.4	-0.5
YAK				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
YAK	Yakutsk	59.81	19	eP	P	15 07 28.1	-0.7
	comp=Z,20nm,0.7s,mb5.3						
STKA	Stephens Creek	60.53	134	P	P	15 07 33.6	-0.7
	comp=Z,0.9nm,0.7s,mb4.0,baz=140,slow=1.9,SNR=4.2						
STKA	Stephens Creek	60.53	134	eP	P	15 07 32.4	-1.8
BRTR	Keskin Array B	62.00	311	P	P	15 07 42.4	-1.6
	comp=Z,3.7nm,1.1s,mb4.4,baz=109,slow=7.4,SNR=6.5						
OBN	Obninsk	64.96	328	eP	P	15 08 02.6	-0.6
OBN				i	pP	15 08 16.6	+2.1
OBN				e		15 08 36.0	
OBN				e		15 10 25.7	
OBN				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.8						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.1						
MA2	Magadan	66.64	28	eP	P	15 08 14.0	+0.1
MA2				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
MA2	Magadan	66.64	28	eP	P	15 08 14.0	+0.2
	comp=Z,12nm,0.9s,mb4.9						
TIXI	Tiksi	67.00	11	⇓eP	P	15 08 15.1	-0.8
TIXI				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
AKASG	Malin Array Be	67.73	322	P	P	15 08 19.2	-1.6
	comp=Z,0.3nm,0.3s,mb3.8,baz=88,slow=5.5,SNR=5.0						
FINES	FINESS Array B	72.31	332	i P	P	15 08 48.4	-0.1
FINES				pmax	pmax		
	comp=Z,19nm,1.2s						
FINES	FINESS Array B	72.31	332	P	P	15 08 48.4	-0.1
	comp=Z,19nm,1.2s,mb4.9,baz=94,slow=6.5,SNR=17						
KAF	Kangasniemi	72.39	333	ep	P	15 08 47.3	-1.6
	comp=Z,1.3nm,0.4s,mb4.2						
KAF	Kangasniemi	72.39	333	eP	P	15 08 47.3	-1.6
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KEV	Kevo	74.45	341	ep	P	15 09 00.8	-0.1
	comp=Z,0.3nm,0.4s,mb3.6						
ARCES	ARCESS Array B	74.88	340	P	P	15 09 04.0	+0.6
	comp=Z,5.0nm,0.9s,mb4.4,baz=100,slow=7.1,SNR=11						
CASY	Casey	75.26	173	eP	P	15 09 06.9	+1.3
	comp=Z,0.8nm,0.5s,mb3.9						
GERES	GERESS Array B	77.40	318	P	P	15 09 18.4	+0.3
	comp=Z,1.6nm,0.7s,mb4.1,baz=90,slow=4.0,SNR=7.6						
HFS	Hagfors	78.05	330	P	P	15 09 21.8	+0.4
	comp=Z,3.6nm,0.4s,mb4.6,baz=100,slow=4.7,SNR=26						
NB2	NORSAR Subarra	79.32	331	P	P	15 09 28.2	-0.2
	comp=Z,2.2nm,0.5s,mb4.3,baz=97,slow=5.0						
NB2	NORSAR Subarra	79.32	331	P	P	15 09 28.2	-0.2
NB2				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
NOA	NORSAR Array B	79.32	331	P	P	15 09 28.4	0.0
	comp=Z,7.7nm,1.1s,mb4.5,baz=95,slow=5.1,SNR=5.5						
DAVOX	Davos	79.96	316	P	P	15 09 33.2	+1.1
	comp=Z,4.7nm,0.9s,mb4.4,baz=131,slow=5.6,SNR=5.4						
SYO	Syowa Base	85.60	197	⇑P	P	15 10 02.2	+1.7
SYO	Syowa Base	85.60	197	⇑pP	pP	15 10 09.6	-2.5
EKA	Eskdalemuir Ar	87.30	325	P	P	15 10 10.7	+1.6
	comp=Z,2.7nm,0.6s,mb4.7,baz=97,slow=6.7,SNR=8.2						
ESDC	Sonseca Array	90.79	310	P	P	15 10 27.3	+1.3
	comp=Z,1.1nm,0.5s,mb4.4,baz=55,slow=4.7,SNR=6.4						
ILAR	Eielson Array	94.58	22	P	P	15 10 42.5	-0.2
	comp=Z,0.8nm,0.6s,mb4.3,baz=294,slow=5.0,SNR=10.0						
SNAA	Sanae	99.81	199	P	P	15 11 05.6	-0.8
SNAA				pmax	pmax		
	comp=Z,5.0nm,1.2s						
SNAA	Sanae	99.81	199	P	P	15 11 05.6	-0.8
	comp=Z,5.0nm,1.2s,mb4.8						
PDAR	Pinedale Array	125.00	21	PKP	PKPdf	15 16 24.4	+2.6
	comp=Z,1.2nm,0.7s,baz=38,slow=0.3,SNR=7.8						
TXAR	Lajitas Array	139.08	24	PKP	PKPdf	15 16 51.3	+2.6
	comp=Z,0.3nm,0.4s,baz=337,slow=0.8,SNR=5.1						

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*IDC **30** 15:02:11.5±0.5, 9.46N×75.01W, mb4.5/27, mb1 4.7/30, mb1mx4.6/34, mbtmp4.6/30, ML5.6/3, MS4.1/7, Ms1 4.1/7, ms1mx3.9/21, Error ellipse: s-maj=16.0km s-min=11.6km az=52.0*

*NEIC **30** 15:02:18.2±1.1, 9.52N×74.97W, h43^{km}±11^{km}, mb4.8/52, Error ellipse: s-maj=9.6km s-min=6.1km az=46.0*

*BJI **30** 15:02:18.2, 9.50N×75.00W, h42^{km}, mB4.5, Ms5.0, Msz4.6*

*CASC **30** 15:02:19.2±1.6, 9.89N×75.17W, h43^{km}, MD5.2, MW4.4, mb4.8(NEIC)*

ISC 30 15:02:15.4±0.2, **9.57N**±0.03×**75.00W**±0.03, **h33^{km}, n131,** σ**1^{s}21**/133, **mb4.7**/69, **MS4.3**/7, **7C-2D, Northern Colombia**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JEF	Cerro Jefe	4.33	266	eP	P	15 03 20.6	-0.1
JEF				eS	S	15 04 09.8	-0.9
SDV	Santo Domingo	4.36	99	Pn	Pn	15 03 21.3	+0.1
	232nm,0.3s,baz=292,slow=5.7,SNR=706						
SDV				Sn	Sn	15 04 11.9	+0.4
	204nm,0.3s,baz=60,slow=20,SNR=8.7						
SDV	Santo Domingo	4.36	99	ePn	Pn	15 03 21.6	+0.4
UPA	Univ. de Panam	4.52	263	⇓eP	P	15 03 24.7	+1.4
UPA				eS	S	15 04 14.6	-0.8
ROSC	El Rosal	4.73	172	Pn	Pn	15 03 27.0	+0.5
	10nm,0.3s,baz=86,slow=23,SNR=14						
ROSC				Sn	Sn	15 04 16.6	-4.2
	39nm,0.3s,baz=90,slow=22,SNR=5.7						
ROSC				Lg		15 04 37.2	
	73nm,0.3s,baz=87,slow=23,SNR=8.7						
CNI	Changuinola	7.42	269	eP	P	15 04 04.2	+0.2
DVD	David	7.45	262	eP	P	15 04 03.0	-1.5
GWJ	Greenwich	8.62	349	⇑eP	P	15 04 19.5	-1.3
STH	Stony Hill	8.64	348	⇑eP	P	15 04 20.1	-1.0
STH				eS	S	15 05 50.4	-8.0
MCJ	Malvern	8.71	343	⇑eP	P	15 04 21.1	-0.9
MCJ				eS	S	15 05 53.0	-7.1
MCJ				eS	S	15 05 53.8	-6.3
BNJ	Bonny Gate	8.90	348	⇑eP	P	15 04 24.0	-0.7
CVJ	Coleyville	8.95	344	⇑eP	P	15 04 24.2	-1.2
CVJ				eS	S	15 05 60.0	-6.2
BBJ	Bamboo Saint A	9.03	346	⇑eP	P	15 04 24.7	-1.8
NEJ	Negril	9.22	340	⇑eP	P	15 04 26.4	-2.6
JTS	JuntasAbangare	9.83	275	ePn	P	15 04 37.0	-0.7
OTAV	Otavalo	9.89	201	ePn	P	15 04 39.4	+1.0
PCRV	Puerto La Cruz	10.23	86	Pn	P	15 04 41.8	-1.3
	10nm,0.3s,baz=282,slow=3.6,SNR=29						
PCRV				Sn	S	15 06 32.8	-4.9
	2.8nm,0.3s,baz=257,slow=23,SNR=4.2						
SJG	San Juan	12.07	44	Pn	P	15 05 05.4	-2.8
	4.5nm,0.3s,baz=341,slow=18,SNR=3.8						
SJG				Sn	S	15 07 12.3	-10
	8.4nm,0.3s,baz=72,slow=20,SNR=5.1						
SJG				LR	LR	15 10 04.6	
	comp=Z,312nm,19.8s,baz=231,slow=39						
TRN	Trinidad (W)	13.43	84	eP	P	15 05 25.0	-1.2
TEIG	Tepich	16.63	311	eP	P	15 06 07.7	+0.1
	9.9nm,0.6s						
DWPF	Disney	19.41	343	eP	P	15 06 45.0	+3.2
	79nm,0.8s						
NNA	Nana	21.49	185	eP	P	15 07 04.1	+0.6
	54nm,1.1s,mb4.8						
BBSR	BB Station	24.61	21	P	P	15 07 34.4	+0.3
	12nm,0.8s,mb4.5						
GOGA	Godfrey	24.98	343	eP	P	15 07 39.1	+1.5
	13nm,0.6s,mb4.6						
GOGA				e		15 07 44.1	
JSC	Jenkinsville	25.26	348	eP	P	15 07 40.8	+0.5
LRAL	Lakeview Retre	25.84	336	eP	P	15 07 46.9	+1.1
	20nm,0.9s,mb4.7						
LPAZ	La Paz	26.57	165	P	P	15 07 50.4	-2.3
	9.2nm,0.6s,mb4.5,baz=330,slow=13,SNR=19						
LPAZ				LR	LR	15 19 12.8	
	comp=Z,545nm,18.9s,MS4.1,baz=314,slow=39						
LPAZ	La Paz	26.57	165	eP	P	15 07 50.5	-2.2
	26nm,0.9s,mb4.8						
CPCT	Cooper Cave	27.19	343	eP	P	15 07 59.2	+1.0
CPCT				e		15 08 04.3	
WVT	Waverly	28.90	338	eP	P	15 08 13.5	-0.1
	11nm,1.0s,mb4.5						
MIAR	Mount Ida	30.12	328	eP	P	15 08 23.9	-0.6
	5.5nm,0.9s,mb4.3						
USIN	University of	30.49	340	eP	P	15 08 27.7	0.0
	30nm,0.8s,mb5.1						
USIN				e		15 08 31.2	
ACSO	Alum Creek Sta	31.35	348	eP	P	15 08 35.5	+0.2
	8.2nm,0.7s,mb4.7						
FVM	French Village	31.52	336	eP	P	15 08 37.0	+0.3
	20nm,0.8s,mb5.0						
FVM				e		15 08 40.3	
CCM	Cathedral Cave	31.91	335	eP	P	15 08 39.7	-0.6
	23nm,0.8s,mb5.1						
CCM				e		15 08 43.3	
LVC	Limon Verde	32.53	170	P	P	15 08 43.3	-2.5
	9.0nm,0.8s,mb4.8,baz=9.2,slow=9.5,SNR=5.5						
LVC				LR	LR	15 20 48.3	
	comp=Z,295nm,21.6s,MS4.0,baz=135,slow=34						
LVC	Limon Verde	32.53	170	eP	P	15 08 43.3	-2.6
	12nm,0.9s,mb4.8						
WMOK	Wichita Mounta	33.18	323	eP	P	15 08 50.1	-1.2
	7.5nm,0.9s,mb4.6						
LTX	Lajitas	33.27	310	eP	P	15 08 51.5	-0.6
	4.1nm,1.0s,mb4.3						
TXAR	Lajitas Array	33.27	310	P	P	15 08 52.1	0.0
	1.8nm,0.7s,mb4.1,baz=124,slow=9.2,SNR=22						
AMTX	Amarillo	35.06	320	eP	P	15 09 07.3	-0.2
	15nm,0.8s,mb5.0						
SADO	Sadowa	35.25	355	P	P	15 09 08.8	-0.2
	5.6nm,0.9s,mb4.5,baz=185,slow=2.7,SNR=3.8						
CPRX	Cap Rock	35.40	316	eP	P	15 09 10.7	+0.3
CPRX				e		15 09 16.3	
MNTX	Cornudas Mount	35.75	312	eP	P	15 09 13.5	+0.1
	12nm,1.0s,mb4.8						
MNTX				e		15 09 28.6	
BDFB	Brasilia	36.63	133	P	P	15 09 20.1	-0.8
	3.7nm,0.7s,mb4.3,baz=293,slow=11,SNR=4.3						
BAO	Brasilia Array	36.64	133	P	P	15 09 21.7	+0.7
LPM	Los Pinos Moun	38.02	315	eP	P	15 09 33.9	+1.4
LPM				e		15 09 38.8	
LENM	Lemitar	38.19	315	eP	P	15 09 35.1	+1.3
LENM				e		15 09 40.2	
ANMO	Albuquerque	38.26	316	P	P	15 09 33.8	-0.6
	6.2nm,1.1s,mb4.2,baz=148,slow=11,SNR=7.6						
ANMO	Albuquerque	38.26	316	eP	P	15 09 35.9	+1.5
	13nm,1.1s,mb4.6						
ANMO				e		15 09 40.3	
LAZ	Ladron	38.43	315	eP	P	15 09 37.7	+1.9
LAZ				e		15 09 41.9	
TUC	Tucson	40.06	310	eP	P	15 09 50.9	+1.5
	11nm,1.1s,mb4.5						
ISCO	Idaho Springs	40.61	323	eP	P	15 09 55.6	+1.8
	12nm,1.0s,mb4.5						
PV01	Paradox Valley	41.45	319	eP	P	15 09 58.6	-2.2
SRU	San Rafael	43.26	319	eP	P	15 10 16.8	+1.1
SRU				e		15 10 22.1	
ULM	Lac du Bonnet	44.09	341	P	P	15 10 22.7	+0.5
	4.0nm,0.6s,mb4.3,baz=139,slow=7.4,SNR=11						
ULM				LR	LR	15 29 57.9	
	comp=Z,423nm,19.6s,MS4.4,baz=208,slow=38						
ULM	Lac du Bonnet	44.09	341	eP	P	15 10 22.1	-0.1
	6.1nm,0.7s,mb4.4						
DAU	Daniels Canyon	44.45	320	eP	P	15 10 27.0	+1.8
DAU				e		15 10 32.2	
NEN	Nelson	44.56	312	eP	P	15 10 27.6	+1.4
PDAR	Pinedale Array	44.78	324	P	P	15 10 28.2	+0.4
	2.7nm,0.8s,mb4.1,baz=126,slow=9.1,SNR=23						
HWUT	Hardware Ranch	45.31	321	eP	P	15 10 32.2	+0.1
	9.4nm,1.0s,mb4.6						
HWUT				e		15 10 38.0	
SCHQ	Schefferville	45.61	7	P	P	15 10 33.6	-0.7
	5.4nm,0.7s,mb4.6,baz=173,slow=7.1,SNR=8.6						
SCHQ	Schefferville	45.61	7	eP	P	15 10 33.4	-0.9
	12nm,0.8s,mb4.9						
BGU	Big Grassy Mou	45.86	319	eP	P	15 10 37.3	+0.8
REDW	Red Top Meadow	45.89	323	eP	P	15 10 37.5	+0.8
SNOW	Snow King Moun	45.90	324	eP	P	15 10 38.1	+1.3
LOHW	Long Hollow	45.90	324	eP	P	15 10 37.6	+0.8
LOHW				e		15 10 43.2	
TPAW	Teton Pass	46.03	324	P	P	15 10 37.5	-0.3
TRCR	Troy Canyon	46.30	315	eP	P	15 10 40.8	+0.8
TPH	Tonopah	47.33	314	P	P	15 10 49.3	+1.2
	14nm,1.1s,mb4.8						
TPH				e		15 10 55.4	
NVAR	Mina Array Bea	48.25	314	P	P	15 10 56.5	+1.2
	2.5nm,0.7s,mb4.3,baz=133,slow=6.8,SNR=4.8						
TRQA	Tornquist	48.91	166	eP	P	15 10 58.1	-2.3
	8.4nm,1.1s,mb4.7						
WVOR	Wild Horse Val	50.25	318	eP	P	15 11 08.4	-2.2
	17nm,1.1s,mb5.0						
FCC	Fort Churchill	51.19	347	eP	P	15 11 15.4	-2.1
	8.5nm,1.2s,mb4.5						
NEW	Newport	52.29	325	eP	P	15 11 28.8	+2.9
	11nm,1.2s,mb4.7						
YBH	Yreka Blue Hor	52.68	316	P	P	15 11 27.4	-1.5
	4.5nm,0.9s,mb4.4,baz=114,slow=5.7,SNR=5.5						
EDM	Edmonton	53.34	332	eP	P	15 11 32.0	-1.7
FRB	Frobisher Bay	54.28	4	P	P	15 11 38.9	-1.6
	2.5nm,0.7s,mb4.3,baz=234,slow=5.3,SNR=8.6						
YKA	Yellowknife Ar	60.06	340	P	P	15 12 20.2	-1.2
	12nm,0.7s,mb5.0,baz=130,slow=7.2,SNR=138						
YKA				LR	LR	15 38 18.7	
	comp=Z,279nm,21.7s,MS4.4,baz=135,slow=36						
YKW3	Yellowknife Ar	60.11	340	eP	P	15 12 20.3	-1.5
YKW3				e		15 12 23.5	
DLBC	Dease Lake	64.04	331	P	P	15 12 47.9	-0.1
	6.7nm,0.9s,mb4.7,baz=155,slow=15,SNR=3.8						
USHA	Ushuaia	64.39	176	P	P	15 12 48.8	-1.5
	8.0nm,0.6s,mb4.9,baz=332,slow=5.1,SNR=5.4						
RES	Resolute Bay	66.07	354	eP	P	15 12 59.7	-1.1
	3.8nm,0.8s,mb4.5						
SUMG	Summit	66.66	11	eP	P	15 13 04.3	-0.3
	15nm,1.1s,mb4.9						
ESDC	Sonseca Array	69.36	51	P	P	15 13 21.9	-0.1
	2.8nm,0.8s,mb4.2,baz=270,slow=5.5,SNR=10						
ESLA	Sonseca Array	69.36	51	eP	P	15 13 20.2	-1.8
	6.1nm,1.3s,mb4.4						
DBIC	Dimbokro	69.40	86	P	P	15 13 21.3	-1.4
	15nm,0.7s,mb5.0,baz=265,slow=7.9,SNR=22						
DBIC	Dimbokro	69.40	86	eP	P	15 13 20.5	-2.2
	18nm,0.8s,mb5.1						
INK	Inuvik	69.83	340	P	P	15 13 24.1	-0.2
	7.4nm,0.8s,mb4.7,baz=96,slow=5.6,SNR=14						
INK	Inuvik	69.83	340	eP	P	15 13 23.7	-0.7
	12nm,0.9s,mb4.8						
SJPF	Ste Jean	71.68	48	eP	P	15 13 37.8	+1.8
EKA	Eskdalemuir Ar	71.87	35	P	P	15 13 37.0	+0.2
	4.0nm,0.9s,mb4.3,baz=269,slow=4.3,SNR=4.2						
ETSF	Etsaut	72.15	48	eP	P	15 13 42.2	+3.5
GRR	Gorron	72.37	42	eP	P	15 13 38.3	-1.7
	30nm,0.9s,mb4.9						
FLN	La Foliniere	72.66	42	eP	P	15 13 41.6	-0.1
	41nm,1.1s,mb5.0						
MFF	Saint Martin d	72.70	44	eP	P	15 13 41.7	-0.3
	23nm,0.8s,mb4.8						
EPF	Esparros	72.82	48	eP	P	15 13 43.0	+0.2
	34nm,1.0s,mb4.9						
LDF	La Druitiere	72.88	42	eP	P	15 13 42.7	-0.3
	36nm,1.1s,mb4.9						
ILAR	Eielson Array	73.70	335	P	P	15 13 47.2	-0.3
	2.5nm,0.7s,mb4.2,baz=113,slow=3.4,SNR=20						
ILAR				LR	LR	15 49 57.9	
	comp=Z,120nm,18.4s,MS4.2,baz=111,slow=39						
COLA	College	74.13	335	P	P	15 13 48.3	-1.6
	6.3nm,0.8s,mb4.6						
CAF	Calviac	74.15	46	eP	P	15 13 51.8	+1.3
	40nm,1.3s,mb4.9						
PMSA	Palmer Station	74.59	175	P	P	15 13 51.0	-1.6
	19nm,0.9s,mb5.0						
AVF	Avril sur Loir	75.12	44	eP	P	15 13 55.1	-1.0
SSF	Saint Saulge	75.23	44	eP	P	15 13 59.2	+2.5
	24nm,1.2s,mb4.7						
SMF	Signal de Mont	75.45	44	eP	P	15 13 59.4	+1.4
	31nm,1.2s,mb4.8						
GIVF	Givet	76.20	41	eP	P	15 14 02.0	-0.1
	30nm,1.0s,mb4.9						
MEZF	Maizieres J'vi	76.31	42	eP	P	15 14 05.9	+3.1
	41nm,1.2s,mb4.9						
IMA	Indian Mountai	76.72	336	eP	P	15 14 05.5	+0.7
	58nm,1.1s,mb5.4						
ORIF	Oris-en-Rattie	76.86	46	eP	P	15 14 10.0	+4.0
	47nm,1.1s,mb5.0						
CDF	Champ du Feu	77.79	42	eP	P	15 14 11.7	+0.6
PPT	Papeete	78.43	250	LR	LR	15 39 18.9	
	comp=Z,94nm,20.6s,MS4.1,baz=86,slow=28						
STU	Stuttgart	79.05	42	eP	P	15 14 19.5	+1.5
	16nm,0.9s,mb4.9						
DAVOX	Davos	79.60	44	P	P	15 14 21.4	+0.4
	1.6nm,0.4s,mb4.3,baz=342,slow=20,SNR=2.9						
NB2	NORSAR Subarra	79.86	30	P	P	15 14 21.8	-0.3
	7.6nm,1.1s,mb4.5,baz=288,slow=5.3						
NOA	NORSAR Array B	79.86	30	P	P	15 14 23.0	+0.9
	1.8nm,0.8s,mb4.0,baz=270,slow=3.7,SNR=3.7						
CLL	Collm	81.36	39	P	P	15 14 31.0	+0.7
KHC	Kasperske Hory	81.92	42	eP	P	15 14 35.0	+1.8
BRG	Berggiesshubel	81.99	40	eP	P	15 14 35.4	+1.9
	28nm,2.1s,mb4.8						
BRG				i		15 14 38.9	
GERES	GERESS Array B	82.02	42	P	P	15 14 34.4	+0.7
	1.2nm,0.7s,mb3.9,baz=288,slow=4.2,SNR=7.7						
VRAC	Vranov	83.86	41	P	P	15 14 43.1	-0.1
	1.1nm,0.5s,mb4.2,baz=347,slow=6.1,SNR=3.1						
ARCES	ARCESS Array B	84.76	20	P	P	15 14 47.4	+0.2
	6.6nm,1.0s,mb4.7,baz=281,slow=6.2,SNR=10						
FINES	FINESS Array B	86.92	28	P	P	15 14 59.7	+1.8
	3.5nm,0.8s,mb4.6,baz=152,slow=37,SNR=3.2						
MLR	Muntele Rosu	90.82	44	P	P	15 15 17.9	+1.0
	3.8nm,0.9s,mb4.7,baz=43,slow=19,SNR=4.2						
SNAA	Sanae	93.50	162	P	P	15 15 31.5	+2.9
	11nm,1.4s,mb5.1						
SONM	Songino Array	122.84	359	PKP	PKPdf	15 21 10.1	+1.6
	0.3nm,0.6s,baz=306,slow=1.9,SNR=3.1						
CN2	Changchun	123.73	342	ePKP	PKPdf	15 21 12.3	+2.0
WMQ	Urumqi	124.58	15	⇓PKP	PKPdf	15 21 12.8	+0.9
WMQ				XPKP		15 21 31.8	
WMQ				PP	PP	15 23 04.3	+1.1
WMQ				PP	PP		
	comp=Z,41nm,7.7s						
WMQ				LR	LR		
	comp=N,138nm,14.1s,MS4.8						
WMQ				LR	LR		
	comp=E,95nm,15.0s,MS4.8						
WMQ				LR	LR		
	comp=Z,81nm,14.1s,MS4.5						
LZH	Lanzhou	134.58	1	ePKP	PKPdf	15 21 33.0	+1.8
STKA	Stephens Creek	139.51	231	PKP	PKPdf	15 21 42.0	+1.7
	comp=Z,1.7nm,0.9s,baz=114,slow=12,SNR=2.8						
ASAR	Alice Springs	149.05	239	PKPbc	PKPdf	15 22 02.2	+5.4
	comp=Z,5.4nm,0.9s,baz=118,slow=3.4,SNR=25						
WRA	Warramunga Arr	149.87	247	PKPbc	PKPdf	15 22 04.3	+6.0
	comp=Z,3.7nm,0.8s,baz=102,slow=2.2,SNR=15						
WRA				PKPab	PKPab	15 22 08.9	-1.9
	comp=Z,2.1nm,0.7s,baz=106,slow=2.3,SNR=6.0						

IDC 30 15:05:35.0±1.8, **7.44N**×**94.10E, mb3.6**/4, **mb1 3.8**/5, **mb1mx3.6**/18, **mbtmp3.6**/5, **ML4.0**/1, **Error ellipse: s-maj=58.7km s-min=27.7km az=59.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.92	23	Pn	P	15 08 26.5	-2.8
	0.3nm,0.3s,baz=210,slow=14,SNR=8.7						
SONM	Songino Array	41.59	12	P	P	15 13 24.8	-1.4
	0.4nm,0.7s,baz=180,slow=7.2,SNR=3.4						
WRA	Warramunga Arr	48.04	125	P	P	15 14 16.7	-1.7
	0.3nm,0.7s,baz=307,slow=8.4,SNR=3.7						
BVAR	Borovoye Array	49.38	341	P	P	15 14 26.9	-1.4
	0.9nm,0.8s,baz=135,slow=10,SNR=3.5						
FINES	FINESS Array B	73.07	332	P	P	15 17 05.8	-2.9
	1.9nm,0.8s,baz=80,slow=8.5,SNR=4.1						

IDC 30 15:08:23.8±12.0, **6.19N**×**92.29E, mb3.7**/2, **mb1 4.0**/3, **mb1mx3.6**/17, **mbtmp3.7**/3, **ML3.8**/1, **Error ellipse: s-maj=287.8km s-min=49.6km az=90.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.82	27	Pn	P	15 11 41.8	-1.8
	0.1nm,0.3s,baz=221,slow=13,SNR=15						
WRA	Warramunga Arr	48.83	123	P	P	15 17 10.6	-2.7
	1.5nm,0.7s,baz=304,slow=8.6,SNR=13						
ASAR	Alice Springs	50.30	128	P	P	15 17 23.3	-1.2
	0.3nm,0.4s,baz=301,slow=7.9,SNR=5.8						

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*NEIC **30** 15:15:21.4, 34.53S×71.03W, h86^{km}, MD3.7(GUC), After GUC.*

GUC 30 15:15:21.4±0.7, **34.53S**×**71.03W, h86^{km}**±3^{km}**, MD3.7, ML4.2, 11C-8D, Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SFDO	San Fernando	0.09	169	⇑iP	P	15 15 33.6	0.0
NICH	Los Niches	0.50	199	⇑iP	P	15 15 36.0	+0.2
NICH				i S	S	15 15 46.8	+0.1
CACH	El Canelo	0.55	41	⇓iP	P	15 15 36.5	+0.3
CACH				i S	S	15 15 48.4	+1.1
CICH	Cipreses	0.55	68	⇑iP	P	15 15 36.6	+0.3
CICH				i S	S	15 15 48.0	+0.7
LNV	Longovilo	0.65	331	⇓iP	P	15 15 37.3	0.0
LNV				i S	S	15 15 49.4	+0.4
CHCH	Chadas Angostu	0.67	28	⇑iP	P	15 15 37.1	-0.4
CHCH				i S	S	15 15 49.5	+0.1
TACH	Talagante	0.88	5	⇑iP	P	15 15 39.6	0.0
TACH				i S	S	15 15 53.3	0.0
LMEL	Las Melosas	0.97	46	⇓iP	P	15 15 41.2	+0.6
LMEL				i S	S	15 15 56.4	+1.2
LMEL				AMP		15 15 57.3	
	comp=N,10μm,0.2s						

TALC	Talca	1.00	210	⇑ *i*P	P	15 15 41.1	+0.1
TALC				*i* S	S	15 15 55.5	-0.2
TALC				AMP		15 15 56.3	
	comp=E,16µm,0.4s						
PCH	Pirque	1.00	26	⇑ *i*P	P	15 15 41.1	+0.1
PCH				*i* S	S	15 15 56.4	+0.5
ANTU	Antumapu	1.01	19	*i* P	P	15 15 41.2	0.0
ANTU				*i* S	S	15 15 56.5	+0.4
ANTU				AMP		15 15 57.8	
	comp=N,5µm,0.5s						
SJCH	San Jose de Ma	1.05	33	⇓ *i*P	P	15 15 41.8	+0.1
SJCH				*i* S	S	15 15 57.5	+0.6
SJCH				AMP		15 15 59.2	
	comp=E,6µm,0.6s						
RCDM	Rinconada Maip	1.05	10	⇑ *i*P	P	15 15 41.5	-0.2
RCDM				*i* S	S	15 15 56.6	-0.3
RCDM				AMP		15 15 57.3	
	comp=E,16µm,0.4s						
PUEX	Pudahuel	1.11	12	⇓ *i*P	P	15 15 43.9	+1.5
PUEX				*i* S	S	15 15 59.6	+1.5
PUEX				AMP		15 16 00.8	
	comp=E,13µm,0.4s						
STL	Santa Lucia	1.14	17	AMP		15 16 00.1	
	comp=N,2µm,0.3s						
LCCH	Las Cruces	1.14	337	*i* P	P	15 15 43.0	+0.2
LCCH				*i* S	S	15 15 58.4	-0.4
DSCH	Colegio Aleman	1.19	19	⇑ *i*P	P	15 15 43.5	+0.1
DSCH				*i* S	S	15 16 00.2	+0.2
DSCH				AMP		15 16 01.2	
	comp=E,6µm,0.4s						
CLCH	Cerro Calan	1.20	20	*i* P	P	15 15 43.6	0.0
CLCH				*i* S	S	15 16 00.4	+0.2
CLCH				AMP		15 16 02.4	
	comp=E,5µm,0.4s						
CLCH				AMP		15 16 03.0	
	comp=E,6µm,0.3s						
FCH	Farellones	1.35	27	⇓ *i*P	P	15 15 45.8	+0.3
FCH				*i* S	S	15 16 04.5	+1.1
FCH				AMP		15 16 04.8	
	comp=E,5µm,0.2s						
PEL	Peldehue	1.41	12	⇑ *i*P	P	15 15 46.5	+0.2
PEL				*i* S	S	15 16 05.3	+0.5
PEL				AMP		15 16 07.6	
	comp=N,4µm,0.3s						
ROCH	El Roble	1.55	1	*i* P	P	15 15 48.0	-0.1
ROCH				⇓ *i*S	S	15 16 09.0	+1.2
JACH	Jahuel	1.88	11	⇓ *i*P	P	15 15 52.3	-0.1
JACH				*i* S	S	15 16 16.1	+0.9
PACH	Papudo	2.02	350	⇑ *i*P	P	15 15 54.1	-0.1
PACH				*i* S	S	15 16 19.5	+1.0
MDZ	Mendoza	2.45	49	*e*P	P	15 16 00.0	-0.3

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*IDC **30** 15:15:49.1±1.5, 33.06N×140.70E, h52^{km}±14^{km}, mb3.6/12, mb1 3.8/13, mb1mx3.7/22, mbtmp3.9/13, ML4.0/1, Error ellipse: s-maj=22.1km s-min=11.7km az=67.0*

*JMA **30** 15:15:50.1±0.1, 33.21N×140.69E, h58^{km}±3^{km}, M4.1*

JMA Felt I J1.

*NIED **30** 15:16:00, 33.30N×140.70E, h56^{km}, Mw3.8 Best double couple: M₀6.37×10^{14} NP1:φ$_s$21°, δ78°, λ-82°. NP2:φ$_s$165°, δ15°, λ-125°.*

ISC 30 15:15:48.7±0.6**, 33.12N**±0.04×**140.71E**±0.06**, h64**^{km}±6^{km}**, n31, σ0^{s}81**/48**, mb3.9**/12**, Southeast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JHJ2	Mitsune	0.75	269	P	P	15 16 04.9	+1.0
JHJ2				S	S	15 16 15.3	0.0
JHJ	Hachijo jima 2	0.78	270	P	P	15 16 04.5	+0.2
	1µm,0.3s,baz=233,slow=18,SNR=388						
JHJ				S	S	15 16 15.2	-0.6
	2µm,0.3s,baz=54,slow=19,SNR=26						
JMY	Miyakejima3	1.38	314	P	P	15 16 12.7	+0.3
JMY				S	S	15 16 29.2	-0.7
BSO1	Boso 1	1.54	8	P	P	15 16 14.2	-0.4
BSO1				S	S	15 16 33.3	-0.4
BSO2	Boso 2	1.62	1	S	S	15 16 36.1	+0.5
BSO3	Boso 3	1.68	354	P	P	15 16 16.5	0.0
BSO3				S	S	15 16 36.7	-0.3
JKO	Kozu shima	1.69	309	P	P	15 16 17.1	+0.5
JKO				S	S	15 16 37.1	-0.1
NJJJ	Nii jima 2	1.75	317	P	P	15 16 17.9	+0.6
NJJJ				S	S	15 16 37.4	-1.1
BSO4	Boso 4	1.89	351	P	P	15 16 19.7	+0.4
BSO4				S	S	15 16 43.4	+1.5
JIM2	Oshima 3	1.92	327	P	P	15 16 19.7	0.0
JIM2				S	S	15 16 41.3	-1.3
JIZS	Izushimoda	2.20	317	P	P	15 16 24.3	+0.6
JIZS				S	S	15 16 49.4	-0.4
KTJJ	Kamata 2	2.26	323	P	P	15 16 24.7	+0.2
KTJJ				S	S	15 16 49.8	-1.4
JOD2	Odawara 2	2.52	328	P	P	15 16 28.3	0.0
JOD2				S	S	15 16 56.0	-1.9
TK04	Tokai 4	2.68	299	P	P	15 16 31.4	+0.9
TK04				S	S	15 17 02.1	+0.3
TK01	Tokai 1	2.69	285	P	P	15 16 29.7	-0.9
TK01				S	S	15 17 02.9	+0.9
SHZ3	Shizuoka 3	2.84	314	P	P	15 16 34.2	+1.4
SHZ3				S	S	15 17 07.7	+1.8
MAT	Matsushiro	3.99	330	P	P	15 16 48.9	+0.1
MAT				S	S	15 17 34.3	-0.3
CBIJ	Chichi jima	6.14	168	P	P	15 17 17.4	-1.3
	9.8nm,0.3s,baz=271,slow=19,SNR=4.5						
CBIJ				S	S	15 18 22.6	-5.8
	9.4nm,0.3s,baz=273,slow=21,SNR=2.8						
ASAJ	Asahikawa	11.07	7	P	P	15 18 22.1	-4.4
	1.7nm,0.3s,baz=189,slow=21,SNR=15						
SONM	Songino Array	29.67	310	P	P	15 21 50.7	+0.3
	0.5nm,0.6s,mb3.4,baz=105,slow=9.3,SNR=4.8						
BVAR	Borovoye Array	52.84	314	P	P	15 24 58.9	-0.7
	0.6nm,0.7s,mb3.6,baz=108,slow=9.1,SNR=3.0						
BVAR				PcP	PcP	15 26 07.6	-0.5
	1.0nm,1.0s,baz=27,slow=3.3,SNR=3.5						
WRA	Warramunga Arr	53.12	188	P	P	15 25 01.1	-1.0
	1.0nm,0.5s,mb4.0,baz=4.7,slow=7.5,SNR=9.2						
ILAR	Eielson Array	53.12	31	P	P	15 25 01.3	-0.3
	0.5nm,0.7s,mb3.5,baz=270,slow=6.6,SNR=6.7						
ASAR	Alice Springs	56.84	187	P	P	15 25 28.4	-0.8
	0.5nm,0.6s,mb3.8,baz=1.4,slow=6.4,SNR=5.3						
INK	Inuvik	58.14	26	P	P	15 25 37.5	0.0
	1.2nm,0.7s,mb4.0,baz=278,slow=7.1,SNR=2.9						
STKA	Stephens Creek	64.66	179	P	P	15 26 22.3	+0.4
	1.1nm,1.1s,mb3.8,baz=9.0,slow=19,SNR=2.8						
ARCES	ARCESS Array B	67.45	340	P	P	15 26 38.5	-0.6
	4.4nm,1.0s,mb4.4,baz=74,slow=6.6,SNR=3.0						
YKA	Yellowknife Ar	67.48	29	P	P	15 26 39.4	+0.1
	0.4nm,0.6s,mb3.7,baz=294,slow=6.2,SNR=7.5						
FINES	FINESS Array B	72.01	333	P	P	15 27 07.0	0.0
	1.4nm,0.8s,mb4.0,baz=45,slow=7.5,SNR=5.6						
BRTR	Keskin Array B	81.02	312	P	P	15 27 58.5	+0.6
	1.3nm,0.9s,mb3.9,baz=45,slow=2.0,SNR=5.2						
TXAR	Lajitas Array	92.97	52	P	P	15 28 58.3	+2.0
	0.7nm,0.8s,mb4.2,baz=283,slow=2.2,SNR=8.6						

IDC 30 15:18:14.6±1.9**, 4.88N×91.99E, mb3.7**/3**, mb1 4.0**/4**, mb1mx3.7**/17**, mbtmp3.7**/4**, ML3.5**/1**, MS3.4**/1**, Ms1 3.6**/1**, ms1mx3.2**/21**, Error ellipse: s-maj=57.3km s-min=32.1km az=58.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.11	26	Pn	P	15 21 47.9	-3.3
	0.1nm,0.3s,baz=218,slow=14,SNR=8.9						
CMAR				LR	LR	15 28 37.8	
	comp=Z,127nm,18.3s,baz=175,slow=41						
SONM	Songino Array	44.54	14	P	P	15 26 28.7	-1.2
	0.8nm,0.6s,baz=192,slow=8.8,SNR=8.8						
WRA	Warramunga Arr	48.38	122	P	P	15 26 58.6	-2.0
	1.2nm,0.9s,baz=299,slow=8.7,SNR=4.7						
GERES	GERESS Array B	78.64	319	P	P	15 30 18.4	-1.6
	0.1nm,0.3s,baz=104,slow=4.0,SNR=4.2						

TAP 30 15:19:58.2, 21.17N×121.91E, h177^{km}±1^{km}**, ML3.5, Taiwan region**

IDC 30 15:31:31.9±1.8**, 8.57N×93.86E, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.5**/17**, mbtmp3.5**/4**, ML3.9**/1**, Error ellipse: s-maj=54.0km s-min=32.8km az=67.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.00	26	Pn	P	15 34 11.1	-2.6
	0.2nm,0.3s,baz=209,slow=14,SNR=8.0						
SONM	Songino Array	40.55	13	P	P	15 39 12.9	-1.7
	0.4nm,0.8s,baz=191,slow=6.8,SNR=4.2						
ASAR	Alice Springs	50.58	130	P	P	15 40 32.9	-1.9
	0.5nm,0.7s,baz=306,slow=6.8,SNR=4.6						
GERES	GERESS Array B	77.12	318	P	P	15 43 27.5	-1.5
	0.4nm,0.6s,baz=109,slow=5.9,SNR=4.1						

IDC 30 15:37:32.2±4.5**, 8.23N×91.74E, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.5**/17**, mbtmp3.5**/3**, ML3.8**/1**, Error ellipse: s-maj=120.6km s-min=34.7km az=77.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.34	34	Pn	P	15 40 29.4	-2.9
	0.2nm,0.3s,baz=224,slow=14,SNR=6.1						
SONM	Songino Array	41.38	15	P	P	15 45 20.1	-1.6
	0.9nm,0.8s,baz=200,slow=8.2,SNR=8.9						
WRA	Warramunga Arr	50.42	124	P	P	15 46 31.9	-2.0
	0.5nm,0.7s,baz=302,slow=9.6,SNR=5.9						

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*ISK **30** 15:41:36.5, 36.94N×28.29E, h23^{km}, MD3.1*

*CSEM **30** 15:41:36.9±0.3, 37.07N×28.40E, h8^{km}, MD3.1, Error ellipse: s-maj=9.8km s-min=4.9km az=46.0*

*ATH **30** 15:41:38.4, 37.02N×28.26E, h19^{km}, MD3.0/3*

ISC 30 15:41:37.3±0.7**, 36.99N**±0.03×**28.34E**±0.04**, h9**^{km}±5^{km}**, n15, σ1^{s}07**/23**, Dodecanese Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.32	132	PG	Pg	15 41 43.9	0.0
MLSB	Milas	0.55	304	*e*PG	Pg	15 41 47.4	-1.0
MLSB				*e*SG	Sg	15 41 56.8	+1.0
FETY	Fethiye	0.69	120	*e*PG	Pg	15 41 51.4	+0.2
FETY				*e*SG	Sg	15 42 01.6	+1.2
BDRM	Kayabasi	0.72	277	*i* P	Pb	15 41 41.3	-10
BDRM				*i* S	Sb	15 42 04.3	+3.0
AYDN	Tasoluk	0.77	331	*i* P	Pb	15 41 52.4	+0.1
AYDN				*i* S	Sb	15 42 02.7	+0.1
ARG	Arkhangelos	0.79	193	*e*PN	Pn	15 41 54.0	-0.3
ARG				*e*SN	Sn	15 42 05.5	-0.7
DNZL	Cakiroluk	0.90	38	*i* P	Pb	15 41 54.5	-0.1
DNZL				*i* S	Sb	15 42 08.2	+1.8
DENT	Denizli	0.94	35	*e*PG	Pg	15 41 55.4	-0.8
ELL	Elmali	1.28	100	*e*PN	Pn	15 42 00.3	-1.0
SMG	Samos	1.40	301	*e*PN	Pn	15 42 03.5	+0.4
MANT	Manisa	1.51	6	*i* P	Pn	15 42 04.4	-0.3
MANT				*i* S	Sb	15 42 24.8	+0.6
IZM	Izmir	1.65	329	*e*PN	Pn	15 42 05.1	-1.5
KDAG	Bornova	1.65	329	*i* P	Pn	15 42 04.3	-2.4
KDAG				*i* S	Sn	15 42 28.9	+0.7
KARP	Karpathos	1.73	214	*e*PN	Pn	15 42 09.5	+1.8
AKS	Akhisar	1.94	348	*e*PN	Pn	15 42 09.5	-1.2

IDC 30 15:49:44.8±5.1**, 6.92N×91.31E, mb3.5**/2**, mb1 3.6**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, ML3.2**/1**, MS2.8**/1**, Ms1 3.0**/1**, ms1mx2.5**/19**, Error ellipse: s-maj=144.4km s-min=35.6km az=79.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.66	32	Pn	P	15 52 59.5	-3.0
	0.0nm,0.3s,baz=230,slow=14,SNR=5.1						
CMAR				LR	LR	15 58 28.5	
	comp=Z,38nm,18.9s,baz=270,slow=38						
SONM	Songino Array	42.75	15	P	P	15 57 44.0	-1.4
	0.3nm,0.9s,baz=207,slow=6.4,SNR=3.8						
ASAR	Alice Springs	51.51	128	P	P	15 58 52.5	-2.2
	0.7nm,0.7s,baz=304,slow=7.8,SNR=7.2						

IDC 30 15:51:09.9±2.5**, 4.26S×135.95E, mb3.2**/1**, mb1 3.8**/3**, mb1mx3.6**/11**, mbtmp3.6**/3**, ML3.1**/2**, Error ellipse: s-maj=105.8km s-min=30.5km az=84.0, Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	15.67	186	Pn	P	15 54 54.3	+0.4
	0.1nm,0.3s,baz=7.2,slow=12,SNR=11						
WRA				Sn	S	15 57 44.3	-4.5
	0.0nm,0.3s,baz=4.1,slow=23,SNR=3.3						
ASAR	Alice Springs	19.40	186	P	P	15 55 36.9	-3.4
	0.1nm,0.3s,baz=10.0,slow=10,SNR=21						
SONM	Songino Array	57.99	337	P	P	16 01 04.6	-2.2
	0.2nm,0.5s,baz=143,slow=7.2,SNR=4.2						

IDC 30 16:00:15.4±8.3**, 5.06N×94.50E, h112**^{km}±72^{km}**, mb3.5**/8**, mb1 3.7**/9**, mb1mx3.6**/19**, mbtmp3.9**/9**, MS3.8**/1**, Ms1 3.8**/1**, ms1mx2.8**/20**, Error ellipse: s-maj=51.3km s-min=14.8km az=54.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.00	18	P	P	16 03 27.6	-2.4
	0.2nm,0.3s,baz=216,slow=13,SNR=15						
SHL	Shillong	20.54	353	*e*P	P	16 04 40.0	-6.9
SONM	Songino Array	43.82	12	P	P	16 08 10.2	-1.6
	3.2nm,1.1s,baz=192,slow=8.1,SNR=12						
SONM				PcP	PcP	16 09 53.7	-3.2
	0.3nm,0.7s,baz=180,slow=2.9,SNR=2.4						
WRA	Warramunga Arr	46.38	124	P	P	16 08 31.8	-0.8
	1.6nm,0.6s,baz=301,slow=9.1,SNR=14						
ASAR	Alice Springs	47.87	128	P	P	16 08 42.2	-2.0
	0.2nm,0.5s,baz=294,slow=7.6,SNR=5.0						
ASAR				PcP	PcP	16 10 07.5	-3.9
	0.5nm,0.7s,baz=307,slow=4.5,SNR=2.6						
BVAR	Borovoye Array	51.75	342	P	P	16 09 11.0	-2.4
	0.5nm,0.5s,baz=140,slow=11,SNR=2.9						
KMBO	Kilima Mbogo	57.52	265	LR	LR	16 29 44.2	
	comp=Z,71nm,19.2s,baz=96,slow=31						
STKA	Stephens Creek	57.93	133	P	P	16 09 56.0	-2.5
	1.1nm,0.7s,baz=324,slow=9.3,SNR=5.8						
BRTR	Keskin Array B	64.54	312	P	P	16 10 40.0	-2.8
	0.7nm,0.8s,baz=113,slow=4.8,SNR=3.6						
ARCES	ARCESS Array B	78.01	340	P	P	16 12 02.5	-0.1
	4.5nm,1.0s,baz=56,slow=4.4,SNR=6.0						
GERES	GERESS Array B	80.15	319	P	P	16 12 14.5	-0.2
	0.9nm,0.7s,baz=108,slow=4.2,SNR=5.8						

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*IDC **30** 16:09:31.8±8.7, 5.25N×94.49E, h64^{km}±76^{km}, mb3.7/10, mb1 3.9/11, mb1mx3.8/20, mbtmp4.0/11, Error ellipse: s-maj=53.6km s-min=17.3km az=53.0*

ISC 30 16:09:26.5±0.8**, 5.0N**±0.1×**94.4E**±0.2**, h33**^{km}**, n17, σ1^{s}25**/17**, mb4.1**/12**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.09	18	P	P	16 12 46.4	+0.3
	0.4nm,0.3s,baz=214,slow=14,SNR=29						
PKI	Pulchoki	24.01	340	*e*P	P	16 14 40.8	+1.5
DMN	Daman	24.15	340	*e*P	P	16 14 41.3	+0.6
GUN	Gumba	24.17	341	*e*P	P	16 14 42.1	+1.2
KKN	Kakani	24.26	340	*e*P	P	16 14 42.1	+0.4
GKN	Gorkha	24.68	339	*e*P	P	16 14 46.2	+0.4
	8.2nm,0.3s,mb4.7						
KOLN	Koldanda	24.85	337	*e*P	P	16 14 48.5	+1.0
	6.2nm,0.3s,mb4.6						
SONM	Songino Array	43.90	12	P	P	16 17 29.2	-2.5
	1.1nm,0.6s,mb3.7,baz=192,slow=8.0,SNR=13						
SONM				PcP	PcP	16 19 16.3	-1.7
	0.4nm,0.4s,baz=198,slow=3.7,SNR=4.8						
WRA	Warramunga Arr	46.45	124	P	P	16 17 52.8	+0.4
	1.7nm,0.7s,mb4.1,baz=302,slow=11,SNR=22						
ASAR	Alice Springs	47.94	128	P	P	16 18 04.7	+0.6
	0.5nm,0.5s,mb3.8,baz=308,slow=7.9,SNR=7.9						
ZAL	Zalesovo	49.40	353	P	P	16 18 13.0	-1.9
	1.8nm,0.3s,mb4.5,baz=194,slow=3.7,SNR=8.1						
BVAR	Borovoye Array	51.77	342	P	P	16 18 31.5	-1.5
	1.1nm,0.7s,mb3.9,baz=141,slow=9.5,SNR=5.0						
BRTR	Keskin Array B	64.49	312	P	P	16 20 00.0	-2.3
	0.3nm,0.5s,mb3.6,baz=121,slow=7.2,SNR=3.6						
AKASG	Malin Array Be	70.54	322	P	P	16 20 38.0	-2.1
	1.2nm,0.7s,mb3.9,baz=89,slow=5.5,SNR=5.6						
ARCES	ARCESS Array B	78.03	340	P	P	16 21 23.1	+0.1
	3.0nm,0.9s,mb4.2,baz=102,slow=8.3,SNR=2.7						
GERES	GERESS Array B	80.11	319	P	P	16 21 35.7	+0.9
	0.8nm,0.5s,mb3.9,baz=104,slow=5.5,SNR=8.6						
DAVOX	Davos	82.61	316	P	P	16 21 49.1	+1.2
	1.1nm,0.4s,mb4.2,baz=28,slow=15,SNR=3.8						

IDC 30 16:10:22.7±1.5**, 10.29N×92.64E, mb3.9**/6**, mb1 4.0**/7**, mb1mx3.8**/19**, mbtmp3.9**/7**, ML4.0**/1**, MS3.2**/1**, Ms1 3.4**/1**, ms1mx2.6**/27**, Error ellipse: s-maj=56.7km s-min=20.4km az=65.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.16	36	Pn	P	16 12 50.3	-2.7
	0.4nm,0.3s,baz=212,slow=11,SNR=35						
CMAR				LR	LR	16 16 27.2	
	comp=Z,115nm,19.2s,baz=263,slow=36						
SONM	Songino Array	39.18	15	P	P	16 17 52.3	-1.8
	0.3nm,0.3s,baz=202,slow=9.1,SNR=7.3						
BVAR	Borovoye Array	46.24	342	P	P	16 18 49.6	-1.8
	0.4nm,0.4s,baz=157,slow=11,SNR=4.7						
WRA	Warramunga Arr	50.87	126	P	P	16 19 25.6	-2.2
	0.8nm,0.5s,baz=306,slow=8.4,SNR=7.4						
ASAR	Alice Springs	52.59	130	P	P	16 19 38.5	-2.3
	0.8nm,0.5s,baz=306,slow=7.1,SNR=8.6						
STKA	Stephens Creek	62.84	134	P	P	16 20 50.8	-2.1
	0.8nm,0.5s,baz=295,slow=7.9,SNR=6.0						
ARCES	ARCESS Array B	72.51	340	P	P	16 21 51.1	-1.8
	2.5nm,0.8s,baz=90,slow=6.3,SNR=3.7						

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*NEIC **30** 16:16:12.3±1.1, 7.69N×93.61E, h30^{km}, mb4.6/11, Error ellipse: s-maj=28.0km s-min=17.3km az=71.0*

*BJI **30** 16:16:12.5, 7.40N×93.33E, h53^{km}, mB5.3, mb4.8*

*IDC **30** 16:16:14.7±5.3, 7.62N×93.50E, h46^{km}±48^{km}, mb4.0/14, mb1 4.1/15, mb1mx3.9/22, mbtmp4.2/15, ML4.1/1, Error ellipse: s-maj=41.7km s-min=12.4km az=55.0*

ISC 30 16:16:10.8±0.6**, 7.53N**±0.08×**93.5E**±0.1**, h33**^{km}**, n40, σ0^{s}96**/40**, mb4.5**/34**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	12.10	26	P	P	16 18 57.5	-6.4
	6.5nm,0.7s						
CMAR	Chiang Mai Arr	12.10	26	P	P	16 19 04.2	+0.4
	0.3nm,0.3s,baz=211,slow=14,SNR=24						
COCO	West Island	19.87	170	P	P	16 20 48.1	+5.9
PKI	Pulchoki	21.35	340	*e*P	P	16 20 58.5	+1.0
	23nm,0.6s,mb4.7						
DMN	Daman	21.49	339	*e*P	P	16 20 59.7	+0.8
	24nm,0.6s,mb4.7						
GUN	Gumba	21.51	341	*e*P	P	16 20 59.0	-0.1
	51nm,0.8s,mb5.0						
KKN	Kakani	21.60	340	*e*P	P	16 21 00.6	+0.7
	22nm,0.6s,mb4.8						
GKN	Gorkha	22.02	339	*e*P	P	16 21 04.6	+0.5
	33nm,0.6s,mb4.9						
LSA	Lhasa	22.16	355	*e*P	P	16 21 05.7	+0.1
	17nm,1.1s,mb4.4						
KOLN	Koldanda	22.20	336	*e*P	P	16 21 07.1	+1.2
	34nm,0.8s,mb4.8						
ENH	Enshi	27.16	32	P	P	16 21 51.2	-2.1
	11nm,0.9s,mb4.4						
GTA	Gaotai	32.25	9	P	P	16 22 38.8	+0.2
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.3						
HHC	Hu-ho-hao-te	36.89	23	*e*P	P	16 23 20.5	+2.2
HHC				XP	sP	16 23 36.3	+4.0
HHC				AMB	AMB		
	comp=Z,13nm,0.9s,mb4.8						
BJT	Baijiatuau	38.20	29	*e*P	P	16 23 29.8	+0.6
	comp=Z,11nm,0.8s,mb4.6						
BJI	Beijing	38.22	29	*e*P	P	16 23 30.8	+1.4
BJI				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.7						
SONM	Songino Array	41.64	13	P	P	16 23 57.8	+0.1
	comp=Z,2.6nm,0.8s,mb3.9,baz=196,slow=8.7,SNR=20						
SONM				PcP	PcP	16 25 54.6	-0.3
	comp=Z,1.0nm,0.7s,baz=195,slow=3.9,SNR=6.5						
ULN	Ulaanbaatar	41.82	14	P	P	16 23 57.7	-1.5
	comp=Z,3.8nm,0.9s,mb4.0						
NWAO	Narrogin (SRO)	46.15	152	P	P	16 24 36.2	+1.9
	comp=Z,16nm,1.1s,mb4.8,baz=324,slow=8.7,SNR=3.0						
ZAL	Zalesovo	46.80	353	P	P	16 24 39.0	-0.1
	comp=Z,4.7nm,0.5s,mb4.7,baz=215,slow=5.3,SNR=13						
HIA	Hailar	47.10	23	*e*P	P	16 24 41.4	-0.1
	comp=Z,19nm,1.0s,mb5.0						
WRA	Warramunga Arr	48.60	125	P	P	16 24 53.5	-0.1
	comp=Z,2.4nm,0.5s,mb4.5,baz=304,slow=8.6,SNR=56						
WRAB	Tennant Creek	48.60	125	*e*P	P	16 24 53.6	0.0
	comp=Z,20nm,1.2s,mb5.0						
BVAR	Borovoye Array	49.11	342	P	P	16 24 55.8	-1.3
	comp=Z,0.6nm,0.6s,mb3.8,baz=140,slow=12,SNR=6.2						
BVAR				PcP	PcP	16 26 21.6	+1.0
	comp=Z,0.8nm,0.5s,baz=180,slow=4.4,SNR=7.0						
CHKZ	Chkalovo	49.60	342	*e*P	P	16 25 00.2	-0.7
ASAR	Alice Springs	50.20	129	P	P	16 25 05.7	-0.3
	comp=Z,1.1nm,0.4s,mb4.2,baz=303,slow=7.9,SNR=37						
ASAR				PcP	PcP	16 26 25.8	+0.7
	comp=Z,0.5nm,0.8s,baz=315,slow=3.8,SNR=2.9						
ARU	Arti	55.95	337	P	P	16 25 47.1	-0.9
	comp=Z,2.7nm,0.7s,mb4.4						
PMG	Port Moresby	56.06	107	P	P	16 25 49.6	+0.2
	comp=Z,6.9nm,0.8s,mb4.8,baz=296,slow=8.0,SNR=3.2						
STKA	Stephens Creek	60.35	133	P	P	16 26 19.2	0.0
	comp=Z,1.5nm,0.7s,mb4.1,baz=295,slow=6.1,SNR=4.8						
STKA	Stephens Creek	60.35	133	*e*P	P	16 26 18.1	-1.1
YAK	Yakutsk	60.53	19	*e*P	P	16 26 18.9	-1.1
	comp=Z,15nm,0.8s,mb5.2						
BRTR	Keskin Array B	62.16	311	P	P	16 26 31.6	+0.3
	comp=Z,0.7nm,0.8s,mb3.8,baz=108,slow=9.1,SNR=3.0						
MA2	Magadan	67.38	28	P	P	16 27 00.6	-4.1
	comp=Z,8.8nm,1.0s,mb4.7						
FINES	FINESS Array B	72.71	332	P	P	16 27 37.2	0.0
	comp=Z,3.1nm,1.0s,mb4.2,baz=113,slow=7.0,SNR=9.7						
KAF	Kangasniemi	72.80	333	*e*p	P	16 27 35.9	-1.8
	comp=Z,0.4nm,0.4s,mb3.7						
KAF	Kangasniemi	72.80	333	*e*p	P	16 27 43.4	+5.7
	comp=Z,0.4nm,0.3s,mb3.8						
KEV	Kevo	74.94	341	*e*p	P	16 27 48.5	-1.5
	comp=Z,0.3nm,0.3s,mb3.7						
ARCES	ARCESS Array B	75.37	340	P	P	16 27 53.3	+0.8
	comp=Z,1.5nm,0.5s,mb4.2,baz=99,slow=7.4,SNR=14						
GERES	GERESS Array B	77.64	318	P	P	16 28 05.9	+0.1
	comp=Z,0.5nm,0.6s,mb3.6,baz=135,slow=3.8,SNR=4.5						
HFS	Hagfors	78.42	330	P	P	16 28 09.9	+0.1
	comp=Z,10nm,1.2s,mb4.6,baz=79,slow=7.6,SNR=5.2						
NOA	NORSAR Array B	79.71	331	P	P	16 28 15.5	-1.3
	comp=Z,3.1nm,1.0s,mb4.2,baz=90,slow=4.9,SNR=3.4						

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*IDC **30** 16:18:28.5±0.9, 7.49N×94.02E, mb4.1/12, mb1 4.3/13, mb1mx4.2/21, mbtmp4.1/13, ML4.2/1, Error ellipse: s-maj=39.4km s-min=18.8km az=50.0*

*NEIC **30** 16:18:32.7±0.9, 7.45N×94.04E, h30^{km}, mb4.5/10, Error ellipse: s-maj=21.3km s-min=15.6km az=65.0*

*SYO **30** 16:18:32.6, 7.45N×94.04E, h30^{km}, MB4.6*

ISC 30 16:18:30.6±6.2**, 7.5N**±0.1×**94.2E**±0.1**, h26**^{km}±42^{km}**, n34, σ0^{s}94**/34**, mb4.3**/23**, 1C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.81	23	*e*P	P	16 21 20.7	+0.1
	2.0nm,0.5s						
CMAR	Chiang Mai Arr	11.81	23	Pn	P	16 21 20.0	-0.7
	0.4nm,0.3s,baz=210,slow=14,SNR=12						
PKI	Pulchoki	21.57	338	*e*P	P	16 23 21.6	+1.1
GUN	Gumba	21.72	340	*e*P	P	16 23 21.9	0.0
DMN	Daman	21.72	338	*e*P	P	16 23 22.6	+0.6
KKN	Kakani	21.82	338	*e*P	P	16 23 22.9	-0.1
LSA	Lhasa	22.22	353	*e*P	P	16 23 29.8	+2.9
	21nm,0.7s,mb4.7						
LSA				*e*		16 23 34.2	
GKN	Gorkha	22.25	337	*e*P	P	16 23 26.9	-0.4
	36nm,0.7s,mb4.9						
KOLN	Koldanda	22.46	335	*e*P	P	16 23 29.5	+0.2
	23nm,0.7s,mb4.7						
ENH	Enshi	26.80	31	*e*P	P	16 24 13.8	+3.0
	22nm,1.3s,mb4.5						
SONM	Songino Array	41.49	12	P	P	16 26 17.8	+0.7
	1.7nm,0.8s,mb3.7,baz=196,slow=8.2,SNR=7.4						
SONM				PcP	PcP	16 28 16.9	+1.7
	0.3nm,0.6s,baz=220,slow=1.3,SNR=2.8						
ULN	Ulaanbaatar	41.66	13	*e*P	P	16 26 18.4	-0.2
	1.8nm,0.8s,mb3.8						

HIA	Hailar	46.83	23	P	P	16 27 00.8	+0.6
ZAL	Zalesovo	46.88	352	P	P	16 27 00.4	-0.1
	2.2nm,0.4s,mb4.4,baz=213,slow=5.9,SNR=6.5						
WRA	Warramunga Arr	48.06	125	P	P	16 27 10.7	+0.4
	2.6nm,0.7s,mb4.4,baz=302,slow=9.2,SNR=12						
WRAB	Tennant Creek	48.07	125	*e*P	P	16 27 10.6	+0.2
	4.9nm,0.7s,mb4.7						
BVAR	Borovoye Array	49.30	341	P	P	16 27 18.6	-0.9
	2.1nm,0.9s,mb4.2,baz=135,slow=8.4,SNR=5.8						
BRVK	Borovoye	49.37	341	*e*P	P	16 27 18.6	-1.4
	4.8nm,1.0s,mb4.5						
MAJO	Matsushiro	49.38	48	P	P	16 27 18.5	-1.7
	5.2nm,0.9s,mb4.6						
ASAR	Alice Springs	49.70	130	P	P	16 27 22.4	-0.5
	1.1nm,0.6s,mb4.1,baz=300,slow=8.1,SNR=7.6						
CHKZ	Chkalovo	49.79	342	*e*P	P	16 27 22.7	-0.5
	7.7nm,0.8s,mb4.8						
CHKZ				*e*		16 27 27.7	
ARU	Arti	56.20	337	P	P	16 28 10.1	-0.6
	2.9nm,0.7s,mb4.4						
EIL	Elat	59.59	300	*e*P	P	16 28 33.9	-1.1
	2.8nm,0.8s,mb4.3						
STKA	Stephens Creek	59.87	134	P	P	16 28 36.2	-0.6
YAK	Yakutsk	60.31	18	P	P	16 28 39.2	-0.1
BRTR	Keskin Array B	62.65	311	P	P	16 28 54.5	-1.0
	0.8nm,0.6s,mb4.0,baz=140,slow=7.3,SNR=4.5						
AKASG	Malin Array Be	68.42	322	P	P	16 29 31.4	-1.0
	0.4nm,0.4s,mb3.8,baz=87,slow=5.1,SNR=5.1						
FINES	FINESS Array B	73.01	332	P	P	16 29 59.4	-0.5
	3.2nm,0.9s,mb4.3,baz=108,slow=6.0,SNR=6.0						
GERES	GERESS Array B	78.08	318	P	P	16 30 30.4	+1.5
	1.0nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=5.4						
HFS	Hagfors	78.75	330	P	P	16 30 32.2	-0.1
	2.7nm,0.7s,mb4.3,baz=108,slow=9.4,SNR=4.9						
NB2	NORSAR Subarra	80.02	331	P	P	16 30 39.4	+0.2
	2.5nm,0.7s,mb4.2,baz=95,slow=5.0						
NOA	NORSAR Array B	80.02	331	P	P	16 30 39.9	+0.6
	1.7nm,0.7s,mb4.1,baz=94,slow=5.4,SNR=4.2						
SYO	Syowa Base	85.09	197	⇑P	P	16 31 06.3	+1.2
EKA	Eskdalemuir Ar	88.00	325	P	P	16 31 21.4	+1.8
	4.1nm,1.0s,mb4.6,baz=72,slow=4.5,SNR=4.3						

IDC 30 16:18:44.6±4.2**,4.97N**×**94.92E,mb4.1**/4**,mb1 4.3**/4**, mb1mx3.9**/18**,mbtmp4.1**/4**,Error ellipse: s-maj=108.9km s-min=79.9km az=146.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.97	16	Pn	P	16 22 10.6	+4.3
	baz=212,slow=12,SNR=2.6						
SONM	Songino Array	43.83	11	P	P	16 26 52.5	-1.5
	1.1nm,0.8s,baz=186,slow=8.6,SNR=3.8						
SONM				PcP	PcP	16 28 38.8	-2.4
	0.9nm,0.9s,baz=194,slow=3.4,SNR=4.8						
BVAR	Borovoye Array	51.97	341	P	P	16 27 55.3	-2.2
	0.9nm,0.5s,baz=141,slow=9.2,SNR=4.4						
ARCES	ARCESS Array B	78.24	340	P	P	16 30 45.6	-1.8
	5.4nm,0.9s,baz=106,slow=6.6,SNR=4.0						
GERES	GERESS Array B	80.49	319	P	P	16 30 59.0	-1.0
	1.0nm,0.8s,baz=108,slow=6.2,SNR=3.8						

IDC 30 16:21:42.5±8.5**,5.32N**×**94.86E,mb3.3**/2**,mb1 3.6**/3**, mb1mx3.4**/18**,mbtmp3.4**/3**,ML3.9**/1**,Error ellipse: s-maj=214.6km s-min=46.3km az=82.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.65	17	Pn	P	16 24 57.9	-2.3
	0.2nm,0.3s,baz=211,slow=14,SNR=6.3						
WRA	Warramunga Arr	46.23	124	P	P	16 30 09.5	-2.2
	0.3nm,0.5s,baz=306,slow=9.6,SNR=6.4						
ASAR	Alice Springs	47.76	129	P	P	16 30 22.0	-1.7
	0.2nm,0.4s,baz=300,slow=8.1,SNR=7.5						

IDC 30 16:25:53.7±2.9**,4.02N**×**95.58E,mb3.7**/5**,mb1 3.9**/5**, mb1mx3.7**/18**,mbtmp3.7**/5**,Error ellipse: s-maj=121.9km s-min=22.0km az=59.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.72	13	Pn	P	16 29 32.3	+7.0
	0.1nm,0.3s,baz=202,slow=11,SNR=10						
SONM	Songino Array	44.63	10	P	P	16 34 08.1	-1.6
	0.5nm,0.5s,baz=191,slow=9.4,SNR=5.2						
WRA	Warramunga Arr	44.91	123	P	P	16 34 10.5	-2.0
	0.9nm,0.6s,baz=302,slow=9.1,SNR=9.2						
ASAR	Alice Springs	46.39	128	P	P	16 34 22.4	-1.7
	0.2nm,0.4s,baz=299,slow=7.3,SNR=9.8						
ZAL	Zalesovo	50.53	352	P	P	16 34 53.3	-2.5
	1.1nm,0.5s,baz=255,slow=5.5,SNR=4.5						
BVAR	Borovoye Array	53.07	341	P	P	16 35 12.8	-2.2
	0.8nm,0.7s,baz=149,slow=8.6,SNR=6.3						

IDC 30 16:26:40.9±2.4**,5.20N**×**93.51E,mb3.6**/4**,mb1 3.9**/5**, mb1mx3.6**/19**,mbtmp3.7**/5**,ML4.3**/1**,Error ellipse: s-maj=92.9km s-min=24.1km az=60.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.20	22	Pn	P	16 30 04.5	-1.2
	0.4nm,0.3s,baz=213,slow=12,SNR=14						
WRA	Warramunga Arr	47.28	123	P	P	16 35 16.1	-2.2
	0.6nm,0.8s,baz=306,slow=9.4,SNR=3.5						
ASAR	Alice Springs	48.74	128	P	P	16 35 27.9	-1.6
	0.3nm,0.6s,baz=302,slow=7.8,SNR=3.2						
ZAL	Zalesovo	49.10	353	P	P	16 35 29.6	-2.3
	1.1nm,0.5s,baz=188,slow=4.8,SNR=4.4						
BVAR	Borovoye Array	51.31	342	P	P	16 35 46.7	-2.2
	0.4nm,0.6s,baz=135,slow=8.2,SNR=3.6						

IDC 30 16:41:34.2±1.1**,3.51S**×**135.73E,mb3.9**/5**,mb1 4.2**/6**, mb1mx4.0**/12**,mbtmp4.0**/6**,ML3.8**/1**,MS3.3**/2**,Ms1 3.3**/2**, ms1mx2.8**/19**,Error ellipse: s-maj=66.2km s-min=21.7km az=76.0,Irian Jaya region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	16.39	185	Pn	P	16 45 19.5	-7.9
	0.2nm,0.3s,baz=3.0,slow=13,SNR=12						
WRA				Sn	S	16 48 10.7	-19
	0.8nm,0.3s,baz=2.5,slow=23,SNR=9.2						
CTA	Charters Tower	19.42	149	P	P	16 46 04.1	-0.7
	0.2nm,0.3s,baz=322,slow=12,SNR=4.1						
CTA				LR	LR	16 52 51.2	
	comp=Z,75nm,18.9s,baz=38,slow=35						
ASAR	Alice Springs	20.12	185	P	P	16 46 10.2	-2.5
	8.9nm,0.6s,baz=7.7,slow=11,SNR=161						
ASAR				S	S	16 49 44.3	-10
	2.5nm,0.9s,baz=5.7,slow=20,SNR=6.0						
ASAR				LR	LR	16 54 32.1	
	comp=Z,104nm,18.5s,baz=332,slow=39						
STKA	Stephens Creek	28.76	170	P	P	16 47 32.4	-3.3
	1.1nm,1.0s,baz=5.7,slow=10,SNR=3.8						
SONM	Songino Array	57.22	337	P	P	16 51 24.5	-1.2
	0.3nm,0.7s,baz=169,slow=8.9,SNR=2.9						
BVAR	Borovoye Array	78.28	326	P	P	16 53 35.8	-1.8
	1.1nm,0.7s,baz=101,slow=7.3,SNR=7.5						
ILAR	Eielson Array	87.79	25	P	P	16 54 24.4	-1.7
	0.4nm,0.6s,baz=261,slow=4.0,SNR=8.6						

ISC 30 16:42:16.5±2.0**,43.0N**±0.1×**15.2E**±0.2**,h10^{km},n7, σ0^{s}71**/14**,2C,Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NVLJ	Novalja	1.61	353	*i* Pn	Pn	16 42 44.1	-1.1
NVLJ				*i* Pg	Pg	16 42 44.9	-3.7
NVLJ				*i* Sn	Sn	16 43 05.5	-0.6
NVLJ				*i* Sg	Sg	16 43 05.9	-4.2
STON	Ston	1.87	92	*i* Pn	Pn	16 42 49.3	+0.4
STON				*i* Sn	Sn	16 43 12.4	-0.3
BOJS	Bojanci	2.54	1	*i* Pn	Pn	16 42 59.0	+0.6
BOJS				*e*Sn	Sn	16 43 29.9	+0.2
CEY	Cerknica	2.82	349	*i* Pn	Pn	16 43 03.1	+0.6
OBKA	Obir	3.57	353	⇑*i*PN	Pn	16 43 13.6	+0.5
OBKA				*i* SN	Sn	16 43 56.7	+0.9
PERS	Pernice	3.67	360	*i* Pn	Pn	16 43 14.6	0.0
MOA	Molln	4.92	353	⇑*i*PN	Pn	16 43 31.8	-0.6
MOA				*i* SN	Sn	16 44 30.1	0.0

IDC 30 16:44:54.5±7.5**,19.61S**×**176.09W,mb3.8**/3**,mb1 4.1**/3**, mb1mx3.8**/14**,mbtmp3.8**/3**,MS3.6**/4**,Ms1 3.6**/4**, ms1mx3.1**/21**,Error ellipse: s-maj=324.9km s-min=38.3km az=144.0,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PPT	Papeete	25.21	90	LR	LR	16 57 43.3	
	comp=Z,94nm,20.2s,baz=253,slow=30						
CTA	Charters Tower	35.37	263	LR	LR	17 04 30.2	
	comp=Z,77nm,18.7s,baz=45,slow=33						
PMG	Port Moresby	36.91	281	LR	LR	17 03 12.8	
	comp=Z,113nm,19.3s,baz=210,slow=30						
ASAR	Alice Springs	46.47	256	P	P	16 53 23.9	-1.6
	1.2nm,0.6s,baz=93,slow=8.0,SNR=11						
ASAR				LR	LR	17 12 26.1	
	comp=Z,74nm,19.5s,baz=62,slow=36						
WRA	Warramunga Arr	46.51	261	P	P	16 53 23.6	-2.1
	0.5nm,0.7s,baz=97,slow=6.5,SNR=12						
ILAR	Eielson Array	87.06	12	P	P	16 57 41.6	-1.2
	1.4nm,1.0s,baz=212,slow=5.3,SNR=5.7						

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*NEIC **30** 16:48:07.5±1.2, 18.19S×177.90W, h486^{km}±15^{km}, mb4.4/13, Error ellipse: s-maj=19.8km s-min=12.5km az=152.0*

*SYO **30** 16:48:07.5, 18.19S×177.90W, h486^{km}, MB4.4*

*IDC **30** 16:48:10.4±2.9, 18.12S×177.93W, h523^{km}±33^{km}, mb3.7/16, mb1 3.9/17, mb1mx3.8/20, mbtmp4.6/17, Error ellipse: s-maj=16.4km s-min=13.2km az=176.0*

ISC 30 16:48:06.0±1.0**,18.11S**±0.09×**177.93W**±0.08**, h481^{km}**±12^{km}**,n41,σ1^{s}05**/36**,mb4.2**/25**,3D,Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	7.24	56	*e*Pn	P	16 49 56.1	+0.9
AFI				*e*Sn	S	16 51 20.1	-1.6
RAR	Rarotonga	17.38	103	P	P	16 51 43.8	+2.8
	0.8nm,0.3s,baz=199,slow=10.0,SNR=3.3						
URZ	Urewera	20.54	191	P	P	16 52 11.1	-0.2
	10nm,0.3s,baz=27,slow=18,SNR=8.4						
RPZ	Rata Peaks	27.17	198	P	P	16 53 12.6	+1.4
	6.4nm,0.5s,mb4.3,baz=23,slow=7.7,SNR=4.4						
CTA	Charters Tower	33.86	261	P	P	16 54 09.3	+0.5
	32nm,0.9s,mb4.8,baz=93,slow=10,SNR=11						
CTAO	Charters Tower	33.86	261	*e*P	P	16 54 09.0	+0.2
	56nm,1.1s,mb4.9						
PMG	Port Moresby	34.94	280	P	P	16 54 19.4	+1.5
	31nm,0.9s,mb4.7,baz=96,slow=5.2,SNR=11						
PMG	Port Moresby	34.94	280	*e*P	P	16 54 19.2	+1.3
	37nm,0.9s,mb4.8						
STKA	Stephens Creek	38.93	241	P	P	16 54 51.7	+1.1
	32nm,0.8s,mb4.8,baz=86,slow=9.2,SNR=49						
STKA	Stephens Creek	38.93	241	*e*P	P	16 54 51.3	+0.6
WRAB	Tennant Creek	45.03	260	*e*P	P	16 55 38.5	-1.0
	54nm,1.1s,mb4.9						
WRA	Warramunga Arr	45.04	260	P	P	16 55 38.7	-0.9
	14nm,0.8s,mb4.4,baz=92,slow=7.6,SNR=114						
WRA				PcP	PcP	16 57 09.4	-1.4
	0.8nm,0.3s,baz=90,slow=3.8,SNR=4.8						
ASAR	Alice Springs	45.17	254	P	P	16 55 40.3	-0.2
	95nm,0.8s,mb5.3,baz=93,slow=9.5,SNR=370						
ASAR				PcP	PcP	16 57 09.8	-1.4
	1.9nm,0.6s,baz=95,slow=4.7,SNR=4.0						
MBWA	Marble Bar	58.47	256	*e*P	P	16 57 15.3	-1.7
	40nm,1.3s,mb4.6						
NWAO	Narrogin (SRO)	59.52	242	P	P	16 57 22.3	-1.6
	11nm,0.9s,mb4.3,baz=106,slow=7.4,SNR=3.7						
NWAO	Narrogin (SRO)	59.52	242	*e*P	P	16 57 22.3	-1.6
	13nm,0.9s,mb4.3						
VNDA	Vanda	60.29	185	P	P	16 57 28.5	0.0
	1.3nm,0.8s,mb3.4,baz=0.7,slow=7.7,SNR=9.0						
VNDA	Vanda	60.29	185	*e*P	P	16 57 28.3	-0.1
	1.9nm,0.8s,mb3.6						
MAJO	Matsushiro	68.34	323	*e*P	P	16 58 20.2	+0.2
	6.7nm,0.9s,mb4.3						
QSPA	South Pole Qui	71.95	180	*e*P	P	16 58 40.7	0.0
	5.1nm,0.5s,mb4.3						
MDJ	Mudanjiang	78.61	325	P	P	16 59 20.7	+2.5
	5.8nm,0.9s,mb4.1						
NVAR	Mina Array Bea	79.25	44	P	P	16 59 22.2	+0.5
	2.6nm,0.7s,mb3.9,baz=223,slow=9.5,SNR=7.9						
MAW	Mawson	83.83	200	P	P	16 59 44.3	-0.1
	3.1nm,0.8s,mb3.9,baz=108,slow=6.4,SNR=4.5						
ENH	Enshi	84.76	304	*e*P	P	16 59 50.1	+0.2
	14nm,1.1s,mb4.5						
LTX	Lajitas	85.72	57	*e*P	P	16 59 55.2	+0.6
	6.3nm,0.8s,mb4.3						
TXAR	Lajitas Array	85.72	57	P	P	16 59 55.7	+1.1
	3.0nm,0.7s,mb4.0,baz=221,slow=5.9,SNR=35						
ANMO	Albuquerque	85.86	51	*e*P	P	16 59 55.4	+0.2
	3.3nm,1.1s,mb3.9						
ILAR	Eielson Array	85.98	13	P	P	16 59 53.8	-1.2
	1.2nm,0.9s,mb3.5,baz=225,slow=6.3,SNR=7.7						
CHMT	Chamberlain Mo	86.91	38	P	P	16 59 59.3	-0.5
PDAR	Pinedale Array	87.18	43	P	P	17 00 00.9	-0.3
	1.2nm,0.7s,mb3.7,baz=213,slow=2.0,SNR=11						
SYO	Syowa Base	89.06	193	⇓P	P	17 00 08.3	-1.2
SYO	Syowa Base	89.06	193	⇓pP	pP	17 01 57.6	-0.4
SYO	Syowa Base	89.06	193	⇓sP	sP	17 02 45.7	-0.7
CM31	Chiang Mai Arr	89.38	290	*e*P	P	17 00 12.8	+0.7
	7.6nm,1.1s,mb4.4						
CMAR	Chiang Mai Arr	89.38	290	P	P	17 00 13.2	+1.1
	2.8nm,0.9s,mb4.1,baz=110,slow=2.9,SNR=17						
SNAA	Sanae	90.39	178	P	P	17 00 14.5	-1.0
	0.4nm,0.5s,mb3.5,baz=152,slow=9.9,SNR=5.1						
YKA	Yellowknife Ar	94.32	25	P	P	17 00 32.2	-1.6
	0.4nm,0.6s,mb3.6,baz=244,slow=4.6,SNR=7.5						
BRTR	Keskin Array B	145.24	315	PKPbc	PKPbc	17 06 49.3	+0.3
	1.1nm,0.9s,baz=72,slow=4.6,SNR=4.0						
CLL	Collm	145.75	348	*e*PKP1	PKPbc	17 06 51.0	+1.1
GERES	GERESS Array B	147.92	345	PKPbc	PKPdf	17 06 55.6	+3.5
	0.9nm,0.8s,baz=27,slow=3.0,SNR=4.3						
DAVOX	Davos	150.69	349	PKPbc	PKPdf	17 07 02.8	+6.2
	1.7nm,0.8s,baz=255,slow=7.9,SNR=3.7						

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*ATH **30** 16:48:07.9, 38.14N×26.67E, h23^{km}±2^{km}, MD3.6/9, ML3.7*

*ISK **30** 16:48:07.5, 38.16N×26.64E, h9^{km}, MD3.6*

*CSEM **30** 16:48:07.6±0.1, 38.16N×26.66E, h8^{km}, MD3.6, Error ellipse: s-maj=1.5km s-min=1.4km az=156.0*

ISC 30 16:48:07.5±0.3**,38.13N**±0.02×**26.60E**±0.03**,h8^{km},n50, σ0^{s}74**/65**,1C,Aegean Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BLCB	Balcova	0.44	54	*i* PG	Pg	16 48 15.7	-0.6
BLCB				*i* SG	Sg	16 48 21.2	-1.0
SMG	Samos	0.46	155	⇑*i*PB	Pb	16 48 17.5	+0.2
SMG				*e*SB	Sb	16 48 23.9	-0.1
IZM	Izmir	0.59	62	*i* PG	Pg	16 48 19.0	-0.4
KDAG	Bornova	0.60	62	*i* P	Pg	16 48 18.7	-0.8
KDAG				*i* S	Sg	16 48 27.2	-0.3
AYDN	Tasoluk	1.12	114	*i* P	Pb	16 48 29.0	+0.4
AYDN				*i* S	Sb	16 48 42.8	-0.3
PRK	Paraskevi	1.15	347	*e*PN	Pn	16 48 29.8	0.0
AYVA	Ayvalik	1.18	4	*i* P	Pb	16 48 30.7	+0.9
AYVA				*i* S	Sb	16 48 48.5	+3.5
AKS	Akhisar	1.22	51	*i* PN	Pn	16 48 30.2	-0.6
MLSB	Milas	1.25	131	PN	Pn	16 48 31.9	+0.6
MLSB				SN	Sn	16 48 49.2	+0.8
BDRM	Kayabasi	1.25	147	*i* P	Pb	16 48 32.2	+1.2
BDRM				*i* S	Sb	16 48 47.7	+0.6
APE	Apeiranthos	1.35	219	PN	Pn	16 48 33.1	+0.4
APE	Apeiranthos	1.35	219	*e*Pb	Pb	16 48 32.7	+0.1
APE	Apeiranthos	1.35	219	*e*Pn	Pn	16 48 33.1	+0.4
MANT	Manisa	1.59	76	*i* P	Pn	16 48 35.5	-0.5
MANT				*i* S	Sb	16 48 57.3	+0.6
BOZC	Bozcaada	1.77	346	*i* P	Pn	16 48 38.8	+0.1
BOZC				*i* S	Sn	16 49 04.5	+3.0
BALB	Balikesir	1.81	33	PN	Pn	16 48 39.3	0.0
DENT	Denizli	1.96	100	PN	Pn	16 48 40.9	-0.5
SANT	Santorini	1.97	208	*i* P	Pn	16 48 41.7	+0.1
SANT				*i* S	Sg	16 49 30.0	+17
BTOK	Tokmak	1.98	34	*i* P	Pn	16 48 41.6	0.0
BTOK				*i* S	Sn	16 49 14.4	+7.5
DNZL	Cakiroluk	1.99	102	*i* P	Pn	16 48 41.5	-0.3
DNZL				*i* S	Sn	16 49 11.1	+4.0
LIA	Limnos Island	2.08	329	*e*PN	Pn	16 48 43.8	+0.6
DALT	Dalyan (Mudla)	2.12	129	PN	Pn	16 48 43.8	+0.2
PTL	Penteli	2.16	269	*e*PB	Pb	16 48 45.5	-0.9
DST	Dursunbey	2.17	46	PN	Pn	16 48 44.2	-0.2
MPAR	Parnis Oros	2.25	272	*e*PB	Pb	16 48 47.8	-0.3
ARG	Arkhangelos	2.27	147	*e*PB	Pb	16 48 46.1	-2.1
ATH	Athens Observa	2.28	267	*e*PB	Pb	16 48 47.5	-1.0
KHL	Karahalli	2.31	84	*e*PN	Pn	16 48 46.7	+0.2
EDC	Edincik	2.43	24	*e*PN	Pn	16 48 47.4	-0.7
BNT	Bandirma	2.45	24	*e*PN	Pn	16 48 48.1	-0.4
FETY	Fethiye	2.48	126	*e*PN	Pn	16 48 49.6	+0.8
KCT	Karacabey	2.54	32	*e*PN	Pn	16 48 49.2	-0.5
MRMT	Marmara Adasi	2.59	17	*e*PN	Pn	16 48 50.5	+0.1
ORLT	Orhaneli	2.62	42	*e*PN	Pn	16 48 50.5	-0.4
MFT	Murefte	2.71	11	*e*PN	Pn	16 48 52.3	+0.2
ULDT	Uludag	2.82	44	*i* P	Pn	16 48 54.6	+0.9
ULDT				*i* S	Sn	16 49 31.1	+2.8
ALT	Altintas	2.91	70	*e*PN	Pn	16 48 54.5	-0.4
NPS	Neapolis	2.96	196	*e*PN	Pn	16 48 55.0	-0.8
NPS	Neapolis	2.96	196	*e*Pn	Pn	16 48 51.7	-4.1
ELL	Elmali	2.97	117	*e*PN	Pn	16 48 56.3	+0.4
RDO	Rodhopi	3.12	345	*e*PN	Pn	16 48 58.1	+0.1
YLV	Yalova	3.25	41	*e*PN	Pn	16 48 59.4	-0.4
HRT	Hereke	3.59	40	*e*PN	Pn	16 49 04.3	-0.4
ESKT	Eskisehir	3.60	66	*i* P	Pn	16 49 03.7	-1.1
ESKT				*i* S	Sb	16 49 59.8	+4.5
ESKT	Eskisehir	3.60	66	*e*Pn	Pn	16 49 05.2	+0.4
EDRB	Edirne	3.72	2	*e*PN	Pn	16 49 06.6	+0.1
NVR	Nevrokopi	3.85	328	*e*PN	Pn	16 49 08.5	+0.2
KIZT	Kizilcal	4.21	78	*e*PN	Pn	16 49 13.7	+0.2
MDU	Mudurnu	4.28	55	*e*PN	Pn	16 49 14.6	+0.2
SGKT	Sivrigoynuk	4.89	58	*i* P	Pg	16 49 37.0	-8.0
SGKT				*i* S	Sg	16 50 46.2	-4.0

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*IDC **30** 16:49:58.4±5.7, 8.13N×93.88E, h44^{km}±52^{km}, mb3.8/10, mb1 4.0/11, mb1mx3.8/20, mbtmp4.0/11, ML4.1/1, MS3.7/1, Ms1 3.7/1, ms1mx2.7/29, Error ellipse: s-maj=47.4km s-min=14.6km az=57.0*

ISC 30 16:49:54.9±0.7**,8.1N**±0.1×**93.9E**±0.2**,h33^{km},n18, σ0^{s}67**/17**,mb4.3**/15**,MS3.7**/1**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.45	25	P	P	16 52 40.1	+0.9
	0.3nm,0.3s,baz=212,slow=14,SNR=22						
PKI	Pulchoki	20.98	339	*e*P	P	16 54 37.0	-0.8
	70nm,1.0s						
DMN	Daman	21.12	338	*e*P	P	16 54 39.1	-0.1
	19nm,0.8s,mb4.5						
GUN	Gumba	21.12	340	*e*P	P	16 54 39.3	+0.1
	38nm,0.7s,mb4.8						
KKN	Kakani	21.22	339	*e*P	P	16 54 40.3	+0.1
	24nm,0.8s,mb4.6						
GKN	Gorkha	21.65	337	*e*P	P	16 54 44.7	+0.1
	35nm,0.7s,mb4.9						
KOLN	Koldanda	21.86	335	*e*P	P	16 54 47.8	+1.2
	24nm,0.8s,mb4.7						
SONM	Songino Array	41.04	13	P	P	16 57 36.1	-0.7
	0.7nm,0.9s,mb3.3,baz=204,slow=7.0,SNR=5.8						
SONM				PcP	PcP	16 59 38.5	+1.6
	0.5nm,0.8s,baz=198,slow=4.7,SNR=2.7						
ZAL	Zalesovo	46.32	353	P	P	16 58 19.3	-0.1
	2.4nm,0.4s,mb4.5,baz=209,slow=7.5,SNR=13						
NWAO	Narrogin (SRO)	46.45	153	P	P	16 58 22.0	+1.3
	5.5nm,0.7s,mb4.6,baz=328,slow=8.5,SNR=5.0						
WRA	Warramunga Arr	48.61	125	P	P	16 58 37.3	-0.4
	2.1nm,0.5s,mb4.4,baz=306,slow=8.6,SNR=11						
BVAR	Borovoye Array	48.71	341	P	P	16 58 37.2	-0.9
	0.5nm,0.6s,mb3.7,baz=149,slow=8.6,SNR=4.2						
ASAR	Alice Springs	50.26	130	P	P	16 58 50.0	-0.4
	1.0nm,0.5s,mb4.1,baz=302,slow=6.9,SNR=6.7						
ASAR				PcP	PcP	17 00 09.4	+0.1
	1.0nm,0.7s,baz=289,slow=4.1,SNR=4.5						
CTA	Charters Tower	58.66	119	LR	LR	17 28 35.6	
	comp=Z,57nm,18.2s,MS3.7,baz=43,slow=40						
STKA	Stephens Creek	60.45	134	P	P	17 00 03.6	-0.4
	1.7nm,1.0s,mb4.0,baz=304,slow=7.3,SNR=3.1						
BRTR	Keskin Array B	62.08	311	P	P	17 00 14.4	-0.5
	0.7nm,0.8s,mb3.9,baz=90,slow=2.9,SNR=3.3						
FINES	FINESS Array B	72.40	332	P	P	17 01 19.2	-0.2
	6.3nm,1.1s,mb4.5,baz=166,slow=5.7,SNR=5.1						
GERES	GERESS Array B	77.49	318	P	P	17 01 50.0	+1.1
	0.6nm,0.8s,mb3.6,baz=127,slow=4.9,SNR=3.6						

IDC 30 16:49:57.4±7.8**,2.92N**×**94.55E,mb3.8**/3**,mb1 4.0**/4**, mb1mx3.6**/19**,mbtmp3.8**/4**,ML3.4**/1**,Error ellipse: s-maj=189.7km s-min=65.0km az=139.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.03	15	Pn	P	16 53 44.4	-1.7
	0.1nm,0.3s,baz=210,slow=12,SNR=4.2						
SONM	Songino Array	45.90	11	P	P	16 58 21.1	-2.4
	1.0nm,0.9s,baz=195,slow=8.5,SNR=5.0						
BVAR	Borovoye Array	53.79	342	P	P	16 59 22.7	-1.3
	0.8nm,0.7s,baz=143,slow=7.4,SNR=4.3						
GERES	GERESS Array B	81.78	319	P	P	17 02 18.1	-1.5
	0.3nm,0.4s,baz=98,slow=6.9,SNR=3.6						

IDC 30 16:55:41.7±9.1**,8.59N**×**93.25E,h90^{km}**±76^{km}**,mb3.4**/5**, mb1 3.6**/6**,mb1mx3.4**/18**,mbtmp3.7**/6**,ML3.4**/1**,Error ellipse: s-maj=78.8km s-min=20.9km az=56.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.26	29	P	P	16 58 19.7	-1.5
	0.1nm,0.3s,baz=220,slow=14,SNR=3.8						
SONM	Songino Array	40.67	14	P	P	17 03 13.3	-1.3
	0.6nm,0.8s,baz=202,slow=8.1,SNR=4.6						
WRA	Warramunga Arr	49.39	125	P	P	17 04 22.5	-2.0
	0.6nm,0.9s,baz=300,slow=9.8,SNR=4.8						
ASAR	Alice Springs	51.05	130	P	P	17 04 35.0	-2.1
	0.3nm,0.4s,baz=304,slow=7.7,SNR=7.3						
ARCES	ARCESS Array B	74.30	340	P	P	17 07 08.8	-1.9
	11nm,1.1s,baz=83,slow=7.3,SNR=3.0						
GERES	GERESS Array B	76.71	318	P	P	17 07 23.5	-1.3
	0.6nm,0.8s,baz=104,slow=4.0,SNR=2.5						

IDC 30 16:59:06.6±10.0**,4.09N**×**97.07E,mb3.7**/2**,mb1 3.9**/3**, mb1mx3.5**/17**,mbtmp3.6**/3**,Error ellipse: s-maj=304.4km s-min=46.9km az=76.0,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.40	7	Pn	P	17 02 31.6	-2.4
	baz=194,slow=11,SNR=2.9						
WRA	Warramunga Arr	43.72	124	P	P	17 07 13.7	-1.9
	1.0nm,0.6s,baz=302,slow=9.2,SNR=12						
ASAR	Alice Springs	45.27	129	P	P	17 07 26.4	-1.7
	1.2nm,1.1s,baz=302,slow=7.3,SNR=10						

OTT 30 16:59:07.7±0.2**,52.78N**×**67.28W,MN3.1**/7**,Blast, Mount Wright, Qc Mining explosion.,Northern Quebec**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SCHQ	Schefferville	2.08	7	PN	Pn	16 59 42.6	-1.6
SCHQ				SG	Sg	17 00 12.9	-3.9
SCHQ				Trac		17 00 15.1	
	comp=Z,57nm,0.2s						
MNQ	Manicouagan	2.43	203	PN	Pn	16 59 49.0	-0.3
MNQ				Trac		17 00 25.4	
	comp=Z,49nm,0.3s						
SMQ	Clarke City	2.58	172	PN	Pn	16 59 50.0	-1.5
SMQ				SN	Sn	17 00 21.4	-2.7
SMQ				Trac		17 00 29.2	
	comp=Z,41nm,0.3s						
ICQ	Pointe Anglais	3.26	180	PN	Pn	16 59 59.5	-1.6
ICQ				SN	Sn	17 00 39.1	-2.1
ICQ				Trac		17 00 55.8	
	comp=Z,22nm,0.3s						
CNQ	Baie Comeau	3.52	189	PN	Pn	17 00 03.7	-1.1
CNQ				Trac		17 01 00.9	
	comp=Z,17nm,0.3s						
GSQ	Grosses Roches	3.87	178	PN	Pn	17 00 07.3	-2.5
GSQ				Trac		17 01 09.5	
	comp=Z,13nm,0.2s						
LG4Q	La Grande 4	4.19	284	PN	Pn	17 00 12.2	-2.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LG4Q				PG	Pg	17 00 19.8	-12
LG4Q				SG	Sg	17 01 15.2	-12
LG4Q				Trac		17 01 19.1	
	comp=Z,11nm,0.2s						
LMQ	La Malbaie	5.59	202	PN	Pn	17 00 30.1	-4.1
DRLN	Deer Lake	7.10	116	PN	Pn	17 00 51.7	-3.7
LMN	Caledonia Moun	7.12	166	PN	Pn	17 00 51.6	-4.1
VLDQ	Val d'Or	8.00	238	PN	Pn	17 01 02.4	-5.6
MALO	McAlpine Lake	8.28	256	PN	P	17 01 05.4	-6.6
VIMO	Victor Mine	9.98	277	PN	P	17 01 28.1	-7.3
SILO	Sutton Inlier	10.61	286	PN	P	17 01 37.1	-6.9

IDC 30 17:04:44.5±1.0**,0.34N**×**126.42E,mb3.8**/6**,mb1 4.0**/6**, mb1mx3.8**/16**,mbtmp3.8**/6**,Error ellipse: s-maj=133.6km s-min=17.8km az=68.0,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	21.60	159	P	P	17 09 35.3	-2.9
	1.1nm,0.5s,baz=339,slow=11,SNR=16						
ASAR	Alice Springs	24.95	164	P	P	17 10 09.7	-1.4
	0.6nm,0.4s,baz=344,slow=7.0,SNR=21						
STKA	Stephens Creek	35.12	157	P	P	17 11 40.5	-1.3
	3.0nm,1.0s,baz=338,slow=11,SNR=5.6						
SONM	Songino Array	50.40	343	P	P	17 13 43.9	-1.7
	1.7nm,0.9s,baz=146,slow=8.9,SNR=9.8						
ZAL	Zalesovo	63.46	334	P	P	17 15 16.4	-2.0
	0.5nm,0.4s,baz=191,slow=7.1,SNR=3.9						
BVAR	Borovoye Array	69.99	328	P	P	17 15 57.3	-2.5
	1.4nm,0.9s,baz=124,slow=5.3,SNR=5.2						

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*IDC **30** 17:05:19.0±0.9,32.85N×76.26E,mb3.8/12,mb1 4.0/12, mb1mx3.9/20,mbtmp3.8/12,Error ellipse: s-maj=31.8km s-min=16.3km az=48.0*

*NDI **30** 17:05:25.1±4.9,32.81N×75.94E,h33^{km},MD3.7,ML4.0*

*NNC **30** 17:05:31.3±4.7,33.27N×76.95E,h91^{km}±35^{km},Error ellipse: s-maj=48.9km s-min=37.0km az=109.0*

ISC 30 17:05:22.9±0.6**,32.94N**±0.04×**76.35E**±0.05**,h38**^{km}±9^{km}**, n44,**σ**1**^{s}**28**/57**,mb3.7**/13**,8C-2D,Kashmir-India border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THN	Thein Dam	0.74	227	*e*P	P	17 05 32.8	-4.0
	3µm,0.2s						
THN				*e*S	S	17 05 43.5	-3.5
PONG	Pong	1.04	199	*e*P	P	17 05 41.0	-0.2
PONG				*e*		17 06 08.0	
JMU	Jammu	1.24	260	*i*	S	17 06 04.0	+4.2
BHK	Bhakra	1.52	178	*e*P	P	17 05 47.8	-0.3
BHK				*e*S	S	17 06 07.8	+0.9
SMLA	Simla	1.94	159	⇑*i*P	P	17 06 09.7	+16
	16µm,0.3s						
SMLA				*i* S	S	17 06 35.0	+18
	20µm,0.2s						
KLP	Kalpa	2.14	131	*e*P	P	17 06 01.4	+4.6
KLP				*e*S	S	17 06 30.9	+8.6
KLP				*e*		17 06 41.4	
	comp=N,5µm,1.3s						
KLP				*e*		17 06 41.9	
	comp=E,3µm,0.8s						
CHCP	Chirah Chowk	2.68	286	⇑P	P	17 06 06.4	+1.8
DDI	Dehra Dun	2.99	150	*e*PN	P	17 06 17.3	+8.3
DDI				*e*SN	S	17 06 51.5	+7.5
SARP	Sargodha	3.27	253	P	P	17 06 14.4	+1.4
CEP	Cherat	3.82	285	⇓P	P	17 06 20.5	-0.2
CEP				S	S	17 07 05.0	0.0
THW	Thamme Wali	3.88	269	P	P	17 06 21.0	-0.6
NDI	New Delhi	4.31	170	*e*PN	P	17 06 27.0	-0.7
NDI				*e*PG	P	17 06 36.0	+8.3
NDI				*e*SN	S	17 07 14.0	-3.5
NDI				*e*SG	S	17 07 31.0	+14
AYAN	Aya Nagar	4.50	171	*e*P	P	17 06 27.7	-2.7
AYAN				*e*S	S	17 07 17.9	-4.2
SBDP	Sheikh Budin	4.72	264	P	P	17 06 32.9	-0.6
PTH	Pithoragarh	4.73	135	*e*P	P	17 06 36.9	+3.2
PTH				*e*S	S	17 07 28.8	+0.7
LGTI	Lohaghat	4.82	135	*e*P	P	17 06 35.7	+0.7
LGTI				*e*		17 07 56.0	
KHET	Khetri	4.88	186	*e*P	P	17 06 35.1	-0.6
KHET				*e*		17 07 30.1	
KHET				*e*		17 08 01.3	
	comp=E,140nm,0.3s						
KHET				*e*		17 08 01.4	
	comp=N,107nm,0.4s						
DRP	Derazinda	5.34	259	P	P	17 06 41.0	-1.2
AJM	Ajmer	6.61	193	⇑*i*	P	17 07 02.0	+1.9
KOLN	Koldanda	8.11	128	*e*P	P	17 07 19.5	-1.4
	comp=N,8.6nm,0.3s						
GKN	Gorkha	8.68	122	*e*P	P	17 07 26.5	-2.3
	comp=N,15nm,0.3s						
DMN	Daman	9.25	123	*e*P	P	17 07 34.3	-2.4
	comp=N,9.2nm,0.3s						
KKN	Kakani	9.27	121	*e*P	P	17 07 34.4	-2.5
	comp=N,6.9nm,0.2s						
PKI	Pulchoki	9.49	122	*e*P	P	17 07 37.5	-2.5
	comp=N,14nm,0.2s						
GUN	Gumba	9.63	119	*e*P	P	17 07 39.4	-2.6
	comp=N,12nm,0.3s						
AAK	Ala-Archa	9.78	352	⇑Pn	P	17 07 45.7	+1.6
	comp=N,2.8nm,0.6s						
AAK				⇓Sn	S	17 09 33.1	-0.7
	comp=N,5.7nm,0.6s						
POO	Poona	14.53	190	*e*	S	17 11 43.0	+15
MK31	Makanchi Array	14.56	16	⇑Pn	P	17 08 48.8	+0.8
	comp=N,0.4nm,0.3s,baz=201,slow=13,SNR=36						
MK31				⇑Sn	S	17 11 23.6	-5.3
	comp=N,2.3nm,0.7s,baz=198,slow=18,SNR=13						
KAD	Karad	15.69	188	*e*	P	17 09 09.3	+6.5
KAD				*e*		17 12 23.0	
BVA0	Borovoye Array	20.53	350	⇑P	P	17 09 59.8	-0.4
	comp=N,0.4nm,0.6s,baz=158,slow=13,SNR=23						
BVAR	Borovoye Array	20.53	350	P	P	17 09 60.0	-0.3
	comp=N,2.2nm,0.4s,baz=163,slow=11,SNR=25						
CHKZ	Chkalovo	21.13	351	⇑P	P	17 10 05.3	-1.1
	comp=N,2.5nm,1.0s,mb3.5						
ZAL	Zalesovo	21.83	14	P	P	17 10 12.4	-1.0
	comp=N,1.8nm,0.3s,mb4.0,baz=189,slow=5.6,SNR=5.2						
CMAR	Chiang Mai Arr	24.88	120	P	P	17 10 44.7	+1.2
	comp=N,0.5nm,0.5s,mb3.3,baz=284,slow=12,SNR=9.2						
SONM	Songino Array	27.08	48	P	P	17 11 06.0	+2.2
	comp=N,1.1nm,0.7s,mb3.5,baz=245,slow=9.1,SNR=14						
BRTR	Keskin Array B	34.81	294	P	P	17 12 12.4	+0.4
	comp=N,1.0nm,0.9s,mb3.8,baz=100,slow=7.5,SNR=4.3						
FINES	FINESS Array B	42.87	327	P	P	17 13 19.1	+0.4
	comp=N,3.8nm,0.9s,mb4.1,baz=112,slow=10,SNR=7.1						
KAF	Kangasniemi	42.98	328	*e*p	P	17 13 18.4	-1.3
	comp=N,0.4nm,0.4s,mb3.5						
ARCES	ARCESS Array B	46.10	338	P	P	17 13 45.2	+0.6
	comp=N,2.7nm,0.8s,mb4.3,baz=110,slow=7.8,SNR=12						
NOA	NORSAR Array B	49.84	325	P	P	17 14 13.2	-0.7
	comp=N,1.6nm,0.8s,mb4.1,baz=95,slow=7.6,SNR=2.6						
WRA	Warramunga Arr	76.36	125	P	P	17 17 09.6	-0.5
	comp=N,0.7nm,0.9s,mb3.6,baz=316,slow=6.5,SNR=14						
ILAR	Eielson Array	76.91	18	P	P	17 17 12.6	+0.2
	comp=N,0.4nm,0.7s,mb3.5,baz=284,slow=5.9,SNR=4.7						
ASAR	Alice Springs	78.60	128	P	P	17 17 22.7	+0.2
	comp=N,0.4nm,0.8s,mb3.4,baz=324,slow=5.6,SNR=4.2						
YKA	Yellowknife Ar	84.49	5	P	P	17 17 53.2	+0.9
	comp=N,0.2nm,0.4s,mb3.6,baz=340,slow=5.6,SNR=4.2						

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*IDC **30** 17:15:34.3±1.1,5.85N×93.19E,mb3.8/10,mb1 4.0/11, mb1mx3.9/20,mbtmp3.8/11,ML4.3/1,Error ellipse: s-maj=41.4km s-min=20.6km az=49.0*

ISC 30 17:15:37.7±0.8**,5.9N**±0.1×**93.4E**±0.1**,h33**^{km}**,n20,** σ**0**^{s}**98**/20**,mb4.0**/13**,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.65	23	Pn	P	17 18 50.5	-1.0
	0.4nm,0.3s,baz=214,slow=15,SNR=12						
HYB	Hyderabad	18.48	310	*e*P	P	17 19 53.0	-0.2
IMP	Imphal	18.82	2	*e*P	P	17 19 53.8	-3.5
SHL	Shillong	19.64	356	*e*P	P	17 20 02.0	-4.6
PKI	Pulchoki	22.88	342	*e*P	P	17 20 40.4	+0.8
DMN	Daman	23.01	341	*e*P	P	17 20 42.0	+1.1
GUN	Gumba	23.05	343	*e*P	P	17 20 42.1	+0.8
	54nm,0.8s,mb5.0						
KKN	Kakani	23.12	342	*e*P	P	17 20 42.6	+0.6
	48nm,0.9s,mb4.9						
GKN	Gorkha	23.53	340	*e*P	P	17 20 46.9	+1.0
KOLN	Koldanda	23.68	338	*e*P	P	17 20 49.1	+1.7
	15nm,0.8s,mb4.5						
SONM	Songino Array	43.28	13	P	P	17 23 38.3	+0.3
	0.8nm,0.8s,mb3.5,baz=207,slow=5.6,SNR=7.6						
WRA	Warramunga Arr	47.76	124	P	P	17 24 14.7	+0.7
	0.6nm,0.6s,mb3.8,baz=303,slow=9.0,SNR=6.4						
ZAL	Zalesovo	48.43	353	P	P	17 24 17.9	-0.9
	0.9nm,0.4s,mb4.1,baz=315,slow=11						
ASAR	Alice Springs	49.26	128	P	P	17 24 25.8	+0.2
	0.2nm,0.5s,mb3.4,baz=299,slow=7.9,SNR=5.0						
BVAR	Borovoye Array	50.64	342	P	P	17 24 34.7	-1.0
	0.3nm,0.6s,mb3.4,baz=149,slow=14,SNR=2.5						
BRTR	Keskin Array B	63.16	312	P	P	17 26 04.0	-0.9
	1.5nm,1.0s,mb4.1,baz=117,slow=5.5,SNR=4.6						
AKASG	Malin Array Be	69.25	322	P	P	17 26 41.5	-1.9
	0.3nm,0.4s,mb3.5,baz=87,slow=5.6,SNR=2.9						
MLR	Muntele Rosu	70.07	316	P	P	17 26 48.3	-0.2
	2.3nm,0.7s,mb4.2,baz=101,slow=19,SNR=3.5						
FINES	FINESS Array B	74.12	333	P	P	17 27 11.7	-0.6
	3.2nm,0.9s,mb4.2,baz=90,slow=5.6,SNR=4.1						
GERES	GERESS Array B	78.81	319	P	P	17 27 39.0	+0.1
	0.9nm,0.7s,mb3.8,baz=79,slow=5.0,SNR=4.4						

IDC 30 17:15:49.8±5.1**,6.20N**×**93.29E,mb4.0**/3**,mb1 4.3**/4**, mb1mx3.9**/18**,mbtmp4.0**/4**,ML4.0**/1**,Error ellipse: s-maj=151.2km s-min=27.9km az=75.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.38	24	Pn	P	17 19 01.3	-2.3
	0.3nm,0.3s,baz=215,slow=14,SNR=11						
SONM	Songino Array	42.98	13	P	P	17 23 50.7	-1.7
	2.9nm,1.2s,baz=193,slow=8.3,SNR=6.9						
WRA	Warramunga Arr	48.01	124	P	P	17 24 30.8	-2.1
	2.0nm,0.5s,baz=304,slow=8.8,SNR=19						
WRA				pP	pP	17 24 39.2	+6.3
	8.2nm,0.8s,baz=304,slow=9.0,SNR=16						
ASAR	Alice Springs	49.52	128	P	P	17 24 42.8	-1.8
	1.4nm,0.8s,baz=296,slow=7.3,SNR=10						
ASAR				pP	pP	17 24 51.4	+6.8
	1.5nm,0.6s,baz=300,slow=7.7,SNR=7.5						

IDC 30 17:21:28.4±5.5**,5.01N**×**93.18E,mb3.4**/3**,mb1 3.7**/4**, mb1mx3.5**/17**,mbtmp3.5**/4**,ML4.1**/1**,Error ellipse: s-maj=159.8km s-min=30.9km az=74.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.50	22	Pn	P	17 24 57.1	0.0
	0.3nm,0.3s,baz=208,slow=14,SNR=20						
SONM	Songino Array	44.15	13	P	P	17 29 38.2	-2.3
	0.4nm,0.7s,baz=191,slow=6.3,SNR=3.8						
WRA	Warramunga Arr	47.45	123	P	P	17 30 04.8	-2.5
	0.3nm,0.4s,baz=303,slow=9.0,SNR=7.1						
ASAR	Alice Springs	48.88	127	P	P	17 30 17.1	-1.2
	0.3nm,0.8s,baz=299,slow=8.0,SNR=5.4						

IDC 30 17:22:40.8±2.6**,2.53N**×**95.61E,mb3.7**/4**,mb1 3.9**/5**, mb1mx3.7**/17**,mbtmp3.7**/5**,ML3.8**/1**,Error ellipse: s-maj=94.2km s-min=23.8km az=62.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.16	11	Pn	P	17 26 30.6	-0.5
	0.1nm,0.3s,baz=198,slow=11,SNR=12						
WRA	Warramunga Arr	44.08	122	P	P	17 30 51.2	-1.6
	0.7nm,0.5s,baz=300,slow=9.4,SNR=3.6						
ASAR	Alice Springs	45.46	127	P	P	17 31 01.9	-1.9
	0.3nm,0.5s,baz=298,slow=7.7,SNR=3.8						
SONM	Songino Array	46.09	10	P	P	17 31 06.4	-2.0
	0.6nm,0.5s,baz=192,slow=9.2,SNR=13						
BVAR	Borovoye Array	54.49	342	P	P	17 32 10.1	-2.4
	3.7nm,1.1s,baz=143,slow=7.2,SNR=6.3						

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*HEL **30** 17:25:41.8±0.1,67.16N×20.70E,ML2.1,ML2.1(UPP), ML2.0(BER),Explosion*

*NAO **30** 17:25:42.5±3.1,67.17N×21.01E,ML2.1*

*BER **30** 17:25:43.4±3.6,67.20N×20.66E,ML2.0,ML2.1(NAO), Suspected explosion*

ISC 30 17:25:40.3±0.5**,67.17N**±0.03×**20.80E**±0.08**,n22,**σ**1**^{s}**16**/39**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUNU	Dundret	0.10	242	*i* P	Pg	17 25 42.9	+0.5
MASU	Masugnsbyn	0.55	58	*i* P	Pg	17 25 52.0	+0.8
ERTU	Ertsjaerv	0.83	138	*i* P	Pg	17 25 56.9	+0.1
PAJU	Pajala	0.92	98	*e*P	Pg	17 25 58.7	+0.1
PAJU				*e*S	Sg	17 26 12.2	+1.3
NIKU	Nikkaluokta	0.98	317	*e*P	Pb	17 25 58.4	-1.5
SJUU	Sjulsmark	1.70	169	*e*P	Pn	17 26 12.2	+0.8
KTK1	Kautokeino	2.07	25	*e*P	Pn	17 26 19.1	+2.5
KTK1				*e*Sg	Sg	17 26 46.9	-2.3
KTK1				AML	AML	17 26 48.1	
	comp=Z,30nm,0.6s						
SGF	Sodankyl	2.24	80	*e*P	Pn	17 26 21.0	+1.8
SGF				*e*S	Sn	17 26 50.5	+2.6
TRO	Tromso	2.57	345	*e*P	Pn	17 26 25.6	+1.7
TRO				*e*Sg	Sg	17 27 00.9	-5.1
TRO				AML	AML	17 27 01.9	
	comp=Z,8.3nm,0.3s						
MOR8	Moi Rana	2.72	251	*e*Sg	Sn	17 27 00.2	0.0
MOR8				AML	AML	17 27 03.2	
	comp=Z,16nm,0.5s						
OUL	Oulu	2.94	133	*e*P	Pn	17 26 29.2	-0.1
OUL				*e*S	Sn	17 27 05.0	-0.9
OUL				*e*SG	Sg	17 27 13.2	-5.2
OUL				MSG		17 27 17.8	
	comp=Z,6.7nm,0.4s						
ARA0	ARCESS Array S	2.95	34	Pn	Pn	17 26 29.5	+0.2
	baz=212,slow=14						
ARA0				Sn	Sn	17 27 06.0	0.0
	baz=212,slow=22						
ARA0	ARCESS Array S	2.95	34	*e*P	Pn	17 26 29.5	+0.2
ARA0				*e*S	Sn	17 27 06.0	0.0
UMAU	Umeaa	3.30	181	*e*P	Pn	17 26 33.8	-0.5
KEV	Kevo	3.46	39	*e*P	Pn	17 26 36.6	0.0
KEV				*e*S	Sn	17 27 17.6	-1.4
KEV				*e*SG	Sg	17 27 30.1	-5.5
MSF	Maaselka	3.53	107	*e*P	Pn	17 26 37.3	-0.2
MSF				*e*S	Sn	17 27 20.2	-0.4
MSF				*e*SG	Sg	17 27 32.6	-5.3
MSF				MSG		17 27 33.4	
	comp=Z,5.2nm,0.4s						
KU4	Oulanka	3.57	99	*e*P	Pn	17 26 38.0	-0.2
KU4				*e*S	Sn	17 27 21.9	+0.2
KJN	Kajaani	4.22	134	*e*P	Pn	17 26 47.4	+0.1
KJN				*e*S	Sn	17 27 35.1	-2.9
KJN				*e*SG	Sg	17 27 51.5	-9.3
KJN				MSG		17 27 53.8	
	comp=Z,2.4nm,0.3s						
APA0	Apatity Array	4.73	79	Sn	Sn	17 27 47.2	-3.8
	baz=275,slow=37						
APA0				Lg		17 28 07.9	
	baz=270,slow=28						
APA0	Apatity Array	4.73	79	*e*S	Sn	17 27 47.2	-3.8
APA0				*e*SG		17 28 07.9	
FIA0	FINESS Array S	6.19	156	Pn	Pn	17 27 14.6	-0.6
	baz=350,slow=14						
FIA0				Sn	Sn	17 28 23.3	-4.4
	baz=343,slow=28						
FIA0				Lg		17 28 56.7	
	baz=347,slow=37						
FIA0	FINESS Array S	6.19	156	*e*P	Pn	17 27 14.6	-0.6
FIA0				*e*S	Sn	17 28 23.3	-4.4
FIA0				*e*		17 28 56.7	

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*IDC **30** 17:26:35.6±0.9,5.30N×94.51E,mb4.2/11,mb1 4.3/11, mb1mx4.1/19,mbtmp4.2/11,Error ellipse: s-maj=48.8km s-min=16.8km az=44.0*

ISC 30 17:26:38.4±0.8**,5.1N**±0.1×**94.4E**±0.1**,h33**^{km}**,n18,** σ**0**^{s}**87**/18**,mb4.4**/17**,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.04	18	Pn	P	17 29 58.3	+1.1
	0.5nm,0.3s,baz=209,slow=14,SNR=13						
PKI	Pulchoki	23.96	340	*e*P	P	17 31 51.9	+1.0
	7.4nm,0.5s,mb4.4						
DMN	Daman	24.10	339	*e*P	P	17 31 52.6	+0.4
	9.0nm,0.7s,mb4.3						
GUN	Gumba	24.12	341	*e*P	P	17 31 52.0	-0.4
	14nm,0.5s,mb4.7						
KKN	Kakani	24.21	340	*e*P	P	17 31 53.4	+0.1
	11nm,0.8s,mb4.3						
GKN	Gorkha	24.63	339	*e*P	P	17 31 57.3	0.0
	8.2nm,0.3s,mb4.8						
KOLN	Koldanda	24.81	337	*e*P	P	17 31 59.7	+0.6
	29nm,0.6s,mb5.0						
SONM	Songino Array	43.84	12	P	P	17 34 41.6	-1.6
	2.2nm,0.7s,mb4.0,baz=188,slow=8.4,SNR=12						
SONM				PcP	PcP	17 36 29.5	-0.3
	0.6nm,0.5s,baz=189,slow=3.6,SNR=9.5						
WRA	Warramunga Arr	46.47	124	P	P	17 35 05.2	+0.7
	5.4nm,0.7s,mb4.6,baz=302,slow=9.7,SNR=74						
ASAR	Alice Springs	47.96	128	P	P	17 35 16.8	+0.5
	1.3nm,0.6s,mb4.2,baz=301,slow=8.0,SNR=30						
BVAR	Borovoye Array	51.72	342	P	P	17 35 43.4	-1.1
	2.3nm,0.5s,mb4.3,baz=138,slow=11,SNR=11						
PMG	Port Moresby	54.51	105	P	P	17 36 04.9	-0.9
	3.6nm,0.5s,mb4.7,baz=63,slow=22,SNR=3.1						
BRTR	Keskin Array B	64.46	312	P	P	17 37 14.5	+0.4
	0.6nm,0.7s,mb3.7,baz=98,slow=10,SNR=2.9						
AKASG	Malin Array Be	70.51	322	P	P	17 37 50.2	-1.6
	0.9nm,0.4s,mb4.1,baz=72,slow=3.0,SNR=4.8						
FINES	FINESS Array B	75.30	333	P	P	17 38 19.3	-0.5
	2.1nm,0.7s,mb4.2,baz=90,slow=5.7,SNR=6.7						
ARCES	ARCESS Array B	77.98	340	P	P	17 38 34.1	-0.6
	7.4nm,1.1s,mb4.5,baz=90,slow=6.1,SNR=6.8						
GERES	GERESS Array B	80.08	319	P	P	17 38 46.9	+0.3
	1.2nm,0.8s,mb3.9,baz=104,slow=5.5,SNR=8.0						
DAVOX	Davos	82.58	316	P	P	17 39 01.2	+1.6
	1.9nm,0.4s,mb4.5,baz=181,slow=1.8,SNR=6.5						

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*NIED **30** 17:28:00,28.90N×130.80E,h35^{km},Mw4.3 Best double couple: M$_0$2.95×10^{15} NP1:φ$_s$7°,δ77°,λ42°. NP2:φ$_s$265°, δ49°,λ162°.*

*IDC **30** 17:28:11.2±1.3,28.91N×130.58E,mb3.7/6,mb1 3.8/7, mb1mx3.6/23,mbtmp3.7/7,ML3.4/1,MS2.9/1,Ms1 2.9/1, ms1mx1.9/36,Error ellipse: s-maj=37.6km s-min=23.1km az=100.0*

*JMA **30** 17:28:13.8±0.1,28.88N×130.76E,h28^{km},M3.6*

ISC 30 17:28:14.2±0.8**,28.87N**±0.07×**130.7E**±0.1**,h33**^{km}**,n22,** σ**0**^{s}**92**/27**,mb4.0**/9**,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JAM	Amami Oshima	1.08	246	P	P	17 28 33.7	+0.6
JAM				*e*S	S	17 28 47.5	+0.4
JNN	Nakanoshima	1.22	323	P	P	17 28 35.3	+0.3
JKC	Kuchinoerabu	1.66	344	P	P	17 28 41.5	+0.2
JTN	Tanegashima 3	1.80	7	P	P	17 28 43.7	+0.4
JTK	Tokunoshima	1.90	236	P	P	17 28 46.2	+1.4
JTK				S	S	17 29 10.4	+2.7
JNAR	Kushima--Naru	2.69	10	P	P	17 28 56.8	+0.7
JOW	Kunigami	2.97	228	P	P	17 29 00.2	+0.1
JOW				*e*S	S	17 29 35.7	+0.8
JOW	Kunigami	2.97	228	Pn	Pn	17 28 59.6	-0.6
	8.7nm,0.3s,baz=101,slow=14,SNR=19						
JOW				Sn	Sn	17 29 34.4	-0.7
	12nm,0.3s,baz=73,slow=28,SNR=4.5						
JOW				LR	LR	17 29 50.8	
	comp=Z,218nm,21.0s,baz=298,slow=34						
JIH	Iheya	3.05	234	P	P	17 29 00.8	-0.4
JKE	Kume jima 2	4.32	235	P	P	17 29 18.3	-0.9
JKE				*e*S	S	17 30 08.1	-0.9
SONM	Songino Array	26.70	322	P	P	17 33 51.5	-0.6
	0.2nm,0.6s,mb2.8,baz=146,slow=5.2,SNR=2.9						
GUN	Gumba	39.29	280	*e*P	P	17 35 41.1	-0.5
	19nm,0.8s,mb4.9						
PKI	Pulchoki	39.77	279	*e*P	P	17 35 41.9	-3.7
KKN	Kakani	39.83	280	*e*P	P	17 35 42.3	-3.8
DMN	Daman	40.02	280	*e*P	P	17 35 43.6	-4.1
GKN	Gorkha	40.34	280	*e*P	P	17 35 46.0	-4.4
	8.8nm,0.5s,mb4.8						
KOLN	Koldanda	41.29	280	*e*P	P	17 35 49.1	-9.1
	24nm,1.1s,mb4.8						
BVAR	Borovoye Array	49.84	317	P	P	17 37 04.7	-1.1
	1.9nm,0.8s,mb4.2,baz=79,slow=7.3,SNR=5.2						
ASAR	Alice Springs	52.32	176	P	P	17 37 24.9	-0.2
	1.3nm,1.1s,mb3.8,baz=346,slow=7.4,SNR=4.5						
FINES	FINESS Array B	71.66	331	P	P	17 39 33.4	-0.6
	1.6nm,0.7s,mb4.0,baz=63,slow=6.2,SNR=2.6						
YKA	Yellowknife Ar	75.20	26	P	P	17 39 55.9	+1.2
	0.2nm,0.6s,mb3.2,baz=300,slow=5.8,SNR=3.7						
BRTR	Keskin Array B	77.16	308	P	P	17 40 06.3	0.0
	1.4nm,0.8s,mb3.9,baz=90,slow=3.7,SNR=5.0						

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*NAO **30** 17:30:30.4±3.4,67.09N×20.77E,ML2.0*

*CSEM **30** 17:30:30.6±1.2,67.15N×20.16E,h2^{km},ML2.7/1,Error ellipse: s-maj=27.1km s-min=17.2km az=84.0,Mining explosion.*

*HEL **30** 17:30:31.9±1.0,67.16N×20.47E,ML2.0,ML2.7(UPP), ML2.1(BER),Explosion*

*UPP **30** 17:30:31.1,67.17N×20.71E,h0^{km},ML2.7,Suspected Mining explosion.*

*BER **30** 17:30:33.0±1.6,67.09N×20.63E,ML2.1,ML2.0(NAO), Suspected explosion*

ISC 30 17:30:31.2±0.6**,67.13N**±0.04×**20.76E**±0.08**,n25,**σ**1**^{s}**40**/38**, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUNU	Dundret	0.07	268	*i* P	Pg	17 30 32.5	-0.1
DUNU				*i* S	Sg	17 30 34.0	+0.4
DUNU	Dundret	0.07	268	P	Pg	17 30 32.5	-0.1
DUNU				S	Sg	17 30 33.9	+0.3
MASU	Masugnsbyn	0.59	55	*i* P	Pg	17 30 41.7	-1.2
ERTU	Ertsjaerv	0.81	135	*i* P	Pg	17 30 46.8	-0.5
PAJU	Pajala	0.93	95	*e*P	Pg	17 30 48.6	-1.1
SJUU	Sjulsmark	1.66	168	*e*P	Pn	17 31 02.0	+0.3
KTK1	Kautokeino	2.11	25	*e*P	Pn	17 31 09.2	+1.0
KTK1				AML	AML	17 31 37.9	
	comp=Z,23nm,0.4s						
KTK1	Kautokeino	2.11	25	P	Pn	17 31 09.1	+0.9
	comp=Z,23nm,0.4s						
SGF	Sodankyl	2.26	79	*e*P	Pn	17 31 14.6	+4.3
SGF				*e*S	Sn	17 31 41.9	+2.6
SGF	Sodankyl	2.26	79	P	Pn	17 31 14.5	+4.2
SGF				S	Sn	17 31 41.9	+2.6
OUL	Oulu	2.93	132	*e*P	Pn	17 31 24.6	+4.8
OUL				*e*S	Sn	17 31 59.0	+2.8
OUL				*e*SG	Sg	17 32 05.9	-2.7
OUL	Oulu	2.93	132	S	Sn	17 31 59.0	+2.8
OUL				Sg	Sg	17 32 05.8	-2.8
ARA0	ARCESS Array S	3.00	34	Pn	Pn	17 31 19.4	-1.4
	baz=214,slow=14						
ARA0				Sn	Sn	17 31 56.0	-1.9
	baz=221,slow=37						
ARA0	ARCESS Array S	3.00	34	*e*P	Pn	17 31 19.4	-1.4
ARA0				*e*S	Sn	17 31 56.0	-1.9
ARA0	ARCESS Array S	3.00	34	P	Pn	17 31 19.3	-1.5
KEV	Kevo	3.51	38	*e*P	Pn	17 31 32.1	+4.0
KEV				*e*S	Sn	17 32 12.3	+1.4
KEV				*e*SG	Sg	17 32 22.6	-5.3
KEV				MSG		17 32 24.1	
	comp=Z,4.1nm,0.4s						
KEV	Kevo	3.51	38	Sg	Sg	17 32 22.6	-5.3
	comp=Z,4.1nm,0.4s						
KEV	Kevo	3.51	38	P	Pn	17 31 32.1	+4.0
KEV				S	Sn	17 32 12.2	+1.3
MSF	Maaselka	3.53	106	*e*S	Sn	17 32 12.3	+0.7
MSF				*e*SG	Sg	17 32 23.7	-5.1
MSF				MSG		17 32 25.5	
	comp=Z,2.1nm,0.3s						
MSF	Maaselka	3.53	106	S	Sn	17 32 12.2	+0.7
MSF				Sg	Sg	17 32 23.7	-5.1
	comp=Z,2.1nm,0.3s						
KU4	Oulanka	3.58	98	*e*P	Pn	17 31 32.9	+3.8
KU4				*e*S	Sn	17 32 13.6	+0.8
KU4				*e*SG	Sg	17 32 25.0	-5.4
KJN	Kajaani	4.20	133	*e*SG	Sg	17 32 45.0	-6.0
KJN				MSG		17 32 48.5	
	comp=Z,2.0nm,0.4s						
FIA0	FINESS Array S	6.15	155	Lg		17 33 42.6	
	baz=341,slow=28						

FIA0	**FINESS Array S**	**6.15**	**155**	Lg		17 33 42.6	
	baz=341,slow=28						
FIA0	**FINESS Array S**	**6.15**	**155**	*e*SG		17 33 42.6	

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*BJI **30** 17:34:41.9, 6.80N×92.93E, h13^{km}, mB5.5, mb5.0, Ms5.3, Msz5.1*

*SYO **30** 17:34:41.0, 6.75N×92.93E, h6^{km}, MB5.4, MS5.0*

*NEIC **30** 17:34:42.3±3.2, 6.76N×92.91E, h14^{km}±19^{km}, mb5.4/72, MW5.4, Error ellipse: s-maj=6.5km s-min=5.4km az=223.0, Moment Tensor Solution. s9 Moment tensor: Scale 10^{17} Nm; M_{rr}0.00; $M_{\theta\theta}$0.00; $M_{\phi\phi}$0.00; $M_{r\theta}$0.00; $M_{\theta\phi}$0.00; $M_{\phi r}$0.00; Best double couple: $M_0$1.3×10^{17} NP1:ϕ_s68°,δ30°,λ-158°. NP2:ϕ_s319°,δ79°,λ-62°. Principal axes: T 1.3, Plg29°, Azm26°; N -.06, Plg28°, Azm133°; P -1.24, Plg48°, Azm259°;*

*HRVD **30** 17:34:42.3±0.2, 6.77N×92.93E, h13^{km}, MW5.3/54, Centroid moment Tensor Solution. LP body waves: s47,c76;Mantle waves: s54,c103; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.58±.02; $M_{\theta\theta}$0.09±.02; $M_{\phi\phi}$0.48±.02; $M_{r\theta}$0.57±.06; $M_{\theta\phi}$-0.33±.01; $M_{\phi r}$-0.44±.05; Best double couple: M_0.96×10^{17} NP1: ϕ_s169°,δ24°,λ-57°. NP2:ϕ_s313°,δ70°,λ-104°. Principal axes: T .97, Plg24°, Azm54°; N -.03, Plg13°, Azm318°; P -.94, Plg62°, Azm202°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*CSEM **30** 17:34:43.9, 6.89N×93.21E, h33^{km}, mb5.5*

*MOS **30** 17:34:43.3±0.9, 6.77N×92.97E, h33^{km}, mb5.5/65, MS5.3/7, Error ellipse: s-maj=9.6km s-min=4.7km az=124.1*

*IDC **30** 17:34:45.0±0.3, 6.80N×93.05E, h32^{km}±2^{km}, mb4.7/32, mb1 4.7/33, mb1mx4.7/33, mbtmp4.9/33, ML5.2/1, MS4.8/7, Ms1 4.9/7, ms1mx4.3/32, Error ellipse: s-maj=14.9km s-min=7.0km az=44.0*

*DJA **30** 17:35:49.8±2.1, 4.73N×98.55E, h160^{km}, mb4.9/5, Error ellipse: s-maj=61.6km s-min=16.2km az=135.0*

ISC 30 17:34:43.0±0.2, **6.68N**±0.03×**92.97E**±0.02, **h31^{km}, h31^{km}**±.5^{km}**:pP-P, n422,** σ**1^{s}00**/395, **mb5.2**/125, **MS5.1**/25, **29C-25D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
TSI	**Tuntungan**	**6.40**	**119**	*e*P	**Pn**	**17 36 18.0**	**+0.3**
PSI	**Prapat**	**7.13**	**123**	*e*P	**Pn**	**17 36 26.4**	**-1.5**
NST	**Nakhon Sawan**	**11.37**	**38**	P	**P**	**17 37 26.8**	**+0.3**
PALK	**Pallekele**	**12.20**	**274**	*e*P	**P**	**17 37 34.2**	**-3.5**
PALK				*e*S	**S**	**17 39 38.3**	**-15**
CM31	**Chiang Mai Arr**	**13.07**	**26**	*e*P	**P**	**17 37 51.1**	**+1.8**
CMAR	**Chiang Mai Arr**	**13.07**	**26**	Pn	**P**	**17 37 48.2**	**-1.1**
	4.1nm,0.3s,baz=229,slow=14,SNR=31						
CMAR				LR	LR	17 43 30.0	
	comp=Z,3μm,19.1s,baz=210,slow=41						
MDRS	**Chennai**	**14.05**	**298**	*e*P	**P**	**17 38 01.5**	**-0.8**
MDRS				*e*		17 40 20.2	
MDRS				*e*		17 40 27.5	
	comp=E,597nm,0.3s						
MDRS				*e*		17 40 27.6	
	comp=N,918nm,0.4s						
NANT	**Nan**	**14.21**	**31**	⇓P	**P**	**17 38 05.0**	**+0.7**
	comp=N,156nm,1.0s						
VIS	**Vishakhapatnam**	**14.46**	**320**	*e*P	**P**	**17 38 06.3**	**-1.4**
VIS				*e*		17 38 07.2	
	comp=Z,108nm,0.6s						
VIS				*e*		17 40 31.6	
VIS				*e*		17 43 52.8	
	comp=Z,6μm,19.8s						
UBT	**Ubonrachathani**	**14.56**	**53**	⇓P	**P**	**17 38 16.5**	**+7.5**
	comp=Z,347nm,0.7s						
CHRT	**Chiangrai**	**14.69**	**26**	⇑P	**P**	**17 38 10.0**	**-0.6**
	comp=Z,358nm,1.4s						
KOD	**Kodaikanal**	**15.74**	**284**	⇑*e*P	**P**	**17 38 23.8**	**-0.5**
KOD				*i*		17 44 43.7	
	comp=Z,5μm,16.4s						
TRD	**Trivandrum**	**15.98**	**278**	⇓*e*P	**P**	**17 38 27.0**	**-0.5**
TRD				*e*		17 45 33.0	
	comp=Z,3μm,17.9s						
CAL	**Calcutta**	**16.39**	**345**	*e*	**P**	**17 38 39.6**	**+7.0**
CAL				*e*		17 41 46.7	
AGT	**Agartala**	**17.19**	**355**	⇑*i*P	**P**	**17 38 43.0**	**+0.4**
AGT				*i*		17 39 03.0	
PENI	**Pendagan**	**17.21**	**135**	*e*PP	**P**	**17 38 39.6**	**-3.3**
HYB	**Hyderabad**	**17.67**	**308**	*e*P	**P**	**17 38 48.0**	**-0.7**
HYB				*e*S	Sx	17 41 51.0	
HYB				pmax	pmax		
	comp=Z,170nm,1.0s						
HYB	**Hyderabad**	**17.67**	**308**	*e*P	**P**	**17 38 48.0**	**-0.7**
	comp=Z,170nm,1.0s						
HYB				*e*S	Sx	17 41 51.0	
HYB	**Hyderabad**	**17.67**	**308**	⇑*i*P	**P**	**17 38 48.0**	**-0.7**
	comp=Z,170nm,1.0s						
HYB				*e*		17 41 51.0	
HYB				*e*S	**S**	**17 42 05.0**	**+2.9**
HYB				LR	LR	17 45 52.0	
	comp=Z,6.2nm,18.0s						
IMP	**Imphal**	**18.03**	**3**	*e*	**P**	**17 38 49.8**	**-3.3**
PULI	**Pulasari**	**18.32**	**135**	*e*P	**P**	**17 38 53.0**	**-3.8**
	comp=Z,104nm,0.3s						
BOK	**Bokaro**	**18.33**	**339**	⇑*e*P	**P**	**17 38 56.3**	**-0.6**
BLSP	**Bilaspur**	**18.59**	**327**	⇑*e*P	**P**	**17 38 59.6**	**-0.4**
BLSP				*e*		17 42 19.3	
SHL	**Shillong**	**18.81**	**357**	*e*	**P**	**17 39 02.2**	**-0.5**
	comp=Z,40nm,0.7s						
SHL				⇓*e*P		17 39 02.7	
	comp=Z,42nm,0.8s						
SHL				*i*		17 52 39.6	
	comp=Z,2μm,18.2s						
MNGI	**Mangalore**	**18.93**	**291**	⇓*e*P	**P**	**17 39 03.8**	**-0.3**
MNGI				*e*		17 39 06.8	
	comp=Z,215nm,1.2s						
MNGI				*i*		17 46 40.7	
	comp=Z,4μm,15.8s						
COCO	**West Island**	**19.13**	**168**	*e*P	**P**	**17 39 07.7**	**+1.2**
	comp=Z,237nm,1.1s						
PACI	**Pancar Gunung**	**19.16**	**133**	*e*P	**P**	**17 39 05.9**	**-0.9**
NGP	**Nagpur**	**19.71**	**318**	*e*P	**P**	**17 39 11.9**	**-1.2**
	comp=Z,83nm,0.8s						
NGP				*e*S	**S**	**17 42 46.8**	**-1.1**
LATR	**Latur**	**19.80**	**308**	*e*P	**P**	**17 39 13.5**	**-0.5**
QIZ	**Qiongzhong**	**20.50**	**52**	P	**P**	**17 39 22.5**	**+1.2**
QIZ				S	**S**	**17 43 04.5**	**+0.5**
QIZ				LR	LR		
	comp=N,6μm,16.0s,MS5.0						
QIZ				LR	LR		
	comp=E,3μm,18.0s,MS5.0						
QIZ				LR	LR		
	comp=Z,4μm,19.3s,MS4.8						
QIZ	**Qiongzhong**	**20.50**	**52**	*e*P	**P**	**17 39 22.0**	**+0.7**
	comp=Z,374nm,1.4s						
KMI	**Kunming**	**20.59**	**26**	P	**P**	**17 39 23.5**	**+1.3**
KMI				AP		17 39 30.8	
KMI				XP		17 39 33.5	
KMI				PP	PP	17 39 44.5	+0.9
KMI				PPP	PPP	17 39 54.0	+1.4
KMI				S	**S**	**17 43 10.8**	**+5.1**
KMI				AMB	AMB		
	comp=Z,457nm,3.8s						
KMI				LR	LR		
	comp=N,6μm,15.1s,MS5.1						
KMI				LR	LR		
	comp=E,3μm,14.0s,MS5.1						
KMI				LR	LR		
	comp=Z,5μm,15.1s,MS5.0						
GOA	**Goa**	**20.72**	**297**	⇑*e*	**P**	**17 39 29.9**	**+6.4**
GOA				*e*		17 43 28.8	
AKL	**Akola**	**20.82**	**314**	⇓*e*P	**P**	**17 39 26.1**	**+1.5**
AKL				*i* S	**S**	**17 43 12.1**	**+1.8**
	comp=N,325nm,1.0s						
AKL				*i*		17 47 36.3	
	comp=Z,3μm,18.2s						
KAD	**Karad**	**21.18**	**302**	⇓*e*P	**P**	**17 39 27.6**	**-0.6**
PKI	**Pulchoki**	**21.99**	**342**	*e*P	**P**	**17 39 37.5**	**+1.2**
	comp=Z,427nm,0.9s,mb5.9						
POO	**Poona**	**22.04**	**304**	⇑*e*P	**P**	**17 39 37.3**	**+0.4**
POO				*e*		17 39 42.7	
	comp=Z,86nm,1.5s						
DMN	**Daman**	**22.12**	**341**	*e*P	**P**	**17 39 38.3**	**+0.7**
	comp=Z,309nm,0.9s,mb5.7						
GUN	**Gumba**	**22.16**	**343**	*e*P	**P**	**17 39 38.8**	**+0.7**
	comp=Z,828nm,1.1s,mb6.1						
KKN	**Kakani**	**22.23**	**342**	*e*P	**P**	**17 39 39.5**	**+0.8**
	comp=Z,198nm,0.8s,mb5.6						
BHPL	**Bhopal**	**22.25**	**319**	*e*P	**P**	**17 39 39.4**	**+0.4**
BHPL				*e*		17 39 44.4	
	comp=Z,113nm,1.5s						
BHPL				*e*S	**S**	**17 43 42.2**	**+5.3**
GKN	**Gorkha**	**22.64**	**341**	*e*P	**P**	**17 39 43.3**	**+0.5**
	comp=Z,294nm,0.7s,mb5.8						
KOLN	**Koldanda**	**22.79**	**338**	*e*P	**P**	**17 39 45.6**	**+1.3**
	comp=Z,2μm,1.8s,mb6.2						
LSA	**Lhasa**	**22.97**	**356**	*e*P	**P**	**17 39 47.3**	**+1.3**
LSA				*e*		17 39 58.3	
LSA				pmax	pmax		
	comp=Z,125nm,0.9s,mb5.3						
LSA	**Lhasa**	**22.97**	**356**	*e*P	**P**	**17 39 47.3**	**+1.3**
	comp=Z,125nm,0.9s,mb5.3						
LSA				*e*		17 39 58.3	
BOM	**Bombay**	**23.07**	**304**	⇑*e*P	**P**	**17 39 49.0**	**+1.8**
BOM				*e*S	**S**	**17 43 58.2**	**+6.3**
	comp=Z,280nm,2.2s						
BOM				*i*		17 48 55.9	
	comp=Z,4μm,19.2s						
GYA	**Guiyang**	**23.60**	**32**	⇑*i*P	**P**	**17 39 53.5**	**+1.3**
GYA				AP		17 39 59.8	
GYA				XP		17 40 02.5	
GYA				PP	PP	17 40 24.5	-0.4
GYA				S	**S**	**17 44 03.5**	**+2.4**
GYA				AMB	AMB		
	comp=Z,170nm,1.2s,mb5.3						
GYA				AMB	AMB		
	comp=Z,1μm,6.8s						
GYA				LR	LR		
	comp=N,2μm,16.8s,MS5.1						
GYA				LR	LR		
	comp=E,5μm,15.7s,MS5.1						
GYA				LR	LR		
	comp=Z,7μm,16.0s,MS5.2						
DGAR	**Diego Garcia**	**24.80**	**236**	*e*P	**P**	**17 40 02.5**	**-1.4**
DGAR				*e*		17 40 07.0	
DGAR				pmax	pmax		
	comp=Z,529nm,1.4s,mb5.9						
DGAR	**Diego Garcia**	**24.80**	**236**	*e*P	**P**	**17 40 02.5**	**-1.4**
	comp=Z,529nm,1.4s,mb5.9						
DGAR				*e*		17 40 07.0	
KELI	**Kelakatan**	**26.06**	**124**	⇓*e*P	sP	17 40 30.2	+1.2
	comp=Z,120nm,0.9s						
CD2	**Chengdu**	**26.14**	**21**	P	**P**	**17 40 16.0**	**-0.4**
CD2				PP	PP	17 40 57.3	-1.1
CD2				PPP	PPP	17 41 09.3	-1.1
CD2				S	**S**	**17 44 42.0**	**-1.8**
CD2				XS		17 44 52.8	
CD2				SS	SS	17 45 49.5	-2.5
CD2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.1						
CD2				AMB	AMB		
	comp=Z,340nm,5.5s						
CD2				LR	LR		
	comp=E,5μm,12.0s						
CD2				LR	LR		
	comp=Z,5μm,15.0s,MS5.2						
AJM	**Ajmer**	**26.32**	**321**	*e*P	**P**	**17 40 18.4**	**+0.3**
AJM				*e*		17 40 24.3	
	comp=Z,53nm,2.0s						
NDI	**New Delhi**	**26.48**	**328**	⇑*e*P	**P**	**17 40 20.2**	**+0.7**
NDI				*i*		17 51 07.6	
	comp=Z,4μm,20.4s						
RATI	**Rata**	**27.20**	**124**	⇓*e*P	**P**	**17 40 26.9**	**+0.7**
	comp=Z,103nm,0.4s,mb5.4						
KEDI	**Kedomdong**	**27.55**	**123**	⇓*i*P	**P**	**17 40 30.5**	**+1.1**
KEDI	**Kedomdong**	**27.55**	**123**	⇓*e*Pn	pP	17 40 37.8	-0.7
ENH	**Enshi**	**28.14**	**31**	*e*P	**P**	**17 40 32.5**	**-2.1**
	comp=Z,145nm,1.2s,mb5.5						
ENH				*e*		17 40 44.1	
LZH	**Lanzhou**	**30.92**	**17**	*e*P	**P**	**17 40 59.8**	**+0.5**
LZH				AP	pP	17 41 08.5	0.0
LZH				XP	sP	17 41 13.3	+0.7
LZH				PP	PP	17 42 00.3	-1.0
LZH				*e*S	**S**	**17 45 57.0**	**-3.4**
LZH				XS		17 46 14.0	
LZH				SCS	ScS	17 51 32.8	+2.8
LZH				AMB	AMB		
	comp=Z,53nm,1.2s,mb5.2						
LZH				AMB	AMB		
	comp=Z,179nm,4.0s						
LZH				LR	LR		
	comp=E,3μm,13.4s						
LZH				LR	LR		
	comp=Z,4μm,15.7s,MS5.1						
DAV	**Davao City (W)**	**32.37**	**87**	*e*P	**P**	**17 41 14.0**	**+1.8**
GTA	**Gaotai**	**33.17**	**10**	P	**P**	**17 41 18.8**	**-0.1**
GTA				AP	pP	17 41 29.0	+0.8
GTA				S	**S**	**17 46 28.5**	**-6.8**
GTA				XS		17 46 44.5	
GTA				SCP		17 47 45.5	
GTA				SCS	ScS	17 51 44.0	+2.7
GTA				AMB	AMB		
	comp=Z,7.0nm,1.8s,mb4.3						
GTA				AMB	AMB		
	comp=Z,356nm,6.5s						
GTA				LR	LR		
	comp=N,1μm,18.6s,MS4.8						
GTA				LR	LR		
	comp=E,1μm,16.0s,MS4.8						
GTA				LR	LR		
	comp=Z,2μm,19.4s,MS4.8						
NJ2	**Nanjing**	**34.93**	**40**	*e*P	**P**	**17 41 35.3**	**+1.1**
NJ2				AP	pP	17 41 44.8	+1.3
NJ2				XP	sP	17 41 48.5	+1.1
NJ2				PP	PP	17 42 53.0	+0.5
NJ2				S	**S**	**17 47 04.0**	**+1.3**
NJ2				AMB	AMB		
	comp=Z,100nm,1.0s,mb5.7						
NJ2				LR	LR		
	comp=N,6μm,16.2s,MS5.5						
NJ2				LR	LR		
	comp=E,4μm,14.8s,MS5.5						
NJ2				LR	LR		
	comp=Z,6μm,12.5s,MS5.5						
SSE	**Sheshan**	**35.88**	**44**	P	**P**	**17 41 42.3**	**0.0**
SSE				S	**S**	**17 47 20.5**	**+3.0**
SSE				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.2						
SSE				AMB	AMB		
	comp=Z,257nm,4.6s						
SSE				LR	LR		
	comp=N,1μm,17.3s,MS4.9						
SSE				LR	LR		
	comp=E,968nm,17.6s,MS4.9						
SSE				LR	LR		
	comp=Z,2μm,14.9s,MS5.0						
KSH	**Kashi**	**36.10**	**337**	*i* P	**P**	**17 41 45.0**	**+0.9**
KSH				AP	pP	17 41 54.0	+0.6
KSH				XP	sP	17 41 58.0	+0.7
KSH				*e*PP	PP	17 43 06.0	-0.7
KSH				PPP	PPP	17 43 26.5	-0.2
KSH				PCP	PcP	17 44 12.0	+2.1
KSH				S	**S**	**17 47 22.5**	**+1.7**
KSH				XS		17 47 34.0	
KSH				SCP		17 47 55.0	
KSH				PCS		17 47 59.0	
KSH				SS	SS	17 49 40.5	-4.2
KSH				SCS	ScS	17 51 58.0	+1.1
KSH				AMB	AMB		
	comp=Z,460nm,4.1s						
KSH				LR	LR		
	comp=N,1μm,11.7s						
KSH				LR	LR		
	comp=E,1μm,8.8s						
WMQ	**Urumqi**	**37.28**	**354**	⇑P	**P**	**17 41 55.5**	**+1.5**
WMQ				AP	pP	17 42 05.0	+1.7
WMQ				PP	PP	17 43 23.0	+1.3
WMQ				PPP	PPP	17 43 43.5	+1.2
WMQ				S	**S**	**17 47 39.5**	**+0.6**
WMQ				AMB	AMB		
	comp=Z,25nm,1.0s,mb5.0						
WMQ				AMB	AMB		
	comp=Z,91nm,6.5s						
WMQ				LR	LR		
	comp=N,592nm,18.3s,MS4.7						
WMQ				LR	LR		
	comp=E,1μm,21.3s,MS4.7						
WMQ				LR	LR		
	comp=Z,936nm,19.3s,MS4.6						
HHC	**Hu-ho-hao-te**	**37.86**	**23**	*e*P	**P**	**17 42 00.0**	**+1.1**
HHC				AP	pP	17 42 07.5	-0.7
HHC				XP	sP	17 42 10.0	-2.1
HHC				PP	PP	17 43 29.3	+0.6
HHC				S	**S**	**17 47 49.5**	**+1.8**
HHC				PCS		17 48 05.0	
HHC				SS	SS	17 50 24.0	-0.3
HHC				SCS	ScS	17 52 09.0	+2.3
HHC				AMB	AMB		
	comp=Z,694nm,4.2s						
HHC				LR	LR		
	comp=N,2μm,13.9s,MS5.3						
HHC				LR	LR		
	comp=E,3μm,12.8s,MS5.3						
HHC				LR	LR		
	comp=Z,2μm,17.4s,MS4.9						
MBWA	**Marble Bar**	**38.15**	**137**	*e*P	**P**	**17 42 00.3**	**-1.1**
	comp=Z,36nm,1.5s,mb4.9						
MBWA				*e*	pP	17 42 08.2	-2.6
ULHL	**Ulahol**	**38.40**	**340**	P	**P**	**17 42 05.0**	**+1.6**
	SNR=11						
KZA	**Kyzart**	**38.60**	**339**	P	**P**	**17 42 04.0**	**-1.1**
	SNR=17						
UCH	**Uchtor**	**39.00**	**338**	P	**P**	**17 42 09.5**	**+1.1**
	SNR=59						
JOW	**Kunigami**	**39.08**	**55**	P	**P**	**17 42 09.9**	**+0.6**
	comp=Z,78nm,1.1s,mb5.3,baz=265,slow=27,SNR=8.1						
BJT	**Baijiatuau**	**39.18**	**29**	*e*P	**P**	**17 42 10.6**	**+0.7**
BJT				*e*	pP	17 42 18.0	-1.3
BJT				pmax	pmax		
	comp=Z,221nm,1.4s						
BJT	**Baijiatuau**	**39.18**	**29**	*e*P	**P**	**17 42 10.6**	**+0.7**
	comp=Z,221nm,1.4s,mb5.7						
BJT				*e*	pP	17 42 18.0	-1.3
BJI	**Beijing**	**39.20**	**29**	*e*P	**P**	**17 42 11.3**	**+1.2**
BJI				AP	pP	17 42 19.8	+0.3
BJI				S	**S**	**17 48 10.8**	**+2.9**
BJI				AMB	AMB		
	comp=Z,25nm,0.9s,mb4.9						
BJI				LR	LR		
	comp=N,1μm,19.4s,MS4.9						
BJI				LR	LR		
	comp=E,1μm,18.0s,MS4.9						
BJI				LR	LR		
	comp=Z,1μm,21.5s,MS4.7						
KBK	**Karagaybulak**	**39.22**	**339**	P	**P**	**17 42 11.1**	**+0.9**
	SNR=66						
TKM2	**Tokmak 2**	**39.22**	**340**	P	**P**	**17 42 10.7**	**+0.5**
	SNR=18						
AML	**Almayashu**	**39.23**	**337**	P	**P**	**17 42 11.3**	**+1.0**
	SNR=86						
AAK	**Ala-Archa**	**39.36**	**338**	P	**P**	**17 42 12.7**	**+1.3**
	SNR=26						
AAK	**Ala-Archa**	**39.36**	**338**	*e*P	**P**	**17 42 11.5**	**+0.1**
AAK				pmax	pmax		
	comp=Z,116nm,1.0s,mb5.6						
AAK	**Ala-Archa**	**39.36**	**338**	*e*P	**P**	**17 42 11.5**	**+0.2**
	comp=Z,116nm,1.0s,mb5.6						
FRU	**Bishkek**	**39.49**	**339**	*e*P	**P**	**17 42 13.0**	**+0.5**
FRU				*i*	pP	17 42 21.0	-0.8
FRU				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.2						
CHMS	**Chumysh**	**39.59**	**339**	P	**P**	**17 42 13.5**	**+0.3**
	SNR=17						
EKS2	**Erkin-Say**	**39.65**	**338**	P	**P**	**17 42 14.6**	**+0.8**
	SNR=41						
USP	**Ospenovka**	**39.91**	**339**	P	**P**	**17 42 15.9**	**0.0**
	SNR=58						
MKAR	**Makanchi Array**	**41.01**	**349**	P	**P**	**17 42 24.0**	**-0.9**
MKAR				pmax	pmax		
	comp=Z,25nm,1.0s						
SONM	**Songino Array**	**42.58**	**13**	P	**P**	**17 42 37.9**	**0.0**
	comp=Z,1.9nm,0.5s,baz=190,slow=9.8,SNR=23						
SONM				pP	pP	17 42 45.9	-1.2
	comp=Z,9.7nm,0.8s,baz=198,slow=7.8,SNR=15						
SONM				PcP	PcP	17 44 30.7	+0.3
	comp=Z,3.9nm,0.5s,baz=200,slow=4.0,SNR=9.5						
SONM				pPcP		17 44 41.3	
	comp=Z,14nm,0.8s,baz=199,slow=2.6,SNR=9.6						
SONM				LR	LR	18 02 19.8	
	comp=Z,1μm,18.9s,baz=3.1,slow=39						
ULN	**Ulaanbaatar**	**42.76**	**14**	*e*P	**P**	**17 42 37.3**	**-2.0**
ULN				*e*		17 44 23.1	
ULN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.5						
ULN	**Ulaanbaatar**	**42.76**	**14**	*e*P	**P**	**17 42 37.3**	**-2.0**
	comp=Z,11nm,1.0s,mb4.5						
ULN				*e*PP	PP	17 44 23.1	+2.1
ULN				*e*ScP		17 48 19.3	
KS15	**Wonju Array Si**	**44.09**	**41**	P	**P**	**17 42 49.9**	**-0.3**
SNY	**Shenyang**	**44.30**	**33**	⇓P	**P**	**17 42 52.5**	**+0.6**
SNY				S	**S**	**17 49 19.5**	**-3.7**
SNY				AMB	AMB		
	comp=Z,20nm,1.4s,mb4.7						
SNY				LR	LR		
	comp=N,2μm,15.1s,MS5.2						
SNY				LR	LR		
	comp=E,990nm,17.9s,MS5.2						
SNY				LR	LR		
	comp=Z,2μm,15.7s,MS5.1						
ZAK	**Zakamensk**	**44.41**	**9**	*e*P	**P**	**17 42 50.0**	**-2.6**
ZAK				*e*		17 44 32.0	
HASS	**Wahat al Ahsa'**	**45.25**	**299**	P	**P**	**17 43 00.6**	**+0.9**
MOY	**Mondy**	**45.34**	**7**	*e*P	sP	17 43 08.5	-4.7
NWAO	**Narrogin (SRO)**	**45.64**	**151**	*e*P	**P**	**17 43 02.7**	**0.0**
NWAO				*e*	pP	17 43 12.7	+0.6
NWAO				pmax	pmax		
	comp=Z,36nm,1.1s						
NWAO	**Narrogin (SRO)**	**45.64**	**151**	P	**P**	**17 43 02.8**	**+0.1**
	comp=Z,9.6nm,0.7s,mb4.8,baz=340,slow=4.3,SNR=7.1						
NWAO	**Narrogin (SRO)**	**45.64**	**151**	*e*P	**P**	**17 43 02.6**	**0.0**
	comp=Z,36nm,1.1s,mb5.2						
NWAO				*e*	pP	17 43 12.7	+0.6
TLY	**Talaya**	**45.72**	**9**	*e*P	pP	17 43 10.2	-2.2
TLY				*e*		17 44 49.2	
TLY				*e*S	**S**	**17 49 52.0**	**+8.5**
TLY				pmax	pmax		
	comp=Z,25nm,2.1s,mb4.8						
TLY				MLR	MLR		
	comp=Z,1μm,18.0s,MS4.8						
TLY	**Talaya**	**45.72**	**9**	P	**P**	**17 42 58.1**	**-5.0**
	comp=Z,9.3nm,0.9s,mb4.7						
TLY				*e*PP	PP	17 44 41.5	-9.0
IRK	**Irkutsk**	**46.37**	**10**	*e*P	pP	17 43 14.4	-3.1
CN2	**Changchun**	**46.65**	**32**	*e*P	**P**	**17 43 15.0**	**+4.5**
CN2				*e*S	**S**	**17 49 58.5**	**+1.6**
CN2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.4						
CN2				AMB	AMB		
	comp=Z,500nm,3.0s						
CN2				LR	LR		
	comp=N,2μm,15.0s,MS5.4						
CN2				LR	LR		
	comp=E,2μm,15.0s,MS5.4						
CN2				LR	LR		
	comp=Z,2μm,15.0s,MS5.3						
LBOS		**47.43**	**283**	⇑*e*P	**P**	**17 43 18.6**	**+1.5**
ZAL	**Zalesovo**	**47.59**	**353**	P	**P**	**17 43 17.4**	**-0.3**
	comp=Z,9.4nm,0.5s,mb5.1,baz=301,slow=7.5,SNR=46						
ZAL				LR	LR	18 07 17.0	
	comp=Z,2μm,18.0s,MS5.0,baz=294,slow=41						
RYDS	**Riyadh**	**47.67**	**297**	P	**P**	**17 43 19.8**	**+0.9**
HIA	**Hailar**	**48.07**	**23**	*e*P	**P**	**17 43 20.8**	**-0.8**
HIA				*e*	pP	17 43 31.2	+0.1
HIA				pmax	pmax		
	comp=Z,34nm,1.0s						
HIA	**Hailar**	**48.07**	**23**	*e*P	**P**	**17 43 20.8**	**-0.7**
	comp=Z,34nm,1.0s,mb5.3						
HIA				*e*	pP	17 43 31.2	+0.1
WRA	**Warramunga Arr**	**48.53**	**124**	*i* P	**P**	**17 43 25.1**	**-0.4**
WRA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
WRA	**Warramunga Arr**	**48.53**	**124**	P	**P**	**17 43 25.1**	**-0.4**
	comp=Z,7.5nm,0.7s,mb4.9,baz=305,slow=8.4,SNR=67						
WRA				pP	pP	17 43 35.0	0.0
	comp=Z,19nm,0.8s,baz=304,slow=8.9,SNR=16						
WRA				PcP	PcP	17 44 51.5	+0.1
	comp=Z,5.1nm,0.6s,baz=311,slow=2.7,SNR=5.8						
WRA				S	**S**	**17 50 22.6**	**-1.1**
	comp=Z,3.1nm,0.7s,baz=299,slow=16,SNR=10						
WRAB	**Tennant Creek**	**48.54**	**124**	*e*P	**P**	**17 43 25.5**	**-0.1**
WRAB				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.6						
WRAB	**Tennant Creek**	**48.54**	**124**	*e*P	**P**	**17 43 25.5**	**-0.1**
	comp=Z,52nm,0.9s,mb5.6						
NVS	**Novosibirsk**	**48.66**	**353**	*i* P	**P**	**17 43 25.1**	**-1.0**
NVS				*i* S	**S**	**17 50 23.8**	**-1.3**
NVS				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.5						

NVS				pmax	pmax		
	comp=E,19nm,1.3s						
NVS				pmax	pmax		
	comp=N,45nm,1.1s						
NVS				smax			
	comp=N,50nm,2.6s						
NVS				smax			
	comp=E,90nm,2.4s						
KAMS	**Al Khamasin**	**48.78**	**291**	P	**P**	**17 43 28.1**	**+0.6**
MZLS	**Mizel**	**48.91**	**296**	P	**P**	**17 43 29.1**	**+0.7**
MDJ	**Mudanjiang**	**49.44**	**34**	*e*P	**P**	**17 43 33.7**	**+1.5**
	comp=E,93nm,1.3s,mb5.7						
MDJ				*e*	pP	17 43 43.2	+1.5
TATS	**Tathlith**	**49.70**	**290**	P	**P**	**17 43 34.8**	**+0.3**
BVA0	**Borovoye Array**	**49.76**	**342**	*i* P	**P**	**17 43 33.2**	**-1.3**
BVA0				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
BVAR	**Borovoye Array**	**49.76**	**342**	P	**P**	**17 43 33.3**	**-1.2**
	comp=Z,11nm,0.8s,mb5.0,baz=153,slow=6.6,SNR=41						
BVAR				pP	pP	17 43 43.3	-0.8
	comp=Z,26nm,0.9s,baz=130,slow=12,SNR=19						
BVAR				PcP	PcP	17 44 55.0	-0.4
	comp=Z,3.4nm,0.6s,baz=177,slow=7.5,SNR=4.4						
BVAR				pPcP		17 45 06.0	
	comp=Z,9.3nm,0.7s,baz=162,slow=4.7,SNR=6.1						
BRVK	**Borovoye**	**49.82**	**342**	*e*P	**P**	**17 43 33.6**	**-1.4**
BRVK				*e*	pP	17 43 41.4	-3.1
BRVK				*e*		17 44 50.5	
BRVK				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.4						
BRVK	**Borovoye**	**49.82**	**342**	*e*P	**P**	**17 43 33.6**	**-1.4**
	comp=Z,33nm,0.9s,mb5.4						
BRVK				*e*	pP	17 43 41.4	-3.1
BRVK				*e*PcP	PcP	17 44 50.5	-5.1
ASAR	**Alice Springs**	**50.06**	**128**	P	**P**	**17 43 36.8**	**-0.5**
	comp=Z,10nm,0.6s,mb5.0,baz=299,slow=7.7,SNR=38						
ASAR				PcP	PcP	17 44 57.3	+0.4
	comp=Z,8.9nm,0.6s,baz=305,slow=3.3,SNR=9.3						
ASAR				pPcP		17 45 07.8	
	comp=Z,13nm,1.0s,baz=308,slow=3.3,SNR=5.8						
ASAR				S	**S**	**17 50 44.7**	**-0.3**
	comp=Z,1.5nm,0.8s,baz=305,slow=16,SNR=6.4						
ASAR				LR	LR	18 04 53.5	
	comp=Z,687nm,18.7s,MS4.7,baz=295,slow=36						
CHKZ	**Chkalovo**	**50.26**	**343**	*e*P	**P**	**17 43 37.0**	**-1.3**
CHKZ				*e*	pP	17 43 45.2	-2.7
CHKZ				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.7						
CHKZ	**Chkalovo**	**50.26**	**343**	*e*P	**P**	**17 43 37.0**	**-1.3**
	comp=Z,70nm,1.0s,mb5.7						
CHKZ				*e*	pP	17 43 45.2	-2.7
FRSS	**Farasan al Kab**	**50.67**	**286**	P	**P**	**17 43 42.4**	**+0.4**
MAJO	**Matsushiro**	**50.82**	**48**	P	**P**	**17 43 41.8**	**-1.0**
MAJO				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
MAJO	**Matsushiro**	**50.82**	**48**	P	**P**	**17 43 41.8**	**-1.0**
	comp=Z,26nm,1.3s,mb5.0						
MAT	**Matsushiro**	**50.82**	**48**	P	sP	17 43 52.4	-3.7
MAT	**Matsushiro**	**50.82**	**48**	*e*P	sP	17 43 52.0	-4.1
MAT				pmax	pmax		
	comp=Z,85nm,1.7s,mb5.4						
MAT	**Matsushiro**	**50.82**	**48**	*e*P	sP	17 43 52.0	-4.1
	comp=Z,85nm,1.7s						
AFFS	**‘Afif**	**50.86**	**295**	P	**P**	**17 43 44.3**	**+0.9**
CBIJ	**Chichi jima**	**50.89**	**60**	LR	LR	18 04 24.6	
	comp=Z,734nm,18.9s,MS4.7,baz=145,slow=35						
ARSS	**Ar Rass**	**51.06**	**298**	P	**P**	**17 43 45.6**	**+0.8**
HILS	**Ha’il**	**52.66**	**299**	P	**P**	**17 43 57.9**	**+1.0**
KLR	**Kul’dur**	**53.50**	**31**	*e*P	pP	17 44 08.2	-4.1
KLR				*e*		17 45 02.7	
KLR				*e*S	**S**	**17 51 27.5**	**-4.2**
KLR				pmax	pmax		
	comp=N,45nm,2.0s						
KLR				pmax	pmax		
	comp=E,80nm,2.0s						
KLR				pmax	pmax		
	comp=Z,90nm,2.0s,mb5.3						
KLR				MLR	MLR		
	comp=N,2µm,13.0s						
KLR				MLR	MLR		
	comp=Z,3µm,13.0s,MS5.6						
BOD	**Bodaibo**	**53.58**	**14**	*e*P	**P**	**17 44 03.0**	**-0.2**
GNI	**Garni**	**54.45**	**315**	*e*P	**P**	**17 44 10.0**	**+0.1**
GNI				pmax	pmax		
	comp=Z,72nm,1.0s						
GNI	**Garni**	**54.45**	**315**	P	**P**	**17 44 10.9**	**+1.0**
	comp=Z,19nm,0.8s,mb5.1,baz=357,slow=3.1,SNR=18						
GNI	**Garni**	**54.45**	**315**	*e*P	**P**	**17 44 10.0**	**+0.1**
	comp=Z,72nm,1.0s,mb5.6						
KBRS	**Khaybar**	**54.55**	**297**	P	**P**	**17 44 12.2**	**+1.4**
TI2	**Plekhanov**	**55.12**	**317**	⇑*i*P	**P**	**17 44 14.8**	**0.0**
TI2				*i*	pP	17 44 25.2	+0.9
TI2				pmax	pmax		
	comp=Z,50nm,0.8s,mb5.6						
YNBS	**Yanbu‘ al Bahr**	**55.44**	**295**	P	**P**	**17 44 18.5**	**+1.2**
CLNS	**Chul’man**	**55.95**	**21**	*e*P	**P**	**17 44 29.3**	**+8.8**
CLNS				*e**PP	pP	17 44 36.5	+6.4
CLNS				*e*		17 46 30.6	
CLNS				*e*PPP	PPP	17 47 46.6	+4.0
CLNS				*e*S	**S**	**17 52 19.6**	**+15**
CLNS				pmax	pmax		
	comp=Z,81nm,1.2s,mb5.6						
CLNS				pmax	pmax		
	comp=N,40nm,1.1s						
CLNS				pmax	pmax		
	comp=E,32nm,1.0s						
CLNS				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.0s						
CLNS				pmax	pmax		
	comp=E,4.0nm,0.8s						
CLNS				MLR	MLR		
	comp=Z,3µm,15.0s,MS5.5						
CLNS				MLR	MLR		
	comp=N,1µm,14.0s,MS5.2						
CLNS				MLR	MLR		
	comp=E,500nm,14.0s,MS5.2						
SVE	**Sverdlovsk**	**56.09**	**339**	⇓*e*P	**P**	**17 44 20.7**	**-0.8**
SVE				pmax	pmax		
	comp=Z,140nm,1.5s,mb5.8						
SVE				MLR	MLR		
	comp=Z,5µm,20.0s,MS5.6						
ZEI	**Tsey**	**56.13**	**318**	*e*P	**P**	**17 44 21.8**	**-0.2**
ZEI				*i* *PP	pP	17 44 31.8	+0.2
ZEI				*i*		17 46 26.9	
ZEI				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
KMBO	**Kilima Mbogo**	**56.15**	**264**	*e*P	**P**	**17 44 23.5**	**+1.0**
KMBO				*e*	pP	17 44 33.8	+1.7
KMBO				pmax	pmax		
	comp=Z,24nm,1.0s						
KMBO	**Kilima Mbogo**	**56.15**	**264**	P	**P**	**17 44 23.7**	**+1.2**
	comp=Z,22nm,1.1s,mb5.1,baz=61,slow=10,SNR=22						
KMBO	**Kilima Mbogo**	**56.15**	**264**	*e*P	**P**	**17 44 23.5**	**+0.9**
	comp=Z,24nm,1.0s,mb5.2						
KMBO				*e*	pP	17 44 33.8	+1.6
UMJS	**Umm Lajj**	**56.19**	**296**	P	**P**	**17 44 23.6**	**+0.9**
PMG	**Port Moresby**	**56.30**	**106**	*c* *i*P	**P**	**17 44 23.7**	**+0.1**
PMG	**Port Moresby**	**56.30**	**106**	P	**P**	**17 44 23.6**	**0.0**
	comp=Z,17nm,0.7s,mb5.2,baz=307,slow=5.6,SNR=15						
PMG				pP	pP	17 44 33.5	+0.3
	comp=Z,41nm,0.7s,baz=324,slow=5.1,SNR=13						
PMG	**Port Moresby**	**56.30**	**106**	*e*P	**P**	**17 44 22.9**	**-0.8**
	comp=Z,54nm,0.8s,mb5.6						
ARU	**Arti**	**56.55**	**338**	⇓*i*P	**P**	**17 44 24.4**	**-0.4**
ARU				*e*		17 46 26.6	
ARU				*e*S	**S**	**17 52 15.6**	**+3.2**
ARU				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.7						
ARU	**Arti**	**56.55**	**338**	*e*P	**P**	**17 44 23.4**	**-1.4**
	comp=Z,96nm,1.1s,mb5.7						
ARU				*e*	pP	17 44 31.1	-3.4
TBKS	**Tabuk**	**57.38**	**299**	P	**P**	**17 44 32.3**	**+1.1**
KIV	**Kislovodsk**	**57.44**	**319**	P	**P**	**17 44 30.9**	**-0.4**
	comp=Z,339nm,1.2s,mb6.2,SNR=14						
KIV	**Kislovodsk**	**57.44**	**319**	*e*P	**P**	**17 44 29.9**	**-1.4**
KIV				*e*	pP	17 44 38.0	-3.0
KIV				pmax	pmax		
	comp=Z,101nm,1.1s,mb5.8						
KIV	**Kislovodsk**	**57.44**	**319**	*e*P	**P**	**17 44 29.9**	**-1.5**
	comp=Z,101nm,1.1s,mb5.8						
KIV				*e*	pP	17 44 38.0	-3.0
GOF	**Gofitskoye**	**57.69**	**320**	⇓*i*P	**P**	**17 44 31.0**	**-2.0**
GOF				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.1						
ASF	**Jabal al Asfar**	**57.91**	**304**	P	**P**	**17 44 35.2**	**+0.5**
	comp=Z,24nm,0.9s,mb5.2,baz=105,slow=4.6,SNR=19						
JMQS	**Jabal Moqyreh**	**58.08**	**300**	P	**P**	**17 44 36.9**	**+0.8**
MALT	**Malatya**	**58.36**	**311**	*e*P	**P**	**17 44 37.6**	**-0.3**
MALT				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.2						
MALT	**Malatya**	**58.36**	**311**	*e*P	**P**	**17 44 37.6**	**-0.2**
	comp=Z,32nm,1.3s,mb5.2						
YSS	**Yuzh-Sakhalins**	**58.43**	**38**	*e*P	**P**	**17 44 35.8**	**-2.4**
YSS				pmax	pmax		
	comp=Z,57nm,1.1s,mb5.5						
YSS	**Yuzh-Sakhalins**	**58.43**	**38**	*e*P	**P**	**17 44 35.8**	**-2.4**
	comp=Z,57nm,1.1s,mb5.5						
AYUS	**‘Aynunah**	**58.48**	**299**	P	**P**	**17 44 39.6**	**+0.7**
BDAS	**Al Bad‘**	**58.67**	**299**	P	**P**	**17 44 41.2**	**+1.0**
CTA	**Charters Tower**	**58.75**	**118**	P	**P**	**17 44 40.2**	**-0.5**
	comp=Z,6.5nm,1.0s,mb4.6,baz=292,slow=9.9,SNR=4.0						
CTA				pP	pP	17 44 50.3	-0.2
	comp=Z,14nm,0.9s,baz=279,slow=9.8,SNR=4.5						
CTA				LR	LR	18 12 45.1	
	comp=Z,2µm,21.2s,MS5.1,baz=292,slow=39						
CTAO	**Charters Tower**	**58.75**	**118**	P	**P**	**17 44 37.3**	**-3.5**
CTAO				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.3						
CTAO	**Charters Tower**	**58.75**	**118**	P	**P**	**17 44 37.3**	**-3.5**
	comp=Z,43nm,1.2s,mb5.3						
JMOS	**Jabal al Moall**	**58.80**	**300**	P	**P**	**17 44 42.4**	**+1.4**
MKRJ	**Makawir**	**58.81**	**303**	P	**P**	**17 44 41.5**	**+0.4**
ALWS	**Ilw as Safayha**	**58.86**	**300**	P	**P**	**17 44 43.0**	**+1.6**
TAYS	**Tayyib Ism**	**58.89**	**299**	P	**P**	**17 44 42.6**	**+1.0**
HAQS	**Haql**	**58.93**	**300**	P	**P**	**17 44 43.0**	**+1.1**
KSHT	**Keshet**	**58.98**	**305**	P	**P**	**17 44 43.0**	**+0.7**
MZDA	**Masada**	**58.99**	**303**	P	**P**	**17 44 43.1**	**+0.7**
ZFRI	**Zfri**	**59.00**	**302**	P	**P**	**17 44 42.6**	**+0.2**
EIL	**Elat**	**59.02**	**301**	P	**P**	**17 44 42.7**	**+0.1**
EIL	**Elat**	**59.02**	**301**	P	**P**	**17 44 43.3**	**+0.7**
	comp=Z,33nm,0.8s,mb5.4,baz=91,slow=4.5,SNR=39						
EIL	**Elat**	**59.02**	**301**	*e*P	**P**	**17 44 42.8**	**+0.2**
	comp=Z,40nm,0.8s,mb5.5						
EIL				*e*	pP	17 44 53.8	+1.5
MBH	**Mount Berech**	**59.08**	**301**	P	**P**	**17 44 43.3**	**+0.3**
PRNI	**Paran**	**59.10**	**301**	P	**P**	**17 44 43.5**	**+0.3**
MMLI	**Mount Malkishu**	**59.18**	**304**	P	**P**	**17 44 44.2**	**+0.5**
SOC	**Sochi**	**59.26**	**317**	*e*P	**P**	**17 44 40.0**	**-4.0**
SOC				*e*		17 45 33.0	
SOC				*e*		17 46 57.4	
SOC				*e*S	**S**	**17 52 46.5**	**-1.7**
SOC				*e*SSS	SSS	17 59 12.9	+1.3
SOC				pmax	pmax		
	comp=Z,56nm,1.4s,mb5.4						
SOC				pmax	pmax		
	comp=N,28nm,1.3s						
SOC				pmax	pmax		
	comp=E,21nm,1.2s						
KMTI	**Karmit**	**59.30**	**301**	P	**P**	**17 44 44.6**	**+0.1**
SLTI	**Sal’it**	**59.46**	**304**	P	**P**	**17 44 46.0**	**+0.5**
HNTI	**Hanita**	**59.53**	**304**	P	**P**	**17 44 46.6**	**+0.6**
OFRI	**‘Ofer**	**59.58**	**304**	P	**P**	**17 44 46.8**	**+0.4**
HAF	**Haifa**	**59.58**	**304**	P	**P**	**17 44 46.8**	**+0.4**
KZIT	**Kziot**	**59.73**	**302**	P	**P**	**17 44 47.5**	**+0.1**
STKA	**Stephens Creek**	**60.14**	**133**	P	**P**	**17 44 50.1**	**-0.1**
	comp=E,7.1nm,0.7s,mb4.8,baz=312,slow=6.7,SNR=16						
STKA	**Stephens Creek**	**60.14**	**133**	*e*P	**P**	**17 44 50.0**	**-0.2**
STKA				*e*	pP	17 44 58.3	-1.6
ANN	**Anapa**	**61.23**	**318**	*e*P	sP	17 45 07.3	-3.4
ANN				*e*		17 45 25.9	
ANN				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.5						
CSS	**Prodhromos**	**61.43**	**306**	*e*P	**P**	**17 44 58.1**	**-0.9**
	comp=Z,156nm,1.6s,mb5.9						
YAK	**Yakutsk**	**61.49**	**19**	⇑*e*P	**P**	**17 44 57.9**	**-1.1**
YAK				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.2						
YAK	**Yakutsk**	**61.49**	**19**	*e*P	**P**	**17 44 55.9**	**-3.1**
	comp=Z,155nm,0.9s,mb6.1						
BRTR	**Keskin Array B**	**62.34**	**311**	P	**P**	**17 45 03.0**	**-2.0**
	comp=Z,11nm,0.8s,mb5.0,baz=127,slow=6.3,SNR=46						
BRTR				pP	pP	17 45 14.2	-0.6
	comp=Z,19nm,0.9s,baz=129,slow=7.9,SNR=16						
MBAR	**Mbarara**	**62.52**	**266**	*e*P	**P**	**17 45 06.7**	**+0.2**
MBAR				*e*	pP	17 45 17.6	+1.3
MBAR				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.3						
MBAR	**Mbarara**	**62.52**	**266**	*e*P	**P**	**17 45 06.7**	**+0.2**
	comp=Z,34nm,1.3s,mb5.3						
MBAR				*e*	pP	17 45 17.6	+1.4
VRSR	**Storozhevoye**	**62.68**	**325**	*e*P	**P**	**17 45 05.3**	**-1.8**
VRSR				*e**SP	sP	17 45 14.8	-5.5
VRSR				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
VRSR				pmax	pmax		
	comp=N,3.0nm,0.5s						
VRSR				pmax	pmax		
	comp=E,30nm,1.3s						
ISP	**Isparta**	**64.27**	**309**	*e*P	**P**	**17 45 16.5**	**-1.3**
ISP				*e*	pP	17 45 24.5	-3.0
ISP				pmax	pmax		
	comp=Z,160nm,1.5s,mb5.8						
ISP	**Isparta**	**64.27**	**309**	*e*P	**P**	**17 45 16.5**	**-1.3**
	comp=Z,160nm,1.5s,mb5.8						
ISP				*e*	pP	17 45 24.5	-3.0
MOS	**Moscow**	**65.50**	**329**	*e*P	**P**	**17 45 21.3**	**-4.1**
MOS				*e*	pP	17 45 30.5	-4.7
MOS				*e*		17 45 55.2	
MOS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
MOS				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
OBN	**Obninsk**	**65.78**	**328**	⇑*e*P	**P**	**17 45 26.1**	**-1.1**
OBN				*i*	pP	17 45 36.0	-0.9
OBN				*e*S	S	17 54 10.4	+0.4
OBN				*e*SS	SS	17 58 27.1	+1.1
OBN				pmax	pmax		
	comp=Z,43nm,1.3s,mb5.3						
OBN				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.2						
OBN	**Obninsk**	**65.78**	**328**	*e*P	**P**	**17 45 24.5**	**-2.7**
	comp=Z,145nm,1.4s,mb5.8						
OBN				*e*	pP	17 45 35.8	-1.1
KIS	**Kishinev**	**67.63**	**318**	*e*P	**P**	**17 45 38.0**	**-1.1**
KIS				*e*	pP	17 45 47.0	-1.9
CFR	**Carcaliu**	**67.64**	**316**	⇓*i*P	**P**	**17 45 39.0**	**-0.2**
HARR	**Harsova**	**67.67**	**316**	⇓*i*P	**P**	**17 45 39.4**	**0.0**
LSZ	**Lusaka**	**67.78**	**251**	*e*P	**P**	**17 45 40.5**	**-0.1**
LSZ				*e*	pP	17 45 51.7	+1.4
LSZ				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.2						
LSZ	**Lusaka**	**67.78**	**251**	*e*P	**P**	**17 45 40.5**	**-0.1**
	comp=Z,22nm,0.9s,mb5.2						
LSZ				*e*	pP	17 45 51.7	+1.4
SANT	**Santorini**	**67.99**	**306**	*e*P	**P**	**17 45 38.5**	**-3.1**
	comp=Z,93nm,1.1s,mb5.7						
IDI	**Anoyia**	**68.30**	**305**	P	**P**	**17 45 43.0**	**-0.5**
	comp=Z,33nm,0.7s,mb5.5,baz=93,slow=6.8,SNR=30						
MA2	**Magadan**	**68.36**	**28**	*e*P	**P**	**17 45 43.5**	**+0.1**
MA2				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.6						
MA2	**Magadan**	**68.36**	**28**	*e*P	**P**	**17 45 43.5**	**+0.1**
	comp=Z,56nm,0.9s,mb5.6						
AKASG	**Malin Array Be**	**68.38**	**322**	P	**P**	**17 45 41.6**	**-2.1**
	comp=Z,5.1nm,0.6s,mb4.7,baz=90,slow=5.4,SNR=36						
AKASG				pP	pP	17 45 51.8	-1.6
	comp=Z,12nm,0.8s,baz=89,slow=5.5,SNR=18						
TIXI	**Tiksi**	**68.63**	**12**	*e*P	**P**	**17 45 43.8**	**-1.1**
TIXI				*e*		17 45 51.5	
TIXI				*e*S	S	17 54 46.6	+2.6
TIXI				pmax	pmax		
	comp=Z,17nm,0.7s,mb5.1						
TIXI				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.2						
TIXI	**Tiksi**	**68.63**	**12**	*i* Pr	**P**	**17 45 44.1**	**-0.8**
ISR	**Istrita**	**68.73**	**316**	⇓*i*P	**P**	**17 45 44.6**	**-1.4**
VRI	**Vrincioaia**	**68.77**	**317**	⇑*i*P	**P**	**17 45 45.8**	**-0.4**
MLR	**Muntele Rosu**	**69.22**	**316**	P	**P**	**17 45 48.4**	**-0.6**
	comp=Z,18nm,0.8s,mb5.1,baz=28,slow=1.2,SNR=23						
MLR				pP	pP	17 45 58.8	+0.1
	comp=Z,66nm,1.1s,baz=95,slow=2.7,SNR=18						
MLR				LR	LR	18 21 03.5	
	comp=Z,936nm,19.2s,MS5.0,baz=243,slow=40						
RZN	**Rozhen**	**69.38**	**312**	*i* P	**P**	**17 45 49.5**	**-0.6**
MMB	**Musomiste**	**70.10**	**312**	*i* P	**P**	**17 45 53.6**	**-0.8**
KKB	**Krupnik**	**70.62**	**312**	*i* P	**P**	**17 45 56.0**	**-1.6**
VTS	**Vitosha**	**70.64**	**313**	*i* P	**P**	**17 45 57.5**	**-0.2**
BOLS	**Boljevac**	**71.73**	**314**	⇓*i*P	**P**	**17 46 03.4**	**-0.8**
KWP	**Kalwaria**	**72.19**	**320**	*e*P	**P**	**17 46 05.6**	**-1.3**
KWP				*e*	pP	17 46 16.6	-0.1
KWP				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.4						
KWP	**Kalwaria**	**72.19**	**320**	*e*P	**P**	**17 46 05.9**	**-1.0**
LVZ	**Lovozero**	**72.28**	**340**	*e*P	**P**	**17 46 05.5**	**-1.6**
LVZ				pmax	pmax		
	comp=Z,87nm,2.3s,mb5.3						
KOLS	**Kolonicke sedl**	**72.34**	**319**	*e*P	**P**	**17 46 08.3**	**+0.5**
KOLS				*e*	pP	17 46 16.8	-0.8
APA	**Apatity**	**72.56**	**340**	⇓*i*P	**P**	**17 46 08.4**	**-0.3**
APA				*i*	pP	17 46 16.9	-1.6
APA				pmax	pmax		
	comp=Z,120nm,1.6s,mb5.6						
GRUS	**Gruza**	**72.62**	**314**	⇓*i*P	**P**	**17 46 09.4**	**-0.2**
LBTB	**Lobatse**	**72.66**	**241**	*e*P	**P**	**17 46 10.9**	**+0.7**
LBTB				*e*	pP	17 46 21.8	+1.8
LBTB				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.4						
LBTB	**Lobatse**	**72.66**	**241**	*e*P	**P**	**17 46 10.9**	**+0.7**
	comp=Z,50nm,0.9s,mb5.5						
LBTB				*e*	pP	17 46 21.8	+1.9
SUW	**Suwalki**	**72.80**	**325**	*e*P	**P**	**17 46 09.0**	**-1.4**
SUW				*e*	pP	17 46 19.3	-0.9
SUW				pmax	pmax		
	comp=Z,69nm,0.8s,mb5.6						
SUW	**Suwalki**	**72.80**	**325**	*e*P	**P**	**17 46 08.9**	**-1.5**
CRVS	**Cervenica-Dubn**	**72.86**	**319**	*e*P	**P**	**17 46 10.2**	**-0.7**
CRVS				*e*		17 46 23.3	
FINES	**FINESS Array B**	**73.23**	**333**	P	**P**	**17 46 11.6**	**-1.2**
	comp=Z,14nm,0.7s,mb5.0,baz=102,slow=7.9,SNR=38						
FINES				pP	pP	17 46 21.9	-0.7
	comp=Z,17nm,0.7s,baz=72,slow=6.0,SNR=10						
KAF	**Kangasniemi**	**73.33**	**333**	*e*p	**P**	**17 46 11.6**	**-1.7**
	comp=Z,1.7nm,0.4s,mb4.3						
KAF	**Kangasniemi**	**73.33**	**333**	*e*p	pP	17 46 23.1	0.0
	comp=Z,1.4nm,0.4s						
KAF	**Kangasniemi**	**73.33**	**333**	*e*P	**P**	**17 46 11.6**	**-1.7**
KAF				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
KECS	**Kecovo**	**73.44**	**319**	*e*sP	pP	17 46 20.3	-3.7
NIE	**Niedzica**	**73.69**	**319**	*e*P	**P**	**17 46 16.5**	**+0.8**
PSZ	**Piszkesteto**	**73.74**	**318**	*e*P	**P**	**17 46 13.0**	**-3.0**
PSZ				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.1						
PSZ	**Piszkesteto**	**73.74**	**318**	*e*P	**P**	**17 46 13.0**	**-3.0**
	comp=Z,36nm,1.3s,mb5.1						
CASY	**Casey**	**73.89**	**173**	*e*P	**P**	**17 46 17.4**	**+0.9**
	comp=Z,72nm,1.5s,mb5.4						
CASY				*e*	pP	17 46 28.1	+1.8
BOSA	**Boshof**	**73.97**	**238**	*e*P	**P**	**17 46 17.9**	**+0.2**
BOSA				*e*	pP	17 46 29.4	+1.8
BOSA				pmax	pmax		
	comp=Z,52nm,0.9s,mb5.5						
BOSA	**Boshof**	**73.97**	**238**	*e*P	**P**	**17 46 17.9**	**+0.2**
	comp=Z,52nm,0.9s,mb5.5						
BOSA				*e*	pP	17 46 29.4	+1.8
OJC	**Ojcow**	**74.14**	**320**	*e*P	**P**	**17 46 17.8**	**-0.5**
PKSM	**Moragy**	**74.37**	**316**	⇑*e*P	**P**	**17 46 18.5**	**-1.2**
VYHS	**Vyhne**	**74.52**	**318**	*e*P	**P**	**17 46 20.5**	**0.0**
VYHS				*e*	pP	17 46 29.9	-0.4
OKC	**Ostrava-Krasne**	**75.15**	**320**	*e*P	**P**	**17 46 24.1**	**0.0**
OKC				*e*PCP	PcP	17 46 34.5	-3.3
MORC	**Moravsky Berou**	**75.53**	**320**	*e*P	**P**	**17 46 25.7**	**-0.6**
MORC				*e*	pP	17 46 35.4	-0.7
MORC				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
MORC	**Moravsky Berou**	**75.53**	**320**	*e*P	**P**	**17 46 25.7**	**-0.5**
	comp=Z,34nm,1.2s,mb5.2						
MORC				*e*	pP	17 46 35.4	-0.7
KEV	**Kevo**	**75.58**	**341**	*e*p	**P**	**17 46 24.9**	**-1.3**
	comp=Z,1.1nm,0.4s						
KEV	**Kevo**	**75.58**	**341**	*e*P	**P**	**17 46 24.9**	**-1.3**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.4s						
ZST	**Bratislava**	**75.64**	**318**	*e*P	**P**	**17 46 26.1**	**-0.8**
ZST				*e*sP	sP	17 46 33.6	-6.6
ARCES	**ARCESS Array B**	**76.00**	**340**	P	**P**	**17 46 28.1**	**-0.5**
	comp=Z,13nm,0.9s,mb4.9,baz=92,slow=5.5,SNR=27						
ARCES				pP	pP	17 46 37.9	-0.5
	comp=Z,29nm,0.9s,baz=101,slow=6.2,SNR=9.7						
VRAC	**Vranov**	**76.09**	**319**	P	**P**	**17 46 28.9**	**-0.5**
	comp=Z,3.5nm,0.7s,mb4.4,baz=75,slow=5.3,SNR=6.4						
VRAC				pP	pP	17 46 39.2	-0.1
	comp=Z,4.5nm,0.8s,baz=105,slow=6.4,SNR=5.4						
DPC	**Dobruska-Polom**	**76.37**	**320**	*e*P	**P**	**17 46 31.5**	**+0.5**
DPC				*e*PCP	PcP	17 46 42.0	-1.0
KSP	**Ksiaz**	**76.44**	**321**	*e*P	**P**	**17 46 31.3**	**-0.1**
KSP				*e*pP	pP	17 46 40.8	-0.5
KSP	**Ksiaz**	**76.44**	**321**	*e*P	**P**	**17 46 31.4**	**0.0**
UPC	**Upice**	**76.59**	**320**	*e*P	**P**	**17 46 32.1**	**-0.1**
UPC				*e*PCP	PcP	17 46 42.7	-1.3
ARSA	**Arzberg**	**76.61**	**317**	⇑*i*P	**P**	**17 46 32.9**	**+0.5**
	comp=Z,51nm,1.8s,mb5.2						
BOJS	**Bojanci**	**76.66**	**315**	*e*P	**P**	**17 46 32.4**	**-0.4**
MAW	**Mawson**	**77.14**	**191**	*e*P	**P**	**17 46 36.5**	**+1.6**
MAW				*e*	pP	17 46 46.3	+1.5
MAW				pmax	pmax		
	comp=Z,72nm,1.3s						
MAW	**Mawson**	**77.14**	**191**	P	**P**	**17 46 37.0**	**+2.0**
	comp=Z,7.9nm,0.6s,mb4.8,baz=11,slow=7.1,SNR=14						
MAW				pP	pP	17 46 46.4	+1.6
	comp=Z,18nm,1.0s,baz=12,slow=7.6,SNR=7.7						
MAW	**Mawson**	**77.14**	**191**	*e*P	**P**	**17 46 36.5**	**+1.6**
	comp=Z,72nm,1.3s,mb5.4						
MAW				*e*	pP	17 46 46.2	+1.4
LJU	**Ljubljana**	**77.21**	**316**	*e*P	**P**	**17 46 37.0**	**+1.2**
PRU	**Pruhonice**	**77.48**	**320**	*e*P	**P**	**17 46 37.6**	**+0.4**
PRU				*e*PCP	PcP	17 46 47.7	-0.1
MOA	**Molln**	**77.50**	**317**	⇑*i*P	**P**	**17 46 37.4**	**+0.1**
	comp=Z,20nm,1.3s,mb4.9						
ROBS	**Robic**	**77.92**	**316**	*e*P	**P**	**17 46 39.2**	**-0.5**
ROBS				*e*	pP	17 46 50.0	+0.5
BRG	**Berggiesshubel**	**77.93**	**320**	*i* P	**P**	**17 46 40.6**	**+1.0**
BRG				*i*	pP	17 46 50.9	+1.4
BRG				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
BRG	**Berggiesshubel**	**77.93**	**320**	*i* P	**P**	**17 46 40.6**	**+1.0**
	comp=Z,15nm,1.0s,mb4.9						
BRG				*i*	pP	17 46 50.9	+1.4
GEC2	**GERESS Array S**	**77.94**	**318**	*e*P	**P**	**17 46 40.1**	**+0.4**
GEC2				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.2						
GEC2	**GERESS Array S**	**77.94**	**318**	*e*P	**P**	**17 46 40.1**	**+0.4**
	comp=Z,34nm,1.1s,mb5.2						
GERES	**GERESS Array B**	**77.94**	**318**	P	**P**	**17 46 39.5**	**-0.3**
	comp=Z,12nm,0.9s,mb4.8,baz=90,slow=5.3,SNR=37						
GERES				pP	pP	17 46 49.3	-0.3
	comp=Z,13nm,0.7s,baz=79,slow=5.6,SNR=21						
PTCC	**Patocco-Chiusa**	**78.04**	**316**	*e*P	**P**	**17 46 40.1**	**-0.2**
KHC	**Kasperske Hory**	**78.05**	**319**	*e*P	**P**	**17 46 40.0**	**-0.3**
KHC				*e*PCP	PcP	17 46 51.1	+0.8
FVI	**Forni Avoltri**	**78.44**	**316**	*e*P	**P**	**17 46 43.0**	**+0.5**
WET	**Wettzell**	**78.50**	**319**	*e*P	**P**	**17 46 43.2**	**+0.4**
CLL	**Collm**	**78.55**	**321**	*e*P	**P**	**17 46 42.0**	**-1.0**
CLL				*e*	pP	17 46 52.0	-0.9
CLL	**Collm**	**78.55**	**321**	P	**P**	**17 46 42.0**	**-1.0**
CLL				*e**PP	pP	17 46 50.0	-2.9
CLL				*e**SP	sP	17 46 52.0	-4.3
SUR	**Sutherland**	**78.70**	**235**	*e*P	**P**	**17 46 45.7**	**+1.4**
	comp=Z,88nm,0.9s,mb5.7						
SUR				*e*		17 46 57.6	
NKC	**Novy Kostel**	**78.84**	**320**	*e*P	**P**	**17 46 45.3**	**+0.7**
NKC				*e*PCP	PcP	17 46 55.3	+1.6
HFS	**Hagfors**	**78.90**	**330**	P	**P**	**17 46 44.3**	**-0.5**
	comp=Z,4.1nm,0.4s,mb4.7,baz=112,slow=3.6,SNR=19						
HFS				pP	pP	17 46 54.5	-0.2
	comp=Z,8.5nm,0.6s,baz=135,slow=4.2,SNR=5.0						
SFI	**Santa Sofia**	**79.02**	**313**	*e*P	**P**	**17 46 46.8**	**+1.1**
VMG	**Vicchio**	**79.23**	**313**	*e*P	**P**	**17 46 47.7**	**+0.7**
WTTA	**Wattenberg**	**79.25**	**317**	⇑*i*P	**P**	**17 46 46.3**	**-0.7**
	comp=Z,33nm,0.9s,mb5.3						
WTTA	**Wattenberg**	**79.25**	**317**	⇑*i*P	**P**	**17 46 46.3**	**-0.7**
WTTA				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
WATA	**Walderalm**	**79.30**	**317**	⇑*i*P	**P**	**17 46 46.6**	**-0.6**
	comp=Z,25nm,1.1s,mb5.1						
WATA	**Walderalm**	**79.30**	**317**	⇑*i*P	**P**	**17 46 46.6**	**-0.6**
WATA				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
SEI	**Scarperia**	**79.37**	**313**	*e*P	**P**	**17 46 48.9**	**+1.2**
MOX	**Moxa**	**79.39**	**320**	*e*P	**P**	**17 46 47.8**	**+0.2**
MOX	**Moxa**	**79.39**	**320**	*i* P	**P**	**17 46 47.8**	**+0.2**

FNVD	Fontana Vidola	79.54	314	*e*P	P	17 46 49.9	+1.3
SQTA	Sankt Quirin	79.54	317	⇓*i*P	P	17 46 47.7	-0.8
	comp=Z,14nm,0.9s,mb4.9						
SQTA	Sankt Quirin	79.54	317	⇓*i*P	P	17 46 47.7	-0.8
SQTA				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
GRA1	Grafenberg Arr	79.61	319	*e*P	P	17 46 49.6	+0.8
	comp=Z,30nm,1.0s,mb5.2						
GRA1				*e*pP	pP	17 46 59.9	+1.2
GRF	Grafenberg Arr	79.61	319	*e*P	P	17 46 49.6	+0.8
GRF				*e**PP	pP	17 46 59.9	+1.2
GRF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
MOTA	Moosalm	79.62	317	⇑*i*P	P	17 46 48.0	-0.9
	comp=Z,23nm,1.1s,mb5.0						
MOTA	Moosalm	79.62	317	⇑*i*P	P	17 46 48.0	-0.9
MOTA				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
ZCCA	Zocca	79.65	314	*e*P	P	17 46 50.1	+1.0
BDI	Bagni Di Lucca	79.92	313	*e*P	P	17 46 50.1	-0.5
GSCL	Gusciola	79.93	314	*e*P	P	17 46 51.4	+0.7
SAL	Salo	79.99	315	*e*P	P	17 46 52.1	+1.2
MAIM		80.00	313	P	P	17 46 50.4	-0.7
SARO	Sassorosso	80.06	314	P	P	17 46 50.3	-1.1
BRMO	Bormio	80.10	316	*e*P	P	17 46 51.7	+0.2
VALM		80.17	314	P	P	17 46 52.3	+0.3
NB2	NORSAR Subarra	80.20	331	P	P	17 46 50.3	-1.4
	comp=Z,2.8nm,0.7s,mb4.3,baz=97,slow=5.0						
NB2	NORSAR Subarra	80.20	331	P	P	17 46 50.3	-1.4
NB2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
NOA	NORSAR Array B	80.20	331	P	P	17 46 50.9	-0.9
	comp=Z,5.2nm,0.8s,mb4.5,baz=94,slow=5.7,SNR=8.1						
NOA				pP	pP	17 47 01.5	-0.2
	comp=Z,8.1nm,0.8s,baz=94,slow=5.6,SNR=8.3						
CLZ	Clausthal	80.22	321	*e*P	P	17 46 52.1	+0.1
	comp=Z,23nm,1.1s,mb5.0						
VINC	Vinca	80.24	314	P	P	17 46 51.1	-1.2
BACM		80.30	314	P	P	17 46 52.3	-0.3
GRAM		80.30	314	P	P	17 46 53.3	+0.6
BSEG	Bad Segeberg	80.32	323	*e*P	P	17 46 53.0	+0.5
DAVOX	Davos	80.45	316	P	P	17 46 53.9	+0.5
	comp=Z,17nm,0.7s,mb5.1,baz=114,slow=4.6,SNR=27						
DAVOX				pP	pP	17 47 04.4	+1.1
	comp=Z,25nm,0.8s,baz=112,slow=5.3,SNR=13						
DAVA	Damuels	80.45	317	⇑*i*P	P	17 46 53.4	0.0
	comp=Z,48nm,1.6s,mb5.2						
CODM		80.46	314	P	P	17 46 53.4	-0.1
PGF	Pioggiola	81.09	312	*e*P	P	17 46 55.9	-0.9
	comp=Z,167nm,1.6s,mb5.4						
PGF	Pioggiola	81.09	312	*e*P	P	17 46 55.9	-0.9
PGF				pmax	pmax		
	comp=Z,83nm,1.6s,mb5.4						
VAI	Varese	81.22	315	*e*P	P	17 46 57.1	-0.3
PCP	Pian Castagno	81.39	314	P	P	17 46 58.8	+0.4
BFO	Black Forest	81.50	318	*e*P	P	17 46 58.6	-0.2
BFO				pmax	pmax		
	comp=Z,41nm,1.8s,mb5.1						
BFO	Black Forest	81.50	318	*e*P	P	17 46 58.6	-0.2
	comp=Z,41nm,1.8s,mb5.1						
FIN	Finale Ligure	81.64	314	P	P	17 46 59.6	-0.1
MCGN	Macugnaga	81.76	315	*e*P	pP	17 47 11.4	+1.2
ORX	Oropa	81.77	315	P	P	17 46 59.0	-1.3
IMI	Imperia	81.88	313	P	P	17 47 01.2	+0.3
ROB	Roburent	81.88	314	P	P	17 47 00.8	-0.1
TRAV		81.94	315	P	P	17 47 00.0	-1.2
MONE	Monesi	81.97	314	P	P	17 47 01.7	+0.3
NEGI	Negi	82.01	313	P	P	17 47 01.6	0.0
CDF	Champ du Feu	82.20	318	*e*P	P	17 47 01.4	-1.1
ENR	Entracque	82.20	314	P	P	17 47 03.3	+0.7
SBF	Sospel	82.20	313	*e*P	P	17 47 01.9	-0.7
	comp=Z,55nm,0.8s,mb5.2						
SBF	Sospel	82.20	313	*e*P	P	17 47 01.9	-0.7
SBF				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
STV	Sta Anna Valdi	82.27	314	P	P	17 47 03.4	+0.5
RSP	Reno Superiore	82.29	315	P	P	17 47 03.3	+0.3
BHB	Bricherasio	82.30	314	P	P	17 47 01.5	-1.5
LSD	Ceresole Reale	82.36	315	P	P	17 47 04.0	+0.7
PZZ	Prazzo	82.42	314	P	P	17 47 02.2	-1.5
FENE	Fenestrelle	82.44	314	P	P	17 47 03.8	0.0
RRL	Cesana Torines	82.64	314	P	P	17 47 06.2	+1.4
LPG	La Plagne	82.64	315	*e*P	P	17 47 04.6	-0.2
	comp=Z,37nm,0.8s,mb5.2						
LPG	La Plagne	82.64	315	*e*P	P	17 47 04.6	-0.2
LPG				pmax	pmax		
	comp=Z,19nm,0.8s,mb5.2						
MBDF	Montbardon	82.65	314	*e*P	P	17 47 03.7	-1.2
	comp=Z,23nm,1.1s,mb4.8						
MBDF	Montbardon	82.65	314	*e*P	P	17 47 03.7	-1.2
MBDF				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
BNI	Bardonecchia	82.71	315	*e*P	P	17 47 04.9	-0.3
BNI				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
BNI	Bardonecchia	82.71	315	*e*P	P	17 47 04.9	-0.3
	comp=Z,16nm,0.9s,mb5.1						
HAU	Haudompre	82.83	317	*e*P	P	17 47 04.7	-1.0
	comp=Z,81nm,1.3s,mb5.3						
HAU	Haudompre	82.83	317	*e*P	P	17 47 04.7	-1.0
HAU				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.3						
SYO	Syowa Base	83.93	197	⇓P	P	17 47 11.5	+0.6
SYO	Syowa Base	83.93	197	⇓pP	pP	17 47 13.8	-7.1
SYO	Syowa Base	83.93	197	⇑PcP	PcP	17 47 17.4	+2.2
BAIF	Baives	84.14	320	*e*P	P	17 47 11.9	-0.5
	comp=Z,39nm,1.2s,mb5.1						
BAIF	Baives	84.14	320	*e*P	P	17 47 11.9	-0.5
BAIF				pmax	pmax		
	comp=Z,20nm,1.2s,mb5.1						
SSF	Saint Saulge	84.80	317	*e*P	P	17 47 14.9	-0.9
SSF				pmax	pmax		
	comp=Z,39nm,1.6s,mb5.3						
SSF	Saint Saulge	84.80	317	*e*P	P	17 47 14.9	-0.9
	comp=Z,39nm,1.6s,mb5.3						
BGF	Bois d'Agland	85.29	316	*e*P	P	17 47 16.6	-1.6
	comp=Z,31nm,0.9s,mb5.1						
BGF	Bois d'Agland	85.29	316	*e*P	P	17 47 16.6	-1.6
BGF				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
RJF	Les Rejaudoux	86.33	315	*e*P	P	17 47 23.1	-0.3
	comp=Z,77nm,1.4s,mb5.4						
RJF	Les Rejaudoux	86.33	315	*e*P	P	17 47 23.1	-0.3
RJF				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.4						
FLN	La Foliniere	87.31	319	*e*P	P	17 47 26.8	-1.3
EKA	Eskdalemuir Ar	88.04	325	P	P	17 47 31.9	+0.5
	comp=Z,9.0nm,0.7s,mb5.1,baz=97,slow=5.4,SNR=26						
EKA				pP	pP	17 47 42.6	+1.1
	comp=Z,13nm,0.7s,baz=99,slow=5.5,SNR=14						
ETSF	Etsaut	88.09	313	*e*P	P	17 47 31.1	-0.9
	comp=Z,88nm,1.7s,mb5.4						
ETSF	Etsaut	88.09	313	*e*P	P	17 47 31.1	-0.9
ETSF				pmax	pmax		
	comp=Z,44nm,1.7s,mb5.4						
DAG	Danmarks Havn	88.39	348	*e*P	P	17 47 32.0	-0.7
DAG				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.9						
DAG	Danmarks Havn	88.39	348	*e*P	P	17 47 32.0	-0.7
	comp=Z,3.5nm,0.5s,mb4.8						
DAG	Danmarks Havn	88.39	348	*i* P	P	17 47 32.0	-0.7
	comp=Z,3.5nm,0.5s,mb4.8						
URZ	Urewera	89.50	128	pP	pP	17 47 50.0	+1.1
	comp=Z,29nm,1.1s,baz=354,slow=8.5,SNR=2.6						
ESDC	Sonseca Array	91.10	310	P	P	17 47 46.1	-0.1
	comp=Z,3.7nm,0.6s,mb4.9,baz=62,slow=4.4,SNR=19						
ESDC				pP	pP	17 47 57.8	+1.6
	comp=Z,4.7nm,0.7s,baz=60,slow=4.4,SNR=12						
VNDA	Vanda	92.00	168	*e*P	P	17 47 48.5	-1.0
VNDA				pmax	pmax		
	comp=Z,14nm,1.4s						
VNDA	Vanda	92.00	168	P	P	17 47 51.2	+1.7
	comp=Z,2.3nm,1.0s,mb4.5,baz=305,slow=5.4,SNR=8.1						
VNDA	Vanda	92.00	168	*e*P	P	17 47 48.5	-1.0
	comp=Z,14nm,1.4s,mb5.1						
SBA	Scott Base	93.10	168	*e*P	P	17 47 57.2	+2.6
SBA				pmax	pmax		
	comp=Z,137nm,1.9s,mb6.1						
SBA	Scott Base	93.10	168	*e*P	P	17 47 57.2	+2.6
	comp=Z,137nm,1.9s,mb6.1						
IMA	Indian Mountai	93.16	22	*e*P	P	17 47 57.0	+2.0
IMA				*e*	pP	17 48 07.2	+2.2
IMA				pmax	pmax		
	comp=Z,144nm,1.1s,mb6.3						
IMA	Indian Mountai	93.16	22	*e*P	P	17 47 57.0	+1.9
	comp=Z,144nm,1.1s,mb6.3						
IMA				*e*	pP	17 48 07.2	+2.1
SPU	Mount Spurr	95.86	26	P	P	17 48 01.2	-6.3
ILAR	Eielson Array	96.28	22	P	P	17 48 10.2	+0.8
	comp=Z,0.5nm,0.6s,baz=315,slow=5.1,SNR=6.0						
ILAR				pP	pP	17 48 20.5	+1.1
	comp=Z,3.5nm,0.8s,baz=305,slow=4.7,SNR=20						
ILAR				PP	PP	17 51 57.1	-8.1
	comp=Z,1.0nm,0.8s,baz=298,slow=7.1,SNR=5.4						
QSPA	South Pole Qui	96.59	180	*e*P	P	17 48 10.8	+0.3
DBIC	Dimbokro	96.96	278	P	P	17 48 15.7	+2.1
	comp=Z,6.3nm,1.1s,mb5.0,baz=56,slow=1.8,SNR=4.5						
SNAA	Sanae	98.13	199	P	P	17 48 19.2	+1.6
SNAA				*e*		17 48 26.8	
SNAA				pmax	pmax		
	comp=Z,14nm,1.3s						
SNAA	Sanae	98.13	199	P	P	17 48 19.1	+1.6
	comp=Z,14nm,1.3s,mb5.3						
SNAA				*e*		17 48 26.8	
INK	Inuvik	98.45	16	P	P	17 48 18.4	-0.6
	comp=Z,1.1nm,0.6s,mb4.6,baz=236,slow=3.6,SNR=3.0						
YKA	Yellowknife Ar	107.85	13	Pdiff	Pdif	17 49 04.2	+3.4
	comp=Z,0.2nm,0.7s,baz=315,slow=2.6,SNR=2.9						
YKA				PP	PP	17 53 24.6	-8.3
	comp=Z,0.4nm,0.8s,baz=291,slow=4.7,SNR=4.4						
YKA				PKKPbc		18 04 21.9	
	comp=Z,0.6nm,0.6s,baz=153,slow=3.3,SNR=9.7						
YKA				PKKPab		18 04 35.9	
	comp=Z,1.0nm,0.6s,baz=148,slow=4.7,SNR=10						
MSO	Missoula	121.61	21	*e*PKPdf	PKPdf	17 53 35.4	-3.8
MSO				*e*		17 53 43.4	
ULM	Lac du Bonnet	122.79	7	PKP	PKPdf	17 53 37.9	-3.4
	comp=Z,2.1nm,0.6s,baz=332,slow=3.8,SNR=4.8						
ULM	Lac du Bonnet	122.79	7	*e*PKPdf	PKPdf	17 53 37.8	-3.5
QLMT	Earthquake Lak	124.23	21	*e*PKPdf	PKPdf	17 53 41.7	-2.5
YMR	Madison River	124.53	21	*e*PKPdf	PKPdf	17 53 42.8	-2.0
YFT	Old Faithful	124.77	21	*e*PKPdf	PKPdf	17 53 44.3	-1.0
IMW	Indian Meadow	125.22	21	*e*PKPdf	PKPdf	17 53 44.0	-2.1
MOOW	Moose Ponds	125.41	21	*e*PKPdf	PKPdf	17 53 43.5	-3.0
MOOW				*e*		17 53 53.5	
TPAW	Teton Pass	125.56	21	*e*PKPdf	PKPdf	17 53 44.3	-2.6
TPAW				*e*		17 53 54.6	
LOHW	Long Hollow	125.58	21	*e*PKPdf	PKPdf	17 53 43.9	-3.0
LOHW				*e*		17 53 53.6	
WUWY	Wally Ulrich	125.60	21	*e*PKPdf	PKPdf	17 53 43.2	-3.8
SNOW	Snow King Moun	125.66	21	*e*PKPdf	PKPdf	17 53 44.5	-2.5
SNOW				*e*		17 53 53.6	
REDW	Red Top Meadow	125.71	21	*e*PKPdf	PKPdf	17 53 43.7	-3.4
NVAR	Mina Array Bea	126.53	30	PKP	PKPdf	17 53 47.5	-1.3
	comp=Z,2.9nm,0.6s,baz=284,slow=2.7,SNR=9.7						
NVAR				pPKP		17 53 57.6	
	comp=Z,8.3nm,0.8s,baz=35,slow=1.6,SNR=11						
PDAR	Pinedale Array	126.69	21	PKP	PKPdf	17 53 46.1	-2.9
	comp=Z,3.4nm,0.8s,baz=57,slow=0.5,SNR=21						
PDAR				pPKP		17 53 55.8	
	comp=Z,13nm,1.0s,slow=1.5,SNR=22						
PDAR				PKKPbc		18 03 14.8	
	comp=Z,0.5nm,0.6s,baz=134,slow=4.9,SNR=3.5						
NLU	North Lily Min	128.16	24	*e*PKPdf	PKPdf	17 53 49.4	-2.6
NCB	Newcomb	128.28	348	*e*PKPpre		17 53 41.4	
TMUT	Trail Mountain	129.07	24	*e*PKPdf	PKPdf	17 53 46.7	-7.1
MSU	Marysvale	129.33	26	*e*PKIKP	PKPdf	17 53 51.2	-3.1
NEN	Nelson	130.43	30	*e*PKPdf	PKPdf	17 53 54.8	-1.7
PV10	Paradox Valley	130.72	23	*e*PKPpre		17 53 38.8	
ANMO	Albuquerque	134.72	23	*e*PKIKP	PKPdf	17 54 02.5	-2.0
ANMO				*e*		17 54 12.8	
LAZ	Ladron	134.93	24	*e*PKPdf	PKPdf	17 54 04.1	-0.8
TUC	Tucson	135.11	29	*e*PKIKP	PKPdf	17 54 04.0	-1.3
BNM	Barren Site	135.36	23	*e*PKPdf	PKPdf	17 54 03.7	-2.0
WMOK	Wichita Mounta	137.34	14	*e*PKIKP	PKPdf	17 54 02.2	-7.1
WMOK				*e*		17 56 48.2	
CPRX	Cap Rock	137.39	21	*e*PKPdf	PKPdf	17 54 03.3	-6.1
GDL2	Guadalupe Moun	137.96	22	*e*PKPdf	PKPdf	17 54 07.0	-3.6
CLNB	Carlsbad	138.08	22	*e*PKPdf	PKPdf	17 54 02.5	-8.2
BDFB	Brasilia	140.76	253	PKP	PKPdf	17 54 14.2	-1.9
	comp=Z,3.2nm,0.6s,baz=122,slow=6.1,SNR=4.9						
LTX	Lajitas	140.78	23	*e*PKIKP	PKPdf	17 54 14.3	-1.5
TXAR	Lajitas Array	140.78	23	PKP	PKPdf	17 54 13.4	-2.3
	comp=Z,2.2nm,0.5s,baz=94,slow=0.9,SNR=16						
TXAR				pPKP		17 54 22.5	
	comp=Z,4.1nm,0.7s,baz=315,slow=1.8,SNR=12						
JCT	Junction City	141.08	18	*e*PKIKP	PKPdf	17 54 13.5	-2.8
SDV	Santo Domingo	157.51	313	*e*PKPdf	PKPdf	17 54 39.1	-3.0
SDV				*e*		17 54 46.7	
LPAZ	La Paz	159.18	241	*e*PKIKP	PKPdf	17 54 40.6	-3.5
LPAZ	La Paz	159.18	241	PKP	PKPdf	17 54 41.6	-2.5
	comp=Z,3.4nm,0.8s,baz=275,slow=1.3,SNR=12						
OTAV	Otavalo	169.03	308	*e*PKPdf	PKPdf	17 54 51.1	-1.9
OTAV				*e*		17 54 58.3	

IDC ***30*** *17:43:52.0±0.8, 8.81N×92.11E, $h28^{km}\pm4^{km}$, mb3.8/10, mb1 3.9/11, mb1mx3.8/18, mbtmp3.9/11, ML3.8/1, Error ellipse: s-maj=30.0km s-min=17.0km az=51.0*

ISC 30 17:43:49.9±0.8, **8.8N**±0.1×**92.2E**±0.1, **$h30^{km}$, $h30^{km}\pm.3^{km}$:pP-P, n16, $\sigma 0\overset{s}{.}61$**/13, **mb3.9**/12, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.62	34	Pn	P	17 46 36.8	-0.3
	0.2nm,0.3s,baz=236,slow=15,SNR=6.6						
SONM	Songino Array	40.73	15	P	P	17 51 30.1	+0.4
	2.5nm,0.8s,mb3.9,baz=198,slow=7.4,SNR=16						
SONM				pP	pP	17 51 38.9	+0.3
	1.7nm,0.7s,baz=205,slow=8.7,SNR=6.8						
SONM				PcP	PcP	17 53 32.2	+0.8
	0.5nm,0.6s,baz=198,slow=4.2,SNR=3.3						
ZAL	Zalesovo	45.41	354	P	P	17 52 07.7	0.0
	0.8nm,0.3s,mb4.0,baz=324,slow=14,SNR=3.2						
ZAL				pP	pP	17 52 16.7	+0.1
	1.0nm,0.3s,baz=307,slow=10,SNR=3.1						
WRA	Warramunga Arr	50.36	125	P	P	17 52 46.5	-0.2
	0.2nm,0.4s,mb3.5,baz=300,slow=9.8,SNR=8.8						
WRA				PcP	PcP	17 54 06.1	+0.9
	0.4nm,0.7s,baz=312,slow=2.8,SNR=5.6						
ASAR	Alice Springs	51.98	129	P	P	17 52 59.0	+0.1
	0.4nm,0.4s,mb3.7,baz=303,slow=7.2,SNR=8.7						
ASAR				PcP	PcP	17 54 12.7	+1.5
	0.4nm,0.5s,baz=310,slow=3.1,SNR=5.8						
BRTR	Keskin Array B	60.38	311	P	P	17 53 57.6	-1.3
	0.8nm,0.6s,mb3.9,baz=90,slow=3.7,SNR=4.1						
BRTR				pP	pP	17 54 06.6	-1.5
	1.1nm,0.7s,baz=117,slow=8.3,SNR=4.4						
AKASG	Malin Array Be	66.25	322	pP	pP	17 54 44.1	-2.5
	1.3nm,0.6s,baz=81,slow=4.8,SNR=4.0						
FINES	FINESS Array B	71.01	332	P	P	17 55 06.3	-0.4
	1.4nm,0.6s,mb4.1,baz=124,slow=6.9,SNR=6.4						
FINES				pP	pP	17 55 15.7	-0.3
	3.8nm,0.8s,baz=117,slow=8.5,SNR=2.1						
KAF	Kangasniemi	71.10	333	*e*p	P	17 55 06.9	-0.4
	0.3nm,0.4s,mb3.6						
KAF	Kangasniemi	71.10	333	*e*p	pP	17 55 16.3	-0.3
	0.4nm,0.4s						
KEV	Kevo	73.34	341	*e*p	P	17 55 15.1	-5.3
	0.2nm,0.3s,mb3.5						
KEV	Kevo	73.34	341	*e*p	pP	17 55 28.1	-1.6
	0.3nm,0.4s						
ARCES	ARCESS Array B	73.76	340	P	P	17 55 23.1	+0.2
	3.6nm,0.8s,mb4.3,baz=63,slow=8.1,SNR=5.5						
ARCES				pP	pP	17 55 32.4	+0.3
	4.8nm,0.9s,baz=108,slow=3.8,SNR=1.9						
GERES	GERESS Array B	75.86	318	P	P	17 55 36.1	+0.8
	1.1nm,0.6s,mb4.0,baz=104,slow=5.5,SNR=8.4						
GERES				pP	pP	17 55 45.8	+1.1
	1.0nm,0.7s,baz=76,slow=5.5,SNR=3.2						
NOA	NORSAR Array B	77.99	331	P	P	17 55 46.7	-0.1
	1.8nm,1.0s,mb4.0,baz=99,slow=17,SNR=2.4						
NOA				pP	pP	17 55 55.8	-0.4
	1.1nm,0.7s,baz=95,slow=5.4,SNR=1.5						
EKA	Eskdalemuir Ar	85.88	325	P	P	17 56 29.4	+1.3
	2.0nm,1.0s,mb4.3,baz=45,slow=1.2,SNR=3.7						

IDC 30 17:49:00.4±1.9, **8.49N**×**92.98E, mb3.6**/4, **mb1 3.8**/5, **mb1mx3.6**/18, **mbtmp3.6**/5, **ML3.4**/1, **Error ellipse: s-maj=64.9km s-min=25.9km az=66.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.48	30	Pn	P	17 51 47.5	-1.2
	0.1nm,0.3s,baz=220,slow=14,SNR=8.2						
SONM	Songino Array	40.83	14	P	P	17 56 42.7	-2.7
	0.6nm,0.9s,baz=209,slow=7.5,SNR=3.7						
WRA	Warramunga Arr	49.55	125	P	P	17 57 53.0	-2.4
	0.2nm,0.4s,baz=299,slow=10,SNR=9.9						
ASAR	Alice Springs	51.19	130	P	P	17 58 06.5	-1.3
	0.5nm,1.0s,baz=303,slow=7.4,SNR=4.0						
ARCES	ARCESS Array B	74.31	340	P	P	18 00 39.7	-1.4
	3.3nm,0.9s,baz=90,slow=8.5,SNR=5.0						

IDC 30 17:53:26.6±2.1, **6.37N**×**91.89E, mb3.6**/6, **mb1 3.8**/7, **mb1mx3.6**/19, **mbtmp3.6**/7, **ML3.1**/1, **Error ellipse: s-maj=77.2km s-min=21.0km az=64.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.85	29	Pn	P	17 56 44.0	-2.7
	0.0nm,0.3s,baz=232,slow=13,SNR=4.1						
SONM	Songino Array	43.14	14	P	P	18 01 29.4	-1.2
	0.6nm,0.7s,baz=190,slow=7.0,SNR=4.4						
ZAL	Zalesovo	47.78	354	P	P	18 02 05.2	-2.3
	0.5nm,0.3s,baz=318,slow=11,SNR=3.1						
WRA	Warramunga Arr	49.26	123	P	P	18 02 16.7	-2.7
	0.7nm,0.9s,baz=299,slow=10,SNR=3.4						
BVAR	Borovoye Array	49.73	343	P	P	18 02 20.3	-2.3
	0.4nm,0.6s,baz=153,slow=6.4,SNR=3.6						
ASAR	Alice Springs	50.72	128	P	P	18 02 28.8	-1.8
	0.8nm,0.9s,baz=301,slow=6.8,SNR=5.8						
STKA	Stephens Creek	60.73	132	P	P	18 03 40.9	-1.8
	1.7nm,1.0s,baz=311,slow=17,SNR=3.4						

IDC 30 17:55:48.9±3.7, **4.36N**×**93.20E, mb3.7**/3, **mb1 3.8**/4, **mb1mx3.6**/18, **mbtmp3.6**/4, **ML3.5**/1, **Error ellipse: s-maj=116.3km s-min=31.5km az=66.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.10	21	Pn	P	17 59 22.4	-3.0
	0.1nm,0.3s,baz=218,slow=13,SNR=5.2						
SONM	Songino Array	44.78	13	P	P	18 04 04.7	-1.4
	0.7nm,1.0s,baz=207,slow=6.4,SNR=3.8						
WRA	Warramunga Arr	47.09	122	P	P	18 04 22.8	-1.9
	1.1nm,0.7s,baz=298,slow=9.3,SNR=6.0						
ZAL	Zalesovo	49.90	354	P	P	18 04 43.9	-2.3
	0.3nm,0.3s,baz=330,slow=20,SNR=3.5						

SYO ***30*** *17:58:06.7, 12.24N×92.50E, $h1^{km}$, MB5.9, MS5.4*

BJI ***30*** *17:58:08.8, 12.25N×92.39E, $h29^{km}$, mB5.9, mb5.4, Ms5.6, Msz5.3*

MOS ***30*** *17:58:10.3±0.9, 12.32N×92.51E, $h33^{km}$, mb6.0/77, MS5.2/18, Error ellipse: s-maj=8.9km s-min=4.2km az=121.1*

IDC ***30*** *17:58:10.1±0.4, 12.26N×92.55E, $h23^{km}\pm2^{km}$, mb5.0/29, mb1 5.1/30, mb1mx5.1/31, mbtmp5.1/30, ML5.1/1, MS5.2/24, Ms1 5.2/24, ms1mx5.0/34, Error ellipse: s-maj=13.8km s-min=8.7km az=41.0*

NEIC ***30*** *17:58:11.2±0.2, 12.24N×92.52E, $h30^{km}$, mb5.8/102, MS5.2/6, Error ellipse: s-maj=6.7km s-min=4.9km az=182.0*

HRVD ***30*** *17:58:11.2±0.2, 12.28N×92.35E, $h12^{km}$, MW5.6/55, Centroid moment Tensor Solution. LP body waves: s36,c66;Mantle waves: s55,c88; Half duration: $1\overset{s}{.}3$ Moment tensor: Scale 10^{17}Nm; M_{rr}0.94±.04; $M_{\theta\theta}$0.32±.03; $M_{\phi\phi}$-1.26±.03; $M_{r\theta}$1.14±.11; $M_{\theta\phi}$-0.07±.03; $M_{\phi r}$-2.94±.09; Best double couple: $M_0$3.35×10^{17} NP1:ϕ_s29°,δ13°,λ138°. NP2:ϕ_s160°,δ81°,λ80°. Principal axes: T 3.31, Plg53°, Azm59°; N .09, Plg10°, Azm161°; P -3.4, Plg36°, Azm258°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 30 17:58:08.6±0.2, **12.26N**±0.03×**92.54E**±0.02, **$h23^{km}$, $h23^{km}\pm.4^{km}$:pP-P, n652, $\sigma 1\overset{s}{.}02$**/542, **mb5.6**/169, **MS5.2**/61, **56C-43D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	Nakhon Sawan	8.12	64	⇓P	P	18 00 09.5	+1.4
	433nm,0.8s						
CM31	Chiang Mai Arr	8.73	44	*e*P	P	18 00 16.1	-0.4
CMAR	Chiang Mai Arr	8.73	44	Pn	P	18 00 16.2	-0.3
	6.4nm,0.3s,baz=237,slow=14,SNR=334						
CMAR				Sn	Sn	18 01 52.3	-2.9
	1.3nm,0.3s,baz=237,slow=28,SNR=3.3						
CMAR				LR	LR	18 04 10.6	
	comp=Z,10μm,20.8s,baz=225,slow=41						
CHRT	Chiangrai	10.28	42	⇑P	P	18 00 37.0	-1.1
	2μm,1.0s						
VIS	Vishakhapatnam	10.42	303	⇓*i*P	P	18 00 35.0	-5.0
	comp=Z,1μm,1.0s						
VIS				*e*S	x	18 02 18.9	
VIS				*e*	S	18 02 25.7	-11
	comp=E,1μm,0.5s						
VIS				*e*		18 02 25.8	
	comp=N,2μm,0.8s						
KKTK	Khon Kaen	10.76	67	P	P	18 00 47.0	+2.4
CAL	Calcutta	10.98	339	*e*P	P	18 00 49.3	+1.7
CAL				*e*	S	18 02 42.5	-8.3
AGT	Agartala	11.63	354	⇑*i*	P	18 00 50.0	-6.4
AGT				*i*		18 01 04.0	
MDRS	Chennai	12.02	275	⇓*e*P	P	18 00 57.3	-4.4
MDRS				*e*	S	18 02 59.0	-17
	comp=N,764nm,0.3s						
IMP	Imphal	12.53	6	*e*	P	18 01 05.8	-2.7
PALK	Pallekele	12.67	248	*e*P	P	18 01 07.1	-3.3
PALK				*e*S	S	18 03 07.6	-24
BOK	Bokaro	13.10	332	⇑*e*P	P	18 01 14.0	-2.1
	comp=Z,165nm,0.6s						
BOK				*i* S	S	18 03 27.1	-15
SHL	Shillong	13.25	357	⇑*i*	P	18 01 11.5	-6.7
SHL				*e*S	S	18 03 34.5	-11
SHBG	Sahibganj	13.69	341	*e*P	P	18 01 22.0	-1.9
SHBG				*e*		18 03 29.5	
BLSP	Bilaspur	13.96	316	⇓*e*P	P	18 01 23.2	-4.4
	comp=Z,702nm,0.9s						
BLSP				*e*S	S	18 03 44.5	-18
HYB	Hyderabad	14.46	292	*e*P	P	18 01 30.5	-3.6
HYB				*e*S	S	18 03 58.0	-17
HYB	Hyderabad	14.46	292	*i* P	P	18 01 30.5	-3.6
HYB				*e*		18 03 58.0	
HYB				*e*S	S	18 04 08.0	-6.5
KOD	Kodaikanal	14.92	264	⇓*i*P	P	18 01 38.5	-1.6
KOD				*e*S	S	18 04 19.0	-6.4
LKP	Lekhapani	15.36	12	*e*	P	18 01 45.0	-0.8
LKP				*e*		18 01 54.5	
NGP	Nagpur	15.65	306	⇑*e*P	P	18 01 47.6	-1.9
	comp=Z,89nm,0.8s						
NGP				*e*	S	18 04 29.2	-13
TRD	Trivandrum	15.77	258	⇓*e*P	P	18 01 48.4	-2.8
	comp=Z,437nm,1.7s						
KMI	Kunming	16.02	36	P	P	18 01 56.5	+2.1
KMI				AP		18 02 01.0	
KMI				PP	PP	18 02 07.5	+0.2
KMI				S	S	18 04 55.5	+4.3
KMI				XS		18 05 04.5	
KMI				SS	SS	18 05 16.5	+6.0
KMI				AMB	AMB		
	comp=Z,229nm,1.4s						
KMI				AMB	AMB		
	comp=Z,2μm,3.4s						
KMI				LR	LR		
	comp=N,10μm,14.4s						
KMI				LR	LR		
	comp=E,8μm,15.5s						
KMI				LR	LR		
	comp=Z,8μm,14.4s						
ALBI	Allahabad	16.47	324	*e*P	P	18 02 01.5	+1.5
LATR	Latur	16.58	294	*e*P	P	18 02 00.0	-1.4
LATR				⇓*e*		18 06 28.9	
PKI	Pulchoki	16.64	337	*e*P	P	18 01 57.7	-4.4
	comp=Z,1μm,1.1s						
GUN	Gumba	16.77	339	*e*P	P	18 01 58.7	-5.2
	comp=Z,496nm,0.7s						
DMN	Daman	16.79	337	*e*P	P	18 02 00.3	-3.7
	comp=Z,1μm,0.9s						
KKN	Kakani	16.88	337	*e*P	P	18 02 00.7	-4.5
AKL	Akola	17.08	301	⇑*i*P	P	18 02 09.2	+1.5
AKL				*i*		18 04 53.7	
	comp=Z,795nm,1.9s						
MNGI	Mangalore	17.30	274	⇓*e*P	P	18 02 08.0	-2.5
MNGI				*i*		18 05 07.3	
	comp=Z,454nm,1.2s						

GKN	**Gorkha**	17.32	336	*e*P	P	**18 02 05.9**	**-4.8**
	comp=Z,386nm,0.4s						
LSA	**Lhasa**	17.41	356	*e*P	P	**18 02 09.6**	**-2.2**
KOLN	**Koldanda**	17.56	333	*e*P	P	**18 02 09.9**	**-3.8**
	comp=Z,2µm,1.2s						
QIZ	**Qiongzhong**	17.97	66	P	P	**18 02 20.5**	**+1.7**
QIZ				S	S	**18 05 38.0**	**+2.3**
QIZ				AMB	AMB		
	comp=Z,154nm,2.1s						
QIZ				LR	LR		
	comp=E,10µm,13.0s						
QIZ				LR	LR		
	comp=Z,15µm,13.2s						
QIZ	**Qiongzhong**	17.97	66	*e*P	P	**18 02 20.0**	**+1.2**
	comp=Z,155nm,1.0s						
BHPL	**Bhopal**	18.05	309	⇓*e*P	P	**18 02 18.9**	**-1.0**
	comp=Z,437nm,1.7s						
BHPL				*i*	S	**18 05 23.6**	**-14**
KAD	**Karad**	18.44	288	⇓*i*P	P	**18 02 19.8**	**-4.9**
	comp=Z,507nm,1.5s						
KAD				*i*	S	**18 05 33.1**	**-13**
GOA	**Goa**	18.45	282	⇓*e*	P	**18 02 28.5**	**+3.6**
GOA				*e*	S	**18 05 34.0**	**-13**
JHNI	**Jhansi**	18.63	317	⇑*i*P	P	**18 02 24.0**	**-3.0**
JHNI				*i*	S	**18 05 38.0**	**-13**
POO	**Poona**	19.06	291	⇓*e*P	P	**18 02 30.0**	**-2.2**
GYA	**Guiyang**	19.39	41	⇑*i*P	P	**18 02 36.0**	**0.0**
GYA				AP		18 02 39.0	
GYA				AMB	AMB		
	comp=Z,300nm,0.9s						
GYA				AMB	AMB		
	comp=Z,9µm,10.2s						
GYA				LR	LR		
	comp=N,12µm,16.2s						
GYA				LR	LR		
	comp=E,25µm,15.8s						
GYA				LR	LR		
	comp=Z,28µm,16.0s						
MNCY	**Minicoy**	19.59	260	⇓*i*P	P	**18 02 40.0**	**+1.7**
MNCY				*i*		18 03 39.0	
BOM	**Bombay**	20.11	292	⇓*e*P	P	**18 02 43.1**	**-0.6**
BOM				*e*	S	**18 06 10.8**	**-12**
	comp=Z,292nm,1.0s						
AGRA	**Agra**	20.23	320	*e*P	P	**18 02 46.5**	**+1.5**
LGTI	**Lohaghat**	20.58	328	*e*P	P	**18 02 50.0**	**+1.4**
LGTI				*e*	S	**18 06 28.5**	**-4.1**
PTH	**Pithoragarh**	20.67	328	*e*P	P	**18 02 49.9**	**+0.3**
PTH				*e*	S	**18 06 23.9**	**-11**
CD2	**Chengdu**	21.27	27	P	P	**18 02 55.3**	**-0.4**
CD2				AP		18 03 03.0	
CD2				XP		18 03 09.0	
CD2				S	S	**18 06 46.0**	**+0.1**
CD2				XS		18 07 01.0	
CD2				SS	SS	18 07 21.8	+1.6
CD2				AMB	AMB		
	comp=Z,430nm,1.2s,mb5.7						
CD2				LR	LR		
	comp=E,9µm,16.9s						
CD2				LR	LR		
	comp=Z,7µm,12.6s,MS5.2						
AYAN	**Aya Nagar**	21.62	321	*e*P	P	**18 02 59.5**	**+0.2**
AYAN				*e*		18 03 11.5	
	comp=Z,665nm,1.8s						
BHV	**Bhavnagar**	21.64	299	*e*P	P	**18 03 01.0**	**+1.5**
NDI	**New Delhi**	21.71	321	⇓*e*P	P	**18 03 00.0**	**-0.1**
NDI				*e*		18 06 46.0	
BHGR	**Bahadurgarh**	21.89	321	*e*P	P	**18 03 00.0**	**-1.9**
AJM	**Ajmer**	21.98	313	⇓*i*P	P	**18 03 03.2**	**+0.2**
	comp=Z,795nm,1.5s,mb5.9						
KHET	**Khetri**	22.19	318	*e*P	P	**18 03 06.6**	**+1.7**
DDI	**Dehra Dun**	22.43	325	*e*P	P	**18 03 08.3**	**+0.9**
DDI				*e*	S	**18 07 02.3**	**-5.2**
GZH	**Guangzhou**	22.53	59	P	P	**18 03 13.8**	**+5.3**
GZH				LR	LR		
	comp=N,4µm,15.5s,MS5.0						
GZH				LR	LR		
	comp=E,3µm,19.6s,MS5.0						
GZH				LR	LR		
	comp=Z,7µm,18.0s,MS5.1						
KKR	**Kurukshetra**	22.87	323	*e*P	P	**18 03 11.9**	**+0.1**
KLP	**Kalpa**	23.27	328	*e*P	P	**18 03 17.3**	**+1.7**
KLP				*e*S	S	**18 07 28.3**	**+5.8**
SMLA	**Simla**	23.54	325	⇓*i*	P	**18 03 33.7**	**+16**
	comp=Z,731nm,0.6s,mb6.3						
SMLA				*i*	S	**18 07 46.1**	**+19**
	comp=Z,738nm,0.6s						
ENH	**Enshi**	23.83	39	*e*P	P	**18 03 20.5**	**-0.6**
	comp=Z,749nm,1.1s,mb6.0						
SDNR	**Sundarnagar**	23.93	326	*e*P	P	**18 03 24.7**	**+2.7**
SDNR				*e*		18 07 55.1	
BHK	**Bhakra**	24.18	325	*e*P	P	**18 03 26.7**	**+2.2**
BHK				*e*S	S	**18 07 42.0**	**+3.8**
BHJ	**Bhuj**	24.34	300	⇓*e*P	P	**18 03 28.4**	**+2.3**
	comp=Z,434nm,1.6s,mb5.6						
COCO	**West Island**	24.66	170	*e*P	P	**18 03 31.5**	**+2.2**
PONG	**Pong**	24.84	325	*e*P	P	**18 03 32.0**	**+1.1**
PONG				*e*		18 08 16.0	
DLH	**Dalhousie**	25.28	326	*e*P	P	**18 03 36.0**	**+1.0**
DLH				*e*		18 08 18.0	
THN	**Thein Dam**	25.33	325	*e*P	P	**18 03 35.0**	**-0.5**
	comp=Z,25nm,0.7s,mb4.8						
THN				*e*		18 08 23.4	
LZH	**Lanzhou**	25.83	21	⇑P	P	**18 03 40.8**	**+0.7**
LZH				AP	pP	18 03 46.0	-0.9
LZH				XP	sP	18 03 48.5	-1.5
LZH				PP	PP	18 04 21.0	+0.3
LZH				S	S	**18 08 06.0**	**+0.2**
LZH				SS	SS	18 09 14.5	+3.1
LZH				SCP		18 10 49.5	
LZH				SCS	ScS	18 14 37.0	+2.4
LZH				AMB	AMB		
	comp=Z,165nm,1.2s,mb5.4						
LZH				AMB	AMB		
	comp=Z,1µm,5.1s						
LZH				LR	LR		
	comp=E,8µm,12.7s						
LZH				LR	LR		
	comp=Z,9µm,14.3s,MS5.5						
XAN	**Xi'an**	26.33	32	P	P	**18 03 43.3**	**-1.4**
XAN				AP	pP	18 03 52.8	+1.3
XAN				S	S	**18 08 22.0**	**+7.8**
XAN				AMB	AMB		
	comp=Z,27nm,1.4s,mb4.6						
XAN				LR	LR		
	comp=Z,2µm,11.1s,MS4.8						
WHN	**Wuhan**	27.18	45	P	P	**18 03 53.0**	**+0.5**
WHN				AP	pP	18 03 59.0	-0.3
WHN				LR	LR		
	comp=N,4µm,12.0s,MS5.8						
WHN				LR	LR		
	comp=E,14µm,12.5s,MS5.8						
WHN				LR	LR		
	comp=Z,21µm,15.0s,MS5.8						
QZH	**Quanzhou**	27.67	59	P	P	**18 03 57.0**	**0.0**
QZH				AMB	AMB		
	comp=Z,260nm,1.2s,mb5.7						
QZH				LR	LR		
	comp=N,5µm,11.7s,MS5.4						
QZH				LR	LR		
	comp=E,5µm,13.1s,MS5.4						
QZH				LR	LR		
	comp=Z,9µm,16.6s,MS5.5						
TGY	**Tagaytay City**	27.70	83	LR	LR	18 14 56.3	
	comp=Z,3µm,18.0s,MS4.9,baz=104,slow=36						
GTA	**Gaotai**	27.80	12	P	P	**18 03 59.0**	**+0.9**
GTA				AP	pP	18 04 03.5	-1.4
GTA				XP	sP	18 04 07.0	-1.0
GTA				PP	PP	18 04 44.5	-2.9
GTA				S	S	**18 08 36.5**	**-1.5**
GTA				SCS	ScS	18 14 45.5	+2.3
GTA				AMB	AMB		
	comp=Z,149nm,1.3s,mb5.5						
GTA				AMB	AMB		
	comp=Z,2µm,11.6s						
GTA				LR	LR		
	comp=N,3µm,16.4s,MS5.1						
GTA				LR	LR		
	comp=E,3µm,16.3s,MS5.1						
GTA				LR	LR		
	comp=Z,3µm,17.5s,MS4.8						
KSH	**Kashi**	30.86	335	*i* P	P	**18 04 26.0**	**+0.6**
KSH				AP	pP	18 04 30.5	-1.8
KSH				XP	sP	18 04 33.0	-2.3
KSH				PP	PP	18 05 27.8	+0.7
KSH				PPP	PPP	18 05 42.8	+0.8
KSH				PCP	PcP	18 07 23.0	+0.8
KSH				S	S	**18 09 29.0**	**+2.2**
KSH				XS		18 09 36.3	
KSH				*e*SCP		18 11 03.5	
KSH				PCS		18 11 05.0	
KSH				SCS	ScS	18 14 57.8	+0.3
KSH				AMB	AMB		
	comp=Z,430nm,3.0s						
KSH				LR	LR		
	comp=N,5µm,17.5s						
KSH				LR	LR		
	comp=E,5µm,11.2s						
TIY	**Taiyuan**	30.97	32	⇑P	P	**18 04 26.0**	**-0.4**
TIY				LR	LR		
	comp=N,8µm,15.0s						
TIY				LR	LR		
	comp=Z,2µm,14.0s,MS4.9						
NJ2	**Nanjing**	31.19	47	*e*P	P	**18 04 29.0**	**+0.5**
NJ2				AP	pP	18 04 38.5	+3.2
NJ2				XP	sP	18 04 42.5	+4.2
NJ2				PP	PP	18 05 33.0	+1.5
NJ2				S	S	**18 09 32.0**	**0.0**
NJ2				XS		18 09 46.0	
NJ2				AMB	AMB		
	comp=Z,110nm,1.0s,mb5.6						
NJ2				AMB	AMB		
	comp=Z,580nm,3.6s						
NJ2				LR	LR		
	comp=N,15µm,21.7s						
NJ2				LR	LR		
	comp=E,13µm,15.1s						
NJ2				LR	LR		
	comp=Z,11µm,16.9s,MS5.6						
WMQ	**Urumqi**	31.73	353	⇑P	P	**18 04 33.3**	**+0.3**
WMQ				AP	pP	18 04 37.3	-2.6
WMQ				PP	PP	18 05 38.3	-0.1
WMQ				PPP	PPP	18 05 53.3	-0.1
WMQ				S	S	**18 09 41.0**	**+0.7**
WMQ				AMB	AMB		
	comp=Z,51nm,0.9s,mb5.3						
WMQ				AMB	AMB		
	comp=Z,3µm,8.5s						
WMQ				LR	LR		
	comp=N,5µm,20.2s,MS5.4						
WMQ				LR	LR		
	comp=E,6µm,19.0s,MS5.4						
WMQ				LR	LR		
	comp=Z,5µm,21.3s,MS5.2						
BTO	**Baotou**	32.16	25	*e*P	P	**18 04 35.5**	**-1.3**
BTO				S	S	**18 09 54.3**	**+7.3**
BTO				AMB	AMB		
	comp=Z,64nm,1.5s,mb5.2						
BTO				LR	LR		
	comp=N,682nm,10.8s,MS5.3						
BTO				LR	LR		
	comp=E,4µm,13.4s,MS5.3						
SSE	**Sheshan**	32.41	50	P	P	**18 04 39.8**	**+0.7**
SSE				S	S	**18 09 51.8**	**+0.8**
SSE				XS		18 10 08.5	
SSE				AMB	AMB		
	comp=Z,47nm,1.4s,mb5.1						
SSE				LR	LR		
	comp=N,3µm,22.3s,MS4.9						
SSE				LR	LR		
	comp=E,1µm,22.3s,MS4.9						
SSE				LR	LR		
	comp=Z,2µm,19.2s,MS4.8						
TIA	**Tai'an**	32.55	39	*e*P	P	**18 04 39.0**	**-1.3**
TIA				AMB	AMB		
	comp=Z,29nm,1.0s,mb5.2						
HHC	**Hu-ho-hao-te**	33.02	27	*e*P	P	**18 04 44.5**	**+0.1**
HHC				AP	pP	18 04 48.5	-2.7
HHC				PP	PP	18 05 55.3	+0.1
HHC				S	S	**18 10 01.3**	**+0.8**
HHC				SS	SS	18 12 00.8	-0.2
HHC				SCS	ScS	18 15 09.5	+1.2
HHC				AMB	AMB		
	comp=Z,85nm,1.4s,mb5.5						
HHC				AMB	AMB		
	comp=Z,889nm,4.9s						
HHC				LR	LR		
	comp=N,2µm,17.8s,MS5.2						
HHC				LR	LR		
	comp=E,4µm,17.8s,MS5.2						
HHC				LR	LR		
	comp=Z,4µm,19.0s,MS5.1						
ULHL	**Ulahol**	33.08	338	P	P	**18 04 46.0**	**+1.2**
	SNR=14						
KZA	**Kyzart**	33.31	336	P	P	**18 04 48.5**	**+1.6**
	SNR=29						
UCH	**Uchtor**	33.73	336	P	P	**18 04 51.3**	**+0.8**
	SNR=37						
TKM2	**Tokmak 2**	33.90	337	P	P	**18 04 52.0**	**0.0**
	SNR=57						
KBK	**Karagaybulak**	33.92	336	P	P	**18 04 53.0**	**+0.9**
	SNR=50						
AML	**Almayashu**	33.99	335	P	P	**18 04 53.6**	**+0.8**
	SNR=48						
AAK	**Ala-Archa**	34.08	336	P	P	**18 04 54.2**	**+0.7**
	SNR=45						
AAK	**Ala-Archa**	34.08	336	*c i*P	P	**18 04 53.4**	**-0.1**
AAK				pmax	pmax		
	comp=Z,54nm,0.8s,mb5.5						
AAK	**Ala-Archa**	34.08	336	*e*P	P	**18 04 52.5**	**-1.1**
	comp=Z,101nm,1.0s,mb5.7						
FRU	**Bishkek**	34.20	336	*e*P	P	**18 04 55.0**	**+0.4**
FRU				*e*	pP	18 05 02.0	+0.5
FRU				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.4						
CHMS	**Chumysh**	34.29	337	P	P	**18 04 55.4**	**+0.1**
	SNR=39						
EKS2	**Erkin-Say**	34.40	335	P	P	**18 04 57.1**	**+0.9**
	SNR=56						
USP	**Ospenovka**	34.61	337	P	P	**18 04 58.3**	**+0.2**
	SNR=130						
BJT	**Baijiatuau**	34.63	33	*e*P	P	**18 04 58.6**	**+0.3**
BJT				*e*	pP	18 05 06.3	+1.1
BJT				pmax	pmax		
	comp=Z,101nm,0.9s						
BJT	**Baijiatuau**	34.63	33	*e*P	P	**18 04 58.6**	**+0.3**
	comp=Z,101nm,0.9s,mb5.8						
BJT				*e*	pP	18 05 06.3	+1.1
BJI	**Beijing**	34.65	33	*e*P	P	**18 04 58.5**	**+0.1**
BJI				AMB	AMB		
	comp=Z,82nm,1.4s,mb5.5						
BJI				AMB	AMB		
	comp=Z,2µm,3.8s						
BJI				LR	LR		
	comp=N,4µm,18.2s,MS5.3						
BJI				LR	LR		
	comp=E,4µm,17.6s,MS5.3						
BJI				LR	LR		
	comp=Z,4µm,25.3s						
MKAR	**Makanchi Array**	35.49	348	*i* P	P	**18 05 05.2**	**-0.4**
MKAR				pmax	pmax		
	comp=Z,62nm,0.8s						
JOW	**Kunigami**	36.52	61	P	P	**18 05 14.8**	**+0.4**
	comp=Z,34nm,0.6s,mb5.4,baz=279,slow=13,SNR=7.6						
JOW				LR	LR	18 21 24.1	
	comp=Z,5µm,21.4s,MS5.3,baz=277,slow=38						
DL2	**Dalian**	37.02	39	P	P	**18 05 19.0**	**+0.5**
DL2				*e*S	S	**18 11 10.3**	**+8.0**
DL2				AMB	AMB		
	comp=Z,90nm,1.0s,mb5.5						
DL2				LR	LR		
	comp=N,2µm,16.8s,MS5.1						
DL2				LR	LR		
	comp=E,2µm,17.1s,MS5.1						
DL2				LR	LR		
	comp=Z,3µm,14.1s,MS5.2						
SONM	**Songino Array**	37.32	15	P	P	**18 05 21.4**	**+0.5**
	comp=Z,43nm,1.0s,mb5.2,baz=196,slow=9.0,SNR=162						
SONM				pP	pP	18 05 28.7	+0.8
	comp=Z,88nm,0.9s,baz=198,slow=9.1,SNR=29						
SONM				pPcP		18 07 46.2	
	comp=Z,7.5nm,0.7s,baz=197,slow=3.9,SNR=4.5						
SONM				LR	LR	18 24 42.0	
	comp=Z,4µm,18.0s,MS5.3,baz=195,slow=43						
ULN	**Ulaanbaatar**	37.52	16	*d i*P	P	**18 05 21.9**	**-0.7**
ULN	**Ulaanbaatar**	37.52	16	*e*P	P	**18 05 22.6**	**-0.1**
	comp=Z,70nm,0.9s,mb5.4						
ZAK	**Zakamensk**	39.02	11	⇑*i*P	P	**18 05 35.8**	**+0.6**
ZAK				*e*		18 07 29.8	
ZAK				*e*		18 11 29.8	
INCN	**Inchon**	39.49	45	*e*P	P	**18 05 38.9**	**-0.3**
	comp=Z,186nm,1.2s,mb5.7						
INCN				*e*	pP	18 05 45.5	-0.7
MOY	**Mondy**	39.90	8	*e*P	P	**18 05 44.2**	**+1.8**
SNY	**Shenyang**	40.00	37	⇑P	P	**18 05 42.5**	**-0.9**
SNY				AP	pP	18 05 50.8	+0.5
SNY				XP	sP	18 05 55.3	+2.1
SNY				PP	PP	18 07 24.3	+5.1
SNY				AMB	AMB		
	comp=Z,90nm,1.6s,mb5.2						
SNY				LR	LR		
	comp=N,2µm,13.7s,MS5.6						
SNY				LR	LR		
	comp=E,6µm,16.7s,MS5.6						
SNY				LR	LR		
	comp=Z,4µm,17.3s,MS5.4						
KS15	**Wonju Array Si**	40.33	45	*e*P	P	**18 05 45.8**	**-0.4**
TLY	**Talaya**	40.34	11	P	P	**18 05 48.8**	**+2.8**
	comp=Z,256nm,1.0s,mb5.9,SNR=19						
TLY	**Talaya**	40.34	11	*e*P	P	**18 05 47.0**	**+1.0**
TLY				*e*S	S	**18 11 55.8**	**+3.6**
TLY				pmax	pmax		
	comp=Z,109nm,2.0s,mb5.2						
TLY				MLR	MLR		
	comp=Z,2µm,19.0s,MS5.1						
TLY	**Talaya**	40.34	11	*e*P	P	**18 05 47.4**	**+1.4**
	comp=Z,67nm,1.1s,mb5.3						
TLY				*e*	pP	18 05 55.3	+2.3
IRK	**Irkutsk**	40.99	11	*e*P	P	**18 05 53.1**	**+1.7**
IRK				*e*		18 07 30.3	
IRK				*e*		18 12 05.7	
ZAL	**Zalesovo**	42.03	353	P	P	**18 05 59.2**	**-0.6**
	comp=Z,36nm,0.9s,mb5.0,baz=296,slow=8.1,SNR=138						
ZAL				LR	LR	18 27 46.1	
	comp=Z,4µm,18.7s,MS5.3,baz=291,slow=42						
CN2	**Changchun**	42.30	36	*e*P	P	**18 06 02.3**	**+0.1**
CN2				PP	PP	18 07 42.8	-0.4
CN2				*e*S	S	**18 12 22.3**	**+0.9**
CN2				AMB	AMB		
	comp=Z,120nm,1.2s,mb5.4						
CN2				AMB	AMB		
	comp=Z,2µm,4.0s						
CN2				LR	LR		
	comp=N,4µm,16.0s,MS5.6						
CN2				LR	LR		
	comp=E,5µm,16.0s,MS5.6						
CN2				LR	LR		
	comp=Z,6µm,17.0s,MS5.5						
MBWA	**Marble Bar**	42.62	141	*e*P	P	**18 06 03.0**	**-2.2**
	comp=Z,48nm,0.9s,mb5.2						
MBWA				*e*	pP	18 06 10.7	-1.5
NVS	**Novosibirsk**	43.11	352	*i* P	P	**18 06 07.0**	**-1.7**
NVS				*i* S	S	**18 12 29.3**	**-3.8**
NVS				*e*SSS	ScS	18 16 04.3	-1.1
NVS				pmax	pmax		
	comp=Z,56nm,1.1s,mb5.2						
NVS				smax			
	comp=E,89nm,1.7s						
NVS				smax			
	comp=N,50nm,1.5s						
HIA	**Hailar**	43.21	26	*e*P	P	**18 06 09.1**	**-0.5**
HIA				pmax	pmax		
	comp=Z,84nm,1.2s						
HIA	**Hailar**	43.21	26	*e*P	P	**18 06 09.1**	**-0.5**
	comp=Z,84nm,1.2s,mb5.3						
BVA0	**Borovoye Array**	44.36	341	*i* P	P	**18 06 18.1**	**-0.8**
BVA0				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.5						
BVAR	**Borovoye Array**	44.36	341	P	P	**18 06 18.3**	**-0.6**
	comp=Z,31nm,0.9s,mb5.0,baz=135,slow=8.4,SNR=99						
BVAR				pP	pP	18 06 26.2	+0.3
	comp=Z,53nm,0.9s,baz=143,slow=7.2,SNR=25						
BRVK	**Borovoye**	44.42	341	*e*P	P	**18 06 18.6**	**-0.8**
BRVK				pmax	pmax		
	comp=Z,97nm,1.0s,mb5.5						
BRVK	**Borovoye**	44.42	341	*e*P	P	**18 06 18.6**	**-0.7**
	comp=Z,97nm,1.0s,mb5.5						
QRN	**Al-Qurain**	44.61	299	*e*P	P	**18 06 21.2**	**0.0**
QRN				AMb	AMB	18 06 29.7	
	comp=Z,468nm,1.0s,mb6.3						
CHKZ	**Chkalovo**	44.84	342	*e*P	P	**18 06 22.3**	**-0.5**
CHKZ				*e*	pP	18 06 30.5	+0.7
CHKZ				pmax	pmax		
	comp=Z,257nm,0.9s,mb6.1						
CHKZ	**Chkalovo**	44.84	342	*e*P	P	**18 06 22.3**	**-0.5**
	comp=Z,257nm,0.9s,mb6.1						
CHKZ				*e*	pP	18 06 30.5	+0.8
UMR	**Umm Al-Rimmam**	44.96	300	*e*P	P	**18 06 24.4**	**+0.3**
UMR				AMb	AMB	18 06 32.7	
	comp=Z,184nm,1.0s,mb5.9						
RDF	**Al-Radifah**	44.97	299	*e*P	P	**18 06 23.9**	**-0.2**
RDF				AMb	AMB	18 06 33.2	
	comp=Z,490nm,0.9s,mb6.3						
RYDS	**Riyadh**	44.99	292	P	P	**18 06 24.8**	**+0.4**
MDJ	**Mudanjiang**	45.19	37	*e*P	P	**18 06 26.4**	**+0.7**
	comp=Z,22nm,0.8s,mb5.0						
NAY	**Al-Naaiem**	45.30	299	*e*P	P	**18 06 26.9**	**+0.2**
NAY				AMb	AMB	18 06 35.4	
	comp=Z,256nm,0.8s,mb6.1						
RST	**Umm Al-Ruwaisa**	45.56	299	*e*P	P	**18 06 28.3**	**-0.5**
RST				AMb	AMB	18 06 37.5	
	comp=Z,346nm,1.0s,mb6.2						
MZLS	**Mizel**	46.28	292	P	P	**18 06 35.1**	**+0.6**
KAMS	**Al Khamasin**	46.59	286	P	P	**18 06 37.6**	**+0.6**
MAT	**Matsushiro**	47.53	51	P	P	**18 06 43.5**	**-0.8**
MAT				S	S	**18 13 22.0**	**-15**
MAT	**Matsushiro**	47.53	51	*e*P	P	**18 06 44.0**	**-0.3**
MAT				pmax	pmax		
	comp=Z,692nm,2.2s,mb6.3						
MAT				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.1						
MAT	**Matsushiro**	47.53	51	*e*P	P	**18 06 44.0**	**-0.3**
	comp=Z,692nm,2.2s,mb6.3						
MAT				LR	LR		
	comp=Z,2µm,20.0s,MS5.1						
MAJO	**Matsushiro**	47.53	51	*e*P	P	**18 06 44.0**	**-0.3**
MAJO				pmax	pmax		
	comp=Z,189nm,1.4s,mb5.9						
MAJO	**Matsushiro**	47.53	51	*e*P	P	**18 06 44.0**	**-0.3**
	comp=Z,189nm,1.4s,mb5.9						
TATS	**Tathlith**	47.61	285	P	P	**18 06 45.8**	**+0.7**
JHJ	**Hachijo jima 2**	47.81	56	LR	LR	18 27 52.9	
	comp=Z,910nm,20.5s,MS4.7,baz=136,slow=37						
ARSS	**Ar Rass**	48.26	294	P	P	**18 06 50.9**	**+0.8**
AFFS	**'Afif**	48.28	291	P	P	**18 06 51.1**	**+0.9**
BOD	**Bodaibo**	48.32	15	*e*P	P	**18 06 49.4**	**-0.7**
CBIJ	**Chichi jima**	48.72	65	LR	LR	18 28 29.9	
	comp=Z,807nm,18.1s,MS4.8,baz=261,slow=37						
KLR	**Kul'dur**	49.02	33	*e*P	P	**18 06 53.0**	**-2.6**
KLR				pmax	pmax		
	comp=N,45nm,2.0s						
KLR				pmax	pmax		
	comp=E,72nm,2.0s						
KLR				pmax	pmax		
	comp=Z,80nm,2.0s,mb5.4						
HILS	**Ha'il**	49.72	296	P	P	**18 07 02.2**	**+0.9**
GNI	**Garni**	50.30	312	*d i*P	P	**18 07 06.7**	**+1.1**
GNI				pmax	pmax		
	comp=Z,298nm,1.8s						
GNI	**Garni**	50.30	312	P	P	**18 07 06.6**	**+1.0**
	comp=Z,48nm,0.8s,mb5.6,baz=348,slow=3.1,SNR=37						
GNI				LR	LR	18 32 45.6	
	comp=Z,1µm,19.6s,MS5.0,baz=306,slow=41						
GNI	**Garni**	50.30	312	*e*P	P	**18 07 06.6**	**+1.0**
	comp=Z,564nm,1.1s,mb6.5						
NWAO	**Narrogin (SRO)**	50.74	153	*e*P	P	**18 07 08.2**	**-0.8**
NWAO				pmax	pmax		
	comp=Z,94nm,1.1s						
NWAO	**Narrogin (SRO)**	50.74	153	P	P	**18 07 08.6**	**-0.4**
	comp=Z,34nm,0.6s,mb5.4,baz=324,slow=9.5,SNR=23						
NWAO	**Narrogin (SRO)**	50.74	153	*e*P	P	**18 07 08.2**	**-0.9**
	comp=Z,94nm,1.1s,mb5.6						
TVAN	**Van**	50.77	310	*i* P	P	**18 07 13.6**	**+4.4**
SVE	**Sverdlovsk**	50.77	338	⇓*i*P	P	**18 07 10.0**	**+1.1**
SVE				*e*		18 08 22.0	
SVE				*e*		18 09 08.0	
SVE				*e*S	S	**18 14 16.0**	**-5.8**
SVE				pmax	pmax		
	comp=Z,230nm,1.5s,mb5.9						
SVE				MLR	MLR		
	comp=Z,3µm,15.0s,MS5.4						
TI2	**Plekhanov**	50.84	314	⇓*i*P	P	**18 07 12.2**	**+2.5**
TI2				*i* S	S	**18 14 25.6**	**+2.6**
TI2				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
TI2				MLR	MLR		

	comp=N,500nm,15.0s,MS4.8						
TI2				MLR	MLR		
	comp=E,500nm,15.0s,MS4.8						
CLNS	Chul'man	50.95	22	eP	P	18 07 10.3	+0.1
CLNS				e*PP	pP	18 07 17.4	0.0
CLNS				e		18 09 04.0	
CLNS				ePPP	PPP	18 10 08.9	+1.9
CLNS				eS	S	18 14 39.3	+15
CLNS				e		18 16 51.5	
CLNS				eSSS	SSS	18 19 34.8	+2.7
CLNS				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.4						
CLNS				pmax	pmax		
	comp=N,24nm,1.0s						
CLNS				pmax	pmax		
	comp=E,21nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
CLNS				pmax	pmax		
	comp=N,10.0nm,0.8s						
CLNS				pmax	pmax		
	comp=E,15nm,1.1s						
CLNS				smax			
	comp=N,1µm,14.8s						
CLNS				smax			
	comp=Z,876nm,13.8s						
CLNS				smax			
	comp=E,182nm,12.6s						
CLNS				MLR	MLR		
	comp=N,2µm,15.0s,MS5.2						
CLNS				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.4						
CLNS				MLR	MLR		
	comp=E,400nm,16.0s,MS5.2						
ARU	Arti	51.27	337	⇓iP	P	18 07 12.8	+0.1
ARU				e		18 09 03.7	
ARU				ePPP	PPP	18 10 12.7	+1.5
ARU				eS	S	18 14 32.8	+4.2
ARU				e		18 16 58.8	
ARU				pmax	pmax		
	comp=Z,89nm,1.0s,mb5.7						
ARU	Arti	51.27	337	eP	P	18 07 11.5	-1.1
	comp=Z,162nm,1.3s,mb5.8						
ZEI	Tsey	51.80	315	eP	P	18 07 18.1	+1.1
ZEI				pmax	pmax		
	comp=Z,104nm,0.9s,mb5.8						
KBRS	Khaybar	51.81	293	P	P	18 07 18.0	+0.7
WRA	Warramunga Arr	52.12	127	P	P	18 07 18.4	-1.3
	comp=Z,73nm,1.1s,mb5.5,baz=305,slow=8.3,SNR=162						
WRA				pP	pP	18 07 25.4	-1.4
	comp=Z,49nm,0.8s,baz=305,slow=8.3,SNR=28						
WRA				PcP	PcP	18 08 32.1	+0.7
	comp=Z,12nm,0.7s,baz=322,slow=3.1,SNR=6.4						
WRA				pPcP		18 08 39.2	
	comp=Z,9.0nm,0.5s,baz=318,slow=3.1,SNR=10						
WRA				ScP		18 12 26.8	
	comp=Z,6.9nm,1.1s,baz=314,slow=3.9,SNR=5.2						
WRA				S	S	18 14 38.7	-2.2
	comp=Z,3.2nm,1.0s,baz=297,slow=15,SNR=4.3						
WRAB	Tennant Creek	52.12	127	c iP	P	18 07 18.5	-1.2
WRAB	Tennant Creek	52.12	127	eP	P	18 07 18.2	-1.5
	comp=Z,126nm,0.9s,mb5.8						
BEST	Besiri	52.20	309	i P	P	18 07 19.9	-0.1
ERZM	Erzurum	52.68	311	i P	P	18 07 25.7	+2.0
YNBS	Yanbu' al Bahr	52.87	291	P	P	18 07 25.8	+0.6
KIV	Kislovodsk	53.05	316	P	P	18 07 26.5	+0.2
	comp=Z,2µm,1.1s,mb7.0,SNR=19						
KIV	Kislovodsk	53.05	316	d iP	P	18 07 26.5	+0.2
KIV				pmax	pmax		
	comp=Z,118nm,1.3s,mb5.7						
KIV	Kislovodsk	53.05	316	eP	P	18 07 25.9	-0.4
	comp=Z,552nm,1.0s,mb6.4						
GOF	Gofitskoye	53.22	318	⇓iP	P	18 07 28.0	+0.5
GOF				i	pP	18 07 34.0	-0.7
GOF				eS	S	18 14 55.0	-0.5
GOF				pmax	pmax		
	comp=Z,50nm,1.3s,mb5.3						
GOF				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.4						
ASAJ	Asahikawa	53.25	44	P	P	18 07 26.9	-0.8
	comp=Z,50nm,0.9s,mb5.4,baz=262,slow=12,SNR=10						
ASAJ				LR	LR	18 33 10.6	
	comp=Z,2µm,18.2s,MS5.3,baz=264,slow=40						
UMJS	Umm Lajj	53.53	292	P	P	18 07 31.0	+0.9
ASAR	Alice Springs	53.95	131	P	P	18 07 31.9	-1.2
	comp=Z,14nm,0.7s,mb5.0,baz=311,slow=6.5,SNR=144						
ASAR				PcP	PcP	18 08 38.5	+0.3
	comp=Z,14nm,0.9s,baz=312,slow=4.7,SNR=4.8						
ASAR				ScP		18 12 34.8	
	comp=Z,4.9nm,1.1s,baz=297,slow=4.5,SNR=5.2						
ASAR				S	S	18 15 03.9	-1.9
	comp=Z,2.5nm,1.0s,baz=305,slow=14,SNR=4.1						
ELZG	Elazig	54.10	309	i P	P	18 07 33.5	-0.5
SOKR	Solikamsk	54.17	338	⇓iP	P	18 07 33.6	-0.6
SOKR				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,2µm,18.0s,MS5.2						
YSS	Yuzh-Sakhalins	54.40	40	eP	P	18 07 35.4	-0.7
YSS				e	pP	18 07 41.3	-1.9
YSS				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.6						
YSS				MLR	MLR		
	comp=Z,4µm,14.0s,MS5.7						
YSS				MLR	MLR		
	comp=E,5µm,16.0s						
YSS	Yuzh-Sakhalins	54.40	40	⇓eP	P	18 07 36.7	+0.6
TBKS	Tabuk	54.43	296	P	P	18 07 37.8	+1.2
MALT	Malatya	54.48	308	eP	P	18 07 36.7	-0.1
MALT				pmax	pmax		
	comp=Z,221nm,1.4s,mb5.9						
MALT	Malatya	54.48	308	eP	P	18 07 36.7	-0.1
	comp=Z,221nm,1.4s,mb5.9						
ASF	Jabal al Asfar	54.58	301	P	P	18 07 37.3	-0.3
	comp=Z,3.9nm,0.5s,mb4.7,baz=295,slow=9.6,SNR=6.4						
ASF				pP	pP	18 07 44.7	0.0
	comp=Z,48nm,0.9s,baz=343,slow=2.9,SNR=22						
ASF				LR	LR	18 34 40.6	
	comp=Z,3µm,18.2s,MS5.3,baz=138,slow=40						
GZT	Gaziantep	54.94	307	i P	P	18 07 40.7	+0.5
SOC	Sochi	54.96	315	i P	P	18 07 41.1	+0.8
SOC				e		18 09 47.4	
SOC				ePPP	PPP	18 11 00.9	+3.5
SOC				eS	S	18 15 19.2	+0.3
SOC				eSS	SS	18 18 58.7	-3.7
SOC				pmax	pmax		
	comp=Z,302nm,1.2s,mb6.2						
SOC				pmax	pmax		
	comp=N,61nm,1.1s						
SOC				pmax	pmax		
	comp=E,30nm,1.1s						
SOC				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.1						
SOC				MLR	MLR		
	comp=N,2µm,21.0s,MS5.3						
SOC				MLR	MLR		
	comp=E,2µm,18.0s,MS5.3						
JMQS	Jabal Moqyreh	55.08	297	P	P	18 07 42.1	+0.7
KAHT	Ahir Dag	55.53	307	i P	P	18 07 44.9	+0.4
AYUS	'Aynunah	55.55	296	P	P	18 07 45.5	+0.6
MKRJ	Makawir	55.56	300	P	P	18 07 44.7	-0.1
KSHT	Keshet	55.59	302	P	P	18 07 45.2	+0.1
BDAS	Al Bad'	55.72	296	P	P	18 07 46.9	+0.9
MZDA	Masada	55.76	300	P	P	18 07 46.3	0.0
JMOS	Jabal al Moall	55.77	297	P	P	18 07 47.3	+0.9
DRGI	Dragot	55.77	300	P	P	18 07 46.2	-0.1
COBT	Iskenderun	55.80	306	i P	P	18 07 46.6	+0.1
ALWS	Ilw as Safayha	55.82	297	P	P	18 07 47.8	+1.1
ZFRI	Zfri	55.84	299	P	P	18 07 46.6	-0.3
MMLI	Mount Malkishu	55.85	301	P	P	18 07 47.1	+0.2
AQBJ	Aqaba	55.87	298	P	P	18 07 46.7	-0.4
HAQS	Haql	55.92	297	P	P	18 07 48.3	+0.9
TAYS	Tayyib Ism	55.93	296	P	P	18 07 48.5	+1.0
SVST	Sivas	55.93	310	i P	P	18 07 54.0	+6.6
EIL	Elat	55.95	298	P	P	18 07 47.3	-0.4
EIL	Elat	55.95	298	P	P	18 07 47.2	-0.5
	comp=E,4.2nm,0.6s,mb4.7,baz=102,slow=4.7,SNR=6.4						
EIL				pP	pP	18 07 53.8	-1.0
	comp=E,43nm,0.8s,baz=110,slow=4.4,SNR=31						
EIL	Elat	55.95	298	eP	P	18 07 47.3	-0.4
	comp=E,182nm,1.3s,mb6.0						
PRNI	Paran	55.97	298	P	P	18 07 47.6	-0.2
MBH	Mount Berech	55.99	298	P	P	18 07 47.8	-0.1
HNTI	Hanita	56.14	302	P	P	18 07 48.9	-0.1
SLTI	Sal'it	56.15	301	P	P	18 07 49.0	0.0
KMTI	Karmit	56.19	298	P	P	18 07 49.1	-0.2
HAF	Haifa	56.23	301	P	P	18 07 49.5	-0.1
OFRI	'Ofer	56.24	301	P	P	18 07 49.7	0.0
YAK	Yakutsk	56.40	20	eP	P	18 07 48.5	-1.9
YAK				pmax	pmax		
	comp=Z,113nm,0.8s,mb6.0						
YAK	Yakutsk	56.40	20	eP	P	18 07 48.5	-1.9
	comp=Z,113nm,0.8s,mb6.0						
KMBO	Kilima Mbogo	56.47	260	P	P	18 07 52.3	+0.7
	comp=Z,9.8nm,0.9s,mb4.8,baz=23,slow=13,SNR=2.3						
KMBO				pP	pP	18 07 59.4	+0.6
	comp=Z,38nm,1.1s,baz=48,slow=11,SNR=2.9						
KMBO				LR	LR	18 29 02.6	
	comp=Z,2µm,21.0s,MS5.3,baz=96,slow=33						
KZIT	Kziot	56.55	299	P	P	18 07 51.5	-0.4
ANN	Anapa	56.89	316	eP	P	18 07 59.4	+5.2
ANN				eS	S	18 16 00.8	+16
ANN				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.7						
AVNT	Avonos	57.31	308	i P	P	18 07 56.8	-0.5
MEST	Erdemli	57.48	306	i P	P	18 07 57.5	-1.0
CTKT	Corum	57.73	310	i P	P	18 08 06.2	+6.1
BOYT	Boyabat	57.82	311	i P	P	18 08 00.0	-0.8
CSS	Prodhromos	57.91	304	eP	P	18 08 01.8	+0.4
	comp=Z,117nm,1.1s,mb5.8						
CSS				ePcP	PcP	18 08 59.9	+6.4
VRSR	Storozhevoye	57.93	323	eP	P	18 08 00.9	-0.5
VRSR				e*SP	sP	18 08 11.4	+0.2
VRSR				e		18 08 53.3	
VRSR				e		18 10 06.4	
VRSR				eS	S	18 15 56.7	-1.5
VRSR				e		18 17 44.8	
VRSR				eSS	SS	18 19 48.9	-1.9
VRSR				eSSS	SSS	18 22 08.8	-1.0
VRSR				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,20nm,1.0s						
VRSR				smax			
	comp=N,290nm,3.1s						
VRSR				smax			
	comp=E,330nm,3.2s						
VRSR				smax			
	comp=Z,130nm,3.2s						
VRSR				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.1						
VRSR				MLR	MLR		
	comp=N,1µm,18.0s,MS5.2						
VRSR				MLR	MLR		
	comp=E,1µm,20.0s,MS5.2						
PMG	Port Moresby	58.39	109	c iP	P	18 08 05.3	+0.2
PMG	Port Moresby	58.39	109	P	P	18 08 04.1	-1.0
	comp=E,26nm,0.7s,mb5.4,baz=252,slow=6.5,SNR=14						
PMG	Port Moresby	58.39	109	eP	P	18 08 04.1	-1.0
	comp=E,39nm,0.9s,mb5.4						
BRTR	Keskin Array B	58.42	309	P	P	18 08 03.8	-1.2
	comp=E,15nm,1.1s,mb4.9,baz=124,slow=6.7,SNR=32						
BRTR				pP	pP	18 08 10.6	-1.7
	comp=E,69nm,0.8s,baz=121,slow=7.3,SNR=67						
BRTR				pPcP		18 09 02.5	
	comp=E,15nm,0.9s,baz=129,slow=5.7,SNR=4.4						
ELDT	Eldivan	58.72	310	i P	P	18 08 06.7	-0.4
BALT	Daday	58.96	311	i P	P	18 08 08.9	+0.2
SIM	Simferopol'	59.20	315	⇓eP	P	18 08 10.3	-0.1
SIM				S	S	18 16 28.0	+13
SIM				pmax	pmax		
	comp=Z,229nm,0.9s,mb6.2						
SIM				MLR	MLR		
	comp=Z,950nm,19.0s,MS4.9						
SGKT	Sivrigoynuk	59.77	310	i P	P	18 08 13.8	-0.5
ESKT	Eskisehir	60.51	309	i P	P	18 08 18.1	-1.3
ISP	Isparta	60.54	307	c iP	P	18 08 18.8	-0.8
ISP	Isparta	60.54	307	eP	P	18 08 18.6	-1.1
	comp=Z,289nm,1.3s,mb6.2						
MOS	Moscow	60.55	328	eP	P	18 08 18.6	-0.8
MOS				e	pP	18 08 26.2	-0.5
MOS				e		18 09 03.6	
MOS				e		18 10 28.8	
MOS				eS	S	18 16 42.0	+10
MOS				e		18 18 06.2	
HENT	Hendek	60.68	310	i P	P	18 08 25.2	+4.7
OBN	Obninsk	60.86	327	⇓eP	P	18 08 21.0	-0.6
OBN				i	pP	18 08 28.7	-0.1
OBN				i		18 09 12.3	
OBN				eS	S	18 16 36.6	+0.5
OBN				pmax	pmax		
	comp=Z,90nm,1.7s,mb5.6						
OBN				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.1						
OBN	Obninsk	60.86	327	eP	P	18 08 21.1	-0.5
	comp=Z,354nm,1.4s,mb6.3						
DNZL	Cakiroluk	61.67	306	i P	P	18 08 30.3	+3.0
CTA	Charters Tower	61.86	121	P	P	18 08 27.1	-1.7
	comp=Z,16nm,1.1s,mb5.1,baz=321,slow=7.8,SNR=5.7						
CTA				PcP	PcP	18 09 09.0	-0.3
	comp=Z,11nm,0.8s,baz=271,slow=6.8,SNR=4.3						
ULDT	Uludag	61.90	309	i P	P	18 08 27.8	-1.1
MANT	Manisa	62.14	307	i P	P	18 08 29.7	-0.8
AYDN	Tasoluk	62.59	306	i P	P	18 08 38.0	+4.6
BDRM	Kayabasi	62.88	305	i P	P	18 08 40.7	+5.3
KDAG	Bornova	63.14	307	i P	P	18 08 36.7	-0.4
KIS	Kishinev	63.26	317	eP	P	18 08 37.0	-0.7
KIS				i	pP	18 08 44.0	-1.0
KIS				i		18 09 14.0	
TIXI	Tiksi	63.29	12	⇑iP	P	18 08 36.0	-1.6
TIXI				e	pP	18 08 43.4	-1.5
TIXI				pmax	pmax		
	comp=Z,129nm,1.2s,mb5.9						
TIXI				MLR	MLR		
	comp=Z,2µm,17.0s,MS5.3						
TIXI	Tiksi	63.29	12	⇑iP	P	18 08 36.1	-1.5
CFR	Carcaliu	63.40	314	⇓iP	P	18 08 37.8	-0.8
HARR	Harsova	63.46	314	⇓iP	P	18 08 45.5	+6.4
MA2	Magadan	63.67	29	eP	P	18 08 40.2	0.0
MA2				eS	S	18 17 11.4	-0.1
MA2				eSSS	SSS	18 24 04.4	-3.9
MA2				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.5						
MA2				MLR	MLR		
	comp=Z,5µm,22.5s,MS5.6						
MA2	Magadan	63.67	29	eP	P	18 08 39.7	-0.5
	comp=Z,116nm,1.1s,mb5.8						
AKASG	Malin Array Be	63.77	321	P	P	18 08 39.3	-1.8
	comp=Z,13nm,0.8s,mb5.0,baz=85,slow=5.6,SNR=40						
AKASG				pP	pP	18 08 46.6	-1.7
	comp=Z,65nm,0.8s,baz=86,slow=5.2,SNR=63						
AKASG				pPcP		18 09 23.1	
	comp=Z,20nm,0.9s,baz=89,slow=4.6,SNR=4.4						
SKR	Severo-Kuril's	63.93	39	eP	P	18 08 35.4	-6.7
STKA	Stephens Creek	64.27	134	P	P	18 08 43.5	-1.2
	comp=Z,26nm,0.9s,mb5.3,baz=318,slow=6.8,SNR=51						
STKA	Stephens Creek	64.27	134	eP	P	18 08 43.4	-1.3
APE	Apeiranthos	64.41	305	c iP	P	18 08 53.0	+7.6
SANT	Santorini	64.42	304	P	P	18 08 45.5	-0.1
	comp=Z,54nm,0.8s,mb5.6						
VRI	Vrincioaia	64.48	315	⇓iP	P	18 08 45.9	+0.1
ISR	Istrita	64.50	314	⇑iP	P	18 08 46.6	+0.7
ISR	Istrita	64.50	314	⇑iP	P	18 08 46.5	+0.6
IDI	Anoyia	64.82	303	P	P	18 08 46.8	-1.4
	comp=Z,92nm,1.1s,mb5.7,baz=82,slow=8.1,SNR=9.1						
IDI				pP	pP	18 08 54.3	-1.1
	comp=Z,43nm,0.8s,baz=95,slow=5.9,SNR=16						
MLR	Muntele Rosu	64.97	315	P	P	18 08 48.9	-0.1
	comp=Z,40nm,1.0s,mb5.4,baz=151,slow=3.2,SNR=36						
MLR				pP	pP	18 08 56.5	+0.2
	comp=Z,280nm,1.0s,baz=34,slow=4.6,SNR=61						
RZN	Rozhen	65.41	310	i P	P	18 08 50.0	-1.8
MNK	Minsk	65.48	325	eP	P	18 08 49.0	-3.1
PUL	Pulkovo	65.64	331	eP	P	18 08 59.7	+6.7
PUL				pmax	pmax		
	comp=Z,157nm,0.9s,mb6.0						
SEY	Seymchan	65.66	26	eP	P	18 08 51.9	-1.1
SEY				e		18 09 08.5	
SEY				e		18 18 00.9	
SEY				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.7						
SEY				pmax	pmax		
	comp=E,70nm,1.4s						
PGB	Panagyurishte	65.90	311	i P	P	18 08 53.0	-1.9
PET	Petropavlovsk	65.97	37	eP	P	18 08 55.4	+0.2
PET				eS	S	18 17 35.3	-4.6
PET				eSS	SS	18 21 53.6	-2.9
PET				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.3						
PET				MLR	MLR		
	comp=Z,3µm,16.0s,MS5.6						
MMB	Musomiste	66.14	310	i P	P	18 08 56.0	-0.5
IDID	Didziasalis	66.29	325	eP	P	18 08 57.3	+0.1
IDID				e	pP	18 09 04.0	-0.4
IDID				AMPb	AMB	18 09 06.6	
	comp=Z,68nm,1.2s,mb5.5						
IIGN	Ignalina	66.58	325	eP	P	18 08 59.2	+0.1
IIGN				e	pP	18 09 06.0	-0.3
IIGN				AMPb	AMB	18 09 08.5	
	comp=Z,70nm,1.2s,mb5.6						
VTS	Vitosha	66.61	311	i P	P	18 08 58.0	-1.5
KKB	Krupnik	66.64	310	i P	P	18 08 58.0	-1.7
IZAR	Zarasai	66.66	326	eP	P	18 08 59.5	-0.1
IZAR				e	pP	18 09 06.4	-0.4
IZAR				AMPb	AMB	18 09 08.9	
	comp=Z,58nm,1.2s,mb5.5						
ISAL	Salakas	66.69	325	eP	P	18 08 60.0	+0.2
ISAL				e	pP	18 09 06.6	-0.4
ISAL				AMPb	AMB	18 09 09.2	
	comp=Z,52nm,1.3s,mb5.4						
LVZ	Lovozero	66.93	340	eP	P	18 09 00.1	-1.0
LVZ				pmax	pmax		
	comp=Z,131nm,1.6s,mb5.7						
VAY	Valandovo	66.99	310	⇓iP	P	18 09 07.5	+5.6
VSU	Vasula	67.04	329	c iP	P	18 09 08.3	+6.3
APA	Apatity	67.22	339	⇓iP	P	18 09 02.5	-0.4
APA				i	pP	18 09 10.4	+0.2
APA				i		18 09 21.2	
APA				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.8						
BOLS	Boljevac	67.62	312	⇓iP	P	18 09 05.4	-0.4
KWP	Kalwaria	67.70	319	eP	P	18 09 06.7	+0.4
KWP	Kalwaria	67.70	319	i P	pP	18 09 13.6	0.0
SKO	Skopje	67.87	310	⇓iP	P	18 09 12.7	+5.2
SKO				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.6						
SKO	Skopje	67.87	310	⇓iP	P	18 09 12.7	+5.2
	comp=Z,60nm,0.9s,mb5.6						
KOLS	Kolonicke sedl	67.90	318	eP	P	18 09 07.8	+0.3
KOLS				e	pP	18 09 15.0	+0.2
KOLS				e		18 09 28.1	
SUW	Suwalki	68.06	323	eP	P	18 09 08.0	-0.4
SUW	Suwalki	68.06	323	i P	pP	18 09 15.1	-0.6
FINES	FINESS Array B	68.13	332	i P	P	18 09 08.0	-0.7
FINES				pmax	pmax		
	comp=Z,10.0nm,0.6s						
FINES	FINESS Array B	68.13	332	P	P	18 09 08.0	-0.8
	comp=Z,9.5nm,0.6s,mb5.0,baz=97,slow=5.8,SNR=42						
FINES				pP	pP	18 09 15.4	-0.6
	comp=Z,39nm,0.8s,baz=107,slow=7.5,SNR=20						
FINES				LR	LR	18 46 29.3	
	comp=Z,2µm,18.6s,MS5.3,baz=276,slow=43						
KAF	Kangasniemi	68.20	332	ep	P	18 09 07.3	-1.9
	comp=Z,1.1nm,0.4s,mb4.2						
KAF	Kangasniemi	68.20	332	ep	pP	18 09 15.9	-0.5
	comp=Z,1.3nm,0.4s						
KAF	Kangasniemi	68.20	332	eP	P	18 09 07.3	-1.9
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.2						
CRVS	Cervenica-Dubn	68.43	318	eP	P	18 09 12.7	+1.9
CRVS				epP	pP	18 09 20.0	+1.9
CRVS				e		18 09 34.4	
GRUS	Gruza	68.52	312	⇑iP	P	18 09 10.5	-1.0
PVY	Plav	68.99	311	⇑iP	P	18 09 14.8	+0.4
KECS	Kecovo	69.03	317	eP	pP	18 09 21.5	-0.3
KECS				e		18 09 33.5	
KECS	Kecovo	69.03	317	e	pP	18 09 21.5	-0.3
KECS				e	sP	18 09 33.5	+9.1
DIVS	Divcibare	69.05	313	⇑iP	P	18 09 14.1	-0.6
IVA	Berane	69.06	311	⇑iP	P	18 09 15.8	+1.0
NIE	Niedzica	69.23	318	eP	P	18 09 16.5	+0.7
NVSS	Nova Varos 2	69.23	312	e	P	18 09 21.7	+5.9
PKSN	Nyarlorinc	69.32	316	⇑iP	pP	18 09 23.5	-0.1
PSZ	Piszkesteto	69.38	317	P	P	18 09 16.5	-0.2
PSZ				pmax	pmax		
	comp=Z,99nm,1.1s,mb5.7						
PSZ	Piszkesteto	69.38	317	⇓epP	pP	18 09 23.5	-0.4
PSZ	Piszkesteto	69.38	317	eP	P	18 09 16.3	-0.4
	comp=Z,96nm,1.0s,mb5.7						
PLE	Pljevlja	69.45	312	⇑iP	P	18 09 19.6	+2.4
ULC	Ulcinj	69.50	310	⇑iP	P	18 09 18.6	+1.0
TTG	Podgorica	69.51	311	⇑iP	P	18 09 18.4	+0.8
OJC	Ojcow	69.64	319	eP	P	18 09 18.0	-0.2
OJC				e	pP	18 09 25.2	-0.3
NKY	Niksic	69.72	311	⇑iP	P	18 09 19.4	+0.5
BUM	Brajici-Budva	69.78	311	⇑iP	P	18 09 19.7	+0.5
UPM	Unac-Piva	69.80	312	⇑iP	P	18 09 20.3	+1.0
PKS7	Kunszentmiklos	69.81	316	⇑iP	P	18 09 26.3	+7.0
BRY	Bratogost	70.06	311	⇑iP	P	18 09 20.7	-0.2
HCY	Herceg Novi	70.08	311	⇑iP	P	18 09 21.4	+0.4
PKSM	Moragy	70.12	315	⇓eP	P	18 09 20.2	-1.0
PKSM				i	pP	18 09 27.9	-0.6
VYHS	Vyhne	70.12	317	eP	P	18 09 20.4	-0.8
VYHS				e	pP	18 09 27.9	-0.6
KEV	Kevo	70.20	340	ep	P	18 09 20.3	-1.1
	comp=Z,3.2nm,0.4s,mb4.6						
KEV	Kevo	70.20	340	ep	pP	18 09 28.1	-0.5
	comp=Z,36nm,0.8s						
KEV	Kevo	70.20	340	eP	P	18 09 20.3	-1.1
KEV				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
SRO2	Moca	70.37	316	eP	pP	18 09 30.3	+0.3
SRO2	Moca	70.37	316	epP	pP	18 09 30.3	+0.3
KOLL	Kolacno	70.42	317	eP	P	18 09 23.7	+0.7
KOLL				e	pP	18 09 30.1	-0.2
SRO	Srobarova	70.43	316	eP	pP	18 09 30.2	-0.2
SRO	Srobarova	70.43	316	epP	pP	18 09 30.2	-0.2
SRO1	Iza	70.48	316	epP	pP	18 09 30.8	+0.1
RHK1	Bakonya	70.51	315	eP	P	18 09 23.1	-0.5
RHK1				i	pP	18 09 30.2	-0.7
ARCES	ARCESS Array B	70.63	340	P	P	18 09 23.7	-0.3
	comp=Z,20nm,0.6s,mb5.2,baz=86,slow=6.3,SNR=88						
ARCES				pP	pP	18 09 31.6	+0.4
	comp=Z,51nm,0.7s,baz=90,slow=6.3,SNR=20						
ARCES				LR	LR	18 44 08.6	
	comp=Z,3µm,18.8s,MS5.5,baz=115,slow=39						
ARE0	ARCESS Array S	70.63	340	eP	P	18 09 23.6	-0.4
MORC	Moravsky Berou	71.06	319	P	P	18 09 26.9	0.0
MORC				pmax	pmax		
	comp=Z,160nm,1.1s,mb5.9						
MORC	Moravsky Berou	71.06	319	eP	P	18 09 26.7	-0.1
	comp=Z,199nm,1.2s,mb5.9						
SMOL	Smolenice	71.06	317	eP	pP	18 09 34.2	0.0
SMOL	Smolenice	71.06	317	e	pP	18 09 34.2	0.0
KTK1	Kautokeino	71.26	339	eP	P	18 09 28.2	+0.4
KTK1				epP	pP	18 09 36.0	+0.9
KTK1				AMb	AMB	18 09 38.4	
	comp=Z,130nm,1.7s,mb5.6						
ZST	Bratislava	71.26	317	eP	P	18 09 27.2	-0.9
ZST				e	pP	18 09 35.2	-0.2
ZST				esP	sP	18 09 42.4	+4.4
TIP	Timpagrande	71.38	307	P	P	18 09 28.4	-0.6
GKP	Gorka Klasztor	71.48	322	⇑iP	pP	18 09 36.5	-0.2
GKP	Gorka Klasztor	71.48	322	i P	pP	18 09 36.5	-0.2
SOP	Sopron	71.61	316	⇑eP	pP	18 09 37.4	-0.1
SOP	Sopron	71.61	316	⇑epP	pP	18 09 37.4	-0.1
GRI	Girifalco	71.65	307	eP	pP	18 09 37.0	-0.9
DPC	Dobruska-Polom	71.87	319	eP	P	18 09 32.1	+0.4
KSP	Ksiaz	71.91	320	eP	P	18 09 31.3	-0.7
KSP				e*PP	pP	18 09 39.4	+0.1
KSP				e		18 09 49.0	
KSP				eS	S	18 18 49.0	-1.2
KSP				MLR	MLR		
	comp=Z,3µm,18.8s,MS5.6						
KSP	Ksiaz	71.91	320	eP	P	18 09 32.0	0.0
KSP	Ksiaz	71.91	320	i P	pP	18 09 39.9	+0.6
SOI	Samo	71.95	306	eP	pP	18 09 39.0	-0.7
UPC	Upice	72.08	319	eP	P	18 09 33.8	+0.8
UPC				ex	x	18 09 40.8	
MTTG	Motta San Giov	72.24	306	eP	P	18 09 38.4	+4.2
ARSA	Arzberg	72.30	316	⇑iP	P	18 09 34.5	+0.2
	comp=Z,85nm,1.1s,mb5.6						
BOJS	Bojanci	72.47	314	eP	P	18 09 34.2	-1.2
BOJS				e	pP	18 09 42.0	-0.7
PERS	Pernice	72.57	315	eP	P	18 09 35.5	-0.4
PERS				e	pP	18 09 43.1	-0.2
PZI	Palazzolo	72.87	305	eP	pP	18 09 45.0	-0.2
TRO	Tromso	72.89	339	eP	P	18 09 35.6	-1.8
TRO				AMb	AMB	18 09 36.2	
	comp=Z,158nm,2.0s,mb5.6						

TRO				*e*pP	pP	18 09 43.7	-1.0
BSD	**Bornholm Skovb**	**72.96**	**324**	*e*P	pP	18 09 44.4	-1.0
BSD				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.7						
BSD	**Bornholm Skovb**	**72.96**	**324**	*e*P	pP	18 09 44.4	-1.0
	comp=Z,84nm,0.9s						
BSD	**Bornholm Skovb**	**72.96**	**324**	*i* P	pP	18 09 44.4	-1.0
	comp=Z,84nm,0.9s						
OBKA	**Obir**	**72.96**	**315**	⇑*i*P	**P**	**18 09 38.5**	**+0.2**
	comp=Z,174nm,1.3s,mb5.8						
LJU	**Ljubljana**	**72.97**	**315**	*e*P	**P**	**18 09 38.8**	**+0.4**
LJU				*e*	pP	18 09 45.6	-0.1
PRU	**Pruhonice**	**73.00**	**319**	*e*P	**P**	**18 09 38.6**	**+0.2**
PRU				*e*x	x	18 09 45.9	
MOA	**Molln**	**73.16**	**316**	⇑*i*P	**P**	**18 09 38.9**	**-0.5**
	comp=Z,75nm,1.1s,mb5.5						
BRG	**Berggiesshubel**	**73.40**	**320**	*i* P	**P**	**18 09 41.3**	**+0.6**
BRG				*i*	pP	18 09 48.2	+0.1
BRG				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.1						
BRG				MLR	MLR		
	comp=Z,2µm,23.3s,MS5.2						
BRG	**Berggiesshubel**	**73.40**	**320**	*i* P	**P**	**18 09 41.3**	**+0.6**
	comp=Z,35nm,1.3s,mb5.1						
BRG				*i*	pP	18 09 48.2	+0.1
BRG				LR	LR		
	comp=Z,2µm,23.3s,MS5.2						
VOY	**Vojsko**	**73.42**	**315**	*e*P	**P**	**18 09 40.3**	**-0.6**
VOY				*e*	pP	18 09 47.7	-0.6
RUE	**Ruedersdorf**	**73.53**	**321**	*e*P	**P**	**18 09 41.3**	**-0.2**
	comp=Z,368nm,1.2s,mb6.2						
GEC2	**GERESS Array S**	**73.54**	**317**	*e*P	**P**	**18 09 41.7**	**+0.1**
GEC2				pmax	pmax		
	comp=Z,162nm,1.1s,mb5.9						
GEC2	**GERESS Array S**	**73.54**	**317**	*e*P	**P**	**18 09 41.7**	**+0.1**
	comp=Z,162nm,1.1s,mb5.9						
GERES	**GERESS Array B**	**73.54**	**317**	P	**P**	**18 09 41.3**	**-0.2**
	comp=Z,8.4nm,0.7s,mb4.8,baz=83,slow=5.3,SNR=47						
GERES				pP	pP	18 09 48.8	-0.1
	comp=Z,62nm,0.9s,baz=90,slow=5.3,SNR=75						
GERES				LR	LR	18 49 11.1	
	comp=Z,732nm,19.0s,MS5.0,baz=256,slow=42						
KHC	**Kasperske Hory**	**73.62**	**318**	*e*P	**P**	**18 09 42.1**	**+0.1**
KHC				*e*x	x	18 09 49.2	
ROBS	**Robic**	**73.68**	**315**	*e*P	**P**	**18 09 41.7**	**-0.8**
ROBS				*e*	pP	18 09 49.2	-0.6
KBA	**Koelnbreinsper**	**73.78**	**316**	⇑*i*P	**P**	**18 09 42.1**	**-0.9**
	comp=Z,83nm,1.4s,mb5.5						
KBA	**Koelnbreinsper**	**73.78**	**316**	⇑*i*P	**P**	**18 09 42.1**	**-0.9**
KBA				pmax	pmax		
	comp=Z,83nm,1.4s,mb5.5						
PTCC	**Patocco-Chiusa**	**73.79**	**315**	*e*P	**P**	**18 09 42.4**	**-0.7**
AQU	**L'Aquila**	**73.85**	**311**	*e*P	**P**	**18 09 42.9**	**-0.6**
AQU				pmax	pmax		
	comp=Z,108nm,1.1s,mb5.7						
AQU	**L'Aquila**	**73.85**	**311**	*e*P	**P**	**18 09 42.9**	**-0.7**
	comp=Z,108nm,1.1s,mb5.7						
GMNA	**Gemona**	**73.87**	**315**	*e*P	**P**	**18 09 42.9**	**-0.7**
HFS	**Hagfors**	**73.90**	**329**	P	**P**	**18 09 42.8**	**-0.6**
	comp=Z,21nm,0.6s,mb5.3,baz=117,slow=6.6,SNR=50						
HFS				pP	pP	18 09 50.5	-0.3
	comp=Z,60nm,0.8s,baz=90,slow=4.3,SNR=19						
HFS				LR	LR	18 47 44.7	
	comp=Z,1µm,18.2s,MS5.3,baz=62,slow=40						
CLL	**Collm**	**74.00**	**320**	*e*P	**P**	**18 09 43.0**	**-1.2**
CLL				pmax	pmax		
	comp=Z,155nm,1.3s,mb5.8						
CLL				MLR	MLR		
	comp=Z,1µm,21.3s,MS5.1						
CLL	**Collm**	**74.00**	**320**	*e*P	**P**	**18 09 43.0**	**-1.2**
	comp=Z,155nm,1.3s,mb5.8						
CLL				LR	LR		
	comp=Z,1µm,21.3s,MS5.1						
CLL	**Collm**	**74.00**	**320**	P	**P**	**18 09 43.0**	**-1.2**
CLL				*i*	pP	18 09 51.1	-0.4
CLL				*e*S	S	18 19 12.0	-1.8
CLL				*e*SS	SS	18 24 00.0	-1.0
MOR8	**Moi Rana**	**74.06**	**336**	*e*P	**P**	**18 09 43.5**	**-0.8**
MOR8				*e*pP	pP	18 09 51.5	-0.1
MOR8				AMb	AMB	18 09 52.1	
	comp=Z,174nm,0.9s,mb6.0						
WET	**Wettzell**	**74.08**	**318**	*e*P	**P**	**18 09 44.9**	**+0.2**
ARV	**Arcevia**	**74.15**	**312**	*e*P	**P**	**18 09 43.7**	**-1.5**
SNTG	**Esanatoglia**	**74.16**	**312**	*e*P	**P**	**18 09 49.5**	**+4.3**
FVI	**Forni Avoltri**	**74.18**	**315**	*e*P	**P**	**18 09 45.3**	**0.0**
NKC	**Novy Kostel**	**74.35**	**319**	*e*P	**P**	**18 09 46.8**	**+0.5**
NKC				*e*x	x	18 09 53.8	
LOF	**Lofoten**	**74.61**	**338**	*e*P	**P**	**18 09 49.1**	**+1.7**
LOF				AMb	AMB	18 10 00.4	
	comp=Z,380nm,1.6s,mb6.1						
FX1	**Attu Island--F**	**74.68**	**38**	P	**P**	**18 09 46.5**	**-1.6**
	comp=Z,34nm,0.5s,mb5.5,baz=32,slow=7.9,SNR=12						
FX1	**Attu Island--F**	**74.68**	**38**	*e*P	**P**	**18 09 47.5**	**-0.5**
MOX	**Moxa**	**74.88**	**319**	*e*P	**P**	**18 09 49.7**	**+0.4**
MOX	**Moxa**	**74.88**	**319**	*i* P	**P**	**18 09 49.7**	**+0.4**
	comp=Z,logA/T=2.1,mb5.8						
MOX				*i*	pP	18 09 57.0	+0.4
MOX				L		18 49 16.0	
SFI	**Santa Sofia**	**74.93**	**312**	*e*P	**P**	**18 09 50.7**	**+1.0**
WTTA	**Wattenberg**	**74.95**	**316**	⇑*i*P	**P**	**18 09 49.0**	**-0.8**
	comp=Z,144nm,1.2s,mb5.8						
WTTA	**Wattenberg**	**74.95**	**316**	⇑*i*P	**P**	**18 09 49.0**	**-0.8**
WTTA				pmax	pmax		
	comp=Z,144nm,1.2s,mb5.8						
NSS	**Namsos**	**74.96**	**334**	*e*P	**P**	**18 09 48.0**	**-1.5**
NSS				*e*pP	pP	18 09 55.8	-1.1
NSS				AMb	AMB	18 09 57.1	
	comp=Z,189nm,1.9s,mb5.7						
CTI	**Castel Tesino**	**74.98**	**315**	*e*P	**P**	**18 09 49.6**	**-0.4**
WATA	**Walderalm**	**74.98**	**316**	⇑*i*P	**P**	**18 09 49.0**	**-1.0**
	comp=Z,76nm,1.1s,mb5.5						
WATA	**Walderalm**	**74.98**	**316**	⇑*i*P	**P**	**18 09 49.0**	**-1.0**
WATA				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.5						
LBTB	**Lobatse**	**75.01**	**240**	*e*P	**P**	**18 09 51.5**	**+0.9**
LBTB				pmax	pmax		
	comp=Z,158nm,1.1s,mb5.9						
LBTB	**Lobatse**	**75.01**	**240**	*e*P	**P**	**18 09 51.5**	**+0.9**
	comp=Z,158nm,1.1s,mb5.9						
VMG	**Vicchio**	**75.14**	**312**	*e*P	**P**	**18 09 52.1**	**+1.1**
GRA1	**Grafenberg Arr**	**75.15**	**318**	*e*P	**P**	**18 09 51.6**	**+0.7**
	comp=Z,210nm,1.2s,mb5.9						
GRF	**Grafenberg Arr**	**75.15**	**318**	*e*P	**P**	**18 09 51.6**	**+0.7**
GRF				pmax	pmax		
	comp=Z,210nm,1.2s,mb5.9						
FUR	**Furstenfeldbru**	**75.16**	**317**	*e*P	**P**	**18 09 50.7**	**-0.3**
NB2	**NORSAR Subarra**	**75.17**	**330**	P	**P**	**18 09 49.9**	**-0.8**
	comp=Z,104nm,1.0s,mb5.7,baz=92,slow=5.8						
NB2	**NORSAR Subarra**	**75.17**	**330**	P	**P**	**18 09 49.9**	**-0.8**
	baz=92,slow=5.9						
NB2	**NORSAR Subarra**	**75.17**	**330**	P	**P**	**18 09 49.9**	**-0.8**
NB2				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.7						
NOA	**NORSAR Array B**	**75.17**	**330**	P	**P**	**18 09 49.7**	**-1.0**
	comp=Z,18nm,0.7s,mb5.1,baz=92,slow=5.7,SNR=34						
NOA				pP	pP	18 09 57.6	-0.5
	comp=Z,50nm,0.8s,baz=92,slow=6.0,SNR=30						
NOA				LR	LR	18 48 52.9	
	comp=Z,777nm,18.6s,MS5.0,baz=60,slow=40						
SQTA	**Sankt Quirin**	**75.24**	**316**	⇑*i*P	**P**	**18 09 50.2**	**-1.2**
	comp=Z,77nm,1.0s,mb5.6						
SQTA	**Sankt Quirin**	**75.24**	**316**	⇑*i*P	**P**	**18 09 50.2**	**-1.2**
SQTA				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.6						
SEI	**Scarperia**	**75.27**	**313**	*e*P	**P**	**18 09 52.5**	**+0.7**
MOTA	**Moosalm**	**75.31**	**316**	⇑*i*P	**P**	**18 09 50.5**	**-1.3**
	comp=Z,69nm,1.1s,mb5.5						
MOTA	**Moosalm**	**75.31**	**316**	⇑*i*P	**P**	**18 09 50.5**	**-1.3**
MOTA				pmax	pmax		
	comp=Z,69nm,1.1s,mb5.5						
NAO01	**NORSAR Array S**	**75.32**	**330**	*e*P	**P**	**18 09 50.4**	**-1.2**
	comp=Z,114nm,1.0s,mb5.8						
OSL	**Oslo**	**75.39**	**329**	*e*P	**P**	**18 09 51.7**	**-0.3**
OSL				*e*pP	pP	18 09 59.5	+0.1
OSL				AMb	AMB	18 10 01.0	
	comp=Z,243nm,1.2s,mb6.0						
FNVD	**Fontana Vidola**	**75.44**	**313**	*e*P	**P**	**18 09 54.3**	**+1.6**
ZCCA	**Zocca**	**75.53**	**313**	*e*P	**P**	**18 09 54.4**	**+1.2**
BSEG	**Bad Segeberg**	**75.62**	**323**	*e*P	**P**	**18 09 54.1**	**+0.6**
CLZ	**Clausthal**	**75.64**	**321**	*e*P	**P**	**18 09 53.9**	**+0.3**
	comp=Z,192nm,1.2s,mb5.9						
SAL	**Salo**	**75.78**	**314**	*e*P	**P**	**18 09 55.2**	**+0.6**
GSCL	**Gusciola**	**75.81**	**313**	*e*P	**P**	**18 09 55.0**	**+0.2**
BDI	**Bagni Di Lucca**	**75.82**	**313**	*e*P	**P**	**18 09 53.7**	**-1.1**
BRMO	**Bormio**	**75.84**	**315**	*e*P	**P**	**18 09 54.9**	**0.0**
HDH	**Heidenheim**	**75.86**	**317**	*e*P	pP	18 10 01.7	-0.6
MAIM		**75.91**	**312**	P	**P**	**18 09 54.6**	**-0.7**
ERBM	**Eremo**	**75.93**	**313**	*e*P	**P**	**18 09 56.6**	**+1.2**
SARO	**Sassorosso**	**75.95**	**313**	P	**P**	**18 09 55.5**	**-0.1**
UBR	**Uberruh**	**75.97**	**316**	*e*P	pP	18 10 02.3	-0.6
VLC	**Villacollemand**	**75.97**	**313**	P	**P**	**18 09 54.8**	**-0.9**
	comp=Z,111nm,1.1s,mb5.7						
VALM		**76.05**	**313**	P	**P**	**18 09 56.5**	**+0.3**
VINC	**Vinca**	**76.14**	**313**	P	**P**	**18 09 55.4**	**-1.2**
DAVA	**Damuels**	**76.14**	**316**	⇑*i*P	**P**	**18 09 56.0**	**-0.6**
	comp=Z,194nm,1.0s,mb6.0						
GRAM		**76.17**	**313**	P	**P**	**18 09 57.2**	**+0.4**
BACM		**76.18**	**313**	P	**P**	**18 09 56.3**	**-0.6**
SIND	**Sindeldorf**	**76.22**	**318**	*e*P	pP	18 10 04.4	+0.1
MUD	**Monsted U'grnd**	**76.22**	**325**	*i* P	**P**	**18 09 58.1**	**+1.3**
MUD				*i*	pP	18 10 04.8	+0.6
MUD				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
MUD	**Monsted U'grnd**	**76.22**	**325**	*i* P	**P**	**18 09 58.1**	**+1.3**
	comp=Z,36nm,0.8s,mb5.3						
MUD				*i*	pP	18 10 04.8	+0.6
CODM		**76.33**	**313**	P	**P**	**18 09 58.0**	**+0.3**
BUCH	**Bad Urach**	**76.43**	**317**	*e*P	pP	18 10 05.1	-0.4
STU	**Stuttgart**	**76.52**	**317**	*e*P	**P**	**18 09 57.8**	**-0.8**
STU				pmax	pmax		
	comp=Z,45nm,0.7s,mb5.5						
STU	**Stuttgart**	**76.52**	**317**	*e*P	**P**	**18 09 57.8**	**-0.9**
	comp=Z,45nm,0.7s,mb5.5						
GUT	**Gutenstein**	**76.61**	**317**	*e*P	pP	18 10 06.0	-0.5
BOSA	**Boshof**	**76.62**	**236**	*e*P	**P**	**18 09 59.7**	**+0.1**
BOSA				pmax	pmax		
	comp=Z,166nm,1.1s,mb5.9						
BOSA	**Boshof**	**76.62**	**236**	*e*P	**P**	**18 09 59.7**	**0.0**
	comp=Z,166nm,1.1s,mb5.9						
TOD	**Tromm**	**76.73**	**318**	*e*P	pP	18 10 07.1	-0.1
TOD	**Tromm**	**76.73**	**318**	*e*P	pP	18 10 07.4	+0.2
LBG	**Lerchenberg**	**76.79**	**317**	*e*P	pP	18 10 07.2	-0.3
SWS	**Schriesheim**	**76.80**	**318**	*e*P	pP	18 10 07.5	-0.1
SPAK	**Spaichingen**	**76.83**	**317**	*e*P	pP	18 10 07.5	-0.3
SPAK	**Spaichingen**	**76.83**	**317**	*e*P	pP	18 10 07.9	+0.1
VAI	**Varese**	**77.00**	**315**	*e*P	**P**	**18 10 00.1**	**-1.3**
PGF	**Pioggiola**	**77.09**	**311**	*e*P	**P**	**18 10 02.4**	**+0.4**
	comp=Z,166nm,1.2s,mb5.5						
PGF	**Pioggiola**	**77.09**	**311**	*e*P	**P**	**18 10 02.4**	**+0.4**
PGF				pmax	pmax		
	comp=Z,83nm,1.2s,mb5.5						
BFO	**Black Forest**	**77.12**	**317**	*e*P	**P**	**18 10 01.7**	**-0.3**
BFO				pmax	pmax		
	comp=Z,92nm,1.2s,mb5.6						
BFO	**Black Forest**	**77.12**	**317**	*e*P	**P**	**18 10 01.7**	**-0.3**
	comp=Z,92nm,1.2s,mb5.6						
KTD	**Kalmit**	**77.21**	**318**	*e*P	pP	18 10 09.6	-0.3
PCP	**Pian Castagno**	**77.26**	**313**	P	**P**	**18 10 02.5**	**-0.3**
FELD	**Feldberg**	**77.37**	**317**	*e*P	pP	18 10 10.6	-0.2
LANF	**Langenberg**	**77.42**	**318**	*e*P	pP	18 10 11.4	+0.4
KIZ	**Kirchzarten**	**77.42**	**317**	*e*P	pP	18 10 10.7	-0.3
ABH	**Alteburg**	**77.52**	**319**	⇓*e*P	pP	18 10 11.7	+0.1
ABH	**Alteburg**	**77.52**	**319**	*e*P	pP	18 10 12.1	+0.5
FIN	**Finale Ligure**	**77.53**	**313**	P	**P**	**18 10 04.0**	**-0.3**
MCGN	**Macugnaga**	**77.53**	**315**	*e*P	**P**	**18 10 06.3**	**+1.9**
ORX	**Oropa**	**77.56**	**314**	P	**P**	**18 10 03.8**	**-0.7**
LIBD	**Limburg**	**77.62**	**317**	*e*P	pP	18 10 12.0	-0.1
LIBD	**Limburg**	**77.62**	**317**	*e*P	pP	18 10 12.5	+0.4
BBS	**Basel-Blauen**	**77.74**	**316**	*e*P	pP	18 10 12.4	-0.4
BBS	**Basel-Blauen**	**77.74**	**316**	*e*P	pP	18 10 12.8	0.0
TRAV		**77.74**	**314**	P	**P**	**18 10 05.0**	**-0.5**
ROB	**Roburent**	**77.76**	**313**	P	**P**	**18 10 05.2**	**-0.4**
WLS	**Welschbruch**	**77.76**	**317**	*e*P	pP	18 10 13.0	+0.1
IMI	**Imperia**	**77.78**	**313**	P	**P**	**18 10 05.8**	**+0.1**
CDF	**Champ du Feu**	**77.81**	**317**	*e*P	**P**	**18 10 05.7**	**-0.1**
	comp=Z,171nm,1.1s,mb5.6						
CDF	**Champ du Feu**	**77.81**	**317**	*e*P	**P**	**18 10 05.7**	**-0.1**
CDF				pmax	pmax		
	comp=Z,85nm,1.1s,mb5.6						
WTSB	**Winterswijk**	**77.84**	**321**	*e*P	**P**	**18 10 06.3**	**+0.4**
	comp=Z,181nm,1.7s,mb5.7						
RUP	**Ruppelstein**	**77.85**	**319**	⇓*e*P	PcP	18 10 13.5	-2.8
RUP	**Ruppelstein**	**77.85**	**319**	*e*P	sP	18 10 14.2	-1.7
WIT	**Witteveen**	**77.86**	**322**	*e*P	sP	18 10 14.1	-1.7
MONE	**Monesi**	**77.86**	**313**	P	**P**	**18 10 06.2**	**0.0**
ECH	**Echery**	**77.91**	**317**	*e*P	pP	18 10 13.7	0.0
NEGI	**Negi**	**77.92**	**313**	P	**P**	**18 10 06.1**	**-0.4**
MOF	**Molkenrain**	**77.96**	**317**	*e*P	pP	18 10 14.0	0.0
SAOF	**Saorge**	**78.01**	**313**	*e*P	pP	18 10 14.4	0.0
ENR	**Entracque**	**78.09**	**313**	P	**P**	**18 10 07.2**	**-0.2**
SBF	**Sospel**	**78.11**	**313**	*e*P	**P**	**18 10 07.2**	**-0.3**
	comp=Z,211nm,1.0s,mb5.7						
SBF	**Sospel**	**78.11**	**313**	*e*P	**P**	**18 10 07.2**	**-0.3**
SBF				pmax	pmax		
	comp=Z,106nm,1.0s,mb5.7						
RSP	**Reno Superiore**	**78.11**	**314**	P	**P**	**18 10 06.7**	**-0.8**
BHB	**Bricherasio**	**78.14**	**314**	P	**P**	**18 10 06.0**	**-1.7**
STV	**Sta Anna Valdi**	**78.15**	**313**	P	**P**	**18 10 07.3**	**-0.5**
LSD	**Ceresole Reale**	**78.16**	**314**	P	**P**	**18 10 07.7**	**-0.1**
REVF	**Revere**	**78.17**	**312**	*e*P	pP	18 10 15.2	-0.1
LOMF	**Lomont**	**78.21**	**316**	*e*P	pP	18 10 15.4	0.0
TOUF	**Mont Tournerai**	**78.23**	**313**	*e*P	pP	18 10 15.7	+0.1
FENE	**Fenestrelle**	**78.26**	**314**	P	**P**	**18 10 07.8**	**-0.6**
PZZ	**Prazzo**	**78.29**	**313**	P	**P**	**18 10 07.8**	**-0.7**
MVIF	**Mont Vial**	**78.31**	**313**	*e*P	pP	18 10 16.4	+0.4
LPG	**La Plagne**	**78.44**	**314**	*e*P	**P**	**18 10 09.8**	**+0.5**
	comp=Z,423nm,0.9s,mb6.1						
LPG	**La Plagne**	**78.44**	**314**	*e*P	**P**	**18 10 09.8**	**+0.5**
LPG				pmax	pmax		
	comp=Z,212nm,0.9s,mb6.1						
WLF	**Walferdange**	**78.44**	**319**	P	**P**	**18 10 10.9**	**+1.7**
WLF				pmax	pmax		
	comp=Z,180nm,1.6s,mb5.8						
WLF	**Walferdange**	**78.44**	**319**	*e*P	**P**	**18 10 07.3**	**-1.9**
	comp=Z,253nm,1.7s,mb5.9						
HAU	**Haudompre**	**78.47**	**317**	*e*P	**P**	**18 10 08.8**	**-0.6**
	comp=Z,316nm,1.1s,mb5.9						
HAU				*e*R			
	comp=Z,1µm,19.0s						
HAU	**Haudompre**	**78.47**	**317**	*e*P	**P**	**18 10 08.8**	**-0.6**
HAU				pmax	pmax		
	comp=Z,158nm,1.1s,mb5.9						
HAU				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.2						
RRL	**Cesana Torines**	**78.47**	**314**	P	**P**	**18 10 08.7**	**-0.8**
HGN	**Heimansgroeve**	**78.48**	**320**	*e*P	**P**	**18 10 10.1**	**+0.7**
	comp=Z,41nm,1.7s,mb5.1						
MBDF	**Montbardon**	**78.50**	**313**	*e*P	**P**	**18 10 09.3**	**-0.4**
	comp=Z,246nm,1.1s,mb5.8						
MBDF	**Montbardon**	**78.50**	**313**	*e*P	**P**	**18 10 09.3**	**-0.4**
MBDF				pmax	pmax		
	comp=Z,123nm,1.1s,mb5.8						
RSL	**Roselend**	**78.51**	**314**	*e*P	pP	18 10 17.2	+0.1
BNI	**Bardonecchia**	**78.53**	**314**	P	**P**	**18 10 10.2**	**+0.4**
BNI				pmax	pmax		
	comp=Z,120nm,1.0s,mb5.8						
BNI	**Bardonecchia**	**78.53**	**314**	*e*P	**P**	**18 10 09.7**	**-0.2**
	comp=Z,258nm,1.1s,mb6.1						
THEF	**They Montfort**	**78.69**	**317**	*e*P	pP	18 10 18.0	0.0
OG25	**Le Caire**	**79.03**	**313**	*e*P	pP	18 10 19.2	-0.8
OG05	**Jujurieux**	**79.28**	**315**	*e*P	PcP	18 10 21.7	-0.8
OG05	**Jujurieux**	**79.28**	**315**	*e*P	sP	18 10 22.4	-1.4
CASY	**Casey**	**79.44**	**173**	*e*P	**P**	**18 10 13.6**	**-0.8**
CASY				*e*	pP	18 10 22.1	+0.4
OCF	**Saint Nazaire**	**79.56**	**313**	*e*P	pP	18 10 23.6	+0.8
OG26	**St.-Nazaire-De**	**79.56**	**313**	*e*P	pP	18 10 23.6	+0.8
BAIF	**Baives**	**79.65**	**319**	*e*P	**P**	**18 10 16.4**	**+0.6**
	comp=Z,229nm,1.2s,mb5.7						
BAIF	**Baives**	**79.65**	**319**	*e*P	**P**	**18 10 16.4**	**+0.6**
BAIF				pmax	pmax		
	comp=Z,114nm,1.2s,mb5.7						
SSF	**Saint Saulge**	**80.49**	**316**	*e*P	**P**	**18 10 20.5**	**+0.1**
	comp=Z,397nm,1.4s,mb5.8						
SSF	**Saint Saulge**	**80.49**	**316**	*e*P	**P**	**18 10 20.5**	**+0.1**
SSF				pmax	pmax		
	comp=Z,199nm,1.4s,mb5.8						
COLF	**Collangettes**	**80.57**	**315**	*e*P	pP	18 10 28.6	+0.4
MENF	**Mencas**	**80.89**	**320**	*e*P	pP	18 10 30.4	+0.6
BGF	**Bois d'Agland**	**81.01**	**316**	*e*P	**P**	**18 10 23.5**	**+0.4**
	comp=Z,321nm,1.1s,mb5.8						
BGF	**Bois d'Agland**	**81.01**	**316**	*e*P	**P**	**18 10 23.5**	**+0.4**
BGF				pmax	pmax		
	comp=Z,160nm,1.1s,mb5.9						
FRNF	**Fournols**	**81.38**	**315**	*e*P	pP	18 10 33.5	+1.0
SUR	**Sutherland**	**81.55**	**234**	*e*P	**P**	**18 10 28.2**	**+2.0**
	comp=Z,152nm,1.1s,mb5.8						
LRDF	**Laroque-de-Fa**	**81.77**	**312**	*e*P	pP	18 10 35.1	+0.5
FILF	**Fillols**	**81.81**	**312**	*e*P	pP	18 10 35.8	+1.0
JMIC	**Jan Mayen**	**82.08**	**341**	LR	LR	18 50 01.6	
	comp=Z,2µm,18.7s,MS5.4,baz=86,slow=38						
CARF	**Carcanieres**	**82.12**	**312**	*e*P	pP	18 10 36.4	0.0
RJF	**Les Rejaudoux**	**82.12**	**315**	*e*P	**P**	**18 10 29.7**	**+0.8**
	comp=Z,334nm,1.1s,mb5.9						
RJF				*e*R			
	comp=Z,1µm,22.0s						
RJF	**Les Rejaudoux**	**82.12**	**315**	*e*P	**P**	**18 10 29.7**	**+0.8**
RJF				pmax	pmax		
	comp=Z,167nm,1.1s,mb5.9						
RJF				MLR	MLR		
	comp=Z,1µm,22.0s,MS5.2						
VALF	**Valcebollere**	**82.23**	**312**	*e*P	pP	18 10 38.1	+1.1
MAW	**Mawson**	**82.49**	**191**	pP	pP	18 10 38.4	+0.5
	comp=Z,11nm,0.8s,baz=353,slow=8.0,SNR=8.4						
MAW				LR	LR	18 39 55.4	
	comp=Z,1µm,20.4s,MS5.2,baz=26,slow=30						
EMIR	**Miracle**	**82.67**	**311**	P	pP	18 10 39.9	+0.6
	comp=Z,343nm,0.9s						
MLS	**Moulis**	**82.81**	**312**	*e*P	pP	18 10 40.2	+0.2
FLN	**La Foliniere**	**82.87**	**318**	*e*P	**P**	**18 10 33.0**	**+0.3**
	comp=Z,245nm,1.1s,mb5.8						
FLN				*e*R			
	comp=Z,1µm,19.2s						
FLN	**La Foliniere**	**82.87**	**318**	*e*P	**P**	**18 10 33.0**	**+0.3**
FLN				pmax	pmax		
	comp=Z,122nm,1.1s,mb5.8						
FLN				MLR	MLR		
	comp=Z,1µm,19.3s,MS5.3						
DAG	**Danmarks Havn**	**82.88**	**348**	⇑*i*P	**P**	**18 10 32.1**	**-0.2**
DAG				pmax	pmax		
	comp=Z,40nm,1.3s,mb5.3						
DAG	**Danmarks Havn**	**82.88**	**348**	⇑*i*P	**P**	**18 10 32.1**	**-0.2**
	comp=Z,40nm,1.3s,mb5.3						
RESF	**Ens**	**83.39**	**312**	*e*P	pP	18 10 44.1	+1.1
LCHF	**La Chataignera**	**83.43**	**316**	*e*P	pP	18 10 43.6	+0.5
LABF	**Labassere**	**83.53**	**313**	*e*P	pP	18 10 45.0	+1.3
EBR	**Ebro Roquetas**	**83.63**	**310**	*i* P	**P**	**18 10 38.3**	**+1.4**
EBR				*i* Ts	pP	18 10 45.0	+0.7
ERTA	**Horta de San J**	**83.73**	**310**	P	pP	18 10 44.8	0.0
	comp=Z,294nm,1.1s						
LRYF	**La Roche-sur-Y**	**83.99**	**316**	*e*P	pP	18 10 46.4	+0.4
ETSF	**Etsaut**	**84.02**	**312**	*e*P	**P**	**18 10 39.1**	**+0.4**
	comp=Z,185nm,1.2s,mb5.8						
ETSF	**Etsaut**	**84.02**	**312**	*e*P	**P**	**18 10 39.1**	**+0.4**
ETSF				pmax	pmax		
	comp=Z,92nm,1.2s,mb5.8						
ANM	**Nome**	**84.16**	**25**	*e*P	**P**	**18 10 41.3**	**+2.4**
LARF	**Larrau**	**84.30**	**313**	*e*P	pP	18 10 48.8	+1.2
OSSF	**Osses**	**84.45**	**313**	*e*P	pP	18 10 48.7	+0.3
EBEN	**Beniarda**	**84.58**	**308**	P	pP	18 10 49.7	+0.5
	comp=Z,180nm,1.1s						
EALK	**Alkurruntz**	**84.63**	**313**	P	pP	18 10 49.3	0.0
	comp=Z,161nm,1.1s						
CART	**Cartagena**	**85.40**	**307**	*e*P	**P**	**18 10 46.0**	**+0.2**
	comp=Z,183nm,1.0s,mb6.2						
DLF	**Lyons Farm**	**85.63**	**324**	*e*P	pP	18 10 55.0	+1.0
DMUB	**Kingscourt**	**85.69**	**324**	*e*P	pP	18 10 55.0	+0.7
DCN	**Croghan**	**86.05**	**324**	*e*P	pP	18 10 57.0	+0.9
EVIA	**Vianos**	**86.34**	**309**	P	pP	18 10 58.8	+0.9
EVIA				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.9						
EVIA	**Vianos**	**86.34**	**309**	P	pP	18 10 58.8	+0.9
	comp=Z,80nm,1.0s						
ENIJ	**Nijar**	**86.47**	**307**	P	pP	18 10 59.6	+1.0
ENIJ				pmax	pmax		
	comp=Z,84nm,1.2s,mb5.8						
ENIJ	**Nijar**	**86.47**	**307**	P	pP	18 10 59.6	+1.0
	comp=Z,84nm,1.2s						
EQES	**Quesada**	**86.96**	**308**	P	pP	18 11 00.9	-0.1
	comp=Z,78nm,1.2s						
GUD	**Guadarrama**	**87.12**	**311**	P	pP	18 11 02.5	+0.8
GUD				pmax	pmax		
	comp=Z,91nm,0.9s,mb6.0						
GUD	**Guadarrama**	**87.12**	**311**	P	pP	18 11 02.5	+0.8
	comp=Z,91nm,0.9s						
ESDC	**Sonseca Array**	**87.21**	**310**	P	**P**	**18 10 54.9**	**+0.2**
	comp=Z,3.5nm,0.6s,mb4.8,baz=58,slow=4.7,SNR=19						
ESDC				pP	pP	18 11 02.7	+0.6
	comp=Z,29nm,0.8s,baz=57,slow=4.8,SNR=38						
ESDC	**Sonseca Array**	**87.21**	**310**	P	pP	18 11 02.2	+0.1
	comp=Z,50nm,0.9s						
ESLA	**Sonseca Array**	**87.21**	**310**	*e*P	**P**	**18 10 55.2**	**+0.6**
	comp=Z,17nm,1.0s,mb5.2						
EARI	**Arriondas**	**87.25**	**314**	P	pP	18 11 03.1	+0.8
	comp=Z,81nm,1.2s						
ERON	**Agron**	**87.71**	**307**	P	pP	18 11 04.3	-0.3
	comp=Z,16nm,0.8s						
ELUQ	**Luque**	**87.94**	**308**	P	pP	18 11 05.0	-0.7
ELUQ				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.5						
ELUQ	**Luque**	**87.94**	**308**	P	pP	18 11 05.0	-0.7
	comp=Z,27nm,0.8s						
ELOJ	**Sierra Loja**	**87.95**	**307**	P	pP	18 11 05.0	-0.7
ELOJ				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.2						
ELOJ	**Sierra Loja**	**87.95**	**307**	P	pP	18 11 05.0	-0.7
	comp=Z,14nm,0.9s						
IMA	**Indian Mountai**	**88.18**	**22**	P	**P**	**18 10 59.5**	**+0.9**
IMA				pmax	pmax		
	comp=Z,110nm,0.9s,mb6.1						
IMA	**Indian Mountai**	**88.18**	**22**	*e*P	**P**	**18 11 00.4**	**+1.8**
	comp=Z,27nm,1.1s,mb5.4						
EMIJ	**Mijas**	**88.57**	**307**	P	pP	18 11 07.6	-1.2
	comp=Z,58nm,0.8s						
EPON	**Pontenova**	**88.61**	**314**	P	pP	18 11 08.6	-0.2
	comp=Z,133nm,1.4s						
PBRG	**Braganca**	**88.73**	**312**	*e*pP	pP	18 11 10.1	+0.8
BORG	**Borgarnes**	**88.80**	**337**	LR	LR	18 53 08.1	
	comp=Z,1µm,20.8s,MS5.3,baz=216,slow=37						
ERUA	**La Rua**	**88.86**	**313**	P	pP	18 11 10.4	+0.4
ERUA				pmax	pmax		
	comp=Z,41nm,1.1s,mb5.7						
ERUA	**La Rua**	**88.86**	**313**	P	pP	18 11 10.4	+0.4
	comp=Z,41nm,1.1s						
EINC	**Incio**	**88.94**	**313**	P	pP	18 11 10.8	+0.5
	comp=Z,94nm,1.2s						
SYO	**Syowa Base**	**89.11**	**197**	⇓P	**P**	**18 11 05.6**	**+2.5**
SYO	**Syowa Base**	**89.11**	**197**	⇓PP	PP	18 14 33.6	-2.0
ESPR	**Espera**	**89.34**	**307**	P	pP	18 11 12.2	-0.2
	comp=Z,102nm,1.1s						
SUMG	**Summit**	**89.55**	**347**	*e*P	**P**	**18 11 06.0**	**+1.0**
	comp=Z,29nm,1.1s,mb5.5						
PVRL	**Vila Real**	**89.57**	**312**	*e*pP	pP	18 11 14.5	+1.1
ELOB	**Lobios**	**89.66**	**313**	P	pP	18 11 14.0	+0.2
	comp=Z,97nm,1.1s						
MTE	**Manteigas**	**89.69**	**311**	*e*P	**P**	**18 11 08.2**	**+1.8**
MTE				*e*pP	pP	18 11 15.5	+1.6
MTE	**Manteigas**	**89.69**	**311**	*e*P	**P**	**18 11 08.2**	**+1.8**
MTE				*e*	pP	18 11 14.8	+0.9
STS	**Santiago**	**89.72**	**314**	P	pP	18 11 14.2	+0.2
STS				pmax	pmax		
	comp=Z,73nm,1.0s,mb6.0						
STS	**Santiago**	**89.72**	**314**	P	pP	18 11 14.2	+0.2
	comp=Z,73nm,1.0s						
EBAD	**Badajoz**	**89.73**	**310**	P	pP	18 11 13.4	-0.8
	comp=Z,34nm,1.9s						
PCBR	**Castelo Branco**	**89.79**	**311**	*e*P	**P**	**18 11 08.5**	**+1.6**
PCBR				*e*pP	pP	18 11 15.4	+1.0
PVIS	**Viseu**	**89.86**	**312**	*e*P	**P**	**18 11 08.4**	**+1.2**
PVIS				*e*pP	pP	18 11 16.0	+1.3
EZAM	**Zamans**	**90.03**	**313**	P	pP	18 11 16.4	+0.9
EZAM				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.5						
EZAM	**Zamans**	**90.03**	**313**	P	pP	18 11 16.4	+0.9
	comp=Z,29nm,1.1s						
RPZ	**Rata Peaks**	**90.24**	**135**	LR	LR	18 52 11.8	
	comp=Z,2µm,21.6s,MS5.5,baz=295,slow=36						
EGRO	**El Granado**	**90.42**	**308**	P	pP	18 11 17.3	-0.1
	comp=Z,192nm,1.2s						
PALC	**Alcoutim**	**90.43**	**308**	*e*P	**P**	**18 11 11.8**	**+1.8**
PALC				*e*pP	pP	18 11 18.6	+1.2
PTOM	**Tomar**	**90.54**	**311**	*e*pP	pP	18 11 19.5	+1.6
PBEJ	**Beja**	**90.57**	**309**	*e*P	**P**	**18 11 12.5**	**+1.9**
PBEJ				*e*pP	pP	18 11 19.3	+1.2
COLA	**College**	**90.89**	**22**	*e*P	**P**	**18 11 12.8**	**+1.4**
COLA				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.5						
COLA	**College**	**90.89**	**22**	*e*P	**P**	**18 11 12.8**	**+1.4**
	comp=Z,26nm,1.1s,mb5.5						
SPU	**Mount Spurr**	**91.07**	**26**	*e*P	**P**	**18 11 13.2**	**+0.9**
SPU				*e*PP	PP	18 14 51.2	-0.2
RSO	**Redoubt South**	**91.10**	**27**	*e*P	**P**	**18 11 13.1**	**+0.7**
ILAR	**Eielson Array**	**91.29**	**22**	P	**P**	**18 11 12.9**	**-0.3**
	comp=Z,8.8nm,1.0s,mb5.0,baz=298,slow=4.2,SNR=43						
ILAR				LR	LR	18 59 37.6	

	comp=Z,994nm,20.2s,MS5.2,baz=156,slow=40						
PTEO	Sao Teotonio	91.36	309	epP	pP	18 11 23.3	+1.6
PMR	Palmer	92.10	25	eP	P	18 11 17.7	+0.7
PMR				pmax	pmax		
	comp=Z,65nm,1.2s,mb5.8						
PMR	Palmer	92.10	25	eP	P	18 11 17.7	+0.7
	comp=Z,65nm,1.2s,mb5.8						
SLKM	Skilak Lake	92.18	26	eP	P	18 11 18.4	+1.0
SLKM				e		18 11 28.3	
INK	Inuvik	93.23	16	P	P	18 11 22.4	+0.3
	comp=Z,31nm,1.3s,mb5.6,baz=302,slow=5.4,SNR=14						
URZ	Urewera	93.28	128	LR	LR	18 54 31.0	
	comp=Z,1µm,20.1s,MS5.3,baz=279,slow=36						
MENT	Mentasta	93.48	22	eP	P	18 11 25.9	+2.5
DBIC	Dimbokro	95.78	278	P	P	18 11 36.6	+1.5
DBIC				pmax	pmax		
	comp=Z,57nm,1.5s						
DBIC	Dimbokro	95.78	278	LR	LR	18 55 39.9	
	comp=Z,1µm,19.5s,MS5.3,baz=49,slow=36						
DBIC	Dimbokro	95.78	278	P	P	18 11 36.6	+1.5
	comp=Z,57nm,1.5s,mb5.8						
VNDA	Vanda	97.51	168	P	P	18 11 41.9	+0.4
	comp=Z,1.6nm,0.8s,mb4.6,baz=298,slow=5.2,SNR=4.3						
VNDA				LR	LR	18 51 58.9	
	comp=Z,2µm,19.3s,MS5.5,baz=301,slow=33						
YKA	Yellowknife Ar	102.54	13	P	Pdif	18 12 04.7	+0.3
	comp=Z,0.7nm,0.9s,baz=329,slow=4.6,SNR=7.7						
YKA				pP		18 12 12.2	
	comp=Z,1.1nm,0.7s,baz=329,slow=3.8,SNR=12						
YKA				PP	PP	18 16 18.3	-1.8
	comp=Z,1.9nm,0.9s,baz=335,slow=7.5,SNR=8.0						
YKA				PKKPbc		18 28 04.9	
	comp=Z,0.5nm,0.8s,baz=148,slow=2.5,SNR=5.2						
SCHQ	Schefferville	110.93	347	PKKPbc		18 27 38.5	
	comp=Z,2.3nm,0.7s,baz=222,slow=1.9,SNR=5.1						
MSO	Missoula	116.58	20	ePKPdf	PKPdf	18 16 51.9	-3.5
ULM	Lac du Bonnet	117.33	6	pPKP		18 17 01.7	
	comp=Z,1.7nm,0.4s,baz=8.5,slow=4.8,SNR=2.7						
REDW	Red Top Meadow	120.67	20	ePKPdf	PKPdf	18 16 58.5	-5.0
PDAR	Pinedale Array	121.62	19	PKP	PKPdf	18 17 02.4	-3.0
	comp=Z,1.7nm,0.7s,baz=46,slow=1.6,SNR=16						
PDAR				PKKPbc		18 27 04.8	
	comp=Z,2.8nm,1.2s,baz=153,slow=3.3,SNR=4.8						
NVAR	Mina Array Bea	121.91	28	PKP	PKPdf	18 17 04.0	-2.1
	comp=Z,4.0nm,0.6s,baz=299,slow=2.1,SNR=11						
HWUT	Hardware Ranch	121.98	21	ePKPdf	PKPdf	18 17 02.2	-3.8
MSU	Marysvale	124.46	23	ePKIKP	PKPdf	18 17 08.2	-2.7
ERPA	Erie	125.46	353	PKPdf	PKPdf	18 17 11.9	-0.9
NEN	Nelson	125.77	27	ePKPdf	PKPdf	18 17 09.1	-4.5
ANMO	Albuquerque	129.71	20	ePKIKP	PKPdf	18 17 18.8	-2.4
WCI	Wyandotte Cave	129.77	359	P	Pdif	18 14 12.2	+7.3
LAZ	Ladron	129.97	21	ePKPdf	PKPdf	18 17 20.6	-1.1
LAZ				eSKP		18 20 40.8	
LPM	Los Pinos Moun	130.23	21	ePKPdf	PKPdf	18 17 20.8	-1.4
BNM	Barren Site	130.38	21	ePKPdf	PKPdf	18 17 20.7	-1.8
BNM				eSKP		18 20 42.3	
TUC	Tucson	130.38	26	ePKPdf	PKPdf	18 17 21.4	-1.1
TUC				eSKP		18 20 42.7	
WVT	Waverly	131.88	0	ePKIKP	PKPdf	18 17 22.6	-2.7
CPRX	Cap Rock	132.32	19	ePKPpre		18 17 16.1	
GDL2	Guadalupe Moun	132.93	20	ePKPdf	PKPdf	18 17 21.8	-5.6
GOGA	Godfrey	134.43	355	PKIKP	PKPdf	18 17 26.3	-3.8
GOGA				e		18 17 35.0	
GOGA	Godfrey	134.43	355	ePKPdf	PKPdf	18 17 24.8	-5.3
TXAR	Lajitas Array	135.79	20	PKP	PKPdf	18 17 30.2	-2.5
	comp=Z,2.1nm,0.6s,SNR=8.1						
TXAR				PP	PP	18 20 05.8	-4.7
	comp=Z,2.8nm,0.9s,slow=2.5,SNR=5.3						
JCT	Junction City	135.88	15	ePKIKP	PKPdf	18 17 30.0	-2.8
BAO	Brasilia Array	141.58	260	PKP	PKPdf	18 17 41.1	-2.5
BAO				e		18 17 48.9	
BDFB	Brasilia	141.60	260	PKP	PKPdf	18 17 40.7	-2.9
	comp=Z,16nm,1.1s,baz=90,slow=2.2,SNR=9.3						
TRQA	Tornquist	145.70	217	ePKPdf	PKPdf	18 17 47.2	-2.8
TEIG	Tepich	147.71	1	ePKPdf	PKPdf	18 17 53.7	-0.2
PCRV	Puerto La Cruz	148.21	314	PKPbc	PKPdf	18 17 53.7	-1.2
	comp=Z,14nm,0.5s,baz=223,slow=4.5,SNR=4.4						
PCRV				pPKPbc		18 18 01.4	
	comp=Z,75nm,0.9s,baz=58,slow=5.2,SNR=7.4						
SDV	Santo Domingo	153.15	321	PKPbc	PKPdf	18 18 06.5	+4.1
	comp=Z,6.3nm,0.7s,baz=67,slow=6.7,SNR=5.8						
SDV	Santo Domingo	153.15	321	ePKPdf	PKPdf	18 17 59.6	-2.7
ROSC	El Rosal	158.56	322	PKPab	PKPab	18 18 43.0	+0.4
	comp=Z,12nm,0.4s,baz=262,slow=22,SNR=5.0						
LVC	Limon Verde	159.55	237	pPKP		18 18 16.6	
	comp=Z,6.0nm,1.0s,baz=332,slow=2.1,SNR=5.9						
LVC				pPKPab		18 18 54.8	
	comp=Z,12nm,0.8s,baz=101,slow=6.5,SNR=11						
LPAZ	La Paz	160.84	256	ePKIKP	PKPdf	18 18 08.6	-3.3
LPAZ	La Paz	160.84	256	PKP	PKPdf	18 18 08.8	-3.1
	comp=Z,1.5nm,0.8s,baz=66,slow=5.2,SNR=5.7						
LPAZ				pPKP		18 18 17.3	
	comp=Z,5.9nm,1.1s,baz=11,slow=6.1,SNR=9.3						
LPAZ				PKPab	PKPab	18 18 53.0	+0.8
	comp=Z,15nm,1.2s,baz=80,slow=8.5,SNR=8.0						
LPAZ				pPKPab		18 18 59.1	
	comp=Z,48nm,1.0s,baz=88,slow=6.5,SNR=30						
OTAV	Otavalo	164.70	324	ePKPdf	PKPdf	18 18 13.4	-2.5
OTAV				ePKPab	PKPab	18 19 10.1	+0.9
OTAV				ePP	PP	18 23 02.8	+6.0

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*NEIC **30** 18:00:14.0, 15.97N×100.54W, h15^{km}, MD3.8(MEX), After MEX.*

MEX 30 18:00:14.5±1.1**, 16.00N×100.54W, h16^{km}**±53^{km}**, MD3.8, 1C, Off coast of Guerrero**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ACX	Acapulco	1.05	35	i P	Pb	18 00 31.3	-2.6
ACX				i S	Sb	18 00 44.5	-2.7
ACX	Acapulco	1.05	35	i P	Pb	18 00 31.3	-2.6
ACX				i S	Sb	18 00 44.2	-3.0
CAIG	El Cayaco	1.08	14	i P	Pb	18 00 30.7	-3.6
CAIG				eS	Sb	18 00 43.4	-4.5
PNIG	Pinotepa	2.35	80	i P	Pn	18 00 49.9	-3.3
PNIG				i S	Sn	18 01 15.4	-6.5
PNIG	Pinotepa	2.35	80	⇑iP	Pn	18 00 49.9	-3.2
PNIG				i S	Sn	18 01 15.4	-6.5
PLIG	Platanillo	2.58	22	i P	Pn	18 00 52.4	-4.1
PLIG				i S	Sn	18 01 24.9	-2.9
PLIG	Platanillo	2.58	22	i P	Pn	18 00 52.4	-4.1
PLIG				i S	Sn	18 01 22.9	-4.8
PPM	Popocatepetl	3.56	31	eP	Pn	18 01 06.2	-4.1
PPM				i S	Sn	18 01 48.5	-3.9
VHO	Vista Hermosa	3.81	73	i P	Pn	18 01 11.7	-2.2
VHO				i S	Sn	18 01 53.7	-5.0

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*IDC **30** 18:03:59.8±0.7, 13.09N×93.51E, mb4.5/13, mb1 4.5/14, mb1mx4.4/21, mbtmp4.4/14, ML3.7/1, Error ellipse: s-maj=28.7km s-min=13.8km az=56.0*

ISC 30 18:04:00.4±5.5**, 13.11N**±0.08×**93.58E**±0.09**, h15^{km}**±35^{km}**, n14, σ0^{s}81**/15**, mb4.5**/13**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.41	43	Pn	Pn	18 05 50.8	+0.1
	0.3nm,0.3s,baz=239,slow=15,SNR=3.2						
CMAR				Sn	Sn	18 07 15.1	-0.2
	1.9nm,0.3s,baz=239,slow=33,SNR=6.2						
SONM	Songino Array	36.23	15	P	P	18 11 03.5	-1.2
	2.4nm,1.0s,mb4.1,baz=190,slow=11,SNR=3.7						
ZAL	Zalesovo	41.32	352	P	P	18 11 47.5	+0.6
	3.3nm,0.8s,mb4.0,baz=300,slow=10.0,SNR=6.5						
NWAO	Narrogin (SRO)	51.05	154	P	P	18 13 03.7	-0.6
	6.6nm,0.5s,mb4.8,baz=341,slow=9.3,SNR=8.2						
WRA	Warramunga Arr	51.84	129	P	P	18 13 10.8	+0.3
	12nm,0.6s,mb5.0,baz=313,slow=8.1,SNR=48						
ASAR	Alice Springs	53.76	133	P	P	18 13 24.9	+0.1
	4.9nm,0.5s,mb4.7,baz=308,slow=6.9,SNR=40						
ASAR				PcP	PcP	18 14 28.9	-1.7
	1.9nm,0.7s,baz=300,slow=4.5,SNR=4.3						
PMG	Port Moresby	57.71	110	P	P	18 13 54.1	+0.8
	8.5nm,0.7s,mb4.9,baz=349,slow=6.7,SNR=5.1						
BRTR	Keskin Array B	58.68	309	P	P	18 13 57.4	-2.4
	2.2nm,0.7s,mb4.3,baz=122,slow=7.9,SNR=5.1						
STKA	Stephens Creek	64.15	135	P	P	18 14 36.1	-0.7
	2.8nm,0.6s,mb4.4,baz=317,slow=9.2,SNR=5.4						
FINES	FINESS Array B	67.87	331	P	P	18 14 59.7	-0.4
	2.9nm,0.7s,mb4.5,baz=90,slow=9.5,SNR=5.4						
ARCES	ARCESS Array B	70.19	340	P	P	18 15 14.7	+0.4
	6.1nm,0.9s,mb4.5,baz=97,slow=6.3,SNR=6.0						
GERES	GERESS Array B	73.60	317	P	P	18 15 35.8	+0.8
	1.7nm,0.8s,mb4.0,baz=90,slow=5.3,SNR=5.2						
HFS	Hagfors	73.70	329	P	P	18 15 36.1	+0.9
	4.4nm,0.7s,mb4.5,baz=90,slow=10,SNR=3.6						
NOA	NORSAR Array B	74.94	330	P	P	18 15 43.0	+0.6
	1.9nm,0.7s,mb4.2,baz=90,slow=5.8,SNR=3.8						

IDC 30 18:12:08.3±1.7**, 12.15N×92.43E, h22^{km}**±5^{km}**, mb3.7**/5**, mb1 3.9**/6**, mb1mx3.7**/16**, mbtmp3.8**/6**, ML3.8**/1**, Error ellipse: s-maj=56.1km s-min=18.3km az=73.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.88	44	Pn	P	18 14 14.9	-3.5
	0.3nm,0.3s,baz=237,slow=16,SNR=10.0						
CMAR				Sn	Sn	18 16 01.1	+2.4
	0.1nm,0.3s,baz=236,slow=30,SNR=5.5						
SONM	Songino Array	37.45	16	P	P	18 19 19.9	-2.0
	0.5nm,0.8s,baz=207,slow=6.8,SNR=3.4						
SONM				pP	pP	18 19 27.4	-1.0
	1.0nm,0.9s,baz=193,slow=7.7,SNR=4.6						
ZAL	Zalesovo	42.12	353	pP	pP	18 20 05.9	-1.2
	0.8nm,0.5s,baz=285,slow=10,SNR=1.8						
WRA	Warramunga Arr	52.14	127	P	P	18 21 17.4	-2.3
	1.4nm,0.6s,baz=300,slow=10.0,SNR=18						
WRA				pP	pP	18 21 23.7	-2.6
	2.1nm,0.8s,baz=306,slow=8.4,SNR=7.6						
ASAR	Alice Springs	53.96	131	P	P	18 21 30.8	-2.3
	1.1nm,0.8s,baz=311,slow=6.7,SNR=23						
ASAR				pP	pP	18 21 37.7	-2.0
	0.9nm,0.7s,baz=308,slow=6.8,SNR=4.6						
STKA	Stephens Creek	64.27	134	P	P	18 22 42.6	-1.9
	1.5nm,1.1s,baz=333,slow=4.5,SNR=4.5						
STKA				pP	pP	18 22 49.1	-2.2
	1.6nm,0.7s,baz=169,slow=5.9,SNR=2.6						
ARCES	ARCESS Array B	70.70	340	P	P	18 23 21.9	-2.3
	2.0nm,0.7s,baz=82,slow=6.4,SNR=3.6						
GERES	GERESS Array B	73.55	318	pP	pP	18 23 47.1	-1.3
	0.5nm,0.7s,baz=72,slow=4.2,SNR=3.2						

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*CSEM **30** 18:16:05.7±0.5, 67.16N×20.71E, h0^{km}, ML2.7, Error ellipse: s-maj=12.4km s-min=8.9km az=39.0, After UPP*

*HEL **30** 18:16:14.6±0.6, 67.17N×20.64E, ML1.7, ML3.0(UPP), Explosion*

UPP 30 18:16:05.7, 67.16N×20.71E, h0^{km}, ML2.7, Suspected Mining explosion., Sweden

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DUNU	Dundret	0.07	237	i P	Pg	18 16 07.0	0.0
DUNU	Dundret	0.07	237	P	Pg	18 16 07.0	0.0
	baz=36						
MASU	Masugnsbyn	0.58	58	i P	Pg	18 16 16.4	-0.9
MASU	Masugnsbyn	0.58	58	P	Pg	18 16 16.4	-0.9
	baz=238						
KUA	Kurravaara	0.81	350	i P	Pg	18 16 20.6	-1.3
ERTU	Ertsjaerv	0.84	135	i P	Pg	18 16 21.0	-1.5
ERTU	Ertsjaerv	0.84	135	P	Pg	18 16 21.0	-1.5
	baz=304						
PAJU	Pajala	0.95	97	eP	Pg	18 16 23.3	-1.4
PAJU	Pajala	0.95	97	P	Pg	18 16 23.3	-1.4
	baz=286						
SGF	Sodankyl	2.27	80	eP	Pn	18 16 53.7	+8.7
SGF				ePG	Pg	18 16 55.3	+4.2
SGF				eS	Sn	18 17 21.9	+7.8
OUL	Oulu	2.96	132	eS	Sn	18 17 37.6	+6.0
OUL				eSB	Sb	18 17 44.8	+8.8
KEV	Kevo	3.49	39	ePG	Pg	18 17 16.9	+1.5
KEV				eS	Sn	18 17 52.1	+7.1
MSF	Maaselka	3.56	107	ePG	Pg	18 17 18.9	+2.2
MSF				eS	Sn	18 17 54.1	+7.5
MSF				eSG	Sg	18 18 04.1	-0.1
MSF				MSG		18 18 08.3	
	comp=Z,1.5nm,0.3s						
KU4	Oulanka	3.60	99	ePG	Pg	18 17 20.9	+3.3
KU4				eS	Sn	18 17 54.8	+7.0
KU4				eSG	Sg	18 18 06.1	+0.4
VAF	Ylistaro	4.22	168	eSG	Sg	18 18 24.7	-1.4
KJN	Kajaani	4.23	134	ePG	Pg	18 17 31.5	+1.3
KJN				eS	Sn	18 18 09.9	+6.1
KJN				eSG	Sg	18 18 24.7	-2.0
KJN				MSG		18 18 28.9	
	comp=Z,0.9nm,0.3s						

IDC 30 18:22:30.7±19.0**, 6.10N×95.01E, mb3.4**/2**, mb1 3.7**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, ML3.8**/1**, Error ellipse: s-maj=493.9km s-min=43.5km az=83.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.86	17	Pn	P	18 25 34.7	-3.0
	0.2nm,0.3s,baz=229,slow=14,SNR=24						
WRA	Warramunga Arr	46.54	125	P	P	18 31 00.9	-1.3
	0.4nm,0.7s,baz=303,slow=9.4,SNR=4.6						
ASAR	Alice Springs	48.12	129	P	P	18 31 12.2	-2.4
	1.6nm,1.3s,baz=299,slow=7.8,SNR=7.3						
ASAR				pP	pP	18 31 21.9	+7.2
	0.3nm,0.5s,baz=302,slow=7.8,SNR=7.7						

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*BJI **30** 18:27:36.2, 15.25S×168.49E, h17^{km}, mB5.6, mb5.1, Ms5.3, Msz5.1*

*NEIC **30** 18:27:37.2±8.8, 15.41S×167.98E, h5^{km}±52^{km}, mb5.2/27, Error ellipse: s-maj=13.7km s-min=9.9km az=89.0*

*HRVD **30** 18:27:37.2±0.7, 15.46S×168.04E, h12^{km}, MW5.0/51, Centroid moment Tensor Solution. LP body waves: s10,c16;Mantle waves: s51,c82; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$2.70±.16; M$_{\theta\theta}$0.22±.15; M$_{\phi\phi}$-2.91±.12; M$_{r\theta}$2.03±.49; M$_{\theta\phi}$0.29±.11; M$_{\phi r}$1.89±.42; Best double couple: M$_0$3.9×10^{16} NP1:φ$_s$154°, δ33°, λ44°. NP2:φ$_s$25°, δ67°, λ115°. Principal axes: T 4.29, Plg59°, Azm331°; N -.76, Plg23°, Azm194°; P -3.52, Plg19°, Azm96°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*SYO **30** 18:27:43.5, 15.41S×167.91E, h50^{km}, MB5.1*

*IDC **30** 18:27:45.5±8.2, 15.44S×167.96E, h68^{km}±70^{km}, mb4.5/16, mb1 4.6/16, mb1mx4.6/18, mbtmp4.8/16, MS4.6/3, Ms1 4.6/3, ms1mx3.9/23, Error ellipse: s-maj=29.1km s-min=20.1km az=97.0*

ISC 30 18:27:38.0±5.3**, 15.47S**±0.06×**167.94E**±0.08**, h19^{km}**±36^{km}**, h20^{km}**±1.3^{km}**:pP-P, n78, σ0^{s}88**/62**, mb5.0**/44**, MS4.7**/5**, 1C-2D, Vanuatu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NOUC	Port Laguerre	6.77	193	eP	Pn	18 29 19.2	+0.3
NOUC				eS	Sn	18 30 35.2	-1.1
NOUC	Port Laguerre	6.77	193	eP	Pn	18 29 19.2	+0.3
NOUC				eS	Sn	18 30 35.2	-1.1
AFI	Afiamalu	19.69	88	eP	P	18 31 58.2	-11
CTA	Charters Tower	21.14	254	P	P	18 32 26.3	+1.9
	10nm,0.8s,mb4.2,baz=57,slow=18,SNR=6.2						
CTAO	Charters Tower	21.14	254	eP	P	18 32 23.4	-1.0
	50nm,1.4s,mb4.7						
PMG	Port Moresby	21.16	284	P	P	18 32 25.9	+1.4
	43nm,1.1s,mb4.7,baz=98,slow=7.3,SNR=15						
PMG				LR	LR	18 39 55.0	
	comp=Z,2µm,18.9s,MS4.5,baz=134,slow=34						
PMG	Port Moresby	21.16	284	eP	P	18 32 25.0	+0.4
	102nm,1.3s,mb5.0						
STKA	Stephens Creek	29.02	231	P	P	18 33 39.9	+0.9
	5.3nm,0.8s,mb4.3,baz=72,slow=7.0,SNR=9.4						
STKA	Stephens Creek	29.02	231	eP	P	18 33 39.7	+0.7
WRAB	Tennant Creek	32.27	257	eP	P	18 34 06.8	-1.1
	22nm,1.1s,mb4.9						
WRA	Warramunga Arr	32.28	257	P	P	18 34 07.1	-0.9
	9.1nm,0.9s,mb4.6,baz=86,slow=8.8,SNR=32						
WRA				PcP	PcP	18 36 55.3	-0.9
	3.6nm,0.9s,baz=87,slow=3.1,SNR=9.6						
ASAR	Alice Springs	33.02	250	P	P	18 34 14.2	-0.3
	30nm,1.1s,mb5.2,baz=80,slow=8.9,SNR=94						
ASAR				PcP	PcP	18 36 57.2	-0.9
	3.0nm,0.9s,baz=99,slow=2.0,SNR=5.9						
ASAR				LR	LR	18 46 34.2	
	comp=Z,1µm,19.9s,MS4.5,baz=87,slow=34						
PPT	Papeete	40.73	99	eLR	LR	18 46 43.4	
	1µm,26.5s						
PPT	Papeete	40.73	99	LR	LR	18 47 23.7	
	comp=Z,424nm,20.3s,MS4.3,baz=268,slow=29						
TBI	Tubuai	40.82	108	eLQ		18 45 08.3	
TBI				eLR	LR	18 46 46.2	
	747nm,30.0s						
MBWA	Marble Bar	45.98	255	eP	P	18 36 02.8	+0.7
	40nm,0.9s,mb5.3						
NWAO	Narrogin (SRO)	48.93	240	P	P	18 36 25.1	0.0
	37nm,0.9s,mb5.4,baz=81,slow=8.6,SNR=13						
NWAO	Narrogin (SRO)	48.93	240	eP	P	18 36 25.2	+0.1
	38nm,0.9s,mb5.4						
RKT	Rikitea	54.14	108	eLR	LR	18 53 01.8	
	858nm,25.0s						
DRV	Dumont d'Urvil	54.37	193	R		18 38 00.0	
TGY	Tagaytay City	54.98	300	P	P	18 37 10.3	-0.5
	44nm,0.4s,mb5.9,baz=294,slow=16,SNR=4.0						
MAJO	Matsushiro	58.86	332	eP	P	18 37 33.4	-4.6
	18nm,0.9s,mb5.1						
MAT	Matsushiro	58.86	332	P	P	18 37 35.8	-2.3
MAT	Matsushiro	58.86	332	eP	P	18 37 36.0	-2.1
VNDA	Vanda	62.14	181	P	P	18 37 59.9	0.0
	4.2nm,1.1s,mb4.5,baz=5.3,slow=6.5,SNR=6.1						
VNDA	Vanda	62.14	181	eP	P	18 37 59.5	-0.5
	6.5nm,1.1s,mb4.7						
SBA	Scott Base	62.40	180	eP	P	18 38 02.4	+0.8
	15nm,1.1s,mb5.0						
MDJ	Mudanjiang	69.24	332	eP	P	18 38 45.3	-0.6
	24nm,0.9s,mb5.1						
CN2	Changchun	70.61	329	eP	P	18 38 53.5	-0.7
CN2				AMB	AMB		
	comp=Z,20nm,1.0s,mb5.0						
ENH	Enshi	72.33	309	eP	P	18 39 03.7	-1.1
	comp=Z,40nm,1.2s,mb5.2						
GYA	Guiyang	72.67	305	P	P	18 39 07.0	+0.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
BJT	Baijiatuau	73.24	321	eP	P	18 39 09.6	-0.4
	comp=Z,22nm,1.1s,mb5.0						
BJI	Beijing	73.25	321	eP	P	18 39 10.0	0.0
BJI				AMB	AMB		
	comp=Z,14nm,1.1s,mb4.8						
QSPA	South Pole Qui	74.56	180	P	P	18 39 17.3	+0.5
	comp=Z,19nm,0.9s,mb5.0						
KMI	Kunming	75.24	302	P	P	18 39 23.0	+1.1
KMI				AMB	AMB		
	comp=Z,30nm,1.2s,mb5.1						
CM31	Chiang Mai Arr	75.84	294	eP	P	18 39 25.3	-0.1
	comp=Z,8.1nm,0.9s,mb4.7						
CMAR	Chiang Mai Arr	75.84	294	P	P	18 39 26.1	+0.8
	comp=Z,4.4nm,0.9s,mb4.4,baz=123,slow=4.2,SNR=15						
HHC	Hu-ho-hao-te	76.57	320	eP	P	18 39 29.8	+0.8
HHC				AP	pP	18 39 35.5	+0.5
HHC				XP	sP	18 39 40.5	+3.5
HHC				AMB	AMB		
	comp=Z,28nm,1.2s,mb5.1						
HHC				LR	LR		
	comp=N,529nm,17.8s,MS5.0						
HHC				LR	LR		
	comp=E,412nm,15.5s,MS5.0						
HHC				LR	LR		
	comp=Z,518nm,11.9s,MS5.1						
HIA	Hailar	77.25	330	eP	P	18 39 31.9	-0.7
	comp=Z,27nm,1.1s,mb5.1						
LZH	Lanzhou	79.29	312	⇑P	P	18 39 45.5	+1.3
LZH				AP	pP	18 39 52.8	+2.7
LZH				XP	sP	18 39 54.8	+2.7
LZH				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.3						
LZH				AMB	AMB		
	comp=Z,417nm,5.7s						
LZH				LR	LR		
	comp=E,445nm,11.0s						
LZH				LR	LR		
	comp=Z,735nm,12.6s,MS5.2						
MAW	Mawson	81.44	202	P	P	18 39 54.2	-0.7
	comp=Z,8.4nm,1.0s,mb4.6,baz=148,slow=8.1,SNR=5.4						
MAW	Mawson	81.44	202	eP	P	18 39 54.1	-0.8
	comp=Z,14nm,1.0s,mb4.8						
SLKM	Skilak Lake	82.82	19	eP	P	18 40 02.1	-0.1
YAK	Yakutsk	82.93	343	eP	P	18 40 01.9	-0.8
	comp=Z,16nm,0.8s,mb5.1						
ULN	Ulaanbaatar	83.11	324	eP	P	18 40 04.4	+0.5
	comp=Z,64nm,1.2s,mb5.5						
BILL	Bilibino	83.29	359	eP	P	18 40 03.6	-0.8
	comp=Z,30nm,1.3s,mb5.2						
SONM	Songino Array	83.47	323	P	P	18 40 05.8	0.0
	comp=Z,20nm,1.1s,mb5.1,baz=135,slow=3.5,SNR=61						
GTA	Gaotai	83.64	314	P	P	18 40 07.8	+0.9
GTA				AP	pP	18 40 13.8	+0.9
GTA				XP	sP	18 40 17.3	+2.4
GTA				AMB	AMB		
	comp=Z,36nm,1.1s,mb5.4						
SHL	Shillong	84.48	298	eP	P	18 40 13.0	+1.5
CMB	Columbia Colle	85.60	49	eP	P	18 40 16.9	+0.2
	comp=Z,15nm,1.2s,mb5.1						
IMA	Indian Mountai	86.20	15	eP	P	18 40 19.4	+0.4
	comp=Z,97nm,1.2s,mb5.9						
LSA	Lhasa	86.50	302	eP	P	18 40 22.1	+0.8
	comp=Z,11nm,0.9s,mb5.1						
COLA	College	86.83	17	eP	P	18 40 20.1	-2.1
	comp=Z,9.3nm,0.9s,mb5.0						
ILAR	Eielson Array	87.03	18	P	P	18 40 21.3	-1.8
	comp=Z,6.8nm,0.8s,mb4.9,baz=236,slow=5.4,SNR=52						
NVAR	Mina Array Bea	87.27	49	P	P	18 40 25.6	+0.6
	comp=Z,4.9nm,0.9s,mb4.7,baz=235,slow=9.8,SNR=6.9						
TPH	Tonopah	87.93	50	eP	P	18 40 29.5	+1.4
	comp=Z,19nm,1.2s,mb5.2						
SYO	Syowa Base	88.18	196	⇓P	P	18 40 28.8	+0.2
SYO	Syowa Base	88.18	196	⇓pP	pP	18 40 42.7	+8.1
BMN	Battle Mountai	88.79	47	eP	P	18 40 32.8	+0.7
	comp=Z,39nm,1.4s,mb5.5						
TRCR	Troy Canyon	89.23	50	eP	P	18 40 34.0	-0.3
BMO	Blue Mountains	90.35	43	eP	P	18 40 38.5	-0.9
	comp=Z,25nm,1.2s,mb5.4						
SNAA	Sanae	92.84	183	P	P	18 40 50.5	+0.3
	comp=Z,1.8nm,1.0s,mb4.5,baz=277,slow=8.5,SNR=6.8						
SNAA	Sanae	92.84	183	eP	P	18 40 49.8	-0.4
	comp=Z,13nm,1.2s,mb5.2						
HWUT	Hardware Ranch	93.21	48	eP	P	18 40 53.8	+1.2
	comp=Z,4.9nm,0.9s,mb4.9						
PDAR	Pinedale Array	94.98	47	P	P	18 41 01.4	+0.7
	comp=Z,1.1nm,0.9s,mb4.3,baz=270,slow=4.4,SNR=6.5						
YKA	Yellowknife Ar	97.91	27	P	P	18 41 12.9	-0.6
	comp=Z,4.8nm,0.9s,mb5.0,baz=253,slow=4.6,SNR=50						
DAVOX	Davos	143.83	334	PKP	PKPdf	18 47 11.5	-4.5
	comp=Z,8.2nm,1.1s,baz=301,slow=1.8,SNR=6.8						
VAI	Varese	145.02	334	ePKP	PKPdf	18 47 14.4	-3.8
SNTG	Esanatoglia	145.03	327	ePKP	PKPdf	18 47 15.5	-2.8
SFI	Santa Sofia	145.12	329	ePKP	PKPdf	18 47 16.1	-2.3
VMG	Vicchio	145.23	330	ePKP	PKPdf	18 47 17.8	-0.8
MCGN	Macugnaga	145.27	335	ePKP	PKPdf	18 47 16.1	-2.5
GSCL	Gusciola	145.40	331	ePKP	PKPdf	18 47 17.2	-1.6
ERBM	Eremo	145.43	331	ePKP	PKPdf	18 47 17.5	-1.5
ORO	Oropa	145.54	335	ePKP	PKPdf	18 47 16.1	-3.0
BOB	Bobbio (Coli)	145.60	332	ePKP	PKPdf	18 47 17.5	-1.7
LPG	La Plagne	146.14	336	eP	PKPbc	18 47 19.0	+1.8
	comp=Z,110nm,1.6s						
BNI	Bardonecchia	146.54	336	ePKPdf	PKPdf	18 47 18.3	-2.6

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*IDC **30** 18:29:16.3±1.2, 20.94N×97.82E, mb3.7/3, mb1 3.8/4, mb1mx3.6/18, mbtmp3.7/4, ML4.1/1, Error ellipse: s-maj=22.6km s-min=13.8km az=70.0*

ISC 30 18:29:15.3±1.4**, 20.9N**±0.1×**98.0E**±0.1**, h8^{km}**±10^{km}**, n8, σ0^{s}95**/13**, mb3.6**/3**, 2D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHRT	Chiangrai	2.01	121	⇓PN	Pn	18 29 52.0	+2.0
CHRT				PG	Pg	18 29 55.0	-0.5
CHRT				SG	Sn	18 30 14.0	-1.5
CMAR	Chiang Mai Arr	2.62	159	Pn	Pn	18 29 59.9	+1.2
	9.5nm,0.3s,baz=331,slow=13,SNR=238						
CMAR				Pg	Pg	18 30 06.8	-1.0
	98nm,0.3s,baz=332,slow=17,SNR=144						
CMAR				Lg		18 30 41.2	
	86nm,0.3s,baz=335,slow=34,SNR=9.3						
NANT	Nan	3.34	129	PG	Pn	18 30 04.0	-4.9
NANT				⇓PN	Pb	18 30 08.0	-6.5
NANT				SG	Sg	18 31 07.0	+0.5
IMP	Imphal	5.34	317	eP	Pb	18 30 48.3	-0.3
NST	Nakhon Sawan	5.62	158	P	Pn	18 30 41.2	0.0
SONM	Songino Array	27.70	12	P	P	18 35 06.4	+0.6
	0.2nm,0.5s,mb3.0,baz=196,slow=10,SNR=3.4						
BVAR	Borovoye Array	38.41	333	P	P	18 36 39.1	+0.2
	1.0nm,0.4s,mb3.9,baz=141,slow=11,SNR=10						
FINES	FINESS Array B	63.19	329	P	P	18 39 45.0	-0.9
	0.7nm,0.6s,mb4.0,baz=104,slow=5.7,SNR=4.5						

*IDC **30** 18:29:24.4±0.7, 7.55N×93.93E, mb4.1/10, mb1 4.3/10, mb1mx4.1/18, mbtmp4.1/10, Error ellipse: s-maj=45.7km s-min=16.4km az=46.0*

ISC 30 18:29:27.5±0.7**, 7.6N**±0.2×**94.0E**±0.2**, h33^{km}, n20, σ0^{s}61**/17**, mb4.3**/17**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PKI	Pulchoki	21.50	339	*e*P	P	18 34 15.0	-0.5
	14nm,0.5s,mb4.5						
DMN	Daman	21.64	338	*e*P	P	18 34 16.9	-0.1
	20nm,0.8s,mb4.6						
GUN	Gumba	21.64	340	*e*P	P	18 34 17.4	+0.4
	56nm,1.1s,mb4.9						
KKN	Kakani	21.74	339	*e*P	P	18 34 17.3	-0.7
	30nm,0.9s,mb4.7						
GKN	Gorkha	22.17	338	*e*P	P	18 34 22.1	-0.2
	42nm,0.9s,mb4.9						
KOLN	Koldanda	22.38	335	*e*P	P	18 34 24.9	+0.6
	24nm,0.7s,mb4.7						
SONM	Songino Array	41.48	13	P	P	18 37 13.6	+0.6
	1.5nm,0.7s,mb3.7,baz=196,slow=8.9,SNR=15						
SONM				PcP	PcP	18 39 11.9	+1.0
	0.4nm,0.5s,baz=209,slow=3.4,SNR=5.3						
WRA	Warramunga Arr	48.19	125	P	P	18 38 06.7	-0.3
	1.6nm,0.5s,mb4.3,baz=304,slow=8.7,SNR=19						
BVAR	Borovoye Array	49.23	341	PcP	PcP	18 39 38.9	+1.2
	0.7nm,0.6s,baz=162,slow=4.7,SNR=3.9						
ASAR	Alice Springs	49.82	130	P	P	18 38 19.5	-0.1
	1.7nm,0.7s,mb4.2,baz=302,slow=7.7,SNR=14						
ASAR				PcP	PcP	18 39 40.8	+0.6
	0.7nm,0.5s,baz=310,slow=3.2,SNR=3.9						
STKA	Stephens Creek	59.99	134	P	P	18 39 33.4	0.0
	0.6nm,0.4s,mb4.0,baz=282,slow=8.7,SNR=4.1						
BRTR	Keskin Array B	62.53	311	P	P	18 39 49.2	-1.2
	2.3nm,1.1s,mb4.2,baz=143,slow=7.6,SNR=5.6						
IDI	Anoyia	68.64	305	P	P	18 40 30.0	+0.3
	3.6nm,0.6s,mb4.5,baz=54,slow=11,SNR=5.6						
FINES	FINESS Array B	72.92	332	P	P	18 40 54.3	-0.7
	1.9nm,0.6s,mb4.2,baz=94,slow=6.0,SNR=12						
KAF	Kangasniemi	73.00	333	*e*p	P	18 40 49.5	-6.0
	0.7nm,0.4s,mb3.9						
KEV	Kevo	75.08	341	*e*p	pP	18 41 18.8	+1.1
	0.6nm,0.4s						
GERES	GERESS Array B	77.97	318	P	P	18 41 25.1	+1.0
	1.3nm,0.6s,mb4.1,baz=101,slow=6.8,SNR=8.7						
HFS	Hagfors	78.65	330	P	P	18 41 27.4	-0.2
	1.3nm,0.4s,mb4.2,baz=90,slow=3.0,SNR=9.3						
ESDC	Sonseca Array	91.32	310	P	P	18 42 32.4	+1.0
	0.4nm,0.4s,mb4.1,baz=63,slow=4.3,SNR=4.3						
PDAR	Pinedale Array	125.49	21	PKP	PKPdf	18 48 28.1	+2.5
	0.5nm,0.7s,baz=90,slow=4.4,SNR=3.5						

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*NSSP **30** 18:31:24.2, 38.55N×43.90E, h5^{km}, ML3.1*
*TIF **30** 18:31:27.4, 38.42N×44.06E, h12^{km}*
*CSEM **30** 18:31:31.1±0.2, 38.86N×43.81E, h2^{km}, MD3.3, Error ellipse: s-maj=8.5km s-min=3.2km az=128.0*
*ISK **30** 18:31:32.7, 38.78N×43.87E, h15^{km}, MD3.3*

ISC 30 18:31:33.4±1.2**, 38.70N**±0.06×**43.91E**±0.08**, h9^{km}**±10^{km}**, n17, σ1^{s}41**/22**, 2D, Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TVAN	Van	0.43	247	*i* P	Pg	18 31 41.4	-0.8
TVAN				*i* S	Sg	18 31 48.7	+0.6
VANT	Van	0.48	238	PG	Pg	18 31 44.1	+0.9
VANT				SG	Sg	18 31 54.2	+4.4
HKR	Hakkari	1.13	187	PN	Pn	18 31 55.8	+0.5
VRNZ	Vardanashen	1.36	9	⇓P	Pb	18 31 52.5	-6.2
VRNZ				S	Sb	18 32 17.1	+1.1
GNI	Garni	1.58	24	PN	Pn	18 32 00.2	-1.6
AMBZ	Amberd	1.71	9	⇓P	Pn	18 32 01.4	-2.2
VRT	Varto	1.91	284	*e*PN	Pn	18 32 05.3	-1.2
BTMT	Batman	1.97	256	*e*PN	Pn	18 32 07.9	+0.6
BEST	Besiri	2.23	250	*i* P	Pn	18 32 12.2	+1.1
BEST				*i* S	Sn	18 32 45.5	+6.5
ERZM	Erzurum	2.31	302	*i* P	Pn	18 32 11.0	-1.3
ERZM				*i* S	Sn	18 32 42.0	+1.0
EZM	Erzurum	2.32	302	*e*PN	Pn	18 32 11.1	-1.2
BINT	Bingol	2.68	275	*e*PN	Pn	18 32 15.5	-2.0
AKH	Akhalkalaki	2.73	353	*e*P	Pn	18 32 20.9	+2.7
DGRG	David-gareji	2.97	22	*e*P	Pn	18 32 21.0	-0.6
MTA	Mtatsminda	3.06	12	*i* P	Pn	18 32 26.1	+3.1
TBLG	Delisi	3.09	12	*e*P	Pn	18 32 25.8	+2.4
DUS	Dusheti	3.44	10	*e*P	Pn	18 32 34.9	+6.6

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*NAO **30** 18:45:06.7±2.5, 67.11N×20.72E, ML2.3*
*BER **30** 18:45:08.4±3.4, 67.21N×20.54E, ML2.0, ML2.3(NAO), Suspected explosion*

HEL 30 18:45:07.3±0.3**, 67.13N×20.72E, ML2.0, ML2.0**(BER)**, ML2.3**(NAO)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
KTK1	Kautokeino	2.11	25	*e*Sg	Sg	18 46 12.8	-4.8
KTK1				AML	AML	18 46 15.1	
	comp=Z,24nm,0.5s						
SGF	Sodankyl	2.27	79	*e*P	Pn	18 45 47.3	+0.7
SGF				*e*S	Sn	18 46 14.6	-1.2
TRO	Tromso	2.60	346	*e*Sg	Sg	18 46 25.1	-8.7
MOR8	Moi Rana	2.68	252	*e*Sg	Sg	18 46 25.5	-11
MOR8				AML	AML	18 46 29.3	
	comp=Z,14nm,0.5s						
ARA0	ARCESS Array S	3.00	34	Pn	Pn	18 45 55.4	-1.6
	baz=208,slow=16						
ARA0				Sn	Sn	18 46 32.5	-1.6
	baz=218,slow=22						
ARA0	ARCESS Array S	3.00	34	*e*P	Pn	18 45 55.4	-1.6
ARA0				*e*S	Sn	18 46 32.5	-1.6
KEV	Kevo	3.51	38	*e*P	Pn	18 46 02.9	-1.4
KEV				*e*S	Sn	18 46 43.4	-3.7
KEV				*e*SG	Sg	18 46 55.3	-8.8
MSF	Maaselka	3.55	106	*e*PG	Pg	18 46 10.2	-8.0
MSF				*e*SG	Sg	18 46 54.7	-11
MSF				MSG		18 47 00.0	
	comp=Z,4.5nm,0.4s						
KU4	Oulanka	3.60	98	*e*P	Pn	18 46 02.9	-2.6
KU4				*e*S	Sn	18 46 46.2	-3.1
VAF	Ylistaro	4.19	168	*e*SG	Sg	18 47 16.8	-10
KJN	Kajaani	4.21	133	*e*S	Sn	18 47 02.0	-2.9
KJN				*e*SG	Sg	18 47 16.0	-12
KJN				MSG		18 47 19.1	
	comp=Z,2.3nm,0.3s						
APA0	Apatity Array	4.76	79	Sn	Sn	18 47 14.6	-4.3
	baz=274,slow=28						
APA0				Lg		18 47 34.6	
	baz=271,slow=37						
APA0	Apatity Array	4.76	79	*e*S	Sn	18 47 14.6	-4.3
APA0				*e*SG		18 47 34.6	
FIA0	FINESS Array S	6.17	155	Sn	Sn	18 47 48.1	-6.0
	baz=348,slow=28						
FIA0				Lg		18 48 21.6	
	baz=343,slow=28						
FIA0	FINESS Array S	6.17	155	*e*S	Sn	18 47 48.1	-6.0
FIA0				*e*		18 48 21.6	
HFS	Hagfors	7.69	207	Sn	Sn	18 48 23.3	-8.7
	baz=16,slow=22						
HFS	Hagfors	7.69	207	*e*S	Sn	18 48 23.3	-8.7

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*IDC **30** 18:48:56.1±1.0, 6.25N×92.67E, mb4.0/9, mb1 4.1/10, mb1mx4.0/21, mbtmp3.9/10, Error ellipse: s-maj=41.0km s-min=19.7km az=45.0*

ISC 30 18:48:59.4±0.8**, 6.2N**±0.1×**92.7E**±0.1**, h33^{km}, n17, σ0^{s}91**/18**, mb4.2**/15**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.58	26	Pn	P	18 52 11.2	-1.1
	baz=218,slow=15,SNR=5.5						
VIS	Vishakhapatnam	14.66	322	*e*P	P	18 52 24.6	-1.8
VIS				*e*S	S	18 54 48.0	-21
PKI	Pulchoki	22.34	343	*e*P	P	18 53 57.0	+1.1
	12nm,0.5s,mb4.6						
DMN	Daman	22.46	342	*e*P	P	18 53 58.0	+0.8
	20nm,0.7s,mb4.7						
GUN	Gumba	22.52	344	*e*P	P	18 53 58.2	+0.4
	29nm,1.1s,mb4.6						
KKN	Kakani	22.58	343	*e*P	P	18 53 59.2	+0.8
	31nm,1.1s,mb4.6						
GKN	Gorkha	22.98	341	*e*P	P	18 54 03.0	+0.7
	28nm,0.7s,mb4.8						
KOLN	Koldanda	23.11	339	*e*P	P	18 54 04.9	+1.3
	37nm,1.3s,mb4.7						
SONM	Songino Array	43.07	13	P	P	18 56 57.9	-0.1
	0.9nm,0.7s,mb3.6,baz=195,slow=9.5,SNR=8.5						
WRA	Warramunga Arr	48.48	123	P	P	18 57 41.3	0.0
	1.5nm,0.8s,mb4.1,baz=304,slow=8.8,SNR=6.4						
ASAR	Alice Springs	49.97	128	P	P	18 57 52.9	+0.2
	0.9nm,0.5s,mb4.0,baz=300,slow=7.8,SNR=10						
BVAR	Borovoye Array	50.11	343	P	P	18 57 52.0	-1.4
	0.4nm,0.6s,mb3.6,baz=180,slow=7.4,SNR=4.1						
BRTR	Keskin Array B	62.46	312	P	P	18 59 21.5	-0.4
	2.0nm,0.8s,mb4.3,baz=112,slow=6.5,SNR=7.1						
AKASG	Malin Array Be	68.58	322	P	P	18 59 59.5	-1.5
	0.7nm,0.6s,mb3.8,baz=91,slow=5.3,SNR=4.8						
MLR	Muntele Rosu	69.38	316	P	P	19 00 05.8	-0.2
	1.0nm,0.6s,mb3.9,baz=243,slow=22,SNR=3.5						
GERES	GERESS Array B	78.12	318	P	P	19 00 57.9	+1.0
	1.4nm,0.7s,mb4.0,baz=108,slow=4.2,SNR=9.1						
DAVOX	Davos	80.61	316	P	P	19 01 10.5	+0.1
	2.5nm,0.7s,mb4.3,baz=121,slow=8.7,SNR=5.9						

IDC 30 18:52:31.4±3.1**, 8.31N×92.55E, h37^{km}**±8^{km}**, mb3.3**/4**, mb1 3.5**/5**, mb1mx3.3**/18**, mbtmp3.4**/5**, ML3.6**/1**, Error ellipse: s-maj=95.9km s-min=20.8km az=77.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.85	31	Pn	P	18 55 18.7	-2.1
	0.1nm,0.3s,baz=235,slow=14,SNR=4.3						
SONM	Songino Array	41.11	14	P	P	19 00 11.2	-2.1
	0.2nm,0.4s,baz=205,slow=6.3,SNR=5.6						
SONM				pP	pP	19 00 22.2	-1.9
	0.9nm,0.8s,baz=201,slow=8.4,SNR=5.6						
WRA	Warramunga Arr	49.79	125	P	P	19 01 20.4	-2.4
	0.6nm,0.6s,baz=304,slow=8.9,SNR=7.9						
WRA				pP	pP	19 01 32.8	-0.9
	1.3nm,0.6s,baz=302,slow=8.8,SNR=6.5						
ASAR	Alice Springs	51.40	129	P	P	19 01 32.8	-2.2
	0.7nm,0.7s,baz=300,slow=7.1,SNR=8.4						
ASAR				pP	pP	19 01 42.9	-3.0
	0.8nm,0.6s,baz=300,slow=6.8,SNR=5.3						
ASAR				PcP	PcP	19 02 48.7	-0.7
	0.2nm,0.6s,baz=314,slow=3.4,SNR=4.5						
ASAR				pPcP		19 02 59.5	
	0.4nm,0.6s,baz=314,slow=4.0,SNR=4.3						
STKA	Stephens Creek	61.54	133	P	P	19 02 44.0	-3.3
	1.0nm,0.8s,baz=342,slow=6.4,SNR=3.3						

IDC 30 18:59:11.0±4.1**, 8.29N×91.50E, mb3.5**/2**, mb1 3.7**/3**, mb1mx3.4**/18**, mbtmp3.5**/3**, ML3.9**/1**, Error ellipse: s-maj=105.6km s-min=35.1km az=76.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.43	35	Pn	P	19 02 08.9	-3.3
	0.2nm,0.3s,baz=230,slow=14,SNR=8.2						
SONM	Songino Array	41.39	15	P	P	19 06 59.2	-1.4
	0.9nm,0.8s,baz=199,slow=8.4,SNR=8.4						
SONM				pP	pP	19 07 09.0	+8.4
	1.9nm,1.0s,baz=193,slow=8.6,SNR=9.0						
WRA	Warramunga Arr	50.64	124	P	P	19 08 12.2	-2.1
	0.3nm,0.6s,baz=302,slow=9.6,SNR=4.9						

IDC 30 19:01:31.9±3.0**, 6.35N×93.35E, mb3.6**/3**, mb1 3.9**/4**, mb1mx3.5**/18**, mbtmp3.6**/4**, ML3.4**/1**, Error ellipse: s-maj=102.3km s-min=28.6km az=66.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.22	24	Pn	P	19 04 40.9	-2.7
	0.1nm,0.3s,baz=218,slow=14,SNR=6.4						
ZAL	Zalesovo	47.95	353	P	P	19 10 12.1	-2.0
	0.8nm,0.3s,baz=259,slow=2.3,SNR=4.6						
WRA	Warramunga Arr	48.04	124	P	P	19 10 12.7	-2.6
	0.3nm,0.7s,baz=302,slow=8.7,SNR=3.4						
ASAR	Alice Springs	49.57	128	P	P	19 10 25.6	-1.4
	0.5nm,0.8s,baz=301,slow=7.8,SNR=5.2						

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*SYO **30** 19:18:01.2, 2.69N×94.33E, h10^{km}, MB5.3, MS4.6*
*BJI **30** 19:18:02.8, 2.66N×94.33E, h32^{km}, mB5.2, mb5.2, Ms5.1, Msz4.9*
*MOS **30** 19:18:03.2±1.0, 2.72N×94.32E, h33^{km}, mb5.5/47, MS4.6/12, Error ellipse: s-maj=11.1km s-min=5.7km az=115.1*
*NEIC **30** 19:18:04.2±0.2, 2.70N×94.39E, h30^{km}, mb5.3/46, MS4.6/14, Error ellipse: s-maj=7.7km s-min=5.5km az=67.0*
*IDC **30** 19:18:04.7±0.4, 2.83N×94.34E, h27^{km}±2^{km}, mb4.6/16, mb1 4.7/17, mb1mx4.7/18, mbtmp4.7/17, ML4.4/1, MS4.3/7, Ms1 4.3/7, ms1mx4.1/21, Error ellipse: s-maj=19.1km s-min=10.4km az=59.0*
*HRVD **30** 19:18:04.2±0.6, 2.51N×94.24E, h12^{km}, MW4.9/44, Centroid moment Tensor Solution. LP body waves: s16,c23;Mantle waves: s44,c74; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.08±.17; $M_{\theta\theta}$-1.08±.12; $M_{\phi\phi}$-1.00±.18; $M_{r\theta}$0.38±.43; $M_{\theta\phi}$2.56±.11; $M_{\phi r}$-0.04±.48; Best double couple: $M_0$2.9×10^{16} NP1:ϕ_s334°,δ45°,λ118°. NP2:ϕ_s117°,δ51°,λ64°. Principal axes: T 2.18, Plg70°, Azm323°; N 1.44, Plg20°, Azm133°; P -3.62, Plg3°, Azm224°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 30 19:18:02.6±0.2**, 2.75N**±0.04×**94.37E**±0.04**, h28^{km}, h28^{km}**±.5^{km}**:pP-P, n282, σ0^{s}98**/268**, mb5.2**/93**, MS4.7**/33**, 32C-13D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
NST	Nakhon Sawan	14.04	23	P	P	19 21 22.0	-0.2
PALK	Pallekele	14.34	289	*e*P	P	19 21 21.4	-4.7
	88nm,0.9s						
COCO	West Island	15.04	171	P	P	19 21 31.1	-4.2
	135nm,1.1s						
KKTK	Khon Kaen	15.86	31	P	P	19 21 46.0	+0.2
	741nm,1.0s						
CM31	Chiang Mai Arr	16.24	16	*e*P	P	19 21 49.8	-0.9
	425nm,1.1s						
CM31				*e*		19 21 54.2	
CM31				*e*		19 22 02.9	
CMAR	Chiang Mai Arr	16.24	16	Pn	P	19 21 48.9	-1.9
	0.5nm,0.3s,baz=203,slow=11,SNR=122						
CMAR				LR	LR	19 27 60.0	
	comp=Z,703nm,20.6s,baz=195,slow=37						
CMAR	Chiang Mai Arr	16.24	16	*i* P	P	19 21 49.8	-0.9
UBT	Ubonrachathani	16.26	40	⇓P	P	19 21 55.9	+4.9
NANT	Nan	17.12	21	⇑P	P	19 22 01.0	-0.7
	175nm,1.0s						
MDRS	Chennai	17.33	307	*e*P	P	19 22 03.3	-1.1
MDRS				*e*		19 26 21.2	
CHRT	Chiangrai	17.82	17	⇓P	P	19 22 09.0	-1.5
	463nm,1.0s						
TRD	Trivandrum	18.24	289	*e*P	P	19 22 13.5	-2.3
TRD				*e*		19 22 20.7	
	comp=Z,82nm,1.8s						
KOD	Kodaikanal	18.36	295	⇓*e*P	P	19 22 17.0	-0.2
KOD				*e*		19 22 27.3	
	comp=Z,75nm,1.2s						
VIS	Vishakhapatnam	18.41	325	⇓*e*P	P	19 22 10.9	-6.9
VIS				*e*		19 22 28.8	
	comp=Z,132nm,1.1s						
VIS				*e*		19 25 25.2	
AGT	Agartala	21.23	352	⇑*i*P	P	19 22 47.0	-1.8
AGT				*i* S	Px	19 23 03.0	
HYB	Hyderabad	21.30	314	*e*P	P	19 22 49.5	0.0
HYB	Hyderabad	21.30	314	*i* P	P	19 22 49.5	0.0
MNGI	Mangalore	21.83	299	*i* P	P	19 22 57.1	+2.3
MNGI				*e*		19 26 23.6	
	comp=Z,94nm,1.1s						
IMP	Imphal	21.91	359	*e*P	P	19 22 53.9	-1.7
BOK	Bokaro	22.48	339	⇑*i*P	P	19 23 01.8	+0.5
BOK				*e*		19 23 18.6	
	comp=Z,144nm,1.3s						
BLSP	Bilaspur	22.64	329	⇑*e*P	P	19 23 03.0	0.0
SHL	Shillong	22.81	354	⇓*e*P	P	19 23 03.6	-1.1
SHL				*e*		19 23 05.7	
	comp=Z,118nm,0.9s						
SHL				*e*S	S	19 27 13.5	+6.0
KMI	Kunming	23.66	19	P	P	19 23 15.5	+2.6
KMI				AP		19 23 23.5	
KMI				XP		19 23 27.0	
KMI				AMB	AMB		
	comp=Z,54nm,1.5s,mb4.8						
KMI				AMB	AMB		
	comp=Z,372nm,3.5s						
KMI				LR	LR		
	comp=N,4μm,12.3s,MS5.2						
KMI				LR	LR		
	comp=E,2μm,11.9s,MS5.2						
KMI				LR	LR		
	comp=Z,4μm,11.9s,MS5.1						
GOA	Goa	23.88	303	⇓*e*	P	19 23 23.4	+8.3
DGAR	Diego Garcia	24.09	245	P	P	19 23 22.0	+4.9
DGAR				pmax	pmax		
	comp=Z,311nm,1.4s,mb5.5						
DGAR	Diego Garcia	24.09	245	P	P	19 23 22.0	+4.9
	comp=Z,311nm,1.4s,mb5.5						
KAD	Karad	24.54	307	⇑*i*P	P	19 23 21.3	-0.2
KAD				*e*		19 23 35.3	
	comp=Z,59nm,1.5s						
AKL	Akola	24.59	318	⇑*e*	P	19 23 26.1	+4.1
POO	Poona	25.49	309	⇑*e*P	P	19 23 30.0	-0.5
POO				*e*		19 23 42.1	
	comp=Z,54nm,1.0s						
PKI	Pulchoki	26.13	342	*e*P	P	19 23 36.9	+0.5
	comp=Z,100nm,1.1s,mb5.3						
BHPL	Bhopal	26.16	323	*e*P	P	19 23 34.5	-2.2
BHPL				*e*		19 23 39.7	
	comp=Z,46nm,1.0s						
DMN	Daman	26.26	341	*e*P	P	19 23 37.6	0.0
	comp=Z,67nm,0.9s,mb5.2						
GUN	Gumba	26.30	343	*e*P	P	19 23 38.6	+0.6
	comp=Z,192nm,1.0s,mb5.6						
GYA	Guiyang	26.36	25	⇑*i*P	P	19 23 39.3	+0.8
GYA				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.1						
KKN	Kakani	26.37	342	*e*P	P	19 23 38.8	+0.2
	comp=Z,100nm,1.0s,mb5.3						
GKN	Gorkha	26.78	341	*e*P	P	19 23 42.3	0.0
	comp=Z,166nm,1.1s,mb5.5						
KOLN	Koldanda	26.93	339	*e*P	P	19 23 43.9	+0.2
	comp=Z,209nm,1.4s,mb5.5						
LSA	Lhasa	26.98	354	*e*P	P	19 23 45.9	+1.8
LSA				pmax	pmax		
	comp=Z,315nm,1.3s,mb5.7						
LSA				MLR	MLR		
	comp=Z,857nm,21.0s,MS4.3						
LSA	Lhasa	26.98	354	*e*P	P	19 23 45.9	+1.8
	comp=Z,315nm,1.3s,mb5.7						
LSA				LR	LR		
	comp=Z,857nm,21.0s,MS4.3						
CD2	Chengdu	29.38	17	P	P	19 24 05.3	-0.6
CD2				AMB	AMB		
	comp=Z,10.0nm,0.5s,mb4.8						
CD2				AMB	AMB		
	comp=Z,370nm,4.7s						
CD2				LR	LR		
	comp=E,2μm,20.4s						
CD2				LR	LR		
	comp=Z,2μm,11.4s						
PTH	Pithoragarh	29.85	335	*e*P	P	19 24 09.2	-0.9
NDI	New Delhi	30.53	329	⇑*e*P	P	19 24 15.7	-0.4
NDI				*e*		19 24 17.2	
	comp=Z,53nm,1.2s						
ENH	Enshi	30.89	26	*e*P	P	19 24 18.1	-1.1
	comp=Z,22nm,0.9s,mb5.0						
ENH				LR	LR		
	comp=Z,3μm,19.0s,MS4.9						
BHJ	Bhuj	31.44	312	*e*P	P	19 24 20.3	-3.8
DDI	Dehra Dun	31.48	332	*e*P	P	19 24 23.3	-1.1
SDNR	Sundarnagar	32.97	332	*e*P	P	19 24 38.5	+1.1
WHN	Wuhan	33.49	32	P	P	19 24 43.0	+1.0
WHN				AP	pP	19 24 52.0	+1.8
WHN				LR	LR		
	comp=N,2μm,10.1s,MS5.4						
WHN				LR	LR		
	comp=E,4μm,12.9s,MS5.4						
WHN				LR	LR		
	comp=Z,6μm,13.4s,MS5.5						
XAN	Xi’an	33.97	22	P	P	19 24 45.5	-0.5
XAN				AP	pP	19 24 54.3	+0.1
XAN				AMB	AMB		
	comp=Z,27nm,1.4s,mb5.0						
XAN				LR	LR		
	comp=N,881nm,22.1s						
XAN				LR	LR		
	comp=Z,2μm,11.1s						
LZH	Lanzhou	34.31	14	*e*P	P	19 24 49.0	0.0
LZH				AP	pP	19 24 56.5	-0.7
LZH				XP	sP	19 25 00.3	-0.4
LZH				AMB	AMB		
	comp=Z,32nm,1.4s,mb5.1						
LZH				AMB	AMB		
	comp=Z,96nm,4.0s						
LZH				LR	LR		
	comp=E,1μm,13.4s						
LZH				LR	LR		
	comp=Z,2μm,15.0s,MS4.9						
THN	Thein Dam	34.34	331	*e*P	P	19 24 47.8	-1.4
	comp=Z,12nm,0.9s,mb4.8						
MBWA	Marble Bar	34.37	135	*e*P	P	19 24 47.6	-2.0
	comp=Z,17nm,1.0s,mb4.9						
GTA	Gaotai	36.83	7	P	P	19 25 11.0	+0.7
GTA				AP	pP	19 25 20.3	+1.8
GTA				XP	sP	19 25 24.5	+2.5
GTA				S	S	19 30 48.0	-4.3
GTA				AMB	AMB		
	comp=Z,62nm,1.0s,mb5.4						
GTA				AMB	AMB		
	comp=Z,264nm,8.7s						
GTA				LR	LR		
	comp=N,810nm,12.9s,MS4.8						
GTA				LR	LR		
	comp=E,574nm,12.6s,MS4.8						
GTA				LR	LR		
	comp=Z,548nm,17.5s,MS4.4						
NJ2	Nanjing	37.15	36	*e*P	P	19 25 15.0	+1.9
NJ2				AP	pP	19 25 24.0	+2.7
NJ2				XP	sP	19 25 30.0	+5.2
NJ2				PP	PP	19 26 42.5	+2.2
NJ2				S	S	19 31 01.0	+3.7
NJ2				XS		19 31 18.0	
NJ2				AMB	AMB		
	comp=Z,130nm,1.0s,mb5.7						
NJ2				LR	LR		
	comp=Z,5μm,14.6s,MS5.4						
SSE	Sheshan	37.89	39	P	P	19 25 17.0	-2.3
SSE				S	S	19 31 08.5	-0.1
SSE				XS		19 31 21.8	
SSE				AMB	AMB		
	comp=Z,22nm,1.3s,mb4.7						
SSE				AMB	AMB		
	comp=Z,242nm,4.1s						
SSE				LR	LR		
	comp=N,815nm,17.3s,MS4.6						
SSE				LR	LR		
	comp=E,387nm,17.4s,MS4.6						
SSE				LR	LR		
	comp=Z,951nm,15.5s,MS4.7						
KSH	Kashi	40.24	338	P	P	19 25 38.3	-0.5
BTO	Baotou	40.26	19	*e*P	P	19 25 37.0	-1.9
HHC	Hu-ho-hao-te	40.98	20	*e*P	P	19 25 46.8	+1.9
HHC				AP	pP	19 25 51.0	-2.2
HHC				XP	sP	19 25 54.3	-2.3
HHC				PP	PP	19 27 25.5	+3.1
HHC				S	S	19 31 58.0	+3.0
HHC				SS	SS	19 34 55.8	+2.8
HHC				SCS	ScS	19 35 48.8	+3.3
HHC				AMB	AMB		
	comp=Z,44nm,0.9s,mb5.1						
HHC				AMB	AMB		
	comp=Z,301nm,9.6s						
HHC				LR	LR		
	comp=N,886nm,21.4s,MS4.9						
HHC				LR	LR		
	comp=E,2μm,16.7s,MS4.9						
HHC				LR	LR		
	comp=Z,1μm,14.3s,MS4.9						
WMQ	Urumqi	41.33	353	P	P	19 25 49.3	+1.7
WMQ				AP	pP	19 25 53.8	-2.1
WMQ				AMB	AMB		
	comp=Z,33nm,0.8s,mb5.0						
NWAO	Narrogin (SRO)	41.55	150	*e*P	P	19 25 49.0	-0.7

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NWAO                                pmax    pmax
      comp=Z,57nm,1.6s
NWAO  Narrogin (SRO)    41.55 150   P       P        19 25 49.8  0.0
      comp=Z,45nm,1.4s,mb4.9,baz=128,slow=1.4,SNR=3.5
NWAO  Narrogin (SRO)    41.55 150  eP       P        19 25 49.0 -0.8
      comp=Z,57nm,1.6s,mb5.0
BJT   Baijiatuau        42.03  25  eP       P        19 25 55.4 +1.9
BJT                                e        pP       19 26 03.8 +1.9
BJT                                 pmax    pmax
      comp=Z,27nm,0.8s
BJT   Baijiatuau        42.03  25  eP       P        19 25 55.4 +1.9
      comp=Z,26nm,0.8s,mb4.9
BJT                                e        pP       19 26 03.8 +2.0
BJI   Beijing           42.06  25  eP       P        19 25 55.5 +1.8
BJI                                 AMB     AMB
      comp=Z,33nm,1.0s,mb4.9
BJI                                 LR      LR
      comp=N,992nm,17.4s,MS5.0
BJI                                 LR      LR
      comp=E,1µm,16.1s,MS5.0
BJI                                 LR      LR
      comp=Z,750nm,20.1s,MS4.6
ULHL  Ulahol            42.54 340   P       P        19 25 58.8 +1.1
      SNR=10
KZA   Kyzart            42.74 339   P       P        19 26 00.7 +1.4
      SNR=12
UCH   Uchtor            43.14 338   P       P        19 26 03.7 +1.1
      SNR=33
KBK   Karagaybulak      43.36 339   P       P        19 26 05.8 +1.4
      SNR=40
TKM2  Tokmak 2          43.36 340   P       P        19 26 05.5 +1.1
      SNR=30
AML   Almayashu         43.37 338   P       P        19 26 05.8 +1.5
      SNR=33
AAK   Ala-Archa         43.50 339   P       P        19 26 06.6 +1.1
      SNR=10
AAK   Ala-Archa         43.50 339⇑eP       P        19 26 05.6 +0.1
FRU   Bishkek           43.63 339  eP       P        19 26 08.0 +1.5
FRU                                e                 19 26 23.0
FRU                                 pmax    pmax
      comp=Z,60nm,1.6s,mb5.1
CHMS  Chumysh           43.73 339   P       P        19 26 07.7 +0.4
      SNR=8.7
EKS2  Erkin-Say         43.79 338   P       P        19 26 09.1 +1.3
      SNR=26
USP   Ospenovka         44.05 339   P       P        19 26 10.6 +0.7
      SNR=41
MKAR  Makanchi Array    45.12 348  i P      P        19 26 18.7 +0.3
WRA   Warramunga Arr    45.25 122   P       P        19 26 20.0 +0.2
      comp=Z,14nm,1.1s,mb4.7,baz=300,slow=8.9,SNR=35
WRAB  Tennant Creek     45.25 122  eP       P        19 26 20.1 +0.2
WRAB                                pmax    pmax
      comp=Z,129nm,1.6s,mb5.5
WRAB                                MLR     MLR
      comp=Z,106nm,19.0s,MS3.8
WRAB  Tennant Creek     45.25 122  eP       P        19 26 20.1 +0.2
      comp=Z,129nm,1.6s,mb5.5
WRAB                                LR      LR
      comp=Z,106nm,19.0s,MS3.8
SONM  Songino Array     46.10  11   P       P        19 26 27.0 +0.9
      comp=Z,14nm,0.8s,mb5.0,baz=193,slow=8.1,SNR=108
SONM                                pP      pP       19 26 34.5  0.0
      comp=Z,14nm,0.9s,baz=198,slow=8.0,SNR=13
SONM                                PcP     PcP      19 28 03.0 +0.4
      comp=Z,5.8nm,0.9s,baz=195,slow=4.8,SNR=4.2
SONM                                LR      LR       19 49 43.4
      comp=Z,331nm,18.1s,MS4.3,baz=192,slow=41
KS15  Wonju Array Si    46.24  37   P       P        19 26 25.2 -2.3
ULN   Ulaanbaatar       46.26  12  i P      P        19 26 27.5  0.0
ULN                                 MLR     MLR
      comp=Z,548nm,19.0s,MS4.5
ULN   Ulaanbaatar       46.26  12  i Pr              19 26 27.5
ULN                                 LR      LR
      comp=Z,548nm,19.0s,MS4.5
ASAR  Alice Springs     46.58 127   P       P        19 26 30.6 +0.2
      comp=Z,13nm,1.1s,mb4.8,baz=294,slow=7.8,SNR=52
ASAR                                PcP     PcP      19 28 04.5  0.0
      comp=Z,4.9nm,0.8s,baz=312,slow=4.2,SNR=7.7
ASAR                                pPcP             19 28 13.7
      comp=Z,5.7nm,0.9s,baz=301,slow=4.1,SNR=6.9
SNY   Shenyang          46.90  30 ⇓P       P        19 26 33.8 +1.2
SNY                                 PP      PP       19 28 26.5 +3.9
SNY                                 LR      LR
      comp=N,780nm,16.5s,MS4.9
SNY                                 LR      LR
      comp=E,810nm,14.3s,MS4.9
SNY                                 LR      LR
      comp=Z,750nm,13.7s,MS4.8
ZAK   Zakamensk         48.06   8⇓iP       P        19 26 41.8 +0.2
ZAK                                e                 19 28 09.1
HASS  Wahat al Ahsa’    48.42 302   P       P        19 26 44.7  0.0
CN2   Changchun         49.29  30  eP       P        19 26 51.0 -0.2
CN2                                 AMB     AMB
      comp=Z,20nm,1.1s,mb5.1
TLY   Talaya            49.38   8  eP       P        19 26 52.7 +0.9
TLY                                e                 19 36 42.6
TLY                                 pmax    pmax
      comp=Z,42nm,1.8s,mb5.2
TLY                                 MLR     MLR
      comp=Z,432nm,14.0s,MS4.6
TLY   Talaya            49.38   8  eP       P        19 26 48.0 -3.8
      comp=Z,15nm,0.8s,mb5.1
TLY                                 LR      LR
      comp=Z,94nm,19.0s,MS3.8
IRK   Irkutsk           50.02   8  eP       P        19 26 57.1 +0.5
IRK                                e        pP       19 27 05.7 +0.6
HIA   Hailar            51.16  21  eP       P        19 27 06.1 +0.8
HIA                                 pmax    pmax
      comp=Z,47nm,0.8s
HIA   Hailar            51.16  21  eP       P        19 27 06.1 +0.8
      comp=Z,47nm,0.8s,mb5.5
RDF   Al-Radifah        51.53 305  eP       P        19 27 09.2 +0.8
RDF                                 AMb     AMB      19 27 19.5
      comp=Z,230nm,0.9s,mb6.1
KAMS  Al Khamasin       51.56 294   P       P        19 27 09.2 +0.4
ZAL   Zalesovo          51.63 353   P       P        19 27 08.8 -0.1
      comp=Z,13nm,0.6s,mb5.1,baz=296,slow=7.3,SNR=89
ZAL                                 pP      pP       19 27 17.3  0.0
      comp=Z,10nm,0.8s,baz=296,slow=7.1,SNR=9.5
UMR   Umm Al-Rimmam     51.63 306  eP       P        19 27 09.7 +0.5
UMR                                 AMb     AMB      19 27 20.0
      comp=Z,179nm,0.7s,mb6.1
NAY   Al-Naaiem         51.90 306  eP       P        19 27 11.6 +0.4
NAY                                 AMb     AMB      19 27 21.7
      comp=Z,80nm,0.7s,mb5.8
MZLS  Mizel             51.94 299   P       P        19 27 11.9 +0.3
MDJ   Mudanjiang        51.97  32   P       P        19 27 12.5 +0.9
MDJ                                 AMB     AMB
      comp=Z,29nm,1.5s,mb5.0
MDJ                                 AMB     AMB
      comp=Z,193nm,5.7s
MDJ   Mudanjiang        51.97  32  eP       P        19 27 10.1 -1.5
      comp=Z,65nm,1.4s,mb5.4
MDJ                                e                 19 27 22.1
MDJ                                 LR      LR
      comp=Z,659nm,22.0s,MS4.6
RST   Umm Al-Ruwaisa    52.19 306  eP       P        19 27 13.5 +0.1
RST                                 AMb     AMB      19 27 24.1
      comp=Z,117nm,1.2s,mb5.7
TATS  Tathlith          52.41 293   P       P        19 27 15.6 +0.4
MAJO  Matsushiro        52.52  45   P       P        19 27 10.5 -5.3
MAJO                                pmax    pmax
      comp=Z,15nm,1.1s,mb4.8
MAJO                                MLR     MLR
      comp=Z,928nm,20.0s,MS4.8
MAJO  Matsushiro        52.52  45   P       P        19 27 10.5 -5.3
      comp=Z,15nm,1.1s,mb4.8
MAJO                                LR      LR
      comp=Z,928nm,20.0s,MS4.8
NVS   Novosibirsk       52.72 352  i P      P        19 27 15.9 -1.1
NVS                                i                 19 29 12.0
NVS                                i S      S        19 34 43.5 +2.0
NVS                                 pmax    pmax
      comp=Z,47nm,1.1s,mb5.3
NVS                                 pmax    pmax
      comp=E,18nm,1.9s
NVS                                 pmax    pmax
      comp=Z,22nm,1.9s,mb4.8
NVS                                 smax
      comp=E,28nm,1.8s
AFFS  ‘Afif             53.85 298   P       P        19 27 26.7 +0.9
BVA0  Borovoye Array    53.90 342  i P      P        19 27 24.8 -0.9
BVA0                                pmax    pmax
      comp=Z,3.0nm,0.9s,mb4.2
BRVK  Borovoye          53.96 342⇑eP       P        19 27 25.5 -0.6
BRVK                                MLR     MLR
      comp=Z,119nm,19.0s,MS4.0
PMG   Port Moresby      53.96 104  eP       P        19 27 25.5 -1.2
PMG                                 pmax    pmax
      comp=Z,15nm,0.9s
PMG   Port Moresby      53.96 104  eP       P        19 27 25.5 -1.2
      comp=Z,15nm,0.9s,mb4.9
ARSS  Ar Rass           54.17 300   P       P        19 27 28.3 +0.2
CHKZ  Chkalovo          54.40 343  eP       P        19 27 28.7 -0.7
CHKZ                               e        pP       19 27 37.1 -0.7
CHKZ                                pmax    pmax
      comp=Z,47nm,0.8s,mb5.5
CHKZ  Chkalovo          54.40 343  eP       P        19 27 28.7 -0.7
      comp=Z,47nm,0.8s,mb5.5
CHKZ                               e        pP       19 27 37.1 -0.7
CTA   Charters Tower    55.72 116   LR      LR       19 52 53.7
      comp=Z,251nm,19.1s,MS4.3,baz=140,slow=37
CTAO  Charters Tower    55.72 116  eP       P        19 27 39.2 -0.3
CTAO                                pmax    pmax
      comp=Z,29nm,1.0s,mb5.3
CTAO                                MLR     MLR
      comp=Z,298nm,20.0s,MS4.4
CTAO  Charters Tower    55.72 116  eP       P        19 27 39.2 -0.3
      comp=Z,29nm,1.0s,mb5.3
CTAO                                LR      LR
      comp=Z,298nm,20.0s,MS4.4
HILS  Ha’il             55.84 301   P       P        19 27 40.9 +0.6
KLR   Kul’dur           56.20  29  eP       P        19 27 40.7 -1.9
KLR                                 pmax    pmax
      comp=N,40nm,1.8s
KLR                                 pmax    pmax
      comp=E,70nm,1.8s
KLR                                 pmax    pmax
      comp=Z,100nm,1.8s,mb5.5
KLR                                 MLR     MLR
      comp=Z,2µm,13.0s,MS5.4
STKA  Stephens Creek    56.49 131   P       P        19 27 44.7 -0.1
      comp=Z,6.9nm,0.8s,mb4.7,baz=295,slow=8.2,SNR=17
STKA                                pP      pP       19 27 54.0 +0.7
      comp=Z,12nm,0.8s,baz=298,slow=8.6,SNR=14
STKA                                LR      LR       19 54 39.5
      comp=Z,230nm,18.1s,MS4.3,baz=25,slow=39
STKA  Stephens Creek    56.49 131  eP       P        19 27 43.4 -1.5
STKA                               e        pP       19 27 53.4  0.0
BOD   Bodaibo           57.06  12  eP       P        19 27 48.4 -0.2
KMBO  Kilima Mbogo      57.23 267  eP       P        19 27 48.2 -2.2
KMBO                               e                 19 27 59.0
KMBO                                pmax    pmax
      comp=Z,29nm,1.0s
KMBO  Kilima Mbogo      57.23 267   P       P        19 27 50.6 +0.2
      comp=Z,10.0nm,1.0s,mb4.8,baz=61,slow=7.5,SNR=7.2
KMBO                                pP      pP       19 27 59.8 +0.9
      comp=Z,19nm,1.0s,baz=58,slow=8.8,SNR=11
KMBO                                LR      LR       19 48 46.1
      comp=Z,438nm,19.0s,MS4.6,baz=98,slow=32
KMBO  Kilima Mbogo      57.23 267  eP       P        19 27 48.2 -2.2
      comp=Z,28nm,1.0s,mb5.2
KMBO                               e                 19 27 59.0
KBRS  Khaybar           57.61 299   P       P        19 27 53.3 +0.4
GNI   Garni             58.23 317⇑eP       P        19 27 56.9 -0.1
GNI                                 pmax    pmax
      comp=Z,74nm,2.5s
GNI   Garni             58.23 317⇑eP       P        19 27 56.0 -1.0
YNBS  Yanbu‘ al Bahr    58.40 297   P       P        19 27 59.1 +0.7
TI2   Plekhanov         58.94 318⇑iP       P        19 28 01.6 -0.4
TI2                                 pmax    pmax
      comp=Z,30nm,1.0s,mb5.3
CLNS  Chul’man          59.16  19  eP       P        19 28 04.2 +0.9
CLNS                               e*PP     pP       19 28 11.5 -0.4
CLNS                               e                 19 28 51.3
CLNS                               eS       S        19 36 06.9 -0.3
CLNS                               eSSS     SSS      19 42 25.5 -4.0
CLNS                                pmax    pmax
      comp=Z,38nm,0.9s,mb5.4
CLNS                                pmax    pmax
      comp=N,16nm,0.7s
CLNS                                pmax    pmax
      comp=E,21nm,1.1s
CLNS                                pmax    pmax
      comp=Z,7.0nm,0.9s,mb4.7
CLNS                                pmax    pmax
      comp=N,12nm,1.0s
CLNS                                pmax    pmax
      comp=E,3.0nm,0.7s
CLNS                                smax
      comp=N,122nm,12.3s
CLNS                                smax
      comp=Z,124nm,14.1s
CLNS                                smax
      comp=E,47nm,13.3s
CLNS                                MLR     MLR
      comp=Z,2µm,17.0s,MS5.2
CLNS                                MLR     MLR
      comp=N,900nm,16.0s,MS5.0
CLNS                                MLR     MLR
      comp=E,200nm,16.0s,MS5.0
UMJS  Umm Lajj          59.19 298   P       P        19 28 05.2 +1.3
ZEI   Tsey              59.98 319  eP       P        19 28 08.9 -0.2
ZEI                                i *PP    pP       19 28 16.0 -1.7
ZEI                                i                 19 30 21.3
ZEI                                 pmax    pmax
      comp=Z,10.0nm,0.9s,mb4.8
SVE   Sverdlovsk        60.23 339  eP       P        19 28 09.5 -1.2
SVE                                e                 19 29 01.0
SVE                                 pmax    pmax
      comp=Z,120nm,1.8s,mb5.6
ERZM  Erzurum           60.48 315  i P      P        19 28 13.0 +0.5
TBKS  Tabuk             60.54 301   P       P        19 28 14.2 +1.0
ARU   Arti              60.69 338⇑iP       P        19 28 12.2 -1.5
ARU                                e                 19 28 53.7
ARU                                e                 19 30 28.7
ARU                                eS       S        19 36 27.2 +0.4
ARU                                eSS      SS       19 40 25.2 -1.6
ARU                                 pmax    pmax
      comp=Z,26nm,1.1s,mb5.3
ARU   Arti              60.69 338⇑eP       P        19 28 12.4 -1.3
JMQS  Jabal Moqyreh     61.27 302   P       P        19 28 18.6 +0.6
KIV   Kislovodsk        61.30 320   P       P        19 28 17.9 -0.2
      comp=Z,155nm,1.4s,mb5.9,SNR=10.0
KIV   Kislovodsk        61.30 320⇑iP       P        19 28 17.2 -0.9
GOF   Gofitskoye        61.58 321  eP       P        19 28 18.0 -2.0
AYUS  ‘Aynunah          61.63 301   P       P        19 28 21.0 +0.4
ELZG  Elazig            61.66 313  i P      P        19 28 20.6 +0.1
BDAS  Al Bad‘           61.83 301   P       P        19 28 22.4 +0.5
JMOS  Jabal al Moall    61.99 302   P       P        19 28 23.6 +0.6
MALT  Malatya           62.00 312  eP       P        19 28 21.5 -1.4
MALT                               e        pP       19 28 31.8 +0.2
MALT                                pmax    pmax
      comp=Z,54nm,1.1s,mb5.6
MALT  Malatya           62.00 312  eP       P        19 28 21.5 -1.4
      comp=Z,54nm,1.1s,mb5.6
MALT                               e        pP       19 28 31.8 +0.3
TAYS  Tayyib Ism        62.05 301   P       P        19 28 23.7 +0.3
HAQS  Haql              62.12 301   P       P        19 28 24.4 +0.6
EIL   Elat              62.24 302  eP       P        19 28 24.6  0.0
      comp=Z,29nm,1.0s,mb5.4
EIL                                e        pP       19 28 33.3 +0.1
EIL                                e                 19 28 39.5
GZT   Gaziantep         62.32 311  i P      P        19 28 25.0  0.0
KAHT  Ahir Dag          62.93 311  i P      P        19 28 29.6 +0.5
SOC   Sochi             63.09 318  eP       P        19 28 27.2 -2.8
SOC                                ePPP     PPP      19 32 20.0 -1.4
SOC                                eS       S        19 36 54.4 -3.0
SOC                                eSS      SS       19 41 09.2 +3.9
SOC                                 pmax    pmax
      comp=Z,35nm,1.1s,mb5.4
SOC                                 pmax    pmax
      comp=N,20nm,0.9s
SOC                                 pmax    pmax
      comp=E,16nm,1.2s
SOC                                 MLR     MLR
      comp=E,597nm,17.0s
SOC                                 MLR     MLR
      comp=Z,525nm,17.0s,MS4.8
MBAR  Mbarara           63.70 268  eP       P        19 28 33.1 -1.5
MBAR                               e        pP       19 28 42.4 -0.8
MBAR                                pmax    pmax
      comp=Z,31nm,1.2s,mb5.2
MBAR  Mbarara           63.70 268  eP       P        19 28 33.1 -1.4
      comp=Z,31nm,1.2s,mb5.2
MBAR                               e        pP       19 28 42.4 -0.8
YAK   Yakutsk           64.77  18⇑iP       P        19 28 40.3 -0.4
CSS   Prodhromos        64.89 307  eP       P        19 28 41.2 -0.8
      comp=Z,78nm,1.3s,mb5.6
CTKT  Corum             65.43 314  i P      P        19 28 44.9 -0.4
BOYT  Boyabat           65.60 315  i P      P        19 28 46.3 -0.1
BRTR  Keskin Array B    65.99 313   P       P        19 28 47.9 -1.1
      comp=Z,7.1nm,0.8s,mb4.7,baz=127,slow=6.2,SNR=31
BRTR                                pP      pP       19 28 56.7 -0.9
      comp=Z,13nm,0.9s,baz=129,slow=7.9,SNR=21
ELDT  Eldivan           66.37 313  i P      P        19 28 50.1 -1.3
BALT  Daday             66.72 314  i P      P        19 28 53.2 -0.4
SIM   Simferopol’       67.33 318  eP       P        19 28 57.1 -0.3
SIM                                 pmax    pmax
      comp=Z,38nm,0.9s,mb5.4
SGKT  Sivrigoynuk       67.39 313  i P      P        19 28 56.6 -1.3
ISP   Isparta           67.82 310  eP       P        19 29 00.7 +0.1
ISP                                e        pP       19 29 08.4 -0.9
ISP                                 pmax    pmax
      comp=Z,50nm,1.2s,mb5.4
ISP   Isparta           67.82 310  eP       P        19 29 00.7  0.0
      comp=Z,50nm,1.2s,mb5.4
ISP                                e        pP       19 29 08.3 -0.9
LSZ   Lusaka            67.86 252  eP       P        19 29 00.1 -1.1
LSZ                                e        pP       19 29 09.2 -0.6
LSZ                                 pmax    pmax
      comp=Z,18nm,1.0s,mb5.1
LSZ   Lusaka            67.86 252  eP       P        19 29 00.1 -1.1
      comp=Z,18nm,1.0s,mb5.0
LSZ                                e        pP       19 29 09.2 -0.6
ESKT  Eskisehir         68.00 312  i P      P        19 29 00.3 -1.3
ULDT  Uludag            69.43 312  i P      P        19 29 09.2 -1.3
MANT  Manisa            69.47 310  i P      P        19 29 10.4 -0.4
MOS   Moscow            69.57 330  eP       P        19 29 10.1 -1.0
MOS                                 pmax    pmax
      comp=Z,75nm,1.5s,mb5.4
OBN   Obninsk           69.83 329c iP       P        19 29 11.3 -1.4
OBN                                e        pP       19 29 18.7 -2.6
OBN                                e                 19 29 36.0
OBN                                i                 19 31 47.8
OBN                                 pmax    pmax
      comp=Z,70nm,1.7s,mb5.3
OBN                                 MLR     MLR
      comp=Z,400nm,20.0s,MS4.7
OBN   Obninsk           69.83 329  eP       P        19 29 10.5 -2.1
      comp=Z,53nm,1.3s,mb5.3
OBN                                e        pP       19 29 20.2 -1.1
CASY  Casey             69.84 173  eP       P        19 29 13.2 +0.7
      comp=Z,43nm,1.1s,mb5.3
CASY                               e        pP       19 29 21.9 +0.7
MA2   Magadan           71.20  27   P       P        19 29 20.4 -0.5
MA2                                 pmax    pmax
      comp=Z,20nm,1.5s,mb4.8
MA2   Magadan           71.20  27  eP       P        19 29 20.2 -0.7
      comp=Z,18nm,0.8s,mb5.0
SANT  Santorini         71.45 307   P       P        19 29 22.3 -0.5
      comp=Z,87nm,1.1s,mb5.6
KIS   Kishinev          71.48 319  eP       P        19 29 21.0 -1.8
KIS                                e        pP       19 29 31.0 -0.5
LBTB  Lobatse           72.05 243  eP       P        19 29 26.0 -0.6
LBTB                               e        pP       19 29 34.8 -0.5
LBTB                                pmax    pmax
      comp=Z,39nm,1.1s,mb5.2
LBTB                                MLR     MLR
      comp=Z,642nm,21.0s,MS4.9
LBTB  Lobatse           72.05 243  eP       P        19 29 26.0 -0.7
      comp=Z,39nm,1.1s,mb5.2
LBTB                               e        pP       19 29 34.8 -0.5
LBTB                                LR      LR
      comp=Z,642nm,21.0s,MS4.9
TIXI  Tiksi             72.19  11⇑iP       P        19 29 26.4 -0.3
TIXI                                pmax    pmax
      comp=Z,66nm,1.0s,mb5.5
TIXI                                MLR     MLR
      comp=Z,625nm,12.0s,MS5.1
TIXI  Tiksi             72.19  11⇑iP       P        19 29 26.3 -0.4
AKASG Malin Array Be    72.32 323   P       P        19 29 26.1 -1.6
      comp=Z,7.8nm,0.8s,mb4.7,baz=90,slow=5.2,SNR=28
AKASG                               pP      pP       19 29 35.0 -1.4
      comp=Z,6.2nm,0.7s,baz=92,slow=5.2,SNR=13
VRI   Vrincioaia        72.57 317⇑iP       P        19 29 29.3 -0.1
BOSA  Boshof            73.12 239   PFAKE            19 29 40.0 +7.1
BOSA                                LR      LR
      comp=Z,272nm,19.0s,MS4.5
MAW   Mawson            73.60 192  eP       P        19 29 35.8 +0.9
MAW                                e        pP       19 29 44.6 +1.0
MAW                                 pmax    pmax
      comp=Z,42nm,1.3s
MAW   Mawson            73.60 192   P       P        19 29 36.0 +1.1
      comp=Z,4.2nm,0.8s,mb4.4,baz=30,slow=12,SNR=5.0
MAW                                 pP      pP       19 29 44.9 +1.3
      comp=Z,13nm,1.0s,baz=4.4,slow=8.8,SNR=8.9
MAW                                 LR      LR       19 55 11.1
      comp=Z,165nm,18.1s,MS4.4,baz=160,slow=30
MAW   Mawson            73.60 192  eP       P        19 29 35.8 +0.8
      comp=Z,42nm,1.3s,mb5.2
MAW                                e        pP       19 29 44.6 +1.0
KWP   Kalwaria          76.08 321  eP       P        19 29 50.0 +0.5
KOLS  Kolonicke sedl    76.22 320  i P      P        19 29 50.9 +0.6
KOLS                               epP      pP       19 30 00.0 +0.9
LVZ   Lovozero          76.43 340  eP       P        19 29 50.8 -0.3
LVZ                                 pmax    pmax
      comp=Z,48nm,1.7s,mb5.2
CRVS  Cervenica-Dubn    76.73 320  eP       P        19 29 57.5 +4.3
CRVS  Cervenica-Dubn    76.73 320  e        P        19 29 57.5 +4.3
SUW   Suwalki           76.79 325  eP       P        19 29 52.7 -0.7
KECS  Kecovo            77.29 319  eP       P        19 29 56.8 +0.5
KECS                               epP      pP       19 30 05.4 +0.3
FINES FINESS Array B    77.33 333   P       P        19 29 56.0 -0.3
      comp=Z,7.4nm,0.7s,mb4.7,baz=108,slow=6.0,SNR=13
FINES                               pP      pP       19 30 04.5 -0.6
      comp=Z,8.3nm,0.7s,baz=90,slow=9.5,SNR=4.9
KAF   Kangasniemi       77.44 333  ep       P        19 29 52.2 -4.6
      comp=Z,8.7nm,0.8s,mb4.7
KAF   Kangasniemi       77.44 333  ep       P        19 30 02.8 +6.0
      comp=Z,10nm,0.8s,mb4.8
KAF   Kangasniemi       77.44 333  eP       P        19 30 02.8 +6.0
KAF                                 pmax    pmax
      comp=Z,10.0nm,0.8s,mb4.8
NIE   Niedzica          77.57 320  eP       P        19 29 58.5 +0.7
PSZ   Piszkesteto       77.58 318⇑iP       P        19 29 57.8 -0.1
OJC   Ojcow             78.04 321  eP       P        19 30 00.6 +0.2
OJC                                e        pP       19 30 09.5 +0.3
PKSM  Moragy            78.16 317⇓eP       P        19 30 01.0 -0.1
PKSM                               i        pP       19 30 09.6 -0.3
VYHS  Vyhne             78.37 319  eP       P        19 30 02.5 +0.3
VYHS                               epP      pP       19 30 11.1 +0.1
OKC   Ostrava-Krasne    79.03 320  eP       P        19 30 06.6 +0.8
OKC                                ex       x        19 30 15.1
OKC                                ex       x        19 30 26.6
ZST   Bratislava        79.47 318  eP       P        19 30 08.3  0.0
ZST                                epP      pP       19 30 17.5 +0.4
KEV   Kevo              79.72 341  ep       P        19 30 07.7 -1.5
      comp=Z,6.8nm,0.8s,mb4.6
KEV   Kevo              79.72 341  ep       P        19 30 14.8 +5.6
      comp=Z,7.1nm,0.9s,mb4.6
KEV   Kevo              79.72 341  eP       P        19 30 14.8 +5.6
KEV                                 pmax    pmax
      comp=Z,7.0nm,0.9s,mb4.6
ARCES ARCESS Array B    80.14 341   P       P        19 30 12.0 +0.6
      comp=Z,15nm,0.9s,mb4.9,baz=108,slow=3.8,SNR=10
ARCES                               pP      pP       19 30 20.4 +0.2
      comp=Z,11nm,0.9s,baz=76,slow=4.6,SNR=4.9
DPC   Dobruska-Polom    80.27 321  eP       P        19 30 13.1 +0.6
DPC                                ex       x        19 30 22.2
DPC                                ex       x        19 30 27.5
KSP   Ksiaz             80.35 321  eP       P        19 30 13.2 +0.3
KSP                                epP      pP       19 30 22.0 +0.3
KSP   Ksiaz             80.35 321  eP       P        19 30 13.6 +0.7
ARSA  Arzberg           80.42 317⇑iP       P        19 30 13.7 +0.4
      comp=Z,26nm,1.0s,mb5.1
UPC   Upice             80.48 321  eP       P        19 30 14.5 +0.9
UPC                                ex       x        19 30 23.3
UPC                                ex       x        19 30 29.3
SYO   Syowa Base        80.61 197 ⇓P       P        19 30 15.0 +1.1
SYO   Syowa Base        80.61 197 ⇑pP      pP       19 30 16.9 -5.8
SYO   Syowa Base        80.61 197 ⇓PcP     PcP      19 30 20.1 -1.0
PRU   Pruhonice         81.36 320  eP       P        19 30 19.2 +1.0
PRU                                ex       x        19 30 27.7
PRU                                ex       x        19 30 33.7
GEC2  GERESS Array S    81.79 319  eP       P        19 30 21.1 +0.6
GEC2                                pmax    pmax
      comp=Z,28nm,1.1s,mb5.1
GEC2  GERESS Array S    81.79 319  eP       P        19 30 21.1 +0.6
      comp=Z,28nm,1.1s,mb5.1
GERES GERESS Array B    81.79 319   P       P        19 30 21.0 +0.5
      comp=Z,11nm,0.8s,mb4.8,baz=104,slow=5.5,SNR=46
GERES                               pP      pP       19 30 30.0 +0.7
      comp=Z,19nm,0.8s,baz=104,slow=5.5,SNR=26
BRG   Berggiesshubel    81.83 321  eP       P        19 30 21.0 +0.4
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BRG				*i*	pP	19 30 29.9	+0.4
BRG				pmax	pmax		
	comp=Z,34nm,1.6s,mb5.0						
BRG	Berggiesshubel	81.83	321	*e*P	P	19 30 21.0	+0.4
	comp=Z,34nm,1.6s,mb5.0						
BRG				*i*	pP	19 30 29.9	+0.4
KHC	Kasperske Hory	81.90	319	*e*P	P	19 30 22.0	+1.0
KHC				*e*x	x	19 30 30.1	
WET	Wettzell	82.36	319	*e*P	P	19 30 24.0	+0.6
CLL	Collm	82.46	321	*e*P	P	19 30 24.0	+0.1
CLL				*i*	pP	19 30 33.0	+0.2
CLL	Collm	82.46	321	P	P	19 30 24.0	+0.1
CLL				*i* *PP	pP	19 30 33.0	+0.2
WTTA	Wattenberg	83.06	317	⇑*i*P	P	19 30 27.1	0.0
	comp=Z,33nm,0.8s,mb5.4						
WTTA	Wattenberg	83.06	317	⇑*i*P	P	19 30 27.1	0.0
WTTA				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.4						
WATA	Walderalm	83.10	317	⇓*i*P	P	19 30 27.3	0.0
	comp=Z,14nm,1.0s,mb4.9						
WATA	Walderalm	83.10	317	⇓*i*P	P	19 30 27.3	0.0
WATA				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
MOX	Moxa	83.28	321	*e*P	P	19 30 37.3	+9.1
MOX	Moxa	83.28	321	*i* P	P	19 30 37.3	+9.1
SQTA	Sankt Quirin	83.34	317	⇑*i*P	P	19 30 28.4	-0.2
	comp=Z,15nm,0.9s,mb5.0						
SQTA	Sankt Quirin	83.34	317	⇑*i*P	P	19 30 28.4	-0.2
SQTA				pmax	pmax		
	comp=Z,15nm,0.9s,mb5.0						
FUR	Furstenfeldbru	83.35	318	*e*P	P	19 30 28.5	-0.1
MOTA	Moosalm	83.42	317	⇑*i*P	P	19 30 28.8	-0.2
	comp=Z,13nm,1.0s,mb4.9						
MOTA	Moosalm	83.42	317	⇑*i*P	P	19 30 28.8	-0.2
MOTA				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
GRA1	Grafenberg Arr	83.48	320	*e*P	P	19 30 30.0	+0.8
	comp=Z,185nm,2.9s,mb5.6						
GRA1				*e*pP	pP	19 30 39.0	+0.9
GRF	Grafenberg Arr	83.48	320	*e*P	P	19 30 30.0	+0.8
GRF				*e**PP	pP	19 30 39.0	+0.9
GRF				pmax	pmax		
	comp=Z,185nm,2.9s,mb5.6						
CLZ	Clausthal	84.14	322	*e*P	P	19 30 32.8	+0.3
	comp=Z,17nm,1.2s,mb5.0						
CLZ				*e*pP	pP	19 30 42.2	+0.8
DAVA	Damuels	84.25	317	⇑*i*P	P	19 30 33.7	+0.5
	comp=Z,25nm,1.1s,mb5.3						
BSEG	Bad Segeberg	84.28	324	*e*P	P	19 30 34.1	+0.9
NB2	NORSAR Subarra	84.29	331	P	P	19 30 32.5	-0.5
	comp=Z,14nm,0.9s,mb5.1,baz=94,slow=5.0						
NB2	NORSAR Subarra	84.29	331	P	P	19 30 32.5	-0.5
	baz=94,slow=5.3						
NB2	NORSAR Subarra	84.29	331	P	P	19 30 32.5	-0.5
NB2				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.1						
NOA	NORSAR Array B	84.29	331	P	P	19 30 33.0	0.0
	comp=Z,6.7nm,0.9s,mb4.8,baz=94,slow=5.5,SNR=9.0						
NOA				pP	pP	19 30 41.6	-0.3
	comp=Z,8.3nm,0.8s,baz=94,slow=5.6,SNR=9.6						
STU	Stuttgart	84.76	319	P	P	19 30 36.4	+0.7
STU				*e*	pP	19 30 45.8	+1.2
STU				pmax	pmax		
	comp=Z,20nm,1.3s,mb5.1						
STU	Stuttgart	84.76	319	P	P	19 30 36.4	+0.7
	comp=Z,20nm,1.3s,mb5.1						
STU				*e*	pP	19 30 45.8	+1.2
BFO	Black Forest	85.33	318	*e*P	P	19 30 38.5	0.0
BFO				pmax	pmax		
	comp=Z,154nm,3.1s						
BFO	Black Forest	85.33	318	*e*P	P	19 30 38.5	0.0
	comp=Z,154nm,3.1s						
LPG	La Plagne	86.39	315	*e*P	P	19 30 43.8	-0.1
	comp=Z,29nm,1.0s,mb5.2						
LPG	La Plagne	86.39	315	*e*P	P	19 30 43.8	-0.1
LPG				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.2						
VNDA	Vanda	87.89	168	P	P	19 30 51.8	+1.3
VNDA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
VNDA				MLR	MLR		
	comp=Z,276nm,19.0s						
VNDA	Vanda	87.89	168	P	P	19 30 52.4	+1.9
	comp=Z,4.9nm,1.2s,mb4.6,baz=318,slow=6.6,SNR=3.6						
VNDA				pP	pP	19 31 00.5	+1.1
	comp=Z,7.0nm,1.1s,baz=300,slow=4.5,SNR=8.3						
VNDA	Vanda	87.89	168	P	P	19 30 51.8	+1.3
	comp=Z,8.7nm,1.1s,mb4.9						
VNDA				LR	LR		
	comp=Z,276nm,19.0s,MS4.7						
SBA	Scott Base	89.00	168	*e*P	P	19 30 54.4	-1.4
SBA				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.4						
SBA	Scott Base	89.00	168	*e*P	P	19 30 54.4	-1.3
	comp=Z,18nm,0.9s,mb5.4						
QSPA	South Pole Qui	92.68	180	*e*P	P	19 31 14.7	+2.0
	comp=Z,29nm,1.3s,mb5.5						
ESDC	Sonseca Array	94.67	310	P	P	19 31 23.7	+0.9
	comp=Z,0.5nm,0.6s,mb4.1,baz=48,slow=3.5,SNR=5.1						
ESDC				pP	pP	19 31 32.6	+1.0
	comp=Z,2.0nm,0.7s,baz=60,slow=4.2,SNR=8.0						
DBIC	Dimbokro	98.83	277	PFAKE		19 31 50.0	+7.8
DBIC				LR	LR		
	comp=Z,256nm,21.0s,MS4.7						
COLA	College	98.96	22	PFAKE		19 31 50.0	+8.4
COLA				LR	LR		
	comp=Z,320nm,19.0s,MS4.8						
ILAR	Eielson Array	99.37	22	PKKPbc		19 48 14.6	
	comp=Z,1.0nm,1.0s,baz=198,slow=3.6,SNR=7.0						
ILAR				LR	LR	20 17 40.4	
	comp=Z,200nm,18.8s,MS4.6,baz=145,slow=36						
YKA	Yellowknife Ar	111.32	14	PP	PP	19 37 13.9	-4.5
	comp=Z,0.8nm,0.8s,baz=333,slow=7.7,SNR=4.2						
YKA				PKKPbc		19 47 37.6	
	comp=Z,0.5nm,0.7s,baz=145,slow=3.0,SNR=7.0						
ULM	Lac du Bonnet	126.48	8	PKP	PKPdf	19 37 04.6	-3.7
	comp=Z,3.3nm,0.8s,baz=105,slow=2.8,SNR=5.4						
PDAR	Pinedale Array	129.80	23	PKP	PKPdf	19 37 12.4	-2.5
	comp=Z,1.5nm,1.0s,slow=3.0,SNR=10.0						
ANMO	Albuquerque	137.71	26	PKP	PKPdf	19 37 27.5	-2.3
	comp=Z,2.5nm,1.0s,baz=262,slow=3.0,SNR=5.1						
MNTX	Cornudas Mount	140.94	27	*e*PKPdf	PKPdf	19 37 32.7	-3.1
MNTX				*e*		19 37 41.9	
GDL2	Guadalupe Moun	140.96	26	*e*PKPdf	PKPdf	19 37 28.5	-7.4
MIAR	Mount Ida	142.16	11	*e*PKPdf	PKPdf	19 37 30.9	-6.9
JSC	Jenkinsville	142.94	354	*e*PKPdf	PKPdf	19 37 33.4	-5.8
JSC				*e*		19 37 44.0	
TXAR	Lajitas Array	143.72	27	PKP	PKPdf	19 37 36.0	-4.7
	comp=Z,4.5nm,0.9s,baz=251,slow=2.4,SNR=28						
JCT	Junction City	144.30	21	*e*PKPdf	PKPdf	19 37 37.0	-4.7
NATX	Nacogdoches	144.63	13	*e*PKPdf	PKPdf	19 37 38.5	-3.7
HKT	Hockley	146.06	16	*e*PKPdf	PKPdf	19 37 37.9	-6.8
HKT				*e*		19 37 42.7	
HKT				*e*		19 37 52.7	
LVC	Limon Verde	154.44	218	*e*PKPdf	PKPdf	19 37 54.6	-3.1
LVC				*e*PKPbc	PKPdf	19 38 03.9	+6.2
LVC				*e*		19 38 13.5	
LPAZ	La Paz	158.15	231	PKP	PKPdf	19 38 00.2	-2.5
	comp=Z,4.0nm,1.1s,baz=39,slow=1.1,SNR=6.6						
LPAZ				pPKP		19 38 09.3	
	comp=Z,4.5nm,0.8s,baz=293,slow=1.4,SNR=10						
ROSC	El Rosal	166.42	304	PKP	PKPdf	19 38 08.9	-2.3
	comp=Z,3.8nm,0.4s,baz=81,slow=20,SNR=4.2						

IDC 30 19:25:54.2±3.4**, 10.81N**×**90.67E, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.5**/18**, mbtmp3.5**/4**, ML3.7**/1**, Error ellipse: s-maj=91.1km s-min=29.0km az=80.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.04	46	Pn	P	19 28 33.5	-2.9
	0.2nm,0.3s,baz=238,slow=15,SNR=6.0						
SONM	Songino Array	39.21	17	P	P	19 33 24.3	-1.4
	0.3nm,0.5s,baz=205,slow=8.5,SNR=7.5						
WRA	Warramunga Arr	52.74	125	P	P	19 35 10.1	-3.3
	0.6nm,0.6s,baz=307,slow=8.3,SNR=7.7						
ASAR	Alice Springs	54.41	129	P	P	19 35 24.2	-1.4
	0.3nm,0.5s,baz=305,slow=7.3,SNR=7.7						

IDC 30 19:31:29.4±1.3**, 10.64N**×**92.42E, mb3.7**/7**, mb1 3.9**/8**, mb1mx3.8**/18**, mbtmp3.7**/8**, ML3.9**/1**, Error ellipse: s-maj=37.7km s-min=25.7km az=43.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	10.01	38	Pn	P	19 33 54.3	-3.4
	0.3nm,0.3s,baz=213,slow=15,SNR=7.2						
SONM	Songino Array	38.90	15	P	P	19 38 58.0	-0.5
	0.3nm,0.7s,baz=188,slow=10,SNR=3.2						
ZAL	Zalesovo	43.61	353	P	P	19 39 34.0	-3.1
	0.9nm,0.4s,baz=300,slow=8.5,SNR=4.5						
WRA	Warramunga Arr	51.24	126	P	P	19 40 35.2	-2.1
	0.3nm,0.3s,baz=307,slow=9.4,SNR=10						
BRTR	Keskin Array B	59.36	310	P	P	19 41 34.8	-1.1
	2.1nm,1.1s,baz=132,slow=6.8,SNR=4.7						
AKASG	Malin Array Be	64.95	321	P	P	19 42 11.7	-1.5
	0.4nm,0.4s,baz=86,slow=5.0,SNR=4.1						
GERES	GERESS Array B	74.65	318	P	P	19 43 10.8	-1.7
	0.2nm,0.4s,baz=124,slow=3.5,SNR=3.5						
NOA	NORSAR Array B	76.51	330	P	P	19 43 19.8	-3.1
	1.3nm,0.7s,baz=96,slow=4.8,SNR=3.7						

IDC 30 19:32:05.1±4.5**, 4.54N**×**95.00E, mb3.6**/4**, mb1 3.8**/4**, mb1mx3.6**/17**, mbtmp3.6**/4**, Error ellipse: s-maj=170.2km s-min=25.7km az=64.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	14.36	15	Pn	P	19 35 37.2	+5.3
	0.3nm,0.3s,baz=210,slow=12,SNR=5.0						
SONM	Songino Array	44.23	11	P	P	19 40 15.9	-2.0
	0.3nm,0.6s,baz=196,slow=6.7,SNR=3.1						
WRA	Warramunga Arr	45.68	124	P	P	19 40 28.1	-1.8
	0.9nm,1.0s,baz=300,slow=9.5,SNR=4.8						
ASAR	Alice Springs	47.16	128	P	P	19 40 39.7	-1.8
	0.3nm,0.5s,baz=297,slow=8.1,SNR=5.8						
ZAL	Zalesovo	49.95	352	P	P	19 41 00.8	-1.9
	1.0nm,0.4s,baz=324,slow=8.3,SNR=5.4						

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*IDC **30** 19:45:34.5±1.3, 8.88N×93.50E, mb3.9/10, mb1 4.1/10, mb1mx3.9/19, mbtmp3.9/10, Error ellipse: s-maj=52.5km s-min=25.7km az=48.0*

ISC 30 19:45:38.3±0.9**, 9.0N**±0.1×**93.8E**±0.2**, h33^{km}, n19, σ0^{s}70**/19**, mb4.2**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PKI	Pulchoki	20.07	338	*e*P	P	19 50 11.8	+0.1
	11nm,0.6s						
GUN	Gumba	20.20	339	*e*P	P	19 50 12.6	-0.5
	19nm,0.7s						
DMN	Daman	20.21	337	*e*P	P	19 50 13.5	+0.3
KKN	Kakani	20.31	338	*e*P	P	19 50 14.4	+0.2
	17nm,0.9s						
GKN	Gorkha	20.75	337	*e*P	P	19 50 18.1	-0.7
	31nm,0.6s						
KOLN	Koldanda	20.97	334	*e*P	P	19 50 21.6	+0.5
	30nm,0.8s						
SONM	Songino Array	40.13	13	P	P	19 53 13.8	+1.2
	1.1nm,1.1s,mb3.5,baz=194,slow=5.1,SNR=3.9						
ZAL	Zalesovo	45.36	353	P	P	19 53 55.4	+0.2
	0.9nm,0.5s,mb3.9,baz=298,slow=4.4,SNR=4.6						
RDF	Al-Radifah	47.62	301	*e*P	P	19 54 14.4	+1.1
RDF				AMb	AMB	19 54 19.7	
	comp=Z,34nm,1.2s,mb5.2						
BVAR	Borovoye Array	47.79	341	P	P	19 54 13.3	-1.0
	comp=Z,0.3nm,0.5s,mb3.6,baz=130,slow=11,SNR=3.1						
NAY	Al-Naaiem	47.96	301	*e*P	P	19 54 16.7	+0.7
NAY				AMb	AMB	19 54 17.1	
	comp=Z,10nm,0.6s,mb5.0						
RST	Umm Al-Ruwaisa	48.23	302	*e*P	P	19 54 18.7	+0.6
RST				AMb	AMB	19 54 19.2	
	comp=Z,13nm,0.5s,mb5.2						
WRA	Warramunga Arr	49.23	126	P	P	19 54 25.9	0.0
	comp=Z,0.7nm,0.9s,mb3.7,baz=304,slow=8.6,SNR=8.9						
BRTR	Keskin Array B	61.41	310	P	P	19 55 51.9	-1.8
	comp=Z,1.3nm,0.6s,mb4.2,baz=123,slow=6.6,SNR=7.6						
FINES	FINESS Array B	71.53	332	P	P	19 56 56.9	-0.7
	comp=Z,4.1nm,1.0s,mb4.3,baz=135,slow=2.7,SNR=4.9						
ARCES	ARCESS Array B	74.06	340	P	P	19 57 12.6	+0.2
	comp=Z,5.3nm,1.1s,mb4.4,baz=98,slow=6.6,SNR=8.3						
GERES	GERESS Array B	76.73	318	P	P	19 57 28.2	+0.2
	comp=Z,0.5nm,0.6s,mb3.7,baz=90,slow=6.7,SNR=5.4						
HFS	Hagfors	77.28	330	P	P	19 57 30.6	-0.3
	comp=Z,6.0nm,1.0s,mb4.5,baz=180,slow=1.5,SNR=4.7						
NOA	NORSAR Array B	78.55	331	P	P	19 57 37.6	-0.3
	comp=Z,2.2nm,0.9s,mb4.1,baz=94,slow=5.4,SNR=2.8						

IDC 30 19:48:09.0±1.4**, 3.25N**×**93.71E, h27^{km}**±5^{km}**, mb3.7**/6**, mb1 3.8**/7**, mb1mx3.6**/20**, mbtmp3.8**/7**, ML3.5**/1**, MS3.5**/2**, Ms1 3.6**/2**, ms1mx3.1**/20**, Error ellipse: s-maj=46.9km s-min=20.8km az=55.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.95	18	Pn	P	19 51 51.0	-2.6
	0.1nm,0.3s,baz=212,slow=11,SNR=5.7						
CMAR				LR	LR	19 58 32.6	
	comp=Z,76nm,18.1s,baz=265,slow=39						
SONM	Songino Array	45.74	12	P	P	19 56 28.0	-1.8
	0.6nm,0.7s,baz=190,slow=8.3,SNR=6.2						
SONM				pP	pP	19 56 36.8	-1.2
	0.8nm,0.6s,baz=190,slow=8.7,SNR=7.4						
WRA	Warramunga Arr	46.07	122	P	P	19 56 30.7	-2.1
	0.8nm,0.6s,baz=299,slow=8.9,SNR=6.9						
WRA				pP	pP	19 56 39.0	-2.0
	0.9nm,0.6s,baz=299,slow=8.7,SNR=3.8						
ZAL	Zalesovo	51.05	353	P	P	19 57 08.7	-2.2
	1.0nm,0.5s,baz=273,slow=3.5,SNR=5.4						
ZAL				pP	pP	19 57 16.9	-2.3
	0.9nm,0.6s,baz=298,slow=6.1,SNR=3.8						
BVAR	Borovoye Array	53.22	343	P	P	19 57 24.5	-2.8
	1.2nm,0.9s,baz=135,slow=8.4,SNR=4.5						
BVAR				pP	pP	19 57 32.7	-2.9
	0.5nm,0.7s,baz=141,slow=9.5,SNR=4.0						
GERES	GERESS Array B	80.98	319	P	P	20 00 21.7	-1.1
	0.5nm,0.7s,baz=135,slow=5.6,SNR=3.4						
DAVOX	Davos	83.42	317	P	P	20 00 34.1	-1.4
	1.0nm,0.5s,baz=144,slow=10,SNR=3.9						
SNAA	Sanae	95.14	198	LR	LR	20 38 00.6	
	comp=Z,36nm,18.2s,baz=9.3,slow=31						

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*IDC **30** 19:50:22.2±1.2, 6.60N×92.46E, mb3.8/7, mb1 4.0/8, mb1mx3.8/20, mbtmp3.8/8, ML4.1/1, Error ellipse: s-maj=47.5km s-min=20.6km az=55.0*

ISC 30 19:50:25.8±0.9**, 6.6N**±0.1×**92.6E**±0.2**, h33^{km}, n13, σ0^{s}64**/13**, mb4.0**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.29	27	Pn	P	19 53 35.0	+0.3
	0.3nm,0.3s,baz=230,slow=14,SNR=46						
PKI	Pulchoki	21.92	343	*e*P	P	19 55 18.4	+0.3
DMN	Daman	22.05	342	*e*P	P	19 55 19.7	+0.3
	18nm,0.9s,mb4.5						
GUN	Gumba	22.11	344	*e*P	P	19 55 20.0	+0.1
	15nm,0.7s,mb4.5						
KKN	Kakani	22.17	343	*e*P	P	19 55 20.6	+0.1
	21nm,1.1s,mb4.5						
KOLN	Koldanda	22.70	339	*e*P	P	19 55 26.4	+0.5
	16nm,0.8s,mb4.5						
SONM	Songino Array	42.73	14	P	P	19 58 21.0	-0.5
	0.5nm,0.7s,mb3.4,baz=180,slow=4.9,SNR=4.3						
ZAL	Zalesovo	47.60	354	P	P	19 59 00.2	-0.1
	0.4nm,0.4s,mb3.8,baz=322,slow=17,SNR=2.2						
WRA	Warramunga Arr	48.82	124	P	P	19 59 09.7	-0.5
	0.8nm,0.9s,mb3.8,baz=316,slow=8.4,SNR=13						
WRA				pP	pP	19 59 18.3	-1.8
	2.0nm,0.9s,baz=304,slow=9.1,SNR=8.1						
BVAR	Borovoye Array	49.70	343	P	P	19 59 14.5	-2.1
	1.3nm,0.9s,mb3.9,baz=146,slow=5.3,SNR=4.6						
ASAR	Alice Springs	50.32	128	P	P	19 59 22.4	+0.7
	1.1nm,0.8s,mb3.9,baz=302,slow=7.3,SNR=9.4						
ASAR				pP	pP	19 59 29.9	-1.8
	5.9nm,1.1s,baz=302,slow=7.0,SNR=15						
GERES	GERESS Array B	77.73	318	P	P	20 02 21.4	+0.3
	0.5nm,0.6s,mb3.7,baz=153,slow=6.0,SNR=4.3						
DAVOX	Davos	80.22	316	P	P	20 02 34.9	+0.2
	1.4nm,0.7s,mb4.0,baz=112,slow=5.9,SNR=3.8						

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*IDC **30** 19:52:39.5±0.7, 3.26N×93.70E, h27^{km}±3^{km}, mb4.0/13, mb1 4.2/14, mb1mx4.0/22, mbtmp4.2/14, ML4.0/1, Error ellipse: s-maj=30.2km s-min=12.1km az=50.0*

ISC 30 19:52:37.7±0.7**, 3.3N**±0.1×**93.8E**±0.1**, h28^{km}, h28^{km}**±.4^{km}**:pP-P, n15, σ0^{s}58**/14**, mb4.2**/13**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.89	18	Pn	P	19 56 21.4	0.0
	0.2nm,0.3s,baz=215,slow=12,SNR=12						
SONM	Songino Array	45.68	12	P	P	20 00 58.4	+0.4
	1.5nm,0.7s,mb4.0,baz=194,slow=8.4,SNR=14						
SONM				pP	pP	20 01 07.1	+0.8
	2.3nm,0.6s,baz=193,slow=8.6,SNR=15						
SONM				PcP	PcP	20 02 36.9	+0.8
	0.4nm,0.7s,baz=179,slow=3.9,SNR=3.3						
SONM				pPcP		20 02 45.3	
	0.6nm,0.8s,baz=186,slow=4.1,SNR=3.9						
WRA	Warramunga Arr	46.03	122	P	P	20 01 01.3	+0.2
	3.0nm,0.6s,mb4.4,baz=299,slow=8.8,SNR=14						
WRA				pP	pP	20 01 09.8	+0.4
	2.7nm,0.5s,baz=300,slow=8.8,SNR=7.3						
ASAR	Alice Springs	47.37	127	P	P	20 01 11.5	-0.1
	0.8nm,0.6s,mb3.8,baz=292,slow=8.0,SNR=6.5						
ASAR				pP	pP	20 01 20.4	+0.3
	1.1nm,0.5s,baz=293,slow=7.9,SNR=5.7						
ASAR				PcP	PcP	20 02 42.6	+0.2
	0.5nm,0.6s,baz=314,slow=2.9,SNR=4.2						
ASAR				pPcP		20 02 51.5	
	0.8nm,0.7s,baz=309,slow=3.4,SNR=4.3						
ZAL	Zalesovo	51.02	353	P	P	20 01 38.9	-0.4
	4.7nm,0.4s,mb4.8,baz=305,slow=5.3,SNR=22						
ZAL				pP	pP	20 01 47.8	0.0
	3.5nm,0.5s,baz=306,slow=3.9,SNR=10.0						
BVAR	Borovoye Array	53.20	343	P	P	20 01 55.0	-0.7
	1.5nm,0.7s,mb4.1,baz=141,slow=9.5,SNR=10						
BVAR				pP	pP	20 02 03.6	-0.6
	1.4nm,0.7s,baz=141,slow=9.5,SNR=7.4						
STKA	Stephens Creek	57.28	131	P	P	20 02 25.3	-0.3
	0.6nm,0.4s,mb4.0,baz=341,slow=13,SNR=3.2						
STKA				pP	pP	20 02 33.6	-0.6
	1.9nm,0.6s,baz=304,slow=9.9,SNR=2.2						
BRTR	Keskin Array B	65.19	313	P	P	20 03 18.0	-0.9
	0.5nm,0.4s,mb3.9,baz=129,slow=9.2,SNR=3.3						
IDI	Anoyia	70.92	306	P	P	20 03 54.4	-0.4
	1.6nm,0.6s,mb4.1,baz=90,slow=20,SNR=4.9						
MLR	Muntele Rosu	72.22	317	P	P	20 04 02.6	+0.3
	1.5nm,0.9s,mb3.9,baz=153,slow=11,SNR=4.0						
FINES	FINESS Array B	76.58	333	P	P	20 04 26.5	-0.6
	7.2nm,1.2s,mb4.5,baz=90,slow=5.7,SNR=6.8						
FINES				pP	pP	20 04 35.2	-0.7
	1.1nm,0.7s,baz=108,slow=6.0,SNR=0.9						
ARCES	ARCESS Array B	79.43	341	P	P	20 04 42.9	+0.3
	5.1nm,1.1s,mb4.4,baz=90,slow=6.3,SNR=4.2						
GERES	GERESS Array B	81.00	319	P	P	20 04 52.4	+1.0
	1.3nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=7.5						
GERES				pP	pP	20 05 01.0	+0.7
	1.1nm,0.6s,baz=117,slow=6.0,SNR=5.3						
DAVOX	Davos	83.44	317	P	P	20 05 05.3	+1.2
	4.5nm,0.7s,mb4.6,baz=134,slow=5.5,SNR=8.4						
DAVOX				pP	pP	20 05 13.5	+0.5
	1.7nm,0.4s,baz=142,slow=22,SNR=3.8						
TXAR	Lajitas Array	143.50	26	PKP	PKPdf	20 12 11.1	-4.3
	0.1nm,0.4s,baz=115,slow=1.4,SNR=3.6						

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*LDG **30** 20:02:21.1±0.1, 48.06N×8.01E, h14^{km}, Md2.0/2, Ml1.9/7, Error ellipse: s-maj=1.8km s-min=1.3km az=75.0*

*STR **30** 20:02:21.3±0.3, 48.07N×8.01E, h5^{km}±1^{km}, Ml1.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

ZUR 30 20:02:20.8, 48.06N×8.06E, h5^{km}, ML1.5/5**, 3D, Germany**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SLE	Schleitheim	0.41	134	⇓*i*Pg	Pg	20 02 29.3	+0.2
SLE				*i* Sg	Sg	20 02 36.0	+1.4
SULZ	Sulz-Cheisache	0.53	176	⇓*i*Pg	Pg	20 02 31.6	+0.2
TRULL	Truellikon	0.58	134	*e*Pg	Pg	20 02 32.5	0.0
TRULL				*e*Sg	Sg	20 02 40.7	+0.4
WLS	Welschbruch	0.59	308	Pg	Pg	20 02 32.3	-0.3
WLS				Sg	Sg	20 02 39.5	-1.1
ECH	Echery	0.62	285	Pg	Pg	20 02 32.6	-0.7
ECH				Sg	Sg	20 02 40.7	-0.9
CDF	Champ du Feu	0.63	305	*e*Pg	Pg	20 02 32.8	-0.7
CDF				*e*Pn	Pn	20 02 33.4	-2.7
CDF				*e*Sg	Sg	20 02 39.7	-2.2
	6.0nm,0.2s						
MOF	Molkenrain	0.65	252	Pg	Pg	20 02 33.6	-0.3
BALST	Balsthal	0.76	199	*e*Pg	Pg	20 02 35.9	-0.1
WEIN	Weingarten	0.82	130	*e*Pg	Pg	20 02 37.1	-0.1
HINF	Hinteralfeld	0.84	254	*e*Pg	Pg	20 02 36.1	-1.6
HINF				*e*Pn	Pn	20 02 36.8	-2.3
HINF				*e*Sg	Sg	20 02 47.4	-1.5
	2.2nm,0.2s						
WILA	Wila	0.86	138	⇓*i*Pg	Pg	20 02 37.9	-0.1
WILA				*e*Sg	Sg	20 02 49.5	0.0
LOMF	Lomont	1.09	230	Pg	Pg	20 02 41.7	-0.9
HAU	Haudompre	1.15	268	*e*Pn	Pn	20 02 40.8	-2.7
HAU				*e*Pg	Pg	20 02 42.1	-1.6
HAU				*e*Sg	Sg	20 02 56.5	-2.6
	3.2nm,0.2s						
RFYF	Reffroy	1.82	289	*e*Pg	Pg	20 02 54.4	-2.7
RFYF				*e*Sn	Sn	20 03 10.5	-6.2
RFYF				*e*Sg	Sg	20 03 17.6	-3.7
	2.5nm,0.3s						
CABF	La Chapelle	1.97	224	*e*Pn	Pn	20 02 52.4	-2.8
CABF				*e*Pg	Pg	20 02 57.7	-2.4
CABF				*e*Sg	Sg	20 03 23.0	-3.4
	0.6nm,0.2s						
SFTF	Sexfontaines	2.03	275	*e*Pn	Pn	20 02 52.8	-3.2
SFTF				*e*Sn	Sn	20 03 15.6	-6.4
SFTF				*e*Sg	Sg	20 03 23.8	-4.5
	1.4nm,0.2s						
MEZF	Maizieres J'vi	2.06	284	*e*Pn	Pn	20 02 53.0	-3.5
MEZF				*e*Sn	Sn	20 03 16.5	-6.3
MEZF				*e*Sg	Sg	20 03 24.6	-4.7
	1.7nm,0.3s						
SSF	Saint Saulge	3.24	254	*e*Pn	Pn	20 03 09.7	-3.6
SSF				*e*Pg	Pg	20 03 20.4	-5.1
AVF	Avril sur Loir	3.44	250	*e*Sg	Sg	20 04 07.8	-7.4
	0.3nm,0.3s						

IDC 30 20:10:21.5±3.9**, 9.64N**×**92.06E, mb3.3**/2**, mb1 3.6**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, ML3.6**/1**, Error ellipse: s-maj=99.1km s-min=34.0km az=77.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.02	37	Pn	P	20 13 01.6	-1.9
	0.1nm,0.3s,baz=227,slow=14,SNR=12						
SONM	Songino Array	39.95	15	P	P	20 17 57.1	-2.1
	0.3nm,0.8s,baz=202,slow=10.0,SNR=3.0						
WRA	Warramunga Arr	50.95	125	P	P	20 19 25.3	-1.9
	0.3nm,0.5s,baz=306,slow=8.5,SNR=5.7						

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*IDC **30** 20:15:20.8±0.9, 7.52N×93.83E, h17^{km}±5^{km}, mb3.8/7, mb1 3.9/8, mb1mx3.7/18, mbtmp3.8/8, ML3.9/1, Error ellipse: s-maj=42.5km s-min=17.3km az=52.0*

ISC 30 20:15:18.9±0.9**, 7.5N**±0.1×**93.8E**±0.2**, h18^{km}, h18^{km}**±.4^{km}**:pP-P, n9, σ0^{s}90**/9**, mb3.9**/8**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.97	24	Pn	P	20 18 12.2	+0.5
	0.2nm,0.3s,baz=218,slow=15,SNR=4.2						
SONM	Songino Array	41.59	13	P	P	20 23 07.3	-0.1
	0.3nm,0.5s,mb3.2,baz=202,slow=8.7,SNR=5.2						
ZAL	Zalesovo	46.87	353	P	P	20 23 49.6	-0.2
	1.4nm,0.3s,mb4.3,baz=240,slow=0.7,SNR=6.0						
WRA	Warramunga Arr	48.29	125	P	P	20 24 01.3	-0.1
	0.7nm,0.6s,mb3.9,baz=304,slow=8.8,SNR=11						
ASAR	Alice Springs	49.91	130	P	P	20 24 13.8	0.0
	1.6nm,1.0s,mb4.0,baz=302,slow=7.3,SNR=10						
ASAR				pP	pP	20 24 19.6	+0.4
	0.7nm,0.7s,baz=301,slow=7.0,SNR=4.3						
FINES	FINESS Array B	72.90	332	P	P	20 26 48.3	-0.3
	1.2nm,0.5s,mb4.1,baz=124,slow=6.9,SNR=8.7						
FINES				pP	pP	20 26 54.0	-0.3
	4.4nm,0.8s,baz=104,slow=7.9,SNR=3.1						
KAF	Kangasniemi	72.98	333	*e*p	P	20 26 46.8	-2.4
	0.7nm,0.4s,mb3.9						
GERES	GERESS Array B	77.90	318	P	P	20 27 18.0	+0.6

	0.7nm,0.7s,mb3.7,baz=108,slow=4.2,SNR=5.1						
GERES				pP	pP	20 27 23.4	+0.4
	0.8nm,0.7s,baz=90,slow=4.0,SNR=4.0						
ESDC	**Sonseca Array**	**91.22**	**310**	P	**P**	**20 28 26.2**	**+1.5**
	0.3nm,0.5s,mb3.9,baz=62,slow=4.4,SNR=4.2						
ESDC				pP	pP	20 28 31.7	+1.3
	0.5nm,0.5s,baz=65,slow=4.0,SNR=3.5						

IDC 30 20:26:35.8±1.9,**13.27N×91.99E,mb3.6**/3,**mb1 3.7**/4, **mb1mx3.4**/18,**mbtmp3.5**/4,**ML3.8**/1,**Error ellipse: s-maj=59.8km s-min=28.0km az=62.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.45**	**51**	Pn	P	20 28 39.6	-2.8
	0.3nm,0.3s,baz=232,slow=16,SNR=8.3						
BVAR	**Borovoye Array**	**43.23**	**341**	P	P	20 34 38.4	-2.0
	0.8nm,0.8s,baz=153,slow=9.9,SNR=4.8						
WRA	**Warramunga Arr**	**53.16**	**128**	P	P	20 35 55.3	-2.8
	0.3nm,0.7s,baz=306,slow=9.1,SNR=3.7						
ASAR	**Alice Springs**	**55.02**	**132**	P	P	20 36 10.1	-1.7
	0.5nm,0.4s,baz=307,slow=6.5,SNR=13						

IDC 30 20:30:45.1±2.4,**5.84N×93.68E,mb3.6**/4,**mb1 3.7**/5, **mb1mx3.5**/19,**mbtmp3.5**/5,**Error ellipse: s-maj=81.4km s-min=25.2km az=64.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.55**	**22**	Pn	P	20 33 59.1	-2.2
	baz=210,slow=15,SNR=4.3						
SONM	**Songino Array**	**43.23**	**12**	P	P	20 38 48.2	-1.6
	0.9nm,0.8s,baz=192,slow=7.6,SNR=6.9						
WRA	**Warramunga Arr**	**47.49**	**124**	P	P	20 39 22.4	-1.8
	0.9nm,0.9s,baz=304,slow=8.9,SNR=4.6						
WRA				pP	pP	20 39 33.1	+8.9
	0.7nm,0.5s,baz=305,slow=8.3,SNR=6.5						
ASAR	**Alice Springs**	**48.99**	**128**	P	P	20 39 33.7	-2.1
	0.3nm,0.6s,baz=299,slow=7.7,SNR=4.0						
BVAR	**Borovoye Array**	**50.76**	**342**	P	P	20 39 46.7	-2.2
	0.7nm,0.7s,baz=157,slow=11,SNR=6.0						

IDC 30 20:32:38.6±3.0,**4.90N×78.49W,mb3.5**/2,**mb1 3.8**/4, **mb1mx3.4**/20,**mbtmp3.6**/4,**ML2.7**/2,**MS2.8**/1,**Ms1 2.8**/1, **ms1mx1.6**/27,**Error ellipse: s-maj=83.5km s-min=33.0km az=11.0,South of Panama**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ROSC	**El Rosal**	**4.14**	**90**	Pn	Pn	20 33 44.5	0.0
	3.5nm,0.3s,baz=280,slow=19,SNR=5.1						
ROSC				LR	LR	20 35 32.9	
	comp=Z,122nm,19.6s,baz=348,slow=42						
SDV	**Santo Domingo**	**8.75**	**63**	Pn	P	20 34 45.7	-3.5
	0.5nm,0.3s,baz=288,slow=19,SNR=5.4						
YKA	**Yellowknife Ar**	**63.33**	**342**	P	P	20 43 08.8	-2.7
	0.3nm,0.7s,baz=137,slow=5.9,SNR=6.1						
ILAR	**Eielson Array**	**76.47**	**336**	P	P	20 44 30.6	-1.1
	0.4nm,0.6s,baz=102,slow=4.2,SNR=11						
ASAR	**Alice Springs**	**143.64**	**236**	PKP	PKPdf	20 52 14.9	-3.1
	1.8nm,0.5s,baz=117,slow=3.6,SNR=31						

IDC 30 20:40:07.7±2.4,**4.90N×94.12E,mb3.7**/5,**mb1 3.8**/6, **mb1mx3.6**/19,**mbtmp3.6**/6,**ML3.6**/1,**Error ellipse: s-maj=88.2km s-min=22.2km az=62.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.28**	**19**	Pn	P	20 43 33.4	-0.1
	0.1nm,0.3s,baz=209,slow=14,SNR=3.7						
SONM	**Songino Array**	**44.06**	**12**	P	P	20 48 15.9	-3.2
	0.5nm,0.8s,baz=194,slow=8.1,SNR=4.2						
WRA	**Warramunga Arr**	**46.60**	**123**	P	P	20 48 37.9	-1.9
	0.7nm,0.6s,baz=301,slow=11,SNR=8.9						
ASAR	**Alice Springs**	**48.07**	**128**	P	P	20 48 49.5	-1.9
	0.4nm,0.7s,baz=300,slow=7.4,SNR=6.3						
ZAL	**Zalesovo**	**49.48**	**353**	P	P	20 49 00.3	-1.4
	1.4nm,0.3s,baz=314,slow=10,SNR=8.2						
BVAR	**Borovoye Array**	**51.79**	**342**	P	P	20 49 17.1	-2.2
	0.5nm,0.6s,baz=147,slow=11,SNR=4.1						

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*PRU **30** 20:40:36.8,43.05N×13.85E*

*CSEM **30** 20:40:40.8±0.1,43.27N×13.55E,h2^{km},ML3.3/10,Error ellipse: s-maj=2.2km s-min=1.2km az=60.0*

*NEIC **30** 20:40:41.4,43.26N×13.55E,h5^{km},MD3.1(ROM), ML3.2(LDG),ML2.8(ZAG),After ROM.*

*LDG **30** 20:40:44.9±0.2,43.32N×13.40E,h10^{km},Ml3.2/18,Error ellipse: s-maj=5.0km s-min=3.6km az=55.0*

ROM 30 20:40:41.4±0.2,**43.26N×13.55E,h5**^{km},**MD3.1**/10, **ML2.6**/6,**15C-7D,Error ellipse: s-maj=1.8km s-min=1.3km az=90.0,Central Italy**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CING	**Cingoli**	**0.28**	**294**	⇑*i*PG	Pg	20 40 47.5	+0.4
CING				SG	Sg	20 40 52.8	+2.0
CING	**Cingoli**	**0.28**	**294**	⇑*i*Pg	Pg	20 40 47.5	+0.5
CING				*e*Sg	Sg	20 40 52.8	+1.9
SNTG	**Esanatoglia**	**0.44**	**269**	*e*PG	Pg	20 40 50.8	+0.5
SNTG				SG	Sg	20 40 58.5	+2.3
SNTG	**Esanatoglia**	**0.44**	**269**	*e*Pg	Pg	20 40 50.8	+0.5
SNTG				*e*Sg	Sg	20 40 58.5	+2.3
ARV	**Arcevia**	**0.50**	**298**	⇑*i*PG	Pg	20 40 51.1	-0.3
ARV				SG	Sg	20 41 00.0	+1.9
ARV	**Arcevia**	**0.50**	**298**	⇑*i*Pg	Pg	20 40 51.1	-0.3
ARV				*e*Sg	Sg	20 41 00.0	+1.9
NRCA	**Norcia**	**0.53**	**217**	⇓*i*PG	Pg	20 40 52.8	+0.7
NRCA				SG	Sg	20 41 01.8	+2.6
NRCA	**Norcia**	**0.53**	**217**	⇓*i*Pg	Pg	20 40 52.8	+0.7
NRCA				*e*Sg	Sg	20 41 01.8	+2.6
TERO	**Teramo**	**0.64**	**176**	*e*PG	Pg	20 40 54.2	0.0
TERO				SG	Sg	20 41 05.6	+2.8
TERO	**Teramo**	**0.64**	**176**	*e*Pg	Pg	20 40 54.2	0.0
TERO				*e*Sg	Sg	20 41 05.6	+2.8
FSSB	**Fossombrone**	**0.71**	**308**	⇑*i*PG	Pg	20 40 56.2	+0.7
FSSB	**Fossombrone**	**0.71**	**308**	⇑*i*Pg	Pg	20 40 56.2	+0.7
MURB	**Monte Urbino**	**0.75**	**270**	⇓*i*PG	Pg	20 40 56.6	+0.3
MURB				SG	Sg	20 41 07.9	+1.6
MURB	**Monte Urbino**	**0.75**	**270**	⇓*i*Pg	Pg	20 40 56.6	+0.3
MURB				*e*Sg	Sg	20 41 07.9	+1.6
AQU	**L’Aquila**	**0.92**	**187**	*e*PG	Pg	20 40 59.3	-0.4
AQU				SG	Sg	20 41 14.9	+3.0
	279nm,0.5s						
AQU	**L’Aquila**	**0.92**	**187**	*e*Pg	Pg	20 40 59.3	-0.4
	279nm,0.5s						
AQU				Sg	Sg	20 41 14.9	+3.0
RSM	**Repubblica di**	**1.04**	**310**	*e*PG	Pg	20 41 02.5	+0.3
RSM	**Repubblica di**	**1.04**	**310**	*e*Pg	Pg	20 41 02.5	+0.3
MNS	**Montasola**	**1.08**	**216**	⇑*i*PN	Pn	20 41 02.5	-0.6
MNS				SN	Sn	20 41 20.0	+1.3
	220nm,0.4s						
MNS	**Montasola**	**1.08**	**216**	⇑*i*Pg	Pg	20 41 02.5	-0.6
MNS				*e*Sg	Sg	20 41 20.0	+2.4
MNS	**Montasola**	**1.08**	**216**	⇑*i*Pn	Pn	20 41 02.5	-0.6
	220nm,0.4s						
MNS				Sn	Sn	20 41 20.0	+1.3
CRE	**Caprese Michel**	**1.22**	**288**	*e*PN	Pn	20 41 05.2	+0.2
	82nm,0.4s						
CRE	**Caprese Michel**	**1.22**	**288**	*e*Pg	Pg	20 41 05.2	-0.5
CRE	**Caprese Michel**	**1.22**	**288**	*e*Pn	Pn	20 41 05.2	+0.2
	82nm,0.4s						
PTQR	**Pietraquaria**	**1.25**	**185**	*e*PN	Pn	20 41 05.2	-0.2
PTQR	**Pietraquaria**	**1.25**	**185**	*e*Pg	Pg	20 41 05.2	-1.0
INTR	**Introdacqua**	**1.28**	**168**	*e*PN	Pn	20 41 06.2	+0.3
INTR	**Introdacqua**	**1.28**	**168**	*e*Pg	Pg	20 41 06.2	-0.8
SFI	**Santa Sofia**	**1.39**	**298**	*e*PN	Pn	20 41 07.5	0.0
	109nm,0.6s						
SFI	**Santa Sofia**	**1.39**	**298**	*e*Pg	Pg	20 41 07.5	-1.7
SFI	**Santa Sofia**	**1.39**	**298**	*e*Pn	Pn	20 41 07.5	0.0
	109nm,0.6s						
NVLJ	**Novalja**	**1.61**	**36**	*i* Pn	Pn	20 41 07.8	-2.9
NVLJ				*i* Pg	Pg	20 41 08.5	-5.1
NVLJ				*i* Sn	Sn	20 41 28.9	-3.2
NVLJ				*i* Sg	Sg	20 41 29.0	-6.2
NVLJ	**Novalja**	**1.61**	**36**	*i* Pg	Pg	20 41 08.5	-5.1
NVLJ				*i* Sn	Sn	20 41 28.9	-3.2
VMG	**Vicchio**	**1.61**	**296**	*e*PN	Pn	20 41 10.4	-0.3
CII	**Carovilli**	**1.64**	**160**	*e*Pn	Pn	20 41 13.0	+1.9
CII				*e*Sn	Sn	20 41 35.9	+3.2
CSNT	**Castellina Chi**	**1.66**	**278**	*e*PN	Pn	20 41 11.9	+0.5
	73nm,0.4s						
CSNT	**Castellina Chi**	**1.66**	**278**	*e*Pn	Pn	20 41 11.9	+0.6
CSNT	**Castellina Chi**	**1.66**	**278**	*e*Pn	Pn	20 41 11.9	+0.5
	73nm,0.4s						
SEI	**Scarperia**	**1.78**	**297**	*e*PN	Pn	20 41 12.6	-0.4
SGG	**Gregorio Mates**	**1.97**	**162**	*e*PN	Pn	20 41 15.2	-0.7
SGG	**Gregorio Mates**	**1.97**	**162**	*e*Pn	Pn	20 41 15.2	-0.6
PII	**Pisa**	**2.25**	**283**	*e*PN	Pn	20 41 20.0	+0.2
	21nm,0.3s						
PII	**Pisa**	**2.25**	**283**	*e*Pn	Pn	20 41 20.0	+0.2
BOJS	**Bojanci**	**2.55**	**28**	*i* Pn	Pn	20 41 21.6	-2.6
CEY	**Cerknica**	**2.55**	**14**	*e*Pn	Pn	20 41 21.0	-3.1
JAVS	**Javornik**	**2.66**	**8**	*i* Pn	Pn	20 41 22.9	-2.7
VISS	**Visnje**	**2.70**	**20**	*e*Pn	Pn	20 41 24.3	-2.0
BACM		**2.71**	**293**	P	Pn	20 41 28.2	+1.8
VOJS	**Vojsko**	**2.78**	**5**	*i* Pn	Pn	20 41 25.4	-2.0
VOY	**Vojsko**	**2.78**	**5**	*e*Pn	Pn	20 41 25.8	-1.6
VOY				*e*Sn	Sn	20 41 58.0	-3.7
VOY	**Vojsko**	**2.78**	**5**	*e*Sn	Sn	20 41 58.0	-3.7
GRAM		**2.80**	**297**	P	Pn	20 41 28.4	+0.7
GRAM		**2.80**	**297**	P	Pn	20 41 28.4	+0.7
LJU	**Ljubljana**	**2.87**	**14**	*e*Pn	Pn	20 41 26.2	-2.4
LJU				*i* Sn	Sn	20 42 00.2	-3.8
CODM		**2.90**	**294**	P	Pn	20 41 29.9	+0.7
CODM		**2.90**	**294**	P	Pn	20 41 29.9	+0.7
ROBS	**Robic**	**2.98**	**359**	*e*Pn	Pn	20 41 26.9	-3.3
ROBS				*e*Sn	Sn	20 42 00.8	-6.0
ROBS	**Robic**	**2.98**	**359**	*e*Sn	Sn	20 42 00.8	-6.1
STON	**Ston**	**3.07**	**96**	*i* Pn	Pn	20 41 28.3	-3.2
STON				*i* Sn	Sn	20 42 05.4	-3.6
STON	**Ston**	**3.07**	**96**	*i* Pn	Pn	20 41 28.2	-3.3
STON				*i* Sn	Sn	20 42 05.4	-3.6
OBKA	**Obir**	**3.32**	**12**	⇑*i*PN	Pn	20 41 32.6	-2.5
OBKA				*i* SN	Sn	20 42 12.2	-3.3
OBKA				*i* SG	Sg	20 42 29.1	-2.9
	46nm,0.6s						
PGF	**Pioggiola**	**3.42**	**259**	*e*Pn	Pn	20 41 36.6	+0.2
PCP	**Pian Castagno**	**3.83**	**291**	P	Pn	20 41 43.9	+1.5
FIN	**Finale Ligure**	**3.98**	**286**	P	Pn	20 41 43.2	-1.3
FIN	**Finale Ligure**	**3.98**	**286**	P	Pn	20 41 43.2	-1.3
SCE	**Schlegeis**	**3.99**	**342**	⇑*i*Pn	Pn	20 41 43.0	-1.6
SCE				⇑*i*Pn	Pn	20 41 43.0	-1.6
IMI	**Imperia**	**4.16**	**281**	P	Pn	20 41 46.4	-0.7
IMI	**Imperia**	**4.16**	**281**	P	Pn	20 41 46.4	-0.6
WTTA	**Wattenberg**	**4.22**	**342**	⇑*i*PN	Pn	20 41 46.0	-1.9
WTTA				*i* SN	Sn	20 42 36.8	-1.5
WTTA	**Wattenberg**	**4.22**	**342**	*i* Sn	Sn	20 42 36.8	-1.5
ROB	**Roburent**	**4.24**	**286**	P	Pn	20 41 46.8	-1.3
ROB	**Roburent**	**4.24**	**286**	P	Pn	20 41 46.8	-1.3
MONE	**Monesi**	**4.28**	**283**	P	Pn	20 41 47.9	-0.8
MONE	**Monesi**	**4.28**	**283**	P	Pn	20 41 47.9	-0.8
NEGI	**Negi**	**4.29**	**280**	P	Pn	20 41 49.0	+0.2
NEGI	**Negi**	**4.29**	**280**	P	Pn	20 41 49.0	+0.2
SQTA	**Sankt Quirin**	**4.29**	**338**	⇓*i*PN	Pn	20 41 47.1	-1.7
SQTA				*i* SN	Sn	20 42 38.4	-1.5
SQTA	**Sankt Quirin**	**4.29**	**338**	*i* Sn	Sn	20 42 38.4	-1.5
WATA	**Walderalm**	**4.30**	**342**	⇓*i*PN	Pn	20 41 47.6	-1.5
WATA				*i* SN	Sn	20 42 38.4	-1.9
MOTA	**Moosalm**	**4.43**	**338**	⇑*i*PN	Pn	20 41 49.4	-1.5
MOTA				*i* SN	Sn	20 42 42.1	-1.4
MOTA	**Moosalm**	**4.43**	**338**	*i* Sn	Sn	20 42 42.1	-1.4
SBF	**Sospel**	**4.48**	**280**	*e*Pn	Pn	20 41 50.4	-1.2
SBF				*e*Sn	Sn	20 42 37.7	-7.1
	7.4nm,0.4s						
SBF	**Sospel**	**4.48**	**280**	*e*Sn	Sn	20 42 37.7	-7.1
	3.7nm,0.4s						
ENR	**Entracque**	**4.54**	**284**	P	Pn	20 41 51.9	-0.6
ENR	**Entracque**	**4.54**	**284**	P	Pn	20 41 51.8	-0.6
STV	**Sta Anna Valdi**	**4.61**	**284**	P	Pn	20 41 52.2	-1.2
STV	**Sta Anna Valdi**	**4.61**	**284**	P	Pn	20 41 52.2	-1.3
MOA	**Molln**	**4.62**	**6**	⇑*i*PN	Pn	20 41 50.4	-3.1
MOA				*i* SN	Sn	20 42 44.3	-3.9
ORX	**Oropa**	**4.63**	**303**	P	Pn	20 41 50.1	-3.7
ORX	**Oropa**	**4.63**	**303**	P	Pn	20 41 50.1	-3.7
TRAV		**4.73**	**300**	P	Pn	20 41 51.0	-4.1
TRAV		**4.73**	**300**	P	Pn	20 41 51.0	-4.1
DAVA	**Damuels**	**4.78**	**329**	⇓*i*PN	Pn	20 41 54.2	-1.7
DAVA				*i* SN	Sn	20 42 51.4	-1.1
BHB	**Bricherasio**	**4.80**	**291**	P	Pn	20 41 52.6	-3.5
BHB	**Bricherasio**	**4.80**	**291**	P	Pn	20 41 52.6	-3.4
PZZ	**Prazzo**	**4.82**	**287**	P	Pn	20 41 54.4	-2.0
PZZ	**Prazzo**	**4.82**	**287**	P	Pn	20 41 54.4	-2.0
VSL	**Villasalto**	**4.90**	**221**	*e*Pn	Pn	20 41 58.1	+0.6
RSP	**Reno Superiore**	**4.90**	**295**	P	Pn	20 41 53.5	-4.0
RSP	**Reno Superiore**	**4.90**	**295**	P	Pn	20 41 53.5	-4.0
FENE	**Fenestrelle**	**4.99**	**293**	P	Pn	20 41 55.4	-3.4
FENE	**Fenestrelle**	**4.99**	**293**	P	Pn	20 41 55.4	-3.4
FRF	**La Foret Royal**	**5.04**	**276**	*e*Pn	Pn	20 41 58.3	-1.1
FRF				*e*Sn	Sn	20 42 51.2	-7.6
	6.8nm,0.5s						
LSD	**Ceresole Reale**	**5.08**	**298**	P	Pn	20 41 56.0	-4.0
LSD	**Ceresole Reale**	**5.08**	**298**	P	Pn	20 41 56.0	-4.1
MBDF	**Montbardon**	**5.10**	**289**	*e*Pn	Pn	20 41 57.8	-2.6
MBDF				*e*Sn	Sn	20 42 52.6	-7.9
	3.2nm,0.3s						
MBDF	**Montbardon**	**5.10**	**289**	*e*Sn	Sn	20 42 52.6	-7.9
	1.6nm,0.3s						
LMR	**La Mourre**	**5.14**	**273**	*e*Pn	Pn	20 41 59.3	-1.6
LMR				*e*Sn	Sn	20 42 53.9	-7.5
	1.5nm,0.3s						
RRL	**Cesana Torines**	**5.14**	**291**	P	Pn	20 41 58.8	-2.1
RRL	**Cesana Torines**	**5.14**	**291**	P	Pn	20 41 58.8	-2.2
LPG	**La Plagne**	**5.36**	**297**	*e*Pn	Pn	20 42 00.2	-3.8
LPG				*e*Sn	Sn	20 42 58.6	-8.3
	5.8nm,0.4s						
LPG	**La Plagne**	**5.36**	**297**	*e*Sn	Sn	20 42 58.6	-8.3
	2.9nm,0.4s						
LPL	**La Plagne**	**5.38**	**297**	*e*Pn	Pn	20 42 00.5	-3.8
LPL				*e*Sn	Sn	20 42 58.5	-8.9
	9.7nm,0.5s						
LPL	**La Plagne**	**5.38**	**297**	*e*Sn	Sn	20 42 58.5	-8.9
	4.8nm,0.5s						
ORIF	**Oris-en-Rattie**	**5.76**	**289**	*e*Pn	Pn	20 42 08.1	-1.6
ORIF				*e*Sn	Sn	20 43 07.9	-9.2
	4.4nm,0.4s						
ORIF	**Oris-en-Rattie**	**5.76**	**289**	*e*Sn	Sn	20 43 07.9	-9.2
	2.2nm,0.4s						
SMRF	**Simiane la Rot**	**5.83**	**280**	*e*Pn	Pn	20 42 09.8	-0.8
KHC	**Kasperske Hory**	**5.87**	**0**	*e*PN	Pn	20 42 06.5	-4.7
KHC				*e*x	x	20 42 16.0	
KHC				*e*SN	Sn	20 43 15.5	-4.2
KHC				*e*x	x	20 43 59.0	
CABF	**La Chapelle**	**6.26**	**305**	*e*Pn	Pn	20 42 13.0	-3.8
CABF				*e*Sn	Sn	20 43 19.6	-10
	9.5nm,0.7s						
CABF	**La Chapelle**	**6.26**	**305**	*e*Sn	Sn	20 43 19.6	-10
	4.8nm,0.7s						
HINF	**Hinteralfeld**	**6.54**	**316**	*e*Pn	Pn	20 42 16.1	-4.6
HINF				*e*Sn	Sn	20 43 27.3	-9.3
	6.0nm,0.3s						
CDF	**Champ du Feu**	**6.76**	**322**	*e*Pn	Pn	20 42 19.0	-4.7
CDF				*e*Sn	Sn	20 43 31.3	-11
	3.4nm,0.4s						
HAU	**Haudompre**	**6.92**	**316**	*e*Pn	Pn	20 42 21.7	-4.3
HAU				*e*Sn	Sn	20 43 35.4	-11
	7.9nm,0.3s						
HAU	**Haudompre**	**6.92**	**316**	*e*Sn	Sn	20 43 35.4	-11
	4.0nm,0.3s						
LASF	**Ste Croix**	**7.07**	**280**	*e*Pn	Pn	20 42 25.0	-3.2
SMF	**Signal de Mont**	**7.67**	**300**	*e*Pn	Pn	20 42 31.9	-4.6
SMF				*e*Sn	Sn	20 43 53.5	-11
	7.1nm,0.5s						
SMF				*e*Sg	Sg	20 44 40.2	-17
MEZF	**Maizieres J’vi**	**7.91**	**314**	*e*Pn	Pn	20 42 34.2	-5.6
AVF	**Avril sur Loir**	**8.04**	**300**	*e*Pn	P	20 42 36.3	-5.3
AVF				*e*Sn	Sn	20 44 01.7	-12
	2.4nm,0.4s						
SSF	**Saint Saulge**	**8.05**	**302**	*e*Pn	P	20 42 36.9	-4.9
SSF				*e*Sn	Sn	20 44 02.2	-12
	1.9nm,0.5s						
MTLF	**Montolieu**	**8.27**	**274**	*e*Pn	P	20 42 40.8	-4.0
BGF	**Bois d’Agland**	**8.28**	**297**	*e*Pn	P	20 42 40.2	-4.8
BGF				*e*Sn	Sn	20 44 08.0	-12
	11nm,0.4s						
CAF	**Calviac**	**8.43**	**285**	*e*Pn	P	20 42 43.8	-3.3
TCF	**Toulx Ste Croi**	**8.61**	**294**	*e*Pn	P	20 42 44.7	-5.0
TCF				*e*Sn	Sn	20 44 16.4	-12
	1.8nm,0.3s						
HYF	**Humbligny**	**8.67**	**301**	*e*Pn	P	20 42 45.6	-4.9
RJF	**Les Rejaudoux**	**8.87**	**287**	*e*Pn	P	20 42 48.7	-4.5
LFF	**La Frestale**	**9.37**	**285**	*e*Pn	P	20 42 55.4	-4.7
MFF	**Saint Martin d**	**10.27**	**294**	*e*Pn	P	20 43 07.4	-5.0
LDF	**La Druitiere**	**10.91**	**304**	*e*Pn	P	20 43 15.9	-5.3
FLN	**La Foliniere**	**11.19**	**304**	*e*Pn	P	20 43 20.0	-5.1
SGMF	**Saint Gilles**	**12.30**	**300**	*e*Pn	P	20 43 35.1	-4.9

IDC 30 20:42:43.1±5.1,**30.26S×137.03E,mb1 2.9**/3, **mb1mx2.9**/10,**mbtmp2.7**/3,**ML2.4**/3,**Error ellipse: s-maj=101.9km s-min=17.7km az=41.0,South Australia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**4.24**	**113**	Pn	Pn	20 43 49.7	-0.7
	0.1nm,0.3s,baz=304,slow=8.0,SNR=3.6						
STKA				Pg	Pg	20 43 58.8	-9.0
	0.2nm,0.3s,baz=297,slow=14,SNR=5.0						
STKA				Sn	Sn	20 44 40.0	-1.3
	0.4nm,0.3s,baz=30,slow=24,SNR=5.6						
STKA				Lg		20 44 58.4	
	0.7nm,0.3s,baz=7.5,slow=19,SNR=7.6						
ASAR	**Alice Springs**	**7.14**	**336**	Pn	Pn	20 44 30.5	-0.8
	0.1nm,0.3s,baz=176,slow=8.2,SNR=10.0						
ASAR				Sn	Sn	20 45 49.9	-4.3
	0.1nm,0.3s,baz=162,slow=22,SNR=4.9						
WRA	**Warramunga Arr**	**10.56**	**346**	Pn	P	20 45 14.8	-4.1
	0.1nm,0.3s,baz=162,slow=13,SNR=5.5						

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*IDC **30** 20:43:51.5±0.8,5.16N×94.61E,mb4.2/12,mb1 4.4/12, mb1mx4.2/20,mbtmp4.2/12,Error ellipse: s-maj=44.9km s-min=16.4km az=48.0*

ISC 30 20:43:54.5±0.7,**5.0N**±0.1×**94.5E**±0.2,**h33**^{km},**n13,** σ**0**^{s}**86**/13,**mb4.2**/12,**Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.04**	**18**	Pn	**P**	**20 47 15.4**	**+2.1**
	0.8nm,0.3s,baz=208,slow=14,SNR=14						
SONM	**Songino Array**	**43.86**	**12**	P	**P**	**20 51 58.3**	**-1.2**
	0.7nm,0.9s,mb3.4,baz=189,slow=7.7,SNR=5.3						
SONM				PcP	PcP	20 53 45.3	-0.6
	1.1nm,1.0s,baz=196,slow=3.1,SNR=4.8						
WRA	**Warramunga Arr**	**46.33**	**124**	P	**P**	**20 52 19.9**	**+0.4**
	8.1nm,0.7s,mb4.8,baz=302,slow=9.4,SNR=57						
ASAR	**Alice Springs**	**47.83**	**128**	P	**P**	**20 52 31.4**	**+0.1**
	1.5nm,0.5s,mb4.3,baz=298,slow=8.0,SNR=18						
ZAL	**Zalesovo**	**49.41**	**352**	P	**P**	**20 52 42.1**	**-0.9**
	1.5nm,0.4s,mb4.3,baz=284,slow=3.1,SNR=9.7						
BVAR	**Borovoye Array**	**51.80**	**342**	P	**P**	**20 53 00.6**	**-0.6**
	1.1nm,0.6s,mb4.0,baz=144,slow=11,SNR=9.2						
STKA	**Stephens Creek**	**57.88**	**133**	P	**P**	**20 53 45.4**	**-0.4**
	1.3nm,0.8s,mb4.0,baz=344,slow=19,SNR=2.9						
BRTR	**Keskin Array B**	**64.59**	**312**	P	**P**	**20 54 30.6**	**-0.4**
	0.8nm,0.6s,mb4.0,baz=127,slow=6.2,SNR=4.5						
IDI	**Anoyia**	**70.52**	**306**	P	**P**	**20 55 09.0**	**+0.8**
	3.2nm,0.5s,mb4.5,baz=65,slow=17,SNR=4.2						
FINES	**FINESS Array B**	**75.40**	**332**	P	**P**	**20 55 35.8**	**-0.6**
	4.6nm,1.0s,mb4.4,baz=104,slow=5.7,SNR=3.2						
ARCES	**ARCESS Array B**	**78.07**	**340**	P	**P**	**20 55 51.1**	**-0.2**
	3.5nm,0.9s,mb4.3,baz=89,slow=5.5,SNR=5.4						
GERES	**GERESS Array B**	**80.20**	**319**	P	**P**	**20 56 03.9**	**+0.6**
	1.3nm,0.5s,mb4.1,baz=90,slow=5.3,SNR=8.2						
DAVOX	**Davos**	**82.70**	**316**	P	**P**	**20 56 17.7**	**+1.3**
	3.0nm,0.4s,mb4.6,baz=102,slow=4.2,SNR=8.2						

IDC 30 20:48:23.8±1.2,**6.64N×92.85E,mb3.7**/6,**mb1 3.8**/7, **mb1mx3.7**/18,**mbtmp3.6**/7,**ML3.4**/1,**MS3.0**/1,**Ms1 3.2**/1, **ms1mx2.7**/26,**Error ellipse: s-maj=45.0km s-min=21.8km az=54.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.16**	**26**	Pn	P	20 51 33.1	-1.6
	0.1nm,0.3s,baz=212,slow=12,SNR=4.2						
CMAR				LR	LR	20 57 43.2	
	comp=Z,66nm,18.3s,baz=110,slow=42						
SONM	**Songino Array**	**42.65**	**13**	P	P	20 56 21.5	-2.2
	0.1nm,0.4s,baz=207,slow=6.4,SNR=3.6						
ZAL	**Zalesovo**	**47.61**	**354**	P	P	20 57 01.5	-1.8
	0.7nm,0.3s,baz=242,slow=4.2,SNR=4.1						
WRA	**Warramunga Arr**	**48.62**	**124**	P	P	20 57 09.7	-1.8
	1.1nm,0.8s,baz=305,slow=8.6,SNR=8.9						
ASAR	**Alice Springs**	**50.14**	**128**	P	P	20 57 21.1	-2.1
	0.4nm,0.7s,baz=299,slow=7.2,SNR=4.5						
BRTR	**Keskin Array B**	**62.27**	**312**	P	P	20 58 48.1	-1.9
	1.0nm,0.9s,baz=117,slow=5.5,SNR=3.7						
GERES	**GERESS Array B**	**77.89**	**318**	P	P	21 00 23.6	-1.5
	0.5nm,0.7s,baz=83,slow=7.9,SNR=4.0						

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*NEIC **30** 20:50:28.8±0.7,51.50N×16.20E,h5^{km},ML3.1(VIE), ML2.6(SZGRF),Error ellipse: s-maj=8.3km s-min=5.7km az=218.0*

*IDC **30** 20:50:29.3±0.9,51.43N×16.16E,mb1 3.6/5, mb1mx3.4/20,mbtmp3.5/5,ML2.8/5,Error ellipse: s-maj=18.5km s-min=8.2km az=103.0*

*PRU **30** 20:50:30.7,51.39N×16.17E*

*WAR **30** 20:50:30.0,51.45N×16.17E,h1^{km},ML3.0,Mining Induced*

ISC 30 20:50:26.8±0.5,**51.49N**±0.03×**16.19E**±0.03,**n30,**σ**1**^{s}**27**/60, **1C-1D,Poland**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.65**	**174**	*e*PG	**Pg**	**20 50 41.0**	**+1.2**
KSP				*e*SG	**Sg**	**20 50 49.0**	**+0.5**
KSP	**Ksiaz**	**0.65**	**174**	*e*Pg	**Pg**	**20 50 41.2**	**+1.4**
KSP				*e*Sg	**Sg**	**20 50 49.2**	**+0.7**
UPC	**Upice**	**0.99**	**187**	*e*PG	**Pg**	**20 50 48.8**	**+2.2**
DPC	**Dobruska-Polom**	**1.14**	**176**	*e*PG	**Pg**	**20 50 51.0**	**+1.3**
DPC				*e*SG	**Sg**	**20 51 05.6**	**+0.7**
PVCC	**Panska Ves**	**1.41**	**227**	*e*PG	**Pg**	**20 50 55.4**	**+0.5**
PVCC				*e*SG	**Sg**	**20 51 15.1**	**+1.4**
BRG	**Berggiesshubel**	**1.54**	**247**	*e*Pn	**Pn**	**20 50 56.1**	**+0.4**
BRG				*i* Pg	**Pg**	**20 50 57.8**	**+0.1**
BRG				*i*		20 51 18.1	
RUE	**Ruedersdorf**	**1.79**	**305**	*e*Pn	**Pn**	**20 50 59.9**	**+0.6**
RUE				*e*Sn	**Sn**	**20 51 24.1**	**+1.0**
PRU	**Pruhonice**	**1.83**	**216**	*e*Pn	**Pn**	**20 51 00.8**	**+1.0**
PRU				*e*Pg	**Pg**	**20 51 02.4**	**-1.0**
PRU				*e*Sg	**Sg**	**20 51 26.1**	**-1.7**
PRU	**Pruhonice**	**1.83**	**216**	PN	**Pn**	**20 51 01.1**	**+1.3**
PRU				PG	**Pg**	**20 51 02.2**	**-1.2**
PRU				*i* x	x	20 51 19.5	
PRU				SG	**Sg**	**20 51 25.7**	**-2.1**
	50nm,0.4s						
MORC	**Moravsky Berou**	**1.92**	**153**	*e*Pn	**Pn**	**20 51 01.9**	**+0.8**
MORC				*e*Sn	**Sn**	**20 51 22.1**	**-4.2**
CLL	**Collm**	**2.01**	**266**	*i* Pn	**Pn**	**20 51 05.8**	**+3.5**
CLL				*i* Pg	**Pg**	**20 51 07.2**	**+0.3**
CLL				*e*Sg	**Sg**	**20 51 33.0**	**-0.6**
CLL	**Collm**	**2.01**	**266**	*i* PN	**Pn**	**20 51 05.8**	**+3.5**
CLL				*i* PG	**Pg**	**20 51 07.2**	**+0.3**
CLL				*e*		20 51 09.0	
CLL				*e*SG	**Sg**	**20 51 33.0**	**-0.6**
OKC	**Ostrava-Krasne**	**2.07**	**142**	*e*PG	**Pg**	**20 51 08.8**	**+0.7**
OKC				*e*SG	**Sg**	**20 51 33.4**	**-2.3**
VRAC	**Vranov**	**2.20**	**173**	Pn	**Pn**	**20 51 06.1**	**+1.0**
	1.7nm,0.3s,baz=339,slow=15,SNR=17						
VRAC				Lg		20 51 37.3	
	4.1nm,0.3s,baz=72,slow=22,SNR=13						
OJC	**Ojcow**	**2.62**	**118**	*e*Pg	**Pg**	**20 51 19.4**	**+0.4**
OJC				*e*Sg	**Sg**	**20 51 53.7**	**-0.2**
NKC	**Novy Kostel**	**2.69**	**244**	*e*PN	**Pn**	**20 51 13.0**	**+0.9**
NKC				*e*PG	**Pg**	**20 51 20.3**	**-0.1**
NKC				*e*SG	**Sg**	**20 51 55.1**	**-1.1**
KHC	**Kasperske Hory**	**2.90**	**216**	*e*PN	**Pn**	**20 51 16.8**	**+1.8**
KHC				*e*PG	**Pg**	**20 51 21.8**	**-2.8**
KHC				*e*SN	**Sn**	**20 51 51.1**	**0.0**
KHC				*e*SG	**Sg**	**20 51 59.2**	**-4.0**
MOX	**Moxa**	**3.01**	**255**	*e*Pg	**Pg**	**20 51 25.8**	**-1.1**
MOX				*e*Sg	**Sg**	**20 52 05.7**	**-1.3**
GEC2	**GERESS Array S**	**3.09**	**212**	*e*Pn	**Pn**	**20 51 19.2**	**+1.3**
GEC2				*e*Sg	**Sg**	**20 52 05.9**	**-3.9**
GERES	**GERESS Array B**	**3.09**	**212**	Pn	**Pn**	**20 51 18.5**	**+0.6**
	0.5nm,0.3s,baz=29,slow=13,SNR=16						
GERES				Pg	**Pg**	**20 51 25.1**	**-3.5**
	2.0nm,0.3s,baz=32,slow=17,SNR=33						
GERES				Lg		20 52 03.9	
	2.3nm,0.3s,baz=29,slow=28,SNR=5.5						

WET	**Wettzell**	**3.17**	**223**	*e*Pn	**Pn**	**20 51 19.5**	**+0.6**
WET				*e*Sg	**Sg**	**20 52 07.9**	**-4.3**
ZST	**Bratislava**	**3.35**	**170**	*e*SB	**Sb**	**20 52 15.0**	**+6.5**
NIE	**Niedzica**	**3.35**	**127**	*e*P	**Pg**	**20 51 33.5**	**-0.2**
NIE				*e*S	**Sg**	**20 52 16.7**	**-1.7**
GRA1	**Grafenberg Arr**	**3.64**	**242**	*e*Pn	**Pn**	**20 51 26.5**	**+0.8**
BSD	**Bornholm Skovb**	**3.71**	**349**	*i* P	**Pn**	**20 51 26.1**	**-0.6**
BSD				*i* S	**Sn**	**20 52 07.5**	**-4.3**
BSD				*i*		20 52 09.4	
MOA	**Molln**	**3.85**	**200**	⇓*i*PN	**Pn**	**20 51 26.7**	**-1.9**
MOA				*i* SG	**Sg**	**20 52 30.4**	**-4.7**
	14nm,0.5s						
ARSA	**Arzberg**	**4.26**	**186**	⇑*i*PN	**Pn**	**20 51 33.4**	**-1.1**
ARSA				*i* SG	**Sg**	**20 52 41.7**	**-7.1**
	11nm,0.6s						
HFS	**Hagfors**	**8.78**	**352**	Pn	**P**	**20 52 35.2**	**-2.7**
	0.0nm,0.3s,baz=163,slow=15,SNR=5.6						
FINES	**FINESS Array B**	**11.36**	**25**	Pn	**P**	**20 53 09.5**	**-3.8**
	0.1nm,0.3s,baz=216,slow=12,SNR=3.9						
ARCES	**ARCESS Array B**	**18.64**	**10**	Pn	**P**	**20 54 43.5**	**-4.1**
	0.2nm,0.3s,baz=203,slow=12,SNR=4.6						

IDC ***30*** *21:00:34.3±10.0, 17.12S×175.19W, h184^{km}±94^{km}, mb4.0/13, mb1 4.2/13, mb1mx4.1/19, mbtmp4.5/13, Error ellipse: s-maj=40.0km s-min=20.7km az=166.0*

SYO ***30*** *21:00:39.7, 17.48S×175.15W, h240^{km}, MB4.5*

NEIC ***30*** *21:00:40.9±1.8, 16.61S×175.84W, h218^{km}±15^{km}, mb4.5/8, Error ellipse: s-maj=56.7km s-min=14.8km az=152.0*

ISC 30 21:00:39.9±1.4**, 17.3S**±0.1×**175.3W**±0.1**, h250**^{km}±14^{km}**, n65, σ1^{s}01**/28**, mb4.2**/19**, 1C-1D, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AFI	**Afiamalu**	**4.75**	**45**	*e*Pn	**P**	**21 01 53.1**	**-0.1**
AFI				*e*Sn	**S**	**21 02 39.5**	**-11**
URZ	**Urewera**	**21.93**	**196**	P	**P**	**21 05 15.2**	**+1.5**
	9.7nm,0.4s,mb4.7,baz=336,slow=7.0,SNR=6.2						
CTA	**Charters Tower**	**36.50**	**259**	P	**P**	**21 07 22.7**	**-0.5**
	8.9nm,1.0s,mb4.3,baz=112,slow=11,SNR=3.3						
CTAO	**Charters Tower**	**36.50**	**259**	*e*P	**P**	**21 07 23.1**	**-0.2**
	17nm,1.1s,mb4.5						
PMG	**Port Moresby**	**37.34**	**277**	P	**P**	**21 07 30.7**	**+0.4**
	10nm,0.8s,mb4.4,baz=63,slow=11,SNR=4.3						
PMG	**Port Moresby**	**37.34**	**277**	*e*P	**P**	**21 07 31.2**	**+1.0**
	10nm,0.7s,mb4.5						
STKA	**Stephens Creek**	**41.55**	**241**	P	**P**	**21 08 05.2**	**+0.4**
	9.6nm,0.7s,mb4.3,baz=88,slow=8.0,SNR=23						
STKA	**Stephens Creek**	**41.55**	**241**	*e*P	**P**	**21 08 05.0**	**+0.2**
WRAB	**Tennant Creek**	**47.68**	**259**	*e*P	**P**	**21 08 52.2**	**-1.2**
	15nm,0.8s,mb4.4						
WRA	**Warramunga Arr**	**47.69**	**259**	P	**P**	**21 08 52.8**	**-0.7**
	6.9nm,0.9s,mb4.0,baz=95,slow=7.1,SNR=53						
ASAR	**Alice Springs**	**47.84**	**254**	P	**P**	**21 08 54.3**	**-0.3**
	46nm,0.8s,mb4.9,baz=86,slow=8.6,SNR=304						
MBWA	**Marble Bar**	**61.13**	**255**	P	**P**	**21 10 28.2**	**-1.9**
NVAR	**Mina Array Bea**	**76.92**	**43**	P	**P**	**21 12 06.4**	**0.0**
	6.8nm,1.1s,mb4.2,baz=236,slow=9.8,SNR=4.0						
TPH	**Tonopah**	**77.43**	**43**	*e*P	**P**	**21 12 08.8**	**-0.3**
	2.9nm,0.7s,mb4.0						
LTX	**Lajitas**	**83.15**	**57**	P	**P**	**21 12 43.4**	**+4.0**
	4.5nm,0.8s,mb4.2						
ANMO	**Albuquerque**	**83.38**	**50**	P	**P**	**21 12 40.8**	**+0.3**
	1.1nm,1.0s,mb3.5,baz=228,slow=7.7,SNR=4.2						
GDL2	**Guadalupe Moun**	**83.78**	**54**	*e*P	**P**	**21 12 43.0**	**+0.4**
COLA	**College**	**84.55**	**11**	*e*P	**P**	**21 12 44.9**	**-0.7**
	15nm,0.9s,mb4.7						
ILAR	**Eielson Array**	**84.64**	**12**	P	**P**	**21 12 45.6**	**-0.5**
	4.9nm,1.1s,mb4.2,baz=232,slow=5.7,SNR=19						
QLMT	**Earthquake Lak**	**84.71**	**40**	*e*P	**P**	**21 12 47.4**	**+0.5**
PDAR	**Pinedale Array**	**84.86**	**42**	P	**P**	**21 12 47.4**	**-0.4**
	1.1nm,0.9s,mb3.6,baz=207,slow=3.3,SNR=6.5						
ENH	**Enshi**	**86.43**	**303**	*e*P	**P**	**21 12 57.0**	**+1.3**
	38nm,1.6s,mb4.9						
SYO	**Syowa Base**	**90.40**	**192**	⇑P	**P**	**21 13 10.9**	**-2.6**
SYO	**Syowa Base**	**90.40**	**192**	⇓pP	pP	21 14 10.7	-3.7
INK	**Inuvik**	**90.53**	**14**	P	**P**	**21 13 13.9**	**-0.2**
	2.3nm,0.9s,mb4.1,baz=217,slow=7.1,SNR=4.3						
CM31	**Chiang Mai Arr**	**91.51**	**289**	*e*P	**P**	**21 13 21.7**	**+1.9**
	8.6nm,1.3s,mb4.5						
CMAR	**Chiang Mai Arr**	**91.51**	**289**	P	**P**	**21 13 21.6**	**+1.9**
	2.2nm,0.9s,mb4.1,baz=98,slow=2.6,SNR=14						
YKA	**Yellowknife Ar**	**92.54**	**24**	P	**P**	**21 13 22.9**	**-0.6**
	0.8nm,1.0s,mb3.7,baz=240,slow=4.4,SNR=7.1						
AKASG	**Malin Array Be**	**141.34**	**335**	PKP	PKPdf	21 19 41.8	+1.1
	0.7nm,0.5s,baz=354,slow=2.1,SNR=4.5						
TATS	**Tathlith**	**143.22**	**280**	P	PKPbc	21 19 45.1	+1.9
ARSS	**Ar Rass**	**143.30**	**290**	P	PKPbc	21 19 44.1	+0.8
AFFS	**'Afif**	**143.66**	**287**	P	PKPbc	21 19 45.2	+0.6
CLZ	**Clausthal**	**145.24**	**354**	*e*PKP	PKPdf	21 19 49.1	+1.8
KSP	**Ksiaz**	**145.27**	**347**	*e*P	PKPdf	21 19 49.1	+1.7
CLL	**Collm**	**145.43**	**351**	*i* PKIKP	PKPdf	21 19 49.6	+1.9
	logA/T=1.3						
BRG	**Berggiesshubel**	**145.70**	**350**	*e*P	PKPdf	21 19 50.4	+2.3
BRTR	**Keskin Array B**	**146.41**	**318**	PKPbc	PKPbc	21 19 53.2	+1.9
	3.2nm,0.8s,baz=90,slow=1.4,SNR=14						
VYHS	**Vyhne**	**146.82**	**343**	*e*PKP	PKPdf	21 19 54.2	+3.9
SMOL	**Smolenice**	**147.18**	**344**	*e*PKP	PKPdf	21 19 55.8	+5.0
GRA1	**Grafenberg Arr**	**147.26**	**352**	*e*PKP	PKPdf	21 19 55.3	+4.4
BAIF	**Baives**	**147.31**	**1**	*e*PKP1	PKPdf	21 19 53.5	+2.5
	41nm,1.3s						
KHC	**Kasperske Hory**	**147.44**	**349**	*e*P	PKPdf	21 19 55.5	+4.3
GEC2	**GERESS Array S**	**147.69**	**349**	*e*PKP	PKPdf	21 19 56.3	+4.7
GERES	**GERESS Array B**	**147.69**	**349**	PKPbc	PKPdf	21 19 56.1	+4.5
	2.2nm,0.7s,baz=45,slow=1.9,SNR=12						
FLN	**La Foliniere**	**148.32**	**7**	*e*PKP1	PKPdf	21 19 56.4	+3.8
	7.4nm,0.5s						
LDF	**La Druitiere**	**148.53**	**6**	*e*PKP1	PKPdf	21 19 56.9	+4.0
	32nm,1.2s						
GRR	**Gorron**	**148.65**	**7**	*e*PKP1	PKPdf	21 19 57.4	+4.3
	22nm,0.8s						
FUR	**Furstenfeldbru**	**148.75**	**352**	*e*PKP	PKPdf	21 19 59.0	+5.7
CDF	**Champ du Feu**	**148.89**	**357**	*e*PKP1	PKPdf	21 19 58.5	+5.0
	7.5nm,0.8s						
HAU	**Haudompre**	**149.34**	**358**	*e*PKP1	PKPdf	21 19 59.2	+5.0
	17nm,1.1s						
JMOS	**Jabal al Moall**	**149.78**	**299**	P	PKPdf	21 20 02.5	+7.0
AYUS	**'Aynunah**	**149.90**	**297**	P	PKPdf	21 20 02.9	+7.2
HAQS	**Haql**	**149.96**	**298**	P	PKPdf	21 20 02.9	+7.1
BDAS	**Al Bad'**	**149.98**	**297**	P	PKPdf	21 20 02.3	+6.5
TAYS	**Tayyib Ism**	**150.15**	**297**	P	PKPdf	21 20 03.4	+7.3
SSF	**Saint Saulge**	**150.30**	**2**	*e*PKP1	PKPdf	21 20 01.8	+6.1
	36nm,1.3s						
MFF	**Saint Martin d**	**150.49**	**7**	*e*PKP1	PKPdf	21 20 01.8	+5.8
	53nm,1.4s						
AVF	**Avril sur Loir**	**150.56**	**2**	*e*PKP1	PKPdf	21 20 02.5	+6.4
SMF	**Signal de Mont**	**150.72**	**1**	*e*PKP1	PKPdf	21 20 03.1	+6.8
CABF	**La Chapelle**	**150.74**	**358**	*e*PKP1	PKPdf	21 20 03.4	+7.0
	17nm,1.0s						
BGF	**Bois d'Agland**	**150.78**	**3**	*e*PKP1	PKPdf	21 20 02.9	+6.5
	20nm,1.1s						
TCF	**Toulx Ste Croi**	**151.01**	**4**	*e*PKP1	PKPdf	21 20 03.6	+6.8
	46nm,1.6s						
ORIF	**Oris-en-Rattie**	**152.44**	**358**	*e*PKP1	PKPdf	21 20 03.6	+4.7
SJPF	**Ste Jean**	**153.77**	**10**	*e*PKP1	PKPdf	21 20 10.0	+9.2
	127nm,1.9s						
ETSF	**Etsaut**	**154.08**	**9**	*e*PKP1	PKPdf	21 20 11.0	+10

IDC 30 21:02:15.2±3.8**, 11.46N**×**91.79E, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.5**/17**, mbtmp3.5**/3**, ML3.8**/1**, Error ellipse: s-maj=95.9km s-min=34.2km az=80.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**9.80**	**44**	Pn	P	21 04 36.8	-3.8
	0.2nm,0.3s,baz=236,slow=15,SNR=9.0						
SONM	**Songino Array**	**38.27**	**16**	P	P	21 09 37.2	-1.7
	0.3nm,0.5s,baz=207,slow=7.2,SNR=5.8						
WRA	**Warramunga Arr**	**52.23**	**126**	P	P	21 11 28.6	-2.0
	0.6nm,0.4s,baz=300,slow=10.0,SNR=7.9						

IDC 30 21:03:20.0±4.9**, 15.82S**×**177.04W, mb4.1**/3**, mb1 4.2**/3**, mb1mx3.8**/14**, mbtmp4.1**/3**, Error ellipse: s-maj=185.7km s-min=79.0km az=142.0, Fiji Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	**Stephens Creek**	**40.80**	**239**	P	P	21 11 03.5	-1.4
	0.5nm,0.3s,baz=82,slow=11,SNR=8.3						
WRA	**Warramunga Arr**	**46.34**	**257**	P	P	21 11 48.0	-1.9
	0.3nm,0.3s,baz=90,slow=7.9,SNR=6.9						
ASAR	**Alice Springs**	**46.65**	**252**	P	P	21 11 50.4	-1.9
	4.9nm,0.6s,baz=88,slow=8.0,SNR=16						
BRTR	**Keskin Array B**	**144.19**	**318**	PKP	PKPdf	21 22 57.9	-2.1
	0.3nm,0.4s,slow=2.9,SNR=3.1						

IDC 30 21:19:42.2±1.4**, 5.47N**×**92.70E, mb3.7**/5**, mb1 3.8**/5**, mb1mx3.7**/17**, mbtmp3.7**/5**, Error ellipse: s-maj=62.3km s-min=22.7km az=50.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**43.81**	**13**	P	P	21 27 49.6	-2.0
	0.2nm,0.6s,baz=191,slow=7.3,SNR=5.0						
WRA	**Warramunga Arr**	**48.10**	**123**	P	P	21 28 23.1	-3.0
	0.5nm,0.4s,baz=301,slow=9.1,SNR=8.3						
ASAR	**Alice Springs**	**49.54**	**127**	P	P	21 28 36.3	-0.8
	0.5nm,0.5s,baz=301,slow=8.1,SNR=5.5						
BVAR	**Borovoye Array**	**50.82**	**343**	P	P	21 28 44.9	-1.5
	1.0nm,0.8s,baz=143,slow=7.4,SNR=5.9						
BRTR	**Keskin Array B**	**62.94**	**312**	P	P	21 30 10.5	-2.4
	1.3nm,0.8s,baz=125,slow=7.5,SNR=7.5						

MAN 30 21:20:01.9, 18.23N×**120.61E, h24**^{km}**, mb4.2, ML3.0, MS2.7, 2C, Luzon**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ABRA	**Dolores**	**0.58**	**170**	*e*P	Pb	21 20 10.4	-3.0
ABRA				*e*S	Sb	21 20 16.1	-5.1
APYP	**Conner**	**0.70**	**121**	*e*P	Pb	21 20 13.2	-2.2
APYP				*e*S	Sb	21 20 21.5	-3.2
CVP	**Callao Caves**	**1.27**	**114**	⇑*e*P	Pn	21 20 23.0	-1.4
CVP				*e*S	Sn	21 20 40.0	-0.8
SGCP	**Mt. Cagua**	**1.37**	**89**	*e*P	Pn	21 20 25.6	-0.2
SGCP				*e*S	Sn	21 20 43.6	+0.4
CAUP	**Cauayan**	**1.72**	**138**	*e*P	Pn	21 20 31.5	+0.6
BCPH	**Baguio City Da**	**1.84**	**181**	⇑*i*P	Pn	21 20 29.6	-2.9
BCPH				*i* S	Sn	21 20 54.9	-0.2
BOLP	**Bolinao**	**1.95**	**200**	*e*P	Pn	21 20 33.6	-0.6
BALP	**Baler**	**2.64**	**159**	*e*P	Pn	21 20 44.3	+0.3

MOS ***30*** *21:36:00.9±0.9, 5.36N×94.56E, h33^{km}, mb5.6/65, MS4.9/19, Error ellipse: s-maj=9.1km s-min=4.4km az=124.5*

BJI ***30*** *21:36:00.2, 5.08N×94.33E, h44^{km}, mB5.4, mb5.2, Ms5.1, Msz4.8*

CSEM ***30*** *21:36:01.9, 5.56N×94.67E, h33^{km}, mb5.7*

IDC ***30*** *21:36:01.9±4.3, 5.31N×94.45E, h27^{km}±29^{km}, mb4.7/25, mb1 4.7/25, mb1mx4.7/26, mbtmp4.8/25, MS4.7/19, Ms1 4.7/19, ms1mx4.5/30, Error ellipse: s-maj=21.0km s-min=11.3km az=50.0*

SYO ***30*** *21:36:01.8, 5.26N×94.50E, h30^{km}, MB5.4, MS4.9*

NEIC ***30*** *21:36:01.9±0.1, 5.29N×94.54E, h30^{km}, mb5.4/67, MS4.9/27, Error ellipse: s-maj=5.4km s-min=4.4km az=51.0*

HRVD ***30*** *21:36:01.9±0.2, 5.12N×94.28E, h42^{km}, MW5.4/60, Centroid moment Tensor Solution. LP body waves: s53,c94;Mantle waves: s60,c107; Half duration: 1^{s}2 Moment tensor: Scale 10^{17}Nm; M$_{rr}$1.09±.03; M$_{\theta\theta}$-0.34±.02; M$_{\phi\phi}$-0.75±.03; M$_{r\theta}$0.57±.02; M$_{\theta\phi}$0.68±.02; M$_{\phi r}$-0.55±.03; Best double couple: M$_0$1.41×10^{17} NP1: φ$_s$330°, δ28°, λ101°. NP2: φ$_s$138°, δ62°, λ84°. Principal axes: T 1.34, Plg72°, Azm34°; N .16, Plg5°, Azm140°; P -1.49, Plg17°, Azm232°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 30 21:36:01.8±0.2**, 5.29N**±0.03×**94.53E**±0.03**, h42**^{km}**, h42**^{km}±1.4^{km}**:pP-P, n447, σ1^{s}01**/425**, mb5.3**/129**, MS4.8**/57**, 62C-17D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**11.70**	**28**	P	**P**	**21 38 51.6**	**+2.5**
CM31	**Chiang Mai Arr**	**13.78**	**18**	*e*P	**P**	**21 39 18.6**	**+1.8**
CMAR	**Chiang Mai Arr**	**13.78**	**18**	Pn	**P**	**21 39 18.4**	**+1.6**
	6.5nm,0.3s,baz=210,slow=15,SNR=168						
CMAR				LR	LR	21 44 26.0	
	comp=Z,2µm,21.6s,baz=205,slow=37						
CMAR				ScP		21 48 09.3	
	0.1nm,0.3s,baz=229,slow=3.3,SNR=13						
UBT	**Ubonrachathani**	**14.29**	**45**	P	**P**	**21 39 30.0**	**+6.4**
CHRT	**Chiangrai**	**15.37**	**19**	⇑P	**P**	**21 39 40.0**	**+2.4**
	505nm,1.1s						
MDRS	**Chennai**	**16.07**	**300**	⇑*e*P	**P**	**21 39 51.3**	**+4.7**
MDRS				*e*		21 39 56.6	
	comp=Z,130nm,1.0s						
MDRS				*e*	**S**	**21 42 28.2**	**-15**
VIS	**Vishakhapatnam**	**16.51**	**319**	⇓*e*P	**P**	**21 39 53.8**	**+1.7**
VIS				*e*	**S**	**21 42 46.2**	**-7.1**
COCO	**West Island**	**17.51**	**172**	*e*P	**P**	**21 40 03.4**	**-1.3**
	comp=Z,458nm,1.2s						
KOD	**Kodaikanal**	**17.60**	**287**	⇓*e*P	**P**	**21 40 06.5**	**+0.7**
TRD	**Trivandrum**	**17.73**	**281**	⇓*i*P	**P**	**21 40 06.2**	**-1.2**
TRD				*e*		21 40 10.1	
	comp=Z,103nm,1.9s						
AGT	**Agartala**	**18.76**	**351**	⇑*i*P	**P**	**21 40 18.0**	**-2.0**
AGT				*i*		21 41 06.0	
HYB	**Hyderabad**	**19.74**	**309**	*e*P	**P**	**21 40 31.0**	**0.0**
HYB				pmax	pmax		
	comp=Z,70nm,1.0s						
HYB	**Hyderabad**	**19.74**	**309**	*e*P	**P**	**21 40 31.0**	**0.0**
	comp=Z,70nm,1.0s						
HYB				*e*S	**S**	**21 43 49.0**	**-17**
HYB	**Hyderabad**	**19.74**	**309**	*i* P	**P**	**21 40 31.0**	**0.0**
	comp=Z,70nm,1.0s						
HYB				*e*		21 43 48.0	
HYB				*e*S	**S**	**21 44 13.0**	**+7.0**
BOK	**Bokaro**	**20.20**	**337**	⇑*i*P	**P**	**21 40 35.2**	**-0.6**
BOK				*e*		21 40 39.2	
	comp=Z,374nm,1.6s						
BOK				*i* S	**S**	**21 44 18.3**	**+3.1**
QIZ	**Qiongzhong**	**20.24**	**46**	P	**P**	**21 40 39.0**	**+2.7**
QIZ				XP		21 40 53.0	
QIZ				S	**S**	**21 44 20.8**	**+4.7**
QIZ				SS	SS	21 44 51.0	+4.6
QIZ				LR	LR		
	comp=N,4µm,17.7s,MS5.0						
QIZ				LR	LR		
	comp=E,4µm,17.3s,MS5.0						
QIZ				LR	LR		
	comp=Z,4µm,19.0s,MS4.8						
QIZ	**Qiongzhong**	**20.24**	**46**	*e*P	**P**	**21 40 37.3**	**+1.0**
	comp=Z,393nm,1.5s						
SHL	**Shillong**	**20.32**	**353**	⇑*e*P	**P**	**21 40 33.2**	**-3.9**
SHL				*e*	**S**	**21 44 28.0**	**+10**
BLSP	**Bilaspur**	**20.60**	**326**	⇑*i*P	**P**	**21 40 40.3**	**+0.3**
BLSP				*e*		21 40 43.2	
	comp=Z,135nm,1.7s						
BLSP				*e*S	**S**	**21 44 27.4**	**+4.4**
MNGI	**Mangalore**	**20.88**	**293**	*e*P	**P**	**21 40 44.6**	**+1.6**
MNGI				*e*		21 41 05.6	
	comp=Z,216nm,1.3s						
MNGI				*e*	**S**	**21 44 20.3**	**-8.1**
KMI	**Kunming**	**21.24**	**21**	P	**P**	**21 40 48.8**	**+2.3**
KMI				AP		21 41 02.5	
KMI				XP		21 41 08.5	
KMI				S	**S**	**21 44 32.8**	**-2.4**
KMI				XS		21 44 56.8	
KMI				AMB	AMB		
	comp=Z,100nm,1.4s,mb5.0						
KMI				AMB	AMB		
	comp=Z,594nm,3.1s						
KMI				LR	LR		
	comp=N,2µm,20.5s,MS4.7						
KMI				LR	LR		
	comp=E,2µm,17.8s,MS4.7						
KMI				LR	LR		
	comp=Z,3µm,20.5s,MS4.6						
NGP	**Nagpur**	**21.77**	**318**	⇓*e*	**P**	**21 40 56.3**	**+4.4**
	comp=Z,77nm,0.8s,mb5.2						
NGP				*e*S	**S**	**21 44 49.8**	**+4.7**
LATR	**Latur**	**21.86**	**308**	*e*P	**P**	**21 40 55.0**	**+2.2**
GOA	**Goa**	**22.72**	**298**	⇓*e*	**P**	**21 41 09.4**	**+8.0**
GOA				*e*	**S**	**21 45 16.0**	**+13**
AKL	**Akola**	**22.89**	**314**	⇓*e*	**P**	**21 41 09.4**	**+6.3**
AKL				*i* S	**S**	**21 45 14.8**	**+9.3**
	comp=Z,186nm,1.4s						
KAD	**Karad**	**23.22**	**303**	⇑*e*P	**P**	**21 41 07.2**	**+1.0**
PKI	**Pulchoki**	**23.80**	**340**	*e*P	**P**	**21 41 10.7**	**-1.1**
	comp=Z,634nm,1.5s,mb5.8						
DMN	**Daman**	**23.94**	**339**	*e*P	**P**	**21 41 11.8**	**-1.4**
	comp=Z,230nm,0.8s,mb5.7						
GUN	**Gumba**	**23.96**	**341**	*e*P	**P**	**21 41 11.9**	**-1.4**
	comp=Z,549nm,1.1s,mb5.9						
GYA	**Guiyang**	**24.04**	**28**	⇑*i*P	**P**	**21 41 15.5**	**+1.4**
GYA				AP		21 41 21.8	
GYA				S	**S**	**21 45 36.8**	**+11**
GYA				AMB	AMB		
	comp=Z,180nm,0.7s,mb5.6						
GYA				AMB	AMB		
	comp=Z,810nm,5.4s						
GYA				LR	LR		
	comp=N,3µm,19.1s,MS4.9						
GYA				LR	LR		
	comp=E,3µm,17.6s,MS4.9						
GYA				LR	LR		
	comp=Z,4µm,22.4s,MS4.8						
KKN	**Kakani**	**24.05**	**340**	*e*P	**P**	**21 41 14.3**	**+0.1**
	comp=Z,769nm,1.6s,mb5.9						
POO	**Poona**	**24.10**	**305**	⇑*e*P	**P**	**21 41 16.3**	**+1.5**
BHPL	**Bhopal**	**24.31**	**319**	⇑*e*P	**P**	**21 41 18.4**	**+1.6**
BHPL				*e*		21 41 23.5	
	comp=Z,53nm,0.9s						
BHPL				*e*S	**S**	**21 45 35.3**	**+5.2**
GKN	**Gorkha**	**24.47**	**338**	*e*P	**P**	**21 41 16.6**	**-1.7**
	comp=Z,534nm,0.9s,mb6.0						
LSA	**Lhasa**	**24.49**	**353**	*e*P	**P**	**21 41 19.0**	**+0.5**
LSA				pmax	pmax		
	comp=Z,295nm,1.3s,mb5.6						
LSA				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.4						
LSA	**Lhasa**	**24.49**	**353**	*e*P	**P**	**21 41 19.0**	**+0.5**
	comp=Z,295nm,1.3s,mb5.6						
LSA				LR	LR		
	comp=Z,1µm,21.0s,MS4.4						
KOLN	**Koldanda**	**24.66**	**336**	*e*P	**P**	**21 41 18.9**	**-1.3**
	comp=Z,1µm,1.6s,mb6.3						
BOM	**Bombay**	**25.13**	**304**	⇑*e*P	**P**	**21 41 25.8**	**+1.0**
BOM				*e*		21 41 32.6	
	comp=Z,55nm,1.4s						
DGAR	**Diego Garcia**	**25.38**	**240**	*e*P	**P**	**21 41 25.5**	**-1.7**
DGAR				pmax	pmax		
	comp=Z,209nm,1.0s,mb5.6						
DGAR	**Diego Garcia**	**25.38**	**240**	*e*P	**P**	**21 41 25.5**	**-1.7**
	comp=Z,208nm,1.0s,mb5.6						
CD2	**Chengdu**	**26.93**	**18**	P	**P**	**21 41 40.8**	**-0.5**
CD2				PP	PP	21 42 25.5	-2.2
CD2				PPP	PPP	21 42 41.8	+2.1
CD2				S	**S**	**21 46 14.0**	**+0.5**
CD2				SS	SS	21 47 32.5	+3.8
CD2				AMB	AMB		
	comp=Z,50nm,0.6s,mb5.2						
CD2				LR	LR		
	comp=E,2µm,15.0s						
CD2				LR	LR		
	comp=Z,2µm,19.2s,MS4.6						
TGY	**Tagaytay City**	**27.44**	**69**	P	**P**	**21 41 48.2**	**+2.1**
	comp=Z,154nm,0.4s,mb5.9,baz=186,slow=6.3,SNR=5.9						
TGY				LR	LR	21 52 07.4	
	comp=Z,939nm,19.0s,MS4.4,baz=14,slow=35						
PTH	**Pithoragarh**	**27.67**	**332**	*e*P	**P**	**21 41 47.3**	**-0.8**
LQP	**Lukban**	**28.00**	**70**	⇑*e*P	**P**	**21 41 52.2**	**+0.9**
LQP				*i* S	pP	21 42 09.4	+6.9
AJM	**Ajmer**	**28.37**	**320**	⇑*e*P	**P**	**21 41 54.4**	**0.0**
NDI	**New Delhi**	**28.48**	**327**	*e*P	**P**	**21 41 55.3**	**-0.1**
ENH	**Enshi**	**28.58**	**28**	*e*P	**P**	**21 41 55.2**	**-1.0**
	comp=Z,68nm,0.8s,mb5.4						
ENH				*e*		21 42 13.5	
ENH				LR	LR		
	comp=Z,5µm,19.0s,MS5.1						
DDI	**Dehra Dun**	**29.35**	**330**	*e*P	**P**	**21 42 02.3**	**-0.8**
DDI				*e*		21 46 59.3	
SDNR	**Sundarnagar**	**30.84**	**330**	*e*P	**P**	**21 42 16.9**	**+0.5**
WHN	**Wuhan**	**31.30**	**34**	P	**P**	**21 42 20.8**	**+0.4**
WHN				LR	LR		
	comp=N,2µm,14.0s,MS5.3						
WHN				LR	LR		
	comp=E,4µm,10.5s,MS5.3						
WHN				LR	LR		
	comp=Z,10µm,14.5s,MS5.6						
LZH	**Lanzhou**	**31.83**	**14**	*e*P	**P**	**21 42 24.0**	**-1.0**
LZH				AP	pP	21 42 34.3	-2.2
LZH				XP	sP	21 42 38.3	-3.6
LZH				PP	PP	21 43 28.8	-2.5
LZH				*e*S	**S**	**21 47 29.0**	**-2.3**
LZH				SCP		21 48 56.8	
LZH				SCS	ScS	21 52 52.8	+2.0
LZH				AMB	AMB		
	comp=Z,83nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,310nm,4.7s						
LZH				LR	LR		
	comp=E,1µm,11.4s						
LZH				LR	LR		
	comp=Z,2µm,12.9s,MS5.0						
THN	**Thein Dam**	**32.23**	**329**	*e*P	**P**	**21 42 29.6**	**+1.1**
	comp=Z,15nm,0.4s,mb5.2						
GTA	**Gaotai**	**34.31**	**7**	P	**P**	**21 42 46.0**	**-0.4**
GTA				AP	pP	21 42 58.3	+0.3
GTA				XP	sP	21 43 03.0	-0.4
GTA				SCP		21 49 05.0	
GTA				PCS		21 49 08.3	
GTA				SCS	ScS	21 53 04.8	+1.2
GTA				AMB	AMB		
	comp=Z,54nm,1.4s,mb5.3						
GTA				AMB	AMB		
	comp=Z,482nm,10.3s						
GTA				LR	LR		
	comp=N,884nm,25.5s,MS4.5						
GTA				LR	LR		
	comp=E,661nm,28.1s,MS4.5						
GTA				LR	LR		
	comp=Z,1µm,24.7s,MS4.5						
NJ2	**Nanjing**	**35.03**	**38**	*e*P	**P**	**21 42 53.5**	**+0.8**
NJ2				AP	pP	21 43 04.5	+0.2
NJ2				XP	sP	21 43 08.5	-1.1
NJ2				PP	PP	21 44 11.0	-0.9
NJ2				S	**S**	**21 48 21.0**	**-0.1**
NJ2				AMB	AMB		
	comp=Z,30nm,1.0s,mb5.2						
NJ2				LR	LR		
	comp=N,6µm,12.3s,MS5.6						
NJ2				LR	LR		
	comp=E,4µm,13.3s,MS5.6						
NJ2				LR	LR		
	comp=Z,8µm,13.0s,MS5.7						
SSE	**Sheshan**	**35.86**	**41**	P	**P**	**21 42 57.0**	**-2.8**
SSE				S	**S**	**21 48 36.3**	**+2.4**
SSE				XS		21 48 56.3	
SSE				AMB	AMB		
	comp=Z,33nm,0.9s,mb5.3						
SSE				AMB	AMB		
	comp=Z,198nm,3.8s						
SSE				LR	LR		
	comp=N,1µm,20.2s,MS4.8						
SSE				LR	LR		
	comp=E,1µm,19.9s,MS4.8						
SSE				LR	LR		
	comp=Z,2µm,20.2s,MS4.8						
MBWA	**Marble Bar**	**36.08**	**138**	*e*P	**P**	**21 43 00.6**	**-1.2**
	comp=Z,46nm,1.1s,mb5.3						
TIA	**Tai'an**	**37.12**	**31**	P	**P**	**21 43 10.8**	**+0.5**
BTO	**Baotou**	**37.82**	**19**	*e*P	**P**	**21 43 15.0**	**-1.1**
BTO				PP	PP	21 44 49.0	+3.0
BTO				S	**S**	**21 48 58.8**	**-5.0**
BTO				LR	LR		
	comp=N,367nm,4.7s						
BTO				LR	LR		
	comp=E,1µm,14.7s						
KSH	**Kashi**	**37.98**	**336**	P	**P**	**21 43 17.3**	**-0.2**
KSH				*e*XP	sP	21 43 29.3	-5.1
KSH				AMB	AMB		
	comp=Z,630nm,4.2s						
HHC	**Hu-ho-hao-te**	**38.57**	**21**	*e*P	**P**	**21 43 23.5**	**+1.2**
HHC				AP	pP	21 43 33.0	-1.0
HHC				XP	sP	21 43 37.0	-2.2
HHC				PP	PP	21 44 56.0	+1.3
HHC				PCP	PcP	21 45 35.5	+0.6
HHC				S	**S**	**21 49 18.0**	**+2.9**
HHC				XS		21 49 33.5	
HHC				SS	SS	21 51 58.5	+1.1
HHC				SCS	ScS	21 53 30.3	+3.2
HHC				AMB	AMB		

	comp=Z,46nm,1.6s,mb5.0						
HHC				AMB	AMB		
	comp=Z,320nm,5.1s						
HHC				LR	LR		
	comp=N,2µm,17.8s,MS5.2						
HHC				LR	LR		
	comp=E,2µm,14.3s,MS5.2						
HHC				LR	LR		
	comp=Z,2µm,20.2s						
WMQ	**Urumqi**	**38.85**	**352**	⇑P	**P**	**21 43 22.0**	**-2.6**
WMQ				AP	pP	21 43 32.0	-4.3
WMQ				XP	sP	21 43 36.3	-5.2
WMQ				PP	PP	21 44 55.5	-2.4
WMQ				PPP	PPP	21 45 18.3	-3.1
WMQ				S	**S**	**21 49 17.0**	**-2.4**
WMQ				AMB	AMB		
	comp=Z,78nm,0.9s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,147nm,5.2s						
WMQ				LR	LR		
	comp=N,1µm,28.2s,MS4.8						
WMQ				LR	LR		
	comp=E,1µm,26.2s,MS4.8						
WMQ				LR	LR		
	comp=Z,1µm,27.2s,MS4.6						
BJT	**Baijiatuau**	**39.70**	**26**	*e*P	**P**	**21 43 32.6**	**+0.9**
BJT				pmax	pmax		
	comp=Z,73nm,0.9s						
BJT	**Baijiatuau**	**39.70**	**26**	*e*P	**P**	**21 43 32.6**	**+0.9**
	comp=Z,72nm,0.9s,mb5.4						
BJI	**Beijing**	**39.72**	**26**	*e*P	**P**	**21 43 33.3**	**+1.4**
BJI				AMB	AMB		
	comp=Z,81nm,1.3s,mb5.3						
BJI				LR	LR		
	comp=N,2µm,19.6s,MS5.0						
BJI				LR	LR		
	comp=E,1µm,18.0s,MS5.0						
BJI				LR	LR		
	comp=Z,2µm,25.7s						
ULHL	**Ulahol**	**40.24**	**339**	P	**P**	**21 43 37.3**	**+1.1**
	SNR=7.2						
KZA	**Kyzart**	**40.46**	**338**	P	pP	21 43 52.5	+2.7
	SNR=6.7						
UCH	**Uchtor**	**40.87**	**337**	P	**P**	**21 43 42.6**	**+1.2**
	SNR=18						
TKM2	**Tokmak 2**	**41.06**	**339**	P	**P**	**21 43 43.6**	**+0.7**
	SNR=33						
KBK	**Karagaybulak**	**41.07**	**338**	P	**P**	**21 43 44.5**	**+1.5**
	SNR=36						
AML	**Almayashu**	**41.11**	**336**	P	**P**	**21 43 44.7**	**+1.3**
	SNR=38						
AAK	**Ala-Archa**	**41.22**	**337**	P	**P**	**21 43 46.1**	**+1.8**
	SNR=15						
AAK	**Ala-Archa**	**41.22**	**337**	⇑*e*P	**P**	**21 43 44.4**	**+0.1**
FRU	**Bishkek**	**41.35**	**338**	*e*P	**P**	**21 43 46.0**	**+0.7**
FRU				*i*	pP	21 43 59.0	+1.9
FRU				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.2						
CHMS	**Chumysh**	**41.44**	**338**	P	**P**	**21 43 46.5**	**+0.4**
	SNR=10						
DL2	**Dalian**	**41.51**	**32**	P	**P**	**21 43 47.8**	**+1.1**
DL2				AMB	AMB		
	comp=Z,60nm,1.3s,mb5.1						
EKS2	**Erkin-Say**	**41.52**	**337**	P	**P**	**21 43 48.0**	**+1.2**
	SNR=16						
USP	**Ospenovka**	**41.76**	**338**	P	**P**	**21 43 49.3**	**+0.5**
	SNR=22						
MKAR	**Makanchi Array**	**42.68**	**348**	*i*P	**P**	**21 43 56.2**	**-0.1**
MKAR				pmax	pmax		
	comp=Z,84nm,0.8s						
INCN	**Inchon**	**43.41**	**38**	*e*P	**P**	**21 44 01.7**	**-0.6**
	comp=Z,58nm,1.0s,mb5.3						
INCN				*e*	pP	21 44 12.4	-1.7
SONM	**Songino Array**	**43.60**	**12**	P	**P**	**21 44 03.6**	**-0.1**
	comp=Z,27nm,0.7s,mb5.1,baz=192,slow=7.9,SNR=165						
SONM				PcP	PcP	21 45 51.2	0.0
	comp=Z,8.5nm,0.6s,baz=202,slow=3.8,SNR=8.4						
SONM				ScP		21 49 39.9	
	comp=Z,4.5nm,1.1s,baz=225,slow=1.7,SNR=5.7						
SONM				LR	LR	22 04 59.2	
	comp=Z,1µm,18.1s,MS4.8,baz=189,slow=40						
NWAO	**Narrogin (SRO)**	**43.69**	**152**	*e*P	**P**	**21 44 04.4**	**-0.3**
NWAO				pmax	pmax		
	comp=Z,43nm,1.1s						
NWAO	**Narrogin (SRO)**	**43.69**	**152**	P	**P**	**21 44 04.2**	**-0.5**
	comp=Z,7.2nm,0.8s,mb4.5,baz=294,slow=10.0,SNR=3.5						
NWAO	**Narrogin (SRO)**	**43.69**	**152**	*e*P	**P**	**21 44 04.4**	**-0.2**
	comp=Z,43nm,1.1s,mb5.1						
ULN	**Ulaanbaatar**	**43.76**	**12**	⇑*i*P	**P**	**21 44 04.7**	**-0.3**
ULN				MLR	MLR		
	comp=Z,1µm,21.0s,MS4.7						
KS15	**Wonju Array Si**	**44.16**	**39**	*e*P	**P**	**21 44 08.8**	**+0.4**
SNY	**Shenyang**	**44.65**	**31**	⇑P	**P**	**21 44 12.5**	**+0.2**
SNY				XP	sP	21 44 24.3	-4.9
SNY				AMB	AMB		
	comp=Z,70nm,2.1s,mb5.1						
SNY				LR	LR		
	comp=N,2µm,16.3s,MS5.1						
SNY				LR	LR		
	comp=E,730nm,18.0s,MS5.1						
SNY				LR	LR		
	comp=Z,2µm,16.6s,MS5.1						
ZAK	**Zakamensk**	**45.54**	**8**	⇓*e*P	**P**	**21 44 18.4**	**-0.9**
ZAK				*e*		21 46 10.4	
WRA	**Warramunga Arr**	**46.48**	**124**	*i*P	**P**	**21 44 26.9**	**-0.2**
WRA				pmax	pmax		
	comp=Z,92nm,0.8s						
WRA	**Warramunga Arr**	**46.48**	**124**	P	**P**	**21 44 26.9**	**-0.2**
	comp=Z,92nm,0.8s,mb5.8,baz=303,slow=9.2,SNR=402						
WRA				S	**S**	**21 51 10.1**	**-1.4**
	comp=Z,5.3nm,1.1s,baz=295,slow=16,SNR=49						
WRAB	**Tennant Creek**	**46.49**	**124**	*e*P	**P**	**21 44 27.1**	**0.0**
WRAB				pmax	pmax		
	comp=Z,410nm,0.9s						
WRAB				MLR	MLR		
	comp=Z,338nm,21.0s,MS4.3						
WRAB	**Tennant Creek**	**46.49**	**124**	*e*P	**P**	**21 44 27.1**	**0.0**
	comp=Z,410nm,0.9s						
WRAB				LR	LR		
	comp=Z,338nm,21.0s						
TLY	**Talaya**	**46.86**	**8**	P	**P**	**21 44 29.8**	**+0.2**
	comp=Z,103nm,0.8s,mb5.8,SNR=10						
TLY	**Talaya**	**46.86**	**8**	*e*P	**P**	**21 44 30.1**	**+0.5**
TLY				pmax	pmax		
	comp=Z,46nm,1.7s,mb5.1						
TLY				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.9						
TLY	**Talaya**	**46.86**	**8**	⇑*i*P	**P**	**21 44 29.0**	**-0.6**
TLY				LR	LR		
	comp=Z,364nm,20.0s,MS4.3						
CN2	**Changchun**	**47.03**	**31**	*e*P	**P**	**21 44 30.5**	**-0.5**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
HASS	**Wahat al Ahsa’**	**47.27**	**300**	P	**P**	**21 44 34.2**	**+1.0**
IRK	**Irkutsk**	**47.50**	**8**	*e*P	**P**	**21 44 33.9**	**-0.7**
IRK				*e*	pP	21 44 46.1	-0.3
IRK				*e*		21 46 27.3	
ASAR	**Alice Springs**	**47.99**	**128**	P	**P**	**21 44 38.5**	**-0.4**
	comp=Z,18nm,0.7s,mb5.2,baz=298,slow=7.4,SNR=121						
ASAR				S	**S**	**21 51 32.8**	**0.0**
	comp=Z,5.5nm,1.0s,baz=295,slow=14,SNR=10						
ASAR				LR	LR	22 08 49.9	
	comp=Z,273nm,19.5s,MS4.2,baz=298,slow=41						
HIA	**Hailar**	**48.75**	**22**	*e*P	**P**	**21 44 43.7**	**-0.7**
HIA				pmax	pmax		
	comp=Z,17nm,0.7s						
HIA	**Hailar**	**48.75**	**22**	*e*P	**P**	**21 44 43.7**	**-0.7**
	comp=Z,17nm,0.7s,mb5.2						
MDJ	**Mudanjiang**	**49.75**	**33**	P	**P**	**21 44 52.8**	**+0.6**
MDJ				PP	PP	21 46 52.0	+4.4
MDJ				SCP		21 49 56.8	
MDJ				AMB	AMB		
	comp=Z,46nm,2.1s,mb5.1						
MDJ				AMB	AMB		
	comp=Z,387nm,4.7s						
MDJ				LR	LR		
	comp=N,878nm,21.3s,MS4.9						
MDJ				LR	LR		
	comp=E,945nm,23.5s,MS4.9						
MDJ				LR	LR		
	comp=Z,1µm,23.0s,MS4.8						
MDJ	**Mudanjiang**	**49.75**	**33**	*e*P	**P**	**21 44 52.4**	**+0.2**
	comp=Z,36nm,0.9s,mb5.4						
MDJ				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
RDF	**Al-Radifah**	**50.24**	**304**	*e*P	**P**	**21 44 56.7**	**+0.6**
RDF				AMb	AMB	21 44 59.9	
	comp=Z,72nm,1.1s,mb5.6						
NVS	**Novosibirsk**	**50.24**	**352**	*i*P	**P**	**21 44 54.7**	**-1.1**
NVS				*i*S	**S**	**21 51 56.8**	**-7.0**
NVS				*i*		21 54 35.6	
NVS				pmax	pmax		
	comp=Z,130nm,1.1s,mb5.9						
NVS				pmax	pmax		
	comp=N,103nm,1.4s						
NVS				smax			
	comp=N,54nm,1.8s						
NVS				smax			
	comp=E,44nm,1.7s						
NAY	**Al-Naaiem**	**50.59**	**304**	*e*P	**P**	**21 44 59.0**	**+0.2**
NAY				AMb	AMB	21 45 02.1	
	comp=Z,51nm,1.0s,mb5.4						
MAJO	**Matsushiro**	**50.64**	**46**	PFAKE		21 45 10.0	+11
MAJO				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
MAT	**Matsushiro**	**50.64**	**46**	P	**P**	**21 44 58.3**	**-0.8**
MAT	**Matsushiro**	**50.64**	**46**	*e*P	**P**	**21 44 58.0**	**-1.1**
MAT				pmax	pmax		
	comp=Z,44nm,1.4s,mb5.2						
MAT				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.0						
MAT	**Matsushiro**	**50.64**	**46**	*e*P	**P**	**21 44 58.0**	**-1.1**
	comp=Z,44nm,1.4s,mb5.2						
MAT				LR	LR		
	comp=Z,1µm,20.0s,MS5.0						
KAMS	**Al Khamasin**	**50.73**	**292**	D		21 44 59.6	
RST	**Umm Al-Ruwaisa**	**50.88**	**304**	*e*P	**P**	**21 45 01.1**	**+0.1**
RST				AMb	AMB	21 45 04.2	
	comp=Z,88nm,1.2s,mb5.6						
MZLS	**Mizel**	**50.91**	**297**	P	**P**	**21 45 02.1**	**+0.8**
BVA0	**Borovoye Array**	**51.55**	**342**	*i*P	**P**	**21 45 05.2**	**-0.5**
BVA0				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
BRVK	**Borovoye**	**51.61**	**342**	⇑*e*P	**P**	**21 45 05.7**	**-0.5**
BRVK				MLR	MLR		
	comp=Z,179nm,20.0s,MS4.1						
TATS	**Tathlith**	**51.62**	**291**	P	**P**	**21 45 07.0**	**+0.3**
CHKZ	**Chkalovo**	**52.04**	**342**	*e*P	**P**	**21 45 09.0**	**-0.4**
CHKZ				*e*	pP	21 45 21.6	+0.3
CHKZ				pmax	pmax		
	comp=Z,113nm,0.8s,mb5.8						
CHKZ	**Chkalovo**	**52.04**	**342**	*e*P	**P**	**21 45 09.0**	**-0.3**
	comp=Z,113nm,0.8s,mb5.8						
CHKZ				*e*	pP	21 45 21.6	+0.3
AFFS	**‘Afif**	**52.85**	**296**	P	**P**	**21 45 16.9**	**+1.0**
ARSS	**Ar Rass**	**53.08**	**298**	P	**P**	**21 45 17.7**	**+0.2**
KLR	**Kul’dur**	**53.92**	**29**	*e*P	**P**	**21 45 20.0**	**-3.4**
KLR				*e*		21 56 29.5	
KLR				pmax	pmax		
	comp=Z,700nm,5.5s						
KLR				pmax	pmax		
	comp=N,58nm,2.0s						
KLR				pmax	pmax		
	comp=E,90nm,2.0s						
KLR				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.5						
PMG	**Port Moresby**	**54.44**	**105**	*e*P	**P**	**21 45 26.6**	**-1.1**
PMG				*e*	pP	21 45 38.5	-1.3
PMG				pmax	pmax		
	comp=Z,48nm,0.8s						
PMG				MLR	MLR		
	comp=Z,279nm,21.0s						
PMG	**Port Moresby**	**54.44**	**105**	*e*P	**P**	**21 45 26.6**	**-1.2**
	comp=Z,48nm,0.8s,mb5.5						
PMG				*e*	pP	21 45 38.5	-1.3
PMG				LR	LR		
	comp=Z,279nm,21.0s,MS4.3						
BOD	**Bodaibo**	**54.57**	**13**	*e*P	**P**	**21 45 27.1**	**-1.0**
HILS	**Ha’il**	**54.69**	**300**	P	**P**	**21 45 30.4**	**+1.1**
GNI	**Garni**	**56.52**	**315**	*e*P	**P**	**21 45 41.2**	**-1.2**
GNI	**Garni**	**56.52**	**315**	⇑*e*P	**P**	**21 45 41.0**	**-1.4**
GNI	**Garni**	**56.52**	**315**	P	**P**	**21 45 42.2**	**-0.2**
	comp=Z,7.2nm,0.8s,mb4.7,baz=238,slow=0.5,SNR=10						
KBRS	**Khaybar**	**56.56**	**297**	D		21 45 44.9	
CLNS	**Chul’man**	**56.73**	**19**	*e*P	**P**	**21 45 43.1**	**-0.5**
CLNS				*e**PP	pP	21 45 49.8	-6.0
CLNS				*e*		21 46 42.4	
CLNS				*e*		21 47 43.8	
CLNS				*e*S	**S**	**21 53 25.6**	**-5.9**
CLNS				*e*		21 55 20.9	
CLNS				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.7						
CLNS				pmax	pmax		
	comp=N,15nm,1.1s						
CLNS				pmax	pmax		
	comp=E,9.0nm,0.8s						
CLNS				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.7						
CLNS				pmax	pmax		
	comp=N,8.0nm,1.1s						
CLNS				pmax	pmax		
	comp=E,9.0nm,1.0s						
CLNS				smax			
	comp=N,159nm,15.9s						
CLNS				smax			
	comp=Z,103nm,11.8s						
CLNS				smax			
	comp=E,37nm,11.3s						
CLNS				MLR	MLR		
	comp=Z,2µm,21.0s,MS5.2						
CLNS				MLR	MLR		
	comp=N,1µm,20.0s,MS5.0						
CLNS				MLR	MLR		
	comp=E,300nm,21.0s,MS5.0						
CTA	**Charters Tower**	**56.74**	**118**	LR	LR	22 11 12.7	
	comp=E,718nm,21.9s,MS4.7,baz=100,slow=37						
CTAO	**Charters Tower**	**56.74**	**118**	*e*P	**P**	**21 45 43.3**	**-0.9**
CTAO				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.5						
CTAO				MLR	MLR		
	comp=Z,822nm,22.0s,MS4.8						
CTAO	**Charters Tower**	**56.74**	**118**	*e*P	**P**	**21 45 43.3**	**-0.9**
	comp=Z,60nm,1.1s,mb5.5						
CTAO				LR	LR		
	comp=Z,822nm,22.0s,MS4.8						
TI2	**Plekhanov**	**57.18**	**317**	*e*P	**P**	**21 45 46.2**	**-0.9**
YNBS	**Yanbu‘ al Bahr**	**57.43**	**295**	P	**P**	**21 45 49.6**	**+0.6**
KMBO	**Kilima Mbogo**	**57.56**	**265**	*e*P	**P**	**21 45 51.2**	**+1.1**
KMBO				pmax	pmax		
	comp=Z,36nm,1.2s						
KMBO	**Kilima Mbogo**	**57.56**	**265**	LR	LR	22 06 26.9	
	comp=Z,1µm,21.8s,MS5.0,baz=98,slow=32						
KMBO	**Kilima Mbogo**	**57.56**	**265**	*e*P	**P**	**21 45 51.1**	**+1.0**
	comp=Z,36nm,1.2s,mb5.3						
STKA	**Stephens Creek**	**58.06**	**133**	P	**P**	**21 45 52.7**	**-0.7**
	comp=Z,14nm,0.8s,mb5.1,baz=308,slow=7.8,SNR=33						
STKA				LR	LR	22 11 38.3	
	comp=Z,413nm,21.2s,MS4.5,baz=310,slow=37						
STKA	**Stephens Creek**	**58.06**	**133**	*e*P	**P**	**21 45 52.4**	**-1.0**
BTMT	**Batman**	**58.12**	**312**	*e*P	**P**	**21 45 46.2**	**-7.5**
UMJS	**Umm Lajj**	**58.19**	**296**	P	**P**	**21 45 55.8**	**+1.5**
ZEI	**Tsey**	**58.19**	**318**	*e*P	**P**	**21 45 53.6**	**-0.6**
ZEI				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.1						
ARU	**Arti**	**58.41**	**337**	⇑*i*P	**P**	**21 45 54.2**	**-1.3**
ARU				*e*		21 46 39.9	
ARU				*e*		21 48 02.2	
ARU				*e*S	**S**	**21 53 56.7**	**+3.1**
ARU				*e*SS	SS	21 57 48.7	+0.9
ARU				pmax	pmax		
	comp=Z,81nm,1.3s,mb5.6						
ARU	**Arti**	**58.41**	**337**	⇑*e*P	**P**	**21 45 54.3**	**-1.2**
ARU				LR	LR		
	comp=Z,334nm,20.0s,MS4.5						
VRT	**Varto**	**58.42**	**313**	*e*P	**P**	**21 45 53.3**	**-2.5**
YSS	**Yuzh-Sakhalins**	**58.59**	**37**	*e*P	**P**	**21 45 57.4**	**+0.5**
YSS				pmax	pmax		
	comp=Z,105nm,1.2s,mb5.7						
YSS	**Yuzh-Sakhalins**	**58.59**	**37**	*e*P	**P**	**21 45 57.4**	**+0.5**
	comp=Z,105nm,1.2s,mb5.7						
ERZM	**Erzurum**	**58.82**	**314**	*i*P	**P**	**21 45 57.3**	**-1.3**
EZM	**Erzurum**	**58.82**	**314**	*e*P	**P**	**21 45 53.8**	**-4.8**
TBKS	**Tabuk**	**59.40**	**300**	P	**P**	**21 46 03.9**	**+1.1**
KIV	**Kislovodsk**	**59.49**	**319**	⇑*e*P	**P**	**21 46 02.1**	**-1.1**
GOF	**Gofitskoye**	**59.74**	**320**	*e*P	**P**	**21 46 03.0**	**-1.8**
GOF				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
URFA	**Urfa**	**59.87**	**311**	*e*P	**P**	**21 45 58.5**	**-7.3**
EZC	**Erzincan**	**59.88**	**313**	*e*P	**P**	**21 45 56.6**	**-9.3**
PTK	**Pertek**	**59.90**	**312**	*e*P	**P**	**21 46 00.9**	**-5.1**
ASF	**Jabal al Asfar**	**59.96**	**304**	P	**P**	**21 46 04.2**	**-2.4**
	comp=Z,3.9nm,0.9s,mb4.5,baz=202,slow=19,SNR=3.4						
ASF				LR	LR	22 14 14.8	
	comp=Z,901nm,18.1s,MS5.0,baz=145,slow=38						
ELZG	**Elazig**	**60.08**	**312**	*i*P	**P**	**21 46 06.3**	**-1.0**
JMQS	**Jabal Moqyreh**	**60.11**	**300**	P	**P**	**21 46 08.5**	**+0.8**
MALT	**Malatya**	**60.44**	**311**	*e*P	**P**	**21 46 08.5**	**-1.2**
MALT				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.2						
MALT	**Malatya**	**60.44**	**311**	*e*P	**P**	**21 46 08.5**	**-1.2**
	comp=Z,32nm,1.3s,mb5.2						
AYUS	**‘Aynunah**	**60.51**	**299**	P	**P**	**21 46 10.8**	**+0.4**
BDAS	**Al Bad‘**	**60.70**	**300**	P	**P**	**21 46 11.8**	**+0.2**
GZT	**Gaziantep**	**60.80**	**310**	*i*P	**P**	**21 46 11.7**	**-0.5**
JMOS	**Jabal al Moall**	**60.83**	**300**	P	**P**	**21 46 12.7**	**+0.2**
TAYS	**Tayyib Ism**	**60.92**	**300**	P	**P**	**21 46 13.1**	**-0.1**
HAQS	**Haql**	**60.96**	**300**	P	**P**	**21 46 14.0**	**+0.6**
GAZ	**Gaziantep**	**61.01**	**310**	*e*P	**P**	**21 46 11.1**	**-2.6**
EIL	**Elat**	**61.06**	**301**	*e*P	**P**	**21 46 12.5**	**-1.6**
	comp=Z,33nm,1.1s,mb5.4						
SOC	**Sochi**	**61.32**	**317**	*i*P	**P**	**21 46 12.9**	**-2.7**
SOC				*e*		21 47 00.1	
SOC				*e*		21 48 24.7	
SOC				*e*S	**S**	**21 54 30.9**	**-0.4**
SOC				*e*SS	SS	21 58 27.7	-5.9
SOC				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.3						
SOC				pmax	pmax		
	comp=N,31nm,1.4s						
SOC				pmax	pmax		
	comp=E,25nm,1.4s						
SOKR	**Solikamsk**	**61.34**	**339**	⇑*i*P	pP	21 46 26.2	-1.5
SOKR				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.6						
SOKR				MLR	MLR		
	comp=Z,730nm,21.0s,MS4.8						
KAHT	**Ahir Dag**	**61.40**	**310**	*i*P	**P**	**21 46 15.9**	**-0.4**
COBT	**Iskenderun**	**61.57**	**309**	*i*P	**P**	**21 46 17.4**	**0.0**
YAK	**Yakutsk**	**62.32**	**18**	⇑*i*P	**P**	**21 46 20.4**	**-1.7**
YAK				MLR	MLR		
	comp=Z,994nm,22.0s,MS4.9						
MEST	**Erdemli**	**63.23**	**308**	*i*P	**P**	**21 46 27.2**	**-1.2**
AVNT	**Avonos**	**63.25**	**311**	*i*P	**P**	**21 46 27.3**	**-1.3**
ANN	**Anapa**	**63.30**	**318**	*e*P	**P**	**21 46 20.0**	**-8.8**
ANN				pmax	pmax		
	comp=Z,34nm,1.1s,mb5.4						
CSS	**Prodhromos**	**63.50**	**306**	*e*P	**P**	**21 46 28.6**	**-1.6**
	comp=Z,57nm,1.1s,mb5.6						
CTKT	**Corum**	**63.81**	**313**	*i*P	**P**	**21 46 30.2**	**-2.0**
BOYT	**Boyabat**	**63.96**	**314**	*i*P	**P**	**21 46 32.0**	**-1.2**
MBAR	**Mbarara**	**63.97**	**267**	*e*P	**P**	**21 46 32.8**	**-0.9**
MBAR				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.2						
MBAR	**Mbarara**	**63.97**	**267**	*e*P	**P**	**21 46 32.8**	**-0.9**
	comp=Z,28nm,1.1s,mb5.2						
BRTR	**Keskin Array B**	**64.41**	**312**	P	**P**	**21 46 34.9**	**-1.3**
	comp=Z,12nm,0.8s,mb5.0,baz=126,slow=6.8,SNR=57						
VRSR	**Storozhevoye**	**64.70**	**325**	*e*P	**P**	**21 46 35.7**	**-2.1**
VRSR				*e**SP	sP	21 46 46.2	-8.7
VRSR				*e*		21 47 09.6	
VRSR				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.3						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.8s						
ELDT	**Eldivan**	**64.77**	**312**	*i*P	**P**	**21 46 37.6**	**-0.9**
BALT	**Daday**	**65.08**	**314**	*i*P	**P**	**21 46 38.7**	**-1.8**
SIM	**Simferopol’**	**65.57**	**317**	*e*P	**P**	**21 46 43.3**	**-0.3**
SIM				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.3						
SGKT	**Sivrigoynuk**	**65.80**	**312**	*i*P	**P**	**21 46 43.4**	**-1.7**
ISP	**Isparta**	**66.34**	**309**	⇓*e*P	**P**	**21 46 48.4**	**-0.2**
ESKT	**Eskisehir**	**66.45**	**311**	*i*P	**P**	**21 46 48.7**	**-0.6**
HENT	**Hendek**	**66.72**	**312**	*i*P	**P**	**21 46 49.5**	**-1.4**
MOS	**Moscow**	**67.48**	**329**	*e*P	**P**	**21 46 54.3**	**-1.1**
MOS				*e*	pP	21 47 05.4	-2.4
MOS				pmax	pmax		
	comp=Z,139nm,1.5s,mb5.8						
OBN	**Obninsk**	**67.76**	**328**	c*e*P	**P**	**21 46 56.0**	**-1.2**
OBN				*e*	pP	21 47 07.7	-1.9
OBN				*e*		21 47 24.4	
OBN				*e*		21 49 27.2	
OBN				*e*S	S	21 55 53.0	+2.5
OBN				*e*SS	SS	22 00 13.8	+0.1
OBN				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
OBN				MLR	MLR		
	comp=Z,400nm,14.0s,MS4.8						
OBN	**Obninsk**	**67.76**	**328**	⇑*i*P	**P**	**21 46 56.1**	**-1.1**
ULDT	**Uludag**	**67.87**	**311**	*i*P	**P**	**21 46 57.4**	**-0.8**
SKR	**Severo-Kuril’s**	**68.16**	**37**	*e*P	**P**	**21 46 57.0**	**-2.8**
LSZ	**Lusaka**	**68.79**	**251**	*e*P	**P**	**21 47 04.4**	**+0.1**
LSZ				pmax	pmax		
	comp=Z,32nm,1.0s,mb5.2						
LSZ				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.3						
LSZ	**Lusaka**	**68.79**	**251**	*e*P	**P**	**21 47 04.4**	**+0.2**
	comp=Z,32nm,1.0s,mb5.2						
LSZ				LR	LR		
	comp=Z,2µm,20.0s,MS5.3						
MA2	**Magadan**	**68.88**	**27**	*e*P	**P**	**21 47 03.5**	**-0.6**
MA2				*e*S	S	21 56 04.7	+1.0
MA2				*e*		21 56 47.6	
MA2				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
MA2				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.1						
MA2	**Magadan**	**68.88**	**27**	*e*P	**P**	**21 47 03.3**	**-0.8**
	comp=Z,24nm,0.8s,mb5.2						
KDAG	**Bornova**	**68.96**	**309**	*i*P	**P**	**21 47 04.4**	**-0.5**
TIXI	**Tiksi**	**69.68**	**11**	⇑*i*P	**P**	**21 47 07.4**	**-1.4**
KIS	**Kishinev**	**69.69**	**318**	*e*P	**P**	**21 47 05.0**	**-4.3**
CFR	**Carcaliu**	**69.71**	**316**	⇓*i*P	**P**	**21 47 08.9**	**-0.5**
HARR	**Harsova**	**69.74**	**316**	⇓*i*P	**P**	**21 47 09.2**	**-0.4**
IDI	**Anoyia**	**70.36**	**305**	P	**P**	**21 47 13.4**	**-0.1**
	comp=Z,11nm,0.8s,mb4.8,baz=98,slow=6.2,SNR=9.0						
IDI				LR	LR	22 20 30.4	
	comp=Z,239nm,19.7s,MS4.5,baz=81,slow=38						
AKASG	**Malin Array Be**	**70.42**	**322**	P	**P**	**21 47 11.6**	**-2.0**
	comp=Z,5.2nm,0.5s,mb4.8,baz=89,slow=5.3,SNR=38						
ISR	**Istrita**	**70.80**	**316**	⇓*i*P	**P**	**21 47 16.9**	**+0.9**
VRI	**Vrincioaia**	**70.83**	**317**	⇑*i*P	**P**	**21 47 16.1**	**-0.1**
SEY	**Seymchan**	**71.11**	**24**	*e*P	**P**	**21 47 14.9**	**-2.7**
SEY						21 47 35.4	
SEY				*e*		21 50 02.6	
SEY				*e*PPP	PPP	21 51 34.6	-4.2
SEY				*e*S	S	21 56 25.9	-3.8
SEY						21 57 12.9	
SEY				*e*SSS	SSS	22 04 10.5	-1.7
SEY				pmax	pmax		
	comp=Z,60nm,1.2s,mb5.4						
MLR	**Muntele Rosu**	**71.29**	**316**	P	**P**	**21 47 19.5**	**+0.5**
	comp=Z,38nm,1.1s,mb5.3,baz=153,slow=3.5,SNR=28						
MLR	**Muntele Rosu**	**71.29**	**316**	⇓*i*P	**P**	**21 47 19.6**	**+0.6**
RZN	**Rozhen**	**71.46**	**312**	*i*P	**P**	**21 47 20.0**	**0.0**
PGB	**Panagyurishte**	**72.00**	**313**	*i*P	**P**	**21 47 22.0**	**-1.2**
MMB	**Musomiste**	**72.17**	**312**	*i*P	**P**	**21 47 24.0**	**-0.3**
MNK	**Minsk**	**72.29**	**326**	*e*P	**P**	**21 47 22.0**	**-2.8**
KKB	**Krupnik**	**72.69**	**312**	*i*P	**P**	**21 47 26.0**	**-1.4**
VTS	**Vitosha**	**72.71**	**313**	*i*P	**P**	**21 47 26.0**	**-1.5**
LBTB	**Lobatse**	**73.36**	**242**	*e*P	**P**	**21 47 32.1**	**+0.4**
LBTB				*e*	pP	21 47 45.3	+1.1
LBTB				pmax	pmax		
	comp=Z,114nm,1.1s,mb5.7						
LBTB				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
LBTB	**Lobatse**	**73.36**	**242**	*e*P	**P**	**21 47 32.1**	**+0.4**
	comp=Z,114nm,1.1s,mb5.7						
LBTB				*e*	pP	21 47 45.3	+1.1
LBTB				LR	LR		
	comp=Z,1µm,20.0s,MS5.2						
BOLS	**Boljevac**	**73.80**	**314**	⇑*i*P	**P**	**21 47 29.7**	**-4.1**
SKO	**Skopje**	**73.92**	**312**	*e*P	**P**	**21 47 33.0**	**-1.6**
LVZ	**Lovozero**	**74.11**	**340**	*e*P	**P**	**21 47 34.5**	**-0.7**
LVZ				pmax	pmax		
	comp=Z,117nm,2.2s,mb5.4						
KWP	**Kalwaria**	**74.24**	**320**	*e*P	**P**	**21 47 36.6**	**+0.3**
APA	**Apatity**	**74.39**	**340**	⇑*i*P	pP	21 47 48.4	-0.9
APA				*i*		21 47 59.6	
APA				pmax	pmax		
	comp=Z,34nm,1.0s,mb5.2						
KOLS	**Kolonicke sedl**	**74.40**	**319**	*e*P	**P**	**21 47 37.8**	**+0.6**
BOSA	**Boshof**	**74.56**	**239**	*e*P	**P**	**21 47 39.1**	**+0.5**
BOSA				*e*	pP	21 47 51.6	+0.6

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BOSA                              pmax      pmax
      comp=Z,111nm,1.2s,mb5.7
BOSA                              MLR       MLR
      comp=Z,1µm,21.0s,MS5.1
BOSA  Boshof            74.56 239 eP        P        21 47 39.1 +0.5
      comp=Z,111nm,1.2s,mb5.7
BOSA                              e         pP       21 47 51.5 +0.5
BOSA                              LR        LR
      comp=Z,1µm,21.0s,MS5.1
SUW   Suwalki           74.82 325 eP        P        21 47 39.0 -0.5
CRVS  Cervenica-Dubn    74.92 319 eP        P        21 47 40.9 +0.7
CRVS                              e                  21 47 48.5
CRVS                              e                  21 47 58.6
FINES FINESS Array B    75.17 332 P         P        21 47 40.7 -0.7
      comp=Z,6.9nm,0.7s,mb4.7,baz=107,slow=5.0,SNR=16
FINES                             LR        LR       22 23 42.1
      comp=Z,436nm,20.5s,MS4.7,baz=136,slow=38
KAF   Kangasniemi       75.26 333 ep        P        21 47 40.9 -1.0
      comp=Z,6.0nm,0.6s,mb4.7
KAF   Kangasniemi       75.26 333 eP        P        21 47 40.9 -1.0
KAF                               pmax      pmax
      comp=Z,6.0nm,0.6s,mb4.7
KECS  Kecovo            75.50 319 eP        P        21 47 43.6 +0.1
KECS                              e         pP       21 47 58.9 +2.9
PKSN  Nyarlorinc        75.69 317 eP        P        21 47 45.1 +0.4
NIE   Niedzica          75.75 320 eP        P        21 47 45.5 +0.6
PSZ   Piszkesteto       75.81 318⇑iP        P        21 47 45.3  0.0
MAW   Mawson            76.09 192 eP        P        21 47 47.8 +1.2
MAW                               pmax      pmax
      comp=Z,29nm,1.0s
MAW   Mawson            76.09 192 P         P        21 47 48.2 +1.6
      comp=Z,6.9nm,0.7s,mb4.7,baz=12,slow=5.6,SNR=9.4
MAW                               LR        LR       22 15 55.6
      comp=Z,523nm,19.7s,MS4.8,baz=41,slow=32
MAW   Mawson            76.09 192 eP        P        21 47 47.8 +1.2
      comp=Z,29nm,1.0s,mb5.2
OJC   Ojcow             76.19 320⇑eP        P        21 47 47.5  0.0
OJC   Ojcow             76.19 320 eP        P        21 47 47.5  0.0
PKSM  Moragy            76.44 316⇑iP        P        21 47 48.5 -0.5
LIKS  Likavka           76.48 319 eP        P        21 47 48.8 -0.3
VYHS  Vyhne             76.58 318 i P       P        21 47 49.2 -0.5
RHK1  Bakonya           76.82 316⇑eP        P        21 47 50.3 -0.8
SRO   Srobarova         76.85 318 eP        P        21 47 52.9 +1.7
SRO1  Iza               76.90 318 eP        P        21 47 52.5 +1.0
SRO1                              esP       sP       21 48 05.9 -2.8
RAC   Raciborz          77.20 320 eP        P        21 47 54.3 +1.1
RAC   Raciborz          77.20 320 eP        P        21 47 54.1 +0.9
KEV   Kevo              77.39 341 ep        P        21 47 54.1 +0.3
      comp=Z,1.0nm,0.4s
KEV   Kevo              77.39 341 eP        P        21 47 54.1 +0.3
KEV                               pmax      pmax
      comp=Z,1.0nm,0.4s
SMOL  Smolenice         77.52 318 eP        P        21 47 54.7 -0.2
SMOL                              esP       sP       21 48 08.7 -3.4
MORC  Moravsky Berou    77.58 320 eP        P        21 47 55.4 +0.1
MORC                              pmax      pmax
      comp=Z,42nm,1.1s,mb5.3
MORC  Moravsky Berou    77.58 320 eP        P        21 47 55.4 +0.1
      comp=Z,42nm,1.1s,mb5.3
ZST   Bratislava        77.70 318 i P       P        21 47 56.1 +0.2
ZST                               e         pP       21 48 10.2 +1.7
ARCES ARCESS Array B    77.82 340 P         P        21 47 56.7 +0.5
      comp=Z,4.4nm,0.5s,mb4.7,baz=102,slow=6.3,SNR=35
ARCES                             LR        LR       22 30 28.2
      comp=Z,602nm,18.5s,MS5.0,baz=295,slow=42
ARE0  ARCESS Array S    77.82 340 eP        P        21 47 56.4 +0.2
SOP   Sopron            78.01 317⇓eP        P        21 47 58.9 +1.2
VRAC  Vranov            78.14 319 P         P        21 47 58.5 +0.1
      comp=Z,5.5nm,0.8s,mb4.5,baz=96,slow=7.1,SNR=12
GKP   Gorka Klasztor    78.19 323 eP        P        21 47 58.5  0.0
DPC   Dobruska-Polom    78.42 320 eP        P        21 47 58.5 -1.4
KSP   Ksiaz             78.49 321⇑eP        P        21 48 00.5 +0.3
KSP                               epP       pP       21 48 12.9 +0.1
KSP   Ksiaz             78.49 321 eP        P        21 48 00.9 +0.7
UPC   Upice             78.64 320 eP        P        21 48 01.2 +0.2
ARSA  Arzberg           78.67 317⇑iP        P        21 48 01.8 +0.5
      comp=Z,46nm,1.4s,mb5.2
BOJS  Bojanci           78.73 315 eP        P        21 48 01.5 -0.2
FX1   Attu Island--F    78.95  37 eP        P        21 48 02.0 -0.7
SUR   Sutherland        79.19 236 eP        P        21 48 05.5 +1.0
      comp=Z,128nm,1.1s,mb5.8
SUR                               e         pP       21 48 18.2 +1.1
SUR                               LR        LR
      comp=Z,342nm,19.0s,MS4.7
LJU   Ljubljana         79.28 316 eP        P        21 48 05.0 +0.3
PRU   Pruhonice         79.53 320 eP        P        21 48 06.1 +0.1
      comp=Z,44nm,1.3s,mb5.2
MOA   Molln             79.57 318⇑iP        P        21 48 06.1 -0.1
      comp=Z,28nm,1.1s,mb5.1
VOY   Vojsko            79.72 316 eP        P        21 48 03.5 -3.5
VOY                               e                  21 48 21.4
BRG   Berggiesshubel    79.98 321 eP        P        21 48 08.8 +0.5
BRG                               e         pP       21 48 22.7 +1.8
BRG                               pmax      pmax
      comp=Z,40nm,1.3s,mb5.2
BRG   Berggiesshubel    79.98 321 eP        P        21 48 08.8 +0.5
      comp=Z,40nm,1.3s,mb5.2
BRG                               e         pP       21 48 22.7 +1.8
ROBS  Robic             79.99 316 eP        P        21 48 08.0 -0.5
ROBS                              e                  21 48 15.2
GEC2  GERESS Array S    80.00 319 eP        P        21 48 08.8 +0.3
GEC2                              pmax      pmax
      comp=Z,75nm,1.2s,mb5.5
GEC2  GERESS Array S    80.00 319 eP        P        21 48 08.8 +0.3
      comp=Z,75nm,1.2s,mb5.5
GERES GERESS Array B    80.00 319 P         P        21 48 08.9 +0.4
      comp=Z,24nm,0.8s,mb5.2,baz=93,slow=5.2,SNR=137
GERES                             LR        LR       22 28 45.4
      comp=Z,282nm,20.6s,MS4.6,baz=279,slow=40
KHC   Kasperske Hory    80.10 319 eP        P        21 48 09.4 +0.4
PTCC  Patocco-Chiusa    80.11 316 eP        P        21 48 08.9 -0.2
RUE   Ruedersdorf       80.19 322 eP        P        21 48 09.2 -0.3
      comp=Z,96nm,1.0s,mb5.7
FVI   Forni Avoltri     80.51 316 eP        P        21 48 10.3 -1.0
WET   Wettzell          80.56 319 eP        P        21 48 11.7 +0.2
CLL   Collm             80.60 321 eP        P        21 48 12.0 +0.4
CLL                               pmax      pmax
      comp=Z,47nm,1.4s,mb5.2
CLL   Collm             80.60 321 eP        P        21 48 12.0 +0.4
      comp=Z,47nm,1.4s,mb5.2
CLL   Collm             80.60 321 P         P        21 48 12.0 +0.4
      comp=Z,logA/T=1.5,mb5.2
CLL                               e*PP      pP       21 48 24.0 -0.2
CLL                               e*SP      sP       21 48 29.0 +0.1
HFS   Hagfors           80.87 330 P         P        21 48 12.8 -0.1
      comp=Z,7.8nm,0.8s,mb4.7,baz=109,slow=5.1,SNR=16
NKC   Novy Kostel       80.89 320 eP        P        21 48 12.7 -0.5
CRE   Caprese Michel    81.00 313 eP        P        21 48 14.1 +0.2
SFI   Santa Sofia       81.09 313 eP        P        21 48 15.3 +0.9
PGD   Poggio Sodo       81.18 313 eP        P        21 48 16.4 +1.6
CTI   Castel Tesino     81.28 316 eP        P        21 48 15.4 +0.1
VMG   Vicchio           81.31 314 eP        P        21 48 17.1 +1.6
WTTA  Wattenberg        81.32 317⇑iP        P        21 48 15.4 -0.1
      comp=Z,61nm,1.2s,mb5.4
WTTA  Wattenberg        81.32 317⇑iP        P        21 48 15.4 -0.1
WTTA                              pmax      pmax
      comp=Z,61nm,1.2s,mb5.4
WATA  Walderalm         81.36 317⇑iP        P        21 48 15.2 -0.5
      comp=Z,31nm,1.0s,mb5.2
WATA  Walderalm         81.36 317⇑iP        P        21 48 15.2 -0.5
WATA                              pmax      pmax
      comp=Z,31nm,1.0s,mb5.2
MOX   Moxa              81.44 320 eP        P        21 48 16.2 +0.1
MOX                               pmax      pmax
      comp=Z,60nm,1.8s,mb5.2
MOX   Moxa              81.44 320 i P       P        21 48 16.2 +0.1
      comp=Z,logA/T=1.5,mb5.2
MOX   Moxa              81.44 320 eP        P        21 48 16.2 +0.1
      comp=Z,60nm,1.8s,mb5.2
FUR   Furstenfeldbru    81.59 318 eP        P        21 48 16.8 -0.1
SQTA  Sankt Quirin      81.61 317⇑iP        P        21 48 16.9 -0.1
      comp=Z,34nm,1.0s,mb5.2
SQTA  Sankt Quirin      81.61 317⇑iP        P        21 48 16.9 -0.1
SQTA                              pmax      pmax
      comp=Z,34nm,1.0s,mb5.2
GRA1  Grafenberg Arr    81.66 319 eP        P        21 48 17.8 +0.6
      comp=Z,104nm,1.5s,mb5.5
GRA1                              epP       pP       21 48 30.5 +0.6
GRF   Grafenberg Arr    81.66 319 eP        P        21 48 17.8 +0.6
GRF                               e*PP      pP       21 48 30.5 +0.6
GRF                               pmax      pmax
      comp=Z,104nm,1.5s,mb5.5
MOTA  Moosalm           81.68 317⇑iP        P        21 48 17.2 -0.2
      comp=Z,50nm,1.2s,mb5.3
MOTA  Moosalm           81.68 317⇑iP        P        21 48 17.2 -0.2
MOTA                              pmax      pmax
      comp=Z,50nm,1.2s,mb5.3
GSCL  Gusciola          82.00 314 eP        P        21 48 20.1 +1.0
SAL   Salo              82.06 315 eP        P        21 48 20.2 +0.9
NB2   NORSAR Subarra    82.16 331 P         P        21 48 18.4 -1.2
      comp=Z,16nm,1.2s,mb4.8,baz=97,slow=5.3
NB2   NORSAR Subarra    82.16 331 P         P        21 48 18.4 -1.2
NB2                               pmax      pmax
      comp=Z,17nm,1.2s,mb4.8
NOA   NORSAR Array B    82.16 331 P         P        21 48 19.6  0.0
      comp=Z,2.8nm,0.9s,mb4.2,baz=95,slow=5.4,SNR=4.1
NOA                               LR        LR       22 27 40.1
      comp=Z,457nm,21.3s,MS4.8,baz=65,slow=38
BRMO  Bormio            82.17 316 eP        P        21 48 20.4 +0.5
CLZ   Clausthal         82.26 321 eP        P        21 48 20.4 +0.1
      comp=Z,37nm,1.1s,mb5.2
HDH   Heidenheim        82.31 318⇑eP        P        21 48 20.3 -0.3
BSEG  Bad Segeberg      82.35 324 eP        P        21 48 20.9 +0.3
UBR   Uberruh           82.36 317⇑eP        P        21 48 20.9  0.0
DAVOX Davos             82.51 316 P         P        21 48 22.5 +0.9
      comp=Z,44nm,0.9s,mb5.5,baz=121,slow=6.3,SNR=62
DAVOX                             LR        LR       22 28 10.8
      comp=Z,385nm,21.7s,MS4.7,baz=90,slow=38
DAVA  Damuels           82.52 317⇑iP        P        21 48 22.1 +0.4
      comp=Z,64nm,1.1s,mb5.6
SIND  Sindeldorf        82.71 319⇑eP        P        21 48 23.0 +0.4
BUCH  Bad Urach         82.87 318⇑eP        P        21 48 23.7 +0.2
STU   Stuttgart         82.98 318 eP        P        21 48 23.8 -0.2
STU                               pmax      pmax
      comp=Z,15nm,0.7s,mb5.1
STU   Stuttgart         82.98 318 eP        P        21 48 23.8 -0.2
      comp=Z,15nm,0.7s,mb5.1
GUT   Gutenstein        83.03 318⇑eP        P        21 48 24.3  0.0
SYO   Syowa Base        83.06 197 ⇓P        P        21 48 25.1 +1.1
SYO   Syowa Base        83.06 197 ⇑PcP      PcP      21 48 28.8 -0.2
SYO   Syowa Base        83.06 197 ⇑pP       pP       21 48 35.5 -1.2
SYO   Syowa Base        83.06 197 ⇓sP       sP       21 48 40.0 -1.2
PGF   Pioggiola         83.16 312 eP        P        21 48 24.7 -0.4
      comp=Z,40nm,1.0s,mb5.1
PGF   Pioggiola         83.16 312 eP        P        21 48 24.7 -0.4
PGF                               pmax      pmax
      comp=Z,20nm,1.0s,mb5.1
TOD   Tromm             83.23 319 eP        P        21 48 26.3 +1.0
LBG   Lerchenberg       83.25 318⇑eP        P        21 48 25.4 +0.1
SPAK  Spaichingen       83.25 318⇑eP        P        21 48 25.7 +0.3
VAI   Varese            83.29 315 eP        P        21 48 24.5 -1.1
SWS   Schriesheim       83.30 319 eP        P        21 48 25.8 +0.2
BFO   Black Forest      83.56 318 eP        P        21 48 26.6 -0.3
BFO                               pmax      pmax
      comp=Z,30nm,1.0s,mb5.4
BFO   Black Forest      83.56 318 eP        P        21 48 26.6 -0.3
      comp=Z,30nm,1.0s,mb5.4
FIN   Finale Ligure     83.71 314 eP        P        21 48 27.8  0.0
FELD  Feldberg          83.78 317⇑eP        P        21 48 28.2 +0.1
KIZ   Kirchzarten       83.84 318⇑eP        P        21 48 28.3 -0.1
LANF  Langenberg        83.89 319 eP        P        21 48 29.2 +0.6
LIBD  Limburg           84.05 318 eP        P        21 48 30.0 +0.6
ABH   Alteburg          84.05 319⇑eP        P        21 48 30.0 +0.6
ABH   Alteburg          84.05 319 eP        P        21 48 29.9 +0.5
BBS   Basel-Blauen      84.12 317 eP        P        21 48 30.0 +0.2
BBS   Basel-Blauen      84.12 317 eP        P        21 48 31.3 +1.5
WLS   Welschbruch       84.21 318 eP        P        21 48 30.1 -0.1
CDF   Champ du Feu      84.26 318 eP        P        21 48 30.4 -0.1
      comp=Z,44nm,1.2s,mb5.2
CDF   Champ du Feu      84.26 318 eP        P        21 48 30.4 -0.1
CDF                               pmax      pmax
      comp=Z,22nm,1.2s,mb5.2
SBF   Sospel            84.28 313 eP        P        21 48 31.1 +0.4
      comp=Z,80nm,0.8s,mb5.6
SBF   Sospel            84.28 313 eP        P        21 48 31.1 +0.4
SBF                               pmax      pmax
      comp=Z,40nm,0.8s,mb5.6
ECH   Echery            84.34 318 eP        P        21 48 31.5 +0.6
RUP   Ruppelstein       84.37 319⇑eP        P        21 48 31.6 +0.6
RUP   Ruppelstein       84.37 319 eP        P        21 48 31.3 +0.3
LOMF  Lomont            84.59 317 eP        P        21 48 32.2  0.0
LPG   La Plagne         84.71 315 eP        P        21 48 33.5 +0.7
      comp=Z,44nm,0.8s,mb5.3
LPG   La Plagne         84.71 315 eP        P        21 48 33.5 +0.7
LPG                               pmax      pmax
      comp=Z,22nm,0.8s,mb5.3
MBDF  Montbardon        84.72 314 eP        P        21 48 32.7 -0.2
      comp=Z,27nm,0.9s,mb5.1
MBDF  Montbardon        84.72 314 eP        P        21 48 32.7 -0.2
MBDF                              pmax      pmax
      comp=Z,14nm,0.9s,mb5.1
BNI   Bardonecchia      84.78 315 eP        P        21 48 33.5 +0.3
BNI                               pmax      pmax
      comp=Z,26nm,0.9s,mb5.4
BNI   Bardonecchia      84.78 315 eP        P        21 48 33.5 +0.3
      comp=Z,26nm,0.9s,mb5.4
RSL   Roselend          84.79 315 eP        P        21 48 35.2 +2.0
HAU   Haudompre         84.89 318 eP        P        21 48 33.6 -0.1
      comp=Z,66nm,1.0s,mb5.4
HAU                               eR
      comp=Z,409nm,18.2s
HAU   Haudompre         84.89 318 eP        P        21 48 33.6 -0.1
HAU                               pmax      pmax
      comp=Z,33nm,1.0s,mb5.4
HAU                               MLR       MLR
      comp=Z,410nm,18.3s,MS4.8
WLF   Walferdange       84.96 319 eP        P        21 48 34.1 +0.2
WLF                               pmax      pmax
      comp=Z,47nm,1.2s,mb5.5
WLF   Walferdange       84.96 319 eP        P        21 48 34.1 +0.1
      comp=Z,47nm,1.2s,mb5.5
THEF  They Montfort     85.12 318 eP        P        21 48 34.6 -0.2
OG05  Jujurieux         85.59 316 eP        P        21 48 37.8 +0.6
BAIF  Baives            86.19 320 eP        P        21 48 40.6 +0.6
      comp=Z,53nm,1.0s,mb5.4
BAIF  Baives            86.19 320 eP        P        21 48 40.6 +0.6
BAIF                              pmax      pmax
      comp=Z,26nm,1.0s,mb5.4
SSF   Saint Saulge      86.87 317 eP        P        21 48 43.4  0.0
      comp=Z,48nm,1.3s,mb5.3
SSF   Saint Saulge      86.87 317 eP        P        21 48 43.4  0.0
SSF                               pmax      pmax
      comp=Z,24nm,1.3s,mb5.3
PLDF  La Plantade       86.87 316 eP        P        21 48 45.2 +1.8
LBL   Lubilhac          87.19 315 eP        P        21 48 46.9 +1.9
AGO   Saint Agoulin     87.20 316 eP        P        21 48 46.4 +1.3
PYM   Petit Puy Mans    87.31 316 eP        P        21 48 47.1 +1.5
BGF   Bois d’Agland     87.36 316 eP        P        21 48 46.5 +0.7
      comp=Z,123nm,1.4s,mb5.6
BGF   Bois d’Agland     87.36 316 eP        P        21 48 46.5 +0.7
BGF                               pmax      pmax
      comp=Z,61nm,1.4s,mb5.6
RJF   Les Rejaudoux     88.40 315 eP        P        21 48 51.7 +0.9
RJF                               eR
      comp=Z,479nm,19.2s
FLN   La Foliniere      89.36 319 eP        P        21 48 55.8 +0.5
      comp=Z,64nm,0.9s,mb5.7
FLN                               eR
      comp=Z,405nm,19.5s
FLN   La Foliniere      89.36 319 eP        P        21 48 55.8 +0.5
FLN                               pmax      pmax
      comp=Z,32nm,0.9s,mb5.7
FLN                               MLR       MLR
      comp=Z,410nm,19.5s,MS4.9
ANM   Nome              89.59  25 eP        P        21 48 58.0 +2.0
EKA   Eskdalemuir Ar    90.06 326 P         P        21 48 59.1 +0.7
      comp=Z,6.9nm,0.8s,mb5.1,baz=101,slow=5.6,SNR=17
DAG   Danmarks Havn     90.07 348 eP        P        21 49 02.0 +4.0
DAG   Danmarks Havn     90.07 348 i P       P        21 49 02.0 +4.0
ESK   Eskdalemuir       90.09 325 eP        P        21 48 59.1 +0.6
ESK                               pmax      pmax
      comp=Z,45nm,1.2s,mb5.7
ESK   Eskdalemuir       90.09 325 eP        P        21 48 59.0 +0.5
      comp=Z,45nm,1.2s,mb5.7
ETSF  Etsaut            90.16 313 eP        P        21 49 00.4 +1.2
      comp=Z,23nm,0.9s,mb5.2
ETSF  Etsaut            90.16 313 eP        P        21 49 00.4 +1.2
ETSF                              pmax      pmax
      comp=Z,11nm,0.9s,mb5.2
VNDA  Vanda             90.33 168 eP        P        21 49 00.2 +1.0
VNDA                              pmax      pmax
      comp=Z,39nm,1.3s
VNDA                              MLR       MLR
      comp=Z,697nm,19.0s
VNDA  Vanda             90.33 168 P         P        21 49 00.5 +1.2
      comp=Z,2.8nm,0.8s,mb4.7,baz=308,slow=4.8,SNR=8.4
VNDA                              LR        LR       22 25 48.9
      comp=Z,617nm,19.1s,MS5.1,baz=296,slow=33
VNDA  Vanda             90.33 168 eP        P        21 49 00.2 +1.0
      comp=Z,39nm,1.3s,mb5.6
VNDA                              LR        LR
      comp=Z,697nm,19.0s,MS5.1
SBA   Scott Base        91.44 168 eP        P        21 49 06.3 +1.9
SBA                               pmax      pmax
      comp=Z,40nm,1.3s,mb5.6
SBA   Scott Base        91.44 168 eP        P        21 49 06.3 +1.9
      comp=Z,40nm,1.3s,mb5.6
ESDC  Sonseca Array     93.17 310 P         P        21 49 14.1 +0.9
      comp=Z,4.6nm,0.9s,mb4.9,baz=60,slow=4.2,SNR=17
ESLA  Sonseca Array     93.17 310 eP        P        21 49 12.1 -1.1
      comp=Z,19nm,1.6s,mb5.3
IMA   Indian Mountai    93.86  22 eP        P        21 49 16.8 +1.2
IMA                               pmax      pmax
      comp=Z,19nm,1.1s,mb5.4
IMA   Indian Mountai    93.86  22 eP        P        21 49 16.8 +1.2
      comp=Z,19nm,1.1s,mb5.4
QSPA  South Pole Qui    95.20 180 P         P        21 49 25.3 +3.8
      comp=Z,4.4nm,0.2s,mb5.5
COLA  College           96.57  22 PFAKE              21 49 40.0  +12
COLA                              LR        LR
      comp=Z,405nm,21.0s,MS4.9
ILAR  Eielson Array     96.98  22 P         P        21 49 29.7 -0.2
      comp=Z,1.1nm,0.8s,mb4.3,baz=290,slow=4.2,SNR=12
ILAR                              LR        LR       22 38 18.3
      comp=Z,338nm,21.2s,MS4.8,baz=323,slow=38
SNAA  Sanae             97.31 198⇓iP        P        21 49 32.1 +0.8
SNAA  Sanae             97.31 198⇓i         pP       21 49 44.1  0.0
SNAA  Sanae             97.31 198 eP        P        21 49 31.5 +0.2
SNAA                              pmax      pmax
      comp=Z,5.0nm,0.9s
SNAA  Sanae             97.31 198 P         P        21 49 32.3 +1.0
      comp=Z,0.8nm,0.9s,baz=135,slow=7.1,SNR=3.6
SNAA  Sanae             97.31 198 eP        P        21 49 31.5 +0.3
      comp=Z,4.7nm,0.9s,mb4.9
DBIC  Dimbokro          98.67 278 P         P        21 49 39.1 +0.4
      comp=Z,2.4nm,0.7s,mb4.8,baz=117,slow=2.3,SNR=2.9
DBIC                              LR        LR       22 30 30.1
      comp=Z,540nm,21.9s,MS5.0,baz=63,slow=33
DBIC  Dimbokro          98.67 278 PFAKE              21 49 50.0  +11
DBIC                              LR        LR
      comp=Z,577nm,22.0s,MS5.0
VNA2  Neumayer--Watz    98.86 199⇑iP        P        21 49 43.5 +5.2
VNA2  Neumayer--Watz    98.86 199           pP       21 49 53.3 +2.2
INK   Inuvik            99.36  16 P         P        21 49 40.8 +0.2
      comp=Z,1.4nm,0.5s,mb4.7,baz=336,slow=7.7,SNR=4.0
INK                               LR        LR       22 41 39.3
      comp=Z,629nm,21.1s,MS5.1,baz=290,slow=40
VNA3  Neumayer Olymp    99.53 199 P         P        21 49 48.5 +7.2
VNA3  Neumayer Olymp    99.53 199⇑i         pP       21 49 50.4 -3.8
YKA   Yellowknife Ar   108.83  14 PP        PP       21 54 52.7 -5.6
      comp=Z,1.0nm,0.7s,baz=334,slow=7.6,SNR=7.1
YKA                               PKKPbc             22 05 35.6
      comp=Z,0.6nm,0.7s,baz=154,slow=2.8,SNR=9.6
MSO   Missoula         122.31  23 ePKPdf    PKPdf    21 54 53.1 +0.4
ULM   Lac du Bonnet    123.96   8 PKP       PKPdf    21 54 58.2 +2.4
      comp=Z,3.9nm,0.8s,baz=0.7,slow=4.7,SNR=7.4
ULM   Lac du Bonnet    123.96   8 ePKPdf    PKPdf    21 54 57.8 +2.0
MCMT  McKenzie Canyo   124.40  23 ePKPdf    PKPdf    21 54 59.2 +2.4
SNOW  Snow King Moun   126.36  23 ePKPdf    PKPdf    21 55 03.0 +2.4
REDW  Red Top Meadow   126.41  23 ePKPdf    PKPdf    21 55 02.4 +1.7
NVAR  Mina Array Bea   126.91  32 PKP       PKPdf    21 55 04.8 +3.0
      comp=Z,3.3nm,0.7s,baz=274,slow=2.0,SNR=9.0
MNV   Mina             126.99  32 ePKIKP    PKPdf    21 55 02.2 +0.2
PDAR  Pinedale Array   127.41  22 PKP       PKPdf    21 55 04.5 +1.8
      comp=Z,3.7nm,0.9s,baz=41,slow=0.8,SNR=19
HWUT  Hardware Ranch   127.60  25 PFAKE              21 55 20.0  +17
HWUT                              LR        LR
      comp=Z,839nm,21.0s,MS5.4
TRCR  Troy Canyon      128.37  30 ePKPdf    PKPdf    21 55 03.3 -1.4
TMUT  Trail Mountain   129.67  26 ePKPdf    PKPdf    21 55 07.5 +0.5
MDV   Middlebury       129.71 348 ePKPdf    PKPdf    21 55 09.1 +2.1
SDCO  Great Sand Dun   133.31  22 PFAKE              21 55 30.0  +16
SDCO                              LR        LR
      comp=Z,570nm,20.0s,MS5.3
ANMO  Albuquerque      135.36  25 ePKIKP    PKPdf    21 55 19.4 +1.5
ANMO                              MLR       MLR
      comp=Z,450nm,22.0s
TUC   Tucson           135.53  31 ePKPdf    PKPdf    21 55 22.2 +4.0
TUC                               eSKP               21 58 48.5
LAZ   Ladron           135.54  26 ePKPdf    PKPdf    21 55 18.9 +0.7
BNM   Barren Site      135.98  26 ePKPdf    PKPdf    21 55 19.7 +0.7
BNM                               eSKP               21 58 47.8
GDL2  Guadalupe Moun   138.61  25 ePKPdf    PKPdf    21 55 25.2 +1.3
GDL2                              eSKP               21 58 57.1
WVT   Waverly          138.75   3 ePKHKP             21 55 15.8
CPCT  Cooper Cave      139.47 359 ePKPdf    PKPdf    21 55 28.1 +2.7
MYNC  Murphy           139.84 358 ePKIKP    PKPdf    21 55 27.2 +1.2
LTX   Lajitas          141.39  26 ePKIKP    PKPdf    21 55 25.8 -3.3
LTX                               e                  21 58 31.5
LTX                               MLR       MLR
      comp=Z,485nm,22.0s,MS5.2
LTX   Lajitas          141.39  26 ePKPpre            21 55 25.8
LTX                               ePP       PP       21 58 31.5 -4.4
LTX                               eSKP               21 58 57.3
LTX                               LR        LR
      comp=Z,485nm,22.0s,MS5.2
TXAR  Lajitas Array    141.39  26 PKhKP              21 55 24.5
      comp=Z,1.4nm,0.4s,baz=254,slow=1.1,SNR=17
BDFB  Brasilia         141.82 251 PKP       PKPdf    21 55 31.8 +1.7
      comp=Z,6.0nm,0.9s,baz=136,slow=2.2,SNR=10
JCT   Junction City    141.88  20 ePKPpre            21 55 25.1
JCT                               eSKP               21 59 03.2
MDZ   Mendoza          148.47 207 ePKP2     PKPab    21 55 49.8 -0.3
TRN   Trinidad (W)     151.28 303 eP        PKPdf    21 55 54.0 +8.2
SDV   Santo Domingo    159.58 314 PKP       PKPdf    21 55 58.7 +1.9
      comp=Z,4.4nm,1.1s,baz=73,slow=6.8,SNR=3.6
SDV                               PKPab     PKPab    21 56 38.4 +0.8
      comp=Z,5.5nm,0.7s,baz=316,slow=3.7,SNR=5.1
SDV   Santo Domingo    159.58 314 ePKPdf    PKPdf    21 55 58.0 +1.1
LPAZ  La Paz           159.78 236 PKP       PKPdf    21 55 59.5 +2.6
      comp=Z,4.0nm,0.9s,baz=83,slow=0.7,SNR=15
LPAZ                              PKPab     PKPab    21 56 37.6 -0.7
      comp=Z,4.7nm,0.8s,baz=114,slow=5.1,SNR=5.8
LPAZ  La Paz           159.78 236 ePKPdf    PKPdf    21 55 58.6 +1.6
LPAZ                              ePP       PP       22 00 11.8 -9.0
```

IDC 30 21:57:22.2±1.2**,7.07N**×**93.50E,mb4.0**/5**,mb1 4.2**/5**,**
mb1mx3.8/16**,mbtmp4.0**/5**,Error ellipse: s-maj=63.3km**
s-min=21.8km az=53.0,Nicobar Islands region

```
Code  Station Name         Δ°   AZ°   Phase ID            Time      Res
                                      Op        ISC       h  m  s   ISC
CMAR  Chiang Mai Arr     12.50  25    Pn        P        22 00 28.0 +3.7
      0.2nm,0.3s,baz=226,slow=13,SNR=24
SONM  Songino Array      42.08  13    P         P        22 05 15.9 -1.5
      0.7nm,0.7s,baz=196,slow=7.9,SNR=6.6
SONM                                  PcP       PcP      22 07 11.2 -1.7
      0.2nm,0.5s,baz=200,slow=4.0,SNR=3.8
WRA   Warramunga Arr     48.32 125    P         P        22 06 05.8 -1.9
      2.0nm,0.8s,baz=305,slow=9.1,SNR=14
ASAR  Alice Springs      49.89 129    P         P        22 06 17.6 -2.1
      2.0nm,0.6s,baz=302,slow=7.3,SNR=27
ASAR                                  PcP       PcP      22 07 38.0 -2.5
      0.7nm,0.6s,baz=321,slow=3.9,SNR=5.9
FINES FINESS Array B     73.13 332    P         P        22 08 53.4 -2.7
      3.7nm,1.0s,baz=72,slow=8.8,SNR=3.6
GERES GERESS Array B     78.00 318    P         P        22 09 23.1 -1.0
      0.7nm,0.7s,baz=96,slow=9.9,SNR=3.1
```

IDC ***30*** *22:06:04.1*±*1.9,4.71N*×*93.31E,mb3.8/3,mb1 4.0/4,*
mb1mx3.7/17,mbtmp3.7/4,ML3.7/1,Error ellipse:
s-maj=58.6km s-min=31.4km az=60.0
ISC 30 22:06:03.5±1.6**,4.6N**±0.2×**92.7E**±0.2**,h33**^{km}**,n10,**
σ**0**^{s}**.57**/10**,mb4.1**/5**,Off west coast of northern Sumatera**

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Code  Station Name         Δ°   AZ°   Phase ID            Time      Res
                                      Op        ISC       h  m  s   ISC
CMAR  Chiang Mai Arr     15.08  24    Pn        P        22 09 35.5 -0.5
      0.1nm,0.3s,baz=216,slow=12,SNR=11
PKI   Pulchoki           23.87 344    eP        P        22 11 15.8 +0.8
DMN   Daman              23.99 343    eP        P        22 11 16.2  0.0
GUN   Gumba              24.07 345    eP        P        22 11 16.9 -0.1
      17nm,0.9s,mb4.5
KKN   Kakani             24.11 344    eP        P        22 11 17.2 -0.2
GKN   Gorkha             24.50 343    eP        P        22 11 20.9 -0.3
KOLN  Koldanda           24.61 340    eP        P        22 11 21.6 -0.7
      8.1nm,0.8s,mb4.3
SONM  Songino Array      44.66  13    P         P        22 14 16.2 +1.2
      1.6nm,0.6s,mb4.0,baz=195,slow=8.3,SNR=15
WRA   Warramunga Arr     47.66 122    P         P        22 14 38.9 -0.2
      0.7nm,0.7s,mb3.8,baz=298,slow=8.7,SNR=4.4
GERES GERESS Array B     79.29 319    P         P        22 18 13.9 +6.5
```

0.5nm,0.4s,mb3.8,baz=76,slow=5.5,SNR=4.0

IDC 30 22:10:06.7±2.1**, 3.13N×94.51E, mb3.8**/5**, mb1 4.0**/6**, mb1mx3.8**/18**, mbtmp3.9**/6**, ML4.1**/1**, Error ellipse: s-maj=85.1km s-min=21.7km az=62.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.84	16	Pn	P	22 13 52.7	-0.2
	0.2nm,0.3s,baz=212,slow=12,SNR=24						
WRA	Warramunga Arr	45.33	122	P	P	22 18 26.6	-2.1
	1.4nm,0.6s,baz=300,slow=9.0,SNR=8.3						
SONM	Songino Array	45.70	11	P	P	22 18 28.8	-2.4
	0.5nm,0.8s,baz=187,slow=7.7,SNR=4.1						
SONM				PcP	PcP	22 20 07.9	-1.8
	0.6nm,0.7s,baz=194,slow=5.9,SNR=2.6						
ASAR	Alice Springs	46.69	127	P	P	22 18 37.5	-2.0
	0.7nm,0.6s,baz=296,slow=7.9,SNR=6.8						
BVAR	Borovoye Array	53.58	342	P	P	22 19 29.3	-2.4
	3.2nm,0.9s,baz=135,slow=10,SNR=7.4						
STKA	Stephens Creek	56.63	132	P	P	22 19 52.1	-2.1
	0.9nm,0.5s,baz=323,slow=5.1,SNR=3.6						

IDC 30 22:11:08.9±1.8**, 6.38N×92.78E, mb3.9**/3**, mb1 4.0**/3**, mb1mx3.7**/16**, mbtmp3.9**/3**, Error ellipse: s-maj=61.1km s-min=31.0km az=49.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	Songino Array	42.92	13	P	P	22 19 09.7	-1.3
	2.9nm,0.7s,baz=197,slow=9.4,SNR=10						
WRA	Warramunga Arr	48.53	124	P	P	22 19 53.9	-2.1
	0.7nm,0.5s,baz=306,slow=8.2,SNR=7.9						
BRTR	Keskin Array B	62.39	312	P	P	22 21 33.8	-2.3
	1.0nm,0.8s,baz=121,slow=8.4,SNR=4.8						

IDC 30 22:13:08.9±2.3**, 3.05N×94.43E, mb3.8**/5**, mb1 4.0**/6**, mb1mx3.8**/18**, mbtmp3.9**/6**, ML4.0**/1**, Error ellipse: s-maj=87.0km s-min=21.8km az=63.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	15.94	16	Pn	P	22 16 55.4	-1.0
	0.2nm,0.3s,baz=211,slow=11,SNR=16						
WRA	Warramunga Arr	45.35	122	P	P	22 21 28.7	-2.3
	1.1nm,0.5s,baz=300,slow=9.0,SNR=10.0						
SONM	Songino Array	45.79	11	P	P	22 21 32.1	-2.1
	0.5nm,0.7s,baz=202,slow=7.8,SNR=3.5						
ASAR	Alice Springs	46.71	127	P	P	22 21 40.1	-1.6
	0.5nm,0.5s,baz=296,slow=8.1,SNR=5.1						
BVAR	Borovoye Array	53.63	342	P	P	22 22 32.1	-2.1
	1.0nm,0.4s,baz=135,slow=8.4,SNR=7.0						
STKA	Stephens Creek	56.64	132	P	P	22 22 54.5	-2.0
	1.4nm,0.7s,baz=315,slow=4.3,SNR=4.7						

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*IDC **30** 22:14:05.4±1.0, 2.22N×92.48E, mb4.1/7, mb1 4.2/8, mb1mx4.0/17, mbtmp4.1/8, ML4.0/1, MS3.7/4, Ms1 3.7/4, ms1mx3.4/25, Error ellipse: s-maj=42.7km s-min=20.1km az=45.0*

ISC 30 22:14:08.6±0.8**, 2.3N**±0.1×**92.6E**±0.1**, h33^{km}, n11, σ0^{s}75**/9**, mb4.0**/7**, MS3.8**/3**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	17.20	21	P	P	22 18 07.2	-0.8
	0.2nm,0.3s,baz=214,slow=13,SNR=6.6						
CMAR				LR	LR	22 24 19.2	
	comp=Z,83nm,18.1s,baz=190,slow=35						
HYB	Hyderabad	20.38	318	*e*P	P	22 18 45.0	-0.3
TGY	Tagaytay City	30.34	66	LR	LR	22 32 14.6	
	comp=Z,175nm,18.3s,MS3.7,baz=133,slow=36						
WRA	Warramunga Arr	46.55	120	P	P	22 22 35.6	+0.3
	2.9nm,0.6s,mb4.4,baz=300,slow=8.7,SNR=11						
SONM	Songino Array	46.88	13	P	P	22 22 39.1	+1.6
	1.5nm,0.7s,mb4.0,baz=194,slow=8.6,SNR=7.6						
SONM				LR	LR	22 43 13.3	
	comp=Z,168nm,19.6s,MS4.0,baz=65,slow=37						
ASAR	Alice Springs	47.77	125	P	P	22 22 44.2	-0.7
	0.5nm,0.6s,mb3.7,baz=296,slow=7.9,SNR=3.3						
ASAR				LR	LR	22 43 34.1	
	comp=Z,74nm,18.0s,MS3.7,baz=51,slow=37						
STKA	Stephens Creek	57.55	130	P	P	22 23 57.6	+0.1
	1.2nm,0.7s,mb4.0,baz=308,slow=12,SNR=2.6						
BRTR	Keskin Array B	64.98	313	P	P	22 24 46.7	-0.9
	0.7nm,0.6s,mb3.9,baz=135,slow=10,SNR=4.2						
IDI	Anoyia	70.54	307	P	P	22 25 22.8	+0.4
	3.4nm,0.7s,mb4.4,baz=335,slow=12,SNR=6.2						
GERES	GERESS Array B	80.95	319	P	P	22 26 21.8	+0.5
	0.9nm,0.7s,mb3.8,baz=104,slow=5.5,SNR=5.9						
TXAR	Lajitas Array	144.88	25	PKPbc	PKPbc	22 33 44.8	+1.7
	0.5nm,0.6s,baz=333,slow=2.0,SNR=4.6						

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*NEIC **30** 22:15:08.0, 36.41N×21.57E, h72^{km}, After ATH.*

*CSEM **30** 22:15:08.0, 36.41N×21.57E, h72^{km}, ML3.7, After ATH*

ATH 30 22:15:07.5, 36.37N×21.51E, h65^{km}±8^{km}, ML3.7, Southern Greece

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ITM	Ithomi	0.88	22	*e*P	P	22 15 24.3	0.0
ITM				*e*S	S	22 15 37.8	+1.0
VLI	Veliai	1.20	73	*e*P	P	22 15 29.8	+1.1
KYTH	Kithira	1.24	94	*e*P	P	22 15 30.0	+0.8
VLS	Valsamata	1.95	338	*e*P	P	22 15 40.0	+1.0
NAIG	Nisos Aigina	2.10	48	*e*P	P	22 15 42.5	+1.3
MGER	Gerania Oros	2.13	40	*e*P	P	22 15 42.0	+0.4
NSAL	Nisos Salamina	2.19	45	*e*P	P	22 15 43.5	+1.1
ATH	Athens Observa	2.38	47	*e*P	P	22 15 45.5	+0.4
VAM	Vamos	2.39	113	*e*P	P	22 15 45.5	+0.3
MPAR	Parnis Oros	2.51	44	*e*P	P	22 15 46.5	-0.5
PTL	Penteli	2.52	48	*e*P	P	22 15 46.5	-0.5
EVR	Evrytania	2.55	5	*e*P	P	22 15 48.5	+1.0
JAN	Janina	3.32	351	*e*P	P	22 15 59.5	+1.2
KEK	Kerkira	3.60	338	*e*P	P	22 16 02.5	+0.3

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*IDC **30** 22:17:53.1±1.0, 6.21S×107.08W, mb4.1/13, mb1 4.4/13, mb1mx4.2/17, mbtmp4.1/13, MS4.3/9, Ms1 4.3/9, ms1mx3.8/24, Error ellipse: s-maj=32.3km s-min=20.4km az=57.0*

*NEIC **30** 22:17:56.0±0.6, 6.12S×106.84W, h10^{km}, mb4.7/19, Error ellipse: s-maj=20.7km s-min=11.7km az=79.0*

ISC 30 22:17:54.9±0.5**, 6.03S**±0.07×**106.8W**±0.1**, h10^{km}, n56, σ1^{s}37**/49**, mb4.4**/30**, MS4.3**/9**, 3C-1D, Central East Pacific Rise**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
OTAV	Otavalo	28.96	79	P	P	22 23 58.9	+2.0
	4.3nm,1.1s,mb4.1						
PTCN	Pitcairn Islan	29.28	227	P	P	22 24 04.6	+4.8
	184nm,0.8s						
ROSC	El Rosal	34.16	72	LR	LR	22 34 57.8	
	comp=Z,191nm,20.0s,MS3.8,baz=295,slow=30						
TXAR	Lajitas Array	35.28	5	P	P	22 24 52.1	0.0
	0.8nm,0.8s,mb3.7,baz=186,slow=11,SNR=6.2						
MNTX	Cornudas Mount	37.53	2	*e*P	P	22 25 10.9	-0.2
	8.4nm,1.1s,mb4.4						
CPRX	Cap Rock	38.94	4	P	P	22 25 21.0	-1.9
SDV	Santo Domingo	38.96	68	P	P	22 25 25.2	+2.0
	5.3nm,1.1s,mb4.2,baz=228,slow=5.5,SNR=4.6						
SDV				LR	LR	22 38 41.2	
	comp=Z,242nm,21.8s,MS4.0,baz=252,slow=32						
SDV	Santo Domingo	38.96	68	*e*P	P	22 25 25.4	+2.1
LPAZ	La Paz	39.20	108	P	P	22 25 24.6	-0.5
	1.0nm,0.7s,mb3.7,baz=253,slow=6.4,SNR=5.3						
LPAZ				LR	LR	22 38 12.6	
	comp=Z,505nm,19.4s,MS4.4,baz=63,slow=31						
LPAZ	La Paz	39.20	108	*e*P	P	22 25 24.6	-0.6
	5.1nm,1.3s,mb4.1						
BNM	Barren Site	39.96	0	*e*P	P	22 25 33.2	+1.9
LAZ	Ladron	40.21	360	*e*P	P	22 25 33.0	-0.4
ANMO	Albuquerque	40.76	0	P	P	22 25 36.5	-1.3
	2.2nm,1.0s,mb3.7						
WMOK	Wichita Mounta	41.24	10	P	P	22 25 40.5	-1.3
	4.4nm,1.2s,mb4.0						
MIAR	Mount Ida	42.24	16	*e*P	P	22 25 49.5	-0.6
	7.7nm,1.0s,mb4.3						
PPT	Papeete	43.33	251	LR	LR	22 39 53.1	
	comp=Z,463nm,19.6s,MS4.4,baz=122,slow=31						
OXF	Oxford	43.53	21	*e*P	P	22 26 02.1	+1.5
	23nm,1.0s,mb4.9						
SDCO	Great Sand Dun	43.56	1	*e*P	P	22 26 02.4	+1.6
	12nm,1.1s,mb4.5						
ARUT	Antelope Range	44.03	352	*e*P	P	22 26 04.5	-0.1
RW3	Ridgway	44.05	359	P	P	22 26 08.2	+3.4
PV10	Paradox Valley	44.22	357	P	P	22 26 03.0	-3.2
TPH	Tonopah	44.94	348	*e*P	P	22 26 12.9	+1.0
	14nm,1.1s,mb4.7						
PCRV	Puerto La Cruz	44.96	69	LR	LR	22 43 23.6	
	comp=Z,208nm,18.8s,MS4.1,baz=82,slow=34						
NVAR	Mina Array Bea	45.51	347	P	P	22 26 16.6	+0.2
	1.7nm,0.7s,mb4.1,baz=141,slow=9.5,SNR=5.1						
NVAR				LR	LR	22 41 31.7	
	comp=Z,269nm,18.5s,MS4.2,slow=31						
ISCO	Idaho Springs	45.61	1	*e*P	P	22 26 17.5	+0.3
	7.2nm,1.1s,mb4.5						
CMB	Columbia Colle	45.63	345	P	P	22 26 18.9	+1.5
	27nm,1.6s,mb4.9						
MYNC	Murphy	46.12	26	*e*P	P	22 26 20.6	-0.7
	23nm,1.1s,mb5.0						
SJG	San Juan	46.72	58	LR	LR	22 43 12.1	
	comp=Z,286nm,18.7s,MS4.3,baz=6.6,slow=32						
JSC	Jenkinsville	46.79	29	*e*P	P	22 26 26.1	-0.6
HWUT	Hardware Ranch	47.60	355	*e*P	P	22 26 34.6	+1.7
	9.5nm,1.0s,mb4.8						
PDAR	Pinedale Array	48.62	357	P	P	22 26 41.6	+0.8
	0.7nm,0.8s,mb3.8,baz=153,slow=3.3,SNR=5.1						
QLMT	Earthquake Lak	50.80	356	*e*P	P	22 26 58.9	+1.4
MCMT	McKenzie Canyo	50.91	354	*e*P	P	22 26 58.3	-0.1
NEW	Newport	54.82	352	P	P	22 27 28.1	+0.7
SADO	Sadowa	56.33	23	P	P	22 27 38.6	+0.2
	9.7nm,1.0s,mb4.8,baz=164,slow=4.0,SNR=3.2						
ULM	Lac du Bonnet	56.84	8	P	P	22 27 41.3	-0.7
	6.1nm,1.1s,mb4.6,baz=177,slow=6.6,SNR=4.2						
BDFB	Brasilia	58.35	105	P	P	22 27 52.0	-1.0
	3.2nm,0.8s,mb4.4,baz=236,slow=8.8,SNR=3.0						
AFI	Afiamalu	64.33	258	*e*P	P	22 28 36.2	+2.6
	103nm,1.3s						
AFI				*e*		22 28 46.5	
PMSA	Palmer Station	65.97	161	P	P	22 28 40.4	-2.9
	21nm,0.9s,mb5.2						
DLBC	Dease Lake	66.92	347	P	P	22 28 48.0	-1.5
	1.4nm,0.4s,mb4.3,baz=138,slow=18,SNR=3.1						
YKA	Yellowknife Ar	68.58	356	P	P	22 28 56.9	-3.0
	1.2nm,0.7s,mb4.0,baz=163,slow=6.3,SNR=17						
SCHQ	Schefferville	69.14	23	P	P	22 29 02.6	-0.7
RCBR	Riachuelo	70.45	94	*e*P	P	22 29 17.6	+5.5
	39nm,1.6s,mb5.1						
INK	Inuvik	76.50	350	P	P	22 29 44.8	-1.7
	3.6nm,1.1s,mb4.2,baz=213,slow=12,SNR=3.9						
ILAR	Eielson Array	76.60	344	P	P	22 29 45.1	-1.9
	1.4nm,0.9s,mb3.9,baz=151,slow=4.7,SNR=13						
ILAR				LR	LR	22 57 31.8	
	comp=Z,157nm,18.3s,MS4.4,baz=173,slow=31						
COLA	College	76.95	343	P	P	22 29 47.8	-1.2
	1.9nm,0.7s,mb4.1						
SBA	Scott Base	83.40	192	P	P	22 30 22.6	-0.8
	81nm,1.8s,mb5.5						
QSPA	South Pole Qui	84.04	180	⇑*i*P	P	22 30 25.7	-0.7
	22nm,0.9s,mb5.3						
VNDA	Vanda	84.46	193	P	P	22 30 27.8	-0.7
	2.7nm,1.1s,mb4.3,baz=81,slow=4.4,SNR=3.9						
VNDA	Vanda	84.46	193	P	P	22 30 29.5	+1.0
	15nm,1.4s,mb4.9						
VNA3	Neumayer Olymp	86.63	161	⇓*i*	P	22 30 42.5	+3.1
VNA2	Neumayer--Watz	87.41	161	⇑*i*	P	22 30 46.6	+3.3
SNAA	Sanae	88.68	162	⇑*i*	P	22 30 45.4	-3.9
JMIC	Jan Mayen	98.36	19	LR	LR	23 16 13.4	
	comp=Z,397nm,21.8s,MS4.9,baz=74,slow=36						
KMBO	Kilima Mbogo	143.40	100	PKP	PKPdf	22 37 33.2	-0.6
	3.0nm,0.9s,baz=255,slow=11,SNR=5.2						
CMAR	Chiang Mai Arr	152.04	299	PKPbc	PKPdf	22 37 50.1	+2.4
	1.9nm,0.6s,baz=24,slow=1.0,SNR=12						

WEL 30 22:20:57.1±0.4**, 37.89S×176.58E, h146^{km}±3^{km}, ML3.5**/4**, 2C, Error ellipse: s-maj=3.5km s-min=3.5km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	Urewera	0.56	132	PN	P	22 21 18.2	-0.7
URZ				SN	S	22 21 34.6	-0.8
MWZ	Matawai	0.87	121	PN	P	22 21 20.6	-0.1
MWZ				SN	S	22 21 38.7	-0.2
BKZ	Black Stump Fm	1.28	183	⇑PN	P	22 21 24.0	-0.4
BKZ				SN	S	22 21 44.9	-0.6
MGZ	Maungaku	1.38	216	PN	P	22 21 25.6	+0.1
KNZ	Kokohu	1.42	143	PN	P	22 21 25.7	-0.2
NGZ	Ngauruhoe	1.50	211	PN	P	22 21 27.0	+0.2
TUVZ	Tukino	1.56	207	PN	P	22 21 27.2	-0.3
WNVZ	Wahianoa	1.64	208	⇑PN	P	22 21 27.7	-0.5
BFZ	Birch Farm	2.81	185	PN	P	22 21 40.1	-2.5
BFZ				SN	S	22 22 14.3	-2.9
KIW	Kapiti Island	3.24	203	PN	P	22 21 44.3	-4.0
KIW				SN	S	22 22 22.5	-4.8

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*IDC **30** 22:21:50.6±0.8, 8.87N×93.56E, h25^{km}±4^{km}, mb3.8/13, mb1 3.9/13, mb1mx3.8/19, mbtmp3.9/13, Error ellipse: s-maj=44.9km s-min=15.7km az=47.0*

ISC 30 22:21:48.4±0.8**, 8.8N**±0.2×**93.6E**±0.2**, h25^{km}, (h26^{km}±.4^{km}:pP-P), n14, σ0^{s}77**/14**, mb3.9**/13**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DDI	Dehra Dun	25.86	328	*e*	P	22 27 25.3	+5.4
SONM	Songino Array	40.40	13	P	P	22 29 26.8	+0.7
	0.3nm,0.5s,mb3.2,baz=202,slow=7.8,SNR=4.4						
BVAR	Borovoye Array	47.93	341	P	P	22 30 25.2	-1.5
	0.5nm,0.4s,mb3.9,baz=150,slow=8.9,SNR=4.9						
WRA	Warramunga Arr	49.27	126	P	P	22 30 37.9	+0.4
	0.3nm,0.5s,mb3.6,baz=305,slow=8.7,SNR=5.7						
WRA				pP	pP	22 30 45.8	+0.6
	0.4nm,0.5s,baz=303,slow=8.7,SNR=2.3						
ASAR	Alice Springs	50.95	130	P	P	22 30 49.5	-0.7
	0.3nm,0.6s,mb3.4,baz=306,slow=7.8,SNR=3.5						
ASAR				PcP	PcP	22 32 08.0	+1.4
	0.4nm,0.7s,baz=295,slow=3.3,SNR=4.0						
BRTR	Keskin Array B	61.39	311	P	P	22 32 04.6	-0.3
	1.6nm,0.9s,mb4.2,baz=135,slow=7.0,SNR=4.9						
BRTR				pP	pP	22 32 12.2	-0.5
	1.0nm,0.7s,baz=140,slow=9.6,SNR=3.4						
AKASG	Malin Array Be	67.07	322	P	P	22 32 40.6	-1.2
	0.1nm,0.3s,mb3.3,baz=88,slow=5.8,SNR=3.2						
AKASG				pP	pP	22 32 48.8	-0.9
	1.3nm,0.7s,baz=86,slow=5.6,SNR=3.4						
FINES	FINESS Array B	71.63	332	P	P	22 33 09.4	-0.2
	2.5nm,0.9s,mb4.2,baz=117,slow=4.3,SNR=4.5						
ARCES	ARCESS Array B	74.20	340	P	P	22 33 24.3	-0.2
	4.3nm,0.9s,mb4.4,baz=76,slow=5.0,SNR=5.3						
ARCES				pP	pP	22 33 32.8	+0.3
	4.9nm,1.1s,baz=101,slow=6.2,SNR=1.7						
GERES	GERESS Array B	76.75	318	P	P	22 33 40.6	+1.2
	1.1nm,0.7s,mb3.9,baz=56,slow=4.8,SNR=5.0						
GERES				pP	pP	22 33 48.5	+1.1
	0.9nm,0.6s,baz=90,slow=5.3,SNR=4.7						
HFS	Hagfors	77.37	330	P	P	22 33 43.2	+0.6
	6.4nm,1.0s,mb4.5,baz=90,slow=7.4,SNR=6.0						
NOA	NORSAR Array B	78.64	331	P	P	22 33 50.0	+0.4
	0.8nm,0.7s,mb3.8,baz=95,slow=5.0,SNR=2.4						
EKA	Eskdalemuir Ar	86.63	325	P	P	22 34 31.9	+1.0
	0.7nm,0.6s,mb4.0,baz=108,slow=5.3,SNR=3.7						
EKA				pP	pP	22 34 40.0	+1.0
	2.5nm,0.9s,baz=108,slow=5.3,SNR=3.4						
ILAR	Eielson Array	94.11	22	P	P	22 35 05.4	-0.3
	0.4nm,0.6s,mb4.0,baz=302,slow=4.1,SNR=6.1						

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*IDC **30** 22:21:54.6±0.9, 33.41S×68.60W, mb4.2/6, mb1 4.3/8, mb1mx4.1/16, mbtmp4.2/8, ML4.5/2, Error ellipse: s-maj=33.7km s-min=21.6km az=77.0*

*NEIC **30** 22:21:58.7, 33.40S×68.59W, h5^{km}, mb3.9/1, ML4.3(GUC), After GUC.*

NEIC Felt [IV] at Rivadavia and [III] at Mendoza.

*GUC **30** 22:21:58.7±1.1, 33.40S×68.59W, h5^{km}±13^{km}, MD4.4, ML4.3*

ISC 30 22:21:55.3±0.5**, 33.42S**±0.04×**68.38W**±0.03**, h5^{km}, n35, σ1^{s}16**/50**, mb4.0**/6**, 5C-6D, Mendoza Province**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
MDZ	Mendoza	0.67	324	⇓*i*P	Pg	22 22 07.8	-0.8
MDZ				*i*		22 22 10.1	
MDZ				*i* S	Sg	22 22 16.9	-0.6
LMEL	Las Melosas	1.58	254	⇓*i*P	Pn	22 22 23.8	-0.4
LMEL				*i* S	Sb	22 22 43.6	-1.3
LMEL				AMP		22 22 47.9	
	comp=N,3µm,0.2s						
FCH	Farellones	1.60	273	⇓*i*P	Pn	22 22 23.8	-0.7
FCH				*i* S	Sb	22 22 42.9	-2.6
SJCH	San Jose de Ma	1.66	262	*i* S	Sb	22 22 45.4	-1.9
FSR	Penalolen	1.80	268	*e*P	Pn	22 22 27.1	-0.2
FSR				*i* S	Sn	22 22 49.5	-1.2
FSR				AMP		22 22 52.7	
	comp=E,8µm,0.5s						
CLCH	Cerro Calan	1.80	270	⇓*i*P	Pn	22 22 27.6	+0.2
CLCH				*i* S	Sn	22 22 49.6	-1.3
CLCH				AMP		22 22 53.1	
	comp=E,8µm,0.6s						
CLCH				AMP		22 22 53.6	
	comp=E,10µm,0.7s						
DSCH	Colegio Aleman	1.83	270	*e*P	Pn	22 22 28.4	+0.7
DSCH				*i* S	Sn	22 22 50.2	-1.4
DSCH				AMP		22 22 53.2	
	comp=E,8µm,0.8s						
ANTU	Antumapu	1.89	265	*e*P	Pn	22 22 28.9	+0.3
ANTU				*i* S	Sn	22 22 52.0	-1.0
ANTU				AMP		22 22 56.8	
	comp=E,4µm,0.7s						
STL	Santa Lucia	1.89	269	⇓*i*P	Pn	22 22 29.4	+0.7
STL				*i* S	Sn	22 22 52.6	-0.5
STL				AMP		22 22 58.1	
	comp=E,1µm,0.6s						
CICH	Cipreses	1.92	242	⇑*i*P	Pn	22 22 30.4	+1.3
CICH				*i* S	Sn	22 22 55.5	+1.6
PEL	Peldehue	1.95	278	*e*P	Pn	22 22 29.9	+0.4
PEL				*i* S	Sn	22 22 53.3	-1.4
CHCH	Chadas Angostu	1.96	254	⇑*i*P	Pn	22 22 30.6	+0.9
CHCH				*i* S	Sn	22 22 54.9	-0.1
CACH	El Canelo	1.98	249	*e*P	Pn	22 22 30.9	+1.0
CACH				*i* S	Sn	22 22 56.9	+1.6
JACH	Jahuel	2.00	291	⇑*i*P	Pn	22 22 30.8	+0.6
JACH				*i* S	Sn	22 22 54.9	-1.0
RCDM	Rinconada Maip	2.03	267	⇓*i*P	Pn	22 22 31.4	+0.8
RCDM				*i* S	Sn	22 22 56.4	-0.3
RCDM				AMP		22 22 59.8	
	comp=N,2µm,0.6s						
PTCH	Petorca	2.44	298	⇑*i*P	Pn	22 22 37.6	+1.2
PTCH				*e*S	Sn	22 23 08.5	+1.4
PTCH				AMP		22 23 09.9	
	comp=N,10µm,0.5s						
PACH	Papudo	2.72	288	*e*P	Pn	22 22 41.9	+1.5
PACH				*i* S	Sn	22 23 16.0	+1.8
IHA	Instituto Hidr	2.76	277	*e*P	Pn	22 22 42.3	+1.2
IHA				*i* S	Sn	22 23 17.3	+2.0
ILCH	Illapel	2.95	306	*e*P	Pn	22 22 45.5	+1.7
ILCH				AMP		22 23 26.9	
	comp=E,3µm,0.5s						
CMCH	Combarbala	3.15	315	⇑*i*P	Pn	22 22 48.0	+1.3
CMCH				*i* S	Sn	22 23 26.4	+1.2
TRQA	Tornquist	6.96	133	*e*Pn	Pn	22 23 40.8	+0.2
	comp=E,12nm,0.4s						
LVC	Limon Verde	10.78	357	Pn	P	22 24 28.8	-4.6
	comp=E,0.9nm,0.3s,baz=197,slow=9.9,SNR=10						
LVC				Lg		22 27 38.5	
	comp=E,1.1nm,0.3s,baz=322,slow=17,SNR=3.9						
LVC	Limon Verde	10.78	357	*e*P	P	22 24 26.7	-6.8
	comp=E,4.3nm,0.9s						
LPAZ	La Paz	17.06	1	P	P	22 25 56.4	0.0
	comp=E,0.4nm,0.3s,baz=190,slow=7.8,SNR=17						
LPAZ	La Paz	17.06	1	*e*P	P	22 25 56.4	0.0
	comp=E,7.9nm,0.7s						
BDFB	Brasilia	25.54	51	P	P	22 27 25.7	-1.0
	comp=E,2.5nm,0.5s,mb4.0,baz=240,slow=8.9,SNR=8.2						
BAO	Brasilia Array	25.56	51	P	P	22 27 26.4	-0.5
SNAA	Sanae	50.98	158	P	P	22 30 59.0	-0.6
	comp=E,1.0nm,0.9s,mb3.8,baz=323,slow=7.9,SNR=5.7						
TXAR	Lajitas Array	70.80	328	P	P	22 33 13.0	-2.0
	comp=E,1.2nm,0.6s,mb4.0,baz=152,slow=9.0,SNR=18						
DBIC	Dimbokro	72.11	69	P	P	22 33 22.6	-0.5
	comp=E,2.5nm,0.9s,mb4.1,baz=243,slow=9.0,SNR=2.5						
ANMO	Albuquerque	76.81	329	P	P	22 33 47.0	-2.9
	comp=E,1.7nm,0.9s,mb4.0,baz=167,slow=7.2,SNR=4.7						
ULM	Lac du Bonnet	86.79	343	P	P	22 34 40.2	-1.4
	comp=E,1.9nm,0.7s,mb4.4,baz=164,slow=15,SNR=3.9						
WRA	Warramunga Arr	122.68	206	PKP	PKPdf	22 40 51.3	-3.7
	comp=E,0.5nm,0.5s,baz=164,slow=1.7,SNR=7.8						
BVAR	Borovoye Array	144.77	44	PKP	PKPdf	22 41 33.1	-2.0
	comp=E,0.2nm,0.4s,baz=333,slow=3.2,SNR=3.6						
SONM	Songino Array	165.07	14	PKPab	PKPab	22 42 57.9	-1.0
	comp=E,0.5nm,0.8s,baz=342,slow=3.9,SNR=4.0						

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*IDC **30** 22:24:05.2±0.6, 8.30N×93.84E, h17^{km}±3^{km}, mb4.0/16, mb1 4.2/16, mb1mx4.1/21, mbtmp4.1/16, Error ellipse: s-maj=29.0km s-min=12.8km az=48.0*

*NEIC **30** 22:24:09.1±1.5, 8.56N×93.73E, h30^{km}, mb4.5/14, Error ellipse: s-maj=40.3km s-min=18.5km az=129.0*

ISC 30 22:24:03.6±0.4**, 8.33N**±0.07×**93.94E**±0.10**, h17^{km}, h17^{km}±.3^{km}:pP-P, n46, σ1^{s}11**/44**, mb4.4**/34**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PKI	Pulchoki	20.77	338	*e*P	P	22 28 46.8	+0.4
	90nm,1.4s						
GUN	Gumba	20.91	340	*e*P	P	22 28 48.2	+0.3
	77nm,0.9s						
DMN	Daman	20.92	338	*e*P	P	22 28 48.0	+0.1
	42nm,0.8s						
KKN	Kakani	21.02	338	*e*P	P	22 28 48.5	-0.4
	48nm,0.8s,mb4.9						
LSA	Lhasa	21.42	353	*e*P	P	22 28 52.9	-0.1
	22nm,0.9s,mb4.5						
GKN	Gorkha	21.45	337	*e*P	P	22 28 53.0	-0.3
	35nm,0.6s,mb4.8						
KOLN	Koldanda	21.67	334	*e*P	P	22 28 56.2	+0.7
	26nm,0.8s,mb4.7						
PTH	Pithoragarh	24.73	330	*e*P	P	22 29 28.3	+2.7
ENH	Enshi	26.24	32	P	P	22 29 42.7	+3.0
	5.5nm,0.8s,mb4.1						
SONM	Songino Array	40.77	13	P	P	22 31 47.9	+2.5
	0.5nm,0.5s,mb3.4,baz=202,slow=7.8,SNR=4.0						
SONM				PcP	PcP	22 33 47.3	+0.1
	0.3nm,0.4s,baz=234,slow=2.4,SNR=3.7						
ULN	Ulaanbaatar	40.94	13	*e*P	P	22 31 45.2	-1.7
	2.2nm,0.6s,mb4.0						
NWAO	Narrogin (SRO)	46.64	153	P	P	22 32 33.8	+0.7
	13nm,0.8s,mb4.9,baz=305,slow=7.7,SNR=5.7						
RDF	Al-Radifah	48.12	302	*e*P	P	22 32 45.7	+0.9
RDF				AMb	AMB	22 32 51.7	
	comp=Z,28nm,0.6s,mb5.5						
RDF	Al-Radifah	48.12	302	*e*P	P	22 32 47.1	+2.3
RDF				AMb	AMB	22 32 51.6	
	comp=Z,34nm,0.7s,mb5.5						
NAY	Al-Naaiem	48.47	302	*e*P	P	22 32 47.8	+0.3
NAY				AMb	AMB	22 32 53.9	
	comp=Z,17nm,0.6s,mb5.2						
NAY	Al-Naaiem	48.47	302	*e*P	P	22 32 47.4	-0.1
NAY				AMb	AMB	22 32 53.9	
	comp=Z,17nm,0.7s,mb5.2						
BVAR	Borovoye Array	48.50	341	P	P	22 32 45.0	-2.4
	comp=Z,1.2nm,0.7s,mb4.0,baz=129,slow=9.5,SNR=5.2						
BVAR				PcP	PcP	22 34 13.0	-0.7
	comp=Z,0.4nm,0.5s,baz=180,slow=2.9,SNR=2.6						
BRVK	Borovoye	48.56	341	*e*P	P	22 32 47.5	-0.3
	comp=Z,3.5nm,0.9s,mb4.4						
WRA	Warramunga Arr	48.69	126	P	P	22 32 48.8	-0.5
	comp=Z,1.7nm,0.7s,mb4.2,baz=306,slow=8.5,SNR=9.8						
WRA				PcP	PcP	22 34 14.9	0.0
	comp=Z,0.8nm,0.7s,baz=315,slow=3.2,SNR=5.3						
WRA				pPcP		22 34 20.4	
	comp=Z,0.4nm,0.5s,baz=315,slow=2.8,SNR=6.2						
RST	Umm Al-Ruwaisa	48.74	302	*e*P	P	22 32 49.3	-0.3
RST				AMb	AMB	22 32 55.9	
	comp=Z,17nm,0.7s,mb5.2						
RST	Umm Al-Ruwaisa	48.74	302	*e*P	P	22 32 49.6	+0.1
RST				AMb	AMB	22 32 51.0	
	comp=Z,22nm,1.5s,mb5.0						
CHKZ	Chkalovo	48.98	342	*e*P	P	22 32 51.0	-0.1
	comp=Z,4.7nm,0.9s,mb4.5						
ASAR	Alice Springs	50.36	130	P	P	22 33 01.3	-0.8
	comp=Z,1.5nm,0.8s,mb4.1,baz=300,slow=7.5,SNR=8.3						
ASAR				pP	pP	22 33 06.8	-0.7

	comp=Z,3.4nm,1.0s,baz=302,slow=6.9,SNR=8.7						
ASAR				PcP	PcP	22 34 21.1	+0.2
	comp=Z,1.0nm,0.6s,baz=309,slow=3.3,SNR=7.3						
ARU	**Arti**	**55.40**	**337**	P	**P**	**22 33 39.0**	**-0.1**
KIV	**Kislovodsk**	**56.85**	**318**	*e*P	**P**	**22 33 48.3**	**-1.5**
	comp=Z,4.5nm,0.9s,mb4.5						
KMBO	**Kilima Mbogo**	**57.28**	**263**	P	**P**	**22 33 52.6**	**-0.6**
	comp=Z,1.7nm,0.7s,mb4.2,baz=49,slow=14,SNR=5.1						
KMBO	**Kilima Mbogo**	**57.28**	**263**	*e*P	**P**	**22 33 55.2**	**+2.0**
	comp=Z,3.3nm,0.9s,mb4.4						
MALT	**Malatya**	**58.02**	**310**	*e*P	**P**	**22 33 58.7**	**+0.6**
	comp=Z,5.7nm,1.3s,mb4.4						
STKA	**Stephens Creek**	**60.56**	**134**	P	**P**	**22 34 15.1**	**-0.6**
	comp=Z,1.7nm,0.8s,mb4.2,baz=316,slow=9.5,SNR=4.5						
BRTR	**Keskin Array B**	**61.98**	**311**	P	**P**	**22 34 23.2**	**-2.0**
	comp=Z,1.0nm,0.6s,mb4.1,baz=116,slow=7.9,SNR=4.6						
MA2	**Magadan**	**66.46**	**28**	P	**P**	**22 34 55.1**	**+1.0**
	comp=Z,17nm,1.1s,mb5.0						
IDI	**Anoyia**	**68.15**	**305**	P	**P**	**22 35 04.0**	**-1.2**
	comp=Z,3.1nm,0.8s,mb4.4,baz=28,slow=13,SNR=2.7						
LSZ	**Lusaka**	**69.23**	**250**	*e*P	**P**	**22 35 12.7**	**+0.5**
	comp=Z,12nm,1.4s,mb4.6						
FINES	**FINESS Array B**	**72.22**	**332**	P	**P**	**22 35 28.6**	**-0.8**
	comp=Z,5.6nm,1.0s,mb4.4,baz=117,slow=4.3,SNR=5.1						
FINES				pP	pP	22 35 34.2	-0.8
	comp=Z,3.2nm,0.7s,baz=108,slow=6.0,SNR=1.9						
KAF	**Kangasniemi**	**72.30**	**333**	*e*p	**P**	**22 35 27.0**	**-3.0**
	comp=Z,0.5nm,0.3s,mb3.9						
LBTB	**Lobatse**	**74.28**	**241**	*e*P	**P**	**22 35 43.6**	**+1.3**
	comp=Z,17nm,1.4s,mb4.8						
GERES	**GERESS Array B**	**77.36**	**318**	P	**P**	**22 35 59.8**	**+0.6**
	comp=Z,1.2nm,0.7s,mb4.0,baz=104,slow=5.5,SNR=3.4						
GERES				pP	pP	22 36 05.0	+0.3
	comp=Z,1.0nm,0.8s,baz=90,slow=5.3,SNR=4.8						
HFS	**Hagfors**	**77.97**	**330**	P	**P**	**22 36 02.3**	**0.0**
	comp=Z,2.3nm,0.5s,mb4.4,baz=90,slow=5.9,SNR=6.6						
HFS				pP	pP	22 36 08.0	+0.2
	comp=Z,2.3nm,0.5s,baz=90,slow=4.4,SNR=2.0						
NB2	**NORSAR Subarra**	**79.24**	**331**	P	**P**	**22 36 08.9**	**-0.4**
	comp=Z,12nm,1.2s,mb4.7,baz=96,slow=5.0						
NOA	**NORSAR Array B**	**79.24**	**331**	P	**P**	**22 36 09.0**	**-0.2**
	comp=Z,0.9nm,0.6s,mb3.9,baz=95,slow=4.9,SNR=2.8						
NOA				pP	pP	22 36 14.2	-0.7
	comp=Z,1.9nm,0.6s,baz=93,slow=5.7,SNR=3.6						
LPG	**La Plagne**	**82.16**	**315**	*e*P	**P**	**22 36 23.5**	**-1.5**
	comp=Z,11nm,0.9s,mb4.5						
EKA	**Eskdalemuir Ar**	**87.24**	**325**	P	**P**	**22 36 50.9**	**+0.6**
	comp=Z,2.8nm,0.7s,mb4.6,baz=90,slow=4.2,SNR=4.3						
EKA				pP	pP	22 36 56.5	+0.6
	comp=Z,2.7nm,0.7s,baz=90,slow=5.0,SNR=5.0						
ESDC	**Sonseca Array**	**90.77**	**310**	P	**P**	**22 37 08.0**	**+0.6**
	comp=Z,0.8nm,0.5s,mb4.3,baz=72,slow=4.7,SNR=4.2						
ESDC				pP	pP	22 37 13.7	+0.7
	comp=Z,1.2nm,0.6s,baz=66,slow=4.1,SNR=5.5						
ILAR	**Eielson Array**	**94.40**	**22**	P	**P**	**22 37 24.4**	**+0.9**
	comp=Z,0.2nm,0.6s,mb3.7,baz=307,slow=4.5,SNR=3.6						
ILAR				pP	pP	22 37 30.3	+1.2
	comp=Z,0.4nm,0.7s,baz=300,slow=4.7,SNR=3.7						
PDAR	**Pinedale Array**	**124.82**	**21**	PKP	PKPdf	22 43 04.6	-2.3
	comp=Z,0.5nm,0.7s,SNR=3.4						
LPAZ	**La Paz**	**160.79**	**244**	PKPab	PKPab	22 44 47.9	-0.1
	comp=Z,0.6nm,0.7s,baz=90,slow=3.0,SNR=4.4						

IDC ***30*** *22:29:39.7±1.1, 8.69N×92.27E, mb3.8/7, mb1 4.0/8, mb1mx3.8/18, mbtmp3.8/8, ML3.7/1, Error ellipse: s-maj=42.9km s-min=18.8km az=54.0*

ISC 30 22:29:43.1±0.8**, 8.7N**±0.1×**92.5E**±0.2**, h33^{km}, n15, σ0^{s}93**/15**, mb3.9**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.53**	**32**	Pn	**P**	**22 32 27.8**	**-0.7**
	0.2nm,0.3s,baz=222,slow=14,SNR=8.4						
VIS	**Vishakhapatnam**	**12.60**	**316**	*e*P	**P**	**22 32 33.3**	**-10**
PKI	**Pulchoki**	**19.88**	**341**	*e*P	**P**	**22 34 16.1**	**+1.5**
	28nm,1.0s						
DMN	**Daman**	**20.02**	**341**	*e*P	**P**	**22 34 16.4**	**+0.4**
	30nm,0.9s						
GUN	**Gumba**	**20.06**	**343**	*e*P	**P**	**22 34 16.4**	**0.0**
	29nm,0.8s						
KKN	**Kakani**	**20.13**	**341**	*e*P	**P**	**22 34 16.9**	**-0.3**
	22nm,1.0s						
GKN	**Gorkha**	**20.54**	**340**	*e*P	**P**	**22 34 21.3**	**-0.1**
	14nm,0.6s						
KOLN	**Koldanda**	**20.70**	**337**	*e*P	**P**	**22 34 23.0**	**-0.1**
	14nm,0.7s						
SONM	**Songino Array**	**40.72**	**14**	P	**P**	**22 37 22.8**	**+0.5**
	0.7nm,0.7s,mb3.4,baz=198,slow=7.8,SNR=4.3						
BVAR	**Borovoye Array**	**47.65**	**342**	P	**P**	**22 38 18.0**	**-0.1**
	0.6nm,0.7s,mb3.7,baz=149,slow=8.4,SNR=3.0						
WRA	**Warramunga Arr**	**50.11**	**125**	P	**P**	**22 38 37.2**	**-0.4**
	1.5nm,0.6s,mb4.2,baz=304,slow=8.5,SNR=10.0						
ASAR	**Alice Springs**	**51.74**	**129**	P	**P**	**22 38 49.0**	**-0.8**
	1.5nm,0.9s,mb3.9,baz=302,slow=6.2,SNR=6.5						
BRTR	**Keskin Array B**	**60.61**	**311**	P	**P**	**22 39 50.6**	**-2.5**
	1.0nm,0.9s,mb3.9,baz=90,slow=8.6,SNR=3.7						
STKA	**Stephens Creek**	**61.90**	**133**	P	**P**	**22 40 03.8**	**+1.9**
	1.4nm,0.9s,mb4.1,baz=311,slow=9.3,SNR=2.7						
GERES	**GERESS Array B**	**76.08**	**318**	P	**P**	**22 41 29.5**	**+0.3**
	1.2nm,0.9s,mb3.8,baz=90,slow=5.3,SNR=4.5						

IDC ***30*** *22:55:02.7±0.7, 13.69N×93.05E, mb4.1/12, mb1 4.3/13, mb1mx4.1/20, mbtmp4.1/13, ML3.5/1, MS3.7/1, Ms1 3.9/1, ms1mx3.0/25, Error ellipse: s-maj=28.3km s-min=14.5km az=55.0*

ISC 30 22:55:05.6±0.6**, 13.73N**±0.07×**93.07E**±0.06**, h33^{km}, n25, σ1^{s}48**/29**, mb4.2**/12**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.34**	**49**	Pn	**Pn**	**22 56 53.3**	**-0.1**
	0.2nm,0.3s,baz=243,slow=15,SNR=5.9						
CMAR				Sn	**Sn**	**22 58 14.8**	**-1.7**
	0.4nm,0.3s,baz=237,slow=25,SNR=2.8						
CMAR				LR	LR	23 00 29.4	
	comp=Z,614nm,20.4s,baz=232,slow=44						
BWNR	**Bhubaneshwar**	**9.53**	**314**	*e*P	**P**	**22 57 17.0**	**-6.6**
BWNR				*e*S	x	22 58 47.5	
BWNR				*e*	**S**	**22 59 09.2**	**-1.5**
	comp=E,178nm,0.5s						
BWNR				*e*		22 59 10.3	
	comp=N,86nm,0.4s						
VIS	**Vishakhapatnam**	**10.18**	**294**	*i* P	**P**	**22 57 29.0**	**-3.6**
VIS				*i* S	x	22 59 07.7	
VIS				*e*	**S**	**22 59 15.1**	**-12**
	comp=N,51nm,0.3s						
VIS				*e*		22 59 15.4	
	comp=E,36nm,0.2s						
SHL	**Shillong**	**11.83**	**355**	*e*P	**P**	**22 57 50.0**	**-4.9**
SHL				*e*		23 00 03.0	
PKI	**Pulchoki**	**15.51**	**334**	*e*P	**P**	**22 58 45.7**	**+2.1**
	comp=E,11nm,0.4s						
GUN	**Gumba**	**15.62**	**336**	*e*P	**P**	**22 58 47.0**	**+2.0**
	comp=E,12nm,0.5s						
DMN	**Daman**	**15.68**	**333**	*e*P	**P**	**22 58 47.6**	**+1.8**
	comp=E,8.8nm,0.3s						
KKN	**Kakani**	**15.76**	**334**	*e*P	**P**	**22 58 48.5**	**+1.7**
GKN	**Gorkha**	**16.23**	**332**	*e*P	**P**	**22 58 51.9**	**-0.8**
	comp=E,18nm,0.3s						
KOLN	**Koldanda**	**16.52**	**329**	*e*P	**P**	**22 58 53.5**	**-3.0**
BHPL	**Bhopal**	**17.58**	**305**	*i* P	**P**	**22 59 07.9**	**-1.8**
BHPL				*e*		22 59 22.0	
	comp=Z,10.0nm,1.1s						
BHPL				*i* S	**S**	**23 02 11.2**	**-11**
KAD	**Karad**	**18.54**	**283**	*e*P	**P**	**22 59 24.6**	**+2.8**
KAD				*e*		23 02 37.4	
DDI	**Dehra Dun**	**21.55**	**322**	*e*	**P**	**23 00 00.4**	**+6.2**
DDI				*e*		23 03 53.3	
SONM	**Songino Array**	**35.77**	**15**	P	**P**	**23 02 03.0**	**-0.5**
	comp=Z,0.9nm,1.1s,mb3.6,baz=194,slow=5.9,SNR=2.2						
BVAR	**Borovoye Array**	**43.15**	**340**	P	**P**	**23 03 06.0**	**+1.3**
	comp=Z,0.7nm,0.6s,mb3.6,baz=141,slow=9.2,SNR=4.2						
NWAO	**Narrogin (SRO)**	**51.83**	**154**	P	**P**	**23 04 12.2**	**-0.5**
	comp=Z,4.3nm,0.8s,mb4.4,baz=307,slow=15,SNR=2.9						
WRA	**Warramunga Arr**	**52.62**	**129**	P	**P**	**23 04 18.5**	**-0.3**
	comp=Z,3.1nm,0.6s,mb4.4,baz=300,slow=9.9,SNR=56						
WRA				PcP	PcP	23 05 29.3	+0.6
	comp=Z,0.8nm,0.5s,baz=317,slow=3.1,SNR=7.3						
ASAR	**Alice Springs**	**54.55**	**133**	P	**P**	**23 04 32.7**	**-0.4**
	comp=Z,2.7nm,0.5s,mb4.6,baz=309,slow=6.7,SNR=72						
BRTR	**Keskin Array B**	**57.91**	**308**	P	**P**	**23 04 55.7**	**-1.2**
	comp=Z,1.5nm,0.8s,mb4.1,baz=116,slow=6.9,SNR=6.4						
MLR	**Muntele Rosu**	**64.32**	**314**	P	**P**	**23 05 42.2**	**+2.0**
	comp=Z,2.8nm,0.9s,mb4.3,baz=84,slow=9.6,SNR=4.3						
STKA	**Stephens Creek**	**64.94**	**135**	P	**P**	**23 05 44.4**	**-0.1**
	comp=Z,1.8nm,0.7s,mb4.2,baz=265,slow=6.8,SNR=5.9						
FINES	**FINESS Array B**	**67.08**	**331**	P	**P**	**23 05 57.5**	**-0.1**
	comp=Z,2.0nm,0.8s,mb4.2,baz=135,slow=5.4,SNR=3.9						
ARCES	**ARCESS Array B**	**69.44**	**340**	P	**P**	**23 06 12.2**	**+0.1**
	comp=Z,8.9nm,1.1s,mb4.6,baz=63,slow=4.0,SNR=2.8						
GERES	**GERESS Array B**	**72.81**	**317**	P	**P**	**23 06 33.0**	**+0.3**
	comp=Z,1.3nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=4.9						
ILAR	**Eielson Array**	**89.74**	**22**	P	**P**	**23 08 03.8**	**+2.3**
	comp=Z,0.4nm,0.8s,mb3.8,baz=307,slow=4.5,SNR=4.1						

IDC 30 22:55:55.9±2.0**, 58.87S**×**25.08W, mb4.1**/2**, mb1 4.2**/3**, mb1mx3.6**/14**, mbtmp4.0**/3**, ML3.8**/1**, 2C, Error ellipse: s-maj=143.0km s-min=39.2km az=72.0, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
VNA1	**Neumayer--Stat**	**13.75**	**156**	⇑*i*	P	22 59 17.2	+3.1
VNA3	**Neumayer Olymp**	**13.95**	**159**	⇑*i*	P	22 59 19.3	+2.6
VNA2	**Neumayer--Watz**	**14.15**	**156**		P	22 59 22.1	+2.8
SNAA	**Sanae**	**15.70**	**154**		P	22 59 38.9	-0.7
SNAA	**Sanae**	**15.70**	**154**	Pn	P	22 59 39.2	-0.4
	0.3nm,0.3s,baz=312,slow=14,SNR=32						
SNAA				Sn	S	23 02 16.9	-18
	0.2nm,0.3s,baz=322,slow=21,SNR=8.6						
VNDA	**Vanda**	**43.80**	**182**	P	P	23 04 02.5	-1.6
	1.5nm,0.7s,baz=180,slow=7.0,SNR=8.6						
ASAR	**Alice Springs**	**95.95**	**161**	P	P	23 09 23.8	-1.8
	0.3nm,0.5s,baz=183,slow=4.1,SNR=4.3						
YKA	**Yellowknife Ar**	**139.00**	**315**	PKP	PKPdf	23 15 23.4	-1.5
	1.6nm,0.7s,baz=127,slow=2.3,SNR=25						
ILAR	**Eielson Array**	**152.79**	**307**	PKPbc	PKPdf	23 15 53.0	+5.5
	2.3nm,0.8s,baz=148,slow=2.6,SNR=19						

NNC ***30*** *23:03:59.3±8.4, 51.46N×93.42E, mpv4.4, Error ellipse: s-maj=82.5km s-min=30.1km az=125.0*

IDC ***30*** *23:03:59.7±1.3, 51.84N×94.03E, mb3.8/4, mb1 3.7/6, mb1mx3.6/22, mbtmp3.6/6, ML3.2/2, Error ellipse: s-maj=82.1km s-min=18.9km az=20.0*

MOS ***30*** *23:04:04.2±1.6, 51.53N×93.13E, h10^{km}, mb4.0/1, Error ellipse: s-maj=26.0km s-min=16.7km az=28.1*

ISC 30 23:04:03.6±0.7**, 51.23N**±0.08×**92.75E**±0.07**, h10^{km}, n19, σ1^{s}11**/28**, mb3.7**/4**, 4C-3D, Southwestern Siberia**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CERR	**Cheremushki**	**1.83**	**334**	*i* PN	**Pn**	**23 04 34.9**	**-0.5**
CERR				*i* S	**Sn**	**23 04 58.9**	**+0.1**
TASR	**Tashtagol**	**3.38**	**299**	*e*PN	**Pn**	**23 04 58.8**	**+1.2**
TASR				*e*		23 05 05.6	
TASR				*e*S	**Sg**	**23 05 52.0**	**-4.2**
ELT	**Yel'tsovka**	**4.49**	**300**	*e*PN	**Pn**	**23 05 13.2**	**-0.1**
ELT				*e*		23 05 25.0	
ELT				*e*S	**Sg**	**23 06 24.7**	**-8.4**
MOY	**Mondy**	**5.17**	**82**	*e*PN	**Pn**	**23 05 22.9**	**-0.1**
MOY				*e*S	**Sn**	**23 06 24.7**	**+1.2**
MOY				pmax	pmax		
	comp=Z,79nm,0.6s						
MOY				smax			
	comp=E,768nm,1.7s						
ZAK	**Zakamensk**	**6.73**	**93**	*e*PN	**Pn**	**23 05 42.7**	**-2.2**
ZAK				*e*S	**Sn**	**23 07 14.4**	**+12**
ZAK				pmax	pmax		
	comp=Z,23nm,1.0s						
ZAK				smax			
	comp=N,193nm,1.6s						
NVS	**Novosibirsk**	**6.78**	**306**	*e*PN	**Pn**	**23 05 46.3**	**+0.6**
NVS				*i*		23 06 09.0	
NVS				*i*		23 07 33.4	
TLY	**Talaya**	**6.83**	**82**	⇓*e*PN	**Pn**	**23 05 53.9**	**+7.6**
IRK	**Irkutsk**	**7.23**	**77**	*e*PN	**Pn**	**23 05 58.0**	**+6.1**
IRK				pmax	pmax		
	comp=Z,121nm,0.1s						
MK31	**Makanchi Array**	**8.18**	**241**	⇑Pn	**P**	**23 06 05.2**	**0.0**
	comp=Z,8.6nm,0.6s,baz=65,slow=11,SNR=96						
MK31				⇑Lg		23 08 31.2	
	comp=Z,16nm,0.7s,baz=49,slow=30,SNR=5.5						
SONM	**Songino Array**	**9.50**	**106**	Pn	**P**	**23 06 09.5**	**-14**
	comp=Z,0.1nm,0.3s,baz=296,slow=14,SNR=7.1						
SONM				Pg	**P**	**23 06 40.8**	**+17**
	comp=Z,0.6nm,0.3s,baz=294,slow=15,SNR=15						
SONM				Lg		23 08 45.4	
	comp=Z,1.3nm,0.3s,baz=304,slow=33,SNR=6.1						
CHKZ	**Chkalovo**	**13.71**	**289**	⇑Pn	**P**	**23 07 19.3**	**-0.9**
	comp=Z,3.2nm,0.9s						
CHKZ				⇓Sn	**S**	**23 09 53.3**	**-0.3**
	comp=Z,6.4nm,1.9s						
BVA0	**Borovoye Array**	**13.85**	**286**	⇑Pn	**P**	**23 07 22.6**	**+0.6**
	comp=Z,0.2nm,0.7s,baz=91,slow=15,SNR=5.9						
BVA0				⇓Sn	**S**	**23 10 00.1**	**+3.3**
	comp=Z,3.3nm,2.6s						
BVAR	**Borovoye Array**	**13.85**	**286**	Pn	**P**	**23 07 22.3**	**+0.3**
	comp=Z,0.2nm,0.3s,baz=90,slow=13,SNR=5.9						
BVAR				Sn	**S**	**23 10 12.7**	**+16**
	comp=Z,0.3nm,0.3s,baz=78,slow=29,SNR=5.7						
BOD	**Bodaibo**	**13.96**	**54**	*e*P	**P**	**23 07 13.2**	**-10**
BOD				*e*		23 09 54.6	
ARU	**Arti**	**20.69**	**298**	*i* P	**P**	**23 08 45.7**	**-0.4**
FINES	**FINESS Array B**	**36.72**	**312**	P	**P**	**23 11 08.6**	**-3.7**
	comp=Z,1.2nm,0.7s,mb3.9,baz=117,slow=13,SNR=4.1						
AKASG	**Malin Array Be**	**38.89**	**295**	P	**P**	**23 11 29.0**	**-1.6**
	comp=Z,0.5nm,0.4s,mb3.6,baz=54,slow=9.4,SNR=3.2						
BRTR	**Keskin Array B**	**41.93**	**278**	P	**P**	**23 11 58.2**	**+2.5**
	comp=Z,1.7nm,0.9s,mb3.7,baz=72,slow=6.3,SNR=9.2						
ESDC	**Sonseca Array**	**64.04**	**302**	P	**P**	**23 14 38.9**	**-0.5**
	comp=Z,0.6nm,0.6s,mb3.8,baz=43,slow=7.7,SNR=6.0						

BJI ***30*** *23:04:53.7, 5.06N×94.56E, h47^{km}, mB5.2, mb5.0, Ms4.6, Msz4.1*

MOS ***30*** *23:04:54.5±0.9, 5.53N×94.59E, h33^{km}, mb5.1/28, Error ellipse: s-maj=15.7km s-min=7.5km az=117.6*

NEIC ***30*** *23:04:55.4±0.4, 5.35N×94.49E, h30^{km}, mb4.9/31, Error ellipse: s-maj=10.9km s-min=8.3km az=181.0*

HRVD ***30*** *23:04:55.4±0.8, 5.24N×94.30E, h44^{km}±2^{km}, MW4.9/20, Centroid moment Tensor Solution. LP body waves: s14,c17;Mantle waves: s20,c25; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}2.33±.35; $M_{\theta\theta}$-1.39±.25; $M_{\phi\phi}$-0.94±.26; $M_{r\theta}$0.87±.13; $M_{\theta\phi}$1.26±.17; $M_{\phi r}$0.14±.22; Best double couple: $M_0$2.55×10^{16} NP1:ϕ_s324°, δ40°, λ113°. NP2:ϕ_s115°, δ54°, λ72°. Principal axes: T 2.58, Plg74°, Azm333°; N -.06, Plg15°, Azm126°; P -2.52, Plg7°, Azm218°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

SYO ***30*** *23:04:55.4, 5.35N×94.48E, h30^{km}, MB4.9*

IDC ***30*** *23:04:58.0±0.6, 5.44N×94.56E, h50^{km}±4^{km}, mb4.4/22, mb1 4.5/22, mb1mx4.4/26, mbtmp4.6/22, MS3.8/4, Ms1 3.8/4, ms1mx3.4/22, Error ellipse: s-maj=27.4km s-min=11.1km az=42.0*

ISC 30 23:04:56.3±0.3**, 5.38N**±0.05×**94.59E**±0.04**, h49^{km}, h49^{km}**±1.6^{km}**:pP-P, n182, σ0^{s}97**/171**, mb4.9**/74**, MS4.2**/9**, 16C-6D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**13.67**	**18**	*e*P	**P**	**23 08 10.6**	**+1.1**
	30nm,0.3s						
CMAR	**Chiang Mai Arr**	**13.67**	**18**	P	**P**	**23 08 11.9**	**+2.5**
	6.5nm,0.3s,baz=209,slow=14,SNR=173						
CMAR				LR	LR	23 13 12.2	
	comp=Z,213nm,18.0s,baz=205,slow=36						
CMAR				ScP		23 17 01.1	
	0.1nm,0.3s,baz=222,slow=3.2,SNR=6.4						
CHRT	**Chiangrai**	**15.26**	**19**	⇓P	**P**	**23 08 34.5**	**+4.3**
	182nm,0.8s						
MDRS	**Chennai**	**16.08**	**299**	*e*P	**P**	**23 08 43.1**	**+2.5**
MDRS				*e*		23 08 45.3	
	comp=Z,14nm,0.2s						
MDRS				*e*		23 11 23.9	
VIS	**Vishakhapatnam**	**16.48**	**319**	⇓*e*P	**P**	**23 08 45.9**	**+0.2**
BWNR	**Bhubaneshwar**	**17.11**	**331**	*e*	**P**	**23 08 46.3**	**-7.3**
BWNR				*e*		23 08 47.2	
	comp=Z,54nm,0.3s						
BWNR				*e*		23 11 41.6	
KOD	**Kodaikanal**	**17.63**	**287**	*e*P	**P**	**23 09 00.3**	**+0.1**
TRD	**Trivandrum**	**17.77**	**281**	*e*P	**P**	**23 09 00.5**	**-1.4**
TRD				*e*		23 09 03.3	
	comp=Z,22nm,0.8s						
QIZ	**Qiongzhong**	**20.13**	**46**	*e*P	**P**	**23 09 30.4**	**+1.4**
SHL	**Shillong**	**20.24**	**353**	*e*P	**P**	**23 09 30.4**	**+0.4**
BLSP	**Bilaspur**	**20.55**	**325**	⇑*e*P	**P**	**23 09 32.8**	**-0.5**
BLSP				*e*		23 09 36.0	
	comp=Z,45nm,1.0s						
MNGI	**Mangalore**	**20.90**	**292**	*e*P	**P**	**23 09 36.8**	**-0.1**
KMI	**Kunming**	**21.13**	**21**	P	**P**	**23 09 40.8**	**+1.6**
KMI				XP		23 09 55.8	
KMI				AMB	AMB		
	comp=Z,12nm,0.8s,mb4.3						
KMI				AMB	AMB		
	comp=Z,130nm,5.7s						
KMI				LR	LR		
	comp=N,231nm,18.0s,MS3.8						
KMI				LR	LR		
	comp=E,269nm,17.1s,MS3.8						
KMI				LR	LR		
	comp=Z,305nm,19.8s,MS3.7						
AKL	**Akola**	**22.87**	**313**	*e*P	**P**	**23 09 57.7**	**+1.1**
KAD	**Karad**	**23.22**	**302**	*e*P	**P**	**23 10 01.0**	**+1.0**
KAD				*e*		23 10 16.9	
	comp=Z,17nm,1.0s						
PKI	**Pulchoki**	**23.73**	**339**	*e*P	**P**	**23 10 04.0**	**-0.9**
	comp=Z,34nm,0.4s,mb5.2						
DMN	**Daman**	**23.88**	**339**	*e*P	**P**	**23 10 05.9**	**-0.4**
	comp=Z,57nm,0.5s,mb5.2						
GUN	**Gumba**	**23.89**	**341**	*e*P	**P**	**23 10 05.8**	**-0.6**
	comp=Z,66nm,0.4s,mb5.4						
GYA	**Guiyang**	**23.92**	**28**	⇑*i*P	**P**	**23 10 08.5**	**+1.8**
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
KKN	**Kakani**	**23.98**	**339**	*e*P	**P**	**23 10 06.5**	**-0.8**
	comp=Z,49nm,0.4s,mb5.3						
POO	**Poona**	**24.09**	**305**	*e*	**P**	**23 09 59.3**	**-9.2**
BHPL	**Bhopal**	**24.27**	**319**	⇑*e*P	**P**	**23 10 11.6**	**+1.4**
BHPL				*e*		23 10 14.0	
	comp=Z,22nm,0.6s						
BHPL				*e*		23 14 20.4	
GKN	**Gorkha**	**24.40**	**338**	*e*P	**P**	**23 10 11.0**	**-0.4**
	comp=Z,67nm,0.3s,mb5.5						
LSA	**Lhasa**	**24.40**	**353**	*e*P	**P**	**23 10 11.2**	**-0.2**
LSA				pmax	pmax		
	comp=Z,45nm,0.5s,mb5.2						
LSA	**Lhasa**	**24.40**	**353**	*e*P	**P**	**23 10 11.2**	**-0.2**
	comp=Z,46nm,0.5s,mb5.2						
KOLN	**Koldanda**	**24.59**	**336**	*e*P	**P**	**23 10 13.8**	**+0.5**
	comp=Z,129nm,0.6s,mb5.7						
BOM	**Bombay**	**25.12**	**304**	*e*P	**P**	**23 10 18.0**	**-0.4**
CD2	**Chengdu**	**26.82**	**18**	P	**P**	**23 10 33.3**	**-0.8**
CD2				AMB	AMB		
	comp=Z,70nm,0.4s,mb5.5						
ENH	**Enshi**	**28.46**	**28**	*e*P	**P**	**23 10 47.2**	**-1.8**
	comp=Z,18nm,0.3s,mb5.2						
ENH				*e*PcP	PcP	23 14 00.2	0.0
BHJ	**Bhuj**	**29.89**	**309**	*e*P	**P**	**23 11 01.6**	**-0.2**
GTA	**Gaotai**	**34.20**	**7**	P	**P**	**23 11 39.0**	**-0.2**
GTA				AP	pP	23 11 47.8	-4.4
GTA				PCP	PcP	23 14 16.0	+0.6
GTA				AMB	AMB		
	comp=Z,28nm,0.9s,mb5.2						
NJ2	**Nanjing**	**34.92**	**38**	*e*P	**P**	**23 11 46.3**	**+0.9**
NJ2				AP	pP	23 11 56.0	-2.4
NJ2				XP	sP	23 11 59.5	-5.1
NJ2				PP	PP	23 13 03.5	-0.9
NJ2				S	**S**	**23 17 21.0**	**+8.5**
NJ2				XS		23 17 36.0	
NJ2				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.9						
NJ2				AMB	AMB		
	comp=Z,1μm,3.7s						
NJ2				LR	LR		
	comp=N,2μm,17.8s,MS5.0						
NJ2				LR	LR		
	comp=E,640nm,13.5s,MS5.0						
NJ2				LR	LR		
	comp=Z,820nm,15.0s,MS4.6						
SSE	**Sheshan**	**35.75**	**41**	*e*P	**P**	**23 11 47.8**	**-4.7**
SSE				AMB	AMB		
	comp=Z,34nm,0.7s,mb5.4						
SSE				AMB	AMB		
	comp=Z,551nm,4.5s						
MBWA	**Marble Bar**	**36.11**	**138**	P	**P**	**23 12 03.2**	**+7.5**
KSH	**Kashi**	**37.91**	**336**	P	**P**	**23 12 10.0**	**-0.6**
KSH				AMB	AMB		
	comp=Z,180nm,3.7s						
HHC	**Hu-ho-hao-te**	**38.45**	**21**	*e*P	**P**	**23 12 15.8**	**+0.7**
HHC				AMB	AMB		
	comp=Z,25nm,0.9s,mb4.9						
HHC				AMB	AMB		
	comp=Z,164nm,6.9s						
HHC				LR	LR		
	comp=N,292nm,17.8s,MS4.4						
HHC				LR	LR		
	comp=E,459nm,16.6s,MS4.4						
HHC				LR	LR		
	comp=Z,272nm,19.0s,MS4.1						
WMQ	**Urumqi**	**38.76**	**352**	P	**P**	**23 12 18.5**	**+0.9**
WMQ				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.7						
BJT	**Baijiatuau**	**39.58**	**26**	*e*P	**P**	**23 12 25.6**	**+1.1**
BJT				pmax	pmax		
	comp=Z,37nm,0.9s						
BJT	**Baijiatuau**	**39.58**	**26**	*e*P	**P**	**23 12 25.6**	**+1.1**
	comp=Z,37nm,0.9s,mb5.1						
BJI	**Beijing**	**39.60**	**26**	*e*P	**P**	**23 12 25.8**	**+1.2**
BJI				AMB	AMB		
	comp=Z,31nm,0.9s,mb5.0						
ULHL	**Ulahol**	**40.17**	**339**	P	**P**	**23 12 30.2**	**+0.9**
	SNR=5.9						
UCH	**Uchtor**	**40.80**	**337**	P	**P**	**23 12 35.8**	**+1.2**
	SNR=6.8						
TKM2	**Tokmak 2**	**40.99**	**339**	P	**P**	**23 12 38.1**	**+2.0**
	SNR=8.2						
KBK	**Karagaybulak**	**41.00**	**338**	P	**P**	**23 12 37.4**	**+1.2**
	SNR=12						
AML	**Almayashu**	**41.04**	**336**	P	**P**	**23 12 37.3**	**+0.8**
	SNR=24						
AAK	**Ala-Archa**	**41.16**	**337**	*e*P	**P**	**23 12 36.9**	**-0.5**
AAK				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.5						
AAK	**Ala-Archa**	**41.16**	**337**	*e*P	**P**	**23 12 36.9**	**-0.6**
	comp=Z,11nm,0.8s,mb4.5						
EKS2	**Erkin-Say**	**41.46**	**337**	P	**P**	**23 12 41.1**	**+1.2**
	SNR=11						
USP	**Ospenovka**	**41.70**	**338**	P	**P**	**23 12 44.0**	**+2.1**
	SNR=6.7						
SONM	**Songino Array**	**43.49**	**12**	P	**P**	**23 12 55.8**	**-0.7**
	comp=Z,16nm,0.8s,mb4.8,baz=192,slow=9.3,SNR=28						
SONM				PcP	PcP	23 14 44.2	-0.2
	comp=Z,2.4nm,0.4s,baz=196,slow=4.0,SNR=12						
SONM				pPcP		23 14 59.4	
	comp=Z,2.4nm,0.5s,baz=190,slow=4.0,SNR=4.8						
SONM				ScP		23 18 32.0	
	comp=Z,1.4nm,0.9s,baz=195,slow=5.2,SNR=5.0						
ULN	**Ulaanbaatar**	**43.65**	**12**	*e*P	**P**	**23 12 56.9**	**-1.0**
ULN				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb4.8						
ULN	**Ulaanbaatar**	**43.65**	**12**	*e*P	**P**	**23 12 56.9**	**-1.0**
	comp=Z,9.3nm,0.5s,mb4.8						
KS15	**Wonju Array Si**	**44.04**	**39**	P	**P**	**23 13 01.1**	**-0.1**
SNY	**Shenyang**	**44.54**	**31**	⇑P	**P**	**23 13 05.0**	**0.0**
SNY				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.2						
SNY				LR	LR		
	comp=N,430nm,15.5s						
SNY				LR	LR		
	comp=Z,480nm,15.7s,MS4.5						
WRA	**Warramunga Arr**	**46.48**	**124**	*i* P	**P**	**23 13 21.1**	**+0.3**
WRA				pmax	pmax		
	comp=Z,11nm,0.7s						
WRA	**Warramunga Arr**	**46.48**	**124**	P	**P**	**23 13 21.1**	**+0.3**
	comp=Z,11nm,0.7s,mb4.9,baz=304,slow=9.2,SNR=44						
WRAB	**Tennant Creek**	**46.49**	**124**	⇓*e*P	**P**	**23 13 21.7**	**+0.9**
WRAB	**Tennant Creek**	**46.49**	**124**	*e*P	**P**	**23 13 20.7**	**-0.1**
	comp=Z,20nm,0.7s,mb5.2						
TLY	**Talaya**	**46.76**	**8**	*e*P	**P**	**23 13 21.8**	**-0.7**
TLY				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
TLY	**Talaya**	**46.76**	**8**	*e*P	**P**	**23 13 21.8**	**-0.7**
	comp=Z,5.4nm,0.8s,mb4.5						
CN2	**Changchun**	**46.91**	**31**	*e*P	**P**	**23 13 23.5**	**-0.3**
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb5.0						
HASS	**Wahat al Ahsa'**	**47.27**	**299**	P	**P**	**23 13 27.7**	**+0.8**
ASAR	**Alice Springs**	**48.00**	**129**	P	**P**	**23 13 33.2**	**+0.5**
	comp=Z,3.7nm,0.6s,mb4.6,baz=303,slow=7.1,SNR=19						
ASAR				S	**S**	**23 20 25.8**	**-0.2**
	comp=Z,0.8nm,0.8s,baz=294,slow=14,SNR=4.2						

ASAR				LR	LR	23 32 49.8	
	comp=Z,131nm,20.8s,MS3.9,baz=296,slow=35						
HIA	**Hailar**	**48.64**	**22**	*e*P	**P**	**23 13 36.8**	**-0.4**
HIA				pmax	pmax		
	comp=Z,10.0nm,0.5s						
HIA	**Hailar**	**48.64**	**22**	*e*P	**P**	**23 13 36.8**	**-0.5**
	comp=Z,9.8nm,0.5s,mb5.1						
MDJ	**Mudanjiang**	**49.63**	**33**	P	**P**	**23 13 45.8**	**+0.8**
MDJ				AMB	AMB		
	comp=Z,17nm,1.8s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,131nm,6.7s						
MDJ	**Mudanjiang**	**49.63**	**33**	*e*P	**P**	**23 13 45.6**	**+0.7**
	comp=Z,6.0nm,0.5s,mb4.9						
NVS	**Novosibirsk**	**50.16**	**351**	*i* P	**P**	**23 13 46.8**	**-2.0**
NVS				*i*	pP	23 14 00.8	-1.4
NVS				pmax	pmax		
	comp=Z,26nm,0.8s,mb5.3						
NVS				pmax	pmax		
	comp=E,9.0nm,0.5s						
NVS				pmax	pmax		
	comp=N,16nm,0.8s						
RDF	**Al-Radifah**	**50.23**	**303**	*e*P	**P**	**23 13 50.3**	**+0.5**
UMR	**Umm Al-Rimmam**	**50.30**	**304**	*e*P	**P**	**23 13 50.4**	**+0.1**
UMR				AMb	AMB	23 13 51.3	
	comp=Z,25nm,0.6s,mb5.4						
MAJO	**Matsushiro**	**50.53**	**46**	P	**P**	**23 13 51.8**	**-0.1**
MAJO				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
MAJO	**Matsushiro**	**50.53**	**46**	P	**P**	**23 13 51.8**	**-0.1**
	comp=Z,3.3nm,0.6s,mb4.4						
NAY	**Al-Naaiem**	**50.59**	**304**	*e*P	**P**	**23 13 52.6**	**+0.1**
NAY				AMb	AMB	23 13 53.5	
	comp=Z,18nm,0.6s,mb5.2						
RST	**Umm Al-Ruwaisa**	**50.87**	**304**	*e*P	**P**	**23 13 54.5**	**-0.1**
RST				AMb	AMB	23 13 56.5	
	comp=Z,25nm,0.7s,mb5.3						
MZLS	**Mizel**	**50.92**	**297**	P	**P**	**23 13 55.8**	**+0.7**
BVAR	**Borovoye Array**	**51.48**	**342**	P	**P**	**23 13 57.9**	**-0.9**
	comp=Z,9.4nm,0.5s,mb5.0,baz=141,slow=9.1,SNR=64						
BVAR				pP	pP	23 14 11.4	-0.8
	comp=Z,23nm,0.9s,baz=135,slow=8.4,SNR=12						
BRVK	**Borovoye**	**51.54**	**342**	*e*P	**P**	**23 13 58.3**	**-1.0**
BRVK				*e*	pP	23 14 11.7	-1.0
BRVK				pmax	pmax		
	comp=Z,15nm,0.5s,mb5.2						
BRVK	**Borovoye**	**51.54**	**342**	*e*P	**P**	**23 13 58.3**	**-1.0**
	comp=Z,15nm,0.5s,mb5.2						
BRVK				*e*	pP	23 14 11.7	-1.1
TATS	**Tathlith**	**51.65**	**291**	P	**P**	**23 14 01.6**	**+1.0**
CHKZ	**Chkalovo**	**51.96**	**342**	*e*P	**P**	**23 14 02.0**	**-0.5**
CHKZ				*e*	pP	23 14 15.1	-0.8
CHKZ				pmax	pmax		
	comp=Z,94nm,0.8s						
CHKZ	**Chkalovo**	**51.96**	**342**	*e*P	**P**	**23 14 02.0**	**-0.5**
	comp=Z,94nm,0.8s						
CHKZ				*e*	pP	23 14 15.1	-0.8
AFFS	**‘Afif**	**52.87**	**296**	P	**P**	**23 14 10.7**	**+1.0**
PMG	**Port Moresby**	**54.41**	**106**	P	**P**	**23 14 20.7**	**-0.5**
PMG				pmax	pmax		
	comp=Z,15nm,0.9s						
PMG	**Port Moresby**	**54.41**	**106**	P	**P**	**23 14 20.7**	**-0.5**
	comp=Z,15nm,0.9s,mb4.9						
BOD	**Bodaibo**	**54.46**	**13**	*e*P	**P**	**23 14 19.1**	**-1.8**
HILS	**Ha’il**	**54.69**	**300**	P	**P**	**23 14 24.1**	**+1.1**
GNI	**Garni**	**56.50**	**315**	*e*P	**P**	**23 14 30.6**	**-5.3**
GNI				pmax	pmax		
	comp=Z,10.0nm,0.9s						
GNI	**Garni**	**56.50**	**315**	P	**P**	**23 14 35.4**	**-0.4**
	comp=Z,2.6nm,0.5s,mb4.5,baz=120,slow=8.1,SNR=3.9						
GNI	**Garni**	**56.50**	**315**	*e*P	**P**	**23 14 30.6**	**-5.3**
	comp=Z,10nm,0.9s,mb4.9						
CTA	**Charters Tower**	**56.73**	**118**	LR	LR	23 39 44.2	
	comp=Z,72nm,18.8s,MS3.8,baz=42,slow=37						
STKA	**Stephens Creek**	**58.09**	**133**	P	**P**	**23 14 47.4**	**+0.2**
	comp=Z,1.5nm,0.5s,mb4.3,baz=333,slow=10,SNR=7.3						
STKA	**Stephens Creek**	**58.09**	**133**	*e*P	**P**	**23 14 47.3**	**+0.1**
ZEI	**Tsey**	**58.16**	**318**	*e*P	**P**	**23 14 46.9**	**-0.7**
ZEI				*i* *PP	pP	23 15 02.3	+1.0
ZEI				*i*		23 16 56.0	
ZEI				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.8						
UMJS	**Umm Lajj**	**58.20**	**296**	P	**P**	**23 14 49.8**	**+1.8**
ARU	**Arti**	**58.34**	**337**	⇓*i*P	**P**	**23 14 47.3**	**-1.4**
ARU				*e*		23 15 34.7	
ARU				*e*		23 16 56.4	
ARU				*e*PPP	PPP	23 18 15.3	-8.1
ARU				*e*S	**S**	**23 22 49.0**	**+3.3**
ARU				*e*SS	SS	23 26 44.0	+4.1
ARU				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.1						
ARU	**Arti**	**58.34**	**337**	*e*P	**P**	**23 14 47.1**	**-1.6**
	comp=Z,11nm,0.8s,mb4.9						
ARU				*e*	pP	23 15 01.2	-1.1
KIV	**Kislovodsk**	**59.46**	**319**	*e*P	**P**	**23 14 54.9**	**-1.7**
KIV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
KIV	**Kislovodsk**	**59.46**	**319**	*e*P	**P**	**23 14 54.9**	**-1.7**
	comp=Z,9.8nm,0.7s,mb5.0						
ASF	**Jabal al Asfar**	**59.95**	**304**	P	**P**	**23 15 00.2**	**0.0**
	comp=Z,2.9nm,0.6s,mb4.5,baz=45,slow=2.9,SNR=6.5						
MALT	**Malatya**	**60.42**	**311**	*e*P	**P**	**23 15 02.0**	**-1.2**
MALT				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
MALT	**Malatya**	**60.42**	**311**	*e*P	**P**	**23 15 02.0**	**-1.2**
	comp=Z,2.7nm,0.8s,mb4.3						
AYUS	**‘Aynunah**	**60.51**	**299**	P	**P**	**23 15 04.9**	**+0.9**
BDAS	**Al Bad‘**	**60.70**	**300**	P	**P**	**23 15 05.3**	**-0.1**
TAYS	**Tayyib Ism**	**60.92**	**300**	P	**P**	**23 15 07.3**	**+0.6**
EIL	**Elat**	**61.06**	**301**	P	**P**	**23 15 07.2**	**-0.5**
	comp=Z,3.2nm,0.7s,mb4.5,baz=164,slow=6.3,SNR=4.9						
EIL	**Elat**	**61.06**	**301**	*e*P	**P**	**23 15 07.5**	**-0.2**
	comp=Z,3.5nm,0.7s,mb4.6						
SOC	**Sochi**	**61.29**	**317**	*e*P	**P**	**23 15 06.6**	**-2.5**
SOC				*e*		23 15 52.2	
SOC				*e*		23 17 25.1	
SOC				*e*S	**S**	**23 23 25.1**	**+1.2**
SOC				*e*SS	SS	23 27 25.2	-1.1
SOC				*e*SSS	SSS	23 30 07.2	+1.3
SOC				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.2						
SOC				pmax	pmax		
	comp=N,22nm,1.1s						
SOC				pmax	pmax		
	comp=E,19nm,1.0s						
SOC				MLR	MLR		
	comp=N,353nm,15.0s,MS4.7						
SOC				MLR	MLR		
	comp=Z,401nm,15.0s,MS4.7						
SOC				MLR	MLR		
	comp=E,216nm,13.0s,MS4.7						
YAK	**Yakutsk**	**62.21**	**18**	⇑*e*P	**P**	**23 15 12.9**	**-2.0**
YAK				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.3						
YAK	**Yakutsk**	**62.21**	**18**	*e*P	**P**	**23 15 12.6**	**-2.3**
	comp=Z,26nm,0.7s,mb5.5						
BRTR	**Keskin Array B**	**64.39**	**312**	P	**P**	**23 15 28.1**	**-1.5**
	comp=Z,5.8nm,0.7s,mb4.7,baz=127,slow=7.7,SNR=38						
VRSR	**Storozhevoye**	**64.66**	**325**	*e*P	**P**	**23 15 28.5**	**-2.7**
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
VRSR				pmax	pmax		
	comp=N,7.0nm,1.2s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
OBN	**Obninsk**	**67.71**	**328**	*c i*P	**P**	**23 15 49.0**	**-1.5**
OBN				*e*	pP	23 16 03.1	-1.4
OBN				*e*		23 18 19.4	
OBN				*e*S	S	23 24 44.9	+2.0
OBN				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
OBN				MLR	MLR		
	comp=Z,100nm,16.0s,MS4.1						
OBN	**Obninsk**	**67.71**	**328**	*e*P	**P**	**23 15 48.5**	**-2.0**
	comp=Z,16nm,0.6s,mb5.2						
MA2	**Magadan**	**68.76**	**27**	P	**P**	**23 15 54.0**	**-3.0**
MA2				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
MA2	**Magadan**	**68.76**	**27**	P	**P**	**23 15 54.0**	**-3.0**
	comp=Z,12nm,0.8s,mb4.9						
TIXI	**Tiksi**	**69.57**	**11**	*e*P	**P**	**23 16 00.3**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
IDI	**Anoyia**	**70.35**	**305**	P	**P**	**23 16 06.8**	**-0.4**
	comp=Z,18nm,0.6s,mb5.2,baz=84,slow=8.0,SNR=16						
AKASG	**Malin Array Be**	**70.38**	**322**	P	**P**	**23 16 05.0**	**-2.0**
	comp=Z,4.3nm,0.5s,mb4.7,baz=89,slow=5.5,SNR=38						
AKASG				pP	pP	23 16 19.4	-1.6
	comp=Z,2.8nm,0.6s,baz=89,slow=5.5,SNR=5.4						
MLR	**Muntele Rosu**	**71.26**	**316**	P	**P**	**23 16 12.0**	**-0.4**
	comp=Z,9.5nm,0.7s,mb4.9,baz=156,slow=3.1,SNR=25						
KOLS	**Kolonicke sedl**	**74.36**	**319**	*e*P	**P**	**23 16 30.8**	**+0.2**
CRVS	**Cervenica-Dubn**	**74.89**	**319**	*e*P	**P**	**23 16 34.0**	**+0.3**
FINES	**FINESS Array B**	**75.11**	**332**	*i* P	**P**	**23 16 33.7**	**-1.0**
FINES				pmax	pmax		
	comp=Z,3.0nm,0.4s						
FINES	**FINESS Array B**	**75.11**	**332**	P	**P**	**23 16 33.7**	**-1.0**
	comp=Z,3.4nm,0.4s,mb4.7,baz=103,slow=6.4,SNR=36						
FINES				pP	pP	23 16 48.7	-0.1
	comp=Z,2.6nm,0.5s,baz=98,slow=6.0,SNR=3.2						
KAF	**Kangasniemi**	**75.20**	**333**	*e*p	**P**	**23 16 33.7**	**-1.5**
	comp=Z,1.4nm,0.4s,mb4.2						
KAF	**Kangasniemi**	**75.20**	**333**	*e*p	pP	23 16 48.4	-0.9
	comp=Z,1.4nm,0.4s						
KAF	**Kangasniemi**	**75.20**	**333**	*e*P	**P**	**23 16 33.7**	**-1.5**
KAF				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
KECS	**Kecovo**	**75.46**	**319**	*e*P	**P**	**23 16 36.4**	**-0.6**
KECS				*e*pP	pP	23 16 46.2	-4.9
NIE	**Niedzica**	**75.71**	**320**	*e*P	**P**	**23 16 39.0**	**+0.6**
OJC	**Ojcow**	**76.16**	**320**	*e*P	**P**	**23 16 40.8**	**-0.1**
MAW	**Mawson**	**76.20**	**192**	LR	LR	23 43 49.3	
	comp=Z,70nm,18.6s,MS4.0,baz=75,slow=31						
VYHS	**Vyhne**	**76.55**	**318**	*i* P	**P**	**23 16 43.0**	**-0.1**
VYHS				*e*		23 16 49.3	
KEV	**Kevo**	**77.32**	**341**	*e*p	**P**	**23 16 47.0**	**0.0**
	comp=Z,1.2nm,0.3s,mb4.3						
KEV	**Kevo**	**77.32**	**341**	*e*p	pP	23 16 58.7	-2.5
	comp=Z,1.4nm,0.4s						
KEV	**Kevo**	**77.32**	**341**	*e*P	**P**	**23 16 47.0**	**0.0**
KEV				pmax	pmax		
	comp=Z,1.0nm,0.3s,mb4.2						
SMOL	**Smolenice**	**77.48**	**318**	*e*P	**P**	**23 16 48.2**	**-0.2**
SMOL				*e*	pP	23 17 00.7	-1.9
ZST	**Bratislava**	**77.67**	**318**	*e*P	**P**	**23 16 49.7**	**+0.3**
ZST				*e*	pP	23 17 04.3	+0.7
ARCES	**ARCESS Array B**	**77.75**	**340**	P	**P**	**23 16 49.2**	**-0.2**
	comp=Z,3.1nm,0.4s,mb4.6,baz=101,slow=6.8,SNR=48						
ARCES				pP	pP	23 17 03.3	-0.3
	comp=Z,4.3nm,0.4s,baz=100,slow=7.4,SNR=4.8						
DPC	**Dobruska-Polom**	**78.39**	**320**	*e*P	**P**	**23 16 53.9**	**+0.6**
ARSA	**Arzberg**	**78.64**	**317**	⇑*i*P	**P**	**23 16 55.1**	**+0.3**
	comp=Z,8.8nm,1.1s,mb4.6						
PRU	**Pruhonice**	**79.50**	**320**	*e*P	**P**	**23 16 59.7**	**+0.3**
GEC2	**GERESS Array S**	**79.97**	**319**	*e*P	**P**	**23 17 02.2**	**+0.3**
GERES	**GERESS Array B**	**79.97**	**319**	P	**P**	**23 17 01.8**	**-0.2**
	comp=Z,12nm,0.7s,mb4.9,baz=96,slow=5.2,SNR=74						
GERES				pP	pP	23 17 17.4	+1.2
	comp=Z,4.5nm,0.8s,baz=96,slow=6.9,SNR=5.5						
KHC	**Kasperske Hory**	**80.07**	**319**	*e*P	**P**	**23 17 02.3**	**-0.1**
WET	**Wettzell**	**80.53**	**319**	*e*P	**P**	**23 17 05.1**	**+0.2**
CLL	**Collm**	**80.56**	**321**	P	**P**	**23 17 05.0**	**0.0**
HFS	**Hagfors**	**80.82**	**330**	P	**P**	**23 17 05.5**	**-0.7**
	comp=Z,2.8nm,0.6s,mb4.4,baz=101,slow=5.3,SNR=14						
HFS				pP	pP	23 17 20.6	+0.1
	comp=Z,2.8nm,0.5s,baz=90,slow=4.4,SNR=2.9						
WTTA	**Wattenberg**	**81.29**	**317**	⇑*i*P	**P**	**23 17 08.5**	**-0.4**
	comp=Z,9.2nm,0.5s,mb5.0						
WTTA	**Wattenberg**	**81.29**	**317**	⇑*i*P	**P**	**23 17 08.5**	**-0.4**
WTTA				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.0						
WATA	**Walderalm**	**81.33**	**317**	⇑*i*P	**P**	**23 17 08.5**	**-0.7**
	comp=Z,2.3nm,0.7s,mb4.2						
WATA	**Walderalm**	**81.33**	**317**	⇑*i*P	**P**	**23 17 08.5**	**-0.7**
WATA				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
MOX	**Moxa**	**81.41**	**320**	*e*P	**P**	**23 17 09.4**	**-0.1**
MOX	**Moxa**	**81.41**	**320**	*i* P	**P**	**23 17 09.4**	**-0.1**
FUR	**Furstenfeldbru**	**81.56**	**318**	*e*P	**P**	**23 17 10.0**	**-0.3**
SQTA	**Sankt Quirin**	**81.58**	**317**	⇑*i*P	**P**	**23 17 10.1**	**-0.3**
	comp=Z,4.0nm,0.7s,mb4.5						
SQTA	**Sankt Quirin**	**81.58**	**317**	⇑*i*P	**P**	**23 17 10.1**	**-0.3**
SQTA				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
GRA1	**Grafenberg Arr**	**81.63**	**319**	*e*P	**P**	**23 17 11.1**	**+0.4**
	comp=Z,6.0nm,0.8s,mb4.6						
GRF	**Grafenberg Arr**	**81.63**	**319**	*e*P	**P**	**23 17 11.1**	**+0.4**
GRF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.6						
MOTA	**Moosalm**	**81.65**	**317**	⇑*i*P	**P**	**23 17 10.3**	**-0.5**
	comp=Z,4.4nm,0.9s,mb4.4						
MOTA	**Moosalm**	**81.65**	**317**	⇑*i*P	**P**	**23 17 10.3**	**-0.5**
MOTA				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.3						
NOA	**NORSAR Array B**	**82.11**	**331**	P	**P**	**23 17 12.1**	**-0.8**
	comp=Z,0.7nm,0.7s,baz=103,slow=5.9,SNR=2.7						
NOA				pP	pP	23 17 27.8	+0.6
	comp=Z,0.8nm,0.8s,baz=111,slow=6.6,SNR=2.7						
CLZ	**Clausthal**	**82.22**	**321**	*e*P	**P**	**23 17 13.8**	**+0.1**
DAVOX	**Davos**	**82.48**	**316**	P	**P**	**23 17 15.8**	**+0.7**
	comp=Z,16nm,0.6s,mb5.2,baz=121,slow=5.0,SNR=44						
DAVA	**Damuels**	**82.49**	**317**	⇑*i*P	**P**	**23 17 15.4**	**+0.3**
	comp=Z,12nm,1.0s,mb4.8						
SYO	**Syowa Base**	**83.17**	**197**	⇓P	**P**	**23 17 20.3**	**+2.1**
SYO	**Syowa Base**	**83.17**	**197**	⇓pP	pP	23 17 30.9	-1.6
BFO	**Black Forest**	**83.53**	**318**	*e*P	**P**	**23 17 20.1**	**-0.3**
LPG	**La Plagne**	**84.68**	**315**	*e*P	**P**	**23 17 26.9**	**+0.6**
	comp=Z,21nm,0.8s,mb5.0						
LPG	**La Plagne**	**84.68**	**315**	*e*P	**P**	**23 17 26.9**	**+0.6**
LPG				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.0						
EKA	**Eskdalemuir Ar**	**90.01**	**326**	P	**P**	**23 17 51.6**	**-0.1**
	comp=Z,1.9nm,0.8s,mb4.5,baz=90,slow=5.0,SNR=4.6						
ESDC	**Sonseca Array**	**93.15**	**310**	P	**P**	**23 18 07.0**	**+0.3**
	comp=Z,0.9nm,0.5s,mb4.4,baz=60,slow=4.2,SNR=9.2						
ESDC				pP	pP	23 18 22.5	+1.3
	comp=Z,1.0nm,0.7s,baz=61,slow=4.2,SNR=3.1						
ILAR	**Eielson Array**	**96.87**	**22**	P	**P**	**23 18 22.9**	**0.0**
	comp=Z,0.5nm,0.8s,mb4.0,baz=293,slow=4.9,SNR=6.3						
ILAR				pP	pP	23 18 37.6	0.0
	comp=Z,0.5nm,0.6s,baz=295,slow=4.5,SNR=4.0						
INK	**Inuvik**	**99.25**	**16**	P	**P**	**23 18 34.0**	**+0.4**
	comp=Z,1.0nm,0.4s,mb4.7,baz=290,slow=2.8,SNR=4.6						
YKA	**Yellowknife Ar**	**108.72**	**14**	PP	PP	23 23 44.9	-6.1
	comp=Z,0.7nm,0.7s,baz=336,slow=7.6,SNR=7.2						
SCHQ	**Schefferville**	**118.04**	**348**	PKP	PKPdf	23 23 39.5	+1.8
	comp=Z,1.6nm,0.6s,baz=156,slow=6.4,SNR=5.4						
ULM	**Lac du Bonnet**	**123.86**	**8**	PKP	PKPdf	23 23 51.9	+2.7
	comp=Z,3.0nm,0.5s,baz=340,slow=2.4,SNR=6.9						
NVAR	**Mina Array Bea**	**126.80**	**32**	PKP	PKPdf	23 23 58.0	+2.9
	comp=Z,2.0nm,0.6s,baz=288,slow=3.0,SNR=4.6						
PDAR	**Pinedale Array**	**127.30**	**22**	PKP	PKPdf	23 23 57.7	+1.7
	comp=Z,1.7nm,0.5s,baz=76,slow=1.9,SNR=16						
ANMO	**Albuquerque**	**135.25**	**25**	*e*PKHKP		23 24 03.8	
MIAR	**Mount Ida**	**139.55**	**10**	*e*PKHKP		23 24 13.8	
TXAR	**Lajitas Array**	**141.28**	**26**	PKhKP		23 24 20.2	
	comp=Z,1.5nm,0.4s,baz=165,slow=0.4,SNR=10.0						
TXAR				PKP	PKPdf	23 24 24.4	+2.1
	comp=Z,0.9nm,0.5s,baz=358,slow=1.4,SNR=3.6						
TXAR				SKPbc		23 27 57.8	
	comp=Z,0.2nm,0.5s,baz=63,slow=2.0,SNR=4.7						
JCT	**Junction City**	**141.77**	**20**	*e*PKIKP	PKPdf	23 24 25.5	+2.3
LPAZ	**La Paz**	**159.88**	**236**	PKPab	PKPab	23 25 31.8	-0.5
	comp=Z,0.6nm,0.5s,baz=117,slow=2.3,SNR=5.1						

IDC 30 23:11:06.7±0.9**, 14.11N**×**145.62E, mb3.8**/7**, mb1 4.0**/7**, mb1mx3.9**/18**, mbtmp3.8**/7**, Error ellipse: s-maj=45.9km s-min=19.2km az=98.0, Mariana Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**35.61**	**198**	P	P	23 18 06.1	-2.3
	2.3nm,0.8s,baz=20,slow=9.5,SNR=9.8						
ASAR	**Alice Springs**	**39.26**	**197**	P	P	23 18 36.8	-2.2
	0.3nm,0.4s,baz=21,slow=7.7,SNR=3.6						
STKA	**Stephens Creek**	**45.89**	**185**	P	P	23 19 31.6	-1.3
	1.8nm,0.6s,baz=16,slow=10,SNR=5.2						
SONM	**Songino Array**	**46.73**	**324**	P	P	23 19 38.4	-0.9
	0.2nm,0.4s,baz=119,slow=5.5,SNR=6.4						
ILAR	**Eielson Array**	**67.79**	**25**	P	P	23 22 06.0	-2.3
	0.6nm,0.5s,baz=248,slow=6.0,SNR=17						
BVAR	**Borovoye Array**	**69.97**	**322**	P	P	23 22 19.3	-2.6
	0.6nm,0.3s,baz=98,slow=10,SNR=5.0						
YKA	**Yellowknife Ar**	**82.06**	**28**	P	P	23 23 29.1	-0.9
	0.2nm,0.4s,baz=283,slow=5.6,SNR=4.3						

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*NEIC **30** 23:12:26.2, 37.54N×20.74E, h23^{km}, ML3.6(ATH), After ATH.*

*CSEM **30** 23:12:26.2, 37.54N×20.74E, h23^{km}, MD3.5/10, After ATH*

ATH 30 23:12:25.4, 37.51N×20.69E, h25^{km}, MD3.5/10**, ML3.6, Ionian Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	**Valsamata**	**0.67**	**353**	*e*PN	Pn	23 12 39.0	-0.3
VLS				*e*SN	Sn	23 12 49.0	0.0
ITM	**Ithomi**	**1.04**	**108**	*e*PN	Pn	23 12 45.8	+1.3
ITM				*e*SN	Sn	23 13 00.0	+1.7
EVR	**Evrytania**	**1.66**	**32**	*e*PN	Pn	23 12 55.0	+1.6
EVR				*e*SN	Sn	23 13 17.0	+3.0
VLI	**Veliai**	**1.96**	**113**	*e*PN	Pn	23 13 01.0	+3.3
MGER	**Gerania Oros**	**2.09**	**76**	*e*PB	Pb	23 13 01.5	-1.0
MGER				*e*SN	Sn	23 13 27.0	+1.9
NSAL	**Nisos Salamina**	**2.23**	**79**	*e*PN	Pn	23 13 03.0	+1.4
NAIG	**Nisos Aigina**	**2.24**	**83**	*e*PB	Pb	23 13 03.5	-1.5
ATH	**Athens Observa**	**2.44**	**78**	*e*PN	Pn	23 13 06.0	+1.4
MPAR	**Parnis Oros**	**2.50**	**74**	*e*PN	Pn	23 13 06.5	+1.1
PTL	**Penteli**	**2.57**	**77**	*e*PN	Pn	23 13 07.0	+0.5

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*IDC **30** 23:20:17.7±1.2, 6.19N×93.90E, mb4.0/7, mb1 4.2/8, mb1mx3.9/18, mbtmp4.0/8, ML3.1/1, Error ellipse: s-maj=54.1km s-min=22.6km az=54.0*

ISC 30 23:20:21.1±1.0**, 6.3N**±0.1×**94.0E**±0.2**, h33^{km}, n9, σ0^{s}50**/8**, mb4.0**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.03**	**21**	Pn	**P**	**23 23 26.5**	**-0.1**
	0.0nm,0.3s,baz=217,slow=14,SNR=5.8						
SONM	**Songino Array**	**42.74**	**12**	P	**P**	**23 28 17.0**	**-0.1**
	0.4nm,0.5s,mb3.4,baz=204,slow=6.9,SNR=3.7						
WRA	**Warramunga Arr**	**47.42**	**124**	P	**P**	**23 28 54.0**	**-0.8**
	3.1nm,0.6s,mb4.4,baz=302,slow=8.9,SNR=5.7						
ASAR	**Alice Springs**	**48.97**	**129**	P	**P**	**23 29 07.5**	**+0.8**
	3.4nm,1.1s,mb4.3,baz=282,slow=6.8,SNR=4.1						
BVAR	**Borovoye Array**	**50.48**	**342**	P	**P**	**23 29 18.5**	**+0.7**
	0.5nm,0.6s,mb3.8,baz=157,slow=11,SNR=3.3						
FINES	**FINESS Array B**	**74.08**	**332**	P	**P**	**23 31 55.0**	**-0.5**
	2.3nm,0.8s,mb4.2,baz=126,slow=12,SNR=5.7						
ARCES	**ARCESS Array B**	**76.74**	**340**	P	**P**	**23 32 10.6**	**+0.1**
	2.9nm,0.9s,mb4.2,baz=108,slow=3.8,SNR=4.2						
GERES	**GERESS Array B**	**78.96**	**318**	P	**P**	**23 32 23.0**	**-0.2**
	0.8nm,0.6s,mb3.8,baz=90,slow=5.3,SNR=4.6						
ULM	**Lac du Bonnet**	**123.06**	**8**	PKP	PKPdf	23 39 17.4	+2.9
	1.0nm,0.4s,baz=24,slow=4.1,SNR=3.1						

IDC 30 23:25:33.1±2.4**, 4.61N**×**93.83E, mb3.7**/4**, mb1 3.8**/5**, mb1mx3.6**/18**, mbtmp3.6**/5**, ML3.7**/1**, MS3.4**/1**, Ms1 3.6**/1**, ms1mx2.8**/20**, Error ellipse: s-maj=87.2km s-min=24.8km az=63.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.64**	**20**	Pn	P	23 29 02.3	-1.4
	0.1nm,0.3s,baz=233,slow=14,SNR=5.1						
CMAR				LR	LR	23 35 24.4	
	comp=Z,151nm,19.0s,baz=64,slow=40						
SONM	**Songino Array**	**44.40**	**12**	P	P	23 33 45.4	-1.9
	0.2nm,0.5s,baz=190,slow=8.6,SNR=4.8						
SONM				PcP	PcP	23 35 29.7	-2.0
	0.9nm,1.1s,baz=214,slow=2.5,SNR=3.7						
WRA	**Warramunga Arr**	**46.69**	**123**	P	P	23 34 04.1	-1.7
	2.4nm,0.6s,baz=300,slow=9.1,SNR=15						
ASAR	**Alice Springs**	**48.12**	**128**	P	P	23 34 14.8	-2.3
	1.0nm,1.1s,baz=304,slow=8.7,SNR=4.3						
BVAR	**Borovoye Array**	**51.98**	**342**	P	P	23 34 43.6	-2.5
	0.3nm,0.4s,baz=153,slow=6.4,SNR=2.1						

IDC 30 23:36:40.6±5.8**, 5.57N**×**93.77E, mb3.4**/3**, mb1 3.6**/4**, mb1mx3.4**/17**, mbtmp3.3**/4**, ML3.5**/1**, Error ellipse: s-maj=174.1km s-min=29.2km az=74.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.77**	**21**	Pn	P	23 39 56.7	-3.1
	0.1nm,0.3s,baz=225,slow=13,SNR=4.1						
SONM	**Songino Array**	**43.48**	**12**	P	P	23 44 45.6	-1.7
	0.4nm,0.9s,baz=194,slow=5.9,SNR=2.3						
WRA	**Warramunga Arr**	**47.27**	**124**	P	P	23 45 16.2	-1.7
	0.4nm,0.5s,baz=300,slow=9.5,SNR=5.2						
ASAR	**Alice Springs**	**48.76**	**128**	P	P	23 45 27.5	-2.0
	0.3nm,0.4s,baz=299,slow=8.1,SNR=4.4						

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*IDC **30** 23:54:39.3±0.5, 20.99N×97.77E, mb4.4/19, mb1 4.5/20, mb1mx4.5/22, mbtmp4.4/20, ML4.5/1, MS4.6/14, Ms1 4.6/14, ms1mx4.4/20, Error ellipse: s-maj=23.4km s-min=9.6km az=58.0*

*BJI **30** 23:54:41.5, 20.85N×97.79E, h28^{km}, mB5.1, mb5.0, ML5.7, Ms5.4, Msz5.0*

*MOS **30** 23:54:42.3±1.0, 20.93N×97.77E, h33^{km}, mb5.2/30, MS4.6/7, Error ellipse: s-maj=11.2km s-min=6.7km az=114.1*

*NEIC **30** 23:54:42.6±3.1, 20.95N×97.76E, h20^{km}±22^{km}, mb5.1/30, Error ellipse: s-maj=10.2km s-min=8.5km az=52.0*

ISC 30 23:54:38.9±0.9**, 20.91N**±0.03×**97.74E**±0.03**, h7^{km}**±6^{km}**, h18^{km}**±2.6^{km}**:pP-P, n196, σ1^{s}19**/211**, mb4.9**/66**, MS4.7**/26**, 12C-6D, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHRT	**Chiangrai**	**2.18**	**118**	⇑P	**Pn**	**23 55 16.0**	**0.0**
	2μm,0.5s						
CM31	**Chiang Mai Arr**	**2.69**	**155**	*e*Pn	**Pn**	**23 55 23.9**	**+0.6**
CM31				*e*Sn	**Sn**	**23 56 05.5**	**+9.1**
CMAR	**Chiang Mai Arr**	**2.69**	**155**	*i* P	**Pn**	**23 55 24.2**	**+0.9**
CMAR				pmax	pmax		
	comp=Z,153nm,0.8s						
CMAR	**Chiang Mai Arr**	**2.69**	**155**	Pn	**Pn**	**23 55 24.1**	**+0.8**
	comp=Z,21nm,0.3s,baz=333,slow=13,SNR=363						
CMAR				Pg	**Pg**	**23 55 31.1**	**-1.4**
	comp=Z,230nm,0.3s,baz=335,slow=15,SNR=178						
CMAR				Lg		23 56 06.1	
	comp=Z,513nm,0.3s,baz=330,slow=31,SNR=10						
IMP	**Imphal**	**5.21**	**318**	⇓*i*P	**Pn**	**23 56 01.5**	**+2.3**
NST	**Nakhon Sawan**	**5.68**	**156**	⇑P	**Pn**	**23 56 06.0**	**+0.2**
	comp=Z,350nm,0.5s						
KMI	**Kunming**	**6.23**	**47**	P	**Pn**	**23 56 17.3**	**+3.8**
KMI				PG	Pg	23 56 37.5	-5.8
KMI				SG	Sg	23 58 02.3	-4.0
KMI				Smax			
	comp=N,2μm,1.2s						
KMI				Smax			
	comp=E,2μm,1.2s						
KMI				LR	LR		
	comp=N,28μm,9.4s						
KMI				LR	LR		
	comp=E,21μm,9.9s						
KMI				LR	LR		
	comp=Z,12μm,13.5s						
AGT	**Agartala**	**6.70**	**297**	⇑*i*P	**Pn**	**23 56 20.0**	**-0.1**
AGT				*i*		23 57 18.0	
SHL	**Shillong**	**7.11**	**312**	⇑*i*P	**Pn**	**23 56 27.0**	**+1.2**
	comp=Z,41nm,1.0s						
SHL				*e*	Sn	23 58 17.0	+29
CAL	**Calcutta**	**8.90**	**282**	*e*	**P**	**23 56 50.7**	**-0.1**
CAL				*e*	**Sn**	**23 58 30.7**	**-1.7**
LSA	**Lhasa**	**10.59**	**327**	*e*P	**P**	**23 57 15.2**	**+1.1**
BWNR	**Bhubaneshwar**	**11.19**	**269**	*e*	**S**	**23 59 25.6**	**-3.4**
CD2	**Chengdu**	**11.33**	**27**	P	**P**	**23 57 25.0**	**+0.7**
CD2				S	**S**	**23 59 35.8**	**+3.5**
CD2				AMB	AMB		
	comp=Z,20nm,0.8s						
CD2				AMB	AMB		
	comp=Z,270nm,4.0s						
CD2				LR	LR		
	comp=E,22μm,11.1s						
CD2				LR	LR		
	comp=Z,7μm,10.8s						
GUN	**Gumba**	**12.85**	**305**	*e*P	**P**	**23 57 42.6**	**-2.2**
	comp=Z,41nm,0.5s						
PKI	**Pulchoki**	**13.05**	**303**	*e*P	**P**	**23 57 45.3**	**-2.2**
	comp=Z,153nm,0.9s						
KKN	**Kakani**	**13.26**	**304**	*e*P	**P**	**23 57 47.6**	**-2.6**
	comp=Z,87nm,0.8s						
DMN	**Daman**	**13.31**	**303**	*e*P	**P**	**23 57 48.6**	**-2.3**
	comp=Z,101nm,0.7s						

GKN	Gorkha	13.86	303	*e*P	P	23 57 55.7	-2.5
	comp=Z,215nm,0.8s						
VIS	Vishakhapatnam	13.97	259	*e*P	P	23 58 01.7	+2.0
VIS				*e*		23 58 14.7	
	comp=Z,140nm,1.3s						
VIS				*e*S	S	00 00 35.3	-0.7
ENH	Enshi	14.11	46	*e*P	P	23 57 59.2	-2.2
	comp=Z,66nm,0.9s						
KOLN	Koldanda	14.58	301	*e*P	P	23 58 04.7	-2.9
	comp=Z,273nm,1.1s						
LZH	Lanzhou	16.04	18	*e*P	P	23 58 29.0	+2.4
LZH				AP		23 58 31.8	
LZH				PP	PP	23 58 41.5	+1.9
LZH				S	S	00 01 21.0	-3.7
LZH				SS	SS	00 01 39.5	-4.2
LZH				AMB	AMB		
	comp=Z,167nm,1.5s						
LZH				AMB	AMB		
	comp=Z,345nm,4.0s						
LZH				LR	LR		
	comp=N,8µm,11.2s						
LZH				LR	LR		
	comp=Z,8µm,11.6s						
XAN	Xi'an	16.40	35	P	P	23 58 28.3	-2.9
XAN				AP		23 58 36.5	
XAN				AMB	AMB		
	comp=Z,40nm,1.4s						
XAN				LR	LR		
	comp=N,6µm,13.6s						
XAN				LR	LR		
	comp=E,6µm,13.2s						
XAN				LR	LR		
	comp=Z,3µm,15.9s						
WHN	Wuhan	17.76	54	P	P	23 58 47.5	-0.8
WHN				LR	LR		
	comp=N,5µm,6.0s						
WHN				LR	LR		
	comp=E,10µm,8.0s						
WHN				LR	LR		
	comp=Z,13µm,7.0s						
LGTI	Lohaghat	17.96	302	*e*P	P	23 58 55.0	+4.3
PTH	Pithoragarh	18.02	302	*e*P	P	23 58 50.3	-1.3
PTH				*e*	S	00 02 30.9	+21
HYB	Hyderabad	18.45	262	*e*P	P	23 58 59.0	+2.0
HYB				pmax	pmax		
	comp=Z,100nm,1.0s						
HYB	Hyderabad	18.45	262	*e*P	P	23 58 59.0	+2.0
	comp=Z,100nm,1.0s						
HYB				*e*S	S	00 02 32.0	+12
HYB	Hyderabad	18.45	262	*i* P	P	23 58 59.0	+2.0
	comp=Z,100nm,1.0s						
HYB				*e*S	S	00 02 32.0	+12
GTA	Gaotai	18.53	5	P	P	23 58 57.3	-0.5
GTA				AP		23 59 11.0	
GTA				PP	PP	23 59 18.0	+4.6
GTA				S	S	00 02 25.5	+3.9
GTA				SCS	ScS	00 10 42.3	-0.1
GTA				AMB	AMB		
	comp=Z,24nm,1.3s						
GTA				AMB	AMB		
	comp=Z,378nm,11.8s						
GTA				LR	LR		
	comp=N,4µm,9.1s						
GTA				LR	LR		
	comp=E,10µm,9.9s						
GTA				LR	LR		
	comp=Z,4µm,11.1s						
BHPL	Bhopal	18.97	281	*e*P	P	23 59 02.6	-0.6
BHPL				*e*		23 59 07.7	
	comp=Z,144nm,1.3s						
BHPL				*i* S	S	00 02 36.0	+4.3
	comp=Z,142nm,1.1s						
AKL	Akola	19.38	273	⇓*i*P	P	23 59 11.3	+3.3
AKL				*i*	S	00 02 39.8	-1.1
	comp=Z,107nm,1.3s						
DDI	Dehra Dun	20.05	302	*e*P	P	23 59 14.2	-1.3
DDI				*e*	S	00 03 03.4	+8.0
NDI	New Delhi	20.16	297	*e*P	P	23 59 14.5	-2.1
NDI				*e*S	S	00 02 58.0	+0.3
TIY	Taiyuan	21.04	34	⇑P	P	23 59 25.0	-0.7
TIY				S	S	00 03 17.0	+1.7
TIY				LR	LR		
	comp=N,8µm,12.0s						
TIY				LR	LR		
	comp=Z,2µm,8.0s						
SMLA	Simla	21.07	303	⇑*i*	P	23 59 39.3	+13
	comp=Z,377nm,2.4s,mb5.3						
SMLA				*i*	S	00 03 27.1	+11
SDNR	Sundarnagar	21.38	304	*e*P	P	23 59 30.7	+1.5
BHK	Bhakra	21.77	303	*e*P	P	23 59 32.9	-0.3
AJM	Ajmer	21.85	289	*e*P	P	23 59 37.1	+3.1
AJM				*e*		23 59 39.4	
	comp=Z,226nm,1.1s						
NJ2	Nanjing	21.88	55	*e*P	P	23 59 35.0	+0.8
NJ2				AP		23 59 44.0	
NJ2				XP		23 59 48.5	
NJ2				PP	PP	00 00 00.0	+0.5
NJ2				S	S	00 03 29.0	-2.1
NJ2				XS		00 03 45.0	
NJ2				AMB	AMB		
	comp=Z,30nm,0.5s,mb5.0						
NJ2				AMB	AMB		
	comp=Z,1µm,4.1s						
NJ2				LR	LR		
	comp=N,8µm,17.4s,MS5.3						
NJ2				LR	LR		
	comp=E,6µm,19.1s,MS5.3						
NJ2				LR	LR		
	comp=Z,6µm,11.1s						
BTO	Baotou	22.25	25	*e*P	P	23 59 37.8	0.0
BTO				S	S	00 03 38.3	+0.4
BTO				AMB	AMB		
	comp=Z,40nm,0.9s,mb4.8						
BTO				LR	LR		
	comp=N,2µm,8.6s						
BTO				LR	LR		
	comp=E,6µm,10.2s						
PONG	Pong	22.36	304	*e*P	P	23 59 41.0	+2.0
KAD	Karad	22.54	265	*e*P	P	23 59 44.0	+3.0
	comp=E,25nm,1.0s,mb4.6						
DLH	Dalhousie	22.59	305	*e*P	P	23 59 41.0	-0.3
POO	Poona	22.61	268	*e*P	P	23 59 44.0	+2.3
POO				*e*		23 59 47.4	
	comp=Z,46nm,1.3s						
POO				*e*	S	00 03 60.0	+15
THN	Thein Dam	22.73	305	*e*P	P	23 59 42.1	-0.7
	comp=Z,47nm,1.1s,mb4.8						
TIA	Tai'an	22.79	44	P	P	23 59 43.8	+0.5
TIA				AMB	AMB		
	comp=Z,33nm,1.0s,mb4.7						
TIA				LR	LR		
	comp=N,2µm,12.0s,MS5.0						
TIA				LR	LR		
	comp=E,2µm,11.0s,MS5.0						
HHC	Hu-ho-hao-te	23.09	28	*e*P	P	23 59 47.5	+1.3
HHC				AP		23 59 55.5	
HHC				XP		23 59 58.8	
HHC				PP	PP	00 00 14.5	-1.9
HHC				S	S	00 03 47.3	-5.8
HHC				XS		00 04 01.8	
HHC				PCS		00 07 18.3	
HHC				AMB	AMB		
	comp=Z,50nm,1.0s,mb4.9						
HHC				AMB	AMB		
	comp=Z,199nm,4.3s						
HHC				LR	LR		
	comp=N,2µm,14.3s,MS5.0						
HHC				LR	LR		
	comp=E,4µm,14.3s,MS5.0						
HHC				LR	LR		
	comp=Z,2µm,10.7s,MS4.9						
MNGI	Mangalore	23.29	254	*i* P	P	23 59 54.1	+5.7
MNGI				*i*	S	00 04 06.4	+10
	comp=Z,113nm,1.5s						
SSE	Sheshan	23.34	59	P	P	23 59 47.8	-0.9
SSE				AP		23 59 55.5	
SSE				S	S	00 03 58.3	+0.6
SSE				XS		00 04 12.3	
SSE				AMB	AMB		
	comp=Z,94nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,183nm,3.8s						
SSE				LR	LR		
	comp=Z,1µm,18.6s,MS4.3						
BOM	Bombay	23.52	269	*e*P	P	23 59 52.0	+1.4
	comp=Z,109nm,0.8s,mb5.3						
BOM				*e*S	S	00 04 05.3	+4.5
WMQ	Urumqi	24.33	342	P	P	00 00 01.0	+2.8
WMQ				AP		00 00 05.5	
WMQ				XP		00 00 08.5	
WMQ				AMB	AMB		
	comp=Z,170nm,1.0s,mb5.4						
BJT	Baijiatuau	24.71	36	*e*P	P	00 00 03.0	+1.1
BJT				pmax	pmax		
	comp=Z,71nm,1.1s						
BJT	Baijiatuau	24.71	36	*e*P	P	00 00 03.0	+1.1
	comp=Z,71nm,1.1s,mb5.1						
BJI	Beijing	24.73	35	*e*P	P	00 00 03.5	+1.4
BJI				S	S	00 04 27.8	+6.4
BJI				AMB	AMB		
	comp=Z,58nm,1.1s,mb5.0						
BJI				LR	LR		
	comp=N,4µm,13.9s,MS5.2						
BJI				LR	LR		
	comp=E,5µm,16.8s,MS5.2						
BJI				LR	LR		
	comp=Z,1µm,20.6s,MS4.3						
KSH	Kashi	26.30	320	P	P	00 00 18.0	+1.2
KSH				AP	pP	00 00 24.8	+5.8
KSH				XP	sP	00 00 27.0	+7.0
SONM	Songino Array	27.76	13	P	P	00 00 30.1	0.0
	comp=Z,2.1nm,0.6s,mb4.0,baz=196,slow=11,SNR=25						
SONM				ScP		00 07 26.5	
	comp=Z,1.6nm,1.0s,baz=180,slow=1.9,SNR=5.6						
SONM				LR	LR	00 12 44.6	
	comp=Z,1µm,18.4s,MS4.5,baz=12,slow=39						
ULN	Ulaanbaatar	27.93	13	*e*P	P	00 00 32.1	+0.5
ULN				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.4						
ULN	Ulaanbaatar	27.93	13	*e*P	P	00 00 32.1	+0.5
	comp=Z,11nm,1.0s,mb4.4						
KZA	Kyzart	28.36	323	P	P	00 00 37.1	+1.5
	SNR=5.0						
TKM2	Tokmak 2	28.73	325	P	P	00 00 39.4	+0.5
	SNR=36						
UCH	Uchtor	28.87	323	P	P	00 00 41.4	+1.2
	SNR=5.2						
KBK	Karagaybulak	28.91	324	P	P	00 00 41.8	+1.2
	SNR=9.7						
AAK	Ala-Archa	29.15	323	P	P	00 00 44.1	+1.4
	SNR=14						
AAK	Ala-Archa	29.15	323	*d i*P	P	00 00 41.6	-1.1
AAK				pmax	pmax		
	comp=Z,51nm,2.4s,mb4.8						
AAK				MLR	MLR		
	comp=Z,700nm,18.0s,MS4.3						
FRU	Bishkek	29.21	324	*e*P	P	00 00 44.0	+0.8
FRU				*e*		00 00 57.0	
FRU				pmax	pmax		
	comp=Z,60nm,1.8s,mb5.0						
CHMS	Chumysh	29.25	324	P	P	00 00 44.4	+0.8
	SNR=6.9						
AML	Almayashu	29.28	322	P	P	00 00 45.0	+1.1
	SNR=9.9						
USP	Ospenovka	29.56	324	P	P	00 00 46.9	+0.5
	SNR=20						
EKS2	Erkin-Say	29.57	323	P	P	00 00 47.9	+1.4
	SNR=6.9						
ZAK	Zakamensk	29.74	7	*e*P	P	00 00 48.5	+0.6
TLY	Talaya	31.06	7	*e*P	P	00 01 02.9	+3.4
TLY				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.7						
TLY				MLR	MLR		
	comp=Z,1µm,13.0s,MS4.8						
TLY	Talaya	31.06	7	*e*P	P	00 01 00.3	+0.8
	comp=Z,13nm,0.9s,mb4.8						
COCO	West Island	32.90	182	*e*P	P	00 01 20.6	+4.6
	comp=Z,118nm,1.2s,mb5.7						
HIA	Hailar	33.29	27	*e*P	P	00 01 18.9	-0.2
HIA				pmax	pmax		
	comp=Z,33nm,1.1s						
HIA	Hailar	33.29	27	*e*P	P	00 01 18.9	-0.2
	comp=Z,33nm,1.1s,mb5.2						
MDJ	Mudanjiang	35.36	41	P	P	00 01 36.7	-0.3
	comp=Z,26nm,1.3s,mb5.0						
NVS	Novosibirsk	35.61	346	*i* P	P	00 01 38.5	-0.5
NVS				pmax	pmax		
	comp=Z,73nm,1.5s,mb5.4						
NVS				pmax	pmax		
	comp=E,38nm,1.4s						
NVS				pmax	pmax		
	comp=N,68nm,1.5s						
BVAR	Borovoye Array	38.34	333	P	P	00 02 02.5	+0.5
	comp=N,9.2nm,0.6s,mb4.7,baz=135,slow=8.4,SNR=44						
BRVK	Borovoye	38.41	333	*e*P	P	00 02 03.0	+0.5
BRVK				pmax	pmax		
	comp=Z,28nm,1.1s,mb4.9						
BRVK	Borovoye	38.41	333	*e*P	P	00 02 03.0	+0.5
	comp=Z,28nm,1.1s,mb4.9						
MAJO	Matsushiro	38.45	57	*e*P	P	00 02 02.2	-0.9
MAJO				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.0						
MAJO	Matsushiro	38.45	57	*e*P	P	00 02 02.2	-0.9
	comp=Z,28nm,0.8s,mb5.0						
MAT	Matsushiro	38.45	57	P	P	00 02 02.0	-1.1
MAT				S	S	00 07 53.0	-5.2
MAT	Matsushiro	38.45	57	*e*P	P	00 02 02.0	-1.1
MAT				pmax	pmax		
	comp=Z,27nm,1.0s,mb4.9						
MAT	Matsushiro	38.45	57	*e*P	P	00 02 02.0	-1.1
	comp=Z,27nm,1.0s,mb4.9						
CHKZ	Chkalovo	38.72	334	*e*P	P	00 02 05.4	+0.2
CHKZ				pmax	pmax		
	comp=Z,25nm,0.7s,mb5.0						
CHKZ	Chkalovo	38.72	334	*e*P	P	00 02 05.4	+0.3
	comp=Z,25nm,0.7s,mb5.0						
BOD	Bodaibo	38.74	14	*e*P	P	00 02 05.5	+0.2
KLR	Kul'dur	39.11	36	*e*P	P	00 02 05.6	-2.8
KLR				MLR	MLR		
	comp=Z,4µm,13.0s,MS5.5						
HASS	Wahat al Ahsa'	44.24	285	P	P	00 02 51.6	+0.8
QRN	Al-Qurain	45.62	290	*e*P	P	00 03 02.2	+0.4
QRN				AMb	AMB	00 03 03.3	
	comp=Z,67nm,1.1s,mb5.5						
ARU	Arti	45.76	331	⇑*i*P	P	00 03 02.6	+0.1
ARU				*e*		00 04 37.2	
ARU				*e*		00 04 49.4	
ARU				*e*S	S	00 09 46.6	+1.0
ARU				*e*		00 12 53.5	
ARU				pmax	pmax		
	comp=Z,32nm,1.4s,mb5.1						
ARU	Arti	45.76	331	*e*P	P	00 03 02.4	-0.1
	comp=Z,40nm,1.1s,mb5.3						
UMR	Umm Al-Rimmam	45.77	291	*e*P	P	00 03 03.8	+0.8
UMR				AMb	AMB	00 03 04.9	
	comp=Z,68nm,1.2s,mb5.5						
RDF	Al-Radifah	45.94	290	*e*P	P	00 03 05.0	+0.7
RDF				AMb	AMB	00 03 06.5	
	comp=Z,131nm,1.0s,mb5.8						
NAY	Al-Naaiem	46.20	291	*e*P	P	00 03 06.9	+0.5
NAY				AMb	AMB	00 03 08.2	
	comp=Z,86nm,1.0s,mb5.6						
RST	Umm Al-Ruwaisa	46.40	291	*e*P	P	00 03 08.5	+0.5
RST				AMb	AMB	00 03 09.7	
	comp=Z,133nm,1.0s,mb5.8						
YAK	Yakutsk	46.61	20	*e*P	P	00 03 08.3	-0.9
YAK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
YAK				pmax	pmax		
	comp=N,6.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,606nm,12.0s,MS4.8						
YAK				MLR	MLR		
	comp=N,577nm,15.0s,MS4.8						
YAK				MLR	MLR		
	comp=E,419nm,15.0s,MS4.8						
YAK	Yakutsk	46.61	20	*e*P	P	00 03 07.2	-1.9
	comp=E,32nm,0.8s,mb5.3						
MBWA	Marble Bar	47.01	151	*e*P	P	00 03 14.4	+1.5
	comp=E,44nm,1.2s,mb5.3						
RYDS	Riyadh	47.10	284	P	P	00 03 13.7	+0.1
SOKR	Solikamsk	48.33	333	⇑*i*P	P	00 03 21.7	-1.0
SOKR				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.5						
SOKR				MLR	MLR		
	comp=Z,400nm,20.0s,MS4.4						
MZLS	Mizel	48.42	284	P	P	00 03 24.3	+0.4
GNI	Garni	48.76	306	P	P	00 03 26.9	+0.6
	comp=Z,6.5nm,1.0s,mb4.6,baz=298,slow=7.4,SNR=3.3						
TI2	Plekhanov	48.97	308	*e*P	P	00 03 27.2	-0.7
KAMS	Al Khamasin	49.57	279	P	P	00 03 32.1	-0.7
ZEI	Tsey	49.74	309	*e*P	P	00 03 32.9	-0.9
ZEI				*i* *PP	pP	00 03 38.0	+1.9
ZEI				*i*		00 05 26.2	
ZEI				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.2						
ARSS	Ar Rass	49.98	287	P	P	00 03 35.9	0.0
AFFS	'Afif	50.43	284	P	P	00 03 40.0	+0.6
GOF	Gofitskoye	50.72	312	*e*P	P	00 03 39.0	-2.2
GOF				pmax	pmax		
	comp=Z,30nm,1.4s,mb5.0						
TATS	Tathlith	50.73	279	P	P	00 03 41.5	-0.2
KIV	Kislovodsk	50.79	310	⇓*e*P	P	00 03 41.8	0.0
KIV				pmax	pmax		
	comp=Z,14nm,1.1s,mb4.8						
KIV				MLR	MLR		
	comp=Z,500nm,12.0s,MS4.8						
KIV	Kislovodsk	50.79	310	*e*P	P	00 03 40.6	-1.2
	comp=Z,23nm,1.0s,mb5.0						
DJNS	Zahran al Janu	51.05	276	D		00 02 45.0	
HILS	Ha'il	51.11	289	P	P	00 03 45.1	+0.6
MALT	Malatya	53.53	303	*e*P	P	00 04 00.8	-1.7
KBRS	Khaybar	53.54	287	P	P	00 04 03.9	+1.2
MA2	Magadan	53.73	30	*e*P	P	00 04 03.6	0.0
MA2				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
MA2	Magadan	53.73	30	*e*P	P	00 04 03.6	-0.1
	comp=Z,24nm,0.9s,mb5.1						
TIXI	Tiksi	53.84	12	⇑*e*P	P	00 04 03.2	-1.1
TIXI				MLR	MLR		
	comp=Z,400nm,13.0s,MS4.7						
WRA	Warramunga Arr	54.14	136	*i* P	P	00 04 06.2	-0.9
WRA				pmax	pmax		
	comp=Z,9.0nm,1.1s						
WRA	Warramunga Arr	54.14	136	P	P	00 04 06.2	-0.9
	comp=Z,8.7nm,1.1s,mb4.6,baz=322,slow=7.4,SNR=20						
WRAB	Tennant Creek	54.14	136	*e*P	P	00 04 06.1	-1.0
WRAB				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.2						
WRAB	Tennant Creek	54.14	136	*e*P	P	00 04 06.1	-1.0
	comp=Z,36nm,1.2s,mb5.2						
YNBS	Yanbu' al Bahr	54.90	286	P	P	00 04 13.4	+0.7
ASF	Jabal al Asfar	54.95	295	P	P	00 04 12.8	-0.2
	comp=Z,5.5nm,0.8s,mb4.6,baz=117,slow=2.3,SNR=11						
UMJS	Umm Lajj	55.37	287	D		00 04 18.3	
TBKS	Tabuk	55.63	290	P	P	00 04 18.6	+0.7
JMQS	Jabal Moqyreh	56.14	291	P	P	00 04 21.4	-0.2
MOS	Moscow	56.22	324	*e*P	P	00 04 21.3	-0.5
MOS				pmax	pmax		
	comp=Z,80nm,1.4s,mb5.6						
ASAR	Alice Springs	56.60	140	P	P	00 04 23.9	-1.0
	comp=Z,3.1nm,0.6s,mb4.5,baz=322,slow=6.5,SNR=18						
ASAR				LR	LR	00 31 24.1	
	comp=Z,234nm,18.6s,MS4.3,baz=312,slow=39						
OBN	Obninsk	56.67	323	⇓*e*P	P	00 04 23.7	-1.4
OBN				*e*		00 05 20.1	
OBN				*e*S	S	00 12 16.6	+0.7
OBN				pmax	pmax		
	comp=Z,39nm,1.2s,mb5.3						
OBN				MLR	MLR		
	comp=Z,600nm,16.0s,MS4.8						
OBN	Obninsk	56.67	323	*e*P	P	00 04 23.6	-1.4
	comp=Z,67nm,1.4s,mb5.5						
NWAO	Narrogin (SRO)	56.68	160	*e*P	P	00 04 26.2	+0.8
NWAO				pmax	pmax		
	comp=Z,43nm,1.3s						
NWAO	Narrogin (SRO)	56.68	160	P	P	00 04 25.3	-0.1
	comp=Z,26nm,1.1s,mb5.2,baz=348,slow=8.2,SNR=4.3						
NWAO	Narrogin (SRO)	56.68	160	*e*P	P	00 04 26.2	+0.7
	comp=Z,43nm,1.3s,mb5.3						
AYUS	'Aynunah	56.76	291	P	P	00 04 26.3	+0.2
EIL	Elat	56.85	292	*e*P	P	00 04 25.9	-0.8
	comp=Z,9.6nm,0.8s,mb4.9						
BDAS	Al Bad'	56.87	291	P	P	00 04 26.8	-0.1
TAYS	Tayyib Ism	57.06	291	P	P	00 04 27.8	-0.4
PMG	Port Moresby	57.14	117	*e*P	P	00 04 28.8	-0.2
PMG				pmax	pmax		
	comp=Z,26nm,0.9s						
PMG	Port Moresby	57.14	117	P	P	00 04 29.3	+0.3
	comp=Z,26nm,1.0s,mb5.2,baz=271,slow=10,SNR=6.5						
PMG	Port Moresby	57.14	117	*e*P	P	00 04 28.8	-0.2
	comp=Z,26nm,0.9s,mb5.2						
BRTR	Keskin Array B	57.26	304	P	P	00 04 28.9	-0.7
	comp=Z,0.7nm,0.6s,mb3.9,baz=80,slow=7.5,SNR=6.0						
AKASG	Malin Array Be	60.56	317	P	P	00 04 49.8	-2.4
	comp=Z,4.0nm,0.8s,mb4.6,baz=78,slow=6.0,SNR=10						
KMBO	Kilima Mbogo	63.03	257	*i* P	P	00 05 09.8	+0.5
KMBO				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KMBO	Kilima Mbogo	63.03	257	P	P	00 05 09.8	+0.5
	comp=Z,3.7nm,0.8s,mb4.5,baz=38,slow=6.3,SNR=7.9						
KMBO				LR	LR	00 33 32.3	
	comp=Z,286nm,19.7s,MS4.5,baz=280,slow=37						
KMBO	Kilima Mbogo	63.03	257	*e*P	P	00 05 09.7	+0.4
	comp=Z,12nm,1.1s,mb5.0						
KAF	Kangasniemi	63.06	330	*e*p	P	00 05 06.7	-2.1
FINES	FINESS Array B	63.10	329	*i* P	P	00 05 08.3	-0.8
FINES				pmax	pmax		
	comp=Z,6.0nm,0.6s						
FINES	FINESS Array B	63.10	329	P	P	00 05 08.3	-0.7
	comp=Z,5.8nm,0.6s,mb4.9,baz=106,slow=7.1,SNR=20						
FINES				LR	LR	00 35 43.3	
	comp=Z,739nm,18.2s,MS4.9,baz=328,slow=39						
KEV	Kevo	63.90	339	*e*p	P	00 05 11.7	-2.5
SANT	Santorini	63.95	301	*e*P	P	00 05 11.8	-3.4
	comp=Z,73nm,1.1s,mb5.6						
ARCES	ARCESS Array B	64.38	338	P	P	00 05 16.6	-0.7
	comp=Z,5.7nm,0.9s,mb4.6,baz=90,slow=7.3,SNR=6.9						
ARCES				LR	LR	00 36 49.6	
	comp=Z,704nm,19.6s,MS4.9,baz=354,slow=39						
STKA	Stephens Creek	67.22	140	P	P	00 05 35.8	-0.4
	comp=Z,2.9nm,0.7s,mb4.4,baz=319,slow=6.2,SNR=12						
STKA				LR	LR	00 37 20.4	
	comp=Z,502nm,21.6s,MS4.7,baz=120,slow=38						
STKA	Stephens Creek	67.22	140	*e*P	P	00 05 35.9	-0.3
MBAR	Mbarara	68.80	261	⇓*e*P	P	00 05 46.3	-0.1
PRU	Pruhonice	69.97	317	*e*P	P	00 05 52.5	-0.4
BRG	Berggiesshubel	70.22	318	*e*P	P	00 05 53.7	-0.7
BRG				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
BRG	Berggiesshubel	70.22	318	*e*P	P	00 05 53.7	-0.7
	comp=Z,6.9nm,0.9s,mb4.6						
BRG				*e*	pP	00 05 57.8	+1.1
NB2	NORSAR Subarra	70.28	329	P	P	00 05 53.2	-1.3
	comp=Z,4.7nm,0.6s,mb4.6,baz=82,slow=6.2						
NB2	NORSAR Subarra	70.28	329	P	P	00 05 53.2	-1.3
NB2				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
NOA	NORSAR Array B	70.28	329	P	P	00 05 53.5	-1.1
	comp=Z,7.2nm,0.7s,mb4.7,baz=83,slow=6.2,SNR=19						
NOA				LR	LR	00 40 26.1	
	comp=Z,469nm,21.9s,MS4.7,baz=20,slow=39						
GEC2	GERESS Array S	70.70	316	*e*P	P	00 05 56.4	-1.0
GERES	GERESS Array B	70.70	316	P	P	00 05 56.6	-0.7
	comp=Z,1.8nm,0.7s,mb4.1,baz=76,slow=5.5,SNR=12						
GERES				LR	LR	00 40 48.6	
	comp=Z,462nm,20.5s,MS4.7,baz=216,slow=39						
CLL	Collm	70.73	319	P	P	00 05 57.0	-0.5
KHC	Kasperske Hory	70.73	316	*e*P	P	00 05 58.0	+0.5
WET	Wettzell	71.18	316	*e*P	P	00 05 59.8	-0.5
MOX	Moxa	71.71	318	*e*	P	00 06 02.4	-1.0
MOX	Moxa	71.71	318	*i* P	P	00 06 02.4	-1.0
BSEG	Bad Segeberg	71.88	322	*e*P	P	00 06 04.9	+0.5
CLZ	Clausthal	72.25	319	*e*P	P	00 06 06.4	-0.2
	comp=Z,5.0nm,0.9s,mb4.4						
DAG	Danmarks Havn	75.55	348	⇑*e*P	P	00 06 26.6	+1.3
DAG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
DAG	Danmarks Havn	75.55	348	⇑*e*P	P	00 06 26.6	+1.3
	comp=Z,7.0nm,1.0s,mb4.5						
DAG	Danmarks Havn	75.55	348	⇑*i*P	P	00 06 26.6	+1.3
	comp=Z,7.0nm,1.0s,mb4.5						
LPG	La Plagne	76.06	314	*e*P	P	00 06 28.4	-0.4
	comp=Z,17nm,0.9s,mb4.7						
LPG	La Plagne	76.06	314	*e*P	P	00 06 28.4	-0.4
LPG				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
IMA	Indian Mountai	78.32	23	*e*P	P	00 06 41.8	+0.9
IMA				pmax	pmax		
	comp=Z,32nm,1.2s,mb5.1						
IMA	Indian Mountai	78.32	23	*e*P	P	00 06 41.8	+0.9
	comp=Z,32nm,1.2s,mb5.1						
COLA	College	81.03	23	P	P	00 06 57.9	+2.4
COLA				pmax	pmax		

	comp=Z,4.0nm,0.8s,mb4.4						
COLA	**College**	81.03	23	P	P	00 06 57.9	+2.3
	comp=Z,3.9nm,0.8s,mb4.4						
SPU	**Mount Spurr**	81.15	27	P	P	00 06 59.1	+2.9
ILAR	**Eielson Array**	81.44	23	P	P	00 06 57.1	-0.5
	comp=Z,0.9nm,0.7s,baz=312,slow=5.2,SNR=12						
ILAR				LR	LR	00 44 08.8	
	comp=Z,526nm,19.5s,baz=339,slow=36						
ESDC	**Sonseca Array**	85.46	311	P	P	00 07 18.5	-0.1
	comp=Z,1.0nm,0.8s,mb4.0,baz=44,slow=6.9,SNR=5.0						
MAW	**Mawson**	91.93	193	LR	LR	00 43 44.7	
	comp=Z,165nm,18.8s,MS4.5,baz=236,slow=32						
RPZ	**Rata Peaks**	92.85	136	LR	LR	00 50 25.5	
	comp=Z,453nm,19.2s,MS4.9,baz=240,slow=36						
YKA	**Yellowknife Ar**	93.01	14	*i* P	P	00 07 54.0	+0.1
YKA				pmax	pmax		
	comp=Z,1.0nm,0.8s						
YKA	**Yellowknife Ar**	93.01	14	P	P	00 07 54.0	+0.2
	comp=Z,1.1nm,0.8s,mb4.3,baz=327,slow=4.5,SNR=15						
YKA				LR	LR	00 50 18.5	
	comp=Z,298nm,21.0s,MS4.7,baz=60,slow=36						
URZ	**Urewera**	94.76	129	LR	LR	00 54 50.9	
	comp=Z,295nm,19.0s,MS4.8,baz=290,slow=38						
DBIC	**Dimbokro**	99.30	281	LR	LR	00 59 19.0	
	comp=Z,167nm,20.2s,MS4.5,baz=49,slow=39						
TXAR	**Lajitas Array**	125.95	23	PKP	PKPdf	00 13 43.3	-1.8
	comp=Z,1.3nm,1.0s,baz=227,slow=0.9,SNR=7.9						
BAO	**Brasilia Array**	147.08	273	P	PKPdf	00 14 24.6	+0.6
BDFB	**Brasilia**	147.10	273	PKPbc	PKPdf	00 14 24.9	+0.9
	comp=Z,10nm,1.1s,baz=78,slow=3.4,SNR=7.5						
SDV	**Santo Domingo**	148.26	338	*e*PKPbc	PKPdf	00 14 27.0	+1.1
ROSC	**El Rosal**	153.24	342	PKPbc	PKPdf	00 14 39.8	+6.3
	comp=Z,4.3nm,0.6s,baz=90,slow=20,SNR=3.4						

*IDC **31** 00:08:40.5±1.4, 4.46N×93.26E, mb4.0/5, mb1 4.1/6, mb1mx3.8/18, mbtmp3.9/6, ML4.3/1, Error ellipse: s-maj=45.9km s-min=27.4km az=46.0*

ISC 31 00:08:44.2±1.2**, 4.5N**±0.2×**93.5E**±0.2**, h33^{km}, n15, σ1^{s}07**/15**, mb4.1**/8**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.86	21	Pn	P	00 12 12.5	-1.3
	0.4nm,0.3s,baz=233,slow=14,SNR=5.1						
PKI	**Pulchoki**	24.19	342	*e*P	P	00 14 01.1	+2.2
GUN	**Gumba**	24.37	344	*e*P	P	00 14 01.4	+0.7
	14nm,0.9s,mb4.4						
GUN	**Gumba**	24.37	344	*e*P	P	00 14 01.4	+0.7
	7.9nm,0.7s,mb4.3						
KKN	**Kakani**	24.44	342	*e*P	P	00 14 02.4	+1.1
KKN	**Kakani**	24.44	342	*e*P	P	00 14 01.1	-0.2
	2.3nm,0.3s,mb4.1						
GKN	**Gorkha**	24.84	341	*e*P	P	00 14 05.2	+0.1
GKN	**Gorkha**	24.84	341	*e*P	P	00 14 04.8	-0.3
KOLN	**Koldanda**	24.98	339	*e*P	P	00 14 06.7	+0.2
	16nm,0.9s,mb4.6						
KOLN	**Koldanda**	24.98	339	*e*P	P	00 14 06.7	+0.2
	9.7nm,0.8s,mb4.4						
SONM	**Songino Array**	44.57	12	P	P	00 16 55.3	+0.5
	2.2nm,0.9s,mb4.0,baz=195,slow=7.7,SNR=15						
WRA	**Warramunga Arr**	46.93	123	P	P	00 17 14.4	+0.5
	0.7nm,0.5s,mb3.8,baz=300,slow=9.0,SNR=7.6						
BVAR	**Borovoye Array**	51.96	342	P	P	00 17 51.0	-1.1
	1.3nm,0.7s,mb3.9,baz=143,slow=7.4,SNR=9.6						
BRTR	**Keskin Array B**	64.16	312	P	P	00 19 15.8	-2.1
	1.1nm,0.7s,mb4.0,baz=123,slow=6.5,SNR=7.8						
GERES	**GERESS Array B**	79.90	319	P	P	00 20 51.4	0.0
	4.2nm,1.1s,mb4.3,baz=90,slow=5.3,SNR=8.1						

*IDC **31** 00:09:49.8±0.9, 6.88N×94.33E, mb3.8/9, mb1 4.0/10, mb1mx3.9/18, mbtmp3.8/10, ML4.5/1, MS3.7/1, Ms1 3.9/1, ms1mx2.9/30, Error ellipse: s-maj=43.5km s-min=18.1km az=51.0*

ISC 31 00:09:53.2±0.8**, 7.0N**±0.1×**94.5E**±0.2**, h33^{km}, n10, σ1^{s}06**/10**, mb3.9**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	12.22	20	Pn	P	00 12 47.9	0.0
	0.9nm,0.3s,baz=216,slow=16,SNR=5.0						
CMAR				LR	LR	00 16 53.6	
	comp=Z,329nm,20.1s,baz=200,slow=34						
SONM	**Songino Array**	41.98	12	P	P	00 17 43.2	+0.4
	1.5nm,1.0s,mb3.6,baz=194,slow=8.3,SNR=4.0						
WRA	**Warramunga Arr**	47.45	125	P	P	00 18 26.3	-0.7
	1.0nm,0.8s,mb3.8,baz=306,slow=9.0,SNR=5.8						
ASAR	**Alice Springs**	49.07	130	P	P	00 18 39.9	+0.4
	1.7nm,1.0s,mb4.0,baz=300,slow=8.0,SNR=4.8						
BVAR	**Borovoye Array**	49.96	341	P	P	00 18 44.7	-1.3
	1.7nm,0.8s,mb4.1,baz=146,slow=5.3,SNR=4.7						
STKA	**Stephens Creek**	59.23	133	P	P	00 19 54.0	+0.1
	1.5nm,0.7s,mb4.1,baz=332,slow=5.7,SNR=3.2						
BRTR	**Keskin Array B**	63.29	311	P	P	00 20 18.9	-2.3
	0.7nm,0.9s,mb3.8,baz=126,slow=5.8,SNR=2.7						
FINES	**FINESS Array B**	73.68	332	P	P	00 21 26.1	+0.9
	1.6nm,0.8s,mb4.0,baz=100,slow=8.5,SNR=3.5						
GERES	**GERESS Array B**	78.74	318	P	P	00 21 56.0	+2.0
	0.5nm,0.6s,mb3.7,baz=112,slow=5.3,SNR=3.5						
ESDC	**Sonseca Array**	92.07	310	P	P	00 23 01.0	+0.4
	0.1nm,0.3s,mb3.6,baz=62,slow=4.3,SNR=2.9						

*NEIC **31** 00:18:52.2, 38.31S×177.10E, h51^{km}, ML3.8(WEL), After WEL.*

WEL 31 00:18:52.1±0.1**, 38.29S×177.09E, h53^{km}**±1^{km}**, ML3.5**/7**, 3C-1D, Error ellipse: s-maj=1.0km s-min=0.9km az=0.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
URZ	**Urewera**	0.03	30	P	P	00 18 59.8	-0.2
URZ	**Urewera**	0.03	30	⇑P*	P	00 18 59.8	-0.2
URZ				S*	S	00 19 05.7	-0.2
EDRZ	**Edgecumbe**	0.33	303	P	P	00 19 01.5	-0.3
EDRZ	**Edgecumbe**	0.33	303	P*	P	00 19 01.5	-0.3
MWZ	**Matawai**	0.35	98	P	P	00 19 01.6	-0.4
MWZ				S	S	00 19 09.2	+0.1
MWZ	**Matawai**	0.35	98	⇑P*	P	00 19 01.6	-0.4
MWZ				S*	S	00 19 09.2	+0.1
MARZ	**Manawahe**	0.45	312	P*	P	00 19 02.7	-0.2
TAZ	**Tarawera**	0.46	277	P*	P	00 19 03.1	0.0
MKRZ	**Makatiti**	0.51	287	P	P	00 19 03.9	+0.2
MKRZ	**Makatiti**	0.51	287	P*	P	00 19 03.9	+0.2
LIRZ	**Lichensteins R**	0.62	297	P	P	00 19 04.5	-0.5
LIRZ	**Lichensteins R**	0.62	297	P*	P	00 19 04.5	-0.5
UTU	**Utuhina**	0.72	279	P	P	00 19 06.2	0.0
UTU	**Utuhina**	0.72	279	P*	P	00 19 06.2	0.0
WIZ	**White Island**	0.76	6	P	P	00 19 05.8	-1.0
WIZ	**White Island**	0.76	6	P*	P	00 19 05.8	-1.0
KNZ	**Kokohu**	0.86	148	P	P	00 19 07.6	-0.6
KNZ	**Kokohu**	0.86	148	⇑PN	P	00 19 07.6	-0.6
KNZ				SN	S	00 19 20.2	0.0
PUZ	**Puketiti**	0.94	77	P	P	00 19 08.5	-0.8
PUZ	**Puketiti**	0.94	77	PN	P	00 19 08.5	-0.8
PUZ				SN	S	00 19 22.2	+0.1
BKZ	**Black Stump Fm**	0.99	208	P	P	00 19 09.6	-0.4
BKZ	**Black Stump Fm**	0.99	208	⇓P*	P	00 19 09.6	-0.4
RITZ	**Rihia Road**	1.19	234	P	P	00 19 12.3	-0.3
RITZ	**Rihia Road**	1.19	234	P*	P	00 19 12.3	-0.3
MXZ	**Matakaoa Point**	1.20	53	P	P	00 19 12.7	-0.2
MXZ	**Matakaoa Point**	1.20	53	P*	P	00 19 12.7	-0.2
MXZ				S*	S	00 19 28.1	-0.2
KATZ	**Kakaramea**	1.29	237	P	P	00 19 13.9	-0.3
KATZ	**Kakaramea**	1.29	237	P*	P	00 19 13.9	-0.3
MGZ	**Maungaku**	1.41	239	P	P	00 19 15.5	-0.4
MGZ	**Maungaku**	1.41	239	P*	P	00 19 15.5	-0.4
OTVZ	**Oturere**	1.42	231	P*	P	00 19 15.4	-0.6
OTVZ				*e*S*	S	00 19 33.6	-0.1
WTVZ	**West Tongariro**	1.44	234	P	P	00 19 15.8	-0.5
WTVZ	**West Tongariro**	1.44	234	P*	P	00 19 15.8	-0.5
NGZ	**Ngauruhoe**	1.46	232	P	P	00 19 16.1	-0.6
NGZ	**Ngauruhoe**	1.46	232	P*	P	00 19 16.1	-0.6
TUVZ	**Tukino**	1.49	228	P	P	00 19 16.3	-0.7
TUVZ	**Tukino**	1.49	228	P*	P	00 19 16.3	-0.7
CNZ	**Chateau**	1.51	232	P	P	00 19 16.9	-0.4
CNZ	**Chateau**	1.51	232	P*	P	00 19 16.9	-0.4
TWVZ	**Taurewa**	1.51	238	P	P	00 19 16.9	-0.4
TWVZ	**Taurewa**	1.51	238	P*	P	00 19 16.9	-0.4
MOVZ	**Moawhango**	1.53	223	P	P	00 19 16.6	-1.0
MOVZ	**Moawhango**	1.53	223	P*	P	00 19 16.6	-1.0
MOVZ				S*	S	00 19 35.4	-1.1
WNVZ	**Wahianoa**	1.56	228	P	P	00 19 17.0	-1.0
TSZ	**Takapari Road**	1.98	206	P	P	00 19 23.4	-0.4
TSZ	**Takapari Road**	1.98	206	PN	P	00 19 23.4	-0.4
WAZ	**Wanganui**	2.20	228	P	P	00 19 26.8	-0.2
WAZ	**Wanganui**	2.20	228	PN	P	00 19 26.8	-0.1
BFZ	**Birch Farm**	2.48	195	*e*P	P	00 19 27.7	-3.2
BFZ	**Birch Farm**	2.48	195	*e*PN	P	00 19 27.7	-3.3
MRZ	**Mangatainoka R**	2.64	206	*e*P	P	00 19 29.3	-4.0
MRZ	**Mangatainoka R**	2.64	206	PN	P	00 19 29.3	-4.0
MRZ				SN	S	00 20 00.3	-3.9
KIW	**Kapiti Island**	3.07	213	P	P	00 19 35.4	-4.0
KIW	**Kapiti Island**	3.07	213	*e*PN	P	00 19 35.4	-3.9
MTW	**Mount Morrison**	3.12	203	*e*PN	P	00 19 37.1	-2.9
WCZ	**Waipu Caves**	3.21	316	*e*P	P	00 19 39.4	-1.9
WCZ	**Waipu Caves**	3.21	316	*e*PN	P	00 19 39.4	-1.9
CAW	**Cannon Point**	3.22	208	*e*PN	P	00 19 39.1	-2.3
THZ	**Tophouse**	4.73	221	*e*P	P	00 19 58.7	-4.0
THZ	**Tophouse**	4.73	221	*e*PN	P	00 19 57.1	-5.6
KHZ	**Kahutara**	4.94	212	*e*P	P	00 20 01.3	-4.3
KHZ	**Kahutara**	4.94	212	*e*PN	P	00 20 00.6	-4.9

*IDC **31** 00:29:15.3±0.9, 4.81N×95.10E, mb4.5/11, mb1 4.6/11, mb1mx4.3/18, mbtmp4.5/11, MS4.3/2, Ms1 4.3/2, ms1mx3.5/25, Error ellipse: s-maj=49.2km s-min=17.5km az=45.0*

*NEIC **31** 00:29:19.6±0.6, 4.67N×95.01E, h30^{km}, mb4.8/9, Error ellipse: s-maj=18.4km s-min=10.6km az=58.0*

*BJI **31** 00:29:19.5, 4.70N×95.00E, h30^{km}, mB5.2, mb5.0, Ms4.7*

ISC 31 00:29:18.5±0.5**, 4.67N**±0.08×**95.09E**±0.09**, h33^{km}, n55, σ1^{s}00**/52**, mb4.7**/27**, MS4.5**/3**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	14.21	15	*e*Pn	P	00 32 40.7	+1.0
	6.8nm,0.4s						
CMAR	**Chiang Mai Arr**	14.21	15	Pn	P	00 32 41.8	+2.1
	1.4nm,0.3s,baz=208,slow=11,SNR=24						
PKI	**Pulchoki**	24.58	339	*e*P	P	00 34 38.6	+1.6
PKI	**Pulchoki**	24.58	339	*e*P	P	00 34 36.2	-0.8
	12nm,0.6s,mb4.6						
DMN	**Daman**	24.72	338	*e*P	P	00 34 37.9	-0.5
GUN	**Gumba**	24.73	340	*e*P	P	00 34 38.8	+0.4
GUN	**Gumba**	24.73	340	*e*P	P	00 34 38.1	-0.3
	18nm,0.5s,mb4.8						
KKN	**Kakani**	24.82	339	*e*P	P	00 34 39.3	0.0
KKN	**Kakani**	24.82	339	*e*P	P	00 34 38.7	-0.6
	20nm,0.7s,mb4.7						
LSA	**Lhasa**	25.18	352	*e*P	P	00 34 42.7	0.0
	7.1nm,0.6s,mb4.4						
GKN	**Gorkha**	25.25	338	*e*P	P	00 34 43.6	+0.2
GKN	**Gorkha**	25.25	338	*e*P	P	00 34 44.1	+0.7
	18nm,0.3s,mb5.1						
KOLN	**Koldanda**	25.45	336	*e*P	P	00 34 45.3	0.0
	40nm,0.7s,mb5.1						
KOLN	**Koldanda**	25.45	336	*e*P	P	00 34 45.6	+0.3
	40nm,0.7s,mb5.1						
ENH	**Enshi**	28.87	26	P	P	00 35 14.8	-1.6
XAN	**Xi'an**	31.93	22	P	P	00 35 41.5	-2.0
XAN				AMB	AMB		
	comp=Z,24nm,0.7s,mb5.1						
GTA	**Gaotai**	34.85	6	P	P	00 36 07.3	-1.4
GTA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.8						
BJT	**Baijiatuau**	40.00	25	*e*P	P	00 36 52.1	+0.1
	comp=Z,17nm,0.8s,mb4.8						
BJI	**Beijing**	40.02	25	*e*P	P	00 36 52.8	+0.7
BJI				AMB	AMB		
	comp=Z,19nm,0.7s,mb4.9						
BJI				LR	LR		
	comp=N,426nm,16.5s,MS4.5						
BJI				LR	LR		
	comp=E,428nm,14.9s,MS4.5						
KZA	**Kyzart**	41.24	337	P	P	00 37 03.5	+1.4
	SNR=5.3						
UCH	**Uchtor**	41.66	337	P	P	00 37 06.9	+1.3
	SNR=28						
TKM2	**Tokmak 2**	41.84	338	P	P	00 37 08.0	+0.9
	SNR=11						
KBK	**Karagaybulak**	41.85	338	P	P	00 37 08.6	+1.4
	SNR=32						
AML	**Almayashu**	41.90	336	P	P	00 37 09.0	+1.4
	SNR=21						
AAK	**Ala-Archa**	42.01	337	P	P	00 37 10.9	+2.4
	SNR=10						
AAK	**Ala-Archa**	42.01	337	*e*P	P	00 37 09.1	+0.6
	comp=E,9.8nm,0.7s,mb4.5						
CHMS	**Chumysh**	42.22	338	P	P	00 37 10.9	+0.7
	SNR=7.6						
EKS2	**Erkin-Say**	42.31	337	P	P	00 37 12.0	+1.0
	SNR=18						
USP	**Ospenovka**	42.55	338	P	P	00 37 13.6	+0.7
	SNR=28						
SONM	**Songino Array**	44.09	11	P	P	00 37 24.0	-1.4
	comp=E,2.1nm,0.9s,mb3.9,baz=192,slow=8.8,SNR=12						
SONM				PcP	PcP	00 39 10.0	-0.7
	comp=E,0.9nm,0.4s,baz=195,slow=4.1,SNR=8.9						
WRA	**Warramunga Arr**	45.67	124	P	P	00 37 38.8	+0.4
	comp=E,18nm,0.6s,mb5.1,baz=301,slow=9.5,SNR=79						
WRAB	**Tennant Creek**	45.67	124	*e*P	P	00 37 38.7	+0.3
	comp=E,25nm,0.8s,mb5.2						
WB2	**Warramunga Arr**	45.68	124	⇑*i*P	P	00 37 39.1	+0.6
ASPA	**Alice Springs**	47.16	128	*e*P	P	00 37 50.4	+0.3
ASAR	**Alice Springs**	47.17	128	P	P	00 37 50.7	+0.6
	comp=E,2.4nm,0.5s,mb4.4,baz=299,slow=8.0,SNR=22						
HIA	**Hailar**	49.12	21	P	P	00 38 03.9	-1.0
BVAR	**Borovoye Array**	52.31	341	P	P	00 38 28.2	-0.9
	comp=E,15nm,0.8s,mb5.0,baz=141,slow=9.5,SNR=89						
BRVK	**Borovoye**	52.37	341	*e*P	P	00 38 28.2	-1.4
	comp=E,12nm,0.6s,mb5.0						
CHKZ	**Chkalovo**	52.80	342	*e*P	P	00 38 31.8	-1.0
	comp=E,22nm,0.6s,mb5.3						
GNI	**Garni**	57.36	316	P	P	00 39 06.3	+0.3
	comp=E,1.8nm,0.6s,mb4.3,baz=23,slow=7.7,SNR=3.9						
MALT	**Malatya**	61.27	311	P	P	00 39 32.6	-0.4
	comp=E,2.0nm,0.9s,mb4.2						
BRTR	**Keskin Array B**	65.24	312	P	P	00 39 58.4	-0.9
	comp=E,3.8nm,0.6s,mb4.6,baz=128,slow=7.3,SNR=27						
AKASG	**Malin Array Be**	71.25	322	P	P	00 40 35.0	-1.4
	comp=E,2.3nm,0.5s,mb4.4,baz=88,slow=5.6,SNR=15						
FINES	**FINESS Array B**	75.97	332	P	P	00 41 03.0	-0.7
	comp=E,3.3nm,0.3s,mb4.7,baz=102,slow=6.0,SNR=51						
KAF	**Kangasniemi**	76.06	333	*e*p	P	00 41 02.8	-1.4
	comp=E,4.0nm,0.5s,mb4.6						
OJC	**Ojcow**	77.03	320	*e*P	P	00 41 10.6	+0.6
KEV	**Kevo**	78.16	341	*e*p	P	00 41 14.7	-1.1
ARCES	**ARCESS Array B**	78.58	340	P	P	00 41 17.9	-0.3
	comp=E,1.8nm,0.4s,mb4.4,baz=101,slow=6.6,SNR=51						
ARCES				LR	LR	01 20 03.1	
	comp=E,336nm,18.8s,MS4.7,baz=27,slow=39						
GERES	**GERESS Array B**	80.84	319	P	P	00 41 31.4	+0.7
	comp=E,1.8nm,0.4s,mb4.3,baz=122,slow=5.8,SNR=21						
KHC	**Kasperske Hory**	80.94	319	*e*P	P	00 41 31.5	+0.3
NB2	**NORSAR Subarra**	82.97	331	P	P	00 41 40.5	-1.0
	comp=E,13nm,1.2s,mb4.8,baz=95,slow=5.0						
NOA	**NORSAR Array B**	82.97	331	P	P	00 41 40.2	-1.3
	comp=E,2.0nm,0.8s,mb4.2,baz=96,slow=5.7,SNR=4.4						
DBIC	**Dimbokro**	99.31	278	LR	LR	01 28 31.7	
	comp=E,79nm,20.0s,MS4.2,baz=357,slow=36						
PDAR	**Pinedale Array**	127.77	23	PKP	PKPdf	00 48 22.8	+1.6
	comp=E,0.4nm,0.5s,baz=89,slow=3.3,SNR=5.7						
TXAR	**Lajitas Array**	141.69	27	PKP	PKPdf	00 48 46.8	-0.7
	comp=E,0.2nm,0.4s,baz=275,slow=1.3,SNR=5.4						

*IDC **31** 00:32:00.4±0.7, 8.01N×93.64E, mb4.1/15, mb1 4.3/16, mb1mx4.2/19, mbtmp4.1/16, ML4.0/1, MS3.9/7, Ms1 3.9/7, ms1mx3.7/24, Error ellipse: s-maj=36.2km s-min=15.5km az=52.0*

*MOS **31** 00:32:05.4±2.8, 8.52N×94.55E, h33^{km}, mb4.9/16, Error ellipse: s-maj=21.5km s-min=10.3km az=125.2*

*NEIC **31** 00:32:05.3±0.5, 8.49N×94.13E, h30^{km}, mb4.8/14, Error ellipse: s-maj=12.5km s-min=9.8km az=49.0*

*BJI **31** 00:32:07.2, 8.50N×94.10E, h30^{km}, mB5.1, mb4.3, Ms4.4, Msz4.1*

ISC 31 00:32:03.3±0.4**, 8.35N**±0.07×**94.04E**±0.09**, h30^{km}, n73, σ1^{s}02**/63**, mb4.5**/35**, MS4.0**/7**, 2C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	11.12	25	*e*Pn	P	00 34 40.1	-3.5
	15nm,0.9s						
CMAR	**Chiang Mai Arr**	11.12	25	Pn	P	00 34 47.2	+3.7
	0.3nm,0.3s,baz=215,slow=14,SNR=5.6						
CMAR				LR	LR	00 38 51.9	
	comp=Z,195nm,19.6s,baz=210,slow=36						
SHL	**Shillong**	17.24	353	*e*	P	00 36 03.0	-0.7
HYB	**Hyderabad**	17.57	302	*e*P	P	00 36 16.0	+8.2
KMI	**Kunming**	18.63	25	P	P	00 36 22.5	+1.5
KMI				AMB	AMB		
	comp=Z,254nm,6.4s						
KMI				LR	LR		
	comp=N,601nm,17.4s						
KMI				LR	LR		
	comp=E,574nm,18.3s						
KMI				LR	LR		
	comp=Z,546nm,17.4s						
PKI	**Pulchoki**	20.79	338	*e*P	P	00 36 45.0	+0.3
	comp=Z,42nm,0.8s						
PKI	**Pulchoki**	20.79	338	*e*P	P	00 36 44.2	-0.5
	comp=Z,145nm,1.2s						
GUN	**Gumba**	20.93	339	*e*P	P	00 36 46.1	0.0
	comp=Z,145nm,1.2s						
GUN	**Gumba**	20.93	339	*e*P	P	00 36 45.9	-0.2
	comp=Z,163nm,1.2s						
DMN	**Daman**	20.93	337	*e*P	P	00 36 46.0	-0.2
	comp=Z,20nm,0.6s						
DMN	**Daman**	20.93	337	*e*P	P	00 36 45.7	-0.5
	comp=Z,74nm,1.0s						
KKN	**Kakani**	21.03	338	*e*P	P	00 36 47.1	-0.1
	comp=Z,54nm,0.7s,mb5.0						
KKN	**Kakani**	21.03	338	*e*P	P	00 36 46.8	-0.4
	comp=Z,121nm,1.1s,mb5.2						
LSA	**Lhasa**	21.41	353	*e*P	P	00 36 50.9	-0.1
LSA				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.3						
LSA	**Lhasa**	21.41	353	*e*P	P	00 36 50.9	-0.1
	comp=Z,12nm,0.8s,mb4.3						
GKN	**Gorkha**	21.47	337	*e*P	P	00 36 51.8	+0.2
GKN	**Gorkha**	21.47	337	*e*P	P	00 36 51.1	-0.5
	comp=Z,177nm,1.3s,mb5.2						
KOLN	**Koldanda**	21.69	334	*e*P	P	00 36 54.1	+0.3
	comp=Z,45nm,0.8s,mb5.0						
KOLN	**Koldanda**	21.69	334	*e*P	P	00 36 54.2	+0.4
	comp=Z,45nm,0.8s,mb5.0						
PTH	**Pithoragarh**	24.76	330	*e*	P	00 37 24.7	+0.8
NDI	**New Delhi**	25.69	324	*e*	P	00 37 32.0	-0.7
TGY	**Tagaytay City**	26.98	75	LR	LR	00 48 00.8	
	comp=Z,300nm,18.1s,MS3.9,baz=209,slow=35						
HHC	**Hu-ho-hao-te**	35.92	23	*e*P	pP	00 39 09.3	-2.7
HHC				AP	pP	00 39 14.3	+2.3
HHC				XP	sP	00 39 22.0	+6.2
HHC				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.6						
HHC				AMB	AMB		
	comp=Z,243nm,7.0s						
HHC				LR	LR		
	comp=N,358nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=E,360nm,11.9s,MS4.5						
HHC				LR	LR		
	comp=Z,300nm,14.3s,MS4.2						
AAK	**Ala-Archa**	38.23	336	⇑*e*P	P	00 39 21.8	-0.6
AAK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.6						
AAK	**Ala-Archa**	38.23	336	*e*P	P	00 39 20.6	-1.8
	comp=Z,12nm,1.1s,mb4.5						
SONM	**Songino Array**	40.72	13	P	P	00 39 46.6	+3.5
	comp=Z,0.5nm,0.6s,mb3.4,baz=192,slow=8.1,SNR=3.3						
NWAO	**Narrogin (SRO)**	46.62	153	P	P	00 40 31.2	+0.3
	comp=Z,22nm,1.1s,mb5.0,baz=311,slow=11,SNR=4.1						
NVS	**Novosibirsk**	47.16	351	*e*P	P	00 40 33.3	-1.6
NVS				pmax	pmax		
	comp=N,11nm,1.1s						
NVS				pmax	pmax		
	comp=E,7.0nm,1.1s						
NVS				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.9						
BVAR	**Borovoye Array**	48.51	341	P	P	00 40 47.4	+2.0
	comp=Z,1.4nm,0.8s,mb4.1,baz=145,slow=9.4,SNR=4.6						
WRA	**Warramunga Arr**	48.62	126	P	P	00 40 46.6	-0.1
	comp=Z,2.7nm,0.7s,mb4.4,baz=305,slow=8.9,SNR=7.2						
WRAB	**Tennant Creek**	48.62	126	*e*P	P	00 40 46.4	-0.4
WRAB				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
WRAB	**Tennant Creek**	48.62	126	*e*P	P	00 40 46.4	-0.4
	comp=Z,8.6nm,0.8s,mb4.8						
WB2	**Warramunga Arr**	48.63	126	*e*P	P	00 40 47.2	+0.4
CHKZ	**Chkalovo**	48.99	342	*e*P	P	00 40 48.0	-1.1
CHKZ				pmax	pmax		
	comp=Z,15nm,1.2s,mb4.9						
CHKZ	**Chkalovo**	48.99	342	*e*P	P	00 40 48.0	-1.1
	comp=Z,15nm,1.2s,mb4.9						
ASAR	**Alice Springs**	50.30	130	P	P	00 40 58.9	-0.7
	comp=Z,2.9nm,0.8s,mb4.3,baz=308,slow=7.3,SNR=11						
ASAR				LR	LR	01 05 34.0	
	comp=Z,75nm,19.6s,MS3.7,baz=198,slow=40						
BOD	**Bodaibo**	51.71	13	*e*P	P	00 41 11.2	+1.4
GNI	**Garni**	54.03	314	*i* P	pP	00 41 33.2	-3.2
GNI				pmax	pmax		
	comp=Z,17nm,1.2s						
GNI	**Garni**	54.03	314	*e*P	P	00 41 28.4	+1.2
	comp=Z,17nm,1.2s,mb4.9						
ARU	**Arti**	55.41	337	*i* P	P	00 41 38.7	+1.5
ARU				pmax	pmax		
	comp=Z,11nm,1.5s,mb4.7						
ZEI	**Tsey**	55.62	317	*e*P	pP	00 41 44.5	-3.6
ZEI				*i* *PP	pP	00 41 52.8	+4.7
ZEI				*i*		00 43 47.5	
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
PMG	**Port Moresby**	55.77	107	P	P	00 41 39.7	-0.6
PMG				pmax	pmax		
	comp=Z,6.0nm,0.7s						
PMG	**Port Moresby**	55.77	107	P	P	00 41 39.7	-0.7
	comp=Z,6.1nm,0.7s,mb4.7						
KIV	**Kislovodsk**	56.90	318	⇑*e*P	pP	00 41 53.6	-3.7
KIV				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KIV	**Kislovodsk**	56.90	318	*e*P	P	00 41 47.4	-0.7
	comp=Z,12nm,0.9s,mb4.9						
KMBO	**Kilima Mbogo**	57.37	263	*i* P	pP	00 41 58.8	-2.3
KMBO				pmax	pmax		
	comp=Z,3.0nm,0.8s						
KMBO	**Kilima Mbogo**	57.37	263	P	P	00 41 54.8	+3.0
	comp=Z,3.0nm,0.8s,mb4.4,baz=61,slow=11,SNR=7.1						
KMBO				LR	LR	01 03 15.4	
	comp=Z,176nm,18.9s,MS4.2,baz=94,slow=33						
KMBO	**Kilima Mbogo**	57.37	263	P	P	00 41 53.3	+1.5
	comp=Z,3.5nm,0.9s,mb4.4						
MALT	**Malatya**	58.08	310	*e*P	P	00 41 55.5	-0.9
MALT				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.7						
MALT	**Malatya**	58.08	310	*e*P	P	00 41 55.5	-0.9
	comp=Z,8.5nm,1.2s,mb4.7						
CTA	**Charters Tower**	58.63	120	LR	LR	01 07 33.9	
	comp=Z,98nm,20.6s,MS3.9,baz=46,slow=36						
EIL	**Elat**	59.10	300	P	P	00 42 02.5	-1.1
	comp=Z,4.1nm,1.0s,mb4.4,baz=142,slow=19,SNR=3.3						
EIL	**Elat**	59.10	300	*e*P	P	00 42 03.2	-0.4
	comp=Z,16nm,1.3s,mb4.9						
STKA	**Stephens Creek**	60.51	134	P	P	00 42 12.7	-0.6
	comp=Z,1.9nm,0.7s,mb4.4,baz=25,slow=2.1,SNR=4.5						
STKA				LR	LR	01 09 12.0	
	comp=Z,101nm,18.2s,MS4.0,baz=256,slow=37						
BRTR	**Keskin Array B**	62.04	311	P	P	00 42 21.4	-2.1
	comp=Z,1.0nm,0.9s,mb4.0,baz=118,slow=4.7,SNR=3.4						
OBN	**Obninsk**	64.92	328	*i* P	pP	00 42 47.4	-4.2
OBN				pmax	pmax		
	comp=Z,28nm,1.9s,mb5.0						
TIXI	**Tiksi**	66.79	11	*e*P	P	00 42 54.2	+0.3
TIXI				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.6						
AKASG	**Malin Array Be**	67.72	322	P	P	00 42 59.5	-0.6
	comp=Z,0.2nm,0.3s,mb3.6,baz=92,slow=4.9,SNR=3.3						
LSZ	**Lusaka**	69.33	250	*e*P	P	00 43 11.3	+0.7
LSZ				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
LSZ	**Lusaka**	69.33	250	*e*P	P	00 43 11.3	+0.6
	comp=Z,6.0nm,1.0s,mb4.5						
FINES	**FINESS Array B**	72.24	332	*i* P	P	00 43 34.1	+6.6
FINES				pmax	pmax		
	comp=Z,14nm,1.1s						
FINES	**FINESS Array B**	72.24	332	P	P	00 43 26.9	-0.6
	comp=Z,3.9nm,0.9s,mb4.3,baz=101,slow=7.1,SNR=3.7						
KAF	**Kangasniemi**	72.32	333	*e*p	P	00 43 27.4	-0.5
ARCES	**ARCESS Array B**	74.78	340	P	P	00 43 43.9	+1.7
	comp=Z,5.9nm,1.0s,mb4.5,baz=101,slow=4.6,SNR=3.7						
BRG	**Berggiesshubel**	77.32	320	*e*P	pP	00 44 03.8	-2.5
	comp=Z,12nm,1.3s						
GERES	**GERESS Array B**	77.40	318	P	P	00 43 57.5	+0.2
	comp=Z,2.1nm,0.8s,mb4.1,baz=72,slow=4.2,SNR=4.5						

CLL	**Collm**	77.93	321	*e**PP	P	00 44 06.0	+5.9
NB2	**NORSAR Subarra**	79.27	331	P	P	00 44 07.0	-0.2
	comp=Z,11nm,1.1s,mb4.7,baz=96,slow=5.0						
NOA	**NORSAR Array B**	79.27	331	P	P	00 44 07.1	-0.1
	comp=Z,1.9nm,1.0s,mb4.0,baz=94,slow=5.3,SNR=2.4						
LPG	**La Plagne**	82.21	315	*e*P	P	00 44 23.4	+0.3
	comp=Z,21nm,1.1s,mb4.7						
ESDC	**Sonseca Array**	90.83	310	P	P	00 45 06.2	+0.8
	comp=Z,0.7nm,0.8s,mb4.1,baz=66,slow=4.2,SNR=3.7						
VNDA	**Vanda**	93.41	168	LR	LR	01 23 17.6	
	comp=Z,54nm,18.3s,MS4.0,baz=334,slow=33						
ILAR	**Eielson Array**	94.34	22	P	P	00 45 24.9	+4.0
	comp=Z,0.4nm,0.8s,mb3.9,baz=306,slow=5.7,SNR=4.2						

IDC 31 00:44:16.3±1.2**, 6.82N×92.83E, h37^{km}±7^{km}, mb3.4**/7**, mb1 3.6**/7**, mb1mx3.5**/17**, mbtmp3.7**/7**, Error ellipse: s-maj=55.6km s-min=16.9km az=53.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	42.48	14	P	P	00 52 08.0	-1.7
	0.4nm,0.5s,baz=194,slow=9.4,SNR=6.6						
SONM				PcP	PcP	00 54 00.4	-2.2
	0.3nm,0.5s,baz=201,slow=4.6,SNR=5.1						
WRA	**Warramunga Arr**	48.73	124	P	P	00 52 57.5	-2.3
	0.5nm,0.5s,baz=303,slow=8.8,SNR=6.7						
WRA				pP	pP	00 53 08.3	-2.1
	1.0nm,0.7s,baz=304,slow=9.0,SNR=5.9						
BVAR	**Borovoye Array**	49.58	342	P	P	00 53 03.3	-2.5
	0.6nm,0.7s,baz=130,slow=11,SNR=4.0						
BVAR				pP	pP	00 53 14.5	-2.0
	0.3nm,0.6s,baz=148,slow=14,SNR=2.3						
ASAR	**Alice Springs**	50.26	128	P	P	00 53 09.2	-2.3
	0.4nm,0.5s,baz=303,slow=7.5,SNR=6.2						
ASAR				pP	pP	00 53 20.3	-1.8
	0.5nm,0.5s,baz=301,slow=7.4,SNR=3.5						
STKA	**Stephens Creek**	60.33	133	P	P	00 54 22.0	-2.2
	1.1nm,0.7s,baz=315,slow=10.0,SNR=2.9						
BRTR	**Keskin Array B**	62.14	311	P	P	00 54 33.9	-2.5
	0.7nm,0.6s,baz=108,slow=7.8,SNR=3.6						
GERES	**GERESS Array B**	77.75	318	P	P	00 56 10.2	-1.1
	0.5nm,0.7s,baz=112,slow=5.3,SNR=3.2						

IDC 31 00:45:37.2±2.5**, 2.67N×93.81E, mb3.7**/5**, mb1 3.9**/6**, mb1mx3.7**/18**, mbtmp3.7**/6**, ML3.2**/1**, Error ellipse: s-maj=89.8km s-min=23.5km az=64.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	16.47	17	Pn	P	00 49 31.4	-0.2
	0.0nm,0.3s,baz=211,slow=12,SNR=5.4						
WRA	**Warramunga Arr**	45.69	121	P	P	00 54 00.0	-2.0
	0.8nm,0.8s,baz=302,slow=8.7,SNR=2.7						
SONM	**Songino Array**	46.28	12	P	P	00 54 04.1	-2.3
	0.9nm,0.9s,baz=188,slow=8.9,SNR=6.2						
ASAR	**Alice Springs**	46.99	126	P	P	00 54 10.6	-1.7
	0.8nm,0.7s,baz=294,slow=7.8,SNR=4.4						
BVAR	**Borovoye Array**	53.80	343	P	P	00 55 01.8	-2.1
	0.6nm,0.6s,baz=143,slow=7.4,SNR=5.2						
STKA	**Stephens Creek**	56.86	131	P	P	00 55 24.0	-2.3
	1.3nm,0.9s,baz=319,slow=11,SNR=2.8						

IDC 31 01:03:36.6±1.4**, 5.03N×93.25E, mb3.7**/5**, mb1 3.8**/6**, mb1mx3.7**/18**, mbtmp3.7**/6**, ML2.9**/1**, Error ellipse: s-maj=52.1km s-min=21.9km az=53.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.46	22	Pn	P	01 07 04.0	-0.7
	0.0nm,0.3s,baz=216,slow=13,SNR=6.2						
SONM	**Songino Array**	44.11	13	P	P	01 11 46.3	-2.2
	0.6nm,0.7s,baz=197,slow=6.2,SNR=5.2						
WRA	**Warramunga Arr**	47.41	123	P	P	01 12 12.0	-3.1
	1.2nm,0.8s,baz=302,slow=9.5,SNR=4.1						
ASAR	**Alice Springs**	48.84	127	P	P	01 12 25.4	-0.8
	0.7nm,0.8s,baz=315,slow=7.7,SNR=3.7						
BVAR	**Borovoye Array**	51.40	343	P	P	01 12 43.6	-1.6
	0.9nm,0.5s,baz=135,slow=8.4,SNR=9.9						
BRTR	**Keskin Array B**	63.63	312	P	P	01 14 09.4	-2.5
	0.7nm,0.5s,baz=133,slow=9.1,SNR=5.5						

IDC 31 01:05:47.8±2.0**, 4.70N×94.07E, mb4.0**/3**, mb1 4.2**/4**, mb1mx3.7**/17**, mbtmp4.0**/4**, ML3.7**/1**, Error ellipse: s-maj=84.7km s-min=29.4km az=55.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	14.48	19	Pn	P	01 09 14.7	-1.5
	0.1nm,0.3s,baz=209,slow=11,SNR=9.5						
WRA	**Warramunga Arr**	46.55	123	P	P	01 14 16.7	-2.6
	1.3nm,0.8s,baz=304,slow=9.2,SNR=4.9						
ASAR	**Alice Springs**	48.00	128	P	P	01 14 29.4	-1.3
	1.3nm,0.6s,baz=301,slow=7.7,SNR=11						
FINES	**FINESS Array B**	75.47	333	P	P	01 17 33.5	-1.8
	4.2nm,1.0s,baz=117,slow=6.2,SNR=4.2						

NAO ***31*** *01:07:01.6±2.9, 67.14N×20.75E, ML2.1*
BER ***31*** *01:07:05.0±2.5, 67.18N×20.83E, ML1.7, ML2.1(NAO), Suspected explosion*
HEL 31 01:07:03.3±0.2**, 67.09N×21.05E, ML1.7**(BER)**, ML2.1**(NAO)**, Explosion, Sweden**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KTK1	**Kautokeino**	2.10	22	*e*P	Pn	01 07 39.7	-0.4
KTK1				*e*Sg	Sg	01 08 07.9	-5.2
KTK1				AML	AML	01 08 08.9	
	comp=Z,11nm,0.3s						
SGF	**Sodankyl**	2.16	78	*e*P	Pn	01 07 40.5	-0.4
SGF				*e*S	Sn	01 08 07.4	-1.5
OUL	**Oulu**	2.82	133	*e*S	Sn	01 08 23.2	-2.5
ARA0	**ARCESS Array S**	2.96	32	Pn	Pn	01 07 50.1	-2.3
	baz=217,slow=12						
ARA0				Sn	Sn	01 08 26.1	-3.1
	baz=217,slow=28						
ARA0	**ARCESS Array S**	2.96	32	*e*P	Pn	01 07 50.1	-2.3
ARA0				*e*S	Sn	01 08 26.1	-3.1
FIA0	**FINESS Array S**	6.08	157	Sn	Sn	01 09 42.1	-5.8
FIA0				Lg		01 10 16.9	
	baz=345,slow=28						
FIA0	**FINESS Array S**	6.08	157	*e*S	Sn	01 09 42.1	-5.8
HFS	**Hagfors**	7.71	209	Sn	Sn	01 10 20.1	-8.5
	baz=32,slow=22						
HFS	**Hagfors**	7.71	209	*e*S	Sn	01 10 20.1	-8.5

SKHL ***31*** *01:12:21.3±3.6, 48.59N×156.55E, h58^{km}±8^{km}, mb5.2/1, Ms4.1/1, msh5.2/1*
BJI ***31*** *01:12:25.9, 49.36N×156.59E, h48^{km}, mB5.0, mb4.6, Ms4.6, Msz4.4*
MOS ***31*** *01:12:28.6±0.8, 49.29N×155.96E, h33^{km}, mb5.1/33, Error ellipse: s-maj=18.3km s-min=6.3km az=99.2*
NEIC ***31*** *01:12:28.9±2.1, 49.20N×156.06E, h29^{km}±14^{km}, mb4.8/39, Error ellipse: s-maj=12.2km s-min=6.4km az=145.0*
IDC ***31*** *01:12:29.5±4.2, 49.05N×156.10E, h43^{km}±39^{km}, mb4.0/17, mb1 4.3/18, mb1mx4.1/26, mbtmp4.3/18, ML3.7/1, MS3.4/2, Ms1 3.4/2, ms1mx2.8/30, Error ellipse: s-maj=26.1km s-min=16.4km az=168.0*
CSEM ***31*** *01:12:42.8, 51.44N×154.32E, h33^{km}, mb5.6*
ISC 31 01:12:24.5±2.3**, 49.20N**±0.07×**156.03E**±0.09**, h10^{km}**±13^{km}**, n150, σ0^{s}90**/151**, mb4.6**/60**, MS3.6**/3**, 3D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	1.49	2	*e*PN	Pn	01 12 52.0	+0.6
SKR				*e*S	Sb	01 13 15.0	+4.5
SKR				pmax	pmax		
	comp=Z,460nm,0.5s						
SKR	**Severo-Kuril's**	1.49	2	*e*P	Pn	01 12 52.0	+0.6
SKR				AMB	AMB	01 12 55.0	
	comp=Z,530nm,0.5s						
SKR				AMB	AMB	01 12 55.0	
	comp=Z,200nm,0.5s						
SKR				AMB	AMB	01 12 55.0	
	comp=Z,460nm,0.5s						
SKR				*e*S	Sb	01 13 15.0	+4.5
SKR				A		01 13 23.0	
	comp=Z,5µm,2.0s						
SKR				A		01 13 23.0	
	comp=Z,4µm,2.0s						
SKR				A		01 13 24.5	
	comp=Z,1µm,0.5s						
SKR				A		01 13 24.5	
	comp=Z,2µm,0.5s						
SKR				AMS	AMS	01 13 44.0	
	comp=Z,5µm,13.0s						
PET	**Petropavlovsk**	4.17	22	*e*Pn	Pn	01 13 30.6	+0.9
PET				*e*Sn	Sn	01 14 19.1	+0.1
PET	**Petropavlovsk**	4.17	22	*e*P	Pn	01 13 30.9	+1.2
TYV	**Tymovskoe**	8.77	286	*e*P	P	01 14 36.0	+1.7
UGL	**Uglegorsk**	9.16	275	*e*rx	rx	01 17 34.0	
NKL	**Nikolayevsk**	10.41	298	*e*P	P	01 14 56.0	-0.9
ASAJ	**Asahikawa**	10.54	246	P	P	01 14 59.4	+0.8
	comp=Z,0.8nm,0.3s,baz=75,slow=15,SNR=3.8						
ASAJ				LR	LR	01 19 01.2	
	comp=Z,399nm,18.2s,baz=100,slow=37						
MA2	**Magadan**	10.84	346	PN	P	01 15 19.4	+17
MA2				pmax	pmax		
	comp=Z,30nm,1.9s						
EKMR	**Ekimchan**	14.98	294	*e*rx	rx	01 16 03.5	
KLR	**Kul'dur**	15.85	279	*e*P	P	01 16 13.9	+4.8
KLR				MLR	MLR		
	comp=Z,2µm,12.0s						
KLR	**Kul'dur**	15.85	279	*e*rx	rx	01 16 13.9	
KLR				*e*rx	rx	01 23 57.5	
BMKR	**Bomnak**	17.58	299	*e*P	P	01 16 31.1	+0.2
BMKR				AMB	AMB	01 16 32.4	
	comp=Z,10.0nm,0.6s						
YASR	**Yasnyy**	17.98	294	*e*P	P	01 16 34.7	-1.1
YASR				AMB	AMB	01 16 41.7	
	comp=Z,10.0nm,0.7s						
MAJO	**Matsushiro**	18.13	232	*e*P	P	01 16 38.8	+0.9
MAJO				pmax	pmax		
	comp=Z,9.0nm,0.8s						
MAJO	**Matsushiro**	18.13	232	*e*P	P	01 16 38.8	+1.0
	comp=Z,8.9nm,0.8s						
KROS	**Kirovskiy**	18.63	297	*e*P	P	01 16 42.4	-1.6
KROS				AMB	AMB	01 16 43.2	
	comp=Z,2.0nm,0.5s						
YAK	**Yakutsk**	19.48	321	*e*P	P	01 16 52.8	-1.1
YAK				pmax	pmax		
	comp=N,3.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,19nm,1.0s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.1s						
YAK	**Yakutsk**	19.48	321	*e*P	P	01 16 53.1	-0.8
	comp=E,30nm,0.7s						
CBIJ	**Chichi jima**	24.53	211	LR	LR	01 26 33.7	
	comp=E,37nm,18.2s,MS2.9,baz=83,slow=35						
TIXI	**Tiksi**	25.74	341	*e*P	P	01 17 54.6	-1.6
TIXI				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.5						
TIXI				MLR	MLR		
	comp=Z,132nm,15.0s,MS3.6						
IMA	**Indian Mountai**	30.67	38	*e*P	P	01 18 40.5	-0.4
SSE	**Sheshan**	31.82	248	*e*P	P	01 18 50.5	-0.8
SSE				AMB	AMB		
	comp=Z,21nm,0.7s,mb5.1						
SSE				AMB	AMB		
	comp=Z,249nm,4.3s						
SONM	**Songino Array**	32.44	287	P	P	01 18 55.4	-1.1
	comp=Z,1.5nm,1.3s,mb3.7,baz=76,slow=7.9,SNR=4.1						
NJ2	**Nanjing**	32.60	252	*e*P	P	01 18 59.5	+1.4
NJ2				PP	PP	01 20 12.5	+5.6
NJ2				S	S	01 24 11.0	-1.6
NJ2				AMB	AMB		
	comp=Z,120nm,5.4s						
NJ2				LR	LR		
	comp=N,470nm,14.5s,MS4.5						
NJ2				LR	LR		
	comp=E,470nm,15.2s,MS4.5						
NJ2				LR	LR		
	comp=Z,600nm,18.0s,MS4.3						
COLA	**College**	33.00	41⇓	*e*P	P	01 18 59.4	-1.9
ILAR	**Eielson Array**	33.41	41	P	P	01 19 03.4	-1.4
	comp=Z,1.2nm,0.8s,mb3.9,baz=259,slow=7.1,SNR=8.6						
ZAK	**Zakamensk**	33.48	293	*e*P	P	01 19 04.2	-1.4
WHN	**Wuhan**	36.45	255	P	P	01 19 31.0	-0.2
INK	**Inuvik**	38.53	34	P	P	01 19 48.5	+0.3
	comp=Z,4.1nm,0.8s,mb4.2,baz=288,slow=7.6,SNR=7.0						
ENH	**Enshi**	39.74	259	*e*P	P	01 19 59.4	+0.6
	comp=Z,3.7nm,0.3s,mb4.6						
GTA	**Gaotai**	40.55	278	P	P	01 20 05.8	+0.5
GTA				AMB	AMB		
	comp=Z,4.0nm,0.9s,mb4.0						
YKA	**Yellowknife Ar**	47.79	39	*i* P	P	01 21 02.6	-0.6
YKA				pmax	pmax		
	comp=Z,2.0nm,0.9s						
YKA	**Yellowknife Ar**	47.79	39	P	P	01 21 02.5	-0.7
	comp=Z,1.9nm,0.9s,mb4.1,baz=296,slow=7.6,SNR=20						
CHKZ	**Chkalovo**	50.37	310	*e*P	P	01 21 21.4	-1.8
CHKZ				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.7						
CHKZ	**Chkalovo**	50.37	310	*e*P	P	01 21 21.4	-1.8
	comp=Z,3.4nm,0.4s,mb4.7						
BVAR	**Borovoye Array**	50.83	309	P	P	01 21 25.8	-0.9
	comp=Z,1.4nm,0.4s,mb4.3,baz=54,slow=8.3,SNR=23						
BVAR				PcP	PcP	01 22 42.0	-1.8
	comp=Z,0.4nm,0.4s,baz=63,slow=3.2,SNR=1.9						
BRVK	**Borovoye**	50.86	309	*e*P	P	01 21 25.7	-1.3
BRVK				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
BRVK	**Borovoye**	50.86	309	*e*P	P	01 21 25.7	-1.3
	comp=Z,3.6nm,0.8s,mb4.3						
AAK	**Ala-Archa**	54.51	296	*e*P	P	01 21 53.4	-0.9
AAK				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.5						
AAK	**Ala-Archa**	54.51	296	*e*P	P	01 21 53.4	-0.9
	comp=Z,4.5nm,1.0s,mb4.5						
ARU	**Arti**	54.53	317⇓	*i*P	P	01 21 53.1	-1.2
ARU				*e*		01 23 00.7	
ARU				*e*		01 23 58.2	
ARU				*e*S	S	01 29 27.7	-4.0
ARU				*e*SS	SS	01 33 16.1	+2.1
ARU				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.9						
ARCES	**ARCESS Array B**	56.17	341	P	P	01 22 03.5	-2.5
	comp=Z,3.0nm,0.9s,mb4.3,baz=37,slow=6.1,SNR=5.0						
SUMG	**Summit**	58.10	5	*e*P	P	01 22 19.8	+0.2
SUMG				*e*		01 22 32.0	
BOZ	**Bozeman (W)**	58.73	55	*e*P	P	01 22 23.5	-0.9
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
BOZ	**Bozeman (W)**	58.73	55	*e*P	P	01 22 23.5	-0.9
	comp=Z,1.9nm,0.8s,mb4.2						
BW06	**Boulder Array**	61.74	56	*e*P	P	01 22 44.1	-1.0
	comp=Z,1.5nm,0.9s,mb4.1						
PDAR	**Pinedale Array**	61.74	56	P	P	01 22 43.8	-1.3
	comp=Z,1.1nm,0.8s,mb4.0,baz=263,slow=2.4,SNR=7.4						
FINES	**FINESS Array B**	62.64	335	P	P	01 22 48.9	-1.9
	comp=Z,9.1nm,1.1s,mb4.8,baz=37,slow=7.6,SNR=14						
OBN	**Obninsk**	64.38	326	*e*P	P	01 23 00.6	-1.6
OBN				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.9						
AKASG	**Malin Array Be**	70.57	327	P	P	01 23 39.8	-1.4
	comp=Z,0.5nm,0.3s,mb3.9,baz=35,slow=6.5,SNR=4.7						
WRA	**Warramunga Arr**	71.49	202	P	P	01 23 44.1	-3.1
	comp=Z,1.0nm,1.0s,mb3.7,baz=18,slow=6.8,SNR=4.5						
SOC	**Sochi**	72.11	317	*e*P	P	01 23 47.6	-3.0
SOC				*e*		01 24 12.2	
SOC				*e*		01 26 37.3	
SOC				*e*PPP	PPP	01 28 14.7	+0.1
SOC				*e*S	S	01 32 59.0	-12
SOC				*e*SS	SS	01 37 53.7	+3.4
SOC				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.0						
SOC				pmax	pmax		
	comp=N,11nm,1.1s						
SOC				pmax	pmax		
	comp=E,13nm,1.1s						
KWP	**Kalwaria**	73.69	330	*e*P	P	01 23 59.1	-0.5
OJC	**Ojcow**	74.09	332	*e*P	P	01 24 02.4	+0.5
EKA	**Eskdalemuir Ar**	74.39	348	P	P	01 24 03.6	+0.1
	comp=E,3.7nm,0.7s,mb4.4,baz=20,slow=5.2,SNR=15						
KOLS	**Kolonicke sedl**	74.44	330	*i* P	P	01 24 04.3	+0.3
TXAR	**Lajitas Array**	74.61	63	P	P	01 24 04.2	-1.1
	comp=E,1.0nm,0.4s,mb4.1,baz=297,slow=5.2,SNR=34						
NIE	**Niedzica**	74.64	332	*e*P	P	01 24 05.5	+0.4
OKC	**Ostrava-Krasne**	74.92	333	*e*P	P	01 24 06.5	-0.2
UPC	**Upice**	74.93	335	*e*P	P	01 24 07.0	+0.2
DPC	**Dobruska-Polom**	74.99	335	*e*P	P	01 24 07.9	+0.8
CLL	**Collm**	75.01	337	*i* P	P	01 24 07.3	+0.1
CLL				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
CLL	**Collm**	75.01	337	*i* P	P	01 24 07.3	+0.1
	comp=Z,16nm,1.0s,mb4.9						
CLL	**Collm**	75.01	337	P	P	01 24 07.3	+0.1
	comp=Z,logA/T=1.2,mb4.9						
MORC	**Moravsky Berou**	75.15	334	*e*P	P	01 24 08.0	-0.1
MORC				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
MORC	**Moravsky Berou**	75.15	334	*e*P	P	01 24 08.0	-0.1
	comp=Z,12nm,0.8s,mb4.9						
BRG	**Berggiesshubel**	75.16	336	*e*P	P	01 24 08.5	+0.4
BRG				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.6						
BRG	**Berggiesshubel**	75.16	336	*e*P	P	01 24 08.5	+0.4
	comp=Z,11nm,1.3s,mb4.6						
CLZ	**Clausthal**	75.17	339	*e*P	P	01 24 08.8	+0.7
	comp=Z,19nm,1.0s,mb5.0						
PRU	**Pruhonice**	75.81	336	*e*P	P	01 24 12.3	+0.5
VRAC	**Vranov**	75.85	334	P	P	01 24 12.5	+0.5
	comp=Z,8.9nm,0.7s,mb4.8,baz=37,slow=6.3,SNR=15						
VYHS	**Vyhne**	75.91	332	*e*P	P	01 24 12.7	+0.3
VYHS				*e*PP	PP	01 27 00.6	-4.0
MOX	**Moxa**	75.97	338	*e*P	P	01 24 12.6	-0.1
MOX				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
MOX	**Moxa**	75.97	338	*i* P	P	01 24 12.6	-0.1
	comp=Z,logA/T=0.9,mb4.6						
MOX	**Moxa**	75.97	338	*e*P	P	01 24 12.6	-0.1
	comp=Z,8.0nm,1.1s,mb4.6						
NKC	**Novy Kostel**	76.14	337	*e*P	P	01 24 14.2	+0.5
MLR	**Muntele Rosu**	76.15	326	P	P	01 24 14.6	+0.7
	comp=Z,7.1nm,0.8s,mb4.7,baz=315,slow=7.1,SNR=17						
SMOL	**Smolenice**	76.31	333	*i* P	P	01 24 16.1	+1.4
ZST	**Bratislava**	76.70	333	*e*P	P	01 24 18.2	+1.4
KHC	**Kasperske Hory**	76.85	336	*e*P	P	01 24 18.4	+0.7
MALT	**Malatya**	76.88	314	*e*P	P	01 24 18.9	+0.8
MALT				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
MALT	**Malatya**	76.88	314	*e*P	P	01 24 18.9	+0.8
	comp=Z,8.0nm,0.9s,mb4.7						
GRA1	**Grafenberg Arr**	76.95	337	*e*P	P	01 24 19.1	+0.9
	comp=Z,24nm,1.0s,mb5.1						
GRF	**Grafenberg Arr**	76.95	337	*e*P	P	01 24 19.1	+0.9
GRF				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
GRF	**Grafenberg Arr**	76.95	337	*e*P	P	01 24 19.1	+0.9
GRF				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.1						
GRF	**Grafenberg Arr**	76.95	337	*e*P	P	01 24 19.1	+0.9
	comp=Z,24nm,1.0s,mb5.1						
WET	**Wettzell**	77.02	336	*e*P	P	01 24 19.5	+0.9
WET				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
WET	**Wettzell**	77.02	336	*e*P	P	01 24 19.5	+0.9
	comp=Z,8.0nm,0.9s,mb4.7						
GEC2	**GERESS Array S**	77.08	336	*e*P	P	01 24 19.4	+0.5
GEC2				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.3						
GEC2	**GERESS Array S**	77.08	336	*e*P	P	01 24 19.4	+0.5
	comp=Z,4.0nm,1.0s,mb4.3						
GERES	**GERESS Array B**	77.08	336	P	P	01 24 19.2	+0.3
	comp=Z,2.2nm,0.7s,mb4.2,baz=34,slow=4.8,SNR=19						
BRTR	**Keskin Array B**	77.91	318	P	P	01 24 23.5	-0.2
	comp=Z,5.2nm,0.9s,mb4.5,baz=63,slow=2.8,SNR=18						
BAIF	**Baives**	78.20	342	*e*P	P	01 24 25.5	+0.4
	comp=Z,11nm,0.9s,mb4.5						
BAIF	**Baives**	78.20	342	*e*P	P	01 24 25.5	+0.4
BAIF				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.4						
RHK1	**Bakonya**	78.28	332⇓	*e*P	P	01 24 25.6	0.0
CDF	**Champ du Feu**	79.09	339	*e*P	P	01 24 30.2	+0.2
	comp=Z,14nm,1.0s,mb4.6						
CDF	**Champ du Feu**	79.09	339	*e*P	P	01 24 30.2	+0.2
CDF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
MEZF	**Maizieres J'vi**	79.50	341	*e*P	P	01 24 32.8	+0.6
	comp=Z,34nm,1.1s,mb4.9						
HAU	**Haudompre**	79.69	340	*e*P	P	01 24 33.3	+0.1
	comp=Z,6.7nm,0.8s,mb4.3						
HAU	**Haudompre**	79.69	340	*e*P	P	01 24 33.3	+0.1
HAU				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
DAVOX	**Davos**	79.98	337	P	P	01 24 35.6	+0.7
	comp=Z,2.9nm,0.7s,mb4.3,baz=355,slow=5.4,SNR=5.3						
FLN	**La Foliniere**	80.34	344	*e*P	P	01 24 37.1	+0.4
LDF	**La Druitiere**	80.44	344	*e*P	P	01 24 37.6	+0.4
GRR	**Gorron**	80.76	345	*e*P	P	01 24 39.6	+0.6
	comp=Z,15nm,0.9s,mb4.6						
GRR	**Gorron**	80.76	345	*e*P	P	01 24 39.6	+0.6
GRR				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.6						
CABF	**La Chapelle**	81.06	340	*e*P	P	01 24 40.3	-0.3
	comp=Z,92nm,1.8s,mb5.1						
CABF	**La Chapelle**	81.06	340	*e*P	P	01 24 40.3	-0.3
CABF				pmax	pmax		
	comp=Z,46nm,1.8s,mb5.1						
SGMF	**Saint Gilles**	81.18	346	*e*P	P	01 24 41.6	+0.4
	comp=Z,29nm,1.0s,mb4.9						
SGMF	**Saint Gilles**	81.18	346	*e*P	P	01 24 41.6	+0.4
SGMF				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
SSF	**Saint Saulge**	81.20	341	*e*P	P	01 24 41.9	+0.6
	comp=Z,30nm,1.5s,mb4.7						
SSF	**Saint Saulge**	81.20	341	*e*P	P	01 24 41.9	+0.6
SSF				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.7						
ROSF	**Rostrenen**	81.21	346	*e*P	P	01 24 42.1	+0.8
	comp=Z,65nm,1.3s,mb5.1						
ROSF	**Rostrenen**	81.21	346	*e*P	P	01 24 42.1	+0.8
ROSF				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.1						
AVF	**Avril sur Loir**	81.49	341	*e*P	P	01 24 42.9	+0.1
	comp=Z,16nm,1.1s,mb4.6						
AVF	**Avril sur Loir**	81.49	341	*e*P	P	01 24 42.9	+0.1
AVF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.6						
SMF	**Signal de Mont**	81.53	341	*e*P	P	01 24 41.9	-1.1
QUIF	**Quistinic**	81.60	346	*e*P	P	01 24 42.8	-0.6
	comp=Z,77nm,1.4s,mb5.1						
QUIF	**Quistinic**	81.60	346	*e*P	P	01 24 42.8	-0.6
QUIF				pmax	pmax		
	comp=Z,38nm,1.4s,mb5.1						
BGF	**Bois d'Agland**	81.82	342	*e*P	P	01 24 44.9	+0.4
	comp=Z,76nm,1.6s,mb5.1						
BGF	**Bois d'Agland**	81.82	342	*e*P	P	01 24 44.9	+0.4
BGF				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.1						
LPL	**La Plagne**	81.94	339	*e*P	P	01 24 46.1	+0.9
LPG	**La Plagne**	81.95	339	*e*P	P	01 24 46.3	+1.1
	comp=Z,12nm,1.0s,mb4.4						
LPG	**La Plagne**	81.95	339	*e*P	P	01 24 46.3	+1.1
LPG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.5						
TCF	**Toulx Ste Croi**	82.21	342	*e*P	P	01 24 47.3	+0.8
	comp=Z,76nm,1.8s,mb5.0						
TCF	**Toulx Ste Croi**	82.21	342	*e*P	P	01 24 47.3	+0.8
TCF				pmax	pmax		
	comp=Z,38nm,1.8s,mb5.0						
MFF	**Saint Martin d**	82.36	344	*e*P	P	01 24 47.7	+0.4
MBDF	**Montbardon**	82.68	338	*e*P	P	01 24 49.9	+0.9
ORIF	**Oris-en-Rattie**	82.71	339	*e*P	P	01 24 49.3	+0.1
VIVF	**Saint-Julien-l**	83.04	340	*e*P	P	01 24 51.5	+0.6
RJF	**Les Rejaudoux**	83.29	342	*e*P	P	01 24 52.2	0.0
	comp=Z,25nm,1.2s,mb4.8						
RJF	**Les Rejaudoux**	83.29	342	*e*P	P	01 24 52.2	0.0
RJF				pmax	pmax		
	comp=Z,12nm,1.2s,mb4.8						
SBF	**Sospel**	83.33	338	*e*P	P	01 24 53.1	+0.7
	comp=Z,57nm,1.1s,mb5.2						
SBF	**Sospel**	83.33	338	*e*P	P	01 24 53.1	+0.7
SBF				pmax	pmax		
	comp=Z,28nm,1.1s,mb5.2						
CAF	**Calviac**	83.54	342	*e*P	P	01 24 53.9	+0.5
SMRF	**Simiane la Rot**	83.67	339	*e*P	P	01 24 54.2	+0.2
	comp=Z,38nm,1.2s,mb5.1						
LFF	**La Frestale**	83.79	343	*e*P	P	01 24 55.1	+0.5
FRF	**La Foret Royal**	83.80	338	*e*P	P	01 24 55.1	+0.4
	comp=Z,9.6nm,0.8s,mb4.7						
FRF	**La Foret Royal**	83.80	338	*e*P	P	01 24 55.1	+0.4
FRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.7						
LASF	**Ste Croix**	83.97	340	*e*P	P	01 24 55.7	+0.2

PGF	Pioggiola	84.15	336	eP	P	01 24 57.2	+0.7
	comp=Z,67nm,1.2s,mb5.3						
PGF	Pioggiola	84.15	336	eP	P	01 24 57.2	+0.7
PGF				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.3						
MTLF	Montolieu	85.02	341	eP	P	01 25 01.5	+0.6
EPF	Esparros	85.71	342	eP	P	01 25 03.8	-0.5
	comp=Z,42nm,1.5s,mb5.2						
EPF	Esparros	85.71	342	eP	P	01 25 03.8	-0.5
EPF				pmax	pmax		
	comp=Z,21nm,1.5s,mb5.2						
SJPF	Ste Jean	85.93	344	eP	P	01 25 05.6	+0.2
ETSF	Etsaut	86.01	343	eP	P	01 25 06.5	+0.7
	comp=Z,7.7nm,0.8s,mb4.7						
ETSF	Etsaut	86.01	343	eP	P	01 25 06.5	+0.7
ETSF				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.7						
ESDC	Sonseca Array	89.76	345	P	P	01 25 25.5	+1.6
	comp=Z,0.8nm,0.7s,mb4.2,baz=359,slow=4.4,SNR=5.7						
EVO	Evora	91.51	348	eP	P	01 25 31.6	-0.4
	comp=Z,41nm,1.4s,mb5.3						

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*IDC **31** 01:14:17.3±1.1, 6.00N×94.96E, mb4.0/8, mb1 4.2/9, mb1mx4.0/18, mbtmp4.0/9, ML4.4/1, Error ellipse: s-maj=51.1km s-min=18.9km az=57.0*

ISC 31 01:14:20.8±0.9, **6.1N**±0.1×**95.1E**±0.2, **h33**^{km}**, n9,** σ**0**^{s}**98**/9, **mb4.0**/8, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.86	17	Pn	P	01 17 23.9	-0.1
	0.7nm,0.3s,baz=212,slow=14,SNR=14						
SONM	Songino Array	42.71	11	P	P	01 22 17.1	+0.6
	3.5nm,0.9s,mb4.1,baz=191,slow=8.6,SNR=14						
WRA	Warramunga Arr	46.47	125	P	P	01 22 47.7	+0.7
	1.1nm,0.8s,mb3.8,baz=309,slow=9.1,SNR=3.8						
ASAR	Alice Springs	48.06	129	P	P	01 23 00.2	+0.7
	1.0nm,0.7s,mb3.9,baz=310,slow=7.0,SNR=4.3						
BVAR	Borovoye Array	50.97	341	P	P	01 23 20.6	-0.8
	1.6nm,1.0s,mb3.9,baz=135,slow=4.1,SNR=3.8						
STKA	Stephens Creek	58.20	133	P	P	01 24 12.4	-1.9
	0.9nm,0.5s,mb4.0,baz=338,slow=5.4,SNR=3.2						
FINES	FINESS Array B	74.72	332	P	P	01 25 58.2	-0.6
	3.3nm,0.8s,mb4.3,baz=108,slow=6.0,SNR=4.8						
ARCES	ARCESS Array B	77.25	340	P	P	01 26 12.7	-0.5
	2.8nm,1.0s,mb4.1,baz=101,slow=6.2,SNR=5.9						
GERES	GERESS Array B	79.78	318	P	P	01 26 29.0	+1.6
	2.6nm,1.1s,mb4.1,baz=90,slow=4.0,SNR=7.2						

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*IDC **31** 01:14:25.5±1.0, 6.64S×105.88E, mb4.6/6, mb1 4.7/6, mb1mx4.3/16, mbtmp4.5/6, Error ellipse: s-maj=57.6km s-min=21.7km az=41.0*

ISC 31 01:14:28.9±1.6, **6.7S**±0.4×**105.9E**±0.4, **h33**^{km}**, n11,** σ**0**^{s}**78**/8, **mb4.4**/7, **Sunda Strait**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	22.33	122	eP	P	01 19 26.3	+1.0
	10nm,1.2s,mb4.1						
WRA	Warramunga Arr	30.57	118	P	P	01 20 41.0	-1.0
	2.0nm,0.4s,mb4.3,baz=309,slow=8.9,SNR=43						
WRA				PcP	PcP	01 23 40.0	-0.3
	2.0nm,0.3s,baz=311,slow=2.1,SNR=31						
WB2	Warramunga Arr	30.58	118	eP	P	01 20 41.5	-0.6
ASAR	Alice Springs	31.75	125	P	P	01 20 51.9	-0.6
	2.7nm,0.8s,mb4.1,baz=302,slow=8.7,SNR=16						
ASAR				PcP	PcP	01 23 43.0	-0.5
	0.9nm,0.3s,baz=308,slow=2.2,SNR=6.8						
PMG	Port Moresby	40.90	97	P	P	01 22 10.5	+0.6
	7.8nm,0.5s,mb4.6,baz=304,slow=4.5,SNR=6.4						
STKA	Stephens Creek	41.66	132	P	P	01 22 16.8	+0.6
	12nm,0.5s,mb4.8,baz=309,slow=7.2,SNR=44						
SONM	Songino Array	54.25	0	PcP	PcP	01 24 57.8	-0.1
	0.9nm,0.4s,baz=188,slow=3.7,SNR=8.2						
BVAR	Borovoye Array	66.64	338	P	P	01 25 17.5	-0.8
	1.0nm,0.5s,mb4.1,baz=143,slow=9.6,SNR=4.7						
ARCES	ARCESS Array B	92.84	340	P	P	01 27 40.0	+0.9
	2.8nm,0.9s,mb4.7,baz=104,slow=7.8,SNR=5.2						
TXAR	Lajitas Array	144.12	47	PKP	PKPdf	01 34 02.5	+0.5
	1.0nm,0.5s,baz=298,slow=2.0,SNR=27						
BDFB	Brasilia	145.99	229	PKPbc	PKPbc	01 34 07.5	+1.0
	2.7nm,0.4s,baz=49,slow=1.9,SNR=6.3						

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*IDC **31** 01:15:23.4±0.9, 5.79N×91.07E, mb4.4/10, mb1 4.6/11, mb1mx4.3/20, mbtmp4.4/11, ML4.4/1, MS3.8/2, Ms1 3.9/2, ms1mx3.4/20, Error ellipse: s-maj=39.4km s-min=17.0km az=47.0*

ISC 31 01:15:26.6±0.7, **5.84N**±0.09×**91.18E**±0.10, **h33**^{km}**, n35,** σ**0**^{s}**94**/39, **mb4.7**/15, **MS3.9**/2, **1C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
VIS	Vishakhapatnam	14.08	328	eP	P	01 18 44.3	-1.8
VIS				e		01 18 44.8	
	comp=Z,20nm,0.5s						
VIS				eS	S	01 21 07.1	-15
TRD	Trivandrum	14.35	281	eP	P	01 18 43.3	-6.4
TRD				eS	rx	01 20 53.3	
CMAR	Chiang Mai Arr	14.65	30	Pn	P	01 18 54.3	+0.7
	comp=Z,0.5nm,0.3s,baz=234,slow=15,SNR=16						
KKTK	Khon Kaen	15.46	47	P	P	01 19 11.0	+6.9
	comp=Z,309nm,0.7s						
KKTK	Khon Kaen	15.46	47	P	P	01 19 11.0	+6.9
	comp=Z,309nm,0.7s						
NANT	Nan	15.88	35	P	P	01 19 07.0	-2.4
AGT	Agartala	17.94	0	⇑iP	P	01 19 39.0	+3.7
AGT				i		01 20 10.0	
SHL	Shillong	19.63	2	⇓i	P	01 19 50.0	-5.3
SHL				e		01 23 15.0	
POO	Poona	21.09	308	eP	P	01 20 10.8	+0.2
POO				e		01 20 13.7	
	comp=Z,9.4nm,0.3s						
POO				eS	S	01 23 58.8	+0.3
BHPL	Bhopal	21.80	324	eP	P	01 20 18.2	+0.5
BHPL				e		01 20 23.2	
	comp=Z,13nm,0.9s						
BHPL				eS	S	01 24 16.1	+4.3
PKI	Pulchoki	22.30	346	eP	P	01 20 21.9	-0.8
	comp=Z,58nm,0.6s,mb5.2						
PKI	Pulchoki	22.30	346	eP	P	01 20 23.8	+1.1
DMN	Daman	22.41	346	eP	P	01 20 23.5	-0.3
	comp=Z,62nm,0.8s,mb5.1						
DMN	Daman	22.41	346	eP	P	01 20 24.5	+0.7
	comp=Z,50nm,0.7s,mb5.1						
GUN	Gumba	22.52	348	eP	P	01 20 24.2	-0.8
	comp=Z,49nm,0.6s,mb5.1						
GUN	Gumba	22.52	348	eP	P	01 20 26.1	+1.1
	comp=Z,44nm,0.7s,mb5.0						
KKN	Kakani	22.54	346	eP	P	01 20 24.3	-0.9
	comp=Z,54nm,1.0s,mb4.9						
KKN	Kakani	22.54	346	eP	P	01 20 25.2	0.0
GKN	Gorkha	22.90	345	eP	P	01 20 28.1	-0.6
GKN	Gorkha	22.90	345	eP	P	01 20 29.6	+0.9
KOLN	Koldanda	22.97	343	eP	P	01 20 30.0	+0.6
	comp=Z,54nm,0.7s,mb5.1						
KOLN	Koldanda	22.97	343	eP	P	01 20 30.1	+0.7
	comp=Z,75nm,1.2s,mb5.0						
NDI	New Delhi	26.29	331	e	P	01 21 01.0	-0.2
NDI				e	S	01 25 24.0	-5.5
DDI	Dehra Dun	27.31	335	e	P	01 21 10.9	+0.4
DDI				e	S	01 25 54.2	+8.1
SONM	Songino Array	43.83	15	P	P	01 23 31.9	+0.6
	comp=Z,15nm,0.7s,mb4.8,baz=196,slow=8.8,SNR=52						
WRA	Warramunga Arr	49.58	122	P	P	01 24 16.9	-0.1
	comp=Z,3.3nm,0.8s,mb4.4,baz=302,slow=8.6,SNR=8.4						
BVAR	Borovoye Array	50.03	344	P	P	01 24 19.3	-0.7
	comp=Z,3.8nm,0.8s,mb4.5,baz=143,slow=7.4,SNR=13						
ASAR	Alice Springs	50.97	127	P	P	01 24 27.9	+0.4
	comp=Z,1.7nm,0.6s,mb4.1,baz=297,slow=7.5,SNR=9.7						
ASAR				LR	LR	01 45 16.7	
	comp=Z,64nm,21.2s,MS3.6,baz=200,slow=35						
STKA	Stephens Creek	60.91	131	P	P	01 25 38.3	-0.5
	comp=Z,2.3nm,0.6s,mb4.5,baz=311,slow=8.1,SNR=4.5						
BRTR	Keskin Array B	61.57	312	P	P	01 25 41.4	-1.7
	comp=Z,7.5nm,1.3s,mb4.7,baz=108,slow=3.9,SNR=4.8						
MLR	Muntele Rosu	68.59	317	P	P	01 26 29.2	+0.9
	comp=Z,8.7nm,0.9s,mb4.7,baz=147,slow=4.0,SNR=11						
FINES	FINESS Array B	73.15	333	P	P	01 26 54.6	-1.0
	comp=Z,3.1nm,0.8s,mb4.3,baz=141,slow=8.9,SNR=3.7						
GERES	GERESS Array B	77.39	319	P	P	01 27 20.5	+0.4
	comp=Z,3.1nm,0.9s,mb4.3,baz=104,slow=5.5,SNR=12						
DAVOX	Davos	79.81	316	P	P	01 27 34.4	+1.1
	comp=Z,2.1nm,0.7s,mb4.2,baz=58,slow=13,SNR=3.4						
NOA	NORSAR Array B	80.06	331	LR	LR	02 05 48.5	
	comp=Z,96nm,21.2s,MS4.1,baz=105,slow=38						

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*NIED **31** 01:16:00, 39.10N×144.40E, h5^{km}, Mw3.7 Best double couple: $M_0$4.43×10^{14} NP1:ϕ_s151°, δ52°, λ-124°. NP2: ϕ_s19°, δ49°, λ-54°.*

*JMA **31** 01:16:46.8±0.1, 39.07N×144.35E, h44^{km}, M3.9*

ISC 31 01:16:45.0±1.2, **39.14N**±0.05×**144.5E**±0.1, **h81**^{km}±35^{km}**, n14,** σ**0**^{s}**85**/24, **Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
MIYJ	Miyakonagasawa	2.11	283	P	P	01 17 19.6	+0.5
MIYJ				eS	S	01 17 44.1	-0.2
JTH	Tanohata	2.18	292	P	P	01 17 20.6	+0.5
JTH				eS	S	01 17 46.3	+0.3
OFUJ	Ofunato	2.19	269	P	P	01 17 20.2	0.0
OFUJ				eS	S	01 17 45.2	-1.1
JOM	Ohasama	2.50	279	P	P	01 17 25.3	+0.8
JOM				S	S	01 17 53.8	-0.2
JMK	Ichinoseki	2.55	267	P	P	01 17 25.5	+0.3
JANG	Nango	2.60	299	P	P	01 17 26.3	+0.3
JYK	Kaneyama	3.22	267	P	P	01 17 35.3	+0.7
JCH	Churui	3.58	347	P	P	01 17 40.1	+0.6
JCH				eS	S	01 18 19.9	-0.9
JKB	Kayabe	3.81	317	eS	S	01 18 25.7	-0.8
NEM2	Nemuro 2	4.33	12	P	P	01 17 48.6	-1.4
NEM2				eS	S	01 18 35.6	-4.0
JTKR	Abashiri--Toko	4.85	355	P	P	01 17 57.3	+0.2
JTKR				S	S	01 18 51.9	-0.6
JHR	Hokuryu	5.05	337	P	P	01 18 02.6	+2.7
JHR				eS	S	01 18 58.6	+1.1
JRY	Ryogami san	5.42	237	P	P	01 18 03.5	-1.4
JRY				eS	S	01 19 02.1	-4.5
MAT	Matsushiro	5.60	244	P	P	01 18 07.5	+0.1
MAT				S	S	01 19 11.0	-0.1

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*IDC **31** 01:20:22.1±0.6, 10.61N×91.48E, mb4.4/15, mb1 4.5/16, mb1mx4.4/22, mbtmp4.4/16, ML4.0/1, MS3.7/2, Ms1 3.8/2, ms1mx3.3/26, Error ellipse: s-maj=28.5km s-min=13.8km az=53.0*

*BJI **31** 01:20:24.3, 10.31N×91.70E, h40^{km}, mB5.3, mb4.7, Ms4.4, Msz4.1*

*NEIC **31** 01:20:25.5±0.4, 10.60N×91.49E, mb4.8/16, Error ellipse: s-maj=11.9km s-min=6.7km az=61.0*

ISC 31 01:20:23.9±0.4, **10.63N**±0.05×**91.52E**±0.06, **h26**^{km}**, h26**^{km}±1.4^{km}**:pP-P, n61,** σ**0**^{s}**86**/58, **mb4.6**/34, **MS4.1**/4, **1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	10.60	42	ePn	P	01 22 56.4	-1.0
	12nm,0.8s						
CMAR	Chiang Mai Arr	10.60	42	Pn	P	01 22 57.5	+0.2
	0.4nm,0.3s,baz=239,slow=15,SNR=4.3						
CMAR				LR	LR	01 27 38.0	
	comp=Z,256nm,20.5s,baz=225,slow=41						
PKI	Pulchoki	17.81	342	eP	P	01 24 30.8	-1.0
	68nm,1.0s						
PKI	Pulchoki	17.81	342	eP	P	01 24 30.2	-1.6
	173nm,1.4s						
KMI	Kunming	17.93	35	P	P	01 24 34.5	+1.3
KMI				AMB	AMB		
	comp=Z,11nm,1.2s						
DMN	Daman	17.94	341	eP	P	01 24 32.3	-1.1
	comp=Z,60nm,0.7s						
DMN	Daman	17.94	341	eP	P	01 24 32.6	-0.8
	comp=Z,74nm,0.8s						
GUN	Gumba	17.99	344	eP	P	01 24 33.1	-0.9
	comp=Z,71nm,0.9s						
GUN	Gumba	17.99	344	eP	P	01 24 32.9	-1.1
	comp=Z,26nm,0.7s						
KKN	Kakani	18.05	342	eP	P	01 24 32.4	-2.4
	comp=Z,46nm,0.7s						
GKN	Gorkha	18.45	340	eP	P	01 24 38.4	-1.4
	comp=Z,71nm,0.8s						
GKN	Gorkha	18.45	340	eP	P	01 24 40.4	+0.6
KOLN	Koldanda	18.61	338	eP	P	01 24 41.9	+0.3
	comp=Z,46nm,0.7s						
KOLN	Koldanda	18.61	338	eP	P	01 24 42.7	+1.1
LSA	Lhasa	18.98	359	eP	P	01 24 46.2	+0.1
	comp=Z,73nm,1.2s						
GYA	Guiyang	21.28	40	⇑iP	P	01 25 10.8	+0.1
GYA				AMB	AMB		
	comp=Z,50nm,0.8s,mb4.9						
CD2	Chengdu	23.17	28	P	P	01 25 30.5	+1.0
ENH	Enshi	25.73	38	eP	P	01 25 53.5	-0.6
	comp=Z,56nm,0.8s,mb5.1						
XAN	Xi'an	28.23	32	P	P	01 26 15.5	-1.4
XAN				AMB	AMB		
	comp=Z,6.0nm,0.8s,mb4.3						
GTA	Gaotai	29.60	13	P	P	01 26 30.8	+1.6
GTA				AP	pP	01 26 37.8	+0.9
GTA				AMB	AMB		
	comp=Z,16nm,0.8s,mb4.8						
GTA				AMB	AMB		
	comp=Z,226nm,10.3s						
GTA				LR	LR		
	comp=N,515nm,16.4s,MS4.3						
GTA				LR	LR		
	comp=E,282nm,14.1s,MS4.3						
GTA				LR	LR		
	comp=Z,534nm,18.3s,MS4.2						
WMQ	Urumqi	33.24	355	eP	P	01 27 02.8	+1.7
WMQ				AMB	AMB		
	comp=Z,5.0nm,0.7s,mb4.5						
HHC	Hu-ho-hao-te	34.92	27	eP	P	01 27 15.8	+0.2
HHC				AP	pP	01 27 25.8	+2.4
HHC				XP	sP	01 27 34.3	+7.6
HHC				PP	PP	01 28 34.3	+0.5
HHC				S	S	01 32 40.5	-4.0
HHC				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,321nm,6.7s						
HHC				LR	LR		
	comp=N,318nm,13.1s,MS4.3						
HHC				LR	LR		
	comp=E,227nm,14.3s,MS4.3						
HHC				LR	LR		
	comp=Z,239nm,11.9s,MS4.2						
AAK	Ala-Archa	35.18	338	eP	P	01 27 18.7	+0.9
	comp=Z,8.4nm,1.1s,mb4.6						
BJT	Baijiatuau	36.54	33	eP	P	01 27 29.5	+0.2
	comp=Z,11nm,0.8s,mb4.8						
BJT				e	pP	01 27 36.6	-0.5
BJI	Beijing	36.55	33	eP	P	01 27 30.3	+0.8
BJI				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.7						
BJI				LR	LR		
	comp=N,287nm,17.8s,MS4.3						
BJI				LR	LR		
	comp=E,318nm,17.1s,MS4.3						
BJI				LR	LR		
	comp=Z,263nm,19.6s,MS4.0						
SONM	Songino Array	39.15	16	P	P	01 27 51.9	+0.8
	comp=Z,6.0nm,0.8s,mb4.4,baz=205,slow=8.4,SNR=17						
SONM				LR	LR	01 44 09.1	
	comp=Z,192nm,20.9s,MS3.9,baz=184,slow=36						
ULN	Ulaanbaatar	39.36	17	eP	P	01 27 52.8	-0.1
	comp=Z,6.2nm,0.8s,mb4.4						
ULN				epP	pP	01 28 00.2	-0.5
FITZ	Fitzroy Crossi	44.16	130	eP	P	01 28 32.2	-0.4
	comp=Z,12nm,0.6s,mb4.8						
CN2	Changchun	44.20	35	eP	P	01 28 32.5	-0.1
CN2				AMB	AMB		
	comp=Z,20nm,0.9s,mb4.8						
BVAR	Borovoye Array	45.58	342	P	P	01 28 43.9	+0.4
	comp=Z,2.8nm,1.0s,mb4.2,baz=135,slow=10,SNR=5.1						
BRVK	Borovoye	45.64	342	eP	P	01 28 43.8	-0.2
	comp=Z,3.8nm,0.9s,mb4.3						
BRVK				epP	pP	01 28 51.7	-0.1
CHKZ	Chkalovo	46.08	343	eP	P	01 28 48.1	+0.7
	comp=Z,7.5nm,0.9s,mb4.6						
CHKZ				epP	pP	01 28 55.5	+0.2
NWAO	Narrogin (SRO)	49.77	151	P	P	01 29 16.1	-0.5
	comp=Z,11nm,0.7s,mb5.0,baz=310,slow=11,SNR=5.3						
NWAO	Narrogin (SRO)	49.77	151	eP	P	01 29 15.1	-1.4
	comp=Z,18nm,0.9s,mb5.1						
GNI	Garni	50.67	314	eP	P	01 29 23.1	-0.2
	comp=Z,19nm,1.2s,mb4.9						
WRA	Warramunga Arr	51.96	126	P	P	01 29 32.9	-0.4
	comp=Z,11nm,0.8s,mb4.8,baz=299,slow=10.0,SNR=45						
WRAB	Tennant Creek	51.96	126	eP	P	01 29 32.5	-0.9
	comp=Z,16nm,0.6s,mb5.1						
WB2	Warramunga Arr	51.97	126	eP	P	01 29 32.9	-0.5
KIV	Kislovodsk	53.55	317	eP	P	01 29 43.3	-1.5
	comp=Z,10nm,1.0s,mb4.7						
ASPA	Alice Springs	53.66	130	eP	P	01 29 45.7	-0.1
ASAR	Alice Springs	53.66	130	P	P	01 29 45.7	-0.2
	comp=Z,14nm,0.8s,mb4.9,baz=305,slow=6.8,SNR=47						
ASAR				PcP	PcP	01 30 52.6	+0.7
	comp=Z,2.6nm,0.8s,baz=310,slow=3.8,SNR=4.0						
MALT	Malatya	54.72	310	eP	P	01 29 53.3	-0.2
	comp=Z,5.1nm,1.1s,mb4.5						
BRTR	Keskin Array B	58.68	310	P	P	01 30 21.0	-0.7
	comp=Z,1.7nm,0.8s,mb4.1,baz=121,slow=7.2,SNR=7.0						
CTA	Charters Tower	61.91	120	eP	P	01 30 44.7	+0.7
	comp=Z,10nm,1.1s,mb4.9						
CTA	Charters Tower	61.91	120	P	P	01 30 44.2	+0.2
	comp=Z,7.9nm,0.7s,mb4.9,baz=325,slow=8.8,SNR=4.1						
CTAO	Charters Tower	61.91	120	eP	P	01 30 44.0	0.0
	comp=Z,12nm,0.9s,mb5.0						
STKA	Stephens Creek	63.87	133	eP	P	01 30 57.4	+0.5
	comp=Z,4.5nm,0.8s,mb4.5						
STKA	Stephens Creek	63.87	133	P	P	01 30 56.8	-0.1
	comp=Z,3.0nm,0.5s,mb4.6,baz=317,slow=6.8,SNR=16						
STKA	Stephens Creek	63.87	133	eP	P	01 30 56.8	-0.1
IDI	Anoyia	64.89	304	P	P	01 31 03.8	+0.3
	comp=Z,2.9nm,0.7s,mb4.5,baz=56,slow=12,SNR=3.1						
MLR	Muntele Rosu	65.41	315	P	P	01 31 07.5	+1.0
	comp=Z,36nm,1.6s,mb5.2,baz=173,slow=7.0,SNR=3.3						
MA2	Magadan	65.58	29	eP	P	01 31 06.9	-0.5
	comp=Z,12nm,0.8s,mb5.0						
FINES	FINESS Array B	69.08	332	P	P	01 31 29.3	-0.1
	comp=Z,3.0nm,0.9s,mb4.2,baz=80,slow=8.5,SNR=3.4						
GERES	GERESS Array B	74.06	318	P	P	01 32 00.2	+0.7
	comp=Z,0.9nm,0.8s,mb3.7,baz=90,slow=4.0,SNR=3.5						
MAW	Mawson	80.71	191	P	P	01 32 37.9	+1.9
	comp=Z,2.8nm,0.8s,mb4.2,baz=68,slow=19,SNR=4.6						
ESDC	Sonseca Array	87.47	310	P	P	01 33 11.2	+0.4
	comp=Z,0.9nm,0.8s,mb4.0,baz=54,slow=5.8,SNR=4.4						
ILAR	Eielson Array	93.17	21	P	P	01 33 37.0	+0.3
	comp=Z,0.6nm,0.9s,mb4.0,baz=313,slow=4.9,SNR=4.1						
YKA	Yellowknife Ar	104.33	12	PP	PP	01 38 46.4	-1.9
	comp=Z,0.2nm,0.8s,baz=336,slow=7.5,SNR=3.1						
PDAR	Pinedale Array	123.48	19	PKP	PKPdf	01 39 21.9	-2.1
	comp=Z,0.4nm,0.7s,baz=14,slow=3.7,SNR=3.8						
NVAR	Mina Array Bea	123.81	28	PKP	PKPdf	01 39 23.5	-1.3
	comp=Z,1.0nm,1.1s,baz=91,slow=2.6,SNR=4.3						
TXAR	Lajitas Array	137.66	20	PKP	PKPdf	01 39 50.4	-0.9
	comp=Z,0.4nm,0.8s,SNR=3.3						

IDC 31 01:24:16.6±1.2, **6.98N**×**93.45E, mb3.8**/7, **mb1 4.0**/8, **mb1mx3.8**/18, **mbtmp3.8**/8, **ML3.2**/1, **Error ellipse: s-maj=47.2km s-min=21.8km az=51.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.60	25	Pn	P	01 27 18.7	-1.4
	0.0nm,0.3s,baz=217,slow=14,SNR=5.6						
SONM	Songino Array	42.19	13	P	P	01 32 10.3	-2.4
	0.4nm,0.7s,baz=203,slow=9.2,SNR=3.8						
SONM				PcP	PcP	01 34 06.6	-1.1
	0.3nm,0.7s,baz=210,slow=3.5,SNR=4.0						
WRA	Warramunga Arr	48.31	124	P	P	01 32 59.5	-2.5
	1.3nm,0.6s,baz=303,slow=9.8,SNR=7.0						
BVAR	Borovoye Array	49.62	342	P	P	01 33 08.6	-3.0
	0.6nm,0.7s,baz=135,slow=8.2,SNR=4.1						
ASAR	Alice Springs	49.88	129	P	P	01 33 12.2	-1.9
	1.8nm,0.8s,baz=313,slow=7.4,SNR=5.3						
BRTR	Keskin Array B	62.50	311	P	P	01 34 41.0	-3.5
	0.3nm,0.5s,baz=59,slow=7.2,SNR=3.6						
FINES	FINESS Array B	73.18	332	P	P	01 35 49.3	-1.6
	1.4nm,0.7s,baz=120,slow=11,SNR=3.4						
GERES	GERESS Array B	78.04	318	P	P	01 36 19.4	+0.6
	0.5nm,0.6s,baz=98,slow=6.9,SNR=2.9						

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*IDC **31** 01:30:43.0±1.0, 3.40N×92.81E, mb4.0/9, mb1 4.2/10, mb1mx4.0/19, mbtmp4.0/10, Error ellipse: s-maj=40.9km s-min=20.2km az=44.0*

*NEIC **31** 01:30:48.0±6.4, 3.66N×93.20E, h30^{km}, mb4.6/8, Error ellipse: s-maj=141.0km s-min=24.5km az=139.0*

*BJI **31** 01:30:47.9, 3.70N×93.20E, h30^{km}, mb4.8*

ISC 31 01:30:45.9±0.7, **3.4N**±0.1×**92.9E**±0.1, **h30**^{km}**, n39,** σ**0**^{s}**92**/38, **mb4.5**/22, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	16.09	21	ePn	P	01 34 27.1	-4.7
	6.8nm,0.7s						
CMAR	Chiang Mai Arr	16.09	21	Pn	P	01 34 30.8	-1.0
	baz=217,slow=13,SNR=14						
PKI	Pulchoki	25.07	344	eP	P	01 36 10.4	+0.9
	67nm,1.2s,mb5.1						
PKI	Pulchoki	25.07	344	eP	P	01 36 10.2	+0.7
	67nm,1.2s,mb5.1						
PKI	Pulchoki	25.07	344	eP	P	01 36 10.6	+1.1
	67nm,1.2s,mb5.1						
DMN	Daman	25.19	344	eP	P	01 36 11.8	+1.2
DMN	Daman	25.19	344	eP	P	01 36 12.3	+1.7
	42nm,1.0s,mb4.9						
DMN	Daman	25.19	344	eP	P	01 36 12.3	+1.7
	42nm,1.0s,mb4.9						
GUN	Gumba	25.27	345	eP	P	01 36 12.3	+0.9
	31nm,0.8s,mb4.9						
GUN	Gumba	25.27	345	eP	P	01 36 11.8	+0.4
	32nm,0.8s,mb4.9						
GUN	Gumba	25.27	345	eP	P	01 36 12.2	+0.8
	76nm,1.2s,mb5.1						
KKN	Kakani	25.31	344	eP	P	01 36 12.2	+0.4
	74nm,1.2s,mb5.1						
KKN	Kakani	25.31	344	eP	P	01 36 12.1	+0.3
	134nm,1.5s,mb5.3						
KKN	Kakani	25.31	344	eP	P	01 36 12.2	+0.4
	134nm,1.5s,mb5.3						
GKN	Gorkha	25.70	343	eP	P	01 36 15.7	+0.3
GKN	Gorkha	25.70	343	eP	P	01 36 15.7	+0.3
	47nm,0.8s,mb5.0						
GKN	Gorkha	25.70	343	eP	P	01 36 15.9	+0.6
KOLN	Koldanda	25.80	341	eP	P	01 36 16.7	+0.4
KOLN	Koldanda	25.80	341	eP	P	01 36 16.5	+0.2
KOLN	Koldanda	25.80	341	eP	P	01 36 18.1	+1.8
LSA	Lhasa	26.20	357	P	P	01 36 19.7	-0.3
	18nm,0.6s,mb4.8						
GTA	Gaotai	36.38	9	P	P	01 37 50.5	+0.9
GTA				AP	pP	01 37 59.3	+0.8
GTA				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb4.5						
AAK	Ala-Archa	42.36	340	eP	P	01 38 38.7	-0.5
	comp=Z,4.5nm,1.2s,mb4.0						
SONM	Songino Array	45.76	13	P	P	01 39 07.1	+0.6
	comp=Z,2.3nm,0.9s,mb4.1,baz=195,slow=7.8,SNR=16						
WRA	Warramunga Arr	46.85	121	P	P	01 39 15.7	+0.2
	comp=Z,1.8nm,1.0s,mb4.0,baz=299,slow=9.1,SNR=4.6						
ASAR	Alice Springs	48.16	126	P	P	01 39 25.8	+0.1
	comp=Z,0.7nm,1.0s,mb3.7,baz=315,slow=7.7,SNR=3.0						
BVAR	Borovoye Array	52.83	343	P	P	01 39 60.0	-1.0
	comp=Z,2.5nm,0.7s,mb4.2,baz=135,slow=8.4,SNR=15						
BRVK	Borovoye	52.89	343	eP	P	01 39 59.6	-1.7
	comp=Z,5.7nm,1.0s,mb4.5						
CHKZ	Chkalovo	53.34	344	eP	P	01 40 03.7	-1.0
	comp=Z,15nm,1.3s,mb4.8						
KIV	Kislovodsk	59.85	320	eP	P	01 40 49.6	-1.6
	comp=Z,5.5nm,0.9s,mb4.6						
MALT	Malatya	60.47	313	eP	P	01 40 56.0	+0.5
	comp=Z,4.1nm,1.0s,mb4.4						
BRTR	Keskin Array B	64.46	313	P	P	01 41 21.2	-0.9
	comp=Z,1.6nm,0.9s,mb4.0,baz=141,slow=7.9,SNR=6.6						
IDI	Anoyia	70.13	306	P	P	01 41 58.6	+0.7
	comp=Z,4.7nm,0.7s,mb4.5,baz=109,slow=13,SNR=5.0						
AKASG	Malin Array Be	70.91	323	P	P	01 42 00.8	-1.5
	comp=Z,0.2nm,0.2s,mb3.6,baz=89,slow=5.2,SNR=8.3						
FINES	FINESS Array B	76.08	333	P	P	01 42 31.6	-0.7
	comp=Z,2.2nm,0.9s,mb4.1,baz=108,slow=4.4,SNR=3.0						
GERES	GERESS Array B	80.33	319	P	P	01 42 56.5	+0.7
	comp=Z,3.5nm,0.8s,mb4.3,baz=90,slow=5.3,SNR=18						
BRG	Berggiesshubel	80.39	321	eP	P	01 42 57.1	+1.0
	comp=Z,22nm,1.7s,mb4.8						
KHC	Kasperske Hory	80.44	319	eP	P	01 42 57.0	+0.6
TXAR	Lajitas Array	143.78	25	PKP	PKPdf	01 50 19.4	-4.6
	comp=Z,0.4nm,0.9s,slow=2.7,SNR=3.0						

*IDC **31** 01:41:04.8±1.0, 8.17N×94.01E, mb3.9/9, mb1 4.1/10, mb1mx4.0/19, mbtmp3.9/10, ML4.1/1, MS3.7/4, Ms1 3.8/4, ms1mx3.5/22, Error ellipse: s-maj=43.1km s-min=21.1km az=51.0*

ISC 31 01:41:07.9±0.8**, 8.3N**±0.1×**94.1E**±0.1**, h33^{km}, n21, σ0^{s}87**/20**, mb4.1**/12**, MS3.7**/3**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.10	24	Pn	P	01 43 47.5	+0.1
	0.4nm,0.3s,baz=212,slow=14,SNR=20						
CMAR				LR	LR	01 48 12.7	
	comp=Z,327nm,18.4s,baz=215,slow=38						
PKI	Pulchoki	20.83	338	eP	P	01 45 48.5	-0.7
PKI	Pulchoki	20.83	338	eP	P	01 45 48.3	-0.9
	115nm,1.6s						
GUN	Gumba	20.97	339	eP	P	01 45 49.7	-0.9
	28nm,0.7s						
GUN	Gumba	20.97	339	eP	P	01 45 49.6	-1.0
	28nm,0.7s						
KKN	Kakani	21.08	338	eP	P	01 45 50.8	-0.9
	17nm,0.6s,mb4.5						
KKN	Kakani	21.08	338	eP	P	01 45 50.8	-0.9
	17nm,0.6s,mb4.5						
GKN	Gorkha	21.52	337	eP	P	01 45 55.5	-0.6
GKN	Gorkha	21.52	337	eP	P	01 45 55.6	-0.5
	16nm,0.4s,mb4.8						
KOLN	Koldanda	21.74	334	eP	P	01 45 58.1	-0.2
	23nm,0.8s,mb4.7						
KOLN	Koldanda	21.74	334	eP	P	01 45 58.0	-0.3
	23nm,0.8s,mb4.7						
JOW	Kunigami	37.21	56	LR	LR	02 04 17.8	
	comp=Z,108nm,19.9s,MS3.6,baz=284,slow=37						
SONM	Songino Array	40.72	13	P	P	01 48 48.2	+1.1
	0.3nm,0.5s,mb3.2,baz=194,slow=5.1,SNR=4.8						
SONM				PcP	PcP	01 50 51.8	+3.0
	0.4nm,0.9s,baz=192,slow=2.5,SNR=5.1						
SONM				LR	LR	02 06 59.7	
	comp=Z,138nm,18.9s,MS3.8,baz=166,slow=38						
WRA	Warramunga Arr	48.55	126	P	P	01 49 50.0	-0.2
	0.6nm,0.6s,mb3.8,baz=304,slow=8.7,SNR=4.1						
BVAR	Borovoye Array	48.55	341	P	P	01 49 49.5	-0.3
	0.5nm,0.4s,mb3.9,baz=129,slow=6.9,SNR=4.8						
ASAR	Alice Springs	50.23	130	P	P	01 50 02.2	-0.9
	0.5nm,0.5s,mb3.8,baz=298,slow=7.4,SNR=6.0						
ASAR				LR	LR	02 11 57.8	
	comp=Z,71nm,19.7s,MS3.7,baz=146,slow=37						
BRTR	Keskin Array B	62.11	311	P	P	01 51 28.4	+0.4
	0.6nm,0.8s,mb3.8,baz=121,slow=7.2,SNR=4.2						
FINES	FINESS Array B	72.30	332	P	P	01 52 33.4	+1.7
	12nm,1.2s,mb4.7,baz=104,slow=7.9,SNR=4.8						
ARCES	ARCESS Array B	74.83	340	P	P	01 52 48.1	+1.8
	1.9nm,0.8s,mb4.1,baz=97,slow=7.3,SNR=2.4						
GERES	GERESS Array B	77.47	318	P	P	01 53 01.4	-0.4
	0.6nm,0.7s,mb3.6,baz=90,slow=7.8,SNR=4.2						
HFS	Hagfors	78.05	330	P	P	01 53 05.3	+0.6
	2.6nm,0.7s,mb4.3,baz=108,slow=4.7,SNR=13						

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*IDC **31** 01:49:21.4±0.9, 5.36S×36.04E, mb4.1/12, mb1 4.2/13, mb1mx4.1/19, mbtmp4.1/13, ML4.1/1, MS3.8/1, Ms1 3.8/1, ms1mx2.6/18, Error ellipse: s-maj=31.7km s-min=18.4km az=88.0*

ISC 31 01:49:20.1±6.1**, 5.38S**±0.09×**35.9E**±0.1**, h15^{km}**±41^{km}**, n36, σ0^{s}66**/34**, mb4.4**/27**, MS3.8**/1**, Tanzania**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KMBO	Kilima Mbogo	4.45	18	Pn	Pn	01 50 29.7	+1.0
	11nm,0.3s,baz=194,slow=17,SNR=119						
KMBO				Sn	Sn	01 51 21.4	+0.6
	48nm,0.3s,baz=257,slow=23,SNR=8.2						
KMBO				Lg		01 51 36.8	
	77nm,0.3s,baz=233,slow=20,SNR=12						
DBIC	Dimbokro	42.37	286	LR	LR	02 14 20.4	
	comp=Z,140nm,21.3s,MS3.8,baz=64,slow=35						
BRTR	Keskin Array B	44.93	358	P	P	01 57 39.5	+3.3
	0.5nm,0.8s,mb3.4,baz=194,slow=10,SNR=4.8						
PGF	Pioggiola	53.59	335	eP	P	01 58 43.5	+0.6
	31nm,1.0s,mb4.9						
SBF	Sospel	55.32	335	eP	P	01 58 56.9	+1.3
	62nm,1.2s,mb5.2						
AKASG	Malin Array Be	56.15	355	P	P	01 59 02.8	+1.3
	3.8nm,0.9s,mb4.4,baz=175,slow=6.2,SNR=11						
ORIF	Oris-en-Rattie	56.83	335	eP	P	01 59 07.7	+1.3
	22nm,1.2s,mb4.7						
LPG	La Plagne	56.94	336	eP	P	01 59 08.8	+1.6
	9.1nm,0.9s,mb4.5						
LPL	La Plagne	56.96	336	eP	P	01 59 08.8	+1.5
	12nm,1.1s,mb4.5						
GERES	GERESS Array B	57.37	343	P	P	01 59 11.8	+1.6
	1.1nm,0.7s,mb4.0,baz=153,slow=6.0,SNR=8.6						
KHC	Kasperske Hory	57.67	343	eP	P	01 59 13.5	+1.3
ESDC	Sonseca Array	57.94	324	P	P	01 59 17.0	+2.7
	0.7nm,0.7s,mb3.8,baz=137,slow=7.5,SNR=5.5						
EPF	Esparros	57.94	330	eP	P	01 59 15.8	+1.6
CABF	La Chapelle	58.11	336	eP	P	01 59 16.2	+0.8
	50nm,1.4s,mb5.0						
ETSF	Etsaut	58.30	329	eP	P	01 59 17.6	+0.9
	14nm,1.1s,mb4.6						
SJPF	Ste Jean	58.79	329	eP	P	01 59 21.8	+1.6
	33nm,1.3s,mb4.9						
HINF	Hinteralfeld	58.80	338	eP	P	01 59 21.4	+1.2
SMF	Signal de Mont	59.07	335	eP	P	01 59 23.4	+1.3
	8.2nm,0.9s,mb4.5						
CDF	Champ du Feu	59.14	338	eP	P	01 59 22.7	+0.2
	9.0nm,1.0s,mb4.5						
HAU	Haudompre	59.15	337	eP	P	01 59 23.8	+1.2
	5.5nm,0.6s,mb4.4						
AVF	Avril sur Loir	59.39	335	eP	P	01 59 25.2	+0.9
	14nm,1.1s,mb4.6						
BGF	Bois d'Agland	59.43	334	eP	P	01 59 26.0	+1.5
	18nm,1.1s,mb4.7						
TCF	Toulx Ste Croi	59.50	334	eP	P	01 59 26.6	+1.6
SSF	Saint Saulge	59.54	335	eP	P	01 59 26.6	+1.3
MEZF	Maizieres J'vi	60.06	337	eP	P	01 59 30.6	+1.8
	22nm,1.1s,mb4.8						
ROSF	Rostrenen	63.52	332	eP	P	01 59 53.3	+1.2
	36nm,1.2s,mb5.0						
MAW	Mawson	64.78	169	P	P	02 00 00.1	+0.1
	2.8nm,0.5s,mb4.5,baz=319,slow=4.3,SNR=4.1						
BVAR	Borovoye Array	65.09	22	P	P	02 00 03.1	+0.9
	0.5nm,0.6s,mb3.7,baz=207,slow=6.4,SNR=3.5						
CMAR	Chiang Mai Arr	66.51	67	P	P	02 00 12.6	+0.7
	2.9nm,1.0s,mb4.3,baz=259,slow=7.2,SNR=1.8						
EKA	Eskdalemuir Ar	68.56	337	P	P	02 00 24.9	+0.6
	1.1nm,0.7s,mb3.9,baz=130,slow=7.3,SNR=4.8						
NOA	NORSAR Array B	68.96	347	P	P	02 00 28.5	+1.9
	4.3nm,1.0s,mb4.3,baz=156,slow=5.8,SNR=3.2						
ARCES	ARCESS Array B	75.09	356	P	P	02 01 04.3	+1.5
	1.8nm,0.8s,mb4.0,baz=162,slow=3.8,SNR=4.3						
SONM	Songino Array	81.10	40	P	P	02 01 38.9	+2.7
	3.0nm,0.9s,mb4.2,baz=241,slow=4.9,SNR=18						
ASAR	Alice Springs	95.19	114	P	P	02 02 47.4	+2.5
	0.5nm,0.8s,mb4.0,baz=251,slow=3.8,SNR=3.7						
PDAR	Pinedale Array	131.82	326	PKP	PKPdf	02 08 36.2	-0.7
	0.4nm,0.6s,baz=45,slow=2.1,SNR=4.5						
NVAR	Mina Array Bea	139.60	328	PKP	PKPdf	02 08 53.1	+1.7
	0.9nm,0.7s,baz=220,slow=1.2,SNR=5.4						

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*IDC **31** 02:01:09.9±1.0, 20.25N×87.07E, mb3.9/8, mb1 4.1/8, mb1mx3.9/17, mbtmp3.9/8, Error ellipse: s-maj=46.2km s-min=20.3km az=47.0*

ISC 31 01:59:54.8±3.4**, 8.8N**±0.3×**93.0E**±0.5**, h10^{km}, n20, σ1^{s}31**/20**, mb3.9**/6**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PKI	Pulchoki	19.97	340	eP	P	02 04 30.1	-0.1
	10nm,0.5s						
PKI	Pulchoki	19.97	340	eP	P	02 04 29.6	-0.6
	10nm,0.5s						
DMN	Daman	20.11	339	eP	P	02 04 31.3	-0.3
	17nm,0.6s						
DMN	Daman	20.11	339	eP	P	02 04 30.9	-0.7
	17nm,0.6s						
GUN	Gumba	20.13	342	eP	P	02 04 31.5	-0.4
	22nm,0.6s						
GUN	Gumba	20.13	342	eP	P	02 04 31.5	-0.4
	22nm,0.6s						
KKN	Kakani	20.21	340	eP	P	02 04 32.4	-0.4
	23nm,0.6s						
KKN	Kakani	20.21	340	eP	P	02 04 32.4	-0.4
	23nm,0.6s						
GKN	Gorkha	20.63	339	eP	P	02 04 37.4	+0.3
	17nm,0.5s						
GKN	Gorkha	20.63	339	eP	P	02 04 37.6	+0.5
KOLN	Koldanda	20.82	336	eP	P	02 04 40.2	+1.2
	14nm,0.8s						
KOLN	Koldanda	20.82	336	eP	P	02 04 40.3	+1.3
	14nm,0.8s						
SONM	Songino Array	40.52	14	P	P	02 07 35.4	-0.2
	0.3nm,0.5s,mb3.2,baz=205,slow=11,SNR=4.1						
EIL	Elat	57.94	299	P	P	02 09 49.2	-0.7
	5.2nm,0.9s,mb4.6,baz=142,slow=17,SNR=2.6						
FINES	FINESS Array B	71.33	332	P	P	02 11 07.6	-8.9
	3.1nm,1.0s,mb4.2,baz=112,slow=7.5,SNR=4.4						
KAF	Kangasniemi	71.42	333	ep	P	02 11 09.4	-7.6
ARCES	ARCESS Array B	73.98	340	P	P	02 11 26.3	-5.6
	3.7nm,1.1s,mb4.2,baz=104,slow=7.4,SNR=2.7						
GERES	GERESS Array B	76.34	318	P	P	02 11 46.9	+1.1
	0.3nm,0.6s,mb3.4,baz=104,slow=5.5,SNR=4.0						
NB2	NORSAR Subarra	78.34	331	P	P	02 11 57.2	+0.6
	0.9nm,0.6s,mb3.9,baz=96,slow=5.0						
NOA	NORSAR Array B	78.34	331	P	P	02 11 57.5	+0.9
	1.6nm,0.8s,mb4.0,baz=90,slow=5.9,SNR=4.2						

IDC 31 02:21:37.2±1.3**, 3.97N**×**94.11E, h28^{km}**±6^{km}**, mb3.4**/5**, mb1 3.7**/6**, mb1mx3.5**/18**, mbtmp3.7**/6**, ML4.1**/1**, Error ellipse: s-maj=47.4km s-min=22.9km az=55.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.15	18	Pn	P	02 25 09.0	-2.2
	0.2nm,0.3s,baz=209,slow=11,SNR=13						
SONM	Songino Array	44.96	12	P	P	02 29 48.8	-2.9
	0.5nm,0.9s,baz=191,slow=7.3,SNR=2.6						
SONM				pP	pP	02 29 58.1	-2.2
	1.1nm,0.9s,baz=192,slow=9.3,SNR=5.4						
WRA	Warramunga Arr	46.12	123	P	P	02 29 58.0	-3.2
	0.9nm,0.6s,baz=301,slow=9.0,SNR=2.7						
ASAR	Alice Springs	47.52	127	P	P	02 30 11.3	-1.0
	0.3nm,0.8s,baz=306,slow=7.8,SNR=2.8						
BVAR	Borovoye Array	52.66	342	P	P	02 30 49.9	-1.2
	1.1nm,0.7s,baz=149,slow=8.4,SNR=7.0						
BVAR				pP	pP	02 30 58.9	-0.9
	0.8nm,0.6s,baz=135,slow=6.3,SNR=4.2						
GERES	GERESS Array B	80.70	319	P	P	02 33 47.1	-2.2
	0.6nm,0.6s,baz=90,slow=5.3,SNR=6.2						
GERES				pP	pP	02 33 56.3	-2.0
	1.1nm,0.7s,baz=90,slow=5.3,SNR=6.2						

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*BJI **31** 02:23:58.0, 6.88N×92.39E, h26^{km}, mB6.1, mb5.4, Ms6.7, Msz6.5*

*NEIC **31** 02:24:00.5±0.1, 7.12N×92.53E, h14^{km}, mb5.7/97, ME5.9, MS6.3/133, MW6.0, Error ellipse: s-maj=5.5km s-min=3.5km az=211.0 Broadband fault plane solution: P waves. NP1:ϕ_s340°, δ60°, λ75°. NP2:ϕ_s188°, δ33°, λ114°. Principal axes: T Plg71°, Azm216°; N Plg0°, Azm0°; P Plg14°, Azm81°; Moment Tensor Solution. s38 Moment tensor: Scale 10^{18} Nm; M_{rr}1.08; $M_{\theta\theta}$0.07; $M_{\phi\phi}$-1.15; $M_{r\theta}$-0.37; $M_{\theta\phi}$0.31; $M_{\phi r}$0.35; Best double couple: $M_0$1.3×10^{18} NP1:ϕ_s181°, δ37°, λ114°. NP2:ϕ_s333°, δ57°, λ73°. Principal axes: T 1.22, Plg73°, Azm200°; N .08, Plg14°, Azm342°; P -1.3, Plg10°, Azm74°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*HRVD **31** 02:24:00.5±0.1, 7.10N×92.43E, h12^{km}, MW6.1/63, Centroid moment Tensor Solution. LP body waves: s63,c134;Mantle waves: s62,c103; Half duration: 2^{s}7 Moment tensor: Scale 10^{18}Nm; M_{rr}1.41±.01; $M_{\theta\theta}$-0.31±.02; $M_{\phi\phi}$-1.10±.02; $M_{r\theta}$-0.16±.04; $M_{\theta\phi}$0.73±.01; $M_{\phi r}$-0.21±.05; Best double couple: $M_0$1.5×10^{18} NP1: ϕ_s319°, δ44°, λ75°. NP2:ϕ_s160°, δ48°, λ104°. Principal axes: T 1.46, Plg79°, Azm139°; N .08, Plg11°, Azm330°; P -1.54, Plg2°, Azm240°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to mantle waves, cutoff=125s.*

*MOS **31** 02:24:03.7±0.9, 7.39N×92.29E, h33^{km}, mb5.9/91, MS6.2/75 Error ellipse: s-maj=8.9km s-min=3.8km az=125.8*

*CSEM **31** 02:24:05.9, 7.72N×92.20E, h33^{km}, mb5.7*

*IDC **31** 02:24:05.5±2.0, 7.20N×92.76E, h53^{km}±17^{km}, mb5.0/23, mb1 5.1/24, mb1mx5.1/24, mbtmp5.3/24, ML5.0/1, MS6.1/18, Ms1 6.1/18, ms1mx5.9/24, Error ellipse: s-maj=15.7km s-min=8.4km az=35.0*

ISC 31 02:23:58.7±0.1**, 7.06N**±0.03×**92.55E**±0.02**, h14^{km}, h14^{km}**±1.1^{km}**:pP-P, n808, σ1^{s}07**/705**, mb5.6**/165**, MS6.3**/182**, 97C-32D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	8.00	89	P	P	02 26 02.5	+5.1
	1µm,1.0s						
CM31	Chiang Mai Arr	12.93	28	eP	P	02 27 04.4	-0.4
	361nm,0.8s						
CMAR	Chiang Mai Arr	12.93	28	P	P	02 27 05.2	+0.4
	2.8nm,0.3s,baz=231,slow=13,SNR=89						
CMAR				LR	LR	02 32 24.2	
	comp=Z,71µm,19.4s,baz=210,slow=39						
MDRS	Chennai	13.51	297	eP	P	02 27 10.7	-1.9
	comp=Z,218nm,0.8s						
MDRS				i		02 34 23.6	
	comp=Z,60µm,17.4s						
KKTK	Khon Kaen	13.64	47	P	P	02 27 17.0	+2.7
	comp=Z,1µm,1.0s						
VIS	Vishakhapatnam	13.90	321	i P	P	02 27 14.3	-3.5
VIS				e		02 27 20.9	
	comp=Z,582nm,0.7s						
VIS				eS	S	02 29 46.5	-6.3
VIS				i		02 34 08.8	
	comp=Z,96µm,17.9s						
CHRT	Chiangrai	14.54	28	⇑P	P	02 27 25.5	-0.7
	comp=Z,1µm,1.0s						
VJD	Vijayawada	14.96	310	i P	P	02 27 31.0	-0.7
VJD				i	S	02 30 05.0	-13
KOD	Kodaikanal	15.24	283	⇑eP	P	02 27 36.5	+1.1
KOD				e		02 27 41.5	
	comp=Z,425nm,1.6s						
KOD				i		02 33 30.4	
	comp=Z,108µm,20.6s						
TRD	Trivandrum	15.52	276	⇑eP	P	02 27 39.1	+0.2
TRD				e		02 27 40.9	
	comp=Z,191nm,1.2s						
TRD				e		02 31 16.2	
TRD				i		02 33 40.8	
	comp=Z,128µm,18.9s						
CAL	Calcutta	15.92	346	e	P	02 27 47.6	+3.5
CAL				e	S	02 30 59.0	+19
AGT	Agartala	16.78	356	i P	P	02 27 51.0	-4.0
AGT				i		02 29 39.0	
HYB	Hyderabad	17.11	308	eP	P	02 27 58.0	-1.2
HYB				eS	S	02 31 10.0	+2.2
HYB				pmax	pmax		
	comp=Z,320nm,1.0s						
HYB	Hyderabad	17.11	308	eP	P	02 27 58.0	-1.2
	comp=Z,320nm,1.0s						
HYB				eS	S	02 31 10.0	+2.2
HYB	Hyderabad	17.11	308	i P	P	02 27 58.0	-1.2
	comp=Z,320nm,1.0s						
HYB				eS	S	02 31 10.0	+2.2
HYB				LR	LR	02 40 16.0	
	comp=Z,142nm,14.0s						
IMP	Imphal	17.68	4	e	P	02 28 05.6	-0.6
BOK	Bokaro	17.83	340	⇑eP	P	02 28 07.4	-0.8
BOK				e		02 28 15.4	
	comp=Z,514nm,1.4s						
BOK				eS	S	02 31 22.1	-2.1
BOK	Bokaro	17.83	340	i	AMS	02 41 40.5	
	comp=Z,29µm,16.6s						
BLSP	Bilaspur	18.04	327	⇑eP	P	02 28 10.6	-0.3
BLSP				e		02 28 31.3	
	comp=Z,743nm,1.7s						
BLSP				eS	S	02 31 26.6	-2.6
BLSP				i		02 35 39.4	
	comp=Z,87µm,19.2s						
MNGI	Mangalore	18.41	290	i P	P	02 28 15.8	+0.4
MNGI				i		02 31 50.2	
	comp=Z,253nm,1.5s						
MNGI	Mangalore	18.41	290	i	AMS	02 37 31.5	
	comp=Z,64µm,14.8s						
NGP	Nagpur	19.15	318	⇑eP	P	02 28 25.1	+0.7
NGP				e	S	02 32 02.8	+8.5
LATR	Latur	19.23	307	eP	P	02 28 27.1	+1.8
LATR				⇑i		02 33 14.2	
MNCY	Minicoy	19.38	275	⇓i	P	02 28 36.0	+8.9
MNCY				i		02 31 27.0	
SLGI	Shiliguri	19.93	349	e	P	02 28 35.5	+2.4
JBP	Jabalpur	20.07	324	⇑e	Px	02 29 02.4	
JBP				e	PcP	02 32 49.6	-0.2
GOA	Goa	20.17	296	⇓i	P	02 28 41.8	+6.0
GOA				i	S	02 32 28.8	+12
AKL	Akola	20.26	314	⇑iP	P	02 28 38.7	+2.1
AKL				i	S	02 32 26.0	+7.9
	comp=Z,570nm,1.4s						
KMI	Kunming	20.44	27	P	P	02 28 39.5	+1.1
KMI				AP		02 28 49.0	
KMI				XP		02 28 53.5	
KMI				S	S	02 32 27.8	+6.1
KMI				AMB	AMB		
	comp=Z,312nm,1.4s						
KMI				AMB	AMB		
	comp=Z,3µm,6.5s						
KMI				LR	LR		
	comp=N,95µm,14.4s,MS6.5						
KMI				LR	LR		
	comp=E,95µm,12.3s,MS6.5						
KMI				LR	LR		
	comp=Z,114µm,16.4s,MS6.3						
QIZ	Qiongzhong	20.60	53	P	P	02 28 42.3	+2.2
QIZ				S	S	02 32 27.5	+2.5
QIZ				LR	LR		
	comp=N,194µm,13.9s						
QIZ				LR	LR		
	comp=Z,347µm,12.4s,MS6.9						
QIZ	Qiongzhong	20.60	53	eP	P	02 28 40.9	+0.7
	comp=Z,2µm,1.6s						
QIZ				LR	LR		
	comp=Z,123µm,20.0s,MS6.3						
KAD	Karad	20.62	301	⇑iP	P	02 28 40.7	+0.3
KAD				e		02 28 48.0	
	comp=Z,632nm,1.4s						
KAD				e		02 33 49.4	
ALBI	Allahabad	20.85	332	eP	P	02 28 41.0	-1.7
POO	Poona	21.48	304	⇑eP	P	02 28 49.7	+0.5
POO				e		02 28 57.6	
	comp=Z,355nm,1.6s						
PKI	Pulchoki	21.50	342	eP	P	02 28 50.1	+0.8
	comp=Z,1µm,0.9s,mb6.3						
PKI	Pulchoki	21.50	342	eP	P	02 28 49.8	+0.5
	comp=Z,1µm,0.9s,mb6.3						
DMN	Daman	21.63	342	eP	P	02 28 51.5	+0.9
	comp=Z,1µm,0.9s,mb6.4						
DMN	Daman	21.63	342	eP	P	02 28 50.8	+0.2
	comp=Z,986nm,1.0s,mb6.2						
GUN	Gumba	21.68	344	eP	P	02 28 52.3	+1.2
	comp=Z,3µm,1.3s,mb6.6						
GUN	Gumba	21.68	344	eP	P	02 28 52.1	+1.0
	comp=Z,3µm,1.3s,mb6.6						
KKN	Kakani	21.74	342	eP	P	02 28 52.4	+0.7
	comp=Z,720nm,0.9s,mb6.1						
KKN	Kakani	21.74	342	eP	P	02 28 52.1	+0.4
	comp=Z,720nm,0.9s,mb6.1						
GKN	Gorkha	22.14	341	eP	P	02 28 56.7	+1.0
	comp=Z,2µm,1.1s,mb6.4						
GKN	Gorkha	22.14	341	eP	P	02 28 56.9	+1.2
	comp=Z,2µm,1.1s,mb6.4						
KOLN	Koldanda	22.28	339	eP	P	02 28 58.5	+1.4
	comp=Z,996nm,1.0s,mb6.2						
KOLN	Koldanda	22.28	339	eP	P	02 28 58.3	+1.2
	comp=Z,1µm,1.3s,mb6.2						
BOM	Bombay	22.52	303	eP	P	02 29 02.0	+2.4
	comp=Z,2µm,2.0s,mb6.1						
BOM				e		02 29 08.3	
	comp=Z,588nm,1.2s						
LSA	Lhasa	22.56	357	⇑eP	P	02 28 59.5	-0.5
LSA				pmax	pmax		
	comp=Z,154nm,0.8s,mb5.5						
LSA				MLR	MLR		
	comp=Z,62µm,21.0s,MS6.0						
LSA	Lhasa	22.56	357	⇑eP	P	02 28 59.5	-0.5
	comp=Z,154nm,0.8s,mb5.5						
LSA				LR	LR		
	comp=Z,62µm,21.0s,MS6.0						
JHNI	Jhansi	22.68	325	⇑iP	P	02 28 59.0	-2.1
GYA	Guiyang	23.51	33	⇑iP	P	02 29 10.0	+0.7
GYA				AP		02 29 14.0	
GYA				XP		02 29 16.8	
GYA				PP	PP	02 29 42.5	+1.1
GYA				S	S	02 33 20.8	+2.0
GYA				AMB	AMB		
	comp=Z,160nm,1.2s,mb5.3						
GYA				LR	LR		
	comp=N,72µm,17.7s,MS6.5						
GYA				LR	LR		
	comp=E,92µm,13.8s,MS6.5						
GYA				LR	LR		
	comp=Z,101µm,14.0s,MS6.4						
BHV	Bhavnagar	24.53	309	eP	P	02 29 23.0	+3.8
DGAR	Diego Garcia	24.67	235	eP	P	02 29 23.3	+2.7
DGAR				pmax	pmax		
	comp=Z,337nm,1.3s,mb5.7						
DGAR				MLR	MLR		
	comp=Z,14µm,19.0s,MS5.5						
DGAR	Diego Garcia	24.67	235	eP	P	02 29 23.3	+2.7
	comp=Z,338nm,1.3s,mb5.7						
DGAR				LR	LR		
	comp=Z,14µm,19.0s,MS5.5						
BATP	Bataraza	25.07	84	eP	P	02 29 25.3	+0.9
LGTI	Lohaghat	25.11	334	⇑iP	P	02 29 26.0	+1.3
LGTI				e		02 30 33.5	
PTH	Pithoragarh	25.21	334	eP	P	02 29 26.9	+1.3
PTH				e	S	02 33 57.1	+9.4
AJM	Ajmer	25.76	321	⇑iP	P	02 29 31.7	+0.8
AJM				e		02 29 39.0	
	comp=Z,172nm,1.1s						
HKC	Hong Kong	25.77	52	⇓iP	P	02 29 34.0	+3.0
HKC				i S	S	02 34 11.0	+14
NDI	New Delhi	25.93	328	eP	P	02 29 31.5	-0.9
	comp=Z,236nm,0.7s,mb5.8						
NDI				e	S	02 33 56.0	-3.8
CD2	Chengdu	25.95	22	⇓iP	P	02 29 32.8	+0.3
CD2				S	S	02 34 00.8	+0.8
CD2				AMB	AMB		
	comp=Z,320nm,1.3s,mb5.7						
CD2				AMB	AMB		
	comp=Z,15µm,8.4s						
CD2				LR	LR		
	comp=N,82µm,13.2s						
CD2				LR	LR		
	comp=Z,78µm,18.0s,MS6.3						
ENPP	El Nido	26.84	79	eP	P	02 29 40.8	-0.1
DDI	Dehra Dun	26.85	331	eP	P	02 29 41.6	+0.8
DDI				e		02 35 10.6	
BHJ	Bhuj	27.27	309	⇑eP	P	02 29 46.2	+1.4
BHJ				e	pP	02 29 49.0	+0.1
	comp=Z,133nm,1.3s						
LUBP	Lubang	28.02	74	eP	P	02 29 51.7	+0.1
ENH	Enshi	28.04	32	⇑eP	P	02 29 49.7	-2.0
	comp=Z,236nm,1.3s,mb5.7						
ENH				LR	LR		
	comp=Z,97µm,19.0s,MS6.4						
SCZP	Santa Cruz	28.15	70	eP	pP	02 29 59.7	+2.7
BOLP	Bolinao	28.31	68	eP	P	02 29 57.8	+3.6
SDNR	Sundarnagar	28.34	331	eP	P	02 29 56.9	+2.5
CUYO	Cuyo Island	28.36	80	eP	P	02 29 54.9	+0.1
BHK	Bhakra	28.55	330	e	P	02 30 00.6	+4.4
BHK				e		02 34 38.0	
SJMP	San Jose	28.65	77	eP	P	02 29 55.8	-1.5
TGY	Tagaytay City	28.75	74	P	P	02 29 57.4	-0.8
	comp=Z,210nm,0.3s,mb6.3,baz=94,slow=11,SNR=4.1						
TGY				LR	LR	02 41 06.4	
	comp=Z,53µm,19.8s,MS6.2,baz=91,slow=36						
ABRA	Dolores	29.41	66	eP	pP	02 30 11.8	+3.6
BOAC	Boac	29.50	75	eP	pP	02 30 10.3	+1.3
OTRP	Odiongan	29.51	77	eP	P	02 30 04.5	-0.5
BALP	Baler	29.70	71	eP	P	02 30 08.3	+1.6
THN	Thein Dam	29.72	330	eP	P	02 30 06.9	+0.1
IPIL	Ipil	29.77	87	eP	P	02 30 07.4	0.0
POLP	Polilio Island	29.82	73	eP	pP	02 30 13.2	+1.3
GUIM	Jordan	29.88	81	eP	P	02 30 10.1	+1.7
APYP	Conner	29.95	66	eP	P	02 30 08.4	-0.6
RCP	Roxas	30.12	79	⇓eP	P	02 30 11.5	+1.0
CAUP	Cauayan	30.23	68	eP	P	02 30 11.6	+0.2
AUQP	San Andres	30.27	76	eP	pP	02 30 19.2	+3.2
SNPH	Sibulan	30.45	84	eP	pP	02 30 20.0	+2.5
PAGZ	Pagadian	30.58	87	eP	P	02 30 14.9	+0.4
QZH	Quanzhou	30.60	52	⇑iP	P	02 30 15.3	+0.7
QZH				AMB	AMB		

	comp=Z,330nm,1.3s,mb6.0						
QZH				LR	LR		
	comp=N,136μm,13.5s,MS7.1						
QZH				LR	LR		
	comp=E,226μm,13.0s,MS7.1						
QZH				LR	LR		
	comp=Z,353μm,13.3s,MS7.2						
LZH	**Lanzhou**	**30.69**	**18**	⇑P	**P**	**02 30 14.5**	**-0.8**
LZH				AP	pP	02 30 18.8	-0.6
LZH				PP	PP	02 31 15.0	-1.1
LZH				S	**S**	**02 35 13.0**	**-3.2**
LZH				SS	SS	02 36 55.0	-3.1
LZH				AMB	AMB		
	comp=Z,176nm,1.1s,mb5.8						
LZH				AMB	AMB		
	comp=Z,1μm,5.1s						
LZH				LR	LR		
	comp=E,49μm,14.3s						
LZH				LR	LR		
	comp=Z,67μm,15.9s,MS6.4						
SGCP	**Mt. Cagua**	**30.80**	**66**	*e*P	**P**	**02 30 16.0**	**-0.4**
PALP	**Palanan**	**30.81**	**68**	*e*P	**P**	**02 30 20.4**	**+3.8**
XAN	**Xi'an**	**30.82**	**27**	P	**P**	**02 30 14.0**	**-2.5**
XAN				AP	pP	02 30 20.5	-0.1
XAN				PP	PP	02 31 20.8	+2.9
XAN				S	**S**	**02 35 14.8**	**-3.5**
XAN				AMB	AMB		
	comp=Z,84nm,1.1s,mb5.5						
XAN				LR	LR		
	comp=N,40μm,14.9s,MS6.4						
XAN				LR	LR		
	comp=E,49μm,17.7s,MS6.4						
XAN				LR	LR		
	comp=Z,122μm,14.9s,MS6.7						
WHN	**Wuhan**	**31.04**	**38**	⇑P	**P**	**02 30 18.5**	**0.0**
WHN				S	**S**	**02 35 21.8**	**-0.1**
WHN				LR	LR		
	comp=N,38μm,14.8s,MS6.8						
WHN				LR	LR		
	comp=E,151μm,14.2s,MS6.8						
WHN				LR	LR		
	comp=Z,160μm,12.9s,MS6.9						
TBP	**Tagbilaran**	**31.08**	**83**	*e*P	**P**	**02 30 17.4**	**-1.6**
LLP	**Lapu-Lapu**	**31.21**	**82**	*e*P	**P**	**02 30 20.1**	**0.0**
BBP	**Basco**	**31.44**	**62**	*e*P	**P**	**02 30 23.4**	**+1.3**
PVCP	**Virac**	**31.74**	**76**	*e*P	**P**	**02 30 23.8**	**-0.9**
OCLP	**Ormoc**	**31.89**	**80**	*e*P	**P**	**02 30 26.0**	**-0.1**
MSLP	**Maasin**	**32.08**	**82**	*e*P	**P**	**02 30 29.6**	**+1.8**
CNP	**Catarman**	**32.09**	**78**	*e*P	**P**	**02 30 27.1**	**-0.6**
DAV	**Davao City (W)**	**32.77**	**88**	P	**P**	**02 30 36.0**	**+2.2**
BUTP	**Butuan**	**32.80**	**84**	*e*P	**P**	**02 30 34.2**	**+0.3**
GTA	**Gaotai**	**32.87**	**10**	P	**P**	**02 30 34.0**	**-0.4**
GTA				AP	pP	02 30 37.3	-1.2
GTA				XP	sP	02 30 40.8	+0.5
GTA				PPP	PPP	02 31 58.8	-1.5
GTA				PCP	PcP	02 33 21.3	+2.2
GTA				S	**S**	**02 35 48.3**	**-2.0**
GTA				SCS	ScS	02 40 57.8	-2.4
GTA				AMB	AMB		
	comp=Z,77nm,1.1s,mb5.5						
GTA				AMB	AMB		
	comp=Z,2μm,9.2s						
GTA				LR	LR		
	comp=N,17μm,18.0s,MS6.1						
GTA				LR	LR		
	comp=E,23μm,13.0s,MS6.1						
GTA				LR	LR		
	comp=Z,24μm,14.1s,MS6.0						
TATO	**Taipei**	**32.90**	**54**	PFAKE		02 30 50.0	+15
TATO				LR	LR		
	comp=Z,110μm,19.0s,MS6.6						
MATI	**Mati**	**33.45**	**88**	*e*P	**P**	**02 30 41.5**	**+1.9**
NJ2	**Nanjing**	**34.91**	**41**	*e*P	**P**	**02 30 52.3**	**+0.2**
NJ2				AP	pP	02 30 57.0	+0.7
NJ2				XP	sP	02 30 59.0	+0.9
NJ2				PP	PP	02 32 10.8	+0.7
NJ2				S	**S**	**02 36 29.0**	**+7.0**
NJ2				XS		02 36 34.0	
NJ2				AMB	AMB		
	comp=Z,3μm,6.9s						
TIY	**Taiyuan**	**35.45**	**28**	⇑P	**P**	**02 30 55.0**	**-1.7**
TIY				S	**S**	**02 36 37.0**	**+6.6**
TIY				LR	LR		
	comp=N,159μm,13.0s						
KSH	**Kashi**	**35.59**	**338**	P	**P**	**02 30 58.3**	**+0.5**
KSH				AP	pP	02 31 03.5	+1.5
KSH				PP	PP	02 32 17.5	-0.7
KSH				PPP	PPP	02 32 35.5	-1.9
KSH				PCP	PcP	02 33 28.8	+1.9
KSH				S	**S**	**02 36 31.5**	**-1.0**
KSH				PCS		02 37 15.8	
KSH				SCS	ScS	02 41 15.5	+0.9
KSH				AMB	AMB		
	comp=Z,2μm,6.3s						
KSH				LR	LR		
	comp=N,32μm,13.5s,MS6.5						
KSH				LR	LR		
	comp=E,41μm,13.8s,MS6.5						
SSE	**Sheshan**	**35.90**	**45**	P	**P**	**02 31 01.3**	**+0.8**
SSE				S	**S**	**02 36 39.3**	**+1.9**
SSE				AMB	AMB		
	comp=Z,70nm,1.1s,mb5.5						
SSE				AMB	AMB		
	comp=Z,1μm,8.2s						
SSE				LR	LR		
	comp=N,42μm,13.8s,MS6.5						
SSE				LR	LR		
	comp=E,38μm,13.7s,MS6.5						
SSE				LR	LR		
	comp=Z,68μm,12.9s,MS6.6						
TIA	**Tai'an**	**36.70**	**34**	⇑P	**P**	**02 31 07.0**	**-0.2**
TIA				S	**S**	**02 36 53.0**	**+3.5**
TIA				AMB	AMB		
	comp=Z,76nm,1.4s,mb5.3						
TIA				AMB	AMB		
	comp=Z,2μm,7.0s						
TIA				LR	LR		
	comp=N,12μm,12.3s,MS6.1						
TIA				LR	LR		
	comp=E,19μm,13.2s,MS6.1						
WMQ	**Urumqi**	**36.87**	**354**	⇑P	**P**	**02 31 10.0**	**+1.5**
WMQ				AP	pP	02 31 14.5	+1.8
WMQ				XP	sP	02 31 17.3	+2.8
WMQ				PP	PP	02 32 35.5	+1.2
WMQ				PPP	PPP	02 32 55.5	+1.2
WMQ				S	**S**	**02 36 53.3**	**+1.3**
WMQ				AMB	AMB		
	comp=Z,28nm,0.9s,mb5.1						
WMQ				AMB	AMB		
	comp=Z,751nm,6.9s						
WMQ				LR	LR		
	comp=N,21μm,21.6s,MS6.0						
WMQ				LR	LR		
	comp=E,20μm,20.7s,MS6.0						
WMQ				LR	LR		
	comp=Z,24μm,23.4s,MS5.9						
BTO	**Baotou**	**36.87**	**22**	*e*P	**P**	**02 31 07.3**	**-1.3**
BTO				S	**S**	**02 36 56.3**	**+4.1**
BTO				AMB	AMB		
	comp=Z,29nm,1.4s,mb4.9						
BTO				LR	LR		
	comp=N,7μm,11.2s,MS6.3						
BTO				LR	LR		
	comp=E,30μm,12.7s,MS6.3						
HHC	**Hu-ho-hao-te**	**37.69**	**24**	*e*P	**P**	**02 31 14.3**	**-1.1**
HHC				PP	PP	02 32 41.0	-3.3
HHC				PCP	PcP	02 33 34.0	+0.8
HHC				S	**S**	**02 37 01.0**	**-3.6**
HHC				PCS		02 37 20.0	
HHC				SCS	ScS	02 41 25.5	-0.7
HHC				AMB	AMB		
	comp=Z,64nm,1.4s,mb5.2						
HHC				AMB	AMB		
	comp=Z,1μm,7.8s						
HHC				LR	LR		
	comp=N,28μm,13.1s,MS6.5						
HHC				LR	LR		
	comp=E,48μm,13.1s,MS6.5						
HHC				LR	LR		
	comp=Z,40μm,14.3s,MS6.4						
ULHL	**Ulahol**	**37.90**	**340**	P	**P**	**02 31 18.5**	**+1.2**
	SNR=22						
KZA	**Kyzart**	**38.10**	**339**	P	**P**	**02 31 20.8**	**+1.9**
	SNR=72						
UCH	**Uchtor**	**38.49**	**338**	P	**P**	**02 31 23.9**	**+1.6**
	SNR=124						
AAA	**Alma-Ata**	**38.59**	**342**	*e*P	**P**	**02 31 23.0**	**0.0**
AAA				*e*S	**S**	**02 37 22.0**	**+3.7**
AAA				pmax	pmax		
	comp=Z,2μm,5.0s						
AAA				smax			
	comp=E,13μm,12.0s						
MBWA	**Marble Bar**	**38.71**	**137**	*e*P	**P**	**02 31 23.1**	**-1.1**
	comp=E,69nm,1.1s,mb5.3						
MBWA				*e*pP	pP	02 31 26.9	-1.5
MBWA				LR	LR		
	comp=Z,12μm,21.0s,MS5.7						
KBK	**Karagaybulak**	**38.71**	**339**	P	**P**	**02 31 24.9**	**+0.8**
	SNR=133						
AML	**Almayashu**	**38.72**	**337**	P	**P**	**02 31 26.1**	**+2.0**
	SNR=6.2						
TKM2	**Tokmak 2**	**38.72**	**340**	P	**P**	**02 31 24.8**	**+0.7**
	SNR=75						
AAK	**Ala-Archa**	**38.85**	**339**	P	**P**	**02 31 27.2**	**+1.9**
	SNR=91						
AAK	**Ala-Archa**	**38.85**	**339**	⇑*i*P	**P**	**02 31 25.2**	**0.0**
	comp=Z,280nm,1.1s,mb5.9						
AAK				LR	LR		
	comp=Z,9μm,19.0s,MS5.6						
FRU	**Bishkek**	**38.98**	**339**	⇑*i*P	**P**	**02 31 27.3**	**+1.0**
FRU				*e*		02 33 00.0	
FRU				*e*S	**S**	**02 37 20.0**	**-4.2**
FRU				pmax	pmax		
	comp=Z,690nm,2.2s,mb6.0						
FRU				pmax	pmax		
	comp=Z,3μm,6.0s						
FRU				smax			
	comp=E,8μm,12.0s						
FRU				MLR	MLR		
	comp=N,35μm,17.0s						
FRU				MLR	MLR		
	comp=Z,40μm,17.0s,MS6.3						
BJT	**Baijiatuau**	**39.05**	**29**	⇑*e*P	**P**	**02 31 27.3**	**+0.4**
BJT				pmax	pmax		
	comp=Z,114nm,1.1s						
BJT				MLR	MLR		
	comp=Z,46μm,19.0s						
BJT	**Baijiatuau**	**39.05**	**29**	⇑*e*P	**P**	**02 31 27.3**	**+0.4**
	comp=Z,114nm,1.1s,mb5.5						
BJT				LR	LR		
	comp=Z,46μm,19.0s,MS6.3						
BJI	**Beijing**	**39.07**	**29**	P	**P**	**02 31 27.8**	**+0.7**
BJI				PP	PP	02 32 58.8	-1.9
BJI				S	**S**	**02 37 30.5**	**+4.9**
BJI				AMB	AMB		
	comp=Z,59nm,1.2s,mb5.2						
BJI				AMB	AMB		
	comp=Z,2μm,4.6s						
BJI				LR	LR		
	comp=N,47μm,17.6s,MS6.5						
BJI				LR	LR		
	comp=E,37μm,16.8s,MS6.5						
BJI				LR	LR		
	comp=Z,28μm,22.7s						
CHMS	**Chumysh**	**39.08**	**339**	P	**P**	**02 31 28.3**	**+1.1**
	SNR=67						
EKS2	**Erkin-Say**	**39.14**	**338**	P	**P**	**02 31 28.9**	**+1.3**
	SNR=64						
USP	**Ospenovka**	**39.41**	**339**	P	**P**	**02 31 30.3**	**+0.5**
	SNR=128						
FITZ	**Fitzroy Crossi**	**41.13**	**128**	*e*P	**P**	**02 31 43.2**	**-1.0**
	comp=Z,155nm,0.9s,mb5.6						
FITZ				*e*S	**S**	**02 37 55.6**	**-1.0**
DL2	**Dalian**	**41.14**	**35**	⇑*i*P	**P**	**02 31 45.0**	**+0.9**
DL2				S	**S**	**02 38 02.5**	**+6.0**
DL2				AMB	AMB		
	comp=Z,80nm,1.1s,mb5.3						
DL2				AMB	AMB		
	comp=Z,1μm,9.4s						
DL2				LR	LR		
	comp=N,21μm,13.7s,MS6.3						
DL2				LR	LR		
	comp=E,13μm,12.0s,MS6.3						
DL2				LR	LR		
	comp=Z,19μm,12.4s,MS6.2						
SONM	**Songino Array**	**42.31**	**14**	P	**P**	**02 31 53.3**	**-0.3**
	comp=Z,30nm,0.9s,mb4.9,baz=196,slow=6.8,SNR=66						
SONM				LR	LR	02 51 54.9	
	comp=Z,36μm,19.5s,MS6.3,baz=192,slow=40						
ULN	**Ulaanbaatar**	**42.50**	**14**	⇑*e*P	**P**	**02 31 54.8**	**-0.4**
ULN				pmax	pmax		
	comp=Z,170nm,1.8s,mb5.5						
ULN				MLR	MLR		
	comp=Z,38μm,19.0s,MS6.3						
ULN	**Ulaanbaatar**	**42.50**	**14**	⇑*e*P	**P**	**02 31 54.8**	**-0.4**
	comp=Z,170nm,1.8s,mb5.5						
ULN				⇓*e*pP	pP	02 31 57.8	-1.7
ULN				LR	LR		
	comp=Z,38μm,19.0s,MS6.3						
INCN	**Inchon**	**43.29**	**41**	P	**P**	**02 32 00.8**	**-1.0**
INCN				LR	LR		
	comp=Z,40μm,19.0s,MS6.3						
KS15	**Wonju Array Si**	**44.08**	**41**	*e*P	**P**	**02 32 08.8**	**+0.6**
ZAK	**Zakamensk**	**44.10**	**10**	⇑*i*P	**P**	**02 32 08.8**	**+0.6**
ZAK				*e*		02 33 50.1	
SNY	**Shenyang**	**44.21**	**34**	⇑*i*P	**P**	**02 32 08.5**	**-0.7**
SNY				S	**S**	**02 38 40.5**	**-1.1**
SNY				XS		02 38 54.0	
SNY				SS	SS	02 41 52.8	+1.2
SNY				AMB	AMB		
	comp=Z,70nm,1.3s,mb5.2						
SNY				AMB	AMB		
	comp=Z,2μm,9.8s						
SNY				LR	LR		
	comp=E,45μm,13.7s						
SNY				LR	LR		
	comp=Z,38μm,15.2s,MS6.4						
KAKA	**Kakadu**	**44.24**	**116**	*e*P	**P**	**02 32 11.0**	**+1.2**
	comp=Z,40nm,0.8s,mb5.2						
MUN	**Mundaring**	**44.90**	**151**	*e*P	**P**	**02 32 15.6**	**+0.7**
	comp=Z,27nm,0.7s,mb5.2						
MUN	**Mundaring**	**44.90**	**151**	*e*P	**P**	**02 32 15.6**	**+0.7**
MUN				pmax	pmax		
	comp=Z,27nm,0.7s,mb5.2						
MOY	**Mondy**	**45.01**	**7**	*e*P	**P**	**02 32 16.4**	**+0.9**
KLBR	**Kellerberrin**	**45.35**	**149**	*e*P	**P**	**02 32 18.7**	**+0.2**
	comp=Z,69nm,1.1s,mb5.4						
TLY	**Talaya**	**45.42**	**10**	P	**P**	**02 32 19.0**	**+0.3**
	comp=Z,195nm,1.1s,mb5.8,SNR=22						
TLY	**Talaya**	**45.42**	**10**	⇑*e*P	**P**	**02 32 19.4**	**+0.6**
	comp=Z,128nm,1.5s,mb5.5						
TLY				⇓*e*pP	pP	02 32 22.8	-0.2
TLY				LR	LR		
	comp=Z,3μm,21.0s						
IRK	**Irkutsk**	**46.07**	**10**	*e*P	**P**	**02 32 23.5**	**-0.3**
IRK				*e*		02 39 01.6	
NWAO	**Narrogin (SRO)**	**46.17**	**151**	*e*P	**P**	**02 32 23.8**	**-1.2**
NWAO				pmax	pmax		
	comp=Z,66nm,1.1s						
NWAO				MLR	MLR		
	comp=Z,13μm,19.0s						
NWAO	**Narrogin (SRO)**	**46.17**	**151**	P	**P**	**02 32 24.3**	**-0.7**
	comp=Z,42nm,0.9s,mb5.4,baz=315,slow=7.7,SNR=7.0						
NWAO	**Narrogin (SRO)**	**46.17**	**151**	*e*P	**P**	**02 32 23.8**	**-1.2**
	comp=Z,66nm,1.1s,mb5.5						
NWAO				⇓*e*pP	pP	02 32 27.9	-1.3
NWAO				LR	LR		
	comp=Z,13μm,19.0s,MS5.9						
CN2	**Changchun**	**46.56**	**33**	*e*P	**P**	**02 32 27.8**	**-0.1**
CN2				*e*PP	PP	02 34 17.0	-0.3
CN2				SCP		02 37 53.5	
CN2				*e*S	**S**	**02 39 14.8**	**-0.4**
CN2				*e*SS	SS	02 42 34.0	+0.1
CN2				AMB	AMB		
	comp=Z,120nm,1.5s,mb5.6						
CN2				AMB	AMB		
	comp=Z,2μm,5.0s						
CN2				LR	LR		
	comp=N,29μm,14.0s,MS6.5						
CN2				LR	LR		
	comp=E,31μm,14.0s,MS6.5						
CN2				LR	LR		
	comp=Z,35μm,15.0s,MS6.4						
RDF	**Al-Radifah**	**47.63**	**303**	*e*P	**P**	**02 32 37.3**	**+0.8**
RDF				AMb	AMB	02 32 43.3	
	comp=Z,204nm,1.2s,mb6.0						
UMR	**Umm Al-Rimmam**	**47.69**	**304**	*e*P	**P**	**02 32 38.0**	**+1.0**
UMR				AMb	AMB	02 32 41.9	
	comp=Z,129nm,0.8s,mb6.0						
HIA	**Hailar**	**47.89**	**24**	*e*P	**P**	**02 32 38.1**	**-0.2**
HIA				pmax	pmax		
	comp=Z,85nm,0.9s						
HIA				MLR	MLR		
	comp=Z,61μm,19.0s						
HIA	**Hailar**	**47.89**	**24**	*e*P	**P**	**02 32 38.1**	**-0.2**
	comp=Z,85nm,0.9s,mb5.8						
HIA				LR	LR		
	comp=Z,61μm,19.0s,MS6.6						
NVS	**Novosibirsk**	**48.23**	**353**	*i* P	**P**	**02 32 39.5**	**-1.4**
NVS				*e*S	**S**	**02 39 34.9**	**-3.8**
NVS				pmax	pmax		
	comp=N,77nm,1.3s						
NVS				pmax	pmax		
	comp=E,54nm,1.3s						
NVS				pmax	pmax		
	comp=Z,87nm,1.3s,mb5.6						
NVS				smax			
	comp=E,140nm,2.6s						
RST	**Umm Al-Ruwaisa**	**48.27**	**303**	*e*P	**P**	**02 32 42.2**	**+0.7**
RST				AMb	AMB	02 32 46.3	
	comp=Z,137nm,0.9s,mb6.0						
WRA	**Warramunga Arr**	**49.09**	**124**	*i* P	**P**	**02 32 46.4**	**-1.6**
WRA				pmax	pmax		
	comp=Z,93nm,1.0s						
WRA	**Warramunga Arr**	**49.09**	**124**	P	**P**	**02 32 46.4**	**-1.6**
	comp=Z,92nm,1.0s,mb5.8,baz=303,slow=8.7,SNR=126						
WRA				PcP	PcP	02 34 11.1	-0.8
	comp=Z,17nm,1.0s,baz=302,slow=4.5,SNR=1.9						
WRA				S	**S**	**02 39 48.0**	**-3.3**
	comp=Z,8.0nm,1.0s,baz=300,slow=15,SNR=7.0						
WRAB	**Tennant Creek**	**49.10**	**124**	*i* P	**P**	**02 32 47.3**	**-0.7**
WRAB	**Tennant Creek**	**49.10**	**124**	⇑*e*P	**P**	**02 32 46.1**	**-1.9**
	comp=Z,230nm,0.9s,mb6.2						
WRAB				LR	LR		
	comp=Z,7μm,20.0s,MS5.7						
WB2	**Warramunga Arr**	**49.10**	**124**	*e*P	**P**	**02 32 46.7**	**-1.3**
WB2				*e*S	**S**	**02 39 49.8**	**-1.6**
BVAR	**Borovoye Array**	**49.27**	**342**	P	**P**	**02 32 47.9**	**-1.0**
	comp=Z,26nm,0.8s,mb5.3,baz=143,slow=7.4,SNR=92						
BVAR				S	**S**	**02 39 54.4**	**+1.1**
	comp=Z,1.3nm,1.0s,baz=232,slow=45,SNR=2.5						
BRVK	**Borovoye**	**49.33**	**342**	*e*P	**P**	**02 32 48.4**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,61nm,0.8s,mb5.7						
BRVK				MLR	MLR		
	comp=Z,6μm,20.0s,MS5.6						
BRVK	**Borovoye**	**49.33**	**342**	*e*P	**P**	**02 32 48.4**	**-0.9**
	comp=Z,61nm,0.8s,mb5.7						
BRVK				LR	LR		
	comp=Z,6μm,20.0s,MS5.6						
MDJ	**Mudanjiang**	**49.36**	**35**	P	**P**	**02 32 49.5**	**-0.2**
MDJ				XP	sP	02 32 57.0	+1.3
MDJ				PP	PP	02 34 43.5	-0.8
MDJ				PCS		02 38 07.3	
MDJ				S	**S**	**02 39 57.0**	**+2.2**
MDJ				XS		02 40 08.0	
MDJ				SCS	ScS	02 42 41.0	+2.5
MDJ				AMB	AMB		
	comp=Z,72nm,1.4s,mb5.5						
MDJ				AMB	AMB		
	comp=Z,2μm,6.6s						
MDJ				LR	LR		
	comp=N,26μm,12.4s,MS6.7						
MDJ				LR	LR		
	comp=E,41μm,12.4s,MS6.7						
MDJ				LR	LR		
	comp=Z,46μm,13.4s,MS6.6						
MDJ	**Mudanjiang**	**49.36**	**35**	*e*P	**P**	**02 32 50.1**	**+0.4**
	comp=Z,584nm,2.0s,mb6.3						
MDJ				LR	LR		
	comp=Z,19μm,20.0s,MS6.1						
CHKZ	**Chkalovo**	**49.77**	**343**	*e*P	**P**	**02 32 52.0**	**-0.7**
CHKZ				pmax	pmax		
	comp=Z,114nm,0.8s,mb6.0						
CHKZ	**Chkalovo**	**49.77**	**343**	*e*P	**P**	**02 32 52.0**	**-0.7**
	comp=Z,114nm,0.8s,mb6.0						
VLA	**Vladivostok**	**49.82**	**37**	*c* *i*P	**P**	**02 32 56.0**	**+2.7**
VLA				*i*		02 34 11.0	
VLA				*i* S	**S**	**02 40 14.0**	**+13**
VLA				*i*		02 42 36.0	
VLA				pmax	pmax		
	comp=Z,2μm,12.0s						
VLA				pmax	pmax		
	comp=Z,4μm,10.0s						
VLA				pmax	pmax		
	comp=N,1μm,8.0s						
VLA				pmax	pmax		
	comp=E,2μm,15.0s						
VLA				smax			
	comp=N,3μm,12.0s						
VLA				smax			
	comp=E,4μm,12.0s						
ASPA	**Alice Springs**	**50.62**	**128**	*e*P	**P**	**02 32 58.0**	**-1.6**
ASPA				*e*S	**S**	**02 40 15.5**	**+3.1**
ASAR	**Alice Springs**	**50.62**	**128**	P	**P**	**02 32 58.2**	**-1.4**
	comp=E,53nm,0.8s,mb5.5,baz=307,slow=6.9,SNR=113						
ASAR				PcP	PcP	02 34 16.9	-0.6
	comp=E,32nm,0.9s,baz=300,slow=3.9,SNR=4.9						
ASAR				S	**S**	**02 40 17.1**	**+4.7**
	comp=E,2.3nm,0.9s,baz=307,slow=14,SNR=4.3						
ASAR				PKPPKP		03 03 42.8	
	comp=E,0.7nm,1.0s,baz=128,slow=3.0,SNR=4.1						
ASAR				PKP2bc		03 03 59.9	
	comp=E,0.8nm,0.9s,baz=131,slow=2.3,SNR=4.0						
MAJO	**Matsushiro**	**50.87**	**48**	*e*P	**P**	**02 32 59.8**	**-1.6**
MAJO				pmax	pmax		
	comp=Z,794nm,2.3s,mb6.2						
MAJO				MLR	MLR		
	comp=Z,30μm,20.0s,MS6.3						
MAJO	**Matsushiro**	**50.87**	**48**	*e*P	**P**	**02 32 59.8**	**-1.6**
	comp=Z,794nm,2.3s,mb6.2						
MAJO				LR	LR		
	comp=Z,30μm,20.0s,MS6.3						
MAT	**Matsushiro**	**50.87**	**48**	P	**P**	**02 32 59.5**	**-1.9**
MAT				S	**S**	**02 40 17.0**	**+1.3**
MAT	**Matsushiro**	**50.87**	**48**	*e*P	**P**	**02 33 00.0**	**-1.4**
MAT				*e*S	**S**	**02 40 17.0**	**+1.3**
MAT				pmax	pmax		
	comp=Z,473nm,2.1s,mb6.0						
MAT				MLR	MLR		
	comp=Z,14μm,20.0s,MS6.0						
MAT	**Matsushiro**	**50.87**	**48**	*e*P	**P**	**02 33 00.0**	**-1.4**
	comp=Z,473nm,2.1s,mb6.0						
MAT				*e*S	**S**	**02 40 17.0**	**+1.3**
MAT				LR	LR		
	comp=Z,14μm,20.0s,MS6.0						
MAK	**Makhachkala**	**53.30**	**320**	*c* *i*P	**P**	**02 33 21.0**	**+1.5**
MAK				*i*		02 34 27.0	
MAK				*e*PPP	PPP	02 36 29.0	+1.0
MAK				*i* S	**S**	**02 40 51.0**	**+2.2**
MAK				*i* PS	PS	02 41 10.0	+9.3
MAK				*i*		02 43 08.0	
MAK				pmax	pmax		
	comp=N,500nm,8.0s						
MAK				pmax	pmax		
	comp=E,1μm,8.0s						
MAK				pmax	pmax		
	comp=Z,4μm,8.0s						
MAK				smax			
	comp=N,7μm,10.0s						
MAK				smax			
	comp=E,7μm,10.0s						
KLR	**Kul'dur**	**53.39**	**31**	*e*P	**P**	**02 33 16.5**	**-3.6**
KLR				*e*S	**S**	**02 40 51.0**	**+1.0**
KLR				pmax	pmax		
	comp=N,180nm,2.4s						
KLR				pmax	pmax		
	comp=E,330nm,2.4s						
KLR				pmax	pmax		
	comp=Z,400nm,2.4s,mb5.9						
KLR				pmax	pmax		
	comp=N,1μm,15.5s						
KLR				pmax	pmax		
	comp=E,1μm,15.5s						
KLR				pmax	pmax		
	comp=Z,4μm,15.5s						
KLR				smax			
	comp=N,7μm,11.0s						
KLR				smax			
	comp=E,4μm,11.0s						
GNI	**Garni**	**53.89**	**315**	*e*P	**P**	**02 33 23.9**	**0.0**
GNI	**Garni**	**53.89**	**315**	P	**P**	**02 33 24.1**	**+0.2**
	comp=E,65nm,0.8s,mb5.6,baz=305,slow=2.6,SNR=26						
GNI				LR	LR	03 00 41.5	
	comp=E,12μm,19.1s,MS6.0,baz=320,slow=41						
TVAN	**Van**	**54.20**	**313**	*i* P	**P**	**02 33 30.2**	**+4.1**
TI2	**Plekhanov**	**54.55**	**317**	⇑*i*P	**P**	**02 33 28.8**	**+0.1**

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TI2                                 e               02 34 39.4
TI2                                 i S     S       02 41 10.4 +4.5
TI2                                  pmax   pmax
      comp=Z,150nm,1.0s,mb6.0
BTMT  Batman            55.48 312   eP      P       02 33 33.6 -2.0
BEST  Besiri            55.54 312   i P     P       02 33 35.2 -0.8
ZEI   Tsey              55.57 318   i P     P       02 33 36.4 +0.2
ZEI                                 i *PP   pP      02 33 51.7  +11
ZEI                                 i               02 35 41.0
ZEI                                 i S     S       02 41 18.8 -0.6
ZEI                                  pmax   pmax
      comp=Z,74nm,1.0s,mb5.7
SVE   Sverdlovsk        55.59 339   eP      P       02 33 36.0 -0.1
SVE                                 e               02 34 36.0
SVE                                 e               02 35 33.0
SVE                                 i S     S       02 41 19.3 -0.2
SVE                                 e               02 43 21.5
SVE                                  pmax   pmax
      comp=Z,500nm,1.3s,mb6.4
SVE                                  smax
      comp=N,4µm,13.0s
SVE                                  smax
      comp=E,7µm,13.0s
SVE                                  MLR    MLR
      comp=Z,30µm,19.5s,MS6.4
KMBO  Kilima Mbogo      55.77 264   eP      P       02 33 39.3 +1.3
KMBO                                 pmax   pmax
      comp=Z,44nm,1.4s
KMBO                                 MLR    MLR
      comp=Z,37µm,22.0s
KMBO  Kilima Mbogo      55.77 264    P      P       02 33 39.5 +1.6
      comp=Z,30nm,1.3s,mb5.2,baz=51,slow=8.0,SNR=14
KMBO                                 S      S       02 41 25.3 +2.8
      comp=Z,1.2nm,0.8s,baz=54,slow=19,SNR=2.6
KMBO                                 LR     LR      02 53 30.6
      comp=Z,33µm,20.6s,MS6.4,baz=74,slow=32
KMBO  Kilima Mbogo      55.77 264   eP      P       02 33 39.3 +1.3
      comp=Z,44nm,1.4s,mb5.3
KMBO                                 LR     LR
      comp=Z,37µm,22.0s,MS6.4
VRT   Varto             55.79 313   eP      P       02 33 38.1 +0.4
ARU   Arti              56.04 338⇑  iP      P       02 33 38.5 -0.8
ARU                                 i               02 34 34.6
ARU                                 e               02 35 37.8
ARU                                 ePPP    PPP     02 37 01.1 -0.3
ARU                                 eS      S       02 41 27.0 +1.5
ARU                                 i               02 43 28.3
ARU                                  pmax   pmax
      comp=Z,104nm,0.9s,mb5.9
ARU                                  MLR    MLR
      comp=N,6µm,18.0s,MS6.5
ARU                                  MLR    MLR
      comp=E,34µm,18.0s,MS6.5
ARU                                  MLR    MLR
      comp=Z,28µm,18.0s,MS6.4
ARU   Arti              56.04 338   eP      P       02 33 38.2 -1.1
      comp=Z,124nm,1.0s,mb5.9
ARU                                  LR     LR
      comp=Z,6µm,19.0s,MS5.7
ERZM  Erzurum           56.18 314   i P     P       02 33 40.9 +0.3
EZM   Erzurum           56.19 314   eP      P       02 33 41.7 +1.1
BINT  Bingol            56.45 312   eP      P       02 33 42.7 +0.1
BCA   Borcka            56.58 316   eP      P       02 33 41.8 -1.6
PMG   Port Moresby      56.81 106   eP      P       02 33 43.9 -1.5
PMG                                  pmax   pmax
      comp=Z,62nm,0.7s
PMG                                  MLR    MLR
      comp=Z,10µm,19.0s
PMG   Port Moresby      56.81 106    P      P       02 33 43.0 -2.4
      comp=Z,80nm,0.8s,mb5.8,baz=280,slow=4.1,SNR=10
PMG                                  S      S       02 41 32.7 -3.5
      comp=Z,2.0nm,0.3s,baz=348,slow=16,SNR=1.8
PMG   Port Moresby      56.81 106   eP      P       02 33 43.9 -1.5
      comp=Z,62nm,0.7s,mb5.8
PMG                                  LR     LR
      comp=Z,10µm,19.0s,MS5.9
KIV   Kislovodsk        56.88 319    P      P       02 33 44.5 -1.0
      comp=Z,701nm,1.1s,mb6.6,SNR=38
KIV   Kislovodsk        56.88 319c  iP      P       02 33 45.0 -0.5
KIV                                 i S     S       02 41 39.0 +2.3
KIV                                  pmax   pmax
      comp=Z,341nm,2.5s,mb5.9
KIV                                  MLR    MLR
      comp=Z,8µm,15.0s,MS6.0
KIV   Kislovodsk        56.88 319   eP      P       02 33 44.0 -1.5
      comp=Z,133nm,1.0s,mb5.9
KIV                                  LR     LR
      comp=Z,3µm,19.0s,MS5.4
GOF   Gofitskoye        57.12 320⇓  iP      P       02 33 46.0 -1.3
GOF                                 eS      S       02 42 01.0  +21
GOF                                  pmax   pmax
      comp=Z,140nm,1.2s,mb5.9
GOF                                  pmax   pmax
      comp=Z,4µm,10.0s
URFA  Urfa              57.23 310   eP      P       02 33 47.7 -0.5
PTK   Pertek            57.27 312   eP      P       02 33 48.4  0.0
ASF   Jabal al Asfar    57.35 304    P      P       02 33 50.3 +1.3
      comp=Z,19nm,0.9s,mb5.1,baz=286,slow=1.8,SNR=21
ASF                                  LR     LR      02 58 13.8
      comp=Z,12µm,21.4s,MS6.0,baz=338,slow=36
ELZG  Elazig            57.44 311   i P     P       02 33 49.1 -0.5
MALT  Malatya           57.80 311   eP      P       02 33 51.9 -0.2
DUSS  Damascus Unive    58.16 305   i P     P       02 33 55.9 +1.3
DUSS                                i P             02 33 56.0
DUSS                                i P             02 33 56.0
DUSS                                e       pP      02 33 58.5 -0.5
      baz=102,slow=9.3
DUSS                                eS      S       02 41 50.6 -3.1
DUSS                                 AMS    AMS     02 59 36.9
      comp=N,489µm,17.1s
DUSS                                 AMS    AMS     03 03 50.8
      comp=Z,219µm,17.1s,MS7.3
DUSS                                 AMS    AMS     03 03 55.9
      comp=E,234µm,17.1s
GZT   Gaziantep         58.16 310   i P     P       02 33 55.1 +0.5
MKRJ  Makawir           58.25 303    P      P       02 33 55.8 +0.5
GAZ   Gaziantep         58.38 310   eP      P       02 33 56.7 +0.5
YSS   Yuzh-Sakhalins    58.39  38⇑  eP      P       02 33 55.0 -1.1
YSS                                 e               02 34 08.0
YSS                                 ePPP    PPP     02 37 28.0 -2.3
YSS                                 eS      S       02 42 03.0 +6.4
YSS                                 ePS     PS      02 42 24.0  +12
YSS                                  pmax   pmax
      comp=Z,130nm,1.2s,mb5.8
YSS                                  smax
      comp=E,3µm,11.0s
YSS                                  smax
      comp=E,3µm,10.0s
YSS                                  MLR    MLR
      comp=N,27µm,15.0s,MS6.8
YSS                                  MLR    MLR
      comp=Z,40µm,15.0s,MS6.7
YSS                                  MLR    MLR
      comp=E,43µm,14.0s,MS6.8
YSS   Yuzh-Sakhalins    58.39  38   eP      P       02 33 55.6 -0.5
      comp=E,554nm,1.9s,mb6.3
YSS                                  LR     LR
      comp=Z,19µm,20.0s,MS6.2
MZDA  Masada            58.44 302    P      P       02 33 57.3 +0.7
ZFRI  Zfri              58.44 302    P      P       02 33 57.0 +0.3
EIL   Elat              58.47 300    P      P       02 33 57.1 +0.2
EIL   Elat              58.47 300   eP      P       02 33 57.4 +0.5
      comp=Z,46nm,0.9s,mb5.5
MBH   Mount Berech      58.52 301    P      P       02 33 57.7 +0.5
PRNI  Paran             58.55 301    P      P       02 33 57.9 +0.5
MMLI  Mount Malkishu    58.62 304    P      P       02 33 58.8 +0.9
SOC   Sochi             58.70 317   i P     P       02 33 55.5 -2.8
SOC                                 e               02 34 51.2
SOC                                 i S     S       02 41 57.4 -3.3
SOC                                 eSS     SS      02 45 44.7  -11
SOC                                  pmax   pmax
      comp=N,52nm,1.5s
SOC                                  pmax   pmax
      comp=Z,109nm,1.5s,mb5.7
SOC                                  pmax   pmax
      comp=E,18nm,1.2s
SOC   Sochi             58.70 317⇑  iP      P       02 33 56.8 -1.5
KMTI  Karmit            58.74 301    P      P       02 33 59.1 +0.3
KAHT  Ahir Dag          58.77 310   i P     P       02 33 58.5 -0.4
MASH  Mash‘abbe Sade    58.86 302    P      P       02 33 59.8 +0.2
SLTI  Sal’it            58.90 303    P      P       02 34 00.4 +0.6
COBT  Iskenderun        58.94 309   i P     P       02 34 00.6 +0.5
HNTI  Hanita            58.97 304    P      P       02 34 00.9 +0.6
SOKR  Solikamsk         59.00 340⇓  iP      P       02 33 58.9 -1.3
SOKR                                 pmax   pmax
      comp=Z,160nm,1.2s,mb5.9
SOKR                                 MLR    MLR
      comp=Z,21µm,19.0s,MS6.3
OFRI  ‘Ofer             59.02 304    P      P       02 34 01.1 +0.4
HAF   Haifa             59.02 304    P      P       02 34 01.2 +0.5
YUK   Yuzh-Kuril’sk     59.19  42   eP      P       02 33 57.5 -4.2
YUK                                 eS      S       02 42 08.0 +1.0
YUK                                 e               02 43 48.0
YUK                                  pmax   pmax
      comp=Z,3µm,3.0s
YUK                                  smax
      comp=E,4µm,11.0s
YUK                                  smax
      comp=N,5µm,14.0s
YUK                                  MLR    MLR
      comp=Z,33µm,16.0s,MS6.5
YUK                                  MLR    MLR
      comp=N,15µm,17.0s,MS6.5
YUK                                  MLR    MLR
      comp=E,25µm,16.0s,MS6.5
CTA   Charters Tower    59.30 118   eP      P       02 34 01.8 -1.0
      comp=E,44nm,0.9s,mb5.5
CTA   Charters Tower    59.30 118   eP      P       02 34 01.8 -1.0
CTA                                  pmax   pmax
      comp=Z,44nm,0.9s
CTA   Charters Tower    59.30 118    P      P       02 34 01.9 -0.8
      comp=Z,59nm,1.1s,mb5.5,baz=296,slow=8.9,SNR=15
CTA                                  S      S       02 42 01.8 -7.0
      comp=Z,2.6nm,0.7s,baz=286,slow=20,SNR=2.0
CTAO  Charters Tower    59.30 118    P      P       02 34 02.1 -0.7
CTAO                                 pmax   pmax
      comp=Z,170nm,1.3s,mb5.9
CTAO  Charters Tower    59.30 118   eP      P       02 34 01.8 -1.0
      comp=Z,167nm,1.4s,mb5.9
CTAO                                 LR     LR
      comp=Z,8µm,19.0s,MS5.9
BNN   Bunyan            59.89 311   eP      P       02 34 04.0 -2.6
KVT   Kavak             60.40 314   eP      P       02 34 09.9 -0.1
MEST  Erdemli           60.60 308   i P     P       02 34 10.4 -1.1
AVNT  Avonos            60.61 311   i P     P       02 34 10.1 -1.5
NIG   Nigde             60.62 310   eP      P       02 34 11.3 -0.3
ANN   Anapa             60.67 318   eP      P       02 34 08.4 -3.4
ANN                                 eS      S       02 42 21.6 -4.5
ANN                                  pmax   pmax
      comp=Z,67nm,1.3s,mb5.6
STKA  Stephens Creek    60.70 133   eP      P       02 34 10.8 -1.4
      comp=Z,37nm,0.8s,mb5.6
STKA                                eS      S       02 42 32.4 +5.7
STKA  Stephens Creek    60.70 133    P      P       02 34 11.5 -0.7
      comp=Z,116nm,1.2s,mb5.9,baz=316,slow=5.9,SNR=32
STKA                                 S      S       02 42 25.5 -1.2
      comp=Z,2.8nm,1.0s,baz=275,slow=12,SNR=1.6
STKA                                 LR     LR      03 03 00.4
      comp=Z,13µm,20.1s,MS6.1,baz=304,slow=38
CSS   Prodhromos        60.87 306    P      P       02 34 14.5 +1.2
MAMC  Mammari           61.01 306    P      P       02 34 14.7 +0.4
CTKT  Corum             61.17 313   i P     P       02 34 14.1 -1.3
SZAC  Souni-Zanaja      61.19 306    P      P       02 34 15.9 +0.4
      comp=Z,2.4nm,1.0s
LEF   Lefka             61.26 306   eP      P       02 34 15.8 -0.1
YAK   Yakutsk           61.27  19   i P     P       02 34 14.4 -1.2
YAK                                 eS      S       02 42 33.2 -0.3
YAK                                  pmax   pmax
      comp=Z,215nm,1.3s,mb6.1
YAK                                  pmax   pmax
      comp=N,102nm,1.2s
YAK                                  pmax   pmax
      comp=E,123nm,1.2s
YAK                                  pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.6
YAK                                  pmax   pmax
      comp=N,9.0nm,1.1s
YAK                                  pmax   pmax
      comp=E,6.0nm,1.0s
YAK                                  smax
      comp=Z,4.0nm,0.9s
YAK                                  smax
      comp=N,20nm,1.1s
YAK                                  smax
      comp=E,10.0nm,1.3s
YAK                                  MLR    MLR
      comp=N,25µm,15.0s,MS6.7
YAK                                  MLR    MLR
      comp=Z,49µm,15.0s,MS6.8
YAK                                  MLR    MLR
      comp=E,31µm,18.0s,MS6.7
YAK   Yakutsk           61.27  19   eP      P       02 34 13.8 -1.9
      comp=E,437nm,1.4s,mb6.4
YAK                                  LR     LR
      comp=Z,36µm,21.0s,MS6.5
BOYT  Boyabat           61.32 314   i P     P       02 34 15.2 -1.1
BYBT  Boyabat           61.44 314   eP      P       02 34 14.0 -3.0
ALFC  Alevga            61.50 306    P      P       02 34 17.4 -0.2
KAMT  Kaman             61.63 311   eP      P       02 34 17.2 -1.2
PPCY  Paphos            61.65 306    P      P       02 34 16.7 -1.9
BR131 Keskin Array S    61.77 311    PFAKE          02 34 30.0  +11
BR131                                LR     LR
      comp=Z,7µm,20.0s,MS5.8
BRTR  Keskin Array B    61.77 311    P      P       02 34 18.2 -1.2
      comp=Z,46nm,1.2s,mb5.5,baz=127,slow=6.2,SNR=55
TOS   Tosya             61.85 313   eP      P       02 34 15.8 -4.0
HDMB  Hadim             61.98 308    P      P       02 34 18.1 -2.7
CANT  Cankiri           62.02 312   eP      P       02 34 19.5 -1.6
PECR  Pechory           62.09 332   eP      P       02 34 17.0 -4.3
PECR                                 pmax   pmax
      comp=Z,2µm,13.0s
PECR                                 MLR    MLR
      comp=Z,19µm,19.0s,MS6.3
BZK   Bozkurt           62.12 314   eP      P       02 34 16.3 -5.4
MBAR  Mbarara           62.13 266    P      P       02 34 22.4 +0.3
MBAR                                 pmax   pmax
      comp=Z,50nm,1.4s,mb5.5
MBAR  Mbarara           62.13 266   eP      P       02 34 21.9 -0.2
      comp=Z,50nm,1.4s,mb5.5
MBAR                                 LR     LR
      comp=Z,11µm,21.0s,MS6.0
VRSR  Storozhevoye      62.13 325   eP      P       02 34 20.1 -1.6
VRSR                                e*PP    pP      02 34 26.8 +0.8
VRSR                                e               02 35 00.7
VRSR                                e               02 36 33.9
VRSR                                eS      S       02 42 43.1 -1.5
VRSR                                e               02 44 06.0
VRSR                                 pmax   pmax
      comp=Z,70nm,1.3s,mb5.6
VRSR                                 pmax   pmax
      comp=N,20nm,1.0s
VRSR                                 pmax   pmax
      comp=E,60nm,1.1s
VRSR                                 smax
      comp=N,10.0nm,1.3s
VRSR                                 smax
      comp=Z,4.0nm,0.7s
VRSR                                 smax
      comp=E,10.0nm,1.1s
VRSR                                 MLR    MLR
      comp=Z,13µm,18.0s,MS6.2
VRSR                                 MLR    MLR
      comp=N,32µm,57.0s
VRSR                                 MLR    MLR
      comp=E,6µm,18.0s
ELDT  Eldivan           62.13 312   i P     P       02 34 21.2 -0.6
KONT  Konya--Tatoy      62.30 309   eP      P       02 34 23.1 +0.1
ANTO  Ankara            62.44 311   eP      P       02 34 22.4 -1.4
BALT  Daday             62.45 313   i P     P       02 34 23.5 -0.4
LOD   Lodumlu           62.47 311   eP      P       02 34 23.6 -0.5
SAFT  Safranbolu        62.88 313   eP      P       02 34 24.9 -1.8
KIZT  Kizilcal          62.89 310   eP      P       02 34 22.7 -4.1
SIM   Simferopol’       62.94 317c  eP      P       02 34 26.0 -1.1
SIM                                 eS      S       02 42 55.0 +0.1
SIM                                  pmax   pmax
      comp=Z,1µm,15.0s
SGKT  Sivrigoynuk       63.17 312   i P     P       02 34 28.0 -0.6
ANTB  Antalya           63.40 308   eP      P       02 34 24.9 -5.3
BCK   Bucak             63.57 308   eP      P       02 34 29.0 -2.3
ISP   Isparta           63.71 309   eP      P       02 34 29.0 -3.3
MDU   Mudurnu           63.76 312   eP      P       02 34 32.1 -0.5
ESKT  Eskisehir         63.81 311   eP      P       02 34 30.4 -2.6
ESKT  Eskisehir         63.81 311   i P     P       02 34 31.9 -1.1
ELL   Elmali            63.96 307   eP      P       02 34 32.7 -1.3
HENT  Hendek            64.08 312   i P     P       02 34 32.6 -2.1
ALT   Altintas          64.27 310   eP      P       02 34 36.6 +0.7
DNZL  Cakiroluk         64.81 308   i P     P       02 34 41.3 +1.8
DENT  Denizli           64.84 308    P      P       02 34 39.9 +0.3
MOS   Moscow            64.96 329   eP      P       02 34 38.7 -1.4
MOS                                 e               02 35 13.9
MOS                                 e               02 36 58.4
MOS                                 eS      S       02 43 16.5 -3.3
MOS                                 e               02 44 26.8
MOS                                  pmax   pmax
      comp=Z,246nm,1.4s,mb6.0
YLV   Yalova            65.15 311   eP      P       02 34 38.6 -3.1
OBN   Obninsk           65.23 328c  eP      P       02 34 40.5 -1.4
OBN                                 i S     S       02 43 19.1 -4.0
OBN                                 eSS     SS      02 47 30.4 -7.4
OBN                                  pmax   pmax
      comp=Z,149nm,1.1s,mb5.9
OBN                                  MLR    MLR
      comp=Z,23µm,18.0s,MS6.4
OBN   Obninsk           65.23 328   eP      P       02 34 39.7 -2.2
      comp=Z,274nm,1.5s,mb6.1
OBN                                  LR     LR
      comp=Z,5µm,20.0s,MS5.7
ULDT  Uludag            65.24 311   i P     P       02 34 41.3 -0.9
MANT  Manisa            65.34 309   i P     P       02 34 42.1 -0.8
ISK   Istanbul-Kandi    65.49 312   eP      P       02 34 36.3 -7.5
DST   Dursunbey         65.51 310   eP      P       02 34 42.2 -1.8
AYDN  Tasoluk           65.72 308   i P     P       02 34 45.7 +0.4
KARP  Karpathos         65.94 306   eP      P       02 34 47.5 +0.7
BDRM  Kayabasi          65.96 307   i P     P       02 34 46.3 -0.6
AKS   Akhisar           65.99 309   eP      P       02 34 44.9 -2.1
BALB  Balikesir         66.08 310    P      P       02 34 44.5 -3.1
KDAG  Bornova           66.33 309   i P     P       02 34 49.4 +0.2
IZM   Izmir             66.33 309   eP      P       02 34 47.2 -2.0
TOO   Toolangi          66.35 136   eP      P       02 34 49.9 +0.6
      comp=Z,33nm,1.1s,mb5.3
TOO   Toolangi          66.35 136   eP      P       02 34 49.9 +0.6
TOO                                  pmax   pmax
      comp=Z,33nm,1.1s,mb5.3
SMG   Samos             66.54 308   eP      P       02 34 51.0 +0.4
AYVA  Ayvalik           66.93 310   i P     P       02 34 52.2 -0.8
XRY   Khrisi            67.03 305   eP      P       02 34 54.0 +0.2
KIS   Kishinev          67.07 318α  iP      P       02 34 52.0 -1.8
KIS                                 e               02 39 02.0
KIS                                 i S     S       02 43 44.0 -1.6
KIS                                  pmax   pmax
      comp=Z,220nm,1.0s,mb6.1
KIS                                  pmax   pmax
      comp=Z,3µm,9.0s
KIS                                  smax
      comp=N,4µm,13.0s
KIS                                  smax
      comp=E,2µm,9.0s
CFR   Carcaliu          67.08 316⇑  iP      P       02 34 53.0 -0.9
HARR  Harsova           67.11 316⇑  iP      P       02 34 53.2 -0.9
NPS   Neapolis          67.15 305   eP      P       02 34 55.5 +1.0
PRK   Paraskevi         67.24 310   eP      P       02 34 55.5 +0.5
SANT  Santorini         67.43 306   eP      P       02 34 55.3 -1.0
      comp=E,167nm,1.1s,mb6.0
APE   Apeiranthos       67.47 307   eP      P       02 34 56.5  0.0
APE   Apeiranthos       67.47 307⇑  eP      P       02 34 55.8 -0.7
APE   Apeiranthos       67.47 307⇑  eP      P       02 34 55.9 -0.6
LSZ   Lusaka            67.51 250    P      P       02 34 57.0 -0.1
LSZ                                  pmax   pmax
      comp=Z,30nm,1.0s,mb5.3
LSZ   Lusaka            67.51 250   eP      P       02 34 56.8 -0.3
      comp=Z,30nm,1.0s,mb5.3
LSZ                                  LR     LR
      comp=Z,44µm,19.0s,MS6.7
AKASG Malin Array Be    67.82 322    P      P       02 34 56.3 -2.2
      comp=Z,13nm,0.8s,mb5.0,baz=90,slow=4.8,SNR=48
SKR   Severo-Kuril’s    67.96  38   eP      P       02 34 54.0 -5.3
SKR                                 e               02 35 11.1
SKR                                 e               02 35 21.0
SKR                                 e               02 37 38.0
SKR                                 eS      S       02 43 54.0 -2.2
SKR                                 eSS     SS      02 48 13.0 -6.7
SKR                                  pmax   pmax
      comp=N,180nm,1.0s
SKR                                  pmax   pmax
      comp=E,130nm,1.0s
SKR                                  pmax   pmax
      comp=Z,180nm,1.0s,mb6.1
SKR                                  pmax   pmax
      comp=E,2µm,6.0s
SKR                                  pmax   pmax
      comp=Z,2µm,6.0s
SKR                                  smax
      comp=N,5µm,12.0s
SKR                                  smax
      comp=E,8µm,12.0s
SKR                                  MLR    MLR
      comp=N,11µm,16.0s,MS6.2
SKR                                  MLR    MLR
      comp=E,5µm,16.0s,MS6.2
SKR                                  MLR    MLR
      comp=Z,14µm,16.0s,MS6.3
CNB   Canberra Magne    68.03 132   eP      P       02 35 00.1 +0.1
      comp=Z,80nm,1.1s,mb5.7
ISR   Istrita           68.17 316⇑  iP      P       02 35 01.4 +0.7
VRI   Vrincioaia        68.20 317⇑  iP      P       02 35 01.1 +0.2
MA2   Magadan           68.22  28c  iP      P       02 35 00.5 -0.2
MA2                                 i               02 35 15.4
MA2                                 eS      S       02 43 56.7 -2.4
MA2                                 ePS     PS      02 44 27.6 +1.9
MA2                                  pmax   pmax
      comp=Z,100nm,0.9s,mb5.8
MA2                                  pmax   pmax
      comp=E,30nm,1.0s
MA2                                  pmax   pmax
      comp=N,20nm,0.9s
MA2                                  MLR    MLR
      comp=Z,24µm,22.0s,MS6.4
MA2   Magadan           68.22  28   eP      P       02 35 00.4 -0.4
      comp=Z,161nm,0.9s,mb6.0
MA2                                  LR     LR
      comp=Z,12µm,21.0s,MS6.1
VAM   Vamos             68.32 305   eP      P       02 35 02.5 +0.7
GVD   Gavdhos           68.34 305   eP      P       02 35 01.3 -0.7
TIXI  Tiksi             68.34  12⇑  iP      P       02 34 59.6 -1.8
TIXI                                e               02 37 31.5
TIXI                                eS      S       02 43 57.0 -3.4
TIXI                                 pmax   pmax
      comp=Z,307nm,1.5s,mb6.1
TIXI                                 pmax   pmax
      comp=N,36nm,0.9s
TIXI                                 pmax   pmax
      comp=E,74nm,1.7s
TIXI                                 pmax   pmax
      comp=Z,561nm,1.7s,mb6.3
TIXI                                 smax
      comp=N,5µm,16.3s
TIXI                                 smax
      comp=E,886nm,17.8s
TIXI                                 MLR    MLR
      comp=Z,30µm,16.0s,MS6.6
TIXI                                 MLR    MLR
      comp=N,11µm,15.0s,MS6.5
TIXI                                 MLR    MLR
      comp=E,17µm,16.0s,MS6.5
TIXI  Tiksi             68.34  12⇑  eP      P       02 34 59.8 -1.6
TIXI                                 LR     LR
      comp=Z,26µm,20.0s,MS6.5
MLR   Muntele Rosu      68.66 316    P      P       02 35 04.2 +0.5
      comp=Z,244nm,1.2s,mb6.0,baz=106,slow=2.0,SNR=69
MLR                                  LR     LR      03 08 47.4
      comp=Z,10µm,20.0s,MS6.0,baz=294,slow=39
MLR   Muntele Rosu      68.66 316⇓  iP      P       02 35 04.4 +0.7
PTL   Penteli           68.92 308   eP      P       02 35 04.8 -0.7
MPAR  Parnis Oros       69.03 308   eP      P       02 35 05.5 -0.7
NAIG  Nisos Aigina      69.17 308   eP      P       02 35 05.5 -1.6
MTUR  Matau             69.21 316⇓  iP      P       02 35 06.9 -0.3
NSAL  Nisos Salamina    69.21 308   eP      P       02 35 06.0 -1.3
KYTH  Kithira           69.36 306   eP      P       02 35 07.5 -0.7
MNK   Minsk             69.73 326⇓  eP      P       02 35 08.0 -2.2
MNK                                 e               02 37 50.0
MNK                                 ePPP    PPP     02 39 24.0 -1.9
MNK                                 eS      S       02 44 16.0 -1.2
MNK                                  MLR    MLR
      comp=N,9µm,14.0s,MS6.4
MNK                                  MLR    MLR
      comp=Z,22µm,18.0s,MS6.5
MNK                                  MLR    MLR
      comp=E,14µm,18.0s,MS6.4
PET   Petropavlovsk     70.11  36   eP      P       02 35 11.2 -1.3
PET                                 e               02 35 31.8
PET                                 eS      S       02 44 20.1 -1.6
PET                                 e               02 45 04.6
PET                                 eSS     SS      02 48 50.1 -3.0
PET                                  pmax   pmax
      comp=Z,1µm,9.9s
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PET                                 pmax      pmax
      comp=Z,86nm,1.1s,mb5.6
PET                                 pmax      pmax
      comp=Z,2µm,10.1s
PET                                 pmax      pmax
      comp=Z,2µm,8.2s
PET                                 pmax      pmax
      comp=Z,1µm,8.9s
PET                                 smax
      comp=N,3µm,12.8s
PET                                 smax
      comp=E,3µm,12.0s
PET                                 smax
      comp=N,4µm,9.5s
PET                                 smax
      comp=E,3µm,8.9s
PET                                 MLR       MLR
      comp=Z,15µm,18.0s,MS6.3
PET   Petropavlovsk    70.11  36  eP        P          02 35 11.1  -1.4
      comp=Z,48nm,1.0s,mb5.4
PET                                 LR        LR
      comp=Z,12µm,20.0s,MS6.1
PUL   Pulkovo          70.17 332  eP        P          02 35 11.8  -0.9
PUL                               eS        S          02 44 19.4  -2.8
PUL                                 pmax      pmax
      comp=N,66nm,0.6s
PUL                                 pmax      pmax
      comp=Z,99nm,0.6s,mb5.9
PUL                                 pmax      pmax
      comp=E,376nm,1.4s
PUL                                 smax
      comp=N,3µm,5.8s
PUL                                 smax
      comp=E,4µm,7.4s
PUL   Pulkovo          70.17 332  i P       P          02 35 11.9  -0.8
SEY   Seymchan         70.32  25  eP        P          02 35 10.1  -3.5
SEY                                                    02 35 38.8
SEY                               ePPP      PPP        02 39 38.3  +6.7
SEY                               eS        S          02 44 17.1  -6.9
SEY                               eSSS      SSS        02 52 02.8  +1.2
SEY                                 pmax      pmax
      comp=Z,320nm,1.7s,mb6.0
SEY                                 pmax      pmax
      comp=N,60nm,1.0s
SEY                                 pmax      pmax
      comp=E,110nm,1.2s
SEY                                 smax
      comp=N,8µm,15.7s
SEY                                 smax
      comp=E,5µm,15.8s
ITM   Ithomi           70.34 307  eP        P          02 35 13.0  -1.2
EVR   Evrytania        70.63 309  eP        P          02 35 03.0   -13
BOLS  Boljevac         71.16 314⇑iP        P          02 35 18.8  -0.2
SKO   Skopje           71.28 312⇓iP        P          02 35 18.8  -1.0
SKO                                 pmax      pmax
      comp=Z,44nm,1.0s,mb5.3
SKO   Skopje           71.28 312⇓iP        P          02 35 18.8  -1.0
      comp=Z,44nm,1.0s,mb5.3
VSU   Vasula           71.49 330⇑eP        P          02 35 19.7  -1.0
KWP   Kalwaria         71.63 320   P        P          02 35 20.8  -1.0
KWP                                 pmax      pmax
      comp=Z,96nm,1.0s,mb5.7
KWP   Kalwaria         71.63 320  eP        P          02 35 21.6  -0.2
KWP                                 MLR       MLR      03 11 42.5
      comp=Z,7µm,19.8s,MS6.0
KOLS  Kolonicke sedl   71.78 319  eP        P          02 35 22.8  +0.1
LVZ   Lovozero         71.79 340  eP        P          02 35 21.6  -0.8
LVZ                               eS        S          02 44 39.3  -1.6
LVZ                                 pmax      pmax
      comp=Z,120nm,1.6s,mb5.6
LVZ                                 pmax      pmax
      comp=N,17nm,1.3s
LVZ                                 pmax      pmax
      comp=E,15nm,0.9s
LVZ                                 smax
      comp=N,3µm,8.1s
LVZ                                 smax
      comp=E,1µm,4.8s
LVZ   Lovozero         71.79 340⇑eP        P          02 35 21.5  -0.9
APA   Apatity          72.06 340⇑iP        P          02 35 24.0   0.0
APA                               i                    02 35 36.3
APA                               i S       S          02 44 44.0   0.0
APA                                 pmax      pmax
      comp=Z,100nm,1.3s,mb5.6
GRUS  Gruza            72.06 314⇓iP        P          02 35 23.4  -1.0
SUW   Suwalki          72.25 325  eP        P          02 35 24.2  -1.2
SUW                                 MLR       MLR      03 10 34.7
      comp=Z,11µm,20.1s,MS6.1
CRVS  Cervenica-Dubn   72.31 319  eP        P          02 35 26.2  +0.4
QSH   Qafa e Shtames   72.37 311  i p       P          02 35 22.5  -3.8
PVY   Plav             72.44 312⇓iP        P          02 35 25.3  -1.4
LBTB  Lobatse          72.47 241  eP        P          02 35 28.1  +0.9
LBTB                                pmax      pmax
      comp=Z,96nm,1.1s,mb5.6
LBTB                                MLR       MLR
      comp=Z,37µm,20.0s,MS6.7
LBTB  Lobatse          72.47 241  eP        P          02 35 28.1  +0.9
      comp=Z,96nm,1.1s,mb5.6
LBTB                                LR        LR
      comp=Z,37µm,20.0s,MS6.7
IVA   Berane           72.53 313⇓iP        P          02 35 26.9  -0.3
DIVS  Divcibare        72.61 314  eP        P          02 35 26.6  -1.1
FINES FINESS Array B   72.70 333  i P       P          02 35 27.0  -0.9
FINES                               pmax      pmax
      comp=Z,24nm,0.8s
FINES FINESS Array B   72.70 333   P        P          02 35 26.4  -1.4
      comp=Z,24nm,0.8s,mb5.2,baz=104,slow=7.9,SNR=36
FINES                               LR        LR       03 10 22.9
      comp=Z,15µm,19.2s,MS6.3,baz=110,slow=38
WAKE  Wake Island      72.73  72   PFAKE               02 35 40.0   +11
WAKE                                LR        LR
      comp=Z,49µm,20.0s,MS6.8
KAF   Kangasniemi      72.80 333  ep        P          02 35 26.4  -2.1
      comp=Z,61nm,1.1s,mb5.4
KAF   Kangasniemi      72.80 333  eP        P          02 35 26.4  -2.1
KAF                                 pmax      pmax
      comp=Z,61nm,1.1s,mb5.4
KECS  Kecovo           72.88 319  eP        P          02 35 29.2   0.0
KECS                              e                    02 35 57.6
ULC   Ulcinj           72.90 312⇓iP        P          02 35 27.9  -1.6
TTG   Podgorica        72.94 312⇓iP        P          02 35 27.4  -2.3
PLE   Pljevlja         72.94 313⇓iP        P          02 35 30.0  +0.3
PKSN  Nyarlorinc       73.06 317  eP        P          02 35 30.4  +0.1
NIE   Niedzica         73.13 319  eP        P          02 35 30.9  +0.2
WAR   Warsaw           73.17 322  eP        P          02 35 34.8  +4.0
WAR                                 MLR       MLR      03 13 43.4
      comp=Z,15µm,17.5s,MS6.3
NKY   Niksic           73.18 312⇓iP        P          02 35 28.7  -2.3
PSZ   Piszkesteto      73.18 318⇑eP        P          02 35 30.7  -0.3
BUM   Brajici-Budva    73.20 312⇓iP        P          02 35 29.6  -1.6
UPM   Unac-Piva        73.28 313⇓iP        P          02 35 29.7  -2.0
MIR   Mirnyy           73.42 180ceP        P          02 35 27.0  -5.0
MIR                                 pmax      pmax
      comp=Z,1µm,9.2s
MIR                                 MLR       MLR
      comp=Z,9µm,17.0s,MS6.1
HCY   Herceg Novi      73.51 312⇓iP        P          02 35 31.0  -2.0
BRY   Bratogost        73.52 313⇓iP        P          02 35 30.1  -3.0
OJC   Ojcow            73.59 320  eP        P          02 35 33.2  -0.1
PKSM  Moragy           73.81 316⇑eP        P          02 35 34.1  -0.6
BOSA  Boshof           73.82 238   P        P          02 35 36.2  +1.1
BOSA                                pmax      pmax
      comp=Z,100nm,1.1s,mb5.7
BOSA  Boshof           73.82 238  eP        P          02 35 35.4  +0.3
      comp=Z,100nm,1.1s,mb5.7
BOSA                                LR        LR
      comp=Z,20µm,19.0s,MS6.4
VYHS  Vyhne            73.96 318  i P       P          02 35 35.4  -0.1
SRO2  Moca             74.16 318  eP        P          02 35 37.4  +0.7
SRO   Srobarova        74.22 318  eP        P          02 35 37.7  +0.7
KOLL  Kolacno          74.26 318  i P       P          02 35 36.6  -0.6
CASY  Casey            74.32 173  eP        P          02 35 36.8  -0.4
      comp=Z,56nm,1.1s,mb5.4
CASY                                LR        LR
      comp=Z,7µm,19.0s,MS6.0
TIP   Timpagrande      74.57 309  eP        P          02 35 39.6  +0.4
OKC   Ostrava-Krasne   74.59 320  eP        P          02 35 39.2  +0.1
OKC                                 AMS       AMS      03 21 30.0
      comp=Z,7µm,14.5s
RAC   Raciborz         74.59 320  eP        P          02 35 39.6  +0.5
RAC                               eS        S          02 45 18.4  +5.6
RAC                                 MLR       MLR      03 13 17.8
      comp=Z,6µm,19.4s,MS5.9
GRI   Girifalco        74.81 308  eP        P          02 35 41.5  +0.9
SMOL  Smolenice        74.89 318  i P       P          02 35 40.4  -0.5
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SMOL                              e                    02 35 50.9
MORC  Moravsky Berou   74.97 320  eP        P          02 35 41.3   0.0
MORC                                pmax      pmax
      comp=Z,96nm,1.4s,mb5.5
MORC  Moravsky Berou   74.97 320  eP        P          02 35 41.3   0.0
      comp=Z,96nm,1.4s,mb5.5
ZST   Bratislava       75.08 318  i P       P          02 35 42.3  +0.4
KEV   Kevo             75.08 341  ep        P          02 35 40.4  -1.2
      comp=Z,32nm,0.9s,mb5.2
KEV   Kevo             75.08 341  eP        P          02 35 40.4  -1.2
KEV                                 pmax      pmax
      comp=Z,32nm,0.9s,mb5.2
MTTG  Motta San Giov   75.34 307  eP        P          02 35 47.4  +3.7
SOP   Sopron           75.39 317⇑eP        P          02 35 43.8  +0.1
ARCES ARCESS Array B   75.50 340   P        P          02 35 44.1  +0.1
      comp=Z,23nm,0.8s,mb5.1,baz=101,slow=6.2,SNR=23
ARCES                               LR        LR       03 11 52.0
      comp=Z,22µm,20.5s,MS6.4,baz=219,slow=38
ARE0  ARCESS Array S   75.50 340  eP        P          02 35 43.3  -0.7
GKP   Gorka Klasztor   75.60 323  eP        P          02 35 44.8   0.0
GKP                                 MLR       MLR      03 13 02.8
      comp=Z,12µm,22.0s,MS6.1
DPC   Dobruska-Polom   75.81 320  eP        P          02 35 46.6  +0.5
DPC                               eS        S          02 45 27.2  +0.9
DPC                                 AMS       AMS      03 14 50.0
      comp=Z,10µm,18.6s
KSP   Ksiaz            75.89 321  eP        P          02 35 46.4  -0.1
KSP                               eS        S          02 45 30.0  +2.9
KSP                                 MLR       MLR
      comp=Z,26µm,17.6s,MS6.6
KSP   Ksiaz            75.89 321  eP        P          02 35 46.4  -0.1
KSP                               eS        S          02 45 30.0  +2.9
KSP                               eSSS      SSS        02 53 52.0   +15
KSP                                 LR        LR
      comp=Z,26µm,17.6s,MS6.6
KSP   Ksiaz            75.89 321  eP        P          02 35 47.0  +0.5
KSP                                 MLR       MLR      03 14 45.1
      comp=Z,19µm,17.0s,MS6.5
UPC   Upice            76.03 320  eP        P          02 35 47.8  +0.5
ARSA  Arzberg          76.05 317⇑iP        P          02 35 48.0  +0.5
      comp=Z,108nm,1.4s,mb5.6
BOJS  Bojanci          76.10 315  eP        P          02 35 47.7  -0.1
BOJS                              eS        S          02 45 32.3  +2.7
BOJS                              eSS       SS         02 50 35.3  +9.4
KTK1  Kautokeino       76.10 340  eP        P          02 35 47.7  +0.3
KTK1                                AMb       AMB      02 35 52.5
      comp=Z,133nm,1.8s,mb5.6
KTK1  Kautokeino       76.10 340  eP        P          02 35 47.7  +0.3
      comp=Z,133nm,1.8s,mb5.6
PERS  Pernice          76.28 316  eP        P          02 35 49.0  +0.2
LJU   Ljubljana        76.64 316  eP        P          02 35 51.1  +0.3
LJU                               ePP       PP         02 38 48.8  +3.9
LJU                               eS        S          02 45 39.1  +3.6
LJU                               eSS       SS         02 50 48.7   +15
OBKA  Obir             76.66 316⇑iP        P          02 35 51.5  +0.6
      comp=Z,122nm,1.6s,mb5.6
PRU   Pruhonice        76.92 320  eP        P          02 35 51.8  -0.5
      comp=Z,68nm,1.3s,mb5.4
PRU                               eS        S          02 45 39.7  +1.3
PRU                                 AMS       AMS      03 15 20.0
      comp=Z,9µm,16.9s
MOA   Molln            76.94 317⇑iP        P          02 35 52.5   0.0
      comp=Z,74nm,1.2s,mb5.5
PVCC  Panska Ves       76.95 320  eP        P          02 35 52.9  +0.4
PVCC                                AMS       AMS      03 15 30.0
      comp=Z,13µm,17.0s
BSD   Bornholm Skovb   77.17 325⇑iP        P          02 35 52.8  -0.8
      comp=Z,97nm,0.8s,mb5.8
BSD                               i S       S          02 45 41.4  +0.3
      comp=Z,12µm,17.0s
BRG   Berggiesshubel   77.37 320  i P       P          02 35 55.2  +0.4
BRG                               i         pP         02 35 59.6  +0.3
BRG                               eS        S          02 45 49.0  +5.7
BRG                               i                    02 46 16.0
BRG                                 pmax      pmax
      comp=Z,49nm,0.9s,mb5.4
BRG                                 MLR       MLR
      comp=Z,11µm,19.1s,MS6.2
BRG   Berggiesshubel   77.37 320  i P       P          02 35 55.2  +0.4
      comp=Z,49nm,0.9s,mb5.4
BRG                               i         pP         02 35 59.6  +0.3
BRG                               eS        S          02 45 49.0  +5.7
BRG                               i                    02 46 16.0
BRG                               i SS      SS         02 51 01.0   +16
BRG                                 LR        LR
      comp=Z,11µm,19.1s,MS6.2
GEC2  GERESS Array S   77.38 318  eP        P          02 35 55.3  +0.4
GEC2                                pmax      pmax
      comp=Z,86nm,1.1s,mb5.6
GEC2  GERESS Array S   77.38 318  eP        P          02 35 55.3  +0.4
      comp=Z,86nm,1.1s,mb5.6
GERES GERESS Array B   77.38 318   P        P          02 35 55.2  +0.2
      comp=Z,29nm,0.7s,mb5.3,baz=90,slow=5.3,SNR=100
GERES                               LR        LR       03 17 24.7
      comp=Z,5µm,18.5s,MS5.9,baz=293,slow=41
BILL  Bilibino         77.42  22  eP        P          02 35 54.7   0.0
BILL                              e                    02 36 06.9
BILL                              i S       S          02 45 45.4  +1.9
BILL                                pmax      pmax
      comp=Z,62nm,1.3s,mb5.4
BILL  Bilibino         77.42  22   PFAKE               02 36 10.0   +15
BILL                                LR        LR
      comp=Z,20µm,21.0s,MS6.4
MAW   Mawson           77.43 191   P        P          02 35 56.8  +2.0
      comp=Z,22nm,0.8s,mb5.1,baz=17,slow=7.3,SNR=15
MAW                                 LR        LR       03 04 11.3
      comp=Z,8µm,19.2s,MS6.1,baz=26,slow=31
MAW   Mawson           77.43 191  eP        P          02 35 56.1  +1.3
      comp=Z,26nm,0.8s,mb5.2
MAW                                 LR        LR
      comp=Z,12µm,20.0s,MS6.2
PTCC  Patocco-Chiusa   77.48 316  eP        P          02 35 55.3  -0.2
KHC   Kasperske Hory   77.48 319  eP        P          02 35 55.4  -0.1
KHC                               eS        S          02 45 46.7  +2.2
KHC                                 MLR       MLR
      comp=Z,6µm,17.8s,MS6.0
KHC   Kasperske Hory   77.48 319  eP        P          02 35 55.4  -0.1
KHC                                 pP        pP       02 36 04.0  +4.1
KHC                                 x         x        02 36 09.5
KHC                               eS        S          02 45 46.7  +2.2
KHC                                 AMS       AMS      03 14 50.0
      comp=Z,6µm,17.8s
KBA   Koelnbreinsper   77.52 317⇑iP        P          02 35 55.8  +0.1
      comp=Z,76nm,1.5s,mb5.4
KBA   Koelnbreinsper   77.52 317⇑iP        P          02 35 55.8  +0.1
KBA                                 pmax      pmax
      comp=Z,77nm,1.5s,mb5.4
GMNA  Gemona           77.55 316  eP        P          02 35 55.8  -0.1
RUE   Ruedersdorf      77.60 322  eP        P          02 35 56.1  +0.1
      comp=Z,100nm,0.9s,mb5.7
TRO   Tromso           77.74 340  eP        P          02 35 54.5  -2.0
TRO                               eS        S          02 45 48.0  +1.1
TRO                                 AMS       AMS      03 13 22.3
      comp=Z,14µm,18.4s,MS6.3
TRO   Tromso           77.74 340  eP        P          02 35 54.5  -2.0
TRO                                 LR        LR
      comp=Z,13765µm,18.4s
FVI   Forni Avoltri    77.88 316  eP        P          02 35 57.5  -0.2
WET   Wettzell         77.94 319  eP        P          02 35 58.3  +0.3
CLL   Collm            77.99 321⇑iP        P          02 35 58.0  -0.2
CLL                               eS        S          02 45 46.0  -4.0
CLL                                 pmax      pmax
      comp=Z,124nm,1.8s,mb5.5
CLL                                 MLR       MLR
      comp=Z,13µm,17.5s,MS6.3
CLL   Collm            77.99 321⇑iP        P          02 35 58.0  -0.2
      comp=Z,124nm,1.8s,mb5.5
CLL                               e                    02 36 40.0
CLL                               eS        S          02 45 46.0  -4.0
CLL                                 LR        LR
      comp=Z,13µm,17.5s,MS6.3
CLL   Collm            77.99 321  ⇑P        P          02 35 58.0  -0.2
      comp=Z,logA/T=1.8,mb5.5
CLL                               e*PP      pP         02 36 02.0  -0.7
CLL                               e                    02 36 40.0
CLL                               eS        S          02 45 46.0  -4.0
CLL                               ePS       PS         02 46 23.0   -10
CLL                               eSS       SS         02 51 17.0   +23
CLL                               eSSS      SSS        02 54 24.0   +12
NKC   Novy Kostel      78.28 320  eP        P          02 36 00.4  +0.6
NKC                               eS        S          02 45 53.5  +0.4
NKC                                 AMS       AMS      03 16 30.0
      comp=Z,11µm,14.8s
CRE   Caprese Michel   78.37 313  eP        P          02 36 00.5  +0.1
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SFI   Santa Sofia      78.45 313  eP        P          02 36 01.9  +1.0
PGD   Poggio Sodo      78.54 313  eP        P          02 36 02.8  +1.4
SUR   Sutherland       78.58 235  eP        P          02 36 03.9  +2.1
      comp=Z,126nm,1.0s,mb5.8
SUR                                 LR        LR
      comp=Z,4µm,20.0s,MS5.7
CTI   Castel Tesino    78.64 315  eP        P          02 36 02.4  +0.5
VMG   Vicchio          78.67 313  eP        P          02 36 03.3  +1.2
WTTA  Wattenberg       78.69 317⇓iP        P          02 36 01.9  -0.2
      comp=Z,109nm,0.9s,mb5.8
WTTA  Wattenberg       78.69 317⇓iP        P          02 36 01.9  -0.2
WTTA                                pmax      pmax
      comp=Z,109nm,0.9s,mb5.8
WATA  Walderalm        78.73 317⇑iP        P          02 36 01.9  -0.5
      comp=Z,56nm,1.2s,mb5.4
WATA  Walderalm        78.73 317⇑iP        P          02 36 01.9  -0.5
WATA                                pmax      pmax
      comp=Z,57nm,1.2s,mb5.4
SEI   Scarperia        78.81 313  eP        P          02 36 03.6  +0.8
BJO   Bjornoya         78.82 345  eP        P          02 36 07.2  +4.9
BJO                               eS        S          02 45 57.6  -0.8
BJO                                 AMS       AMS      03 16 48.9
      comp=Z,7µm,18.9s,MS6.0
MOX   Moxa             78.83 320  eP        P          02 36 03.0  +0.2
MOX                               eS        S          02 46 06.0  +7.0
MOX                                 pmax      pmax
      comp=Z,111nm,1.7s,mb5.5
MOX                                 MLR       MLR
      comp=Z,7µm,17.0s,MS6.1
MOX   Moxa             78.83 320  i P       P          02 36 03.0  +0.2
      comp=Z,logA/T=1.8,mb5.5
MOX                                 S         S        02 46 06.0  +7.0
MOX                                 L                  03 15 53.0
MOX   Moxa             78.83 320  eP        P          02 36 03.0  +0.2
      comp=Z,111nm,1.7s,mb5.5
MOX                               eS        S          02 46 06.0  +7.0
MOX                                 LR        LR
      comp=Z,7µm,17.0s,MS6.1
BJO1  Bjornoya         78.86 345  eP        P          02 36 07.2  +4.6
BJO1                                LR        LR
      comp=Z,7363µm,18.9s
FUR   Furstenfeldbru   78.96 318  eP        P          02 36 03.5  -0.1
SQTA  Sankt Quirin     78.98 317⇑iP        P          02 36 03.6  -0.1
      comp=Z,89nm,1.3s,mb5.5
SQTA  Sankt Quirin     78.98 317⇑iP        P          02 36 03.6  -0.1
SQTA                                pmax      pmax
      comp=Z,89nm,1.3s,mb5.5
GRA1  Grafenberg Arr   79.05 319  eP        P          02 36 04.8  +0.8
      comp=Z,191nm,1.6s,mb5.8
GRF   Grafenberg Arr   79.05 319  eP        P          02 36 04.8  +0.8
GRF                                 pmax      pmax
      comp=Z,191nm,1.6s,mb5.8
GRF   Grafenberg Arr   79.05 319  eP        P          02 36 04.8  +0.8
GRF                                 pmax      pmax
      comp=Z,191nm,1.6s,mb5.8
GRF   Grafenberg Arr   79.05 319  eP        P          02 36 04.8  +0.8
      comp=Z,191nm,1.6s,mb5.8
MOTA  Moosalm          79.06 317⇑iP        P          02 36 03.8  -0.3
      comp=Z,54nm,1.0s,mb5.4
MOTA  Moosalm          79.06 317⇑iP        P          02 36 03.8  -0.3
MOTA                                pmax      pmax
      comp=Z,54nm,1.0s,mb5.4
ZCCA  Zocca            79.08 314  eP        P          02 36 06.0  +1.7
SMY   Shemya           79.30  38   PFAKE               02 36 20.0   +15
SMY                                 LR        LR
      comp=Z,12µm,20.0s,MS6.2
BDI   Bagni Di Lucca   79.36 313  eP        P          02 36 05.2  -0.6
GSCL  Gusciola         79.36 314  eP        P          02 36 06.3  +0.4
PII   Pisa             79.41 313  eP        P          02 36 04.9  -1.2
SAL   Salo             79.42 315  eP        P          02 36 06.8  +0.7
MAIM                   79.43 313   P        P          02 36 06.6  +0.3
ERBM  Eremo            79.49 314  eP        P          02 36 07.9  +1.3
SARO  Sassorosso       79.50 314   P        P          02 36 07.0  +0.4
VLC   Villacollemand   79.51 314  eP        P          02 36 06.4  -0.2
      comp=Z,58nm,1.1s,mb5.4
BRMO  Bormio           79.54 316  eP        P          02 36 07.5  +0.7
VALM                   79.61 314   P        P          02 36 08.1  +0.9
NSS   Namsos           79.61 334  eP        P          02 36 05.6  -1.2
NSS                                 AMS       AMS      03 18 36.5
      comp=Z,14µm,18.5s,MS6.3
CLZ   Clausthal        79.66 321  eP        P          02 36 07.4  +0.1
      comp=Z,62nm,0.9s,mb5.5
NB2   NORSAR Subarra   79.67 331   P        P          02 36 06.1  -1.0
      comp=Z,13nm,0.8s,mb4.9,baz=95,slow=5.3
NB2   NORSAR Subarra   79.67 331   P        P          02 36 06.1  -1.0
      baz=95,slow=5.6
NB2   NORSAR Subarra   79.67 331   P        P          02 36 06.1  -1.0
NB2                                 pmax      pmax
      comp=Z,13nm,0.8s,mb4.9
NOA   NORSAR Array B   79.67 331   P        P          02 36 06.1  -1.1
      comp=Z,14nm,0.8s,mb5.0,baz=94,slow=5.6,SNR=23
NOA                                 LR        LR       03 16 13.9
      comp=Z,20µm,19.2s,MS6.5,baz=100,slow=39
VINC  Vinca            79.68 313   P        P          02 36 06.8  -0.7
HDH   Heidenheim       79.69 318⇑eP        P          02 36 07.3  -0.2
BACM                   79.73 314   P        P          02 36 07.8  -0.1
UBR   Uberruh          79.74 317⇑eP        P          02 36 07.7  -0.1
GRAM                   79.74 314   P        P          02 36 08.7  +0.8
BSEG  Bad Segeberg     79.76 323  eP        P          02 36 08.0  +0.2
NAO01 NORSAR Array S   79.81 331  eP        P          02 36 06.8  -1.2
      comp=Z,20nm,0.8s,mb5.1
NAO01                               LR        LR
      comp=Z,23µm,20.0s,MS6.5
DAVOX Davos            79.88 316   LR        LR       03 19 16.4
      comp=Z,6µm,18.4s,MS6.0,baz=80,slow=41
DAVA  Damuels          79.89 317⇑iP        P          02 36 09.1  +0.5
      comp=Z,120nm,1.1s,mb5.7
CODM                   79.89 314   P        P          02 36 08.7  -0.1
SIND  Sindeldorf       80.09 319⇑eP        P          02 36 10.0  +0.3
BOB   Bobbio (Coli)    80.18 314  eP        P          02 36 11.1  +0.9
BUCH  Bad Urach        80.25 318⇑eP        P          02 36 10.7  +0.2
STU   Stuttgart        80.36 318  eP        P          02 36 10.4  -0.7
STU                                 pmax      pmax
      comp=Z,83nm,1.3s,mb5.5
STU   Stuttgart        80.36 318  eP        P          02 36 10.4  -0.7
      comp=Z,83nm,1.3s,mb5.5
KONO  Kongsberg        80.39 329   PFAKE               02 36 20.0  +9.0
KONO                                LR        LR
      comp=Z,17µm,19.0s,MS6.4
GUT   Gutenstein       80.41 317⇑eP        P          02 36 11.4   0.0
MUD   Monsted U'grnd   80.50 326  i P       P          02 36 12.4  +0.7
MUD                               eS        S          02 46 10.9  -5.4
MUD                                 pmax      pmax
      comp=Z,67nm,0.9s,mb5.6
MUD   Monsted U'grnd   80.50 326  i P       P          02 36 12.4  +0.7
      comp=Z,67nm,0.9s,mb5.6
MUD                               eS        S          02 46 10.9  -5.4
PGF   Pioggiola        80.53 312  eP        P          02 36 12.4  +0.3
      comp=Z,106nm,1.0s,mb5.4
PGF   Pioggiola        80.53 312  eP        P          02 36 12.4  +0.3
PGF                                 pmax      pmax
      comp=Z,53nm,1.0s,mb5.4
TOD   Tromm            80.62 319⇑eP        P          02 36 12.7  +0.2
TOD   Tromm            80.62 319  eP        P          02 36 12.6  +0.1
LBG   Lerchenberg      80.62 318  eP        P          02 36 12.8  +0.3
SPAK  Spaichingen      80.63 318  eP        P          02 36 12.7  +0.2
SPAK  Spaichingen      80.63 318  eP        P          02 36 13.3  +0.8
VAI   Varese           80.65 315  eP        P          02 36 12.3  -0.4
SWS   Schriesheim      80.69 319  eP        P          02 36 13.1  +0.3
PCP   Pian Castagno    80.83 314   P        P          02 36 13.1  -0.6
BFO   Black Forest     80.93 318  eP        P          02 36 14.0  -0.1
BFO                                 pmax      pmax
      comp=Z,52nm,1.0s,mb5.4
BFO   Black Forest     80.93 318  eP        P          02 36 14.0  -0.1
      comp=Z,52nm,1.0s,mb5.4
DRV   Dumont d'Urvil   81.06 163   P        P          02 36 15.0  +0.6
DRV   Dumont d'Urvil   81.06 163   S        S          02 46 24.0  +2.0
DRV                                 SS        SS       02 51 36.0  -3.9
DRV                                 L                  02 57 00.0
DRV                                 R                  03 01 00.0
FIN   Finale Ligure    81.07 314  eP        P          02 36 15.1  +0.1
KTD   Kalmit           81.09 319  eP        P          02 36 15.3  +0.4
KTD   Kalmit           81.09 319  eP        P          02 36 15.7  +0.8
FELD  Feldberg         81.16 317⇑eP        P          02 36 15.4  +0.1
MCGN  Macugnaga        81.20 315  eP        P          02 36 15.8  +0.3
ORX   Oropa            81.21 315   P        P          02 36 14.7  -0.9
ORO   Oropa            81.21 315  eP        P          02 36 14.9  -0.7
KIZ   Kirchzarten      81.21 317  eP        P          02 36 15.9  +0.3
LANF  Langenberg       81.28 318  eP        P          02 36 16.4  +0.5
STR   Strasbourg       81.31 318  eP        P          02 36 16.5  +0.4
IMI   Imperia          81.31 313   P        P          02 36 16.4  +0.2
ROB   Roburent         81.31 314   P        P          02 36 16.3  +0.1
TRAV                   81.38 315   P        P          02 36 15.7  -0.8
MONE  Monesi           81.40 313   P        P          02 36 17.4  +0.7
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LIBD	Limburg	81.42	318	eP	P	02 36 17.3	+0.6
LIBD	Limburg	81.42	318	eP	P	02 36 17.5	+0.8
ABH	Alteburg	81.43	319⇑	eP	P	02 36 17.3	+0.6
ABH	Alteburg	81.43	319	eP	P	02 36 17.4	+0.7
NEGI	Negi	81.45	313	P	P	02 36 17.2	+0.3
BBS	Basel-Blauen	81.50	317	eP	P	02 36 17.7	+0.6
BBS	Basel-Blauen	81.50	317	eP	P	02 36 18.3	+1.2
SAOF	Saorge	81.55	313	eP	P	02 36 19.1	+1.6
WLS	Welschbruch	81.58	318	eP	P	02 36 17.7	+0.2
CDF	Champ du Feu	81.64	318	eP	P	02 36 17.2	-0.6
	comp=Z,76nm,1.1s,mb5.2						
CDF	Champ du Feu	81.64	318	eP	P	02 36 17.2	-0.6
CDF				pmax	pmax		
	comp=Z,38nm,1.1s,mb5.2						
ENR	Entracque	81.64	314	P	P	02 36 18.3	+0.4
SBF	Sospel	81.64	313	eP	P	02 36 17.8	-0.1
	comp=Z,264nm,0.8s,mb5.9						
SBF	Sospel	81.64	313	eP	P	02 36 17.8	-0.1
SBF				pmax	pmax		
	comp=Z,132nm,0.8s,mb5.9						
AUTN	L'Aution	81.64	313	eP	P	02 36 20.1	+2.2
REVF	Revere	81.69	313	eP	P	02 36 18.8	+0.6
STV	Sta Anna Valdi	81.71	314	P	P	02 36 18.0	-0.3
ECH	Echery	81.72	318	eP	P	02 36 18.2	0.0
RSP	Reno Superiore	81.73	315	P	P	02 36 17.8	-0.6
BHB	Bricherasio	81.73	314	P	P	02 36 17.1	-1.3
MOF	Molkenrain	81.74	317	eP	P	02 36 18.4	0.0
RUP	Ruppelstein	81.75	319⇑	eP	P	02 36 19.1	+0.7
RUP	Ruppelstein	81.75	319	eP	P	02 36 19.0	+0.6
TOUF	Mont Tournerai	81.77	313	eP	P	02 36 21.5	+2.9
LSD	Ceresole Reale	81.79	315	P	P	02 36 18.9	+0.2
MVIF	Mont Vial	81.84	313	eP	P	02 36 20.1	+1.1
PZZ	Prazzo	81.86	314	P	P	02 36 17.9	-1.2
FENE	Fenestrelle	81.87	314	P	P	02 36 19.4	+0.3
WTSB	Winterswijk	81.87	321	eP	P	02 36 19.1	+0.1
	comp=Z,86nm,1.8s,mb5.4						
WIT	Witteveen	81.94	322	eP	P	02 36 20.0	+0.7
LOMF	Lomont	81.96	317	eP	P	02 36 19.9	+0.4
SURF	Saint Ours	82.07	314	eP	P	02 36 21.2	+1.1
RRL	Cesana Torines	82.07	314	P	P	02 36 20.0	-0.1
LPG	La Plagne	82.08	315	eP	P	02 36 20.5	+0.4
	comp=Z,177nm,0.9s,mb5.7						
LPG	La Plagne	82.08	315	eP	P	02 36 20.5	+0.4
LPG				pmax	pmax		
	comp=Z,89nm,0.9s,mb5.7						
MBDF	Montbardon	82.09	314	eP	P	02 36 19.6	-0.6
	comp=Z,153nm,1.1s,mb5.5						
MBDF	Montbardon	82.09	314	eP	P	02 36 19.6	-0.6
MBDF				pmax	pmax		
	comp=Z,76nm,1.1s,mb5.5						
BNI	Bardonecchia	82.14	314	P	P	02 36 20.4	-0.1
BNI				pmax	pmax		
	comp=Z,71nm,1.0s,mb5.5						
BNI	Bardonecchia	82.14	314	eP	P	02 36 20.3	-0.2
	comp=Z,71nm,0.9s,mb5.6						
HAU	Haudompre	82.27	317	eP	P	02 36 20.3	-0.8
	comp=Z,131nm,1.0s,mb5.5						
HAU				eR			
	comp=Z,8µm,19.0s						
HAU	Haudompre	82.27	317	eP	P	02 36 20.3	-0.8
HAU				pmax	pmax		
	comp=Z,66nm,1.0s,mb5.5						
HAU				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.1						
WLF	Walferdange	82.34	319	eP	P	02 36 21.5	+0.1
WLF				pmax	pmax		
	comp=Z,168nm,1.6s,mb5.7						
WLF	Walferdange	82.34	319	eP	P	02 36 21.5	0.0
	comp=Z,168nm,1.6s,mb5.7						
HGN	Heimansgroeve	82.45	320	eP	P	02 36 22.2	+0.2
	comp=Z,41nm,1.7s,mb5.1						
HGN	Heimansgroeve	82.45	320	eS	S	02 46 45.4	+8.9
HGN				eSS	SS	02 51 55.5	-5.5
THEF	They Montfort	82.50	318	eP	P	02 36 22.3	0.0
GDM	Grand'Maison	82.53	315	eP	P	02 36 22.9	+0.4
BAIF	Baives	83.58	320	eP	P	02 36 27.6	-0.2
	comp=Z,120nm,1.1s,mb5.6						
BAIF	Baives	83.58	320	eP	P	02 36 27.6	-0.2
BAIF				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.6						
PLDF	La Plantade	84.24	316	eP	P	02 36 33.1	+1.8
SSF	Saint Saulge	84.24	317	eP	P	02 36 31.2	0.0
	comp=Z,143nm,1.4s,mb5.6						
SSF	Saint Saulge	84.24	317	eP	P	02 36 31.2	0.0
SSF				pmax	pmax		
	comp=Z,71nm,1.4s,mb5.6						
LBL	Lubilhac	84.56	315	eP	P	02 36 35.0	+2.1
PYM	Petit Puy Mans	84.68	315	eP	P	02 36 35.3	+1.8
BGF	Bois d'Agland	84.73	316	eP	P	02 36 33.8	+0.1
	comp=Z,199nm,1.3s,mb5.8						
BGF	Bois d'Agland	84.73	316	eP	P	02 36 33.8	+0.1
BGF				pmax	pmax		
	comp=Z,100nm,1.3s,mb5.8						
VALF	Valcebollere	85.69	312	eP	P	02 36 40.0	+1.4
RJF	Les Rejaudoux	85.77	315	eP	P	02 36 39.3	+0.4
	comp=Z,70nm,0.9s,mb5.6						
RJF				eR			
	comp=Z,7µm,22.0s						
RJF	Les Rejaudoux	85.77	315	eP	P	02 36 39.3	+0.4
RJF				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.6						
RJF				MLR	MLR		
	comp=Z,7µm,22.0s,MS6.0						
MLS	Moulis	86.31	313	eP	P	02 36 42.0	+0.3
RPZ	Rata Peaks	86.59	135	P	P	02 36 43.1	+0.1
	comp=Z,47nm,1.0s,mb5.7,baz=103,slow=3.7,SNR=10						
LCP	Cassop	86.62	325⇑	eP	P	02 36 43.5	+0.6
FLN	La Foliniere	86.75	319	eP	P	02 36 43.2	-0.5
	comp=Z,66nm,1.0s,mb5.5						
FLN				eR			
	comp=Z,9µm,20.8s						
FLN	La Foliniere	86.75	319	eP	P	02 36 43.2	-0.5
FLN				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.5						
FLN				MLR	MLR		
	comp=Z,9µm,20.8s,MS6.2						
MIDW	Midway	86.78	62	PFAKE		02 37 00.0	+16
MIDW				LR	LR		
	comp=Z,9µm,22.0s,MS6.2						
HPK	Haverah Park	86.81	324	eP	P	02 36 44.5	+0.7
KBI1	Birley Grange	86.84	323⇑	eP	P	02 36 40.8	-3.2
RESF	Ens	86.88	313	eP	P	02 36 45.4	+0.9
JMIC	Jan Mayen	86.97	341	eS	S	02 47 22.6	+2.0
JMIC				AMS	AMS	03 21 55.1	
	comp=Z,6µm,19.9s,MS6.0						
JMIC	Jan Mayen	86.97	341	LR	LR	03 16 49.0	
	comp=Z,5µm,21.6s,MS5.9,baz=247,slow=36						
EBR	Ebro Roquetas	87.00	311	eTs		02 36 43.0	
EBR				eTs		02 36 51.7	
LHO	Holmfirth	87.00	323⇑	eP	P	02 36 45.2	+0.5
KWE	Weaver Farm	87.06	323⇑	eP	P	02 36 42.0	-3.1
ESY	Stoneypath	87.10	326	eP	P	02 36 45.4	+0.2
ESY				AMb	AMB	02 36 56.0	
	comp=Z,191nm,2.0s,mb6.0						
EDI	Edinburgh	87.42	326⇑	eP	P	02 36 47.2	+0.4
EDI				AMb	AMB	02 36 50.4	
	comp=Z,177nm,1.8s,mb6.0						
ESK	Eskdalemuir	87.52	325⇑	eP	P	02 36 47.7	+0.5
ESK				AMb	AMB	02 36 52.2	
	comp=Z,182nm,2.1s,mb6.0						
ESK	Eskdalemuir	87.52	325	eP	P	02 36 46.8	-0.4
ESK				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.8						
ESK				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.7						
ESK	Eskdalemuir	87.52	325	eP	P	02 36 46.8	-0.4
	comp=Z,59nm,0.9s,mb5.8						
ESK				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
ETSF	Etsaut	87.52	313	eP	P	02 36 48.4	+0.8
	comp=Z,57nm,0.9s,mb5.5						
ETSF	Etsaut	87.52	313	eP	P	02 36 48.4	+0.8
ETSF				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.5						
DAG	Danmarks Havn	87.93	348⇓	iP	P	02 36 46.0	-2.8
DAG				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.3						
DAG				MLR	MLR		
	comp=Z,15µm,22.0s,MS6.4						
DAG	Danmarks Havn	87.93	348⇓	iP	P	02 36 46.0	-2.8
	comp=Z,14nm,0.7s,mb5.3						
	comp=Z,15µm,22.0s						
EAB	Aberfoyle	88.02	326	eP	P	02 36 49.7	+0.1
ANM	Nome	88.83	25	eP	P	02 36 55.1	+1.8
DLF	Lyons Farm	89.80	324	eP	P	02 36 58.9	+0.8
DMUB	Kingscourt	89.89	324	eP	P	02 36 59.6	+1.0
URZ	Urewera	90.07	128	P	P	02 36 55.3	-4.5
	comp=Z,15nm,1.0s,mb5.3,baz=359,slow=6.1,SNR=2.4						
DCN	Croghan	90.22	324	eP	P	02 37 00.6	+0.5
ESDC	Sonseca Array	90.53	310	P	P	02 37 02.9	+1.0
	comp=Z,12nm,0.7s,mb5.3,baz=61,slow=4.4,SNR=48						
ESLA	Sonseca Array	90.53	310	eP	P	02 37 02.7	+0.8
	comp=Z,15nm,1.2s,mb5.2						
ESLA				LR	LR		
	comp=Z,27µm,19.0s,MS6.7						
SCO	Scoresbysund	91.34	342	i P	P	02 37 06.6	+1.7
	comp=Z,6.4nm,1.0s,mb4.9						
PBRG	Braganca	92.22	312	eP	P	02 37 11.1	+1.5
	comp=Z,43nm,1.7s,mb5.5						
VNDA	Vanda	92.45	168	P	P	02 37 10.4	+0.5
VNDA				pmax	pmax		
	comp=Z,13nm,1.3s						
VNDA				MLR	MLR		
	comp=Z,4µm,21.0s						
VNDA	Vanda	92.45	168	P	P	02 37 10.5	+0.6
	comp=Z,4.3nm,0.9s,mb4.8,baz=296,slow=8.1,SNR=6.0						
VNDA				LR	LR	03 15 00.7	
	comp=Z,4µm,21.0s,MS5.8,baz=291,slow=33						
VNDA	Vanda	92.45	168	P	P	02 37 10.4	+0.5
	comp=Z,13nm,1.3s,mb5.1						
VNDA				epP	pP	02 37 14.2	-0.2
VNDA				LR	LR		
	comp=Z,4µm,21.0s,MS5.8						
IMA	Indian Mountai	92.97	22	P	P	02 37 13.3	+0.9
IMA				pmax	pmax		
	comp=Z,210nm,1.1s,mb6.5						
IMA	Indian Mountai	92.97	22	eP	P	02 37 13.6	+1.2
	comp=Z,11nm,0.9s,mb5.3						
RAO	Raoul Island	92.99	119	PFAKE		02 37 30.0	+17
RAO				LR	LR		
	comp=Z,4µm,19.0s,MS5.9						
MTE	Manteigas	93.10	311	eP	P	02 37 15.8	+2.1
	comp=Z,46nm,1.3s,mb5.8						
MTE				ePP	PP	02 40 59.3	-0.4
MTE				eS	S	02 48 26.1	+9.3
MTE	Manteigas	93.10	311	eP	P	02 37 15.2	+1.6
	comp=Z,31nm,1.1s,mb5.7						
PCBR	Castelo Branco	93.17	311	eP	P	02 37 15.7	+1.7
	comp=Z,40nm,1.2s,mb5.7						
PVIS	Viseu	93.30	312	eP	P	02 37 16.9	+2.4
	comp=Z,46nm,1.4s,mb5.7						
SBA	Scott Base	93.56	168	PFAKE		02 37 30.0	+15
SBA				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
BORG	Borgarnes	93.56	337	PFAKE		02 37 30.0	+15
BORG				LR	LR		
	comp=Z,2µm,19.0s,MS5.7						
NVL	N'lazarevskaya	93.56	199⇑	eP	P	02 37 18.0	+2.9
NVL				e		02 49 48.0	
NVL				e		02 55 00.0	
NVL				pmax	pmax		
	comp=Z,1µm,6.0s						
NVL				MLR	MLR		
	comp=Z,7µm,15.0s,MS6.2						
MAIT	Maitri	93.59	199	eP	P	02 37 06.5	-8.7
COLA	College	95.68	22	eP	P	02 37 24.9	0.0
COLA				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb5.2						
COLA				MLR	MLR		
	comp=Z,12µm,20.0s,MS6.3						
COLA	College	95.68	22	eP	P	02 37 24.9	0.0
	comp=Z,8.5nm,1.0s,mb5.1						
COLA				LR	LR		
	comp=Z,12µm,20.0s,MS6.3						
RSO	Redoubt South	95.71	27	eP	P	02 37 26.6	+1.5
SPU	Mount Spurr	95.71	26	eP	P	02 37 25.2	+0.1
ILAR	Eielson Array	96.09	22	P	P	02 37 25.1	-1.6
	comp=Z,2.9nm,0.9s,mb4.7,baz=312,slow=3.8,SNR=21						
ILAR				PP	PP	02 41 19.2	-2.8
	comp=Z,5.2nm,1.0s,baz=298,slow=6.9,SNR=7.2						
ILAR				PKKPbc		02 54 14.1	
	comp=Z,0.6nm,1.0s,baz=166,slow=3.7,SNR=3.9						
ILAR				LR	LR	03 26 05.3	
	comp=Z,8µm,19.3s,MS6.2,baz=319,slow=39						
PWA	Palmer West	96.43	25	eP	P	02 37 28.7	+0.3
PWA				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.7						
PWA	Palmer West	96.43	25	eP	P	02 37 28.7	+0.3
	comp=Z,25nm,0.8s,mb5.7						
DBIC	Dimbokro	96.49	278	eP	P	02 37 31.4	+1.6
DBIC				pmax	pmax		
	comp=Z,43nm,1.4s						
DBIC				MLR	MLR		
	comp=Z,20µm,20.0s						
DBIC	Dimbokro	96.49	278	P	P	02 37 31.4	+1.6
	comp=Z,13nm,1.1s,mb5.3,baz=97,slow=4.7,SNR=6.6						
DBIC				LR	LR	03 20 28.2	
	comp=Z,19µm,19.3s,MS6.6,baz=69,slow=35						
DBIC	Dimbokro	96.49	278	eP	P	02 37 31.4	+1.6
	comp=Z,43nm,1.4s,mb5.7						
DBIC				LR	LR		
	comp=Z,20µm,20.0s,MS6.6						
SLKM	Skilak Lake	96.81	26	eP	P	02 37 31.4	+1.2
KDAK	Kodiak Island	96.92	29	eP	P	02 37 31.9	+1.2
KDAK				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
AFI	Afiamalu	97.15	103	PFAKE		02 37 40.0	+7.3
AFI				LR	LR		
	comp=Z,3µm,20.0s,MS5.8						
MENT	Mentasta	98.25	23	eP	P	02 37 38.1	+1.5
SNAA	Sanae	98.35	199⇑	iP	P	02 37 55.3	+18
VNA2	Neumayer--Watz	99.88	199	e	P	02 37 56.9	+13
VNA2	Neumayer--Watz	99.88	199⇑	iPdif	P	02 37 53.5	+10
VNA2				e	pP	02 37 56.9	+8.5
VNA1	Neumayer--Stat	100.20	199	e	P	02 37 46.6	+1.3
VNA1	Neumayer--Stat	100.20	199⇑	iPdif	P	02 37 43.1	-2.2
VNA1				e		02 37 46.6	
VNA3	Neumayer Olymp	100.57	199	e	P	02 38 06.7	+20
VNA3	Neumayer Olymp	100.57	199⇑	iPdif	P	02 38 02.8	+16
VNA3				e		02 38 06.7	
SIT	Sitka	105.16	25	PFAKE		02 42 30.0	
SIT				LR	LR		
	comp=Z,12µm,19.0s,MS6.5						
KIP	Kipapa	105.27	66	PFAKE		02 42 40.0	
KIP				LR	LR		
	comp=Z,6µm,21.0s,MS6.1						
TRIS	Tristan da Cun	106.08	234	PFAKE		02 42 40.0	
TRIS				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
YKA	Yellowknife Ar	107.57	13	Pdiff	Pdif	02 38 19.7	+1.6
	comp=Z,1.0nm,0.8s,baz=325,slow=3.8,SNR=5.2						
YKA				PP	PP	02 42 42.3	-7.0
	comp=Z,2.4nm,0.9s,baz=336,slow=7.7,SNR=7.2						
YKA				PKKPbc		02 53 40.3	
	comp=Z,0.7nm,0.8s,baz=149,slow=2.7,SNR=7.7						
YKA				PKKP	PKKP	02 53 55.2	+6.2
	comp=Z,2.0nm,0.8s,baz=145,slow=4.6,SNR=10						
SCHQ	Schefferville	115.97	347	PKP	PKPdf	02 42 44.2	-0.5
	comp=Z,6.3nm,1.0s,baz=255,slow=2.5,SNR=3.7						
SCHQ				PP	PP	02 43 44.1	-6.2
	comp=Z,8.0nm,1.1s,baz=349,slow=4.5,SNR=2.7						
SCHQ	Schefferville	115.97	347	PFAKE		02 42 50.0	+5.3
SCHQ				LR	LR		
	comp=Z,9µm,21.0s,MS6.4						
OCWA	Octopus Mounta	116.54	27	PFAKE		02 43 00.0	+14
OCWA				LR	LR		
	comp=Z,10µm,20.0s,MS6.4						
TBI	Tubuai	118.44	113	ePS	PS	02 53 50.1	-0.1
TBI				eLR	LR	03 19 08.4	
	comp=Z,5µm,28.0s						
PPT	Papeete	118.64	106	ePS	PS	02 53 49.1	-3.0
PPT				eSS	SS	03 00 29.1	+5.7
PPT				eLR	LR	03 18 44.7	
	comp=Z,6µm,29.0s						
NEW	Newport	119.04	22	PFAKE		02 43 00.0	+9.2
NEW				LR	LR		
	comp=Z,11µm,20.0s,MS6.5						
COR	Corvallis	119.30	29	PFAKE		02 43 00.0	+8.6
COR				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
PMSA	Palmer Station	120.04	191	PFAKE		02 43 00.0	+7.7
PMSA				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
HUMO	Hull Mountain	120.94	30	PFAKE		02 43 00.0	+5.3
HUMO				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
MSO	Missoula	121.41	21	ePKPdf	PKPdf	02 42 52.7	-2.8
MSO				LR	LR		
	comp=Z,7µm,19.0s,MS6.3						
CHMT	Chamberlain Mo	121.58	21	ePKPdf	PKPdf	02 42 53.2	-2.6
CHMT				ePP	PP	02 44 24.3	-4.5
YBH	Yreka Blue Hor	121.71	31	PFAKE		02 43 10.0	+14
YBH				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
BMO	Blue Mountains	121.77	25	PFAKE		02 43 10.0	+14
BMO				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
HRY	Holter Researc	122.24	20	PKPdf	PKPdf	02 42 54.4	-2.6
ULM	Lac du Bonnet	122.46	6	PKP	PKPdf	02 42 55.4	-1.9
	comp=Z,5.3nm,1.1s,baz=105,slow=4.0,SNR=3.8						
ULM	Lac du Bonnet	122.46	6	PFAKE		02 43 10.0	+13
ULM				LR	LR		
	comp=Z,14µm,21.0s,MS6.6						
WDC	Whiskeytown Da	122.65	31	PFAKE		02 43 10.0	+12
WDC				LR	LR		
	comp=Z,5µm,20.0s,MS6.1						
MOD	Modoc	122.77	29	ePKPdf	PKPdf	02 42 57.3	-0.8
MOD				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
DGMT	Dagmar	122.78	13	ePKPdf	PKPdf	02 42 56.9	-1.0
DGMT				ePP	PP	02 44 30.8	-6.4
DGMT				LR	LR		
	comp=Z,8µm,22.0s,MS6.3						
WVOR	Wild Horse Val	123.13	27	ePKIKP	PKPdf	02 42 57.2	-1.6
WVOR				e		02 44 37.6	
WVOR				MLR	MLR		
	comp=Z,8µm,22.0s,MS6.3						
HOPS	Hopland	123.52	33	PFAKE		02 43 10.0	+10
HOPS				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
MCMT	McKenzie Canyo	123.52	21	ePKPdf	PKPdf	02 42 58.1	-1.5
MCMT				ePP	PP	02 44 39.1	-3.3
PQI	Presque Isle	123.78	344	PFAKE		02 43 10.0	+10
PQI				LR	LR		
	comp=Z,30µm,21.0s,MS6.9						
LAO	LASA Array	123.94	15	ePKPdf	PKPdf	02 42 58.0	-2.3
LAO				LR	LR		
	comp=Z,11µm,22.0s,MS6.5						
QLMT	Earthquake Lak	124.02	20	ePKPdf	PKPdf	02 42 59.9	-0.7
YMR	Madison River	124.33	20	ePKPdf	PKPdf	02 43 00.6	-0.5
YNR	Norris Junctio	124.38	20	ePKPdf	PKPdf	02 43 00.5	-0.7
YFT	Old Faithful	124.56	20	ePKPdf	PKPdf	02 43 01.8	+0.1
LKWY	Lake	124.61	20	ePKIKP	PKPdf	02 43 01.8	+0.1
LKWY				MLR	MLR		
	comp=Z,19µm,20.0s,MS6.8						
MOOW	Moose Ponds	125.21	21	ePKPdf	PKPdf	02 43 01.7	-1.2
MOOW				ePP	PP	02 44 51.0	-2.3
TPAW	Teton Pass	125.36	21	ePKPdf	PKPdf	02 43 01.8	-1.4
TPAW				ePP	PP	02 44 52.1	-2.3
BMN	Battle Mountai	125.36	28	PFAKE		02 43 10.0	+6.7
BMN				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
LOHW	Long Hollow	125.38	21	ePKPdf	PKPdf	02 43 01.7	-1.5
LOHW				ePP	PP	02 44 52.2	-2.3
WUWY	Wally Ulrich	125.39	21	ePKPdf	PKPdf	02 43 02.0	-1.2
WUWY				ePP	PP	02 44 52.4	-2.2
SNOW	Snow King Moun	125.45	21	ePKPdf	PKPdf	02 43 02.0	-1.3
SNOW				ePP	PP	02 44 50.5	-4.5
REDW	Red Top Meadow	125.51	21	ePKPdf	PKPdf	02 43 02.2	-1.3
REDW				ePP	PP	02 44 52.0	-3.4
CMB	Columbia Colle	125.65	32	PFAKE		02 43 10.0	+6.1
CMB				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
AHID	Auburn Hatcher	125.94	21	PFAKE		02 43 10.0	+5.7
AHID				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
HVU	Hansel Valley	126.16	23	ePKIKP	PKPdf	02 43 03.4	-1.3
WVL	Waterville	126.17	344	PFAKE		02 43 10.0	+5.3
WVL				LR	LR		
	comp=Z,24µm,19.0s,MS6.9						
NVAR	Mina Array Bea	126.42	30	PKP	PKPdf	02 43 03.9	-1.4
	comp=Z,8.1nm,1.0s,baz=29,slow=0.7,SNR=20						
BW06	Boulder Array	126.48	20	PFAKE		02 43 20.0	+15
BW06				LR	LR		
	comp=Z,8µm,22.0s,MS6.3						
PDAR	Pinedale Array	126.48	20	PKP	PKPdf	02 43 03.8	-1.5
	comp=Z,7.2nm,0.9s,slow=1.5,SNR=30						
PDAR				PP	PP	02 44 53.1	-8.7
	comp=Z,2.5nm,1.1s,baz=45,slow=2.6,SNR=2.0						
MNV	Mina	126.49	30	ePKIKP	PKPdf	02 43 04.6	-0.8
MNV				MLR	MLR		
	comp=Z,6µm,19.0s,MS6.2						
HWUT	Hardware Ranch	126.77	22	ePKPdf	PKPdf	02 43 04.3	-1.5
HWUT				ePP	PP	02 44 59.9	-3.7
HWUT				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						
BGU	Big Grassy Mou	126.78	24	ePKPdf	PKPdf	02 43 05.5	-0.4
MTUM	Tungsten Hills	127.11	31	ePKPdf	PKPdf	02 43 06.1	-0.5
TPH	Tonopah	127.23	29	PFAKE		02 43 20.0	+13
TPH				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
TCUT	Toone Canyon	127.25	23	ePKPdf	PKPdf	02 43 06.0	-0.8
TCUT				ePP	PP	02 45 03.8	-2.9
MDV	Middlebury	127.57	347	ePKPdf	PKPdf	02 43 05.7	-1.8
MIV	Mineville/With	127.58	347	ePKPdf	PKPdf	02 43 05.4	-2.0
JLU	Jordanelle	127.68	23	ePKPdf	PKPdf	02 43 06.4	-1.3
TRCR	Troy Canyon	127.79	28	ePKPdf	PKPdf	02 43 07.2	-0.8
NCB	Newcomb	127.82	348	PFAKE		02 43 20.0	+12
NCB				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
DAU	Daniels Canyon	127.92	23	ePKIKP	PKPdf	02 43 06.3	-1.9
NLU	North Lily Min	127.99	24	ePKPdf	PKPdf	02 43 07.5	-0.8
MPU	Maple Canyon	128.11	24	ePKPdf	PKPdf	02 43 07.8	-0.8
DAC	Darwin (Calif)	128.44	31	PFAKE		02 43 20.0	+11
DAC				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
HRV	Harvard--Oak R	128.59	345	PFAKE		02 43 20.0	+11
HRV				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
WES	Weston	128.64	345	PFAKE		02 43 20.0	+10
WES				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
RCBR	Riachuelo	128.78	268	PFAKE		02 43 20.0	+9.4
RCBR				LR	LR		
	comp=Z,10µm,20.0s,MS6.5						
PHWY	Pilot Hill	129.12	17	ePKPdf	PKPdf	02 43 09.2	-1.3
MVU	Marysvale	129.16	25	ePKPdf	PKPdf	02 43 07.5	-3.2
MVU				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
MSU	Marysvale	129.16	25	ePKIKP	PKPdf	02 43 10.5	-0.2
ARUT	Antelope Range	129.22	27	ePKIKP	PKPdf	02 43 10.2	-0.6
ARUT				e		02 45 16.5	
SRU	San Rafael	129.32	23	ePKIKP	PKPdf	02 43 10.2	-0.8
BINY	Binghamton	129.88	349	PFAKE		02 43 20.0	+8.1
BINY				LR	LR		
	comp=Z,9µm,21.0s,MS6.4						
JFWS	Jewell Farm	130.20	3	PFAKE		02 43 20.0	+7.5
JFWS				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
NEN	Nelson	130.31	29	ePKPdf	PKPdf	02 43 11.9	-1.0
NEN				ePP	PP	02 45 23.1	-4.1
ISCO	Idaho Springs	130.44	18	ePKIKP	PKPdf	02 43 12.3	-0.8
ISCO				MLR	MLR		
	comp=Z,9µm,19.0s,MS6.5						
PV10	Paradox Valley	130.53	22	ePKPdf	PKPdf	02 43 12.4	-0.9
ERPA	Erie	130.59	353	PFAKE		02 43 20.0	+6.7
ERPA				LR	LR		
	comp=Z,9µm,20.0s,MS6.4						
LDFC	Landfair	130.63	30	ePKPdf	PKPdf	02 43 12.3	-1.2
AAM	Ann Arbor	130.76	356	PFAKE		02 43 20.0	+6.4
AAM				LR	LR		
	comp=Z,9µm,21.0s,MS6.4						
PV01	Paradox Valley	130.92	22	ePKPdf	PKPdf	02 43 13.3	-0.7
PV01				ePP	PP	02 45 27.1	-4.3
PV01				eSKP		02 46 37.6	
RW3	Ridgway	131.14	21	ePKPdf	PKPdf	02 43 13.9	-0.5
RW3				eSKP		02 46 38.4	
RKT	Rikitea	131.66	115	ePS	PS	02 55 45.2	-0.5
RKT				eLR	LR	03 25 19.4	
	comp=Z,5µm,38.0s						
BAR	Barrett	131.68	33	ePKPdf	PKPdf	02 43 14.3	-1.2
SSPA	Standing Stone	131.73	350	PFAKE		02 43 20.0	+4.5
SSPA				LR	LR		
	comp=Z,8µm,22.0s,MS6.4						
SDCO	Great Sand Dun	132.35	19	ePKPdf	PKPdf	02 43 15.8	-1.0
SDCO				ePP	PP	02 45 35.3	-4.8
SDCO				LR	LR		
	comp=Z,12µm,20.0s,MS6.6						
ACSO	Alum Creek Sta	132.77	355	ePKPdf	PKPdf	02 43 16.8	-0.7
ACSO				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
MCWV	Mont Chateau	132.99	352	PFAKE		02 43 30.0	+12
MCWV				LR	LR		
	comp=Z,9µm,20.0s,MS6.5						

KSU1	**Kansas State U**	**133.30**	**10**	*e*PKPdf	PKPdf	02 43 17.1	-1.3
CBN	**Corbin**	**134.00**	**349**	PFAKE		02 43 30.0	+10
CBN				LR	LR		
	comp=Z,9µm,19.0s,MS6.5						
SLM	**Saint Louis**	**134.47**	**3**	PKIKP	PKPdf	02 43 19.4	-1.2
ANMO	**Albuquerque**	**134.53**	**22**	*e*PKPdf	PKPdf	02 43 20.0	-0.9
ANMO				*e*SKP		02 46 52.5	
ANMO				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
WCI	**Wyandotte Cave**	**134.94**	**359**	*e*PKIKP	PKPdf	02 43 19.6	-1.9
WCI				MLR	MLR		
	comp=Z,10µm,19.0s,MS6.5						
TUC	**Tucson**	**134.97**	**28**	*e*PKPdf	PKPdf	02 43 20.0	-1.8
TUC				*e*SKP		02 46 52.2	
TUC				LR	LR		
	comp=Z,4µm,21.0s,MS6.1						
CCM	**Cathedral Cave**	**134.98**	**4**	*e*PKIKP	PKPdf	02 43 20.3	-1.3
CCM				MLR	MLR		
	comp=Z,9µm,19.0s,MS6.5						
LENM	**Lemitar**	**135.03**	**23**	*e*PKPdf	PKPdf	02 43 21.3	-0.5
LPM	**Los Pinos Moun**	**135.03**	**23**	*e*PKPdf	PKPdf	02 43 19.8	-2.1
BNM	**Barren Site**	**135.17**	**23**	*e*PKPdf	PKPdf	02 43 20.9	-1.1
BNM				*e*PP	PP	02 45 53.3	-4.9
BBSR	**BB Station**	**135.19**	**332**	PFAKE		02 43 30.0	+7.8
BBSR				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
PWV	**Princeton**	**135.44**	**353**	*e*PKPdf	PKPdf	02 43 20.6	-1.9
BLA	**Blacksburg**	**135.48**	**352**	PFAKE		02 43 30.0	+7.4
BLA				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
AMTX	**Amarillo**	**136.17**	**17**	*e*PKPpre		02 43 08.2	
AMTX				*e*PKPdf	PKPdf	02 43 23.4	-0.5
AMTX				*e*PP	PP	02 45 57.8	-6.4
AMTX				LR	LR		
	comp=Z,8µm,19.0s,MS6.5						
WVT	**Waverly**	**137.04**	**0**	*e*PKIKP	PKPdf	02 43 22.7	-2.6
WVT				*e*		02 46 04.4	
WVT				MLR	MLR		
	comp=Z,8µm,20.0s,MS6.4						
WMOK	**Wichita Mounta**	**137.07**	**14**	*e*PKIKP	PKPdf	02 43 23.9	-1.5
WMOK				MLR	MLR		
	comp=Z,7µm,19.0s,MS6.4						
CPRX	**Cap Rock**	**137.19**	**20**	*e*PKPpre		02 43 15.0	
CPRX				*e*PKPdf	PKPdf	02 43 24.2	-1.5
GDL2	**Guadalupe Moun**	**137.76**	**22**	*e*PKPpre		02 43 20.1	
GDL2				*e*PKPdf	PKPdf	02 43 25.3	-1.5
MNTX	**Cornudas Mount**	**137.83**	**23**	*e*PKPdf	PKPdf	02 43 25.6	-1.4
MNTX				*e*PP	PP	02 46 11.9	-3.1
MNTX				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
MYNC	**Murphy**	**137.98**	**356**	PFAKE		02 43 40.0	+13
MYNC				LR	LR		
	comp=Z,11µm,19.0s,MS6.6						
UALR	**University of**	**138.14**	**6**	*e*PKPdf	PKPdf	02 43 25.8	-1.7
MIAR	**Mount Ida**	**138.22**	**8**	*e*PKIKP	PKPdf	02 43 25.9	-1.8
MIAR				MLR	MLR		
	comp=Z,9µm,21.0s,MS6.5						
JSC	**Jenkinsville**	**138.47**	**352**	*e*PKIKP	PKPdf	02 43 26.3	-1.8
OXF	**Oxford**	**138.62**	**2**	PFAKE		02 43 40.0	+12
OXF				LR	LR		
	comp=Z,9µm,21.0s,MS6.5						
NHSC	**New Hope**	**139.47**	**351**	PFAKE		02 43 40.0	+10
NHSC				LR	LR		
	comp=Z,14µm,21.0s,MS6.7						
GOGA	**Godfrey**	**139.58**	**355**	PFAKE		02 43 40.0	+10
GOGA				LR	LR		
	comp=Z,7µm,19.0s,MS6.4						
LRAL	**Lakeview Retre**	**140.13**	**359**	*e*PKPdf	PKPdf	02 43 29.0	-2.1
LRAL				*e*PP	PP	02 46 24.8	-4.1
LRAL				LR	LR		
	comp=Z,11µm,20.0s,MS6.6						
BAO	**Brasilia Array**	**140.45**	**254**	PKP	PKPdf	02 43 23.4	-8.7
BAO				*e*		02 43 30.6	
BAO				*e*		02 43 36.1	
BDFB	**Brasilia**	**140.47**	**254**	PKhKP		02 43 22.8	
	comp=Z,7.1nm,0.9s,baz=114,slow=5.5,SNR=6.0						
BDFB				PKP	PKPdf	02 43 31.1	-1.0
	comp=Z,8.9nm,0.8s,baz=93,slow=1.1,SNR=7.9						
LTX	**Lajitas**	**140.59**	**23**	*e*PKIKP	PKPdf	02 43 31.0	-1.2
LTX				*e*		02 46 28.2	
LTX				MLR	MLR		
	comp=Z,7µm,19.0s,MS6.4						
TXAR	**Lajitas Array**	**140.59**	**23**	PKhKP		02 43 24.1	
	comp=Z,2.3nm,1.1s,baz=225,slow=1.8,SNR=4.6						
TXAR				PKP	PKPdf	02 43 31.4	-0.8
	comp=Z,5.8nm,0.9s,baz=6.3,slow=3.2,SNR=16						
TXAR				PP	PP	02 46 20.4	-12
	comp=Z,1.2nm,0.9s,baz=342,slow=5.7,SNR=3.7						
NATX	**Nacogdoches**	**140.79**	**10**	PKPdf	PKPdf	02 43 30.4	-2.0
NATX				LR	LR		
	comp=Z,9µm,21.0s,MS6.5						
JCT	**Junction City**	**140.84**	**17**	*e*PKHKP		02 43 23.5	
JCT				*e*		02 43 31.5	
JCT				MLR	MLR		
	comp=Z,10µm,22.0s,MS6.5						
TRQA	**Tornquist**	**141.47**	**213**	PFAKE		02 43 40.0	+6.6
TRQA				LR	LR		
	comp=Z,10µm,20.0s,MS6.6						
HKT	**Hockley**	**142.33**	**12**	*e*PKIKP	PKPdf	02 43 34.4	-0.7
HKT				MLR	MLR		
	comp=Z,11µm,20.0s,MS6.6						
DWPF	**Disney**	**144.56**	**351**	PFAKE		02 43 50.0	+15
DWPF				LR	LR		
	comp=Z,7µm,19.0s,MS6.5						
SJG	**San Juan**	**147.33**	**320**	*e*PKP2	PKPab	02 43 43.4	-3.5
SJG				MLR	MLR		
	comp=Z,7µm,21.0s						
CJM	**Chamela**	**148.43**	**33**	*i* P	PKPdf	02 43 36.5	-9.2
TRN	**Trinidad (W)**	**148.67**	**304**	*e*P	PKPdf	02 43 45.0	-1.3
MDZ	**Mendoza**	**149.04**	**211**	*e*PKP2	PKPab	02 43 51.2	-2.2
FCH	**Farellones**	**149.40**	**209**⇓	*i*P	PKPdf	02 43 50.6	+3.7
COLM	**Colima**	**149.41**	**31**	*i* P	PKPdf	02 43 50.8	+3.5
CLCH	**Cerro Calan**	**149.46**	**209**⇓	*i*P	PKPdf	02 43 49.4	+2.3
MOIG	**Morelia**	**150.19**	**27**	*i* P	PKPdf	02 43 50.0	+1.5
RPN	**Rapa Nui**	**151.19**	**136**	PFAKE		02 44 00.0	+10
RPN				LR	LR		
	comp=Z,909nm,21.0s,MS5.5						
PPM	**Popocatepetl**	**151.80**	**23**	*i* PKIKP	PKPdf	02 43 50.0	-0.9
TEIG	**Tepich**	**152.88**	**2**	*e*PKPbc	PKPdf	02 43 58.5	+6.1
TEIG				*e*PKPab	PKPab	02 44 09.1	-0.7
TEIG				LR	LR		
	comp=Z,2µm,20.0s,MS6.0						
LVC	**Limon Verde**	**156.38**	**227**	PKP	PKPdf	02 43 55.3	-1.8
	comp=Z,2.1nm,0.8s,baz=77,slow=4.4,SNR=2.4						
LVC				PKPab	PKPab	02 44 24.8	+0.3
	comp=Z,28nm,0.9s,baz=169,slow=2.1,SNR=12						
LVC	**Limon Verde**	**156.38**	**227**	*e*PKPdf	PKPdf	02 43 57.0	0.0
LVC				*e*PKPab	PKPab	02 44 25.0	+0.5
LVC				LR	LR		
	comp=Z,6µm,21.0s,MS6.4						
SDV	**Santo Domingo**	**156.94**	**313**	*e*PKPdf	PKPdf	02 43 56.7	-1.4
SDV				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
LPAZ	**La Paz**	**159.00**	**242**	*e*PKIKP	PKPdf	02 43 59.1	-1.5
LPAZ				*e*		02 44 36.1	
LPAZ				MLR	MLR		
	comp=Z,3µm,21.0s						
LPAZ	**La Paz**	**159.00**	**242**	PKP	PKPdf	02 43 59.0	-1.6
	comp=Z,5.7nm,1.0s,baz=304,slow=1.3,SNR=13						
LPAZ				PKPab	PKPab	02 44 35.1	-0.8
	comp=Z,16nm,1.0s,baz=87,slow=7.2,SNR=7.3						
ROSC	**El Rosal**	**162.35**	**312**	PKP	PKPdf	02 44 02.9	-1.3
	comp=Z,15nm,0.9s,baz=207,slow=3.3,SNR=12						
JTS	**JuntasAbangare**	**162.59**	**352**	PFAKE		02 44 10.0	+5.6
JTS				LR	LR		
	comp=Z,1µm,22.0s						
OTAV	**Otavalo**	**168.46**	**309**	*e*PKPdf	PKPdf	02 44 09.0	-0.3
OTAV				*e*PKPab	PKPab	02 45 17.9	+0.7
OTAV				LR	LR		
	comp=Z,7µm,21.0s						
PAYG	**Puerto Ayora**	**173.06**	**24**	PFAKE		02 44 20.0	+8.0
PAYG				LR	LR		
	comp=Z,6µm,19.0s						

*NEIC **31** 02:32:45.8, 42.67N×15.60E, h10^{km}, MD3.0(ROM), ML3.0(LDG), After ROM.*
*CSEM **31** 02:32:48.1±0.1, 42.65N×15.55E, h40^{km}, ML3.0/4, Error ellipse: s-maj=2.4km s-min=2.0km az=91.0*
*LDG **31** 02:32:49.0±0.3, 42.57N×15.48E, h10^{km}, Ml3.0/4, Error ellipse: s-maj=8.8km s-min=4.0km az=66.0*
ROM 31 02:32:45.8±0.4**, 42.67N×15.60E, h10^{km}, MD3.0**/8**, ML2.6**/4**, Error ellipse: s-maj=2.9km s-min=2.3km az=90.0, Adriatic Sea**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RGNG	**Rignano Grg**	**1.00**	**181**	*e*PG	Pg	02 33 04.9	-0.9
RGNG				SG	Sg	02 33 19.8	+0.6
RGNG	**Rignano Grg**	**1.00**	**181**	*e*Pg	Pg	02 33 04.9	-0.9
RGNG				*e*Sg	Sg	02 33 19.8	+0.6
FGMS	**Monte Sant'Ang**	**1.00**	**165**	*e*PG	Pg	02 33 05.2	-0.6
FGMS				SG	Sg	02 33 20.5	+1.3
FGMS	**Monte Sant'Ang**	**1.00**	**165**	*e*Pg	Pg	02 33 05.2	-0.7
FGMS				*e*Sg	Sg	02 33 20.4	+1.3
CII	**Carovilli**	**1.35**	**226**	*e*PN	Pn	02 33 09.8	-1.0
CII				SN	Sn	02 33 28.8	-0.1
	180nm,0.5s						
CII	**Carovilli**	**1.35**	**226**	*e*Pn	Pn	02 33 09.8	-1.0
CII				*e*Sn	Sn	02 33 28.8	-0.2
CII	**Carovilli**	**1.35**	**226**	*e*Pn	Pn	02 33 09.8	-1.0
	180nm,0.5s						
CII				Sn	Sn	02 33 28.8	-0.1
FG5	**Orsara di Pugl**	**1.41**	**190**	*e*PN	Pn	02 33 11.7	0.0
FG5				SN	Sn	02 33 30.0	-0.4
FG5	**Orsara di Pugl**	**1.41**	**190**	*e*Pn	Pn	02 33 11.7	+0.1
FG5				*e*Sn	Sn	02 33 30.0	-0.5
INTR	**Introdacqua**	**1.42**	**243**	*e*PN	Pn	02 33 10.4	-1.4
INTR				SN	Sn	02 33 30.6	-0.1
INTR	**Introdacqua**	**1.42**	**243**	*e*Pn	Pn	02 33 10.4	-1.4
INTR				*e*Sn	Sn	02 33 30.6	-0.1
TERO	**Teramo**	**1.48**	**269**	*e*PN	Pn	02 33 12.1	-0.5
TERO				SN	Sn	02 33 32.9	+0.8
TERO	**Teramo**	**1.48**	**269**	*e*Pn	Pn	02 33 12.1	-0.5
TERO				*e*Sn	Sn	02 33 32.9	+0.9
FG4	**Candela**	**1.54**	**182**	*e*PN	Pn	02 33 14.4	+0.9
FG4	**Candela**	**1.54**	**182**	*e*Pn	Pn	02 33 14.4	+0.8
IPES	**Pescosannita**	**1.55**	**202**	*e*PN	Pn	02 33 12.9	-0.7
IPES				SN	Sn	02 33 33.9	0.0
STON	**Ston**	**1.56**	**82**	*i* Pn	Pn	02 33 14.9	+1.1
STON				*i* Sn	Sn	02 33 37.4	+3.3
STON				*i* Sg	Sg	02 33 38.5	+0.8
STON	**Ston**	**1.56**	**82**	*i* Pn	Pn	02 33 14.8	+1.1
STON				*i* Sn	Sn	02 33 37.3	+3.2
SGG	**Gregorio Mates**	**1.58**	**216**	*e*PN	Pn	02 33 13.4	-0.6
SGG				SN	Sn	02 33 32.8	-1.8
SGG	**Gregorio Mates**	**1.58**	**216**	*e*Pn	Pn	02 33 13.4	-0.6
SGG				*e*Sn	Sn	02 33 32.8	-1.8
SDI	**San Donato**	**1.65**	**235**	*e*PN	Pn	02 33 13.9	-1.1
SDI				SN	Sn	02 33 35.2	-1.1
SDI	**San Donato**	**1.65**	**235**	*e*Pn	Pn	02 33 13.9	-1.1
SDI				*e*Sn	Sn	02 33 35.2	-1.1
AQU	**L'Aquila**	**1.66**	**260**	*e*PN	Pn	02 33 14.5	-0.7
AQU	**L'Aquila**	**1.66**	**260**	*e*Pn	Pn	02 33 14.5	-0.7
PTQR	**Pietraquaria**	**1.76**	**249**	*e*PN	Pn	02 33 16.4	-0.2
	58nm,0.7s						
PTQR	**Pietraquaria**	**1.76**	**249**	*e*Pn	Pn	02 33 16.4	-0.2
	58nm,0.7s						
RFI	**Roccamonfina**	**1.83**	**222**	*e*PN	Pn	02 33 16.9	-0.7
RFI	**Roccamonfina**	**1.83**	**222**	*e*Pn	Pn	02 33 16.9	-0.7
NRCA	**Norcia**	**1.84**	**276**	*e*PN	Pn	02 33 17.1	-0.7
	27nm,0.3s						
NRCA	**Norcia**	**1.84**	**276**	*e*Pn	Pn	02 33 17.1	-0.7
NRCA	**Norcia**	**1.84**	**276**	*e*Pn	Pn	02 33 17.1	-0.7
	27nm,0.3s						
NVLJ	**Novalja**	**1.96**	**345**	*i* Pn	Pn	02 33 20.1	+0.6
NVLJ				*i* Sn	Sn	02 33 46.1	+1.7
MNS	**Montasola**	**2.18**	**263**	*e*PN	Pn	02 33 21.8	-0.9
	30nm,0.4s						
MNS	**Montasola**	**2.18**	**263**	*e*Pn	Pn	02 33 21.8	-0.9
	30nm,0.4s						
RHK1	**Bakonya**	**3.85**	**26**	*e*P	Pn	02 33 46.6	+0.1
PGF	**Pioggiola**	**4.88**	**271**	*e*Pn	Pn	02 33 59.6	-1.4
SBF	**Sospel**	**6.08**	**284**	*e*Pn	Pn	02 34 16.3	-1.7
FRF	**La Foret Royal**	**6.62**	**281**	*e*Pn	Pn	02 34 23.2	-2.3
LMR	**La Mourre**	**6.70**	**279**	*e*Pn	Pn	02 34 24.1	-2.6
MBDF	**Montbardon**	**6.72**	**291**	*e*Pn	Pn	02 34 24.5	-2.6
MBDF				*e*Sn	Sn	02 35 37.0	-7.5
	2.2nm,0.4s						
LPG	**La Plagne**	**6.97**	**297**	*e*Pn	Pn	02 34 25.7	-4.8
LPG				*e*Sn	Sn	02 35 41.9	-8.8
	1.9nm,0.3s						
LPG	**La Plagne**	**6.97**	**297**	*e*Sn	Sn	02 35 41.9	-8.8
	0.9nm,0.3s						
LPL	**La Plagne**	**6.99**	**297**	*e*Pn	Pn	02 34 25.8	-5.0
LPL				*e*Sn	Sn	02 35 44.5	-6.7
	4.6nm,0.4s						
LPL	**La Plagne**	**6.99**	**297**	*e*Sn	Sn	02 35 44.5	-6.7
	2.3nm,0.4s						
ORIF	**Oris-en-Rattie**	**7.38**	**291**	*e*Pn	Pn	02 34 32.9	-3.4
ORIF				*e*Sn	Sn	02 35 52.5	-8.6
	1.2nm,0.3s						
CABF	**La Chapelle**	**7.84**	**303**	*e*Pn	Pn	02 34 40.2	-2.6
CDF	**Champ du Feu**	**8.19**	**317**	*e*Pn	P	02 34 44.8	-2.8
HAU	**Haudompre**	**8.42**	**312**	*e*Pn	P	02 34 46.4	-4.4
SMF	**Signal de Mont**	**9.27**	**299**	*e*Pn	P	02 34 57.6	-5.0
AVF	**Avril sur Loir**	**9.64**	**299**	*e*Pn	P	02 35 05.7	-1.9
SSF	**Saint Saulge**	**9.64**	**301**	*e*Pn	P	02 35 05.1	-2.5
TCF	**Toulx Ste Croi**	**10.23**	**295**	*e*Pn	P	02 35 12.0	-3.7

IDC 31 02:33:06.6±3.0**, 3.98N×93.57E, mb4.1**/3**, mb1 4.3**/4**, mb1mx3.8**/18**, mbtmp4.1**/4**, ML4.3**/1**, Error ellipse: s-maj=91.7km s-min=32.6km az=63.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.32**	**20**	Pn	P	02 36 44.3	-1.7
	0.4nm,0.3s,baz=215,slow=12,SNR=15						
SONM	**Songino Array**	**45.07**	**12**	P	P	02 41 24.2	-1.9
	3.9nm,0.7s,baz=195,slow=8.6,SNR=16						
WRA	**Warramunga Arr**	**46.57**	**122**	P	P	02 41 36.5	-1.9
	1.4nm,0.7s,baz=299,slow=9.1,SNR=3.8						
BVAR	**Borovoye Array**	**52.49**	**343**	P	P	02 42 21.5	-2.0
	1.3nm,0.8s,baz=169,slow=7.3,SNR=3.6						

IDC 31 02:37:01.8±17.0**, 18.55S×175.70W, mb4.1**/2**, mb1 4.4**/2**, mb1mx3.8**/14**, mbtmp4.1**/2**, MS5.0**/1**, Ms1 5.0**/1**, ms1mx3.3**/23**, Error ellipse: s-maj=833.4km s-min=42.4km az=141.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PMG	**Port Moresby**	**37.10**	**279**	LR	LR	02 55 03.5	
	comp=Z,3µm,20.7s,baz=258,slow=29						
ASAR	**Alice Springs**	**47.10**	**255**	P	P	02 45 35.5	-2.2
	4.8nm,0.9s,baz=91,slow=8.5,SNR=11						
ILAR	**Eielson Array**	**85.95**	**12**	P	P	02 49 42.8	-2.0
	0.6nm,1.0s,baz=220,slow=6.5,SNR=5.3						
BRTR	**Keskin Array B**	**147.04**	**316**	PKPbc	PKPdf	02 56 47.5	+1.0
	0.7nm,0.5s,baz=63,slow=6.4,SNR=4.8						

IDC 31 02:41:14.7±1.9**, 7.44N×93.78E, mb3.7**/4**, mb1 3.8**/5**, mb1mx3.6**/17**, mbtmp3.6**/5**, ML3.7**/1**, Error ellipse: s-maj=64.7km s-min=25.9km az=64.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**12.04**	**24**	Pn	P	02 44 09.7	-1.0
	0.1nm,0.3s,baz=213,slow=14,SNR=4.3						
SONM	**Songino Array**	**41.66**	**13**	P	P	02 49 04.0	-2.6
	0.4nm,0.6s,baz=192,slow=9.4,SNR=3.5						
WRA	**Warramunga Arr**	**48.30**	**125**	P	P	02 49 58.1	-2.0
	0.3nm,0.5s,baz=306,slow=8.5,SNR=4.6						
ASAR	**Alice Springs**	**49.91**	**129**	P	P	02 50 10.6	-1.9
	0.8nm,0.8s,baz=301,slow=6.9,SNR=8.1						
FINES	**FINESS Array B**	**72.92**	**332**	P	P	02 52 46.0	-1.5
	1.6nm,0.8s,baz=104,slow=5.7,SNR=3.9						

KRSC 31 02:43:31.1±0.8**, 49.02N×157.19E, h19^{km}**±26^{km}**, ML4.0, East of Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SKR	**Severo-Kuril's**	**1.80**	**338**	*e*P	Pn	02 44 05.0	+3.3
SKR				*e*S	Sn	02 44 23.4	-0.8
PAU	**Pauzhetka**	**2.46**	**354**	*e*S	Sn	02 44 42.0	+1.1
RUS	**Russkaya**	**3.52**	**13**	*e*P	Pn	02 44 26.0	-0.1
RUS				*e*S	Sn	02 45 05.9	-1.8
GRL	**Gorelyy**	**3.58**	**9**	*e*P	Pn	02 44 27.1	+0.1
GRL				*e*S	Sn	02 45 09.2	-0.1
PET	**Petropavlovsk**	**4.11**	**12**	*e*P	Pn	02 44 35.8	+1.2
PET				*e*S	Sn	02 45 23.0	+0.2
UGLR	**Uglovaya**	**4.32**	**13**	*i* P	Pn	02 44 38.1	+0.6
UGLR				*e*S	Sn	02 45 27.9	-0.1
SMAR	**Somma**	**4.37**	**13**	*e*P	Pn	02 44 38.5	+0.3
SMAR				*e*S	Sn	02 45 27.7	-1.5
NLC	**Nalytchevo**	**4.37**	**17**	*e*P	Pn	02 44 37.1	-1.2
NLC				*e*S	Sn	02 45 26.5	-2.8
KOK	**Koryaka**	**4.37**	**11**	*i* P	Pn	02 44 39.1	+0.8
KOK				*e*S	Sn	02 45 28.8	-0.5
SDLR	**Sedlovina**	**4.39**	**13**	*i* P	Pn	02 44 38.0	-0.6
SDLR				*e*S	Sn	02 45 27.4	-2.5
SPN	**Mys Shipunski**	**4.46**	**23**	*e*P	Pn	02 44 40.1	+0.6
SPN				*e*S	Sn	02 45 31.9	+0.5
GNL	**Ganaly**	**4.71**	**5**	*i* P	Pn	02 44 43.0	0.0
GNL				*e*S	Sn	02 45 35.6	-2.1
KMNR	**Kamenistaya**	**7.00**	**14**	*e*P	Pn	02 45 17.3	+2.0
LGNR	**Loginova**	**7.39**	**15**	*e*P	Pn	02 45 21.1	+0.3

*NEIC **31** 02:50:23.7±1.2, 50.25N×18.79E, h5^{km}, MG2.5(WAR), Error ellipse: s-maj=16.8km s-min=7.5km az=176.0*
*PRU **31** 02:50:23.5, 50.36N×18.77E*
WAR 31 02:50:22.6, 50.26N×18.86E, h0^{km}, ML2.7, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	**0.47**	**248**	*e*Pg	Pg	02 50 32.9	+1.0
RAC				*e*Sg	Sg	02 50 39.9	+1.8
OJC	**Ojcow**	**0.60**	**94**	*e*PG	Pg	02 50 35.0	+0.4
OJC				*e*SG	Sg	02 50 43.0	+0.3
OKC	**Ostrava-Krasne**	**0.63**	**228**	*e*PG	Pg	02 50 35.2	+0.1
OKC				*e*SG	Sg	02 50 45.5	+2.0
MORC	**Moravsky Berou**	**0.98**	**241**	*e*Pg	Pg	02 50 41.2	-1.0
MORC				*e*Sg	Sg	02 50 53.5	-1.7
LIKS	**Likavka**	**1.22**	**172**	*e*PN	Pn	02 50 46.6	-0.2
LIKS				*e*SN	Sn	02 51 03.4	-0.9
NIE	**Niedzica**	**1.26**	**131**	*e*Pg	Pg	02 50 47.2	-0.6
NIE				*e*Sg	Sg	02 51 04.9	+0.3
DPC	**Dobruska-Polom**	**1.63**	**274**	*e*PG	Pg	02 50 52.2	-3.0
DPC				*e*SG	Sg	02 51 13.2	-3.7
KSP	**Ksiaz**	**1.74**	**291**	*e*PG	Pg	02 50 55.0	-2.3
KSP				*e*SG	Sg	02 51 18.0	-2.5
VYHS	**Vyhne**	**1.77**	**181**	*e*PN	Pn	02 50 54.1	-0.6
VYHS				*e*SN	Sn	02 51 17.9	-0.3
UPC	**Upice**	**1.84**	**279**	*e*SG	Sg	02 51 20.0	-3.9
SMOL	**Smolenice**	**1.98**	**209**	*e*PN	Pn	02 50 57.1	-0.6
CRVS	**Cervenica-Dubn**	**2.17**	**128**	*e*PN	Pn	02 51 03.8	+3.4
CRVS				*e*SN	Sn	02 51 32.1	+3.7
KOLS	**Kolonicke sedl**	**2.59**	**120**	*e*PN	Pn	02 51 06.4	0.0
PRU	**Pruhonice**	**2.79**	**266**	*e*PG	Pg	02 51 13.2	-5.2
PRU				*e*SG	Sg	02 51 49.3	-6.3
KHC	**Kasperske Hory**	**3.61**	**254**	*e*PN	Pn	02 51 16.0	-4.9
KHC				*e*x	x	02 51 23.0	
KHC				*e*SN	Sn	02 51 59.0	-5.9
KHC				*e*SG	Sg	02 52 16.5	-6.4
CLL	**Collm**	**3.86**	**288**	*e*SG	Sg	02 52 26.0	-5.2
CLL	**Collm**	**3.86**	**288**	*e*Sg	Sg	02 52 26.0	-5.2

*IDC **31** 02:50:53.8±2.1, 49.41S×161.09E, mb4.0/2, mb1 4.2/3, mb1mx3.9/9, mbtmp4.0/3, ML3.7/1, Error ellipse: s-maj=60.2km s-min=32.7km az=171.0*
ISC 31 02:50:58.8±2.3**, 48.7S**±0.4**×160.8E**±0.1**, h10^{km}, n10, σ0^{s}95**/10**, mb4.1**/2**, North of Macquarie Island**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WHZ	**Wether Hill Ro**	**5.60**	**63**	P	**Pn**	**02 52 24.7**	**+0.4**
WHZ				S	**Sn**	**02 53 30.1**	**+0.7**
MLZ	**Mavora Lakes**	**6.04**	**59**	P	**Pn**	**02 52 31.9**	**+1.4**
TUZ	**Tuapeka**	**6.59**	**69**	P	**Pn**	**02 52 37.8**	**-0.4**
EAZ	**Earnscleugh**	**6.76**	**62**	P	**Pn**	**02 52 40.4**	**-0.3**
JCZ	**Jackson Bay**	**7.17**	**53**	P	**Pn**	**02 52 50.8**	**+4.4**
RPZ	**Rata Peaks**	**8.67**	**59**	Pn	**P**	**02 53 04.3**	**-2.9**
	0.9nm,0.3s,baz=221,slow=19,SNR=2.7						
RPZ				Sn	**Sn**	**02 54 45.5**	**-0.6**
	0.7nm,0.3s,baz=210,slow=20,SNR=2.7						
ASAR	**Alice Springs**	**32.78**	**310**	P	**P**	**02 57 34.5**	**+0.4**
	2.0nm,0.8s,mb4.1,baz=146,slow=8.1,SNR=13						
WRA	**Warramunga Arr**	**35.70**	**314**	P	**P**	**02 57 59.1**	**-0.3**
	2.1nm,0.8s,mb4.1,baz=144,slow=8.2,SNR=9.4						
AKASG	**Malin Array Be**	**149.05**	**292**	PKPbc	PKPdf	03 10 44.0	-1.1
	0.3nm,0.3s,baz=98,slow=2.4,SNR=6.5						
FINES	**FINESS Array B**	**151.75**	**314**	PKPbc	PKPdf	03 10 50.6	+1.7
	5.6nm,1.1s,baz=90,slow=1.9,SNR=5.5						
FINES				PKPab	PKPab	03 10 58.4	-5.1
	4.9nm,1.1s,baz=101,slow=7.1,SNR=5.6						

*IDC **31** 03:08:14.6±0.6, 4.90N×92.96E, mb4.5/13, mb1 4.6/14, mb1mx4.4/21, mbtmp4.5/14, ML4.2/1, Error ellipse: s-maj=35.5km s-min=13.5km az=49.0*
*BJI **31** 03:08:16.5, 4.36N×93.07E, h52^{km}, mB6.2, mb4.9, Ms5.5, Msz5.3*
*CSEM **31** 03:08:17.9, 5.04N×93.18E, h33^{km}, mb5.5*
*MOS **31** 03:08:17.6±1.0, 4.86N×93.00E, h33^{km}, mb5.0/17, Error ellipse: s-maj=19.3km s-min=9.9km az=113.2*
*NEIC **31** 03:08:18.4±5.2, 4.92N×93.09E, h25^{km}±35^{km}, mb4.8/16, Error ellipse: s-maj=14.8km s-min=7.6km az=48.0*
ISC 31 03:08:16.9±2.2**, 4.87N**±0.06**×93.07E**±0.05**, h28^{km}**±15^{km}**, h32^{km}**±5.1^{km}**:pP-P, n104, σ0^{s}95**/103**, mb4.8**/50**, MS5.3**/2**, 6C-6D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**14.67**	**23**	*e*Pn	**P**	**03 11 43.8**	**-0.9**
	43nm,1.0s						
CMAR	**Chiang Mai Arr**	**14.67**	**23**	Pn	**P**	**03 11 44.2**	**-0.5**
	0.4nm,0.3s,baz=218,slow=14,SNR=113						
VIS	**Vishakhapatnam**	**15.94**	**324**	*e*P	**P**	**03 11 59.6**	**-1.6**
VIS				*e*		03 12 02.9	
	comp=Z,69nm,0.6s						
VIS				*e*S	**S**	**03 14 42.5**	**-14**
TRD	**Trivandrum**	**16.41**	**284**	*e*S	**S**	**03 14 57.5**	**-10**
TRD				*e*S	**S**	**03 14 57.5**	**-10**
HYB	**Hyderabad**	**18.91**	**312**	*i* P	**P**	**03 12 38.0**	**-0.1**
NGP	**Nagpur**	**21.15**	**321**⇓	*e*P	**P**	**03 13 01.6**	**-0.6**
	comp=Z,71nm,0.8s,mb5.0						
NGP				*e*		03 17 05.8	
KMI	**Kunming**	**22.18**	**24**	P	**P**	**03 13 13.3**	**+0.8**
KMI				XP		03 13 31.3	
KMI				AMB	AMB		
	comp=Z,28nm,1.7s,mb4.4						
KAD	**Karad**	**22.25**	**305**	*e*P	**P**	**03 13 13.6**	**+0.3**
KAD				*e*		03 13 15.7	
	comp=Z,33nm,1.0s						
KAD				*e*		03 17 19.0	
BHPL	**Bhopal**	**23.70**	**322**	*e*P	**P**	**03 13 28.4**	**+0.8**
BHPL				*e*		03 13 41.5	
	comp=Z,26nm,1.3s						
PKI	**Pulchoki**	**23.73**	**343**	*e*P	**P**	**03 13 28.6**	**+0.8**
	comp=Z,60nm,0.9s,mb5.0						
PKI	**Pulchoki**	**23.73**	**343**	*e*P	**P**	**03 13 28.5**	**+0.7**
	comp=Z,149nm,1.4s,mb5.2						
DMN	**Daman**	**23.86**	**342**	*e*P	**P**	**03 13 30.1**	**+1.1**
	comp=Z,46nm,0.8s,mb4.9						
DMN	**Daman**	**23.86**	**342**	*e*P	**P**	**03 13 30.1**	**+1.1**
GUN	**Gumba**	**23.92**	**344**	*e*P	**P**	**03 13 30.5**	**+0.9**
	comp=Z,168nm,1.3s,mb5.3						
GUN	**Gumba**	**23.92**	**344**	*e*P	**P**	**03 13 30.9**	**+1.3**
	comp=Z,168nm,1.3s,mb5.3						
KKN	**Kakani**	**23.97**	**343**	*e*P	**P**	**03 13 30.7**	**+0.6**
	comp=Z,151nm,1.5s,mb5.2						
KKN	**Kakani**	**23.97**	**343**	*e*P	**P**	**03 13 31.1**	**+1.0**
	comp=Z,151nm,1.5s,mb5.2						
GKN	**Gorkha**	**24.37**	**342**	*e*P	**P**	**03 13 34.7**	**+0.7**
	comp=Z,236nm,1.2s,mb5.5						
GKN	**Gorkha**	**24.37**	**342**	*e*P	**P**	**03 13 35.0**	**+1.0**
	comp=Z,236nm,1.2s,mb5.5						
KOLN	**Koldanda**	**24.50**	**339**	*e*P	**P**	**03 13 36.1**	**+0.8**
	comp=Z,60nm,1.2s,mb4.9						
KOLN	**Koldanda**	**24.50**	**339**	*e*P	**P**	**03 13 36.3**	**+1.0**
	comp=Z,60nm,1.2s,mb4.9						
LSA	**Lhasa**	**24.77**	**356**	*e*P	**P**	**03 13 39.4**	**+1.6**
LSA				pmax	pmax		
	comp=Z,72nm,1.3s,mb5.0						
LSA	**Lhasa**	**24.77**	**356**	*e*P	**P**	**03 13 39.4**	**+1.5**
	comp=Z,72nm,1.3s,mb5.0						
GYA	**Guiyang**	**25.10**	**30**⇑	*i*P	**P**	**03 13 42.0**	**+1.0**
GYA				AMB	AMB		
	comp=Z,10.0nm,0.8s,mb4.4						
PTH	**Pithoragarh**	**27.40**	**335**	*e*P	**P**	**03 14 01.9**	**-0.3**

PTH				*e*		03 20 33.9	
CD2	**Chengdu**	**27.79**	**20**	P	**P**	**03 14 05.3**	**-0.5**
DDI	**Dehra Dun**	**29.01**	**332**	*e*P	**P**	**03 14 16.5**	**-0.3**
ENH	**Enshi**	**29.64**	**30**	*e*P	**P**	**03 14 20.9**	**-1.5**
	comp=Z,7.0nm,0.8s,mb4.4						
WHN	**Wuhan**	**32.47**	**36**	⇓P	**P**	**03 14 48.0**	**+0.7**
XAN	**Xi’an**	**32.55**	**25**	P	**P**	**03 14 47.0**	**-1.0**
XAN				AMB	AMB		
	comp=Z,26nm,1.1s,mb5.1						
LZH	**Lanzhou**	**32.61**	**16**	⇑P	**P**	**03 14 47.3**	**-1.2**
LZH				AMB	AMB		
	comp=Z,38nm,1.4s,mb5.1						
GTA	**Gaotai**	**34.92**	**9**	P	**P**	**03 15 09.3**	**+0.8**
GTA				AP	pP	03 15 22.5	+5.7
GTA				XP	sP	03 15 28.8	+8.5
GTA				PP	PP	03 16 28.8	+2.1
GTA				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.7						
NJ2	**Nanjing**	**36.25**	**39**	*e*P	**P**	**03 15 19.5**	**-0.3**
NJ2				AP	pP	03 15 28.5	+0.4
NJ2				PP	PP	03 16 42.0	-1.0
NJ2				S	**S**	**03 20 56.0**	**-1.8**
NJ2				AMB	AMB		
	comp=Z,310nm,8.4s						
NJ2				LR	LR		
	comp=N,5µm,17.8s,MS5.5						
NJ2				LR	LR		
	comp=E,3µm,13.0s,MS5.5						
NJ2				LR	LR		
	comp=Z,5µm,12.0s,MS5.5						
SSE	**Sheshan**	**37.13**	**42**	*e*P	**P**	**03 15 26.3**	**-0.9**
SSE				AMB	AMB		
	comp=Z,43nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,5µm,11.1s						
KSH	**Kashi**	**37.80**	**338**	*e*P	**P**	**03 15 34.5**	**+1.8**
KSH				AMB	AMB		
	comp=Z,2µm,6.0s						
WMQ	**Urumqi**	**39.08**	**354**	P	**P**	**03 15 44.8**	**+1.4**
WMQ				AMB	AMB		
	comp=Z,15nm,1.2s,mb4.6						
FITZ	**Fitzroy Crossi**	**39.40**	**126**	*e*P	**P**	**03 15 46.1**	**-0.2**
	comp=Z,10nm,1.2s,mb4.4						
HHC	**Hu-ho-hao-te**	**39.48**	**22**	⇑P	**P**	**03 15 47.5**	**+0.7**
HHC				AMB	AMB		
	comp=Z,23nm,1.1s,mb4.8						
HHC				AMB	AMB		
	comp=Z,4µm,10.6s						
HHC				LR	LR		
	comp=N,2µm,13.1s						
HHC				LR	LR		
	comp=E,2µm,19.0s						
HHC				LR	LR		
	comp=Z,2µm,15.5s,MS5.1						
UCH	**Uchtor**	**40.71**	**339**	P	**P**	**03 15 57.8**	**+1.0**
	SNR=10						
BJT	**Baijiatuau**	**40.72**	**28**	*e*P	**P**	**03 15 58.1**	**+1.1**
BJT				pmax	pmax		
	comp=Z,50nm,1.4s						
BJT	**Baijiatuau**	**40.72**	**28**	*e*P	**P**	**03 15 58.1**	**+1.1**
	comp=Z,50nm,1.4s,mb5.0						
BJI	**Beijing**	**40.74**	**27**	*e*P	**P**	**03 15 58.3**	**+1.1**
BJI				AMB	AMB		
	comp=Z,29nm,1.3s,mb4.8						
AML	**Almayashu**	**40.93**	**338**	P	**P**	**03 15 59.6**	**+1.0**
	SNR=17						
KBK	**Karagaybulak**	**40.93**	**339**	P	**P**	**03 15 59.8**	**+1.2**
	SNR=11						
AAK	**Ala-Archa**	**41.07**	**339**	P	**P**	**03 16 01.0**	**+1.2**
	SNR=7.9						
AAK	**Ala-Archa**	**41.07**	**339**	*e*P	**P**	**03 15 59.8**	**0.0**
AAK				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.4						
AAK	**Ala-Archa**	**41.07**	**339**	*e*P	**P**	**03 15 59.8**	**0.0**
	comp=Z,12nm,1.1s,mb4.5						
USP	**Ospenovka**	**41.62**	**339**	P	**P**	**03 16 04.7**	**+0.3**
	SNR=12						
NWAO	**Narrogin (SRO)**	**44.03**	**150**	P	**P**	**03 16 24.9**	**+0.8**
	comp=Z,3.0nm,0.5s,mb4.2,baz=344,slow=20,SNR=4.9						
SONM	**Songino Array**	**44.31**	**13**	P	**P**	**03 16 26.6**	**+0.3**
	comp=Z,4.0nm,0.9s,mb4.1,baz=193,slow=7.7,SNR=27						
SONM				PcP	PcP	03 18 11.3	+0.6
	comp=Z,2.3nm,0.6s,baz=200,slow=3.4,SNR=18						
ZAK	**Zakamensk**	**46.16**	**9**	*e*P	**P**	**03 16 40.9**	**0.0**
ZAK				*e*		03 18 15.9	
WRA	**Warramunga Arr**	**47.47**	**123**	P	**P**	**03 16 51.6**	**0.0**
	comp=Z,6.0nm,0.6s,mb4.7,baz=299,slow=9.0,SNR=30						
WRAB	**Tennant Creek**	**47.47**	**123**	⇑*e*P	**P**	**03 16 51.4**	**-0.3**
WRAB	**Tennant Creek**	**47.47**	**123**	*e*P	**P**	**03 16 52.0**	**+0.3**
	comp=Z,243nm,2.1s,mb5.8						
WB2	**Warramunga Arr**	**47.48**	**123**	*e*P	**P**	**03 16 52.0**	**+0.3**
ASPA	**Alice Springs**	**48.88**	**127**	*e*P	**P**	**03 17 02.8**	**+0.3**
ASAR	**Alice Springs**	**48.88**	**127**	P	**P**	**03 17 02.8**	**+0.3**
	comp=Z,2.7nm,0.7s,mb4.4,baz=298,slow=7.9,SNR=40						
ASAR				PcP	PcP	03 18 27.6	+0.6
	comp=Z,1.4nm,0.6s,baz=307,slow=3.5,SNR=5.2						
HIA	**Hailar**	**49.69**	**23**	*e*P	**P**	**03 17 08.2**	**-0.2**
HIA				pmax	pmax		
	comp=Z,30nm,1.1s						
HIA	**Hailar**	**49.69**	**23**	*e*P	**P**	**03 17 08.2**	**-0.3**
	comp=Z,30nm,1.1s,mb5.2						
MDJ	**Mudanjiang**	**50.88**	**33**	P	**P**	**03 17 16.5**	**-1.1**
	comp=Z,2.9nm,0.3s,mb4.7						
BVAR	**Borovoye Array**	**51.50**	**343**	P	**P**	**03 17 20.7**	**-1.5**
	comp=Z,2.5nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=14						
BRVK	**Borovoye**	**51.56**	**343**	*e*P	**P**	**03 17 21.4**	**-1.2**
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
BRVK	**Borovoye**	**51.56**	**343**	*e*P	**P**	**03 17 21.4**	**-1.2**
	comp=Z,10nm,1.3s,mb4.6						
CHKZ	**Chkalovo**	**52.00**	**343**	*e*P	**P**	**03 17 25.1**	**-0.9**
CHKZ				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
CHKZ	**Chkalovo**	**52.00**	**343**	*e*P	**P**	**03 17 25.1**	**-0.8**
	comp=Z,22nm,1.2s,mb5.0						
KLR	**Kul’dur**	**55.00**	**30**	*e*P	**P**	**03 17 44.7**	**-3.5**
GNI	**Garni**	**55.81**	**316**	*e*P	**P**	**03 17 54.2**	**+0.1**
GNI				pmax	pmax		
	comp=Z,18nm,1.2s						
GNI	**Garni**	**55.81**	**316**	P	**P**	**03 17 54.5**	**+0.4**
	comp=Z,37nm,1.4s,mb5.2,baz=18,slow=21,SNR=5.6						
GNI	**Garni**	**55.81**	**316**	*e*P	**P**	**03 17 54.2**	**0.0**
	comp=Z,18nm,1.2s,mb5.0						
ZEI	**Tsey**	**57.54**	**319**	*e*P	**P**	**03 18 05.7**	**-0.7**
ZEI				*i* *PP	pP	03 18 13.4	-1.7
ZEI				*i*		03 20 11.9	
ZEI				pmax	pmax		
	comp=Z,5.0nm,1.2s,mb4.4						
ARU	**Arti**	**58.25**	**338**	⇓*i*P	**P**	**03 18 09.6**	**-1.6**
ARU				*e*		03 18 56.3	
ARU				*e*		03 20 17.1	
ARU				*e*PPP	PPP	03 21 37.6	-7.5
ARU				*e*S	**S**	**03 26 11.4**	**+1.9**
ARU				*e*SS	SS	03 30 04.8	+1.7
ARU				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
STKA	**Stephens Creek**	**58.86**	**132**	*e*P	**P**	**03 18 16.1**	**+0.3**
	comp=Z,2.9nm,0.5s,mb4.6						
STKA	**Stephens Creek**	**58.86**	**132**	P	**P**	**03 18 16.1**	**+0.4**
	comp=Z,4.3nm,0.6s,mb4.6,baz=308,slow=6.4,SNR=25						
KIV	**Kislovodsk**	**58.86**	**319**	⇑*e*P	**P**	**03 18 14.4**	**-1.2**
KIV				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
MALT	**Malatya**	**59.63**	**312**	*e*P	**P**	**03 18 20.6**	**-0.4**
MALT				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
MALT	**Malatya**	**59.63**	**312**	*e*P	**P**	**03 18 20.6**	**-0.4**
	comp=Z,8.9nm,1.3s,mb4.6						
EIL	**Elat**	**60.03**	**301**	*e*P	**P**	**03 18 23.6**	**-0.4**
	comp=Z,10nm,1.1s,mb4.8						
MBAR	**Mbarara**	**62.50**	**267**	P	**P**	**03 18 40.5**	**-0.3**
MBAR				pmax	pmax		
	comp=Z,5.0nm,1.1s,mb4.6						
MBAR	**Mbarara**	**62.50**	**267**	P	**P**	**03 18 40.5**	**-0.4**
	comp=Z,5.3nm,1.1s,mb4.6						
YAK	**Yakutsk**	**63.16**	**18**	⇓*e*P	**P**	**03 18 44.3**	**-0.2**
YAK				pmax	pmax		
	comp=Z,36nm,1.3s,mb5.3						
YAK	**Yakutsk**	**63.16**	**18**	P	**P**	**03 18 43.2**	**-1.3**
	comp=Z,12nm,0.4s,mb5.4						
BRTR	**Keskin Array B**	**63.61**	**312**	P	**P**	**03 18 46.5**	**-1.3**
	comp=Z,15nm,1.3s,mb4.9,baz=127,slow=6.2,SNR=19						
OBN	**Obninsk**	**67.36**	**329**	⇓*e*P	**P**	**03 19 09.4**	**-2.3**
OBN				*e*S	S	03 28 04.2	+0.4
OBN				pmax	pmax		
	comp=Z,33nm,1.8s,mb5.1						
AKASG	**Malin Array Be**	**69.86**	**323**	P	**P**	**03 19 25.2**	**-2.0**
	comp=Z,0.2nm,0.3s,baz=89,slow=5.2,SNR=4.4						
TIXI	**Tiksi**	**70.37**	**11**	⇑*e*P	**P**	**03 19 29.4**	**-0.6**
TIXI				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.1						
MLR	**Muntele Rosu**	**70.59**	**317**	P	**P**	**03 19 31.7**	**0.0**
	comp=Z,18nm,1.2s,mb4.9,baz=39,slow=5.4,SNR=8.6						
KOLS	**Kolonicke sedl**	**73.77**	**320**	*e*P	**P**	**03 19 48.7**	**-1.9**
FINES	**FINESS Array B**	**74.87**	**333**	*i* P	**P**	**03 19 56.1**	**-0.5**
FINES				pmax	pmax		
	comp=Z,10.0nm,1.2s						
FINES	**FINESS Array B**	**74.87**	**333**	P	**P**	**03 19 55.6**	**-1.0**
	comp=Z,9.7nm,1.2s,mb4.6,baz=135,slow=8.1,SNR=4.2						
VYHS	**Vyhne**	**75.94**	**319**	*e*P	**P**	**03 20 03.7**	**+0.7**
OKC	**Ostrava-Krasne**	**76.58**	**320**	*e*P	**P**	**03 20 08.2**	**+1.6**
DPC	**Dobruska-Polom**	**77.82**	**320**	*e*P	**P**	**03 20 14.4**	**+1.0**
BILL	**Bilibino**	**79.25**	**22**	⇓*e*P	**P**	**03 20 21.7**	**+0.8**
BILL				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
GERES	**GERESS Array B**	**79.36**	**319**	P	**P**	**03 20 22.0**	**+0.1**
	comp=Z,14nm,1.3s,mb4.7,baz=104,slow=5.5,SNR=14						
BRG	**Berggiesshubel**	**79.38**	**321**	P	**P**	**03 20 21.9**	**-0.1**
BRG				pmax	pmax		
	comp=Z,30nm,1.8s,mb4.9						
BRG	**Berggiesshubel**	**79.38**	**321**	P	**P**	**03 20 21.9**	**-0.1**
	comp=Z,30nm,1.8s,mb4.9						
KHC	**Kasperske Hory**	**79.46**	**319**	*e*P	**P**	**03 20 22.6**	**+0.2**
DAVOX	**Davos**	**81.81**	**316**	P	**P**	**03 20 35.7**	**+0.8**
	comp=Z,4.8nm,0.5s,mb4.7,baz=154,slow=5.1,SNR=23						
ILAR	**Eielson Array**	**97.91**	**22**	P	**P**	**03 21 51.1**	**0.0**
	comp=Z,0.2nm,0.6s,mb3.9,baz=294,slow=3.9,SNR=4.8						
ILAR				PP	PP	03 25 50.6	-2.1
	comp=Z,1.5nm,1.1s,baz=292,slow=6.8,SNR=7.0						
YKA	**Yellowknife Ar**	**109.58**	**13**	PP	PP	03 27 18.3	-2.2
	comp=Z,0.3nm,0.9s,baz=333,slow=6.5,SNR=4.3						
NVAR	**Mina Array Bea**	**128.03**	**31**	PKP	PKPdf	03 27 24.8	-1.1
	comp=Z,0.9nm,0.6s,baz=288,slow=2.9,SNR=4.5						
PDAR	**Pinedale Array**	**128.34**	**21**	PKP	PKPdf	03 27 24.1	-2.3
	comp=Z,4.9nm,1.2s,slow=3.0,SNR=10						
TXAR	**Lajitas Array**	**142.38**	**24**	PKhKP		03 27 46.0	
	comp=Z,1.0nm,1.1s,baz=191,slow=0.2,SNR=4.9						
TXAR				PKiKP		03 27 53.1	
	comp=Z,0.5nm,0.5s,baz=137,slow=0.9,SNR=11						
HKT	**Hockley**	**144.34**	**13**	*e*PKIKP	PKPdf	03 27 52.8	-3.2

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*IDC **31** 03:18:00.8±3.1,2.09N×126.75E,h39^{km}±26^{km},mb4.3/16, mb1 4.4/16,mb1mx4.4/19,mbtmp4.5/16,Error ellipse: s-maj=35.8km s-min=10.6km az=69.0*

*NEIC **31** 03:18:01.7±0.3,2.07N×126.67E,h50^{km},mb4.7/19,Error ellipse: s-maj=16.8km s-min=5.9km az=76.0*

*BJI **31** 03:18:01.7,2.10N×126.70E,h50^{km},mb4.6,Ms5.4, Msz5.4*

ISC 31 03:17:59.2±1.3,**2.06N**±0.05×**126.5E**±0.1,**h39**^{km}±12^{km}, **n60,**σ**1**^{s}**06**/61,**mb4.7**/39,**1D,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KCP	**Kidapawan**	**5.12**	**344**	⇓*e*P	**P**	**03 19 18.1**	**+2.7**
BUKP	**Musuan**	**5.96**	**346**	*e*P	**P**	**03 19 28.8**	**+1.6**
PAGZ	**Pagadian**	**6.54**	**332**	*e*P	**P**	**03 19 35.5**	**0.0**
PAGZ	**Pagadian**	**6.54**	**332**	*e*P	**S**	**03 20 50.1**	**+0.3**
IPIL	**Ipil**	**6.92**	**325**	*e*P	**S**	**03 20 55.5**	**-3.6**
KAKA	**Kakadu**	**15.81**	**158**	*e*P	**P**	**03 21 44.7**	**+3.9**
	28nm,0.6s						
FITZ	**Fitzroy Crossi**	**20.06**	**182**	*e*P	**P**	**03 22 30.7**	**-1.4**
	22nm,0.4s						
WRAB	**Tennant Creek**	**23.17**	**161**	*e*P	**P**	**03 23 03.3**	**-0.2**
	56nm,0.6s,mb5.2						
WRA	**Warramunga Arr**	**23.17**	**161**	P	**P**	**03 23 03.1**	**-0.4**
	27nm,0.4s,mb5.0,baz=339,slow=11,SNR=92						
WRA				S	**S**	**03 27 12.0**	**+3.6**
	2.3nm,0.7s,baz=332,slow=20,SNR=5.1						
WB2	**Warramunga Arr**	**23.18**	**161**	*e*P	**P**	**03 23 03.3**	**-0.2**
MBWA	**Marble Bar**	**24.02**	**196**	*e*P	**P**	**03 23 12.0**	**+0.3**
	6.8nm,0.6s,mb4.2						
ASAR	**Alice Springs**	**26.56**	**165**	P	**P**	**03 23 35.0**	**-0.8**
	5.3nm,0.4s,mb4.4,baz=345,slow=11,SNR=38						
ASAR				PcP	PcP	03 26 59.6	-0.4
	2.0nm,0.5s,baz=350,slow=2.4,SNR=7.6						
ASAR				S	**S**	**03 28 07.9**	**+2.3**
	1.6nm,0.9s,baz=352,slow=18,SNR=3.1						
ASPA	**Alice Springs**	**26.56**	**165**	*e*P	**P**	**03 23 35.0**	**-0.8**
CMAR	**Chiang Mai Arr**	**31.57**	**303**	P	**P**	**03 24 19.6**	**-1.1**
	3.2nm,1.0s,mb4.1,baz=109,slow=6.7,SNR=7.1						
ENH	**Enshi**	**32.38**	**332**	*e*P	**P**	**03 24 26.1**	**-1.4**
	7.9nm,0.6s,mb4.7						
KLBR	**Kellerberrin**	**34.49**	**193**	*e*P	**P**	**03 24 46.1**	**+0.3**
	21nm,1.1s,mb5.0						
MUN	**Mundaring**	**35.24**	**195**	*e*P	**P**	**03 24 53.0**	**+0.8**
	17nm,1.7s,mb4.7						
NWAO	**Narrogin (SRO)**	**35.89**	**193**	P	**P**	**03 24 58.0**	**+0.2**
	10nm,1.0s,mb4.7,baz=28,slow=5.6,SNR=5.8						
MAJO	**Matsushiro**	**35.97**	**16**	*e*P	**P**	**03 24 56.9**	**-1.4**
	6.2nm,0.6s,mb4.7						
STKA	**Stephens Creek**	**36.66**	**158**	*e*P	**P**	**03 25 03.1**	**-1.1**
	2.8nm,0.3s,mb4.6						
STKA	**Stephens Creek**	**36.66**	**158**	P	**P**	**03 25 03.2**	**-1.0**
	3.4nm,0.4s,mb4.5,baz=331,slow=7.5,SNR=20						
BJT	**Baijiatuau**	**38.93**	**347**	*e*P	**P**	**03 25 23.1**	**0.0**
	6.2nm,0.6s,mb4.5						
BJI	**Beijing**	**38.95**	**347**	*e*P	**P**	**03 25 23.0**	**-0.3**
BJI				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.5						
LSA	**Lhasa**	**43.40**	**313**	*e*P	**P**	**03 26 01.7**	**+1.6**
	comp=Z,8.4nm,0.8s,mb4.5						
GTA	**Gaotai**	**44.42**	**330**	P	**P**	**03 26 05.5**	**-2.7**
GTA				AMB	AMB		
	comp=Z,4.0nm,0.7s,mb4.3						
GUN	**Gumba**	**46.55**	**307**	*e*P	**P**	**03 26 25.0**	**-0.3**
	comp=Z,46nm,0.7s,mb5.5						
GUN	**Gumba**	**46.55**	**307**	*e*P	**P**	**03 26 24.8**	**-0.5**
	comp=Z,46nm,0.7s,mb5.5						
PKI	**Pulchoki**	**46.78**	**307**	*e*P	**P**	**03 26 26.3**	**-0.8**
	comp=Z,14nm,0.6s,mb5.0						
PKI	**Pulchoki**	**46.78**	**307**	*e*P	**P**	**03 26 25.9**	**-1.2**
	comp=Z,14nm,0.6s,mb5.0						
KKN	**Kakani**	**46.98**	**307**	*e*P	**P**	**03 26 28.2**	**-0.4**
	comp=Z,23nm,0.8s,mb5.2						
KKN	**Kakani**	**46.98**	**307**	*e*P	**P**	**03 26 28.1**	**-0.5**
	comp=Z,23nm,0.8s,mb5.2						
DMN	**Daman**	**47.04**	**307**	*e*P	**P**	**03 26 28.5**	**-0.6**
	comp=Z,35nm,1.0s,mb5.3						
DMN	**Daman**	**47.04**	**307**	*e*P	**P**	**03 26 28.4**	**-0.7**
	comp=Z,35nm,1.0s,mb5.3						
GKN	**Gorkha**	**47.58**	**307**	*e*P	**P**	**03 26 32.4**	**-1.0**
	comp=Z,23nm,0.7s,mb5.3						
GKN	**Gorkha**	**47.58**	**307**	*e*P	**P**	**03 26 32.3**	**-1.1**
	comp=Z,23nm,0.7s,mb5.3						
KOLN	**Koldanda**	**48.32**	**306**	*e*P	**P**	**03 26 38.6**	**-0.5**
	comp=Z,43nm,0.7s,mb5.6						
KOLN	**Koldanda**	**48.32**	**306**	*e*P	**P**	**03 26 38.4**	**-0.7**
	comp=Z,43nm,0.7s,mb5.6						
ULN	**Ulaanbaatar**	**48.63**	**343**	*e*P	**P**	**03 26 41.4**	**+0.1**
	comp=Z,1.8nm,0.5s,mb4.4						
SONM	**Songino Array**	**48.81**	**342**	P	**P**	**03 26 42.5**	**-0.1**
	comp=Z,1.7nm,0.5s,mb4.3,baz=160,slow=7.3,SNR=17						
HYB	**Hyderabad**	**49.51**	**291**	*e*P	**P**	**03 26 48.0**	**-0.4**
HYB	**Hyderabad**	**49.51**	**291**	*i* P	**P**	**03 26 48.0**	**-0.4**
AAK	**Ala-Archa**	**61.45**	**319**	*e*P	**P**	**03 28 14.2**	**-0.1**
	comp=Z,2.9nm,0.8s,mb4.5						
BVAR	**Borovoye Array**	**68.60**	**327**	P	**P**	**03 28 59.9**	**-0.3**
	comp=Z,1.0nm,0.3s,mb4.2,baz=137,slow=8.5,SNR=14						
BRVK	**Borovoye**	**68.67**	**327**	*e*P	**P**	**03 29 00.2**	**-0.5**
	comp=Z,6.9nm,0.9s,mb4.6						
CHKZ	**Chkalovo**	**68.78**	**328**	*e*P	**P**	**03 29 00.3**	**-1.0**
	comp=Z,1.7nm,0.6s,mb4.2						
VNDA	**Vanda**	**81.81**	**173**	P	**P**	**03 30 15.8**	**+0.5**
	comp=Z,2.4nm,0.7s,mb4.2,baz=314,slow=6.2,SNR=18						
IMA	**Indian Mountai**	**83.98**	**24**	*e*P	**P**	**03 30 27.8**	**+1.4**
	comp=Z,25nm,0.9s,mb5.3						
ILAR	**Eielson Array**	**86.68**	**25**	P	**P**	**03 30 39.0**	**-0.8**
	comp=Z,0.9nm,1.0s,mb4.0,baz=276,slow=4.1,SNR=11						
MALT	**Malatya**	**87.24**	**308**	*e*P	**P**	**03 30 44.3**	**+1.1**
	comp=Z,3.4nm,0.8s,mb4.6						
OBN	**Obninsk**	**88.30**	**325**	*e*P	**P**	**03 30 48.3**	**+0.5**
	comp=Z,11nm,0.6s,mb5.3						
ASF	**Jabal al Asfar**	**88.60**	**302**	P	**P**	**03 30 51.8**	**+1.9**
	comp=Z,10nm,1.0s,mb5.1,baz=151,slow=14,SNR=12						
KMBO	**Kilima Mbogo**	**89.32**	**269**	P	**P**	**03 30 55.9**	**+2.2**
	comp=Z,2.4nm,0.9s,mb4.5,baz=118,slow=7.3,SNR=3.6						
EIL	**Elat**	**90.36**	**300**	P	**P**	**03 30 59.6**	**+1.4**
	comp=Z,1.9nm,0.7s,mb4.5,baz=287,slow=14,SNR=4.0						
EIL	**Elat**	**90.36**	**300**	*e*P	**P**	**03 30 59.4**	**+1.1**
	comp=Z,3.8nm,0.9s,mb4.7						
BRTR	**Keskin Array B**	**90.92**	**310**	P	**P**	**03 31 00.8**	**+0.2**
	comp=Z,1.1nm,0.5s,mb4.4,baz=88,slow=4.2,SNR=9.1						
ARCES	**ARCESS Array B**	**91.93**	**340**	P	**P**	**03 31 04.2**	**-0.3**
	comp=Z,4.0nm,0.8s,mb4.8,baz=68,slow=4.9,SNR=4.0						
KAF	**Kangasniemi**	**92.97**	**332**	*e*p	**P**	**03 31 08.9**	**-0.6**
FINES	**FINESS Array B**	**93.19**	**332**	P	**P**	**03 31 11.7**	**+1.2**
	comp=Z,1.8nm,0.8s,mb4.6,baz=63,slow=8.5,SNR=7.7						
MLR	**Muntele Rosu**	**95.95**	**316**	P	**P**	**03 31 25.5**	**+2.0**
	comp=Z,1.5nm,0.6s,mb4.6,baz=168,slow=14,SNR=6.0						
TXAR	**Lajitas Array**	**122.77**	**53**	PKP	PKPdf	03 36 53.6	+1.8
	comp=Z,0.4nm,1.0s,baz=186,slow=1.6,SNR=3.7						

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*NEIC **31** 03:23:17.0,35.62N×23.23E,h2^{km},MD3.2(ATH),After ATH.*

*CSEM **31** 03:23:17.0±0.5,35.59N×23.22E,MD3.2,Error ellipse: s-maj=12.1km s-min=2.8km az=45.0*

ATH 31 03:23:17.4,35.66N×23.29E,h5^{km}**,MD3.1**/5**,Crete**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KYTH	**Kithira**	**0.65**	**342**	*e*PB	Pb	03 23 30.0	-0.9
KYTH				*e*SB	Sb	03 23 39.0	-1.0
VAM	**Vamos**	**0.78**	**109**	*e*PG	Pg	03 23 32.0	-1.1
VAM				*e*SB	Sb	03 23 44.0	+0.2
GVD	**Gavdhos**	**1.05**	**141**	*e*Pg	Pg	03 23 36.4	-2.0
GVD				*e*Sg	Sg	03 23 50.6	-1.7
GVD	**Gavdhos**	**1.05**	**141**	*e*Pg	Pg	03 23 36.3	-2.0
GVD				*e*Sg	Sg	03 23 50.6	-1.7
VLI	**Veliai**	**1.09**	**345**	*e*PB	Pb	03 23 38.5	+0.1
NPS	**Neapolis**	**1.94**	**101**	*e*PG	Pg	03 23 54.0	-2.1
APE	**Apeiranthos**	**2.29**	**51**	*e*PG	Pg	03 24 00.0	-3.1
APE	**Apeiranthos**	**2.29**	**51**	*e*Pg	Pg	03 24 01.0	-2.1

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*IDC **31** 03:25:08.5±1.5,5.34N×94.42E,mb3.9/6,mb1 4.1/6, mb1mx3.8/17,mbtmp3.9/6,Error ellipse: s-maj=73.8km s-min=21.9km az=54.0*

ISC 31 03:25:11.1±1.1,**5.1N**±0.2×**94.2E**±0.2,**h33**^{km}**,n8,**σ**1**^{s}**08**/7, **mb3.9**/6**,Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.08**	**19**	Pn	**P**	**03 28 31.6**	**+1.1**
	0.9nm,0.3s,baz=206,slow=14,SNR=12						
SONM	**Songino Array**	**43.86**	**12**	P	**P**	**03 33 14.1**	**-1.9**
	0.7nm,0.7s,mb3.5,baz=192,slow=8.1,SNR=6.7						
SONM				PcP	PcP	03 35 02.1	-0.4
	0.4nm,0.6s,baz=196,slow=4.3,SNR=4.4						
WRA	**Warramunga Arr**	**46.67**	**123**	P	**P**	**03 33 38.4**	**-0.3**
	1.7nm,0.6s,mb4.2,baz=303,slow=9.2,SNR=13						
ASAR	**Alice Springs**	**48.15**	**128**	P	**P**	**03 33 50.7**	**+0.3**
	0.7nm,0.7s,mb3.8,baz=303,slow=7.8,SNR=8.2						
BVAR	**Borovoye Array**	**51.62**	**342**	P	**P**	**03 34 15.3**	**-1.2**
	0.9nm,0.7s,mb3.8,baz=135,slow=8.4,SNR=3.9						
ARCES	**ARCESS Array B**	**77.88**	**340**	P	**P**	**03 37 08.0**	**+1.1**
	5.7nm,1.1s,mb4.4,baz=90,slow=4.9,SNR=3.9						
GERES	**GERESS Array B**	**79.91**	**319**	P	**P**	**03 37 19.0**	**+0.7**
	0.5nm,0.7s,mb3.5,baz=76,slow=5.5,SNR=3.7						
TXAR	**Lajitas Array**	**141.72**	**26**	PKP	PKPdf	03 44 40.5	+0.4
	0.1nm,0.5s,baz=315,slow=2.6,SNR=2.9						

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*IDC **31** 03:28:34.4±7.7,24.24S×179.82E,h532^{km}±81^{km},mb3.6/6, mb1 3.7/6,mb1mx3.5/14,mbtmp4.6/6,Error ellipse: s-maj=54.7km s-min=43.1km az=162.0*

ISC 31 03:28:38.7±1.5,**24.2S**±0.4×**179.6E**±0.2,**h600**^{km}**,n16,** σ**0**^{s}**33**/12,**mb4.3**/8**,1C,South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CTA	**Charters Tower**	**31.09**	**271**	*e*P	**P**	**03 34 11.9**	**+0.7**
	13nm,0.4s,mb4.9						
CTA	**Charters Tower**	**31.09**	**271**	P	**P**	**03 34 12.0**	**+0.8**
	14nm,0.3s,mb5.0,baz=94,slow=11,SNR=55						
PMG	**Port Moresby**	**34.22**	**290**	P	**P**	**03 34 37.4**	**-0.1**
	9.3nm,0.6s,mb4.6,baz=117,slow=6.8,SNR=3.7						
STKA	**Stephens Creek**	**34.26**	**248**	*e*P	**P**	**03 34 37.5**	**-0.1**
	2.9nm,0.6s,mb4.1						
STKA	**Stephens Creek**	**34.26**	**248**	P	**P**	**03 34 37.7**	**+0.2**
	2.8nm,0.5s,mb4.1,baz=102,slow=9.2,SNR=18						
ASAR	**Alice Springs**	**41.60**	**261**	P	**P**	**03 35 37.3**	**-0.1**
	2.5nm,0.5s,mb4.0,baz=94,slow=6.8,SNR=32						
ASPA	**Alice Springs**	**41.61**	**261**	⇑*i*P	**P**	**03 35 37.7**	**+0.3**
WB2	**Warramunga Arr**	**41.99**	**267**	*e*P	**P**	**03 35 39.9**	**-0.5**
WRA	**Warramunga Arr**	**42.00**	**267**	P	**P**	**03 35 40.3**	**-0.2**
	7.3nm,0.5s,mb4.5,baz=99,slow=8.2,SNR=46						
KAKA	**Kakadu**	**45.95**	**276**	*e*P	**P**	**03 36 11.0**	**-0.1**
	5.1nm,0.3s,mb4.5						
FITZ	**Fitzroy Crossi**	**50.42**	**266**	*e*P	**P**	**03 36 44.4**	**0.0**
	8.3nm,0.6s,mb4.3						
TXAR	**Lajitas Array**	**90.91**	**58**	P	**P**	**03 40 40.9**	**0.0**
	0.5nm,0.9s,mb3.4,baz=191,slow=6.4,SNR=4.8						
FINES	**FINESS Array B**	**138.59**	**341**	PKhKP		03 46 49.6	
	3.2nm,1.0s,slow=1.9,SNR=3.7						
AKASG	**Malin Array Be**	**145.00**	**327**	PKPbc	PKPbc	03 47 11.0	+2.2
	0.8nm,0.4s,baz=46,slow=3.7,SNR=7.9						
BRTR	**Keskin Array B**	**147.44**	**307**	PKPbc	PKPdf	03 47 18.9	+6.5
	0.6nm,0.5s,baz=149,slow=3.1,SNR=4.0						
BRTR				PKPab	PKPab	03 47 23.9	+1.2
	1.0nm,0.5s,baz=124,slow=2.5,SNR=6.7						
EKA	**Eskdalemuir Ar**	**148.82**	**3**	PKPbc	PKPdf	03 47 20.7	+6.7
	1.3nm,0.9s,baz=0.5,slow=3.3,SNR=3.6						

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*NEIC **31** 03:29:59.0±0.7,50.32N×18.83E,h5^{km},ML2.9(VIE),Error ellipse: s-maj=11.0km s-min=6.0km az=196.0*

*PRU **31** 03:29:59.8,50.26N×18.82E*

WAR 31 03:29:58.8,50.24N×18.88E,h0^{km}**,ML2.8,1C,Mining Induced,Poland**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	**Raciborz**	**0.47**	**251**	*e*PG	Pg	03 30 09.0	+0.8
RAC				*e*SG	Sg	03 30 16.0	+1.5
OJC	**Ojcow**	**0.59**	**92**	*e*PG	Pg	03 30 11.0	+0.5
OJC				*e*SG	Sg	03 30 19.0	+0.6
OKC	**Ostrava-Krasne**	**0.62**	**230**	*e*PG	Pg	03 30 11.6	+0.4
OKC				*e*SG	Sg	03 30 20.8	+1.3
MORC	**Moravsky Berou**	**0.98**	**242**	*e*Pn	Pn	03 30 17.4	-2.2
MORC				*e*Sn	Sn	03 30 30.4	-4.0
LIKS	**Likavka**	**1.20**	**173**	*e*PN	Pn	03 30 22.6	-0.1
LIKS				*e*SN	Sn	03 30 39.9	0.0
NIE	**Niedzica**	**1.24**	**131**	*e*Pg	Pg	03 30 23.1	-0.4
NIE				*e*Sg	Sg	03 30 40.6	+0.6
NIE				*e*		03 30 41.7	
DPC	**Dobruska-Polom**	**1.65**	**275**	*e*PG	Pg	03 30 28.4	-3.3
DPC				*e*SG	Sg	03 30 50.5	-3.1
	47nm,0.2s						
KOLL	**Kolacno**	**1.69**	**191**	*e*PN	Pn	03 30 32.0	+2.3
KOLL				*e*SN	Sn	03 30 52.9	+0.5
VYHS	**Vyhne**	**1.75**	**181**	*e*PN	Pn	03 30 30.4	-0.1
VYHS				*e*SN	Sn	03 30 53.1	-0.7
VRAC	**Vranov**	**1.75**	**239**	*e*Sg	Sg	03 30 54.4	-2.8
KSP	**Ksiaz**	**1.76**	**291**	*e*PN	Pn	03 30 30.0	-0.7
KSP				*i* PG	Pg	03 30 31.9	-2.0
KSP				*e*SG	Sg	03 30 55.9	-1.5
KSP	**Ksiaz**	**1.76**	**291**	*e*Pn	Pn	03 30 29.7	-1.0
KSP				*i* Pg	Pg	03 30 31.9	-2.0
KSP				*e*Sg	Sg	03 30 54.9	-2.5
KSP	**Ksiaz**	**1.76**	**291**	*i* Pn	Pg	03 30 32.1	-1.8
KSP				*e*Sn	Sn	03 30 54.9	+0.8
UPC	**Upice**	**1.86**	**279**	*e*PG	Pg	03 30 32.6	-3.3
SMOL	**Smolenice**	**1.97**	**209**	*e*PN	Pn	03 30 33.9	+0.2
SMOL				*e*SN	Sn	03 30 58.9	-0.6
CRVS	**Cervenica-Dubn**	**2.15**	**128**	*e*PN	Pn	03 30 36.9	+0.7
ZST	**Bratislava**	**2.35**	**210**	*e*SN	Sn	03 31 06.1	-3.1
PSZ	**Piszkesteto**	**2.42**	**164**	*e*	Pn	03 30 45.9	+5.8
KWP	**Kalwaria**	**2.54**	**102**	*e*Pn	Pn	03 30 41.7	-0.2
KWP				*e*Sg	Sg	03 31 24.6	+1.1
KOLS	**Kolonicke sedl**	**2.56**	**119**	*e*PN	Pn	03 30 43.6	+1.4
KOLS				*e*SN	Sn	03 31 13.7	-0.8
PRU	**Pruhonice**	**2.81**	**267**	*e*SG	Sg	03 31 25.1	-7.1
	21nm,0.3s						
BRG	**Berggiesshubel**	**3.21**	**283**	*i* Pg	Pg	03 30 59.3	-3.7
BRG				*i* Sg	Sg	03 31 41.8	-4.0
KHC	**Kasperske Hory**	**3.62**	**254**	*e*PN	Pn	03 30 56.0	-1.2
KHC				*e*x	x	03 31 11.5	
KHC				*e*x	x	03 31 33.0	
KHC				*e*SG	Sg	03 31 52.3	-7.0
MOA	**Molln**	**3.87**	**234**	⇑*i*PN	Pn	03 31 01.8	+1.1
MOA				*i* SG	Sg	03 31 59.8	-7.7
	12nm,0.6s						
CLL	**Collm**	**3.88**	**288**	*e*PG	Pg	03 31 11.0	-5.3
CLL				*e*SG	Sg	03 32 03.0	-5.1

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CLL				i		03 32 07.3	

*IDC **31** 03:34:50.3±29.0, 13.26N×125.57E, mb3.7/3, mb1 3.9/3, mb1mx3.5/17, mbtmp3.7/3, Error ellipse: s-maj=517.6km s-min=230.3km az=157.0*

ISC 31 03:35:11.6±1.1, 11.17N±0.07×126.46E±0.10, h33km, n10, σ1s21/12, mb3.8/3, Philippine Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BESP	Borongan	1.09	293	eP	P	03 35 30.1	-0.5
SCPH	Surigao	1.68	215	i P	P	03 35 36.4	-2.6
SCPH				eS	S	03 36 00.5	+0.9
OCLP	Ormoc	1.82	266	eP	P	03 35 42.0	+1.0
MSLP	Maasin	1.88	237	eP	P	03 35 40.8	-1.1
MSLP				eS	S	03 36 10.8	+6.2
PVCP	Virac	3.30	317	eP	P	03 36 02.8	+0.6
BUKP	Musuan	3.55	203	eP	P	03 36 08.4	+2.6
PAGZ	Pagadian	4.49	223	eP	P	03 36 17.7	-1.3
WRA	Warramunga Arr	31.88	166	P	P	03 41 36.1	-0.1
	0.6nm,0.7s,mb3.6,baz=345,slow=9.2,SNR=4.6						
ASAR	Alice Springs	35.38	168	P	P	03 42 07.2	+0.8
	0.5nm,0.4s,mb3.8,baz=348,slow=6.7,SNR=10						
STKA	Stephens Creek	45.19	162	P	P	03 43 26.9	-0.6
	1.5nm,0.7s,mb3.9,baz=342,slow=9.6,SNR=3.8						

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*BJI **31** 03:52:50.8, 9.93N×91.64E, h30km, mb4.7, Ms4.8, Msz4.6*
*IDC **31** 03:52:52.6±0.7, 10.53N×91.51E, mb4.3/12, mb1 4.4/13, mb1mx4.2/21, mbtmp4.2/13, ML4.2/1, Error ellipse: s-maj=33.2km s-min=14.4km az=54.0*
*NEIC **31** 03:52:59.1±0.6, 10.74N×91.86E, h30km, mb4.6/9, Error ellipse: s-maj=15.9km s-min=12.0km az=60.0*

ISC 31 03:52:52.9±3.3, 10.50N±0.07×91.61E±0.06, h13km±21km, n46, σ1s04/47, mb4.5/24, 1C, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.62	41	Pn	P	03 55 25.9	-2.1
	0.5nm,0.3s,baz=237,slow=15,SNR=6.8						
VIS	Vishakhapatnam	10.77	313	eP	P	03 55 26.6	-3.3
VIS				eS	S	03 57 17.2	-14
VIS				e		03 57 20.5	
	comp=N,148nm,0.6s						
VIS				e		03 57 20.6	
	comp=E,163nm,0.6s						
HYB	Hyderabad	14.41	300	eP	P	03 56 22.0	+3.2
HYB				e		03 58 46.0	
HYB				eS	S	03 58 59.0	-0.3
TRD	Trivandrum	14.59	263	eP	P	03 56 21.0	-0.1
SHL	Shillong	14.98	1	e	P	03 56 31.0	+4.7
SHL				eS	S	03 59 02.0	-11
PKI	Pulchoki	17.95	342	eP	P	03 57 05.4	+1.4
	comp=E,17nm,0.5s						
PKI	Pulchoki	17.95	342	eP	P	03 57 03.8	-0.2
	comp=E,17nm,0.5s						
DMN	Daman	18.08	341	eP	P	03 57 06.9	+1.2
	comp=E,16nm,0.5s						
DMN	Daman	18.08	341	eP	P	03 57 05.4	-0.3
	comp=E,33nm,0.7s						
GUN	Gumba	18.13	344	eP	P	03 57 07.4	+1.1
	comp=E,16nm,0.7s						
GUN	Gumba	18.13	344	eP	P	03 57 07.3	+1.0
	comp=E,16nm,0.5s						
KKN	Kakani	18.20	342	eP	P	03 57 06.8	-0.3
	comp=E,22nm,0.7s						
BHPL	Bhopal	18.54	315	eP	P	03 57 08.3	-3.1
GKN	Gorkha	18.60	340	eP	P	03 57 12.7	+0.6
	comp=E,14nm,0.3s						
GKN	Gorkha	18.60	340	eP	P	03 57 11.8	-0.3
	comp=E,15nm,0.3s						
KOLN	Koldanda	18.75	337	eP	P	03 57 14.3	+0.4
	comp=E,20nm,0.7s						
KOLN	Koldanda	18.75	337	eP	P	03 57 13.6	-0.3
	comp=E,20nm,0.7s						
LSA	Lhasa	19.10	359	eP	P	03 57 18.1	0.0
	comp=E,16nm,0.7s						
GYA	Guiyang	21.31	40⇑	iP	P	03 57 41.8	0.0
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.6						
CD2	Chengdu	23.23	27	P	P	03 58 02.5	+1.6
CD2				AMB	AMB		
	comp=Z,60nm,0.7s,mb5.1						
DDI	Dehra Dun	23.41	329	e		03 58 11.5	
ENH	Enshi	25.77	38	eP	P	03 58 24.7	-0.5
	comp=Z,49nm,0.7s,mb5.2						
LZH	Lanzhou	27.78	22	eP	P	03 58 49.5	+5.9
LZH				AMB	AMB		
	comp=Z,29nm,1.2s,mb4.8						
GTA	Gaotai	29.70	13	P	P	03 59 01.3	+0.4
GTA				AMB	AMB		
	comp=Z,8.0nm,1.0s,mb4.4						
AAK	Ala-Archa	35.33	338	eP	P	03 59 50.2	+0.3
	comp=Z,4.3nm,1.1s,mb4.3						
BJT	Baijiatuau	36.59	32	P	P	04 00 00.1	-0.5
	comp=Z,7.3nm,0.7s,mb4.6						
SONM	Songino Array	39.24	16	P	P	04 00 23.1	+0.4
	comp=Z,4.7nm,0.8s,mb4.3,baz=204,slow=8.1,SNR=36						
CN2	Changchun	44.24	35	eP	P	04 01 03.5	-0.3
CN2				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb4.7						
BVAR	Borovoye Array	45.72	342	P	P	04 01 15.5	0.0
	comp=Z,0.6nm,0.6s,mb3.7,baz=124,slow=5.3,SNR=4.0						
CHKZ	Chkalovo	46.22	343	eP	P	04 01 19.6	+0.2
	comp=Z,4.5nm,0.9s,mb4.4						
NWAO	Narrogin (SRO)	49.62	151	P	P	04 01 45.2	-1.1
	comp=Z,8.6nm,1.0s,mb4.7,baz=306,slow=8.2,SNR=3.2						
GNI	Garni	50.82	314	P	P	04 01 55.6	+0.3
	comp=Z,1.3nm,0.5s,mb4.2,baz=107,slow=19,SNR=1.7						
GNI	Garni	50.82	314	P	P	04 01 57.1	+1.8
	comp=Z,10nm,1.1s,mb4.7						
WRA	Warramunga Arr	51.81	126	P	P	04 02 02.4	-0.7
	comp=Z,3.2nm,0.6s,mb4.4,baz=299,slow=10.0,SNR=12						
WRAB	Tennant Creek	51.82	126	eP	P	04 02 03.9	+0.8
	comp=Z,7.8nm,0.6s,mb4.8						
ASAR	Alice Springs	53.51	130	P	P	04 02 16.4	+0.7
	comp=Z,6.7nm,0.7s,mb4.7,baz=308,slow=7.3,SNR=41						
ASAR				PcP	PcP	04 03 23.4	+0.8
	comp=Z,1.5nm,0.8s,baz=311,slow=4.3,SNR=4.2						
KIV	Kislovodsk	53.70	318	eP	P	04 02 19.0	+2.2
	comp=Z,11nm,0.9s,mb4.8						
BRTR	Keskin Array B	58.83	310	P	P	04 02 52.1	-1.5
	comp=Z,1.2nm,0.8s,mb4.0,baz=121,slow=7.2,SNR=6.4						
STKA	Stephens Creek	63.72	133	P	P	04 03 28.0	+1.2
	comp=Z,2.9nm,0.5s,mb4.5,baz=307,slow=4.8,SNR=12						
STKA	Stephens Creek	63.72	133	eP	P	04 03 28.0	+1.2
MLR	Muntele Rosu	65.56	315	P	P	04 03 37.1	-1.4
	comp=Z,2.3nm,0.8s,mb4.3,baz=76,slow=15,SNR=4.2						
LSZ	Lusaka	67.84	249	P	P	04 03 57.8	+4.4
	comp=Z,2.8nm,0.9s,mb4.3						
FINES	FINESS Array B	69.23	332	P	P	04 04 00.7	-0.7
	comp=Z,2.2nm,0.8s,mb4.1,baz=127,slow=9.5,SNR=4.3						
ARCES	ARCESS Array B	71.96	340	P	P	04 04 16.7	-1.1
	comp=Z,1.9nm,0.8s,mb4.1,baz=63,slow=5.4,SNR=4.0						
ILAR	Eielson Array	93.25	21	P	P	04 06 08.4	+0.3
	comp=Z,0.5nm,0.7s,mb4.0,baz=301,slow=4.8,SNR=7.2						
TXAR	Lajitas Array	137.74	20	PKP	PKPdf	04 12 20.6	-0.6
	comp=Z,0.3nm,0.8s,baz=207,slow=2.8,SNR=4.1						

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*IDC **31** 03:56:44.5±1.0, 13.54N×92.79E, mb4.2/6, mb1 4.4/7, mb1mx4.0/18, mbtmp4.2/7, ML3.6/1, Error ellipse: s-maj=45.7km s-min=21.3km az=46.0*

ISC 31 03:56:42.8±0.8, 14.10N±0.07×92.46E±0.08, h33km, n19, σ1s19/20, mb4.3/6, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.58	54	Pn	Pn	03 58 37.9	+3.9
	0.2nm,0.3s,baz=240,slow=15,SNR=6.0						
CMAR				Sn	Sn	03 59 59.5	-0.1
	1.1nm,0.3s,baz=240,slow=28,SNR=6.3						
PKI	Pulchoki	14.93	335	eP	P	04 00 12.7	-0.5
	45nm,0.7s						
PKI	Pulchoki	14.93	335	eP	P	04 00 12.8	-0.4
	45nm,0.7s						
GUN	Gumba	15.04	337	eP	P	04 00 17.5	+2.8
GUN	Gumba	15.04	337	eP	P	04 00 21.7	+7.0
	52nm,0.9s						
DMN	Daman	15.09	334	eP	P	04 00 13.8	-1.5
	68nm,0.7s						
DMN	Daman	15.09	334	eP	P	04 00 13.6	-1.7
	68nm,0.7s						
KKN	Kakani	15.17	335	eP	P	04 00 16.4	0.0
	77nm,1.0s						
KKN	Kakani	15.17	335	eP	P	04 00 16.6	+0.2
	38nm,0.7s						
GKN	Gorkha	15.63	333	eP	P	04 00 20.8	-1.5
	47nm,0.6s						
GKN	Gorkha	15.63	333	eP	P	04 00 20.6	-1.7
	47nm,0.6s						
KOLN	Koldanda	15.91	330	eP	P	04 00 28.2	+2.3
	30nm,0.6s						
KOLN	Koldanda	15.91	330	eP	P	04 00 28.5	+2.6
	30nm,0.6s						
NWAO	Narrogin (SRO)	52.42	154	P	P	04 05 54.5	+0.1
	4.5nm,0.8s,mb4.5,baz=345,slow=13,SNR=5.1						
WRA	Warramunga Arr	53.31	128	P	P	04 06 01.1	-0.1
	7.6nm,0.7s,mb4.7,baz=307,slow=8.1,SNR=39						
ASAR	Alice Springs	55.24	132	P	P	04 06 15.3	0.0
	2.8nm,0.5s,mb4.5,baz=310,slow=6.8,SNR=31						
BRTR	Keskin Array B	57.21	308	P	P	04 06 37.6	+8.3
	1.3nm,0.9s,mb4.0,baz=122,slow=8.2,SNR=4.9						
STKA	Stephens Creek	65.62	135	P	P	04 07 25.9	-0.1
	2.3nm,0.7s,mb4.3,baz=286,slow=8.3,SNR=4.3						
GERES	GERESS Array B	72.14	317	P	P	04 08 15.3	+9.5
	0.6nm,0.6s,mb3.7,baz=90,slow=6.9,SNR=3.9						

IDC 31 03:56:54.2±5.7, 13.63N×92.82E, mb4.1/5, mb1 4.2/6, mb1mx3.9/17, mbtmp4.0/6, ML4.0/1, Error ellipse: s-maj=138.0km s-min=37.6km az=164.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.60	50	Pn	Pn	03 58 45.5	-3.4
	0.6nm,0.3s,baz=241,slow=17,SNR=8.2						
CMAR				Sn	Sn	04 00 09.0	-7.7
	0.9nm,0.3s,baz=236,slow=30,SNR=4.6						
SONM	Songino Array	35.93	16	P	P	04 03 56.7	-1.5
	2.2nm,1.1s,baz=196,slow=7.8,SNR=6.4						
BRTR	Keskin Array B	57.78	308	P	P	04 06 47.4	-2.3
	1.4nm,1.0s,baz=120,slow=8.3,SNR=3.9						
FINES	FINESS Array B	67.06	331	P	P	04 07 48.8	-2.5
	10.0nm,1.2s,baz=117,slow=8.5,SNR=5.4						
ARCES	ARCESS Array B	69.45	340	P	P	04 08 04.2	-1.7
	5.5nm,0.9s,baz=100,slow=5.5,SNR=4.0						
ILAR	Eielson Array	89.92	22	P	P	04 09 55.3	-0.9
	0.2nm,0.8s,baz=309,slow=4.7,SNR=4.2						

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*NEIC **31** 04:02:50.9±0.6, 50.18N×18.44E, h5km, ML3.7(SZGRF), ML3.4(VIE), Error ellipse: s-maj=7.3km s-min=4.8km az=201.0*
*IPEC **31** 04:02:50.9±0.3, 50.07N×18.54E, h4km±1km, ML2.8/3, Error ellipse: s-maj=2.3km s-min=2.0km az=89.0*
*PRU **31** 04:02:52.8, 50.07N×18.37E*
*BGR **31** 04:02:52.4±1.1, 49.98N×18.35E, h1km, ML3.7/2, Error ellipse: s-maj=13.3km s-min=8.9km az=18.0*
*WAR **31** 04:02:52.4, 50.07N×18.43E, h0km, ML3.1, Mining Induced*
*IDC **31** 04:02:52.6±1.0, 49.98N×18.39E, mb1 3.5/6, mb1mx3.3/19, mbtmp3.3/6, ML3.3/6, Error ellipse: s-maj=19.2km s-min=7.9km az=144.0*
*CSEM **31** 04:02:53.2±0.1, 50.11N×18.35E, h2km, ML3.9/5, Error ellipse: s-maj=2.7km s-min=1.6km az=29.0*

ISC 31 04:02:50.4±0.3, 50.12N±0.02×18.38E±0.03, n64, σ1s33/107, 2C-3D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAC	Raciborz	0.13	253⇓	iPG	Pg	04 02 56.1	+3.2
RAC			⇓	iSG	Sg	04 02 59.3	+4.7
OKC	Ostrava-Krasne	0.32	208	ePG	Pg	04 02 58.3	+1.5
OKC				eSG	Sg	04 03 03.0	+2.0
MORC	Moravsky Berou	0.64	238	ePg	Pg	04 03 04.2	+1.1
MORC				eSg	Sg	04 03 13.5	+1.8
MORC	Moravsky Berou	0.64	238	ePg	Pg	04 03 04.4	+1.2
	baz=66						
MORC				eSg	Sg	04 03 13.5	+1.8
OJC	Ojcow	0.92	83	ePG	Pg	04 03 09.0	+0.4
OJC				eSG	Sg	04 03 22.0	+1.1
LIKS	Likavka	1.17	156	ePN	Pn	04 03 15.4	+1.5
LIKS				eSN	Sn	04 03 30.1	-0.7
DPC	Dobruska-Polom	1.34	281	ePG	Pg	04 03 17.8	+0.6
DPC				eSG	Sg	04 03 36.3	+1.2
	362nm,0.5s						
DPC	Dobruska-Polom	1.34	281	ePg	Pg	04 03 17.6	+0.4
	baz=100						
DPC				Sg	Sg	04 03 36.3	+1.2
	362nm,0.5s						
VRAC	Vranov	1.42	236	Pn	Pn	04 03 18.5	+1.0
	19nm,0.3s,baz=62,slow=13,SNR=130						
VRAC				Lg		04 03 36.7	
	58nm,0.3s,baz=135,slow=21,SNR=29						
VRAC	Vranov	1.42	236	ePg	Pg	04 03 18.1	-0.6
VRAC				eSg	Sg	04 03 37.0	-0.5
	104nm,0.3s,baz=58						
NIE	Niedzica	1.44	119	ePG	Pg	04 03 18.0	-1.0
NIE				eSG	Sg	04 03 39.0	+0.9
KSP	Ksiaz	1.52	299	ePN	Pn	04 03 20.0	+1.1
KSP				ePG	Pg	04 03 22.0	+1.3
KSP				eSN	Sn	04 03 40.0	+0.4
KSP				eSG	Sg	04 03 42.0	+1.1
KSP	Ksiaz	1.52	299	ePn	Pn	04 03 20.2	+1.3
KSP				ePg	Pg	04 03 22.1	+1.4
KSP				eSn	Sn	04 03 40.1	+0.5
KSP				eSg	Sg	04 03 42.3	+1.4
KSP	Ksiaz	1.52	299	ePg	Pg	04 03 22.1	+1.4
KSP				eSn	Sn	04 03 40.1	+0.5
KSP				eSg	Sg	04 03 42.3	+1.4
KSP	Ksiaz	1.52	299	ePn	Pn	04 03 20.3	+1.4
KSP				eSn	Sn	04 03 43.4	+3.8
KOLL	Kolacno	1.54	180	ePN	Pn	04 03 19.8	+0.6
KOLL				eSN	Sn	04 03 40.0	-0.2
UPC	Upice	1.57	285	ePG	Pg	04 03 21.4	-0.3
UPC				eSG	Sg	04 03 43.2	+0.6
VYHS	Vyhne	1.65	169	ePN	Pn	04 03 21.5	+0.7
VYHS				eSN	Sn	04 03 42.9	-0.2
KRUC	Moravsky	1.67	231	ePn	Pn	04 03 21.3	+0.2
	baz=54						
KRUC	Moravsky	1.67	231	eSg	Sg	04 03 44.9	-1.1
	90nm,0.2s,baz=54						
SMOL	Smolenice	1.72	202	ePN	Pn	04 03 22.5	+0.7
SMOL				eSN	Sn	04 03 43.4	-1.5
ZST	Bratislava	2.10	204	ePN	Pn	04 03 28.0	+0.8
ZST				eSN	Sn	04 03 53.1	-1.3
KECS	Kecovo	2.14	139	ePN	Pn	04 03 27.2	-0.6
SRO	Srobarova	2.31	181	ePN	Pn	04 03 31.2	+1.0
SRO				eSG	Sg	04 04 05.6	-1.6
CRVS	Cervenica-Dubn	2.35	120	ePG	Pg	04 03 34.9	-2.3
CRVS				eSG	Sg	04 04 06.9	-1.6
SRO2	Moca	2.36	180	eSG	Sg	04 04 05.2	-3.7
PSZ	Piszkesteto	2.42	155⇓	eP	Pn	04 03 32.2	+0.5
PSZ				eS	Sn	04 04 07.7	+5.2
PRU	Pruhonice	2.48	268	ePg	Pg	04 03 37.1	-2.8
PRU				eSg	Sg	04 04 09.3	-3.6
PRU	Pruhonice	2.48	268	PG	Pg	04 03 36.9	-3.0
PRU				SG	Sg	04 04 09.7	-3.2
	52nm,0.4s						
PRU	Pruhonice	2.48	268	ePg	Pg	04 03 37.1	-2.8
PRU				Sg	Sg	04 04 09.7	-3.2
	52nm,0.4s						
PKSG		2.73	180	eP	Pn	04 03 36.7	+0.5
KOLS	Kolonicke sedl	2.80	114	ePN	Pn	04 03 38.2	+1.0
KOLS				ePG	Pg	04 03 45.6	-0.6
KOLS	Kolonicke sedl	2.80	114	ePg	Pg	04 03 45.6	-0.6
KWP	Kalwaria	2.84	98	eP	Pn	04 03 45.0	+7.2
KWP	Kalwaria	2.84	98	ePn	Pn	04 03 44.9	+7.1
BRG	Berggiesshubel	2.93	287	eSg	Sg	04 04 25.9	-2.2
BRG	Berggiesshubel	2.93	287	i Pg	Pg	04 03 47.1	-1.8
BRG				i Sg	Sg	04 04 25.2	-2.8
KHC	Kasperske Hory	3.28	254	ePN	Pn	04 03 44.0	0.0
KHC				ex	x	04 03 55.5	
KHC				eSG	Sg	04 04 35.4	-4.0
KHC	Kasperske Hory	3.28	254	Pn	Pn	04 03 44.0	0.0
KHC				Sg	Sg	04 04 35.4	-4.0
GEC2	GERESS Array S	3.31	249	eSg	Sg	04 04 34.2	-6.3
GERES	GERESS Array B	3.31	249	Pn	Pn	04 03 44.8	+0.4
	0.7nm,0.3s,baz=72,slow=14,SNR=15						
GERES				Pg	Pg	04 03 51.2	-5.2
	2.6nm,0.3s,baz=68,slow=14,SNR=38						
GERES				Lg		04 04 35.9	
	5.2nm,0.3s,baz=70,slow=27,SNR=12						
PKSN	Nyarlorinc	3.37	162	eP	Pn	04 03 41.7	-3.6
ARSA	Arzberg	3.44	214⇑	iPN	Pn	04 03 45.6	-0.7
ARSA				i SG	Sg	04 04 38.9	-6.0
	16nm,0.5s						
MOA	Molln	3.54	232⇑	iPN	Pn	04 03 47.4	-0.3
MOA				i SG	Sg	04 04 43.4	-4.7
	30nm,0.5s						
CLL	Collm	3.62	291	eSg	Sg	04 04 47.7	-3.2
CLL	Collm	3.62	291	ePN	Pn	04 03 51.0	+2.1
CLL				ePG	Pg	04 04 01.0	-1.6
CLL				i SG	Sg	04 04 48.9	-2.0
CLL	Collm	3.62	291	ePg	Pg	04 04 01.0	-1.6
WET	Wettzell	3.71	257	ePn	Pn	04 03 49.8	-0.4
TANN	Tannenbergstha	3.81	277	ePn	Pn	04 03 51.9	+0.3
TANN				eSg	Sg	04 04 52.1	-5.1
GUNZ	Gunzen	3.89	276	ePn	Pn	04 03 53.2	+0.5
WERD	Werda	3.91	277	eSg	Sg	04 04 56.1	-4.5
MOX	Moxa	4.36	280	eSg	Sg	04 05 12.5	-3.1
MOX	Moxa	4.36	280	i P	Pn	04 04 01.1	+1.7
MOX				Sg	Sg	04 05 12.0	-3.6
MOX	Moxa	4.36	280	ePn	Pn	04 04 01.1	+1.7
MOX				eSg	Sg	04 05 12.0	-3.6
KBA	Koelnbreinsper	4.52	230	i SG	Sg	04 05 16.6	-4.2
	22nm,0.6s						
KBA	Koelnbreinsper	4.52	230	i P	Pn	04 04 04.1	+2.4
KBA				i Sg	Sg	04 05 16.6	-4.2
GRF	Grafenberg Arr	4.65	267	eSg	Sg	04 05 20.0	-5.1
DAVOX	Davos	6.57	243	Pn	Pn	04 04 31.4	+0.8
	0.6nm,0.3s,baz=58,slow=16,SNR=11						
DAVOX				Lg		04 06 21.1	
	1.0nm,0.3s,baz=213,slow=20,SNR=8.0						
AKASG	Malin Array Be	6.96	81	Pn	Pn	04 04 32.8	-3.3
	0.6nm,0.3s,baz=266,slow=12,SNR=4.0						
HFS	Hagfors	10.38	347	Pn	P	04 05 22.5	-1.0
	0.0nm,0.3s,baz=149,slow=17,SNR=3.3						
NOA	NORSAR Array B	11.66	343	Pn	P	04 05 36.7	-4.3
	0.1nm,0.3s,baz=162,slow=13,SNR=3.0						
FINES	FINESS Array B	12.14	18	Pn	P	04 05 42.6	-4.8
	0.4nm,0.3s,baz=194,slow=12,SNR=12						
KAF	Kangasniemi	12.79	17	ep	P	04 05 51.3	-4.9
ARCES	ARCESS Array B	19.78	7	Pn	P	04 07 22.3	-2.3
	0.1nm,0.3s,baz=192,slow=13,SNR=4.4						

GUC 31 04:12:11.3±0.5, 23.18S×67.96W, h90km±12km, ML4.1, 3C, Chile-Argentina border region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LVC	Limon Verde	1.04	303⇑	iP	P	04 12 32.6	+0.8
LVC				i S	S	04 12 48.1	+1.0
LVC				AMP		04 12 50.8	
	comp=E,5µm,0.5s						
ANCH	Antofagasta	2.31	257⇑	iP	P	04 12 47.9	-0.4
ANCH				i S	S	04 13 15.6	-0.2
CPN1	Cerro Paranal	2.66	237	i P	P	04 12 53.4	+0.2
CPN1				i S	S	04 13 25.5	+1.0
CPN1				AMP		04 13 26.4	
	comp=E,955nm,0.3s						
CPCH	Copiapo	4.69	207⇑	iP	P	04 13 20.1	-1.1
CPCH				i S	S	04 14 13.0	-1.7

IDC 31 04:12:46.1±9.2, 10.81N×92.64E, mb3.7/4, mb1 3.8/4, mb1mx3.6/16, mbtmp3.7/4, Error ellipse: s-maj=321.1km s-min=31.0km az=76.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	38.68	15	P	P	04 20 11.7	-1.7
	0.4nm,0.7s,baz=199,slow=9.0,SNR=5.6						
WRA	Warramunga Arr	51.17	127	P	P	04 21 51.6	-1.9
	0.9nm,0.8s,baz=306,slow=8.4,SNR=3.5						
WRA				pP	pP	04 21 57.7	+4.2
	0.7nm,0.4s,baz=300,slow=9.9,SNR=3.8						
ASAR	Alice Springs	52.93	131	P	P	04 22 04.2	-2.5
	0.7nm,0.6s,baz=308,slow=6.7,SNR=9.5						
ASAR				pP	pP	04 22 10.4	+3.7
	1.4nm,0.6s,baz=302,slow=6.7,SNR=8.0						
STKA	Stephens Creek	63.19	134	P	P	04 23 16.6	-2.0
	0.6nm,0.4s,baz=305,slow=12,SNR=3.4						

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*NEIC **31** 04:24:50.3, 40.35N×32.95E, h17km, MD3.3(ISK), After ISK.*
*ISK **31** 04:24:50.7, 40.35N×32.96E, h8km, MD3.3*
*CSEM **31** 04:24:50.7, 40.35N×32.96E, h8km, MD3.3, After ISK*

ISC 31 04:24:51.1±0.5, 40.36N±0.03×32.91E±0.05, h8km, n32, σ1s05/44, Turkey

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ELDT	Eldivan	0.41	72	i P	Pg	04 24 58.6	-0.8
ELDT				i S	Sg	04 25 05.2	+0.1
LOD	Lodumlu	0.48	194	PG	Pg	04 25 00.6	-0.2
LOD				SG	Sg	04 25 08.5	+1.2
LOD	Lodumlu	0.48	194	Pg	Pg	04 25 00.8	0.0
ANTO	Ankara	0.50	191	PG	Pg	04 25 00.2	-0.9
ANTO				SG	Sg	04 25 08.8	+1.0
ANTO	Ankara	0.50	191	Pg	Pg	04 25 00.4	-0.7
ANTO				Sg	Sg	04 25 07.4	-0.4
CANT	Cankiri	0.59	65	PG	Pg	04 25 02.3	-0.7
CANT				SG	Sg	04 25 10.7	-0.2
CANT	Cankiri	0.59	65	Pg	Pg	04 25 02.4	-0.6
CANT				Sg	Sg	04 25 10.4	-0.6
SAFT	Safranbolu	0.90	349	PG	Pg	04 25 08.5	-0.5
SAFT	Safranbolu	0.90	349	Pg	Pg	04 25 08.6	-0.4
TOS	Tosya	1.08	51	PG	Pg	04 25 10.8	-1.9
TOS	Tosya	1.08	51	Pg	Pg	04 25 11.0	-1.6
KAMT	Kaman	1.17	148	PN	Pn	04 25 12.0	-1.6
BALT	Daday	1.23	17	i P	Pb	04 25 14.7	+0.7
BALT				i S	Sb	04 25 31.1	+1.2
MDU	Mudurnu	1.30	275	PN	Pn	04 25 16.0	+0.4
MDU	Mudurnu	1.30	275	Pn	Pn	04 25 14.5	-1.1
CTKT	Corum	1.46	79	i P	Pn	04 25 18.1	+0.4
CTKT				i S	Sb	04 25 37.3	+0.8
HENT	Hendek	1.60	287	i P	Pn	04 25 23.4	+3.5
HENT				i S	Sb	04 25 47.0	+6.3
KIZT	Kizilcal	1.68	209	PN	Pn	04 25 21.2	+0.2
KIZT	Kizilcal	1.68	209	Pn	Pn	04 25 19.9	-1.0
BYBT	Boyabat	1.79	51	ePN	Pn	04 25 22.6	+0.1
BYBT	Boyabat	1.79	51	Pn	Pn	04 25 21.4	-1.1
ESKT	Eskisehir	1.79	243	ePN	Pn	04 25 22.8	+0.2
ESKT	Eskisehir	1.79	243	Pn	Pn	04 25 21.8	-0.9
ESKT	Eskisehir	1.79	243	i P	Pn	04 25 23.7	+1.1
ESKT				i S	Sn	04 25 53.1	+7.4
BZK	Bozkurt	1.80	27	PN	Pn	04 25 22.9	+0.2
BZK	Bozkurt	1.80	27	Pn	Pn	04 25 20.9	-1.8
BOYT	Boyabat	1.84	54	i P	Pn	04 25 23.3	0.0
BOYT				i S	Sn	04 25 49.1	+2.0
YOZ	Yozgat	1.98	110	ePN	Pn	04 25 25.7	+0.4
YOZ	Yozgat	1.98	110	Pn	Pn	04 25 24.0	-1.3
AVNT	Avonos	2.18	136	i P	Pn	04 25 28.9	+0.8
AVNT				i S	Sn	04 25 58.7	+3.1
NIG	Nigde	2.60	149	ePN	Pn	04 25 34.9	+0.7
NIG	Nigde	2.60	149	Pn	Pn	04 25 33.1	-1.1

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*NEIC **31** 04:27:02.3±2.6, 51.49N×16.07E, h5km, ML3.1(VIE), Error ellipse: s-maj=29.3km s-min=8.1km az=211.0*
*PRU **31** 04:27:02.7, 51.47N×16.09E, Felt In Harrachov*
*WAR **31** 04:27:02.6, 51.51N×16.09E, h1km, ML3.0, Mining Induced*

ISC 31 04:27:00.5±0.8, 51.45N±0.04×16.08E±0.04, n18, σ1s15/41, 1D, Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KSP	Ksiaz	0.63	167	ePG	Pg	04 27 15.0	+2.0
KSP				eSG	Sg	04 27 24.0	+2.7
KSP	Ksiaz	0.63	167	ePg	Pg	04 27 14.9	+1.9
KSP				eSg	Sg	04 27 23.9	+2.6
UPC	Upice	0.95	183	ePG	Pg	04 27 21.0	+1.6
DPC	Dobruska-Polom	1.11	172	ePG	Pg	04 27 23.8	+1.0
DPC				eSG	Sg	04 27 38.9	+1.3
PVCC	Panska Ves	1.33	226	ePG	Pg	04 27 28.3	+1.3
BRG	Berggiesshubel	1.46	247	ePn	Pn	04 27 29.8	+1.6
BRG				i Pg	Pg	04 27 30.4	+0.7
BRG				i Sg	Sg	04 27 49.9	+0.7
PRU	Pruhonice	1.76	214	ePg	Pg	04 27 35.0	-0.7
PRU				eSg	Sg	04 27 59.2	+0.1
PRU	Pruhonice	1.76	214	ePN	Pn	04 27 33.1	+0.6

PRU				*e*PG	Pg	04 27 35.1	-0.6
PRU				*i* x	x	04 27 37.4	
PRU				*e*x	x	04 27 52.3	
PRU				SG	Sg	04 27 58.8	-0.3
	34nm,0.3s						
MORC	Moravsky Berou	1.92	150	*e*Pn	Pn	04 27 35.8	+1.0
MORC				*e*Sn	Sn	04 27 59.6	-0.4
MORC				*e*Sg	Sg	04 28 03.0	-1.4
CLL	Collm	1.93	267	*e*PG	Pg	04 27 39.0	-0.1
CLL				*i* SG	Sg	04 28 04.3	-0.5
OKC	Ostrava-Krasne	2.09	140	*e*PG	Pg	04 27 41.7	-0.5
OKC				*e*SG	Sg	04 28 08.8	-1.2
NKC	Novy Kostel	2.60	243	*e*PN	Pn	04 27 45.3	+0.7
NKC				*e*PG	Pg	04 27 51.6	-0.9
NKC				*e*SG	Sg	04 28 25.9	-1.3
OJC	Ojcow	2.66	116	*e*Pg	Pg	04 27 52.9	-0.8
OJC				*e*Sg	Sg	04 28 27.3	-1.9
KHC	Kasperske Hory	2.82	216	*e*Pn	Pn	04 27 48.6	+0.9
KHC				*e*Pg	Pg	04 27 54.7	-2.2
KHC				*e*Sg	Sg	04 28 33.5	-1.0
KHC	Kasperske Hory	2.82	216	*e*PN	Pn	04 27 48.6	+0.9
KHC				*e*PG	Pg	04 27 54.7	-2.2
KHC				*e*SN	Sn	04 28 23.5	+0.6
KHC				*e*SG	Sg	04 28 33.5	-1.0
MOX	Moxa	2.93	256	*e*Pg	Pg	04 27 56.9	-2.1
MOX				*e*Sg	Sg	04 28 36.9	-1.1
SMOL	Smolenice	3.07	163	*e*PB	Pb	04 27 56.2	+0.4
SMOL				*e*SG	Sg	04 28 42.0	-0.7
MOA	Molln	3.79	199	⇓*i*PN	Pn	04 28 02.5	+1.0
MOA				*i* SG	Sg	04 29 05.9	-0.9
	4.4nm,0.3s						

*IDC **31** 04:31:40.2±4.3, 1.33N×126.38E, h99^{km}±40^{km}, mb3.8/6, mb1 3.9/6, mb1mx3.7/15, mbtmp4.1/6, Error ellipse: s-maj=113.3km s-min=15.6km az=69.0*

ISC 31 04:31:30.0±5.4,**1.3N**±0.2×**126.0E**±0.5,**h22**^{km}±38^{km}**,n10, σ0^{s}.22**/11**,mb4.0**/6**,Northern Molucca Sea**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FITZ	Fitzroy Crossi	19.26	181	*e*P	P	04 35 55.9	-0.1
	8.3nm,0.9s						
WRA	Warramunga Arr	22.63	159	P	P	04 36 31.1	+0.1
	4.3nm,0.3s,mb4.3,baz=339,slow=11,SNR=41						
WRA				S	S	04 40 32.7	-0.2
	1.4nm,0.9s,baz=333,slow=21,SNR=4.8						
WB2	Warramunga Arr	22.63	159	*e*P	P	04 36 31.2	+0.1
ASAR	Alice Springs	25.96	163	P	P	04 37 03.0	0.0
	3.1nm,0.6s,mb4.0,baz=346,slow=7.7,SNR=49						
ASPA	Alice Springs	25.96	163	*e*P	P	04 37 03.1	0.0
STKA	Stephens Creek	36.15	157	*e*P	P	04 38 32.6	-0.3
	2.7nm,0.7s,mb4.3						
STKA	Stephens Creek	36.15	157	P	P	04 38 32.5	-0.4
	3.5nm,0.7s,mb4.4,baz=325,slow=8.2,SNR=9.5						
SONM	Songino Array	49.38	343	P	P	04 40 20.0	0.0
	0.5nm,0.6s,mb3.8,baz=160,slow=9.4,SNR=5.6						
BVAR	Borovoye Array	68.96	328	P	P	04 42 35.5	-0.1
	1.0nm,0.7s,mb3.8,baz=166,slow=5.9,SNR=3.2						
VNDA	Vanda	81.11	173	P	P	04 43 45.2	+0.5
	0.5nm,0.4s,mb3.8,baz=330,slow=6.3,SNR=6.6						

IDC 31 04:51:55.5±10.0**,6.61N×94.24E,mb3.8**/2**,mb1 3.8**/3**, mb1mx3.5**/17**,mbtmp3.7**/3**,ML3.4**/1**,Error ellipse: s-maj=274.9km s-min=68.1km az=141.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.64	21	Pn	P	04 54 57.8	-1.8
	0.1nm,0.3s,baz=209,slow=17,SNR=3.2						
SONM	Songino Array	42.37	12	P	P	04 59 51.0	-2.2
	1.3nm,1.2s,baz=203,slow=9.4,SNR=4.3						
FINES	FINESS Array B	73.87	332	P	P	05 03 32.4	-1.5
	1.3nm,0.8s,baz=90,slow=6.9,SNR=3.5						

*IDC **31** 04:54:27.5±1.5, 7.47N×92.64E, mb3.7/4, mb1 4.0/5, mb1mx3.7/17, mbtmp3.7/5, ML3.6/1, Error ellipse: s-maj=52.0km s-min=25.2km az=64.0*

ISC 31 04:54:29.6±1.1**,7.6N**±0.1×**92.5E**±0.2**,h33**^{km}**,n11, σ0^{s}.81**/11**,mb4.0**/8**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.51	29	Pn	P	04 57 28.4	+0.2
	0.1nm,0.3s,baz=231,slow=14,SNR=10.0						
PKI	Pulchoki	21.00	342	*e*P	P	04 59 12.6	-0.1
	7.6nm,0.5s,mb4.3						
DMN	Daman	21.13	342	*e*P	P	04 59 13.6	-0.4
GUN	Gumba	21.19	344	*e*P	P	04 59 13.5	-1.1
	13nm,0.7s,mb4.4						
KKN	Kakani	21.25	342	*e*P	P	04 59 14.7	-0.5
GKN	Gorkha	21.65	341	*e*P	P	04 59 19.0	-0.2
	13nm,0.6s,mb4.5						
KOLN	Koldanda	21.79	338	*e*P	P	04 59 21.0	+0.4
	12nm,0.7s,mb4.5						
SONM	Songino Array	41.84	14	P	P	05 02 19.0	+1.0
	0.7nm,0.7s,mb3.4,baz=202,slow=7.7,SNR=3.6						
WRA	Warramunga Arr	49.42	124	P	P	05 03 18.4	-0.3
	0.4nm,0.3s,mb3.9,baz=303,slow=9.1,SNR=5.9						
ASAR	Alice Springs	50.98	129	P	P	05 03 30.2	-0.3
	0.9nm,0.7s,mb3.8,baz=300,slow=7.4,SNR=8.2						
ASAR				PcP	PcP	05 04 46.4	-0.3
	0.5nm,0.5s,baz=312,slow=3.4,SNR=5.5						
GERES	GERESS Array B	76.97	318	P	P	05 06 23.6	+2.8
	0.4nm,0.7s,mb3.5,baz=100,slow=6.0,SNR=4.1						

*NEIC **31** 04:58:53.2, 37.07N×28.57E, h18^{km}, MD3.3(ATH), After ATH.*
*ATH **31** 04:58:53.4, 37.06N×28.56E, h21^{km}±2^{km}, MD3.3/4*
*ISK **31** 04:58:55.5, 36.95N×28.31E, h21^{km}, MD3.3*
*CSEM **31** 04:58:56.0±0.1, 37.02N×28.39E, h15^{km}, MD3.3, Error ellipse: s-maj=1.7km s-min=1.3km az=29.0*

ISC 31 04:58:56.1±0.6**,37.03N**±0.03×**28.39E**±0.04**,h11**^{km}±5^{km}**, n22,σ0^{s}.72**/30**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.33	143	PG	Pg	04 59 03.2	+0.2
DALT				SG	Sg	04 59 08.5	+0.9
MLSB	Milas	0.55	298	PG	Pg	04 59 07.4	+0.1
MLSB				SG	Sg	04 59 14.6	-0.2
FETY	Fethiye	0.69	125	PG	Pg	04 59 09.6	-0.3
AYDN	Tasoluk	0.75	327	*i* P	Pb	04 59 10.5	-0.2
AYDN				*i* S	Sb	04 59 21.1	+0.5
BDRM	Kayabasi	0.76	273	*i* P	Pb	04 59 09.6	-1.2
BDRM				*i* S	Sb	04 59 22.3	+1.4
DNZL	Cakiroluk	0.84	38	*i* P	Pb	04 59 12.6	+0.3
DNZL				*i* S	Sb	04 59 28.5	+5.1
ARG	Arkhangelos	0.84	195	*e*PN	Pn	04 59 11.0	-2.7
DENT	Denizli	0.89	35	PG	Pg	04 59 13.9	0.0
NISR	Nisiros	1.09	248	*e*PN	Pn	04 59 17.0	-0.4
NISR				*e*SN	Sn	04 59 34.0	+1.5
ELL	Elmali	1.25	103	PN	Pn	04 59 18.9	-0.7
SMG	Samos	1.41	299	*e*PN	Pn	04 59 21.5	-0.3
MANT	Manisa	1.46	5	*i* P	Pn	04 59 23.1	+0.5
MANT				*i* S	Sb	04 59 45.6	+4.2
KHL	Karahalli	1.57	35	*e*PN	Pn	04 59 25.0	+0.8
IZM	Izmir	1.63	327	PN	Pn	04 59 24.3	-0.7
KDAG	Bornova	1.63	327	*i* P	Pn	04 59 24.8	-0.3
KDAG				*i* S	Sn	04 59 45.6	-0.6
KARP	Karpathos	1.78	214	*e*PN	Pn	04 59 27.0	-0.2
BCK	Bucak	1.81	76	*e*PN	Pn	04 59 27.6	0.0
ISP	Isparta	1.87	64	*e*PN	Pn	04 59 28.3	-0.2
AKS	Akhisar	1.90	346	*e*PN	Pn	04 59 28.8	-0.1
ALT	Altintas	2.44	33	PN	Pn	04 59 36.6	+0.1
ESKT	Eskisehir	3.15	37	*e*PN	Pn	04 59 47.2	+0.5
KIZT	Kizilcal	3.32	55	*e*PN	Pn	04 59 49.3	+0.2

*CSEM **31** 05:00:45.9±0.2, 37.15N×28.46E, MD3.1, Error ellipse: s-maj=4.2km s-min=1.9km az=50.0*
*NEIC **31** 05:00:46.1, 37.00N×28.67E, h20^{km}, MD3.1(ATH), After ATH.*
*ATH **31** 05:00:46.2, 36.99N×28.66E, h20^{km}±2^{km}, MD3.1/4*
*ISK **31** 05:00:46.8, 36.90N×28.24E, h27^{km}, MD3.1*

ISC 31 05:00:48.3±0.6**,37.02N**±0.03×**28.35E**±0.04**,h6**^{km}±6^{km}**, n15,σ1^{s}.22**/23**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.34	138	*i* PG	Pg	05 00 55.4	+0.2
DALT				*i* SG	Sg	05 01 01.1	+1.3
MLSB	Milas	0.54	301	*i* PG	Pg	05 00 58.4	-0.6
MLSB				*i* SG	Sg	05 01 06.9	+0.7
FETY	Fethiye	0.70	123	*i* PG	Pg	05 01 01.8	-0.6
FETY				*i* SG	Sg	05 01 12.4	+0.7
BDRM	Kayabasi	0.73	274	*i* P	Pb	05 01 02.5	-0.5
BDRM				*i* S	Sb	05 01 13.9	+1.1
AYDN	Tasoluk	0.74	330	*i* P	Pb	05 01 02.9	-0.2
AYDN				*i* S	Sb	05 01 13.2	-0.1
ARG	Arkhangelos	0.82	193	*e*PN	Pn	05 01 03.5	-2.6
DNZL	Cakiroluk	0.87	39	*i* P	Pb	05 01 05.0	-0.3
DNZL				*i* S	Sb	05 01 18.6	+1.7
DENT	Denizli	0.91	36	PG	Pg	05 01 06.4	-0.1
NISR	Nisiros	1.06	248	*e*PN	Pn	05 01 10.5	+0.9
ELL	Elmali	1.28	102	*e*PN	Pn	05 01 10.8	-1.8
SMG	Samos	1.39	300	*e*PN	Pn	05 01 16.0	+1.8
MANT	Manisa	1.48	6	*i* P	Pn	05 01 15.7	+0.2
MANT				*i* S	Sb	05 01 35.8	+1.1
IZM	Izmir	1.62	328	*e*PN	Pn	05 01 15.2	-2.4
KARP	Karpathos	1.76	214	*e*PB	Pb	05 01 19.0	-1.5
KARP				*e*SN	Sn	05 01 44.0	+1.6
AKS	Akhisar	1.90	347	*e*PN	Pn	05 01 19.7	-1.9

*ATH **31** 05:02:58.8, 37.06N×28.62E, h28^{km}±12^{km}, MD3.1/4*
*ISK **31** 05:02:58.5, 36.87N×28.22E, h41^{km}, MD3.1*
*NEIC **31** 05:02:59.3, 37.04N×28.63E, h34^{km}, MD3.1(ATH), After ATH.*
*CSEM **31** 05:02:59.5±0.2, 37.11N×28.42E, h5^{km}, MD3.1, Error ellipse: s-maj=4.2km s-min=3.4km az=49.0*

ISC 31 05:03:00.3±0.7**,37.06N**±0.03×**28.42E**±0.04**,h13**^{km}±5^{km}**, n16,σ1^{s}.11**/23**,Turkey**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
DALT	Dalyan (Mudla)	0.34	149	*e*PG	Pg	05 03 07.7	+0.3
DALT				*e*SG	Sg	05 03 14.6	+2.5
MLSB	Milas	0.57	295	*e*PG	Pg	05 03 10.4	-1.5
MLSB				*e*SG	Sg	05 03 19.6	+0.1
FETY	Fethiye	0.68	128	*e*PG	Pg	05 03 13.4	-0.6
AYDN	Tasoluk	0.74	325	*i* P	Pb	05 03 15.2	+0.7
AYDN				*i* S	Sb	05 03 25.5	+1.2
BDRM	Kayabasi	0.78	271	*i* P	Pb	05 03 14.1	-1.1
BDRM				*i* S	Sb	05 03 26.0	+0.6
DNZL	Cakiroluk	0.81	38	*i* P	Pb	05 03 16.8	+1.2
DNZL				*i* S	Sb	05 03 30.8	+4.6
DENT	Denizli	0.85	35	*i* PN	Pn	05 03 17.9	+0.2
ARG	Arkhangelos	0.87	196	*e*PN	Pn	05 03 16.5	-1.5
NISR	Nisiros	1.13	247	*e*PN	Pn	05 03 23.5	+1.8
ELL	Elmali	1.23	104	*e*PN	Pn	05 03 21.5	-1.7
SMG	Samos	1.42	298	*e*PN	Pn	05 03 26.5	+0.6
IZM	Izmir	1.62	326	*e*PN	Pn	05 03 26.4	-2.4
KDAG	Bornova	1.63	326	*i* P	Pn	05 03 29.3	+0.4
KDAG				*i* S	Sn	05 03 49.8	+0.1
KARP	Karpathos	1.82	214	*e*PB	Pb	05 03 32.5	-0.4
KARP				*e*SN	Sn	05 03 55.0	+0.4
AKS	Akhisar	1.88	345	*e*PN	Pn	05 03 31.4	-1.2
ALT	Altintas	2.40	33	*e*PN	Pn	05 03 40.3	+0.3

JMA 31 05:19:09.6±0.6**,25.12N×128.81E,h42**^{km}**,M3.7,Ryukyu Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JJT2	Tamagusuku 2	1.40	317	P	P	05 19 32.9	-0.2
JJT2				S	S	05 19 50.2	-0.3
NAH1	Naha	1.48	317	P	P	05 19 34.9	+0.7
NAH1				S	S	05 19 52.5	0.0
JOW	Kunigami	1.77	344	P	P	05 19 39.0	+0.6
JOW				S	S	05 19 59.7	-0.1
JAGN	Aguni-jima	2.03	316	S	S	05 20 04.9	-1.5
JIH	Iheya	2.05	339	P	P	05 19 43.6	+1.3
JIH				S	S	05 20 06.6	-0.2
JKE	Kume jima 2	2.19	304	P	P	05 19 42.6	-1.6
JKE				S	S	05 20 06.8	-3.4
JMZ	Minamidaito 2	2.29	72	P	P	05 19 45.4	-0.3
JMZ				*e*S	S	05 20 13.6	+0.8
JTK	Tokunoshima	2.66	3	*e*S	S	05 20 21.8	-0.4
JMJ	Miyako jima 2	3.21	265	P	P	05 19 55.2	-3.6
JMJ				*e*S	S	05 20 33.7	-2.5
JAM	Amami Oshima	3.35	12	P	P	05 20 02.6	+1.7
JAM				*e*S	S	05 20 40.2	+0.3
JTJ	Tarama	3.76	264	P	P	05 20 02.3	-4.3
JTJ				S	S	05 20 40.9	-9.3
JIJ	Ishigaki jima	4.31	261	P	P	05 20 09.1	-5.3
JIJ				*e*S	S	05 20 52.7	-11

IDC 31 05:36:32.4±9.1**,11.30N×90.14E,mb3.6**/4**,mb1 3.8**/4**, mb1mx3.6**/16**,mbtmp3.6**/4**,Error ellipse: s-maj=307.2km s-min=34.1km az=77.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	38.89	17	P	P	05 43 59.5	-1.8
	0.7nm,0.7s,baz=206,slow=7.9,SNR=3.4						
SONM				pP	pP	05 44 04.4	+3.1
	0.7nm,0.5s,baz=199,slow=9.1,SNR=9.1						
WRA	Warramunga Arr	53.45	125	P	P	05 45 55.6	-1.3
	0.5nm,0.7s,baz=304,slow=9.1,SNR=3.3						
ASAR	Alice Springs	55.12	129	P	P	05 46 06.0	-3.1
	0.7nm,0.9s,baz=300,slow=6.7,SNR=3.0						
STKA	Stephens Creek	65.31	133	P	P	05 47 16.8	-2.0
	1.6nm,0.9s,baz=321,slow=13,SNR=2.7						

GUC 31 05:39:32.9±0.5**,24.58S×69.72W,h100**^{km}±10^{km}**,ML3.5, 2C-1D,Northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CPN1	Cerro Paranal	0.62	265	⇑*i*P	P	05 39 52.4	+2.6
CPN1				*i* S	S	05 40 05.9	+3.3
CPN1				AMP		05 40 06.4	
	comp=N,2µm,0.1s						
ANCH	Antofagasta	1.09	325	⇓*i*P	P	05 39 54.2	-0.5
ANCH				*i* S	S	05 40 11.0	0.0
LVC	Limon Verde	2.09	21	⇑*i*P	P	05 40 07.9	+0.7
LVC				*i* S	S	05 40 33.9	+1.2
LVC				AMP		05 40 35.0	
	comp=E,388nm,0.2s						
CPCH	Copiapo	2.83	191	*e*P	P	05 40 16.9	-0.4
CPCH				*i* S	S	05 40 50.2	-0.5

*IDC **31** 05:40:10.6±1.2, 8.67N×93.56E, h18^{km}±3^{km}, mb4.0/12, mb1 4.2/13, mb1mx4.0/20, mbtmp4.1/13, ML3.6/1, Error ellipse: s-maj=38.3km s-min=25.2km az=35.0*

ISC 31 05:40:09.1±0.9**,8.7N**±0.1×**93.7E**±0.1**,h19**^{km}**, h19**^{km}±.2^{km}**:pP-P,n19,σ0^{s}.86**/18**,mb4.1**/12**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.94	27	Pn	P	05 42 48.7	+0.7
	0.1nm,0.3s,baz=214,slow=15,SNR=4.4						
DDI	Dehra Dun	26.01	328	*e*	P	05 45 42.6	-0.3
SONM	Songino Array	40.45	13	P	P	05 47 48.3	+0.2
	0.5nm,0.7s,mb3.3,baz=196,slow=10,SNR=3.7						
SONM				PcP	PcP	05 49 51.9	+0.5
	0.5nm,0.7s,baz=199,slow=4.1,SNR=3.8						
RDF	Al-Radifah	47.72	301	*e*P	P	05 48 48.5	+1.5
RDF				AMb	AMB	05 48 49.8	
	comp=Z,43nm,0.7s						
BVAR	Borovoye Array	48.06	341	P	P	05 48 48.0	-1.3
	comp=Z,0.7nm,0.5s,mb3.9,baz=153,slow=6.4,SNR=4.0						
NAY	Al-Naaiem	48.07	302	*e*P	P	05 48 50.7	+1.1
NAY				AMb	AMB	05 48 52.1	
	comp=Z,27nm,0.8s						
RST	Umm Al-Ruwaisa	48.34	302	*e*P	P	05 48 52.6	+0.8
RST				AMb	AMB	05 48 53.4	
	comp=Z,25nm,0.5s						
WRA	Warramunga Arr	49.10	126	P	P	05 48 57.6	-0.1
	comp=Z,1.1nm,0.9s,mb3.9,baz=308,slow=8.8,SNR=4.9						
BRTR	Keskin Array B	61.56	311	P	P	05 50 26.1	-1.5
	comp=Z,1.5nm,0.6s,mb4.3,baz=127,slow=6.2,SNR=9.3						
BRTR				pP	pP	05 50 32.0	-1.6
	comp=Z,2.3nm,0.8s,baz=112,slow=6.7,SNR=8.5						
AKASG	Malin Array Be	67.23	322	P	P	05 51 02.7	-1.7
	comp=Z,0.3nm,0.2s,mb3.9,baz=90,slow=5.2,SNR=3.8						
MLR	Muntele Rosu	68.27	316	P	P	05 51 11.1	+0.1
	comp=Z,5.9nm,0.9s,mb4.6,baz=278,slow=6.1,SNR=4.4						
FINES	FINESS Array B	71.77	332	P	P	05 51 31.6	-0.5
	comp=Z,2.3nm,0.8s,mb4.2,baz=45,slow=8.1,SNR=5.0						
ARCES	ARCESS Array B	74.33	340	P	P	05 51 46.9	0.0
	comp=Z,4.1nm,0.8s,mb4.4,baz=100,slow=7.4,SNR=5.3						
ARCES				pP	pP	05 51 53.2	+0.2
	comp=Z,4.7nm,0.9s,baz=93,slow=6.8,SNR=2.2						
GERES	GERESS Array B	76.92	318	P	P	05 52 02.2	+0.2
	comp=Z,1.3nm,0.6s,mb4.1,baz=88,slow=6.0,SNR=15						
GERES				pP	pP	05 52 08.4	+0.3
	comp=Z,6.6nm,1.1s,baz=90,slow=4.0,SNR=12						
KHC	Kasperske Hory	77.01	318	*e*P	P	05 52 03.5	+1.0
HFS	Hagfors	77.52	330	P	P	05 52 04.9	-0.2
	comp=Z,2.7nm,0.6s,mb4.3,baz=90,slow=5.9,SNR=4.8						
HFS				pP	pP	05 52 10.8	-0.4
	comp=Z,2.1nm,0.5s,baz=108,slow=4.7,SNR=2.4						
NOA	NORSAR Array B	78.79	331	P	P	05 52 11.6	-0.5
	comp=Z,1.5nm,0.7s,mb4.0,baz=91,slow=5.9,SNR=3.5						
NOA				pP	pP	05 52 17.6	-0.6
	comp=Z,2.5nm,1.0s,baz=95,slow=4.9,SNR=2.6						
ILAR	Eielson Array	94.13	22	P	P	05 53 27.9	+0.5
	comp=Z,0.4nm,0.3s,mb4.3,baz=309,slow=5.8,SNR=5.0						
TXAR	Lajitas Array	138.63	23	PKiKP		05 59 38.6	
	comp=Z,0.2nm,0.9s,baz=263,slow=2.4,SNR=3.9						

*IDC **31** 05:45:17.4±1.4, 8.18N×92.62E, mb3.9/5, mb1 4.1/6, mb1mx3.9/17, mbtmp3.9/6, ML3.8/1, Error ellipse: s-maj=48.9km s-min=23.4km az=57.0*

ISC 31 05:45:15.0±1.3**,8.3N**±0.1×**91.8E**±0.2**,h33**^{km}**,n12, σ1^{s}.05**/10**,mb3.9**/3**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.22	34	Pn	P	05 48 09.8	+0.1
	0.2nm,0.3s,baz=233,slow=14,SNR=3.8						
PKI	Pulchoki	20.09	343	*e*P	P	05 49 47.8	-0.8
DMN	Daman	20.21	342	*e*P	P	05 49 50.4	+0.5
	15nm,0.7s						
GUN	Gumba	20.28	345	*e*P	P	05 49 47.8	-2.9
	22nm,0.7s						
KKN	Kakani	20.33	343	*e*P	P	05 49 51.0	-0.2
GKN	Gorkha	20.72	342	*e*P	P	05 49 57.1	+1.8
	11nm,0.4s						
KOLN	Koldanda	20.85	339	*e*P	P	05 50 01.9	+5.3
	15nm,0.8s						
SONM	Songino Array	41.27	15	P	P	05 53 03.5	+4.7
	1.2nm,0.7s,mb3.6,baz=198,slow=4.2,SNR=7.4						
WRA	Warramunga Arr	50.39	124	P	P	05 54 11.1	-0.4
	2.3nm,0.6s,mb4.4,baz=301,slow=9.0,SNR=12						
ASAR	Alice Springs	51.96	129	P	P	05 54 23.7	+0.3
	0.5nm,0.5s,mb3.7,baz=298,slow=8.0,SNR=6.5						
FINES	FINESS Array B	71.25	332	P	pP	05 56 42.0	-1.0
	2.5nm,1.0s,baz=101,slow=7.1,SNR=3.3						
GERES	GERESS Array B	75.97	318	P	pP	05 57 09.8	-1.0
	0.8nm,1.0s,baz=90,slow=5.3,SNR=4.4						

IDC 31 05:46:40.8±1.7**,7.93N×91.96E,mb3.7**/4**,mb1 4.0**/4**, mb1mx3.6**/18**,mbtmp3.7**/4**,Error ellipse: s-maj=74.2km s-min=29.1km az=53.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.62	15	P	P	05 54 30.8	-1.5
	0.7nm,0.9s,baz=211,slow=8.4,SNR=2.4						
WRA	Warramunga Arr	50.07	124	P	P	05 55 38.5	-1.3
	2.4nm,0.8s,baz=305,slow=8.6,SNR=2.8						
ASAR	Alice Springs	51.62	129	P	P	05 55 48.8	-2.7
	0.8nm,0.7s,baz=310,slow=7.0,SNR=5.0						
GERES	GERESS Array B	76.34	318	P	P	05 58 32.0	-1.5
	1.8nm,1.1s,baz=108,slow=8.4,SNR=4.5						

IDC 31 05:51:28.2±3.5**,9.20N×91.91E,mb3.6**/3**,mb1 3.9**/4**, mb1mx3.6**/17**,mbtmp3.6**/4**,ML3.9**/1**,Error ellipse: s-maj=97.2km s-min=27.7km az=78.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.46	36	Pn	P	05 54 14.7	-1.5
	0.2nm,0.3s,baz=225,slow=15,SNR=7.1						
SONM	Songino Array	40.41	15	P	P	05 59 07.2	-2.4
	0.2nm,0.3s,baz=194,slow=9.6,SNR=3.4						
WRA	Warramunga Arr	50.82	125	P	P	06 00 31.1	-1.8
	0.9nm,0.3s,baz=301,slow=10.0,SNR=18						
ASAR	Alice Springs	52.45	129	P	P	06 00 43.1	-2.0
	0.7nm,0.6s,baz=303,slow=7.1,SNR=7.2						

*MOS **31** 05:53:54.8±0.9, 11.10N×92.03E, h33^{km}, mb5.4/53, Error ellipse: s-maj=9.7km s-min=4.7km az=121.0*
*BJI **31** 05:53:54.8, 10.94N×91.87E, h39^{km}, mB5.3, mb5.0, Ms4.8, Msz4.5*
*NEIC **31** 05:53:55.9±0.2, 11.08N×91.99E, mb5.2/59, Error ellipse: s-maj=5.8km s-min=4.3km az=210.0*
*IDC **31** 05:53:55.9±0.4, 11.12N×92.00E, h24^{km}±2^{km}, mb4.7/23, mb1 4.8/24, mb1mx4.7/26, mbtmp4.8/24, ML4.4/1, MS4.4/12, Ms1 4.4/12, ms1mx4.1/26, Error ellipse: s-maj=17.8km s-min=9.2km az=46.0*
*HRVD **31** 05:53:55.9±0.4, 11.15N×91.98E, h12^{km}±1^{km}, MW5.0/45, Centroid moment Tensor Solution. LP body waves: s20,c27;Mantle waves: s45,c79; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.05±.23; $M_{\theta\theta}$0.46±.15; $M_{\phi\phi}$1.59±.17; $M_{r\theta}$2.93±.68; $M_{\theta\phi}$2.63±.12; $M_{\phi r}$-1.06±.43; Best double couple: $M_0$4.41×10^{16} NP1:ϕ_s7°,δ48°,λ-151°. NP2:ϕ_s256°,δ69°,λ-46°. Principal axes: T 3.95, Plg13°, Azm316°; N .93, Plg40°, Azm57°; P -4.87, Plg47°, Azm212°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 31 05:53:53.9±0.2**,11.04N**±0.03×**91.98E**±0.03**,h27**^{km}**, h27**^{km}±.3^{km}**:pP-P,n305,σ0^{s}.99**/297**,mb5.1**/98**,MS4.5**/23**, 20C-31D,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	9.17	59	P	P	05 56 05.4	-2.2
	44nm,0.6s						
SNG	Songkhla	9.35	114	P	P	05 56 11.0	+0.9
	196nm,0.9s						
CM31	Chiang Mai Arr	9.98	42	*e*Pn	P	05 56 18.7	-0.2
	24nm,0.6s						
CMAR	Chiang Mai Arr	9.98	42	Pn	P	05 56 17.9	-1.0
	0.9nm,0.3s,baz=229,slow=14,SNR=18						
CMAR				Sn	Sn	05 58 03.8	-7.3
	baz=236,slow=27,SNR=2.7						
VIS	Vishakhapatnam	10.69	309	⇓*i*P	P	05 56 24.8	-3.7
VIS				*i* S	S	05 58 13.8	-15
CHRT	Chiangrai	11.56	40	⇑P	P	05 56 41.0	+0.6
	263nm,0.9s						
MDRS	Chennai	11.65	281	*e*P	P	05 56 39.5	-2.2
PALK	Pallekele	11.75	252	*e*Pn	P	05 56 41.4	-1.6
	39nm,1.1s						
PALK				*e*Sn	S	05 58 42.2	-12
AGT	Agartala	12.79	357	*e*	P	05 57 04.0	+7.1
BOK	Bokaro	13.95	336	⇑*e*	P	05 57 05.5	-6.7
KOD	Kodaikanal	14.29	268	⇓*e*P	P	05 57 16.6	-0.2
KOD				*e*		05 57 18.6	
	comp=Z,56nm,1.4s						
SHL	Shillong	14.45	360	*e*	P	05 57 23.9	+5.1
SHL				*e*	S	05 59 46.0	-13
HYB	Hyderabad	14.47	297	*e*P	P	05 57 18.0	-1.2
HYB				*e*S	S	05 59 41.0	-19
HYB	Hyderabad	14.47	297	*i* P	P	05 57 18.0	-1.2
HYB				*e*		05 59 41.0	
HYB				*e*S	S	05 59 57.0	-2.6
BLSP	Bilaspur	14.50	321	⇑*e*P	P	05 57 16.4	-3.2
BLSP				*e*		05 57 18.4	
	comp=Z,89nm,0.9s						
BLSP				*e*S	S	05 59 56.0	-4.3
TRD	Trivandrum	15.02	262	*e*P	P	05 57 31.8	+5.5
TRD				*e*		05 57 37.3	
	comp=Z,93nm,1.3s						
NGP	Nagpur	15.97	311	⇓*e*P	P	05 57 39.8	+1.2
	comp=Z,85nm,0.8s						
NGP				*e*	S	06 00 23.5	-11
LATR	Latur	16.61	298	*e*P	P	05 57 47.2	+0.5
MNGI	Mangalore	16.89	278	*e*P	P	05 57 50.6	+0.3

AKL	**Akola**	**17.29**	**306**	⇑*i*	**P**	**05 57 59.5**	**+4.2**
AKL				*i*	**S**	**06 00 56.2**	**-8.9**
	comp=Z,210nm,1.0s						
KMI	**Kunming**	**17.33**	**35**	P	**P**	**05 57 58.3**	**+2.6**
KMI				AP		05 58 03.8	
KMI				S	**S**	**06 01 04.8**	**-1.1**
KMI				AMB	AMB		
	comp=Z,27nm,1.4s						
KMI				AMB	AMB		
	comp=Z,87nm,3.1s						
KMI				LR	LR		
	comp=N,2µm,17.1s						
KMI				LR	LR		
	comp=E,2µm,14.4s						
KMI				LR	LR		
	comp=Z,2µm,18.0s						
PKI	**Pulchoki**	**17.57**	**340**	*e*P	**P**	**05 57 59.2**	**+0.5**
	comp=Z,536nm,1.1s						
DMN	**Daman**	**17.70**	**340**	*e*P	**P**	**05 58 00.2**	**-0.2**
	comp=Z,368nm,0.9s						
GUN	**Gumba**	**17.73**	**342**	*e*P	**P**	**05 58 01.7**	**+1.0**
	comp=Z,232nm,1.0s						
KKN	**Kakani**	**17.81**	**340**	*e*P	**P**	**05 58 01.7**	**0.0**
	comp=Z,405nm,1.2s						
GKN	**Gorkha**	**18.23**	**339**	*e*P	**P**	**05 58 06.6**	**-0.3**
	comp=Z,402nm,1.0s						
KAD	**Karad**	**18.34**	**292**	*e*P	**P**	**05 58 08.4**	**+0.1**
KOLN	**Koldanda**	**18.41**	**336**	*e*P	**P**	**05 58 07.6**	**-1.6**
	comp=Z,359nm,1.1s						
BHPL	**Bhopal**	**18.43**	**313**	*e*P	**P**	**05 58 09.5**	**0.0**
BHPL				*e*		05 58 13.8	
	comp=Z,34nm,1.2s						
LSA	**Lhasa**	**18.58**	**358**	*e*P	**P**	**05 58 10.0**	**-1.2**
LSA				pmax	pmax		
	comp=Z,45nm,0.8s						
LSA	**Lhasa**	**18.58**	**358**	*e*P	**P**	**05 58 09.9**	**-1.3**
	comp=Z,45nm,0.8s						
LSA				*e*		05 58 22.2	
POO	**Poona**	**19.03**	**295**	*e*P	**P**	**05 58 16.3**	**-0.4**
POO				*e*		05 58 18.2	
	comp=Z,32nm,2.0s						
BOM	**Bombay**	**20.08**	**295**	*e*P	**P**	**05 58 27.2**	**-1.2**
GYA	**Guiyang**	**20.67**	**40**	⇑*i*P	**P**	**05 58 34.5**	**+0.1**
GYA				S	**S**	**06 02 20.8**	**+1.8**
GYA				AMB	AMB		
	comp=Z,150nm,1.3s						
GYA				LR	LR		
	comp=N,1µm,17.4s,MS4.4						
GYA				LR	LR		
	comp=E,850nm,14.8s,MS4.4						
GYA				LR	LR		
	comp=Z,1µm,16.5s,MS4.4						
PTH	**Pithoragarh**	**21.44**	**331**	*e*P	**P**	**05 58 42.9**	**+0.7**
PTH				*e*	**S**	**06 02 32.1**	**-1.6**
AJM	**Ajmer**	**22.43**	**316**	⇓*i*P	**P**	**05 58 52.6**	**+0.4**
AJM				*e*		05 59 09.4	
	comp=Z,141nm,1.5s						
CD2	**Chengdu**	**22.59**	**27**	⇓*i*P	**P**	**05 58 53.5**	**-0.3**
CD2				PP	PP	05 59 19.5	-2.6
CD2				PPP	PPP	05 59 35.0	+2.9
CD2				S	**S**	**06 02 55.0**	**+0.1**
CD2				AMB	AMB		
	comp=Z,380nm,1.0s,mb5.8						
CD2				LR	LR		
	comp=N,1µm,12.7s						
CD2				LR	LR		
	comp=Z,960nm,12.0s,MS4.5						
DDI	**Dehra Dun**	**23.14**	**328**	*e*P	**P**	**05 59 02.5**	**+3.3**
DDI				*e*S	**S**	**06 03 11.0**	**+6.2**
SDNR	**Sundarnagar**	**24.64**	**328**	*e*P	**P**	**05 59 16.0**	**+2.2**
ENH	**Enshi**	**25.12**	**38**	*e*P	**P**	**05 59 17.8**	**-0.5**
	comp=Z,65nm,0.6s,mb5.3						
THN	**Thein Dam**	**26.03**	**327**	*e*P	**P**	**05 59 26.9**	**+0.1**
	comp=Z,12nm,0.7s,mb4.5						
LZH	**Lanzhou**	**27.15**	**21**	*e*P	**P**	**05 59 37.8**	**+0.8**
LZH				AP	pP	05 59 45.0	+0.1
LZH				AMB	AMB		
	comp=Z,29nm,1.2s,mb4.7						
LZH				AMB	AMB		
	comp=Z,169nm,4.1s						
LZH				LR	LR		
	comp=E,2µm,13.5s						
LZH				LR	LR		
	comp=Z,3µm,15.3s,MS4.9						
TGY	**Tagaytay City**	**28.42**	**81**	LR	LR	06 10 41.2	
	comp=Z,663nm,18.8s,MS4.3,baz=293,slow=35						
WHN	**Wuhan**	**28.42**	**44**	P	**P**	**05 59 54.5**	**+5.9**
GTA	**Gaotai**	**29.10**	**13**	P	**P**	**05 59 55.8**	**+1.2**
GTA				AP	pP	06 00 02.5	0.0
GTA				PCP	PcP	06 03 03.0	+0.6
GTA				AMB	AMB		
	comp=Z,23nm,1.2s,mb4.8						
GTA				AMB	AMB		
	comp=Z,327nm,5.0s						
GTA				LR	LR		
	comp=N,505nm,24.0s						
GTA				LR	LR		
	comp=E,410nm,16.7s						
GTA				LR	LR		
	comp=Z,517nm,21.7s,MS4.1						
KSH	**Kashi**	**31.73**	**336**	*e*P	**P**	**06 00 18.0**	**+0.1**
KSH				*e*AP	pP	06 00 25.8	0.0
KSH				*e*XP	sP	06 00 29.5	+0.3
KSH				AMB	AMB		
	comp=Z,310nm,7.0s						
WMQ	**Urumqi**	**32.87**	**354**	⇑P	**P**	**06 00 28.8**	**+1.0**
WMQ				AMB	AMB		
	comp=Z,16nm,1.1s,mb4.9						
SSE	**Sheshan**	**33.60**	**49**	P	**P**	**06 00 31.3**	**-3.0**
SSE				S	**S**	**06 05 52.5**	**-1.6**
SSE				AMB	AMB		
	comp=Z,29nm,1.1s,mb5.1						
SSE				AMB	AMB		
	comp=Z,233nm,3.8s						
SSE				LR	LR		
	comp=N,584nm,22.0s,MS4.3						
SSE				LR	LR		
	comp=E,306nm,22.0s,MS4.3						
SSE				LR	LR		
	comp=Z,437nm,19.9s,MS4.2						
KZA	**Kyzart**	**34.21**	**338**	P	**P**	**06 00 40.0**	**+0.6**
	SNR=12						
HHC	**Hu-ho-hao-te**	**34.35**	**27**	*e*P	**P**	**06 00 41.8**	**+1.2**
HHC				AP	pP	06 00 48.0	-0.6
HHC				AMB	AMB		
	comp=Z,16nm,0.9s,mb5.0						
HHC				AMB	AMB		
	comp=Z,221nm,4.5s						
HHC				LR	LR		
	comp=N,491nm,14.3s,MS4.6						
HHC				LR	LR		
	comp=E,673nm,16.6s,MS4.6						
HHC				LR	LR		
	comp=Z,422nm,20.2s,MS4.2						
UCH	**Uchtor**	**34.62**	**337**	P	**P**	**06 00 44.3**	**+1.3**
	SNR=9.9						
AML	**Almayashu**	**34.86**	**336**	P	**P**	**06 00 46.6**	**+1.6**
	SNR=39						
AAK	**Ala-Archa**	**34.97**	**337**	P	**P**	**06 00 47.9**	**+1.9**
	SNR=15						
AAK	**Ala-Archa**	**34.97**	**337**	*e*P	**P**	**06 00 46.1**	**+0.1**
AAK				*e**PP	pP	06 00 55.8	+1.9
AAK				pmax	pmax		
	comp=Z,76nm,1.3s,mb5.5						
AAK	**Ala-Archa**	**34.97**	**337**	*e*P	**P**	**06 00 46.1**	**+0.1**
	comp=Z,76nm,1.3s,mb5.5						
AAK				*e*pP	pP	06 00 55.8	+1.8
FRU	**Bishkek**	**35.10**	**338**	*e*P	**P**	**06 00 43.0**	**-4.1**
FRU				pmax	pmax		
	comp=Z,100nm,2.0s,mb5.4						
CHMS	**Chumysh**	**35.19**	**338**	P	**P**	**06 00 48.8**	**+1.0**
	SNR=8.8						
EKS2	**Erkin-Say**	**35.27**	**336**	P	**P**	**06 00 50.2**	**+1.6**
	SNR=16						
USP	**Ospenovka**	**35.52**	**338**	P	**P**	**06 00 51.5**	**+0.9**
	SNR=20						
BJT	**Baijiatuau**	**35.94**	**32**	*e*P	**P**	**06 00 53.5**	**-0.7**
BJT				*e*	pP	06 01 02.1	-0.1
BJT				pmax	pmax		
	comp=Z,15nm,0.8s						
BJT	**Baijiatuau**	**35.94**	**32**	*e*P	**P**	**06 00 53.5**	**-0.8**
	comp=Z,15nm,0.8s,mb5.0						
BJT				*e*	pP	06 01 02.1	-0.1
BJI	**Beijing**	**35.96**	**32**	*e*P	**P**	**06 00 55.0**	**+0.6**
BJI				AMB	AMB		
	comp=Z,17nm,0.9s,mb5.0						
BJI				LR	LR		
	comp=N,856nm,19.3s,MS4.8						
BJI				LR	LR		
	comp=E,1µm,19.0s,MS4.8						
BJI				LR	LR		
	comp=Z,572nm,23.7s,MS4.3						
MK02	**Makanchi Array**	**36.54**	**349**	P	**P**	**06 00 59.4**	**+0.2**
MK02				pmax	pmax		
	comp=Z,51nm,1.1s,mb5.3						
JOW	**Kunigami**	**37.59**	**60**	LR	LR	06 20 01.5	
	comp=Z,756nm,18.1s,MS4.5,baz=264,slow=42						
DL2	**Dalian**	**38.31**	**39**	*e*P	**P**	**06 01 20.0**	**+5.9**
DL2				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.9						
SONM	**Songino Array**	**38.63**	**16**	P	**P**	**06 01 17.3**	**+0.6**
	comp=Z,5.1nm,0.6s,mb4.5,baz=198,slow=7.8,SNR=49						
SONM				pP	pP	06 01 24.4	-0.3
	comp=Z,24nm,1.0s,baz=206,slow=7.0,SNR=27						
SONM				PcP	PcP	06 03 29.3	+0.1
	comp=Z,3.4nm,0.8s,baz=185,slow=5.2,SNR=3.4						
SONM				LR	LR	06 18 32.3	
	comp=Z,262nm,21.6s,MS4.0,baz=174,slow=38						
ULN	**Ulaanbaatar**	**38.83**	**16**	⇓*e*P	**P**	**06 01 18.6**	**+0.2**
ULN	**Ulaanbaatar**	**38.83**	**16**	⇓*e*P	**P**	**06 01 18.7**	**+0.3**
ZAK	**Zakamensk**	**40.31**	**11**	⇑*i*P	**P**	**06 01 31.2**	**+0.5**
ZAK				*e*	pP	06 01 39.3	+0.6
ZAK				*e*		06 03 32.7	
MOY	**Mondy**	**41.17**	**9**	*e*P	**P**	**06 01 39.1**	**+1.4**
KS15	**Wonju Array Si**	**41.57**	**45**	P	**P**	**06 01 41.4**	**+0.2**
TLY	**Talaya**	**41.62**	**11**	*e*P	**P**	**06 01 41.6**	**+0.2**
TLY				*e**PP	pP	06 01 50.7	+1.3
TLY				pmax	pmax		
	comp=Z,29nm,1.1s,mb4.8						
TLY	**Talaya**	**41.62**	**11**	*e*P	**P**	**06 01 41.6**	**+0.2**
	comp=Z,29nm,1.1s,mb4.8						
TLY				*e*pP	pP	06 01 50.7	+1.3
MBWA	**Marble Bar**	**42.04**	**140**	*e*P	**P**	**06 01 44.5**	**-0.7**
	comp=Z,47nm,1.1s,mb5.0						
MBWA				*e*pP	pP	06 01 53.2	0.0
IRK	**Irkutsk**	**42.28**	**11**	*e*P	**P**	**06 01 48.0**	**+1.2**
ZAL	**Zalesovo**	**43.17**	**354**	LR	LR	06 24 03.3	
	comp=Z,646nm,20.0s,MS4.5,baz=118,slow=42						
CN2	**Changchun**	**43.60**	**35**	*e*P	**P**	**06 01 57.5**	**-0.1**
CN2				AMB	AMB		
	comp=Z,20nm,0.7s,mb5.0						
FITZ	**Fitzroy Crossi**	**44.07**	**131**	⇑*i*P	**P**	**06 02 02.0**	**+0.2**
	comp=Z,34nm,0.9s,mb5.1						
FITZ				*e*	pP	06 02 10.2	+0.4
NVS	**Novosibirsk**	**44.23**	**353**	*i* P	**P**	**06 02 01.5**	**-1.1**
NVS				pmax	pmax		
	comp=Z,65nm,2.0s,mb5.0						
NVS				pmax	pmax		
	comp=E,24nm,1.6s						
NVS				pmax	pmax		
	comp=N,64nm,1.9s						
HIA	**Hailar**	**44.53**	**26**	P	**P**	**06 02 03.4**	**-1.7**
HIA				*e*	pP	06 02 12.1	-1.1
HIA				pmax	pmax		
	comp=Z,25nm,1.0s						
HIA	**Hailar**	**44.53**	**26**	P	**P**	**06 02 03.4**	**-1.7**
	comp=Z,25nm,1.0s,mb5.0						
HIA				*e*	pP	06 02 12.1	-1.1
RDF	**Al-Radifah**	**45.08**	**300**	*e*P	**P**	**06 02 11.0**	**+1.2**
RDF				AMb	AMB	06 02 11.8	
	comp=Z,45nm,0.5s,mb5.5						
BVA0	**Borovoye Array**	**45.33**	**342**	*i* P	**P**	**06 02 11.2**	**-0.2**
BVA0				pmax	pmax		
	comp=Z,3.0nm,1.0s,mb4.1						
BVAR	**Borovoye Array**	**45.33**	**342**	P	**P**	**06 02 10.9**	**-0.5**
	comp=Z,4.7nm,0.5s,mb4.6,baz=149,slow=8.6,SNR=30						
BVAR				pP	pP	06 02 19.0	-0.4
	comp=Z,14nm,0.9s,baz=141,slow=9.5,SNR=16						
BRVK	**Borovoye**	**45.39**	**342**	⇓*e*P	**P**	**06 02 11.9**	**0.0**
NAY	**Al-Naaiem**	**45.42**	**300**	*e*P	**P**	**06 02 13.3**	**+0.9**
NAY				AMb	AMB	06 02 14.0	
	comp=Z,27nm,0.5s,mb5.3						
RST	**Umm Al-Ruwaisa**	**45.69**	**301**	*e*P	**P**	**06 02 15.3**	**+0.7**
RST				AMb	AMB	06 02 17.3	
	comp=Z,64nm,1.2s,mb5.4						
CHKZ	**Chkalovo**	**45.82**	**342**	*e*P	**P**	**06 02 15.5**	**+0.2**
CHKZ				*e*	pP	06 02 23.5	+0.1
CHKZ				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
CHKZ	**Chkalovo**	**45.82**	**342**	*e*P	**P**	**06 02 15.5**	**+0.2**
	comp=Z,40nm,0.9s,mb5.3						
CHKZ				*e*	pP	06 02 23.5	+0.1
MAJO	**Matsushiro**	**48.72**	**51**	P	**P**	**06 02 38.3**	**0.0**
MAJO				*e**PP	pP	06 02 46.1	-0.3
MAJO				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.2						
MAJO	**Matsushiro**	**48.72**	**51**	P	**P**	**06 02 38.2**	**0.0**
	comp=Z,23nm,0.9s,mb5.2						
MAJO				*e*pP	pP	06 02 46.0	-0.4
MAT	**Matsushiro**	**48.72**	**51**	P	**P**	**06 02 40.3**	**+2.0**
MAT				S	**S**	**06 09 45.0**	**+6.9**
MAT	**Matsushiro**	**48.72**	**51**	*e*P	pP	06 02 46.0	-0.4
MAT				*e*S	**S**	**06 09 54.0**	**+16**
BOD	**Bodaibo**	**49.62**	**15**	*e*P	**P**	**06 02 43.9**	**-1.0**
BOD				*e*	pP	06 02 52.4	-0.7
NWAO	**Narrogin (SRO)**	**49.92**	**152**	*e*P	**P**	**06 02 46.2**	**-1.4**
NWAO				*e*		06 02 56.6	
NWAO				pmax	pmax		
	comp=Z,56nm,1.1s						
NWAO	**Narrogin (SRO)**	**49.92**	**152**	P	**P**	**06 02 47.7**	**+0.1**
	comp=Z,34nm,1.2s,mb5.3,baz=309,slow=9.3,SNR=4.7						
NWAO	**Narrogin (SRO)**	**49.92**	**152**	*e*P	**P**	**06 02 46.2**	**-1.4**
	comp=Z,56nm,1.1s,mb5.5						
NWAO				*e*		06 02 56.6	
GNI	**Garni**	**50.72**	**313**	*e*P	**P**	**06 02 53.4**	**-0.1**
GNI				pmax	pmax		
	comp=Z,122nm,1.3s						
GNI	**Garni**	**50.72**	**313**	P	**P**	**06 02 55.2**	**+1.7**
	comp=Z,88nm,1.2s,mb5.6,baz=151,slow=3.0,SNR=29						
GNI	**Garni**	**50.72**	**313**	*e*P	**P**	**06 02 53.4**	**-0.1**
	comp=Z,122nm,1.3s,mb5.7						
TI2	**Plekhanov**	**51.31**	**315**	⇓*i*P	**P**	**06 02 59.2**	**+1.2**
WRA	**Warramunga Arr**	**51.83**	**126**	P	**P**	**06 03 02.1**	**-0.2**
	comp=Z,8.6nm,0.4s,mb5.0,baz=309,slow=7.9,SNR=76						
WRA				pP	pP	06 03 09.6	-0.8
	comp=Z,53nm,0.9s,baz=306,slow=8.4,SNR=31						
WRAB	**Tennant Creek**	**51.84**	**126**	*d i*P	**P**	**06 03 02.0**	**-0.3**
WRAB	**Tennant Creek**	**51.84**	**126**	*e*P	**P**	**06 03 01.5**	**-0.8**
	comp=Z,21nm,0.4s,mb5.4						
WB2	**Warramunga Arr**	**51.84**	**126**	⇓*i*P	**P**	**06 03 02.0**	**-0.3**
ARU	**Arti**	**52.16**	**337**	⇓*i*P	**P**	**06 03 03.9**	**-0.3**
ARU				*e*		06 04 10.2	
ARU				*e*		06 05 04.0	
ARU				*e*PPP	PPP	06 06 00.1	-7.4
ARU				*e*S	**S**	**06 10 28.3**	**+2.9**
ARU				pmax	pmax		
	comp=Z,42nm,1.1s,mb5.3						
ARU	**Arti**	**52.16**	**337**	*e*P	**P**	**06 03 03.0**	**-1.3**
	comp=Z,35nm,1.0s,mb5.2						
ARU				*e*	pP	06 03 10.7	-1.7
ZEI	**Tsey**	**52.29**	**316**	*e*P	**P**	**06 03 06.8**	**+1.4**
ZEI				*i* *PP	pP	06 03 15.9	+2.3
ZEI				*i*		06 05 05.8	
ZEI				pmax	pmax		
	comp=Z,15nm,0.9s,mb4.9						
KIV	**Kislovodsk**	**53.56**	**317**	P	**P**	**06 03 15.6**	**+0.8**
	comp=Z,396nm,0.9s,mb6.3,SNR=14						
KIV	**Kislovodsk**	**53.56**	**317**	*e*P	**P**	**06 03 14.7**	**-0.1**
KIV				*e**PP	pP	06 03 23.4	+0.5
KIV				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.5						
KIV	**Kislovodsk**	**53.56**	**317**	*e*P	**P**	**06 03 14.7**	**-0.1**
	comp=Z,60nm,0.9s,mb5.5						
KIV				*e*pP	pP	06 03 23.4	+0.4
ASPA	**Alice Springs**	**53.57**	**130**	*e*P	**P**	**06 03 14.9**	**-0.3**
ASPA				*e*S	**S**	**06 10 42.1**	**-2.9**
ASAR	**Alice Springs**	**53.57**	**130**	P	**P**	**06 03 15.0**	**-0.2**
	comp=Z,8.1nm,0.6s,mb4.9,baz=306,slow=6.6,SNR=54						
ASAR				pP	pP	06 03 23.4	+0.1
	comp=Z,29nm,0.7s,baz=305,slow=6.7,SNR=34						
ASAR				LR	LR	06 29 46.7	
	comp=Z,165nm,21.1s,MS4.1,baz=298,slow=40						
ASF	**Jabal al Asfar**	**54.73**	**302**	P	**P**	**06 03 24.0**	**+0.4**
	comp=Z,6.7nm,0.8s,mb4.7,baz=179,slow=10,SNR=11						
ASF				LR	LR	06 29 54.3	
	comp=Z,195nm,19.4s,MS4.2,baz=195,slow=40						
MALT	**Malatya**	**54.81**	**309**	*e*P	**P**	**06 03 23.8**	**-0.3**
MALT				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.2						
MALT	**Malatya**	**54.81**	**309**	*e*P	**P**	**06 03 23.8**	**-0.3**
	comp=Z,29nm,1.1s,mb5.2						
SOKR	**Solikamsk**	**55.10**	**339**	⇓*i*P	**P**	**06 03 23.9**	**-2.0**
SOKR				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
SOKR				MLR	MLR		
	comp=Z,410nm,19.0s,MS4.5						
SOC	**Sochi**	**55.43**	**316**	*e*P	**P**	**06 03 26.7**	**-1.8**
SOC				*e*		06 04 28.5	
SOC				*e*		06 05 30.0	
SOC				*e*PPP	PPP	06 06 41.5	-6.5
SOC				*e*S	**S**	**06 11 11.3**	**+1.5**
SOC				*e*SS	SS	06 14 59.3	+4.8
SOC				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.2						
SOC				pmax	pmax		
	comp=N,11nm,1.0s						
SOC				pmax	pmax		
	comp=E,17nm,1.0s						
SOC				MLR	MLR		
	comp=N,96nm,13.0s,MS4.2						
SOC				MLR	MLR		
	comp=Z,288nm,13.0s,MS4.5						
SOC				MLR	MLR		
	comp=E,82nm,10.0s,MS4.2						
YSS	**Yuzh-Sakhalins**	**55.67**	**40**	*e*P	**P**	**06 03 29.2**	**-1.0**
YSS				*i*	pP	06 03 37.5	-0.9
YSS				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
YSS				MLR	MLR		
	comp=Z,600nm,14.0s,MS4.8						
YSS	**Yuzh-Sakhalins**	**55.67**	**40**	*e*P	**P**	**06 03 29.8**	**-0.4**
	comp=Z,49nm,0.9s,mb5.5						
YSS				*e*pP	pP	06 03 37.6	-0.8
KMBO	**Kilima Mbogo**	**55.73**	**261**	*e*P	**P**	**06 03 32.2**	**+1.1**
KMBO				pmax	pmax		
	comp=Z,19nm,1.3s						
KMBO	**Kilima Mbogo**	**55.73**	**261**	P	**P**	**06 03 33.0**	**+1.9**
	comp=Z,4.2nm,0.8s,mb4.5,baz=52,slow=11,SNR=7.2						
KMBO	**Kilima Mbogo**	**55.73**	**261**	*e*P	**P**	**06 03 32.2**	**+1.1**
	comp=Z,19nm,1.3s,mb5.0						
EIL	**Elat**	**56.03**	**298**	*e*P	**P**	**06 03 33.5**	**+0.5**
	comp=Z,29nm,1.1s,mb5.2						
EIL				*e*pP	pP	06 03 42.5	+1.3
YAK	**Yakutsk**	**57.72**	**20**	*e*P	**P**	**06 03 42.0**	**-2.6**
YAK				pmax	pmax		
	comp=Z,58nm,1.0s,mb5.6						
YAK				pmax	pmax		
	comp=N,25nm,1.2s						
YAK				pmax	pmax		
	comp=E,21nm,1.3s						
YAK				pmax	pmax		
	comp=E,14nm,1.2s						
YAK				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
YAK				pmax	pmax		
	comp=N,8.0nm,1.2s						
YAK	**Yakutsk**	**57.72**	**20**	⇑*e*P	**P**	**06 03 43.9**	**-0.7**
CSS	**Prodhromos**	**58.12**	**304**	*e*P	**P**	**06 03 47.3**	**-0.5**
	comp=N,10nm,0.6s,mb5.0						
PMG	**Port Moresby**	**58.52**	**108**	*e*P	**P**	**06 03 50.9**	**+0.1**
PMG				pmax	pmax		
	comp=Z,57nm,1.3s						
PMG	**Port Moresby**	**58.52**	**108**	P	**P**	**06 03 51.4**	**+0.7**
	comp=Z,14nm,0.7s,mb5.1,baz=322,slow=11,SNR=5.3						
PMG	**Port Moresby**	**58.52**	**108**	*e*P	**P**	**06 03 50.9**	**+0.1**
	comp=Z,58nm,1.3s,mb5.5						
VRSR	**Storozhevoye**	**58.58**	**324**	*e*P	**P**	**06 03 50.2**	**-0.5**
VRSR				pmax	pmax		
	comp=N,30nm,1.4s						
VRSR				pmax	pmax		
	comp=Z,60nm,1.4s,mb5.4						
VRSR				pmax	pmax		
	comp=E,40nm,1.1s						
BRTR	**Keskin Array B**	**58.77**	**310**	P	**P**	**06 03 51.0**	**-1.2**
	comp=E,8.6nm,0.8s,mb4.8,baz=121,slow=7.2,SNR=40						
BRTR				pP	pP	06 03 59.2	-1.2
	comp=E,8.9nm,0.9s,baz=112,slow=6.7,SNR=10						
SIM	**Simferopol’**	**59.68**	**316**	*e*P	**P**	**06 03 58.0**	**-0.4**
SIM				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
ISP	**Isparta**	**60.83**	**307**	*e*P	**P**	**06 04 04.9**	**-1.4**
ISP				*e*	pP	06 04 14.1	-0.6
MOS	**Moscow**	**61.28**	**328**	*e*P	**P**	**06 04 07.8**	**-1.4**
MOS				*i*	pP	06 04 17.4	-0.1
MOS				pmax	pmax		
	comp=Z,129nm,1.5s,mb5.8						
OBN	**Obninsk**	**61.58**	**327**	*ce*P	**P**	**06 04 11.2**	**0.0**
OBN				*e*		06 06 24.4	
OBN				*e*S	**S**	**06 12 25.9**	**-3.8**
OBN				pmax	pmax		
	comp=Z,121nm,1.5s,mb5.8						
OBN	**Obninsk**	**61.58**	**327**	*e*P	**P**	**06 04 08.6**	**-2.6**
	comp=Z,83nm,1.0s,mb5.8						
OBN				*e*pP	pP	06 04 18.4	-1.1
CTA	**Charters Tower**	**61.72**	**120**	*e*P	**P**	**06 04 12.9**	**+0.3**
	comp=Z,20nm,1.1s,mb5.2						
CTA	**Charters Tower**	**61.72**	**120**	*e*P	**P**	**06 04 12.9**	**+0.3**
CTA				pmax	pmax		
	comp=Z,20nm,1.1s						
CTA	**Charters Tower**	**61.72**	**120**	P	**P**	**06 04 12.5**	**-0.1**
	comp=Z,6.4nm,0.9s,mb4.8,baz=301,slow=12,SNR=3.6						
CTA				LR	LR	06 32 45.2	
	comp=Z,132nm,19.7s,MS4.1,baz=60,slow=38						
CTAO	**Charters Tower**	**61.72**	**120**	*e*P	**P**	**06 04 12.2**	**-0.4**
CTAO				*e**PP	pP	06 04 20.8	-0.2
CTAO				pmax	pmax		
	comp=Z,39nm,1.1s,mb5.5						
CTAO	**Charters Tower**	**61.72**	**120**	*e*P	**P**	**06 04 12.2**	**-0.5**
	comp=Z,39nm,1.1s,mb5.5						
CTAO				*e*pP	pP	06 04 20.8	-0.1
MBAR	**Mbarara**	**61.95**	**263**	*i* P	**P**	**06 04 05.2**	**-9.1**
MBAR	**Mbarara**	**61.95**	**263**	P	**P**	**06 04 14.2**	**-0.1**
	comp=Z,17nm,1.2s,mb5.0						
STKA	**Stephens Creek**	**63.82**	**134**	*e*P	**P**	**06 04 25.5**	**-1.0**
	comp=Z,11nm,0.8s,mb5.0						
STKA	**Stephens Creek**	**63.82**	**134**	P	**P**	**06 04 26.4**	**-0.1**
	comp=Z,8.0nm,0.9s,mb4.8,baz=316,slow=6.8,SNR=12						
STKA				LR	LR	06 37 57.7	
	comp=Z,251nm,18.1s,MS4.4,baz=280,slow=41						
CFR	**Carcaliu**	**63.86**	**315**	⇑*i*P	**P**	**06 04 26.0**	**-0.5**
AKASG	**Malin Array Be**	**64.36**	**321**	P	**P**	**06 04 28.3**	**-1.4**
	comp=Z,5.2nm,0.6s,mb4.7,baz=88,slow=5.5,SNR=36						
AKASG				pP	pP	06 04 36.4	-1.7
	comp=Z,12nm,0.9s,baz=87,slow=5.6,SNR=11						
TIXI	**Tiksi**	**64.58**	**12**	⇓*i*P	**P**	**06 04 29.6**	**-1.2**
TIXI				*e*	pP	06 04 37.5	-1.6
TIXI				pmax	pmax		
	comp=Z,31nm,1.1s,mb5.2						
ISR	**Istrita**	**64.96**	**315**	⇑*i*P	**P**	**06 04 31.6**	**-2.0**
VRI	**Vrincioaia**	**64.96**	**316**	⇑*i*P	**P**	**06 04 34.3**	**+0.7**
MA2	**Magadan**	**65.00**	**29**	*e*P	**P**	**06 04 32.6**	**-1.0**
MA2				*e**PP	pP	06 04 40.9	-1.1
MA2				pmax	pmax		
	comp=Z,66nm,0.9s,mb5.7						
MA2	**Magadan**	**65.00**	**29**	*e*P	**P**	**06 04 32.6**	**-1.0**
	comp=Z,66nm,0.9s,mb5.7						
MA2				*e*pP	pP	06 04 40.9	-1.0
IDI	**Anoyia**	**65.03**	**304**	P	**P**	**06 04 33.8**	**-0.5**
	comp=Z,6.8nm,0.6s,mb4.8,baz=98,slow=11,SNR=6.1						
MLR	**Muntele Rosu**	**65.43**	**315**	P	**P**	**06 04 36.5**	**-0.1**
	comp=Z,36nm,1.0s,mb5.3,baz=148,slow=3.9,SNR=40						
MLR	**Muntele Rosu**	**65.43**	**315**	⇑*i*P	**P**	**06 04 37.3**	**+0.6**
MLR	**Muntele Rosu**	**65.43**	**315**	⇑*i*P	**P**	**06 04 37.3**	**+0.6**
MNK	**Minsk**	**66.16**	**325**	*e*P	**P**	**06 04 38.0**	**-3.1**
PUL	**Pulkovo**	**66.43**	**331**	*e*P	**P**	**06 04 43.3**	**+0.5**
PUL	**Pulkovo**	**66.43**	**331**	⇑*e*P	**P**	**06 04 43.4**	**+0.6**
SEY	**Seymchan**	**66.98**	**26**	*e*P	**P**	**06 04 45.9**	**-0.4**
SEY				pmax	pmax		
	comp=Z,130nm,1.0s,mb5.9						
LVZ	**Lovozero**	**67.87**	**340**	*e*P	**P**	**06 04 51.4**	**-0.4**
LVZ				pmax	pmax		
	comp=Z,149nm,2.8s,mb5.5						
BOLS	**Boljevac**	**68.03**	**313**	⇑*i*P	**P**	**06 04 51.5**	**-1.8**
APA	**Apatity**	**68.15**	**339**	⇑*i*P	**P**	**06 04 53.6**	**0.0**
APA				*i*	pP	06 05 01.3	-0.6
APA				pmax	pmax		
	comp=Z,58nm,1.2s,mb5.5						
LSZ	**Lusaka**	**68.37**	**249**	*e*P	**P**	**06 04 56.9**	**+1.1**
LSZ				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.2						
LSZ	**Lusaka**	**68.37**	**249**	*e*P	**P**	**06 04 56.9**	**+1.1**
	comp=Z,35nm,1.4s,mb5.2						
KOLS	**Kolonicke sedl**	**68.43**	**318**	*e*P	**P**	**06 04 55.4**	**-0.2**
KOLS				*e*pP	pP	06 05 04.3	+0.3
SUW	**Suwalki**	**68.71**	**324**	*e*P	**P**	**06 04 55.7**	**-1.5**
SUW				*e*	pP	06 05 05.0	-0.5

SUW				pmax	pmax		
	comp=Z,74nm,1.0s,mb5.6						
SUW	**Suwalki**	**68.71**	**324**	*e*P	**P**	**06 04 55.7**	**-1.5**
	comp=Z,74nm,1.0s,mb5.6						
SUW				*e*pP	pP	06 05 04.6	-0.9
SUW				*e*	pP	06 05 05.0	-0.5
SUW	**Suwalki**	**68.71**	**324**	*e*P	**P**	**06 04 56.7**	**-0.5**
SUW				*e*	pP	06 05 05.0	-0.5
FINES	**FINESS Array B**	**68.93**	**332**	*i* P	**P**	**06 04 58.3**	**-0.2**
FINES				pmax	pmax		
	comp=Z,17nm,0.8s						
FINES	**FINESS Array B**	**68.93**	**332**	P	**P**	**06 04 58.3**	**-0.2**
	comp=Z,17nm,0.8s,mb5.0,baz=100,slow=7.5,SNR=46						
FINES				pP	pP	06 05 06.5	-0.3
	comp=Z,19nm,0.7s,baz=90,slow=7.6,SNR=15						
GRUS	**Gruza**	**68.93**	**313**	⇑*i*P	**P**	**06 04 58.2**	**-0.6**
CRVS	**Cervenica-Dubn**	**68.96**	**318**	*e*P	**P**	**06 05 00.2**	**+1.3**
CRVS				*e*sP	sP	06 05 11.6	+1.4
KAF	**Kangasniemi**	**69.02**	**333**	*e*p	**P**	**06 04 57.3**	**-1.7**
	comp=Z,25nm,1.1s,mb5.1						
KAF	**Kangasniemi**	**69.02**	**333**	*e*P	**P**	**06 04 57.3**	**-1.7**
KAF				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.1						
DIVS	**Divcibare**	**69.47**	**313**	*e*P	**P**	**06 05 00.3**	**-1.7**
KECS	**Kecovo**	**69.55**	**318**	*e*P	**P**	**06 05 01.6**	**-0.9**
KECS				*e*sP	sP	06 05 12.6	-1.2
TOO	**Toolangi**	**69.61**	**137**	*e*P	**P**	**06 05 02.5**	**-0.6**
	comp=Z,18nm,0.9s,mb5.0						
TOO	**Toolangi**	**69.61**	**137**	*e*P	**P**	**06 05 02.5**	**-0.6**
TOO				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
NIE	**Niedzica**	**69.77**	**319**	*e*P	**P**	**06 05 04.3**	**+0.5**
PSZ	**Piszkesteto**	**69.88**	**317**	*e*P	**P**	**06 05 03.9**	**-0.6**
PSZ				pmax	pmax		
	comp=Z,19nm,1.3s,mb4.9						
PSZ	**Piszkesteto**	**69.88**	**317**	*e*P	**P**	**06 05 03.9**	**-0.6**
	comp=Z,19nm,1.3s,mb4.9						
OJC	**Ojcow**	**70.20**	**319**	*e*P	**P**	**06 05 06.2**	**-0.2**
PKSM	**Moragy**	**70.59**	**315**	⇓*i*P	**P**	**06 05 08.2**	**-0.6**
VYHS	**Vyhne**	**70.64**	**318**	*i* P	**P**	**06 05 09.1**	**0.0**
VYHS				*e*	pP	06 05 16.6	-0.9
SRO2	**Moca**	**70.88**	**317**	*e*P	pP	06 05 21.0	+2.1
SRO2	**Moca**	**70.88**	**317**	*e*pP	pP	06 05 21.0	+2.1
SRO	**Srobarova**	**70.93**	**317**	*e*P	pP	06 05 19.2	-0.1
SRO	**Srobarova**	**70.93**	**317**	*e*pP	pP	06 05 19.2	-0.1
KEV	**Kevo**	**71.16**	**341**	*e*p	**P**	**06 05 12.3**	**+0.4**
OKC	**Ostrava-Krasne**	**71.22**	**319**	*e*P	**P**	**06 05 12.5**	**-0.1**
OKC				*e*pP	pP	06 05 20.8	-0.1
ARCES	**ARCESS Array B**	**71.58**	**340**	P	**P**	**06 05 15.0**	**+0.5**
	comp=Z,12nm,0.7s,mb4.9,baz=92,slow=6.0,SNR=16						
ARCES				pP	pP	06 05 22.9	0.0
	comp=Z,27nm,0.9s,baz=100,slow=7.4,SNR=14						
ARCES				LR	LR	06 39 51.9	
	comp=Z,640nm,20.8s,MS4.9,baz=297,slow=38						
MORC	**Moravsky Berou**	**71.60**	**319**	*e*P	**P**	**06 05 14.7**	**-0.2**
MORC				*e**PP	pP	06 05 23.1	-0.2
MORC				pmax	pmax		
	comp=Z,32nm,1.5s,mb5.0						
MORC	**Moravsky Berou**	**71.60**	**319**	*e*P	**P**	**06 05 14.7**	**-0.2**
	comp=Z,32nm,1.5s,mb5.0						
MORC				*e*pP	pP	06 05 23.1	-0.2
ZST	**Bratislava**	**71.77**	**317**	*i* P	**P**	**06 05 16.2**	**+0.2**
ZST				*e*pP	pP	06 05 24.2	-0.1
DPC	**Dobruska-Polom**	**72.43**	**319**	*e*P	**P**	**06 05 20.0**	**+0.2**
DPC				*e*pP	pP	06 05 28.4	+0.2
KSP	**Ksiaz**	**72.48**	**320**	*e*P	**P**	**06 05 20.5**	**+0.4**
KSP				*e*pP	pP	06 05 28.1	-0.4
KSP	**Ksiaz**	**72.48**	**320**	*e*P	**P**	**06 05 20.7**	**+0.6**
KSP				*e*	pP	06 05 29.0	+0.5
UPC	**Upice**	**72.64**	**320**	*e*P	**P**	**06 05 20.9**	**-0.1**
UPC				*e*pP	pP	06 05 29.4	0.0
ARSA	**Arzberg**	**72.79**	**316**	⇑*i*P	**P**	**06 05 22.4**	**+0.4**
	comp=Z,22nm,1.2s,mb5.0						
BOJS	**Bojanci**	**72.92**	**314**	*e*P	**P**	**06 05 22.1**	**-0.7**
PERS	**Pernice**	**73.04**	**315**	*i* P	**P**	**06 05 23.4**	**-0.1**
PRU	**Pruhonice**	**73.55**	**319**	*e*P	**P**	**06 05 26.6**	**+0.2**
PRU				*e*pP	pP	06 05 34.5	-0.3
PVCC	**Panska Ves**	**73.56**	**319**	*e*P	**P**	**06 05 27.0**	**+0.6**
PVCC				*e*pP	pP	06 05 34.9	+0.1
LBTB	**Lobatse**	**73.93**	**240**	*e*P	**P**	**06 05 30.1**	**+1.0**
LBTB				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
LBTB	**Lobatse**	**73.93**	**240**	*e*P	**P**	**06 05 30.1**	**+1.0**
	comp=Z,21nm,1.0s,mb5.0						
BILL	**Bilibino**	**73.96**	**22**	*d* *i*P	**P**	**06 05 28.3**	**-0.1**
BILL				*i*	pP	06 05 35.8	-1.0
BILL				*e*		06 05 43.8	
BILL				pmax	pmax		
	comp=Z,8.0nm,0.8s,mb4.7						
BILL				MLR	MLR		
	comp=Z,500nm,19.0s,MS4.8						
BILL	**Bilibino**	**73.96**	**22**	*e*P	**P**	**06 05 28.1**	**-0.3**
	comp=Z,22nm,0.8s,mb5.1						
BILL				*e*pP	pP	06 05 36.2	-0.6
BRG	**Berggiesshubel**	**73.97**	**320**	*i* P	**P**	**06 05 29.2**	**+0.4**
BRG				*i*	pP	06 05 37.1	-0.1
BRG				pmax	pmax		
	comp=Z,28nm,1.3s,mb5.0						
BRG	**Berggiesshubel**	**73.97**	**320**	*i* P	**P**	**06 05 29.2**	**+0.4**
	comp=Z,28nm,1.3s,mb5.0						
BRG				*i*	pP	06 05 37.1	-0.1
GEC2	**GERESS Array S**	**74.06**	**318**	*e*P	**P**	**06 05 29.7**	**+0.3**
GEC2				pmax	pmax		
	comp=Z,27nm,1.5s,mb5.0						
GEC2	**GERESS Array S**	**74.06**	**318**	*e*P	**P**	**06 05 29.7**	**+0.3**
	comp=Z,27nm,1.5s,mb5.0						
GERES	**GERESS Array B**	**74.06**	**318**	P	**P**	**06 05 29.6**	**+0.3**
	comp=Z,5.8nm,0.7s,mb4.6,baz=86,slow=5.9,SNR=56						
GERES				pP	pP	06 05 37.5	-0.2
	comp=Z,13nm,1.0s,baz=88,slow=5.2,SNR=17						
KHC	**Kasperske Hory**	**74.15**	**318**	*e*P	**P**	**06 05 29.7**	**-0.2**
KHC				*e*pP	pP	06 05 37.8	-0.5
PTCC	**Patocco-Chiusa**	**74.26**	**315**	*e*P	**P**	**06 05 30.1**	**-0.5**
CLL	**Collm**	**74.58**	**320**	⇓*i*P	**P**	**06 05 31.8**	**-0.5**
CLL				*i*	pP	06 05 40.6	-0.1
CLL				pmax	pmax		
	comp=Z,17nm,1.2s,mb4.8						
CLL	**Collm**	**74.58**	**320**	⇓*i*P	**P**	**06 05 31.8**	**-0.5**
	comp=Z,17nm,1.2s,mb4.8						
CLL				*i*	pP	06 05 40.6	-0.1
CLL	**Collm**	**74.58**	**320**	⇓P	**P**	**06 05 31.8**	**-0.5**
	comp=Z,logA/T=1.2,mb4.9						
CLL				*i* *SP	sP	06 05 40.6	-3.0
WET	**Wettzell**	**74.61**	**318**	*e*P	**P**	**06 05 32.9**	**+0.4**
NKC	**Novy Kostel**	**74.91**	**319**	*e*P	**P**	**06 05 34.1**	**-0.1**
NKC				*e*pP	pP	06 05 42.7	+0.1
WTTA	**Wattenberg**	**75.44**	**316**	⇓*i*P	**P**	**06 05 36.8**	**-0.5**
	comp=Z,30nm,1.3s,mb5.1						
WTTA	**Wattenberg**	**75.44**	**316**	⇓*i*P	**P**	**06 05 36.8**	**-0.5**
WTTA				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.1						
CTI	**Castel Tesino**	**75.44**	**315**	*e*P	**P**	**06 05 37.5**	**+0.1**
MOX	**Moxa**	**75.44**	**320**	*e*P	**P**	**06 05 37.8**	**+0.5**
MOX				pmax	pmax		
	comp=Z,42nm,1.8s,mb5.1						
MOX	**Moxa**	**75.44**	**320**	*i* P	**P**	**06 05 37.8**	**+0.5**
	comp=Z,logA/T=1.4,mb5.1						
MOX	**Moxa**	**75.44**	**320**	*e*P	**P**	**06 05 37.8**	**+0.5**
	comp=Z,42nm,1.8s,mb5.1						
WATA	**Walderalm**	**75.47**	**316**	⇓*i*P	**P**	**06 05 36.6**	**-0.9**
	comp=Z,8.9nm,1.1s,mb4.6						
WATA	**Walderalm**	**75.47**	**316**	⇓*i*P	**P**	**06 05 36.6**	**-0.9**
WATA				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.6						
VMG	**Vicchio**	**75.56**	**313**	*e*P	**P**	**06 05 39.2**	**+1.1**
FUR	**Furstenfeldbru**	**75.67**	**317**	*e*P	**P**	**06 05 39.0**	**+0.4**
GRA1	**Grafenberg Arr**	**75.69**	**319**	*e*P	**P**	**06 05 39.4**	**+0.7**
	comp=Z,58nm,1.6s,mb5.3						
GRA1				*e*pP	pP	06 05 47.7	+0.5
GRF	**Grafenberg Arr**	**75.69**	**319**	*e*P	**P**	**06 05 39.4**	**+0.7**
GRF				*e**PP	pP	06 05 47.7	+0.5
GRF				pmax	pmax		
	comp=Z,58nm,1.6s,mb5.3						
GRF	**Grafenberg Arr**	**75.69**	**319**	*e*P	**P**	**06 05 39.4**	**+0.7**
GRF				*e**PP	pP	06 05 47.7	+0.5
GRF				pmax	pmax		
	comp=Z,58nm,1.6s,mb5.3						
GRF	**Grafenberg Arr**	**75.69**	**319**	*e*P	**P**	**06 05 39.4**	**+0.7**
	comp=Z,58nm,1.6s,mb5.3						
GRF				*e*pP	pP	06 05 47.7	+0.5
SQTA	**Sankt Quirin**	**75.73**	**316**	⇓*i*P	**P**	**06 05 38.3**	**-0.7**
	comp=Z,20nm,1.2s,mb4.9						
SQTA	**Sankt Quirin**	**75.73**	**316**	⇓*i*P	**P**	**06 05 38.3**	**-0.7**
SQTA				pmax	pmax		
	comp=Z,20nm,1.2s,mb4.9						
MOTA	**Moosalm**	**75.80**	**316**	⇓*i*P	**P**	**06 05 38.7**	**-0.7**
	comp=Z,12nm,1.0s,mb4.8						
MOTA	**Moosalm**	**75.80**	**316**	⇓*i*P	**P**	**06 05 38.7**	**-0.7**
MOTA				pmax	pmax		
	comp=Z,12nm,1.0s,mb4.8						
NB2	**NORSAR Subarra**	**75.94**	**330**	P	**P**	**06 05 39.4**	**-0.5**
	comp=Z,33nm,1.1s,mb5.2,baz=94,slow=5.8						
NB2	**NORSAR Subarra**	**75.94**	**330**	P	**P**	**06 05 39.4**	**-0.5**
	baz=94,slow=5.9						
NB2	**NORSAR Subarra**	**75.94**	**330**	P	**P**	**06 05 39.4**	**-0.5**
NB2				pmax	pmax		
	comp=Z,33nm,1.1s,mb5.2						
NOA	**NORSAR Array B**	**75.94**	**330**	P	**P**	**06 05 39.5**	**-0.4**
	comp=Z,6.6nm,0.8s,mb4.6,baz=95,slow=5.4,SNR=14						
NOA				pP	pP	06 05 47.6	-0.7
	comp=Z,12nm,0.9s,baz=94,slow=5.5,SNR=12						
NOA				LR	LR	06 46 38.7	
	comp=Z,219nm,19.6s,MS4.5,baz=90,slow=42						
NAO01	**NORSAR Array S**	**76.09**	**330**	*e*P	**P**	**06 05 40.0**	**-0.8**
	comp=Z,9.4nm,0.8s,mb4.8						
NAO01				*e*pP	pP	06 05 48.5	-0.7
CLZ	**Clausthal**	**76.22**	**321**	*e*P	**P**	**06 05 42.2**	**+0.5**
	comp=Z,55nm,1.7s,mb5.2						
GSCL	**Gusciola**	**76.23**	**313**	*e*P	**P**	**06 05 42.6**	**+0.7**
BDI	**Bagni Di Lucca**	**76.24**	**313**	*e*P	**P**	**06 05 40.5**	**-1.4**
BSEG	**Bad Segeberg**	**76.25**	**323**	*e*P	**P**	**06 05 42.1**	**+0.3**
BSEG				*e**PP	pP	06 05 50.7	+0.5
BRMO	**Bormio**	**76.32**	**315**	*e*P	**P**	**06 05 41.9**	**-0.4**
DAVA	**Damuels**	**76.63**	**316**	⇓*i*P	**P**	**06 05 44.2**	**+0.1**
	comp=Z,31nm,0.9s,mb5.2						
MUD	**Monsted U’grnd**	**76.91**	**326**	*e*P	**P**	**06 05 47.3**	**+1.9**
MUD				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
MUD	**Monsted U’grnd**	**76.91**	**326**	*e*P	**P**	**06 05 47.3**	**+1.9**
	comp=Z,35nm,1.4s,mb5.1						
MUD	**Monsted U’grnd**	**76.91**	**326**	*i* P	**P**	**06 05 47.3**	**+1.9**
	comp=Z,35nm,1.4s,mb5.1						
VAI	**Varese**	**77.45**	**315**	*e*P	**P**	**06 05 48.3**	**-0.4**
BFO	**Black Forest**	**77.63**	**317**	*e*P	**P**	**06 05 49.9**	**+0.3**
BFO				pmax	pmax		
	comp=Z,25nm,1.4s,mb5.0						
BFO	**Black Forest**	**77.63**	**317**	*e*P	**P**	**06 05 49.9**	**+0.3**
	comp=Z,25nm,1.4s,mb5.0						
FELD	**Feldberg**	**77.87**	**317**	*e*P	**P**	**06 05 51.1**	**+0.2**
LANF	**Langenberg**	**77.95**	**318**	*e*P	**P**	**06 05 51.3**	**0.0**
WLS	**Welschbruch**	**78.28**	**317**	*e*P	**P**	**06 05 53.7**	**+0.6**
RUP	**Ruppelstein**	**78.39**	**319**	*e*P	**P**	**06 05 53.1**	**-0.6**
LPG	**La Plagne**	**78.89**	**314**	*e*P	**P**	**06 05 56.9**	**+0.4**
	comp=Z,89nm,1.2s,mb5.3						
LPG	**La Plagne**	**78.89**	**314**	*e*P	**P**	**06 05 56.9**	**+0.4**
LPG				pmax	pmax		
	comp=Z,45nm,1.2s,mb5.3						
BNI	**Bardonecchia**	**78.98**	**314**	*e*P	**P**	**06 05 57.1**	**+0.1**
BNI				pmax	pmax		
	comp=Z,45nm,1.4s,mb5.2						
BNI	**Bardonecchia**	**78.98**	**314**	*e*P	**P**	**06 05 57.1**	**+0.1**
	comp=Z,45nm,1.4s,mb5.2						
THEF	**They Montfort**	**79.20**	**317**	*e*P	**P**	**06 05 57.2**	**-1.0**
SUR	**Sutherland**	**80.40**	**234**	*e*P	**P**	**06 06 07.5**	**+2.5**
	comp=Z,42nm,1.1s,mb5.3						
PLDF	**La Plantade**	**81.03**	**315**	*e*P	**P**	**06 06 09.9**	**+1.9**
MAW	**Mawson**	**81.20**	**191**	*e*P	**P**	**06 06 10.1**	**+1.7**
MAW				pmax	pmax		
	comp=Z,14nm,0.8s						
MAW	**Mawson**	**81.20**	**191**	P	**P**	**06 06 10.6**	**+2.2**
	comp=Z,11nm,0.8s,mb4.8,baz=12,slow=6.8,SNR=13						
MAW				LR	LR	06 34 51.2	
	comp=Z,148nm,18.1s,MS4.4,baz=59,slow=30						
MAW	**Mawson**	**81.20**	**191**	*e*P	**P**	**06 06 10.1**	**+1.7**
	comp=Z,14nm,0.8s,mb4.9						
AGO	**Saint Agoulin**	**81.36**	**315**	*e*P	**P**	**06 06 10.8**	**+1.1**
LBL	**Lubilhac**	**81.37**	**314**	*e*P	**P**	**06 06 12.0**	**+2.2**
DAG	**Danmarks Havn**	**83.94**	**347**	⇓*e*P	**P**	**06 06 22.9**	**+0.5**
DAG				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.4						
DAG	**Danmarks Havn**	**83.94**	**347**	⇓*e*P	**P**	**06 06 22.9**	**+0.5**
	comp=Z,2.5nm,0.9s,mb4.3						
DAG	**Danmarks Havn**	**83.94**	**347**	⇓*i*P	**P**	**06 06 22.9**	**+0.5**
	comp=Z,2.5nm,0.9s,mb4.3						
ESDC	**Sonseca Array**	**87.56**	**310**	P	**P**	**06 06 42.0**	**+1.0**
	comp=Z,2.4nm,0.7s,mb4.5,baz=49,slow=4.8,SNR=14						
ESDC				pP	pP	06 06 50.2	+0.5
	comp=Z,2.3nm,0.7s,baz=61,slow=4.1,SNR=6.8						
IMA	**Indian Mountai**	**89.50**	**22**	*e*P	**P**	**06 06 51.3**	**+1.6**
IMA				*e**PP	pP	06 06 59.4	+1.1
IMA				pmax	pmax		
	comp=Z,26nm,0.9s,mb5.6						
IMA	**Indian Mountai**	**89.50**	**22**	*e*P	**P**	**06 06 51.3**	**+1.6**
	comp=Z,26nm,0.9s,mb5.5						
IMA				*e*pP	pP	06 06 59.4	+1.2
SUMG	**Summit**	**90.60**	**347**	*e*P	**P**	**06 06 56.1**	**+1.4**
	comp=Z,8.4nm,0.9s,mb5.1						
SPU	**Mount Spurr**	**92.40**	**26**	*e*P	**P**	**06 07 04.1**	**+0.9**
SPU				*e*pP	pP	06 07 12.2	+0.4
RSO	**Redoubt South**	**92.43**	**27**	*e*P	**P**	**06 07 04.4**	**+1.1**
ILAR	**Eielson Array**	**92.62**	**22**	P	**P**	**06 07 03.8**	**-0.3**
	comp=Z,3.2nm,0.8s,mb4.8,baz=299,slow=4.5,SNR=6.0						
ILAR				pP	pP	06 07 12.2	-0.5
	comp=Z,9.4nm,0.8s,baz=301,slow=4.4,SNR=28						
SLKM	**Skilak Lake**	**93.51**	**26**	*e*P	**P**	**06 07 06.8**	**-1.5**
SLKM				*e*	pP	06 07 16.3	-0.6
INK	**Inuvik**	**94.54**	**15**	P	**P**	**06 07 13.2**	**+0.4**
	comp=Z,2.6nm,0.8s,mb4.7,baz=283,slow=4.0,SNR=11						
VNDA	**Vanda**	**96.44**	**168**	LR	LR	06 48 55.8	
	comp=Z,350nm,18.5s,MS4.9,baz=290,slow=34						
YKA	**Yellowknife Ar**	**103.83**	**12**	Pdiff	Pdif	06 07 55.0	+0.2
	comp=Z,0.2nm,0.8s,baz=307,slow=3.0,SNR=4.8						
YKA				pPdiff		06 08 02.8	
	comp=Z,0.8nm,0.9s,baz=332,slow=4.5,SNR=9.3						
YKA				PP	PP	06 12 11.0	-3.4
	comp=Z,0.6nm,0.8s,baz=328,slow=7.7,SNR=3.6						
LOHW	**Long Hollow**	**121.84**	**19**	*e*PKPdf	PKPdf	06 12 48.1	-2.7
SNOW	**Snow King Moun**	**121.93**	**19**	*e*PKPdf	PKPdf	06 12 49.4	-1.6
PDAR	**Pinedale Array**	**122.94**	**19**	PKhKP		06 12 40.0	
	comp=Z,0.8nm,1.1s,baz=333,slow=3.3,SNR=3.9						
PDAR				PKP	PKPdf	06 12 50.3	-2.6
	comp=Z,2.0nm,0.8s,baz=46,slow=1.6,SNR=16						
PDAR				pPKP		06 12 58.5	
	comp=Z,1.8nm,0.7s,baz=117,slow=3.3,SNR=9.7						
NVAR	**Mina Array Bea**	**123.23**	**28**	PKP	PKPdf	06 12 52.4	-1.2
	comp=Z,5.0nm,0.8s,baz=266,slow=2.8,SNR=15						
NVAR				pPKP		06 13 00.2	
	comp=Z,4.8nm,0.8s,baz=271,slow=2.3,SNR=12						
MVU	**Marysvale**	**125.78**	**23**	*e*PKPdf	PKPdf	06 12 57.2	-1.3
MVU				*e*pPKPdf		06 13 05.8	
MSU	**Marysvale**	**125.78**	**23**	*e*PKIKP	PKPdf	06 12 57.3	-1.3
NEN	**Nelson**	**127.09**	**27**	*e*PKPdf	PKPdf	06 12 59.1	-2.0
NEN				*e*pPKPdf		06 13 07.8	
ANMO	**Albuquerque**	**131.04**	**20**	PKP	PKPdf	06 13 05.7	-3.1
	comp=Z,1.7nm,0.8s,baz=300,slow=3.2,SNR=6.0						
ANMO	**Albuquerque**	**131.04**	**20**	*e*PKPdf	PKPdf	06 13 07.0	-1.8
ANMO				*e*pPKPdf		06 13 15.3	
TUC	**Tucson**	**131.71**	**26**	*e*PKIKP	PKPdf	06 13 07.9	-2.2
TUC				*e*		06 13 16.7	
MNTX	**Cornudas Mount**	**134.36**	**21**	*e*PKPdf	PKPdf	06 13 12.6	-2.5
TXAR	**Lajitas Array**	**137.12**	**20**	PKhKP		06 13 09.1	
	comp=Z,0.1nm,0.5s,baz=107,slow=1.5,SNR=3.6						
TXAR				PKP	PKPdf	06 13 18.0	-2.1
	comp=Z,2.2nm,0.8s,baz=36,slow=0.6,SNR=18						
TXAR				PP	PP	06 16 00.6	-2.7
	comp=Z,2.3nm,1.2s,baz=297,slow=2.8,SNR=4.2						
JCT	**Junction City**	**137.19**	**15**	*e*PKIKP	PKPdf	06 13 18.0	-2.3
JCT				*e*		06 13 26.3	
BDFB	**Brasilia**	**140.85**	**259**	PKP	PKPdf	06 13 25.1	-2.3
	comp=Z,2.7nm,0.6s,baz=44,slow=2.1,SNR=5.8						
TRQA	**Tornquist**	**144.40**	**217**	*e*PKPdf	PKPdf	06 13 28.7	-4.2
TRQA				*e*pPKPdf		06 13 38.2	
SDV	**Santo Domingo**	**153.71**	**318**	*e*PKPbc	PKPdf	06 13 53.3	+5.0
SDV				*e*PKPab	PKPab	06 14 05.1	-1.4
ROSC	**El Rosal**	**159.14**	**319**	PKP	PKPdf	06 13 53.8	-1.5
	comp=Z,3.2nm,0.6s,baz=268,slow=4.1,SNR=5.3						
ROSC				PKPab	PKPab	06 14 30.8	+1.0
	comp=Z,9.6nm,0.7s,baz=99,slow=7.7,SNR=9.3						
LPAZ	**La Paz**	**159.99**	**253**	PKP	PKPdf	06 13 53.5	-2.6
	comp=Z,0.8nm,0.7s,baz=8.5,slow=3.1,SNR=4.2						
LPAZ				PKPab	PKPab	06 14 33.9	+0.6
	comp=Z,12nm,1.2s,baz=96,slow=5.7,SNR=11						
LPAZ				PP	PP	06 18 19.1	+3.2
	comp=Z,1.0nm,0.7s,baz=127,slow=2.9,SNR=3.5						
OTAV	**Otavalo**	**165.30**	**319**	*e*PKPdf	PKPdf	06 13 59.1	-2.4
OTAV				*e*pPKPdf		06 14 08.5	

*IDC **31** 05:57:39.5±1.0, 10.91N×91.80E, h24^{km}±5^{km}, mb4.0/9, mb1 4.2/10, mb1mx4.0/18, mbtmp4.1/10, ML3.7/1, Error ellipse: s-maj=34.2km s-min=19.8km az=43.0*

ISC 31 05:57:37.4±1.1**, 10.9N**±0.2×**91.8E**±0.1**, h25**^{km}**, h25**^{km}±1.0^{km}**:pP-P, n11,** σ**0ˢ46**/10**, mb4.0**/9**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**10.26**	**42**	Pn	**P**	**06 00 06.6**	**+0.3**
	0.2nm,0.3s,baz=232,slow=15,SNR=2.4						
SONM	**Songino Array**	**38.86**	**16**	P	**P**	**06 05 02.2**	**-0.3**
	0.5nm,0.6s,mb3.4,baz=194,slow=5.9,SNR=3.4						
SONM				pP	pP	06 05 09.0	-0.9
	1.2nm,0.6s,baz=206,slow=8.4,SNR=3.1						
BVAR	**Borovoye Array**	**45.44**	**342**	P	**P**	**06 05 55.7**	**-0.4**
	0.8nm,0.5s,mb3.8,baz=153,slow=9.7,SNR=3.5						
WRA	**Warramunga Arr**	**51.89**	**126**	P	**P**	**06 06 46.4**	**-0.1**
	2.5nm,0.4s,mb4.5,baz=307,slow=8.2,SNR=7.7						
WRA				pP	pP	06 06 53.9	-0.2
	3.0nm,0.6s,baz=305,slow=8.4,SNR=7.1						
ASAR	**Alice Springs**	**53.61**	**130**	pP	pP	06 07 06.8	0.0
	2.2nm,0.6s,baz=303,slow=7.1,SNR=5.1						
BRTR	**Keskin Array B**	**58.73**	**310**	P	**P**	**06 07 35.1**	**-0.6**
	1.1nm,1.0s,mb3.9,baz=116,slow=6.5,SNR=4.7						
BRTR				pP	pP	06 07 43.5	0.0
	1.5nm,0.7s,baz=112,slow=7.9,SNR=5.3						
MLR	**Muntele Rosu**	**65.42**	**315**	P	**P**	**06 08 21.4**	**+1.0**
	3.5nm,0.8s,mb4.5,baz=210,slow=7.6,SNR=4.6						
FINES	**FINESS Array B**	**69.00**	**332**	P	**P**	**06 08 42.5**	**-0.1**
	4.0nm,0.9s,mb4.4,baz=124,slow=6.9,SNR=3.8						
ARCES	**ARCESS Array B**	**71.69**	**340**	P	**P**	**06 08 58.6**	**-0.3**
	3.1nm,0.9s,mb4.2,baz=82,slow=6.4,SNR=2.5						
GERES	**GERESS Array B**	**74.06**	**318**	P	**P**	**06 09 13.6**	**+0.5**
	0.6nm,0.6s,mb3.7,baz=80,slow=6.0,SNR=4.3						
NOA	**NORSAR Array B**	**76.00**	**330**	P	**P**	**06 09 24.1**	**0.0**
	1.1nm,0.7s,mb3.9,baz=90,slow=5.8,SNR=3.0						

*IDC **31** 05:58:18.6±2.8, 0.06S×123.19E, h183^{km}±25^{km}, mb4.4/7, mb1 4.4/8, mb1mx4.2/15, mbtmp5.0/8, Error ellipse: s-maj=25.3km s-min=12.5km az=80.0*

ISC 31 05:58:16.9±0.6**, 0.07S**±0.09×**123.1E**±0.2**, h183**^{km}**, n19,** σ**1ˢ10**/12**, mb4.3**/8**, Minahassa Peninsula, Sulawesi**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LUBP	**Lubang**	**14.01**	**348**	*e*P	**P**	**06 01 32.5**	**+3.8**
TGY	**Tagaytay City**	**14.25**	**351**	P	**P**	**06 01 33.7**	**+2.0**
	54nm,0.3s,baz=252,slow=0.9,SNR=6.8						
KAKA	**Kakadu**	**15.59**	**144**	*e*P	**P**	**06 01 49.6**	**+1.2**
	13nm,0.6s						
WRA	**Warramunga Arr**	**22.60**	**152**	ScP		06 10 12.9	
	2.5nm,0.9s,baz=332,slow=3.3,SNR=8.9						
WRA	**Warramunga Arr**	**22.60**	**152**	P		06 03 36.1	
	13nm,0.7s,baz=331,slow=11,SNR=5.2						
ASAR	**Alice Springs**	**25.68**	**157**	PcP	PcP	06 06 57.9	+0.1
	2.5nm,0.6s,baz=340,slow=2.2,SNR=7.5						
ASAR				ScP		06 10 21.4	
	2.1nm,0.7s,baz=329,slow=2.3,SNR=10.0						
ASAR	**Alice Springs**	**25.68**	**157**	P	pP	06 04 05.3	-3.3
	6.9nm,0.7s,baz=323,slow=8.1,SNR=3.3						
CMAR	**Chiang Mai Arr**	**30.05**	**309**	P	**P**	**06 04 12.2**	**+1.0**
	5.7nm,0.7s,mb4.4,baz=134,slow=6.9,SNR=16						
CMAR				PcP	PcP	06 07 08.9	+0.4
	2.3nm,0.8s,baz=153,slow=1.5,SNR=5.2						
CBIJ	**Chichi jima**	**32.65**	**33**	P	**P**	**06 04 32.5**	**-1.2**
	81nm,0.5s,baz=282,slow=22,SNR=5.0						
NWAO	**Narrogin (SRO)**	**33.15**	**189**	P	**P**	**06 04 37.0**	**-0.9**
	18nm,0.7s,mb4.9,baz=18,slow=8.0,SNR=11						
STKA	**Stephens Creek**	**36.14**	**153**	P	**P**	**06 05 03.5**	**+0.2**
	11nm,0.5s,mb4.8,baz=320,slow=8.4,SNR=7.7						
STKA				PcP	PcP	06 07 24.9	-0.4
	2.3nm,0.4s,baz=315,slow=5.7,SNR=3.0						
ASAJ	**Asahikawa**	**47.30**	**19**	P	**P**	**06 06 33.6**	**-0.1**
	9.2nm,0.5s,mb4.7,baz=287,slow=5.6,SNR=5.3						
SONM	**Songino Array**	**49.88**	**345**	P	**P**	**06 06 52.8**	**-0.7**
	3.8nm,0.7s,mb4.1,baz=162,slow=7.7,SNR=11						
SONM				ScP		06 11 49.7	
	0.8nm,0.8s,baz=155,slow=3.7,SNR=5.4						
SONM	**Songino Array**	**49.88**	**345**	P	pP	06 07 30.5	-4.1
	2.9nm,1.0s,baz=169,slow=6.3,SNR=3.7						
BVAR	**Borovoye Array**	**68.61**	**329**	P	**P**	**06 09 00.1**	**-1.8**
	1.2nm,0.8s,mb3.7,baz=125,slow=9.6,SNR=4.6						
VNDA	**Vanda**	**80.16**	**172**	P	**P**	**06 10 07.9**	**+0.3**
	3.3nm,0.6s,mb4.1,baz=314,slow=7.0,SNR=13						
ILAR	**Eielson Array**	**90.06**	**25**	P	**P**	**06 10 56.4**	**-0.3**
	2.2nm,0.9s,mb4.1,baz=291,slow=4.5,SNR=2.7						
TXAR	**Lajitas Array**	**126.77**	**53**	PKP	PKPdf	06 17 01.8	+2.5
	0.7nm,0.9s,baz=169,slow=1.7,SNR=3.8						
DBIC	**Dimbokro**	**127.69**	**278**	PKP	PKPdf	06 17 02.7	+1.2
	2.2nm,0.6s,baz=35,slow=2.2,SNR=6.4						

*IDC **31** 06:08:06.3±0.9, 7.20N×92.18E, mb4.2/9, mb1 4.4/10, mb1mx4.2/20, mbtmp4.2/10, ML3.8/1, MS3.9/5, Ms1 4.0/5, ms1mx3.5/27, Error ellipse: s-maj=38.7km s-min=18.5km az=50.0*

*NEIC **31** 06:08:11.8±0.8, 7.36N×92.50E, h30^{km}, mb4.8/9, Error ellipse: s-maj=29.7km s-min=10.9km az=54.0*

*BJI **31** 06:08:13.7, 7.40N×92.50E, h30^{km}, mb4.6*

ISC 31 06:08:09.0±0.6**, 7.24N**±0.09×**92.3E**±0.1**, h30**^{km}**, n27,** σ**0ˢ82**/22**, mb4.5**/19**, MS4.1**/4**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.89**	**29**	Pn	**P**	**06 11 14.1**	**+0.9**
	0.2nm,0.3s,baz=232,slow=14,SNR=12						
CMAR				LR	LR	06 17 09.6	
	comp=Z,79nm,20.4s,baz=220,slow=42						
KMI	**Kunming**	**20.40**	**28**	P	**P**	**06 12 52.5**	**+6.1**
KMI				AMB	AMB		
	comp=Z,37nm,1.0s						
LSA	**Lhasa**	**22.37**	**357**	*e*P	**P**	**06 13 08.1**	**+1.8**
	comp=Z,31nm,1.2s,mb4.6						
ENH	**Enshi**	**28.03**	**33**	P	**P**	**06 13 58.4**	**-1.4**
	comp=Z,28nm,1.3s,mb4.7						
TGY	**Tagaytay City**	**28.94**	**74**	LR	LR	06 26 39.9	
	comp=Z,344nm,18.4s,MS4.0,baz=303,slow=38						
GTA	**Gaotai**	**32.74**	**11**	P	**P**	**06 14 41.0**	**-0.4**
GTA				AMB	AMB		
	comp=Z,11nm,1.3s,mb4.6						
AAK	**Ala-Archa**	**38.60**	**339**	*e*P	**P**	**06 15 32.1**	**+0.8**
	comp=Z,36nm,1.5s,mb4.9						
JOW	**Kunigami**	**39.32**	**56**	LR	LR	06 34 19.9	
	comp=Z,445nm,18.3s,MS4.3,baz=260,slow=40						
FITZ	**Fitzroy Crossi**	**41.44**	**128**	*e*P	**P**	**06 15 55.5**	**+0.6**
	comp=Z,12nm,0.6s,mb4.7						
SONM	**Songino Array**	**42.20**	**14**	P	**P**	**06 16 01.4**	**+0.5**
	comp=Z,3.5nm,1.1s,mb3.9,baz=196,slow=9.0,SNR=10						
SONM				LR	LR	06 35 42.0	
	comp=Z,217nm,19.2s,MS4.0,baz=202,slow=39						
ZAL	**Zalesovo**	**46.96**	**354**	P	**P**	**06 16 38.5**	**-0.5**
	comp=Z,1.2nm,0.5s,mb4.1,baz=234,slow=5.0,SNR=4.8						
BVAR	**Borovoye Array**	**49.02**	**343**	P	**P**	**06 16 54.0**	**-1.1**
	comp=Z,2.3nm,0.8s,mb4.3,baz=143,slow=7.4,SNR=9.3						
BRVK	**Borovoye**	**49.09**	**343**	*e*P	**P**	**06 16 55.2**	**-0.4**
	comp=Z,7.0nm,1.0s,mb4.7						
WRA	**Warramunga Arr**	**49.40**	**124**	P	**P**	**06 16 58.2**	**-0.2**
	comp=Z,3.8nm,0.7s,mb4.5,baz=305,slow=8.6,SNR=14						
WRAB	**Tennant Creek**	**49.41**	**124**	*e*P	**P**	**06 16 58.3**	**-0.1**
	comp=Z,15nm,0.5s,mb5.3						
WB2	**Warramunga Arr**	**49.41**	**124**	*e*P	**P**	**06 16 58.5**	**0.0**
CHKZ	**Chkalovo**	**49.53**	**343**	*e*P	**P**	**06 16 58.1**	**-0.9**
	comp=Z,17nm,1.2s,mb5.0						
ASAR	**Alice Springs**	**50.93**	**128**	P	**P**	**06 17 10.2**	**+0.2**
	comp=Z,1.7nm,0.7s,mb4.1,baz=302,slow=6.9,SNR=16						
KMBO	**Kilima Mbogo**	**55.54**	**264**	LR	LR	06 36 10.0	
	comp=Z,183nm,21.2s,MS4.1,baz=92,slow=30						
ARU	**Arti**	**55.78**	**338**	*e*P	**P**	**06 17 45.1**	**-0.4**
	comp=Z,34nm,1.5s,mb5.2						
MALT	**Malatya**	**57.49**	**311**	P	**P**	**06 17 59.9**	**+1.9**
	comp=Z,1.6nm,0.5s,mb4.3						
BRTR	**Keskin Array B**	**61.47**	**311**	P	**P**	**06 18 24.9**	**-0.4**
	comp=Z,0.6nm,0.5s,mb4.0,baz=90,slow=4.3,SNR=4.6						
MLR	**Muntele Rosu**	**68.35**	**316**	P	**P**	**06 19 09.9**	**0.0**
	comp=Z,7.2nm,1.0s,mb4.7,baz=114,slow=5.5,SNR=7.2						
FINES	**FINESS Array B**	**72.42**	**333**	P	**P**	**06 19 33.3**	**-1.0**
	comp=Z,1.5nm,0.7s,mb4.1,baz=129,slow=12,SNR=4.6						
GERES	**GERESS Array B**	**77.08**	**318**	P	**P**	**06 20 01.7**	**+0.5**
	comp=Z,1.2nm,0.8s,mb3.9,baz=90,slow=4.0,SNR=7.5						
PDAR	**Pinedale Array**	**126.40**	**20**	PKP	PKPdf	06 27 12.8	-1.8
	comp=Z,2.0nm,1.0s,baz=108,slow=5.0,SNR=9.1						
TXAR	**Lajitas Array**	**140.53**	**22**	PKP	PKPdf	06 27 39.0	-2.4
	comp=Z,0.6nm,0.9s,baz=92,slow=0.5,SNR=6.7						

IDC 31 06:08:22.4±1.0**,13.58N**×**92.71E,mb4.3**/6**,mb1 4.4**/7**, mb1mx4.0**/18**,mbtmp4.2**/7**,ML3.5**/1**,Error ellipse: s-maj=47.6km s-min=20.5km az=43.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.71	50	Pn	Pn	06 10 16.0	-2.7
	0.2nm,0.3s,baz=237,slow=15,SNR=4.6						
WRA	Warramunga Arr	52.80	128	P	P	06 17 39.5	-2.6
	4.3nm,0.7s,baz=306,slow=8.4,SNR=6.2						
ASAR	Alice Springs	54.71	132	P	P	06 17 54.0	-2.0
	1.9nm,0.5s,baz=314,slow=7.3,SNR=9.4						
BRTR	Keskin Array B	57.72	309	P	P	06 18 14.7	-2.8
	1.2nm,0.6s,baz=129,slow=8.1,SNR=6.7						
FINES	FINESS Array B	67.04	331	P	P	06 19 16.8	-2.5
	4.4nm,1.0s,baz=101,slow=7.1,SNR=4.6						
ARCES	ARCESS Array B	69.45	340	P	P	06 19 32.4	-1.8
	4.4nm,0.9s,baz=90,slow=6.3,SNR=4.9						
GERES	GERESS Array B	72.68	317	P	P	06 19 53.0	-1.0
	1.3nm,0.7s,baz=76,slow=5.5,SNR=13						

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*BJI **31** 06:26:12.2,2.94N×93.71E,h43^{km},mB5.3,mb5.0,Ms4.6, Msz4.2*

*MOS **31** 06:26:13.3±1.2,3.26N×93.75E,h33^{km},mb5.1/25,Error ellipse: s-maj=14.8km s-min=7.0km az=114.5*

*NEIC **31** 06:26:14.2±0.4,3.24N×93.75E,mb4.8/24,Error ellipse: s-maj=13.6km s-min=8.8km az=214.0*

*IDC **31** 06:26:14.7±0.6,3.28N×93.76E,h27^{km}±3^{km},mb4.5/17, mb1 4.6/18,mb1mx4.5/25,mbtmp4.6/18,ML4.0/1,MS3.7/2, Ms1 3.8/2,ms1mx3.1/23,Error ellipse: s-maj=28.8km s-min=11.0km az=45.0*

*CSEM **31** 06:26:16.2,2.34N×92.36E,h33^{km},mb5.5*

ISC 31 06:26:12.5±0.3**,3.26N**±0.05×**93.77E**±0.04**,h28^{km}, h28^{km}**±.4^{km}**:pP-P,n136,**σ**1^{s}00**/134**,mb4.9**/66**,MS4.3**/5**, 3C-1D,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNG	Songkhla	7.86	60	P	Pn	06 28 08.0	+0.1
	268nm,1.0s						
PALK	Pallekele	13.61	288	ePn	P	06 29 24.9	-1.5
NST	Nakhon Sawan	13.84	27	P	P	06 29 20.0	-9.4
KKTK	Khon Kaen	15.76	34	P	P	06 29 55.0	+0.6
	247nm,0.8s						
CM31	Chiang Mai Arr	15.94	18	eP	P	06 29 54.7	-2.0
	19nm,0.8s						
CMAR	Chiang Mai Arr	15.94	18	Pn	P	06 29 55.5	-1.2
	0.2nm,0.3s,baz=214,slow=13,SNR=48						
CMAR				LR	LR	06 36 29.2	
	comp=Z,151nm,18.4s,baz=205,slow=39						
NANT	Nan	16.87	23	P	P	06 30 08.0	-0.6
VIS	Vishakhapatnam	17.65	325	eS	P	06 30 17.6	-0.7
VIS				eS		06 30 17.6	
VIS				e		06 30 18.5	
	comp=N,16nm,0.8s						
VIS				e		06 30 19.0	
	comp=E,9.9nm,0.5s						
HYB	Hyderabad	20.52	314	eP	P	06 30 50.0	-1.4
HYB	Hyderabad	20.52	314	i P	P	06 30 50.0	-1.4
SHL	Shillong	22.26	356	eP	P	06 31 09.0	0.0
KMI	Kunming	23.39	21	P	P	06 31 22.3	+2.1
KMI				AP		06 31 27.8	
KMI				AMB	AMB		
	comp=Z,18nm,1.6s,mb4.2						
KMI				AMB	AMB		
	comp=Z,157nm,3.4s						
KMI				LR	LR		
	comp=N,666nm,10.5s,MS4.5						
KMI				LR	LR		
	comp=E,473nm,10.7s,MS4.5						
KMI				LR	LR		
	comp=Z,510nm,11.3s,MS4.2						
PKI	Pulchoki	25.46	343	eP	P	06 31 40.0	-0.1
	comp=Z,25nm,0.6s,mb4.9						
DMN	Daman	25.59	342	eP	P	06 31 42.1	+0.8
	comp=Z,44nm,0.7s,mb5.1						
GUN	Gumba	25.65	344	eP	P	06 31 42.9	+1.1
	comp=Z,71nm,0.9s,mb5.2						
KKN	Kakani	25.71	342	eP	P	06 31 42.8	+0.4
	comp=Z,72nm,1.2s,mb5.1						
GKN	Gorkha	26.11	341	eP	P	06 31 46.6	+0.5
	comp=Z,49nm,0.9s,mb5.0						
GYA	Guiyang	26.18	27	P	P	06 31 46.8	+0.1
GYA				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.5						
KOLN	Koldanda	26.24	339	eP	P	06 31 47.8	+0.5
	comp=Z,70nm,1.0s,mb5.1						
LSA	Lhasa	26.42	355	eP	P	06 31 51.3	+2.4
LSA				e	pP	06 32 00.0	+3.0
LSA				pmax	pmax		
	comp=Z,108µm,0.6s						
LSA	Lhasa	26.42	355	eP	P	06 31 51.2	+2.3
	comp=Z,108nm,0.6s,mb5.6						
LSA				e	pP	06 31 60.0	+3.0
ENH	Enshi	30.71	27	eP	P	06 32 25.8	-1.8
	comp=Z,10.0nm,0.7s,mb4.8						
XAN	Xi'an	33.73	23	P	P	06 32 52.3	-1.6
XAN				AP	pP	06 33 09.5	+7.4
XAN				AMB	AMB		
	comp=Z,94nm,1.0s,mb5.7						
LZH	Lanzhou	33.97	15	eP	P	06 32 55.8	-0.2
LZH				AP	pP	06 33 04.0	-0.2
LZH				XP	sP	06 33 08.5	+0.8
LZH				AMB	AMB		
	comp=Z,30nm,1.3s,mb5.1						
MBWA	Marble Bar	35.15	135	eP	P	06 33 06.0	-0.2
	comp=Z,12nm,1.0s,mb4.8						
GTA	Gaotai	36.41	8	P	P	06 33 17.3	+0.6
GTA				AP	pP	06 33 25.3	+0.4
GTA				XP	sP	06 33 34.3	+5.9
GTA				AMB	AMB		
	comp=Z,12nm,1.2s,mb4.7						
NJ2	Nanjing	37.10	37	eP	P	06 33 24.0	+1.5
NJ2				AP	pP	06 33 32.0	+1.2
NJ2				XP	sP	06 33 36.5	+2.2
NJ2				PP	PP	06 34 53.5	+4.0
NJ2				S	S	06 39 13.0	+6.6
NJ2				XS		06 39 30.0	
NJ2				AMB	AMB		
	comp=Z,240nm,5.0s						
NJ2				LR	LR		
	comp=N,950nm,19.7s,MS4.8						
NJ2				LR	LR		
	comp=E,1µm,19.2s,MS4.8						
NJ2				LR	LR		
	comp=Z,2µm,15.0s,MS5.0						
SSE	Sheshan	37.88	40	P	P	06 33 28.3	-0.9
SSE				XP	sP	06 33 41.0	+0.1
SSE				S	S	06 39 24.3	+5.8
SSE				XS		06 39 39.5	
SSE				AMB	AMB		
	comp=Z,27nm,0.8s,mb5.0						
SSE				AMB	AMB		
	comp=Z,167nm,4.0s						
SSE				LR	LR		
	comp=N,125nm,20.4s,MS3.8						
SSE				LR	LR		
	comp=E,80nm,20.4s,MS3.8						
SSE				LR	LR		
	comp=Z,164nm,17.7s,MS3.9						
FITZ	Fitzroy Crossi	37.91	125	eP	P	06 33 29.1	-0.4
	comp=Z,8.3nm,0.8s,mb4.5						
FITZ				e	pP	06 33 37.1	-0.7
HHC	Hu-ho-hao-te	40.72	21	eP	P	06 33 53.8	+1.2
HHC				AP	pP	06 34 00.0	-0.9
HHC				AMB	AMB		
	comp=Z,15nm,0.8s,mb4.7						
HHC				AMB	AMB		
	comp=Z,333nm,5.0s						
HHC				LR	LR		
	comp=N,213nm,16.7s,MS4.4						
HHC				LR	LR		
	comp=E,390nm,14.3s,MS4.4						
HHC				LR	LR		
	comp=Z,212nm,11.9s,MS4.2						
WMQ	Urumqi	40.75	353	P	P	06 33 54.5	+1.7
WMQ				AMB	AMB		
	comp=Z,18nm,1.0s,mb4.7						
BJT	Baijiatuau	41.84	26	eP	P	06 34 03.0	+1.1
BJT				e*PP	pP	06 34 11.6	+1.4
BJI	Beijing	41.86	26	eP	P	06 34 03.3	+1.3
BJI				AMB	AMB		
	comp=Z,25nm,0.9s,mb4.8						
AAK	Ala-Archa	42.81	339	i P	P	06 34 10.1	+0.3
AAK				pmax	pmax		
	comp=Z,7.0nm,1.4s,mb4.2						
AAK	Ala-Archa	42.81	339	eP	P	06 34 09.9	+0.1
	comp=Z,9.1nm,1.3s,mb4.3						
MK02	Makanchi Array	44.47	349	P	P	06 34 24.0	+0.8
MK02				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
SONM	Songino Array	45.73	12	P	P	06 34 33.7	+0.6
	comp=Z,11nm,0.8s,mb4.9,baz=194,slow=8.5,SNR=87						
SONM				pP	pP	06 34 42.1	+0.6
	comp=Z,12nm,0.7s,baz=195,slow=8.5,SNR=19						
SONM				PcP	PcP	06 36 12.1	+0.9
	comp=Z,2.2nm,0.7s,baz=191,slow=4.1,SNR=4.3						
ULN	Ulaanbaatar	45.89	12	eP	P	06 34 34.5	0.0
ULN				e*PP	pP	06 34 43.1	+0.3
ULN				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
ULN	Ulaanbaatar	45.89	12	eP	P	06 34 34.5	0.0
	comp=Z,3.6nm,0.7s,mb4.4						
ULN				epP	pP	06 34 43.1	+0.2
WRA	Warramunga Arr	46.03	122	P	P	06 34 36.2	+0.3
	comp=Z,13nm,0.7s,mb5.0,baz=300,slow=8.8,SNR=51						
WRA				pP	pP	06 34 44.6	+0.3
	comp=Z,19nm,0.7s,baz=299,slow=8.8,SNR=25						
WRAB	Tennant Creek	46.03	122	eP	P	06 34 36.1	+0.2
WRAB				e*PP	pP	06 34 44.7	+0.4
WRAB				pmax	pmax		
	comp=Z,26nm,0.6s,mb5.3						
WRAB	Tennant Creek	46.03	122	eP	P	06 34 36.1	+0.2
	comp=Z,26nm,0.6s,mb5.3						
WRAB				epP	pP	06 34 44.6	+0.4
WB2	Warramunga Arr	46.04	122	eP	P	06 34 35.6	-0.4
WB2				e	pP	06 34 44.7	+0.4
ASPA	Alice Springs	47.36	127	eP	P	06 34 46.7	+0.3
ASPA				e	pP	06 34 54.9	+0.1
ASAR	Alice Springs	47.37	127	P	P	06 34 46.5	+0.1
	comp=Z,5.6nm,0.8s,mb4.6,baz=295,slow=8.0,SNR=46						
ASAR				pP	pP	06 34 55.0	+0.1
	comp=Z,5.1nm,0.5s,baz=294,slow=7.8,SNR=19						
ASAR				PcP	PcP	06 36 17.6	+0.3
	comp=Z,2.5nm,0.8s,baz=304,slow=3.3,SNR=6.6						
ZAK	Zakamensk	47.64	8 ⇑	iP	P	06 34 48.9	+0.6
ZAK				e	pP	06 34 56.6	-0.1
ZAK				e		06 36 18.5	
TLY	Talaya	48.96	8	eP	P	06 34 58.9	+0.5
TLY				e		06 35 12.1	
TLY				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
TLY	Talaya	48.96	8	eP	P	06 34 58.7	+0.2
	comp=Z,3.4nm,0.7s,mb4.5						
RDF	Al-Radifah	50.75	305	eP	P	06 35 13.7	+1.3
RDF				AMb	AMB	06 35 23.0	
	comp=Z,69nm,0.8s,mb5.6						
UMR	Umm Al-Rimmam	50.84	306	eP	P	06 35 12.7	-0.4
UMR				AMb	AMB	06 35 24.2	
	comp=Z,63nm,0.6s,mb5.7						
HIA	Hailar	50.91	22	eP	P	06 35 13.7	+0.3
HIA				e*PP	pP	06 35 22.3	+0.5
HIA				pmax	pmax		
	comp=Z,14nm,0.5s						
HIA	Hailar	50.91	22	eP	P	06 35 13.7	+0.3
	comp=Z,14nm,0.5s,mb5.1						
HIA				epP	pP	06 35 22.3	+0.5
NAY	Al-Naaiem	51.12	305	eP	P	06 35 16.1	+0.9
NAY				AMb	AMB	06 35 26.3	
	comp=Z,30nm,1.2s,mb5.1						
RST	Umm Al-Ruwaisa	51.41	306	eP	P	06 35 17.9	+0.4
RST				AMb	AMB	06 35 28.6	
	comp=Z,30nm,0.7s,mb5.3						
BVA0	Borovoye Array	53.23	343	i P	P	06 35 30.2	-0.6
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.8						
BVAR	Borovoye Array	53.23	343	P	P	06 35 30.2	-0.6
	comp=Z,7.3nm,0.7s,mb4.7,baz=149,slow=8.6,SNR=45						
BVAR				pP	pP	06 35 39.2	-0.1
	comp=Z,3.6nm,0.6s,baz=141,slow=9.5,SNR=7.6						
BRVK	Borovoye	53.30	343	eP	P	06 35 30.4	-0.8
BRVK				e*PP	pP	06 35 39.4	-0.3
BRVK				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
BRVK	Borovoye	53.30	343	eP	P	06 35 30.4	-0.8
	comp=Z,13nm,1.0s,mb4.8						
BRVK				epP	pP	06 35 39.4	-0.4
CHKZ	Chkalovo	53.74	343	i P	P	06 35 34.4	-0.1
CHKZ				pmax	pmax		
	comp=Z,26nm,1.5s,mb4.9						
KLR	Kul'dur	56.05	29	eP	P	06 35 48.8	-2.6
KMBO	Kilima Mbogo	56.66	267	LR	LR	06 58 15.3	
	comp=Z,95nm,19.2s,MS3.9,baz=85,slow=34						
BOD	Bodaibo	56.70	13	eP	P	06 35 54.3	-1.6
STKA	Stephens Creek	57.27	131	P	P	06 36 00.4	0.0
	comp=Z,5.8nm,0.7s,mb4.7,baz=298,slow=6.7,SNR=16						
GNI	Garni	57.45	317	eP	P	06 36 01.0	-0.5
GNI				pmax	pmax		
	comp=Z,12nm,1.0s						
GNI	Garni	57.45	317	P	P	06 36 01.8	+0.3
	comp=Z,2.2nm,0.4s,mb4.5,baz=223,slow=18,SNR=3.7						
GNI	Garni	57.45	317	eP	P	06 36 00.9	-0.5
	comp=Z,12nm,1.0s,mb4.9						
ZEI	Tsey	59.20	319	eP	P	06 36 13.5	-0.2
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
ARU	Arti	59.99	338 ⇓	iP	P	06 36 17.1	-1.8
ARU				e		06 36 58.0	
ARU				e		06 38 26.9	
ARU				eS	S	06 44 33.0	+5.2
ARU				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
KIV	Kislovodsk	60.53	320	eP	P	06 36 21.8	-0.9
KIV				pmax	pmax		
	comp=Z,5.0nm,0.4s,mb5.0						
KIV	Kislovodsk	60.53	320	eP	P	06 36 21.8	-1.0
	comp=Z,5.4nm,0.4s,mb5.0						
YSS	Yuzh-Sakhalins	60.67	36 ⇑	eP	P	06 36 23.0	-0.6
YSS				e	pP	06 36 32.0	-0.3
YSS	Yuzh-Sakhalins	60.67	36	eP	P	06 36 24.1	+0.5
	comp=Z,42nm,1.3s,mb5.4						
MALT	Malatya	61.22	312	eP	P	06 36 27.5	0.0
MALT				pmax	pmax		
	comp=Z,8.0nm,1.2s,mb4.7						
MALT	Malatya	61.22	312	eP	P	06 36 27.5	0.0
	comp=Z,8.2nm,1.2s,mb4.7						
EIL	Elat	61.46	302	P	P	06 36 30.2	+0.9
	comp=Z,5.9nm,0.8s,mb4.8,baz=81,slow=6.8,SNR=6.0						
EIL	Elat	61.46	302	eP	P	06 36 30.1	+0.8
EIL				epP	pP	06 36 38.8	+0.8
SOC	Sochi	62.31	318	eP	P	06 36 29.1	-5.7
SOC				e		06 37 20.9	
SOC				e		06 38 47.2	
SOC				ePPP	PPP	06 40 24.5	+0.9
SOC				eS	S	06 44 56.8	-0.7
SOC				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.2						
SOC				pmax	pmax		
	comp=N,17nm,1.1s						
SOC				pmax	pmax		
	comp=E,17nm,0.9s						
MBAR	Mbarara	63.11	268	i P	P	06 36 33.1	-7.4
YAK	Yakutsk	64.47	18	i P	P	06 36 47.8	-0.9
YAK				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
BRTR	Keskin Array B	65.20	313	P	P	06 36 53.1	-0.7
	comp=Z,1.9nm,0.7s,mb4.2,baz=130,slow=7.8,SNR=11						
OBN	Obninsk	69.09	329 ⇑	eP	P	06 37 16.7	-1.4
OBN				eS	S	06 46 20.8	+0.7
OBN				pmax	pmax		
	comp=Z,25nm,1.6s,mb4.9						
IDI	Anoyia	70.92	306	P	P	06 37 29.0	-0.6
	comp=Z,3.3nm,0.5s,mb4.6,baz=60,slow=16,SNR=5.5						
IDI				pP	pP	06 37 39.0	+0.7
	comp=Z,7.8nm,0.7s,baz=73,slow=11,SNR=4.1						
AKASG	Malin Array Be	71.55	323	P	P	06 37 32.2	-0.9
	comp=Z,2.5nm,0.6s,mb4.3,baz=88,slow=5.1,SNR=17						
TIXI	Tiksi	71.81	11	eP	P	06 37 33.3	-1.0
TIXI				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
MLR	Muntele Rosu	72.23	317	P	P	06 37 38.1	+0.9
	comp=Z,9.0nm,0.9s,mb4.7,baz=34,slow=3.6,SNR=12						
FINES	FINESS Array B	76.61	333	i P	P	06 38 02.0	-0.2
FINES				pmax	pmax		
	comp=Z,3.0nm,0.6s						
FINES	FINESS Array B	76.61	333	P	P	06 38 02.0	-0.2
	comp=Z,2.7nm,0.6s,mb4.4,baz=102,slow=6.5,SNR=9.7						
FINES				pP	pP	06 38 10.7	-0.2
	comp=Z,2.6nm,0.8s,baz=113,slow=5.8,SNR=2.3						
KAF	Kangasniemi	76.72	333	ep	P	06 38 00.4	-2.4
VYHS	Vyhne	77.60	319	eP	P	06 38 08.2	+0.3
VYHS				epP	pP	06 38 16.8	+0.1
OKC	Ostrava-Krasne	78.25	320	eP	P	06 38 12.3	+0.8
ZST	Bratislava	78.70	318	eP	P	06 38 15.0	+1.1
ZST				epP	pP	06 38 23.6	+0.8
ARCES	ARCESS Array B	79.46	341	P	P	06 38 18.2	+0.5
	comp=Z,13nm,1.1s,mb4.8,baz=79,slow=6.2,SNR=10.0						
DPC	Dobruska-Polom	79.49	321	eP	P	06 38 19.4	+1.2
UPC	Upice	79.71	321	eP	P	06 38 20.6	+1.2
BILL	Bilibino	80.49	21	eP	P	06 38 22.7	-0.5
BILL				pmax	pmax		
	comp=Z,13nm,1.5s,mb4.6						
PRU	Pruhonice	80.59	320	eP	P	06 38 25.0	+0.9
GEC2	GERESS Array S	81.02	319	eP	P	06 38 27.7	+1.3
GERES	GERESS Array B	81.02	319	P	P	06 38 27.7	+1.4
	comp=Z,7.5nm,0.7s,mb4.7,baz=100,slow=5.1,SNR=68						
GERES				pP	pP	06 38 35.8	+0.6
	comp=Z,3.9nm,0.7s,baz=109,slow=5.2,SNR=11						
BRG	Berggiesshubel	81.06	321	eP	P	06 38 27.8	+1.2
BRG				e	pP	06 38 37.1	+1.7
BRG				pmax	pmax		
	comp=Z,10.0nm,1.4s,mb4.5						
BRG	Berggiesshubel	81.06	321	eP	P	06 38 27.8	+1.2
	comp=Z,9.8nm,1.4s,mb4.5						
BRG				e	pP	06 38 37.1	+1.7
KHC	Kasperske Hory	81.12	319	eP	P	06 38 27.9	+1.0
WET	Wettzell	81.58	319	eP	P	06 38 30.7	+1.4
CLL	Collm	81.69	321	eP	P	06 38 31.0	+1.2
CLL	Collm	81.69	321	P	P	06 38 31.0	+1.2
HFS	Hagfors	82.24	330	P	P	06 38 32.5	0.0
	comp=Z,3.9nm,0.8s,mb4.4,baz=101,slow=7.6,SNR=5.9						
FUR	Furstenfeldbru	82.57	318	eP	P	06 38 36.0	+1.5
GRA1	Grafenberg Arr	82.70	320	eP	P	06 38 36.5	+1.4
	comp=Z,7.0nm,0.8s,mb4.7						
GRF	Grafenberg Arr	82.70	320	eP	P	06 38 36.5	+1.4
GRF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
GRF	Grafenberg Arr	82.70	320	eP	P	06 38 36.5	+1.4
GRF				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
GRF	Grafenberg Arr	82.70	320	eP	P	06 38 36.5	+1.4
	comp=Z,7.0nm,0.8s,mb4.7						
CLZ	Clausthal	83.37	322	eP	P	06 38 39.5	+1.0
DAVOX	Davos	83.45	317	P	P	06 38 40.7	+1.7
	comp=Z,17nm,0.7s,mb5.2,baz=124,slow=6.9,SNR=36						
DAVOX				pP	pP	06 38 49.3	+1.3
	comp=Z,8.9nm,0.5s,baz=127,slow=5.0,SNR=8.6						
NB2	NORSAR Subarra	83.55	331	P	P	06 38 38.6	-0.6
	comp=Z,11nm,1.2s,mb4.9,baz=95,slow=5.3						
NB2	NORSAR Subarra	83.55	331	P	P	06 38 38.6	-0.6
NB2				pmax	pmax		
	comp=Z,11nm,1.2s,mb4.9						
NOA	NORSAR Array B	83.55	331	P	P	06 38 39.3	+0.1
	comp=Z,2.8nm,0.8s,mb4.4,baz=95,slow=5.4,SNR=4.3						
PGF	Pioggiola	83.95	312	eP	P	06 38 40.3	-1.4
	comp=Z,91nm,1.5s,mb5.4						
PGF	Pioggiola	83.95	312	eP	P	06 38 40.3	-1.4
PGF				pmax	pmax		
	comp=Z,46nm,1.5s,mb5.4						
SBF	Sospel	85.11	314	eP	P	06 38 46.5	-1.0
	comp=Z,60nm,1.1s,mb5.4						
SBF	Sospel	85.11	314	eP	P	06 38 46.5	-1.0
SBF				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.4						
CDF	Champ du Feu	85.25	318	eP	P	06 38 47.2	-0.9
MBDF	Montbardon	85.59	314	eP	P	06 38 48.6	-1.2
LPG	La Plagne	85.60	315	eP	P	06 38 49.6	-0.3
	comp=Z,23nm,1.1s,mb5.0						
LPG	La Plagne	85.60	315	eP	P	06 38 49.6	-0.3
LPG				pmax	pmax		
	comp=Z,12nm,1.0s,mb5.1						
HAU	Haudompre	85.87	318	eP	P	06 38 50.8	-0.4
	comp=Z,14nm,0.9s,mb4.9						
HAU	Haudompre	85.87	318	eP	P	06 38 50.8	-0.4
HAU				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
BAIF	Baives	87.24	320	eP	P	06 38 56.8	-1.0
SSF	Saint Saulge	87.82	317	eP	P	06 39 00.1	-0.6
	comp=Z,9.6nm,1.0s,mb4.7						
SSF	Saint Saulge	87.82	317	eP	P	06 39 00.1	-0.6
SSF				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.7						
BGF	Bois d'Agland	88.29	316	eP	P	06 39 01.8	-1.1
RJF	Les Rejaudoux	89.30	315	eP	P	06 39 06.6	-1.2
FLN	La Foliniere	90.38	319	eP	P	06 39 11.3	-1.4
PDAR	Pinedale Array	129.57	22	PKP	PKPdf	06 45 21.8	-2.6
	comp=Z,0.2nm,0.7s,SNR=3.5						
TXAR	Lajitas Array	143.54	26	PKP	PKPdf	06 45 46.1	-4.2
	comp=Z,0.9nm,0.6s,baz=171,slow=1.2,SNR=18						
JCT	Junction City	144.04	20	ePKIKP	PKPdf	06 45 45.7	-5.4
NATX	Nacogdoches	144.27	12	ePKPdf	PKPdf	06 45 47.5	-4.0
HKT	Hockley	145.73	15	ePKP2	PKPab	06 45 51.8	-0.2

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*GUC **31** 06:26:16.5±0.7,37.75S×74.31W,h33^{km},ML4.5*

*IDC **31** 06:26:17.8±1.3,37.78S×73.97W,mb3.6/4,mb1 3.9/4, mb1mx3.8/13,mbtmp3.6/4,Error ellipse: s-maj=74.6km s-min=28.9km az=77.0*

*NEIC **31** 06:26:21.2±0.9,37.84S×73.54W,h30^{km},mb4.0/2, ML4.5(GUC),Error ellipse: s-maj=21.9km s-min=8.1km az=96.0*

ISC 31 06:26:21.1±0.7**,37.77S**±0.04×**73.4W**±0.1**,h33^{km},n26,** σ**1^{s}09**/23**,mb3.8**/5**,3C-3D,Near coast of central Chile**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
TMCH	Temuco	1.17	147	eP	P	06 26 43.2	+2.0
TMCH				i S	S	06 27 04.6	+8.4
TMCH				AMP		06 27 09.5	
	comp=N,5µm,0.8s						
CCHI	Chillan	1.59	43	AMP		06 27 37.2	
	comp=E,2µm,0.6s						
VLCH	Valdivia	2.04	176	AMP		06 27 38.7	
	comp=E,5µm,0.6s						
TALC	Talca	2.78	32	AMP		06 28 09.6	
	comp=N,2µm,0.7s						
OSCH	Osorno	2.81	175	i P	P	06 27 02.6	-2.1
OSCH				i S	S	06 27 37.7	-0.1
OSCH				AMP		06 28 09.8	
	comp=N,2µm,0.6s						
SFDO	San Fernando	3.71	33	i P	P	06 27 18.1	+0.7
TACH	Talagante	4.58	27 ⇑	iP	P	06 27 29.4	-0.5
LMEL	Las Melosas	4.71	35	i P	P	06 27 32.9	+1.1
ANTU	Antumapu	4.77	29 ⇑	iP	P	06 27 32.8	+0.2
PCH	Pirque	4.78	31 ⇑	iP	P	06 27 32.4	-0.2
DSCH	Colegio Aleman	4.95	29	i P	P	06 27 35.0	-0.1
ROCH	El Roble	5.18	23	i P	P	06 27 37.5	-0.8
JACH	Jahuel	5.58	25	i P	P	06 27 43.0	-0.9
TRQA	Tornquist	9.06	95	ePn	P	06 28 31.4	-1.1
LVC	Limon Verde	15.60	16	Pn	P	06 30 04.3	+4.2
	comp=N,0.1nm,0.3s,baz=156,slow=19,SNR=3.1						
LVC	Limon Verde	15.60	16	eP	P	06 29 58.6	-1.5
LPAZ	La Paz	21.91	14	P	P	06 31 14.8	+1.7
	comp=N,3.0nm,0.9s,mb3.7,baz=174,slow=8.5,SNR=8.0						
LPAZ	La Paz	21.91	14	eP	P	06 31 13.9	+0.8
	comp=N,3.5nm,0.8s,mb3.8						
OTAV	Otavalo	38.10	352	eP	P	06 33 40.0	+1.3
	comp=N,5.5nm,1.2s,mb4.2						
VNA3	Neumayer Olymp	46.34	156 ⇓	i	P	06 34 45.6	+0.4
VNA1	Neumayer--Stat	46.69	155 ⇓	i	pP	06 35 03.8	+6.0
VNA2	Neumayer--Watz	47.02	156 ⇓	i	P	06 34 47.2	-3.3
SNAA	Sanae	48.56	157	P	P	06 35 03.7	+1.2
	comp=N,0.8nm,0.7s,mb3.8,baz=273,slow=14,SNR=5.6						
TXAR	Lajitas Array	72.51	333	P	P	06 37 45.3	-1.1
	comp=N,0.3nm,0.7s,mb3.3,baz=149,slow=8.2,SNR=4.0						
PDAR	Pinedale Array	86.63	334	P	P	06 39 02.4	+0.2
	comp=N,0.4nm,0.7s,mb3.7,baz=142,slow=10,SNR=3.0						
BVAR	Borovoye Array	150.75	47	PKPbc	PKPdf	06 46 11.4	+7.9
	comp=N,2.4nm,1.0s,baz=297,slow=3.3,SNR=8.2						

MAN 31 06:26:47.3,7.99N×122.21E,h7^{km},mb3.5,ML2.2,MS1.7, Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
IPIL	Ipil	0.41	118	eP	Pg	06 26 55.5	-0.1
IPIL				eS	Sg	06 27 02.6	+1.5
PAGZ	Pagadian	1.17	97	eP	Pb	06 27 09.3	-0.3
PAGZ				eS	Sb	06 27 26.1	+1.4
SNPH	Sibulan	1.69	37	eP	Pn	06 27 18.5	+1.0

GUIM	**Jordan**	**2.65**	**8**	*e*P	Pn	06 27 30.8	-0.5
GUIM				*e*S	Sn	06 28 02.9	-1.1
BUKP	**Musuan**	**2.83**	**92**	*e*P	Pn	06 27 39.8	+6.0

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*INMG **31** 06:30:04.5±1.3,35.86N×4.70W,h83^{km}±4^{km},ML3.1,Error ellipse: s-maj=7.5km s-min=3.6km az=166.0*
*NEIC **31** 06:30:05.4,35.88N×4.69W,h82^{km},MG3.4(MDD),After MDD.*
*SFS **31** 06:30:05.0,35.88N×4.69W,ML3.5*
*LDG **31** 06:30:06.0±0.2,36.01N×4.73W,h15^{km},Ml3.4/4,Error ellipse: s-maj=4.6km s-min=2.2km az=175.0*
*CSEM **31** 06:30:07.3±0.1,36.26N×4.81W,h90^{km},ML3.2/3,Error ellipse: s-maj=3.2km s-min=1.7km az=164.0*
*IGIL **31** 06:30:09.4,36.00N×4.80W,h25^{km},ML3.2*
*CNRM **31** 06:30:09.4,35.54N×4.80W,h21^{km},MD3.2*
MDD 31 06:30:05.6±0.8,**35.92N×4.68W,h88**^{km}±7^{km},**mb3.3**/16,**9C-5D,Error ellipse: s-maj=8.3km s-min=4.5km az=175.0,PRXIMO,Strait of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
EMIJ	**Mijas**	**0.65**	**353**	⇑P	P	06 30 20.2	-1.5
	SNR=18						
EMIJ				S	S	06 30 31.6	-2.0
	216nm,0.2s,SNR=7.9						
EMIJ	**Mijas**	**0.65**	**353**	P	P	06 30 20.2	-1.5
	6.2nm,0.1s,SNR=18						
EJIF	**Jimena Fronter**	**0.83**	**310**	P	P	06 30 24.0	+0.5
	2.2nm,0.1s,SNR=4.0						
MOMI	**Momias**	**0.94**	**296**	P	P	06 30 25.4	+0.7
MOMI	**Momias**	**0.94**	**296**	*e*P	P	06 30 25.4	+0.7
LIJA	**Lijar**	**1.15**	**330**	⇑P	P	06 30 27.8	+0.5
LIJA				S	S	06 30 43.0	-0.4
LIJA	**Lijar**	**1.15**	**330**	*i* P	P	06 30 27.8	+0.5
LIJA				*e*S	S	06 30 43.0	-0.4
CNIL	**Conil**	**1.20**	**293**	⇑P	P	06 30 28.0	0.0
CNIL				S	S	06 30 42.2	-2.4
CNIL	**Conil**	**1.20**	**293**	*i* P	P	06 30 28.0	0.0
CNIL				*e*S	S	06 30 42.2	-2.4
ELOJ	**Sierra Loja**	**1.30**	**19**	P	P	06 30 29.3	+0.1
	3.1nm,0.2s,SNR=8.5						
ELOJ				S	S	06 30 47.5	+0.8
	16nm,0.4s						
ERON	**Agron**	**1.31**	**32**	P	P	06 30 28.2	-1.1
ERON				S	S	06 30 45.8	-1.0
ERON	**Agron**	**1.31**	**32**	P	P	06 30 28.2	-1.1
	1.7nm,0.1s,SNR=7.9						
ERON				S	S	06 30 45.8	-1.0
	18nm,0.3s,SNR=7.9						
ESPR	**Espera**	**1.34**	**315**	P	P	06 30 29.1	-0.7
	16nm,0.2s,SNR=42						
ESPR				S	S	06 30 45.5	-2.2
	35nm,0.1s,SNR=7.9						
ESPR	**Espera**	**1.34**	**315**	P	P	06 30 29.1	-0.7
	16nm,0.2s,SNR=42						
ESPR				S	S	06 30 45.5	-2.2
	35nm,0.1s,SNR=7.9						
GIBL	**Gibalbin**	**1.38**	**312**	P	P	06 30 30.0	-0.3
GIBL				S	S	06 30 47.3	-1.2
GIBL	**Gibalbin**	**1.38**	**312**	*e*P	P	06 30 30.0	-0.3
GIBL				*e*S	S	06 30 47.3	-1.2
EMEL	**Melilla**	**1.53**	**113**	S	S	06 30 48.2	-3.5
	109nm,0.2s,SNR=7.9						
ELUQ	**Luque**	**1.67**	**11**	⇓P	P	06 30 33.6	-0.4
	18nm,0.2s,SNR=18						
ELUQ				S	S	06 30 54.8	-0.1
	116nm,0.2s,SNR=7.9						
EBER	**Berja**	**1.74**	**55**	P	P	06 30 33.3	-1.6
	2.2nm,0.2s,SNR=11						
EBER				S	S	06 30 54.1	-2.3
	16nm,0.2s						
EADA	**Adamuz**	**2.25**	**2**	⇓P	P	06 30 40.6	-1.2
EADA				S	S	06 31 06.2	-2.3
EADA	**Adamuz**	**2.25**	**2**	⇓P	P	06 30 40.6	-1.2
	27nm,0.1s,SNR=18						
EADA				S	S	06 31 06.2	-2.3
	51nm,0.1s						
EADA	**Adamuz**	**2.25**	**2**	P	P	06 30 40.6	-1.2
	27nm,0.1s,SNR=18						
EADA				S	S	06 31 06.2	-2.3
	51nm,0.1s						
EQES	**Quesada**	**2.28**	**34**	⇓P	P	06 30 41.5	-0.7
	7.8nm,0.2s,SNR=18						
EQES				S	S	06 31 08.1	-1.3
	42nm,0.2s						
EQES	**Quesada**	**2.28**	**34**	P	P	06 30 41.5	-0.7
	7.8nm,0.2s,SNR=18						
EQES				S	S	06 31 08.1	-1.3
	42nm,0.2s						
EBAN	**Banos Encina**	**2.35**	**17**	P	P	06 30 41.9	-1.3
	64nm,0.1s,SNR=53						
EBAN				S	S	06 31 08.2	-3.0
	22nm,0.1s						
EMIN	**Mina Concepcio**	**2.44**	**320**	⇑P	P	06 30 42.4	-2.0
	4.5nm,0.2s,SNR=18						
EMIN				S	S	06 31 09.6	-3.8
	68nm,0.1s,SNR=7.9						
EMIN	**Mina Concepcio**	**2.44**	**320**	P	P	06 30 42.4	-2.1
	4.5nm,0.2s,SNR=18						
EMIN				S	S	06 31 09.6	-3.8
	68nm,0.1s,SNR=7.9						
PALC	**Alcoutim**	**2.73**	**305**	*i* P	P	06 30 45.9	-2.5
PALC				*e*S	S	06 31 16.2	-4.3
	86nm,0.2s						
PALC	**Alcoutim**	**2.73**	**305**	⇑P	P	06 30 45.9	-2.5
PALC				S	S	06 31 16.2	-4.3
PALC	**Alcoutim**	**2.73**	**305**	⇑P	P	06 30 45.9	-2.5
PALC				⇑P		06 30 45.9	
PALC				S	S	06 31 16.2	-4.3
PALC				S	S	06 31 16.2	-4.3
	43nm,0.2s						
PALC	**Alcoutim**	**2.73**	**305**	P	P	06 30 45.9	-2.5
PALC				*e*S	S	06 31 16.2	-4.3
	86nm,0.2s						
EGRO	**El Granado**	**2.77**	**306**	⇑P	P	06 30 46.5	-2.6
EGRO				S	S	06 31 17.1	-4.5
EGRO	**El Granado**	**2.77**	**306**	⇑P	P	06 30 46.5	-2.6
	19nm,0.1s,SNR=18						
EGRO				S	S	06 31 17.1	-4.5
	89nm,0.1s,SNR=7.9						
EGRO	**El Granado**	**2.77**	**306**	P	P	06 30 46.5	-2.5
	19nm,0.1s,SNR=18						
EGRO				S	S	06 31 17.1	-4.5
	89nm,0.1s,SNR=7.9						
EVIA	**Vianos**	**3.22**	**32**	P	P	06 30 53.4	-1.9
	5.4nm,0.1s,SNR=15						
EVIA				S	S	06 31 28.6	-4.1
	24nm,0.3s						
PBEJ	**Beja**	**3.31**	**310**	*e*P	P	06 30 53.8	-2.7
PBEJ				*e*S	S	06 31 30.0	-4.9
	41nm,0.2s						
PBEJ	**Beja**	**3.31**	**310**	*e*P	P	06 30 53.8	-2.7
PBEJ				*e*S	S	06 31 30.0	-4.9
	41nm,0.2s						
EBAD	**Badajoz**	**3.39**	**327**	P	P	06 30 55.4	-2.2
	8.9nm,0.1s,SNR=42						
EBAD				S	S	06 31 32.3	-4.6
	84nm,0.2s,SNR=7.9						
EBAD	**Badajoz**	**3.39**	**327**	P	P	06 30 55.4	-2.2
	8.9nm,0.1s,SNR=42						
EBAD				S	S	06 31 32.3	-4.6
	84nm,0.2s,SNR=7.9						
PTEO	**Sao Teotonio**	**3.63**	**298**	*e*P	P	06 30 58.4	-2.6
PTEO				*e*S	S	06 31 38.1	-4.8
	40nm,0.3s						
PTEO	**Sao Teotonio**	**3.63**	**298**	P	P	06 30 58.4	-2.5
PTEO				S	S	06 31 37.6	-5.3
PTEO	**Sao Teotonio**	**3.63**	**298**	*e*P	P	06 30 58.4	-2.6
PTEO				*e*S	S	06 31 38.1	-4.8
	40nm,0.3s						
EVO	**Evora**	**3.73**	**315**	*e*Pn	P	06 31 00.7	-1.5
EVO				*e*Sn	S	06 31 41.2	-4.0
	49nm,0.2s						
ESDC	**Sonseca Array**	**3.79**	**8**	P	P	06 31 00.8	-2.4
	4.4nm,0.1s,baz=194,slow=13,SNR=18						
ESDC				S	S	06 31 41.6	-5.2
	7.4nm,0.1s,baz=186,slow=23,SNR=7.9						
ESDC	**Sonseca Array**	**3.79**	**8**	P	P	06 31 00.8	-2.4
	4.4nm,0.1s,SNR=18						
MOE	**Montemor**	**3.92**	**313**	*e*P	P	06 31 03.8	-1.1
MOE				*e*S	S	06 31 44.4	-5.6
MOE	**Montemor**	**3.92**	**313**	P	P	06 31 03.2	-1.6
MOE				S	S	06 31 44.4	-5.5
MOE	**Montemor**	**3.92**	**313**	P	P	06 31 03.2	-1.7
MOE				*e*S	S	06 31 44.4	-5.6
PCBR	**Castelo Branco**	**4.50**	**331**	*i* P	P	06 31 10.2	-2.7
PCBR				*e*S	S	06 31 57.8	-6.6
	17nm,0.2s						
PCBR	**Castelo Branco**	**4.50**	**331**	⇓P	P	06 31 10.2	-2.7
PCBR				S	S	06 31 57.8	-6.6
PCBR	**Castelo Branco**	**4.50**	**331**	P	P	06 31 10.2	-2.7
PCBR				*e*S	S	06 31 57.8	-6.6
	17nm,0.2s						
LIS	**Lisbon**	**4.53**	**309**	*e*P	P	06 31 13.0	-0.3
LIS				AML	AML	06 31 15.9	
	comp=N,45nm,0.3s						
LIS				*e*S	S	06 31 59.4	-5.7
LIS				*e*S	S	06 31 59.4	-5.7
LIS	**Lisbon**	**4.53**	**309**	*e*P	P	06 31 13.0	-0.3
LIS				*e*S	S	06 31 59.4	-5.7
PLOU	**Loures**	**4.63**	**311**	*e*P	P	06 31 12.7	-2.0
PLOU				*e*S	S	06 32 02.2	-5.5
	comp=N,23nm,0.1s						
PLOU	**Loures**	**4.63**	**311**	P	P	06 31 12.7	-2.0
PLOU				S	S	06 32 00.7	-7.0
PLOU	**Loures**	**4.63**	**311**	P	P	06 31 12.7	-2.0
PLOU				S	S	06 32 02.2	-5.5
	comp=N,12nm,0.1s						
PLOU	**Loures**	**4.63**	**311**	*e*P	P	06 31 12.7	-2.0
PLOU				*e*S	S	06 32 02.2	-5.5
	comp=N,23nm,0.1s						
PTOM	**Tomar**	**4.73**	**322**	*e*P	P	06 31 14.4	-1.7
PTOM				*e*S	S	06 32 04.0	-6.2
	comp=N,31nm,0.1s						
PTOM	**Tomar**	**4.73**	**322**	P	P	06 31 13.0	-3.1
PTOM				S	S	06 32 03.5	-6.6
PTOM	**Tomar**	**4.73**	**322**	P	P	06 31 14.4	-1.7
PTOM				S	S	06 32 03.5	-6.6
PTOM	**Tomar**	**4.73**	**322**	P	P	06 31 13.0	-3.1
PTOM				S	S	06 32 03.5	-6.7
GUD	**Guadarrama**	**4.74**	**5**	P	P	06 31 13.7	-2.4
	comp=N,1.4nm,0.2s,SNR=15						
GUD				S	S	06 32 04.5	-5.8
	comp=N,2.6nm,0.2s,SNR=8.4						
MTE	**Manteigas**	**5.01**	**334**	*e*P	P	06 31 17.8	-2.1
MTE				*e*S	S	06 32 10.0	-7.1
	comp=N,19nm,0.5s						
MTE	**Manteigas**	**5.01**	**334**	P	P	06 31 17.2	-2.8
MTE				S	S	06 32 09.9	-7.2
MTE	**Manteigas**	**5.01**	**334**	P	P	06 31 17.2	-2.7
MTE				*e*S	S	06 32 10.0	-7.1
	comp=N,19nm,0.5s						
PVIS	**Viseu**	**5.42**	**333**	*e*P	P	06 31 22.5	-2.9
PVIS				*e*S	S	06 32 20.2	-6.9
	comp=N,22nm,0.1s						
PVIS	**Viseu**	**5.42**	**333**	P	P	06 31 22.5	-2.9
PVIS				S	S	06 32 20.2	-6.9
EMOS	**Mosqueruela**	**5.54**	**35**	P	P	06 31 25.3	-1.9
	comp=N,0.5nm,0.2s,SNR=8.7						
EMOS				S	S	06 32 23.2	-7.0
	comp=N,2.3nm,0.2s,SNR=9.2						
EMOS	**Mosqueruela**	**5.54**	**35**	P	P	06 31 25.3	-1.8
	comp=N,0.5nm,0.2s,SNR=8.7						
EMOS				S	S	06 32 23.2	-6.9
	comp=N,2.3nm,0.2s,SNR=9.2						
PVRL	**Vila Real**	**5.86**	**337**	*e*P	P	06 31 29.4	-2.0
PVRL				*e*S	S	06 32 30.9	-7.0
	comp=N,49nm,0.1s						
PVRL	**Vila Real**	**5.86**	**337**	P	P	06 31 29.2	-2.3
PVRL				S	S	06 32 30.2	-7.7
PVRL	**Vila Real**	**5.86**	**337**	P	P	06 31 29.2	-2.2
PVRL				S	S	06 32 30.2	-7.7
PBRG	**Braganca**	**6.10**	**345**	*e*P	P	06 31 32.3	-2.5
PBRG				*e*S	S	06 32 35.9	-7.9
	comp=N,3.6nm,0.1s						
PBRG	**Braganca**	**6.10**	**345**	P	P	06 31 32.3	-2.5
PBRG				S	S	06 32 35.9	-7.9
ECAL	**Calabor**	**6.23**	**346**	P	P	06 31 34.5	-2.1
	comp=N,2.1nm,0.2s,SNR=11						
ECAL				S	S	06 32 39.8	-7.3
	comp=N,4.4nm,0.2s,SNR=6.5						
ECAL	**Calabor**	**6.23**	**346**	P	P	06 31 34.5	-2.1
	comp=N,2.1nm,0.2s,SNR=11						
ECAL				S	S	06 32 39.8	-7.2
	comp=N,4.4nm,0.2s,SNR=6.5						
ERTA	**Horta de San J**	**6.39**	**36**	S	S	06 32 44.9	-6.1
	comp=N,1.4nm,0.2s,SNR=7.9						
ELOB	**Lobios**	**6.50**	**337**	P	P	06 31 38.2	-2.3
	comp=N,1.4nm,0.3s,SNR=8.6						
ELOB				S	S	06 32 46.6	-7.1
	comp=N,8.7nm,0.3s,SNR=8.9						
ELOB	**Lobios**	**6.50**	**337**	P	P	06 31 38.2	-2.2
	comp=N,1.4nm,0.3s,SNR=8.6						
ELOB				S	S	06 32 46.6	-7.2
	comp=N,8.7nm,0.3s,SNR=8.9						
ESAC	**San Caprasio**	**6.66**	**28**	S	S	06 32 53.5	-4.2
	comp=N,5.5nm,0.2s,SNR=4.0						
ESAC	**San Caprasio**	**6.66**	**28**	S	S	06 32 53.5	-4.2
	comp=N,5.5nm,0.2s,SNR=4.0						
EZAM	**Zamans**	**6.96**	**335**	S	S	06 32 55.8	-9.4
	comp=N,2.2nm,0.2s,SNR=7.9						
EINC	**Incio**	**7.05**	**344**	P	P	06 31 45.9	-2.1
	comp=N,0.6nm,0.2s,SNR=4.8						
EINC				S	S	06 32 59.4	-7.7
	comp=N,0.8nm,0.1s						
EINC	**Incio**	**7.05**	**344**	P	P	06 31 45.9	-2.1
	comp=N,0.6nm,0.2s,SNR=4.8						
EINC				S	S	06 32 59.4	-7.7
	comp=N,0.8nm,0.1s						
ELAN	**Lanestosa**	**7.37**	**7**	P	P	06 31 51.1	-1.3
	comp=N,1.5nm,0.2s,SNR=11						
ELAN	**Lanestosa**	**7.37**	**7**	P	P	06 31 51.1	-1.3
	comp=N,1.5nm,0.2s,SNR=11						
EARI	**Arriondas**	**7.39**	**357**	P	P	06 31 51.4	-1.3
	comp=N,0.5nm,0.2s,SNR=7.9						
EARI				S	S	06 33 07.4	-8.1
	comp=N,0.5nm,0.2s,SNR=5.8						
EARI	**Arriondas**	**7.39**	**357**	P	P	06 31 51.4	-1.3
	comp=N,0.5nm,0.2s,SNR=7.9						
EARI				S	S	06 33 07.4	-8.1
	comp=N,0.5nm,0.2s,SNR=5.8						
EPON	**Pontenova**	**7.64**	**346**	P	P	06 31 54.0	-2.1
	comp=N,0.6nm,0.2s,SNR=7.9						
EPON				S	S	06 33 12.9	-9.0
	comp=N,0.7nm,0.1s,SNR=7.5						
EPON	**Pontenova**	**7.64**	**346**	P	P	06 31 54.0	-2.1
	comp=N,0.6nm,0.2s,SNR=7.9						
EPON				S	S	06 33 12.9	-8.9
	comp=N,0.7nm,0.1s,SNR=7.5						
ETSF	**Etsaut**	**7.67**	**23**	*e*Pn	P	06 31 54.2	-2.3
ETSF				*e*Sn	S	06 33 12.5	-10
	comp=N,3.4nm,0.4s						
ETSF	**Etsaut**	**7.67**	**23**	*e*Sn	S	06 33 12.5	-10
	comp=N,1.7nm,0.4s						
SJPF	**Ste Jean**	**7.67**	**19**	*e*Pn	P	06 31 53.9	-2.6
SJPF				*e*Sn	S	06 33 13.4	-9.0
	comp=N,2.2nm,0.3s						
EALK	**Alkurruntz**	**7.69**	**18**	P	P	06 31 56.3	-0.5
	comp=N,3.5nm,0.3s,SNR=25						
EALK				S	S	06 33 15.5	-7.6
	comp=N,8.8nm,0.4s						
EALK	**Alkurruntz**	**7.69**	**18**	S	S	06 33 15.5	-7.6
	comp=N,8.8nm,0.4s						
EBIE	**Bielsa**	**7.72**	**27**	P	P	06 31 55.8	-1.5
	comp=N,0.4nm,0.1s,SNR=4.0						
EBIE				S	S	06 33 16.4	-7.4
	comp=N,1.1nm,0.4s,SNR=7.9						
EBIE	**Bielsa**	**7.72**	**27**	P	P	06 31 55.8	-1.4
	comp=N,0.4nm,0.1s,SNR=4.0						
EMAZ	**Mazaricos**	**7.77**	**336**	S	S	06 33 15.2	-10
	comp=N,1.0nm,0.3s,SNR=7.9						
EPF	**Esparros**	**8.09**	**27**	*e*Pn	P	06 31 59.6	-2.7
EPF				*e*Sn	S	06 33 24.1	-8.8
	comp=N,2.2nm,0.3s						
LFF	**La Frestale**	**9.91**	**23**	*e*Pn	P	06 32 25.0	-1.9
CAF	**Calviac**	**10.36**	**28**	*e*Pn	P	06 32 28.7	-4.2
RJF	**Les Rejaudoux**	**10.49**	**25**	*e*Pn	P	06 32 30.3	-4.3
MFF	**Saint Martin d**	**11.21**	**16**	*e*Pn	P	06 32 41.1	-3.1
BGF	**Bois d'Agland**	**12.04**	**26**	*e*Pn	P	06 32 52.4	-2.9
QUIF	**Quistinic**	**12.04**	**5**	*e*Pn	P	06 32 52.7	-2.7
SGMF	**Saint Gilles**	**12.43**	**7**	*e*Pn	P	06 32 57.5	-3.0
ROSF	**Rostrenen**	**12.46**	**4**	*e*Pn	P	06 32 59.2	-1.7
GRR	**Gorron**	**12.78**	**12**	*e*Pn	P	06 33 03.6	-1.6
FLN	**La Foliniere**	**13.20**	**12**	*e*Pn	P	06 33 09.0	-1.7

IDC 31 06:41:03.8±10.0,**13.23N×91.76E,mb3.9**/2,**mb1 4.0**/3,**mb1mx3.5**/18,**mbtmp3.7**/3,**ML3.5**/1,**Error ellipse: s-maj=227.1km s-min=49.0km az=111.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.65**	**52**	Pn	P	06 43 09.9	-3.2
	0.1nm,0.3s,baz=238,slow=17,SNR=4.0						
WRA	**Warramunga Arr**	**53.31**	**127**	P	P	06 50 24.3	-2.9
	0.7nm,0.4s,baz=300,slow=10.0,SNR=6.5						
ASAR	**Alice Springs**	**55.16**	**131**	P	P	06 50 39.1	-1.7
	0.7nm,0.5s,baz=308,slow=6.9,SNR=19						

CASC 31 06:58:12.3±2.7,**13.77N×91.59W,h23**^{km}±15^{km},**MD3.9,ML3.7,7C-1D,Near coast of Guatemala**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JAT	**Jato**	**0.55**	**355**	⇑*e*P	Pb	06 58 23.1	-0.2
JAT				*e*S	Sb	06 58 31.9	+1.2
JAT				AML	AML	06 58 32.5	
	comp=N,7µm,0.2s						
IXG	**Ixpaco**	**1.18**	**70**	⇑*e*P	Pn	06 58 32.2	-1.3
IXG				*e*S	Sb	06 58 50.3	+1.6
IXG				AML	AML	06 58 52.5	
	comp=E,2µm,0.5s						
NBG	**Las Nubes**	**1.46**	**56**	⇓*e*P	Pn	06 58 36.8	-0.8
NBG				*e*S	Sn	06 58 56.9	+0.7
NBG				AML	AML	06 58 59.9	
	comp=E,891nm,0.4s						
RBDL	**Robledal**	**1.88**	**79**	⇑*e*P	Pn	06 58 43.5	-0.1
RTR	**El Retiro**	**1.89**	**86**	⇑*e*P	Pn	06 58 43.9	+0.1
RTR				*e*S	Sn	06 59 10.8	+3.5
SBLS	**San Blas**	**1.91**	**88**	⇑*e*P	Pn	06 58 44.0	-0.2
SBLS				*e*S	Sn	06 59 08.9	+1.2
SNJE	**San Jose**	**1.93**	**87**	⇑*e*P	Pn	06 58 44.4	0.0
SNJE				*e*S	Sn	06 59 09.5	+1.3
BOQS	**Boqueron**	**2.25**	**90**	⇑*e*P	Pn	06 58 48.9	0.0
BOQS				*e*S	Sn	06 59 17.2	+1.0
LFRS	**El Faro**	**2.46**	**93**	*e*P	Pn	06 58 51.5	-0.5
LFRS				*e*S	Sn	06 59 21.3	-0.3
LCBS	**La Ceiba**	**2.54**	**92**	*e*P	Pn	06 58 52.1	-1.0
SNVI	**San Vicente**	**2.68**	**93**	*e*P	Pn	06 58 54.8	-0.3
SNVI				*e*S	Sn	06 59 25.7	-1.4

IDC 31 06:59:05.8±15.0,**10.85N×92.41E,mb3.5**/3,**mb1 3.7**/3,**mb1mx3.5**/16,**mbtmp3.5**/3,**Error ellipse: s-maj=510.2km s-min=33.6km az=74.0,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**38.70**	**15**	P	P	07 06 31.5	-1.7
	0.3nm,0.5s,baz=203,slow=9.4,SNR=4.6						
WRA	**Warramunga Arr**	**51.38**	**126**	P	P	07 08 12.9	-1.8
	0.4nm,0.5s,baz=306,slow=8.7,SNR=3.9						
ASAR	**Alice Springs**	**53.13**	**131**	P	P	07 08 25.4	-2.5
	0.4nm,0.6s,baz=310,slow=7.0,SNR=6.5						

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*MDD **31** 07:00:59.9±0.4,43.28N×2.93E,h10^{km}±1^{km},mbLg2.0/18,Error ellipse: s-maj=2.9km s-min=2.2km az=125.0,PRXIMO*
*STR **31** 07:01:00.4±0.3,43.25N×2.90E,h10^{km}±1^{km},Ml2.7,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*
*NEIC **31** 07:01:00.4,43.25N×2.90E,h10^{km},ML2.7(STR),ML2.6(LDG),MN2.3(MDD),After STR.*
*CSEM **31** 07:01:00.0±0.1,43.28N×2.93E,h10^{km},ML2.6/18,Error ellipse: s-maj=1.1km s-min=0.8km az=118.0*
LDG 31 07:00:59.8±0.1,**43.27N×2.95E,h7**^{km},**Md2.6**/2,**Ml2.6**/22,**Error ellipse: s-maj=1.1km s-min=0.8km az=128.0,France**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LRDF	**Laroque-de-Fa**	**0.45**	**222**	Pg	Pg	07 01 08.7	-0.1
LRDF				Sg	Sg	07 01 14.9	0.0
LRDF	**Laroque-de-Fa**	**0.45**	**222**	Pg	Pg	07 01 08.7	-0.1
LRDF				Lg		07 01 14.2	
MTLF	**Montolieu**	**0.54**	**278**	*e*Pg	Pg	07 01 09.9	-0.7
MTLF				*e*Sg	Sg	07 01 16.6	-1.2
	20nm,0.2s						
FILF	**Fillols**	**0.77**	**202**	Pg	Pg	07 01 15.2	+0.1
FILF				Pg	Pg	07 01 15.2	+0.1
FILF				Sg	Sg	07 01 25.7	+0.3
FILF				Sg	Sg	07 01 26.1	+0.7
FILF	**Fillols**	**0.77**	**202**	Pg	Pg	07 01 15.2	+0.1
FILF				Sg	Sg	07 01 25.7	+0.3
FILF				Sg	Sg	07 01 26.1	+0.7
FILF	**Fillols**	**0.77**	**202**	Pg	Pg	07 01 15.2	+0.1
FILF				Lg		07 01 25.4	
FILF	**Fillols**	**0.77**	**202**	Pg	Pg	07 01 15.2	+0.1
FILF				Sg	Sg	07 01 25.7	+0.3
SJAF	**Saint Jean de**	**0.79**	**184**	Pg	Pg	07 01 14.8	-0.8
SJAF				Sg	Sg	07 01 25.3	-0.8
SJAF	**Saint Jean de**	**0.79**	**184**	Pg	Pg	07 01 14.8	-0.8
SJAF				Lg		07 01 25.4	
EJON	**La Jonquera**	**0.82**	**183**	Pg	Pg	07 01 15.4	-0.9
	4.5nm,0.1s,SNR=37						
EJON				Lg		07 01 26.3	
	13nm,0.1s,SNR=22						
EJON	**La Jonquera**	**0.82**	**183**	Pg	Pg	07 01 15.4	-0.9
	4.5nm,0.1s,SNR=37						
CARF	**Carcanieres**	**0.83**	**228**	Pg	Pg	07 01 15.6	-0.8
CARF				Sg	Sg	07 01 26.7	-0.8
CARF	**Carcanieres**	**0.83**	**228**	Pg	Pg	07 01 15.8	-0.6
CARF				Lg		07 01 26.3	
LASF	**Ste Croix**	**1.04**	**39**	*e*Pn	Pn	07 01 18.3	-2.4
LASF				*e*Pg	Pg	07 01 20.1	-0.5
LASF				*e*Sg	Sg	07 01 32.4	-2.1
	34nm,0.2s						
LASF	**Ste Croix**	**1.04**	**39**	*e*Pg	Pg	07 01 20.1	-0.5
LASF				*e*Sg	Sg	07 01 32.4	-2.1
	17nm,0.2s						
CLLI	**Llivia**	**1.07**	**222**	Pg	Pg	07 01 19.9	-1.2
CLLI				Lg		07 01 33.6	
	17nm,0.1s						
VALF	**Valcebollere**	**1.11**	**219**	Lg		07 01 34.7	
GRBF	**Gourbit**	**1.12**	**248**	Pg	Pg	07 01 20.8	-1.4
GRBF				Pg	Pg	07 01 20.9	-1.3
CBRU	**Bruguera**	**1.14**	**210**	Pg	Pg	07 01 20.4	-2.1
CBRU				Lg		07 01 35.5	
	21nm,0.2s						
PAND	**Andorre**	**1.27**	**234**	Lg		07 01 39.7	
SALF	**Salau**	**1.39**	**249**	Pg	Pg	07 01 25.5	-2.0
SALF				Sg	Sg	07 01 43.9	-2.1
SALF	**Salau**	**1.39**	**249**	Pg	Pg	07 01 25.5	-2.0
SALF				Lg		07 01 43.7	
CFON	**Fontmartina**	**1.56**	**194**	Pg	Pg	07 01 28.3	-2.6
CFON				Lg		07 01 48.3	
	5.1nm,0.1s						
CORG	**Organya**	**1.59**	**230**	Lg		07 01 50.1	
	1.6nm,0.1s						
CSOR	**Sort**	**1.61**	**237**	Pg	Pg	07 01 29.7	-2.2
CSOR				Lg		07 01 50.3	
	4.2nm,0.1s						
EMIR	**Miracle**	**1.71**	**218**	Pn	Pn	07 01 31.9	+1.6
	0.5nm,0.1s,SNR=7.9						
EMIR				Sn	Sn	07 01 55.1	+2.4
	4.0nm,0.1s,SNR=6.5						
EMIR	**Miracle**	**1.71**	**218**	Pn	Pn	07 01 31.9	+1.6
	0.5nm,0.1s,SNR=7.9						
CAF	**Calviac**	**1.77**	**339**	*e*Pn	Pn	07 01 29.4	-1.8
CAF				*e*Pg	Pg	07 01 32.5	-2.7
CAF				*e*Sn	Sn	07 01 50.2	-4.0
CAF				*e*Sg	Sg	07 01 55.3	-3.5
	11nm,0.2s						
CAF	**Calviac**	**1.77**	**339**	*e*Pg	Pg	07 01 32.5	-2.7
CAF				*e*Sn	Sn	07 01 50.2	-4.0
CAF				*e*Sg	Sg	07 01 55.3	-3.5
	5.5nm,0.2s						
EPF	**Esparros**	**1.92**	**264**	*e*Pn	Pn	07 01 30.7	-2.6
EPF				*e*Pg	Pg	07 01 35.1	-3.1
EPF				*e*Sg	Sg	07 01 58.9	-5.0
	8.1nm,0.2s						
EPF	**Esparros**	**1.92**	**264**	*e*Pg	Pg	07 01 35.1	-3.1
EPF				*e*Sg	Sg	07 01 58.9	-5.0
	4.1nm,0.2s						
VIVF	**Saint-Julien-l**	**2.01**	**38**	*e*Pn	Pn	07 01 32.5	-2.1
VIVF				*e*Pg	Pg	07 01 37.2	-2.8
VIVF				*e*Sg	Sg	07 02 02.2	-4.7
	12nm,0.2s						

VIVF	Saint-Julien-l	2.01	38	ePg	Pg	07 01 37.2	-2.8
VIVF				eSg	Sg	07 02 02.2	-4.7
	6.0nm,0.2s						
SMRF	Simiane la Rot	2.03	69	ePn	Pn	07 01 32.4	-2.5
SMRF				ePg	Pg	07 01 38.0	-2.4
SMRF				eSg	Sg	07 02 03.8	-3.7
	5.7nm,0.4s						
SMRF	Simiane la Rot	2.03	69	ePg	Pg	07 01 38.0	-2.4
SMRF				eSg	Sg	07 02 03.8	-3.7
	2.8nm,0.4s						
EBIE	Bielsa	2.14	255	Pn	Pn	07 01 37.1	+0.6
EBIE				Sn	Sn	07 02 05.7	+2.2
EBIE	Bielsa	2.14	255	Pn	Pn	07 01 37.1	+0.6
	0.2nm,0.1s,SNR=7.9						
EBIE				Sn	Sn	07 02 05.7	+2.2
	1.3nm,0.2s,SNR=7.9						
EBIE	Bielsa	2.14	255	Pn	Pn	07 01 37.1	+0.7
	0.2nm,0.1s,SNR=7.9						
RJF	Les Rejaudoux	2.28	334	ePn	Pn	07 01 35.7	-2.7
RJF				ePg	Pg	07 01 42.0	-3.3
RJF				eSn	Sn	07 02 02.0	-5.0
RJF				eSg	Sg	07 02 11.1	-4.6
	12nm,0.2s						
RJF	Les Rejaudoux	2.28	334	ePg	Pg	07 01 42.0	-3.3
RJF				eSn	Sn	07 02 02.0	-5.0
RJF				eSg	Sg	07 02 11.1	-4.6
	5.9nm,0.2s						
LFF	La Frestale	2.30	317	ePn	Pn	07 01 36.1	-2.7
LFF				ePg	Pg	07 01 42.2	-3.6
LFF				eSn	Sn	07 02 02.6	-5.1
LFF				eSg	Sg	07 02 11.8	-4.7
	14nm,0.2s						
LFF	La Frestale	2.30	317	ePg	Pg	07 01 42.2	-3.6
LFF				eSn	Sn	07 02 02.6	-5.1
LFF				eSg	Sg	07 02 11.8	-4.7
	7.2nm,0.2s						
EPOB	Poblet	2.37	217	Pg	Pg	07 01 45.0	-2.1
	0.3nm,0.1s,SNR=4.0						
EPOB				Sn	Sn	07 02 11.6	+2.3
	3.5nm,0.2s,SNR=8.2						
EPOB	Poblet	2.37	217	Pg	Pg	07 01 45.0	-2.1
	0.3nm,0.1s,SNR=4.0						
ETSF	Etsaut	2.60	263	ePn	Pn	07 01 40.1	-2.8
ETSF				ePg	Pg	07 01 48.1	-3.5
ETSF				eSn	Sn	07 02 10.1	-5.0
ETSF				eSg	Sg	07 02 21.6	-4.7
	2.1nm,0.3s						
ETSF	Etsaut	2.60	263	eSn	Sn	07 02 10.1	-5.0
ETSF	Etsaut	2.60	263	ePg	Pg	07 01 48.1	-3.5
ETSF				eSg	Sg	07 02 21.6	-4.7
	1.0nm,0.3s						
LMR	La Mourre	2.60	87	ePn	Pn	07 01 40.2	-2.8
LMR				ePg	Pg	07 01 48.0	-3.7
LMR				eSn	Sn	07 02 10.7	-4.5
LMR				eSg	Sg	07 02 20.4	-6.0
	3.1nm,0.3s						
LMR	La Mourre	2.60	87	ePg	Pg	07 01 48.0	-3.7
LMR				eSn	Sn	07 02 10.7	-4.5
LMR				eSg	Sg	07 02 20.4	-6.0
	1.5nm,0.3s						
FRF	La Foret Royal	2.71	83	ePn	Pn	07 01 41.6	-3.0
ESAC	San Caprasio	2.96	240	Lg		07 02 34.3	
	13nm,0.2s,SNR=7.9						
ERTA	Horta de San J	3.02	221	Lg		07 02 34.3	
	1.8nm,0.3s,SNR=7.9						
SJPF	Ste Jean	3.06	268	ePn	Pn	07 01 46.7	-2.8
SJPF				ePg	Pg	07 01 56.7	-4.1
SJPF				eSg	Sg	07 02 36.4	-5.2
	2.4nm,0.4s						
SJPF	Ste Jean	3.06	268	ePg	Pg	07 01 56.7	-4.1
SJPF	Ste Jean	3.06	268	eSg	Sg	07 02 36.4	-5.2
	1.2nm,0.4s						
TCF	Toulx Ste Croi	3.06	350	ePn	Pn	07 01 47.3	-2.3
TCF				ePg	Pg	07 01 56.9	-4.0
TCF				eSg	Sg	07 02 36.5	-5.3
	2.5nm,0.2s						
TCF	Toulx Ste Croi	3.06	350	ePg	Pg	07 01 56.9	-4.0
TCF	Toulx Ste Croi	3.06	350	eSg	Sg	07 02 36.5	-5.3
	1.2nm,0.2s						
BGF	Bois d'Agland	3.29	359	ePn	Pn	07 01 50.1	-2.7
BGF				ePg	Pg	07 02 01.1	-4.3
BGF				eSg	Sg	07 02 42.2	-7.0
	6.8nm,0.3s						
BGF	Bois d'Agland	3.29	359	ePg	Pg	07 02 01.1	-4.3
BGF				eSg	Sg	07 02 42.2	-7.0
	3.4nm,0.3s						
SBF	Sospel	3.31	78	ePn	Pn	07 01 50.4	-2.8
SMF	Signal de Mont	3.43	10	ePg	Pg	07 02 03.9	-4.4
SMF				eSg	Sg	07 02 46.9	-7.2
	2.6nm,0.2s						
LPG	La Plagne	3.52	49	ePn	Pn	07 01 53.2	-2.9
LPG				eSg	Sg	07 02 49.8	-7.2
	0.7nm,0.3s						
LPG	La Plagne	3.52	49	eSg	Sg	07 02 49.8	-7.2
	0.3nm,0.3s						
LPL	La Plagne	3.52	49	ePn	Pn	07 01 53.5	-2.6
LPL				eSg	Sg	07 02 49.1	-7.9
	1.3nm,0.4s						
LPL	La Plagne	3.52	49	eSg	Sg	07 02 49.1	-7.9
	0.6nm,0.4s						
AVF	Avril sur Loir	3.53	5	ePg	Pg	07 02 05.1	-5.2
AVF				eSg	Sg	07 02 48.3	-9.1
	2.6nm,0.4s						
SSF	Saint Saulge	3.81	6	ePn	Pn	07 01 57.0	-3.2
SSF				ePg	Pg	07 02 11.0	-4.9
SSF				eSg	Sg	07 02 58.8	-7.9
	1.7nm,0.4s						
SSF	Saint Saulge	3.81	6	ePg	Pg	07 02 11.0	-4.9
SSF				eSg	Sg	07 02 58.8	-7.9
	0.9nm,0.4s						
MFF	Saint Martin d	3.99	328	eSn	Sn	07 02 43.1	-7.3
MFF				eSg	Sg	07 03 03.7	-8.9
	2.2nm,0.3s						
CABF	La Chapelle	4.01	33	ePg	Pg	07 02 14.2	-5.8
CABF				eSg	Sg	07 03 04.1	-9.4
	4.9nm,0.4s						
PGF	Pioggiola	4.50	97	ePn	Pn	07 02 05.1	-5.0
PGF				eSn	Sn	07 02 56.1	-7.3
	4.2nm,0.5s						
GRR	Gorron	5.77	334	ePn	Pn	07 02 23.8	-4.1
GRR				eSg	Sg	07 04 00.2	-12
	1.1nm,0.3s						
FLN	La Foliniere	5.99	338	ePn	Pn	07 02 26.7	-4.3
SGMF	Saint Gilles	6.30	324	ePn	Pn	07 02 31.3	-4.1
ROSF	Rostrenen	6.67	322	ePn	Pn	07 02 36.6	-4.1

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*IDC **31** 07:10:24.9±5.6, 8.75S×125.17E, mb3.9/1, mb1 4.0/3, mb1mx3.7/12, mbtmp3.9/3, ML3.5/2, Error ellipse: s-maj=169.2km s-min=59.6km az=64.0*

ISC 31 07:10:24.6±3.2**, 8.6S**±0.2×**125.1E**±0.1**, h20**km±41km**, n7, σ1§25**/13**, mb3.6**/1**, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
KAKA	Kakadu	8.22	120	eP	P	07 12 26.4	+0.6
	24nm,1.2s						
KAKA				eS	Sn	07 13 59.3	+0.2
FITZ	Fitzroy Crossi	9.48	177	eP	P	07 12 43.5	+0.4
	13nm,1.4s						
FITZ				eS	Sn	07 14 30.0	-0.2
WRA	Warramunga Arr	14.38	143	Pn	P	07 13 46.6	-2.7
	0.4nm,0.3s,baz=318,slow=13,SNR=6.1						
WRA				Sn	S	07 16 24.7	-4.4
	0.1nm,0.3s,baz=333,slow=22,SNR=3.0						
WB2	Warramunga Arr	14.39	143	eP	P	07 13 46.9	-2.5
WB2				eS	S	07 16 24.4	-4.9
ASPA	Alice Springs	17.19	152	eP	P	07 14 27.5	+2.1
ASPA				eS	S	07 17 33.6	-0.9
ASAR	Alice Springs	17.19	152	P	P	07 14 26.1	+0.8
	0.2nm,0.3s,baz=320,slow=11,SNR=17						
ASAR				S	S	07 17 35.5	+1.0
	0.2nm,0.3s,baz=312,slow=20,SNR=6.5						
STKA	Stephens Creek	27.77	149	P	P	07 16 14.0	-0.3
	0.9nm,0.5s,mb3.6,baz=325,slow=14,SNR=3.4						

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*IDC **31** 07:17:56.9±14.0, 57.61S×26.71W, h142km±114km, mb3.7/3, mb1 3.8/3, mb1mx3.3/12, mbtmp4.1/3, Error ellipse: s-maj=124.9km s-min=22.9km az=70.0*

ISC 31 07:17:50.9±1.7**, 57.6S**±0.3×**2 7W**± **, h100**km**, n8, σ0§05**/5**, mb4.0**/3**, South Sandwich Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VNA3	Neumayer Olymp	15.43	159		P	07 21 23.5	-0.1
VNA2	Neumayer--Watz	15.64	156		P	07 21 26.3	+0.1
BDFB	Brasilia	44.87	330	P	P	07 25 56.7	0.0
	1.3nm,0.6s,mb3.8,baz=144,slow=4.6,SNR=3.7						
VNDA	Vanda	45.04	183	P	P	07 25 57.4	0.0
	1.7nm,0.7s,mb3.9,baz=157,slow=4.0,SNR=9.6						
LPAZ	La Paz	51.54	306	P	P	07 26 48.4	0.0
	1.7nm,0.5s,mb4.4,baz=166,slow=4.0,SNR=16						
YKA	Yellowknife Ar	137.53	317	PKP	PKPdf	07 37 01.6	0.0
	1.3nm,0.9s,baz=128,slow=2.2,SNR=13						
INK	Inuvik	147.19	319	PKPbc	PKPdf	07 37 21.0	+2.8
	2.6nm,0.6s,baz=104,slow=2.6,SNR=16						
ILAR	Eielson Array	151.37	309	PKPbc	PKPdf	07 37 31.6	+6.8
	2.0nm,0.6s,baz=133,slow=2.3,SNR=28						

IDC 31 07:21:03.8±7.7**, 12.73N**×**93.84E, mb3.5**/2**, mb1 3.6**/3**, mb1mx3.3**/18**, mbtmp3.4**/3**, ML3.5**/1**, Error ellipse: s-maj=167.7km s-min=44.9km az=100.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.52	40	Pn	Pn	07 22 54.0	-3.5
	0.2nm,0.3s,baz=233,slow=14,SNR=4.7						
CMAR				Sn	Sn	07 24 12.7	-12
	0.3nm,0.3s,baz=240,slow=27,SNR=4.7						
WRA	Warramunga Arr	51.41	129	P	P	07 30 11.0	-1.9
	0.6nm,0.7s,baz=302,slow=9.6,SNR=3.0						
ASAR	Alice Springs	53.32	133	P	P	07 30 25.1	-2.2
	0.3nm,0.7s,baz=310,slow=6.8,SNR=4.9						

IDC 31 07:23:06.6±14.0**, 9.92N**×**92.59E, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.6**/16**, mbtmp3.7**/3**, Error ellipse: s-maj=489.8km s-min=32.5km az=74.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	39.55	15	P	P	07 30 39.4	-1.6
	0.8nm,0.9s,baz=200,slow=7.8,SNR=5.3						
WRA	Warramunga Arr	50.69	126	P	P	07 32 08.6	-1.7
	1.0nm,0.4s,baz=307,slow=8.3,SNR=6.3						
ASAR	Alice Springs	52.39	130	P	P	07 32 20.6	-2.6
	0.6nm,0.7s,baz=308,slow=6.7,SNR=7.5						

IDC 31 07:25:10.1±4.7**, 9.73N**×**93.02E, mb3.7**/2**, mb1 3.9**/3**, mb1mx3.5**/17**, mbtmp3.6**/3**, ML3.9**/1**, Error ellipse: s-maj=115.2km s-min=43.9km az=89.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.40	33	Pn	P	07 27 39.8	-3.9
	0.3nm,0.3s,baz=232,slow=15,SNR=4.1						
WRA	Warramunga Arr	50.24	126	P	P	07 34 08.2	-2.1
	0.3nm,0.5s,baz=304,slow=8.8,SNR=6.0						
ASAR	Alice Springs	51.95	130	P	P	07 34 21.0	-2.3
	0.7nm,0.7s,baz=293,slow=7.2,SNR=6.6						
TXAR	Lajitas Array	137.96	22	PKP	PKPdf	07 44 38.9	-0.4
	0.1nm,0.4s,baz=336,slow=1.7,SNR=4.4						

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*MOS **31** 07:26:33.6±1.5, 4.40N×95.20E, h33km, mb5.1/36, Error ellipse: s-maj=12.6km s-min=6.3km az=118.8*

*BJI **31** 07:26:34.4, 4.13N×95.25E, h57km, mB5.3, mb5.0, Ms4.5, Msz4.3*

*NEIC **31** 07:26:37.2±0.2, 4.32N×95.19E, mb4.9/35, Error ellipse: s-maj=9.8km s-min=5.8km az=48.0*

*IDC **31** 07:26:37.9±0.5, 4.46N×95.26E, h49km±4km, mb4.3/18, mb1 4.4/19, mb1mx4.4/22, mbtmp4.6/19, MS4.2/10, Ms1 4.2/10, ms1mx3.9/29, Error ellipse: s-maj=21.7km s-min=10.4km az=48.0*

*HRVD **31** 07:26:37.2±0.7, 4.20N×95.31E, h15km±1km, MW5.1/40, Centroid moment Tensor Solution. LP body waves: s13,c15;Mantle waves: s40,c60; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}0.02±.15; $M_{\theta\theta}$-0.33±.10; $M_{\phi\phi}$0.30±.14; $M_{r\theta}$5.05±.75; $M_{\theta\phi}$0.35±.08; $M_{\phi r}$-3.83±.53; Best double couple: $M_0$6.35×10^{16} NP1:ϕ_s245°,δ2°,λ28°. NP2:ϕ_s127°,δ89°,λ92°. Principal axes: T 6.14, Plg46°, Azm39°; N .41, Plg2°, Azm307°; P -6.55, Plg44°, Azm215°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 31 07:26:35.6±0.3**, 4.32N**±0.04×**95.21E**±0.04**, h49**km**, h49**km±1.6km**:pP-P, n182, σ1§17**/180**, mb4.9**/74**, MS4.4**/17**, 6C-4D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.08	62	P	P	07 28 06.0	+0.8
	460nm,1.0s						
NST	Nakhon Sawan	12.28	23	P	P	07 29 29.6	-0.7
KKTK	Khon Kaen	14.09	32	P	P	07 30 02.0	+7.7
	432nm,0.9s						
CM31	Chiang Mai Arr	14.52	14	ePn	P	07 30 01.5	+1.6
	76nm,0.9s						
CMAR	Chiang Mai Arr	14.52	14	P	P	07 30 00.3	+0.4
	0.0nm,0.3s,baz=210,slow=9.9,SNR=13						
CMAR				LR	LR	07 36 22.5	
	comp=Z,655nm,18.1s,baz=200,slow=41						
NANT	Nan	15.36	20	P	P	07 30 12.0	+1.2
HYB	Hyderabad	20.88	310	eP	P	07 31 16.0	0.0
HYB	Hyderabad	20.88	310	i P	P	07 31 16.0	0.0
SHL	Shillong	21.37	352	eP	P	07 31 17.0	-3.9
KMI	Kunming	21.92	19	P	P	07 31 28.0	+1.6
KMI				PP	PP	07 31 55.3	+2.4
KMI				S	S	07 35 28.8	+8.5
KMI				XS		07 35 43.3	
KMI				AMB	AMB		
	comp=Z,49nm,1.1s,mb4.8						
KMI				AMB	AMB		
	comp=Z,167nm,3.6s						
KMI				LR	LR		
	comp=N,941nm,15.4s,MS4.4						
KMI				LR	LR		
	comp=E,664nm,17.3s,MS4.4						
KMI				LR	LR		
	comp=Z,939nm,15.4s,MS4.3						
GYA	Guiyang	24.59	25⇑	iP	P	07 31 53.0	+0.4
GYA				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.1						
PKI	Pulchoki	24.94	339	eP	P	07 31 56.7	+0.7
	comp=Z,40nm,0.7s,mb5.1						
DMN	Daman	25.09	338	eP	P	07 31 57.7	+0.4
	comp=Z,34nm,0.6s,mb5.0						
GUN	Gumba	25.09	340	eP	P	07 31 58.2	+0.8
	comp=Z,114nm,0.7s,mb5.5						
KKN	Kakani	25.19	339	eP	P	07 31 58.6	+0.3
	comp=Z,52nm,0.7s,mb5.2						
BHPL	Bhopal	25.48	319	eP	P	07 32 02.2	+1.2
BHPL				AMb	AMB	07 32 06.3	
	comp=Z,34nm,1.2s,mb4.8						
LSA	Lhasa	25.54	352	eP	P	07 32 01.8	+0.3
LSA				pmax	pmax		
	comp=Z,25nm,0.6s,mb4.9						
LSA	Lhasa	25.54	352	eP	P	07 32 01.8	+0.3
	comp=Z,25nm,0.6s,mb4.9						
GKN	Gorkha	25.61	338	eP	P	07 32 02.6	+0.3
	comp=Z,71nm,0.4s,mb5.5						
KOLN	Koldanda	25.81	336	eP	P	07 32 04.2	+0.1
	comp=Z,72nm,0.7s,mb5.3						
TGY	Tagaytay City	27.16	67	LR	LR	07 43 23.5	
	comp=Z,301nm,18.1s,MS3.9,baz=238,slow=37						
LGTI	Lohaghat	28.73	332	eP	P	07 32 31.0	+0.3
ENH	Enshi	29.12	26	eP	P	07 32 32.4	-1.8
	comp=Z,9.9nm,0.7s,mb4.7						
DDI	Dehra Dun	30.52	330	eP	P	07 32 47.6	+1.0
WHN	Wuhan	31.73	33	⇑P	P	07 32 56.8	-0.4
LZH	Lanzhou	32.60	13	eP	P	07 33 03.0	-1.8
LZH				AP	pP	07 33 14.3	-3.4
LZH				XP	sP	07 33 20.8	-3.1
LZH				AMB	AMB		
	comp=Z,27nm,1.2s,mb5.0						
LZH				AMB	AMB		
	comp=Z,162nm,4.9s						
LZH				LR	LR		
	comp=E,402nm,12.1s						
LZH				LR	LR		
	comp=Z,787nm,14.2s,MS4.6						
MBWA	Marble Bar	34.92	137	eP	P	07 33 24.5	-0.3
	comp=Z,26nm,1.2s,mb5.0						
GTA	Gaotai	35.18	6	P	P	07 33 26.0	-0.9
GTA				AP	pP	07 33 37.3	-2.7
GTA				AMB	AMB		
	comp=Z,11nm,0.9s,mb4.8						
GTA				AMB	AMB		
	comp=Z,92nm,9.9s						
GTA				LR	LR		
	comp=N,296nm,19.0s						
GTA				LR	LR		
	comp=E,334nm,12.9s						
GTA				LR	LR		
	comp=Z,309nm,25.1s						
NJ2	Nanjing	35.39	36	eP	P	07 33 29.5	+0.7
NJ2				AP	pP	07 33 39.0	-2.9
NJ2				XP	sP	07 33 43.0	-5.1
NJ2				PP	PP	07 34 46.5	-3.0
NJ2				S	S	07 38 54.0	-5.1
NJ2				AMB	AMB		
	comp=Z,50nm,6.8s						
NJ2				LR	LR		
	comp=N,950nm,14.7s,MS4.9						
NJ2				LR	LR		
	comp=E,770nm,10.6s,MS4.9						
NJ2				LR	LR		
	comp=Z,830nm,16.7s						
SSE	Sheshan	36.15	40	P	P	07 33 30.8	-4.5
SSE				S	S	07 39 06.8	-4.0
SSE				AMB	AMB		
	comp=Z,54nm,0.7s,mb5.6						
SSE				AMB	AMB		
	comp=Z,263nm,4.4s						
SSE				LR	LR		
	comp=N,70nm,19.4s,MS3.9						
SSE				LR	LR		
	comp=E,177nm,19.3s,MS3.9						
SSE				LR	LR		
	comp=Z,242nm,16.5s,MS4.0						
FITZ	Fitzroy Crossi	37.37	127⇑	iP	P	07 33 45.0	-0.6
	comp=Z,21nm,0.6s,mb5.1						
KSH	Kashi	39.13	336	P	P	07 34 01.3	+1.3
HHC	Hu-ho-hao-te	39.23	20	eP	P	07 34 01.5	+0.6
HHC				S	S	07 39 49.5	-8.1
HHC				AMB	AMB		
	comp=Z,27nm,1.2s,mb4.8						
HHC				AMB	AMB		
	comp=Z,148nm,4.0s						
HHC				LR	LR		
	comp=N,917nm,16.7s						
HHC				LR	LR		
	comp=E,287nm,10.7s						
HHC				LR	LR		
	comp=Z,833nm,17.8s,MS4.6						
WMQ	Urumqi	39.90	352	eP	P	07 34 05.5	-0.8
BJT	Baijiatuau	40.27	25	eP	P	07 34 10.7	+1.2
BJT				e	pP	07 34 20.7	-2.0
BJT				e	pP	07 34 28.3	+5.6
BJT				pmax	pmax		
	comp=Z,122nm,1.3s						
BJT	Baijiatuau	40.27	25	eP	P	07 34 10.7	+1.2
	comp=Z,122nm,1.3s,mb5.5						
BJT				e	pP	07 34 20.7	-1.9
BJT				e	pP	07 34 28.3	+5.6
BJI	Beijing	40.29	25	eP	P	07 34 10.5	+0.9
BJI				AMB	AMB		
	comp=Z,67nm,1.0s,mb5.3						
BJI				LR	LR		
	comp=N,297nm,15.8s,MS4.5						
BJI				LR	LR		
	comp=E,423nm,14.2s,MS4.5						
BJI				LR	LR		
	comp=Z,321nm,28.4s						
ULHL	Ulahol	41.38	339	P	P	07 34 19.6	+1.0
	SNR=21						
UCH	Uchtor	42.02	337	P	P	07 34 25.4	+1.5
	SNR=40						
TKM2	Tokmak 2	42.20	338	P	P	07 34 26.5	+1.1
	SNR=21						
KBK	Karagaybulak	42.22	338	P	P	07 34 26.7	+1.2
	SNR=8.8						
AML	Almayashu	42.26	336	P	P	07 34 27.6	+1.7
	SNR=38						
AAK	Ala-Archa	42.37	337	P	P	07 34 28.8	+2.0
	SNR=25						
AAK	Ala-Archa	42.37	337c	iP	P	07 34 27.0	+0.2
AAK				pmax	pmax		
	comp=Z,72nm,1.7s,mb5.0						
AAK	Ala-Archa	42.37	337	eP	P	07 34 26.8	0.0
	comp=Z,83nm,1.4s,mb5.2						
FRU	Bishkek	42.49	337	eP	P	07 34 29.0	+1.2
FRU				e	pP	07 34 46.0	+5.0
FRU				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.2						
NWAO	Narrogin (SRO)	42.52	152	eP	P	07 34 27.8	-0.4
NWAO				pmax	pmax		
	comp=Z,12nm,0.9s						
NWAO	Narrogin (SRO)	42.52	152	P	P	07 34 29.3	+1.1
	comp=Z,12nm,0.7s,mb4.8,baz=338,slow=6.6,SNR=5.1						
NWAO	Narrogin (SRO)	42.52	152	eP	P	07 34 27.8	-0.4
	comp=Z,12nm,0.9s,mb4.6						
CHMS	Chumysh	42.58	338	P	P	07 34 28.7	+0.1
	SNR=13						
EKS2	Erkin-Say	42.67	337	P	P	07 34 30.8	+1.5
	SNR=21						
USP	Ospenovka	42.91	338	P	P	07 34 32.1	+0.9
	SNR=53						
SONM	Songino Array	44.41	11	P	P	07 34 42.7	-0.6
	comp=Z,5.7nm,1.0s,mb4.3,baz=190,slow=8.3,SNR=22						
SONM				pP	pP	07 34 55.3	-1.2
	comp=Z,2.6nm,0.8s,baz=191,slow=8.4,SNR=5.5						
SONM				PcP	PcP	07 36 27.1	+0.3
	comp=Z,2.5nm,0.8s,baz=193,slow=4.1,SNR=5.9						
SONM				LR	LR	07 55 01.6	
	comp=Z,420nm,20.0s,MS4.4,baz=187,slow=38						
ULN	Ulaanbaatar	44.56	11	i P	P	07 34 43.3	-1.2
WRA	Warramunga Arr	45.38	123	P	P	07 34 52.0	+0.6
	comp=Z,30nm,0.7s,mb5.2,baz=302,slow=9.1,SNR=105						
WRAB	Tennant Creek	45.39	123	eP	P	07 34 52.0	+0.5
WRAB				pmax	pmax		
	comp=Z,52nm,0.8s,mb5.4						
WRAB	Tennant Creek	45.39	123	eP	P	07 34 52.0	+0.5
	comp=Z,52nm,0.8s,mb5.4						
WB2	Warramunga Arr	45.39	123⇓	iP	P	07 34 51.9	+0.4
ZAK	Zakamensk	46.41	7	eP	P	07 34 57.8	-1.3
ZAK				e		07 36 43.7	
ASPA	Alice Springs	46.86	128	eP	P	07 35 03.5	+0.5
ASAR	Alice Springs	46.86	128	P	P	07 35 03.1	+0.1
	comp=Z,15nm,0.5s,mb5.2,baz=298,slow=8.0,SNR=149						
ASAR				pP	pP	07 35 17.1	+0.7
	comp=Z,40nm,0.8s,baz=298,slow=8.3,SNR=11						
ASAR				LR	LR	07 54 15.2	
	comp=Z,150nm,20.9s,MS3.9,baz=301,slow=35						
CN2	Changchun	47.52	30	eP	P	07 35 07.5	-0.4
CN2				AMB	AMB		
	comp=Z,30nm,0.7s,mb5.4						
TLY	Talaya	47.73	7	eP	P	07 35 08.7	-0.8
TLY				e	pP	07 35 25.4	+2.6
TLY				e		07 45 17.0	
TLY				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
TLY				MLR	MLR		
	comp=Z,415nm,24.0s,MS4.3						
TLY	Talaya	47.73	7	eP	P	07 35 08.8	-0.7
	comp=Z,3.9nm,0.9s,mb4.4						
HIA	Hailar	49.40	21	eP	P	07 35 22.2	-0.2
HIA				e*PP	pP	07 35 34.1	-1.7
HIA				pmax	pmax		
	comp=Z,15nm,0.8s						
HIA	Hailar	49.40	21	eP	P	07 35 22.2	-0.2
	comp=Z,14nm,0.8s,mb5.1						
HIA				epP	pP	07 35 34.1	-1.7
MDJ	Mudanjiang	50.20	32	P	P	07 35 28.5	-0.1
MDJ				AMB	AMB		
	comp=Z,13nm,0.9s,mb5.0						
MDJ	Mudanjiang	50.20	32	eP	P	07 35 28.6	0.0
NVS	Novosibirsk	51.30	351	i P	P	07 35 33.5	-3.3
NVS				eS	S	07 42 48.4	-2.2
NVS				i PS	PS	07 42 59.9	-7.1
NVS				e		07 45 17.1	
NVS				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
NVS				smax			
	comp=N,11nm,1.8s						
NVS				smax			
	comp=E,24nm,1.8s						

BVAR	Borovoye Array	52.67	341	P	P	07 35 46.2	-0.9
	comp=E,18nm,0.6s,mb5.2,baz=145,slow=10,SNR=94						
BVAR				pP	pP	07 36 00.9	+0.3
	comp=E,20nm,0.8s,baz=155,slow=9.2,SNR=9.2						
BRVK	Borovoye	52.74	341	*e*P	P	07 35 46.7	-0.9
BRVK				pmax	pmax		
	comp=Z,18nm,0.6s,mb5.2						
BRVK	Borovoye	52.74	341	*e*P	P	07 35 46.7	-1.0
	comp=Z,18nm,0.6s,mb5.2						
CHKZ	Chkalovo	53.16	342	*e*P	P	07 35 50.1	-0.7
CHKZ				*e*	pP	07 36 05.1	+0.8
CHKZ				pmax	pmax		
	comp=Z,78nm,0.9s,mb5.6						
CHKZ	Chkalovo	53.16	342	*e*P	P	07 35 50.1	-0.7
	comp=Z,78nm,0.9s,mb5.6						
CHKZ				*e*	pP	07 36 05.1	+0.7
PMG	Port Moresby	53.54	105	*e*P	P	07 35 53.6	-0.5
PMG				pmax	pmax		
	comp=Z,16nm,0.8s						
PMG	Port Moresby	53.54	105	P	P	07 35 54.0	-0.1
	comp=Z,16nm,0.9s,mb4.9,baz=302,slow=9.5,SNR=4.6						
PMG	Port Moresby	53.54	105	*e*P	P	07 35 53.6	-0.5
	comp=Z,16nm,0.8s,mb5.0						
KLR	Kul'dur	54.43	29	*e*P	P	07 35 56.8	-3.4
KLR				pmax	pmax		
	comp=N,20nm,1.2s						
KLR				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.2						
KLR				MLR	MLR		
	comp=Z,1µm,13.0s,MS5.2						
BOD	Bodaibo	55.36	12	*e*P	P	07 36 02.9	-3.9
CTA	Charters Tower	55.69	118	P	P	07 36 10.2	+0.5
	comp=Z,8.6nm,0.8s,mb4.8,baz=281,slow=7.6,SNR=5.7						
CTAO	Charters Tower	55.69	118	P	P	07 36 10.0	+0.3
CTAO				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.2						
CTAO	Charters Tower	55.69	118	P	P	07 36 09.9	+0.3
	comp=Z,32nm,1.2s,mb5.2						
STKA	Stephens Creek	56.91	133	*e*P	P	07 36 18.0	-0.3
	comp=Z,11nm,0.8s,mb4.9						
STKA	Stephens Creek	56.91	133	P	P	07 36 18.1	-0.3
	comp=Z,4.9nm,0.8s,mb4.6,baz=311,slow=7.4,SNR=10						
STKA				LR	LR	07 59 13.8	
	comp=Z,132nm,20.9s,MS4.0,baz=208,slow=34						
STKA	Stephens Creek	56.91	133	*e*P	P	07 36 17.9	-0.4
STKA				*e*sP	sP	07 36 35.4	-2.4
ASAJ	Asahikawa	57.44	39	LR	LR	08 00 37.4	
	comp=Z,297nm,19.5s,MS4.4,baz=262,slow=36						
GNI	Garni	57.68	316	*i* P	P	07 36 26.8	+3.2
GNI				pmax	pmax		
	comp=Z,4.0nm,0.8s						
KMBO	Kilima Mbogo	58.16	266	P	P	07 36 28.2	+0.9
	comp=Z,2.3nm,0.9s,mb4.2,baz=51,slow=23,SNR=3.8						
KMBO				pP	pP	07 36 43.1	+2.0
	comp=Z,9.8nm,1.0s,baz=43,slow=7.5,SNR=9.3						
KMBO				LR	LR	07 56 43.6	
	comp=Z,196nm,21.8s,MS4.2,baz=91,slow=31						
YSS	Yuzh-Sakhalins	58.96	36⇓	*e*P	P	07 36 32.0	-0.4
YSS				*e*		07 36 39.2	
YSS				*e*	pP	07 36 47.0	+0.8
ZEI	Tsey	59.36	318	*e*P	P	07 36 34.3	-0.9
ZEI				pmax	pmax		
	comp=Z,4.0nm,1.0s,mb4.4						
ARU	Arti	59.56	337⇓	*i*P	P	07 36 33.5	-2.9
ARU				*e*		07 37 18.9	
ARU				*e*		07 38 41.5	
ARU				*e*S	S	07 44 40.5	-0.3
ARU				*e*SS	SS	07 48 33.8	-4.3
ARU				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
KIV	Kislovodsk	60.66	319	*i* P	P	07 36 43.4	-0.8
KIV				*e*	pP	07 36 57.6	-0.4
KIV				pmax	pmax		
	comp=Z,19nm,1.7s,mb5.0						
KIV	Kislovodsk	60.66	319	*e*P	P	07 36 42.9	-1.3
	comp=Z,7.8nm,0.9s,mb4.8						
GOF	Gofitskoye	60.91	320	*e*P	P	07 36 44.0	-1.8
MALT	Malatya	61.58	312	P	P	07 36 49.2	-1.2
MALT				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.7						
MALT	Malatya	61.58	312	P	P	07 36 49.2	-1.3
	comp=Z,6.0nm,1.0s,mb4.7						
EIL	Elat	62.13	301	*e*P	P	07 36 53.8	-0.5
	comp=Z,2.9nm,0.7s,mb4.5						
SOC	Sochi	62.49	318	*e*P	P	07 36 49.5	-6.9
SOC				*e*		07 39 07.2	
SOC				*e*S	S	07 45 13.0	-5.3
SOC				*e*SS	SS	07 49 29.4	+4.7
SOC				*e*SSS	SSS	07 52 04.4	-4.1
SOC				pmax	pmax		
	comp=Z,12nm,0.5s,mb5.3						
SOC				pmax	pmax		
	comp=N,13nm,0.6s						
SOC				pmax	pmax		
	comp=E,7.0nm,0.5s						
TOO	Toolangi	62.55	136	*e*P	P	07 36 58.1	+1.2
	comp=E,9.7nm,0.9s,mb4.9						
TOO	Toolangi	62.55	136	*e*P	P	07 36 58.1	+1.2
TOO				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
YAK	Yakutsk	63.03	17	*e*P	P	07 36 57.7	-2.1
YAK				pmax	pmax		
	comp=Z,16nm,0.5s,mb5.4						
YAK	Yakutsk	63.03	17	*e*P	P	07 36 57.7	-2.1
	comp=Z,16nm,0.5s,mb5.4						
MBAR	Mbarara	64.60	267	P	P	07 37 08.3	-2.5
BRTR	Keskin Array B	65.56	312	P	P	07 37 15.9	-0.6
	comp=Z,4.1nm,0.9s,mb4.5,baz=126,slow=7.0,SNR=15						
BRTR				pP	pP	07 37 29.8	-0.8
	comp=Z,8.9nm,1.0s,baz=112,slow=6.7,SNR=9.3						
VRSR	Storozhevoye	65.88	325	*e*P	P	07 37 16.5	-1.9
VRSR				*e**SP	sP	07 37 25.8	-12
VRSR				*e*		07 37 47.9	
VRSR				*e*		07 39 38.2	
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
VRSR				pmax	pmax		
	comp=N,9.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,6.0nm,0.6s						
MOS	Moscow	68.65	329	*e*P	P	07 37 29.6	-6.1
OBN	Obninsk	68.94	328⇓	*e*P	P	07 37 36.9	-0.6
OBN				*e*		07 40 06.5	
OBN				pmax	pmax		
	comp=Z,52nm,1.7s,mb5.2						
OBN	Obninsk	68.94	328	P	P	07 37 37.0	-0.5
LSZ	Lusaka	69.14	252	*e*P	P	07 37 40.2	+0.9
LSZ				pmax	pmax		
	comp=Z,9.0nm,1.4s,mb4.5						
LSZ	Lusaka	69.14	252	*e*P	P	07 37 40.2	+0.8
	comp=Z,9.3nm,1.4s,mb4.5						
MA2	Magadan	69.43	27	*e*P	P	07 37 40.0	-0.4
MA2				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
MA2	Magadan	69.43	27	*e*P	P	07 37 40.0	-0.3
	comp=Z,14nm,0.7s,mb5.0						
TIXI	Tiksi	70.50	11	*i* P	P	07 37 45.5	-1.2
TIXI				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.0						
CFR	Carcaliu	70.87	316⇑	*i*P	P	07 37 53.3	+3.9
AKASG	Malin Array Be	71.59	322	P	P	07 37 52.1	-1.5
	comp=Z,3.6nm,0.6s,mb4.5,baz=89,slow=5.4,SNR=25						
AKASG				pP	pP	07 38 06.2	-1.6
	comp=Z,5.3nm,0.7s,baz=87,slow=5.4,SNR=7.9						
VRI	Vrincioaia	72.00	317⇑	*i*P	P	07 37 57.3	+1.2
LVZ	Lovozero	75.24	340	*e*P	P	07 38 14.4	-0.2
LVZ				pmax	pmax		
	comp=Z,143nm,2.2s,mb5.5						
MAW	Mawson	75.30	192	LR	LR	08 07 51.8	
	comp=Z,155nm,18.2s,MS4.3,baz=63,slow=33						
KOLS	Kolonicke sedl	75.57	319	*i* P	P	07 38 18.2	+1.3
KOLS				*e*pP	pP	07 38 31.8	+0.7
CRVS	Cervenica-Dubn	76.09	319	*e*P	P	07 38 21.8	+1.9
FINES	FINESS Array B	76.33	332	*i* P	P	07 38 20.8	-0.2
FINES				pmax	pmax		
	comp=Z,4.0nm,0.7s						
FINES	FINESS Array B	76.33	332	P	P	07 38 20.8	-0.1
	comp=Z,4.1nm,0.7s,mb4.5,baz=109,slow=6.4,SNR=17						
FINES				pP	pP	07 38 34.0	-1.2
	comp=Z,11nm,0.8s,baz=104,slow=7.9,SNR=6.1						
FINES				LR	LR	08 20 11.0	
	comp=Z,258nm,18.9s,MS4.6,baz=186,slow=42						
KAF	Kangasniemi	76.42	333	*e*p	P	07 38 20.4	-1.0
NIE	Niedzica	76.92	320	*e*P	P	07 38 25.5	+1.0
PSZ	Piszkesteto	76.97	318	*e*P	P	07 38 25.1	+0.2
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
PSZ	Piszkesteto	76.97	318	*e*Pn	P	07 38 25.1	+0.3
	comp=Z,4.0nm,0.8s,mb4.4						
OJC	Ojcow	77.37	320	*e*P	P	07 38 27.9	+0.9
OJC				*e*	pP	07 38 41.6	+0.3
VYHS	Vyhne	77.75	319	*e*P	P	07 38 30.2	+1.0
VYHS				*e*pP	pP	07 38 43.7	+0.3
OKC	Ostrava-Krasne	78.37	320	*e*P	P	07 38 33.5	+1.0
MORC	Moravsky Berou	78.75	320	*e*P	P	07 38 34.7	+0.1
MORC				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.5						
MORC	Moravsky Berou	78.75	320	*e*P	P	07 38 34.7	+0.1
	comp=Z,6.7nm,1.0s,mb4.5						
ZST	Bratislava	78.87	318	*e*P	P	07 38 35.8	+0.5
ZST				*e*pP	pP	07 38 50.1	+0.5
ARCES	ARCESS Array B	78.95	340	P	P	07 38 35.8	+0.4
	comp=Z,9.4nm,0.9s,mb4.7,baz=93,slow=4.9,SNR=15						
BILL	Bilibino	78.99	21	*e*P	P	07 38 35.1	-0.5
BILL				pmax	pmax		
	comp=Z,4.0nm,0.3s,mb4.8						
BILL	Bilibino	78.99	21	*e*P	P	07 38 35.1	-0.4
	comp=Z,4.1nm,0.3s,mb4.8						
DPC	Dobruska-Polom	79.60	320	*e*P	P	07 38 40.5	+1.3
DPC				*e*pP	pP	07 38 54.3	+0.8
PRU	Pruhonice	80.70	320	*e*P	P	07 38 46.0	+0.9
PRU				*e*pP	pP	07 39 00.0	+0.5
BRG	Berggiesshubel	81.15	321	*e*P	P	07 38 45.5	-2.0
BRG				*e*	pP	07 39 02.7	+0.9
BRG				pmax	pmax		
	comp=Z,20nm,1.9s,mb4.7						
BRG	Berggiesshubel	81.15	321	*e*P	P	07 38 45.5	-2.0
	comp=Z,20nm,1.9s,mb4.7						
BRG				*e*	pP	07 39 02.7	+0.9
GEC2	GERESS Array S	81.17	319	*e*P	P	07 38 48.4	+0.8
GERES	GERESS Array B	81.17	319	P	P	07 38 48.7	+1.1
	comp=Z,5.1nm,0.9s,mb4.5,baz=104,slow=5.5,SNR=31						
GERES				pP	pP	07 39 02.9	+0.9
	comp=Z,7.5nm,0.9s,baz=101,slow=6.8,SNR=16						
KHC	Kasperske Hory	81.27	319	*e*P	P	07 38 48.8	+0.7
KHC				*e*pP	pP	07 39 02.8	+0.3
WET	Wettzell	81.73	319	*e*P	P	07 38 51.3	+0.8
CLL	Collm	81.77	321	*e*P	P	07 38 51.0	+0.3
CLL	Collm	81.77	321	P	P	07 38 51.0	+0.3
HFS	Hagfors	82.05	330	P	P	07 38 52.1	+0.2
	comp=Z,1.7nm,0.6s,mb4.2,baz=146,slow=5.3,SNR=10						
HFS				pP	pP	07 39 07.2	+0.9
	comp=Z,3.2nm,0.6s,baz=90,slow=4.4,SNR=2.9						
GRA1	Grafenberg Arr	82.84	319	*e*P	P	07 38 57.7	+1.5
	comp=Z,4.0nm,0.7s,mb4.6						
GRA1				*e*pP	pP	07 39 11.4	+0.8
GRF	Grafenberg Arr	82.84	319	*e*P	P	07 38 57.7	+1.5
GRF				*e**PP	pP	07 39 11.4	+0.8
GRF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
GRF	Grafenberg Arr	82.84	319	*e*P	P	07 38 57.7	+1.5
GRF				*e**PP	pP	07 39 11.4	+0.8
GRF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.6						
GRF	Grafenberg Arr	82.84	319	*e*P	P	07 38 57.7	+1.5
	comp=Z,4.0nm,0.7s,mb4.6						
GRF				*e*pP	pP	07 39 11.4	+0.8
NB2	NORSAR Subarra	83.33	331	P	P	07 38 58.6	+0.2
	comp=Z,1.1nm,0.8s,mb3.9,baz=96,slow=5.3						
NB2	NORSAR Subarra	83.33	331	P	P	07 38 58.6	+0.2
NB2				pmax	pmax		
	comp=Z,1.0nm,0.8s,mb3.9						
NOA	NORSAR Array B	83.33	331	P	P	07 38 58.5	0.0
	comp=Z,1.9nm,0.9s,mb4.1,baz=94,slow=5.3,SNR=3.8						
NOA				pP	pP	07 39 14.3	+1.4
	comp=Z,5.6nm,0.9s,baz=94,slow=5.4,SNR=6.7						
BSEG	Bad Segeberg	83.52	324	*e*P	P	07 39 00.4	+0.9
PGF	Pioggiola	84.31	312	*e*P	P	07 39 00.9	-2.9
	comp=Z,26nm,1.0s,mb5.0						
PGF	Pioggiola	84.31	312	*e*P	P	07 39 00.9	-2.9
PGF				pmax	pmax		
	comp=Z,13nm,1.0s,mb5.0						
BFO	Black Forest	84.72	318	*e*P	P	07 39 06.8	+1.1
CDF	Champ du Feu	85.43	318	*e*P	P	07 39 08.4	-0.8
SBF	Sospel	85.43	314	*e*P	P	07 39 06.6	-2.7
	comp=Z,31nm,1.0s,mb5.1						
SBF	Sospel	85.43	314	*e*P	P	07 39 06.6	-2.7
SBF				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.1						
LPG	La Plagne	85.87	315	*e*P	P	07 39 09.2	-2.2
	comp=Z,5.0nm,0.7s,mb4.5						
LPG	La Plagne	85.87	315	*e*P	P	07 39 09.2	-2.2
LPG				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.6						
MBDF	Montbardon	85.88	314	*e*P	P	07 39 08.8	-2.7
HAU	Haudompre	86.06	318	*e*P	P	07 39 10.8	-1.5
	comp=Z,14nm,0.9s,mb4.9						
HAU	Haudompre	86.06	318	*e*P	P	07 39 10.8	-1.5
HAU				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.9						
BAIF	Baives	87.37	320	*e*P	P	07 39 16.5	-2.1
	comp=Z,30nm,1.3s,mb5.0						
BAIF	Baives	87.37	320	*e*P	P	07 39 16.5	-2.1
BAIF				pmax	pmax		
	comp=Z,15nm,1.3s,mb5.1						
SSF	Saint Saulge	88.03	317	*e*P	P	07 39 19.4	-2.5
BGF	Bois d'Agland	88.52	316	*e*P	P	07 39 21.6	-2.7
	comp=Z,6.3nm,0.6s,mb4.8						
BGF	Bois d'Agland	88.52	316	*e*P	P	07 39 21.6	-2.7
BGF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.8						
VNDA	Vanda	89.25	168	P	P	07 39 28.4	+1.3
	comp=Z,1.2nm,0.8s,mb4.3,baz=244,slow=4.0,SNR=4.9						
RJF	Les Rejaudoux	89.56	315	*e*P	P	07 39 26.4	-2.8
	comp=Z,60nm,1.6s,mb5.4						
RJF	Les Rejaudoux	89.56	315	*e*P	P	07 39 26.4	-2.8
RJF				pmax	pmax		
	comp=Z,30nm,1.6s,mb5.4						
FLN	La Foliniere	90.54	319	*e*P	P	07 39 29.4	-4.3
ETSF	Etsaut	91.31	313	*e*P	P	07 39 33.5	-4.0
ESDC	Sonseca Array	94.31	310	P	P	07 39 52.8	+1.6
	comp=Z,0.7nm,0.7s,mb4.2,baz=75,slow=5.0,SNR=4.9						
ESDC				pP	pP	07 40 06.7	+0.8
	comp=Z,0.1nm,0.3s,baz=71,slow=4.7,SNR=2.2						
DBIC	Dimbokro	99.47	277	LR	LR	08 22 50.2	
	comp=Z,89nm,20.4s,MS4.3,baz=77,slow=34						
NVAR	Mina Array Bea	127.35	33	PKP	PKPdf	07 45 39.3	+3.8
	comp=Z,1.1nm,0.8s,baz=339,slow=3.2,SNR=5.0						
PDAR	Pinedale Array	128.04	23	PKP	PKPdf	07 45 39.3	+2.6
	comp=Z,1.3nm,1.1s,baz=270,slow=1.5,SNR=6.0						
PDAR				pPKP		07 45 52.2	
	comp=Z,1.2nm,0.9s,SNR=6.2						
TXAR	Lajitas Array	141.95	27	PKhKP		07 46 00.8	
	comp=Z,0.5nm,0.8s,baz=170,slow=0.1,SNR=4.5						
TXAR				PKP	PKPdf	07 46 05.0	+2.1
	comp=Z,0.7nm,0.9s,baz=315,slow=1.3,SNR=6.1						
LPAZ	La Paz	159.77	233	*e*PKIKP	PKPdf	07 46 32.8	+3.0
OTAV	Otavalo	172.22	305	*e*PKPdf	PKPdf	07 46 42.1	+2.2

BJI ***31*** *07:38:15.3, 4.59N×94.70E, h24^{km}, mb4.7*
NEIC ***31*** *07:38:18.7±0.9, 4.51N×94.67E, h30^{km}, mb4.6/6, Error ellipse: s-maj=31.5km s-min=10.1km az=62.0*
IDC ***31*** *07:38:21.8±8.3, 4.68N×94.80E, h53^{km}±72^{km}, mb3.9/11, mb1 4.1/12, mb1mx3.9/20, mbtmp4.2/12, MS3.2/1, Ms1 3.4/1, ms1mx2.8/32, Error ellipse: s-maj=54.3km s-min=14.8km az=53.0*
ISC 31 07:38:17.5±0.5**, 4.58N**±0.08×**94.8E**±0.1**, h33^{km}, n34,** σ**0^{s}78**/33**, mb4.5**/28**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	14.39	16	*e*Pn	P	07 41 42.0	+1.0
	4.2nm,0.4s						
CMAR	Chiang Mai Arr	14.39	16	P	P	07 41 42.5	+1.5
	1.1nm,0.3s,baz=207,slow=11,SNR=40						
CMAR				LR	LR	07 46 59.3	
	comp=Z,94nm,21.6s,baz=320,slow=36						
KMI	Kunming	21.82	20	P	P	07 43 08.5	-0.3
KMI				AMB	AMB		
	comp=Z,16nm,1.6s,mb4.2						
PKI	Pulchoki	24.54	340	*e*P	P	07 43 35.2	-0.4
	comp=Z,8.2nm,0.4s,mb4.6						
GYA	Guiyang	24.56	26	P	P	07 43 35.5	-0.3
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb4.7						
DMN	Daman	24.68	339	*e*P	P	07 43 36.5	-0.5
	comp=Z,8.2nm,0.4s,mb4.6						
GUN	Gumba	24.70	341	*e*P	P	07 43 38.5	+1.4
	comp=Z,15nm,0.4s,mb4.8						
KKN	Kakani	24.79	340	*e*P	P	07 43 38.3	+0.3
	comp=Z,6.6nm,0.3s,mb4.6						
GKN	Gorkha	25.21	339	*e*P	P	07 43 42.5	+0.5
	comp=Z,18nm,0.3s,mb5.0						
LSA	Lhasa	25.22	353	*e*P	P	07 43 41.6	-0.4
	comp=Z,6.0nm,0.4s,mb4.5						
KOLN	Koldanda	25.40	336	*e*P	P	07 43 44.5	+0.7
	comp=Z,20nm,0.6s,mb4.8						
XAN	Xi'an	32.13	22	P	P	07 44 42.0	-2.3
XAN				AMB	AMB		
	comp=Z,22nm,0.7s,mb5.1						
GTA	Gaotai	34.98	7	P	P	07 45 07.8	-1.0
GTA				AP	pP	07 45 21.5	+3.0
GTA				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.8						
FITZ	Fitzroy Crossi	37.88	127	*e*P	P	07 45 33.3	-0.2
	comp=Z,10.0nm,1.1s,mb4.5						
BJI	Beijing	40.25	26	*e*P	P	07 45 53.0	+0.1
BJI				AMB	AMB		
	comp=Z,7.0nm,0.9s,mb4.4						
AAK	Ala-Archa	41.96	338	*e*P	P	07 46 08.1	+1.0
	comp=Z,2.7nm,0.8s,mb3.9						
SONM	Songino Array	44.24	11	P	P	07 46 24.2	-1.4
	comp=Z,0.8nm,0.3s,mb3.9,baz=195,slow=9.1,SNR=16						
SONM				PcP	PcP	07 48 10.2	-0.1
	comp=Z,0.2nm,0.4s,baz=195,slow=3.0,SNR=4.3						
WRA	Warramunga Arr	45.89	123	P	P	07 46 39.6	+0.4
	comp=Z,12nm,0.6s,mb5.0,baz=302,slow=9.2,SNR=63						
WRAB	Tennant Creek	45.90	123	*e*P	P	07 46 38.9	-0.3
	comp=Z,12nm,0.5s,mb5.1						
WB2	Warramunga Arr	45.91	123	*e*P	P	07 46 39.5	+0.3
ASPA	Alice Springs	47.37	128	*e*P	P	07 46 51.2	+0.5
ASAR	Alice Springs	47.37	128	P	P	07 46 51.0	+0.3
	comp=Z,5.4nm,0.5s,mb4.7,baz=298,slow=8.0,SNR=64						
BVAR	Borovoye Array	52.29	342	P	P	07 47 27.6	-0.4
	comp=Z,1.6nm,0.4s,mb4.3,baz=141,slow=10,SNR=12						
BRVK	Borovoye	52.35	342	*e*P	P	07 47 28.3	-0.1
	comp=Z,2.4nm,0.4s,mb4.5						
CHKZ	Chkalovo	52.78	342	*e*P	P	07 47 31.0	-0.6
	comp=Z,4.3nm,0.5s,mb4.6						
CHKZ				*e*		07 47 45.4	
STKA	Stephens Creek	57.41	133	P	P	07 48 05.5	-0.1
	comp=Z,1.5nm,0.5s,mb4.3,baz=314,slow=13,SNR=8.6						
BRTR	Keskin Array B	65.06	312	P	P	07 48 56.7	-0.4
	comp=Z,1.1nm,0.5s,mb4.2,baz=149,slow=7.7,SNR=6.0						
AKASG	Malin Array Be	71.12	322	P	P	07 49 33.8	-0.8
	comp=Z,0.5nm,0.4s,mb3.8,baz=86,slow=6.0,SNR=5.2						
FINES	FINESS Array B	75.90	333	P	P	07 50 02.1	-0.2
	comp=Z,1.0nm,0.4s,mb4.1,baz=108,slow=5.9,SNR=19						
KAF	Kangasniemi	75.99	333	*e*p	P	07 50 06.2	+3.4
ARCES	ARCESS Array B	78.56	340	P	P	07 50 17.4	+0.4
	comp=Z,5.7nm,1.0s,mb4.5,baz=89,slow=5.9,SNR=9.2						
GERES	GERESS Array B	80.69	319	P	P	07 50 28.9	0.0
	comp=Z,0.8nm,0.7s,mb3.7,baz=107,slow=5.7,SNR=5.3						
HFS	Hagfors	81.60	330	P	P	07 50 33.7	+0.2
	comp=Z,2.0nm,0.7s,mb4.2,baz=108,slow=4.7,SNR=5.2						
TXAR	Lajitas Array	141.92	27	PKP	PKPdf	07 57 47.8	+1.0
	comp=Z,0.2nm,0.5s,baz=38,slow=0.7,SNR=4.7						

IDC ***31*** *07:40:36.2±6.5, 50.30N×154.70E, h102^{km}±54^{km}, mb3.6/8, mb1 4.0/9, mb1mx3.7/23, mbtmp4.0/9, Error ellipse: s-maj=78.5km s-min=18.4km az=124.0*
MOS ***31*** *07:40:38.3±1.3, 49.78N×156.43E, h15^{km}, mb4.0/1, Error ellipse: s-maj=72.9km s-min=14.8km az=77.3*
KRSC ***31*** *07:40:38.0±1.2, 49.67N×156.15E, h77^{km}±19^{km}, ML4.3*
ISC 31 07:40:37.9±0.8**, 49.83N**±0.09×**155.7E**±0.1**, h119^{km}**±8^{km}**, n34,** σ**1^{s}22**/55**, mb3.8**/8**, 1D, Kuril Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	 ISC	Time h m s	Res ISC
SKR	Severo-Kuril's	0.90	17	*i* P	P	07 40 57.0	-2.1
SKR				*e*S	S	07 41 13.0	-2.0
SKR	Severo-Kuril's	0.90	17⇓	*i*PN	P	07 40 57.0	-2.1
SKR				*e*		07 41 05.5	
SKR				pmax	pmax		
	comp=E,230nm,0.5s						
SKR				pmax	pmax		
	comp=Z,1µm,0.5s						
SKR				pmax	pmax		
	comp=N,570nm,0.4s						
SKR				smax			
	comp=E,1µm,0.7s						
SKR				smax			
	comp=N,830nm,0.5s						
SKR				smax			
	comp=Z,260nm,0.5s						
ALID	Alaid	1.05	354	*i* P	P	07 41 00.7	0.0
ALID				*i* S	S	07 41 16.9	-0.8
PAU	Pauzhetka	1.79	23	*i* P	P	07 41 10.0	+0.9
PAU				*e*S	S	07 41 33.2	+0.5
PAU				Smax			
	comp=Z,1µm,0.9s						
GRL	Gorelyy	3.11	28	*i* P	P	07 41 27.9	+1.4
GRL				*e*S	S	07 42 05.0	+1.6
RUS	Russkaya	3.15	33	P	P	07 41 26.9	-0.2
RUS				S	S	07 42 02.4	-2.0
RUS	Russkaya	3.15	33	*i* P	P	07 41 27.0	-0.1
RUS				*i* S	S	07 42 02.7	-1.7
APC	Apacha	3.23	16	P	P	07 41 31.4	+3.2
APC				*e*S	S	07 42 07.4	+1.0
APC				Smax			
	comp=Z,50nm,0.7s						
KRMR	Karymshinskiy	3.37	26	*e*P	P	07 41 30.8	+0.8
KRMR				*e*S	S	07 42 09.7	0.0
PET	Petropavlovsk	3.69	29	P	P	07 41 34.7	+0.3
PET				S	S	07 42 16.3	-1.2
PET	Petropavlovsk	3.69	29	*i* P	P	07 41 34.7	+0.3
PET				*i* S	S	07 42 16.0	-1.5
UGLR	Uglovaya	3.91	29	*i* P	P	07 41 38.5	+1.2
UGLR				*e*S	S	07 42 24.3	+1.7
KOK	Koryaka	3.92	27	*i* P	P	07 41 39.1	+1.6
KOK				*e*S	S	07 42 21.3	-1.7
AVH	Avacha	3.93	28	*e*P	P	07 41 38.9	+1.3
AVH				*e*S	S	07 42 23.6	+0.5
SMAR	Somma	3.95	28	*i* P	P	07 41 39.0	+1.2
SMAR				*e*S	S	07 42 24.8	+1.2
SDLR	Sedlovina	3.98	29	*i* P	P	07 41 39.1	+0.8
SDLR				*i* S	S	07 42 24.5	0.0
NLC	Nalytchevo	4.05	33	P	P	07 41 38.0	-1.2
NLC				S	S	07 42 21.6	-4.4
NLC	Nalytchevo	4.05	33	*i* P	P	07 41 38.4	-0.8
NLC				*e*S	S	07 42 22.0	-4.0
GNL	Ganaly	4.12	19	*i* P	P	07 41 40.3	+0.2
GNL				*e*S	S	07 42 25.6	-2.1
SPN	Mys Shipunski	4.24	38	P	P	07 41 41.6	-0.2
SPN				S	S	07 42 27.7	-3.0
SPN	Mys Shipunski	4.24	38	*i* P	P	07 41 41.7	-0.1
SPN				*e*S	S	07 42 27.7	-3.0
TUMR	Tumrok	6.10	25	*e*P	P	07 42 08.0	+1.2
KBTR	Krutoberegovo	7.69	31	*e*P	P	07 42 27.2	-1.4
ASAJ	Asahikawa	10.62	242	P	P	07 43 07.8	+0.1
	comp=Z,3.5nm,0.3s,baz=83,slow=15,SNR=21						
FX1	Attu Island--F	11.33	68	P	P	07 43 20.5	+3.5
	comp=Z,5.3nm,0.3s,baz=277,slow=22,SNR=7.8						
FX1				S	S	07 45 21.5	-0.3
	comp=Z,16nm,0.3s,baz=273,slow=23,SNR=5.9						
ILAR	Eielson Array	33.08	41	P	P	07 47 02.1	-1.7
	comp=Z,1.0nm,0.8s,mb3.7,baz=259,slow=6.4,SNR=15						
INK	Inuvik	38.13	35	P	P	07 47 44.6	-1.8
	comp=Z,0.3nm,0.4s,mb3.5,baz=283,slow=8.8,SNR=3.6						
YKA	Yellowknife Ar	47.43	39	P	P	07 49 00.1	-1.4
	comp=Z,0.5nm,0.5s,mb3.5,baz=299,slow=7.2,SNR=6.4						
NVAR	Mina Array Bea	59.52	65	P	P	07 50 31.6	+1.0
	comp=Z,1.3nm,0.6s,mb4.1,baz=292,slow=6.9,SNR=6.2						
SDNR	Sundarnagar	59.73	284	*e*	P	07 50 39.8	+7.6
PDAR	Pinedale Array	61.56	57	P	P	07 50 44.6	+0.1
	comp=Z,1.8nm,0.6s,mb4.3,baz=340,slow=1.5,SNR=19						
WRA	Warramunga Arr	72.00	201	P	P	07 51 49.8	-0.6
	comp=Z,0.9nm,0.9s,mb3.6,baz=19,slow=6.6,SNR=4.8						
WRA				pP	pP	07 52 07.4	-13
	comp=Z,0.6nm,0.7s,baz=1.3,slow=5.2,SNR=2.3						
TXAR	Lajitas Array	74.51	63	P	P	07 52 05.5	+0.6
	comp=Z,1.5nm,0.5s,mb4.0,baz=297,slow=5.2,SNR=40						
ASAR	Alice Springs	75.69	201	P	P	07 52 11.6	-0.1
	comp=Z,0.6nm,0.5s,mb3.5,baz=13,slow=4.7,SNR=8.7						

IDC 31 07:44:59.3±6.5**, 12.09S**×**75.32W, h352^{km}**±158^{km}**, mb2.8**/2**, mb1 3.0**/3**, mb1mx2.6**/17**, mbtmp3.4**/3**, Error ellipse: s-maj=690.0km s-min=72.8km az=33.0, Central**

Peru

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
LPAZ	**La Paz**	**8.13**	**122**	P	P	07 46 55.7	-0.1
	0.1nm,0.3s,baz=315,slow=14,SNR=4.8						
TXAR	**Lajitas Array**	**49.44**	**327**	P	P	07 53 15.1	-1.8
	0.4nm,0.5s,baz=152,slow=9.6,SNR=7.5						
YKA	**Yellowknife Ar**	**80.38**	**343**	P	P	07 56 31.8	-1.4
	0.2nm,0.4s,baz=142,slow=5.9,SNR=4.5						

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*BJI **31** 07:45:50.7, 6.13N×94.21E, h30^{km}, mB5.3, mb4.9, Ms4.8, Msz4.0*

*IDC **31** 07:45:54.9±0.7, 6.94N×94.30E, mb4.3/16, mb1 4.4/16, mb1mx4.3/20, mbtmp4.2/16, MS4.0/4, Ms1 4.0/4, ms1mx3.4/33, Error ellipse: s-maj=38.7km s-min=14.6km az=51.0*

*MOS **31** 07:45:57.6±1.4, 6.96N×94.26E, h33^{km}, mb4.9/19, Error ellipse: s-maj=18.2km s-min=9.1km az=102.5*

*NEIC **31** 07:45:59.4±0.5, 7.00N×94.37E, h30^{km}, mb4.8/16, Error ellipse: s-maj=14.5km s-min=8.1km az=62.0*

ISC 31 07:45:55.1±2.1**, 6.96N**±0.06×**94.38E**±0.06**, h15**^{km}±15^{km}**, h24**^{km}±2.4^{km}**:pP-P, n77, σ0^{s}94**/77**, mb4.6**/43**, MS4.1**/7**, 1C-3D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	**Songkhla**	**6.20**	**88**	P	**Pn**	**07 47 38.0**	**+10**
	630nm,1.0s						
VIS	**Vishakhapatnam**	**15.19**	**316**	*e*P	**P**	**07 49 31.8**	**+0.8**
VIS				*e*		07 49 35.2	
	comp=Z,24nm,0.5s						
VIS				*e*S	Sx	07 52 07.3	
VIS				*e*	**S**	**07 52 19.9**	**+0.4**
	comp=E,19nm,0.9s						
VIS				*e*		07 52 21.1	
	comp=N,15nm,0.8s						
QIZ	**Qiongzhong**	**19.24**	**50**	P	**P**	**07 50 21.5**	**-0.3**
	comp=N,232nm,1.5s						
GYA	**Guiyang**	**22.65**	**30**	⇑*i*P	**P**	**07 50 59.0**	**+1.8**
GYA				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.7						
LSA	**Lhasa**	**22.83**	**353**	*e*P	**P**	**07 50 59.0**	**+0.1**
LSA				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.3						
LSA	**Lhasa**	**22.83**	**353**	*e*P	**P**	**07 50 59.0**	**+0.1**
	comp=Z,10.0nm,0.7s,mb4.3						
TGY	**Tagaytay City**	**27.04**	**73**	LR	LR	08 01 03.1	
	comp=Z,321nm,19.4s,MS3.9,baz=228,slow=34						
ENH	**Enshi**	**27.19**	**30**	*e*P	**P**	**07 51 40.0**	**-0.3**
	comp=Z,64nm,1.3s,mb5.0						
DDI	**Dehra Dun**	**27.84**	**329**	*e*	**P**	**07 51 49.6**	**+3.4**
XAN	**Xi’an**	**30.12**	**25**	P	**P**	**07 52 06.8**	**+0.1**
XAN				AP	pP	07 52 13.0	+1.9
XAN				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.8						
GTA	**Gaotai**	**32.68**	**8**	P	**P**	**07 52 29.3**	**+0.2**
GTA				AP	pP	07 52 35.0	+1.5
GTA				XP	sP	07 52 38.0	+2.6
GTA				AMB	AMB		
	comp=Z,11nm,0.6s,mb5.0						
NJ2	**Nanjing**	**33.82**	**39**	*e*P	**P**	**07 52 39.0**	**-0.1**
NJ2				AP	pP	07 52 48.3	+4.8
NJ2				XP	sP	07 52 51.0	+5.6
NJ2				PP	PP	07 53 54.3	+1.9
NJ2				S	**S**	**07 58 03.0**	**+1.7**
NJ2				XS		07 58 17.3	
NJ2				AMB	AMB		
	comp=Z,190nm,7.2s						
NJ2				LR	LR		
	comp=N,640nm,14.2s,MS4.6						
NJ2				LR	LR		
	comp=E,550nm,12.3s,MS4.6						
NJ2				LR	LR		
	comp=Z,550nm,19.4s						
SSE	**Sheshan**	**34.73**	**43**	P	**P**	**07 52 45.5**	**-1.4**
SSE				XP	sP	07 52 58.8	+5.6
SSE				S	**S**	**07 58 15.8**	**+0.4**
SSE				XS		07 58 30.5	
SSE				AMB	AMB		
	comp=Z,22nm,0.9s,mb5.1						
SSE				AMB	AMB		
	comp=Z,173nm,4.2s						
SSE				LR	LR		
	comp=N,214nm,22.4s,MS3.9						
SSE				LR	LR		
	comp=E,144nm,22.5s,MS3.9						
SSE				LR	LR		
	comp=Z,124nm,15.6s						
HHC	**Hu-ho-hao-te**	**37.08**	**22**	*e*P	**P**	**07 53 08.0**	**+1.4**
HHC				AP	pP	07 53 15.0	+3.9
HHC				XP	sP	07 53 21.5	+8.5
HHC				AMB	AMB		
	comp=Z,15nm,1.5s,mb4.6						
HHC				AMB	AMB		
	comp=Z,255nm,4.8s						
HHC				LR	LR		
	comp=N,353nm,10.7s,MS4.7						
HHC				LR	LR		
	comp=E,563nm,10.7s,MS4.7						
HHC				LR	LR		
	comp=Z,196nm,15.5s,MS4.0						
WMQ	**Urumqi**	**37.18**	**352**	*e*P	**P**	**07 53 08.5**	**+1.0**
BJT	**Baijiatuau**	**38.28**	**27**	*e*P	**P**	**07 53 17.7**	**+0.9**
BJI	**Beijing**	**38.30**	**27**	*e*P	**P**	**07 53 19.0**	**+2.0**
BJI				AMB	AMB		
	comp=Z,18nm,1.3s,mb4.6						
AAK	**Ala-Archa**	**39.63**	**337**	*i* P	**P**	**07 53 28.3**	**+0.3**
AAK				pmax	pmax		
	comp=Z,4.0nm,1.3s,mb4.0						
AAK	**Ala-Archa**	**39.63**	**337**	*e*P	**P**	**07 53 28.2**	**+0.1**
	comp=Z,5.1nm,1.0s,mb4.2						
SONM	**Songino Array**	**42.00**	**12**	P	**P**	**07 53 48.2**	**+0.7**
	comp=Z,2.3nm,0.6s,mb4.0,baz=189,slow=8.8,SNR=19						
SONM				PcP	PcP	07 55 43.2	0.0
	comp=Z,1.1nm,0.7s,baz=194,slow=3.4,SNR=8.3						
ULN	**Ulaanbaatar**	**42.17**	**13**	*i* P	**P**	**07 53 48.7**	**-0.2**
ULN	**Ulaanbaatar**	**42.17**	**13**	*e*P	**P**	**07 53 49.1**	**+0.2**
	comp=Z,2.9nm,0.6s,mb4.1						
ZAK	**Zakamensk**	**43.92**	**8**	*e*P	**P**	**07 54 03.1**	**+0.1**
ZAK				*e*		07 55 50.0	
NWAO	**Narrogin (SRO)**	**45.23**	**153**	P	**P**	**07 54 15.5**	**+1.7**
NWAO				pmax	pmax		
	comp=Z,8.0nm,0.8s						
NWAO	**Narrogin (SRO)**	**45.23**	**153**	P	**P**	**07 54 15.5**	**+1.7**
	comp=Z,7.8nm,0.8s,mb4.6						
TLY	**Talaya**	**45.24**	**8**	*i* P	**P**	**07 54 14.2**	**+0.6**
TLY				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
HIA	**Hailar**	**47.27**	**22**	*e*P	**P**	**07 54 30.2**	**+0.4**
HIA				pmax	pmax		
	comp=Z,6.0nm,0.7s						
HIA	**Hailar**	**47.27**	**22**	*e*P	**P**	**07 54 30.2**	**+0.5**
	comp=Z,6.2nm,0.7s,mb4.7						
ZAL	**Zalesovo**	**47.48**	**352**	P	**P**	**07 54 31.8**	**+0.4**
	comp=Z,2.3nm,0.7s,mb4.2,baz=300,slow=8.4,SNR=7.9						
WRA	**Warramunga Arr**	**47.54**	**125**	*i* P	**P**	**07 54 32.4**	**+0.1**
WRA				pmax	pmax		
	comp=Z,4.0nm,0.7s						
WRA	**Warramunga Arr**	**47.54**	**125**	P	**P**	**07 54 32.4**	**+0.2**
	comp=Z,3.7nm,0.7s,mb4.5,baz=305,slow=8.6,SNR=25						
WRA				PcP	PcP	07 56 02.7	+0.1
	comp=Z,1.3nm,0.5s,baz=315,slow=2.8,SNR=10						
WRAB	**Tennant Creek**	**47.55**	**125**	*e*P	**P**	**07 54 32.2**	**-0.1**
WRAB				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
WRAB	**Tennant Creek**	**47.55**	**125**	*e*P	**P**	**07 54 32.2**	**-0.1**
	comp=Z,12nm,0.8s,mb5.0						
WB2	**Warramunga Arr**	**47.55**	**125**	*e*P	**P**	**07 54 31.9**	**-0.5**
ASPA	**Alice Springs**	**49.15**	**130**	*e*P	**P**	**07 54 44.8**	**+0.1**
ASAR	**Alice Springs**	**49.15**	**130**	P	**P**	**07 54 45.1**	**+0.4**
	comp=Z,4.6nm,0.8s,mb4.5,baz=303,slow=7.6,SNR=30						
ASAR				PcP	PcP	07 56 08.8	+0.3
	comp=Z,1.7nm,0.5s,baz=314,slow=3.0,SNR=6.0						
ASAR				LR	LR	08 15 40.1	
	comp=Z,109nm,18.7s,MS3.9,baz=301,slow=36						
BVAR	**Borovoye Array**	**49.93**	**341**	P	**P**	**07 54 49.8**	**-0.5**
	comp=Z,1.8nm,0.5s,mb4.4,baz=135,slow=8.4,SNR=8.9						
BRVK	**Borovoye**	**49.99**	**341**	*e*P	**P**	**07 54 50.0**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.9						
BRVK	**Borovoye**	**49.99**	**341**	*e*P	**P**	**07 54 50.0**	**-0.7**
	comp=Z,14nm,1.2s,mb4.9						
CHKZ	**Chkalovo**	**50.41**	**342**	*e*P	**P**	**07 54 53.5**	**-0.5**
CHKZ				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
CHKZ	**Chkalovo**	**50.41**	**342**	*e*P	**P**	**07 54 53.5**	**-0.4**
	comp=Z,10nm,0.6s,mb5.0						
BOD	**Bodaibo**	**52.98**	**13**	*e*P	**P**	**07 55 11.4**	**-1.9**
GNI	**Garni**	**55.24**	**315**	*i* P	**P**	**07 55 31.6**	**+1.5**
GNI				pmax	pmax		
	comp=Z,12nm,1.7s						
ARU	**Arti**	**56.82**	**337**	⇓*i*P	**P**	**07 55 39.6**	**-1.7**
ARU				*e*		07 56 31.5	
ARU				*e*		07 57 48.5	
ARU				*e*S	**S**	**08 03 32.6**	**+0.6**
ARU				*e*SS	SS	08 07 23.4	+2.0
ARU				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.0						
YSS	**Yuzh-Sakhalins**	**57.36**	**37**	*i* P	**P**	**07 55 45.0**	**-0.2**
YSS				pmax	pmax		
	comp=Z,36nm,1.7s,mb5.1						
KMBO	**Kilima Mbogo**	**57.56**	**264**	LR	LR	08 17 01.3	
	comp=Z,151nm,19.3s,MS4.1,baz=89,slow=32						
KIV	**Kislovodsk**	**58.15**	**318**	*i* P	**P**	**07 55 47.1**	**-3.7**
KIV				pmax	pmax		
	comp=Z,3.0nm,1.2s,mb4.2						
STKA	**Stephens Creek**	**59.31**	**133**	P	**P**	**07 55 58.9**	**-0.2**
	comp=Z,5.1nm,0.9s,mb4.5,baz=292,slow=6.6,SNR=7.0						
SOC	**Sochi**	**60.01**	**317**	*e*P	**P**	**07 55 59.8**	**-3.8**
SOC				*e*		07 56 51.7	
SOC				*e*S	**S**	**08 04 10.7**	**-3.1**
SOC				*e*SS	SS	08 08 11.8	+0.1
SOC				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
SOC				pmax	pmax		
	comp=N,5.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,10.0nm,1.2s						
YAK	**Yakutsk**	**60.79**	**18**	*d i*P	**P**	**07 56 07.8**	**-0.9**
YAK				pmax	pmax		
	comp=Z,13nm,0.6s,mb5.2						
YAK	**Yakutsk**	**60.79**	**18**	*e*P	**P**	**07 56 07.7**	**-1.0**
	comp=Z,18nm,0.5s,mb5.5						
BRTR	**Keskin Array B**	**63.20**	**311**	P	**P**	**07 56 24.0**	**-1.2**
	comp=Z,0.8nm,0.5s,mb4.1,baz=141,slow=7.9,SNR=3.7						
OBN	**Obninsk**	**66.28**	**328**	⇓*e*P	**P**	**07 56 44.8**	**-0.1**
OBN				*e*S	S	08 05 36.1	+4.0
OBN				pmax	pmax		
	comp=Z,60nm,1.9s,mb5.3						
TIXI	**Tiksi**	**68.08**	**11**	*i* P	**P**	**07 56 55.3**	**-0.8**
TIXI				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.9						
AKASG	**Malin Array Be**	**69.02**	**322**	P	**P**	**07 57 00.9**	**-1.3**
	comp=Z,0.8nm,0.4s,mb4.0,baz=80,slow=5.2,SNR=3.5						
IDI	**Anoyia**	**69.28**	**305**	P	**P**	**07 57 04.2**	**+0.1**
	comp=Z,2.9nm,0.6s,mb4.4,baz=86,slow=9.9,SNR=5.7						
IDI				LR	LR	08 28 30.5	
	comp=Z,98nm,19.1s,MS4.1,baz=123,slow=37						
FINES	**FINESS Array B**	**73.63**	**332**	P	**P**	**07 57 29.6**	**0.0**
	comp=Z,2.7nm,0.6s,mb4.3,baz=104,slow=7.9,SNR=3.8						
KAF	**Kangasniemi**	**73.71**	**333**	*e*p	**P**	**07 57 30.2**	**+0.1**
	comp=Z,2.6nm,0.5s,mb4.4						
KAF	**Kangasniemi**	**73.71**	**333**	*e*P	**P**	**07 57 30.2**	**+0.1**
KAF				pmax	pmax		
	comp=Z,3.0nm,0.5s,mb4.5						
KEV	**Kevo**	**75.78**	**341**	*e*p	**P**	**07 57 41.8**	**0.0**
ARCES	**ARCESS Array B**	**76.20**	**340**	P	**P**	**07 57 45.0**	**+0.7**
	comp=Z,2.5nm,0.6s,mb4.3,baz=86,slow=7.0,SNR=16						
BILL	**Bilibino**	**76.85**	**22**	*e*P	**P**	**07 57 47.6**	**-0.3**
BILL				pmax	pmax		
	comp=Z,3.0nm,0.4s,mb4.6						
BILL	**Bilibino**	**76.85**	**22**	*e*P	**P**	**07 57 47.6**	**-0.3**
	comp=Z,3.5nm,0.4s,mb4.6						
GERES	**GERESS Array B**	**78.66**	**318**	P	**P**	**07 57 59.5**	**+1.2**
	comp=Z,4.0nm,1.2s,mb4.2,baz=45,slow=1.9,SNR=7.3						
NB2	**NORSAR Subarra**	**80.64**	**331**	P	**P**	**07 58 08.7**	**+0.1**
	comp=Z,2.5nm,0.8s,mb4.2,baz=95,slow=4.8						
NB2	**NORSAR Subarra**	**80.64**	**331**	P	**P**	**07 58 08.7**	**+0.1**
NB2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
NOA	**NORSAR Array B**	**80.64**	**331**	P	**P**	**07 58 08.9**	**+0.3**
	comp=Z,0.9nm,0.6s,mb3.9,baz=94,slow=5.1,SNR=3.8						
LPG	**La Plagne**	**83.43**	**315**	*e*P	**P**	**07 58 24.8**	**+1.3**
	comp=Z,14nm,1.0s,mb4.7						
LPG	**La Plagne**	**83.43**	**315**	*e*P	**P**	**07 58 24.8**	**+1.3**
LPG				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
ESDC	**Sonseca Array**	**91.98**	**310**	P	**P**	**07 59 06.8**	**+2.0**
	comp=Z,0.2nm,0.3s,mb3.9,baz=72,slow=5.0,SNR=5.5						
IMA	**Indian Mountai**	**92.38**	**22**	*e*P	**P**	**07 59 08.1**	**+2.1**
IMA				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.5						
IMA	**Indian Mountai**	**92.38**	**22**	*e*P	**P**	**07 59 08.1**	**+2.1**
	comp=Z,32nm,1.3s,mb5.5						
ILAR	**Eielson Array**	**95.50**	**22**	P	**P**	**07 59 20.9**	**+0.5**
	comp=Z,0.2nm,0.6s,mb3.8,baz=285,slow=4.4,SNR=5.6						
INK	**Inuvik**	**97.81**	**16**	P	**P**	**07 59 31.9**	**+1.1**
	comp=Z,1.4nm,0.6s,mb4.7,baz=329,slow=3.3,SNR=7.6						
NVAR	**Mina Array Bea**	**125.58**	**31**	PKP	PKPdf	08 04 60.0	-0.2
	comp=Z,0.8nm,0.7s,baz=315,slow=1.6,SNR=4.3						
PDAR	**Pinedale Array**	**125.93**	**22**	PKP	PKPdf	08 04 59.0	-1.7
	comp=Z,1.8nm,1.1s,baz=225,slow=2.1,SNR=7.1						
TXAR	**Lajitas Array**	**139.96**	**25**	PKP	PKPdf	08 05 26.7	-0.7
	comp=Z,0.5nm,0.5s,baz=305,slow=0.4,SNR=17						

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*IDC **31** 07:46:55.3±1.2, 20.66N×97.23E, mb4.0/4, mb1 4.1/5, mb1mx3.8/19, mbtmp3.9/5, ML3.9/1, Error ellipse: s-maj=32.7km s-min=13.4km az=59.0*

ISC 31 07:46:55.0±0.9**, 20.8N**±0.1×**97.8E**±0.2**, h10**^{km}**, n7, σ1^{s}22**/10**, mb3.9**/4**, 1C, Myanmar**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CHRT	**Chiangrai**	**2.06**	**116**	⇑P	**Pn**	**07 47 30.0**	**-0.2**
	3μm,0.8s						
CMAR	**Chiang Mai Arr**	**2.56**	**155**	Pn	**Pn**	**07 47 40.0**	**+2.7**
	5.1nm,0.3s,baz=334,slow=14,SNR=64						
CMAR				Pg	**Pg**	**07 47 45.6**	**-0.5**
	44nm,0.3s,baz=335,slow=16,SNR=168						
CMAR				Lg		07 48 22.0	
	64nm,0.3s,baz=321,slow=30,SNR=12						
KKTK	**Khon Kaen**	**6.49**	**132**	PN	**Pn**	**07 48 38.0**	**+4.9**
KKTK				PG	**Pg**	**07 49 06.0**	**+1.3**
KKTK				SG	**Sg**	**07 50 30.0**	**-1.3**
SONM	**Songino Array**	**27.85**	**12**	P	**P**	**07 52 48.1**	**+1.4**
	0.4nm,0.7s,mb3.1,baz=201,slow=8.7,SNR=3.3						
ZAL	**Zalesovo**	**34.55**	**346**	P	**P**	**07 53 45.5**	**-0.1**
	1.9nm,0.5s,mb4.2,baz=324,slow=5.4,SNR=5.7						
BVAR	**Borovoye Array**	**38.47**	**333**	P	**P**	**07 54 18.3**	**-0.5**
	1.5nm,0.5s,mb3.9,baz=135,slow=10,SNR=8.5						
FINES	**FINESS Array B**	**63.23**	**329**	P	**P**	**07 57 24.0**	**-1.7**
	2.9nm,1.0s,mb4.4,baz=101,slow=7.1,SNR=3.8						

IDC 31 07:50:50.2±7.8**, 10.67N**×**93.53E, mb3.9**/4**, mb1 4.1**/4**, mb1mx3.7**/16**, mbtmp3.9**/4**, Error ellipse: s-maj=273.4km s-min=29.5km az=75.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	**Songino Array**	**38.59**	**14**	P	P	07 58 15.0	-1.7
	0.9nm,0.9s,baz=202,slow=8.6,SNR=6.3						
WRA	**Warramunga Arr**	**50.40**	**127**	P	P	07 59 49.7	-2.1
	1.2nm,0.5s,baz=306,slow=8.5,SNR=13						
ASAR	**Alice Springs**	**52.19**	**131**	P	P	08 00 02.6	-2.7
	1.1nm,0.5s,baz=309,slow=7.0,SNR=13						
STKA	**Stephens Creek**	**62.48**	**134**	P	P	08 01 16.2	-1.8
	1.6nm,0.6s,baz=305,slow=7.3,SNR=5.8						

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*IDC **31** 07:56:40.2±0.8, 8.68N×92.17E, mb4.3/9, mb1 4.5/10, mb1mx4.2/21, mbtmp4.3/10, ML4.4/1, MS4.0/1, Ms1 4.0/1, ms1mx3.0/27, Error ellipse: s-maj=37.4km s-min=16.2km az=59.0*

*MOS **31** 07:56:43.6±1.3, 8.78N×92.47E, h33^{km}, mb4.7/15, Error ellipse: s-maj=17.4km s-min=9.9km az=103.9*

*BJI **31** 07:56:45.6, 8.80N×92.50E, h51^{km}, mB5.5, mb4.8, Ms4.4, Msz4.1*

*NEIC **31** 07:56:47.6±2.0, 8.84N×92.46E, h51^{km}±17^{km}, mb4.6/14, Error ellipse: s-maj=14.6km s-min=11.6km az=192.0*

ISC 31 07:56:44.8±1.6**, 8.79N**±0.06×**92.32E**±0.05**, h46**^{km}±14^{km}**, n75, σ1^{s}04**/74**, mb4.6**/32**, MS4.2**/4**, 3C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.56**	**33**	*e*Pn	**P**	**07 59 27.8**	**-2.3**
	11nm,0.6s						
CMAR	**Chiang Mai Arr**	**11.56**	**33**	Pn	**P**	**07 59 29.9**	**-0.1**
	0.7nm,0.3s,baz=229,slow=13,SNR=32						
VIS	**Vishakhapatnam**	**12.46**	**316**	*e*P	**P**	**07 59 36.0**	**-6.1**
VIS				AML	AML	08 01 49.8	
	comp=E,85nm,0.3s						
VIS				AML	AML	08 01 50.2	
	comp=N,72nm,0.3s						
HYB	**Hyderabad**	**15.90**	**304**	*e*P	**P**	**08 00 30.5**	**+3.3**
HYB	**Hyderabad**	**15.90**	**304**	*i* P	**P**	**08 00 30.5**	**+3.3**
HYB				*e*		08 03 10.0	
HYB				*e*S	**S**	**08 03 20.0**	**-1.9**
SHL	**Shillong**	**16.69**	**359**	*e*P	**P**	**08 00 39.0**	**+2.0**
SHL				*e*S	**S**	**08 03 49.0**	**+9.1**
MNGI	**Mangalore**	**17.67**	**285**	*i*	**P**	**08 00 50.1**	**+0.7**
MNGI				*e*		08 04 03.2	
NGP	**Nagpur**	**17.74**	**315**	⇓*e*P	**P**	**08 00 51.0**	**+0.8**
NGP				*e*		08 03 52.6	
KMI	**Kunming**	**19.04**	**30**	P	**P**	**08 01 07.8**	**+1.9**
KMI				AMB	AMB		
	comp=Z,36nm,0.9s						
KMI				AMB	AMB		
	comp=Z,223nm,4.5s						
KMI				LR	LR		
	comp=N,430nm,18.9s						
KMI				LR	LR		
	comp=E,308nm,19.7s						
KMI				LR	LR		
	comp=Z,402nm,19.7s						
KAD	**Karad**	**19.57**	**297**	*e*P	**P**	**08 01 12.0**	**+0.1**
KAD				*i*		08 04 35.0	
PKI	**Pulchoki**	**19.79**	**342**	*e*P	**P**	**08 01 13.6**	**-0.5**
	comp=Z,35nm,0.5s						
DMN	**Daman**	**19.92**	**341**	*e*P	**P**	**08 01 13.0**	**-2.5**
	comp=Z,44nm,0.7s						
GUN	**Gumba**	**19.96**	**343**	*e*P	**P**	**08 01 16.3**	**+0.3**
	comp=Z,33nm,0.5s						
KKN	**Kakani**	**20.03**	**342**	*e*P	**P**	**08 01 15.5**	**-1.2**
	comp=Z,28nm,0.6s						
POO	**Poona**	**20.37**	**300**	⇑*i*P	**P**	**08 01 19.0**	**-1.3**
	comp=Z,20nm,1.0s						
POO				*i*		08 04 37.0	
GKN	**Gorkha**	**20.44**	**340**	*e*P	**P**	**08 01 21.1**	**+0.1**
	comp=Z,39nm,0.6s						
KOLN	**Koldanda**	**20.59**	**338**	*e*P	**P**	**08 01 22.7**	**+0.1**
	comp=Z,29nm,1.0s						
LSA	**Lhasa**	**20.83**	**357**	*e*P	**P**	**08 01 25.1**	**+0.1**
LSA				pmax	pmax		
	comp=Z,30nm,1.0s						
LSA	**Lhasa**	**20.83**	**357**	*e*P	**P**	**08 01 25.1**	**0.0**
	comp=Z,30nm,1.0s						
BOM	**Bombay**	**21.41**	**300**	*e*S	**S**	**08 05 21.8**	**+1.0**
GYA	**Guiyang**	**22.22**	**36**	⇑*i*P	**P**	**08 01 39.0**	**0.0**
GYA				AMB	AMB		
	comp=Z,40nm,1.3s,mb4.7						
CD2	**Chengdu**	**24.46**	**24**	P	**P**	**08 02 01.0**	**+0.2**
CD2				AMB	AMB		
	comp=Z,50nm,1.0s,mb4.9						
ENH	**Enshi**	**26.73**	**35**	*e*P	**P**	**08 02 21.1**	**-1.0**
	comp=Z,21nm,1.1s,mb4.6						
LZH	**Lanzhou**	**29.13**	**19**	*e*P	**P**	**08 02 43.5**	**-0.2**
LZH				AMB	AMB		
	comp=Z,50nm,1.5s,mb5.0						
LZH				LR	LR		
	comp=N,468nm,13.3s						
LZH				LR	LR		
	comp=Z,821nm,15.0s,MS4.5						
GTA	**Gaotai**	**31.22**	**11**	P	**P**	**08 03 02.8**	**+0.6**
GTA				AMB	AMB		
	comp=Z,28nm,1.0s,mb5.0						
NJ2	**Nanjing**	**33.79**	**43**	*e*P	**P**	**08 03 25.8**	**+1.2**
NJ2				AP	pP	08 03 35.3	-1.6
NJ2				XP	sP	08 03 40.0	-2.8
NJ2				LR	LR		
	comp=N,630nm,15.1s,MS4.6						
NJ2				LR	LR		
	comp=E,610nm,14.6s,MS4.6						
NJ2				LR	LR		
	comp=Z,1μm,16.8s,MS4.7						
SSE	**Sheshan**	**34.86**	**46**	*e*P	**P**	**08 03 28.3**	**-5.5**
SSE				AMB	AMB		
	comp=Z,22nm,0.8s,mb5.1						
SSE				AMB	AMB		
	comp=Z,403nm,5.1s						
AAK	**Ala-Archa**	**37.17**	**338**	*i* P	**P**	**08 03 53.9**	**+0.7**
AAK	**Ala-Archa**	**37.17**	**338**	*e*P	**P**	**08 03 53.8**	**+0.6**
	comp=Z,9.2nm,1.4s,mb4.4						
BJT	**Baijiatuau**	**37.67**	**31**	*e*P	**P**	**08 03 57.5**	**0.0**
BJT				pmax	pmax		
	comp=Z,7.0nm,0.6s						
BJT	**Baijiatuau**	**37.67**	**31**	*e*P	**P**	**08 03 57.5**	**0.0**
	comp=Z,6.9nm,0.6s,mb4.6						
BJI	**Beijing**	**37.69**	**31**	*e*P	**P**	**08 03 58.5**	**+0.8**
BJI				AMB	AMB		
	comp=Z,14nm,1.2s,mb4.6						
BJI				LR	LR		
	comp=Z,165nm,22.1s,MS3.8						
SONM	**Songino Array**	**40.70**	**15**	P	**P**	**08 04 23.5**	**+0.9**
	comp=Z,8.2nm,0.9s,mb4.4,baz=197,slow=8.1,SNR=62						
SONM				PcP	PcP	08 06 24.9	+0.8
	comp=Z,1.7nm,0.8s,baz=212,slow=3.6,SNR=4.2						
ULN	**Ulaanbaatar**	**40.89**	**15**	*e*P	**P**	**08 04 24.4**	**+0.3**
ULN				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.1						
ULN	**Ulaanbaatar**	**40.89**	**15**	*e*P	**P**	**08 04 24.4**	**+0.2**
	comp=Z,4.1nm,0.8s,mb4.1						
ZAK	**Zakamensk**	**42.45**	**10**	⇑*e*P	**P**	**08 04 37.8**	**+0.9**
ZAK				*e*		08 06 25.5	
TLY	**Talaya**	**43.76**	**10**	*e*P	**P**	**08 04 48.5**	**+0.9**
TLY				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.3						
TLY	**Talaya**	**43.76**	**10**	*e*P	**P**	**08 04 48.5**	**+0.9**
	comp=Z,5.7nm,1.0s,mb4.3						
HIA	**Hailar**	**46.41**	**25**	P	**P**	**08 05 09.2**	**+0.5**
HIA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
HIA	**Hailar**	**46.41**	**25**	P	**P**	**08 05 09.2**	**+0.5**
	comp=Z,3.1nm,0.4s,mb4.6						
NVS	**Novosibirsk**	**46.49**	**353**	*i* P	**P**	**08 05 07.4**	**-1.9**
BVAR	**Borovoye Array**	**47.56**	**342**	P	**P**	**08 05 17.6**	**-0.1**
	comp=Z,2.2nm,0.8s,mb4.2,baz=149,slow=8.6,SNR=9.4						
BRVK	**Borovoye**	**47.62**	**342**	*e*P	**P**	**08 05 17.6**	**-0.6**
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.3						
BRVK	**Borovoye**	**47.62**	**342**	*e*P	**P**	**08 05 17.6**	**-0.6**
	comp=Z,1.8nm,0.6s,mb4.3						
NWAO	**Narrogin (SRO)**	**47.80**	**151**	P	**P**	**08 05 20.0**	**+0.2**
	comp=Z,4.6nm,0.6s,mb4.7,baz=310,slow=13,SNR=5.6						
CHKZ	**Chkalovo**	**48.06**	**343**	*e*P	**P**	**08 05 21.2**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
CHKZ	**Chkalovo**	**48.06**	**343**	*e*P	**P**	**08 05 21.2**	**-0.3**
	comp=Z,9.5nm,1.0s,mb4.8						
WRA	**Warramunga Arr**	**50.26**	**125**	P	**P**	**08 05 38.0**	**-1.0**
	comp=Z,2.5nm,0.6s,mb4.5,baz=306,slow=8.4,SNR=15						
WRAB	**Tennant Creek**	**50.26**	**125**	*e*P	**P**	**08 05 37.6**	**-1.4**
WRAB				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
WRAB	**Tennant Creek**	**50.26**	**125**	*e*P	**P**	**08 05 37.6**	**-1.5**
	comp=Z,8.5nm,0.7s,mb4.9						
BOD	**Bodaibo**	**51.70**	**15**	*e*P	**P**	**08 05 47.8**	**-1.5**
ASAR	**Alice Springs**	**51.88**	**129**	P	**P**	**08 05 50.1**	**-1.1**
	comp=Z,4.3nm,0.8s,mb4.4,baz=310,slow=7.9,SNR=17						
ASAR				PcP	PcP	08 07 04.0	+0.4
	comp=Z,1.9nm,0.7s,baz=299,slow=4.4,SNR=6.8						
GNI	**Garni**	**52.51**	**315**	*i* P	**P**	**08 05 56.4**	**+0.7**
GNI				pmax	pmax		
	comp=Z,6.0nm,1.1s						
ARU	**Arti**	**54.35**	**338**	⇓*i*P	**P**	**08 06 09.3**	**+0.2**
ARU				*e*		08 07 14.8	
ARU				*e*		08 08 07.1	
ARU				*e*S	**S**	**08 13 40.8**	**-1.3**
ARU				*e*SS	SS	08 17 23.8	-0.4
ARU				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
KMBO	**Kilima Mbogo**	**55.74**	**263**	LR	LR	08 28 03.3	
	comp=Z,136nm,18.2s,MS4.1,baz=92,slow=34						
MALT	**Malatya**	**56.50**	**310**	P	**P**	**08 06 24.3**	**-0.5**
MALT				pmax	pmax		
	comp=Z,3.0nm,0.9s,mb4.3						
MALT	**Malatya**	**56.50**	**310**	P	**P**	**08 06 24.3**	**-0.6**
	comp=Z,3.2nm,0.9s,mb4.3						
SOC	**Sochi**	**57.28**	**317**	*e*P	**P**	**08 06 32.8**	**+2.5**
SOC				*e*		08 08 37.6	
SOC				*e*S	**S**	**08 14 26.7**	**+5.5**

SOC				*e*SS	SS	08 18 16.6	+4.4
SOC				*e*SSS	SSS	08 20 34.0	+5.3
SOC				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
SOC				pmax	pmax		
	comp=N,5.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,2.0nm,0.5s						
YAK	Yakutsk	59.72	19	P	P	08 06 46.0	-1.0
YAK				pmax	pmax		
	comp=Z,16nm,0.8s,mb5.1						
YAK	Yakutsk	59.72	19	P	P	08 06 46.0	-1.0
	comp=Z,16nm,0.8s,mb5.1						
CTAO	Charters Tower	60.33	119	P	P	08 06 52.3	+0.5
CTAO				pmax	pmax		
	comp=Z,16nm,1.2s,mb4.9						
CTAO	Charters Tower	60.33	119	P	P	08 06 52.3	+0.5
	comp=Z,16nm,1.2s,mb4.9						
BRTR	Keskin Array B	60.47	311	P	P	08 06 51.1	-1.4
	comp=Z,1.3nm,0.7s,mb4.1,baz=138,slow=7.1,SNR=5.1						
STKA	Stephens Creek	62.04	133	P	P	08 07 03.6	+0.4
	comp=Z,5.0nm,1.0s,mb4.6,baz=303,slow=11,SNR=4.5						
OBN	Obninsk	63.65	328	*e*P	P	08 07 14.6	+1.1
OBN				S	S	08 15 48.1	+5.5
OBN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
TIXI	Tiksi	66.70	12	*i* P	P	08 07 32.3	-0.5
TIXI				pmax	pmax		
	comp=Z,27nm,1.3s,mb5.1						
LSZ	Lusaka	67.89	250	*e*P	P	08 07 42.1	+0.9
LSZ				pmax	pmax		
	comp=Z,1.0nm,0.5s,mb4.1						
LSZ	Lusaka	67.89	250	*e*P	P	08 07 42.1	+1.0
	comp=Z,1.2nm,0.5s,mb4.2						
GERES	GERESS Array B	75.94	318	P	P	08 08 29.0	+0.3
	comp=Z,1.2nm,0.9s,mb3.8,baz=90,slow=4.0,SNR=6.2						
INK	Inuvik	96.61	16	P	P	08 10 12.0	+1.4
	comp=Z,1.5nm,1.0s,mb4.4,baz=282,slow=4.7,SNR=4.4						
YKA	Yellowknife Ar	105.94	13	PP	PP	08 15 13.6	-5.2
	comp=Z,0.6nm,0.8s,baz=332,slow=6.8,SNR=7.7						
ULM	Lac du Bonnet	120.77	6	PKP	PKPdf	08 15 35.4	+3.2
	comp=Z,1.3nm,0.5s,baz=340,slow=8.5,SNR=3.1						
PDAR	Pinedale Array	124.94	20	PKP	PKPdf	08 15 43.0	+2.6
	comp=Z,0.8nm,0.9s,baz=27,slow=3.3,SNR=5.3						
NVAR	Mina Array Bea	125.03	29	PKP	PKPdf	08 15 44.7	+4.0
	comp=Z,1.0nm,0.8s,baz=95,slow=1.4,SNR=5.5						
TXAR	Lajitas Array	139.09	22	PKP	PKPdf	08 16 10.8	+3.4
	comp=Z,0.7nm,0.7s,baz=358,slow=0.3,SNR=9.2						
TXAR				PP	PP	08 19 00.5	-4.0
	comp=Z,3.9nm,1.4s,baz=90,slow=2.5,SNR=3.5						

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*IDC **31** 08:02:37.4±1.4, 3.55N×94.66E, mb4.1/8, mb1 4.3/8, mb1mx4.0/18, mbtmp4.1/8, MS3.2/1, Ms1 3.4/1, ms1mx2.8/25, Error ellipse: s-maj=65.0km s-min=21.0km az=52.0*

ISC 31 08:02:40.3±1.0, 3.4N±0.2×94.6E±0.2, h33^{km}, n9, σ0^{s}68/9, mb4.0/8, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.54	16	Pn	P	08 06 19.7	+1.0
	0.2nm,0.3s,baz=212,slow=12,SNR=32						
CMAR				LR	LR	08 12 35.1	
	comp=Z,92nm,19.9s,baz=190,slow=39						
SONM	Songino Array	45.40	11	P	P	08 10 56.3	-1.3
	1.1nm,0.8s,mb3.7,baz=192,slow=8.0,SNR=8.4						
WRA	Warramunga Arr	45.45	122	P	P	08 10 58.1	-0.2
	3.6nm,0.8s,mb4.2,baz=302,slow=8.6,SNR=9.3						
ASAR	Alice Springs	46.84	127	P	P	08 11 09.5	+0.3
	1.4nm,0.8s,mb3.9,baz=308,slow=6.8,SNR=4.9						
ZAL	Zalesovo	50.98	353	P	P	08 11 40.4	-0.4
	1.0nm,0.4s,mb4.1,baz=306,slow=12,SNR=4.4						
BVAR	Borovoye Array	53.31	342	P	P	08 11 57.7	-0.6
	1.2nm,0.8s,mb3.9,baz=153,slow=6.6,SNR=6.5						
FINES	FINESS Array B	76.82	333	P	P	08 14 30.2	-0.1
	1.5nm,0.8s,mb4.0,baz=90,slow=5.7,SNR=4.9						
ARCES	ARCESS Array B	79.56	340	P	P	08 14 45.8	+0.5
	2.8nm,0.9s,mb4.2,baz=90,slow=6.3,SNR=4.4						
GERES	GERESS Array B	81.41	319	P	P	08 14 56.2	+0.7
	1.4nm,0.8s,mb3.9,baz=79,slow=6.8,SNR=9.3						

IDC 31 08:14:22.1±3.3, 13.05N×93.12E, mb3.5/3, mb1 3.7/4, mb1mx3.6/18, mbtmp3.5/4, Error ellipse: s-maj=85.7km s-min=30.2km az=82.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.77	45	Pn	Pn	08 16 16.2	-3.0
	0.2nm,0.3s,baz=237,slow=15,SNR=7.9						
CMAR				Sn	Sn	08 17 36.4	-13
	0.2nm,0.3s,baz=238,slow=28,SNR=4.6						
SONM	Songino Array	36.41	15	P	P	08 21 28.7	-1.5
	0.2nm,0.4s,baz=196,slow=10,SNR=2.1						
WRA	Warramunga Arr	52.16	128	P	P	08 23 34.5	-2.5
	0.4nm,0.6s,baz=312,slow=7.8,SNR=6.7						
ASAR	Alice Springs	54.06	132	P	P	08 23 49.0	-2.0
	0.5nm,0.5s,baz=308,slow=6.9,SNR=6.4						

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*IDC **31** 08:15:47.9±2.0, 17.09S×177.15W, mb4.0/8, mb1 4.3/8, mb1mx4.1/13, mbtmp4.0/8, MS4.4/17, Ms1 4.4/17, ms1mx4.2/30, Error ellipse: s-maj=113.5km s-min=23.4km az=153.0*

ISC 31 08:15:50.5±1.1, 16.4S±0.4×177.5W±0.3, h10^{km}, n42, σ1^{s}46/10, mb4.0/10, MS4.5/16, Fiji Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
RAR	Rarotonga	17.45	109	LR	LR	08 25 08.8	
	comp=Z,1µm,19.2s,baz=292,slow=33						
URZ	Urewera	22.30	191	LR	LR	08 28 13.0	
	comp=Z,3µm,21.4s,MS4.6,baz=170,slow=34						
PPT	Papeete	26.72	97	LR	LR	08 28 55.1	
	comp=Z,1µm,21.2s,MS4.4,baz=267,slow=30						
CTA	Charters Tower	34.58	258	P	P	08 22 41.1	-0.7
	7.0nm,0.9s,mb4.6,baz=76,slow=16,SNR=2.8						
PMG	Port Moresby	35.10	277	LR	LR	08 35 11.9	
	comp=Z,371nm,19.2s,MS4.2,baz=102,slow=33						
STKA	Stephens Creek	40.13	240	P	P	08 23 29.5	+1.1
	5.7nm,1.0s,mb4.3,baz=69,slow=9.0,SNR=4.5						
ASAR	Alice Springs	46.06	253	P	P	08 24 13.6	-3.0
	5.6nm,0.8s,mb4.6,baz=85,slow=8.2,SNR=21						
ASAR				LR	LR	08 43 07.0	
	comp=Z,1µm,18.5s,MS4.8,baz=94,slow=36						
VNDA	Vanda	62.03	185	LR	LR	08 50 48.2	
	comp=Z,207nm,18.3s,MS4.3,baz=20,slow=34						
TGY	Tagaytay City	67.94	293	LR	LR	08 52 07.8	
	comp=Z,306nm,18.2s,MS4.6,baz=192,slow=32						
FX1	Attu Island--F	69.45	354	LR	LR	08 57 13.3	
	comp=Z,43nm,18.2s,MS3.7,baz=119,slow=35						
ASAJ	Asahikawa	70.37	331	LR	LR	08 57 11.1	
	comp=Z,314nm,18.9s,MS4.6,baz=171,slow=35						
YBH	Yreka Blue Hor	76.80	39	LR	LR	08 53 14.9	
	comp=Z,286nm,20.4s,MS4.6,baz=311,slow=29						
NVAR	Mina Array Bea	77.73	44	P	P	08 27 48.0	-1.4
	0.8nm,0.7s,mb3.8,baz=234,slow=16,SNR=3.1						
NVAR				LR	LR	08 56 57.8	
	comp=Z,182nm,18.4s,MS4.4,baz=150,slow=32						
ILAR	Eielson Array	84.22	13	P	P	08 28 22.4	-0.8
	2.9nm,1.0s,mb4.3,baz=228,slow=5.9,SNR=9.1						
ILAR				LR	LR	08 58 45.4	
	comp=Z,269nm,21.3s,MS4.6,baz=56,slow=30						
TXAR	Lajitas Array	84.45	57	P	P	08 28 23.1	-2.1
	0.7nm,1.0s,mb3.8,baz=243,slow=5.6,SNR=4.6						
TXAR				LR	LR	09 00 15.7	
	comp=Z,143nm,18.1s,MS4.4,baz=215,slow=32						
ANMO	Albuquerque	84.47	51	P	P	08 28 26.9	+1.8
	0.3nm,0.3s,mb3.9,baz=220,slow=7.9,SNR=2.6						
ANMO				LR	LR	08 59 50.0	
	comp=Z,188nm,18.2s,MS4.5,slow=31						
MAW	Mawson	85.58	200	LR	LR	09 01 46.8	
	comp=Z,457nm,21.3s,MS4.8,baz=83,slow=32						
PDAR	Pinedale Array	85.65	43	P	P	08 28 31.9	+1.1
	0.1nm,0.4s,mb3.4,baz=198,slow=2.9,SNR=2.7						
CMAR	Chiang Mai Arr	89.20	289	P	P	08 28 50.3	+1.8
	0.2nm,0.5s,mb3.7,baz=97,slow=12,SNR=3.3						
SNAA	Sanae	92.09	178	LR	LR	09 09 40.9	
	comp=Z,72nm,18.7s,MS4.2,baz=193,slow=35						
YKA	Yellowknife Ar	92.59	24	P	P	08 29 03.6	+0.4
	0.1nm,0.4s,mb3.6,baz=243,slow=6.3,SNR=3.0						
YKA				LR	LR	09 03 40.9	
	comp=Z,278nm,20.1s,MS4.7,baz=255,slow=31						
BRTR	Keskin Array B	144.30	317	PKPbc	PKPbc	08 35 26.1	-0.6
	0.5nm,0.5s,baz=69,slow=13,SNR=3.8						
DPC	Dobruska-Polom	144.33	345	*e*P	PKPbc	08 35 32.7	+6.4
KHC	Kasperske Hory	146.12	347	*e*P	PKPbc	08 35 35.1	+4.1
GERES	GERESS Array B	146.36	347	PKPbc	PKPbc	08 35 32.8	+1.2
	0.2nm,0.4s,baz=143,slow=4.9,SNR=2.7						
GRR	Gorron	147.97	4	*e*PKIKP	PKPdf	08 35 39.5	+3.5
QUIF	Quistinic	148.21	7	*e*PKIKP	PKPdf	08 35 40.9	+4.5
DAVOX	Davos	149.08	350	PKPbc	PKPdf	08 35 40.9	+3.1
	1.6nm,0.5s,baz=324,slow=15,SNR=4.4						
SSF	Saint Saulge	149.40	359	*e*PKIKP	PKPdf	08 35 42.6	+4.2
	17nm,1.2s						
AVF	Avril sur Loir	149.68	359	*e*PKIKP	PKPdf	08 35 44.3	+5.5
CABF	La Chapelle	149.72	355	*e*PKIKP	PKPdf	08 35 44.1	+5.2
SMF	Signal de Mont	149.81	358	*e*PKIKP	PKPdf	08 35 44.5	+5.5
ORIF	Oris-en-Rattie	151.41	355	*e*PKIKP	PKPdf	08 35 46.7	+5.2
MBDF	Montbardon	151.52	354	*e*PKIKP	PKPdf	08 35 46.8	+5.1
	39nm,1.5s						
SBF	Sospel	152.29	352	*e*PKIKP	PKPdf	08 35 48.0	+5.1
LASF	Ste Croix	152.37	358	*e*PKIKP	PKPdf	08 35 48.3	+5.3
SMRF	Simiane la Rot	152.38	355	*e*PKIKP	PKPdf	08 35 48.6	+5.6
MTLF	Montolieu	153.13	0	*e*PKIKP	PKPdf	08 35 49.1	+5.1
	41nm,1.4s						
SJPF	Ste Jean	153.17	6	*e*PKIKP	PKPdf	08 35 49.6	+5.5
EPF	Esparros	153.38	4	*e*PKIKP	PKPdf	08 35 49.8	+5.4
	20nm,1.1s						
ETSF	Etsaut	153.45	5	*e*PKIKP	PKPdf	08 35 50.2	+5.7
	33nm,1.4s						
EVO	Evora	156.08	21	*e*PKIKP	PKPdf	08 35 54.0	+5.9
	17nm,1.1s						

IDC 31 08:28:04.4±1.6, 3.45N×93.42E, mb3.7/4, mb1 3.9/5, mb1mx3.7/19, mbtmp3.6/5, ML3.9/1, Error ellipse: s-maj=75.8km s-min=25.2km az=51.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.87	20	Pn	P	08 31 50.1	-0.8
	0.2nm,0.3s,baz=207,slow=10,SNR=6.3						
WRA	Warramunga Arr	46.42	122	P	P	08 36 33.5	-1.5
	0.7nm,0.9s,baz=301,slow=9.1,SNR=5.3						
ASAR	Alice Springs	47.76	126	P	P	08 36 43.2	-2.3
	0.9nm,0.9s,baz=306,slow=6.4,SNR=4.2						
BVAR	Borovoye Array	52.95	343	P	P	08 37 22.1	-2.6
	0.4nm,0.6s,baz=153,slow=6.4,SNR=3.5						
GERES	GERESS Array B	80.64	319	P	P	08 40 19.6	-1.0
	0.3nm,0.6s,baz=117,slow=4.4,SNR=4.1						

JMA 31 08:29:30.0±0.3, 43.68N×147.26E, h23^{km}, M3.5, Kuril Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NEM2	Nemuro 2	1.15	255	P	Pn	08 29 50.8	0.0
NEM2				*e*S	Sb	08 30 05.9	+0.4
JRA	Rausu	1.57	280	P	Pn	08 29 57.1	+0.2
JNK	Nakash	1.85	268	P	Pn	08 30 01.0	+0.2
JAK	Akkeshi	1.99	251	P	Pn	08 30 02.9	0.0
JAK				*e*S	Sn	08 30 28.0	+0.6
JTKR	Abashiri--Toko	2.44	278	P	Pn	08 30 09.9	+0.5
JAR	Ashorobuto	2.57	263	P	Pn	08 30 12.2	+1.0
JOB	Onbets	2.62	254	P	Pn	08 30 12.6	+0.7
JCH	Churui	3.04	251	P	Pn	08 30 17.6	-0.3
JCH				*e*S	Sn	08 30 53.1	-1.0
JNBK	Urakawa-nobuka	3.59	249	P	Pn	08 30 25.8	+0.1

IDC 31 08:29:58.4±2.3, 7.32N×94.07E, mb4.1/5, mb1 4.3/5, mb1mx3.9/17, mbtmp4.1/5, Error ellipse: s-maj=99.5km s-min=23.2km az=61.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.04	23	Pn	P	08 32 56.0	+1.7
	baz=214,slow=13,SNR=4.1						
SONM	Songino Array	41.71	12	P	P	08 37 48.8	-1.8
	0.6nm,0.5s,baz=199,slow=9.0,SNR=6.8						
ZAL	Zalesovo	47.08	353	P	P	08 38 31.8	-2.0
	4.6nm,0.4s,baz=324,slow=4.8,SNR=6.7						
WRA	Warramunga Arr	48.00	125	P	P	08 38 37.9	-3.6
	1.2nm,0.7s,baz=300,slow=9.9,SNR=7.3						
ASAR	Alice Springs	49.62	130	P	P	08 38 53.6	-0.2
	1.3nm,1.0s,baz=300,slow=7.6,SNR=6.4						
ARCES	ARCESS Array B	75.76	340	P	P	08 41 45.8	-1.6
	4.2nm,0.9s,baz=90,slow=4.9,SNR=5.4						

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*NIED **31** 08:30:00, 39.80N×142.50E, h62^{km}, Mw4.3 Best double couple: $M_0$2.66×10^{15} NP1:ϕ_s44°, δ72°, λ140°. NP2:ϕ_s149°, δ52°, λ23°.*

*MOS **31** 08:30:21.8±0.7, 40.04N×142.29E, h46^{km}, mb4.7/17, Error ellipse: s-maj=15.9km s-min=8.0km az=88.9*

*JMA **31** 08:30:23.3±0.1, 39.81N×142.47E, h60^{km}±1^{km}, M4.3*

JMA Felt II J1.

*BJI **31** 08:30:24.2, 39.65N×141.87E, h67^{km}, mB5.0, mb4.2*

*NEIC **31** 08:30:25.2±0.7, 39.96N×142.16E, h67^{km}±6^{km}, mb4.5/20, MW4.3(NIED), Error ellipse: s-maj=11.3km s-min=5.9km az=130.0*

NEIC Recorded [2 JMA] in Aomori and Iwate; [1 JMA] in Miyagi Prefectures.

*IDC **31** 08:30:27.3±2.8, 40.06N×142.33E, h84^{km}±23^{km}, mb4.0/17, mb1 4.2/18, mb1mx4.1/25, mbtmp4.3/18, MS3.7/2, Ms1 3.7/2, ms1mx3.2/35, Error ellipse: s-maj=17.0km s-min=15.6km az=125.0*

ISC 31 08:30:23.1±0.6, 39.84N±0.03×142.39E±0.07, h69^{km}±4^{km}, n90, σ0^{s}95/103, mb4.3/36, 3C-7D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTH	Tanohata	0.41	284	⇓P	P	08 30 35.4	+0.3
JTH				S	S	08 30 44.1	0.0
MIYJ	Miyakonagasawa	0.51	239	P	P	08 30 36.0	-0.1
JKZ	Kuzumaki	0.83	280	⇓P	P	08 30 40.5	+0.9
JKZ				S	S	08 30 52.9	+1.1
JANG	Nango	0.85	309	⇓P	P	08 30 40.3	+0.4
JANG				S	S	08 30 52.7	+0.3
JOM	Ohasama	0.92	247	⇓P	P	08 30 41.3	+0.5
JOM				S	S	08 30 54.2	+0.3
JMK	Ichinoseki	1.27	226	⇓P	P	08 30 45.3	-0.1
JMK				S	S	08 31 01.6	-0.3
JTM	Tenmabayashi	1.38	314	⇓P	P	08 30 47.5	+0.5
JTM				S	S	08 31 05.5	+0.8
JAH	Hinai	1.39	285	⇓P	P	08 30 48.0	+0.9
JAH				S	S	08 31 06.5	+1.6
JIO	Ouri	1.60	211	⇑P	P	08 30 49.1	-0.9
JIO				S	S	08 31 07.5	-2.3
ASAJ	Asahikawa	4.28	2	P	P	08 31 26.6	-0.7
	47nm,0.3s,baz=229,slow=8.7,SNR=146						
ASAJ				S	S	08 32 13.9	-2.4
	26nm,0.3s,baz=95,slow=34,SNR=6.3						
ASAJ				LR	LR	08 33 42.0	
	comp=Z,194nm,19.6s,baz=85,slow=48						
MAJO	Matsushiro	4.66	226	*e*P	P	08 31 32.9	+0.3
MAT	Matsushiro	4.66	226	P	P	08 31 32.8	+0.2
MAT				*e*S	S	08 32 24.3	-1.6
MAT	Matsushiro	4.66	226	*e*P	P	08 31 33.0	+0.4
MAT				S	S	08 32 24.0	-1.9
YUK	Yuzh-Kuril'sk	4.93	31	*e*P	P	08 31 31.5	-4.8
YUK				*i* S	S	08 32 25.1	-7.5
YUK				pmax	pmax		
	comp=Z,270nm,0.5s						
YUK				smax			
	comp=N,7µm,0.7s						
YUK				smax			
	comp=E,4µm,0.7s						
YUK				smax			
	comp=N,5µm,0.5s						
YUK				smax			
	comp=E,960nm,0.5s						
JHJ	Hachijo jima 2	7.03	198	P	P	08 32 00.8	-4.8
	comp=E,27nm,0.3s,baz=58,slow=20,SNR=5.7						
JHJ				S	S	08 33 14.6	-10
	comp=E,50nm,0.3s,baz=254,slow=23,SNR=11						
YSS	Yuzh-Sakhalins	7.12	2	⇑*i*P	P	08 32 05.0	-1.7
YSS				*e*		08 33 20.0	
YSS				pmax	pmax		
	comp=Z,110nm,0.9s						
YSS				pmax	pmax		
	comp=N,160nm,1.0s						
YSS	Yuzh-Sakhalins	7.12	2	*e*Pn	P	08 32 04.8	-1.9
	comp=N,109nm,0.8s						
KS15	Wonju Array Si	11.59	263	*e*Pn	P	08 33 04.9	-2.8
BJI	Beijing	20.08	279	*e*P	P	08 34 49.5	-3.8
BJI				AMB	AMB		
	comp=Z,9.0nm,0.9s						
MA2	Magadan	20.45	12	*e*P	P	08 34 56.1	-0.9
MA2				pmax	pmax		
	comp=Z,24nm,0.6s						
MA2	Magadan	20.45	12	*e*P	P	08 34 56.1	-0.9
	comp=Z,24nm,0.6s						
YAK	Yakutsk	23.53	345	*e*P	P	08 35 26.0	-1.3
YAK				*e*S	S	08 39 32.4	-0.4
YAK				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.2						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,3.0nm,0.9s						
YAK				smax			
	comp=N,6.0nm,1.0s						
YAK				smax			
	comp=E,9.0nm,1.1s						
YAK	Yakutsk	23.53	345	*e*P	P	08 35 26.7	-0.6
	comp=E,23nm,0.4s,mb4.9						
SEY	Seymchan	23.89	11	*e*P	P	08 35 30.2	-0.6
SEY				pmax	pmax		
	comp=N,30nm,0.9s						
SEY				pmax	pmax		
	comp=Z,90nm,0.9s,mb5.1						
BOD	Bodaibo	25.64	324	*e*P	P	08 35 46.4	-1.1
SONM	Songino Array	26.97	299	P	P	08 35 59.5	-0.5
	comp=Z,1.7nm,0.7s,mb3.7,baz=88,slow=8.6,SNR=15						
ENH	Enshi	28.44	261	*e*P	P	08 36 11.1	-2.3
	comp=Z,13nm,0.9s,mb4.5						
ZAK	Zakamensk	29.23	304	⇑*i*P	P	08 36 19.9	-0.3
BILL	Bilibino	31.12	17	*e*P	P	08 36 36.3	-0.5
BILL				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.5						
BILL	Bilibino	31.12	17	*e*P	P	08 36 36.3	-0.5
	comp=Z,11nm,1.1s,mb4.5						
ZAL	Zalesovo	40.66	310	P	P	08 37 57.9	+0.2
	comp=Z,3.9nm,0.5s,mb4.5,baz=28,slow=8.1,SNR=12						
IMA	Indian Mountai	43.89	32	*e*P	P	08 38 25.1	+1.1
IMA				*e*		08 38 34.1	
IMA				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.5						
IMA	Indian Mountai	43.89	32	*e*P	P	08 38 25.1	+1.1
	comp=Z,6.3nm,0.6s,mb4.5						
IMA				*e*		08 38 34.1	
ILAR	Eielson Array	46.73	34	P	P	08 38 46.6	+0.1
	comp=Z,4.0nm,0.7s,mb4.3,baz=266,slow=6.0,SNR=83						
CHKZ	Chkalovo	48.99	312	*e*P	P	08 39 03.4	-0.9
CHKZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
CHKZ	Chkalovo	48.99	312	*e*P	P	08 39 03.4	-0.9
	comp=Z,3.1nm,0.7s,mb4.3						
BVAR	Borovoye Array	49.29	311	P	P	08 39 06.4	-0.2
	comp=Z,2.1nm,0.4s,mb4.4,baz=80,slow=8.8,SNR=16						
BRVK	Borovoye	49.34	311	*e*P	P	08 39 06.6	-0.4
BRVK				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
BRVK	Borovoye	49.34	311	*e*P	P	08 39 06.6	-0.4
	comp=Z,1.7nm,0.6s,mb4.2						
AAK	Ala-Archa	49.88	297	*e*P	P	08 39 09.5	-1.8
AAK				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.4						
AAK	Ala-Archa	49.88	297	*e*P	P	08 39 09.5	-1.8
	comp=Z,2.1nm,0.4s,mb4.4						
INK	Inuvik	51.55	28	P	P	08 39 23.1	-0.6
	comp=Z,4.4nm,0.5s,mb4.7,baz=306,slow=5.9,SNR=27						
ARU	Arti	54.79	317	*e*P	P	08 39 47.1	-0.6
ARU				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
ARU	Arti	54.79	317	*e*P	P	08 39 47.1	-0.6
	comp=Z,7.8nm,1.0s,mb4.7						
WRA	Warramunga Arr	59.94	189	P	P	08 40 24.8	+0.3
	comp=Z,3.0nm,0.5s,mb4.6,baz=6.0,slow=7.1,SNR=4.7						
YKA	Yellowknife Ar	61.01	31	P	P	08 40 30.4	-0.8
	comp=Z,1.1nm,0.5s,mb4.1,baz=301,slow=6.4,SNR=29						
ARCES	ARCESS Array B	61.65	339	P	P	08 40 33.1	-2.3
	comp=Z,2.9nm,0.8s,mb4.3,baz=45,slow=6.9,SNR=6.3						
ASAR	Alice Springs	63.67	189	P	P	08 40 51.8	+2.3
	comp=Z,1.4nm,0.4s,mb4.1,baz=2.4,slow=7.1,SNR=25						
KAF	Kangasniemi	66.17	333	*e*p	P	08 41 03.8	-1.2
FINES	FINESS Array B	66.69	332	P	P	08 41 07.2	-1.1
	comp=Z,3.3nm,0.5s,mb4.4,baz=56,slow=6.9,SNR=24						
NB2	NORSAR Subarra	71.90	337	P	P	08 41 39.6	-0.5
	comp=Z,2.4nm,0.6s,mb4.2,baz=38,slow=5.8						
NB2	NORSAR Subarra	71.90	337	P	P	08 41 39.6	-0.5
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.1						
NOA	NORSAR Array B	71.90	337	P	P	08 41 39.6	-0.5
	comp=Z,3.0nm,0.6s,mb4.3,baz=39,slow=5.9,SNR=11						
BOZ	Bozeman (W)	72.18	45	*e*P	P	08 41 42.7	+0.6
BOZ				pmax	pmax		
	comp=Z,1.0nm,0.6s,mb3.8						
BOZ	Bozeman (W)	72.18	45	*e*P	P	08 41 42.7	+0.7
	comp=Z,1.2nm,0.6s,mb3.9						
AKASG	Malin Array Be	72.55	322	P	P	08 41 43.5	-0.6
	comp=Z,2.6nm,0.3s,mb4.5,baz=44,slow=6.3,SNR=39						
NVAR	Mina Array Bea	72.71	54	P	P	08 41 45.6	+0.3
	comp=Z,0.6nm,0.6s,mb3.6,baz=63,slow=30,SNR=5.1						
FRB	Frobisher Bay	73.87	14	LR	LR	09 16 03.8	
	comp=Z,262nm,19.1s,baz=61,slow=37						
BW06	Boulder Array	75.17	46	*e*P	P	08 41 60.0	+0.5
	comp=Z,0.9nm,0.6s,mb3.7						
PDAR	Pinedale Array	75.17	46	P	P	08 41 59.8	+0.3
	comp=Z,1.5nm,0.9s,mb3.7,baz=283,slow=2.5,SNR=9.2						
MORC	Moravsky Berou	78.43	327	*e*P	P	08 42 18.0	+0.5
MORC				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.2						
MORC	Moravsky Berou	78.43	327	*e*P	P	08 42 18.0	+0.5
	comp=Z,2.6nm,0.6s,mb4.1						
CLL	Collm	79.04	330	P	P	08 42 21.2	+0.3
CLL				*e**PP	pP	08 42 42.0	+2.2
PRU	Pruhonice	79.49	329	*e*P	P	08 42 24.1	+0.8
KHC	Kasperske Hory	80.55	329	*e*P	P	08 42 30.0	+1.0
GERES	GERESS Array B	80.73	329	P	P	08 42 30.1	+0.1
	comp=Z,1.2nm,0.6s,mb3.9,baz=36,slow=6.2,SNR=12						
ANMO	Albuquerque	82.20	51	*e*P	P	08 42 39.0	+1.1
ANMO				pmax	pmax		
	comp=Z,2.0nm,1.0s						
ANMO	Albuquerque	82.20	51	*e*P	P	08 42 39.0	+1.1
	comp=Z,2.4nm,1.0s,mb4.0						
CDF	Champ du Feu	83.55	332	*e*P	P	08 42 44.8	+0.4
DAVOX	Davos	83.92	329	P	P	08 42 47.7	+1.4
	comp=Z,2.5nm,0.6s,mb4.3,baz=53,slow=1.6,SNR=5.5						
HAU	Haudompre	84.22	332	*e*P	P	08 42 48.0	+0.2
	comp=Z,5.5nm,0.6s,mb4.2						
HAU	Haudompre	84.22	332	*e*P	P	08 42 48.0	+0.2
HAU				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.3						
CABF	La Chapelle	85.50	331	*e*P	P	08 42 54.5	+0.3
LDF	La Druitiere	85.89	336	*e*P	P	08 42 56.8	+0.7
SSF	Saint Saulge	86.04	333	*e*P	P	08 42 57.3	+0.5
	comp=Z,8.7nm,0.7s,mb4.5						
SSF	Saint Saulge	86.04	333	*e*P	P	08 42 57.3	+0.5
SSF				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
LPL	La Plagne	86.18	330	*e*P	P	08 42 58.4	+0.9
LPG	La Plagne	86.19	330	*e*P	P	08 42 58.6	+1.0
SMF	Signal de Mont	86.28	333	*e*P	P	08 42 58.2	+0.2
GRR	Gorron	86.30	336	*e*P	P	08 42 58.7	+0.6
	comp=Z,8.2nm,0.6s,mb4.6						
GRR	Gorron	86.30	336	*e*P	P	08 42 58.7	+0.6
GRR				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
AVF	Avril sur Loir	86.32	333	*e*P	P	08 42 58.8	+0.6
	comp=Z,20nm,0.6s,mb4.9						
AVF	Avril sur Loir	86.32	333	*e*P	P	08 42 58.8	+0.6
AVF				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
MBDF	Montbardon	86.83	330	*e*P	P	08 43 01.1	+0.3
	comp=Z,6.8nm,0.8s,mb4.3						
MBDF	Montbardon	86.83	330	*e*P	P	08 43 01.1	+0.3
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
TCF	Toulx Ste Croi	87.15	334	*e*P	P	08 43 02.5	+0.2
MFF	Saint Martin d	87.66	335	*e*P	P	08 43 05.6	+0.9
	comp=Z,9.2nm,0.8s,mb4.6						
MFF	Saint Martin d	87.66	335	*e*P	P	08 43 05.6	+0.9
MFF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
TXAR	Lajitas Array	87.81	53	P	P	08 43 06.8	+0.9
	comp=Z,0.8nm,1.1s,mb3.7,baz=276,slow=2.8,SNR=6.0						
CAF	Calviac	88.39	333	*e*P	P	08 43 09.5	+1.3

BJI ***31*** *08:34:50.5, 6.29N×94.18E, h16^{km}, mB5.2, mb4.9, Ms4.7,*
Msz4.0
IDC ***31*** *08:34:55.4±0.4, 7.11N×94.52E, mb4.7/20, mb1 4.8/20,*
mb1mx4.7/21, mbtmp4.6/20, Error ellipse: s-maj=23.0km
s-min=11.9km az=53.0
NEIC ***31*** *08:34:58.5±3.6, 7.13N×94.61E, h16^{km}±21^{km}, mb4.8/25,*
Error ellipse: s-maj=8.6km s-min=6.2km az=60.0
MOS ***31*** *08:34:59.6±1.0, 7.20N×94.56E, h33^{km}, mb5.0/26, Error*
ellipse: s-maj=15.4km s-min=8.8km az=100.3
ISC 31 08:34:58.0±0.3, **7.07N**±0.05×**94.50E**±0.06, **h28**^{km},
h28^{km}±2.9^{km}**:pP-P, n129,** σ**1^{s}13**/107, **mb4.8**/66, **MS4.7**/3,
1C-2D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	**Chiang Mai Arr**	**12.12**	**20**	*e*Pn	**P**	**08 37 48.0**	**-4.0**
	11nm,0.4s						
CM31				*e*pPn		08 37 54.0	
CMAR	**Chiang Mai Arr**	**12.12**	**20**	Pn	**P**	**08 37 52.8**	**+0.8**
	2.4nm,0.3s,baz=213,slow=14,SNR=56						
SHL	**Shillong**	**18.57**	**353**	*e*P	**P**	**08 39 14.0**	**-1.1**
KMI	**Kunming**	**19.61**	**23**	P	**P**	**08 39 31.8**	**+4.5**
KMI				AP		08 39 41.5	
KMI				AMB	AMB		
	comp=Z,35nm,1.3s						
KMI				LR	LR		
	comp=N,355nm,9.0s						
KMI				LR	LR		
	comp=E,192nm,10.9s						
KMI				LR	LR		
	comp=Z,175nm,12.9s						
PKI	**Pulchoki**	**22.14**	**338**	*e*P	**P**	**08 39 52.5**	**-0.8**
	comp=Z,48nm,0.6s,mb5.1						
GUN	**Gumba**	**22.28**	**340**	*e*P	**P**	**08 39 53.8**	**-0.9**
	comp=Z,65nm,0.6s,mb5.2						
DMN	**Daman**	**22.29**	**338**	*e*P	**P**	**08 39 53.7**	**-1.1**
	comp=Z,107nm,0.9s,mb5.3						
KKN	**Kakani**	**22.39**	**338**	*e*P	**P**	**08 39 55.1**	**-0.7**
	comp=Z,105nm,1.1s,mb5.2						
GYA	**Guiyang**	**22.49**	**30**	⇑*i*P	**P**	**08 39 59.8**	**+3.0**
GYA				AMB	AMB		
	comp=Z,40nm,0.7s,mb5.0						
LSA	**Lhasa**	**22.73**	**352**	*e*P	**P**	**08 40 00.6**	**+1.4**
LSA				pmax	pmax		
	comp=Z,14nm,0.6s,mb4.6						
LSA	**Lhasa**	**22.73**	**352**	*e*P	**P**	**08 40 00.6**	**+1.4**
	comp=Z,14nm,0.6s,mb4.6						
GKN	**Gorkha**	**22.82**	**337**	*e*P	**P**	**08 39 59.4**	**-0.7**
	comp=Z,37nm,0.6s,mb5.0						
KOLN	**Koldanda**	**23.04**	**335**	*e*P	**P**	**08 40 02.3**	**+0.1**
	comp=Z,48nm,1.0s,mb4.9						
CD2	**Chengdu**	**25.25**	**19**	P	**P**	**08 40 25.8**	**+2.2**
CD2				AMB	AMB		
	comp=Z,40nm,0.8s,mb5.0						
ENH	**Enshi**	**27.03**	**29**	*e*P	**P**	**08 40 40.4**	**+0.3**
	comp=Z,63nm,1.0s,mb5.1						
ENH				*e*		08 40 46.0	
DDI	**Dehra Dun**	**27.81**	**328**	*e*	**P**	**08 40 47.6**	**+0.5**
XAN	**Xi'an**	**29.97**	**24**	P	**P**	**08 41 07.0**	**+0.5**
XAN				AP	pP	08 41 13.0	-1.7
XAN				AMB	AMB		
	comp=Z,34nm,1.0s,mb5.0						
LZH	**Lanzhou**	**30.12**	**15**	*e*P	**P**	**08 41 09.0**	**+1.2**
LZH				AP	pP	08 41 16.5	+0.5
LZH				XP	sP	08 41 21.5	+1.8
LZH				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.0						
GTA	**Gaotai**	**32.55**	**8**	P	**P**	**08 41 29.5**	**+0.4**
GTA				AP	pP	08 41 41.0	+3.6
GTA				XP	sP	08 41 44.3	+3.3
GTA				AMB	AMB		
	comp=Z,21nm,0.6s,mb5.2						
NJ2	**Nanjing**	**33.66**	**39**	*e*P	**P**	**08 41 36.8**	**-2.0**
NJ2				AP	pP	08 41 45.8	-1.3
NJ2				XP	sP	08 41 48.8	-1.9
NJ2				AMB	AMB		
	comp=Z,30nm,5.4s						
NJ2				LR	LR		
	comp=N,890nm,14.0s						
NJ2				LR	LR		
	comp=E,610nm,24.6s						
NJ2				LR	LR		
	comp=Z,1µm,15.6s,MS4.7						
HHC	**Hu-ho-hao-te**	**36.93**	**22**	*e*P	**P**	**08 42 08.5**	**+2.0**
HHC				AP	pP	08 42 16.3	+1.5
HHC				XP	sP	08 42 20.0	+1.6
HHC				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.9						
HHC				AMB	AMB		
	comp=Z,239nm,5.7s						
HHC				LR	LR		
	comp=N,349nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=E,488nm,11.9s,MS4.5						
HHC				LR	LR		
	comp=Z,194nm,17.8s						
WMQ	**Urumqi**	**37.09**	**352**	*e*P	**P**	**08 42 08.5**	**+0.6**
BJI	**Beijing**	**38.15**	**27**	*e*P	**P**	**08 42 19.5**	**+2.7**
BJI				AMB	AMB		
	comp=Z,18nm,1.2s,mb4.7						
AAK	**Ala-Archa**	**39.58**	**337**	*i* P	**P**	**08 42 28.8**	**+0.1**
AAK				pmax	pmax		
	comp=Z,6.0nm,1.6s,mb4.1						
FITZ	**Fitzroy Crossi**	**39.62**	**130**	*e*P	**P**	**08 42 29.4**	**+0.1**
	comp=Z,18nm,1.8s,mb4.5						
SONM	**Songino Array**	**41.87**	**12**	P	**P**	**08 42 48.6**	**+1.1**
	comp=Z,11nm,1.0s,mb4.5,baz=194,slow=8.0,SNR=46						
SONM				PcP	PcP	08 44 43.2	-0.4
	comp=Z,3.0nm,0.6s,baz=196,slow=3.8,SNR=9.2						
ULN	**Ulaanbaatar**	**42.04**	**13**	*e*P	**P**	**08 42 49.4**	**+0.5**
ULN				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.3						
ULN	**Ulaanbaatar**	**42.04**	**13**	*e*P	**P**	**08 42 49.4**	**+0.6**
	comp=Z,6.9nm,0.8s,mb4.3						
ZAK	**Zakamensk**	**43.79**	**8**	⇓*i*P	**P**	**08 43 03.8**	**+0.7**
TLY	**Talaya**	**45.11**	**8**	*e*P	**P**	**08 43 12.8**	**-0.9**
TLY				*e*		08 44 53.7	
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.3						
TLY	**Talaya**	**45.11**	**8**	*e*P	**P**	**08 43 12.8**	**-0.9**
	comp=Z,3.6nm,0.8s,mb4.2						
TLY				*e*PcP	PcP	08 44 53.7	-0.8
NWAO	**Narrogin (SRO)**	**45.27**	**153**	P	**P**	**08 43 14.0**	**-1.2**
	comp=Z,12nm,0.8s,mb4.8,baz=99,slow=1.2,SNR=4.5						
CN2	**Changchun**	**45.52**	**31**	*e*P	**P**	**08 43 20.0**	**+2.9**
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.7						
HIA	**Hailar**	**47.12**	**22**	*e*P	**P**	**08 43 29.6**	**-0.1**
HIA				pmax	pmax		
	comp=Z,17nm,0.7s						
HIA	**Hailar**	**47.12**	**22**	*e*P	**P**	**08 43 29.6**	**0.0**
	comp=Z,17nm,0.7s,mb5.1						
ZAL	**Zalesovo**	**47.39**	**352**	P	**P**	**08 43 31.4**	**-0.3**
	comp=Z,15nm,1.0s,mb4.9,baz=311,slow=6.1,SNR=38						
WRA	**Warramunga Arr**	**47.50**	**125**	P	**P**	**08 43 32.1**	**-0.9**
	comp=Z,4.7nm,0.6s,mb4.7,baz=306,slow=8.4,SNR=46						
WRA				PcP	PcP	08 45 02.6	-0.8
	comp=Z,4.1nm,0.7s,baz=315,slow=2.8,SNR=12						
WRAB	**Tennant Creek**	**47.51**	**125**	*e*P	**P**	**08 43 32.4**	**-0.7**
WRAB				*e*		08 45 02.7	
WRAB				pmax	pmax		
	comp=Z,11nm,0.7s,mb5.0						
WRAB	**Tennant Creek**	**47.51**	**125**	*e*P	**P**	**08 43 32.4**	**-0.7**
	comp=Z,11nm,0.7s,mb5.0						
WRAB				*e*PcP	PcP	08 45 02.7	-0.7
WB2	**Warramunga Arr**	**47.51**	**125**	*e*P	**P**	**08 43 32.5**	**-0.7**
NVS	**Novosibirsk**	**48.49**	**351**	*i* P	**P**	**08 43 39.3**	**-1.0**
NVS				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
ASPA	**Alice Springs**	**49.12**	**130**	*e*P	**P**	**08 43 45.0**	**-0.6**
ASAR	**Alice Springs**	**49.12**	**130**	P	**P**	**08 43 44.8**	**-0.8**
	comp=Z,7.8nm,0.7s,mb4.9,baz=303,slow=7.4,SNR=68						
ASAR				PcP	PcP	08 45 08.8	-0.3
	comp=Z,5.5nm,0.6s,baz=314,slow=3.2,SNR=13						
BVAR	**Borovoye Array**	**49.86**	**341**	P	**P**	**08 43 50.1**	**-0.8**
	comp=Z,12nm,0.8s,mb5.0,baz=141,slow=9.5,SNR=30						
BVAR				PcP	PcP	08 45 11.6	+0.2
	comp=Z,6.5nm,0.9s,baz=135,slow=4.2,SNR=4.4						
BRVK	**Borovoye**	**49.93**	**341**	*e*P	**P**	**08 43 50.8**	**-0.5**
BRVK				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.7						
BRVK	**Borovoye**	**49.93**	**341**	*e*P	**P**	**08 43 50.8**	**-0.6**
	comp=Z,5.5nm,0.8s,mb4.6						
CHKZ	**Chkalovo**	**50.35**	**342**	*e*P	**P**	**08 43 54.4**	**-0.1**
CHKZ				*e*		08 45 12.5	
CHKZ				pmax	pmax		
	comp=Z,32nm,0.6s,mb5.5						
CHKZ	**Chkalovo**	**50.35**	**342**	*e*P	**P**	**08 43 54.4**	**-0.2**
	comp=Z,32nm,0.6s,mb5.5						
CHKZ				*e*PcP	PcP	08 45 12.5	-0.6
KLR	**Kul'dur**	**52.40**	**30**	*e*P	**P**	**08 44 09.2**	**-0.9**
KLR				MLR	MLR		
	comp=Z,700nm,13.0s,MS4.9						
BOD	**Bodaibo**	**52.85**	**13**	*e*P	**P**	**08 44 12.5**	**-0.9**
PMG	**Port Moresby**	**54.95**	**107**	P	**P**	**08 44 28.9**	**-0.6**
	comp=Z,11nm,0.7s,mb5.0,baz=133,slow=1.6,SNR=5.3						
ARU	**Arti**	**56.77**	**337**	⇓*i*P	**P**	**08 44 41.2**	**-0.7**
ARU				*e*		08 46 43.4	
ARU				*e*PPP	PPP	08 48 01.2	-7.4
ARU				*e*S	**S**	**08 52 34.4**	**+3.2**
ARU				*e*		08 54 29.9	
ARU				*e*SS	SS	08 56 22.8	+2.5
ARU				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.2						
ZEI	**Tsey**	**56.87**	**317**	*e*P	**P**	**08 44 40.4**	**-2.5**
ZEI				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.2						
YSS	**Yuzh-Sakhalins**	**57.20**	**37**	*i* P	**P**	**08 44 39.4**	**-5.7**
YSS				pmax	pmax		
	comp=Z,100nm,4.0s						
KMBO	**Kilima Mbogo**	**57.70**	**264**	*e*P	**P**	**08 44 51.1**	**+2.0**
KMBO				pmax	pmax		
	comp=Z,10.0nm,0.9s						
KMBO	**Kilima Mbogo**	**57.70**	**264**	P	**P**	**08 44 50.2**	**+1.1**
	comp=Z,6.0nm,0.8s,mb4.7,baz=61,slow=12,SNR=10						
KMBO	**Kilima Mbogo**	**57.70**	**264**	*e*P	**P**	**08 44 51.1**	**+2.0**
	comp=Z,9.8nm,0.9s,mb4.8						
KIV	**Kislovodsk**	**58.15**	**318**	*i* P	**P**	**08 44 52.4**	**+0.6**
KIV				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.5						
STKA	**Stephens Creek**	**59.29**	**134**	*e*P	**P**	**08 44 59.2**	**-0.8**
	comp=Z,7.1nm,0.6s,mb4.9						
STKA	**Stephens Creek**	**59.29**	**134**	P	**P**	**08 44 58.3**	**-1.7**
	comp=Z,9.6nm,0.8s,mb4.9,baz=334,slow=18,SNR=5.3						
SOC	**Sochi**	**60.01**	**317**	*e*P	**P**	**08 45 01.8**	**-2.9**
SOC				*e*		08 45 51.3	
SOC				*e*		08 47 12.0	
SOC				*e*PPP	PPP	08 48 42.8	-2.3
SOC				*e*S	**S**	**08 53 15.6**	**+1.9**
SOC				*e*SS	SS	08 57 11.7	+0.1
SOC				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.7						
SOC				pmax	pmax		
	comp=N,5.0nm,0.6s						
SOC				pmax	pmax		
	comp=E,1.0nm,0.4s						
EIL	**Elat**	**60.14**	**300**	*e*P	**P**	**08 45 06.3**	**+0.5**
	comp=E,3.3nm,0.5s,mb4.6						
YAK	**Yakutsk**	**60.64**	**18**	*e*P	**P**	**08 45 07.7**	**-1.1**
YAK				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.2						
YAK				pmax	pmax		
	comp=N,6.0nm,1.2s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.1s						
YAK	**Yakutsk**	**60.64**	**18**	*e*P	**P**	**08 45 08.1**	**-0.7**
	comp=E,54nm,0.7s,mb5.8						
BRTR	**Keskin Array B**	**63.23**	**311**	P	**P**	**08 45 23.9**	**-2.4**
	comp=E,2.5nm,0.7s,mb4.5,baz=124,slow=8.2,SNR=11						
TOO	**Toolangi**	**65.03**	**137**	*e*P	**P**	**08 45 39.5**	**+1.3**
	comp=E,13nm,0.8s,mb5.0						
TOO	**Toolangi**	**65.03**	**137**	*e*P	**P**	**08 45 39.5**	**+1.3**
TOO				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
OBN	**Obninsk**	**66.25**	**328**	*e*P	**P**	**08 45 44.7**	**-1.0**
OBN				*e*S	S	08 54 37.5	+5.9
OBN				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.9						
MA2	**Magadan**	**67.31**	**27**	*e*P	**P**	**08 45 52.6**	**+0.2**
MA2				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.1						
MA2	**Magadan**	**67.31**	**27**	*e*P	**P**	**08 45 52.6**	**+0.2**
	comp=Z,15nm,0.8s,mb5.1						
TIXI	**Tiksi**	**67.95**	**11**	*i* P	**P**	**08 45 54.8**	**-1.5**
TIXI				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
AKASG	**Malin Array Be**	**69.01**	**322**	P	**P**	**08 46 01.3**	**-1.8**
	comp=Z,1.9nm,0.5s,mb4.3,baz=105,slow=6.9,SNR=18						
IDI	**Anoyia**	**69.32**	**305**	P	**P**	**08 46 04.8**	**-0.5**
	comp=Z,4.8nm,0.5s,mb4.7,baz=81,slow=8.6,SNR=15						
LSZ	**Lusaka**	**69.34**	**251**	*e*P	**P**	**08 46 06.3**	**+0.6**
LSZ				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.1						
LSZ	**Lusaka**	**69.34**	**251**	*e*P	**P**	**08 46 06.3**	**+0.5**
	comp=Z,1.4nm,0.4s,mb4.2						
LVZ	**Lovozero**	**72.44**	**340**	*e*P	**P**	**08 46 21.8**	**-1.8**
LVZ				pmax	pmax		
	comp=Z,101nm,1.8s,mb5.5						
FINES	**FINESS Array B**	**73.59**	**332**	*i* P	**P**	**08 46 30.2**	**-0.2**
FINES				pmax	pmax		
	comp=Z,6.0nm,0.5s						
FINES	**FINESS Array B**	**73.59**	**332**	P	**P**	**08 46 29.5**	**-0.8**
	comp=Z,6.0nm,0.5s,mb4.8,baz=97,slow=6.6,SNR=44						
KAF	**Kangasniemi**	**73.67**	**333**	*e*p	**P**	**08 46 30.3**	**-0.5**
	comp=Z,4.7nm,0.6s,mb4.6						
KAF	**Kangasniemi**	**73.67**	**333**	*e*P	**P**	**08 46 30.3**	**-0.5**
KAF				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
LBTB	**Lobatse**	**74.17**	**242**	*e*P	**P**	**08 46 36.0**	**+1.5**
LBTB				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.4						
LBTB	**Lobatse**	**74.17**	**242**	*e*P	**P**	**08 46 36.0**	**+1.4**
	comp=Z,3.2nm,0.6s,mb4.4						
OJC	**Ojcow**	**74.82**	**320**	*e*P	**P**	**08 46 38.0**	**+0.3**
BOSA	**Boshof**	**75.46**	**238**	*e*P	**P**	**08 46 42.8**	**+0.9**
BOSA				pmax	pmax		
	comp=Z,5.0nm,0.5s,mb4.7						
BOSA	**Boshof**	**75.46**	**238**	*e*P	**P**	**08 46 42.8**	**+0.9**
	comp=Z,4.8nm,0.5s,mb4.7						
KEV	**Kevo**	**75.71**	**341**	*e*p	**P**	**08 46 42.0**	**-0.5**
	comp=Z,8.6nm,0.6s,mb4.9						
KEV	**Kevo**	**75.71**	**341**	*e*P	**P**	**08 46 42.0**	**-0.5**
KEV				pmax	pmax		
	comp=Z,9.0nm,0.6s,mb4.9						
ARCES	**ARCESS Array B**	**76.14**	**340**	P	**P**	**08 46 45.1**	**+0.2**
	comp=Z,5.4nm,0.6s,mb4.6,baz=91,slow=7.0,SNR=20						
BILL	**Bilibino**	**76.70**	**22**	*e*P	**P**	**08 46 48.1**	**+0.1**
BILL				pmax	pmax		
	comp=Z,6.0nm,0.4s,mb4.9						
BILL	**Bilibino**	**76.70**	**22**	*e*P	**P**	**08 46 48.1**	**+0.1**
	comp=Z,5.6nm,0.4s,mb4.8						
MAW	**Mawson**	**77.82**	**192**	P	**P**	**08 46 56.0**	**+1.8**
	comp=Z,4.0nm,0.6s,mb4.5,baz=78,slow=14,SNR=9.2						
BRG	**Berggiesshubel**	**78.60**	**320**	*e*P	**P**	**08 47 00.5**	**+1.7**
BRG				pmax	pmax		
	comp=Z,6.0nm,1.5s,mb4.3						
BRG	**Berggiesshubel**	**78.60**	**320**	*e*P	**P**	**08 47 00.5**	**+1.7**
	comp=Z,6.0nm,1.5s,mb4.3						
GERES	**GERESS Array B**	**78.66**	**318**	P	**P**	**08 46 59.8**	**+0.6**
	comp=Z,2.0nm,0.7s,mb4.1,baz=90,slow=4.0,SNR=14						
NB2	**NORSAR Subarra**	**80.61**	**331**	P	**P**	**08 47 09.4**	**0.0**
	comp=Z,2.2nm,0.6s,mb4.3,baz=97,slow=4.8						
NB2	**NORSAR Subarra**	**80.61**	**331**	P	**P**	**08 47 09.4**	**0.0**
NB2				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
NOA	**NORSAR Array B**	**80.61**	**331**	P	**P**	**08 47 08.8**	**-0.6**
	comp=Z,2.4nm,0.6s,mb4.3,baz=95,slow=5.1,SNR=6.9						
LPG	**La Plagne**	**83.44**	**315**	*e*P	**P**	**08 47 25.7**	**+1.2**
	comp=Z,15nm,0.8s,mb4.8						
LPG	**La Plagne**	**83.44**	**315**	*e*P	**P**	**08 47 25.7**	**+1.2**
LPG				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.7						
ESDC	**Sonseca Array**	**92.01**	**310**	P	**P**	**08 48 06.6**	**+0.7**
	comp=Z,3.5nm,0.8s,mb4.8,baz=57,slow=4.3,SNR=16						
VNDA	**Vanda**	**92.07**	**168**	P	**P**	**08 48 06.8**	**+1.4**
	comp=Z,0.7nm,0.6s,mb4.2,baz=287,slow=5.1,SNR=3.6						
IMA	**Indian Mountai**	**92.23**	**22**	*e*P	**P**	**08 48 07.9**	**+1.6**
IMA				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.4						
IMA	**Indian Mountai**	**92.23**	**22**	*e*P	**P**	**08 48 07.9**	**+1.6**
	comp=Z,15nm,0.8s,mb5.4						
ILAR	**Eielson Array**	**95.35**	**22**	P	**P**	**08 48 20.5**	**-0.2**
	comp=Z,0.5nm,0.7s,mb4.1,baz=283,slow=4.4,SNR=9.9						
ILAR				PP	PP	08 52 03.9	-10
	comp=Z,0.4nm,0.8s,baz=299,slow=7.4,SNR=5.1						
ILAR				PKKPbc		09 05 13.6	
	comp=Z,0.3nm,0.6s,baz=162,slow=1.7,SNR=5.4						
INK	**Inuvik**	**97.66**	**16**	P	**P**	**08 48 31.6**	**+0.6**
	comp=Z,2.0nm,0.6s,mb4.8,baz=329,slow=7.0,SNR=13						
YKA	**Yellowknife Ar**	**107.12**	**14**	PP	PP	08 53 38.0	-5.4
	comp=Z,0.6nm,0.8s,baz=335,slow=7.6,SNR=7.6						
YKA				PKKPbc		09 04 38.7	
	comp=Z,0.3nm,0.6s,baz=150,slow=3.3,SNR=7.1						
YKA				PKKPab		09 04 54.8	
	comp=Z,0.4nm,0.6s,baz=148,slow=4.3,SNR=7.5						
NEW	**Newport**	**118.28**	**23**	*e*PKIKP	PKPdf	08 53 45.1	-2.8
MSO	**Missoula**	**120.69**	**22**	*e*PKPdf	PKPdf	08 53 48.9	-3.8
BMO	**Blue Mountains**	**120.93**	**26**	*e*PKIKP	PKPdf	08 53 49.8	-3.4
WDC	**Whiskeytown Da**	**121.61**	**33**	*e*PKIKP	PKPdf	08 53 51.2	-3.4
MOD	**Modoc**	**121.81**	**30**	*e*PKPdf	PKPdf	08 53 51.5	-3.4
ULM	**Lac du Bonnet**	**122.21**	**8**	PKP	PKPdf	08 53 53.3	-2.1
	comp=Z,6.4nm,0.9s,baz=337,slow=3.5,SNR=9.2						
WVOR	**Wild Horse Val**	**122.22**	**29**	*e*PKIKP	PKPdf	08 53 53.2	-2.4
BOZ	**Bozeman (W)**	**122.55**	**22**	*e*PKIKP	PKPdf	08 53 53.3	-2.9
MCMT	**McKenzie Canyo**	**122.78**	**23**	*e*PKPdf	PKPdf	08 53 54.1	-2.6
OHCM	**Honcut**	**123.07**	**33**	*e*PKPdf	PKPdf	08 53 54.4	-3.0
GCMT	**Greycliff**	**123.11**	**20**	PKPdf	PKPdf	08 53 54.9	-2.4
SNOW	**Snow King Moun**	**124.74**	**22**	*e*PKPdf	PKPdf	08 53 57.8	-2.7
REDW	**Red Top Meadow**	**124.79**	**22**	*e*PKPdf	PKPdf	08 53 58.2	-2.4
NVAR	**Mina Array Bea**	**125.42**	**31**	PKP	PKPdf	08 53 59.3	-2.7
	comp=Z,3.0nm,0.6s,baz=344,slow=1.6,SNR=16						
PDAR	**Pinedale Array**	**125.78**	**22**	PKP	PKPdf	08 53 59.4	-3.2
	comp=Z,2.6nm,0.8s,baz=48,slow=1.6,SNR=20						
PDAR				PKKPbc		09 03 34.0	
	comp=Z,0.3nm,0.5s,baz=141,slow=6.1,SNR=4.2						
MSU	**Marysvale**	**128.31**	**27**	*e*PKIKP	PKPdf	08 54 04.2	-3.4
ANMO	**Albuquerque**	**133.76**	**24**	*e*PKIKP	PKPdf	08 54 15.5	-2.5
ANMO	**Albuquerque**	**133.76**	**24**	PKP	PKPdf	08 54 16.0	-1.9
	comp=Z,2.7nm,0.8s						
GDL2	**Guadalupe Moun**	**137.01**	**24**	*e*PKPdf	PKPdf	08 54 21.2	-2.8
MIAR	**Mount Ida**	**137.92**	**10**	PKIKP	PKPdf	08 54 22.6	-3.1
TXAR	**Lajitas Array**	**139.81**	**25**	PKhKP		08 54 17.4	
	comp=Z,0.2nm,0.6s,baz=237,slow=1.3,SNR=5.0						
TXAR				PKP	PKPdf	08 54 26.6	-2.6
	comp=Z,1.2nm,0.5s,baz=69,slow=1.2,SNR=31						
TXAR				PP	PP	08 57 22.4	-2.0
	comp=Z,0.7nm,1.1s,baz=8.0,slow=2.8,SNR=4.3						
JCT	**Junction City**	**140.23**	**19**	*e*PKIKP	PKPdf	08 54 27.1	-2.8
BDFB	**Brasilia**	**142.33**	**254**	PKP	PKPdf	08 54 30.5	-3.5
	comp=Z,1.7nm,0.5s,baz=158,slow=1.1,SNR=4.8						

IDC ***31*** *08:40:44.1±1.0, 4.59N×94.55E, mb4.3/7, mb1 4.4/8,*
mb1mx4.1/19, mbtmp4.3/8, ML4.5/1, Error ellipse:
s-maj=62.7km s-min=18.8km az=48.0
ISC 31 08:40:47.5±0.8, **4.6N**±0.1×**94.6E**±0.2, **h33**^{km}**, n13,**
σ**0^{s}47**/11, **mb4.3**/8, **Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.43**	**17**	Pn	**P**	**08 44 11.8**	**+0.4**
	0.7nm,0.3s,baz=211,slow=11,SNR=14						
WRA	**Warramunga Arr**	**46.07**	**123**	P	**P**	**08 49 09.8**	**-0.7**
	4.5nm,0.7s,mb4.5,baz=301,slow=9.7,SNR=27						
WB2	**Warramunga Arr**	**46.08**	**123**	*e*P	**P**	**08 49 10.5**	**-0.1**
ASPA	**Alice Springs**	**47.54**	**128**	*e*P	**P**	**08 49 22.4**	**+0.4**
ASAR	**Alice Springs**	**47.54**	**128**	P	**P**	**08 49 22.4**	**+0.3**
	0.8nm,0.4s,mb4.1,baz=299,slow=7.5,SNR=13						
BVAR	**Borovoye Array**	**52.21**	**342**	P	**P**	**08 49 56.4**	**-0.9**
	5.2nm,0.6s,mb4.6,baz=149,slow=8.6,SNR=27						
BRTR	**Keskin Array B**	**64.90**	**312**	P	**P**	**08 51 26.4**	**+0.4**
	1.5nm,0.8s,mb4.1,baz=129,slow=7.9,SNR=5.1						
FINES	**FINESS Array B**	**75.79**	**333**	P	**P**	**08 52 31.8**	**+0.1**
	2.1nm,0.4s,mb4.4,baz=106,slow=6.0,SNR=20						
KAF	**Kangasniemi**	**75.89**	**333**	*e*p	**P**	**08 52 31.8**	**-0.4**
	4.3nm,0.8s,mb4.4						
ARCES	**ARCESS Array B**	**78.47**	**340**	P	**P**	**08 52 46.4**	**-0.1**
	3.1nm,0.8s,mb4.3,baz=284,slow=31,SNR=14						
GERES	**GERESS Array B**	**80.54**	**319**	P	**P**	**08 52 58.7**	**+0.6**
	0.9nm,0.6s,mb3.9,baz=117,slow=6.0,SNR=9.6						
PDAR	**Pinedale Array**	**128.03**	**22**	PKP	PKPdf	08 59 51.5	+0.8
	0.3nm,0.4s,baz=95,slow=1.1,SNR=5.7						
TXAR	**Lajitas Array**	**141.99**	**26**	PKhKP		09 00 13.2	
	0.1nm,0.6s,baz=19,slow=18,SNR=2.9						
TXAR				PKP	PKPdf	09 00 19.1	+2.2
	0.2nm,0.5s,baz=19,slow=0.4,SNR=6.5						

IDC 31 08:43:19.2±3.5, **13.00N×93.60E, mb3.8**/2, **mb1 4.0**/3,
mb1mx3.6/18, **mbtmp3.7**/3, **Error ellipse: s-maj=83.5km**
s-min=44.4km az=95.0, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.48**	**43**	Pn	Pn	08 45 09.7	-2.5
	baz=234,slow=14,SNR=5.0						
CMAR				Sn	Sn	08 46 33.8	-5.0
	baz=243,slow=29,SNR=3.8						
WRA	**Warramunga Arr**	**51.76**	**129**	P	P	08 52 29.3	-1.7
	0.9nm,0.7s,baz=309,slow=7.9,SNR=7.1						
WRA				PcP	PcP	08 53 40.1	-4.3
	0.4nm,0.4s,baz=321,slow=3.2,SNR=4.6						
ASAR	**Alice Springs**	**53.68**	**133**	P	P	08 52 44.0	-1.2
	0.5nm,0.5s,baz=309,slow=6.8,SNR=6.5						

BJI ***31*** *08:52:19.1, 5.35N×93.28E, h41^{km}, mB5.3, mb4.9, Ms4.6,*
Msz4.2
IDC ***31*** *08:52:19.8±0.5, 6.21N×93.35E, mb4.7/19, mb1 4.8/19,*
mb1mx4.8/20, mbtmp4.7/19, MS4.0/7, Ms1 4.0/7,
ms1mx3.8/22, Error ellipse: s-maj=23.9km s-min=12.8km
az=55.0
NEIC ***31*** *08:52:21.1±0.2, 5.90N×93.28E, mb4.9/45, Error ellipse:*
s-maj=6.8km s-min=5.1km az=205.0
HRVD ***31*** *08:52:21.1±1.2, 5.32N×93.46E, h12^{km}, MW4.8/27,*
Centroid moment Tensor Solution. LP body waves: s8,c9;
Mantle waves: s27,c38; Half duration: 0 Moment tensor:
Scale 10^{16}Nm; M_{rr}1.49±.17; $M_{\theta\theta}$-0.24±.10; $M_{\phi\phi}$-1.25±.17;
$M_{r\theta}$1.41±.46; $M_{\theta\phi}$0.05±.13; $M_{\phi r}$1.20±.44; Best double
couple: $M_0$2.23×10^{16} NP1:ϕ_s172°, δ23°, λ49°. NP2:ϕ_s36°,
δ73°, λ106°. Principal axes: T 2.58, Plg59°, Azm328°; N
-.71, Plg15°, Azm211°; P -1.87, Plg26°, Azm113°; nsta1
refers to body waves, cutoff=40s. nsta2 refers to surface
waves, cutoff=50s.
MOS ***31*** *08:52:22.5±0.9, 5.96N×93.32E, h33^{km}, mb5.1/43 Error*
ellipse: s-maj=12.5km s-min=5.9km az=121.0
ISC 31 08:52:20.1±1.6, **5.92N**±0.05×**93.32E**±0.04, **h17**^{km}±11^{km},
h15^{km}±1.4^{km}**:pP-P, n222,** σ**0^{s}93**/210, **mb4.9**/82, **MS4.2**/12,
12C-4D, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**11.78**	**34**	P	**P**	**08 55 18.0**	**+7.4**
PALK	**Pallekele**	**12.60**	**277**	*e*Pn	**P**	**08 55 21.1**	**-0.5**
	28nm,0.8s						
CM31	**Chiang Mai Arr**	**13.62**	**23**	*e*Pn	**P**	**08 55 36.1**	**+0.9**
	68nm,0.9s						
CM31				*e*pP		08 55 42.0	
CMAR	**Chiang Mai Arr**	**13.62**	**23**	*i* P	**P**	**08 55 36.0**	**+0.8**
CMAR				pmax	pmax		
	comp=Z,8.0nm,0.9s						
CMAR	**Chiang Mai Arr**	**13.62**	**23**	Pn	**P**	**08 55 33.8**	**-1.4**
	comp=Z,0.1nm,0.3s,baz=217,slow=13,SNR=33						
CMAR				LR	LR	09 00 49.6	
	comp=Z,302nm,18.3s,baz=210,slow=38						
KKTK	**Khon Kaen**	**13.93**	**41**	P	**P**	**08 55 49.0**	**+10**
	comp=Z,556nm,0.6s						
MDRS	**Chennai**	**14.71**	**300**	*i*	**S**	**08 58 21.3**	**-12**
CHRT	**Chiangrai**	**15.23**	**24**	⇓P	**P**	**08 55 58.0**	**+1.7**
	comp=Z,184nm,1.2s						
VIS	**Vishakhapatnam**	**15.26**	**321**	*e*P	**P**	**08 55 55.9**	**-0.9**
VIS				*e*		08 55 58.8	
	comp=Z,119nm,0.7s						
VIS				*e*		08 58 34.2	
BWNR	**Bhubaneshwar**	**16.05**	**334**	*e*	**P**	**08 55 58.2**	**-8.7**
BWNR				*e*		08 58 52.6	
TRD	**Trivandrum**	**16.43**	**280**	*e*P	**P**	**08 56 12.6**	**+0.8**
TRD				*e*		08 56 17.2	
	comp=Z,25nm,0.9s						
AGT	**Agartala**	**17.98**	**354**	*e*P	**P**	**08 56 28.0**	**-3.0**
HYB	**Hyderabad**	**18.41**	**310**	*e*P	**P**	**08 56 35.0**	**-1.5**
HYB				*e*S	**S**	**08 59 44.0**	**-14**
HYB	**Hyderabad**	**18.41**	**310**	*i* P	**P**	**08 56 35.0**	**-1.5**
HYB				*e*		08 59 44.0	
HYB				*e*S	**S**	**09 00 07.0**	**+8.7**
BOK	**Bokaro**	**19.16**	**339**	*e*P	**P**	**08 56 45.0**	**-0.6**
BOK				*e*		08 56 45.8	
BOK				*e*		08 56 51.7	
	comp=Z,120nm,0.6s						
BLSP	**Bilaspur**	**19.41**	**327**	*e*P	**P**	**08 56 49.0**	**+0.6**
BLSP				*e*		08 56 53.1	
	comp=Z,157nm,0.6s						
SHL	**Shillong**	**19.59**	**356**	*e*P	**P**	**08 56 49.0**	**-1.4**

SHL				*e*S	**S**	**09 00 32.0**	**+7.2**
QIZ	**Qiongzhong**	**20.71**	**50**	P	**P**	**08 57 03.6**	**+1.3**
	comp=Z,53nm,0.9s						
KMI	**Kunming**	**21.13**	**24**	P	**P**	**08 57 07.8**	**+1.2**
KMI				S	**S**	**09 01 07.0**	**+11**
KMI				AMB	AMB		
	comp=Z,16nm,1.3s,mb4.2						
KMI				AMB	AMB		
	comp=Z,290nm,4.6s						
KMI				LR	LR		
	comp=N,534nm,15.7s,MS4.2						
KMI				LR	LR		
	comp=E,742nm,17.0s,MS4.2						
KMI				LR	LR		
	comp=Z,324nm,16.1s,MS3.8						
KAD	**Karad**	**21.87**	**303**	⇑*i*P	**P**	**08 57 13.8**	**-0.3**
KAD				*e*		08 57 14.9	
	comp=Z,63nm,1.2s						
POO	**Poona**	**22.75**	**305**	*i* P	**P**	**08 57 21.0**	**-1.9**
	comp=Z,40nm,1.0s,mb4.8						
POO				*i*	**S**	**09 01 38.0**	**+12**
PKI	**Pulchoki**	**22.81**	**342**	*e*P	**P**	**08 57 24.2**	**+0.7**
	comp=Z,138nm,0.7s,mb5.5						
DMN	**Daman**	**22.94**	**341**	*e*P	**P**	**08 57 25.4**	**+0.6**
	comp=Z,160nm,0.7s,mb5.6						
GUN	**Gumba**	**22.99**	**343**	*e*P	**P**	**08 57 25.3**	**+0.1**
	comp=Z,132nm,0.9s,mb5.4						
BHPL	**Bhopal**	**23.05**	**320**	*e*P	**P**	**08 57 27.9**	**+2.0**
BHPL				*e*		08 57 32.6	
	comp=Z,22nm,0.8s						
KKN	**Kakani**	**23.06**	**342**	*e*P	**P**	**08 57 26.3**	**+0.4**
	comp=Z,64nm,0.7s,mb5.2						
GKN	**Gorkha**	**23.46**	**340**	*e*P	**P**	**08 57 30.8**	**+1.0**
	comp=Z,276nm,1.0s,mb5.7						
KOLN	**Koldanda**	**23.61**	**338**	*e*P	**P**	**08 57 32.5**	**+1.2**
	comp=Z,183nm,0.7s,mb5.6						
LSA	**Lhasa**	**23.75**	**355**	*e*P	**P**	**08 57 33.5**	**+1.0**
LSA				pmax	pmax		
	comp=Z,57nm,1.0s,mb5.0						
LSA	**Lhasa**	**23.75**	**355**	*e*P	**P**	**08 57 33.5**	**+0.9**
	comp=Z,57nm,1.0s,mb5.0						
GYA	**Guiyang**	**24.07**	**30**	⇑*i*P	**P**	**08 57 37.0**	**+1.2**
GYA				AMB	AMB		
	comp=Z,40nm,1.1s,mb4.8						
CD2	**Chengdu**	**26.73**	**20**	⇓*i*P	**P**	**08 58 01.0**	**+0.3**
CD2				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.0						
DDI	**Dehra Dun**	**28.21**	**331**	*e*P	**P**	**08 58 14.6**	**+0.4**
TGY	**Tagaytay City**	**28.36**	**71**	LR	LR	09 09 14.4	
	comp=Z,187nm,18.1s,MS3.7,baz=171,slow=36						
ENH	**Enshi**	**28.61**	**30**	*e*P	**P**	**08 58 16.5**	**-1.3**
	comp=Z,17nm,1.1s,mb4.7						
WHN	**Wuhan**	**31.48**	**36**	P	**P**	**08 58 43.8**	**+0.4**
XAN	**Xi’an**	**31.50**	**25**	P	**P**	**08 58 42.0**	**-1.5**
XAN				AMB	AMB		
	comp=Z,34nm,0.9s,mb5.2						
LZH	**Lanzhou**	**31.55**	**16**	*e*P	**P**	**08 58 45.0**	**+1.1**
LZH				AP	pP	08 58 54.5	+5.5
LZH				XP	sP	08 58 58.5	+7.2
LZH				AMB	AMB		
	comp=Z,13nm,1.0s,mb4.7						
GTA	**Gaotai**	**33.86**	**9**	P	**P**	**08 59 04.0**	**0.0**
NJ2	**Nanjing**	**35.29**	**39**	*e*P	**P**	**08 59 17.0**	**+0.7**
NJ2				AP	pP	08 59 27.3	+5.8
NJ2				XP	sP	08 59 30.8	+7.1
NJ2				PP	PP	09 00 34.0	-1.7
NJ2				S	**S**	**09 04 44.3**	**-4.3**
NJ2				AMB	AMB		
	comp=Z,340nm,5.4s						
NJ2				LR	LR		
	comp=N,230nm,15.0s,MS4.3						
NJ2				LR	LR		
	comp=E,420nm,16.5s,MS4.3						
NJ2				LR	LR		
	comp=Z,1µm,15.4s,MS4.7						
SSE	**Sheshan**	**36.20**	**43**	P	**P**	**08 59 21.5**	**-2.5**
SSE				XP	sP	08 59 34.5	+3.0
SSE				S	**S**	**09 05 01.3**	**-1.3**
SSE				AMB	AMB		
	comp=Z,21nm,0.8s,mb5.1						
SSE				AMB	AMB		
	comp=Z,247nm,8.3s						
SSE				LR	LR		
	comp=N,230nm,18.7s,MS4.0						
SSE				LR	LR		
	comp=E,138nm,18.7s,MS4.0						
SSE				LR	LR		
	comp=Z,158nm,17.6s,MS3.8						
MBWA	**Marble Bar**	**37.36**	**137**	P	**P**	**08 59 35.0**	**+1.2**
WMQ	**Urumqi**	**38.08**	**353**	P	**P**	**08 59 40.5**	**+0.8**
WMQ				AP	pP	08 59 50.0	+5.1
WMQ				XP	sP	08 59 55.0	+7.9
WMQ				AMB	AMB		
	comp=Z,17nm,0.8s,mb4.8						
HHC	**Hu-ho-hao-te**	**38.43**	**22**	*e*P	**P**	**08 59 43.0**	**+0.3**
HHC				XP	sP	08 59 54.0	+3.9
HHC				AMB	AMB		
	comp=Z,19nm,0.7s,mb4.9						
HHC				AMB	AMB		
	comp=Z,214nm,5.5s						
HHC				LR	LR		
	comp=N,363nm,17.8s,MS4.5						
HHC				LR	LR		
	comp=E,480nm,15.5s,MS4.5						
HHC				LR	LR		
	comp=Z,281nm,14.3s,MS4.2						
ULHL	**Ulahol**	**39.23**	**340**	P	**P**	**08 59 50.0**	**+0.7**
	SNR=5.0						
KZA	**Kyzart**	**39.43**	**339**	P	**P**	**08 59 51.9**	**+0.9**
	SNR=9.7						
BJT	**Baijiatuau**	**39.69**	**28**	*e*P	**P**	**08 59 52.9**	**-0.3**
BJI	**Beijing**	**39.71**	**28**	*e*P	**P**	**08 59 52.8**	**-0.5**
BJI				AMB	AMB		
	comp=Z,13nm,1.2s,mb4.5						
BJI				LR	LR		
	comp=N,329nm,14.1s,MS4.6						
BJI				LR	LR		
	comp=E,472nm,13.9s,MS4.6						
BJI				LR	LR		
	comp=Z,211nm,21.7s						
UCH	**Uchtor**	**39.83**	**338**	P	**P**	**08 59 55.4**	**+1.0**
	SNR=17						
AML	**Almayashu**	**40.06**	**337**	P	**P**	**08 59 57.7**	**+1.5**
	SNR=40						
AAK	**Ala-Archa**	**40.19**	**338**	P	**P**	**08 59 58.9**	**+1.6**
	SNR=8.4						
AAK	**Ala-Archa**	**40.19**	**338**	*i* P	**P**	**08 59 56.9**	**-0.4**
AAK				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.6						
AAK	**Ala-Archa**	**40.19**	**338**	*e*P	**P**	**08 59 57.1**	**-0.1**
	comp=Z,39nm,1.5s,mb4.9						
FRU	**Bishkek**	**40.32**	**339**	*e*P	**P**	**08 59 51.5**	**-6.8**
EKS2	**Erkin-Say**	**40.48**	**338**	P	**P**	**09 00 01.0**	**+1.3**
	SNR=12						
USP	**Ospenovka**	**40.74**	**339**	P	**P**	**09 00 02.3**	**+0.6**
	SNR=20						
SONM	**Songino Array**	**43.24**	**13**	P	**P**	**09 00 21.5**	**-0.7**
	comp=Z,3.6nm,0.8s,mb4.1,baz=200,slow=8.1,SNR=26						
SONM				PcP	PcP	09 02 12.2	+0.2
	comp=Z,1.6nm,0.5s,baz=194,slow=5.1,SNR=3.6						
SONM				LR	LR	09 19 54.7	
	comp=Z,299nm,18.8s,MS4.2,baz=178,slow=38						
TLY	**Talaya**	**46.42**	**9**	*e*P	**P**	**09 00 48.5**	**+0.9**
TLY				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
TLY	**Talaya**	**46.42**	**9**	*e*P	**P**	**09 00 48.5**	**+0.9**
	comp=Z,4.0nm,0.8s,mb4.4						
CN2	**Changchun**	**47.11**	**32**	*e*P	**P**	**09 00 52.5**	**-0.7**
CN2				AMB	AMB		
	comp=Z,10.0nm,0.6s,mb4.9						
WRA	**Warramunga Arr**	**47.83**	**124**	P	**P**	**09 00 58.9**	**-0.2**
	comp=Z,23nm,0.7s,mb5.3,baz=302,slow=8.8,SNR=45						
WRAB	**Tennant Creek**	**47.84**	**124**	*i* P	**P**	**09 00 58.7**	**-0.5**
WRAB	**Tennant Creek**	**47.84**	**124**	*e*P	**P**	**09 00 58.6**	**-0.6**
	comp=Z,44nm,0.8s,mb5.5						
WB2	**Warramunga Arr**	**47.84**	**124**	*e*P	**P**	**09 00 59.1**	**-0.2**
ZAL	**Zalesovo**	**48.38**	**353**	*i* P	**P**	**09 01 03.7**	**+0.7**
ZAL				pmax	pmax		
	comp=Z,12nm,0.8s						
ZAL	**Zalesovo**	**48.38**	**353**	P	**P**	**09 01 02.3**	**-0.7**
	comp=Z,12nm,0.8s,mb5.0,baz=301,slow=5.5,SNR=47						
HIA	**Hailar**	**48.63**	**23**	*e*P	**P**	**09 01 05.3**	**+0.3**
HIA				pmax	pmax		
	comp=Z,3.0nm,0.4s						
HIA	**Hailar**	**48.63**	**23**	*e*P	**P**	**09 01 05.3**	**+0.3**
	comp=Z,2.6nm,0.4s,mb4.6						
ASPA	**Alice Springs**	**49.32**	**128**	*e*P	**P**	**09 01 10.4**	**-0.3**
ASAR	**Alice Springs**	**49.32**	**128**	P	**P**	**09 01 11.1**	**+0.4**
	comp=Z,7.7nm,0.6s,mb4.9,baz=299,slow=8.0,SNR=44						
ASAR				PcP	PcP	09 02 33.4	-0.3
	comp=Z,3.8nm,0.8s,baz=316,slow=3.0,SNR=2.3						
ASAR				LR	LR	09 26 21.2	
	comp=Z,122nm,18.5s,MS3.9,baz=307,slow=41						
NVS	**Novosibirsk**	**49.46**	**352**	*i* P	**P**	**09 01 10.2**	**-1.1**
NVS				*i* S	**S**	**09 08 17.3**	**+0.8**
NVS				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
NVS				pmax	pmax		
	comp=E,6.0nm,0.8s						
NVS				pmax	pmax		
	comp=N,13nm,0.9s						
NVS				smax			
	comp=E,5.0nm,1.4s						
NVS				smax			
	comp=N,15nm,1.8s						
BVAR	**Borovoye Array**	**50.58**	**342**	P	**P**	**09 01 18.3**	**-1.6**
	comp=N,7.3nm,0.8s,mb4.7,baz=141,slow=9.5,SNR=40						
BRVK	**Borovoye**	**50.64**	**342**	*e*P	**P**	**09 01 19.3**	**-1.0**
BRVK				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.7						
BRVK	**Borovoye**	**50.64**	**342**	*e*P	**P**	**09 01 19.3**	**-1.1**
	comp=Z,12nm,1.1s,mb4.8						
CHKZ	**Chkalovo**	**51.08**	**343**	*e*P	**P**	**09 01 23.1**	**-0.6**
CHKZ				pmax	pmax		
	comp=Z,28nm,1.0s,mb5.2						
CHKZ	**Chkalovo**	**51.08**	**343**	*e*P	**P**	**09 01 23.1**	**-0.6**
	comp=Z,28nm,1.0s,mb5.2						
CHKZ				*e*	pP	09 01 27.1	-1.9
BOD	**Bodaibo**	**54.23**	**13**	*e*P	**P**	**09 01 45.8**	**-1.3**
GNI	**Garni**	**55.23**	**316**	*e*P	**P**	**09 01 54.5**	**-0.2**
GNI				pmax	pmax		
	comp=Z,12nm,0.8s						
GNI	**Garni**	**55.23**	**316**	P	**P**	**09 01 52.4**	**-2.3**
	comp=Z,26nm,1.1s,mb5.2,baz=3.8,slow=13,SNR=7.7						
GNI	**Garni**	**55.23**	**316**	*e*P	**P**	**09 01 54.5**	**-0.2**
	comp=Z,12nm,0.8s,mb5.0						
PMG	**Port Moresby**	**55.77**	**106**	*e*P	**P**	**09 01 57.7**	**-1.2**
PMG				pmax	pmax		
	comp=Z,16nm,0.7s						
PMG	**Port Moresby**	**55.77**	**106**	P	**P**	**09 01 56.7**	**-2.2**
	comp=Z,15nm,0.6s,mb5.2,baz=285,slow=4.1,SNR=5.0						
PMG	**Port Moresby**	**55.77**	**106**	*e*P	**P**	**09 01 57.7**	**-1.2**
	comp=Z,16nm,0.7s,mb5.2						
TI2	**Plekhanov**	**55.90**	**317**	⇑*i*P	**P**	**09 01 59.0**	**-0.5**
KMBO	**Kilima Mbogo**	**56.41**	**265**	P	**P**	**09 02 04.6**	**+1.1**
	comp=Z,3.5nm,0.8s,mb4.4,baz=63,slow=11,SNR=3.0						
ZEI	**Tsey**	**56.92**	**318**	*e*P	**P**	**09 02 06.5**	**-0.3**
ZEI				*i* *PP	pP	09 02 16.6	+4.4
ZEI				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
ARU	**Arti**	**57.37**	**338**	⇓*i*P	**P**	**09 02 08.4**	**-1.4**
ARU				*e*		09 02 59.2	
ARU				*e*PPP	PPP	09 05 32.4	-7.1
ARU				*e*SS	SS	09 13 56.2	+1.3
ARU				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
ASAJ	**Asahikawa**	**57.42**	**40**	LR	LR	09 28 31.7	
	comp=Z,164nm,20.0s,MS4.1,baz=239,slow=38						
KIV	**Kislovodsk**	**58.23**	**319**	*e*P	**P**	**09 02 14.7**	**-1.3**
KIV				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
KIV	**Kislovodsk**	**58.23**	**319**	*e*P	**P**	**09 02 14.7**	**-1.2**
	comp=Z,25nm,1.2s,mb5.1						
GOF	**Gofitskoye**	**58.48**	**320**	*e*P	**P**	**09 02 16.5**	**-1.2**
ASF	**Jabal al Asfar**	**58.61**	**304**	P	**P**	**09 02 19.0**	**+0.2**
	comp=Z,6.4nm,0.8s,mb4.7,baz=310,slow=3.8,SNR=7.6						
MALT	**Malatya**	**59.12**	**311**	*e*P	**P**	**09 02 20.7**	**-1.6**
MALT				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
MALT	**Malatya**	**59.12**	**311**	*e*P	**P**	**09 02 20.7**	**-1.6**
	comp=Z,4.3nm,0.9s,mb4.5						
STKA	**Stephens Creek**	**59.37**	**132**	*e*P	**P**	**09 02 24.3**	**+0.2**
	comp=Z,6.2nm,0.9s,mb4.6						
STKA	**Stephens Creek**	**59.37**	**132**	P	**P**	**09 02 25.7**	**+1.6**
	comp=Z,6.2nm,0.8s,mb4.7,baz=343,slow=8.1,SNR=13						
STKA				LR	LR	09 31 22.7	
	comp=Z,115nm,18.0s,MS4.0,baz=224,slow=39						
STKA	**Stephens Creek**	**59.37**	**132**	*e*P	**P**	**09 02 23.7**	**-0.4**
EIL	**Elat**	**59.70**	**301**	*e*P	**P**	**09 02 26.2**	**-0.2**
	comp=Z,18nm,1.4s,mb4.9						
SOC	**Sochi**	**60.05**	**318**	*e*P	**P**	**09 02 25.8**	**-2.8**
SOC				*e*		09 03 15.0	
SOC				*e*		09 04 37.5	
SOC				*e*S	**S**	**09 10 39.9**	**+1.1**
SOC				*e*SS	SS	09 14 35.6	-1.2
SOC				pmax	pmax		
	comp=Z,21nm,1.4s,mb5.0						
SOC				pmax	pmax		
	comp=N,30nm,1.3s						
SOC				pmax	pmax		
	comp=E,5.0nm,0.5s						
YAK	**Yakutsk**	**62.10**	**18**	*e*P	**P**	**09 02 40.7**	**-1.5**
YAK				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.4						
YAK	**Yakutsk**	**62.10**	**18**	*e*P	**P**	**09 02 40.7**	**-1.5**
	comp=Z,24nm,0.8s,mb5.4						
BRTR	**Keskin Array B**	**63.10**	**312**	P	**P**	**09 02 47.9**	**-1.2**
	comp=Z,9.0nm,0.8s,mb4.9,baz=125,slow=7.4,SNR=36						
OBN	**Obninsk**	**66.60**	**328**	⇓*e*P	**P**	**09 03 10.5**	**-1.1**
OBN				pmax	pmax		
	comp=Z,18nm,1.4s,mb4.9						
LSZ	**Lusaka**	**67.85**	**251**	*e*P	**P**	**09 03 20.4**	**+0.2**
LSZ				*e*	pP	09 03 25.9	+0.3
LSZ				pmax	pmax		
	comp=Z,9.0nm,1.3s,mb4.6						
LSZ	**Lusaka**	**67.85**	**251**	*e*P	**P**	**09 03 20.4**	**+0.3**
	comp=Z,8.6nm,1.3s,mb4.6						
LSZ				*e*	pP	09 03 25.9	+0.2
AKASG	**Malin Array Be**	**69.18**	**322**	P	**P**	**09 03 25.6**	**-2.3**
	comp=Z,4.5nm,0.6s,mb4.6,baz=89,slow=5.1,SNR=20						
TIXI	**Tiksi**	**69.30**	**11**	*e*P	**P**	**09 03 27.2**	**-1.0**
TIXI				pmax	pmax		
	comp=Z,33nm,1.7s,mb5.0						
TIXI				MLR	MLR		
	comp=Z,109nm,16.0s,MS4.2						
SEY	**Seymchan**	**71.04**	**25**	*e*P	**P**	**09 03 33.8**	**-5.1**
LBTB	**Lobatse**	**72.59**	**242**	P	**P**	**09 03 48.9**	**-0.1**
LBTB				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
LBTB	**Lobatse**	**72.59**	**242**	P	**P**	**09 03 48.9**	**-0.1**
	comp=Z,9.3nm,1.0s,mb4.7						
LVZ	**Lovozero**	**73.11**	**340**	*e*P	**P**	**09 03 50.7**	**-0.4**
LVZ				pmax	pmax		
	comp=Z,158nm,3.1s						
KOLS	**Kolonicke sedl**	**73.14**	**319**	*i* P	**P**	**09 03 52.3**	**+0.6**
KOLS	**Kolonicke sedl**	**73.14**	**319**	*i* P	**P**	**09 03 52.3**	**+0.6**
KOLS	**Kolonicke sedl**	**73.14**	**319**	*e*P	**P**	**09 03 51.0**	**-0.7**
CRVS	**Cervenica-Dubn**	**73.66**	**319**	*i* P	**P**	**09 03 55.5**	**+0.8**
CRVS				*i*	pP	09 03 59.9	-0.3
CRVS	**Cervenica-Dubn**	**73.66**	**319**	*i* P	**P**	**09 03 55.5**	**+0.8**
CRVS				*e*pP	pP	09 03 58.2	-2.0
FINES	**FINESS Array B**	**74.06**	**333**	P	**P**	**09 03 55.7**	**-1.0**
	comp=Z,28nm,1.1s,mb5.1,baz=98,slow=6.6,SNR=35						
KAF	**Kangasniemi**	**74.16**	**333**	*e*p	**P**	**09 03 56.3**	**-1.0**
	comp=Z,9.8nm,0.6s,mb4.9						
KAF	**Kangasniemi**	**74.16**	**333**	*e*P	**P**	**09 03 56.3**	**-1.0**
KAF				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb4.9						
NIE	**Niedzica**	**74.49**	**320**	*e*P	**P**	**09 04 00.0**	**+0.5**
PSZ	**Piszkesteto**	**74.53**	**318**	*e*P	**P**	**09 03 59.4**	**-0.4**
PSZ				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
PSZ	**Piszkesteto**	**74.53**	**318**	*e*P	**P**	**09 03 59.4**	**-0.4**
	comp=Z,4.6nm,0.8s,mb4.5						
OJC	**Ojcow**	**74.94**	**320**	*e*P	**P**	**09 04 00.7**	**-1.4**
VYHS	**Vyhne**	**75.32**	**319**	*i* P	**P**	**09 04 04.1**	**-0.2**
VYHS				*i*		09 04 07.5	
VYHS	**Vyhne**	**75.32**	**319**	*i* P	**P**	**09 04 04.0**	**-0.3**
VYHS				*e*pP	pP	09 04 07.6	-2.2
SRO	**Srobarova**	**75.58**	**318**	*e*P	**P**	**09 04 06.4**	**+0.6**
SRO				*e*pP	pP	09 04 11.7	+0.4
OKC	**Ostrava-Krasne**	**75.94**	**320**	*e*P	**P**	**09 04 08.2**	**+0.4**
OKC				*e*pP	pP	09 04 12.0	-1.3
MORC	**Moravsky Berou**	**76.33**	**320**	*e*P	**P**	**09 04 09.5**	**-0.5**
MORC				pmax	pmax		
	comp=Z,12nm,1.3s,mb4.7						
MORC	**Moravsky Berou**	**76.33**	**320**	*e*P	**P**	**09 04 09.5**	**-0.5**
	comp=Z,12nm,1.3s,mb4.7						
KEV	**Kevo**	**76.40**	**341**	*e*p	**P**	**09 04 08.4**	**-1.6**
	comp=Z,9.8nm,0.7s,mb4.8						
KEV	**Kevo**	**76.40**	**341**	*e*P	**P**	**09 04 08.4**	**-1.6**
KEV				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb4.8						
ZST	**Bratislava**	**76.43**	**318**	*i* P	**P**	**09 04 11.1**	**+0.5**
ZST				*i* pP	pP	09 04 15.4	-0.7
ZST	**Bratislava**	**76.43**	**318**	*i* P	**P**	**09 04 11.1**	**+0.5**
ZST				*e*pP	pP	09 04 15.1	-1.0
MAW	**Mawson**	**76.46**	**192**	P	**P**	**09 04 14.7**	**+4.3**
	comp=Z,4.7nm,0.3s,mb4.9,baz=358,slow=7.2,SNR=27						
ARCES	**ARCESS Array B**	**76.82**	**340**	P	**P**	**09 04 11.9**	**-0.4**
	comp=Z,8.0nm,0.5s,mb4.9,baz=95,slow=5.9,SNR=36						
DPC	**Dobruska-Polom**	**77.17**	**320**	*e*P	**P**	**09 04 15.3**	**+0.6**
DPC				*e*pP	pP	09 04 19.9	-0.3
KSP	**Ksiaz**	**77.25**	**321**	*e*P	**P**	**09 04 15.6**	**+0.5**
KSP				*e**PP	pP	09 04 19.6	-1.0
UPC	**Upice**	**77.39**	**320**	*e*P	**P**	**09 04 16.4**	**+0.6**
ARSA	**Arzberg**	**77.40**	**317**	⇑*i*P	**P**	**09 04 16.3**	**+0.3**
	comp=Z,19nm,1.3s,mb4.9						
PERS	**Pernice**	**77.62**	**316**	*e*P	**P**	**09 04 17.5**	**+0.3**
BILL	**Bilibino**	**78.20**	**22**	*e*P	**P**	**09 04 19.7**	**-0.2**
BILL				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.3						
BILL	**Bilibino**	**78.20**	**22**	*e*P	**P**	**09 04 19.6**	**-0.3**
	comp=Z,3.1nm,0.8s,mb4.3						
PRU	**Pruhonice**	**78.28**	**320**	*e*P	**P**	**09 04 21.5**	**+0.8**
PRU				*e*pP	pP	09 04 24.9	-1.4
BRG	**Berggiesshubel**	**78.73**	**321**	*e*P	**P**	**09 04 23.6**	**+0.4**
BRG				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
BRG	**Berggiesshubel**	**78.73**	**321**	*e*P	**P**	**09 04 23.6**	**+0.4**
	comp=Z,8.7nm,1.0s,mb4.6						
GEC2	**GERESS Array S**	**78.74**	**319**	*e*P	**P**	**09 04 24.0**	**+0.7**
GEC2				pmax	pmax		
	comp=Z,19nm,0.9s,mb5.0						
GEC2	**GERESS Array S**	**78.74**	**319**	*e*P	**P**	**09 04 24.0**	**+0.7**
	comp=Z,19nm,0.9s,mb5.0						
GERES	**GERESS Array B**	**78.74**	**319**	P	**P**	**09 04 23.3**	**0.0**
	comp=Z,8.9nm,0.7s,mb4.8,baz=90,slow=5.3,SNR=75						
KHC	**Kasperske Hory**	**78.84**	**319**	*e*P	**P**	**09 04 24.0**	**+0.2**
KHC				*e*pP	pP	09 04 27.3	-2.1
WET	**Wettzell**	**79.30**	**319**	*e*P	**P**	**09 04 26.8**	**+0.5**
WET				pmax	pmax		
	comp=Z,17nm,1.4s,mb4.8						
WET	**Wettzell**	**79.30**	**319**	*e*P	**P**	**09 04 26.8**	**+0.5**
	comp=Z,17nm,1.4s,mb4.8						
CLL	**Collm**	**79.35**	**321**	*i* P	**P**	**09 04 26.4**	**-0.2**
CLL				*e*	pP	09 04 31.0	-1.2
CLL	**Collm**	**79.35**	**321**	P	**P**	**09 04 26.4**	**-0.2**
CLL				*e**SP	pP	09 04 31.0	-1.2
NKC	**Novy Kostel**	**79.64**	**320**	*e*P	**P**	**09 04 28.9**	**+0.7**
NKC				*e*pP	pP	09 04 33.5	-0.2
WTTA	**Wattenberg**	**80.04**	**317**	⇑*i*P	**P**	**09 04 30.2**	**-0.2**
	comp=Z,16nm,0.9s,mb5.0						
WTTA	**Wattenberg**	**80.04**	**317**	⇑*i*P	**P**	**09 04 30.2**	**-0.2**
WTTA				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
WATA	**Walderalm**	**80.08**	**317**	⇑*i*P	**P**	**09 04 30.1**	**-0.5**
	comp=Z,13nm,1.1s,mb4.8						
WATA	**Walderalm**	**80.08**	**317**	⇑*i*P	**P**	**09 04 30.1**	**-0.5**
WATA				pmax	pmax		
	comp=Z,13nm,1.1s,mb4.8						
MOX	**Moxa**	**80.19**	**320**	*e*P	**P**	**09 04 31.4**	**+0.3**
MOX	**Moxa**	**80.19**	**320**	*i* P	**P**	**09 04 31.4**	**+0.3**
SQTA	**Sankt Quirin**	**80.33**	**317**	⇑*i*P	**P**	**09 04 31.7**	**-0.2**
	comp=Z,11nm,0.8s,mb4.8						
SQTA	**Sankt Quirin**	**80.33**	**317**	⇑*i*P	**P**	**09 04 31.7**	**-0.2**
SQTA				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.8						
MOTA	**Moosalm**	**80.40**	**317**	⇑*i*P	**P**	**09 04 32.0**	**-0.3**
	comp=Z,13nm,1.0s,mb4.8						
MOTA	**Moosalm**	**80.40**	**317**	⇑*i*P	**P**	**09 04 32.0**	**-0.3**
MOTA				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
GRA1	**Grafenberg Arr**	**80.41**	**319**	*e*P	**P**	**09 04 33.1**	**+0.8**
	comp=Z,14nm,1.0s,mb4.8						
GRA1				*e*pP	pP	09 04 37.9	+0.1
GRF	**Grafenberg Arr**	**80.41**	**319**	*e*P	**P**	**09 04 33.1**	**+0.8**
GRF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**80.41**	**319**	*e*P	**P**	**09 04 33.1**	**+0.8**
GRF				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
GRF	**Grafenberg Arr**	**80.41**	**319**	*e*P	**P**	**09 04 33.1**	**+0.8**
	comp=Z,14nm,1.0s,mb4.8						
GRF				*e*pP	pP	09 04 37.9	+0.1
CLZ	**Clausthal**	**81.02**	**321**	*e*P	**P**	**09 04 35.8**	**+0.3**
	comp=Z,10.0nm,1.0s,mb4.7						
NB2	**NORSAR Subarra**	**81.03**	**331**	P	**P**	**09 04 34.4**	**-0.9**
	comp=Z,8.7nm,1.0s,mb4.6,baz=95,slow=5.6						
NB2	**NORSAR Subarra**	**81.03**	**331**	P	**P**	**09 04 34.4**	**-0.9**
NB2				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
NOA	**NORSAR Array B**	**81.03**	**331**	P	**P**	**09 04 34.0**	**-1.3**
	comp=Z,5.8nm,0.9s,mb4.5,baz=95,slow=5.4,SNR=7.5						
BSEG	**Bad Segeberg**	**81.13**	**324**	*e*P	**P**	**09 04 36.7**	**+0.7**
PGF	**Pioggiola**	**81.85**	**312**	*e*P	**P**	**09 04 40.2**	**+0.2**
	comp=Z,219nm,1.7s,mb5.5						
PGF	**Pioggiola**	**81.85**	**312**	*e*P	**P**	**09 04 40.2**	**+0.2**
PGF				pmax	pmax		
	comp=Z,109nm,1.7s,mb5.5						
BFO	**Black Forest**	**82.28**	**318**	*e*P	**P**	**09 04 42.1**	**0.0**
SBF	**Sospel**	**82.97**	**313**	*e*P	**P**	**09 04 46.3**	**+0.5**
	comp=Z,44nm,1.0s,mb5.2						
SBF	**Sospel**	**82.97**	**313**	*e*P	**P**	**09 04 46.3**	**+0.5**
SBF				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.1						
CDF	**Champ du Feu**	**82.99**	**318**	*e*P	**P**	**09 04 45.6**	**-0.2**
	comp=Z,5.5nm,0.7s,mb4.4						
CDF	**Champ du Feu**	**82.99**	**318**	*e*P	**P**	**09 04 45.6**	**-0.2**
CDF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
LPG	**La Plagne**	**83.42**	**315**	*e*P	**P**	**09 04 48.8**	**+0.8**
	comp=Z,22nm,0.9s,mb4.9						
LPG	**La Plagne**	**83.42**	**315**	*e*P	**P**	**09 04 48.8**	**+0.8**
LPG				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.9						
MBDF	**Montbardon**	**83.42**	**314**	*e*P	**P**	**09 04 48.2**	**+0.1**
	comp=Z,14nm,1.0s,mb4.6						
MBDF	**Montbardon**	**83.42**	**314**	*e*P	**P**	**09 04 48.2**	**+0.1**
MBDF				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.7						
BNI	**Bardonecchia**	**83.48**	**315**	*e*P	**P**	**09 04 48.7**	**+0.3**
BNI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
BNI	**Bardonecchia**	**83.48**	**315**	*e*P	**P**	**09 04 48.7**	**+0.4**
	comp=Z,5.1nm,0.7s,mb4.7						
HAU	**Haudompre**	**83.62**	**318**	*e*P	**P**	**09 04 49.0**	**0.0**
	comp=Z,19nm,0.9s,mb5.0						
HAU	**Haudompre**	**83.62**	**318**	*e*P	**P**	**09 04 49.0**	**0.0**
HAU				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb5.0						
WLF	**Walferdange**	**83.70**	**319**	*e*P	**P**	**09 04 49.9**	**+0.5**
WLF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb4.9						
WLF	**Walferdange**	**83.70**	**319**	*e*P	**P**	**09 04 49.9**	**+0.5**
	comp=Z,7.2nm,0.7s,mb4.9						
BAIF	**Baives**	**84.94**	**320**	*e*P	**P**	**09 04 56.0**	**+0.4**
	comp=Z,11nm,0.8s,mb4.8						
BAIF	**Baives**	**84.94**	**320**	*e*P	**P**	**09 04 56.0**	**+0.4**
BAIF				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb4.8						
SSF	**Saint Saulge**	**85.59**	**317**	*e*P	**P**	**09 04 59.4**	**+0.5**
	comp=Z,22nm,1.2s,mb4.9						
SSF	**Saint Saulge**	**85.59**	**317**	*e*P	**P**	**09 04 59.4**	**+0.5**
SSF				pmax	pmax		
	comp=Z,11nm,1.3s,mb4.9						
BGF	**Bois d’Agland**	**86.08**	**316**	*e*P	**P**	**09 05 01.3**	**-0.1**
RJF	**Les Rejaudoux**	**87.11**	**315**	*e*P	**P**	**09 05 07.1**	**+0.7**
ETSF	**Etsaut**	**88.85**	**313**	*e*P	**P**	**09 05 14.8**	**-0.1**
	comp=Z,16nm,1.1s,mb4.9						
ETSF	**Etsaut**	**88.85**	**313**	*e*P	**P**	**09 05 14.8**	**-0.1**
ETSF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb5.0						
VNDA	**Vanda**	**91.19**	**168**	P	**P**	**09 05 29.2**	**+4.2**
	comp=Z,1.7nm,0.7s,mb4.5,baz=301,slow=9.3,SNR=6.4						
ESDC	**Sonseca Array**	**91.84**	**310**	P	**P**	**09 05 29.7**	**+0.9**
	comp=Z,0.3nm,0.3s,mb4.1,baz=89,slow=5.1,SNR=5.3						
IMA	**Indian Mountai**	**93.73**	**22**	P	**P**	**09 05 38.4**	**+1.5**
ILAR	**Eielson Array**	**96.86**	**22**	LR	LR	09 57 49.1	
	comp=Z,96nm,18.4s,MS4.3,baz=270,slow=41						
DBIC	**Dimbokro**	**97.39**	**277**	P	**P**	**09 05 56.5**	**+1.6**
	comp=Z,1.6nm,0.7s,mb4.5,baz=220,slow=4.0,SNR=4.1						
SNAA	**Sanae**	**97.52**	**198**	P	pP	09 06 00.0	+0.3
SNAA	**Sanae**	**97.52**	**198**	*i* P	pP	09 06 00.0	+0.3
VNA2	**Neumayer--Watz**	**99.06**	**199**	P	**P**	**09 05 57.3**	**-3.7**
VNA3	**Neumayer Olymp**	**99.74**	**199**	P	pP	09 06 08.8	-1.0

YKA	**Yellowknife Ar**	**108.51**	**13**	PP	PP	09 11 09.5	-7.8
	comp=Z,0.4nm,0.8s,baz=333,slow=7.6,SNR=5.9						
YKA				PKKPbc		09 22 01.6	
	comp=Z,0.2nm,0.6s,baz=153,slow=3.2,SNR=5.8						
YKA				PKKPab		09 22 12.4	
	comp=Z,0.4nm,0.8s,baz=148,slow=4.5,SNR=4.4						
MSO	**Missoula**	**122.19**	**22**	*e*PKPdf	PKPdf	09 11 15.9	-2.3
ULM	**Lac du Bonnet**	**123.50**	**7**	PKP	PKPdf	09 11 19.9	-0.8
	comp=Z,3.0nm,0.6s,baz=316,slow=2.8,SNR=6.0						
SNOW	**Snow King Moun**	**126.24**	**22**	*e*PKPdf	PKPdf	09 11 24.1	-2.0
NVAR	**Mina Array Bea**	**127.01**	**31**	PKP	PKPdf	09 11 27.0	-0.7
	comp=Z,1.6nm,0.6s,baz=284,slow=3.6,SNR=6.5						
PDAR	**Pinedale Array**	**127.28**	**21**	PKP	PKPdf	09 11 26.4	-1.7
	comp=Z,2.6nm,0.9s,baz=30,slow=1.8,SNR=17						
KSU1	**Kansas State U**	**134.28**	**11**	*e*PKPdf	PKPdf	09 11 39.9	-1.6
ANMO	**Albuquerque**	**135.28**	**23**	*e*PKIKP	PKPdf	09 11 41.8	-1.7
ANMO	**Albuquerque**	**135.28**	**23**	PKP	PKPdf	09 11 42.1	-1.4
	comp=Z,2.8nm,0.9s,baz=217,slow=1.0,SNR=15						
GDL2	**Guadalupe Moun**	**138.52**	**23**	*e*PKPdf	PKPdf	09 11 47.9	-1.7
BDFB	**Brasilia**	**140.87**	**253**	PKP	PKPdf	09 11 53.0	-1.3
	comp=Z,0.9nm,0.4s,baz=84,slow=10,SNR=2.7						
TXAR	**Lajitas Array**	**141.34**	**24**	PKP	PKPdf	09 11 53.0	-1.7
	comp=Z,1.7nm,1.0s,baz=226,slow=0.2,SNR=10						
JCT	**Junction City**	**141.69**	**18**	*e*PKIKP	PKPdf	09 11 51.4	-3.9
LPAZ	**La Paz**	**159.10**	**239**	PKP	PKPdf	09 12 19.6	-2.4
	comp=Z,0.7nm,0.9s,baz=112,slow=16,SNR=3.4						
LPAZ				PKPab	PKPab	09 12 56.9	-0.4
	comp=Z,1.7nm,0.7s,baz=207,slow=7.8,SNR=6.5						
LPAZ	**La Paz**	**159.10**	**239**	*e*PKPab	PKPab	09 12 56.7	-0.6

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*NEIC **31** 08:55:22.1, 36.66N×9.63W, MG3.9(MDD), After MDD.*

*CSEM **31** 08:55:22.2±0.6, 36.65N×9.60W, h2^{km}, ML3.1/9, Error ellipse: s-maj=11.0km s-min=7.6km az=30.0*

*INMG **31** 08:55:23.0±0.7, 36.46N×9.78W, h31^{km}, ML2.1, Error ellipse: s-maj=4.5km s-min=3.8km az=59.0*

MDD 31 08:55:22.2±1.9**, 36.65N×9.62W, mb3.9**/2**, Error ellipse: s-maj=16.9km s-min=12.6km az=40.0, PRXIMO, West of Gibraltar**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
PTEO	**Sao Teotonio**	**1.15**	**38**	*e*P	Pb	08 55 44.5	-0.1
PTEO				*e*S	Sb	08 56 00.9	+1.0
	21nm,0.1s						
PTEO	**Sao Teotonio**	**1.15**	**38**	*e*P	Pb	08 55 44.5	-0.1
PTEO				*e*S	Sb	08 56 00.9	+1.0
	21nm,0.1s						
EGRO	**El Granado**	**1.92**	**62**	Pn	Pn	08 55 55.0	-1.5
	0.6nm,0.0s,SNR=7.9						
EGRO				Sn	Sn	08 56 19.2	-2.5
	3.0nm,0.1s,SNR=7.9						
EGRO	**El Granado**	**1.92**	**62**	Pn	Pn	08 55 55.0	-1.5
	0.6nm,0.0s,SNR=7.9						
EGRO				Sn	Sn	08 56 19.2	-2.5
	3.0nm,0.1s,SNR=7.9						
PBEJ	**Beja**	**1.96**	**45**	*e*Pn	Pn	08 55 55.3	-1.8
PBEJ				*e*Sn	Sn	08 56 20.3	-2.4
	5.6nm,0.1s						
PBEJ	**Beja**	**1.96**	**45**	*e*Pn	Pn	08 55 55.3	-1.8
PBEJ				*e*Sn	Sn	08 56 20.3	-2.4
	5.6nm,0.1s						
MOE	**Montemor**	**2.12**	**28**	*e*Pn	Pn	08 55 58.3	-1.1
MOE				*e*Sn	Sn	08 56 24.2	-2.7
PLOU	**Loures**	**2.26**	**9**	*e*Pn	Pn	08 55 59.5	-1.9
PLOU				*e*Sn	Sn	08 56 27.0	-3.5
	13nm,0.1s						
PLOU	**Loures**	**2.26**	**9**	*e*Pn	Pn	08 55 59.5	-1.9
PLOU				*e*Sn	Sn	08 56 27.0	-3.5
	13nm,0.1s						
EMIN	**Mina Concepcio**	**2.60**	**64**	Pn	Pn	08 56 04.0	-2.3
EMIN				Sn	Sn	08 56 34.5	-4.5
EMIN	**Mina Concepcio**	**2.60**	**64**	Pn	Pn	08 56 04.0	-2.3
	0.6nm,0.1s,SNR=8.4						
EMIN				Sn	Sn	08 56 34.5	-4.5
	1.1nm,0.1s,SNR=5.0						
EMIN	**Mina Concepcio**	**2.60**	**64**	Pn	Pn	08 56 04.0	-2.3
	0.6nm,0.1s,SNR=8.4						
EMIN				Sn	Sn	08 56 34.5	-4.5
	1.1nm,0.1s,SNR=5.0						
EBAD	**Badajoz**	**2.95**	**44**	Pn	Pn	08 56 08.7	-2.5
	1.0nm,0.0s,SNR=7.9						
EBAD				Sn	Sn	08 56 43.7	-4.1
	3.5nm,0.1s,SNR=7.9						
EBAD	**Badajoz**	**2.95**	**44**	Pn	Pn	08 56 08.7	-2.5
	1.0nm,0.0s,SNR=7.9						
EBAD				Sn	Sn	08 56 43.7	-4.1
	3.5nm,0.1s,SNR=7.9						
ESPR	**Espera**	**3.03**	**85**	Sn	Sn	08 56 45.0	-4.8
	13nm,0.3s,SNR=7.9						
ESPR	**Espera**	**3.03**	**85**	Sn	Sn	08 56 45.0	-4.8
	13nm,0.3s,SNR=7.9						
PTOM	**Tomar**	**3.11**	**17**	*e*Sn	Sn	08 56 47.9	-4.1
	6.1nm,0.1s						
PTOM	**Tomar**	**3.11**	**17**	Sn	Sn	08 56 47.9	-4.1
	3.0nm,0.1s						
PCBR	**Castelo Branco**	**3.60**	**27**	*e*Pn	Pn	08 56 18.3	-2.2
PCBR				*e*Sn	Sn	08 56 59.4	-5.0
	1.4nm,0.1s						
PCBR	**Castelo Branco**	**3.60**	**27**	Pn	Pn	08 56 18.3	-2.2
PCBR				Sn	Sn	08 56 59.4	-5.0
	0.7nm,0.1s						
EADA	**Adamuz**	**4.29**	**68**	Pn	Pn	08 56 27.8	-2.5
	0.8nm,0.2s,SNR=7.7						
EADA				Sn	Sn	08 57 14.6	-7.1
	1.2nm,0.1s,SNR=5.0						
EADA	**Adamuz**	**4.29**	**68**	Pn	Pn	08 56 27.8	-2.5
	0.8nm,0.2s,SNR=7.7						
EADA				Sn	Sn	08 57 14.6	-7.2
	1.2nm,0.1s,SNR=5.0						
ELOB	**Lobios**	**5.35**	**13**	Pn	Pn	08 56 41.3	-4.0
	1.0nm,0.2s,SNR=5.6						
ELOB				Sn	Sn	08 57 39.2	-9.3
	0.9nm,0.2s,SNR=7.9						
ELOB	**Lobios**	**5.35**	**13**	Pn	Pn	08 56 41.3	-4.0
	1.0nm,0.2s,SNR=5.6						
ELOB				Sn	Sn	08 57 39.2	-9.3
	0.9nm,0.2s,SNR=7.9						
ESDC	**Sonseca Array**	**5.38**	**54**	Pn	Pn	08 56 42.6	-3.2
	1.3nm,0.1s,baz=268,slow=40,SNR=4.3						
ESDC				Sn	Sn	08 57 43.2	-6.1
	2.3nm,0.4s,baz=241,slow=23,SNR=9.9						
ESDC	**Sonseca Array**	**5.38**	**54**	Pn	Pn	08 56 42.6	-3.1
	1.3nm,0.1s,SNR=4.3						
ESDC				Sn	Sn	08 57 43.2	-6.1
	2.3nm,0.4s,SNR=9.9						
ECAL	**Calabor**	**5.74**	**22**	Pn	Pn	08 56 47.0	-3.7
	0.9nm,0.3s,SNR=7.0						
ECAL				Sn	Sn	08 57 51.3	-7.0
	0.8nm,0.2s,SNR=5.0						
ECAL	**Calabor**	**5.74**	**22**	Pn	Pn	08 56 47.0	-3.8
	0.9nm,0.3s,SNR=7.0						
ECAL				Sn	Sn	08 57 51.3	-7.0
	0.8nm,0.2s,SNR=5.0						
GUD	**Guadarrama**	**5.85**	**45**	Pn	Pn	08 56 49.2	-3.1
	0.6nm,0.2s,SNR=7.9						
EINC	**Incio**	**6.25**	**16**	Pn	Pn	08 56 54.0	-4.0
	0.3nm,0.1s,SNR=4.0						
EINC	**Incio**	**6.25**	**16**	Pn	Pn	08 56 54.0	-4.0
	0.3nm,0.1s,SNR=4.0						

IDC 31 09:08:11.0±13.0**, 5.64N×94.70E, mb3.4**/3**, mb1 3.6**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, Error ellipse: s-maj=444.2km s-min=35.6km az=70.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.40**	**18**	Pn	P	09 11 29.0	+4.0
	0.1nm,0.3s,baz=208,slow=15,SNR=3.8						
SONM	**Songino Array**	**43.22**	**12**	P	P	09 16 13.9	-1.7
	0.3nm,0.6s,baz=197,slow=6.4,SNR=3.1						
WRA	**Warramunga Arr**	**46.53**	**124**	P	P	09 16 40.7	-1.8
	0.4nm,0.6s,baz=302,slow=9.3,SNR=5.6						
ASAR	**Alice Springs**	**48.08**	**129**	P	P	09 16 52.6	-2.0
	0.2nm,0.6s,baz=301,slow=7.1,SNR=3.7						

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*IDC **31** 09:09:50.5±0.7, 31.97N×40.51W, mb3.9/18, mb1 4.1/18, mb1mx4.0/24, mbtmp3.9/18, MS4.0/11, Ms1 4.0/11, ms1mx3.8/24, Error ellipse: s-maj=22.3km s-min=14.2km az=160.0*

ISC 31 09:09:50.3±0.6**, 32.0N**±0.1**×40.5W**±0.1**, h10^{km}, n23, σ0^{s}73**/18**, mb4.0**/18**, MS4.0**/11**, Northern Mid-Atlantic Ridge**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SJG	**San Juan**	**26.93**	**245**	LR	LR	09 23 53.3	
	comp=Z,208nm,18.6s,MS3.7,baz=273,slow=31						
SCHQ	**Schefferville**	**29.45**	**329**	LR	LR	09 26 55.5	
	comp=Z,458nm,18.7s,MS4.1,baz=36,slow=35						
ESDC	**Sonseca Array**	**30.46**	**65**	P	**P**	**09 16 05.7**	**+0.3**
	0.1nm,0.3s,mb3.0,baz=263,slow=8.2,SNR=3.9						
SDV	**Santo Domingo**	**36.17**	**237**	P	**P**	**09 16 56.4**	**+1.4**
	7.0nm,0.7s,mb4.7,baz=68,slow=5.6,SNR=9.4						
DAVOX	**Davos**	**40.96**	**54**	P	**P**	**09 17 35.7**	**+1.0**
	2.5nm,0.9s,mb3.9,baz=328,slow=19,SNR=4.4						
ROSC	**El Rosal**	**41.59**	**237**	LR	LR	09 33 09.8	
	comp=Z,129nm,20.2s,MS3.8,baz=206,slow=34						
DBIC	**Dimbokro**	**41.71**	**119**	P	**P**	**09 17 40.6**	**-0.6**
	2.8nm,0.7s,mb4.0,baz=295,slow=15,SNR=5.1						
DBIC				LR	LR	09 32 31.5	
	comp=Z,297nm,20.7s,MS4.2,baz=213,slow=33						
GERES	**GERESS Array B**	**43.62**	**51**	P	**P**	**09 17 56.5**	**+0.1**
	1.3nm,1.1s,mb3.6,baz=259,slow=6.8,SNR=6.2						
NOA	**NORSAR Array B**	**44.22**	**33**	P	**P**	**09 18 01.4**	**+0.4**
	0.9nm,0.7s,mb3.6,baz=257,slow=8.1,SNR=3.2						
ULM	**Lac du Bonnet**	**44.41**	**311**	LR	LR	09 34 03.6	
	comp=Z,189nm,21.7s,MS4.0,baz=337,slow=33						
BDFB	**Brasilia**	**47.90**	**190**	LR	LR	09 37 25.7	
	comp=Z,85nm,21.2s,MS3.7,baz=223,slow=35						
FINES	**FINESS Array B**	**51.35**	**34**	P	**P**	**09 18 56.6**	**-0.1**
	13nm,1.3s,mb4.7,baz=284,slow=7.9,SNR=3.5						
ARCES	**ARCESS Array B**	**52.05**	**24**	P	**P**	**09 19 01.5**	**-0.4**
	12nm,1.3s,mb4.7,baz=263,slow=9.8,SNR=3.9						
AKASG	**Malin Array Be**	**53.56**	**48**	P	**P**	**09 19 12.6**	**-0.8**
	0.7nm,0.4s,mb3.9,baz=278,slow=6.3,SNR=7.7						
TXAR	**Lajitas Array**	**53.69**	**285**	P	**P**	**09 19 14.7**	**+0.1**
	0.8nm,0.8s,mb3.7,baz=95,slow=7.9,SNR=8.5						
TXAR				LR	LR	09 40 53.9	
	comp=Z,205nm,19.5s,MS4.2,baz=65,slow=35						
PDAR	**Pinedale Array**	**54.51**	**302**	P	**P**	**09 19 20.4**	**0.0**
	2.8nm,0.8s,mb4.3,baz=81,slow=8.4,SNR=18						
PDAR				LR	LR	09 41 03.1	
	comp=Z,309nm,19.7s,MS4.4,baz=97,slow=34						
LPAZ	**La Paz**	**54.82**	**213**	P	**P**	**09 19 22.4**	**-0.6**
	1.8nm,0.8s,mb4.1,baz=357,slow=7.9,SNR=9.5						
LPAZ				LR	LR	09 41 15.4	
	comp=Z,97nm,19.1s,MS3.9,baz=101,slow=34						
YKA	**Yellowknife Ar**	**54.89**	**327**	P	**P**	**09 19 21.7**	**-1.3**
	0.6nm,0.8s,mb3.7,baz=88,slow=7.4,SNR=11						
YKA				LR	LR	09 40 59.1	
	comp=Z,253nm,20.1s,MS4.3,baz=65,slow=34						
BRTR	**Keskin Array B**	**59.04**	**60**	P	**P**	**09 19 52.0**	**-0.9**
	1.7nm,0.8s,mb4.1,baz=304,slow=7.4,SNR=4.3						
NVAR	**Mina Array Bea**	**62.12**	**300**	P	**P**	**09 20 13.1**	**-0.7**
	2.4nm,1.0s,mb4.3,baz=76,slow=6.1,SNR=5.1						
ILAR	**Eielson Array**	**68.05**	**334**	P	**P**	**09 20 52.5**	**+0.8**
	1.8nm,1.1s,mb4.0,baz=47,slow=4.0,SNR=11						
ILAR				LR	LR	09 49 03.7	
	comp=Z,131nm,20.4s,MS4.2,baz=270,slow=35						
BVAR	**Borovoye Array**	**76.29**	**36**	P	**P**	**09 21 41.1**	**+0.4**
	1.4nm,1.0s,mb3.9,baz=225,slow=4.1,SNR=4.3						
ZAL	**Zalesovo**	**82.26**	**29**	P	**P**	**09 22 14.1**	**+1.2**
	1.0nm,0.9s,mb3.7,baz=338,slow=24,SNR=4.4						

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*LDG **31** 09:12:42.8±0.2, 43.11N×0.68W, h2^{km}, Md1.9/2, Error ellipse: s-maj=6.5km s-min=3.0km az=11.0*

MDD 31 09:12:44.1±0.3**, 43.02N×0.73W, mbLg0.4**/2**, Error ellipse: s-maj=3.3km s-min=1.9km az=22.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATE	**Arette**	**0.07**	**16**	Pg	Pg	09 12 45.4	-0.2
ATE				Lg		09 12 47.1	
ETSF	**Etsaut**	**0.17**	**133**	*e*Pg	Pg	09 12 47.7	+0.2
ETSF				*e*Sg	Sg	09 12 50.0	+0.3
	8.0nm,0.2s						
LARF	**Larrau**	**0.19**	**277**	Pg	Pg	09 12 47.9	0.0
LARF				Lg		09 12 51.5	
SJPF	**Ste Jean**	**0.38**	**285**	*e*Pg	Pg	09 12 50.3	-1.3
SJPF				*e*Sg	Sg	09 12 55.6	-1.0
	2.5nm,0.2s						
EALK	**Alkurruntz**	**0.60**	**290**	Pg	Pg	09 12 53.8	-2.4
	SNR=7.9						
EALK				Lg		09 13 03.1	
	SNR=7.9						
EBIE	**Bielsa**	**0.72**	**117**	Pg	Pg	09 12 57.0	-1.5
	SNR=7.9						
EBIE				Lg		09 13 06.2	
	SNR=7.9						
EPF	**Esparros**	**0.78**	**88**	*e*Pg	Pg	09 12 57.2	-2.5
EPF				*e*Sg	Sg	09 13 06.3	-3.9
	1.1nm,0.2s						

IDC 31 09:16:04.8±1.7**, 8.33N×92.83E, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.5**/18**, mbtmp3.6**/4**, ML3.7**/1**, Error ellipse: s-maj=48.1km s-min=32.0km az=59.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.69**	**30**	Pn	P	09 18 54.1	-1.9
	0.1nm,0.3s,baz=215,slow=15,SNR=10						
SONM	**Songino Array**	**41.02**	**14**	P	P	09 23 49.3	-2.0
	0.6nm,0.8s,baz=194,slow=8.2,SNR=3.4						
ASAR	**Alice Springs**	**51.20**	**129**	P	P	09 25 10.6	-1.7
	0.3nm,0.6s,baz=306,slow=7.0,SNR=5.2						
BRTR	**Keskin Array B**	**61.15**	**311**	P	P	09 26 21.2	-2.3
	0.4nm,0.6s,baz=121,slow=7.2,SNR=3.7						

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*IDC **31** 09:21:41.0±0.8, 17.78N×93.08E, mb4.1/13, mb1 4.3/14, mb1mx4.2/19, mbtmp4.1/14, ML4.5/1, MS4.2/1, Ms1 4.2/1, ms1mx3.2/27, Error ellipse: s-maj=33.0km s-min=15.6km az=48.0*

ISC 31 09:21:40.6±0.6**, 17.84N**±0.09**×93.14E**±0.06**, h10^{km}, n26, σ0^{s}88**/26**, mb4.2**/13**, MS4.2**/1**, 1C, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**5.55**	**83**	Pn	**Pn**	**09 23 05.7**	**+0.3**
	4.0nm,0.3s,baz=265,slow=14,SNR=74						
CMAR				Sn	**Sn**	**09 24 05.9**	**-4.2**
	4.2nm,0.3s,baz=260,slow=16,SNR=4.2						
CHRT	**Chiangrai**	**6.61**	**71**	⇑PN	Px	09 23 16.5	
CHRT				PG	Px	09 23 21.0	
CHRT				SG	Sx	09 24 24.0	
PKI	**Pulchoki**	**12.02**	**325**	*e*P	**P**	**09 24 35.0**	**-0.1**
	57nm,0.3s						
GUN	**Gumba**	**12.04**	**328**	*e*P	**P**	**09 24 35.7**	**+0.3**
	53nm,0.4s						
DMN	**Daman**	**12.22**	**324**	*e*P	**P**	**09 24 36.5**	**-1.2**
	32nm,0.4s						
KKN	**Kakani**	**12.26**	**325**	*e*P	**P**	**09 24 37.4**	**-0.9**
GKN	**Gorkha**	**12.78**	**324**	*e*P	**P**	**09 24 44.8**	**-0.5**
	43nm,0.3s						
KOLN	**Koldanda**	**13.22**	**320**	*e*P	**P**	**09 24 50.6**	**-0.5**
	24nm,0.3s						
HYB	**Hyderabad**	**13.91**	**270**	*e*P	**P**	**09 24 59.0**	**-1.3**
HYB				*e*	**S**	**09 27 48.0**	**+12**
POO	**Poona**	**18.34**	**275**	*e*P	**P**	**09 25 52.0**	**-5.0**
POO				*e*S	**S**	**09 29 20.0**	**+1.3**
SONM	**Songino Array**	**31.82**	**17**	P	**P**	**09 28 08.3**	**+0.7**
	2.8nm,1.0s,mb4.0,baz=203,slow=8.3,SNR=12						
SONM				PcP	PcP	09 30 58.2	-0.5
	0.8nm,0.8s,baz=207,slow=5.5,SNR=3.7						
ZAL	**Zalesovo**	**36.60**	**352**	P	**P**	**09 28 49.8**	**+1.2**
	1.7nm,0.8s,mb3.9,baz=288,slow=5.1,SNR=5.7						
BVAR	**Borovoye Array**	**39.35**	**338**	P	**P**	**09 29 12.8**	**+1.0**
	2.6nm,0.9s,mb4.0,baz=149,slow=8.6,SNR=8.8						
BVAR				PcP	PcP	09 31 20.6	-0.2
	2.0nm,0.7s,baz=153,slow=6.4,SNR=6.2						
WRA	**Warramunga Arr**	**55.19**	**131**	P	**P**	**09 31 15.8**	**-0.4**
	3.9nm,0.9s,mb4.4,baz=314,slow=7.3,SNR=14						
WRA				PcP	PcP	09 32 16.6	-0.5
	0.9nm,0.6s,baz=323,slow=3.5,SNR=11						
BRTR	**Keskin Array B**	**55.48**	**306**	P	**P**	**09 31 17.3**	**-0.8**
	0.7nm,0.6s,mb3.9,baz=121,slow=7.2,SNR=4.8						
ASAR	**Alice Springs**	**57.33**	**135**	P	**P**	**09 31 31.3**	**-0.2**
	1.9nm,0.7s,mb4.3,baz=313,slow=6.7,SNR=9.5						
KMBO	**Kilima Mbogo**	**58.12**	**257**	LR	LR	09 56 32.6	
	comp=Z,195nm,19.6s,MS4.2,baz=278,slow=36						
AKASG	**Malin Array Be**	**59.91**	**319**	P	**P**	**09 31 48.0**	**-1.1**
	1.2nm,0.7s,mb4.0,baz=78,slow=6.2,SNR=6.8						
FINES	**FINESS Array B**	**63.55**	**330**	P	**P**	**09 32 12.7**	**-0.6**
	2.4nm,0.6s,mb4.4,baz=109,slow=17,SNR=28						
ARCES	**ARCESS Array B**	**65.63**	**339**	P	**P**	**09 32 27.2**	**+0.4**
	3.2nm,1.0s,mb4.3,baz=90,slow=12,SNR=4.5						
GERES	**GERESS Array B**	**69.88**	**316**	P	**P**	**09 32 54.8**	**+1.1**
	3.0nm,0.8s,mb4.2,baz=76,slow=5.5,SNR=22						
NB2	**NORSAR Subarra**	**70.66**	**329**	P	**P**	**09 32 58.4**	**+0.2**
	1.9nm,0.8s,mb4.1,baz=90,slow=5.8						
NOA	**NORSAR Array B**	**70.66**	**329**	P	**P**	**09 32 58.5**	**+0.3**
	1.4nm,0.9s,mb3.9,baz=90,slow=5.6,SNR=3.6						
ILAR	**Eielson Array**	**85.92**	**22**	P	**P**	**09 34 22.2**	**+0.5**
	1.3nm,0.9s,mb4.2,baz=295,slow=4.4,SNR=13						
YKA	**Yellowknife Ar**	**96.99**	**13**	P	**P**	**09 35 14.4**	**+1.0**
	0.8nm,0.8s,mb4.2,baz=329,slow=4.0,SNR=14						
TXAR	**Lajitas Array**	**130.37**	**19**	PKP	PKPdf	09 40 54.9	-0.4
	0.3nm,0.6s,baz=185,slow=0.5,SNR=5.9						

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*IDC **31** 09:21:40.8±1.9, 4.27N×94.68E, mb4.1/5, mb1 4.3/5, mb1mx3.9/18, mbtmp4.1/5, Error ellipse: s-maj=174.3km s-min=22.9km az=46.0*

ISC 31 09:21:46.3±1.1**, 5.4N**±0.2**×95.9E**±0.2**, h33^{km}, n6, σ1^{s}33**/6**, mb4.0**/5**, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**11.05**	**22**	P	**P**	**09 24 25.0**	**-0.2**
	75nm,0.4s						
WRA	**Warramunga Arr**	**45.42**	**125**	P	**P**	**09 30 04.2**	**0.0**
	1.4nm,0.7s,mb3.9,baz=301,slow=9.0,SNR=6.7						
ASAR	**Alice Springs**	**47.00**	**129**	P	**P**	**09 30 16.4**	**-0.1**
	1.1nm,0.7s,mb3.9,baz=295,slow=7.7,SNR=9.7						
FINES	**FINESS Array B**	**75.71**	**332**	P	**P**	**09 33 29.4**	**-0.6**
	1.7nm,0.7s,mb4.1,baz=90,slow=4.2,SNR=2.5						
ARCES	**ARCESS Array B**	**78.19**	**340**	P	**P**	**09 33 46.0**	**+2.3**
	3.8nm,1.0s,mb4.3,baz=104,slow=7.4,SNR=4.2						
GERES	**GERESS Array B**	**80.83**	**318**	P	**P**	**09 33 57.6**	**-0.8**
	0.6nm,0.4s,mb3.9,baz=100,slow=6.0,SNR=3.0						

BJI 31 09:23:37.3, 36.25N×82.47E, h9^{km}, ML3.9, Southern Xinjiang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSH	**Kashi**	**6.08**	**304**	*e*PG	Pg	09 25 25.8	-13
KSH				*e*SG	Sg	09 26 47.3	-13
KSH				Smax			
	comp=N,180nm,1.3s						
KSH				Smax			
	comp=E,70nm,0.8s						

IDC 31 09:46:02.3±5.5**, 3.14N×93.39E, mb3.4**/2**, mb1 3.8**/3**, mb1mx3.6**/18**, mbtmp3.6**/3**, ML3.8**/1**, Error ellipse: s-maj=164.6km s-min=35.8km az=73.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**16.17**	**19**	Pn	P	09 49 49.5	-3.2
	0.1nm,0.3s,baz=215,slow=14,SNR=27						
SONM	**Songino Array**	**45.92**	**12**	P	P	09 54 27.3	-1.2
	0.4nm,0.6s,baz=187,slow=9.2,SNR=4.1						
ASAR	**Alice Springs**	**47.60**	**126**	P	P	09 54 40.1	-2.1
	0.3nm,0.6s,baz=294,slow=7.9,SNR=4.5						

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*IDC **31** 09:51:04.5±0.4, 9.46N×93.74E, mb4.5/22, mb1 4.6/22, mb1mx4.6/24, mbtmp4.5/22, Error ellipse: s-maj=20.9km s-min=11.3km az=50.0*

*MOS **31** 09:51:08.4±0.9, 9.53N×93.71E, h33^{km}, mb4.9/22, Error ellipse: s-maj=17.9km s-min=9.6km az=116.7*

*BJI **31** 09:51:09.0, 9.60N×93.60E, h30^{km}, mB5.2, mb4.6, Ms4.7, Msz4.8*

*NEIC **31** 09:51:10.1±0.7, 9.59N×93.64E, h30^{km}, mb4.8/20, Error ellipse: s-maj=18.8km s-min=10.8km az=127.0*

ISC 31 09:51:07.7±0.3**, 9.39N**±0.05**×93.79E**±0.06**, h33^{km}, n111, σ1^{s}07**/106**, mb4.6**/46**, MS5.0**/2**, 2C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**10.31**	**28**	Pn	**P**	**09 53 38.2**	**+1.8**
	0.2nm,0.3s,baz=221,slow=15,SNR=16						
HYB	**Hyderabad**	**16.83**	**300**	*e*P	**P**	**09 55 06.0**	**+3.6**
HYB	**Hyderabad**	**16.83**	**300**	*i* P	**P**	**09 55 00.0**	**-2.4**
HYB				*e*S	**S**	**09 58 09.0**	**+1.8**
KMI	**Kunming**	**17.82**	**27**	P	**P**	**09 55 20.0**	**+5.2**
KMI				AMB	AMB		
	comp=Z,37nm,1.2s						
PKI	**Pulchoki**	**19.74**	**337**	*e*P	**P**	**09 55 37.5**	**-0.1**
	comp=Z,94nm,1.0s						
GUN	**Gumba**	**19.88**	**339**	*e*P	**P**	**09 55 39.0**	**0.0**
	comp=Z,151nm,0.8s						
DMN	**Daman**	**19.89**	**337**	*e*P	**P**	**09 55 39.1**	**-0.1**
	comp=Z,49nm,0.7s						
KKN	**Kakani**	**19.99**	**337**	*e*P	**P**	**09 55 40.2**	**0.0**
	comp=Z,60nm,0.8s						
LSA	**Lhasa**	**20.36**	**353**	*e*P	**P**	**09 55 43.5**	**-0.6**
LSA				pmax	pmax		
	comp=Z,19nm,0.5s						
LSA	**Lhasa**	**20.36**	**353**	*e*P	**P**	**09 55 43.5**	**-0.7**
	comp=Z,19nm,0.5s						
GKN	**Gorkha**	**20.43**	**336**	*e*P	**P**	**09 55 44.6**	**-0.2**
	comp=Z,144nm,0.8s						
KOLN	**Koldanda**	**20.66**	**334**	*e*P	**P**	**09 55 47.3**	**+0.1**
	comp=Z,100nm,0.8s						
GYA	**Guiyang**	**20.91**	**34**	⇑*i*P	**P**	**09 55 52.5**	**+2.7**
GYA				AMB	AMB		
	comp=Z,50nm,0.8s						
ENH	**Enshi**	**25.43**	**33**	*e*P	**P**	**09 56 34.2**	**0.0**
	comp=Z,17nm,0.8s,mb4.6						
WHN	**Wuhan**	**28.47**	**39**	P	**P**	**09 56 59.5**	**-2.5**
GTA	**Gaotai**	**30.38**	**9**	P	**P**	**09 57 19.8**	**+0.9**
GTA				XP	sP	09 57 29.8	-3.1
GTA				AMB	AMB		
	comp=Z,8.0nm,0.9s,mb4.5						
NJ2	**Nanjing**	**32.37**	**42**	*e*P	**P**	**09 57 33.8**	**-2.7**
NJ2				XP	sP	09 57 47.8	-2.7
NJ2				AMB	AMB		
	comp=Z,340nm,5.8s						
NJ2				LR	LR		
	comp=N,820nm,16.0s,MS4.5						
NJ2				LR	LR		
	comp=E,230nm,15.3s,MS4.5						
NJ2				LR	LR		
	comp=Z,2µm,15.6s,MS4.8						
KSH	**Kashi**	**33.96**	**335**	*e*P	**P**	**09 57 52.8**	**+2.6**
KSH				*e*AP	pP	09 57 58.5	-1.4
KSH				*e*XP	sP	09 58 04.5	+0.3
KSH				AMB	AMB		
	comp=Z,250nm,5.8s						
ULHL	**Ulahol**	**36.18**	**338**	P	**P**	**09 58 09.2**	**0.0**
	SNR=8.8						
KZA	**Kyzart**	**36.42**	**336**	P	**P**	**09 58 11.9**	**+0.8**
	SNR=7.9						
UCH	**Uchtor**	**36.84**	**336**	P	**P**	**09 58 15.3**	**+0.7**
	SNR=19						
TKM2	**Tokmak 2**	**37.01**	**338**	P	**P**	**09 58 16.2**	**+0.2**
	SNR=9.3						
AML	**Almayashu**	**37.10**	**335**	P	**P**	**09 58 18.0**	**+1.2**
	SNR=48						
AAK	**Ala-Archa**	**37.19**	**336**	P	**P**	**09 58 18.6**	**+1.0**
	SNR=21						
AAK	**Ala-Archa**	**37.19**	**336**	*c i*P	**P**	**09 58 17.8**	**+0.2**
AAK				pmax	pmax		
	comp=Z,15nm,0.7s,mb4.9						
AAK	**Ala-Archa**	**37.19**	**336**	*e*P	**P**	**09 58 17.2**	**-0.3**
	comp=Z,19nm,0.9s,mb4.9						
CHMS	**Chumysh**	**37.40**	**337**	P	**P**	**09 58 19.6**	**+0.3**
	SNR=14						
EKS2	**Erkin-Say**	**37.50**	**336**	P	**P**	**09 58 21.1**	**+0.9**
	SNR=33						
USP	**Ospenovka**	**37.72**	**337**	P	**P**	**09 58 22.2**	**+0.2**
	SNR=39						
SONM	**Songino Array**	**39.77**	**13**	P	**P**	**09 58 39.8**	**+0.8**
	comp=Z,2.9nm,0.9s,mb4.0,baz=195,slow=10,SNR=19						
SONM				PcP	PcP	10 00 46.1	+0.5
	comp=Z,1.8nm,0.6s,baz=200,slow=4.1,SNR=9.4						
ZAK	**Zakamensk**	**41.62**	**9**	*e*P	**P**	**09 58 54.8**	**+0.5**
MOY	**Mondy**	**42.57**	**7**	*e*P	pP	09 59 13.1	+1.2
TLY	**Talaya**	**42.94**	**9**	*i* P	**P**	**09 59 00.8**	**-4.3**
TLY				pmax	pmax		
	comp=Z,3.0nm,1.3s,mb3.9						
ZAL	**Zalesovo**	**45.01**	**352**	*i* P	**P**	**09 59 22.3**	**+0.6**
ZAL				pmax	pmax		

	comp=Z,4.0nm,1.0s						
ZAL	Zalesovo	45.01	352	P	P	09 59 21.6	-0.1
	comp=Z,4.4nm,1.0s,mb4.3,baz=300,slow=8.5,SNR=15						
HIA	Hailar	45.28	24	P	P	09 59 24.5	+0.5
HIA				pmax	pmax		
	comp=Z,4.0nm,0.3s						
HIA	Hailar	45.28	24	P	P	09 59 24.5	+0.5
	comp=Z,3.7nm,0.3s,mb4.7						
NVS	Novosibirsk	46.11	352	*e*P	P	09 59 28.4	-2.1
BVAR	Borovoye Array	47.45	341	P	P	09 59 39.7	-1.4
	comp=Z,4.7nm,0.9s,mb4.4,baz=143,slow=7.4,SNR=12						
NWAO	Narrogin (SRO)	47.64	153	P	P	09 59 42.0	-0.8
	comp=Z,7.2nm,0.6s,mb4.9,baz=279,slow=11,SNR=5.2						
CHKZ	Chkalovo	47.94	342	*e*P	P	09 59 44.1	-0.8
CHKZ				*e*		10 01 12.6	
CHKZ				pmax	pmax		
	comp=Z,11nm,0.8s,mb4.9						
CHKZ	Chkalovo	47.94	342	*e*P	P	09 59 44.1	-0.7
	comp=Z,11nm,0.8s,mb4.9						
CHKZ				*e*PcP	PcP	10 01 12.6	-0.7
WRA	Warramunga Arr	49.42	126	*i* P	P	09 59 57.8	+1.0
WRA				pmax	pmax		
	comp=Z,5.0nm,0.7s						
WRA	Warramunga Arr	49.42	126	P	P	09 59 56.8	0.0
	comp=Z,5.0nm,0.7s,mb4.7,baz=306,slow=8.6,SNR=39						
WRA				PcP	PcP	10 01 19.2	+0.1
	comp=Z,3.0nm,0.7s,baz=310,slow=3.0,SNR=14						
ASAR	Alice Springs	51.15	131	P	P	10 00 09.3	-0.6
	comp=Z,4.5nm,0.8s,mb4.5,baz=306,slow=6.8,SNR=24						
ASAR				PcP	PcP	10 01 25.6	+0.3
	comp=Z,3.4nm,0.7s,baz=307,slow=3.5,SNR=16						
GNI	Garni	53.14	314	*i* P	P	10 00 25.3	+0.7
GNI				pmax	pmax		
	comp=Z,17nm,1.2s						
GNI	Garni	53.14	314	P	P	10 00 24.8	+0.2
	comp=Z,3.5nm,0.6s,mb4.5,baz=158,slow=11,SNR=5.8						
GNI	Garni	53.14	314	*e*P	P	10 00 22.7	-1.9
	comp=Z,28nm,1.3s,mb5.0						
ARU	Arti	54.37	337	⇓*i*P	P	10 00 32.3	-1.1
ARU				*e*		10 01 33.8	
ARU				*e*		10 02 32.8	
ARU				*e*PPP	PPP	10 03 41.0	-7.1
ARU				*e*S	S	10 08 08.0	+0.3
ARU				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
ZEI	Tsey	54.71	316	*e*P	P	10 00 35.9	-0.2
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
YSS	Yuzh-Sakhalins	55.82	39	*e*P	P	10 00 31.7	-12
KIV	Kislovodsk	55.98	317	*i* P	P	10 00 44.6	-0.6
KIV				pmax	pmax		
	comp=Z,15nm,1.0s,mb5.0						
KIV	Kislovodsk	55.98	317	*e*P	P	10 00 44.2	-1.0
	comp=Z,19nm,0.9s,mb5.1						
GOF	Gofitskoye	56.17	319	*e*P	P	10 00 45.5	-1.1
GOF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.2						
PMG	Port Moresby	56.31	108	*i* P	P	10 00 49.7	+1.7
PMG	Port Moresby	56.31	108	P	P	10 00 49.7	+1.6
	comp=Z,14nm,0.7s,mb5.1,baz=262,slow=10.0,SNR=6.0						
MALT	Malatya	57.23	310	*e*P	P	10 00 49.0	-5.3
MALT				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
MALT	Malatya	57.23	310	*e*P	P	10 00 49.0	-5.3
	comp=Z,5.2nm,0.9s,mb4.6						
KMBO	Kilima Mbogo	57.26	263	*e*P	P	10 00 56.7	+1.9
KMBO				pmax	pmax		
	comp=Z,9.0nm,1.0s						
KMBO	Kilima Mbogo	57.26	263	P	P	10 00 56.0	+1.2
	comp=Z,6.6nm,0.8s,mb4.7,baz=52,slow=12,SNR=14						
KMBO	Kilima Mbogo	57.26	263	*e*P	P	10 00 56.7	+1.8
	comp=Z,9.3nm,1.0s,mb4.8						
EIL	Elat	58.39	299	*e*P	P	10 01 01.5	-1.0
	comp=Z,10nm,1.1s,mb4.8						
YAK	Yakutsk	58.68	19	*i* P	P	10 01 00.3	-3.8
YAK				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.8						
CTA	Charters Tower	59.35	120	P	P	10 01 09.1	-0.3
	comp=Z,9.5nm,1.0s,mb4.8,baz=263,slow=9.1,SNR=3.6						
CTA				PcP	PcP	10 01 57.7	+0.9
	comp=Z,5.2nm,0.9s,baz=275,slow=12,SNR=2.9						
BRTR	Keskin Array B	61.19	310	P	P	10 01 19.6	-2.0
	comp=Z,3.2nm,0.6s,mb4.6,baz=125,slow=7.6,SNR=17						
STKA	Stephens Creek	61.40	134	P	P	10 01 22.3	-0.8
	comp=Z,4.3nm,1.0s,mb4.5,baz=286,slow=7.7,SNR=4.1						
OBN	Obninsk	63.92	327	⇓*e*P	P	10 01 40.4	+0.9
OBN				S	S	10 10 18.2	+6.8
OBN				pmax	pmax		
	comp=Z,13nm,1.6s,mb4.7						
TIXI	Tiksi	65.83	12	*e*P	P	10 01 50.4	-1.2
TIXI				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.9						
AKASG	Malin Array Be	66.76	321	P	P	10 01 55.8	-2.0
	comp=Z,0.7nm,0.5s,mb4.0,baz=87,slow=5.5,SNR=12						
IDI	Anoyia	67.43	304	P	P	10 02 01.2	-1.1
	comp=Z,3.8nm,0.6s,mb4.6,baz=90,slow=6.1,SNR=5.3						
LSZ	Lusaka	69.45	250	*e*P	P	10 02 15.6	+0.5
LSZ				pmax	pmax		
	comp=Z,10.0nm,1.3s,mb4.6						
LSZ	Lusaka	69.45	250	*e*P	P	10 02 15.6	+0.4
	comp=Z,9.8nm,1.3s,mb4.6						
KOLS	Kolonicke sedl	70.85	319	*i* P	P	10 02 22.3	-0.8
FINES	FINESS Array B	71.22	332	P	P	10 02 24.3	-0.9
	comp=Z,3.6nm,0.8s,mb4.4,baz=93,slow=4.8,SNR=12						
CRVS	Cervenica-Dubn	71.37	318	*i* P	P	10 02 26.1	-0.2
CRVS				*e*		10 02 32.5	
PSZ	Piszkesteto	72.30	317	*e*P	P	10 02 31.1	-0.7
PSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
PSZ	Piszkesteto	72.30	317	*e*P	P	10 02 31.1	-0.7
	comp=Z,3.9nm,0.8s,mb4.4						
VYHS	Vyhne	73.06	318	*i* P	P	10 02 34.8	-1.5
ARCES	ARCESS Array B	73.73	340	P	P	10 02 40.0	+0.2
	comp=Z,4.2nm,0.6s,mb4.5,baz=92,slow=6.2,SNR=13						
MORC	Moravsky Berou	74.01	319	*e*P	P	10 02 41.3	-0.5
MORC				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
MORC	Moravsky Berou	74.01	319	*e*P	P	10 02 41.3	-0.5
	comp=Z,4.4nm,0.8s,mb4.4						
ZST	Bratislava	74.19	317	*e**PP	P	10 02 43.3	+0.4
ZST	Bratislava	74.19	317	*e*P	P	10 02 43.3	+0.4
LBTB	Lobatse	74.67	241	*e*P	P	10 02 46.9	+0.8
LBTB				*e*		10 02 55.2	
LBTB				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
LBTB	Lobatse	74.67	241	*e*P	P	10 02 46.9	+0.8
	comp=Z,5.8nm,0.6s,mb4.7						
LBTB				*e*		10 02 55.2	
BRG	Berggiesshubel	76.38	320	*e*	P	10 02 55.4	+0.1
BRG				MLR	MLR		
	comp=N,1µm,18.1s,MS5.4						
BRG				MLR	MLR		
	comp=E,1µm,18.1s,MS5.4						
BRG				MLR	MLR		
	comp=Z,1µm,18.1s,MS5.3						
BRG	Berggiesshubel	76.38	320	*e*P	P	10 02 55.4	+0.1
	comp=Z,4.8nm,1.1s,mb4.3						
BRG				LR	LR		
	comp=Z,1µm,18.1s,MS5.3						
GERES	GERESS Array B	76.48	318	P	P	10 02 55.8	-0.2
	comp=Z,5.9nm,0.9s,mb4.5,baz=90,slow=5.3,SNR=40						
KHC	Kasperske Hory	76.56	318	*e*P	P	10 02 56.0	-0.5
CLL	Collm	76.98	321	P	P	10 03 00.0	+1.2
NB2	NORSAR Subarra	78.25	330	P	P	10 03 04.6	-1.0
	comp=Z,2.4nm,0.8s,mb4.2,baz=92,slow=5.6						
NB2	NORSAR Subarra	78.25	330	P	P	10 03 04.6	-1.0
NB2				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
NOA	NORSAR Array B	78.25	330	P	P	10 03 04.8	-0.7
	comp=Z,4.6nm,0.8s,mb4.4,baz=93,slow=5.5,SNR=7.9						
MAW	Mawson	79.94	192	P	P	10 03 15.7	+1.1
	comp=Z,5.7nm,0.9s,mb4.5,baz=12,slow=6.5,SNR=4.9						
SUR	Sutherland	80.91	235	*e*P	P	10 03 22.5	+2.0
	comp=Z,13nm,0.7s,mb5.0						
LPG	La Plagne	81.31	315	*e*P	P	10 03 22.6	+0.2
	comp=Z,17nm,0.7s,mb4.8						
LPG	La Plagne	81.31	315	*e*P	P	10 03 22.6	+0.2
LPG				pmax	pmax		
	comp=Z,8.0nm,0.7s,mb4.8						
BNI	Bardonecchia	81.40	314	*e*P	P	10 03 22.3	-0.5
BNI				pmax	pmax		
	comp=Z,18nm,1.0s,mb5.0						
BNI	Bardonecchia	81.40	314	*e*P	P	10 03 22.2	-0.6
	comp=Z,18nm,1.0s,mb5.0						
ESDC	Sonseca Array	89.98	310	P	P	10 04 05.9	+0.6
	comp=Z,0.7nm,0.6s,mb4.2,baz=68,slow=4.1,SNR=6.2						
IMA	Indian Mountai	90.36	22	*e*P	P	10 04 08.2	+1.7
IMA				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.3						
IMA	Indian Mountai	90.36	22	*e*P	P	10 04 08.2	+1.7
	comp=Z,14nm,0.9s,mb5.3						
ILAR	Eielson Array	93.48	22	P	P	10 04 21.1	+0.2
	comp=Z,1.8nm,0.9s,mb4.5,baz=299,slow=4.3,SNR=15						
INK	Inuvik	95.64	16	P	P	10 04 31.8	+1.1
	comp=Z,3.0nm,0.7s,mb4.8,baz=316,slow=3.3,SNR=16						
YKA	Yellowknife Ar	105.04	13	Pdiff	Pdif	10 05 13.6	+0.7
	comp=Z,0.2nm,0.9s,baz=325,slow=4.6,SNR=4.1						
YKA				PKKPbc		10 20 53.4	
	comp=Z,0.3nm,0.7s,baz=149,slow=3.6,SNR=4.5						
PDAR	Pinedale Array	123.89	21	PKP	PKPdf	10 10 04.8	+2.0
	comp=Z,1.2nm,0.8s,baz=45,slow=2.1,SNR=10.0						
TXAR	Lajitas Array	137.99	23	PKhKP		10 10 21.4	
	comp=Z,0.2nm,0.5s,baz=122,slow=1.1,SNR=4.1						
TXAR				PKP	PKPdf	10 10 32.8	+3.0
	comp=Z,0.5nm,0.5s,baz=147,slow=0.4,SNR=14						
JCT	Junction City	138.27	18	*e*PKIKP	PKPdf	10 10 32.6	+2.3
SDV	Santo Domingo	156.12	319	PKPab	PKPab	10 11 28.7	-0.9
	comp=Z,4.3nm,0.9s,baz=100,slow=12,SNR=5.1						
LVC	Limon Verde	158.83	230	PKPab	PKPab	10 11 41.8	+0.8
	comp=Z,6.1nm,0.7s,baz=29,slow=0.6,SNR=12						
LPAZ	La Paz	161.09	247	PKP	PKPdf	10 11 08.8	+3.6
	comp=Z,0.7nm,0.9s,baz=76,slow=8.3,SNR=3.7						
LPAZ				PKPab	PKPab	10 11 51.6	+0.8
	comp=Z,2.0nm,0.8s,baz=100,slow=2.4,SNR=8.7						

IDC ***31*** *09:53:47.7±0.6, 7.36N×93.77E, mb4.4/12, mb1 4.5/13, mb1mx4.4/19, mbtmp4.4/13, ML3.9/1, Error ellipse: s-maj=29.3km s-min=15.8km az=59.0*

ISC 31 09:53:51.0±0.6**, 7.41N**±0.09×**93.9E**±0.1**, h33^{km}, n25, σ0^{s}79**/23**, mb4.6**/19**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.03	24	Pn	P	09 56 43.9	+0.7
	0.2nm,0.3s,baz=213,slow=14,SNR=8.3						
HYB	Hyderabad	17.96	305	*e*S	P	09 57 54.0	-5.9
HYB	Hyderabad	17.96	305	*e*	P	09 57 54.0	-5.9
PKI	Pulchoki	21.60	339	*e*P	P	09 58 41.1	+1.0
	26nm,0.6s,mb4.8						
DMN	Daman	21.75	339	*e*P	P	09 58 41.3	-0.2
	47nm,0.9s,mb4.9						
GUN	Gumba	21.75	341	*e*P	P	09 58 40.8	-0.8
	63nm,0.7s,mb5.2						
KKN	Kakani	21.85	339	*e*P	P	09 58 41.8	-0.7
	37nm,0.6s,mb5.0						
GKN	Gorkha	22.27	338	*e*P	P	09 58 45.5	-1.3
	47nm,0.8s,mb5.0						
KOLN	Koldanda	22.47	336	*e*P	P	09 58 49.0	+0.3
	46nm,0.8s,mb5.0						
SONM	Songino Array	41.67	13	P	P	10 01 37.5	-0.5
	1.8nm,0.7s,mb3.8,baz=198,slow=8.2,SNR=7.6						
SONM				PcP	PcP	10 03 35.4	+0.3
	0.7nm,0.7s,baz=195,slow=3.0,SNR=4.4						
ZAL	Zalesovo	46.97	353	P	P	10 02 20.2	-0.3
	6.1nm,0.4s,mb4.9,baz=307,slow=5.7,SNR=9.0						
WRA	Warramunga Arr	48.20	125	P	P	10 02 30.5	-0.2
	2.6nm,0.5s,mb4.5,baz=305,slow=8.6,SNR=13						
WRA				PcP	PcP	10 03 58.4	+0.4
	0.8nm,0.6s,baz=308,slow=3.0,SNR=5.2						
BVAR	Borovoye Array	49.34	341	PcP	PcP	10 04 02.0	+0.4
	2.8nm,0.9s,baz=143,slow=7.4,SNR=4.5						
ASAR	Alice Springs	49.81	129	P	P	10 02 43.0	-0.1
	3.7nm,0.7s,mb4.5,baz=302,slow=7.1,SNR=16						
ASAR				PcP	PcP	10 04 04.5	+0.8
	1.1nm,0.5s,baz=313,slow=3.5,SNR=6.8						
BRTR	Keskin Array B	62.54	311	P	P	10 04 12.6	-1.4
	1.2nm,0.7s,mb4.1,baz=117,slow=7.5,SNR=4.3						
IDI	Anoyia	68.62	305	P	P	10 04 53.4	+0.3
	7.3nm,0.6s,mb4.8,baz=88,slow=7.7,SNR=8.5						
FINES	FINESS Array B	73.00	332	P	P	10 05 18.2	-0.8
	4.2nm,0.7s,mb4.5,baz=99,slow=8.4,SNR=9.9						
ARCES	ARCESS Array B	75.61	340	P	P	10 05 34.6	+0.7
	2.3nm,0.8s,mb4.2,baz=90,slow=4.9,SNR=5.3						
GERES	GERESS Array B	78.00	318	P	P	10 05 48.4	+0.6
	1.6nm,0.6s,mb4.1,baz=88,slow=5.0,SNR=8.8						
MAW	Mawson	78.03	192	P	P	10 05 46.9	-0.6
	3.9nm,0.2s,mb4.9,baz=290,slow=13,SNR=19						
KHC	Kasperske Hory	78.09	319	*e*P	P	10 05 49.5	+1.2
NOA	NORSAR Array B	80.01	331	P	P	10 05 58.1	-0.3
	0.7nm,0.6s,mb3.8,baz=91,slow=5.7,SNR=3.2						
LPG	La Plagne	82.76	315	*e*P	P	10 06 14.1	+1.0
	4.3nm,0.5s,mb4.5						
ESDC	Sonseca Array	91.32	310	P	P	10 06 56.4	+1.5
	1.0nm,0.6s,mb4.3,baz=72,slow=4.7,SNR=6.1						
TXAR	Lajitas Array	139.75	24	PKP	PKPdf	10 13 18.3	+2.0
	0.3nm,0.6s,baz=272,slow=0.7,SNR=6.4						

BJI ***31*** *09:56:58.8, 7.30N×93.56E, h43^{km}, mB5.6, mb5.2, Ms5.6, Msz5.4*

IDC ***31*** *09:56:58.9±1.8, 7.70N×94.03E, h14^{km}±10^{km}, mb5.1/27, mb1 5.2/27, mb1mx5.2/27, mbtmp5.2/27, MS5.1/15, Ms1 5.1/15, ms1mx4.8/23, Error ellipse: s-maj=18.1km s-min=9.9km az=51.0*

MOS ***31*** *09:57:00.2±1.1, 7.71N×93.98E, h33^{km}, mb5.6/67, MS5.2/15, Error ellipse: s-maj=8.9km s-min=4.3km az=123.6*

NEIC ***31*** *09:57:00.0±1.9, 7.64N×93.95E, h22^{km}±13^{km}, mb5.3/93, MW5.6, Error ellipse: s-maj=5.9km s-min=4.0km az=215.0, Moment Tensor Solution. s16 Moment tensor: Scale 10^{17} Nm; M_{rr}-2.24; $M_{\theta\theta}$0.18; $M_{\phi\phi}$2.06; $M_{r\theta}$0.55; $M_{\theta\phi}$0.64; $M_{\phi r}$1.29; Best double couple: $M_0$2.6×10^{17} NP1:ϕ_s14°,δ29°, λ-96°. NP2:ϕ_s200°,δ61°,λ-87°. Principal axes: T 2.65, Plg16°, Azm288°; N -.01, Plg3°, Azm19°; P -2.64, Plg74°, Azm119°;*

HRVD ***31*** *09:57:00.0±0.2, 7.62N×94.00E, h12^{km}, MW5.6/64, Centroid moment Tensor Solution. LP body waves: s57,c106;Mantle waves: s64,c129; Half duration: 1^{s}5 Moment tensor: Scale 10^{17}Nm; M_{rr}-2.25±.04; $M_{\theta\theta}$0.12±.04; $M_{\phi\phi}$2.13±.04; $M_{r\theta}$1.79±.13; $M_{\theta\phi}$1.06±.03; $M_{\phi r}$-0.34±.12; Best double couple: $M_0$2.98×10^{17} NP1: ϕ_s358°,δ47°,λ-133°. NP2:ϕ_s232°,δ58°,λ-53°. Principal axes: T 2.63, Plg6°, Azm297°; N .71, Plg30°, Azm30°; P -3.33, Plg59°, Azm197°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 31 09:56:58.2±0.2**, 7.55N**±0.03×**93.90E**±0.02**, h23^{km}, h23^{km}**±.6^{km}**:pP-P, n553, σ1^{s}19**/484**, mb5.2**/148**, MS5.2**/52**, 52C-17D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.68	93	P	Pn	09 58 38.0	+0.4
	800nm,1.0s						
NST	Nakhon Sawan	10.12	37	P	P	09 59 25.0	-0.6
	208nm,0.7s						
CM31	Chiang Mai Arr	11.90	24	*e*Pn	P	09 59 49.6	-0.2
	68nm,0.8s						
CMAR	Chiang Mai Arr	11.90	24	Pn	P	09 59 51.0	+1.2
	2.5nm,0.3s,baz=214,slow=13,SNR=86						
KKTK	Khon Kaen	12.35	44	P	P	09 59 57.8	+2.0
	494nm,0.7s						
NANT	Nan	12.99	30	⇑P	P	10 00 04.0	-0.4
	69nm,0.5s						
PALK	Pallekele	13.09	270	*e*Pn	P	10 00 06.6	+0.9
	35nm,0.6s						
UBT	Ubonrachathani	13.31	54	P	P	10 00 22.5	+14
CHRT	Chiangrai	13.51	24	⇑P	P	10 00 15.0	+3.6
	447nm,1.1s						
VIS	Vishakhapatnam	14.43	315	⇓*e*P	P	10 00 23.0	-0.4
VIS				*e*	S	10 02 49.6	-14
VIS	Vishakhapatnam	14.43	315	*i*	AMS	10 06 34.9	
	comp=Z,6µm,21.8s						
MDRS	Chennai	14.50	293	*e*	P	10 00 19.7	-4.7
CAL	Calcutta	15.84	341	*e*P	P	10 00 44.7	+3.0
CAL				*e*	S	10 03 46.8	+10
AGT	Agartala	16.44	351	⇑*i*P	P	10 00 45.0	-4.4
AGT				*i*		10 01 18.0	
KOD	Kodaikanal	16.45	281	⇑*i*P	P	10 00 51.1	+1.6
KOD				*e*		10 01 06.9	
	comp=Z,154nm,1.7s						
TRD	Trivandrum	16.80	274	⇓*e*P	P	10 00 57.4	+3.4
TRD				*e*		10 01 09.8	
	comp=Z,97nm,1.4s						
TRD				*e*	S	10 03 47.0	-12
TRD	Trivandrum	16.80	274	*i*	AMS	10 07 17.3	
	comp=Z,10µm,20.7s						
BOK	Bokaro	17.89	335	⇑*e*P	P	10 01 06.9	-0.6
BOK				*e*		10 01 16.8	
	comp=Z,205nm,1.3s						
BOK				*e*S	S	10 04 29.6	+5.9
BOK				*i*		10 09 16.1	
	comp=Z,6µm,20.3s						
HYB	Hyderabad	17.89	305	*e*P	P	10 01 08.0	+0.4
HYB				pmax	pmax		
	comp=Z,100nm,1.0s						
HYB	Hyderabad	17.89	305	*e*P	P	10 01 08.0	+0.4
	comp=Z,100nm,1.0s						
HYB				*e*S	S	10 04 36.0	+12
HYB	Hyderabad	17.89	305	*i* P	P	10 01 08.0	+0.4
	comp=Z,100nm,1.0s						
HYB				*e*		10 01 12.0	
HYB				*e*S	S	10 04 30.0	+6.3
HYB				LR	LR	10 10 12.0	
	comp=Z,6.7nm,16.0s						
SHL	Shillong	18.02	354	*e*P	P	10 01 06.7	-2.5
BLSP	Bilaspur	18.40	323	⇑*i*P	P	10 01 14.7	+0.8
BLSP				*e*		10 01 23.5	
	comp=Z,117nm,0.9s						
BLSP				⇑*e*S	S	10 04 44.4	+9.0
BLSP				*i*		10 09 24.8	
	comp=Z,4µm,18.7s						
QIZ	Qiongzhong	19.24	52	P	P	10 01 26.0	+2.0
QIZ				S	S	10 04 56.5	+2.1
QIZ				AMB	AMB		
	comp=Z,4µm,10.0s						
QIZ				LR	LR		
	comp=N,23µm,13.3s						
QIZ	Qiongzhong	19.24	52	*e*P	P	10 01 22.9	-1.1
	comp=N,561nm,1.4s						
KMI	Kunming	19.41	25	P	P	10 01 27.8	+1.9
KMI				PP	PP	10 01 49.0	+5.5
KMI				S	S	10 05 07.8	+10
KMI				XS		10 05 14.5	
KMI				SS	SS	10 05 36.8	+12
KMI				AMB	AMB		
	comp=Z,21nm,1.2s						
KMI				AMB	AMB		
	comp=Z,973nm,6.4s						
KMI				LR	LR		
	comp=N,8µm,15.1s						
KMI				LR	LR		
	comp=E,9µm,15.9s						
KMI				LR	LR		
	comp=Z,8µm,13.5s						
MNGI	Mangalore	19.51	287	⇑*e*P	P	10 01 28.2	+1.1
MNGI				*e*		10 01 44.6	
	comp=Z,138nm,1.1s						
LATR	Latur	20.03	304	*e*P	P	10 01 35.0	+2.3
AKL	Akola	20.92	310	⇑*e*	P	10 01 46.9	+5.0
AKL				*e*S	S	10 05 36.7	+7.5
ALBI	Allahabad	21.10	328	*e*P	P	10 01 43.5	-0.2
GOA	Goa	21.18	294	⇓*i*	P	10 01 51.7	+7.1
	comp=Z,198nm,1.9s,mb5.1						
GOA				*i*		10 05 48.5	
PKI	Pulchoki	21.48	339	*e*P	P	10 01 49.1	+1.6
	comp=Z,323nm,0.8s,mb5.7						
KAD	Karad	21.53	299	⇑*e*P	P	10 01 48.6	+0.5
KAD				*e*		10 01 58.2	
	comp=Z,114nm,1.3s						
KAD				*e*	S	10 05 43.2	+2.4
KAD	Karad	21.53	299	*i*	AMS	10 10 45.0	
	comp=Z,7µm,20.5s,MS5.0						
DMN	Daman	21.62	338	*e*P	P	10 01 49.7	+0.7
	comp=Z,524nm,0.8s,mb6.0						
GUN	Gumba	21.63	340	*e*P	P	10 01 49.2	+0.1
	comp=Z,490nm,0.7s,mb6.1						
KKN	Kakani	21.72	339	*e*P	P	10 01 50.9	+0.9
	comp=Z,227nm,0.7s,mb5.7						
GKN	Gorkha	22.15	338	*e*P	P	10 01 53.9	-0.4
	comp=Z,500nm,0.8s,mb6.0						
LSA	Lhasa	22.19	354	*e*P	P	10 01 53.6	-1.0
LSA				pmax	pmax		
	comp=Z,75nm,0.6s,mb5.3						
LSA	Lhasa	22.19	354	*e*P	P	10 01 53.6	-1.0
	comp=Z,75nm,0.6s,mb5.3						
BHPL	Bhopal	22.22	316	*e*P	P	10 01 57.6	+2.6
BHPL				*e*		10 02 08.9	
	comp=Z,240nm,1.0s						
BHPL	Bhopal	22.22	316	*i*	AMS	10 11 04.6	
	comp=Z,6µm,19.6s,MS5.0						
POO	Poona	22.34	301	*e*P	P	10 01 58.9	+2.7
POO				*e*		10 02 09.2	
	comp=Z,117nm,1.7s						
POO				*e*S	S	10 06 08.5	+13
POO	Poona	22.34	301	*i*	AMS	10 11 20.2	
	comp=Z,7µm,20.1s,MS5.0						
KOLN	Koldanda	22.35	335	*e*P	P	10 01 56.7	+0.4
	comp=Z,381nm,1.0s,mb5.8						
GYA	Guiyang	22.39	31	⇑*i*P	P	10 01 58.0	+1.4
GYA				S	S	10 06 07.8	+11
GYA				AMB	AMB		
	comp=Z,110nm,1.2s,mb5.2						
GYA				AMB	AMB		
	comp=Z,680nm,4.9s						
GYA				LR	LR		
	comp=N,2µm,16.7s,MS5.0						
GYA				LR	LR		
	comp=E,4µm,16.9s,MS5.0						
GYA				LR	LR		
	comp=Z,6µm,15.0s,MS5.2						
BOM	Bombay	23.39	301	⇑*e*P	P	10 02 09.8	+3.2
BOM				*e*	S	10 06 21.1	+6.7
	comp=Z,181nm,0.8s						
BATP	Bataraza	23.70	85	*e*P	P	10 02 11.8	+2.2
HKC	Hong Kong	24.43	51	⇑*i*P	P	10 02 21.0	+4.3
HKC				*i* S	S	10 06 50.0	+18
CD2	Chengdu	25.01	20	P	P	10 02 23.3	+1.1
LGTI	Lohaghat	25.29	331	*e*P	P	10 02 25.0	+0.2
LGTI				*e*	Sx	10 06 15.0	
PTH	Pithoragarh	25.39	331	*e*P	P	10 02 26.5	+0.7
PTH				*e*	Sx	10 06 15.1	
ENPP	El Nido	25.44	80	*e*P	P	10 02 30.1	+3.7
AJM	Ajmer	26.26	318	⇑*e*P	P	10 02 35.9	+2.0
AJM				*e*	pP	10 02 43.9	+3.5
	comp=Z,90nm,1.3s						
AJM	Ajmer	26.26	318	*i*	AMS	10 15 06.2	
	comp=Z,7µm,17.6s,MS5.2						
NDI	New Delhi	26.26	325	*e*	P	10 02 32.8	-1.1
NDI				*e*	S	10 07 03.0	+0.1
ENH	Enshi	26.92	31	*e*P	P	10 02 38.8	-1.1
	comp=Z,46nm,1.0s,mb5.0						
DDI	Dehra Dun	27.09	329	*e*P	P	10 02 43.8	+2.3
DDI				*e*		10 06 30.7	
SJMP	San Jose	27.24	77	*e*P	P	10 02 43.9	+0.9
TGY	Tagaytay City	27.33	74	P	P	10 02 45.4	+1.6
	comp=Z,117nm,0.7s,mb5.5,baz=79,slow=18,SNR=4.7						
TGY				LR	LR	10 11 54.6	
	comp=Z,3µm,20.8s,MS4.9,baz=352,slow=33						
APYP	Conner	28.54	66	*e*P	P	10 02 56.6	+1.9
RCP	Roxas	28.72	80	⇑*e*P	P	10 02 59.3	+2.9
CAUP	Cauayan	28.81	68	*e*P	P	10 03 02.1	+5.0
XAN	Xi'an	29.79	26	P	P	10 03 05.0	-0.8
XAN				SS	SS	10 09 35.8	+0.5
XAN				AMB	AMB		
	comp=Z,28nm,0.5s,mb5.2						
XAN				LR	LR		
	comp=N,5µm,15.4s,MS5.5						
XAN				LR	LR		
	comp=E,8µm,15.6s,MS5.5						
XAN				LR	LR		
	comp=Z,9µm,14.9s,MS5.5						
LZH	Lanzhou	29.83	16	*e*P	P	10 03 06.3	+0.2
LZH				PP	PP	10 04 01.0	-2.4
LZH				S	S	10 07 58.0	-2.3
LZH				AMB	AMB		
	comp=Z,162nm,1.3s,mb5.6						
LZH				AMB	AMB		
	comp=Z,492nm,4.0s						
LZH				LR	LR		
	comp=E,5µm,10.9s						
LZH				LR	LR		
	comp=Z,7µm,14.3s,MS5.4						
WHN	Wuhan	29.84	37	⇓P	P	10 03 08.8	+2.5
WHN				S	S	10 08 00.5	0.0
WHN				LR	LR		
	comp=Z,14µm,13.9s,MS5.8						
DLH	Dalhousie	29.93	329	*e*P	P	10 03 09.0	+1.9
THN	Thein Dam	29.98	328	*e*P	P	10 03 06.2	-1.3
	comp=Z,19nm,0.6s,mb5.0						
THN				*e*		10 09 49.3	
MSLP	Maasin	30.70	83	*e*P	pP	10 03 26.4	+5.8
BUKP	Musuan	30.88	87	*e*P	P	10 03 18.3	+2.7

DAV	**Davao City (W)**	**31.43**	**89**	*e*P	**P**	**10 03 24.8**	**+4.4**
GTA	**Gaotai**	**32.17**	**9**	⇑*i*P	**P**	**10 03 26.5**	**-0.2**
GTA				PP	PP	10 04 35.0	+1.2
GTA				PPP	PPP	10 04 50.0	+1.0
GTA				PCP	PcP	10 06 15.8	+0.4
GTA				S	**S**	**10 08 38.5**	**+1.6**
GTA				SCP		10 09 57.0	
GTA				SS	SS	10 10 34.5	+3.4
GTA				SCS	ScS	10 13 54.0	+0.2
GTA				AMB	AMB		
	comp=Z,37nm,1.1s,mb5.1						
GTA				AMB	AMB		
	comp=Z,504nm,9.9s						
GTA				LR	LR		
	comp=N,2µm,17.1s,MS5.1						
GTA				LR	LR		
	comp=E,2µm,16.0s,MS5.1						
GTA				LR	LR		
	comp=Z,3µm,23.2s						
NJ2	**Nanjing**	**33.67**	**40**	*e*P	**P**	**10 03 41.0**	**+1.1**
NJ2				AP	pP	10 03 50.0	+3.5
NJ2				XP	sP	10 03 53.5	+4.1
NJ2				PP	PP	10 04 52.3	-0.5
NJ2				S	**S**	**10 09 00.0**	**-0.5**
NJ2				AMB	AMB		
	comp=Z,150nm,4.7s						
NJ2				LR	LR		
	comp=N,1µm,12.5s,MS4.9						
NJ2				LR	LR		
	comp=E,1µm,14.3s,MS4.9						
NJ2				LR	LR		
	comp=Z,1µm,10.1s,MS4.9						
SSE	**Sheshan**	**34.62**	**44**	P	**P**	**10 03 47.5**	**-0.6**
SSE				AP	pP	10 03 56.5	+1.7
SSE				S	**S**	**10 09 15.5**	**+0.3**
SSE				AMB	AMB		
	comp=Z,32nm,0.8s,mb5.3						
SSE				AMB	AMB		
	comp=Z,386nm,5.4s						
SSE				LR	LR		
	comp=N,3µm,17.4s,MS5.2						
SSE				LR	LR		
	comp=E,2µm,17.4s,MS5.2						
SSE				LR	LR		
	comp=Z,2µm,16.8s,MS5.0						
KSH	**Kashi**	**35.67**	**336**	*i* P	**P**	**10 03 58.3**	**+1.4**
KSH				AP	pP	10 04 04.5	+0.9
KSH				XP	sP	10 04 08.0	+1.6
KSH				PP	PP	10 05 17.5	-0.2
KSH				PPP	PPP	10 05 36.5	-0.5
KSH				S	**S**	**10 09 31.0**	**-0.3**
KSH				PCS		10 10 14.0	
KSH				SS	SS	10 11 48.5	-3.1
KSH				AMB	AMB		
	comp=Z,250nm,3.2s						
KSH				LR	LR		
	comp=N,4µm,17.0s						
KSH				LR	LR		
	comp=E,6µm,22.7s						
BTO	**Baotou**	**35.93**	**21**	*e*P	**P**	**10 03 58.8**	**-0.3**
BTO				S	**S**	**10 09 28.5**	**-6.8**
BTO				AMB	AMB		
	comp=Z,31nm,1.2s,mb5.1						
BTO				LR	LR		
	comp=N,2µm,10.6s,MS5.5						
BTO				LR	LR		
	comp=E,4µm,12.4s,MS5.5						
WMQ	**Urumqi**	**36.53**	**352**	⇑P	**P**	**10 04 04.5**	**+0.4**
WMQ				AP	pP	10 04 11.0	+0.1
WMQ				PP	PP	10 05 28.5	-0.1
WMQ				PPP	PPP	10 05 48.5	-0.1
WMQ				S	**S**	**10 09 44.5**	**-0.1**
WMQ				AMB	AMB		
	comp=Z,112nm,1.1s,mb5.6						
WMQ				AMB	AMB		
	comp=Z,106nm,9.0s						
WMQ				LR	LR		
	comp=N,5µm,26.2s,MS5.2						
WMQ				LR	LR		
	comp=E,1µm,25.0s,MS5.2						
WMQ				LR	LR		
	comp=Z,2µm,20.0s,MS4.8						
HHC	**Hu-ho-hao-te**	**36.71**	**23**	*e*P	**P**	**10 04 06.0**	**+0.4**
HHC				AP	pP	10 04 13.3	+0.9
HHC				PP	PP	10 05 29.0	-1.9
HHC				PCP	PcP	10 06 28.8	+0.4
HHC				S	**S**	**10 09 46.0**	**-1.3**
HHC				PCS		10 10 08.8	
HHC				SCP		10 10 13.5	
HHC				SCS	ScS	10 14 18.5	+0.6
HHC				AMB	AMB		
	comp=Z,35nm,1.1s,mb5.1						
HHC				AMB	AMB		
	comp=Z,624nm,4.0s						
HHC				LR	LR		
	comp=N,2µm,14.3s,MS5.4						
HHC				LR	LR		
	comp=E,4µm,11.9s,MS5.4						
HHC				LR	LR		
	comp=Z,4µm,13.1s,MS5.4						
JOW	**Kunigami**	**37.84**	**55**	LR	LR	10 21 37.4	
	comp=Z,2µm,18.7s,MS4.9,baz=96,slow=39						
ULHL	**Ulahol**	**37.91**	**339**	P	**P**	**10 04 15.6**	**-0.2**
	SNR=11						
BJT	**Baijiatuau**	**37.98**	**28**	*e*P	**P**	**10 04 17.2**	**+0.9**
BJT				pmax	pmax		
	comp=Z,62nm,0.9s						
BJT	**Baijiatuau**	**37.98**	**28**	*e*P	**P**	**10 04 17.2**	**+0.8**
	comp=Z,62nm,0.9s,mb5.3						
BJI	**Beijing**	**38.01**	**28**	*e*P	**P**	**10 04 18.0**	**+1.5**
BJI				PP	PP	10 05 47.5	+0.8
BJI				S	**S**	**10 10 09.0**	**+1.9**
BJI				AMB	AMB		
	comp=Z,45nm,1.0s,mb5.2						
BJI				AMB	AMB		
	comp=Z,778nm,3.9s						
BJI				LR	LR		
	comp=N,3µm,14.2s,MS5.5						
BJI				LR	LR		
	comp=E,5µm,18.0s,MS5.5						
BJI				LR	LR		
	comp=Z,3µm,18.6s,MS5.1						
KZA	**Kyzart**	**38.14**	**337**	P	**P**	**10 04 17.2**	**-0.4**
	SNR=12						
MBWA	**Marble Bar**	**38.18**	**139**	*e*P	**P**	**10 04 16.7**	**-1.5**
	comp=Z,33nm,0.8s,mb5.1						
UCH	**Uchtor**	**38.55**	**337**	P	**P**	**10 04 21.8**	**+0.7**
	SNR=17						
TKM2	**Tokmak 2**	**38.74**	**338**	P	**P**	**10 04 24.0**	**+1.3**
	SNR=8.5						
KBK	**Karagaybulak**	**38.75**	**338**	P	**P**	**10 04 23.2**	**+0.5**
	SNR=6.6						
AML	**Almayashu**	**38.80**	**336**	P	**P**	**10 04 23.2**	**0.0**
	SNR=73						
AAK	**Ala-Archa**	**38.91**	**337**	P	**P**	**10 04 24.7**	**+0.7**
	SNR=16						
AAK	**Ala-Archa**	**38.91**	**337**	*e*P	**P**	**10 04 23.5**	**-0.5**
AAK				*e*		10 06 35.2	
AAK				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.0						
AAK	**Ala-Archa**	**38.91**	**337**	*e*P	**P**	**10 04 23.5**	**-0.5**
	comp=Z,29nm,1.0s,mb5.0						
AAK				*e*PcP	PcP	10 06 35.2	+0.1
FRU	**Bishkek**	**39.03**	**337**	*e*P	**P**	**10 04 28.5**	**+3.4**
FRU				MLR	MLR		
	comp=Z,3µm,18.0s,MS5.2						
CHMS	**Chumysh**	**39.12**	**338**	P	**P**	**10 04 25.7**	**-0.1**
	SNR=14						
EKS2	**Erkin-Say**	**39.21**	**336**	P	**P**	**10 04 27.4**	**+0.8**
	SNR=11						
USP	**Ospenovka**	**39.44**	**338**	P	**P**	**10 04 28.0**	**-0.6**
	SNR=27						
DL2	**Dalian**	**39.97**	**34**	P	**P**	**10 04 36.0**	**+3.0**
DL2				S	**S**	**10 10 39.5**	**+2.7**
DL2				AMB	AMB		
	comp=Z,30nm,0.9s,mb5.0						
DL2				AMB	AMB		
	comp=Z,480nm,4.9s						
DL2				LR	LR		
	comp=N,1µm,13.5s,MS5.2						
DL2				LR	LR		
	comp=E,1µm,11.2s,MS5.2						
DL2				LR	LR		
	comp=Z,2µm,11.0s,MS5.1						
FITZ	**Fitzroy Crossi**	**40.39**	**129**	*e*P	**P**	**10 04 35.8**	**-0.8**
	comp=Z,57nm,0.8s,mb5.3						
SONM	**Songino Array**	**41.53**	**13**	P	**P**	**10 04 45.5**	**-0.1**
	comp=Z,15nm,0.7s,mb4.7,baz=194,slow=9.7,SNR=68						
SONM				PcP	PcP	10 06 42.3	-1.3
	comp=Z,8.7nm,0.6s,baz=199,slow=3.8,SNR=13						
SONM				ScP		10 10 31.9	
	comp=Z,3.8nm,0.9s,baz=214,slow=4.5,SNR=4.5						
ULN	**Ulaanbaatar**	**41.71**	**13**	*e*P	**P**	**10 04 46.4**	**-0.7**
ULN				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.3						
ULN	**Ulaanbaatar**	**41.71**	**13**	*e*P	**P**	**10 04 46.4**	**-0.6**
	comp=Z,8.2nm,1.1s,mb4.3						
INCN	**Inchon**	**42.05**	**40**	P	**P**	**10 04 48.5**	**-1.6**
SNY	**Shenyang**	**43.08**	**33**	⇑*i*P	**P**	**10 04 58.3**	**-0.1**
SNY				S	**S**	**10 11 15.8**	**-6.8**
SNY				AMB	AMB		
	comp=Z,40nm,1.1s,mb5.1						
SNY				AMB	AMB		
	comp=Z,610nm,8.2s						
SNY				LR	LR		
	comp=E,4µm,11.8s						
SNY				LR	LR		
	comp=Z,4µm,14.9s,MS5.4						
ZAK	**Zakamensk**	**43.41**	**9**	*e*P	**P**	**10 04 59.0**	**-1.9**
MOY	**Mondy**	**44.37**	**6**	*e*P	**P**	**10 05 09.0**	**+0.3**
MUN	**Mundaring**	**44.71**	**153**	*e*P	**P**	**10 05 13.2**	**+1.4**
	comp=Z,38nm,1.0s,mb5.2						
MUN	**Mundaring**	**44.71**	**153**	*e*P	**P**	**10 05 13.2**	**+1.4**
MUN				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.2						
TLY	**Talaya**	**44.72**	**9**	*e*P	**P**	**10 05 10.8**	**-0.8**
TLY				*e*		10 06 54.3	
TLY				*e*S	**S**	**10 11 44.2**	**-2.2**
TLY				*e*SS	SS	10 15 09.5	+11
TLY				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.6						
TLY				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.0						
TLY	**Talaya**	**44.72**	**9**	*e*P	**P**	**10 05 10.9**	**-0.7**
	comp=Z,9.5nm,0.8s,mb4.7						
KLBR	**Kellerberrin**	**45.11**	**151**	*e*P	**P**	**10 05 15.3**	**+0.3**
	comp=Z,45nm,0.8s,mb5.3						
IRK	**Irkutsk**	**45.37**	**9**	*e*P	**P**	**10 05 14.4**	**-2.3**
IRK				*e*		10 06 50.9	
CN2	**Changchun**	**45.43**	**32**	*e*P	**P**	**10 05 19.0**	**+1.7**
CN2				*e*AP	pP	10 05 25.8	+1.7
CN2				*e*XP	sP	10 05 30.0	+3.1
CN2				PCP	PcP	10 06 55.5	-1.3
CN2				PP	PP	10 07 06.3	+2.0
CN2				*e*S	**S**	**10 11 58.3**	**+1.6**
CN2				SCS	ScS	10 15 08.0	-2.0
CN2				SS	SS	10 15 13.3	+1.6
CN2				AMB	AMB		
	comp=Z,40nm,1.2s,mb5.1						
CN2				AMB	AMB		
	comp=Z,470nm,5.0s						
CN2				LR	LR		
	comp=N,3µm,14.0s,MS5.5						
CN2				LR	LR		
	comp=E,2µm,14.0s,MS5.5						
CN2				LR	LR		
	comp=Z,4µm,14.0s,MS5.5						
NWAO	**Narrogin (SRO)**	**45.97**	**152**	*e*P	**P**	**10 05 21.9**	**+0.1**
NWAO				pmax	pmax		
	comp=Z,73nm,0.9s						
NWAO	**Narrogin (SRO)**	**45.97**	**152**	P	**P**	**10 05 22.4**	**+0.6**
	comp=Z,74nm,0.8s,mb5.7,baz=322,slow=9.9,SNR=25						
NWAO	**Narrogin (SRO)**	**45.97**	**152**	*e*P	**P**	**10 05 21.9**	**+0.2**
	comp=Z,73nm,0.9s,mb5.6						
ZAL	**Zalesovo**	**46.84**	**353**	P	**P**	**10 05 28.2**	**-0.1**
	comp=Z,32nm,0.4s,mb5.6,baz=300,slow=6.9,SNR=54						
HIA	**Hailar**	**46.91**	**23**	*d* *i*P	**P**	**10 05 28.8**	**-0.2**
HIA	**Hailar**	**46.91**	**23**	*e*P	**P**	**10 05 28.7**	**-0.2**
	comp=Z,129nm,1.0s,mb5.8						
NVS	**Novosibirsk**	**47.93**	**352**	*i* P	**P**	**10 05 34.9**	**-2.0**
NVS				*i* S	**S**	**10 12 32.2**	**+0.2**
NVS				*i*		10 15 22.4	
NVS				pmax	pmax		
	comp=E,48nm,1.1s						
NVS				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.6						
NVS				pmax	pmax		
	comp=N,48nm,1.2s						
NVS				smax			
	comp=E,38nm,1.5s						
NVS				smax			
	comp=N,15nm,1.3s						
MDJ	**Mudanjiang**	**48.21**	**34**	P	**P**	**10 05 40.3**	**+1.1**
MDJ				PCP	PcP	10 07 07.3	+0.7
MDJ				PCS		10 11 05.0	
MDJ				SS	SS	10 16 07.8	+7.3
MDJ				AMB	AMB		
	comp=Z,46nm,1.1s,mb5.4						
MDJ				AMB	AMB		
	comp=Z,524nm,5.5s						
MDJ				LR	LR		
	comp=N,4µm,13.3s,MS5.6						
MDJ				LR	LR		
	comp=E,554nm,10.9s,MS5.6						
MDJ				LR	LR		
	comp=Z,4µm,10.9s,MS5.6						
MDJ	**Mudanjiang**	**48.21**	**34**	*e*P	**P**	**10 05 39.4**	**+0.2**
	comp=Z,52nm,1.1s,mb5.5						
WRA	**Warramunga Arr**	**48.27**	**125**	P	**P**	**10 05 38.4**	**-1.6**
	comp=Z,32nm,0.5s,mb5.6,baz=305,slow=8.6,SNR=122						
WRA				PcP	PcP	10 07 06.5	-0.6
	comp=Z,10.0nm,0.5s,baz=313,slow=2.9,SNR=8.7						
WRA				S	**S**	**10 12 31.3**	**-6.0**
	comp=Z,1.0nm,0.7s,baz=298,slow=14,SNR=3.1						
WRAB	**Tennant Creek**	**48.28**	**125**	*e*P	**P**	**10 05 38.5**	**-1.5**
WRAB				pmax	pmax		
	comp=Z,92nm,0.8s,mb5.9						
WRAB	**Tennant Creek**	**48.28**	**125**	*e*P	**P**	**10 05 38.5**	**-1.5**
	comp=Z,92nm,0.8s,mb5.9						
WB2	**Warramunga Arr**	**48.28**	**125**	⇓*i*P	**P**	**10 05 38.4**	**-1.7**
BVAR	**Borovoye Array**	**49.22**	**341**	P	**P**	**10 05 45.9**	**-1.0**
	comp=Z,6.0nm,0.8s,mb4.7,baz=135,slow=6.3,SNR=15						
BVAR				PcP	PcP	10 07 10.2	+0.1
	comp=Z,11nm,0.6s,baz=160,slow=3.6,SNR=8.5						
BVAR				ScP		10 11 03.7	
	comp=Z,8.4nm,0.9s,baz=153,slow=6.6,SNR=5.9						
BRVK	**Borovoye**	**49.28**	**341**	*e*P	**P**	**10 05 45.9**	**-1.4**
BRVK				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
BRVK	**Borovoye**	**49.28**	**341**	*e*P	**P**	**10 05 45.9**	**-1.4**
	comp=Z,9.3nm,0.8s,mb4.9						
JHJ	**Hachijo jima 2**	**49.45**	**52**	LR	LR	10 26 18.3	
	comp=Z,2µm,18.7s,MS5.2,baz=77,slow=36						
MAJO	**Matsushiro**	**49.56**	**48**	P	**P**	**10 05 48.0**	**-1.7**
MAJO				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.4						
MAJO	**Matsushiro**	**49.56**	**48**	P	**P**	**10 05 48.0**	**-1.7**
	comp=Z,23nm,0.6s,mb5.4						
MAT	**Matsushiro**	**49.56**	**48**	PCP	PcP	10 07 12.5	+0.9
MAT	**Matsushiro**	**49.56**	**48**	*e*P	**P**	**10 05 45.0**	**-4.7**
MAT				*e*S	**S**	**10 13 01.0**	**+5.9**
MAT				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.3						
MAT	**Matsushiro**	**49.56**	**48**	*e*P	**P**	**10 05 45.0**	**-4.7**
	comp=Z,30nm,1.0s,mb5.3						
MAT				*e*S	**S**	**10 13 01.0**	**+5.9**
CHKZ	**Chkalovo**	**49.70**	**342**	*e*P	**P**	**10 05 49.5**	**-1.1**
CHKZ				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.4						
CHKZ	**Chkalovo**	**49.70**	**342**	*e*P	**P**	**10 05 49.5**	**-1.1**
	comp=Z,38nm,1.0s,mb5.4						
ASPA	**Alice Springs**	**49.89**	**130**	⇓*i*P	**P**	**10 05 50.8**	**-1.6**
ASAR	**Alice Springs**	**49.90**	**130**	P	**P**	**10 05 50.9**	**-1.6**
	comp=Z,31nm,0.5s,mb5.6,baz=302,slow=7.7,SNR=104						
ASAR				PcP	PcP	10 07 12.6	-0.4
	comp=Z,26nm,0.8s,baz=301,slow=3.7,SNR=8.9						
ASAR				S	**S**	**10 12 57.1**	**-2.9**
	comp=Z,1.2nm,0.8s,baz=298,slow=13,SNR=3.7						
ASAR				LR	LR	10 29 51.2	
	comp=Z,2µm,19.1s,MS5.0,baz=297,slow=40						
KLR	**Kul'dur**	**52.29**	**31**	*e*P	**P**	**10 06 09.0**	**-1.3**
KLR				*e*S	**S**	**10 13 31.5**	**-1.1**
KLR				pmax	pmax		
	comp=Z,57nm,1.6s,mb5.2						
KLR				smax			
	comp=N,600nm,17.0s						
KLR				smax			
	comp=E,1µm,17.0s						
KLR				MLR	MLR		
	comp=Z,11µm,13.0s,MS6.1						
BOD	**Bodaibo**	**52.52**	**13**	*e*P	**P**	**10 06 10.1**	**-1.8**
GNI	**Garni**	**54.49**	**315**	*e*P	**P**	**10 06 25.6**	**-1.0**
GNI				pmax	pmax		
	comp=Z,47nm,1.2s						
GNI	**Garni**	**54.49**	**315**	P	**P**	**10 06 26.8**	**+0.2**
	comp=Z,6.0nm,0.6s,mb4.7,baz=16,slow=14,SNR=7.1						
GNI	**Garni**	**54.49**	**315**	*e*P	**P**	**10 06 25.6**	**-1.0**
	comp=Z,47nm,1.2s,mb5.3						
TI2	**Plekhanov**	**55.11**	**316**	*i* P	**P**	**10 06 31.2**	**0.0**
TI2				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.4						
SVE	**Sverdlovsk**	**55.61**	**339**	*e*P	**P**	**10 06 35.0**	**+0.4**
SVE				*e*		10 07 32.0	
SVE				*e*S	**S**	**10 14 13.0**	**-4.3**
SVE				pmax	pmax		
	comp=Z,200nm,1.8s,mb5.8						
SVE				MLR	MLR		
	comp=Z,4µm,21.5s,MS5.5						
PMG	**Port Moresby**	**55.67**	**107**	*e*P	**P**	**10 06 33.6**	**-2.0**
PMG				pmax	pmax		
	comp=Z,45nm,0.8s						
PMG	**Port Moresby**	**55.67**	**107**	P	**P**	**10 06 35.2**	**-0.4**
	comp=Z,80nm,1.1s,mb5.7,baz=302,slow=5.0,SNR=13						
PMG	**Port Moresby**	**55.67**	**107**	*e*P	**P**	**10 06 33.6**	**-2.0**
	comp=Z,45nm,0.8s,mb5.5						
ASAJ	**Asahikawa**	**55.82**	**41**	LR	LR	10 30 06.4	
	comp=Z,1µm,18.5s,MS5.0,baz=65,slow=36						
ARU	**Arti**	**56.09**	**337**	⇑*i*P	**P**	**10 06 37.1**	**-0.9**
ARU				*e*		10 07 31.4	
ARU				*e*		10 08 40.9	
ARU				*e*S	**S**	**10 14 23.7**	**0.0**
ARU				*e*		10 16 22.9	
ARU				*e*SS	SS	10 18 07.4	-2.9
ARU				pmax	pmax		
	comp=Z,62nm,0.9s,mb5.6						
ARU	**Arti**	**56.09**	**337**	*e*P	**P**	**10 06 36.7**	**-1.3**
	comp=Z,47nm,1.0s,mb5.5						
ZEI	**Tsey**	**56.11**	**317**	*e*P	**P**	**10 06 40.0**	**+1.6**
ZEI				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.1						
ERZM	**Erzurum**	**56.81**	**313**	*i* P	**P**	**10 06 41.9**	**-1.5**
KMBO	**Kilima Mbogo**	**57.15**	**264**	*e*P	**P**	**10 06 48.2**	**+2.0**
KMBO				pmax	pmax		
	comp=Z,48nm,1.3s						
KMBO	**Kilima Mbogo**	**57.15**	**264**	P	**P**	**10 06 48.5**	**+2.3**
	comp=Z,18nm,1.0s,mb5.1,baz=50,slow=8.4,SNR=17						
KMBO				LR	LR	10 28 13.7	
	comp=Z,4µm,19.5s,MS5.5,baz=91,slow=33						
KMBO	**Kilima Mbogo**	**57.15**	**264**	*e*P	**P**	**10 06 48.2**	**+2.0**
	comp=Z,48nm,1.3s,mb5.4						
YSS	**Yuzh-Sakhalins**	**57.19**	**38**	⇑*e*P	**P**	**10 06 45.5**	**-0.5**
YSS				*e*	pP	10 06 52.0	-1.0
YSS				*e*S	**S**	**10 14 46.0**	**+7.7**
YSS				pmax	pmax		
	comp=Z,70µm,0.9s						
YSS				MLR	MLR		
	comp=Z,2µm,12.0s,MS5.3						
YSS				MLR	MLR		
	comp=N,1µm,13.0s,MS5.4						
YSS				MLR	MLR		
	comp=E,1µm,11.0s,MS5.4						
YSS	**Yuzh-Sakhalins**	**57.19**	**38**	*e*P	**P**	**10 06 45.2**	**-0.8**
	comp=E,78nm,1.0s,mb5.7						
KIV	**Kislovodsk**	**57.39**	**318**	*c* *i*P	**P**	**10 06 46.1**	**-1.4**
KIV				*i*	pP	10 06 53.4	-1.1
KIV				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
KIV				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
KIV	**Kislovodsk**	**57.39**	**318**	*e*P	**P**	**10 06 46.2**	**-1.3**
	comp=Z,66nm,0.9s,mb5.7						
GOF	**Gofitskoye**	**57.61**	**319**	*e*P	**P**	**10 06 49.0**	**0.0**
GOF				*e*S	**S**	**10 14 52.0**	**+8.0**
GOF				pmax	pmax		
	comp=Z,40nm,1.0s,mb5.4						
ELZG	**Elazig**	**58.12**	**311**	*i* P	**P**	**10 06 50.8**	**-1.9**
ASF	**Jabal al Asfar**	**58.19**	**303**	LR	LR	10 34 19.4	
	comp=Z,2µm,19.6s,MS5.1,baz=318,slow=38						
CTA	**Charters Tower**	**58.36**	**119**	*e*P	**P**	**10 06 53.1**	**-1.5**
	comp=Z,15nm,0.9s,mb5.0						
CTA	**Charters Tower**	**58.36**	**119**	*e*P	**P**	**10 06 53.1**	**-1.5**
CTA				pmax	pmax		
	comp=Z,15nm,0.9s						
CTA	**Charters Tower**	**58.36**	**119**	P	**P**	**10 06 53.3**	**-1.3**
	comp=Z,22nm,1.0s,mb5.2,baz=293,slow=10,SNR=8.3						
CTA				PcP	PcP	10 07 46.5	+1.3
	comp=Z,12nm,0.8s,baz=323,slow=3.9,SNR=3.5						
CTA				LR	LR	10 35 57.3	
	comp=Z,1µm,19.2s,MS5.0,baz=142,slow=40						
CTAO	**Charters Tower**	**58.36**	**119**	*e*P	**P**	**10 06 52.6**	**-2.0**
CTAO				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.2						
CTAO	**Charters Tower**	**58.36**	**119**	*e*P	**P**	**10 06 52.6**	**-2.0**
	comp=Z,29nm,1.1s,mb5.2						
MALT	**Malatya**	**58.49**	**311**	*e*P	**P**	**10 06 54.2**	**-1.0**
MALT				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
MALT	**Malatya**	**58.49**	**311**	*e*P	**P**	**10 06 54.2**	**-1.0**
	comp=Z,14nm,1.0s,mb5.0						
GZT	**Gaziantep**	**58.88**	**309**	*i* P	**P**	**10 06 56.3**	**-1.7**
SOKR	**Solikamsk**	**59.01**	**339**	⇑*i*P	**P**	**10 06 56.6**	**-2.0**
SOKR				*e*	pP	10 07 05.1	-0.5
SOKR				pmax	pmax		
	comp=Z,70nm,0.9s,mb5.7						
SOKR				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.4						
MKRJ	**Makawir**	**59.12**	**302**	P	**P**	**10 07 00.5**	**+0.8**
SOC	**Sochi**	**59.25**	**317**	*i* P	**P**	**10 06 58.2**	**-2.3**
SOC				*e*		10 07 46.6	
SOC				*e*		10 09 11.7	
SOC				*i* S	**S**	**10 15 01.7**	**-3.7**
SOC				*e*SS	SS	10 18 57.4	-4.2
SOC				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.4						
SOC				pmax	pmax		
	comp=N,7.0nm,0.7s						
SOC				pmax	pmax		
	comp=E,15nm,0.6s						
SOC				MLR	MLR		
	comp=Z,1µm,19.0s,MS5.0						
SOC				MLR	MLR		
	comp=N,1µm,21.0s,MS5.0						
SOC				MLR	MLR		
	comp=E,782nm,20.0s,MS5.0						
MZDA	**Masada**	**59.30**	**302**	P	**P**	**10 07 00.6**	**-0.4**
ZFRI	**Zfri**	**59.33**	**301**	P	**P**	**10 07 01.3**	**+0.1**
DRGI	**Dragot**	**59.33**	**302**	P	**P**	**10 07 01.7**	**+0.5**
HMDT	**Nahal Hemdat**	**59.34**	**303**	P	**P**	**10 07 02.3**	**+1.0**
EIL	**Elat**	**59.38**	**300**	P	**P**	**10 07 01.0**	**-0.5**
EIL	**Elat**	**59.38**	**300**	*e*P	**P**	**10 07 01.0**	**-0.5**
	comp=E,34nm,0.9s,mb5.4						
MBH	**Mount Berech**	**59.43**	**300**	P	**P**	**10 07 01.9**	**0.0**
PRNI	**Paran**	**59.44**	**301**	P	**P**	**10 07 02.1**	**+0.1**
MMLI	**Mount Malkishu**	**59.47**	**303**	P	**P**	**10 07 01.2**	**-0.9**
KMTI	**Karmit**	**59.64**	**300**	P	**P**	**10 07 02.6**	**-0.7**
KZIT	**Kziot**	**60.05**	**301**	P	**P**	**10 07 04.3**	**-1.9**
STKA	**Stephens Creek**	**60.06**	**133**	⇓*i*P	**P**	**10 07 04.6**	**-1.6**
	comp=E,23nm,0.9s,mb5.2						
STKA	**Stephens Creek**	**60.06**	**133**	P	**P**	**10 07 04.9**	**-1.3**
	comp=E,32nm,0.9s,mb5.3,baz=314,slow=7.3,SNR=34						
STKA				LR	LR	10 35 42.1	
	comp=E,1µm,18.8s,MS5.0,baz=298,slow=39						
YAK	**Yakutsk**	**60.38**	**18**	*c* *i*P	**P**	**10 07 06.5**	**-1.4**
YAK				*e*	pP	10 07 13.1	-1.9
YAK				*e*S	**S**	**10 15 17.1**	**-2.5**
YAK				*e*SS	ScS	10 16 48.3	-5.3
YAK				pmax	pmax		
	comp=Z,51nm,1.1s,mb5.5						
YAK				pmax	pmax		
	comp=N,32nm,1.2s						
YAK				pmax	pmax		
	comp=E,26nm,1.3s						
YAK				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.8						
YAK				pmax	pmax		
	comp=N,7.0nm,1.1s						
YAK				pmax	pmax		
	comp=E,8.0nm,1.0s						
YAK				smax			
	comp=E,6.0nm,1.3s						
YAK				smax			
	comp=Z,2.0nm,0.9s						
YAK				smax			
	comp=N,10.0nm,1.2s						
YAK				MLR	MLR		
	comp=Z,2µm,13.0s,MS5.5						
YAK				MLR	MLR		
	comp=N,2µm,12.0s,MS5.5						

YAK				MLR	MLR		
	comp=E,1µm,13.0s,MS5.5						
YAK	Yakutsk	60.38	18	eP	P	10 07 06.0	-1.9
	comp=E,99nm,0.8s,mb5.9						
ANN	Anapa	61.21	317	eP	P	10 07 12.3	-1.5
ANN				pmax	pmax		
	comp=Z,35nm,1.3s,mb5.3						
CSS	Prodhromos	61.66	306	eP	P	10 07 16.1	-1.0
	comp=Z,18nm,0.8s,mb5.2						
BOYT	Boyabat	61.96	313	i P	P	10 07 15.3	-3.6
BRTR	Keskin Array B	62.46	311	P	P	10 07 20.6	-1.7
	comp=Z,8.3nm,0.6s,mb5.0,baz=131,slow=6.4,SNR=26						
VRSR	Storozhevoye	62.50	325	eP	P	10 07 20.2	-2.2
VRSR				e*PP	pP	10 07 26.9	-2.6
VRSR				e		10 08 00.4	
VRSR				e		10 09 34.6	
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.1						
VRSR				pmax	pmax		
	comp=N,7.0nm,0.7s						
VRSR				pmax	pmax		
	comp=E,70nm,2.6s						
ELDT	Eldivan	62.80	312	i P	P	10 07 21.4	-3.1
BALT	Daday	63.09	313	i P	P	10 07 21.5	-4.9
MBAR	Mbarara	63.49	266	eP	P	10 07 31.0	+1.5
MBAR				pmax	pmax		
	comp=Z,25nm,1.1s,mb5.3						
MBAR	Mbarara	63.49	266	eP	P	10 07 30.9	+1.5
	comp=Z,24nm,1.1s,mb5.2						
SIM	Simferopol’	63.50	317	eP	P	10 07 35.0	+5.9
SIM				pmax	pmax		
	comp=Z,35nm,0.9s,mb5.5						
SIM				MLR	MLR		
	comp=Z,1µm,24.0s,MS5.1						
SGKT	Sivrigoynuk	63.83	312	i P	P	10 07 28.1	-3.3
ISP	Isparta	64.45	308	eP	P	10 07 35.3	-0.2
ESKT	Eskisehir	64.51	310	i P	P	10 07 33.0	-2.8
MOS	Moscow	65.23	329	eP	P	10 07 40.0	-0.2
MOS				e		10 08 09.3	
MOS				pmax	pmax		
	comp=Z,153nm,1.2s,mb5.9						
MOS				MLR	MLR		
	comp=Z,2µm,18.2s,MS5.4						
MOS				MLR	MLR		
	comp=E,2µm,18.8s						
OBN	Obninsk	65.52	328⇑	eP	P	10 07 39.7	-2.4
OBN				eS	S	10 16 25.8	+1.6
OBN				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.4						
OBN				MLR	MLR		
	comp=Z,1µm,20.0s,MS5.2						
OBN	Obninsk	65.52	328	eP	P	10 07 40.2	-1.9
	comp=Z,82nm,1.1s,mb5.7						
TOO	Toolangi	65.79	137⇓	iP	P	10 07 44.3	+0.2
	comp=Z,43nm,0.8s,mb5.5						
TOO	Toolangi	65.79	137⇓	iP	P	10 07 44.3	+0.2
TOO				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.5						
ULDT	Uludag	65.93	311	i P	P	10 07 41.0	-3.9
SKR	Severo-Kuril’s	66.76	38	eP	P	10 07 54.5	+4.5
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
KDAG	Bornova	67.06	308	i P	P	10 07 47.0	-5.2
MA2	Magadan	67.16	28	eP	P	10 07 51.8	-0.7
MA2				i		10 08 00.9	
MA2				eS	S	10 16 41.6	-2.4
MA2				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.6						
MA2				MLR	MLR		
	comp=Z,2µm,20.0s,MS5.2						
MA2	Magadan	67.16	28	eP	P	10 07 51.7	-0.8
	comp=Z,100nm,0.9s,mb5.8						
CNB	Canberra Magne	67.39	133⇑	iP	P	10 07 53.9	-0.4
	comp=Z,40nm,0.8s,mb5.5						
TIXI	Tiksi	67.60	11⇓	iP	P	10 07 53.2	-1.8
TIXI				eS	S	10 16 44.8	-4.2
TIXI				eSS	SS	10 21 07.7	-3.8
TIXI				pmax	pmax		
	comp=Z,46nm,0.5s,mb5.8						
TIXI				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.2						
CFR	Carcaliu	67.66	316⇓	iP	P	10 07 53.6	-2.2
HARR	Harsova	67.70	315⇓	iP	P	10 07 55.1	-1.0
AKASG	Malin Array Be	68.26	322	P	P	10 07 57.3	-2.2
	comp=Z,6.9nm,0.7s,mb4.8,baz=89,slow=5.5,SNR=24						
IDI	Anoyia	68.55	305	P	P	10 08 01.0	-0.6
	comp=Z,33nm,0.6s,mb5.5,baz=93,slow=8.2,SNR=44						
IDI				LR	LR	10 42 56.3	
	comp=Z,895nm,21.4s,MS5.0,baz=86,slow=40						
VRI	Vrincioaia	68.77	316⇑	iP	P	10 08 02.4	-0.3
VRI	Vrincioaia	68.77	316⇑	iP	P	10 08 02.3	-0.4
LSZ	Lusaka	68.93	251	eP	P	10 08 05.4	+1.2
LSZ				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
LSZ	Lusaka	68.93	251	eP	P	10 08 05.3	+1.1
	comp=Z,33nm,0.9s,mb5.3						
PET	Petropavlovsk	68.94	36	eP	P	10 08 04.0	+0.4
PET				eS	S	10 17 02.0	-3.3
PET				ePS	PS	10 17 20.6	-13
PET				pmax	pmax		
	comp=Z,66nm,1.2s,mb5.4						
PET				pmax	pmax		
	comp=Z,400nm,9.3s						
PET				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.2						
PET	Petropavlovsk	68.94	36	eP	P	10 08 02.1	-1.5
BUC1	Bucharest	68.97	315⇑	iP	P	10 07 56.7	-7.3
SEY	Seymchan	69.32	25	eP	P	10 08 05.1	-0.7
SEY				e		10 08 28.8	
SEY						10 10 36.9	
SEY				PPP	PPP	10 12 13.9	-6.0
SEY				eS	S	10 17 10.5	+0.8
SEY				PS	PS	10 17 36.7	-1.9
SEY				SS	SS	10 21 40.6	+2.2
SEY				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.7						
SEY				pmax	pmax		
	comp=E,20nm,0.9s						
SEY				MLR	MLR		
	comp=N,3µm,17.0s,MS5.9						
SEY				MLR	MLR		
	comp=Z,8µm,17.0s,MS6.0						
SEY				MLR	MLR		
	comp=E,4µm,16.0s,MS5.9						
MNK	Minsk	70.08	325	eP	P	10 08 07.0	-3.6
PUL	Pulkovo	70.38	331	eP	P	10 08 12.6	+0.3
PUL				pmax	pmax		
	comp=Z,244nm,0.6s,mb6.3						
LVZ	Lovozero	71.78	340	eP	P	10 08 19.1	-1.6
LVZ				pmax	pmax		
	comp=Z,64nm,1.3s,mb5.4						
LVZ				MLR	MLR		
	comp=Z,3µm,19.0s,MS5.6						
BOLS	Boljevac	71.79	314⇑	iP	P	10 08 20.2	-0.9
SKO	Skopje	71.95	312	eP	P	10 08 20.8	-1.3
APA	Apatity	72.06	339⇑	iP	P	10 08 22.3	-0.1
APA				i		10 08 27.3	
APA				pmax	pmax		
	comp=Z,75nm,1.1s,mb5.5						
KWP	Kalwaria	72.12	320	eP	P	10 08 22.6	-0.4
KOLS	Kolonicke sedl	72.29	319	i P	P	10 08 24.6	+0.6
KOLS				i pP	pP	10 08 31.6	+0.5
KOLS				ePP	PP	10 11 06.7	+0.2
KOLS	Kolonicke sedl	72.29	319	eP	P	10 08 24.5	+0.5
KOLS				epP	pP	10 08 31.7	+0.6
KOLS				ePP	PP	10 11 06.8	+0.3
SUW	Suwalki	72.63	324	eP	P	10 08 24.7	-1.2
GRUS	Gruza	72.69	314⇑	iP	P	10 08 23.2	-3.3
CRVS	Cervenica-Dubn	72.81	319	i P	P	10 08 26.5	-0.6
CRVS				i *PP	pP	10 08 34.2	0.0
CRVS	Cervenica-Dubn	72.81	319	eP	P	10 08 28.8	+1.7
CRVS				epP	pP	10 08 36.5	+2.3
FINES	FINESS Array B	72.88	332	i P	P	10 08 26.5	-0.8
FINES				pmax	pmax		
	comp=Z,20nm,0.6s						
FINES	FINESS Array B	72.88	332	P	P	10 08 26.5	-0.8
	comp=Z,20nm,0.6s,mb5.2,baz=94,slow=5.7,SNR=70						
FINES				LR	LR	10 46 33.5	
	comp=Z,1µm,20.2s,MS5.1,baz=116,slow=41						
KAF	Kangasniemi	72.97	333	ep	P	10 08 26.3	-1.4
	comp=Z,27nm,0.6s,mb5.3						
KAF	Kangasniemi	72.97	333	eP	P	10 08 26.3	-1.4
KAF				pmax	pmax		
	comp=Z,27nm,0.6s,mb5.3						
QSH	Qafa e Shtames	73.05	311	i p	P	10 08 33.5	+4.8
DIVS	Divcibare	73.23	314⇓	iP	P	10 08 28.6	-1.0
KECS	Kecovo	73.39	318	i P	P	10 08 31.9	+1.4
KECS				i *PP	pP	10 08 36.9	-0.7
KECS	Kecovo	73.39	318	eP	P	10 08 31.8	+1.3
KECS				e		10 08 36.8	
NIE	Niedzica	73.63	319	eP	P	10 08 31.5	-0.4
PSZ	Piszkesteto	73.72	318	eP	P	10 08 31.7	-0.7
LBTB	Lobatse	73.87	241	eP	P	10 08 35.4	+1.6
LBTB				pmax	pmax		
	comp=Z,135nm,1.3s,mb5.7						
LBTB	Lobatse	73.87	241	eP	P	10 08 35.4	+1.6
	comp=Z,135nm,1.3s,mb5.7						
OJC	Ojcow	74.07	320	eP	P	10 08 34.0	-0.4
PKSM	Moragy	74.39	316⇑	eP	P	10 08 35.4	-0.9
VYHS	Vyhne	74.49	318	i P	P	10 08 36.3	-0.5
VYHS				i pP	pP	10 08 43.3	-0.6
VYHS	Vyhne	74.49	318	i P	P	10 08 36.5	-0.3
VYHS				epP	pP	10 08 43.2	-0.7
CASY	Casey	74.64	173	eP	P	10 08 37.2	-0.1
SRO2	Moca	74.70	317	eP	pP	10 08 45.3	+0.1
SRO2	Moca	74.70	317	epP	pP	10 08 45.3	+0.1
SRO	Srobarova	74.76	317	i P	P	10 08 38.9	+0.4
SRO				i *PP	pP	10 08 46.2	+0.6
SRO	Srobarova	74.76	317	eP	P	10 08 39.0	+0.5
RHK1	Bakonya	74.77	316⇑	eP	P	10 08 38.6	+0.1
KEV	Kevo	75.06	341	ep	P	10 08 40.4	+0.7
OKC	Ostrava-Krasne	75.08	319	eP	P	10 08 39.9	-0.3
OKC				epP	pP	10 08 46.9	-0.4
BOSA	Boshof	75.21	238	P	P	10 08 43.0	+1.6
BOSA	Boshof	75.21	238	eP	P	10 08 42.7	+1.3
BOSA				pmax	pmax		
	comp=Z,76nm,1.0s,mb5.6						
BOSA	Boshof	75.21	238	eP	P	10 08 42.7	+1.3
	comp=Z,76nm,1.0s,mb5.6						
MORC	Moravsky Berou	75.46	319	eP	P	10 08 41.7	-0.7
MORC				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
MORC	Moravsky Berou	75.46	319	eP	P	10 08 41.7	-0.7
	comp=Z,16nm,0.7s,mb5.1						
ARCES	ARCESS Array B	75.49	340	P	P	10 08 42.1	-0.1
	comp=Z,13nm,0.7s,mb4.9,baz=86,slow=2.5,SNR=31						
ARE0	ARCESS Array S	75.49	340	eP	P	10 08 41.9	-0.3
ZST	Bratislava	75.61	318	i P	P	10 08 43.5	+0.2
ZST				i *PP	pP	10 08 50.1	-0.3
ZST	Bratislava	75.61	318	eP	P	10 08 43.0	-0.3
ZST				epP	pP	10 08 49.9	-0.5
DPC	Dobruska-Polom	76.30	320	eP	P	10 08 47.3	+0.2
KSP	Ksiaz	76.36	320⇓	eP	P	10 08 47.5	0.0
KSP				epP	pP	10 08 53.2	-1.4
KSP	Ksiaz	76.36	320	eP	P	10 08 47.7	+0.2
BILL	Bilibino	76.48	22	eP	P	10 08 46.9	-0.9
BILL				pmax	pmax		
	comp=Z,31nm,0.9s,mb5.2						
BILL	Bilibino	76.48	22	eP	P	10 08 46.9	-0.9
	comp=Z,31nm,0.9s,mb5.2						
UPC	Upice	76.51	320	eP	P	10 08 48.2	-0.1
UPC				epP	pP	10 08 55.1	-0.3
ARSA	Arzberg	76.60	317⇑	iP	P	10 08 49.0	+0.1
	comp=Z,43nm,1.3s,mb5.2						
BOJS	Bojanci	76.70	315	eP	P	10 08 48.7	-0.8
PERS	Pernice	76.85	316	i P	P	10 08 49.9	-0.4
LJU	Ljubljana	77.23	315	eP	P	10 08 52.6	+0.2
OBKA	Obir	77.23	316⇑	iP	P	10 08 52.6	+0.2
	comp=Z,30nm,1.2s,mb5.1						
PRU	Pruhonice	77.41	319	eP	P	10 08 53.4	+0.1
PRU				epP	pP	10 09 00.5	0.0
PVCC	Panska Ves	77.43	320	eP	P	10 08 52.9	-0.5
MOA	Molln	77.49	317⇑	iP	P	10 08 53.5	-0.3
	comp=Z,32nm,1.1s,mb5.2						
BSD	Bornholm Skovb	77.54	325	i P	P	10 08 54.8	+0.8
BSD				i	pP	10 09 01.5	+0.4
BSD				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
BSD	Bornholm Skovb	77.54	325	i P	P	10 08 54.8	+0.8
	comp=Z,21nm,0.7s,mb5.2						
BSD				i	pP	10 09 01.5	+0.4
FX1	Attu Island--F	77.54	38	P	P	10 08 53.2	-0.8
	comp=Z,64nm,0.5s,mb5.8,baz=18,slow=6.8,SNR=6.5						
FX1				LR	LR	10 49 13.4	
	comp=Z,30nm,18.0s,baz=104,slow=40						
VOY	Vojsko	77.67	315	eP	P	10 08 53.7	-1.1
VOY				e	pP	10 09 00.6	-1.4
VOY				e		10 09 27.0	
GEC2	GERESS Array S	77.91	318	eP	P	10 08 56.1	0.0
GEC2				pmax	pmax		
	comp=Z,135nm,2.0s,mb5.5						
GEC2	GERESS Array S	77.91	318	eP	P	10 08 56.1	0.0
	comp=Z,135nm,2.0s,mb5.5						
GERES	GERESS Array B	77.91	318	P	P	10 08 56.1	0.0
	comp=Z,14nm,0.5s,mb5.1,baz=100,slow=5.2,SNR=88						
AQU	L’Aquila	77.94	312	eP	P	10 08 57.2	+0.8
AQU				pmax	pmax		
	comp=Z,39nm,0.9s,mb5.3						
AQU	L’Aquila	77.94	312	eP	P	10 08 57.2	+0.8
	comp=Z,39nm,0.9s,mb5.3						
KHC	Kasperske Hory	78.00	319	eP	P	10 08 56.2	-0.4
KHC				epP	pP	10 09 02.7	-1.0
RUE	Ruedersdorf	78.03	322	eP	P	10 08 56.5	-0.2
	comp=Z,35nm,0.6s,mb5.5						
PTCC	Patocco-Chiusa	78.06	316	eP	P	10 08 56.1	-0.8
KBA	Koelnbreinsper	78.08	316⇑	iP	P	10 08 57.8	+0.7
	comp=Z,42nm,1.4s,mb5.2						
KBA	Koelnbreinsper	78.08	316⇑	iP	P	10 08 57.8	+0.7
KBA				pmax	pmax		
	comp=Z,42nm,1.4s,mb5.2						
GMNA	Gemona	78.13	316	eP	P	10 08 57.9	+0.5
MAW	Mawson	78.17	192	eP	P	10 08 59.2	+2.1
	comp=Z,20nm,0.7s,mb5.2						
MAW				eS	S	10 18 56.4	+7.4
MAW	Mawson	78.17	192	eP	P	10 08 59.2	+2.1
MAW				eS	S	10 18 56.4	+7.4
MAW				pmax	pmax		
	comp=Z,20nm,0.7s						
MAW	Mawson	78.17	192	P	P	10 08 59.3	+2.2
	comp=Z,25nm,0.8s,mb5.2,baz=28,slow=6.6,SNR=23						
MAW				LR	LR	10 38 29.3	
	comp=Z,628nm,19.5s,MS5.0,baz=52,slow=32						
ARV	Arcevia	78.29	313	eP	P	10 08 59.0	+0.7
CLL	Collm	78.46	321⇑	iP	P	10 08 58.9	-0.1
CLL				i	pP	10 09 06.0	-0.2
CLL				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.0						
CLL	Collm	78.46	321⇑	iP	P	10 08 58.9	-0.1
	comp=Z,29nm,1.4s,mb5.0						
CLL				i	pP	10 09 06.0	-0.2
CLL	Collm	78.46	321	⇑P	P	10 08 58.9	-0.1
	comp=Z,logA/T=1.3,mb5.0						
CLL				i *PP	pP	10 09 06.0	-0.2
CLL				i		10 09 20.0	
FVI	Forni Avoltri	78.46	316	eP	P	10 08 58.8	-0.3
WET	Wettzell	78.46	319	eP	P	10 08 59.1	0.0
NKC	Novy Kostel	78.77	320	eP	P	10 09 01.4	+0.6
NKC				epP	pP	10 09 07.9	-0.1
MOR8	Moi Rana	78.87	336	eP	P	10 09 00.5	-0.5
MOR8	Moi Rana	78.87	336	eP	P	10 09 01.9	+0.9
SFI	Santa Sofia	79.09	313	eP	P	10 09 03.5	+0.8
PGD	Poggio Sodo	79.18	313	eP	P	10 09 04.2	+1.0
CTI	Castel Tesino	79.23	315	eP	P	10 09 03.6	+0.2
WTTA	Wattenberg	79.25	317⇑	iP	P	10 09 02.9	-0.6
	comp=Z,73nm,1.1s,mb5.5						
WTTA	Wattenberg	79.25	317⇑	iP	P	10 09 02.9	-0.6
WTTA				pmax	pmax		
	comp=Z,73nm,1.1s,mb5.5						
WATA	Walderalm	79.29	317⇑	iP	P	10 09 03.0	-0.7
	comp=Z,27nm,1.1s,mb5.1						
WATA	Walderalm	79.29	317⇑	iP	P	10 09 03.0	-0.7
WATA				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.1						
VMG	Vicchio	79.31	313	eP	P	10 09 04.9	+1.0
MOX	Moxa	79.31	320	eP	P	10 09 03.8	+0.1
MOX				pmax	pmax		
	comp=Z,36nm,1.8s,mb5.0						
MOX				MLR	MLR		
	comp=Z,900nm,17.0s,MS5.2						
MOX	Moxa	79.31	320	i P	P	10 09 03.8	+0.1
	comp=Z,logA/T=1.3,mb5.0						
MOX				L		10 51 09.0	
MOX	Moxa	79.31	320	eP	P	10 09 03.8	+0.1
	comp=Z,36nm,1.8s,mb5.0						
MOX				LR	LR		
	comp=Z,900nm,17.0s,MS5.2						
SEI	Scarperia	79.44	313	eP	P	10 09 05.3	+0.8
CSNT	Castellina Chi	79.49	313	eP	P	10 09 05.4	+0.6
SQTA	Sankt Quirin	79.54	317⇑	iP	P	10 09 04.6	-0.5
	comp=Z,29nm,1.1s,mb5.1						
SQTA	Sankt Quirin	79.54	317⇑	iP	P	10 09 04.6	-0.5
SQTA				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.1						
GRA1	Grafenberg Arr	79.55	319	eP	P	10 09 05.2	+0.1
	comp=Z,62nm,1.4s,mb5.3						
GRF	Grafenberg Arr	79.55	319	eP	P	10 09 05.2	+0.1
GRF				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.3						
GRF	Grafenberg Arr	79.55	319	eP	P	10 09 05.2	+0.1
GRF				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.3						
GRF	Grafenberg Arr	79.55	319	eP	P	10 09 05.2	+0.1
	comp=Z,62nm,1.4s,mb5.3						
MOTA	Moosalm	79.61	317⇑	iP	P	10 09 05.0	-0.4
	comp=Z,21nm,1.0s,mb5.0						
MOTA	Moosalm	79.61	317⇑	iP	P	10 09 05.0	-0.4
MOTA				pmax	pmax		
	comp=Z,21nm,1.0s,mb5.0						
ZCCA	Zocca	79.71	314	eP	P	10 09 07.4	+1.3
GRFL	Gerfalco	79.72	312	eP	P	10 09 05.3	-0.8
NB2	NORSAR Subarra	79.89	331	P	P	10 09 05.7	-0.9
	comp=Z,25nm,1.0s,mb5.1,baz=91,slow=5.3						
NB2	NORSAR Subarra	79.89	331	P	P	10 09 05.7	-0.9
	baz=91,slow=5.3						
NB2	NORSAR Subarra	79.89	331	P	P	10 09 05.7	-0.9
NB2				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.1						
NOA	NORSAR Array B	79.89	331	P	P	10 09 06.1	-0.6
	comp=Z,30nm,1.1s,mb5.1,baz=94,slow=5.7,SNR=26						
NOA				LR	LR	10 50 01.9	
	comp=Z,776nm,18.6s,MS5.1,baz=90,slow=40						
SUR	Sutherland	79.95	235	eP	P	10 09 08.6	+1.1
	comp=Z,54nm,0.9s,mb5.5						
BDI	Bagni Di Lucca	79.99	313	eP	P	10 09 06.7	-0.8
GSCL	Gusciola	79.99	314	eP	P	10 09 08.4	+0.8
MAIM		80.07	313	P	P	10 09 06.7	-1.3
CLZ	Clausthal	80.11	321	eP	P	10 09 08.1	+0.1
	comp=Z,80nm,1.8s,mb5.3						
ERBM	Eremo	80.11	314	eP	P	10 09 11.0	+2.8
BRMO	Bormio	80.12	316	eP	P	10 09 08.5	+0.4
SARO	Sassorosso	80.13	313	P	P	10 09 06.8	-1.4
BSEG	Bad Segeberg	80.17	323	eP	P	10 09 08.5	+0.3
VALM		80.23	314	P	P	10 09 07.9	-0.9
VINC	Vinca	80.31	313	P	P	10 09 08.2	-1.0
BACM		80.36	314	P	P	10 09 08.4	-1.1
GRAM		80.36	314	P	P	10 09 08.7	-0.8
DAVA	Damuels	80.45	317⇑	iP	P	10 09 10.2	+0.3
	comp=Z,58nm,1.3s,mb5.3						
CODM		80.52	314	P	P	10 09 09.6	-0.7
BOB	Bobbio (Coli)	80.80	314	eP	P	10 09 13.9	+2.1
MUD	Monsted U’grnd	80.84	326	eP	P	10 09 11.7	-0.1
MUD				pmax	pmax		
	comp=Z,23nm,0.7s,mb5.2						
MUD	Monsted U’grnd	80.84	326	eP	P	10 09 11.7	-0.1
	comp=Z,23nm,0.7s,mb5.2						
MUD	Monsted U’grnd	80.84	326	i P	P	10 09 11.7	-0.1
	comp=Z,23nm,0.7s,mb5.2						
DOMB	Dombas	80.96	332	eP	P	10 09 14.3	+2.1
DRV	Dumont d’Urvil	81.14	163	S	ScS	10 19 40.0	+3.3
VAI	Varese	81.25	315	eP	P	10 09 13.3	-0.8
PCP	Pian Castagno	81.45	314	P	P	10 09 14.5	-0.7
BFO	Black Forest	81.47	318	eP	P	10 09 14.5	-0.7
BFO				pmax	pmax		
	comp=Z,26nm,1.3s,mb5.0						
BFO	Black Forest	81.47	318	eP	P	10 09 14.5	-0.7
	comp=Z,26nm,1.3s,mb5.0						
MOL	Molde	81.67	332	eP	pP	10 09 22.3	-0.9
FELD	Feldberg	81.70	317	eP	P	10 09 16.9	+0.5
FIN	Finale Ligure	81.70	314	eP	P	10 09 16.2	-0.3
MCGN	Macugnaga	81.79	315	eP	P	10 09 17.7	+0.8
LANF	Langenberg	81.80	318	eP	P	10 09 17.3	+0.4
ORX	Oropa	81.80	315	P	P	10 09 15.8	-1.2
ROB	Roburent	81.94	314	P	P	10 09 17.7	-0.1
IMI	Imperia	81.95	313	P	P	10 09 18.0	+0.2
TRAV		81.97	315	P	P	10 09 15.9	-2.0
MONE	Monesi	82.03	313	P	P	10 09 17.8	-0.5
NEGI	Negi	82.08	313	P	P	10 09 17.9	-0.6
WLS	Welschbruch	82.12	318	eP	P	10 09 19.5	+0.9
SAOF	Saorge	82.18	313	eP	P	10 09 21.4	+2.4
BLS5	Blasjo	82.25	329	eP	P	10 09 22.7	+3.6
BLS5				AMb	AMB	10 09 32.3	
	comp=Z,45nm,0.9s,mb5.4						
BLS5	Blasjo	82.25	329	eP	P	10 09 22.7	+3.6
	comp=Z,45nm,0.9s,mb5.4						
RUP	Ruppelstein	82.25	319	eP	P	10 09 19.9	+0.6
ECH	Echery	82.25	318	eP	P	10 09 20.5	+1.2
ENR	Entracque	82.27	314	P	P	10 09 20.2	+0.7
MOF	Molkenrain	82.29	317	eP	P	10 09 19.5	0.0
RSP	Reno Superiore	82.34	315	P	P	10 09 18.7	-1.1
STV	Sta Anna Valdi	82.34	314	P	P	10 09 20.2	+0.4
BHB	Bricherasio	82.35	314	P	P	10 09 18.4	-1.4
DOI	San Damiano	82.38	314	eP	P	10 09 18.1	-1.9
LSD	Ceresole Reale	82.39	315	P	P	10 09 20.3	+0.2
FENE	Fenestrelle	82.48	314	P	P	10 09 19.9	-0.7
PZZ	Prazzo	82.48	314	P	P	10 09 19.8	-0.8
LOMF	Lomont	82.52	317	eP	P	10 09 20.6	-0.1
LPG	La Plagne	82.67	315	eP	P	10 09 21.8	+0.3
	comp=Z,87nm,0.7s,mb5.6						
LPG	La Plagne	82.67	315	eP	P	10 09 21.8	+0.3
LPG				pmax	pmax		
	comp=Z,44nm,0.7s,mb5.6						
CALN	Calern	82.68	313	eP	P	10 09 23.8	+2.2
RRL	Cesana Torines	82.68	314	P	P	10 09 21.3	-0.3
BNI	Bardonecchia	82.75	314	eP	P	10 09 21.7	-0.3
BNI				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.3						
BNI	Bardonecchia	82.75	314	eP	P	10 09 21.7	-0.3
	comp=Z,29nm,1.0s,mb5.3						
WLF	Walferdange	82.84	319	eP	P	10 09 22.3	0.0
WLF				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.0						
WLF	Walferdange	82.84	319	eP	P	10 09 22.3	-0.1
	comp=Z,13nm,0.8s,mb5.0						
THEF	They Montfort	83.04	318	eP	P	10 09 23.4	0.0
PLDF	La Plantade	84.82	316	eP	P	10 09 34.2	+1.7
AGO	Saint Agoulin	85.16	316	eP	P	10 09 35.6	+1.5
LBL	Lubilhac	85.16	315	eP	P	10 09 36.3	+2.1
EJON	La Jonquera	85.71	312	P	P	10 09 38.1	+1.1
	comp=Z,0.1nm,0.1s						
RPZ	Rata Peaks	85.99	135	P	P	10 09 39.2	+0.8
	comp=Z,20nm,0.9s,mb5.3,baz=286,slow=8.0,SNR=5.7						
EMIR	Miracle	86.78	312	P	P	10 09 43.2	+1.0
EPOB	Poblet	87.18	311	P	P	10 09 44.9	+0.7
EIBI	Ibiza	87.28	309	P	P	10 09 49.3	+4.5
	comp=Z,0.4nm,0.1s,mb4.6						
EGRA	Graus	87.63	312	P	P	10 09 45.8	-0.5
	comp=Z,2.4nm,0.5s,mb4.7						
EBIE	Bielsa	87.69	313	P	P	10 09 46.5	-0.2
DAG	Danmarks Havn	87.74	348	eP	P	10 09 45.0	-1.1
DAG	Danmarks Havn	87.74	348	i P	P	10 09 45.0	-1.1
ERTA	Horta de San J	87.79	311	P	P	10 09 45.6	-1.6
	comp=Z,2.0nm,0.3s,mb4.8						
ANM	Nome	87.82	25	eP	P	10 09 48.6	+1.9
ESAC	San Caprasio	88.28	312	P	P	10 09 50.0	+0.6
	comp=Z,2.3nm,0.2s,mb5.1						
EMOS	Mosqueruela	88.48	310	P	P	10 09 52.2	+1.7
	comp=Z,0.8nm,0.2s,mb4.6						
EBEN	Beniarda	88.54	309	P	P	10 09 54.6	+3.8
	comp=Z,0.2nm,0.1s,mb4.4						
EALK	Alkurruntz	88.81	313	P	P	10 09 53.1	+1.1
	comp=Z,5.0nm,0.6s,mb5.0						
URZ	Urewera	89.33	129	P	P	10 09 54.9	+0.3
	comp=Z,22nm,0.8s,mb5.5,baz=96,slow=1.9,SNR=4.9						
EMUR	La Murta	89.46	308	P	P	10 09 58.3	+3.1
	comp=Z,0.4nm,0.1s,mb4.7						
ELAN	Lanestosa	90.19	314	P	P	10 09 55.8	-2.7
	comp=Z,0.3nm,0.2s,mb4.3						
EVIA	Vianos	90.31	309	P	P	10 10 00.3	+1.2
EVIA				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.5						
EVIA	Vianos	90.31	309	P	P	10 10 00.3	+1.2
	comp=Z,1.0nm,0.4s,mb4.5						
EQES	Quesada	90.89	308	P	P	10 10 04.1	+2.3
	comp=Z,0.2nm,0.1s,mb4.4						
EBER	Berja	90.91	307	P	P	10 10 02.8	+0.8
	comp=Z,2.0nm,0.3s,mb4.9						
GUD	Guadarrama	91.20	311	P	P	10 10 04.5	+1.3
GUD				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.7						
GUD	Guadarrama	91.20	311	P	P	10 10 04.5	+1.3
	comp=Z,2.8nm,0.7s,mb4.7						
ESDC	Sonseca Array	91.24	310	P	P	10 10 04.3	+0.9
	comp=Z,7.6nm,0.6s,mb5.2,baz=61,slow=4.4,SNR=38						

ESDC	Sonseca Array	91.24	310	P	P	10 10 04.2	+0.8
	comp=Z,0.5nm,0.1s,mb4.8						
ESLA	Sonseca Array	91.24	310	*e*P	P	10 10 03.7	+0.3
	comp=Z,2.3nm,0.7s,mb4.6						
EARI	Arriondas	91.45	314	P	P	10 10 04.8	+0.5
	comp=Z,0.4nm,0.3s,mb4.2						
ELUQ	Luque	91.87	308	P	P	10 10 08.7	+2.4
ELUQ				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.5						
ELUQ	Luque	91.87	308	P	P	10 10 08.7	+2.3
	comp=Z,1.4nm,0.4s,mb4.6						
EADA	Adamuz	92.00	309	P	P	10 10 05.5	-1.4
	comp=Z,0.1nm,0.1s						
IMA	Indian Mountai	92.01	22	*e*P	P	10 10 07.8	+1.5
IMA				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.5						
IMA	Indian Mountai	92.01	22	*e*P	P	10 10 07.8	+1.5
	comp=Z,29nm,1.1s,mb5.5						
VNDA	Vanda	92.66	168	*e*P	P	10 10 09.4	+0.3
VNDA				pmax	pmax		
	comp=Z,13nm,0.9s						
VNDA	Vanda	92.66	168	P	P	10 10 10.2	+1.1
	comp=Z,9.8nm,0.8s,mb5.3,baz=295,slow=5.4,SNR=28						
VNDA				LR	LR	10 49 12.6	
	comp=Z,713nm,18.6s,MS5.2,baz=198,slow=34						
VNDA	Vanda	92.66	168	*e*P	P	10 10 09.4	+0.3
	comp=Z,13nm,0.9s,mb5.4						
ECAL	Calabor	92.84	313	P	P	10 10 07.6	-3.1
	comp=Z,0.1nm,0.1s,mb4.2						
ERUA	La Rua	93.03	313	P	P	10 10 08.5	-3.1
ERUA				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb4.6						
ERUA	La Rua	93.03	313	P	P	10 10 08.5	-3.1
	comp=Z,0.9nm,0.4s,mb4.5						
EINC	Incio	93.12	314	P	P	10 10 08.2	-3.7
	comp=Z,0.1nm,0.1s,mb4.2						
SBA	Scott Base	93.76	168	*e*P	P	10 10 15.5	+1.3
SBA				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.8						
SBA	Scott Base	93.76	168	*e*P	P	10 10 15.5	+1.3
	comp=Z,44nm,1.2s,mb5.8						
RSO	Redoubt South	94.67	27	*e*P	P	10 10 19.6	+0.9
SPU	Mount Spurr	94.68	26	*e*P	P	10 10 18.1	-0.5
ILAR	Eielson Array	95.14	22	P	P	10 10 21.2	+0.6
	comp=Z,1.7nm,0.5s,mb4.7,baz=297,slow=3.5,SNR=24						
ILAR				PP	PP	10 14 15.1	+2.4
	comp=Z,3.7nm,1.0s,baz=298,slow=9.0,SNR=6.6						
ILAR				PKKPbc		10 27 15.3	
	comp=Z,1.1nm,0.7s,baz=226,slow=2.3,SNR=8.6						
PWA	Palmer West	95.42	25	*e*P	P	10 10 22.4	+0.3
PWA				pmax	pmax		
	comp=Z,54nm,1.1s,mb5.9						
PWA	Palmer West	95.42	25	*e*P	P	10 10 22.4	+0.3
	comp=Z,54nm,1.1s,mb5.9						
SLKM	Skilak Lake	95.78	27	*e*P	P	10 10 23.8	0.0
MENT	Mentasta	97.29	23	*e*P	P	10 10 33.8	+3.3
INK	Inuvik	97.37	16	P	P	10 10 31.2	+0.5
	comp=Z,26nm,1.2s,mb5.5,baz=308,slow=5.0,SNR=16						
INK				PP	PP	10 14 31.7	+1.2
	comp=Z,7.0nm,1.1s,baz=314,slow=6.6,SNR=5.1						
QSPA	South Pole Qui	97.45	180	⇓*i*P	P	10 10 35.0	+4.1
	comp=Z,14nm,1.2s,mb5.3						
DBIC	Dimbokro	97.75	278	*e*P	P	10 10 35.4	+1.7
DBIC				pmax	pmax		
	comp=Z,27nm,1.2s						
DBIC	Dimbokro	97.75	278	P	P	10 10 35.2	+1.5
	comp=Z,12nm,1.0s,mb5.4,baz=72,slow=7.1,SNR=9.3						
DBIC				LR	LR	10 54 38.0	
	comp=Z,2µm,19.1s,MS5.7,baz=67,slow=35						
DBIC	Dimbokro	97.75	278	*e*P	P	10 10 35.4	+1.7
	comp=Z,27nm,1.2s,mb5.7						
SNAA	Sanae	99.24	199	*e*	PP	10 15 00.8	+16
SNAA	Sanae	99.24	199			10 15 14.8	
VNA2	Neumayer--Watz	100.78	199	*e*	PP	10 14 57.3	+0.6
VNA2	Neumayer--Watz	100.78	199	*e*		10 15 12.1	
VNA2	Neumayer--Watz	100.78	199	⇑*i*Pdif	P	10 10 56.7	+11
VNA2				*e*		10 14 57.3	
VNA2				*e*		10 15 12.1	
VNA1	Neumayer--Stat	101.11	199	*e*	PP	10 14 54.8	-4.4
VNA1	Neumayer--Stat	101.11	199	*e*		10 15 09.0	
VNA1	Neumayer--Stat	101.11	199	⇓*i*Pdif	P	10 10 48.0	+0.4
VNA1				*e*		10 14 54.8	
VNA1				*e*		10 15 09.0	
VNA3	Neumayer Olymp	101.46	199	⇑*i*P	P	10 11 00.0	+11
DLBC	Dease Lake	105.34	22	PP	PP	10 15 32.8	+1.7
	comp=Z,5.2nm,1.0s,baz=307,slow=9.3,SNR=3.4						
YKA	Yellowknife Ar	106.80	13	Pdiff	Pdif	10 11 14.4	+1.5
	comp=Z,0.7nm,1.1s,baz=329,slow=5.3,SNR=3.0						
YKA				PKiKP		10 15 22.3	
	comp=Z,0.7nm,0.9s,baz=305,slow=3.0,SNR=5.1						
YKA				PKKPbc		10 26 41.2	
	comp=Z,1.2nm,0.8s,baz=154,slow=2.8,SNR=12						
SCHQ	Schefferville	115.79	348	PKP	PKPdf	10 15 41.8	-1.7
	comp=Z,2.9nm,0.7s,baz=56,slow=11,SNR=6.2						
SCHQ				PP	PP	10 16 48.7	+1.4
	comp=Z,4.0nm,0.9s,baz=353,slow=11,SNR=3.7						
TBI	Tubuai	117.39	112	*e*PP	PP	10 16 46.9	-12
TBI				*e*PS	PS	10 26 41.5	+2.4
TBI				*e*SS	SS	10 33 07.2	+2.6
TBI				*e*LR	LR	10 51 28.8	
	comp=Z,1µm,27.2s						
PPT	Papeete	117.49	106	*e*PP	PP	10 16 45.5	-15
PPT				*e*PS	PS	10 26 41.5	+1.4
PPT				*e*LR	LR	10 51 25.4	
	comp=Z,1µm,33.5s						
MSO	Missoula	120.47	22	*e*PKPdf	PKPdf	10 15 49.1	-3.6
CHMT	Chamberlain Mo	120.65	21	*e*PKPdf	PKPdf	10 15 49.7	-3.4
MOD	Modoc	121.69	30	*e*PKPdf	PKPdf	10 15 52.8	-2.4
ULM	Lac du Bonnet	121.82	7	PKP	PKPdf	10 15 53.0	-2.3
	comp=Z,7.5nm,0.6s,baz=349,slow=3.3,SNR=15						
ULM				PKKPbc		10 25 50.8	
	comp=Z,2.5nm,0.8s,baz=178,slow=3.9,SNR=4.6						
ULM	Lac du Bonnet	121.82	7	*e*PKPdf	PKPdf	10 15 53.4	-1.9
DGMT	Dagmar	121.99	14	*e*PKPdf	PKPdf	10 15 52.8	-2.8
WVOR	Wild Horse Val	122.08	28	*e*PKIKP	PKPdf	10 15 53.3	-2.6
BOZ	Bozeman (W)	122.32	21	*e*PKIKP	PKPdf	10 15 53.5	-2.8
LAO	LASA Array	123.11	16	*e*PKPdf	PKPdf	10 15 55.3	-2.4
YMR	Madison River	123.40	21	*e*PKPdf	PKPdf	10 15 56.3	-2.1
YFT	Old Faithful	123.63	21	*e*PKPdf	PKPdf	10 15 57.3	-1.6
IMW	Indian Meadow	124.08	22	*e*PKPdf	PKPdf	10 15 57.6	-2.2
MOOW	Moose Ponds	124.28	21	*e*PKPdf	PKPdf	10 15 57.5	-2.7
BMN	Battle Mountai	124.31	29	*e*PKIKP	PKPdf	10 15 58.0	-2.3
TPAW	Teton Pass	124.42	22	*e*PKPdf	PKPdf	10 15 58.6	-1.8
LOHW	Long Hollow	124.44	21	*e*PKPdf	PKPdf	10 15 58.0	-2.5
WUWY	Wally Ulrich	124.46	22	*e*PKPdf	PKPdf	10 15 58.1	-2.4
SNOW	Snow King Moun	124.52	22	*e*PKPdf	PKPdf	10 15 58.5	-2.2
AHID	Auburn Hatcher	124.99	22	*e*PKPdf	PKPdf	10 15 58.9	-2.7
NVAR	Mina Array Bea	125.32	31	PKP	PKPdf	10 16 00.4	-1.9
	comp=Z,7.6nm,0.7s,baz=281,slow=2.3,SNR=18						
MNV	Mina	125.39	31	*e*PKIKP	PKPdf	10 16 00.6	-1.9
PDAR	Pinedale Array	125.56	21	PKP	PKPdf	10 15 59.6	-3.0
	comp=Z,6.7nm,0.7s,baz=18,slow=1.3,SNR=39						
PDAR				PKKPbc		10 25 35.6	
	comp=Z,1.3nm,0.8s,baz=134,slow=5.7,SNR=9.0						
HWUT	Hardware Ranch	125.80	23	*e*PKPdf	PKPdf	10 16 00.0	-3.2
MTUM	Tungsten Hills	126.00	32	*e*PKPdf	PKPdf	10 16 02.3	-1.4
JLU	Jordanelle	126.70	24	*e*PKPdf	PKPdf	10 16 01.9	-2.9
TRCR	Troy Canyon	126.72	29	*e*PKPdf	PKPdf	10 16 03.1	-1.9
MIV	Mineville/With	127.37	349	*e*PKPdf	PKPdf	10 16 03.2	-2.9
MDV	Middlebury	127.38	348	*e*PKPdf	PKPdf	10 16 03.3	-2.9
TMUT	Trail Mountain	127.90	25	*e*PKPdf	PKPdf	10 16 05.4	-1.9
MSU	Marysvale	128.15	26	*e*PKIKP	PKPdf	10 16 07.1	-0.7
PHWY	Pilot Hill	128.24	19	*e*PKPdf	PKPdf	10 16 04.6	-3.3
SRU	San Rafael	128.34	24	*e*PKIKP	PKPdf	10 16 04.8	-3.4
NEN	Nelson	129.22	30	*e*PKPdf	PKPdf	10 16 08.2	-1.7
LDFC	Landfair	129.53	31	*e*PKPdf	PKPdf	10 16 08.4	-2.1
PV10	Paradox Valley	129.57	23	*e*PKPdf	PKPdf	10 16 08.2	-2.3
PV01	Paradox Valley	129.96	23	*e*PKPdf	PKPdf	10 16 08.7	-2.6
USHA	Ushuaia	130.77	193	SKPbc		10 19 32.8	
	comp=Z,19nm,0.8s,baz=122,slow=6.1,SNR=6.9						
ACSO	Alum Creek Sta	132.37	357	*e*PKPdf	PKPdf	10 16 13.2	-2.7
ANMO	Albuquerque	133.56	23	*e*PKIKP	PKPdf	10 16 16.3	-1.8
ANMO	Albuquerque	133.56	23	PKP	PKPdf	10 16 16.9	-1.2
	comp=Z,3.5nm,0.7s,baz=224,slow=1.5,SNR=19						
ANMO				SKPbc		10 19 42.6	
	comp=Z,7.0nm,0.9s,baz=324,slow=3.2,SNR=14						
TUC	Tucson	133.90	29	*e*PKIKP	PKPdf	10 16 16.4	-2.4
LENM	Lemitar	134.04	24	*e*PKPdf	PKPdf	10 16 16.9	-2.2
LPM	Los Pinos Moun	134.05	24	*e*PKPdf	PKPdf	10 16 17.6	-1.4
BNM	Barren Site	134.20	24	*e*PKPdf	PKPdf	10 16 17.2	-2.1
FVM	French Village	134.53	5	*e*PKIKP	PKPdf	10 16 17.8	-2.1
FWV	Forest Hill	134.83	354	*e*PKPdf	PKPdf	10 16 18.7	-1.7
PWV	Princeton	135.10	354	*e*PKPdf	PKPdf	10 16 18.7	-2.3
ELN	Prospectdale	135.18	354	*e*PKPdf	PKPdf	10 16 18.1	-3.0
CPRX	Cap Rock	136.25	22	*e*PKPdf	PKPdf	10 16 21.7	-1.4
WMOK	Wichita Mounta	136.27	15	*e*PKIKP	PKPdf	10 16 20.4	-2.7
WVT	Waverly	136.53	2	*e*PKIKP	PKPdf	10 16 20.2	-3.3
GDL2	Guadalupe Moun	136.81	23	*e*PKPdf	PKPdf	10 16 20.3	-3.9
MNTX	Cornudas Mount	136.84	24	*e*PKPdf	PKPdf	10 16 19.7	-4.5
CPCT	Cooper Cave	137.21	358	*e*PKPdf	PKPdf	10 16 22.9	-1.9
MIAR	Mount Ida	137.54	9	*e*PKIKP	PKPdf	10 16 22.0	-3.5
JSC	Jenkinsville	138.15	354	*e*PKIKP	PKPdf	10 16 23.4	-3.2
GOGA	Godfrey	139.19	357	*e*PKIKP	PKPdf	10 16 27.0	-1.5
LTX	Lajitas	139.62	24	*e*PKIKP	PKPdf	10 16 27.2	-2.2
TXAR	Lajitas Array	139.62	24	PKhKP		10 16 20.1	
	comp=Z,0.8nm,0.6s,baz=263,slow=1.1,SNR=12						
TXAR				PKP	PKPdf	10 16 26.9	-2.5
	comp=Z,3.4nm,0.6s,baz=24,slow=2.4,SNR=21						
TXAR				PP	PP	10 19 23.9	-0.3
	comp=Z,1.4nm,1.1s,baz=315,slow=1.8,SNR=4.5						
TXAR				SKPbc		10 20 02.2	
	comp=Z,3.1nm,0.5s,baz=231,slow=0.1,SNR=23						
LRAL	Lakeview Retre	139.63	1	*e*PKPdf	PKPdf	10 16 27.1	-2.3
JCT	Junction City	139.97	19	*e*PKIKP	PKPdf	10 16 26.6	-3.4
NATX	Nacogdoches	140.07	11	*e*PKPdf	PKPdf	10 16 27.9	-2.2
BAO	Brasilia Array	141.86	254	PKP	PKPdf	10 16 26.6	-7.2
BAO				*i*		10 16 32.0	
BDFB	Brasilia	141.88	254	PKhKP		10 16 26.7	
	comp=Z,7.6nm,1.0s,baz=124,slow=3.3,SNR=8.3						
BDFB				PKP	PKPdf	10 16 31.7	-2.1
	comp=Z,20nm,0.9s,baz=146,slow=3.6,SNR=12						
BDFB				SKPbc		10 20 07.5	
	comp=Z,10nm,1.2s,baz=41,slow=3.0,SNR=3.5						
TRQA	Tornquist	142.60	212	*e*PKPdf	PKPdf	10 16 31.2	-3.2
SJG	San Juan	147.78	322	PKPbc	PKPdf	10 16 43.7	-0.1
	comp=Z,14nm,0.3s,baz=309,slow=20,SNR=4.4						
COLM	Colima	148.28	33	*i* P	PKPdf	10 16 46.9	+2.3
MOIG	Morelia	149.14	29	*i* P	PKPdf	10 16 45.8	-0.2
TRN	Trinidad (W)	149.48	306	*e*P	PKPdf	10 16 45.0	-1.7
PPM	Popocatepetl	150.81	25	*e*PKIKP	PKPdf	10 16 47.7	-0.9
PLIG	Platanillo	151.03	27	*e*P	PKPdf	10 16 43.0	-5.9
CAIG	El Cayaco	151.83	30	*e*P	PKPdf	10 16 39.5	-11
PCRV	Puerto La Cruz	152.30	309	PKPbc	PKPdf	10 16 53.7	+2.8
	comp=Z,13nm,0.6s,baz=2.2,slow=20,SNR=12						
TEIG	Tepich	152.32	4	*e*PKPdf	PKPdf	10 16 48.4	-2.4
TEIG				*e*PKPbc	PKPdf	10 16 56.5	+5.8
SDV	Santo Domingo	157.54	316	PKP	PKPdf	10 16 54.9	-3.1
	comp=Z,8.6nm,0.9s,baz=19,slow=1.3,SNR=8.1						
SDV				PKPab	PKPab	10 17 28.1	+0.1
	comp=Z,9.4nm,0.8s,baz=79,slow=2.6,SNR=7.2						
SDV	Santo Domingo	157.54	316	*e*PKPdf	PKPdf	10 16 55.8	-2.2
SDV				*e*PKPab	PKPab	10 17 27.5	-0.4
LVC	Limon Verde	157.68	226	PKP	PKPdf	10 16 57.1	-0.9
	comp=Z,4.9nm,0.8s,baz=212,slow=3.8,SNR=7.2						
LVC				PKPab	PKPab	10 17 29.6	+1.3
	comp=Z,14nm,0.7s,baz=157,slow=2.9,SNR=18						
LVC	Limon Verde	157.68	226	*e*PKPdf	PKPdf	10 16 57.4	-0.6
LVC				*e*PKPab	PKPab	10 17 29.9	+1.6
LPAZ	La Paz	160.40	242	PKP	PKPdf	10 17 00.6	-0.6
	comp=Z,7.0nm,0.8s,baz=65,slow=3.6,SNR=30						
ROSC	El Rosal	162.97	316	PKP	PKPdf	10 17 03.2	-0.7
	comp=Z,18nm,1.1s,baz=90,slow=21,SNR=7.7						
OTAV	Otavalo	169.13	315	*e*PKPdf	PKPdf	10 17 07.6	-1.2

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*NIED **31** 09:58:00,39.90N×143.60E,h14^{km},Mw4.2 Best double couple: $M_0$2.23×10^{15} NP1:ϕ_s36°,δ66°,λ109°. NP2:ϕ_s175°,δ30°,λ53°.*

*IDC **31** 09:58:49.4±2.1,39.87N×143.52E,mb3.7/5,mb1 3.9/6, mb1mx3.8/23,mbtmp3.7/6,ML3.5/1,MS3.0/1,Ms1 3.0/1, ms1mx2.8/32,Error ellipse: s-maj=45.5km s-min=31.2km az=5.0*

*JMA **31** 09:58:51.3±0.2,39.91N×143.56E,h38^{km},M4.1*

ISC 31 09:58:50.9±1.9**,39.90N**±0.04×**143.53E**±0.07**,h21**^{km}±16^{km}**, n20,**σ**0$\overset{s}{.}$88**/27**,mb3.7**/5**,Off east coast of Honshu**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
JTH	Tanohata	1.28	272	P	Pn	09 59 13.8	-0.1
MIYJ	Miyakonagasawa	1.36	257	P	Pn	09 59 15.1	+0.1
JANG	Nango	1.62	288	P	Pn	09 59 18.3	-0.4
JANG				*e*S	Sn	09 59 38.3	-0.8
JOM	Ohasama	1.78	257	P	Pn	09 59 21.6	+0.6
JMK	Ichinoseki	2.03	243	P	Pn	09 59 24.6	+0.1
JMK				*e*S	Sn	09 59 49.0	-0.5
JOT	Ohata	2.40	309	P	Pn	09 59 30.2	+0.3
JNBK	Urakawa-nobuka	2.45	346	P	Pn	09 59 31.6	+1.0
JYK	Kaneyama	2.65	249	P	Pn	09 59 33.9	+0.5
JCH	Churui	2.72	357	P	Pn	09 59 33.6	-0.8
JCH				S	Sn	10 00 05.6	-1.4
JMM	Marumori	2.95	227	P	Pn	09 59 36.2	-1.5
JAK	Akkeshi	3.21	15	P	Pn	09 59 40.7	-0.8
JEW	Eniwo	3.33	333	P	Pn	09 59 44.6	+1.5
JEW				*e*S	Sn	10 00 22.2	-0.3
JFR	Furan	3.34	348	P	Pn	09 59 44.1	+0.9
JFR				*e*S	Sn	10 00 22.3	-0.4
ASAJ	Asahikawa	4.27	351	Pn	Pn	09 59 56.1	-0.4
	2.1nm,0.3s,baz=211,slow=6.9,SNR=12						
ASAJ				Sn	Sn	10 00 48.7	+2.3
	3.4nm,0.3s,baz=0.8,slow=33,SNR=4.0						
ASAJ				LR	LR	10 02 16.7	
	comp=Z,175nm,21.2s,baz=356,slow=48						
MAT	Matsushiro	5.37	233	P	Pn	10 00 11.5	-0.5
MAT				S	Sn	10 01 15.2	+1.2
SONM	Songino Array	27.71	299	P	P	10 04 39.4	-0.2
	3.1nm,0.7s,mb4.0,baz=85,slow=8.4,SNR=18						
ILAR	Eielson Array	46.19	34	P	P	10 07 16.1	+0.5
	0.7nm,0.7s,mb3.7,baz=263,slow=6.7,SNR=7.9						
INK	Inuvik	51.08	28	P	P	10 07 52.4	-1.0
	0.7nm,0.6s,mb3.7,baz=256,slow=3.8,SNR=4.4						
YKA	Yellowknife Ar	60.50	31	P	P	10 09 00.7	-0.6
	0.2nm,0.6s,mb3.3,baz=303,slow=6.5,SNR=5.6						
TXAR	Lajitas Array	87.07	54	P	P	10 11 37.7	+1.3
	0.3nm,0.8s,mb3.6,baz=326,slow=3.3,SNR=2.3						

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*IDC **31** 10:01:13.0±0.9,11.71N×94.15E,mb4.6/10,mb1 4.7/11, mb1mx4.5/20,mbtmp4.6/11,ML3.9/1,MS5.0/1,Ms1 5.0/1, ms1mx3.4/23,Error ellipse: s-maj=36.8km s-min=16.1km az=54.0*

ISC 31 10:01:16.4±0.7**,11.8N**±0.1×**94.3E**±0.1**,h33**^{km}**,n14,** σ**0$\overset{s}{.}$76**/14**,mb4.6**/10**,MS5.0**/1**,3C,Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.98	33	Pn	Pn	10 03 12.1	-0.9
	0.4nm,0.3s,baz=219,slow=14,SNR=6.0						
SONM	Songino Array	37.32	13	P	P	10 08 27.9	+0.6
	5.5nm,1.0s,mb4.3,baz=204,slow=8.4,SNR=4.4						
ZAL	Zalesovo	42.70	352	P	P	10 09 13.6	+1.8
	6.3nm,0.8s,mb4.4,baz=290,slow=8.3,SNR=5.4						
ZAL				LR	LR	10 30 32.2	
	comp=Z,2µm,19.5s,MS5.0,baz=290,slow=41						
BVAR	Borovoye Array	45.37	340	P	P	10 09 33.3	0.0
	7.8nm,0.9s,mb4.6,baz=146,slow=5.3,SNR=3.6						
WRA	Warramunga Arr	50.47	128	P	P	10 10 13.2	-0.3
	21nm,0.8s,mb5.2,baz=307,slow=8.4,SNR=15						
WB2	Warramunga Arr	50.48	128	⇑*i*P	P	10 10 13.4	-0.1
ASPA	Alice Springs	52.35	132	⇑*i*P	P	10 10 27.5	-0.1
ASAR	Alice Springs	52.35	132	P	P	10 10 27.4	-0.2
	14nm,1.0s,mb4.9,baz=312,slow=7.1,SNR=6.7						
PMG	Port Moresby	56.59	110	P	P	10 10 59.5	+0.8
	8.9nm,0.9s,mb4.8,baz=144,slow=11,SNR=4.0						
BRTR	Keskin Array B	60.06	309	P	P	10 11 21.8	-0.8
	3.8nm,0.8s,mb4.5,baz=124,slow=7.1,SNR=6.2						
STKA	Stephens Creek	62.72	135	⇑*i*P	P	10 11 41.0	+0.3
	8.9nm,1.0s,mb4.8						
STKA	Stephens Creek	62.72	135	P	P	10 11 40.7	0.0
	12nm,1.0s,mb5.0,baz=307,slow=7.0,SNR=5.0						
ARCES	ARCESS Array B	71.66	340	P	P	10 12 34.9	-1.3
	1.3nm,0.6s,mb4.0,baz=104,slow=7.4,SNR=3.7						
GERES	GERESS Array B	75.05	318	P	P	10 12 57.0	+0.5
	1.8nm,0.7s,mb4.1,baz=90,slow=3.9,SNR=4.3						

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*PRU **31** 10:03:16.1,50.08N×19.09E*

WAR 31 10:03:15.9,50.07N×19.13E,h1^{km},Location given by Central Institute of Mining, origin time based upon OJC,Poland

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
OJC	Ojcow	0.46	71	*e*Pg	Pg	10 03 25.1	+0.1
OJC				*e*Sg	Sg	10 03 31.7	+0.6
OKC	Ostrava-Krasne	0.68	250	*e*PG	Pg	10 03 29.7	+0.3
OKC				*e*SG	Sg	10 03 38.7	+0.3
NIE	Niedzica	1.01	130	*e*Pg	Pg	10 03 35.1	-1.0
NIE				*e*Sg	Sg	10 03 53.5	+4.0
VYHS	Vyhne	1.59	187	*i* PG	Pg	10 03 44.6	-3.1
VYHS				*e*SG	Sg	10 04 07.0	-1.9
VYHS	Vyhne	1.59	187	*i* Pg	Pg	10 03 44.6	-3.1
VYHS				*e*Sg	Sg	10 04 07.0	-1.9
DPC	Dobruska-Polom	1.82	280	*e*PG	Pg	10 03 48.1	-4.2
DPC				*e*SG	Sg	10 04 12.7	-4.0
CRVS	Cervenica-Dubn	1.92	127	*i* PG	Pg	10 03 52.1	-2.1
UPC	Upice	2.05	284	*e*SG	Sg	10 04 20.8	-3.2
KHC	Kasperske Hory	3.73	258	*e*SG	Sg	10 05 15.1	-5.0

IDC 31 10:15:05.6±2.5**,3.31N**×**94.29E,mb3.4**/4**,mb1 3.6**/5**, mb1mx3.5**/19**,mbtmp3.4**/5**,ML3.8**/1**,Error ellipse: s-maj=89.8km s-min=23.5km az=62.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.73	17	Pn	P	10 18 50.9	+0.5
	0.1nm,0.3s,baz=210,slow=12,SNR=4.8						
SONM	Songino Array	45.57	11	P	P	10 23 26.5	-2.6
	0.2nm,0.6s,baz=184,slow=6.2,SNR=2.1						
WRA	Warramunga Arr	45.61	122	P	P	10 23 28.0	-1.8
	0.5nm,0.7s,baz=300,slow=8.9,SNR=3.6						
ASAR	Alice Springs	46.98	127	P	P	10 23 38.8	-1.8
	0.4nm,0.7s,baz=293,slow=7.4,SNR=3.4						
BVAR	Borovoye Array	53.34	342	P	P	10 24 26.9	-1.9
	0.4nm,0.6s,baz=135,slow=8.2,SNR=2.8						

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*IDC **31** 10:17:28.6±1.2,7.39N×93.56E,mb4.1/8,mb1 4.2/9, mb1mx4.0/19,mbtmp4.0/9,ML3.1/1,Error ellipse: s-maj=47.6km s-min=21.9km az=56.0*

ISC 31 10:17:31.9±0.9**,7.5N**±0.1×**93.6E**±0.2**,h33**^{km}**,n14,** σ**0$\overset{s}{.}$73**/14**,mb4.1**/13**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.11	25	Pn	P	10 20 25.8	+0.7
	0.0nm,0.3s,baz=212,slow=14,SNR=3.6						
PKI	Pulchoki	21.46	340	*e*P	P	10 22 19.8	+0.2
	8.8nm,0.5s,mb4.3						
DMN	Daman	21.60	339	*e*P	P	10 22 19.6	-1.4
	18nm,0.8s,mb4.5						
KKN	Kakani	21.70	340	*e*P	P	10 22 21.8	-0.2
	11nm,0.6s,mb4.5						
GKN	Gorkha	22.13	339	*e*P	P	10 22 24.6	-1.6
	9.5nm,0.5s,mb4.5						
KOLN	Koldanda	22.31	336	*e*P	P	10 22 28.4	+0.3
	10nm,0.6s,mb4.4						
SONM	Songino Array	41.69	13	P	P	10 25 18.7	-0.4
	0.5nm,0.4s,mb3.5,baz=197,slow=9.5,SNR=7.7						
ZAL	Zalesovo	46.89	353	P	P	10 26 01.1	+0.2
	2.6nm,0.4s,mb4.5,baz=297,slow=7.1,SNR=8.0						
WRA	Warramunga Arr	48.46	125	P	P	10 26 13.2	-0.4
	0.7nm,0.6s,mb3.9,baz=305,slow=8.6,SNR=8.2						
ASAR	Alice Springs	50.06	129	P	P	10 26 25.6	-0.3
	0.4nm,0.6s,mb3.6,baz=315,slow=7.7,SNR=3.2						
FINES	FINESS Array B	72.83	332	P	P	10 28 59.3	+0.4
	1.2nm,0.7s,mb4.0,baz=149,slow=11,SNR=4.9						
ARCES	ARCESS Array B	75.47	340	P	P	10 29 15.1	+1.0
	5.1nm,1.0s,mb4.4,baz=104,slow=5.0,SNR=4.1						
GERES	GERESS Array B	77.78	318	P	P	10 29 28.1	+0.6
	0.2nm,0.3s,mb3.5,baz=124,slow=4.8,SNR=3.9						
HFS	Hagfors	78.55	330	P	P	10 29 32.1	+0.7
	3.9nm,1.0s,mb4.3,baz=63,slow=9.9,SNR=4.2						

IDC 31 10:21:01.5±10.0**,4.72N**×**94.47E,mb3.4**/3**,mb1 3.6**/3**, mb1mx3.4**/17**,mbtmp3.4**/3**,Error ellipse: s-maj=359.2km s-min=35.7km az=69.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.34	17	Pn	P	10 24 33.0	+5.0
	0.1nm,0.3s,baz=210,slow=11,SNR=9.4						
SONM	Songino Array	44.16	12	P	P	10 29 11.9	-1.8
	0.4nm,0.8s,baz=191,slow=9.1,SNR=3.5						
WRA	Warramunga Arr	46.22	123	P	P	10 29 28.7	-1.8
	1.3nm,1.0s,baz=299,slow=9.7,SNR=4.2						
ASAR	Alice Springs	47.69	128	P	P	10 29 40.1	-1.9
	0.2nm,0.7s,baz=299,slow=7.5,SNR=2.9						

IDC 31 10:31:51.0±2.2**,7.49N**×**93.83E,mb3.4**/4**,mb1 3.5**/4**, mb1mx3.4**/17**,mbtmp3.4**/4**,Error ellipse: s-maj=95.3km s-min=28.9km az=58.0,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.60	13	P	P	10 39 40.9	-1.5
	0.2nm,0.6s,baz=198,slow=9.1,SNR=2.8						
WRA	Warramunga Arr	48.29	125	P	P	10 40 34.4	-2.0
	0.2nm,0.6s,baz=305,slow=8.6,SNR=3.8						
ASAR	Alice Springs	49.91	130	P	P	10 40 46.7	-2.1
	0.3nm,0.8s,baz=301,slow=6.6,SNR=3.0						
FINES	FINESS Array B	72.91	332	P	P	10 43 21.9	-1.8
	2.3nm,0.9s,baz=108,slow=6.0,SNR=4.3						

IDC 31 10:38:03.2±1.8**,3.23N**×**95.61E,mb3.8**/6**,mb1 4.0**/7**, mb1mx3.8**/18**,mbtmp3.8**/7**,ML4.0**/1**,Error ellipse: s-maj=77.1km s-min=21.0km az=57.0,Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.48	12	Pn	P	10 41 44.8	0.0
	0.2nm,0.3s,baz=205,slow=11,SNR=18						
WRA	Warramunga Arr	44.46	123	P	P	10 46 16.4	-1.8
	1.3nm,0.6s,baz=299,slow=9.5,SNR=13						
SONM	Songino Array	45.40	10	P	P	10 46 22.0	-3.4
	0.7nm,1.0s,baz=189,slow=8.1,SNR=4.0						
ASAR	Alice Springs	45.88	128	P	P	10 46 27.9	-1.6
	0.4nm,0.5s,baz=298,slow=7.4,SNR=4.9						
ZAL	Zalesovo	51.32	352	P	P	10 47 10.7	-0.6
	2.0nm,0.6s,baz=304,slow=3.4,SNR=6.9						
BVAR	Borovoye Array	53.83	341	P	P	10 47 27.3	-2.8
	0.3nm,0.5s,baz=158,slow=7.8,SNR=2.3						
FINES	FINESS Array B	77.48	333	P	P	10 50 00.2	-1.8
	5.4nm,1.1s,baz=90,slow=5.7,SNR=4.5						

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*IDC **31** 10:44:12.4±1.2,8.01N×93.61E,mb3.8/7,mb1 4.0/8, mb1mx3.8/19,mbtmp3.8/8,ML3.9/1,Error ellipse: s-maj=44.2km s-min=20.5km az=55.0*

ISC 31 10:44:15.5±0.9**,8.1N**±0.1×**93.7E**±0.2**,h33**^{km}**,n14,** σ**0$\overset{s}{.}$44**/14**,mb4.1**/12**,Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.52	26	Pn	P	10 47 00.8	+0.1
	0.2nm,0.3s,baz=213,slow=15,SNR=28						
PKI	Pulchoki	20.91	339	*e*P	P	10 48 57.5	-0.2
	34nm,1.0s						
DMN	Daman	21.06	338	*e*P	P	10 48 58.6	-0.6
	21nm,0.9s,mb4.5						
GUN	Gumba	21.07	340	*e*P	P	10 48 58.6	-0.6
	31nm,0.8s,mb4.7						
KKN	Kakani	21.16	339	*e*P	P	10 48 59.6	-0.6
	22nm,0.7s,mb4.6						
GKN	Gorkha	21.59	338	*e*P	P	10 49 05.1	+0.6
	16nm,0.4s,mb4.8						
KOLN	Koldanda	21.79	335	*e*P	P	10 49 07.4	+0.9
	11nm,0.7s,mb4.4						
SONM	Songino Array	41.07	13	P	P	10 51 57.6	0.0
	0.5nm,0.7s,mb3.2,baz=201,slow=7.5,SNR=4.0						
ZAL	Zalesovo	46.29	353	P	P	10 52 40.3	+0.5
	3.5nm,0.4s,mb4.6,baz=305,slow=5.0,SNR=11						
BVAR	Borovoye Array	48.66	341	P	P	10 52 58.0	-0.2
	0.4nm,0.4s,mb3.8,baz=157,slow=8.3,SNR=6.3						
WRA	Warramunga Arr	48.74	125	P	P	10 52 59.3	-0.1
	0.3nm,0.8s,mb3.4,baz=301,slow=9.7,SNR=5.5						
ASAR	Alice Springs	50.39	130	P	P	10 53 12.0	0.0
	0.3nm,0.7s,mb3.5,baz=303,slow=8.1,SNR=2.8						
BRTR	Keskin Array B	61.96	311	P	P	10 54 34.8	+0.2
	0.4nm,0.6s,mb3.8,baz=127,slow=7.2,SNR=3.3						
FINES	FINESS Array B	72.32	332	P	P	10 55 39.6	+0.1
	2.6nm,0.9s,mb4.2,baz=72,slow=6.0,SNR=5.1						

FUNV 31 10:47:28.4,6.70N×73.15W,h165^{km},MD3.6,1D, Northern Colombia

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CAPV	**Capacho**	**1.42**	**36**	⇓*i*P	P	10 47 58.0	-0.7
CAPV				*e*S	S	10 48 19.5	-2.6
SOCV	**Socops**	**2.77**	**55**	*e*P	P	10 48 12.9	-1.2
SOCV				*e*S	S	10 48 45.0	-4.1
VIRV	**Villa del Rosa**	**3.85**	**11**	*e*P	P	10 48 25.4	-2.5
VIRV				*e*S	S	10 49 08.5	-5.1
CURV	**Curarigua**	**4.56**	**44**	*e*P	P	10 48 35.0	-2.1
CURV				*e*S	S	10 49 23.9	-6.3
BAUV	**El Baul**	**5.53**	**66**	*e*P	P	10 48 47.0	-2.8
BAUV				*e*S	S	10 49 45.7	-7.3

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*IDC **31** 10:50:38.5±1.1, 11.43N×94.25E, mb3.9/8, mb1 4.1/9, mb1mx3.9/19, mbtmp3.9/9, ML3.4/1, MS2.4/1, Ms1 2.4/1, ms1mx2.3/30, Error ellipse: s-maj=42.2km s-min=18.7km az=56.0*

ISC 31 10:50:40.9±0.9**, 11.5N**±0.1×**94.2E**±0.1**, h33^{km}, n16,** σ**1^{s}02**/15**, mb3.9**/8**, MS2.4**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.31**	**33**	Pn	**P**	**10 52 41.7**	**-0.2**
	0.1nm,0.3s,baz=220,slow=14,SNR=3.7						
PKI	**Pulchoki**	**17.97**	**334**	*e*P	**P**	**10 54 49.2**	**-0.6**
	16nm,0.7s						
GUN	**Gumba**	**18.07**	**336**	*e*P	**P**	**10 54 50.8**	**-0.3**
	21nm,0.9s						
DMN	**Daman**	**18.13**	**333**	*e*P	**P**	**10 54 50.6**	**-1.3**
KKN	**Kakani**	**18.21**	**334**	*e*P	**P**	**10 54 51.4**	**-1.6**
GKN	**Gorkha**	**18.68**	**333**	*e*P	**P**	**10 54 58.8**	**+0.1**
	17nm,0.6s						
KOLN	**Koldanda**	**18.97**	**330**	*e*P	**P**	**10 55 03.6**	**+1.4**
	32nm,0.8s						
SONM	**Songino Array**	**37.64**	**14**	P	**P**	**10 57 55.2**	**+0.7**
	0.1nm,0.4s,mb2.9,baz=180,slow=6.2,SNR=3.7						
JNU	**Nakatsue**	**39.91**	**51**	LR	LR	11 15 23.7	
	comp=Z,5.1nm,20.2s,MS2.4,baz=338,slow=37						
ZAL	**Zalesovo**	**42.97**	**352**	P	**P**	**10 58 39.2**	**+0.7**
	1.5nm,0.8s,mb3.8,baz=293,slow=3.7,SNR=6.0						
BVAR	**Borovoye Array**	**45.59**	**340**	P	**P**	**10 59 00.1**	**+0.6**
	1.4nm,0.7s,mb4.0,baz=149,slow=8.6,SNR=6.8						
WRA	**Warramunga Arr**	**50.41**	**128**	P	**P**	**10 59 36.9**	**-0.6**
	4.1nm,0.7s,mb4.6,baz=306,slow=8.5,SNR=27						
ASAR	**Alice Springs**	**52.28**	**132**	P	**P**	**10 59 51.0**	**-0.5**
	1.4nm,0.6s,mb4.1,baz=310,slow=6.9,SNR=18						
BRTR	**Keskin Array B**	**60.12**	**309**	P	**P**	**11 00 47.3**	**-0.3**
	0.7nm,0.6s,mb3.9,baz=128,slow=5.2,SNR=2.6						
ARCES	**ARCESS Array B**	**71.88**	**340**	P	**P**	**11 02 04.6**	**+2.5**
	4.0nm,1.1s,mb4.3,baz=112,slow=6.5,SNR=5.2						
GERES	**GERESS Array B**	**75.16**	**318**	P	**P**	**11 02 25.5**	**+3.8**
	0.8nm,0.9s,mb3.6,baz=90,slow=5.3,SNR=4.0						

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*BJI **31** 10:58:19.9, 4.77N×94.70E, h26^{km}, mB5.4, mb5.5, Ms4.9, Msz4.8*

*NEIC **31** 10:58:21.5±0.1, 5.03N×94.83E, mb5.4/97, Error ellipse: s-maj=5.7km s-min=3.7km az=210.0*

*HRVD **31** 10:58:21.5±0.3, 4.85N×94.57E, h49^{km}±1^{km}, MW5.2/55, Centroid moment Tensor Solution. LP body waves: s45,c72;Mantle waves: s55,c89; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}5.86±.23; $M_{\theta\theta}$-2.57±.17; $M_{\phi\phi}$-3.30±.20; $M_{r\theta}$2.57±.14; $M_{\theta\phi}$2.95±.13; $M_{\phi r}$-2.02±.18; Best double couple: $M_0$6.73×10^{16} NP1:ϕ_s324°,δ31°,λ99°. NP2:ϕ_s134°,δ60°,λ85°. Principal axes: T 6.73, Plg75°, Azm29°; N -.01, Plg4°, Azm136°; P -6.73, Plg14°, Azm227°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **31** 10:58:23.2±0.9, 5.09N×94.85E, h33^{km}, mb5.7/68, MS4.7/6 Error ellipse: s-maj=9.8km s-min=4.2km az=126.0*

*IDC **31** 10:58:26.7±0.5, 5.06N×94.83E, h51^{km}±3^{km}, mb5.1/21, mb1 5.1/21, mb1mx5.0/24, mbtmp5.3/21, MS4.4/17, Ms1 4.5/17, ms1mx4.2/28, Error ellipse: s-maj=15.7km s-min=8.7km az=44.0*

ISC 31 10:58:25.0±0.8**, 5.02N**±0.03×**94.83E**±0.03**, h50^{km}**±6^{km}**, h47^{km}**±1.7^{km}**:pP-P, n516,** σ**1^{s}00**/476**, mb5.5**/158**, MS4.6**/38**, 109C-8D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SNG	**Songkhla**	**6.14**	**69**	P	**P**	**10 59 56.0**	**+0.7**
	450nm,1.0s						
SNG	**Songkhla**	**6.14**	**69**	P	PcP	11 06 53.0	-0.4
	620nm,1.0s						
NST	**Nakhon Sawan**	**11.80**	**26**	⇓P	**P**	**11 01 15.5**	**+2.3**
	148nm,0.8s						
KKTK	**Khon Kaen**	**13.71**	**34**	P	**P**	**11 01 41.8**	**+3.1**
	2μm,0.7s						
CM31	**Chiang Mai Arr**	**13.95**	**16**	*e*P	**P**	**11 01 42.7**	**+1.0**
	192nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.95**	**16**	P	**P**	**11 01 43.4**	**+1.7**
	0.8nm,0.3s,baz=206,slow=12,SNR=149						
CMAR				LR	LR	11 06 53.9	
	comp=Z,1μm,21.8s,baz=200,slow=36						
CMAR				ScP		11 10 31.1	
	0.2nm,0.3s,baz=230,slow=3.1,SNR=36						
PALK	**Pallekele**	**14.22**	**280**	*e*P	**P**	**11 01 43.3**	**-2.1**
	23nm,1.0s						
UBT	**Ubonrachathani**	**14.27**	**44**	⇓P	**P**	**11 01 55.0**	**+9.0**
	403nm,0.5s						
NANT	**Nan**	**14.85**	**22**	⇑P	**P**	**11 01 55.0**	**+1.5**
	106nm,0.7s						
CHRT	**Chiangrai**	**15.53**	**18**	PG	**P**	**11 02 02.0**	**-0.3**
CHRT				SG		11 02 11.0	
VIS	**Vishakhapatnam**	**16.91**	**319**	⇑*e*P	**P**	**11 02 16.8**	**-2.9**
VIS				*e*		11 02 42.1	
	comp=Z,254nm,1.6s						
VIS				*e*S	**S**	**11 05 13.4**	**-11**
BWNR	**Bhubaneshwar**	**17.54**	**331**	*e*	**P**	**11 02 19.4**	**-8.3**
BWNR				*e*		11 05 18.5	
KOD	**Kodaikanal**	**17.97**	**288**	*e*P	**P**	**11 02 33.6**	**+0.7**
KOD				*e*		11 02 43.8	
	comp=Z,39nm,1.6s						
TRD	**Trivandrum**	**18.08**	**282**	*e*P	**P**	**11 02 34.1**	**-0.3**
TRD				*e*		11 02 35.4	
	comp=Z,56nm,1.5s						
IMP	**Imphal**	**19.67**	**358**	*e*P	**P**	**11 02 49.4**	**-3.3**
HYB	**Hyderabad**	**20.14**	**309**	*e*P	**P**	**11 02 58.0**	**+0.3**
HYB				pmax	pmax		
	comp=Z,60nm,1.0s						
HYB	**Hyderabad**	**20.14**	**309**	*e*P	**P**	**11 02 58.0**	**+0.3**
	comp=Z,60nm,1.0s						
HYB				*e*S	**S**	**11 06 22.0**	**-14**
HYB	**Hyderabad**	**20.14**	**309**	*i* P	**P**	**11 02 58.0**	**+0.3**
	comp=Z,60nm,1.0s						
HYB				*e*		11 06 22.0	
HYB				*e*S	**S**	**11 06 46.0**	**+10**
QIZ	**Qiongzhong**	**20.21**	**45**	P	**P**	**11 03 01.8**	**+3.4**
QIZ				*e*S	**S**	**11 06 42.5**	**+5.1**
QIZ				LR	LR		
	comp=N,2μm,18.3s						
QIZ				LR	LR		
	comp=Z,2μm,19.0s,MS4.5						
QIZ	**Qiongzhong**	**20.21**	**45**	P	**P**	**11 02 58.0**	**-0.4**
SHL	**Shillong**	**20.62**	**352**	*e*P	**P**	**11 02 58.9**	**-3.8**
SHL				*e*		11 03 06.0	
	comp=Z,98nm,0.8s						
BLSP	**Bilaspur**	**20.99**	**325**	*e*P	**P**	**11 03 05.2**	**-1.2**
	comp=Z,293nm,1.0s						
BLSP				*e*		11 07 25.6	
MNGI	**Mangalore**	**21.26**	**293**	*e*P	**P**	**11 03 11.2**	**+2.0**
MNGI				*e*		11 03 12.6	
	comp=Z,52nm,0.2s						
MNGI				*i*		11 06 53.9	
KMI	**Kunming**	**21.38**	**20**	P	**P**	**11 03 12.3**	**+1.9**
KMI				S	**S**	**11 07 09.3**	**+10**
KMI				AMB	AMB		
	comp=Z,92nm,1.0s,mb5.1						
KMI				AMB	AMB		
	comp=Z,360nm,5.8s						
KMI				LR	LR		
	comp=N,1μm,24.0s						
KMI				LR	LR		
	comp=E,960nm,16.4s						
KMI				LR	LR		
	comp=Z,2μm,24.8s,MS4.3						
LATR	**Latur**	**22.27**	**308**	*e*	**S**	**11 07 20.5**	**+4.5**
AKL	**Akola**	**23.29**	**314**	*e*	**P**	**11 03 33.5**	**+4.2**
AKL				*e*		11 03 37.0	
	comp=Z,112nm,1.5s						
KAD	**Karad**	**23.62**	**303**	*e*P	**P**	**11 03 34.5**	**+2.0**
KAD				*i*		11 07 50.5	
ALBI	**Allahabad**	**23.73**	**330**	*e*P	**P**	**11 03 32.0**	**-1.5**
GYA	**Guiyang**	**24.13**	**27**	⇑*i*P	**P**	**11 03 38.5**	**+1.1**
GYA				AP		11 03 47.5	
GYA				XP		11 03 52.5	
GYA				PP	PP	11 04 16.3	+3.1
GYA				S	**S**	**11 07 57.0**	**+8.1**
GYA				AMB	AMB		
	comp=Z,450nm,0.8s,mb6.0						
GYA				AMB	AMB		
	comp=Z,3μm,8.4s						
GYA				LR	LR		
	comp=N,10μm,15.4s,MS5.5						
GYA				LR	LR		
	comp=E,9μm,16.2s,MS5.5						
GYA				LR	LR		
	comp=Z,11μm,16.8s,MS5.4						
PKI	**Pulchoki**	**24.16**	**339**	*e*P	**P**	**11 03 37.1**	**-0.5**
	comp=Z,110nm,0.7s,mb5.4						
DMN	**Daman**	**24.30**	**339**	*e*P	**P**	**11 03 38.7**	**-0.3**
	comp=Z,263nm,0.8s,mb5.7						
GUN	**Gumba**	**24.30**	**340**	*e*P	**P**	**11 03 38.1**	**-1.0**
	comp=Z,361nm,0.8s,mb5.9						
KKN	**Kakani**	**24.40**	**339**	*e*P	**P**	**11 03 38.8**	**-1.2**
	comp=Z,520nm,1.1s,mb5.9						
POO	**Poona**	**24.50**	**305**	*e*P	**P**	**11 03 41.5**	**+0.5**
POO				*e*		11 03 59.0	
	comp=Z,73nm,1.5s						
BHPL	**Bhopal**	**24.70**	**319**	⇑*e*P	**P**	**11 03 43.8**	**+0.8**
BHPL				*e*		11 03 47.9	
	comp=Z,116nm,1.4s						
LSA	**Lhasa**	**24.79**	**352**	*e*P	**P**	**11 03 43.7**	**-0.1**
LSA				pmax	pmax		
	comp=Z,169nm,0.6s,mb5.8						
LSA	**Lhasa**	**24.79**	**352**	*e*P	**P**	**11 03 43.7**	**-0.1**
	comp=Z,169nm,0.6s,mb5.8						
GKN	**Gorkha**	**24.83**	**338**	*e*P	**P**	**11 03 44.2**	**0.0**
	comp=Z,819nm,1.1s,mb6.2						
KOLN	**Koldanda**	**25.02**	**336**	*e*P	**P**	**11 03 46.5**	**+0.5**
	comp=Z,657nm,0.7s,mb6.2						
BOM	**Bombay**	**25.53**	**305**	*e*P	**P**	**11 03 54.5**	**+3.7**
BOM				*e*		11 08 35.0	
	comp=Z,90nm,0.4s						
LUBP	**Lubang**	**26.50**	**69**	*e*P	**P**	**11 04 00.3**	**+0.4**
CD2	**Chengdu**	**27.09**	**17**	P	**P**	**11 04 04.0**	**-1.2**
CD2				S	**S**	**11 08 37.3**	**-0.6**
CD2				AMB	AMB		
	comp=Z,170nm,1.0s,mb5.5						
CD2				LR	LR		
	comp=N,970nm,12.6s						
CD2				LR	LR		
	comp=Z,1μm,11.4s,MS4.6						
TGY	**Tagaytay City**	**27.25**	**69**	P	**P**	**11 04 07.7**	**+0.9**
	comp=Z,458nm,0.8s,mb6.1,baz=243,slow=3.0,SNR=18						
LGTI	**Lohaghat**	**27.94**	**332**	*e*P	**P**	**11 04 12.5**	**-0.5**
ENH	**Enshi**	**28.67**	**27**	*e*P	**P**	**11 04 18.2**	**-1.3**
	comp=Z,81nm,0.7s,mb5.6						
AJM	**Ajmer**	**28.77**	**320**	*e*	**P**	**11 04 21.5**	**+1.1**
	comp=Z,45nm,1.2s,mb5.1						
NDI	**New Delhi**	**28.86**	**327**	*e*P	**P**	**11 04 18.5**	**-2.7**
DDI	**Dehra Dun**	**29.73**	**330**	*e*P	**P**	**11 04 27.6**	**-1.2**
DDI				*e*		11 09 05.6	
SDNR	**Sundarnagar**	**31.22**	**330**	*e*P	**P**	**11 04 41.8**	**-0.3**
WHN	**Wuhan**	**31.35**	**34**	⇑P	**P**	**11 04 43.5**	**+0.3**
XAN	**Xi'an**	**31.70**	**23**	P	**P**	**11 04 45.0**	**-1.3**
XAN				AP	pP	11 04 56.8	-2.5
XAN				AMB	AMB		
	comp=Z,269nm,0.8s,mb6.1						
XAN				LR	LR		
	comp=N,776nm,16.6s,MS4.6						
XAN				LR	LR		
	comp=E,681nm,16.3s,MS4.6						
XAN				LR	LR		
	comp=Z,2μm,17.2s,MS4.8						
LZH	**Lanzhou**	**32.01**	**14**	⇑P	**P**	**11 04 47.5**	**-1.4**
LZH				AP	pP	11 04 57.5	-4.5
LZH				XP	sP	11 05 01.0	-7.3
LZH				PP	PP	11 05 52.0	-4.2
LZH				S	**S**	**11 09 55.0**	**-0.9**
LZH				XS		11 10 11.3	
LZH				SCP		11 11 18.5	
LZH				AMB	AMB		
	comp=Z,79nm,1.5s,mb5.3						
LZH				AMB	AMB		
	comp=Z,315nm,6.0s						
LZH				LR	LR		
	comp=E,1μm,13.0s						
LZH				LR	LR		
	comp=Z,2μm,14.6s,MS4.9						
DLH	**Dalhousie**	**32.56**	**330**	*e*P	**P**	**11 04 56.0**	**+2.2**
THN	**Thein Dam**	**32.61**	**329**	*e*P	**P**	**11 04 53.2**	**-1.0**
	comp=Z,26nm,0.8s,mb5.2						
GTA	**Gaotai**	**34.53**	**7**	⇑*i*P	**P**	**11 05 10.3**	**-0.4**
GTA				AP	pP	11 05 23.0	-0.8
GTA				XP	sP	11 05 27.3	-2.8
GTA				PP	PP	11 06 29.0	+1.0
GTA				PPP	PPP	11 06 47.3	+1.2
GTA				PCP	PcP	11 07 45.3	+0.4
GTA				S	**S**	**11 10 35.8**	**+0.8**
GTA				XS		11 10 55.5	
GTA				SCP		11 11 25.3	
GTA				SS	SS	11 12 50.3	+1.6
GTA				SCS	ScS	11 15 26.5	+0.4
GTA				AMB	AMB		
	comp=Z,127nm,0.9s,mb5.8						
GTA				AMB	AMB		
	comp=Z,190nm,9.1s						
GTA				LR	LR		
	comp=N,539nm,21.3s						
GTA				LR	LR		
	comp=E,411nm,15.6s						
GTA				LR	LR		
	comp=Z,617nm,21.7s,MS4.3						
NJ2	**Nanjing**	**35.06**	**37**	*e*P	**P**	**11 05 16.0**	**+0.8**
NJ2				AP	pP	11 05 25.5	-2.9
NJ2				XP	sP	11 05 29.5	-5.2
NJ2				PP	PP	11 06 35.0	+0.2
NJ2				S	**S**	**11 10 48.0**	**+4.8**
NJ2				XS		11 11 03.0	
NJ2				AMB	AMB		
	comp=Z,290nm,4.9s						
NJ2				LR	LR		
	comp=N,3μm,17.8s,MS5.2						
NJ2				LR	LR		
	comp=E,3μm,19.2s,MS5.2						
NJ2				LR	LR		
	comp=Z,4μm,15.1s,MS5.3						
MBWA	**Marble Bar**	**35.69**	**138**	*e*P	**P**	**11 05 19.7**	**-1.0**
	comp=Z,39nm,1.2s,mb5.2						
SSE	**Sheshan**	**35.86**	**41**	P	**P**	**11 05 23.0**	**+0.9**
SSE				S	**S**	**11 10 59.0**	**+3.4**
SSE				XS		11 11 18.0	
SSE				AMB	AMB		
	comp=Z,59nm,0.9s,mb5.5						
SSE				AMB	AMB		
	comp=Z,194nm,4.1s						
SSE				LR	LR		
	comp=N,397nm,21.9s,MS4.2						
SSE				LR	LR		
	comp=E,299nm,21.9s,MS4.2						
SSE				LR	LR		
	comp=Z,621nm,21.3s,MS4.3						
TIA	**Tai'an**	**37.20**	**30**	⇑P	**P**	**11 05 33.3**	**0.0**
TIA				AMB	AMB		
	comp=Z,57nm,0.8s,mb5.5						
BTO	**Baotou**	**37.97**	**19**	*e*P	**P**	**11 05 39.3**	**-0.4**
BTO				AMB	AMB		
	comp=Z,33nm,0.6s,mb5.2						
FITZ	**Fitzroy Crossi**	**38.10**	**128**	⇑*i*P	**P**	**11 05 40.5**	**-0.4**
	comp=Z,33nm,0.8s,mb5.1						
KSH	**Kashi**	**38.34**	**336**	*i* PR		11 05 44.8	
KSH				AP	pP	11 05 53.8	-2.3
KSH				XP	sP	11 05 58.8	-3.4
KSH				PP	PP	11 07 15.3	+0.8
KSH				PPP	PPP	11 07 36.3	-1.2
KSH				*e*PCP	PcP	11 07 59.0	+2.6
KSH				*e*S	**S**	**11 11 36.3**	**+2.9**
KSH				*e*SCP		11 11 41.5	
KSH				PCS		11 11 46.0	
KSH				XS		11 11 52.5	
KSH				SS	SS	11 14 14.0	-0.7
KSH				SCS	ScS	11 15 50.5	+3.3
KSH				AMB	AMB		
	comp=Z,620nm,5.9s						
KSH				LR	LR		
	comp=N,780nm,6.4s						
KSH				LR	LR		
	comp=E,740nm,8.2s						
JOW	**Kunigami**	**38.57**	**52**	P	**P**	**11 05 46.2**	**+1.4**
	comp=E,80nm,0.7s,mb5.5,baz=285,slow=14,SNR=5.0						
JOW				LR	LR	11 20 09.9	
	comp=E,775nm,21.7s,MS4.5,baz=222,slow=34						
HHC	**Hu-ho-hao-te**	**38.71**	**20**	⇑*i*P	**P**	**11 05 46.5**	**+0.7**
HHC				AP	pP	11 05 55.0	-4.1
HHC				XP	sP	11 05 59.0	-6.2
HHC				AMB	AMB		
	comp=Z,93nm,1.0s,mb5.5						
HHC				AMB	AMB		
	comp=Z,230nm,4.3s						
HHC				LR	LR		
	comp=N,1μm,19.0s,MS4.7						
HHC				LR	LR		
	comp=E,595nm,23.8s,MS4.7						
HHC				LR	LR		
	comp=Z,1μm,21.4s,MS4.6						
WMQ	**Urumqi**	**39.15**	**352**	⇑P	**P**	**11 05 49.0**	**-0.5**
WMQ				AP	pP	11 05 59.0	-3.8
WMQ				XP	sP	11 06 03.0	-5.9
WMQ				PP	PP	11 07 24.0	+0.3
WMQ				PPP	PPP	11 07 48.0	0.0
WMQ				S	**S**	**11 11 48.5**	**+2.9**
WMQ				AMB	AMB		
	comp=Z,68nm,0.8s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,163nm,10.0s						
WMQ				LR	LR		
	comp=N,350nm,23.1s						
WMQ				LR	LR		
	comp=E,606nm,30.6s						
WMQ				LR	LR		
	comp=Z,403nm,26.6s,MS4.1						
BJT	**Baijiatuau**	**39.80**	**26**	*e*P	**P**	**11 05 56.3**	**+1.4**
BJT				pmax	pmax		
	comp=Z,160nm,0.8s						
BJT	**Baijiatuau**	**39.80**	**26**	*e*P	**P**	**11 05 56.3**	**+1.4**
	comp=Z,160nm,0.8s,mb5.8						
BJI	**Beijing**	**39.82**	**26**	*e*P	**P**	**11 05 56.5**	**+1.4**
BJI				AMB	AMB		
	comp=Z,249nm,0.8s,mb6.0						
BJI				LR	LR		
	comp=N,973nm,21.2s,MS4.6						
BJI				LR	LR		
	comp=E,324nm,22.5s,MS4.6						
BJI				LR	LR		
	comp=Z,944nm,24.4s,MS4.5						
ULHL	**Ulahol**	**40.59**	**339**	P	**P**	**11 06 02.3**	**+0.9**
	SNR=6.7						
KZA	**Kyzart**	**40.82**	**338**	P	**P**	**11 06 04.5**	**+1.3**
	SNR=54						
UCH	**Uchtor**	**41.23**	**337**	P	**P**	**11 06 07.9**	**+1.2**
	SNR=142						
KAKA	**Kakadu**	**41.31**	**116**	*e*P	**P**	**11 06 06.9**	**-0.7**
	comp=Z,27nm,0.9s,mb4.9						
TKM2	**Tokmak 2**	**41.42**	**339**	P	**P**	**11 06 09.1**	**+0.9**
	SNR=37						
KBK	**Karagaybulak**	**41.43**	**338**	P	**P**	**11 06 09.8**	**+1.5**
	SNR=25						
AML	**Almayashu**	**41.47**	**336**	P	**P**	**11 06 10.0**	**+1.4**
	SNR=217						
DL2	**Dalian**	**41.57**	**32**	P	**P**	**11 06 10.5**	**+1.0**
DL2				AMB	AMB		
	comp=Z,120nm,0.8s,mb5.6						
DL2				LR	LR		
	comp=N,560nm,15.1s,MS4.6						
DL2				LR	LR		
	comp=E,340nm,14.3s,MS4.6						
DL2				LR	LR		
	comp=Z,550nm,24.6s						
AAK	**Ala-Archa**	**41.58**	**337**	P	**P**	**11 06 10.8**	**+1.2**
	SNR=64						
AAK	**Ala-Archa**	**41.58**	**337**	*e*P	**P**	**11 06 09.4**	**-0.2**
AAK				pmax	pmax		
	comp=Z,55nm,0.8s,mb5.2						
AAK	**Ala-Archa**	**41.58**	**337**	*e*P	**P**	**11 06 09.4**	**-0.2**
	comp=Z,55nm,0.8s,mb5.2						
FRU	**Bishkek**	**41.70**	**338**	⇑*i*P	**P**	**11 06 11.0**	**+0.4**
FRU				*e*	pP	11 06 26.0	+2.0
FRU				pmax	pmax		
	comp=Z,210nm,2.2s,mb5.4						
CHMS	**Chumysh**	**41.80**	**338**	P	**P**	**11 06 11.7**	**+0.4**
	SNR=29						
EKS2	**Erkin-Say**	**41.88**	**337**	P	**P**	**11 06 13.0**	**+1.0**
	SNR=72						
USP	**Ospenovka**	**42.12**	**338**	P	**P**	**11 06 14.5**	**+0.5**
	SNR=144						
NWAO	**Narrogin (SRO)**	**43.32**	**152**	*e*P	**P**	**11 06 22.8**	**-1.1**
NWAO				pmax	pmax		
	comp=Z,19nm,1.2s						
NWAO	**Narrogin (SRO)**	**43.32**	**152**	*e*P	**P**	**11 06 22.8**	**-1.2**
	comp=Z,19nm,1.2s,mb4.7						
INCN	**Inchon**	**43.43**	**38**	*e*P	**P**	**11 06 23.6**	**-1.3**
	comp=Z,59nm,0.8s,mb5.4						
SONM	**Songino Array**	**43.80**	**11**	P	**P**	**11 06 27.4**	**-0.2**
	comp=Z,63nm,0.9s,mb5.4,baz=190,slow=8.4,SNR=422						
SONM				pP	pP	11 06 39.8	-1.2
	comp=Z,23nm,1.0s,baz=198,slow=7.8,SNR=6.0						
SONM				PcP	PcP	11 08 13.7	-0.4
	comp=Z,22nm,0.7s,baz=192,slow=3.5,SNR=13						
SONM				pPcP		11 08 28.6	
	comp=Z,21nm,0.9s,baz=192,slow=3.1,SNR=6.1						
SONM				ScP		11 12 00.9	
	comp=Z,3.4nm,0.8s,baz=198,slow=3.9,SNR=8.4						
SONM				LR	LR	11 27 26.4	
	comp=Z,448nm,19.5s,MS4.4,baz=5.8,slow=40						
ULN	**Ulaanbaatar**	**43.96**	**12**	*e*P	**P**	**11 06 28.0**	**-0.9**
ULN				pmax	pmax		
	comp=Z,38nm,0.7s,mb5.2						
ULN	**Ulaanbaatar**	**43.96**	**12**	*e*P	**P**	**11 06 28.0**	**-0.9**
	comp=Z,38nm,0.7s,mb5.2						
KS15	**Wonju Array Si**	**44.17**	**39**	*e*P	**P**	**11 06 30.3**	**-0.5**
SNY	**Shenyang**	**44.72**	**31**	⇑*i*P	**P**	**11 06 35.3**	**+0.2**
SNY				XP	sP	11 06 47.0	-7.5
SNY				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.2						
SNY				LR	LR		
	comp=N,910nm,19.7s,MS4.8						
SNY				LR	LR		
	comp=E,760nm,18.8s,MS4.8						
SNY				LR	LR		
	comp=Z,1μm,18.8s,MS4.8						
ZAK	**Zakamensk**	**45.76**	**8**	⇓*i*P	**P**	**11 06 42.5**	**-0.8**
ZAK				*e*	pP	11 06 55.5	-1.3
ZAK				*e*		11 08 20.6	
ZAK				*e*		11 08 35.6	
WRA	**Warramunga Arr**	**46.08**	**124**	P	**P**	**11 06 46.2**	**-0.1**
	comp=Z,117nm,0.8s,mb5.9,baz=303,slow=9.2,SNR=426						
WRA				ScP		11 12 10.1	
	comp=Z,4.9nm,1.1s,baz=316,slow=3.4,SNR=5.8						
WRA				S	**S**	**11 13 25.8**	**-1.6**
	comp=Z,1.2nm,1.1s,baz=213,slow=22,SNR=4.0						
WRAB	**Tennant Creek**	**46.09**	**124**	*e*P	**P**	**11 06 46.5**	**+0.2**
WRAB				pmax	pmax		
	comp=Z,223nm,0.8s,mb6.2						
WRAB	**Tennant Creek**	**46.09**	**124**	*e*P	**P**	**11 06 46.5**	**+0.2**
	comp=Z,223nm,0.8s,mb6.2						
WB2	**Warramunga Arr**	**46.09**	**124**	⇑*i*P	**P**	**11 06 46.6**	**+0.3**
MOY	**Mondy**	**46.77**	**5**	*e*P	**P**	**11 06 51.1**	**-0.1**
TLY	**Talaya**	**47.08**	**7**	P	**P**	**11 06 53.0**	**-0.7**
	comp=Z,334nm,0.8s,mb6.3,SNR=35						
TLY	**Talaya**	**47.08**	**7**	*e*P	**P**	**11 06 53.6**	**-0.1**
TLY				*e*		11 16 43.3	
TLY				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.3						
TLY				MLR	MLR		
	comp=Z,456nm,17.0s,MS4.5						
TLY	**Talaya**	**47.08**	**7**	*e*P	**P**	**11 06 53.4**	**-0.2**
	comp=Z,39nm,0.8s,mb5.4						
CN2	**Changchun**	**47.10**	**30**	*e*P	**P**	**11 06 53.5**	**-0.4**
CN2				*e*AP	pP	11 07 03.0	-4.4
CN2				PCP	PcP	11 08 24.5	-1.1
CN2				*e*S	**S**	**11 13 43.0**	**+1.5**
CN2				*e*SS	SS	11 17 03.3	+1.2
CN2				AMB	AMB		
	comp=Z,40nm,1.0s,mb5.3						
CN2				AMB	AMB		
	comp=Z,310nm,4.0s						
CN2				LR	LR		
	comp=N,690nm,16.0s,MS4.9						
CN2				LR	LR		
	comp=E,840nm,16.0s,MS4.9						

CN2				LR	LR		
	comp=Z,870nm,18.0s,MS4.8						
ASPA	**Alice Springs**	**47.59**	**128**	*e*P	**P**	**11 06 57.7**	**-0.4**
ASAR	**Alice Springs**	**47.59**	**128**	P	**P**	**11 06 58.2**	**+0.1**
	comp=Z,32nm,0.7s,mb5.4,baz=299,slow=7.7,SNR=240						
ASAR				PcP	PcP	11 08 27.5	-0.1
	comp=Z,9.6nm,0.9s,baz=307,slow=2.7,SNR=5.0						
ASAR				ScP		11 12 15.7	
	comp=Z,3.2nm,0.9s,baz=308,slow=4.6,SNR=6.4						
ASAR				S	**S**	**11 13 48.3**	**-0.4**
	comp=Z,2.3nm,0.9s,baz=290,slow=14,SNR=4.7						
ASAR				LR	LR	11 26 56.1	
	comp=Z,276nm,21.4s,MS4.2,baz=298,slow=36						
IRK	**Irkutsk**	**47.72**	**8**	*e*P	**P**	**11 06 57.6**	**-1.1**
IRK				*e*	pP	11 07 10.7	-1.4
IRK				*e*		11 08 27.4	
IRK				*e*		11 13 52.5	
IRK				*e*		11 13 52.8	
IRK				*e*		11 18 28.6	
HIA	**Hailar**	**48.89**	**21**	*e*P	**P**	**11 07 07.2**	**-0.6**
HIA				pmax	pmax		
	comp=Z,51nm,0.6s						
HIA	**Hailar**	**48.89**	**21**	*e*P	**P**	**11 07 07.2**	**-0.5**
	comp=Z,52nm,0.6s,mb5.7						
ZAL	**Zalesovo**	**49.45**	**352**	P	**P**	**11 07 11.9**	**-0.1**
	comp=Z,71nm,0.6s,mb5.9,baz=303,slow=5.6,SNR=255						
ZAL				ScP		11 12 23.0	
	comp=Z,2.3nm,0.8s,baz=277,slow=13,SNR=4.0						
ZAL				S	**S**	**11 14 13.8**	**-0.6**
	comp=Z,1.3nm,0.5s,baz=159,slow=20,SNR=5.2						
MDJ	**Mudanjiang**	**49.81**	**32**	P	**P**	**11 07 15.3**	**+0.4**
MDJ				AMB	AMB		
	comp=Z,65nm,0.9s,mb5.7						
MDJ				AMB	AMB		
	comp=Z,259nm,5.5s						
MDJ				LR	LR		
	comp=N,150nm,20.3s,MS4.4						
MDJ				LR	LR		
	comp=E,350nm,21.0s,MS4.4						
MDJ				LR	LR		
	comp=Z,607nm,22.3s,MS4.5						
MDJ	**Mudanjiang**	**49.81**	**32**	*e*P	**P**	**11 07 14.9**	**0.0**
	comp=Z,98nm,1.1s,mb5.8						
CBIJ	**Chichi jima**	**50.13**	**59**	P	**P**	**11 07 16.9**	**-0.7**
	comp=Z,86nm,0.6s,mb6.0,baz=146,slow=23,SNR=4.3						
QRN	**Al-Qurain**	**50.27**	**303**	*e*P	**P**	**11 07 19.5**	**+0.8**
QRN				AMb	AMB	11 07 34.4	
	comp=Z,100nm,0.8s,mb5.9						
NVS	**Novosibirsk**	**50.55**	**351**	*i* P	**P**	**11 07 18.7**	**-1.7**
NVS				*i*	pP	11 07 31.9	-2.1
NVS				*e*		11 08 35.6	
NVS				*i* S	**S**	**11 14 28.2**	**-1.4**
NVS				*e*		11 16 57.8	
NVS				pmax	pmax		
	comp=N,86nm,1.3s						
NVS				pmax	pmax		
	comp=E,62nm,1.3s						
NVS				pmax	pmax		
	comp=Z,95nm,1.3s,mb5.6						
NVS				smax			
	comp=N,47nm,1.8s						
NVS				smax			
	comp=E,22nm,1.9s						
RDF	**Al-Radifah**	**50.63**	**304**	*e*P	**P**	**11 07 22.0**	**+0.6**
RDF				AMb	AMB	11 07 38.8	
	comp=Z,173nm,1.3s,mb5.8						
UMR	**Umm Al-Rimmam**	**50.70**	**304**	*e*P	**P**	**11 07 23.9**	**+2.0**
UMR				AMb	AMB	11 07 40.0	
	comp=Z,78nm,1.0s,mb5.6						
RST	**Umm Al-Ruwaisa**	**51.27**	**304**	*e*P	**P**	**11 07 26.2**	**-0.1**
RST				AMb	AMB	11 07 44.3	
	comp=Z,132nm,1.0s,mb5.8						
BVAR	**Borovoye Array**	**51.89**	**341**	P	**P**	**11 07 29.9**	**-0.7**
	comp=Z,90nm,0.8s,mb5.8,baz=143,slow=7.4,SNR=427						
BVAR				S	**S**	**11 14 48.7**	**+0.6**
	comp=Z,2.1nm,0.8s,baz=132,slow=18,SNR=5.2						
BRVK	**Borovoye**	**51.96**	**341**	*e*P	**P**	**11 07 30.1**	**-0.9**
BRVK				pmax	pmax		
	comp=Z,92nm,0.8s,mb5.8						
BRVK	**Borovoye**	**51.96**	**341**	*e*P	**P**	**11 07 30.1**	**-1.0**
	comp=Z,92nm,0.8s,mb5.8						
CHKZ	**Chkalovo**	**52.38**	**342**	*e*P	**P**	**11 07 33.7**	**-0.5**
CHKZ				pmax	pmax		
	comp=Z,242nm,0.8s,mb6.2						
CHKZ	**Chkalovo**	**52.38**	**342**	*e*P	**P**	**11 07 33.6**	**-0.6**
	comp=Z,242nm,0.8s,mb6.2						
KLR	**Kul'dur**	**54.00**	**29**	*i* P	**P**	**11 07 43.0**	**-3.3**
KLR				pmax	pmax		
	comp=N,50nm,2.0s						
KLR				pmax	pmax		
	comp=E,80nm,2.0s						
KLR				pmax	pmax		
	comp=Z,120nm,2.0s,mb5.5						
PMG	**Port Moresby**	**54.08**	**105**	*i* P	**P**	**11 07 46.2**	**-1.2**
PMG	**Port Moresby**	**54.08**	**105**	P	**P**	**11 07 46.3**	**-1.0**
	comp=Z,33nm,0.9s,mb5.3,baz=281,slow=4.4,SNR=10						
PMG	**Port Moresby**	**54.08**	**105**	*e*P	**P**	**11 07 45.7**	**-1.7**
	comp=Z,48nm,1.0s,mb5.4						
BOD	**Bodaibo**	**54.76**	**12**	*e*P	**P**	**11 07 43.4**	**-8.3**
CTA	**Charters Tower**	**56.34**	**118**	⇑*i*P	**P**	**11 08 03.3**	**-0.4**
	comp=Z,24nm,0.9s,mb5.2						
CTA	**Charters Tower**	**56.34**	**118**	⇑*i*P	**P**	**11 08 03.3**	**-0.4**
CTA				pmax	pmax		
	comp=Z,24nm,0.9s						
CTA	**Charters Tower**	**56.34**	**118**	P	**P**	**11 08 03.1**	**-0.5**
	comp=Z,29nm,0.9s,mb5.3,baz=290,slow=8.4,SNR=14						
CTA				LR	LR	11 32 51.4	
	comp=Z,472nm,21.8s,MS4.5,baz=165,slow=37						
CTAO	**Charters Tower**	**56.34**	**118**	*e*P	**P**	**11 08 02.8**	**-0.9**
CTAO				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.5						
CTAO				MLR	MLR		
	comp=Z,573nm,20.0s,MS4.7						
CTAO	**Charters Tower**	**56.34**	**118**	*e*P	**P**	**11 08 02.8**	**-0.9**
	comp=Z,53nm,1.1s,mb5.5						
CTAO				LR	LR		
	comp=Z,573nm,20.0s,MS4.7						
GNI	**Garni**	**56.92**	**315**	*e*P	**P**	**11 08 06.7**	**-0.9**
GNI				pmax	pmax		
	comp=Z,68nm,1.1s						
GNI	**Garni**	**56.92**	**315**	P	**P**	**11 08 06.8**	**-0.7**
	comp=Z,46nm,1.1s,mb5.5,baz=291,slow=2.6,SNR=20						
GNI	**Garni**	**56.92**	**315**	*e*P	**P**	**11 08 06.7**	**-0.8**
	comp=Z,68nm,1.1s,mb5.6						
ASAJ	**Asahikawa**	**57.14**	**39**	LR	LR	11 32 26.3	
	comp=Z,382nm,18.1s,MS4.5,baz=174,slow=36						
TI2	**Plekhanov**	**57.58**	**317**	⇑*i*P	**P**	**11 08 12.2**	**0.0**
TI2				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.7						
STKA	**Stephens Creek**	**57.66**	**133**	⇑*i*P	**P**	**11 08 12.5**	**-0.4**
	comp=Z,17nm,0.9s,mb5.1						
STKA	**Stephens Creek**	**57.66**	**133**	P	**P**	**11 08 12.1**	**-0.8**
	comp=Z,20nm,0.9s,mb5.2,baz=311,slow=7.7,SNR=23						
STKA				LR	LR	11 35 59.7	
	comp=Z,234nm,19.9s,MS4.3,baz=140,slow=39						
KMBO	**Kilima Mbogo**	**57.84**	**266**	*e*P	**P**	**11 08 14.4**	**+0.1**
KMBO				*e**PP	pP	11 08 24.3	-3.9
KMBO				pmax	pmax		
	comp=Z,5.0nm,1.0s						
KMBO				MLR	MLR		
	comp=Z,601nm,22.0s						
KMBO	**Kilima Mbogo**	**57.84**	**266**	P	**P**	**11 08 15.5**	**+1.2**
	comp=Z,3.8nm,0.9s,mb4.5,baz=46,slow=12,SNR=6.9						
KMBO				LR	LR	11 28 58.2	
	comp=Z,442nm,21.7s,MS4.5,baz=279,slow=32						
KMBO	**Kilima Mbogo**	**57.84**	**266**	*e*P	**P**	**11 08 14.4**	**0.0**
	comp=Z,5.2nm,1.0s,mb4.5						
KMBO				*e*pP	pP	11 08 24.3	-3.9
KMBO				LR	LR		
	comp=Z,601nm,22.0s,MS4.7						
ZEI	**Tsey**	**58.59**	**318**	*e*P	**P**	**11 08 18.6**	**-0.6**
ZEI				*i* *PP	pP	11 08 31.8	-1.3
ZEI				*i*		11 10 28.6	
ZEI				pmax	pmax		
	comp=Z,26nm,0.7s,mb5.4						
YSS	**Yuzh-Sakhalins**	**58.62**	**37**	⇑*i*P	**P**	**11 08 19.2**	**-0.2**
YSS				pmax	pmax		
	comp=Z,90nm,1.0s,mb5.8						
YSS	**Yuzh-Sakhalins**	**58.62**	**37**	*e*P	**P**	**11 08 19.1**	**-0.3**
	comp=Z,169nm,1.4s,mb5.9						
ARU	**Arti**	**58.77**	**337**	⇑*i*P	**P**	**11 08 18.8**	**-1.4**
ARU				*e*		11 09 08.7	
ARU				*e*S	**S**	**11 16 16.6**	**-3.2**
ARU				*e*SS	SS	11 20 12.8	-2.5
ARU				pmax	pmax		
	comp=Z,56nm,1.0s,mb5.5						
ARU	**Arti**	**58.77**	**337**	*e*P	**P**	**11 08 18.4**	**-1.8**
	comp=Z,54nm,1.0s,mb5.5						
ERZM	**Erzurum**	**59.22**	**314**	*i* P	**P**	**11 08 21.7**	**-1.9**
KIV	**Kislovodsk**	**59.89**	**319**	P	**P**	**11 08 27.1**	**-1.1**
	comp=Z,403nm,0.9s,mb6.5,SNR=15						
KIV	**Kislovodsk**	**59.89**	**319**	*e*P	**P**	**11 08 26.3**	**-1.9**
KIV				*e**PP	pP	11 08 38.0	-4.1
KIV				pmax	pmax		
	comp=Z,79nm,1.1s,mb5.7						
KIV	**Kislovodsk**	**59.89**	**319**	*e*P	**P**	**11 08 26.3**	**-1.8**
	comp=Z,79nm,1.1s,mb5.7						
KIV				*e*pP	pP	11 08 38.0	-4.1
GOF	**Gofitskoye**	**60.13**	**320**	⇓*i*P	**P**	**11 08 28.0**	**-1.8**
GOF				pmax	pmax		
	comp=Z,60nm,1.1s,mb5.5						
GOF				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.6						
ASF	**Jabal al Asfar**	**60.36**	**304**	P	**P**	**11 08 32.0**	**+0.5**
	comp=Z,12nm,0.9s,mb4.9,baz=152,slow=11,SNR=10						
ASF				LR	LR	11 37 06.0	
	comp=Z,366nm,19.1s,MS4.5,baz=139,slow=38						
ELZG	**Elazig**	**60.48**	**312**	*i* P	**P**	**11 08 31.0**	**-1.3**
MALT	**Malatya**	**60.84**	**311**	*e*P	**P**	**11 08 33.9**	**-0.8**
MALT				pmax	pmax		
	comp=Z,29nm,1.1s,mb5.3						
MALT	**Malatya**	**60.84**	**311**	*e*P	**P**	**11 08 33.9**	**-0.8**
	comp=Z,29nm,1.1s,mb5.3						
GZT	**Gaziantep**	**61.20**	**310**	*i* P	**P**	**11 08 34.7**	**-2.5**
MKRJ	**Makawir**	**61.26**	**303**	P	**P**	**11 08 37.8**	**+0.2**
ZFRI	**Zfri**	**61.43**	**302**	P	**P**	**11 08 38.8**	**0.0**
KSHT	**Keshet**	**61.44**	**305**	P	**P**	**11 08 39.7**	**+0.9**
EIL	**Elat**	**61.45**	**301**	P	**P**	**11 08 38.8**	**-0.2**
EIL	**Elat**	**61.45**	**301**	LR	LR	11 35 27.1	
	comp=Z,474nm,18.8s,MS4.7,baz=299,slow=36						
EIL	**Elat**	**61.45**	**301**	*e*P	**P**	**11 08 38.5**	**-0.5**
	comp=Z,32nm,1.2s,mb5.3						
DRGI	**Dragot**	**61.47**	**303**	P	**P**	**11 08 39.2**	**+0.1**
MBH	**Mount Berech**	**61.51**	**301**	P	**P**	**11 08 39.4**	**+0.1**
HMDT	**Nahal Hemdat**	**61.51**	**304**	P	**P**	**11 08 39.4**	**+0.1**
PRNI	**Paran**	**61.54**	**302**	P	**P**	**11 08 39.6**	**+0.1**
MMLI	**Mount Malkishu**	**61.63**	**304**	P	**P**	**11 08 39.6**	**-0.5**
SOKR	**Solikamsk**	**61.69**	**339**	⇑*i*P	**P**	**11 08 38.2**	**-1.9**
SOKR				*e*	pP	11 08 49.7	-4.4
SOKR				pmax	pmax		
	comp=Z,50nm,0.9s,mb5.6						
SOC	**Sochi**	**61.72**	**317**	*i* P	**P**	**11 08 38.4**	**-2.2**
SOC				pmax	pmax		
	comp=Z,73nm,1.1s,mb5.7						
SOC				pmax	pmax		
	comp=N,10.0nm,0.8s						
SOC				pmax	pmax		
	comp=E,9.0nm,0.9s						
KMTI	**Karmit**	**61.73**	**301**	P	**P**	**11 08 40.7**	**-0.1**
COBT	**Iskenderun**	**61.97**	**309**	*i* P	**P**	**11 08 39.9**	**-2.4**
OFRI	**'Ofer**	**62.03**	**304**	P	**P**	**11 08 43.1**	**+0.3**
YAK	**Yakutsk**	**62.48**	**18***c*	*i*P	**P**	**11 08 43.5**	**-1.9**
YAK				*e*	pP	11 08 55.1	-4.3
YAK				*e*S	**S**	**11 17 05.1**	**-2.1**
YAK				*e*		11 18 27.4	
YAK				*e*		11 23 50.0	
YAK				pmax	pmax		
	comp=Z,56nm,0.9s,mb5.7						
YAK				pmax	pmax		
	comp=N,17nm,1.1s						
YAK				pmax	pmax		
	comp=E,13nm,1.0s						
YAK				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.7						
YAK				pmax	pmax		
	comp=N,5.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,7.0nm,1.0s						
YAK				smax			
	comp=N,6.0nm,1.1s						
YAK				smax			
	comp=Z,2.0nm,0.9s						
YAK				smax			
	comp=E,3.0nm,1.1s						
YAK				MLR	MLR		
	comp=Z,508nm,22.0s,MS4.6						
YAK				MLR	MLR		
	comp=N,412nm,26.0s						
YAK				MLR	MLR		
	comp=E,224nm,16.0s						
YAK	**Yakutsk**	**62.48**	**18**	*e*P	**P**	**11 08 43.0**	**-2.3**
	comp=E,104nm,0.7s,mb6.1						
TOO	**Toolangi**	**63.32**	**137**	⇑*i*P	**P**	**11 08 52.5**	**+1.2**
	comp=E,16nm,0.9s,mb5.2						
TOO	**Toolangi**	**63.32**	**137**	⇑*i*P	**P**	**11 08 52.5**	**+1.2**
TOO				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
MEST	**Erdemli**	**63.63**	**308**	*i* P	**P**	**11 08 50.5**	**-2.9**
AVNT	**Avonos**	**63.65**	**311**	*i* P	**P**	**11 08 50.5**	**-3.0**
CSS	**Prodhromos**	**63.90**	**307**	*e*P	**P**	**11 08 54.2**	**-1.0**
	comp=Z,64nm,1.1s,mb5.6						
CTKT	**Corum**	**64.21**	**313**	*i* P	**P**	**11 08 53.9**	**-3.2**
MBAR	**Mbarara**	**64.26**	**267**	*e*P	**P**	**11 08 58.4**	**+0.6**
MBAR				pmax	pmax		
	comp=Z,34nm,1.3s,mb5.2						
MBAR	**Mbarara**	**64.26**	**267**	*e*P	**P**	**11 08 58.4**	**+0.6**
	comp=Z,34nm,1.3s,mb5.2						
BOYT	**Boyabat**	**64.36**	**314**	*i* P	**P**	**11 08 55.5**	**-2.5**
BRTR	**Keskin Array B**	**64.81**	**312**	P	**P**	**11 08 59.7**	**-1.3**
	comp=Z,27nm,0.8s,mb5.3,baz=121,slow=7.2,SNR=131						
VRSR	**Storozhevoye**	**65.09**	**325**	*e*P	**P**	**11 09 00.0**	**-2.6**
VRSR				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.7						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.6s						
VRSR				pmax	pmax		
	comp=E,60nm,0.7s						
ELDT	**Eldivan**	**65.17**	**312**	*i* P	**P**	**11 09 01.8**	**-1.5**
BALT	**Daday**	**65.48**	**314**	*i* P	**P**	**11 09 03.4**	**-1.9**
SIM	**Simferopol'**	**65.97**	**317**	*e*P	**P**	**11 09 07.0**	**-1.3**
SIM				pmax	pmax		
	comp=Z,45nm,0.9s,mb5.5						
SGKT	**Sivrigoynuk**	**66.20**	**312**	*i* P	**P**	**11 09 07.7**	**-2.2**
ISP	**Isparta**	**66.74**	**309**	*e*P	**P**	**11 09 12.3**	**-1.1**
ESKT	**Eskisehir**	**66.85**	**311**	*i* P	**P**	**11 09 11.9**	**-2.1**
MOS	**Moscow**	**67.86**	**329**	*e*P	**P**	**11 09 18.5**	**-1.5**
MOS				*e*	pP	11 09 31.9	-2.4
MOS				pmax	pmax		
	comp=Z,133nm,1.3s,mb5.8						
OBN	**Obninsk**	**68.15**	**328**	⇑*e*P	**P**	**11 09 20.8**	**-1.0**
OBN				*e*S	S	11 18 17.3	+0.7
OBN				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
SKR	**Severo-Kuril's**	**68.19**	**37**	*e*P	**P**	**11 09 20.6**	**-1.6**
MA2	**Magadan**	**68.97**	**27**	*e*P	**P**	**11 09 25.9**	**-1.0**
MA2				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.2						
MA2	**Magadan**	**68.97**	**27**	*e*P	**P**	**11 09 25.6**	**-1.3**
	comp=Z,13nm,0.6s,mb5.0						
LSZ	**Lusaka**	**69.00**	**252**	*e*P	**P**	**11 09 28.3**	**+0.6**
LSZ				pmax	pmax		
	comp=Z,9.0nm,1.2s,mb4.6						
LSZ	**Lusaka**	**69.00**	**252**	*e*P	**P**	**11 09 28.3**	**+0.6**
	comp=Z,8.6nm,1.2s,mb4.6						
TIXI	**Tiksi**	**69.88**	**11**	⇑*i*P	**P**	**11 09 30.5**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,67nm,0.6s,mb5.8						
TIXI				MLR	MLR		
	comp=Z,773nm,19.0s,MS5.0						
KIS	**Kishinev**	**70.09**	**318**	*e*P	**P**	**11 09 32.0**	**-1.9**
KIS				*e*	pP	11 09 49.0	+0.8
KIS				*e*		11 12 17.0	
CFR	**Carcaliu**	**70.11**	**316**	⇑*i*P	**P**	**11 09 33.3**	**-0.8**
HARR	**Harsova**	**70.14**	**316**	⇑*i*P	**P**	**11 09 33.7**	**-0.6**
PET	**Petropavlovsk**	**70.44**	**35**	*e*P	**P**	**11 09 35.1**	**-0.9**
PET				pmax	pmax		
	comp=Z,70nm,0.8s,mb5.6						
PET				MLR	MLR		
	comp=Z,400nm,22.0s,MS4.6						
IDI	**Anoyia**	**70.76**	**306**	P	**P**	**11 09 37.7**	**-0.5**
	comp=Z,44nm,0.8s,mb5.4,baz=92,slow=7.3,SNR=22						
IDI				pP	pP	11 09 52.7	+0.2
	comp=Z,51nm,0.8s,baz=94,slow=7.6,SNR=9.1						
IDI				LR	LR	11 43 13.0	
	comp=Z,156nm,21.6s,MS4.2,baz=276,slow=38						
AKASG	**Malin Array Be**	**70.81**	**322**	P	**P**	**11 09 36.4**	**-1.8**
	comp=Z,24nm,0.6s,mb5.3,baz=86,slow=5.2,SNR=91						
VRI	**Vrincioaia**	**71.23**	**317**	⇑*i*P	**P**	**11 09 40.8**	**0.0**
MNK	**Minsk**	**72.68**	**326**	⇓*e*P	**P**	**11 09 46.0**	**-3.3**
MNK				pmax	pmax		
	comp=Z,280nm,1.0s,mb6.2						
LBTB	**Lobatse**	**73.50**	**242**	*e*P	**P**	**11 09 54.9**	**+0.1**
LBTB				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.8						
LBTB	**Lobatse**	**73.50**	**242**	*e*P	**P**	**11 09 54.9**	**+0.1**
	comp=Z,9.3nm,0.7s,mb4.8						
SKO	**Skopje**	**74.32**	**312**	*e*P	**P**	**11 09 57.0**	**-2.1**
LVZ	**Lovozero**	**74.46**	**340**	*e*P	**P**	**11 09 58.7**	**-0.7**
LVZ				pmax	pmax		
	comp=Z,61nm,1.0s,mb5.5						
KWP	**Kalwaria**	**74.64**	**320**	*e*P	**P**	**11 10 00.5**	**-0.3**
KWP				pmax	pmax		
	comp=Z,150nm,1.1s,mb5.8						
KWP	**Kalwaria**	**74.64**	**320**	⇑*i*P	**P**	**11 10 00.9**	**+0.1**
KWP	**Kalwaria**	**74.64**	**320**	*i* P	**P**	**11 10 00.9**	**+0.1**
BOSA	**Boshof**	**74.68**	**239**	*e*P	**P**	**11 10 02.0**	**+0.5**
BOSA				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.1						
BOSA	**Boshof**	**74.68**	**239**	*e*P	**P**	**11 10 02.0**	**+0.5**
	comp=Z,35nm,1.4s,mb5.1						
APA	**Apatity**	**74.74**	**340**	⇑*i*P	**P**	**11 10 00.8**	**-0.3**
APA				*i*	pP	11 10 15.3	-0.1
APA				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.5						
KOLS	**Kolonicke sedl**	**74.80**	**319**	*i* P	**P**	**11 10 02.1**	**+0.4**
SUW	**Suwalki**	**75.21**	**325**	*e*P	**P**	**11 10 02.8**	**-1.2**
SUW				pmax	pmax		
	comp=Z,136nm,0.9s,mb5.9						
SUW	**Suwalki**	**75.21**	**325**	*e*P	**P**	**11 10 02.8**	**-1.2**
	comp=Z,136nm,0.9s,mb5.9						
SUW	**Suwalki**	**75.21**	**325**	*e*P	**P**	**11 10 03.0**	**-1.0**
CRVS	**Cervenica-Dubn**	**75.32**	**319**	*i* P	**P**	**11 10 05.1**	**+0.4**
CRVS				*e*pP	pP	11 10 09.0	-10
CRVS	**Cervenica-Dubn**	**75.32**	**319**	*e*P	**P**	**11 10 05.1**	**+0.4**
FINES	**FINESS Array B**	**75.54**	**332**	*i* P	**P**	**11 10 05.2**	**-0.5**
FINES				pmax	pmax		
	comp=Z,8.0nm,0.5s						
FINES	**FINESS Array B**	**75.54**	**332**	P	**P**	**11 10 05.1**	**-0.7**
	comp=Z,8.2nm,0.5s,mb4.9,baz=98,slow=6.7,SNR=78						
FINES				pP	pP	11 10 19.3	-0.8
	comp=Z,19nm,0.7s,baz=104,slow=7.9,SNR=10						
FINES				LR	LR	11 46 01.6	
	comp=Z,294nm,20.0s,MS4.6,baz=175,slow=38						
KAF	**Kangasniemi**	**75.63**	**333**	*e*p	**P**	**11 10 04.9**	**-1.3**
	comp=Z,15nm,0.7s,mb5.0						
KAF	**Kangasniemi**	**75.63**	**333**	*e*P	**P**	**11 10 04.9**	**-1.3**
KAF				pmax	pmax		
	comp=Z,15nm,0.7s,mb5.0						
DIVS	**Divcibare**	**75.64**	**314**	⇓*i*P	**P**	**11 10 06.0**	**-0.7**
KECS	**Kecovo**	**75.89**	**319**	*i* P	**P**	**11 10 08.4**	**+0.4**
KECS				*e*pP	pP	11 10 11.2	-11
MAW	**Mawson**	**75.90**	**192**	LR	LR	11 40 10.7	
	comp=Z,243nm,18.2s,MS4.5,baz=164,slow=33						
PKSN	**Nyarlorinc**	**76.08**	**317**	⇑*e*P	**P**	**11 10 09.5**	**+0.4**
NIE	**Niedzica**	**76.14**	**320**	*e*P	**P**	**11 10 10.5**	**+1.1**
PSZ	**Piszkesteto**	**76.20**	**318**	*e*P	**P**	**11 10 09.1**	**-0.7**
PSZ				pmax	pmax		
	comp=Z,61nm,0.9s,mb5.5						
PSZ	**Piszkesteto**	**76.20**	**318**	⇑*e*P	**P**	**11 10 09.8**	**0.0**
PKS2	**Kecel**	**76.48**	**317**	*e*P	**P**	**11 10 11.4**	**0.0**
OJC	**Ojcow**	**76.59**	**320**	⇑*i*P	**P**	**11 10 12.1**	**+0.2**
OJC	**Ojcow**	**76.59**	**320**	*i* P	**P**	**11 10 12.1**	**+0.2**
PKSM	**Moragy**	**76.84**	**316**	⇑*i*P	**P**	**11 10 13.1**	**-0.3**
VYHS	**Vyhne**	**76.98**	**319**	*i* P	**P**	**11 10 14.5**	**+0.3**
VYHS				*e*PP	PP	11 13 08.7	-0.4
VYHS	**Vyhne**	**76.98**	**319**	*i* P	**P**	**11 10 14.3**	**+0.1**
VYHS				*e*sP	PcP	11 10 20.6	-4.7
SRO2	**Moca**	**77.19**	**318**	*e*P	**P**	**11 10 15.6**	**+0.3**
SRO2				*e*	pP	11 10 31.6	+1.9
RHK1	**Bakonya**	**77.22**	**316**	⇑*e*P	**P**	**11 10 15.2**	**-0.4**
SRO	**Srobarova**	**77.25**	**318**	*i* P	**P**	**11 10 16.5**	**+0.8**
SRO	**Srobarova**	**77.25**	**318**	*i* P	**P**	**11 10 16.2**	**+0.5**
SRO				*e*	pP	11 10 32.4	+2.3
SRO1	**Iza**	**77.29**	**318**	*i* P	**P**	**11 10 16.1**	**+0.2**
SRO1	**Iza**	**77.29**	**318**	*e*P	**P**	**11 10 16.1**	**+0.2**
OKC	**Ostrava-Krasne**	**77.59**	**320**	⇑*i*P	**P**	**11 10 17.9**	**+0.4**
KEV	**Kevo**	**77.74**	**341**	*e*p	**P**	**11 10 16.2**	**-1.7**
	comp=Z,37nm,0.8s,mb5.4						
KEV	**Kevo**	**77.74**	**341**	*e*P	**P**	**11 10 16.2**	**-1.7**
KEV				pmax	pmax		
	comp=Z,37nm,0.8s,mb5.4						
SMOL	**Smolenice**	**77.91**	**318**	*i* P	**P**	**11 10 19.8**	**+0.5**
SMOL	**Smolenice**	**77.91**	**318**	*e*P	**P**	**11 10 19.8**	**+0.5**
SMOL				*e*	pP	11 10 31.9	-1.8
MORC	**Moravsky Berou**	**77.98**	**320**	*e*P	**P**	**11 10 19.9**	**+0.3**
MORC				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.5						
MORC	**Moravsky Berou**	**77.98**	**320**	*e*P	**P**	**11 10 19.9**	**+0.3**
	comp=Z,66nm,1.0s,mb5.5						
ZST	**Bratislava**	**78.10**	**318**	*i* P	**P**	**11 10 21.1**	**+0.8**
ZST	**Bratislava**	**78.10**	**318**	*i* P	**P**	**11 10 20.8**	**+0.5**
ZST				*e*pP	pP	11 10 25.9	-8.8
ARCES	**ARCESS Array B**	**78.17**	**340**	P	**P**	**11 10 20.3**	**0.0**
	comp=Z,26nm,0.7s,mb5.3,baz=88,slow=6.1,SNR=63						
ARCES				pP	pP	11 10 34.8	+0.1
	comp=Z,27nm,0.7s,baz=104,slow=5.0,SNR=8.2						
ARCES				LR	LR	11 45 49.3	
	comp=Z,394nm,20.0s,MS4.7,baz=195,slow=36						
ARE0	**ARCESS Array S**	**78.17**	**340**	*e*P	**P**	**11 10 19.9**	**-0.4**
SOP	**Sopron**	**78.41**	**318**	⇓*e*P	**P**	**11 10 22.6**	**+0.5**
BILL	**Bilibino**	**78.47**	**21**	*e*P	**P**	**11 10 21.4**	**-0.6**
BILL				*e*	pP	11 10 33.7	-2.7
BILL				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
BILL				MLR	MLR		
	comp=Z,1µm,17.0s,MS5.2						
BILL	**Bilibino**	**78.47**	**21**	*e*P	**P**	**11 10 20.6**	**-1.4**
	comp=Z,45nm,1.3s,mb5.2						
GKP	**Gorka Klasztor**	**78.58**	**323**	*e*P	**P**	**11 10 22.9**	**0.0**
DPC	**Dobruska-Polom**	**78.82**	**320**	⇑*i*P	**P**	**11 10 25.1**	**+0.8**
KSP	**Ksiaz**	**78.89**	**321**	⇑*i*P	**P**	**11 10 25.2**	**+0.6**
KSP	**Ksiaz**	**78.89**	**321**	*e*P	**P**	**11 10 25.3**	**+0.7**
UPC	**Upice**	**79.03**	**320**	⇑*i*P	**P**	**11 10 26.0**	**+0.6**
ARSA	**Arzberg**	**79.07**	**317**	⇑*i*P	**P**	**11 10 26.2**	**+0.5**
	comp=Z,83nm,1.1s,mb5.6						
BOJS	**Bojanci**	**79.13**	**315**	⇑*e*P	**P**	**11 10 26.2**	**+0.1**
	comp=Z,158nm,1.0s,mb5.9						
SUR	**Sutherland**	**79.29**	**236**	P	**P**	**11 10 27.0**	**-0.3**
	comp=Z,14nm,0.7s,mb5.0						
PERS	**Pernice**	**79.31**	**316**	*e*P	**P**	**11 10 27.1**	**+0.1**
LJU	**Ljubljana**	**79.67**	**316**	⇑*i*P	**P**	**11 10 29.5**	**+0.5**
	comp=Z,271nm,1.1s,mb6.1						
LJU				*i*		11 10 35.0	
LJU	**Ljubljana**	**79.67**	**316**	⇑*i*P	**P**	**11 10 29.5**	**+0.5**
LJU				*i*		11 10 35.0	
LJU				pmax	pmax		
	comp=Z,271nm,1.1s,mb6.1						
OBKA	**Obir**	**79.69**	**316**	⇑*i*P	**P**	**11 10 29.6**	**+0.5**
	comp=Z,87nm,1.5s,mb5.5						
PRU	**Pruhonice**	**79.93**	**320**	⇑*i*P	**P**	**11 10 30.6**	**+0.3**
PRU	**Pruhonice**	**79.93**	**320**	⇑*i*P	**P**	**11 10 30.6**	**+0.3**
	comp=Z,50nm,1.0s,mb5.4						
PVCC	**Panska Ves**	**79.95**	**320**	⇑*i*P	**P**	**11 10 31.0**	**+0.6**
MOA	**Molln**	**79.97**	**318**	⇑*i*P	**P**	**11 10 30.4**	**-0.1**
	comp=Z,33nm,0.9s,mb5.3						
VOY	**Vojsko**	**80.11**	**316**	*e*P	**P**	**11 10 31.3**	**-0.1**
VOY				*e*	pP	11 10 45.7	-0.1
BSD	**Bornholm Skovb**	**80.13**	**325**	*i* P	**P**	**11 10 29.5**	**-1.8**
AQU	**L'Aquila**	**80.31**	**312**	*e*P	**P**	**11 10 32.2**	**-0.3**
AQU				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.4						
AQU	**L'Aquila**	**80.31**	**312**	*e*P	**P**	**11 10 32.2**	**-0.3**
	comp=Z,48nm,1.0s,mb5.4						
BRG	**Berggiesshubel**	**80.37**	**321**	⇑*i*P	**P**	**11 10 33.0**	**+0.4**
BRG				*e*	pP	11 10 50.4	+3.3
BRG				pmax	pmax		
	comp=Z,52nm,1.1s,mb5.4						
BRG	**Berggiesshubel**	**80.37**	**321**	⇑*i*P	**P**	**11 10 33.0**	**+0.4**
	comp=Z,52nm,1.1s,mb5.4						
BRG				*e*	pP	11 10 50.4	+3.3
GEC2	**GERESS Array S**	**80.40**	**319**	⇑*i*P	**P**	**11 10 33.4**	**+0.6**
GEC2				pmax	pmax		
	comp=Z,127nm,0.9s,mb5.8						
GEC2	**GERESS Array S**	**80.40**	**319**	⇑*i*P	**P**	**11 10 33.4**	**+0.6**
	comp=Z,127nm,0.9s,mb5.8						
GERES	**GERESS Array B**	**80.40**	**319**	P	**P**	**11 10 33.3**	**+0.5**
	comp=Z,64nm,0.7s,mb5.7,baz=90,slow=5.3,SNR=456						
GERES				pP	pP	11 10 47.2	-0.1
	comp=Z,21nm,0.9s,baz=112,slow=7.2,SNR=4.3						
KHC	**Kasperske Hory**	**80.50**	**319**	⇑*i*P	**P**	**11 10 33.4**	**+0.1**
KHC	**Kasperske Hory**	**80.50**	**319**	⇑*i*P	**P**	**11 10 33.4**	**+0.1**
KHC				*e*x	x	11 10 49.5	
PTCC	**Patocco-Chiusa**	**80.51**	**316**	⇑*i*P	**P**	**11 10 33.5**	**0.0**
NRCA	**Norcia**	**80.53**	**312**	*e*P	**P**	**11 10 33.5**	**-0.1**
KBA	**Koelnbreinsper**	**80.55**	**317**	⇑*i*P	**P**	**11 10 33.7**	**+0.1**

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          comp=Z,65nm,1.4s,mb5.4
KBA   Koelnbreinsper  80.55 317⇑iP     P          11 10 33.7 +0.1
KBA                             pmax   pmax
          comp=Z,65nm,1.4s,mb5.4
GMNA  Gemona          80.58 316⇑iP     P          11 10 33.8  -0.1
RUE   Ruedersdorf     80.59 322  eP    P          11 10 33.7  -0.1
          comp=Z,130nm,1.0s,mb5.8
SNTG  Esanatoglia     80.67 313  eP    P          11 10 34.6 +0.2
ARV   Arcevia         80.68 313⇑iP     P          11 10 35.0 +0.6
FSSB  Fossombrone     80.81 313  eP    P          11 10 35.7 +0.6
MNS   Montasola       80.84 312  eP    P          11 10 34.5  -0.8
FVI   Forni Avoltri   80.91 316  eP    P          11 10 35.2  -0.4
WET   Wettzell        80.96 319  eP    P          11 10 36.2 +0.4
CLL   Collm           80.99 321⇑iP     P          11 10 35.9   0.0
CLL                              e                11 10 45.0
CLL                             pmax   pmax
          comp=Z,42nm,1.0s,mb5.3
CLL   Collm           80.99 321⇑iP     P          11 10 35.9   0.0
          comp=Z,42nm,1.0s,mb5.3
CLL                              e                11 10 45.0
CLL   Collm           80.99 321 ⇑P     P          11 10 35.9   0.0
          comp=Z,logA/T=1.6,mb5.3
NKC   Novy Kostel     81.29 320⇑iP     P          11 10 37.8 +0.3
CRE   Caprese Michel  81.41 313  eP    P          11 10 38.4 +0.2
SFI   Santa Sofia     81.49 313  eP    P          11 10 39.2 +0.6
PGD   Poggio Sodo     81.58 313  eP    P          11 10 40.8 +1.7
CTI   Castel Tesino   81.68 316⇑iP     P          11 10 40.2 +0.6
VMG   Vicchio         81.71 314  eP    P          11 10 41.0 +1.2
WTTA  Wattenberg      81.72 317⇑iP     P          11 10 39.7  -0.1
          comp=Z,108nm,1.0s,mb5.7
WTTA  Wattenberg      81.72 317⇑iP     P          11 10 39.7  -0.1
WTTA                            pmax   pmax
          comp=Z,108nm,1.0s,mb5.7
WATA  Walderalm       81.76 317⇑iP     P          11 10 39.5  -0.5
          comp=Z,47nm,1.0s,mb5.4
WATA  Walderalm       81.76 317⇑iP     P          11 10 39.5  -0.5
WATA                            pmax   pmax
          comp=Z,47nm,1.0s,mb5.4
MOX   Moxa            81.84 320  eP    P          11 10 40.5 +0.2
MOX                             pmax   pmax
          comp=Z,47nm,1.2s,mb5.3
MOX   Moxa            81.84 320  i P   P          11 10 40.5 +0.2
          comp=Z,logA/T=1.6,mb5.3
MOX   Moxa            81.84 320  eP    P          11 10 40.5 +0.2
          comp=Z,47nm,1.2s,mb5.3
SEI   Scarperia       81.84 314  eP    P          11 10 41.3 +0.8
CSNT  Castellina Chi  81.88 313  eP    P          11 10 39.7  -1.0
FUR   Furstenfeldbru  81.98 318  eP    P          11 10 41.1   0.0
SQTA  Sankt Quirin    82.01 317⇑iP     P          11 10 41.2  -0.1
          comp=Z,46nm,0.9s,mb5.4
SQTA  Sankt Quirin    82.01 317⇑iP     P          11 10 41.2  -0.1
SQTA                            pmax   pmax
          comp=Z,46nm,0.9s,mb5.4
GRA1  Grafenberg Arr  82.06 319  eP    P          11 10 42.3 +0.8
          comp=Z,84nm,1.0s,mb5.6
GRF   Grafenberg Arr  82.06 319  eP    P          11 10 42.3 +0.8
GRF                             pmax   pmax
          comp=Z,84nm,1.0s,mb5.6
GRF   Grafenberg Arr  82.06 319  eP    P          11 10 42.3 +0.8
GRF                             pmax   pmax
          comp=Z,84nm,1.0s,mb5.6
GRF   Grafenberg Arr  82.06 319  eP    P          11 10 42.3 +0.8
          comp=Z,84nm,1.0s,mb5.6
MOTA  Moosalm         82.08 317⇑iP     P          11 10 41.4  -0.2
          comp=Z,46nm,1.0s,mb5.4
MOTA  Moosalm         82.08 317⇑iP     P          11 10 41.4  -0.2
MOTA                            pmax   pmax
          comp=Z,46nm,1.0s,mb5.4
GRFL  Gerfalco        82.11 313  eP    P          11 10 41.5  -0.4
ZCCA  Zocca           82.12 314  eP    P          11 10 43.8 +1.9
BDI   Bagni Di Lucca  82.39 314  eP    P          11 10 42.9  -0.4
GSCL  Gusciola        82.40 314  eP    P          11 10 44.0 +0.7
SAL   Salo            82.45 315  eP    P          11 10 44.8 +1.2
MABI  Malga Bissina   82.47 316  eP    P          11 10 44.2 +0.5
MAIM                  82.47 313   P    P          11 10 42.8  -0.9
ERBM  Eremo           82.53 314  eP    P          11 10 45.0 +1.0
SARO  Sassorosso      82.53 314   P    P          11 10 43.5  -0.6
NB2   NORSAR Subarra  82.54 331   P    P          11 10 43.1  -0.6
          comp=Z,5.9nm,0.8s,mb4.7,baz=96,slow=5.3
NB2   NORSAR Subarra  82.54 331   P    P          11 10 43.1  -0.6
NB2                             pmax   pmax
          comp=Z,6.0nm,0.8s,mb4.7
NOA   NORSAR Array B  82.54 331   P    P          11 10 43.0  -0.7
          comp=Z,10nm,0.8s,mb4.9,baz=94,slow=5.4,SNR=23
NOA                             pP     pP         11 10 57.8  -0.5
          comp=Z,6.9nm,0.7s,baz=95,slow=4.9,SNR=6.8
NOA                             PP     PP         11 13 52.8  -2.5
          comp=Z,2.3nm,0.9s,baz=89,slow=8.7,SNR=3.7
NOA                             LR     LR         11 53 06.5
          comp=Z,178nm,18.6s,MS4.5,baz=15,slow=40
BRMO  Bormio          82.57 316⇑iP     P          11 10 44.8 +0.7
VALM                  82.64 314   P    P          11 10 45.3 +0.7
CLZ   Clausthal       82.65 321  eP    P          11 10 44.9 +0.4
          comp=Z,70nm,1.1s,mb5.6
NAO01 NORSAR Array S  82.69 331  eP    P          11 10 43.9  -0.6
          comp=Z,10nm,0.8s,mb4.9
HDH   Heidenheim      82.70 318⇑eP     P          11 10 44.6  -0.2
VINC  Vinca           82.71 314   P    P          11 10 44.2  -0.7
BSEG  Bad Segeberg    82.74 324  eP    P          11 10 45.4 +0.6
UBR   Uberruh         82.76 317⇑eP     P          11 10 45.2 +0.1
BACM                  82.77 314   P    P          11 10 45.0  -0.2
GRAM                  82.78 314   P    P          11 10 46.0 +0.7
DAVA  Damuels         82.91 317⇑iP     P          11 10 46.5 +0.6
          comp=Z,78nm,0.9s,mb5.7
CODM                  82.93 314   P    P          11 10 45.9  -0.1
SIND  Sindeldorf      83.11 319⇑eP     P          11 10 47.3 +0.5
BOB   Bobbio (Coli)   83.22 314  eP    P          11 10 48.2 +0.7
BUCH  Bad Urach       83.27 318⇑eP     P          11 10 47.9 +0.2
STU   Stuttgart       83.38 318  eP    P          11 10 48.2   0.0
STU                             pmax   pmax
          comp=Z,21nm,0.8s,mb5.2
STU   Stuttgart       83.38 318  eP    P          11 10 48.2   0.0
          comp=Z,21nm,0.8s,mb5.2
GUT   Gutenstein      83.43 318⇑eP     P          11 10 48.6 +0.1
MUD   Monsted U'grnd  83.44 326  i P   P          11 10 49.2 +0.8
MUD                             pmax   pmax
          comp=Z,31nm,1.0s,mb5.3
MUD   Monsted U'grnd  83.44 326  i P   P          11 10 49.2 +0.8
          comp=Z,31nm,1.0s,mb5.3
PGF   Pioggiola       83.56 312⇑iP     P          11 10 49.2  -0.1
          comp=Z,52nm,1.1s,mb5.3
PGF   Pioggiola       83.56 312⇑iP     P          11 10 49.2  -0.1
PGF                             pmax   pmax
          comp=Z,26nm,1.1s,mb5.3
TOD   Tromm           83.63 319  eP    P          11 10 49.6 +0.1
TOD   Tromm           83.63 319  eP    P          11 10 49.9 +0.4
LBG   Lerchenberg     83.64 318  eP    P          11 10 49.5  -0.1
SPAK  Spaichingen     83.65 318⇑eP     P          11 10 50.0 +0.4
SPAK  Spaichingen     83.65 318  eP    P          11 10 50.2 +0.6
VAI   Varese          83.69 315  eP    P          11 10 49.3  -0.6
SWS   Schriesheim     83.70 319  eP    P          11 10 50.2 +0.4
PCP   Pian Castagno   83.86 314   P    P          11 10 50.7  -0.1
BFO   Black Forest    83.95 318  eP    P          11 10 51.1  -0.1
BFO                             pmax   pmax
          comp=Z,38nm,0.9s,mb5.5
BFO   Black Forest    83.95 318  eP    P          11 10 51.1  -0.1
          comp=Z,38nm,0.9s,mb5.5
FIN   Finale Ligure   84.11 314  eP    P          11 10 52.2 +0.2
FELD  Feldberg        84.18 317⇑eP     P          11 10 52.5 +0.2
MCGN  Macugnaga       84.23 316  eP    P          11 10 53.1 +0.5
KIZ   Kirchzarten     84.24 318⇑eP     P          11 10 52.6   0.0
ORX   Oropa           84.24 315   P    P          11 10 51.4  -1.3
LANF  Langenberg      84.29 319  eP    P          11 10 53.3 +0.5
IMI   Imperia         84.35 314  eP    P          11 10 53.9 +0.6
ROB   Roburent        84.35 314   P    P          11 10 53.2   0.0
TRAV                  84.41 315   P    P          11 10 52.2  -1.3
MONE  Monesi          84.44 314   P    P          11 10 53.7   0.0
ABH   Alteburg        84.44 320⇑eP     P          11 10 54.0 +0.4
LIBD  Limburg         84.44 318  eP    P          11 10 54.2 +0.6
NEGI  Negi            84.48 313   P    P          11 10 53.9   0.0
SAOF  Saorge          84.59 314  eP    P          11 10 54.9 +0.5
WLS   Welschbruch     84.60 318  eP    P          11 10 54.5 +0.1
CDF   Champ du Feu    84.66 318⇑iP     P          11 10 54.6  -0.1
          comp=Z,51nm,1.0s,mb5.3
CDF   Champ du Feu    84.66 318⇑iP     P          11 10 54.6  -0.1
CDF                             pmax   pmax
          comp=Z,26nm,1.0s,mb5.3
ENR   Entracque       84.68 314   P    P          11 10 55.6 +0.7
SBF   Sospel          84.68 313⇑iP     P          11 10 55.3 +0.4
          comp=Z,183nm,1.0s,mb5.9
SBF   Sospel          84.68 313⇑iP     P          11 10 55.3 +0.4
SBF                             pmax   pmax
          comp=Z,91nm,1.0s,mb5.9
AUTN  L'Aution        84.68 314  eP    P          11 10 55.6 +0.7
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REVF  Revere          84.73 313  eP    P          11 10 55.5 +0.3
STV   Sta Anna Valdi  84.74 314   P    P          11 10 55.0  -0.2
RSP   Reno Superiore  84.76 315   P    P          11 10 54.3  -1.0
RUP   Ruppelstein     84.76 319⇑eP     P          11 10 55.9 +0.7
RUP   Ruppelstein     84.76 319  eP    P          11 10 55.8 +0.6
MOF   Molkenrain      84.77 317  eP    P          11 10 55.3 +0.1
BHB   Bricherasio     84.77 314   P    P          11 10 53.6  -1.7
TOUF  Mont Tournerai  84.81 314  eP    P          11 10 56.1 +0.6
LSD   Ceresole Reale  84.83 315   P    P          11 10 56.1 +0.5
MVIF  Mont Vial       84.88 314  eP    P          11 10 55.1  -0.8
PZZ   Prazzo          84.90 314   P    P          11 10 54.8  -1.2
FENE  Fenestrelle     84.91 315   P    P          11 10 56.0   0.0
CALN  Calern          85.08 313  eP    P          11 10 57.7 +0.8
RRL   Cesana Torines  85.11 315   P    P          11 10 56.9  -0.1
LPG   La Plagne       85.11 315⇑iP     P          11 10 57.8 +0.8
          comp=Z,110nm,0.9s,mb5.7
LPG   La Plagne       85.11 315⇑iP     P          11 10 57.8 +0.8
LPG                             pmax   pmax
          comp=Z,55nm,0.9s,mb5.7
MBDF  Montbardon      85.12 314⇑iP     P          11 10 57.0  -0.1
          comp=Z,30nm,0.9s,mb5.2
MBDF  Montbardon      85.12 314⇑iP     P          11 10 57.0  -0.1
MBDF                            pmax   pmax
          comp=Z,15nm,0.9s,mb5.1
BNI   Bardonecchia    85.18 315  eP    P          11 10 56.4  -0.9
BNI                             pmax   pmax
          comp=Z,25nm,0.8s,mb5.4
BNI   Bardonecchia    85.18 315  eP    P          11 10 56.4  -1.0
          comp=Z,25nm,0.8s,mb5.4
HAU   Haudompre       85.29 318⇑iP     P          11 10 57.9 +0.1
          comp=Z,137nm,0.9s,mb5.8
HAU   Haudompre       85.29 318⇑iP     P          11 10 57.9 +0.1
HAU                             pmax   pmax
          comp=Z,68nm,0.9s,mb5.8
THEF  They Montfort   85.52 318  eP    P          11 10 55.2  -3.8
OG25  Le Caire        85.64 314  eP    P          11 10 59.4  -0.2
OG05  Jujurieux       85.99 316  eP    P          11 11 01.8 +0.5
BAIF  Baives          86.59 320⇑iP     P          11 11 04.8 +0.7
          comp=Z,96nm,1.0s,mb5.7
BAIF  Baives          86.59 320⇑iP     P          11 11 04.8 +0.7
BAIF                            pmax   pmax
          comp=Z,48nm,1.0s,mb5.7
URZ   Urewera         87.03 129   P    P          11 11 03.4  -3.2
          comp=Z,21nm,1.0s,mb5.3,baz=355,slow=11,SNR=3.6
SSF   Saint Saulge    87.27 317⇑iP     P          11 11 07.8 +0.3
          comp=Z,41nm,1.0s,mb5.3
SSF   Saint Saulge    87.27 317⇑iP     P          11 11 07.8 +0.3
SSF                             pmax   pmax
          comp=Z,20nm,1.0s,mb5.3
PLDF  La Plantade     87.27 316  eP    P          11 11 09.3 +1.7
LBL   Lubilhac        87.59 315  eP    P          11 11 11.1 +2.0
AGO   Saint Agoulin   87.60 316  eP    P          11 11 10.8 +1.6
PYM   Petit Puy Mans  87.72 316  eP    P          11 11 11.5 +1.8
BGF   Bois d'Agland   87.76 316⇑iP     P          11 11 10.7 +0.8
          comp=Z,117nm,1.1s,mb5.7
BGF   Bois d'Agland   87.76 316⇑iP     P          11 11 10.7 +0.8
BGF                             pmax   pmax
          comp=Z,59nm,1.1s,mb5.7
RJF   Les Rejaudoux   88.80 315⇑iP     P          11 11 15.6 +0.7
          comp=Z,65nm,1.1s,mb5.5
RJF   Les Rejaudoux   88.80 315⇑iP     P          11 11 15.6 +0.7
RJF                             pmax   pmax
          comp=Z,32nm,1.1s,mb5.6
EMIR  Miracle         89.14 312   P    P          11 11 17.6 +1.1
          comp=Z,28nm,1.0s,mb5.5
EPOB  Poblet          89.53 311   P    P          11 11 19.6 +1.1
          comp=Z,20nm,1.1s,mb5.4
ANM   Nome            89.70  25  eP    P          11 11 19.8 +1.1
FLN   La Foliniere    89.76 319⇑iP     P          11 11 19.9 +0.6
          comp=Z,142nm,1.0s,mb6.0
FLN   La Foliniere    89.76 319⇑iP     P          11 11 19.9 +0.6
FLN                             pmax   pmax
          comp=Z,71nm,1.0s,mb6.0
EGRA  Graus           90.01 312   P    P          11 11 22.5 +1.8
          comp=Z,11nm,1.0s,mb5.2
VNDA  Vanda           90.01 168  eP    P          11 11 19.8  -0.1
VNDA                            pmax   pmax
          comp=Z,8.0nm,1.2s
VNDA  Vanda           90.01 168  LR    LR         11 49 00.0
          comp=Z,257nm,18.5s,MS4.7,baz=285,slow=34
VNDA  Vanda           90.01 168  eP    P          11 11 19.8  -0.1
          comp=Z,7.7nm,1.2s,mb4.9
EBR   Ebro Roquetas   90.03 311  eTs              11 11 23.0
EBIE  Bielsa          90.08 313   P    P          11 11 22.2 +1.3
          comp=Z,6.9nm,0.9s,mb5.0
ETSF  Etsaut          90.56 313⇑iP     P          11 11 24.4 +1.2
          comp=Z,41nm,1.0s,mb5.4
ETSF  Etsaut          90.56 313⇑iP     P          11 11 24.4 +1.2
ETSF                            pmax   pmax
          comp=Z,21nm,1.0s,mb5.4
ESAC  San Caprasio    90.64 312   P    P          11 11 24.7 +1.1
          comp=Z,20nm,0.7s,mb5.6
EMOS  Mosqueruela     90.82 310   P    P          11 11 26.6 +2.1
          comp=Z,28nm,1.1s,mb5.5
ELAN  Lanestosa       92.60 314   P    P          11 11 34.0 +1.4
          comp=Z,14nm,1.1s,mb5.3
EVIA  Vianos          92.61 309   P    P          11 11 34.4 +1.6
EVIA                            pmax   pmax
          comp=Z,9.0nm,0.8s,mb5.2
EVIA  Vianos          92.61 309   P    P          11 11 34.4 +1.6
          comp=Z,9.3nm,0.8s,mb5.3
EBER  Berja           93.17 307   P    P          11 11 36.9 +1.4
          comp=Z,12nm,0.7s,mb5.4
EQES  Quesada         93.18 308   P    P          11 11 36.6 +1.2
          comp=Z,3.5nm,0.6s,mb5.0
GUD   Guadarrama      93.55 311   P    P          11 11 38.6 +1.5
GUD                                    pP         11 11 54.4 +2.5
GUD                             pmax   pmax
          comp=Z,11nm,1.1s,mb5.2
GUD   Guadarrama      93.55 311   P    P          11 11 38.6 +1.6
          comp=Z,11nm,1.1s,mb5.2
GUD                             PcP    pP         11 11 54.4 +2.5
ESDC  Sonseca Array   93.57 310   P    P          11 11 37.9 +0.7
          comp=Z,2.9nm,0.7s,mb4.8,baz=56,slow=4.3,SNR=16
ESDC                            pP     pP         11 11 52.5 +0.5
          comp=Z,1.7nm,0.5s,baz=64,slow=4.4,SNR=6.5
ESDC                            PKKPbc            11 28 44.1
          comp=Z,1.8nm,1.1s,baz=258,slow=2.6,SNR=6.3
ESDC  Sonseca Array   93.57 310   P    P          11 11 38.3 +1.1
          comp=Z,3.3nm,0.8s,mb4.8
ESDC                            PcP    pP         11 11 54.1 +2.1
EARI  Arriondas       93.86 314   P    P          11 11 40.1 +1.7
          comp=Z,13nm,1.0s,mb5.3
IMA   Indian Mountai  93.99  22  eP    P          11 11 39.5 +1.1
IMA                             pmax   pmax
          comp=Z,110nm,0.8s,mb6.3
IMA   Indian Mountai  93.99  22  eP    P          11 11 40.1 +1.7
          comp=Z,24nm,0.8s,mb5.7
EADA  Adamuz          94.29 309   P    P          11 11 41.0 +0.6
          comp=Z,5.5nm,1.1s,mb4.9
SPU   Mount Spurr     96.52  27  eP    P          11 11 49.8  -0.2
COLA  College         96.70  22   P    P          11 11 52.0 +1.2
COLA                            pmax   pmax
          comp=Z,4.0nm,0.9s,mb4.8
COLA  College         96.70  22   P    P          11 11 52.0 +1.2
          comp=Z,3.5nm,0.9s,mb4.8
SUMG  Summit          97.06 347  eP    P          11 11 53.1 +0.8
          comp=Z,4.4nm,0.8s,mb4.9
ILAR  Eielson Array   97.11  22   P    P          11 11 51.6  -1.0
          comp=Z,2.3nm,0.8s,mb4.7,baz=291,slow=4.0,SNR=23
ILAR                            PP     PP         11 15 46.9  -4.8
          comp=Z,4.5nm,1.3s,baz=310,slow=6.4,SNR=4.8
DBIC  Dimbokro        99.00 278   LR   LR         11 52 25.3
          comp=Z,270nm,21.4s,MS4.7,baz=168,slow=33
MENT  Mentasta        99.23  23  eP    P          11 12 03.0 +0.7
YKA   Yellowknife Ar 109.02  14   Pdiff Pdif      11 12 46.7 +1.1
          comp=Z,0.8nm,0.9s,baz=331,slow=4.6,SNR=9.1
YKA                             PKiKP             11 16 48.5
          comp=Z,0.8nm,1.0s,baz=327,slow=2.9,SNR=5.9
YKA                             PP     PP         11 17 16.3  -5.7
          comp=Z,0.6nm,0.6s,baz=338,slow=7.6,SNR=6.4
YKA                             PKKPbc            11 27 57.0
          comp=Z,0.6nm,0.9s,baz=151,slow=3.2,SNR=9.4
YKA                             PKKPab            11 28 11.5
          comp=Z,0.3nm,0.8s,baz=148,slow=2.8,SNR=4.1
SCHQ  Schefferville  118.44 348   PKP  PKPdf      11 17 08.6 +1.5
          comp=Z,3.2nm,0.8s,baz=308,slow=3.5,SNR=9.0
MSO   Missoula       122.44  23  ePKPdf PKPdf     11 17 15.6 +0.6
BMO   Blue Mountains 122.61  27  ePKIKP PKPdf     11 17 16.0 +0.6
CHMT  Chamberlain Mo 122.63  23  ePKPdf PKPdf     11 17 16.0 +0.6
CHMT                             ePP   PP         11 18 53.3  -4.4
MOD   Modoc          123.39  31  ePKPdf PKPdf     11 17 18.8 +1.7
ULM   Lac du Bonnet  124.18   8   PKP  PKPdf      11 17 20.7 +2.3
          comp=Z,8.3nm,0.7s,baz=7.6,slow=2.9,SNR=14
BOZ   Bozeman (W)    124.31  22  ePKIKP PKPdf     11 17 20.3 +1.6
GCMT  Greycliff      124.90  21   PKPdf PKPdf     11 17 21.4 +1.5
```

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LAO   LASA Array     125.24  18  ePKPdf PKPdf     11 17 22.6 +2.1
YFT   Old Faithful   125.62  22  ePKPdf PKPdf     11 17 24.2 +3.0
TPAW  Teton Pass     126.39  23  ePKPdf PKPdf     11 17 24.5 +1.7
LOHW  Long Hollow    126.42  23  ePKPdf PKPdf     11 17 24.6 +1.7
WUWY  Wally Ulrich   126.43  23  ePKPdf PKPdf     11 17 24.5 +1.6
SNOW  Snow King Moun 126.49  23⇓ePKP   PKPdf     11 17 25.1 +2.2
NVAR  Mina Array Bea 126.97  33   PKP   PKPdf     11 17 26.6 +2.5
          comp=Z,8.9nm,0.9s,baz=277,slow=2.0,SNR=29
NVAR                              pPKP            11 17 41.7
          comp=Z,3.5nm,0.7s,baz=262,slow=2.2,SNR=6.5
MNV   Mina           127.05  32  ePKIKP PKPdf     11 17 25.9 +1.7
PDAR  Pinedale Array 127.54  23   PKP   PKPdf     11 17 26.4 +1.4
          comp=Z,6.9nm,0.8s,baz=45,slow=1.0,SNR=40
MTUM  Tungsten Hills 127.61  34   PKPdf PKPdf     11 17 28.6 +3.3
HWUT  Hardware Ranch 127.71  25  ePKPdf PKPdf     11 17 26.0 +0.6
TMUT  Trail Mountain 129.77  26  ePKPdf PKPdf     11 17 31.2 +1.8
NEN   Nelson         130.88  32  ePKPdf PKPdf     11 17 33.5 +1.8
KSU1  Kansas State U 134.84  13  ePKPdf PKPdf     11 17 40.0 +1.0
ANMO  Albuquerque    135.47  25   PKP   PKPdf     11 17 42.6 +2.4
          comp=Z,8.5nm,0.8s,baz=200,slow=1.7,SNR=26
ANMO  Albuquerque    135.47  25  ePKPdf PKPdf     11 17 42.0 +1.8
ANMO                             eSKP             11 21 09.2
TUC   Tucson         135.60  32  ePKPdf PKPdf     11 17 41.8 +1.3
TUC                              eSKP             11 21 09.8
ELN   Prospectdale   137.77 355  ePKPdf PKPdf     11 17 45.9 +1.5
CPRX  Cap Rock       138.21  24  ePKPdf PKPdf     11 17 49.2 +3.9
WMOK  Wichita Mounta 138.43  17  ePKHKP           11 17 34.4
MNTX  Cornudas Mount 138.72  27  ePKPpre          11 17 39.6
MNTX                             ePKPdf PKPdf     11 17 46.6 +0.4
GDL2  Guadalupe Moun 138.72  25  ePKPdf PKPdf     11 17 47.9 +1.7
WVT   Waverly        138.99   3  ePKIKP PKPdf     11 17 48.0 +1.4
MIAR  Mount Ida      139.86  11  ePKHKP           11 17 40.3
MIAR                             e                11 17 49.5
LTX   Lajitas        141.50  26  ePKHKP           11 17 47.6
LTX   Lajitas        141.50  26  ePKPdf PKPdf     11 17 51.5 +0.2
TXAR  Lajitas Array  141.50  26   PKhKP           11 17 47.1
          comp=Z,2.5nm,0.6s,baz=271,slow=0.8,SNR=22
TXAR                              PKP   PKPdf     11 17 54.9 +3.5
          comp=Z,6.1nm,0.8s,SNR=22
TXAR                              PP    PP        11 20 55.3  -3.3
          comp=Z,1.1nm,0.8s,baz=304,slow=4.5,SNR=4.7
TXAR                              SKPbc           11 21 25.5
          comp=Z,2.3nm,0.8s,baz=233,slow=1.3,SNR=6.8
BAO   Brasilia Array 142.00 251   P     PKPdf     11 17 52.7 +0.2
BDFB  Brasilia       142.02 251   PKhKP           11 17 50.5
          comp=Z,7.0nm,0.9s,baz=93,slow=6.2,SNR=8.0
JCT   Junction City  142.03  21  ePKPpre          11 17 47.2
JCT                              eSKP             11 21 26.6
LRAL  Lakeview Retre 142.12   3  ePKPpre          11 17 46.5
LRAL                             ePKPdf PKPdf     11 17 53.4 +1.1
NATX  Nacogdoches    142.32  13  ePKPpre          11 17 48.4
MDZ   Mendoza        148.37 207  eP     PKPab     11 18 28.6  +17
TRN   Trinidad (W)   151.68 303  eP     PKPdf     11 18 17.0 +8.5
PCRV  Puerto La Cruz 154.58 306   PKPbc PKPdf     11 18 21.6 +9.1
          comp=Z,4.2nm,0.5s,baz=280,slow=6.1,SNR=2.5
TEIG  Tepich         154.73   7  ePKPab PKPab     11 18 37.6  -1.1
LVC   Limon Verde    156.49 220   PKP   PKPdf     11 18 17.0 +2.1
          comp=Z,1.9nm,0.8s,baz=144,slow=19,SNR=2.5
LVC   Limon Verde    156.49 220  ePKPdf PKPdf     11 18 17.0 +2.2
LPAZ  La Paz         159.88 235  ePKIKP PKPdf     11 18 22.3 +3.1
LPAZ  La Paz         159.88 235   PKP   PKPdf     11 18 22.4 +3.2
          comp=Z,4.3nm,0.9s,baz=54,slow=4.1,SNR=17
LPAZ                              PKPab PKPab     11 18 59.9  -1.0
          comp=Z,1.4nm,0.6s,baz=203,slow=7.5,SNR=5.0
SDV   Santo Domingo  159.98 314   PKP   PKPdf     11 18 21.1 +1.8
          comp=Z,8.1nm,1.1s,baz=32,slow=19,SNR=4.7
SDV                               PKPab PKPab     11 19 01.3  -0.2
          comp=Z,5.7nm,0.8s,baz=96,slow=1.4,SNR=4.8
SDV   Santo Domingo  159.98 314  ePKPdf PKPdf     11 18 21.5 +2.1
SDV                              ePKPab PKPab     11 19 00.8  -0.7
ROSC  El Rosal       165.39 312   PKP   PKPdf     11 18 27.2 +2.4
          comp=Z,8.5nm,0.7s,baz=81,slow=22,SNR=6.2
OTAV  Otavalo        171.50 308  ePKPdf PKPdf     11 18 31.2 +2.5
OTAV                             ePKPab PKPab     11 19 52.7 +0.8
```

IDC 31 11:05:32.9±2.6**, 61.64S**×**47.37E, mb3.5**/3**, mb1 4.0**/4**, mb1mx3.6**/13**, mbtmp3.8**/4**, ML4.4**/1**, Error ellipse: s-maj=70.5km s-min=32.6km az=153.0, South Indian Ocean**

```
Code  Station Name        Δ°   AZ°     Phase ID          Time     Res
                                       Op     ISC      h  m  s    ISC
MAW   Mawson             8.92 139      Pn     P        11 07 43.0 -3.1
          4.0nm,0.3s,baz=310,slow=16,SNR=49
MAW                                    Sn     Sn       11 09 13.0  -16
          5.6nm,0.3s,baz=53,slow=15,SNR=5.1
SNAA  Sanae             21.53 221      P      P        11 10 23.3 -2.0
          0.9nm,0.6s,baz=104,slow=18,SNR=11
SNAA                                   S      S        11 14 00.3  -20
          0.7nm,0.8s,baz=342,slow=19,SNR=3.4
ASAR  Alice Springs     67.84  99      P      P        11 16 32.8 -2.0
          0.3nm,0.5s,baz=205,slow=6.6,SNR=4.4
WRA   Warramunga Arr    71.24  97      P      P        11 16 53.8 -1.9
          0.7nm,0.6s,baz=206,slow=5.3,SNR=7.1
```

IDC 31 11:14:30.4±1.1**, 11.20N**×**92.62E, mb3.7**/7**, mb1 3.9**/8**, mb1mx3.8**/19**, mbtmp3.7**/8**, ML3.6**/1**, MS3.1**/1**, Ms1 3.3**/1**, ms1mx2.7**/31**, Error ellipse: s-maj=43.8km s-min=20.5km az=54.0, Andaman Islands region**

```
Code  Station Name        Δ°   AZ°     Phase ID          Time     Res
                                       Op     ISC      h  m  s    ISC
CMAR  Chiang Mai Arr     9.46  40      Pn     P        11 16 49.4 -1.5
          0.2nm,0.3s,baz=232,slow=14,SNR=12
CMAR                                   LR     LR       11 20 41.6
          comp=Z,116nm,22.0s,baz=337,slow=39
SONM  Songino Array     38.31  15      P      P        11 21 52.0 -2.4
          1.0nm,0.9s,baz=200,slow=7.0,SNR=4.8
SONM                                   PcP    PcP      11 24 07.0 -2.0
          0.3nm,0.6s,baz=219,slow=4.1,SNR=3.6
BVAR  Borovoye Array    45.38 341      P      P        11 22 50.1 -2.1
          0.5nm,0.4s,baz=144,slow=9.1,SNR=5.3
WRA   Warramunga Arr    51.42 127      P      P        11 23 37.1 -2.5
          0.6nm,0.5s,baz=300,slow=10,SNR=13
ASAR  Alice Springs     53.20 131      P      P        11 23 51.1 -1.9
          0.7nm,1.0s,baz=305,slow=7.4,SNR=6.4
FINES FINESS Array B    69.09 332      P      P        11 25 38.1 -1.9
          1.5nm,0.7s,baz=90,slow=5.7,SNR=10
GERES GERESS Array B    74.36 318      P      P        11 26 10.7 -1.1
          0.3nm,0.6s,baz=90,slow=6.9,SNR=2.9
NOA   NORSAR Array B    76.11 330      P      P        11 26 19.8 -1.8
          0.7nm,0.7s,baz=91,slow=5.6,SNR=2.6
```

IDC 31 11:19:44.5±1.3**, 14.78N**×**91.99E, mb3.8**/7**, mb1 3.9**/8**, mb1mx3.8**/18**, mbtmp3.8**/8**, ML3.8**/1**, Error ellipse: s-maj=37.2km s-min=24.6km az=44.0, Andaman Islands region**

```
Code  Station Name        Δ°   AZ°     Phase ID          Time     Res
                                       Op     ISC      h  m  s    ISC
CMAR  Chiang Mai Arr     7.60  60      Pn     Pn       11 21 37.4 -1.9
          0.4nm,0.3s,baz=245,slow=16,SNR=7.2
SONM  Songino Array     35.06  17      P      P        11 26 38.8 -2.4
          0.4nm,0.6s,baz=209,slow=6.8,SNR=3.4
ZAL   Zalesovo          39.48 353      P      P        11 27 16.5 -1.7
          0.8nm,0.3s,baz=303,slow=2.3,SNR=3.3
BVAR  Borovoye Array    41.82 341      P      P        11 27 36.1 -1.4
          0.5nm,0.5s,baz=149,slow=8.4,SNR=3.5
ASAR  Alice Springs     56.02 132      P      P        11 29 25.3 -2.4
          0.7nm,0.6s,baz=309,slow=7.0,SNR=8.1
BRTR  Keskin Array B    56.44 308      P      P        11 29 28.1 -2.3
          0.4nm,0.5s,baz=115,slow=7.2,SNR=4.5
FINES FINESS Array B    65.67 331      P      P        11 30 30.1 -2.6
          2.9nm,1.0s,baz=135,slow=3.9,SNR=4.8
GERES GERESS Array B    71.34 317      P      P        11 31 07.0 -1.1
          0.2nm,0.3s,baz=79,slow=5.0,SNR=4.6
```

JMA ***31*** *11:25:47.6±0.3, 22.39N×121.96E, h93^{km}*

TAP 31 11:25:41.9, 22.60N×121.33E, h16^{km}±1^{km}**, ML3.5, Taiwan region**

```
Code  Station Name        Δ°   AZ°     Phase ID          Time     Res
                                       Op     ISC      h  m  s    ISC
YOJ   Yonaguni jima      2.41  39      P      Pn       11 26 24.2 +2.9
HATJ  Hateruma jima      2.70  57      eS     Sn       11 26 54.0 -4.0
IRIF  Iriomote-Funau     2.80  51      eS     Sn       11 26 57.9 -2.7
JKRS  Kuro-shima         2.95  56      P      Pn       11 26 29.2 +0.2
JKRS                                   eS     Sn       11 27 01.0 -3.4
JIJ   Ishigaki jima      3.12  55      P      Pn       11 26 31.3 -0.2
JIJ                                    eS     Sn       11 27 04.3 -4.4
JTJ   Tarama             3.70  56      eS     Sn       11 27 19.4 -3.9
```

*BJI **31** 11:27:46.8, 51.30N×174.20W, h15^{km}, mB5.2, mb4.9, Ms4.6, Msz4.6*

*IDC **31** 11:27:46.9±0.6, 51.43N×174.31W, mb4.4/25, mb1 4.6/26, mb1mx4.6/29, mbtmp4.4/26, ML4.8/1, MS4.0/1, Ms1 4.0/1, ms1mx3.3/38, Error ellipse: s-maj=19.7km s-min=12.6km az=177.0*

*NEIC **31** 11:27:48.9±1.4, 51.29N×174.18W, h15^{km}±8^{km}, mb5.0/45, ML4.1(AEIC), Error ellipse: s-maj=8.2km s-min=2.9km az=183.0*

*HRVD **31** 11:27:48.9±1.4, 51.00N×173.98W, h34^{km}±2^{km}, MW4.9/23, Centroid moment Tensor Solution. LP body waves: s6,c9; Mantle waves: s23,c29; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}3.33±.50; $M_{\theta\theta}$-1.63±.30; $M_{\phi\phi}$-1.70±.27; $M_{r\theta}$1.20±.22; $M_{\theta\phi}$-0.56±.16; $M_{\phi r}$0.73±.19; Best double couple: $M_0 3.1\times10^{16}$ NP1:ϕ_s222°, δ32°, λ83°. NP2:ϕ_s50°, δ58°, λ94°. Principal axes: T 3.67, Plg76°, Azm332°; N -1.13, Plg4°, Azm228°; P -2.54, Plg13°, Azm137°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **31** 11:27:50.0±0.6, 51.25N×174.13W, h33^{km}, mb5.2/35 Error ellipse: s-maj=16.8km s-min=7.6km az=86.8*

ISC 31 11:27:49.9±1.2, **51.30N**±0.06×**174.14W**±0.04, **h31**^{km}±7^{km}, **h17**^{km}±1.6^{km}**:pP-P, n205,** σ**0.93**/209, **mb4.8**/89, **MS4.1**/4, **2C-3D, Andreanof Islands**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ATKA	Atka Island	0.90	358	P	Pn	11 28 06.4	-0.1
ATKA				S	Sb	11 28 20.1	+1.4
GSIG	Igitkin Island	1.31	302	P	Pn	11 28 11.7	-0.6
GSMY	Great Sitkin M	1.40	303	P	Pn	11 28 13.2	-0.6
GSTR	Great Sitkin T	1.43	304	P	Pn	11 28 14.0	-0.2
GSTD	Great Sitkin T	1.46	302	P	Pn	11 28 14.5	0.0
ADAG	Mount Adagdak	1.68	295	P	Pn	11 28 17.3	-0.4
KIWB	Kanaga Island	1.96	288	eP	Pn	11 28 21.3	-0.3
KIKV	Kanaga Island	1.98	288	P	Pn	11 28 21.9	0.0
KIMD	Kanaga Island	1.99	285	P	Pn	11 28 21.9	-0.1
UNV	Unalaska Valle	5.31	58	P	Pn	11 29 09.5	+0.2
UNV				S	Sn	11 30 10.4	+0.3
SPIA	Saint Paul Isl	6.31	20	P	Pn	11 29 24.7	+1.3
FX1	Attu Island--F	7.98	286	Pn	Pn	11 29 47.4	+0.7
	4.6nm,0.3s,baz=356,slow=15,SNR=4.3						
KDAK	Kodiak Island	14.06	54	eP	P	11 31 05.9	-2.9
	18nm,0.7s						
SPU	Mount Spurr	15.68	42	eP	P	11 31 28.5	-1.5
SLKM	Skilak Lake	16.18	46	eP	P	11 31 36.8	+0.4
IMA	Indian Mountai	18.08	27	eP	P	11 32 00.2	0.0
IMA				pmax	pmax		
	comp=Z,15nm,0.6s						
IMA	Indian Mountai	18.08	27	eP	P	11 32 00.2	0.0
	comp=Z,15nm,0.6s						
COLA	College	19.23	35	eP	P	11 32 10.0	-4.0
COLA				pmax	pmax		
	comp=Z,8.0nm,0.7s						
COLA	College	19.23	35	eP	P	11 32 10.0	-4.0
	comp=Z,8.2nm,0.7s						
BILL	Bilibino	19.32	338	eP	P	11 32 14.3	-0.7
BILL				pmax	pmax		
	comp=Z,6.0nm,0.5s						
BILL	Bilibino	19.32	338	eP	P	11 32 14.1	-0.9
	comp=Z,10nm,0.8s						
ILAR	Eielson Array	19.53	36	P	P	11 32 13.2	-4.2
	comp=Z,1.3nm,0.3s,baz=240,slow=8.0,SNR=53						
ILAR				S	S	11 35 48.5	-1.9
	comp=Z,0.0nm,0.3s,baz=243,slow=18,SNR=2.4						
INK	Inuvik	25.88	34	P	P	11 33 19.1	-1.0
	comp=Z,6.8nm,0.7s,mb4.3,baz=245,slow=7.8,SNR=34						
INK				PcP	PcP	11 36 48.1	-1.1
	comp=Z,1.5nm,0.6s,baz=227,slow=1.9,SNR=4.5						
DLBC	Dease Lake	25.96	57	P	P	11 33 22.4	+1.4
	comp=Z,13nm,1.2s,mb4.3,baz=310,slow=12,SNR=8.5						
YKA	Yellowknife Ar	33.16	47	P	P	11 34 24.1	-1.1
	comp=Z,1.0nm,0.7s,mb3.9,baz=276,slow=8.2,SNR=19						
YKA				PcP	PcP	11 37 07.3	-0.5
	comp=Z,1.5nm,0.7s,baz=285,slow=3.1,SNR=18						
YKA				ScP		11 40 49.2	
	comp=Z,0.4nm,0.9s,baz=275,slow=3.3,SNR=5.1						
YKA				LR	LR	11 49 48.6	
	comp=Z,255nm,18.3s,MS4.0,baz=310,slow=40						
KLR	Kul'dur	34.00	288	eP	P	11 34 27.8	-4.8
YBH	Yreka Blue Hor	35.99	85	P	P	11 34 51.8	+2.1
	comp=Z,2.2nm,0.8s,mb4.1,baz=254,slow=9.0,SNR=5.9						
NEW	Newport	36.15	72	eP	P	11 34 51.0	0.0
NEW				pmax	pmax		
	comp=Z,3.0nm,0.7s						
NEW	Newport	36.15	72	eP	P	11 34 51.0	0.0
	comp=Z,2.9nm,0.7s,mb4.3						
MDJ	Mudanjiang	37.46	282	P	P	11 35 01.0	-1.0
MDJ				AMB	AMB		
	comp=Z,17nm,0.8s,mb4.9						
MDJ				AMB	AMB		
	comp=Z,339nm,6.0s						
MDJ				LR	LR		
	comp=N,42nm,21.9s,MS3.6						
MDJ				LR	LR		
	comp=E,79nm,18.6s,MS3.6						
MDJ				LR	LR		
	comp=Z,120nm,18.2s,MS3.7						
MDJ	Mudanjiang	37.46	282	eP	P	11 35 00.5	-1.5
BMO	Blue Mountains	37.68	77	P	P	11 35 03.6	-0.3
MSO	Missoula	38.73	72	eP	P	11 35 12.7	0.0
	comp=Z,2.4nm,0.9s,mb3.9						
HRY	Holter Researc	40.05	71	eP	P	11 35 24.2	+0.6
BOD	Bodaibo	40.34	308	eP	P	11 35 22.1	-3.8
CN2	Changchun	40.42	284	eP	P	11 35 25.5	-1.2
CN2				eS	S	11 41 32.0	-0.8
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
CN2				AMB	AMB		
	comp=Z,330nm,3.0s						
NVAR	Mina Array Bea	40.65	86	P	P	11 35 29.8	+1.2
	comp=Z,2.5nm,0.8s,mb3.9,baz=290,slow=7.4,SNR=12						
BOZ	Bozeman (W)	40.71	73	eP	P	11 35 29.3	+0.2
BOZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb3.9						
BOZ	Bozeman (W)	40.71	73	eP	P	11 35 29.3	+0.2
	comp=Z,1.9nm,0.6s,mb3.9						
FFC	Flin Flon	41.79	56	P	P	11 35 38.9	+1.2
	comp=Z,73nm,0.8s,mb5.4,SNR=11						
IMW	Indian Meadow	42.06	74	eP	P	11 35 39.9	-0.2
HVU	Hansel Valley	42.13	78	eP	P	11 35 40.6	0.0
HWUT	Hardware Ranch	42.97	78	eP	P	11 35 47.6	+0.1
BW06	Boulder Array	43.53	75	eP	P	11 35 52.4	+0.4
	comp=Z,4.7nm,0.9s,mb4.2						
PDAR	Pinedale Array	43.53	75	P	P	11 35 52.7	+0.7
	comp=Z,4.2nm,0.9s,mb4.2,baz=307,slow=4.2,SNR=29						
TMUT	Trail Mountain	44.55	80	P	P	11 36 00.0	-0.4
SRU	San Rafael	45.08	80	eP	P	11 36 04.5	-0.1
PV10	Paradox Valley	46.45	80	eP	P	11 36 15.5	0.0
PV01	Paradox Valley	46.89	80	eP	P	11 36 19.0	0.0
ULM	Lac du Bonnet	47.25	59	P	P	11 36 22.7	+1.1
	comp=Z,3.2nm,0.6s,mb4.4,baz=310,slow=7.6,SNR=10.0						
BJI	Beijing	48.23	285	eP	P	11 36 29.3	-0.1
BJI				AMB	AMB		
	comp=Z,18nm,0.9s,mb5.1						
BJT	Baijiatuau	48.25	285	eP	P	11 36 28.8	-0.8
BJT				pmax	pmax		
	comp=Z,11nm,0.8s						
BJT	Baijiatuau	48.25	285	eP	P	11 36 28.8	-0.7
	comp=Z,11nm,0.8s,mb4.9						
TLY	Talaya	48.54	305	eP	P	11 36 30.8	-0.8
TLY				e		11 36 43.7	
TLY				pmax	pmax		
	comp=Z,12nm,1.1s,mb4.8						
TLY	Talaya	48.54	305	eP	P	11 36 30.3	-1.4
	comp=Z,12nm,1.1s,mb4.8						
ULN	Ulaanbaatar	48.89	299	eP	P	11 36 33.1	-1.3
ULN				pmax	pmax		
	comp=Z,7.0nm,0.9s,mb4.7						
ULN	Ulaanbaatar	48.89	299	eP	P	11 36 33.0	-1.3
	comp=Z,6.7nm,0.9s,mb4.7						
SDCO	Great Sand Dun	49.02	78	eP	P	11 36 35.2	-0.3
SONM	Songino Array	49.27	299	P	P	11 36 36.7	-0.6
	comp=Z,4.0nm,0.8s,mb4.5,baz=45,slow=8.5,SNR=37						
SONM				PcP	PcP	11 37 58.9	-1.2
	comp=Z,0.9nm,0.6s,baz=49,slow=3.5,SNR=4.1						
ZAK	Zakamensk	49.47	303	⇑iP	P	11 36 38.1	-0.7
MOY	Mondy	49.91	306	eP	P	11 36 41.9	-0.3
ANMO	Albuquerque	50.23	81	eP	P	11 36 44.7	-0.1
ANMO	Albuquerque	50.23	81	P	P	11 36 44.9	+0.1
	comp=Z,0.5nm,0.7s,mb3.6,baz=320,slow=14,SNR=3.4						
HHC	Hu-ho-hao-te	50.50	289	eP	P	11 36 47.0	+0.2
HHC				AP	pP	11 36 52.0	-4.2
HHC				XP	sP	11 36 54.3	-5.6
HHC				PCP	PcP	11 38 04.0	-0.8
HHC				PP	PP	11 38 42.5	-0.9
HHC				PCS		11 42 01.3	
HHC				S	S	11 43 57.8	+0.5
HHC				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.8						
HHC				AMB	AMB		
	comp=Z,123nm,7.1s						
NJ2	Nanjing	51.73	275	eP	P	11 36 57.0	+0.7
NJ2				AP	pP	11 37 00.8	-4.9
NJ2				XP	sP	11 37 03.8	-5.5
NJ2				PP	PP	11 38 54.3	-0.3
NJ2				S	S	11 44 15.0	+0.6
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.3						
NJ2				AMB	AMB		
	comp=Z,150nm,4.7s						
NJ2				LR	LR		
	comp=N,550nm,17.8s						
NJ2				LR	LR		
	comp=Z,830nm,15.1s,MS4.9						
WMOK	Wichita Mounta	55.10	76	eP	P	11 37 20.0	-1.2
WHN	Wuhan	55.57	277	P	P	11 37 26.0	+1.4
TXAR	Lajitas Array	55.77	85	P	P	11 37 25.4	-0.7
	comp=Z,1.2nm,0.7s,mb4.0,baz=294,slow=5.1,SNR=19						
ZAL	Zalesovo	56.18	316	PcP	PcP	11 38 25.9	-0.1
	comp=Z,1.2nm,0.6s,baz=104,slow=6.3,SNR=3.6						
XAN	Xi'an	56.53	284	P	P	11 37 30.3	-1.2
XAN				AMB	AMB		
	comp=Z,11nm,1.2s,mb4.8						
LZH	Lanzhou	58.19	289	eP	P	11 37 43.0	-0.1
LZH				AMB	AMB		
	comp=Z,23nm,1.1s,mb5.1						
SCHQ	Schefferville	58.21	41	P	P	11 37 41.4	-1.6
	comp=Z,3.9nm,0.7s,mb4.6,baz=307,slow=6.5,SNR=10.0						
KEV	Kevo	58.27	352	ep	P	11 37 40.7	-2.5
	comp=Z,6.8nm,0.6s,mb4.8						
KEV	Kevo	58.27	352	eP	P	11 37 40.7	-2.5
KEV				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.9						
GTA	Gaotai	58.28	295	P	P	11 37 42.8	-0.9
GTA				AP	pP	11 37 56.0	+2.7
GTA				AMB	AMB		
	comp=Z,10.0nm,0.7s,mb5.0						
MIAR	Mount Ida	58.38	73	eP	P	11 37 43.5	-1.0
ARCES	ARCESS Array B	58.62	352	P	P	11 37 43.8	-1.9
	comp=Z,6.2nm,0.7s,mb4.8,baz=27,slow=8.1,SNR=12						
ARCES				PcP	PcP	11 38 34.6	-0.7
	comp=Z,18nm,1.0s,baz=14,slow=5.0,SNR=9.6						
ENH	Enshi	58.78	281	eP	P	11 37 46.5	-0.8
WMQ	Urumqi	61.80	306	⇑P	P	11 38 07.3	-0.5
WMQ				AP	pP	11 38 12.5	-4.9
WMQ				XP	sP	11 38 15.3	-5.6
WMQ				AMB	AMB		
	comp=Z,7.0nm,0.7s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,88nm,8.1s						
WMQ				LR	LR		
	comp=N,146nm,21.2s,MS4.3						
WMQ				LR	LR		
	comp=E,187nm,20.0s,MS4.3						
WMQ				LR	LR		
	comp=Z,71nm,20.0s,MS3.8						
NCB	Newcomb	62.58	53	eP	P	11 38 11.0	-2.0
	comp=Z,8.6nm,0.6s,mb5.1						
BVAR	Borovoye Array	62.79	322	P	P	11 38 12.7	-1.5
	comp=Z,6.7nm,0.5s,mb5.0,baz=53,slow=7.1,SNR=42						
BVAR				PcP	PcP	11 38 52.4	+0.1
	comp=Z,6.7nm,0.7s,baz=63,slow=3.3,SNR=14						
SSPA	Standing Stone	63.07	58	eP	P	11 38 14.6	-1.7
	comp=Z,4.8nm,0.6s,mb4.8						
MDV	Middlebury	63.08	53	eP	P	11 38 14.7	-1.6
GYA	Guiyang	63.23	280	P	P	11 38 17.5	0.0
GYA				AMB	AMB		
	comp=Z,20nm,0.8s,mb5.3						
ACCN	Adirondack Com	63.28	53	eP	P	11 38 16.6	-1.1
MYNC	Murphy	63.57	66	eP	P	11 38 18.2	-1.4
PWV	Princeton	63.70	63	eP	P	11 38 19.9	-0.5
ELN	Prospectdale	63.94	62	eP	P	11 38 21.3	-0.7
BLA	Blacksburg	64.14	62	eP	P	11 38 22.8	-0.5
KAF	Kangasniemi	65.77	350	ep	P	11 38 30.5	-2.9
	comp=Z,3.1nm,0.6s,mb4.5						
KAF	Kangasniemi	65.77	350	eP	P	11 38 30.5	-2.9
KAF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.5						
FINES	FINESS Array B	66.45	350	P	P	11 38 35.7	-2.0
	comp=Z,2.0nm,0.7s,mb4.2,baz=63,slow=4.3,SNR=6.0						
FINES				PcP	PcP	11 39 06.4	-0.7
	comp=Z,3.2nm,0.6s,baz=90,slow=1.9,SNR=6.4						
KMI	Kunming	66.62	281	P	P	11 38 40.8	+1.4
KMI				AP	pP	11 38 47.3	-1.7
KMI				AMB	AMB		
	comp=Z,6.0nm,1.0s,mb4.6						
NB2	NORSAR Subarra	67.93	357	P	P	11 38 45.6	-1.5
	comp=Z,2.8nm,0.8s,mb4.3,baz=3.0,slow=6.5						
NB2	NORSAR Subarra	67.93	357	P	P	11 38 45.6	-1.5
NB2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
NOA	NORSAR Array B	67.93	357	P	P	11 38 45.8	-1.3
	comp=Z,3.5nm,0.8s,mb4.5,baz=3.4,slow=6.4,SNR=9.9						
HFS	Hagfors	68.74	356	P	P	11 38 50.6	-1.5
	comp=Z,5.9nm,0.7s,mb4.6,slow=1.5,SNR=25						
LSA	Lhasa	70.19	293	eP	P	11 39 02.8	+1.3
LSA				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.2						
LSA	Lhasa	70.19	293	eP	P	11 39 02.8	+1.3
	comp=Z,28nm,0.8s,mb5.2						
EKA	Eskdalemuir Ar	73.47	5	P	P	11 39 19.9	-0.6
	comp=Z,3.1nm,1.0s,mb4.2,baz=355,slow=4.7,SNR=7.6						
CMAR	Chiang Mai Arr	73.92	279	P	P	11 39 24.1	+0.3
	comp=Z,3.6nm,0.7s,mb4.4,baz=24,slow=6.9,SNR=16						
GUN	Gumba	74.56	295	eP	P	11 39 28.1	+0.7
	comp=Z,98nm,0.9s,mb5.7						
KKN	Kakani	75.00	296	eP	P	11 39 30.2	+0.3
	comp=Z,48nm,0.9s,mb5.4						
BSEG	Bad Segeberg	75.07	357	eP	P	11 39 29.9	+0.1
PKI	Pulchoki	75.09	295	eP	P	11 39 30.6	+0.2
	comp=Z,56nm,1.0s,mb5.4						
GKN	Gorkha	75.19	296	eP	P	11 39 31.2	+0.2
	comp=Z,68nm,0.9s,mb5.6						
DMN	Daman	75.23	296	eP	P	11 39 31.7	+0.4
	comp=Z,72nm,1.1s,mb5.5						
KOLN	Koldanda	75.96	297	eP	P	11 39 35.5	+0.1
	comp=Z,47nm,1.0s,mb5.4						
AKASG	Malin Array Be	76.45	345	P	P	11 39 36.3	-1.4
	comp=Z,2.8nm,0.5s,mb4.5,baz=16,slow=5.9,SNR=14						
CLZ	Clausthal	77.16	357	eP	P	11 39 42.0	+0.4
	comp=Z,24nm,0.8s,mb5.2						
CLL	Collm	77.59	355	⇓iP	P	11 39 43.8	-0.1
CLL				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
CLL	Collm	77.59	355	⇓iP	P	11 39 43.8	-0.1
	comp=Z,11nm,0.7s,mb4.9						
CLL	Collm	77.59	355	⇓P	P	11 39 43.8	-0.1
	comp=Z,logA/T=1.2,mb4.9						
BRG	Berggiesshubel	77.97	355	iP	P	11 39 46.0	0.0
BRG				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
BRG	Berggiesshubel	77.97	355	iP	P	11 39 46.0	0.0
	comp=Z,12nm,0.8s,mb4.9						
UPC	Upice	78.20	353	eP	P	11 39 47.3	0.0
MOX	Moxa	78.31	356	eP	P	11 39 48.2	+0.3
MOX				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
MOX	Moxa	78.31	356	iP	P	11 39 48.2	+0.3
	comp=Z,logA/T=1.2,mb4.9						
MOX	Moxa	78.31	356	eP	P	11 39 48.2	+0.3
	comp=Z,14nm,0.9s,mb4.9						
DPC	Dobruska-Polom	78.33	353	eP	P	11 39 48.4	+0.3
NKC	Novy Kostel	78.69	356	eP	P	11 39 49.6	-0.4
PRU	Pruhonice	78.82	354	eP	P	11 39 50.6	-0.1
GIVF	Givet	78.97	1	eP	P	11 39 51.6	0.0
BAIF	Baives	79.01	1	eP	P	11 39 52.1	+0.3
	comp=Z,20nm,0.9s,mb4.8						
BAIF	Baives	79.01	1	eP	P	11 39 52.1	+0.3
BAIF				pmax	pmax		
	comp=Z,10.0nm,0.9s,mb4.8						
GRA1	Grafenberg Arr	79.28	356	eP	P	11 39 53.9	+0.6
	comp=Z,33nm,0.9s,mb5.3						
GRF	Grafenberg Arr	79.28	356	eP	P	11 39 53.9	+0.6
GRF				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
GRF	Grafenberg Arr	79.28	356	eP	P	11 39 53.9	+0.6
GRF				pmax	pmax		
	comp=Z,33nm,0.9s,mb5.3						
GRF	Grafenberg Arr	79.28	356	eP	P	11 39 53.9	+0.6
	comp=Z,33nm,0.9s,mb5.3						
KHC	Kasperske Hory	79.73	355	eP	P	11 39 55.5	-0.2
WET	Wettzell	79.75	355	eP	P	11 39 55.9	+0.1
GEC2	GERESS Array S	80.01	355	eP	P	11 39 57.2	0.0
GEC2				pmax	pmax		
	comp=Z,60nm,2.6s,mb5.1						
GEC2	GERESS Array S	80.01	355	eP	P	11 39 57.2	0.0
	comp=Z,60nm,2.6s,mb5.1						
GERES	GERESS Array B	80.01	355	P	P	11 39 57.4	+0.2
	comp=Z,3.4nm,0.7s,mb4.4,baz=18,slow=5.0,SNR=33						
LANF	Langenberg	80.08	359	eP	P	11 39 57.9	+0.3
FLN	La Foliniere	80.17	4	eP	P	11 39 59.0	+1.0
	comp=Z,32nm,1.0s,mb4.9						
FLN	La Foliniere	80.17	4	eP	P	11 39 59.0	+1.0
FLN				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
LDF	La Druitiere	80.35	4	eP	P	11 39 58.8	-0.2
	comp=Z,27nm,0.8s,mb4.9						
LDF	La Druitiere	80.35	4	eP	P	11 39 58.8	-0.2
LDF				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
GRR	Gorron	80.52	5	eP	P	11 40 00.0	+0.1
	comp=Z,9.4nm,0.6s,mb4.6						
GRR	Gorron	80.52	5	eP	P	11 40 00.0	+0.1
GRR				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb4.6						
SGMF	Saint Gilles	80.56	6	eP	P	11 40 00.2	+0.1
	comp=Z,33nm,0.9s,mb5.0						
SGMF	Saint Gilles	80.56	6	eP	P	11 40 00.2	+0.1
SGMF				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
MEZF	Maizieres J'vi	80.57	1	eP	P	11 40 00.4	+0.2
	comp=Z,17nm,0.8s,mb4.7						
WLS	Welschbruch	80.66	359	eP	P	11 40 00.9	+0.3
CDF	Champ du Feu	80.66	359	eP	P	11 40 00.9	+0.3
	comp=Z,23nm,0.7s,mb4.9						
BFO	Black Forest	80.73	358	eP	P	11 40 01.2	+0.2
BFO				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
BFO	Black Forest	80.73	358	eP	P	11 40 01.2	+0.2
	comp=Z,9.0nm,0.9s,mb4.7						
FUR	Furstenfeldbru	80.80	356	eP	P	11 40 01.7	+0.3
THEF	They Montfort	80.85	360	eP	P	11 40 02.1	+0.4
ECH	Echery	80.86	359	eP	P	11 40 01.7	0.0
HAU	Haudompre	81.07	360	eP	P	11 40 03.1	+0.3
	comp=Z,24nm,0.7s,mb5.0						
HAU	Haudompre	81.07	360	eP	P	11 40 03.1	+0.3
HAU				pmax	pmax		
	comp=Z,12nm,0.7s,mb4.9						
HINF	Hinteralfeld	81.26	359	eP	P	11 40 03.9	+0.1
	comp=Z,22nm,0.7s,mb4.9						
HINF	Hinteralfeld	81.26	359	eP	P	11 40 03.9	+0.1
HINF				pmax	pmax		
	comp=Z,11nm,0.7s,mb4.9						
LOMF	Lomont	81.72	359	eP	P	11 40 06.9	+0.7
HYF	Humbligny	81.77	2	eP	P	11 40 07.1	+0.6
SSF	Saint Saulge	82.00	2	eP	P	11 40 08.1	+0.5
	comp=Z,27nm,0.7s,mb5.0						
SSF	Saint Saulge	82.00	2	eP	P	11 40 08.1	+0.5
SSF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
MLR	Muntele Rosu	82.04	346	P	P	11 40 09.7	+1.8
	comp=Z,2.3nm,0.5s,mb4.4,baz=128,slow=2.8,SNR=10						
DAVOX	Davos	82.24	357	P	P	11 40 09.8	+0.9
	comp=Z,4.4nm,0.6s,mb4.5,baz=342,slow=4.3,SNR=13						
AVF	Avril sur Loir	82.27	2	eP	P	11 40 09.3	+0.3
	comp=Z,26nm,0.7s,mb5.0						
AVF	Avril sur Loir	82.27	2	eP	P	11 40 09.3	+0.3
AVF				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.0						
MFF	Saint Martin d	82.34	4	eP	P	11 40 09.8	+0.4
	comp=Z,26nm,0.8s,mb4.9						
MFF	Saint Martin d	82.34	4	eP	P	11 40 09.8	+0.4
MFF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
SMF	Signal de Mont	82.42	1	eP	P	11 40 10.2	+0.3
	comp=Z,27nm,0.7s,mb5.0						
SMF	Signal de Mont	82.42	1	eP	P	11 40 10.2	+0.3
SMF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
CABF	La Chapelle	82.47	360	eP	P	11 40 10.7	+0.6
	comp=Z,26nm,0.8s,mb4.9						
CABF	La Chapelle	82.47	360	eP	P	11 40 10.7	+0.6
CABF				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
BGF	Bois d'Agland	82.49	2	eP	P	11 40 10.5	+0.3
	comp=Z,21nm,0.9s,mb4.8						
BGF	Bois d'Agland	82.49	2	eP	P	11 40 10.5	+0.3
BGF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
TCF	Toulx Ste Croi	82.74	3	eP	P	11 40 11.7	+0.2
	comp=Z,18nm,0.8s,mb4.8						
TCF	Toulx Ste Croi	82.74	3	eP	P	11 40 11.7	+0.2
TCF				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
AGO	Saint Agoulin	83.00	2	eP	P	11 40 15.1	+2.2
PLDF	La Plantade	83.09	2	eP	P	11 40 15.5	+2.2
PYM	Petit Puy Mans	83.30	2	eP	P	11 40 16.7	+2.3
LPL	La Plagne	83.56	359	eP	P	11 40 19.0	+3.3
LPG	La Plagne	83.58	359	eP	P	11 40 19.4	+3.6
RJF	Les Rejaudoux	83.70	3	eP	P	11 40 16.6	+0.2
	comp=Z,53nm,1.4s,mb5.2						
RJF	Les Rejaudoux	83.70	3	eP	P	11 40 16.6	+0.2
RJF				pmax	pmax		
	comp=Z,27nm,1.4s,mb5.2						
LFF	La Frestale	84.04	4	eP	P	11 40 18.4	+0.3
	comp=Z,43nm,1.0s,mb5.2						
LFF	La Frestale	84.04	4	eP	P	11 40 18.4	+0.3
LFF				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.2						
WRA	Warramunga Arr	84.05	228	P	P	11 40 17.9	-0.8
	comp=Z,1.6nm,0.7s,mb4.3,baz=33,slow=5.7,SNR=14						
CAF	Calviac	84.10	3	eP	P	11 40 18.8	+0.4
	comp=Z,28nm,1.0s,mb5.0						
CAF	Calviac	84.10	3	eP	P	11 40 18.8	+0.4
CAF				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
ORIF	Oris-en-Rattie	84.16	360	eP	P	11 40 20.2	+1.5
VIVF	Saint-Julien-l	84.22	1	eP	P	11 40 21.1	+2.1
	comp=Z,24nm,1.1s,mb4.9						
MBDF	Montbardon	84.35	359	eP	P	11 40 21.3	+1.6
	comp=Z,5.7nm,0.6s,mb4.6						
MBDF	Montbardon	84.35	359	eP	P	11 40 21.3	+1.6
MBDF				pmax	pmax		
	comp=Z,3.0nm,0.6s,mb4.6						
LASF	Ste Croix	84.99	1	eP	P	11 40 23.0	+0.1
SMRF	Simiane la Rot	85.10	0	eP	P	11 40 25.1	+1.7
	comp=Z,54nm,1.2s,mb5.2						
SBF	Sospel	85.21	359	eP	P	11 40 24.7	+0.7
	comp=Z,51nm,0.9s,mb5.3						
MTLF	Montolieu	85.69	3	eP	P	11 40 27.3	+0.9
	comp=Z,17nm,0.9s,mb5.0						
MTLF	Montolieu	85.69	3	eP	P	11 40 27.3	+0.9
MTLF				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.0						
LMR	La Mourre	85.74	360	eP	P	11 40 27.5	+0.8
SJPF	Ste Jean	85.76	5	eP	P	11 40 27.0	+0.2
	comp=Z,12nm,0.7s,mb4.9						
SJPF	Ste Jean	85.76	5	eP	P	11 40 27.0	+0.2
SJPF				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.9						
EPF	Esparros	85.93	4	eP	P	11 40 27.8	+0.2
	comp=Z,16nm,0.9s,mb4.9						
EPF	Esparros	85.93	4	eP	P	11 40 27.8	+0.2
EPF				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
ETSF	Etsaut	86.02	5	eP	P	11 40 28.6	+0.6
	comp=Z,13nm,0.7s,mb5.0						
ETSF	Etsaut	86.02	5	eP	P	11 40 28.6	+0.6
ETSF				pmax	pmax		
	comp=Z,7.0nm,0.7s,mb5.0						
BRTR	Keskin Array B	86.15	339	P	P	11 40 29.4	+0.6
	comp=Z,1.5nm,0.7s,mb4.3,baz=47,slow=2.2,SNR=9.1						
ASAR	Alice Springs	87.47	226	P	P	11 40 35.9	+0.3
	comp=Z,3.6nm,0.7s,mb4.7,baz=31,slow=4.4,SNR=22						
ESDC	Sonseca Array	89.00	8	P	P	11 40 42.4	-0.1
	comp=Z,2.9nm,0.8s,mb4.7,baz=347,slow=4.5,SNR=14						
LBTB	Lobatse	149.70	323	ePKP2	PKPab	11 47 37.6	-6.1

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*NEIC **31** 11:30:31.4±0.6, 50.02N×18.49E, h5^{km}, MG2.6(WAR), Error ellipse: s-maj=9.4km s-min=5.6km az=189.0*

*PRU **31** 11:30:31.9,50.08N×18.42E*

WAR 31 11:30:31.4,50.07N×18.46E,h0^{km},ML2.4,2D,Mining Induced,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
RAC	**Raciborz**	**0.17**	**275**	⇓*i*PG	Pg	11 30 35.8	+1.0
RAC				⇓*i*SG	Sg	11 30 39.2	+2.1
OKC	**Ostrava-Krasne**	**0.31**	**221**	*e*PG	Pg	11 30 37.9	+0.3
OKC				*e*SG	Sg	11 30 42.8	+1.1
MORC	**Moravsky Berou**	**0.66**	**244**	*e*Pg	Pg	11 30 43.7	-0.9
MORC				*e*Sg	Sg	11 30 53.3	-0.1
OJC	**Ojcow**	**0.87**	**80**	*e*PG	Pg	11 30 48.0	-0.8
OJC				*e*SG	Sg	11 31 00.0	-0.5
LIKS	**Likavka**	**1.10**	**157**	*i* SG	Sg	11 31 11.8	+3.6
NIE	**Niedzica**	**1.37**	**118**	*e*Pg	Pg	11 30 57.4	-1.3
NIE				*e*		11 30 57.9	
NIE				*e*Sg	Sg	11 31 16.6	-0.3
DPC	**Dobruska-Polom**	**1.40**	**282**	*e*PG	Pg	11 30 57.4	-2.0
DPC				*e*SG	Sg	11 31 16.1	-2.0
	27nm,0.3s						
VYHS	**Vyhne**	**1.60**	**171**	*e*PG	Pg	11 31 00.8	-2.5
VYHS				*e*SG	Sg	11 31 23.3	-1.3
UPC	**Upice**	**1.63**	**287**	*e*PG	Pg	11 31 01.3	-2.6
UPC				*e*SG	Sg	11 31 22.4	-3.3
CRVS	**Cervenica-Dubn**	**2.28**	**120**	*e*PG	Pg	11 31 14.0	-2.9
CRVS				*e*SG	Sg	11 31 46.9	-0.4
PRU	**Pruhonice**	**2.53**	**270**	*e*SG	Sg	11 31 49.1	-6.5
PRU	**Pruhonice**	**2.53**	**270**	*e*Sg	Sg	11 31 49.1	-6.5
KOLS	**Kolonicke sedl**	**2.73**	**113**	*e*PG	Pg	11 31 23.9	-2.1
KHC	**Kasperske Hory**	**3.31**	**255**	*e*PG	Pg	11 31 33.5	-4.0
KHC				*e*x	x	11 32 09.5	
KHC				*e*SG	Sg	11 32 15.9	-5.8
KHC	**Kasperske Hory**	**3.31**	**255**	*e*Sg	Sg	11 32 15.9	-5.8
CLL	**Collm**	**3.69**	**292**	*e*SG	Sg	11 32 29.0	-5.1
CLL	**Collm**	**3.69**	**292**	*e*Sg	Sg	11 32 29.0	-5.1

IDC 31 11:34:26.9±3.6,5.51N×94.41E,mb3.5/4,mb1 3.8/4,mb1mx3.6/17,mbtmp3.5/4,Error ellipse: s-maj=149.9km s-min=26.4km az=63.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.61**	**19**	Pn	P	11 37 49.2	+5.4
	0.3nm,0.3s,baz=206,slow=14,SNR=15						
SONM	**Songino Array**	**43.40**	**12**	P	P	11 42 32.2	-0.7
	0.2nm,0.4s,baz=200,slow=7.3,SNR=4.5						
SONM				PcP	PcP	11 44 19.2	-2.8
	0.2nm,0.7s,baz=215,slow=3.2,SNR=3.1						
WRA	**Warramunga Arr**	**46.70**	**124**	P	P	11 42 56.6	-3.1
	0.2nm,0.5s,baz=306,slow=8.6,SNR=5.0						
ASAR	**Alice Springs**	**48.22**	**129**	P	P	11 43 10.8	-0.8
	0.3nm,0.9s,baz=306,slow=7.4,SNR=4.7						
ZAL	**Zalesovo**	**48.91**	**352**	P	P	11 43 13.9	-2.6
	1.4nm,0.6s,baz=321,slow=7.3,SNR=4.3						

IDC 31 11:38:03.3±1.2,3.33N×95.36E,mb3.9/6,mb1 4.1/7,mb1mx3.9/19,mbtmp3.8/7,MS3.1/1,Ms1 3.3/1,ms1mx2.6/29,Error ellipse: s-maj=58.9km s-min=21.5km az=55.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**15.43**	**13**	Pn	P	11 41 42.6	-1.6
	baz=207,slow=10,SNR=3.3						
CMAR				LR	LR	11 48 38.4	
	comp=Z,68nm,19.6s,baz=200,slow=41						
WRA	**Warramunga Arr**	**44.72**	**123**	P	P	11 46 17.7	-2.7
	1.8nm,0.9s,baz=299,slow=9.0,SNR=5.2						
SONM	**Songino Array**	**45.34**	**10**	P	P	11 46 23.1	-1.9
	0.7nm,0.9s,baz=193,slow=9.8,SNR=6.4						
SONM				PcP	PcP	11 48 05.2	+0.2
	0.6nm,0.7s,baz=197,slow=5.0,SNR=3.1						
ASAR	**Alice Springs**	**46.14**	**128**	P	P	11 46 28.2	-3.4
	0.8nm,0.9s,baz=301,slow=8.3,SNR=4.7						
ASAR				PcP	PcP	11 48 08.4	+0.2
	0.4nm,0.7s,baz=305,slow=3.9,SNR=5.1						
BVAR	**Borovoye Array**	**53.65**	**342**	P	P	11 47 25.3	-3.5
	1.5nm,0.7s,baz=146,slow=10,SNR=9.1						
FINES	**FINESS Array B**	**77.27**	**333**	P	P	11 49 59.5	-1.4
	2.3nm,0.8s,baz=135,slow=5.4,SNR=3.8						
GERES	**GERESS Array B**	**82.01**	**319**	P	P	11 50 24.6	-2.0
	0.8nm,0.7s,baz=104,slow=5.5,SNR=7.7						
TXAR	**Lajitas Array**	**142.75**	**28**	PKP	PKPdf	11 57 39.2	-2.0
	0.3nm,0.8s,baz=315,slow=1.3,SNR=4.0						

CASC 31 11:44:05.8±1.6,13.25N×89.87W,h35^{km}±559^{km},MD3.7,ML3.7,6C-8D,El Salvador

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SBLS	**San Blas**	**0.63**	**22**	⇓*e*P	P	11 44 18.7	+0.5
SBLS				*e*S	S	11 44 28.6	+1.3
SNJE	**San Jose**	**0.67**	**22**	⇓*e*P	P	11 44 19.1	+0.4
SNJE				*e*S	S	11 44 28.7	+0.6
RTR	**El Retiro**	**0.68**	**18**	⇓*e*P	P	11 44 19.4	+0.5
RTR				*e*S	S	11 44 29.8	+1.4
BOQS	**Boqueron**	**0.75**	**50**	⇑*e*P	P	11 44 20.3	+0.5
BOQS				*e*S	S	11 44 31.1	+1.0
SNET	**Serv Nac Est T**	**0.75**	**55**	*e*P	P	11 44 20.0	+0.1
SNET				*e*S	S	11 44 31.3	+0.9
LFRS	**El Faro**	**0.87**	**64**	⇓*e*P	P	11 44 21.2	-0.3
LFRS				*e*S	S	11 44 32.9	-0.2
RBDL	**Robledal**	**0.88**	**11**	⇑*e*P	P	11 44 22.3	+0.6
RBDL				*e*S	S	11 44 35.5	+2.1
LFU	**La Fuente**	**0.88**	**56**	⇑*e*P	P	11 44 21.8	0.0
LFU				*e*S	S	11 44 34.5	+1.0
LBRS	**Las Brisas**	**0.94**	**59**	⇑*e*P	P	11 44 22.6	+0.1
LBRS				*e*S	S	11 44 35.7	+0.8
LCBS	**La Ceiba**	**0.95**	**65**	⇑*e*P	P	11 44 22.7	-0.1
LCBS				*e*S	S	11 44 35.0	-0.3
SNVI	**San Vicente**	**1.06**	**70**	*e*P	P	11 44 24.5	+0.2
SNVI				*e*S	S	11 44 38.3	+0.2
IXG	**Ixpaco**	**1.08**	**328**	⇓*e*P	P	11 44 24.1	-0.5
IXG				*e*S	S	11 44 38.8	+0.1
IXG				AML	AML	11 44 44.8	
	comp=N,3µm,0.4s						
MTO2	**Montecristo 2**	**1.24**	**23**	⇑*e*P	P	11 44 26.9	0.0
MTO2				*e*S	S	11 44 43.7	+0.9
NBG	**Las Nubes**	**1.41**	**341**	⇓*e*P	P	11 44 30.0	+0.6
NBG				*e*S	S	11 44 49.4	+2.4
NBG				AML	AML	11 44 51.5	
	comp=E,1µm,0.3s						
BLLM	**Bellamira**	**1.59**	**83**	*e*P	P	11 44 31.1	-0.9
BLLM				*e*S	S	11 44 53.1	+1.4
CAHU	**Cacacuatique**	**1.69**	**72**	*e*P	P	11 44 33.1	-0.3
CAHU				*e*S	S	11 44 54.5	+0.5
CNCH	**Conchagua**	**1.98**	**89**	⇓*e*P	P	11 44 36.8	-0.7
CNCH				*e*S	S	11 45 01.2	-0.1
LEON	**Leon**	**3.02**	**106**	*e*P	P	11 44 51.3	-1.0
LEON				*e*S	S	11 45 26.0	-1.6
TEL3	**Telica 3**	**3.02**	**103**	*e*P	P	11 44 52.1	-0.3
TEL3				*e*S	S	11 45 26.4	-1.4
COPN	**Copaltepe**	**3.37**	**108**	⇓*e*P	P	11 44 57.7	+0.4
APYN	**Apoyeque**	**3.58**	**106**	*e*P	P	11 44 59.5	-0.7

IDC 31 11:47:15.3±1.4,5.09N×94.58E,mb3.8/6,mb1 4.1/6,mb1mx3.8/18,mbtmp3.8/6,Error ellipse: s-maj=64.8km s-min=21.4km az=55.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.95**	**17**	Pn	P	11 50 40.7	+3.9
	0.1nm,0.3s,baz=225,slow=12,SNR=4.8						
SONM	**Songino Array**	**43.77**	**12**	P	P	11 55 22.4	-1.9
	1.1nm,0.8s,baz=192,slow=8.1,SNR=9.9						
SONM				PcP	PcP	11 57 09.4	-2.3
	0.4nm,0.5s,baz=192,slow=4.0,SNR=5.6						
WRA	**Warramunga Arr**	**46.34**	**124**	P	P	11 55 43.3	-1.9
	2.0nm,0.5s,baz=301,slow=9.6,SNR=15						
ASAR	**Alice Springs**	**47.84**	**128**	P	P	11 55 55.3	-1.7
	0.5nm,0.5s,baz=300,slow=7.9,SNR=6.2						
ZAL	**Zalesovo**	**49.34**	**352**	P	P	11 56 06.5	-1.8
	1.0nm,0.6s,baz=305,slow=5.2,SNR=3.5						
BVAR	**Borovoye Array**	**51.74**	**342**	P	P	11 56 24.3	-2.3
	0.5nm,0.7s,baz=149,slow=8.4,SNR=3.3						
GERES	**GERESS Array B**	**80.18**	**319**	P	P	11 59 27.7	-1.4
	1.0nm,0.7s,baz=90,slow=5.3,SNR=9.8						

IDC 31 11:53:59.6±14.0,18.51N×145.48E,h373^{km}±147^{km},mb3.0/5,mb1 3.2/5,mb1mx3.0/20,mbtmp3.7/5,Error ellipse: s-maj=50.4km s-min=24.5km az=73.0,Mariana Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**39.74**	**197**	P	P	12 00 57.8	-1.3
	0.8nm,0.8s,baz=15,slow=8.2,SNR=15						
ASAR	**Alice Springs**	**43.41**	**196**	P	P	12 01 26.9	-1.8
	0.2nm,0.5s,baz=16,slow=6.8,SNR=8.3						
BVAR	**Borovoye Array**	**66.49**	**320**	P	P	12 04 10.4	-1.4
	1.2nm,0.6s,baz=100,slow=8.3,SNR=8.8						
YKA	**Yellowknife Ar**	**78.26**	**28**	P	P	12 05 18.6	-1.4
	0.2nm,0.4s,baz=290,slow=4.9,SNR=8.1						
NVAR	**Mina Array Bea**	**83.42**	**52**	P	P	12 05 46.9	-0.5
	0.6nm,0.5s,baz=260,slow=5.5,SNR=4.3						
LPAZ	**La Paz**	**147.88**	**91**	PKPbc	PKPdf	12 13 02.3	+3.9
	0.6nm,0.6s,baz=243,slow=4.5,SNR=2.9						

JMA 31 11:54:18.2±0.1,33.50N×140.77E,M3.5,Southeast of Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
JHJ2	**Mitsune**	**0.89**	**244**	P	Pg	11 54 35.6	-0.3
JHJ2				*e*S	Sg	11 54 47.9	+0.2
BSO1	**Boso 1**	**1.16**	**8**	P	Pb	11 54 40.7	-0.2
JIZS	**Izushimoda**	**1.98**	**308**	P	Pn	11 54 54.0	+0.6
KTJJ	**Kamata 2**	**2.00**	**316**	*e*S	Sn	11 55 19.6	-0.2

IDC 31 11:57:05.3±1.5,5.42N×93.43E,mb3.9/6,mb1 4.1/6,mb1mx3.8/18,mbtmp3.9/6,Error ellipse: s-maj=69.7km s-min=22.0km az=57.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
SONM	**Songino Array**	**43.69**	**13**	P	P	12 05 12.2	-1.5
	0.7nm,0.8s,baz=190,slow=8.8,SNR=6.1						
WRA	**Warramunga Arr**	**47.47**	**123**	P	P	12 05 43.0	-1.2
	2.6nm,0.7s,baz=302,slow=9.2,SNR=7.7						
ZAL	**Zalesovo**	**48.88**	**353**	P	P	12 05 52.1	-2.5
	0.6nm,0.3s,baz=270,slow=1.0,SNR=2.7						
BVAR	**Borovoye Array**	**51.08**	**342**	P	P	12 06 09.3	-2.2
	1.2nm,0.9s,baz=153,slow=9.7,SNR=4.7						
STKA	**Stephens Creek**	**58.96**	**132**	P	P	12 07 06.1	-3.0
	1.6nm,0.7s,baz=324,slow=8.7,SNR=4.5						
GERES	**GERESS Array B**	**79.18**	**319**	P	P	12 09 12.7	-1.0
	0.6nm,0.8s,baz=101,slow=6.8,SNR=4.7						

*BJI **31** 12:04:55.3,6.00N×92.89E,h21^{km},mB5.9,mb5.5,Ms6.4,Msz6.2*

*IDC **31** 12:04:56.0±0.4,6.23N×92.92E,mb5.1/31,mb1 5.2/32,mb1mx5.2/32,mbtmp5.1/32,ML4.7/1,MS5.9/6,Ms1 6.0/6,ms1mx5.4/12,Error ellipse: s-maj=16.3km s-min=10.0km az=42.0*

*NEIC **31** 12:04:57.5±0.1,6.20N×92.91E,h11^{km},mb5.5/87,ME5.6,MS6.1/137,MW6.0,Error ellipse: s-maj=4.9km s-min=3.1km az=219.0 Broadband fault plane solution: P waves. NP1:ϕ_s120°,δ65°,λ70°. NP2:ϕ_s341°,δ32°,λ126°. Principal axes: T Plg64°, Azm356°; N Plg0°, Azm0°; P Plg18°, Azm225°; Moment Tensor Solution. s35 Moment tensor: Scale 10^{18} Nm; M_{rr}0.00; $M_{\theta\theta}$0.00; $M_{\phi\phi}$0.00; $M_{r\theta}$0.00; $M_{\theta\phi}$0.00; $M_{\phi r}$0.00; Best double couple: $M_0$1.1×10^{18} NP1:ϕ_s354°,δ44°,λ129°. NP2:ϕ_s125°,δ57°,λ58°. Principal axes: T 1.11, Plg63°, Azm341°; N -.03, Plg26°, Azm143°; P -1.09, Plg7°, Azm237°; Depth from synthetics of broadband displacement seismograms. Energy computed from BB mechanism.*

*HRVD **31** 12:04:57.5±0.1,6.03N×92.80E,h12^{km},MW6.0/65, Centroid moment Tensor Solution. LP body waves: s65,c130;Mantle waves: s57,c119; Half duration: 2^{s}4 Moment tensor: Scale 10^{18}Nm; M_{rr}0.65±.01; $M_{\theta\theta}$-0.01±.01; $M_{\phi\phi}$-0.64±.01; $M_{r\theta}$0.67±.03; $M_{\theta\phi}$0.63±.01; $M_{\phi r}$-0.17±.03; Best double couple: $M_0$1.13×10^{18} NP1: ϕ_s359°,δ39°,λ143°. NP2:ϕ_s119°,δ68°,λ57°. Principal axes: T 1.09, Plg55°, Azm348°; N .08, Plg30°, Azm133°; P -1.17, Plg16°, Azm233°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*MOS **31** 12:04:59.6±1.0,6.29N×92.90E,h33^{km},mb5.7/78, MS6.0/78 Error ellipse: s-maj=8.8km s-min=4.1km az=123.6*

ISC 31 12:04:57.7±0.2,6.18N±0.03×92.93E±0.02,h23^{km},h23^{km}±2.4^{km}:pP-P,n616,σ0^{s}98/487,mb5.4/158,MS6.1/172,80C-24D,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**11.78**	**36**	⇓P	**P**	**12 07 47.8**	**+0.2**
	100nm,1.8s						
CM31	**Chiang Mai Arr**	**13.54**	**25**	*e*Pn	**P**	**12 08 11.2**	**+0.2**
	498nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.54**	**25**	Pn	**P**	**12 08 10.7**	**-0.4**
	1.2nm,0.3s,baz=217,slow=14,SNR=52						
CMAR				LR	LR	12 13 38.7	
	comp=Z,27µm,18.3s,baz=215,slow=39						
KKTK	**Khon Kaen**	**13.99**	**43**	P	**P**	**12 08 19.0**	**+2.0**
	2µm,0.7s						
MDRS	**Chennai**	**14.25**	**300**	⇑*e*P	**P**	**12 08 18.2**	**-2.2**
VIS	**Vishakhapatnam**	**14.81**	**322**	⇑*e*P	**P**	**12 08 25.5**	**-2.3**
VIS				AMb	AMB	12 08 30.3	
	comp=Z,1µm,0.5s						
VIS				*e*	S	12 11 47.9	+36
UBT	**Ubonrachathani**	**14.90**	**52**	P	**P**	**12 08 35.5**	**+6.6**
CHRT	**Chiangrai**	**15.15**	**25**	⇑P	**P**	**12 08 33.0**	**+0.8**
	comp=Z,895nm,1.3s						
BWNR	**Bhubaneshwar**	**15.64**	**334**	*e*	**P**	**12 08 32.9**	**-5.6**
	comp=Z,133nm,0.7s						
BWNR				*e*		12 09 50.0	
KOD	**Kodaikanal**	**15.82**	**286**	⇑*e*P	**P**	**12 08 39.6**	**-1.3**
KOD				*e*		12 08 47.7	
	comp=Z,218nm,1.1s						
KOD				*e*	**S**	**12 11 25.8**	**-10**
TRD	**Trivandrum**	**16.01**	**279**	⇑*e*	**P**	**12 08 35.9**	**-7.4**
TRD				*e*		12 08 53.4	
	comp=Z,254nm,1.3s						
CAL	**Calcutta**	**16.86**	**345**	*e*	**P**	**12 08 57.6**	**+3.6**
CAL				*e*		12 12 17.7	
AGT	**Agartala**	**17.67**	**355**	⇑*i*P	**P**	**12 09 02.0**	**-2.2**
AGT				*i*		12 10 47.0	
HYB	**Hyderabad**	**17.95**	**310**	*e*P	**P**	**12 09 07.0**	**-0.6**
HYB				pmax	pmax		
	comp=Z,200nm,1.0s						
HYB	**Hyderabad**	**17.95**	**310**	*e*P	**P**	**12 09 07.0**	**-0.6**
	comp=Z,200nm,1.0s						
HYB	**Hyderabad**	**17.95**	**310**	*i* P	**P**	**12 09 07.0**	**-0.6**
	comp=Z,200nm,1.0s						
HYB				*e*S	**S**	**12 12 32.0**	**+7.7**
HYB				LR	LR	12 16 36.0	
	comp=Z,70nm,20.0s						
IMP	**Imphal**	**18.52**	**3**	⇓*i*P	**P**	**12 09 12.0**	**-2.7**
BOK	**Bokaro**	**18.77**	**340**	⇑*i*P	**P**	**12 09 16.5**	**-1.3**
BOK				*e*		12 09 33.0	
	comp=Z,284nm,0.6s						
BLSP	**Bilaspur**	**18.98**	**328**	*i* P	**P**	**12 09 18.2**	**-2.0**
BLSP				*e*		12 09 29.9	
	comp=Z,635nm,1.4s						
BLSP				*i*		12 13 28.0	
MNGI	**Mangalore**	**19.07**	**292**	⇑*e*P	**P**	**12 09 20.4**	**-1.0**
MNGI				*e*		12 09 27.5	
	comp=Z,403nm,1.1s						
MNGI				*e*	**S**	**12 12 58.4**	**+8.6**
SHL	**Shillong**	**19.30**	**357**	⇑*i*P	**P**	**12 09 21.2**	**-2.8**
SHL				*e*		12 09 25.6	
	comp=Z,854nm,1.7s						
SHL				*e*		12 11 26.0	
	comp=Z,408nm,0.8s						
MNCY	**Minicoy**	**19.84**	**277**	⇓*i*		12 09 37.0	
NGP	**Nagpur**	**20.05**	**319**	⇑*e*P	**P**	**12 09 32.2**	**-0.1**
NGP				*e*		12 13 19.3	
QIZ	**Qiongzhong**	**20.84**	**51**	P	**P**	**12 09 37.0**	**-3.5**
QIZ				S	**S**	**12 13 23.3**	**-3.6**
QIZ				LR	LR		
	comp=N,100µm,14.7s						
QIZ				LR	LR		
	comp=Z,56µm,17.4s,MS6.0						
QIZ	**Qiongzhong**	**20.84**	**51**	*e*P	**P**	**12 09 39.7**	**-0.8**
	comp=Z,1µm,1.8s						
QIZ				LR	LR		
	comp=Z,58µm,19.0s,MS6.0						
GOA	**Goa**	**20.90**	**298**	⇑*e*	**P**	**12 09 45.1**	**+3.9**
	comp=Z,362nm,1.2s						
GOA				*e*		12 13 43.9	
KMI	**Kunming**	**21.05**	**25**	P	**P**	**12 09 43.8**	**+1.2**
KMI				XP		12 09 54.8	
KMI				PP	PP	12 10 09.5	+3.8
KMI				S	**S**	**12 13 38.0**	**+7.1**
KMI				XS		12 13 49.3	
KMI				AMB	AMB		
	comp=Z,187nm,1.3s,mb5.3						
KMI				AMB	AMB		
	comp=Z,4µm,8.0s						
KMI				LR	LR		
	comp=N,43µm,24.9s						
KMI				LR	LR		
	comp=E,73µm,16.1s						
KMI				LR	LR		
	comp=Z,36µm,11.7s						
AKL	**Akola**	**21.13**	**315**	⇑*e*	**P**	**12 09 45.8**	**+2.3**
AKL				*e*		12 10 24.0	
	comp=Z,542nm,1.5s						
AKL				*i*	**S**	**12 13 39.4**	**+7.0**
KAD	**Karad**	**21.40**	**303**	⇑*i*P	**P**	**12 09 45.5**	**-0.7**
ALBI	**Allahabad**	**21.79**	**332**	*e*P	**P**	**12 09 48.5**	**-1.6**
POO	**Poona**	**22.28**	**305**	⇑*i*P	**P**	**12 09 54.6**	**-0.4**
PKI	**Pulchoki**	**22.44**	**342**	*e*P	**P**	**12 09 57.1**	**+0.6**
	comp=Z,438nm,0.9s,mb5.9						
DMN	**Daman**	**22.57**	**342**	*e*P	**P**	**12 09 58.4**	**+0.5**
	comp=Z,534nm,1.0s,mb6.0						
BHPL	**Bhopal**	**22.60**	**320**	*e*P	**P**	**12 09 57.8**	**-0.4**
BHPL				AMb	AMB	12 10 04.9	
	comp=Z,348nm,2.9s,mb5.3						
GUN	**Gumba**	**22.62**	**344**	*e*P	**P**	**12 09 58.1**	**-0.3**
	comp=Z,624nm,0.9s,mb6.0						
KKN	**Kakani**	**22.68**	**342**	*e*P	**P**	**12 09 59.5**	**+0.5**
	comp=Z,639nm,0.9s,mb6.0						
GKN	**Gorkha**	**23.08**	**341**	*e*P	**P**	**12 10 03.8**	**+0.9**
	comp=Z,1µm,1.0s,mb6.2						
KOLN	**Koldanda**	**23.23**	**339**	*e*P	**P**	**12 10 05.1**	**+0.8**
	comp=Z,2µm,1.6s,mb6.2						
BOM	**Bombay**	**23.31**	**305**	⇑*e*P	**P**	**12 10 07.0**	**+1.7**
BOM				*e*		12 14 30.7	
	comp=Z,2µm,3.9s						
LSA	**Lhasa**	**23.45**	**356**	*e*P	**P**	**12 10 07.7**	**+1.2**
LSA				pmax	pmax		
	comp=Z,109nm,0.8s,mb5.3						
LSA				MLR	MLR		
	comp=Z,25µm,19.0s,MS5.7						
LSA	**Lhasa**	**23.45**	**356**	*e*P	**P**	**12 10 07.7**	**+1.3**
	comp=Z,109nm,0.8s,mb5.3						
LSA				LR	LR		
	comp=Z,25µm,19.0s,MS5.7						
JHNI	**Jhansi**	**23.60**	**326**	*e*		12 10 14.0	
JHNI				*e*		12 11 15.0	
GYA	**Guiyang**	**24.04**	**31**	⇑*i*P	**P**	**12 10 13.3**	**+1.0**
GYA				PP	PP	12 10 46.3	-0.4
GYA				S	**S**	**12 14 29.0**	**+4.0**
GYA				AMB	AMB		
	comp=Z,270nm,1.1s,mb5.6						
GYA				AMB	AMB		
	comp=Z,12µm,10.8s						
GYA				LR	LR		
	comp=N,71µm,17.0s,MS6.4						
GYA				LR	LR		
	comp=E,84µm,17.1s,MS6.4						
GYA				LR	LR		
	comp=Z,102µm,16.8s,MS6.4						
DGAR	**Diego Garcia**	**24.49**	**237**	PFAKE		12 10 30.0	+13
DGAR				LR	LR		
	comp=Z,11µm,20.0s,MS5.3						
BATP	**Bataraza**	**24.79**	**82**	*e*P	**P**	**12 10 20.1**	**+0.4**
BHV	**Bhavnagar**	**25.37**	**310**	*e*	**P**	**12 10 29.5**	**+4.5**
HKC	**Hong Kong**	**26.03**	**50**	⇓*i*P	**P**	**12 10 32.0**	**+0.8**
HKC				*i* S	**S**	**12 15 14.0**	**+16**
LGTI	**Lohaghat**	**26.05**	**334**	⇑*i*P	**P**	**12 10 32.5**	**+1.2**
LGTI				*e*		12 13 35.5	
CD2	**Chengdu**	**26.61**	**21**	⇑*i*P	**P**	**12 10 35.8**	**-0.7**
CD2				PP	PP	12 11 24.8	+4.1
CD2				S	**S**	**12 15 08.0**	**0.0**
CD2				XS		12 15 18.5	
CD2				SS	SS	12 16 22.3	+2.8
CD2				AMB	AMB		
	comp=Z,220nm,1.4s,mb5.5						
CD2				LR	LR		
	comp=Z,35µm,12.0s,MS6.1						
ENPP	**El Nido**	**26.65**	**77**	*e*P	**P**	**12 10 37.9**	**+1.0**
AJM	**Ajmer**	**26.67**	**321**	⇑*i*P	**P**	**12 10 38.0**	**+0.9**
NDI	**New Delhi**	**26.87**	**328**	*e*P	**P**	**12 10 37.5**	**-1.3**
	comp=Z,160nm,0.7s,mb5.7						
NDI				*e*		12 12 35.5	
NDI				*e*S	**S**	**12 15 14.0**	**+1.8**
DDI	**Dehra Dun**	**27.79**	**332**	*e*P	**P**	**12 10 48.3**	**+1.1**
DDI				*e*		12 16 58.9	
LUBP	**Lubang**	**27.91**	**72**	*e*P	**P**	**12 10 49.5**	**+1.1**
BHJ	**Bhuj**	**28.11**	**310**	⇑*e*P	**P**	**12 10 48.7**	**-1.4**
BHJ	**Bhuj**	**28.11**	**310**	*e*	AMS	12 23 00.8	
	comp=Z,38µm,16.8s,MS6.1						
CUYO	**Cuyo Island**	**28.15**	**79**	*e*P	**P**	**12 10 50.9**	**+0.2**
SJMP	**San Jose**	**28.49**	**75**	*e*P	**P**	**12 10 52.1**	**-1.5**
ENH	**Enshi**	**28.58**	**31**	*e*P	**P**	**12 10 52.4**	**-1.9**
	comp=Z,98nm,1.0s,mb5.5						
ENH				LR	LR		
	comp=Z,36µm,19.0s,MS6.0						
TGY	**Tagaytay City**	**28.64**	**72**	P	**P**	**12 10 55.7**	**+0.7**
	comp=Z,121nm,0.5s,mb5.9,baz=199,slow=4.5,SNR=9.8						
TGY				PcP	PcP	12 14 06.3	+0.5
	comp=Z,91nm,0.5s,baz=218,slow=8.2,SNR=3.7						
SDNR	**Sundarnagar**	**29.29**	**331**	*e*P	**P**	**12 11 01.4**	**+0.7**
OTRP	**Odiongan**	**29.34**	**76**	*e*P	**P**	**12 11 03.0**	**+1.6**
BOAC	**Boac**	**29.37**	**74**	*e*P	**P**	**12 11 01.9**	**+0.4**
GUIM	**Jordan**	**29.66**	**79**	*e*P	**P**	**12 11 05.1**	**+0.9**
POLP	**Polilio Island**	**29.73**	**71**	*e*P	**P**	**12 11 06.1**	**+1.3**
APYP	**Conner**	**29.97**	**65**	*e*P	**P**	**12 11 06.7**	**-0.3**
CAUP	**Cauayan**	**30.21**	**67**	*e*P	**P**	**12 11 08.3**	**-0.7**
PAGZ	**Pagadian**	**30.27**	**85**	*e*P	**P**	**12 11 09.0**	**-0.5**
DLH	**Dalhousie**	**30.62**	**331**	*e*P	**P**	**12 11 15.0**	**+2.5**
THN	**Thein Dam**	**30.66**	**331**	*e*P	**P**	**12 11 12.4**	**-0.4**
THN				*e*S	**S**	**12 16 12.9**	**+0.2**
QZH	**Quanzhou**	**30.86**	**50**	P	**P**	**12 11 14.8**	**+0.1**
QZH				LR	LR		
	comp=N,60µm,12.2s,MS6.6						
QZH				LR	LR		
	comp=E,60µm,11.8s,MS6.6						
QZH				LR	LR		
	comp=Z,147µm,13.1s,MS6.8						
LLP	**Lapu-Lapu**	**30.98**	**80**	*e*P	**P**	**12 11 16.1**	**+0.2**
LZH	**Lanzhou**	**31.40**	**17**	⇑P	**P**	**12 11 18.5**	**-0.8**
LZH				AP	pP	12 11 21.5	-4.7
LZH				PP	PP	12 12 25.0	+1.7
LZH				S	**S**	**12 16 27.5**	**+3.2**
LZH				SS	SS	12 18 16.5	+4.2
LZH				AMB	AMB		
	comp=Z,262nm,1.3s,mb5.9						
LZH				AMB	AMB		
	comp=Z,1µm,4.5s						
LZH				LR	LR		
	comp=E,37µm,13.7s						
LZH				LR	LR		
	comp=Z,42µm,15.0s,MS6.2						
XAN	**Xi’an**	**31.43**	**26**	P	**P**	**12 11 17.8**	**-1.8**
XAN				AP	pP	12 11 29.0	+2.6
XAN				PP	PP	12 12 23.5	-0.1
XAN				AMB	AMB		
	comp=Z,122nm,1.3s,mb5.6						
XAN				LR	LR		
	comp=N,30µm,17.5s,MS6.3						
XAN				LR	LR		
	comp=E,52µm,18.1s,MS6.3						
XAN				LR	LR		
	comp=Z,32µm,15.0s,MS6.1						
WHN	**Wuhan**	**31.50**	**37**	⇑P	**P**	**12 11 20.0**	**-0.3**
WHN				S	**S**	**12 16 20.0**	**-5.9**
WHN				LR	LR		
	comp=N,17µm,10.6s,MS6.6						
WHN				LR	LR		
	comp=E,71µm,12.4s,MS6.6						
WHN				LR	LR		
	comp=Z,95µm,11.4s,MS6.7						
MSLP	**Maasin**	**31.84**	**81**	*e*P	pP	12 11 31.4	+1.2
CNP	**Catarman**	**31.92**	**76**	*e*P	**P**	**12 11 23.6**	**-0.5**
BUKP	**Musuan**	**31.93**	**85**	*e*P	**P**	**12 11 24.1**	**-0.1**

DAV	**Davao City (W)**	**32.44**	**87**	*e*P	**P**	**12 11 30.5**	**+1.9**
TATO	**Taipei**	**33.12**	**53**	PFAKE		12 11 50.0	+16
TATO				LR	LR		
	comp=Z,36µm,20.0s,MS6.1						
GTA	**Gaotai**	**33.66**	**10**	⇑*i*P	**P**	**12 11 38.8**	**-0.2**
GTA				AP	pP	12 11 46.0	+0.1
GTA				XP	sP	12 11 49.0	+0.2
GTA				PP	PP	12 12 53.5	+1.6
GTA				PPP	PPP	12 13 10.3	+1.1
GTA				PCP	PcP	12 14 18.3	-0.5
GTA				S	**S**	**12 17 01.0**	**+1.6**
GTA				XS		12 17 14.5	
GTA				PCS		12 18 03.0	
GTA				SCS	ScS	12 22 04.5	+3.8
GTA				AMB	AMB		
	comp=Z,63nm,1.9s,mb5.2						
GTA				AMB	AMB		
	comp=Z,3µm,10.7s						
GTA				LR	LR		
	comp=N,11µm,18.7s,MS5.8						
GTA				LR	LR		
	comp=E,13µm,22.5s,MS5.8						
GTA				LR	LR		
	comp=Z,15µm,16.8s						
NJ2	**Nanjing**	**35.33**	**40**	*e*P	**P**	**12 11 53.3**	**-0.1**
NJ2				AP	pP	12 11 58.0	-2.3
NJ2				XP	sP	12 12 01.5	-1.8
NJ2				PP	PP	12 13 13.5	+0.5
NJ2				S	**S**	**12 17 28.0**	**+2.6**
NJ2				AMB	AMB		
	comp=Z,1µm,6.0s						
TIY	**Taiyuan**	**36.05**	**27**	PR		12 12 03.0	
TIY				S	**S**	**12 17 36.0**	**-0.6**
TIY				LR	LR		
	comp=N,38µm,13.0s						
TIY				LR	LR		
	comp=Z,15µm,12.0s,MS6.0						
SSE	**Sheshan**	**36.27**	**43**	P	**P**	**12 12 01.5**	**+0.1**
SSE				XP	sP	12 12 06.5	-4.7
SSE				S	**S**	**12 17 43.0**	**+3.1**
SSE				XS		12 17 48.5	
SSE				AMB	AMB		
	comp=Z,72nm,1.0s,mb5.6						
SSE				AMB	AMB		
	comp=Z,651nm,5.8s						
SSE				LR	LR		
	comp=N,23µm,20.2s,MS6.0						
SSE				LR	LR		
	comp=E,19µm,20.2s,MS6.0						
SSE				LR	LR		
	comp=Z,19µm,16.4s,MS6.0						
KSH	**Kashi**	**36.54**	**338**	⇑*i*P	**P**	**12 12 04.0**	**+0.5**
KSH				AP	pP	12 12 16.3	+5.9
KSH				PP	PP	12 13 31.5	+3.5
KSH				PPP	PPP	12 13 53.0	+5.0
KSH				PCP	PcP	12 14 23.5	-3.7
KSH				S	**S**	**12 17 49.5**	**+5.6**
KSH				SCP		12 18 05.5	
KSH				PCS		12 18 10.5	
KSH				SCS	ScS	12 22 12.0	-4.2
KSH				AMB	AMB		
	comp=Z,470nm,2.2s,mb5.9						
KSH				LR	LR		
	comp=N,18µm,12.6s,MS6.4						
KSH				LR	LR		
	comp=E,36µm,14.7s,MS6.4						
TIA	**Tai'an**	**37.21**	**33**	*e*P	**P**	**12 12 07.0**	**-2.2**
TIA				S	**S**	**12 18 02.8**	**+8.5**
TIA				AMB	AMB		
	comp=Z,1µm,7.0s						
TIA				LR	LR		
	comp=N,5µm,14.4s,MS5.8						
TIA				LR	LR		
	comp=E,9µm,12.9s,MS5.8						
BTO	**Baotou**	**37.54**	**22**	*e*P	**P**	**12 12 10.5**	**-1.4**
BTO				S	**S**	**12 18 04.5**	**+5.2**
BTO				AMB	AMB		
	comp=Z,40nm,1.8s,mb4.8						
BTO				LR	LR		
	comp=N,8µm,12.3s,MS6.1						
BTO				LR	LR		
	comp=E,21µm,15.3s,MS6.1						
WMQ	**Urumqi**	**37.77**	**354**	⇑P	**P**	**12 12 14.0**	**+0.2**
WMQ				AP	pP	12 12 17.0	-3.8
WMQ				XP	sP	12 12 20.0	-3.7
WMQ				PP	PP	12 13 43.0	-0.2
WMQ				PPP	PPP	12 14 04.3	-0.4
WMQ				S	**S**	**12 18 03.8**	**+1.1**
WMQ				AMB	AMB		
	comp=Z,50nm,0.9s,mb5.2						
WMQ				AMB	AMB		
	comp=Z,1µm,7.2s						
MBWA	**Marble Bar**	**37.82**	**137**	*e*P	**P**	**12 12 12.9**	**-1.6**
	comp=Z,40nm,1.1s,mb5.1						
MBWA				LR	LR		
	comp=Z,26µm,20.0s,MS6.0						
HHC	**Hu-ho-hao-te**	**38.33**	**23**	⇑*i*P	**P**	**12 12 18.0**	**-0.6**
HHC				AP	pP	12 12 22.5	-3.1
HHC				XP	sP	12 12 25.0	-3.5
HHC				PP	PP	12 13 47.8	-2.1
HHC				PCP	PcP	12 14 32.3	-0.4
HHC				S	**S**	**12 18 09.8**	**-1.5**
HHC				SCP		12 18 18.0	
HHC				PCS		12 18 19.8	
HHC				SS	SS	12 20 48.0	-2.9
HHC				SCS	ScS	12 22 26.8	+0.5
HHC				AMB	AMB		
	comp=Z,71nm,1.5s,mb5.2						
HHC				AMB	AMB		
	comp=Z,2µm,10.6s						
HHC				LR	LR		
	comp=N,19µm,14.3s,MS6.3						
HHC				LR	LR		
	comp=E,27µm,14.3s,MS6.3						
HHC				LR	LR		
	comp=Z,22µm,13.1s,MS6.2						
ULHL	**Ulahol**	**38.85**	**340**	P	**P**	**12 12 23.2**	**+0.3**
	SNR=60						
KZA	**Kyzart**	**39.04**	**339**	P	**P**	**12 12 25.4**	**+0.9**
	SNR=68						
JOW	**Kunigami**	**39.40**	**55**	P	**P**	**12 12 28.9**	**+1.2**
	comp=Z,92nm,0.9s,mb5.5,baz=195,slow=7.3,SNR=3.7						
JOW				LR	LR	12 30 30.2	
	comp=Z,25µm,18.1s,MS6.1,baz=267,slow=39						
UCH	**Uchtor**	**39.44**	**338**	P	**P**	**12 12 28.8**	**+0.9**
	SNR=106						
BJT	**Baijiatuau**	**39.63**	**28**	*e*P	**P**	**12 12 30.1**	**+0.6**
BJT				pmax	pmax		
	comp=Z,107nm,1.0s						
BJT				MLR	MLR		
	comp=Z,26µm,19.0s						
BJT	**Baijiatuau**	**39.63**	**28**	*e*P	**P**	**12 12 30.1**	**+0.6**
	comp=Z,107nm,1.0s,mb5.5						
BJT				LR	LR		
	comp=Z,26µm,19.0s,MS6.1						
BJI	**Beijing**	**39.65**	**28**	*e*P	**P**	**12 12 30.5**	**+0.9**
BJI				PP	PP	12 14 03.3	-1.3
BJI				S	**S**	**12 18 37.5**	**+6.2**
BJI				AMB	AMB		
	comp=Z,102nm,1.3s,mb5.4						
BJI				AMB	AMB		
	comp=Z,3µm,7.6s						
BJI				LR	LR		
	comp=N,28µm,17.2s,MS6.3						
BJI				LR	LR		
	comp=E,26µm,17.2s,MS6.3						
BJI				LR	LR		
	comp=Z,18µm,21.0s,MS5.9						
KBK	**Karagaybulak**	**39.66**	**339**	P	**P**	**12 12 31.0**	**+1.4**
	SNR=99						
AML	**Almayashu**	**39.66**	**337**	P	**P**	**12 12 30.9**	**+1.2**
	SNR=119						
TKM2	**Tokmak 2**	**39.66**	**340**	P	**P**	**12 12 30.4**	**+0.7**
	SNR=43						
AAK	**Ala-Archa**	**39.80**	**339**	P	**P**	**12 12 31.6**	**+0.7**
	SNR=62						
AAK	**Ala-Archa**	**39.80**	**339**	*e*P	**P**	**12 12 30.1**	**-0.7**
AAK				pmax	pmax		
	comp=Z,108nm,1.1s,mb5.5						
AAK				MLR	MLR		
	comp=Z,8µm,20.0s,MS5.5						
AAK	**Ala-Archa**	**39.80**	**339**	*e*P	**P**	**12 12 30.1**	**-0.7**
	comp=Z,108nm,1.1s,mb5.5						
AAK				LR	LR		
	comp=Z,8µm,20.0s,MS5.5						
FRU	**Bishkek**	**39.93**	**339**	⇑*e*P	**P**	**12 12 33.0**	**+1.1**
FRU				*e*		12 14 08.0	
FRU				MLR	MLR		
	comp=Z,35nm,18.0s						
FRU				MLR	MLR		
	comp=N,37µm,18.0s,MS6.4						
FRU				MLR	MLR		
	comp=E,31µm,18.0s,MS6.4						
CHMS	**Chumysh**	**40.03**	**339**	P	**P**	**12 12 33.1**	**+0.4**
	SNR=38						
EKS2	**Erkin-Say**	**40.09**	**338**	P	**P**	**12 12 34.4**	**+1.2**
	SNR=64						
FITZ	**Fitzroy Crossi**	**40.30**	**127**	*e*P	**P**	**12 12 34.1**	**-1.1**
	comp=E,55nm,0.8s,mb5.3						
USP	**Ospenovka**	**40.35**	**339**	P	**P**	**12 12 35.8**	**+0.4**
	SNR=114						
MK02	**Makanchi Array**	**41.46**	**349**	P	**P**	**12 12 44.3**	**-0.1**
MK02				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.2						
DL2	**Dalian**	**41.63**	**34**	⇑P	**P**	**12 12 48.5**	**+2.5**
DL2				S	**S**	**12 19 05.8**	**+5.0**
DL2				AMB	AMB		
	comp=Z,50nm,1.2s,mb5.0						
DL2				AMB	AMB		
	comp=Z,1µm,11.4s						
DL2				LR	LR		
	comp=N,6µm,12.9s,MS5.8						
DL2				LR	LR		
	comp=E,9µm,15.5s,MS5.8						
DL2				LR	LR		
	comp=Z,9µm,12.1s,MS5.9						
SONM	**Songino Array**	**43.07**	**13**	P	**P**	**12 12 57.5**	**-0.1**
	comp=Z,23nm,0.9s,mb4.9,baz=194,slow=7.8,SNR=70						
SONM				PcP	PcP	12 14 48.5	+0.5
	comp=Z,19nm,0.8s,baz=200,slow=3.8,SNR=10						
ULN	**Ulaanbaatar**	**43.25**	**14**	*e*P	**P**	**12 12 57.5**	**-1.5**
ULN				pmax	pmax		
	comp=Z,58nm,1.4s,mb5.1						
ULN				MLR	MLR		
	comp=Z,16µm,21.0s,MS5.9						
ULN	**Ulaanbaatar**	**43.25**	**14**	*e*P	**P**	**12 12 57.5**	**-1.5**
	comp=Z,58nm,1.4s,mb5.1						
ULN				LR	LR		
	comp=Z,16µm,21.0s,MS5.9						
KAKA	**Kakadu**	**43.52**	**116**	*e*P	**P**	**12 13 01.5**	**-0.2**
	comp=Z,14nm,0.6s,mb4.9						
INCN	**Inchon**	**43.71**	**40**	PFAKE		12 13 10.0	+7.1
INCN				LR	LR		
	comp=Z,21µm,20.0s,MS6.0						
MUN	**Mundaring**	**43.96**	**151**	⇓*i*P	**P**	**12 13 05.4**	**+0.3**
	comp=Z,28nm,0.8s,mb5.0						
MUN	**Mundaring**	**43.96**	**151**	⇓*i*P	**P**	**12 13 05.4**	**+0.3**
MUN				pmax	pmax		
	comp=Z,28nm,0.8s,mb5.0						
KLBR	**Kellerberrin**	**44.41**	**149**	*e*P	**P**	**12 13 09.3**	**+0.6**
	comp=Z,72nm,1.2s,mb5.3						
SNY	**Shenyang**	**44.73**	**33**	⇓P	**P**	**12 13 10.3**	**-0.9**
SNY				AP	pP	12 13 20.0	+1.9
SNY				XP	sP	12 13 23.8	+2.8
SNY				SS	SS	12 23 01.8	+3.5
SNY				AMB	AMB		
	comp=Z,80nm,1.8s,mb5.2						
SNY				AMB	AMB		
	comp=Z,2µm,11.1s						
SNY				LR	LR		
	comp=N,21µm,17.1s						
SNY				LR	LR		
	comp=Z,13µm,16.2s,MS6.0						
ZAK	**Zakamensk**	**44.90**	**9**	⇓*i*P	**P**	**12 13 12.3**	**0.0**
ZAK				*e*		12 14 53.8	
NWAO	**Narrogin (SRO)**	**45.23**	**151**	*e*P	**P**	**12 13 16.1**	**+0.8**
NWAO				pmax	pmax		
	comp=Z,206nm,1.8s						
NWAO				MLR	MLR		
	comp=Z,14µm,20.0s						
NWAO	**Narrogin (SRO)**	**45.23**	**151**	P	**P**	**12 13 15.3**	**0.0**
	comp=Z,38nm,1.1s,mb5.1,baz=314,slow=9.2,SNR=9.2						
NWAO	**Narrogin (SRO)**	**45.23**	**151**	*e*P	**P**	**12 13 16.1**	**+0.8**
	comp=Z,206nm,1.8s,mb5.7						
NWAO				LR	LR		
	comp=Z,14µm,20.0s,MS5.9						
MOY	**Mondy**	**45.83**	**7**	*e*P	**P**	**12 13 20.6**	**+0.9**
TLY	**Talaya**	**46.21**	**9**	P	**P**	**12 13 23.9**	**+1.2**
	comp=Z,219nm,1.6s,mb5.8,SNR=13						
TLY	**Talaya**	**46.21**	**9**	*e*P	**P**	**12 13 22.7**	**0.0**
TLY				*e*		12 14 56.3	
TLY				*e*S	**S**	**12 20 05.5**	**-1.5**
TLY				pmax	pmax		
	comp=Z,54nm,1.5s,mb5.3						
TLY	**Talaya**	**46.21**	**9**	*e*P	**P**	**12 13 23.5**	**+0.8**
	comp=Z,278nm,2.0s,mb5.8						
TLY				LR	LR		
	comp=Z,3µm,22.0s,MS5.2						
KMBL	**Kambalda**	**46.47**	**145**	*e*P	**P**	**12 13 25.2**	**+0.2**
	comp=Z,735nm,2.0s,mb6.3						
CN2	**Changchun**	**47.09**	**32**	*e*P	**P**	**12 13 29.0**	**-0.8**
CN2				PCP	PcP	12 14 59.8	-2.1
CN2				PP	PP	12 15 20.8	+0.7
CN2				*e*S	**S**	**12 20 20.8**	**+1.2**
CN2				AMB	AMB		
	comp=Z,70nm,1.5s,mb5.4						
CN2				AMB	AMB		
	comp=Z,2µm,7.0s						
CN2				LR	LR		
	comp=N,10µm,16.0s,MS6.3						
CN2				LR	LR		
	comp=E,23µm,16.0s,MS6.3						
CN2				LR	LR		
	comp=Z,22µm,15.0s,MS6.2						
QRN	**Al-Qurain**	**48.05**	**303**	*e*P	**P**	**12 13 38.5**	**+0.9**
QRN				AMb	AMB	12 13 49.7	
	comp=Z,141nm,1.1s,mb5.9						
ZAL	**Zalesovo**	**48.07**	**354**	P	**P**	**12 13 37.6**	**+0.3**
	comp=Z,77nm,1.1s,mb5.7,baz=299,slow=6.3,SNR=86						
WRA	**Warramunga Arr**	**48.30**	**124**	P	**P**	**12 13 38.5**	**-1.1**
	comp=Z,49nm,0.9s,mb5.5,baz=302,slow=8.9,SNR=78						
WRAB	**Tennant Creek**	**48.30**	**124**	*e*P	**P**	**12 13 38.5**	**-1.1**
WRAB				pmax	pmax		
	comp=Z,127nm,1.0s,mb5.9						
WRAB				MLR	MLR		
	comp=Z,7µm,20.0s,MS5.6						
WRAB	**Tennant Creek**	**48.30**	**124**	*e*P	**P**	**12 13 38.5**	**-1.1**
	comp=Z,127nm,1.0s,mb5.9						
WRAB				LR	LR		
	comp=Z,7µm,20.0s,MS5.6						
WB2	**Warramunga Arr**	**48.31**	**124**	⇑*i*P	**P**	**12 13 38.5**	**-1.1**
WB2				*e*		12 13 47.7	
RDF	**Al-Radifah**	**48.42**	**303**	*e*P	**P**	**12 13 41.5**	**+1.1**
RDF				AMb	AMB	12 13 45.0	
	comp=Z,281nm,1.1s,mb6.2						
UMR	**Umm Al-Rimmam**	**48.49**	**304**	*e*P	**P**	**12 13 41.6**	**+0.7**
UMR				AMb	AMB	12 13 45.0	
	comp=Z,117nm,1.0s,mb5.9						
HIA	**Hailar**	**48.54**	**23**	*e*P	**P**	**12 13 40.7**	**-0.3**
HIA				pmax	pmax		
	comp=Z,150nm,1.1s						
HIA				MLR	MLR		
	comp=Z,37µm,19.0s						
HIA	**Hailar**	**48.54**	**23**	*e*P	**P**	**12 13 40.7**	**-0.3**
	comp=Z,150nm,1.1s,mb5.9						
HIA				LR	LR		
	comp=Z,37µm,19.0s,MS6.4						
RST	**Umm Al-Ruwaisa**	**49.06**	**304**	*e*P	**P**	**12 13 46.1**	**+0.8**
RST				AMb	AMB	12 13 49.4	
	comp=Z,193nm,1.2s,mb6.0						
NVS	**Novosibirsk**	**49.14**	**353**	*i* P	**P**	**12 13 44.2**	**-1.4**
NVS				*i* S	**S**	**12 20 49.5**	**+1.2**
NVS				pmax	pmax		
	comp=Z,352nm,2.0s,mb6.0						
NVS				pmax	pmax		
	comp=E,130nm,2.1s						
NVS				pmax	pmax		
	comp=N,382nm,2.0s						
NVS				smax			
	comp=N,194nm,2.4s						
NVS				smax			
	comp=E,80nm,2.7s						
ASPA	**Alice Springs**	**49.79**	**128**	⇑*i*P	**P**	**12 13 50.1**	**-0.9**
ASPA				*e*	pP	12 13 58.8	+0.7
ASAR	**Alice Springs**	**49.79**	**128**	P	**P**	**12 13 49.5**	**-1.5**
	comp=E,34nm,0.7s,mb5.5,baz=305,slow=7.5,SNR=128						
ASAR				LR	LR	12 36 40.9	
	comp=E,7µm,18.7s,MS5.7,baz=301,slow=38						
MDJ	**Mudanjiang**	**49.87**	**34**	P	**P**	**12 13 51.3**	**0.0**
MDJ				PP	PP	12 15 46.0	-1.0
MDJ				SCP		12 19 08.0	
MDJ				S	**S**	**12 21 03.8**	**+5.2**
MDJ				AMB	AMB		
	comp=Z,80nm,1.4s,mb5.6						
MDJ				LR	LR		
	comp=N,15µm,13.9s,MS6.4						
MDJ				LR	LR		
	comp=E,18µm,12.2s,MS6.4						
MDJ				LR	LR		
	comp=Z,24µm,13.0s,MS6.4						
MDJ	**Mudanjiang**	**49.87**	**34**	*e*P	**P**	**12 13 50.9**	**-0.5**
	comp=Z,334nm,1.8s,mb6.1						
MDJ				LR	LR		
	comp=Z,14µm,20.0s,MS6.0						
BVA0	**Borovoye Array**	**50.21**	**342**	*i* P	**P**	**12 13 52.9**	**-0.9**
BVA0				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.6						
BVAR	**Borovoye Array**	**50.21**	**342**	P	**P**	**12 13 52.9**	**-0.9**
	comp=Z,34nm,0.9s,mb5.4,baz=141,slow=9.5,SNR=90						
BRVK	**Borovoye**	**50.27**	**342**	*e*P	**P**	**12 13 53.0**	**-1.3**
	comp=Z,0.3nm,1.1s						
BRVK				LR	LR		
	comp=Z,3µm,21.0s						
VLA	**Vladivostok**	**50.29**	**37**	*c i*P	**P**	**12 13 59.0**	**+4.5**
VLA				*i*		12 15 08.0	
VLA				*i* S	**S**	**12 21 09.0**	**+4.6**
VLA				pmax	pmax		
	comp=Z,3µm,12.0s						
VLA				pmax	pmax		
	comp=N,900nm,11.0s						
VLA				pmax	pmax		
	comp=E,1µm,13.0s						
VLA				smax			
	comp=N,2µm,15.0s						
VLA				smax			
	comp=E,1µm,8.0s						
VLA				MLR	MLR		
	comp=N,14µm,13.0s,MS6.3						
VLA				MLR	MLR		
	comp=E,14µm,13.0s,MS6.3						
VLA				MLR	MLR		
	comp=Z,24µm,13.0s,MS6.4						
CHKZ	**Chkalovo**	**50.71**	**343**	*e*P	**P**	**12 13 56.9**	**-0.7**
CHKZ				pmax	pmax		
	comp=Z,109nm,1.0s,mb5.7						
CHKZ	**Chkalovo**	**50.71**	**343**	*e*P	**P**	**12 13 56.9**	**-0.7**
	comp=Z,109nm,1.0s,mb5.7						
CBIJ	**Chichi jima**	**51.17**	**60**	P	**P**	**12 14 02.1**	**+0.6**
	comp=Z,87nm,0.7s,mb5.8,baz=197,slow=9.4,SNR=4.2						
MAJO	**Matsushiro**	**51.18**	**47**	*e*P	**P**	**12 14 01.2**	**-0.2**
MAJO				pmax	pmax		
	comp=Z,95nm,1.7s,mb5.5						
MAJO				MLR	MLR		
	comp=Z,13µm,19.0s,MS6.0						
MAJO	**Matsushiro**	**51.18**	**47**	*e*P	**P**	**12 14 01.2**	**-0.2**
	comp=Z,95nm,1.7s,mb5.5						
MAJO				LR	LR		
	comp=Z,13µm,19.0s,MS6.0						
MAT	**Matsushiro**	**51.18**	**47**	P	**P**	**12 14 02.0**	**+0.6**
MAT				S	**S**	**12 21 19.0**	**+2.2**
MAT	**Matsushiro**	**51.18**	**47**	*e*P	**P**	**12 14 02.0**	**+0.6**
MAT				*e*S	**S**	**12 21 20.0**	**+3.2**
MAT				pmax	pmax		
	comp=Z,13nm,1.0s,mb4.8						
MAT				MLR	MLR		
	comp=Z,12µm,20.0s,MS5.9						
MAT	**Matsushiro**	**51.18**	**47**	*e*P	**P**	**12 14 02.0**	**+0.6**
	comp=Z,13nm,1.0s,mb4.8						
MAT				*e*S	**S**	**12 21 20.0**	**+3.2**
MAT				LR	LR		
	comp=Z,12µm,20.0s,MS5.9						
KLR	**Kul'dur**	**53.94**	**31**	⇑*i*P	**P**	**12 14 18.8**	**-3.0**
KLR				*e*S	**S**	**12 21 56.0**	**+1.7**
KLR				pmax	pmax		
	comp=N,90nm,2.0s						
KLR				pmax	pmax		
	comp=E,140nm,2.0s						
KLR				pmax	pmax		
	comp=Z,200nm,2.0s,mb5.7						
KLR				pmax	pmax		
	comp=N,1µm,12.0s						
KLR				pmax	pmax		
	comp=E,2µm,12.0s						
KLR				pmax	pmax		
	comp=Z,5µm,12.0s						
KLR				smax			
	comp=N,5µm,15.0s						
KLR				smax			
	comp=E,3µm,15.0s						
BOD	**Bodaibo**	**54.06**	**14**	⇓*i*P	**P**	**12 14 21.4**	**-1.2**
MAK	**Makhachkala**	**54.20**	**320**	*e*P	**P**	**12 14 22.0**	**-1.8**
MAK				*e*		12 15 24.0	
MAK				*e*PPP	PPP	12 17 44.0	+6.6
MAK				*i* S	**S**	**12 22 05.0**	**+7.1**
MAK				*i* PS	PS	12 22 24.0	+12
MAK				pmax	pmax		
	comp=Z,4µm,8.0s						
MAK				pmax	pmax		
	comp=E,3µm,8.0s						
MAK				pmax	pmax		
	comp=Z,2µm,8.0s						
MAK				smax			
	comp=N,4µm,10.0s						
MAK				smax			
	comp=Z,2µm,8.0s						
MAK				smax			
	comp=E,2µm,10.0s						
GNI	**Garni**	**54.77**	**316**	*e*P	**P**	**12 14 28.0**	**-0.1**
GNI				pmax	pmax		
	comp=Z,187nm,1.4s						
GNI				MLR	MLR		
	comp=Z,5µm,19.0s						
GNI	**Garni**	**54.77**	**316**	P	**P**	**12 14 28.0**	**-0.1**
	comp=Z,40nm,0.8s,mb5.5,baz=73,slow=2.5,SNR=19						
GNI	**Garni**	**54.77**	**316**	*e*P	**P**	**12 14 28.0**	**-0.1**
	comp=Z,187nm,1.4s,mb5.9						
GNI				LR	LR		
	comp=Z,5µm,19.0s,MS5.6						
TI2	**Plekhanov**	**55.45**	**317**	⇑*i*P	**P**	**12 14 32.4**	**-0.6**
TI2				*e*S	**S**	**12 22 20.4**	**+5.8**
TI2				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.9						
KMBO	**Kilima Mbogo**	**56.05**	**264**	*e*P	**P**	**12 14 38.8**	**+1.1**
KMBO				pmax	pmax		
	comp=Z,125nm,1.9s						
KMBO				MLR	MLR		
	comp=Z,19µm,22.0s						
KMBO	**Kilima Mbogo**	**56.05**	**264**	P	**P**	**12 14 39.2**	**+1.5**
	comp=Z,9.8nm,0.9s,mb4.8,baz=58,slow=9.1,SNR=16						
KMBO				LR	LR	12 37 00.7	
	comp=Z,21µm,18.3s,MS6.2,baz=77,slow=34						
KMBO	**Kilima Mbogo**	**56.05**	**264**	*e*P	**P**	**12 14 38.8**	**+1.1**
	comp=Z,125nm,1.9s,mb5.6						
KMBO				LR	LR		
	comp=Z,19µm,22.0s,MS6.1						
PMG	**Port Moresby**	**56.21**	**106**	P	**P**	**12 14 37.4**	**-1.4**
PMG				pmax	pmax		
	comp=Z,30nm,0.7s						
PMG	**Port Moresby**	**56.21**	**106**	P	**P**	**12 14 38.1**	**-0.7**
	comp=Z,26nm,0.6s,mb5.4,baz=297,slow=5.6,SNR=21						
PMG	**Port Moresby**	**56.21**	**106**	*e*P	**P**	**12 14 37.1**	**-1.7**
	comp=Z,30nm,0.7s,mb5.4						
PMG				LR	LR		
	comp=Z,8µm,19.0s,MS5.8						
ZEI	**Tsey**	**56.47**	**318**	*e*P	**P**	**12 14 40.5**	**+0.2**
ZEI				*i* *PP	pP	12 14 53.1	+5.7
ZEI				*i*		12 16 52.1	
ZEI				*i* S	**S**	**12 22 29.2**	**+1.0**
ZEI				pmax	pmax		
	comp=Z,41nm,0.9s,mb5.5						
SVE	**Sverdlovsk**	**56.53**	**339**	*e*P	**P**	**12 14 38.0**	**-2.5**
SVE				*e*		12 15 42.0	
SVE				*e*S	**S**	**12 22 22.0**	**-6.8**
SVE				*e*		12 24 30.0	
SVE				*e*		12 28 25.0	
SVE				pmax	pmax		
	comp=Z,380nm,1.8s,mb6.1						
SVE				smax			
	comp=N,3µm,8.6s						
SVE				smax			
	comp=E,2µm,8.6s						
SVE				MLR	MLR		
	comp=Z,22µm,19.0s,MS6.3						
ARU	**Arti**	**56.98**	**338**	⇑*i*P	**P**	**12 14 42.5**	**-1.3**
ARU				*e*		12 15 35.3	
ARU				*i*		12 16 49.2	
ARU				*e*S	**S**	**12 22 35.9**	**+1.2**

ARU				*e*		12 24 23.0	
ARU				*i* SS	SS	12 26 24.3	-0.4
ARU				*e*SSS	SSS	12 28 34.7	-3.3
ARU				pmax	pmax		
	comp=Z,87nm,0.9s,mb5.8						
ARU				MLR	MLR		
	comp=Z,24µm,18.5s,MS6.3						
ARU				MLR	MLR		
	comp=N,13µm,18.0s,MS6.3						
ARU				MLR	MLR		
	comp=E,15µm,17.0s,MS6.3						
ARU	**Arti**	**56.98**	**338**	*e*P	**P**	**12 14 42.3**	**-1.4**
	comp=E,240nm,1.4s,mb6.0						
ARU				LR	LR		
	comp=Z,7µm,19.0s,MS5.8						
KIV	**Kislovodsk**	**57.77**	**319**	P	**P**	**12 14 48.5**	**-1.0**
	comp=Z,565nm,0.9s,SNR=23						
KIV	**Kislovodsk**	**57.77**	**319**	*i* P	**P**	**12 14 48.7**	**-0.8**
KIV				*e*		12 16 59.6	
KIV				*i* S	**S**	**12 22 42.7**	**-2.7**
KIV				pmax	pmax		
	comp=Z,54nm,1.3s,mb5.4						
KIV	**Kislovodsk**	**57.77**	**319**	*e*P	**P**	**12 14 48.2**	**-1.3**
	comp=Z,100nm,1.0s,mb5.8						
KIV				LR	LR		
	comp=Z,1µm,19.0s,MS5.0						
GOF	**Gofitskoye**	**58.03**	**320**⇓	*i*P	**P**	**12 14 49.5**	**-1.8**
GOF				pmax	pmax		
	comp=Z,80nm,1.1s,mb5.7						
GOF				pmax	pmax		
	comp=Z,4µm,10.0s						
GOF				MLR	MLR		
	comp=Z,14µm,18.0s,MS6.1						
ASF	**Jabal al Asfar**	**58.14**	**304**	P	**P**	**12 14 51.7**	**-0.5**
	comp=Z,15nm,0.9s,mb5.0,baz=347,slow=4.1,SNR=18						
CTA	**Charters Tower**	**58.56**	**118**	*e*P	**P**	**12 14 55.1**	**-0.2**
	comp=Z,16nm,1.1s,mb5.0						
CTA	**Charters Tower**	**58.56**	**118**	*e*P	**P**	**12 14 55.1**	**-0.2**
CTA				pmax	pmax		
	comp=Z,16nm,1.1s						
CTA	**Charters Tower**	**58.56**	**118**	P	**P**	**12 14 55.2**	**-0.1**
	comp=Z,26nm,1.1s,mb5.2,baz=313,slow=8.4,SNR=10.0						
CTAO	**Charters Tower**	**58.56**	**118**	P	**P**	**12 14 55.3**	**0.0**
CTAO				pmax	pmax		
	comp=Z,130nm,1.7s,mb5.7						
CTAO	**Charters Tower**	**58.56**	**118**	*e*P	**P**	**12 14 54.5**	**-0.8**
	comp=Z,135nm,1.8s,mb5.7						
CTAO				LR	LR		
	comp=Z,14µm,19.0s,MS6.1						
MALT	**Malatya**	**58.65**	**311**	*e*P	**P**	**12 14 55.1**	**-0.6**
MALT				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.3						
MALT	**Malatya**	**58.65**	**311**	*e*P	**P**	**12 14 55.1**	**-0.6**
	comp=Z,50nm,1.4s,mb5.4						
YSS	**Yuzh-Sakhalins**	**58.85**	**38**⇑	*e*P	**P**	**12 14 51.3**	**-5.6**
YSS				*e*S	**S**	**12 23 03.0**	**+3.6**
YSS				*e*PPS	PPS	12 23 24.0	-0.6
YSS				pmax	pmax		
	comp=Z,90nm,1.2s,mb5.7						
YSS				pmax	pmax		
	comp=Z,2µm,11.0s						
YSS				smax			
	comp=N,2µm,10.0s						
YSS				MLR	MLR		
	comp=Z,12µm,16.0s,MS6.1						
YSS				MLR	MLR		
	comp=E,11µm,14.0s						
YSS	**Yuzh-Sakhalins**	**58.85**	**38**	*e*P	**P**	**12 14 56.0**	**-0.9**
	comp=E,122nm,1.3s,mb5.8						
YSS				LR	LR		
	comp=Z,6µm,20.0s,MS5.7						
DUSS	**Damascus Unive**	**58.96**	**305**	*i* P	**P**	**12 14 58.9**	**+0.9**
DUSS				*i* P		12 14 58.9	
DUSS				*i* P		12 14 59.2	
DUSS				*e*		12 15 02.9	
	baz=102,slow=8.6						
DUSS				*e*S	**S**	**12 23 07.0**	**+5.9**
DUSS				AMS	AMS	12 40 06.2	
	comp=E,219µm,17.9s						
DUSS				AMS	AMS	12 40 30.1	
	comp=N,505µm,16.8s						
DUSS				AMS	AMS	12 45 11.8	
	comp=Z,206µm,16.8s						
MKRJ	**Makawir**	**59.04**	**303**	P	**P**	**12 14 59.6**	**+1.1**
AQBJ	**Aqaba**	**59.16**	**301**	P	**P**	**12 15 00.1**	**+0.7**
ZFRI	**Zfri**	**59.22**	**302**	P	**P**	**12 15 00.9**	**+1.1**
MZDA	**Masada**	**59.22**	**303**	P	**P**	**12 15 01.0**	**+1.2**
EIL	**Elat**	**59.23**	**301**	P	**P**	**12 15 00.5**	**+0.6**
EIL	**Elat**	**59.23**	**301**	*e*P	**P**	**12 15 00.1**	**+0.2**
	comp=Z,35nm,0.8s,mb5.4						
DRGI	**Dragot**	**59.26**	**303**	P	**P**	**12 15 00.5**	**+0.5**
MBH	**Mount Berech**	**59.29**	**301**	P	**P**	**12 15 01.3**	**+1.0**
HMDT	**Nahal Hemdat**	**59.29**	**304**	P	**P**	**12 15 01.0**	**+0.7**
GLH	**Golan-Tel Qazi**	**59.29**	**304**	P	**P**	**12 15 01.2**	**+0.9**
PRNI	**Paran**	**59.32**	**302**	P	**P**	**12 15 01.3**	**+0.8**
MMLI	**Mount Malkishu**	**59.42**	**304**	P	**P**	**12 15 02.1**	**+1.0**
KMTI	**Karmit**	**59.51**	**301**	P	**P**	**12 15 02.2**	**+0.4**
YUK	**Yuzh-Kuril'sk**	**59.58**	**42**	*e*P	**P**	**12 14 57.0**	**-5.1**
YUK				S	**S**	**12 23 17.0**	**+8.1**
YUK				pmax	pmax		
	comp=Z,3µm,14.0s						
YUK				smax			
	comp=N,3µm,17.0s						
YUK				MLR	MLR		
	comp=N,15µm,17.0s,MS6.2						
YUK				MLR	MLR		
	comp=E,8µm,17.0s,MS6.2						
YUK				MLR	MLR		
	comp=Z,14µm,17.0s,MS6.2						
SOC	**Sochi**	**59.59**	**318**	*i* P	**P**	**12 14 59.3**	**-2.8**
SOC				*e*		12 15 46.1	
SOC				*e*		12 17 10.0	
SOC				*e*PPP	PPP	12 18 36.8	-4.1
SOC				*i* S	**S**	**12 23 05.5**	**-3.6**
SOC				*e*SSS	SSS	12 29 35.7	+0.7
SOC				pmax	pmax		
	comp=N,7.0nm,1.0s						
SOC				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.4						
SOC				pmax	pmax		
	comp=E,22nm,1.1s						
SOC				MLR	MLR		
	comp=Z,5µm,18.0s,MS5.7						
SOC				MLR	MLR		
	comp=N,4µm,22.0s,MS5.8						
SOC				MLR	MLR		
	comp=E,7µm,21.0s,MS5.8						
SLTI	**Sal'it**	**59.69**	**304**	P	**P**	**12 15 04.0**	**+1.0**
OFRI	**'Ofer**	**59.82**	**304**	P	**P**	**12 15 04.4**	**+0.5**
STKA	**Stephens Creek**	**59.84**	**132**⇑	*i*P	**P**	**12 15 03.2**	**-0.8**
	comp=E,21nm,0.6s,mb5.3						
STKA	**Stephens Creek**	**59.84**	**132**	P	**P**	**12 15 03.3**	**-0.7**
	comp=E,26nm,0.7s,mb5.4,baz=311,slow=6.8,SNR=42						
STKA				LR	LR	12 42 56.7	
	comp=E,11µm,18.0s,MS6.0,baz=193,slow=38						
SOKR	**Solikamsk**	**59.94**	**340**⇑	*i*P	**P**	**12 15 01.0**	**-3.4**
SOKR				pmax	pmax		
	comp=Z,80nm,0.9s,mb5.8						
KZIT	**Kziot**	**59.95**	**302**	P	**P**	**12 15 05.0**	**+0.2**
ANN	**Anapa**	**61.57**	**318**	*e*P	**P**	**12 15 16.1**	**+0.5**
ANN				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.4						
ANN				MLR	MLR		
	comp=N,7µm,16.0s,MS6.0						
ANN				MLR	MLR		
	comp=E,5µm,16.0s,MS6.0						
ANN				MLR	MLR		
	comp=Z,8µm,16.0s,MS6.0						
CSS	**Prodhromos**	**61.69**	**306**	*e*P	**P**	**12 15 15.8**	**-0.7**
	comp=Z,126nm,1.4s,mb5.8						
YAK	**Yakutsk**	**61.97**	**19***c*	*i*P	**P**	**12 15 16.6**	**-1.5**
YAK				*e*		12 15 34.8	
YAK				*e*		12 17 39.0	
YAK				*e*S	**S**	**12 23 41.4**	**+2.2**
YAK				pmax	pmax		
	comp=Z,49nm,0.9s,mb5.6						
YAK				pmax	pmax		
	comp=N,26nm,1.1s						
YAK				pmax	pmax		
	comp=E,20nm,1.2s						
YAK				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
YAK				pmax	pmax		
	comp=N,7.0nm,0.9s						
YAK				pmax	pmax		
	comp=E,9.0nm,1.2s						
YAK				smax			
	comp=E,3.0nm,1.1s						
YAK				smax			
	comp=N,6.0nm,1.0s						
YAK				smax			
	comp=Z,4.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,7µm,15.0s,MS6.0						
YAK				MLR	MLR		
	comp=N,5µm,14.0s						
YAK				MLR	MLR		
	comp=E,4µm,9.0s						
YAK	**Yakutsk**	**61.97**	**19**	*e*P	**P**	**12 15 16.1**	**-2.0**
	comp=E,176nm,1.1s,mb6.1						
YAK				LR	LR		
	comp=Z,12µm,21.0s,MS6.0						
MBAR	**Mbarara**	**62.44**	**266**	*e*P	**P**	**12 15 21.8**	**-0.1**
MBAR				pmax	pmax		
	comp=Z,77nm,1.8s,mb5.5						
MBAR				MLR	MLR		
	comp=Z,6µm,20.0s,MS5.7						
MBAR	**Mbarara**	**62.44**	**266**	*e*P	**P**	**12 15 21.8**	**0.0**
	comp=Z,77nm,1.8s,mb5.5						
MBAR				LR	LR		
	comp=Z,6µm,20.0s,MS5.7						
BR131	**Keskin Array S**	**62.63**	**312**	PFAKE		12 15 30.0	+7.2
BR131				LR	LR		
	comp=Z,6µm,19.0s,MS5.8						
BRTR	**Keskin Array B**	**62.63**	**312**	P	**P**	**12 15 21.6**	**-1.2**
	comp=Z,15nm,0.8s,mb5.2,baz=124,slow=7.3,SNR=69						
PECR	**Pechory**	**63.04**	**332**	*e*P	**P**	**12 15 22.0**	**-3.2**
PECR				MLR	MLR		
	comp=Z,19µm,21.0s,MS6.2						
VRSR	**Storozhevoye**	**63.06**	**325***c*	*i*P	**P**	**12 15 23.1**	**-2.3**
VRSR				*e**SP	sP	12 15 34.1	-1.2
VRSR				*e*		12 17 39.8	
VRSR				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.5						
VRSR				pmax	pmax		
	comp=N,10.0nm,0.8s						
VRSR				pmax	pmax		
	comp=E,30nm,0.9s						
VRSR				MLR	MLR		
	comp=Z,7µm,19.0s,MS5.8						
VRSR				MLR	MLR		
	comp=N,9µm,23.0s,MS5.9						
VRSR				MLR	MLR		
	comp=E,3µm,19.0s,MS5.9						
SIM	**Simferopol'**	**63.84**	**317**	*e*P	**P**	**12 15 29.8**	**-0.9**
SIM				*e*S	**S**	**12 24 05.0**	**+2.1**
SIM				pmax	pmax		
	comp=Z,44nm,0.9s,mb5.5						
SIM	**Simferopol'**	**63.84**	**317**⇑	*e*P	**P**	**12 15 29.6**	**-1.1**
ISP	**Isparta**	**64.54**	**309**	*e*P	**P**	**12 15 35.0**	**-0.4**
ISP				pmax	pmax		
	comp=Z,38nm,0.7s,mb5.5						
ISP	**Isparta**	**64.54**	**309**	*e*P	**P**	**12 15 35.0**	**-0.5**
	comp=Z,38nm,0.7s,mb5.5						
TOO	**Toolangi**	**65.46**	**136**	*e*P	**P**	**12 15 41.9**	**+0.5**
	comp=Z,22nm,0.9s,mb5.2						
TOO	**Toolangi**	**65.46**	**136**	*e*P	**P**	**12 15 41.9**	**+0.5**
TOO				pmax	pmax		
	comp=Z,22nm,0.9s,mb5.2						
MOS	**Moscow**	**65.90**	**329**	*e*P	**P**	**12 15 42.4**	**-1.4**
MOS				pmax	pmax		
	comp=Z,197nm,1.5s,mb5.9						
OBN	**Obninsk**	**66.17**	**328***c*	*e*P	**P**	**12 15 43.8**	**-1.7**
OBN				*i* S	S	12 24 30.1	-1.3
OBN				*e*SS	SS	12 28 49.2	+0.5
OBN				pmax	pmax		
	comp=Z,38nm,1.2s,mb5.3						
OBN				MLR	MLR		
	comp=Z,9µm,17.0s,MS6.1						
OBN	**Obninsk**	**66.17**	**328**	*e*P	**P**	**12 15 43.3**	**-2.2**
	comp=Z,168nm,1.4s,mb5.9						
OBN				LR	LR		
	comp=Z,3µm,21.0s,MS5.5						
CNB	**Canberra Magne**	**67.17**	**132**	*e*P	**P**	**12 15 51.9**	**-0.4**
	comp=Z,24nm,0.8s,mb5.3						
LSZ	**Lusaka**	**67.58**	**251**	*e*P	**P**	**12 15 55.2**	**+0.1**
LSZ				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
LSZ				MLR	MLR		
	comp=Z,23µm,20.0s,MS6.4						
LSZ	**Lusaka**	**67.58**	**251**	*e*P	**P**	**12 15 55.2**	**0.0**
	comp=Z,9.5nm,0.8s,mb4.9						
LSZ				LR	LR		
	comp=Z,23µm,20.0s,MS6.4						
KIS	**Kishinev**	**67.97**	**318**κ	*i*P	**P**	**12 15 55.0**	**-2.1**
KIS				*e*S	S	12 24 50.0	-3.1
KIS				*e*		12 25 12.0	
KIS				*e*		12 25 50.0	
KIS				pmax	pmax		
	comp=Z,210nm,2.0s,mb5.8						
KIS				pmax	pmax		
	comp=Z,3µm,7.0s						
CFR	**Carcaliu**	**67.97**	**316**⇑	*i*P	**P**	**12 15 56.0**	**-1.1**
HARR	**Harsova**	**67.99**	**316**⇑	*i*P	**P**	**12 15 56.6**	**-0.7**
SKR	**Severo-Kuril's**	**68.42**	**38**	*e*P	**P**	**12 15 59.0**	**-0.8**
SKR				*e*		12 16 25.0	
SKR				*e*		12 20 14.0	
SKR				*e*		12 25 33.0	
SKR				*e*SSS	SSS	12 32 28.0	+3.4
SKR				pmax	pmax		
	comp=N,180nm,1.0s						
SKR				pmax	pmax		
	comp=Z,220nm,1.0s,mb6.1						
SKR				pmax	pmax		
	comp=Z,4µm,6.0s						
SKR				MLR	MLR		
	comp=N,6µm,16.0s,MS6.1						
SKR				MLR	MLR		
	comp=E,7µm,16.0s,MS6.1						
SKR				MLR	MLR		
	comp=Z,11µm,16.0s,MS6.2						
IDI	**Anoyia**	**68.55**	**305**	P	**P**	**12 16 00.3**	**-0.7**
	comp=Z,12nm,0.6s,mb5.0,baz=76,slow=8.0,SNR=11						
AKASG	**Malin Array Be**	**68.74**	**322**	P	**P**	**12 15 59.7**	**-2.1**
	comp=Z,16nm,0.8s,mb5.0,baz=88,slow=4.8,SNR=41						
MA2	**Magadan**	**68.81**	**28**	*e*P	**P**	**12 16 01.4**	**-0.7**
MA2				*e*		12 16 15.7	
MA2				*e*S	S	12 25 01.6	-1.3
MA2				*e*PS	PS	12 25 36.8	+5.4
MA2				*e*SS	SS	12 29 23.6	-6.3
MA2				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.3						
MA2				MLR	MLR		
	comp=Z,12µm,22.0s,MS6.1						
MA2	**Magadan**	**68.81**	**28**	*e*P	**P**	**12 16 01.0**	**-1.1**
	comp=Z,116nm,1.3s,mb5.7						
MA2				LR	LR		
	comp=Z,8µm,19.0s,MS6.0						
VRI	**Vrincioaia**	**69.09**	**317**⇑	*i*P	**P**	**12 16 04.0**	**-0.1**
TIXI	**Tiksi**	**69.12**	**11**⇑	*i*P	**P**	**12 16 02.9**	**-0.9**
TIXI				*e*		12 18 41.0	
TIXI				*e*S	S	12 25 08.4	+2.0
TIXI				pmax	pmax		
	comp=Z,172nm,0.7s,mb6.1						
TIXI				pmax	pmax		
	comp=N,34nm,0.8s						
TIXI				pmax	pmax		
	comp=E,34nm,0.8s						
TIXI				pmax	pmax		
	comp=Z,629nm,1.7s,mb6.3						
TIXI	**Tiksi**	**69.12**	**11**	PFAKE		12 16 20.0	+16
TIXI				LR	LR		
	comp=Z,11µm,19.0s,MS6.1						
MLR	**Muntele Rosu**	**69.54**	**316**	P	**P**	**12 16 06.9**	**+0.1**
	comp=Z,50nm,0.9s,mb5.4,baz=69,slow=1.6,SNR=35						
MLR	**Muntele Rosu**	**69.54**	**316**⇓	*i*P	**P**	**12 16 07.5**	**+0.7**
MLR	**Muntele Rosu**	**69.54**	**316**⇓	*i*P	**P**	**12 16 07.5**	**+0.7**
PET	**Petropavlovsk**	**70.60**	**36**	*e*P	**P**	**12 16 11.3**	**-1.8**
PET				*e*		12 18 56.5	
PET				*e*S	S	12 25 25.7	+1.6
PET				*e*PS	PS	12 25 49.4	-5.2
PET				*e*PPS	PPS	12 26 10.0	+2.4
PET				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.2						
PET				pmax	pmax		
	comp=Z,2µm,10.2s						
PET				pmax	pmax		
	comp=Z,2µm,9.7s						
PET				pmax	pmax		
	comp=Z,2µm,8.6s						
PET				pmax	pmax		
	comp=Z,700nm,10.4s						
PET				smax			
	comp=E,2µm,22.2s						
PET				smax			
	comp=N,1µm,14.4s						
PET				MLR	MLR		
	comp=Z,12µm,20.0s,MS6.1						
PET				MLR	MLR		
	comp=Z,8µm,19.0s						
PET	**Petropavlovsk**	**70.60**	**36**	*e*P	**P**	**12 16 14.0**	**+0.9**
PET				LR	LR		
	comp=Z,10µm,21.0s,MS6.0						
MNK	**Minsk**	**70.66**	**326**⇓	*e*P	**P**	**12 16 10.0**	**-3.5**
MNK				pmax	pmax		
	comp=Z,520nm,2.0s,mb6.1						
SEY	**Seymchan**	**70.95**	**25**	*e*P	**P**	**12 16 13.0**	**-2.1**
SEY				*e*		12 16 30.9	
SEY				*e*		12 18 47.7	
SEY				*e*PPP	PPP	12 20 29.6	-5.9
SEY				*e*S	S	12 25 24.4	-3.7
SEY				*e*		12 25 50.9	
SEY						12 26 10.3	
SEY				pmax	pmax		
	comp=Z,140nm,1.8s,mb5.6						
SEY				pmax	pmax		
	comp=E,110nm,2.0s						
SEY				MLR	MLR		
	comp=Z,40µm,23.0s,MS6.6						
SEY				MLR	MLR		
	comp=N,26µm,19.0s,MS6.7						
SEY				MLR	MLR		
	comp=E,37µm,21.0s,MS6.7						
PUL	**Pulkovo**	**71.11**	**332**	*e*P	**P**	**12 16 16.0**	**-0.1**
PUL				*e*S	S	12 25 26.6	-3.4
PUL				pmax	pmax		
	comp=Z,114nm,1.1s,mb5.7						
PUL				smax			
	comp=E,1µm,3.5s						
PUL				MLR	MLR		
	comp=Z,13µm,22.0s,MS6.1						
PUL				MLR	MLR		
	comp=N,6µm,20.0s,MS6.2						
PUL				MLR	MLR		
	comp=E,10µm,18.0s,MS6.2						
VAY	**Valandovo**	**71.21**	**311**⇑	*i*P	**P**	**12 16 16.0**	**-1.0**
BOLS	**Boljevac**	**72.03**	**314**⇑	*i*P	**P**	**12 16 21.0**	**-0.9**
SKO	**Skopje**	**72.14**	**312**	*i* P	**P**	**12 16 21.5**	**-1.1**
LBTB	**Lobatse**	**72.38**	**241**	*e*P	**P**	**12 16 24.9**	**+0.6**
LBTB				pmax	pmax		
	comp=Z,77nm,1.5s,mb5.4						
LBTB				MLR	MLR		
	comp=Z,17µm,20.0s,MS6.3						
LBTB	**Lobatse**	**72.38**	**241**	*e*P	**P**	**12 16 24.9**	**+0.5**
	comp=Z,77nm,1.5s,mb5.4						
LBTB				LR	LR		
	comp=Z,17µm,20.0s,MS6.3						
KWP	**Kalwaria**	**72.54**	**320**	*e*P	**P**	**12 16 24.4**	**-0.4**
MIR	**Mirnyy**	**72.55**	**180***c*	*e*P	pP	12 16 36.0	+4.1
MIR				*e*S	S	12 25 52.0	+5.7
MIR				pmax	pmax		
	comp=Z,1µm,7.0s						
MIR				MLR	MLR		
	comp=Z,1µm,16.0s,MS5.3						
MIR				MLR	MLR		
	comp=N,6µm,15.0s,MS6.0						
MIR				MLR	MLR		
	comp=E,2µm,16.0s,MS6.0						
WAKE	**Wake Island**	**72.64**	**72**	PFAKE		12 16 40.0	+14
WAKE				LR	LR		
	comp=Z,77µm,20.0s,MS7.0						
KOLS	**Kolonicke sedl**	**72.69**	**319**	*i* P	**P**	**12 16 26.1**	**+0.4**
KOLS				*e*		12 16 51.0	
LVZ	**Lovozero**	**72.73**	**340**	*e*P	**P**	**12 16 24.7**	**-0.9**
LVZ				MLR	MLR		
	comp=Z,17µm,21.0s,MS6.3						
LVZ				MLR	MLR		
	comp=N,3µm,12.0s						
LVZ				MLR	MLR		
	comp=E,17µm,28.0s						
GRUS	**Gruza**	**72.93**	**314**⇑	*i*P	**P**	**12 16 26.3**	**-0.9**
APA	**Apatity**	**73.00**	**340**⇓	*i*P	**P**	**12 16 26.4**	**-0.8**
APA				*i*	pP	12 16 34.7	+0.2
APA				*i*		12 19 11.7	
APA				*e*		12 26 22.0	
APA				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.5						
APA				MLR	MLR		
	comp=Z,15µm,15.0s,MS6.4						
SUW	**Suwalki**	**73.17**	**325**	*e*P	**P**	**12 16 27.4**	**-1.0**
SUW	**Suwalki**	**73.17**	**325**	*e*P	**P**	**12 16 27.1**	**-1.3**
CRVS	**Cervenica-Dubn**	**73.21**	**319**	*i* P	**P**	**12 16 29.2**	**+0.5**
CRVS				*e*		12 19 16.1	
CRVS	**Cervenica-Dubn**	**73.21**	**319**	*i* P	**P**	**12 16 29.2**	**+0.5**
CRVS				*e*		12 16 54.8	
CRVS				*e*PP	PP	12 19 16.1	+2.2
CASY	**Casey**	**73.41**	**173**	PFAKE		12 16 40.0	+10
CASY				LR	LR		
	comp=Z,6µm,19.0s,MS5.9						
DIVS	**Divcibare**	**73.48**	**314**⇓	*i*P	**P**	**12 16 29.8**	**-0.7**
FINES	**FINESS Array B**	**73.64**	**333**	P	**P**	**12 16 30.1**	**-0.9**
	comp=Z,24nm,0.8s,mb5.2,baz=101,slow=9.7,SNR=28						
FINES				PP	PP	12 19 12.9	-4.2
	comp=Z,6.4nm,0.8s,baz=110,slow=10,SNR=3.5						
BOSA	**Boshof**	**73.67**	**238**	*e*P	**P**	**12 16 31.6**	**-0.3**
BOSA				pmax	pmax		
	comp=Z,66nm,1.5s,mb5.3						
BOSA				MLR	MLR		
	comp=Z,9µm,21.0s,MS6.0						
BOSA	**Boshof**	**73.67**	**238**	*e*P	**P**	**12 16 31.6**	**-0.3**
	comp=Z,66nm,1.5s,mb5.3						
BOSA				LR	LR		
	comp=Z,9µm,21.0s,MS6.0						
KAF	**Kangasniemi**	**73.74**	**333**	*e*p	**P**	**12 16 29.8**	**-1.8**
	comp=Z,38nm,1.0s,mb5.3						
KAF	**Kangasniemi**	**73.74**	**333**	*e*P	**P**	**12 16 29.8**	**-1.8**
KAF				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.3						
KECS	**Kecovo**	**73.77**	**319**	*i* P	**P**	**12 16 31.5**	**-0.5**
KECS				*i*		12 16 56.3	
NIE	**Niedzica**	**74.04**	**320**	*e*P	**P**	**12 16 33.9**	**+0.4**
PSZ	**Piszkesteto**	**74.08**	**318**	*e*P	**P**	**12 16 33.2**	**-0.6**
PSZ				pmax	pmax		
	comp=Z,44nm,1.2s,mb5.3						
PSZ	**Piszkesteto**	**74.08**	**318**⇑	*e*P	**P**	**12 16 33.5**	**-0.3**
OJC	**Ojcow**	**74.49**	**320**	*e*P	**P**	**12 16 35.8**	**-0.4**
PKSM	**Moragy**	**74.69**	**316**⇑	*i*P	**P**	**12 16 36.8**	**-0.6**
VYHS	**Vyhne**	**74.86**	**318**	*i* P	**P**	**12 16 38.0**	**-0.3**
VYHS				*i*		12 17 04.9	
STON	**Ston**	**75.00**	**313**	*i* P	pP	12 16 48.4	+1.9
RHK1	**Bakonya**	**75.07**	**316**⇑	*e*P	**P**	**12 16 38.8**	**-0.8**
SRO	**Srobarova**	**75.12**	**318**	*i* P	**P**	**12 16 40.2**	**+0.4**
SRO1	**Iza**	**75.17**	**318**	*e*P	**P**	**12 16 43.5**	**+3.4**
OKC	**Ostrava-Krasne**	**75.49**	**320**⇑	*i*P	**P**	**12 16 41.7**	**-0.2**
OKC				*e*pP	pP	12 16 49.3	+0.1
OKC				AMS	AMS	12 54 20.0	
	comp=Z,4µm,18.3s						
RAC	**Raciborz**	**75.49**	**320**	*e*P	**P**	**12 16 42.4**	**+0.5**
RAC				MLR	MLR	12 57 09.3	
	comp=Z,6µm,16.6s,MS6.0						
SMOL	**Smolenice**	**75.79**	**318**	*e*P	**P**	**12 16 46.1**	**+2.4**
MORC	**Moravsky Berou**	**75.87**	**320**	*e*P	**P**	**12 16 43.3**	**-0.8**
MORC				pmax	pmax		
	comp=Z,139nm,1.6s,mb5.6						
MORC	**Moravsky Berou**	**75.87**	**320**	*e*P	**P**	**12 16 43.3**	**-0.8**
	comp=Z,139nm,1.6s,mb5.6						
ZST	**Bratislava**	**75.97**	**318**	*i* P	**P**	**12 16 45.2**	**+0.5**
KEV	**Kevo**	**76.03**	**341**	*e*p	**P**	**12 16 40.5**	**-4.1**
	comp=Z,21nm,0.8s,mb5.1						
KEV	**Kevo**	**76.03**	**341**	*e*P	**P**	**12 16 40.5**	**-4.1**
KEV				pmax	pmax		
	comp=Z,21nm,0.8s,mb5.1						
SOP	**Sopron**	**76.28**	**317**	*e*P	**P**	**12 16 46.4**	**0.0**
VRAC	**Vranov**	**76.43**	**319**	P	**P**	**12 16 47.2**	**0.0**
	comp=Z,5.0nm,0.8s,mb4.5,baz=102,slow=6.8,SNR=8.2						
ARCES	**ARCESS Array B**	**76.44**	**340**	P	**P**	**12 16 47.1**	**+0.2**
	comp=Z,28nm,0.9s,mb5.2,baz=100,slow=7.4,SNR=24						
ARE0	**ARCESS Array S**	**76.44**	**340**	*e*P	**P**	**12 16 46.4**	**-0.5**
GKP	**Gorka Klasztor**	**76.52**	**323**	*e*P	**P**	**12 16 47.5**	**-0.1**
MAW	**Mawson**	**76.65**	**191**	*e*P	**P**	**12 16 48.9**	**+0.8**
MAW				pmax	pmax		
	comp=Z,15nm,1.0s						
MAW				MLR	MLR		
	comp=Z,10µm,20.0s						
MAW	**Mawson**	**76.65**	**191**	P	**P**	**12 16 50.1**	**+2.0**
	comp=Z,9.9nm,0.8s,mb4.8,baz=348,slow=5.8,SNR=8.9						
MAW	**Mawson**	**76.65**	**191**	*e*P	**P**	**12 16 48.9**	**+0.8**

	comp=Z,15nm,1.0s,mb4.9						
MAW				LR	LR		
	comp=Z,10µm,20.0s,MS6.1						
DPC	**Dobruska-Polom**	76.72	320⇑	*i*P	P	12 16 49.4	+0.6
DPC				*e*pP	pP	12 16 56.3	+0.1
DPC				AMS	AMS	12 57 40.0	
	comp=Z,7µm,18.1s						
KSP	**Ksiaz**	76.79	321⇑	*e*P	P	12 16 49.6	+0.4
KSP				*e*	pP	12 16 55.6	-1.0
KSP				*e*S	S	12 26 38.0	+4.2
KSP				MLR	MLR		
	comp=Z,14µm,18.4s,MS6.3						
KSP	**Ksiaz**	76.79	321⇑	*e*P	P	12 16 49.6	+0.4
KSP				*e*pP	pP	12 16 51.7	-4.9
KSP				*e*	pP	12 16 55.6	-1.0
KSP				*e*PP	PP	12 19 35.0	-8.6
KSP				*e*S	S	12 26 38.0	+4.2
KSP				LR	LR		
	comp=Z,14µm,18.4s,MS6.3						
KSP	**Ksiaz**	76.79	321	*e*P	P	12 16 49.8	+0.6
UPC	**Upice**	76.94	320⇑	*i*P	P	12 16 50.4	+0.4
ARSA	**Arzberg**	76.94	317⇑	*i*P	P	12 16 50.3	+0.2
	comp=Z,72nm,1.6s,mb5.3						
PERS	**Pernice**	77.16	316	*e*P	P	12 16 50.4	-1.0
PERS				*e*		12 26 41.3	
LJU	**Ljubljana**	77.53	316⇑	*e*P	P	12 16 53.6	+0.2
	comp=Z,377nm,2.2s,mb5.9						
LJU				*e*		12 26 43.0	
LJU	**Ljubljana**	77.53	316⇑	*e*P	P	12 16 53.6	+0.2
LJU				*e*		12 26 43.0	
LJU				pmax	pmax		
	comp=Z,377nm,2.2s,mb5.9						
OBKA	**Obir**	77.54	316⇑	*i*P	P	12 16 53.8	+0.3
	comp=Z,51nm,1.4s,mb5.3						
PRU	**Pruhonice**	77.82	320⇑	*i*P	P	12 16 55.1	+0.2
	comp=Z,122nm,1.9s,mb5.5						
PRU				*e*PCP	PcP	12 17 05.5	+0.2
PRU				AMS	AMS	12 56 30.0	
	comp=Z,4µm,17.8s						
MOA	**Molln**	77.83	318⇑	*i*P	P	12 16 54.8	-0.2
	comp=Z,47nm,1.2s,mb5.3						
PVCC	**Panska Ves**	77.85	320⇑	*e*P	P	12 16 55.4	+0.3
PVCC				*e*PCP	PcP	12 17 05.9	+0.5
PVCC				AMS	AMS	12 58 40.0	
	comp=Z,7µm,16.7s						
VOY	**Vojsko**	77.97	316	*e*P	P	12 16 55.4	-0.4
BILL	**Bilibino**	78.09	22⇑	*i*P	P	12 16 55.3	-0.7
BILL				*e*		12 19 52.5	
BILL				*i* S	S	12 26 43.1	-4.3
BILL				*e*SS	SS	12 31 45.5	-6.6
BILL				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.2						
BILL	**Bilibino**	78.09	22	*e*P	P	12 16 55.7	-0.3
	comp=Z,170nm,1.9s,mb5.7						
BILL				LR	LR		
	comp=Z,12µm,19.0s,MS6.2						
BSD	**Bornholm Skovb**	78.10	325	*i* P	P	12 16 49.2	-7.1
	comp=Z,48nm,1.1s,mb5.3						
BSD				*i* S	S	12 26 45.0	-2.8
	comp=Z,6µm,17.0s						
BRG	**Berggiesshubel**	78.28	321	*i* P	P	12 16 57.6	+0.2
BRG				*i*	pP	12 17 06.1	+1.3
BRG				*i* S	S	12 26 49.0	-0.8
BRG				pmax	pmax		
	comp=Z,100nm,1.5s,mb5.5						
BRG				MLR	MLR		
	comp=Z,8µm,15.5s,MS6.1						
BRG	**Berggiesshubel**	78.28	321	*i* P	P	12 16 57.6	+0.2
	comp=Z,100nm,1.5s,mb5.5						
BRG				*i*		12 17 00.0	
BRG				*i*	pP	12 17 06.1	+1.3
BRG				*i* S	S	12 26 49.0	-0.8
BRG				*i* SS	SS	12 32 01.0	+5.7
BRG				LR	LR		
	comp=Z,8µm,15.5s,MS6.1						
GEC2	**GERESS Array S**	78.28	318⇑	*i*P	P	12 16 58.0	+0.5
GEC2				pmax	pmax		
	comp=Z,133nm,1.3s,mb5.7						
GEC2	**GERESS Array S**	78.28	318⇑	*i*P	P	12 16 58.0	+0.5
	comp=Z,133nm,1.3s,mb5.7						
GERES	**GERESS Array B**	78.28	318	P	P	12 16 57.9	+0.4
	comp=Z,31nm,0.9s,mb5.2,baz=90,slow=5.3,SNR=121						
GERES				PP	PP	12 19 58.5	+2.0
	comp=Z,12nm,1.1s,baz=90,slow=2.9,SNR=4.2						
PTCC	**Patocco-Chiusa**	78.36	316	*e*P	P	12 16 57.1	-0.8
KHC	**Kasperske Hory**	78.38	319⇑	*i*P	P	12 16 58.0	0.0
KHC				*e*x	x	12 17 08.0	
KHC				AMS	AMS	13 01 20.0	
	comp=Z,5µm,17.2s						
SUR	**Sutherland**	78.39	235	*e*P	P	12 16 58.6	+0.2
SUR				LR	LR		
	comp=Z,2µm,19.0s,MS5.5						
KBA	**Koelnbreinsper**	78.41	317⇑	*i*P	P	12 16 58.3	+0.1
	comp=Z,28nm,0.9s,mb5.2						
KBA	**Koelnbreinsper**	78.41	317⇑	*i*P	P	12 16 58.3	+0.1
KBA				pmax	pmax		
	comp=Z,28nm,0.9s,mb5.2						
GMNA	**Gemona**	78.44	316	*e*P	P	12 16 58.4	0.0
RUE	**Ruedersdorf**	78.51	322	*e*P	P	12 16 58.2	-0.5
	comp=Z,75nm,1.0s,mb5.6						
FVI	**Forni Avoltri**	78.77	316	*e*P	P	12 17 00.2	0.0
WET	**Wettzell**	78.84	319	*e*P	P	12 17 01.0	+0.4
CLL	**Collm**	78.90	321⇑	*i*P	P	12 17 00.5	-0.3
CLL				*i*	pP	12 17 07.6	-0.6
CLL				*e*S	S	12 26 54.0	-2.4
CLL				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.3						
CLL				MLR	MLR		
	comp=Z,7µm,17.3s,MS6.0						
CLL	**Collm**	78.90	321⇑	*i*P	P	12 17 00.5	-0.3
	comp=Z,48nm,1.3s,mb5.3						
CLL				*i*	pP	12 17 07.6	-0.6
CLL				*e*S	S	12 26 54.0	-2.4
CLL				LR	LR		
	comp=Z,7µm,17.3s,MS6.0						
CLL	**Collm**	78.90	321	⇑P	P	12 17 00.5	-0.3
	comp=Z,logA/T=1.6,mb5.3						
CLL				*i* *PP	pP	12 17 07.6	-0.6
CLL				*i*		12 17 47.0	
CLL				*e*PP	PP	12 20 00.0	-1.4
CLL				*e*PPP	PPP	12 21 50.0	-1.3
CLL				*e*S	S	12 26 54.0	-2.4
CLL				*e*SS	SS	12 31 54.0	-11
NKC	**Novy Kostel**	79.19	320⇑	*i*P	P	12 17 02.6	+0.2
NKC				*e*x	x	12 17 13.0	
NKC				AMS	AMS	12 59 20.0	
	comp=Z,6µm,17.9s						
HFS	**Hagfors**	79.31	330	P	P	12 17 02.7	-0.2
	comp=Z,14nm,0.8s,mb4.9,baz=108,slow=4.7,SNR=12						
HFS				PP	PP	12 20 02.7	-1.8
	comp=Z,16nm,1.0s,baz=90,slow=4.4,SNR=4.2						
SFI	**Santa Sofia**	79.32	313	*e*P	P	12 17 04.4	+1.1
PGD	**Poggio Sodo**	79.41	313	*e*P	P	12 17 04.9	+1.2
CTI	**Castel Tesino**	79.53	316	*e*P	P	12 17 04.6	+0.3
VMG	**Vicchio**	79.54	313	*e*P	P	12 17 05.5	+1.0
WTTA	**Wattenberg**	79.58	317⇑	*i*P	P	12 17 04.4	-0.2
	comp=Z,74nm,1.1s,mb5.5						
WTTA	**Wattenberg**	79.58	317⇑	*i*P	P	12 17 04.4	-0.2
WTTA				pmax	pmax		
	comp=Z,74nm,1.1s,mb5.5						
WATA	**Walderalm**	79.62	317⇑	*i*P	P	12 17 04.3	-0.5
	comp=Z,148nm,2.0s,mb5.6						
WATA	**Walderalm**	79.62	317⇑	*i*P	P	12 17 04.3	-0.5
WATA				pmax	pmax		
	comp=Z,148nm,2.0s,mb5.6						
SEI	**Scarperia**	79.68	314	*e*P	P	12 17 05.4	+0.2
MOX	**Moxa**	79.74	320	*e*P	P	12 17 05.5	+0.1
MOX				*e*S	S	12 27 13.0	+7.8
MOX				pmax	pmax		
	comp=Z,114nm,1.9s,mb5.5						
MOX				MLR	MLR		
	comp=Z,6µm,18.0s,MS6.0						
MOX	**Moxa**	79.74	320	*i* P	P	12 17 05.5	+0.1
	comp=Z,logA/T=1.8,mb5.5						
MOX				S	S	12 27 13.0	+7.8
MOX				L		12 59 53.0	
MOX	**Moxa**	79.74	320	*e*P	P	12 17 05.5	+0.1
	comp=Z,114nm,1.9s,mb5.5						
MOX				*e*S	S	12 27 13.0	+7.8
MOX				LR	LR		
	comp=Z,6µm,18.0s,MS6.0						
SMY	**Shemya**	79.76	38	PFAKE		12 17 20.0	+15
SMY				LR	LR		
	comp=Z,11µm,22.0s,MS6.1						
FUR	**Furstenfeldbru**	79.86	318	*e*P	P	12 17 06.0	-0.1
SQTA	**Sankt Quirin**	79.87	317⇓	*i*P	P	12 17 05.7	-0.5
	comp=Z,130nm,1.7s,mb5.6						
SQTA	**Sankt Quirin**	79.87	317⇓	*i*P	P	12 17 05.7	-0.5
SQTA				pmax	pmax		
	comp=Z,130nm,1.7s,mb5.6						
GRFL	**Gerfalco**	79.93	313	*e*P	P	12 17 05.9	-0.7
MOTA	**Moosalm**	79.94	317⇑	*i*P	P	12 17 06.3	-0.3
	comp=Z,27nm,1.0s,mb5.1						
MOTA	**Moosalm**	79.94	317⇑	*i*P	P	12 17 06.3	-0.3
MOTA				pmax	pmax		
	comp=Z,27nm,1.0s,mb5.1						
GRA1	**Grafenberg Arr**	79.95	319	*e*P	P	12 17 07.4	+0.9
	comp=Z,70nm,1.2s,mb5.5						
GRF	**Grafenberg Arr**	79.95	319	*e*P	P	12 17 07.4	+0.9
GRF				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.5						
GRF	**Grafenberg Arr**	79.95	319	*e*P	P	12 17 07.4	+0.9
GRF				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.5						
GRF	**Grafenberg Arr**	79.95	319	*e*P	P	12 17 07.4	+0.9
	comp=Z,70nm,1.2s,mb5.5						
ZCCA	**Zocca**	79.96	314	*e*P	P	12 17 08.5	+1.8
DRV	**Dumont d'Urvil**	80.12	163	P	P	12 17 07.0	-0.1
DRV	**Dumont d'Urvil**	80.12	163	S	S	12 27 13.0	+4.1
DRV				SS	SS	12 32 18.0	-4.6
DRV				L		12 38 00.0	
DRV				R		12 43 00.0	
GSCL	**Gusciola**	80.23	314	*e*P	P	12 17 09.3	+1.1
SAL	**Salo**	80.30	315	*e*P	P	12 17 09.4	+0.9
ERBM	**Eremo**	80.36	314	*e*P	P	12 17 10.1	+1.3
BRMO	**Bormio**	80.42	316	*e*P	P	12 17 09.4	+0.3
CLZ	**Clausthal**	80.57	321	*e*P	P	12 17 10.1	+0.3
	comp=Z,48nm,1.2s,mb5.3						
NB2	**NORSAR Subarra**	80.61	331	P	P	12 17 09.1	-0.7
	comp=Z,29nm,1.0s,mb5.2,baz=96,slow=5.3						
NB2	**NORSAR Subarra**	80.61	331	P	P	12 17 09.1	-0.7
	baz=96,slow=5.6						
NB2	**NORSAR Subarra**	80.61	331	P	P	12 17 09.1	-0.7
NB2				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
NOA	**NORSAR Array B**	80.61	331	P	P	12 17 08.8	-1.0
	comp=Z,9.4nm,0.8s,mb4.8,baz=94,slow=5.5,SNR=16						
BSEG	**Bad Segeberg**	80.68	324	*e*P	P	12 17 10.7	+0.4
NAO01	**NORSAR Array S**	80.75	331	*e*P	P	12 17 09.4	-1.1
NAO01				LR	LR		
	comp=Z,17µm,19.0s,MS6.4						
DAVA	**Damuels**	80.78	317⇓	*i*P	P	12 17 10.8	-0.2
	comp=Z,72nm,1.2s,mb5.5						
BOB	**Bobbio (Coli)**	81.05	314	*e*P	P	12 17 12.9	+0.4
STU	**Stuttgart**	81.25	318	*e*P	P	12 17 12.4	-1.0
STU				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.0						
STU	**Stuttgart**	81.25	318	*e*P	P	12 17 12.4	-1.0
	comp=Z,15nm,0.8s,mb5.0						
KONO	**Kongsberg**	81.33	329	PFAKE		12 17 30.0	+16
KONO				LR	LR		
	comp=Z,11µm,19.0s,MS6.2						
PGF	**Pioggiola**	81.39	312	*e*P	P	12 17 14.3	0.0
	comp=Z,192nm,1.6s,mb5.5						
PGF	**Pioggiola**	81.39	312	*e*P	P	12 17 14.3	0.0
PGF				pmax	pmax		
	comp=Z,96nm,1.6s,mb5.5						
MUD	**Monsted U'grnd**	81.43	326	*i* P	P	12 17 14.8	+0.6
MUD				*i* S	S	12 27 32.0	+9.3
MUD				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.0						
MUD	**Monsted U'grnd**	81.43	326	*i* P	P	12 17 14.8	+0.6
	comp=Z,17nm,0.8s,mb5.0						
MUD				*i* S	S	12 27 32.0	+9.3
MUD	**Monsted U'grnd**	81.43	326	*i* P	P	12 17 14.8	+0.6
	comp=Z,17nm,0.8s,mb5.0						
MUD	**Monsted U'grnd**	81.43	326	*i* S	S	12 27 32.0	+9.3
	comp=Z,6µm,17.0s						
TOD	**Tromm**	81.52	319	*e*P	P	12 17 15.1	+0.3
VAI	**Varese**	81.53	315	*e*P	P	12 17 14.2	-0.8
BFO	**Black Forest**	81.83	318	*e*P	P	12 17 16.4	0.0
BFO				pmax	pmax		
	comp=Z,21nm,1.1s,mb5.0						
BFO	**Black Forest**	81.83	318	*e*P	P	12 17 16.4	0.0
	comp=Z,21nm,1.1s,mb5.0						
FIN	**Finale Ligure**	81.94	314	*e*P	P	12 17 17.1	0.0
FELD	**Feldberg**	82.05	317	*e*P	P	12 17 17.8	+0.2
MCGN	**Macugnaga**	82.08	315	*e*P	P	12 17 18.4	+0.6
LANF	**Langenberg**	82.17	318	*e*P	P	12 17 18.6	+0.4
LIBD	**Limburg**	82.32	318	*e*P	P	12 17 19.4	+0.4
ABH	**Alteburg**	82.33	319	*e*P	P	12 17 19.3	+0.3
BBS	**Basel-Blauen**	82.39	317	*e*P	P	12 17 19.2	-0.1
SAOF	**Saorge**	82.42	313	*e*P	P	12 17 20.1	+0.5
WLS	**Welschbruch**	82.48	318	*e*P	P	12 17 19.9	+0.1
SBF	**Sospel**	82.51	313	*e*P	P	12 17 20.3	+0.2
	comp=Z,86nm,0.8s,mb5.5						
SBF	**Sospel**	82.51	313	*e*P	P	12 17 20.3	+0.2
SBF				pmax	pmax		
	comp=Z,43nm,0.8s,mb5.5						
CDF	**Champ du Feu**	82.53	318	*e*P	P	12 17 19.8	-0.3
	comp=Z,39nm,1.1s,mb5.0						
CDF	**Champ du Feu**	82.53	318	*e*P	P	12 17 19.8	-0.3
CDF				pmax	pmax		
	comp=Z,20nm,1.1s,mb5.1						
ECH	**Echery**	82.61	318	*e*P	P	12 17 20.2	-0.3
MOF	**Molkenrain**	82.64	317	*e*P	P	12 17 20.6	0.0
TOUF	**Mont Tournerai**	82.64	313	*e*P	P	12 17 21.4	+0.7
RUP	**Ruppelstein**	82.65	319	*e*P	P	12 17 21.3	+0.6
WTSB	**Winterswijk**	82.79	322	*e*P	P	12 17 22.2	+0.9
	comp=Z,64nm,2.3s,mb5.2						
LOMF	**Lomont**	82.85	317	*e*P	P	12 17 21.9	+0.1
CALN	**Calern**	82.91	313	*e*P	P	12 17 22.9	+0.8
SURF	**Saint Ours**	82.94	314	*e*P	P	12 17 23.0	+0.7
LPG	**La Plagne**	82.95	315	*e*P	P	12 17 23.0	+0.7
	comp=Z,63nm,0.8s,mb5.4						
LPG	**La Plagne**	82.95	315	*e*P	P	12 17 23.0	+0.7
LPG				pmax	pmax		
	comp=Z,31nm,0.8s,mb5.4						
MBDF	**Montbardon**	82.96	314	*e*P	P	12 17 22.3	-0.1
	comp=Z,52nm,1.0s,mb5.2						
MBDF	**Montbardon**	82.96	314	*e*P	P	12 17 22.3	-0.1
MBDF				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
BNI	**Bardonecchia**	83.02	315	*e*P	P	12 17 21.8	-0.9
BNI				pmax	pmax		
	comp=Z,23nm,1.0s,mb5.2						
BNI	**Bardonecchia**	83.02	315	*e*P	P	12 17 21.8	-0.9
	comp=Z,23nm,1.0s,mb5.2						
HAU	**Haudompre**	83.16	318	*e*P	P	12 17 23.1	-0.2
	comp=Z,47nm,0.9s,mb5.2						
HAU				*e*R			
	comp=Z,6µm,20.8s						
HAU	**Haudompre**	83.16	318	*e*P	P	12 17 23.1	-0.2
HAU				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.2						
HAU				MLR	MLR		
	comp=Z,6µm,20.8s,MS5.9						
WLF	**Walferdange**	83.24	319	*e*P	P	12 17 24.3	+0.6
WLF				pmax	pmax		
	comp=Z,94nm,1.5s,mb5.6						
WLF	**Walferdange**	83.24	319	*e*P	P	12 17 24.3	+0.6
	comp=Z,94nm,1.5s,mb5.6						
HGN	**Heimansgroeve**	83.35	320	*e*P	P	12 17 24.1	-0.2
	comp=Z,39nm,2.2s,mb5.0						
HGN	**Heimansgroeve**	83.35	320	*e*S	S	12 27 49.0	+6.6
HGN				*e*SS	SS	12 33 02.4	-8.6
THEF	**They Montfort**	83.39	318	*e*P	P	12 17 24.4	-0.1
OG05	**Jujurieux**	83.84	316	*e*P	P	12 17 27.3	+0.4
BAIF	**Baives**	84.48	320	*e*P	P	12 17 30.3	+0.3
	comp=Z,51nm,1.0s,mb5.3						
BAIF	**Baives**	84.48	320	*e*P	P	12 17 30.3	+0.3
BAIF				pmax	pmax		
	comp=Z,25nm,1.0s,mb5.3						
PLDF	**La Plantade**	85.12	316	*e*P	P	12 17 34.0	+0.7
SSF	**Saint Saulge**	85.13	317	*e*P	P	12 17 33.2	-0.1
	comp=Z,92nm,1.6s,mb5.3						
SSF	**Saint Saulge**	85.13	317	*e*P	P	12 17 33.2	-0.1
SSF				pmax	pmax		
	comp=Z,46nm,1.6s,mb5.4						
LBL	**Lubilhac**	85.43	315	*e*P	P	12 17 35.9	+1.0
AGO	**Saint Agoulin**	85.46	316	*e*P	P	12 17 35.6	+0.6
PYM	**Petit Puy Mans**	85.56	315	*e*P	P	12 17 36.1	+0.6
BGF	**Bois d'Agland**	85.61	316	*e*P	P	12 17 36.1	+0.4
RJF	**Les Rejaudoux**	86.65	315	*e*P	P	12 17 41.5	+0.6
	comp=Z,60nm,1.1s,mb5.4						
RJF				*e*R			
	comp=Z,4µm,19.2s						
RJF	**Les Rejaudoux**	86.65	315	*e*P	P	12 17 41.5	+0.6
RJF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.4						
RJF				MLR	MLR		
	comp=Z,4µm,19.3s,MS5.8						
MIDW	**Midway**	86.85	62	PFAKE		12 17 50.0	+7.7
MIDW				LR	LR		
	comp=Z,6µm,21.0s,MS6.0						
FLN	**La Foliniere**	87.64	319	*e*P	P	12 17 45.7	+0.1
	comp=Z,29nm,0.8s,mb5.2						
FLN				*e*R			
	comp=Z,7µm,19.0s						
FLN	**La Foliniere**	87.64	319	*e*P	P	12 17 45.7	+0.1
FLN				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.2						
FLN				MLR	MLR		
	comp=Z,7µm,19.0s,MS6.1						
ETSF	**Etsaut**	88.39	313	*e*P	P	12 17 50.1	+0.8
	comp=Z,24nm,0.8s,mb5.2						
ETSF	**Etsaut**	88.39	313	*e*P	P	12 17 50.1	+0.8
ETSF				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.2						
EKA	**Eskdalemuir Ar**	88.42	325	P	P	12 17 50.0	+0.8
	comp=Z,19nm,0.8s,mb5.4,baz=97,slow=4.9,SNR=30						
ESK	**Eskdalemuir**	88.45	325	PFAKE		12 18 00.0	+11
ESK				LR	LR		
	comp=Z,2µm,20.0s,MS5.6						
DAG	**Danmarks Havn**	88.86	348⇓	*e*P	P	12 17 52.2	+1.3
DAG				pmax	pmax		
	comp=Z,29nm,0.3s,mb6.1						
DAG				MLR	MLR		
	comp=Z,10µm,21.0s,MS6.2						
DAG	**Danmarks Havn**	88.86	348⇓	*e*P	P	12 17 52.2	+1.3
	comp=Z,29nm,0.3s,mb6.1						
DAG				LR	LR		
	comp=Z,10µm,21.0s,MS6.2						
DAG	**Danmarks Havn**	88.86	348⇓	*i*P	P	12 17 52.2	+1.3
	comp=Z,28nm,0.3s,mb6.1						
	comp=Z,10µm,21.0s						
ANM	**Nome**	89.46	25	*e*P	P	12 17 55.3	+1.4
ESDC	**Sonseca Array**	91.38	310	P	P	12 18 04.3	+0.9
	comp=Z,3.8nm,0.7s,mb4.8,baz=60,slow=4.2,SNR=22						
ESLA	**Sonseca Array**	91.38	310	PFAKE		12 18 20.0	+17
ESLA				LR	LR		
	comp=Z,18µm,20.0s,MS6.5						
VNDA	**Vanda**	91.53	168	*e*P	P	12 18 03.3	+0.1
VNDA				pmax	pmax		
	comp=Z,39nm,1.8s						
VNDA				MLR	MLR		
	comp=Z,6µm,21.0s						
VNDA	**Vanda**	91.53	168	P	P	12 18 04.2	+0.9
	comp=Z,2.1nm,0.8s,mb4.5,baz=308,slow=6.9,SNR=5.0						
VNDA				LR	LR	12 54 41.3	
	comp=Z,5µm,20.0s,MS6.0,baz=304,slow=33						
VNDA	**Vanda**	91.53	168	*e*P	P	12 18 03.3	0.0
	comp=Z,39nm,1.8s,mb5.4						
VNDA				LR	LR		
	comp=Z,6µm,21.0s,MS6.0						
RAO	**Raoul Island**	92.25	119	PFAKE		12 18 20.0	+12
RAO				LR	LR		
	comp=Z,6µm,21.0s,MS6.0						
SBA	**Scott Base**	92.63	168	P	P	12 18 09.9	+1.6
SBA				*e*		12 18 20.4	
SBA	**Scott Base**	92.63	168	*e*P	P	12 18 09.2	+0.9
SBA				LR	LR		
	comp=Z,4µm,21.0s,MS5.9						
NVL	**N'lazarevskaya**	92.86	199⇓	*e*P	P	12 18 16.0	+6.5
NVL				*e*S		12 28 44.0	
NVL				pmax	pmax		
	comp=Z,344nm,3.4s						
MAIT	**Maitri**	92.90	199	*e*P	P	12 18 05.9	-3.7
IMA	**Indian Mountai**	93.63	22	*e*P	P	12 18 14.7	+1.6
IMA				pmax	pmax		
	comp=Z,186nm,2.5s,mb6.1						
IMA	**Indian Mountai**	93.63	22	*e*P	P	12 18 14.7	+1.6
	comp=Z,186nm,2.5s,mb6.1						
BORG	**Borgarnes**	94.51	337	PFAKE		12 18 30.0	+13
BORG				LR	LR		
	comp=Z,3µm,19.0s,MS5.7						
SPU	**Mount Spurr**	96.32	26	*e*P	P	12 18 25.3	-0.2
COLA	**College**	96.34	22	*e*P	P	12 18 26.0	+0.4
COLA				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.0						
AFI	**Afiamalu**	96.58	103	PFAKE		12 18 40.0	+12
AFI				LR	LR		
	comp=Z,3µm,21.0s,MS5.8						
ILAR	**Eielson Array**	96.75	22	P	P	12 18 26.1	-1.3
	comp=Z,1.8nm,0.9s,mb4.5,baz=295,slow=4.5,SNR=17						
ILAR				PP	PP	12 22 22.2	-2.7
	comp=Z,2.3nm,0.9s,baz=304,slow=6.2,SNR=4.0						
ILAR				PKKPbc		12 35 10.2	
	comp=Z,0.6nm,0.9s,baz=150,slow=2.6,SNR=4.1						
DBIC	**Dimbokro**	96.97	277	P	P	12 18 30.4	+0.9
	comp=Z,2.0nm,0.7s,mb4.6,baz=119,slow=20,SNR=5.5						
DBIC				PKKPbc		12 35 11.8	
	comp=Z,1.7nm,0.8s,baz=194,slow=3.7,SNR=3.2						
DBIC	**Dimbokro**	96.97	277	PFAKE		12 18 40.0	+10
DBIC				LR	LR		
	comp=Z,3µm,19.0s,MS5.8						
KDAK	**Kodiak Island**	97.49	29	PFAKE		12 18 40.0	+9.1
KDAK				LR	LR		
	comp=Z,1µm,21.0s,MS5.4						
SNAA	**Sanae**	97.65	199	PKKPbc		12 35 07.9	
	comp=Z,0.5nm,0.7s,baz=252,slow=1.2,SNR=4.6						
INK	**Inuvik**	98.94	16	P	P	12 18 37.5	+0.3
	comp=Z,5.9nm,1.1s,mb5.0,baz=320,slow=5.0,SNR=13						
VNA1	**Neumayer--Stat**	99.51	199		P	12 18 31.9	-7.8
VNA1	**Neumayer--Stat**	99.51	199⇑	*i*	P	12 18 45.8	+6.1
SIT	**Sitka**	105.79	25	PFAKE		12 23 30.0	
SIT				LR	LR		
	comp=Z,6µm,19.0s,MS6.2						
TRIS	**Tristan da Cun**	105.86	233	PFAKE		12 23 30.0	
TRIS				LR	LR		
	comp=Z,4µm,21.0s,MS6.0						
POHA	**Pohakuloa**	107.93	67	PFAKE		12 23 40.0	
POHA				LR	LR		
	comp=Z,1.0nm,21.0s						
RAR	**Rarotonga**	108.32	110	PFAKE		12 23 40.0	
RAR				LR	LR		
	comp=Z,4µm,19.0s,MS6.0						
YKA	**Yellowknife Ar**	108.34	13	Pdiff	Pdif	12 19 21.3	+2.3
	comp=Z,0.6nm,0.8s,baz=326,slow=4.5,SNR=8.5						
YKA				PKiKP		12 23 24.8	
	comp=Z,0.8nm,0.9s,baz=312,slow=3.1,SNR=7.0						
YKA				PP	PP	12 23 45.3	-7.3
	comp=Z,2.2nm,0.9s,baz=332,slow=7.9,SNR=6.6						
YKA				PKKPbc		12 34 35.8	
	comp=Z,0.5nm,0.7s,baz=152,slow=3.2,SNR=10.0						
SCHQ	**Schefferville**	116.90	347	PKP	PKPdf	12 23 42.3	-2.7
	comp=Z,4.1nm,1.0s,baz=78,slow=3.3,SNR=5.4						
SCHQ				PP	PP	12 24 51.1	-3.3
	comp=Z,9.5nm,0.9s,baz=19,slow=8.7,SNR=5.4						
SCHQ	**Schefferville**	116.90	347	PFAKE		12 23 50.0	+5.0
SCHQ				LR	LR		
	comp=Z,8µm,20.0s,MS6.3						
OCWA	**Octopus Mounta**	117.14	27	PFAKE		12 23 50.0	+4.4
OCWA				LR	LR		
	comp=Z,4µm,20.0s,MS6.0						
TBI	**Tubuai**	117.75	113	*e*PS	PS	12 34 37.7	-4.0
TBI				*e*LR	LR	12 59 19.0	
	comp=Z,5µm,23.8s						
PMSA	**Palmer Station**	119.26	191	PFAKE		12 24 00.0	+11
PMSA				LR	LR		
	comp=Z,7µm,19.0s,MS6.3						
NEW	**Newport**	119.70	23	PFAKE		12 24 00.0	+9.5
NEW				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
COR	**Corvallis**	119.88	29	PFAKE		12 24 00.0	+9.0
COR				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
HUMO	**Hull Mountain**	121.50	31	PFAKE		12 24 00.0	+5.8
HUMO				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
MSO	**Missoula**	122.09	21	*e*PKPdf	PKPdf	12 23 51.9	-3.3
MSO				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
CHMT	**Chamberlain Mo**	122.26	21	*e*PKPdf	PKPdf	12 23 52.0	-3.5
YBH	**Yreka Blue Hor**	122.27	31	PKP	PKPdf	12 23 53.2	-2.5
	comp=Z,2.8nm,0.8s,baz=279,slow=5.1,SNR=3.3						
YBH	**Yreka Blue Hor**	122.27	31	PFAKE		12 24 00.0	+4.3
YBH				LR	LR		
	comp=Z,3µm,19.0s,MS5.9						
BMO	**Blue Mountains**	122.40	25	*e*PKIKP	PKPdf	12 23 52.5	-3.3
BMO				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.9						
HRY	**Holter Researc**	122.93	20	*e*PKPdf	PKPdf	12 23 54.3	-2.5
WDC	**Whiskeytown Da**	123.19	32	PFAKE		12 24 10.0	+13
WDC				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						

ULM	**Lac du Bonnet**	**123.28**	**7**	PKP	PKPdf	12 23 55.6	-1.8
	comp=Z,9.1nm,0.7s,baz=9.6,slow=3.4,SNR=17						
ULM	**Lac du Bonnet**	**123.28**	**7**	*e*PKPdf	PKPdf	12 23 55.4	-2.0
ULM				LR	LR		
	comp=Z,8µm,19.0s,MS6.4						
MOD	**Modoc**	**123.34**	**29**	*e*PKPdf	PKPdf	12 23 55.7	-2.1
MOD				LR	LR		
	comp=Z,3µm,19.0s,MS6.0						
DGMT	**Dagmar**	**123.54**	**14**	PFAKE		12 24 10.0	+12
DGMT				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
WVOR	**Wild Horse Val**	**123.73**	**28**	*e*PKIKP	PKPdf	12 23 56.6	-1.9
WVOR				MLR	MLR		
	comp=Z,6µm,22.0s,MS6.2						
BOZ	**Bozeman (W)**	**123.92**	**21**	*e*PKIKP	PKPdf	12 23 56.5	-2.3
BOZ				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.3						
HOPS	**Hopland**	**124.04**	**34**	PFAKE		12 24 10.0	+11
HOPS				LR	LR		
	comp=Z,3µm,21.0s,MS5.9						
LAO	**LASA Array**	**124.68**	**16**	*e*PKPdf	PKPdf	12 23 58.6	-1.7
LAO				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
PQI	**Presque Isle**	**124.72**	**344**	PFAKE		12 24 10.0	+10
PQI				LR	LR		
	comp=Z,15µm,20.0s,MS6.7						
YMR	**Madison River**	**125.01**	**21**	*e*PKPdf	PKPdf	12 23 59.3	-1.7
YNR	**Norris Junctio**	**125.07**	**20**	*e*PKPdf	PKPdf	12 23 60.0	-1.1
YFT	**Old Faithful**	**125.24**	**21**	*e*PKPdf	PKPdf	12 24 00.5	-0.9
LKWY	**Lake**	**125.30**	**20**	*e*PKIKP	PKPdf	12 24 01.4	-0.1
LKWY				MLR	MLR		
	comp=Z,12µm,20.0s,MS6.6						
WCN	**Washoe City**	**125.58**	**31**	*e*PKIKP	PKPdf	12 23 59.1	-3.1
IMW	**Indian Meadow**	**125.69**	**21**	*e*PKPdf	PKPdf	12 24 00.3	-2.0
MOOW	**Moose Ponds**	**125.89**	**21**	*e*PKPdf	PKPdf	12 24 00.7	-1.9
BMN	**Battle Mountai**	**125.95**	**28**	*e*PKIKP	PKPdf	12 24 00.8	-2.1
BMN				MLR	MLR		
	comp=Z,4µm,21.0s,MS6.0						
EYMN	**Ely**	**125.96**	**4**	PFAKE		12 24 10.0	+7.3
EYMN				LR	LR		
	comp=Z,7µm,20.0s,MS6.3						
TPAW	**Teton Pass**	**126.04**	**21**	*e*PKPdf	PKPdf	12 24 01.1	-1.9
LOHW	**Long Hollow**	**126.06**	**21**	*e*PKPdf	PKPdf	12 24 00.9	-2.1
WUWY	**Wally Ulrich**	**126.07**	**21**	*e*PKPdf	PKPdf	12 24 00.6	-2.4
SNOW	**Snow King Moun**	**126.13**	**21**	*e*PKPdf	PKPdf	12 24 01.3	-1.8
CMB	**Columbia Colle**	**126.19**	**33**	PFAKE		12 24 10.0	+6.6
CMB				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
SAO	**San Andreas Ge**	**126.53**	**34**	PFAKE		12 24 10.0	+6.0
SAO				LR	LR		
	comp=Z,3µm,20.0s,MS5.9						
AHID	**Auburn Hatcher**	**126.61**	**22**	*e*PKPdf	PKPdf	12 24 02.0	-2.0
AHID				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
HVU	**Hansel Valley**	**126.80**	**24**	*e*PKIKP	PKPdf	12 24 02.2	-2.2
NVAR	**Mina Array Bea**	**126.98**	**31**	PKP	PKPdf	12 24 03.9	-1.0
	comp=Z,9.3nm,0.8s,baz=299,slow=1.0,SNR=21						
MNV	**Mina**	**127.05**	**31**	*e*PKIKP	PKPdf	12 24 03.4	-1.6
WVL	**Waterville**	**127.11**	**344**	PFAKE		12 24 10.0	+5.1
WVL				LR	LR		
	comp=Z,22µm,21.0s,MS6.8						
BW06	**Boulder Array**	**127.17**	**21**	PFAKE		12 24 10.0	+4.9
BW06				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
PDAR	**Pinedale Array**	**127.17**	**21**	PKP	PKPdf	12 24 02.4	-2.7
	comp=Z,8.0nm,0.9s,baz=31,slow=1.2,SNR=42						
BGU	**Big Grassy Mou**	**127.41**	**25**	*e*PKPdf	PKPdf	12 24 03.7	-2.0
HWUT	**Hardware Ranch**	**127.43**	**23**	*e*PKPdf	PKPdf	12 24 03.1	-2.6
HWUT				LR	LR		
	comp=Z,6µm,19.0s,MS6.3						
MTUM	**Tungsten Hills**	**127.66**	**32**	*e*PKPdf	PKPdf	12 24 04.0	-2.3
TPH	**Tonopah**	**127.79**	**30**	PFAKE		12 24 20.0	+13
TPH				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
TRCR	**Troy Canyon**	**128.38**	**29**	*e*PKPdf	PKPdf	12 24 05.6	-2.1
MDV	**Middlebury**	**128.50**	**347**	*e*PKPdf	PKPdf	12 24 04.9	-2.8
NLU	**North Lily Min**	**128.62**	**25**	*e*PKPdf	PKPdf	12 24 06.2	-1.9
EFI	**East Falkland**	**128.69**	**203**	PFAKE		12 24 20.0	+12
EFI				LR	LR		
	comp=Z,1µm,19.0s,MS5.5						
NCB	**Newcomb**	**128.75**	**348**	PFAKE		12 24 20.0	+12
NCB				LR	LR		
	comp=Z,4µm,20.0s,MS6.1						
MPU	**Maple Canyon**	**128.75**	**24**	*e*PKPdf	PKPdf	12 24 05.4	-3.0
DAC	**Darwin (Calif)**	**128.98**	**32**	PFAKE		12 24 20.0	+11
DAC				LR	LR		
	comp=Z,3µm,20.0s,MS6.0						
RCBR	**Riachuelo**	**129.13**	**268**	PFAKE		12 24 20.0	+10
RCBR				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
HRV	**Harvard--Oak R**	**129.52**	**345**	PFAKE		12 24 20.0	+10
HRV				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
TMUT	**Trail Mountain**	**129.54**	**24**	*e*PKPdf	PKPdf	12 24 07.9	-2.0
WES	**Weston**	**129.58**	**345**	PFAKE		12 24 20.0	+10
WES				LR	LR		
	comp=Z,6µm,20.0s,MS6.2						
MVU	**Marysvale**	**129.78**	**26**	PFAKE		12 24 20.0	+10
MVU				LR	LR		
	comp=Z,5µm,19.0s,MS6.2						
MSU	**Marysvale**	**129.79**	**26**	*e*PKIKP	PKPdf	12 24 09.3	-1.0
ARUT	**Antelope Range**	**129.83**	**27**	*e*PKIKP	PKPdf	12 24 08.3	-2.1
PHWY	**Pilot Hill**	**129.83**	**18**	*e*PKPdf	PKPdf	12 24 07.7	-2.7
SRU	**San Rafael**	**129.97**	**24**	*e*PKIKP	PKPdf	12 24 08.0	-2.7
LSCT	**Lakeside**	**130.71**	**346**	PFAKE		12 24 20.0	+8.0
LSCT				LR	LR		
	comp=Z,6.0nm,22.0s						
BINY	**Binghamton**	**130.80**	**349**	PFAKE		12 24 20.0	+7.9
BINY				LR	LR		
	comp=Z,4µm,19.0s,MS6.1						
NEN	**Nelson**	**130.88**	**30**	*e*PKPdf	PKPdf	12 24 11.2	-1.3
JFWS	**Jewell Farm**	**131.05**	**3**	PFAKE		12 24 20.0	+7.4
JFWS				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
ISCO	**Idaho Springs**	**131.15**	**19**	*e*PKIKP	PKPdf	12 24 10.4	-2.5
ISCO				MLR	MLR		
	comp=Z,6µm,20.0s,MS6.3						
PV10	**Paradox Valley**	**131.19**	**23**	*e*PKPdf	PKPdf	12 24 11.3	-1.7
ERPA	**Erie**	**131.50**	**353**	PFAKE		12 24 20.0	+6.5
ERPA				LR	LR		
	comp=Z,8µm,20.0s,MS6.4						
PV01	**Paradox Valley**	**131.58**	**23**	*e*PKPdf	PKPdf	12 24 11.2	-2.5
AAM	**Ann Arbor**	**131.65**	**357**	PFAKE		12 24 20.0	+6.2
AAM				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
SSPA	**Standing Stone**	**132.65**	**350**	*e*PKPdf	PKPdf	12 24 13.0	-2.8
SSPA				LR	LR		
	comp=Z,6µm,21.0s,MS6.2						
SDCO	**Great Sand Dun**	**133.04**	**20**	*e*PKPdf	PKPdf	12 24 13.5	-3.0
SDCO				LR	LR		
	comp=Z,8µm,21.0s,MS6.4						
ACSO	**Alum Creek Sta**	**133.66**	**356**	*e*PKPdf	PKPdf	12 24 15.3	-2.2
ACSO				LR	LR		
	comp=Z,6µm,22.0s,MS6.2						
MCWV	**Mont Chateau**	**133.90**	**352**	PFAKE		12 24 30.0	+12
MCWV				LR	LR		
	comp=Z,8µm,21.0s,MS6.4						
KSU1	**Kansas State U**	**134.09**	**10**	*e*PKPpre		12 24 10.9	
KSU1				*e*PKPdf	PKPdf	12 24 15.9	-2.5
PTCN	**Pitcairn Islan**	**134.77**	**119**	PFAKE		12 24 30.0	+10
PTCN				LR	LR		
	comp=Z,7µm,21.0s,MS6.3						
CBN	**Corbin**	**134.93**	**349**	PFAKE		12 24 30.0	+10
CBN				LR	LR		
	comp=Z,8µm,22.0s,MS6.4						
ANMO	**Albuquerque**	**135.19**	**23**	*e*PKIKP	PKPdf	12 24 18.6	-2.0
ANMO				MLR	MLR		
	comp=Z,4µm,19.0s						
TUC	**Tucson**	**135.56**	**29**	*e*PKIKP	PKPdf	12 24 19.3	-2.0
TUC				MLR	MLR		
	comp=Z,3µm,21.0s,MS6.0						
LENM	**Lemitar**	**135.67**	**24**	*e*PKPdf	PKPdf	12 24 19.9	-1.6
LPM	**Los Pinos Moun**	**135.68**	**23**	*e*PKPdf	PKPdf	12 24 19.6	-1.9
WCI	**Wyandotte Cave**	**135.81**	**359**	*e*PKIKP	PKPdf	12 24 17.0	-4.6
WCI				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.2						
CCM	**Cathedral Cave**	**135.82**	**5**	*e*PKIKP	PKPdf	12 24 17.1	-4.5
CCM				MLR	MLR		
	comp=Z,6µm,21.0s,MS6.3						
BNM	**Barren Site**	**135.82**	**23**	*e*PKPdf	PKPdf	12 24 19.9	-1.9
FVM	**French Village**	**135.95**	**4**	*e*PKIKP	PKPdf	12 24 18.3	-3.6
BBSR	**BB Station**	**136.14**	**332**	PFAKE		12 24 30.0	+7.7
BBSR				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
PWV	**Princeton**	**136.34**	**353**	*e*PKPdf	PKPdf	12 24 18.7	-3.9
BLA	**Blacksburg**	**136.39**	**352**	PFAKE		12 24 30.0	+7.4
BLA				LR	LR		
	comp=Z,7µm,22.0s,MS6.4						
ELN	**Prospectdale**	**136.41**	**353**	*e*PKPdf	PKPdf	12 24 20.3	-2.3
AMTX	**Amarillo**	**136.89**	**18**	PFAKE		12 24 30.0	+6.4
AMTX				LR	LR		
	comp=Z,5µm,20.0s,MS6.2						
WMOK	**Wichita Mounta**	**137.82**	**14**	*e*PKIKP	PKPdf	12 24 21.9	-3.5
WMOK				MLR	MLR		
	comp=Z,6µm,20.0s,MS6.3						
CPRX	**Cap Rock**	**137.86**	**21**	*e*PKPpre		12 24 16.9	
CPRX				*e*PKPdf	PKPdf	12 24 22.7	-2.8
WVT	**Waverly**	**137.91**	**1**	*e*PKHKP		12 24 15.0	
WVT				*e*		12 24 22.7	
WVT				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.2						
GDL2	**Guadalupe Moun**	**138.43**	**22**	*e*PKPdf	PKPdf	12 24 23.1	-3.5
MNTX	**Cornudas Mount**	**138.47**	**24**	*e*PKPdf	PKPdf	12 24 23.8	-2.9
MNTX				LR	LR		
	comp=Z,3µm,21.0s,MS6.0						
CPCT	**Cooper Cave**	**138.52**	**357**	*e*PKPdf	PKPdf	12 24 23.5	-3.1
CLNB	**Carlsbad**	**138.55**	**22**	PKPdf	PKPdf	12 24 25.0	-1.8
MYNC	**Murphy**	**138.87**	**356**	*e*PKIKP	PKPdf	12 24 23.5	-3.8
MYNC				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.4						
UALR	**University of**	**138.96**	**7**	*e*PKPdf	PKPdf	12 24 23.6	-3.9
MIAR	**Mount Ida**	**139.03**	**8**	PKHKP		12 24 14.9	
MIAR	**Mount Ida**	**139.03**	**8**	PFAKE		12 24 40.0	+12
MIAR				LR	LR		
	comp=Z,6µm,20.0s,MS6.3						
JSC	**Jenkinsville**	**139.38**	**353**	*e*PKIKP	PKPdf	12 24 24.8	-3.4
OXF	**Oxford**	**139.47**	**3**	*e*PKIKP	PKPdf	12 24 25.5	-2.9
OXF				MLR	MLR		
	comp=Z,7µm,20.0s,MS6.4						
NHSC	**New Hope**	**140.38**	**351**	PFAKE		12 24 40.0	+10
NHSC				LR	LR		
	comp=Z,5µm,20.0s,MS6.3						
GOGA	**Godfrey**	**140.47**	**355**	PFAKE		12 24 40.0	+10
GOGA				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
BAO	**Brasilia Array**	**140.56**	**253**	P	PKPdf	12 24 29.1	-1.9
BDFB	**Brasilia**	**140.58**	**253**	PKP	PKPdf	12 24 28.6	-2.3
	comp=Z,4.2nm,0.8s,baz=85,slow=3.0,SNR=5.2						
LPA	**La Plata**	**140.78**	**219**	*ce*PKP	PKPdf	12 24 27.0	-3.8
LPA				*e*PKS	PKS	12 28 05.0	+3.9
LPA				*e*SKS	SKS	12 31 35.0	-4.7
	comp=Z,4µm,23.0s						
TRQA	**Tornquist**	**140.94**	**212**	PFAKE		12 24 40.0	+9.0
TRQA				LR	LR		
	comp=Z,8µm,20.0s,MS6.5						
LRAL	**Lakeview Retre**	**141.00**	**360**	*e*PKPdf	PKPdf	12 24 30.3	-1.0
LRAL				LR	LR		
	comp=Z,5µm,22.0s,MS6.2						
LTX	**Lajitas**	**141.25**	**23**	*e*PKIKP	PKPdf	12 24 29.1	-2.7
LTX				MLR	MLR		
	comp=Z,5µm,19.0s,MS6.2						
TXAR	**Lajitas Array**	**141.25**	**23**	PKhKP		12 24 22.9	
	comp=Z,1.2nm,0.8s,baz=294,slow=1.5,SNR=12						
TXAR				PKP	PKPdf	12 24 29.8	-2.0
	comp=Z,6.2nm,1.0s,slow=0.9,SNR=18						
TXAR				PP	PP	12 27 26.4	-7.0
	comp=Z,1.3nm,0.7s,baz=156,slow=1.4,SNR=3.7						
JCT	**Junction City**	**141.56**	**18**	*e*PKIKP	PKPdf	12 24 30.1	-2.2
JCT				MLR	MLR		
	comp=Z,5µm,20.0s,MS6.3						
NATX	**Nacogdoches**	**141.58**	**10**	*e*PKPpre		12 24 25.7	
NATX				LR	LR		
	comp=Z,7µm,21.0s,MS6.4						
HKT	**Hockley**	**143.10**	**13**	*e*PKIKP	PKPdf	12 24 28.7	-6.2
HKT				MLR	MLR		
	comp=Z,8µm,19.0s,MS6.5						
DWPF	**Disney**	**145.48**	**351**	*e*PKPbc	PKPbc	12 24 36.3	+1.0
DWPF				LR	LR		
	comp=Z,5µm,19.0s,MS6.3						
SJG	**San Juan**	**148.23**	**320**	*e*PKP2	PKPab	12 24 44.6	-3.4
SJG				MLR	MLR		
	comp=Z,4µm,22.0s						
SJG	**San Juan**	**148.23**	**320**	PKPbc	PKPdf	12 24 44.7	+0.8
	comp=Z,15nm,0.3s,baz=2.4,slow=9.5,SNR=4.3						
MDZ	**Mendoza**	**148.48**	**210**	*e*PKP2	PKPab	12 24 49.3	+0.7
FCH	**Farellones**	**148.81**	**208**	*i* P	PKPdf	12 24 48.2	+3.8
TRN	**Trinidad (W)**	**149.46**	**303**	*e*P	PKPdf	12 24 48.0	+2.0
COLM	**Colima**	**149.94**	**33**	*i* P	PKPdf	12 24 46.7	+0.1
RPN	**Rapa Nui**	**150.30**	**137**	PFAKE		12 25 00.0	+13
RPN				LR	LR		
	comp=Z,679nm,21.0s,MS5.4						
MOIG	**Morelia**	**150.78**	**28**	*i* P	PKPdf	12 24 27.4	-20
PPM	**Popocatepetl**	**152.45**	**24**	*i* PKIKP	PKPdf	12 24 49.2	-1.2
TEIG	**Tepich**	**153.73**	**3**	*e*PKPbc	PKPdf	12 24 58.1	+5.9
TEIG				*e*PKPab	PKPab	12 25 10.0	-0.9
TEIG				LR	LR		
	comp=Z,2µm,21.0s,MS5.9						
LVC	**Limon Verde**	**156.05**	**225**	PKP	PKPdf	12 24 54.2	-0.9
	comp=Z,0.9nm,0.4s,baz=174,slow=18,SNR=4.0						
LVC				PKPab	PKPab	12 25 17.9	-2.7
	comp=Z,4.4nm,0.9s,baz=266,slow=6.2,SNR=3.6						
LVC	**Limon Verde**	**156.05**	**225**	*e*PKPdf	PKPdf	12 24 53.3	-1.8
LVC				*e*PKPab	PKPab	12 25 21.3	+0.7
LVC				LR	LR		
	comp=Z,3µm,20.0s,MS6.1						
SDV	**Santo Domingo**	**157.81**	**312**	PKP	PKPdf	12 24 55.3	-2.4
	comp=Z,4.2nm,0.8s,baz=104,slow=7.3,SNR=5.2						
SDV	**Santo Domingo**	**157.81**	**312**	*e*PKPdf	PKPdf	12 24 54.3	-3.5
SDV				*e*PKPab	PKPab	12 25 27.3	-1.1
SDV				LR	LR		
	comp=Z,4µm,19.0s,MS6.2						
LPAZ	**La Paz**	**158.91**	**240**	*e*PKIKP	PKPdf	12 24 57.2	-1.8
LPAZ				*e*		12 25 31.6	
LPAZ				MLR	MLR		
	comp=Z,5µm,20.0s						
LPAZ	**La Paz**	**158.91**	**240**	PKP	PKPdf	12 24 57.8	-1.2
	comp=Z,2.9nm,0.7s,baz=94,slow=2.2,SNR=9.6						
LPAZ				PKPab	PKPab	12 25 32.1	-0.9
	comp=Z,4.2nm,1.0s,baz=46,slow=5.8,SNR=3.8						
ROSC	**El Rosal**	**163.21**	**310**	PKP	PKPdf	12 25 02.4	-1.1
	comp=Z,4.4nm,0.3s,baz=90,slow=20,SNR=4.4						
JTS	**JuntasAbangare**	**163.50**	**353**	PFAKE		12 25 10.0	+6.2
JTS				LR	LR		
	comp=Z,835nm,20.0s						
OTAV	**Otavalo**	**169.29**	**306**	*e*PKPdf	PKPdf	12 25 06.7	-1.6
OTAV				LR	LR		
	comp=Z,5µm,22.0s						
PAYG	**Puerto Ayora**	**173.66**	**30**	PFAKE		12 25 20.0	+9.4
PAYG				LR	LR		
	comp=Z,3µm,20.0s						

*STR **31** 12:05:14.6±0.5, 42.68N×1.11W,* $h10^{km}\pm1^{km}$*, Ml2.7, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*NEIC **31** 12:05:14.6, 42.68N×1.11W,* $h10^{km}$*, ML2.7(STR), ML2.6(LDG), MN2.1(MDD), After STR.*

*CSEM **31** 12:05:15.7±0.1, 42.72N×1.06W,* $h2^{km}$*, ML2.6/20, Error ellipse: s-maj=1.0km s-min=0.9km az=40.0*

LDG 31 12:05:15.9±0.3**, 42.73N×1.05W,** $h2^{km}$**, Md2.6**/2**, Ml2.6**/15**, 1D, Error ellipse: s-maj=5.1km s-min=2.3km az=34.0, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LARF	**Larrau**	**0.31**	**9**	Pg	Pg	12 05 21.8	-0.3
LARF				Sg	Sg	12 05 28.0	+1.7
ETSF	**Etsaut**	**0.40**	**65**	*e*Pg	Pg	12 05 23.2	-0.7
ETSF				*e*Sg	Sg	12 05 29.3	0.0
	133nm,0.3s						
ETSF	**Etsaut**	**0.40**	**65**	*e*Sg	Sg	12 05 29.3	0.0
	66nm,0.3s						
SJPF	**Ste Jean**	**0.40**	**342**	*e*Pg	Pg	12 05 23.4	-0.6
SJPF				*e*Sg	Sg	12 05 29.4	0.0
	124nm,0.3s						
SJPF	**Ste Jean**	**0.40**	**342**	*e*Sg	Sg	12 05 29.4	0.0
	62nm,0.3s						
ORDF	**Ordiarp**	**0.49**	**10**	Pg	Pg	12 05 25.2	-0.5
ORDF				Sg	Sg	12 05 33.9	+1.6
OSSF	**Osses**	**0.55**	**344**	Pg	Pg	12 05 26.0	-0.8
OSSF				Sg	Sg	12 05 34.0	-0.2
EALK	**Alkurruntz**	**0.59**	**326**	⇓Pg	Pg	12 05 27.1	-0.6
EALK				Lg		12 05 35.2	
EALK	**Alkurruntz**	**0.59**	**326**	Pg	Pg	12 05 27.1	-0.6
	0.7nm,0.1s,SNR=18						
REYF	**Montagne du Re**	**0.59**	**55**	Pg	Pg	12 05 26.8	-1.0
REYF				Sg	Sg	12 05 36.2	+0.5
REYF	**Montagne du Re**	**0.59**	**55**	Sg	Sg	12 05 36.2	+0.5
EBIE	**Bielsa**	**0.88**	**92**	Pg	Pg	12 05 32.2	-1.3
EBIE				Lg		12 05 44.5	
EBIE	**Bielsa**	**0.88**	**92**	Pg	Pg	12 05 32.2	-1.3
	0.9nm,0.1s,SNR=43						
LABF	**Labassere**	**0.89**	**69**	Pg	Pg	12 05 32.0	-1.6
EPF	**Esparros**	**1.07**	**73**	*e*Pg	Pg	12 05 35.2	-2.0
EPF				*e*Sg	Sg	12 05 49.9	-1.6
	36nm,0.3s						
ESAC	**San Caprasio**	**1.10**	**156**	Pg	Pg	12 05 35.7	-2.1
ESAC				Lg		12 05 51.9	
ESAC	**San Caprasio**	**1.10**	**156**	Pg	Pg	12 05 35.7	-2.1
	0.5nm,0.1s,SNR=20						
EGRA	**Graus**	**1.15**	**117**	Pg	Pg	12 05 38.2	-0.6
EGRA				Lg		12 05 52.1	
EGRA	**Graus**	**1.15**	**117**	Pg	Pg	12 05 38.2	-0.6
	1.6nm,0.2s,SNR=14						
MELF	**Melles**	**1.34**	**83**	Pg	Pg	12 05 41.7	-1.0
MELF				Sg	Sg	12 06 00.1	-0.5
SALF	**Salau**	**1.65**	**88**	Pg	Pg	12 05 46.9	-2.0
ELAN	**Lanestosa**	**1.82**	**287**	Pg	Pg	12 05 48.5	-3.7
ELAN				Lg		12 06 12.9	
ELAN	**Lanestosa**	**1.82**	**287**	Pg	Pg	12 05 48.5	-3.7
	0.1nm,0.0s,SNR=7.9						
ERTA	**Horta de San J**	**2.05**	**149**	Pg	Pg	12 05 52.7	-4.2
ERTA				Lg		12 06 20.5	
ERTA	**Horta de San J**	**2.05**	**149**	Pg	Pg	12 05 52.7	-4.2
	0.1nm,0.0s,SNR=6.0						
EMIR	**Miracle**	**2.08**	**112**	Pn	Pn	12 05 51.0	-1.2
EMIR				Pg	Pg	12 05 54.0	-3.4
EMIR				Sn	Sn	12 06 17.7	-1.3
EMIR				Lg		12 06 22.2	
EMIR	**Miracle**	**2.08**	**112**	Pn	Pn	12 05 51.0	-1.2
	0.6nm,0.0s,SNR=9.5						
EMIR	**Miracle**	**2.08**	**112**	Pg	Pg	12 05 54.0	-3.4
	1.0nm,0.0s,SNR=7.9						
EMIR				Sn	Sn	12 06 17.7	-1.3
	1.8nm,0.0s,SNR=7.9						
EPOB	**Poblet**	**2.10**	**130**	Pn	Pn	12 05 50.5	-2.0
EPOB				Pg	Pg	12 05 54.2	-3.6
EPOB				Lg		12 06 21.2	
EPOB	**Poblet**	**2.10**	**130**	Pn	Pn	12 05 50.5	-2.0
	0.3nm,0.1s,SNR=8.1						
EPOB	**Poblet**	**2.10**	**130**	Pg	Pg	12 05 54.2	-3.7
	0.5nm,0.1s,SNR=7.9						
EBR	**Ebro Roquetas**	**2.23**	**148**	*e*SG	Sg	12 06 30.0	-0.2
EBR				*e*Ts		12 17 48.5	
EMOS	**Mosqueruela**	**2.40**	**169**	Pg	Pg	12 05 58.2	-5.7
EMOS				Sn	Sn	12 06 23.9	-3.4
EMOS				Lg		12 06 30.0	
EMOS	**Mosqueruela**	**2.40**	**169**	Pg	Pg	12 05 58.2	-5.7
	0.1nm,0.1s,SNR=7.9						
EMOS				Sn	Sn	12 06 23.9	-3.4
	0.9nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	**2.48**	**75**	*e*Pn	Pn	12 05 55.5	-2.4
MTLF				*e*Pg	Pg	12 06 01.8	-3.5
MTLF				*e*Sn	Sn	12 06 24.5	-4.6
	4.9nm,0.4s						
MTLF	**Montolieu**	**2.48**	**75**	*e*Pg	Pg	12 06 01.8	-3.5
MTLF				*e*Sn	Sn	12 06 24.5	-4.6
	2.5nm,0.4s						
LFF	**La Frestale**	**2.56**	**30**	*e*Pn	Pn	12 05 56.9	-2.2
LFF				*e*Pg	Pg	12 06 03.1	-4.0
LFF				*e*Sn	Sn	12 06 25.4	-5.9
	7.1nm,0.5s						
LFF	**La Frestale**	**2.56**	**30**	*e*Pg	Pg	12 06 03.1	-4.0
LFF				*e*Sn	Sn	12 06 25.4	-5.9
	3.5nm,0.5s						
EJON	**La Jonquera**	**2.92**	**94**	Pg	Pg	12 06 09.3	-5.0
	SNR=7.9						
EARI	**Arriondas**	**3.10**	**282**	Pn	Pn	12 06 04.3	-2.5
EARI				Sn	Sn	12 06 41.6	-3.4
EARI	**Arriondas**	**3.10**	**282**	Pn	Pn	12 06 04.3	-2.5
	1.1nm,0.4s,SNR=5.7						
EARI				Sn	Sn	12 06 41.6	-3.4
	0.3nm,0.2s,SNR=7.9						
GUD	**Guadarrama**	**3.12**	**229**	Pn	Pn	12 06 04.8	-2.3
GUD				Pg	Pg	12 06 10.6	-7.5
GUD				Sn	Sn	12 06 41.9	-3.5
GUD				Lg		12 06 55.0	
GUD	**Guadarrama**	**3.12**	**229**	Pn	Pn	12 06 04.8	-2.3
	SNR=6.1						
GUD	**Guadarrama**	**3.12**	**229**	Pg	Pg	12 06 10.6	-7.6
	0.3nm,0.2s,SNR=7.9						
GUD				Sn	Sn	12 06 41.9	-3.5
	0.1nm,0.1s,SNR=5.0						
CAF	**Calviac**	**3.15**	**45**	*e*Pn	Pn	12 06 04.7	-2.8
CAF				*e*Sn	Sn	12 06 41.4	-4.8
	4.1nm,0.3s						
RJF	**Les Rejaudoux**	**3.17**	**35**	*e*Pn	Pn	12 06 04.9	-2.9
RJF				*e*Sn	Sn	12 06 41.4	-5.4
	10.0nm,0.5s						
ESDC	**Sonseca Array**	**3.76**	**217**	Pn	Pn	12 06 12.6	-3.6
ESDC				Lg		12 07 13.9	
ESDC	**Sonseca Array**	**3.76**	**217**	Pn	Pn	12 06 12.6	-3.6
	0.1nm,0.1s,slow=14,SNR=5.7						
LASF	**Ste Croix**	**3.82**	**68**	*e*Pn	Pn	12 06 14.5	-2.6
LASF				*e*Sn	Sn	12 06 55.4	-7.8
	1.9nm,0.3s						
MFF	**Saint Martin d**	**3.93**	**9**	*e*Pn	Pn	12 06 15.6	-2.9
MFF				*e*Sn	Sn	12 06 59.3	-6.5
	1.7nm,0.3s						
TCF	**Toulx Ste Croi**	**4.25**	**32**	*e*Pn	Pn	12 06 19.0	-4.2
TCF				*e*Sn	Sn	12 07 06.8	-7.4
	3.1nm,0.4s						
ECAL	**Calabor**	**4.29**	**261**	Pn	Pn	12 06 20.9	-2.8
ECAL				Sn	Sn	12 07 08.5	-6.5
ECAL				Lg		12 07 30.8	
ECAL	**Calabor**	**4.29**	**261**	Pn	Pn	12 06 20.9	-2.7
	0.3nm,0.1s,SNR=6.4						
ECAL				Sn	Sn	12 07 08.5	-6.5
	0.4nm,0.1s,SNR=7.9						
EINC	**Incio**	**4.64**	**271**	Pn	Pn	12 06 26.4	-2.3
EINC				Sn	Sn	12 07 16.5	-7.4
EINC	**Incio**	**4.64**	**271**	Pn	Pn	12 06 26.4	-2.3
	0.5nm,0.1s,SNR=7.9						
EINC				Sn	Sn	12 07 16.5	-7.5
	0.1nm,0.0s,SNR=7.9						
VIVF	**Saint-Julien-l**	**4.66**	**61**	*e*Pn	Pn	12 06 25.9	-3.0
BGF	**Bois d'Agland**	**4.73**	**35**	*e*Pn	Pn	12 06 25.5	-4.5
BGF				*e*Sn	Sn	12 07 18.8	-7.5
	8.8nm,0.5s						
AVF	**Avril sur Loir**	**5.13**	**36**	*e*Pn	Pn	12 06 31.6	-4.0
AVF				*e*Sn	Sn	12 07 27.9	-8.4
	0.6nm,0.2s						
AVF	**Avril sur Loir**	**5.13**	**36**	*e*Sn	Sn	12 07 27.9	-8.4
	0.3nm,0.2s						
QUIF	**Quistinic**	**5.40**	**345**	*e*Pn	Pn	12 06 36.1	-3.3
QUIF				*e*Sn	Sn	12 07 34.0	-9.0
	3.1nm,0.4s						
SSF	**Saint Saulge**	**5.41**	**35**	*e*Pn	Pn	12 06 35.1	-4.4
SSF				*e*Sn	Sn	12 07 34.9	-8.4
	0.9nm,0.4s						
GRR	**Gorron**	**5.66**	**1**	*e*Sn	Sn	12 07 40.6	-9.0
	3.0nm,0.3s						
ROSF	**Rostrenen**	**5.82**	**345**	*e*Pn	Pn	12 06 41.6	-3.7
ROSF				*e*Sn	Sn	12 07 44.4	-9.2
	2.3nm,0.3s						
ROSF	**Rostrenen**	**5.82**	**345**	*e*Sn	Sn	12 07 44.4	-9.2
	1.1nm,0.3s						

*IDC **31** 12:07:43.6±0.8, 10.75N×90.80E, mb4.7/16, mb1 4.8/17, mb1mx4.7/23, mbtmp4.7/17, ML4.8/1, MS5.9/1, Ms1 5.8/1, ms1mx4.1/22, Error ellipse: s-maj=34.2km s-min=14.1km az=55.0*

ISC 31 12:07:46.8±0.5**, 10.75N**±0.08×**90.77E**±0.09**,** $h33^{km}$**, n35,** $\sigma 0^{s}85$/32**, mb4.8**/20**, MS6.0**/1**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.01**	**45**	Pn	**P**	**12 10 23.1**	**-2.0**
	2.0nm,0.3s,baz=238,slow=15,SNR=5.8						
BATP	**Bataraza**	**26.70**	**92**	*e*P	**P**	**12 13 25.2**	**0.0**
SJMP	**San Jose**	**29.77**	**84**	*e*P	**P**	**12 13 45.0**	**-7.8**
APYP	**Conner**	**30.33**	**73**	*e*P	**P**	**12 13 58.6**	**+0.8**
CAUP	**Cauayan**	**30.75**	**75**	*e*P	**P**	**12 14 01.4**	**-0.1**
PAGZ	**Pagadian**	**32.30**	**92**	*e*P	**P**	**12 14 16.9**	**+1.7**
BUKP	**Musuan**	**33.95**	**92**	*e*P	**P**	**12 14 31.3**	**+1.9**
SONM	**Songino Array**	**39.24**	**17**	P	**P**	**12 15 13.8**	**+0.1**
	7.3nm,0.6s,mb4.6,baz=199,slow=9.2,SNR=11						
ZAL	**Zalesovo**	**43.34**	**355**	P	**P**	**12 15 47.6**	**+0.2**
	11nm,0.5s,mb4.9,baz=329,slow=4.0,SNR=6.2						
FITZ	**Fitzroy Crossi**	**44.79**	**129**	*e*P	**P**	**12 15 58.8**	**-0.8**
	46nm,0.8s,mb5.4						
BVAR	**Borovoye Array**	**45.25**	**343**	P	**P**	**12 16 02.7**	**0.0**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
	8.8nm,0.5s,mb4.8,baz=146,slow=9.8,SNR=11						
MUN	Mundaring	48.96	151	*e*P	P	12 16 32.5	+0.3
	37nm,0.8s,mb5.5						
KLBR	Kellerberrin	49.40	149	*e*P	P	12 16 35.1	-0.5
	15nm,0.5s,mb5.3						
NWAO	Narrogin (SRO)	50.23	151	P	P	12 16 41.9	-0.1
	21nm,0.9s,mb5.2,baz=303,slow=11,SNR=4.3						
WRA	Warramunga Arr	52.62	125	P	P	12 16 59.4	-0.7
	11nm,0.7s,mb4.9,baz=307,slow=8.4,SNR=13						
WB2	Warramunga Arr	52.63	125	*e*P	P	12 16 59.3	-0.9
ASPA	Alice Springs	54.29	129	*e*P	P	12 17 13.5	+1.1
ASAR	Alice Springs	54.30	129	P	P	12 17 11.9	-0.5
	9.0nm,0.6s,mb4.9,baz=304,slow=7.6,SNR=10						
BRTR	Keskin Array B	58.05	310	P	P	12 17 40.0	+1.0
	3.1nm,0.8s,mb4.4,baz=121,slow=8.9,SNR=2.3						
CTA	Charters Tower	62.60	119	P	P	12 18 08.9	-1.5
	12nm,1.0s,mb5.0,baz=294,slow=12,SNR=3.6						
AKASG	Malin Array Be	63.85	321	P	P	12 18 16.9	-1.3
	4.9nm,0.8s,mb4.6,baz=85,slow=5.6,SNR=4.4						
STKA	Stephens Creek	64.48	133	P	P	12 18 23.1	+0.4
	4.5nm,0.7s,mb4.6,baz=323,slow=12,SNR=4.1						
FINES	FINESS Array B	68.64	332	P	P	12 18 48.8	+0.3
	3.2nm,0.7s,mb4.3,baz=106,slow=10,SNR=4.2						
KAF	Kangasniemi	68.74	333	*e*p	P	12 18 48.0	-1.1
KEV	Kevo	71.04	341	*e*p	P	12 19 02.8	-0.3
ARCES	ARCESS Array B	71.46	340	P	P	12 19 05.9	+0.4
	8.5nm,0.8s,mb4.7,baz=86,slow=6.7,SNR=10						
GERES	GERESS Array B	73.48	318	P	P	12 19 18.3	+0.4
	4.0nm,0.9s,mb4.4,baz=101,slow=5.0,SNR=2.6						
HFS	Hagfors	74.31	330	P	P	12 19 22.5	+0.1
	4.5nm,0.7s,mb4.5,baz=104,slow=5.9,SNR=4.3						
NB2	NORSAR Subarra	75.61	330	P	P	12 19 38.3	+8.4
	28nm,1.7s,mb4.9,baz=93,slow=5.8						
NB2	NORSAR Subarra	75.61	330	P	P	12 19 38.3	+8.4
	baz=92,slow=5.9						
MAW	Mawson	80.69	190	LR	LR	12 47 04.0	
	comp=Z,7µm,20.6s,MS6.0,baz=25,slow=29						
ILAR	Eielson Array	93.32	21	P	P	12 20 59.8	+0.5
	1.3nm,0.8s,mb4.4,baz=266,slow=3.7,SNR=6.2						
INK	Inuvik	95.14	15	P	P	12 21 08.0	+0.6
	2.4nm,0.5s,mb4.9,baz=340,slow=5.0,SNR=17						
NVAR	Mina Array Bea	124.05	27	PKP	PKPdf	12 26 44.2	+1.9
	1.8nm,0.9s,baz=303,slow=3.3,SNR=2.2						
TXAR	Lajitas Array	137.79	19	PKP	PKPdf	12 27 10.7	+2.1
	0.7nm,0.8s,SNR=3.2						
TXAR				PP	PP	12 29 55.1	-4.9
	1.9nm,1.1s,baz=333,slow=4.0,SNR=2.7						

*IDC **31** 12:13:26.2±1.0, 10.60N×90.62E, mb4.4/10, mb1 4.5/11, mb1mx4.3/20, mbtmp4.4/11, ML4.3/1, Error ellipse: s-maj=38.0km s-min=18.9km az=50.0*

ISC 31 12:13:29.5±0.9, 10.7N±0.1×90.8E±0.1, h33^{km}, n13, σ0^{s}.80/13, mb4.3/11, Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.06	45	Pn	P	12 16 07.8	-0.8
	0.6nm,0.3s,baz=238,slow=15,SNR=5.9						
SONM	Songino Array	39.30	17	P	P	12 20 57.8	+0.9
	2.3nm,0.5s,mb4.2,baz=200,slow=8.2,SNR=10						
ZAL	Zalesovo	43.40	355	P	P	12 21 30.7	+0.1
	3.3nm,0.4s,mb4.4,baz=296,slow=6.6,SNR=6.8						
BVAR	Borovoye Array	45.30	343	P	P	12 21 46.2	+0.3
	3.7nm,0.6s,mb4.4,baz=148,slow=9.7,SNR=16						
WRA	Warramunga Arr	52.60	125	P	P	12 22 41.9	-0.7
	3.2nm,0.6s,mb4.4,baz=306,slow=8.3,SNR=9.0						
ASAR	Alice Springs	54.27	129	P	P	12 22 55.5	+0.5
	1.7nm,0.8s,mb4.1,baz=309,slow=7.1,SNR=4.7						
AKASG	Malin Array Be	63.89	321	P	P	12 24 00.1	-1.1
	1.8nm,0.7s,mb4.2,baz=87,slow=5.6,SNR=5.2						
FINES	FINESS Array B	68.68	332	P	P	12 24 31.0	-0.5
	4.1nm,0.8s,mb4.4,baz=104,slow=7.9,SNR=7.2						
KAF	Kangasniemi	68.78	333	*e*p	P	12 24 30.8	-1.3
ARCES	ARCESS Array B	71.51	340	P	P	12 24 49.4	+0.9
	5.7nm,0.7s,mb4.6,baz=101,slow=6.2,SNR=8.5						
GERES	GERESS Array B	73.52	318	P	P	12 25 01.3	+0.5
	0.9nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=6.1						
HFS	Hagfors	74.36	330	P	P	12 25 05.1	-0.3
	2.2nm,0.4s,mb4.4,baz=108,slow=4.7,SNR=13						
INK	Inuvik	95.20	15	P	P	12 26 51.9	+1.4
	1.9nm,0.8s,mb4.5,baz=299,slow=5.9,SNR=6.3						

IDC 31 12:17:00.2±2.6, 7.39N×94.07E, mb4.0/5, mb1 4.2/5, mb1mx3.8/18, mbtmp4.0/5, Error ellipse: s-maj=110.9km s-min=21.5km az=61.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SONM	Songino Array	41.65	12	P	P	12 24 50.1	-1.8
	0.6nm,0.6s,baz=199,slow=8.2,SNR=5.2						
ZAL	Zalesovo	47.02	353	P	P	12 25 33.5	-1.6
	2.6nm,0.3s,baz=314,slow=6.5,SNR=9.5						
WRA	Warramunga Arr	48.03	125	P	P	12 25 41.5	-2.0
	1.6nm,0.5s,baz=304,slow=8.9,SNR=11						
BVAR	Borovoye Array	49.43	341	P	P	12 25 51.3	-2.5
	0.9nm,0.9s,baz=158,slow=7.8,SNR=2.8						
ASAR	Alice Springs	49.66	130	P	P	12 25 54.0	-2.0
	0.9nm,0.5s,baz=303,slow=7.7,SNR=8.3						
TXAR	Lajitas Array	139.70	24	PKP	PKPdf	12 36 32.4	-0.2
	0.2nm,0.6s,baz=66,slow=2.0,SNR=4.1						

IDC 31 12:20:42.1±1.7, 6.69N×92.19E, mb3.5/3, mb1 3.8/4, mb1mx3.5/18, mbtmp3.5/4, ML3.5/1, Error ellipse: s-maj=65.0km s-min=30.9km az=48.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.42	29	Pn	P	12 23 53.8	-2.7
	0.1nm,0.3s,baz=226,slow=15,SNR=6.1						
WRA	Warramunga Arr	49.19	123	P	P	12 29 31.8	-2.5
	0.3nm,0.5s,baz=303,slow=9.0,SNR=6.0						
ASAR	Alice Springs	50.68	128	P	P	12 29 43.9	-1.8
	0.4nm,0.8s,baz=301,slow=8.2,SNR=3.7						
GERES	GERESS Array B	77.42	318	P	P	12 32 39.7	-1.1
	0.6nm,0.7s,baz=90,slow=4.0,SNR=4.2						

*IDC **31** 12:25:45.9±1.4, 7.28N×93.64E, mb3.9/6, mb1 4.0/7, mb1mx3.8/19, mbtmp3.9/7, ML3.5/1, Error ellipse: s-maj=55.1km s-min=23.2km az=59.0*

ISC 31 12:25:49.3±1.2, 7.3N±0.1×93.8E±0.2, h33^{km}, n7, σ0^{s}.35/7, mb3.8/6, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.16	24	Pn	P	12 28 43.5	+0.3
	0.1nm,0.3s,baz=216,slow=12,SNR=6.4						
SONM	Songino Array	41.77	13	P	P	12 33 36.7	-0.5
	0.2nm,0.4s,mb3.1,baz=201,slow=8.0,SNR=5.2						
ZAL	Zalesovo	47.03	353	P	P	12 34 19.2	-0.1
	1.3nm,0.3s,mb4.3,baz=282,slow=3.8,SNR=4.8						
WRA	Warramunga Arr	48.27	125	P	P	12 34 29.3	-0.2
	0.6nm,0.8s,mb3.6,baz=306,slow=8.7,SNR=4.7						
ASAR	Alice Springs	49.87	129	P	P	12 34 42.0	+0.2
	0.6nm,0.8s,mb3.7,baz=306,slow=8.0,SNR=4.1						
FINES	FINESS Array B	73.01	332	P	P	12 37 17.1	-0.3
	0.8nm,0.6s,mb3.8,baz=135,slow=5.4,SNR=4.8						
HFS	Hagfors	78.73	330	P	P	12 37 50.4	+0.6
	2.9nm,0.8s,mb4.2,baz=90,slow=3.0,SNR=5.0						

IDC 31 12:32:30.7±1.7, 7.26N×93.90E, mb3.7/5, mb1 3.9/5, mb1mx3.7/17, mbtmp3.7/5, Error ellipse: s-maj=73.0km s-min=24.1km az=58.0, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.16	23	Pn	P	12 35 30.2	+1.9
	0.1nm,0.3s,baz=211,slow=14,SNR=9.4						
SONM	Songino Array	41.81	13	P	P	12 40 21.7	-2.0
	0.3nm,0.6s,baz=198,slow=8.2,SNR=4.5						
ZAL	Zalesovo	47.12	353	P	P	12 41 04.9	-1.5
	1.7nm,0.4s,baz=282,slow=7.3,SNR=5.4						
WRA	Warramunga Arr	48.10	125	P	P	12 41 12.4	-2.2
	0.5nm,0.5s,baz=304,slow=8.5,SNR=7.4						
ASAR	Alice Springs	49.71	129	P	P	12 41 25.1	-1.8
	0.4nm,0.6s,baz=300,slow=7.7,SNR=5.6						
GERES	GERESS Array B	78.12	318	P	P	12 44 31.8	-1.5
	0.1nm,0.4s,baz=90,slow=1.3,SNR=3.7						

IDC 31 12:37:25.0±2.1, 3.72N×93.66E, mb3.8/4, mb1 4.0/5, mb1mx3.7/20, mbtmp3.8/5, ML3.5/1, Error ellipse: s-maj=71.0km s-min=31.4km az=57.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.53	19	Pn	P	12 41 07.6	+0.3
	0.1nm,0.3s,baz=219,slow=12,SNR=2.5						
SONM	Songino Array	45.30	12	P	P	12 45 43.1	-3.3
	0.4nm,0.6s,baz=199,slow=8.3,SNR=3.7						
WRA	Warramunga Arr	46.36	122	P	P	12 45 53.4	-1.8
	0.3nm,0.7s,baz=299,slow=8.9,SNR=4.9						
BVAR	Borovoye Array	52.76	343	P	P	12 46 43.0	-1.0
	0.5nm,0.6s,baz=127,slow=7.4,SNR=3.6						
HFS	Hagfors	81.79	330	P	P	12 49 45.3	-1.7
	4.9nm,1.0s,baz=72,slow=4.7,SNR=3.6						

IDC 31 12:40:57.9±1.8, 3.72N×94.27E, mb3.9/5, mb1 4.0/6, mb1mx3.8/19, mbtmp3.8/6, ML3.9/1, Error ellipse: s-maj=71.9km s-min=21.6km az=58.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.35	17	Pn	P	12 44 37.1	-0.6
	0.2nm,0.3s,baz=210,slow=12,SNR=7.9						
SONM	Songino Array	45.18	12	P	P	12 49 16.0	-2.3
	0.4nm,0.8s,baz=191,slow=7.3,SNR=4.0						
WRA	Warramunga Arr	45.84	122	P	P	12 49 22.2	-1.7
	4.2nm,0.6s,baz=300,slow=9.2,SNR=27						
ASAR	Alice Springs	47.24	127	P	P	12 49 33.1	-1.8
	1.2nm,0.4s,baz=296,slow=7.7,SNR=21						
BVAR	Borovoye Array	52.95	342	P	P	12 50 16.5	-1.8
	0.6nm,0.6s,baz=140,slow=12,SNR=5.0						
FINES	FINESS Array B	76.43	333	P	P	12 52 49.2	-1.7
	2.3nm,0.9s,baz=158,slow=10,SNR=3.7						
TXAR	Lajitas Array	142.91	26	PKP	PKPdf	13 00 32.1	-3.9
	0.2nm,0.6s,baz=252,slow=2.9,SNR=2.5						

*IDC **31** 12:45:54.1±0.6, 3.39N×96.09E, mb4.6/18, mb1 4.7/18, mb1mx4.6/22, mbtmp4.6/18, Error ellipse: s-maj=33.2km s-min=13.1km az=46.0*

*MOS **31** 12:45:56.5±1.0, 3.35N×96.11E, h33^{km}, mb5.1/23, Error ellipse: s-maj=15.9km s-min=8.7km az=115.3*

*BJI **31** 12:45:57.4, 3.14N×96.06E, h53^{km}, mB6.2, mb5.1*

*NEIC **31** 12:45:59.4±0.4, 3.27N×96.07E, mb4.9/25, Error ellipse: s-maj=12.6km s-min=7.9km az=225.0*

ISC 31 12:45:57.6±0.3, 3.26N±0.05×96.08E±0.06, h41^{km}, h41^{km}±4.6^{km}:pP-P, n124, σ1^{s}.05/114, mb4.8/57, 2C-2D, Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	12.97	18	P	P	12 49 03.0	+1.1
KKTK	Khon Kaen	14.59	27	P	P	12 49 30.4	+7.1
	2µm,0.7s						
UBT	Ubonrachathani	14.81	36	⇓P	P	12 49 33.5	+7.3
	4µm,0.7s						
CM31	Chiang Mai Arr	15.37	10	*e*P	P	12 49 34.6	+1.3
	6.9nm,0.4s						
CM31				*e*		12 49 37.4	
CMAR	Chiang Mai Arr	15.37	10	Pn	P	12 49 34.3	+1.0
	1.3nm,0.3s,baz=202,slow=12,SNR=47						
QIZ	Qiongzhong	20.66	40	P	P	12 50 37.0	+0.5
IMP	Imphal	21.50	355	*e*P	P	12 50 45.2	+0.2
HYB	Hyderabad	22.22	311	*e*P	P	12 51 00.0	+7.8
HYB	Hyderabad	22.22	311	*i* P	P	12 50 55.0	+2.8
KMI	Kunming	22.67	16	P	P	12 50 58.5	+1.8
KMI				AP		12 51 06.8	
KMI				AMB	AMB		
	comp=Z,23nm,1.0s,mb4.6						
PKI	Pulchoki	26.24	338	*e*P	P	12 51 30.5	-0.4
	comp=Z,61nm,0.8s,mb5.2						
GUN	Gumba	26.38	339	*e*P	P	12 51 31.6	-0.6
	comp=Z,88nm,0.6s,mb5.5						
DMN	Daman	26.39	338	*e*P	P	12 51 32.3	0.0
	comp=Z,44nm,0.7s,mb5.1						
KKN	Kakani	26.49	338	*e*P	P	12 51 32.5	-0.7
	comp=Z,87nm,0.7s,mb5.4						
LSA	Lhasa	26.71	350	*e*P	P	12 51 34.4	-0.8
LSA				pmax	pmax		
	comp=Z,18nm,0.6s,mb4.8						
LSA	Lhasa	26.71	350	*e*P	P	12 51 34.4	-0.9
	comp=Z,18nm,0.6s,mb4.8						
GKN	Gorkha	26.92	337	*e*P	P	12 51 36.8	-0.4
	comp=Z,94nm,0.4s,mb5.7						
KOLN	Koldanda	27.14	335	*e*P	P	12 51 39.0	-0.1
	comp=Z,88nm,0.7s,mb5.4						
ENH	Enshi	29.71	24	*e*P	P	12 52 00.3	-2.0
	comp=Z,10nm,0.6s,mb4.7						
DDI	Dehra Dun	31.87	330	*e*P	P	12 52 20.7	-0.6
XAN	Xi'an	32.88	20	P	P	12 52 28.3	-1.8
XAN				AMB	AMB		
	comp=Z,15nm,0.7s,mb5.0						
SDNR	Sundarnagar	33.37	329	*e*P	P	12 52 35.2	+0.9
GTA	Gaotai	36.15	5	P	P	12 52 56.8	-1.2
GTA				AMB	AMB		
	comp=Z,25nm,0.8s,mb5.2						
KAKA	Kakadu	39.44	114	*e*P	P	12 53 25.6	-0.1
	comp=Z,13nm,0.6s,mb4.8						
MUN	Mundaring	39.92	153	*e*P	pP	12 53 45.1	+4.1
	comp=Z,9.0nm,1.0s						
HHC	Hu-ho-hao-te	39.94	18	*e*P	P	12 53 26.0	-3.6
HHC				AMB	AMB		
	comp=Z,9.0nm,0.7s,mb4.6						
HHC				AMB	AMB		
	comp=Z,4µm,8.6s						
KSH	Kashi	40.45	336	*e*P	P	12 53 34.0	+0.1
KSH				*e*AP	pP	12 53 42.5	-2.9
KSH				*e*XP	sP	12 53 48.0	-2.4
BJT	Baijiatuau	40.87	24	*e*P	P	12 53 37.8	+0.5
BJT				pmax	pmax		
	comp=Z,27nm,0.8s						
BJT	Baijiatuau	40.87	24	*e*P	P	12 53 37.8	+0.5
	comp=Z,27nm,0.8s,mb4.9						
BJI	Beijing	40.89	24	*e*P	P	12 53 38.5	+1.0
BJI				AMB	AMB		
	comp=Z,32nm,0.9s,mb5.0						
WMQ	Urumqi	41.07	351	P	P	12 53 40.3	+1.3
WMQ				AMB	AMB		
	comp=Z,10.0nm,0.4s,mb4.8						
KZA	Kyzart	42.91	337	P	P	12 53 55.1	+1.0
	SNR=9.3						
UCH	Uchtor	43.33	337	P	P	12 53 58.6	+1.0
	SNR=34						
TKM2	Tokmak 2	43.51	338	P	P	12 53 59.5	+0.5
	SNR=21						
KBK	Karagaybulak	43.52	337	P	P	12 54 00.3	+1.2
	SNR=30						
AML	Almayashu	43.58	336	P	P	12 54 00.8	+1.3
	SNR=37						
AAK	Ala-Archa	43.68	337	P	P	12 54 02.6	+2.2
	SNR=13						
FRU	Bishkek	43.80	337	*e*P	P	12 54 02.0	+0.7
CHMS	Chumysh	43.89	337	P	P	12 54 02.3	+0.2
	SNR=8.4						
EKS2	Erkin-Say	43.99	336	P	P	12 54 04.0	+1.1
	SNR=31						
WRA	Warramunga Arr	44.07	123	P	P	12 54 04.5	+0.7
	comp=Z,10nm,0.6s,mb4.8,baz=301,slow=9.1,SNR=82						
WRAB	Tennant Creek	44.08	123	*e*P	P	12 54 04.2	+0.4
WRAB				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.6						
WRAB	Tennant Creek	44.08	123	*e*P	P	12 54 04.2	+0.3
	comp=Z,7.6nm,0.6s,mb4.6						
WB2	Warramunga Arr	44.08	123	⇑*i*P	P	12 54 04.3	+0.4
USP	Ospenovka	44.22	337	P	P	12 54 04.9	+0.3
	SNR=61						
MK02	Makanchi Array	44.97	347	P	P	12 54 10.2	-0.4
MK02				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.8						
SONM	Songino Array	45.29	10	P	P	12 54 13.2	0.0
	comp=Z,10nm,0.7s,mb4.8,baz=189,slow=9.2,SNR=129						
SONM				PcP	PcP	12 55 53.2	+0.3
	comp=Z,4.0nm,0.4s,baz=205,slow=4.1,SNR=12						
ASPA	Alice Springs	45.52	128	*e*P	P	12 54 15.5	+0.1
ASAR	Alice Springs	45.52	128	P	P	12 54 15.9	+0.6
	comp=Z,3.9nm,0.8s,mb4.4,baz=300,slow=7.9,SNR=47						
ZAK	Zakamensk	47.35	6	⇓*e*P	P	12 54 28.0	-1.4
ZAK				*e*		12 55 57.1	
MDJ	Mudanjiang	50.65	31	P	P	12 54 55.3	+0.4
MDJ				AMB	AMB		
	comp=Z,17nm,0.8s,mb5.0						
ZAL	Zalesovo	51.36	351	P	P	12 55 00.0	-0.2
	comp=Z,26nm,0.8s,mb5.2,baz=309,slow=5.5,SNR=79						
PMG	Port Moresby	52.42	104	P	P	12 55 08.7	+0.1
	comp=Z,6.5nm,0.6s,mb4.7,baz=88,slow=7.8,SNR=4.0						
NVS	Novosibirsk	52.48	351	*i* P	P	12 55 06.6	-1.9
NVS				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
NVS				pmax	pmax		
	comp=E,12nm,0.7s						
NVS				pmax	pmax		
	comp=N,15nm,0.9s						
BVA0	Borovoye Array	53.95	341	*i* P	P	12 55 18.3	-1.2
BVA0				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BVAR	Borovoye Array	53.95	341	P	P	12 55 18.5	-1.1
	comp=Z,14nm,0.6s,mb5.1,baz=141,slow=9.5,SNR=141						
BVAR				PcP	PcP	12 56 25.2	+0.8
	comp=Z,4.3nm,0.7s,baz=153,slow=6.4,SNR=2.4						
BRVK	Borovoye	54.02	341	*e*P	P	12 55 18.7	-1.3
BRVK				pmax	pmax		
	comp=Z,13nm,0.8s,mb4.9						
BRVK	Borovoye	54.02	341	*e*P	P	12 55 18.7	-1.3
	comp=Z,13nm,0.8s,mb4.9						
CTA	Charters Tower	54.42	117	*e*P	P	12 55 23.0	-0.4
	comp=Z,8.9nm,0.8s,mb4.8						
CTA	Charters Tower	54.42	117	*e*P	P	12 55 23.0	-0.4
CTA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
CTA	Charters Tower	54.42	117	P	P	12 55 23.9	+0.5
	comp=Z,27nm,1.2s,mb5.1,baz=288,slow=10,SNR=8.7						
CTAO	Charters Tower	54.42	117	*e*P	P	12 55 23.8	+0.4
CTAO				pmax	pmax		
	comp=Z,14nm,0.9s,mb4.9						
CTAO	Charters Tower	54.42	117	*e*P	P	12 55 23.8	+0.4
	comp=Z,14nm,0.9s,mb4.9						
CHKZ	Chkalovo	54.44	342	P	P	12 55 22.3	-0.7
CHKZ				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
CHKZ	Chkalovo	54.44	342	*e*P	P	12 55 22.0	-1.0
	comp=Z,36nm,0.7s,mb5.4						
KLR	Kul'dur	54.95	28	*e*P	P	12 55 24.0	-2.8
KLR				pmax	pmax		
	comp=E,24nm,0.9s						
KLR				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.4						
STKA	Stephens Creek	55.56	133	*e*P	P	12 55 30.9	-0.6
	comp=Z,3.5nm,0.7s,mb4.5						
STKA	Stephens Creek	55.56	133	P	P	12 55 31.4	-0.1
	comp=Z,2.9nm,0.7s,mb4.4,baz=340,slow=6.6,SNR=4.5						
BOD	Bodaibo	56.22	11	*e*P	P	12 55 33.9	-1.9
GNI	Garni	59.05	316	*e*P	P	12 55 54.5	-1.5
YSS	Yuzh-Sakhalins	59.31	35	*e*P	P	12 55 57.0	-0.7
YSS				pmax	pmax		
	comp=Z,30nm,0.9s,mb5.3						
YSS	Yuzh-Sakhalins	59.31	35	*e*P	P	12 55 56.9	-0.9
	comp=Z,25nm,0.8s,mb5.3						
ZEI	Tsey	60.73	318	*e*P	P	12 56 07.2	-0.3
ZEI				*i* *PP	pP	12 56 23.5	+4.0
ZEI				*i*		12 58 21.5	
ZEI				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
ARU	Arti	60.87	337	*e*P	P	12 56 06.4	-1.9
KIV	Kislovodsk	62.03	319	*e*P	P	12 56 15.5	-0.8
KIV				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb5.0						
KIV	Kislovodsk	62.03	319	*e*P	P	12 56 15.4	-0.8
	comp=Z,10nm,0.8s,mb5.0						
MALT	Malatya	62.93	312	*e*P	P	12 56 22.2	-0.2
MALT				*e**PP	pP	12 56 34.4	0.0
MALT				pmax	pmax		
	comp=Z,11nm,1.1s,mb4.9						
MALT	Malatya	62.93	312	*e*P	P	12 56 22.2	-0.2
	comp=Z,11nm,1.1s,mb4.9						
MALT				*e*pP	pP	12 56 34.4	-0.1
EIL	Elat	63.43	302	*e*P	P	12 56 25.6	-0.2
	comp=Z,13nm,1.0s,mb5.0						
EIL				*e*pP	pP	12 56 37.1	-0.7
YAK	Yakutsk	63.78	17	*e*P	P	12 56 26.1	-1.5
YAK				pmax	pmax		
	comp=Z,32nm,0.8s,mb5.4						
YAK	Yakutsk	63.78	17	*e*P	P	12 56 26.1	-1.4
	comp=Z,32nm,0.8s,mb5.4						
SOC	Sochi	63.86	318	*e*P	P	12 56 26.6	-1.8
SOC				pmax	pmax		
	comp=Z,19nm,1.0s,mb5.1						
SOC				pmax	pmax		
	comp=N,9.0nm,0.9s						
SOC				pmax	pmax		
	comp=E,4.0nm,0.7s						
MBAR	Mbarara	65.43	268	P	P	12 56 37.7	-1.4
MBAR				*e**PP	pP	12 56 50.3	-0.9
MBAR				pmax	pmax		
	comp=Z,17nm,1.2s,mb5.0						
MBAR	Mbarara	65.43	268	P	P	12 56 37.7	-1.3
	comp=Z,17nm,1.2s,mb5.0						
MBAR				*e*pP	pP	12 56 50.3	-0.9
BRTR	Keskin Array B	66.91	312	P	P	12 56 47.2	-0.8
	comp=Z,1.5nm,0.6s,mb4.2,baz=127,slow=6.9,SNR=8.9						
LSZ	Lusaka	69.65	253	P	P	12 57 04.3	-1.1
LSZ				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.4						
LSZ	Lusaka	69.65	253	P	P	12 57 04.2	-1.1
	comp=Z,7.0nm,1.3s,mb4.4						
MA2	Magadan	69.98	26	*e*P	P	12 57 06.5	-0.2
MA2				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.0						
MA2	Magadan	69.98	26	*e*P	P	12 57 06.5	-0.2
	comp=Z,14nm,0.7s,mb5.0						
OBN	Obninsk	70.30	328	*c* *i*P	P	12 57 08.1	-0.6
OBN				pmax	pmax		
	comp=Z,14nm,0.6s,mb5.1						
OBN	Obninsk	70.30	328	*e*P	P	12 57 07.6	-1.1
	comp=Z,17nm,0.7s,mb5.1						
IDI	Anoyia	72.80	306	P	P	12 57 24.5	+0.4
	comp=Z,3.1nm,0.4s,mb4.6,baz=69,slow=9.8,SNR=6.9						
AKASG	Malin Array Be	72.96	322	P	P	12 57 23.9	-0.8
	comp=Z,5.2nm,0.4s,mb4.8,baz=85,slow=5.2,SNR=56						
KOLS	Kolonicke sedl	76.94	319	*i* P	P	12 57 49.6	+2.0
CRVS	Cervenica-Dubn	77.46	319	*i* P	P	12 57 52.4	+1.9
FINES	FINESS Array B	77.67	332	P	P	12 57 51.3	-0.1
	comp=Z,4.8nm,0.5s,mb4.7,baz=104,slow=6.8,SNR=37						
KAF	Kangasniemi	77.76	333	*e*p	P	12 57 51.6	-0.3
	comp=Z,4.3nm,0.6s,mb4.6						
KAF	Kangasniemi	77.76	333	*e*P	P	12 57 51.6	-0.3
KAF				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.5						
KECS	Kecovo	78.03	319	*i* P	P	12 57 56.6	+2.9
PSZ	Piszkesteto	78.34	318	*e*P	P	12 57 55.6	+0.2
PSZ				pmax	pmax		
	comp=Z,2.0nm,0.6s,mb4.2						
PSZ	Piszkesteto	78.34	318	*e*P	P	12 57 55.6	+0.2
	comp=Z,2.4nm,0.6s,mb4.3						
VYHS	Vyhne	79.12	319	*i* P	P	12 58 00.3	+0.7
MORC	Moravsky Berou	80.12	320	*e*P	P	12 58 05.1	+0.1
MORC				pmax	pmax		
	comp=Z,2.0nm,0.5s,mb4.3						
MORC	Moravsky Berou	80.12	320	*e*P	P	12 58 05.1	+0.1
	comp=Z,2.0nm,0.5s,mb4.3						
ZST	Bratislava	80.23	318	*i* pP	pP	12 58 18.9	+0.9
ARCES	ARCESS Array B	80.24	340	P	P	12 58 05.5	+0.3
	comp=Z,2.5nm,0.4s,mb4.5,baz=95,slow=6.3,SNR=22						
GERES	GERESS Array B	82.54	319	P	P	12 58 19.1	+1.4
	comp=Z,1.1nm,0.5s,mb4.2,baz=102,slow=5.7,SNR=16						
KHC	Kasperske Hory	82.64	319	*e*P	P	12 58 20.0	+1.8
KHC				*e*x	x	12 58 26.5	
HFS	Hagfors	83.39	330	P	P	12 58 22.5	+0.7
	comp=Z,6.1nm,0.7s,mb4.8,baz=104,slow=6.1,SNR=38						
NB2	NORSAR Subarra	84.68	331	P	P	12 58 28.3	+0.1
	comp=Z,2.8nm,0.8s,mb4.4,baz=93,slow=4.8						
NB2	NORSAR Subarra	84.68	331	P	P	12 58 28.3	+0.1
NB2				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.5						
NOA	NORSAR Array B	84.68	331	P	P	12 58 28.6	+0.4
	comp=Z,1.9nm,0.6s,mb4.4,baz=94,slow=5.0,SNR=9.9						
LPG	La Plagne	87.23	315	*e*P	P	12 58 42.2	+1.1
	comp=Z,9.1nm,0.8s,mb4.7						
LPG	La Plagne	87.23	315	*e*P	P	12 58 42.2	+1.1
LPG				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.8						
EKA	Eskdalemuir Ar	92.60	326	P	P	12 59 07.5	+1.5
	comp=Z,2.1nm,0.9s,mb4.5,baz=100,slow=4.3,SNR=4.9						
ILAR	Eielson Array	98.25	23	P	P	12 59 30.8	-0.7
	comp=Z,0.4nm,0.9s,mb4.0,baz=310,slow=4.5,SNR=5.9						
ILAR				PP	PP	13 03 29.3	-4.9
	comp=Z,0.3nm,0.8s,baz=295,slow=5.9,SNR=4.8						
YKA	Yellowknife Ar	110.41	15	PP	PP	13 05 00.1	-5.2
	comp=Z,0.4nm,0.9s,baz=329,slow=6.9,SNR=6.9						

```
ULM   Lac du Bonnet     125.72   9  PKP      PKPdf     13 04 58.4 +3.3
      comp=Z,2.4nm,0.7s,baz=9.2,slow=3.6,SNR=4.5
RKT   Rikitea           126.85 117  eLR      LR        13 05 57.6
      comp=Z,4µm,24.2s
NVAR  Mina Array Bea    127.75  34  PKP      PKPdf     13 05 03.2 +3.9
      comp=Z,1.0nm,0.6s,baz=290,slow=2.4,SNR=5.9
PDAR  Pinedale Array    128.66  24  PKP      PKPdf     13 05 03.3 +2.3
      comp=Z,0.5nm,0.5s,baz=112,slow=1.5,SNR=8.6
ANMO  Albuquerque       136.49  27  PKP      PKPdf     13 05 19.3 +3.4
      comp=Z,0.7nm,1.0s,baz=0.4,slow=2.5,SNR=4.6
TXAR  Lajitas Array     142.47  29  PKhKP              13 05 24.1
      comp=Z,0.5nm,0.5s,baz=209,slow=1.7,SNR=11
TXAR                                PKP      PKPdf     13 05 28.4 +1.6
      comp=Z,0.7nm,0.6s,baz=176,slow=1.2,SNR=10
LPAZ  La Paz            159.79 229  PKPab    PKPab     13 06 37.2 +2.9
      comp=Z,0.7nm,0.7s,baz=124,slow=3.6,SNR=3.6
```

IDC 31 12:55:57.2±3.0**,8.95S**×**123.97E,mb3.7**/2**,mb1 4.0**/4**, mb1mx3.8**/13**,mbtmp3.8**/4**,ML3.9**/2**,Error ellipse: s-maj=244.2km s-min=28.3km az=63.0,Flores region**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s   ISC
WRA   Warramunga Arr    14.83 139   Pn       P         12 59 27.7 -2.5
      0.5nm,0.3s,baz=311,slow=13,SNR=17
WRA                                 Sn       S         13 01 59.5  -17
      1.5nm,0.3s,baz=308,slow=23,SNR=15
ASAR  Alice Springs     17.45 148   Pn       P         13 00 02.5 -1.3
      0.8nm,0.3s,baz=332,slow=13,SNR=17
ASAR                                Sn       S         13 03 05.7  -11
      0.6nm,0.3s,baz=318,slow=19,SNR=8.8
STKA  Stephens Creek    28.08 147   P        P         13 01 50.8 -1.9
      0.7nm,0.6s,baz=327,slow=14,SNR=3.5
SONM  Songino Array     58.64 346   P        P         13 05 56.2 -2.3
      0.5nm,0.8s,baz=160,slow=9.5,SNR=3.6
```

BJI 31 12:56:53.0,26.08N×**99.82E,h7^{km},ML3.6,2C,Yunnan**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s   ISC
KMI   Kunming            2.80 109   PG       Pg        12 57 41.5 -7.5
KMI                                 SG       Sg        12 58 18.5 -7.9
KMI                                 Smax
      comp=N,252nm,0.9s
KMI                                 Smax
      comp=E,275nm,0.8s
CHRT  Chiangrai          6.18 180  ⇑PN       Pn        12 58 09.0  -18
      comp=E,842nm,1.2s
CHRT                                PG       Pg        12 58 52.5 -3.9
CHRT                                SG       Sg        13 00 13.5 -5.3
NANT  Nan                7.29 173  ⇑P        Sn        13 00 39.0  +33
```

BJI ***31*** *13:09:53.5,4.94N×94.36E,h50^{km},mB5.8,mb4.7,Ms5.1, Msz4.8*

MOS ***31*** *13:09:56.2±0.9,5.58N×94.39E,h33^{km},mb4.9/24,Error ellipse: s-maj=15.8km s-min=7.5km az=119.2*

NEIC ***31*** *13:09:59.9±1.4,5.52N×94.39E,h50^{km}±12^{km},mb4.7/26, Error ellipse: s-maj=9.3km s-min=4.4km az=46.0*

IDC ***31*** *13:09:59.6±3.2,5.47N×94.23E,h51^{km}±27^{km},mb4.3/19, mb1 4.5/20,mb1mx4.4/25,mbtmp4.6/20,ML4.9/1,MS3.2/1, Ms1 3.4/1,ms1mx2.7/29,Error ellipse: s-maj=23.2km s-min=11.5km az=43.0*

ISC 31 13:09:55.8±0.3**,5.44N**±0.05×**94.29E**±0.05**,h33^{km},n111,** σ**0^{s}95**/111**,mb4.7**/60**,MS4.9**/1**,4C-3D,Northern Sumatera**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s   ISC
CM31  Chiang Mai Arr    13.71  19   ePn      P         13 13 10.4 +0.1
      8.2nm,0.4s
CMAR  Chiang Mai Arr    13.71  19   P        P         13 13 12.3 +2.0
      1.9nm,0.3s,baz=207,slow=14,SNR=60
CMAR                                LR       LR        13 18 30.6
      comp=Z,99nm,20.4s,baz=185,slow=37
HYB   Hyderabad         19.46 309   eP       P         13 14 23.0 +0.3
HYB   Hyderabad         19.46 309   i P      P         13 14 23.0 +0.3
QIZ   Qiongzhong        20.30  47   P        P         13 14 32.5 +0.7
      94nm,1.4s
KMI   Kunming           21.18  22   P        P         13 14 42.8 +2.0
KMI                                 AP                 13 14 55.8
KMI                                 AMB      AMB
      comp=Z,23nm,1.8s,mb4.2
PKI   Pulchoki          23.57 340   eP       P         13 15 05.5 +1.0
      comp=Z,103nm,1.3s,mb5.1
DMN   Daman             23.71 339   eP       P         13 15 07.2 +1.3
      comp=Z,52nm,0.7s,mb5.1
GUN   Gumba             23.73 341   eP       P         13 15 06.2 +0.2
      comp=Z,80nm,0.9s,mb5.1
KKN   Kakani            23.82 340   eP       P         13 15 07.0 +0.1
      comp=Z,74nm,1.0s,mb5.1
GYA   Guiyang           24.01  28⇑iP       P         13 15 10.0 +1.3
GYA                                 AMB      AMB
      comp=Z,20nm,0.8s,mb4.6
GKN   Gorkha            24.24 339   eP       P         13 15 11.5 +0.5
      comp=Z,124nm,1.0s,mb5.3
LSA   Lhasa             24.31 353   eP       P         13 15 12.6 +1.0
LSA                                 pmax     pmax
      comp=Z,27nm,0.8s,mb4.7
LSA   Lhasa             24.31 353   eP       P         13 15 12.6 +1.0
      comp=Z,27nm,0.8s,mb4.7
KOLN  Koldanda          24.42 337   eP       P         13 15 13.9 +1.1
      comp=Z,148nm,1.2s,mb5.3
TGY   Tagaytay City     27.61  70   P        P         13 15 44.1 +1.6
      comp=Z,41nm,0.3s,mb5.5,baz=187,slow=6.9,SNR=4.2
ENH   Enshi             28.55  28   eP       P         13 15 49.9 -1.0
      comp=Z,6.9nm,0.5s,mb4.6
XAN   Xi'an             31.53  24   P        P         13 16 16.0 -1.3
XAN                                 AMB      AMB
      comp=Z,15nm,1.4s,mb4.6
LZH   Lanzhou           31.74  15   eP       P         13 16 17.5 -1.6
LZH                                 AMB      AMB
      comp=Z,33nm,1.7s,mb4.9
GTA   Gaotai            34.18   8   P        P         13 16 40.3  0.0
GTA                                 AP       pP        13 16 53.5 +3.5
GTA                                 XP       sP        13 17 01.3 +7.0
GTA                                 AMB      AMB
      comp=Z,13nm,1.2s,mb4.7
MBWA  Marble Bar        36.36 137   eP       P         13 16 58.6 -0.4
      comp=Z,4.8nm,0.4s,mb4.8
HHC   Hu-ho-hao-te      38.51  21   eP       P         13 17 17.3 +0.5
HHC                                 PP       PP        13 18 53.3 +4.5
HHC                                 S        S         13 23 04.5 -5.4
HHC                                 SCS      ScS       13 27 21.5 -1.3
HHC                                 AMB      AMB
      comp=Z,13nm,0.9s,mb4.7
HHC                                 AMB      AMB
      comp=Z,494nm,9.3s
HHC                                 LR       LR
      comp=N,782nm,13.1s,MS5.0
HHC                                 LR       LR
      comp=E,1µm,11.9s,MS5.0
HHC                                 LR       LR
      comp=Z,1µm,15.5s,MS4.8
WMQ   Urumqi            38.66 352  ⇓P        P         13 17 19.8 +1.8
WMQ                                 AMB      AMB
      comp=Z,13nm,0.6s,mb4.8
FITZ  Fitzroy Crossi    38.78 128   eP       P         13 17 18.9 -0.4
      comp=Z,24nm,1.2s,mb4.8
BJT   Baijiatuau        39.66  27   eP       P         13 17 27.1 +0.7
BJT                                 pmax     pmax
      comp=Z,6.0nm,0.8s
BJT   Baijiatuau        39.66  27   eP       P         13 17 27.1 +0.7
      comp=Z,6.4nm,0.8s,mb4.4
BJI   Beijing           39.68  27   eP       P         13 17 25.5 -1.1
BJI                                 AMB      AMB
      comp=Z,17nm,1.3s,mb4.6
AAK   Ala-Archa         40.99 338   eP       P         13 17 37.4  0.0
AAK                                 pmax     pmax
      comp=Z,4.0nm,0.8s,mb4.1
AAK   Ala-Archa         40.99 338   eP       P         13 17 37.4  0.0
      comp=Z,4.0nm,0.8s,mb4.1
KAKA  Kakadu            41.98 116   eP       P         13 17 44.9 -1.0
      comp=Z,34nm,1.3s,mb4.8
MK02  Makanchi Array    42.45 348   P        P         13 17 50.0 +0.6
MK02                                pmax     pmax
      comp=Z,8.0nm,0.7s,mb4.5
SONM  Songino Array     43.49  12   P        P         13 17 57.5 -0.3
      comp=Z,4.7nm,0.7s,mb4.3,baz=196,slow=7.6,SNR=42
SONM                                PcP      PcP       13 19 46.1 +0.1
      comp=Z,0.5nm,0.5s,baz=193,slow=3.7,SNR=4.1
SONM                                ScP                13 23 33.0
      comp=Z,0.8nm,0.9s,baz=206,slow=5.2,SNR=4.4
ZAK   Zakamensk         45.42   8⇑iP       P         13 18 13.1 -0.2
WRA   Warramunga Arr    46.76 124   P        P         13 18 24.5 +0.2
      comp=Z,25nm,0.6s,mb5.3,baz=303,slow=9.2,SNR=296
WRAB  Tennant Creek     46.77 124   eP       P         13 18 24.5 +0.2
WRAB                                pmax     pmax
      comp=Z,40nm,0.6s,mb5.5
WRAB  Tennant Creek     46.77 124   eP       P         13 18 24.5 +0.2
      comp=Z,40nm,0.6s,mb5.5
WB2   Warramunga Arr    46.77 124⇑iP       P         13 18 24.6 +0.3
ASPA  Alice Springs     48.27 128⇑iP       P         13 18 36.2 +0.2
ASAR  Alice Springs     48.27 128   P        P         13 18 36.2 +0.1
      comp=Z,12nm,0.6s,mb5.1,baz=299,slow=7.5,SNR=152
ASAR                                PcP      PcP       13 20 03.5 +0.4
      comp=Z,1.7nm,0.8s,baz=315,slow=5.7,SNR=4.0
ZAL   Zalesovo          48.96 353   P        P         13 18 41.4 +0.4
      comp=Z,6.1nm,0.4s,mb5.0,baz=292,slow=6.7,SNR=32
NVS   Novosibirsk       50.06 352   i P      P         13 18 48.0 -1.4
NVS                                 eS       S         13 25 54.9 -2.0
NVS                                 pmax     pmax
      comp=Z,40nm,1.4s,mb5.3
NVS                                 pmax     pmax
      comp=E,13nm,1.2s
NVS                                 pmax     pmax
      comp=N,28nm,1.4s
NVS                                 smax
      comp=E,49nm,2.0s
NVS                                 smax
      comp=N,27nm,2.1s
BVA0  Borovoye Array    51.33 342   i P      P         13 18 58.5 -0.5
BVA0                                pmax     pmax
      comp=Z,1.0nm,0.9s,mb3.8
BVAR  Borovoye Array    51.33 342   P        P         13 18 58.5 -0.5
      comp=Z,6.3nm,0.7s,mb4.6,baz=143,slow=7.4,SNR=36
BRVK  Borovoye          51.39 342   eP       P         13 18 58.5 -1.0
BRVK                                pmax     pmax
      comp=Z,6.0nm,0.9s,mb4.5
BRVK  Borovoye          51.39 342   eP       P         13 18 58.5 -1.0
      comp=Z,6.2nm,0.9s,mb4.5
CHKZ  Chkalovo          51.82 342   eP       P         13 19 02.5 -0.2
CHKZ                                pmax     pmax
      comp=Z,18nm,0.9s,mb5.0
CHKZ  Chkalovo          51.82 342   eP       P         13 19 02.5 -0.2
      comp=Z,18nm,0.9s,mb5.0
BOD   Bodaibo           54.47  13   eP       P         13 19 19.4 -2.9
PMG   Port Moresby      54.71 105   eP       P         13 19 24.5 -0.2
PMG                                 pmax     pmax
      comp=Z,17nm,0.9s
PMG   Port Moresby      54.71 105   P        P         13 19 24.6 -0.1
      comp=Z,14nm,0.8s,mb5.0,baz=139,slow=3.7,SNR=6.8
PMG   Port Moresby      54.71 105   eP       P         13 19 24.5 -0.2
      comp=Z,18nm,0.9s,mb5.1
GNI   Garni             56.25 315   i P      P         13 19 35.2 -0.2
GNI                                 pmax     pmax
      comp=Z,2.0nm,0.7s
KMBO  Kilima Mbogo      57.34 265   i P      P         13 19 45.2 +1.6
KMBO                                pmax     pmax
      comp=Z,3.0nm,0.6s
KMBO  Kilima Mbogo      57.34 265   P        P         13 19 44.5 +0.9
      comp=Z,2.7nm,0.6s,mb4.5,baz=63,slow=12,SNR=6.8
KMBO  Kilima Mbogo      57.34 265   eP       P         13 19 44.8 +1.2
      comp=Z,7.6nm,1.0s,mb4.7
ZEI   Tsey              57.92 318   eP       P         13 19 45.9 -1.4
ZEI                                 i                  13 19 58.3
ZEI                                 pmax     pmax
      comp=Z,3.0nm,0.7s,mb4.4
ARU   Arti              58.18 338   eP       P         13 19 46.7 -2.1
STKA  Stephens Creek    58.34 133   eP       P         13 19 50.1 -0.3
      comp=Z,5.7nm,0.6s,mb4.8
STKA  Stephens Creek    58.34 133   P        P         13 19 50.1 -0.3
      comp=Z,6.4nm,0.7s,mb4.8,baz=285,slow=4.9,SNR=22
KIV   Kislovodsk        59.22 319   i P      P         13 19 55.2 -1.1
KIV                                 pmax     pmax
      comp=Z,9.0nm,1.3s,mb4.6
EIL   Elat              60.77 301   eP       P         13 20 06.9 -0.2
      comp=Z,2.9nm,0.6s,mb4.6
YAK   Yakutsk           62.24  18   eP       P         13 20 14.5 -2.1
YAK                                 pmax     pmax
      comp=Z,8.0nm,0.4s,mb5.2
YAK   Yakutsk           62.24  18   eP       P         13 20 14.5 -2.1
      comp=Z,7.7nm,0.4s,mb5.2
TOO   Toolangi          63.99 136   eP       P         13 20 29.7 +1.2
      comp=Z,2.3nm,0.5s,mb4.5
TOO   Toolangi          63.99 136   eP       P         13 20 29.7 +1.2
TOO                                 pmax     pmax
      comp=Z,2.0nm,0.5s,mb4.4
BRTR  Keskin Array B    64.13 312   P        P         13 20 27.7 -1.7
      comp=Z,3.1nm,0.7s,mb4.4,baz=125,slow=7.1,SNR=15
OBN   Obninsk           67.51 328⇓eP       P         13 20 48.5 -2.1
OBN                                 pmax     pmax
      comp=Z,16nm,1.5s,mb4.8
LSZ   Lusaka            68.62 251   eP       P         13 20 58.7 +0.5
LSZ                                 pmax     pmax
      comp=Z,3.0nm,0.6s,mb4.4
LSZ   Lusaka            68.62 251   eP       P         13 20 58.7 +0.5
      comp=Z,2.9nm,0.6s,mb4.4
MA2   Magadan           68.84  27   eP       P         13 20 58.2 -0.7
MA2                                 pmax     pmax
      comp=Z,5.0nm,0.6s,mb4.6
MA2   Magadan           68.84  27   eP       P         13 20 58.2 -0.6
      comp=Z,4.6nm,0.6s,mb4.6
TIXI  Tiksi             69.57  11⇓iP       P         13 21 02.2 -1.0
IDI   Anoyia            70.08 305   P        P         13 21 06.9  0.0
      comp=Z,5.5nm,0.7s,mb4.6,baz=135,slow=22,SNR=5.8
AKASG Malin Array Be    70.15 322   P        P         13 21 04.8 -2.2
      comp=Z,1.9nm,0.6s,mb4.2,baz=90,slow=4.8,SNR=11
MLR   Muntele Rosu      71.01 316   P        P         13 21 12.2 -0.2
      comp=Z,6.0nm,0.9s,mb4.5,baz=149,slow=4.6,SNR=8.7
FINES FINESS Array B    74.92 332   i P      P         13 21 34.5 -0.5
FINES                               pmax     pmax
      comp=Z,5.0nm,0.9s
FINES FINESS Array B    74.92 332   P        P         13 21 34.5 -0.6
      comp=Z,4.8nm,0.9s,mb4.4,baz=100,slow=6.4,SNR=18
KAF   Kangasniemi       75.01 333   ep       P         13 21 35.0 -0.6
OJC   Ojcow             75.92 320   eP       P         13 21 41.3 +0.3
OKC   Ostrava-Krasne    76.93 320   eP       P         13 21 47.2 +0.5
MORC  Moravsky Berou    77.31 320   eP       P         13 21 49.3 +0.4
MORC                                pmax     pmax
      comp=Z,7.0nm,1.0s,mb4.5
MORC  Moravsky Berou    77.31 320   eP       P         13 21 49.2 +0.4
      comp=Z,7.1nm,1.0s,mb4.5
ARCES ARCESS Array B    77.59 340   P        P         13 21 49.5 -0.6
      comp=Z,6.2nm,1.1s,mb4.4,baz=90,slow=6.1,SNR=4.5
DPC   Dobruska-Polom    78.15 320   eP       P         13 21 54.4 +0.9
UPC   Upice             78.37 320   eP       P         13 21 55.5 +0.9
PRU   Pruhonice         79.26 320   eP       P         13 22 00.3 +0.7
GEC2  GERESS Array S    79.73 319   eP       P         13 22 02.8 +0.7
GEC2                                pmax     pmax
      comp=Z,6.0nm,0.8s,mb4.6
GEC2  GERESS Array S    79.73 319   eP       P         13 22 02.8 +0.7
      comp=Z,6.0nm,0.8s,mb4.6
GERES GERESS Array B    79.73 319   P        P         13 22 02.8 +0.7
      comp=Z,5.5nm,0.8s,mb4.5,baz=90,slow=5.3,SNR=38
KHC   Kasperske Hory    79.83 319   eP       P         13 22 02.8 +0.2
WET   Wettzell          80.29 319   eP       P         13 22 05.7 +0.6
CLL   Collm             80.33 321   eP       P         13 22 06.0 +0.7
CLL   Collm             80.33 321   P        P         13 22 06.0 +0.7
HFS   Hagfors           80.62 330   P        P         13 22 05.2 -1.4
      comp=Z,4.4nm,1.0s,mb4.3,baz=108,slow=9.4,SNR=6.4
MOX   Moxa              81.17 320   eP       P         13 22 10.2 +0.5
MOX   Moxa              81.17 320   i P      P         13 22 10.2 +0.5
GRA1  Grafenberg Arr    81.39 319   eP       P         13 22 11.6 +0.7
      comp=Z,8.0nm,0.9s,mb4.7
GRF   Grafenberg Arr    81.39 319   eP       P         13 22 11.6 +0.7
GRF                                 pmax     pmax
      comp=Z,8.0nm,0.9s,mb4.7
GRF   Grafenberg Arr    81.39 319   eP       P         13 22 11.6 +0.7
GRF                                 pmax     pmax
      comp=Z,8.0nm,0.9s,mb4.7
GRF   Grafenberg Arr    81.39 319   eP       P         13 22 11.6 +0.7
      comp=Z,8.0nm,0.9s,mb4.7
CLZ   Clausthal         81.99 321   eP       P         13 22 14.7 +0.8
      comp=Z,4.0nm,0.8s,mb4.4
BSEG  Bad Segeberg      82.08 324   eP       P         13 22 15.2 +0.8
DAVOX Davos             82.24 316   P        P         13 22 15.9 +0.6
      comp=Z,7.6nm,0.6s,mb4.8,baz=128,slow=5.3,SNR=8.8
BFO   Black Forest      83.28 318   eP       P         13 22 21.1 +0.5
BFO                                 pmax     pmax
      comp=Z,2.0nm,0.9s,mb4.2
BFO   Black Forest      83.28 318   eP       P         13 22 21.1 +0.5
      comp=Z,2.0nm,0.9s,mb4.2
LPG   La Plagne         84.43 315   eP       P         13 22 26.8 +0.3
      comp=Z,33nm,1.2s,mb5.0
LPG   La Plagne         84.43 315   eP       P         13 22 26.8 +0.3
LPG                                 pmax     pmax
      comp=Z,17nm,1.2s,mb5.0
URZ   Urewera           87.72 129   P        P         13 22 42.4 -0.4
      comp=Z,14nm,1.0s,mb5.2,baz=16,slow=6.6,SNR=2.8
ILAR  Eielson Array     96.93  22   P        P         13 23 24.8  0.0
      comp=Z,0.4nm,0.5s,mb4.1,baz=300,slow=4.2,SNR=12
PDAR  Pinedale Array   127.36  22   PKP      PKPdf     13 28 59.8 +2.0
      comp=Z,0.8nm,1.0s,baz=225,slow=1.3,SNR=3.2
TXAR  Lajitas Array    141.35  26   PKhKP              13 29 21.8
      comp=Z,0.3nm,0.7s,baz=270,slow=2.7,SNR=4.5
TXAR                                SKPbc              13 32 59.8
      comp=Z,0.2nm,0.5s,baz=114,slow=0.6,SNR=5.4
```

STR ***31*** *13:13:17.2±0.5,48.05N×8.01E,h10^{km}±1^{km},Ml1.5,Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

LDG 31 13:13:18.1±0.2**,48.10N**×**7.97E,h15^{km},Md1.9**/2**,Ml1.9**/4**, Error ellipse: s-maj=3.3km s-min=2.4km az=105.0, France**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s   ISC
WLS   Welschbruch        0.52 308   Pg       Pg        13 13 28.4 -0.5
WLS                                 Sg       Sg        13 13 36.1 +0.1
ECH   Echery             0.56 283   Pg       Pg        13 13 29.2 -0.4
ECH                                 Sg       Sg        13 13 37.1 -0.1
CDF   Champ du Feu       0.56 305   ePg      Pg        13 13 29.3 -0.4
CDF                                 eSg      Sg        13 13 36.2 -1.2
      2.7nm,0.2s
HINF  Hinteralfeld       0.80 250   ePg      Pg        13 13 32.7 -1.6
HINF                                eSg      Sg        13 13 43.8 -1.4
      1.8nm,0.2s
HAU   Haudompre          1.09 266   ePg      Pg        13 13 38.7 -1.4
HAU                                 eSg      Sg        13 13 53.2 -1.6
      3.8nm,0.3s
CABF  La Chapelle        1.96 221   eSg      Sg        13 14 20.1 -3.4
      1.9nm,0.5s
MEZF  Maizieres J'vi     1.99 283   ePn      Pn        13 13 49.5 -2.2
MEZF                                eSn      Sn        13 14 13.1 -3.4
MEZF                                eSg      Sg        13 14 21.1 -3.5
      2.7nm,0.3s
```

BJI ***31*** *13:16:59.3,5.00N×94.00E,h30^{km},mb4.7*

NEIC ***31*** *13:17:01.3±0.7,4.99N×94.03E,h30^{km},mb4.5/6,Error ellipse: s-maj=25.4km s-min=12.6km az=58.0*

IDC ***31*** *13:17:01.5±3.2,5.13N×94.17E,h31^{km}±21^{km},mb4.2/14, mb1 4.3/15,mb1mx4.2/23,mbtmp4.3/15,ML3.2/1,Error ellipse: s-maj=30.8km s-min=13.8km az=44.0*

ISC 31 13:17:01.3±4.9**,5.1N**±0.1×**94.2E**±0.1**,h43^{km}**±42^{km}**,n42,** σ**0^{s}82**/40**,mb4.5**/28**,Northern Sumatera**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s   ISC
CM31  Chiang Mai Arr    14.04  19   eP       P         13 20 21.8 +2.2
      10.0nm,0.8s
CMAR  Chiang Mai Arr    14.04  19   Pn       P         13 20 18.5 -1.1
      0.0nm,0.3s,baz=180,slow=31,SNR=2.0
CMAR                                ScP                13 29 10.0
      0.1nm,0.3s,baz=234,slow=3.1,SNR=7.7
PKI   Pulchoki          23.84 340   eP       P         13 22 11.0 -0.5
DMN   Daman             23.97 340   eP       P         13 22 11.9 -0.9
      15nm,0.7s,mb4.5
GUN   Gumba             24.00 342   eP       P         13 22 12.9 -0.1
      25nm,0.9s,mb4.7
KKN   Kakani            24.08 340   eP       P         13 22 13.4 -0.5
GYA   Guiyang           24.33  28   P        P         13 22 17.0 +0.7
GYA                                 AMB      AMB
      comp=Z,10.0nm,0.6s,mb4.4
GKN   Gorkha            24.50 339   eP       P         13 22 17.9  0.0
      comp=Z,24nm,0.6s,mb4.8
LSA   Lhasa             24.61 354   eP       P         13 22 19.7 +0.7
      comp=Z,7.7nm,0.8s,mb4.3
KOLN  Koldanda          24.67 337   eP       P         13 22 20.1 +0.5
      comp=Z,34nm,0.7s,mb5.0
TGY   Tagaytay City     27.81  69   P        P         13 22 49.6 +0.8
      comp=Z,79nm,0.6s,mb5.6,baz=129,slow=12,SNR=3.6
GTA   Gaotai            34.51   8   P        P         13 23 46.5 -1.0
GTA                                 AMB      AMB
      comp=Z,4.0nm,0.8s,mb4.4
WMQ   Urumqi            38.96 353   P        P         13 24 26.3 +1.4
WMQ                                 AP       pP        13 24 30.8 -6.0
WMQ                                 XP       sP        13 24 33.5 -8.7
WMQ                                 AMB      AMB
      comp=Z,7.0nm,0.6s,mb4.6
SONM  Songino Array     43.82  12   P        P         13 25 03.7 -1.2
      comp=Z,2.1nm,0.8s,mb3.9,baz=193,slow=7.8,SNR=13
SONM                                PcP      PcP       13 26 50.9 -0.4
      comp=Z,0.6nm,0.7s,baz=180,slow=1.4,SNR=3.8
SONM                                ScP                13 30 39.3
      comp=Z,0.6nm,0.9s,baz=102,slow=1.3,SNR=4.5
WRA   Warramunga Arr    46.67 124   P        P         13 25 27.6 -0.2
      comp=Z,3.9nm,0.5s,mb4.6,baz=303,slow=9.4,SNR=39
WRAB  Tennant Creek     46.67 123   eP       P         13 25 27.9  0.0
      comp=Z,9.9nm,0.6s,mb4.9
WB2   Warramunga Arr    46.68 123   eP       P         13 25 28.0  0.0
ASPA  Alice Springs     48.15 128   eP       P         13 25 39.7 +0.2
ASAR  Alice Springs     48.15 128   P        P         13 25 39.5  0.0
      comp=Z,4.2nm,0.8s,mb4.5,baz=302,slow=7.2,SNR=14
ZAL   Zalesovo          49.26 353   P        P         13 25 47.7 +0.1
      comp=Z,3.6nm,0.8s,mb4.5,baz=289,slow=2.1,SNR=10
BVAR  Borovoye Array    51.59 342   P        P         13 26 04.5 -0.9
      comp=Z,2.4nm,0.7s,mb4.3,baz=141,slow=9.5,SNR=14
BRVK  Borovoye          51.66 342   eP       P         13 26 04.6 -1.2
      comp=Z,2.3nm,0.6s,mb4.3
CHKZ  Chkalovo          52.09 342   eP       P         13 26 08.3 -0.8
      comp=Z,6.8nm,0.8s,mb4.6
GNI   Garni             56.40 316   P        P         13 26 41.0 +0.2
      comp=Z,2.2nm,0.4s,mb4.5,baz=198,slow=23,SNR=3.1
STKA  Stephens Creek    58.20 133   P        P         13 26 52.4 -1.3
      comp=Z,2.6nm,0.8s,mb4.3,baz=349,slow=5.5,SNR=2.8
BRTR  Keskin Array B    64.27 312   P        P         13 27 33.8 -0.8
      comp=Z,3.5nm,0.7s,mb4.5,baz=125,slow=7.0,SNR=16
AKASG Malin Array Be    70.34 322   P        P         13 28 11.3 -1.1
      comp=Z,1.9nm,0.6s,mb4.2,baz=89,slow=5.0,SNR=10
MLR   Muntele Rosu      71.17 316   P        P         13 28 18.1 +0.5
      comp=Z,6.2nm,0.7s,mb4.7,baz=136,slow=4.6,SNR=11
KOLS  Kolonicke sedl    74.30 319   i P      P         13 28 37.5 +1.5
FINES FINESS Array B    75.15 333   P        P         13 28 40.1 -0.5
      comp=Z,1.7nm,0.5s,mb4.2,baz=105,slow=6.7,SNR=14
KAF   Kangasniemi       75.25 333   ep       P         13 28 40.4 -0.7
VYHS  Vyhne             76.48 319   eP       P         13 28 48.2 -0.2
MORC  Moravsky Berou    77.49 320   eP       P         13 28 54.6 +0.6
      comp=Z,4.2nm,1.0s,mb4.3
PRU   Pruhonice         79.44 320   eP       P         13 29 05.6 +0.9
BRG   Berggiesshubel    79.89 321   eP       P         13 29 08.2 +1.1
      comp=Z,5.9nm,1.3s,mb4.4
GERES GERESS Array B    79.90 319   P        P         13 29 07.9 +0.6
      comp=Z,3.1nm,0.8s,mb4.3,baz=104,slow=5.5,SNR=22
KHC   Kasperske Hory    80.00 319   eP       P         13 29 08.0 +0.2
KHC                                 epP      pP        13 29 22.0 +1.3
CLL   Collm             80.51 321   P        P         13 29 00.0  -10
HFS   Hagfors           80.84 330   P        P         13 29 12.0 -0.1
      comp=Z,1.1nm,0.5s,mb4.1,baz=90,slow=8.9,SNR=7.1
DAVOX Davos             82.40 316   P        P         13 29 21.7 +1.4
      comp=Z,8.7nm,0.9s,mb4.7,baz=119,slow=3.5,SNR=12
PDAR  Pinedale Array   127.69  22   PKP      PKPdf     13 36 04.1 +1.6
      comp=Z,0.1nm,0.3s,baz=50,slow=45,SNR=3.2
TXAR  Lajitas Array    141.68  26   PKP      PKPdf     13 36 32.0 +3.2
      comp=Z,0.3nm,0.7s,baz=102,slow=2.0,SNR=3.5
```

IDC 31 13:24:19.1±1.0**,2.17S**×**139.25E,mb3.9**/6**,mb1 4.1**/8**, mb1mx4.1**/13**,mbtmp3.9**/8**,ML3.4**/2**,Error ellipse: s-maj=39.3km s-min=19.0km az=78.0,Near north coast of Irian Jaya**

```
Code  Station Name       Δ°   AZ°    Phase ID             Time     Res
                                     Op       ISC        h  m  s   ISC
PMG   Port Moresby      10.66 133   Pn       P         13 26 54.4 -1.9
      0.4nm,0.3s,baz=309,slow=3.0,SNR=4.3
WRA   Warramunga Arr    18.31 195   P        P         13 28 34.0 -2.3
      0.3nm,0.3s,baz=18,slow=12,SNR=9.5
WRA                                 S        S         13 32 16.6  +18
      0.3nm,0.3s,baz=11,slow=21,SNR=7.0
ASAR  Alice Springs     21.99 193   P        P         13 29 14.8 -1.9
      3.3nm,0.5s,baz=29,slow=12,SNR=25
ASAR                                S        S         13 33 33.5  +18
      0.4nm,0.7s,baz=5.7,slow=27,SNR=3.5
STKA  Stephens Creek    29.64 176   P        P         13 30 26.6 -2.0
      1.5nm,0.7s,baz=140,slow=20,SNR=4.2
CMAR  Chiang Mai Arr    44.64 299   P        P         13 32 33.8 -1.7
      0.6nm,0.6s,baz=116,slow=6.5,SNR=7.9
SONM  Songino Array     57.46 334   P        P         13 34 10.7 -1.6
      0.2nm,0.5s,baz=154,slow=10,SNR=3.7
BVAR  Borovoye Array    79.17 325   P        P         13 36 25.6 -1.8
      2.6nm,0.8s,baz=112,slow=8.0,SNR=13
ILAR  Eielson Array     85.12  24   P        P         13 36 56.1 -1.8
      1.3nm,0.8s,baz=260,slow=4.8,SNR=13
```

IDC 31 13:30:33.3±6.2**, 0.01S**×**100.16E, mb3.5**/3**, mb1 3.8**/3**, mb1mx3.5**/15**, mbtmp3.5**/3**, Error ellipse: s-maj=298.4km s-min=29.7km az=56.0, Southern Sumatera**

```
Code  Station Name          Δ°   AZ°    Phase ID          Time      Res
                                        Op      ISC       h  m  s   ISC
WRA   Warramunga Arr      38.90 123     P       P         13 38 00.9 -1.7
      0.2nm,0.4s,baz=300,slow=9.4,SNR=7.7
ASAR  Alice Springs       40.32 128     P       P         13 38 12.8 -1.6
      0.7nm,1.0s,baz=301,slow=7.9,SNR=4.1
ZAL   Zalesovo            55.25 349     P       P         13 40 08.1 -2.5
      1.1nm,0.5s,baz=202,slow=1.3,SNR=5.0
```

IDC 31 13:35:41.0±24.0**, 5.89N**×**96.17E, mb3.4**/2**, mb1 3.6**/3**, mb1mx3.4**/16**, mbtmp3.3**/3**, ML3.8**/1**, Error ellipse: s-maj=683.3km s-min=43.5km az=80.0, Northern Sumatera**

```
Code  Station Name          Δ°   AZ°    Phase ID          Time      Res
                                        Op      ISC       h  m  s   ISC
CMAR  Chiang Mai Arr      12.79  12     Pn      P         13 38 44.2 -2.7
      0.2nm,0.3s,baz=335,slow=16,SNR=4.4
WRA   Warramunga Arr      45.47 125     P       P         13 44 03.1 -1.0
      0.4nm,0.7s,baz=310,slow=6.4,SNR=5.2
ASAR  Alice Springs       47.10 130     P       P         13 44 14.2 -2.8
      1.1nm,1.2s,baz=308,slow=7.6,SNR=4.8
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*IDC **31** 13:41:43.9±0.4, 3.27N×95.34E, mb5.1/20, mb1 5.2/20, mb1mx5.2/21, mbtmp5.1/20, MS4.9/18, Ms1 4.9/18, ms1mx4.8/24, Error ellipse: s-maj=20.9km s-min=11.9km az=56.0*

*MOS **31** 13:41:47.2±0.9, 3.24N×95.31E, h33^{km}, mb5.7/76, MS5.3/14, Error ellipse: s-maj=8.8km s-min=4.6km az=120.6*

*BJI **31** 13:41:47.0, 3.29N×95.31E, h28^{km}, mB5.9, mb5.4, Ms5.5, Msz5.4*

*NEIC **31** 13:41:48.8±2.3, 3.17N×95.27E, h33^{km}±15^{km}, mb5.4/86, MS5.1/8, Error ellipse: s-maj=6.0km s-min=3.9km az=46.0*

*HRVD **31** 13:41:48.8±0.2, 3.12N×95.17E, h12^{km}, MW5.3/61, Centroid moment Tensor Solution. LP body waves: s35,c65;Mantle waves: s61,c128; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M_{rr}1.18±.02; $M_{\theta\theta}$-0.91±.02; $M_{\phi\phi}$-0.27±.03; $M_{r\theta}$-0.23±.07; $M_{\theta\phi}$0.45±.02; $M_{\phi r}$-0.04±.07; Best double couple: $M_0 1.18\times10^{17}$ NP1: ϕ_s124°,δ41°,λ100°. NP2:ϕ_s291°,δ50°,λ81°. Principal axes: T 1.21, Plg82°, Azm152°; N -.06, Plg7°, Azm296°; P -1.16, Plg5°, Azm27°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 31 13:41:46.0±0.2**, 3.17N**±0.03×**95.30E**±0.03**, h26**^{km}**, h26**^{km}±1.6^{km}**:pP-P, n440, σ0^{s}92**/412**, mb5.5**/148**, MS5.2**/52**, 55C-20D, Off west coast of northern Sumatera**

```
Code  Station Name          Δ°   AZ°    Phase ID          Time      Res
                                        Op      ISC       h  m  s   ISC
SNG   Songkhla             6.63  53     P       Pn        13 43 23.5 -0.9
      600nm,1.0s
NST   Nakhon Sawan        13.31  21     P       P         13 44 53.0 -3.0
      60nm,1.2s
KKTK  Khon Kaen           15.03  29     P       P         13 45 20.0 +1.3
      3µm,0.9s
UBT   Ubonrachathani      15.36  38     P       P         13 45 28.0 +5.1
CM31  Chiang Mai Arr      15.61  13    eP       P         13 45 27.7 +1.5
CMAR  Chiang Mai Arr      15.61  13     Pn      P         13 45 26.9 +0.6
      4.2nm,0.3s,baz=206,slow=12,SNR=89
CMAR                                    LR      LR        13 51 56.5
      comp=Z,7µm,19.8s,baz=195,slow=40
NANT  Nan                 16.41  18 ⇑P          P         13 45 35.0 -1.4
      225nm,1.0s
MDRS  Chennai             17.84 304    eP       P         13 45 54.1 -0.3
MDRS                                   e                  13 46 01.5
      comp=Z,226nm,1.7s
VIS   Vishakhapatnam      18.63 322⇑iP          P         13 46 02.7 -1.3
VIS                                    e                  13 46 07.2
      comp=Z,222nm,1.4s
VIS                                    e        S         13 49 13.5  -14
TRD   Trivandrum          18.99 287    e        P         13 46 13.5 +5.0
      comp=Z,201nm,1.3s
BWNR  Bhubaneshwar        19.38 332    e        P         13 46 07.5 -5.4
      comp=Z,230nm,1.2s
BWNR                                   e                  13 49 30.5
AGT   Agartala            20.96 350⇑iP          P         13 46 29.0 -0.7
AGT                                    i                  13 47 40.0
QIZ   Qiongzhong          21.23  41     P       P         13 46 33.5 +1.0
QIZ                                     S       S         13 50 22.5 +0.3
QIZ                                     LR      LR
      comp=N,10µm,19.2s,MS5.3
QIZ                                     LR      LR
      comp=E,9µm,19.8s,MS5.3
QIZ                                     LR      LR
      comp=Z,8µm,19.0s,MS5.1
QIZ   Qiongzhong          21.23  41    eP       P         13 46 33.3 +0.9
      comp=Z,117nm,1.2s,mb5.1
IMP   Imphal              21.53 357    eP       P         13 46 32.4 -3.0
HYB   Hyderabad           21.69 312⇑eP          P         13 46 37.0 -0.1
HYB                                     pmax    pmax
      comp=Z,700nm,1.4s,mb5.9
HYB   Hyderabad           21.69 312⇑eP          P         13 46 37.0 -0.1
      comp=Z,700nm,1.4s,mb5.9
HYB   Hyderabad           21.69 312⇑iP          P         13 46 37.0 -0.1
      comp=Z,700nm,1.4s,mb5.9
HYB                                    eS       S         13 50 48.0  +17
BOK   Bokaro              22.43 337⇑eP          P         13 46 44.2 -0.2
BOK                                    e                  13 46 46.1
      comp=Z,234nm,1.3s
MNGI  Mangalore           22.46 297    i P      P         13 46 46.3 +1.5
MNGI                                   eS       S         13 50 53.7 +8.8
      comp=Z,548nm,1.4s
SHL   Shillong            22.51 352    eP       P         13 46 44.0 -1.3
      comp=Z,170nm,1.0s,mb5.4
SHL                                    e        S         13 50 47.0 +1.1
MNCY  Minicoy             22.72 284⇓i           P         13 46 41.0 -6.5
MNCY                                   i                  13 48 07.0
BLSP  Bilaspur            22.77 327⇑iP          P         13 46 48.4 +0.5
BLSP                                   e                  13 46 52.2
      comp=Z,545nm,1.6s
BLSP                                   eS       S         13 50 59.0 +8.4
KMI   Kunming             22.98  18     P       P         13 46 51.0 +1.1
KMI                                     S       S         13 50 57.5 +3.3
KMI                                     AMB     AMB
      comp=Z,158nm,0.9s,mb5.4
KMI                                     LR      LR
      comp=N,15µm,13.6s,MS5.6
KMI                                     LR      LR
      comp=E,7µm,14.7s,MS5.6
KMI                                     LR      LR
      comp=Z,17µm,13.6s,MS5.7
BATP  Bataraza            23.06  75    eP       P         13 46 50.6 -0.2
NGP   Nagpur              23.86 320⇑eP          P         13 47 00.7 +2.2
      comp=Z,82nm,0.8s,mb5.2
NGP                                    eS       S         13 51 16.3 +6.5
GOA   Goa                 24.44 301⇑e                     13 47 12.1
KAD   Karad               25.04 306    eP       P         13 47 11.0 +1.1
KAD                                    e        pP        13 47 16.8 -0.6
      comp=Z,294nm,1.5s
DGAR  Diego Garcia        25.10 245    eP       P         13 47 09.1 -1.4
DGAR                                    pmax    pmax
      comp=Z,549nm,1.5s,mb5.9
DGAR  Diego Garcia        25.10 245    eP       P         13 47 09.1 -1.4
      comp=Z,549nm,1.5s,mb5.9
GYA   Guiyang             25.60  24⇑iP          P         13 47 15.0 -0.1
GYA                                     AP      pP        13 47 24.0 +1.4
GYA                                     XP      sP        13 47 28.5 +2.5
GYA                                     PP      PP        13 47 58.5 +3.6
GYA                                     S       S         13 51 45.5 +6.6
GYA                                     AMB     AMB
      comp=Z,100nm,1.1s,mb5.3
GYA                                     AMB     AMB
      comp=Z,780nm,8.7s
GYA                                     LR      LR
      comp=N,6µm,16.5s,MS5.3
GYA                                     LR      LR
      comp=E,5µm,15.9s,MS5.3
GYA                                     LR      LR
      comp=Z,7µm,16.2s,MS5.3
POO   Poona               25.96 308⇑eP          P         13 47 18.9 +0.4
POO                                    e        pP        13 47 24.9 -1.2
      comp=Z,228nm,1.5s
PKI   Pulchoki            26.04 340    eP       P         13 47 19.1 -0.1
      comp=Z,773nm,1.7s,mb6.0
DMN   Daman               26.18 339    eP       P         13 47 20.3 -0.2
      comp=Z,447nm,1.3s,mb5.8
GUN   Gumba               26.20 341    eP       P         13 47 20.9 +0.3
      comp=Z,1µm,1.3s,mb6.3
KKN   Kakani              26.29 340    eP       P         13 47 21.0 -0.5
      comp=Z,542nm,1.3s,mb5.9
GZH   Guangzhou           26.41  40     P       P         13 47 24.5 +1.9
GZH                                     AMB     AMB
      comp=Z,2µm,6.8s
GZH                                     LR      LR
      comp=N,6µm,18.3s,MS5.2
GZH                                     LR      LR
      comp=E,5µm,20.2s,MS5.2
GZH                                     LR      LR
      comp=Z,9µm,14.9s
BHPL  Bhopal              26.41 321⇑eP          P         13 47 22.4 -0.2
BHPL                                   e        pP        13 47 28.4 -1.7
      comp=Z,174nm,1.6s
LSA   Lhasa               26.68 352    eP       P         13 47 25.1 +0.1
LSA                                     pmax    pmax
      comp=Z,355nm,1.3s,mb5.7
LSA   Lhasa               26.68 352    eP       P         13 47 25.1 +0.1
      comp=Z,355nm,1.3s,mb5.7
GKN   Gorkha              26.71 339    eP       P         13 47 24.7 -0.6
      comp=Z,548nm,1.0s,mb6.0
KOLN  Koldanda            26.89 337    eP       P         13 47 26.9 -0.1
      comp=Z,430nm,0.9s,mb6.0
BOM   Bombay              26.98 307    eP       P         13 47 26.9 -1.0
      comp=Z,187nm,0.7s,mb5.7
BOM                                    eS       S         13 52 05.0 +3.1
SJMP  San Jose            27.17  69    eP       P         13 47 32.6 +2.9
TGY   Tagaytay City       27.54  65     P       P         13 47 32.8 -0.2
      comp=Z,83nm,0.7s,mb5.5,baz=152,slow=9.2,SNR=3.6
PAGZ  Pagadian            28.33  79    eP       P         13 47 40.9 +0.7
CD2   Chengdu             28.73  15⇑iP          P         13 47 42.8 -0.8
CD2                                     S       S         13 52 30.5 +0.7
CD2                                     SS      SS        13 53 59.5 +2.2
CD2                                     AMB     AMB
      comp=Z,140nm,1.2s,mb5.6
CD2                                     LR      LR
      comp=N,10µm,14.4s
CD2                                     LR      LR
      comp=Z,11µm,14.4s,MS5.6
TBP   Tagbilaran          29.10  76    eP       P         13 47 47.0 -0.1
LGTI  Lohaghat            29.79 333    eP       P         13 47 53.0 -0.2
PTH   Pithoragarh         29.89 333    eP       P         13 47 54.1  0.0
PTH                                    eS       S         13 52 52.8 +4.5
BUKP  Musuan              29.98  80    eP       P         13 47 56.0 +1.0
ENH   Enshi               30.12  25    eP       P         13 47 53.8 -2.3
      comp=Z,33nm,1.1s,mb5.0
MSLP  Maasin              30.15  75    eP       pP        13 48 11.5 +7.5
AJM   Ajmer               30.49 321⇑eP          P         13 47 59.5 +0.2
AJM                                    e                  13 48 03.1
      comp=Z,99nm,1.5s
NDI   New Delhi           30.66 328    eP       P         13 47 58.5 -2.4
BESP  Borongan            31.01  73    eP       P         13 48 04.6 +0.5
DDI   Dehra Dun           31.55 331    eP       P         13 48 08.4 -0.3
DDI                                    e        S         13 53 27.3  +13
WHN   Wuhan               32.65  31 ⇑P          P         13 48 18.3 +0.1
WHN                                     S       S         13 53 38.0 +6.4
WHN                                     LR      LR
      comp=N,3µm,15.6s,MS5.6
WHN                                     LR      LR
      comp=E,10µm,15.5s,MS5.6
WHN                                     LR      LR
      comp=Z,17µm,12.7s,MS5.9
XAN   Xi'an               33.24  21     P       P         13 48 22.0 -1.4
XAN                                     S       S         13 53 41.5 +0.8
XAN                                     AMB     AMB
      comp=Z,83nm,1.1s,mb5.6
XAN                                     LR      LR
      comp=N,2µm,13.3s,MS5.3
XAN                                     LR      LR
      comp=E,4µm,15.1s,MS5.3
XAN                                     LR      LR
      comp=Z,7µm,15.1s,MS5.5
BHK   Bhakra              33.26 330    e        P         13 48 27.1 +3.5
LZH   Lanzhou             33.70  13 ⇑P          P         13 48 26.0 -1.3
LZH                                     AP      pP        13 48 33.3 -1.7
LZH                                     XP      sP        13 48 38.3  0.0
LZH                                     PP      PP        13 49 39.0 -1.4
LZH                                    eS       S         13 53 47.0 -0.8
LZH                                     XS                13 54 02.3
LZH                                     SS      SS        13 55 51.0 -2.5
LZH                                     AMB     AMB
      comp=Z,80nm,1.2s,mb5.5
LZH                                     AMB     AMB
      comp=Z,460nm,4.5s
LZH                                     LR      LR
      comp=E,4µm,13.4s
LZH                                     LR      LR
      comp=Z,5µm,15.0s,MS5.3
MBWA  Marble Bar          34.02 136    eP       P         13 48 29.6 -0.7
      comp=Z,82nm,1.4s,mb5.5
THN   Thein Dam           34.43 330    eP       P         13 48 32.0 -1.7
      comp=Z,36nm,1.0s,mb5.3
NJ2   Nanjing             36.27  35    eP       P         13 48 50.0 +0.7
NJ2                                     AP      pP        13 48 58.0 +1.0
NJ2                                     XP      sP        13 49 02.3 +2.0
NJ2                                     PP      PP        13 50 12.0 -0.6
NJ2                                     S       S         13 54 30.0 +2.4
NJ2                                     XS                13 54 46.0
NJ2                                     AMB     AMB
      comp=Z,230nm,0.5s,mb6.4
NJ2                                     AMB     AMB
      comp=Z,130nm,4.8s
NJ2                                     LR      LR
      comp=N,2µm,18.7s,MS5.1
NJ2                                     LR      LR
      comp=E,2µm,15.5s,MS5.1
NJ2                                     LR      LR
      comp=Z,2µm,14.1s,MS5.0
GTA   Gaotai              36.31   6     P       P         13 48 49.0 -0.6
GTA                                     SCS     ScS       13 59 06.3 +3.8
GTA                                     AMB     AMB
      comp=Z,43nm,1.3s,mb5.2
GTA                                     AMB     AMB
      comp=Z,798nm,10.3s
GTA                                     LR      LR
      comp=N,3µm,16.4s,MS5.2
GTA                                     LR      LR
      comp=E,2µm,15.7s,MS5.2
GTA                                     LR      LR
      comp=Z,4µm,14.9s,MS5.3
FITZ  Fitzroy Crossi      36.61 126    eP       P         13 48 51.4 -0.9
      comp=Z,28nm,1.0s,mb5.0
FITZ                                   e                  13 48 54.7
SSE   Sheshan             36.98  39     P       P         13 48 55.8 +0.5
SSE                                     AP      pP        13 49 04.3 +1.2
SSE                                     XP      sP        13 49 09.5 +3.2
SSE                                     S       S         13 54 39.0 +0.4
SSE                                     XS                13 54 54.5
SSE                                     AMB     AMB
      comp=Z,47nm,1.2s,mb5.2
SSE                                     AMB     AMB
      comp=Z,337nm,3.7s
SSE                                     LR      LR
      comp=N,815nm,18.9s,MS5.0
SSE                                     LR      LR
      comp=E,2µm,18.9s,MS5.0
SSE                                     LR      LR
      comp=Z,3µm,19.9s,MS5.0
TIA   Tai'an              38.56  29 ⇓P          P         13 49 09.0 +0.4
TIA                                     AMB     AMB
      comp=Z,71nm,1.7s,mb5.1
JOW   Kunigami            39.37  50     LR      LR        14 04 59.9
      comp=Z,737nm,20.0s,MS4.5,baz=276,slow=36
BTO   Baotou              39.57  18    eP       P         13 49 16.8 -0.1
BTO                                     S       S         13 55 18.3 +0.6
BTO                                     AMB     AMB
      comp=Z,69nm,1.6s,mb5.1
BTO                                     LR      LR
      comp=N,2µm,12.7s,MS5.6
BTO                                     LR      LR
      comp=E,5µm,12.9s,MS5.6
KAKA  Kakadu              40.12 114    eP       P         13 49 20.5 -1.2
      comp=E,107nm,1.5s,mb5.3
MUN   Mundaring           40.20 152    eP       P         13 49 23.2 +1.0
      comp=E,18nm,0.5s,mb5.0
MUN   Mundaring           40.20 152    eP       P         13 49 23.2 +1.0
MUN                                     pmax    pmax
      comp=Z,18nm,0.5s,mb5.1
KSH   Kashi               40.21 337    i P      P         13 49 23.3 +1.1
KSH                                     AP      pP        13 49 31.5 +1.5
KSH                                     XP      sP        13 49 35.5 +2.3
KSH                                     PP      PP        13 50 59.0 +0.6
KSH                                     PPP     PPP       13 51 25.0  0.0
KSH                                     PCP     PcP       13 51 28.5 +1.9
KSH                                     SCP               13 55 12.8
KSH                                     PCS               13 55 17.5
KSH                                     S       S         13 55 29.5 +2.1
KSH                                     XS                13 55 40.3
KSH                                     SS      SS        13 58 18.3 -1.8
KSH                                     SCS     ScS       13 59 25.5 +0.6
KSH                                     AMB     AMB
      comp=Z,2µm,5.8s
KSH                                     LR      LR
      comp=N,1µm,11.0s
KSH                                     LR      LR
      comp=E,3µm,9.9s
HHC   Hu-ho-hao-te        40.28  19⇑iP          P         13 49 23.0 +0.3
HHC                                     AP      pP        13 49 32.5 +2.0
HHC                                     XP      sP        13 49 37.0 +3.3
HHC                                     PP      PP        13 50 56.8 -2.2
HHC                                     SCS     ScS       13 59 28.3 +3.1
HHC                                     AMB     AMB
      comp=Z,155nm,1.3s,mb5.6
HHC                                     AMB     AMB
      comp=Z,2µm,6.8s
HHC                                     LR      LR
      comp=N,12µm,14.3s,MS5.9
HHC                                     LR      LR
      comp=E,4µm,14.3s,MS5.9
HHC                                     LR      LR
      comp=Z,11µm,14.3s,MS5.8
KLBR  Kellerberrin        40.63 150    eP       P         13 49 26.4 +0.7
      comp=Z,72nm,1.3s,mb5.2
WMQ   Urumqi              41.04 352 ⇑P          P         13 49 29.3 +0.4
WMQ                                     AP      pP        13 49 39.3 +2.6
WMQ                                     XP      sP        13 49 43.5 +3.6
WMQ                                     PP      PP        13 51 07.5 +0.9
WMQ                                     PPP     PPP       13 51 36.8 +0.3
WMQ                                     S       S         13 55 39.3 -0.3
WMQ                                     AMB     AMB
      comp=Z,108nm,1.5s,mb5.3
WMQ                                     AMB     AMB
      comp=Z,1µm,10.5s
WMQ                                     LR      LR
      comp=N,2µm,22.3s,MS4.9
WMQ                                     LR      LR
      comp=E,920nm,20.4s,MS4.9
WMQ                                     LR      LR
      comp=Z,1µm,20.4s,MS4.8
BJT   Baijiatuau          41.27  25    eP       P         13 49 32.1 +1.3
BJT                                     pmax    pmax
      comp=Z,112nm,0.8s
BJT   Baijiatuau          41.27  25    eP       P         13 49 32.1 +1.2
      comp=Z,112nm,0.8s,mb5.5
BJI   Beijing             41.29  24    eP       P         13 49 32.3 +1.3
BJI                                     S       S         13 55 43.5 +0.2
BJI                                     AMB     AMB
      comp=Z,132nm,1.2s,mb5.4
BJI                                     LR      LR
      comp=N,3µm,17.3s,MS5.3
BJI                                     LR      LR
      comp=E,2µm,16.1s,MS5.3
BJI                                     LR      LR
      comp=Z,2µm,27.6s
NWAO  Narrogin (SRO)      41.47 152    eP       P         13 49 33.1 +0.5
NWAO                                    pmax    pmax
      comp=Z,72nm,1.4s
NWAO  Narrogin (SRO)      41.47 152     P       P         13 49 33.7 +1.1
      comp=Z,30nm,1.0s,baz=321,slow=7.7,SNR=15
NWAO                                    LR      LR        14 06 47.9
      comp=Z,6.8nm,20.7s,baz=153,slow=36
NWAO  Narrogin (SRO)      41.47 152    eP       P         13 49 33.1 +0.5
      comp=Z,72nm,1.4s,mb5.1
ULHL  Ulahol              42.48 339     P       P         13 49 41.5 +0.7
      SNR=31
KMBL  Kambalda            42.66 146    eP       P         13 49 43.3 +0.9
      comp=Z,140nm,1.1s,mb5.6
DL2   Dalian              42.90  31     P       P         13 49 45.3 +1.0
DL2                                    eS       S         13 56 14.0 +6.9
DL2                                     AMB     AMB
      comp=Z,90nm,1.1s,mb5.4
DL2                                     AMB     AMB
      comp=Z,410nm,6.9s
DL2                                     LR      LR
      comp=N,1µm,15.9s,MS5.2
DL2                                     LR      LR
      comp=E,2µm,15.3s,MS5.2
DL2                                     LR      LR
      comp=Z,2µm,17.3s,MS5.0
UCH   Uchtor              43.11 337     P       P         13 49 47.1 +1.2
      SNR=71
TKM2  Tokmak 2            43.30 339     P       P         13 49 48.2 +0.7
      SNR=54
KBK   Karagaybulak        43.31 338     P       P         13 49 48.9 +1.3
      SNR=84
AML   Almayashu           43.34 336     P       P         13 49 49.2 +1.3
      SNR=94
AAK   Ala-Archa           43.46 338     P       P         13 49 49.8 +1.0
      SNR=32
AAK   Ala-Archa           43.46 338c iP         P         13 49 49.1 +0.3
AAK   Ala-Archa           43.46 338    eP       P         13 49 48.4 -0.4
      comp=Z,115nm,1.4s,mb5.4
AAK                                     LR      LR
      comp=Z,608nm,19.0s,MS4.5
FRU   Bishkek             43.59 338⇑eP          P         13 49 50.0 +0.2
FRU                                    e                  13 50 03.0
FRU                                     pmax    pmax
      comp=Z,240nm,2.0s,mb5.6
CHMS  Chumysh             43.68 338     P       P         13 49 50.9 +0.4
      SNR=26
EKS2  Erkin-Say           43.76 337     P       P         13 49 52.1 +0.9
      SNR=56
USP   Ospenovka           44.00 338     P       P         13 49 53.6 +0.5
      SNR=102
INCN  Inchon              44.63  36    eP       P         13 49 58.2 -0.1
WRA   Warramunga Arr      44.69 123     P       P         13 49 58.2 -0.8
      comp=Z,34nm,0.9s,mb5.2,baz=301,slow=9.0,SNR=83
WRAB  Tennant Creek       44.69 123    eP       P         13 49 58.5 -0.5
WRAB                                    pmax    pmax
      comp=Z,110nm,1.1s,mb5.6
WRAB  Tennant Creek       44.69 123    eP       P         13 49 58.5 -0.5
      comp=Z,110nm,1.1s,mb5.6
WB2   Warramunga Arr      44.70 123⇑iP          P         13 49 58.8 -0.3
WB2                                    e                  13 50 01.9
MK02  Makanchi Array      44.88 347     P       P         13 50 00.4 +0.2
MK02                                    pmax    pmax
      comp=Z,139nm,1.2s,mb5.7
KS15  Wonju Array Si      45.34  37    eP       P         13 50 04.2 +0.2
SONM  Songino Array       45.52  10     P       P         13 50 05.1 -0.1
      comp=Z,39nm,0.9s,mb5.3,baz=192,slow=8.9,SNR=166
SONM                                    PcP     PcP       13 51 45.0 +0.8
      comp=Z,6.8nm,0.7s,baz=197,slow=3.1,SNR=6.7
SONM                                    LR      LR        14 11 10.8
      comp=Z,4µm,18.9s,MS5.4,baz=198,slow=39
ULN   Ulaanbaatar         45.67  11    eP       P         13 50 06.1 -0.3
ULN                                    e                  13 51 44.5
ULN                                     pmax    pmax
      comp=Z,35nm,1.0s,mb5.2
ULN                                     MLR     MLR
      comp=Z,4µm,19.0s,MS5.4
ULN   Ulaanbaatar         45.67  11    eP       P         13 50 06.0 -0.4
      comp=Z,35nm,1.0s,mb5.2
ULN                                    ePcP     PcP       13 51 44.5 -0.3
ULN                                     LR      LR
      comp=Z,4µm,19.0s,MS5.4
SNY   Shenyang            46.08  29 ⇑P          P         13 50 09.5 -0.3
SNY                                     AMB     AMB
      comp=Z,80nm,1.1s,mb5.6
SNY                                     LR      LR
      comp=N,4µm,18.5s
SNY                                     LR      LR
      comp=Z,3µm,16.6s,MS5.4
ASPA  Alice Springs       46.09 127⇑iP          P         13 50 09.9 -0.2
ASAR  Alice Springs       46.09 127     P       P         13 50 09.8 -0.2
      comp=Z,18nm,1.0s,mb5.0,baz=303,slow=7.3,SNR=53
ASAR                                    PcP     PcP       13 51 46.9 +0.3
      comp=Z,8.4nm,0.8s,baz=299,slow=3.3,SNR=8.8
ZAK   Zakamensk           47.53   7⇑iP          P         13 50 21.0 -0.1
CN2   Changchun           48.47  29    eP       P         13 50 28.0 -0.5
CN2                                    eXP      sP        13 50 44.0 +4.5
CN2                                     PCP     PcP       13 51 54.3 -0.5
CN2                                     PP      PP        13 52 20.3 -0.6
CN2                                     SS      SS        14 00 52.0 +0.2
CN2                                     AMB     AMB
      comp=Z,50nm,1.0s,mb5.5
CN2                                     AMB     AMB
      comp=Z,1µm,4.0s
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CN2                               LR     LR
      comp=N,2µm,16.0s,MS5.4
CN2                               LR     LR
      comp=E,3µm,16.0s,MS5.4
CN2                               LR     LR
      comp=Z,2µm,19.0s,MS5.2
MOY   Mondy            48.57   5 eP     P       13 50 29.4 +0.3
TLY   Talaya           48.85   7  P     P       13 50 32.2 +0.9
      comp=Z,169nm,0.9s,mb6.1,SNR=8.0
TLY   Talaya           48.85   7 eP     P       13 50 31.2 -0.1
TLY                               pmax   pmax
      comp=Z,28nm,1.0s,mb5.2
TLY                               MLR    MLR
      comp=Z,3µm,18.0s,MS5.3
TLY   Talaya           48.85   7 eP     P       13 50 31.7 +0.4
      comp=Z,24nm,0.9s,mb5.2
IRK   Irkutsk          49.48   7 eP     P       13 50 35.7 -0.5
IRK                              e              13 52 26.9
HIA   Hailar           50.44  21 eP     P       13 50 43.6 +0.1
HIA                               pmax   pmax
      comp=Z,83nm,1.1s
HIA                               MLR    MLR
      comp=Z,3µm,19.0s
HIA   Hailar           50.44  21 eP     P       13 50 43.6  0.0
      comp=Z,83nm,1.1s,mb5.7
HIA                               LR     LR
      comp=Z,3µm,19.0s,MS5.3
MDJ   Mudanjiang       51.13  31  P     P       13 50 49.5 +0.7
MDJ                               AP     pP     13 50 58.5 +1.7
MDJ                               XP     sP     13 51 02.0 +2.2
MDJ                               PCP    PcP    13 52 03.8 -0.6
MDJ                               PP     PP     13 52 46.5 +0.1
MDJ                               SCP           13 55 58.0
MDJ                               PCS           13 56 01.0
MDJ                               S      S      13 58 06.5 +2.8
MDJ                               XS            13 58 22.5
MDJ                               SCS    ScS    14 00 37.5 +3.0
MDJ                               AMB    AMB
      comp=Z,47nm,1.6s,mb5.2
MDJ                               AMB    AMB
      comp=Z,725nm,4.9s
MDJ                               LR     LR
      comp=N,3µm,15.1s,MS5.6
MDJ                               LR     LR
      comp=E,2µm,14.2s,MS5.6
MDJ                               LR     LR
      comp=Z,3µm,12.4s,MS5.5
MDJ   Mudanjiang       51.13  31 eP     P       13 50 49.7 +0.8
      comp=Z,45nm,1.1s,mb5.3
ZAL   Zalesovo         51.34 352 i P    P       13 50 50.4 +0.1
ZAL   Zalesovo         51.34 352  P     P       13 50 50.4 +0.1
      comp=Z,38nm,0.8s,mb5.4,baz=299,slow=6.9,SNR=114
VLA   Vladivostok      51.36  34 i P    P       13 50 51.0 +0.3
VLA                              e              13 51 10.0
VLA                               MLR    MLR
      comp=E,4µm,14.0s,MS5.6
VLA                               MLR    MLR
      comp=Z,6µm,14.0s,MS5.8
VLA                               MLR    MLR
      comp=N,2µm,15.0s,MS5.6
MAJO  Matsushiro       51.57  44 eP     P       13 50 52.0 -0.3
MAJO                              pmax   pmax
      comp=Z,24nm,0.9s,mb5.1
MAJO  Matsushiro       51.57  44 eP     P       13 50 52.0 -0.3
      comp=Z,24nm,0.9s,mb5.1
MAT   Matsushiro       51.57  44  P     P       13 50 48.4 -3.9
MAT                               S      S      13 58 10.8 +0.8
MAT   Matsushiro       51.57  44 eP     P       13 50 48.0 -4.3
MAT                               MLR    MLR
      comp=Z,2µm,20.0s,MS5.1
QRN   Al-Qurain        51.69 305 eP     P       13 50 53.3  0.0
QRN                               AMb    AMB    13 50 57.7
      comp=Z,385nm,0.9s,mb6.3
RDF   Al-Radifah       52.05 305 eP     P       13 50 56.6 +0.6
RDF                               AMb    AMB    13 51 01.2
      comp=Z,561nm,1.1s,mb6.4
NVS   Novosibirsk      52.44 351 i P    P       13 50 56.7 -1.9
NVS                              e              13 52 08.0
NVS                              i S    S       13 58 23.2 +1.6
NVS                               pmax   pmax
      comp=Z,159nm,1.8s,mb5.7
NVS                               pmax   pmax
      comp=E,630nm,1.7s
NVS                               pmax   pmax
      comp=N,170nm,1.9s
NVS                               smax
      comp=N,89nm,1.6s
NVS                               smax
      comp=E,123nm,1.6s
RST   Umm Al-Ruwaisa   52.70 305 eP     P       13 51 00.8 -0.1
RST                               AMb    AMB    13 51 05.5
      comp=Z,339nm,1.0s,mb6.2
PMG   Port Moresby     53.16 104 i P    P       13 51 03.6 -0.9
PMG   Port Moresby     53.16 104 eP     P       13 51 04.0 -0.5
      comp=Z,54nm,0.8s,mb5.5
PMG                               LR     LR
      comp=Z,2µm,21.0s,MS5.0
BVA0  Borovoye Array   53.79 342 i P    P       13 51 07.7 -0.9
BVA0                              pmax   pmax
      comp=Z,6.0nm,1.1s,mb4.4
BVAR  Borovoye Array   53.79 342  P     P       13 51 07.6 -1.0
      comp=Z,15nm,0.7s,mb5.0,baz=143,slow=7.4,SNR=76
BRVK  Borovoye         53.85 342 eP     P       13 51 07.9 -1.1
BRVK                              pmax   pmax
      comp=Z,89nm,1.4s,mb5.5
BRVK  Borovoye         53.85 342 eP     P       13 51 07.9 -1.2
      comp=Z,89nm,1.4s,mb5.5
CHKZ  Chkalovo         54.28 342 i P    P       13 51 11.6 -0.5
CHKZ                              pmax   pmax
      comp=Z,182nm,1.8s,mb5.7
CHKZ  Chkalovo         54.28 342 eP     P       13 51 11.4 -0.7
      comp=Z,178nm,1.4s,mb5.8
CTA   Charters Tower   55.08 117 eP     P       13 51 17.9 -0.6
      comp=Z,57nm,1.0s,mb5.6
CTA   Charters Tower   55.08 117 eP     P       13 51 17.9 -0.6
CTA                               pmax   pmax
      comp=Z,57nm,1.0s
CTAO  Charters Tower   55.08 117 eP     P       13 51 18.5  0.0
CTAO                              pmax   pmax
      comp=Z,121nm,1.1s,mb5.8
CTAO                              MLR    MLR
      comp=Z,2µm,19.0s,MS5.2
CTAO  Charters Tower   55.08 117 eP     P       13 51 18.5 -0.1
      comp=Z,121nm,1.1s,mb5.8
CTAO                              LR     LR
      comp=Z,2µm,19.0s,MS5.2
KLR   Kul'dur          55.39  28κiP     P       13 51 18.0 -2.4
KLR                              eS     S       13 59 05.0 +3.5
KLR                               pmax   pmax
      comp=E,110nm,1.8s
KLR                               pmax   pmax
      comp=Z,170nm,1.8s,mb5.8
KLR                               smax
      comp=N,540nm,4.0s
KLR                               smax
      comp=E,370nm,4.0s
STKA  Stephens Creek   56.08 132⇑iP     P       13 51 24.6 -0.9
      comp=E,17nm,1.4s,mb4.9
STKA  Stephens Creek   56.08 132  P     P       13 51 25.0 -0.6
      comp=E,21nm,1.1s,mb5.1,baz=306,slow=7.6,SNR=14
STKA                              LR     LR     14 19 48.9
      comp=E,1µm,18.1s,MS5.0,baz=298,slow=41
BOD   Bodaibo          56.46  12 eP     P       13 51 26.4 -1.6
KMBO  Kilima Mbogo     58.18 267 eP     P       13 51 40.9 +0.2
KMBO                              pmax   pmax
      comp=Z,41nm,1.1s
KMBO  Kilima Mbogo     58.18 267  P     P       13 51 41.4 +0.8
      comp=Z,26nm,0.9s,mb5.2,baz=62,slow=9.1,SNR=21
KMBO                              LR     LR     14 13 12.1
      comp=Z,714nm,18.9s,MS4.8,baz=282,slow=32
KMBO  Kilima Mbogo     58.18 267 eP     P       13 51 40.9 +0.2
      comp=Z,41nm,1.1s,mb5.4
ASAJ  Asahikawa        58.28  38  LR     LR     14 17 32.3
      comp=Z,2µm,19.7s,MS5.2,baz=179,slow=37
GNI   Garni            58.57 316⇓iP     P       13 51 43.2 +0.2
GNI   Garni            58.57 316  LR     LR     14 16 06.8
      comp=Z,512nm,20.4s,MS4.6,baz=88,slow=35
GNI   Garni            58.57 316 eP     P       13 51 42.5 -0.5
      comp=Z,100nm,1.3s,mb5.7
TI2   Plekhanov        59.25 318⇑iP     P       13 51 47.4 -0.4
TI2                               pmax   pmax
      comp=Z,80nm,1.0s,mb5.7
YSS   Yuzh-Sakhalins   59.84  36⇑iP     P       13 51 51.5 -0.2
YSS                               pmax   pmax
      comp=Z,60nm,1.2s,mb5.5
YSS                               MLR    MLR
      comp=Z,2µm,18.0s,MS5.3
YSS                               MLR    MLR
      comp=N,2µm,19.0s,MS5.3
YSS                               MLR    MLR
      comp=E,1µm,16.0s,MS5.3
YSS   Yuzh-Sakhalins   59.84  36 eP     P       13 51 51.2 -0.6
      comp=E,93nm,1.2s,mb5.7
SVE   Sverdlovsk       60.17 339⇑eP     P       13 51 53.0 -0.9
SVE                              e              13 52 44.0
SVE                              eS     S       14 00 00.0 -4.1
SVE                               pmax   pmax
      comp=Z,290nm,2.0s,mb6.0
SVE                               MLR    MLR
      comp=Z,2µm,17.0s,MS5.4
ZEI   Tsey             60.27 318 eP     P       13 51 54.4 -0.4
ZEI                              i              13 54 07.5
ZEI                               pmax   pmax
      comp=Z,34nm,0.9s,mb5.4
ARU   Arti             60.65 338⇓iP     P       13 51 54.3 -2.8
ARU                              eS     S       14 00 09.5 -0.6
ARU                              eSS    SS      14 04 09.7 -0.3
ARU                               pmax   pmax
      comp=Z,94nm,1.1s,mb5.8
ARU   Arti             60.65 338 eP     P       13 51 55.5 -1.6
      comp=Z,184nm,1.4s,mb6.0
ERZM  Erzurum          60.84 315 i P    P       13 51 58.5 -0.1
KIV   Kislovodsk       61.59 319  P     P       13 52 02.0 -1.7
      comp=Z,322nm,0.9s,mb6.5,SNR=20
KIV   Kislovodsk       61.59 319 i P    P       13 52 02.6 -1.1
KIV                              e              13 52 43.4
KIV                              e              13 54 20.8
KIV                               pmax   pmax
      comp=Z,45nm,1.3s,mb5.4
KIV   Kislovodsk       61.59 319 eP     P       13 52 02.4 -1.2
      comp=Z,55nm,1.0s,mb5.6
KIV                               LR     LR
      comp=Z,165nm,20.0s,MS4.2
TOO   Toolangi         61.67 136 eP     P       13 52 05.1 +0.8
      comp=Z,11nm,1.0s,mb5.0
TOO   Toolangi         61.67 136 eP     P       13 52 05.1 +0.8
TOO                               pmax   pmax
      comp=Z,11nm,1.0s,mb4.9
ASF   Jabal al Asfar   61.79 305  LR     LR     14 19 37.2
      comp=Z,775nm,18.0s,MS4.9,baz=149,slow=37
GOF   Gofitskoye       61.85 321 eP     P       13 52 04.0 -1.4
GOF                              eS     S       14 00 34.0 +8.5
GOF                               pmax   pmax
      comp=Z,50nm,1.6s,mb5.4
ELZG  Elazig           62.06 312 i P    P       13 52 06.8 -0.2
MALT  Malatya          62.41 312 eP     P       13 52 08.7 -0.6
MALT                              pmax   pmax
      comp=Z,86nm,1.4s,mb5.7
MALT  Malatya          62.41 312 eP     P       13 52 08.7 -0.5
      comp=Z,86nm,1.4s,mb5.7
MKRJ  Makawir          62.66 304  P     P       13 52 11.5 +0.4
GZT   Gaziantep        62.75 311 i P    P       13 52 11.8 +0.3
EIL   Elat             62.81 302  P     P       13 52 12.3 +0.3
EIL   Elat             62.81 302 eP     P       13 52 11.7 -0.4
      comp=Z,49nm,0.9s,mb5.6
ZFRI  Zfri             62.81 303  P     P       13 52 12.4 +0.3
MZDA  Masada           62.84 304  P     P       13 52 12.6 +0.4
MBH   Mount Berech     62.87 302  P     P       13 52 12.9 +0.5
DRGI  Dragot           62.88 304  P     P       13 52 12.9 +0.4
KSHT  Keshet           62.88 306  P     P       13 52 13.3 +0.9
PRNI  Paran            62.91 303  P     P       13 52 13.2 +0.5
HMDT  Nahal Hemdat     62.93 305  P     P       13 52 13.2 +0.4
GLH   Golan-Tel Qazi   62.94 305  P     P       13 52 13.7 +0.8
MMLI  Mount Malkishu   63.06 305  P     P       13 52 14.4 +0.8
KMTI  Karmit           63.10 302  P     P       13 52 14.2 +0.3
SLTI  Sal'it           63.33 305  P     P       13 52 15.9 +0.5
SOC   Sochi            63.40 318 i P    P       13 52 13.4 -2.3
SOC                              e              13 52 50.1
SOC                              e              13 54 38.6
SOC                              ePPP   PPP     13 56 03.2 -5.0
SOC                              eS     S       14 00 43.5 -1.5
SOC                              eSS    SS      14 04 48.1 -5.7
SOC                               pmax   pmax
      comp=Z,75nm,1.3s,mb5.7
SOC                               pmax   pmax
      comp=N,16nm,1.2s
SOC                               pmax   pmax
      comp=E,23nm,1.1s
HNTI  Hanita           63.42 306  P     P       13 52 16.8 +0.8
OFRI  'Ofer            63.46 305  P     P       13 52 16.8 +0.5
HAF   Haifa            63.47 305  P     P       13 52 16.8 +0.5
COBT  Iskenderun       63.49 309 i P    P       13 52 16.7 +0.2
KZIT  Kziot            63.55 303  P     P       13 52 17.2 +0.2
SOKR  Solikamsk        63.58 339⇑iP     P       13 52 14.4 -2.2
SOKR                              pmax   pmax
      comp=Z,90nm,1.1s,mb5.7
SOKR                              MLR    MLR
      comp=Z,1µm,21.0s,MS5.1
YAK   Yakutsk          64.09  17c iP    P       13 52 18.9 -1.1
YAK                              e              13 54 47.4
YAK                              eS     S       14 00 53.6 +0.2
YAK                              e*SS           14 01 19.4
YAK                              eSS    SS      14 05 02.7 -1.4
YAK                               pmax   pmax
      comp=Z,101nm,1.1s,mb5.8
YAK                               pmax   pmax
      comp=N,44nm,1.2s
YAK                               pmax   pmax
      comp=E,36nm,1.3s
YAK                               pmax   pmax
      comp=Z,5.0nm,0.9s,mb4.5
YAK                               pmax   pmax
      comp=N,5.0nm,1.1s
YAK                               pmax   pmax
      comp=E,3.0nm,0.9s
YAK                               smax
      comp=N,9.0nm,1.2s
YAK                               smax
      comp=Z,2.0nm,0.8s
YAK                               smax
      comp=E,6.0nm,1.4s
YAK                               MLR    MLR
      comp=Z,3µm,17.0s,MS5.6
YAK                               MLR    MLR
      comp=N,2µm,18.0s,MS5.5
YAK                               MLR    MLR
      comp=E,2µm,17.0s,MS5.5
YAK   Yakutsk          64.09  17 eP     P       13 52 18.5 -1.5
      comp=E,4.5nm,0.6s,mb4.7
MBAR  Mbarara          64.64 268 eP     P       13 52 23.8 -0.6
MBAR                              pmax   pmax
      comp=Z,42nm,1.1s,mb5.4
MBAR  Mbarara          64.64 268 eP     P       13 52 23.8 -0.6
      comp=Z,42nm,1.1s,mb5.4
AVNT  Avonos           65.22 312 i P    P       13 52 27.2 -0.5
CSS   Prodhromos       65.37 307 eP     P       13 52 27.9 -0.9
      comp=Z,132nm,1.4s,mb5.8
ANN   Anapa            65.38 318 eP     P       13 52 25.2 -3.4
ANN                               pmax   pmax
      comp=Z,48nm,1.2s,mb5.4
CTKT  Corum            65.81 313 i P    P       13 52 31.3 -0.2
BOYT  Boyabat          65.97 314 i P    P       13 52 32.0 -0.4
BRTR  Keskin Array B   66.39 312  P     P       13 52 34.0 -1.2
      comp=Z,10nm,0.9s,mb4.8,baz=127,slow=6.2,SNR=57
ELDT  Eldivan          66.76 313 i P    P       13 52 36.7 -0.8
VRSR  Storozhevoye     66.87 325 eP     P       13 52 36.6 -1.4
VRSR                              pmax   pmax
      comp=N,30nm,1.1s
VRSR                              pmax   pmax
      comp=Z,60nm,1.1s,mb5.5
VRSR                              pmax   pmax
      comp=E,50nm,1.0s
SIM   Simferopol'      67.64 318ceP     P       13 52 42.1 -0.9
SIM                               pmax   pmax
      comp=Z,65nm,1.0s,mb5.6
ISP   Isparta          68.27 310 eP     P       13 52 45.2 -1.9
ISP                               pmax   pmax
      comp=Z,61nm,1.3s,mb5.5
ISP   Isparta          68.27 310 eP     P       13 52 45.2 -1.9
      comp=Z,61nm,1.3s,mb5.5
LSZ   Lusaka           68.87 252 eP     P       13 52 50.5 -0.6
LSZ                               pmax   pmax
      comp=Z,52nm,1.4s,mb5.3
LSZ   Lusaka           68.87 252 eP     P       13 52 50.5 -0.6
      comp=Z,52nm,1.4s,mb5.3
SKR   Severo-Kuril's   69.39  36 eP     P       13 52 50.9 -2.8
SKR                              e              13 53 06.4
SKR                               pmax   pmax
      comp=Z,140nm,0.8s,mb5.9
SKR                               pmax   pmax
      comp=N,220nm,1.0s
SKR                               pmax   pmax
      comp=E,180nm,1.0s
SKR                               MLR    MLR
      comp=Z,5µm,18.0s,MS5.8
MOS   Moscow           69.68 329⇑iP     P       13 52 54.6 -0.8
MOS                              e              13 53 07.6
MOS                              e              13 53 20.1
MOS                              eS     S       14 01 59.2 -1.8
MOS                               pmax   pmax
      comp=Z,298nm,1.6s,mb6.0
OBN   Obninsk          69.96 328⇑eP     P       13 52 55.9 -1.2
OBN                              e              13 55 30.6
OBN                              eS     S       14 01 54.1  -10
OBN                               pmax   pmax
      comp=Z,82nm,1.2s,mb5.5
OBN   Obninsk          69.96 328 eP     P       13 52 55.9 -1.2
CASY  Casey            70.15 174 eP     P       13 52 57.2 -0.8
MA2   Magadan          70.41  26ceP     P       13 52 59.5 -0.3
MA2                              e              13 57 10.1
MA2                              e              14 02 37.6
MA2                               pmax   pmax
      comp=Z,70nm,1.5s,mb5.4
MA2   Magadan          70.41  26 eP     P       13 52 59.6 -0.1
      comp=Z,189nm,1.5s,mb5.8
TIXI  Tiksi            71.60  11⇑iP     P       13 53 06.3 -0.5
PET   Petropavlovsk    71.69  35 eP     P       13 53 06.9 -0.7
PET                               pmax   pmax
      comp=Z,50nm,0.7s,mb5.5
PET                               MLR    MLR
      comp=Z,2µm,18.0s,MS5.3
PET   Petropavlovsk    71.69  35 eP     P       13 53 06.7 -0.9
      comp=Z,36nm,0.7s,mb5.4
PET                               LR     LR
      comp=Z,1µm,19.0s,MS5.3
APE   Apeiranthos      71.99 308 i P    P       13 53 12.9 +3.2
APE   Apeiranthos      71.99 308 i P    P       13 53 12.0 +2.3
AKASG Malin Array Be   72.55 322  P     P       13 53 11.3 -1.4
      comp=Z,20nm,0.8s,mb5.1,baz=90,slow=4.6,SNR=74
SEY   Seymchan         72.72  24 eP     P       13 53 12.4 -1.2
SEY                               SS     SS     14 07 14.8 -3.3
SEY                              eSSS   SSS     14 10 25.2 -2.6
SEY                               MLR    MLR
      comp=Z,11µm,23.0s,MS6.1
SEY                               MLR    MLR
      comp=N,2µm,16.0s
SEY                               MLR    MLR
      comp=E,4µm,23.0s
LBTB  Lobatse          73.07 243 eP     P       13 53 15.9 -0.5
LBTB                              pmax   pmax
      comp=Z,25nm,0.9s,mb5.1
LBTB  Lobatse          73.07 243 eP     P       13 53 15.9 -0.5
      comp=Z,25nm,0.9s,mb5.2
NOUC  Port Laguerre    73.69 114 eP     P       13 53 20.4 +0.4
NOUC  Port Laguerre    73.69 114 eP     P       13 53 20.4 +0.4
BOSA  Boshof           74.13 239 eP     P       13 53 22.0 -0.4
BOSA                              pmax   pmax
      comp=Z,16nm,0.9s,mb5.0
BOSA                              MLR    MLR
      comp=Z,973nm,20.0s,MS5.1
BOSA  Boshof           74.13 239 eP     P       13 53 22.0 -0.5
      comp=Z,16nm,0.9s,mb5.0
BOSA                              LR     LR
      comp=Z,973nm,20.0s,MS5.1
MAW   Mawson           74.20 192 eP     P       13 53 23.2 +1.1
MAW                               pmax   pmax
      comp=Z,27nm,1.0s
MAW   Mawson           74.20 192  P     P       13 53 23.6 +1.5
      comp=Z,16nm,0.9s,mb5.0,baz=339,slow=6.4,SNR=8.8
MAW                               LR     LR     14 23 03.3
      comp=Z,1µm,18.0s,MS5.2,baz=320,slow=33
MAW   Mawson           74.20 192 eP     P       13 53 23.2 +1.1
      comp=Z,27nm,1.0s,mb5.1
MNK   Minsk            74.47 326⇓eP     P       13 53 21.0 -2.9
MNK                               pmax   pmax
      comp=Z,480nm,1.0s,mb6.4
PUL   Pulkovo          74.87 332 eP     P       13 53 24.9 -1.2
PUL                               pmax   pmax
      comp=Z,202nm,1.7s,mb5.8
BOLS  Boljevac         75.81 314⇑iP     P       13 53 30.8 -1.0
SKO   Skopje           75.90 312 i P    P       13 53 30.5 -1.9
LVZ   Lovozero         76.35 340 eP     P       13 53 33.9 -0.4
LVZ                               pmax   pmax
      comp=Z,118nm,1.7s,mb5.5
KWP   Kalwaria         76.35 320 eP     P       13 53 35.5 +0.8
UZH   Uzhgorod         76.43 319 eP     P       13 53 36.0 +0.8
UZH                              eS     ScS     14 03 50.0 +4.4
KOLS  Kolonicke sedl   76.50 320 i P    P       13 53 36.2 +0.6
APA   Apatity          76.63 340⇑iP     P       13 53 36.2 +0.3
APA                               pmax   pmax
      comp=Z,79nm,1.2s,mb5.5
GRUS  Gruza            76.71 314⇓iP     P       13 53 36.1 -0.8
SUW   Suwalki          76.98 325 eP     P       13 53 37.8 -0.3
CRVS  Cervenica-Dubn   77.02 319 i P    P       13 53 40.5 +2.0
CRVS                             epP    pP      13 53 45.2 -1.4
FINES FINESS Array B   77.39 333  P     P       13 53 39.4 -0.9
      comp=Z,18nm,0.9s,mb5.0,baz=104,slow=7.9,SNR=19
FINES                             LR     LR     14 29 35.2
      comp=Z,623nm,21.4s,MS4.9,baz=335,slow=37
KAF   Kangasniemi      77.48 333 ep     P       13 53 39.6 -1.1
      comp=Z,31nm,1.0s,mb5.2
KAF   Kangasniemi      77.48 333 eP     P       13 53 39.6 -1.1
KAF                               pmax   pmax
      comp=Z,31nm,1.0s,mb5.2
KECS  Kecovo           77.58 319 i P    P       13 53 42.1 +0.5
PKSN  Nyarlorinc       77.75 317⇓eP     P       13 53 43.2 +0.7
NIE   Niedzica         77.85 320 eP     P       13 53 43.6 +0.6
PSZ   Piszkesteto      77.89 318⇑eP     P       13 53 43.4 +0.2
PKS2  Kecel            78.14 317 eP     P       13 53 44.2 -0.5
PKS7  Kunszentmiklos   78.25 317 eP     P       13 53 45.6 +0.3
OJC   Ojcow            78.31 321⇑iP     P       13 53 45.8 +0.3
OJC   Ojcow            78.31 321 i P    P       13 53 45.8 +0.3
PKSM  Moragy           78.49 316⇑iP     P       13 53 46.3 -0.3
VYHS  Vyhne            78.67 319 i P    P       13 53 47.8 +0.3
SRO2  Moca             78.86 318 i P    P       13 53 50.0 +1.4
RHK1  Bakonya          78.87 316⇑iP     P       13 53 48.3 -0.4
SRO   Srobarova        78.92 318 i P    P       13 53 50.1 +1.1
OKC   Ostrava-Krasne   79.30 320 eP     P       13 53 51.3 +0.3
RAC   Raciborz         79.31 320 eP     P       13 53 51.9 +0.9
KEV   Kevo             79.63 341 ep     P       13 53 51.6 -0.8
      comp=Z,30nm,1.1s,mb5.1
KEV   Kevo             79.63 341 eP     P       13 53 51.6 -0.8
KEV                               pmax   pmax
      comp=Z,30nm,1.1s,mb5.1
MORC  Moravsky Berou   79.69 320 eP     P       13 53 53.2 +0.2
MORC                              pmax   pmax
      comp=Z,77nm,1.5s,mb5.4
MORC  Moravsky Berou   79.69 320 eP     P       13 53 53.2 +0.2
      comp=Z,77nm,1.5s,mb5.4
ZST   Bratislava       79.78 318 i P    P       13 53 54.1 +0.5
ZST                              i              13 53 57.6
BILL  Bilibino         80.02  21 eP     P       13 53 53.9 -0.6
BILL                              pmax   pmax
      comp=Z,49nm,1.6s,mb5.2
BILL                              MLR    MLR
      comp=Z,3µm,14.0s,MS5.7
BILL  Bilibino         80.02  21 eP     P       13 53 53.6 -0.9
      comp=Z,77nm,1.6s,mb5.4
ARCES ARCESS Array B   80.06 340  P     P       13 53 55.1 +0.5
      comp=Z,31nm,1.0s,mb5.2,baz=100,slow=7.4,SNR=20
ARCES                             LR     LR     14 32 50.0
      comp=Z,2µm,19.0s,MS5.4,baz=197,slow=38
SGO   Sicignano        80.34 310 eP     P       13 53 56.8 +0.1
DPC   Dobruska-Polom   80.53 320 eP     P       13 53 58.2 +0.7
KSP   Ksiaz            80.61 321⇑eP     P       13 53 58.6 +0.7
KSP   Ksiaz            80.61 321 eP     P       13 53 58.8 +0.9
ARSA  Arzberg          80.74 317⇑iP     P       13 53 59.4 +0.7
      comp=Z,55nm,1.7s,mb5.2
UPC   Upice            80.75 321⇑eP     P       13 53 59.4 +0.7
BOJS  Bojanci          80.77 315 eP     P       13 53 57.7 -1.2
      comp=Z,147nm,1.3s,mb5.8
PERS  Pernice          80.96 317 eP     P       13 54 00.1 +0.2
LJU   Ljubljana        81.32 316 eP     P       13 54 02.3 +0.6
      comp=Z,414nm,1.8s,mb6.1
LJU   Ljubljana        81.32 316 eP     P       13 54 02.3 +0.5
LJU                               pmax   pmax
      comp=Z,414nm,1.8s,mb6.1
OBKA  Obir             81.34 316⇓iP     P       13 54 01.9  0.0
      comp=Z,34nm,1.4s,mb5.1
PRU   Pruhonice        81.64 320 eP     P       13 54 03.6 +0.3
PRU   Pruhonice        81.64 320⇑iP     P       13 54 03.6 +0.3
      comp=Z,82nm,1.9s,mb5.3
MOA   Molln            81.64 318⇓iP     P       13 54 02.4 -1.0
      comp=Z,31nm,1.4s,mb5.0
PVCC  Panska Ves       81.67 320⇑eP     P       13 54 04.4 +0.9
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VOY	**Vojsko**	**81.76**	**316**	*e*P	**P**	**13 53 59.6**	**-4.4**
VOY				*e*		13 54 03.9	
AQU	**L'Aquila**	**81.89**	**312**	*e*P	**P**	**13 54 05.7**	**+0.9**
BSD	**Bornholm Skovb**	**81.91**	**325**	*i* P	**P**	**13 54 05.1**	**+0.5**
BSD				pmax	pmax		
	comp=Z,32nm,1.1s,mb5.2						
BSD	**Bornholm Skovb**	**81.91**	**325**	*i* P	**P**	**13 54 05.1**	**+0.5**
	comp=Z,32nm,1.1s,mb5.2						
RPZ	**Rata Peaks**	**81.93**	**135**	LR	LR	14 32 54.2	
	comp=Z,1μm,18.6s,MS5.3,baz=221,slow=38						
GEC2	**GERESS Array S**	**82.09**	**319**	*e*P	**P**	**13 54 06.1**	**+0.4**
GEC2				pmax	pmax		
	comp=Z,110nm,1.5s,mb5.6						
GEC2	**GERESS Array S**	**82.09**	**319**	*e*P	**P**	**13 54 06.1**	**+0.4**
	comp=Z,110nm,1.5s,mb5.6						
GERES	**GERESS Array B**	**82.09**	**319**	P	**P**	**13 54 06.2**	**+0.5**
	comp=Z,20nm,1.0s,mb5.0,baz=104,slow=5.5,SNR=86						
GERES				LR	LR	14 34 27.0	
	comp=Z,546nm,20.2s,MS4.9,baz=273,slow=39						
BRG	**Berggiesshubel**	**82.09**	**321**	*i* P	**P**	**13 54 06.1**	**+0.4**
BRG				pmax	pmax		
	comp=Z,79nm,1.7s,mb5.4						
BRG	**Berggiesshubel**	**82.09**	**321**	*i* P	**P**	**13 54 06.1**	**+0.4**
	comp=Z,79nm,1.7s,mb5.4						
BRG				*e*		13 54 08.7	
PTCC	**Patocco-Chiusa**	**82.16**	**316**	*e*P	**P**	**13 54 06.2**	**+0.1**
KHC	**Kasperske Hory**	**82.19**	**319**	*e*P	**P**	**13 54 06.2**	**0.0**
KBA	**Koelnbreinsper**	**82.21**	**317**	⇓*i*P	**P**	**13 54 07.1**	**+0.8**
	comp=Z,23nm,0.9s,mb5.1						
KBA	**Koelnbreinsper**	**82.21**	**317**	⇓*i*P	**P**	**13 54 07.1**	**+0.8**
KBA				pmax	pmax		
	comp=Z,23nm,0.9s,mb5.1						
ARV	**Arcevia**	**82.28**	**313**	*e*P	**P**	**13 54 07.8**	**+1.0**
RUE	**Ruedersdorf**	**82.33**	**322**	*e*P	**P**	**13 54 07.4**	**+0.6**
	comp=Z,82nm,1.2s,mb5.5						
FSSB	**Fossombrone**	**82.41**	**313**	*e*P	**P**	**13 54 08.6**	**+1.1**
MNS	**Montasola**	**82.42**	**312**	*e*P	**P**	**13 54 07.0**	**-0.6**
FVI	**Forni Avoltri**	**82.56**	**316**	*e*P	**P**	**13 54 08.7**	**+0.5**
WET	**Wettzell**	**82.65**	**319**	*e*P	**P**	**13 54 09.0**	**+0.4**
CLL	**Collm**	**82.72**	**321**	⇑*i*P	**P**	**13 54 08.9**	**0.0**
CLL				pmax	pmax		
	comp=Z,25nm,1.2s,mb5.1						
CLL	**Collm**	**82.72**	**321**	⇑*i*P	**P**	**13 54 08.9**	**0.0**
	comp=Z,25nm,1.2s,mb5.1						
CLL				*i*		13 54 28.7	
CLL	**Collm**	**82.72**	**321**	⇑P	**P**	**13 54 08.9**	**0.0**
	comp=Z,logA/T=1.3,mb5.1						
CLL				*i* *SP	sP	13 54 28.7	+8.8
NKC	**Novy Kostel**	**83.00**	**320**	*e*P	**P**	**13 54 10.0**	**-0.4**
SFI	**Santa Sofia**	**83.09**	**314**	*e*P	**P**	**13 54 12.6**	**+1.6**
VMG	**Vicchio**	**83.31**	**314**	*e*P	**P**	**13 54 14.4**	**+2.3**
CTI	**Castel Tesino**	**83.32**	**316**	*e*P	**P**	**13 54 12.8**	**+0.7**
WTTA	**Wattenberg**	**83.38**	**317**	⇑*i*P	**P**	**13 54 12.2**	**-0.2**
	comp=Z,48nm,1.1s,mb5.4						
WTTA	**Wattenberg**	**83.38**	**317**	⇑*i*P	**P**	**13 54 12.2**	**-0.2**
WTTA				pmax	pmax		
	comp=Z,48nm,1.1s,mb5.4						
WATA	**Walderalm**	**83.42**	**317**	⇓*i*P	**P**	**13 54 12.3**	**-0.3**
	comp=Z,42nm,1.5s,mb5.2						
WATA	**Walderalm**	**83.42**	**317**	⇓*i*P	**P**	**13 54 12.3**	**-0.3**
WATA				pmax	pmax		
	comp=Z,42nm,1.5s,mb5.2						
SEI	**Scarperia**	**83.45**	**314**	*e*P	**P**	**13 54 14.2**	**+1.3**
MOX	**Moxa**	**83.55**	**320**	*e*P	**P**	**13 54 13.7**	**+0.5**
MOX				pmax	pmax		
	comp=Z,43nm,1.7s,mb5.3						
MOX	**Moxa**	**83.55**	**320**	*i* P	**P**	**13 54 13.7**	**+0.5**
	comp=Z,logA/T=1.4,mb5.3						
MOX	**Moxa**	**83.55**	**320**	*e*P	**P**	**13 54 13.7**	**+0.5**
	comp=Z,43nm,1.7s,mb5.3						
FUR	**Furstenfeldbru**	**83.66**	**318**	*e*P	**P**	**13 54 13.6**	**-0.2**
SQTA	**Sankt Quirin**	**83.67**	**317**	⇑*i*P	**P**	**13 54 13.8**	**-0.1**
	comp=Z,59nm,1.6s,mb5.5						
SQTA	**Sankt Quirin**	**83.67**	**317**	⇑*i*P	**P**	**13 54 13.8**	**-0.1**
SQTA				pmax	pmax		
	comp=Z,59nm,1.6s,mb5.5						
ZCCA	**Zocca**	**83.74**	**314**	*e*P	**P**	**13 54 16.3**	**+2.0**
MOTA	**Moosalm**	**83.75**	**317**	⇓*i*P	**P**	**13 54 14.1**	**-0.2**
	comp=Z,24nm,1.2s,mb5.2						
MOTA	**Moosalm**	**83.75**	**317**	⇓*i*P	**P**	**13 54 14.1**	**-0.2**
MOTA				pmax	pmax		
	comp=Z,24nm,1.2s,mb5.2						
GRA1	**Grafenberg Arr**	**83.76**	**319**	*e*P	**P**	**13 54 14.9**	**+0.6**
	comp=Z,58nm,1.3s,mb5.5						
GRF	**Grafenberg Arr**	**83.76**	**319**	*e*P	**P**	**13 54 14.9**	**+0.6**
GRF				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.5						
GRF	**Grafenberg Arr**	**83.76**	**319**	*e*P	**P**	**13 54 14.9**	**+0.6**
GRF				pmax	pmax		
	comp=Z,58nm,1.3s,mb5.5						
GRF	**Grafenberg Arr**	**83.76**	**319**	*e*P	**P**	**13 54 14.9**	**+0.6**
	comp=Z,58nm,1.3s,mb5.5						
GSCL	**Gusciola**	**84.02**	**314**	*e*P	**P**	**13 54 16.9**	**+1.1**
SAL	**Salo**	**84.09**	**315**	*e*P	**P**	**13 54 17.5**	**+1.4**
ERBM	**Eremo**	**84.14**	**314**	*e*P	**P**	**13 54 17.6**	**+1.2**
BRMO	**Bormio**	**84.22**	**316**	*e*P	**P**	**13 54 17.4**	**+0.7**
NB2	**NORSAR Subarra**	**84.37**	**331**	P	**P**	**13 54 17.2**	**+0.1**
	comp=Z,3.8nm,0.8s,mb4.6,baz=98,slow=4.8						
NB2	**NORSAR Subarra**	**84.37**	**331**	P	**P**	**13 54 17.2**	**+0.1**
NB2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.6						
NOA	**NORSAR Array B**	**84.37**	**331**	P	**P**	**13 54 16.6**	**-0.5**
	comp=Z,8.8nm,1.0s,mb4.9,baz=94,slow=5.4,SNR=9.7						
NOA				LR	LR	14 35 00.5	
	comp=Z,441nm,18.9s,MS4.9,baz=80,slow=38						
CLZ	**Clausthal**	**84.39**	**322**	*e*P	**P**	**13 54 17.6**	**+0.2**
	comp=Z,36nm,1.4s,mb5.3						
BSEG	**Bad Segeberg**	**84.50**	**324**	*e*P	**P**	**13 54 18.3**	**+0.4**
DAVA	**Damuels**	**84.58**	**317**	⇑*i*P	**P**	**13 54 19.1**	**+0.6**
	comp=Z,32nm,1.2s,mb5.3						
PGF	**Pioggiola**	**85.15**	**312**	*e*P	**P**	**13 54 20.3**	**-1.1**
	comp=Z,74nm,1.2s,mb5.4						
PGF	**Pioggiola**	**85.15**	**312**	*e*P	**P**	**13 54 20.3**	**-1.1**
PGF				pmax	pmax		
	comp=Z,37nm,1.2s,mb5.4						
VAI	**Varese**	**85.33**	**316**	*e*P	**P**	**13 54 21.4**	**-0.8**
URZ	**Urewera**	**85.52**	**129**	P	**P**	**13 54 22.9**	**-0.5**
	comp=Z,46nm,1.2s,mb5.6,baz=347,slow=1.4,SNR=4.5						
URZ				LR	LR	14 32 51.4	
	comp=Z,865nm,18.1s,MS5.2,baz=221,slow=36						
BFO	**Black Forest**	**85.64**	**318**	*e*P	**P**	**13 54 23.4**	**-0.3**
BFO				pmax	pmax		
	comp=Z,39nm,1.7s,mb5.4						
BFO	**Black Forest**	**85.64**	**318**	*e*P	**P**	**13 54 23.4**	**-0.3**
	comp=Z,39nm,1.7s,mb5.4						
FIN	**Finale Ligure**	**85.72**	**314**	*e*P	**P**	**13 54 24.7**	**+0.4**
SBF	**Sospel**	**86.28**	**314**	*e*P	**P**	**13 54 26.6**	**-0.5**
	comp=Z,66nm,1.0s,mb5.5						
SBF	**Sospel**	**86.28**	**314**	*e*P	**P**	**13 54 26.6**	**-0.5**
SBF				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.5						
CDF	**Champ du Feu**	**86.34**	**318**	*e*P	**P**	**13 54 26.5**	**-0.7**
	comp=Z,18nm,1.1s,mb4.9						
CDF	**Champ du Feu**	**86.34**	**318**	*e*P	**P**	**13 54 26.5**	**-0.7**
CDF				pmax	pmax		
	comp=Z,9.0nm,1.1s,mb4.9						
LPG	**La Plagne**	**86.74**	**315**	*e*P	**P**	**13 54 29.2**	**-0.1**
	comp=Z,41nm,0.9s,mb5.4						
LPG	**La Plagne**	**86.74**	**315**	*e*P	**P**	**13 54 29.2**	**-0.1**
LPG				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.3						
MBDF	**Montbardon**	**86.75**	**314**	*e*P	**P**	**13 54 29.2**	**-0.1**
	comp=Z,57nm,1.4s,mb5.3						
MBDF	**Montbardon**	**86.75**	**314**	*e*P	**P**	**13 54 29.2**	**-0.1**
MBDF				pmax	pmax		
	comp=Z,28nm,1.4s,mb5.3						
BNI	**Bardonecchia**	**86.80**	**315**	*e*P	**P**	**13 54 28.5**	**-1.1**
BNI				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb5.0						
BNI	**Bardonecchia**	**86.80**	**315**	*e*P	**P**	**13 54 28.5**	**-1.1**
	comp=Z,9.1nm,0.9s,mb5.0						
HAU	**Haudompre**	**86.97**	**318**	*e*P	**P**	**13 54 29.4**	**-0.9**
	comp=Z,43nm,1.0s,mb5.3						
HAU	**Haudompre**	**86.97**	**318**	*e*P	**P**	**13 54 29.4**	**-0.9**
HAU				pmax	pmax		
	comp=Z,22nm,1.0s,mb5.3						
VNDA	**Vanda**	**88.12**	**168**	*e*P	**P**	**13 54 36.1**	**+0.9**
VNDA				pmax	pmax		
	comp=Z,60nm,1.5s						
VNDA	**Vanda**	**88.12**	**168**	P	**P**	**13 54 36.3**	**+1.1**
	comp=Z,25nm,1.2s,mb5.3,baz=300,slow=5.2,SNR=20						
VNDA				LR	LR	14 31 57.0	
	comp=Z,1μm,18.2s,MS5.4,baz=210,slow=34						
VNDA	**Vanda**	**88.12**	**168**	*e*P	**P**	**13 54 36.1**	**+0.9**
	comp=Z,60nm,1.5s,mb5.6						
BAIF	**Baives**	**88.30**	**320**	*e*P	**P**	**13 54 36.7**	**+0.1**
	comp=Z,113nm,1.4s,mb5.6						
BAIF	**Baives**	**88.30**	**320**	*e*P	**P**	**13 54 36.7**	**+0.1**
BAIF				pmax	pmax		
	comp=Z,57nm,1.4s,mb5.6						
SSF	**Saint Saulge**	**88.93**	**317**	*e*P	**P**	**13 54 39.6**	**-0.1**
	comp=Z,72nm,1.6s,mb5.5						
SSF	**Saint Saulge**	**88.93**	**317**	*e*P	**P**	**13 54 39.6**	**-0.1**
SSF				pmax	pmax		
	comp=Z,36nm,1.6s,mb5.5						
SBA	**Scott Base**	**89.22**	**168**	*e*P	**P**	**13 54 42.8**	**+2.3**
SBA				pmax	pmax		
	comp=Z,81nm,1.3s,mb5.9						
SBA	**Scott Base**	**89.22**	**168**	*e*P	**P**	**13 54 42.8**	**+2.3**
	comp=Z,81nm,1.3s,mb5.9						
BGF	**Bois d'Agland**	**89.41**	**316**	*e*P	**P**	**13 54 42.1**	**+0.1**
	comp=Z,61nm,1.3s,mb5.5						
BGF	**Bois d'Agland**	**89.41**	**316**	*e*P	**P**	**13 54 42.1**	**+0.1**
BGF				pmax	pmax		
	comp=Z,30nm,1.3s,mb5.5						
RJF	**Les Rejaudoux**	**90.44**	**315**	*e*P	**P**	**13 54 45.6**	**-1.2**
	comp=Z,64nm,1.5s,mb5.4						
RJF	**Les Rejaudoux**	**90.44**	**315**	*e*P	**P**	**13 54 45.6**	**-1.2**
RJF				pmax	pmax		
	comp=Z,32nm,1.5s,mb5.4						
FLN	**La Foliniere**	**91.45**	**319**	*e*P	**P**	**13 54 51.4**	**0.0**
	comp=Z,96nm,1.3s,mb5.7						
FLN	**La Foliniere**	**91.45**	**319**	*e*P	**P**	**13 54 51.4**	**0.0**
FLN				pmax	pmax		
	comp=Z,48nm,1.3s,mb5.7						
ETSF	**Etsaut**	**92.16**	**313**	*e*P	**P**	**13 54 53.4**	**-1.4**
	comp=Z,37nm,1.2s,mb5.3						
ETSF	**Etsaut**	**92.16**	**313**	*e*P	**P**	**13 54 53.4**	**-1.4**
ETSF				pmax	pmax		
	comp=Z,19nm,1.2s,mb5.3						
DAG	**Danmarks Havn**	**92.29**	**348**	⇓*e*P	**P**	**13 54 54.8**	**+0.1**
DAG				pmax	pmax		
	comp=Z,31nm,1.3s,mb5.5						
DAG	**Danmarks Havn**	**92.29**	**348**	⇓*e*P	**P**	**13 54 54.8**	**+0.1**
	comp=Z,31nm,1.3s,mb5.5						
DAG	**Danmarks Havn**	**92.29**	**348**	⇓*i*P	**P**	**13 54 54.8**	**+0.1**
	comp=Z,31nm,1.3s,mb5.5						
ESDC	**Sonseca Array**	**95.11**	**310**	P	**P**	**13 55 08.6**	**+0.2**
	comp=Z,1.9nm,0.8s,mb4.5,baz=57,slow=4.8,SNR=9.0						
ESDC				PP	PP	13 59 01.8	+1.5
	comp=Z,1.1nm,0.8s,baz=75,slow=7.8,SNR=4.5						
IMA	**Indian Mountai**	**95.51**	**22**	*e*P	**P**	**13 55 10.9**	**+1.2**
IMA				pmax	pmax		
	comp=Z,120nm,1.3s,mb6.2						
IMA	**Indian Mountai**	**95.51**	**22**	*e*P	**P**	**13 55 11.5**	**+1.8**
	comp=Z,23nm,1.3s,mb5.5						
SPU	**Mount Spurr**	**97.95**	**27**	*e*P	**P**	**13 55 19.7**	**-1.1**
ILAR	**Eielson Array**	**98.63**	**23**	P	**P**	**13 55 23.1**	**-0.6**
	comp=Z,0.8nm,1.0s,baz=287,slow=4.0,SNR=6.0						
ILAR				PP	PP	13 59 17.7	-10
	comp=Z,2.2nm,1.1s,baz=293,slow=6.9,SNR=5.6						
ILAR				PKKPbc		14 11 55.2	
	comp=Z,2.3nm,1.2s,baz=179,slow=2.8,SNR=6.6						
ILAR				LR	LR	14 44 56.9	
	comp=Z,703nm,19.9s,baz=159,slow=38						
MENT	**Mentasta**	**100.74**	**24**	*e*P	P	13 55 38.9	+5.5
INK	**Inuvik**	**101.16**	**17**	P	P	13 55 34.6	-0.6
	comp=Z,2.5nm,1.1s,baz=290,slow=2.8,SNR=4.4						
INK				PP	PP	13 59 39.8	-7.1
	comp=Z,3.3nm,1.1s,baz=262,slow=8.1,SNR=3.7						
YKA	**Yellowknife Ar**	**110.69**	**14**	PKiKP		14 00 16.6	
	comp=Z,1.5nm,1.2s,baz=296,slow=4.7,SNR=5.1						
YKA				PP	PP	14 00 39.0	-19
	comp=Z,1.1nm,1.0s,baz=324,slow=7.2,SNR=5.0						
YKA				PKKPbc		14 11 16.1	
	comp=Z,0.5nm,0.9s,baz=150,slow=2.7,SNR=7.8						
SCHQ	**Schefferville**	**120.34**	**348**	PKP	PKPdf	14 00 37.9	-1.9
	comp=Z,2.5nm,0.6s,baz=215,slow=8.0,SNR=4.9						
MSO	**Missoula**	**123.94**	**24**	*e*P	PKPdf	14 00 43.5	-3.5
CHMT	**Chamberlain Mo**	**124.15**	**23**	*e*P	PKPdf	14 00 44.0	-3.4
BOZ	**Bozeman (W)**	**125.83**	**23**	*e*PKIKP	PKPdf	14 00 47.1	-3.6
DGMT	**Dagmar**	**125.83**	**16**	*e*PKPdf	PKPdf	14 00 47.0	-3.6
ULM	**Lac du Bonnet**	**125.93**	**9**	PKP	PKPdf	14 00 48.2	-2.5
	comp=Z,8.0nm,0.8s,baz=3.8,slow=3.8,SNR=11						
ULM	**Lac du Bonnet**	**125.93**	**9**	*e*PKPdf	PKPdf	14 00 48.5	-2.2
GCMT	**Greycliff**	**126.45**	**22**	*e*PKPdf	PKPdf	14 00 49.6	-2.3
LAO	**LASA Array**	**126.84**	**18**	*e*PKPdf	PKPdf	14 00 49.3	-3.2
YMR	**Madison River**	**126.90**	**23**	*e*PKPdf	PKPdf	14 00 51.5	-1.2
TPAW	**Teton Pass**	**127.89**	**24**	*e*PKPdf	PKPdf	14 00 53.3	-1.4
LOHW	**Long Hollow**	**127.93**	**24**	*e*PKPdf	PKPdf	14 00 52.1	-2.7
SNOW	**Snow King Moun**	**127.99**	**24**	*e*PKPdf	PKPdf	14 00 52.9	-2.0
NVAR	**Mina Array Bea**	**128.26**	**34**	PKP	PKPdf	14 00 52.8	-2.8
	comp=Z,6.5nm,1.0s,baz=259,slow=2.3,SNR=20						
PDAR	**Pinedale Array**	**129.05**	**23**	PKP	PKPdf	14 00 54.2	-2.7
	comp=Z,6.1nm,1.1s,SNR=26						
PDAR				PP	PP	14 02 59.4	-5.3
	comp=Z,1.1nm,0.9s,slow=3.6,SNR=3.0						
TRCR	**Troy Canyon**	**129.78**	**32**	*e*PKPdf	PKPdf	14 00 55.8	-2.7
TMUT	**Trail Mountain**	**131.20**	**27**	*e*PKPdf	PKPdf	14 00 59.6	-1.5
NEN	**Nelson**	**132.18**	**33**	*e*PKPdf	PKPdf	14 01 01.4	-1.8
PV10	**Paradox Valley**	**132.93**	**26**	*e*PKPdf	PKPdf	14 01 02.3	-2.2
PV01	**Paradox Valley**	**133.34**	**26**	*e*PKPdf	PKPdf	14 01 02.5	-2.7
SSPA	**Standing Stone**	**135.97**	**353**	*e*PKPdf	PKPdf	14 01 06.8	-3.2
KSU1	**Kansas State U**	**136.53**	**13**	*e*PKPdf	PKPdf	14 01 08.2	-2.8
ACSO	**Alum Creek Sta**	**136.78**	**358**	*e*PKPdf	PKPdf	14 01 08.3	-3.2
ANMO	**Albuquerque**	**136.93**	**26**	*e*PKIKP	PKPdf	14 01 09.6	-2.2
LAZ	**Ladron**	**137.08**	**28**	*e*PKPdf	PKPdf	14 01 10.6	-1.5
LENM	**Lemitar**	**137.35**	**28**	*e*PKPdf	PKPdf	14 01 10.6	-2.1
BNM	**Barren Site**	**137.52**	**27**	*e*PKPdf	PKPdf	14 01 10.7	-2.3
FWV	**Forest Hill**	**139.30**	**355**	PKPdf	PKPdf	14 01 13.2	-2.9
PWV	**Princeton**	**139.56**	**356**	*e*PKPdf	PKPdf	14 01 14.2	-2.5
ELN	**Prospectdale**	**139.64**	**355**	*e*PKPdf	PKPdf	14 01 13.4	-3.4
GDL2	**Guadalupe Moun**	**140.18**	**26**	*e*PKPdf	PKPdf	14 01 14.7	-3.2
GLAT	**Glass**	**140.53**	**6**	PKPdf	PKPdf	14 01 15.1	-3.4
WVT	**Waverly**	**140.80**	**4**	*e*PKHKP		14 01 09.6	
WVT				*e*		14 01 16.2	
MIAR	**Mount Ida**	**141.57**	**12**	*e*PKIKP	PKPdf	14 01 11.9	-8.5
MIAR				*e*		14 01 17.3	
CPCT	**Cooper Cave**	**141.59**	**360**	*e*PKPdf	PKPdf	14 01 17.5	-2.9
BDFB	**Brasilia**	**141.82**	**249**	PKP	PKPdf	14 01 18.7	-2.5
	comp=Z,12nm,0.9s,baz=158,slow=1.7,SNR=14						
MYNC	**Murphy**	**141.96**	**359**	*e*PKIKP	PKPdf	14 01 19.0	-2.0
OXF	**Oxford**	**142.26**	**6**	*e*PKIKP	PKPdf	14 01 18.7	-2.8
LTX	**Lajitas**	**142.92**	**28**	*e*PKIKP	PKPdf	14 01 18.5	-4.3
TXAR	**Lajitas Array**	**142.92**	**28**	PKP	PKPdf	14 01 17.4	-5.5
	comp=Z,1.6nm,0.8s,baz=270,slow=1.3,SNR=12						
TXAR				PP	PP	14 04 25.3	-6.1
	comp=Z,1.7nm,1.2s,slow=1.8,SNR=3.7						
JCT	**Junction City**	**143.57**	**22**	*e*PKIKP	PKPdf	14 01 18.3	-5.6
LRAL	**Lakeview Retre**	**143.93**	**3**	*e*PKPdf	PKPdf	14 01 19.6	-4.8
NATX	**Nacogdoches**	**144.00**	**15**	*e*PKPdf	PKPdf	14 01 20.3	-4.3
HKT	**Hockley**	**145.39**	**17**	PKPab	PKPab	14 01 24.0	-0.5
HKT	**Hockley**	**145.39**	**17**	*e*PKIKP	PKPdf	14 01 23.8	-3.3
MDZ	**Mendoza**	**146.92**	**205**	*e*PKP2	PKPab	14 01 29.6	-0.7
LVC	**Limon Verde**	**155.34**	**217**	*e*PKPdf	PKPdf	14 01 41.0	-1.4
LPAZ	**La Paz**	**159.13**	**230**	*e*PKIKP	PKPdf	14 01 45.6	-1.8
LPAZ	**La Paz**	**159.13**	**230**	PKP	PKPdf	14 01 45.9	-1.5
	comp=Z,4.9nm,0.9s,baz=71,slow=3.6,SNR=12						
LPAZ				PKPab	PKPab	14 02 23.5	+1.6
	comp=Z,7.8nm,0.9s,baz=83,slow=4.3,SNR=8.3						
OTAV	**Otavalo**	**172.90**	**298**	*e*PKPdf	PKPdf	14 01 55.8	-2.8

IDC ***31*** *13:52:47.7±0.9, 4.76N×94.43E, mb4.1/8, mb1 4.2/8, mb1mx4.0/18, mbtmp4.1/8, Error ellipse: s-maj=31.9km s-min=19.2km az=43.0*

ISC 31 13:52:50.4±0.8**, 4.7N**±0.1×**94.4E**±0.1**, h33^{km}, n10, σ1^{s}06**/10**, mb4.1**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.37**	**18**	Pn	**P**	**13 56 14.2**	**+0.7**
	0.1nm,0.3s,baz=210,slow=12,SNR=6.7						
TGY	**Tagaytay City**	**27.77**	**69**	P	**P**	**13 58 38.1**	**-0.5**
	55nm,0.5s,mb5.4,baz=175,slow=21,SNR=3.0						
SONM	**Songino Array**	**44.18**	**12**	P	**P**	**14 00 56.2**	**-1.8**
	0.7nm,0.6s,mb3.6,baz=189,slow=9.9,SNR=6.1						
SONM				PcP	PcP	14 02 43.1	+0.2
	0.3nm,0.4s,baz=175,slow=3.4,SNR=6.6						
WRA	**Warramunga Arr**	**46.28**	**123**	P	**P**	**14 01 15.8**	**+0.7**
	0.6nm,0.5s,mb3.8,baz=305,slow=9.3,SNR=15						
ASAR	**Alice Springs**	**47.75**	**128**	P	**P**	**14 01 26.4**	**-0.2**
	0.6nm,0.5s,mb3.9,baz=299,slow=7.5,SNR=12						
ZAL	**Zalesovo**	**49.69**	**353**	P	**P**	**14 01 41.1**	**0.0**
	2.1nm,0.7s,mb4.3,baz=308,slow=5.9,SNR=10						
BVAR	**Borovoye Array**	**52.04**	**342**	P	**P**	**14 01 58.5**	**-0.4**
	0.8nm,0.6s,mb3.8,baz=143,slow=7.4,SNR=5.7						
KMBO	**Kilima Mbogo**	**57.37**	**266**	P	**P**	**14 02 37.4**	**-1.0**
	0.5nm,0.3s,mb4.0,baz=225,slow=23,SNR=3.6						
FINES	**FINESS Array B**	**75.61**	**333**	P	**P**	**14 04 34.7**	**+1.2**
	3.8nm,1.0s,mb4.3,baz=180,slow=5.7,SNR=3.5						
GERES	**GERESS Array B**	**80.34**	**319**	P	**P**	**14 05 02.9**	**+3.0**
	0.9nm,0.6s,mb3.9,baz=90,slow=6.7,SNR=5.8						

IDC 31 13:55:54.2±2.3**, 7.25N**×**92.00E, mb3.5**/4**, mb1 3.8**/5**, mb1mx3.6**/19**, mbtmp3.5**/5**, ML3.8**/1**, Error ellipse: s-maj=75.2km s-min=24.0km az=66.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.03**	**31**	Pn	P	13 59 00.2	-3.1
	0.2nm,0.3s,baz=230,slow=14,SNR=11						
SONM	**Songino Array**	**42.26**	**14**	P	P	14 03 49.9	-1.0
	0.2nm,0.5s,baz=220,slow=11,SNR=2.5						
BVAR	**Borovoye Array**	**48.92**	**343**	P	P	14 04 41.4	-2.5
	0.6nm,0.7s,baz=130,slow=12,SNR=4.8						
WRA	**Warramunga Arr**	**49.65**	**124**	P	P	14 04 48.1	-1.9
	0.4nm,0.3s,baz=306,slow=8.3,SNR=17						
ASAR	**Alice Springs**	**51.17**	**128**	P	P	14 04 59.2	-2.3
	0.7nm,0.7s,baz=306,slow=7.6,SNR=6.1						

IDC ***31*** *13:59:26.5±0.5, 8.54N×93.49E, mb4.2/20, mb1 4.4/20, mb1mx4.4/23, mbtmp4.2/20, Error ellipse: s-maj=27.6km s-min=13.4km az=51.0*

NEIC ***31*** *13:59:30.6±0.8, 8.52N×93.76E, h30^{km}, mb4.6/14, Error ellipse: s-maj=19.8km s-min=10.0km az=134.0*

BJI ***31*** *13:59:32.5, 8.50N×93.80E, h30^{km}, mb4.6*

ISC 31 13:59:29.7±0.4**, 8.49N**±0.06×**93.66E**±0.08**, h33^{km}, (h33^{km}±.9^{km}:pP-P), n65, σ0^{s}97**/60**, mb4.4**/35**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**11.16**	**27**	Pn	**P**	**14 02 07.3**	**-2.8**
	22nm,0.7s						
CM31				*e*pPn		14 02 14.4	
CMAR	**Chiang Mai Arr**	**11.16**	**27**	Pn	**P**	**14 02 14.5**	**+4.5**
	2.5nm,0.3s,baz=214,slow=14,SNR=90						
IMP	**Imphal**	**16.20**	**1**	*e*P	**P**	**14 03 16.3**	**-0.3**
HYB	**Hyderabad**	**17.17**	**303**	*e*P	**P**	**14 03 30.0**	**+1.2**
HYB	**Hyderabad**	**17.17**	**303**	*i* P	**P**	**14 03 30.0**	**+1.2**
KMI	**Kunming**	**18.67**	**27**	P	**P**	**14 03 53.8**	**+6.3**
KMI				AMB	AMB		
	comp=Z,10.0nm,1.3s						
PKI	**Pulchoki**	**20.52**	**339**	*e*P	**P**	**14 04 08.3**	**+0.5**
	comp=Z,110nm,0.9s						
DMN	**Daman**	**20.66**	**338**	*e*P	**P**	**14 04 09.9**	**+0.6**
	comp=Z,69nm,0.8s						
GUN	**Gumba**	**20.66**	**340**	*e*P	**P**	**14 04 10.0**	**+0.7**
	comp=Z,179nm,0.7s						
KKN	**Kakani**	**20.76**	**339**	*e*P	**P**	**14 04 10.4**	**0.0**
	comp=Z,188nm,1.2s						
GKN	**Gorkha**	**21.19**	**337**	*e*P	**P**	**14 04 15.2**	**+0.5**
	comp=Z,504nm,1.3s						
LSA	**Lhasa**	**21.23**	**354**	*e*P	**P**	**14 04 15.0**	**-0.1**
	comp=Z,16nm,0.6s,mb4.5						
KOLN	**Koldanda**	**21.40**	**335**	*e*P	**P**	**14 04 17.6**	**+0.8**
	comp=Z,52nm,0.7s,mb5.0						
POO	**Poona**	**21.67**	**299**	*e*P	**P**	**14 04 26.0**	**+6.5**
NDI	**New Delhi**	**25.36**	**325**	*e*	**P**	**14 04 54.5**	**-1.1**
DDI	**Dehra Dun**	**26.17**	**328**	*e*	**P**	**14 05 04.2**	**+1.1**
GTA	**Gaotai**	**31.28**	**9**	P	**P**	**14 05 50.0**	**+1.1**
GTA				AMB	AMB		
	comp=Z,7.0nm,0.6s,mb4.7						
HHC	**Hu-ho-hao-te**	**35.94**	**23**	*e*P	**P**	**14 06 36.5**	**+7.4**
HHC				AP	pP	14 06 45.8	+7.0
HHC				XP	sP	14 06 50.0	+6.9
HHC				AMB	AMB		
	comp=Z,19nm,1.7s,mb4.8						
UCH	**Uchtor**	**37.60**	**336**	P	**P**	**14 06 44.2**	**+1.2**
	SNR=6.9						
KBK	**Karagaybulak**	**37.80**	**337**	P	**P**	**14 06 46.3**	**+1.5**
	SNR=7.4						
AML	**Almayashu**	**37.85**	**336**	P	**P**	**14 06 46.8**	**+1.6**
	SNR=15						
AAK	**Ala-Archa**	**37.95**	**337**	P	**P**	**14 06 48.0**	**+2.0**
	SNR=5.7						
AAK	**Ala-Archa**	**37.95**	**337**	*e*P	**P**	**14 06 44.6**	**-1.4**
	comp=Z,7.9nm,1.0s,mb4.4						
EKS2	**Erkin-Say**	**38.26**	**336**	P	**P**	**14 06 49.7**	**+1.1**
	SNR=5.3						
USP	**Ospenovka**	**38.49**	**337**	P	**P**	**14 06 50.9**	**+0.4**
	SNR=12						
SONM	**Songino Array**	**40.67**	**13**	P	**P**	**14 07 08.8**	**+0.3**
	comp=Z,0.7nm,0.5s,mb3.6,baz=199,slow=8.3,SNR=12						
SONM				PcP	PcP	14 09 11.2	+0.7
	comp=Z,0.6nm,0.6s,baz=225,slow=2.0,SNR=3.8						
ZAL	**Zalesovo**	**45.88**	**353**	P	**P**	**14 07 50.9**	**+0.2**
	comp=Z,3.9nm,0.5s,mb4.6,baz=297,slow=6.7,SNR=9.2						
HIA	**Hailar**	**46.15**	**24**	P	**P**	**14 07 51.8**	**-1.1**
	comp=Z,5.1nm,0.3s,mb4.9						
NWAO	**Narrogin (SRO)**	**46.91**	**153**	P	**P**	**14 08 00.5**	**+1.3**
	comp=Z,18nm,0.9s,mb5.0,baz=344,slow=8.3,SNR=5.7						
BVAR	**Borovoye Array**	**48.25**	**341**	P	**P**	**14 08 08.4**	**-1.0**
	comp=Z,1.5nm,0.5s,mb4.3,baz=136,slow=9.2,SNR=9.5						
BRVK	**Borovoye**	**48.31**	**341**	*e*P	**P**	**14 08 08.7**	**-1.1**
	comp=Z,2.5nm,0.8s,mb4.3						
CHKZ	**Chkalovo**	**48.74**	**342**	*e*P	**P**	**14 08 12.6**	**-0.5**
	comp=Z,3.9nm,0.6s,mb4.6						
WRA	**Warramunga Arr**	**49.01**	**126**	P	**P**	**14 08 15.3**	**-0.4**
	comp=Z,1.6nm,0.9s,mb4.1,baz=304,slow=8.7,SNR=14						
WRA				PcP	PcP	14 09 40.5	+1.0
	comp=Z,1.9nm,0.8s,baz=312,slow=2.8,SNR=8.3						
ASAR	**Alice Springs**	**50.68**	**130**	P	**P**	**14 08 27.7**	**-0.7**
	comp=Z,1.5nm,0.6s,mb4.1,baz=304,slow=7.1,SNR=14						
ASAR				PcP	PcP	14 09 46.5	+0.9
	comp=Z,2.1nm,0.7s,baz=309,slow=3.8,SNR=14						
KIV	**Kislovodsk**	**56.54**	**318**	*e*P	**P**	**14 09 10.6**	**-0.8**
	comp=Z,5.2nm,0.7s,mb4.7						
KMBO	**Kilima Mbogo**	**57.02**	**263**	P	**P**	**14 09 14.5**	**-0.7**
	comp=Z,4.0nm,0.9s,mb4.4,baz=65,slow=6.0,SNR=8.3						
KMBO	**Kilima Mbogo**	**57.02**	**263**	*e*P	**P**	**14 09 15.6**	**+0.4**
	comp=Z,3.5nm,0.8s,mb4.4						
EIL	**Elat**	**58.71**	**300**	P	**P**	**14 09 26.5**	**-0.3**
	comp=Z,13nm,1.3s,mb4.8						
EIL				*e*	pP	14 09 36.4	-0.5
YAK	**Yakutsk**	**59.56**	**19**	*e*P	**P**	**14 09 31.9**	**-0.4**
	comp=Z,10nm,0.8s,mb4.9						
STKA	**Stephens Creek**	**60.88**	**134**	P	**P**	**14 09 43.5**	**+1.8**
	comp=Z,1.4nm,0.7s,mb4.2,baz=104,slow=16,SNR=3.2						
BRTR	**Keskin Array B**	**61.67**	**311**	P	**P**	**14 09 45.0**	**-1.9**
	comp=Z,2.1nm,0.7s,mb4.4,baz=116,slow=6.7,SNR=12						
BRTR				PcP	PcP	14 10 27.9	+0.1
	comp=Z,1.1nm,0.7s,baz=135,slow=6.1,SNR=2.5						
AKASG	**Malin Array Be**	**67.38**	**322**	P	**P**	**14 10 19.5**	**-4.2**
	comp=Z,1.1nm,0.6s,mb4.1,baz=84,slow=5.3,SNR=6.8						
MLR	**Muntele Rosu**	**68.40**	**316**	P	**P**	**14 10 28.9**	**-1.3**
	comp=Z,2.6nm,0.7s,mb4.4,baz=205,slow=7.0,SNR=4.9						
LSZ	**Lusaka**	**69.03**	**250**	*e*P	**P**	**14 10 35.4**	**+0.9**
	comp=Z,5.5nm,0.8s,mb4.5						
LSZ				*e*	pP	14 10 46.0	+1.1
FINES	**FINESS Array B**	**71.94**	**332**	P	**P**	**14 10 50.2**	**-1.2**
	comp=Z,1.1nm,0.8s,mb3.9,baz=90,slow=9.5,SNR=6.9						
CRVS	**Cervenica-Dubn**	**71.95**	**319**	*e*P	**P**	**14 10 51.9**	**+0.2**
KAF	**Kangasniemi**	**72.03**	**333**	*e*p	**P**	**14 10 51.3**	**-0.6**
VYHS	**Vyhne**	**73.63**	**318**	*e*pP	pP	14 11 10.9	-1.1
LBTB	**Lobatse**	**74.12**	**241**	P	**P**	**14 11 04.4**	**-0.6**
	comp=Z,7.2nm,1.0s,mb4.6						
ARCES	**ARCESS Array B**	**74.53**	**340**	P	**P**	**14 11 06.5**	**0.0**
	comp=Z,1.8nm,0.7s,mb4.1,baz=308,slow=22,SNR=3.5						
BRG	**Berggiesshubel**	**76.97**	**320**	*e*P	pP	14 11 30.6	-0.5
	comp=Z,9.6nm,1.5s						
GERES	**GERESS Array B**	**77.05**	**318**	P	**P**	**14 11 20.3**	**-1.0**
	comp=Z,1.0nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=7.4						
KHC	**Kasperske Hory**	**77.14**	**318**	*e*P	**P**	**14 11 19.5**	**-2.3**
HFS	**Hagfors**	**77.69**	**330**	P	**P**	**14 11 24.1**	**-0.4**
	comp=Z,1.9nm,0.6s,mb4.2,baz=90,slow=8.9,SNR=7.2						
NB2	**NORSAR Subarra**	**78.96**	**331**	P	**P**	**14 11 31.0**	**-0.5**
	comp=Z,4.1nm,1.0s,mb4.3,baz=92,slow=5.0						
NOA	**NORSAR Array B**	**78.96**	**331**	P	**P**	**14 11 31.3**	**-0.2**
	comp=Z,2.2nm,0.9s,mb4.1,baz=94,slow=5.5,SNR=3.6						
DAVOX	**Davos**	**79.62**	**316**	P	**P**	**14 11 34.8**	**-0.6**
	comp=Z,2.4nm,0.8s,mb4.2,baz=125,slow=14,SNR=3.5						
LPG	**La Plagne**	**81.85**	**315**	*e*P	**P**	**14 11 47.8**	**+0.6**
	comp=Z,9.3nm,0.7s,mb4.5						
EKA	**Eskdalemuir Ar**	**86.94**	**325**	P	**P**	**14 12 13.0**	**+0.5**
	comp=Z,1.9nm,0.7s,mb4.4,baz=98,slow=5.9,SNR=5.9						
ESDC	**Sonseca Array**	**90.46**	**310**	P	**P**	**14 12 29.0**	**-0.6**
	comp=Z,0.7nm,0.7s,mb4.1,baz=64,slow=4.7,SNR=5.4						
ILAR	**Eielson Array**	**94.35**	**22**	P	**P**	**14 12 47.2**	**+0.4**
	comp=Z,0.6nm,0.7s,mb4.1,baz=298,slow=5.4,SNR=6.9						
INK	**Inuvik**	**96.53**	**16**	P	**P**	**14 12 57.6**	**+0.9**
	comp=Z,1.3nm,0.7s,mb4.5,baz=344,slow=5.3,SNR=3.7						
PDAR	**Pinedale Array**	**124.76**	**21**	PKP	PKPdf	14 18 28.9	+2.3

	comp=Z,0.7nm,0.7s,baz=45,slow=2.1,SNR=6.0						
ANMO	Albuquerque	132.79	23	PKP	PKPdf	14 18 44.5	+2.4
	comp=Z,0.4nm,0.3s,baz=53,slow=5.1,SNR=3.3						
TXAR	Lajitas Array	138.85	23	PKP	PKPdf	14 18 55.7	+2.2
	comp=Z,0.2nm,0.6s,baz=315,slow=1.3,SNR=2.9						

*NEIC **31** 13:59:59.9, 37.11N×28.24E, h18^{km}, mb4.1/2, MD3.6(ATH), After ATH.*
*IDC **31** 13:59:59.6±1.2, 37.03N×28.22E, mb3.7/3, mb1 3.8/9, mb1mx3.6/24, mbtmp3.7/9, ML3.6/6, Error ellipse: s-maj=21.3km s-min=18.6km az=47.0*
*CSEM **31** 13:59:59.7±0.1, 37.14N×28.27E, h2^{km}, mb4.2/1, Error ellipse: s-maj=1.7km s-min=1.4km az=30.0*
*ATH **31** 14:00:00.2, 37.04N×28.18E, h20^{km}±3^{km}, MD3.6/8*
*ISK **31** 14:00:00.7, 37.12N×28.25E, h12^{km}, MD3.7, ML3.6*
ISC 31 14:00:00.1±0.6, **37.04N**±0.02×**28.24E**±0.03, **h10**^{km}±4^{km}, **n53**, σ**1^{s}05**/68, **mb3.4**/3, **Turkey**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
DALT	Dalyan (Mudla)	0.41	130	PG	Pg	14 00 09.6	+1.0
DALT				SG	Sg	14 00 18.3	+4.1
MLSB	Milas	0.45	305	PG	Pg	14 00 09.3	0.0
MLSB				SG	Sg	14 00 16.4	+1.0
BDRM	Kayabasi	0.64	273	*i* P	Pb	14 00 12.2	-0.7
BDRM				*i* S	Sb	14 00 23.3	+1.7
AYDN	Tasoluk	0.69	335	*i* P	Pb	14 00 13.4	-0.3
AYDN				*i* S	Sb	14 00 22.4	-0.5
FETY	Fethiye	0.79	121	PG	Pg	14 00 16.7	+0.8
ARG	Arkhangelos	0.83	187	*e*Pn	Pn	14 00 15.6	-2.0
ARG				*e*Sn	Sn	14 00 30.5	+0.6
DNZL	Cakiroluk	0.91	44	*i* P	Pb	14 00 16.8	-0.8
DNZL				*i* S	Sb	14 00 29.7	+0.2
DENT	Denizli	0.95	41	PG	Pg	14 00 17.7	-1.5
DENT				SG	Sg	14 00 31.1	-0.8
NISR	Nisiros	0.99	245	*e*PN	Pn	14 00 18.5	-1.5
SMG	Samos	1.30	301	*e*PN	Pn	14 00 24.5	0.0
SMG				*e*SN	Sn	14 00 42.2	+0.1
ELL	Elmali	1.37	102	PN	Pn	14 00 27.0	+1.7
KSL	Kastellorizon	1.40	129	*e*PN	Pn	14 00 27.5	+1.7
MANT	Manisa	1.47	10	*i* P	Pn	14 00 27.3	+0.4
MANT				*i* S	Sb	14 00 46.4	+0.6
IZM	Izmir	1.56	330	PN	Pn	14 00 28.5	+0.3
KHL	Karahalli	1.64	38	PN	Pn	14 00 29.2	0.0
BLCB	Balcova	1.65	325	PN	Pn	14 00 29.2	-0.2
KARP	Karpathos	1.73	211	*e*Pb	Pb	14 00 30.8	-0.7
KARP				*e*Sn	Sn	14 00 56.3	+3.5
KARP	Karpathos	1.73	211	*e*Sn	Sn	14 00 56.3	+3.5
AKS	Akhisar	1.87	350	PN	Pn	14 00 32.8	+0.3
BCK	Bucak	1.92	77	PN	Pn	14 00 34.1	+0.9
ANTB	Antalya	1.94	93	*e*PN	Pn	14 00 34.1	+0.6
ISP	Isparta	1.97	65	PN	Pn	14 00 34.1	+0.1
ISP	Isparta	1.97	65	*e*Pn	Pn	14 00 34.6	+0.5
ISP	Isparta	1.97	65	*e*Pn	Pn	14 00 34.6	+0.6
APE	Apeiranthos	2.17	272	PN	Pn	14 00 37.3	+0.4
APE	Apeiranthos	2.17	272	*e*PN	Pn	14 00 37.0	+0.1
APE	Apeiranthos	2.17	272	*e*Pn	Pn	14 00 34.0	-2.9
ALT	Altintas	2.50	36	PN	Pn	14 00 40.9	-0.6
BALB	Balikesir	2.61	354	*e*PN	Pn	14 00 43.1	-0.1
PRK	Paraskevi	2.70	325	*e*PN	Pn	14 00 44.0	-0.4
NPS	Neapolis	2.77	231	*e*PB	Pb	14 00 46.3	-3.1
ESKT	Eskisehir	3.22	39	*e*PN	Pn	14 00 52.5	+0.7
IDI	Anoyia	3.23	238	Pn	Pn	14 00 52.1	+0.1
	3.2nm,0.3s,baz=61,slow=17,SNR=24						
IDI				Sn	Sn	14 01 31.3	+0.4
	2.5nm,0.3s,baz=4.6,slow=3.8,SNR=14						
HDMB	Hadim	3.40	90	*e*PN	Pn	14 00 55.4	+1.1
KIZT	Kizilcal	3.41	56	*e*PN	Pn	14 00 54.2	-0.3
YLV	Yalova	3.63	14	*e*PN	Pn	14 00 57.3	-0.4
HRT	Hereke	3.94	16	*e*PN	Pn	14 01 01.7	-0.3
ISK	Istanbul-Kandi	4.07	9	*e*PN	Pn	14 01 03.6	-0.3
BRTR	Keskin Array B	5.02	56	Pn	Pn	14 01 17.1	-0.2
	1.3nm,0.3s,baz=240,slow=15,SNR=15						
MLR	Muntele Rosu	8.62	349	Pn	P	14 02 06.5	-1.4
	0.2nm,0.3s,baz=281,slow=11,SNR=5.7						
MLR				Sn	Sn	14 03 48.0	+1.8
	0.3nm,0.3s,baz=243,slow=19,SNR=2.6						
ASF	Jabal al Asfar	8.63	122	Pn	P	14 02 06.8	-1.2
	0.3nm,0.3s,baz=152,slow=1.2,SNR=2.2						
ASF				Sn	Sn	14 03 45.2	-1.2
	0.5nm,0.3s,baz=24,slow=11,SNR=2.2						
EIL	Elat	9.24	141	Pn	P	14 02 13.4	-3.1
	1.1nm,0.3s,baz=312,slow=2.7,SNR=19						
EIL				Sn	Sn	14 03 53.4	-8.3
	0.3nm,0.3s,baz=41,slow=33,SNR=4.3						
EIL	Elat	9.24	141	*e*Pn	P	14 02 12.4	-4.1
	2.7nm,0.4s						
EIL				*e*Sn	Sn	14 03 53.4	-8.3
GERES	GERESS Array B	15.86	323	Pn	P	14 03 47.1	+2.1
	0.1nm,0.3s,baz=130,slow=10,SNR=11						
CDF	Champ du Feu	19.08	313	*e*P	P	14 04 27.3	+2.2
SMF	Signal de Mont	20.49	306	*e*P	P	14 04 39.7	-1.0
	33nm,1.1s						
SSF	Saint Saulge	20.84	306	*e*P	P	14 04 38.7	-5.7
	13nm,1.0s						
AVF	Avril sur Loir	20.85	306	*e*P	P	14 04 39.8	-4.7
TCF	Toulx Ste Croi	21.45	304	*e*P	P	14 04 43.5	-7.1
RJF	Les Rejaudoux	21.67	301	*e*P	P	14 04 49.4	-3.4
FINES	FINESS Array B	24.47	357	P	P	14 05 19.9	-0.2
	2.0nm,0.7s,mb3.6,baz=172,slow=9.8,SNR=2.6						
HFS	Hagfors	24.92	343	P	P	14 05 23.9	-0.6
	1.3nm,0.5s,mb3.7,baz=121,slow=8.4,SNR=4.0						
ESDC	Sonseca Array	25.32	286	P	P	14 05 27.2	-1.3
	0.1nm,0.4s,mb2.7,baz=278,slow=9.1,SNR=4.4						

IDC 31 14:04:23.0±1.5, **8.36N**×**91.43E**, **mb3.9**/6, **mb1 4.1**/7, **mb1mx3.8**/19, **mbtmp3.9**/7, **ML3.7**/1, **Error ellipse: s-maj=44.2km s-min=28.9km az=57.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.41	35	Pn	P	14 07 22.4	-1.6
	0.1nm,0.3s,baz=229,slow=14,SNR=13						
SONM	Songino Array	41.34	15	P	P	14 12 09.6	-2.5
	1.2nm,0.6s,baz=198,slow=7.9,SNR=13						
ZAL	Zalesovo	45.76	355	P	P	14 12 46.6	-1.3
	1.3nm,0.3s,baz=315,slow=3.8,SNR=4.0						
BVAR	Borovoye Array	47.70	343	P	P	14 13 02.0	-1.2
	0.9nm,0.6s,baz=146,slow=11,SNR=5.7						
ASAR	Alice Springs	52.30	129	P	P	14 13 36.9	-2.0
	0.5nm,0.7s,baz=302,slow=7.9,SNR=4.7						
FINES	FINESS Array B	71.03	332	P	P	14 15 42.0	-2.5
	1.2nm,0.7s,baz=104,slow=7.9,SNR=5.6						
GERES	GERESS Array B	75.68	318	P	P	14 16 10.5	-1.4
	0.6nm,0.6s,baz=112,slow=5.3,SNR=5.6						

*IDC **31** 14:12:54.5±0.8, 7.61N×91.94E, mb4.2/14, mb1 4.3/15, mb1mx4.2/22, mbtmp4.2/15, ML4.3/1, Error ellipse: s-maj=36.1km s-min=16.2km az=49.0*
ISC 31 14:12:57.9±0.6, **7.3N**±0.1×**92.0E**±0.1, **h33**^{km}, **n30**, σ**1^{s}46**/30, **mb4.3**/18, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.97	31	Pn	P	14 15 59.5	-3.2
	0.5nm,0.3s,baz=232,slow=14,SNR=30						
IMP	Imphal	17.46	6	*e*P	P	14 17 00.8	+0.2
SHL	Shillong	18.14	360	*e*P	P	14 17 02.0	-7.1
PKI	Pulchoki	21.08	344	*e*P	P	14 17 43.0	+1.2
DMN	Daman	21.20	343	*e*P	P	14 17 44.8	+1.7
GUN	Gumba	21.28	345	*e*P	P	14 17 44.5	+0.7
	58nm,0.9s,mb4.9						
KKN	Kakani	21.32	343	*e*P	P	14 17 45.6	+1.3
	31nm,0.7s,mb4.7						
GKN	Gorkha	21.71	342	*e*P	P	14 17 49.5	+1.3
	59nm,0.9s,mb5.0						
KOLN	Koldanda	21.83	340	*e*P	P	14 17 50.8	+1.4
	23nm,0.8s,mb4.6						
UCH	Uchtor	38.04	339	P	P	14 20 16.4	+1.4
	SNR=6.8						
AML	Almayashu	38.26	338	P	P	14 20 17.7	+0.9
	SNR=12						
KBK	Karagaybulak	38.27	340	P	P	14 20 18.2	+1.3
	SNR=8.0						
EKS2	Erkin-Say	38.69	338	P	P	14 20 21.9	+1.5
	SNR=5.7						
USP	Ospenovka	38.96	340	P	P	14 20 23.1	+0.5
	SNR=10						
SONM	Songino Array	42.19	14	P	P	14 20 46.1	-3.2
	0.4nm,0.5s,mb3.3,baz=196,slow=7.9,SNR=7.7						
ZAL	Zalesovo	46.84	354	P	P	14 21 23.7	-2.8
	0.9nm,0.4s,mb4.0,baz=337,slow=7.7,SNR=4.5						
BVAR	Borovoye Array	48.85	343	P	P	14 21 40.7	-1.5
	1.3nm,0.7s,mb4.1,baz=135,slow=8.4,SNR=11						
BVAR				PcP	PcP	14 23 04.1	-2.7
	1.0nm,0.7s,baz=117,slow=3.2,SNR=2.6						
WRA	Warramunga Arr	49.70	124	P	P	14 21 50.0	+0.8
	4.4nm,0.8s,mb4.5,baz=303,slow=8.6,SNR=13						
ASAR	Alice Springs	51.22	128	P	P	14 22 02.8	+2.0
	2.9nm,0.7s,mb4.3,baz=309,slow=6.9,SNR=13						
BRTR	Keskin Array B	61.18	311	P	P	14 23 10.5	-1.4
	0.9nm,0.6s,mb4.1,baz=130,slow=9.6,SNR=5.2						
STKA	Stephens Creek	61.29	132	P	P	14 23 13.2	+0.5
	3.0nm,0.9s,mb4.4,baz=325,slow=12,SNR=6.3						
FINES	FINESS Array B	72.21	333	P	P	14 24 19.2	-2.0
	1.8nm,0.7s,mb4.1,baz=90,slow=6.9,SNR=5.3						
GERES	GERESS Array B	76.82	318	P	P	14 24 48.0	-0.2
	2.2nm,0.7s,mb4.2,baz=90,slow=5.3,SNR=14						
KHC	Kasperske Hory	76.92	319	*e*P	P	14 24 48.0	-0.8
HFS	Hagfors	77.86	330	P	P	14 24 51.4	-2.4
	2.3nm,0.8s,mb4.1,baz=101,slow=7.6,SNR=6.1						
NB2	NORSAR Subarra	79.16	331	P	P	14 24 58.2	-2.7
	2.3nm,0.8s,mb4.2,baz=95,slow=5.8						
NOA	NORSAR Array B	79.16	331	P	P	14 24 59.0	-1.9
	0.6nm,0.8s,mb3.6,baz=94,slow=5.8,SNR=3.9						
DAVOX	Davos	79.31	316	P	P	14 25 01.5	-0.5
	5.3nm,0.7s,mb4.6,baz=141,slow=6.6,SNR=13						
EKA	Eskdalemuir Ar	86.96	325	P	P	14 25 39.5	-1.4
	2.5nm,0.7s,mb4.5,baz=102,slow=6.4,SNR=6.0						
ESDC	Sonseca Array	89.94	310	P	P	14 25 55.2	-0.2
	0.1nm,0.3s,mb3.6,baz=48,slow=4.4,SNR=5.9						

*IDC **31** 14:16:00.1±0.9, 13.44N×93.33E, mb4.2/9, mb1 4.3/10, mb1mx4.1/20, mbtmp4.2/10, ML4.8/1, Error ellipse: s-maj=38.1km s-min=16.5km az=63.0*
*NEIC **31** 14:16:05.1±0.5, 13.65N×93.62E, h30^{km}, mb4.3/7, Error ellipse: s-maj=13.1km s-min=9.3km az=77.0*
*BJI **31** 14:16:06.1, 13.60N×93.60E, h30^{km}, mb4.2*
ISC 31 14:16:01.1±3.5, **13.55N**±0.07×**93.56E**±0.06, **h15**^{km}±26^{km}, **n29**, σ**0^{s}83**/29, **mb4.2**/17, **Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	7.12	46	*e*Pn	Pn	14 17 45.3	-1.9
	42nm,0.7s						
CM31				*e*pPn		14 17 49.7	
CMAR	Chiang Mai Arr	7.12	46	Pn	Pn	14 17 49.1	+1.9
	4.1nm,0.3s,baz=237,slow=15,SNR=38						
CMAR				Sn	Sn	14 19 07.9	-0.6
	2.7nm,0.3s,baz=236,slow=27,SNR=4.3						
PKI	Pulchoki	15.89	333	*e*P	P	14 19 45.8	-0.1
	25nm,0.3s						
GUN	Gumba	15.98	335	*e*P	P	14 19 47.2	+0.1
DMN	Daman	16.06	332	*e*P	P	14 19 47.6	-0.5
	10nm,0.3s						
KKN	Kakani	16.14	333	*e*P	P	14 19 49.3	+0.2
LSA	Lhasa	16.23	352	*e*P	P	14 19 50.4	+0.2
	8.6nm,0.6s						
LSA				*e*		14 19 55.8	
GKN	Gorkha	16.61	331	*e*P	P	14 19 54.6	-0.5
	30nm,0.3s						
KOLN	Koldanda	16.93	328	*e*P	P	14 19 58.9	-0.2
	13nm,0.2s						
ENH	Enshi	22.21	39	*e*P	P	14 20 58.9	+0.3
	14nm,0.8s,mb4.4						
LZH	Lanzhou	24.27	21	*e*P	P	14 21 26.0	+7.2
LZH				AP		14 21 31.0	
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.5						
GTA	Gaotai	26.34	11	P	P	14 21 40.0	+1.7
GTA				AMB	AMB		
	comp=Z,4.0nm,0.8s,mb4.0						
AAK	Ala-Archa	33.34	334	P	P	14 22 39.7	-0.9
	comp=Z,0.8nm,0.5s,mb3.9						
SONM	Songino Array	35.82	15	P	P	14 23 03.2	+1.3
	comp=Z,0.6nm,0.5s,mb3.8,baz=211,slow=5.4,SNR=4.5						
ZAL	Zalesovo	40.88	352	P	P	14 23 45.1	+1.1
	comp=Z,1.9nm,0.9s,mb3.7,baz=306,slow=9.2,SNR=5.2						
FITZ	Fitzroy Crossi	44.61	134	*e*P	P	14 24 15.1	+0.2
	comp=Z,6.1nm,0.4s,mb4.8						
MUN	Mundaring	50.20	155	*e*P	P	14 24 59.1	+0.6
	comp=Z,9.3nm,1.1s,mb4.7						
NWAO	Narrogin (SRO)	51.45	154	P	P	14 25 08.2	+0.2
	comp=Z,4.8nm,0.5s,mb4.7,baz=347,slow=4.3,SNR=8.7						
WRA	Warramunga Arr	52.13	129	P	P	14 25 13.1	-0.2
	comp=Z,1.6nm,0.5s,mb4.2,baz=314,slow=8.2,SNR=30						
WRA				PcP	PcP	14 26 24.5	-0.8
	comp=Z,0.9nm,0.4s,baz=327,slow=3.4,SNR=8.8						
WB2	Warramunga Arr	52.14	129	*e*P	P	14 25 13.1	-0.2
ASPA	Alice Springs	54.08	133	*e*P	P	14 25 27.2	-0.4
ASAR	Alice Springs	54.08	133	P	P	14 25 27.4	-0.2
	comp=Z,3.4nm,0.6s,mb4.5,baz=306,slow=6.7,SNR=64						
STKA	Stephens Creek	64.47	135	P	P	14 26 38.6	-1.0
	comp=Z,1.6nm,0.7s,mb4.2,baz=314,slow=7.0,SNR=4.4						
FINES	FINESS Array B	67.47	331	P	P	14 26 56.7	-1.5
	comp=Z,1.7nm,0.7s,mb4.2,baz=153,slow=4.3,SNR=5.4						
LSZ	Lusaka	70.72	248	*e*P	P	14 27 20.1	+1.1
	comp=Z,2.1nm,0.7s,mb4.2						
MORC	Moravsky Berou	70.76	318	*e*P	P	14 27 18.1	-0.5
	comp=Z,1.2nm,0.5s,mb4.1						
GERES	GERESS Array B	73.27	317	P	P	14 27 33.3	-0.3
	comp=Z,1.0nm,0.6s,mb4.0,baz=89,slow=6.0,SNR=10						
INK	Inuvik	91.73	16	P	P	14 29 09.1	+0.2
	comp=Z,0.5nm,0.7s,mb4.0,baz=268,slow=4.9,SNR=4.8						
TXAR	Lajitas Array	134.24	21	PKP	PKPdf	14 35 21.7	-1.0
	comp=Z,0.1nm,0.5s,baz=306,slow=1.5,SNR=3.7						

*IDC **31** 14:23:50.6±0.6, 7.07N×91.79E, mb4.4/17, mb1 4.6/18, mb1mx4.5/24, mbtmp4.4/18, ML4.5/1, MS4.0/2, Ms1 4.1/2, ms1mx3.3/29, Error ellipse: s-maj=22.9km s-min=13.8km az=36.0*
*NEIC **31** 14:23:56.4±0.3, 7.15N×91.98E, mb4.6/21, Error ellipse: s-maj=9.5km s-min=6.6km az=225.0*
*BJI **31** 14:23:56.3, 7.20N×92.00E, h37^{km}, mb4.6*
ISC 31 14:23:54.5±0.4, **7.07N**±0.06×**91.97E**±0.06, **h37**^{km}, **h37**^{km}±1.5^{km}**:pP-P**, **n80**, σ**0^{s}92**/78, **mb4.7**/41, **MS4.6**/1, **Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CM31	Chiang Mai Arr	13.20	30	*e*Pn	P	14 27 01.4	-0.6
	17nm,0.8s						
CM31				Sn	S	14 29 23.0	-5.5
CMAR	Chiang Mai Arr	13.20	30	Pn	P	14 27 01.1	-0.9
	0.8nm,0.3s,baz=231,slow=14,SNR=85						
CMAR				LR	LR	14 32 03.9	
	comp=Z,173nm,20.3s,baz=210,slow=37						
HYB	Hyderabad	16.65	309	*i* P	P	14 27 50.0	+3.2
HYB	Hyderabad	16.65	309	*e*S	S	14 30 38.0	-12
IMP	Imphal	17.71	6	*e*P	P	14 27 46.7	-13
SHL	Shillong	18.39	360	*e*P	P	14 28 07.0	-1.6
KMI	Kunming	20.70	29	P	P	14 28 35.5	+1.4
KMI				AP		14 28 42.5	
KMI				AMB	AMB		
	comp=Z,15nm,0.9s						
PKI	Pulchoki	21.32	344	*e*P	P	14 28 40.6	+0.2
	comp=Z,149nm,0.4s,mb5.7						
DMN	Daman	21.44	343	*e*P	P	14 28 41.7	+0.1
	comp=Z,127nm,1.0s,mb5.2						
GUN	Gumba	21.52	345	*e*P	P	14 28 42.8	+0.4
	comp=Z,129nm,0.7s,mb5.5						
KKN	Kakani	21.56	344	*e*P	P	14 28 43.2	+0.4
GKN	Gorkha	21.95	342	*e*P	P	14 28 46.0	-0.7
	comp=Z,147nm,0.3s,mb5.9						
KOLN	Koldanda	22.07	340	*e*P	P	14 28 48.4	+0.6
	comp=Z,78nm,1.0s,mb5.1						
LSA	Lhasa	22.53	358	*e*P	P	14 28 51.8	-0.7
	comp=Z,21nm,0.7s,mb4.7						
ENH	Enshi	28.34	33	*e*P	P	14 29 45.3	-1.9
	comp=Z,3.2nm,0.4s,mb4.3						
GTA	Gaotai	32.97	11	P	P	14 30 28.0	0.0
GTA				AP	pP	14 30 39.5	+1.0
GTA				XP	sP	14 30 45.3	+1.9
GTA				AMB	AMB		
	comp=Z,19nm,0.8s,mb5.1						
WMQ	Urumqi	36.80	355	P	P	14 31 01.3	+0.6
WMQ				AMB	AMB		
	comp=Z,8.0nm,0.5s,mb4.8						
ULHL	Ulahol	37.70	341	P	P	14 31 08.9	+0.7
	SNR=5.0						
KZA	Kyzart	37.88	340	P	P	14 31 11.0	+1.2
	SNR=11						
UCH	Uchtor	38.27	339	P	P	14 31 14.4	+1.4
	SNR=22						
AML	Almayashu	38.49	338	P	P	14 31 16.5	+1.6
	SNR=5.1						
KBK	Karagaybulak	38.50	340	P	P	14 31 16.4	+1.5
	SNR=12						
TKM2	Tokmak 2	38.52	341	P	P	14 31 15.8	+0.8
	SNR=20						
AAK	Ala-Archa	38.64	339	P	P	14 31 17.3	+1.3
	SNR=7.6						
AAK	Ala-Archa	38.64	339	*e*P	P	14 31 15.4	-0.6
	comp=Z,6.2nm,0.8s,mb4.4						
CHMS	Chumysh	38.87	340	P	P	14 31 18.9	+0.9
	SNR=7.4						
EKS2	Erkin-Say	38.92	338	P	P	14 31 19.7	+1.3
	SNR=22						
USP	Ospenovka	39.19	340	P	P	14 31 21.2	+0.6
	SNR=41						
JOW	Kunigami	39.68	56	P	P	14 31 26.6	+1.7
	comp=Z,38nm,0.5s,mb5.4,baz=348,slow=19,SNR=3.2						
FITZ	Fitzroy Crossi	41.59	127	*e*P	P	14 31 41.4	+0.6
	comp=Z,14nm,0.8s,mb4.6						
SONM	Songino Array	42.44	14	P	P	14 31 47.8	+0.4
	comp=Z,4.2nm,0.6s,mb4.2,baz=195,slow=8.4,SNR=47						
ULN	Ulaanbaatar	42.64	15	*e*P	P	14 31 48.6	-0.5
	comp=Z,3.3nm,0.8s,mb4.1						
ZAL	Zalesovo	47.09	354	P	P	14 32 24.4	-0.1
	comp=Z,4.2nm,0.4s,mb4.7,baz=304,slow=4.3,SNR=16						
ZAL				LR	LR	14 55 40.4	
	comp=Z,603nm,19.0s,MS4.6,baz=108,slow=41						
BVAR	Borovoye Array	49.09	343	P	P	14 32 39.3	-0.9
	comp=Z,5.2nm,0.8s,mb4.6,baz=138,slow=12,SNR=29						
BRVK	Borovoye	49.15	343	*e*P	P	14 32 39.0	-1.6
	comp=Z,2.3nm,0.6s,mb4.4						
WRA	Warramunga Arr	49.58	124	P	P	14 32 44.2	-0.2
	comp=Z,2.2nm,0.3s,mb4.7,baz=301,slow=9.7,SNR=26						
WRAB	Tennant Creek	49.58	124	*e*P	P	14 32 44.1	-0.3
	comp=Z,4.7nm,0.5s,mb4.8						
WRAB				*e*	pP	14 32 53.9	-1.3
WB2	Warramunga Arr	49.59	124	*e*P	P	14 32 44.4	0.0
CHKZ	Chkalovo	49.59	343	*e*P	P	14 32 43.5	-0.6
	comp=Z,11nm,0.4s,mb5.2						
CHKZ				*e*pP	pP	14 32 54.6	-0.2
ASPA	Alice Springs	51.08	128	*e*P	P	14 32 56.0	+0.3
ASAR	Alice Springs	51.08	128	P	P	14 32 55.9	+0.1
	comp=Z,4.7nm,0.8s,mb4.5,baz=301,slow=7.9,SNR=31						
GNI	Garni	53.48	316	P	P	14 33 10.6	-2.9
	comp=Z,1.6nm,0.4s,mb4.3,baz=180,slow=9.1,SNR=3.4						
GNI	Garni	53.48	316	P	P	14 33 12.2	-1.3
	comp=Z,4.6nm,0.6s,mb4.6						
KMBO	Kilima Mbogo	55.20	264	P	P	14 33 25.6	-0.8
	comp=Z,0.5nm,0.3s,mb4.0,baz=76,slow=19,SNR=2.3						
KMBO	Kilima Mbogo	55.20	264	P	P	14 33 25.7	-0.7
	comp=Z,2.6nm,0.8s,mb4.3						
KIV	Kislovodsk	56.49	319	*e*P	P	14 33 34.1	-1.2
	comp=Z,6.6nm,0.7s,mb4.8						
ASF	Jabal al Asfar	56.86	304	P	P	14 33 34.5	-3.7
	comp=Z,1.6nm,0.3s,mb4.5,baz=344,slow=4.8,SNR=3.5						
EIL	Elat	57.97	301	P	P	14 33 45.2	-0.7
	comp=Z,4.0nm,0.7s,mb4.6,baz=297,slow=5.2,SNR=6.2						
EIL	Elat	57.97	301	*e*P	P	14 33 45.6	-0.3
	comp=Z,4.3nm,0.7s,mb4.6						
EIL				*e*pP	pP	14 33 57.9	+0.9
STKA	Stephens Creek	61.13	132	*e*P	P	14 34 08.1	+0.4
	comp=Z,5.6nm,0.9s,mb4.7						
STKA	Stephens Creek	61.13	132	P	P	14 34 08.5	+0.8
	comp=Z,7.9nm,1.0s,mb4.8,baz=309,slow=8.9,SNR=7.5						
STKA	Stephens Creek	61.13	132	*e*P	P	14 34 07.5	-0.2
STKA				*e*pP	pP	14 34 18.6	-0.2
BRTR	Keskin Array B	61.34	312	P	P	14 34 07.8	-1.1
	comp=Z,2.1nm,0.6s,mb4.4,baz=125,slow=9.1,SNR=11						
YAK	Yakutsk	61.45	19	P	P	14 34 09.0	-0.4
	comp=Z,14nm,0.9s,mb5.1						
YAK				*e*pP	pP	14 34 18.8	-1.7
IDI	Anoyia	67.27	305	P	P	14 34 47.5	-0.1
	comp=Z,5.9nm,0.6s,mb4.8,baz=66,slow=9.6,SNR=8.2						
AKASG	Malin Array Be	67.46	322	P	P	14 34 46.5	-2.0
	comp=Z,0.8nm,0.4s,mb4.1,baz=86,slow=5.4,SNR=7.6						
MLR	Muntele Rosu	68.25	316	P	P	14 34 53.7	+0.1
	comp=Z,6.7nm,0.7s,mb4.8,baz=180,slow=5.1,SNR=8.2						
FINES	FINESS Array B	72.42	333	P	P	14 35 17.5	-1.1
	comp=Z,5.8nm,0.6s,mb4.7,baz=99,slow=6.8,SNR=43						
KAF	Kangasniemi	72.53	333	*e*p	P	14 35 17.6	-1.6
	comp=Z,2.5nm,0.6s,mb4.3						
PSZ	Piszkesteto	72.79	318	*e*P	P	14 35 20.3	-0.7
	comp=Z,2.5nm,0.7s,mb4.2						
DPC	Dobruska-Polom	75.44	320	*e*P	P	14 35 37.0	+0.6
GEC2	GERESS Array S	76.99	318	*e*P	P	14 35 45.5	+0.2
GERES	GERESS Array B	76.99	318	P	P	14 35 45.5	+0.2
	comp=Z,2.2nm,0.5s,mb4.3,baz=98,slow=4.8,SNR=18						
BRG	Berggiesshubel	77.00	320	*e*P	P	14 35 45.6	+0.4
	comp=Z,4.1nm,1.0s,mb4.3						
BRG				*e*	pP	14 35 56.9	+0.3
KHC	Kasperske Hory	77.10	319	*e*P	P	14 35 45.6	-0.2
WET	Wettzell	77.56	319	*e*P	P	14 35 48.8	+0.4
CLL	Collm	77.62	321	*e**PP	pP	14 36 01.0	+0.9
MOX	Moxa	78.46	320	*i* P	P	14 35 53.6	+0.3
MOX	Moxa	78.46	320	*e*P	P	14 35 53.6	+0.3
GRA1	Grafenberg Arr	78.67	319	*e*P	P	14 35 55.3	+0.9
	comp=Z,4.0nm,0.7s,mb4.5						
GRF	Grafenberg Arr	78.67	319	*e*P	P	14 35 55.3	+0.9
	comp=Z,4.0nm,0.7s,mb4.5						
CLZ	Clausthal	79.29	321	*e*P	P	14 35 57.7	-0.1
NB2	NORSAR Subarra	79.38	331	P	P	14 35 56.7	-1.4
	comp=Z,1.9nm,0.6s,mb4.2,baz=98,slow=5.0						
NOA	NORSAR Array B	79.38	331	P	P	14 35 57.2	-0.8
	comp=Z,1.7nm,0.5s,mb4.2,baz=95,slow=5.5,SNR=8.0						
BSEG	Bad Segeberg	79.41	323	*e*P	P	14 35 58.8	+0.4
BFO	Black Forest	80.54	318	*e*P	P	14 36 04.7	+0.1
LPG	La Plagne	81.66	315	*e*P	P	14 36 11.2	+0.7
	comp=Z,12nm,0.6s,mb4.7						
BNI	Bardonecchia	81.72	314	*e*P	P	14 36 11.0	+0.1
	comp=Z,6.7nm,0.9s,mb4.6						
PDAR	Pinedale Array	126.67	20	PKP	PKPdf	14 42 56.5	+2.0
	comp=Z,0.4nm,0.7s,baz=56,slow=5.3,SNR=3.7						
NVAR	Mina Array Bea	126.69	30	PKP	PKPdf	14 42 58.3	+3.6
	comp=Z,0.6nm,0.7s,baz=11,slow=0.7,SNR=4.1						

CASC 31 14:35:19.9±2.3, **12.51N**×**88.23W**, **h49**^{km}±67^{km}, **MD3.8, ML3.5, 4C-6D, Off coast of central America**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNCH	Conchagua	0.85	27	*e*P	P	14 35 36.3	+0.6
CNCH				*e*S	S	14 35 48.9	+1.4
BLLM	Bellamira	0.93	360	*e*P	P	14 35 37.1	+0.4
BLLM				*e*S	S	14 35 50.1	+0.8
CRIN	San Cristobal	1.17	81⇓	*e*P	P	14 35 40.8	+0.6
CRIN				*e*S	S	14 35 58.2	+3.0
SNVI	San Vicente	1.24	332	*e*P	P	14 35 41.5	+0.3
SNVI				*e*S	S	14 35 57.2	+0.1
CAHU	Cacacuatique	1.25	1	*e*P	P	14 35 41.9	+0.5
CAHU				*e*S	S	14 35 58.2	+0.9
LEON	Leon	1.31	94⇓	*e*P	P	14 35 41.5	-0.8
LEON				*e*S	S	14 35 59.2	+0.2
TEL3	Telica 3	1.36	87⇓	*e*P	P	14 35 42.6	-0.4
TEL3				*e*S	S	14 35 59.6	-0.5
LFRS	El Faro	1.37	324⇑	*e*P	P	14 35 42.9	-0.3
LFRS				*e*S	S	14 36 00.2	-0.1
LBRS	Las Brisas	1.45	327	*e*P	P	14 35 44.4	+0.1
LBRS				*e*S	S	14 36 02.2	-0.1
MIRN	Miramar	1.49	93⇓	*e*P	P	14 35 44.1	-0.7
MIRN				*e*S	S	14 36 03.5	+0.3
CNGN	Cerro Negro	1.50	90⇑	*e*P	P	14 35 44.4	-0.5
CNGN				*e*S	S	14 36 04.6	+1.1
LFU	La Fuente	1.50	325	*e*P	P	14 35 45.1	+0.1
LFU				*e*S	S	14 36 03.8	+0.3
SNET	Serv Nac Est T	1.52	320	*e*P	P	14 35 45.3	+0.1
SNET				*e*S	S	14 36 03.3	-0.6
BOQS	Boqueron	1.59	320	*e*P	P	14 35 46.2	+0.1
BOQS				*e*S	S	14 36 05.6	0.0
COPN	Copaltepe	1.64	101⇑	*e*P	P	14 35 46.1	-0.7
COPN				*e*S	S	14 36 05.6	-1.3
MOMJ	Momotombo	1.66	93⇓	*e*P	P	14 35 46.4	-0.7
MOMJ				*e*S	S	14 36 07.1	-0.2
APYN	Apoyeque	1.86	98⇑	*e*P	P	14 35 49.3	-0.7
APYN				*e*S	S	14 36 12.2	-0.1
SBLS	San Blas	1.89	314	*e*P	P	14 35 50.5	+0.1
SBLS				*e*S	S	14 36 14.1	+1.0
XAVN	Gruta Xavier	1.90	101	*e*P	P	14 35 50.3	-0.2
XAVN				*e*S	S	14 36 12.8	-0.5
SNJE	San Jose	1.90	315	*e*P	P	14 35 50.2	-0.3
SNJE				*e*S	S	14 36 13.4	+0.2
RTR	El Retiro	1.95	315	*e*P	P	14 35 51.5	+0.4

RTR				*e*S	S	14 36 14.2	-0.2
MGAN	**Managua**	**1.97**	**100**	⇓*e*P	P	14 35 51.0	-0.6
MGAN				*e*S	S	14 36 14.1	-1.0
MGAN				*i*		14 36 16.2	
	comp=N,516nm,0.2s						
TICN	**Ticuantepe**	**2.01**	**103**	*e*P	P	14 35 51.8	-0.3
TICN				*e*S	S	14 36 15.7	-0.4
WILN	**Americas 2**	**2.03**	**100**	*e*P	P	14 35 51.1	-1.2
WILN				*e*S	S	14 36 16.0	-0.5
PYTN	**Playitas**	**2.12**	**89**	*e*P	P	14 35 52.6	-1.1
PYTN				*e*S	S	14 36 18.6	-0.3
RBDL	**Robledal**	**2.13**	**319**	*e*P	P	14 35 53.7	-0.1
MTO2	**Montecristo 2**	**2.17**	**330**	*e*P	P	14 35 53.9	-0.5
APON	**Apoyo**	**2.20**	**105**	*e*P	P	14 35 54.0	-0.8
APON				*e*S	S	14 36 18.7	-2.1
JCR	**Jicaral**	**4.05**	**131**	*e*P	P	14 36 20.5	-0.5
JCR				*e*S	S	14 37 04.6	-3.0
PRS1	**Puriscal**	**4.59**	**123**	*e*P	P	14 36 30.5	+1.8
PRS1				*e*S	S	14 37 19.8	-1.6
LAJ	**Bijagual**	**4.82**	**123**	*e*P	P	14 36 28.4	-3.4
URSC	**Urasca**	**5.12**	**121**	*e*P	P	14 36 35.5	-0.4
URSC				*e*S	S	14 37 34.7	+0.2
BUS	**Buena Vista**	**5.29**	**123**	*e*P	P	14 36 40.2	+2.0

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*MOS **31** 14:38:43.2±0.9, 5.15N×94.87E, h33^{km}, mb5.9/87, MS4.9/10, Error ellipse: s-maj=8.4km s-min=3.9km az=125.6*

*BJI **31** 14:38:45.3, 4.96N×94.75E, h62^{km}, mB5.5, mb5.6, Ms5.2, Msz4.9*

*NEIC **31** 14:38:46.6±0.1, 5.11N×94.86E, mb5.6/117, MS4.9/7, Error ellipse: s-maj=4.5km s-min=3.0km az=214.0*

*IDC **31** 14:38:46.8±0.5, 5.09N×94.79E, h49^{km}±3^{km}, mb5.1/24, mb1 5.2/25, mb1mx5.2/26, mbtmp5.4/25, MS4.7/3, Ms1 4.8/3, ms1mx3.9/31, Error ellipse: s-maj=15.7km s-min=10.0km az=41.0*

*HRVD **31** 14:38:46.6±0.3, 4.79N×94.66E, h50^{km}±1^{km}, MW5.3/57, Centroid moment Tensor Solution. LP body waves: s51,c95;Mantle waves: s57,c102; Half duration: 1^{s}1 Moment tensor: Scale 10^{17}Nm; M$_{rr}$0.92±.03; M$_{\theta\theta}$-0.50±.03; M$_{\phi\phi}$-0.42±.03; M$_{r\theta}$0.52±.02; M$_{\theta\phi}$0.61±.02; M$_{\phi r}$-0.43±.03; Best double couple: M$_{0}$1.2×10^{17} NP1: φ$_{s}$316°, δ28°, λ94°. NP2: φ$_{s}$131°, δ62°, λ88°. Principal axes: T 1.13, Plg73°, Azm36°; N .14, Plg2°, Azm132°; P -1.28, Plg17°, Azm223°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 31 14:38:44.5±0.8**, 5.08N**±0.03×**94.84E**±0.03**, h44**^{km}±6^{km}**, h49**^{km}±1.0^{km}**:pP-P, n650, σ0^{s}92**/601**, mb5.6**/193**, MS5.0**/31**, 164C-19D, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SNG	**Songkhla**	**6.11**	**70**	P	**P**	**14 40 17.0**	**+2.4**
	960nm,1.0s						
NST	**Nakhon Sawan**	**11.74**	**26**	⇓P	**P**	**14 41 35.8**	**+3.5**
	150nm,0.8s						
KKTK	**Khon Kaen**	**13.66**	**34**	P	**P**	**14 42 03.0**	**+5.2**
	2μm,0.8s						
CM31	**Chiang Mai Arr**	**13.89**	**16**	*e*P	**P**	**14 42 03.1**	**+2.2**
	264nm,0.8s						
CMAR	**Chiang Mai Arr**	**13.89**	**16**	P	**P**	**14 42 03.0**	**+2.2**
	1.0nm,0.3s,baz=211,slow=13,SNR=76						
CMAR				LR	LR	14 48 16.5	
	comp=Z,2μm,18.6s,baz=200,slow=41						
CMAR				ScP		14 50 51.2	
	0.3nm,0.3s,baz=230,slow=3.1,SNR=37						
UBT	**Ubonrachathani**	**14.22**	**44**	P	**P**	**14 42 15.0**	**+10**
	403nm,0.5s						
MDRS	**Chennai**	**16.44**	**300**	*e*P	**P**	**14 42 34.0**	**+0.2**
VIS	**Vishakhapatnam**	**16.87**	**319**	⇑*e*P	**P**	**14 42 38.0**	**-1.1**
VIS				*e*		14 42 53.0	
	comp=Z,87nm,0.6s						
VIS				*e*		14 43 02.5	
	comp=Z,474nm,2.4s						
VIS				*i*		14 45 38.5	
BWNR	**Bhubaneshwar**	**17.49**	**331**	*e*	**P**	**14 42 40.6**	**-6.4**
BWNR				*e*		14 43 00.2	
	comp=Z,317nm,2.1s						
BWNR				*e*		14 45 42.6	
KOD	**Kodaikanal**	**17.96**	**288**	*e*P	**P**	**14 42 55.1**	**+2.4**
KOD				*e*		14 42 56.3	
	comp=Z,64nm,1.5s						
AGT	**Agartala**	**19.02**	**350**	*e*P	**P**	**14 43 00.0**	**-5.5**
IMP	**Imphal**	**19.61**	**358**	*e*P	**P**	**14 43 08.8**	**-3.3**
HYB	**Hyderabad**	**20.11**	**309**	*e*P	**P**	**14 43 18.0**	**+0.6**
HYB				*e*S	**S**	**14 46 48.0**	**-7.9**
HYB				pmax	pmax		
	comp=Z,80nm,1.0s						
HYB	**Hyderabad**	**20.11**	**309**	*e*P	**P**	**14 43 18.0**	**+0.6**
	comp=Z,80nm,1.0s						
HYB				*e*S	**S**	**14 46 48.0**	**-7.9**
HYB	**Hyderabad**	**20.11**	**309**	*i* P	**P**	**14 43 18.0**	**+0.6**
	comp=Z,80nm,1.0s						
HYB				*e*		14 46 48.0	
HYB				*e*S	**S**	**14 47 04.0**	**+8.1**
QIZ	**Qiongzhong**	**20.16**	**45**	P	**P**	**14 43 19.5**	**+1.5**
QIZ				S	**S**	**14 46 59.0**	**+2.1**
QIZ				LR	LR		
	comp=N,3μm,18.1s,MS4.7						
QIZ				LR	LR		
	comp=E,2μm,20.0s,MS4.7						
QIZ				LR	LR		
	comp=Z,4μm,20.6s,MS4.8						
QIZ	**Qiongzhong**	**20.16**	**45**	*e*P	**P**	**14 43 16.1**	**-1.8**
	comp=Z,214nm,1.3s						
BOK	**Bokaro**	**20.51**	**336**	⇑*e*P	**P**	**14 43 20.4**	**-1.2**
BOK				*e*		14 43 26.0	
	comp=Z,837nm,1.0s						
BOK				*e*S	**S**	**14 47 03.7**	**+0.1**
SHL	**Shillong**	**20.57**	**352**	⇑*e*P	**P**	**14 43 18.3**	**-3.8**
SHL				*e*		14 43 20.5	
	comp=Z,90nm,0.7s						
BLSP	**Bilaspur**	**20.94**	**325**	⇑*e*P	**P**	**14 43 25.9**	**-0.1**
BLSP				*e*		14 43 28.4	
	comp=Z,396nm,0.9s						
BLSP				*e*S	**S**	**14 47 15.2**	**+3.3**
MNGI	**Mangalore**	**21.24**	**293**	*e*P	**P**	**14 43 31.9**	**+2.8**
KMI	**Kunming**	**21.33**	**20**	P	**P**	**14 43 32.5**	**+2.6**
KMI				PP	PP	14 43 57.0	+2.6
KMI				S	**S**	**14 47 24.8**	**+5.7**
KMI				XS		14 47 39.0	
KMI				SS	SS	14 48 00.3	+5.0
KMI				AMB	AMB		
	comp=Z,128nm,1.5s,mb5.0						
KMI				AMB	AMB		
	comp=Z,621nm,5.4s						
KMI				LR	LR		
	comp=N,2μm,21.8s						
KMI				LR	LR		
	comp=E,3μm,16.0s						
KMI				LR	LR		
	comp=Z,3μm,25.5s,MS4.5						
MNCY	**Minicoy**	**21.88**	**279**	⇓*i*P	**P**	**14 43 41.0**	**+5.5**
MNCY				*i*		14 44 22.0	
NGP	**Nagpur**	**22.14**	**318**	⇑*e*P	**P**	**14 43 39.0**	**+1.0**
	comp=Z,82nm,0.8s,mb5.2						
NGP				*e*S	**S**	**14 47 40.1**	**+6.0**
LATR	**Latur**	**22.24**	**308**	*e*P	**P**	**14 43 40.0**	**+1.0**
AKL	**Akola**	**23.26**	**313**	⇑*e*P	**P**	**14 43 53.0**	**+4.0**
AKL				*e*		14 43 57.6	
	comp=Z,215nm,1.8s						
AKL				*i* S	**S**	**14 48 01.5**	**+7.2**
KAD	**Karad**	**23.59**	**303**	*e*P	**P**	**14 43 53.1**	**+0.8**
KAD				*e*		14 44 08.7	
	comp=Z,47nm,1.5s						
ALBI	**Allahabad**	**23.68**	**329**	*e*P	**P**	**14 43 52.0**	**-1.1**
GYA	**Guiyang**	**24.08**	**27**	⇑*i*P	**P**	**14 43 58.5**	**+1.5**
GYA				AP		14 44 11.0	
GYA				XP		14 44 19.5	
GYA				S	**S**	**14 48 12.3**	**+3.8**
GYA				AMB	AMB		
	comp=Z,670nm,0.8s,mb6.1						
GYA				AMB	AMB		
	comp=Z,810nm,8.6s						
GYA				LR	LR		
	comp=N,6μm,16.4s,MS5.3						
GYA				LR	LR		
	comp=E,6μm,15.4s,MS5.3						
GYA				LR	LR		
	comp=Z,8μm,16.0s,MS5.3						
PKI	**Pulchoki**	**24.11**	**339**	*e*P	**P**	**14 43 57.1**	**-0.1**
	comp=Z,220nm,0.8s,mb5.7						
DMN	**Daman**	**24.25**	**339**	*e*P	**P**	**14 43 58.6**	**0.0**
	comp=Z,397nm,0.9s,mb5.9						
GUN	**Gumba**	**24.25**	**340**	*e*P	**P**	**14 43 57.9**	**-0.8**
	comp=Z,526nm,0.8s,mb6.0						
KKN	**Kakani**	**24.35**	**339**	*e*P	**P**	**14 43 59.4**	**-0.2**
	comp=Z,954nm,1.2s,mb6.1						
POO	**Poona**	**24.47**	**305**	⇑*e*P	**P**	**14 44 01.5**	**+0.6**
POO				*e*		14 44 18.5	
	comp=Z,129nm,1.4s						
POO				*i*		14 54 35.9	
	comp=Z,1μm,18.7s						
BHPL	**Bhopal**	**24.67**	**319**	⇑*i*P	**P**	**14 44 03.9**	**+1.2**
BHPL				*e*		14 44 07.2	
	comp=Z,216nm,2.1s						
BHPL				*e*		14 48 46.4	
LSA	**Lhasa**	**24.74**	**352**	*e*P	**P**	**14 44 03.2**	**-0.2**
LSA				pmax	pmax		
	comp=Z,255nm,0.6s,mb5.9						
LSA	**Lhasa**	**24.74**	**352**	*e*P	**P**	**14 44 03.2**	**-0.1**
	comp=Z,255nm,0.6s,mb5.9						
GKN	**Gorkha**	**24.78**	**338**	*e*P	**P**	**14 44 03.5**	**-0.3**
	comp=Z,648nm,0.8s,mb6.2						
KOLN	**Koldanda**	**24.97**	**336**	*e*P	**P**	**14 44 06.4**	**+0.7**
	comp=Z,932nm,0.8s,mb6.4						
BOM	**Bombay**	**25.50**	**304**	*e*	**P**	**14 44 26.7**	**+16**
BOM				*e*		14 48 58.1	
	comp=Z,125nm,1.0s						
DGAR	**Diego Garcia**	**25.55**	**241**	*e*P	**P**	**14 44 10.9**	**-0.3**
CD2	**Chengdu**	**27.03**	**17**	⇑*i*P	**P**	**14 44 24.3**	**-0.5**
CD2				S	**S**	**14 48 57.0**	**-0.5**
CD2				AMB	AMB		
	comp=Z,250nm,1.0s,mb5.7						
CD2				LR	LR		
	comp=N,2μm,14.4s						
CD2				LR	LR		
	comp=Z,2μm,16.8s,MS4.7						
TGY	**Tagaytay City**	**27.23**	**69**	P	**P**	**14 44 27.9**	**+1.3**
	comp=Z,710nm,0.8s,mb6.2,baz=230,slow=2.7,SNR=29						
LGTI	**Lohaghat**	**27.90**	**332**	⇓*i*P	**P**	**14 44 32.5**	**-0.1**
PTH	**Pithoragarh**	**27.99**	**332**	*e*P	**P**	**14 44 32.9**	**-0.6**
PTH				*e*		14 49 22.8	
ENH	**Enshi**	**28.62**	**27**	*e*P	**P**	**14 44 37.8**	**-1.3**
	comp=Z,95nm,0.6s,mb5.7						
AJM	**Ajmer**	**28.73**	**320**	*i* P	**P**	**14 44 40.0**	**-0.1**
NDI	**New Delhi**	**28.82**	**327**	*e*P	**P**	**14 44 38.5**	**-2.4**
NDI				*e*		14 50 22.0	
DDI	**Dehra Dun**	**29.68**	**330**	*e*P	**P**	**14 44 47.9**	**-0.6**
DDI				*e*S	**S**	**14 49 43.5**	**+3.6**
SDNR	**Sundarnagar**	**31.18**	**330**	*e*P	**P**	**14 45 01.8**	**0.0**
WHN	**Wuhan**	**31.30**	**34**	⇑P	**P**	**14 45 03.8**	**+1.0**
WHN				LR	LR		
	comp=N,2μm,17.6s,MS5.3						
WHN				LR	LR		
	comp=E,5μm,14.6s,MS5.3						
WHN				LR	LR		
	comp=Z,10μm,15.2s,MS5.6						
XAN	**Xi'an**	**31.65**	**23**	P	**P**	**14 45 05.0**	**-0.9**
XAN				AP	pP	14 45 17.5	-0.3
XAN				LR	LR		
	comp=N,5μm,17.6s,MS5.4						
XAN				LR	LR		
	comp=E,5μm,16.7s,MS5.4						
XAN				LR	LR		
	comp=Z,13μm,16.1s,MS5.7						
LZH	**Lanzhou**	**31.95**	**14**	*e*P	**P**	**14 45 08.0**	**-0.5**
LZH				AP	pP	14 45 20.8	+0.3
LZH				XP	sP	14 45 26.3	+0.2
LZH				PP	PP	14 46 14.0	-1.4
LZH				*e*S	**S**	**14 50 18.0**	**+2.4**
LZH				XS		14 50 38.0	
LZH				SS	SS	14 52 12.0	+2.5
LZH				AMB	AMB		
	comp=Z,123nm,1.5s,mb5.5						
LZH				AMB	AMB		
	comp=Z,293nm,4.0s						
LZH				LR	LR		
	comp=E,2μm,12.0s						
LZH				LR	LR		
	comp=Z,2μm,13.5s,MS5.0						
DLH	**Dalhousie**	**32.52**	**329**	*e*P	**P**	**14 45 14.0**	**+0.5**
THN	**Thein Dam**	**32.56**	**329**	*e*P	**P**	**14 45 12.0**	**-1.9**
	comp=Z,59nm,1.1s,mb5.4						
THN	**Thein Dam**	**32.56**	**329**	*e*P		14 51 39.3	
GTA	**Gaotai**	**34.47**	**7**	⇑*i*P	**P**	**14 45 30.0**	**-0.3**
GTA				AP	pP	14 45 43.0	+0.7
GTA				XP	sP	14 45 49.5	+1.5
GTA				PP	PP	14 46 46.3	-0.8
GTA				PPP	PPP	14 47 06.8	+1.6
GTA				PCP	PcP	14 48 05.3	+0.3
GTA				S	**S**	**14 50 54.5**	**-0.2**
GTA				XS		14 51 15.5	
GTA				SCP		14 51 45.8	
GTA				SS	SS	14 53 05.5	-2.0
GTA				SCS	ScS	14 55 46.5	-0.1
GTA				AMB	AMB		
	comp=Z,195nm,0.9s,mb6.0						
GTA				AMB	AMB		
	comp=Z,577nm,7.2s						
GTA				LR	LR		
	comp=N,926nm,19.0s,MS4.6						
GTA				LR	LR		
	comp=E,759nm,22.8s,MS4.6						
GTA				LR	LR		
	comp=Z,1μm,23.6s,MS4.5						
NJ2	**Nanjing**	**35.01**	**37**	*e*P	**P**	**14 45 36.0**	**+1.1**
NJ2				AP	pP	14 45 47.5	+0.5
NJ2				XP	sP	14 45 52.5	-0.1
NJ2				PP	PP	14 46 54.8	+0.7
NJ2				S	**S**	**14 51 07.0**	**+4.0**
NJ2				XS		14 51 26.0	
NJ2				AMB	AMB		
	comp=Z,200nm,6.4s						
NJ2				LR	LR		
	comp=N,3μm,13.8s,MS5.2						
NJ2				LR	LR		
	comp=E,2μm,17.5s,MS5.2						
NJ2				LR	LR		
	comp=Z,2μm,19.1s,MS4.9						
MBWA	**Marble Bar**	**35.72**	**138**	*e*P	**P**	**14 45 39.8**	**-1.3**
	comp=Z,29nm,1.1s,mb5.1						
SSE	**Sheshan**	**35.81**	**41**	P	**P**	**14 45 42.0**	**+0.2**
SSE				XP	sP	14 46 00.3	+0.8
SSE				S	**S**	**14 51 17.5**	**+2.0**
SSE				XS		14 51 41.0	
SSE				AMB	AMB		
	comp=Z,39nm,1.2s,mb5.2						
SSE				AMB	AMB		
	comp=Z,139nm,7.2s						
SSE				LR	LR		
	comp=N,840nm,22.3s,MS4.5						
SSE				LR	LR		
	comp=E,509nm,22.3s,MS4.5						
SSE				LR	LR		
	comp=Z,1μm,20.9s,MS4.6						
TIA	**Tai'an**	**37.14**	**31**	⇑P	**P**	**14 45 53.3**	**+0.3**
TIA				AMB	AMB		
	comp=Z,89nm,0.9s,mb5.6						
BTO	**Baotou**	**37.91**	**19**	*e*P	**P**	**14 45 59.0**	**-0.3**
BTO				AMB	AMB		
	comp=Z,52nm,0.6s,mb5.4						
FITZ	**Fitzroy Crossi**	**38.13**	**128**	⇓*i*P	**P**	**14 46 00.6**	**-0.7**
	comp=Z,46nm,0.7s,mb5.3						
KSH	**Kashi**	**38.29**	**336**	⇑*i*P	**P**	**14 46 03.0**	**+0.5**
KSH				AP	pP	14 46 15.0	+0.4
KSH				XP	sP	14 46 20.8	+0.7
KSH				PP	PP	14 47 33.0	-1.0
KSH				PPP	PPP	14 47 56.5	-0.3
KSH				PCP	PcP	14 48 16.8	+0.3
KSH				*e*S	**S**	**14 51 53.3**	**+0.1**
KSH				SCP		14 52 01.0	
KSH				PCS		14 52 05.5	
KSH				SS	SS	14 54 30.5	-3.3
KSH				SCS	ScS	14 56 09.0	+1.3
KSH				LR	LR		
	comp=N,2μm,12.4s,MS5.3						
KSH				LR	LR		
	comp=E,2μm,12.2s,MS5.3						
JOW	**Kunigami**	**38.53**	**52**	LR	LR	15 01 50.4	
	comp=E,2μm,20.2s,MS4.8,baz=273,slow=36						
HHC	**Hu-ho-hao-te**	**38.65**	**20**	⇑*i*P	**P**	**14 46 06.5**	**+1.0**
HHC				AP	pP	14 46 18.5	+0.9
HHC				XP	sP	14 46 24.0	+0.9
HHC				PP	PP	14 47 39.5	+1.4
HHC				PCP	PcP	14 48 17.5	-0.1
HHC				S	**S**	**14 51 58.3**	**-0.3**
HHC				SS	SS	14 54 41.5	-0.2
HHC				SCS	ScS	14 56 10.3	+0.5
HHC				AMB	AMB		
	comp=Z,136nm,1.0s,mb5.6						
HHC				AMB	AMB		
	comp=Z,364nm,4.4s						
HHC				LR	LR		
	comp=N,2μm,21.4s,MS5.0						
HHC				LR	LR		
	comp=E,1μm,16.7s,MS5.0						
HHC				LR	LR		
	comp=Z,2μm,20.2s,MS4.9						
WMQ	**Urumqi**	**39.10**	**352**	⇑P	**P**	**14 46 09.8**	**+0.7**
WMQ				AP	pP	14 46 22.3	+1.0
WMQ				XP	sP	14 46 27.5	+0.7
WMQ				PP	PP	14 47 44.3	+1.1
WMQ				PPP	PPP	14 48 07.5	+0.3
WMQ				S	**S**	**14 52 06.0**	**+0.7**
WMQ				AMB	AMB		
	comp=Z,112nm,1.0s,mb5.5						
WMQ				AMB	AMB		
	comp=Z,2μm,10.7s						
WMQ				LR	LR		
	comp=N,712nm,23.5s,MS4.7						
WMQ				LR	LR		
	comp=E,1μm,27.1s,MS4.7						
WMQ				LR	LR		
	comp=Z,709nm,30.4s,MS4.3						
BJT	**Baijiatuau**	**39.75**	**26**	*e*P	**P**	**14 46 15.8**	**+1.2**
BJT				pmax	pmax		
	comp=Z,248nm,0.8s						
BJT	**Baijiatuau**	**39.75**	**26**	*e*P	**P**	**14 46 15.8**	**+1.2**
	comp=Z,248nm,0.8s,mb6.0						
BJI	**Beijing**	**39.77**	**26**	*e*P	**P**	**14 46 16.5**	**+1.8**
BJI				AMB	AMB		
	comp=Z,366nm,0.9s,mb6.1						
BJI				LR	LR		
	comp=N,2μm,21.0s,MS4.9						
BJI				LR	LR		
	comp=E,970nm,17.9s,MS4.9						
BJI				LR	LR		
	comp=Z,2μm,23.9s						
ULHL	**Ulahol**	**40.54**	**339**	P	**P**	**14 46 22.1**	**+1.0**
	SNR=48						
KZA	**Kyzart**	**40.77**	**338**	P	**P**	**14 46 24.4**	**+1.4**
	SNR=77						
UCH	**Uchtor**	**41.18**	**337**	P	**P**	**14 46 27.7**	**+1.3**
	SNR=223						
KAKA	**Kakadu**	**41.33**	**116**	*e*P	**P**	**14 46 26.9**	**-1.0**
	comp=Z,27nm,0.6s,mb5.0						
TKM2	**Tokmak 2**	**41.37**	**339**	P	**P**	**14 46 29.0**	**+1.0**
	SNR=106						
KBK	**Karagaybulak**	**41.38**	**338**	P	**P**	**14 46 29.4**	**+1.4**
	SNR=216						
AML	**Almayashu**	**41.42**	**336**	P	**P**	**14 46 29.8**	**+1.4**
	SNR=283						
DL2	**Dalian**	**41.52**	**32**	P	**P**	**14 46 30.8**	**+1.5**
DL2				AMB	AMB		
	comp=Z,160nm,0.9s,mb5.7						
DL2				LR	LR		
	comp=N,830nm,15.9s,MS4.7						
DL2				LR	LR		
	comp=E,530nm,19.2s,MS4.7						
DL2				LR	LR		
	comp=Z,860nm,14.1s						
AAK	**Ala-Archa**	**41.53**	**337**	P	**P**	**14 46 30.6**	**+1.3**
	SNR=102						
AAK	**Ala-Archa**	**41.53**	**337**	*e*P	**P**	**14 46 29.3**	**0.0**
AAK				pmax	pmax		
	comp=Z,96nm,0.9s,mb5.4						
AAK	**Ala-Archa**	**41.53**	**337**	*e*P	**P**	**14 46 29.3**	**0.0**
	comp=Z,96nm,0.9s,mb5.4						
FRU	**Bishkek**	**41.66**	**338**	⇑*i*P	**P**	**14 46 32.0**	**+1.7**
FRU				*i*	pP	14 46 45.0	+2.5
FRU				pmax	pmax		
	comp=Z,350nm,2.1s,mb5.6						
CHMS	**Chumysh**	**41.75**	**338**	P	**P**	**14 46 31.5**	**+0.4**
	SNR=58						
EKS2	**Erkin-Say**	**41.84**	**337**	P	**P**	**14 46 33.1**	**+1.3**
	SNR=105						
USP	**Ospenovka**	**42.07**	**338**	P	**P**	**14 46 34.5**	**+0.8**
	SNR=244						
MUN	**Mundaring**	**42.10**	**152**	*e*P	**P**	**14 46 34.7**	**+0.6**
	comp=Z,10nm,0.6s,mb4.6						
MUN	**Mundaring**	**42.10**	**152**	*e*P	**P**	**14 46 34.7**	**+0.6**
MUN				pmax	pmax		
	comp=Z,11nm,0.6s,mb4.7						
MK02	**Makanchi Array**	**42.92**	**347**	P	**P**	**14 46 41.0**	**+0.3**
MK02				pmax	pmax		
	comp=Z,110nm,0.7s,mb5.7						
NWAO	**Narrogin (SRO)**	**43.36**	**152**	*e*P	**P**	**14 46 44.2**	**-0.3**
NWAO	**Narrogin (SRO)**	**43.36**	**152**	P	**P**	**14 46 45.1**	**+0.7**
	comp=Z,16nm,0.8s,mb4.8,baz=344,slow=6.5,SNR=6.2						
INCN	**Inchon**	**43.38**	**38**	*e*P	**P**	**14 46 43.1**	**-1.5**
	comp=Z,109nm,0.8s,mb5.6						
SONM	**Songino Array**	**43.74**	**11**	P	**P**	**14 46 47.1**	**-0.2**
	comp=Z,84nm,0.8s,mb5.5,baz=190,slow=8.5,SNR=567						
SONM				pP	pP	14 47 00.2	+0.6
	comp=Z,43nm,0.9s,baz=196,slow=8.6,SNR=9.2						
SONM				PcP	PcP	14 48 34.0	-0.1
	comp=Z,33nm,0.7s,baz=192,slow=3.8,SNR=19						
SONM				pPcP		14 48 47.5	
	comp=Z,22nm,0.7s,baz=193,slow=4.1,SNR=5.8						
SONM				ScP		14 52 20.9	
	comp=Z,5.9nm,0.9s,baz=207,slow=2.8,SNR=8.2						
SONM				LR	LR	15 07 18.0	
	comp=Z,1μm,18.2s,MS4.8,baz=190,slow=39						
ULN	**Ulaanbaatar**	**43.90**	**12**	*e*P	**P**	**14 46 48.1**	**-0.5**
ULN				pmax	pmax		
	comp=Z,51nm,0.7s,mb5.4						
ULN				MLR	MLR		
	comp=Z,1μm,19.0s,MS4.9						
ULN	**Ulaanbaatar**	**43.90**	**12**	*e*P	**P**	**14 46 48.1**	**-0.5**
	comp=Z,51nm,0.7s,mb5.4						
ULN				LR	LR		
	comp=Z,1μm,19.0s,MS4.9						
KS15	**Wonju Array Si**	**44.13**	**39**	*e*P	**P**	**14 46 49.9**	**-0.6**
KMBL	**Kambalda**	**44.49**	**146**	*e*P	**P**	**14 46 54.3**	**+0.7**
	comp=Z,132nm,1.2s,mb5.5						
SNY	**Shenyang**	**44.67**	**31**	⇓P	**P**	**14 46 54.0**	**-0.9**
SNY				LR	LR		
	comp=N,3μm,19.0s						
ZAK	**Zakamensk**	**45.70**	**8**	⇓*i*P	**P**	**14 47 02.5**	**-0.5**
ZAK				*e*	pP	14 47 10.6	-4.7
ZAK				*e*		14 48 40.5	
ZAK				*e*		14 48 55.7	
WRA	**Warramunga Arr**	**46.11**	**124**	P	**P**	**14 47 06.6**	**0.0**
	comp=N,157nm,0.8s,mb6.0,baz=302,slow=9.1,SNR=528						
WRA				ScP		14 52 30.2	
	comp=N,3.5nm,0.8s,baz=314,slow=3.4,SNR=6.2						
WRAB	**Tennant Creek**	**46.11**	**124**	*i* P	**P**	**14 47 06.6**	**0.0**
WRAB	**Tennant Creek**	**46.11**	**124**	*e*P	**P**	**14 47 06.5**	**-0.1**
	comp=N,301nm,0.8s,mb6.3						
WB2	**Warramunga Arr**	**46.12**	**124**	*e*P	**P**	**14 47 06.7**	**0.0**
WB2				*e*S	**S**	**14 53 46.5**	**-2.0**
MOY	**Mondy**	**46.72**	**5**	*e*P	**P**	**14 47 11.1**	**+0.2**
TLY	**Talaya**	**47.02**	**7**	P	**P**	**14 47 13.0**	**-0.4**
	comp=N,476nm,0.8s,mb6.5,SNR=23						
TLY	**Talaya**	**47.02**	**7**	*e*P	**P**	**14 47 13.7**	**+0.3**
TLY				*e*		14 57 06.9	
TLY				pmax	pmax		
	comp=Z,59nm,0.9s,mb5.5						
TLY				MLR	MLR		
	comp=Z,1μm,23.0s,MS4.8						
TLY	**Talaya**	**47.02**	**7**	*e*P	**P**	**14 47 13.3**	**0.0**
	comp=Z,54nm,0.8s,mb5.5						
CN2	**Changchun**	**47.05**	**30**	*e*P	**P**	**14 47 13.5**	**-0.2**
CN2				*e*XP	sP	14 47 31.5	+0.2
CN2				PP	PP	14 48 59.3	-4.8
CN2				*e*S	**S**	**14 54 01.5**	**+0.1**
CN2				*e*SS	SS	14 57 24.5	+2.8
CN2				AMB	AMB		
	comp=Z,60nm,1.0s,mb5.5						
CN2				LR	LR		
	comp=N,1μm,16.0s,MS5.1						
CN2				LR	LR		
	comp=E,1μm,16.0s,MS5.1						
CN2				LR	LR		
	comp=Z,1μm,18.0s,MS4.9						
ASPA	**Alice Springs**	**47.62**	**129**	⇓*i*P	**P**	**14 47 18.5**	**+0.1**
ASPA				*e*S	**S**	**14 54 10.2**	**+0.5**
ASAR	**Alice Springs**	**47.62**	**129**	P	**P**	**14 47 18.2**	**-0.2**
	comp=Z,32nm,0.6s,mb5.5,baz=299,slow=7.8,SNR=275						
ASAR				PcP	PcP	14 48 47.6	-0.4
	comp=Z,15nm,0.8s,baz=305,slow=4.4,SNR=5.7						

ASAR				ScP		14 52 37.0	
	comp=Z,5.1nm,0.9s,baz=303,slow=4.5,SNR=6.8						
IRK	**Irkutsk**	**47.66**	**8**	*e*P	**P**	**14 47 17.9**	**-0.5**
IRK				*e*	pP	14 47 31.1	+0.5
IRK				*e*		14 49 01.2	
HIA	**Hailar**	**48.83**	**21**	*e*P	**P**	**14 47 27.1**	**-0.4**
HIA				*e**PP	pP	14 47 39.4	-0.4
HIA				pmax	pmax		
	comp=Z,85nm,0.8s						
HIA	**Hailar**	**48.83**	**21**	*e*P	**P**	**14 47 27.1**	**-0.4**
	comp=Z,85nm,0.8s,mb5.8						
HIA				*e*pP	pP	14 47 39.4	-0.4
ZAL	**Zalesovo**	**49.39**	**352**	P	**P**	**14 47 31.9**	**+0.1**
	comp=Z,93nm,0.6s,mb6.0,baz=300,slow=6.5,SNR=356						
ZAL				pP	pP	14 47 45.2	+1.2
	comp=Z,76nm,1.0s,baz=252,slow=6.1,SNR=11						
MDJ	**Mudanjiang**	**49.76**	**32**	P	**P**	**14 47 35.0**	**+0.3**
MDJ				AP	pP	14 47 46.3	-0.7
MDJ				PP	PP	14 49 29.5	-0.7
MDJ				SCP		14 52 47.3	
MDJ				PCS		14 52 50.8	
MDJ				S	**S**	**14 54 42.3**	**+2.9**
MDJ				XS		14 55 01.8	
MDJ				AMB	AMB		
	comp=Z,100nm,1.3s,mb5.7						
MDJ				AMB	AMB		
	comp=Z,340nm,4.4s						
MDJ				LR	LR		
	comp=N,911nm,10.4s,MS5.2						
MDJ				LR	LR		
	comp=E,1µm,15.2s,MS5.2						
MDJ				LR	LR		
	comp=Z,1µm,18.3s,MS4.9						
MDJ	**Mudanjiang**	**49.76**	**32**	*e*P	**P**	**14 47 33.8**	**-0.9**
	comp=Z,159nm,1.2s,mb5.9						
MDJ				*e*pP	pP	14 47 46.4	-0.6
MDJ				LR	LR		
	comp=Z,1µm,22.0s,MS4.9						
NVS	**Novosibirsk**	**50.50**	**351**	*i* P	**P**	**14 47 36.5**	**-3.7**
NVS				*i*	pP	14 47 51.9	-0.6
NVS				*e*		14 48 55.7	
NVS				*i* S	**S**	**14 54 48.0**	**-1.5**
NVS				pmax	pmax		
	comp=N,151nm,1.4s						
NVS				pmax	pmax		
	comp=E,89nm,1.4s						
NVS				pmax	pmax		
	comp=Z,198nm,1.4s,mb6.0						
NVS				smax			
	comp=N,60nm,1.7s						
NVS				smax			
	comp=E,61nm,2.2s						
MAJO	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**14 47 39.9**	**-1.0**
MAJO				pmax	pmax		
	comp=Z,40nm,0.8s,mb5.4						
MAJO	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**14 47 39.9**	**-1.0**
	comp=Z,40nm,0.8s,mb5.4						
MAT	**Matsushiro**	**50.56**	**46**	P	**P**	**14 47 39.3**	**-1.6**
MAT	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**14 47 39.0**	**-1.9**
MAT				pmax	pmax		
	comp=Z,160nm,1.6s,mb5.7						
MAT				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.8						
MAT	**Matsushiro**	**50.56**	**46**	*e*P	**P**	**14 47 39.0**	**-1.9**
	comp=Z,160nm,1.6s,mb5.7						
MAT				LR	LR		
	comp=Z,1µm,20.0s,MS4.8						
BVA0	**Borovoye Array**	**51.84**	**341**	P	**P**	**14 47 49.7**	**-0.6**
BVA0				pmax	pmax		
	comp=Z,21nm,0.9s,mb5.1						
BVAR	**Borovoye Array**	**51.84**	**341**	P	**P**	**14 47 49.8**	**-0.6**
	comp=Z,124nm,0.8s,mb5.9,baz=143,slow=7.4,SNR=621						
BVAR				pP	pP	14 48 03.3	+0.5
	comp=Z,73nm,0.9s,baz=146,slow=10,SNR=10						
BVAR				PcP	PcP	14 49 01.9	-1.0
	comp=Z,19nm,0.8s,baz=162,slow=4.6,SNR=1.7						
BRVK	**Borovoye**	**51.91**	**341**	*e*P	**P**	**14 47 50.1**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,133nm,0.8s,mb5.9						
BRVK	**Borovoye**	**51.91**	**341**	*e*P	**P**	**14 47 50.1**	**-0.7**
	comp=Z,133nm,0.8s,mb5.9						
CHKZ	**Chkalovo**	**52.33**	**342**	*e*P	**P**	**14 47 53.5**	**-0.5**
CHKZ				*e**PP	pP	14 48 06.9	+0.5
CHKZ				pmax	pmax		
	comp=Z,365nm,0.8s,mb6.4						
CHKZ	**Chkalovo**	**52.33**	**342**	*e*P	**P**	**14 47 53.5**	**-0.4**
	comp=Z,365nm,0.8s,mb6.4						
CHKZ				*e*pP	pP	14 48 06.9	+0.5
KLR	**Kul'dur**	**53.95**	**29**	⇓*i*P	**P**	**14 48 03.2**	**-2.9**
KLR				*e*		14 49 06.8	
KLR				pmax	pmax		
	comp=N,90nm,2.0s						
KLR				pmax	pmax		
	comp=E,130nm,2.0s						
KLR				pmax	pmax		
	comp=Z,170nm,2.0s,mb5.6						
PMG	**Port Moresby**	**54.09**	**105**	*e*P	**P**	**14 48 06.2**	**-1.4**
PMG				pmax	pmax		
	comp=Z,56nm,0.9s						
PMG	**Port Moresby**	**54.09**	**105**	P	**P**	**14 48 07.2**	**-0.3**
	comp=Z,50nm,0.8s,mb5.5,baz=318,slow=3.0,SNR=14						
PMG	**Port Moresby**	**54.09**	**105**	*e*P	**P**	**14 48 06.2**	**-1.4**
	comp=Z,56nm,0.9s,mb5.5						
BOD	**Bodaibo**	**54.70**	**12**	*e*P	**P**	**14 48 09.6**	**-1.9**
CTA	**Charters Tower**	**56.37**	**118**	*e*P	**P**	**14 48 23.3**	**-0.7**
	comp=Z,38nm,1.0s,mb5.4						
CTA				*e*		14 48 29.8	
CTA	**Charters Tower**	**56.37**	**118**	*e*P	**P**	**14 48 23.3**	**-0.7**
CTA				*e*		14 48 29.8	
CTA				pmax	pmax		
	comp=Z,38nm,1.0s						
CTAO	**Charters Tower**	**56.37**	**118**	*e*P	**P**	**14 48 23.0**	**-1.0**
CTAO				pmax	pmax		
	comp=Z,87nm,1.2s,mb5.7						
CTAO				MLR	MLR		
	comp=Z,1µm,20.0s,MS4.9						
CTAO	**Charters Tower**	**56.37**	**118**	*e*P	**P**	**14 48 23.0**	**-0.9**
	comp=Z,87nm,1.2s,mb5.7						
CTAO				LR	LR		
	comp=Z,1µm,20.0s,MS4.9						
GNI	**Garni**	**56.89**	**315**	*e*P	**P**	**14 48 26.2**	**-1.3**
GNI				pmax	pmax		
	comp=Z,69nm,0.9s						
GNI	**Garni**	**56.89**	**315**	P	**P**	**14 48 27.3**	**-0.2**
	comp=Z,41nm,0.8s,mb5.5,baz=21,slow=1.5,SNR=38						
GNI	**Garni**	**56.89**	**315**	*e*P	**P**	**14 48 26.2**	**-1.2**
	comp=Z,69nm,0.9s,mb5.7						
ASAJ	**Asahikawa**	**57.09**	**39**	P	**P**	**14 48 28.4**	**-0.5**
	comp=Z,31nm,0.5s,mb5.6,baz=252,slow=9.0,SNR=24						
STKA	**Stephens Creek**	**57.70**	**133**	*e*P	**P**	**14 48 32.4**	**-0.9**
	comp=Z,23nm,1.0s,mb5.2						
STKA	**Stephens Creek**	**57.70**	**133**	P	**P**	**14 48 32.6**	**-0.7**
	comp=Z,31nm,1.0s,mb5.3,baz=308,slow=5.9,SNR=26						
KMBO	**Kilima Mbogo**	**57.85**	**265**	*i* P	**P**	**14 48 34.5**	**-0.1**
KMBO				pmax	pmax		
	comp=Z,8.0nm,0.9s						
KMBO	**Kilima Mbogo**	**57.85**	**265**	P	**P**	**14 48 34.5**	**-0.1**
	comp=Z,7.7nm,0.9s,mb4.7,baz=59,slow=12,SNR=9.0						
KMBO	**Kilima Mbogo**	**57.85**	**265**	*e*P	**P**	**14 48 35.4**	**+0.8**
	comp=Z,10nm,0.9s,mb4.9						
KMBO				LR	LR		
	comp=Z,1µm,22.0s,MS5.0						
SVE	**Sverdlovsk**	**58.24**	**339**	*e*P	**P**	**14 48 35.5**	**-1.2**
SVE				pmax	pmax		
	comp=Z,250nm,1.6s,mb6.0						
ZEI	**Tsey**	**58.55**	**318**	*e*P	**P**	**14 48 38.4**	**-0.7**
ZEI				*i* *PP	pP	14 48 56.0	+4.2
ZEI				*i*		14 50 48.4	
ZEI				pmax	pmax		
	comp=Z,43nm,0.9s,mb5.5						
YSS	**Yuzh-Sakhalins**	**58.58**	**37**	*e*P	**P**	**14 48 39.0**	**-0.2**
YSS				pmax	pmax		
	comp=Z,238nm,1.4s,mb6.0						
YSS	**Yuzh-Sakhalins**	**58.58**	**37**	*e*P	**P**	**14 48 39.0**	**-0.2**
	comp=Z,238nm,1.4s,mb6.0						
ARU	**Arti**	**58.72**	**337**	⇓*i*P	**P**	**14 48 38.3**	**-1.7**
ARU				*e*		14 49 23.8	
ARU				*e*		14 50 44.5	
ARU				*e*S	**S**	**14 56 42.4**	**+2.6**
ARU				*e*SS	SS	15 00 36.5	+1.5
ARU				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.8						
ARU	**Arti**	**58.72**	**337**	*e*P	**P**	**14 48 38.0**	**-2.1**
	comp=Z,98nm,1.1s,mb5.8						
ERZM	**Erzurum**	**59.19**	**314**	*i* P	**P**	**14 48 42.5**	**-1.0**
KIV	**Kislovodsk**	**59.85**	**319**	P	**P**	**14 48 47.3**	**-0.8**
	comp=Z,602nm,1.0s,mb6.6,SNR=28						
KIV	**Kislovodsk**	**59.85**	**319**	*e*P	**P**	**14 48 46.6**	**-1.5**
KIV				*e**PP	pP	14 49 00.3	-0.4
KIV				pmax	pmax		
	comp=Z,101nm,1.0s,mb5.8						
KIV	**Kislovodsk**	**59.85**	**319**	*e*P	**P**	**14 48 46.6**	**-1.5**
	comp=Z,101nm,1.0s,mb5.8						
KIV				*e*pP	pP	14 49 00.3	-0.5
GOF	**Gofitskoye**	**60.09**	**320**	⇓*i*P	**P**	**14 48 48.0**	**-1.7**
GOF				*i*	pP	14 48 56.0	-6.4
GOF				*e*S	**S**	**14 57 08.0**	**+10**
GOF				pmax	pmax		
	comp=Z,80nm,1.0s,mb5.7						
ASF	**Jabal al Asfar**	**60.33**	**304**	P	**P**	**14 48 51.5**	**0.0**
	comp=Z,20nm,1.1s,mb5.1,baz=293,slow=1.1,SNR=16						
ASF				pP	pP	14 49 05.6	+1.4
	comp=Z,37nm,0.9s,baz=347,slow=2.6,SNR=13						
ELZG	**Elazig**	**60.45**	**312**	*i* P	**P**	**14 48 52.0**	**-0.2**
MALT	**Malatya**	**60.80**	**311**	*e*P	**P**	**14 48 54.1**	**-0.5**
MALT				pmax	pmax		
	comp=Z,45nm,1.1s,mb5.5						
MALT	**Malatya**	**60.80**	**311**	*e*P	**P**	**14 48 54.1**	**-0.6**
	comp=Z,45nm,1.1s,mb5.5						
GZT	**Gaziantep**	**61.17**	**310**	*i* P	**P**	**14 48 55.9**	**-1.2**
MKRJ	**Makawir**	**61.23**	**303**	P	**P**	**14 48 58.0**	**+0.4**
AQBJ	**Aqaba**	**61.35**	**301**	P	**P**	**14 48 58.6**	**+0.1**
ZFRI	**Zfri**	**61.41**	**302**	P	**P**	**14 48 59.0**	**+0.2**
KSHT	**Keshet**	**61.41**	**305**	P	**P**	**14 48 58.6**	**-0.2**
MZDA	**Masada**	**61.41**	**303**	P	**P**	**14 48 59.4**	**+0.6**
EIL	**Elat**	**61.43**	**301**	P	**P**	**14 48 59.1**	**+0.1**
EIL	**Elat**	**61.43**	**301**	*e*P	**P**	**14 48 58.8**	**-0.2**
	comp=Z,56nm,1.3s,mb5.5						
DRGI	**Dragot**	**61.45**	**303**	P	**P**	**14 48 59.5**	**+0.4**
HMDT	**Nahal Hemdat**	**61.48**	**304**	P	**P**	**14 48 59.7**	**+0.4**
GLH	**Golan-Tel Qazi**	**61.48**	**305**	P	**P**	**14 49 00.2**	**+0.9**
MBH	**Mount Berech**	**61.48**	**301**	P	**P**	**14 48 59.7**	**+0.4**
PRNI	**Paran**	**61.52**	**302**	P	**P**	**14 48 59.9**	**+0.3**
MMLI	**Mount Malkishu**	**61.61**	**304**	P	**P**	**14 48 59.8**	**-0.3**
SOKR	**Solikamsk**	**61.64**	**339**	⇑*i*P	**P**	**14 48 57.7**	**-2.3**
SOKR				pmax	pmax		
	comp=Z,90nm,0.9s,mb5.9						
SOC	**Sochi**	**61.68**	**317**	*i* P	**P**	**14 48 58.4**	**-2.1**
SOC				*e*		14 49 47.7	
SOC				*e*PPP	PPP	14 52 45.1	-2.5
SOC				*e*S	**S**	**14 57 17.6**	**-0.5**
SOC				pmax	pmax		
	comp=Z,110nm,1.0s,mb5.9						
SOC				pmax	pmax		
	comp=N,24nm,1.1s						
SOC				pmax	pmax		
	comp=E,13nm,1.0s						
KMTI	**Karmit**	**61.70**	**301**	P	**P**	**14 49 01.0**	**+0.2**
MASH	**Mash'abbe Sade**	**61.83**	**302**	P	**P**	**14 49 01.6**	**0.0**
SLTI	**Sal'it**	**61.88**	**304**	P	**P**	**14 49 02.5**	**+0.5**
COBT	**Iskenderun**	**61.94**	**309**	*i* P	**P**	**14 49 01.3**	**-1.0**
HNTI	**Hanita**	**61.96**	**305**	P	**P**	**14 49 02.9**	**+0.5**
OFRI	**'Ofer**	**62.01**	**304**	P	**P**	**14 49 03.3**	**+0.5**
HAF	**Haifa**	**62.01**	**304**	P	**P**	**14 49 03.3**	**+0.5**
KZIT	**Kziot**	**62.14**	**302**	P	**P**	**14 49 03.9**	**+0.2**
YAK	**Yakutsk**	**62.42**	**18***c*	*i*P	**P**	**14 49 03.5**	**-1.7**
YAK				*e*		14 49 42.5	
YAK				*e*		14 51 20.0	
YAK				*e*S	**S**	**14 57 25.5**	**-1.6**
YAK				*e*		14 58 46.3	
YAK				pmax	pmax		
	comp=Z,84nm,0.9s,mb5.9						
YAK				pmax	pmax		
	comp=N,31nm,1.2s						
YAK				pmax	pmax		
	comp=E,25nm,1.2s						
YAK				pmax	pmax		
	comp=N,7.0nm,1.0s						
YAK				pmax	pmax		
	comp=E,4.0nm,1.0s						
YAK				pmax	pmax		
	comp=Z,7.0nm,1.0s,mb4.8						
YAK				smax			
	comp=N,8.0nm,1.1s						
YAK				smax			
	comp=Z,2.0nm,0.9s						
YAK				smax			
	comp=E,4.0nm,1.0s						
YAK				MLR	MLR		
	comp=Z,723nm,16.0s,MS4.9						
YAK				MLR	MLR		
	comp=N,420nm,13.0s,MS4.9						
YAK				MLR	MLR		
	comp=E,375nm,16.0s,MS4.9						
YAK	**Yakutsk**	**62.42**	**18**	*e*P	**P**	**14 49 03.4**	**-1.8**
	comp=E,150nm,0.7s,mb6.2						
YAK				LR	LR		
	comp=Z,1µm,22.0s,MS5.1						
TOO	**Toolangi**	**63.36**	**137**	*e*P	**P**	**14 49 12.5**	**+0.8**
	comp=Z,23nm,1.1s,mb5.2						
TOO	**Toolangi**	**63.36**	**137**	*e*P	**P**	**14 49 12.5**	**+0.8**
TOO				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.2						
MEST	**Erdemli**	**63.60**	**308**	*i* P	**P**	**14 49 07.9**	**-5.5**
AVNT	**Avonos**	**63.62**	**311**	*i* P	**P**	**14 49 11.8**	**-1.6**
ANN	**Anapa**	**63.66**	**318**	*e*P	**P**	**14 49 10.7**	**-2.9**
ANN				pmax	pmax		
	comp=Z,62nm,1.4s,mb5.5						
CSS	**Prodhromos**	**63.87**	**306**	⇑P	**P**	**14 49 14.6**	**-0.5**
	comp=Z,2.5nm,1.1s						
CSS	**Prodhromos**	**63.87**	**306**	⇑*i*P	**P**	**14 49 14.6**	**-0.5**
MAMC	**Mammari**	**64.00**	**307**	⇑P	**P**	**14 49 16.1**	**+0.1**
MAMC	**Mammari**	**64.00**	**307**	⇑*i*P	**P**	**14 49 16.1**	**+0.1**
CTKT	**Corum**	**64.18**	**313**	*i* P	**P**	**14 49 13.9**	**-3.1**
SZAC	**Souni-Zanaja**	**64.18**	**306**	P	**P**	**14 49 17.0**	**-0.2**
MBAR	**Mbarara**	**64.27**	**267**	*e*P	**P**	**14 49 18.2**	**+0.1**
MBAR				pmax	pmax		
	comp=Z,33nm,1.6s,mb5.1						
MBAR	**Mbarara**	**64.27**	**267**	*e*P	**P**	**14 49 18.2**	**+0.1**
	comp=Z,33nm,1.6s,mb5.1						
BOYT	**Boyabat**	**64.33**	**314**	*i* P	**P**	**14 49 16.5**	**-1.5**
ALFC	**Alevga**	**64.50**	**307**	⇑P	**P**	**14 49 18.5**	**-0.7**
	comp=Z,2.2nm,0.8s						
ALFC	**Alevga**	**64.50**	**307**	⇑*i*P	**P**	**14 49 18.5**	**-0.7**
BRTR	**Keskin Array B**	**64.78**	**312**	P	**P**	**14 49 19.6**	**-1.3**
	comp=Z,39nm,0.8s,mb5.5,baz=126,slow=6.8,SNR=165						
BRTR				pP	pP	14 49 33.5	-0.4
	comp=Z,25nm,0.9s,baz=135,slow=7.0,SNR=6.3						
CNB	**Canberra Magne**	**65.03**	**133**	*e*P	**P**	**14 49 22.7**	**0.0**
	comp=Z,48nm,1.1s,mb5.4						
VRSR	**Storozhevoye**	**65.05**	**325***c*	*i*P	**P**	**14 49 20.3**	**-2.2**
VRSR				*e**PP	pP	14 49 27.3	-8.1
VRSR				*e*		14 49 54.1	
VRSR				*e*		14 51 39.8	
VRSR				*e*S	S	14 57 57.6	-2.3
VRSR				*e*		14 59 08.7	
VRSR				*e*SS	SS	15 02 12.3	-2.0
VRSR				pmax	pmax		
	comp=Z,90nm,0.7s,mb5.9						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,90nm,0.9s						
VRSR				smax			
	comp=N,20nm,1.0s						
VRSR				smax			
	comp=Z,4.0nm,0.6s						
VRSR				smax			
	comp=E,10.0nm,1.0s						
ELDT	**Eldivan**	**65.14**	**312**	*i* P	**P**	**14 49 21.6**	**-1.7**
BALT	**Daday**	**65.45**	**314**	*i* P	**P**	**14 49 23.9**	**-1.4**
SIM	**Simferopol'**	**65.93**	**317***c*	*e*P	**P**	**14 49 27.2**	**-1.1**
SIM				pmax	pmax		
	comp=Z,73nm,1.0s,mb5.7						
SGKT	**Sivrigoynuk**	**66.17**	**312**	*i* P	**P**	**14 49 26.8**	**-3.1**
ISP	**Isparta**	**66.71**	**309**	*e*P	**P**	**14 49 31.7**	**-1.6**
ISP				pmax	pmax		
	comp=Z,104nm,1.0s,mb5.8						
ISP	**Isparta**	**66.71**	**309**	*e*P	**P**	**14 49 31.7**	**-1.6**
	comp=Z,104nm,1.0s,mb5.8						
ESKT	**Eskisehir**	**66.82**	**311**	*i* P	**P**	**14 49 40.2**	**+6.3**
HENT	**Hendek**	**67.08**	**312**	*i* P	**P**	**14 49 28.2**	**-7.4**
MOS	**Moscow**	**67.82**	**329**	⇑*i*P	**P**	**14 49 38.8**	**-1.1**
MOS				*e*	pP	14 49 52.2	-0.7
MOS				*e*		14 50 10.4	
MOS				*e*S	S	14 58 26.1	-7.2
MOS				*e*		14 58 52.6	
MOS				pmax	pmax		
	comp=Z,244nm,1.4s,mb6.0						
OBN	**Obninsk**	**68.10**	**328***c*	*i*P	**P**	**14 49 40.4**	**-1.3**
OBN				*e*		14 52 10.9	
OBN				*e*S	S	14 58 28.4	-8.4
OBN				pmax	pmax		
	comp=Z,198nm,1.5s,mb5.9						
OBN				MLR	MLR		
	comp=Z,400nm,20.0s,MS4.6						
OBN	**Obninsk**	**68.10**	**328**	*e*P	**P**	**14 49 39.7**	**-2.1**
	comp=Z,264nm,1.6s,mb6.0						
SKR	**Severo-Kuril's**	**68.14**	**37**	*e*P	**P**	**14 49 38.0**	**-4.1**
SKR				*e*	pP	14 49 52.0	-3.0
SKR				pmax	pmax		
	comp=Z,140nm,0.8s,mb6.0						
ULDT	**Uludag**	**68.24**	**311**	*i* P	**P**	**14 49 32.2**	**-11**
MA2	**Magadan**	**68.92**	**27**	*e*P	**P**	**14 49 45.9**	**-0.8**
MA2				pmax	pmax		
	comp=Z,40nm,0.9s,mb5.3						
MA2	**Magadan**	**68.92**	**27**	*e*P	**P**	**14 49 45.8**	**-1.0**
	comp=Z,32nm,0.7s,mb5.4						
LSZ	**Lusaka**	**69.02**	**252**	*e*P	**P**	**14 49 48.2**	**+0.1**
LSZ				pmax	pmax		
	comp=Z,21nm,1.4s,mb4.9						
LSZ	**Lusaka**	**69.02**	**252**	*e*P	**P**	**14 49 48.2**	**+0.2**
	comp=Z,21nm,1.4s,mb4.9						
TIXI	**Tiksi**	**69.83**	**11**	⇑*i*P	**P**	**14 49 50.6**	**-1.5**
TIXI				pmax	pmax		
	comp=N,19nm,0.7s						
TIXI				pmax	pmax		
	comp=Z,115nm,0.7s,mb5.9						
TIXI				pmax	pmax		
	comp=E,11nm,0.6s						
TIXI				pmax	pmax		
	comp=Z,177nm,0.9s,mb6.0						
TIXI				MLR	MLR		
	comp=Z,782nm,14.0s,MS5.1						
KIS	**Kishinev**	**70.05**	**318**	*e*P	**P**	**14 49 52.0**	**-1.9**
KIS				*e*	pP	14 50 09.0	+2.2
KIS				pmax	pmax		
	comp=Z,200nm,1.0s,mb6.0						
CFR	**Carcaliu**	**70.07**	**316**	⇑*i*P	**P**	**14 49 53.2**	**-0.8**
HARR	**Harsova**	**70.11**	**316**	⇑*i*P	**P**	**14 49 53.6**	**-0.6**
PET	**Petropavlovsk**	**70.39**	**35**	⇓*i*P	**P**	**14 49 55.3**	**-0.5**
PET				pmax	pmax		
	comp=Z,98nm,0.9s,mb5.7						
PET				MLR	MLR		
	comp=Z,700nm,20.0s,MS4.9						
PET	**Petropavlovsk**	**70.39**	**35**	*e*P	**P**	**14 49 54.2**	**-1.6**
IDI	**Anoyia**	**70.73**	**306**	P	**P**	**14 49 58.5**	**+0.2**
	comp=Z,55nm,0.8s,mb5.5,baz=115,slow=6.4,SNR=23						
IDI				pP	pP	14 50 11.5	+0.3
	comp=Z,102nm,1.0s,baz=89,slow=5.7,SNR=11						
AKASG	**Malin Array Be**	**70.77**	**322**	P	**P**	**14 49 56.4**	**-1.8**
	comp=Z,35nm,0.7s,mb5.4,baz=90,slow=5.4,SNR=155						
ISR	**Istrita**	**71.16**	**316**	⇓*i*P	**P**	**14 50 01.7**	**+1.1**
SEY	**Seymchan**	**71.17**	**24**	*e*P	**P**	**14 49 59.5**	**-0.9**
SEY				PPP	PPP	14 54 20.9	-0.9
SEY				*e*S	S	14 59 09.9	-2.8
SEY						15 00 04.3	
SEY				*e*SSS	SSS	15 06 52.2	-3.5
SEY				pmax	pmax		
	comp=E,20nm,0.9s						
SEY				pmax	pmax		
	comp=Z,60nm,0.9s,mb5.5						
SEY				pmax	pmax		
	comp=N,10.0nm,0.6s						
SEY				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.5						
SEY				MLR	MLR		
	comp=N,2µm,28.0s						
SEY				MLR	MLR		
	comp=E,3µm,28.0s						
VRI	**Vrincioaia**	**71.19**	**317**	⇑*i*P	**P**	**14 50 00.9**	**+0.1**
MLR	**Muntele Rosu**	**71.65**	**316**	P	**P**	**14 50 03.7**	**+0.2**
	comp=E,138nm,1.1s,mb5.8,baz=39,slow=3.8,SNR=113						
MLR	**Muntele Rosu**	**71.65**	**316**	⇑*i*P	**P**	**14 50 03.7**	**+0.2**
MNK	**Minsk**	**72.64**	**326**	⇓*e*P	**P**	**14 50 06.0**	**-3.2**
MNK				pmax	pmax		
	comp=Z,400nm,1.0s,mb6.3						
PUL	**Pulkovo**	**72.98**	**331**	*e*P	**P**	**14 50 10.6**	**-0.6**
PUL				pmax	pmax		
	comp=Z,82nm,0.6s,mb5.8						
LBTB	**Lobatse**	**73.54**	**242**	*e*P	**P**	**14 50 15.0**	**-0.1**
LBTB				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
LBTB				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.6						
LBTB	**Lobatse**	**73.54**	**242**	*e*P	**P**	**14 50 15.0**	**-0.1**
	comp=Z,14nm,0.8s,mb5.0						
LBTB				LR	LR		
	comp=Z,3µm,20.0s,MS5.6						
BOLS	**Boljevac**	**74.16**	**314**	⇑*i*P	**P**	**14 50 17.4**	**-0.9**
SKO	**Skopje**	**74.29**	**312**	*i* P	**P**	**14 50 17.9**	**-1.2**
SKO				*i*	pP	14 50 32.2	0.0
LVZ	**Lovozero**	**74.41**	**340**	*e*P	**P**	**14 50 18.6**	**-0.7**
LVZ				pmax	pmax		
	comp=Z,49nm,0.8s,mb5.5						
KWP	**Kalwaria**	**74.60**	**320**	*e*P	**P**	**14 50 20.0**	**-0.8**
KWP				pmax	pmax		
	comp=Z,190nm,1.0s,mb6.0						
KWP	**Kalwaria**	**74.60**	**320**	*e*P	**P**	**14 50 20.8**	**0.0**
APA	**Apatity**	**74.69**	**340**	⇑*i*P	**P**	**14 50 21.1**	**+0.1**
APA				*i*	pP	14 50 33.3	-0.7
APA				pmax	pmax		
	comp=Z,81nm,1.0s,mb5.6						
BOSA	**Boshof**	**74.71**	**239**	*e*P	**P**	**14 50 22.0**	**+0.1**
BOSA				pmax	pmax		
	comp=Z,70nm,1.6s,mb5.3						
BOSA	**Boshof**	**74.71**	**239**	*e*P	**P**	**14 50 22.0**	**+0.1**
	comp=Z,70nm,1.6s,mb5.3						
KOLS	**Kolonicke sedl**	**74.76**	**319**	*i* P	**P**	**14 50 22.2**	**+0.5**
KOLS				*i*		15 06 54.4	
NOUC	**Port Laguerre**	**74.88**	**114**	*e*P	**P**	**14 50 23.4**	**+0.4**
NOUC	**Port Laguerre**	**74.88**	**114**	*e*P	**P**	**14 50 23.4**	**+0.4**
DZM	**Mont Dzumac**	**75.01**	**114**	*e*P	**P**	**14 50 25.1**	**+1.4**
GRUS	**Gruza**	**75.06**	**314**	⇑*i*P	**P**	**14 50 22.3**	**-1.3**
SUW	**Suwalki**	**75.17**	**325**	*e*P	**P**	**14 50 22.7**	**-1.3**
SUW				pmax	pmax		
	comp=Z,308nm,1.0s,mb6.2						
SUW	**Suwalki**	**75.17**	**325**	*e*P	**P**	**14 50 22.7**	**-1.2**
	comp=Z,308nm,1.0s,mb6.2						
CRVS	**Cervenica-Dubn**	**75.28**	**319**	*i* P	**P**	**14 50 25.1**	**+0.4**
CRVS				*i*		15 06 57.9	
PVY	**Plav**	**75.44**	**313**	⇑*i*P	**P**	**14 50 24.8**	**-1.0**
FINES	**FINESS Array B**	**75.49**	**332**	*i* P	**P**	**14 50 24.9**	**-0.8**
FINES				pmax	pmax		
	comp=Z,18nm,0.8s						
FINES	**FINESS Array B**	**75.49**	**332**	P	**P**	**14 50 24.9**	**-0.8**
	comp=Z,18nm,0.8s,mb5.1,baz=96,slow=6.8,SNR=98						
FINES				pP	pP	14 50 39.1	+0.5
	comp=Z,21nm,0.6s,baz=108,slow=6.2,SNR=12						
IVA	**Berane**	**75.53**	**313**	⇑*i*P	**P**	**14 50 25.6**	**-0.7**
KAF	**Kangasniemi**	**75.58**	**333**	*e*p	**P**	**14 50 24.9**	**-1.3**
	comp=Z,21nm,0.7s,mb5.2						
KAF	**Kangasniemi**	**75.58**	**333**	*e*P	**P**	**14 50 24.9**	**-1.3**
KAF				pmax	pmax		
	comp=Z,21nm,0.7s,mb5.2						
DIVS	**Divcibare**	**75.61**	**314**	⇓*i*P	**P**	**14 50 26.1**	**-0.6**
KECS	**Kecovo**	**75.85**	**319**	*i* P	**P**	**14 50 28.3**	**+0.3**
ULC	**Ulcinj**	**75.91**	**312**	⇑*i*P	**P**	**14 50 27.4**	**-1.1**
PLE	**Pljevlja**	**75.95**	**313**	⇑*i*P	**P**	**14 50 29.1**	**+0.4**
TTG	**Podgorica**	**75.95**	**312**	⇑*i*P	**P**	**14 50 27.0**	**-1.7**
MAW	**Mawson**	**75.96**	**192**	P	**P**	**14 50 27.9**	**-0.3**
MAW				pmax	pmax		
	comp=Z,9.0nm,1.0s						
MAW	**Mawson**	**75.96**	**192**	P	**P**	**14 50 27.9**	**-0.3**
	comp=Z,9.3nm,1.0s,mb4.7						
PKSN	**Nyarlorinc**	**76.05**	**317**	⇑*e*P	**P**	**14 50 29.4**	**+0.3**
NIE	**Niedzica**	**76.11**	**320**	*i* P	**P**	**14 50 29.8**	**+0.4**
PSZ	**Piszkesteto**	**76.17**	**318**	*e*P	**P**	**14 50 29.1**	**-0.7**
PSZ				pmax	pmax		
	comp=Z,92nm,1.0s,mb5.7						
PSZ	**Piszkesteto**	**76.17**	**318**	⇑*e*P	**P**	**14 50 29.8**	**0.0**
NKY	**Niksic**	**76.18**	**313**	⇑*i*P	**P**	**14 50 28.6**	**-1.4**
BUM	**Brajici-Budva**	**76.20**	**312**	⇑*i*P	**P**	**14 50 29.1**	**-1.0**
UPM	**Unac-Piva**	**76.29**	**313**	⇑*i*P	**P**	**14 50 29.4**	**-1.2**
HCY	**Herceg Novi**	**76.51**	**312**	⇑*i*P	**P**	**14 50 30.5**	**-1.4**
BRY	**Bratogost**	**76.52**	**313**	⇑*i*P	**P**	**14 50 30.9**	**-1.0**
OJC	**Ojcow**	**76.55**	**320**	⇑*i*P	**P**	**14 50 32.1**	**+0.2**
OJC	**Ojcow**	**76.55**	**320**	*i* P	**P**	**14 50 32.1**	**+0.2**
PKSM	**Moragy**	**76.80**	**316**	⇑*i*P	**P**	**14 50 33.0**	**-0.4**
LIKS	**Likavka**	**76.84**	**319**	*i* P	**P**	**14 50 33.5**	**-0.1**
VYHS	**Vyhne**	**76.94**	**319**	*i* P	**P**	**14 50 34.2**	**0.0**
VYHS				*i*		15 07 05.0	
SRO2	**Moca**	**77.15**	**318**	*i* P	**P**	**14 50 35.8**	**+0.5**
RHK1	**Bakonya**	**77.18**	**316**	⇑*i*P	**P**	**14 50 34.9**	**-0.7**

SRO	Srobarova	77.21	318	*i* P	P	14 50 36.4	+0.7
SRO1	Iza	77.26	318	*i* P	P	14 50 36.6	+0.7
OKC	Ostrava-Krasne	77.56	320	⇑*i*P	P	14 50 37.9	+0.4
RAC	Raciborz	77.56	320	*e*P	P	14 50 38.5	+1.0
TIP	Timpagrande	77.57	309	*e*P	P	14 50 37.7	-0.2
KEV	Kevo	77.69	341	*e*p	P	14 50 36.5	-1.4
	comp=Z,41nm,0.8s,mb5.4						
KEV	Kevo	77.69	341	*e*P	P	14 50 36.5	-1.4
KEV				pmax	pmax		
	comp=Z,41nm,0.8s,mb5.4						
SMOL	Smolenice	77.88	318	*i* P	P	14 50 39.8	+0.5
MORC	Moravsky Berou	77.94	320	*e*P	P	14 50 39.7	+0.1
MORC				pmax	pmax		
	comp=Z,100nm,1.0s,mb5.7						
MORC	Moravsky Berou	77.94	320	*e*P	P	14 50 39.7	+0.1
	comp=Z,100nm,1.0s,mb5.7						
ZST	Bratislava	78.06	318	*i* P	P	14 50 41.0	+0.7
ARCES	ARCESS Array B	78.11	340	P	P	14 50 40.5	+0.3
	comp=Z,41nm,0.8s,mb5.4,baz=92,slow=6.1,SNR=53						
ARCES				pP	pP	14 50 54.0	+0.7
	comp=Z,56nm,0.9s,baz=90,slow=4.9,SNR=10						
ARCES				PP	PP	14 53 38.0	-1.0
	comp=Z,22nm,1.0s,baz=104,slow=10.0,SNR=6.0						
ARE0	ARCESS Array S	78.11	340	*e*P	P	14 50 39.9	-0.4
ARE0				*e*	pP	14 50 54.3	+1.0
SOP	Sopron	78.37	318	⇑*e*P	P	14 50 42.2	+0.1
BILL	Bilibino	78.42	21	⇑*i*P	P	14 50 41.1	-0.8
BILL				pmax	pmax		
	comp=Z,54nm,1.0s,mb5.4						
BILL				MLR	MLR		
	comp=Z,2µm,16.0s,MS5.4						
BILL	Bilibino	78.42	21	*e*P	P	14 50 40.5	-1.4
	comp=Z,59nm,1.1s,mb5.4						
GKP	Gorka Klasztor	78.54	323	*e*P	P	14 50 42.6	-0.2
MGR	Morigerati	78.55	310	*e*P	P	14 50 42.2	-1.0
KTK1	Kautokeino	78.74	340	*e*P	P	14 50 43.3	-0.3
KTK1				*e*pP	pP	14 50 58.0	+1.2
KTK1				AMb	AMB	14 51 00.4	
	comp=Z,146nm,1.2s,mb5.8						
SGO	Sicignano	78.76	310	*e*P	P	14 50 44.3	-0.1
DPC	Dobruska-Polom	78.78	320	⇑*i*P	P	14 50 44.9	+0.6
KSP	Ksiaz	78.85	321	⇑*e*P	P	14 50 45.1	+0.5
KSP				*e*pP	pP	14 50 58.7	+1.0
KSP	Ksiaz	78.85	321	*e*P	P	14 50 45.3	+0.7
FX1	Attu Island--F	78.93	37	*e*P	P	14 50 44.0	-1.1
CSSN	Cassano Irpino	78.99	310	*e*P	P	14 50 45.2	-0.4
UPC	Upice	78.99	320	⇑*i*P	P	14 50 45.9	+0.5
ARSA	Arzberg	79.04	317	⇑*i*P	P	14 50 46.1	+0.4
	comp=Z,144nm,1.2s,mb5.8						
BOJS	Bojanci	79.10	315	⇑*i*P	P	14 50 46.1	0.0
	comp=Z,264nm,1.1s,mb6.1						
PERS	Pernice	79.27	316	⇑*e*P	P	14 50 47.4	+0.4
	comp=Z,311nm,1.2s,mb6.1						
PERS				*e*	pP	14 51 01.7	+1.6
SUR	Sutherland	79.33	236	*e*P	P	14 50 48.3	+0.7
	comp=Z,101nm,1.5s,mb5.5						
CII	Carovilli	79.58	311	P	P	14 50 48.6	-0.1
LJU	Ljubljana	79.64	316	⇑*e*P	P	14 50 49.3	+0.3
	comp=Z,484nm,1.2s,mb6.3						
LJU	Ljubljana	79.64	316	⇑*e*P	P	14 50 49.3	+0.3
LJU				pmax	pmax		
	comp=Z,484nm,1.2s,mb6.3						
OBKA	Obir	79.65	316	⇑*i*P	P	14 50 49.5	+0.4
	comp=Z,121nm,1.2s,mb5.7						
MSC	Monte Massico	79.80	311	*e*P	P	14 50 49.3	-0.7
PRU	Pruhonice	79.89	320	⇑*i*P	P	14 50 50.6	+0.3
	comp=Z,83nm,1.1s,mb5.6						
PVCC	Panska Ves	79.91	320	⇑*e*P	P	14 50 50.6	+0.2
MOA	Molln	79.93	318	⇑*i*P	P	14 50 50.4	-0.1
	comp=Z,68nm,1.2s,mb5.5						
SDI	San Donato	79.94	311	*e*P	P	14 50 49.8	-1.0
VOY	Vojsko	80.08	316	*e*(P)	P	14 50 51.3	-0.1
BSD	Bornholm Skovb	80.09	325	⇑*i*P	P	14 50 50.3	-0.9
BSD				*i*	pP	14 51 06.1	+1.7
BSD				pmax	pmax		
	comp=Z,49nm,0.7s,mb5.5						
BSD	Bornholm Skovb	80.09	325	⇑*i*P	P	14 50 50.3	-0.9
	comp=Z,49nm,0.7s,mb5.5						
BSD				*i*	pP	14 51 06.1	+1.7
PTQR	Pietraquaria	80.26	312	*e*P	P	14 50 52.3	-0.1
AQU	L'Aquila	80.27	312	*e*P	P	14 50 52.3	-0.2
AQU				pmax	pmax		
	comp=Z,140nm,1.2s,mb5.8						
AQU	L'Aquila	80.27	312	*e*P	P	14 50 52.9	+0.4
BRG	Berggiesshubel	80.33	321	⇑*i*P	P	14 50 53.0	+0.4
BRG				pmax	pmax		
	comp=Z,104nm,1.3s,mb5.6						
BRG	Berggiesshubel	80.33	321	⇑*i*P	P	14 50 53.0	+0.4
	comp=Z,104nm,1.3s,mb5.6						
GEC2	GERESS Array S	80.36	319	*e*P	P	14 50 53.2	+0.4
GEC2				pmax	pmax		
	comp=Z,195nm,0.9s,mb6.0						
GEC2	GERESS Array S	80.36	319	*e*P	P	14 50 53.2	+0.4
	comp=Z,195nm,0.9s,mb6.0						
GERES	GERESS Array B	80.36	319	P	P	14 50 53.2	+0.4
	comp=Z,84nm,0.7s,mb5.8,baz=90,slow=5.3,SNR=461						
TRO	Tromso	80.37	340	*e*P	P	14 50 51.1	-1.4
TRO				AMb	AMB	14 50 52.2	
	comp=Z,192nm,1.7s,mb5.8						
TRO				*e*pP	pP	14 51 06.2	+0.6
KHC	Kasperske Hory	80.46	319	⇑*i*P	P	14 50 53.5	+0.2
PTCC	Patocco-Chiusa	80.47	316	⇑*i*P	P	14 50 53.4	-0.1
KBA	Koelnbreinsper	80.51	317	⇑*i*P	P	14 50 53.6	0.0
	comp=Z,86nm,1.4s,mb5.5						
KBA	Koelnbreinsper	80.51	317	⇑*i*P	P	14 50 53.6	0.0
KBA				pmax	pmax		
	comp=Z,86nm,1.4s,mb5.5						
GMNA	Gemona	80.55	316	*e*P	P	14 50 53.9	+0.1
RUE	Ruedersdorf	80.55	322	*e*P	P	14 50 53.7	-0.1
	comp=Z,180nm,0.9s,mb6.0						
SNTG	Esanatoglia	80.64	313	⇑*i*P	P	14 50 54.4	-0.1
ARV	Arcevia	80.65	313	⇑*i*P	P	14 50 54.9	+0.4
FSSB	Fossombrone	80.77	313	⇑*i*P	P	14 50 55.4	+0.3
MNS	Montasola	80.81	312	⇑*i*P	P	14 50 54.5	-0.8
FVI	Forni Avoltri	80.88	316	*e*P	P	14 50 55.5	-0.1
WET	Wettzell	80.92	319	*e*P	P	14 50 56.0	+0.2
WET				pmax	pmax		
	comp=Z,100nm,1.1s,mb5.7						
WET	Wettzell	80.92	319	*e*P	P	14 50 56.0	+0.2
	comp=Z,100nm,1.1s,mb5.7						
CLL	Collm	80.95	321	⇑*i*P	P	14 50 55.9	0.0
CLL				*e*	pP	14 51 12.0	+2.9
CLL				pmax	pmax		
	comp=Z,65nm,1.0s,mb5.5						
CLL	Collm	80.95	321	⇑*i*P	P	14 50 55.9	0.0
	comp=Z,65nm,1.0s,mb5.5						
CLL				*e*	pP	14 51 12.0	+2.9
CLL	Collm	80.95	321	⇑P	P	14 50 55.9	0.0
	comp=Z,logA/T=1.8,mb5.5						
CLL				*e**SP	sP	14 51 12.0	-1.9
RSM	Repubblica di	81.02	314	⇑*i*P	P	14 50 57.1	+0.7
NKC	Novy Kostel	81.25	320	⇑*e*P	P	14 50 57.6	+0.1
CRE	Caprese Michel	81.37	313	*e*P	P	14 50 58.3	0.0
SFI	Santa Sofia	81.45	313	⇑*i*P	P	14 50 59.9	+1.2
MOR8	Moi Rana	81.50	336	*e*P	P	14 50 58.0	-0.4
MOR8				AMb	AMB	14 50 58.9	
	comp=Z,126nm,1.6s,mb5.6						
MOR8				*e*pP	pP	14 51 12.3	+0.7
PGD	Poggio Sodo	81.54	313	*e*P	P	14 51 00.3	+1.2
CTI	Castel Tesino	81.64	316	⇑*i*P	P	14 51 00.1	+0.5
VMG	Vicchio	81.67	314	*e*P	P	14 51 00.9	+1.1
WTTA	Wattenberg	81.68	317	⇑*i*P	P	14 50 59.7	-0.1
	comp=Z,169nm,1.1s,mb5.9						
WTTA	Wattenberg	81.68	317	⇑*i*P	P	14 50 59.7	-0.1
WTTA				pmax	pmax		
	comp=Z,169nm,1.1s,mb5.9						
WATA	Walderalm	81.72	317	⇑*i*P	P	14 50 59.5	-0.5
	comp=Z,86nm,1.1s,mb5.6						
WATA	Walderalm	81.72	317	⇑*i*P	P	14 50 59.5	-0.5
WATA				pmax	pmax		
	comp=Z,86nm,1.1s,mb5.6						
MOX	Moxa	81.80	320	*e*P	P	14 51 00.4	+0.1
MOX				pmax	pmax		
	comp=Z,83nm,1.3s,mb5.5						
MOX	Moxa	81.80	320	*i* P	P	14 51 00.4	+0.1
	comp=Z,logA/T=1.8,mb5.5						
MOX	Moxa	81.80	320	*e*P	P	14 51 00.4	+0.1
	comp=Z,83nm,1.3s,mb5.5						
SEI	Scarperia	81.81	314	*e*P	P	14 51 01.4	+0.8
CSNT	Castellina Chi	81.85	313	*e*P	P	14 50 59.6	-1.1
FUR	Furstenfeldbru	81.95	318	*e*P	P	14 51 00.9	-0.2
FUR				pmax	pmax		
	comp=Z,101nm,1.1s,mb5.7						
FUR	Furstenfeldbru	81.95	318	*e*P	P	14 51 00.9	-0.2
	comp=Z,101nm,1.1s,mb5.7						
SQTA	Sankt Quirin	81.97	317	⇑*i*P	P	14 51 01.2	-0.1
	comp=Z,75nm,1.0s,mb5.6						
SQTA	Sankt Quirin	81.97	317	⇑*i*P	P	14 51 01.2	-0.1
SQTA				pmax	pmax		
	comp=Z,75nm,1.0s,mb5.6						
FNVD	Fontana Vidola	81.98	314	*e*P	P	14 51 02.4	+1.0
GRA1	Grafenberg Arr	82.02	319	*e*P	P	14 51 02.1	+0.6
	comp=Z,167nm,1.1s,mb5.9						
GRF	Grafenberg Arr	82.02	319	*e*P	P	14 51 02.1	+0.6
GRF				pmax	pmax		
	comp=Z,167nm,1.1s,mb5.9						
GRF	Grafenberg Arr	82.02	319	*e*P	P	14 51 02.1	+0.6
GRF				pmax	pmax		
	comp=Z,167nm,1.1s,mb5.9						
GRF	Grafenberg Arr	82.02	319	*e*P	P	14 51 02.1	+0.6
	comp=Z,167nm,1.1s,mb5.9						
MOTA	Moosalm	82.05	317	⇓*i*P	P	14 51 01.4	-0.3
	comp=Z,73nm,1.0s,mb5.6						
MOTA	Moosalm	82.05	317	⇓*i*P	P	14 51 01.4	-0.3
MOTA				pmax	pmax		
	comp=Z,73nm,1.0s,mb5.6						
GRFL	Gerfalco	82.08	313	*e*P	P	14 51 01.3	-0.6
ZCCA	Zocca	82.09	314	⇑*i*P	P	14 51 03.5	+1.6
BDI	Bagni Di Lucca	82.36	314	⇑*i*P	P	14 51 02.6	-0.7
GSCL	Gusciola	82.37	314	⇑*i*P	P	14 51 04.6	+1.2
NSS	Namsos	82.37	334	*e*P	P	14 51 02.0	-1.0
NSS				AMb	AMB	14 51 03.5	
	comp=Z,209nm,1.4s,mb5.9						
NSS				*e*pP	pP	14 51 16.6	+0.4
PII	Pisa	82.41	313	*e*P	P	14 51 02.2	-1.4
SAL	Salo	82.42	315	⇑*i*P	P	14 51 04.6	+1.0
MABI	Malga Bissina	82.43	316	*e*P	P	14 51 04.0	+0.4
MAIM		82.43	313	P	P	14 51 02.8	-0.9
ERBM	Eremo	82.49	314	*e*P	P	14 51 05.3	+1.3
NB2	NORSAR Subarra	82.49	331	P	P	14 51 03.1	-0.6
	comp=Z,30nm,1.0s,mb5.2,baz=98,slow=5.3						
NB2	NORSAR Subarra	82.49	331	P	P	14 51 03.1	-0.6
	baz=98,slow=5.6						
NB2	NORSAR Subarra	82.49	331	P	P	14 51 03.1	-0.6
NB2				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
NOA	NORSAR Array B	82.49	331	P	P	14 51 03.1	-0.5
	comp=Z,13nm,0.8s,mb4.9,baz=94,slow=5.4,SNR=30						
NOA				pP	pP	14 51 18.1	+1.3
	comp=Z,14nm,0.9s,baz=95,slow=5.1,SNR=7.8						
NOA				PP	PP	14 54 14.8	-0.3
	comp=Z,2.9nm,0.8s,baz=90,slow=8.0,SNR=4.7						
SARO	Sassorosso	82.50	314	P	P	14 51 03.6	-0.4
BRMO	Bormio	82.53	316	⇑*i*P	P	14 51 04.8	+0.6
VALM		82.61	314	P	P	14 51 05.5	+0.9
CLZ	Clausthal	82.61	321	*e*P	P	14 51 04.7	+0.2
	comp=Z,127nm,1.2s,mb5.8						
NAO01	NORSAR Array S	82.64	331	*e*P	P	14 51 03.5	-0.9
	comp=Z,14nm,0.9s,mb5.0						
HDH	Heidenheim	82.67	318	⇑*e*P	P	14 51 04.5	-0.3
HDH	Heidenheim	82.67	318	⇑*e*P	P	14 51 04.5	-0.3
VINC	Vinca	82.68	314	P	P	14 51 04.2	-0.7
BSEG	Bad Segeberg	82.70	324	*e*P	P	14 51 05.2	+0.4
UBR	Uberruh	82.72	317	⇑*e*P	P	14 51 05.0	-0.1
UBR	Uberruh	82.72	317	⇑*e*P	P	14 51 05.0	-0.1
BACM		82.74	314	P	P	14 51 05.2	0.0
GRAM		82.74	314	P	P	14 51 05.9	+0.6
DAVA	Damuels	82.88	317	⇑*i*P	P	14 51 06.4	+0.5
	comp=Z,127nm,1.0s,mb5.9						
CODM		82.90	314	P	P	14 51 06.0	-0.1
SIND	Sindeldorf	83.07	319	⇑*e*P	P	14 51 07.2	+0.4
SIND	Sindeldorf	83.07	319	⇑*e*P	P	14 51 07.2	+0.4
BOB	Bobbio (Coli)	83.18	314	*e*P	P	14 51 08.1	+0.6
BUCH	Bad Urach	83.23	318	⇑*e*P	P	14 51 07.9	+0.2
BUCH	Bad Urach	83.23	318	⇑*e*P	P	14 51 07.9	+0.2
VSL	Villasalto	83.30	309	*e*P	P	14 51 07.9	-0.3
	comp=Z,78nm,1.3s,mb5.6						
VSL				*e*	pP	14 51 22.3	+0.9
STU	Stuttgart	83.34	318	*e*P	P	14 51 08.0	-0.2
STU				pmax	pmax		
	comp=Z,19nm,0.6s,mb5.3						
STU	Stuttgart	83.34	318	*e*P	P	14 51 08.0	-0.2
	comp=Z,19nm,0.6s,mb5.3						
GUT	Gutenstein	83.39	318	⇑*e*P	P	14 51 08.5	0.0
GUT	Gutenstein	83.39	318	⇑*e*P	P	14 51 08.5	0.0
MUD	Monsted U'grnd	83.40	326	*i* P	P	14 51 09.1	+0.7
MUD				pmax	pmax		
	comp=Z,35nm,0.8s,mb5.4						
MUD	Monsted U'grnd	83.40	326	*i* P	P	14 51 09.1	+0.7
	comp=Z,35nm,0.8s,mb5.4						
PGF	Pioggiola	83.53	312	⇑*i*P	P	14 51 09.7	+0.3
	comp=Z,264nm,1.4s,mb5.9						
PGF	Pioggiola	83.53	312	⇑*i*P	P	14 51 09.7	+0.3
PGF				pmax	pmax		
	comp=Z,132nm,1.4s,mb5.9						
TOD	Tromm	83.59	319	⇑*e*P	P	14 51 09.8	+0.3
TOD	Tromm	83.59	319	⇑*e*P	P	14 51 09.8	+0.3
LBG	Lerchenberg	83.61	318	⇑*e*P	P	14 51 09.6	0.0
LBG	Lerchenberg	83.61	318	⇑*e*P	P	14 51 09.6	0.0
SPAK	Spaichingen	83.61	318	⇑*e*P	P	14 51 10.0	+0.3
SPAK	Spaichingen	83.61	318	⇑*e*P	P	14 51 10.0	+0.3
SPAK	Spaichingen	83.61	318	*e*P	P	14 51 10.1	+0.4
VAI	Varese	83.65	315	⇑*i*P	P	14 51 09.2	-0.7
SWS	Schriesheim	83.66	319	⇑*e*P	P	14 51 09.9	0.0
SWS	Schriesheim	83.66	319	⇑*e*P	P	14 51 09.9	0.0
PCP	Pian Castagno	83.83	314	P	P	14 51 10.4	-0.4
BFO	Black Forest	83.92	318	*e*P	P	14 51 10.9	-0.3
BFO				pmax	pmax		
	comp=Z,63nm,1.0s,mb5.7						
BFO	Black Forest	83.92	318	*e*P	P	14 51 10.9	-0.3
	comp=Z,63nm,1.0s,mb5.7						
FIN	Finale Ligure	84.08	314	⇑*i*P	P	14 51 12.1	0.0
FELD	Feldberg	84.14	317	⇑*e*P	P	14 51 12.3	0.0
FELD	Feldberg	84.14	317	⇑*e*P	P	14 51 12.3	0.0
MCGN	Macugnaga	84.19	316	*e*P	P	14 51 12.8	+0.1
KIZ	Kirchzarten	84.20	318	⇑*e*P	P	14 51 12.5	-0.1
KIZ	Kirchzarten	84.20	318	⇑*e*P	P	14 51 12.5	-0.1
ORX	Oropa	84.20	315	P	P	14 51 11.4	-1.3
LANF	Langenberg	84.25	319	*e*P	P	14 51 13.4	+0.5
MOL	Molde	84.28	332	*e*P	P	14 51 15.2	+2.6
MOL				AMb	AMB	14 51 20.3	
	comp=Z,133nm,1.8s,mb5.8						
IMI	Imperia	84.31	314	*e*P	P	14 51 13.6	+0.3
ROB	Roburent	84.32	314	P	P	14 51 13.2	-0.1
TRAV		84.37	315	P	P	14 51 12.5	-1.0
ABH	Alteburg	84.41	320	⇑*e*P	P	14 51 14.3	+0.7
ABH	Alteburg	84.41	320	⇑*e*P	P	14 51 14.3	+0.7
ABH	Alteburg	84.41	320	*e*P	P	14 51 14.2	+0.6
MONE	Monesi	84.41	314	P	P	14 51 14.0	+0.3
LIBD	Limburg	84.41	318	⇑*e*P	P	14 51 14.2	+0.6
LIBD	Limburg	84.41	318	⇑*e*P	P	14 51 14.2	+0.6
NEGI	Negi	84.45	313	P	P	14 51 14.0	0.0
BBS	Basel-Blauen	84.49	317	⇑*e*P	P	14 51 14.0	-0.1
BBS	Basel-Blauen	84.49	317	⇑*e*P	P	14 51 14.0	-0.1
SAOF	Saorge	84.55	314	*e*P	P	14 51 14.9	+0.4
WLS	Welschbruch	84.57	318	*e*P	P	14 51 14.5	+0.1
CDF	Champ du Feu	84.62	318	⇑*i*P	P	14 51 14.5	-0.2
	comp=Z,81nm,1.0s,mb5.5						
CDF	Champ du Feu	84.62	318	⇑*i*P	P	14 51 14.5	-0.2
CDF				pmax	pmax		
	comp=Z,41nm,1.0s,mb5.5						
ENR	Entracque	84.64	314	P	P	14 51 14.1	-0.8
SBF	Sospel	84.64	313	⇑*i*P	P	14 51 15.3	+0.4
	comp=Z,258nm,1.0s,mb6.0						
SBF	Sospel	84.64	313	⇑*i*P	P	14 51 15.3	+0.4
SBF				pmax	pmax		
	comp=Z,129nm,1.0s,mb6.0						
AUTN	L'Aution	84.64	314	*e*P	P	14 51 15.4	+0.5
REVF	Revere	84.70	313	*e*P	P	14 51 15.2	0.0
ECH	Echery	84.70	318	*e*P	P	14 51 15.0	-0.1
STV	Sta Anna Valdi	84.71	314	P	P	14 51 14.0	-1.3
RUP	Ruppelstein	84.72	319	⇑*e*P	P	14 51 15.8	+0.6
RUP	Ruppelstein	84.72	319	⇑*e*P	P	14 51 15.8	+0.6
RSP	Reno Superiore	84.73	315	P	P	14 51 14.7	-0.6
MOF	Molkenrain	84.73	317	*e*P	P	14 51 15.0	-0.3
BHB	Bricherasio	84.73	314	P	P	14 51 13.7	-1.6
TOUF	Mont Tournerai	84.77	314	*e*P	P	14 51 16.2	+0.6
LSD	Ceresole Reale	84.79	315	P	P	14 51 16.2	+0.6
WTSB	Winterswijk	84.83	322	*e*P	P	14 51 15.8	+0.2
	comp=Z,97nm,1.0s,mb5.9						
MVIF	Mont Vial	84.85	314	*e*P	P	14 51 16.5	+0.5
PZZ	Prazzo	84.86	314	P	P	14 51 15.9	-0.1
FENE	Fenestrelle	84.87	315	P	P	14 51 16.1	0.0
WIT	Witteveen	84.88	322	*e*P	P	14 51 16.9	+1.0
LOMF	Lomont	84.95	317	*e*P	P	14 51 16.3	-0.1
CALN	Calern	85.04	313	*e*P	P	14 51 17.7	+0.8
SURF	Saint Ours	85.07	314	*e*P	P	14 51 17.9	+0.9
RRL	Cesana Torines	85.07	315	P	P	14 51 17.0	0.0
LPG	La Plagne	85.07	315	⇑*i*P	P	14 51 17.7	+0.7
	comp=Z,155nm,1.0s,mb5.8						
LPG	La Plagne	85.07	315	⇑*i*P	P	14 51 17.7	+0.7
LPG				pmax	pmax		
	comp=Z,77nm,1.0s,mb5.8						
MBDF	Montbardon	85.09	314	⇑*i*P	P	14 51 17.0	-0.1
	comp=Z,60nm,1.1s,mb5.3						
MBDF	Montbardon	85.09	314	⇑*i*P	P	14 51 17.0	-0.1
MBDF				pmax	pmax		
	comp=Z,30nm,1.1s,mb5.3						
BNI	Bardonecchia	85.14	315	*e*P	P	14 51 16.6	-0.8
BNI				pmax	pmax		
	comp=Z,64nm,1.1s,mb5.7						
BNI	Bardonecchia	85.14	315	*e*P	P	14 51 16.6	-0.8
	comp=Z,64nm,1.1s,mb5.7						
HAU	Haudompre	85.25	318	⇑*i*P	P	14 51 17.8	-0.1
	comp=Z,210nm,1.0s,mb5.9						
HAU	Haudompre	85.25	318	⇑*i*P	P	14 51 17.8	-0.1
HAU				pmax	pmax		
	comp=Z,105nm,1.0s,mb5.9						
WLF	Walferdange	85.31	319	*e*P	P	14 51 18.8	+0.7
WLF				*e*	pP	14 51 31.8	+0.4
WLF				pmax	pmax		
	comp=Z,89nm,1.3s,mb5.7						
WLF	Walferdange	85.31	319	*e*P	P	14 51 18.8	+0.6
	comp=Z,89nm,1.3s,mb5.7						
WLF				*e*	pP	14 51 31.8	+0.4
HGN	Heimansgroeve	85.41	320	*e*P	P	14 51 18.7	+0.1
	comp=Z,30nm,1.5s,mb5.2						
THEF	They Montfort	85.48	318	*e*P	P	14 51 19.0	0.0
GDM	Grand'Maison	85.53	315	*e*P	P	14 51 19.6	+0.3
OG25	Le Caire	85.60	314	*e*P	P	14 51 19.2	-0.5
OG05	Jujurieux	85.95	316	*e*P	P	14 51 21.8	+0.5
BAIF	Baives	86.55	320	⇑*i*P	P	14 51 24.5	+0.3
	comp=Z,155nm,1.0s,mb5.9						
BAIF	Baives	86.55	320	⇑*i*P	P	14 51 24.5	+0.3
BAIF				pmax	pmax		
	comp=Z,78nm,1.0s,mb5.9						
COLF	Collangettes	87.22	315	*e*P	P	14 51 28.0	+0.5
SSF	Saint Saulge	87.23	317	⇑*i*P	P	14 51 27.5	-0.1
	comp=Z,150nm,1.3s,mb5.8						
SSF	Saint Saulge	87.23	317	⇑*i*P	P	14 51 27.5	-0.1
SSF				pmax	pmax		
	comp=Z,75nm,1.3s,mb5.8						
PLDF	La Plantade	87.23	316	*e*P	P	14 51 29.4	+1.8
LBL	Lubilhac	87.56	315	*e*P	P	14 51 31.2	+2.0
AGO	Saint Agoulin	87.57	316	*e*P	P	14 51 31.0	+1.8
PYM	Petit Puy Mans	87.68	316	*e*P	P	14 51 31.5	+1.8
BGF	Bois d'Agland	87.72	316	⇑*i*P	P	14 51 30.4	+0.5
	comp=Z,220nm,1.2s,mb6.0						
BGF	Bois d'Agland	87.72	316	⇑*i*P	P	14 51 30.4	+0.5
BGF				pmax	pmax		
	comp=Z,110nm,1.2s,mb6.0						
EJON	La Jonquera	88.05	312	P	P	14 51 29.4	-2.2
	comp=Z,11nm,0.9s,mb5.1						
RJF	Les Rejaudoux	88.77	315	⇑*i*P	P	14 51 35.7	+0.8
	comp=Z,105nm,1.2s,mb5.7						
RJF	Les Rejaudoux	88.77	315	⇑*i*P	P	14 51 35.7	+0.8
RJF				pmax	pmax		
	comp=Z,53nm,1.2s,mb5.8						
LMK	Market Rasen	89.04	323	⇑*e*P	P	14 51 37.0	+1.0
EMIR	Miracle	89.11	312	P	P	14 51 36.4	-0.3
	comp=Z,11nm,0.5s,mb5.5						
KTG1	Tilbrook Grang	89.22	322	⇑*e*P	P	14 51 35.4	-1.5
EPOB	Poblet	89.50	311	P	P	14 51 38.9	+0.3
	comp=Z,36nm,1.0s,mb5.7						
LCP	Cassop	89.54	325	⇑*e*P	P	14 51 39.2	+0.9
LCP				AMb	AMB	14 51 40.4	
	comp=Z,266nm,1.3s,mb6.4						
EIBI	Ibiza	89.55	309	P	P	14 51 39.7	+0.8
	comp=Z,56nm,1.1s,mb5.8						
ANM	Nome	89.65	25	*e*P	P	14 51 40.2	+1.5
FLN	La Foliniere	89.72	319	⇑*i*P	P	14 51 39.8	+0.4
	comp=Z,229nm,1.1s,mb6.1						
FLN	La Foliniere	89.72	319	⇑*i*P	P	14 51 39.8	+0.4
FLN				pmax	pmax		
	comp=Z,114nm,1.1s,mb6.1						
HPK	Haverah Park	89.73	324	⇑*e*P	P	14 51 40.0	+0.7
HPK				AMb	AMB	14 51 41.0	
	comp=Z,299nm,0.9s,mb6.6						
KBI1	Birley Grange	89.78	323	⇑*e*P	P	14 51 37.7	-1.8
LHO	Holmfirth	89.93	324	⇑*e*P	P	14 51 40.9	+0.7
LHO				AMb	AMB	14 51 42.2	
	comp=Z,122nm,1.2s,mb6.1						
KWE	Weaver Farm	90.00	323	⇑*e*P	P	14 51 38.9	-1.7
EBR	Ebro Roquetas	90.00	311	*e*P	P	14 51 42.2	+1.3
ESY	Stoneypath	90.00	326	⇑*e*P	P	14 51 40.9	+0.4
EBIE	Bielsa	90.04	313	P	P	14 51 42.0	+0.9
	comp=Z,23nm,0.9s,mb5.5						
VNDA	Vanda	90.07	168	*e*P	P	14 51 41.0	+0.6
VNDA				pmax	pmax		
	comp=Z,12nm,1.2s						
VNDA	Vanda	90.07	168	P	P	14 51 41.1	+0.7
	comp=Z,6.4nm,1.1s,mb4.9,baz=296,slow=8.9,SNR=7.5						
VNDA	Vanda	90.07	168	*e*P	P	14 51 41.0	+0.6
	comp=Z,12nm,1.2s,mb5.1						
ERTA	Horta de San J	90.11	311	P	P	14 51 42.2	+0.8
	comp=Z,46nm,1.0s,mb5.8						
LCHF	La Chataignera	90.17	317	*e*P	P	14 51 42.6	+1.1
EDI	Edinburgh	90.32	326	⇑*e*P	P	14 51 42.1	+0.1
EDI				AMb	AMB	14 51 44.0	
	comp=Z,95nm,1.4s,mb5.9						
DAG	Danmarks Havn	90.34	348	⇓*e*P	P	14 51 41.0	-0.7
DAG				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.4						
DAG	Danmarks Havn	90.34	348	⇓*e*P	P	14 51 41.0	-0.7
	comp=Z,13nm,0.7s,mb5.4						
DAG	Danmarks Havn	90.34	348	⇓*i*P	P	14 51 41.0	-0.7
	comp=Z,13nm,0.7s,mb5.4						
ESK	Eskdalemuir	90.43	326	⇑*e*P	P	14 51 43.0	+0.5
ESK				AMb	AMB	14 51 44.5	
	comp=Z,57nm,1.0s,mb5.8						
EAU	Auchinoon	90.48	326	⇑*e*P	P	14 51 43.5	+0.7
EAU				AMb	AMB	14 51 45.1	
	comp=Z,120nm,1.4s,mb6.0						
ETSF	Etsaut	90.53	313	⇑*i*P	P	14 51 44.4	+1.1
	comp=Z,48nm,0.9s,mb5.5						
ETSF	Etsaut	90.53	313	⇑*i*P	P	14 51 44.4	+1.1
ETSF				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.5						
ESAC	San Caprasio	90.61	312	P	P	14 51 43.8	0.0
	comp=Z,40nm,0.8s,mb5.8						
EMOS	Mosqueruela	90.79	310	P	P	14 51 45.7	+1.1
	comp=Z,154nm,1.3s,mb6.2						
SBA	Scott Base	91.17	168	*e*P	P	14 51 46.1	+0.5
SBA				pmax	pmax		
	comp=Z,18nm,1.3s,mb5.2						
SBA	Scott Base	91.17	168	*e*P	P	14 51 46.0	+0.5
	comp=Z,18nm,1.3s,mb5.2						
EALK	Alkurruntz	91.17	313	P	P	14 51 47.4	+1.1
	comp=Z,5.2nm,0.6s,mb5.0						
EMUR	La Murta	91.71	308	P	P	14 51 49.1	+0.2
	comp=Z,25nm,1.2s,mb5.4						
ELAN	Lanestosa	92.56	314	P	P	14 51 53.8	+1.1
	comp=Z,2.6nm,0.6s,mb4.8						
EVIA	Vianos	92.58	309	P	P	14 51 54.0	+1.1
EVIA				pmax	pmax		
	comp=Z,37nm,1.3s,mb5.7						
EVIA	Vianos	92.58	309	P	P	14 51 54.0	+1.1
	comp=Z,37nm,1.3s,mb5.7						
DLF	Lyons Farm	92.73	324	*e*P	P	14 51 54.1	+0.9
DMUB	Kingscourt	92.82	325	*e*P	P	14 51 54.9	+1.3
EBER	Berja	93.14	307	P	P	14 51 56.0	+0.4
	comp=Z,27nm,1.1s,mb5.6						
EQES	Quesada	93.15	308	P	P	14 51 57.0	+1.4
	comp=Z,7.2nm,0.7s,mb5.2						
DCN	Croghan	93.15	324	*e*P	P	14 51 56.1	+1.0
GUD	Guadarrama	93.52	311	P	P	14 51 58.5	+1.4
GUD				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.4						
GUD	Guadarrama	93.52	311	P	P	14 51 58.5	+1.4
	comp=Z,12nm,0.8s,mb5.4						
ESDC	Sonseca Array	93.54	310	P	P	14 51 58.1	+0.8
	comp=Z,2.9nm,0.6s,mb4.9,baz=63,slow=4.1,SNR=25						
ESDC				pP	pP	14 52 11.8	+1.1
	comp=Z,5.6nm,0.6s,baz=60,slow=4.2,SNR=11						
ESDC				PP	PP	14 55 39.3	-5.6
	comp=Z,0.1nm,0.3s,baz=60,slow=6.6,SNR=4.1						
ESDC				PKKPbc		15 09 03.2	
	comp=Z,1.4nm,0.8s,baz=302,slow=1.9,SNR=6.6						
ESDC	Sonseca Array	93.54	310	P	P	14 51 58.0	+0.8
	comp=Z,9.4nm,1.1s,mb5.1						
ESLA	Sonseca Array	93.54	310	*e*P	P	14 51 57.5	+0.2
	comp=Z,17nm,1.6s,mb5.2						
EBAN	Banos Encina	93.65	309	P	P	14 51 58.7	+0.9

EBAN				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.3						
EBAN	Banos Encina	93.65	309	P	P	14 51 58.7	+0.9
	comp=Z,10nm,0.7s,mb5.4						
EARI	Arriondas	93.83	314	P	P	14 52 00.3	+1.8
	comp=Z,28nm,1.1s,mb5.6						
SCO	Scoresbysund	93.91	342	*i* P	P	14 51 59.5	+1.3
	comp=Z,9.1nm,0.9s,mb5.2						
IMA	Indian Mountai	93.93	22	*e*P	P	14 51 59.9	+1.5
IMA				pmax	pmax		
	comp=Z,28nm,0.7s,mb5.8						
IMA	Indian Mountai	93.93	22	*e*P	P	14 51 59.9	+1.5
	comp=Z,28nm,0.7s,mb5.8						
EADA	Adamuz	94.26	309	P	P	14 52 00.6	0.0
	comp=Z,7.4nm,0.9s,mb5.1						
SPU	Mount Spurr	96.46	27	*e*P	P	14 52 09.7	-0.2
COLA	College	96.64	22	*e*P	P	14 52 10.6	-0.1
COLA				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb5.0						
COLA	College	96.64	22	*e*P	P	14 52 10.6	-0.2
	comp=Z,4.9nm,0.8s,mb5.0						
ILAR	Eielson Array	97.06	22	P	P	14 52 12.3	-0.3
	comp=Z,3.1nm,0.8s,mb4.8,baz=292,slow=4.0,SNR=39						
ILAR				PP	PP	14 56 06.5	-4.9
	comp=Z,1.9nm,0.9s,baz=294,slow=6.1,SNR=5.7						
ILAR				PKKP	PKKP	15 08 57.3	+11
	comp=Z,0.4nm,0.7s,baz=334,slow=5.4,SNR=4.7						
ILAR				PKKPab		15 09 25.0	
	comp=Z,0.5nm,0.8s,baz=292,slow=4.7,SNR=5.0						
PMR	Palmer	97.58	26	*e*P	P	14 52 15.3	+0.2
PMR				pmax	pmax		
	comp=Z,29nm,1.4s,mb5.6						
PMR	Palmer	97.58	26	*e*P	P	14 52 15.3	+0.2
	comp=Z,29nm,1.4s,mb5.6						
DBIC	Dimbokro	99.00	278	P	P	14 52 23.4	+0.7
	comp=Z,6.1nm,1.1s,mb5.0,baz=99,slow=14,SNR=3.9						
MENT	Mentasta	99.18	23	*e*P	P	14 52 23.5	+1.2
INK	Inuvik	99.47	16	PKKPbc		15 08 45.3	
	comp=Z,1.3nm,1.0s,baz=157,slow=4.0,SNR=3.7						
YKA	Yellowknife Ar	108.96	14	Pdiff	Pdif	14 53 07.2	+1.5
	comp=Z,0.6nm,0.7s,baz=330,slow=4.6,SNR=14						
YKA				PP	PP	14 57 32.6	-9.1
	comp=Z,1.2nm,0.7s,baz=332,slow=7.6,SNR=7.9						
YKA				PKKPbc		15 08 17.5	
	comp=Z,0.7nm,0.8s,baz=150,slow=3.0,SNR=12						
YKA				PKKPab		15 08 30.9	
	comp=Z,0.7nm,0.9s,baz=147,slow=3.4,SNR=4.5						
TBI	Tubuai	115.58	113	*e*LR	LR	15 32 09.0	
	comp=Z,718nm,23.5s						
PPT	Papeete	115.90	107	*e*PS	PS	15 08 13.2	+3.8
PPT				*e*LR	LR	15 32 27.0	
	comp=Z,904nm,31.2s						
SCHQ	Schefferville	118.39	348	PKiKP		14 57 28.8	
	comp=Z,4.2nm,0.6s,baz=240,slow=17,SNR=19						
MSO	Missoula	122.38	23	*e*PKPdf	PKPdf	14 57 35.8	+0.6
BMO	Blue Mountains	122.56	27	*e*PKIKP	PKPdf	14 57 36.5	+0.9
BMO	Blue Mountains	122.56	27	*e*PKPdf	PKPdf	14 57 35.8	+0.1
MOD	Modoc	123.34	31	*e*PKPdf	PKPdf	14 57 38.7	+1.5
ULM	Lac du Bonnet	124.12	8	PKP	PKPdf	14 57 40.1	+1.6
	comp=Z,12nm,0.7s,baz=333,slow=2.7,SNR=17						
ULM	Lac du Bonnet	124.12	8	*e*PKPdf	PKPdf	14 57 40.5	+2.0
DGMT	Dagmar	124.13	15	*e*PKPdf	PKPdf	14 57 39.5	+0.9
BOZ	Bozeman (W)	124.26	22	*e*PKIKP	PKPdf	14 57 40.1	+1.2
LAO	LASA Array	125.18	18	*e*PKPdf	PKPdf	14 57 42.4	+1.8
YMR	Madison River	125.33	22	*e*PKPdf	PKPdf	14 57 42.7	+1.7
YFT	Old Faithful	125.57	22	*e*PKPdf	PKPdf	14 57 43.9	+2.4
IMW	Indian Meadow	126.00	23	*e*PKPdf	PKPdf	14 57 43.7	+1.4
MOOW	Moose Ponds	126.20	23	*e*PKPdf	PKPdf	14 57 43.9	+1.3
TPAW	Teton Pass	126.33	23	*e*PKPdf	PKPdf	14 57 44.4	+1.4
LOHW	Long Hollow	126.37	23	*e*PKPdf	PKPdf	14 57 44.7	+1.7
SNOW	Snow King Moun	126.44	23	*e*PKPdf	PKPdf	14 57 44.7	+1.6
NVAR	Mina Array Bea	126.92	32	PKP	PKPdf	14 57 46.5	+2.2
	comp=Z,8.7nm,0.8s,baz=270,slow=1.3,SNR=36						
NVAR				pPKP		14 58 01.6	
	comp=Z,5.6nm,0.9s,baz=251,slow=2.3,SNR=6.1						
PDAR	Pinedale Array	127.49	23	PKP	PKPdf	14 57 46.1	+0.9
	comp=Z,17nm,1.1s,baz=45,slow=2.1,SNR=57						
MTUM	Tungsten Hills	127.56	34	*e*PKPdf	PKPdf	14 57 47.9	+2.4
HWUT	Hardware Ranch	127.66	25	*e*PKPdf	PKPdf	14 57 46.7	+1.1
TRCR	Troy Canyon	128.40	31	*e*PKPdf	PKPdf	14 57 49.3	+2.3
RKT	Rikitea	128.76	116	*e*LR	LR	15 38 31.5	
	comp=Z,583nm,39.8s						
NLU	North Lily Min	128.80	27	*e*PKPdf	PKPdf	14 57 49.2	+1.4
TMUT	Trail Mountain	129.72	26	*e*PKPdf	PKPdf	14 57 51.8	+2.2
PHWY	Pilot Hill	130.25	20	*e*PKPdf	PKPdf	14 57 51.6	+1.1
PHWY				*e*SKP		15 01 09.9	
NEN	Nelson	130.83	32	*e*PKPdf	PKPdf	14 57 53.5	+1.7
NEN				*e*SKP		15 01 12.1	
PV10	Paradox Valley	131.42	25	*e*PKPdf	PKPdf	14 57 55.2	+2.3
PV01	Paradox Valley	131.82	25	*e*PKPdf	PKPdf	14 57 55.2	+1.6
PV01				*e*SKP		15 01 16.6	
RW3	Ridgway	132.09	24	*e*PKIKP	PKPdf	14 57 56.6	+2.5
RW3	Ridgway	132.09	24	*e*PKPdf	PKPdf	14 57 56.1	+2.0
BINY	Binghamton	132.21	351	*e*PKPdf	PKPdf	14 57 55.1	+0.9
SSPA	Standing Stone	134.02	352	*e*PKPdf	PKPdf	14 57 58.2	+0.5
KSU1	Kansas State U	134.79	13	*e*PKPdf	PKPdf	14 58 00.1	+0.9
ACSO	Alum Creek Sta	134.87	358	*e*PKPdf	PKPdf	14 58 00.1	+0.9
ANMO	Albuquerque	135.42	25	*e*PKPdf	PKPdf	14 58 01.9	+1.5
ANMO				*e*		14 58 15.6	
ANMO				*e*SKP		15 01 29.4	
TUC	Tucson	135.55	32	*e*PKPdf	PKPdf	14 58 01.4	+0.7
TUC				*e*		14 58 16.9	
TUC				*e*SKP		15 01 29.4	
LAZ	Ladron	135.59	26	*e*PKPdf	PKPdf	14 58 02.3	+1.6
LAZ				*e*SKP		15 01 29.4	
LPM	Los Pinos Moun	135.89	26	*e*PKPdf	PKPdf	14 58 03.1	+1.9
BNM	Barren Site	136.03	26	*e*PKPdf	PKPdf	14 58 03.2	+1.7
BNM				*e*SKP		15 01 30.9	
CCM	Cathedral Cave	136.72	7	*e*PKIKP	PKPdf	14 58 02.2	-0.5
CCM	Cathedral Cave	136.72	7	*e*PKPdf	PKPdf	14 58 01.7	-1.0
PWV	Princeton	137.63	355	*e*PKPdf	PKPdf	14 58 05.3	+0.9
ELN	Prospectdale	137.71	355	*e*PKPdf	PKPdf	14 58 05.4	+0.9
CPRX	Cap Rock	138.15	24	*e*PKPpre		14 58 00.7	
CPRX				*e*PKPdf	PKPdf	14 58 06.7	+1.2
WMOK	Wichita Mounta	138.37	17	*e*PKHKP		14 57 55.2	
WMOK				*e*		14 58 06.3	
MNTX	Cornudas Mount	138.66	26	*e*PKPpre		14 57 59.3	
MNTX				*e*PKPdf	PKPdf	14 58 07.6	+1.2
MNTX				*e*PP	PP	15 00 56.6	-5.2
MNTX				*e*SKP		15 01 38.4	
GDL2	Guadalupe Moun	138.67	25	*e*PKPdf	PKPdf	14 58 07.9	+1.5
GDL2				*e*SKP		15 01 38.4	
CLNB	Carlsbad	138.82	24	*e*PKPdf	PKPdf	14 58 08.7	+2.0
WVT	Waverly	138.94	3	*e*PKPdf	PKPdf	14 58 07.6	+0.8
WVT				*e*PP	PP	15 00 57.1	-6.1
WVT				*e*SKPdf		15 01 38.3	
WVT				*e*SKPab		15 01 47.7	
CPCT	Cooper Cave	139.69	359	*e*PKPpre		14 58 00.6	
CPCT				*e*PKPdf	PKPdf	14 58 06.8	-1.4
MIAR	Mount Ida	139.80	11	*e*PKPpre		14 58 00.4	
MIAR				*e*PKPdf	PKPdf	14 58 09.7	+1.3
MIAR				*e*SKP		15 01 40.8	
OXF	Oxford	140.42	6	*e*PKPpre		14 58 03.9	
OXF				*e*PKPdf	PKPdf	14 58 08.2	-1.3
OXF				*e*PP	PP	15 01 06.6	-5.6
OXF				*e*SKP		15 01 41.1	
LTX	Lajitas	141.44	26	*e*PKHKP		14 58 07.1	
LTX				*e*		14 58 12.7	
TXAR	Lajitas Array	141.44	26	PKhKP		14 58 07.2	
	comp=Z,3.0nm,0.6s,baz=45,slow=2.9,SNR=15						
TXAR				PKP	PKPdf	14 58 11.8	+0.3
	comp=Z,7.7nm,0.8s,SNR=26						
JCT	Junction City	141.97	21	*e*PKPpre		14 58 07.9	
JCT				*e*PP	PP	15 01 16.6	-5.1
JCT				*e*SKP		15 01 47.1	
BAO	Brasilia Array	142.03	251	P	PKPdf	14 58 15.3	+2.5
BDFB	Brasilia	142.05	251	PKhKP		14 58 09.2	
	comp=Z,5.5nm,1.0s,baz=130,slow=7.6,SNR=3.2						
BDFB				PKP	PKPdf	14 58 15.7	+2.8
	comp=Z,9.5nm,1.0s,baz=127,slow=0.4,SNR=9.0						
LRAL	Lakeview Retre	142.06	3	*e*PKPpre		14 58 05.4	
LRAL				*e*SKP		15 01 45.1	
DWPF	Disney	146.81	354	*e*PKPbc	PKPbc	14 58 23.9	+1.6
DWPF				*e*		14 58 40.2	
FCH	Farellones	148.66	204	*i* P	PKPdf	14 58 29.0	+5.4
SJG	San Juan	150.29	321	*e*PKIKP	PKPdf	14 58 32.6	+6.0
SJG	San Juan	150.29	321	PKPbc	PKPdf	14 58 32.3	+5.7
	comp=Z,42nm,0.8s,baz=48,slow=2.9,SNR=9.2						
PCRV	Puerto La Cruz	154.55	307	PKPbc	PKPdf	14 58 40.9	+8.1
	comp=Z,16nm,0.8s,baz=340,slow=1.3,SNR=5.5						
TEIG	Tepich	154.67	7	*e*PKPdf	PKPdf	14 58 34.7	+1.9
TEIG				*e*PKPbc	PKPdf	14 58 43.4	+11
LVC	Limon Verde	156.53	220	*e*PKPdf	PKPdf	14 58 37.4	+2.2
LVC				*e*PKPab	PKPab	14 59 07.1	+0.5
LPAZ	La Paz	159.92	235	*e*PKIKP	PKPdf	14 58 42.0	+2.5
LPAZ				*e*		14 59 21.6	
LPAZ	La Paz	159.92	235	PKP	PKPdf	14 58 42.5	+3.0
	comp=Z,6.9nm,1.1s,baz=50,slow=5.4,SNR=16						
LPAZ				PKPab	PKPab	14 59 22.1	+0.8
	comp=Z,5.6nm,1.2s,baz=172,slow=8.7,SNR=4.0						
SDV	Santo Domingo	159.94	314	*e*PKPdf	PKPdf	14 58 40.9	+1.3
SDV				*e*PKPab	PKPab	14 59 20.7	-0.8
ROSC	El Rosal	165.36	312	PKP	PKPdf	14 58 47.2	+2.2
	comp=Z,15nm,0.7s,baz=110,slow=20,SNR=12						
OTAV	Otavalo	171.47	308	*e*PKPdf	PKPdf	14 58 50.5	+1.5
OTAV				*e*pPKPdf		14 59 06.2	
OTAV				*e*PKPab	PKPab	15 00 12.6	+0.6

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*IDC **31** 14:54:38.2±0.7, 4.20N×92.76E, mb4.5/20, mb1 4.6/21, mb1mx4.5/27, mbtmp4.5/21, ML4.4/1, MS5.0/1, Ms1 4.9/1, ms1mx4.6/5, Error ellipse: s-maj=28.5km s-min=13.8km az=38.0*

*MOS **31** 14:54:40.9±1.2, 4.09N×92.69E, h33km, mb4.9/18, Error ellipse: s-maj=18.5km s-min=9.2km az=106.7*

*NEIC **31** 14:54:43.5±0.5, 4.25N×92.84E, mb4.7/21, Error ellipse: s-maj=13.4km s-min=8.9km az=224.0*

*BJI **31** 14:54:43.4, 4.20N×92.80E, h35km, mB5.4, mb4.7, Ms5.2, Msz4.5*

ISC 31 14:54:41.5±0.4**, 4.18N**±0.06×**92.81E**±0.05**, h35km, h35km**±1.5km**:pP-P, n119,** σ1.**02**/120**, mb4.8**/49**, MS5.0**/5**, 5C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	8.32	69	P	P	14 56 43.0	+0.3
	450nm,1.0s						
NST	Nakhon Sawan	13.51	32	P	P	14 57 51.4	-1.9
	83nm,1.2s						
CM31	Chiang Mai Arr	15.41	22	*e*P	P	14 58 15.1	-3.1
	17nm,0.8s						
CMAR	Chiang Mai Arr	15.41	22	Pn	P	14 58 16.6	-1.6
	0.5nm,0.3s,baz=218,slow=13,SNR=66						
KKTK	Khon Kaen	15.58	38	P	P	14 58 22.0	+1.6
	556nm,0.8s						
UBT	Ubonrachathani	16.29	47	P	P	14 58 34.5	+5.0
TRD	Trivandrum	16.32	286	*e*P	P	14 58 32.9	+3.1
TRD				*e*		14 58 33.7	
	comp=Z,18nm,1.5s						
TRD				*e*		15 01 21.1	
VIS	Vishakhapatnam	16.35	326	⇓*e*P	P	14 58 26.1	-4.1
VIS				*e*		14 58 39.1	
	comp=Z,132nm,1.4s						
KOD	Kodaikanal	16.36	292	*e*	P	14 58 42.0	+12
HYB	Hyderabad	19.19	314	*e*P	P	14 59 03.0	-2.2
HYB	Hyderabad	19.19	314	*i* P	P	14 59 03.0	-2.2
MNGI	Mangalore	19.78	297	*e*P	P	14 59 11.7	-0.1
MNGI				*e*		15 02 35.1	
	comp=Z,234nm,1.8s						
IMP	Imphal	20.52	3	*e*	P	14 59 17.4	-2.1
BLSP	Bilaspur	20.63	331	*e*	P	14 59 19.3	-1.4
BLSP				*e*		14 59 56.0	
BLSP				*i*		15 03 38.5	
LATR	Latur	21.28	313	*e*P	P	14 59 26.5	-0.8
SHL	Shillong	21.29	358	*e*	P	14 59 26.5	-0.8
NGP	Nagpur	21.52	323	⇑*e*	P	14 59 30.1	+0.3
NGP				*e*		15 03 40.1	
KAD	Karad	22.44	307	*e*P	P	14 59 38.2	-0.6
KAD				*i* S	S	15 03 48.0	+10
	comp=Z,79nm,1.0s						
AKL	Akola	22.49	318	⇑*i*P	P	14 59 40.3	+0.9
	comp=Z,250nm,1.0s,mb5.6						
AKL				*i* S	S	15 03 46.3	+7.2
KMI	Kunming	22.91	24	P	P	14 59 46.3	+2.7
KMI				LR	LR		
	comp=N,678nm,8.9s						
KMI				LR	LR		
	comp=E,496nm,7.4s						
KMI				LR	LR		
	comp=Z,944nm,11.5s,MS4.5						
POO	Poona	23.39	309	*e*P	P	14 59 47.1	-1.2
POO				*e*		14 59 51.0	
	comp=Z,46nm,1.2s						
POO				*e*		15 04 41.0	
BHPL	Bhopal	24.09	323	*e*P	P	14 59 53.2	-1.8
BHPL				*e*		14 59 58.0	
	comp=Z,40nm,1.2s						
BHPL				*e*		15 05 15.6	
PKI	Pulchoki	24.31	344	*e*P	P	14 59 58.1	+0.9
	comp=Z,78nm,1.0s,mb5.1						
DMN	Daman	24.43	343	*e*P	P	14 59 59.2	+0.8
GUN	Gumba	24.51	345	*e*P	P	15 00 00.1	+1.0
	comp=Z,177nm,0.9s,mb5.6						
KKN	Kakani	24.55	344	*e*P	P	14 59 59.9	+0.4
	comp=Z,119nm,0.9s,mb5.4						
GKN	Gorkha	24.94	343	*e*P	P	15 00 03.5	+0.2
	comp=Z,87nm,0.9s,mb5.3						
KOLN	Koldanda	25.05	340	*e*P	P	15 00 04.8	+0.5
	comp=Z,127nm,1.1s,mb5.4						
LSA	Lhasa	25.43	357	*e*P	P	15 00 08.8	+0.9
LSA				pmax	pmax		
	comp=Z,19nm,0.7s,mb4.7						
LSA	Lhasa	25.43	357	*e*P	P	15 00 08.8	+0.8
	comp=Z,20nm,0.7s,mb4.7						
PTH	Pithoragarh	27.91	336	*e*	P	15 00 30.2	-0.5
PTH				*e*		15 06 28.1	
TGY	Tagaytay City	29.44	69	P	P	15 00 44.4	-0.1
	comp=Z,28nm,0.3s,mb5.4,baz=89,slow=5.1,SNR=3.8						
DDI	Dehra Dun	29.50	333	*e*	P	15 00 45.5	+0.6
DDI				*e*		15 06 49.4	
DDI				*e*		15 10 37.7	
ENH	Enshi	30.36	29	*e*P	P	15 00 51.3	-1.2
	comp=Z,11nm,0.8s,mb4.7						
SDNR	Sundarnagar	30.99	333	*e*	P	15 00 58.8	+0.7
XAN	Xi'an	33.28	25	P	P	15 01 17.0	-1.1
XAN				AP	pP	15 01 26.3	-1.8
XAN				AMB	AMB		
	comp=Z,37nm,0.9s,mb5.3						
GTA	Gaotai	35.64	9	P	P	15 01 38.5	+0.2
GTA				AP	pP	15 01 48.3	-0.1
GTA				XP	sP	15 01 51.3	-1.6
GTA				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.8						
FITZ	Fitzroy Crossi	39.22	125	*e*P	P	15 02 08.2	-0.2
	comp=Z,12nm,1.0s,mb4.6						
HHC	Hu-ho-hao-te	40.22	22	*e*P	P	15 02 17.8	+1.3
HHC				XP	sP	15 02 27.8	-3.3
HHC				AMB	AMB		
	comp=Z,20nm,0.4s,mb5.2						
HHC				LR	LR		
	comp=N,1μm,16.6s,MS5.1						
HHC				LR	LR		
	comp=E,2μm,14.3s,MS5.1						
HHC				LR	LR		
	comp=Z,1μm,25.0s						
ULHL	Ulahol	40.68	341	P	P	15 02 21.5	+1.1
	SNR=5.8						
KZA	Kyzart	40.87	340	P	P	15 02 23.4	+1.5
	SNR=7.9						
UCH	Uchtor	41.25	339	P	P	15 02 26.2	+1.2
	SNR=13						
BJT	Baijiatuau	41.45	27	*e*P	P	15 02 28.3	+1.6
BJT				*e*	pP	15 02 38.2	+1.3
AML	Almayashu	41.46	338	P	P	15 02 27.2	+0.4
	SNR=16						
BJI	Beijing	41.47	27	*e*P	P	15 02 29.3	+2.4
BJI				AMB	AMB		
	comp=Z,14nm,1.1s,mb4.5						
KBK	Karagaybulak	41.48	340	P	P	15 02 27.9	+1.0
	SNR=17						
TKM2	Tokmak 2	41.50	341	P	P	15 02 28.3	+1.2
	SNR=10						
AAK	Ala-Archa	41.62	340	*e*P	P	15 02 27.9	-0.2
AAK				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.0						
AAK	Ala-Archa	41.62	340	*e*P	P	15 02 27.9	-0.1
	comp=Z,4.2nm,0.9s,mb4.1						
EKS2	Erkin-Say	41.90	339	P	P	15 02 31.4	+1.0
	SNR=12						
USP	Ospenovka	42.17	340	P	P	15 02 32.2	-0.4
	SNR=16						
SONM	Songino Array	45.04	13	P	P	15 02 56.1	+0.4
	comp=Z,6.0nm,0.7s,mb4.5,baz=195,slow=8.8,SNR=35						
ULN	Ulaanbaatar	45.22	14	*e*P	P	15 02 57.1	-0.1
ULN				*e*	pP	15 03 08.1	+0.7
ULN				pmax	pmax		
	comp=Z,2.0nm,0.4s,mb4.3						
ULN	Ulaanbaatar	45.22	14	*e*P	P	15 02 57.1	-0.1
	comp=Z,1.5nm,0.4s,mb4.2						
ULN				*e*	pP	15 03 08.1	+0.7
ZAK	Zakamensk	46.88	9	*e*P	P	15 03 10.9	+0.6
ZAK				*e*		15 05 48.3	
WRA	Warramunga Arr	47.33	122	P	P	15 03 14.2	0.0
	comp=Z,3.8nm,0.6s,mb4.5,baz=298,slow=9.0,SNR=29						
WB2	Warramunga Arr	47.34	122	*e*P	P	15 03 14.2	-0.1
ASPA	Alice Springs	48.68	127	*e*P	P	15 03 23.3	-1.4
ASAR	Alice Springs	48.68	127	P	P	15 03 24.7	0.0
	comp=Z,3.1nm,1.1s,mb4.2,baz=302,slow=7.4,SNR=16						
ZAL	Zalesovo	50.03	354	P	P	15 03 35.0	+0.2
	comp=Z,3.9nm,0.5s,mb4.7,baz=298,slow=6.4,SNR=15						
HIA	Hailar	50.42	23	*e*P	P	15 03 37.7	0.0
HIA				*e**PP	pP	15 03 48.8	+0.8
HIA				pmax	pmax		
	comp=Z,9.0nm,0.8s						
HIA	Hailar	50.42	23	*e*P	P	15 03 37.7	0.0
	comp=Z,8.8nm,0.8s,mb4.8						
HIA				*e*pP	pP	15 03 48.8	+0.8
NVS	Novosibirsk	51.10	353	*e*P	P	15 03 41.7	-1.1
NVS				pmax	pmax		
	comp=Z,15nm,1.0s,mb4.9						
NVS				pmax	pmax		
	comp=N,11nm,1.0s						
NVS				pmax	pmax		
	comp=E,4.0nm,1.0s						
BVAR	Borovoye Array	52.08	343	P	P	15 03 49.6	-0.6
	comp=E,6.3nm,0.8s,mb4.6,baz=143,slow=7.4,SNR=36						
BRVK	Borovoye	52.14	343	*e*P	P	15 03 49.6	-1.0
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.7						
BRVK	Borovoye	52.14	343	*e*P	P	15 03 49.5	-1.0
	comp=Z,10nm,1.0s,mb4.7						
CHKZ	Chkalovo	52.58	344	*e*P	P	15 03 52.3	-1.6
CHKZ				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
CHKZ	Chkalovo	52.58	344	*e*P	P	15 03 52.3	-1.6
	comp=Z,17nm,1.0s,mb4.9						
KLR	Kul'dur	55.73	30	*e*P	P	15 04 20.2	+3.1
BOD	Bodaibo	56.03	13	*e*P	P	15 04 18.8	-0.3
GNI	Garni	56.12	317	*e*P	P	15 04 19.0	-1.0
GNI				pmax	pmax		
	comp=Z,13nm,1.0s						
GNI	Garni	56.12	317	P	P	15 04 20.0	0.0
	comp=Z,6.5nm,0.8s,mb4.7,baz=360,slow=1.2,SNR=6.9						
GNI	Garni	56.12	317	*e*P	P	15 04 19.0	-1.0
	comp=Z,13nm,1.0s,mb4.9						
ZEI	Tsey	57.88	319	*e*P	P	15 04 32.5	0.0
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.9s,mb4.5						
STKA	Stephens Creek	58.60	131	*e*P	P	15 04 37.7	0.0
	comp=Z,3.9nm,0.7s,mb4.5						
STKA	Stephens Creek	58.60	131	P	P	15 04 37.9	+0.2
	comp=Z,3.7nm,0.7s,mb4.5,baz=308,slow=8.3,SNR=8.6						
STKA				LR	LR	15 33 58.3	
	comp=Z,1μm,18.2s,MS5.0,baz=118,slow=40						
ARU	Arti	58.79	339	*e*P	P	15 04 36.9	-1.7
ARU	Arti	58.79	339	*e*P	P	15 04 36.9	-1.7
ASF	Jabal al Asfar	59.17	305	P	P	15 04 42.0	+0.3
	comp=Z,7.5nm,0.8s,mb4.8,baz=321,slow=2.6,SNR=12						
KIV	Kislovodsk	59.21	320	⇑*i*P	P	15 04 40.7	-1.0
KIV				pmax	pmax		
	comp=Z,17nm,1.0s,mb5.0						
KIV	Kislovodsk	59.21	320	*e*P	P	15 04 39.9	-1.8
	comp=Z,15nm,1.1s,mb4.9						
MALT	Malatya	59.89	312	*e*P	P	15 04 46.4	-0.1
MALT				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.8						
MALT	Malatya	59.89	312	*e*P	P	15 04 46.4	-0.1
	comp=Z,9.7nm,1.0s,mb4.8						
EIL	Elat	60.16	302	P	P	15 04 48.8	+0.3
	comp=Z,11nm,0.8s,mb4.9,baz=108,slow=3.5,SNR=18						
EIL	Elat	60.16	302	*e*P	P	15 04 47.7	-0.8
	comp=Z,13nm,0.9s,mb5.0						
BRTR	Keskin Array B	63.88	312	P	P	15 05 12.4	-0.8
	comp=Z,5.0nm,0.8s,mb4.6,baz=121,slow=7.2,SNR=23						
YAK	Yakutsk	63.90	18	*e*P	P	15 05 12.5	-0.5
YAK				*e**PP	pP	15 05 22.9	-0.7
YAK				pmax	pmax		
	comp=Z,14nm,0.9s,mb5.0						
YAK	Yakutsk	63.90	18	*e*P	P	15 05 12.5	-0.4
	comp=Z,14nm,0.9s,mb5.0						
YAK				*e*pP	pP	15 05 22.9	-0.7
IDI	Anoyia	69.61	306	P	P	15 05 49.0	-0.6
	comp=Z,9.6nm,0.7s,mb4.9,baz=102,slow=4.2,SNR=5.1						
AKASG	Malin Array Be	70.24	323	P	P	15 05 51.8	-1.3
	comp=Z,2.8nm,0.8s,mb4.3,baz=91,slow=4.6,SNR=14						
VRI	Vrincioaia	70.47	317	⇑*i*P	P	15 05 55.3	+0.8
MLR	Muntele Rosu	70.91	317	P	P	15 05 57.4	+0.2
	comp=Z,8.2nm,0.8s,mb4.7,baz=123,slow=4.2,SNR=12						
TIXI	Tiksi	71.09	11	⇑*i*P	P	15 05 57.8	-0.1
TIXI				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
TIXI				MLR	MLR		
	comp=Z,788nm,18.0s,MS5.0						
FINES	FINESS Array B	75.36	333	P	P	15 06 22.2	-0.8
	comp=Z,3.7nm,0.9s,mb4.3,baz=153,slow=9.3,SNR=4.8						
KSP	Ksiaz	78.26	321	*e*P	P	15 06 39.5	0.0
KSP				*e*		15 07 17.5	
PRU	Pruhonice	79.27	320	*e*P	P	15 06 45.4	+0.3
GEC2	GERESS Array S	79.70	319	*e*P	P	15 06 47.7	+0.3
GEC2				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.7						
GEC2	GERESS Array S	79.70	319	*e*P	P	15 06 47.7	+0.3
	comp=Z,8.0nm,0.9s,mb4.7						
GERES	GERESS Array B	79.70	319	P	P	15 06 48.3	+0.9
	comp=Z,5.1nm,0.8s,mb4.5,baz=101,slow=6.8,SNR=24						
BRG	Berggiesshubel	79.74	321	*e*P	P	15 06 48.3	+0.7
BRG				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.9						
BRG				MLR	MLR		
	comp=Z,1μm,21.4s,MS5.3						
BRG	Berggiesshubel	79.74	321	*e*P	P	15 06 48.3	+0.7
	comp=Z,18nm,1.2s,mb4.9						
BRG				*i*		15 07 25.6	
BRG				LR	LR		
	comp=Z,1μm,21.4s,MS5.3						
KHC	Kasperske Hory	79.80	319	*e*P	P	15 06 48.5	+0.5
BILL	Bilibino	79.99	21	*e*P	P	15 06 46.7	-1.9
BILL				pmax	pmax		
	comp=Z,9.0nm,1.7s,mb4.4						
WET	Wettzell	80.26	319	*e*P	P	15 06 50.9	+0.5
CLL	Collm	80.38	321	P	P	15 06 51.0	0.0
HFS	Hagfors	80.97	330	P	P	15 06 53.4	-0.6
	comp=Z,1.9nm,0.5s,mb4.3,baz=104,slow=6.1,SNR=14						
GRA1	Grafenberg Arr	81.38	319	*e*P	P	15 06 57.3	+1.0
	comp=Z,5.0nm,0.8s,mb4.5						
GRA1				*e*		15 07 35.1	
GRF	Grafenberg Arr	81.38	319	*e*P	P	15 06 57.3	+1.0
GRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	81.38	319	*e*P	P	15 06 57.3	+1.0
GRF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.5						
GRF	Grafenberg Arr	81.38	319	*e*P	P	15 06 57.3	+1.0
	comp=Z,5.0nm,0.8s,mb4.5						
GRF				*e*		15 07 35.1	
CLZ	Clausthal	82.05	322	*e*P	P	15 07 00.5	+0.7
	comp=Z,5.0nm,0.9s,mb4.4						
DAVOX	Davos	82.13	316	P	P	15 07 00.9	+0.7
	comp=Z,7.0nm,0.7s,mb4.7,baz=186,slow=10						
BSEG	Bad Segeberg	82.22	324	*e*P	P	15 07 01.5	+1.0
NB2	NORSAR Subarra	82.29	331	P	P	15 07 00.1	-0.7
	comp=Z,5.3nm,1.0s,mb4.4,baz=96,slow=5.6						
NB2	NORSAR Subarra	82.29	331	P	P	15 07 00.1	-0.7
NB2				pmax	pmax		
	comp=Z,5.0nm,1.0s,mb4.4						
NOA	NORSAR Array B	82.29	331	P	P	15 07 00.5	-0.2
	comp=Z,2.6nm,0.8s,mb4.2,baz=96,slow=5.4,SNR=4.3						
EKA	Eskdalemuir Ar	89.99	325	P	P	15 07 39.5	+0.8
	comp=Z,2.9nm,0.9s,mb4.6,baz=112,slow=4.5,SNR=4.4						
ESDC	Sonseca Array	92.56	310	P	P	15 07 51.8	+0.8
	comp=Z,0.9nm,0.7s,mb4.3,baz=60,slow=5.2,SNR=8.9						
PDAR	Pinedale Array	129.07	21	PKP	PKPdf	15 13 49.5	+3.1
	comp=Z,0.1nm,0.4s,baz=315,slow=2.1,SNR=3.7						

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*IDC **31** 14:55:16.8±0.7, 4.29N×92.53E, mb4.9/20, mb1 5.0/21, mb1mx4.9/26, mbtmp4.9/21, ML4.8/1, Error ellipse: s-maj=34.0km s-min=15.0km az=43.0*

ISC 31 14:55:20.5±0.5**, 4.40N**±0.09×**92.65E**±0.08**, h33km, (h33km**±.9km**:pP-P), n55,** σ0.**77**/53**, mb4.9**/26**, 2C-1D, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.27	23	Pn	P	14 58 55.8	+0.3
	1.3nm,0.3s,baz=216,slow=13,SNR=12						
HYB	Hyderabad	18.93	314	eP	P	14 59 40.0	-1.4
HYB				eS	S	15 03 30.0	+22
HYB				eLR	LR	15 06 04.0	
AGT	Agartala	19.42	356	⇑i	P	14 59 46.0	-1.0
AGT				i		15 01 44.0	
GOA	Goa	21.55	302	⇓e	P	15 00 14.5	+5.3
GOA				e	S	15 04 09.6	+8.5
BOM	Bombay	24.14	308	e	P	15 00 35.8	+1.0
BOM				e	S	15 04 45.8	-1.9
	155nm,0.8s						
LGTI	Lohaghat	27.55	336	e	P	15 01 07.5	+0.8
NDI	New Delhi	28.25	330	e	P	15 01 12.5	-0.5
	125nm,0.7s,mb5.7						
NDI				e		15 06 43.0	
PONG	Pong	31.58	332	e	P	15 01 42.0	-0.5
THN	Thein Dam	32.08	332	e	P	15 01 46.9	0.0
	32nm,0.9s,mb5.2						
SONM	Songino Array	44.86	13	P	P	15 03 34.2	+0.7
	24nm,0.9s,mb5.0,baz=198,slow=7.8,SNR=3.6						
WRA	Warramunga Arr	47.57	122	P	P	15 03 55.0	-0.4
	6.0nm,0.6s,mb4.8,baz=301,slow=9.0,SNR=8.5						
ASAR	Alice Springs	48.93	127	P	P	15 04 05.7	-0.2
	2.2nm,0.7s,mb4.3,baz=306,slow=8.1,SNR=6.0						
ZAL	Zalesovo	49.80	354	P	P	15 04 13.2	+1.1
	24nm,0.6s,mb5.4,baz=300,slow=6.0,SNR=21						
BVAR	Borovoye Array	51.82	343	P	P	15 04 26.9	-0.5
	19nm,0.8s,mb5.1,baz=143,slow=7.4,SNR=23						
MAT	Matsushiro	52.60	46	P	P	15 04 34.7	+1.2
GNI	Garni	55.86	317	P	P	15 04 57.7	+0.3
	6.9nm,0.6s,mb4.9,baz=352,slow=5.6,SNR=7.6						
STKA	Stephens Creek	58.86	131	P	P	15 05 17.7	-1.0
	5.9nm,0.7s,mb4.7,baz=322,slow=6.1,SNR=5.9						
MKRJ	Makawir	59.79	304	P	P	15 05 25.6	+0.5
EIL	Elat	59.92	302	P	P	15 05 26.2	+0.2
	28nm,0.9s,mb5.3,baz=53,slow=4.6,SNR=18						
ZFRI	Zfri	59.93	303	P	P	15 05 26.6	+0.5
MBH	Mount Berech	59.98	302	P	P	15 05 27.0	+0.6
KSHT	Keshet	60.02	306	P	P	15 05 27.8	+1.1
PRNI	Paran	60.03	303	P	P	15 05 27.4	+0.6
HMDT	Nahal Hemdat	60.06	305	P	P	15 05 27.6	+0.6
MMLI	Mount Malkishu	60.20	305	P	P	15 05 28.9	+1.0
KMTI	Karmit	60.21	302	P	P	15 05 28.4	+0.4
OFRI	‘Ofer	60.60	305	P	P	15 05 31.0	+0.3
BRTR	Keskin Array B	63.62	312	P	P	15 05 49.4	-1.4
	14nm,0.9s,mb5.0,baz=121,slow=7.2,SNR=19						
IDI	Anoyia	69.36	306	P	P	15 06 26.2	-1.0
	21nm,0.7s,mb5.2,baz=77,slow=6.6,SNR=9.7						
AKASG	Malin Array Be	69.98	323	P	P	15 06 29.1	-1.5
	4.7nm,0.6s,mb4.6,baz=88,slow=4.7,SNR=16						
MLR	Muntele Rosu	70.64	317	P	P	15 06 33.4	-1.4
	12nm,0.6s,mb5.0,baz=151,slow=3.2,SNR=10						
MLR	Muntele Rosu	70.64	317	⇑iP	P	15 06 35.7	+0.9
FINES	FINESS Array B	75.09	333	P	P	15 06 60.0	-0.8
	5.3nm,0.8s,mb4.5,baz=102,slow=5.6,SNR=8.6						
KAF	Kangasniemi	75.21	334	ep	P	15 07 00.0	-1.4
	8.6nm,0.7s,mb4.8						
OKC	Ostrava-Krasne	76.67	320	eP	P	15 07 09.9	-0.1
DPC	Dobruska-Polom	77.91	320	eP	P	15 07 17.4	+0.5
DPC				epP	pP	15 07 28.2	+1.0
ARCES	ARCESS Array B	78.03	341	P	P	15 07 16.8	-0.3
	5.2nm,0.7s,mb4.6,baz=90,slow=2.4,SNR=9.4						
UPC	Upice	78.13	321	eP	P	15 07 18.6	+0.6
UPC				epP	pP	15 07 28.5	+0.1
PRU	Pruhonice	79.00	320	eP	P	15 07 22.6	-0.3
BSD	Bornholm Skovb	79.40	325	i P	P	15 07 24.0	-0.9
	14nm,0.6s,mb5.1						
GERES	GERESS Array B	79.43	319	P	P	15 07 26.0	+0.8
	9.6nm,0.7s,mb4.9,baz=115,slow=5.0,SNR=20						
KHC	Kasperske Hory	79.54	319	eP	P	15 07 26.1	+0.3
CLL	Collm	80.11	321	P	P	15 07 28.5	-0.3
	logA/T=1.1,mb4.8						
CLL				e	pP	15 07 39.0	-0.2
NKC	Novy Kostel	80.37	320	eP	P	15 07 30.7	+0.5
HFS	Hagfors	80.71	330	P	P	15 07 31.6	-0.2
	5.3nm,0.5s,mb4.8,baz=117,slow=6.6,SNR=23						
DAVOX	Davos	81.86	316	P	P	15 07 38.9	+0.7
	19nm,0.6s,mb5.2,baz=112,slow=5.2,SNR=20						
NB2	NORSAR Subarra	82.02	331	P	P	15 07 37.5	-1.1
	2.9nm,0.8s,mb4.3,baz=99,slow=5.0						
NOA	NORSAR Array B	82.02	331	P	P	15 07 38.1	-0.5
	4.3nm,0.9s,mb4.4,baz=95,slow=5.5,SNR=8.3						
LPG	La Plagne	84.02	315	eP	P	15 07 48.9	-0.3
	25nm,0.9s,mb5.1						
EKA	Eskdalemuir Ar	89.72	325	P	P	15 08 17.3	+0.7
	4.9nm,0.6s,mb5.0,baz=97,slow=5.5,SNR=12						
ESDC	Sonseca Array	92.31	310	P	P	15 08 29.5	+0.5
	2.8nm,0.8s,mb4.6,baz=58,slow=4.4,SNR=12						
ULM	Lac du Bonnet	125.08	7	PKP	PKPdf	15 14 19.4	+1.6
	2.5nm,0.8s,baz=298,slow=2.2,SNR=3.8						
NVAR	Mina Array Bea	128.65	31	PKP	PKPdf	15 14 27.8	+2.7
	1.0nm,0.8s,baz=243,slow=3.3,SNR=4.7						
PDAR	Pinedale Array	128.93	21	PKP	PKPdf	15 14 26.1	+0.6
	1.2nm,0.9s,baz=117,slow=3.3,SNR=5.5						
TXAR	Lajitas Array	142.99	24	PKP	PKPdf	15 14 53.5	+1.8
	0.5nm,0.5s,SNR=4.6						

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*IDC **31** 15:01:58.4±0.7, 14.15N×93.41E, mb4.4/20, mb1 4.6/21, mb1mx4.5/25, mbtmp4.4/21, ML4.7/1, MS5.1/1, Ms1 5.1/1, ms1mx3.8/22, Error ellipse: s-maj=28.5km s-min=15.1km az=45.0*

*BJI **31** 15:02:03.1, 14.56N×93.37E, h24^{km}, mB5.2, mb4.8, Ms5.3, Msz5.0*

*NEIC **31** 15:02:04.8±9.7, 14.52N×93.47E, h27^{km}±66^{km}, mb4.8/13, Error ellipse: s-maj=23.6km s-min=17.5km az=161.0*

ISC 31 15:02:00.8±5.3**, 14.26N**±0.08×**93.57E**±0.07**, h24^{km}**±37^{km}**, h23^{km}**±2.1^{km}**:pP-P, n57, σ1^{s}03**/53**, mb4.6**/35**, MS5.0**/4**, 1C, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	6.63	50	Pn	Pn	15 03 39.8	+0.4
	3.9nm,0.3s,baz=241,slow=16,SNR=24						
CMAR				Sn	Sn	15 04 54.0	-0.9
	13nm,0.3s,baz=109,slow=25,SNR=6.9						
ENH	Enshi	21.65	40	eP	P	15 06 52.0	+0.3
	131nm,1.2s,mb5.2						
LZH	Lanzhou	23.60	21	⇑P	P	15 07 12.5	+1.6
LZH				AP		15 07 18.0	
LZH				XP		15 07 20.8	
LZH				AMB	AMB		
	comp=Z,80nm,1.3s,mb5.0						
LZH				AMB	AMB		
	comp=Z,320nm,5.1s						
LZH				LR	LR		
	comp=E,4µm,11.8s						
LZH				LR	LR		
	comp=Z,6µm,13.0s,MS5.2						
GTA	Gaotai	25.64	11	P	P	15 07 31.3	+0.8
GTA				AP	pP	15 07 39.0	+1.7
GTA				XP	sP	15 07 41.8	+1.3
GTA				AMB	AMB		
	comp=Z,21nm,1.1s,mb4.6						
GTA				AMB	AMB		
	comp=Z,241nm,9.9s						
GTA				LR	LR		
	comp=N,1µm,11.8s,MS4.8						
GTA				LR	LR		
	comp=E,1µm,13.3s,MS4.8						
GTA				LR	LR		
	comp=Z,1µm,13.7s,MS4.6						
WMQ	Urumqi	29.88	351	P	P	15 08 09.3	+0.4
WMQ				AP	pP	15 08 13.8	-2.1
WMQ				XP	sP	15 08 16.8	-2.1
WMQ				AMB	AMB		
	comp=Z,7.0nm,1.1s,mb4.3						
HHC	Hu-ho-hao-te	30.79	27	eP	P	15 08 17.5	+0.6
HHC				AP	pP	15 08 22.3	-1.5
HHC				XP	sP	15 08 28.0	+1.1
HHC				AMB	AMB		
	comp=Z,18nm,1.1s,mb4.8						
HHC				AMB	AMB		
	comp=Z,436nm,9.8s						
HHC				LR	LR		
	comp=N,3µm,11.9s,MS5.2						
HHC				LR	LR		
	comp=E,2µm,13.1s,MS5.2						
HHC				LR	LR		
	comp=Z,2µm,11.9s,MS5.1						
AAK	Ala-Archa	32.71	333	eP	P	15 08 33.3	-0.4
	comp=Z,19nm,1.2s,mb4.9						
SONM	Songino Array	35.13	15	P	P	15 08 55.3	+0.8
	comp=Z,9.0nm,0.7s,mb4.8,baz=202,slow=7.3,SNR=18						
ZAL	Zalesovo	40.18	352	P	P	15 09 35.9	-0.9
	comp=Z,5.1nm,0.5s,mb4.5,baz=306,slow=6.4,SNR=11						
BVAR	Borovoye Array	42.82	340	P	P	15 09 58.1	-0.4
	comp=Z,2.2nm,0.8s,mb4.0,baz=141,slow=8.0,SNR=5.2						
BRVK	Borovoye	42.88	339	eP	P	15 09 58.1	-0.9
	comp=Z,6.1nm,0.9s,mb4.3						
CHKZ	Chkalovo	43.29	340	eP	P	15 10 02.1	-0.2
	comp=Z,7.6nm,0.8s,mb4.5						
GNI	Garni	49.73	311	P	P	15 10 53.8	+0.5
	comp=Z,8.0nm,0.8s,mb4.8,baz=132,slow=4.7,SNR=5.8						
GNI	Garni	49.73	311	eP	P	15 10 52.9	-0.4
	comp=Z,13nm,0.9s,mb5.0						
KIV	Kislovodsk	52.33	315	eP	P	15 11 13.2	+0.1
	comp=Z,41nm,1.2s,mb5.2						
WRA	Warramunga Arr	52.57	129	P	P	15 11 14.4	-0.7
	comp=Z,3.1nm,0.6s,mb4.4,baz=307,slow=8.2,SNR=17						
WRA				PcP	PcP	15 12 28.7	+3.5
	comp=Z,1.9nm,0.5s,baz=315,slow=3.3,SNR=12						
MALT	Malatya	54.05	307	eP	P	15 11 23.9	-1.9
YAK	Yakutsk	54.18	20	eP	P	15 11 25.8	-0.6
	comp=Z,8.1nm,0.6s,mb4.8						
ASAR	Alice Springs	54.55	133	P	P	15 11 28.6	-1.0
	comp=Z,1.3nm,0.6s,mb4.1,baz=310,slow=6.8,SNR=7.0						
ASAR				PcP	PcP	15 12 36.4	+3.7
	comp=Z,1.7nm,0.8s,baz=316,slow=4.4,SNR=5.0						
BRTR	Keskin Array B	57.96	308	P	P	15 11 53.3	-0.6
	comp=Z,4.7nm,1.0s,mb4.5,baz=121,slow=7.2,SNR=8.9						
AKASG	Malin Array Be	62.88	320	P	P	15 12 26.0	-1.3
	comp=Z,2.6nm,0.6s,mb4.5,baz=82,slow=5.5,SNR=10						
MLR	Muntele Rosu	64.31	314	P	P	15 12 34.4	-2.3
	comp=Z,12nm,1.0s,mb4.9,baz=84,slow=6.1,SNR=7.1						
STKA	Stephens Creek	64.97	136	P	P	15 12 39.7	-1.6
	comp=Z,1.3nm,0.8s,mb4.0,baz=318,slow=8.9,SNR=3.0						
FINES	FINESS Array B	66.86	331	P	P	15 12 51.5	-1.3
	comp=Z,8.9nm,0.8s,mb4.9,baz=101,slow=8.0,SNR=26						
KAF	Kangasniemi	66.91	332	ep	P	15 12 51.8	-1.3
CRVS	Cervenica-Dubn	67.64	317	i P	P	15 12 58.7	+0.7
CRVS				i pP	pP	15 13 07.2	+1.9
PSZ	Piszkesteto	68.63	316	eP	P	15 13 03.6	-0.6
	comp=Z,8.6nm,1.0s,mb4.6						
ARCES	ARCESS Array B	69.11	340	P	P	15 13 05.7	-1.1
	comp=Z,2.0nm,0.5s,mb4.3,baz=90,slow=4.9,SNR=7.2						
VYHS	Vyhne	69.36	317	i P	P	15 13 08.5	-0.1
VYHS				i pP	pP	15 13 16.6	+0.6
SRO	Srobarova	69.69	316	i P	P	15 13 11.8	+1.1
OKC	Ostrava-Krasne	69.85	318	eP	P	15 13 12.7	+1.1
MORC	Moravsky Berou	70.24	318	eP	P	15 13 14.0	0.0
	comp=Z,20nm,1.5s,mb4.8						
ZST	Bratislava	70.51	316	i P	P	15 13 17.0	+1.3
LSZ	Lusaka	71.00	248	eP	P	15 13 21.4	+2.3
	comp=Z,4.5nm,0.8s,mb4.5						
DPC	Dobruska-Polom	71.03	319	eP	P	15 13 19.5	+0.7
KSP	Ksiaz	71.06	319	eP	P	15 13 19.3	+0.4
PRU	Pruhonice	72.18	318	eP	P	15 13 26.2	+0.5
BRG	Berggiesshubel	72.54	319	eP	P	15 13 28.4	+0.6
	comp=Z,5.4nm,0.7s,mb4.6						
HFS	Hagfors	72.71	329	P	P	15 13 28.1	-0.5
	comp=Z,6.5nm,0.5s,mb4.8,baz=117,slow=6.6,SNR=18						
GERES	GERESS Array B	72.76	317	P	P	15 13 29.4	+0.3
	comp=Z,5.5nm,0.7s,mb4.6,baz=89,slow=6.1,SNR=19						
KHC	Kasperske Hory	72.83	317	eP	P	15 13 29.7	+0.2
CLL	Collm	73.12	320	P	P	15 13 31.0	-0.2
CLL				e*PP	pP	15 13 39.0	+0.4
NB2	NORSAR Subarra	73.94	330	P	P	15 13 35.0	-0.7
	comp=Z,3.5nm,0.6s,mb4.5,baz=90,slow=5.8						
NOA	NORSAR Array B	73.94	330	P	P	15 13 35.2	-0.5
	comp=Z,2.8nm,0.6s,mb4.4,baz=90,slow=5.8,SNR=13						
DAVOX	Davos	75.46	315	P	P	15 13 44.4	-0.4
	comp=Z,3.4nm,0.8s,mb4.3,baz=83,slow=5.2,SNR=5.2						
LBTB	Lobatse	76.89	240	P	P	15 13 55.1	+1.8
LPG	La Plagne	77.77	314	eP	P	15 13 56.3	-1.4
	comp=Z,24nm,0.8s,mb4.9						
JMIC	Jan Mayen	80.52	341	LR	LR	15 53 11.5	
	comp=Z,1µm,21.6s,MS5.2,baz=86,slow=38						
EKA	Eskdalemuir Ar	82.19	325	P	P	15 14 20.6	-0.6
	comp=Z,2.2nm,0.8s,mb4.2,baz=79,slow=5.3,SNR=5.4						
IMA	Indian Mountai	85.95	22	eP	P	15 14 42.1	+2.1
ESDC	Sonseca Array	86.70	310	P	P	15 14 44.9	+0.6
	comp=Z,0.9nm,0.6s,mb4.2,baz=59,slow=4.6,SNR=5.8						
DRV	Dumont d’Urvil	87.61	163	R		15 14 00.0	
ILAR	Eielson Array	89.06	22	P	P	15 14 57.2	+2.2
	comp=Z,0.8nm,0.7s,mb4.2,baz=311,slow=4.9,SNR=7.5						
ILAR				PP	PP	15 18 25.6	-1.9
	comp=Z,2.8nm,1.2s,baz=270,slow=8.6,SNR=4.9						
INK	Inuvik	91.04	16	P	P	15 15 05.8	+1.7
	comp=Z,3.0nm,1.1s,mb4.5,baz=284,slow=8.2,SNR=4.2						
YKA	Yellowknife Ar	100.37	13	PP	PP	15 19 52.7	-3.1
	comp=Z,1.1nm,1.1s,baz=331,slow=7.5,SNR=3.8						
TXAR	Lajitas Array	133.57	21	PKP	PKPdf	15 21 20.0	-0.7
	comp=Z,0.7nm,0.9s,baz=41,slow=1.0,SNR=6.5						
SDV	Santo Domingo	152.17	325	ePKPbc	PKPdf	15 21 58.3	+5.2

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*IDC **31** 15:09:51.7±1.1, 3.66N×95.44E, mb3.8/9, mb1 4.0/9, mb1mx3.9/18, mbtmp3.8/9, MS4.0/1, Ms1 4.2/1, ms1mx3.4/27, Error ellipse: s-maj=61.5km s-min=18.2km az=52.0*

ISC 31 15:09:54.4±0.9**, 3.5N**±0.2×**95.3E**±0.2**, h33^{km}, n11, σ1^{s}15**/10**, mb3.9**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.31	13	Pn	P	15 13 32.5	+2.7
	0.2nm,0.3s,baz=209,slow=11,SNR=27						
CMAR				LR	LR	15 19 06.5	
	comp=Z,547nm,18.4s,baz=130,slow=37						
WRA	Warramunga Arr	44.88	123	P	P	15 18 08.3	+0.4
	5.0nm,0.9s,mb4.3,baz=300,slow=9.2,SNR=6.5						
SONM	Songino Array	45.21	11	P	P	15 18 09.2	-1.0
	0.4nm,0.7s,mb3.4,baz=195,slow=7.4,SNR=3.6						
ASAR	Alice Springs	46.31	128	P	P	15 18 18.9	-0.2
	0.7nm,0.6s,mb3.8,baz=297,slow=7.9,SNR=6.8						
ZAL	Zalesovo	51.02	352	P	P	15 18 54.2	-1.0
	0.8nm,0.6s,mb3.9,baz=267,slow=5.5,SNR=3.2						
BVAR	Borovoye Array	53.48	342	P	P	15 19 11.7	-1.9
	1.1nm,0.7s,mb3.9,baz=143,slow=7.4,SNR=9.1						
STKA	Stephens Creek	56.31	132	P	P	15 19 34.4	-0.1
	5.7nm,1.1s,mb4.5,baz=251,slow=18,SNR=2.9						
AKASG	Malin Array Be	72.28	322	P	P	15 21 19.7	+1.4
	0.1nm,0.3s,mb3.3,baz=91,slow=4.5,SNR=3.7						
FINES	FINESS Array B	77.09	333	P	P	15 21 47.2	+1.3
	4.8nm,1.1s,mb4.3,baz=135,slow=2.0,SNR=3.1						
GERES	GERESS Array B	81.83	319	P	P	15 22 11.5	-0.2
	0.6nm,0.8s,mb3.6,baz=104,slow=5.5,SNR=3.7						
TXAR	Lajitas Array	142.65	28	PKP	PKPdf	15 29 27.4	+2.5
	0.4nm,0.7s,baz=252,slow=2.9,SNR=3.9						

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*NEIC **31** 15:15:39.2, 41.27S×172.74E, h156^{km}, After WEL.*

WEL 31 15:15:41.2±0.3**, 41.31S×172.77E, h137^{km}**±2^{km}**, ML3.7**/9**, 9C-1D, Error ellipse: s-maj=1.6km s-min=1.6km az=0.0, South Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
THZ	Tophouse	0.46	168	P	P	15 16 00.9	-0.5
THZ	Tophouse	0.46	168	⇑PN	P	15 16 00.9	-0.5
THZ				SN	S	15 16 15.2	-1.7
NNZ	Nelson	0.47	79	P	P	15 16 00.9	-0.5
NNZ	Nelson	0.47	79	⇑PN	P	15 16 00.9	-0.6
NNZ				SN	S	15 16 15.2	-1.7
QRZ	Quartz Range	0.52	339	P	P	15 16 01.1	-0.6
QRZ	Quartz Range	0.52	339	⇓PN	P	15 16 01.1	-0.6
QRZ				SN	S	15 16 14.7	-2.7
DSZ	Denniston Nort	0.85	239	P	P	15 16 03.0	-0.8
DSZ	Denniston Nort	0.85	239	⇑PN	P	15 16 03.0	-0.7
DSZ				SN	S	15 16 17.9	-3.2
TUWZ	Tuamarina	0.89	98	⇑PN	P	15 16 03.9	-0.2
TUWZ				eSN	S	15 16 20.3	-1.2
BSWZ	Blackbirch Sta	0.92	116	P	P	15 16 04.1	-0.2
BSWZ	Blackbirch Sta	0.92	116	⇑PN	P	15 16 04.1	-0.2
BSWZ				SN	S	15 16 21.8	-0.2
CMWZ	Cape Campbell	1.17	113	PN	P	15 16 06.5	-0.1
CMWZ				SN	S	15 16 26.4	+0.3
KHZ	Kahutara	1.25	153	P	P	15 16 07.1	-0.3
KHZ	Kahutara	1.25	153	⇑PN	P	15 16 07.1	-0.3
KHZ				SN	S	15 16 25.1	-2.5
MRW	Makara Radio	1.46	87	P	P	15 16 09.0	-0.7
MRW	Makara Radio	1.46	87	⇑PN	P	15 16 09.0	-0.7
MRW				SN	S	15 16 29.2	-2.3
WEL	Wellington	1.50	90	P	P	15 16 09.4	-0.8
WEL	Wellington	1.50	90	PN	P	15 16 09.4	-0.8
WEL				eSN	S	15 16 30.5	-2.0
LTZ	Lake Taylor	1.52	194	P	P	15 16 09.8	-0.6
LTZ	Lake Taylor	1.52	194	⇑PN	P	15 16 09.8	-0.5
LTZ				SN	S	15 16 29.5	-3.2
BHW	Baring Head	1.58	94	P	P	15 16 10.1	-1.0
BHW	Baring Head	1.58	94	⇑PN	P	15 16 10.1	-1.0
BHW				SN	S	15 16 31.4	-2.6
KIW	Kapiti Island	1.68	75	P	P	15 16 11.5	-0.6
KIW	Kapiti Island	1.68	75	PN	P	15 16 11.5	-0.6
KIW				SN	S	15 16 34.1	-1.7
CAW	Cannon Point	1.74	84	P	P	15 16 11.9	-1.0
CAW	Cannon Point	1.74	84	PN	P	15 16 11.9	-1.0
CAW				SN	S	15 16 35.2	-2.0
MSWZ	Moikau Station	1.87	94	P	P	15 16 13.2	-1.1
MSWZ	Moikau Station	1.87	94	PN	P	15 16 13.2	-1.1
MSWZ				SN	S	15 16 37.3	-2.4
PAWZ	Paruwai Farm	2.00	93	PN	P	15 16 14.6	-1.2
PAWZ				SN	S	15 16 40.0	-2.4
MTW	Mount Morrison	2.06	87	P	P	15 16 15.3	-1.4
MTW	Mount Morrison	2.06	87	PN	P	15 16 15.3	-1.4
MTW				SN	S	15 16 41.4	-2.4
NRZ	Ngariki Road	2.16	25	P	P	15 16 18.5	+0.5
NRZ	Ngariki Road	2.16	25	ePN	P	15 16 18.5	+0.6
MRZ	Mangatainoka R	2.22	74	eP	P	15 16 17.2	-1.5
MRZ	Mangatainoka R	2.22	74	PN	P	15 16 17.2	-1.6
MRZ				SN	S	15 16 45.3	-2.1
DFE	Dawson Falls	2.23	28	P	P	15 16 19.1	+0.3
DFE	Dawson Falls	2.23	28	ePN	P	15 16 19.1	+0.2
CRLZ	Canterbury Las	2.27	183	eP	P	15 16 18.0	-1.3
CRLZ	Canterbury Las	2.27	183	PN	P	15 16 18.0	-1.4
CRLZ				SN	S	15 16 43.7	-4.7
NEZ	North Egmont	2.27	27	P	P	15 16 20.5	+1.1
NEZ	North Egmont	2.27	27	ePN	P	15 16 20.5	+1.1
WAZ	Wanganui	2.29	48	eP	P	15 16 20.2	+0.5
WAZ	Wanganui	2.29	48	PN	P	15 16 20.2	+0.5
WAZ				SN	S	15 16 50.1	+1.1
WVZ	Waitaha Valley	2.33	220	P	P	15 16 18.9	-1.2
WVZ				S	S	15 16 44.1	-5.6
WVZ	Waitaha Valley	2.33	220	PN	P	15 16 18.9	-1.2
WVZ				SN	S	15 16 45.4	-4.3
RAEZ	Rainy Point	2.37	32	P	P	15 16 21.3	+0.6
RAEZ	Rainy Point	2.37	32	ePN	P	15 16 21.3	+0.6
MQZ	McQueen’s Vall	2.40	182	P	P	15 16 19.3	-1.7
MQZ				S	S	15 16 45.9	-5.4
MQZ	McQueen’s Vall	2.40	182	PN	P	15 16 19.3	-1.7
MQZ				SN	S	15 16 46.1	-5.2
VRZ	Vera Road	2.66	36	P	P	15 16 24.6	+0.2
VRZ	Vera Road	2.66	36	PN	P	15 16 24.6	+0.2
VRZ				SN	S	15 16 56.7	-0.6
BFZ	Birch Farm	2.70	78	eP	P	15 16 23.0	-2.0
BFZ	Birch Farm	2.70	78	PN	P	15 16 23.0	-1.9
BFZ				SN	S	15 16 55.1	-3.2
RPZ	Rata Peaks	2.72	207	PN	P	15 16 24.1	-1.1
RPZ				SN	S	15 16 54.0	-4.7
TSZ	Takapari Road	2.73	64	eP	P	15 16 23.5	-1.8
TSZ	Takapari Road	2.73	64	PN	P	15 16 23.5	-1.8
TSZ				SN	S	15 16 56.9	-2.0
CNZ	Chateau	2.99	46	P	P	15 16 28.1	-0.6
CNZ	Chateau	2.99	46	PN	P	15 16 28.1	-0.6
MGZ	Maungaku	3.13	43	P	P	15 16 30.5	-0.1
MGZ	Maungaku	3.13	43	PN	P	15 16 30.5	-0.1
FOZ	Fox Glacier	3.21	224	PN	P	15 16 28.2	-3.3
FOZ				SN	S	15 17 02.6	-7.4
HIZ	Hauiti	3.22	31	PN	P	15 16 30.7	-1.0
PWZ	Pawanui	3.36	69	SN	S	15 17 11.1	-2.6
BKZ	Black Stump Fm	3.56	54	ePN	P	15 16 34.2	-2.1
LBZ	Lake Benmore	3.62	211	ePN	P	15 16 34.7	-2.3
LBZ				SN	S	15 17 13.8	-5.9
ODZ	Otahua Downs	4.04	202	PN	P	15 16 40.6	-2.1
ODZ				SN	S	15 17 24.3	-5.5
JCZ	Jackson Bay	4.05	226	PN	P	15 16 40.3	-2.4

IDC 31 15:15:47.8±15.0**, 6.17N×91.00E, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.5**/18**, mbtmp3.5**/3**, ML3.1**/1**, Error ellipse: s-maj=334.3km s-min=54.4km az=93.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.46	32	Pn	P	15 19 14.4	-1.5
	0.0nm,0.3s,baz=224,slow=14,SNR=3.5						
WRA	Warramunga Arr	49.90	122	P	P	15 24 43.1	-2.4
	0.9nm,0.7s,baz=303,slow=8.8,SNR=5.3						
ASAR	Alice Springs	51.31	127	P	P	15 24 54.4	-1.8
	0.5nm,0.7s,baz=302,slow=7.4,SNR=5.0						

IDC 31 15:18:16.8±16.0**, 5.86N×90.26E, mb3.5**/2**, mb1 3.7**/3**, mb1mx3.3**/18**, mbtmp3.4**/3**, ML3.5**/1**, Error ellipse: s-maj=355.9km s-min=57.6km az=94.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.12	33	Pn	P	15 21 52.0	-1.6
	0.1nm,0.3s,baz=222,slow=15,SNR=3.7						
WRA	Warramunga Arr	50.36	122	P	P	15 27 16.1	-1.9
	0.3nm,0.3s,baz=308,slow=8.8,SNR=7.8						
ASAR	Alice Springs	51.71	126	P	P	15 27 26.0	-2.2
	0.2nm,0.4s,baz=300,slow=7.7,SNR=4.9						

IDC 31 15:25:13.9±6.1**, 4.78N×92.23E, mb3.6**/2**, mb1 3.8**/3**, mb1mx3.5**/18**, mbtmp3.5**/3**, ML3.3**/1**, Error ellipse: s-maj=170.6km s-min=35.5km az=74.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.10	25	Pn	P	15 28 50.7	+0.3
	0.0nm,0.3s,baz=212,slow=12,SNR=4.8						
SONM	Songino Array	44.59	14	P	P	15 33 27.3	-2.3
	0.3nm,0.8s,baz=204,slow=5.9,SNR=3.8						
WRA	Warramunga Arr	48.13	122	P	P	15 33 56.0	-1.9
	1.8nm,0.7s,baz=302,slow=9.3,SNR=12						

IDC 31 15:30:19.4±10.0**, 13.97N×91.32E, mb3.5**/2**, mb1 3.6**/3**, mb1mx3.3**/18**, mbtmp3.3**/3**, ML3.1**/1**, Error ellipse: s-maj=207.5km s-min=54.4km az=114.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	8.57	58	Pn	P	15 32 25.0	-2.8
	0.1nm,0.3s,baz=243,slow=16,SNR=3.0						
CMAR				Sn	Sn	15 33 48.8	-18
	0.2nm,0.3s,baz=240,slow=29,SNR=8.5						
WRA	Warramunga Arr	54.10	128	P	P	15 39 46.0	-2.6
	0.4nm,0.6s,baz=303,slow=10,SNR=5.7						
ASAR	Alice Springs	55.97	132	P	P	15 40 00.3	-1.9
	0.2nm,0.5s,baz=309,slow=6.5,SNR=5.3						

IDC 31 15:33:46.9±6.9**, 3.88N×92.78E, mb3.3**/2**, mb1 3.7**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, ML4.0**/1**, Error ellipse: s-maj=194.8km s-min=38.9km az=73.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.69	22	Pn	P	15 37 31.4	+0.2
	0.2nm,0.3s,baz=229,slow=14,SNR=14						
SONM	Songino Array	45.33	13	P	P	15 42 06.3	-2.3
	0.3nm,0.9s,baz=207,slow=6.4,SNR=2.1						
WRA	Warramunga Arr	47.19	122	P	P	15 42 21.7	-1.9
	0.3nm,0.7s,baz=302,slow=9.1,SNR=3.7						

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*IDC **31** 15:34:52.7±8.1, 3.56N×93.82E, mb3.9/7, mb1 4.1/8, mb1mx3.9/19, mbtmp3.9/8, ML4.2/1, Error ellipse: s-maj=195.2km s-min=46.1km az=141.0*

ISC 31 15:34:45.6±1.1**, 2.5N**±0.2×**94.7E**±0.2**, h33^{km}, n17, σ1^{s}39**/17**, mb4.2**/13**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.42	14	Pn	P	15 38 35.1	-0.1
	0.3nm,0.3s,baz=215,slow=12,SNR=11						
PKI	Pulchoki	26.51	341	eP	P	15 40 21.2	-1.0
DMN	Daman	26.65	341	eP	P	15 40 22.0	-1.4

	16nm,0.9s,mb4.5						
GUN	Gumba	26.68	342	eP	P	15 40 23.4	-0.4
	28nm,0.8s,mb4.8						
KKN	Kakani	26.76	341	eP	P	15 40 23.1	-1.3
	9.0nm,0.7s,mb4.4						
GKN	Gorkha	27.17	340	eP	P	15 40 24.7	-3.5
	16nm,0.5s,mb4.8						
KOLN	Koldanda	27.32	338	eP	P	15 40 25.8	-3.8
WRA	Warramunga Arr	44.79	122	P	P	15 42 55.7	-2.7
	0.7nm,0.3s,mb3.9,baz=302,slow=9.9,SNR=17						
ASAR	Alice Springs	46.12	127	P	P	15 43 08.7	-0.2
	0.6nm,0.4s,mb3.8,baz=305,slow=7.3,SNR=14						
SONM	Songino Array	46.31	11	P	P	15 43 11.9	+1.8
	0.8nm,0.9s,mb3.6,baz=191,slow=8.8,SNR=4.8						
ZAL	Zalesovo	51.95	353	P	P	15 43 55.2	+1.7
	2.7nm,0.5s,mb4.5,baz=324,slow=5.6,SNR=11						
BVAR	Borovoye Array	54.28	342	P	P	15 44 11.2	+0.5
	1.6nm,0.8s,mb4.0,baz=143,slow=7.4,SNR=7.3						
BRTR	Keskin Array B	66.45	313	P	P	15 45 33.9	-0.1
	1.0nm,0.9s,mb3.9,baz=127,slow=6.3,SNR=4.9						
AKASG	Malin Array Be	72.76	323	P	P	15 46 13.8	+1.3
	1.8nm,0.7s,mb4.1,baz=90,slow=5.1,SNR=6.6						
FINES	FINESS Array B	77.75	333	P	P	15 46 44.1	+3.4
	3.8nm,1.1s,mb4.2,baz=117,slow=4.3,SNR=8.5						
KAF	Kangasniemi	77.86	333	ep	P	15 46 45.4	+4.1
GERES	GERESS Array B	82.25	319	P	P	15 47 10.0	+5.0
	0.8nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=6.9						

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*IDC **31** 15:43:10.6±1.1, 6.27N×93.18E, mb4.0/7, mb1 4.2/8, mb1mx4.0/19, mbtmp4.0/8, ML4.4/1, Error ellipse: s-maj=48.9km s-min=18.2km az=58.0*

ISC 31 15:43:13.7±1.0**, 6.3N**±0.1×**93.3E**±0.2**, h33^{km}, n8, σ0^{s}.48**/8**, mb4.1**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.31	24	Pn	P	15 46 23.1	+0.3
	0.6nm,0.3s,baz=216,slow=14,SNR=38						
SONM	Songino Array	42.90	13	P	P	15 51 10.4	-0.4
	0.6nm,0.6s,mb3.5,baz=194,slow=8.6,SNR=6.9						
SONM				PcP	PcP	15 53 01.8	0.0
	0.3nm,0.7s,baz=210,slow=2.3,SNR=4.1						
ZAL	Zalesovo	48.00	353	P	P	15 51 51.9	+0.5
	3.8nm,0.4s,mb4.8,baz=301,slow=7.4,SNR=13						
WRA	Warramunga Arr	48.09	124	P	P	15 51 52.4	-0.1
	1.7nm,0.7s,mb4.2,baz=303,slow=9.0,SNR=13						
WRA				PcP	PcP	15 53 20.7	+0.4
	0.5nm,0.7s,baz=315,slow=2.7,SNR=5.3						
ASAR	Alice Springs	49.60	128	P	P	15 52 04.2	+0.1
	2.4nm,0.7s,mb4.3,baz=299,slow=7.4,SNR=33						
ASAR				PcP	PcP	15 53 26.6	+0.9
	1.0nm,0.6s,baz=303,slow=3.4,SNR=6.6						
BVAR	Borovoye Array	50.21	342	P	P	15 52 07.6	-0.8
	0.7nm,0.6s,mb3.9,baz=113,slow=11,SNR=5.0						
FINES	FINESS Array B	73.70	333	P	P	15 54 45.4	-0.4
	1.7nm,0.7s,mb4.1,SNR=6.8						
GERES	GERESS Array B	78.42	318	P	P	15 55 13.6	+0.8
	0.7nm,0.7s,mb3.7,baz=90,slow=4.0,SNR=6.2						

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*IDC **31** 15:55:03.1±1.3, 4.20N×92.32E, mb3.9/7, mb1 4.1/7, mb1mx3.9/18, mbtmp3.9/7, Error ellipse: s-maj=52.7km s-min=22.9km az=51.0*

ISC 31 15:55:06.4±1.1**, 4.2N**±0.2×**92.4E**±0.3**, h33^{km}, n13, σ0^{s}.82**/13**, mb4.2**/11**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SHL	Shillong	21.27	359	eP	P	15 59 50.5	-1.8
PKI	Pulchoki	24.21	345	eP	P	16 00 22.9	+1.7
GUN	Gumba	24.41	346	eP	P	16 00 23.8	+0.6
	48nm,1.1s,mb4.8						
KKN	Kakani	24.45	345	eP	P	16 00 24.2	+0.6
	15nm,0.8s,mb4.5						
GKN	Gorkha	24.83	343	eP	P	16 00 27.8	+0.6
	23nm,0.8s,mb4.8						
KOLN	Koldanda	24.92	341	eP	P	16 00 28.5	+0.3
	31nm,1.2s,mb4.7						
SONM	Songino Array	45.12	13	P	P	16 03 21.2	-0.3
	0.9nm,0.7s,mb3.7,baz=199,slow=8.4,SNR=8.9						
WRA	Warramunga Arr	47.65	122	P	P	16 03 42.2	+0.4
	1.3nm,0.7s,mb4.1,baz=297,slow=8.9,SNR=4.8						
ZAL	Zalesovo	49.99	354	P	P	16 03 59.1	-0.3
	1.2nm,0.5s,mb4.2,baz=327,slow=7.4,SNR=5.7						
BVAR	Borovoye Array	51.97	343	P	P	16 04 13.3	-1.0
	0.9nm,0.8s,mb3.8,baz=146,slow=5.3,SNR=5.4						
STKA	Stephens Creek	58.89	131	P	P	16 05 04.8	+0.1
	1.5nm,0.8s,mb4.1,baz=301,slow=12,SNR=3.1						
BRTR	Keskin Array B	63.59	313	P	P	16 05 35.6	-0.8
	0.8nm,0.7s,mb3.9,baz=121,slow=7.2,SNR=5.7						
GERES	GERESS Array B	79.44	319	P	P	16 07 11.1	-0.1
	0.9nm,0.7s,mb3.8,baz=108,slow=4.2,SNR=7.7						

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*BJI **31** 15:58:16.0, 5.10N×94.39E, h40^{km}, mb4.7, Ms4.2, Msz3.8*

*NEIC **31** 15:58:17.5±0.7, 5.27N×94.33E, h30^{km}, mb4.6/7, Error ellipse: s-maj=23.2km s-min=10.7km az=61.0*

*IDC **31** 15:58:19.7±1.0, 5.26N×94.33E, h48^{km}±7^{km}, mb4.0/13, mb1 4.2/14, mb1mx4.0/20, mbtmp4.2/14, MS3.6/1, Ms1 3.8/1, ms1mx3.2/22, Error ellipse: s-maj=34.1km s-min=14.3km az=50.0*

ISC 31 15:58:17.4±4.4**, 5.2N**±0.1×**94.3E**±0.1**, h44^{km}**±37^{km}**, h42^{km}**±3.4^{km}**:pP-P, n39, σ0^{s}.83**/36**, mb4.4**/30**, MS3.9**/1**, 1C, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	13.91	19	ePn	P	16 01 32.5	-1.4
	13nm,0.5s						
CM31				epPn		16 01 37.6	
CMAR	Chiang Mai Arr	13.91	19	P	P	16 01 35.6	+1.7
	2.2nm,0.3s,baz=207,slow=14,SNR=59						
CMAR				LR	LR	16 06 41.4	
	comp=Z,262nm,20.8s,baz=235,slow=36						
KMI	Kunming	21.38	21	P	P	16 03 04.0	+0.8
KMI				AMB	AMB		
	comp=Z,8.0nm,1.2s,mb3.9						
KMI				LR	LR		
	comp=N,392nm,15.1s,MS4.0						
KMI				LR	LR		
	comp=E,378nm,17.0s,MS4.0						
KMI				LR	LR		
	comp=Z,276nm,17.0s,MS3.7						
PKI	Pulchoki	23.78	340	eP	P	16 03 26.1	-0.9
	comp=Z,13nm,0.5s,mb4.6						
DMN	Daman	23.92	340	eP	P	16 03 27.3	-1.0
	comp=Z,17nm,0.5s,mb4.7						
GUN	Gumba	23.94	341	eP	P	16 03 27.9	-0.6
	comp=Z,33nm,0.6s,mb4.9						
KKN	Kakani	24.03	340	eP	P	16 03 28.9	-0.4
	comp=Z,18nm,0.7s,mb4.6						
GYA	Guiyang	24.19	28	⇑iP	P	16 03 32.0	+1.0
GYA				AMB	AMB		
	comp=Z,30nm,0.7s,mb4.8						
GKN	Gorkha	24.45	339	eP	P	16 03 34.1	+0.6
	comp=Z,21nm,0.5s,mb4.8						
LSA	Lhasa	24.53	353	eP	P	16 03 34.8	+0.6
	comp=Z,15nm,0.5s,mb4.8						
KOLN	Koldanda	24.63	337	eP	P	16 03 36.0	+0.8
	comp=Z,18nm,0.6s,mb4.8						
GTA	Gaotai	34.40	8	P	P	16 05 01.8	-0.7
GTA				AP	pP	16 05 10.8	-3.6
GTA				XP	sP	16 05 14.3	-5.8
GTA				AMB	AMB		
	comp=Z,7.0nm,1.0s,mb4.5						
WMQ	Urumqi	38.88	352	P	P	16 05 41.0	+0.8
WMQ				AMB	AMB		
	comp=Z,11nm,0.8s,mb4.6						
AAK	Ala-Archa	41.20	338	eP	P	16 06 00.3	+0.9
	comp=Z,1.7nm,0.6s,mb3.9						
SONM	Songino Array	43.70	12	P	P	16 06 19.4	-0.5
	comp=Z,1.3nm,0.6s,mb3.8,baz=121,slow=7.2,SNR=3.6						
SONM				pP	pP	16 06 31.6	-0.4
	comp=Z,4.0nm,0.9s,baz=192,slow=7.5,SNR=11						
ULN	Ulaanbaatar	43.87	12	eP	P	16 06 19.9	-1.3
	comp=Z,1.8nm,0.6s,mb4.0						
WRA	Warramunga Arr	46.63	124	P	P	16 06 43.7	+0.1
	comp=Z,5.1nm,0.7s,mb4.6,baz=306,slow=8.3,SNR=38						
WB2	Warramunga Arr	46.64	124	eP	P	16 06 43.8	+0.2
ASPA	Alice Springs	48.12	128	eP	P	16 06 55.4	+0.2
ASAR	Alice Springs	48.12	128	P	P	16 06 55.1	-0.1
	comp=Z,1.0nm,0.4s,mb4.2,baz=303,slow=8.1,SNR=21						
ZAL	Zalesovo	49.18	353	P	P	16 07 03.2	+0.3
	comp=Z,6.2nm,0.4s,mb5.0,baz=304,slow=5.3,SNR=29						
BVAR	Borovoye Array	51.54	342	P	P	16 07 20.7	-0.3
	comp=Z,3.7nm,0.7s,mb4.5,baz=143,slow=9.6,SNR=20						
BRVK	Borovoye	51.60	342	eP	P	16 07 20.6	-0.8
	comp=Z,2.3nm,0.4s,mb4.5						
CHKZ	Chkalovo	52.03	342	eP	P	16 07 24.4	-0.3
	comp=Z,8.6nm,0.6s,mb4.9						
CTAO	Charters Tower	56.90	118	eP	P	16 08 00.2	-0.5
	comp=Z,29nm,1.4s,mb5.1						
STKA	Stephens Creek	58.18	133	P	P	16 08 09.2	-0.3
	comp=Z,1.4nm,0.8s,mb4.0,baz=304,slow=15,SNR=2.1						
BRTR	Keskin Array B	64.29	312	P	P	16 08 50.5	-0.2
	comp=Z,1.5nm,0.7s,mb4.1,baz=127,slow=7.6,SNR=8.6						
AKASG	Malin Array Be	70.33	322	P	P	16 09 27.3	-1.1
	comp=Z,1.6nm,0.5s,mb4.2,baz=83,slow=5.1,SNR=6.5						
MLR	Muntele Rosu	71.18	316	P	P	16 09 33.2	-0.4
	comp=Z,2.0nm,0.6s,mb4.3,baz=154,slow=7.7,SNR=4.6						
FINES	FINESS Array B	75.12	333	P	P	16 09 55.9	-0.5
	comp=Z,5.4nm,1.2s,mb4.4,baz=117,slow=4.3,SNR=8.5						
KAF	Kangasniemi	75.21	333	ep	P	16 09 55.6	-1.3
ARCES	ARCESS Array B	77.80	340	P	P	16 10 12.2	+0.8
	comp=Z,1.7nm,0.6s,mb4.2,baz=90,slow=6.1,SNR=6.6						
ARCES				pP	pP	16 10 25.1	+0.7
	comp=Z,4.1nm,0.9s,baz=90,slow=4.9,SNR=2.8						
GERES	GERESS Array B	79.91	319	P	P	16 10 24.8	+1.5
	comp=Z,2.6nm,0.6s,mb4.3,baz=101,slow=5.7,SNR=4.0						
GERES				pP	pP	16 10 38.5	+2.2
	comp=Z,1.7nm,0.6s,baz=104,slow=5.5,SNR=7.1						
KHC	Kasperske Hory	80.00	319	eP	P	16 10 25.0	+1.2
KHC				ex	x	16 10 39.5	
CLL	Collm	80.51	321	e*SP	sP	16 10 43.0	-1.4
LPG	La Plagne	84.60	315	eP	P	16 10 49.0	+1.4
	comp=Z,5.8nm,0.7s,mb4.5						
ILAR	Eielson Array	97.12	22	P	P	16 11 45.7	-0.1
	comp=Z,0.2nm,0.6s,mb3.7,baz=305,slow=4.4,SNR=6.0						
PDAR	Pinedale Array	127.55	22	PKP	PKPdf	16 17 19.6	+1.3
	comp=Z,0.3nm,0.5s,baz=117,slow=3.3,SNR=3.8						
TXAR	Lajitas Array	141.54	26	PKP	PKPdf	16 17 44.4	-0.2
	comp=Z,0.4nm,0.4s,baz=200,slow=2.5,SNR=5.5						

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*IDC **31** 16:00:58.1±0.7, 13.65N×92.92E, mb4.1/13, mb1 4.2/14, mb1mx4.1/20, mbtmp4.0/14, ML4.1/1, Error ellipse: s-maj=34.4km s-min=14.2km az=57.0*

*BJI **31** 16:01:04.6, 13.60N×93.60E, h30^{km}, mB4.9, mb4.2*

*NEIC **31** 16:01:06.6±0.8, 13.62N×93.62E, h30^{km}, mb4.4/6, Error ellipse: s-maj=19.6km s-min=14.1km az=63.0*

ISC 31 16:01:00.5±3.2**, 13.64N**±0.08×**93.1E**±0.1**, h33^{km}**±27^{km}**, n29, σ0^{s}.93**/30**, mb4.2**/20**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	7.42	49	ePn	P	16 02 48.6	-0.5
	7.6nm,0.4s						
CMAR	Chiang Mai Arr	7.42	49	Pn	P	16 02 49.8	+0.6
	0.8nm,0.3s,baz=242,slow=15,SNR=7.0						
CMAR				Sn	S	16 04 11.9	-1.1
	0.7nm,0.3s,baz=242,slow=27,SNR=2.6						
KKTK	Khon Kaen	9.82	73	SG	P	16 03 27.0	+4.5
LSA	Lhasa	16.08	354	eP	P	16 04 49.9	+4.2
	7.6nm,0.6s						
CD2	Chengdu	19.82	28	P	P	16 05 31.8	+0.6
ENH	Enshi	22.45	40	eP	P	16 06 00.1	+2.0
	11nm,0.6s,mb4.5						
LZH	Lanzhou	24.37	22	eP	P	16 06 19.3	+2.5
LZH				AMB	AMB		
	comp=Z,23nm,1.5s,mb4.4						
LZH				AMB	AMB		
	comp=Z,91nm,4.8s						
GTA	Gaotai	26.36	12	P	P	16 06 37.0	+1.5
GTA				AMB	AMB		
	comp=Z,4.0nm,1.0s,mb3.9						
HHC	Hu-ho-hao-te	31.57	27	eP	P	16 07 30.5	+8.2
HHC				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.9						
SONM	Songino Array	35.86	15	P	P	16 08 00.2	+1.0
	comp=Z,1.0nm,0.5s,mb4.0,baz=200,slow=6.3,SNR=4.4						
ZAL	Zalesovo	40.73	353	P	P	16 08 40.8	+1.1
	comp=Z,1.4nm,0.6s,mb3.8,baz=299,slow=3.7,SNR=3.5						
BVAR	Borovoye Array	43.23	340	P	P	16 08 59.9	-0.3
	comp=Z,0.5nm,0.5s,mb3.5,baz=153,slow=9.7,SNR=2.4						
FITZ	Fitzroy Crossi	45.03	134	eP	P	16 09 15.9	+0.7
	comp=Z,7.9nm,1.3s,mb4.4						
GNI	Garni	49.75	311	eP	P	16 10 01.2	+9.4
	comp=Z,5.6nm,0.7s,mb4.7						
NWAO	Narrogin (SRO)	51.75	154	P	P	16 10 08.2	+1.1
	comp=Z,2.9nm,0.5s,mb4.5,baz=298,slow=1.9,SNR=3.9						
WRA	Warramunga Arr	52.57	129	P	P	16 10 14.0	+0.6
	comp=Z,1.3nm,0.4s,mb4.2,baz=300,slow=9.7,SNR=17						
WRA				PcP	PcP	16 11 24.9	+1.4
	comp=Z,1.4nm,0.4s,baz=324,slow=3.3,SNR=4.9						
WB2	Warramunga Arr	52.58	129	eP	P	16 10 14.2	+0.7
ASPA	Alice Springs	54.50	133	eP	P	16 10 28.7	+1.1
ASAR	Alice Springs	54.50	133	P	P	16 10 28.5	+0.9
	comp=Z,1.8nm,0.4s,mb4.5,baz=310,slow=6.9,SNR=38						
BRTR	Keskin Array B	57.95	308	P	P	16 10 52.4	+0.3
	comp=Z,1.1nm,0.7s,mb4.0,baz=121,slow=7.2,SNR=4.5						
STKA	Stephens Creek	64.89	135	P	P	16 11 40.4	+1.4
	comp=Z,2.4nm,0.8s,mb4.3,baz=302,slow=8.2,SNR=5.0						
FINES	FINESS Array B	67.16	331	P	P	16 11 52.9	0.0
	comp=Z,1.6nm,0.5s,mb4.3,baz=180,slow=3.8,SNR=11						
KAF	Kangasniemi	67.22	332	ep	P	16 11 59.7	+6.4
ARCES	ARCESS Array B	69.52	340	P	P	16 12 07.2	-0.2
	comp=Z,2.3nm,0.5s,mb4.3,baz=90,slow=7.3,SNR=8.2						
GERES	GERESS Array B	72.87	317	P	P	16 12 29.4	+1.4
	comp=Z,0.9nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=4.3						
NB2	NORSAR Subarra	74.22	330	P	P	16 12 35.7	+0.1
	comp=Z,1.2nm,0.5s,mb4.1,baz=91,slow=5.8						
NOA	NORSAR Array B	74.22	330	P	P	16 12 35.9	+0.3
	comp=Z,0.7nm,0.5s,mb3.8,baz=91,slow=5.6,SNR=4.2						
LPG	La Plagne	77.84	314	eP	P	16 13 04.7	+8.3
	comp=Z,12nm,0.8s,mb4.6						
ILAR	Eielson Array	89.83	22	P	P	16 13 58.6	+1.9
	comp=Z,0.2nm,0.6s,mb3.6,baz=296,slow=4.5,SNR=8.5						

IDC 31 16:12:50.2±1.8**, 4.28N×94.38E, mb3.9**/4**, mb1 4.0**/5**, mb1mx3.6**/19**, mbtmp3.8**/5**, ML3.8**/1**, Error ellipse: s-maj=86.0km s-min=22.8km az=54.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.78	17	Pn	P	16 16 21.0	-1.5
	0.1nm,0.3s,baz=209,slow=11,SNR=11						
WRA	Warramunga Arr	46.05	123	P	P	16 21 15.9	-1.9
	1.4nm,0.6s,baz=301,slow=9.5,SNR=13						
ASAR	Alice Springs	47.49	128	P	P	16 21 27.4	-1.8
	0.3nm,0.4s,baz=299,slow=7.7,SNR=8.2						
BVAR	Borovoye Array	52.45	342	P	P	16 22 04.4	-2.4
	1.2nm,0.6s,baz=141,slow=9.2,SNR=10						
FINES	FINESS Array B	75.98	333	P	P	16 24 39.0	-1.6
	2.1nm,0.8s,baz=90,slow=5.7,SNR=4.6						

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*IDC **31** 16:15:40.6±0.5, 7.69N×94.07E, mb4.6/20, mb1 4.8/20, mb1mx4.8/22, mbtmp4.6/20, MS4.2/6, Ms1 4.2/6, ms1mx3.9/17, Error ellipse: s-maj=24.6km s-min=12.1km az=51.0*

*NEIC **31** 16:15:43.5±0.1, 7.66N×94.03E, mb5.0/62, Error ellipse: s-maj=5.5km s-min=4.0km az=51.0*

*HRVD **31** 16:15:43.5±0.4, 7.56N×93.99E, h12^{km}, MW4.9/47, Centroid moment Tensor Solution. LP body waves: s13,c20;Mantle waves: s47,c74; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-2.69±.10; $M_{\theta\theta}$0.26±.08; $M_{\phi\phi}$2.43±.10; $M_{r\theta}$-0.28±.38; $M_{\theta\phi}$0.82±.08; $M_{\phi r}$-0.67±.30; Best double couple: $M_0$2.79×10^{16} NP1:ϕ_s197°,δ37°,λ-92°. NP2:ϕ_s20°,δ53°,λ-89°. Principal axes: T 2.8, Plg8°, Azm109°; N -.02, Plg1°, Azm199°; P -2.79, Plg82°, Azm297°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **31** 16:15:43.4, 7.33N×93.83E, h42^{km}, mB5.1, mb5.0, Ms4.8, Msz4.4*

*MOS **31** 16:15:44.3±1.0, 7.73N×94.04E, h33^{km}, mb5.2/48, Error ellipse: s-maj=11.8km s-min=5.8km az=119.8*

ISC 31 16:15:41.9±0.2**, 7.60N**±0.03×**93.98E**±0.04**, h18^{km}, h18^{km}**±.9^{km}**:pP-P, n248, σ1^{s}.09**/245**, mb4.9**/97**, MS4.3**/17**, 14C-11D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	11.82	24	P	P	16 18 30.7	-2.0
VIS	Vishakhapatnam	14.45	315	eP	P	16 19 07.8	0.0
VIS				e		16 19 15.0	
	comp=Z,78nm,1.0s						
VIS				eS	S	16 21 36.1	-12
MDRS	Chennai	14.56	293	eP	P	16 19 11.4	+2.2
BWNR	Bhubaneshwar	14.89	329	eP	P	16 19 11.8	-1.8
BWNR				e		16 19 20.1	
	comp=Z,85nm,0.4s						
BWNR				eS	S	16 21 45.2	-14
KOD	Kodaikanal	16.52	280	eP	P	16 19 38.8	+4.3
KOD				e		16 19 49.1	
	comp=Z,58nm,2.0s						
BOK	Bokaro	17.87	335	⇑eP	P	16 19 50.1	-1.3
BOK				e		16 19 55.8	
	comp=Z,64nm,1.3s						
HYB	Hyderabad	17.93	304	eP	P	16 20 00.0	+7.9
HYB	Hyderabad	17.93	304	i P	P	16 19 54.0	+1.9
SHL	Shillong	17.98	354	eP	P	16 19 50.6	-2.0
SHL				e		16 19 52.8	
	comp=Z,36nm,1.2s						
BLSP	Bilaspur	18.41	323	⇓eP	P	16 19 57.3	-0.8
BLSP				e		16 20 05.4	
	comp=Z,40nm,1.1s						
QIZ	Qiongzhong	19.14	52	P	P	16 20 10.0	+3.1
QIZ				S	S	16 23 40.3	+3.8
QIZ				AMB	AMB		
	comp=Z,96nm,1.3s						
QIZ				LR	LR		
	comp=N,2µm,12.5s						
QIZ	Qiongzhong	19.14	52	P	P	16 20 05.1	-1.8
	comp=N,134nm,1.2s						
KMI	Kunming	19.33	25	P	P	16 20 12.0	+2.9
KMI				PP	PP	16 20 29.0	+2.6
KMI				S	S	16 23 43.5	+2.9
KMI				SS	SS	16 24 09.5	+2.5
KMI				AMB	AMB		
	comp=Z,18nm,0.9s						
KMI				AMB	AMB		
	comp=Z,171nm,3.9s						
KMI				LR	LR		
	comp=N,600nm,12.2s						
KMI				LR	LR		
	comp=E,575nm,13.0s						
KMI				LR	LR		
	comp=Z,659nm,15.8s						
PKI	Pulchoki	21.46	339	eP	P	16 20 31.4	-0.1
	comp=Z,134nm,0.9s,mb5.3						
KAD	Karad	21.58	298	⇓eP	P	16 20 33.6	+0.8
KAD				e		16 20 43.4	
	comp=Z,79nm,1.6s						
DMN	Daman	21.60	338	eP	P	16 20 32.7	-0.3
	comp=Z,124nm,0.9s,mb5.3						
GUN	Gumba	21.60	340	eP	P	16 20 32.7	-0.3
	comp=Z,198nm,1.0s,mb5.5						
KKN	Kakani	21.70	339	eP	P	16 20 33.5	-0.5
	comp=Z,160nm,1.0s,mb5.4						
GKN	Gorkha	22.13	338	eP	P	16 20 38.1	-0.2
	comp=Z,122nm,0.8s,mb5.4						
LSA	Lhasa	22.14	353	eP	P	16 20 37.5	-0.9
LSA				pmax	pmax		
	comp=Z,38nm,0.8s,mb4.9						
LSA	Lhasa	22.14	353	eP	P	16 20 37.5	-0.8
	comp=Z,38nm,0.8s,mb4.9						
BHPL	Bhopal	22.24	316	⇓eP	P	16 20 40.0	+0.6
BHPL				e		16 20 50.1	
	comp=Z,134nm,1.6s						
GYA	Guiyang	22.30	31	⇑iP	P	16 20 42.5	+2.6
GYA				S	S	16 24 40.8	+1.5
GYA				AMB	AMB		
	comp=Z,30nm,1.0s,mb4.7						
GYA				AMB	AMB		
	comp=Z,210nm,3.0s						
GYA				LR	LR		
	comp=N,670nm,16.0s,MS4.4						
GYA				LR	LR		
	comp=E,970nm,15.8s,MS4.4						
GYA				LR	LR		
	comp=Z,760nm,15.4s,MS4.2						
KOLN	Koldanda	22.34	335	eP	P	16 20 40.4	+0.1
	comp=Z,460nm,1.5s,mb5.7						
BOM	Bombay	23.43	301	eP	P	16 20 52.7	+1.5
CD2	Chengdu	24.93	20	P	P	16 21 07.0	+1.4
AJM	Ajmer	26.27	318	⇓eP	P	16 21 19.1	+0.8
AJM				e	pP	16 21 26.1	+2.6
	comp=Z,61nm,1.4s						
ENH	Enshi	26.83	31	eP	P	16 21 23.0	-0.3
	comp=Z,4.7nm,0.5s,mb4.3						
LZH	Lanzhou	29.75	16	⇑P	P	16 21 50.5	+0.9
LZH				PP	PP	16 22 47.5	+0.9
LZH				S	S	16 26 42.5	-1.1
LZH				SS	SS	16 28 21.0	+2.2
LZH				AMB	AMB		
	comp=Z,80nm,1.7s,mb5.2						
LZH				AMB	AMB		
	comp=Z,169nm,5.0s						
LZH				LR	LR		
	comp=E,951nm,12.6s						
LZH				LR	LR		
	comp=Z,1µm,14.2s,MS4.7						
GTA	Gaotai	32.10	9	P	P	16 22 09.5	-0.8
GTA				PCP	PcP	16 25 00.5	+0.9
GTA				SCP		16 28 39.5	
GTA				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.7						
GTA				AMB	AMB		
	comp=Z,227nm,5.7s						
GTA				LR	LR		
	comp=N,343nm,14.1s,MS4.2						
GTA				LR	LR		
	comp=E,279nm,17.9s,MS4.2						
GTA				LR	LR		
	comp=Z,415nm,15.6s,MS4.2						
NJ2	Nanjing	33.58	40	eP	P	16 22 24.5	+1.3
NJ2				PP	PP	16 23 38.0	+2.2
NJ2				S	S	16 27 45.0	+1.4
NJ2				AMB	AMB		
	comp=Z,20nm,0.5s,mb5.3						
NJ2				LR	LR		
	comp=N,970nm,16.4s,MS4.8						
NJ2				LR	LR		
	comp=E,1µm,12.7s,MS4.8						
NJ2				LR	LR		
	comp=Z,860nm,13.8s,MS4.6						
SSE	Sheshan	34.53	44	P	P	16 22 28.8	-2.6
SSE				S	S	16 27 57.3	-1.0
SSE				AMB	AMB		
	comp=Z,14nm,0.8s,mb4.9						
SSE				AMB	AMB		
	comp=Z,173nm,6.6s						
SSE				LR	LR		
	comp=N,283nm,23.7s,MS4.0						
SSE				LR	LR		
	comp=E,161nm,23.7s,MS4.0						
SSE				LR	LR		
	comp=Z,223nm,16.5s						
KSH	Kashi	35.65	336	eP	P	16 22 43.8	+2.9
KSH				eAP	pP	16 22 48.8	+2.4
KSH				PP	PP	16 24 05.0	+3.4
KSH				PPP	PPP	16 24 24.5	+3.6
KSH				PCP	PcP	16 25 10.5	+0.9
KSH				eS	S	16 28 21.0	+5.3
KSH				SCP		16 28 52.5	
KSH				PCS		16 28 55.0	
KSH				SCS	ScS	16 32 57.5	+0.6
KSH				AMB	AMB		
	comp=Z,180nm,7.0s						
KSH				LR	LR		
	comp=N,640nm,7.6s						
KSH				LR	LR		
	comp=E,770nm,6.7s						
WMQ	Urumqi	36.49	352	⇑P	P	16 22 49.0	+1.0
WMQ				PP	PP	16 24 12.5	+0.3
WMQ				PPP	PPP	16 24 32.5	+0.3
WMQ				S	S	16 28 28.0	-0.5
WMQ				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.9						
WMQ				AMB	AMB		
	comp=Z,76nm,8.2s						
WMQ				LR	LR		
	comp=N,209nm,21.2s,MS4.3						
WMQ				LR	LR		
	comp=E,587nm,23.2s,MS4.3						
WMQ				LR	LR		
	comp=Z,247nm,20.2s,MS4.0						
HHC	Hu-ho-hao-te	36.63	23	⇑iP	P	16 22 51.0	+1.9
HHC				PP	PP	16 24 14.8	+0.8
HHC				PCP	PcP	16 25 14.0	+1.5

HHC				S	**S**	**16 28 32.5**	**+1.9**
HHC				SS	SS	16 30 58.3	+0.8
HHC				SCS	ScS	16 33 03.3	+1.0
HHC				AMB	AMB		
	comp=Z,53nm,0.9s,mb5.4						
HHC				AMB	AMB		
	comp=Z,194nm,5.5s						
HHC				LR	LR		
	comp=N,402nm,16.7s,MS4.5						
HHC				LR	LR		
	comp=E,349nm,11.9s,MS4.5						
HHC				LR	LR		
	comp=Z,314nm,14.3s,MS4.2						
BJT	**Baijiatuau**	**37.90**	**28**	*e*P	**P**	**16 23 01.1**	**+1.3**
BJT				pmax	pmax		
	comp=Z,15nm,0.9s						
BJT	**Baijiatuau**	**37.90**	**28**	*e*P	**P**	**16 23 01.1**	**+1.3**
	comp=Z,15nm,0.9s,mb4.7						
BJI	**Beijing**	**37.92**	**28**	*e*P	**P**	**16 23 02.5**	**+2.5**
BJI				AMB	AMB		
	comp=Z,17nm,1.0s,mb4.7						
BJI				LR	LR		
	comp=N,446nm,14.0s,MS4.6						
BJI				LR	LR		
	comp=E,558nm,19.0s,MS4.6						
BJI				LR	LR		
	comp=Z,209nm,22.2s,MS3.9						
KZA	**Kyzart**	**38.12**	**337**	P	**P**	**16 23 02.6**	**+0.9**
	SNR=7.1						
MBWA	**Marble Bar**	**38.16**	**139**	P	**P**	**16 23 03.8**	**+1.6**
UCH	**Uchtor**	**38.54**	**337**	P	**P**	**16 23 06.2**	**+1.0**
	SNR=7.9						
TKM2	**Tokmak 2**	**38.72**	**338**	P	**P**	**16 23 06.9**	**+0.2**
	SNR=6.0						
KBK	**Karagaybulak**	**38.73**	**337**	P	**P**	**16 23 07.8**	**+1.0**
	SNR=17						
AML	**Almayashu**	**38.78**	**336**	P	**P**	**16 23 07.7**	**+0.4**
	SNR=25						
AAK	**Ala-Archa**	**38.89**	**337**	P	**P**	**16 23 09.4**	**+1.3**
	SNR=7.6						
AAK	**Ala-Archa**	**38.89**	**337**	*e*P	**P**	**16 23 07.8**	**-0.3**
AAK				pmax	pmax		
	comp=Z,7.0nm,0.8s,mb4.4						
AAK	**Ala-Archa**	**38.89**	**337**	*e*P	**P**	**16 23 07.8**	**-0.3**
	comp=Z,6.8nm,0.8s,mb4.4						
FRU	**Bishkek**	**39.01**	**337**	*e*P	**P**	**16 23 10.5**	**+1.4**
CHMS	**Chumysh**	**39.10**	**337**	P	**P**	**16 23 10.5**	**+0.6**
	SNR=5.5						
EKS2	**Erkin-Say**	**39.19**	**336**	P	**P**	**16 23 12.0**	**+1.3**
	SNR=11						
USP	**Ospenovka**	**39.42**	**337**	P	**P**	**16 23 12.7**	**+0.1**
	SNR=16						
FITZ	**Fitzroy Crossi**	**40.36**	**130**	*e*P	**P**	**16 23 19.6**	**-0.9**
	comp=Z,15nm,1.2s,mb4.6						
SONM	**Songino Array**	**41.46**	**13**	P	**P**	**16 23 29.8**	**+0.6**
	comp=Z,10nm,1.0s,mb4.4,baz=195,slow=8.7,SNR=54						
SONM				PcP	PcP	16 25 28.2	+0.6
	comp=Z,2.2nm,0.7s,baz=201,slow=3.5,SNR=5.7						
ULN	**Ulaanbaatar**	**41.63**	**13**	*e*P	**P**	**16 23 30.4**	**-0.3**
ULN				*e*		16 25 27.4	
ULN				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.2						
ULN	**Ulaanbaatar**	**41.63**	**13**	*e*P	**P**	**16 23 30.4**	**-0.3**
	comp=Z,5.5nm,0.8s,mb4.2						
ULN				*e*PcP	PcP	16 25 27.4	-0.8
ZAK	**Zakamensk**	**43.34**	**9**	⇓*i*P	**P**	**16 23 44.7**	**+0.1**
ZAK				*e*		16 25 33.9	
MUN	**Mundaring**	**44.72**	**153**	*e*P	**P**	**16 23 56.9**	**+0.8**
	comp=Z,7.7nm,0.6s,mb4.7						
MUN	**Mundaring**	**44.72**	**153**	*e*P	**P**	**16 23 56.9**	**+0.8**
MUN				pmax	pmax		
	comp=Z,8.0nm,0.6s,mb4.7						
KLBR	**Kellerberrin**	**45.12**	**151**	*e*P	**P**	**16 23 59.6**	**+0.4**
	comp=Z,21nm,1.1s,mb4.9						
CN2	**Changchun**	**45.34**	**32**	*e*P	**P**	**16 24 03.0**	**+2.2**
CN2				PCP	PcP	16 25 40.5	-0.3
CN2				*e*S	**S**	**16 30 43.3**	**+3.3**
CN2				*e*SS	SS	16 33 57.0	+2.3
CN2				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
CN2				AMB	AMB		
	comp=Z,280nm,5.0s						
NWAO	**Narrogin (SRO)**	**45.98**	**153**	*e*P	**P**	**16 24 05.9**	**-0.1**
NWAO				pmax	pmax		
	comp=Z,13nm,0.8s						
NWAO	**Narrogin (SRO)**	**45.98**	**153**	P	**P**	**16 24 06.5**	**+0.5**
	comp=Z,11nm,0.7s,mb4.9,baz=334,slow=12,SNR=6.7						
NWAO	**Narrogin (SRO)**	**45.98**	**153**	*e*P	**P**	**16 24 05.9**	**-0.1**
	comp=Z,14nm,0.8s,mb4.9						
ZAL	**Zalesovo**	**46.79**	**353**	P	**P**	**16 24 12.3**	**+0.1**
	comp=Z,10nm,0.3s,mb5.2,baz=309,slow=5.5,SNR=44						
HIA	**Hailar**	**46.83**	**23**	*e*P	**P**	**16 24 12.5**	**0.0**
HIA				pmax	pmax		
	comp=Z,43nm,1.0s						
HIA	**Hailar**	**46.83**	**23**	*e*P	**P**	**16 24 12.5**	**0.0**
	comp=Z,43nm,1.0s,mb5.3						
NVS	**Novosibirsk**	**47.89**	**352**	*i* P	**P**	**16 24 19.2**	**-1.6**
NVS				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.1						
NVS				pmax	pmax		
	comp=E,10.0nm,1.2s						
NVS				pmax	pmax		
	comp=N,18nm,1.3s						
MDJ	**Mudanjiang**	**48.12**	**34**	P	**P**	**16 24 24.5**	**+1.8**
MDJ				PCP	PcP	16 25 49.5	-1.1
MDJ				PP	PP	16 26 15.0	+0.6
MDJ				SCP		16 29 42.8	
MDJ				PCS		16 29 45.0	
MDJ				S	**S**	**16 31 21.0**	**+1.5**
MDJ				AMB	AMB		
	comp=Z,14nm,1.3s,mb4.8						
MDJ				AMB	AMB		
	comp=Z,175nm,4.6s						
MDJ				LR	LR		
	comp=N,37nm,17.3s,MS4.1						
MDJ				LR	LR		
	comp=E,160nm,17.3s,MS4.1						
MDJ				LR	LR		
	comp=Z,167nm,17.3s,MS4.1						
MDJ	**Mudanjiang**	**48.12**	**34**	*e*P	**P**	**16 24 23.5**	**+0.8**
	comp=Z,9.3nm,1.0s,mb4.8						
WRA	**Warramunga Arr**	**48.23**	**125**	P	**P**	**16 24 22.1**	**-1.9**
	comp=Z,25nm,1.2s,mb5.1,baz=305,slow=8.6,SNR=66						
WRA				PcP	PcP	16 25 50.6	-0.7
	comp=Z,2.2nm,0.7s,baz=314,slow=2.9,SNR=5.4						
WRAB	**Tennant Creek**	**48.24**	**125**	*e*P	**P**	**16 24 22.7**	**-1.3**
WRAB				pmax	pmax		
	comp=Z,12nm,0.8s,mb5.0						
WRAB	**Tennant Creek**	**48.24**	**125**	*e*P	**P**	**16 24 22.6**	**-1.3**
	comp=Z,12nm,0.8s,mb5.0						
WB2	**Warramunga Arr**	**48.24**	**125**	*e*P	**P**	**16 24 22.3**	**-1.7**
BVAR	**Borovoye Array**	**49.19**	**341**	P	**P**	**16 24 29.9**	**-1.0**
	comp=Z,2.0nm,0.8s,mb4.2,baz=141,slow=9.5,SNR=10						
BVAR				PcP	PcP	16 25 54.5	+0.2
	comp=Z,3.4nm,0.6s,baz=146,slow=5.3,SNR=8.6						
BVAR				ScP		16 29 47.6	
	comp=Z,0.9nm,0.9s,baz=153,slow=3.2,SNR=4.0						
BRVK	**Borovoye**	**49.25**	**341**	*e*P	**P**	**16 24 31.0**	**-0.4**
BRVK				pmax	pmax		
	comp=Z,3.0nm,0.8s,mb4.4						
BRVK	**Borovoye**	**49.25**	**341**	*e*P	**P**	**16 24 30.9**	**-0.4**
	comp=Z,3.0nm,0.8s,mb4.4						
CHKZ	**Chkalovo**	**49.68**	**342**	*e*P	**P**	**16 24 33.7**	**-0.9**
CHKZ				pmax	pmax		
	comp=Z,10.0nm,0.7s,mb5.0						
CHKZ	**Chkalovo**	**49.68**	**342**	*e*P	**P**	**16 24 33.7**	**-0.9**
	comp=Z,9.8nm,0.7s,mb5.0						
ASPA	**Alice Springs**	**49.86**	**130**	*e*P	**P**	**16 24 35.6**	**-0.8**
ASAR	**Alice Springs**	**49.87**	**130**	P	**P**	**16 24 35.0**	**-1.5**
	comp=Z,9.7nm,0.8s,mb4.9,baz=303,slow=6.9,SNR=99						
ASAR				PcP	PcP	16 25 57.1	0.0
	comp=Z,6.9nm,1.0s,baz=309,slow=3.3,SNR=8.5						
ASAR				LR	LR	16 47 57.3	
	comp=Z,150nm,18.8s,MS4.0,baz=294,slow=39						
KLR	**Kul'dur**	**52.20**	**31**	*e*P	**P**	**16 24 48.8**	**-5.0**
BOD	**Bodaibo**	**52.45**	**13**	*e*P	**P**	**16 24 54.2**	**-1.4**
GNI	**Garni**	**54.51**	**315**	*e*P	**P**	**16 25 10.8**	**-0.2**
GNI				pmax	pmax		
	comp=Z,26nm,1.3s						
GNI	**Garni**	**54.51**	**315**	P	**P**	**16 25 10.5**	**-0.5**
	comp=Z,11nm,1.1s,mb4.8,baz=338,slow=23,SNR=6.6						
GNI	**Garni**	**54.51**	**315**	*e*P	**P**	**16 25 10.8**	**-0.2**
	comp=Z,26nm,1.3s,mb5.1						
PMG	**Port Moresby**	**55.60**	**107**	P	**P**	**16 25 19.2**	**-0.2**
PMG				pmax	pmax		
	comp=Z,13nm,1.0s						
PMG	**Port Moresby**	**55.60**	**107**	P	**P**	**16 25 19.2**	**-0.1**
	comp=Z,13nm,1.0s,mb4.9						
ARU	**Arti**	**56.08**	**337**	⇑*i*P	**P**	**16 25 21.5**	**-0.6**
ARU				*e*		16 26 15.7	
ARU				*e*		16 27 25.1	
ARU				*e*PPP	PPP	16 28 41.0	-3.6
ARU				*e*S	**S**	**16 33 12.0**	**+3.9**
ARU				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.2						
ARU	**Arti**	**56.08**	**337**	*e*P	**P**	**16 25 20.5**	**-1.6**
	comp=Z,52nm,1.4s,mb5.4						
ZEI	**Tsey**	**56.13**	**317**	*e*P	**P**	**16 25 21.7**	**-1.0**
ZEI				*i* *PP	pP	16 25 30.1	+1.8
ZEI				*i*		16 27 28.2	
ZEI				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.7						
YSS	**Yuzh-Sakhalins**	**57.09**	**38**	P	**P**	**16 25 28.5**	**-1.1**
YSS				pmax	pmax		
	comp=Z,17nm,0.8s,mb5.1						
YSS	**Yuzh-Sakhalins**	**57.09**	**38**	P	**P**	**16 25 28.5**	**-1.1**
	comp=Z,17nm,0.8s,mb5.1						
KMBO	**Kilima Mbogo**	**57.24**	**264**	*e*P	**P**	**16 25 32.6**	**+1.5**
KMBO				pmax	pmax		
	comp=Z,11nm,1.3s						
KMBO	**Kilima Mbogo**	**57.24**	**264**	P	**P**	**16 25 33.1**	**+2.0**
	comp=Z,4.5nm,0.9s,mb4.5,baz=47,slow=13,SNR=7.6						
KMBO				LR	LR	16 46 56.6	
	comp=Z,342nm,19.3s,MS4.5,baz=92,slow=33						
KMBO	**Kilima Mbogo**	**57.24**	**264**	*e*P	**P**	**16 25 32.6**	**+1.6**
	comp=Z,11nm,1.3s,mb4.7						
KIV	**Kislovodsk**	**57.41**	**318**	*e*P	**P**	**16 25 31.0**	**-0.9**
KIV				pmax	pmax		
	comp=Z,24nm,1.0s,mb5.2						
KIV	**Kislovodsk**	**57.41**	**318**	*e*P	**P**	**16 25 31.0**	**-0.9**
	comp=Z,24nm,1.0s,mb5.2						
ELZG	**Elazig**	**58.15**	**311**	*i* P	**P**	**16 25 36.4**	**-0.7**
ASF	**Jabal al Asfar**	**58.23**	**303**	P	**P**	**16 25 38.0**	**+0.2**
	comp=Z,5.7nm,0.8s,mb4.7,baz=67,slow=9.2,SNR=9.9						
CTA	**Charters Tower**	**58.31**	**119**	LR	LR	16 53 06.8	
	comp=Z,192nm,20.3s,MS4.2,baz=136,slow=38						
MALT	**Malatya**	**58.52**	**310**	*e*P	**P**	**16 25 38.6**	**-1.1**
MALT				pmax	pmax		
	comp=Z,13nm,1.4s,mb4.8						
MALT	**Malatya**	**58.52**	**310**	*e*P	**P**	**16 25 38.6**	**-1.1**
	comp=Z,13nm,1.4s,mb4.8						
GZT	**Gaziantep**	**58.91**	**309**	*i* P	**P**	**16 25 41.5**	**-1.0**
SOKR	**Solikamsk**	**58.99**	**339**	⇓*i*P	**P**	**16 25 40.4**	**-2.3**
SOKR				pmax	pmax		
	comp=Z,40nm,1.1s,mb5.4						
SOKR				MLR	MLR		
	comp=Z,350nm,21.0s,MS4.5						
SOC	**Sochi**	**59.27**	**317**	*e*P	**P**	**16 25 42.2**	**-2.6**
SOC				*e*		16 26 30.9	
SOC				*e*		16 27 54.2	
SOC				*e*PPP	PPP	16 29 19.1	-3.3
SOC				*e*S	**S**	**16 33 52.3**	**+2.0**
SOC				*e*SS	SS	16 37 51.3	+4.7
SOC				pmax	pmax		
	comp=N,11nm,1.0s						
SOC				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.0						
SOC				pmax	pmax		
	comp=E,8.0nm,0.9s						
EIL	**Elat**	**59.42**	**300**	*e*P	**P**	**16 25 46.8**	**+0.8**
	comp=E,17nm,0.9s,mb5.1						
KAHT	**Ahir Dag**	**59.51**	**309**	*i* P	**P**	**16 25 46.1**	**-0.5**
STKA	**Stephens Creek**	**60.04**	**134**	*e*P	**P**	**16 25 49.6**	**-0.7**
	comp=E,4.7nm,0.9s,mb4.5						
STKA	**Stephens Creek**	**60.04**	**134**	P	**P**	**16 25 49.0**	**-1.3**
	comp=E,6.2nm,1.0s,mb4.6,baz=320,slow=8.9,SNR=8.6						
STKA				LR	LR	16 50 47.1	
	comp=E,204nm,20.8s,MS4.2,baz=120,slow=35						
YAK	**Yakutsk**	**60.30**	**18**	*e*P	**P**	**16 25 49.4**	**-2.2**
YAK				pmax	pmax		
	comp=N,10.0nm,1.2s						
YAK				pmax	pmax		
	comp=Z,18nm,1.2s,mb5.0						
YAK				pmax	pmax		
	comp=E,9.0nm,1.3s						
YAK	**Yakutsk**	**60.30**	**18**	*e*P	**P**	**16 25 50.2**	**-1.5**
	comp=E,68nm,1.3s,mb5.5						
CSS	**Prodhromos**	**61.70**	**306**	P	**P**	**16 26 00.8**	**-0.8**
	comp=E,7.7nm,0.8s,mb4.9						
BOYT	**Boyabat**	**61.98**	**313**	*i* P	**P**	**16 26 01.8**	**-1.5**
BRTR	**Keskin Array B**	**62.48**	**311**	P	**P**	**16 26 04.6**	**-2.1**
	comp=E,4.9nm,0.7s,mb4.7,baz=119,slow=7.4,SNR=30						
VRSR	**Storozhevoye**	**62.50**	**325**	*e*P	**P**	**16 26 05.1**	**-1.6**
VRSR				pmax	pmax		
	comp=N,9.0nm,0.9s						
VRSR				pmax	pmax		
	comp=E,10.0nm,0.9s						
VRSR				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.9						
ELDT	**Eldivan**	**62.83**	**312**	*i* P	**P**	**16 26 08.1**	**-0.9**
BALT	**Daday**	**63.11**	**313**	*i* P	**P**	**16 26 09.8**	**-1.1**
ISP	**Isparta**	**64.48**	**308**	*e*P	**P**	**16 26 18.2**	**-1.7**
ISP				pmax	pmax		
	comp=Z,27nm,1.1s,mb5.2						
ISP	**Isparta**	**64.48**	**308**	*e*P	**P**	**16 26 18.2**	**-1.7**
	comp=Z,27nm,1.1s,mb5.2						
MOS	**Moscow**	**65.23**	**329**	*e*P	**P**	**16 26 23.8**	**-0.6**
MOS				pmax	pmax		
	comp=Z,104nm,1.4s,mb5.7						
OBN	**Obninsk**	**65.52**	**328**	⇑*e*P	**P**	**16 26 25.4**	**-0.9**
OBN				*e*		16 28 48.0	
OBN				*e*S	S	16 35 03.8	-5.0
OBN				pmax	pmax		
	comp=Z,67nm,2.0s,mb5.3						
OBN				MLR	MLR		
	comp=Z,200nm,15.0s,MS4.4						
TOO	**Toolangi**	**65.77**	**137**	*e*P	**P**	**16 26 29.4**	**+1.2**
	comp=Z,8.1nm,0.9s,mb4.8						
TOO	**Toolangi**	**65.77**	**137**	*e*P	**P**	**16 26 29.4**	**+1.2**
TOO				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb4.8						
ULDT	**Uludag**	**65.96**	**311**	*i* P	**P**	**16 26 27.7**	**-1.7**
MA2	**Magadan**	**67.08**	**28**	*e*P	**P**	**16 26 36.1**	**-0.1**
MA2				pmax	pmax		
	comp=Z,20nm,0.9s,mb5.2						
MA2	**Magadan**	**67.08**	**28**	*e*P	**P**	**16 26 35.5**	**-0.6**
	comp=Z,33nm,0.9s,mb5.4						
KDAG	**Bornova**	**67.09**	**308**	*i* P	**P**	**16 26 35.9**	**-0.8**
TIXI	**Tiksi**	**67.53**	**11**	*e*P	**P**	**16 26 37.9**	**-0.9**
TIXI				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.2						
AKASG	**Malin Array Be**	**68.27**	**322**	P	**P**	**16 26 41.9**	**-1.9**
	comp=Z,4.4nm,0.8s,mb4.6,baz=89,slow=5.0,SNR=21						
AKASG				PP	PP	16 29 11.9	-4.6
	comp=Z,0.3nm,0.5s,baz=93,slow=6.0,SNR=5.5						
IDI	**Anoyia**	**68.59**	**305**	LR	LR	16 57 55.9	
	comp=Z,164nm,20.1s,MS4.3,baz=275,slow=37						
PET	**Petropavlovsk**	**68.84**	**36**	P	**P**	**16 26 44.9**	**-2.4**
LSZ	**Lusaka**	**69.03**	**251**	*e*P	**P**	**16 26 49.6**	**+0.5**
LSZ				pmax	pmax		
	comp=Z,23nm,1.2s,mb5.0						
LSZ	**Lusaka**	**69.03**	**251**	*e*P	**P**	**16 26 49.6**	**+0.5**
	comp=Z,23nm,1.2s,mb5.0						
MLR	**Muntele Rosu**	**69.25**	**316**	P	**P**	**16 26 49.1**	**-0.9**
	comp=Z,20nm,1.0s,mb5.0,baz=286,slow=16,SNR=22						
APA	**Apatity**	**72.04**	**339**	⇑*e*P	**P**	**16 27 05.4**	**-1.1**
APA				pmax	pmax		
	comp=Z,36nm,1.1s,mb5.2						
KWP	**Kalwaria**	**72.13**	**320**	*e*P	**P**	**16 27 07.3**	**0.0**
KOLS	**Kolonicke sedl**	**72.30**	**319**	*i* P	**P**	**16 27 08.4**	**+0.1**
KOLS				*e*		16 29 57.9	
CRVS	**Cervenica-Dubn**	**72.83**	**319**	*i* P	**P**	**16 27 12.1**	**+0.7**
CRVS				*i* pP	pP	16 27 17.7	+0.5
FINES	**FINESS Array B**	**72.87**	**332**	P	**P**	**16 27 10.4**	**-1.0**
	comp=Z,16nm,0.7s,mb5.0,baz=103,slow=6.3,SNR=57						
KAF	**Kangasniemi**	**72.96**	**333**	*e*p	**P**	**16 27 10.9**	**-1.0**
	comp=Z,11nm,0.6s,mb5.0						
KAF	**Kangasniemi**	**72.96**	**333**	*e*P	**P**	**16 27 10.9**	**-1.0**
KAF				pmax	pmax		
	comp=Z,11nm,0.6s,mb5.0						
NIE	**Niedzica**	**73.64**	**319**	*e*P	**P**	**16 27 16.4**	**+0.2**
LBTB	**Lobatse**	**73.97**	**241**	*e*P	**P**	**16 27 19.5**	**+0.9**
LBTB				pmax	pmax		
	comp=Z,30nm,1.0s,mb5.2						
LBTB	**Lobatse**	**73.97**	**241**	*e*P	**P**	**16 27 19.5**	**+0.9**
	comp=Z,30nm,1.0s,mb5.2						
OJC	**Ojcow**	**74.08**	**320**	*e*P	**P**	**16 27 18.7**	**0.0**
VYHS	**Vyhne**	**74.50**	**318**	*i* P	**P**	**16 27 21.0**	**-0.2**
VYHS				*i* pP	pP	16 27 26.4	-0.5
SRO	**Srobarova**	**74.78**	**317**	*i* P	**P**	**16 27 23.4**	**+0.6**
SRO				*i* pP	pP	16 27 29.4	+0.8
KEV	**Kevo**	**75.04**	**341**	*e*p	**P**	**16 27 23.3**	**-0.6**
	comp=Z,12nm,0.9s,mb4.8						
KEV	**Kevo**	**75.04**	**341**	*e*P	**P**	**16 27 23.3**	**-0.6**
KEV				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
OKC	**Ostrava-Krasne**	**75.09**	**319**	*e*P	**P**	**16 27 24.8**	**+0.2**
OKC				*e*pP	pP	16 27 30.1	-0.2
BOSA	**Boshof**	**75.31**	**238**	*e*P	**P**	**16 27 26.7**	**+0.4**
BOSA				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.1						
BOSA	**Boshof**	**75.31**	**238**	*e*P	**P**	**16 27 26.7**	**+0.4**
	comp=Z,20nm,0.8s,mb5.1						
ARCES	**ARCESS Array B**	**75.46**	**340**	P	**P**	**16 27 25.9**	**-0.4**
	comp=Z,8.8nm,0.8s,mb4.7,baz=90,slow=7.3,SNR=11						
MORC	**Moravsky Berou**	**75.48**	**319**	*e*P	**P**	**16 27 26.5**	**-0.3**
MORC				pmax	pmax		
	comp=Z,23nm,1.3s,mb5.0						
MORC	**Moravsky Berou**	**75.48**	**319**	*e*P	**P**	**16 27 26.5**	**-0.3**
	comp=Z,23nm,1.3s,mb4.9						
ZST	**Bratislava**	**75.62**	**318**	*i* P	**P**	**16 27 28.0**	**+0.4**
ZST				*i* pP	pP	16 27 33.9	+0.5
DPC	**Dobruska-Polom**	**76.31**	**320**	*e*P	**P**	**16 27 32.3**	**+0.8**
DPC				*e*pP	pP	16 27 37.5	+0.3
KSP	**Ksiaz**	**76.37**	**320**	*e*P	**P**	**16 27 32.2**	**+0.4**
KSP				*e*pP	pP	16 27 37.6	+0.1
KSP	**Ksiaz**	**76.37**	**320**	*i* P	**P**	**16 27 32.6**	**+0.8**
KSP				*e*	pP	16 27 38.5	+1.0
BILL	**Bilibino**	**76.39**	**22**	*e*P	**P**	**16 27 31.2**	**-0.4**
BILL				pmax	pmax		
	comp=Z,4.0nm,0.7s,mb4.5						
BILL	**Bilibino**	**76.39**	**22**	*e*P	**P**	**16 27 31.2**	**-0.4**
	comp=Z,3.7nm,0.7s,mb4.4						
UPC	**Upice**	**76.52**	**320**	*e*P	**P**	**16 27 33.1**	**+0.5**
UPC				*e*pP	pP	16 27 37.3	-1.1
ARSA	**Arzberg**	**76.62**	**317**	⇓*i*P	**P**	**16 27 33.2**	**-0.1**
	comp=Z,16nm,1.2s,mb4.8						
PERS	**Pernice**	**76.87**	**316**	*e*P	**P**	**16 27 34.3**	**-0.4**
PRU	**Pruhonice**	**77.43**	**319**	*e*P	**P**	**16 27 38.1**	**+0.4**
PRU				*e*pP	pP	16 27 43.6	+0.1
MOA	**Molln**	**77.50**	**317**	⇑*i*P	**P**	**16 27 37.6**	**-0.5**
	comp=Z,6.7nm,0.9s,mb4.6						
BRG	**Berggiesshubel**	**77.86**	**320**	*e*P	**P**	**16 27 40.5**	**+0.5**
BRG				*e*	pP	16 27 46.5	+0.7
BRG				pmax	pmax		
	comp=Z,13nm,1.2s,mb4.7						
BRG	**Berggiesshubel**	**77.86**	**320**	*e*P	**P**	**16 27 40.5**	**+0.5**
	comp=Z,13nm,1.2s,mb4.7						
BRG				*e*	pP	16 27 46.5	+0.7
GEC2	**GERESS Array S**	**77.92**	**318**	*e*P	**P**	**16 27 40.9**	**+0.5**
GEC2				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
GEC2	**GERESS Array S**	**77.92**	**318**	*e*P	**P**	**16 27 40.9**	**+0.5**
	comp=Z,22nm,1.1s,mb5.0						
GERES	**GERESS Array B**	**77.92**	**318**	P	**P**	**16 27 40.4**	**0.0**
	comp=Z,6.5nm,0.6s,mb4.7,baz=91,slow=5.0,SNR=49						
KHC	**Kasperske Hory**	**78.01**	**319**	*e*P	**P**	**16 27 41.1**	**+0.2**
KHC				*e*pP	pP	16 27 46.0	-0.7
PTCC	**Patocco-Chiusa**	**78.08**	**316**	*e*P	**P**	**16 27 41.2**	**-0.1**
MAW	**Mawson**	**78.24**	**192**	*e*P	**P**	**16 27 43.0**	**+1.2**
CLL	**Collm**	**78.47**	**321**	*i* P	**P**	**16 27 43.4**	**0.0**
CLL				pmax	pmax		
	comp=Z,15nm,1.4s,mb4.7						
CLL	**Collm**	**78.47**	**321**	*i* P	**P**	**16 27 43.4**	**0.0**
	comp=Z,15nm,1.4s,mb4.7						
CLL	**Collm**	**78.47**	**321**	P	**P**	**16 27 43.4**	**0.0**
	comp=Z,logA/T=1.0,mb4.7						
WET	**Wettzell**	**78.47**	**319**	*e*P	**P**	**16 27 43.9**	**+0.5**
NKC	**Novy Kostel**	**78.78**	**320**	*e*P	**P**	**16 27 41.9**	**-3.2**
SFI	**Santa Sofia**	**79.11**	**313**	*e*P	**P**	**16 27 48.2**	**+1.1**
PGD	**Poggio Sodo**	**79.20**	**313**	*e*P	**P**	**16 27 48.5**	**+0.9**
CTI	**Castel Tesino**	**79.25**	**315**	*e*P	**P**	**16 27 48.4**	**+0.6**
WTTA	**Wattenberg**	**79.27**	**317**	⇓*i*P	**P**	**16 27 47.4**	**-0.4**
	comp=Z,16nm,0.9s,mb5.0						
WTTA	**Wattenberg**	**79.27**	**317**	⇓*i*P	**P**	**16 27 47.4**	**-0.4**
WTTA				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.0						
WATA	**Walderalm**	**79.31**	**317**	⇑*i*P	**P**	**16 27 47.6**	**-0.5**
	comp=Z,14nm,1.2s,mb4.8						
WATA	**Walderalm**	**79.31**	**317**	⇑*i*P	**P**	**16 27 47.6**	**-0.5**
WATA				pmax	pmax		
	comp=Z,14nm,1.2s,mb4.8						
MOX	**Moxa**	**79.33**	**320**	*e*P	**P**	**16 27 48.4**	**+0.3**
MOX				pmax	pmax		
	comp=Z,21nm,1.8s,mb4.8						
MOX	**Moxa**	**79.33**	**320**	*i* P	**P**	**16 27 48.4**	**+0.3**
	comp=Z,logA/T=1.1,mb4.8						
MOX	**Moxa**	**79.33**	**320**	*e*P	**P**	**16 27 48.4**	**+0.3**
	comp=Z,21nm,1.8s,mb4.8						
VMG	**Vicchio**	**79.33**	**313**	*e*P	**P**	**16 27 49.6**	**+1.3**
SEI	**Scarperia**	**79.46**	**313**	*e*P	**P**	**16 27 50.4**	**+1.5**
FUR	**Furstenfeldbru**	**79.52**	**318**	*e*P	**P**	**16 27 49.7**	**+0.5**
SQTA	**Sankt Quirin**	**79.56**	**317**	⇓*i*P	**P**	**16 27 49.2**	**-0.2**
	comp=Z,12nm,0.9s,mb4.8						
SQTA	**Sankt Quirin**	**79.56**	**317**	⇓*i*P	**P**	**16 27 49.2**	**-0.2**
SQTA				pmax	pmax		
	comp=Z,13nm,0.9s,mb4.9						
GRA1	**Grafenberg Arr**	**79.57**	**319**	*e*P	**P**	**16 27 50.3**	**+0.9**
	comp=Z,23nm,1.1s,mb5.0						
GRF	**Grafenberg Arr**	**79.57**	**319**	*e*P	**P**	**16 27 50.3**	**+0.9**
GRF				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
GRF	**Grafenberg Arr**	**79.57**	**319**	*e*P	**P**	**16 27 50.3**	**+0.9**
GRF				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.0						
GRF	**Grafenberg Arr**	**79.57**	**319**	*e*P	**P**	**16 27 50.3**	**+0.9**
	comp=Z,23nm,1.1s,mb5.0						
MOTA	**Moosalm**	**79.63**	**317**	⇑*i*P	**P**	**16 27 49.2**	**-0.6**
	comp=Z,11nm,1.0s,mb4.7						
MOTA	**Moosalm**	**79.63**	**317**	⇑*i*P	**P**	**16 27 49.2**	**-0.6**
MOTA				pmax	pmax		
	comp=Z,11nm,1.0s,mb4.7						
NB2	**NORSAR Subarra**	**79.89**	**331**	P	**P**	**16 27 50.5**	**-0.4**
	comp=Z,4.1nm,0.8s,mb4.4,baz=95,slow=5.3						
NB2	**NORSAR Subarra**	**79.89**	**331**	P	**P**	**16 27 50.5**	**-0.4**
NB2				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
NOA	**NORSAR Array B**	**79.89**	**331**	P	**P**	**16 27 50.8**	**-0.1**
	comp=Z,5.7nm,0.8s,mb4.5,baz=94,slow=5.4,SNR=12						
GSCL	**Gusciola**	**80.01**	**314**	*e*P	**P**	**16 27 53.3**	**+1.4**
NAO01	**NORSAR Array S**	**80.04**	**330**	*e*P	**P**	**16 27 50.8**	**-0.9**
	comp=Z,6.3nm,0.8s,mb4.6						
SUR	**Sutherland**	**80.05**	**235**	P	**P**	**16 27 52.6**	**+0.3**
	comp=Z,16nm,0.8s,mb5.0						
CLZ	**Clausthal**	**80.12**	**321**	*e*P	**P**	**16 27 52.8**	**+0.5**
	comp=Z,47nm,2.0s,mb5.1						
BSEG	**Bad Segeberg**	**80.17**	**323**	*e*P	**P**	**16 27 53.3**	**+0.8**
DAVA	**Damuels**	**80.47**	**317**	⇑*i*P	**P**	**16 27 54.2**	**0.0**
	comp=Z,18nm,0.8s,mb5.0						
VAI	**Varese**	**81.27**	**315**	*e*P	**P**	**16 27 57.6**	**-0.9**
BFO	**Black Forest**	**81.48**	**318**	*e*P	**P**	**16 27 59.9**	**+0.3**
BFO				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
BFO	**Black Forest**	**81.48**	**318**	*e*P	**P**	**16 27 59.9**	**+0.3**
	comp=Z,10.0nm,1.1s,mb4.7						
MCGN	**Macugnaga**	**81.81**	**315**	*e*P	**P**	**16 28 01.8**	**+0.5**
LPG	**La Plagne**	**82.69**	**315**	*e*P	**P**	**16 28 06.7**	**+0.8**
	comp=Z,20nm,0.6s,mb5.0						
LPG	**La Plagne**	**82.69**	**315**	*e*P	**P**	**16 28 06.7**	**+0.8**
LPG				pmax	pmax		
	comp=Z,10.0nm,0.6s,mb5.0						
BNI	**Bardonecchia**	**82.77**	**314**	*e*P	**P**	**16 28 06.0**	**-0.3**
BNI				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
BNI	**Bardonecchia**	**82.77**	**314**	*e*P	**P**	**16 28 06.0**	**-0.3**
	comp=Z,10nm,0.8s,mb4.9						
URZ	**Urewera**	**89.30**	**129**	LR	LR	17 07 52.5	
	comp=Z,150nm,18.9s,MS4.4,baz=92,slow=35						
EVIA	**Vianos**	**90.34**	**309**	P	**P**	**16 28 44.4**	**+0.8**
EVIA				pmax	pmax		
	comp=Z,4.0nm,0.6s,mb4.9						
EVIA	**Vianos**	**90.34**	**309**	P	**P**	**16 28 44.4**	**+0.8**
	comp=Z,3.9nm,0.6s,mb4.9						
EQES	**Quesada**	**90.93**	**308**	P	**P**	**16 28 46.5**	**+0.2**
	comp=Z,184nm,3.3s						
EBER	**Berja**	**90.94**	**307**	P	**P**	**16 28 46.6**	**+0.3**
	comp=Z,110nm,2.8s,mb5.7						
GUD	**Guadarrama**	**91.23**	**311**	P	**P**	**16 28 49.4**	**+1.8**
GUD				pmax	pmax		
	comp=Z,14nm,1.0s,mb5.2						
GUD	**Guadarrama**	**91.23**	**311**	P	**P**	**16 28 49.4**	**+1.8**
	comp=Z,14nm,1.0s,mb5.2						
ESDC	**Sonseca Array**	**91.27**	**310**	P	**P**	**16 28 48.8**	**+1.0**
	comp=Z,2.2nm,0.5s,mb4.8,baz=60,slow=4.3,SNR=28						
ESDC	**Sonseca Array**	**91.27**	**310**	P	**P**	**16 28 49.0**	**+1.2**
	comp=Z,5.9nm,0.4s,mb5.3						

IMA	Indian Mountai	91.93	22	eP	P	16 28 51.9	+1.7
IMA				pmax	pmax		
	comp=Z,20nm,0.7s,mb5.6						
IMA	Indian Mountai	91.93	22	eP	P	16 28 51.9	+1.6
	comp=Z,20nm,0.7s,mb5.5						
EADA	Adamuz	92.03	309	P	P	16 28 51.4	+0.1
	comp=Z,12nm,0.9s,mb5.2						
VNDA	Vanda	92.70	168	eP	P	16 28 54.1	+0.5
VNDA	Vanda	92.70	168	P	P	16 28 55.0	+1.5
	comp=Z,2.5nm,0.9s,mb4.7,baz=14,slow=3.4,SNR=5.4						
SBA	Scott Base	93.80	168	P	P	16 28 59.5	+0.9
ILAR	Eielson Array	95.05	22	P	P	16 29 03.9	-0.7
	comp=Z,0.6nm,0.7s,mb4.1,baz=301,slow=4.2,SNR=10.0						
ILAR				PKKPbc		16 45 59.9	
	comp=Z,0.3nm,0.7s,baz=126,slow=3.1,SNR=4.9						
YKA	Yellowknife Ar	106.72	13	PP	PP	16 34 23.9	-1.8
	comp=Z,0.3nm,0.7s,baz=335,slow=7.5,SNR=3.7						
YKA				PKKPbc		16 45 25.8	
	comp=Z,0.4nm,0.9s,baz=161,slow=2.6,SNR=5.5						
YKA				PKKP	PKKP	16 45 41.6	+9.0
	comp=Z,0.3nm,0.6s,baz=149,slow=4.4,SNR=7.4						
MSO	Missoula	120.39	22	ePKP	PKPdf	16 34 34.1	-2.3
BOZ	Bozeman (W)	122.23	21	ePKIKP	PKPdf	16 34 38.2	-1.8
LOHW	Long Hollow	124.36	21	ePKPdf	PKPdf	16 34 42.1	-2.1
NVAR	Mina Array Bea	125.23	31	PKP	PKPdf	16 34 45.1	-1.0
	comp=Z,2.6nm,0.8s,baz=287,slow=2.5,SNR=7.3						
PDAR	Pinedale Array	125.47	21	PKP	PKPdf	16 34 44.5	-1.9
	comp=Z,1.8nm,0.7s,baz=17,slow=1.8,SNR=14						
ANMO	Albuquerque	133.48	23	ePKIKP	PKPdf	16 34 59.8	-2.0
ANMO	Albuquerque	133.48	23	PKP	PKPdf	16 35 00.2	-1.6
	comp=Z,1.7nm,0.8s,baz=189,slow=3.7,SNR=4.3						
TXAR	Lajitas Array	139.53	24	PKP	PKPdf	16 35 11.9	-1.2
	comp=Z,1.0nm,0.7s,baz=98,slow=1.3,SNR=13						
TXAR				SKPbc		16 38 44.2	
	comp=Z,0.2nm,0.7s,baz=270,slow=1.3,SNR=3.8						
JCT	Junction City	139.89	19	ePKIKP	PKPdf	16 35 11.9	-1.8
BDFB	Brasilia	141.98	254	PKP	PKPdf	16 35 15.4	-2.4
	comp=Z,3.4nm,0.8s,baz=143,slow=7.2,SNR=4.6						
SDV	Santo Domingo	157.56	317	ePKPdf	PKPdf	16 35 40.1	-1.8
LPAZ	La Paz	160.50	242	ePKIKP	PKPdf	16 35 43.9	-1.3
LPAZ	La Paz	160.50	242	PKP	PKPdf	16 35 44.3	-0.9
	comp=Z,2.2nm,0.8s,baz=49,slow=2.0,SNR=10						
LPAZ				PKPab	PKPab	16 36 25.3	+0.4
	comp=Z,2.6nm,0.8s,baz=99,slow=6.2,SNR=5.3						
OTAV	Otavalo	169.15	316	ePKPdf	PKPdf	16 35 51.4	-1.3
OTAV				ePKPab	PKPab	16 37 03.2	+0.4

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*IDC **31** 16:23:53.6±0.8, 9.57N×93.77E, mb4.0/10, mb1 4.2/11, mb1mx4.1/20, mbtmp4.0/11, ML3.9/1, Error ellipse: s-maj=36.7km s-min=17.5km az=52.0*

ISC 31 16:23:54.8±8.3**, 9.6N**±0.2×**93.9E**±0.2**, h21**^{km}±57^{km}**, n20, σ0**^{s}**62**/18**, mb4.1**/11**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.07	29	Pn	P	16 26 21.2	-0.4
	0.3nm,0.3s,baz=216,slow=15,SNR=18						
PKI	Pulchoki	19.58	337	eP	P	16 28 25.3	+0.6
	51nm,1.0s						
GUN	Gumba	19.71	339	eP	P	16 28 25.9	-0.2
	47nm,0.7s						
DMN	Daman	19.74	336	eP	P	16 28 26.5	+0.1
KKN	Kakani	19.83	337	eP	P	16 28 27.6	+0.2
	28nm,0.8s						
GKN	Gorkha	20.27	336	eP	P	16 28 32.2	+0.1
	44nm,0.5s						
KOLN	Koldanda	20.51	333	eP	P	16 28 34.7	+0.2
	35nm,0.9s						
SONM	Songino Array	39.54	13	P	P	16 31 26.3	+0.2
	2.5nm,1.1s,mb3.9,baz=206,slow=3.1,SNR=10						
SONM				PcP	PcP	16 33 34.6	+0.6
	0.4nm,0.7s,baz=203,slow=3.2,SNR=3.5						
ZAL	Zalesovo	44.81	352	P	P	16 32 08.6	-0.5
	1.1nm,0.9s,mb3.7,baz=249,slow=8.2,SNR=4.3						
BVAR	Borovoye Array	47.28	341	P	P	16 32 28.3	-0.4
	0.4nm,0.6s,mb3.5,baz=117,slow=6.4,SNR=3.3						
WRA	Warramunga Arr	49.47	127	P	P	16 32 46.1	0.0
	1.5nm,0.8s,mb4.1,baz=306,slow=8.8,SNR=7.5						
WRA				PcP	PcP	16 34 08.6	+0.2
	0.6nm,0.9s,baz=110,slow=32,SNR=2.6						
ASAR	Alice Springs	51.21	131	P	P	16 32 59.4	+0.1
	2.1nm,0.7s,mb4.2,baz=306,slow=7.0,SNR=22						
BRTR	Keskin Array B	61.13	310	P	P	16 34 08.8	-1.5
	1.1nm,0.8s,mb4.0,baz=127,slow=6.2,SNR=4.6						
MLR	Muntele Rosu	67.78	315	P	P	16 34 53.7	+0.3
	3.0nm,1.0s,mb4.3,baz=73,slow=20,SNR=4.1						
FINES	FINESS Array B	71.08	332	P	P	16 35 12.4	-1.1
	13nm,1.3s,mb4.7,baz=146,slow=6.9,SNR=4.7						
ARCES	ARCESS Array B	73.57	340	P	P	16 35 29.6	+1.6
	7.3nm,1.1s,mb4.5,baz=90,slow=7.3,SNR=5.8						
GERES	GERESS Array B	76.39	318	P	P	16 35 44.6	0.0
	0.9nm,0.7s,mb3.8,baz=90,slow=5.3,SNR=7.0						
LPG	La Plagne	81.24	315	eP	P	16 36 11.4	+0.5
	15nm,0.9s,mb4.6						
PDAR	Pinedale Array	123.65	21	PKP	PKPdf	16 42 53.6	-2.0
	0.6nm,1.0s,baz=333,slow=3.3,SNR=3.7						
TXAR	Lajitas Array	137.75	23	PKP	PKPdf	16 43 22.2	-0.5
	0.1nm,0.5s,baz=342,slow=2.8,SNR=2.6						

IDC 31 16:28:33.5±2.2**, 6.10N**×**93.18E, mb3.5**/5**, mb1 3.6**/6**, mb1mx3.5**/19**, mbtmp3.4**/6**, ML3.0**/1**, Error ellipse: s-maj=79.0km s-min=23.3km az=62.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.51	24	Pn	P	16 31 48.6	-0.6
	0.0nm,0.3s,baz=220,slow=14,SNR=4.1						
SONM	Songino Array	43.09	13	P	P	16 36 34.7	-2.4
	0.4nm,0.6s,baz=186,slow=9.4,SNR=4.1						
WRA	Warramunga Arr	48.05	124	P	P	16 37 14.4	-2.6
	0.6nm,0.8s,baz=305,slow=8.7,SNR=5.6						
ZAL	Zalesovo	48.18	353	P	P	16 37 15.8	-1.7
	0.5nm,0.3s,baz=252,slow=4.5,SNR=3.2						
ASAR	Alice Springs	49.55	128	P	P	16 37 27.1	-1.4
	0.3nm,0.6s,baz=303,slow=7.8,SNR=4.9						
BVAR	Borovoye Array	50.36	342	P	P	16 37 32.1	-2.2
	0.2nm,0.6s,baz=146,slow=10,SNR=2.8						

IDC 31 16:31:40.5±1.2**, 13.57N**×**93.37E, mb3.4**/4**, mb1 3.6**/5**, mb1mx3.4**/18**, mbtmp3.3**/5**, ML2.8**/1**, Error ellipse: s-maj=34.4km s-min=23.3km az=66.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.24	47	Pn	Pn	16 33 29.1	-1.0
	0.0nm,0.3s,baz=238,slow=15,SNR=3.4						
CMAR				Sn	Sn	16 34 50.5	-3.6
	baz=243,slow=28,SNR=2.4						
SONM	Songino Array	35.85	15	P	P	16 38 41.3	-2.6
	0.5nm,1.0s,baz=191,slow=7.3,SNR=2.2						
WRA	Warramunga Arr	52.28	129	P	P	16 40 53.3	-3.0
	1.0nm,1.2s,baz=304,slow=9.2,SNR=7.4						
WRA				PcP	PcP	16 42 07.9	+0.2
	0.7nm,0.6s,baz=320,slow=3.1,SNR=7.6						
ASAR	Alice Springs	54.22	133	P	P	16 41 07.7	-2.9
	0.3nm,0.5s,baz=307,slow=7.2,SNR=6.8						
GERES	GERESS Array B	73.13	317	P	P	16 43 13.0	-1.8
	0.2nm,0.4s,baz=90,slow=4.9,SNR=2.8						

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*IDC **31** 16:34:23.8±1.0, 4.80N×94.72E, mb4.1/10, mb1 4.3/10, mb1mx4.1/18, mbtmp4.1/10, Error ellipse: s-maj=48.1km s-min=18.2km az=49.0*

ISC 31 16:34:26.9±0.8**, 4.6N**±0.1×**94.6E**±0.2**, h33**^{km}**, n22, σ0**^{s}**97**/22**, mb4.3**/13**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.37	17	Pn	P	16 37 51.2	+1.2
	0.7nm,0.3s,baz=209,slow=12,SNR=42						
PKI	Pulchoki	24.43	340	eP	P	16 39 43.4	-0.5
DMN	Daman	24.57	339	eP	P	16 39 44.3	-1.0
GUN	Gumba	24.59	341	eP	P	16 39 45.2	-0.2
	15nm,0.7s,mb4.7						
KKN	Kakani	24.68	340	eP	P	16 39 45.1	-1.2
GKN	Gorkha	25.10	339	eP	P	16 39 50.1	-0.2
	18nm,0.7s,mb4.8						
KOLN	Koldanda	25.28	337	eP	P	16 39 51.5	-0.5
	25nm,0.7s,mb4.8						
UCH	Uchtor	41.49	337	P	P	16 42 14.3	+1.8
	SNR=6.5						
KBK	Karagaybulak	41.70	338	P	P	16 42 15.9	+1.7
	SNR=7.8						
AML	Almayashu	41.73	336	P	P	16 42 16.1	+1.5
	SNR=8.1						
EKS2	Erkin-Say	42.15	337	P	P	16 42 18.9	+0.9
	SNR=6.0						
USP	Ospenovka	42.39	338	P	P	16 42 20.3	+0.4
	SNR=8.3						
SONM	Songino Array	44.20	11	P	P	16 42 32.8	-1.8
	2.2nm,0.8s,mb4.0,baz=190,slow=8.3,SNR=19						
WRA	Warramunga Arr	46.05	123	P	P	16 42 49.6	-0.1
	3.3nm,0.7s,mb4.4,baz=302,slow=9.2,SNR=21						
ASAR	Alice Springs	47.52	128	P	P	16 43 01.4	+0.2
	1.4nm,0.7s,mb4.1,baz=296,slow=7.8,SNR=12						
ZAL	Zalesovo	49.79	352	P	P	16 43 18.0	-0.4
	2.8nm,0.7s,mb4.4,baz=306,slow=6.7,SNR=13						
BVAR	Borovoye Array	52.19	342	P	P	16 43 35.4	-1.0
	2.5nm,0.6s,mb4.3,baz=141,slow=9.5,SNR=30						
BRTR	Keskin Array B	64.91	312	P	P	16 45 05.4	0.0
	1.2nm,0.6s,mb4.1,baz=123,slow=7.0,SNR=7.7						
AKASG	Malin Array Be	70.98	322	P	P	16 45 41.9	-1.2
	1.5nm,0.8s,mb4.0,baz=90,slow=5.0,SNR=10						
FINES	FINESS Array B	75.78	333	P	P	16 46 10.4	-0.5
	2.3nm,0.7s,mb4.2,baz=90,slow=5.7,SNR=7.0						
ARCES	ARCESS Array B	78.45	340	P	P	16 46 25.6	-0.1
	0.9nm,0.4s,mb4.1,baz=105,slow=7.8,SNR=7.5						
GERES	GERESS Array B	80.55	319	P	P	16 46 38.8	+1.3
	1.2nm,0.8s,mb3.9,baz=90,slow=6.7,SNR=9.5						

IDC 31 16:36:19.2±1.2**, 6.43N**×**93.13E, mb4.0**/6**, mb1 4.1**/7**, mb1mx3.9**/18**, mbtmp3.9**/7**, ML3.9**/1**, Error ellipse: s-maj=45.1km s-min=20.2km az=54.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.23	25	Pn	P	16 39 30.3	-0.8
	0.2nm,0.3s,baz=229,slow=14,SNR=3.9						
SONM	Songino Array	42.79	13	P	P	16 44 17.6	-2.6
	0.7nm,0.5s,baz=198,slow=5.5,SNR=9.0						
ZAL	Zalesovo	47.85	353	P	P	16 44 59.7	-0.9
	3.3nm,0.8s,baz=306,slow=6.6,SNR=8.7						
WRA	Warramunga Arr	48.27	124	P	P	16 45 02.4	-2.0
	1.3nm,0.4s,baz=304,slow=8.7,SNR=12						
WB2	Warramunga Arr	48.28	124	eP	P	16 45 01.8	-2.6
ASPA	Alice Springs	49.79	128	eP	P	16 45 14.3	-1.7
ASAR	Alice Springs	49.79	128	P	P	16 45 14.2	-1.8
	1.5nm,0.6s,baz=301,slow=8.0,SNR=13						
BRTR	Keskin Array B	62.62	312	P	P	16 46 46.5	-1.3
	0.5nm,0.7s,baz=135,slow=8.2,SNR=3.2						
FINES	FINESS Array B	73.52	333	P	P	16 47 52.3	-3.1
	1.8nm,0.8s,baz=108,slow=8.8,SNR=3.6						

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*IDC **31** 16:42:25.4±1.3, 3.92N×95.57E, mb3.9/7, mb1 4.0/8, mb1mx3.8/19, mbtmp3.8/8, ML3.0/1, Error ellipse: s-maj=58.3km s-min=20.3km az=56.0*

ISC 31 16:42:28.9±1.0**, 3.9N**±0.1×**95.7E**±0.2**, h33**^{km}**, n14, σ0**^{s}**58**/14**, mb4.2**/13**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.79	12	Pn	P	16 45 58.0	+0.4
	0.0nm,0.3s,baz=203,slow=12,SNR=3.2						
PKI	Pulchoki	25.47	338	eP	P	16 47 56.6	+0.8
	6.7nm,0.6s,mb4.4						
GUN	Gumba	25.61	340	eP	P	16 47 57.6	+0.5
	8.9nm,0.5s,mb4.5						
DMN	Daman	25.61	338	eP	P	16 47 57.7	+0.5
	3.8nm,0.4s,mb4.3						
KKN	Kakani	25.71	338	eP	P	16 47 58.1	0.0
	5.9nm,0.6s,mb4.3						
GKN	Gorkha	26.15	337	eP	P	16 48 01.9	-0.2
	14nm,0.8s,mb4.6						
KOLN	Koldanda	26.36	335	eP	P	16 48 04.1	+0.1
	14nm,0.7s,mb4.6						
SONM	Songino Array	44.70	10	P	P	16 50 40.0	-0.6
	0.7nm,0.6s,mb3.7,baz=194,slow=9.3,SNR=8.3						
SONM				PcP	PcP	16 52 23.3	+0.1
	0.3nm,0.6s,baz=202,slow=3.0,SNR=4.0						
WRA	Warramunga Arr	44.78	123	P	P	16 50 41.8	+0.2
	1.7nm,0.8s,mb3.9,baz=300,slow=9.2,SNR=7.2						
ASAR	Alice Springs	46.26	128	P	P	16 50 53.5	+0.2
	0.5nm,0.7s,mb3.5,baz=300,slow=7.5,SNR=3.9						
ZAL	Zalesovo	50.64	352	P	P	16 51 26.2	-0.6
	1.9nm,0.4s,mb4.4,baz=321,slow=4.0,SNR=7.8						
BVAR	Borovoye Array	53.19	341	P	P	16 51 44.9	-1.1
	2.0nm,0.7s,mb4.2,baz=143,slow=7.4,SNR=19						
FINES	FINESS Array B	76.89	332	P	P	16 54 18.4	-0.9
	1.9nm,0.9s,mb4.0,baz=117,slow=4.3,SNR=4.8						
GERES	GERESS Array B	81.77	319	P	P	16 54 46.6	+0.7
	0.6nm,0.7s,mb3.6,baz=124,slow=4.8,SNR=5.4						

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*IDC **31** 16:48:17.1±1.0, 7.10N×92.05E, mb4.1/9, mb1 4.3/10, mb1mx4.0/19, mbtmp4.1/10, ML4.5/1, MS3.0/1, Ms1 3.2/1, ms1mx2.6/33, Error ellipse: s-maj=44.2km s-min=16.8km az=56.0*

ISC 31 16:48:20.4±0.8**, 7.2N**±0.1×**92.2E**±0.2**, h33**^{km}**, n16, σ0**^{s}**69**/16**, mb4.5**/14**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.03	30	Pn	P	16 51 25.9	0.0
	0.7nm,0.3s,baz=233,slow=14,SNR=64						
CMAR				LR	LR	16 56 41.1	
	comp=Z,73nm,19.9s,baz=205,slow=38						
PKI	Pulchoki	21.29	343	eP	P	16 53 07.2	+0.8
	21nm,0.5s,mb4.7						
DMN	Daman	21.42	343	eP	P	16 53 08.0	+0.4
	14nm,0.4s,mb4.7						
GUN	Gumba	21.48	345	eP	P	16 53 07.8	-0.5
	56nm,0.7s,mb5.0						
KKN	Kakani	21.54	343	eP	P	16 53 08.3	-0.5
	45nm,1.0s,mb4.8						
GKN	Gorkha	21.93	342	eP	P	16 53 12.6	-0.1
	19nm,0.3s,mb5.0						
KOLN	Koldanda	22.05	339	eP	P	16 53 13.6	-0.4
	34nm,0.9s,mb4.8						
SONM	Songino Array	42.31	14	P	P	16 56 13.1	+0.4
	1.6nm,0.7s,mb3.8,baz=191,slow=7.6,SNR=17						
ZAL	Zalesovo	47.02	354	P	P	16 56 50.1	-0.3
	1.0nm,0.6s,mb4.0,baz=304,slow=7.3,SNR=3.2						
BVAR	Borovoye Array	49.06	343	P	P	16 57 05.5	-0.8
	1.3nm,0.7s,mb4.1,baz=135,slow=6.1,SNR=6.4						
WRA	Warramunga Arr	49.47	124	P	P	16 57 09.7	-0.1
	2.4nm,0.7s,mb4.3,baz=304,slow=8.4,SNR=13						
ASAR	Alice Springs	50.98	128	P	P	16 57 21.2	-0.2
	3.1nm,0.6s,mb4.4,baz=300,slow=7.5,SNR=39						
STKA	Stephens Creek	61.05	132	P	P	16 58 33.7	+0.1
	3.8nm,0.7s,mb4.6,baz=280,slow=6.7,SNR=7.5						
FINES	FINESS Array B	72.44	333	P	P	16 59 45.5	+0.4
	5.1nm,1.1s,mb4.4,baz=72,slow=6.0,SNR=7.6						
KAF	Kangasniemi	72.54	333	ep	P	16 59 48.1	+2.4
GERES	GERESS Array B	77.06	318	P	P	17 00 11.2	-0.8
	0.6nm,0.6s,mb3.7,baz=90,slow=4.0,SNR=5.8						

IDC 31 16:51:51.5±3.6**, 0.91S**×**96.82E, mb3.7**/4**, mb1 3.8**/4**, mb1mx3.5**/16**, mbtmp3.7**/4**, Error ellipse: s-maj=136.6km s-min=29.7km az=54.0, Southwest of Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	41.29	120	P	P	16 59 38.8	-1.7
	0.3nm,0.3s,baz=301,slow=9.9,SNR=5.6						
SONM	Songino Array	49.26	9	P	P	17 00 42.8	-1.1
	0.7nm,0.6s,baz=206,slow=8.8,SNR=6.9						
ZAL	Zalesovo	55.56	351	P	P	17 01 28.6	-2.4
	0.5nm,0.3s,baz=289,slow=0.6,SNR=4.5						
BVAR	Borovoye Array	58.11	342	P	P	17 01 45.9	-3.2
	0.7nm,0.6s,baz=149,slow=8.6,SNR=5.6						

IDC 31 17:03:52.8±2.3**, 17.93N**×**93.22E, mb3.5**/3**, mb1 3.7**/4**, mb1mx3.4**/18**, mbtmp3.4**/4**, ML3.6**/1**, Error ellipse: s-maj=47.6km s-min=31.8km az=83.0, Bay of Bengal**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	5.46	84	Pn	Pn	17 05 16.4	-0.9
	0.5nm,0.3s,baz=266,slow=14,SNR=18						
CMAR				Sn	Sn	17 06 18.9	-3.0
	0.4nm,0.3s,baz=273,slow=18,SNR=4.2						
SONM	Songino Array	31.72	17	P	P	17 10 18.7	-1.7
	0.2nm,0.7s,baz=191,slow=7.3,SNR=3.6						
WRA	Warramunga Arr	55.17	131	P	P	17 13 27.0	-2.9
	0.3nm,0.5s,baz=315,slow=7.8,SNR=6.0						
ASAR	Alice Springs	57.32	135	P	P	17 13 43.0	-2.3
	0.3nm,0.7s,baz=313,slow=7.0,SNR=7.2						

IDC 31 17:08:31.3±5.3**, 6.02N**×**91.55E, mb3.4**/2**, mb1 3.6**/3**, mb1mx3.4**/18**, mbtmp3.4**/3**, MS2.9**/1**, Ms1 3.1**/1**, ms1mx2.7**/16**, Error ellipse: s-maj=151.5km s-min=37.9km az=77.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.31	30	Pn	P	17 11 57.1	-0.5
	baz=218,slow=13,SNR=4.6						
CMAR				LR	LR	17 18 03.1	
	comp=Z,48nm,19.7s,baz=200,slow=40						
SONM	Songino Array	43.56	15	P	P	17 16 36.4	-2.2
	0.3nm,0.6s,baz=192,slow=8.0,SNR=3.6						
ASAR	Alice Springs	50.78	127	P	P	17 17 33.9	-1.8
	1.4nm,1.2s,baz=301,slow=7.8,SNR=3.9						

IDC 31 17:12:47.0±4.5**, 19.46N**×**146.53E, mb3.7**/3**, mb1 3.9**/3**, mb1mx3.5**/18**, mbtmp3.7**/3**, Error ellipse: s-maj=278.2km s-min=36.4km az=91.0, Mariana Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	40.94	198	P	P	17 20 31.6	-1.5
	0.4nm,0.4s,baz=19,slow=8.3,SNR=8.0						
ASAR	Alice Springs	44.60	197	P	P	17 21 00.8	-2.2
	0.4nm,0.8s,baz=19,slow=8.1,SNR=4.9						
FINES	FINESS Array B	86.52	335	P	P	17 25 31.8	-1.0
	3.6nm,1.1s,baz=45,slow=5.4,SNR=3.9						

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*IDC **31** 17:18:47.2±0.7, 8.81N×92.30E, mb4.1/15, mb1 4.2/16, mb1mx4.1/22, mbtmp4.1/16, ML3.9/1, MS3.7/2, Ms1 3.8/2, ms1mx3.4/22, Error ellipse: s-maj=33.1km s-min=15.2km az=49.0*

*NEIC **31** 17:18:51.5±3.1, 8.88N×92.79E, h30^{km}, mb4.4/7, Error ellipse: s-maj=60.5km s-min=25.5km az=165.0*

*BJI **31** 17:18:52.5, 8.90N×92.80E, h30^{km}, mb4.7, Ms3.8, Msz3.8*

ISC 31 17:18:50.2±6.5**, 8.8N**±0.1×**92.4E**±0.1**, h31**^{km}±44^{km}**, n44, σ0**^{s}**95**/45**, mb4.3**/24**, MS3.8**/1**, 1D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.52	33	Pn	P	17 21 34.9	-1.0
	0.3nm,0.3s,baz=232,slow=15,SNR=6.3						
CMAR				LR	LR	17 27 00.7	
	comp=Z,296nm,18.9s,baz=215,slow=43						
VIS	Vishakhapatnam	12.54	316	i P	P	17 21 36.2	-13
VIS				i S	S	17 23 53.7	-15
HYB	Hyderabad	15.99	304	eP	P	17 22 40.0	+5.1
HYB	Hyderabad	15.99	304	i P	P	17 22 40.0	+5.1
KMI	Kunming	19.00	30	P	P	17 23 13.5	+1.3
KMI				AMB	AMB		
	comp=Z,8.0nm,0.9s						
KMI				LR	LR		
	comp=N,299nm,20.2s						
KMI				LR	LR		
	comp=E,164nm,21.6s						
KMI				LR	LR		
	comp=Z,358nm,16.2s						
PKI	Pulchoki	19.83	341	eP	P	17 23 21.6	0.0
	comp=Z,17nm,0.6s						
DMN	Daman	19.97	341	eP	P	17 23 22.7	-0.4
	comp=Z,18nm,0.6s						
GUN	Gumba	20.01	343	eP	P	17 23 23.0	-0.4
	comp=Z,30nm,0.6s						
KKN	Kakani	20.08	341	eP	P	17 23 23.9	-0.3
	comp=Z,13nm,0.5s						
GKN	Gorkha	20.49	340	eP	P	17 23 27.8	-0.6
	comp=Z,22nm,0.4s						
KOLN	Koldanda	20.65	337	eP	P	17 23 29.6	-0.5
	comp=Z,22nm,0.6s						
LSA	Lhasa	20.85	357	eP	P	17 23 29.0	-3.1
	comp=Z,6.4nm,0.4s						
GYA	Guiyang	22.18	36	⇓iP	P	17 23 46.3	+0.8
GYA				AMB	AMB		
	comp=Z,30nm,0.8s,mb4.8						
CD2	Chengdu	24.43	24	P	P	17 24 07.8	+0.2
DDI	Dehra Dun	25.30	330	e	P	17 24 16.8	+1.0
ENH	Enshi	26.69	34	eP	P	17 24 27.4	-1.3
LZH	Lanzhou	29.11	19	eP	P	17 24 50.5	-0.1
LZH				AP	pP	17 24 55.8	-3.9
LZH				AMB	AMB		
	comp=Z,11nm,1.0s,mb4.5						
GTA	Gaotai	31.21	11	P	P	17 25 09.8	+0.6
GTA				AP	pP	17 25 14.0	-4.3
GTA				AMB	AMB		
	comp=Z,16nm,1.2s,mb4.7						
KBK	Karagaybulak	37.07	338	P	P	17 26 01.5	+2.0
	SNR=6.4						
TKM2	Tokmak 2	37.07	339	P	P	17 26 01.0	+1.5
	SNR=5.2						
AML	Almayashu	37.09	337	P	P	17 26 01.7	+2.0
	SNR=18						
AAK	Ala-Archa	37.22	338	eP	P	17 26 00.4	-0.3
	comp=Z,11nm,1.3s,mb4.5						
EKS2	Erkin-Say	37.51	337	P	P	17 26 04.9	+1.7
	SNR=8.6						
USP	Ospenovka	37.77	338	P	P	17 26 06.5	+1.2
	SNR=10.0						
SONM	Songino Array	40.69	14	P	P	17 26 29.6	0.0
	comp=Z,4.0nm,0.9s,mb4.1,baz=197,slow=7.8,SNR=30						
SONM				LR	LR	17 45 52.3	
	comp=Z,129nm,19.8s,MS3.8,baz=114,slow=40						
ZAL	Zalesovo	45.45	354	P	P	17 27 08.0	-0.2
	comp=Z,2.0nm,0.5s,mb4.2,baz=287,slow=10.0,SNR=8.1						
BVAR	Borovoye Array	47.60	342	P	P	17 27 24.2	-0.9
	comp=Z,1.0nm,0.6s,mb4.0,baz=141,slow=9.5,SNR=8.6						
BRVK	Borovoye	47.66	342	P	P	17 27 25.1	-0.6
	comp=Z,2.0nm,0.8s,mb4.2						
CHKZ	Chkalovo	48.10	343	eP	P	17 27 28.8	-0.3
	comp=Z,6.7nm,0.9s,mb4.7						
WRA	Warramunga Arr	50.17	125	P	P	17 27 44.9	-0.5
	comp=Z,2.6nm,0.7s,mb4.4,baz=305,slow=8.4,SNR=14						
ASAR	Alice Springs	51.80	129	P	P	17 27 57.7	0.0
	comp=Z,1.3nm,0.8s,mb3.9,baz=303,slow=7.6,SNR=11						
ASAR				PcP	PcP	17 29 11.9	+1.3
	comp=Z,0.5nm,0.6s,baz=302,slow=3.5,SNR=4.9						
KIV	Kislovodsk	55.51	318	eP	P	17 28 24.9	+0.1
	comp=Z,4.5nm,0.6s,mb4.7						
MALT	Malatya	56.58	310	eP	P	17 28 32.2	-0.4
	comp=Z,3.1nm,0.6s,mb4.5						
EIL	Elat	57.50	300	eP	P	17 28 39.6	+0.3
	comp=Z,1.7nm,0.7s,mb4.2						
BRTR	Keskin Array B	60.55	311	P	P	17 28 59.0	-1.2
	comp=Z,2.2nm,1.0s,mb4.2,baz=123,slow=8.4,SNR=8.2						
STKA	Stephens Creek	61.96	133	P	P	17 29 10.9	+1.0
	comp=Z,2.6nm,0.7s,mb4.5,baz=325,slow=6.9,SNR=4.2						
AKASG	Malin Array Be	66.39	322	P	P	17 29 35.8	-2.7
	comp=Z,1.1nm,0.7s,mb4.0,baz=89,slow=5.0,SNR=6.4						
MLR	Muntele Rosu	67.34	316	P	P	17 29 44.6	-0.1
	comp=Z,3.1nm,0.8s,mb4.4,baz=9.4,slow=3.4,SNR=6.3						
FINES	FINESS Array B	71.12	332	P	P	17 30 06.0	-1.5
	comp=Z,4.6nm,1.0s,mb4.4,baz=121,slow=11,SNR=5.1						
GERES	GERESS Array B	76.02	318	P	P	17 30 36.5	+0.1
	comp=Z,1.4nm,0.8s,mb3.9,baz=104,slow=5.5,SNR=9.9						
HFS	Hagfors	76.82	330	P	P	17 30 40.7	+0.1
	comp=Z,3.4nm,0.9s,mb4.3,baz=135,slow=4.2,SNR=4.8						
NOA	NORSAR Array B	78.11	331	P	P	17 30 47.2	-0.5
	comp=Z,0.9nm,0.7s,mb3.8,baz=93,slow=5.7,SNR=4.2						
DAVOX	Davos	78.56	316	P	P	17 30 51.2	+0.8
	comp=Z,1.0nm,0.5s,mb4.0,baz=347,slow=19,SNR=5.5						
ILAR	Eielson Array	94.55	22	P	P	17 32 08.3	-0.4
	comp=Z,0.5nm,0.8s,mb4.0,baz=304,slow=5.0,SNR=6.7						

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*NEIC **31** 17:30:05.2±1.3, 20.58S×178.65W, h542^{km}±14^{km}, mb4.5/15, Error ellipse: s-maj=18.7km s-min=11.1km az=152.0*

*IDC **31** 17:30:08.0±1.6, 20.85S×178.75W, h578^{km}±18^{km}, mb3.6/13, mb1 3.8/13, mb1mx3.7/16, mbtmp4.5/13, Error ellipse: s-maj=19.1km s-min=10.1km az=155.0*

ISC 31 17:30:02.3±1.4**, 20.77S**±0.08×**178.65W**±0.09**, h519**^{km}±17^{km}**, n77, σ0**^{s}**88**/39**, mb4.2**/25**, 1C-4D, Fiji Islands**

region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AFI	Afiamalu	9.47	45	eP	P	17 32 15.7	+0.4
URZ	Urewera	17.81	191	P	P	17 33 39.0	-0.7
	2.1nm,0.3s,baz=350,slow=5.1,SNR=6.9						
URZ				S	S	17 36 36.8	+1.6
	1.6nm,0.3s,baz=201,slow=21,SNR=3.6						
RPZ	Rata Peaks	24.44	198	P	P	17 34 39.8	-1.2
	3.5nm,0.5s,mb4.3,baz=315,slow=2.9,SNR=3.7						
CTA	Charters Tower	32.86	265	eP	P	17 35 56.2	+1.9
	8.4nm,0.4s,mb4.6						
CTAO	Charters Tower	32.86	265	eP	P	17 35 55.6	+1.3
	9.7nm,0.4s,mb4.7						
PMG	Port Moresby	34.81	284	P	P	17 36 10.4	-0.3
	27nm,0.7s,mb4.9,baz=65,slow=6.2,SNR=12						
PMG	Port Moresby	34.81	284	eP	P	17 36 12.4	+1.7
	26nm,0.8s,mb4.8						
STKA	Stephens Creek	37.12	244	eP	P	17 36 31.0	+1.4
	7.5nm,1.1s,mb4.1						
STKA	Stephens Creek	37.12	244	P	P	17 36 29.4	-0.2
	4.0nm,0.5s,mb4.2,baz=100,slow=11,SNR=14						
STKA				PcP	PcP	17 38 34.2	-2.6
	0.9nm,0.7s,baz=112,slow=16,SNR=3.0						
ASAR	Alice Springs	43.86	257	P	P	17 37 24.3	+0.5
	12nm,0.5s,mb4.7,baz=93,slow=7.8,SNR=312						
ASAR				PcP	PcP	17 38 57.4	-1.8
	3.6nm,0.6s,baz=105,slow=4.0,SNR=11						
ASAR				S	S	17 43 12.3	-5.1
	1.4nm,0.8s,baz=93,slow=17,SNR=11						
ASAR				PKiKP		17 45 54.1	
	0.3nm,0.7s,baz=121,slow=1.7,SNR=3.6						
ASPA	Alice Springs	43.87	257	⇓iP	P	17 37 24.3	+0.5
WB2	Warramunga Arr	43.95	262	⇓iP	P	17 37 24.5	0.0
WRAB	Tennant Creek	43.95	262	eP	P	17 37 24.0	-0.6
	25nm,1.0s,mb4.7						
WRA	Warramunga Arr	43.96	262	P	P	17 37 24.5	-0.1
	4.7nm,0.3s,mb4.4,baz=97,slow=7.4,SNR=277						
WRA				S	S	17 43 14.4	-4.4
	1.0nm,0.8s,baz=97,slow=12,SNR=5.3						
KAKA	Kakadu	47.41	272	eP	P	17 37 50.9	-0.4
	10.0nm,0.6s,mb4.5						
FITZ	Fitzroy Crossi	52.39	263	eP	P	17 38 28.0	-0.1
	7.9nm,0.4s,mb4.4						
MBWA	Marble Bar	57.20	258	eP	P	17 39 00.6	-1.1
	18nm,0.6s,mb4.5						
KLBR	Kellerberrin	57.39	245	eP	P	17 39 01.9	-0.9
	18nm,0.7s,mb4.4						
VNDA	Vanda	57.59	185	P	P	17 39 03.1	-0.5
	0.6nm,0.5s,mb3.1,baz=351,slow=8.4,SNR=7.7						
VNDA	Vanda	57.59	185	eP	P	17 39 03.5	-0.1
	1.4nm,0.7s,mb3.3						
NWAO	Narrogin (SRO)	57.70	244	eP	P	17 39 03.5	-1.5
	4.7nm,0.6s,mb3.9						
MUN	Mundaring	58.66	245	eP	P	17 39 11.0	-0.4
	8.1nm,0.5s,mb4.2						
QSPA	South Pole Qui	69.30	180	⇓iP	P	17 40 17.8	-0.3
	8.0nm,0.5s,mb4.5						
YBH	Yreka Blue Hor	80.88	39	P	P	17 41 24.1	+1.1
	2.7nm,0.9s,mb3.7,baz=170,slow=6.1,SNR=4.0						
NVAR	Mina Array Bea	81.64	44	P	P	17 41 27.3	+0.4
	1.8nm,0.6s,mb3.7,baz=225,slow=8.5,SNR=12						
ELK	Elko	84.89	43	eP	P	17 41 43.0	-0.1
	1.9nm,0.9s,mb3.6						
ENH	Enshi	85.69	304	eP	P	17 41 47.4	+0.2
	10.0nm,0.8s,mb4.5						
TXAR	Lajitas Array	87.72	58	P	P	17 41 56.9	+0.2
	2.7nm,0.9s,mb4.0,baz=220,slow=5.7,SNR=19						
VNA3	Neumayer Olymp	87.91	176		P	17 42 00.2	+3.5
VNA2	Neumayer--Watz	88.34	177		P	17 42 02.6	+3.9
ILAR	Eielson Array	88.72	13	P	P	17 41 59.5	-1.0
	1.0nm,0.5s,mb3.9,baz=222,slow=5.6,SNR=23						
MOOW	Moose Ponds	89.31	42	eP	P	17 42 03.8	-0.1
PDAR	Pinedale Array	89.58	43	P	P	17 42 05.2	+0.1
	2.3nm,0.7s,mb4.1,baz=219,slow=2.7,SNR=19						
CM31	Chiang Mai Arr	89.63	290	eP	P	17 42 06.7	+0.8
	4.7nm,0.9s,mb4.3						
CMAR	Chiang Mai Arr	89.63	290	P	P	17 42 06.8	+0.9
	3.7nm,0.8s,mb4.3,baz=117,slow=3.1,SNR=29						
YKA	Yellowknife Ar	97.01	25	P	P	17 42 37.2	-1.4
	0.2nm,0.7s,mb3.4,baz=244,slow=4.9,SNR=4.3						
ZAL	Zalesovo	110.33	321	PKiKP		17 47 32.4	
	0.8nm,0.7s,baz=343,slow=8.1,SNR=3.8						
BVAR	Borovoye Array	118.89	320	PKP	PKPdf	17 47 50.0	-1.1
	2.6nm,0.4s,baz=125,slow=1.7,SNR=39						
ARCES	ARCESS Array B	129.08	349	PKP	PKPdf	17 48 08.9	-1.5
	3.5nm,0.8s,slow=2.4,SNR=8.2						
FINES	FINESS Array B	135.86	343	PKP	PKPdf	17 48 21.1	-2.1
	2.5nm,1.0s,baz=27,slow=4.3,SNR=6.5						
FINES				SKPbc		17 51 00.5	
	1.6nm,0.7s,slow=1.4,SNR=8.9						
NB2	NORSAR Subarra	139.18	353	PKP	PKPdf	17 48 22.4	-6.9
	0.7nm,0.6s,baz=8.0,slow=3.0						
NB2	NORSAR Subarra	139.18	353	⇑PKPab	PKPdf	17 48 22.4	-6.9
NOA	NORSAR Array B	139.18	353	PKhKP		17 48 20.8	
	1.4nm,0.9s,baz=15,slow=4.4,SNR=3.8						
AKASG	Malin Array Be	142.95	330	PKhKP		17 48 33.0	
	7.0nm,0.4s,baz=41,slow=4.2,SNR=94						
MALT	Malatya	143.61	307	ePKPdf	PKPdf	17 48 37.3	-0.3
MBAR	Mbarara	144.26	237	ePKPdf	PKPdf	17 48 38.7	-0.7
BSEG	Bad Segeberg	146.19	350	ePKPbc	PKPbc	17 48 44.4	+1.1
DMUB	Kingscourt	146.33	9	eP	PKPdf	17 48 44.0	+2.2
ASF	Jabal al Asfar	146.36	297	PKPbc	PKPbc	17 48 45.5	+1.1
	5.5nm,0.7s,baz=127,slow=4.2,SNR=10.0						
BRTR	Keskin Array B	146.57	312	PKPbc	PKPbc	17 48 44.9	+0.3
	4.2nm,0.8s,baz=134,slow=4.5,SNR=22						
DCN	Croghan	146.82	9	eP	PKPdf	17 48 45.0	+2.4
DLF	Lyons Farm	146.97	9	eP	PKPdf	17 48 46.0	+3.2
KOLS	Kolonicke sedl	147.30	334	ePKP	PKPdf	17 48 47.6	+4.1
CRVS	Cervenica-Dubn	147.65	335	i PKP	PKPdf	17 48 48.3	+4.3
MLR	Muntele Rosu	148.12	326	PKPbc	PKPdf	17 48 49.1	+4.2
	5.1nm,0.6s,baz=90,slow=1.0,SNR=16						
UPC	Upice	148.15	342	ePKPbc	PKPdf	17 48 49.4	+4.6
CLL	Collm	148.19	346	⇓iPKP1	PKPdf	17 48 49.3	+4.5
CLL				i PKP2	PKPab	17 48 54.5	-1.7
DPC	Dobruska-Polom	148.20	342	ePKPbc	PKPdf	17 48 49.9	+5.0
DPC				ePKPab	PKPab	17 48 55.7	-0.5
CLZ	Clausthal	148.20	349	ePKPbc	PKPdf	17 48 49.8	+5.0
MORC	Moravsky Berou	148.33	340	ePKPbc	PKPdf	17 48 49.9	+4.8
BRG	Berggiesshubel	148.37	345	eP	PKPdf	17 48 49.9	+4.8
EIL	Elat	148.43	293	PKPbc	PKPdf	17 48 50.4	+4.5
	5.2nm,0.8s,baz=321,slow=8.3,SNR=8.9						
EIL	Elat	148.43	293	ePKPbc	PKPdf	17 48 50.8	+4.9
CSS	Prodhromos	148.55	304	ePKPbc	PKPdf	17 48 50.3	+4.3
VYHS	Vyhne	148.98	337	i PKP	PKPdf	17 48 51.6	+5.4
VYHS				i		17 48 59.0	
PRU	Pruhonice	149.03	343	ePKPbc	PKPdf	17 48 51.7	+5.5
PSZ	Piszkesteto	149.06	335	ePKPbc	PKPdf	17 48 51.5	+5.1
PSZ				ePKPab	PKPab	17 48 58.6	-1.2
MOX	Moxa	149.11	347	ePKP	PKPdf	17 48 51.8	+5.5
NKC	Novy Kostel	149.32	346	ePKPbc	PKPdf	17 48 52.1	+5.4
NKC				ePKPab	PKPab	17 48 59.7	-1.1
KHC	Kasperske Hory	150.06	344	ePKPbc	PKPdf	17 48 54.0	+6.1
KHC				ePKPab	PKPab	17 49 03.1	-0.8
GRA1	Grafenberg Arr	150.09	347	ePKPbc	PKPdf	17 48 54.2	+6.3
GRA1				ePKPab	PKPab	17 49 03.3	-0.7
GRF	Grafenberg Arr	150.09	347	ePKP	PKPdf	17 48 54.2	+6.3
GRF				ePKP	PKPdf	17 49 03.3	+15
GEC2	GERESS Array S	150.29	343	ePKPbc	PKPdf	17 48 54.5	+6.2
GERES	GERESS Array B	150.29	343	PKPbc	PKPdf	17 48 54.2	+5.9
	2.5nm,0.6s,baz=24,slow=2.2,SNR=21						
FUR	Furstenfeldbru	151.52	346	ePKPbc	PKPdf	17 48 57.2	+7.1
BFO	Black Forest	151.94	350	ePKPbc	PKPdf	17 48 58.3	+7.7
BFO				ePKPab	PKPab	17 49 10.2	-1.6
ESDC	Sonseca Array	160.62	12	PKPab	PKPab	17 49 47.9	-1.2
	1.2nm,1.0s,baz=2.8,slow=4.2,SNR=5.3						

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*CSEM **31** 17:33:50.4,34.24N×9.73E,h10^{km},MD3.7,After SBS*

TUN 31 17:33:50.4,34.24N×9.73E,h10^{km},MD3.7,Tunisia

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SGNT	Sidi Gnaou	0.59	168	i P	Pg	17 34 06.0	+3.6
MART	Mareth	0.79	146	i P	Pb	17 34 11.0	+5.2
TROT	Trozza	1.32	356	i P	Pb	17 34 18.0	+3.2

IDC 31 17:36:32.2±5.0,8.03N×92.69E,mb3.6/2,mb1 3.6/3,mb1mx3.3/18,mbtmp3.3/3,ML3.5/1,Error ellipse: s-maj=140.0km s-min=35.0km az=77.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.01	30	Pn	P	17 39 24.8	-3.1
	0.1nm,0.3s,baz=227,slow=15,SNR=5.0						
SONM	Songino Array	41.34	14	P	P	17 44 19.8	-1.6
	0.7nm,0.7s,baz=194,slow=9.0,SNR=6.8						
WRA	Warramunga Arr	49.52	125	P	P	17 45 25.1	-2.0
	0.4nm,0.6s,baz=301,slow=9.3,SNR=5.1						

CASC 31 17:38:13.0±1.9,13.75N×91.26W,h21^{km}±8^{km},MD3.8,ML3.9,9C-3D,Near coast of Guatemala

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
FUG	Fuego 3	0.80	30	⇑eP	Pb	17 38 28.4	+0.3
IXG	Ixpaco	0.89	62	⇑eP	Pb	17 38 29.6	0.0
IXG				eS	Sb	17 38 42.0	+1.0
IXG				AML	AML	17 38 44.9	
	comp=E,7μm,0.4s						
PCG	Pacaya	0.90	45	⇓eP	Pb	17 38 30.4	+0.7
PCG				eS	Sb	17 38 43.7	+2.4
TP2	Tecpan 2	1.05	13	⇑eP	Pb	17 38 32.6	+0.3
TP2				eS	Sb	17 38 47.6	+2.0
TP2				AML	AML	17 38 48.6	
	comp=N,3μm,0.2s						
NBG	Las Nubes	1.21	47	⇑eP	Pn	17 38 35.5	+0.5
NBG				eS	Sb	17 38 52.9	+2.5
NBG				AML	AML	17 38 54.2	
	comp=N,12μm,0.3s						
RBDL	Robledal	1.57	77	⇑eP	Pn	17 38 40.3	+0.3
RBDL				eS	Sn	17 39 01.3	+1.5
RTR	El Retiro	1.58	85	⇓eP	Pn	17 38 40.1	0.0
RTR				eS	Sn	17 39 01.1	+1.1
SBLS	San Blas	1.59	87	eP	Pn	17 38 40.0	-0.4
SBLS				eS	Sn	17 39 01.1	+0.7
SNJE	San Jose	1.61	86	⇑eP	Pn	17 38 40.4	-0.2
SNJE				eS	Sn	17 39 01.8	+0.9
BOQS	Boqueron	1.93	90	eP	Pn	17 38 45.0	-0.1
MTO2	Montecristo 2	1.95	71	eP	Pn	17 38 44.5	-0.9
MTO2				eS	Sn	17 39 11.4	+1.8
LFU	La Fuente	2.09	90	⇑eP	Pn	17 38 47.4	0.0
LFRS	El Faro	2.14	93	⇓eP	Pn	17 38 47.9	-0.3
LFRS				eS	Sn	17 39 14.3	-0.1
LBRS	Las Brisas	2.15	90	eP	Pn	17 38 48.2	-0.2
LCBS	La Ceiba	2.22	92	⇑eP	Pn	17 38 49.2	-0.1
LCBS				eS	Sn	17 39 15.3	-1.1
SNVI	San Vicente	2.36	93	⇑eP	Pn	17 38 51.6	+0.3
SNVI				eS	Sn	17 39 19.4	-0.5
CNCH	Conchagua	3.37	98	eP	Pn	17 39 05.6	-0.1
CNCH				eS	Sn	17 39 44.2	-1.3

IDC 31 17:38:47.2±1.9,6.87N×93.05E,mb3.5/4,mb1 3.6/5,mb1mx3.5/18,mbtmp3.4/5,ML3.4/1,Error ellipse: s-maj=63.4km s-min=25.4km az=63.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.87	26	Pn	P	17 41 53.4	-0.9
	0.1nm,0.3s,baz=217,slow=15,SNR=4.1						
SONM	Songino Array	42.38	13	P	P	17 46 42.7	-2.2
	0.7nm,1.1s,baz=192,slow=9.6,SNR=3.9						
WRA	Warramunga Arr	48.58	124	P	P	17 47 32.5	-2.3
	0.3nm,0.4s,baz=305,slow=8.6,SNR=8.7						
ASAR	Alice Springs	50.13	129	P	P	17 47 45.1	-1.5
	0.2nm,0.4s,baz=302,slow=8.1,SNR=7.2						
FINES	FINESS Array B	73.09	332	P	P	17 50 19.1	-1.9
	1.7nm,0.9s,baz=45,slow=8.1,SNR=4.4						

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*MOS **31** 17:48:02.4±0.9,4.80N×95.18E,h33^{km},mb5.6/78,MS5.3/19,Error ellipse: s-maj=8.3km s-min=4.0km az=124.7*

*BJI **31** 17:48:03.5,4.68N×95.03E,h52^{km},mB5.7,mb5.5,Ms5.6,Msz5.3*

*NEIC **31** 17:48:05.7±1.1,4.73N×95.14E,h49^{km}±9^{km},mb5.4/108,MW5.8,Error ellipse: s-maj=5.3km s-min=3.4km az=216.0,Moment Tensor Solution. s26 Moment tensor: Scale 10^{17} Nm; M_{rr}1.89; $M_{\theta\theta}$1.48; $M_{\phi\phi}$-3.37; $M_{r\theta}$3.25; $M_{\theta\phi}$0.01; $M_{\phi r}$-3.31; Best double couple: $M_0$5.5×10^{17} NP1:ϕ_s32°,δ28°,λ156°. NP2:ϕ_s143°,δ79°,λ64°. Principal axes: T 5.63, Plg49°, Azm25°; N -.32, Plg25°, Azm149°; P -5.32, Plg29°, Azm254°;*

*HRVD **31** 17:48:05.7±0.2,4.68N×95.09E,h24^{km},MW5.9/62,Centroid moment Tensor Solution. LP body waves: s60,c119;Mantle waves: s62,c123; Half duration: 2^{s}2 Moment tensor: Scale 10^{17}Nm; M_{rr}1.02±.06; $M_{\theta\theta}$-0.41±.05; $M_{\phi\phi}$-0.61±.06; $M_{r\theta}$6.44±.20; $M_{\theta\phi}$0.31±.05; $M_{\phi r}$-6.84±.20; Best double couple: $M_0$9.44×10^{17} NP1: ϕ_s326°,δ3°,λ100°. NP2:ϕ_s137°,δ87°,λ90°. Principal axes: T 9.54, Plg48°, Azm46°; N -.2, Plg0°, Azm137°; P -9.34, Plg42°, Azm227°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*IDC **31** 17:48:06.6±0.4,4.83N×95.23E,h55^{km}±3^{km},mb5.1/24,mb1 5.1/24,mb1mx5.1/24,mbtmp5.3/24,MS5.1/23,Ms1 5.1/23,ms1mx4.9/28 Error ellipse: s-maj=15.2km s-min=8.7km az=47.0*

ISC 31 17:48:03.4±0.7,4.74N±0.03×95.17E±0.02,h44^{km}±6^{km},h50^{km}±1.3^{km}:pP-P,n628,σ1^{s}02/603,mb5.4/171,MS5.2/60,75C-22D,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	11.91	24	P	P	17 50 57.0	+3.5
	268nm,0.7s						
CM31	Chiang Mai Arr	14.13	15	eP	P	17 51 25.3	+2.4
	144nm,0.4s						
CMAR	Chiang Mai Arr	14.13	15	P	P	17 51 23.5	+0.6
	7.9nm,0.3s,baz=207,slow=12,SNR=195						
CMAR				S	S	17 54 08.9	+10
	baz=208,slow=13,SNR=2.0						
CMAR				LR	LR	17 56 53.8	
	comp=Z,10μm,20.7s,baz=200,slow=38						
CMAR				ScP		18 00 10.5	
	0.2nm,0.3s,baz=226,slow=3.3,SNR=16						
UBT	Ubonrachathani	14.24	42	⇓P	P	17 51 31.5	+7.1
CHRT	Chiangrai	15.70	16	⇑P	P	17 51 47.0	+3.7
	803nm,0.9s						
MDRS	Chennai	16.90	300	eP	P	17 51 58.7	+0.2
MDRS				e		17 52 06.2	
	comp=Z,392nm,1.5s						
VIS	Vishakhapatnam	17.35	319	⇑iP	P	17 52 03.5	-0.6
VIS				e		17 52 06.8	
	comp=Z,292nm,1.2s						
VIS				eS	S	17 55 16.0	+2.2
VIS				i		17 59 26.2	
	comp=Z,3μm,20.5s						
BWNR	Bhubaneshwar	17.95	330	e	P	17 52 09.3	-2.3
	comp=Z,266nm,0.7s						
BWNR				e		17 54 56.0	
	comp=Z,274nm,0.6s						
KOD	Kodaikanal	18.38	288	⇓iP	P	17 52 18.5	+1.6
KOD				e		17 59 22.0	
	comp=Z,8μm,20.7s						
TRD	Trivandrum	18.48	283	⇓eP	P	17 52 18.2	+0.1
TRD				e		17 55 25.8	
TRD				e		17 59 16.3	
	comp=Z,7μm,20.0s						
CAL	Calcutta	18.90	340	eP	P	17 52 22.2	-0.9
CAL				e		17 56 05.5	
AGT	Agartala	19.41	349	⇑i	P	17 52 17.0	-12
AGT				i		17 54 18.0	
QIZ	Qiongzhong	20.17	44	P	P	17 52 39.0	+2.0
QIZ				PP	PP	17 53 02.0	+4.5
QIZ				S	S	17 56 18.5	+2.4
QIZ				SS	SS	17 56 53.0	+6.8
QIZ				LR	LR		
	comp=N,6μm,19.7s,MS5.1						
QIZ				LR	LR		
	comp=E,6μm,17.5s,MS5.1						
QIZ				LR	LR		
	comp=Z,10μm,25.2s						
QIZ	Qiongzhong	20.17	44	eP	P	17 52 37.9	+0.9
	comp=Z,52nm,0.8s						
HYB	Hyderabad	20.59	309	eP	P	17 52 42.5	+1.1
HYB				eS	S	17 56 20.0	-4.1
HYB				pmax	pmax		
	comp=Z,425nm,1.4s						
HYB	Hyderabad	20.59	309	eP	P	17 52 42.5	+1.1
	comp=Z,425nm,1.4s						
HYB				eS	S	17 56 20.0	-4.1
HYB	Hyderabad	20.59	309	⇑iP	P	17 52 42.5	+1.1
	comp=Z,425nm,1.4s						
HYB				eS	S	17 56 20.0	-4.1
HYB				LR	LR	17 59 52.0	
	comp=Z,3.5nm,20.0s						
SHL	Shillong	20.95	352	⇑eP	P	17 52 40.6	-4.5
SHL				e		17 52 44.0	
	comp=Z,41nm,0.4s						
SHL				eS	S	17 56 31.7	+0.6
SHL				i		18 03 10.1	
	comp=Z,5μm,22.3s						
BOK	Bokaro	20.96	336	⇑eP	P	17 52 43.1	-2.1
BOK				e		17 52 52.3	
	comp=Z,280nm,1.2s						
BOK				i		18 01 44.9	
	comp=Z,4μm,21.3s						
BLSP	Bilaspur	21.41	325	⇑iP	P	17 52 49.8	+0.1
BLSP				e		17 52 52.1	
	comp=Z,470nm,0.9s						
BLSP				eS	S	17 56 45.1	+5.3
KMI	Kunming	21.54	19	P	P	17 52 53.0	+2.1
KMI				XP		17 53 06.3	
KMI				PP	PP	17 53 21.0	+4.9
KMI				S	S	17 56 48.5	+6.4
KMI				XS		17 57 04.5	
KMI				AMB	AMB		
	comp=Z,99nm,1.4s,mb5.0						
KMI				AMB	AMB		
	comp=Z,2μm,6.0s						
KMI				LR	LR		
	comp=N,11μm,13.8s,MS5.5						
KMI				LR	LR		
	comp=E,6μm,16.6s,MS5.5						
KMI				LR	LR		
	comp=Z,13μm,26.3s						
MNGI	Mangalore	21.68	293	⇓eP	P	17 52 54.8	+2.3
MNGI				e		18 01 23.6	
	comp=Z,7μm,20.7s						
MNCY	Minicoy	22.27	280	⇓iP	P	17 53 02.0	+3.7
MNCY				i		17 54 52.0	
NGP	Nagpur	22.61	318	⇑eP	P	17 53 03.8	+2.0
NGP				eS	S	17 57 09.9	+8.0
BATP	Bataraza	22.82	79	eP	P	17 53 05.4	+1.5
GOA	Goa	23.55	299	⇑e	P	17 53 20.6	+10
	comp=Z,404nm,1.7s,mb5.6						
GOA				e		17 57 30.5	
AKL	Akola	23.74	314	⇓iP	P	17 53 16.5	+3.8
	comp=Z,360nm,1.3s,mb5.6						
AKL				e		17 53 22.7	
	comp=Z,322nm,1.3s						
AKL				i S	S	17 57 27.9	+6.2
KAD	Karad	24.06	303	⇑eP	P	17 53 18.3	+2.5
KAD				e		17 53 22.2	
	comp=Z,325nm,1.6s						
ALBI	Allahabad	24.15	329	eP	P	17 53 15.5	-1.1
GYA	Guiyang	24.24	26	⇑iP	P	17 53 19.0	+1.5
GYA				AP		17 53 30.5	
GYA				XP		17 53 35.3	
GYA				S	S	17 57 36.3	+6.1
GYA				AMB	AMB		
	comp=Z,140nm,0.6s,mb5.6						
GYA				AMB	AMB		
	comp=Z,380nm,4.1s						
GYA				LR	LR		
	comp=N,1μm,16.4s,MS4.7						
GYA				LR	LR		
	comp=E,1μm,16.0s,MS4.7						
GYA				LR	LR		
	comp=Z,2μm,15.8s,MS4.7						
PKI	Pulchoki	24.54	339	eP	P	17 53 20.1	-0.4
	comp=Z,86nm,0.4s,mb5.6						
DMN	Daman	24.69	338	eP	P	17 53 21.0	-0.9
	comp=Z,161nm,0.7s,mb5.7						
GUN	Gumba	24.69	340	eP	P	17 53 21.0	-0.9
	comp=Z,248nm,0.5s,mb6.0						
KKN	Kakani	24.79	339	eP	P	17 53 22.3	-0.6
	comp=Z,124nm,0.5s,mb5.7						
ENPP	El Nido	24.85	74	eP	P	17 53 26.2	+2.6
POO	Poona	24.94	305	eP	P	17 53 26.6	+2.2
POO				e		17 53 28.6	
	comp=Z,192nm,1.3s						
LSA	Lhasa	25.12	352	eP	P	17 53 26.3	+0.3
LSA				pmax	pmax		
	comp=Z,96nm,0.5s,mb5.6						
LSA	Lhasa	25.12	352	eP	P	17 53 26.3	+0.3
	comp=Z,96nm,0.5s,mb5.6						
LSA				eScP		18 00 36.2	
BHPL	Bhopal	25.14	319	⇑iP	P	17 53 27.1	+0.8
BHPL				e		17 53 32.2	
	comp=Z,185nm,1.2s						
BHPL				i		17 58 15.3	
GKN	Gorkha	25.22	338	eP	P	17 53 25.7	-1.3
	comp=Z,190nm,0.3s,mb6.0						
HKC	Hong Kong	25.36	45	P	P	17 53 34.0	+5.7
KOLN	Koldanda	25.42	336	eP	P	17 53 27.9	-1.0
	comp=Z,384nm,0.6s,mb6.1						
DGAR	Diego Garcia	25.68	242	eP	P	17 53 31.1	-0.3
DGAR				pmax	pmax		
	comp=Z,66nm,0.6s,mb5.3						
DGAR	Diego Garcia	25.68	242	eP	P	17 53 31.1	-0.3
	comp=Z,66nm,0.6s,mb5.3						
BOM	Bombay	25.97	305	eP	P	17 53 37.0	+3.0
BOM				e		17 58 04.9	
	comp=Z,1μm,1.9s						
BOM				eS	S	17 58 05.2	+6.0
SJMP	San Jose	26.76	72	eP	P	17 53 42.6	+1.2
TGY	Tagaytay City	27.04	68	P	P	17 53 43.8	-0.1
	comp=Z,174nm,0.6s,mb5.8,baz=188,slow=4.2,SNR=9.1						
ABRA	Dolores	28.09	61	eP	P	17 53 54.0	+0.5
BALP	Baler	28.15	65	eP	P	17 53 57.1	+3.1
LGTI	Lohaghat	28.35	332	eP	P	17 53 56.0	+0.3
PTH	Pithoragarh	28.45	332	eP	P	17 53 56.2	-0.4
PTH				e		17 58 38.1	
APYP	Conner	28.64	61	eP	P	17 53 59.3	+0.9
ENH	Enshi	28.77	26	eP	P	17 53 58.0	-1.4
	comp=Z,63nm,0.7s,mb5.5						
ENH				eS	S	17 58 42.0	-2.5
CAUP	Cauayan	28.80	63	eP	P	17 54 00.3	+0.6
AJM	Ajmer	29.20	320	i P	P	17 54 03.0	-0.3
NDI	New Delhi	29.29	326	eP	P	17 54 02.0	-2.0
NDI				e		17 58 50.0	
NDI				e		18 00 06.0	
BUKP	Musuan	29.87	82	eP	P	17 54 09.9	+0.6
PVCP	Virac	29.90	71	eP	P	17 54 09.7	+0.1
DDI	Dehra Dun	30.14	330	eP	P	17 54 11.3	-0.3
DDI				eS	S	17 59 08.0	+1.8
DAV	Davao City (W)	30.33	84	eP	P	17 54 20.0	+6.6
WHN	Wuhan	31.40	33	⇑P	P	17 54 23.5	+0.8
WHN				S	S	17 59 24.0	-1.9
WHN				LR	LR		
	comp=N,5μm,15.8s,MS5.7						
WHN				LR	LR		
	comp=E,11μm,13.3s,MS5.7						
WHN				LR	LR		
	comp=Z,21μm,14.3s,MS6.0						
SDNR	Sundarnagar	31.64	329	eP	P	17 54 25.8	+1.0
XAN	Xi'an	31.84	22	P	P	17 54 25.5	-1.0
XAN				AMB	AMB		
	comp=Z,285nm,0.6s,mb6.3						
BHK	Bhakra	31.86	329	e	P	17 54 40.1	+13
BHK				eS	S	17 59 33.9	+0.7
LZH	Lanzhou	32.21	13	eP	P	17 54 28.8	-0.9
LZH				AP	pP	17 54 41.5	0.0
LZH				XP	sP	17 54 47.0	-0.1
LZH				PP	PP	17 55 36.0	-1.6
LZH				S	S	17 59 35.3	-3.3
LZH				SCP		18 00 57.8	
LZH				SS	SS	18 01 30.0	-4.4
LZH				SCS	ScS	18 04 54.5	+0.5
LZH				AMB	AMB		
	comp=Z,111nm,1.3s,mb5.5						
LZH				AMB	AMB		
	comp=Z,410nm,4.0s						
LZH				LR	LR		
	comp=E,6μm,12.6s						
LZH				LR	LR		
	comp=Z,7μm,14.2s,MS5.5						
DLH	Dalhousie	32.98	329	eP	P	17 54 38.0	+1.5
DLH				e	pP	17 54 50.0	+1.7
THN	Thein Dam	33.02	329	eP	P	17 54 35.7	-1.2
THN				eS	S	17 59 54.1	+2.8
GTA	Gaotai	34.77	6	⇑iP	P	17 54 51.3	-0.6
GTA				AP	pP	17 55 02.5	-1.2
GTA				XP	sP	17 55 08.3	-1.0

GTA				PP	PP	17 56 09.3	-0.7
GTA				S	**S**	**18 00 16.3**	**-2.1**
GTA				XS		18 00 37.0	
GTA				SCP		18 01 06.5	
GTA				SCS	ScS	18 05 06.8	-0.5
GTA				AMB	AMB		
	comp=Z,90nm,1.2s,mb5.6						
GTA				AMB	AMB		
	comp=Z,670nm,11.0s						
GTA				LR	LR		
	comp=N,3µm,18.2s,MS5.1						
GTA				LR	LR		
	comp=E,3µm,22.8s,MS5.1						
GTA				LR	LR		
	comp=Z,4µm,31.6s						
NJ2	**Nanjing**	**35.08**	**36**	*e*P	**P**	**17 54 55.0**	**+0.4**
NJ2				AP	pP	17 55 07.5	+1.1
NJ2				XP	sP	17 55 13.0	+1.0
NJ2				PP	PP	17 56 15.3	+1.3
NJ2				S	**S**	**18 00 26.3**	**+3.1**
NJ2				XS		18 00 46.0	
NJ2				AMB	AMB		
	comp=Z,230nm,0.5s,mb6.4						
NJ2				AMB	AMB		
	comp=Z,110nm,5.7s						
NJ2				LR	LR		
	comp=N,390nm,17.6s						
NJ2				LR	LR		
	comp=E,1µm,12.0s						
NJ2				LR	LR		
	comp=Z,1µm,15.3s,MS4.7						
MBWA	**Marble Bar**	**35.25**	**138**	*e*P	**P**	**17 54 53.8**	**-2.2**
	comp=Z,50nm,0.9s,mb5.5						
SSE	**Sheshan**	**35.86**	**40**	P	**P**	**17 55 00.0**	**-1.2**
SSE				S	**S**	**18 00 35.5**	**+0.3**
SSE				AMB	AMB		
	comp=Z,26nm,0.7s,mb5.3						
SSE				AMB	AMB		
	comp=Z,483nm,9.6s						
SSE				LR	LR		
	comp=N,3µm,20.5s,MS5.1						
SSE				LR	LR		
	comp=E,1µm,20.5s,MS5.1						
SSE				LR	LR		
	comp=Z,4µm,20.7s,MS5.1						
TIY	**Taiyuan**	**36.41**	**23**	⇑P	**P**	**17 55 05.0**	**-0.8**
TIY				S	**S**	**18 00 43.0**	**-0.7**
TIY				LR	LR		
	comp=N,13µm,17.0s						
TIY				LR	LR		
	comp=Z,4µm,7.0s						
TIA	**Tai'an**	**37.27**	**30**	*e*P	**P**	**17 55 12.8**	**-0.2**
TIA				S	**S**	**18 01 01.0**	**+4.3**
TIA				AMB	AMB		
	comp=Z,65nm,1.2s,mb5.3						
TIA				LR	LR		
	comp=N,3µm,14.0s,MS5.5						
TIA				LR	LR		
	comp=E,5µm,15.0s,MS5.5						
FITZ	**Fitzroy Crossi**	**37.65**	**128**	⇓*i*P	**P**	**17 55 15.8**	**-0.6**
	comp=E,86nm,0.6s,mb5.7						
BTO	**Baotou**	**38.13**	**18**	*e*P	**P**	**17 55 19.8**	**-0.3**
BTO				S	**S**	**18 01 11.0**	**+1.2**
BTO				AMB	AMB		
	comp=Z,27nm,0.5s,mb5.2						
BTO				LR	LR		
	comp=N,2µm,16.2s,MS5.4						
BTO				LR	LR		
	comp=E,5µm,14.7s,MS5.4						
JOW	**Kunigami**	**38.48**	**52**	LR	LR	18 11 11.4	
	comp=E,5µm,21.4s,MS5.3,baz=108,slow=36						
KSH	**Kashi**	**38.74**	**336**	⇑*i*P	**P**	**17 55 26.0**	**+0.8**
KSH				AP	pP	17 55 37.8	+0.6
KSH				XP	sP	17 55 44.0	+1.5
KSH				PP	PP	17 57 00.5	+2.4
KSH				PPP	PPP	17 57 22.8	+1.3
KSH				PCP	PcP	17 57 36.0	-0.9
KSH				S	**S**	**18 01 21.0**	**+1.9**
KSH				PCS		18 01 25.3	
KSH				XS		18 01 41.3	
KSH				SS	SS	18 04 04.3	+1.7
KSH				SCS	ScS	18 05 30.3	+0.9
KSH				LR	LR		
	comp=N,2µm,16.2s						
KSH				LR	LR		
	comp=E,5µm,23.5s						
HHC	**Hu-ho-hao-te**	**38.85**	**20**	*e*P	**P**	**17 55 27.3**	**+1.2**
HHC				AP	pP	17 55 39.5	+1.4
HHC				XP	sP	17 55 45.0	+1.5
HHC				PP	PP	17 57 00.3	+0.8
HHC				PCP	PcP	17 57 38.5	+1.3
HHC				S	**S**	**18 01 20.8**	**0.0**
HHC				XS		18 01 39.8	
HHC				SS	SS	18 04 02.5	-2.6
HHC				SCS	ScS	18 05 31.5	+1.4
HHC				AMB	AMB		
	comp=Z,89nm,1.1s,mb5.4						
HHC				AMB	AMB		
	comp=Z,664nm,7.5s						
HHC				LR	LR		
	comp=N,10µm,15.5s,MS5.7						
HHC				LR	LR		
	comp=E,4µm,20.2s,MS5.7						
HHC				LR	LR		
	comp=Z,9µm,17.8s,MS5.7						
WMQ	**Urumqi**	**39.48**	**351**	⇑P	**P**	**17 55 31.8**	**+0.5**
WMQ				AP	pP	17 55 44.3	+1.0
WMQ				XP	sP	17 55 49.8	+1.1
WMQ				PP	PP	17 57 07.5	+1.3
WMQ				PPP	PPP	17 57 31.5	+0.4
WMQ				S	**S**	**18 01 31.0**	**+0.8**
WMQ				AMB	AMB		
	comp=Z,37nm,0.5s,mb5.4						
WMQ				AMB	AMB		
	comp=Z,226nm,7.9s						
WMQ				LR	LR		
	comp=N,2µm,26.1s,MS5.2						
WMQ				LR	LR		
	comp=E,5µm,28.6s,MS5.2						
WMQ				LR	LR		
	comp=Z,2µm,22.6s						
BJT	**Baijiatuau**	**39.91**	**25**	*e*P	**P**	**17 55 36.4**	**+1.5**
BJT				pmax	pmax		
	comp=Z,173nm,0.9s						
BJT	**Baijiatuau**	**39.91**	**25**	*e*P	**P**	**17 55 36.4**	**+1.5**
	comp=Z,173nm,0.9s,mb5.8						
BJI	**Beijing**	**39.93**	**25**	*e*P	**P**	**17 55 36.5**	**+1.4**
BJI				AP	pP	17 55 49.8	+2.7
BJI				PP	PP	17 57 12.0	+1.0
BJI				S	**S**	**18 01 31.3**	**-5.6**
BJI				SS	SS	18 04 30.0	+1.3
BJI				SCS	ScS	18 05 36.0	-0.3
BJI				AMB	AMB		
	comp=Z,195nm,0.9s,mb5.8						
BJI				AMB	AMB		
	comp=Z,2µm,3.6s						
BJI				LR	LR		
	comp=N,5µm,19.8s,MS5.5						
BJI				LR	LR		
	comp=E,3µm,18.6s,MS5.5						
BJI				LR	LR		
	comp=Z,7µm,24.0s						
KAKA	**Kakadu**	**40.84**	**115**	⇓*i*P	**P**	**17 55 42.5**	**-0.4**
	comp=Z,72nm,0.8s,mb5.3						
ULHL	**Ulahol**	**40.98**	**338**	P	**P**	**17 55 45.1**	**+1.3**
	SNR=59						
KZA	**Kyzart**	**41.21**	**337**	P	**P**	**17 55 47.3**	**+1.7**
	SNR=122						
UCH	**Uchtor**	**41.62**	**337**	P	**P**	**17 55 50.8**	**+1.7**
	SNR=211						
DL2	**Dalian**	**41.63**	**32**	P	**P**	**17 55 50.5**	**+1.3**
DL2				S	**S**	**18 02 02.5**	**+0.2**
DL2				AMB	AMB		
	comp=Z,110nm,0.8s,mb5.5						
DL2				LR	LR		
	comp=N,2µm,15.5s,MS5.2						
DL2				LR	LR		
	comp=E,1µm,16.1s,MS5.2						
DL2				LR	LR		
	comp=Z,2µm,23.1s						
MUN	**Mundaring**	**41.64**	**153**	⇓*i*P	**P**	**17 55 50.0**	**+0.6**
	comp=Z,28nm,0.9s,mb4.9						
MUN	**Mundaring**	**41.64**	**153**	⇓*i*P	**P**	**17 55 50.0**	**+0.6**
MUN				pmax	pmax		
	comp=Z,28nm,0.9s,mb4.9						
TKM2	**Tokmak 2**	**41.80**	**338**	P	**P**	**17 55 51.9**	**+1.3**
	SNR=226						
KBK	**Karagaybulak**	**41.82**	**338**	P	**P**	**17 55 52.5**	**+1.8**
	SNR=456						
AML	**Almayashu**	**41.87**	**336**	P	**P**	**17 55 52.9**	**+1.8**
	SNR=301						
AAK	**Ala-Archa**	**41.98**	**337**	P	**P**	**17 55 53.2**	**+1.3**
	SNR=129						
AAK	**Ala-Archa**	**41.98**	**337**	*e*P	**P**	**17 55 52.3**	**+0.3**
AAK				pmax	pmax		
	comp=Z,30nm,1.0s,mb4.9						
AAK	**Ala-Archa**	**41.98**	**337**	*e*P	**P**	**17 55 52.3**	**+0.3**
	comp=Z,30nm,1.0s,mb4.9						
KLBR	**Kellerberrin**	**42.05**	**151**	*e*P	**P**	**17 55 53.0**	**+0.3**
	comp=Z,59nm,1.1s,mb5.1						
FRU	**Bishkek**	**42.10**	**337**	α*i*P	**P**	**17 55 55.0**	**+2.0**
FRU				*e*	pP	17 56 08.0	+3.0
FRU				*i* S	**S**	**18 02 12.5**	**+3.4**
FRU				*e*		18 02 30.0	
FRU				pmax	pmax		
	comp=Z,1µm,2.5s,mb6.2						
FRU				pmax	pmax		
	comp=Z,2µm,3.8s						
FRU				smax			
	comp=E,3µm,7.0s						
FRU				MLR	MLR		
	comp=E,3µm,20.0s						
FRU				MLR	MLR		
	comp=Z,3µm,20.0s,MS5.2						
CHMS	**Chumysh**	**42.19**	**338**	P	**P**	**17 55 55.3**	**+1.6**
	SNR=10						
EKS2	**Erkin-Say**	**42.28**	**336**	P	**P**	**17 55 55.9**	**+1.4**
	SNR=213						
USP	**Ospenovka**	**42.51**	**338**	P	**P**	**17 55 57.6**	**+1.2**
	SNR=70						
NWAO	**Narrogin (SRO)**	**42.91**	**152**	*e*P	**P**	**17 55 59.0**	**-0.7**
NWAO				pmax	pmax		
	comp=Z,64nm,0.9s						
NWAO	**Narrogin (SRO)**	**42.91**	**152**	P	**P**	**17 55 59.6**	**-0.1**
	comp=Z,89nm,0.9s,mb5.5,baz=325,slow=12						
NWAO	**Narrogin (SRO)**	**42.91**	**152**	*e*P	**P**	**17 55 59.0**	**-0.7**
	comp=Z,64nm,0.9s,mb5.3						
MK02	**Makanchi Array**	**43.33**	**347**	P	**P**	**17 56 02.9**	**-0.1**
MK02				pmax	pmax		
	comp=Z,30nm,0.6s,mb5.2						
INCN	**Inchon**	**43.45**	**37**	*e*P	**P**	**17 56 04.2**	**+0.1**
	comp=Z,79nm,1.1s,mb5.4						
SONM	**Songino Array**	**44.01**	**11**	P	**P**	**17 56 07.9**	**-0.6**
	comp=Z,7.2nm,0.4s,mb4.7,baz=193,slow=9.3,SNR=53						
SONM				PcP	PcP	17 57 54.1	+0.1
	comp=Z,16nm,0.8s,baz=194,slow=3.5,SNR=14						
SONM				pPcP		17 58 08.6	
	comp=Z,9.2nm,0.5s,baz=200,slow=4.5,SNR=5.4						
SONM				ScP		18 01 41.7	
	comp=Z,9.1nm,0.8s,baz=201,slow=3.3,SNR=12						
SONM				LR	LR	18 17 04.4	
	comp=Z,4µm,18.4s,MS5.4,baz=191,slow=40						
ULN	**Ulaanbaatar**	**44.16**	**11**	*e*P	**P**	**17 56 08.3**	**-1.4**
ULN				pmax	pmax		
	comp=Z,7.0nm,0.6s,mb4.6						
ULN	**Ulaanbaatar**	**44.16**	**11**	*e*P	**P**	**17 56 08.3**	**-1.4**
	comp=Z,7.3nm,0.6s,mb4.6						
ULN				*e*ScP		18 01 41.3	
KS15	**Wonju Array Si**	**44.19**	**38**	*e*P	**P**	**17 56 10.0**	**0.0**
SNY	**Shenyang**	**44.79**	**30**	⇑P	**P**	**17 56 14.8**	**0.0**
SNY				PP	PP	17 58 03.5	+2.8
SNY				S	**S**	**18 02 52.8**	**+4.5**
SNY				XS		18 03 12.0	
SNY				AMB	AMB		
	comp=Z,90nm,0.6s,mb5.8						
SNY				AMB	AMB		
	comp=Z,800nm,4.9s						
SNY				LR	LR		
	comp=N,3µm,15.5s,MS5.5						
SNY				LR	LR		
	comp=E,3µm,14.7s,MS5.5						
SNY				LR	LR		
	comp=Z,4µm,20.2s						
WRA	**Warramunga Arr**	**45.64**	**124**	P	**P**	**17 56 21.8**	**-0.1**
	comp=Z,272nm,0.7s,mb6.3,baz=302,slow=9.2,SNR=893						
WRA				pP	pP	17 56 36.9	+2.9
	comp=Z,189nm,0.8s,baz=302,slow=9.2,SNR=11						
WRAB	**Tennant Creek**	**45.65**	**124**	*e*P	**P**	**17 56 21.9**	**0.0**
WRAB				pmax	pmax		
	comp=Z,731nm,0.9s,mb6.6						
WRAB	**Tennant Creek**	**45.65**	**124**	*e*P	**P**	**17 56 21.9**	**-0.1**
	comp=Z,731nm,0.9s,mb6.6						
WB2	**Warramunga Arr**	**45.65**	**124**	⇑*i*P	**P**	**17 56 21.8**	**-0.2**
WB2				*e*S	**S**	**18 02 57.8**	**-3.1**
ZAK	**Zakamensk**	**46.00**	**7**	⇑*e*P	**P**	**17 56 23.7**	**-0.6**
ZAK				*e*		17 58 16.5	
MOY	**Mondy**	**47.03**	**5**	*e*P	**P**	**17 56 32.2**	**-0.2**
ASPA	**Alice Springs**	**47.14**	**129**	⇑*i*P	**P**	**17 56 33.4**	**-0.3**
ASPA				*e*S	**S**	**18 03 26.2**	**+4.1**
ASAR	**Alice Springs**	**47.15**	**129**	P	**P**	**17 56 33.4**	**-0.3**
	comp=Z,60nm,0.6s,mb5.7,baz=298,slow=7.8,SNR=595						
ASAR				pP	pP	17 56 49.0	+3.2
	comp=Z,78nm,0.8s,baz=300,slow=7.3,SNR=14						
ASAR				PcP	PcP	17 58 04.8	-0.4
	comp=Z,47nm,1.1s,baz=312,slow=5.3,SNR=4.5						
ASAR				pPcP		17 58 20.6	
	comp=Z,21nm,0.7s,baz=307,slow=3.8,SNR=4.2						
ASAR				LR	LR	18 20 16.9	
	comp=Z,852nm,20.0s,MS4.7,baz=301,slow=41						
CN2	**Changchun**	**47.17**	**30**	*e*P	**P**	**17 56 33.5**	**-0.2**
CN2				*e*AP	pP	17 56 45.5	-0.3
CN2				PCP	PcP	17 58 03.8	-1.3
CN2				PP	PP	17 58 25.5	+1.3
CN2				*e*S	**S**	**18 03 22.3**	**0.0**
CN2				*e*SS	SS	18 06 43.0	0.0
CN2				AMB	AMB		
	comp=Z,90nm,0.7s,mb5.8						
CN2				LR	LR		
	comp=N,3µm,16.0s,MS5.5						
CN2				LR	LR		
	comp=E,3µm,16.0s,MS5.5						
CN2				LR	LR		
	comp=Z,4µm,17.0s,MS5.5						
TLY	**Talaya**	**47.32**	**7**	*e*P	**P**	**17 56 34.3**	**-0.4**
TLY				*e*		17 58 25.8	
TLY				*e*S	**S**	**18 03 21.6**	**-2.6**
TLY				pmax	pmax		
	comp=Z,24nm,0.9s,mb5.1						
TLY				MLR	MLR		
	comp=Z,5µm,23.0s,MS5.5						
TLY	**Talaya**	**47.32**	**7**	*e*P	**P**	**17 56 34.2**	**-0.5**
	comp=Z,10nm,0.7s,mb4.9						
IRK	**Irkutsk**	**47.95**	**8**	*e*P	**P**	**17 56 39.3**	**-0.3**
IRK				*e*		17 56 55.0	
HIA	**Hailar**	**49.03**	**21**	*e*P	**P**	**17 56 47.4**	**-0.6**
HIA				pmax	pmax		
	comp=Z,54nm,0.6s						
HIA	**Hailar**	**49.03**	**21**	*e*P	**P**	**17 56 47.4**	**-0.6**
	comp=Z,54nm,0.6s,mb5.8						
ZAL	**Zalesovo**	**49.78**	**352**	*i* P	**P**	**17 56 53.6**	**-0.1**
ZAL				pmax	pmax		
	comp=Z,49nm,0.4s						
ZAL	**Zalesovo**	**49.78**	**352**	P	**P**	**17 56 53.6**	**-0.1**
	comp=Z,49nm,0.4s,mb5.9,baz=303,slow=5.5,SNR=228						
ZAL				ScP		18 02 05.3	
	comp=Z,5.6nm,0.9s,baz=206,slow=1.2,SNR=5.7						
ZAL				LR	LR	18 22 37.7	
	comp=Z,4µm,21.5s,MS5.3,baz=294,slow=42						
MDJ	**Mudanjiang**	**49.87**	**32**	P	**P**	**17 56 55.3**	**+0.8**
MDJ				AP	pP	17 57 05.3	-1.4
MDJ				XP	sP	17 57 09.0	-2.9
MDJ				PP	PP	17 58 50.3	+0.1
MDJ				S	**S**	**18 04 03.8**	**+3.8**
MDJ				XS		18 04 23.5	
MDJ				SCS	ScS	18 06 42.3	+3.2
MDJ				AMB	AMB		
	comp=Z,86nm,1.2s,mb5.7						
MDJ				AMB	AMB		
	comp=Z,664nm,6.8s						
MDJ				LR	LR		
	comp=N,2µm,19.1s,MS5.4						
MDJ				LR	LR		
	comp=E,3µm,19.8s,MS5.4						
MDJ				LR	LR		
	comp=Z,4µm,21.7s,MS5.4						
MDJ	**Mudanjiang**	**49.87**	**32**	*e*P	**P**	**17 56 54.7**	**+0.1**
	comp=Z,132nm,1.3s,mb5.8						
CBIJ	**Chichi jima**	**49.99**	**58**	LR	LR	18 15 41.4	
	comp=Z,1µm,20.3s,MS4.8,baz=218,slow=33						
LBOS		**50.01**	**284**	⇓*e*P	**P**	**17 56 58.2**	**+2.2**
VLA	**Vladivostok**	**50.15**	**35**	*c i*P	**P**	**17 56 55.0**	**-1.7**
VLA				*e*		17 57 13.0	
VLA				*e*		17 58 54.0	
VLA				*e*S	**S**	**18 04 12.0**	**+8.1**
VLA				*e*		18 06 42.0	
VLA				pmax	pmax		
	comp=Z,1µm,5.0s						
VLA				pmax	pmax		
	comp=N,600nm,7.0s						
VLA				pmax	pmax		
	comp=E,600nm,4.0s						
VLA				pmax	pmax		
	comp=Z,600nm,11.0s						
VLA				smax			
	comp=E,1µm,12.0s						
VLA				smax			
	comp=N,1µm,10.0s						
VLA				MLR	MLR		
	comp=Z,4µm,16.0s,MS5.5						
VLA				MLR	MLR		
	comp=N,3µm,15.0s,MS5.5						
VLA				MLR	MLR		
	comp=E,2µm,14.0s,MS5.5						
JHJ	**Hachijo jima 2**	**50.21**	**50**	LR	LR	18 21 57.1	
	comp=E,2µm,19.5s,MS5.0,baz=278,slow=40						
MAJO	**Matsushiro**	**50.56**	**45**	*e*P	**P**	**17 56 59.6**	**-0.3**
MAJO				pmax	pmax		
	comp=Z,290nm,2.1s,mb5.8						
MAJO	**Matsushiro**	**50.56**	**45**	*e*P	**P**	**17 56 59.6**	**-0.3**
	comp=Z,290nm,2.1s,mb5.8						
MAT	**Matsushiro**	**50.56**	**45**	P	**P**	**17 57 00.8**	**+0.9**
MAT				S	**S**	**18 04 09.0**	**-0.7**
MAT	**Matsushiro**	**50.56**	**45**	*e*P	**P**	**17 57 01.0**	**+1.1**
MAT				*e*S	**S**	**18 04 04.0**	**-5.7**
MAT				pmax	pmax		
	comp=Z,8.0nm,0.5s,mb4.9						
MAT				MLR	MLR		
	comp=Z,9µm,20.0s,MS5.8						
MAT	**Matsushiro**	**50.56**	**45**	*e*P	**P**	**17 57 01.0**	**+1.1**
	comp=Z,7.8nm,0.5s,mb4.9						
MAT				*e*S	**S**	**18 04 04.0**	**-5.7**
MAT				LR	LR		
	comp=Z,9µm,20.0s,MS5.8						
NVS	**Novosibirsk**	**50.88**	**351**	*i* P	**P**	**17 56 59.9**	**-2.2**
NVS				*i*	pP	17 57 12.7	-1.6
NVS				*i* S	**S**	**18 04 08.9**	**-5.0**
NVS				*i*		18 06 42.4	
NVS				pmax	pmax		
	comp=Z,136nm,1.8s,mb5.6						
NVS				pmax	pmax		
	comp=E,54nm,1.5s						
NVS				pmax	pmax		
	comp=N,108nm,1.8s						
NVS				pmax	pmax		
	comp=Z,44nm,1.9s,mb5.1						
NVS				pmax	pmax		
	comp=E,27nm,1.6s						
NVS				pmax	pmax		
	comp=N,12nm,1.4s						
NVS				smax			
	comp=N,316nm,1.7s						
NVS				smax			
	comp=E,160nm,2.7s						
DHBB	**Dhamar BB**	**50.91**	**285**	⇓*e*P	**P**	**17 57 05.6**	**+2.8**
BVA0	**Borovoye Array**	**52.27**	**341**	*i* P	**P**	**17 57 11.9**	**-0.7**
BVA0				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb4.7						
BVAR	**Borovoye Array**	**52.27**	**341**	P	**P**	**17 57 11.9**	**-0.7**
	comp=Z,70nm,0.5s,mb5.8,baz=142,slow=10.0,SNR=724						
BRVK	**Borovoye**	**52.33**	**341**	⇑*e*P	**P**	**17 57 12.2**	**-0.8**
BRVK				*e*S	**S**	**18 04 33.2**	**-0.7**
BRVK				pmax	pmax		
	comp=Z,10.0nm,1.1s,mb4.7						
BRVK	**Borovoye**	**52.33**	**341**	⇑*e*P	**P**	**17 57 12.2**	**-0.8**
	comp=Z,10nm,1.1s,mb4.7						
BRVK				*e*S	**S**	**18 04 33.2**	**-0.6**
CHKZ	**Chkalovo**	**52.76**	**342**	P	**P**	**17 57 15.8**	**-0.4**
CHKZ				pmax	pmax		
	comp=Z,57nm,0.5s,mb5.8						
CHKZ	**Chkalovo**	**52.76**	**342**	*e*P	**P**	**17 57 15.4**	**-0.8**
	comp=Z,5.4nm,0.7s,mb4.6						
PMG	**Port Moresby**	**53.68**	**105**	*e*P	**P**	**17 57 22.2**	**-1.4**
PMG				pmax	pmax		
	comp=Z,30nm,0.8s						
PMG	**Port Moresby**	**53.68**	**105**	*e*P	**P**	**17 57 22.2**	**-1.4**
	comp=Z,30nm,0.8s,mb5.3						
KLR	**Kul'dur**	**54.09**	**29**	⇓*i*P	**P**	**17 57 23.4**	**-2.7**
KLR				*e*S	**S**	**18 04 57.5**	**-0.2**
KLR				pmax	pmax		
	comp=N,260nm,2.8s						
KLR				pmax	pmax		
	comp=E,370nm,2.8s						
KLR				pmax	pmax		
	comp=Z,540nm,2.8s,mb6.0						
BOD	**Bodaibo**	**54.96**	**12**	*e*P	**P**	**17 57 30.4**	**-2.0**
CTA	**Charters Tower**	**55.91**	**118**	⇓*i*P	**P**	**17 57 39.4**	**-0.3**
	comp=Z,40nm,0.9s,mb5.5						
CTA	**Charters Tower**	**55.91**	**118**	⇓*i*P	**P**	**17 57 39.4**	**-0.3**
CTA				pmax	pmax		
	comp=Z,40nm,0.9s						
CTA	**Charters Tower**	**55.91**	**118**	LR	LR	18 24 00.3	
	comp=Z,3µm,21.8s,MS5.3,baz=285,slow=38						
CTAO	**Charters Tower**	**55.91**	**118**	*e*P	**P**	**17 57 38.5**	**-1.2**
CTAO				pmax	pmax		
	comp=Z,69nm,1.0s,mb5.6						
CTAO				MLR	MLR		
	comp=Z,3µm,21.0s,MS5.3						
CTAO	**Charters Tower**	**55.91**	**118**	*e*P	**P**	**17 57 38.5**	**-1.2**
	comp=Z,69nm,1.0s,mb5.6						
CTAO				LR	LR		
	comp=Z,3µm,21.0s,MS5.3						
MAK	**Makhachkala**	**56.74**	**320**	*e*P	**P**	**17 57 45.0**	**-0.4**
STKA	**Stephens Creek**	**57.22**	**133**	⇓*i*P	**P**	**17 57 48.4**	**-0.5**
	comp=Z,30nm,0.9s,mb5.3						
STKA	**Stephens Creek**	**57.22**	**133**	P	**P**	**17 57 48.2**	**-0.7**
	comp=Z,28nm,0.8s,mb5.4,baz=310,slow=8.0,SNR=42						
STKA				pP	pP	17 58 03.1	+1.7
	comp=Z,35nm,0.8s,baz=306,slow=7.4,SNR=11						
STKA				LR	LR	18 25 03.5	
	comp=Z,804nm,21.6s,MS4.8,baz=294,slow=39						
GNI	**Garni**	**57.37**	**315**	*e*P	**P**	**17 57 49.2**	**-0.6**
GNI				pmax	pmax		
	comp=Z,107nm,1.2s						
GNI	**Garni**	**57.37**	**315**	P	**P**	**17 57 49.3**	**-0.5**
	comp=Z,13nm,0.6s,mb5.2,baz=265,slow=1.3,SNR=32						
GNI				LR	LR	18 27 22.3	
	comp=Z,504nm,20.0s,MS4.6,baz=97,slow=41						
GNI	**Garni**	**57.37**	**315**	*e*P	**P**	**17 57 49.2**	**-0.7**
	comp=Z,107nm,1.2s,mb5.8						
TI2	**Plekhanov**	**58.02**	**317**	⇑*i*P	**P**	**17 57 53.8**	**-0.6**
TI2				pmax	pmax		
	comp=Z,70nm,1.2s,mb5.6						
KMBO	**Kilima Mbogo**	**58.16**	**266**	*e*P	**P**	**17 57 56.2**	**+0.5**
KMBO				pmax	pmax		
	comp=Z,44nm,1.0s						
KMBO				MLR	MLR		
	comp=Z,4µm,22.0s						
KMBO	**Kilima Mbogo**	**58.16**	**266**	P	**P**	**17 57 56.8**	**+1.1**
	comp=Z,17nm,0.6s,mb5.2,baz=64,slow=10,SNR=45						
KMBO				pP	pP	17 58 12.3	+4.2
	comp=Z,40nm,0.9s,baz=56,slow=8.6,SNR=14						
KMBO				LR	LR	18 18 33.5	
	comp=Z,3µm,21.9s,MS5.4,baz=94,slow=31						
KMBO	**Kilima Mbogo**	**58.16**	**266**	*e*P	**P**	**17 57 56.2**	**+0.4**
	comp=Z,44nm,1.0s,mb5.4						
KMBO				LR	LR		
	comp=Z,4µm,22.0s,MS5.5						
YSS	**Yuzh-Sakhalins**	**58.65**	**36**	⇑*i*P	**P**	**17 57 58.5**	**-0.2**
YSS				S	**S**	**18 06 04.0**	**+5.8**
YSS				*e*SS	SS	18 09 54.0	+0.9
YSS				pmax	pmax		
	comp=Z,60nm,1.0s,mb5.6						
YSS				MLR	MLR		
	comp=E,2µm,15.0s						
YSS				MLR	MLR		
	comp=Z,2µm,15.0s,MS5.3						
YSS	**Yuzh-Sakhalins**	**58.65**	**36**	*e*P	**P**	**17 57 58.2**	**-0.5**
	comp=Z,88nm,0.9s,mb5.8						
SVE	**Sverdlovsk**	**58.68**	**339**	⇑*e*P	**P**	**17 57 58.0**	**-0.8**
SVE				*e*S	**S**	**18 06 00.0**	**+1.6**
SVE				*e*		18 07 39.0	
SVE				pmax	pmax		
	comp=Z,310nm,1.6s,mb6.1						
SVE				smax			
	comp=N,2µm,8.6s						
SVE				smax			
	comp=E,1µm,8.6s						

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SVE                                     MLR     MLR
        comp=Z,2µm,17.0s,MS5.2
BEST  Besiri              59.02 312  i P    P        17 58 00.2  -1.3
ZEI   Tsey                59.03 318  eP     P        17 58 01.1  -0.3
ZEI                                  i *PP  pP       17 58 17.2  +3.3
ZEI                                   pmax  pmax
        comp=Z,28nm,0.7s,mb5.4
ARU   Arti                59.16 337⇑iP     P        17 58 00.9  -1.2
ARU                                  e               17 58 49.0
ARU                                  e               18 00 07.2
ARU                                  eS     S        18 06 02.9  -1.8
ARU                                  i               18 07 45.2
ARU                                  eSS    SS       18 09 56.4  -4.6
ARU                                  eSSS   SSS      18 12 29.9  +1.8
ARU                                   pmax  pmax
        comp=Z,53nm,1.0s,mb5.5
ARU   Arti                59.16 337  eP     P        17 58 00.5  -1.6
        comp=Z,26nm,0.6s,mb5.4
VRT   Varto               59.27 313  eP     P        17 58 03.5  +0.4
ERZM  Erzurum             59.66 314  i P    P        17 58 05.6  -0.3
KIV   Kislovodsk          60.33 319   P     P        17 58 09.3  -1.0
        comp=Z,266nm,0.8s,mb6.3,SNR=17
KIV   Kislovodsk          60.33 319c iP     P        17 58 09.3  -1.0
KIV                                  e      pP       17 58 23.2  +0.4
KIV                                  e               18 00 21.1
KIV                                   pmax  pmax
        comp=Z,88nm,1.8s,mb5.5
KIV                                   MLR   MLR
        comp=Z,400nm,19.0s,MS4.6
KIV   Kislovodsk          60.33 319  eP     P        17 58 09.0  -1.3
        comp=Z,54nm,1.0s,mb5.5
GOF   Gofitskoye          60.57 320  eP     P        17 58 10.0  -2.0
GOF                                   pmax  pmax
        comp=Z,35nm,1.4s,mb5.3
URFA  Urfa                60.71 311  eP     P        17 58 12.6  -0.5
PTK   Pertek              60.75 312  eP     P        17 58 12.3  -1.0
ASF   Jabal al Asfar      60.80 304   P     P        17 58 13.7   0.0
        comp=Z,6.0nm,0.6s,mb4.9,baz=228,slow=2.6,SNR=11
ASF                                   pP    pP       17 58 29.8  +3.6
        comp=Z,26nm,1.0s,baz=319,slow=1.1,SNR=10.0
ASF                                   LR    LR       18 26 59.0
        comp=Z,1µm,18.1s,MS5.1,baz=145,slow=38
ELZG  Elazig              60.92 312  i P    P        17 58 13.9  -0.6
GUMT  Gumushane           61.21 314  eP     P        17 58 15.5  -0.9
MALT  Malatya             61.28 311  eP     P        17 58 15.7  -1.1
MYA   Malataya            61.28 311  eP     P        17 58 16.6  -0.3
GZT   Gaziantep           61.64 310  i P    P        17 58 18.9  -0.4
MKRJ  Makawir             61.70 303   P     P        17 58 20.1  +0.3
AQBJ  Aqaba               61.82 301   P     P        17 58 20.6   0.0
GAZ   Gaziantep           61.86 310  eP     P        17 58 20.9  +0.2
ZFRI  Zfri                61.88 302   P     P        17 58 21.2  +0.2
MZDA  Masada              61.88 303   P     P        17 58 21.3  +0.3
KSHT  Keshet              61.88 305   P     P        17 58 21.7  +0.7
EIL   Elat                61.89 301   P     P        17 58 21.2  +0.1
        comp=Z,39nm,1.1s,mb5.5,baz=40,slow=3.4,SNR=27
EIL                                   LR    LR       18 25 19.0
        comp=Z,2µm,19.9s,MS5.3,baz=108,slow=36
EIL   Elat                61.89 301  eP     P        17 58 20.7  -0.4
        comp=Z,41nm,1.0s,mb5.5
DRGI  Dragot              61.91 303   P     P        17 58 21.6  +0.4
MBH   Mount Berech        61.95 301   P     P        17 58 21.8  +0.4
HMDT  Nahal Hemdat        61.95 304   P     P        17 58 21.8  +0.4
PRNI  Paran               61.98 302   P     P        17 58 22.0  +0.3
MMLI  Mount Malkishu      62.08 304   P     P        17 58 22.9  +0.6
SOKR  Solikamsk           62.08 339⇑iP     P        17 58 19.0  -2.9
SOKR                                  pmax  pmax
        comp=Z,20nm,0.8s,mb5.3
SOKR                                  MLR   MLR
        comp=Z,1µm,19.0s,MS5.1
SOC   Sochi               62.16 317  i P    P        17 58 19.8  -2.9
SOC                                  e               17 58 56.4
SOC                                  i S    S        18 06 39.0  -4.2
SOC                                  eSSS   SSS      18 13 30.4  -0.6
SOC                                   pmax  pmax
        comp=N,33nm,1.3s
SOC                                   pmax  pmax
        comp=Z,80nm,1.3s,mb5.7
SOC                                   pmax  pmax
        comp=E,19nm,1.4s
SOC                                   MLR   MLR
        comp=N,411nm,20.0s,MS4.9
SOC                                   MLR   MLR
        comp=E,704nm,20.0s,MS4.9
KMTI  Karmit              62.17 302   P     P        17 58 23.1  +0.2
KAHT  Ahir Dag            62.25 310  i P    P        17 58 23.3   0.0
MASH  Mash‘abbe Sade      62.30 303   P     P        17 58 23.9  +0.1
SLTI  Sal’it              62.35 304   P     P        17 58 24.7  +0.6
HTY   Hatay               62.40 308  eP     P        17 58 24.6  +0.3
COBT  Iskenderun          62.41 309  i P    P        17 58 24.7  +0.2
HNTI  Hanita              62.42 305   P     P        17 58 25.2  +0.6
OFRI  ‘Ofer               62.48 304   P     P        17 58 25.4  +0.5
KZIT  Kziot               62.60 302   P     P        17 58 26.1  +0.3
YAK   Yakutsk             62.65  18c iP     P        17 58 23.8  -1.9
YAK                                  e               18 00 40.0
YAK                                  eS     S        18 06 46.5  -2.5
YAK                                  e               18 08 07.7
YAK                                   pmax  pmax
        comp=Z,35nm,1.0s,mb5.4
YAK                                   pmax  pmax
        comp=N,16nm,1.1s
YAK                                   pmax  pmax
        comp=E,13nm,1.2s
YAK                                   pmax  pmax
        comp=Z,7.0nm,0.8s,mb4.8
YAK                                   pmax  pmax
        comp=N,5.0nm,1.0s
YAK                                   pmax  pmax
        comp=E,9.0nm,1.0s
YAK                                   smax
        comp=Z,9.0nm,1.1s
YAK                                   smax
        comp=N,36nm,1.2s
YAK                                   smax
        comp=E,25nm,1.1s
YAK                                   MLR   MLR
        comp=Z,4µm,24.0s,MS5.5
YAK                                   MLR   MLR
        comp=N,2µm,25.0s,MS5.5
YAK                                   MLR   MLR
        comp=E,3µm,20.0s,MS5.5
YAK   Yakutsk             62.65  18  eP     P        17 58 23.6  -2.1
        comp=E,43nm,0.5s,mb5.8
TOO   Toolangi            62.88 137⇓iP     P        17 58 28.4  +0.8
        comp=E,30nm,0.9s,mb5.4
TOO   Toolangi            62.88 137⇓iP     P        17 58 28.4  +0.8
TOO                                   pmax  pmax
        comp=Z,30nm,0.9s,mb5.4
KVT   Kavak               63.88 314  eP     P        17 58 33.2  -0.9
MEST  Erdemli             64.07 308  i P    P        17 58 34.4  -1.0
AVNT  Avonos              64.09 311  i P    P        17 58 34.9  -0.7
NIG   Nigde               64.10 310  eP     P        17 58 35.6   0.0
ANN   Anapa               64.13 318  eP     P        17 58 32.6  -3.1
ANN                                   pmax  pmax
        comp=Z,33nm,1.2s,mb5.2
CSS   Prodhromos          64.34 307  eP     P        17 58 35.1  -2.1
        comp=Z,25nm,0.7s,mb5.4
CNB   Canberra Magne      64.55 133⇓iP     P        17 58 38.6   0.0
        comp=Z,43nm,1.0s,mb5.4
MBAR  Mbarara             64.58 267  eP     P        17 58 38.4  -0.7
MBAR                                  pmax  pmax
        comp=Z,172nm,1.8s,mb5.8
MBAR  Mbarara             64.58 267  eP     P        17 58 38.4  -0.8
        comp=Z,172nm,1.8s,mb5.8
CTKT  Corum               64.66 313  i P    P        17 58 38.5  -0.7
BOYT  Boyabat             64.80 314  i P    P        17 58 39.5  -0.6
KAMT  Kaman               65.11 311  eP     P        17 58 40.5  -1.6
BRTR  Keskin Array B      65.26 312   P     P        17 58 41.9  -1.2
        comp=Z,28nm,0.5s,mb5.5,baz=136,slow=6.3,SNR=145
BRTR                                  pP    pP       17 58 57.0  +1.3
        comp=Z,42nm,0.9s,baz=117,slow=5.5,SNR=8.5
TOS   Tosya               65.33 313  eP     P        17 58 42.6  -0.9
HDMB  Hadim               65.46 309  eP     P        17 58 42.9  -1.5
CANT  Cankiri             65.51 313  eP     P        17 58 44.1  -0.5
VRSR  Storozhevoye        65.52 325c iP     P        17 58 42.3  -2.2
VRSR                                 e*SP   sP       17 58 52.3   -10
VRSR                                 e               17 59 16.6
VRSR                                 e               18 01 03.1
VRSR                                 eS     S        18 07 22.6  -2.1
VRSR                                 e               18 08 30.9
VRSR                                  pmax  pmax
        comp=Z,20nm,0.5s,mb5.4
VRSR                                  pmax  pmax
        comp=N,9.0nm,0.7s
VRSR                                  pmax  pmax
        comp=E,20nm,0.8s
VRSR                                  smax
        comp=N,70nm,0.9s
VRSR                                  smax
        comp=Z,10.0nm,1.7s
VRSR                                  smax
        comp=E,20nm,1.2s
BZK   Bozkurt             65.60 314  eP     P        17 58 44.8  -0.5
ELDT  Eldivan             65.62 312  i P    P        17 58 45.0  -0.4
KONT  Konya--Tatoy        65.78 310  eP     P        17 58 46.9  +0.4
ANTO  Ankara              65.92 312  eP     P        17 58 45.1  -2.2
BALT  Daday               65.93 314  i P    P        17 58 46.2  -1.1
LOD   Lodumlu             65.95 312  eP     P        17 58 45.1  -2.4
SAFT  Safranbolu          66.36 313  eP     P        17 58 48.5  -1.5
KIZT  Kizilcal            66.37 310  eP     P        17 58 48.5  -1.7
SIM   Simferopol’         66.41 317ceP     P        17 58 37.0   -13
SIM                                  eS     S        18 07 32.0  -3.6
SIM                                   pmax  pmax
        comp=Z,51nm,0.9s,mb5.5
SGKT  Sivrigoynuk         66.65 312  i P    P        17 58 51.0  -0.9
ISP   Isparta             67.19 309  eP     P        17 58 54.7  -0.6
MDU   Mudurnu             67.24 312  eP     P        17 58 54.7  -0.9
ESKT  Eskisehir           67.30 311  eP     P        17 58 55.6  -0.4
ESKT  Eskisehir           67.30 311  i P    P        17 58 55.4  -0.6
ELL   Elmali              67.43 308  eP     P        17 58 56.6  -0.3
HENT  Hendek              67.56 312  i P    P        17 58 56.3  -1.3
SKR   Severo-Kuril’s      68.21  37  eP     P        17 58 58.0  -3.5
SKR                                  e               17 59 15.5
SKR                                   pmax  pmax
        comp=Z,80nm,0.6s,mb5.9
SKR                                   MLR   MLR
        comp=Z,4µm,26.0s,MS5.6
SKR                                   MLR   MLR
        comp=Z,3µm,20.0s
SKR                                   MLR   MLR
        comp=E,3µm,16.0s
MOS   Moscow              68.28 329α iP     P        17 59 01.1  -0.7
MOS                                  i *PP  pP       17 59 15.4  +0.8
MOS                                  e               17 59 24.4
MOS                                  i S    S        18 07 54.1  -3.8
MOS                                   pmax  pmax
        comp=Z,87nm,0.5s,mb6.0
MOS                                   smax
        comp=E,2µm,3.5s
MOS                                   smax
        comp=N,1µm,2.5s
DENT  Denizli             68.31 309  eP     P        17 59 02.2  -0.1
OBN   Obninsk             68.57 328  eP     P        17 59 01.8  -1.8
OBN                                  e               18 01 32.8
OBN                                  eS     S        18 07 52.9  -8.5
OBN                                   pmax  pmax
        comp=Z,200nm,1.9s,mb5.7
OBN                                   MLR   MLR
        comp=Z,900nm,23.0s,MS4.9
OBN   Obninsk             68.57 328  eP     P        17 59 01.9  -1.8
        comp=Z,39nm,0.6s,mb5.5
YLV   Yalova              68.63 312  eP     P        17 59 02.7  -1.6
ULDT  Uludag              68.72 311  i P    P        17 59 04.3  -0.6
MANT  Manisa              68.82 309  i P    P        17 59 04.8  -0.7
DST   Dursunbey           68.99 311  eP     P        17 59 05.8  -0.7
MA2   Magadan             69.07  27  eP     P        17 59 06.0  -0.7
MA2                                  eS     S        18 08 07.2  -0.1
MA2                                  e               18 08 50.7
MA2                                   pmax  pmax
        comp=Z,60nm,2.1s,mb5.2
MA2                                   MLR   MLR
        comp=Z,5µm,21.0s,MS5.7
MA2   Magadan             69.07  27  eP     P        17 59 06.1  -0.6
        comp=Z,17nm,0.6s,mb5.2
AYDN  Tasoluk             69.19 308  i P    P        17 59 07.7  -0.1
LSZ   Lusaka              69.23 252  eP     P        17 59 08.6  +0.2
LSZ                                   pmax  pmax
        comp=Z,39nm,0.9s,mb5.3
LSZ   Lusaka              69.23 252  eP     P        17 59 08.6  +0.2
        comp=Z,39nm,0.9s,mb5.3
KARP  Karpathos           69.41 306  eP     P        17 59 06.5  -2.7
AKS   Akhisar             69.47 310  eP     P        17 59 08.9  -0.6
BALB  Balikesir           69.56 311  eP     P        17 59 09.0  -1.1
KDAG  Bornova             69.80 309  i P    P        17 59 11.4  -0.1
IZM   Izmir               69.81 309  eP     P        17 59 11.4  -0.2
TIXI  Tiksi               70.10  11⇑iP     P        17 59 11.0  -1.8
TIXI                                 eS     S        18 08 14.5  -4.7
TIXI                                  pmax  pmax
        comp=Z,89nm,1.2s,mb5.6
TIXI                                  MLR   MLR
        comp=Z,5µm,17.0s,MS5.8
PET   Petropavlovsk       70.48  35  eP     P        17 59 12.3  -3.1
PET                                  eS     S        18 08 15.0  -8.9
PET                                  e               18 09 03.8
PET                                   pmax  pmax
        comp=Z,33nm,1.1s,mb5.2
PET                                   pmax  pmax
        comp=Z,300nm,11.4s
PET                                   smax
        comp=E,300nm,12.8s
PET                                   smax
        comp=N,300nm,11.8s
PET                                   MLR   MLR
        comp=Z,2µm,21.0s,MS5.4
PET   Petropavlovsk       70.48  35  eP     P        17 59 14.6  -0.8
        comp=Z,18nm,0.6s,mb5.2
KIS   Kishinev            70.53 318⇑iP     P        17 59 15.0  -0.8
KIS                                  e               18 59 34.0
KIS                                   pmax  pmax
        comp=Z,250nm,2.0s,mb5.8
NPS   Neapolis            70.61 306  eP     P        17 59 16.5   0.0
PRK   Paraskevi           70.72 310  eP     P        17 59 16.8  -0.3
SANT  Santorini           70.90 307  eP     P        17 59 16.4  -1.8
        comp=Z,56nm,0.7s,mb5.6
IDI   Anoyia              71.20 306   P     P        17 59 19.5  -0.6
        comp=Z,36nm,0.5s,mb5.6,baz=99,slow=9.1,SNR=39
IDI                                   LR    LR       18 36 56.2
        comp=Z,390nm,19.3s,MS4.7,baz=360,slow=41
AKASG Malin Array Be      71.24 322   P     P        17 59 18.1  -2.0
        comp=Z,24nm,0.5s,mb5.4,baz=81,slow=5.0,SNR=343
SEY   Seymchan            71.35  24  eP     P        17 59 20.7  +0.3
SEY                                  e*SP   sP       17 59 40.1  +2.1
SEY                                                  18 01 58.2
SEY                                  ePPP   PPP      18 03 41.9  -0.5
SEY                                  eS     S        18 08 36.0  +2.2
SEY                                   *SS            18 08 58.8
SEY                                                  18 09 21.7
SEY                                  eSS    SS       18 13 15.9  +5.3
SEY                                  eSSS   SSS      18 16 21.9  +4.1
SEY                                   pmax  pmax
        comp=Z,80nm,1.3s,mb5.5
SEY                                   MLR   MLR
        comp=N,2µm,18.0s,MS5.8
SEY                                   MLR   MLR
        comp=Z,5µm,18.0s,MS5.8
SEY                                   MLR   MLR
        comp=E,4µm,23.0s,MS5.8
VAM   Vamos               71.78 306  eP     P        17 59 23.5   0.0
MLR   Muntele Rosu        72.13 316   P     P        17 59 25.4   0.0
        comp=E,43nm,0.6s,mb5.6,baz=47,slow=2.4,SNR=82
PTL   Penteli             72.39 308  eP     P        17 59 26.0  -1.1
KYTH  Kithira             72.82 306  eP     P        17 59 28.2  -1.5
VLI   Veliai              72.95 307  eP     P        17 59 29.8  -0.7
MNK   Minsk               73.11 326⇓eP     P        17 59 28.0  -3.0
MNK                                   pmax  pmax
        comp=Z,200nm,1.0s,mb6.0
PUL   Pulkovo             73.44 331  eP     P        17 59 32.8  -0.1
PUL                                   pmax  pmax
        comp=Z,95nm,0.5s,mb6.0
LBTB  Lobatse             73.68 242  eP     P        17 59 34.9  -0.1
LBTB                                 e               17 59 51.5
LBTB                                  pmax  pmax
        comp=Z,43nm,0.8s,mb5.4
LBTB  Lobatse             73.68 242  eP     P        17 59 34.9  -0.1
        comp=Z,43nm,0.8s,mb5.4
LBTB                                 ePcP   PcP      17 59 51.5  +0.6
ITM   Ithomi              73.81 307  eP     P        17 59 40.8  +5.3
VAY   Valandovo           73.84 312  i Pn   P        17 59 34.8  -0.8
VAY                                  i      pP       17 59 50.3  +1.9
VAY                                  i               18 00 20.6
IDID  Didziasalis         73.94 326  i P    P        17 59 35.4  -0.4
IDID                                  AMPb  AMB      17 59 40.9
        comp=Z,17nm,1.0s,mb4.9
EVR   Evrytania           74.11 309  eP     P        17 59 35.7  -1.5
IIGN  Ignalina            74.23 326  i P    P        17 59 37.2  -0.3
IIGN                                  AMPb  AMB      17 59 40.1
        comp=Z,24nm,0.5s,mb5.3
IZAR  Zarasai             74.32 327  eP     P        17 59 37.4  -0.6
IZAR                                  AMPb  AMB      17 59 42.5
        comp=Z,20nm,1.3s,mb4.9
ISAL  Salakas             74.34 327  i P    P        17 59 37.8  -0.4
ISAL                                  AMPb  AMB      17 59 40.8
        comp=Z,20nm,1.1s,mb5.0
BOLS  Boljevac            74.64 314⇑iP     P        17 59 39.3  -0.8
SKO   Skopje              74.76 312  i P    P        17 59 40.8  -0.1
SKO                                  i      pP       17 59 54.0  +0.3
BOSA  Boshof              74.82 239  eP     P        17 59 41.7  +0.2
BOSA                                  pmax  pmax
        comp=Z,27nm,0.7s,mb5.3
BOSA  Boshof              74.82 239  eP     P        17 59 41.6  +0.1
        comp=Z,27nm,0.7s,mb5.3
LVZ   Lovozero            74.84 340  eP     P        17 59 40.4  -0.4
LVZ                                   pmax  pmax
        comp=Z,63nm,0.6s,mb5.7
JAN   Janina              74.93 310  eP     P        17 59 40.8  -1.1
VLS   Valsamata           74.97 308  eP     P        17 59 40.7  -1.5
KWP   Kalwaria            75.08 320  eP     P        17 59 42.7  +0.2
APA   Apatity             75.13 340⇑iP     P        17 59 51.7  +9.2
APA                                  i               17 59 56.3
APA                                   pmax  pmax
        comp=Z,64nm,0.5s,mb5.8
SVIS  Svilajnac           75.23 314  eP     P        17 59 35.7  -7.8
KOLS  Kolonicke sedl      75.23 319  i P    P        17 59 44.4  +1.0
KOLS                                 eS     S        18 09 20.1  +2.2
GRUS  Gruza               75.54 314⇑iP     P        17 59 40.1  -5.2
MAW   Mawson              75.69 192  eP     P        17 59 46.1  +0.4
MAW                                   pmax  pmax
        comp=Z,16nm,0.8s
MAW   Mawson              75.69 192   P     P        17 59 46.2  +0.5
        comp=Z,19nm,0.8s,mb5.1,baz=23,slow=5.5,SNR=18
MAW                                   LR    LR       18 26 48.5
        comp=Z,1µm,20.9s,MS5.2,baz=24,slow=31
MAW   Mawson              75.69 192  eP     P        17 59 46.1  +0.4
        comp=Z,16nm,0.8s,mb5.0
KEK   Kerkira             75.74 310  eP     P        17 59 45.7  -0.9
CRVS  Cervenica-Dubn      75.76 319  i P    P        17 59 47.0  +0.6
CRVS                                 eS     S        18 09 22.8  -0.9
BEO   Belgrade            75.84 315⇑iP     P        17 59 46.5  -0.5
PVY   Plav                75.92 313⇑iP     P        17 59 47.4  -0.1
FINES FINESS Array B      75.95 332   P     P        17 59 47.0  -0.2
        comp=Z,33nm,0.4s,mb5.6,baz=101,slow=6.3,SNR=651
FINES                                 pP    pP       18 00 01.9  +1.8
        comp=Z,54nm,0.6s,baz=90,slow=7.6,SNR=15
FINES                                 LR    LR       18 37 27.1
        comp=Z,907nm,19.7s,MS5.1,baz=287,slow=39
IVA   Berane              76.01 313⇑iP     P        17 59 48.5  +0.5
KAF   Kangasniemi         76.04 333  ep     P        17 59 46.9  -0.8
        comp=Z,30nm,0.4s,mb5.6
KAF   Kangasniemi         76.04 333  eP     P        17 59 46.9  -0.8
KAF                                   pmax  pmax
        comp=Z,30nm,0.4s,mb5.6
DIVS  Divcibare           76.08 314⇓iP     P        17 59 47.9  -0.5
KECS  Kecovo              76.33 319  i P    P        17 59 50.0  +0.3
ULC   Ulcinj              76.39 312⇑iP     P        17 59 49.1  -1.1
PLE   Pljevlja            76.42 313⇑iP     P        17 59 50.7  +0.4
TTG   Podgorica           76.42 312⇑iP     P        17 59 48.8  -1.6
PKSN  Nyarlorinc          76.52 317  eP     P        17 59 51.2  +0.4
NIE   Niedzica            76.58 320  eP     P        17 59 51.7  +0.6
PSZ   Piszkesteto         76.64 318⇑iP     P        17 59 51.6  +0.1
NKY   Niksic              76.66 313⇑iP     P        17 59 50.2  -1.5
BUM   Brajici-Budva       76.68 312⇑iP     P        17 59 51.1  -0.8
UPM   Unac-Piva           76.76 313⇑iP     P        17 59 51.7  -0.6
HCY   Herceg Novi         76.99 312⇑iP     P        17 59 53.4  -0.2
BRY   Bratogost           77.00 313⇑iP     P        17 59 52.8  -0.8
PKS7  Kunszentmiklos      77.02 317  eP     P        17 59 54.8  +1.1
OJC   Ojcow               77.03 320⇑iP     P        17 59 53.7  +0.1
OJC   Ojcow               77.03 320  i P    P        17 59 53.7  +0.1
PKSM  Moragy              77.28 316⇑eP     P        17 59 54.8  -0.3
LIKS  Likavka             77.31 319  i P    P        17 59 55.1  -0.1
VYHS  Vyhne               77.42 319  i P    P        17 59 56.0  +0.2
VYHS                                 ePP    PP       18 02 53.6  +1.4
SRO2  Moca                77.63 318  i P    P        17 59 57.6  +0.6
RHK1  Bakonya             77.66 316⇑eP     P        17 59 56.8  -0.4
SRO   Srobarova           77.69 318  i P    P        17 59 58.0  +0.7
SRO1  Iza                 77.73 318  i P    P        17 59 59.9  +2.3
OKC   Ostrava-Krasne      78.03 320  eP     P        17 59 59.3  +0.1
DRV   Dumont d’Urvil      78.09 163   S     S        18 09 52.0  +3.4
KEV   Kevo                78.12 341  ep     P        17 59 58.2  -1.0
        comp=Z,19nm,0.6s,mb5.2
KEV   Kevo                78.12 341  eP     P        17 59 58.2  -1.0
KEV                                   pmax  pmax
        comp=Z,19nm,0.6s,mb5.2
SMOL  Smolenice           78.35 318  eP     P        18 00 03.0  +2.1
MORC  Moravsky Berou      78.42 320  eP     P        18 00 01.2  -0.1
MORC                                  pmax  pmax
        comp=Z,68nm,1.1s,mb5.5
MORC  Moravsky Berou      78.42 320  eP     P        18 00 01.1  -0.1
        comp=Z,68nm,1.1s,mb5.5
ZST   Bratislava          78.53 318  i P    P        18 00 02.5  +0.5
ZST                                  e               18 00 04.4
ZST                                  ePP    PP       18 03 10.4  +8.7
ARCES ARCESS Array B      78.55 340   P     P        18 00 01.2  -0.4
        comp=Z,37nm,0.4s,mb5.6,baz=91,slow=5.6,SNR=364
ARCES                                 pP    pP       18 00 17.4  +3.0
        comp=Z,48nm,0.8s,baz=101,slow=6.2,SNR=7.2
ARCES                                 LR    LR       18 36 40.1
        comp=Z,2µm,21.8s,MS5.3,baz=284,slow=37
ARE0  ARCESS Array S      78.55 340  eP     P        18 00 01.4  -0.2
BILL  Bilibino            78.61  21  eP     P        18 00 00.9  -1.1
BILL                                  pmax  pmax
        comp=Z,21nm,0.9s,mb5.1
BILL  Bilibino            78.61  21  eP     P        18 00 00.8  -1.1
        comp=Z,21nm,0.9s,mb5.1
SISC  Sisak               78.79 315  i P    P        18 00 04.5  +1.1
MTTG  Motta San Giov      78.81 308  eP     P        18 00 05.4  +1.7
SOP   Sopron              78.85 318⇑eP     P        18 00 05.5  +1.8
SOP   Sopron              78.85 318⇑e      P        18 00 05.5  +1.8
FX1   Attu Island--F      79.00  37  eP     P        18 00 04.5  +0.1
GKP   Gorka Klasztor      79.01 323  eP     P        18 00 04.2  -0.3
MGR   Morigerati          79.03 310  eP     P        18 00 04.3  -0.5
KTK1  Kautokeino          79.17 340  eP     P        18 00 04.8  -0.3
SGO   Sicignano           79.24 310  eP     P        18 00 06.2  +0.2
DPC   Dobruska-Polom      79.26 320  eP     P        18 00 06.5  +0.6
DPC                                  eS     S        18 09 59.9  -1.4
KSP   Ksiaz               79.32 321⇑eP     P        18 00 06.7  +0.5
KSP                                  epP    pP       18 00 17.9  -1.2
KSP                                  eS     S        18 09 57.0  -5.0
KSP                                   LR    LR
        comp=Z,2µm,21.6s,MS5.3
KSP   Ksiaz               79.32 321  eP     P        18 00 06.9  +0.7
SUR   Sutherland          79.42 236  eP     P        18 00 06.8  -0.3
        comp=Z,43nm,0.8s,mb5.4
UPC   Upice               79.47 320  eP     P        18 00 07.6  +0.6
ARSA  Arzberg             79.51 317⇑iP     P        18 00 07.7  +0.4
        comp=Z,64nm,1.2s,mb5.4
BOJS  Bojanci             79.58 315  eP     P        18 00 07.8  +0.1
PERS  Pernice             79.75 316  eP     P        18 00 08.5  -0.1
CII   Carovilli           80.05 311   P     P        18 00 11.0  +0.7
LJU   Ljubljana           80.12 316  i P    P        18 00 11.1  +0.5
        comp=Z,200nm,1.3s,mb5.9
LJU   Ljubljana           80.12 316  i P    P        18 00 11.1  +0.5
LJU                                   pmax  pmax
        comp=Z,200nm,1.3s,mb5.9
OBKA  Obir                80.13 316⇑iP     P        18 00 11.2  +0.6
        comp=Z,57nm,1.3s,mb5.3
PRU   Pruhonice           80.37 320  eP     P        18 00 11.7  -0.1
        comp=Z,40nm,1.1s,mb5.3
PRU                                  eS     S        18 10 12.4  -0.5
PVCC  Panska Ves          80.39 320  eP     P        18 00 12.5  +0.6
MOA   Molln               80.41 318⇑iP     P        18 00 12.1   0.0
        comp=Z,37nm,1.4s,mb5.1
SDI   San Donato          80.42 311  eP     P        18 00 12.9  +0.6
VOY   Vojsko              80.56 316  eP     P        18 00 12.7  -0.2
VOY                                  e      pP       18 00 27.9  +2.0
VOY                                  e               18 00 56.2
BSD   Bornholm Skovb      80.56 325⇑iP     P        18 00 12.0  -0.8
BSD                                  i               18 00 28.8
BSD                                   pmax  pmax
        comp=Z,24nm,0.6s,mb5.3
BSD   Bornholm Skovb      80.56 325⇑iP     P        18 00 12.0  -0.8
        comp=Z,24nm,0.6s,mb5.3
BSD                                  i               18 00 28.8
TRI   Trieste             80.63 315  eP     P        18 00 12.9  -0.4
PTQR  Pietraquaria        80.74 312  eP     P        18 00 13.9  -0.1
AQU   L’Aquila            80.75 312  eP     P        18 00 14.0   0.0
TRO   Tromso              80.81 340  eP     P        18 00 12.7  -1.1
TRO                                  esP    sP       18 00 33.7  +2.2
BRG   Berggiesshubel      80.81 321  i P    P        18 00 14.5  +0.3
BRG                                  i               18 00 32.9
BRG                                  eS     S        18 10 15.6  -1.9
BRG                                   pmax  pmax
        comp=Z,34nm,1.1s,mb5.2
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BRG				MLR	MLR		
	comp=Z,1µm,28.2s,MS5.2						
BRG	Berggiesshubel	80.81	321	iP	P	18 00 14.5	+0.3
	comp=Z,34nm,1.1s,mb5.2						
BRG				i		18 00 16.2	
BRG				i		18 00 32.9	
BRG				eS	S	18 10 15.6	-1.9
BRG				e		18 13 54.2	
BRG				LR	LR		
	comp=Z,1µm,28.2s,MS5.2						
GEC2	GERESS Array S	80.84	319	eP	P	18 00 14.9	+0.5
GEC2				pmax	pmax		
	comp=Z,80nm,1.2s,mb5.5						
GEC2	GERESS Array S	80.84	319	eP	P	18 00 14.9	+0.5
	comp=Z,80nm,1.2s,mb5.5						
GERES	GERESS Array B	80.84	319	P	P	18 00 14.8	+0.4
	comp=Z,14nm,0.5s,mb5.2,baz=119,slow=5.3,SNR=236						
GERES				LR	LR	18 44 13.6	
	comp=Z,359nm,18.1s,MS4.8,baz=268,slow=42						
KHC	Kasperske Hory	80.94	319	eP	P	18 00 14.8	-0.1
KHC				eS	S	18 10 19.5	+0.6
PTCC	Patocco-Chiusa	80.95	316	eP	P	18 00 14.9	-0.1
NRCA	Norcia	80.98	312	eP	P	18 00 15.0	-0.3
KBA	Koelnbreinsper	80.99	317	⇑iP	P	18 00 15.3	+0.1
	comp=Z,26nm,0.8s,mb5.2						
KBA	Koelnbreinsper	80.99	317	⇑iP	P	18 00 15.3	+0.1
KBA				pmax	pmax		
	comp=Z,27nm,0.8s,mb5.2						
RUE	Ruedersdorf	81.02	322	eP	P	18 00 15.3	+0.1
	comp=Z,43nm,0.4s,mb5.7						
GMNA	Gemona	81.02	316	eP	P	18 00 15.5	+0.2
CERT	Cerreto	81.05	312	eP	P	18 00 14.6	-1.1
SNTG	Esanatoglia	81.12	313	eP	P	18 00 16.5	+0.6
ARV	Arcevia	81.13	313	eP	P	18 00 16.5	+0.5
FSSB	Fossombrone	81.25	313	eP	P	18 00 17.2	+0.5
MNS	Montasola	81.28	312	eP	P	18 00 16.0	-0.8
FVI	Forni Avoltri	81.35	316	eP	P	18 00 17.0	-0.1
WET	Wettzell	81.40	319	eP	P	18 00 17.7	+0.4
CLL	Collm	81.43	321	⇑iP	P	18 00 17.2	-0.2
CLL				pmax	pmax		
	comp=Z,34nm,1.4s,mb5.1						
CLL	Collm	81.43	321	⇑iP	P	18 00 17.2	-0.2
	comp=Z,34nm,1.4s,mb5.1						
CLL	Collm	81.43	321	⇑P	P	18 00 17.2	-0.2
	comp=Z,logA/T=1.4,mb5.1						
CLL				e		18 00 43.0	
RGN	Rugen	81.44	324	eP	P	18 00 18.2	+0.9
NKC	Novy Kostel	81.73	320	eP	P	18 00 19.3	+0.3
NKC				eS	S	18 10 27.2	+0.2
SFI	Santa Sofia	81.93	314	eP	P	18 00 21.2	+1.0
MOR8	Moi Rana	81.94	336	eP	P	18 00 18.8	-1.0
MOR8				epP	pP	18 00 33.7	+1.0
PGD	Poggio Sodo	82.02	313	eP	P	18 00 21.9	+1.3
CTI	Castel Tesino	82.12	316	eP	P	18 00 21.5	+0.4
VMG	Vicchio	82.15	314	eP	P	18 00 22.5	+1.3
WTTA	Wattenberg	82.16	317	⇑iP	P	18 00 21.0	-0.2
	comp=Z,53nm,1.1s,mb5.4						
WTTA	Wattenberg	82.16	317	⇑iP	P	18 00 21.0	-0.2
WTTA				pmax	pmax		
	comp=Z,53nm,1.1s,mb5.4						
WATA	Walderalm	82.20	317	⇑iP	P	18 00 21.0	-0.5
	comp=Z,22nm,1.1s,mb5.0						
WATA	Walderalm	82.20	317	⇑iP	P	18 00 21.0	-0.5
WATA				pmax	pmax		
	comp=Z,22nm,1.1s,mb5.0						
MOX	Moxa	82.28	320	eP	P	18 00 22.1	+0.3
MOX	Moxa	82.28	320	iP	P	18 00 22.1	+0.3
SEI	Scarperia	82.29	314	eP	P	18 00 23.8	+1.8
CSNT	Castellina Chi	82.33	313	eP	P	18 00 21.4	-0.8
FUR	Furstenfeldbru	82.42	318	eP	P	18 00 22.6	0.0
SQTA	Sankt Quirin	82.45	317	⇑iP	P	18 00 22.6	-0.1
	comp=Z,16nm,0.7s,mb5.1						
SQTA	Sankt Quirin	82.45	317	⇑iP	P	18 00 22.6	-0.1
SQTA				pmax	pmax		
	comp=Z,16nm,0.7s,mb5.1						
GRA1	Grafenberg Arr	82.50	319	eP	P	18 00 23.7	+0.8
	comp=Z,69nm,1.2s,mb5.5						
GRF	Grafenberg Arr	82.50	319	eP	P	18 00 23.7	+0.8
GRF				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.5						
GRF	Grafenberg Arr	82.50	319	eP	P	18 00 23.7	+0.8
GRF				pmax	pmax		
	comp=Z,69nm,1.2s,mb5.5						
GRF	Grafenberg Arr	82.50	319	eP	P	18 00 23.7	+0.8
	comp=Z,69nm,1.2s,mb5.5						
LOF	Lofoten	82.51	338	eP	P	18 00 25.0	+2.4
LOF				AMb	AMB	18 00 30.6	
	comp=Z,483nm,1.8s,mb6.2						
LOF				esP	sP	18 00 40.9	+0.5
LOF	Lofoten	82.51	338	eP	P	18 00 25.0	+2.4
	comp=Z,483nm,1.8s,mb6.2						
MOTA	Moosalm	82.52	317	⇑iP	P	18 00 22.9	-0.2
	comp=Z,43nm,1.2s,mb5.3						
MOTA	Moosalm	82.52	317	⇑iP	P	18 00 22.9	-0.2
MOTA				pmax	pmax		
	comp=Z,43nm,1.2s,mb5.3						
GRFL	Gerfalco	82.55	313	eP	P	18 00 22.7	-0.7
ZCCA	Zocca	82.56	314	eP	P	18 00 25.3	+1.9
NSS	Namsos	82.83	334	eP	P	18 00 23.4	-0.9
NSS				AMb	AMB	18 00 45.8	
	comp=Z,154nm,1.3s,mb5.9						
NSS	Namsos	82.83	334	eP	P	18 00 23.4	-0.9
	comp=Z,154nm,1.3s,mb5.9						
BDI	Bagni Di Lucca	82.83	314	eP	P	18 00 24.1	-0.7
GSCL	Gusciola	82.84	314	eP	P	18 00 26.1	+1.3
PII	Pisa	82.89	313	eP	P	18 00 23.8	-1.2
SAL	Salo	82.90	315	eP	P	18 00 25.9	+0.8
MAIM		82.91	314	P	P	18 00 24.4	-0.8
NB2	NORSAR Subarra	82.95	331	P	P	18 00 24.4	-0.6
	comp=Z,25nm,0.8s,mb5.3,baz=95,slow=5.3						
NB2	NORSAR Subarra	82.95	331	P	P	18 00 24.4	-0.6
	baz=95,slow=5.3						
NB2	NORSAR Subarra	82.95	331	P	P	18 00 24.4	-0.6
NB2				pmax	pmax		
	comp=Z,25nm,0.8s,mb5.3						
NOA	NORSAR Array B	82.95	331	P	P	18 00 24.8	-0.2
	comp=Z,17nm,1.0s,mb5.0,baz=94,slow=5.4,SNR=18						
NOA				pP	pP	18 00 39.9	+1.9
	comp=Z,22nm,0.9s,baz=95,slow=4.9,SNR=10						
NOA				PP	PP	18 03 37.9	+0.1
	comp=Z,3.3nm,0.8s,baz=90,slow=8.3,SNR=3.5						
NOA				LR	LR	18 40 48.8	
	comp=Z,740nm,21.7s,MS5.0,baz=90,slow=38						
ERBM	Eremo	82.97	314	eP	P	18 00 26.9	+1.5
SARO	Sassorosso	82.98	314	P	P	18 00 25.2	-0.3
VLC	Villacollemand	82.99	314	eP	P	18 00 24.8	-0.7
	comp=Z,8.8nm,0.8s,mb4.8						
BRMO	Bormio	83.01	316	eP	P	18 00 26.2	+0.6
VALM		83.09	314	P	P	18 00 26.9	+0.9
CLZ	Clausthal	83.09	322	eP	P	18 00 26.4	+0.5
	comp=Z,38nm,1.2s,mb5.3						
NAO01	NORSAR Array S	83.10	331	eP	P	18 00 25.6	-0.2
	comp=Z,22nm,0.9s,mb5.2						
VINC	Vinca	83.16	314	P	P	18 00 25.7	-0.7
BSEG	Bad Segeberg	83.17	324	eP	P	18 00 26.9	+0.7
BACM		83.21	314	P	P	18 00 26.6	-0.1
GRAM		83.22	314	P	P	18 00 27.4	+0.7
DAVA	Damuels	83.35	317	iP	P	18 00 27.7	+0.4
	comp=Z,68nm,1.2s,mb5.6						
CODM		83.37	314	P	P	18 00 27.5	0.0
BOB	Bobbio (Coli)	83.66	314	eP	P	18 00 29.8	+0.8
VSL	Villasalto	83.77	309	eP	P	18 00 30.0	+0.3
STU	Stuttgart	83.82	318	eP	P	18 00 29.3	-0.4
STU				pmax	pmax		
	comp=Z,9.0nm,0.5s,mb5.2						
STU	Stuttgart	83.82	318	eP	P	18 00 29.3	-0.4
	comp=Z,8.8nm,0.5s,mb5.2						
MUD	Monsted U’grnd	83.87	326	iP	P	18 00 30.1	+0.4
MUD				i		18 00 46.6	
MUD				pmax	pmax		
	comp=Z,22nm,0.7s,mb5.4						
MUD	Monsted U’grnd	83.87	326	iP	P	18 00 30.1	+0.4
	comp=Z,22nm,0.7s,mb5.4						
MUD				i		18 00 46.6	
PGF	Pioggiola	84.01	312	eP	P	18 00 31.4	+0.6
	comp=Z,54nm,0.9s,mb5.4						
PGF	Pioggiola	84.01	312	eP	P	18 00 31.4	+0.6
PGF				pmax	pmax		
	comp=Z,27nm,0.9s,mb5.4						
DOMB	Dombas	84.02	332	eP	P	18 00 30.2	-0.1
VAI	Varese	84.13	315	eP	P	18 00 30.6	-0.7
PCP	Pian Castagno	84.31	314	P	P	18 00 32.3	+0.1
BFO	Black Forest	84.39	318	eP	P	18 00 32.5	-0.1
BFO				pmax	pmax		
	comp=Z,16nm,0.9s,mb5.2						
BFO	Black Forest	84.39	318	eP	P	18 00 32.5	-0.1
	comp=Z,16nm,0.9s,mb5.2						
FIN	Finale Ligure	84.55	314	eP	P	18 00 33.7	+0.2
FELD	Feldberg	84.62	318	eP	P	18 00 33.3	-0.4
MCGN	Macugnaga	84.67	316	eP	P	18 00 35.4	+1.3
ORX	Oropa	84.68	315	P	P	18 00 33.7	-0.4
LANF	Langenberg	84.73	319	eP	P	18 00 34.8	+0.5
MOL	Molde	84.73	332	eP	P	18 00 38.4	+4.4
MOL				esP	sP	18 00 53.1	+1.5
IMI	Imperia	84.79	314	eP	P	18 00 36.1	+1.4
ROB	Roburent	84.79	314	P	P	18 00 34.8	+0.1
TRAV		84.85	315	P	P	18 00 34.5	-0.5
ABH	Alteburg	84.88	320	eP	P	18 00 37.1	+2.1
MONE	Monesi	84.88	314	P	P	18 00 35.9	+0.7
NEGI	Negi	84.93	313	P	P	18 00 35.6	+0.3
WLS	Welschbruch	85.04	318	eP	P	18 00 35.8	0.0
CDF	Champ du Feu	85.09	318	eP	P	18 00 35.8	-0.3
	comp=Z,25nm,0.9s,mb5.0						
CDF	Champ du Feu	85.09	318	eP	P	18 00 35.8	-0.3
CDF				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
ENR	Entracque	85.12	314	P	P	18 00 36.6	+0.3
SBF	Sospel	85.12	313	eP	P	18 00 36.6	+0.3
	comp=Z,106nm,0.8s,mb5.7						
SBF	Sospel	85.12	313	eP	P	18 00 36.6	+0.3
SBF				pmax	pmax		
	comp=Z,53nm,0.8s,mb5.7						
AUTN	L’Aution	85.12	314	eP	P	18 00 39.4	+3.1
ECH	Echery	85.18	318	eP	P	18 00 38.2	+1.7
STV	Sta Anna Valdi	85.19	314	P	P	18 00 36.9	+0.3
RSP	Reno Superiore	85.21	315	P	P	18 00 36.7	0.0
BHB	Bricherasio	85.21	314	P	P	18 00 36.6	-0.1
TOUF	Mont Tournerai	85.25	314	eP	P	18 00 39.5	+2.5
LSD	Ceresole Reale	85.27	315	P	P	18 00 37.5	+0.5
BLS5	Blasjo	85.30	329	eP	P	18 00 38.5	+1.7
BLS5				esP	sP	18 00 56.5	+2.0
MVIF	Mont Vial	85.32	314	eP	P	18 00 40.3	+3.0
PZZ	Prazzo	85.34	314	P	P	18 00 37.5	+0.1
FENE	Fenestrelle	85.35	315	P	P	18 00 37.4	0.0
SURF	Saint Ours	85.55	314	eP	P	18 00 39.1	+0.7
RRL	Cesana Torines	85.55	315	P	P	18 00 38.1	-0.3
LPG	La Plagne	85.55	315	eP	P	18 00 38.9	+0.5
	comp=Z,93nm,0.8s,mb5.8						
LPG	La Plagne	85.55	315	eP	P	18 00 38.9	+0.5
LPG				pmax	pmax		
	comp=Z,46nm,0.8s,mb5.8						
MBDF	Montbardon	85.57	314	eP	P	18 00 38.1	-0.4
	comp=Z,28nm,0.8s,mb5.2						
MBDF	Montbardon	85.57	314	eP	P	18 00 38.1	-0.4
MBDF				pmax	pmax		
	comp=Z,14nm,0.8s,mb5.2						
BNI	Bardonecchia	85.62	315	eP	P	18 00 37.9	-0.8
BNI				pmax	pmax		
	comp=Z,13nm,0.8s,mb5.2						
BNI	Bardonecchia	85.62	315	eP	P	18 00 37.9	-0.9
	comp=Z,13nm,0.8s,mb5.2						
RSL	Roselend	85.63	315	eP	P	18 00 39.0	+0.2
HAU	Haudompre	85.73	318	eP	P	18 00 39.0	-0.2
	comp=Z,57nm,0.8s,mb5.6						
HAU				eR			
	comp=Z,602nm,22.5s						
HAU	Haudompre	85.73	318	eP	P	18 00 39.0	-0.2
HAU				pmax	pmax		
	comp=Z,29nm,0.8s,mb5.6						
HAU				MLR	MLR		
	comp=Z,600nm,22.5s,MS4.9						
WLF	Walferdange	85.79	319	eP	P	18 00 38.7	-0.8
WLF				pmax	pmax		
	comp=Z,33nm,1.4s,mb5.4						
WLF	Walferdange	85.79	319	eP	P	18 00 38.7	-0.8
	comp=Z,33nm,1.4s,mb5.4						
THEF	They Montfort	85.96	318	eP	P	18 00 40.4	+0.1
OG05	Jujurieux	86.43	316	eP	P	18 00 43.4	+0.7
BAIF	Baives	87.03	320	eP	P	18 00 46.0	+0.5
	comp=Z,27nm,0.7s,mb5.3						
BAIF	Baives	87.03	320	eP	P	18 00 46.0	+0.5
BAIF				pmax	pmax		
	comp=Z,14nm,0.7s,mb5.3						
SSF	Saint Saulge	87.71	317	eP	P	18 00 48.8	-0.1
	comp=Z,11nm,0.6s,mb5.0						
SSF	Saint Saulge	87.71	317	eP	P	18 00 48.8	-0.1
SSF				pmax	pmax		
	comp=Z,6.0nm,0.6s,mb5.0						
PLDF	La Plantade	87.71	316	eP	P	18 00 50.4	+1.5
PYM	Petit Puy Mans	88.16	316	eP	P	18 00 52.7	+1.7
BGF	Bois d’Agland	88.20	316	eP	P	18 00 51.6	+0.4
	comp=Z,76nm,1.0s,mb5.6						
BGF	Bois d’Agland	88.20	316	eP	P	18 00 51.6	+0.4
BGF				pmax	pmax		
	comp=Z,38nm,1.0s,mb5.6						
RJF	Les Rejaudoux	89.24	315	eP	P	18 00 57.0	+0.8
	comp=Z,22nm,0.8s,mb5.2						
RJF				eR			
	comp=Z,512nm,20.8s						
RJF	Les Rejaudoux	89.24	315	eP	P	18 00 57.0	+0.8
RJF				pmax	pmax		
	comp=Z,11nm,0.8s,mb5.2						
RJF				MLR	MLR		
	comp=Z,510nm,20.8s,MS4.9						
EMIR	Miracle	89.58	312	P	P	18 00 59.3	+1.4
	comp=Z,6.3nm,0.4s,mb5.3						
VNDA	Vanda	89.67	168	eP	P	18 00 57.9	+0.4
VNDA				pmax	pmax		
	comp=Z,10.0nm,1.0s						
VNDA	Vanda	89.67	168	P	P	18 00 58.2	+0.6
	comp=Z,5.8nm,0.9s,mb4.9,baz=300,slow=4.1,SNR=16						
VNDA				LR	LR	18 39 47.7	
	comp=Z,2µm,18.2s,MS5.5,baz=300,slow=35						
VNDA	Vanda	89.67	168	eP	P	18 00 57.9	+0.4
	comp=Z,10nm,1.0s,mb5.1						
ANM	Nome	89.81	25	eP	P	18 00 59.9	+1.5
EPOB	Poblet	89.98	311	P	P	18 00 59.4	-0.4
	comp=Z,3.6nm,0.5s,mb5.0						
FLN	La Foliniere	90.20	319	eP	P	18 01 00.9	+0.3
	comp=Z,44nm,0.8s,mb5.5						
FLN				eR			
	comp=Z,551nm,20.8s						
FLN	La Foliniere	90.20	319	eP	P	18 01 00.9	+0.3
FLN				pmax	pmax		
	comp=Z,22nm,0.8s,mb5.5						
FLN				MLR	MLR		
	comp=Z,550nm,20.8s,MS5.0						
EBR	Ebro Roquetas	90.48	311	eTs		18 01 11.5	
EBIE	Bielsa	90.52	313	P	P	18 01 05.6	+3.3
	comp=Z,24nm,1.3s,mb5.4						
ERTA	Horta de San J	90.58	311	P	P	18 01 03.9	+1.3
	comp=Z,87nm,1.5s,mb5.9						
DAG	Danmarks Havn	90.74	348	eP	P	18 01 02.0	-0.6
DAG	Danmarks Havn	90.74	348	iP	P	18 01 02.0	-0.6
SBA	Scott Base	90.77	168	eP	P	18 01 03.4	+0.7
SBA				pmax	pmax		
	comp=Z,34nm,1.2s,mb5.5						
SBA	Scott Base	90.77	168	eP	P	18 01 03.4	+0.7
	comp=Z,34nm,1.2s,mb5.5						
ETSF	Etsaut	91.00	313	eP	P	18 01 06.0	+1.4
	comp=Z,30nm,0.8s,mb5.4						
ETSF	Etsaut	91.00	313	eP	P	18 01 06.0	+1.4
ETSF				pmax	pmax		
	comp=Z,15nm,0.8s,mb5.4						
EMOS	Mosqueruela	91.26	310	P	P	18 01 07.2	+1.4
	comp=Z,45nm,1.2s,mb5.7						
EMUR	La Murta	92.18	308	P	P	18 01 07.4	-2.7
	comp=Z,3.0nm,0.3s,mb5.1						
ELAN	Lanestosa	93.04	314	P	P	18 01 14.0	+0.1
	comp=Z,2.8nm,0.5s,mb5.0						
EVIA	Vianos	93.05	309	P	P	18 01 16.3	+2.2
EVIA				pmax	pmax		
	comp=Z,13nm,0.9s,mb5.4						
EVIA	Vianos	93.05	309	P	P	18 01 16.3	+2.2
	comp=Z,13nm,0.9s,mb5.4						
EBER	Berja	93.61	307	P	P	18 01 18.5	+1.8
	comp=Z,11nm,0.6s,mb5.5						
EQES	Quesada	93.62	308	P	P	18 01 20.2	+3.5
	comp=Z,8.9nm,0.8s,mb5.2						
GUD	Guadarrama	94.00	311	P	P	18 01 19.1	+0.8
GUD				pmax	pmax		
	comp=Z,5.0nm,0.6s,mb5.1						
GUD	Guadarrama	94.00	311	P	P	18 01 19.1	+0.8
	comp=Z,4.6nm,0.6s,mb5.1						
ESDC	Sonseca Array	94.01	310	P	P	18 01 19.3	+0.9
	comp=Z,2.1nm,0.5s,mb4.8,baz=62,slow=4.2,SNR=24						
ESDC				PKKPbc		18 18 20.0	
	comp=Z,0.8nm,0.7s,baz=256,slow=2.7,SNR=7.1						
ESDC	Sonseca Array	94.01	310	P	P	18 01 18.9	+0.5
	comp=Z,5.4nm,0.5s,mb5.2						
IMA	Indian Mountai	94.12	22	eP	P	18 01 19.5	+1.3
IMA				pmax	pmax		
	comp=Z,18nm,0.8s,mb5.5						
IMA	Indian Mountai	94.12	22	eP	P	18 01 19.5	+1.3
	comp=Z,18nm,0.8s,mb5.5						
EBAN	Banos Encina	94.12	309	P	P	18 01 19.6	+0.7
EBAN				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.8						
EBAN	Banos Encina	94.12	309	P	P	18 01 19.6	+0.6
	comp=Z,3.4nm,0.7s,mb4.9						
QSPA	South Pole Qui	94.66	180	⇓iP	P	18 01 21.9	+1.5
	comp=Z,4.7nm,0.8s,mb5.0						
EADA	Adamuz	94.74	309	P	P	18 01 20.7	-1.0
	comp=Z,2.8nm,0.9s,mb4.7						
ILAR	Eielson Array	97.24	22	P	P	18 01 31.4	-1.1
	comp=Z,1.1nm,0.6s,mb4.5,baz=275,slow=4.1,SNR=18						
ILAR				PP	PP	18 05 28.5	-3.5
	comp=Z,0.6nm,0.9s,baz=303,slow=6.0,SNR=4.9						
ILAR				PKKPbc		18 18 10.1	
	comp=Z,1.3nm,0.8s,baz=161,slow=2.8,SNR=8.8						
ILAR				LR	LR	18 50 41.8	
	comp=Z,1µm,18.3s,MS5.4,baz=321,slow=39						
MENT	Mentasta	99.36	23	eP	P	18 01 43.3	+1.2
DBIC	Dimbokro	99.38	278	P	P	18 01 43.5	+0.2
	comp=Z,2.3nm,0.5s,mb4.9,baz=35,slow=4.6,SNR=5.3						
DBIC				LR	LR	18 46 22.5	
	comp=Z,1µm,18.6s,MS5.4,baz=69,slow=35						
INK	Inuvik	99.70	16	LR	LR	18 53 04.2	
	comp=Z,2µm,20.1s,MS5.7,baz=292,slow=39						
YKA	Yellowknife Ar	109.21	14	Pdiff	Pdif	18 02 28.2	+2.4
	comp=Z,0.2nm,0.6s,baz=328,slow=4.9,SNR=8.8						
YKA				PKiKP		18 06 30.6	
	comp=Z,0.2nm,0.4s,baz=325,slow=2.7,SNR=5.3						
YKA				PP	PP	18 07 10.0	+7.5
	comp=Z,1.3nm,0.8s,baz=334,slow=7.1,SNR=4.8						
YKA				PKKPbc		18 17 35.6	
	comp=Z,1.4nm,0.8s,baz=149,slow=2.8,SNR=22						
TBI	Tubuai	115.13	113	ePP	PP	18 07 39.6	-6.3
TBI				eSP	SP	18 17 21.5	+5.3
TBI				eLR	LR	18 41 31.7	
	comp=Z,1µm,28.2s						
PPT	Papeete	115.48	107	ePP	PP	18 07 39.1	-9.3
PPT				eSP	SP	18 17 22.5	+3.1
PPT				eLR	LR	18 41 41.0	
	comp=Z,966nm,24.2s						
SCHQ	Schefferville	118.79	348	PKKPbc		18 17 02.7	
	comp=Z,2.6nm,0.7s,baz=256,slow=8.3,SNR=5.2						
NEW	Newport	120.13	24	PKIKP	PKPdf	18 06 50.5	+0.6
MSO	Missoula	122.56	23	ePKPdf	PKPdf	18 06 55.9	+1.3
BMO	Blue Mountains	122.71	27	ePKIKP	PKPdf	18 06 57.1	+2.2
CHMT	Chamberlain Mo	122.76	23	ePKPdf	PKPdf	18 06 56.3	+1.4
MOD	Modoc	123.46	31	ePKPdf	PKPdf	18 06 58.7	+2.3
WVOR	Wild Horse Val	123.91	30	ePKIKP	PKPdf	18 06 59.5	+2.2
BOZ	Bozeman (W)	124.44	23	ePKIKP	PKPdf	18 07 00.1	+1.9
LAO	LASA Array	125.40	18	ePKPdf	PKPdf	18 07 02.5	+2.5
YMR	Madison River	125.52	23	ePKPdf	PKPdf	18 07 03.2	+2.9
YFT	Old Faithful	125.75	23	ePKPdf	PKPdf	18 07 03.3	+2.5
IMW	Indian Meadow	126.18	23	ePKPdf	PKPdf	18 07 03.2	+1.6
MOOW	Moose Ponds	126.38	23	ePKPdf	PKPdf	18 07 04.0	+2.0
TPAW	Teton Pass	126.51	24	ePKPdf	PKPdf	18 07 04.3	+2.0
LOHW	Long Hollow	126.55	23	ePKPdf	PKPdf	18 07 04.6	+2.2
WUWY	Wally Ulrich	126.56	23	ePKPdf	PKPdf	18 07 04.8	+2.4
SNOW	Snow King Moun	126.61	23	ePKPdf	PKPdf	18 07 04.8	+2.3
ELK	Elko	126.85	29	ePKIKP	PKPdf	18 07 05.5	+2.4
NVAR	Mina Array Bea	127.03	33	PKP	PKPdf	18 07 05.6	+2.1
	comp=Z,3.0nm,0.6s,baz=276,slow=3.4,SNR=24						
NVAR				pPKP		18 07 21.8	
	comp=Z,11nm,0.8s,baz=232,slow=2.6,SNR=14						
AHID	Auburn Hatcher	127.06	24	ePKPdf	PKPdf	18 07 05.5	+2.1
EYMN	Ely	127.22	6	ePKPdf	PKPdf	18 07 05.3	+1.8
PDAR	Pinedale Array	127.67	23	PKP	PKPdf	18 07 06.0	+1.4
	comp=Z,2.8nm,0.6s,baz=95,slow=2.3,SNR=25						
PDAR				pPKP		18 07 22.0	
	comp=Z,9.2nm,0.9s,baz=90,slow=1.4,SNR=11						
PDAR				SKPbc		18 10 18.1	
	comp=Z,0.9nm,0.6s,baz=14,slow=0.7,SNR=4.6						
PDAR				PKKPbc		18 16 28.4	
	comp=Z,0.9nm,0.8s,baz=143,slow=5.4,SNR=6.6						
BGU	Big Grassy Mou	127.74	27	ePKPdf	PKPdf	18 07 07.1	+2.4
HWUT	Hardware Ranch	127.83	25	ePKPdf	PKPdf	18 07 06.9	+2.0
RKT	Rikitea	128.31	116	ePS	PS	18 19 18.9	+0.8
RKT				eLR	LR	18 47 37.3	
	comp=Z,846nm,26.5s						
TRCR	Troy Canyon	128.52	31	ePKPdf	PKPdf	18 07 09.3	+2.9
NLU	North Lily Min	128.95	27	ePKPdf	PKPdf	18 07 10.0	+2.9
TMUT	Trail Mountain	129.87	27	ePKPdf	PKPdf	18 07 12.0	+3.1
PV10	Paradox Valley	131.59	26	ePKPdf	PKPdf	18 07 16.1	+3.9
ISCO	Idaho Springs	131.72	21	ePKIKP	PKPdf	18 07 14.2	+1.8
BINY	Binghamton	132.60	351	ePKPdf	PKPdf	18 07 15.7	+1.8
SDCO	Great Sand Dun	133.57	23	ePKPdf	PKPdf	18 07 17.7	+1.7
SDCO				eSKP		18 10 41.0	
SSPA	Standing Stone	134.41	353	ePKPdf	PKPdf	18 07 18.2	+0.9
ACSO	Alum Creek Sta	135.22	358	ePKPdf	PKPdf	18 07 20.1	+1.2
ANMO	Albuquerque	135.58	26	ePKPdf	PKPdf	18 07 22.1	+2.4
ANMO				eSKP		18 10 47.3	
MCWV	Mont Chateau	135.59	355	ePKPdf	PKPdf	18 07 21.4	+1.8
TUC	Tucson	135.66	32	ePKIKP	PKPdf	18 07 21.7	+1.8
LAZ	Ladron	135.75	27	ePKPdf	PKPdf	18 07 22.2	+2.2
LPM	Los Pinos Moun	136.05	26	ePKPdf	PKPdf	18 07 22.3	+1.8
BNM	Barren Site	136.19	26	PKPdf	PKPdf	18 07 23.4	+2.6
WCI	Wyandotte Cave	137.23	2	PKIKP	PKPdf	18 07 24.4	+1.7
MNTX	Cornudas Mount	138.81	27	ePKPpre		18 07 18.1	
MNTX				ePKPdf	PKPdf	18 07 27.1	+1.4
MNTX				eSKP		18 10 57.7	
GDL2	Guadalupe Moun	138.84	26	ePKPpre		18 07 18.5	
GDL2				ePKPdf	PKPdf	18 07 27.7	+1.9
GDL2				eSKP		18 10 57.5	
CLNB	Carlsbad	138.99	25	ePKPdf	PKPdf	18 07 27.3	+1.3
WVT	Waverly	139.25	4	ePKHKP		18 07 19.4	
WVT				e		18 07 27.3	
CPCT	Cooper Cave	140.03	360	ePKPpre		18 07 25.1	
MIAR	Mount Ida	140.07	11	ePKHKP		18 07 21.4	
MIAR				e		18 07 29.8	
TRQA	Tornquist	140.84	209	ePKPpre		18 07 21.5	
TRQA				ePKPdf	PKPdf	18 07 29.7	+0.5
JSC	Jenkinsville	141.05	355	ePKIKP	PKPdf	18 07 31.7	+2.0
TXAR	Lajitas Array	141.60	27	PKhKP		18 07 26.4	
	comp=Z,1.2nm,0.4s,baz=182,slow=1.6,SNR=11						
TXAR				SKPbc		18 11 05.3	
	comp=Z,2.0nm,0.6s,baz=135,slow=0.2,SNR=7.9						
JCT	Junction City	142.17	21	ePKHKP		18 07 27.2	
JCT				e		18 07 31.9	
BDFB	Brasilia	142.25	251	PKhKP		18 07 28.8	
	comp=Z,4.1nm,0.7s,baz=148,slow=4.2,SNR=6.8						
HKT	Hockley	143.94	16	ePKIKP	PKPdf	18 07 35.9	+1.1
DWPF	Disney	147.18	354	ePKPbc	PKPdf	18 07 43.9	+3.5
SJG	San Juan	150.76	321	PKPbc	PKPdf	18 07 52.5	+6.2
	comp=Z,12nm,0.4s,baz=54,slow=5.1,SNR=7.9						
TEIG	Tepich	154.97	8	PKPdf	PKPdf	18 07 54.7	+2.5
PCRV	Puerto La Cruz	155.02	306	PKPbc	PKPdf	18 08 00.6	+8.2
	comp=Z,17nm,0.8s,baz=344,slow=6.4,SNR=8.0						
LVC	Limon Verde	156.49	219	PKPab	PKPab	18 08 25.7	+0.3
	baz=158,slow=2.1						
LVC	Limon Verde	156.49	219	ePKPdf	PKPdf	18 07 57.1	+3.0
LPAZ	La Paz	159.99	234	ePKIKP	PKPdf	18 08 00.8	+2.2
LPAZ	La Paz	159.99	234	PKP	PKPdf	18 08 01.2	+2.6
	comp=Z,5.7nm,0.8s,baz=49,slow=2.3,SNR=17						
LPAZ				PKPab	PKPab	18 08 40.9	+0.2
	comp=Z,12nm,0.9s,baz=69,slow=7.5,SNR=6.3						
LPAZ				pPKPab		18 08 56.2	
	comp=Z,21nm,0.9s,baz=77,slow=7.1,SNR=8.3						
SDV	Santo Domingo	160.42	314	PKP	PKPdf	18 08 01.1	+2.0
	comp=Z,5.6nm,1.0s,baz=297,slow=4.0,SNR=4.7						
SDV	Santo Domingo	160.42	314	ePKPdf	PKPdf	18 08 01.1	+2.0
ROSC	El Rosal	165.83	312	PKP	PKPdf	18 08 06.9	+2.4
	comp=Z,5.2nm,0.3s,baz=256,slow=22,SNR=7.2						
OTAV	Otavalo	171.94	308	ePKPdf	PKPdf	18 08 10.3	+2.0

MAN 31 17:50:10.3, 12.90N×122.81E, h9^{km}, mb4.2, ML3.0, MS2.8, 2D, Luzon

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
AUQP	San Andres	0.44	343	eP	Pg	17 50 19.4	+0.1
AUQP				eS	Sg	17 50 28.8	+3.5
OTRP	Odiongan	0.94	235	eP	Pb	17 50 28.0	-0.2
OTRP				eS	Sb	17 50 41.2	+0.7
MMPH	Masbate	0.96	124	eP	Pb	17 50 40.5	+12
GQP	Guinayangan	1.06	341	⇓eP	Pb	17 50 29.3	-1.1
GQP				eS	Sb	17 50 44.2	0.0
BOAC	Boac	1.09	301	eP	Pb	17 50 29.9	-1.1
BOAC				eS	Sb	17 50 46.2	+1.0

PVCP	Virac	1.48	62	eP	Pn	17 50 36.1	-1.1
PVCP				eS	Sb	17 50 57.7	+1.3
SJMP	San Jose	1.71	255	eP	Pn	17 50 40.2	-0.2
LQP	Lukban	1.73	314	⇓iP	Pn	17 50 40.8	0.0
LQP				i S	Sn	17 51 04.1	+1.0
POLP	Polilio Island	2.01	335	eP	Pn	17 50 45.3	+0.5
POLP				eS	Sn	17 51 13.4	+3.1
PAGZ	Pagadian	5.05	174	eP	Pn	17 51 32.3	+4.3

IDC 31 17:58:56.5±5.9, 3.10N×93.13E, mb3.7/3, mb1 3.9/4, mb1mx3.6/18, mbtmp3.7/4, ML3.7/1, Error ellipse: s-maj=175.6km s-min=29.2km az=72.0, Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	16.29	20	Pn	P	18 02 47.0	-1.4
	0.1nm,0.3s,baz=210,slow=11,SNR=11						
SONM	Songino Array	46.01	12	P	P	18 07 21.7	-1.8
	0.3nm,0.7s,baz=190,slow=8.2,SNR=2.6						
WRA	Warramunga Arr	46.49	121	P	P	18 07 25.9	-1.7
	2.1nm,0.8s,baz=300,slow=8.9,SNR=5.6						
ASAR	Alice Springs	47.78	126	P	P	18 07 35.8	-2.1
	1.2nm,0.8s,baz=295,slow=7.3,SNR=6.4						

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*IDC **31** 18:01:57.1±0.5, 7.09N×92.63E, mb4.5/19, mb1 4.6/19, mb1mx4.6/24, mbtmp4.5/19, MS4.6/1, Ms1 4.6/1, ms1mx3.3/25, Error ellipse: s-maj=28.0km s-min=13.1km az=47.0*

*NEIC **31** 18:01:58.8±3.6, 7.02N×92.60E, h11^{km}±21^{km}, mb4.9/31, Error ellipse: s-maj=8.3km s-min=5.4km az=221.0*

*HRVD **31** 18:01:58.8±0.5, 6.92N×92.79E, h16^{km}±3^{km}, MW4.9/40, Centroid moment Tensor Solution. LP body waves: s3,c3; Mantle waves: s40,c72; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M$_{rr}$-2.95±.44; M$_{\theta\theta}$0.07±.19; M$_{\phi\phi}$2.88±.29; M$_{r\theta}$-0.06±.39; M$_{\theta\phi}$-0.43±.12; M$_{\phi r}$-1.28±1.46; Best double couple: M$_0$3.21×10^{16} NP1:φ$_s$167°,δ34°,λ-97°. NP2: φ$_s$356°,δ57°,λ-85°. Principal axes: T 3.2, Plg12°, Azm82°; N .02, Plg4°, Azm173°; P -3.23, Plg78°, Azm282°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

*BJI **31** 18:01:59.5, 7.26N×92.58E, h7^{km}, mB5.6, mb4.7, Ms4.9, Msz4.8*

*MOS **31** 18:02:00.3±1.0, 7.05N×92.63E, h33^{km}, mb5.1/25, Error ellipse: s-maj=13.5km s-min=6.4km az=118.9*

ISC 31 18:01:56.3±2.3, 6.93N±0.05×92.59E±0.04, h8^{km}±13^{km}, n181, σ1$\overset{s}{.}$00/174, mb4.8/61, MS4.8/4, 9C-6D, Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
NST	Nakhon Sawan	11.41	40	P	P	18 04 40.0	-2.8
CM31	Chiang Mai Arr	13.02	28	ePn	P	18 05 04.3	-0.1
	29nm,0.7s						
CM31				epPn		18 05 08.9	
CMAR	Chiang Mai Arr	13.02	28	Pn	P	18 05 04.5	+0.1
	2.0nm,0.3s,baz=230,slow=14,SNR=86						
MDRS	Chennai	13.59	298	eP	P	18 05 11.1	-1.1
MDRS				e		18 05 13.0	
MDRS				e		18 07 31.0	
VIS	Vishakhapatnam	14.02	321	⇓eP	P	18 05 15.9	-1.9
VIS				e		18 05 17.8	
	comp=Z,126nm,1.1s						
NANT	Nan	14.19	33	⇓P	P	18 05 21.0	+0.9
CHRT	Chiangrai	14.63	28	⇓P	P	18 05 27.0	+1.2
	comp=Z,126nm,1.3s						
UBT	Ubonrachathani	14.72	55	P	P	18 05 34.5	+7.5
BWNR	Bhubaneshwar	14.82	334	e	P	18 05 27.9	-0.3
	comp=Z,32nm,0.3s						
KOD	Kodaikanal	15.31	283	⇑eP	P	18 05 35.5	+0.8
KOD				e		18 05 39.4	
	comp=Z,113nm,1.2s						
TRD	Trivandrum	15.57	277	eP	P	18 05 37.3	-0.8
TRD				e		18 05 39.2	
	comp=Z,63nm,1.1s						
HYB	Hyderabad	17.21	309	eP	P	18 05 58.0	-1.0
HYB				pmax	pmax		
	comp=Z,50nm,1.0s						
HYB	Hyderabad	17.21	309	i P	P	18 05 58.0	-1.0
	comp=Z,50nm,1.0s						
HYB				e		18 08 52.0	
HYB				eS	S	18 09 10.0	+0.7
BOK	Bokaro	17.96	340	⇑e	P	18 06 11.2	+3.0
BLSP	Bilaspur	18.17	327	⇑eP	P	18 06 11.4	+0.5
BLSP				e		18 06 15.2	
	comp=Z,103nm,1.5s						
MNGI	Mangalore	18.48	290	eP	P	18 06 16.5	+1.7
SHL	Shillong	18.54	358	eP	P	18 06 14.1	-1.4
SHL				e		18 06 21.2	
	comp=Z,64nm,1.6s						
AKL	Akola	20.37	314	⇑eP	P	18 06 35.5	-0.8
AKL				e		18 06 42.5	
	comp=Z,74nm,1.7s						
KMI	Kunming	20.53	27	P	P	18 06 38.5	+0.5
KMI				AP		18 06 47.8	
KMI				AMB	AMB		
	comp=Z,46nm,1.3s						
KMI				LR	LR		
	comp=N,2µm,14.8s,MS4.8						
KMI				LR	LR		
	comp=E,1µm,13.7s,MS4.8						
KMI				LR	LR		
	comp=Z,3µm,13.9s,MS4.8						
QIZ	Qiongzhong	20.64	53	P	P	18 06 40.3	+1.1
QIZ				LR	LR		
	comp=N,4µm,14.0s						
QIZ				LR	LR		
	comp=Z,6µm,12.7s,MS5.1						
KAD	Karad	20.72	302	⇓eP	P	18 06 39.9	-0.1
KAD				e		18 06 44.4	
	comp=Z,186nm,1.6s						
POO	Poona	21.58	304	⇓eP	P	18 06 49.3	+0.6
POO				e		18 06 50.0	
	comp=Z,36nm,0.9s						
PKI	Pulchoki	21.63	342	eP	P	18 06 49.5	+0.3
	comp=Z,364nm,1.0s,mb5.8						
DMN	Daman	21.75	342	eP	P	18 06 51.1	+0.7
	comp=Z,172nm,1.0s,mb5.4						
BHPL	Bhopal	21.81	320	⇓eP	P	18 06 52.0	+1.0
BHPL				e		18 06 53.8	
	comp=Z,69nm,1.4s						
GUN	Gumba	21.81	344	eP	P	18 06 50.1	-0.9
	comp=Z,258nm,1.1s,mb5.6						
KKN	Kakani	21.87	342	eP	P	18 06 52.3	+0.7
	comp=Z,150nm,1.0s,mb5.4						
GKN	Gorkha	22.27	341	eP	P	18 06 55.1	-0.5
	comp=Z,202nm,1.0s,mb5.5						
KOLN	Koldanda	22.41	339	eP	P	18 06 57.5	+0.5
	comp=Z,61nm,0.8s,mb5.1						
LSA	Lhasa	22.69	357	eP	P	18 06 59.1	-0.7
LSA				pmax	pmax		
	comp=Z,22nm,0.7s,mb4.7						
LSA	Lhasa	22.69	357	eP	P	18 06 59.0	-0.7
	comp=Z,22nm,0.7s,mb4.7						
GYA	Guiyang	23.59	33	⇑iP	P	18 07 10.5	+1.8
GYA				AMB	AMB		
	comp=Z,30nm,1.2s,mb4.6						
PTH	Pithoragarh	25.34	334	eP	P	18 07 26.2	+0.8
PTH				e		18 12 09.3	
NDI	New Delhi	26.06	328	eP	P	18 07 32.5	+0.3
DDI	Dehra Dun	26.98	331	e	P	18 07 41.7	+1.1
ENH	Enshi	28.12	32	eP	P	18 07 49.5	-1.5
	comp=Z,28nm,1.1s,mb4.8						
GTA	Gaotai	32.98	10	P	P	18 08 34.0	0.0
GTA				AMB	AMB		
	comp=Z,8.0nm,0.6s,mb4.8						
GTA				AMB	AMB		
	comp=Z,1µm,9.1s						
GTA				LR	LR		
	comp=N,588nm,19.4s,MS4.5						
GTA				LR	LR		
	comp=E,847nm,18.6s,MS4.5						
GTA				LR	LR		
	comp=Z,1µm,19.0s,MS4.7						
NJ2	Nanjing	34.98	41	eP	P	18 08 53.0	+1.7
NJ2				AMB	AMB		
	comp=Z,70nm,1.0s,mb5.5						
WMQ	Urumqi	36.99	354	eP	P	18 09 12.5	+4.3
KZA	Kyzart	38.23	339	P	P	18 09 20.6	+2.0
	SNR=8.6						
UCH	Uchtor	38.62	338	P	P	18 09 23.1	+1.2
	SNR=12						
KBK	Karagaybulak	38.84	339	P	P	18 09 24.8	+1.1
	SNR=19						
AML	Almayashu	38.85	337	P	P	18 09 25.0	+1.2
	SNR=36						
TKM2	Tokmak 2	38.85	340	P	P	18 09 24.5	+0.7
	SNR=9.6						
AAK	Ala-Archa	38.98	339	P	P	18 09 27.1	+2.1
	SNR=12						
AAK	Ala-Archa	38.98	339	eP	P	18 09 25.2	+0.3
AAK				pmax	pmax		
	comp=Z,30nm,1.1s,mb4.9						
AAK	Ala-Archa	38.98	339	eP	P	18 09 25.2	+0.3
	comp=Z,30nm,1.1s,mb4.9						
FRU	Bishkek	39.11	339	eP	P	18 09 28.0	+2.0
BJT	Baijiatuau	39.14	29	P	P	18 09 25.0	-1.3
BJT				pmax	pmax		
	comp=Z,13nm,1.0s						
BJT	Baijiatuau	39.14	29	P	P	18 09 25.0	-1.3
	comp=Z,13nm,1.0s,mb4.6						
BJI	Beijing	39.16	29	eP	P	18 09 28.0	+1.5
BJI				AMB	AMB		
	comp=Z,12nm,1.4s,mb4.4						
CHMS	Chumysh	39.21	339	P	P	18 09 27.6	+0.8
	SNR=7.2						
EKS2	Erkin-Say	39.27	338	P	P	18 09 28.3	+1.0
	SNR=12						
USP	Ospenovka	39.53	339	P	P	18 09 30.1	+0.6
	SNR=24						
MK02	Makanchi Array	40.66	349	P	P	18 09 38.3	-0.5
MK02				pmax	pmax		
	comp=Z,1.0nm,0.4s,mb3.8						
FITZ	Fitzroy Crossi	41.02	128	eP	P	18 09 42.6	+0.6
	comp=Z,12nm,0.8s,mb4.6						
SONM	Songino Array	42.42	14	P	P	18 09 53.3	+0.1
	comp=Z,3.3nm,0.6s,mb4.2,baz=198,slow=6.2,SNR=25						
SONM				PcP	PcP	18 11 47.0	+0.1
	comp=Z,2.1nm,0.9s,baz=194,slow=5.9,SNR=2.6						
ZAK	Zakamensk	44.22	10	⇑iP	P	18 10 08.9	+1.1
MOY	Mondy	45.13	7	eP	P	18 10 15.9	+0.8
ZAL	Zalesovo	47.29	354	P	P	18 10 32.4	+0.3
	comp=Z,2.1nm,0.4s,mb4.5,baz=299,slow=7.0,SNR=9.3						
HIA	Hailar	47.99	24	eP	P	18 10 37.4	-0.3
HIA				pmax	pmax		
	comp=Z,5.0nm,0.9s						
HIA	Hailar	47.99	24	eP	P	18 10 37.4	-0.3
	comp=Z,5.2nm,0.9s,mb4.6						
NVS	Novosibirsk	48.36	353	eP	P	18 10 39.2	-1.3
WRA	Warramunga Arr	48.99	124	P	P	18 10 46.0	+0.2
	comp=Z,2.3nm,0.5s,mb4.5,baz=306,slow=8.4,SNR=36						
WRAB	Tennant Creek	49.00	124	eP	P	18 10 45.8	-0.1
WRAB				pmax	pmax		
	comp=Z,9.0nm,0.7s,mb4.9						
WRAB	Tennant Creek	49.00	124	eP	P	18 10 45.8	0.0
	comp=Z,9.2nm,0.7s,mb4.9						
WB2	Warramunga Arr	49.00	124	eP	P	18 10 46.1	+0.2
BVA0	Borovoye Array	49.40	343	i P	P	18 10 46.9	-1.6
BVA0				pmax	pmax		
	comp=Z,1.0nm,0.9s,mb3.9						
BVAR	Borovoye Array	49.40	343	P	P	18 10 47.6	-0.9
	comp=Z,4.7nm,0.7s,mb4.6,baz=143,slow=7.4,SNR=19						
BVAR				PcP	PcP	18 12 10.7	-0.6
	comp=Z,2.1nm,0.8s,baz=146,slow=5.2,SNR=2.1						
BRVK	Borovoye	49.46	342	eP	P	18 10 47.8	-1.2
BRVK				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.7						
BRVK	Borovoye	49.46	342	eP	P	18 10 47.8	-1.2
	comp=Z,7.9nm,1.0s,mb4.7						
CHKZ	Chkalovo	49.90	343	eP	P	18 10 51.5	-0.9
CHKZ				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.1						
CHKZ	Chkalovo	49.90	343	eP	P	18 10 51.5	-0.9
	comp=Z,17nm,0.9s,mb5.1						
ASPA	Alice Springs	50.52	128	eP	P	18 10 57.8	+0.3
ASAR	Alice Springs	50.52	128	P	P	18 10 57.7	+0.2
	comp=Z,2.9nm,0.6s,mb4.4,baz=301,slow=8.1,SNR=64						
ASAR				PcP	PcP	18 12 15.7	0.0
	comp=Z,1.9nm,0.6s,baz=310,slow=2.9,SNR=4.9						
BOD	Bodaibo	53.42	14	eP	P	18 11 17.4	-1.5
BOD				e		18 11 24.2	
KLR	Kul’dur	53.48	31	eP	P	18 11 17.0	-2.4
TI2	Plekhanov	54.67	317	eP	P	18 11 27.8	-0.4
TI2	Plekhanov	54.67	317	eP	P	18 11 27.8	-0.4
KMBO	Kilima Mbogo	55.79	264	LR	LR	18 30 51.8	
	comp=Z,590nm,19.7s,MS4.7,baz=98,slow=31						
ARU	Arti	56.16	338	eP	P	18 11 35.5	-3.4
PMG	Port Moresby	56.74	106	P	P	18 11 41.6	-1.9
	comp=Z,12nm,1.0s,mb4.9,baz=250,slow=12,SNR=3.8						
KIV	Kislovodsk	56.99	319	eP	P	18 11 44.3	-0.7
KIV				e		18 11 54.4	
KIV				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.2						
KIV	Kislovodsk	56.99	319	eP	P	18 11 44.3	-0.7
KIV				pmax	pmax		
	comp=Z,38nm,1.5s,mb5.2						
KIV	Kislovodsk	56.99	319	eP	P	18 11 43.4	-1.6
	comp=Z,21nm,0.8s,mb5.2						
GOF	Gofitskoye	57.24	320	eP	P	18 11 46.0	-0.8
GOF				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.9						
GOF	Gofitskoye	57.24	320	eP	P	18 11 46.0	-0.8
GOF				pmax	pmax		
	comp=Z,16nm,1.4s,mb4.9						
SOC	Sochi	58.81	317	eP	P	18 11 55.1	-2.6
SOC				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
SOC				pmax	pmax		
	comp=N,17nm,1.1s						
SOC				pmax	pmax		
	comp=E,12nm,1.1s						
SOC	Sochi	58.81	317	eP	P	18 11 55.1	-2.6
SOC				pmax	pmax		
	comp=Z,16nm,1.0s,mb5.0						
SOC				pmax	pmax		
	comp=N,17nm,1.1s						
SOC				pmax	pmax		
	comp=E,12nm,1.1s						
STKA	Stephens Creek	60.59	133	eP	P	18 12 10.6	+0.5
	comp=E,7.1nm,1.0s,mb4.8						
STKA	Stephens Creek	60.59	133	P	P	18 12 10.4	+0.3
	comp=E,1.3nm,0.5s,mb4.4,baz=309,slow=2.0,SNR=6.9						
STKA	Stephens Creek	60.59	133	eP	P	18 12 10.5	+0.4
YAK	Yakutsk	61.37	19	eP	P	18 12 13.1	-1.9
YAK				e*PP	pP	18 12 24.4	+6.9
BOYT	Boyabat	61.43	314	i P	P	18 12 13.8	-1.9
BALT	Daday	62.56	313	i P	P	18 12 22.8	-0.4
SGKT	Sivrigoynuk	63.27	312	i P	P	18 12 24.3	-3.7
ISP	Isparta	63.81	309	eP	P	18 12 30.2	-1.5
ISP				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.2						
ISP	Isparta	63.81	309	eP	P	18 12 30.2	-1.5
ISP				pmax	pmax		
	comp=Z,33nm,1.3s,mb5.2						
ISP	Isparta	63.81	309	eP	P	18 12 30.2	-1.4
	comp=Z,33nm,1.3s,mb5.2						
HENT	Hendek	64.19	312	i P	P	18 12 35.2	+1.1
OBN	Obninsk	65.36	328	c iP	P	18 12 39.4	-2.0
OBN				pmax	pmax		
	comp=Z,32nm,1.3s,mb5.2						
KDAG	Bornova	66.43	309	i P	P	18 12 48.8	+0.3
KIS	Kishinev	67.19	318	eP	P	18 12 51.0	-2.2
LSZ	Lusaka	67.50	250	eP	P	18 12 55.9	+0.2
LSZ				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.6						
LSZ	Lusaka	67.50	250	eP	P	18 12 55.9	+0.2
	comp=Z,5.1nm,0.8s,mb4.6						
IDI	Anoyia	67.84	305	P	P	18 12 58.2	+0.6
	comp=Z,14nm,0.8s,mb5.0,baz=117,slow=11,SNR=4.1						
AKASG	Malin Array Be	67.94	322	P	P	18 12 55.4	-2.5
	comp=Z,3.9nm,0.9s,mb4.4,baz=90,slow=4.5,SNR=11						
MA2	Magadan	68.31	28	eP	P	18 12 59.4	-0.6
MA2				pmax	pmax		
	comp=Z,13nm,0.7s,mb5.1						
MA2	Magadan	68.31	28	eP	P	18 12 59.4	-0.6
	comp=Z,13nm,0.7s,mb5.1						
MLR	Muntele Rosu	68.77	316	P	P	18 13 03.1	0.0
	comp=Z,25nm,1.0s,mb5.1,baz=96,slow=3.5,SNR=21						
KOLS	Kolonicke sedl	71.90	319	i P	P	18 13 21.9	-0.2
CRVS	Cervenica-Dubn	72.42	319	i P	P	18 13 26.3	+1.1
LBTB	Lobatse	72.44	241	eP	P	18 13 24.8	-0.9
LBTB				pmax	pmax		
	comp=Z,12nm,0.8s,mb4.9						
LBTB	Lobatse	72.44	241	eP	P	18 13 24.8	-0.9
	comp=Z,12nm,0.8s,mb4.9						
FINES	FINESS Array B	72.83	333	P	P	18 13 26.5	-0.8
	comp=Z,8.5nm,0.9s,mb4.7,baz=90,slow=5.7,SNR=13						
KECS	Kecovo	72.99	319	i P	P	18 13 28.4	-0.1
NIE	Niedzica	73.25	319	eP	P	18 13 30.5	+0.5
PSZ	Piszkesteto	73.30	318	eP	P	18 13 29.6	-0.7
PSZ				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.3						
PSZ	Piszkesteto	73.30	318	eP	P	18 13 29.6	-0.8
	comp=Z,3.3nm,0.7s,mb4.4						
OJC	Ojcow	73.70	320	eP	P	18 13 32.7	+0.1
VYHS	Vyhne	74.08	318	i P	P	18 13 34.6	-0.2
SRO	Srobarova	74.34	318	eP	P	18 13 37.2	+0.8
OKC	Ostrava-Krasne	74.70	320	eP	P	18 13 38.3	-0.1
MORC	Moravsky Berou	75.08	320	eP	P	18 13 40.4	-0.2
MORC				pmax	pmax		
	comp=Z,17nm,1.3s,mb4.8						
MORC	Moravsky Berou	75.08	320	eP	P	18 13 40.4	-0.2
	comp=Z,17nm,1.3s,mb4.8						
ZST	Bratislava	75.19	318	i P	P	18 13 41.4	+0.1
ARCES	ARCESS Array B	75.63	340	P	P	18 13 41.9	-1.5
	comp=Z,7.3nm,0.8s,mb4.7,baz=90,slow=5.4,SNR=6.5						
VRAC	Vranov	75.65	319	P	P	18 13 42.7	-1.1
	comp=Z,3.0nm,0.8s,mb4.3,baz=166,slow=15,SNR=3.5						
DPC	Dobruska-Polom	75.93	320	eP	P	18 13 45.7	+0.2
KSP	Ksiaz	76.00	321	eP	P	18 13 45.8	-0.1
UPC	Upice	76.15	320	eP	P	18 13 47.1	+0.4
PRU	Pruhonice	77.04	320	eP	P	18 13 51.9	+0.2
PVCC	Panska Ves	77.06	320	eP	P	18 13 52.7	+0.9
GEC2	GERESS Array S	77.50	318	eP	P	18 13 54.3	+0.1
GEC2				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
GEC2	GERESS Array S	77.50	318	eP	P	18 13 54.3	+0.1
	comp=Z,9.0nm,0.9s,mb4.7						
GERES	GERESS Array B	77.50	318	P	P	18 13 54.4	+0.1
	comp=Z,7.6nm,0.9s,mb4.7,baz=90,slow=5.3,SNR=44						
BILL	Bilibino	77.53	22	eP	P	18 13 53.7	-0.3
BILL				pmax	pmax		
	comp=Z,14nm,1.3s,mb4.7						
BILL	Bilibino	77.53	22	eP	P	18 13 53.7	-0.3
	comp=Z,14nm,1.3s,mb4.7						
KHC	Kasperske Hory	77.60	319	eP	P	18 13 54.8	0.0
WET	Wettzell	78.06	319	eP	P	18 13 57.4	+0.1
CLL	Collm	78.11	321	i P	P	18 13 57.5	0.0
CLL				e		18 14 11.0	
CLL	Collm	78.11	321	P	P	18 13 57.5	0.0
CLL				e		18 14 11.0	
NKC	Novy Kostel	78.40	320	eP	P	18 13 59.9	+0.8
HFS	Hagfors	78.49	330	P	P	18 13 58.5	-0.9
	comp=Z,1.9nm,0.5s,mb4.3,baz=101,slow=7.6,SNR=8.9						
SUR	Sutherland	78.53	235	eP	P	18 14 02.4	+2.2
	comp=Z,25nm,0.9s,mb5.2						
MOX	Moxa	78.95	320	eP	P	18 14 02.3	+0.1
MOX	Moxa	78.95	320	i P	P	18 14 02.3	+0.1
FUR	Furstenfeldbru	79.08	318	eP	P	18 14 02.5	-0.4
GRA1	Grafenberg Arr	79.17	319	eP	P	18 14 03.8	+0.4
	comp=Z,12nm,0.9s,mb4.8						
GRF	Grafenberg Arr	79.17	319	eP	P	18 14 03.8	+0.4
GRF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
GRF	Grafenberg Arr	79.17	319	eP	P	18 14 03.8	+0.4
GRF				pmax	pmax		
	comp=Z,12nm,0.9s,mb4.8						
GRF	Grafenberg Arr	79.17	319	eP	P	18 14 03.8	+0.4
	comp=Z,12nm,0.9s,mb4.8						
CLZ	Clausthal	79.78	321	eP	P	18 14 06.6	0.0
	comp=Z,7.0nm,0.9s,mb4.6						
NB2	NORSAR Subarra	79.79	331	P	P	18 14 05.4	-1.1
	comp=Z,1.6nm,0.7s,mb4.1,baz=97,slow=5.0						
NB2	NORSAR Subarra	79.79	331	P	P	18 14 05.4	-1.1
NB2				pmax	pmax		
	comp=Z,2.0nm,0.7s,mb4.2						
NOA	NORSAR Array B	79.79	331	P	P	18 14 06.1	-0.4
	comp=Z,3.2nm,0.8s,mb4.3,baz=94,slow=5.5,SNR=8.2						
BSEG	Bad Segeberg	79.88	323	eP	P	18 14 07.2	+0.1
DAVOX	Davos	80.00	316	P	P	18 14 08.4	+0.5
	comp=Z,11nm,0.8s,mb4.9,baz=113,slow=7.6,SNR=23						
BFO	Black Forest	81.05	318	eP	P	18 14 13.1	-0.3
BFO				pmax	pmax		
	comp=Z,2.0nm,0.8s,mb4.1						
BFO	Black Forest	81.05	318	eP	P	18 14 13.1	-0.3
	comp=Z,2.0nm,0.8s,mb4.1						
LPG	La Plagne	82.19	315	⇑iP	P	18 14 19.8	+0.4
	comp=Z,27nm,1.0s,mb4.8						
LPG	La Plagne	82.19	315	⇑iP	P	18 14 19.8	+0.4
LPG				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.8						
BNI	Bardonecchia	82.25	314	eP	P	18 14 19.7	-0.1
BNI				pmax	pmax		
	comp=Z,9.0nm,0.9s,mb4.7						
BNI	Bardonecchia	82.25	314	eP	P	18 14 19.7	-0.1
	comp=Z,8.9nm,0.9s,mb4.7						
EKA	Eskdalemuir Ar	87.62	325	P	P	18 14 46.6	+0.3
	comp=Z,9.5nm,1.1s,mb5.0,baz=88,slow=4.9,SNR=8.7						
EQES	Quesada	90.25	308	P	P	18 14 59.5	+0.1
	comp=Z,99nm,3.4s						
GUD	Guadarrama	90.62	311	P	P	18 15 02.2	+1.2
GUD				pmax	pmax		
	comp=Z,8.0nm,0.9s,mb5.0						
GUD	Guadarrama	90.62	311	P	P	18 15 02.2	+1.2
	comp=Z,7.5nm,0.9s,mb5.0						
ESDC	Sonseca Array	90.64	310	P	P	18 15 01.9	+0.8
	comp=Z,16nm,1.3s,mb5.2,baz=62,slow=4.4,SNR=15						
ESDC	Sonseca Array	90.64	310	P	P	18 15 01.7	+0.7
	comp=Z,0.9nm,0.5s,mb4.4						
EBAN	Banos Encina	90.75	308	P	P	18 15 02.4	+0.8
EBAN				pmax	pmax		
	comp=Z,30nm,1.5s,mb5.4						
EBAN	Banos Encina	90.75	308	P	P	18 15 02.4	+0.8
	comp=Z,30nm,1.5s,mb5.4						
EADA	Adamuz	91.36	309	P	P	18 15 05.2	+0.8
	comp=Z,18nm,1.3s,mb5.2						
ILAR	Eielson Array	96.19	22	P	P	18 15 26.4	+0.5
	comp=Z,0.5nm,0.9s,mb3.9,baz=303,slow=5.7,SNR=4.4						
YKA	Yellowknife Ar	107.69	13	PKKP	PKKP	18 31 54.0	+5.8
	comp=Z,1.0nm,1.1s,baz=145,slow=4.8,SNR=7.7						
NVAR	Mina Array Bea	126.51	30	PKP	PKPdf	18 21 04.1	+0.7
	comp=Z,1.0nm,0.8s,baz=134,slow=1.3,SNR=4.5						
PDAR	Pinedale Array	126.59	20	PKP	PKPdf	18 21 03.1	-0.3
	comp=Z,0.7nm,0.8s,baz=18,slow=4.7,SNR=4.6						
LVC	Limon Verde	156.32	227	PKPab	PKPab	18 22 25.3	+2.4
	comp=Z,1.1nm,0.3s,baz=104,slow=5.0,SNR=5.3						
LPAZ	La Paz	158.97	242	ePKIKP	PKPdf	18 21 58.7	+0.2
LPAZ				e		18 22 34.2	
LPAZ	La Paz	158.97	242	PKP	PKPdf	18 21 58.7	+0.2
	comp=Z,0.7nm,0.7s,baz=31,slow=11,SNR=3.5						
LPAZ				PKPab	PKPab	18 22 35.2	+0.7
	comp=Z,2.8nm,0.9s,baz=97,slow=5.1,SNR=9.5						
OTAV	Otavalo	168.57	308	ePKPdf	PKPdf	18 22 07.0	-0.3
OTAV				ePKPab	PKPab	18 23 16.5	+0.1

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*THR **31** 18:07:40.7±0.7, 28.35N×53.23E, h16^{km}±4^{km}, ML4.4*

*MOS **31** 18:07:40.1±2.5, 28.19N×53.29E, h33^{km}, mb4.9/6, Error ellipse: s-maj=22.2km s-min=9.9km az=115.5*

*CSEM **31** 18:07:40.7, 28.35N×53.23E, h16^{km}, ML4.4, After THR*

*NEIC **31** 18:07:42.3±1.4, 28.06N×53.39E, h40^{km}, mb4.6/8, Error ellipse: s-maj=25.1km s-min=14.9km az=161.0*

*BJI **31** 18:07:42.2, 28.10N×53.40E, h40^{km}, mb4.9, Ms5.1, Msz4.8*

*TEH **31** 18:07:43.4, 28.31N×53.19E, h10^{km}, Mn4.2*

*IDC **31** 18:07:43.1±2.0, 28.20N×53.35E, h36^{km}±14^{km}, mb4.2/19, mb1 4.3/23, mb1mx4.3/25, mbtmp4.4/23, ML3.5/3, Error ellipse: s-maj=19.6km s-min=12.2km az=26.0*

ISC 31 18:07:38.4±0.4, 28.24N±0.05×53.35E±0.04, h10^{km}, n85, σ1$\overset{s}{.}$09/90, mb4.5/27, 1C, Southern Iran

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
GHIR	Ghir-Karzin	0.32	279	ePG	Pg	18 07 46.0	+1.0
GHIR				AMP		18 07 55.0	
	comp=E,53µm,0.5s						
GHIR				AMP		18 07 58.0	
	comp=N,61µm,0.3s						
GHIR	Ghir-Karzin	0.32	279	ePg	Pg	18 07 46.0	+1.0
	comp=N,61µm,0.3s						
IPAR	Pars	1.62	351	Pn	Pn	18 08 11.3	+4.1
BNDS	Bandar-Abbas	2.64	108	ePN	Pn	18 08 26.8	+5.0
BNDS				eSG	Sg	18 09 07.5	+1.3
BNDS	Bandar-Abbas	2.64	108	ePn	Pn	18 08 26.8	+5.1
BNDS				eSg	Sg	18 09 07.4	+1.2
IMEH	Mehriz	3.33	19	Pn	Pn	18 08 34.8	+3.2
KRBR	Kerman	3.46	59	ePN	Pn	18 08 36.2	+2.8
KRBR				eSG	Sg	18 09 29.5	-4.0
KRBR				AMP		18 09 34.1	
	comp=E,907nm,0.9s						

KRBR				AMP		18 09 36.8	
	comp=N,556nm,0.7s						
KRBR	**Kerman**	**3.46**	**59**	*e*Pn	**Pn**	**18 08 36.2**	**+2.8**
KRBR				*e*Sg	**Sg**	**18 09 29.5**	**-4.0**
	comp=N,556nm,0.7s						
IBRJ	**Borojen**	**3.95**	**333**	Pn	**Pn**	**18 08 44.9**	**+4.4**
ICHK	**Chekchek**	**4.10**	**13**	Pn	**Pn**	**18 08 45.0**	**+2.5**
NASN	**Na'in**	**4.57**	**354**	*e*PN	**Pn**	**18 08 50.3**	**+1.0**
QRN	**Al-Qurain**	**4.81**	**277**	*e*P	**Pn**	**18 08 53.8**	**+1.2**
UMR	**Umm Al-Rimmam**	**5.11**	**286**	*e*P	**Pn**	**18 08 57.4**	**+0.6**
RDF	**Al-Radifah**	**5.14**	**279**	*e*P	**Pn**	**18 08 57.4**	**+0.1**
SHGR	**Shooshtar-Gavs**	**5.51**	**316**	*e*PN	**Pn**	**18 09 01.8**	**-0.7**
RST	**Umm Al-Ruwaisa**	**5.71**	**284**	*e*P	**Pn**	**18 09 05.2**	**-0.2**
IQOM	**Qom**	**6.87**	**344**	Pn	**Pn**	**18 09 21.4**	**-0.2**
ASAO	**Ashtian**	**6.90**	**337**	*e*PN	**Pn**	**18 09 21.8**	**-0.3**
IFIR	**Firoozkooh**	**7.40**	**356**	Pn	**Pn**	**18 09 29.2**	**+0.1**
IDMV	**Damavand**	**7.41**	**352**	Pn	**Pn**	**18 09 29.0**	**-0.2**
DAMV	**Damavand**	**7.46**	**351**	*e*PN	**Pn**	**18 09 30.1**	**0.0**
DAMV	**Damavand**	**7.46**	**351**	*e*Pn	**Pn**	**18 09 30.0**	**0.0**
IRAZ	**Razeghan**	**7.72**	**339**	Pn	**Pn**	**18 09 32.2**	**-1.3**
IAFJ	**Afjeh**	**7.72**	**350**	Pn	**Pn**	**18 09 33.5**	**-0.1**
IKOM	**Komasi**	**7.75**	**321**	Pn	**Pn**	**18 09 32.8**	**-1.1**
IVIS	**Veys**	**8.37**	**320**	Pn	**P**	**18 09 41.4**	**-1.3**
IGHG	**Ghaleghazi**	**8.40**	**318**	Pn	**P**	**18 09 42.2**	**-0.8**
IDHR	**Dehrash**	**8.77**	**319**	Pn	**P**	**18 09 46.9**	**-1.2**
GNI	**Garni**	**13.84**	**331**	*e*P	**P**	**18 10 59.5**	**+2.5**
GNI				pmax	pmax		
	comp=Z,26nm,1.0s						
GNI	**Garni**	**13.84**	**331**	Pn	**P**	**18 11 00.0**	**+3.1**
	comp=Z,0.5nm,0.3s,baz=45,slow=10.0,SNR=3.4						
GNI	**Garni**	**13.84**	**331**	*e*P	**P**	**18 10 59.5**	**+2.5**
	comp=Z,26nm,1.0s						
ASF	**Jabal al Asfar**	**14.75**	**289**	Pn	**P**	**18 11 09.0**	**0.0**
	comp=Z,1.0nm,0.3s,baz=294,slow=3.0,SNR=3.6						
ERZM	**Erzurum**	**15.28**	**323**	*i* P	**P**	**18 11 22.5**	**+6.7**
ELZG	**Elazig**	**15.75**	**314**	*i* P	**P**	**18 11 27.1**	**+5.1**
MALT	**Malatya**	**16.00**	**313**	*e*P	**P**	**18 11 25.4**	**+0.3**
MALT				pmax	pmax		
	comp=Z,37nm,0.8s						
MALT	**Malatya**	**16.00**	**313**	*e*P	**P**	**18 11 25.4**	**+0.3**
	comp=Z,37nm,0.8s						
GZT	**Gaziantep**	**16.07**	**308**	*i* P	**P**	**18 11 27.3**	**+1.2**
EIL	**Elat**	**16.17**	**279**	Pn	**P**	**18 11 28.1**	**+0.8**
	comp=Z,0.4nm,0.3s,baz=65,slow=10.0,SNR=14						
EIL	**Elat**	**16.17**	**279**	*e*P	**P**	**18 11 28.4**	**+1.1**
	comp=Z,16nm,0.8s						
ZEI	**Tsey**	**16.40**	**335**	*e*P	**P**	**18 11 31.6**	**+1.4**
ZEI				pmax	pmax		
	comp=Z,19nm,0.8s						
COBT	**Iskenderun**	**16.62**	**304**	*i* P	**P**	**18 11 34.1**	**+1.2**
KAHT	**Ahir Dag**	**16.68**	**308**	*i* P	**P**	**18 11 36.1**	**+2.3**
CSS	**Prodhromos**	**18.31**	**296**	*e*P	**P**	**18 11 54.2**	**0.0**
	comp=Z,18nm,0.9s						
BRTR	**Keskin Array B**	**19.91**	**310**	P	**P**	**18 12 12.4**	**-0.6**
	comp=Z,0.6nm,0.3s,baz=131,slow=13,SNR=34						
ELDT	**Eldivan**	**20.44**	**312**	*i* P	**P**	**18 12 18.4**	**-0.1**
ESKT	**Eskisehir**	**21.75**	**307**	*i* P	**P**	**18 12 31.6**	**-0.3**
AAK	**Ala-Archa**	**22.35**	**44**	*e*P	**P**	**18 12 38.4**	**+0.5**
SANT	**Santorini**	**24.87**	**296**	*e*P	**P**	**18 13 01.8**	**-0.6**
	comp=Z,28nm,0.5s,mb5.0						
IDI	**Anoyia**	**25.14**	**293**	P	**P**	**18 13 05.7**	**+0.6**
	comp=Z,30nm,0.9s,mb4.8,baz=85,slow=11,SNR=12						
VRSR	**Storozhevoye**	**25.31**	**339**	*e*P	**P**	**18 13 06.4**	**-0.1**
VRSR				pmax	pmax		
	comp=Z,10.0nm,0.5s,mb4.6						
VRSR				pmax	pmax		
	comp=N,10.0nm,1.4s						
VRSR				pmax	pmax		
	comp=E,4.0nm,0.6s						
MLR	**Muntele Rosu**	**27.68**	**316**	P	**P**	**18 13 29.9**	**+1.4**
	comp=E,4.0nm,0.7s,mb4.1,baz=56,slow=11,SNR=3.4						
MLR				ScP		18 20 23.4	
	comp=E,1.9nm,0.7s,baz=198,slow=3.2,SNR=4.4						
BVAR	**Borovoye Array**	**27.79**	**22**	P	**P**	**18 13 29.7**	**+0.4**
	comp=E,5.7nm,0.6s,mb4.4,baz=202,slow=8.0,SNR=13						
BVAR				PcP	PcP	18 16 43.9	-2.1
	comp=E,1.8nm,0.5s,baz=190,slow=3.4,SNR=7.1						
AKASG	**Malin Array Be**	**28.92**	**327**	P	**P**	**18 13 38.0**	**-1.5**
	comp=E,3.7nm,0.8s,mb4.2,baz=132,slow=7.7,SNR=16						
AKASG				PcP	PcP	18 16 46.3	-2.5
	comp=E,1.3nm,0.5s,baz=84,slow=2.5,SNR=7.0						
AKASG				S	**S**	**18 18 26.2**	**-2.4**
	comp=E,0.1nm,0.3s,baz=130,slow=14,SNR=3.5						
AKASG				ScP		18 20 25.2	
	comp=E,0.8nm,0.7s,baz=91,slow=2.0,SNR=5.4						
WMQ	**Urumqi**	**31.57**	**51**	⇑P	**P**	**18 14 03.0**	**-0.1**
WMQ				AMB	AMB		
	comp=Z,6.0nm,0.6s,mb4.6						
ZAL	**Zalesovo**	**34.45**	**33**	P	**P**	**18 14 27.7**	**-0.4**
	comp=Z,3.8nm,0.4s,mb4.7,baz=224,slow=5.7,SNR=9.2						
GERES	**GERESS Array B**	**36.67**	**315**	P	**P**	**18 14 46.3**	**-0.6**
	comp=Z,1.2nm,0.5s,mb4.0,baz=97,slow=7.9,SNR=6.6						
GERES				PcP	PcP	18 17 08.0	-2.2
	comp=Z,0.8nm,0.7s,baz=153,slow=3.0,SNR=4.3						
GERES				ScP		18 20 54.7	
	comp=Z,0.2nm,0.8s,baz=121,slow=5.7,SNR=4.6						
KHC	**Kasperske Hory**	**36.84**	**316**	*e*P	**P**	**18 14 50.0**	**+1.6**
FINES	**FINESS Array B**	**37.85**	**339**	P	**P**	**18 14 56.1**	**-0.6**
	comp=Z,1.8nm,0.4s,mb4.2,baz=142,slow=11,SNR=16						
CLL	**Collm**	**37.96**	**319**	P	**P**	**18 14 58.0**	**+0.3**
KAF	**Kangasniemi**	**38.29**	**340**	*e*p	**P**	**18 14 59.3**	**-1.2**
BSD	**Bornholm Skovb**	**38.53**	**325**	*i* P	**P**	**18 14 58.7**	**-3.8**
BSD				pmax	pmax		
	comp=Z,17nm,0.6s,mb5.0						
BSD	**Bornholm Skovb**	**38.53**	**325**	*i* P	**P**	**18 14 58.7**	**-3.8**
	comp=Z,17nm,0.6s,mb4.9						
GTA	**Gaotai**	**39.79**	**61**	P	**P**	**18 15 13.5**	**+0.3**
GTA				AMB	AMB		
	comp=Z,13nm,0.7s,mb4.8						
HFS	**Hagfors**	**41.63**	**331**	P	**P**	**18 15 27.3**	**-0.7**
	comp=Z,3.0nm,0.4s,mb4.2,baz=142,slow=8.5,SNR=15						
MUD	**Monsted U'grnd**	**42.03**	**325**	*i* P	**P**	**18 15 32.0**	**+0.6**
MUD				pmax	pmax		
	comp=Z,14nm,0.7s,mb4.7						
MUD	**Monsted U'grnd**	**42.03**	**325**	*i* P	**P**	**18 15 32.0**	**+0.6**
	comp=Z,14nm,0.7s,mb4.7						
CMAR	**Chiang Mai Arr**	**42.77**	**93**	P	**P**	**18 15 36.9**	**-1.0**
	comp=Z,2.0nm,0.8s,mb3.9,baz=282,slow=9.2,SNR=8.2						
CMAR				PcP	PcP	18 17 28.6	-1.4
	comp=Z,1.7nm,0.7s,baz=290,slow=5.0,SNR=4.9						
LZH	**Lanzhou**	**43.06**	**66**	*e*P	**P**	**18 15 40.3**	**+0.2**
LZH				AMB	AMB		
	comp=Z,20nm,1.0s,mb4.8						
NB2	**NORSAR Subarra**	**43.15**	**331**	P	**P**	**18 15 39.0**	**-1.4**
	comp=Z,3.1nm,0.7s,mb4.2,baz=122,slow=8.6						
NB2	**NORSAR Subarra**	**43.15**	**331**	P	**P**	**18 15 39.0**	**-1.4**
NB2				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.1						
NOA	**NORSAR Array B**	**43.15**	**331**	P	**P**	**18 15 39.3**	**-1.2**
	comp=Z,2.0nm,0.7s,mb4.0,baz=120,slow=8.1,SNR=5.9						
NOA				PcP	PcP	18 17 30.8	+0.1
	comp=Z,1.1nm,0.6s,baz=137,slow=1.3,SNR=3.7						
ZAK	**Zakamensk**	**43.52**	**45**	*e*P	**P**	**18 15 43.3**	**-0.3**
ARCES	**ARCESS Array B**	**44.36**	**346**	P	**P**	**18 15 49.8**	**-0.3**
	comp=Z,5.6nm,1.0s,mb4.3,baz=148,slow=8.5,SNR=4.7						
SONM	**Songino Array**	**45.16**	**49**	P	**P**	**18 15 56.9**	**0.0**
	comp=Z,2.3nm,0.6s,mb4.2,baz=265,slow=8.9,SNR=13						
ESDC	**Sonseca Array**	**48.16**	**299**	P	**P**	**18 16 21.7**	**+1.0**
	comp=Z,0.3nm,0.4s,mb3.7,baz=75,slow=7.5,SNR=5.0						
EKA	**Eskdalemuir Ar**	**48.36**	**320**	P	**P**	**18 16 20.8**	**-1.2**
	comp=Z,2.6nm,0.5s,mb4.5,baz=104,slow=7.9,SNR=11						
BOD	**Bodaibo**	**51.03**	**37**	*e*P	**P**	**18 16 40.6**	**-1.8**
DBIC	**Dimbokro**	**58.93**	**260**	*e*P	**P**	**18 17 37.8**	**-2.6**
DBIC				pmax	pmax		
	comp=Z,10.0nm,0.8s						
DBIC	**Dimbokro**	**58.93**	**260**	P	**P**	**18 17 38.3**	**-2.2**
	comp=Z,7.1nm,0.6s,mb4.9,baz=51,slow=8.4,SNR=12						
DBIC	**Dimbokro**	**58.93**	**260**	*e*P	**P**	**18 17 37.8**	**-2.6**
	comp=Z,10nm,0.8s,mb4.9						
SCHQ	**Schefferville**	**82.69**	**330**	P	**P**	**18 20 05.3**	**+2.1**
	comp=Z,2.5nm,0.7s,mb4.4,baz=20,slow=2.0,SNR=10.0						
ILAR	**Eielson Array**	**85.96**	**9**	P	**P**	**18 20 19.2**	**-0.3**
	comp=Z,1.8nm,0.7s,mb4.4,baz=319,slow=3.9,SNR=13						
ILAR				PKKPbc		18 38 17.8	
	comp=Z,0.2nm,0.6s,baz=199,slow=2.8,SNR=5.5						
YKA	**Yellowknife Ar**	**89.07**	**354**	P	**P**	**18 20 34.7**	**+0.2**
	comp=Z,2.9nm,0.6s,mb4.8,baz=6.0,slow=5.0,SNR=28						
YKA				PKKPbc		18 38 10.7	
	comp=Z,0.1nm,0.5s,baz=198,slow=2.0,SNR=3.7						
WRA	**Warramunga Arr**	**91.70**	**112**	P	**P**	**18 20 46.1**	**-1.6**
	comp=Z,1.6nm,0.6s,mb4.5,baz=316,slow=4.0,SNR=20						
ASAR	**Alice Springs**	**93.16**	**115**	P	**P**	**18 20 52.8**	**-1.6**
	comp=Z,2.8nm,0.6s,mb4.8,baz=303,slow=4.7,SNR=29						

IDC 31 18:10:42.9±14.0**, 13.06N**×**94.63E, mb3.5**/2**, mb1 3.6**/3**, mb1mx3.3**/18**, mbtmp3.3**/3**, ML3.4**/1**, Error ellipse: s-maj=310.6km s-min=33.5km az=104.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**6.79**	**37**	Pn	Pn	18 12 24.1	-2.1
	0.2nm,0.3s,baz=242,slow=15,SNR=6.9						
CMAR				Sn	Sn	18 13 42.4	-2.8
	0.1nm,0.3s,baz=238,slow=17,SNR=2.7						
WRA	**Warramunga Arr**	**51.01**	**129**	P	P	18 19 47.6	-1.4
	0.7nm,0.9s,baz=312,slow=7.8,SNR=3.8						
ASAR	**Alice Springs**	**52.98**	**133**	P	P	18 20 00.9	-2.9
	0.3nm,0.5s,baz=309,slow=6.9,SNR=8.4						

IDC 31 18:19:20.2±1.9**, 4.63N**×**92.27E, mb3.8**/4**, mb1 4.1**/5**, mb1mx3.7**/18**, mbtmp3.8**/5**, Error ellipse: s-maj=57.8km s-min=30.9km az=59.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.21**	**25**	Pn	P	18 22 55.9	-2.3
	baz=218,slow=13,SNR=6.2						
SONM	**Songino Array**	**44.72**	**14**	P	P	18 27 35.0	-2.0
	1.3nm,0.7s,baz=194,slow=9.0,SNR=13						
WRA	**Warramunga Arr**	**48.01**	**122**	P	P	18 28 01.5	-1.9
	0.4nm,0.5s,baz=298,slow=8.9,SNR=5.6						
ZAL	**Zalesovo**	**49.53**	**354**	P	P	18 28 13.1	-1.5
	1.1nm,0.7s,baz=313,slow=7.3,SNR=5.0						
GERES	**GERESS Array B**	**79.01**	**319**	P	P	18 31 26.1	-1.6
	0.1nm,0.4s,baz=90,slow=3.9,SNR=4.0						

IDC 31 18:29:15.4±3.5**, 11.80N**×**92.14E, mb3.6**/3**, mb1 3.7**/4**, mb1mx3.5**/18**, mbtmp3.5**/4**, ML3.4**/1**, Error ellipse: s-maj=96.4km s-min=29.1km az=81.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.32**	**44**	Pn	P	18 31 30.8	-3.3
	0.1nm,0.3s,baz=234,slow=15,SNR=4.1						
SONM	**Songino Array**	**37.85**	**16**	P	P	18 36 33.8	-1.8
	1.2nm,1.1s,baz=205,slow=7.0,SNR=6.6						
WRA	**Warramunga Arr**	**52.16**	**127**	P	P	18 38 28.7	-1.6
	0.4nm,0.4s,baz=300,slow=10,SNR=5.8						
ASAR	**Alice Springs**	**53.95**	**131**	P	P	18 38 41.0	-2.5
	0.7nm,0.9s,baz=303,slow=5.7,SNR=3.0						

IDC 31 18:31:48.6±1.2**, 6.65N**×**92.32E, mb3.8**/6**, mb1 4.0**/7**, mb1mx3.7**/20**, mbtmp3.8**/7**, ML3.8**/1**, Error ellipse: s-maj=59.0km s-min=22.8km az=47.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.39**	**28**	Pn	P	18 34 59.9	-2.7
	0.1nm,0.3s,baz=230,slow=14,SNR=8.7						
WRA	**Warramunga Arr**	**49.06**	**124**	P	P	18 40 37.7	-2.1
	0.8nm,0.8s,baz=306,slow=8.9,SNR=4.6						
BVAR	**Borovoye Array**	**49.58**	**343**	P	P	18 40 41.8	-1.5
	0.4nm,0.7s,baz=129,slow=9.2,SNR=3.5						
ASAR	**Alice Springs**	**50.56**	**128**	P	P	18 40 49.4	-1.9
	0.5nm,0.7s,baz=302,slow=7.9,SNR=6.0						
FINES	**FINESS Array B**	**72.95**	**333**	P	P	18 43 20.2	-1.3
	1.0nm,0.7s,baz=106,slow=14,SNR=3.4						
GERES	**GERESS Array B**	**77.53**	**318**	P	P	18 43 46.0	-2.0
	0.8nm,0.7s,baz=90,slow=5.3,SNR=6.9						
DAVOX	**Davos**	**80.01**	**316**	P	P	18 44 00.2	-1.3
	0.8nm,0.4s,baz=90,slow=4.0,SNR=5.3						

WEL 31 18:35:20.2±0.6**, 38.19S**×**176.19E, h141**^{km}±3^{km}**, ML3.5**/6**, 2C-1D, Error ellipse: s-maj=6.9km s-min=4.3km az=90.0, North Island**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
URZ	**Urewera**	**0.72**	**96**	PN	P	18 35 41.8	-0.5
URZ				SN	S	18 35 58.0	-1.3
BKZ	**Black Stump Fm**	**1.00**	**167**	⇑PN	P	18 35 44.6	+0.3
BKZ				SN	S	18 36 02.8	-0.1
MWZ	**Matawai**	**1.06**	**98**	⇓PN	P	18 35 44.8	-0.1
MWZ				SN	S	18 36 02.9	-1.0
KNZ	**Kokohu**	**1.43**	**126**	PN	P	18 35 48.3	-0.4
TSZ	**Takapari Road**	**1.88**	**185**	PN	P	18 35 53.2	-0.5
PWZ	**Pawanui**	**1.91**	**164**	PN	P	18 35 53.5	-0.6
BFZ	**Birch Farm**	**2.49**	**179**	PN	P	18 35 59.7	-1.7
MRZ	**Mangatainoka R**	**2.52**	**191**	⇑PN	P	18 35 59.8	-1.9
MRZ				SN	S	18 36 30.0	-3.3
KIW	**Kapiti Island**	**2.85**	**200**	PN	P	18 36 03.5	-2.5
KIW				*e*SN	S	18 36 37.7	-3.2
MTW	**Mount Morrison**	**3.01**	**190**	PN	P	18 36 05.2	-2.9
CAW	**Cannon Point**	**3.04**	**196**	PN	P	18 36 05.9	-2.7
CAW				*e*SN	S	18 36 40.7	-4.7
TUWZ	**Tuamarina**	**3.67**	**207**	*e*PN	P	18 36 13.4	-3.4

IDC ***31*** *18:42:38.3±1.1, 7.04N×92.61E, mb3.9/7, mb1 4.0/7, mb1mx3.8/18, mbtmp3.9/7, Error ellipse: s-maj=57.7km s-min=20.4km az=49.0*

ISC 31 18:42:41.0±0.9**, 6.9N**±0.1×**92.4E**±0.2**, h33**^{km}**, n14,** $\sigma 0^{s}95$/14**, mb4.0**/10**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.17**	**28**	Pn	**P**	**18 45 49.5**	**+1.1**
	baz=229,slow=14,SNR=11						
PKI	**Pulchoki**	**21.65**	**343**	*e*P	**P**	**18 47 31.8**	**+1.1**
DMN	**Daman**	**21.78**	**342**	*e*P	**P**	**18 47 32.5**	**+0.6**
	17nm,0.9s,mb4.5						
GUN	**Gumba**	**21.84**	**344**	*e*P	**P**	**18 47 32.5**	**0.0**
KKN	**Kakani**	**21.90**	**343**	*e*P	**P**	**18 47 33.2**	**+0.1**
	8.6nm,0.6s,mb4.3						
GKN	**Gorkha**	**22.29**	**342**	*e*P	**P**	**18 47 35.8**	**-1.2**
KOLN	**Koldanda**	**22.42**	**339**	*e*P	**P**	**18 47 36.8**	**-1.5**
	20nm,1.2s,mb4.4						
SONM	**Songino Array**	**42.54**	**14**	P	**P**	**18 50 34.3**	**-1.0**
	0.2nm,0.5s,mb3.1,baz=202,slow=8.3,SNR=6.2						
WRA	**Warramunga Arr**	**49.09**	**124**	P	**P**	**18 51 27.3**	**-0.3**
	1.6nm,0.8s,mb4.1,baz=305,slow=9.2,SNR=9.3						
BVAR	**Borovoye Array**	**49.42**	**343**	P	**P**	**18 51 29.2**	**-0.5**
	0.9nm,0.9s,mb3.8,baz=117,slow=6.6,SNR=3.9						
ASAR	**Alice Springs**	**50.61**	**128**	P	**P**	**18 51 39.1**	**-0.1**
	0.9nm,0.5s,mb4.0,baz=302,slow=7.9,SNR=19						
FINES	**FINESS Array B**	**72.82**	**333**	P	**P**	**18 54 07.0**	**-1.0**
	1.7nm,1.0s,mb4.0,baz=106,slow=14,SNR=4.1						
GERES	**GERESS Array B**	**77.44**	**318**	P	**P**	**18 54 35.9**	**+1.0**
	0.9nm,0.6s,mb3.9,baz=88,slow=5.2,SNR=10.0						
DAVOX	**Davos**	**79.94**	**316**	P	**P**	**18 54 50.1**	**+1.7**
	2.0nm,0.6s,mb4.3,baz=165,slow=5.4,SNR=5.9						

IDC 31 18:49:26.1±21.0**, 6.75N**×**94.67E, mb3.4**/2**, mb1 3.6**/3**, mb1mx3.3**/17**, mbtmp3.3**/3**, ML3.5**/1**, Error ellipse: s-maj=551.6km s-min=43.4km az=85.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.36**	**19**	Pn	P	18 52 23.4	-3.0
	0.1nm,0.3s,baz=230,slow=14,SNR=8.4						
WRA	**Warramunga Arr**	**47.18**	**125**	P	P	18 58 01.1	-1.6
	0.4nm,0.7s,baz=305,slow=8.9,SNR=4.5						
ASAR	**Alice Springs**	**48.79**	**130**	P	P	18 58 12.9	-2.3
	0.4nm,0.9s,baz=302,slow=8.1,SNR=4.2						

IDC 31 18:54:54.3±8.9**, 1.11N**×**99.58E, mb3.4**/3**, mb1 3.7**/3**, mb1mx3.4**/15**, mbtmp3.4**/3**, Error ellipse: s-maj=311.8km s-min=29.5km az=65.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
WRA	**Warramunga Arr**	**39.99**	**123**	P	P	19 02 31.0	-1.6
	0.4nm,0.4s,baz=301,slow=9.6,SNR=21						
ASAR	**Alice Springs**	**41.46**	**129**	P	P	19 02 43.1	-1.6
	0.4nm,0.6s,baz=303,slow=7.7,SNR=5.8						
SONM	**Songino Array**	**46.91**	**6**	P	P	19 03 26.5	-1.8
	0.2nm,0.5s,baz=196,slow=10,SNR=2.9						

IDC ***31*** *18:55:12.5±1.3, 30.14N×86.06E, mb3.6/5, mb1 3.7/5, mb1mx3.5/17, mbtmp3.6/5, Error ellipse: s-maj=44.6km s-min=27.3km az=47.0*

ISC 31 18:55:18.9±4.0**, 30.1N**±0.2×**85.9E**±0.3**, h61**^{km}±40^{km}**, n7,** $\sigma 0^{s}26$/7**, mb3.6**/5**, Xizang**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
SHL	**Shillong**	**6.93**	**129**	*e*P	**P**	**18 57 00.0**	**-0.2**
CMAR	**Chiang Mai Arr**	**16.56**	**131**	Pn	**P**	**18 59 08.8**	**+0.2**
	0.1nm,0.3s,baz=310,slow=11,SNR=9.3						
SONM	**Songino Array**	**23.69**	**36**	P	**P**	**19 00 25.7**	**+0.1**
	0.4nm,0.8s,mb2.9,baz=215,slow=9.7,SNR=4.1						
AKASG	**Malin Array Be**	**46.56**	**313**	P	**P**	**19 03 42.5**	**+0.3**
	0.5nm,0.5s,mb3.8,baz=74,slow=6.4,SNR=6.0						
FINES	**FINESS Array B**	**49.71**	**327**	P	**P**	**19 04 06.3**	**-0.2**
	2.5nm,1.0s,mb4.2,baz=90,slow=12,SNR=3.3						
ASAR	**Alice Springs**	**70.56**	**134**	P	**P**	**19 06 29.6**	**-0.1**
	0.7nm,0.7s,mb3.7,baz=317,slow=5.5,SNR=4.2						
YKA	**Yellowknife Ar**	**86.27**	**9**	P	**P**	**19 07 54.4**	**-0.1**
	0.2nm,0.8s,mb3.4,baz=334,slow=5.0,SNR=2.8						

IDC 31 18:56:25.4±1.9**, 4.64N**×**92.12E, mb3.5**/3**, mb1 3.8**/4**, mb1mx3.5**/17**, mbtmp3.5**/4**, ML3.0**/1**, Error ellipse: s-maj=59.2km s-min=35.6km az=54.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.26**	**25**	Pn	P	19 00 01.1	-2.9
	0.0nm,0.3s,baz=218,slow=13,SNR=4.6						
SONM	**Songino Array**	**44.74**	**14**	P	P	19 04 41.0	-1.4
	0.5nm,0.9s,baz=196,slow=7.9,SNR=3.2						
WRA	**Warramunga Arr**	**48.15**	**122**	P	P	19 05 07.7	-1.9
	0.9nm,0.9s,baz=297,slow=9.1,SNR=3.9						
GERES	**GERESS Array B**	**78.90**	**319**	P	P	19 08 30.9	-1.4
	0.4nm,0.7s,baz=98,slow=6.9,SNR=4.8						

IDC 31 19:00:41.1±2.6**, 43.34N**×**105.18W, mb3.9**/1**, mb1 3.5**/3**, mb1mx3.2**/18**, mbtmp3.3**/3**, ML3.7**/2**, Error ellipse: s-maj=58.3km s-min=13.4km az=158.0, Wyoming**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
PDAR	**Pinedale Array**	**3.26**	**261**	Pn	Pn	19 01 36.5	+1.9
	2.3nm,0.3s,baz=81,slow=18,SNR=60						
PDAR				Lg		19 02 23.3	
	13nm,0.3s,baz=70,slow=33,SNR=14						
YKA	**Yellowknife Ar**	**19.97**	**347**	P	P	19 05 14.0	-3.5
	0.1nm,0.3s,baz=156,slow=12,SNR=4.1						
FINES	**FINESS Array B**	**68.37**	**23**	P	P	19 11 45.0	-1.0
	1.7nm,1.0s,baz=315,slow=5.9,SNR=3.6						

IDC 31 19:00:52.3±5.3**, 6.68N**×**92.04E, mb3.2**/3**, mb1 3.5**/4**, mb1mx3.3**/17**, mbtmp3.3**/4**, ML3.7**/1**, Error ellipse: s-maj=149.7km s-min=31.6km az=77.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.51**	**29**	Pn	P	19 04 05.6	-2.3
	0.1nm,0.3s,baz=210,slow=15,SNR=4.1						
SONM	**Songino Array**	**42.80**	**14**	P	P	19 08 51.6	-1.9
	0.3nm,0.9s,baz=195,slow=8.6,SNR=4.2						
WRA	**Warramunga Arr**	**49.31**	**123**	P	P	19 09 43.3	-2.2
	1.3nm,1.3s,baz=299,slow=9.8,SNR=4.9						
ASAR	**Alice Springs**	**50.79**	**128**	P	P	19 09 55.0	-1.7
	0.3nm,0.6s,baz=301,slow=7.8,SNR=4.5						

IDC ***31*** *19:03:40.9±0.9, 4.43N×94.84E, h54*^{km}*±6*^{km}*, mb3.8/8, mb1 4.0/9, mb1mx3.8/17, mbtmp4.1/9, Error ellipse: s-maj=40.3km s-min=14.4km az=47.0*

ISC 31 19:03:38.7±0.8**, 4.3N**±0.1×**94.7E**±0.2**, h53**^{km}**, h53**^{km}±1.9^{km}**:pP-P, n11,** $\sigma 0^{s}72$/11**, mb4.0**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.64**	**16**	P	**P**	**19 07 05.3**	**+0.8**
	0.5nm,0.3s,baz=208,slow=11,SNR=36						
SONM	**Songino Array**	**44.50**	**11**	P	**P**	**19 11 45.8**	**-0.9**
	0.1nm,0.4s,mb2.9,baz=202,slow=7.8,SNR=3.5						
SONM				PcP	PcP	19 13 29.1	-0.8
	0.4nm,0.6s,baz=210,slow=3.6,SNR=3.8						
WRA	**Warramunga Arr**	**45.81**	**123**	P	**P**	**19 11 57.5**	**0.0**
	3.7nm,0.7s,mb4.4,baz=302,slow=9.2,SNR=25						
WRA				pP	pP	19 12 10.8	-0.8
	2.8nm,0.8s,baz=302,slow=9.2,SNR=8.8						
ASAR	**Alice Springs**	**47.26**	**128**	P	**P**	**19 12 08.9**	**0.0**
	1.0nm,0.5s,mb4.0,baz=299,slow=7.9,SNR=18						
BVAR	**Borovoye Array**	**52.51**	**342**	P	**P**	**19 12 47.7**	**-0.9**
	1.1nm,0.5s,mb4.0,baz=135,slow=10,SNR=12						
BVAR				pP	pP	19 13 02.6	-0.3
	1.7nm,0.7s,baz=135,slow=12,SNR=7.1						
BRTR	**Keskin Array B**	**65.18**	**312**	P	**P**	**19 14 17.2**	**+0.4**
	1.7nm,0.9s,mb4.1,baz=124,slow=7.6,SNR=7.3						
BRTR				pP	pP	19 14 33.0	+1.5
	0.6nm,0.7s,baz=121,slow=7.2,SNR=3.0						
AKASG	**Malin Array Be**	**71.28**	**322**	P	**P**	**19 14 53.7**	**-0.8**
	0.9nm,0.5s,mb4.0,baz=88,slow=4.7,SNR=12						
FINES	**FINESS Array B**	**76.09**	**333**	P	**P**	**19 15 22.2**	**0.0**
	4.6nm,1.1s,mb4.3,baz=108,slow=6.1,SNR=17						
KAF	**Kangasniemi**	**76.19**	**333**	*e*p	**P**	**19 15 22.4**	**-0.4**
ARCES	**ARCESS Array B**	**78.77**	**340**	P	**P**	**19 15 37.3**	**+0.2**
	2.5nm,0.6s,mb4.3,slow=3.6,SNR=7.7						
GERES	**GERESS Array B**	**80.83**	**319**	P	**P**	**19 15 50.1**	**+1.6**
	0.5nm,0.5s,mb3.7,baz=117,slow=6.0,SNR=6.9						
GERES				pP	pP	19 16 04.5	+0.8
	1.0nm,0.9s,baz=100,slow=8.1,SNR=4.3						

IDC ***31*** *19:07:18.9±1.1, 6.62N×93.05E, h40*^{km}*±7*^{km}*, mb3.7/7, mb1 3.8/7, mb1mx3.6/17, mbtmp3.9/7, Error ellipse: s-maj=49.6km s-min=18.4km az=53.0*

ISC 31 19:07:16.1±1.0**, 6.3N**±0.1×**92.7E**±0.2**, h41**^{km}**, h41**^{km}±2.0^{km}**:pP-P, n10,** $\sigma 0^{s}80$/8**, mb3.9**/7**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**13.53**	**26**	P	**P**	**19 10 28.8**	**+0.9**
	0.5nm,0.3s,baz=231,slow=14,SNR=14						
SONM	**Songino Array**	**43.00**	**14**	P	**P**	**19 15 12.1**	**-1.2**
	0.4nm,0.5s,mb3.4,baz=189,slow=8.8,SNR=3.8						
SONM				pP	pP	19 15 22.1	-2.7
	0.5nm,0.6s,baz=204,slow=8.3,SNR=4.8						
WRA	**Warramunga Arr**	**48.57**	**123**	P	**P**	**19 15 57.3**	**-0.5**
	1.3nm,0.7s,mb4.1,baz=305,slow=8.7,SNR=13						
BVAR	**Borovoye Array**	**50.02**	**343**	P	**P**	**19 16 07.8**	**-0.8**
	0.9nm,0.8s,mb3.9,baz=135,slow=8.4,SNR=5.6						
BVAR				pP	pP	19 16 19.3	-0.8
	0.5nm,0.7s,baz=141,slow=9.5,SNR=4.7						
ASAR	**Alice Springs**	**50.06**	**128**	P	**P**	**19 16 09.4**	**+0.1**
	1.6nm,0.7s,mb4.2,baz=299,slow=7.4,SNR=17						
STKA	**Stephens Creek**	**60.10**	**132**	P	**P**	**19 17 22.4**	**+0.4**
	1.5nm,0.9s,mb4.0,baz=320,slow=18,SNR=3.3						
FINES	**FINESS Array B**	**73.42**	**333**	P	**P**	**19 18 45.5**	**-0.2**
	3.9nm,1.1s,mb4.3,baz=124,slow=5.0,SNR=3.3						
FINES				pP	pP	19 18 58.1	+0.2
	0.8nm,0.6s,baz=63,slow=4.3,SNR=1.3						
GERES	**GERESS Array B**	**78.03**	**318**	P	**P**	**19 19 13.5**	**+1.3**
	0.6nm,0.7s,mb3.6,baz=90,slow=5.3,SNR=5.3						
GERES				pP	pP	19 19 26.5	+2.1
	0.6nm,0.8s,baz=90,slow=6.7,SNR=3.9						
PDAR	**Pinedale Array**	**127.13**	**20**	PKP	PKPdf	19 26 18.5	+1.9
	0.6nm,0.9s,baz=63,slow=3.3,SNR=4.2						
TXAR	**Lajitas Array**	**141.23**	**23**	PKP	PKPdf	19 26 48.7	+5.5
	0.3nm,0.5s,baz=121,slow=1.6,SNR=4.4						

IDC 31 19:08:03.2±14.0**, 12.86N**×**93.94E, mb3.6**/2**, mb1 3.7**/3**, mb1mx3.4**/17**, mbtmp3.4**/3**, ML3.0**/1**, Error ellipse: s-maj=304.5km s-min=34.5km az=107.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.36**	**40**	Pn	Pn	19 09 52.2	-2.4
	0.1nm,0.3s,baz=245,slow=15,SNR=3.6						
CMAR				Sn	Sn	19 11 17.0	-2.9
	0.2nm,0.3s,baz=222,slow=12,SNR=3.3						
WRA	**Warramunga Arr**	**51.41**	**129**	P	P	19 17 10.4	-2.0

	0.4nm,0.6s,baz=309,slow=8.2,SNR=2.9						
ASAR	Alice Springs	53.34	133	P	P	19 17 24.4	-2.4
	0.4nm,0.5s,baz=306,slow=6.9,SNR=6.1						

IDC 31 19:19:02.7±9.7,6.92N×92.48E,h58^{km}±83^{km},mb3.2/5, mb1 3.5/6,mb1mx3.4/18,mbtmp3.5/6,ML3.8/1,MS3.8/1, Ms1 3.8/1,ms1mx2.8/7,Error ellipse: s-maj=75.6km s-min=19.9km az=55.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.08	28	P	P	19 22 06.3	-1.3
	0.2nm,0.3s,baz=229,slow=14,SNR=14						
SONM	Songino Array	42.46	14	P	P	19 26 52.2	-1.4
	0.2nm,0.6s,baz=203,slow=10,SNR=3.3						
WRA	Warramunga Arr	49.07	124	P	P	19 27 44.0	-2.4
	0.5nm,0.5s,baz=303,slow=9.0,SNR=15						
BVAR	Borovoye Array	49.38	343	P	P	19 27 45.0	-3.4
	0.4nm,0.7s,baz=135,slow=4.1,SNR=4.1						
ASAR	Alice Springs	50.59	128	P	P	19 27 56.0	-2.0
	0.4nm,0.5s,baz=302,slow=7.9,SNR=17						
CBIJ	Chichi jima	51.20	61	LR	LR	19 51 20.9	
	comp=Z,95nm,18.1s,baz=64,slow=38						
GERES	GERESS Array B	77.44	318	P	P	19 30 52.8	-0.7
	0.5nm,0.7s,baz=104,slow=5.5,SNR=8.3						

MAN 31 19:19:59.3,12.88N×122.81E,h6^{km},mb4.5,ML3.3,MS3.2, 1D,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
AUQP	San Andres	0.47	343	*e*P	Pg	19 20 09.0	+0.3
AUQP				*e*S	Sg	19 20 18.1	+3.2
OTRP	Odiongan	0.92	237	*e*P	Pb	19 20 17.2	-0.2
OTRP				*e*S	Sb	19 20 30.7	+1.0
GQP	Guinayangan	1.08	341	⇓*e*P	Pb	19 20 19.1	-1.0
GQP				*e*S	Sb	19 20 33.2	-1.1
BOAC	Boac	1.11	302	*e*P	Pb	19 20 19.4	-1.1
BOAC				*e*S	Sb	19 20 35.5	+0.5
PVCP	Virac	1.49	61	*e*P	Pn	19 20 25.8	-1.0
PVCP				*e*S	Sb	19 20 47.2	+1.1
SJMP	San Jose	1.70	256	*e*P	Pn	19 20 29.6	-0.2
LQP	Lukban	1.74	315	*e*P	Pn	19 20 30.1	-0.4
POLP	Polilio Island	2.03	335	*e*P	Pn	19 20 36.3	+1.8
POLP				*e*S	Sn	19 21 06.4	+6.1

IDC 31 19:29:44.3±1.9,5.12N×94.97E,mb3.5/4,mb1 3.7/4, mb1mx3.5/16,mbtmp3.5/4,Error ellipse: s-maj=81.0km s-min=27.7km az=55.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.81	16	Pn	P	19 33 07.3	+3.4
	0.1nm,0.3s,baz=200,slow=13,SNR=4.1						
SONM	Songino Array	43.67	11	P	P	19 37 51.1	-1.4
	0.5nm,0.9s,baz=192,slow=8.1,SNR=3.6						
WRA	Warramunga Arr	46.03	124	P	P	19 38 09.7	-2.1
	0.3nm,0.5s,baz=305,slow=9.2,SNR=6.3						
ASAR	Alice Springs	47.55	129	P	P	19 38 22.1	-1.7
	0.3nm,0.4s,baz=302,slow=7.8,SNR=12						
GERES	GERESS Array B	80.41	319	P	P	19 41 57.7	-1.6
	0.3nm,0.6s,baz=117,slow=6.6,SNR=3.0						

MAN 31 19:33:22.2,13.19N×124.84E,h14^{km},mb4.1,ML2.9, MS2.5,2C,Luzon

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CNP	Catarman	0.69	194	*e*P	Pb	19 33 35.3	-0.2
CNP				*e*S	Sb	19 33 45.4	+0.8
PVCP	Virac	0.78	302	*e*P	Pb	19 33 37.2	+0.2
PVCP				*e*S	Sb	19 33 48.5	+1.3
MMPH	Masbate	1.44	235	*i* P	Pn	19 34 06.0	+18
BESP	Borongan	1.68	159	*e*P	Pn	19 33 50.5	-1.0
BESP				*e*S	Sn	19 34 14.9	+2.0
OCLP	Ormoc	2.13	186	*e*P	Pn	19 33 57.3	-0.7
GQP	Guinayangan	2.43	287	⇑*e*P	Pn	19 34 01.9	-0.4
GQP				*e*S	Sn	19 34 32.5	+0.5
RCP	Roxas	2.60	232	⇑*e*P	Pn	19 34 05.1	+0.4
BOAC	Boac	2.92	276	*e*P	Pn	19 34 09.6	+0.4
MSLP	Maasin	3.03	180	*e*P	Pn	19 34 10.9	+0.1
GUIM	Jordan	3.36	221	*e*P	Pn	19 34 15.5	+0.1

IDC 31 19:48:27.2±14.0,4.55N×96.85E,mb3.4/2,mb1 3.6/3, mb1mx3.3/16,mbtmp3.4/3,ML3.8/1,Error ellipse: s-maj=401.4km s-min=44.9km az=77.0,Northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	13.98	8	Pn	P	19 51 46.6	-2.4
	0.2nm,0.3s,baz=245,slow=15,SNR=5.0						
WRA	Warramunga Arr	44.16	125	P	P	19 56 38.5	-1.3
	0.4nm,0.4s,baz=302,slow=9.0,SNR=8.4						
ASAR	Alice Springs	45.73	130	P	P	19 56 49.9	-2.4
	0.4nm,0.6s,baz=317,slow=8.1,SNR=4.9						

IDC 31 19:49:60.0±1.2,34.83N×86.12E,mb3.5/4,mb1 3.7/6, mb1mx3.4/18,mbtmp3.5/6,ML3.4/1,MS3.3/2,Ms1 3.4/2, ms1mx2.9/23,Error ellipse: s-maj=47.3km s-min=21.5km az=49.0

ISC 31 19:50:01.6±5.6,35.0N±0.1×86.3E±0.2,h24^{km}±45^{km},n13, σ0^{s}98/12,mb3.5/4,MS3.5/1,Xizang

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
GUN	Gumba	7.03	183	*e*P	Pn	19 51 45.8	+0.1
	24nm,0.7s						
GKN	Gorkha	7.07	192	*e*P	Pn	19 51 46.9	+0.6
	17nm,0.5s						
KKN	Kakani	7.19	187	*e*P	Pn	19 51 47.7	-0.3
	16nm,0.5s						
DMN	Daman	7.39	188	*e*P	Pn	19 51 50.7	0.0
	18nm,0.5s						
PKI	Pulchoki	7.39	186	*e*P	Pn	19 51 51.0	+0.2
	26nm,0.6s						
KOLN	Koldanda	7.52	199	*e*P	Pn	19 51 52.8	+0.2
	16nm,0.5s						
SONM	Songino Array	19.75	43	P	P	19 54 33.4	+0.8
	0.1nm,0.3s,baz=220,slow=12,SNR=5.2						
CMAR	Chiang Mai Arr	19.90	142	P	P	19 54 32.5	-2.0
	baz=321,slow=5.8,SNR=3.8						
CMAR				LR	LR	20 02 19.0	
	comp=Z,45nm,20.1s,baz=15,slow=37						
BVAR	Borovoye Array	21.30	333	P	P	19 54 47.0	-1.6
	1.2nm,0.7s,mb3.3,baz=153,slow=13,SNR=4.4						
GNI	Garni	33.13	292	LR	LR	20 12 26.9	
	comp=Z,90nm,18.7s,MS3.5,baz=329,slow=41						
NOA	NORSAR Array B	53.05	324	P	P	19 59 20.5	+1.9
	0.6nm,0.7s,mb3.6,baz=82,slow=6.7,SNR=3.2						
GERES	GERESS Array B	53.81	309	P	P	19 59 23.5	-0.9
	0.2nm,0.5s,mb3.3,baz=104,slow=4.0,SNR=2.3						
WRA	Warramunga Arr	71.14	132	P	P	20 01 21.1	+0.7
	0.4nm,0.5s,mb3.6,baz=324,slow=6.8,SNR=6.6						

PRU 31 20:01:22.6,51.45N×16.10E

WAR 31 20:01:22.7,51.47N×16.11E,h1^{km},ML2.7,Mining Induced

NEIC 31 20:01:23.4±2.4,51.38N×16.07E,h5^{km},MG2.7(WAR), Error ellipse: s-maj=28.1km s-min=8.4km az=215.0

ISC 31 20:01:20.2±1.1,51.45N±0.05×16.07E±0.05,n17,σ1^{s}28/34, 1D,Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	Ksiaz	0.62	167	*i* PG	Pg	20 01 34.4	+1.8
KSP				*e*SG	Sg	20 01 43.4	+2.5
KSP	Ksiaz	0.62	167	⇓*i*Pg	Pg	20 01 34.4	+1.8
KSP				*e*Sg	Sg	20 01 43.0	+2.1
KSP	Ksiaz	0.62	167	*e*Pg	Pg	20 01 34.4	+1.8
KSP				*e*Sg	Sg	20 01 43.6	+2.7
UPC	Upice	0.94	182	*e*PG	Pg	20 01 40.5	+1.5
DPC	Dobruska-Polom	1.11	172	*e*PG	Pg	20 01 43.1	+0.7
DPC				*e*SG	Sg	20 01 58.5	+1.4
PVCC	Panska Ves	1.32	227	*e*PG	Pg	20 01 47.9	+1.3
BRG	Berggiesshubel	1.46	248	*i* Pg	Pg	20 01 49.9	+0.6
BRG				*i* Sg	Sg	20 02 10.1	+1.4
PRU	Pruhonice	1.75	214	*e*Pg	Pg	20 01 54.8	-0.4
PRU				*e*Sg	Sg	20 02 18.0	-0.6
PRU	Pruhonice	1.75	214	*e*PN	Pn	20 01 52.8	+0.7
PRU				PG	Pg	20 01 54.8	-0.4
PRU				*i* x	x	20 02 11.9	
PRU				SG	Sg	20 02 17.9	-0.7
	11nm,0.4s						
MORC	Moravsky Berou	1.92	150	*e*Pn	Pn	20 01 55.1	+0.7
MORC				*e*Sn	Sn	20 02 17.1	-2.5
MORC				*e*Sg	Sg	20 02 21.9	-2.1
CLL	Collm	1.93	267	*e*PG	Pg	20 01 58.0	-0.7
CLL				*e*SG	Sg	20 02 24.0	-0.4
OKC	Ostrava-Krasne	2.08	140	*e*PG	Pg	20 02 01.5	-0.3
OKC				*e*SG	Sg	20 02 27.8	-1.8
NKC	Novy Kostel	2.60	244	*e*SG	Sg	20 02 46.2	-0.5
KHC	Kasperske Hory	2.81	216	*e*Pg	Pg	20 02 14.2	-2.2
KHC				*e*Sg	Sg	20 02 52.6	-1.4
KHC	Kasperske Hory	2.81	216	*e*PN	Pn	20 02 08.5	+1.2
KHC				*e*PG	Pg	20 02 14.2	-2.2
KHC				*e*x	x	20 02 44.0	
KHC				*e*SG	Sg	20 02 52.6	-1.4
MOX	Moxa	2.92	256	Pg	Pg	20 02 18.0	-0.6
MOX				Sg	Sg	20 02 57.0	-0.6
MOX	Moxa	2.92	256	*e*Pg	Pg	20 02 17.5	-1.1
MOX				*e*Sg	Sg	20 02 57.0	-0.6

IDC 31 20:03:41.0±1.7,7.85N×94.39E,mb3.7/4,mb1 3.8/5, mb1mx3.6/18,mbtmp3.6/5,ML3.4/1,Error ellipse: s-maj=58.9km s-min=27.8km az=58.0

ISC 31 20:03:44.5±1.4,8.0N±0.2×94.6E±0.2,h33^{km},n6,σ1^{s}51/6, mb3.7/4,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	11.23	22	Pn	P	20 06 25.1	-0.7
	0.1nm,0.3s,baz=216,slow=14,SNR=5.8						
SONM	Songino Array	40.95	12	P	P	20 11 27.8	+2.2
	0.6nm,0.8s,mb3.3,baz=196,slow=9.9,SNR=4.0						
WRA	Warramunga Arr	47.99	126	P	P	20 12 22.3	-0.3
	0.6nm,0.8s,mb3.7,baz=305,slow=8.7,SNR=3.4						
BVAR	Borovoye Array	49.01	341	P	P	20 12 28.7	-1.3
	0.3nm,0.3s,mb3.7,baz=158,slow=6.3,SNR=5.1						
FINES	FINESS Array B	72.80	332	P	P	20 15 12.1	+0.8
	1.6nm,0.9s,mb3.9,baz=112,slow=7.5,SNR=8.5						
KAF	Kangasniemi	72.87	333	*e*p	P	20 15 11.4	-0.3

IDC 31 20:05:25.8±9.6,7.44N×92.55E,h64^{km}±81^{km},mb3.5/6, mb1 3.8/7,mb1mx3.5/18,mbtmp3.8/7,ML3.9/1,Error ellipse: s-maj=80.2km s-min=18.7km az=57.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	Chiang Mai Arr	12.60	29	P	P	20 08 22.4	-1.7
	0.2nm,0.3s,baz=233,slow=14,SNR=20						
SONM	Songino Array	41.94	14	P	P	20 13 10.3	-1.5
	0.5nm,0.8s,baz=200,slow=6.7,SNR=3.7						
BVAR	Borovoye Array	48.90	342	P	P	20 14 05.0	-2.2
	0.6nm,0.6s,baz=135,slow=8.2,SNR=3.5						
WRA	Warramunga Arr	49.31	124	P	P	20 14 08.7	-2.1
	2.0nm,0.6s,baz=304,slow=8.6,SNR=12						
ASAR	Alice Springs	50.87	129	P	P	20 14 19.9	-2.7
	0.7nm,0.5s,baz=302,slow=8.0,SNR=11						
STKA	Stephens Creek	60.96	133	P	P	20 15 33.4	-1.6
	1.3nm,0.7s,baz=326,slow=11,SNR=4.6						
GERES	GERESS Array B	77.09	318	P	P	20 17 12.5	-1.5
	0.6nm,0.8s,baz=79,slow=6.8,SNR=4.0						

IDC 31 20:05:51.2±38.0,13.73S×161.49E,mb4.0/3,mb1 4.2/3, mb1mx3.8/12,mbtmp4.0/3,Error ellipse: s-maj=628.2km s-min=96.2km az=61.0,South of Solomon Islands

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
STKA	Stephens Creek	25.66	222	P	P	20 11 22.9	-1.6
	2.3nm,1.0s,baz=63,slow=6.8,SNR=2.9						
WRA	Warramunga Arr	26.69	253	P	P	20 11 32.5	-1.6
	2.3nm,0.7s,baz=83,slow=9.1,SNR=16						
ASAR	Alice Springs	27.89	245	P	P	20 11 43.0	-2.0
	0.9nm,0.7s,baz=69,slow=9.5,SNR=7.9						

NIED 31 20:13:00,36.80N×141.00E,h83^{km},Mw5.0 Best double couple: $M_0$3.64×10^{16} NP1:ϕ_s197°,δ83°,λ-94°. NP2:ϕ_s47°, δ8°,λ-61°.

BJI 31 20:13:47.7,36.82N×140.79E,h93^{km},mB5.2,mb5.4

IDC 31 20:13:48.9±0.3,36.77N×140.78E,h86^{km}±2^{km},mb4.7/28, mb1 4.8/29,mb1mx4.8/30,mbtmp5.0/29,MS4.0/10, Ms1 4.0/10,ms1mx3.7/28,Error ellipse: s-maj=11.2km s-min=7.0km az=101.0

MOS 31 20:13:49.8±0.7,37.02N×140.81E,h98^{km},mb5.1/66, MS4.5/4,Error ellipse: s-maj=8.6km s-min=5.1km az=108.4

JMA 31 20:13:49.0±0.1,36.78N×140.98E,h89^{km}±1^{km},M5.0 Broadband fault plane solution: P waves. NP1:ϕ_s46°,δ13°, λ-55°. NP2:ϕ_s189°,δ79°,λ-98°. Principal axes: T Plg34°, Azm286°; N Plg8°, Azm191°; P Plg55°, Azm90°;

JMA Felt IV J1.

NEIC 31 20:13:49.5±0.2,36.86N×140.84E,mb5.0/83, MW5.0(NIED) Error ellipse: s-maj=5.4km s-min=3.0km az=174.0

NEIC Recorded [4 JMA] in Fukushima, Ibaraki and Miyagi; [3 JMA] in Gumma and Tochigi; [2 JMA] in Chiba, Iwate, Kanagawa, Saitama, Tokyo and Yamagata; [1 JMA] in Nagano, Niigata, Shizuoka and Yamanashi Prefectures.

HRVD 31 20:13:49.5±0.4,36.85N×140.97E,h76^{km}±5^{km},MW5.0/54, Centroid moment Tensor Solution. LP body waves: s22,c29;Mantle waves: s54,c93; Half duration: 0 Moment tensor: Scale 10^{16}Nm; M_{rr}-0.93±.26; $M_{\theta\theta}$0.10±.23; $M_{\phi\phi}$0.83±.23; $M_{r\theta}$1.10±.13; $M_{\theta\phi}$0.96±.21; $M_{\phi r}$3.92±.09; Best double couple: $M_0$4.27×10^{16} NP1:ϕ_s64°,δ11°,λ-42°. NP2:ϕ_s196°,δ82°,λ-98°. Principal axes: T 4.45, Plg37°, Azm293°; N -.36, Plg8°, Azm197°; P -4.09, Plg52°, Azm96°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.

ISC 31 20:13:48.9±0.2,36.85N±0.02×140.90E±0.03,h97^{km}±1^{km}, h87^{km}±.9^{km}:pP-P,n462,σ0^{s}93/469,mb5.0/127,48C-62D, Near east coast of eastern Honshu

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
ONAJ	Iwakimizuishiy	0.27	342	⇓P	P	20 14 02.6	-0.5
ONAJ				S	S	20 14 12.6	-1.2
JHO	Hitachi	0.36	228	⇓P	P	20 14 03.0	-0.6
JHO				S	S	20 14 12.8	-1.8
JFK	Kawauchi	0.52	358	⇓P	P	20 14 04.3	-0.4
JFK				S	S	20 14 15.2	-1.3
JSB	Shiboa	0.79	279	⇓P	P	20 14 07.7	+0.5
JFT	Otama	0.81	326	⇓P	P	20 14 07.8	+0.4
JFT				S	S	20 14 21.4	+0.4
JMM	Marumori	1.02	355	P	P	20 14 09.6	0.0
JMM				*e*S	S	20 14 24.7	-0.4
JFY	Yanaizu	1.10	301	⇓P	P	20 14 11.5	+0.8
JFY				S	S	20 14 28.1	+1.2
JAG	Ashikaga	1.24	250	⇓P	P	20 14 12.4	+0.1
JAG				S	S	20 14 29.2	-0.5
JKT	Katashina	1.33	267	⇓P	P	20 14 14.2	+0.9
JKT				S	S	20 14 32.8	+1.3
TOK	Tokyo	1.48	219	⇓P	P	20 14 15.1	-0.1
TOK				S	S	20 14 34.3	-0.4
JYS	Shirataka	1.52	334	⇓P	P	20 14 16.5	+0.8
JYS				S	S	20 14 35.4	-0.2
JOU	Okura	1.52	353	⇓P	P	20 14 15.8	0.0
JOU				S	S	20 14 35.3	-0.4
JHK	Hiroka	1.56	285	⇓P	P	20 14 17.2	+1.0
JHK				S	S	20 14 38.1	+1.7
JNS	Sasagawa	1.59	308	⇓P	P	20 14 16.9	+0.3
JNS				S	S	20 14 38.0	+0.9
JIO	Ouri	1.64	12	⇓P	P	20 14 16.6	-0.7
JIO				S	S	20 14 36.6	-1.6
JRY	Ryogami san	1.81	243	⇓P	P	20 14 19.7	+0.3
JRY				S	S	20 14 41.9	-0.1
JGK	Kuni	1.84	262	⇓P	P	20 14 21.1	+1.3
JGK				S	S	20 14 45.3	+2.8
JIZZ	Izumozaki	1.88	292	⇓P	P	20 14 22.4	+2.1
JYA	Atsumi	1.98	332	⇓P	P	20 14 22.8	+1.2
BSO3	Boso 3	2.07	189	P	P	20 14 21.5	-1.3
JAW	Awa shima	2.07	321	⇓P	P	20 14 23.7	+0.8
JYK	Kaneyama	2.11	348	⇓P	P	20 14 23.9	+0.5
JMK	Ichinoseki	2.12	7	⇓P	P	20 14 22.7	-0.8
JOD2	Odawara 2	2.16	223	⇓P	P	20 14 23.5	-0.6
MAJO	Matsushiro	2.19	263	*e*P	P	20 14 25.0	+0.6
MAT	Matsushiro	2.19	263	P	P	20 14 25.7	+1.3
MAT				S	S	20 14 51.8	+1.0
MAT	Matsushiro	2.19	263	P	P	20 14 25.6	+1.2
MAT	Matsushiro	2.19	263	*e*P	P	20 14 26.0	+1.6
MAT				*e*S	S	20 14 52.0	+1.2
JJN	Nakama	2.21	277	⇑P	P	20 14 26.2	+1.5
JNG	Nsakai	2.29	260	⇓P	P	20 14 27.0	+1.1
OFUJ	Ofunato	2.31	15	P	P	20 14 25.2	-0.9
JYN	Shimob	2.33	235	⇓P	P	20 14 27.0	+0.5
JSD	Sado	2.41	300	⇓P	P	20 14 28.0	+0.4
JNT	Takato	2.43	247	⇓P	P	20 14 29.0	+1.2
JIM2	Oshima 3	2.44	210	P	P	20 14 26.4	-1.5
JRG	Rokugo	2.55	355	⇑P	P	20 14 29.9	+0.4
JIZS	Izushimoda	2.69	218	P	P	20 14 30.1	-1.3
SHZ3	Shizuoka 3	2.81	232	⇓P	P	20 14 33.5	+0.4
MIYJ	Miyakonagasawa	2.82	15	P	P	20 14 31.8	-1.4
JNY	Yasuok	2.88	240	P	P	20 14 34.8	+0.9
JTT	Ttatey	2.88	266	⇑P	P	20 14 35.7	+1.8
JSZ	Suzu	2.89	283	P	P	20 14 34.5	+0.4
JGN	Niukaw	2.95	259	⇑P	P	20 14 36.5	+1.5
JSG	Sagara	3.10	226	P	P	20 14 37.4	+0.4
JGF	Kuroka	3.12	248	⇑P	P	20 14 38.4	+1.1
JKZ	Kuzumaki	3.15	6	P	P	20 14 36.8	-0.9
JYZW	Yoshizawa	3.17	235	P	P	20 14 38.1	+0.2
JTH	Tanohata	3.18	14	⇑P	P	20 14 36.7	-1.4
HMMJ	Hamamatsu 2	3.26	233	⇓P	P	20 14 39.4	+0.2
JHG	Hegura jima	3.32	289	P	P	20 14 40.5	+0.4
JAH	Hinai	3.34	357	⇑P	P	20 14 40.3	0.0
JAO	Obara	3.35	243	⇑P	P	20 14 41.1	+0.7
TK04	Tokai 4	3.48	226	P	P	20 14 42.1	-0.1
JANG	Nango	3.55	8	⇑P	P	20 14 41.5	-1.7
JGM	Miyama	3.57	252	⇑P	P	20 14 44.5	+1.1
TK03	Tokai 3	3.59	223	P	P	20 14 44.7	+0.9
JKG	Kaga	3.72	263	⇑P	P	20 14 46.8	+1.3
JAA	Atsumi	3.77	235	P	P	20 14 46.4	+0.2
JIW	Iwasaki	3.80	350	P	P	20 14 46.5	-0.1
JHJ	Hachijo jima 2	3.83	194	P	P	20 14 44.4	-2.6
	90nm,0.3s,baz=62,slow=20,SNR=22						
JHJ				S	S	20 15 26.1	-5.2
	2µm,0.3s,baz=253,slow=23,SNR=23						
JHJ				LR	LR	20 15 28.5	
	comp=Z,2µm,21.2s,baz=107,slow=27						
TK02	Tokai 2	3.87	222	P	P	20 14 47.0	-0.6
JTM	Tenmabayashi	3.93	2	⇑P	P	20 14 47.6	-0.8
TK01	Tokai 1	4.10	222	P	P	20 14 50.0	-0.7
JFM	Mihama	4.19	253	P	P	20 14 52.9	+1.0
JIE	Ise	4.20	236	P	P	20 14 51.8	-0.3
JSI2	Shiura 2	4.22	355	⇑P	P	20 14 51.7	-0.7
TSUJ	Tsu 2	4.22	241	⇓P	P	20 14 52.4	0.0
JOT	Ohata	4.53	1	P	P	20 14 55.0	-1.6
JSR	Shiriuchi	4.69	356	⇑P	P	20 14 58.0	-0.8
JWT	Wachi	4.72	252	P	P	20 14 59.5	+0.3
JHE	Heguri	4.77	244	P	P	20 14 59.6	-0.3
JKY	Yasaka	4.84	257	⇑P	P	20 15 01.6	+0.7
JKSM	Kasumi	5.20	258	⇑P	P	20 15 06.2	+0.5
JKS	Kasai	5.25	251	P	P	20 15 06.2	-0.3
JAJ2	Tsuna	5.46	245	P	P	20 15 08.8	-0.5
JNB	Noboribetsu	5.61	1	P	P	20 15 08.8	-2.5
JKR	Kurayoshi	5.92	258	⇑P	P	20 15 16.4	+0.9
JFR	Furan	6.44	11	P	P	20 15 19.2	-3.6
ASAJ	Asahikawa	7.37	10	P	P	20 15 31.7	-3.9
	24nm,0.3s,baz=244,slow=8.1,SNR=78						
ASAJ				S	S	20 16 52.0	-6.2
	13nm,0.3s,baz=73,slow=29,SNR=3.7						
ASAJ				LR	LR	20 18 53.4	
	comp=Z,324nm,19.4s,baz=7.4,slow=41						
YUK	Yuzh-Kuril'sk	8.11	26	*e*P	P	20 15 40.3	-5.3
YUK				*i* S	S	20 17 04.6	-12
YUK				pmax	pmax		
	comp=Z,440nm,0.4s						
YUK				pmax	pmax		
	comp=N,230nm,0.5s						
YUK				smax			
	comp=N,2µm,0.7s						
YUK				smax			
	comp=E,3µm,0.6s						
YUK				smax			
	comp=N,2µm,0.4s						
YUK				smax			
	comp=E,2µm,0.5s						
VLA	Vladivostok	9.32	315	*i* P	P	20 16 00.0	-2.0
VLA				*e*		20 17 45.0	
VLA				pmax	pmax		
	comp=N,2µm,3.0s						
VLA				pmax	pmax		
	comp=Z,1µm,3.0s						
VLA				pmax	pmax		
	comp=E,600nm,2.0s						
JTA	Tamana	9.35	249	P	P	20 16 02.3	-0.1
CBIJ	Chichi jima	9.79	173	P	P	20 16 02.6	-5.7
	comp=E,22nm,0.3s,baz=291,slow=20,SNR=9.0						
CBIJ				S	S	20 17 43.3	-14
	comp=E,127nm,0.3s,baz=283,slow=22,SNR=8.9						
KUR	Kuril'sk	9.89	30	*i* P	P	20 16 04.0	-5.6
KUR				pmax	pmax		
	comp=Z,370nm,1.0s						
KUR				pmax	pmax		
	comp=N,510nm,0.5s						
KUR				pmax	pmax		
	comp=E,380nm,0.5s						
YSS	Yuzh-Sakhalins	10.19	7	*e*P	P	20 16 09.4	-4.2
YSS				S	S	20 17 56.0	-11
YSS				pmax	pmax		
	comp=Z,180nm,0.9s						
YSS				pmax	pmax		
	comp=N,110nm,0.5s						
YSS				pmax	pmax		
	comp=E,30nm,0.5s						
YSS				MLR	MLR		
	comp=Z,500nm,11.0s						
YSS				MLR	MLR		
	comp=N,500nm,16.0s						
YSS	Yuzh-Sakhalins	10.19	7	*e*P	P	20 16 08.4	-5.3
	comp=N,143nm,0.6s						
KS15	Wonju Array Si	10.41	277	*e*P	P	20 16 17.7	+1.1
INCN	Inchon	11.40	277	*e*P	P	20 16 30.6	+0.8
	comp=N,54nm,0.9s						
MDJ	Mudanjiang	11.56	316	P	P	20 16 35.5	+3.6
MDJ				AMB	AMB		
	comp=Z,78nm,0.7s						
MDJ				AMB	AMB		
	comp=Z,212nm,4.1s						
MDJ				LR	LR		
	comp=N,411nm,29.0s						
MDJ				LR	LR		
	comp=E,558nm,26.2s						
MDJ				LR	LR		
	comp=Z,891nm,30.4s						
MDJ	Mudanjiang	11.56	316	*e*Pn	P	20 16 30.4	-1.5
	comp=Z,60nm,0.7s						
CN2	Changchun	13.67	305	*e*P	P	20 16 58.5	-1.1
CN2				*e*XP		20 17 23.3	
CN2				*e*S	S	20 19 27.5	-1.9
CN2				AMB	AMB		
	comp=Z,110nm,1.0s						
CN2				AMB	AMB		
	comp=Z,270nm,6.0s						
KLR	Kul'dur	14.05	335	*e*P	P	20 17 00.0	-4.5
SNY	Shenyang	14.29	296	⇓P	P	20 17 06.8	-0.9
SNY				AP		20 17 18.0	
SNY				S	S	20 19 50.5	+6.4
SNY				AMB	AMB		
	comp=Z,60nm,1.4s						
SNY				LR	LR		
	comp=E,1µm,14.7s						
SNY				LR	LR		
	comp=Z,1µm,18.6s						
JOW	Kunigami	14.64	231	LR	LR	20 22 14.3	
	comp=Z,392nm,18.7s,baz=107,slow=35						
DL2	Dalian	15.36	284	P	P	20 17 22.0	+0.7
DL2				AMB	AMB		
	comp=Z,80nm,1.0s						
SKR	Severo-Kuril's	17.61	33	*e*P	P	20 17 44.3	-5.0
SKR				pmax	pmax		
	comp=Z,100nm,0.8s						
NJ2	Nanjing	18.79	262	*e*P	P	20 18 00.3	-2.8
NJ2				AP		20 18 17.3	
NJ2				PP	PP	20 18 19.5	-1.7

NJ2				XP		20 18 29.5	
NJ2				S	**S**	**20 21 22.0**	**-3.8**
NJ2				XS		20 21 49.0	
NJ2				AMB	AMB		
	comp=Z,240nm,0.5s						
NJ2				AMB	AMB		
	comp=Z,110nm,6.0s						
NJ2				LR	LR		
	comp=N,1µm,15.1s						
NJ2				LR	LR		
	comp=E,1µm,13.6s						
NJ2				LR	LR		
	comp=Z,2µm,14.5s						
TIA	**Tai'an**	**19.11**	**275**	*e*P	**P**	**20 18 03.0**	**-3.6**
TIA				AMB	AMB		
	comp=Z,59nm,1.0s						
BJI	**Beijing**	**19.61**	**287**	*e*P	**P**	**20 18 08.5**	**-3.3**
BJI				AP		20 18 26.8	
BJI				AMB	AMB		
	comp=Z,73nm,0.5s						
BJI				LR	LR		
	comp=N,354nm,17.7s						
BJI				LR	LR		
	comp=E,380nm,21.1s						
BJI				LR	LR		
	comp=Z,572nm,37.6s						
BJT	**Baijiatuau**	**19.61**	**287**	*e*P	**P**	**20 18 08.2**	**-3.7**
BJT				pmax	pmax		
	comp=Z,99nm,0.9s						
BJT	**Baijiatuau**	**19.61**	**287**	*e*P	**P**	**20 18 08.2**	**-3.7**
	comp=Z,99nm,0.9s						
HIA	**Hailar**	**19.75**	**316**	*e*P	**P**	**20 18 09.0**	**-4.2**
HIA				pmax	pmax		
	comp=Z,14nm,0.4s						
HIA	**Hailar**	**19.75**	**316**	*e*P	**P**	**20 18 09.0**	**-4.2**
	comp=Z,14nm,0.4s						
PET	**Petropavlovsk**	**20.39**	**32**	⇓*i*P	**P**	**20 18 19.0**	**-0.9**
PET				pmax	pmax		
	comp=Z,104nm,1.2s						
PET				MLR	MLR		
	comp=Z,400nm,22.0s						
PET	**Petropavlovsk**	**20.39**	**32**	*e*P	**P**	**20 18 18.6**	**-1.3**
	comp=Z,137nm,1.3s						
WHN	**Wuhan**	**22.93**	**262**	⇑P	**P**	**20 18 44.3**	**-0.8**
HHC	**Hu-ho-hao-te**	**23.14**	**289**	*e*P	**P**	**20 18 43.0**	**-4.1**
HHC				AP		20 19 02.8	
HHC				XP		20 19 15.0	
HHC				PCP	PcP	20 22 34.3	-0.2
HHC				S	**S**	**20 22 39.0**	**-8.5**
HHC				AMB	AMB		
	comp=Z,26nm,1.2s,mb4.4						
HHC				AMB	AMB		
	comp=Z,212nm,4.0s						
HHC				LR	LR		
	comp=N,308nm,19.0s						
HHC				LR	LR		
	comp=E,360nm,14.3s						
HHC				LR	LR		
	comp=Z,434nm,33.3s						
MA2	**Magadan**	**23.62**	**13**	*e*P	**P**	**20 18 51.7**	**+0.2**
MA2				pmax	pmax		
	comp=Z,25nm,0.6s,mb4.7						
MA2	**Magadan**	**23.62**	**13**	*e*P	**P**	**20 18 51.7**	**+0.2**
	comp=Z,25nm,0.6s,mb4.7						
BTO	**Baotou**	**24.32**	**288**	*e*P	**P**	**20 18 56.5**	**-1.9**
BTO				AMB	AMB		
	comp=Z,73nm,0.8s,mb5.1						
XAN	**Xi'an**	**26.14**	**273**	P	**P**	**20 19 14.0**	**-1.7**
XAN				AMB	AMB		
	comp=Z,72nm,0.8s,mb5.2						
YAK	**Yakutsk**	**26.16**	**348**	*c i*P	**P**	**20 19 14.4**	**-1.2**
YAK				*e**PP	pP	20 19 30.9	-6.1
YAK				*e*		20 19 44.3	
YAK				*e*S	**S**	**20 23 38.8**	**+0.7**
YAK				pmax	pmax		
	comp=Z,110nm,1.1s,mb5.2						
YAK				pmax	pmax		
	comp=N,61nm,1.2s						
YAK				pmax	pmax		
	comp=E,25nm,1.2s						
YAK				smax			
	comp=N,13nm,1.1s						
YAK				smax			
	comp=Z,4.0nm,0.9s						
YAK				smax			
	comp=E,4.0nm,0.8s						
YAK	**Yakutsk**	**26.16**	**348**	*e*P	**P**	**20 19 14.2**	**-1.4**
	comp=E,172nm,0.8s,mb5.5						
ENH	**Enshi**	**26.91**	**265**	*e*P	**P**	**20 19 21.0**	**-1.8**
	comp=E,364nm,0.8s,mb6.0						
SEY	**Seymchan**	**27.05**	**12**	*e*P	**P**	**20 19 26.1**	**+2.4**
SEY				*e*		20 20 06.2	
SEY				*e*		20 23 52.7	
SEY				pmax	pmax		
	comp=Z,70nm,1.1s,mb5.1						
ULN	**Ulaanbaatar**	**27.12**	**305**	*e*P	**P**	**20 19 23.5**	**-1.0**
ULN				pmax	pmax		
	comp=Z,106nm,0.9s,mb5.4						
ULN	**Ulaanbaatar**	**27.12**	**305**	*e*P	**P**	**20 19 23.4**	**-1.1**
	comp=Z,106nm,0.9s,mb5.4						
BOD	**Bodaibo**	**27.47**	**328**	⇓*i*P	**P**	**20 19 26.3**	**-1.3**
SONM	**Songino Array**	**27.55**	**304**	P	**P**	**20 19 27.5**	**-0.9**
	comp=Z,81nm,0.5s,mb5.5,baz=103,slow=7.9,SNR=217						
SONM				pP	pP	20 19 46.8	-3.3
	comp=Z,56nm,0.6s,baz=105,slow=9.5,SNR=9.0						
SONM				ScP		20 26 16.7	
	comp=Z,2.1nm,1.1s,baz=153,slow=5.5,SNR=4.7						
FX1	**Attu Island--F**	**27.62**	**44**	P	**P**	**20 19 29.6**	**+0.6**
	comp=Z,26nm,0.6s,mb5.0,baz=96,slow=22,SNR=4.8						
TGY	**Tagaytay City**	**28.82**	**223**	P	**P**	**20 19 39.4**	**-0.8**
	comp=Z,75nm,0.6s,mb5.5,baz=163,slow=22,SNR=2.4						
LZH	**Lanzhou**	**29.69**	**280**	⇑P	**P**	**20 19 47.3**	**-0.4**
LZH				AP	pP	20 20 08.0	-1.6
LZH				XP	sP	20 20 19.5	-1.4
LZH				PP	PP	20 20 48.0	+0.1
LZH				S	**S**	**20 24 32.0**	**-3.0**
LZH				XS		20 25 10.0	
LZH				SS	SS	20 26 12.0	-4.6
LZH				AMB	AMB		
	comp=Z,105nm,1.0s,mb5.4						
LZH				AMB	AMB		
	comp=Z,245nm,4.0s						
LZH				LR	LR		
	comp=E,680nm,13.2s						
LZH				LR	LR		
	comp=Z,1µm,14.6s						
IRK	**Irkutsk**	**29.92**	**313**	*e*P	**P**	**20 19 48.5**	**-1.1**
IRK				*e*	pP	20 20 07.5	-4.0
IRK				*e*		20 20 49.1	
ZAK	**Zakamensk**	**30.06**	**309**	⇑*e*P	**P**	**20 19 49.6**	**-1.2**
TLY	**Talaya**	**30.14**	**311**	P	**P**	**20 19 51.6**	**+0.1**
	comp=Z,481nm,0.8s,SNR=21						
TLY	**Talaya**	**30.14**	**311**	*e*P	**P**	**20 19 50.9**	**-0.6**
TLY				*e*	pP	20 20 09.3	-4.2
TLY				pmax	pmax		
	comp=Z,85nm,1.0s,mb5.3						
TLY	**Talaya**	**30.14**	**311**	*e*P	**P**	**20 19 50.5**	**-1.1**
	comp=Z,97nm,1.0s,mb5.4						
GYA	**Guiyang**	**30.78**	**260**	⇑*i*P	**P**	**20 19 55.5**	**-1.9**
GYA				AP	pP	20 20 17.0	-2.5
GYA				S	**S**	**20 24 49.0**	**-3.3**
GYA				LR	LR		
	comp=N,380nm,14.2s						
GYA				LR	LR		
	comp=E,570nm,13.4s						
GYA				LR	LR		
	comp=Z,390nm,15.0s						
CD2	**Chengdu**	**31.26**	**270**	P	**P**	**20 19 59.8**	**-1.8**
MOY	**Mondy**	**31.75**	**311**	*e*P	**P**	**20 20 04.6**	**-1.0**
GTA	**Gaotai**	**32.22**	**287**	⇑*i*P	**P**	**20 20 08.8**	**-1.1**
GTA				SCP		20 26 31.8	
GTA				SCS	ScS	20 30 29.0	+1.6
GTA				AMB	AMB		
	comp=Z,80nm,0.9s,mb5.5						
GTA				AMB	AMB		
	comp=Z,226nm,5.7s						
GTA				LR	LR		
	comp=N,285nm,13.7s						
GTA				LR	LR		
	comp=E,259nm,16.7s						
GTA				LR	LR		
	comp=Z,365nm,33.1s						
BILL	**Bilibino**	**34.32**	**17**	*e*P	**P**	**20 20 27.1**	**-0.5**
BILL				pmax	pmax		
	comp=Z,6.0nm,1.2s,mb4.3						
BILL	**Bilibino**	**34.32**	**17**	*e*P	**P**	**20 20 26.2**	**-1.5**
	comp=Z,5.7nm,1.0s,mb4.4						
KMI	**Kunming**	**34.53**	**261**	P	**P**	**20 20 28.8**	**-1.0**
KMI				AP	pP	20 20 48.5	-3.8
KMI				XP	sP	20 21 01.8	-2.2
KMI				S	**S**	**20 25 52.0**	**+1.5**
KMI				XS		20 26 28.8	
KMI				AMB	AMB		
	comp=Z,132nm,0.8s,mb5.8						
KMI				AMB	AMB		
	comp=Z,246nm,3.3s						
KMI				LR	LR		
	comp=N,298nm,30.3s						
KMI				LR	LR		
	comp=E,300nm,28.0s						
KMI				LR	LR		
	comp=Z,452nm,30.3s						
UBT	**Ubonrachathani**	**38.43**	**246**	P	**P**	**20 21 03.5**	**+0.8**
KKTK	**Khon Kaen**	**39.36**	**249**	⇑P	**P**	**20 21 10.5**	**+0.1**
	comp=Z,494nm,0.6s						
NANT	**Nan**	**39.49**	**254**	⇑P	**P**	**20 21 08.0**	**-3.5**
	comp=Z,75nm,0.6s,mb5.7						
CHRT	**Chiangrai**	**39.60**	**256**	⇑P	**P**	**20 21 10.5**	**-1.9**
	comp=Z,258nm,0.8s,mb6.1						
WMQ	**Urumqi**	**40.56**	**297**	⇑P	**P**	**20 21 21.0**	**+1.0**
WMQ				AP	pP	20 21 42.8	-0.1
WMQ				XP	sP	20 21 53.0	-1.3
WMQ				PP	PP	20 22 59.0	+0.7
WMQ				PPP	PPP	20 23 29.0	+1.4
WMQ				S	**S**	**20 27 22.0**	**+0.3**
WMQ				AMB	AMB		
	comp=Z,115nm,0.8s,mb5.8						
WMQ				LR	LR		
	comp=N,207nm,21.8s						
WMQ				LR	LR		
	comp=E,278nm,20.4s						
WMQ				LR	LR		
	comp=Z,272nm,24.0s						
CM31	**Chiang Mai Arr**	**41.05**	**255**	*e*P	**P**	**20 21 22.7**	**-1.6**
	comp=Z,13nm,0.7s,mb4.9						
CMAR	**Chiang Mai Arr**	**41.05**	**255**	P	**P**	**20 21 24.1**	**-0.2**
	comp=Z,11nm,0.7s,mb4.8,baz=46,slow=6.3,SNR=45						
CMAR				pP	pP	20 21 43.2	-3.9
	comp=Z,5.1nm,0.7s,baz=45,slow=6.0,SNR=3.4						
CMAR				ScP		20 27 03.9	
	comp=Z,1.4nm,1.0s,baz=38,slow=3.2,SNR=4.2						
CMAR				LR	LR	20 40 34.5	
	comp=Z,133nm,18.5s,baz=65,slow=39						
LSA	**Lhasa**	**41.82**	**275**	*e*P	**P**	**20 21 31.5**	**+1.0**
LSA				pmax	pmax		
	comp=Z,33nm,0.8s,mb5.1						
LSA	**Lhasa**	**41.82**	**275**	*e*P	**P**	**20 21 31.5**	**+1.0**
	comp=Z,33nm,0.8s,mb5.1						
NVS	**Novosibirsk**	**42.67**	**314**	*i* P	**P**	**20 21 36.7**	**-0.5**
NVS				*i*	pP	20 21 56.5	-3.6
NVS				pmax	pmax		
	comp=E,58nm,1.0s						
NVS				pmax	pmax		
	comp=Z,70nm,1.0s,mb5.3						
NVS				pmax	pmax		
	comp=N,11nm,0.8s						
GUN	**Gumba**	**46.76**	**276**	*e*P	**P**	**20 22 10.2**	**-0.1**
	comp=N,135nm,0.4s,mb6.1						
IMA	**Indian Mountai**	**47.06**	**30**	*e*P	**P**	**20 22 13.1**	**+1.0**
IMA				pmax	pmax		
	comp=Z,14nm,1.0s,mb4.7						
IMA	**Indian Mountai**	**47.06**	**30**	*e*P	**P**	**20 22 13.1**	**+1.0**
	comp=Z,14nm,1.0s,mb4.7						
PKI	**Pulchoki**	**47.29**	**275**	*e*P	**P**	**20 22 14.2**	**-0.2**
	comp=Z,128nm,0.8s,mb5.7						
KKN	**Kakani**	**47.29**	**276**	*e*P	**P**	**20 22 14.4**	**0.0**
	comp=Z,103nm,0.6s,mb5.7						
RSO	**Redoubt South**	**47.30**	**38**	*e*P	**P**	**20 22 14.1**	**+0.1**
DMN	**Daman**	**47.51**	**276**	*e*P	**P**	**20 22 15.8**	**-0.3**
	comp=Z,42nm,0.5s,mb5.5						
KDAK	**Kodiak Island**	**47.51**	**42**	*e*P	**P**	**20 22 15.6**	**-0.1**
	comp=Z,392nm,0.9s						
SPU	**Mount Spurr**	**47.63**	**37**	*e*P	**P**	**20 22 17.0**	**+0.4**
GKN	**Gorkha**	**47.72**	**276**	*e*P	**P**	**20 22 17.9**	**+0.2**
	comp=Z,537nm,0.9s						
KOLN	**Koldanda**	**48.64**	**277**	*e*P	**P**	**20 22 24.9**	**0.0**
	comp=Z,85nm,0.5s,mb5.9						
PMR	**Palmer**	**49.02**	**37**	*e*P	**P**	**20 22 27.1**	**-0.2**
PMR				pmax	pmax		
	comp=Z,23nm,0.6s,mb5.3						
PMR	**Palmer**	**49.02**	**37**	*e*P	**P**	**20 22 27.1**	**-0.2**
	comp=Z,23nm,0.6s,mb5.3						
ULHL	**Ulahol**	**49.09**	**297**	P	**P**	**20 22 29.0**	**+0.9**
	SNR=8.3						
TKM2	**Tokmak 2**	**49.36**	**298**	P	**P**	**20 22 31.0**	**+0.8**
	SNR=17						
COLA	**College**	**49.45**	**32**	*e*P	**P**	**20 22 31.0**	**+0.4**
COLA				pmax	pmax		
	comp=Z,36nm,1.0s,mb5.3						
COLA	**College**	**49.45**	**32**	*e*P	**P**	**20 22 31.0**	**+0.4**
	comp=Z,36nm,1.0s,mb5.3						
KZA	**Kyzart**	**49.84**	**297**	P	**P**	**20 22 35.6**	**+1.7**
	SNR=24						
ILAR	**Eielson Array**	**49.87**	**32**	P	**P**	**20 22 33.2**	**-0.6**
	comp=Z,27nm,0.6s,mb5.3,baz=268,slow=6.0,SNR=427						
ILAR				pP	pP	20 22 54.7	-2.6
	comp=Z,6.2nm,0.7s,baz=276,slow=6.6,SNR=3.6						
KBK	**Karagaybulak**	**49.89**	**298**	P	**P**	**20 22 34.8**	**+0.5**
	SNR=6.6						
CHMS	**Chumysh**	**49.93**	**299**	P	**P**	**20 22 34.6**	**0.0**
	SNR=12						
KAKA	**Kakadu**	**49.93**	**191**	*e*P	**P**	**20 22 33.5**	**-1.5**
	comp=Z,35nm,0.8s,mb5.3						
KAKA				*i* pP	pP	20 22 56.8	-1.6
USP	**Ospenovka**	**50.03**	**299**	P	**P**	**20 22 35.4**	**0.0**
	SNR=12						
FRU	**Bishkek**	**50.07**	**299**	⇑*i*P	**P**	**20 22 36.0**	**+0.3**
FRU				pmax	pmax		
	comp=Z,90nm,1.8s,mb5.4						
KSH	**Kashi**	**50.10**	**294**	⇑*i*P	**P**	**20 22 37.0**	**+1.0**
KSH				AP	pP	20 22 59.0	-0.5
KSH				XP	sP	20 23 10.5	+0.3
KSH				PCP	PcP	20 23 55.0	+0.6
KSH				PP	PP	20 24 35.0	+2.3
KSH				PPP	PPP	20 25 31.5	+0.3
KSH				SCP		20 27 39.5	
KSH				PCS		20 27 50.8	
KSH				S	**S**	**20 29 42.8**	**+4.3**
KSH				PS	PS	20 30 04.3	+1.0
KSH				XS		20 30 18.8	
KSH				SCS	ScS	20 32 14.8	+0.6
KSH				AMB	AMB		
	comp=Z,550nm,5.3s						
KSH				LR	LR		
	comp=N,470nm,5.8s						
KSH				LR	LR		
	comp=E,540nm,6.4s						
AAK	**Ala-Archa**	**50.22**	**298**	P	**P**	**20 22 36.8**	**0.0**
	SNR=16						
UCH	**Uchtor**	**50.32**	**298**	P	**P**	**20 22 38.3**	**+0.7**
	SNR=13						
BVAR	**Borovoye Array**	**50.39**	**312**	P	**P**	**20 22 37.5**	**-0.5**
	comp=E,18nm,0.4s,mb5.3,baz=79,slow=7.6,SNR=166						
BVAR				pP	pP	20 22 56.2	-5.3
	comp=E,8.3nm,0.5s,baz=59,slow=8.6,SNR=2.7						
PTH	**Pithoragarh**	**50.56**	**280**	*e*	**P**	**20 22 39.1**	**-0.5**
LGTI	**Lohaghat**	**50.58**	**280**	*e*	**P**	**20 22 41.0**	**+1.2**
EKS2	**Erkin-Say**	**50.71**	**299**	P	**P**	**20 22 40.3**	**-0.3**
	SNR=14						
AML	**Almayashu**	**50.93**	**298**	P	**P**	**20 22 43.3**	**+1.1**
	SNR=34						
MENT	**Mentasta**	**51.42**	**34**	*e*P	**P**	**20 22 46.3**	**+0.7**
DDI	**Dehra Dun**	**51.94**	**282**	*e*	**P**	**20 22 48.7**	**-1.2**
SDNR	**Sundarnagar**	**52.30**	**284**	*e*	**P**	**20 22 51.8**	**-0.8**
NDI	**New Delhi**	**53.30**	**281**	*e*	**P**	**20 22 57.5**	**-2.7**
INK	**Inuvik**	**54.74**	**27**	P	**P**	**20 23 09.9**	**-0.1**
	comp=E,23nm,0.5s,mb5.4,baz=302,slow=6.5,SNR=214						
ARU	**Arti**	**56.23**	**319**	⇓*i*P	**P**	**20 23 19.3**	**-1.6**
ARU				*i*		20 24 15.3	
ARU				*e*S	**S**	**20 30 58.9**	**-2.2**
ARU				*e*		20 32 58.6	
ARU				pmax	pmax		
	comp=Z,58nm,0.6s,mb5.8						
ARU	**Arti**	**56.23**	**319**	*e*P	**P**	**20 23 19.7**	**-1.2**
	comp=Z,110nm,0.8s,mb5.9						
ARU				*e*pP	pP	20 23 40.9	-4.0
SOKR	**Solikamsk**	**56.23**	**322**	⇓*i*P	**P**	**20 23 18.4**	**-2.5**
SOKR				pmax	pmax		
	comp=Z,30nm,1.2s,mb5.2						
FITZ	**Fitzroy Crossi**	**56.52**	**197**	*e*P	**P**	**20 23 22.4**	**-1.2**
	comp=Z,11nm,0.7s,mb5.0						
FITZ				*i* pP	pP	20 23 44.8	-2.7
WRAB	**Tennant Creek**	**56.81**	**187**	*e*P	**P**	**20 23 20.8**	**-4.8**
WRAB				pmax	pmax		
	comp=Z,36nm,0.8s,mb5.5						
WRAB	**Tennant Creek**	**56.81**	**187**	*e*P	**P**	**20 23 20.8**	**-4.8**
	comp=Z,36nm,0.8s,mb5.5						
WB2	**Warramunga Arr**	**56.82**	**187**	⇓*i*P	**P**	**20 23 23.0**	**-2.7**
WRA	**Warramunga Arr**	**56.82**	**187**	P	**P**	**20 23 23.2**	**-2.4**
	comp=Z,20nm,0.7s,mb5.3,baz=5.8,slow=7.4,SNR=213						
WRA				pP	pP	20 23 46.8	-2.9
	comp=Z,11nm,0.7s,baz=2.9,slow=7.5,SNR=4.7						
CTA	**Charters Tower**	**56.85**	**174**	P	**P**	**20 23 23.4**	**-2.5**
	comp=Z,6.8nm,0.6s,mb4.8,baz=357,slow=10,SNR=9.6						
HYB	**Hyderabad**	**57.79**	**268**	*e*P	**P**	**20 23 31.5**	**-1.0**
HYB				*e*	pP	20 23 52.0	-4.5
HYB				pmax	pmax		
	comp=Z,50nm,1.0s,mb5.5						
HYB	**Hyderabad**	**57.79**	**268**	*e*P	**P**	**20 23 31.5**	**-1.0**
	comp=Z,50nm,1.0s,mb5.5						
HYB				*e*	pP	20 23 52.0	-4.5
HYB	**Hyderabad**	**57.79**	**268**	*i* P	**P**	**20 23 31.5**	**-1.0**
	comp=Z,50nm,1.0s,mb5.5						
HYB				*e*pP	pP	20 23 52.0	-4.5
DLBC	**Dease Lake**	**59.02**	**38**	P	**P**	**20 23 41.6**	**+1.1**
	comp=Z,18nm,0.9s,mb5.1,baz=290,slow=7.8,SNR=22						
ASAR	**Alice Springs**	**60.55**	**187**	P	**P**	**20 23 49.6**	**-1.8**
	comp=Z,8.9nm,0.8s,mb4.8,baz=13,slow=6.9,SNR=43						
ASAR				pP	pP	20 24 12.3	-3.4
	comp=Z,6.3nm,0.7s,baz=0.5,slow=6.8,SNR=4.3						
ASPA	**Alice Springs**	**60.55**	**187**	*e*P	**P**	**20 23 49.9**	**-1.5**
POO	**Poona**	**60.96**	**272**	*e*	**P**	**20 23 53.1**	**-1.2**
LVZ	**Lovozero**	**62.11**	**336**	*e*P	**P**	**20 24 00.4**	**-0.9**
APA	**Apatity**	**62.69**	**336**	⇑*i*P	**P**	**20 24 04.4**	**-0.8**
APA				*i*	pP	20 24 25.8	-3.8
KEV	**Kevo**	**63.47**	**339**	*e*p	**P**	**20 24 08.6**	**-1.7**
ARCES	**ARCESS Array B**	**64.03**	**339**	P	**P**	**20 24 13.0**	**-0.8**
	comp=Z,6.9nm,0.6s,mb4.7,baz=55,slow=7.9,SNR=31						
ARCES				pP	pP	20 24 34.8	-3.5
	comp=Z,19nm,0.8s,baz=72,slow=7.7,SNR=7.8						
YKA	**Yellowknife Ar**	**64.17**	**30**	P	**P**	**20 24 14.1**	**-0.8**
	comp=Z,5.4nm,0.7s,mb4.5,baz=303,slow=6.7,SNR=121						
DAG	**Danmarks Havn**	**65.92**	**355**	⇑*i*P	**P**	**20 24 25.3**	**-0.7**
DAG				pmax	pmax		
	comp=Z,6.0nm,1.0s,mb4.4						
DAG	**Danmarks Havn**	**65.92**	**355**	⇑*i*P	**P**	**20 24 25.3**	**-0.7**
	comp=Z,6.0nm,1.0s,mb4.4						
OBN	**Obninsk**	**68.00**	**323**	⇑*i*P	**P**	**20 24 38.1**	**-1.2**
OBN				*e**PP	pP	20 25 02.9	-1.1
OBN				*e*		20 27 10.2	
OBN				*e*S	S	20 33 29.9	+0.7
OBN				pmax	pmax		
	comp=Z,37nm,0.9s,mb5.2						
OBN				MLR	MLR		
	comp=Z,300nm,19.0s						
OBN	**Obninsk**	**68.00**	**323**	*e*P	**P**	**20 24 37.8**	**-1.4**
	comp=Z,21nm,0.7s,mb5.1						
KAF	**Kangasniemi**	**68.28**	**333**	*e*p	**P**	**20 24 39.2**	**-1.7**
	comp=Z,20nm,0.6s,mb5.1						
KAF	**Kangasniemi**	**68.28**	**333**	*e*P	**P**	**20 24 39.2**	**-1.7**
KAF				pmax	pmax		
	comp=Z,20nm,0.6s,mb5.1						
STKA	**Stephens Creek**	**68.37**	**179**	⇓*i*P	**P**	**20 24 40.4**	**-1.6**
	comp=Z,7.5nm,0.9s,mb4.5						
STKA				*i* pP	pP	20 25 06.3	-0.5
STKA	**Stephens Creek**	**68.37**	**179**	P	**P**	**20 24 40.5**	**-1.5**
	comp=Z,9.1nm,0.8s,mb4.7,baz=356,slow=9.2,SNR=10						
FINES	**FINESS Array B**	**68.79**	**332**	P	**P**	**20 24 43.3**	**-0.8**
	comp=Z,28nm,0.7s,mb5.2,baz=62,slow=7.6,SNR=66						
FINES				pP	pP	20 25 05.2	-3.7
	comp=Z,33nm,0.7s,baz=63,slow=8.5,SNR=11						
VRSR	**Storozhevoye**	**68.79**	**319**	*e*P	**P**	**20 24 43.8**	**-0.4**
VRSR				pmax	pmax		
	comp=N,40nm,0.8s						
VRSR				pmax	pmax		
	comp=Z,30nm,0.8s,mb5.2						
VRSR				pmax	pmax		
	comp=E,40nm,0.9s						
TBM	**Table Mountain**	**69.17**	**46**	P	**P**	**20 24 47.0**	**+0.3**
WTV	**Waterville**	**69.26**	**45**	P	**P**	**20 24 47.1**	**-0.1**
VFP	**Flag Point**	**69.64**	**48**	P	**P**	**20 24 50.3**	**+0.7**
EPH	**Ephrata**	**69.65**	**46**	P	**P**	**20 24 49.5**	**-0.1**
GOF	**Gofitskoye**	**69.91**	**312**	⇑*i*P	**P**	**20 24 51.0**	**-0.2**
GOF				pmax	pmax		
	comp=Z,50nm,1.4s,mb5.2						
OD2	**Odessa Site #2**	**70.13**	**45**	P	**P**	**20 24 52.4**	**-0.1**
WRD	**Warden**	**70.20**	**46**	P	**P**	**20 24 52.8**	**-0.2**
NEW	**Newport**	**70.55**	**44**	*e*P	**P**	**20 24 54.6**	**-0.4**
NEW				pmax	pmax		
	comp=Z,38nm,1.1s						
NEW	**Newport**	**70.55**	**44**	*e*P	**P**	**20 24 54.6**	**-0.4**
	comp=Z,38nm,1.1s,mb5.1						
ZEI	**Tsey**	**70.61**	**309**	*e*P	**P**	**20 24 53.9**	**-1.6**
ZEI				*i* *PP	pP	20 25 16.1	-4.4
ZEI				pmax	pmax		
	comp=Z,15nm,1.1s,mb4.7						
KIV	**Kislovodsk**	**70.72**	**311**	P	**P**	**20 24 56.4**	**+0.3**
	comp=Z,370nm,1.0s,SNR=13						
KIV	**Kislovodsk**	**70.72**	**311**	*e*P	**P**	**20 24 56.1**	**0.0**
KIV				*e*	pP	20 25 18.4	-2.7
KIV				pmax	pmax		
	comp=Z,58nm,0.9s,mb5.4						
KIV	**Kislovodsk**	**70.72**	**311**	*e*P	**P**	**20 24 56.0**	**-0.1**
	comp=Z,65nm,1.0s,mb5.4						
YBH	**Yreka Blue Hor**	**70.78**	**52**	*e*P	**P**	**20 24 57.0**	**+0.5**
YBH	**Yreka Blue Hor**	**70.78**	**52**	P	**P**	**20 24 56.6**	**+0.1**
	comp=Z,16nm,0.8s,mb4.9,baz=306,slow=2.6,SNR=16						
SUMG	**Summit**	**70.87**	**360**	P	**P**	**20 24 57.1**	**+0.5**
	comp=Z,5.3nm,0.7s,mb4.5						
GNI	**Garni**	**71.48**	**307**	P	**P**	**20 25 00.3**	**-0.5**
	comp=Z,8.6nm,0.7s,mb4.7,baz=150,slow=11,SNR=4.3						
WDC	**Whiskeytown Da**	**71.51**	**53**	*e*P	**P**	**20 25 00.3**	**-0.6**
WDC				pmax	pmax		
	comp=Z,31nm,1.2s,mb5.0						
WDC	**Whiskeytown Da**	**71.51**	**53**	*e*P	**P**	**20 25 00.3**	**-0.6**
	comp=Z,32nm,1.2s,mb5.0						
LBCM	**Butte Creek Ri**	**72.13**	**52**	P	**P**	**20 25 04.9**	**+0.3**
MOD	**Modoc**	**72.20**	**51**	*e*P	**P**	**20 25 04.9**	**-0.1**
	comp=Z,4.8nm,0.6s,mb4.5						
BMO	**Blue Mountains**	**72.36**	**47**	*e*P	**P**	**20 25 05.8**	**0.0**
	comp=Z,14nm,2.0s,mb4.5						
MNK	**Minsk**	**72.44**	**326**	⇓*e*P	**P**	**20 25 05.0**	**-1.2**
MNK				pmax	pmax		
	comp=Z,240nm,1.0s,mb6.0						
SOC	**Sochi**	**72.71**	**312**	*e*P	**P**	**20 25 06.9**	**-1.0**
SOC				pmax	pmax		
	comp=Z,26nm,1.1s,mb5.0						
SOC				pmax	pmax		
	comp=N,8.0nm,0.9s						
SOC				pmax	pmax		
	comp=E,7.0nm,0.9s						
NWAO	**Narrogin (SRO)**	**72.85**	**201**	P	**P**	**20 25 07.2**	**-1.7**
	comp=E,6.8nm,0.9s,mb4.5,baz=319,slow=22,SNR=3.1						
NWAO				pP	pP	20 25 30.4	-3.7
	comp=E,8.3nm,0.8s,baz=5.5,slow=4.4,SNR=2.8						
OHCM	**Honcut**	**72.87**	**54**	*e*P	**P**	**20 25 08.1**	**-0.9**
WVOR	**Wild Horse Val**	**72.93**	**50**	*e*P	**P**	**20 25 09.1**	**-0.1**
WVOR				pmax	pmax		
	comp=Z,28nm,1.4s,mb4.9						
WVOR	**Wild Horse Val**	**72.93**	**50**	*e*P	**P**	**20 25 09.1**	**-0.1**
	comp=Z,28nm,1.4s,mb4.9						
MSO	**Missoula**	**73.14**	**44**	*e*P	**P**	**20 25 09.9**	**-0.4**
	comp=Z,22nm,1.1s,mb4.9						
CHMT	**Chamberlain Mo**	**73.47**	**43**	*e*P	**P**	**20 25 11.8**	**-0.5**
WCN	**Washoe City**	**74.00**	**53**	*e*P	**P**	**20 25 15.4**	**-0.1**
WCN				pmax	pmax		
	comp=Z,22nm,1.0s,mb4.8						
WCN	**Washoe City**	**74.00**	**53**	*e*P	**P**	**20 25 15.4**	**-0.1**
	comp=Z,22nm,1.0s,mb4.8						
FFC	**Flin Flon**	**74.08**	**32**	P	**P**	**20 25 15.9**	**+0.2**
	comp=Z,232nm,0.8s,mb6.0,SNR=36						
AKASG	**Malin Array Be**	**74.19**	**322**	P	**P**	**20 25 15.8**	**-0.6**
	comp=Z,23nm,0.7s,mb5.0,baz=45,slow=6.1,SNR=146						
AKASG				pP	pP	20 25 38.0	-3.6
	comp=Z,4.4nm,0.4s,baz=47,slow=6.0,SNR=4.4						
NB2	**NORSAR Subarra**	**74.20**	**337**	P	**P**	**20 25 15.7**	**-0.5**
	comp=Z,33nm,1.0s,mb5.0,baz=40,slow=5.8						
NB2	**NORSAR Subarra**	**74.20**	**337**	P	**P**	**20 25 15.7**	**-0.5**
	baz=40,slow=5.9						
NB2	**NORSAR Subarra**	**74.20**	**337**	P	**P**	**20 25 15.7**	**-0.5**
NB2				pmax	pmax		
	comp=Z,33nm,1.0s,mb5.0						
NOA	**NORSAR Array B**	**74.20**	**337**	P	**P**	**20 25 16.1**	**-0.2**
	comp=Z,14nm,0.7s,mb4.8,baz=39,slow=5.8,SNR=47						
NOA				pP	pP	20 25 38.2	-3.2
	comp=Z,19nm,0.8s,baz=39,slow=5.8,SNR=10						
NOA				LR	LR	20 58 58.8	
	comp=Z,203nm,20.9s,baz=125,slow=36						

CMB	**Columbia Colle**	74.31	54	*e*P	P	20 25 17.4	0.0
CMB				pmax	pmax		
	comp=Z,36nm,0.9s,mb5.1						
CMB	**Columbia Colle**	74.31	54	*e*P	P	20 25 17.4	0.0
	comp=Z,36nm,0.9s,mb5.1						
HRY	**Holter Researc**	74.37	43	*e*P	P	20 25 18.1	+0.6
NAO01	**NORSAR Array S**	74.45	337	*e*P	P	20 25 16.6	-1.0
MCMT	**McKenzie Canyo**	74.94	45	P	P	20 25 20.7	-0.1
BMN	**Battle Mountai**	74.95	51	*e*P	P	20 25 21.9	+1.0
BMN				pmax	pmax		
	comp=Z,43nm,1.1s,mb5.1						
BMN	**Battle Mountai**	74.95	51	*e*P	P	20 25 21.9	+1.0
	comp=Z,43nm,1.1s,mb5.1						
BOZ	**Bozeman (W)**	75.13	44	⇓*i*P	P	20 25 22.3	+0.5
BOZ				pmax	pmax		
	comp=Z,47nm,0.8s,mb5.3						
BOZ	**Bozeman (W)**	75.13	44	⇓*i*P	P	20 25 22.3	+0.5
	comp=Z,47nm,0.8s,mb5.3						
MNV	**Mina**	75.52	53	*e*P	P	20 25 24.8	+0.6
MNV				pmax	pmax		
	comp=Z,31nm,1.4s,mb4.8						
MNV	**Mina**	75.52	53	*e*P	P	20 25 24.8	+0.6
	comp=Z,31nm,1.4s,mb4.8						
MTUM	**Tungsten Hills**	75.89	54	*e*P	P	20 25 27.0	+0.6
ELK	**Elko**	75.98	49	⇓*i*P	P	20 25 27.6	+0.8
ELK				pmax	pmax		
	comp=Z,22nm,0.8s						
ELK	**Elko**	75.98	49	⇓*i*P	P	20 25 27.6	+0.7
	comp=Z,22nm,0.8s,mb4.9						
YMR	**Madison River**	76.10	44	⇓*i*P	P	20 25 28.0	+0.6
GCMT	**Greycliff**	76.12	43	*e*P	P	20 25 28.3	+0.9
YNR	**Norris Junctio**	76.23	44	*e*P	P	20 25 30.1	+2.0
YFT	**Old Faithful**	76.31	44	*e*P	P	20 25 30.9	+2.3
TPH	**Tonopah**	76.33	53	*e*P	P	20 25 29.5	+0.7
TPH				pmax	pmax		
	comp=Z,47nm,1.0s,mb5.2						
TPH	**Tonopah**	76.33	53	*e*P	P	20 25 29.5	+0.7
	comp=Z,47nm,1.0s,mb5.2						
LKWY	**Lake**	76.48	44	*e*P	P	20 25 30.9	+1.4
LKWY				pmax	pmax		
	comp=Z,34nm,0.9s,mb5.1						
LKWY	**Lake**	76.48	44	*e*P	P	20 25 30.9	+1.3
	comp=Z,34nm,0.9s,mb5.1						
MALT	**Malatya**	76.56	308	*e*P	P	20 25 30.3	+0.2
MALT				pmax	pmax		
	comp=Z,17nm,1.1s,mb4.7						
MALT	**Malatya**	76.56	308	*e*P	P	20 25 30.3	+0.2
	comp=Z,17nm,1.1s,mb4.7						
IMW	**Indian Meadow**	76.60	45	⇓*i*P	P	20 25 31.6	+1.4
MOOW	**Moose Ponds**	76.80	45	⇓*e*P	P	20 25 32.5	+1.2
HVU	**Hansel Valley**	76.84	47	*e*P	P	20 25 32.2	+0.6
WUWY	**Wally Ulrich**	76.93	45	*e*P	P	20 25 33.2	+1.2
LOHW	**Long Hollow**	76.96	45	*e*P	P	20 25 33.2	+1.0
SNOW	**Snow King Moun**	76.97	45	*e*P	P	20 25 33.7	+1.5
FRB	**Frobisher Bay**	77.05	13	LR	LR	21 03 05.2	
	comp=Z,116nm,20.0s,baz=121,slow=38						
TRCR	**Troy Canyon**	77.20	52	*e*P	P	20 25 34.2	+0.6
AHID	**Auburn Hatcher**	77.21	46	*e*P	P	20 25 34.2	+0.6
	comp=Z,18nm,0.9s,mb4.8						
BGU	**Big Grassy Mou**	77.21	48	⇓*e*P	P	20 25 34.4	+0.8
DGMT	**Dagmar**	77.24	38	*e*P	P	20 25 33.6	-0.1
	comp=Z,69nm,1.3s,mb5.2						
LAO	**LASA Array**	77.38	41	⇓*e*P	P	20 25 35.0	+0.5
	comp=Z,54nm,1.0s,mb5.2						
BSD	**Bornholm Skovb**	77.41	332	*i* P	P	20 25 32.9	-1.6
BSD				*i*	pP	20 25 56.0	-3.8
BSD				pmax	pmax		
	comp=Z,31nm,1.0s,mb5.0						
BSD	**Bornholm Skovb**	77.41	332	*i* P	P	20 25 32.9	-1.6
	comp=Z,31nm,1.0s,mb5.0						
BSD				*i*	pP	20 25 56.0	-3.8
HWUT	**Hardware Ranch**	77.66	47	⇓*i*P	P	20 25 37.1	+1.0
	comp=Z,76nm,1.4s,mb5.2						
NOQ	**North Oquirrh**	77.92	48	*e*P	P	20 25 38.3	+0.7
KWP	**Kalwaria**	78.04	324	*e*P	P	20 25 38.4	+0.4
	comp=Z,100nm,1.2s,mb5.4						
KWP	**Kalwaria**	78.04	324	*e*P	P	20 25 38.9	+0.9
BW06	**Boulder Array**	78.09	45	*e*P	P	20 25 38.8	+0.3
	comp=Z,16nm,0.8s,mb4.8						
PDAR	**Pinedale Array**	78.09	45	P	P	20 25 38.9	+0.4
	comp=Z,13nm,0.7s,mb4.8,baz=272,slow=2.3,SNR=94						
PDAR				pP	pP	20 26 02.3	-1.6
	comp=Z,5.8nm,0.6s,baz=267,slow=3.0,SNR=5.2						
PDAR				LR	LR	21 03 13.0	
	comp=Z,58nm,18.1s,baz=70,slow=38						
JLU	**Jordanelle**	78.35	48	⇓*e*P	P	20 25 40.9	+0.9
NLU	**North Lily Min**	78.38	49	⇓*e*P	P	20 25 41.0	+0.9
MUD	**Monsted U’grnd**	78.45	335	*i* P	pP	20 26 01.4	-4.2
	comp=Z,13nm,0.9s						
MPU	**Maple Canyon**	78.61	48	⇓*e*P	P	20 25 42.2	+0.9
BRTR	**Keskin Array B**	78.67	311	P	P	20 25 42.1	+0.4
	comp=Z,7.2nm,0.9s,mb4.5,baz=108,slow=3.9,SNR=15						
BRTR				pP	pP	20 26 04.8	-2.4
	comp=Z,5.1nm,0.8s,baz=129,slow=3.5,SNR=3.7						
BRTR				PP	PP	20 28 41.0	-1.2
	comp=Z,1.9nm,0.8s,baz=79,slow=6.3,SNR=3.6						
KOLS	**Kolonicke sedl**	78.73	324	*i* P	P	20 25 42.0	+0.2
KOLS				*i* PP	PP	20 28 41.3	-1.2
ARUT	**Antelope Range**	78.89	51	*e*P	P	20 25 43.5	+0.6
OJC	**Ojcow**	78.96	326	⇑*i*P	P	20 25 43.5	+0.4
OJC	**Ojcow**	78.96	326	*i* P	P	20 25 43.5	+0.4
CRVS	**Cervenica-Dubn**	79.13	324	*i* P	P	20 25 44.3	+0.2
NIE	**Niedzica**	79.30	325	*e*P	P	20 25 45.8	+0.9
NEN	**Nelson**	79.31	53	*e*P	P	20 25 45.7	+0.4
TMUT	**Trail Mountain**	79.31	49	*e*P	P	20 25 46.2	+1.0
SRU	**San Rafael**	79.84	49	⇓*i*P	P	20 25 48.9	+0.8
BAR	**Barrett**	79.91	57	*e*P	P	20 25 48.4	-0.2
OKC	**Ostrava-Krasne**	79.98	326	*e*P	P	20 25 49.1	+0.5
BSEG	**Bad Segeberg**	80.04	333	*e*P	P	20 25 49.1	+0.3
KSP	**Ksiaz**	80.04	328	*e*P	P	20 25 49.2	+0.3
KSP				*e*pP	pP	20 26 11.7	-2.7
KSP	**Ksiaz**	80.04	328	*e*P	P	20 25 49.4	+0.5
MORC	**Moravsky Berou**	80.29	327	*e*P	P	20 25 50.6	+0.4
MORC				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.8						
MORC	**Moravsky Berou**	80.29	327	*e*P	P	20 25 50.6	+0.3
	comp=Z,18nm,1.2s,mb4.8						
DPC	**Dobruska-Polom**	80.39	328	*e*P	P	20 25 51.3	+0.5
UPC	**Upice**	80.41	328	*e*P	P	20 25 51.1	+0.2
UPC				*e*	pP	20 26 14.0	-2.4
UPC	**Upice**	80.41	328	*e*P	P	20 25 51.1	+0.2
UPC				*e*x	x	20 26 01.7	
UPC				*e*pP	pP	20 26 14.0	-2.4
PSZ	**Piszkesteto**	80.57	324	⇓*e*P	P	20 25 52.9	+1.1
VYHS	**Vyhne**	80.64	325	*i* P	P	20 25 52.5	+0.3
VYHS				*e*PP	PP	20 28 53.2	-5.1
BRG	**Berggiesshubel**	81.00	329	*e*P	P	20 25 54.1	+0.1
BRG				*i*	pP	20 26 16.9	-2.6
BRG				*e*		20 26 27.0	
BRG				pmax	pmax		
	comp=Z,15nm,1.5s,mb4.6						
BRG	**Berggiesshubel**	81.00	329	*e*P	P	20 25 54.1	+0.1
	comp=Z,15nm,1.5s,mb4.6						
BRG				*i*	pP	20 26 16.9	-2.6
BRG				*e*		20 26 27.0	
PVCC	**Panska Ves**	81.00	329	*e*P	P	20 25 54.6	+0.6
CLL	**Collm**	81.05	330	⇑*i*P	P	20 25 54.0	-0.2
CLL				*i* *PP	pP	20 26 16.7	-3.1
CLL				pmax	pmax		
	comp=Z,35nm,1.2s,mb5.1						
CLL	**Collm**	81.05	330	⇑*i*P	P	20 25 54.0	-0.2
	comp=Z,35nm,1.2s,mb5.1						
CLL				*i* pP	pP	20 26 16.7	-3.1
CLL	**Collm**	81.05	330	P	P	20 25 54.0	-0.2
	comp=Z,logA/T=1.5,mb5.1						
CLL				*i* PCP	PcP	20 26 00.6	0.0
CLL				*i* *PP	pP	20 26 16.7	-3.1
CLL				*i* *SP	sP	20 26 27.0	-3.5
CLL				*i*		20 26 42.2	
PV10	**Paradox Valley**	81.20	48	*e*P	P	20 25 56.6	+1.2
ASF	**Jabal al Asfar**	81.27	304	P	P	20 25 56.4	+0.6
	comp=Z,5.8nm,0.8s,mb4.4,baz=34,slow=0.7,SNR=10.0						
SMOL	**Smolenice**	81.27	326	*i* P	P	20 25 56.5	+1.1
PHWY	**Pilot Hill**	81.36	44	*e*P	P	20 25 56.5	+0.5
SRO	**Srobarova**	81.38	325	*i* P	P	20 25 56.4	+0.4
PRU	**Pruhonice**	81.42	328	*e*P	P	20 25 56.4	+0.2
PRU				*e*pP	pP	20 26 19.2	-2.6
SRO1	**Iza**	81.45	325	*i* P	P	20 25 57.5	+1.1
PV01	**Paradox Valley**	81.64	48	*e*P	P	20 25 58.5	+0.9
ZST	**Bratislava**	81.65	326	*i* P	P	20 25 57.4	0.0
CLZ	**Clausthal**	81.67	332	*e*P	P	20 25 57.7	+0.3
	comp=Z,28nm,1.4s,mb4.9						
ISP	**Isparta**	81.75	311	*e*P	P	20 25 57.7	-0.5
RW3	**Ridgway**	82.09	48	*e*P	P	20 26 01.6	+1.7
NKC	**Novy Kostel**	82.11	329	*e*P	P	20 25 59.7	0.0
NKC				*e*x	x	20 26 10.9	
MOX	**Moxa**	82.12	330	*e*P	P	20 25 59.9	+0.1
MOX				pmax	pmax		
	comp=Z,18nm,1.7s,mb4.6						
MOX	**Moxa**	82.12	330	*i* P	P	20 25 59.9	+0.1
	comp=Z,logA/T=1.0,mb4.6						
MOX	**Moxa**	82.12	330	*e*P	P	20 25 59.9	+0.1
	comp=Z,18nm,1.7s,mb4.6						
SOP	**Sopron**	82.28	326	⇑*e*P	P	20 26 01.4	+0.7
ISCO	**Idaho Springs**	82.28	45	*e*P	P	20 26 01.9	+1.1
ISCO				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.5						
ISCO	**Idaho Springs**	82.28	45	*e*P	P	20 26 01.9	+1.1
	comp=Z,6.5nm,0.7s,mb4.6						
KHC	**Kasperske Hory**	82.48	328	*e*P	P	20 26 01.9	+0.2
KHC				*e*	pP	20 26 24.6	-2.7
KHC	**Kasperske Hory**	82.48	328	*e*P	P	20 26 01.9	+0.2
KHC				*e*x	x	20 26 12.7	
KHC				*e*pP	pP	20 26 24.6	-2.7
GEC2	**GERESS Array S**	82.65	328	*e*P	P	20 26 02.5	-0.1
GEC2				pmax	pmax		
	comp=Z,8.0nm,1.0s,mb4.5						
GEC2	**GERESS Array S**	82.65	328	*e*P	P	20 26 02.5	-0.1
	comp=Z,8.0nm,1.0s,mb4.5						
GERES	**GERESS Array B**	82.65	328	P	P	20 26 02.6	+0.1
	comp=Z,1.8nm,0.5s,mb4.2,baz=40,slow=5.7,SNR=34						
GERES				pP	pP	20 26 25.4	-2.7
	comp=Z,3.9nm,0.6s,baz=76,slow=5.5,SNR=7.3						
GERES				LR	LR	21 02 33.0	
	comp=Z,157nm,19.2s,baz=52,slow=35						
RHK1	**Bakonya**	82.75	324	*e*P	P	20 26 02.3	-0.8
WET	**Wettzell**	82.77	329	*e*P	P	20 26 03.4	+0.2
GRA1	**Grafenberg Arr**	83.02	330	*e*P	P	20 26 05.2	+0.8
	comp=Z,61nm,1.5s,mb5.2						
GRF	**Grafenberg Arr**	83.02	330	*e*P	P	20 26 05.2	+0.8
GRF				pmax	pmax		
	comp=Z,61nm,1.5s,mb5.2						
GRF	**Grafenberg Arr**	83.02	330	*e*P	P	20 26 05.2	+0.8
GRF				pmax	pmax		
	comp=Z,61nm,1.5s,mb5.2						
GRF	**Grafenberg Arr**	83.02	330	*e*P	P	20 26 05.2	+0.8
	comp=Z,61nm,1.5s,mb5.2						
SDCO	**Great Sand Dun**	83.72	47	⇑*i*P	P	20 26 09.3	+1.1
	comp=Z,27nm,1.1s,mb5.0						
TUC	**Tucson**	84.02	54	⇓*i*P	P	20 26 10.4	+0.6
TUC				pmax	pmax		
	comp=Z,18nm,1.2s,mb4.8						
TUC	**Tucson**	84.02	54	⇓*i*P	P	20 26 10.4	+0.6
	comp=Z,18nm,1.2s,mb4.8						
EIL	**Elat**	84.13	303	⇑*i*P	P	20 26 10.6	+0.2
	comp=Z,35nm,1.4s,mb5.0						
FUR	**Furstenfeldbru**	84.20	329	*e*P	P	20 26 10.9	+0.6
FUR				pmax	pmax		
	comp=Z,20nm,0.8s,mb5.0						
FUR	**Furstenfeldbru**	84.20	329	*e*P	P	20 26 10.9	+0.6
	comp=Z,20nm,0.8s,mb5.0						
PPT	**Papeete**	84.92	116	LR	LR	20 58 58.6	
	comp=Z,199nm,18.5s,baz=42,slow=32						
LAZ	**Ladron**	84.97	50	*e*P	P	20 26 15.4	+1.0
ANMO	**Albuquerque**	85.02	50	⇓*i*P	P	20 26 15.6	+0.9
ANMO				*e**PP	pP	20 26 39.6	-0.9
ANMO				pmax	pmax		
	comp=Z,24nm,1.0s						
ANMO	**Albuquerque**	85.02	50	⇓*i*P	P	20 26 15.6	+0.9
	comp=Z,24nm,1.0s,mb5.1						
ANMO				*e*pP	pP	20 26 39.6	-0.9
GIVF	**Givet**	85.14	333	*e*P	P	20 26 14.7	-0.2
LENM	**Lemitar**	85.22	50	*e*P	P	20 26 17.1	+1.3
BFO	**Black Forest**	85.26	330	*e*P	P	20 26 15.9	+0.3
BFO				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
BFO	**Black Forest**	85.26	330	*e*P	P	20 26 15.9	+0.3
	comp=Z,16nm,1.0s,mb4.9						
BAIF	**Baives**	85.39	334	*e*P	P	20 26 16.1	-0.1
BNM	**Barren Site**	85.45	50	*e*P	P	20 26 17.7	+0.9
BNM				*e*pP	pP	20 26 41.9	-0.8
CDF	**Champ du Feu**	85.61	331	*e*P	P	20 26 17.3	0.0
SCHQ	**Schefferville**	85.63	16	P	P	20 26 17.9	+0.7
	comp=Z,5.8nm,0.8s,mb4.6,baz=343,slow=7.0,SNR=14						
DLF	**Lyons Farm**	85.88	341	*e*P	pP	20 26 42.0	-2.3
HINF	**Hinteralfeld**	86.26	331	*e*P	P	20 26 20.2	-0.3
	comp=Z,12nm,1.1s,mb4.5						
HINF	**Hinteralfeld**	86.26	331	*e*P	P	20 26 20.2	-0.3
HINF				pmax	pmax		
	comp=Z,6.0nm,1.1s,mb4.4						
HAU	**Haudompre**	86.30	331	*e*P	P	20 26 20.4	-0.3
HAU				*e*R			
	comp=Z,168nm,17.2s						
MEZF	**Maizieres J’vi**	86.38	332	*e*P	P	20 26 21.4	+0.3
IDI	**Anoyia**	86.81	313	P	P	20 26 23.2	-0.3
	comp=Z,8.4nm,0.7s,mb4.8,baz=39,slow=12,SNR=5.2						
CABF	**La Chapelle**	87.55	331	*e*P	P	20 26 26.9	+0.1
	comp=Z,46nm,1.5s,mb5.0						
CABF	**La Chapelle**	87.55	331	*e*P	P	20 26 26.9	+0.1
CABF				pmax	pmax		
	comp=Z,23nm,1.5s,mb5.0						
KSU1	**Kansas State U**	87.72	41	*e*P	P	20 26 27.6	-0.2
KSU1				*e*pP	pP	20 26 52.3	-1.4
MNTX	**Cornudas Mount**	87.87	51	⇓*e*P	P	20 26 28.1	-0.5
	comp=Z,7.2nm,1.0s,mb4.7						
CPRX	**Cap Rock**	87.90	50	*e*P	P	20 26 28.9	+0.2
AMTX	**Amarillo**	87.92	47	⇓*e*P	P	20 26 29.6	+0.8
AMTX				*e*pP	pP	20 26 54.7	-0.1
FLN	**La Foliniere**	88.11	336	*e*P	P	20 26 29.0	-0.4
	comp=Z,148nm,1.7s,mb5.4						
FLN				*e*R			
	comp=Z,263nm,20.5s						
FLN	**La Foliniere**	88.11	336	*e*P	P	20 26 29.0	-0.4
FLN				pmax	pmax		
	comp=Z,74nm,1.7s,mb5.4						
FLN				MLR	MLR		
	comp=Z,260nm,20.5s						
LDF	**La Druitiere**	88.14	335	*e*P	P	20 26 29.4	-0.1
	comp=Z,56nm,1.5s,mb5.1						
LDF	**La Druitiere**	88.14	335	*e*P	P	20 26 29.4	-0.1
LDF				pmax	pmax		
	comp=Z,28nm,1.5s,mb5.1						
SSF	**Saint Saulge**	88.16	332	*e*P	P	20 26 29.5	-0.2
	comp=Z,16nm,1.1s,mb4.7						
SSF	**Saint Saulge**	88.16	332	*e*P	P	20 26 29.5	-0.2
SSF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.7						
GDL2	**Guadalupe Moun**	88.16	50	*e*P	P	20 26 30.6	+0.5
LPL	**La Plagne**	88.19	330	*e*P	P	20 26 30.2	+0.4
LPG	**La Plagne**	88.19	330	*e*P	P	20 26 30.3	+0.4
	comp=Z,8.8nm,0.8s,mb4.5						
LPG	**La Plagne**	88.19	330	*e*P	P	20 26 30.3	+0.4
LPG				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.5						
SMF	**Signal de Mont**	88.38	332	*e*P	P	20 26 30.5	-0.2
AVF	**Avril sur Loir**	88.44	332	*e*P	P	20 26 31.0	0.0
	comp=Z,5.9nm,0.7s,mb4.4						
AVF	**Avril sur Loir**	88.44	332	*e*P	P	20 26 31.0	0.0
AVF				pmax	pmax		
	comp=Z,3.0nm,0.7s,mb4.4						
GRR	**Gorron**	88.56	336	*e*P	P	20 26 30.5	-1.0
MBDF	**Montbardon**	88.82	329	*e*P	P	20 26 33.4	+0.6
BGF	**Bois d’Agland**	88.83	333	*e*P	P	20 26 33.0	+0.2
	comp=Z,8.1nm,0.9s,mb4.5						
BGF	**Bois d’Agland**	88.83	333	*e*P	P	20 26 33.0	+0.2
BGF				pmax	pmax		
	comp=Z,4.0nm,0.9s,mb4.5						
ORIF	**Oris-en-Rattie**	89.02	330	*e*P	P	20 26 34.5	+0.7
	comp=Z,13nm,1.1s,mb4.6						
ORIF				*e*R			
	comp=Z,219nm,20.5s						
SGMF	**Saint Gilles**	89.23	337	*e*P	P	20 26 34.9	+0.2
SBF	**Sospel**	89.25	328	*e*P	P	20 26 35.3	+0.4
	comp=Z,20nm,0.8s,mb4.9						
SBF	**Sospel**	89.25	328	*e*P	P	20 26 35.3	+0.4
SBF				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.9						
TCF	**Toulx Ste Croi**	89.29	333	*e*P	P	20 26 35.3	+0.3
ROSF	**Rostrenen**	89.38	337	*e*P	P	20 26 35.6	+0.2
	comp=Z,79nm,1.2s,mb5.3						
ROSF	**Rostrenen**	89.38	337	*e*P	P	20 26 35.6	+0.2
ROSF				pmax	pmax		
	comp=Z,40nm,1.2s,mb5.3						
VIVF	**Saint-Julien-l**	89.56	331	*e*P	P	20 26 36.3	0.0
PGF	**Pioggiola**	89.63	327	*e*P	P	20 26 37.0	+0.3
	comp=Z,46nm,1.4s,mb5.1						
PGF	**Pioggiola**	89.63	327	*e*P	P	20 26 37.0	+0.3
PGF				pmax	pmax		
	comp=Z,23nm,1.4s,mb5.1						
WMOK	**Wichita Mounta**	89.70	45	*e*P	P	20 26 37.5	+0.3
QUIF	**Quistinic**	89.72	337	*e*P	P	20 26 36.8	-0.2
FRF	**La Foret Royal**	89.82	329	*e*P	P	20 26 38.0	+0.4
MFF	**Saint Martin d**	89.86	334	*e*P	P	20 26 38.2	+0.5
	comp=Z,20nm,1.0s,mb4.9						
MFF	**Saint Martin d**	89.86	334	*e*P	P	20 26 38.2	+0.5
MFF				pmax	pmax		
	comp=Z,10.0nm,1.0s,mb4.9						
SMRF	**Simiane la Rot**	89.92	329	*e*P	P	20 26 38.7	+0.7
LMR	**La Mourre**	90.06	329	*e*P	P	20 26 38.6	-0.1
RJF	**Les Rejaudoux**	90.38	333	*e*P	P	20 26 40.5	+0.3
	comp=Z,15nm,1.1s,mb4.8						
RJF				*e*R			
	comp=Z,204nm,20.0s						
RJF	**Les Rejaudoux**	90.38	333	*e*P	P	20 26 40.5	+0.3
RJF				pmax	pmax		
	comp=Z,8.0nm,1.1s,mb4.8						
RJF				MLR	MLR		
	comp=Z,200nm,20.0s						
CAF	**Calviac**	90.50	332	*e*P	P	20 26 39.9	-0.8
	comp=Z,21nm,1.2s,mb4.8						
CAF	**Calviac**	90.50	332	*e*P	P	20 26 39.9	-0.8
CAF				pmax	pmax		
	comp=Z,10.0nm,1.2s,mb4.8						
LASF	**Ste Croix**	90.53	331	*e*P	P	20 26 41.1	+0.2
LTX	**Lajitas**	90.56	52	⇓*e*P	P	20 26 42.1	+0.7
LTX				pmax	pmax		
	comp=Z,12nm,0.9s,mb5.0						
LTX	**Lajitas**	90.56	52	⇓*e*P	P	20 26 42.1	+0.7
	comp=Z,12nm,0.9s,mb5.0						
TXAR	**Lajitas Array**	90.56	52	P	P	20 26 42.1	+0.7
	comp=Z,11nm,0.8s,mb5.1,baz=298,slow=3.2,SNR=112						
TXAR				pP	pP	20 27 06.2	-1.3
	comp=Z,2.5nm,0.6s,baz=294,slow=2.6,SNR=3.7						
TXAR				PP	PP	20 30 20.9	+1.4
	comp=Z,1.5nm,1.0s,baz=307,slow=6.3,SNR=5.2						
TXAR				LR	LR	21 03 01.1	
	comp=Z,56nm,19.3s,baz=20,slow=33						
LFF	**La Frestale**	90.98	333	*e*P	P	20 26 42.6	-0.4
	comp=Z,10nm,0.7s,mb4.8						
LFF	**La Frestale**	90.98	333	*e*P	P	20 26 42.6	-0.4
LFF				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
CCM	**Cathedral Cave**	91.27	39	*e*P	P	20 26 44.5	0.0
MTLF	**Montolieu**	91.79	331	*e*P	P	20 26 47.0	+0.3
JCT	**Junction City**	92.15	49	⇓*i*P	P	20 26 48.6	-0.1
JCT				pmax	pmax		
	comp=Z,4.0nm,0.5s,mb4.9						
JCT	**Junction City**	92.15	49	⇓*i*P	P	20 26 48.6	-0.1
	comp=Z,4.4nm,0.5s,mb4.9						
MIAR	**Mount Ida**	92.73	42	*e*P	P	20 26 51.2	-0.1
MIAR				*e**PP	pP	20 27 15.9	-1.6
EPF	**Esparros**	92.77	332	*e*P	P	20 26 51.0	-0.2
ETSF	**Etsaut**	93.21	333	*e*P	P	20 26 52.6	-0.7
	comp=Z,9.5nm,0.8s,mb4.8						
ETSF	**Etsaut**	93.21	333	*e*P	P	20 26 52.6	-0.7
ETSF				pmax	pmax		
	comp=Z,5.0nm,0.8s,mb4.9						
SJPF	**Ste Jean**	93.27	333	*e*P	P	20 26 53.0	-0.5
ESDC	**Sonseca Array**	97.27	333	P	P	20 27 11.2	-0.6
	comp=Z,0.1nm,0.3s,baz=14,slow=6.1,SNR=4.9						
ESDC				pP	pP	20 27 35.0	-3.0
	comp=Z,0.7nm,0.7s,baz=24,slow=4.7,SNR=4.0						
SDV	**Santo Domingo**	125.73	40	PKP	PKPdf	20 32 40.5	+0.8
	comp=Z,6.5nm,0.7s,baz=342,slow=2.4,SNR=9.7						
SDV				pPKP		20 33 05.1	
	comp=Z,9.0nm,0.9s,baz=160,slow=0.4,SNR=5.2						
SDV	**Santo Domingo**	125.73	40	*e*PKPdf	PKPdf	20 32 40.6	+0.8
SDV				*e*pPKPdf		20 33 06.3	
ROSC	**El Rosal**	127.06	46	PKP	PKPdf	20 32 44.4	+2.1
	comp=Z,2.6nm,0.4s,baz=106,slow=21,SNR=2.6						
SNAA	**Sanae**	140.45	197	⇑*i*P	PKPdf	20 33 10.3	+4.5
SNAA	**Sanae**	140.45	197	⇑*i*	PKPdf	20 33 12.9	+7.1
SNAA	**Sanae**	140.45	197	⇑*i*	PKPdf	20 33 35.3	+30
SNAA	**Sanae**	140.45	197	PKhKP		20 32 58.4	
	comp=Z,0.7nm,0.7s,baz=81,slow=1.3,SNR=7.1						
VNA2	**Neumayer--Watz**	142.03	196	P	PKPdf	20 33 10.1	+1.7
VNA2	**Neumayer--Watz**	142.03	196	⇑*i*	PKPdf	20 33 12.8	+4.4
VNA2	**Neumayer--Watz**	142.03	196	⇑*i*	PKPdf	20 33 34.7	+26
VNA2	**Neumayer--Watz**	142.03	196	⇑*i*	PKPdf	20 33 37.5	+29
VNA2	**Neumayer--Watz**	142.03	196		PKPdf	20 33 44.0	+36
VNA3	**Neumayer Olymp**	142.28	195	P	PKPdf	20 33 07.3	-1.5
VNA3	**Neumayer Olymp**	142.28	195	⇑*i*	PKPdf	20 33 10.5	+1.7
VNA3	**Neumayer Olymp**	142.28	195		PKPdf	20 33 30.6	+22
VNA3	**Neumayer Olymp**	142.28	195	⇑*i*	PKPdf	20 33 35.2	+26
VNA3	**Neumayer Olymp**	142.28	195	⇑*i*	PKPdf	20 33 44.6	+36
LPAZ	**La Paz**	147.14	59	*e*PKIKP	PKPdf	20 33 20.5	+1.8
LPAZ				*e*		20 33 22.1	
LPAZ	**La Paz**	147.14	59	PKPbc	PKPdf	20 33 22.1	+3.4
	comp=Z,19nm,0.8s,baz=323,slow=3.0,SNR=91						
LVC	**Limon Verde**	150.62	69	PKPbc	PKPdf	20 33 32.2	+8.1
	comp=Z,19nm,0.8s,baz=276,slow=3.7,SNR=28						
LVC				PKPab	PKPab	20 33 39.6	+0.5
	comp=Z,13nm,0.7s,baz=295,slow=2.6,SNR=10						
LVC	**Limon Verde**	150.62	69	*e*PKPbc	PKPdf	20 33 31.9	+7.8
BDFB	**Brasilia**	157.44	23	PKPab	PKPab	20 34 07.5	-0.6
	comp=Z,5.3nm,0.9s,baz=352,slow=2.2,SNR=8.7						

*IDC **31** 20:14:24.8±1.0, 9.64N×93.52E, mb4.1/5, mb1 4.3/6, mb1mx4.1/19, mbtmp4.2/6, ML3.7/1, MS3.9/1, Ms1 3.9/1, ms1mx3.5/15, Error ellipse: s-maj=48.6km s-min=23.6km az=36.0*

ISC 31 20:14:26.7±6.1, **9.8N**±0.2×**93.6E**±0.1, **h22**^{km}±42^{km}, **n26**, σ**1^{s}16**/25, **mb4.2**/5, **MS3.9**/1, **2C, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	10.09	30	Pn	P	20 16 54.0	+0.3
	0.2nm,0.3s,baz=218,slow=14,SNR=68						
VIS	**Vishakhapatnam**	12.71	310	*e*P	P	20 17 27.9	-1.2
VIS				*e*		20 17 30.4	
	comp=Z,32nm,0.3s						
VIS				*e*S	S	20 19 38.1	-13
BWNR	**Bhubaneshwar**	12.87	325	*e*P	P	20 17 22.5	-8.8
BWNR				*e*		20 17 25.0	
	comp=Z,79nm,0.5s						
BWNR				*e*S	S	20 19 38.3	-17
BWNR				*e*		20 19 40.5	
SHL	**Shillong**	15.80	354	⇑*i*	P	20 18 12.5	+2.8
SHL				*e*		20 21 40.0	
HYB	**Hyderabad**	16.45	299	*e*P	P	20 18 21.0	+3.0
HYB				*e*		20 21 12.0	
HYB				*e*S	S	20 21 24.0	+4.6
PKI	**Pulchoki**	19.31	338	*e*P	P	20 18 52.7	-0.6
	comp=Z,48nm,0.7s						
GUN	**Gumba**	19.45	339	*e*P	P	20 18 54.2	-0.6
	comp=Z,75nm,0.6s						
DMN	**Daman**	19.46	337	*e*P	P	20 18 54.3	-0.7
	comp=Z,49nm,0.6s						
KKN	**Kakani**	19.56	338	*e*P	P	20 18 55.1	-1.0
	comp=Z,57nm,0.9s						
GKN	**Gorkha**	20.00	336	*e*P	P	20 19 00.2	-0.7
	comp=Z,57nm,0.7s						
KOLN	**Koldanda**	20.23	334	*e*P	P	20 19 02.8	-0.4
	comp=Z,43nm,0.7s						
KAD	**Karad**	20.27	294	*e*	P	20 19 07.5	+3.8
KAD				*e*		20 22 07.0	
BHPL	**Bhopal**	20.45	313	*e*	P	20 19 06.6	+1.0
BHPL				*e*		20 19 08.4	
	comp=Z,8.8nm,0.3s						
BHPL				*e*		20 22 46.0	
POO	**Poona**	21.00	297	*e*P	P	20 19 08.4	-2.8
NDI	**New Delhi**	24.29	323	*e*	P	20 19 44.0	+0.2
DDI	**Dehra Dun**	25.06	327	*e*	P	20 19 52.7	+1.6
ASAR	**Alice Springs**	51.56	131	P	P	20 23 33.3	-0.3
	comp=Z,1.6nm,0.8s,mb4.0,baz=302,slow=7.3,SNR=13						
GNI	**Garni**	52.73	314	P	P	20 23 43.3	+1.1
	comp=Z,1.5nm,0.4s,mb4.3,baz=124,slow=15,SNR=6.6						
ASF	**Jabal al Asfar**	56.73	302	P	P	20 24 12.0	+0.5
	comp=Z,2.7nm,0.8s,mb4.3,baz=125,slow=7.4,SNR=5.3						
KMBO	**Kilima Mbogo**	57.09	262	LR	LR	20 45 13.4	
	comp=Z,100nm,19.3s,MS3.9,baz=96,slow=32						
BRTR	**Keskin Array B**	60.78	310	P	P	20 24 38.2	-1.3
	comp=Z,2.5nm,0.7s,mb4.5,baz=125,slow=6.9,SNR=13						
VRI	**Vrincioaia**	66.96	316	⇑*i*P	P	20 25 20.0	+0.1
ESDC	**Sonseca Array**	89.58	310	P	P	20 27 24.3	+0.1
	comp=Z,0.3nm,0.5s,mb3.9,baz=55,slow=4.2,SNR=6.5						
NVAR	**Mina Array Bea**	123.59	30	PKP	PKPdf	20 33 24.3	-3.1
	comp=Z,0.6nm,0.6s,baz=279,slow=4.0,SNR=4.7						
PDAR	**Pinedale Array**	123.61	20	PKP	PKPdf	20 33 24.4	-3.0
	comp=Z,0.4nm,0.6s,baz=315,slow=2.6,SNR=3.1						
TXAR	**Lajitas Array**	137.73	23	PKP	PKPdf	20 33 52.0	-2.5
	comp=Z,0.2nm,0.5s,baz=293,slow=1.1,SNR=5.2						

TRN 31 20:27:05.5,15.79N×61.52W,h22$^{\text{km}}$,MD3.7,5D, Leeward Islands

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BBL	**Barber's Block**	**0.27**	**169**	⇓*i*P	Pb	20 27 13.9	+2.2
BBL				*e*S	Sb	20 27 18.9	+2.9
DWS	**Wesley**	**0.30**	**137**	*e*P	Pb	20 27 14.3	+2.0
DWS				*e*S	Sb	20 27 19.5	+2.6
DSHT	**Scott's Head**	**0.59**	**166**	*e*P	Pb	20 27 19.6	+2.6
DSHT				*e*S	Sb	20 27 26.7	+1.8
SEG	**Port Louis**	**0.61**	**2**	*e*P	Pb	20 27 19.0	+1.7
FDF	**Fort de France**	**1.11**	**161**	⇓*i*P	Pb	20 27 28.0	+2.2
CRM	**Caravelle**	**1.19**	**150**	⇓*e*P	Pn	20 27 28.4	+1.4
BPA	**Boggy Peak**	**1.29**	**346**	*e*P	Pn	20 27 30.7	+2.3
BPA				*e*S	Sb	20 27 46.9	+1.8
BIM	**Bigot**	**1.34**	**161**	⇓*i*P	Pn	20 27 31.6	+2.5
MVM	**Montagne Vaucl**	**1.37**	**154**	⇓*i*P	Pn	20 27 31.4	+1.9
CPB	**Codrington**	**1.86**	**351**	*e*P	Pn	20 27 37.0	+0.4
CPB				*e*S	Sn	20 28 01.8	+2.1

IDC 31 20:37:35.9±3.9,8.33N×91.70E,mb3.3/3,mb1 3.6/4, mb1mx3.4/17,mbtmp3.3/4,ML3.5/1,Error ellipse: s-maj=104.4km s-min=30.5km az=78.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.28**	**34**	Pn	P	20 40 30.2	-4.8
	0.1nm,0.3s,baz=232,slow=15,SNR=8.4						
SONM	**Songino Array**	**41.30**	**15**	P	P	20 45 24.0	-0.7
	0.2nm,0.8s,baz=202,slow=7.8,SNR=3.7						
WRA	**Warramunga Arr**	**50.50**	**124**	P	P	20 46 35.4	-2.7
	0.2nm,0.3s,baz=301,slow=9.8,SNR=9.5						
ASAR	**Alice Springs**	**52.07**	**129**	P	P	20 46 48.4	-1.6
	0.3nm,0.7s,baz=306,slow=7.8,SNR=4.2						

*NEIC **31** 20:43:25.8,37.32N×20.19E,h8$^{\text{km}}$,MD3.6(ATH),After ATH.*
*CSEM **31** 20:43:25.8,37.32N×20.19E,h8$^{\text{km}}$,MD3.6/4,After ATH*
ATH 31 20:43:25.2,37.31N×20.15E,h5$^{\text{km}}$,MD3.6/4,Ionian Sea

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
VLS	**Valsamata**	**0.93**	**22**	*e*PG	Pg	20 43 42.5	-1.4
VLS				*e*SB	Sb	20 43 56.5	+0.5
ITM	**Ithomi**	**1.42**	**95**	*e*PB	Pb	20 43 52.0	+0.1
EVR	**Evrytania**	**2.07**	**39**	*e*PN	Pn	20 44 02.5	+1.5
KEK	**Kerkira**	**2.42**	**354**	*e*PN	Pn	20 44 08.0	+2.0

IDC 31 20:46:49.3±7.1,10.96N×92.31E,mb3.8/2,mb1 3.8/3, mb1mx3.4/17,mbtmp3.5/3,ML3.2/1,Error ellipse: s-maj=154.3km s-min=46.5km az=99.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**9.84**	**40**	Pn	P	20 49 12.1	-3.2
	0.1nm,0.3s,baz=234,slow=15,SNR=4.1						
WRA	**Warramunga Arr**	**51.53**	**126**	P	P	20 55 57.2	-2.1
	1.6nm,0.8s,baz=306,slow=8.4,SNR=14						
ASAR	**Alice Springs**	**53.28**	**131**	P	P	20 56 10.2	-2.2
	0.5nm,0.6s,baz=306,slow=7.0,SNR=11						

MAN 31 20:48:18.2,8.38N×125.92E,h33$^{\text{km}}$,mb4.3,ML3.1,MS2.9, 1C,Mindanao

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
BIPH	**Bislig**	**0.48**	**114**	⇑*i*P	P	20 48 28.1	-0.3
BIPH				*i* S	S	20 48 35.2	-0.4
BUTP	**Butuan**	**0.65**	**333**	*e*P	P	20 48 31.6	+0.7
BUTP				*e*S	S	20 48 43.3	+3.2
BUKP	**Musuan**	**0.99**	**240**	*e*P	P	20 48 35.9	+0.2
BUKP				*e*S	S	20 48 51.5	+2.9
MATI	**Mati**	**1.47**	**167**	*e*P	P	20 48 43.5	+1.0
MATI				*e*S	S	20 49 03.7	+2.9
PAGZ	**Pagadian**	**2.57**	**258**	*e*P	P	20 49 03.0	+4.7

IDC 31 20:55:44.6±1.6,7.03N×93.51E,mb3.6/3,mb1 3.9/4, mb1mx3.6/17,mbtmp3.6/4,ML3.6/1,Error ellipse: s-maj=62.1km s-min=28.4km az=50.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**12.53**	**24**	Pn	P	20 58 45.0	-2.1
	0.1nm,0.3s,baz=210,slow=15,SNR=6.6						
WRA	**Warramunga Arr**	**48.29**	**125**	P	P	21 04 27.9	-2.1
	0.3nm,0.4s,baz=300,slow=10.0,SNR=8.5						
ASAR	**Alice Springs**	**49.86**	**129**	P	P	21 04 40.4	-1.7
	0.6nm,0.6s,baz=304,slow=7.1,SNR=8.2						
GERES	**GERESS Array B**	**78.04**	**318**	P	P	21 07 45.0	-1.7
	0.8nm,0.8s,baz=98,slow=6.9,SNR=5.4						

*NEIC **31** 21:01:04.4±1.0,8.21N×94.00E,h30$^{\text{km}}$,mb4.5/5,Error ellipse: s-maj=27.7km s-min=17.9km az=56.0*
*BJI **31** 21:01:04.6,8.20N×94.00E,h30$^{\text{km}}$,mb4.3*
*IDC **31** 21:01:07.9±0.7,9.49N×93.82E,mb4.0/16,mb1 4.2/16, mb1mx4.2/20,mbtmp4.0/16,MS3.7/3,Ms1 3.8/3, ms1mx3.2/24,Error ellipse: s-maj=32.3km s-min=16.9km az=46.0*
ISC 31 21:01:10.5±0.6,9.13N±0.08×93.60E±0.08,h33$^{\text{km}}$,n45, σ0^{s}98/42,mb4.1/21,MS4.1/2,1C,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	**Chiang Mai Arr**	**10.62**	**29**	*e*Pn	**P**	**21 03 43.8**	**+0.3**
	2.2nm,0.7s						
CMAR	**Chiang Mai Arr**	**10.62**	**29**	Pn	**P**	**21 03 43.7**	**+0.2**
	0.1nm,0.3s,baz=216,slow=14,SNR=11						
CMAR				LR	LR	21 08 03.0	
	comp=Z,77nm,18.3s,baz=220,slow=41						
KMI	**Kunming**	**18.13**	**28**	P	**P**	**21 05 23.5**	**+2.0**
KMI				AMB	AMB		
	comp=Z,10.0nm,1.5s						
PKI	**Pulchoki**	**19.90**	**338**	*e*P	**P**	**21 05 41.7**	**-0.4**
	comp=Z,33nm,0.8s						
GUN	**Gumba**	**20.05**	**340**	*e*P	**P**	**21 05 43.0**	**-0.6**
	comp=Z,110nm,1.0s						
DMN	**Daman**	**20.05**	**338**	*e*P	**P**	**21 05 42.9**	**-0.8**
	comp=Z,30nm,0.8s						
KKN	**Kakani**	**20.15**	**338**	*e*P	**P**	**21 05 43.9**	**-0.8**
	comp=Z,53nm,1.1s						
GKN	**Gorkha**	**20.59**	**337**	*e*P	**P**	**21 05 49.4**	**+0.1**
	comp=Z,72nm,0.6s						
LSA	**Lhasa**	**20.59**	**354**	*e*P	**P**	**21 05 48.2**	**-1.1**
	comp=Z,9.2nm,0.8s						
KOLN	**Koldanda**	**20.80**	**334**	*e*P	**P**	**21 05 51.6**	**+0.1**
	comp=Z,89nm,0.9s						
GYA	**Guiyang**	**21.22**	**34**	⇑*i*P	**P**	**21 05 56.5**	**+0.7**
GYA				AMB	AMB		
	comp=Z,20nm,0.6s,mb4.6						
NDI	**New Delhi**	**24.81**	**324**	*e*	**P**	**21 06 31.0**	**-0.1**
DDI	**Dehra Dun**	**25.60**	**328**	*e*	**P**	**21 06 39.4**	**+0.8**
GTA	**Gaotai**	**30.66**	**9**	P	**P**	**21 07 22.0**	**-2.2**
GTA				AMB	AMB		
	comp=Z,3.0nm,1.7s,mb3.9						
UCH	**Uchtor**	**36.99**	**336**	P	**P**	**21 08 19.7**	**+1.0**
	SNR=5.3						
KBK	**Karagaybulak**	**37.19**	**337**	P	**P**	**21 08 21.6**	**+1.3**
	SNR=7.9						
AML	**Almayashu**	**37.24**	**335**	P	**P**	**21 08 22.0**	**+1.1**
	SNR=12						
AAK	**Ala-Archa**	**37.34**	**337**	P	**P**	**21 08 23.4**	**+1.7**
	SNR=5.9						
AAK	**Ala-Archa**	**37.34**	**337**	*e*P	**P**	**21 08 21.2**	**-0.5**
	comp=Z,4.8nm,0.8s,mb4.4						
CHMS	**Chumysh**	**37.55**	**337**	P	**P**	**21 08 23.6**	**+0.1**
	SNR=6.6						
EKS2	**Erkin-Say**	**37.65**	**336**	P	**P**	**21 08 25.2**	**+0.9**
	SNR=11						
USP	**Ospenovka**	**37.88**	**337**	P	**P**	**21 08 26.4**	**+0.2**
	SNR=12						
SONM	**Songino Array**	**40.06**	**13**	P	**P**	**21 08 43.0**	**-1.2**
	comp=Z,0.8nm,0.9s,mb3.5,baz=194,slow=7.1,SNR=6.2						
SONM				PcP	PcP	21 10 49.6	+0.3
	comp=Z,0.5nm,0.5s,baz=216,slow=3.0,SNR=7.4						
RDF	**Al-Radifah**	**47.42**	**301**	*e*P	**P**	**21 09 45.6**	**+1.7**
BVAR	**Borovoye Array**	**47.63**	**341**	P	**P**	**21 09 42.4**	**-2.9**
	comp=Z,1.3nm,0.8s,mb4.0,baz=228,slow=38,SNR=6.2						
BVAR				PcP	PcP	21 11 14.8	-0.1
	comp=Z,1.2nm,0.8s,baz=76,slow=6.1,SNR=3.8						
RST	**Umm Al-Ruwaisa**	**48.03**	**302**	*e*P	**P**	**21 09 49.8**	**+1.1**
WRA	**Warramunga Arr**	**49.43**	**126**	P	**P**	**21 09 59.0**	**-0.6**
	comp=Z,1.6nm,0.6s,mb4.2,baz=322,slow=9.3,SNR=15						
WRA				PcP	PcP	21 11 22.7	+0.8
	comp=Z,0.7nm,0.9s,baz=316,slow=2.8,SNR=6.4						
ASAR	**Alice Springs**	**51.13**	**130**	P	**P**	**21 10 12.9**	**+0.4**
	comp=Z,1.8nm,0.8s,mb4.0,baz=305,slow=6.9,SNR=6.8						
ASAR				PcP	PcP	21 11 29.3	+1.2
	comp=Z,1.4nm,0.7s,baz=309,slow=3.4,SNR=5.4						
KIV	**Kislovodsk**	**56.03**	**317**	*e*P	**P**	**21 10 49.0**	**+0.6**
	comp=Z,9.0nm,0.8s,mb4.8						
KMBO	**Kilima Mbogo**	**57.04**	**263**	P	**P**	**21 11 00.3**	**+4.2**
	comp=Z,1.1nm,0.6s,mb4.1,baz=58,slow=14,SNR=4.6						
MALT	**Malatya**	**57.25**	**310**	*e*P	**P**	**21 10 55.5**	**-1.7**
	comp=Z,1.2nm,0.8s,mb4.0						
BRTR	**Keskin Array B**	**61.21**	**310**	P	**P**	**21 11 23.1**	**-1.5**
	comp=Z,1.0nm,0.6s,mb4.1,baz=132,slow=6.3,SNR=6.0						
STKA	**Stephens Creek**	**61.36**	**134**	LR	LR	21 41 21.9	
	comp=Z,64nm,20.0s,MS3.8,baz=206,slow=39						
AKASG	**Malin Array Be**	**66.84**	**321**	P	**P**	**21 12 02.3**	**+1.2**
	comp=Z,0.4nm,0.4s,mb3.8,baz=12,slow=32,SNR=2.8						
FINES	**FINESS Array B**	**71.36**	**332**	P	**P**	**21 12 27.6**	**-1.2**
	comp=Z,2.3nm,1.0s,mb4.1,baz=124,slow=6.9,SNR=4.7						
ARCES	**ARCESS Array B**	**73.91**	**340**	P	**P**	**21 12 42.9**	**-0.8**
	comp=Z,5.1nm,0.9s,mb4.5,baz=90,slow=7.3,SNR=4.2						
ARCES				LR	LR	21 47 31.9	
	comp=Z,242nm,20.1s,MS4.5,baz=199,slow=38						
GERES	**GERESS Array B**	**76.54**	**318**	P	**P**	**21 12 58.9**	**-0.2**
	comp=Z,1.2nm,0.7s,mb4.0,baz=90,slow=5.3,SNR=9.8						
HFS	**Hagfors**	**77.11**	**330**	P	**P**	**21 13 01.5**	**-0.6**
	comp=Z,1.6nm,0.8s,mb4.0,baz=100,slow=9.0,SNR=5.7						
NOA	**NORSAR Array B**	**78.38**	**330**	P	**P**	**21 13 08.7**	**-0.4**
	comp=Z,1.1nm,0.8s,mb3.8,baz=94,slow=5.1,SNR=3.4						
DAVOX	**Davos**	**79.12**	**316**	P	**P**	**21 13 14.0**	**+0.6**
	comp=Z,1.4nm,0.5s,mb4.2,baz=96,slow=10						
ESDC	**Sonseca Array**	**90.00**	**310**	P	**P**	**21 14 08.4**	**+0.2**
	comp=Z,0.2nm,0.5s,mb3.7,baz=59,slow=4.4,SNR=5.1						
ILAR	**Eielson Array**	**93.79**	**22**	P	**P**	**21 14 25.2**	**+0.2**
	comp=Z,0.8nm,0.8s,mb4.2,baz=282,slow=2.7,SNR=7.7						
INK	**Inuvik**	**95.94**	**16**	P	**P**	**21 14 34.8**	**0.0**
	comp=Z,1.3nm,0.9s,mb4.4,baz=303,slow=13,SNR=6.3						
PDAR	**Pinedale Array**	**124.19**	**20**	PKP	PKPdf	21 20 08.1	+1.9
	comp=Z,0.4nm,0.7s,baz=225,slow=1.3,SNR=3.4						
TXAR	**Lajitas Array**	**138.29**	**23**	PKP	PKPdf	21 20 36.0	+2.8
	comp=Z,0.3nm,0.6s,slow=0.9,SNR=3.3						

*MDD **31** 21:02:09.8±1.0,42.85N×1.40W,mbLg0.8/5,Error ellipse: s-maj=7.2km s-min=2.8km az=44.0,PRXIMO*
LDG 31 21:02:09.3±0.6,42.87N×1.42W,h3$^{\text{km}}$,Md1.9/2,Ml1.8/1, Error ellipse: s-maj=10.5km s-min=6.2km az=53.0, Pyrenees

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SJPF	**Ste Jean**	**0.28**	**30**	*e*Pg	Pg	21 02 14.7	-0.3
SJPF				*e*Sg	Sg	21 02 19.4	+0.6
	9.7nm,0.3s						
EALK	**Alkurruntz**	**0.36**	**349**	Pg	Pg	21 02 16.1	-0.4
	1.7nm,0.4s,SNR=6.1						
EALK				Lg		21 02 22.0	
	4.2nm,0.4s,SNR=14						
ETSF	**Etsaut**	**0.63**	**87**	*e*Pg	Pg	21 02 20.7	-1.2
ETSF				*e*Sg	Sg	21 02 29.4	-0.9
	3.2nm,0.3s						
EBIE	**Bielsa**	**1.16**	**98**	Pg	Pg	21 02 31.9	-0.6
	4.1nm,1.0s,SNR=7.0						
EBIE				Lg		21 02 48.0	
	0.7nm,0.1s,SNR=7.9						
EPF	**Esparros**	**1.30**	**82**	*e*Pn	Pn	21 02 32.8	-1.6
EPF				*e*Pg	Pg	21 02 34.0	-1.3
EPF				*e*Sg	Sg	21 02 50.1	-2.5
	2.0nm,0.3s						
ELAN	**Lanestosa**	**1.52**	**284**	Sn	Sn	21 02 59.0	+0.9
	0.4nm,0.2s,SNR=7.9						

*IDC **31** 21:03:05.5±0.7,53.16S×140.72E,mb4.6/9,mb1 4.7/9, mb1mx4.5/13,mbtmp4.7/9,MS4.4/8,Ms1 4.4/8, ms1mx3.9/14,Error ellipse: s-maj=25.7km s-min=18.8km az=77.0*
*NEIC **31** 21:03:07.4±0.7,53.12S×140.53E,h10$^{\text{km}}$,mb4.8/10,Error ellipse: s-maj=37.2km s-min=11.5km az=95.0*
ISC 31 21:03:04.8±0.5,53.13S±0.06×140.5E±0.2,h10$^{\text{km}}$,n63, σ1^{s}01/23,mb4.7/14,MS4.3/8,8C-1D,West of Macquarie Island

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
TOO	**Toolangi**	**15.94**	**14**	*e*P	**P**	**21 06 50.7**	**+0.1**
	43nm,1.3s						
CNB	**Canberra Magne**	**18.88**	**23**	⇑*i*P	**P**	**21 07 28.1**	**+0.8**
	44nm,1.1s						
CASY	**Casey**	**19.79**	**217**	P	**P**	**21 07 36.7**	**-1.0**
	52nm,0.9s						
STKA	**Stephens Creek**	**21.26**	**2**	⇑*i*P	**P**	**21 07 53.9**	**+0.7**
	25nm,1.1s,mb4.5						
STKA	**Stephens Creek**	**21.26**	**2**	P	**P**	**21 07 53.7**	**+0.5**
	21nm,0.8s,mb4.5,baz=169,slow=11,SNR=26						
STKA				LR	LR	21 14 15.0	
	comp=Z,438nm,20.3s,MS3.8,baz=180,slow=32						
RPZ	**Rata Peaks**	**22.19**	**77**	P	**P**	**21 08 03.1**	**+0.6**
	23nm,0.8s,mb4.6,baz=204,slow=9.6,SNR=8.2						
RPZ				LR	LR	21 14 49.2	
	comp=Z,2μm,18.5s,MS4.5,baz=233,slow=32						
VNDA	**Vanda**	**25.70**	**169**	P	**P**	**21 08 34.7**	**-1.4**
	9.2nm,1.1s,mb4.2,baz=326,slow=9.0,SNR=23						
VNDA				LR	LR	21 17 57.1	
	comp=Z,513nm,19.6s,MS4.1,baz=152,slow=35						
VNDA	**Vanda**	**25.70**	**169**	*e*P	**P**	**21 08 35.1**	**-1.0**
	26nm,1.3s,mb4.6						
SBA	**Scott Base**	**26.56**	**168**	*e*P	**P**	**21 08 45.5**	**+1.4**
	10nm,0.8s,mb4.4						
URZ	**Urewera**	**29.18**	**74**	P	**P**	**21 09 06.7**	**-1.5**
	18nm,0.9s,mb4.8,baz=202,slow=10,SNR=3.6						
URZ				LR	LR	21 19 52.8	
	comp=Z,574nm,18.6s,MS4.2,baz=240,slow=35						
ASPA	**Alice Springs**	**29.85**	**348**	⇓*i*P	**P**	**21 09 14.1**	**-0.2**
ASAR	**Alice Springs**	**29.85**	**348**	P	**P**	**21 09 13.5**	**-0.8**
	3.7nm,0.8s,mb4.2,baz=165,slow=10,SNR=18						
ASAR				PcP	PcP	21 12 19.1	+1.4
	1.0nm,0.6s,baz=170,slow=2.4,SNR=7.4						
CTA	**Charters Tower**	**33.28**	**10**	P	**P**	**21 09 43.8**	**-0.6**
	9.0nm,1.0s,mb4.6,baz=187,slow=10,SNR=3.1						
CTA				LR	LR	21 23 09.3	
	comp=Z,727nm,18.8s,MS4.4,baz=186,slow=36						
WRA	**Warramunga Arr**	**33.47**	**349**	P	**P**	**21 09 45.8**	**-0.3**
	7.2nm,0.8s,mb4.7,baz=174,slow=7.4,SNR=42						
WRA				PcP	PcP	21 12 26.3	-1.0
	1.3nm,0.9s,baz=184,slow=12,SNR=3.9						
FITZ	**Fitzroy Crossi**	**36.84**	**336**	*e*P	**P**	**21 10 15.0**	**+0.2**
	16nm,0.8s,mb4.9						
QSPA	**South Pole Qui**	**36.98**	**180**	⇑*i*P	**P**	**21 10 15.2**	**-0.3**
	27nm,1.0s,mb5.0						
MAW	**Mawson**	**38.14**	**217**	LR	LR	21 24 42.8	
	comp=Z,1μm,18.4s,MS4.7,baz=88,slow=34						
KAKA	**Kakadu**	**40.83**	**348**	*e*P	**P**	**21 10 48.0**	**-0.2**
	53nm,1.6s,mb4.9						
PMG	**Port Moresby**	**43.93**	**9**	LR	LR	21 29 22.5	
	comp=Z,443nm,19.9s,MS4.4,baz=4.5,slow=36						
SNAA	**Sanae**	**52.84**	**194**	⇑*i*	**P**	**21 12 37.6**	**+16**
SNAA	**Sanae**	**52.84**	**194**	⇑*i*	Px	21 12 55.3	
SNAA	**Sanae**	**52.84**	**194**	*e*P	**P**	**21 12 20.6**	**-1.3**
	28nm,1.3s,mb5.0						
VNA3	**Neumayer Olymp**	**54.13**	**191**	⇑*i*	**P**	**21 12 34.4**	**+3.0**
VNA3	**Neumayer Olymp**	**54.13**	**191**	⇑*i*	Px	21 12 51.6	
VNA2	**Neumayer--Watz**	**54.14**	**192**	⇑*i*	**P**	**21 12 35.2**	**+3.7**
VNA2	**Neumayer--Watz**	**54.14**	**192**		Px	21 12 53.4	
PPT	**Papeete**	**64.08**	**85**	LR	LR	21 35 36.1	
	comp=Z,146nm,19.1s,MS4.2,baz=227,slow=30						
TGY	**Tagaytay City**	**69.05**	**340**	P	**P**	**21 14 12.4**	**-0.3**
	81nm,0.9s,mb5.7,baz=74,slow=19,SNR=3.2						
CMAR	**Chiang Mai Arr**	**79.83**	**320**	P	**P**	**21 15 16.4**	**+1.5**
	3.5nm,1.2s,mb4.2,baz=183,slow=4.5,SNR=7.1						
NVAR	**Mina Array Bea**	**125.85**	**72**	PKP	PKPdf	21 22 07.2	-2.2
	0.5nm,0.7s,baz=214,slow=3.3,SNR=2.9						
TXAR	**Lajitas Array**	**128.17**	**91**	PKP	PKPdf	21 22 14.4	+0.2
	0.4nm,0.8s,baz=252,slow=4.0,SNR=2.4						
ILAR	**Eielson Array**	**130.07**	**32**	PKP	PKPdf	21 22 16.4	-0.5
	0.5nm,0.9s,baz=297,slow=2.6,SNR=4.6						
YKA	**Yellowknife Ar**	**141.13**	**46**	PKP	PKPdf	21 22 36.4	-0.8
	0.4nm,0.5s,baz=238,slow=3.4,SNR=6.2						
OKC	**Ostrava-Krasne**	**144.80**	**288**	*e*PKP	PKPdf	21 22 54.8	+11
OKC				*e*x	x	21 23 05.4	
FINES	**FINESS Array B**	**145.06**	**310**	PKP	PKPdf	21 22 42.3	-1.6
	5.6nm,0.8s,baz=117,slow=3.8,SNR=12						
MORC	**Moravsky Berou**	**145.12**	**288**	*e*P	PKPbc	21 22 43.5	+1.8
KAF	**Kangasniemi**	**145.15**	**311**	*e*p	PKPbc	21 22 44.1	+2.7
	8.5nm,0.9s						
DPC	**Dobruska-Polom**	**146.08**	**288**	*e*PKP	PKPdf	21 22 47.1	+1.1
DPC				*e*x	x	21 23 00.1	
UPC	**Upice**	**146.33**	**288**	*e*PKP	PKPdf	21 22 48.6	+2.1
ARCES	**ARCESS Array B**	**146.80**	**324**	PKPbc	PKPbc	21 22 48.7	+3.5
	5.5nm,0.8s,baz=108,slow=3.8,SNR=5.4						
GERES	**GERESS Array B**	**146.90**	**284**	PKPbc	PKPbc	21 22 49.0	+3.0
	5.6nm,1.1s,baz=153,slow=3.0,SNR=13						
PRU	**Pruhonice**	**146.94**	**287**	*e*PKP	PKPdf	21 22 49.7	+2.2
KHC	**Kasperske Hory**	**147.11**	**285**	*e*PKP	PKPdf	21 22 51.3	+3.5
BRG	**Berggiesshubel**	**147.67**	**288**	*e*P	PKPdf	21 22 53.3	+4.6
DAVOX	**Davos**	**148.16**	**279**	PKPbc	PKPdf	21 22 53.1	+3.5
	4.6nm,0.8s,baz=95,slow=6.4,SNR=12						
NKC	**Novy Kostel**	**148.26**	**286**	*e*PKP	PKPdf	21 22 56.2	+6.6
CLL	**Collm**	**148.39**	**288**	*e*PKIKP	PKPdf	21 22 50.0	+0.2
CLL				*e**PPKP		21 23 04.0	
CLL				*e*		21 23 21.0	
FRF	**La Foret Royal**	**148.39**	**271**	*e*PKP1	PKPdf	21 22 54.6	+4.5
	29nm,0.9s						
MBDF	**Montbardon**	**148.96**	**273**	*e*PKP1	PKPdf	21 22 55.2	+4.3
	13nm,0.7s						
LPG	**La Plagne**	**149.38**	**274**	*e*PKP1	PKPdf	21 22 56.0	+4.4
	7.8nm,0.8s						
LPL	**La Plagne**	**149.40**	**275**	*e*PKP1	PKPdf	21 22 55.7	+4.1
	8.9nm,0.9s						
CABF	**La Chapelle**	**150.34**	**276**	*e*PKP1	PKPdf	21 22 57.8	+4.7
	13nm,0.8s						
HINF	**Hinteralfeld**	**150.46**	**279**	*e*PKP1	PKPdf	21 22 57.2	+4.0
	11nm,1.0s						
ERON	**Agron**	**150.49**	**251**	PKP	PKPdf	21 23 01.3	+7.7
ELOJ	**Sierra Loja**	**150.78**	**251**	PKP	PKPdf	21 22 58.9	+4.9
EVIA	**Vianos**	**150.85**	**255**	PKP	PKPdf	21 22 58.8	+4.7
HAU	**Haudompre**	**150.85**	**279**	*e*PKP1	PKPdf	21 22 58.3	+4.5
ELUQ	**Luque**	**151.13**	**252**	PKP	PKPdf	21 23 00.5	+6.0
EBAN	**Banos Encina**	**151.27**	**253**	PKP	PKPdf	21 23 00.0	+5.3
NOA	**NORSAR Array B**	**152.00**	**307**	PKPbc	PKPdf	21 23 03.8	+8.7
	1.3nm,0.7s,baz=248,slow=3.1,SNR=3.3						
ESDC	**Sonseca Array**	**152.38**	**255**	PKPbc	PKPdf	21 23 01.3	+5.0
	1.0nm,0.8s,baz=80,slow=1.2,SNR=8.9						
ESDC	**Sonseca Array**	**152.38**	**255**	PKP	PKPdf	21 23 02.0	+5.7
GUD	**Guadarrama**	**153.12**	**257**	PKP	PKPdf	21 23 07.3	+10

*IDC **31** 21:18:56.8±1.2,4.71N×94.02E,mb3.8/6,mb1 4.0/6, mb1mx3.8/17,mbtmp3.8/6,Error ellipse: s-maj=58.1km s-min=21.2km az=49.0*
ISC 31 21:19:00.0±1.1,4.9N±0.2×94.1E±0.3,h33$^{\text{km}}$,n13, σ0^{s}97/13,mb4.1/10,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**14.27**	**19**	Pn	**P**	**21 22 28.6**	**+6.7**
	0.3nm,0.3s,baz=217,slow=12,SNR=18						
PKI	**Pulchoki**	**24.03**	**341**	*e*P	**P**	**21 24 13.9**	**+0.9**
	11nm,0.6s,mb4.5						
DMN	**Daman**	**24.16**	**340**	*e*P	**P**	**21 24 14.5**	**+0.1**
	20nm,0.8s,mb4.6						
GUN	**Gumba**	**24.19**	**342**	*e*P	**P**	**21 24 13.1**	**-1.6**
KKN	**Kakani**	**24.27**	**341**	*e*P	**P**	**21 24 14.7**	**-0.8**
	10nm,0.7s,mb4.4						
GKN	**Gorkha**	**24.68**	**340**	*e*P	**P**	**21 24 18.3**	**-1.2**
KOLN	**Koldanda**	**24.85**	**337**	*e*P	**P**	**21 24 20.8**	**-0.3**
	10.0nm,0.6s,mb4.5						
SONM	**Songino Array**	**44.05**	**12**	P	**P**	**21 27 07.3**	**+0.8**
	0.9nm,0.7s,mb3.6,baz=196,slow=8.6,SNR=7.5						
WRA	**Warramunga Arr**	**46.60**	**123**	P	**P**	**21 27 26.9**	**-0.2**
	0.8nm,0.4s,mb4.0,baz=302,slow=9.0,SNR=11						
ASAR	**Alice Springs**	**48.06**	**128**	P	**P**	**21 27 38.2**	**-0.4**
	1.2nm,1.0s,mb3.9,baz=288,slow=7.6,SNR=4.2						
BVAR	**Borovoye Array**	**51.79**	**342**	P	**P**	**21 28 08.8**	**+2.2**
	1.3nm,0.7s,mb4.0,baz=158,slow=8.0,SNR=4.8						
BRTR	**Keskin Array B**	**64.37**	**312**	P	**P**	**21 29 34.8**	**-0.3**
	0.6nm,0.7s,mb3.8,baz=124,slow=8.9,SNR=5.2						
GERES	**GERESS Array B**	**80.03**	**319**	P	**P**	**21 31 09.0**	**+1.1**
	1.3nm,1.1s,mb3.8,baz=104,slow=5.5,SNR=4.8						

IDC 31 21:22:02.5±2.4,2.83N×95.75E,mb3.6/4,mb1 3.8/5, mb1mx3.6/17,mbtmp3.7/5,MS3.6/2,Ms1 3.6/2, ms1mx3.3/20,Error ellipse: s-maj=89.8km s-min=23.5km az=61.0,Off west coast of northern Sumatera

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**15.84**	**11**	Pn	P	21 25 48.0	-0.6
	0.2nm,0.3s,baz=200,slow=12,SNR=16						
CMAR				LR	LR	21 33 12.9	
	comp=Z,66nm,19.1s,baz=200,slow=42						
WRA	**Warramunga Arr**	**44.13**	**123**	P	P	21 30 13.4	-1.3
	0.3nm,0.7s,baz=302,slow=9.2,SNR=3.9						
ASAR	**Alice Springs**	**45.53**	**127**	P	P	21 30 23.6	-2.4
	0.6nm,0.9s,baz=313,slow=8.0,SNR=3.8						
SONM	**Songino Array**	**45.76**	**10**	P	P	21 30 25.8	-1.7
	1.2nm,0.7s,baz=189,slow=9.0,SNR=18						
SONM				PcP	PcP	21 32 03.2	-2.5
	0.3nm,0.6s,baz=195,slow=4.4,SNR=3.2						
BVAR	**Borovoye Array**	**54.24**	**341**	P	P	21 31 29.8	-2.5
	2.6nm,1.0s,baz=153,slow=6.6,SNR=7.2						
KMBO	**Kilima Mbogo**	**58.61**	**267**	LR	LR	21 51 46.3	
	comp=Z,151nm,20.2s,baz=92,slow=30						

IDC 31 21:34:06.8±0.9,43.55N×105.18W,mb3.8/5,mb1 3.9/10, mb1mx3.6/22,mbtmp3.7/10,ML4.0/4,Error ellipse: s-maj=20.6km s-min=12.9km az=140.0,Wyoming

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
PDAR	**Pinedale Array**	**3.30**	**258**	Pn	Pn	21 35 02.4	+1.6
	9.7nm,0.3s,baz=69,slow=16,SNR=157						
PDAR				Sn	Sn	21 35 47.8	+6.5
	21nm,0.3s,baz=68,slow=29,SNR=13						
ANMO	**Albuquerque**	**8.65**	**187**	Pg	P	21 36 49.5	+33
	baz=22,slow=12,SNR=4.2						
NVAR	**Mina Array Bea**	**11.16**	**247**	Pn	P	21 36 50.7	+0.1
	0.3nm,0.3s,baz=54,slow=12,SNR=13						
YBH	**Yreka Blue Hor**	**13.04**	**268**	Pn	P	21 37 18.6	+2.7
	0.2nm,0.3s,baz=242,slow=22,SNR=4.5						
TXAR	**Lajitas Array**	**14.24**	**175**	Pn	P	21 37 30.7	-1.2
	0.0nm,0.3s,baz=358,slow=14,SNR=2.1						
YKA	**Yellowknife Ar**	**19.76**	**347**	P	P	21 38 36.7	-4.1
	0.2nm,0.3s,baz=161,slow=13,SNR=13						
INK	**Inuvik**	**28.92**	**339**	P	P	21 40 07.4	-1.8
	0.7nm,0.7s,baz=136,slow=10,SNR=3.8						
ARCES	**ARCESS Array B**	**61.57**	**18**	P	P	21 44 25.2	-2.3
	5.5nm,1.1s,baz=329,slow=7.1,SNR=4.5						
NOA	**NORSAR Array B**	**63.74**	**29**	P	P	21 44 40.7	-1.2
	0.8nm,0.8s,baz=264,slow=9.1,SNR=3.3						
AKASG	**Malin Array Be**	**78.09**	**28**	P	P	21 46 06.3	-2.2
	0.2nm,0.3s,baz=322,slow=5.3,SNR=5.2						
SONM	**Songino Array**	**84.84**	**339**	P	P	21 46 44.1	+0.1
	0.2nm,0.6s,baz=20,slow=2.7,SNR=6.0						

IDC 31 21:40:04.4±1.6,13.72N×93.09E,mb3.6/2,mb1 3.7/3, mb1mx3.3/17,mbtmp3.4/3,ML2.9/1,Error ellipse: s-maj=51.2km s-min=32.1km az=44.0,Andaman Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	**Chiang Mai Arr**	**7.34**	**49**	Pn	Pn	21 41 52.8	-2.7
	0.1nm,0.3s,baz=240,slow=16,SNR=3.3						
VJD	**Vijayawada**	**12.32**	**285**	*i* P	P	21 43 01.0	-3.2
ASAR	**Alice Springs**	**54.53**	**133**	P	P	21 49 34.5	-2.2
	0.4nm,0.6s,baz=305,slow=6.9,SNR=10						
GERES	**GERESS Array B**	**72.83**	**317**	P	P	21 51 35.3	-1.6
	0.4nm,0.6s,baz=90,slow=6.7,SNR=5.7						

IDC 31 21:42:04.1±10.0,7.00N×95.14E,mb3.5/3,mb1 3.7/3, mb1mx3.4/16,mbtmp3.5/3,Error ellipse: s-maj=363.5km s-min=33.1km az=71.0,Nicobar Islands region

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC

CMAR	Chiang Mai Arr	11.98	18	Pn	P	21 45 10.9	+12
	0.1nm,0.3s,baz=216,slow=13,SNR=4.0						
SONM	Songino Array	41.81	11	P	P	21 49 55.5	-1.7
	0.5nm,0.8s,baz=188,slow=8.7,SNR=4.1						
WRA	Warramunga Arr	46.95	126	P	P	21 50 37.3	-1.5
	0.3nm,0.3s,baz=304,slow=9.1,SNR=8.3						
ASAR	Alice Springs	48.59	130	P	P	21 50 49.4	-2.3
	0.3nm,0.7s,baz=306,slow=7.8,SNR=5.6						

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*IDC **31** 21:55:13.0±2.2, 23.00S×179.75W, h516^{km}±26^{km}, mb3.4/11, mb1 3.6/12, mb1mx3.5/16, mbtmp4.3/12, Error ellipse: s-maj=21.4km s-min=12.9km az=165.0*

ISC 31 21:55:13.7±3.7**, 23.1S**±0.2×**179.8W**±0.1**, h540**^{km}±50^{km}**, n17, σ0^{s}69**/12**, mb3.9**/11**, South of Fiji Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
URZ	Urewera	15.32	189	P	P	21 58 25.6	-0.5
	2.4nm,0.3s,baz=188,slow=0.8,SNR=6.5						
RPZ	Rata Peaks	21.89	198	P	P	21 59 28.4	0.0
	6.8nm,0.3s,mb4.7,baz=358,slow=8.1,SNR=5.7						
PPT	Papeete	28.81	85	P	P	22 00 30.2	+0.2
	19nm,0.4s,mb5.1,baz=113,slow=18,SNR=3.4						
CTA	Charters Tower	31.69	269	P	P	22 00 54.8	+0.2
	3.8nm,0.4s,mb4.2,baz=113,slow=10,SNR=5.9						
STKA	Stephens Creek	35.21	247	P	P	22 01 24.9	+1.0
	2.4nm,0.9s,mb3.7,baz=99,slow=11,SNR=11						
ASAR	Alice Springs	42.38	260	P	P	22 02 22.2	+0.1
	3.0nm,0.7s,mb3.9,baz=104,slow=7.4,SNR=30						
WRA	Warramunga Arr	42.68	265	P	P	22 02 24.0	-0.5
	2.3nm,0.8s,mb3.7,baz=92,slow=8.4,SNR=18						
WRA				ScP		22 07 08.0	
	0.4nm,0.8s,baz=100,slow=3.6,SNR=5.4						
VNDA	Vanda	55.16	185	P	P	22 03 56.4	-0.3
	1.1nm,0.6s,mb3.3,baz=344,slow=6.9,SNR=8.6						
NVAR	Mina Array Bea	84.05	44	P	P	22 06 48.5	0.0
	0.6nm,0.7s,mb3.2,baz=236,slow=8.5,SNR=4.1						
TXAR	Lajitas Array	89.84	58	P	P	22 07 17.4	+1.3
	0.8nm,0.8s,mb3.6,baz=214,slow=6.6,SNR=8.4						
ILAR	Eielson Array	91.23	13	P	P	22 07 20.0	-1.6
	0.3nm,0.9s,mb3.2,baz=197,slow=5.2,SNR=4.3						
PDAR	Pinedale Array	91.99	44	P	P	22 07 25.6	0.0
	1.4nm,1.0s,mb3.9,baz=200,slow=1.0,SNR=6.8						
BVAR	Borovoye Array	120.00	319	PKP	PKPdf	22 13 03.2	+0.7
	0.3nm,0.3s,baz=97,slow=2.9,SNR=6.6						
FINES	FINESS Array B	137.78	342	PKP	PKPdf	22 13 37.3	+1.3
	3.1nm,1.1s,baz=56,slow=6.9,SNR=3.4						
NB2	NORSAR Subarra	141.35	351	PKPab	PKPdf	22 13 38.5	-3.7
	1.1nm,0.6s,baz=18,slow=4.5						
NOA	NORSAR Array B	141.35	351	PKhKP		22 13 37.3	
	0.9nm,0.7s,baz=7.7,slow=2.3,SNR=3.5						
AKASG	Malin Array Be	144.44	328	PKP	PKPdf	22 13 48.6	+0.8
	1.3nm,0.5s,baz=41,slow=4.1,SNR=20						

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*IDC **31** 21:56:44.8±1.6, 9.90N×92.43E, mb3.7/5, mb1 4.0/6, mb1mx3.7/18, mbtmp3.8/6, ML4.4/1, Error ellipse: s-maj=52.5km s-min=21.6km az=62.0*

ISC 31 21:56:48.5±1.1**, 9.9N**±0.1×**92.6E**±0.2**, h33**^{km}**, n12, σ0^{s}96**/12**, mb3.8**/5**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	10.48	35	Pn	P	21 59 19.8	+0.1
	0.9nm,0.3s,baz=226,slow=15,SNR=47						
PKI	Pulchoki	18.85	340	*e*P	P	22 01 09.0	+0.6
	7.1nm,0.4s						
DMN	Daman	18.99	339	*e*P	P	22 01 09.2	-0.9
	14nm,0.5s						
GUN	Gumba	19.01	341	*e*P	P	22 01 12.6	+2.3
	6.9nm,0.4s						
KKN	Kakani	19.09	340	*e*P	P	22 01 10.9	-0.4
	6.1nm,0.5s						
GKN	Gorkha	19.51	338	*e*P	P	22 01 16.1	+0.2
KOLN	Koldanda	19.70	336	*e*P	P	22 01 18.5	+0.5
	7.3nm,0.4s						
SONM	Songino Array	39.55	15	P	P	22 04 17.4	-0.7
	0.3nm,0.3s,mb3.5,baz=203,slow=7.9,SNR=7.4						
BVAR	Borovoye Array	46.60	342	P	P	22 05 12.6	-2.6
	0.2nm,0.4s,mb3.4,baz=146,slow=10,SNR=3.3						
WRA	Warramunga Arr	50.65	126	P	P	22 05 47.4	+0.4
	1.1nm,0.6s,mb4.0,baz=307,slow=8.5,SNR=24						
ASAR	Alice Springs	52.36	130	P	P	22 05 60.0	+0.1
	0.6nm,0.5s,mb3.8,baz=302,slow=7.0,SNR=12						
FINES	FINESS Array B	70.23	332	P	P	22 07 60.0	0.0
	2.8nm,1.0s,mb4.1,baz=130,slow=32,SNR=2.8						

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*IDC **31** 22:05:44.7±0.7, 12.31N×92.59E, mb4.2/13, mb1 4.3/14, mb1mx4.2/19, mbtmp4.2/14, ML4.0/1, Error ellipse: s-maj=32.6km s-min=13.7km az=55.0*

*BJI **31** 22:05:47.9, 12.50N×92.47E, h27^{km}, mb4.4*

*NEIC **31** 22:05:49.4±0.5, 12.44N×92.75E, h30^{km}, mb4.5/9, Error ellipse: s-maj=13.9km s-min=9.0km az=56.0*

ISC 31 22:05:48.0±0.5**, 12.39N**±0.06×**92.73E**±0.08**, h33**^{km}**, n40, σ0^{s}92**/40**, mb4.3**/20**, 1C-1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CM31	Chiang Mai Arr	8.50	44	*e*Pn	P	22 07 50.9	-0.8
	2.7nm,0.4s						
CMAR	Chiang Mai Arr	8.50	44	Pn	P	22 07 51.7	0.0
	0.5nm,0.3s,baz=237,slow=15,SNR=23						
KMI	Kunming	15.81	35	P	P	22 09 35.5	+5.6
KMI				AMB	AMB		
	comp=Z,9.0nm,0.8s						
PKI	Pulchoki	16.58	337	*e*P	P	22 09 38.7	-1.0
	comp=Z,36nm,0.9s						
GUN	Gumba	16.71	338	*e*P	P	22 09 39.9	-1.4
	comp=Z,23nm,0.7s						
DMN	Daman	16.74	336	*e*P	P	22 09 40.2	-1.4
	comp=Z,24nm,0.7s						
KKN	Kakani	16.83	337	*e*P	P	22 09 41.2	-1.6
	comp=Z,20nm,0.9s						
GKN	Gorkha	17.27	335	*e*P	P	22 09 47.9	-0.5
	comp=Z,20nm,0.4s						
LSA	Lhasa	17.28	355	*e*P	P	22 09 48.1	-0.3
	comp=Z,7.0nm,0.5s						
KOLN	Koldanda	17.52	332	*e*P	P	22 09 50.5	-1.0
	comp=Z,19nm,0.6s						
CD2	Chengdu	21.06	27	P	P	22 10 32.3	+0.6
ENH	Enshi	23.61	39	*e*P	P	22 10 56.6	-0.4
	comp=Z,8.0nm,0.6s,mb4.3						
GTA	Gaotai	27.63	12	P	P	22 11 36.3	+1.5
GTA				AP	pP	22 11 46.0	+1.8
GTA				PP	PP	22 12 19.8	-3.6
GTA				AMB	AMB		
	comp=Z,5.0nm,1.1s,mb4.1						
UCH	Uchtor	33.69	335	P	P	22 12 29.9	+1.7
	SNR=5.7						
KBK	Karagaybulak	33.87	336	P	P	22 12 31.4	+1.7
	SNR=5.1						
AML	Almayashu	33.95	334	P	P	22 12 32.1	+1.7
	SNR=6.8						
AAK	Ala-Archa	34.03	336	*e*P	P	22 12 31.0	-0.1
	comp=Z,7.3nm,1.0s,mb4.6						
EKS2	Erkin-Say	34.35	335	P	P	22 12 35.4	+1.5
	SNR=8.3						
USP	Ospenovka	34.56	336	P	P	22 12 36.7	+1.0
	SNR=13						
SONM	Songino Array	37.14	15	P	P	22 12 58.6	+1.2
	comp=Z,5.2nm,1.0s,mb4.3,baz=202,slow=8.0,SNR=28						
BVAR	Borovoye Array	44.29	341	P	P	22 13 56.5	+0.2
	comp=Z,2.0nm,0.6s,mb4.0,baz=140,slow=9.6,SNR=19						
FITZ	Fitzroy Crossi	44.42	132	⇓*i*P	P	22 13 57.7	-0.1
	comp=Z,19nm,0.5s,mb5.1						
GNI	Garni	50.34	312	P	P	22 14 43.9	0.0
	comp=Z,4.7nm,0.9s,mb4.5						
NWAO	Narrogin (SRO)	50.78	153	P	P	22 14 47.4	+0.1
	comp=Z,11nm,0.8s,mb4.9,baz=277,slow=8.1,SNR=8.4						
WRA	Warramunga Arr	52.06	128	P	P	22 14 56.6	-0.5
	comp=Z,4.0nm,0.5s,mb4.6,baz=300,slow=9.9,SNR=71						
WRA				PcP	PcP	22 16 09.4	+0.4
	comp=Z,0.8nm,0.5s,baz=318,slow=3.2,SNR=7.6						
WB2	Warramunga Arr	52.07	128	⇑*i*P	P	22 14 56.7	-0.5
KIV	Kislovodsk	53.08	316	*e*P	P	22 15 04.0	-0.4
	comp=Z,6.4nm,1.0s,mb4.5						
ASPA	Alice Springs	53.90	132	*e*P	P	22 15 10.4	-0.4
ASAR	Alice Springs	53.91	132	P	P	22 15 10.3	-0.5
	comp=Z,3.0nm,0.5s,mb4.5,baz=308,slow=6.8,SNR=72						
BRTR	Keskin Array B	58.48	309	P	P	22 15 42.3	-1.1
	comp=Z,0.5nm,0.8s,mb3.6,baz=270,slow=2.5,SNR=3.9						
AKASG	Malin Array Be	63.78	321	P	P	22 16 17.9	-1.1
	comp=Z,1.2nm,0.7s,mb4.0,baz=84,slow=5.7,SNR=8.5						
STKA	Stephens Creek	64.23	135	*e*P	P	22 16 22.5	+0.2
	comp=Z,2.3nm,0.6s,mb4.4						
STKA	Stephens Creek	64.23	135	P	P	22 16 22.1	-0.3
	comp=Z,2.4nm,0.6s,mb4.4,baz=323,slow=11,SNR=8.9						
FINES	FINESS Array B	68.09	332	P	P	22 16 46.5	+0.1
	comp=Z,1.4nm,0.6s,mb4.2,baz=114,slow=7.5,SNR=8.4						
ARCES	ARCESS Array B	70.57	340	P	P	22 17 01.8	+0.3
	comp=Z,4.3nm,1.0s,mb4.3,baz=104,slow=5.0,SNR=6.1						
GERES	GERESS Array B	73.56	317	P	P	22 17 20.5	+0.9
	comp=Z,1.0nm,0.7s,mb3.9,baz=90,slow=5.3,SNR=13						
NB2	NORSAR Subarra	75.14	330	P	P	22 17 28.1	-0.4
	comp=Z,1.5nm,0.7s,mb4.0,baz=91,slow=5.8						
NOA	NORSAR Array B	75.14	330	P	P	22 17 27.4	-1.0
	comp=Z,1.5nm,0.7s,mb4.0,baz=92,slow=5.9,SNR=4.7						
LPG	La Plagne	78.47	314	*e*P	P	22 17 48.7	+1.2
	comp=Z,6.7nm,0.8s,mb4.3						
ILAR	Eielson Array	91.10	22	P	P	22 18 50.8	+0.5
	comp=Z,0.4nm,0.7s,mb3.9,baz=299,slow=4.5,SNR=5.5						

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*IDC **31** 22:09:21.5±0.5, 9.51N×93.58E, mb4.7/22, mb1 4.7/22, mb1mx4.7/23, mbtmp4.6/22, MS4.5/13, Ms1 4.5/13, ms1mx4.5/17, Error ellipse: s-maj=25.7km s-min=13.1km az=53.0*

*MOS **31** 22:09:24.3±1.0, 9.43N×93.95E, h33^{km}, mb5.3/49, Error ellipse: s-maj=11.6km s-min=5.7km az=123.7*

*BJI **31** 22:09:25.8, 9.37N×93.71E, h51^{km}, mB5.5, mb4.9, Ms5.1, Msz4.8*

*NEIC **31** 22:09:27.4±1.6, 9.44N×93.90E, h44^{km}±14^{km}, mb5.1/70, Error ellipse: s-maj=9.0km s-min=6.3km az=45.0*

*HRVD **31** 22:09:27.4±0.2, 9.41N×94.06E, h20^{km}±1^{km}, MW5.2/62, Centroid moment Tensor Solution. LP body waves: s32,c52;Mantle waves: s62,c113; Half duration: 1^{s}0 Moment tensor: Scale 10^{17}Nm; M_{rr}-0.17±.03; $M_{\theta\theta}$-0.79±.03; $M_{\phi\phi}$0.96±.03; $M_{r\theta}$-0.10±.05; $M_{\theta\phi}$0.24±.02; $M_{\phi r}$-0.05±.05; Best double couple: M_0.92×10^{17} NP1: ϕ_s143°, δ82°, λ-177°. NP2: ϕ_s53°, δ87°, λ-8°. Principal axes: T .99, Plg3°, Azm98°; N -.16, Plg82°, Azm211°; P -.84, Plg8°, Azm8°; nsta1 refers to body waves, cutoff=40s. nsta2 refers to surface waves, cutoff=50s.*

ISC 31 22:09:21.8±1.4**, 9.40N**±0.04×**93.93E**±0.03**, h15**^{km}±8^{km}**, h21**^{km}±3.8^{km}**:pP-P, n259, σ1^{s}09**/259**, mb5.0**/97**, MS4.8**/19**, 10C-2D, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
SNG	Songkhla	6.98	108	P	Pn	22 11 02.5	-3.6
	380nm,0.9s						
NST	Nakhon Sawan	8.70	44	P	P	22 11 28.7	-1.3
	46nm,0.6s						
CM31	Chiang Mai Arr	10.24	28	*e*Pn	P	22 11 52.0	+0.6
	52nm,1.0s						
CMAR	Chiang Mai Arr	10.24	28	Pn	P	22 11 52.2	+0.8
	0.7nm,0.3s,baz=214,slow=14,SNR=20						
CMAR				LR	LR	22 16 00.9	
	comp=Z,4μm,18.2s,baz=205,slow=39						
KKTK	Khon Kaen	11.08	51	P	P	22 12 04.0	+1.1
CHRT	Chiangrai	11.85	28	⇑P	P	22 12 20.0	+6.6
	305nm,1.3s						
UBT	Ubonrachathani	12.30	61	P	P	22 12 21.5	+2.1
VIS	Vishakhapatnam	13.21	310	*e*P	P	22 12 29.3	-2.2
VIS				*e*		22 12 35.6	
	comp=Z,259nm,1.2s						
VIS				*e*S	S	22 14 45.9	-13
MDRS	Chennai	13.90	286	*e*	P	22 12 39.2	-1.7
MDRS				*e*		22 12 41.1	
	comp=Z,457nm,1.3s						
SHL	Shillong	16.20	353	*e*P	P	22 13 10.0	-0.7
SHL				*e*P		22 13 11.8	
SHL				*e*		22 13 18.2	
	comp=Z,155nm,1.1s						
KOD	Kodaikanal	16.24	274	⇑*e*P	P	22 13 11.1	-0.1
KOD				*e*		22 13 23.5	
	comp=Z,278nm,1.7s						
BOK	Bokaro	16.25	333	*e*P	P	22 13 10.2	-1.1
BOK				*e*		22 13 27.7	
	comp=Z,65nm,1.6s						
TRD	Trivandrum	16.78	268	*e*P	P	22 13 18.5	+0.3
TRD				*e*		22 13 26.9	
	comp=Z,87nm,1.8s						
TRD				*e*S	S	22 16 31.6	+8.2
HYB	Hyderabad	16.94	300	*e*P	P	22 13 20.0	0.0
HYB				*e*S	S	22 16 28.0	+1.2
HYB				pmax	pmax		
	comp=Z,214nm,1.2s						
HYB	Hyderabad	16.94	300	*e*P	P	22 13 20.0	0.0
	comp=Z,214nm,1.2s						
HYB				*e*S	S	22 16 28.0	+1.2
HYB	Hyderabad	16.94	300	*i* P	P	22 13 20.0	0.0
	comp=Z,214nm,1.2s						
HYB				*e*		22 13 26.0	
HYB				*e*S	S	22 16 28.0	+1.2
BLSP	Bilaspur	16.99	320	*e*P	P	22 13 20.9	+0.3
BLSP				*e*		22 13 26.5	
	comp=Z,111nm,1.1s						
KMI	Kunming	17.75	27	P	P	22 13 33.8	+3.7
KMI				AP		22 13 41.3	
KMI				XP		22 13 45.5	
KMI				PP	PP	22 13 50.5	+5.6
KMI				AMB	AMB		
	comp=Z,36nm,1.4s						
KMI				AMB	AMB		
	comp=Z,838nm,4.5s						
KMI				LR	LR		
	comp=N,2μm,16.2s						
KMI				LR	LR		
	comp=E,3μm,18.6s						
KMI				LR	LR		
	comp=Z,3μm,15.3s						
QIZ	Qiongzhong	18.14	56	P	P	22 13 40.0	+4.8
QIZ				S	S	22 17 01.5	+7.1
QIZ				LR	LR		
	comp=N,10μm,15.7s						
QIZ	Qiongzhong	18.14	56	P	P	22 13 36.2	+1.1
	comp=N,153nm,1.4s						
NGP	Nagpur	18.49	311	⇑*e*P	P	22 13 42.1	+2.7
	comp=N,82nm,0.8s						
MNGI	Mangalore	19.07	282	⇑*e*P	P	22 13 46.7	+0.3
LATR	Latur	19.08	300	*e*P	P	22 13 45.0	-1.5
PKI	Pulchoki	19.79	337	*e*P	P	22 13 54.7	+0.2
	comp=N,465nm,1.2s						
AKL	Akola	19.80	307	*e*P	P	22 13 55.7	+1.0
GUN	Gumba	19.92	339	*e*P	P	22 13 55.4	-0.6
	comp=N,571nm,0.9s						
DMN	Daman	19.94	336	*e*P	P	22 13 55.5	-0.7
	comp=N,277nm,0.9s						
KKN	Kakani	20.03	337	*e*P	P	22 13 56.2	-1.0
	comp=N,377nm,1.0s						
LSA	Lhasa	20.37	353	*e*P	P	22 14 00.0	-0.7
LSA				pmax	pmax		
	comp=Z,49nm,0.6s						
LSA	Lhasa	20.37	353	*e*P	P	22 14 00.0	-0.7
	comp=Z,49nm,0.6s						
GKN	Gorkha	20.47	336	*e*P	P	22 14 01.7	-0.1
	comp=Z,386nm,1.0s						
GOA	Goa	20.53	289	⇑*e*	P	22 14 08.4	+5.9
	comp=Z,242nm,0.6s						
GOA				*e*S	S	22 17 54.0	+7.4
KOLN	Koldanda	20.71	333	*e*P	P	22 14 03.8	-0.4
	comp=Z,382nm,1.1s						
KAD	Karad	20.74	294	*e*P	P	22 14 07.3	+2.7
KAD				*e*		22 14 11.8	
	comp=Z,328nm,1.6s						
POO	Poona	21.47	297	*e*P	P	22 14 14.4	+2.3
POO				*e*		22 14 23.3	
	comp=Z,148nm,1.6s						
BOM	Bombay	22.52	297	*e*P	P	22 14 27.4	+4.8
BOM				*e*S	S	22 18 32.6	+8.4
PTH	Pithoragarh	23.81	329	*e*S	S	22 18 52.1	+5.3
AJM	Ajmer	24.94	315	⇑*e*P	P	22 14 49.3	+3.2
ENH	Enshi	25.35	33	*e*P	P	22 14 48.7	-1.2
	comp=Z,38nm,1.0s,mb4.9						
DDI	Dehra Dun	25.55	327	*e*P	P	22 14 52.5	+0.6
DDI				*e*S	S	22 19 20.9	+4.6
SDNR	Sundarnagar	27.05	327	*e*P	P	22 15 08.8	+3.1
LZH	Lanzhou	28.06	17	⇓P	P	22 15 15.3	+0.5
LZH				PP	PP	22 16 05.0	0.0
LZH				S	S	22 19 57.0	-0.2
LZH				SS	SS	22 21 21.0	+1.3
LZH				AMB	AMB		
	comp=Z,40nm,1.2s,mb4.9						
LZH				AMB	AMB		
	comp=Z,166nm,4.3s						
LZH				LR	LR		
	comp=E,2μm,15.2s						
LZH				LR	LR		
	comp=Z,2μm,16.6s,MS4.9						
THN	Thein Dam	28.45	326	*e*P	P	22 15 18.2	-0.1
	comp=Z,38nm,1.6s,mb4.8						
GTA	Gaotai	30.35	9	P	P	22 15 34.8	-0.4
GTA				PCP	PcP	22 18 38.8	+3.4
GTA				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.5						
GTA				AMB	AMB		
	comp=Z,223nm,5.7s						
GTA				LR	LR		
	comp=N,590nm,15.6s,MS4.4						
GTA				LR	LR		
	comp=E,629nm,20.2s,MS4.4						
GTA				LR	LR		
	comp=Z,741nm,19.4s,MS4.3						
NJ2	Nanjing	32.27	42	*e*P	P	22 15 55.5	+3.3
NJ2				AMB	AMB		
	comp=Z,40nm,0.9s,mb5.2						
NJ2				AMB	AMB		
	comp=Z,910nm,4.2s						
NJ2				LR	LR		
	comp=N,4μm,13.8s,MS5.4						
NJ2				LR	LR		
	comp=E,4μm,10.8s,MS5.4						
NJ2				LR	LR		
	comp=Z,3μm,16.0s						
KSH	Kashi	34.01	335	P	P	22 16 09.5	+2.2
KSH				*e*AP	pP	22 16 15.3	+3.6
KSH				PP	PP	22 17 20.5	-0.8
KSH				*e*PPP	PPP	22 17 40.3	+1.0
KSH				*e*PCP	PcP	22 18 47.5	+2.2
KSH				S	S	22 21 31.0	+0.1
KSH				*e*PCS		22 22 32.3	
KSH				AMB	AMB		
	comp=Z,190nm,2.5s,mb5.6						
KSH				LR	LR		
	comp=N,590nm,5.9s						
KSH				LR	LR		
	comp=E,810nm,8.7s						
BTO	Baotou	34.21	22	*e*P	P	22 16 07.5	-1.5
BTO				LR	LR		
	comp=N,378nm,7.8s						
BTO				LR	LR		
	comp=E,894nm,11.4s						
WMQ	Urumqi	34.72	352	*e*P	P	22 16 12.0	-1.3
WMQ				AMB	AMB		
	comp=Z,15nm,0.9s,mb4.9						
HHC	Hu-ho-hao-te	35.01	24	*e*P	P	22 16 16.0	+0.2
HHC				XP	sP	22 16 30.8	+8.6
HHC				PP	PP	22 17 33.3	-1.0
HHC				PCP	PcP	22 18 48.8	+0.6
HHC				S	S	22 21 44.3	-2.0
HHC				PCS		22 22 34.0	
HHC				AMB	AMB		
	comp=Z,14nm,1.0s,mb4.8						
HHC				AMB	AMB		
	comp=Z,207nm,3.1s						
HHC				LR	LR		
	comp=N,1μm,14.3s,MS4.8						
HHC				LR	LR		
	comp=E,1μm,16.6s,MS4.8						
HHC				LR	LR		
	comp=Z,2μm,19.0s,MS4.8						
ULHL	Ulahol	36.23	338	P	P	22 16 25.8	-0.4
	SNR=5.9						
BJT	Baijiatuau	36.36	29	*e*P	P	22 16 28.3	+1.0
BJT				pmax	pmax		
	comp=Z,34nm,1.2s						
BJT	Baijiatuau	36.36	29	*e*P	P	22 16 28.3	+1.0
	comp=Z,34nm,1.2s,mb5.2						
BJI	Beijing	36.38	29	*e*P	P	22 16 28.5	+1.0
BJI				S	S	22 22 10.8	+3.3
BJI				AMB	AMB		
	comp=Z,12nm,0.9s,mb4.8						
BJI				LR	LR		
	comp=N,910nm,21.3s,MS4.8						
BJI				LR	LR		
	comp=E,2μm,21.7s,MS4.8						
BJI				LR	LR		
	comp=Z,747nm,25.0s,MS4.4						
KZA	Kyzart	36.47	336	P	P	22 16 28.6	+0.4
	SNR=9.5						
UCH	Uchtor	36.89	336	P	P	22 16 32.0	+0.3
	SNR=25						
TKM2	Tokmak 2	37.05	337	P	P	22 16 33.1	+0.1
	SNR=6.3						
KBK	Karagaybulak	37.07	337	P	P	22 16 34.0	+0.7
	SNR=30						
AML	Almayashu	37.14	335	P	P	22 16 34.7	+0.9
	SNR=42						
AAK	Ala-Archa	37.23	336	P	P	22 16 34.8	+0.2
	SNR=28						
AAK	Ala-Archa	37.23	336	*e*P	P	22 16 33.3	-1.3
AAK				pmax	pmax		
	comp=Z,29nm,0.9s,mb5.1						
AAK	Ala-Archa	37.23	336	*e*P	P	22 16 33.3	-1.3
	comp=Z,29nm,0.9s,mb5.1						
FRU	Bishkek	37.35	336	*e*P	P	22 16 36.5	+0.9
FRU				pmax	pmax		
	comp=Z,70nm,2.0s,mb5.1						
CHMS	Chumysh	37.44	337	P	P	22 16 36.2	-0.1
	SNR=25						
EKS2	Erkin-Say	37.55	335	P	P	22 16 37.7	+0.5
	SNR=44						
USP	Ospenovka	37.77	337	P	P	22 16 39.0	0.0
	SNR=37						
SONM	Songino Array	39.74	13	P	P	22 16 55.5	+0.1
	comp=Z,6.1nm,1.0s,mb4.3,baz=196,slow=5.7,SNR=18						
SONM				PcP	PcP	22 19 02.5	0.0
	comp=Z,4.3nm,0.8s,baz=209,slow=2.9,SNR=6.3						
SONM				LR	LR	22 35 12.3	
	comp=Z,1μm,18.0s,MS4.8,baz=189,slow=39						
ULN	Ulaanbaatar	39.92	14	*e*P	P	22 16 56.2	-0.8
ULN				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.3						
ULN	Ulaanbaatar	39.92	14	*e*P	P	22 16 56.2	-0.7
	comp=Z,6.0nm,0.9s,mb4.3						
ZAK	Zakamensk	41.59	9	*e*P	P	22 17 09.7	-1.0
ZAK				*e*		22 18 54.7	
MOY	Mondy	42.54	7	*e*P	P	22 17 21.7	+3.2
HIA	Hailar	45.22	24	*e*P	P	22 17 39.9	-0.2
HIA				pmax	pmax		
	comp=Z,20nm,0.9s						
HIA	Hailar	45.22	24	*e*P	P	22 17 39.9	-0.2
	comp=Z,20nm,0.9s,mb4.9						
NVS	Novosibirsk	46.12	351	*e*P	P	22 17 45.6	-1.6
NVS				*e*		22 19 28.3	
NVS				pmax	pmax		
	comp=Z,27nm,1.6s,mb4.9						
NVS				pmax	pmax		
	comp=N,31nm,1.7s						
NVS				pmax	pmax		
	comp=E,17nm,1.7s						
MUN	Mundaring	46.33	154	*e*P	P	22 17 51.1	+1.9
	comp=E,18nm,0.9s,mb5.0						
MUN	Mundaring	46.33	154	*e*P	P	22 17 51.1	+1.9
MUN				pmax	pmax		
	comp=Z,18nm,0.9s,mb5.0						
KLBR	Kellerberrin	46.71	152	*e*P	P	22 17 52.6	+0.4
	comp=Z,32nm,1.0s,mb5.2						
BVAR	Borovoye Array	47.49	341	P	P	22 17 56.5	-1.6
	comp=Z,3.5nm,0.7s,mb4.4,baz=135,slow=8.4,SNR=24						
BVAR				PcP	PcP	22 19 28.4	-0.3
	comp=Z,9.3nm,1.0s,baz=197,slow=2.5,SNR=5.3						
NWAO	Narrogin (SRO)	47.59	153	*e*P	P	22 17 59.5	+0.3
NWAO				pmax	pmax		
	comp=Z,16nm,0.9s						
NWAO	Narrogin (SRO)	47.59	153	P	P	22 18 00.3	+1.1
	comp=Z,11nm,0.6s,mb5.1,baz=309,slow=11,SNR=13						
NWAO				LR	LR	22 37 14.0	
	comp=Z,5.6nm,18.9s,baz=41,slow=35						
NWAO	Narrogin (SRO)	47.59	153	*e*P	P	22 17 59.5	+0.4
	comp=Z,16nm,0.9s,mb5.0						
WRA	Warramunga Arr	49.32	126	P	P	22 18 11.4	-1.3
	comp=Z,12nm,0.8s,mb5.0,baz=302,slow=8.9,SNR=33						
WRA				PcP	PcP	22 19 37.4	+1.7
	comp=Z,3.4nm,0.7s,baz=314,slow=3.0,SNR=7.0						
WRAB	Tennant Creek	49.33	126	*e*P	P	22 18 12.1	-0.6
WRAB				pmax	pmax		
	comp=Z,65nm,0.9s,mb5.7						
WRAB	Tennant Creek	49.33	126	*e*P	P	22 18 12.1	-0.6
	comp=Z,65nm,0.9s,mb5.7						
WB2	Warramunga Arr	49.33	126	*e*P	P	22 18 11.5	-1.3
BOD	Bodaibo	50.73	14	*e*P	P	22 18 21.4	-1.5

ASPA	**Alice Springs**	**51.05**	**131**	*e*P	**P**	**22 18 25.2**	**-0.7**
ASAR	**Alice Springs**	**51.06**	**131**	P	**P**	**22 18 24.9**	**-1.0**
	comp=Z,8.5nm,0.8s,mb4.7,baz=311,slow=7.2,SNR=24						
ASAR				PcP	PcP	22 19 43.1	+1.1
	comp=Z,4.0nm,0.7s,baz=314,slow=3.8,SNR=7.3						
ASAR				PKPPKP		22 49 05.9	
	comp=Z,0.4nm,0.9s,baz=117,slow=2.0,SNR=4.1						
GNI	**Garni**	**53.23**	**314**	*e*P	**P**	**22 18 41.9**	**-0.2**
GNI				pmax	pmax		
	comp=Z,35nm,1.3s						
GNI	**Garni**	**53.23**	**314**	P	**P**	**22 18 40.4**	**-1.7**
	comp=Z,6.1nm,0.6s,mb4.7,baz=154,slow=1.8,SNR=14						
GNI	**Garni**	**53.23**	**314**	*e*P	**P**	**22 18 41.9**	**-0.2**
	comp=Z,35nm,1.3s,mb5.1						
TI2	**Plekhanov**	**53.81**	**315**	*e*P	**P**	**22 18 45.8**	**-0.5**
ARU	**Arti**	**54.41**	**337**	*e*P	**P**	**22 18 49.8**	**-0.7**
ARU	**Arti**	**54.41**	**337**	*e*P	**P**	**22 18 49.6**	**-0.9**
	comp=Z,21nm,1.1s,mb5.0						
ZEI	**Tsey**	**54.79**	**316**	*e*P	**P**	**22 18 55.1**	**+1.6**
ZEI				*i* *PP	pP	22 19 05.1	+7.0
ZEI				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
YSS	**Yuzh-Sakhalins**	**55.73**	**39**	*e*P	**P**	**22 19 06.2**	**+6.0**
YSS				*e*		22 19 13.2	
YSS				*e*S	**S**	**22 26 50.0**	**+5.7**
YSS				pmax	pmax		
	comp=Z,50nm,1.2s,mb5.4						
YSS				MLR	MLR		
	comp=N,500nm,13.0s,MS5.1						
YSS				MLR	MLR		
	comp=Z,1µm,13.0s,MS5.1						
YSS				MLR	MLR		
	comp=E,900nm,14.0s,MS5.1						
YSS	**Yuzh-Sakhalins**	**55.73**	**39**	*e*P	**P**	**22 19 01.3**	**+1.1**
	comp=E,26nm,0.9s,mb5.3						
KIV	**Kislovodsk**	**56.06**	**317**	P	**P**	**22 19 01.5**	**-1.1**
	comp=E,132nm,1.0s,mb5.9,SNR=12						
KIV	**Kislovodsk**	**56.06**	**317**	*e*P	**P**	**22 19 00.4**	**-2.2**
KIV				*e*		22 19 18.7	
KIV				pmax	pmax		
	comp=Z,38nm,1.3s,mb5.3						
KIV	**Kislovodsk**	**56.06**	**317**	*e*P	**P**	**22 19 01.2**	**-1.4**
	comp=Z,18nm,0.8s,mb5.2						
PMG	**Port Moresby**	**56.19**	**108**	*e*P	**P**	**22 19 04.4**	**+0.5**
PMG				pmax	pmax		
	comp=Z,44nm,0.9s						
PMG	**Port Moresby**	**56.19**	**108**	P	**P**	**22 19 06.3**	**+2.3**
	comp=Z,44nm,0.9s,mb5.5,baz=270,slow=17,SNR=3.8						
PMG				LR	LR	22 44 29.9	
	comp=Z,329nm,21.9s,MS4.4,baz=274,slow=37						
PMG	**Port Moresby**	**56.19**	**108**	*e*P	**P**	**22 19 04.4**	**+0.5**
	comp=Z,44nm,0.9s,mb5.5						
GOF	**Gofitskoye**	**56.25**	**319**⇑	*i*P	**P**	**22 19 05.0**	**+1.1**
GOF				pmax	pmax		
	comp=Z,35nm,1.4s,mb5.2						
ASF	**Jabal al Asfar**	**57.22**	**302**	LR	LR	22 47 20.8	
	comp=Z,713nm,18.3s,MS4.8,baz=122,slow=40						
SOKR	**Solikamsk**	**57.31**	**339**⇑	*i*P	**P**	**22 19 12.3**	**+1.0**
SOKR				pmax	pmax		
	comp=Z,20nm,1.0s,mb5.1						
SOKR				MLR	MLR		
	comp=Z,670nm,21.0s,MS4.7						
MALT	**Malatya**	**57.33**	**310**	*e*P	**P**	**22 19 10.4**	**-1.4**
MALT				pmax	pmax		
	comp=Z,7.0nm,1.3s,mb4.5						
MALT	**Malatya**	**57.33**	**310**	*e*P	**P**	**22 19 10.4**	**-1.4**
	comp=Z,7.2nm,1.3s,mb4.5						
KMBO	**Kilima Mbogo**	**57.39**	**263**	*e*P	**P**	**22 19 12.8**	**+0.3**
KMBO				pmax	pmax		
	comp=Z,17nm,1.2s						
KMBO	**Kilima Mbogo**	**57.39**	**263**	P	**P**	**22 19 13.4**	**+0.9**
	comp=Z,3.9nm,1.1s,mb4.4,baz=60,slow=7.8,SNR=5.1						
KMBO				LR	LR	22 40 00.4	
	comp=Z,957nm,21.6s,MS4.9,baz=95,slow=32						
KMBO	**Kilima Mbogo**	**57.39**	**263**	*e*P	**P**	**22 19 12.8**	**+0.3**
	comp=Z,17nm,1.2s,mb5.0						
SOC	**Sochi**	**57.94**	**316**	*e*P	**P**	**22 19 19.9**	**+3.9**
SOC				pmax	pmax		
	comp=Z,23nm,1.1s,mb5.1						
SOC				pmax	pmax		
	comp=N,11nm,1.0s						
SOC				pmax	pmax		
	comp=E,17nm,1.0s						
EIL	**Elat**	**58.50**	**299**	*e*P	**P**	**22 19 18.1**	**-2.0**
	comp=E,18nm,1.3s,mb5.0						
YAK	**Yakutsk**	**58.63**	**19**	P	**P**	**22 19 19.6**	**-0.9**
YAK				pmax	pmax		
	comp=Z,13nm,0.5s,mb5.2						
YAK	**Yakutsk**	**58.63**	**19**	P	**P**	**22 19 19.6**	**-0.9**
	comp=Z,13nm,0.5s,mb5.2						
CTA	**Charters Tower**	**59.24**	**120**	*e*P	**P**	**22 19 30.8**	**+5.5**
	comp=Z,20nm,1.1s,mb5.1						
CTA	**Charters Tower**	**59.24**	**120**	*e*P	**P**	**22 19 30.8**	**+5.5**
CTA				pmax	pmax		
	comp=Z,20nm,1.1s						
CTA	**Charters Tower**	**59.24**	**120**	P	**P**	**22 19 28.6**	**+3.3**
	comp=Z,18nm,1.0s,mb5.1,baz=301,slow=8.8,SNR=7.7						
CTA				LR	LR	22 45 27.7	
	comp=Z,804nm,21.6s,MS4.8,baz=134,slow=36						
CTAO	**Charters Tower**	**59.24**	**120**	P	**P**	**22 19 23.5**	**-1.8**
CTAO				pmax	pmax		
	comp=Z,105nm,1.5s,mb5.7						
CTAO	**Charters Tower**	**59.24**	**120**	P	**P**	**22 19 23.5**	**-1.8**
	comp=Z,105nm,1.5s,mb5.6						
VRSR	**Storozhevoye**	**61.03**	**324**	*e*P	**P**	**22 19 37.5**	**+0.4**
VRSR				pmax	pmax		
	comp=N,8.0nm,1.0s						
VRSR				pmax	pmax		
	comp=E,10.0nm,1.0s						
VRSR				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.8						
BRTR	**Keskin Array B**	**61.28**	**310**	P	**P**	**22 19 36.2**	**-2.9**
	comp=Z,5.6nm,0.7s,mb4.8,baz=140,slow=6.6,SNR=26						
STKA	**Stephens Creek**	**61.31**	**134**	*e*P	**P**	**22 19 40.3**	**+1.0**
	comp=Z,5.9nm,0.8s,mb4.8						
STKA	**Stephens Creek**	**61.31**	**134**	P	**P**	**22 19 41.1**	**+1.8**
	comp=Z,7.3nm,0.8s,mb4.9,baz=302,slow=3.6,SNR=6.6						
ISP	**Isparta**	**63.34**	**308**	*e*P	**P**	**22 19 52.9**	**+0.1**
ISP				pmax	pmax		
	comp=Z,5.0nm,0.7s,mb4.8						
ISP	**Isparta**	**63.34**	**308**	*e*P	**P**	**22 19 52.9**	**+0.1**
	comp=Z,4.7nm,0.7s,mb4.7						
MBAR	**Mbarara**	**63.68**	**265**	*e*P	**P**	**22 19 56.0**	**+0.5**
MBAR				pmax	pmax		
	comp=Z,24nm,1.3s,mb5.1						
MBAR	**Mbarara**	**63.68**	**265**	*e*P	**P**	**22 19 56.0**	**+0.5**
	comp=Z,24nm,1.3s,mb5.1						
OBN	**Obninsk**	**63.99**	**327**⇓	*i*P	**P**	**22 19 56.0**	**-0.8**
OBN				*i*		22 20 37.6	
OBN				*e*		22 22 21.1	
OBN				*e*S	**S**	**22 28 35.8**	**+5.1**
OBN				pmax	pmax		
	comp=Z,41nm,1.3s,mb5.3						
OBN	**Obninsk**	**63.99**	**327**	*e*P	**P**	**22 19 55.7**	**-1.1**
	comp=Z,47nm,1.3s,mb5.4						
MA2	**Magadan**	**65.53**	**28**	*e*P	**P**	**22 20 06.8**	**+0.1**
MA2				pmax	pmax		
	comp=Z,18µm,0.9s						
MA2	**Magadan**	**65.53**	**28**	*e*P	**P**	**22 20 06.8**	**+0.2**
	comp=Z,18nm,0.9s,mb5.1						
TIXI	**Tiksi**	**65.79**	**11**⇑	*i*P	**P**	**22 20 06.4**	**-1.8**
TIXI				pmax	pmax		
	comp=Z,26nm,1.0s,mb5.2						
TIXI				MLR	MLR		
	comp=Z,349nm,15.0s,MS4.7						
KIS	**Kishinev**	**66.26**	**317**	*e*P	**P**	**22 20 12.0**	**+0.4**
KIS				*e*		22 20 24.0	
AKASG	**Malin Array Be**	**66.84**	**321**	P	**P**	**22 20 12.2**	**-3.0**
	comp=Z,3.6nm,0.8s,mb4.5,baz=86,slow=5.1,SNR=20						
AKASG				PP	PP	22 22 43.0	-1.3
	comp=Z,2.0nm,1.0s,baz=91,slow=6.7,SNR=5.0						
MNK	**Minsk**	**68.59**	**325**	*e*P	**P**	**22 20 26.0**	**-0.1**
LSZ	**Lusaka**	**69.58**	**250**	*e*P	**P**	**22 20 32.5**	**-0.4**
LSZ				pmax	pmax		
	comp=Z,4.0nm,0.8s,mb4.4						
LSZ	**Lusaka**	**69.58**	**250**	*e*P	**P**	**22 20 32.5**	**-0.4**
	comp=Z,4.3nm,0.8s,mb4.4						
LVZ	**Lovozero**	**70.07**	**340**	*e*P	**P**	**22 20 33.8**	**-1.2**
APA	**Apatity**	**70.36**	**339**⇑	*i*P	**P**	**22 20 42.8**	**+6.1**
APA				pmax	pmax		
	comp=Z,39nm,1.0s,mb5.3						
KOLS	**Kolonicke sedl**	**70.93**	**319**	*e*P	**P**	**22 20 40.1**	**-0.4**
FINES	**FINESS Array B**	**71.28**	**332**	P	**P**	**22 20 41.0**	**-1.4**
	comp=Z,3.0nm,0.8s,mb4.3,baz=96,slow=5.4,SNR=23						
FINES				LR	LR	22 57 59.1	
	comp=Z,453nm,20.0s,MS4.7,baz=301,slow=41						
KAF	**Kangasniemi**	**71.35**	**333**	*e*p	**P**	**22 20 40.4**	**-2.4**
	comp=Z,11nm,0.9s,mb4.8						
KAF	**Kangasniemi**	**71.35**	**333**	*e*P	**P**	**22 20 40.4**	**-2.4**
KAF				pmax	pmax		
	comp=Z,11nm,0.9s,mb4.8						
CRVS	**Cervenica-Dubn**	**71.45**	**318**	*i* P	**P**	**22 20 43.0**	**-0.7**
NIE	**Niedzica**	**72.26**	**319**	*e*P	**P**	**22 20 48.0**	**-0.5**
PSZ	**Piszkesteto**	**72.39**	**317**	*e*P	**P**	**22 20 50.2**	**+1.0**
OJC	**Ojcow**	**72.68**	**320**	*e*P	**P**	**22 20 50.4**	**-0.6**
VYHS	**Vyhne**	**73.14**	**318**	*i* P	**P**	**22 20 54.9**	**+1.2**
KEV	**Kevo**	**73.34**	**340**	*e*p	**P**	**22 20 54.0**	**-0.4**
SRO2	**Moca**	**73.38**	**317**	*e*P	**P**	**22 20 54.9**	**-0.2**
SRO	**Srobarova**	**73.44**	**317**	*i* P	**P**	**22 20 55.8**	**+0.4**
OKC	**Ostrava-Krasne**	**73.71**	**319**	*e*P	**P**	**22 20 57.2**	**+0.3**
ARCES	**ARCESS Array B**	**73.77**	**340**	P	**P**	**22 20 56.7**	**-0.2**
	comp=Z,4.7nm,0.7s,mb4.5,baz=90,slow=4.9,SNR=13						
ARCES				LR	LR	22 56 17.0	
	comp=Z,908nm,18.5s,MS5.1,baz=356,slow=38						
MORC	**Moravsky Berou**	**74.09**	**319**	*e*P	**P**	**22 20 58.3**	**-0.9**
MORC				pmax	pmax		
	comp=Z,16nm,1.0s,mb4.9						
MORC	**Moravsky Berou**	**74.09**	**319**	*e*P	**P**	**22 20 58.3**	**-0.9**
	comp=Z,16nm,1.0s,mb4.9						
ZST	**Bratislava**	**74.27**	**317**	*i* P	**P**	**22 21 00.4**	**+0.1**
VRAC	**Vranov**	**74.68**	**319**	P	**P**	**22 21 02.3**	**-0.2**
	comp=Z,2.4nm,0.8s,mb4.2,baz=86,slow=7.6,SNR=6.5						
BILL	**Bilibino**	**74.76**	**22**	P	**P**	**22 21 01.4**	**-1.3**
LBTB	**Lobatse**	**74.79**	**241**	*e*P	**P**	**22 21 03.5**	**-0.2**
LBTB				pmax	pmax		
	comp=Z,10.0nm,0.8s,mb4.8						
LBTB	**Lobatse**	**74.79**	**241**	*e*P	**P**	**22 21 03.5**	**-0.3**
	comp=Z,10.0nm,0.8s,mb4.8						
DPC	**Dobruska-Polom**	**74.92**	**320**	*e*P	**P**	**22 21 03.3**	**-0.6**
KSP	**Ksiaz**	**74.96**	**320**	*e*P	**P**	**22 21 03.3**	**-0.9**
KSP				*e*	pP	22 21 10.0	+1.1
KSP				*e*		22 21 37.0	
UPC	**Upice**	**75.12**	**320**	*e*P	**P**	**22 21 05.0**	**-0.1**
PERS	**Pernice**	**75.55**	**316**	*e*P	**P**	**22 21 06.8**	**-0.9**
LJU	**Ljubljana**	**75.95**	**315**	*e*P	**P**	**22 21 10.2**	**+0.3**
PRU	**Pruhonice**	**76.04**	**319**	*e*P	**P**	**22 21 10.1**	**-0.3**
BSD	**Bornholm Skovb**	**76.06**	**324**	*i* P	**P**	**22 21 09.4**	**-1.0**
BSD				*i*		22 21 17.0	
BSD				pmax	pmax		
	comp=Z,6.0nm,0.7s,mb4.6						
BSD	**Bornholm Skovb**	**76.06**	**324**	*i* P	**P**	**22 21 09.4**	**-1.0**
	comp=Z,6.4nm,0.7s,mb4.7						
BSD				*i*		22 21 17.0	
BOSA	**Boshof**	**76.21**	**237**	*e*P	**P**	**22 21 11.5**	**-0.3**
BOSA				pmax	pmax		
	comp=Z,19nm,1.1s,mb4.9						
BOSA	**Boshof**	**76.21**	**237**	*e*P	**P**	**22 21 11.5**	**-0.3**
	comp=Z,19nm,1.1s,mb4.9						
BRG	**Berggiesshubel**	**76.45**	**320**	*e*P	**P**	**22 21 10.8**	**-1.9**
BRG				*e*		22 21 20.1	
BRG				pmax	pmax		
	comp=Z,24nm,1.1s,mb5.0						
BRG	**Berggiesshubel**	**76.45**	**320**	*e*P	**P**	**22 21 10.8**	**-1.9**
	comp=Z,24nm,1.1s,mb5.0						
BRG				*e*		22 21 20.1	
GEC2	**GERESS Array S**	**76.56**	**318**	*e*P	**P**	**22 21 12.6**	**-0.7**
GEC2				pmax	pmax		
	comp=Z,9.0nm,0.8s,mb4.8						
GEC2	**GERESS Array S**	**76.56**	**318**	*e*P	**P**	**22 21 12.6**	**-0.7**
	comp=Z,9.0nm,0.8s,mb4.8						
GERES	**GERESS Array B**	**76.56**	**318**	P	**P**	**22 21 12.5**	**-0.8**
	comp=Z,5.6nm,0.6s,mb4.7,baz=96,slow=5.6,SNR=26						
GERES				LR	LR	23 00 30.0	
	comp=Z,190nm,18.6s,MS4.4,baz=298,slow=40						
RUE	**Ruedersdorf**	**76.61**	**322**	*e*P	**P**	**22 21 12.8**	**-0.7**
	comp=Z,60nm,1.0s,mb5.5						
KHC	**Kasperske Hory**	**76.65**	**318**	*e*P	**P**	**22 21 12.3**	**-1.5**
HFS	**Hagfors**	**77.04**	**330**	P	**P**	**22 21 14.6**	**-1.1**
	comp=Z,3.3nm,0.5s,mb4.6,baz=108,slow=4.7,SNR=22						
CLL	**Collm**	**77.06**	**321**	*e*P	**P**	**22 21 17.0**	**+1.0**
CLL				pmax	pmax		
	comp=Z,26nm,1.4s,mb5.0						
CLL	**Collm**	**77.06**	**321**	*e*P	**P**	**22 21 17.0**	**+1.0**
	comp=Z,26nm,1.4s,mb5.0						
CLL	**Collm**	**77.06**	**321**	P	**P**	**22 21 17.0**	**+1.0**
	comp=Z,logA/T=1.3,mb5.0						
CLL				*e*	pP	22 21 21.0	+0.2
CLL				*e*		22 21 46.0	
WET	**Wettzell**	**77.11**	**318**	*e*P	**P**	**22 21 16.3**	**0.0**
NKC	**Novy Kostel**	**77.39**	**319**	*e*P	**P**	**22 21 23.5**	**+5.6**
MOX	**Moxa**	**77.93**	**320**	*e*P	**P**	**22 21 20.5**	**-0.3**
MOX				pmax	pmax		
	comp=Z,18nm,1.3s,mb4.8						
MOX	**Moxa**	**77.93**	**320**	*i* P	**P**	**22 21 20.5**	**-0.3**
	comp=Z,logA/T=1.1,mb4.8						
MOX	**Moxa**	**77.93**	**320**	*e*P	**P**	**22 21 20.5**	**-0.3**
	comp=Z,18nm,1.3s,mb4.8						
FUR	**Furstenfeldbru**	**78.17**	**317**	*e*P	**P**	**22 21 23.3**	**+1.1**
GRA1	**Grafenberg Arr**	**78.19**	**319**	*e*P	**P**	**22 21 23.2**	**+0.9**
	comp=Z,17nm,1.0s,mb4.9						
GRF	**Grafenberg Arr**	**78.19**	**319**	*e*P	**P**	**22 21 23.2**	**+0.9**
GRF				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
GRF	**Grafenberg Arr**	**78.19**	**319**	*e*P	**P**	**22 21 23.2**	**+0.9**
GRF				pmax	pmax		
	comp=Z,17nm,1.0s,mb4.9						
GRF	**Grafenberg Arr**	**78.19**	**319**	*e*P	**P**	**22 21 23.2**	**+0.9**
	comp=Z,17nm,1.0s,mb4.9						
NB2	**NORSAR Subarra**	**78.31**	**330**	P	**P**	**22 21 21.5**	**-1.2**
	comp=Z,17nm,0.9s,mb5.0,baz=92,slow=5.6						
NB2	**NORSAR Subarra**	**78.31**	**330**	P	**P**	**22 21 21.5**	**-1.2**
	baz=92,slow=5.9						
NB2	**NORSAR Subarra**	**78.31**	**330**	P	**P**	**22 21 21.5**	**-1.2**
NB2				pmax	pmax		
	comp=Z,17nm,0.9s,mb5.0						
NOA	**NORSAR Array B**	**78.31**	**330**	P	**P**	**22 21 21.6**	**-1.0**
	comp=Z,4.2nm,0.7s,mb4.5,baz=92,slow=5.6,SNR=11						
NOA				LR	LR	22 57 23.3	
	comp=Z,268nm,21.8s,MS4.5,baz=90,slow=37						
NAO01	**NORSAR Array S**	**78.47**	**330**	*e*P	**P**	**22 21 23.4**	**-0.1**
	comp=Z,16nm,0.9s,mb5.0						
CLZ	**Clausthal**	**78.70**	**321**	*e*P	**P**	**22 21 25.0**	**0.0**
	comp=Z,16nm,0.9s,mb5.0						
DAVOX	**Davos**	**79.15**	**316**	P	**P**	**22 21 25.9**	**-1.7**
	comp=Z,7.0nm,0.5s,mb4.8,baz=150,slow=4.6,SNR=19						
MUD	**Monsted U'grnd**	**79.34**	**326**	*i* P	**P**	**22 21 30.6**	**+2.2**
MUD				pmax	pmax		
	comp=Z,48nm,1.0s,mb5.4						
MUD	**Monsted U'grnd**	**79.34**	**326**	*i* P	**P**	**22 21 30.6**	**+2.2**
	comp=Z,48nm,1.0s,mb5.4						
STU	**Stuttgart**	**79.54**	**318**	*e*P	**P**	**22 21 29.9**	**+0.2**
STU				pmax	pmax		
	comp=Z,14nm,0.8s,mb4.9						
STU	**Stuttgart**	**79.54**	**318**	*e*P	**P**	**22 21 29.9**	**+0.2**
	comp=Z,14nm,0.8s,mb5.0						
MAW	**Mawson**	**79.97**	**192**	P	**P**	**22 21 31.2**	**-0.4**
MAW				pmax	pmax		
	comp=Z,29nm,1.2s						
MAW	**Mawson**	**79.97**	**192**	P	**P**	**22 21 31.9**	**+0.2**
	comp=Z,9.3nm,1.0s,mb4.7,baz=292,slow=20,SNR=5.1						
MAW	**Mawson**	**79.97**	**192**	P	**P**	**22 21 31.2**	**-0.4**
	comp=Z,29nm,1.2s,mb5.1						
BFO	**Black Forest**	**80.13**	**318**	*e*P	**P**	**22 21 34.5**	**+1.6**
BFO				pmax	pmax		
	comp=Z,9.0nm,1.0s,mb4.7						
BFO	**Black Forest**	**80.13**	**318**	*e*P	**P**	**22 21 34.5**	**+1.6**
	comp=Z,9.0nm,1.0s,mb4.7						
SUR	**Sutherland**	**81.02**	**235**	*e*P	**P**	**22 21 38.3**	**+0.4**
	comp=Z,31nm,0.9s,mb5.2						
LPG	**La Plagne**	**81.40**	**315**	*e*P	**P**	**22 21 38.6**	**-1.0**
	comp=Z,48nm,0.8s,mb5.2						
LPG	**La Plagne**	**81.40**	**315**	*e*P	**P**	**22 21 38.6**	**-1.0**
LPG				pmax	pmax		
	comp=Z,24nm,0.8s,mb5.2						
WLF	**Walferdange**	**81.48**	**319**	P	**P**	**22 21 38.7**	**-1.2**
WLF				pmax	pmax		
	comp=Z,22nm,1.2s,mb5.0						
WLF	**Walferdange**	**81.48**	**319**	P	**P**	**22 21 38.7**	**-1.2**
	comp=Z,22nm,1.2s,mb5.0						
BNI	**Bardonecchia**	**81.49**	**314**	*e*P	**P**	**22 21 40.9**	**+0.8**
BNI				pmax	pmax		
	comp=Z,29nm,1.0s,mb5.2						
BNI	**Bardonecchia**	**81.49**	**314**	*e*P	**P**	**22 21 40.9**	**+0.8**
	comp=Z,29nm,1.0s,mb5.2						
EMIR	**Miracle**	**85.58**	**312**	P	**P**	**22 22 02.2**	**+1.2**
	comp=Z,12nm,0.8s,mb5.2						
EKA	**Eskdalemuir Ar**	**86.36**	**325**	P	**P**	**22 22 04.0**	**-0.6**
	comp=Z,11nm,0.9s,mb5.1,baz=96,slow=5.3,SNR=13						
DLF	**Lyons Farm**	**88.73**	**324**	*e*P	**P**	**22 22 22.0**	**+6.0**
DCN	**Croghan**	**89.15**	**324**	*e*P	**P**	**22 22 22.4**	**+4.4**
EVIA	**Vianos**	**89.18**	**309**	P	**P**	**22 22 17.9**	**-0.6**
EVIA				pmax	pmax		
	comp=Z,11nm,0.9s,mb5.2						
EVIA	**Vianos**	**89.18**	**309**	P	**P**	**22 22 17.9**	**-0.6**
	comp=Z,11nm,0.9s,mb5.2						
EQES	**Quesada**	**89.78**	**308**	P	**P**	**22 22 21.2**	**-0.3**
	comp=Z,7.0nm,0.8s,mb5.0						
EBER	**Berja**	**89.82**	**307**	P	**P**	**22 22 18.5**	**-3.1**
	comp=Z,20nm,0.9s,mb5.4						
GUD	**Guadarrama**	**90.02**	**311**	P	**P**	**22 22 22.0**	**-0.4**
GUD				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
GUD	**Guadarrama**	**90.02**	**311**	P	**P**	**22 22 22.0**	**-0.4**
	comp=Z,6.1nm,0.8s,mb5.0						
ESDC	**Sonseca Array**	**90.08**	**310**	P	**P**	**22 22 22.4**	**-0.3**
	comp=Z,0.7nm,0.5s,mb4.3,baz=58,slow=4.4,SNR=11						
ESDC	**Sonseca Array**	**90.08**	**310**	P	**P**	**22 22 21.9**	**-0.9**
	comp=Z,9.8nm,1.0s,mb5.1						
EBAN	**Banos Encina**	**90.26**	**309**	P	**P**	**22 22 21.1**	**-2.5**
EBAN				pmax	pmax		
	comp=Z,31nm,1.9s,mb5.3						
EBAN	**Banos Encina**	**90.26**	**309**	P	**P**	**22 22 21.1**	**-2.6**
	comp=Z,31nm,1.9s,mb5.3						
IMA	**Indian Mountai**	**90.30**	**22**	*e*P	**P**	**22 22 23.9**	**+0.8**
IMA				pmax	pmax		
	comp=Z,64nm,1.2s,mb5.8						
IMA	**Indian Mountai**	**90.30**	**22**	*e*P	**P**	**22 22 23.9**	**+0.8**
	comp=Z,64nm,1.2s,mb5.8						
ELUQ	**Luque**	**90.76**	**308**	P	**P**	**22 22 24.0**	**-1.9**
ELUQ				pmax	pmax		
	comp=Z,6.0nm,0.9s,mb4.9						
ELUQ	**Luque**	**90.76**	**308**	P	**P**	**22 22 24.0**	**-1.9**
	comp=Z,6.1nm,0.9s,mb4.9						
EADA	**Adamuz**	**90.87**	**309**	P	**P**	**22 22 24.4**	**-2.0**
	comp=Z,16nm,1.2s,mb5.2						
EMIJ	**Mijas**	**91.37**	**307**	P	**P**	**22 22 25.6**	**-3.2**
	comp=Z,22nm,1.6s,mb5.2						
EPON	**Pontenova**	**91.57**	**314**	P	**P**	**22 22 30.2**	**+0.7**
	comp=Z,53nm,1.5s,mb5.6						
ECAL	**Calabor**	**91.62**	**313**	P	**P**	**22 22 32.9**	**+3.1**
	comp=Z,13nm,1.1s,mb5.2						
ERUA	**La Rua**	**91.80**	**313**	P	**P**	**22 22 34.9**	**+4.3**
ERUA				pmax	pmax		
	comp=Z,6.0nm,0.8s,mb5.0						
ERUA	**La Rua**	**91.80**	**313**	P	**P**	**22 22 34.9**	**+4.3**
	comp=Z,5.6nm,0.8s,mb5.0						
ESPR	**Espera**	**92.15**	**308**	P	**P**	**22 22 33.2**	**+0.8**
	comp=Z,6.7nm,0.9s,mb5.0						
EMIN	**Mina Concepcio**	**92.57**	**309**	P	**P**	**22 22 34.4**	**+0.2**
	comp=Z,5.5nm,0.8s,mb5.0						
ELOB	**Lobios**	**92.59**	**313**	P	**P**	**22 22 38.9**	**+4.6**
	comp=Z,49nm,1.9s,mb5.6						
EBAD	**Badajoz**	**92.60**	**310**	P	**P**	**22 22 34.1**	**-0.2**
	comp=Z,5.7nm,0.9s,mb5.0						
ILAR	**Eielson Array**	**93.42**	**22**	P	**P**	**22 22 37.7**	**+0.2**
	comp=Z,2.0nm,0.8s,mb4.6,baz=311,slow=4.4,SNR=9.5						
ILAR				PKKPbc		22 39 51.8	
	comp=Z,0.3nm,0.5s,baz=136,slow=1.9,SNR=4.2						
ILAR				LR	LR	23 08 43.8	
	comp=Z,218nm,18.4s,MS4.7,baz=326,slow=38						
INK	**Inuvik**	**95.60**	**16**	P	**P**	**22 22 47.6**	**+0.1**
	comp=Z,2.8nm,0.7s,mb4.8,baz=304,slow=4.9,SNR=12						
DBIC	**Dimbokro**	**97.52**	**278**	P	**P**	**22 22 58.2**	**+0.8**
	comp=Z,2.6nm,0.9s,mb4.8,baz=147,slow=2.1,SNR=3.2						
DBIC				LR	LR	23 04 53.6	
	comp=Z,240nm,19.6s,MS4.7,baz=60,slow=34						
YKA	**Yellowknife Ar**	**105.00**	**13**	Pdiff	Pdif	22 23 32.5	+2.7
	comp=Z,0.5nm,0.9s,baz=328,slow=4.5,SNR=7.6						
YKA				PP	PP	22 27 48.0	-5.3
	comp=Z,0.8nm,1.1s,baz=326,slow=3.0,SNR=3.7						
YKA				PKKPbc		22 39 16.7	
	comp=Z,1.4nm,1.2s,baz=151,slow=2.4,SNR=4.9						
LOHW	**Long Hollow**	**122.72**	**21**	*e*PKPdf	PKPdf	22 28 19.4	-1.6
LOHW				*e*pPKPdf		22 28 26.2	
NVAR	**Mina Array Bea**	**123.72**	**30**	PKP	PKPdf	22 28 22.4	-0.9
	comp=Z,1.4nm,0.8s,baz=18,slow=0.9,SNR=6.1						
PDAR	**Pinedale Array**	**123.83**	**21**	PKP	PKPdf	22 28 20.9	-2.5
	comp=Z,2.2nm,0.8s,slow=1.5,SNR=7.9						
ANMO	**Albuquerque**	**131.86**	**23**	PKP	PKPdf	22 28 38.6	-0.3
	comp=Z,1.8nm,0.8s,baz=356,slow=3.6,SNR=4.3						
TXAR	**Lajitas Array**	**137.93**	**23**	PKhKP		22 28 39.2	
	comp=Z,0.2nm,0.4s,baz=225,slow=1.8,SNR=3.5						
TXAR				PKP	PKPdf	22 28 48.7	-1.6
	comp=Z,0.6nm,0.7s,baz=262,slow=1.2,SNR=6.1						
BAO	**Brasilia Array**	**142.35**	**257**	P	PKPdf	22 28 57.2	-1.3
BDFB	**Brasilia**	**142.37**	**257**	PKP	PKPdf	22 28 58.7	+0.1
	comp=Z,3.0nm,0.5s,baz=168,slow=5.6,SNR=7.5						
TRQA	**Tornquist**	**144.16**	**213**	*e*PKPdf	PKPdf	22 28 59.7	-1.3
SDV	**Santo Domingo**	**156.20**	**319**	*e*PKPdf	PKPdf	22 29 19.7	-0.4
SDV				*e*PKPab	PKPab	22 29 46.3	-0.7
LPAZ	**La Paz**	**161.22**	**247**	*e*PKIKP	PKPdf	22 29 23.7	-2.3
LPAZ	**La Paz**	**161.22**	**247**	PKP	PKPdf	22 29 27.0	+1.0
	comp=Z,4.5nm,1.1s,baz=70,slow=4.4,SNR=5.8						
LPAZ				PKPab	PKPab	22 30 07.5	-1.0
	comp=Z,1.5nm,0.5s,baz=62,slow=9.3,SNR=3.8						
ROSC	**El Rosal**	**161.63**	**320**	PKP	PKPdf	22 29 27.7	+1.2
	comp=Z,3.9nm,0.5s,baz=95,slow=23,SNR=3.7						
ROSC				PKPab	PKPab	22 30 08.9	-1.5
	comp=Z,2.5nm,0.3s,baz=104,slow=21,SNR=2.4						
OTAV	**Otavalo**	**167.78**	**321**	*e*PKPdf	PKPdf	22 29 27.8	-4.2

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*IDC **31** 22:13:04.8±9.2, 32.70S×69.98W, h67^{km}±69^{km}, mb3.7/5, mb1 3.9/6, mb1mx3.7/12, mbtmp3.9/6, ML4.6/1, Error ellipse: s-maj=71.0km s-min=30.1km az=15.0*

*NEIC **31** 22:13:09.0, 32.48S×70.19W, h110^{km}, mb4.6/2, After GUC.*

*GUC **31** 22:13:09.0±0.8, 32.48S×70.19W, h110^{km}±3^{km}, ML4.4*

ISC 31 22:13:08.7±0.4**, 32.48S**±0.02×**70.17W**±0.08**, h113**^{km}±4^{km}**, n43,** σ0^{s}71/65**, mb3.8**/6**, 15C-8D, Chile-Argentina border region**

Code	Station Name	Δ°	AZ°	Phase ID Op	ISC	Time h m s	Res ISC
JACH	**Jahuel**	**0.41**	**241**⇑	*i*P	**P**	**22 13 25.4**	**-0.1**
JACH				*i* S	**S**	**22 13 38.0**	**-0.1**
PTCH	**Petorca**	**0.68**	**288**⇑	*i*P	**P**	**22 13 27.4**	**+0.1**
PTCH				*i* S	**S**	**22 13 41.5**	**0.0**
PTCH				AMP		22 13 42.9	
	comp=E,35µm,0.3s						
PEL	**Peldehue**	**0.80**	**213**⇓	*i*P	**P**	**22 13 28.3**	**-0.1**
PEL				*i* S	**S**	**22 13 42.8**	**-0.4**
PEL				AMP		22 13 43.8	
	comp=N,27µm,0.4s						
FCH	**Farellones**	**0.85**	**187**⇑	*i*P	**P**	**22 13 29.3**	**+0.4**
FCH				*i* S	**S**	**22 13 44.9**	**+0.7**
FCH				AMP		22 13 45.9	
	comp=E,8µm,0.1s						
CLCH	**Cerro Calan**	**0.97**	**199**⇑	*i*P	**P**	**22 13 30.2**	**+0.1**
CLCH				*i* S	**S**	**22 13 46.0**	**-0.1**
CLCH				AMP		22 13 48.1	
	comp=E,15µm,0.6s						
CLCH				AMP		22 13 48.7	
	comp=E,18µm,0.5s						
DSCH	**Colegio Aleman**	**0.98**	**200**⇓	*i*P	**P**	**22 13 30.3**	**+0.1**
DSCH				*i* S	**S**	**22 13 46.6**	**+0.3**
DSCH				AMP		22 13 48.2	
	comp=E,12µm,0.4s						
STL	**Santa Lucia**	**1.04**	**203**⇑	*i*P	**P**	**22 13 30.9**	**+0.1**
STL				*i* S	**S**	**22 13 47.7**	**+0.3**
STL				AMP		22 13 48.3	
	comp=E,4µm,0.3s						
FSR	**Penalolen**	**1.04**	**197**	*i* P	**P**	**22 13 31.0**	**+0.1**
FSR				*i* S	**S**	**22 13 47.6**	**+0.1**
FSR				AMP		22 13 50.1	
	comp=E,9µm,0.5s						
SAN	**Santiago**	**1.06**	**203**	*i* P	**P**	**22 13 31.0**	**0.0**
SAN				*i* S	**S**	**22 13 47.9**	**+0.1**
SAN				AMP		22 13 48.9	
	comp=E,8µm,0.4s						
PACH	**Papudo**	**1.08**	**267**	*e*P	**P**	**22 13 31.1**	**-0.2**
PACH				*i* S	**S**	**22 13 47.4**	**-0.7**
PACH	**Papudo**	**1.08**	**267**⇑	*i*P	**P**	**22 13 31.1**	**-0.2**
PACH				*e*P		22 13 31.1	
PACH				*i* S	**S**	**22 13 47.4**	**-0.7**
PUEX	**Pudahuel**	**1.08**	**207**⇓	*i*P	**P**	**22 13 32.4**	**+1.1**
PUEX				*i* S	**S**	**22 13 49.6**	**+1.4**
PUEX				AMP		22 13 50.9	
	comp=E,24µm,0.5s						
RCDM	**Rinconada Maip**	**1.14**	**208**	*i* P	**P**	**22 13 32.0**	**0.0**
RCDM				*i* S	**S**	**22 13 49.3**	**-0.2**
RCDM				AMP		22 13 50.7	
	comp=E,10µm,0.5s						
ANTU	**Antumapu**	**1.16**	**200**	*e*P	**P**	**22 13 32.1**	**-0.1**
ANTU				*i* S	**S**	**22 13 49.8**	**+0.1**
ANTU				AMP		22 13 51.4	

	comp=E,8μm,0.5s						
SJCH	**San Jose de Ma**	**1.17**	**188**	*i* P	**P**	**22 13 32.2**	**-0.1**
SJCH				*i* S	**S**	**22 13 50.3**	**+0.3**
SJCH				AMP		22 13 51.4	
	comp=N,3μm,0.6s						
PCH	**Pirque**	**1.18**	**194**	⇑*i*P	**P**	**22 13 32.7**	**+0.3**
PCH				*i* S	**S**	**22 13 50.2**	**+0.1**
ILCH	**Illapel**	**1.20**	**314**	*i* P	**P**	**22 13 32.6**	**-0.1**
ILCH				*i* S	**S**	**22 13 50.2**	**-0.3**
ILCH				AMP		22 13 51.8	
	comp=E,6μm,0.2s						
TACH	**Talagante**	**1.34**	**209**	⇓*i*P	**P**	**22 13 34.1**	**-0.2**
TACH				*i* S	**S**	**22 13 53.4**	**-0.1**
IHA	**Instituto Hidr**	**1.36**	**246**	⇑*i*P	**P**	**22 13 33.9**	**-0.6**
LMEL	**Las Melosas**	**1.37**	**181**	*i* P	**P**	**22 13 35.0**	**+0.4**
LMEL				*i* S	**S**	**22 13 54.6**	**+0.6**
LMEL				AMP		22 14 02.0	
	comp=N,3μm,0.1s						
CMCH	**Combarbala**	**1.48**	**331**	⇑*i*P	**P**	**22 13 36.2**	**+0.3**
CMCH				*i* S	**S**	**22 13 56.5**	**+0.1**
CMCH				AMP		22 13 58.6	
	comp=E,11μm,0.6s						
CHCH	**Chadas Angostu**	**1.51**	**196**	⇓*i*P	**P**	**22 13 36.4**	**+0.2**
CHCH				*i* S	**S**	**22 13 56.6**	**-0.3**
LCCH	**Las Cruces**	**1.54**	**230**	⇓*i*P	**P**	**22 13 36.6**	**0.0**
LCCH				*i* S	**S**	**22 13 57.5**	**-0.2**
CACH	**El Canelo**	**1.68**	**192**	⇑*i*P	**P**	**22 13 39.0**	**+0.8**
LNV	**Longovilo**	**1.81**	**215**	⇑*i*P	**P**	**22 13 39.1**	**-0.7**
SFDO	**San Fernando**	**2.25**	**198**	⇓*i*P	**P**	**22 13 45.1**	**-0.4**
SFDO				*i* S	**S**	**22 14 12.8**	**-0.4**
TLL	**Tololo Astrono**	**2.37**	**346**	⇓*i*P	**P**	**22 13 47.7**	**+0.5**
TLL				*i* S	**S**	**22 14 17.1**	**+1.0**
TLL				AMP		22 14 25.2	
	comp=E,778nm,0.4s						
TALC	**Talca**	**3.16**	**202**	⇑*i*P	**P**	**22 13 56.5**	**-1.4**
TALC				*i* S	**S**	**22 14 33.2**	**-1.9**
VACH	**Vallenar**	**3.92**	**352**	*i* S	**S**	**22 14 52.6**	**-1.0**
TRQA	**Tornquist**	**8.70**	**132**	*e*Pn	**P**	**22 15 10.0**	**-3.0**
	comp=E,4.5nm,0.5s						
LVC	**Limon Verde**	**9.89**	**7**	P	**P**	**22 15 27.7**	**-1.3**
	comp=E,0.5nm,0.3s,baz=175,slow=7.6,SNR=5.7						
LVC	**Limon Verde**	**9.89**	**7**	*e*Pn	**P**	**22 15 27.8**	**-1.2**
BDFB	**Brasilia**	**26.18**	**55**	P	**P**	**22 18 32.4**	**-2.1**
	comp=E,2.4nm,0.9s,mb3.6,baz=233,slow=7.7,SNR=4.3						
VNA1	**Neumayer--Stat**	**50.47**	**158**	⇑*i*	**P**	**22 22 11.1**	**+15**
VNA2	**Neumayer--Watz**	**50.81**	**158**	⇑*i*	**P**	**22 22 04.4**	**+5.3**
QSPA	**South Pole Qui**	**57.76**	**180**	⇑*i*P	**P**	**22 22 50.5**	**+0.9**
	comp=E,5.0nm,0.7s,mb4.7						
TXAR	**Lajitas Array**	**69.21**	**329**	P	**P**	**22 24 06.2**	**+0.9**
	comp=E,0.4nm,0.5s,mb3.5,baz=153,slow=8.8,SNR=9.1						
DBIC	**Dimbokro**	**73.20**	**71**	P	**P**	**22 24 28.7**	**-0.7**
	comp=E,3.4nm,0.9s,mb4.2,baz=232,slow=9.9,SNR=4.7						
PDAR	**Pinedale Array**	**83.14**	**332**	P	**P**	**22 25 24.3**	**+1.1**
	comp=E,0.5nm,0.7s,mb3.5,baz=135,slow=6.3,SNR=4.8						
NVAR	**Mina Array Bea**	**83.56**	**324**	P	**P**	**22 25 27.3**	**+2.0**
	comp=E,0.6nm,0.6s,mb3.6,baz=182,slow=4.6,SNR=6.1						
AKASG	**Malin Array Be**	**120.01**	**46**	PKP	PKPdf	22 31 45.9	+0.2
	comp=E,0.2nm,0.3s,baz=250,slow=2.5,SNR=4.9						
WRA	**Warramunga Arr**	**122.84**	**208**	PKP	PKPdf	22 31 53.2	+1.4
	comp=E,0.5nm,0.4s,baz=158,slow=1.7,SNR=8.4						
BVAR	**Borovoye Array**	**145.10**	**42**	PKPbc	PKPbc	22 32 34.6	+2.1
	comp=E,2.4nm,0.5s,baz=278,slow=2.2,SNR=12						

IDC 31 22:22:27.8±1.5**, 2.59N**×**95.54E, mb4.2**/6**, mb1 4.3**/7**, mb1mx4.0**/18**, mbtmp4.2**/7**, ML4.4**/1**, Error ellipse: s-maj=65.7km s-min=21.0km az=56.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**16.12**	**12**	Pn	P	22 26 17.9	+0.4
	0.5nm,0.3s,baz=198,slow=11,SNR=27						
PKI	**Pulchoki**	**26.67**	**340**	*e*P	P	22 27 55.3	-15
	20nm,0.5s						
DMN	**Daman**	**26.81**	**339**	*e*P	P	22 27 57.8	-14
	18nm,0.5s						
GUN	**Gumba**	**26.82**	**341**	*e*P	P	22 27 58.0	-14
	51nm,0.7s						
KKN	**Kakani**	**26.91**	**340**	*e*P	P	22 27 58.6	-14
	12nm,0.5s						
GKN	**Gorkha**	**27.34**	**339**	*e*P	P	22 28 04.1	-12
	12nm,0.3s						
KOLN	**Koldanda**	**27.52**	**337**	*e*P	P	22 28 06.2	-12
	26nm,0.7s						
WRA	**Warramunga Arr**	**44.17**	**122**	P	P	22 30 38.4	-2.0
	2.2nm,0.8s,baz=301,slow=9.0,SNR=8.5						
ASAR	**Alice Springs**	**45.55**	**127**	P	P	22 30 49.8	-1.6
	0.7nm,0.6s,baz=300,slow=7.9,SNR=7.6						
SONM	**Songino Array**	**46.04**	**10**	P	P	22 30 52.7	-2.3
	2.2nm,0.5s,baz=190,slow=8.9,SNR=31						
SONM				PcP	PcP	22 32 30.3	-1.7
	1.3nm,0.6s,baz=188,slow=3.8,SNR=6.9						
BVAR	**Borovoye Array**	**54.41**	**342**	P	P	22 31 56.6	-2.2
	3.4nm,0.6s,baz=146,slow=11,SNR=18						
ARCES	**ARCESS Array B**	**80.68**	**340**	P	P	22 34 42.1	-1.8
	3.3nm,0.9s,baz=108,slow=5.7,SNR=6.0						
HFS	**Hagfors**	**83.70**	**330**	P	P	22 34 58.4	-1.3
	1.6nm,0.9s,baz=117,slow=6.6,SNR=4.7						

IDC 31 22:22:27.1±0.9**, 5.19N**×**93.31E, mb4.1**/8**, mb1 4.3**/9**, mb1mx4.0**/19**, mbtmp4.0**/9**, ML3.5**/1**, Error ellipse: s-maj=47.0km s-min=17.5km az=53.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.29**	**22**	Pn	P	22 25 51.7	-1.4
	0.1nm,0.3s,baz=223,slow=14,SNR=13						
SONM	**Songino Array**	**43.95**	**13**	P	P	22 30 35.4	-2.2
	0.5nm,0.6s,baz=197,slow=7.9,SNR=7.4						
SONM				PcP	PcP	22 32 22.3	-1.8
	0.6nm,0.6s,baz=195,slow=3.2,SNR=2.5						
WRA	**Warramunga Arr**	**47.44**	**123**	P	P	22 31 03.7	-2.1
	8.6nm,0.7s,baz=301,slow=9.1,SNR=24						
ASAR	**Alice Springs**	**48.89**	**128**	P	P	22 31 14.8	-2.2
	2.3nm,0.8s,baz=305,slow=7.7,SNR=10						
ASAR				PcP	PcP	22 32 39.9	-2.0
	0.8nm,0.6s,baz=314,slow=3.8,SNR=4.9						
BVAR	**Borovoye Array**	**51.27**	**342**	P	P	22 31 32.9	-1.8
	0.7nm,0.6s,baz=240,slow=39,SNR=3.6						
STKA	**Stephens Creek**	**58.90**	**132**	P	P	22 32 28.3	-2.2
	1.1nm,0.7s,baz=308,slow=7.0,SNR=4.6						
MLR	**Muntele Rosu**	**70.52**	**316**	P	P	22 33 43.4	-2.4
	3.0nm,0.7s,baz=138,slow=8.2,SNR=5.8						
FINES	**FINESS Array B**	**74.69**	**333**	P	P	22 34 08.2	-2.0
	1.3nm,0.7s,baz=90,slow=7.6,SNR=5.0						
GERES	**GERESS Array B**	**79.27**	**319**	P	P	22 34 35.3	-0.7
	0.5nm,0.7s,baz=90,slow=5.3,SNR=6.3						

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*PRU **31** 22:23:34.3, 51.44N×16.09E*

*IDC **31** 22:23:34.5±1.1, 51.40N×16.19E, mb1 3.1/4, mb1mx3.1/17, mbtmp3.0/4, ML2.7/4, Error ellipse: s-maj=17.5km s-min=9.3km az=126.0*

*NEIC **31** 22:23:35.2±1.2, 51.38N×15.97E, h5^{km}, ML2.9(VIE), ML2.3(BRG), Error ellipse: s-maj=15.5km s-min=7.9km az=220.0*

WAR 31 22:23:34.4, 51.45N×16.09E, h1^{km}, ML2.9, 2C, Mining Induced, Poland

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
KSP	**Ksiaz**	**0.62**	**168**	*e*PG	Pg	22 23 46.0	-0.9
KSP				*i* SG	Sg	22 23 54.4	-0.8
KSP	**Ksiaz**	**0.62**	**168**	*e*Pg	Pg	22 23 45.8	-1.1
KSP				*i* Sg	Sg	22 23 54.4	-0.8
KSP	**Ksiaz**	**0.62**	**168**	*e*Pg	Pg	22 23 46.0	-0.9
KSP				*e*Sg	Sg	22 23 54.0	-1.2
UPC	**Upice**	**0.95**	**183**	*e*PG	Pg	22 23 51.8	-1.5
DPC	**Dobruska-Polom**	**1.11**	**172**	*e*PG	Pg	22 23 54.6	-2.0
DPC				*e*SG	Sg	22 24 08.8	-2.7
PVCC	**Panska Ves**	**1.33**	**227**	*e*PG	Pg	22 23 59.4	-1.6
BRG	**Berggiesshubel**	**1.47**	**248**	*e*Pn	Pn	22 24 00.1	-2.0
BRG				*i* Sg	Sg	22 24 21.2	-2.1
RUE	**Ruedersdorf**	**1.76**	**307**	*e*Pn	Pn	22 24 06.9	+0.7
RUE				*e*Sn	Sn	22 24 29.9	+0.3
PRU	**Pruhonice**	**1.77**	**214**	*e*Pg	Pg	22 24 06.2	-3.4
PRU	**Pruhonice**	**1.77**	**214**	*e*PN	Pn	22 24 04.5	-1.8
PRU				*e*PG	Pg	22 24 06.2	-3.4
PRU				*i* x	x	22 24 10.1	
PRU				*i* x	x	22 24 22.6	
PRU				SG	Sg	22 24 28.4	-4.8
	12nm,0.4s						
RAC	**Raciborz**	**1.92**	**135**	*e*P	Pn	22 24 10.0	+1.5
RAC				*e*S	Sn	22 24 35.0	+1.4
MORC	**Moravsky Berou**	**1.92**	**150**	*e*Pn	Pn	22 24 06.3	-2.2
MORC				*e*Sg	Sg	22 24 36.0	-2.3
CLL	**Collm**	**1.94**	**267**	*e*PN	Pn	22 24 06.0	-2.8
CLL				*e*PG	Pg	22 24 10.0	-3.1
CLL				*i* SG	Sg	22 24 36.8	-2.1
OKC	**Ostrava-Krasne**	**2.08**	**140**	*e*PG	Pg	22 24 12.5	-3.5
OKC				*e*SG	Sg	22 24 38.9	-4.8
VRAC	**Vranov**	**2.17**	**171**	Pn	Pn	22 24 11.3	-0.9
	0.9nm,0.3s,baz=340,slow=16,SNR=19						
VRAC				Lg		22 24 44.1	
	1.7nm,0.3s,baz=85,slow=22,SNR=5.5						
NKC	**Novy Kostel**	**2.61**	**244**	*e*PN	Pn	22 24 16.6	-1.8
NKC				*e*PG	Pg	22 24 22.7	-3.8
NKC				*e*SG	Sg	22 24 57.5	-3.8
OJC	**Ojcow**	**2.66**	**116**	*e*Pg	Pg	22 24 24.2	-3.3
OJC				*e*Sg	Sg	22 25 00.7	-2.2
KHC	**Kasperske Hory**	**2.83**	**216**	*e*PN	Pn	22 24 19.8	-1.7
KHC				*e*PG	Pg	22 24 25.8	-5.0
KHC				*e*SN	Sn	22 24 54.9	-1.8
KHC				*e*SG	Sg	22 25 04.1	-4.4
GERES	**GERESS Array B**	**3.03**	**211**	Pn	Pn	22 24 23.4	-1.0
	0.5nm,0.3s,baz=25,slow=13,SNR=21						
GERES				Pg	Pg	22 24 29.4	-5.4
	2.2nm,0.3s,baz=31,slow=17,SNR=55						
GERES				Lg		22 25 08.2	
	1.5nm,0.3s,baz=33,slow=27,SNR=5.8						
SMOL	**Smolenice**	**3.07**	**163**	*e*PG	Pg	22 24 32.7	-2.9
SMOL				*e*SG	Sg	22 25 10.3	-6.2
NIE	**Niedzica**	**3.38**	**125**	*e*P	Pg	22 24 41.9	0.0
NIE				*e*S	Sg	22 25 24.5	-2.5
VYHS	**Vyhne**	**3.45**	**148**	*e*PG	Pg	22 24 38.7	-4.6
VYHS				*e*SG	Sg	22 25 25.6	-3.8
MOA	**Molln**	**3.80**	**199**	⇑*i*PN	Pn	22 24 33.8	-1.5
MOA				*i* SG	Sg	22 25 37.1	-3.7
	5.1nm,0.4s						
ARSA	**Arzberg**	**4.22**	**185**	⇑*i*PN	Pn	22 24 40.5	-0.9
ARSA				*i* SG	Sg	22 25 48.2	-6.8
	7.0nm,0.6s						
AKASG	**Malin Array Be**	**8.31**	**90**	Pn	P	22 25 30.7	-8.2
	0.2nm,0.3s,baz=278,slow=12,SNR=2.9						
FINES	**FINESS Array B**	**11.42**	**25**	Pn	P	22 26 15.0	-6.6
	0.1nm,0.3s,baz=207,slow=12,SNR=6.2						

IDC 31 22:27:15.0±5.5**, 5.90N**×**92.23E, mb3.6**/3**, mb1 3.8**/4**, mb1mx3.5**/17**, mbtmp3.5**/4**, ML3.7**/1**, Error ellipse: s-maj=159.0km s-min=29.5km az=75.0, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**14.09**	**27**	Pn	P	22 30 36.2	-2.1
	0.1nm,0.3s,baz=232,slow=14,SNR=10.0						
SONM	**Songino Array**	**43.51**	**14**	P	P	22 35 20.2	-1.7
	0.4nm,0.7s,baz=198,slow=9.1,SNR=4.1						
WRA	**Warramunga Arr**	**48.73**	**123**	P	P	22 36 02.5	-1.1
	0.8nm,0.6s,baz=302,slow=9.0,SNR=7.1						
ASAR	**Alice Springs**	**50.17**	**127**	P	P	22 36 11.8	-2.9
	0.9nm,0.8s,baz=303,slow=8.0,SNR=5.4						

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*IDC **31** 22:30:22.7±1.4, 14.42N×93.44E, mb3.6/4, mb1 3.8/5, mb1mx3.5/17, mbtmp3.6/5, ML3.8/1, Error ellipse: s-maj=33.8km s-min=24.9km az=52.0*

ISC 31 22:30:25.7±1.1**, 14.5N**±0.1×**93.4E**±0.1**, h33^{km}, n6, σ0^{s}77**/9**, mb3.6**/4**, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
NST	**Nakhon Sawan**	**6.59**	**78**	PN	**Pn**	**22 32 02.3**	**-0.6**
	42nm,0.6s						
NST				PG	**P**	**22 32 20.0**	**+17**
NST				SG	**Sn**	**22 33 31.3**	**+14**
CMAR	**Chiang Mai Arr**	**6.62**	**52**	Pn	**Pn**	**22 32 03.6**	**+0.2**
	0.5nm,0.3s,baz=238,slow=15,SNR=12						
CMAR				Sn	**Sn**	**22 33 19.1**	**+0.5**
	0.3nm,0.3s,baz=239,slow=28,SNR=4.8						
SONM	**Songino Array**	**34.99**	**15**	P	**P**	**22 37 15.7**	**-1.2**
	1.0nm,1.1s,mb3.7,baz=194,slow=5.9,SNR=3.9						
ASAR	**Alice Springs**	**54.78**	**133**	P	**P**	**22 39 55.1**	**+0.3**
	0.2nm,0.4s,mb3.5,baz=308,slow=6.8,SNR=8.8						
FINES	**FINESS Array B**	**66.63**	**331**	P	**P**	**22 41 14.2**	**-0.5**
	0.5nm,0.6s,mb3.8,baz=135,slow=5.9,SNR=4.2						
GERES	**GERESS Array B**	**72.53**	**317**	P	**P**	**22 41 52.4**	**+1.3**
	0.2nm,0.4s,mb3.4,baz=90,slow=6.7,SNR=4.7						

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*IDC **31** 22:31:06.7±0.7, 8.28N×93.28E, mb4.1/14, mb1 4.2/15, mb1mx4.2/19, mbtmp4.1/15, ML4.8/1, Error ellipse: s-maj=27.0km s-min=17.8km az=45.0*

ISC 31 22:31:10.0±0.7**, 8.3N**±0.1×**93.4E**±0.1**, h33^{km}, n26, σ0^{s}92**/26**, mb4.2**/16**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**11.46**	**28**	Pn	**P**	**22 33 53.8**	**-0.6**
	1.8nm,0.3s,baz=218,slow=14,SNR=18						
PKI	**Pulchoki**	**20.61**	**340**	*e*P	**P**	**22 35 48.4**	**-0.7**
	77nm,0.9s						
DMN	**Daman**	**20.75**	**339**	*e*P	**P**	**22 35 50.4**	**-0.1**
	51nm,0.7s						
GUN	**Gumba**	**20.77**	**341**	*e*P	**P**	**22 35 50.2**	**-0.5**
	198nm,0.9s						
KKN	**Kakani**	**20.86**	**339**	*e*P	**P**	**22 35 50.8**	**-0.8**
	42nm,0.8s						
GKN	**Gorkha**	**21.28**	**338**	*e*P	**P**	**22 35 55.7**	**-0.2**
	135nm,0.9s,mb5.3						
KOLN	**Koldanda**	**21.48**	**336**	*e*P	**P**	**22 35 57.8**	**0.0**
	88nm,0.9s,mb5.1						
LGTI	**Lohaghat**	**24.41**	**331**	*e*P	**P**	**22 36 29.3**	**+2.6**
PTH	**Pithoragarh**	**24.50**	**331**	*e*P	**P**	**22 36 29.9**	**+2.2**
NDI	**New Delhi**	**25.37**	**325**	*e*	**P**	**22 36 36.0**	**0.0**
SONM	**Songino Array**	**40.93**	**13**	P	**P**	**22 38 50.4**	**-0.6**
	2.1nm,0.8s,mb3.8,baz=205,slow=7.9,SNR=13						
SONM				PcP	PcP	22 40 51.8	+0.2
	0.4nm,0.5s,baz=194,slow=5.9,SNR=3.1						
BVAR	**Borovoye Array**	**48.36**	**342**	P	**P**	**22 39 49.6**	**-0.8**
	1.5nm,0.6s,mb4.2,baz=146,slow=11,SNR=7.2						
WRA	**Warramunga Arr**	**49.11**	**125**	P	**P**	**22 39 56.6**	**-0.1**
	0.7nm,0.5s,mb4.0,baz=303,slow=8.8,SNR=9.7						
ASAR	**Alice Springs**	**50.75**	**130**	P	**P**	**22 40 09.1**	**-0.1**
	1.1nm,0.8s,mb3.9,baz=311,slow=7.4,SNR=6.3						
ASAR				PcP	PcP	22 41 27.2	+1.0
	1.0nm,0.6s,baz=310,slow=3.6,SNR=9.5						
KMBO	**Kilima Mbogo**	**56.73**	**263**	P	**P**	**22 40 51.6**	**-1.7**
	1.6nm,1.1s,mb4.0,baz=68,slow=17,SNR=2.2						
BRTR	**Keskin Array B**	**61.60**	**311**	P	**P**	**22 41 26.6**	**-0.1**
	1.7nm,0.7s,mb4.3,baz=121,slow=7.2,SNR=13						
AKASG	**Malin Array Be**	**67.37**	**322**	P	**P**	**22 42 02.6**	**-1.3**
	0.9nm,0.5s,mb4.0,baz=87,slow=5.2,SNR=9.7						
FINES	**FINESS Array B**	**72.00**	**332**	P	**P**	**22 42 31.8**	**-0.3**
	1.1nm,0.7s,mb3.9,baz=100,slow=5.7,SNR=11						
KAF	**Kangasniemi**	**72.09**	**333**	*e*p	**P**	**22 42 33.2**	**+0.7**
ARCES	**ARCESS Array B**	**74.63**	**340**	P	**P**	**22 42 47.5**	**+0.2**
	1.5nm,0.5s,mb4.2,baz=104,slow=5.0,SNR=6.9						
GERES	**GERESS Array B**	**77.02**	**318**	P	**P**	**22 43 02.0**	**+0.6**
	1.0nm,0.6s,mb3.9,baz=88,slow=6.3,SNR=10						
NB2	**NORSAR Subarra**	**79.01**	**331**	P	**P**	**22 43 11.6**	**-0.5**
	11nm,1.4s,mb4.6,baz=96,slow=4.8						
NOA	**NORSAR Array B**	**79.01**	**331**	P	**P**	**22 43 12.1**	**0.0**
	2.1nm,0.8s,mb4.1,baz=95,slow=5.1,SNR=3.7						
ESDC	**Sonseca Array**	**90.38**	**310**	P	**P**	**22 44 10.9**	**+1.4**
	0.5nm,0.7s,mb4.0,baz=66,slow=4.0,SNR=5.7						
ILAR	**Eielson Array**	**94.65**	**22**	P	**P**	**22 44 29.8**	**+1.3**
	0.3nm,0.6s,mb3.9,baz=298,slow=4.3,SNR=3.8						
INK	**Inuvik**	**96.81**	**16**	P	**P**	**22 44 38.7**	**+0.5**
	1.6nm,1.1s,mb4.4,baz=254,slow=9.3,SNR=2.7						

IDC 31 22:41:39.0±2.6**, 10.11S**×**112.73E, mb3.3**/3**, mb1 3.5**/3**, mb1mx3.4**/12**, mbtmp3.3**/3**, Error ellipse: s-maj=112.5km s-min=27.2km az=49.0, South of Jawa**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
WRA	**Warramunga Arr**	**23.02**	**118**	P	P	22 46 45.9	-1.0
	0.4nm,0.6s,baz=290,slow=12,SNR=4.3						
ASAR	**Alice Springs**	**24.29**	**126**	P	P	22 46 58.1	-1.1
	0.5nm,0.7s,baz=298,slow=8.6,SNR=4.2						
SONM	**Songino Array**	**57.96**	**355**	P	P	22 51 32.7	-2.9
	0.8nm,1.0s,baz=190,slow=7.5,SNR=4.8						
FINES	**FINESS Array B**	**97.20**	**331**	P	P	22 55 13.9	-0.5
	2.7nm,1.0s,baz=90,slow=1.9,SNR=4.4						

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*STR **31** 22:55:57.8±0.5, 42.96N×0.11E, h10^{km}±1^{km}, Ml2.0, Error ellipse: s-maj=0.0km s-min=0.0km az=1.0*

*LDG **31** 22:55:58.9±0.1, 42.96N×0.14E, h5^{km}, Md2.2/2, Ml2.0/7, Error ellipse: s-maj=1.3km s-min=1.0km az=12.0*

MDD 31 22:55:59.2±0.3**, 42.97N**×**0.14E, h7^{km}**±4^{km}**, mbLg1.1**/10**, Error ellipse: s-maj=2.0km s-min=2.0km az=57.0, PRXIMO, Pyrenees**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
LABF	**Labassere**	**0.09**	**330**	Pg	Pg	22 56 01.3	-0.1
LABF				Sg	Sg	22 56 02.9	0.0
LABF	**Labassere**	**0.09**	**330**	Pg	Pg	22 56 01.4	0.0
LABF				Lg		22 56 02.9	
EPF	**Esparros**	**0.16**	**67**	*e*Pg	Pg	22 56 02.2	-0.5
EPF				*e*Sg	Sg	22 56 04.7	-0.3
	41nm,0.2s						
RESF	**Ens**	**0.22**	**137**	Pg	Pg	22 56 03.3	-0.4
RESF				Sg	Sg	22 56 06.5	-0.3
RESF	**Ens**	**0.22**	**137**	Pg	Pg	22 56 03.4	-0.3
RESF				Lg		22 56 06.5	
EBIE	**Bielsa**	**0.28**	**179**	Pg	Pg	22 56 04.6	-0.4
	3.7nm,0.1s,SNR=51						
EBIE				Lg		22 56 08.4	
	17nm,0.2s,SNR=6.6						
MELF	**Melles**	**0.47**	**102**	Pg	Pg	22 56 07.9	-0.7
MELF				Sg	Sg	22 56 14.1	-0.8
MELF	**Melles**	**0.47**	**102**	Pg	Pg	22 56 07.9	-0.7
MELF				Lg		22 56 14.1	
ETSF	**Etsaut**	**0.52**	**263**	*e*Pg	Pg	22 56 08.8	-0.8
ETSF				*e*Sg	Sg	22 56 15.7	-0.8
	3.9nm,0.2s						
SJPF	**Ste Jean**	**1.01**	**279**	*e*Pg	Pg	22 56 17.1	-2.3
SJPF				*e*Sg	Sg	22 56 31.3	-1.6
	1.8nm,0.4s						
EALK	**Alkurruntz**	**1.23**	**282**	Lg		22 56 38.2	
	1.4nm,0.3s,SNR=7.9						
ESAC	**San Caprasio**	**1.32**	**200**	Lg		22 56 43.1	
	2.8nm,0.5s,SNR=13						
EMIR	**Miracle**	**1.47**	**135**	Pg	Pg	22 56 28.2	-0.4
	0.3nm,0.2s,SNR=7.9						
EMIR				Lg		22 56 47.7	
	0.4nm,0.1s,SNR=7.9						
MTLF	**Montolieu**	**1.57**	**76**	*e*Pg	Pg	22 56 29.1	-1.4
MTLF				*e*Sg	Sg	22 56 48.9	-2.5
	2.1nm,0.3s						
EPOB	**Poblet**	**1.76**	**156**	Pg	Pg	22 56 32.6	-1.7
	0.2nm,0.2s,SNR=7.9						
EPOB				Lg		22 56 54.1	
	0.7nm,0.2s,SNR=6.6						
ERTA	**Horta de San J**	**2.02**	**176**	Pn	Pn	22 56 31.7	-2.3
	0.2nm,0.2s,SNR=7.9						
ERTA				Lg		22 57 03.6	
	SNR=7.9						
LFF	**La Frestale**	**2.02**	**12**	*e*Pg	Pg	22 56 37.1	-2.4
LFF				*e*Sg	Sg	22 57 02.5	-4.0
	3.4nm,0.3s						
CAF	**Calviac**	**2.40**	**35**	*e*Pg	Pg	22 56 44.0	-3.2
CAF				*e*Sg	Sg	22 57 14.7	-4.5
	2.0nm,0.3s						
RJF	**Les Rejaudoux**	**2.54**	**23**	*e*Pn	Pn	22 56 39.1	-2.4
RJF				*e*Pg	Pg	22 56 46.1	-3.8
RJF				*e*Sg	Sg	22 57 18.4	-5.4
	1.7nm,0.3s						
MFF	**Saint Martin d**	**3.64**	**357**	*e*Pn	Pn	22 56 54.0	-3.2
MFF				*e*Sg	Sg	22 57 52.9	-7.5
	1.8nm,0.4s						
VIVF	**Saint-Julien-l**	**3.78**	**59**	*e*Sg	Sg	22 57 57.5	-7.6
	0.7nm,0.3s						

IDC 31 22:57:25.3±5.3**, 6.43N**×**92.91E, mb3.6**/3**, mb1 3.9**/4**, mb1mx3.6**/17**, mbtmp3.6**/4**, ML3.4**/1**, Error ellipse: s-maj=156.3km s-min=28.6km az=75.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**13.32**	**26**	Pn	P	23 00 36.5	-1.8
	0.1nm,0.3s,baz=231,slow=14,SNR=6.1						
SONM	**Songino Array**	**42.83**	**13**	P	P	23 05 24.9	-1.8
	0.5nm,0.9s,baz=190,slow=8.8,SNR=3.2						
WRA	**Warramunga Arr**	**48.45**	**124**	P	P	23 06 09.8	-2.0
	1.8nm,1.0s,baz=303,slow=9.1,SNR=7.4						
ASAR	**Alice Springs**	**49.96**	**128**	P	P	23 06 21.5	-1.9
	0.8nm,0.7s,baz=302,slow=7.3,SNR=7.1						

GUC 31 23:00:26.2±1.0**, 25.73S**×**70.43W, h42^{km}**±6^{km}**, MD3.8, ML4.2, 2D, Near coast of northern Chile**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CPN1	**Cerro Paranal**	**1.10**	**1**	⇓*i*P	P	23 00 46.7	+1.4
CPN1				*i* S	S	23 01 02.2	+2.7
CPN1				AMP		23 01 03.6	
	comp=E,6μm,0.5s						
CPCH	**Copiapo**	**1.63**	**177**	⇓*i*P	P	23 00 53.0	+0.1
CPCH				*i* S	S	23 01 13.5	+0.7
CPCH				AMP		23 01 16.1	
	comp=N,17μm,0.1s						
ANCH	**Antofagasta**	**2.04**	**1**	*i* P	P	23 00 58.8	+0.1
ANCH				*i* S	S	23 01 23.5	+0.4
ANCH				AMP		23 01 35.2	
	comp=N,681nm,0.7s						
VACH	**Vallenar**	**2.85**	**186**	*i* S	S	23 01 43.6	-0.2
VACH				AMP		23 01 57.0	
	comp=E,1μm,0.5s						
LVC	**Limon Verde**	**3.40**	**24**	*e*P	P	23 01 20.7	+2.6
LVC				*i* S	S	23 02 00.6	+3.0
LVC				AMP		23 02 19.6	
	comp=N,334nm,0.7s						
TLL	**Tololo Astrono**	**4.44**	**184**	*i* S	S	23 02 23.5	-0.4

IDC 31 23:01:05.2±1.1**, 13.52N**×**92.92E, mb3.6**/5**, mb1 3.8**/6**, mb1mx3.6**/17**, mbtmp3.5**/6**, ML3.9**/1**, Error ellipse: s-maj=33.3km s-min=22.2km az=55.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**7.59**	**49**	Pn	Pn	23 02 57.8	-2.1
	0.5nm,0.3s,baz=239,slow=15,SNR=11						
CMAR				Sn	Sn	23 04 25.1	-2.6
	0.4nm,0.3s,baz=234,slow=25,SNR=4.6						
SONM	**Songino Array**	**36.01**	**15**	P	P	23 08 08.2	-1.8
	0.5nm,1.0s,baz=208,slow=5.8,SNR=2.8						
WRA	**Warramunga Arr**	**52.59**	**128**	P	P	23 10 20.9	-2.4
	0.3nm,0.6s,baz=302,slow=10.0,SNR=3.4						
ASAR	**Alice Springs**	**54.51**	**132**	P	P	23 10 35.2	-2.1
	0.7nm,0.6s,baz=306,slow=6.8,SNR=8.3						
FINES	**FINESS Array B**	**67.20**	**331**	P	P	23 12 00.3	-2.8
	3.4nm,1.0s,baz=18,slow=8.8,SNR=2.8						
GERES	**GERESS Array B**	**72.87**	**317**	P	P	23 12 37.0	-1.0
	0.2nm,0.4s,baz=106,slow=7.1,SNR=3.1						

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*IDC **31** 23:05:17.9±0.8, 13.09N×92.30E, mb4.1/9, mb1 4.3/10, mb1mx4.1/17, mbtmp4.1/10, ML4.1/1, Error ellipse: s-maj=34.1km s-min=16.7km az=51.0*

*NEIC **31** 23:05:23.0±0.9, 13.21N×92.47E, h30^{km}, mb4.3/7, Error ellipse: s-maj=25.2km s-min=16.3km az=57.0*

*BJI **31** 23:05:23.1, 12.97N×92.88E, h37^{km}, mB5.2, mb4.4*

ISC 31 23:05:21.3±0.6**, 13.05N**±0.07×**92.39E**±0.08**, h33^{km}, n30, σ0^{s}84**/31**, mb4.3**/19**, 1D, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID		Time	Res
				Op	ISC	h m s	ISC
CMAR	**Chiang Mai Arr**	**8.28**	**49**	Pn	**P**	**23 07 19.8**	**-2.1**
	0.6nm,0.3s,baz=239,slow=15,SNR=13						
CMAR				Sn	**Sn**	**23 08 50.8**	**-4.8**
	0.9nm,0.3s,baz=238,slow=29,SNR=5.0						
PKI	**Pulchoki**	**15.85**	**337**	*e*P	**P**	**23 09 03.9**	**+0.3**
	19nm,0.6s						
GUN	**Gumba**	**15.98**	**339**	*e*P	**P**	**23 09 06.5**	**+1.2**
DMN	**Daman**	**16.00**	**336**	*e*P	**P**	**23 09 05.6**	**0.0**
	27nm,0.6s						
KKN	**Kakani**	**16.10**	**337**	*e*P	**P**	**23 09 06.8**	**0.0**
	29nm,1.0s						
GKN	**Gorkha**	**16.54**	**335**	*e*P	**P**	**23 09 11.7**	**-0.7**
	17nm,0.3s						
LSA	**Lhasa**	**16.61**	**356**	*e*P	**P**	**23 09 10.4**	**-2.7**
	13nm,0.9s						

KOLN	Koldanda	16.79	332	*e*P	P	23 09 14.6	-0.9
	31nm,0.7s						
GYA	Guiyang	18.90	43	⇓*i*P	P	23 09 42.0	+0.2
GYA				AMB	AMB		
	comp=Z,20nm,0.8s						
DDI	Dehra Dun	21.70	325	*e*	P	23 10 12.7	+1.3
ENH	Enshi	23.31	40	*e*P	P	23 10 27.0	-0.3
	comp=Z,44nm,0.9s,mb4.9						
ENH				*e*		23 10 32.8	
LZH	Lanzhou	25.14	22	*e*P	P	23 10 46.0	+1.0
LZH				AP	pP	23 10 51.3	-3.0
LZH				AMB	AMB		
	comp=Z,20nm,1.1s,mb4.6						
GTA	Gaotai	27.06	13	P	P	23 11 04.0	+1.2
GTA				AP	pP	23 11 18.0	+5.8
GTA				AMB	AMB		
	comp=Z,7.0nm,1.2s,mb4.1						
HHC	Hu-ho-hao-te	32.38	28	*e*P	P	23 11 51.3	+1.2
HHC				AP	pP	23 12 00.0	+0.2
HHC				XP	sP	23 12 06.5	+2.4
HHC				AMB	AMB		
	comp=Z,10.0nm,1.0s,mb4.6						
HHC				AMB	AMB		
	comp=Z,147nm,5.0s						
BJI	Beijing	34.06	34	*e*P	P	23 12 04.8	+0.1
BJI				AMB	AMB		
	comp=Z,10.0nm,1.1s,mb4.7						
SONM	Songino Array	36.59	16	P	P	23 12 26.4	+0.3
	comp=Z,3.9nm,0.9s,mb4.2,baz=202,slow=6.0,SNR=23						
ULN	Ulaanbaatar	36.80	17	P	P	23 12 29.0	+1.2
	comp=Z,1.3nm,0.3s,mb4.2						
FITZ	Fitzroy Crossi	45.10	133	*e*P	P	23 13 36.9	+0.4
	comp=Z,10nm,0.5s,mb4.9						
KIV	Kislovodsk	52.38	316	*e*P	P	23 14 32.7	+0.3
	comp=Z,3.5nm,0.8s,mb4.3						
WRA	Warramunga Arr	52.72	128	P	P	23 14 34.9	-0.3
	comp=Z,4.0nm,0.8s,mb4.4,baz=306,slow=8.2,SNR=16						
WRA				PcP	PcP	23 15 45.4	+0.7
	comp=Z,0.9nm,0.6s,baz=316,slow=3.1,SNR=7.3						
WB2	Warramunga Arr	52.72	128	*e*P	P	23 14 35.2	-0.1
MALT	Malatya	53.88	308	*e*P	P	23 14 43.4	-0.3
	comp=Z,2.0nm,0.9s,mb4.0						
ASAR	Alice Springs	54.59	132	P	P	23 14 48.8	-0.3
	comp=Z,2.4nm,0.7s,mb4.3,baz=310,slow=7.0,SNR=18						
ASAR				PcP	PcP	23 15 52.8	+1.0
	comp=Z,1.1nm,0.7s,baz=293,slow=3.5,SNR=5.9						
BRTR	Keskin Array B	57.81	309	P	P	23 15 11.1	-0.9
	comp=Z,1.3nm,0.8s,mb4.0,baz=121,slow=7.2,SNR=7.2						
STKA	Stephens Creek	64.93	135	P	P	23 16 00.6	+0.6
	comp=Z,3.0nm,0.8s,mb4.3,baz=280,slow=4.9,SNR=3.5						
FINES	FINESS Array B	67.36	332	P	P	23 16 14.7	-0.3
	comp=Z,1.4nm,0.7s,mb4.1,baz=76,slow=5.7,SNR=3.7						
MORC	Moravsky Berou	70.37	318	P	P	23 16 34.0	+0.3
	comp=Z,2.4nm,0.9s,mb4.1						
GERES	GERESS Array B	72.86	317	P	P	23 16 47.9	-0.8
	comp=Z,2.4nm,1.1s,mb4.0,baz=76,slow=5.5,SNR=9.6						
NOA	NORSAR Array B	74.41	330	P	P	23 16 57.0	-0.4
	comp=Z,2.7nm,1.1s,mb4.1,baz=51,slow=5.7,SNR=2.7						
ILAR	Eielson Array	90.61	22	P	P	23 18 20.8	-0.5
	comp=Z,0.8nm,1.0s,mb4.0,baz=295,slow=4.8,SNR=7.4						

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*IDC **31** 23:18:15.4±1.4, 4.13N×92.49E, mb3.6/5, mb1 3.8/6, mb1mx3.7/18, mbtmp3.6/6, ML3.6/1, Error ellipse: s-maj=46.9km s-min=27.3km az=45.0*

ISC 31 23:18:19.1±1.3**, 4.2N**±0.2×**92.7E**±0.2**, h33^{km}, n12, σ0^{s}.84**/12**, mb4.0**/9**, Off west coast of northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	15.47	23	Pn	P	23 21 56.1	-0.6
	0.1nm,0.3s,baz=217,slow=14,SNR=10						
PKI	Pulchoki	24.30	344	*e*P	P	23 23 35.5	+0.7
DMN	Daman	24.42	344	*e*P	P	23 23 36.3	+0.3
	6.5nm,0.5s,mb4.3						
GUN	Gumba	24.50	345	*e*P	P	23 23 37.8	+1.0
	19nm,0.8s,mb4.6						
KKN	Kakani	24.54	344	*e*P	P	23 23 37.2	0.0
	12nm,0.9s,mb4.5						
GKN	Gorkha	24.92	343	*e*P	P	23 23 41.0	+0.1
KOLN	Koldanda	25.03	341	*e*P	P	23 23 41.9	0.0
	11nm,0.8s,mb4.4						
SONM	Songino Array	45.09	13	P	P	23 26 33.9	0.0
	0.6nm,0.6s,mb3.6,baz=192,slow=8.5,SNR=7.6						
WRA	Warramunga Arr	47.41	122	P	P	23 26 53.0	+0.3
	0.4nm,0.7s,mb3.5,baz=300,slow=8.5,SNR=2.8						
BVAR	Borovoye Array	52.06	343	P	P	23 27 26.6	-1.2
	0.6nm,0.8s,mb3.6,baz=141,slow=9.2,SNR=3.6						
BRTR	Keskin Array B	63.80	313	P	P	23 28 47.8	-2.7
	0.5nm,0.4s,mb3.9,baz=135,slow=8.2,SNR=3.0						
GERES	GERESS Array B	79.63	319	P	P	23 30 25.6	+0.8
	0.5nm,0.7s,mb3.6,baz=104,slow=5.5,SNR=6.8						

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*IDC **31** 23:22:41.4±3.7, 31.34S×68.62W, h92^{km}±35^{km}, mb3.5/7, mb1 3.8/9, mb1mx3.7/15, mbtmp4.0/9, Error ellipse: s-maj=35.6km s-min=17.9km az=80.0*

*NEIC **31** 23:22:42.1, 31.36S×68.92W, h150^{km}, mb3.8/1, MD3.6(GUC), After GUC.*

*GUC **31** 23:22:42.4±0.8, 31.35S×68.97W, h150^{km}, MD3.6, ML4.0*

ISC 31 23:22:41.4±0.8**, 31.34S**±0.03×**68.64W**±0.09**, h107^{km}**±9^{km}**, n31, σ0^{s}.92**/46**, mb3.6**/7**, 2C-1D, San Juan Province**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMCH	Combarbala	2.03	274	*i* P	P	23 23 15.7	+0.5
CMCH				*i* S	S	23 23 40.6	+0.1
JACH	Jahuel	2.14	231	*e*P	P	23 23 17.3	+0.6
JACH				*i* S	S	23 23 43.6	+0.6
PTCH	Petorca	2.16	244	*i* P	P	23 23 16.7	-0.2
PTCH				*i* S	S	23 23 42.6	-0.9
PTCH				AMP		23 23 43.5	
	comp=N,3μm,0.3s						
ILCH	Illapel	2.19	261	*i* P	P	23 23 16.8	-0.5
ILCH				*i* S	S	23 23 42.8	-1.4
ILCH				*e*S	S	23 23 46.1	+2.0
ILCH	Illapel	2.19	261	*i* P	P	23 23 16.8	-0.5
ILCH				*i* S	S	23 23 42.8	-1.4
ILCH				AMP		23 23 44.3	
	comp=N,1μm,0.5s						
TLL	Tololo Astrono	2.20	301	⇑*i*P	P	23 23 18.3	+0.8
TLL				*i* S	S	23 23 46.2	+1.7
TLL				AMP		23 23 51.8	
	comp=N,1μm,0.5s						
FCH	Farellones	2.43	215	*e*P	P	23 23 22.1	+1.5
FCH				*i* S	S	23 23 51.9	+1.9
FCH				AMP		23 23 59.3	
	comp=E,372nm,0.3s						
PEL	Peldehue	2.50	223	*i* P	P	23 23 21.8	+0.2
PEL				*i* S	S	23 23 51.6	-0.2
PEL				AMP		23 23 53.7	
	comp=N,943nm,0.5s						
CLCH	Cerro Calan	2.61	218	*i* P	P	23 23 23.8	+0.7
CLCH				*i* S	S	23 23 54.7	+0.4
CLCH				AMP		23 24 02.3	
	comp=E,740nm,0.5s						
CLCH				AMP		23 24 02.5	
	comp=N,477nm,0.6s						
DSCH	Colegio Aleman	2.63	218	AMP		23 23 59.3	
	comp=E,671nm,0.5s						
PACH	Papudo	2.67	243	*i* P	P	23 23 22.7	-1.1
PACH				*i* S	S	23 23 53.5	-2.1
PCH	Pirque	2.78	214	*i* P	P	23 23 26.0	+0.7
PCH				*i* S	S	23 23 58.2	-0.2
RCDM	Rinconada Maip	2.83	220	*i* P	P	23 23 25.8	-0.2
RCDM				*i* S	S	23 23 59.3	-0.2
RCDM				AMP		23 24 02.2	
	comp=N,521nm,0.2s						
LMEL	Las Melosas	2.83	207	AMP		23 24 08.8	
	comp=N,222nm,0.2s						
TACH	Talagante	3.02	219	*i* P	P	23 23 27.8	-0.9
TACH				*i* S	S	23 24 03.0	-1.2
CHCH	Chadas Angostu	3.10	213	⇓*i*P	P	23 23 29.6	0.0
CHCH				*i* S	S	23 24 05.5	-0.6
CACH	El Canelo	3.23	210	*i* P	P	23 23 32.0	+0.5
VACH	Vallenar	3.31	326	⇑*i*P	P	23 23 32.5	-0.1
VACH				*i* S	S	23 24 10.2	-1.1
CICH	Cipreses	3.33	206	*i* P	P	23 23 33.3	+0.4
TRQA	Tornquist	8.66	143	*e*Pn	P	23 24 43.9	-1.4
	comp=N,13nm,0.4s						
LVC	Limon Verde	8.69	358	P	P	23 24 44.1	-1.7
	comp=N,4.2nm,0.3s,baz=189,slow=8.1,SNR=45						
LVC				S	S	23 26 13.9	-8.8
	comp=N,0.4nm,0.3s,baz=318,slow=22,SNR=1.9						
LVC	Limon Verde	8.69	358	*e*Pn	P	23 24 43.7	-2.0
	comp=N,12nm,0.4s						
LPAZ	La Paz	14.99	2	P	P	23 26 10.6	+1.9
	comp=N,0.4nm,0.3s,baz=184,slow=9.6,SNR=21						
LPAZ	La Paz	14.99	2	*e*P	P	23 26 08.8	0.0
	comp=N,4.1nm,0.8s						
USHA	Ushuaia	23.49	180	P	P	23 27 42.9	+1.0
	comp=N,5.4nm,0.9s,mb3.9,slow=11,SNR=3.4						
SNAA	Sanae	52.99	159	P	P	23 31 47.8	-1.0
	comp=N,0.2nm,0.5s,mb3.4,baz=320,slow=11,SNR=4.6						
VNDA	Vanda	67.25	190	P	P	23 33 25.7	-0.1
	comp=N,1.1nm,0.8s,mb3.8,baz=104,slow=4.2,SNR=3.4						
TXAR	Lajitas Array	68.92	328	P	P	23 33 36.8	-0.1
	comp=N,0.4nm,0.6s,mb3.5,baz=155,slow=8.7,SNR=7.8						
DBIC	Dimbokro	71.59	70	P	P	23 33 53.2	0.0
	comp=N,1.1nm,0.6s,mb3.9,baz=225,slow=5.7,SNR=3.4						
PDAR	Pinedale Array	82.76	331	P	P	23 34 55.0	+0.3
	comp=N,0.5nm,0.7s,mb3.5,baz=127,slow=7.4,SNR=4.4						
NVAR	Mina Array Bea	83.42	323	P	P	23 34 58.9	+0.9
	comp=N,0.5nm,0.6s,mb3.5,baz=138,slow=6.5,SNR=3.9						

IDC 31 23:25:00.8±17.0**, 17.28S**×**174.24W, h400^{km}**±195^{km}**, mb3.0**/4**, mb1 3.3**/4**, mb1mx3.1**/14**, mbtmp3.7**/4**, Error ellipse: s-maj=217.9km s-min=38.1km az=162.0, Tonga Islands**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	48.66	258	P	P	23 33 05.9	-2.6
	0.3nm,0.4s,baz=90,slow=7.4,SNR=6.0						
ASAR	Alice Springs	48.79	253	P	P	23 33 08.2	-1.1
	2.5nm,0.7s,baz=83,slow=8.2,SNR=13						
TXAR	Lajitas Array	82.32	56	P	P	23 36 39.0	-1.5
	0.1nm,0.4s,baz=214,slow=6.5,SNR=3.6						
YKA	Yellowknife Ar	92.13	24	P	P	23 37 25.6	-0.9
	0.1nm,0.8s,baz=230,slow=4.2,SNR=3.5						
BRTR	Keskin Array B	147.07	318	PKPbc	PKPdf	23 43 55.1	+0.5
	0.7nm,0.7s,baz=40,slow=3.0,SNR=4.6						
GERES	GERESS Array B	147.86	350	PKPbc	PKPdf	23 44 00.6	+5.0
	0.2nm,0.6s,baz=135,slow=2.8,SNR=2.9						

IDC 31 23:26:18.3±1.8**, 9.78N**×**91.72E, mb3.8**/5**, mb1 4.0**/6**, mb1mx3.7**/18**, mbtmp3.8**/6**, ML3.6**/1**, Error ellipse: s-maj=60.1km s-min=21.3km az=68.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	11.11	38	Pn	P	23 28 58.5	-3.1
	0.1nm,0.3s,baz=234,slow=15,SNR=11						
SONM	Songino Array	39.91	15	P	P	23 33 54.1	-1.5
	1.3nm,0.7s,baz=204,slow=8.7,SNR=18						
BVAR	Borovoye Array	46.44	342	P	P	23 34 46.8	-1.8
	0.2nm,0.4s,baz=153,slow=6.4,SNR=3.5						
WRA	Warramunga Arr	51.31	125	P	P	23 35 24.1	-2.6
	1.2nm,0.5s,baz=305,slow=8.5,SNR=9.3						
ASAR	Alice Springs	52.96	130	P	P	23 35 36.6	-2.5
	1.7nm,0.8s,baz=312,slow=7.2,SNR=8.4						
STKA	Stephens Creek	63.14	133	P	P	23 36 48.9	-1.5
	2.0nm,0.8s,baz=323,slow=5.1,SNR=3.1						

IDC 31 23:29:18.2±5.6**, 12.10N**×**95.83E, mb4.1**/3**, mb1 4.1**/4**, mb1mx3.6**/17**, mbtmp3.9**/4**, Error ellipse: s-maj=144.5km s-min=38.5km az=90.0, Andaman Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	7.00	25	Pn	Pn	23 31 01.4	-3.1
	baz=210,slow=12,SNR=4.4						
WRA	Warramunga Arr	49.50	130	P	P	23 38 12.6	-0.3
	1.6nm,0.3s,baz=306,slow=8.5,SNR=25						
ASAR	Alice Springs	51.47	134	P	P	23 38 25.4	-2.5
	1.2nm,0.4s,baz=306,slow=7.5,SNR=14						
STKA	Stephens Creek	61.89	136	P	P	23 39 38.1	-4.0
	1.8nm,1.1s,baz=333,slow=11,SNR=3.5						

IDC 31 23:32:16.0±10.0**, 5.79N**×**96.70E, h175^{km}**±93^{km}**, mb2.9**/4**, mb1 3.0**/5**, mb1mx2.9**/17**, mbtmp3.3**/5**, Error ellipse: s-maj=110.2km s-min=20.5km az=59.0, Northern Sumatera**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	12.78	10	P	P	23 35 11.6	-0.8
	0.0nm,0.3s,baz=209,slow=27,SNR=3.5						
SONM	Songino Array	42.70	10	P	P	23 39 55.5	-1.7
	0.2nm,0.5s,baz=197,slow=7.9,SNR=3.7						
WRA	Warramunga Arr	44.99	126	P	P	23 40 13.6	-2.3
	0.3nm,0.5s,baz=302,slow=9.5,SNR=3.3						
ASAR	Alice Springs	46.64	130	P	P	23 40 27.6	-1.2
	0.7nm,0.9s,baz=303,slow=8.0,SNR=4.2						
BVAR	Borovoye Array	51.78	340	P	P	23 41 05.6	-2.1
	0.3nm,0.6s,baz=121,slow=8.4,SNR=2.8						

IDC 31 23:40:37.7±12.0**, 6.85N**×**90.80E, mb4.1**/2**, mb1 4.3**/3**, mb1mx3.6**/17**, mbtmp4.0**/3**, Error ellipse: s-maj=286.4km s-min=52.9km az=95.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	14.00	34	Pn	P	23 43 58.8	-1.1
	baz=228,slow=14,SNR=4.9						
WRA	Warramunga Arr	50.44	123	P	P	23 49 36.6	-2.9
	2.8nm,0.7s,baz=307,slow=8.7,SNR=15						
ASAR	Alice Springs	51.88	127	P	P	23 49 49.0	-1.5
	1.1nm,0.5s,baz=301,slow=7.5,SNR=15						

IDC 31 23:46:15.5±3.8**, 9.48S**×**123.54E, mb3.7**/2**, mb1 3.9**/3**, mb1mx3.7**/10**, mbtmp3.7**/3**, ML3.1**/1**, Error ellipse: s-maj=334.2km s-min=29.6km az=64.0, Low Confidence, Timor region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
ASAR	Alice Springs	17.24	146	P	P	23 50 17.9	-1.5
	0.2nm,0.3s,baz=319,slow=12,SNR=9.3						
STKA	Stephens Creek	27.87	146	P	P	23 52 07.1	-2.0
	0.8nm,0.3s,baz=327,slow=12,SNR=3.5						
SONM	Songino Array	59.06	347	P	P	23 56 17.4	-2.3
	0.2nm,0.5s,baz=158,slow=6.9,SNR=4.4						

IDC 31 23:55:04.4±1.6**, 6.65N**×**92.27E, mb3.6**/3**, mb1 3.9**/4**, mb1mx3.6**/17**, mbtmp3.6**/4**, ML3.9**/1**, Error ellipse: s-maj=64.7km s-min=30.5km az=49.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
CMAR	Chiang Mai Arr	13.41	28	Pn	P	23 58 16.5	-2.2
	0.2nm,0.3s,baz=229,slow=14,SNR=16						
WRA	Warramunga Arr	49.10	123	P	P	00 03 53.7	-2.3
	1.1nm,0.9s,baz=304,slow=9.0,SNR=3.8						
ASAR	Alice Springs	50.59	128	P	P	00 04 05.8	-1.6
	0.4nm,0.5s,baz=302,slow=7.8,SNR=4.4						
GERES	GERESS Array B	77.50	318	P	P	00 07 02.2	-1.5
	0.6nm,1.0s,baz=90,slow=5.3,SNR=4.6						

IDC 31 23:56:47.7±2.0**, 7.03N**×**92.75E, mb3.6**/4**, mb1 3.9**/4**, mb1mx3.5**/17**, mbtmp3.6**/4**, Error ellipse: s-maj=152.0km s-min=26.7km az=48.0, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
WRA	Warramunga Arr	48.91	124	P	P	00 05 36.1	-1.7
	0.8nm,0.7s,baz=304,slow=9.0,SNR=4.0						
BVAR	Borovoye Array	49.36	342	P	P	00 05 38.8	-2.0
	0.2nm,0.5s,baz=225,slow=2.0,SNR=2.9						
ASAR	Alice Springs	50.45	129	P	P	00 05 47.3	-2.3
	0.7nm,0.6s,baz=300,slow=7.5,SNR=6.0						
GERES	GERESS Array B	77.53	318	P	P	00 08 45.6	-1.5
	0.4nm,0.6s,baz=90,slow=5.3,SNR=4.0						
NB2	NORSAR Subarra	79.79	331	P	P	00 09 01.5	+2.4
	11nm,1.4s,baz=94,slow=5.0						

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*IDC **31** 23:56:58.8±1.2, 5.63N×91.57E, mb4.1/7, mb1 4.3/7, mb1mx4.1/17, mbtmp4.1/7, Error ellipse: s-maj=85.4km s-min=20.2km az=45.0*

ISC 31 23:57:02.8±0.9**, 6.6N**±0.2×**92.4E**±0.1**, h33^{km}, n21, σ0^{s}.91**/22**, mb4.4**/9**, Nicobar Islands region**

Code	Station Name	Δ°	AZ°	Phase ID Op	Phase ID ISC	Time h m s	Res ISC
HYB	Hyderabad	17.28	310	*e*P	P	00 01 05.0	+1.7
HYB				*e*S	S	00 04 13.0	+0.2
PKI	Pulchoki	21.89	343	*e*P	P	00 01 53.7	-1.1
	141nm,1.0s,mb5.4						
GUN	Gumba	22.08	344	*e*P	P	00 01 55.5	-1.2
	88nm,0.9s,mb5.2						
KKN	Kakani	22.14	343	*e*P	P	00 01 57.3	0.0
GKN	Gorkha	22.53	342	*e*P	P	00 02 01.6	+0.3
KOLN	Koldanda	22.65	339	*e*P	P	00 02 03.0	+0.5
LUBP	Lubang	28.29	73	*e*P	P	00 02 57.4	+1.8
KZA	Kyzart	38.47	339	P	P	00 04 23.7	+0.2
	SNR=6.7						
UCH	Uchtor	38.87	339	P	P	00 04 26.8	+0.1
	SNR=5.4						
AML	Almayashu	39.08	338	P	P	00 04 28.9	+0.4
	SNR=8.2						
KBK	Karagaybulak	39.09	339	P	P	00 04 28.0	-0.6
	SNR=7.5						
AAK	Ala-Archa	39.23	339	P	P	00 04 29.3	-0.5
	SNR=6.5						
USP	Ospenovka	39.78	339	P	P	00 04 33.3	-1.0
	SNR=7.7						
WRA	Warramunga Arr	48.96	124	P	P	00 05 47.8	-0.6
	4.4nm,1.0s,mb4.4,baz=304,slow=8.8,SNR=8.4						
BVAR	Borovoye Array	49.66	343	P	P	00 05 56.9	+3.6
	3.3nm,0.8s,mb4.4,baz=135,slow=8.4,SNR=16						
ASAR	Alice Springs	50.45	128	P	P	00 05 59.8	-0.1
	2.7nm,0.9s,mb4.3,baz=304,slow=7.8,SNR=14						
BRTR	Keskin Array B	61.97	312	P	P	00 07 21.4	-0.6
	0.7nm,0.5s,mb4.0,baz=104,slow=5.1,SNR=7.6						
GERES	GERESS Array B	77.63	318	P	P	00 08 57.3	-0.3
	1.4nm,0.8s,mb3.9,baz=90,slow=5.3,SNR=10						
KHC	Kasperske Hory	77.73	319	*e*P	P	00 09 03.5	+5.3
NOA	NORSAR Array B	79.99	331	P	P	00 09 13.8	+3.6
	1.9nm,0.9s,mb4.0,baz=92,slow=5.8,SNR=3.5						
ILAR	Eielson Array	96.56	22	P	P	00 10 35.8	+5.7
	0.3nm,0.9s,mb3.7,baz=297,slow=4.0,SNR=3.3						

ISC Computed Locations for December 2004